Addendum I

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

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

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

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

The following example illustrates the changes :-

September 2002

```
    NEIC 01 18:45:41.7±1.7,21°.70S×179°.55W,h600km,mb4.6/6,
            Error ellipse: s-maj=75.5km s-min=25.7km az=151.0
     IDC 01 18:45:46.3±2.6,21°.76S×179°.70W,h627km±37km,mb3.5/4,
            mb1 3.7/4,mb1mx3.2/14,Error ellipse: s-maj=83.2km
            s-min=20.6km az=159.0
     ISC 01 18:45:41.7±1.4,22°.1S±0°.2×179°.3W±0°.2,h600km,n22,
            σ1s.55/24,mb4.4/9,1C,South of Fiji Islands
Code  Station Name       Δ°    AZ°    Phase ID            Time      Res
                                    Op         ISC       h  m  s    ISC
HBZ   Hicks Bay          15.60 187  eP         P         18 48 53.1 -2.1
URZ   Urewera            16.41 190   P         P         18 49 01.5 -1.1
MRZ   Mangatainoka R     19.02 192  eP         P         18 49 26.7 +0.3
DIW   D'Urville Isla     19.52 195  eP         P         18 49 27.3 -3.6
CAW   Cannon Point       19.55 193  eP         P         18 49 31.7 +0.5
OTW   Orongorongo Tu     19.73 193  eP         P         18 49 33.0 +0.2
MOW   Moikau             19.82 192  eP         P         18 49 35.5 +1.9
THZ   Tophouse           20.68 197  eP         P         18 49 42.0 +0.5
KHZ   Kahutara           21.14 195   P         P         18 49 46.2 +0.8
ARMA  Armidale           27.28 246  eP         P         18 50 42.4 +2.3
      4.9nm,0.5s
CTA   Charters Tower     32.13 267⇑iP         P         18 51 22.3 +0.5
      13nm,0.5s
STKA  Stephens Creek     36.00 246  eP         P         18 51 55.3 +1.5
      3.1nm,0.4s
ASAR  Alice Springs      42.97 259   P         P         18 52 50.1 +0.4
      9.8nm,0.5s,baz=92,slow=8.2,SNR=47
ASAR                                 S         S         18 58 31.3 -1.6
      1.0nm,0.8s,baz=95,slow=15,SNR=5.7
ASPA  Alice Springs      42.97 259  eP         P         18 52 50.1 +0.4
WRA   Warramunga Arr     43.18 264   P         P         18 52 51.0 -0.4
      1.8nm,0.3s,baz=96,slow=7.8,SNR=93
WRA                                  S         S         18 58 33.0 -2.9
      0.3nm,0.9s,baz=99,slow=14,SNR=3.0
KAKA  Kakadu             46.79 273  eP         P         18 53 18.2 -0.7
      14nm,0.4s
FITZ  Fitzroy Crossi     51.61 264  eP         P         18 53 54.3 +0.1
      12nm,0.3s
MBWA  Marble Bar         56.31 259  eP         P         18 54 27.1 -0.1
      11nm,0.6s
CMAR  Chiang Mai Arr     89.48 290   P         P         18 57 38.1 +1.7
      1.3nm,0.8s,baz=135,slow=3.1,SNR=8.1
ARCES ARCESS Array B    130.23 349  PKP        PKiKP     19 03 43.7 -1.2
      0.7nm,0.6s,baz=282,slow=4.2,SNR=3.5
FINES FINESS Array B    136.91 342  PKP        PKiKP     19 03 57.3 -1.3
      3.7nm,1.1s,baz=158,slow=3.2,SNR=3.4
MLR   Muntele Rosu      148.83 325  PKPbc      PKiKP     19 04 22.7 -1.0
      0.2nm,0.7s,baz=1.2,slow=23,SNR=2.3
```

Epicentral Estimates

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

Observational Data

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

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

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

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

Addendum II

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

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

Addendum III

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

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

*IDC **01** 00:07:10.0±0.8, 4°.00S×142°.13E, h114^{km}±7^{km}, mb3.6/9, mbtmp4.1/11, MS3.1/1, Error ellipse: s-maj=28.1km s-min=14.8km az=95.0*

ISC 01 00:07:09.8±0.7**, 3°.98S**±0°.10×**142°.1E**±0°.2**, h109^{km}, n14, σ0^s.82**/17**, mb3.7**/9**, Near north coast of New Guinea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	7.39	137	P	Pn	00 08 55.6	+0.6
	40nm,0.5s,baz=330,slow=3.4,SNR=8.7						
WRA	Warramunga Arr	17.57	205	P	P	00 11 05.4	-1.9
	3.9nm,0.4s,baz=26,slow=12,SNR=45						
DAV	Davao City (W)	19.79	304	LR	LR	00 18 28.8	
	comp=Z,54nm,20.4s,baz=232,slow=34						
ASAR	Alice Springs	21.10	201	P	P	00 11 45.1	-0.6
	5.8nm,0.6s,baz=30,slow=11,SNR=53						
ASAR				pP	pP	00 12 07.6	+0.8
	4.4nm,0.7s,baz=30,slow=9.3,SNR=6.2						
ASAR				sP	sP	00 12 21.1	+0.4
	11nm,0.8s,baz=29,slow=10,SNR=9.5						
	5.8nm,0.6s						
FITZ	Fitzroy Crossi	21.34	228	P	P	00 11 49.0	+0.7
	3.6nm,0.5s,baz=35,slow=9.9,SNR=25						
	3.6nm,0.5s						
SONM	Songino Array	60.33	333	P	P	00 17 07.4	+0.1
	0.5nm,0.7s,baz=151,slow=7.3,SNR=2.7						
	0.5nm,0.7s						
MKAR	Makanchi Array	72.85	322	P	P	00 18 27.2	+0.4
	1.1nm,0.8s,baz=106,slow=6.9,SNR=6.3						
	1.1nm,0.8s						
ZALV	Zalesovo Beam	74.73	329	P	P	00 18 37.9	+0.3
	0.7nm,0.5s,baz=98,slow=10,SNR=2.5						
	0.7nm,0.5s						
KURBB	Kurchatov Arra	76.70	324	P	P	00 18 48.8	-0.1
	0.2nm,0.3s,baz=101,slow=4.8,SNR=2.6						
	0.2nm,0.3s						
BVAR	Borovoye Array	82.28	325	P	P	00 19 19.1	0.0
	0.7nm,0.5s,baz=116,slow=7.7,SNR=6.6						
BVAR				pP	pP	00 19 48.4	+1.2
	0.7nm,0.6s,baz=112,slow=6.3,SNR=3.3						
	0.7nm,0.5s						
ILAR	Eielson Array	85.61	24	P	P	00 19 34.9	-0.9
	0.8nm,0.7s,baz=251,slow=4.9,SNR=7.3						
ILAR				pP	pP	00 20 04.5	+0.3
	1.4nm,0.9s,baz=240,slow=5.5,SNR=5.9						
	0.8nm,0.7s						
QSPA	South Pole Qui	85.97	180	P	P	00 19 37.6	-0.2
	1.1nm,0.6s,baz=11,slow=5.2,SNR=8.3						
	1.1nm,0.6s						
LPAZ	La Paz	143.98	125	PKP	PKPdf	00 26 33.5	-0.8
	1.8nm,0.4s,baz=180,slow=2.0,SNR=7.1						
DBIC	Dimbokro	146.97	276	PKPbc	PKPbc	00 26 40.2	-0.6
	2.6nm,0.6s,baz=121,slow=3.8,SNR=3.8						

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*OSPL **01** 00:16:41.9±1.4, 18°.42N×70°.90W, h31^{km}±11^{km}, ML2.1, Presumed earthquake*

*SDD **01** 00:16:42.1±2.5, 18°.26N×71°.06W, h37^{km}±13^{km}, MD2.6, ML2.2, MW2.8, Presumed earthquake*

ISC 01 00:16:44.6±1.2**, 18°.19N**±0°.05×**71°.03W**±0°.05**, h23^{km}**±10^{km}**, n9, σ1^s.30**/15**, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PODR	Polo	0.24	264	*i* P	Pb	00 16 50.4	-0.5
PODR				*i* S	Sb	00 16 55.7	+0.6
PODR				IAML		00 16 56.9	
	comp=N,647nm,0.2s						
LODU1	El Espartillar	0.45	291	*i* P	Pb	00 16 52.8	-1.2
LODU1				*e*S	Sb	00 17 00.0	-0.3
LODU1				IAML		00 17 04.6	
	comp=Z,107nm,0.3s						
NEDR	Neiba UASD	0.47	308	*i* P	Pb	00 16 53.9	-0.4
NEDR				*i* S	Sb	00 17 01.3	+0.5
NEDR				IAML		00 17 01.6	
	comp=N,74nm,0.5s						
LOVI	El Cajuil, Ovi	0.51	219	*i* P	Pb	00 16 55.2	+0.3
LOVI				*e*S	Sb	00 17 03.9	+2.0
LOVI				IAML		00 17 07.2	
	comp=Z,96nm,1.4s						
LOBH	Bahia de las A	0.67	240	*i* P	Pb	00 16 57.7	+0.1
LOBH				*e*S	Sn	00 17 08.2	-0.1
LOBH				IAML		00 17 13.0	
	comp=Z,57nm,1.4s						
BANI	BANI	0.67	73	*i* P	Pb	00 16 57.1	-0.7
BANI				*i* S	Sn	00 17 08.3	-0.3
BANI				IAML		00 17 54.5	
	comp=N,113nm,1.0s						
SDDR	Presa de Saban	0.82	343	*i* P	Pn	00 16 53.7	-7.1
JIDR	Jimani	0.83	291	*i* P	Pn	00 16 59.9	-1.0
JIDR				IAML		00 17 21.3	
	comp=N,29nm,1.1s						
REDR	Restauracion	1.03	341	*i* P	Pb	00 17 04.5	+0.7
REDR				*i* S	Sb	00 17 20.0	+3.1
REDR				IAML		00 17 23.7	
	comp=N,55nm,0.2s						

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*REN **01** 00:30:52.2±0.8, 38°.18N±0°.01×117°.80W±0°.01, h7^{km}±1^{km}, Error ellipse: s-maj=1.9km s-min=1.4km az=224.0*

*NEIC **01** 00:30:52, 38°.17N×117°.81W, h7^{km}, Moment Tensor Solution. Moment tensor: Scale 10^{13}Nm; M$_{rr}$-0.24; M$_{\theta\theta}$5.22; M$_{\phi\phi}$-4.98; M$_{r\theta}$0.14; M$_{\theta\phi}$5.89; M$_{\phi r}$-1.51; Fault plane solution: M$_0$7.94000×10^{13} NP1:ϕ_s21.00000°, δ85.00000°, λ-170.00000°. NP2:ϕ_s290.00000°, δ80.00000°, λ-5.00000°. Principal axes: T 7.9411, Plg4.0000°, Azm155.0000°; N -0.0021, Plg79.0000°, Azm47.0000°; P -7.9390, Plg11.0000°, Azm246.0000°;*

NEIC 01 00:30:52.1±0.9**, 38°.189N**±0°.004×**117°.78W**±0°.01**, h6^{km}**±2^{km}**, ML3.1**/108**, ML3.5**/17(REN)**, Mwr3.2**/11(SLM)
Error ellipse: s-maj=1.6km s-min=0.4km az=82.0, Nevada

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
COLR	Columbus	0.22	259		Pg	00 30 56.8	+0.3
COLR					Sg	00 31 00.1	+0.7
NV11	Mina Array Sit	0.38	309		Pg	00 30 60.0	+0.4
NV11				Sg	Sg	00 31 04.7	+0.1
NV11				IAML		00 31 05.9	
	comp=E,1μm,0.7s						
TPH	Tonopah	0.45	104		Pg	00 31 01.6	+0.7
TPH				Sg	Sg	00 31 08.1	+1.3
TPH				IAML		00 31 08.8	
	comp=N,3μm,0.4s						
TPH				IAML		00 31 08.8	
	comp=E,2μm,0.4s						
NV06	Mina Array Sit	0.45	301		Pg	00 31 01.4	+0.4
NV06					Sg	00 31 07.8	+1.0
NV07	Mina Array Sit	0.46	299		Pg	00 31 01.6	+0.5
NV07					Sg	00 31 08.3	+1.2
NV03	Mina Array Sit	0.47	301		Pg	00 31 01.7	+0.5
NV03					Sg	00 31 08.2	+0.9
NV08	Mina Array Sit	0.48	297		Pg	00 31 01.8	+0.4
NV08					Sg	00 31 08.4	+0.9
NV04	Mina Array Sit	0.48	300		Pg	00 31 01.8	+0.5
NV04					Sg	00 31 08.9	+1.3
NV01	Mina Array Sit	0.48	300		Pg	00 31 01.8	+0.4
NV01					Sg	00 31 08.4	+0.8
NV05	Mina Array Sit	0.48	303		Pg	00 31 01.8	+0.4
NV05					Sb	00 31 09.2	-1.3
NVAR	Mina Array Bea	0.48	300	Pg	Pg	00 31 01.6	+0.3
NV02	Mina Array Sit	0.48	301		Pg	00 31 02.0	+0.5
NV09	Mina Array Sit	0.50	300		Pg	00 31 02.3	+0.5
LHV	Little Huntoon	0.57	276		Pg	00 31 03.5	+0.4
LHV				Sg	Sg	00 31 11.3	+0.7
LHV				IAML		00 31 13.7	
	comp=E,2μm,0.4s						
LHV				IAML		00 31 13.9	
	comp=N,2μm,0.5s						
RYN	Ryan	0.73	307		Pg	00 31 06.5	+0.3
RYN				Sg	Sg	00 31 16.0	+0.3
RYN				IAML		00 31 21.9	
	comp=N,1μm,0.3s						
RYN				IAML		00 31 22.0	
	comp=E,999nm,0.3s						
Q09A	Carvers	0.80	36		Pb	00 31 08.1	-0.4
Q09A				Sg	Sb	00 31 19.6	0.0
DSP	Deep Springs	0.83	191		Pg	00 31 08.1	+0.1
DSP				Sg	Sg	00 31 19.2	+0.4
KVN	Kaiserville	0.90	344		Pg	00 31 09.2	-0.1
KVN				Sg	Sg	00 31 21.7	+0.7
KVN				IAML		00 31 26.3	
	comp=E,696nm,0.5s						
LCH	Last Change Ra	0.96	174		Pg	00 31 10.5	0.0
MLAC	Mammoth, Mammo	1.00	237		Pg	00 31 11.7	+0.3
MCBM	Casa Benchmark	1.04	239		Pg	00 31 12.1	+0.1
MDYM	Dry Creek	1.11	242		Pg	00 31 13.6	+0.2
MDPB	Devils Postpil	1.17	242		Sg	00 31 29.5	-0.2
MDPB	Devils Postpil	1.17	242		Pg	00 31 14.1	-0.4
MDPB	Devils Postpil	1.17	242	IAML		00 31 31.5	
	comp=N,117nm,0.3s						
MDPB				IAML		00 31 33.9	
	comp=E,139nm,0.6s						
TIN	Tinemaha, Big	1.19	198	Pg	Pg	00 31 14.8	0.0
TIN				IAML		00 31 37.5	
	comp=E,556nm,0.8s						
GRAC	Grapevine Rang	1.23	164		Pg	00 31 15.7	-0.1
GRAC				IAML		00 31 35.7	
	comp=E,549nm,0.6s						
GRAC				IAML		00 31 39.7	
	comp=N,448nm,0.5s						
WAKR	Walker	1.34	284		Sg	00 31 35.1	-0.1
WAKR	Walker	1.34	284		Pn	00 31 17.2	-0.3
WAKR	Walker	1.34	284	IAML		00 31 38.5	
	comp=N,325nm,0.8s						
WAKR				IAML		00 31 40.0	
	comp=E,301nm,0.7s						
YERR	Yerington	1.40	305		Pn	00 31 18.0	-0.3
YERR				IAML		00 31 39.8	
	comp=N,518nm,0.5s						
KCC	Kaiser Creek	1.50	235		Pb	00 31 20.1	-0.2
WCT	Wildcat Mounta	1.67	146		Pn	00 31 21.9	0.0
WCT				IAML		00 31 48.9	
	comp=E,237nm,0.5s						
WCT				IAML		00 31 53.3	
	comp=N,186nm,0.6s						
PNTR	Pine Nut	1.69	303		Pn	00 31 22.3	0.0
TPNV	Topopah Spring	1.73	135		Pn	00 31 22.9	-0.1
TPNV				IAML		00 31 53.1	
	comp=N,284nm,0.5s						
TPNV				IAML		00 31 57.6	
	comp=N,271nm,0.5s						
CWC	Cottonwood Cre	1.76	188		Pn	00 31 23.4	+0.1
CPY	CP-1	1.86	132		Pb	00 31 26.2	-0.4
FURC	Furnace Creek,	1.87	157		Pn	00 31 25.3	+0.7
SDH	Striped Hills	1.92	143		Pb	00 31 26.5	-1.1
PAHR	Pah Rah Range	1.97	321		Pn	00 31 26.1	0.0
CMB	Columbia Colle	2.06	267		Pn	00 31 28.2	+0.8
CMB	Columbia Colle	2.06	267	Pn	Pn	00 31 26.7	-0.6
CMB	Columbia Colle	2.06	267	IAML		00 31 57.7	
	comp=E,85nm,0.4s						
CMB				IAML		00 31 57.9	
	comp=N,131nm,0.3s						
MPK	Martis Peak	2.08	303		Pb	00 31 30.0	-0.4
GWY	Greenwater Val	2.19	156		Pn	00 31 29.3	+0.2
GWY	Greenwater Val	2.19	156	IAML		00 32 05.8	
	comp=N,94nm,0.5s						
GWY				IAML		00 32 09.7	
	comp=E,130nm,0.7s						
JRC2	Joshua Ridge	2.20	181		Pg	00 31 33.8	-0.5
PEAR	Peavine Mounta	2.21	310		Pb	00 31 32.5	-0.2
BMN	Battle Mountai	2.28	11		Pn	00 31 31.2	+0.7
BMN	Battle Mountai	2.28	11	IAML		00 32 05.9	
	comp=E,160nm,0.5s						
PRN	Pahroc Range	2.30	109		Pn	00 31 31.4	+0.7
DONR	Donner Summit	2.30	301		Pb	00 31 34.6	+0.4
QSM	Queen of Sheba	2.34	162		Pn	00 31 31.2	+0.2
TOW	Tower One	2.38	180		Pb	00 31 35.0	-0.3
VES	Vestal, Richgr	2.57	204	IAML		00 32 14.3	
	comp=N,136nm,0.5s						
VES				IAML		00 32 15.1	
	comp=E,105nm,0.4s						
SHOC	Shoshone, Teco	2.58	152	IAML		00 32 22.8	
	comp=E,125nm,0.8s						
SHOC				IAML		00 32 26.6	
	comp=N,120nm,0.9s						
AFDM	Forest Hills D	2.62	288	IAML		00 32 19.9	
	comp=N,49nm,0.5s						
BEKR	Beckworth	2.62	311		Pn	00 31 36.4	+1.3
BEKR	Beckworth	2.62	311	IAML		00 32 17.8	
	comp=E,52nm,0.6s						
CCCA	Chr Cany lake	2.68	173	IAML		00 32 21.3	
	comp=E,71nm,0.9s						
CCCA				IAML		00 32 30.3	
	comp=N,73nm,1.2s						
GSC	Goldstone, Bar	2.98	165	IAML		00 32 35.4	
	comp=E,41nm,1.1s						
PKD	Bear Valley Ra	3.15	225	IAML		00 32 38.6	
	comp=E,30nm,1.7s						
ELK	Elko	3.22	37		Pn	00 31 44.4	+0.9
ELK	Elko	3.22	37	IAML		00 32 36.4	
	comp=E,40nm,0.4s						
ELK				IAML		00 32 36.4	
	comp=E,41nm,0.5s						
MOD	Modoc Plateau	4.18	333	IAML		00 33 16.2	
	comp=N,13nm,1.7s						
MOD				IAML		00 33 19.5	
	comp=E,17nm,1.9s						
WVOR	Wild Horse Val	4.29	351	IAML		00 33 10.4	
	comp=E,16nm,0.5s						
WVOR				IAML		00 33 10.8	
	comp=E,22nm,0.9s						
DUG	Dugway, Tooele	4.35	61	IAML		00 33 13.9	
	comp=E,17nm,0.9s						
DUG				IAML		00 33 28.3	
	comp=E,17nm,0.7s						
PFO	Pinyon Flats O	4.69	166	IAML		00 33 45.6	
	comp=E,8.9nm,4.9s						
BLYC	Blythe	5.16	148	IAML		00 34 56.0	
	comp=N,14nm,0.1s						
BLYC				IAML		00 35 03.0	
	comp=E,16nm,0.1s						

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*KRSC **01** 00:51:10.4±4.0, 59°.01N×158°.22E, h7^{km}±35^{km}, Ml6.1, Felt [IV-V] at Palana; [III-IV] at Tigil; [II-IV] at Sedanka; [II-III] at Voyampolka, Lesnay.*

*IDC **01** 00:51:16.0±0.3, 58°.82N×158°.99E, h0^{km}, mb4.9/46, mbtmp4.9/52, ML4.6/6, MS5.3/88, Error ellipse: s-maj=8.2km s-min=7.8km az=20.0*

*MOS **01** 00:51:15.3±0.8, 58°.82N×159°.00E, h8^{km}, mb5.5/157, MS5.4/63, Error ellipse: s-maj=6.9km s-min=3.1km az=89.3*

*BJI **01** 00:51:16.5, 58°.79N×158°.73E, h10^{km}, mB5.4/43, mb5.3/81, Ms5.8/83, Ms7 5.6/81*

*NEIC **01** 00:51:17, 58°.72N×158°.99E, h10^{km}*

*NEIC **01** 00:51:17.0±1.5, 58°.72N±0°.06×159°.0E±0°.1, h10^{km}±1^{km}, mb5.3/965, Ms_20 5.5/624, Mwb5.5/75, Mww5.6/67, Error ellipse: s-maj=11.2km s-min=10.8km az=238.0, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M$_{rr}$0.28; M$_{\theta\theta}$2.29; M$_{\phi\phi}$-2.57; M$_{r\theta}$-0.22; M$_{\theta\phi}$-0.11; M$_{\phi r}$-0.05; Fault plane solution: M$_0$2.46000×10^{17} NP1: ϕ_s316.41000°, δ84.87000°, λ3.52000°. NP2:ϕ_s226.10000°, δ86.49000°, λ174.86000°. Principal axes: T 2.3180, Plg6.0000°, Azm181.0000°; N 0.2555, Plg84.0000°, Azm12.0000°; P -2.5735, Plg1.0000°, Azm271.0000°;*

*NEIC **01** 00:51:17.3, 58°.73N×158°.97E, h10^{km}*

*GFZ **01** 00:51:18.6, 58°.82N×158°.89E, h13^{km}, Mw5.5/90, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M$_{rr}$0.93; M$_{\theta\theta}$1.71; M$_{\phi\phi}$-2.64; M$_{r\theta}$0.31; M$_{\theta\phi}$-0.19; M$_{\phi r}$-0.56; Fault plane solution: M$_0$2.41330×10^{17} NP1: ϕ_s140.20834°, δ81.07982°, λ21.60514°. NP2:ϕ_s46.69433°, δ68.66904°, λ170.41783°. Principal axes: T 1.8500, Plg21.5219°, Azm5.2412°; N 0.8798, Plg66.7076°, Azm161.5902°; P -2.7298, Plg8.4862°, Azm271.8681°;*

*GFZ **01** 00:51:18.6±0.1, 59°N±2°×15°9E±°, h10^{km}, M5.3/139, mB5.8/76, mb5.2/139, Mw(mB)5.3/76*

*NERS **01** 00:51:22.3, 59°.01N×158°.57E, h33^{km}*

*GCMT **01** 00:51:24.0±0.1, 58°.82N±0°.01×158°.96E±0°.01, h12^{km}, MW5.6/165, Moment Tensor Solution. s127, c242; s165, c343; Duration: 1^s.5 Moment tensor: Scale 10^{17} Nm; M$_{rr}$0.88±.02; M$_{\theta\theta}$2.22±.03; M$_{\phi\phi}$-3.10±.02; M$_{r\theta}$0.21±.07; M$_{\theta\phi}$-0.21±.02; M$_{\phi r}$-0.53±.06; Best double couple: M$_0$2.72200×10^{17} NP1:ϕ_s47.00000°, δ78.00000°, λ178.00000°. NP2:ϕ_s138.00000°, δ88.00000°, λ12.00000°. Principal axes: T 2.2670, Plg10.0000°, Azm3.0000°; N 0.9110, Plg78.0000°, Azm145.0000°; P -3.1760, Plg7.0000°, Azm272.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*BGR **01** 00:51:24.7, 59°.28N×158°.01E, h14^{km}, mb5.4, Ms5.4*

*NEIC **01** 00:51:36.2, 58°.72N×158°.99E, h12^{km}, Moment Tensor Solution. Duration: 3^s.4 Moment tensor: Scale 10^{17}Nm; M$_{rr}$1.07; M$_{\theta\theta}$1.64; M$_{\phi\phi}$-2.71; M$_{r\theta}$-1.48; M$_{\theta\phi}$0.29; M$_{\phi r}$-2.20; Fault plane solution: M$_0$3.56000×10^{17} NP1: ϕ_s316.47000°, δ36.81000°, λ18.49000°. NP2: ϕ_s211.49000°, δ79.05000°, λ125.37000°. Principal axes: T 3.3453, Plg44.0000°, Azm156.0000°; N 0.3984, Plg35.0000°, Azm24.0000°; P -3.7437, Plg26.0000°, Azm274.0000°;*

ISC 01 00:51:17.3±0.4**, 58°.80N**±0°.02×**158°.94E**±0°.02**, h8^{km}**±2^{km}**, h8^{km}:pP-P, n2038, σ1^s.27**/2013**, mb5.3**/774**, MS5.5**/445**, 20C-37D, Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALN	Palana	0.61	61	PN	Pg	00 51 29.0	0.0
PALN	Palana	0.61	61	*e*P	Pg	00 51 29.0	0.0
PALN				*e*S	Sn	00 51 43.0	+0.8
TIGL	Tigil	1.04	188	PN	Pg	00 51 34.9	-2.4
TIGL				S	Sg	00 51 50.2	-0.6
TIGL	Tigil	1.04	188	*e*P	Pg	00 51 34.9	-2.4
TIGL				*e*S	Sg	00 51 50.3	-0.6
OSSR	Ossora	2.18	76	PN	Pn	00 51 52.9	-0.8
OSSR				S	Sg	00 52 26.2	-1.0
OSSR	Ossora	2.18	76	*e*P	Pn	00 51 53.0	-0.8
OSSR				*e*S	Sg	00 52 26.2	-1.0
SRDR	Sredinnyy	2.52	170	PN	Pn	00 51 57.5	-1.1
SRDR	Sredinnyy	2.52	170	*e*P	Pn	00 51 57.5	-1.1
SMKR	Semkarok	2.60	147	PN	Pn	00 52 01.7	+2.0
SMKR	Semkarok	2.60	147	*e*P	Pn	00 52 01.8	+2.0
KLY	Klyuchi	2.66	159	PN	Pn	00 52 00.9	+0.6
KLY	Klyuchi	2.66	159	*e*P	Pn	00 52 00.9	+0.6
KOZ	Kozyrevsk	2.79	169	PN	Pn	00 52 01.8	-0.5
KOZ	Kozyrevsk	2.79	169	*e*P	Pn	00 52 01.8	-0.5
CIRR	Tsirk	2.86	159	PN	Pn	00 52 03.5	+0.2
CIRR	Tsirk	2.86	159	*e*P	Pn	00 52 03.5	+0.2
ESO	Esso	2.88	183	PN	Pn	00 52 02.1	-1.4
ESO	Esso	2.88	183	*e*P	Pn	00 52 02.1	-1.4
KPT	Kopyto	2.92	166	PN	Pn	00 52 04.0	-0.1
KPT	Kopyto	2.92	166	*e*P	Pn	00 52 04.0	-0.1
KMNR	Kamenistaya	3.13	166	PN	Pn	00 52 07.3	+0.3
KMNR	Kamenistaya	3.13	166	*e*P	Pn	00 52 07.3	+0.3
KBG	Krutoberegovo	3.26	140	PN	Pb	00 52 14.5	-0.8
KBG	Krutoberegovo	3.26	140	*e*P	Pb	00 52 14.5	-0.8
KBTR	Krutoberegovo	3.33	139	PN	Pb	00 52 13.9	-2.7
KBTR	Krutoberegovo	3.33	139	*e*P	Pb	00 52 14.0	-2.7
TUMR	Tumrok	3.58	169	PN	Pn	00 52 13.7	+0.5
TUMR	Tumrok	3.58	169	*e*P	Pn	00 52 13.7	+0.5
GADL	Gadlja	4.01	286	*e*P	Pn	00 52 19.7	+0.7
GADL				*e*Pg	Pg	00 52 33.9	-0.2
GADL				Pgmax		00 52 56.5	
	9μm,0.9s						
GADL				*e*Sg	Sg	00 53 22.5	-3.5
GADL				Sgmax		00 53 51.4	
	35μm,0.8s						
TILK	Tilichiki	4.02	63	PN	Pn	00 52 19.4	+0.4
TILK	Tilichiki	4.02	63	*e*P	Pn	00 52 19.4	+0.4
TLAR	Talaya	4.04	308	*e*PN	Pn	00 52 18.6	-0.8
TLAR				pmax	pmax		
	comp=Z,480nm,0.6s						
TLAR	Talaya	4.04	308	*e*P	Pn	00 52 18.6	-0.8
TLAR				Pmax		00 52 24.7	
	comp=Z,480nm,0.6s						
TLAR				*e*Pg	Pg	00 52 33.0	-1.6
TLAR				Pgmax		00 52 37.5	
	comp=Z,2μm,0.6s						
TLAR				*e*Sg	Sg	00 53 24.0	-2.8
TLAR				Sgmax		00 53 51.6	
	comp=Z,11μm,0.9s						
OMS	Omsukchan	4.04	339	*e*P	Pn	00 52 18.8	-0.7
OMS				*e*Pg	Pg	00 52 34.5	-0.2
OMS				Pgmax		00 52 47.1	
	comp=Z,2μm,0.6s						
OMS				*e*Sg	Sg	00 53 26.0	-1.0
OMS				Sgmax		00 53 56.9	
	comp=Z,4μm,0.9s						
MA2	Magadan	4.28	284	Pn	Pn	00 52 22.9	+0.3
	comp=Z,12nm,0.3s,baz=91,slow=11,SNR=31						
MA2				Lg	Lg	00 53 30.1	
	comp=Z,151nm,0.3s,baz=169,slow=23,SNR=6.5						
MA2				LR	LR	00 54 07.4	
	comp=Z,42μm,21.6s,baz=100,slow=40						
	comp=Z,62nm,0.5s						
MA2				AML	AML		
MA2	Magadan	4.28	284	P	Pn	00 52 23.5	+0.9
MA2	Magadan	4.28	284	⇓ *i*PN	Pn	00 52 22.5	-0.1
MA2				pmax	pmax		
	comp=Z,210nm,0.7s						
MA2	Magadan	4.28	284		Pn	00 52 22.3	-0.4
MA2	Magadan	4.28	284	⇓ *i*P	Pn	00 52 22.5	-0.1
MA2				Pmax		00 52 30.4	
	comp=Z,210nm,0.7s						
MA2				*e*Pg	Pg	00 52 37.8	-1.3
MA2				Pgmax		00 52 45.9	
	comp=Z,1μm,0.9s						
MA2				*e*Sg	Sg	00 53 30.1	-4.4
MA2				Sgmax		00 53 55.3	
	comp=Z,6μm,1.1s						
MA2	Magadan	4.28	284	P	Pn	00 52 22.3	-0.4
MA2				AML	AML		
MA2	Magadan	4.28	284	P	Pn	00 52 24.0	+1.3
MGD	Magadan 1	4.38	290	*e*P	Pn	00 52 25.0	+1.0
MGD				Pmax		00 52 37.2	
	comp=Z,440nm,0.4s						
MGD				*e*Sg	Sb	00 53 32.0	+4.7
MGD				Sgmax		00 53 45.3	
	comp=Z,5μm,0.7s						
MKZ	Mys Kozlova	4.52	159	PN	Pn	00 52 27.5	+1.6
MKZ	Mys Kozlova	4.52	159	*e*P	Pn	00 52 27.6	+1.6
KII	Karymskiy	4.78	176	PN	Pn	00 52 29.6	0.0
KII	Karymskiy	4.78	176	*e*P	Pn	00 52 29.7	0.0
GNL	Ganaly	5.14	187	PN	Pn	00 52 35.1	+0.5
GNL	Ganaly	5.14	187	*e*P	Pn	00 52 35.2	+0.5
SEY	Seymchan	5.24	325	Pn	Pn	00 52 35.8	-0.1
	comp=Z,2.7nm,0.3s,baz=132,slow=12,SNR=39						
SEY				Lg	Lg	00 53 59.9	
	comp=Z,77nm,0.3s,baz=54,slow=19,SNR=5.2						
	comp=Z,57nm,1.1s						
SEY				AML	AML		
SEY	Seymchan	5.24	325	*e*PN	Pn	00 52 35.9	0.0
SEY				pmax	pmax		
	comp=Z,30nm,0.8s						
SEY	Seymchan	5.24	325	*e*P	Pn	00 52 35.9	0.0
SEY				Pmax		00 52 38.1	
	comp=Z,30nm,0.8s						
SEY				*e*Pg	Pg	00 52 54.0	-3.6
SEY				Pgmax		00 53 08.4	
	comp=Z,390nm,1.2s						
SEY				*e*Sg	Sg	00 54 02.9	-2.5
SEY				Sgmax		00 54 26.0	
	comp=Z,3μm,0.9s						
BKI	Bering	5.27	130	PN	Pn	00 52 35.8	-0.3
BKI	Bering	5.27	130	*e*P	Pn	00 52 35.9	-0.3
TLON	Talon	5.36	285	*e*PN	Pn	00 52 43.9	+6.4
TLON	Talon	5.36	285	*e*P	Pn	00 52 41.7	+4.2
TLON				*e*Sg	Sg	00 54 08.9	-0.4
TLON				Sgmax		00 54 34.1	
	comp=Z,12μm,0.9s						
KRX	Arik	5.45	182	PN	Pn	00 52 39.0	+0.1
KRX	Arik	5.45	182	*e*P	Pn	00 52 39.1	+0.1
KRER	Koryakskii	5.51	181	PN	Pn	00 52 41.0	+1.3
KRER	Koryakskii	5.51	181	*e*P	Pn	00 52 41.0	+1.3
KOK	Koryaka	5.52	182	PN	Pn	00 52 41.0	+1.2
KOK	Koryaka	5.52	182	*e*P	Pn	00 52 41.1	+1.2
SDLR	Sedlovina	5.53	180	PN	Pn	00 52 40.9	+1.0
SDLR	Sedlovina	5.53	180	*e*P	Pn	00 52 41.0	+1.0
AVH	Avacha	5.55	181	PN	Pn	00 52 41.2	+1.1
AVH	Avacha	5.55	181	*e*P	Pn	00 52 41.3	+1.1
SMAR	Somma	5.55	181	PN	Pn	00 52 41.0	+0.8
SMAR	Somma	5.55	181	*e*P	Pn	00 52 41.1	+0.8
PEA0B	Petropavlovsk-	5.74	187	*d i*PN	Pn	00 52 43.6	+0.8
PEA0B	Petropavlovsk-	5.74	187		Pn	00 52 41.3	-1.5
PETK	Petropavlovsk-	5.74	187	Pn	Pn	00 52 42.5	-0.3
	comp=Z,9.5nm,0.3s,baz=34,slow=14,SNR=59						
PETK				Pg	Pb	00 53 00.7	+3.0
	comp=Z,8.0nm,0.3s,baz=29,slow=18,SNR=15						
PETK				Lg	Lg	00 54 19.3	
	baz=36,slow=20						
PETK				LR	LR	00 55 21.8	
	comp=Z,51μm,18.9s,baz=12,slow=43						
PETK	Petropavlovsk-	5.74	187		Pn	00 52 41.5	-1.4
SPN	Mys Shipunski	5.74	173	PN	Pn	00 52 44.3	+1.6

SPN	Mys Shipunski	5.74	173	eP	Pn	00 52 44.4	+1.6
DALK	Dalny	5.78	181	PN	Pn	00 52 43.4	+0.1
DALK	Dalny	5.78	181	eP	Pn	00 52 43.4	+0.1
PET	Petropavlovsk	5.79	182	P	Pn	00 52 44.7	+1.3
PET	Petropavlovsk	5.79	182	ePN	Pn	00 52 42.7	-0.7
PET				pmax	pmax		
	comp=Z,510nm,1.2s						
PET				MLR	MLR		
	comp=Z,60µm,10.0s						
PET				MLR	MLR		
	comp=Z,74µm,9.0s						
PET	Petropavlovsk	5.79	182		Pn	00 52 41.6	-1.7
PET	Petropavlovsk	5.79	182	P	Pn	00 52 41.7	-1.7
	comp=Z,3.4nmcomp=Z,7µmcomp=Z,464nm,1.5s						
PET				AML	AML		
PET	Petropavlovsk	5.79	182	P	Pn	00 52 44.4	+1.0
	comp=Z,8µmcomp=Z,514nm,1.8s						
KRMR	Karymshinskiy	6.00	185	PN	Pn	00 52 46.9	+0.6
KRMR	Karymshinskiy	6.00	185	eP	Pn	00 52 46.9	+0.6
MTVR	Mutnovka	6.34	184	PN	Pn	00 52 52.9	+1.8
MTVR	Mutnovka	6.34	184	eP	Pn	00 52 53.0	+1.8
RUS	Russkaya	6.38	182	PN	Pn	00 52 52.3	+0.8
RUS	Russkaya	6.38	182	eP	Pn	00 52 52.4	+0.8
ASAK	Asacha	6.46	186	PN	Pn	00 52 52.6	0.0
ASAK	Asacha	6.46	186	eP	Pn	00 52 52.6	0.0
SUUS	Susuman	6.61	312	ePN	Pn	00 52 55.1	+0.4
SUUS				pmax	pmax		
	comp=Z,110nm,0.7s						
SUUS	Susuman	6.61	312	eP	Pn	00 52 54.9	+0.2
SUUS				Pmax		00 53 06.7	
	comp=Z,110nm,0.7s						
SUUS				ePg	Pg	00 53 18.4	-5.4
SUUS				Pgmax		00 53 32.5	
	comp=Z,320nm,0.7s						
SUUS				eSg	Sg	00 54 45.3	-4.0
SUUS				Sgmax		00 55 26.0	
	comp=Z,4µm,0.9s						
SKR	Severo-Kuril's	8.29	193	ePN	Pn	00 53 17.7	0.0
SKR				pmax	pmax		
	comp=Z,152nm,0.9s						
SKR				pmax	pmax		
	comp=Z,2µm,6.8s						
SKR				MLR	MLR		
	comp=Z,20µm,12.0s						
SKR				MLR	MLR		
	comp=N,39µm,11.0s						
SKR				MLR	MLR		
	comp=E,30µm,15.0s						
BILL	Bilibino	9.83	16	i PN	Pn	00 53 41.6	+2.8
BILL	Bilibino	9.83	16		Pn	00 53 42.8	+4.0
BILL	Bilibino	9.83	16	e	Pn	00 53 52.2	+13
BILL				eSg		00 56 32.2	
BILL				Sgmax		00 57 01.9	
	comp=E,920nm,1.1s						
OKH	Okha	10.35	246	c iPN	Pn	00 53 40.5	-5.3
OKH				pmax	pmax		
	comp=Z,300nm,7.7s						
OKH				MLR	MLR		
	comp=Z,13µm,10.0s						
OKH				MLR	MLR		
	comp=N,18µm,11.0s						
SHEM	Shemya Is, Ala	10.47	119	Pn	Pn	00 53 48.1	+0.6
	comp=N,1.6nm,0.3s,baz=276,slow=16,SNR=2.2						
SHEM				Sn	Sn	00 55 47.6	+2.8
	comp=N,1.6nm,0.3s,baz=264,slow=22,SNR=0.9						
SHEM				LR	LR	00 57 24.1	
	comp=N,15µm,18.6s,baz=306,slow=35						
	comp=N,95nm,1.1s						
SHEM				AML	AML		
NKL	Nikolayevsk	11.67	249	ePN	Pn	00 54 05.9	+2.0
NKL				pmax	pmax		
	comp=E,40nm,0.7s						
NKL				pmax	pmax		
	comp=N,75nm,1.3s						
NKL				pmax	pmax		
	comp=Z,94nm,1.4s						
NKL				MLR	MLR		
	comp=E,26µm,11.0s						
NKL				MLR	MLR		
	comp=N,25µm,12.0s						
NKL				MLR	MLR		
	comp=Z,30µm,10.0s						
AMKA	Amchitka	13.78	114	Pn	Pn	00 54 30.7	-2.1
UGL	Uglegorsk	13.87	233	eP	Pn	00 54 36.2	+2.3
UGL				eS	Sn	00 57 05.0	-2.9
UGL				pmax	pmax		
	comp=Z,1µm,5.1s						
UGL				smax	smax		
	comp=E,1µm,3.0s						
UGL				smax	smax		
	comp=N,500nm,3.8s						
UGL				MLR	MLR		
	comp=E,24µm,12.0s						
UGL				MLR	MLR		
	comp=Z,23µm,12.0s						
UGL				MLR	MLR		
	comp=N,14µm,11.0s						
YAK	Yakutsk	14.74	295	Pn	Pn	00 54 47.6	+1.8
	comp=N,3.2nm,0.3s,baz=92,slow=16,SNR=18						
YAK				Sn	Sn	00 57 37.0	+7.9
	comp=N,4.0nm,0.3s,baz=97,slow=22,SNR=1.2						
YAK				Lg	Lg	00 58 58.2	
	comp=N,2.6nm,0.3s,baz=16,slow=21,SNR=5.9						
YAK				LR	LR	01 00 57.0	
	comp=N,13µm,19.1s,baz=90,slow=39						
	comp=N,57nm,0.7s						
YAK				AML	AML		
YAK	Yakutsk	14.74	295	eP	Pn	00 54 46.3	+0.5
YAK				eS	Sn	00 57 30.5	+1.4
YAK				pmax	pmax		
	comp=Z,103nm,1.2s						
YAK				pmax	pmax		
	comp=N,13nm,1.1s						
YAK				pmax	pmax		
	comp=E,58nm,1.3s						
YAK				pmax	pmax		
	comp=Z,1µm,2.4s						
YAK				pmax	pmax		
	comp=E,966nm,2.3s						
YAK				pmax	pmax		
	comp=N,238nm,4.3s						
YAK				smax	smax		
	comp=E,1µm,6.5s						
YAK				smax	smax		
	comp=N,967nm,7.2s						
YAK				MLR	MLR		
	comp=Z,26µm,27.0s						
YAK				MLR	MLR		
	comp=E,15µm,24.0s						
YAK				MLR	MLR		
	comp=N,5µm,18.0s						
YAK	Yakutsk	14.74	295		Pn	00 54 47.1	+1.3
YAK	Yakutsk	14.74	295	P	Pn	00 54 47.9	+2.1
	comp=Z,4µmcomp=Z,330nm,0.8s						
GAMB	Gambell	14.87	58	Pn	Pn	00 54 49.5	+1.9
KUR	Kuril'sk	15.16	211	eP	Pn	00 54 53.5	+1.9
KUR				eS	Sn	00 57 42.4	+2.8
KUR				pmax	pmax		
	comp=Z,1µm,1.5s						
KUR				pmax	pmax		
	comp=E,576nm,1.6s						
KUR				pmax	pmax		
	comp=N,137nm,1.5s						
KUR				pmax	pmax		
	comp=Z,2µm,3.6s						
KUR				MLR	MLR		
	comp=Z,12µm,15.0s						
KUR				MLR	MLR		
	comp=E,14µm,14.0s						
KUR				MLR	MLR		
	comp=N,5µm,12.0s						
GRNR	Gornyy	15.21	248	⇑iP	P	00 54 55.5	-1.8
GRNR				pmax	pmax		
	comp=Z,20nm,1.0s						
GRNR				MLR	MLR		
	comp=E,6µm,15.0s						
GRNR				MLR	MLR		
	comp=Z,6µm,15.0s						
GRNR				MLR	MLR		
	comp=N,6µm,13.0s						
KIWB	Kanaga Island	15.22	107	Pn	Pn	00 54 52.1	-0.2
YSS	Yuzhno-Sakhali	15.31	226	P	Pn	00 54 53.2	-0.3
YSS	Yuzhno-Sakhali	15.31	226	κ iP	Pn	00 54 54.9	+1.4
YSS				eS	Sn	00 57 43.0	-0.1
YSS				pmax	pmax		
	comp=Z,400nm,4.0s						
YSS				pmax	pmax		
	comp=N,400nm,5.4s						
YSS				pmax	pmax		
	comp=E,300nm,3.2s						
YSS				pmax	pmax		
	comp=Z,1.0nm,1.1s						
YSS				smax	smax		
	comp=N,400nm,4.6s						
YSS				smax	smax		
	comp=E,500nm,4.5s						
YSS				MLR	MLR		
	comp=N,18µm,13.0s						
YSS				MLR	MLR		
	comp=Z,21µm,13.0s						
YSS				MLR	MLR		
	comp=E,10µm,12.0s						
YSS	Yuzhno-Sakhali	15.31	226		Pn	00 54 53.2	-0.3
YSS	Yuzhno-Sakhali	15.31	226	P	Pn	00 54 55.4	+1.9
	comp=Z,2µmcomp=Z,97nm,1.3s						
ADK	Adak	15.44	106	P	P	00 55 04.3	+4.6
ADK	Adak	15.44	106	P	Pn	00 54 54.4	-0.7
ADK				pmax	pmax		
	comp=Z,103nm,1.4s						
ADK	Adak	15.44	106		Pn	00 54 54.4	-0.7
GSTR	Great Sitkin T	15.63	105	Pn	Pn	00 54 56.9	-0.8
GSTR				IAmb	IAmb	00 55 03.3	
	comp=Z,174nm,1.1s						
ATKA	Atka Island	16.51	102	P	P	00 55 18.0	+6.4
TNA	Tin City	16.71	52		Pn	00 55 12.4	+0.9
YUK	Yuzh-Kuril'sk	16.83	214	d iP	Pn	00 55 12.5	-0.6
YUK				i S	Sn	00 58 22.5	+2.5
YUK				pmax	pmax		
	comp=Z,523nm,1.7s						
YUK				pmax	pmax		
	comp=N,235nm,1.1s						
YUK				pmax	pmax		
	comp=E,306nm,0.9s						
YUK				pmax	pmax		
	comp=Z,768nm,2.4s						
M11K	Mekoryuk	17.60	70	Pn	Pn	00 55 20.5	-2.1
TIXI	Tiksi	17.73	329	P	P	00 55 24.7	-0.3
	comp=Z,1.3nm,0.3s,baz=119,slow=16,SNR=4.9						
TIXI				S	Sn	00 58 42.5	+1.1
	comp=Z,5.5nm,0.5s,baz=115,slow=19,SNR=1.5						
TIXI				Lg	Lg	01 00 30.1	
	comp=Z,0.8nm,0.3s,baz=97,slow=6.8,SNR=1.9						
TIXI				LR	LR	01 03 01.9	
	comp=Z,14µm,21.2s,baz=146,slow=40						
	comp=Z,20nm,0.6s						
TIXI				AML	AML		
TIXI	Tiksi	17.73	329	P	Pn	00 55 24.2	+0.1
TIXI				pmax	pmax		
	comp=Z,187nm,2.0s						
TIXI	Tiksi	17.73	329	P	Pn	00 55 24.2	+0.1
ASAJ	Asahikawa	17.80	222	P	Pn	00 55 24.9	-0.3
ASAJ				pmax	pmax		
	comp=Z,279nm,1.5s						
JKA	Kamikawa-asahi	17.80	222	P	Pn	00 55 24.9	-0.3
JKA	Kamikawa-asahi	17.80	222	P	P	00 55 27.2	+1.2
	comp=Z,3µmcomp=Z,150nm,1.2s						
F15K	North Star Dit	18.08	52		Pn	00 55 28.1	-0.4
K13K	Kusilvak Mount	18.11	65		Pn	00 55 28.4	-0.5
ZEA	Zeya	18.20	268	eP	P	00 55 31.7	+1.4
ZEA				pmax	pmax		
	comp=E,30nm,1.0s						
ZEA				pmax	pmax		
	comp=N,10.0nm,0.8s						
ZEA				pmax	pmax		
	comp=Z,60nm,0.9s						
ZEA				pmax	pmax		
	comp=E,800nm,7.0s						
ZEA				pmax	pmax		
	comp=N,400nm,4.4s						
ZEA				pmax	pmax		
	comp=Z,1µm,7.3s						
ZEA				MLR	MLR		
	comp=E,4µm,10.0s						
ZEA				MLR	MLR		
	comp=N,4µm,15.0s						
ZEA				MLR	MLR		
	comp=Z,7µm,11.0s						
C16K	Lisburne Hills	18.23	44		P	00 55 31.2	+0.6
KLR	Kul'dur	18.50	251	P	Pn	00 55 34.7	+1.0
	comp=Z,1.7nm,0.3s,baz=53,slow=11,SNR=105						
KLR				S	Sn	00 59 01.6	+1.2
	comp=Z,4.9nm,1.0s,baz=83,slow=12,SNR=1.6						
KLR				LR	LR	01 03 20.0	
	comp=Z,9µm,20.7s,baz=54,slow=39						
	comp=Z,78nm,0.8s						
KLR				AML	AML		
KLR	Kul'dur	18.50	251	d iP	Pn	00 55 35.1	+1.4
KLR				pmax	pmax		
	comp=Z,118nm,0.9s						
J14K	Nanvaranak Lak	18.55	62	P	P	00 55 33.5	-0.5
M13K	Dall Lake	18.98	69	P	Pn	00 55 39.7	+0.2
G16K	Koyuk River	19.01	53	P	Pn	00 55 40.6	+0.8
RDOG	Red Dog Mine	19.08	45	P	Pn	00 55 40.8	+0.2
L14K	Kuka Creek	19.13	66	P	P	00 55 40.6	+0.1
ERM	Erimo	19.49	217	eP	P	00 55 44.3	-0.2
ERM				pmax	pmax		
	comp=Z,113nm,1.1s						
F17K	Baldwin Pennin	19.52	50	P	P	00 55 44.6	-0.1
K15K	Wolf Creek Mou	19.53	63	P	P	00 55 44.8	0.0
M14K	Bethel	19.58	68	P	Pn	00 55 46.3	-0.4
UNV	Unalaska Valle	19.64	90	P	Pn	00 55 55.1	+7.7
UNV	Unalaska Valle	19.64	90	P	P	00 55 46.0	-0.1
UNV				IAmb	IAmb	00 55 58.9	
	comp=Z,150nm,0.9s						
LVA	Lava Point	19.74	88	P	P	00 55 47.1	0.0
LVA				IAmb	IAmb	00 55 51.6	
	comp=Z,249nm,1.3s						
I17K	Unalakleet	19.75	58	P	Pn	00 55 48.1	-0.6
I17K				IAmb	IAmb	00 56 01.6	
	comp=Z,156nm,1.1s						
C18K	Utukok River	19.81	44	P	P	00 55 48.3	+0.4
J16K	Anvik River	19.84	60	P	Pn	00 55 49.1	-0.6
N14K	Kuskokwak Cree	19.90	70	P	Pn	00 55 50.2	-0.2
HEH	HeiHe	20.03	259	eP	P	00 55 49.9	-0.4
HEH				pP	sP	00 55 54.2	+0.6
HEH				S	Sn	00 59 36.8	-0.4
HEH				sS	pS	00 59 43.0	-3.1
HEH				pmax	pmax		
	comp=Z,180nm,1.0s						
HEH				pmax	pmax		
	comp=Z,860nm,5.1s						
HEH				L	L		
	comp=Z,7µm,13.5s						
HEH				L	L		
	comp=Z,5µm,11.9s						
HEH				L	L		
	comp=Z,12µm,13.7s						
H17K	Granite Mounta	20.04	55	P	P	00 55 51.1	+0.8
O14K	Tigyukauivet M	20.28	72	P	P	00 55 53.9	+0.9
O14K				IAmb	IAmb	00 56 07.8	
	comp=Z,188nm,1.1s						
C19K	Lookout Ridge	20.46	43	P	Pn	00 55 56.2	-0.9
C19K				IAmb	IAmb	00 56 10.5	
	comp=Z,122nm,0.9s						
C19K				IAMs_20	IAMs_20	01 03 39.9	
	comp=Z,22µm,19.0s						
J17K	VABM Dome	20.51	59	P	P	00 55 55.8	+0.3
J17K				IAmb	IAmb	00 56 10.3	
	comp=Z,157nm,0.9s						
J17K				IAMs_20	IAMs_20	01 04 22.9	
	comp=Z,18µm,19.0s						
G18K	Tagagawik	20.55	52	P	P	00 55 56.0	0.0
G18K				IAmb	IAmb	00 56 05.8	
	comp=Z,139nm,1.0s						
G18K				IAMs_20	IAMs_20	01 04 34.1	
	comp=Z,17µm,20.0s						
L16K	Owhat River	20.58	64	P	P	00 55 56.8	+0.5
N15K	Kwethluk River	20.62	69	P	P	00 55 57.0	+0.3
N15K				IAmb	IAmb	00 56 09.1	
	comp=Z,189nm,1.0s						
H18K	Honhosa River	20.69	54	P	P	00 55 58.1	+0.6
H18K				IAmb	IAmb	00 56 07.4	
	comp=Z,126nm,1.1s						
H18K				IAMs_20	IAMs_20	01 04 48.7	
	comp=Z,23µm,18.0s						
D19K	Kuna River	20.91	45	P	P	00 56 00.6	+0.8
D19K				IAmb	IAmb	00 56 10.6	
	comp=Z,116nm,1.0s						
F19K	Shaleruckik Mo	20.92	49	P	P	00 56 00.6	+0.6
F19K				IAMs_20	IAMs_20	01 05 05.9	
	comp=Z,16µm,19.0s						
K17K	Iditarod	20.95	61	P	P	00 56 00.8	+0.5
K17K				IAmb	IAmb	00 56 18.5	
	comp=Z,159nm,1.1s						
K17K				IAMs_20	IAMs_20	01 05 19.5	
	comp=Z,15µm,18.0s						
M16K	Timber Creek	20.96	66	P	P	00 56 01.3	+0.9
M16K				IAmb	IAmb	00 56 12.5	
	comp=Z,137nm,1.1s						
O15K	Ungalikthiuk R	21.01	71	P	P	00 56 01.0	0.0
E19K	Redstone River	21.16	48	P	P	00 56 03.0	+0.5
E19K				IAmb	IAmb	00 56 15.6	
	comp=Z,139nm,0.9s						
E19K				IAMs_20	IAMs_20	01 05 15.2	
	comp=Z,15µm,19.0s						
G19K	Purcell Mounta	21.19	51	P	P	00 56 02.8	-0.1
G19K				IAMs_20	IAMs_20	01 04 32.0	
	comp=Z,18µm,18.0s						
B20K	Meade River	21.45	41	IAMs_20	IAMs_20	01 05 49.4	
	comp=Z,15µm,18.0s						
D20K	Etivluk River	21.48	44	P	P	00 56 05.6	-0.4
D20K				IAmb	IAmb	00 56 18.3	
	comp=Z,195nm,1.4s						
J18K	Innoko River	21.56	59	P	P	00 56 06.7	-0.1
J18K				IAMs_20	IAMs_20	01 05 04.5	
	comp=Z,16µm,20.0s						
M17K	Holitna River	21.60	64	P	P	00 56 07.1	-0.1
M17K				IAmb	IAmb	00 56 21.2	
	comp=Z,144nm,1.1s						
M17K				IAMs_20	IAMs_20	01 05 39.4	
	comp=Z,13µm,18.0s						
O16K	Kokwok River B	21.74	69	P	P	00 56 07.6	-1.1
L18K	Granite Mounta	21.78	62	P	P	00 56 10.3	+1.1
L18K				IAMs_20	IAMs_20	01 05 49.4	
	comp=Z,13µm,18.0s						
N17K	Nushagak Hills	21.93	67	P	P	00 56 11.1	+0.4
P16K	Nushagak River	21.96	71	P	P	00 56 10.1	-1.0
P16K				IAmb	IAmb	00 56 27.7	
	comp=Z,160nm,1.1s						
J19K	Poorman	21.97	57	P	P	00 56 11.6	+0.4
USA0B	Ussuriysk Arra	22.03	240	⇓iP	P	00 56 12.3	+0.3
USA0B	Ussuriysk Arra	22.03	240	P	P	00 56 11.2	-0.8
USA0B				IAmb	IAmb	00 56 14.5	
	comp=Z,166nm,1.2s						
USRK	Ussuriysk Ar.	22.03	240	P	P	00 56 12.2	+0.2
	comp=Z,49nm,0.9s,baz=44,slow=9.3,SNR=68						
USRK				S	Sn	01 00 22.1	-3.4
	comp=Z,2.4nm,0.9s,baz=28,slow=10.0,SNR=1.1						
USRK				LR	LR	01 04 56.5	
	comp=Z,5µm,21.5s,baz=40,slow=37						
	comp=Z,49nm,0.9s						
USRK	Ussuriysk Ar.	22.03	240	P	P	00 56 11.4	-0.6
SDPT	Sand Point	22.08	81	P	P	00 56 11.5	-1.0
SDPT				IAmb	IAmb	00 56 18.0	
	comp=Z,141nm,1.2s						
VNFG	Fog Glacier, M	22.16	78	P	P	00 56 11.7	-1.7
I20K	Naaghedeneel	22.36	55	P	P	00 56 15.1	-0.3
I20K				IAmb	IAmb	00 56 32.4	
	comp=Z,152nm,1.1s						
N18K	Kilae Creek	22.50	66	P	P	00 56 16.5	-0.5
IMAR	Indian Mountai	22.56	52	P	P	00 56 16.9	-0.7
J20K	Nowinta River	22.59	56	P	P	00 56 17.6	-0.2
J20K				IAmb	IAmb	00 56 28.4	
	comp=Z,127nm,1.0s						
J20K				IAMs_20	IAMs_20	01 05 25.7	
	comp=Z,13µm,19.0s						
F21K	Alatna River	22.61	48	IAMs_20	IAMs_20	01 06 10.7	
	comp=Z,12µm,18.0s						
G21K	Allakaket	22.63	50	P	P	00 56 17.7	-0.5
G21K				IAmb	IAmb	00 56 33.6	
	comp=Z,180nm,1.0s						
L19K	White Mountain	22.63	62	P	P	00 56 18.3	0.0
P17K	Kvichak River	22.67	70	P	P	00 56 18.6	0.0
P17K				IAmb	IAmb	00 56 30.1	
	comp=Z,165nm,1.0s						
K20K	Telida	22.75	58	P	P	00 56 19.7	+0.1
B22K	Teshekpuk Lake	22.76	40	P	P	00 56 19.9	+0.3
MDJ	Mudanjiang	22.82	244	P	P	00 56 21.3	+0.9
MDJ				pmax	pmax		
	comp=Z,140nm,1.2s						
MDJ				L	L		
	comp=Z,10µm,14.8s						
MDJ				L	L		
	comp=Z,14µm,12.9s						
MDJ				L	L		
	comp=Z,22µm,11.5s						
MDJ	Mudanjiang	22.82	244	P	P	00 56 21.0	+0.5
	comp=Z,2µmcomp=Z,111nm,1.3s						
D22K	Ayikyak River	22.92	44	P	P	00 56 20.9	-0.4
D22K				IAMs_20	IAMs_20	01 06 03.8	
	comp=Z,16µm,19.0s						
H21K	Melozitna Rive	22.98	52	P	P	00 56 20.7	-1.2
H21K				IAMs_20	IAMs_20	01 06 19.1	
	comp=Z,14µm,18.0s						
BNX	BinXian	23.04	249	⇓P	P	00 56 22.5	-0.2
BNX				pP	pP	00 56 25.4	+0.4
BNX				sP	sP	00 56 26.8	+0.8
BNX				S	S	01 00 36.2	+2.7
BNX				sS	sS	01 00 41.9	+4.5
BNX				pmax	pmax		
	comp=Z,110nm,1.2s						
BNX				pmax	pmax		
	comp=Z,780nm,4.9s						
BNX				L	L		
	comp=Z,10µm,15.7s						
BNX				L	L		
	comp=Z,12µm,14.1s						
BNX				L	L		
	comp=Z,15µm,13.5s						
N19K	Bonanza Creek	23.13	65	P	P	00 56 23.6	-0.1
BOD	Bodaibo	23.30	287	eP	P	00 56 24.5	-0.7
BOD				pmax	pmax		
	comp=Z,286nm,1.6s						
I21K	Tanana	23.37	54	P	P	00 56 25.1	-0.8
I21K				IAMs_20	IAMs_20	01 06 30.6	
	comp=Z,18µm,18.0s						
O19K	Port Alsworth	23.39	66	P	P	00 56 26.1	0.0
M20K	Styx River	23.49	62	IAMs_20	IAMs_20	01 07 01.7	
	comp=Z,12µm,18.0s						
H22K	Ishtalitna Cre	23.54	52	P	P	00 56 26.4	-1.2
H22K				IAmb	IAmb	00 56 29.9	
	comp=Z,177nm,1.5s						
H22K				IAMs_20	IAMs_20	01 06 05.0	
	comp=Z,14µm,19.0s						
ACHA	Angle Creek He	23.55	72	P	P	00 56 26.8	-1.0
CAST	Castle Rocks	23.62	58	IAMs_20	IAMs_20	01 06 20.1	
	comp=Z,16µm,18.0s						
D23K	Nanushuk River	23.64	44	P	P	00 56 27.7	-0.9
D23K				IAmb	IAmb	00 56 37.9	
	comp=Z,288nm,2.0s						
PPLA	Purkeypile	23.68	59	P	P	00 56 29.0	-0.1
C23K	Itkillik River	23.68	42	P	P	00 56 28.0	-0.9
C23K				IAmb	IAmb	00 56 44.2	
	comp=Z,132nm,1.0s						
COLD	Coldfoot	23.88	48	P	P	00 56 29.6	-1.3
COLD				IAmb	IAmb	00 56 39.2	
	comp=Z,61nm,0.9s						
MLY	Manley	23.91	54	P	P	00 56 31.0	-0.3
MLY				IAmb	IAmb	00 56 41.7	
	comp=Z,76nm,1.0s						
G23K	Bananza Creek	24.00	49	P	P	00 56 30.9	-1.2
G23K				IAmb	IAmb	00 56 45.7	
	comp=Z,94nm,0.9s						
ILSW	Iliamna Southw	24.01	66	P	P	00 56 31.8	-0.5
ILSW				IAmb	IAmb	00 56 44.2	
	comp=Z,117nm,1.2s						
E23K	Chandalar	24.06	46	P	P	00 56 32.1	-0.5
E23K				IAmb	IAmb	00 56 49.3	
	comp=Z,160nm,1.1s						
E23K				IAMs_20	IAMs_20	01 06 06.9	
	comp=Z,14µm,18.0s						
KTH	Kantishna Hill	24.10	57	P	P	00 56 32.1	-0.9
KTH				IAmb	IAmb	00 56 44.8	
	comp=Z,144nm,1.0s						
KTH				IAMs_20	IAMs_20	01 06 33.8	
	comp=Z,15µm,19.0s						
Q19K	Cape Douglas,	24.12	69	P	P	00 56 31.6	-1.7
Q19K				IAmb	IAmb	00 56 42.6	
	comp=Z,168nm,1.3s						
Q19K				IAMs_20	IAMs_20	01 06 56.0	
	comp=Z,11µm,18.0s						
STLK	Strandline Lak	24.18	62	P	P	00 56 32.1	-1.8
SKT	Skwentna	24.19	61	P	P	00 56 31.6	-2.2
H23K	Yukon River	24.29	52	IAMs_20	IAMs_20	01 06 38.3	
	comp=Z,14µm,19.0s						
D24K	Happy Valley	24.31	43	IAMs_20	IAMs_20	01 06 51.8	
	comp=Z,16µm,19.0s						

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C24K  Franklin Bluff     24.35  42    IAMs_20  IAMs_20  01 07 40.8
      comp=Z,15µm,20.0s
CHIR  Chirikof Islan     24.36  77    IAMs_20  IAMs_20  01 06 10.2
      comp=Z,13µm,21.0s
HILR  Hailar Array B     24.40 265    P        P        00 56 35.6 -0.3
      comp=Z,33nm,0.9s,baz=67,slow=13,SNR=36
HILR                                  S        S        01 01 02.3 +6.8
      comp=Z,0.5nm,0.3s,baz=132,slow=25,SNR=1.5
HILR                                  LR       LR       01 06 54.4
      comp=Z,6µm,18.8s,baz=70,slow=38
      comp=Z,33nm,0.9s
TRF   Thorofare Moun     24.40  57    P        P        00 56 35.5 -0.5
TRF                                   IAMs_20  IAMs_20  01 06 42.7
      comp=Z,14µm,19.0s
I23K  Minto, Yukon-K     24.47  53    P        P        00 56 35.5 -0.8
I23K                                  IAmb     IAmb     00 57 05.4
      comp=Z,110nm,1.4s
I23K                                  IAMs_20  IAMs_20  01 07 15.7
      comp=Z,16µm,18.0s
E24K  Your Creek         24.48  46    IAMs_20  IAMs_20  01 07 27.3
      comp=Z,13µm,18.0s
HIA   Hailar             24.58 264    P        P        00 56 35.9 -1.6
HIA                                   pmax     pmax
      comp=Z,17nm,0.8s
HIA                                   MLR      MLR
      comp=Z,5µm,21.0s
HIA   Hailar             24.58 264    P        P        00 56 35.9 -1.6
HIA   Hailar             24.58 264    P        P        00 56 37.4 -0.1
      comp=Z,732nmcomp=Z,22nm,0.8s
BWN   Browne             24.61  56    P        P        00 56 38.2 +0.6
BWN                                   IAMs_20  IAMs_20  01 07 24.0
      comp=Z,16µm,18.0s
CUT   Chulitna           24.66  60    P        P        00 56 37.3 -0.8
NEA2  Nenana             24.69  54    P        P        00 56 38.2 -0.2
NEA2                                  IAmb     IAmb     00 56 52.3
      comp=Z,61nm,0.8s
F24K  Squaw Lake         24.75  47    P        P        00 56 38.6 -0.3
F24K                                  IAmb     IAmb     00 56 48.7
      comp=Z,58nm,0.8s
F24K                                  IAMs_20  IAMs_20  01 06 50.4
      comp=Z,11µm,20.0s
SII   Sitkinak Islan     24.77  75    P        P        00 56 37.5 -1.6
SII                                   IAmb     IAmb     00 56 40.7
      comp=Z,102nm,0.9s
M22K  Willow             24.90  61    P        P        00 56 39.8 -0.4
M22K                                  IAmb     IAmb     00 56 57.3
      comp=Z,112nm,1.0s
MCK   McKinley           24.93  56    P        P        00 56 40.0 -0.5
MCK                                   pmax     pmax
      comp=Z,158nm,1.0s
MCK                                   MLR      MLR
      comp=Z,10µm,20.0s
MCK   McKinley           24.93  56    P        P        00 56 40.0 -0.5
H24K  Noodor Dome        24.97  51    P        P        00 56 40.3 -0.6
H24K                                  IAMs_20  IAMs_20  01 06 59.9
      comp=Z,15µm,18.0s
G24K  Hadweenzic Riv     25.00  49    P        P        00 56 40.8 -0.4
G24K                                  IAmb     IAmb     00 56 51.5
      comp=Z,64nm,0.9s
RND   Reindeer           25.04  57    P        P        00 56 40.6 -1.0
RND                                   pmax     pmax
      comp=Z,71nm,1.2s
RND                                   MLR      MLR
      comp=Z,13µm,20.0s
RND   Reindeer           25.04  57    P        P        00 56 40.6 -1.0
RND                                   IAmb     IAmb     00 57 04.2
      comp=Z,71nm,1.2s
RND                                   IAMs_20  IAMs_20  01 06 53.5
      comp=Z,13µm,20.0s
KDAK  Kodiak Island      25.06  71    LR       LR       01 06 41.3
      comp=Z,14µm,21.4s,baz=284,slow=37
KDAK  Kodiak Island      25.06  71    P        P        00 56 40.3 -1.4
KDAK                                  pmax     pmax
      comp=Z,51nm,0.9s
KDAK                                  MLR      MLR
      comp=Z,14µm,22.0s
KDAK  Kodiak Island      25.06  71    P        P        00 56 40.3 -1.4
KDAK                                  IAmb     IAmb     00 56 51.1
      comp=Z,51nm,0.9s
KDAK  Kodiak Island      25.06  71    IAMs_20  IAMs_20  01 06 30.0
      comp=Z,14µm,22.0s
KDAK  Kodiak Island      25.06  71    P        P        00 56 46.4 +4.6
      comp=Z,68nm,1.1s
CNPM  China Poot         25.07  67    P        P        00 56 40.3 -1.6
WRH   Wood River Hil     25.13  55    P        P        00 56 41.1 -1.2
COLA  College            25.15  54⇑iP P        00 56 42.0 -0.5
COLA                                  pmax     pmax
      comp=Z,28nm,0.9s
COLA  College            25.15  54    P        P        00 56 40.1 -2.3
COLA                                  IAmb     IAmb     00 56 53.1
      comp=Z,52nm,0.9s
COLA                                  IAMs_20  IAMs_20  01 07 46.5
      comp=Z,16µm,18.0s
COLA  College            25.15  54             P        00 56 40.7 -1.8
BRLK  Bradley Lake       25.16  66    P        P        00 56 40.8 -1.9
BRLK                                  IAmb     IAmb     00 57 07.8
      comp=Z,201nm,1.9s
BRLK                                  IAMs_20  IAMs_20  01 07 44.5
      comp=Z,12µm,18.0s
CCB   Clear Creek Bu     25.22  54    P        P        00 56 41.6 -1.5
CCB                                   IAMs_20  IAMs_20  01 07 48.3
      comp=Z,17µm,19.0s
RC01  Rabbit Creek A     25.27  63    IAMs_20  IAMs_20  01 08 00.6
      comp=Z,13µm,18.0s
PMR   Palmer             25.40  61    P        P        00 56 44.0 -0.7
PMR                                   pmax     pmax
      comp=Z,17nm,0.9s
PMR   Palmer             25.40  61    P        P        00 56 44.0 -0.7
CN2   Changchun          25.41 249    P        P        00 56 45.0  0.0
CN2                                   sP       sP       00 56 52.2 +3.8
CN2                                   S        S        01 01 08.5 -3.2
CN2                                   pmax     pmax
      comp=Z,40nm,0.9s
CN2                                   L        L
      comp=Z,3µm,12.0s
CN2                                   L        L
      comp=Z,3µm,12.0s
CN2                                   L        L
      comp=Z,5µm,13.0s
GHO   Glory Hole Cre     25.44  61    P        P        00 56 44.3 -0.9
O22K  Cooper Landing     25.47  64    P        P        00 56 43.7 -1.7
O22K                                  IAmb     IAmb     00 57 13.0
      comp=Z,65nm,0.8s
E25K  Arctic Village     25.57  46    P        P        00 56 45.5 -0.8
IL31                     25.58  54    P        P        00 56 45.5 -0.8
IL31                                  IAmb     IAmb     00 57 16.0
      comp=Z,98nm,1.2s
ILAR  Eielson Array      25.58  54    P        P        00 56 45.6 -0.8
      comp=Z,13nm,0.8s,baz=270,slow=9.5,SNR=118
ILAR                                  PcP      PcP      01 00 15.9 -1.1
      comp=Z,0.8nm,0.7s,baz=292,slow=3.8,SNR=1.1
ILAR                                  LR       LR       01 08 09.9
      comp=Z,15µm,18.5s,baz=278,slow=40
      comp=Z,13nm,0.8s
ILAR  Eielson Array      25.58  54    P        P        00 56 45.3 -1.1
F25K  Christian Rive     25.60  47    P        P        00 56 45.4 -1.2
F25K                                  IAmb     IAmb     00 56 57.2
      comp=Z,78nm,1.0s
HDA   Harding Lake       25.63  54    P        P        00 56 46.0 -0.8
HDA                                   IAmb     IAmb     00 56 57.5
      comp=Z,76nm,1.0s
SML   Sawmill            25.70  61    P        P        00 56 45.7 -1.8
SML                                   pmax     pmax
      comp=Z,53nm,0.8s
SML   Sawmill            25.70  61    P        P        00 56 45.7 -1.8
SML                                   IAmb     IAmb     00 56 58.5
      comp=Z,53nm,0.8s
SEW   Seward             25.72  65    P        P        00 56 46.0 -1.7
SEW                                   IAmb     IAmb     00 56 55.8
      comp=Z,73nm,1.0s
KNK   Knik Glacier       25.76  62    P        P        00 56 47.4 -0.7
KNK                                   IAmb     IAmb     00 57 19.1
      comp=Z,94nm,1.2s
DHY   Denali Highway     25.77  58    P        P        00 56 47.4 -0.9
DHY                                   IAmb     IAmb     00 57 14.3
      comp=Z,91nm,1.0s
DHY                                   IAMs_20  IAMs_20  01 07 15.9
      comp=Z,13µm,21.0s
FYU   Fort Yukon         25.91  49    P        P        00 56 47.5 -1.8
FYU                                   IAmb     IAmb     00 56 59.5
      comp=Z,71nm,0.9s
PRP   Porcupine Dome     25.99  52    P        P        00 56 49.3 -1.0
PRP                                   IAmb     IAmb     00 57 20.5
      comp=Z,88nm,1.1s
PRP                                   IAMs_20  IAMs_20  01 08 13.0
      comp=Z,13µm,18.0s
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PWL   Port Wells         25.99  63    P        P        00 56 49.2 -1.0
PWL                                   IAmb     IAmb     00 57 01.9
      comp=Z,103nm,0.9s
PWL                                   IAMs_20  IAMs_20  01 08 21.7
      comp=Z,14µm,19.0s
BMAR  Burnt Mountain     26.03  47    P        P        00 56 49.9 -0.5
MJB9  Matsu-Tunnel       26.07 220    P        P        00 56 50.8 -0.2
MAJO  Matsushiro         26.07 220    P        P        00 56 51.9 +0.8
MAJO  Matsushiro         26.07 220⇓iP P        00 56 50.2 -0.8
MAJO                                  pmax     pmax
      comp=Z,174nm,1.0s
MAJO  Matsushiro         26.07 220    P        P        00 56 49.9 -1.2
MAJO  Matsushiro         26.07 220    P        P        00 56 51.6 +0.5
      comp=Z,2µmcomp=Z,175nm,1.1s
MJAR  Matsushiro Arr     26.07 220    P        P        00 56 50.7 -0.4
      comp=Z,85nm,1.0s,baz=12,slow=9.2,SNR=118
MJAR                                  PcP      PcP      01 00 18.8 +0.2
      comp=Z,4.5nm,0.8s,baz=350,slow=1.4,SNR=5.1
      comp=Z,85nm,1.0s
MJAR  Matsushiro Arr     26.07 220    P        P        00 56 50.0 -1.0
MJAR                                  pmax     pmax
      comp=Z,237nm,1.3s
MJAR  Matsushiro Arr     26.07 220    P        P        00 56 50.0 -1.0
C27K  Jago River         26.09  42    P        P        00 56 50.3 -0.7
C27K                                  IAMs_20  IAMs_20  01 08 17.0
      comp=Z,10µm,19.0s
SCM   Sheep Creek Mo     26.14  60    P        P        00 56 50.2 -1.4
SCM                                   pmax     pmax
      comp=Z,151nm,0.8s
SCM                                   MLR      MLR
      comp=Z,8µm,20.0s
SCM   Sheep Creek Mo     26.14  60    P        P        00 56 50.2 -1.4
F26K  Sheenjek River     26.15  47    P        P        00 56 50.8 -0.8
F26K                                  IAmb     IAmb     00 57 03.0
      comp=Z,51nm,0.9s
CIT   Chita              26.21 275   eP        P        00 56 53.6 +1.4
CIT                                  e                  00 57 01.0
CIT                                  e                  00 57 32.4
CIT                                  e                  00 57 46.0
CIT                                  e                  01 01 29.8
CIT                                   pmax     pmax
      comp=Z,177nm,1.6s
J25K  Salcha River,      26.25  54    P        P        00 56 51.1 -1.4
J25K                                  IAMs_20  IAMs_20  01 08 19.6
      comp=Z,12µm,19.0s
K24K  Donnelly Dome      26.27  56    P        P        00 56 50.6 -2.1
K24K                                  IAmb     IAmb     00 57 26.1
      comp=Z,82nm,1.1s
GLI   Glacier Island     26.56  62    P        P        00 56 51.8 -3.5
GLI                                   IAMs_20  IAMs_20  01 09 01.6
      comp=Z,11µm,18.0s
RIDG  Independent Ri     26.69  55    P        P        00 56 54.0 -2.5
RIDG                                  IAmb     IAmb     00 57 06.0
      comp=Z,124nm,1.0s
P23K  Montague Islan     26.72  64    IAMs_20  IAMs_20  01 08 58.0
      comp=Z,11µm,20.0s
FID   Port Fidalgo       26.89  62    IAMs_20  IAMs_20  01 09 11.0
      comp=Z,13µm,19.0s
KLU   Klutina            26.89  61    P        P        00 56 56.8 -1.6
HARP  HAARP              26.94  58    P        P        00 56 56.4 -2.4
HARP                                  IAMs_20  IAMs_20  01 08 03.9
      comp=Z,14µm,20.0s
SCRK  Sand Creek         26.99  55    P        P        00 56 57.3 -2.0
SCRK                                  IAmb     IAmb     00 57 08.7
      comp=Z,55nm,1.0s
HIN   Hinchinbrook I     27.00  63    IAMs_20  IAMs_20  01 09 25.3
      comp=Z,12µm,19.0s
E27K  Coleen River       27.03  45    P        P        00 56 58.1 -1.4
E27K                                  IAMs_20  IAMs_20  01 09 33.7
      comp=Z,11µm,19.0s
DIV   Divide             27.08  61    P        P        00 56 58.8 -1.3
D27M  Malcolm River      27.10  43    IAMs_20  IAMs_20  01 08 08.6
      comp=Z,13µm,19.0s
JGF   Kuroka             27.21 221    P        P        00 57 00.6 -0.8
JGF   Kuroka             27.21 221    P        P        00 57 02.3 +0.9
      comp=Z,2µmcomp=Z,176nm,1.5s
G27K  Doyon Strip        27.26  48    P        P        00 57 00.9 -0.7
G27K                                  IAMs_20  IAMs_20  01 08 02.8
      comp=Z,10µm,19.0s
EYAK  Cordova Ski Ar     27.29  62    P        P        00 57 01.3 -0.5
EYAK                                  IAmb     IAmb     00 57 12.2
      comp=Z,122nm,1.4s
EYAK                                  IAMs_20  IAMs_20  01 09 28.1
      comp=Z,15µm,20.0s
MENT  Mentasta           27.41  57    P        P        00 57 02.0 -0.9
H27K  Steamboat Moun     27.44  49    P        P        00 57 02.6 -0.6
H27K                                  IAMs_20  IAMs_20  01 09 27.4
      comp=Z,9µm,19.0s
HHU   Hamhung            27.44 240    P        P        00 57 00.9 -2.4
HHU                                   S        S        01 01 39.7 -4.0
HHU                                   AmB
      comp=Z,406nm,2.1s
HHU                                   AMS      AMS
      comp=Z,8µm,12.4s
L26K  Log Cabin Wild     27.54  56    P        P        00 57 03.7 -0.5
I27K  Kandik River       27.55  51    P        P        00 57 03.1 -1.1
I27K                                  IAMs_20  IAMs_20  01 08 41.1
      comp=Z,14µm,20.0s
INU   Inuyama            27.55 221    P        P        00 57 05.6 +1.2
INU   Inuyama            27.55 221    P        P        00 57 03.1 -1.3
INU                                   IAmb     IAmb     00 57 09.2
      comp=Z,118nm,1.2s
INU   Inuyama            27.55 221    P        P        00 57 04.9 +0.5
      comp=Z,92nm,1.5s
BMRM  Bremner River      27.67  61    P        P        00 57 04.3 -1.0
BMRM                                  IAmb     IAmb     00 57 43.4
      comp=Z,60nm,1.0s
BMRM                                  IAMs_20  IAMs_20  01 08 30.0
      comp=Z,9µm,20.0s
E28M  Babbage River      27.71  44    P        P        00 57 04.8 -0.7
E28M                                  IAmb     IAmb     00 57 43.4
      comp=Z,44nm,1.0s
F28M  Old Crow           27.78  46    P        P        00 57 04.9 -1.3
JSG   Sagara             27.78 219    P        P        00 57 04.2 -2.2
K27K  Chicken            27.79  54    P        P        00 57 04.9 -1.4
K27K                                  IAMs_20  IAMs_20  01 09 27.2
      comp=Z,13µm,18.0s
SNY   Shenyang           27.80 248    P        P        00 57 07.6 +1.0
SNY                                   S        S        01 01 51.9 +2.5
SNY                                   pmax     pmax
      comp=Z,38nm,1.4s
SNY                                   pmax     pmax
      comp=Z,510nm,4.5s
SNY                                   L        L
      comp=Z,9µm,13.3s
SNY                                   L        L
      comp=Z,3µm,15.7s
SNY                                   L        L
      comp=Z,8µm,14.2s
RAGM  Ragged Mountai     27.85  62    P        P        00 57 04.8 -2.1
GLB   Gilahina Butte     27.86  60    P        P        00 57 06.2 -0.9
GLB                                   IAmb     IAmb     00 57 30.8
      comp=Z,62nm,1.2s
GLB                                   IAMs_20  IAMs_20  01 08 47.1
      comp=Z,13µm,20.0s
M26K  Nabesna, AK        27.90  58    P        P        00 57 06.8 -0.6
M26K                                  IAmb     IAmb     00 57 29.0
      comp=Z,47nm,0.9s
M26K                                  IAMs_20  IAMs_20  01 07 48.1
      comp=Z,12µm,22.0s
VRDI  Verde Repeater     28.10  60    P        P        00 57 08.8 -0.5
VRDI                                  IAmb     IAmb     00 57 19.6
      comp=Z,97nm,1.4s
VRDI                                  IAMs_20  IAMs_20  01 08 55.3
      comp=Z,10µm,20.0s
KAIM  Kayak Island       28.14  63    IAMs_20  IAMs_20  01 08 19.5
      comp=Z,10µm,19.0s
L27K  Beaver Creek,      28.19  56    P        P        00 57 09.0 -0.9
BCAR  Beaver Creek A     28.21  56    P        P        00 57 09.4 -0.7
MCARA McCarthy VSAT      28.23  60    P        P        00 57 09.5 -0.8
MCARA                                 IAmb     IAmb     00 57 48.7
      comp=Z,90nm,1.0s
MCARA                                 IAMs_20  IAMs_20  01 08 59.0
      comp=Z,14µm,19.0s
I28M  Miner Creek        28.27  51    P        P        00 57 10.7  0.0
I28M                                  IAMs_20  IAMs_20  01 09 13.3
      comp=Z,13µm,19.0s
BERG  Berg Lake          28.29  62    P        P        00 57 09.0 -1.9
BERG                                  IAmb     IAmb     00 57 31.0
      comp=Z,79nm,1.1s
BERG                                  IAMs_20  IAMs_20  01 09 56.5
      comp=Z,9µm,19.0s
E29M  Blow River         28.34  44    P        P        00 57 10.9 -0.3
M27K  Edge Creek, AK     28.40  57    P        P        00 57 11.2 -0.8
M27K                                  IAmb     IAmb     00 58 01.4
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      comp=Z,49nm,1.2s
M27K                                  IAMs_20  IAMs_20  01 09 22.4
      comp=Z,8µm,19.0s
CRQM  Cirque             28.41  61    P        P        00 57 11.6 -0.6
CRQM                                  IAmb     IAmb     00 57 34.8
      comp=Z,67nm,1.0s
CRQM                                  IAMs_20  IAMs_20  01 08 55.3
      comp=Z,10µm,21.0s
TGL   Tana Glacier       28.55  61    P        P        00 57 12.2 -1.1
TGL                                   IAmb     IAmb     00 58 05.7
      comp=Z,77nm,1.4s
TGL                                   IAMs_20  IAMs_20  01 08 47.4
      comp=Z,10µm,21.0s
G29M  Pine Creek         28.64  47    P        P        00 57 12.8 -1.0
G29M                                  IAMs_20  IAMs_20  01 09 32.0
      comp=Z,11µm,18.0s
H29M  Whitestone         28.68  49    P        P        00 57 13.5 -0.8
H29M                                  IAmb     IAmb     00 57 25.5
      comp=Z,50nm,1.1s
H29M                                  IAMs_20  IAMs_20  01 08 46.3
      comp=Z,9µm,18.0s
SUJ   Sinuiju            28.70 245    P        P        00 57 12.2 -2.4
JHJ2  Mitsune            28.71 215    P        P        00 57 13.4 -1.3
JHJ   Hachijo jima 2     28.71 215    LR       LR       01 09 56.8
      comp=Z,2µm,18.4s,baz=8.0,slow=39
DAWY  Dawson             28.90  53    P        P        00 57 14.6 -1.7
I29M  Ogilvie Camp,      28.95  50    P        P        00 57 14.9 -1.7
I29M                                  IAmb     IAmb     00 58 18.0
      comp=Z,43nm,0.5s
I29M                                  IAMs_20  IAMs_20  01 09 26.3
      comp=Z,8µm,20.0s
PYAG  Pyongyang          28.95 242    P        P        00 57 14.3 -2.5
PYAG                                  S        S        01 02 03.2 -4.4
PYAG                                  AmB
      comp=Z,392nm,1.5s
PYAG                                  AMS      AMS
      comp=Z,6µm,11.5s
BARN  Barnard Glacie     28.97  60    P        P        00 57 15.0 -2.1
GRNC  Granite Creek      29.05  60    P        P        00 57 16.9 -0.9
GRNC                                  IAmb     IAmb     00 58 01.7
      comp=Z,164nm,1.8s
GRNC                                  IAMs_20  IAMs_20  01 09 36.7
      comp=Z,9µm,19.0s
YAH   Yahtse             29.20  61    P        P        00 57 19.7 +0.5
YAH                                   IAmb     IAmb     00 57 32.9
      comp=Z,110nm,1.4s
YAH                                   IAMs_20  IAMs_20  01 09 05.6
      comp=Z,9µm,22.0s
J29N  Klondike Camp      29.26  52    P        P        00 57 16.9 -2.6
J29N                                  IAMs_20  IAMs_20  01 10 05.6
      comp=Z,11µm,20.0s
EPYK  Eagle Plains       29.28  48    P        P        00 57 19.3 -0.3
EPYK                                  IAMs_20  IAMs_20  01 09 52.1
      comp=Z,9µm,19.0s
KS19  Wonju Array Si     29.28 237    P        P        00 57 18.3 -1.5
KS19                                  IAmb     IAmb     00 57 21.8
      comp=Z,83nm,1.1s
KSRS  Korea Array        29.30 237    P        P        00 57 19.9 -0.1
      comp=Z,29nm,0.9s,baz=29,slow=8.9,SNR=63
KSRS                                  PcP      PcP      01 00 26.4 +0.1
      comp=Z,6.0nm,1.0s,baz=34,slow=2.9,SNR=5.2
KSRS                                  LR       LR       01 09 14.1
      comp=Z,3µm,19.9s,baz=30,slow=37
      comp=Z,29nm,0.9s
F30M  Barrier River      29.30  45    P        P        00 57 19.9 +0.2
F30M                                  IAmb     IAmb     00 57 29.7
      comp=Z,88nm,1.0s
F30M                                  IAMs_20  IAMs_20  01 09 36.7
      comp=Z,8µm,19.0s
G30M  tAoh Zraii Nji     29.30  47    P        P        00 57 19.3 -0.5
KSAR  Wonju Array Be     29.32 237    P        P        00 57 18.9 -1.2
KSAR  Wonju Array Be     29.32 237    P        P        00 57 18.9 -1.2
LOGN  Logan Glacier      29.36  60    P        P        00 57 19.6 -0.9
LOGN                                  IAMs_20  IAMs_20  01 09 14.7
      comp=Z,15µm,21.0s
O28M  Mount Upton        29.74  60    P        P        00 57 24.1 +0.1
K29M  Barlow Dome        29.75  53    P        P        00 57 22.8 -1.1
L29M  L29M               29.76  55    P        P        00 57 22.7 -1.2
L29M                                  IAMs_20  IAMs_20  01 10 39.5
      comp=Z,9µm,19.0s
I30M  Mount Dempster     29.76  50    P        P        00 57 22.4 -1.6
I30M                                  IAMs_20  IAMs_20  01 09 29.8
      comp=Z,12µm,19.0s
HJU   Haeju              29.79 241    P        P        00 57 21.3 -3.0
HJU                                   AmB
      comp=Z,746nm,3.6s
INCN  Inchon             29.84 239    P        P        00 57 22.7 -2.1
INCN                                  pmax     pmax
      comp=Z,110nm,1.6s
INCN                                  MLR      MLR
      comp=Z,3µm,19.0s
INCN  Inchon             29.84 239    P        P        00 57 22.7 -2.1
INCN                                  IAmb     IAmb     00 57 58.6
      comp=Z,110nm,1.6s
M29M  Somme Creek        29.86  56    P        P        00 57 23.8 -1.0
INK   Inuvik             29.94  44    LR       LR       01 11 11.1
      comp=Z,9µm,18.2s,baz=272,slow=40
INK   Inuvik             29.94  44    P        P        00 57 24.7 -0.6
INK                                   pmax     pmax
      comp=Z,82nm,1.6s
INK   Inuvik             29.94  44    P        P        00 57 24.7 -0.6
INK                                   IAmb     IAmb     00 57 28.5
      comp=Z,82nm,1.6s
INK   Inuvik             29.94  44    P        P        00 57 25.9 +0.6
      comp=Z,929nmcomp=Z,25nm,1.3s
PCA   Pinnacle           29.99  61    P        P        00 57 25.3 -0.6
PCA                                   IAmb     IAmb     00 57 36.5
      comp=Z,60nm,1.0s
PCA                                   IAMs_20  IAMs_20  01 10 17.4
      comp=Z,8µm,18.0s
J30M  Hart River         29.99  51    P        P        00 57 25.5 -0.6
J30M                                  IAMs_20  IAMs_20  01 10 27.9
      comp=Z,10µm,20.0s
XLT   XiLinHaoTe         30.02 259   eP        P        00 57 27.4 +1.0
XLT                                   S        S        01 02 20.4 -4.1
XLT                                   pmax     pmax
      comp=Z,14nm,1.3s
XLT                                   pmax     pmax
      comp=Z,130nm,4.3s
XLT                                   L        L
      comp=Z,7µm,11.2s
XLT                                   L        L
      comp=Z,6µm,11.7s
G31M  Satah River        30.06  46    P        P        00 57 25.3 -1.1
F31M  Tsiigehtchic       30.10  45    P        P        00 57 25.3 -1.5
F31M                                  IAmb     IAmb     00 57 49.4
      comp=Z,45nm,1.0s
JMN   Monobe             30.13 225    P        P        00 57 27.1 -0.3
JMN                                   IAmb     IAmb     00 57 30.6
      comp=Z,88nm,1.2s
JMN   Monobe             30.13 225    P        P        00 57 29.9 +2.5
      comp=Z,66nm,1.9s
H31M  Peel River         30.38  48    P        P        00 57 27.7 -1.6
H31M                                  IAMs_20  IAMs_20  01 09 40.1
      comp=Z,9µm,19.0s
TJN   Taejon             30.44 237⇓iP P        00 57 30.0  0.0
TJN   Taejon             30.44 237    P        P        00 57 26.7 -3.3
TJN   Taejon             30.44 237    P        P        00 57 30.1  0.0
      comp=Z,153nm,1.6s
O29M  Mount Kennedy      30.66  60    P        P        00 57 30.4 -1.6
IRK   Irkutsk            30.86 282   eP        P        00 57 34.1 +0.5
IRK                                   pmax     pmax
      comp=Z,88nm,2.4s
HYT   Haines Junctio     30.92  59    P        P        00 57 33.3 -0.9
NRIK  Noril'sk           31.00 319    P        P        00 57 34.7  0.0
      comp=Z,7.0nm,0.8s,baz=81,slow=7.8,SNR=9.0
NRIK                                  LR       LR       01 09 40.1
      comp=Z,5µm,21.7s,baz=76,slow=36
      comp=Z,7.0nm,0.8s
NRIK  Noril'sk           31.00 319⇓iP P        00 57 35.2 +0.5
NRIK                                  pmax     pmax
      comp=Z,12nm,1.0s
NRIK  Noril'sk           31.00 319    P        P        00 57 34.6  0.0
DL2   Dalian             31.01 247    P        P        00 57 35.6 +0.6
DL2                                   S        S        01 02 42.6 +2.8
DL2                                   pmax     pmax
      comp=Z,45nm,1.1s
DL2                                   pmax     pmax
      comp=Z,250nm,5.1s
DL2                                   L        L
      comp=Z,10µm,13.4s
DL2                                   L        L
      comp=Z,10µm,13.8s
DL2                                   L        L
      comp=Z,9µm,12.8s
P29M  Windy Craggy       31.34  61    P        P        00 57 36.4 -1.4
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P29M				IAMs_20	IAMs_20	01 10 51.1	
	comp=Z,10µm,20.0s						
N31M	**Braeburn, Yuko**	**31.40**	**57**	P	**P**	**00 57 37.3**	**-1.1**
N31M				IAmb	IAmb	00 58 01.3	
	comp=Z,35nm,0.9s						
TLY	**Talaya**	**31.50**	**282**	P	**P**	**00 57 39.2**	**-0.1**
	comp=Z,5.0nm,0.6s,baz=34,slow=9.4,SNR=12						
TLY				LR	LR	01 10 15.7	
	comp=Z,3µm,20.5s,baz=34,slow=36						
	comp=Z,5.0nm,0.6s						
TLY	**Talaya**	**31.50**	**282**	P	**P**	**00 57 40.8**	**+1.5**
TLY				S	**S**	**01 02 51.8**	**+4.5**
TLY	**Talaya**	**31.50**	**282**	*e*P	**P**	**00 57 39.5**	**+0.2**
TLY				pmax	pmax		
	comp=Z,14nm,1.5s						
TLY	**Talaya**	**31.50**	**282**	P	**P**	**00 57 39.6**	**+0.4**
TLY	**Talaya**	**31.50**	**282**	P	**P**	**00 57 40.8**	**+1.5**
	comp=Z,450nmcomp=Z,17nm,1.5s						
A36M	**Sachs Harbour**	**31.67**	**35**	P	**P**	**00 57 39.0**	**-1.5**
M31M	**Drury Creek, Y**	**31.70**	**55**	P	**P**	**00 57 40.1**	**-0.9**
JNU	**Nakatsue**	**31.80**	**229**	LR	LR	01 10 35.5	
	comp=Z,5µm,20.3s,baz=36,slow=36						
ULN	**Ulaanbaatar**	**32.05**	**273**	P	**P**	**00 57 45.9**	**+1.6**
ULN				S	**S**	**01 02 59.9**	**+3.6**
ULN	**Ulaanbaatar**	**32.05**	**273**	*d i*P	**P**	**00 57 45.8**	**+1.5**
ULN				pmax	pmax		
	comp=Z,23nm,1.1s						
ULN	**Ulaanbaatar**	**32.05**	**273**	P	**P**	**00 57 43.9**	**-0.5**
ULN	**Ulaanbaatar**	**32.05**	**273**	IAMs_20	IAMs_20	01 11 22.3	
	comp=Z,7µm,18.0s						
ULN	**Ulaanbaatar**	**32.05**	**273**	P	**P**	**00 57 45.9**	**+1.6**
	comp=Z,2µmcomp=Z,100nm,1.4s						
ULN	**Ulaanbaatar**	**32.05**	**273**	P	**P**	**00 57 45.4**	**+1.1**
	comp=Z,410nmcomp=Z,26nm,1.4s						
WHY	**Whitehorse**	**32.16**	**58**	P	**P**	**00 57 43.8**	**-1.3**
WHY				IAmb	IAmb	00 58 07.3	
	comp=Z,54nm,1.1s						
SONM	**Songino Array**	**32.41**	**274**	P	**P**	**00 57 46.1**	**-1.4**
	comp=Z,11nm,0.9s,baz=66,slow=8.8,SNR=43						
SONM				PcP	**PcP**	**01 00 35.1**	**+0.6**
	comp=Z,5.7nm,0.8s,baz=82,slow=1.2,SNR=7.1						
SONM				LR	LR	01 11 44.3	
	comp=Z,8µm,19.4s,baz=48,slow=38						
	comp=Z,11nm,0.9s						
SONM	**Songino Array**	**32.41**	**274**	P	**P**	**00 57 46.5**	**-1.0**
SONM					**PcP**	**01 00 35.7**	**+1.1**
ZAK	**Zakamensk**	**32.45**	**280**	*e*P	**P**	**00 57 49.3**	**+1.6**
ZAK				*e*		01 08 18.7	
ZAK				pmax	pmax		
	comp=Z,20nm,1.4s						
SKAG	**Skagway**	**32.51**	**60**	P	**P**	**00 57 47.2**	**-0.8**
SKAG				IAmb	IAmb	00 58 03.4	
	comp=Z,101nm,1.8s						
N32M	**Quiet Lake**	**32.72**	**56**	P	**P**	**00 57 49.7**	**-0.3**
BJI2	**Beijing**	**32.82**	**254**	P	**P**	**00 57 51.6**	**+0.6**
BJI2				S	**S**	**01 03 07.5**	**-0.6**
BJI2				pmax	pmax		
	comp=Z,13nm,0.9s						
BJI2				pmax	pmax		
	comp=Z,180nm,4.3s						
BJI2				L	L		
	comp=Z,4µm,10.6s						
BJI2				L	L		
	comp=Z,3µm,14.4s						
BJI2				L	L		
	comp=Z,3µm,12.0s						
BJT	**Baijiatuau**	**32.82**	**254**	P	**P**	**00 57 50.7**	**-0.3**
BJT				pmax	pmax		
	comp=Z,18nm,0.9s						
BJT				MLR	MLR		
	comp=Z,3µm,20.0s						
BJT	**Baijiatuau**	**32.82**	**254**	P	**P**	**00 57 50.7**	**-0.3**
BJT	**Baijiatuau**	**32.82**	**254**	P	**P**	**00 57 51.8**	**+0.8**
	comp=Z,26nm,1.4s						
MMPY	**Sheldon Lake,**	**32.84**	**53**	P	**P**	**00 57 49.2**	**-1.8**
MOY	**Mondy**	**32.85**	**283**	*e*P	**P**	**00 57 52.4**	**+1.1**
MOY				pmax	pmax		
	comp=Z,64nm,2.5s						
C36M	**Paulatuk**	**32.88**	**40**	P	**P**	**00 57 50.5**	**-0.6**
BESE	**Bessie Mountai**	**33.15**	**61**	IAMs_20	IAMs_20	01 11 55.9	
	comp=Z,10µm,20.0s						
P32M	**Atlin**	**33.17**	**59**	IAMs_20	IAMs_20	01 12 05.6	
	comp=Z,9µm,19.0s						
P33M	**Teslin, Yukon**	**33.27**	**58**	P	**P**	**00 57 52.9**	**-1.9**
R32K	**Eaglecrest**	**33.45**	**62**	P	**P**	**00 57 56.1**	**-0.1**
R32K				IAmb	IAmb	00 59 07.1	
	comp=Z,93nm,1.6s						
R32K				IAMs_20	IAMs_20	01 12 07.0	
	comp=Z,9µm,19.0s						
S32K	**Killisnoo**	**33.83**	**63**	P	**P**	**00 57 58.1**	**-1.4**
S32K				IAmb	IAmb	00 58 21.0	
	comp=Z,94nm,1.7s						
Q32M	**Nakina River**	**34.12**	**59**	P	**P**	**00 58 00.3**	**-2.1**
Q32M				IAmb	IAmb	00 58 29.5	
	comp=Z,50nm,1.4s						
Q32M				IAMs_20	IAMs_20	01 12 25.9	
	comp=Z,11µm,20.0s						
R33M	**Jennings River**	**34.49**	**58**	P	**P**	**00 58 03.9**	**-1.6**
R33M				IAMs_20	IAMs_20	01 14 44.5	
	comp=Z,8µm,18.0s						
HHC	**Hu-ho-hao-te**	**34.54**	**260**	*e*P	**P**	**00 58 06.4**	**+0.4**
HHC				S	**S**	**01 03 31.8**	**-3.1**
HHC				sS	sS	01 03 43.0	+4.1
HHC				pmax	pmax		
	comp=Z,17nm,0.7s						
HHC				pmax	pmax		
	comp=Z,190nm,6.4s						
HHC				L	L		
	comp=Z,5µm,15.3s						
HHC				L	L		
	comp=Z,4µm,16.0s						
HHC				L	L		
	comp=Z,6µm,16.8s						
S34M	**Telegraph Cree**	**35.18**	**60**	P	**P**	**00 58 11.1**	**-0.1**
U33K	**Whale Pass**	**35.23**	**64**	IAMs_20	IAMs_20	01 13 30.0	
	comp=Z,6µm,20.0s						
TIA	**Tai'an**	**35.31**	**249**	P	**P**	**00 58 13.7**	**+1.0**
TIA				S	**S**	**01 03 49.2**	**+2.5**
TIA				pmax	pmax		
	comp=Z,88nm,1.1s						
TIA				L	L		
	comp=Z,7µm,22.0s						
TIA				L	L		
	comp=Z,6µm,21.8s						
TIA				L	L		
	comp=Z,7µm,15.9s						
DLBC	**Dease Lake**	**35.40**	**59**	LR	LR	01 13 45.6	
	comp=Z,9µm,18.2s,baz=291,slow=38						
WRAK	**Wrangell Islan**	**35.43**	**63**	IAMs_20	IAMs_20	01 12 53.2	
	comp=Z,8µm,20.0s						
BTO2	**Baotou**	**35.48**	**261**	*e*P	**P**	**00 58 13.7**	**-0.5**
BTO2				S	**S**	**01 03 50.3**	**+0.8**
BTO2				SS	**SnSn**	**01 06 06.7**	**-1.9**
BTO2				pmax	pmax		
	comp=Z,67nm,1.2s						
BTO2				pmax	pmax		
	comp=Z,550nm,3.6s						
BTO2				L	L		
	comp=Z,12µm,12.7s						
BTO2				L	L		
	comp=Z,14µm,15.6s						
BTO2				L	L		
	comp=Z,7µm,13.5s						
HNS	**HongShan**	**35.57**	**253**	⇓P	**P**	**00 58 15.7**	**+0.9**
HNS				pmax	pmax		
	comp=Z,39nm,1.1s						
HNS				L	L		
	comp=Z,10µm,14.3s						
HNS				L	L		
	comp=Z,6µm,12.8s						
HNS				L	L		
	comp=Z,10µm,13.3s						
WRGLY	**Wrigley**	**35.72**	**49**	P	**P**	**00 58 15.2**	**-0.7**
WRGLY				IAmb	IAmb	00 58 47.1	
	comp=Z,35nm,1.0s						
T35M	**Bob Quinn**	**36.09**	**61**	P	**P**	**00 58 18.6**	**-0.4**
T35M				IAmb	IAmb	00 58 31.9	
	comp=Z,62nm,1.1s						
T35M				IAMs_20	IAMs_20	01 14 29.7	
	comp=Z,10µm,19.0s						
V35K	**Ketchikan**	**36.38**	**64**	IAMs_20	IAMs_20	01 14 11.3	
	comp=Z,6µm,19.0s						
TIY	**Taiyuan**	**36.46**	**255**	P	**P**	**00 58 24.6**	**+2.1**
TIY				S	**S**	**01 04 07.9**	**+3.5**
TIY				pmax	pmax		
	comp=Z,48nm,0.5s						
TIY				L	L		
	comp=Z,5µm,12.4s						
TIY				L	L		
	comp=Z,5µm,11.0s						
TIY				L	L		
	comp=Z,4µm,11.0s						
ALE	**Alert**	**37.34**	**8**	P	**P**	**00 58 29.8**	**+0.3**
SSE	**Sheshan**	**37.64**	**239**	P	**P**	**00 58 32.7**	**+0.2**
SSE				S	**S**	**01 04 20.3**	**-1.9**
SSE				pmax	pmax		
	comp=Z,25nm,0.8s						
SSE				pmax	pmax		
	comp=Z,210nm,3.6s						
SSE				L	L		
	comp=Z,1µm,8.8s						
SSE				L	L		
	comp=Z,2µm,11.2s						
NJ2	**Nanjing**	**37.89**	**243**	*e*P	**P**	**00 58 34.7**	**+0.1**
NJ2				pmax	pmax		
	comp=Z,80nm,0.8s						
NJ2				pmax	pmax		
	comp=Z,2µm,4.6s						
NJ2				L	L		
	comp=Z,13µm,19.9s						
NJ2				L	L		
	comp=Z,13µm,17.1s						
NJ2				L	L		
	comp=Z,20µm,11.9s						
RES	**Resolute Bay**	**38.32**	**24**	LR	LR	01 15 18.0	
	comp=Z,8µm,22.0s,baz=300,slow=38						
JOW	**Kunigami**	**38.42**	**227**	LR	LR	01 15 55.8	
	comp=Z,2µm,20.3s,baz=23,slow=38						
LYN	**LuoYang**	**38.92**	**252**	⇓P	**P**	**00 58 44.7**	**+1.4**
LYN				S	**S**	**01 04 44.9**	**+3.2**
LYN				pmax	pmax		
	comp=Z,92nm,1.2s						
LYN				L	L		
	comp=Z,8µm,10.9s						
LYN				L	L		
	comp=Z,9µm,15.1s						
LYN				L	L		
	comp=Z,16µm,14.1s						
ZAA0	**Zalesovo Array**	**39.39**	**296**	P	**P**	**00 58 47.0**	**+0.1**
ZALV	**Zalesovo Beam**	**39.39**	**296**	P	**P**	**00 58 46.7**	**-0.2**
	comp=Z,3.0nm,0.7s,baz=51,slow=7.9,SNR=10						
ZALV				PP	**PnPn**	**01 00 20.9**	**+1.0**
	comp=Z,4.1nm,0.7s,baz=51,slow=12,SNR=4.2						
ZALV				PcP	**PcP**	**01 00 55.2**	**+0.2**
	comp=Z,10nm,1.0s,baz=22,slow=4.0,SNR=5.1						
ZALV				LR	LR	01 15 37.6	
	comp=Z,3µm,21.2s,baz=46,slow=37						
	comp=Z,3.0nm,0.7s						
ZALV	**Zalesovo Beam**	**39.39**	**296**	*i* P	**P**	**00 58 47.9**	**+0.9**
ZALV				pmax	pmax		
	comp=Z,3.0nm,0.7s						
YKAW3	**Yellowknife Wh**	**39.50**	**47**	P	**P**	**00 58 46.5**	**-1.3**
YKA	**Yellowknife Ar**	**39.55**	**47**	P	**P**	**00 58 47.1**	**-1.0**
	comp=Z,11nm,0.8s,baz=307,slow=8.1,SNR=14						
YKA				PcP	**PcP**	**01 00 56.1**	**+0.8**
	comp=Z,2.8nm,0.9s,baz=304,slow=3.6,SNR=3.8						
YKA				LR	LR	01 17 48.0	
	comp=Z,3µm,21.1s,baz=302,slow=40						
	comp=Z,11nm,0.8s						
YKA	**Yellowknife Ar**	**39.55**	**47**	*ce*P	**P**	**00 58 48.7**	**+0.5**
YKA				pmax	pmax		
	comp=Z,11nm,0.8s						
YKA	**Yellowknife Ar**	**39.55**	**47**	P	**P**	**00 58 47.0**	**-1.2**
YKAW1	**Yellowknife Wh**	**39.60**	**47**	P	**P**	**00 58 47.4**	**-1.2**
BBB	**Bella Bella**	**39.94**	**66**	LR	LR	01 15 25.4	
	comp=Z,6µm,19.1s,baz=326,slow=36						
XAN	**Xi'an**	**41.11**	**255**	P	**P**	**00 59 02.0**	**+0.5**
XAN				S	**S**	**01 05 17.2**	**+2.8**
XAN				pmax	pmax		
	comp=Z,32nm,1.3s						
XAN				pmax	pmax		
	comp=Z,410nm,4.8s						
XAN				L	L		
	comp=Z,9µm,13.1s						
XAN				L	L		
	comp=Z,12µm,11.2s						
XAN				L	L		
	comp=Z,11µm,12.0s						
WHN	**Wuhan**	**41.27**	**247**	⇓P	**P**	**00 59 03.2**	**+0.4**
WHN				pmax	pmax		
	comp=Z,390nm,1.2s						
WHN				L	L		
	comp=Z,10µm,9.9s						
WHN				L	L		
	comp=Z,16µm,14.1s						
WHN				L	L		
	comp=Z,21µm,12.6s						
SPITS	**Spitsbergen Ar**	**41.39**	**349**	P	**P**	**00 59 02.6**	**-0.7**
	comp=Z,49nm,0.9s,baz=100,slow=9.6,SNR=15						
SPITS				LR	LR	01 16 41.6	
	comp=Z,4µm,18.3s,baz=24,slow=37						
	comp=Z,49nm,0.9s						
SPITS	**Spitsbergen Ar**	**41.39**	**349**	P	**P**	**00 59 02.4**	**-0.9**
SPITS				pmax	pmax		
	comp=Z,69nm,1.0s						
SPB2	**Spitsbergen Ar**	**41.40**	**349**	P	**P**	**00 59 03.1**	**-0.3**
SPB2				IAmb	IAmb	00 59 05.6	
	comp=Z,65nm,0.9s						
GTA2	**Gaotai**	**41.66**	**269**	P	**P**	**00 59 07.6**	**+1.5**
GTA2				S	**S**	**01 05 22.1**	**-0.5**
GTA2				SS	**SS**	**01 08 22.1**	**-5.3**
GTA2				pmax	pmax		
	comp=Z,52nm,1.2s						
GTA2				L	L		
	comp=Z,9µm,17.8s						
GTA2				L	L		
	comp=Z,8µm,19.7s						
GTA2				L	L		
	comp=Z,12µm,23.2s						
LZH	**Lanzhou**	**42.10**	**262**	*e*P	**P**	**00 59 11.8**	**+2.0**
LZH				sP	sP	00 59 19.8	+6.6
LZH				S	**S**	**01 05 33.6**	**+4.3**
LZH				pmax	pmax		
	comp=Z,140nm,1.0s						
LZH				pmax	pmax		
	comp=Z,470nm,5.0s						
LZH				L	L		
	comp=Z,5µm,12.2s						
LZH				L	L		
	comp=Z,6µm,16.3s						
LZH				L	L		
	comp=Z,8µm,16.3s						
LZDM	**Lanzhou Array**	**42.28**	**262**	P	**P**	**00 59 11.4**	**0.0**
	comp=Z,24nm,0.7s,baz=38,slow=6.0,SNR=21						
LZDM				LR	LR	01 18 04.2	
	comp=Z,5µm,19.2s,baz=45,slow=38						
	comp=Z,24nm,0.7s						
CBB	**Campbell River**	**42.65**	**67**	P	**P**	**00 59 12.6**	**-1.3**
NEEM	**North Greenlan**	**42.74**	**9**	*i* P	**P**	**00 59 14.8**	**+0.2**
NEEM				IAmb	IAmb	00 59 16.3	
	comp=Z,117nm,1.1s						
ZSN	**Zaisan**	**43.62**	**289**	*d i*P	**P**	**00 59 22.6**	**+0.9**
ZSN	**Zaisan**	**43.62**	**289**	⇓*i*P	**P**	**00 59 22.6**	**+0.9**
ENH	**Enshi**	**43.86**	**252**	P	**P**	**00 59 22.2**	**-1.7**
ENH				IAMs_20	IAMs_20	01 19 38.0	
	comp=Z,4µm,18.0s						
ENH	**Enshi**	**43.86**	**252**	P	**P**	**00 59 24.6**	**+0.7**
	comp=Z,51nm,1.1s						
CNSH	**ChangSha**	**43.92**	**246**	P	**P**	**00 59 25.4**	**+1.1**
CNSH				S	**S**	**01 06 00.4**	**+4.6**
CNSH				pmax	pmax		
	comp=Z,56nm,1.1s						
CNSH				L	L		
	comp=Z,4µm,14.3s						
CNSH				L	L		
	comp=Z,6µm,14.5s						
CNSH				L	L		
	comp=Z,5µm,12.4s						
LLLB	**Lillooet**	**43.92**	**64**	P	**P**	**00 59 23.3**	**-0.9**
CLRS	**Cowichan Lake**	**44.07**	**68**	P	**P**	**00 59 25.2**	**-0.1**
CLRS				IAmb	IAmb	00 59 36.6	
	comp=Z,51nm,1.2s						
SSLB	**Suanglung**	**44.08**	**234**	P	**P**	**00 59 24.9**	**-0.8**
SSLB				IAmb	IAmb	00 59 52.6	
	comp=Z,82nm,1.7s						
YULB	**Yu-li**	**44.29**	**233**	P	**P**	**00 59 25.9**	**-1.5**
YULB				IAmb	IAmb	01 00 51.9	
	comp=Z,68nm,1.5s						
KURK	**Kurchatov**	**44.38**	**296**	P	**P**	**00 59 28.4**	**+0.7**
KURK				S	**S**	**01 06 02.9**	**+0.8**
KURK	**Kurchatov**	**44.38**	**296**	*c i*P	**P**	**00 59 27.4**	**-0.4**
KURK				pmax	pmax		
	comp=Z,142nm,1.0s						
KURK	**Kurchatov**	**44.38**	**296**	P	**P**	**00 59 27.1**	**-0.7**
KURK	**Kurchatov**	**44.38**	**296**	IAMs_20	IAMs_20	01 18 52.0	
	comp=Z,4µm,21.0s						
KURK	**Kurchatov**	**44.38**	**296**	P	**P**	**00 59 27.8**	**0.0**
	comp=Z,1µmcomp=Z,132nm,1.1s						
KURBB	**Kurchatov Arra**	**44.49**	**296**	P	**P**	**00 59 28.2**	**-0.5**
	comp=Z,87nm,1.0s,baz=50,slow=8.1,SNR=164						
KURBB				LR	LR	01 20 05.1	
	comp=Z,6µm,18.7s,baz=44,slow=39						
	comp=Z,87nm,1.0s						
KURBB	**Kurchatov Arra**	**44.49**	**296**	P	**P**	**00 59 28.8**	**+0.2**
PGC	**Sidney**	**44.51**	**68**	P	**P**	**00 59 28.6**	**-0.2**
DAG	**Danmarks Havn**	**44.68**	**359**	P	**P**	**00 59 29.5**	**-0.4**
DAG	**Danmarks Havn**	**44.68**	**359**	*i* P	**P**	**00 59 29.5**	**-0.4**
DAG				IAmb	IAmb	00 59 31.4	
	comp=Z,31nm,1.0s						
DAG	**Danmarks Havn**	**44.68**	**359**	P	**P**	**00 59 29.8**	**-0.1**
	comp=Z,878nmcomp=Z,38nm,0.9s						
WMQ	**Urumqi**	**44.74**	**283**	*e*P	**P**	**00 59 33.4**	**+2.5**
WMQ				S	**S**	**01 06 13.1**	**+5.4**
WMQ				ScS	**ScS**	**01 09 28.4**	**-0.1**
WMQ				pmax	pmax		
	comp=Z,40nm,0.9s						
WMQ				pmax	pmax		
	comp=Z,340nm,3.7s						
WMQ				L	L		
	comp=Z,5µm,13.1s						
WMQ				L	L		
	comp=Z,4µm,17.5s						
WMQ				L	L		
	comp=Z,4µm,20.5s						
BLKN	**Baker Lake**	**44.80**	**37**	P	**P**	**00 59 31.0**	**0.0**
BLKN				IAmb	IAmb	01 01 07.2	
	comp=Z,46nm,0.7s						
A04D	**Lummi Island**	**44.82**	**67**	P	**P**	**00 59 30.7**	**-0.6**
A04D				IAmb	IAmb	00 59 40.9	
	comp=Z,38nm,0.8s						
B04A	**Port Angeles**	**44.89**	**68**	P	**P**	**00 59 31.2**	**-0.8**
ILON	**Igloolik, Nuna**	**44.91**	**26**	P	**P**	**00 59 32.3**	**+0.5**
A05A	**Maple Falls**	**44.92**	**66**	P	**P**	**00 59 31.6**	**-0.6**
A05A				IAmb	IAmb	00 59 42.4	
	comp=Z,30nm,0.8s						
NLWA	**Neilton Lookou**	**45.18**	**69**	P	**P**	**00 59 34.6**	**+0.3**
MK31	**Makanchi Array**	**45.34**	**290**	*d i*P	**P**	**00 59 34.9**	**-0.6**
MK31	**Makanchi Array**	**45.34**	**290**	P	**P**	**00 59 34.7**	**-0.8**
MKAR	**Makanchi Array**	**45.34**	**290**	P	**P**	**00 59 35.0**	**-0.5**
	comp=Z,13nm,0.9s,baz=56,slow=4.9,SNR=49						
MKAR				LR	LR	01 19 24.1	
	comp=Z,6µm,18.9s,baz=30,slow=37						
	comp=Z,13nm,0.9s						
MKAR	**Makanchi Array**	**45.34**	**290**	P	**P**	**00 59 34.8**	**-0.7**
MKAR	**Makanchi Array**	**45.34**	**290**	P	**P**	**00 59 34.8**	**-0.7**
WISH	**Wishkah**	**45.42**	**69**	P	**P**	**00 59 35.6**	**-0.5**
MAKZ	**Makanchi**	**45.48**	**290**	P	**P**	**00 59 35.9**	**-0.8**
MAKZ				pmax	pmax		
	comp=Z,34nm,1.2s						
MAKZ				MLR	MLR		
	comp=Z,4µm,21.0s						
MAKZ	**Makanchi**	**45.48**	**290**	P	**P**	**00 59 35.9**	**-0.8**
MAKZ				IAmb	IAmb	00 59 38.3	
	comp=Z,34nm,1.2s						
MAKZ	**Makanchi**	**45.48**	**290**	P	**P**	**00 59 37.1**	**+0.5**
	comp=Z,427nmcomp=Z,27nm,1.4s						
GNW	**Green Mountain**	**45.57**	**68**	P	**P**	**00 59 36.0**	**-1.3**
E03A	**Lebam**	**45.92**	**70**	P	**P**	**00 59 40.2**	**+0.1**
EDM	**Edmonton**	**46.00**	**57**	P	**P**	**00 59 40.7**	**0.0**
EDM				pmax	pmax		
	comp=Z,104nm,1.3s						
EDM	**Edmonton**	**46.00**	**57**	P	**P**	**00 59 40.7**	**0.0**
CD2	**Chengdu**	**46.22**	**258**	P	**P**	**00 59 43.8**	**+1.1**
CD2				S	**S**	**01 06 30.0**	**+0.8**
CD2				pmax	pmax		
	comp=Z,100nm,1.0s						
CD2				L	L		
	comp=Z,7µm,22.0s						
CD2				L	L		
	comp=Z,8µm,19.0s						
CD2				L	L		
	comp=Z,7µm,15.7s						
D05A	**Enumclaw**	**46.23**	**68**	P	**P**	**00 59 41.8**	**-0.8**
D05A				IAmb	IAmb	00 59 52.1	
	comp=Z,68nm,1.3s						
GUMO	**Guam**	**46.34**	**199**	LR	LR	01 17 32.3	
	comp=Z,1µm,19.3s,baz=27,slow=34						
F03A	**Seaside**	**46.36**	**70**	P	**P**	**00 59 42.6**	**-1.0**
BVAR	**Borovoye Array**	**46.50**	**304**	P	**P**	**00 59 44.5**	**0.0**
	comp=Z,27nm,0.8s,baz=53,slow=7.6,SNR=58						
	comp=Z,27nm,0.8s						
BORK	**Borovoye**	**46.51**	**304**	*c i*P	**P**	**00 59 44.6**	**-0.1**
BORK				pmax	pmax		
	comp=Z,58nm,1.0s						
BORK	**Borovoye**	**46.51**	**304**	P	**P**	**00 59 44.5**	**-0.1**
UPNV	**Upernavik**	**46.52**	**14**	*i* P	**P**	**00 59 42.5**	**-1.9**
UPNV				IAmb	IAmb	00 59 47.1	
	comp=Z,38nm,1.0s						
UPNV	**Upernavik**	**46.52**	**14**	P	**P**	**00 59 43.7**	**-0.7**
F04D	**Rainier, OR**	**46.52**	**70**	P	**P**	**00 59 43.6**	**-1.2**
F04D				IAmb	IAmb	01 00 09.9	
	comp=Z,55nm,1.2s						
LON	**Longmire**	**46.63**	**68**	P	**P**	**00 59 45.0**	**-0.8**
LON				pmax	pmax		
	comp=Z,33nm,1.4s						
LON	**Longmire**	**46.63**	**68**	P	**P**	**00 59 45.0**	**-0.8**
LON				IAmb	IAmb	01 00 11.2	
	comp=Z,33nm,1.4s						
B08A	**Colville Reser**	**46.68**	**65**	P	**P**	**00 59 45.8**	**-0.3**
B08A				IAmb	IAmb	00 59 56.9	
	comp=Z,38nm,1.2s						
GOMU	**GeErMu**	**46.70**	**270**	P	**P**	**00 59 45.0**	**-1.8**
GOMU				sP	sP	00 59 52.3	+2.1
GOMU				S	**S**	**01 06 32.4**	**-4.2**
GOMU				pmax	pmax		
	comp=Z,50nm,1.0s						
GOMU				L	L		
	comp=Z,4µm,12.0s						
GOMU				L	L		
	comp=Z,4µm,11.8s						
GOMU				L	L		
	comp=Z,5µm,12.2s						
STD	**Studebaker Rid**	**46.80**	**69**	P	**P**	**00 59 47.4**	**+0.2**
LTY	**Liberty**	**46.82**	**67**	P	**P**	**00 59 47.4**	**+0.2**
LTY				IAmb	IAmb	00 59 58.0	
	comp=Z,37nm,1.3s						
DBG	**Daneborg**	**47.17**	**360**	*i* P	**P**	**00 59 49.1**	**-0.4**
DBG				IAmb	IAmb	00 59 51.9	
	comp=Z,12nm,0.9s						
LVZ	**Lovozero**	**47.21**	**335**	*e*P	**P**	**00 59 50.2**	**+0.2**
LVZ				pmax	pmax		
	comp=Z,20nm,0.9s						
LVZ	**Lovozero**	**47.21**	**335**	P	**P**	**00 59 49.2**	**-0.8**
LVZ				IAmb	IAmb	00 59 51.2	
	comp=Z,30nm,1.0s						
LVZ				IAMs_20	IAMs_20	01 21 27.7	
	comp=Z,7µm,22.0s						
EPH	**Ephrata**	**47.27**	**66**	P	**P**	**00 59 50.1**	**-0.6**
EPH				IAmb	IAmb	01 00 01.1	
	comp=Z,49nm,1.3s						
G04A	**Mulino**	**47.41**	**70**	P	**P**	**00 59 51.5**	**-0.3**
MXC	**Moxie City**	**47.49**	**67**	P	**P**	**00 59 52.0**	**-0.4**
MXC				IAmb	IAmb	01 00 03.5	
	comp=Z,38nm,1.2s						
C09A	**Chrisman Ranch**	**47.57**	**65**	P	**P**	**00 59 52.0**	**-1.0**
C09A				IAmb	IAmb	01 00 03.4	
	comp=Z,47nm,1.6s						
ARA0	**ARCESS Array S**	**47.67**	**340**	*e*P	**P**	**00 59 53.9**	**+0.3**
ARCES	**ARCESS Array B**	**47.67**	**340**	P	**P**	**00 59 52.4**	**-1.1**
	comp=Z,5.9nm,0.7s,baz=26,slow=9.4,SNR=16						
ARCES				LR	LR	01 23 32.9	
	comp=Z,3µm,18.8s,baz=44,slow=41						
	comp=Z,5.9nm,0.7s						
ARCES	**ARCESS Array B**	**47.67**	**340**	P	**P**	**00 59 54.5**	**+1.0**
WAH2	**Wahluke Slope**	**47.71**	**67**	P	**P**	**00 59 54.2**	**+0.2**
WAH2				IAmb	IAmb	01 00 02.9	
	comp=Z,26nm,0.7s						
E07A	**Sunnyside**	**47.71**	**67**	P	**P**	**00 59 53.7**	**-0.4**
E07A				IAmb	IAmb	01 00 05.1	
	comp=Z,50nm,1.3s						
HOOD	**Mount Hood Mea**	**47.73**	**70**	P	**P**	**00 59 53.2**	**-1.2**
H04D	**Lebanon**	**47.78**	**71**	P	**P**	**00 59 53.3**	**-1.3**
NEW	**Newport**	**47.78**	**64**	LR	LR	01 19 49.7	
	comp=Z,7µm,20.1s,baz=319,slow=36						
NEW	**Newport**	**47.78**	**64**	P	**P**	**00 59 54.0**	**-0.7**
NEW	**Newport**	**47.78**	**64**	P	**P**	**00 59 54.0**	**-0.7**
NEW	**Newport**	**47.78**	**64**	P	**P**	**00 59 55.8**	**+1.0**
	comp=Z,17nm,1.0s						

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D08A  Wollman Farm,     47.80  66  P        P        00 59 53.9 -0.9
D08A                               IAmb     IAmb     01 00 08.6
      comp=Z,24nm,1.2s
BUCK  Buck Mountain     47.89  72  P        P        00 59 54.1 -1.6
H04A  Detroit Lake      47.93  71  P        P        00 59 54.5 -1.4
H04A                               IAmb     IAmb     01 00 20.2
      comp=Z,57nm,1.4s
G05A  Wamic             47.95  69  P        P        00 59 54.7 -1.4
G05A                               IAmb     IAmb     01 00 04.8
      comp=Z,31nm,1.0s
HAWA  Hanford           47.98  67  P        P        00 59 55.2 -1.0
HAWA                               IAmb     IAmb     01 00 07.1
      comp=Z,35nm,1.4s
I03D  Drain, OR         48.08  72  P        P        00 59 56.0 -0.9
I03D                               IAmb     IAmb     01 00 12.4
      comp=Z,36nm,1.3s
E08A  Dider Farm, El    48.14  67  P        P        00 59 56.5 -0.9
E08A                               IAmb     IAmb     01 00 07.4
      comp=Z,27nm,1.2s
F07A  Phinny Hill Vi    48.16  68  P        P        00 59 56.8 -0.8
F07A                               IAmb     IAmb     01 00 08.7
      comp=Z,65nm,1.5s
G06A  Carlson Farm,     48.29  69  P        P        00 59 57.3 -1.4
G06A                               IAmb     IAmb     01 00 34.1
      comp=Z,58nm,1.9s
SUMG  Summit            48.36   7  P        P        00 59 57.8 -1.5
SUMG                               pmax     pmax
      comp=Z,51nm,1.1s
SUMG  Summit            48.36   7  P        P        00 59 57.8 -1.5
SUMG                               IAmb     IAmb     01 00 34.0
      comp=Z,50nm,1.1s
GYA   Guiyang           48.40 251  P        P        01 00 00.8 +1.0
GYA                                PP       PP       01 01 54.9 +2.7
GYA                                S        S        01 07 05.6 +5.1
GYA                                SS       SS       01 10 20.5 -9.3
GYA                                pmax     pmax
      comp=Z,130nm,0.9s
GYA                                pmax     pmax
      comp=Z,990nm,5.0s
GYA                                L        L
      comp=Z,4µm,16.2s
GYA                                L        L
      comp=Z,4µm,12.0s
GYA                                L        L
      comp=Z,6µm,13.3s
I04A  Tendick Farm,     48.47  72  P        P        00 59 58.8 -1.3
I04A                               IAmb     IAmb     01 00 14.3
      comp=Z,25nm,1.1s
LDM   Libby Dam         48.48  62  P        P        00 59 58.5 -1.6
YPT   Yellepit          48.51  67  P        P        00 59 59.1 -1.2
YPT                                IAmb     IAmb     01 00 10.9
      comp=Z,38nm,1.3s
TDK   Taldyqorghan      48.51 291 eP        P        01 00 01.3 +0.9
      comp=Z,12nm,0.9s
TDK                               eS        S        01 07 01.0 -0.5
TDK                                LR       LR       01 20 49.8
      comp=Z,4µm,12.7s
JETT  Jettan, Norway    48.53 342 eP        P        01 00 00.2 +0.1
KTK1  Kautokeino        48.53 340 eP        P        01 00 00.1 -0.1
E09A  Wood Farm, Sta    48.56  66  P        P        00 59 59.9 -0.8
E09A                               IAmb     IAmb     01 00 11.3
      comp=Z,52nm,1.3s
WIFE  Three Sisters-    48.57  71  P        P        00 59 59.7 -1.3
WIFE                               IAmb     IAmb     01 00 12.7
      comp=Z,24nm,1.0s
I05D  Terrebonne, OR    48.60  70  P        P        00 59 59.7 -1.4
I05D                               IAmb     IAmb     01 00 37.2
      comp=Z,69nm,1.8s
TRO   Tromso            48.69 343 eP        P        01 00 02.0 +0.6
LNOR  Lincton Mounta    48.96  67  P        P        01 00 03.0 -0.9
ARTI  Arti              48.97 314  P        P        01 00 03.4 -0.2
      comp=Z,58nm,1.1s,baz=54,slow=4.1,SNR=54
ARTI                               LR       LR       01 22 59.8
      comp=Z,7µm,18.3s,baz=42,slow=39
      comp=Z,58nm,1.1s
ARTI  Arti              48.97 314 eP        P        01 00 04.1 +0.5
ARTI                               pmax     pmax
      comp=Z,56nm,1.1s
ARTI  Arti              48.97 314  P        P        01 00 03.2 -0.5
BBOR  Butler Butte      49.00  73  P        P        01 00 02.9 -1.5
J04A  Umpqua Nationa    49.02  72  P        P        01 00 02.9 -1.6
G08A  Pilot Rock        49.06  68  P        P        01 00 02.2 -2.5
L02F  Cave Junction     49.12  74  P        P        01 00 03.8 -1.3
L02F                               IAmb     IAmb     01 00 16.5
      comp=Z,39nm,1.4s
KSXB  Camp Six Broad    49.19  74  P        P        01 00 04.8 -0.9
KSXB                               IAmb     IAmb     01 00 36.5
      comp=Z,73nm,1.4s
KSXB                               IAMs_20  IAMs_20  01 17 28.0
      comp=Z,5µm,21.0s
PINE  Pine Mountain     49.20  70  P        P        01 00 05.3 -0.5
PINE                               IAmb     IAmb     01 00 17.8
      comp=Z,45nm,1.0s
PDGK  Podgornoye        49.21 289  P        P        01 00 05.4 -0.4
SHLS  Shalkode          49.35 289 eP        P        01 00 06.1 -0.8
      comp=Z,27nm,1.0s
F10A  Beach Ranch, E    49.39  66  P        P        01 00 06.7 -0.5
F10A                               IAmb     IAmb     01 00 17.9
      comp=Z,32nm,1.1s
KRMB  Red Mountain      49.40  75  P        P        01 00 05.2 -2.1
KRMB                               IAMs_20  IAMs_20  01 17 20.6
      comp=Z,4µm,22.0s
JTMT  Jette             49.48  62  P        P        01 00 07.9  0.0
KPKS  Kokpek            49.50 289 eP        P        01 00 09.0 +1.0
UZB   Uzynbulak         49.57 289 eP        P        01 00 08.7  0.0
UZB                                pmax     pmax
      comp=Z,25nm,1.3s
UZB   Uzynbulak         49.57 289⇓iP        P        01 00 09.6 +0.9
      comp=Z,27nm,1.3s
K04D  Chiloquin, OR     49.66  72  P        P        01 00 08.0 -1.3
L04D  Klamath Falls     49.68  73  P        P        01 00 09.4 -0.1
L04D                               IAmb     IAmb     01 00 21.3
      comp=Z,55nm,1.0s
YBH   Yreka Blue Hor    49.84  74  LR       LR       01 18 37.3
      comp=Z,5µm,21.4s,baz=312,slow=33
YBH   Yreka Blue Hor    49.84  74  P        P        01 00 09.7 -1.0
YBH                                pmax     pmax
      comp=Z,24nm,1.3s
YBH   Yreka Blue Hor    49.84  74  P        P        01 00 09.7 -1.0
JCC   Jacoby Creek,     49.86  75  IAMs_20  IAMs_20  01 21 16.9
      comp=Z,3µm,18.0s
KHMM  Horse Mountain    49.97  75  P        P        01 00 10.5 -1.2
KHMM                               IAmb     IAmb     01 00 24.1
      comp=Z,54nm,1.1s
KHMM                               IAMs_20  IAMs_20  01 21 30.7
      comp=Z,4µm,18.0s
K05A  Summer Lake       50.01  71  P        P        01 00 10.9 -1.1
M02C  Callahan          50.02  74  P        P        01 00 10.4 -1.6
M02C                               IAMs_20  IAMs_20  01 18 08.2
      comp=Z,5µm,22.0s
MSF   Maaselka          50.10 336  P        P        01 00 12.6 +0.4
MSF   Maaselka          50.10 336  P        P        01 00 12.6 +0.4
      comp=Z,49nm,2.1s
BMO   Blue Mountains    50.18  67  P        P        01 00 12.8 -0.4
BMO                                pmax     pmax
      comp=Z,21nm,1.1s
BMO   Blue Mountains    50.18  67  P        P        01 00 12.8 -0.4
BMO                                IAMs_20  IAMs_20  01 20 40.3
      comp=Z,5µm,21.0s
MSO   Missoula          50.31  63  P        P        01 00 13.4 -0.7
MSO                                IAMs_20  IAMs_20  01 24 24.8
      comp=Z,6µm,21.0s
KUU   Kurty             50.33 291 eP        P        01 00 15.2 +1.0
KUU                                LR       LR       01 21 54.5
      comp=Z,2µm,12.1s
PRZ   Przheval'sk       50.37 289  P        P        01 00 14.8  0.0
PRZ                                pmax     pmax
      comp=Z,69nm,1.2s
PRZ   Przheval'sk       50.37 289  P        P        01 00 14.8  0.0
PRZ                                IAmb     IAmb     01 00 18.3
      comp=Z,69nm,1.2s
KHBM  Hayfork Bally     50.39  75  IAMs_20  IAMs_20  01 17 49.8
      comp=Z,4µm,22.0s
KMRM  Mail Ridge        50.47  76  P        P        01 00 14.2 -1.3
KMRM                               IAmb     IAmb     01 00 27.3
      comp=Z,56nm,1.3s
M03C  McCloud           50.48  74  P        P        01 00 15.0 -0.4
M03C                               IAmb     IAmb     01 00 37.2
      comp=Z,40nm,1.3s
KIRV  Kirov             50.49 320  P        P        01 00 15.4 +0.2
      comp=Z,21nm,0.7s,baz=1.6,slow=1.7,SNR=17
KIRV                               LR       LR       01 25 19.6
      comp=Z,8µm,18.3s,baz=36,slow=40
      comp=Z,21nm,0.7s
KIRV  Kirov             50.49 320⇑iP        P        01 00 15.8 +0.6
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MDOK  Medeo             50.53 290 eP        P        01 00 16.6 +0.7
MDOK                              eS        S        01 07 29.3 -0.8
MDOK                               LR       LR       01 22 02.9
      comp=Z,1µm,12.0s
AAA   Alma-Ata          50.56 290 eP        P        01 00 17.0 +0.9
      comp=Z,37nm,1.0s
AAA                                LR       LR       01 22 02.9
      comp=Z,6µm,15.5s
BTLS  Baital            50.58 294 eP        P        01 00 17.1 +1.0
BTLS                               pmax     pmax
      comp=Z,5.0nm,0.7s
BTLS  Baital            50.58 294 eP        P        01 00 17.1 +1.0
BTLS                              eS        S        01 07 30.0 -0.4
PLID  Pearl Lake        50.63  66  P        P        01 00 16.2 -0.5
PLID                               IAmb     IAmb     01 00 27.4
      comp=Z,45nm,1.4s
PLID                               IAMs_20  IAMs_20  01 24 35.2
      comp=Z,5µm,20.0s
TNSS  Tian-Shan         50.67 290 eP        P        01 00 17.7 +0.4
J08A  Circle Bar Ran    50.72  69  P        P        01 00 16.8 -0.6
STEI  Steigen           50.81 343 eP        P        01 00 17.4 -0.1
PZH   PanZhiHua         50.83 256  P        P        01 00 19.1 +0.8
PZH                                S        S        01 07 35.6 +1.2
PZH                                pmax     pmax
      comp=Z,70nm,1.2s
PZH                                L        L
      comp=Z,3µm,15.2s
PZH                                L        L
      comp=Z,2µm,13.1s
PZH                                L        L
      comp=Z,3µm,15.5s
LOF   Lofoten           50.87 344 eP        P        01 00 17.8 -0.1
MOD   Modoc Plateau     50.91  72  P        P        01 00 18.6 -0.2
MOD                                IAMs_20  IAMs_20  01 21 38.7
      comp=Z,4µm,20.0s
WUS   Wushi             50.93 287  P        P        01 00 19.8 +0.8
      comp=Z,895nmcomp=Z,55nm,1.5s
KCPM  Cahto Peak        50.94  76  P        P        01 00 16.8 -2.2
KCPM                               IAmb     IAmb     01 00 18.7
      comp=Z,55nm,1.3s
KCPM                               IAMs_20  IAMs_20  01 22 22.4
      comp=Z,3µm,18.0s
LYMT  Lyon Mountain     50.96  62  P        P        01 00 19.4 +0.2
O02D  Mt. Diablo Mer    50.97  75  P        P        01 00 18.6 -0.6
O02D                               IAMs_20  IAMs_20  01 18 20.2
      comp=Z,4µm,22.0s
HATC  Hat Creek Radi    51.15  73  P        P        01 00 20.0 -0.6
HATC                               IAmb     IAmb     01 00 35.1
      comp=Z,68nm,1.3s
HATC                               IAMs_20  IAMs_20  01 18 57.0
      comp=Z,5µm,21.0s
KDJ   Kajisay           51.24 289  P        P        01 00 21.1 -0.2
KDJ                                pmax     pmax
      comp=Z,43nm,1.2s
KDJ   Kajisay           51.24 289  P        P        01 00 21.1 -0.2
KDJ                                IAmb     IAmb     01 00 24.1
      comp=Z,43nm,1.2s
FAUS  Fauske            51.31 343 eP        P        01 00 21.4 +0.2
EGMT  Eagleton          51.33  59  P        P        01 00 21.5 -0.2
EGMT                               IAmb     IAmb     01 00 29.5
      comp=Z,30nm,0.9s
WVOR  Wild Horse Val    51.33  70  P        P        01 00 21.6 -0.3
WVOR                               pmax     pmax
      comp=Z,25nm,0.9s
WVOR  Wild Horse Val    51.33  70  P        P        01 00 21.6 -0.3
WVOR  Wild Horse Val    51.33  70  P        P        01 00 23.1 +1.2
      comp=Z,634nmcomp=Z,31nm,0.9s
O03E  Paynes Creek      51.38  74  P        P        01 00 20.7 -1.5
O03E                               IAmb     IAmb     01 00 33.6
      comp=Z,47nm,1.1s
TKM2  Tokmak 2          51.42 291  P        P        01 00 22.7 +0.1
      SNR=18
KMI2  Kunming           51.44 254 ⇓P        P        01 00 24.2 +1.2
KMI2                               sP       sP       01 00 29.5 +3.0
KMI2                               S        S        01 07 43.7 +0.6
KMI2                               SS       SS       01 11 14.9 -3.7
KMI2                               pmax     pmax
      comp=Z,72nm,1.2s
KMI2                               pmax     pmax
      comp=Z,460nm,5.4s
KMI2                               L        L
      comp=Z,4µm,13.6s
KMI2                               L        L
      comp=Z,4µm,14.3s
KMI2                               L        L
      comp=Z,4µm,14.1s
OUL   Oulu              51.47 337  P        P        01 00 21.9 -0.6
OUL   Oulu              51.47 337  P        P        01 00 21.9 -0.6
      comp=Z,31nm,1.0s
SGDS  Sogindy           51.49 292⇓iP        P        01 00 23.9 +0.8
      comp=Z,30nm,1.5s
BUT   Butte             51.55  63  P        P        01 00 23.1 -0.5
BOOM  Boomskoye usch    51.57 290  P        P        01 00 23.8  0.0
BOOM                               pmax     pmax
      comp=Z,56nm,1.2s
BOOM  Boomskoye usch    51.57 290  P        P        01 00 23.8  0.0
BOOM                               IAmb     IAmb     01 00 26.9
      comp=Z,56nm,1.2s
ULHL  Ulahol            51.61 290  P        P        01 00 24.0 -0.1
      SNR=6.2
USP   Ospenovka         51.69 292  P        P        01 00 24.9 +0.4
      SNR=47
CHMS  Chumysh           51.77 292  P        P        01 00 27.3 +2.2
      SNR=22
PATS  Pohnpei           51.84 181  P        P        01 00 27.7 +2.0
      comp=Z,124nm,1.5s
PATS  Pohnpei           51.84 181  P        P        01 00 24.1 -1.7
KBK   Karagaybulak      51.93 291  P        P        01 00 28.7 +2.2
      SNR=12
MFID  Camas Ranch       51.96  67  P        P        01 00 26.6  0.0
MFID                               IAMs_20  IAMs_20  01 21 34.4
      comp=Z,5µm,21.0s
FRU1  Bishkek           51.97 292  P        P        01 00 26.7 +0.1
FRU1                               pmax     pmax
      comp=Z,56nm,1.1s
FRU1  Bishkek           51.97 292  P        P        01 00 26.7 +0.1
FRU1                               IAmb     IAmb     01 00 29.8
      comp=Z,56nm,1.1s
DLMT  Dillon            52.02  63  P        P        01 00 26.4 -0.7
DLMT                               IAMs_20  IAMs_20  01 24 08.2
      comp=Z,4µm,21.0s
ORV   Oroville          52.09  75  P        P        01 00 26.7 -0.8
ORV                                pmax     pmax
      comp=Z,26nm,1.6s
ORV   Oroville          52.09  75  P        P        01 00 26.6 -0.8
AAK   Ala-Archa         52.16 292  LR       LR       01 22 10.5
      comp=Z,2µm,18.9s,baz=32,slow=36
AAK   Ala-Archa         52.16 292  P        P        01 00 28.8 +0.6
      SNR=17
AAK   Ala-Archa         52.16 292  P        P        01 00 29.4 +1.2
AAK                                S        S        01 07 53.4 +0.7
AAK   Ala-Archa         52.16 292 i P       P        01 00 28.3 +0.1
AAK                                pmax     pmax
      comp=Z,37nm,1.1s
AAK   Ala-Archa         52.16 292  P        P        01 00 27.6 -0.6
AAK                                IAmb     IAmb     01 00 31.1
      comp=Z,46nm,1.1s
AAK   Ala-Archa         52.16 292 i P       P        01 00 28.8 +0.6
      SNR=17
AAK   Ala-Archa         52.16 292  P        P        01 00 28.8 +0.6
      comp=Z,763nmcomp=Z,50nm,1.4s,comp=Z,763nm
SUTB  Sutter Butte      52.19  75  P        P        01 00 26.2 -2.0
VAGH  Vaagaholmen       52.22 344 eP        P        01 00 28.4 +0.4
BOZ   Bozeman (W)       52.30  63  P        P        01 00 28.5 -0.6
BOZ                                pmax     pmax
      comp=Z,78nm,1.9s
BOZ   Bozeman (W)       52.30  63  P        P        01 00 28.5 -0.6
BOZ                                IAmb     IAmb     01 00 33.0
      comp=Z,78nm,1.9s
MCMT  McKenzie Canyo    52.31  64  P        P        01 00 28.7 -0.6
RAUS  Rausandaksla      52.37 343 eP        P        01 00 30.2 +1.0
BEKR  Beckworth         52.42  73  P        P        01 00 29.5 -0.6
BCYI  Bear Canyon       52.44  65  P        P        01 00 29.1 -1.1
KONS  Konsvik           52.45 343 eP        P        01 00 29.8 +0.1
UCH   Uchtor            52.47 291  P        P        01 00 33.0 +2.2
      SNR=15
ASAI  AK-SAY(Kyrgyzs    52.48 289  P        P        01 00 31.6 +0.9
      comp=Z,727nmcomp=Z,54nm,1.5s,comp=Z,727nm
EKS2  Erkin-Say         52.49 292  P        P        01 00 31.1 +0.5
      SNR=37
HLID  Hailey            52.52  66  P        P        01 00 29.5 -1.3
HLID  Hailey            52.52  66  P        P        01 00 31.7 +0.8
      comp=Z,11nm,1.2s
FRB   Frobisher Bay     52.54  24  LR       LR       01 26 14.6
      comp=Z,3µm,18.1s,baz=312,slow=40
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MOR8  Moi Rana          52.56 343 eP        P        01 00 30.0 -0.6
SFJD  Kangerlussuaq     52.62  14  IAMs_20  IAMs_20  01 25 47.3
      comp=Z,5µm,19.0s
AFDM  Forest Hills D    52.81  75  P        P        01 00 31.7 -1.2
LEIR  Leirfjorden       52.82 343 eP        P        01 00 33.0 +0.6
QLMT  Earthquake Lak    52.97  63  P        P        01 00 33.8 -0.4
PAHR  Pah Rah Range     53.03  73  P        P        01 00 32.0 -2.6
GCMT  Greycliff         53.05  61  P        P        01 00 34.2 -0.4
YHL   Hebgen Lake       53.07  63  P        P        01 00 34.2 -0.8
YHB   Horse Butte       53.14  63  P        P        01 00 34.5 -1.0
QIZ   Qiongzhong        53.19 243  P        P        01 00 37.1 +1.3
QIZ                                S        S        01 08 06.8 +0.1
QIZ                                pmax     pmax
      comp=Z,28nm,1.1s
QIZ                                pmax     pmax
      comp=Z,200nm,7.5s
QIZ                                L        L
      comp=Z,2µm,18.6s
QIZ                                L        L
      comp=Z,4µm,17.2s
QIZ                                L        L
      comp=Z,4µm,12.3s
QIZ   Qiongzhong        53.19 243  P        P        01 00 35.9 +0.1
QIZ                                IAmb     IAmb     01 00 39.1
      comp=Z,76nm,1.4s
QIZ   Qiongzhong        53.19 243  P        P        01 00 37.9 +2.1
      comp=Z,605nmcomp=Z,37nm,1.7s
YHH   Holmes Hill       53.27  63  P        P        01 00 36.2 -0.3
YMR   Madison River     53.30  63  P        P        01 00 36.4 -0.3
YMR                                IAmb     IAmb     01 00 48.0
      comp=Z,72nm,1.5s
WELL  Weller Preserv    53.33  75  IAMs_20  IAMs_20  01 23 37.6
      comp=Z,3µm,18.0s
YNM   Yellowstone No    53.38  63  P        P        01 00 37.2 -0.1
PNTR  Pine Nut          53.39  73  P        P        01 00 37.1 -0.3
YNR   Norris Junctio    53.40  63  P        P        01 00 36.7 -0.7
YNR                                IAmb     IAmb     01 00 53.1
      comp=Z,58nm,1.5s
YNE   Yellowstone No    53.49  62  P        P        01 00 36.4 -1.6
YNE                                IAmb     IAmb     01 00 49.2
      comp=Z,35nm,1.2s
DZA   Taraz             53.49 294 eP        P        01 00 38.8 +1.0
YFT   Old Faithful      53.53  63  P        P        01 00 36.7 -1.6
YFT                                IAmb     IAmb     01 00 42.6
      comp=Z,39nm,1.3s
BMN   Battle Mountai    53.54  71  P        P        01 00 37.7 -0.7
AKTO  Aktyubinsk        53.61 309  P        P        01 00 38.4 -0.1
      comp=Z,33nm,0.9s,baz=28,slow=5.5,SNR=77
AKTO                               LR       LR       01 26 25.0
      comp=Z,5µm,18.5s,baz=33,slow=39
      comp=Z,33nm,0.9s
AKTO  Aktyubinsk        53.61 309 i P       P        01 00 38.7 +0.2
AKTO                               pmax     pmax
      comp=Z,32nm,1.0s
YMP   Mirror Lake Pl    53.62  62  P        P        01 00 39.0 -0.1
YMP                                IAmb     IAmb     01 00 56.5
      comp=Z,56nm,1.3s
LKWY  Lake              53.65  63  P        P        01 00 37.3 -1.9
LKWY                               IAmb     IAmb     01 00 56.8
      comp=Z,35nm,1.1s
YERR  Yerington         53.65  73  P        P        01 00 38.7 -0.5
YERR                               IAmb     IAmb     01 00 50.8
      comp=Z,35nm,1.2s
TNCH  TengChong         53.67 258  P        P        01 00 41.2 +1.6
TNCH                               S        S        01 08 13.1 -0.5
TNCH                               pmax     pmax
      comp=Z,79nm,1.1s
TNCH                               pmax     pmax
      comp=Z,280nm,4.1s
TNCH                               L        L
      comp=Z,3µm,14.2s
TNCH                               L        L
      comp=Z,2µm,14.7s
TNCH                               L        L
      comp=Z,4µm,13.2s
YPP   Pitchstone Pla    53.68  63  P        P        01 00 38.2 -1.3
LSA   Lhasa             53.69 268  P        P        01 00 39.4 -0.6
LSA                                pmax     pmax
      comp=Z,24nm,0.9s
LSA   Lhasa             53.69 268  P        P        01 00 39.4 -0.6
LSA                                IAmb     IAmb     01 00 42.1
      comp=Z,24nm,0.9s
LSA                                IAMs_20  IAMs_20  01 25 27.6
      comp=Z,3µm,20.0s
LSA   Lhasa             53.69 268  P        P        01 00 41.6 +1.6
      comp=Z,584nmcomp=Z,38nm,1.5s
MHC   Mount Hamilton    53.71  76  P        P        01 00 38.9 -0.7
KK31  Karatay Array     53.72 295 i P       P        01 00 39.6 +0.1
KK31                               pmax     pmax
      comp=Z,62nm,0.9s
KK31  Karatay Array     53.72 295  P        P        01 00 39.1 -0.3
KKAR  Karatay Array     53.72 295  P        P        01 00 38.6 -0.9
AB31  Akbulak array     53.73 307 i P       P        01 00 39.4  0.0
AB31                               pmax     pmax
      comp=Z,11nm,0.6s
AB31  Akbulak array     53.73 307  P        P        01 00 39.0 -0.4
AB31                               IAmb     IAmb     01 00 41.4
      comp=Z,26nm,1.0s
ABKAR Akbulak array     53.73 307  P        P        01 00 38.7 -0.7
RLMT  Red Lodge         53.74  61  P        P        01 00 40.0 +0.1
RLMT                               IAmb     IAmb     01 00 55.2
      comp=Z,53nm,1.2s
CMB   Columbia Colle    53.81  75  P        P        01 00 39.1 -1.1
CMB                                pmax     pmax
      comp=Z,46nm,1.9s
CMB   Columbia Colle    53.81  75  P        P        01 00 39.1 -1.1
CMB                                IAmb     IAmb     01 01 37.9
      comp=Z,46nm,1.9s
ARSB  Arslanbob         53.90 292  P        P        01 00 40.4 -0.5
ARSB                               IAmb     IAmb     01 00 45.3
      comp=Z,24nm,0.9s
LAO   LASA Array        53.91  58  P        P        01 00 39.6 -1.2
LAO                                IAmb     IAmb     01 00 44.0
      comp=Z,45nm,1.2s
LAO                                IAMs_20  IAMs_20  01 23 41.2
      comp=Z,5µm,19.0s
WAKR  Walker            53.92  74  P        P        01 00 40.1 -1.2
SLVN  Son La            54.06 251  P        P        01 00 42.9 +0.6
SLVN                               IAmb     IAmb     01 00 45.1
      comp=Z,63nm,1.3s
SLVN  Son La            54.06 251  P        P        01 00 44.0 +1.7
FXWY  Fox Creek         54.06  64  P        P        01 00 42.1 -0.2
FXWY                               IAMs_20  IAMs_20  01 26 59.2
      comp=Z,3µm,18.0s
BRLS  Borolday          54.09 295 eP        P        01 00 44.0 +1.8
BRLS                               pmax     pmax
      comp=Z,21nm,1.5s
BRLS  Borolday          54.09 295⇓iP        P        01 00 45.1 +2.9
FORD  Fort Ord Natur    54.15  77  P        P        01 00 42.3 -0.3
KVN   Kaiserville       54.17  72  P        P        01 00 42.5 -0.5
KVN                                pmax     pmax
      comp=Z,61nm,2.0s
KVN   Kaiserville       54.17  72  P        P        01 00 42.5 -0.5
KVN                                IAmb     IAmb     01 00 47.4
      comp=Z,60nm,2.0s
SAO   San Andreas Ge    54.26  77  P        P        01 00 42.7 -0.7
SAO                                pmax     pmax
      comp=Z,19nm,0.9s
SAO   San Andreas Ge    54.26  77  P        P        01 00 42.7 -0.7
ELK   Elko              54.27  69  LR       LR       01 23 18.0
      comp=Z,4µm,20.4s,baz=332,slow=35
ELK   Elko              54.27  69  P        P        01 00 42.9 -0.9
ELK                                pmax     pmax
      comp=Z,18nm,1.0s
ELK   Elko              54.27  69  P        P        01 00 42.9 -0.9
ELK                                IAMs_20  IAMs_20  01 22 55.6
      comp=Z,4µm,21.0s
LOHW  Long Hollow       54.28  63  P        P        01 00 43.4 -0.4
KSH2  Kashi             54.30 288  P        P        01 00 44.5 +0.5
KSH2                               sP       sP       01 00 56.9 +9.5
KSH2                               pmax     pmax
      comp=Z,42nm,1.4s
KSH2                               pmax     pmax
      comp=Z,380nm,7.2s
KSH2                               L        L
      comp=Z,6µm,14.2s
KSH2                               L        L
      comp=Z,11µm,14.6s
KSH2                               L        L
      comp=Z,8µm,12.4s
SNOW  Snow King Moun    54.32  64  P        P        01 00 43.2 -1.0
SNOW                               IAMs_20  IAMs_20  01 26 03.1
      comp=Z,4µm,20.0s
NSS   Namsos            54.47 343 eP        P        01 00 45.3 +0.7
NVAR  Mina Array Bea    54.55  73  P        P        01 00 46.3 +0.4
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      comp=Z,12nm,0.9s,baz=303,slow=7.1,SNR=34
NVAR                                LR      LR       01 21 32.9
      comp=Z,4μm,21.8s,baz=338,slow=33
      comp=Z,12nm,0.9s
NVAR  Mina Array Bea  54.55  73     P       P        01 00 45.7 -0.1
LHV   Little Huntoon  54.59  73     P       P        01 00 46.3 +0.6
LHV                                 IAmb    IAmb     01 01 01.9
      comp=Z,49nm,1.1s
BBGB  Big Mountain B  54.60  77     P       P        01 00 45.4 -0.7
NV11  Mina Array Sit  54.62  73     P       P        01 00 45.1 -1.2
NV11                                IAmb    IAmb     01 00 57.9
      comp=Z,27nm,1.1s
FIA1  FINESS Array S  54.65 334     P       P        01 00 45.5 -0.4
FINES FINESS Array B  54.65 334     P       P        01 00 45.6 -0.4
      comp=Z,20nm,0.7s,baz=24,slow=5.0,SNR=46
FINES                               LR      LR       01 28 20.1
      comp=Z,2μm,18.0s,baz=26,slow=41
      comp=Z,20nm,0.7s
FINES FINESS Array B  54.65 334     eP      P        01 00 45.2 -0.7
FINES                               pmax    pmax
      comp=Z,20nm,0.7s
FINES FINESS Array B  54.65 334     P       P        01 00 45.3 -0.7
HVU   Hansel Valley   54.66  66     P       P        01 00 46.2 -0.4
HVU                                 pmax    pmax
      comp=Z,19nm,1.0s
HVU   Hansel Valley   54.66  66     P       P        01 00 46.2 -0.4
IUG   Iuzhnay         54.68 294     eP      P        01 00 47.1 +0.5
IUG                                 pmax    pmax
      comp=Z,89nm,1.3s
IUG   Iuzhnay         54.68 294⇓iP          P        01 00 47.6 +1.0
      comp=Z,37nm,1.1s
AHID  Auburn Hatcher  54.70  64     P       P        01 00 45.9 -1.0
AHID                                IAMs_20 IAMs_20  01 25 38.9
      comp=Z,4μm,20.0s
AHID  Auburn Hatcher  54.70  64     P       P        01 00 47.8 +1.0
      comp=Z,17nm,1.7s
CHM   Chimkent        54.75 295     eP      P        01 00 48.0 +1.0
      comp=Z,17nm,0.9s
CHM                                 LR      LR       01 24 35.3
      comp=Z,3μm,14.4s
MDPB  Devils Postpil  54.78  74     P       P        01 00 46.9 -0.6
MDPB                                IAmb    IAmb     01 00 59.5
      comp=Z,48nm,1.3s
Q09A  Carvers         54.79  72     P       P        01 00 46.4 -1.1
HULI  Fort Hunter Li  54.94  77     P       P        01 00 47.3 -1.1
HULI                                IAMs_20 IAMs_20  01 26 26.2
      comp=Z,3μm,18.0s
PMPB  Monarch Peak    55.01  77     P       P        01 00 46.8 -2.3
BGU   Big Grassy Mou  55.20  67     P       P        01 00 49.7 -0.8
TEZP  TEZPUR          55.32 265     eP      P        01 00 48.0 -3.2
PKD   Bear Valley Ra  55.35  77     P       P        01 00 50.9 -0.5
PKD                                 IAmb    IAmb     01 01 02.9
      comp=Z,38nm,1.2s
TPH   Tonopah         55.36  72     P       P        01 00 51.0 -0.7
TPH                                 IAmb    IAmb     01 01 03.7
      comp=Z,44nm,1.0s
HWUT  Hardware Ranch  55.37  66     P       P        01 00 51.5 -0.2
HWUT                                IAmb    IAmb     01 01 07.3
      comp=Z,33nm,1.1s
HWUT  Hardware Ranch  55.37  66     P       P        01 00 53.2 +1.5
      comp=Z,731nmcomp=Z,29nm,1.4s
BW06  Boulder Array   55.42  63     P       P        01 00 50.8 -1.3
BW06                                IAmb    IAmb     01 01 03.2
      comp=Z,32nm,1.3s
BW06                                IAMs_20 IAMs_20  01 27 31.0
      comp=Z,5μm,18.0s
PD31  Pinedale Array  55.42  63     P       P        01 00 51.4 -0.7
PDAR  Pinedale Array  55.42  63     P       P        01 00 52.4 +0.3
      comp=Z,9.0nm,0.9s,baz=330,slow=2.5,SNR=48
PDAR                                LR      LR       01 27 42.4
      comp=Z,3μm,18.4s,baz=332,slow=40
      comp=Z,9.0nm,0.9s
PDAR  Pinedale Array  55.42  63     P       P        01 00 51.2 -0.9
ULM   Lac du Bonnet   55.45  49     P       P        01 00 51.7 -0.2
      comp=Z,18nm,1.0s,baz=321,slow=4.3,SNR=10
ULM                                 LR      LR       01 24 58.5
      comp=Z,3μm,18.2s,baz=322,slow=36
      comp=Z,18nm,1.0s
ULM   Lac du Bonnet   55.45  49     P       P        01 00 51.4 -0.5
ULM                                 IAmb    IAmb     01 00 55.1
      comp=Z,50nm,1.3s
DSP   Deep Springs    55.53  74     P       P        01 00 53.2 +0.5
DSP                                 IAmb    IAmb     01 01 05.0
      comp=Z,33nm,1.1s
TIN   Tinemaha, Big   55.65  74     P       P        01 00 51.6 -2.1
TIN                                 pmax    pmax
      comp=Z,73nm,1.1s
TIN   Tinemaha, Big   55.65  74     P       P        01 00 51.6 -2.1
MDND  Maddock         55.85  53     P       P        01 00 53.8 -1.0
MDND                                IAMs_20 IAMs_20  01 25 19.5
      comp=Z,5μm,20.0s
DUG   Dugway, Tooele  55.87  68     P       P        01 00 53.8 -1.5
DUG                                 pmax    pmax
      comp=Z,47nm,1.3s
DUG   Dugway, Tooele  55.87  68     P       P        01 00 53.8 -1.5
DUG                                 IAmb    IAmb     01 01 06.9
      comp=Z,47nm,1.3s
DUG                                 IAMs_20 IAMs_20  01 26 56.9
      comp=Z,4μm,19.0s
DUG   Dugway, Tooele  55.87  68     P       P        01 00 56.2 +0.9
      comp=Z,571nmcomp=Z,29nm,1.3s
DRK   Karamyk         55.89 291     P       P        01 00 54.8 -0.8
DRK                                 pmax    pmax
      comp=Z,47nm,1.2s
DRK   Karamyk         55.89 291     P       P        01 00 54.8 -0.8
DRK                                 IAmb    IAmb     01 00 58.6
      comp=Z,47nm,1.2s
BTK   Batken          55.92 292     P       P        01 00 54.9 -0.6
BTK                                 pmax    pmax
      comp=Z,235nm,1.7s
BTK   Batken          55.92 292     P       P        01 00 54.9 -0.6
CTU   Camp Tracy      55.99  67     P       P        01 00 55.4 -0.8
BELG  Belogornoye     56.03 317     P       P        01 00 55.2 -0.8
      comp=Z,178nm,1.0s,baz=133,slow=1.2,SNR=40
BELG                                LR      LR       01 25 30.3
      comp=Z,3μm,21.6s,baz=40,slow=37
BELG  Belogornoye     56.03 317   i P       P        01 00 56.1 +0.1
BELG                                pmax    pmax
      comp=Z,31nm,1.0s
GRAC  Grapevine Rang  56.13  73     P       P        01 00 57.2 +0.2
GRAC                                IAmb    IAmb     01 01 13.0
      comp=Z,65nm,1.4s
VES   Vestal, Richgr  56.17  76     P       P        01 00 56.4 -0.8
VES                                 IAmb    IAmb     01 01 12.0
      comp=Z,66nm,1.3s
IMP   Imphal          56.18 262     eP      P        01 00 55.6 -2.0
IMP                                 IAmb    IAmb     01 00 57.9
      comp=Z,18nm,1.2s
CWC   Cottonwood Cre  56.20  74     P       P        01 00 56.8 -0.9
CWC                                 IAMs_20 IAMs_20  01 23 42.7
      comp=Z,3μm,21.0s
E28A  Huff            56.39  55     P       P        01 00 59.5 +0.7
NLU   North Lily Min  56.41  67     P       P        01 00 59.8 +0.6
NLU                                 IAmb    IAmb     01 01 02.6
      comp=Z,26nm,1.0s
ARBE  Arbavere        56.46 333     P       P        01 00 59.2 +0.3
      comp=Z,200nm,0.9s
MOS   Moscow          56.56 325     eP      P        01 00 59.9 +0.2
MOS                                 eS      S        01 08 53.1 +2.0
MOS                                 pmax    pmax
      comp=Z,66nm,1.4s
MOS                                 pmax    pmax
      comp=N,51nm,1.0s
MPU   Maple Canyon    56.58  67     P       P        01 01 00.2 -0.2
MPU                                 IAmb    IAmb     01 01 09.2
      comp=Z,37nm,1.3s
BSUT  Blindstream Ca  56.59  66     P       P        01 01 01.0 +0.4
BSUT                                IAmb    IAmb     01 01 12.5
      comp=Z,66nm,1.3s
ISA   Isabella, Lake  56.62  75     P       P        01 01 00.0 -0.5
ISA                                 pmax    pmax
      comp=Z,13nm,1.1s
ISA   Isabella, Lake  56.62  75     P       P        01 01 00.0 -0.5
WCT   Wildcat Mounta  56.66  73     P       P        01 01 00.3 -0.5
PSUT  Pine Spring     56.66  70     P       P        01 01 00.3 -0.7
PSUT                                IAmb    IAmb     01 01 16.4
      comp=Z,25nm,0.9s
TPNV  Topopah Spring  56.72  73     P       P        01 01 00.8 -0.6
TPNV                                pmax    pmax
      comp=Z,28nm,1.0s
TPNV  Topopah Spring  56.72  73     P       P        01 01 00.8 -0.6
TPNV                                IAmb    IAmb     01 01 13.1
      comp=Z,28nm,0.9s
TPNV                                IAMs_20 IAMs_20  01 22 28.4
      comp=Z,3μm,22.0s
EPLO  Experimental L  56.75  48     P       P        01 01 00.3 -0.9
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FURC  Furnace Creek,  56.79  73     P       P        01 01 02.2 +0.6
FURC                                IAmb    IAmb     01 01 17.4
      comp=Z,48nm,1.3s
FURC                                IAMs_20 IAMs_20  01 24 23.3
      comp=Z,3μm,21.0s
MPMC  Manual Prospec  56.80  74     P       P        01 01 01.1 -0.9
MPMC                                IAMs_20 IAMs_20  01 24 11.5
      comp=Z,3μm,20.0s
RSSD  Black Hills     56.88  59     P       P        01 01 02.2 -0.3
RSSD                                pmax    pmax
      comp=Z,46nm,1.3s
RSSD                                MLR     MLR
      comp=Z,4μm,20.0s
RSSD  Black Hills     56.88  59     P       P        01 01 02.2 -0.3
RSSD                                IAmb    IAmb     01 01 13.4
      comp=Z,46nm,1.2s
RSSD  Black Hills     56.88  59     IAMs_20 IAMs_20  01 25 16.6
      comp=Z,4μm,20.0s
RSSD  Black Hills     56.88  59     P       P        01 01 03.3 +0.9
      comp=Z,37nm,1.4s
K22A  Casper          56.91  61     P       P        01 01 02.4 -0.2
CLC   China Lake      56.94  74     P       P        01 01 02.8  0.0
CLC                                 pmax    pmax
      comp=Z,23nm,1.2s
CLC   China Lake      56.94  74     P       P        01 01 02.8  0.0
PRN   Pahroc Range    56.95  71     P       P        01 01 03.4 +0.3
PRN                                 IAmb    IAmb     01 01 15.4
      comp=Z,41nm,1.0s
MOL   Molde           56.97 345     eP      P        01 01 02.7 +0.1
AGMN  Agassiz Nation  57.02  50     P       P        01 01 02.7 -0.4
AGMN                                IAMs_20 IAMs_20  01 29 24.4
      comp=Z,4μm,18.0s
AGMN  Agassiz Nation  57.02  50     P       P        01 01 03.6 +0.5
      comp=Z,32nm,1.2s
GWY   Greenwater Val  57.11  73     P       P        01 01 03.9 -0.2
GWY                                 IAmb    IAmb     01 01 19.6
      comp=Z,51nm,1.6s
RDMU  Red Mountain    57.12  65     P       P        01 01 04.3  0.0
RDMU                                IAmb    IAmb     01 01 09.3
      comp=Z,25nm,0.9s
VSU   Vasula          57.15 332⇓iP          P        01 01 03.1 -0.7
VSU                                 pmax    pmax
      comp=Z,48nm,1.0s
VSU   Vasula          57.15 332     P       P        01 01 03.3 -0.6
      comp=Z,64nm,1.0s
LRMC  Laurel Mtn Rad  57.16  75     P       P        01 01 03.9 -0.6
QSM   Queen of Sheba  57.18  74     P       P        01 01 04.0 -0.5
QSM                                 IAmb    IAmb     01 01 16.8
      comp=Z,25nm,1.0s
DOMB  Dombas          57.26 344     eP      P        01 01 04.2 -0.5
CCCA  Chr Cany lake   57.28  75     P       P        01 01 03.9 -1.3
CCCA                                IAmb    IAmb     01 01 20.1
      comp=Z,47nm,1.3s
TCRU  Three Creeks R  57.28  69     P       P        01 01 04.5 -1.0
TCRU                                IAmb    IAmb     01 01 20.9
      comp=Z,55nm,1.3s
ALCI  Alchi Leh       57.34 283     eP      P        01 01 02.8 -3.2
ALCI                                IAmb    IAmb     01 01 07.8
      comp=Z,15nm,0.4s
TMUT  Trail Mountain  57.34  67     P       P        01 01 04.7 -1.3
TMUT                                IAmb    IAmb     01 01 17.6
      comp=Z,36nm,1.1s
EVN   Everest         57.35 271     P       P        01 01 05.3 -1.2
EVN                                 IAmb    IAmb     01 01 11.1
      comp=Z,34nm,1.0s
EVN   Everest         57.35 271     P       P        01 01 07.0 +0.5
      comp=Z,457nmcomp=Z,32nm,1.2s
TPO   Tropico Hills   57.35  76     P       P        01 01 05.0 -0.8
OBN   Obninsk         57.41 325     P       P        01 01 05.1 -0.6
      comp=Z,26nm,0.8s,baz=25,slow=1.3,SNR=17
OBN                                 LR      LR       01 28 07.9
      comp=Z,2μm,18.3s,baz=25,slow=38
      comp=Z,26nm,0.8s
OBN   Obninsk         57.41 325deP          P        01 01 03.6 -2.1
OBN                                 e                01 02 00.1
OBN                                 e                01 03 17.4
OBN                                 ePPP    PPP      01 04 33.7
OBN                                 i S     S        01 09 19.3 +17
OBN                                 i SS    SS       01 12 47.5 -3.4
OBN                                 pmax    pmax
      comp=Z,92nm,1.7s
OBN                                 MLR     MLR
      comp=Z,4μm,17.0s
OBN   Obninsk         57.41 325     P       P        01 01 05.4 -0.3
OBN                                 IAMs_20 IAMs_20  01 28 44.4
      comp=Z,3μm,22.0s
OBN   Obninsk         57.41 325     P       P        01 01 05.1 -0.6
      comp=Z,1μmcomp=Z,63nm,1.6s
OBN   Obninsk         57.41 325     P       P        01 01 06.1 +0.4
      comp=Z,1μmcomp=Z,64nm,1.6s,comp=Z,1μm
AKN   Aaknes          57.42 345     eP      P        01 01 06.1 +0.3
P17A  Butcher Ranch,  57.43  67     P       P        01 01 05.8 -0.6
P17A                                IAmb    IAmb     01 01 18.0
      comp=Z,43nm,1.3s
JPG   JALPAIGURI      57.50 268     eP      P        01 01 04.9 -1.8
JPG                                 IAmb    IAmb     01 01 08.0
      comp=Z,19nm,0.3s
SHOC  Shoshone, Teco  57.53  73     P       P        01 01 07.4 +0.5
SHOC                                IAMs_20 IAMs_20  01 25 34.9
      comp=Z,3μm,21.0s
P18A  Preston Nutter  57.54  66     P       P        01 01 06.8 -0.6
P18A                                IAmb    IAmb     01 01 19.1
      comp=Z,77nm,1.6s
DAV   Davao City (W)  57.59 220     LR      LR       01 28 17.9
      comp=Z,627nm,18.6s,baz=46,slow=39
Q16A  Castle Valley   57.66  67     P       P        01 01 08.3 +0.3
Q16A                                IAmb    IAmb     01 01 19.9
      comp=Z,49nm,1.4s
CCUT  Cedar City      57.67  70     P       P        01 01 08.4 +0.2
NC303 NORSAR Array S  57.69 342     P       P        01 01 06.5 -1.1
AZL   Aizawl          57.73 263     eP      P        01 01 07.8 -0.8
AZL                                 IAmb    IAmb     01 01 11.5
      comp=Z,20nm,1.0s
NC204 NORSAR Array S  57.73 342     P       P        01 01 07.4 -0.7
NC204                               IAmb    IAmb     01 01 09.5
      comp=Z,22nm,0.8s
GSC   Goldstone, Bar  57.74  74     P       P        01 01 09.1 +0.6
GSC                                 pmax    pmax
      comp=Z,24nm,1.1s
GSC   Goldstone, Bar  57.74  74     P       P        01 01 09.1 +0.6
NC405 NORSAR Array S  57.74 342     P       P        01 01 07.3 -0.7
NC405                               IAmb    IAmb     01 01 09.5
      comp=Z,30nm,0.9s
SZCU  Shurtz Canyon   57.77  70     P       P        01 01 07.9 -0.9
SZCU                                IAmb    IAmb     01 01 21.1
      comp=Z,28nm,1.0s
SRU   San Rafael Swe  57.82  67     P       P        01 01 08.7 -0.5
SRU                                 pmax    pmax
      comp=Z,90nm,1.3s
SRU   San Rafael Swe  57.82  67     P       P        01 01 08.7 -0.5
NB201 NORSAR Array S  57.87 342     P       P        01 01 07.9 -1.0
NB2   NORSAR Subarra  57.89 342     P       P        01 01 08.3 -0.8
      comp=Z,61nm,1.4s,baz=19,slow=7.4
NB2   NORSAR Subarra  57.89 342     P       P        01 01 08.3 -0.8
NOA   NORSAR Array B  57.89 342     P       P        01 01 08.1 -1.0
      comp=Z,11nm,0.8s,baz=19,slow=6.9,SNR=51
NOA                                 LR      LR       01 30 24.3
      comp=Z,1μm,18.5s,baz=10.0,slow=41
      comp=Z,11nm,0.8s
PASC  Pasadena Art C  57.94  76     P       P        01 01 08.1 -1.7
MWC   Mount Wilson    57.96  76     P       P        01 01 09.3 -0.9
MWC                                 pmax    pmax
      comp=Z,29nm,1.2s
MWC                                 MLR     MLR
      comp=Z,2μm,20.0s
MWC   Mount Wilson    57.96  76     P       P        01 01 09.3 -0.9
MWC                                 IAmb    IAmb     01 01 21.6
      comp=Z,29nm,1.2s
NBO00 NORSAR Array S  57.96 342     P       P        01 01 08.4 -1.3
O20A  White River Ci  58.09  64     P       P        01 01 11.0 -0.1
O20A                                IAMs_20 IAMs_20  01 27 16.8
      comp=Z,3μm,18.0s
NC602 NORSAR Array S  58.12 342     eP      P        01 01 11.1 +0.4
NC602 NORSAR Array S  58.12 342     P       P        01 01 09.6 -1.1
NC602                               IAmb    IAmb     01 01 16.4
      comp=Z,55nm,1.9s
NORES NORESS Array B  58.12 342     P       P        01 01 11.4 +0.7
NORES                               pmax    pmax
      comp=Z,4.0nm,0.7s
NAO01 NORSAR Array S  58.12 342     P       P        01 01 08.8 -2.0
BFSC  Mount Baldy Ra  58.15  76     P       P        01 01 10.3 -1.2
LCMT  Little Creek M  58.15  70     P       P        01 01 11.3 -0.2
LCMT                                IAmb    IAmb     01 01 36.9
      comp=Z,41nm,1.4s
MTPC  Mountain Pass   58.22  73     P       P        01 01 10.7 -1.3
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HAYD  Hayden          58.25  63     P       P        01 01 11.5 -0.7
HAYD                                IAmb    IAmb     01 01 24.0
      comp=Z,35nm,1.4s
HAYD                                IAMs_20 IAMs_20  01 27 03.7
      comp=Z,3μm,20.0s
PKCU  Pink Cliffs     58.27  69     P       P        01 01 11.8 -0.7
PKCU                                IAmb    IAmb     01 01 16.6
      comp=Z,31nm,1.0s
HFS   Hagfors         58.33 340     P       P        01 01 11.5 -0.6
      comp=Z,7.0nm,0.6s,baz=349,slow=3.0,SNR=17
HFS                                 LR      LR       01 31 33.7
      comp=Z,3μm,18.0s,baz=27,slow=42
      comp=Z,7.0nm,0.6s
KNB   Kanab           58.36  70     P       P        01 01 13.0  0.0
KNB                                 pmax    pmax
      comp=Z,53nm,1.3s
KNB   Kanab           58.36  70     P       P        01 01 13.0  0.0
KNB                                 IAmb    IAmb     01 01 28.2
      comp=Z,53nm,1.3s
IVI   Ivigtut         58.49  15     IAMs_20 IAMs_20  01 26 54.4
      comp=Z,3μm,20.0s
HYA   Hoyanger        58.51 345     eP      P        01 01 13.2 -0.2
HMU   Henry Mountain  58.64  68     P       P        01 01 14.2 -0.9
CHTO  Chiang Mai      58.65 254     P       P        01 01 15.6 +0.7
CHTO                                S       S        01 09 20.8 +1.4
CHTO  Chiang Mai      58.65 254     P       P        01 01 14.8 -0.2
CHTO                                pmax    pmax
      comp=Z,72nm,1.1s
CHTO                                MLR     MLR
      comp=Z,2μm,22.0s
CHTO  Chiang Mai      58.65 254     P       P        01 01 14.8 -0.2
CHTO  Chiang Mai      58.65 254     P       P        01 01 15.4 +0.5
      comp=Z,924nmcomp=Z,67nm,1.4s
CHTO  Chiang Mai      58.65 254     P       P        01 01 14.6 -0.3
      comp=Z,916nmcomp=Z,67nm,1.4s
SRNI  Srinagar        58.67 285     eP      P        01 01 12.0 -3.1
SKAR  Skarslia        58.67 344     eP      P        01 01 14.6  0.0
ELS   Elsinore Mount  58.73  76     P       P        01 01 14.5 -1.0
SUE   Sulen           58.80 346     eP      P        01 01 15.6 +0.2
LPSR  Galich'ya Gora  58.82 322     eP      P        01 01 08.6 -7.1
LPSR                                pmax    pmax
      comp=Z,50nm,0.9s
LPSR                                MLR     MLR
      comp=Z,3μm,14.0s
F33A  5 Mile Ranch,   58.82  52     P       P        01 01 15.1 -0.7
F33A                                IAmb    IAmb     01 01 18.2
      comp=Z,28nm,1.0s
SUSD  Miller          58.83  55     P       P        01 01 15.6 -0.4
NRS   Narsarsuaq      58.89  14     P       P        01 01 16.9 +0.9
NRS                                 pmax    pmax
      comp=Z,118nm,1.6s
NRS                                 MLR     MLR
      comp=Z,8μm,18.0s
NRS   Narsarsuaq      58.89  14     P       P        01 01 16.9 +0.9
KLP   Kalpa           58.92 280     eP      P        01 01 13.8 -3.2
KLP                                 IAmb    IAmb     01 01 25.4
      comp=Z,15nm,0.3s
CM31  Chiang Mai Arr  58.95 254     P       P        01 01 18.9 +1.9
      SNR=11
CM31  Chiang Mai Arr  58.95 254     P       P        01 01 17.1 +0.1
CM31                                IAmb    IAmb     01 01 19.8
      comp=Z,63nm,1.5s
CMAR  Chiang Mai Arr  58.95 254     P       P        01 01 16.9 -0.1
      comp=Z,7.1nm,0.8s,baz=22,slow=7.7,SNR=51
CMAR                                LR      LR       01 30 31.8
      comp=Z,2μm,19.2s,baz=30,slow=40
      comp=Z,7.1nm,0.8s
CMAR  Chiang Mai Arr  58.95 254ceP          P        01 01 18.7 +1.7
CMAR                                pmax    pmax
      comp=Z,11nm,0.9s
CMAR  Chiang Mai Arr  58.95 254     P       P        01 01 16.6 -0.5
TSSA  Tissa           58.95 283     eP      P        01 01 14.4 -2.8
DANC  Danby, Needles  58.98  74     P       P        01 01 16.7 -0.3
PV21  Cone Mtn., Par  58.99  66     P       P        01 01 17.3 -0.2
PV21                                IAmb    IAmb     01 01 25.9
      comp=Z,58nm,1.3s
OSL   Oslo            59.01 342     eP      P        01 01 17.6 +0.7
EYMN  Ely             59.02  48     P       P        01 01 16.6 -0.6
EYMN  Ely             59.02  48     IAMs_20 IAMs_20  01 27 06.3
      comp=Z,3μm,19.0s
EYMN  Ely             59.02  48     P       P        01 01 17.6 +0.4
      comp=Z,24nm,1.4s
JOSI  Joshimath       59.03 279     eP      P        01 01 15.3 -2.4
JOSI                                IAmb    IAmb     01 01 19.6
      comp=Z,12nm,0.3s
PV23  Carpenter Ridg  59.06  66     P       P        01 01 17.2 -0.7
U15A  North Rim       59.08  70     P       P        01 01 17.8 -0.4
U15A                                IAmb    IAmb     01 01 21.7
      comp=Z,25nm,0.9s
PV22  Blue Mesa, Par  59.10  66     P       P        01 01 18.0 -0.1
PV10  Paradox Valley  59.11  66     P       P        01 01 18.0 -0.2
BRDH  Bariadhala      59.15 263     LR      LR       01 31 37.9
      comp=Z,2μm,18.1s,baz=34,slow=41
PV04  Paradox Valley  59.16  66     P       P        01 01 18.6 +0.1
PV20  West Nyswonger  59.16  66     P       P        01 01 18.0 -0.6
BELC  Belle Mtn. Jos  59.17  75     P       P        01 01 17.8 -0.8
BELC                                IAMs_20 IAMs_20  01 31 37.3
      comp=Z,3μm,20.0s
PV19  Morning Glory   59.19  66     P       P        01 01 18.8  0.0
DNR   Dunn Ranch,Anz  59.20  75     P       P        01 01 18.8  0.0
DNR                                 IAmb    IAmb     01 01 30.5
      comp=Z,36nm,1.0s
PV16  Nyswonger Mesa  59.22  66     P       P        01 01 19.0  0.0
PV17  East Wray Mesa  59.22  66     P       P        01 01 19.3 +0.3
PV07  Paradox Valley  59.24  66     P       P        01 01 19.4 +0.3
PV07                                IAmb    IAmb     01 01 22.8
      comp=Z,36nm,0.9s
PV11  David Mesa, Pa  59.25  66     P       P        01 01 18.5 -0.6
PFO   Pinyon Flats O  59.25  75     LR      LR       01 26 42.8
      comp=Z,2μm,18.4s,baz=338,slow=36
PFO   Pinyon Flats O  59.25  75     P       P        01 01 18.4 -0.7
PFO                                 pmax    pmax
      comp=Z,18nm,1.2s
PFO   Pinyon Flats O  59.25  75     P       P        01 01 18.4 -0.7
PFO   Pinyon Flats O  59.25  75     P       P        01 01 20.1 +0.9
      comp=Z,14nm,1.0s
NPW   Naypyitaw       59.25 257     P       P        01 01 16.5 -2.6
      comp=Z,1μmcomp=Z,74nm,0.9s,comp=Z,1μm
PMD   Palm Desert     59.26  75     P       P        01 01 18.4 -0.6
PV12  Saucer Basin,   59.27  66     P       P        01 01 19.3  0.0
PV18  Skein Mesa, Pa  59.27  66     P       P        01 01 19.6 +0.3
PV03  Paradox Valley  59.30  66     P       P        01 01 18.6 -0.9
ASK   Askoy           59.30 345     eP      P        01 01 19.1 +0.2
PV05  Paradox Valley  59.32  67     P       P        01 01 20.0 +0.3
W13A  Hualapai Mount  59.35  72     P       P        01 01 19.7 -0.2
BER   Bergen          59.38 345     P       P        01 01 19.0 -0.4
BER   Bergen          59.38 345     eP      P        01 01 19.9 +0.5
BER   Bergen          59.38 345     P       P        01 01 20.0 +0.5
      comp=Z,43nm,0.9s
PV13  Radium Mtn., P  59.38  66     P       P        01 01 20.3 +0.2
PV02  Paradox Valley  59.39  66     P       P        01 01 20.0 -0.1
PV15  Paradox Valley  59.40  66     P       P        01 01 20.3  0.0
KONO  Kongsberg       59.47 343⇑iP          P        01 01 19.7 -0.4
KONO                                pmax    pmax
      comp=Z,29nm,1.1s
KONO  Kongsberg       59.47 343     eP      P        01 01 19.7 -0.4
KONO  Kongsberg       59.47 343     P       P        01 01 19.6 -0.4
KONO                                IAmb    IAmb     01 01 21.8
      comp=Z,25nm,1.0s
KONO  Kongsberg       59.47 343     P       P        01 01 20.5 +0.4
      comp=Z,26nm,1.6s
PTH   Pithoragarh     59.47 277     eP      P        01 01 17.8 -3.0
IRM   Iron Mountain   59.47  74     P       P        01 01 21.2 +0.7
IRM                                 IAmb    IAmb     01 01 32.3
      comp=Z,58nm,1.3s
IRM                                 IAMs_20 IAMs_20  01 26 48.3
      comp=Z,3μm,20.0s
PV01  Paradox Valley  59.52  66     P       P        01 01 21.4 +0.3
PV01                                IAmb    IAmb     01 01 24.2
      comp=Z,25nm,1.0s
BORC  Borrego Spring  59.54  75     P       P        01 01 21.4 +0.4
BORC                                IAmb    IAmb     01 01 32.4
      comp=Z,22nm,1.1s
ISCO  Idaho Springs   59.58  63     P       P        01 01 21.3 -0.3
ISCO                                pmax    pmax
      comp=Z,24nm,1.0s
ISCO                                MLR     MLR
      comp=Z,6μm,20.0s
ISCO  Idaho Springs   59.58  63     P       P        01 01 21.3 -0.3
ISCO                                IAmb    IAmb     01 01 25.3
      comp=Z,24nm,1.0s
ISCO  Idaho Springs   59.58  63     P       P        01 01 23.4 +1.8
      comp=Z,574nmcomp=Z,29nm,2.5s
ODD1  Odda            59.66 344     eP      P        01 01 21.5 +0.1
BC3   Big Chuckawall  59.72  74     P       P        01 01 20.8 -1.5
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BC3				IAMs_20	IAMs_20	01 26 26.8	
	comp=Z,3µm,19.0s						
SALN	**Salton City**	**59.75**	**75**	P	**P**	**01 01 22.2**	**-0.2**
NIL	**Nilore**	**59.77**	**286**	P	**P**	**01 01 22.7**	**+0.2**
NIL	**Nilore**	**59.77**	**286**	P	**P**	**01 01 22.0**	**-0.6**
NIL				pmax	pmax		
	comp=Z,79nm,0.8s						
NIL				MLR	MLR		
	comp=Z,4µm,22.0s						
NIL	**Nilore**	**59.77**	**286**	P	**P**	**01 01 22.0**	**-0.6**
NIL	**Nilore**	**59.77**	**286**	IAMs_20	IAMs_20	01 28 47.9	
	comp=Z,4µm,22.0s						
NIL	**Nilore**	**59.77**	**286**	P	**P**	**01 01 22.9**	**+0.3**
	comp=Z,1µmcomp=Z,141nm,1.0s,comp=Z,1µm						
STRU	**Stroemstad**	**59.80**	**341**	*i* P	**P**	**01 01 22.2**	**-0.1**
SMLA	**Simla**	**59.80**	**281**	*e*P	**P**	**01 01 20.3**	**-2.5**
BAR	**Barrett**	**59.88**	**76**	P	**P**	**01 01 21.8**	**-1.6**
K30B	**Basset**	**59.97**	**57**	P	**P**	**01 01 23.3**	**-0.6**
BHK	**Bhakra**	**59.98**	**282**	*e*P	**P**	**01 01 19.5**	**-4.6**
BHK				IAmb	IAmb	01 01 25.3	
	comp=Z,20nm,0.7s						
E38A	**The Farm, Brul**	**60.09**	**49**	P	**P**	**01 01 22.9**	**-1.7**
E38A				IAMs_20	IAMs_20	01 27 29.9	
	comp=Z,3µm,19.0s						
BLYC	**Blythe**	**60.11**	**74**	P	**P**	**01 01 24.9**	**+0.1**
BLYC				IAmb	IAmb	01 01 36.6	
	comp=Z,36nm,1.1s						
BLS5	**Blasjo**	**60.15**	**344**	*e*P	**P**	**01 01 25.0**	**+0.1**
CBX	**Cerro Bola**	**60.18**	**76**	P	**P**	**01 01 24.1**	**-1.4**
WUAZ	**Wupatki**	**60.26**	**70**	P	**P**	**01 01 26.1**	**0.0**
WUAZ				IAmb	IAmb	01 01 38.6	
	comp=Z,36nm,1.1s						
WUAZ				IAMs_20	IAMs_20	01 26 14.0	
	comp=Z,4µm,21.0s						
YUH	**Yuha Desert**	**60.29**	**75**	P	**P**	**01 01 26.6**	**+0.5**
MVCO	**Mesa Verde**	**60.30**	**67**	P	**P**	**01 01 27.0**	**+0.6**
MVCO				IAmb	IAmb	01 01 40.8	
	comp=Z,26nm,1.3s						
MVCO	**Mesa Verde**	**60.30**	**67**	P	**P**	**01 01 27.7**	**+1.3**
	comp=Z,16nm,1.3s						
OGNE	**Ogallala**	**60.30**	**59**	P	**P**	**01 01 26.1**	**-0.1**
OGNE				IAmb	IAmb	01 01 34.6	
	comp=Z,51nm,1.2s						
MNK	**Minsk**	**60.39**	**330***d*	*i*P	**P**	**01 01 27.0**	**+0.5**
ECSD	**EROS Data Cent**	**60.40**	**54**	P	**P**	**01 01 26.0**	**-0.7**
ECSD				IAmb	IAmb	01 01 30.4	
	comp=Z,25nm,0.8s						
ECSD	**EROS Data Cent**	**60.40**	**54**	IAMs_20	IAMs_20	01 29 16.8	
	comp=Z,4µm,22.0s						
ECSD	**EROS Data Cent**	**60.40**	**54**	P	**P**	**01 01 27.1**	**+0.3**
	comp=Z,36nm,0.8s						
PABE	**Paberze**	**60.48**	**332**	P	**P**	**01 01 26.5**	**-0.6**
PABE				IAMs_20	IAMs_20	01 28 19.4	
	comp=Z,4µm,21.0s						
PABE	**Paberze**	**60.48**	**332**	P	**P**	**01 01 27.0**	**0.0**
	comp=Z,113nm,1.0s						
S22A	**4UR Ranch, Cre**	**60.66**	**65**	P	**P**	**01 01 28.5**	**-0.5**
S22A				IAmb	IAmb	01 01 44.8	
	comp=Z,26nm,1.2s						
S22A				IAMs_20	IAMs_20	01 31 01.7	
	comp=Z,4µm,20.0s						
TJOU	**Tjoern**	**60.67**	**341**	*i* P	**P**	**01 01 29.0**	**+0.7**
Y14A	**Wickenburg**	**60.72**	**72**	P	**P**	**01 01 29.1**	**0.0**
GAYA	**Gaya**	**60.73**	**270**	*e*P	**P**	**01 01 26.6**	**-2.6**
GAYA				IAmb	IAmb	01 01 30.8	
	comp=Z,26nm,1.1s						
SPMN	**Marine on St.**	**60.74**	**50**	P	**P**	**01 01 28.3**	**-0.7**
SPMN				IAmb	IAmb	01 02 09.3	
	comp=Z,33nm,1.4s						
SPMN				IAMs_20	IAMs_20	01 28 24.9	
	comp=Z,4µm,21.0s						
ESJX	**Sierra Juarez**	**60.79**	**76**	P	**P**	**01 01 28.6**	**-1.2**
ESJX				IAmb	IAmb	01 01 41.3	
	comp=Z,29nm,1.2s						
SCHQ	**Schefferville**	**60.90**	**28**	P	**P**	**01 01 29.1**	**-0.9**
	comp=Z,8.7nm,0.8s,baz=293,slow=4.7,SNR=6.5						
SCHQ				LR	LR	01 30 41.8	
	comp=Z,5µm,19.4s,baz=332,slow=39						
	comp=Z,8.7nm,0.8s						
HOMB	**Homborsund**	**60.95**	**343**	*i* P	**P**	**01 01 31.4**	**+1.1**
SNART	**Snartemo**	**61.09**	**343**	*i* P	**P**	**01 01 31.0**	**-0.1**
X16A	**Lo Mia Camp, P**	**61.10**	**71**	P	**P**	**01 01 31.5**	**-0.4**
KBL	**Kabul**	**61.14**	**290**	P	**P**	**01 01 30.7**	**-1.5**
	SNR=22						
KBL				S	**S**	**01 09 51.8**	**+0.1**
KBL	**Kabul**	**61.14**	**290**	P	**P**	**01 01 30.4**	**-1.8**
KBL				pmax	pmax		
	comp=Z,43nm,1.0s						
KBL	**Kabul**	**61.14**	**290**	P	**P**	**01 01 30.4**	**-1.8**
KBL	**Kabul**	**61.14**	**290**	P	**P**	**01 01 31.4**	**-0.8**
	comp=Z,737nmcomp=Z,61nm,1.0s,comp=Z,737nm						
ONAU	**Onsala**	**61.22**	**340**	*i* P	**P**	**01 01 31.7**	**-0.4**
113A	**Mohawk Valley,**	**61.27**	**74**	P	**P**	**01 01 32.4**	**-0.4**
SDCO	**Great Sand Dun**	**61.28**	**64**	P	**P**	**01 01 32.9**	**-0.3**
SDCO				IAmb	IAmb	01 01 36.6	
	comp=Z,21nm,1.0s						
SDCO				IAMs_20	IAMs_20	01 28 29.2	
	comp=Z,4µm,19.0s						
MANU	**Manus Island**	**61.35**	**193**	P	**P**	**01 01 31.6**	**-1.8**
VTX	**Valle De La Tr**	**61.37**	**76**	P	**P**	**01 01 32.7**	**-0.8**
VTX				IAmb	IAmb	01 02 15.8	
	comp=Z,29nm,1.4s						
W18A	**Petrified Fore**	**61.38**	**69**	P	**P**	**01 01 33.1**	**-0.6**
W18A				IAmb	IAmb	01 01 37.3	
	comp=Z,20nm,1.0s						
ASOR	**Ausora**	**61.39**	**279**	*e*P	**P**	**01 01 31.1**	**-2.5**
ASOR				IAmb	IAmb	01 01 39.9	
	comp=Z,25nm,0.8s						
FABU	**Falkenberg**	**61.46**	**340**	*i* P	**P**	**01 01 32.6**	**-1.0**
I37A	**Lemond, Waseca**	**61.49**	**51**	P	**P**	**01 01 33.3**	**-0.8**
BLEU	**Blekinge**	**61.53**	**338**	*i* P	**P**	**01 01 33.4**	**-0.7**
KSCO	**Kaye Shedlock'**	**61.59**	**61**	P	**P**	**01 01 34.9**	**-0.2**
BGNE	**Belgrade**	**61.64**	**56**	P	**P**	**01 01 35.2**	**0.0**
G40A	**Rib Lake**	**61.73**	**49**	P	**P**	**01 01 34.8**	**-1.0**
NDI	**New Delhi**	**61.74**	**279**	*e*P	**P**	**01 01 33.5**	**-2.5**
X18A	**Snowflake**	**61.74**	**70**	P	**P**	**01 01 36.1**	**-0.1**
DEL	**Delary**	**61.75**	**339**	*i* P	**P**	**01 01 35.3**	**-0.3**
NPLP	**NPLP New Delhi**	**61.80**	**279**	*e*P	**P**	**01 01 34.0**	**-2.4**
NPLP				IAmb	IAmb	01 01 36.7	
	comp=Z,11nm,0.6s						
LDR	**Lodi Road**	**61.82**	**279**	*e*P	**P**	**01 01 34.0**	**-2.5**
LDR				IAmb	IAmb	01 01 34.4	
	comp=Z,20nm,0.1s						
MYLDM	**Lahad Datu**	**61.89**	**227**	P	**P**	**01 01 36.2**	**-0.9**
MYLDM				IAmb	IAmb	01 02 51.5	
	comp=Z,27nm,1.2s						
MYLDM	**Lahad Datu**	**61.89**	**227**	P	**P**	**01 01 39.0**	**+1.9**
	comp=Z,18nm,1.1s						
L34A	**Svendsen Farm,**	**61.94**	**55**	P	**P**	**01 01 35.7**	**-1.6**
L34A				IAmb	IAmb	01 01 39.3	
	comp=Z,31nm,0.8s						
GOET	**G??ttrup**	**62.02**	**342**	*i* P	**P**	**01 01 38.0**	**+0.5**
GOET				IAmb	IAmb	01 01 43.2	
	comp=Z,32nm,1.0s						
SUW	**Suwalki**	**62.02**	**332**	*e*P	**P**	**01 01 35.5**	**-2.0**
SUW				*e*L	L	01 29 08.3	
	comp=Z,4µm,21.0s						
SUW	**Suwalki**	**62.02**	**332**	P	**P**	**01 01 35.4**	**-2.2**
SUW				MLR	MLR		
	comp=Z,5µm,20.0s						
SUW	**Suwalki**	**62.02**	**332**	P	**P**	**01 01 35.4**	**-2.2**
F42A	**Maple Grove Fa**	**62.12**	**47**	IAMs_20	IAMs_20	01 29 49.4	
	comp=Z,3µm,19.0s						
T25A	**Trinidad**	**62.28**	**64**	P	**P**	**01 01 39.9**	**+0.1**
T25A				IAmb	IAmb	01 01 48.1	
	comp=Z,44nm,1.4s						
T25A				IAMs_20	IAMs_20	01 28 06.8	
	comp=Z,4µm,21.0s						
BAKI	**Biak**	**62.48**	**206**	P	**P**	**01 01 43.9**	**+2.9**
KUDL	**Kundal**	**62.55**	**279**	IAmb	IAmb	01 01 42.4	
	comp=Z,14nm,0.5s						
MUD	**Monsted U'grnd**	**62.59**	**342**	*i* P	**P**	**01 01 42.0**	**+0.7**
MUD				IAmb	IAmb	01 01 43.3	
	comp=Z,27nm,1.3s						
LUNU	**Lund**	**62.62**	**339**	*i* P	**P**	**01 01 41.3**	**-0.2**
MWPI	**Manokwari, Pap**	**62.72**	**208**	P	**P**	**01 01 44.7**	**+2.1**
I40A	**Norwalk**	**62.72**	**50**	P	**P**	**01 01 40.5**	**-1.9**
I40A				IAmb	IAmb	01 01 44.2	
	comp=Z,28nm,1.0s						
BSD	**Bornholm Skovb**	**62.82**	**338**	*i* P	**P**	**01 01 43.9**	**+1.0**
BSD				IAmb	IAmb	01 01 49.9	
	comp=Z,40nm,1.2s						
TNTI	**Ternate**	**62.94**	**216**	P	**P**	**01 01 42.6**	**-1.5**
TNTI	**Ternate**	**62.94**	**216**	P	**P**	**01 01 44.4**	**+0.3**
	comp=Z,28nm,0.8s						
E46A	**Sault Ste Mari**	**63.02**	**44**	IAMs_20	IAMs_20	01 31 39.3	
	comp=Z,3µm,20.0s						
RABL	**Rabaul**	**63.02**	**188**	P	**P**	**01 01 45.2**	**+0.6**
CBKS	**Cedar Bluff**	**63.06**	**59**	P	**P**	**01 01 44.2**	**-0.6**
CBKS				pmax	pmax		
	comp=Z,40nm,0.9s						
CBKS				MLR	MLR		
	comp=Z,6µm,20.0s						
CBKS	**Cedar Bluff**	**63.06**	**59**	P	**P**	**01 01 44.2**	**-0.6**
TASM	**ASL Pad, Albuq**	**63.09**	**67**	P	**P**	**01 01 44.4**	**-0.9**
TASM	**ASL Pad, Albuq**	**63.09**	**67**	P	**P**	**01 01 45.8**	**+0.6**
TASM				IAmb	IAmb	01 01 48.4	
	comp=Z,16nm,1.0s						
TASM	**ASL Pad, Albuq**	**63.09**	**67**	IAMs_20	IAMs_20	01 31 33.2	
	comp=Z,3µm,18.0s						
TASM	**ASL Pad, Albuq**	**63.09**	**67**	IAMs_20	IAMs_20	01 31 33.2	
	comp=Z,3µm,18.0s						
TASM	**ASL Pad, Albuq**	**63.09**	**67**	IAMs_20	IAMs_20	01 31 33.2	
	comp=Z,3µm,18.0s						
TASM	**ASL Pad, Albuq**	**63.09**	**67**	IAMs_20	IAMs_20	01 31 33.2	
	comp=Z,3µm,18.0s						
ANMO	**Albuquerque**	**63.09**	**67**	LR	LR	01 31 35.1	
	comp=Z,3µm,18.5s,baz=336,slow=38						
ANMO	**Albuquerque**	**63.09**	**67**⇑	*i*P	**P**	**01 01 46.2**	**+0.9**
ANMO				pmax	pmax		
	comp=Z,16nm,0.9s						
ANMO	**Albuquerque**	**63.09**	**67**	P	**P**	**01 01 45.2**	**-0.1**
ANMO	**Albuquerque**	**63.09**	**67**	IAMs_20	IAMs_20	01 31 33.2	
	comp=Z,3µm,18.0s						
ANMO	**Albuquerque**	**63.09**	**67**	P	**P**	**01 01 46.5**	**+1.2**
	comp=Z,17nm,1.0s						
ABQ	**Albuquerque**	**63.10**	**67**	IAMs_20	IAMs_20	01 31 33.3	
	comp=Z,3µm,18.0s						
ALQ	**Albuquerque**	**63.10**	**67**	P	**P**	**01 01 45.0**	**-0.2**
ALQ				IAmb	IAmb	01 01 48.4	
	comp=Z,17nm,1.0s						
ALQ				IAMs_20	IAMs_20	01 31 32.2	
	comp=Z,3µm,18.0s						
ALQ	**Albuquerque**	**63.10**	**67**	P	**P**	**01 01 45.5**	**+0.2**
ALQ				IAmb	IAmb	01 01 48.5	
	comp=Z,17nm,1.0s						
ALQ				IAMs_20	IAMs_20	01 31 32.2	
	comp=Z,3µm,18.0s						
TUC	**Tucson**	**63.13**	**72**	P	**P**	**01 01 45.2**	**-0.1**
TUC				pmax	pmax		
	comp=Z,17nm,1.3s						
TUC				MLR	MLR		
	comp=Z,3µm,18.0s						
TUC	**Tucson**	**63.13**	**72**	P	**P**	**01 01 45.2**	**-0.1**
TUC	**Tucson**	**63.13**	**72**	IAMs_20	IAMs_20	01 31 25.0	
	comp=Z,3µm,18.0s						
TUC	**Tucson**	**63.13**	**72**	P	**P**	**01 01 46.9**	**+1.5**
	comp=Z,15nm,1.6s						
KRVT	**Keravat (AS076**	**63.15**	**188**	LR	LR	01 25 21.8	
	comp=Z,2µm,21.4s,baz=354,slow=32						
H43A	**Windswept, Lux**	**63.34**	**47**	P	**P**	**01 01 45.4**	**-1.1**
H43A				IAMs_20	IAMs_20	01 31 07.8	
	comp=Z,4µm,20.0s						
SWI	**Sorong**	**63.37**	**211**	P	**P**	**01 01 48.0**	**+1.1**
I42A	**Draeger Farm,**	**63.39**	**49**	P	**P**	**01 01 46.0**	**-0.8**
I42A				IAMs_20	IAMs_20	01 28 33.0	
	comp=Z,2µm,19.0s						
AK03	**Malin Array Si**	**63.40**	**327**	P	**P**	**01 01 46.2**	**-0.6**
AK04	**Malin Array Si**	**63.42**	**327**	P	**P**	**01 01 46.4**	**-0.5**
AKASG	**Malin Array Be**	**63.42**	**327**	P	**P**	**01 01 46.5**	**-0.5**
	comp=Z,12nm,0.6s,baz=31,slow=6.7,SNR=10						
AKASG				LR	LR	01 34 15.0	
	comp=Z,2µm,18.5s,baz=24,slow=41						
	comp=Z,12nm,0.6s						
AKASG	**Malin Array Be**	**63.42**	**327**	*i* P	**P**	**01 01 45.4**	**-1.5**
AKASG				pmax	pmax		
	comp=Z,25nm,0.8s						
AKASG	**Malin Array Be**	**63.42**	**327**	IAmb	IAmb	01 03 31.8	
	comp=Z,19nm,1.1s						
AKBB	**Malin Array Si**	**63.42**	**327***d*	*i*P	**P**	**01 01 47.5**	**+0.6**
AKBB				pmax	pmax		
	comp=Z,24nm,0.9s						
AKBB	**Malin Array Si**	**63.42**	**327**	P	**P**	**01 01 46.1**	**-0.8**
KIEV	**Kiev**	**63.44**	**327**	P	**P**	**01 01 45.8**	**-1.2**
KIEV				pmax	pmax		
	comp=Z,24nm,0.9s						
KIEV	**Kiev**	**63.44**	**327**	IAMs_20	IAMs_20	01 34 02.5	
	comp=Z,3µm,19.0s						
KIEV	**Kiev**	**63.44**	**327**	P	**P**	**01 01 46.3**	**-0.7**
	comp=Z,3µmcomp=Z,166nm,1.2s						
AK01	**Malin Array Si**	**63.44**	**327**	P	**P**	**01 01 46.2**	**-0.8**
SSRD	**Sdr. Stenderup**	**63.45**	**341**	*i* P	**P**	**01 01 45.6**	**-1.4**
SSRD				IAmb	IAmb	01 01 52.7	
	comp=Z,39nm,1.1s						
AK18	**Malin Array Si**	**63.45**	**327**	P	**P**	**01 01 46.6**	**-0.5**
AK11	**Malin Array Si**	**63.46**	**327**	P	**P**	**01 01 46.9**	**-0.3**
LENM	**Lemitar**	**63.48**	**68**	P	**P**	**01 01 47.6**	**-0.2**
AK12	**Malin Array Si**	**63.50**	**327**	P	**P**	**01 01 47.1**	**-0.3**
AK05	**Malin Array Si**	**63.50**	**327**	P	**P**	**01 01 46.9**	**-0.6**
SBM	**South Baldy**	**63.53**	**68**	P	**P**	**01 01 48.6**	**+0.2**
AK06	**Malin Array Si**	**63.54**	**327**	P	**P**	**01 01 47.9**	**+0.2**
AK13	**Malin Array Si**	**63.55**	**327**	P	**P**	**01 01 47.2**	**-0.6**
AK07	**Malin Array Si**	**63.57**	**327**	P	**P**	**01 01 47.3**	**-0.6**
RTBA	**Rita Blanca**	**63.63**	**63**	P	**P**	**01 01 48.3**	**-0.4**
JHNI	**Jhansi**	**63.64**	**276**	*e*P	**P**	**01 01 46.8**	**-2.0**
JHNI				IAmb	IAmb	01 01 49.5	
	comp=Z,15nm,0.9s						
RGN	**Rugen**	**63.67**	**338**	IAMs_20	IAMs_20	01 30 38.7	
	comp=Z,3µm,19.0s						
Y22A	**Socorro**	**63.67**	**68**	P	**P**	**01 01 49.4**	**+0.3**
Y22A				IAmb	IAmb	01 02 07.4	
	comp=Z,35nm,1.3s						
JFWS	**Jewell Farm**	**63.68**	**50**	IAMs_20	IAMs_20	01 31 00.8	
	comp=Z,3µm,19.0s						
DUN6	**Lazy B Ranch**	**63.76**	**70**	P	**P**	**01 01 49.8**	**+0.2**
CRNM	**Carthage**	**63.77**	**68**	P	**P**	**01 01 49.8**	**0.0**
R32A	**Long Quarter,**	**63.84**	**59**	P	**P**	**01 01 49.5**	**-0.5**
VLDQ	**Val d'Or**	**63.86**	**38**	P	**P**	**01 01 48.5**	**-1.4**
VLDQ				IAmb	IAmb	01 01 50.9	
	comp=Z,33nm,1.0s						
MAK	**Makhachkala**	**63.89**	**310**	*e*P	**P**	**01 01 46.4**	**-3.7**
MAK				*e*		01 04 09.6	
MAK				*e*S	**S**	**01 10 17.3**	**-8.2**
MAK				*e*SS	**SS**	**01 14 35.5**	**+2.6**
MAK				pmax	pmax		
	comp=Z,270nm,1.5s						
MAK				MLR	MLR		
	comp=Z,7µm,14.0s						
L40A	**Anamosa**	**64.00**	**51**	P	**P**	**01 01 49.4**	**-1.5**
L40A				IAmb	IAmb	01 02 28.4	
	comp=Z,22nm,0.9s						
GKP	**Gorka Klasztor**	**64.07**	**336**	*e*P	**P**	**01 01 51.6**	**+0.4**
GKP				*e*L	L	01 30 26.6	
	comp=Z,3µm,22.4s						
ERBR	**Yeremizino-Bor**	**64.19**	**317**	*e*P	**P**	**01 01 52.3**	**+0.2**
ERBR				*e*S	**S**	**01 10 28.5**	**-0.7**
ERBR				pmax	pmax		
	comp=Z,125nm,1.3s						
ERBR				MLR	MLR		
	comp=Z,6µm,16.0s						
KSU1	**Kansas State U**	**64.20**	**57**	P	**P**	**01 01 51.2**	**-1.1**
N38A	**Joes South For**	**64.24**	**53**	P	**P**	**01 01 50.4**	**-2.1**
I45A	**Fountain**	**64.29**	**47**	P	**P**	**01 01 51.0**	**-1.8**
I45A				IAMs_20	IAMs_20	01 31 06.0	
	comp=Z,3µm,20.0s						
121A	**Cookes Peak, D**	**64.42**	**69**	P	**P**	**01 01 54.0**	**0.0**
121A				IAmb	IAmb	01 02 03.0	
	comp=Z,35nm,1.2s						
LNIZ	**Loecknitz**	**64.49**	**338**	P	**P**	**01 01 54.5**	**+0.6**
	comp=Z,51nm,1.9s						
LUBAR	**Lubar, Ukraine**	**64.54**	**327**	P	**P**	**01 01 54.0**	**-0.3**
HRA	**Herat**	**64.55**	**295**	P	**P**	**01 01 55.1**	**+0.3**
EAB	**Aberfoyle**	**64.59**	**350**	*e*P	**P**	**01 01 53.8**	**-0.7**
EAB				IAmb	IAmb	01 01 57.0	
	comp=Z,8.2nm,0.8s						
BEL	**Belsk**	**64.60**	**333**	*e*P	**P**	**01 01 55.4**	**+0.7**
BEL				*e*L	L	01 33 05.6	
	comp=Z,5µm,18.8s						
BEL	**Belsk**	**64.60**	**333**	P	**P**	**01 01 55.7**	**+1.0**
	comp=Z,145µmcomp=Z,11µm,1.1s						
K43A	**Burlington**	**64.62**	**49**	P	**P**	**01 01 53.9**	**-1.0**
K43A				IAMs_20	IAMs_20	01 32 50.5	
	comp=Z,3µm,22.0s						
319A	**Douglas**	**64.63**	**71**	P	**P**	**01 01 55.6**	**+0.3**
L42A	**Oliver, Polo**	**64.68**	**50**	P	**P**	**01 01 53.4**	**-1.9**
L42A				IAmb	IAmb	01 01 56.1	
	comp=Z,20nm,0.9s						
TOLI2	**Tolitoli**	**64.80**	**223**	P	**P**	**01 01 55.8**	**-0.6**
TOLI2				IAmb	IAmb	01 01 58.4	
	comp=Z,34nm,1.0s						
TOLI2	**Tolitoli**	**64.80**	**223**	P	**P**	**01 01 56.2**	**-0.2**
	comp=Z,490nmcomp=Z,40nm,1.0s						
BSEG	**Bad Segeberg**	**64.80**	**340**	*e*P	**P**	**01 01 56.7**	**+0.8**
	comp=Z,16nm,1.1s,baz=18,slow=6.3						
BSEG	**Bad Segeberg**	**64.80**	**340**	P	**P**	**01 01 57.0**	**+1.1**
	comp=Z,16nm,1.1s						
PH02	**Texas Public H**	**64.86**	**63**	P	**P**	**01 01 56.3**	**-0.4**
KVAR	**Kislovodsk Arr**	**64.89**	**314**	LR	LR	01 31 39.2	
	comp=Z,5µm,19.1s,baz=277,slow=37						
KIV	**Kislovodsk**	**64.90**	**314**	S	**S**	**01 10 39.4**	**+1.2**
KIV	**Kislovodsk**	**64.90**	**314**	*e*P	**P**	**01 01 57.0**	**+0.1**
KIV				pmax	pmax		
	comp=Z,61nm,1.0s						
KIV				MLR	MLR		
	comp=Z,2µm,17.0s						
KIV	**Kislovodsk**	**64.90**	**314**	IAMs_20	IAMs_20	01 32 11.7	
	comp=Z,4µm,21.0s						
PGBU	**Glenifferbraes**	**64.97**	**350**	*e*P	**P**	**01 01 57.2**	**+0.2**
PGBU				IAmb	IAmb	01 01 59.5	
	comp=Z,49nm,0.8s						
KBZ	**Khabaz**	**65.01**	**314**	LR	LR	01 33 16.0	
	comp=Z,4µm,22.0s,baz=18,slow=39						
LABN	**Labinsk**	**65.03**	**316**	*e*P	**P**	**01 01 55.2**	**-2.4**
LABN				*e*S	**S**	**01 10 34.1**	**-5.5**
LABN				pmax	pmax		
	comp=Z,311nm,1.4s						
LABN				MLR	MLR		
	comp=Z,4µm,16.0s						
FAKI	**Fak Fak**	**65.08**	**210**	P	**P**	**01 01 57.8**	**-0.3**
FAKI	**Fak Fak**	**65.08**	**210**	P	**P**	**01 01 58.3**	**+0.1**
	comp=Z,95nm,1.2s						
FAKI	**Fak Fak**	**65.08**	**210**	P	**P**	**01 01 58.9**	**+0.7**
	comp=Z,95nm,1.2s						
P38A	**Dawn**	**65.09**	**54**	P	**P**	**01 01 57.1**	**-0.9**
P38A				IAmb	IAmb	01 01 59.6	
	comp=Z,18nm,0.9s						
NOKA	**Waynoka**	**65.21**	**60**	P	**P**	**01 01 57.6**	**-1.3**
NOKA				IAmb	IAmb	01 02 00.5	
	comp=Z,28nm,0.9s						
L44A	**Lake County Fo**	**65.23**	**49**	P	**P**	**01 01 58.5**	**-0.4**
L44A				IAMs_20	IAMs_20	01 31 35.7	
	comp=Z,3µm,18.0s						
N41A	**Harden Midland**	**65.29**	**52**	P	**P**	**01 01 57.7**	**-1.7**
N41A				IAmb	IAmb	01 02 01.9	
	comp=Z,24nm,0.9s						
KAN01	**Argonia South**	**65.31**	**59**	P	**P**	**01 01 59.1**	**-0.4**
EKA	**Eskdalemuir Ar**	**65.32**	**349**	P	**P**	**01 01 59.2**	**-0.1**
	comp=Z,13nm,0.8s,baz=16,slow=5.0,SNR=21						
EKA				LR	LR	01 28 28.2	
	comp=Z,988nm,21.0s,baz=21,slow=34						
	comp=Z,13nm,0.8s						
ESK	**Eskdalemuir**	**65.34**	**349**	P	**P**	**01 01 59.1**	**-0.3**
ESK				pmax	pmax		
	comp=Z,107nm,1.8s						
ESK				MLR	MLR		
	comp=Z,1µm,18.0s						
ESK	**Eskdalemuir**	**65.34**	**349**	P	**P**	**01 01 59.1**	**-0.3**
ESK	**Eskdalemuir**	**65.34**	**349**	*e*P	**P**	**01 01 59.1**	**-0.3**
ESK				IAmb	IAmb	01 02 03.0	
	comp=Z,10nm,0.8s						
ESK	**Eskdalemuir**	**65.34**	**349**	P	**P**	**01 02 01.4**	**+2.0**
	comp=Z,29nm,1.6s						
ESK	**Eskdalemuir**	**65.34**	**349**	P	**P**	**01 02 01.4**	**+2.0**
	comp=Z,29nm,1.6s						
AMTX	**Amarillo**	**65.40**	**63**	P	**P**	**01 01 59.5**	**-0.7**
AMTX				IAmb	IAmb	01 02 02.4	
	comp=Z,19nm,1.1s						
AMTX				IAMs_20	IAMs_20	01 29 06.2	
	comp=Z,4µm,22.0s						
OK038	**West end E0370**	**65.43**	**60**	P	**P**	**01 01 59.8**	**-0.5**
ELIS	**Ellis County**	**65.46**	**61**	P	**P**	**01 02 00.1**	**-0.5**
SEKA	**Sheki**	**65.49**	**310**	P	**P**	**01 01 58.9**	**-1.8**
J47A	**Sunmer**	**65.51**	**46**	P	**P**	**01 01 59.2**	**-1.5**
J47A				IAmb	IAmb	01 02 08.6	
	comp=Z,28nm,0.9s						
J47A				IAMs_20	IAMs_20	01 31 52.1	
	comp=Z,2µm,21.0s						
GORT1	**Trebel**	**65.53**	**339**	*e*P	**P**	**01 02 01.7**	**+1.1**
	comp=Z,51nm,1.3s,baz=18,slow=6.3						
GORT1	**Trebel**	**65.53**	**339**	P	**P**	**01 02 02.0**	**+1.4**
	comp=Z,1µmcomp=Z,33nm,2.2s						
RUE	**Ruedersdorf**	**65.53**	**337**	*e*P	**P**	**01 02 01.3**	**+0.6**
	comp=Z,48nm,1.1s,baz=18,slow=6.3						
ICQ	**Pointe Anglais**	**65.62**	**31**	P	**P**	**01 02 00.0**	**-1.3**
ICQ				IAmb	IAmb	01 02 03.5	
	comp=Z,38nm,1.1s						
MSTX	**Muleshoe**	**65.64**	**65**	P	**P**	**01 02 01.1**	**-0.8**
MSTX				IAmb	IAmb	01 02 04.6	
	comp=Z,31nm,0.9s						
MSTX				IAMs_20	IAMs_20	01 30 34.5	
	comp=Z,3µm,20.0s						
I49A	**Point Hope**	**65.64**	**44**	P	**P**	**01 02 01.0**	**-0.5**
EDMD	**Edmundbyers**	**65.69**	**348**	P	**P**	**01 02 01.5**	**-0.2**
	comp=Z,30nm,1.2s						
HSIG		**65.72**	**74**	P	**P**	**01 02 02.1**	**-0.2**
HSIG				IAmb	IAmb	01 02 06.2	
	comp=Z,66nm,1.8s						
CROK	**Carrier**	**65.75**	**59**	P	**P**	**01 02 01.5**	**-0.9**
CROK				IAmb	IAmb	01 02 04.3	
	comp=Z,29nm,0.8s						
P40A	**Paris**	**65.79**	**53**	P	**P**	**01 02 01.5**	**-1.1**
BAL3X	**Bal3x, Balta**	**65.80**	**325**	P	**P**	**01 02 02.1**	**-0.4**
M44A	**Midewin, Midew**	**65.85**	**49**	P	**P**	**01 02 01.9**	**-1.0**
M44A				IAmb	IAmb	01 02 05.6	
	comp=Z,20nm,0.8s						
M44A				IAMs_20	IAMs_20	01 34 32.1	
	comp=Z,3µm,18.0s						
SMWD	**Samnorwood**	**65.88**	**62**	P	**P**	**01 02 03.0**	**-0.3**
SMWD				IAmb	IAmb	01 02 11.0	
	comp=Z,41nm,1.2s						
CPRX	**Cap Rock**	**65.89**	**66**	P	**P**	**01 02 03.3**	**-0.2**
MNGR	**Mingechevir, A**	**65.91**	**309**	P	**P**	**01 02 01.8**	**-1.5**
LDAQ	**Lac Daran**	**65.91**	**34**	P	**P**	**01 02 02.2**	**-1.1**
LDAQ				IAmb	IAmb	01 02 04.7	
	comp=Z,35nm,1.1s						
GAL1	**Galloway**	**65.93**	**350**	*e*P	**P**	**01 02 02.7**	**-0.5**
GAL1				IAmb	IAmb	01 02 05.2	
	comp=Z,13nm,0.8s						
IDGL	**Inch Island, C**	**65.96**	**352**	P	**P**	**01 02 03.6**	**+0.2**
IDGL	**Inch Island, C**	**65.96**	**352**	*e*P	**P**	**01 02 02.9**	**-0.5**
IDGL				IAmb	IAmb	01 02 06.1	
	comp=Z,22nm,0.8s						
SORM	**Soroca**	**65.98**	**326**	P	**P**	**01 02 03.3**	**-0.3**
	comp=Z,2µmcomp=Z,59nm,0.9s						
KESW	**Keswick, Cumbr**	**66.05**	**349**	*e*P	**P**	**01 02 03.8**	**-0.2**
KESW				IAmb	IAmb	01 02 10.5	
	comp=Z,28nm,0.9s						
KESW	**Keswick, Cumbr**	**66.05**	**349**	P	**P**	**01 02 04.8**	**+0.8**
	comp=Z,78nm,1.1s						
HDIL	**Hopedale**	**66.05**	**51**	P	**P**	**01 02 02.9**	**-1.4**
ANN	**Anapa**	**66.06**	**318**	*e*P	**P**	**01 02 01.4**	**-2.8**
ANN				*e*S	**S**	**01 10 45.6**	**-6.5**
ANN				pmax	pmax		
	comp=Z,60nm,1.2s						
ANN				MLR	MLR		
	comp=Z,3µm,17.0s						
T35A	**Sooner Cattle**	**66.06**	**58**	P	**P**	**01 02 03.6**	**-0.8**
T35A				IAmb	IAmb	01 02 10.2	
	comp=Z,13nm,0.8s						
T35A				IAMs_20	IAMs_20	01 32 31.7	
	comp=Z,4µm,20.0s						
RETH	**Rethem/Aller,**	**66.12**	**340**	*e*P	**P**	**01 02 05.2**	**+0.8**
	comp=Z,30nm,1.3s,baz=18,slow=6.3						
RETH	**Rethem/Aller,**	**66.12**	**340**	P	**P**	**01 02 04.8**	**+0.4**
	comp=Z,26nm,1.9s						
LUWI	**Luwuk**	**66.12**	**220**		**P**	**01 02 03.1**	**-1.8**
KMPD	**K-Podol'skiy**	**66.13**	**328**	P	**P**	**01 02 04.3**	**-0.3**
KWP	**Kalwaria Pacla**	**66.16**	**331**	*e*P	**P**	**01 02 05.4**	**+0.6**
KWP				*e*L	L	01 30 37.6	
	comp=Z,3µm,22.3s						
KWP	**Kalwaria Pacla**	**66.16**	**331**	P	**P**	**01 02 04.7**	**-0.1**
	comp=Z,2µmcomp=Z,138nm,1.1s						
FLTG	**Flechtingen**	**66.17**	**339**	*e*P	**P**	**01 02 04.9**	**+0.1**
	comp=Z,13nm,1.1s,baz=18,slow=6.3						
FLTG	**Flechtingen**	**66.17**	**339**	P	**P**	**01 02 05.1**	**+0.3**
	comp=Z,12nm,1.8s						
SADO	**Sadowa**	**66.22**	**41**	LR	LR	01 32 33.5	
	comp=Z,2µm,19.0s,baz=350,slow=37						
OK051	**E0350 and S346**	**66.26**	**59**	P	**P**	**01 02 04.9**	**-0.7**
OK051				IAmb	IAmb	01 02 16.5	
	comp=Z,19nm,0.7s						
MNTX	**Cornudas Mount**	**66.26**	**68**	P	**P**	**01 02 05.1**	**-0.7**
MNTX				IAmb	IAmb	01 02 17.3	
	comp=Z,31nm,1.2s						
MNTX				IAMs_20	IAMs_20	01 28 47.1	
	comp=Z,3µm,22.0s						

MNTX	Cornudas Mount	66.26	68	P	P	01 02 07.1	+1.3
	comp=Z,639nmcomp=Z,22nm,1.4s,comp=Z,639nm						
OK048	Pawnee Station	66.28	59	P	P	01 02 06.0	+0.2
SOC	Sochi	66.31	316	eP	P	01 02 05.8	0.0
SOC				e		01 04 33.7	
SOC				ePPP	PPP	01 06 04.2	
SOC				eS	S	01 10 52.8	-2.4
SOC				eSS	SS	01 15 11.0	+0.6
SOC				eSSS	SSS	01 18 10.0	
SOC				pmax	pmax		
	comp=Z,15nm,0.8s						
SOC				MLR	MLR		
	comp=Z,3µm,16.0s						
GANJ	Ganja	66.32	310	P	P	01 02 04.5	-1.5
OJC	Ojcow	66.34	333	eP	P	01 02 06.5	+0.6
OJC				eL	L	01 34 38.2	
	comp=Z,5µm,17.5s						
OJC	Ojcow	66.34	333	P	P	01 02 05.8	-0.2
OJC	Ojcow	66.34	333	P	P	01 02 05.8	-0.2
OJC	Ojcow	66.34	333	P	P	01 02 05.7	-0.2
	comp=Z,1µmcomp=Z,94nm,1.1s						
OJC	Ojcow	66.34	333	P	P	01 02 06.8	+0.9
	comp=Z,1µmcomp=Z,94nm,1.1s,comp=Z,1µm						
GDL2	Guadalupe Moun	66.34	67	P	P	01 02 05.7	-0.7
APSI	Ampana	66.38	221	P	P	01 02 07.2	+0.6
	comp=Z,1µmcomp=Z,54nm,1.3s						
TRQ	Mont Tremblant	66.46	37	P	P	01 02 05.5	-1.3
HTMS	Hat Mesa	66.46	66	P	P	01 02 06.6	-0.6
ASSE	Asse, Remlinge	66.47	339	eP	P	01 02 07.4	+0.8
	comp=Z,46nm,1.3s,baz=18,slow=6.3						
ASSE	Asse, Remlinge	66.47	339	P	P	01 02 07.5	+0.9
	comp=Z,29nm,2.1s						
HPK	Haverah Park	66.51	348	eP	P	01 02 06.8	-0.1
HPK				IAmb	IAmb	01 02 11.2	
	comp=Z,10nm,0.7s						
KRAI	Karang Ratu	66.51	214	P	P	01 02 08.9	+1.5
CLNB	Carlsbad	66.52	66	P	P	01 02 06.7	-0.8
LMQ	La Malbaie	66.55	34	P	P	01 02 05.6	-1.8
LMQ				IAmb	IAmb	01 02 09.4	
	comp=Z,30nm,0.9s						
KSP	Ksiaz	66.56	335	eP	P	01 02 07.3	0.0
KSP				eL	L	01 30 24.9	
	comp=Z,3µm,25.8s						
KSP	Ksiaz	66.56	335	P	P	01 02 07.0	-0.3
	comp=Z,548nmcomp=Z,37nm,0.9s						
OK029	Liberty Lake	66.57	59	P	P	01 02 07.6	-0.1
OK029				IAmb	IAmb	01 02 14.8	
	comp=Z,41nm,1.3s						
QUOK	Quay	66.59	59	P	P	01 02 06.5	-1.2
QUOK				IAmb	IAmb	01 02 15.4	
	comp=Z,37nm,1.1s						
OK052	Battle Ridge R	66.70	59	P	P	01 02 07.2	-1.3
OK052				IAmb	IAmb	01 02 15.6	
	comp=Z,53nm,1.5s						
TPB28		66.71	67	P	P	01 02 07.6	-1.1
TPB28				IAmb	IAmb	01 02 21.0	
	comp=Z,30nm,1.0s						
TPB11	China Draw	66.72	67	P	P	01 02 08.1	-0.7
TPB11				IAmb	IAmb	01 02 19.7	
	comp=Z,31nm,1.3s						
K50A	Casco	66.72	45	P	P	01 02 07.1	-1.4
K50A				IAmb	IAmb	01 02 15.0	
	comp=Z,42nm,1.3s						
K50A				IAMs_20	IAMs_20	01 33 52.3	
	comp=Z,4µm,21.0s						
STHS	Stebnicka Huta	66.73	331	eP	P	01 02 08.8	+0.3
STHS				pmax	pmax		
	comp=Z,33nm,0.8s						
STHS	Stebnicka Huta	66.73	331	eP	P	01 02 08.8	+0.3
P43A	Skaggs, Pawnee	66.74	51	P	P	01 02 07.1	-1.6
P43A				IAmb	IAmb	01 02 09.7	
	comp=Z,20nm,0.9s						
R40A	Maddies Statio	66.74	54	P	P	01 02 07.0	-1.7
R40A				IAmb	IAmb	01 02 15.8	
	comp=Z,30nm,0.9s						
AAM	Ann Arbor	66.75	46	P	P	01 02 08.2	-0.5
AAM				pmax	pmax		
	comp=Z,32nm,1.1s						
AAM				MLR	MLR		
	comp=Z,3µm,19.0s						
AAM	Ann Arbor	66.75	46	P	P	01 02 08.2	-0.5
AAM				IAmb	IAmb	01 02 16.4	
	comp=Z,32nm,1.1s						
AAM				IAMs_20	IAMs_20	01 33 59.0	
	comp=Z,3µm,19.0s						
DKNS	Dickens	66.75	63	P	P	01 02 08.6	-0.4
CLZ	Clausthal	66.80	339	eP	P	01 02 09.8	+1.0
	comp=Z,31nm,1.1s,baz=18,slow=6.3						
CLZ	Clausthal	66.80	339	P	P	01 02 09.6	+0.8
	comp=Z,768nmcomp=Z,35nm,1.6s						
S39A	Bolivar	66.80	55	P	P	01 02 07.7	-1.4
S39A				IAmb	IAmb	01 02 10.0	
	comp=Z,15nm,0.8s						
CLL	Collm	66.80	338	P	P	01 02 08.3	-0.6
CLL				pmax	pmax		
	comp=Z,31nm,1.0s						
CLL				MLR	MLR		
	comp=Z,2µm,20.0s						
CLL	Collm	66.80	338	P	P	01 02 08.3	-0.6
CLL				IAmb	IAmb	01 02 10.7	
	comp=Z,31nm,1.0s						
CLL				IAMs_20	IAMs_20	01 34 04.6	
	comp=Z,2µm,20.0s						
CLL	Collm	66.80	338	eP	P	01 02 09.0	+0.1
	comp=Z,31nm,1.0s,baz=18,slow=6.3						
CLL	Collm	66.80	338	P	P	01 02 08.4	-0.5
	comp=Z,636nmcomp=Z,41nm,1.0s						
CLL	Collm	66.80	338	P	P	01 02 08.9	0.0
	comp=Z,636nmcomp=Z,41nm,1.0s						
CLL	Collm	66.80	338	i P	P	01 02 08.4	-0.5
	comp=Z,38nm,1.0s						
CLL				ePPP	PPP	01 06 17.0	
CLL				eS	S	01 11 01.0	0.0
	comp=N,200nm,9.7s						
CLL				eS	S	01 11 01.0	0.0
	comp=E,200nm,5.6s						
CLL				eSS	SS	01 15 24.0	+6.3
CLL				eSSS	SSS	01 18 30.0	
CLL				LQ	LQ	01 21 00.0	
CLL				LR	LR	01 23 00.0	
CLL				AMS	AMS	01 31 00.0	
	comp=Z,3µm,22.0s						
CLL				AMS	AMS	01 33 00.0	
	comp=N,3µm,18.4s						
CLL				AMS	AMS	01 33 00.0	
	comp=E,4µm,17.0s						
IBBN	Ibbenburen	66.81	341	eP	P	01 02 09.5	+0.6
	comp=E,37nm,1.1s,baz=18,slow=6.3						
IBBN	Ibbenburen	66.81	341	P	P	01 02 09.3	+0.4
	comp=Z,22nm,0.8s						
OSTC	Ostas	66.84	335	eP	P	01 02 09.9	+0.7
OSTC				MLR	MLR		
	comp=Z,3µm,15.3s						
OSTC	Ostas	66.84	335	eP	P	01 02 09.9	+0.7
OSTC				AMS	AMS	01 36 10.0	
	comp=Z,3µm,15.3s						
CHVC	Chvalec	66.85	335	eP	P	01 02 09.8	+0.6
CHVC				MLR	MLR		
	comp=Z,3µm,14.4s						
CHVC	Chvalec	66.85	335	eP	P	01 02 09.8	+0.6
CHVC				AMS	AMS	01 36 10.0	
	comp=Z,3µm,14.4s						
WMOK	Wichita Mounta	66.85	61	P	P	01 02 09.0	-0.5
WMOK				pmax	pmax		
	comp=Z,65nm,0.9s						
WMOK				MLR	MLR		
	comp=Z,6µm,18.0s						
WMOK	Wichita Mounta	66.85	61	P	P	01 02 08.9	-0.5
WMOK	Wichita Mounta	66.85	61	P	P	01 02 10.1	+0.6
	comp=Z,961nmcomp=Z,89nm,1.0s,comp=Z,961nm						
SBUM	Sibu	66.87	232	P	P	01 02 10.2	+0.4
SBUM	Sibu	66.87	232	P	P	01 02 11.0	+1.3
	comp=Z,688nmcomp=Z,46nm,1.5s						
SBUM	Sibu	66.87	232	P	P	01 02 11.4	+1.7
	comp=Z,685nmcomp=Z,46nm,1.5s,comp=Z,685nm						
128A	Castleberry Fa	66.89	65	P	P	01 02 09.2	-0.6
128A				IAmb	IAmb	01 02 20.5	
	comp=Z,30nm,1.2s						
WIMM	Wimmelburg	66.89	339	P	P	01 02 09.5	+0.1
	comp=Z,49nm,2.2s						
ILTH	Belurgan, Co L	66.90	351	P	P	01 02 11.7	+2.3
OKCSW	OKLAHOMA CITY	66.90	60	P	P	01 02 09.5	-0.3
KOLS	Kolonicke sedl	66.91	331	eP	P	01 02 10.3	+0.6
KOLS				pmax	pmax		
	comp=Z,28nm,0.8s						
KOLS	Kolonicke sedl	66.91	331	eP	P	01 02 10.3	+0.6
AAI	Ambon	66.92	214	P	P	01 02 10.8	+0.8
	comp=Z,113nm,1.3s						
UPC	Upice	66.93	335	eP	P	01 02 10.5	+0.8
UPC				MLR	MLR		
	comp=Z,3µm,14.1s						
UPC	Upice	66.93	335	eP	P	01 02 10.5	+0.8
UPC				AMS	AMS	01 36 20.0	
	comp=Z,3µm,14.1s						
UPC	Upice	66.93	335	P	P	01 02 10.8	+1.0
	comp=Z,689nmcomp=Z,25nm,1.9s						
NIE	Niedzica	66.96	332	eP	P	01 02 11.3	+1.3
NIE				eL	L	01 34 56.2	
	comp=Z,3µm,17.6s						
NIE	Niedzica	66.96	332	P	P	01 02 09.6	-0.4
	comp=Z,17nm,1.5s						
DEOK	Depew	66.96	59	P	P	01 02 09.4	-0.8
LKRN	Lenkeran, Azer	66.96	307	P	P	01 02 08.6	-1.5
POST	Post	66.98	64	P	P	01 02 09.4	-1.0
PCI	Palu	67.01	223	P	P	01 02 11.3	+0.7
	comp=Z,27nm,0.8s						
DPC	Dobruska-Polom	67.01	335	eP	P	01 02 11.3	+1.0
DPC				pmax	pmax		
	comp=Z,8.0nm,0.8s						
DPC				MLR	MLR		
	comp=Z,2µm,18.5s						
DPC	Dobruska-Polom	67.01	335	eP	P	01 02 11.3	+1.0
	comp=Z,8.4nm,0.8s						
DPC				AMS	AMS	01 37 40.0	
	comp=Z,2µm,18.5s						
DPC	Dobruska-Polom	67.01	335	P	P	01 02 09.9	-0.4
	comp=Z,823nmcomp=Z,38nm,1.7s						
DPC	Dobruska-Polom	67.01	335	P	P	01 02 11.3	+1.0
	comp=Z,819nmcomp=Z,38nm,1.7s						
BRG	Berggiesshubel	67.02	337	eP	P	01 02 10.6	+0.4
	comp=Z,17nm,1.1s,baz=18,slow=6.3						
BRG	Berggiesshubel	67.02	337	P	P	01 02 10.5	+0.2
	comp=Z,14nm,1.6s						
BRG	Berggiesshubel	67.02	337	eP	P	01 02 10.7	+0.4
BRG				Amp		01 02 12.4	
	comp=Z,17nm,1.1s						
BRG	Berggiesshubel	67.02	337	S	S	01 11 12.0	+8.3
FNO	Franklin	67.05	60	P	P	01 02 11.1	+0.4
FNO				IAmb	IAmb	01 02 12.8	
	comp=Z,21nm,0.7s						
STEB	Steborice	67.08	334	eP	P	01 02 11.7	+1.0
OKC	Ostrava-Krasne	67.08	334	eP	P	01 02 13.2	+2.5
OKC	Ostrava-Krasne	67.08	334	P	P	01 02 11.6	+0.9
	comp=Z,916nmcomp=Z,43nm,1.5s,comp=Z,916nm						
TPB13	Reeves - Culbe	67.12	67	P	P	01 02 11.4	+0.1
TPB13				IAmb	IAmb	01 02 23.3	
	comp=Z,30nm,0.9s						
NEUB	Neuenburg	67.14	338	eP	P	01 02 11.3	+0.4
	comp=Z,18nm,0.9s,baz=18,slow=6.3						
NEUB	Neuenburg	67.14	338	P	P	01 02 11.2	+0.2
	comp=Z,23nm,1.1s						
GTTG	Gottingen	67.15	340	eP	P	01 02 11.9	+0.8
	comp=Z,34nm,1.4s,baz=18,slow=6.3						
KRLC	Kraliky	67.17	335	eP	P	01 02 12.0	+0.7
KRLC				MLR	MLR		
	comp=Z,3µm,13.0s						
KRLC	Kraliky	67.17	335	eP	P	01 02 12.0	+0.7
KRLC				AMS	AMS	01 36 10.0	
	comp=Z,3µm,13.0s						
KRLC	Kraliky	67.17	335	P	P	01 02 12.1	+0.8
	comp=Z,836nmcomp=Z,47nm,1.0s						
129A	Stewart Farms,	67.17	65	P	P	01 02 11.7	0.0
N47A	Urbana	67.20	48	P	P	01 02 10.3	-1.3
N47A				IAMs_20	IAMs_20	01 33 57.9	
	comp=Z,4µm,21.0s						
VHRN	Van Horn	67.21	68	P	P	01 02 11.4	-0.5
VHRN				IAmb	IAmb	01 02 24.8	
	comp=Z,17nm,1.0s						
TUL3	Leonard	67.22	58	P	P	01 02 10.8	-1.0
TUL3				IAmb	IAmb	01 02 22.0	
	comp=Z,33nm,1.1s						
PVCC	Panska Ves	67.22	336	AMS	AMS	01 36 10.0	
	comp=Z,5µm,15.0s						
SN07	Snyder 07	67.25	64	P	P	01 02 11.3	-0.7
SN07				IAmb	IAmb	01 02 19.6	
	comp=Z,36nm,1.3s						
PECS	Pecos	67.26	67	P	P	01 02 11.5	-0.7
PECS				IAmb	IAmb	01 02 23.2	
	comp=Z,25nm,1.1s						
ODSA	Odessa	67.27	65	P	P	01 02 12.0	-0.3
MORC	Moravsky Berou	67.28	334	P	P	01 02 11.6	-0.4
MORC				pmax	pmax		
	comp=Z,32nm,0.9s						
MORC	Moravsky Berou	67.28	334	P	P	01 02 11.6	-0.4
MORC				IAmb	IAmb	01 02 14.7	
	comp=Z,32nm,0.9s						
MORC	Moravsky Berou	67.28	334	eP	P	01 02 12.4	+0.4
MORC	Moravsky Berou	67.28	334	⇑P	P	01 02 12.8	+0.8
MORC	Moravsky Berou	67.28	334	P	P	01 02 12.8	+0.8
	comp=Z,762nmcomp=Z,47nm,1.2s						
WBO	Williamsburg	67.31	39	P	P	01 02 11.4	-0.8
WBO				IAmb	IAmb	01 03 36.5	
	comp=Z,58nm,1.7s						
BUR08	Bucovina Ar. S	67.32	328	P	P	01 02 12.7	+0.3
BUR08				IAmb	IAmb	01 02 19.9	
	comp=Z,18nm,0.8s						
BURAR	Bucovina Array	67.34	328	P	P	01 02 11.9	-0.6
BURAR	Bucovina Array	67.34	328	P	P	01 02 11.9	-0.6
BURAR				IAmb	IAmb	01 02 15.0	
	comp=Z,16nm,0.7s						
RLO	Rose Lookout	67.34	57	P	P	01 02 12.2	-0.3
RLO				IAmb	IAmb	01 02 14.2	
	comp=Z,27nm,0.9s						
TPB06	Permian Basin	67.34	66	P	P	01 02 11.8	-0.9
TPB06				IAmb	IAmb	01 03 22.6	
	comp=Z,31nm,1.6s						
D62A	Allapoint, All	67.35	33	P	P	01 02 11.3	-1.1
D62A				IAmb	IAmb	01 02 14.1	
	comp=Z,20nm,0.9s						
W35A	Tecumseh	67.37	59	P	P	01 02 12.1	-0.6
CCM	Cathedral Cave	67.37	54	P	P	01 02 12.0	-0.7
	comp=Z,31nm,1.0s						
GNI	Garni	67.37	311	P	P	01 02 13.3	+0.4
	comp=Z,24nm,0.8s,baz=204,slow=5.5,SNR=6.5						
GNI				LR	LR	01 36 46.9	
	comp=Z,5µm,18.6s,baz=28,slow=40						
	comp=Z,24nm,0.8s						
GNI	Garni	67.37	311	P	P	01 02 12.2	-0.7
GNI				pmax	pmax		
	comp=Z,73nm,1.3s						
GNI				MLR	MLR		
	comp=Z,5µm,18.0s						
GNI	Garni	67.37	311	P	P	01 02 12.2	-0.7
GNI	Garni	67.37	311	P	P	01 02 16.1	+3.2
	comp=Z,874nmcomp=Z,48nm,1.6s						
HSKC	Hora Svate Kat	67.38	337	eP	P	01 02 12.9	+0.3
HSKC				AMS	AMS	01 36 20.0	
	comp=Z,3µm,15.8s						
HSKC	Hora Svate Kat	67.38	337	P	P	01 02 13.1	+0.5
	comp=Z,32nm,1.9s						
U38A	Gravette	67.39	57	P	P	01 02 12.2	-0.7
MNTQ	Montreal, Queb	67.40	37	P	P	01 02 12.4	-0.3
MNTQ				IAmb	IAmb	01 02 12.9	
	comp=Z,23nm,1.1s						
X34A	Smith Ranch, M	67.40	60	P	P	01 02 12.5	-0.4
APMT	Aspermont	67.41	63	P	P	01 02 12.2	-0.8
LEOM	Leova	67.51	325	P	P	01 02 14.8	+1.4
Q44A	Meyer Farm, Va	67.57	51	P	P	01 02 12.9	-1.0
TRPA	Tarpa	67.59	330	P	P	01 02 14.3	+0.4
	comp=Z,1µmcomp=Z,74nm,1.6s						
MAUC	Maruska	67.60	334	eP	P	01 02 15.2	+1.2
TPB01	Permian Basin	67.66	67	P	P	01 02 14.5	-0.2
CWF	Charnwood Fore	67.67	347	P	P	01 02 15.0	+0.6
	comp=Z,972nmcomp=Z,34nm,2.3s						
DSB	Dublin	67.68	351	P	P	01 02 14.9	+0.5
DSB	Dublin	67.68	351	P	P	01 02 13.8	-0.6
DSB				IAmb	IAmb	01 02 21.6	
	comp=Z,37nm,1.2s						
P46A	Rosedale	67.69	50	P	P	01 02 13.8	-0.9
MOX	Moxa	67.71	338	eP	P	01 02 15.3	+0.7
	comp=Z,16nm,0.9s,baz=18,slow=6.3						
MOX				eL	L	01 34 54.5	
	comp=Z,2µm,19.6s						
MOX	Moxa	67.71	338	P	P	01 02 15.1	+0.4
	comp=Z,529nmcomp=Z,20nm,1.9s						
HHAR	Hobbs	67.72	57	P	P	01 02 14.0	-1.0
BUG	Bochum--Univer	67.72	341	eP	P	01 02 15.1	+0.4
	comp=Z,30nm,1.0s,baz=18,slow=6.3						
BUG	Bochum--Univer	67.72	341	P	P	01 02 14.7	0.0
	comp=Z,32nm,0.9s						
FOEL	Foel Wylfa	67.73	348	eP	P	01 02 14.8	0.0
FOEL				IAmb	IAmb	01 02 18.8	
	comp=Z,13nm,0.8s						
FOEL	Foel Wylfa	67.73	348	P	P	01 02 15.4	+0.6
	comp=Z,19nm,1.4s						
PRU	Pruhonice	67.74	336	eP	P	01 02 15.3	+0.5
PRU				pmax	pmax		
	comp=Z,14nm,0.8s						
PRU				MLR	MLR		
	comp=Z,6µm,15.3s						
PRU	Pruhonice	67.74	336	eP	P	01 02 15.3	+0.5
	comp=Z,14nm,0.8s						
PRU				AMS	AMS	01 36 30.0	
	comp=Z,6µm,15.3s						
IGLA	Glengowla, Co	67.74	352	P	P	01 02 16.2	+1.5
N49A	Columbus Grove	67.74	47	P	P	01 02 13.9	-1.1
N49A				IAmb	IAmb	01 02 43.0	
	comp=Z,17nm,0.9s						
N49A				IAMs_20	IAMs_20	01 33 11.3	
	comp=Z,4µm,20.0s						
229A	Bryant Ranch,	67.75	65	P	P	01 02 14.6	-0.7
PLN	Plauen	67.75	338	eP	P	01 02 15.7	+0.8
	comp=Z,8.0nm,1.1s,baz=18,slow=6.3						
BMR	Baia Mare	67.75	329	P	P	01 02 14.0	-1.0
BMR	Baia Mare	67.75	329	P	P	01 02 17.2	+2.2
	comp=Z,827nmcomp=Z,51nm,0.9s						
M50A	Fremont	67.76	46	P	P	01 02 14.9	-0.2
M50A				IAmb	IAmb	01 03 19.4	
	comp=Z,37nm,1.3s						
M50A				IAMs_20	IAMs_20	01 34 42.6	
	comp=Z,3µm,20.0s						
KASTN	Kahler Asten	67.76	340	eP	P	01 02 15.6	+0.7
	comp=Z,14nm,1.0s,baz=18,slow=6.3						
TANN	Tannenbergstha	67.76	338	eP	P	01 02 15.8	+0.8
	comp=Z,53nm,1.6s,baz=18,slow=6.3						
TANN	Tannenbergstha	67.76	338	P	P	01 02 14.6	-0.4
	comp=Z,948nmcomp=Z,33nm,2.1s						
ABAH	Abaujker	67.77	331	P	P	01 02 16.1	+1.1
	comp=Z,799nmcomp=Z,33nm,1.6s						
FVM	French Village	67.77	53	P	P	01 02 14.2	-1.1
FVM				pmax	pmax		
	comp=Z,31nm,1.0s						
FVM	French Village	67.77	53	P	P	01 02 14.2	-1.1
FVM				IAmb	IAmb	01 02 22.4	
	comp=Z,31nm,0.9s						
WTFS	Witchita Falls	67.81	61	P	P	01 02 15.4	-0.1
WTFS				IAmb	IAmb	01 02 17.6	
	comp=Z,25nm,0.8s						
MNHN	Monahans	67.81	66	P	P	01 02 15.0	-0.7
UBBA	Unterbreizbach	67.84	339	P	P	01 02 12.6	-2.7
	comp=Z,629nmcomp=Z,13nm,2.0s						
TMB01	Midkiff	67.87	65	P	P	01 02 15.4	-0.7
TMB01				IAmb	IAmb	01 02 26.8	
	comp=Z,25nm,1.1s						
LONY	Lake Ozonia	67.88	38	P	P	01 02 14.9	-0.9
LONY				IAmb	IAmb	01 02 18.7	
	comp=Z,26nm,1.4s						
LONY				IAMs_20	IAMs_20	01 33 51.8	
	comp=Z,3µm,20.0s						
TPB05	Hovey Rd	67.89	67	P	P	01 02 15.8	-0.4
TPB05				IAmb	IAmb	01 02 24.4	
	comp=Z,30nm,1.2s						
NAX	Nakhchivan	67.91	310	P	P	01 02 14.6	-1.6
VRAC	Vranov	67.93	334	P	P	01 02 16.6	+0.5
	comp=Z,18nm,0.9s,baz=24,slow=7.0,SNR=30						
VRAC				LR	LR	01 35 46.4	
	comp=Z,3µm,18.4s,baz=24,slow=39						
	comp=Z,18nm,0.9s						
VRAC	Vranov	67.93	334	eP	P	01 02 16.7	+0.6
VRAC	Vranov	67.93	334	⇑P	P	01 02 16.9	+0.8
VRAC	Vranov	67.93	334	P	P	01 02 17.1	+1.0
	comp=Z,245nmcomp=Z,12nm,1.8s						
NKC	Novy Kostel	67.93	338	eP	P	01 02 16.8	+0.7
NKC				MLR	MLR		
	comp=Z,3µm,14.8s						
NKC	Novy Kostel	67.93	338	eP	P	01 02 16.8	+0.7
NKC				AMS	AMS	01 37 30.0	
	comp=Z,3µm,14.8s						
NKC	Novy Kostel	67.93	338	P	P	01 02 16.8	+0.7
	comp=Z,767nmcomp=Z,19nm,1.6s						
TESR	Tescani	67.94	327	P	P	01 02 16.6	+0.4
	comp=Z,59nm,0.9s						
O48B	Farmland	67.94	48	P	P	01 02 14.9	-1.4
O48B				IAMs_20	IAMs_20	01 34 21.6	
	comp=Z,3µm,20.0s						
BATG	Bathurst New B	68.00	31	P	P	01 02 15.8	-0.7
BATG				IAmb	IAmb	01 02 18.4	
	comp=Z,23nm,0.8s						
HNR	Honiara	68.00	179	LR	LR	01 33 09.3	
	comp=Z,1µm,18.3s,baz=72,slow=37						
HLM1	Long Mynd	68.06	348	eP	P	01 02 16.3	-0.5
HLM1				IAmb	IAmb	01 02 19.2	
	comp=Z,14nm,0.9s						
OLIL	Olney	68.09	51	P	P	01 02 16.3	-0.9
OLIL				IAmb	IAmb	01 02 26.6	
	comp=Z,34nm,1.1s						
JAVC	Velka Javorina	68.11	334	eP	P	01 02 19.0	+1.7
JAVC	Velka Javorina	68.11	334	P	P	01 02 19.2	+2.0
	comp=Z,50nm,1.6s						
SGCY	Sterling City	68.11	65	P	P	01 02 17.6	0.0
SGCY				IAmb	IAmb	01 02 27.8	
	comp=Z,33nm,1.2s						
CFNY	Clifton-Fine,	68.13	39	P	P	01 02 16.4	-1.0
CFNY				IAmb	IAmb	01 02 50.4	
	comp=Z,59nm,1.6s						
GHRR		68.14	326	P	P	01 02 18.4	+1.0
	comp=Z,2µmcomp=Z,122nm,0.9s						
VYHS	Vyhne	68.17	333	eP	P	01 02 18.4	+0.8
VYHS				pmax	pmax		
	comp=Z,37nm,1.0s						
VYHS	Vyhne	68.17	333	eP	P	01 02 18.4	+0.8
VYHS	Vyhne	68.17	333	P	P	01 02 18.9	+1.3
	comp=Z,11nm,1.2s						
TREC	Trest	68.19	335	eP	P	01 02 18.6	+0.8
TREC				AMS	AMS	01 37 00.0	
	comp=Z,3µm,16.4s						
TREC	Trest	68.19	335	P	P	01 02 18.5	+0.8
	comp=Z,716nmcomp=Z,41nm,1.6s,comp=Z,716nm						
ALPN	Alpine	68.20	67	P	P	01 02 17.3	-0.9
ALPN				IAmb	IAmb	01 02 29.0	
	comp=Z,25nm,1.3s						
LOOK	Love County	68.20	60	P	P	01 02 17.4	-0.5
KRUC	Moravsky	68.21	334	eP	P	01 02 18.5	+0.7
KRUC	Moravsky	68.21	334	P	P	01 02 18.8	+1.0
	comp=Z,995nmcomp=Z,42nm,1.7s						
ABTX	Abilene, Hawle	68.22	63	P	P	01 02 18.4	+0.2
ABTX				IAMs_20	IAMs_20	01 34 22.8	
	comp=Z,3µm,19.0s						
M52A	Chesterland	68.26	45	IAMs_20	IAMs_20	01 34 46.9	
	comp=Z,3µm,20.0s						
FLET	Fletcher	68.30	37	P	P	01 02 18.1	-0.4
FLET				IAmb	IAmb	01 02 20.7	
	comp=Z,22nm,1.0s						
T42A	Van Buren	68.30	54	P	P	01 02 17.7	-0.9
T42A				IAmb	IAmb	01 02 19.8	
	comp=Z,24nm,1.0s						
O49A	Covington	68.32	47	P	P	01 02 17.9	-0.7
O49A				IAmb	IAmb	01 02 25.2	
	comp=Z,19nm,0.9s						
O49A				IAMs_20	IAMs_20	01 34 27.5	
	comp=Z,2µm,18.0s						
ZVC	Zvikov	68.33	336	eP	P	01 02 19.4	+0.8
ZVC				AMS	AMS	01 36 50.0	
	comp=Z,4µm,16.3s						
BLO	Bloomington	68.34	50	P	P	01 02 17.5	-1.3
BLO				pmax	pmax		
	comp=Z,17nm,0.9s						
BLO	Bloomington	68.34	50	P	P	01 02 17.5	-1.3
BLO				IAmb	IAmb	01 02 19.8	
	comp=Z,16nm,0.8s						
N51A	Ashland	68.43	46	P	P	01 02 18.2	-1.1
N51A				IAmb	IAmb	01 02 26.2	
	comp=Z,26nm,0.8s						
MMNY	Mt. Morris Dam	68.44	42	P	P	01 02 18.4	-0.9
MMNY				IAmb	IAmb	01 03 17.8	
	comp=Z,29nm,1.2s						
PSZ	Piszkesteto	68.45	332	P	P	01 02 19.8	+0.3
PSZ				pmax	pmax		
	comp=Z,29nm,1.0s						
PSZ	Piszkesteto	68.45	332	P	P	01 02 19.8	+0.3
PSZ				IAmb	IAmb	01 02 22.5	
	comp=Z,29nm,1.0s						
PSZ	Piszkesteto	68.45	332	P	P	01 02 20.7	+1.3
	comp=Z,1µmcomp=Z,35nm,1.8s,comp=Z,1µm						
SMOL	Smolenice	68.49	334	eP	P	01 02 20.9	+1.3
SMOL				pmax	pmax		
	comp=Z,9.0nm,0.9s						

J57A	Williamstown	68.49	40	P	P	01 02 18.7	-0.9
J57A				IAmb	IAmb	01 02 46.0	
	comp=Z,20nm,1.1s						
J57A				IAMs_20	IAMs_20	01 33 59.0	
	comp=Z,2µm,20.0s						
S44A	Carbondale	68.50	52	P	P	01 02 18.5	-1.3
S44A				IAmb	IAmb	01 02 21.4	
	comp=Z,19nm,0.7s						
P48A	Milroy	68.53	49	P	P	01 02 19.0	-0.9
P48A				IAMs_20	IAMs_20	01 37 24.0	
	comp=Z,2µm,19.0s						
NCB	Newcomb	68.57	38	P	P	01 02 19.8	-0.4
IWEX	Carrickbyrne,	68.58	351	P	P	01 02 21.3	+1.2
MCH1	Michaelchurch	68.59	348	*e*P	P	01 02 19.9	-0.3
MCH1				IAmb	IAmb	01 02 22.2	
	comp=Z,8.2nm,0.8s						
G62A	West of Eustis	68.60	35	P	P	01 02 19.3	-1.0
G62A				IAmb	IAmb	01 03 20.9	
	comp=Z,62nm,1.8s						
ALLY	Alegheny Colle	68.61	44	P	P	01 02 19.2	-1.2
GRA3	Grafenberg Arr	68.61	338	P	P	01 02 21.5	+1.2
	comp=Z,729nmcomp=Z,27nm,1.4s						
PMG	Port Moresby	68.64	192	LR	LR	01 29 36.6	
	comp=Z,2µm,21.3s,baz=17,slow=34						
PMG	Port Moresby	68.64	192	P	P	01 02 20.8	0.0
PMG				pmax	pmax		
	comp=Z,48nm,1.1s						
PMG	Port Moresby	68.64	192	P	P	01 02 20.8	0.0
MODS	Modra-Piesok	68.65	334	*e*P	P	01 02 22.0	+1.4
MODS				pmax	pmax		
	comp=Z,90nm,1.2s						
MODS	Modra-Piesok	68.65	334	*e*P	P	01 02 22.0	+1.4
MODS	Modra-Piesok	68.65	334	P	P	01 02 22.2	+1.6
	comp=Z,2µmcomp=Z,69nm,1.7s						
F64A	Sherman	68.66	33	P	P	01 02 19.8	-0.8
F64A				IAmb	IAmb	01 02 28.1	
	comp=Z,30nm,1.3s						
PLPT	Palo Pinto	68.67	62	P	P	01 02 20.1	-0.9
GRA1	Grafenberg Arr	68.69	338	P	P	01 02 20.7	-0.2
GRA1				IAmb	IAmb	01 02 27.3	
	comp=Z,33nm,1.0s						
GRA1				IAMs_20	IAMs_20	01 35 23.6	
	comp=Z,2µm,19.0s						
GRA1	Grafenberg Arr	68.69	338	P	P	01 02 21.8	+1.0
	comp=Z,888nmcomp=Z,38nm,1.2s						
GRF	Grafenberg Arr	68.69	338	P	P	01 02 20.7	-0.2
GRF				pmax	pmax		
	comp=Z,33nm,1.0s						
GRF				MLR	MLR		
	comp=Z,2µm,19.0s						
GRF	Grafenberg Arr	68.69	338	*e*P	P	01 02 21.9	+1.0
	comp=Z,94nm,1.7s,baz=18,slow=6.3						
GRF				*e*pP	sP	01 02 25.9	+1.5
GRF				*e*L	L	01 35 23.7	
	comp=Z,2µm,19.9s						
GRFO	Grafenberg	68.69	338	P	P	01 02 22.0	+1.2
GRFO	Grafenberg	68.69	338	IAMs_20	IAMs_20	01 35 32.6	
	comp=Z,2µm,20.0s						
GRA2	Grafenberg Arr	68.70	338	P	P	01 02 21.7	+0.8
	comp=Z,866nmcomp=Z,46nm,1.8s						
Z35A	Perchaven, San	68.72	61	P	P	01 02 21.2	-0.1
MONM	Monmouth	68.73	348	*e*P	P	01 02 20.6	-0.3
MONM				IAmb	IAmb	01 02 23.3	
	comp=Z,15nm,0.7s						
MEM	Membach	68.74	342	*d*P	P	01 02 21.2	+0.1
	comp=Z,36nm,0.0s						
MEM	Membach	68.74	342	P	P	01 02 21.4	+0.4
	comp=Z,848nmcomp=Z,70nm,0.9s						
KHC	Kasperske Hory	68.75	336	*e*P	P	01 02 21.8	+0.5
KHC				pmax	pmax		
	comp=Z,4.0nm,0.6s						
KHC				MLR	MLR		
	comp=Z,4µm,14.1s						
KHC	Kasperske Hory	68.75	336	*e*P	P	01 02 21.8	+0.5
	comp=Z,4.4nm,0.6s						
KHC				AMS	AMS	01 37 20.0	
	comp=Z,4µm,14.1s						
KHC	Kasperske Hory	68.75	336	P	P	01 02 21.0	-0.3
KHC				IAmb	IAmb	01 02 24.1	
	comp=Z,20nm,1.0s						
KHC				IAMs_20	IAMs_20	01 33 48.2	
	comp=Z,3µm,20.0s						
KHC	Kasperske Hory	68.75	336	P	P	01 02 20.8	-0.5
	comp=Z,23nm,2.1s						
DRGR		68.78	329	P	P	01 02 22.1	+0.6
	comp=Z,19nm,1.5s						
PBMO	Poplar Bluff	68.80	54	P	P	01 02 21.0	-0.7
PBMO				IAmb	IAmb	01 02 23.7	
	comp=Z,29nm,1.1s						
ACSO	Alum Creek Sta	68.80	46	P	P	01 02 20.0	-1.7
ACSO				IAmb	IAmb	01 02 28.8	
	comp=Z,26nm,1.1s						
UCC	Uccle	68.81	343	P	P	01 02 20.9	-0.6
UCC				pmax	pmax		
	comp=Z,41nm,1.6s						
UCC	Uccle	68.81	343	P	P	01 02 20.9	-0.6
UCC				IAmb	IAmb	01 02 36.3	
	comp=Z,41nm,1.6s						
UCC	Uccle	68.81	343	*d*P	P	01 02 20.7	-0.8
UCC	Uccle	68.81	343	P	P	01 02 21.0	-0.6
	comp=Z,2.4nm,2.0s						
FCAR	Ozark Folk Cen	68.83	55	P	P	01 02 20.8	-1.1
GRB4	Grafenberg Arr	68.84	338	P	P	01 02 22.5	+0.7
	comp=Z,859nmcomp=Z,51nm,1.5s						
FW06	Azle	68.88	61	P	P	01 02 21.8	-0.5
FW06				IAmb	IAmb	01 02 24.2	
	comp=Z,24nm,0.9s						
PAOC	Oil Creek Stat	68.89	43	P	P	01 02 21.2	-1.0
PAOC				IAmb	IAmb	01 02 29.1	
	comp=Z,18nm,0.9s						
CKRC	Cesky Krumlov	68.89	336	*e*P	P	01 02 22.7	+0.6
CKRC				MLR	MLR		
	comp=Z,4µm,14.8s						
CKRC	Cesky Krumlov	68.89	336	*e*P	P	01 02 22.7	+0.6
CKRC				AMS	AMS	01 37 10.0	
	comp=Z,4µm,14.8s						
GRB1	Grafenberg Arr	68.89	338	P	P	01 02 23.0	+0.9
	comp=Z,859nmcomp=Z,47nm,1.4s						
GRB3	Grafenberg Arr	68.91	338	P	P	01 02 23.1	+0.9
	comp=Z,866nmcomp=Z,55nm,1.1s						
K57A	Scipio Center	68.92	41	P	P	01 02 20.9	-1.5
K57A				IAmb	IAmb	01 02 55.1	
	comp=Z,29nm,1.3s						
K57A				IAMs_20	IAMs_20	01 37 58.3	
	comp=Z,3µm,18.0s						
USIN	University of	68.92	51	P	P	01 02 21.7	-0.7
PKME	Peaks-Kenny Pk	68.93	34	P	P	01 02 21.2	-1.1
J59A	Piesco	68.93	39	P	P	01 02 21.3	-1.1
J59A				IAmb	IAmb	01 02 24.2	
	comp=Z,28nm,1.2s						
J59A				IAMs_20	IAMs_20	01 34 24.7	
	comp=Z,3µm,21.0s						
SRO	Srobarova	68.94	333	*e*P	P	01 02 24.1	+1.8
SRO				pmax	pmax		
	comp=Z,20nm,1.0s						
SRO	Srobarova	68.94	333	*e*P	P	01 02 24.1	+1.8
OZNA	Ozona	68.94	65	P	P	01 02 21.7	-1.1
OZNA				IAmb	IAmb	01 03 10.4	
	comp=Z,25nm,1.3s						
MCVT	Middlebury Col	68.98	38	P	P	01 02 22.3	-0.4
H62A	Milan	68.99	36	P	P	01 02 21.6	-1.2
H62A				IAmb	IAmb	01 02 32.3	
	comp=Z,22nm,1.0s						
H62A				IAMs_20	IAMs_20	01 34 43.3	
	comp=Z,3µm,20.0s						
GEC2	GERESS Array S	69.00	336	P	P	01 02 22.1	-0.8
GEC2				IAmb	IAmb	01 02 25.2	
	comp=Z,19nm,0.9s						
GEC2	GERESS Array S	69.00	336	*e*P	P	01 02 23.6	+0.7
	baz=18,slow=6.3						
GEC2	GERESS Array S	69.00	336	P	P	01 02 23.4	+0.6
	comp=Z,507nmcomp=Z,28nm,1.1s						
GERES	GERESS Array B	69.00	336	P	P	01 02 23.2	+0.4
	comp=Z,10.0nm,0.8s,baz=24,slow=3.6,SNR=50						
	comp=Z,10.0nm,0.8s						
GERES	GERESS Array B	69.00	336	P	P	01 02 22.2	-0.6
GERES	GERESS Array B	69.00	336	P	P	01 02 22.2	-0.6
GRB2	Grafenberg Arr	69.01	338	P	P	01 02 22.0	-0.8
	comp=Z,660nmcomp=Z,35nm,1.9s						
BCLA	Clavier	69.03	342	*d*P	P	01 02 23.2	+0.3
	comp=Z,7.9nm,1.0s						
TX31	Lajitas Ar. Si	69.04	68	P	P	01 02 22.8	-0.6
TX31				IAmb	IAmb	01 02 34.8	
	comp=Z,32nm,1.2s						
TXAR	Lajitas Array	69.05	68	P	P	01 02 24.2	+0.8
	comp=Z,8.6nm,0.9s,baz=307,slow=3.5,SNR=38						
TXAR				LR	LR	01 34 04.6	
	comp=Z,3µm,18.6s,baz=328,slow=37						
	comp=Z,8.6nm,0.9s						
TXAR	Lajitas Array	69.05	68	P	P	01 02 22.6	-0.9
TXAR	Lajitas Array	69.05	68	P	P	01 02 22.6	-0.9
LBNH	Lisbon	69.06	37	P	P	01 02 22.4	-0.8
LBNH				pmax	pmax		
	comp=Z,22nm,1.0s						
LBNH				MLR	MLR		
	comp=Z,3µm,18.0s						
LBNH	Lisbon	69.06	37	P	P	01 02 22.4	-0.8
LBNH				IAmb	IAmb	01 02 25.3	
	comp=Z,22nm,1.0s						
BUD	Budapest	69.07	332	P	P	01 02 23.6	+0.4
BUD	Budapest	69.07	332	P	P	01 02 23.8	+0.6
	comp=Z,540nmcomp=Z,31nm,1.3s						
MLR	Muntele Rosu	69.08	327	P	P	01 02 24.3	+0.9
	comp=Z,18nm,0.8s,baz=19,slow=6.1,SNR=9.8						
MLR				LR	LR	01 36 42.4	
	comp=Z,4µm,18.7s,baz=24,slow=40						
	comp=Z,18nm,0.8s						
MLR	Muntele Rosu	69.08	327	P	P	01 02 22.6	-0.9
MLR				pmax	pmax		
	comp=Z,26nm,0.9s						
MLR				MLR	MLR		
	comp=Z,4µm,19.0s						
MLR	Muntele Rosu	69.08	327	P	P	01 02 22.6	-0.9
MLR				IAmb	IAmb	01 02 27.1	
	comp=Z,26nm,0.9s						
MLR	Muntele Rosu	69.08	327	P	P	01 02 23.3	-0.2
	comp=Z,507nmcomp=Z,35nm,1.4s						
MLR	Muntele Rosu	69.08	327	P	P	01 02 25.4	+1.9
	comp=Z,494nmcomp=Z,35nm,1.4s,comp=Z,494nm						
L56A	Greenwood	69.09	42	P	P	01 02 22.3	-1.2
L56A				IAmb	IAmb	01 02 34.5	
	comp=Z,38nm,1.3s						
L56A				IAMs_20	IAMs_20	01 35 03.8	
	comp=Z,3µm,18.0s						
N53A	Lisbon	69.09	45	P	P	01 02 23.1	-0.4
N53A				IAMs_20	IAMs_20	01 35 25.9	
	comp=Z,3µm,20.0s						
LCAR	Lake Charles	69.09	55	P	P	01 02 22.6	-0.9
GRB5	Grafenberg Arr	69.16	338	P	P	01 02 24.8	+1.0
	comp=Z,433nmcomp=Z,24nm,1.1s						
PARMO	Parma	69.18	53	P	P	01 02 23.1	-0.9
WINA	Alland / Wiene	69.18	334	*i* pP	P	01 02 24.8	+0.9
	comp=Z,25nm,1.2s,SNR=11						
GRC4	Grafenberg Arr	69.21	338	P	P	01 02 24.6	+0.5
	comp=Z,21nm,1.5s						
BMRD	Maredsous	69.23	343	*d*P	P	01 02 23.9	-0.2
	comp=Z,10nm,1.3s						
PAMR	Moraine State	69.24	44	P	P	01 02 23.7	-0.8
PAMR				IAmb	IAmb	01 02 34.9	
	comp=Z,24nm,1.1s						
WCI	Wyandotte Cave	69.25	50	P	P	01 02 22.9	-1.6
WCI				pmax	pmax		
	comp=Z,28nm,1.1s						
WCI				MLR	MLR		
	comp=Z,5µm,18.0s						
WCI	Wyandotte Cave	69.25	50	P	P	01 02 22.9	-1.6
WCI				IAmb	IAmb	01 02 25.8	
	comp=Z,28nm,1.1s						
WCI	Wyandotte Cave	69.25	50	P	P	01 02 23.9	-0.5
	comp=Z,32nm,1.0s						
WHAR	Wooly Hollow	69.27	56	P	P	01 02 23.2	-1.4
SAND	Sanderson	69.27	66	P	P	01 02 24.2	-0.5
SAND				IAmb	IAmb	01 02 35.5	
	comp=Z,21nm,1.1s						
TIRR	Tirgusor	69.29	324	P	P	01 02 20.9	-3.7
TIRR	Tirgusor	69.29	324	IAMs_20	IAMs_20	01 35 52.7	
	comp=Z,3µm,18.0s						
GRC1	Grafenberg Arr	69.30	338	P	P	01 02 25.2	+0.6
	comp=Z,521nmcomp=Z,19nm,1.7s						
RCHB	Rochefort	69.30	342	P	P	01 02 24.6	0.0
	comp=Z,13nm,1.6s						
O52A	Adamsville	69.33	46	P	P	01 02 22.2	-2.8
O52A				IAmb	IAmb	01 02 31.2	
	comp=Z,28nm,1.1s						
O52A				IAMs_20	IAMs_20	01 33 19.2	
	comp=Z,3µm,20.0s						
STKI	Sintang	69.33	232	P	P	01 02 26.2	+1.0
MIAR	Mount Ida	69.34	57	P	P	01 02 23.8	-1.3
MIAR				pmax	pmax		
	comp=Z,51nm,1.4s						
MIAR				MLR	MLR		
	comp=Z,5µm,19.0s						
MIAR	Mount Ida	69.34	57	P	P	01 02 23.8	-1.3
MIAR				IAmb	IAmb	01 02 35.5	
	comp=Z,50nm,1.4s						
MIAR	Mount Ida	69.34	57	P	P	01 02 25.4	+0.3
	comp=Z,26nm,1.0s						
VOIR		69.38	327	P	P	01 02 24.7	-0.6
	comp=Z,459nmcomp=Z,19nm,1.6s						
GRC3	Grafenberg Arr	69.39	338	P	P	01 02 26.1	+0.9
	comp=Z,24nm,1.7s						
CONA	Conrad Observa	69.39	334	*i* pP	P	01 02 26.2	+0.9
	comp=Z,25nm,1.1s,SNR=15						
GIVF	Givet	69.42	343	*e*P	P	01 02 25.7	+0.4
GIVF				pmax	pmax		
	comp=Z,32nm,1.4s						
P51A	Williamsport	69.42	47	P	P	01 02 24.6	-0.9
P51A				IAmb	IAmb	01 02 27.9	
	comp=Z,18nm,0.7s						
HNH	Hanover	69.43	37	P	P	01 02 25.2	-0.2
HNH				IAmb	IAmb	01 02 27.6	
	comp=Z,26nm,1.1s						
O53A	New Philadelph	69.44	45	P	P	01 02 23.9	-1.7
O53A				IAmb	IAmb	01 02 38.4	
	comp=Z,17nm,0.8s						
GRC2	Grafenberg Arr	69.45	338	P	P	01 02 26.1	+0.5
	comp=Z,484nmcomp=Z,27nm,1.2s						
DOU	Dourbes	69.46	343	*d*P	P	01 02 24.2	-1.3
	comp=Z,7.5nm,1.0s						
FW13	Cleburne	69.46	61	P	P	01 02 25.4	-0.4
FW13				IAmb	IAmb	01 02 36.7	
	comp=Z,32nm,1.0s						
SOP	Sopron	69.47	334	P	P	01 02 27.1	+1.4
SOP	Sopron	69.47	334	P	P	01 02 27.1	+1.4
	comp=Z,811nmcomp=Z,25nm,1.2s						
KULM	Kulim	69.47	245	P	P	01 02 25.4	-0.6
KULM				IAmb	IAmb	01 02 28.2	
	comp=Z,49nm,1.2s						
KULM				IAMs_20	IAMs_20	01 36 22.2	
	comp=Z,2µm,18.0s						
KULM	Kulim	69.47	245	P	P	01 02 26.6	+0.5
	comp=Z,626nmcomp=Z,39nm,1.2s						
KULM	Kulim	69.47	245	P	P	01 02 27.2	+1.1
	comp=Z,632nmcomp=Z,39nm,1.2s						
G65A	Princeton	69.49	33	P	P	01 02 24.8	-1.0
RONA	Rosalia, Austr	69.51	334	*i* pP	P	01 02 27.5	+1.4
	comp=Z,21nm,1.0s,SNR=12						
BAIF	Baives	69.55	343	*e*P	P	01 02 25.8	-0.3
BAIF				pmax	pmax		
	comp=Z,64nm,1.6s						
BINY	Binghamton	69.57	40	P	P	01 02 26.1	-0.3
BINY				IAmb	IAmb	01 02 58.7	
	comp=Z,47nm,1.4s						
BINY				IAMs_20	IAMs_20	01 37 37.6	
	comp=Z,2µm,20.0s						
I62A	Tamworth	69.57	36	P	P	01 02 25.4	-0.9
I62A				IAmb	IAmb	01 02 58.6	
	comp=Z,58nm,1.5s						
I62A				IAMs_20	IAMs_20	01 34 57.6	
	comp=Z,3µm,19.0s						
PEBM	Pemiscott Bayo	69.60	54	P	P	01 02 26.5	-0.2
GEVA	Gevas	69.61	311	P	P	01 02 26.3	-0.6
GEVA				IAmb	IAmb	01 02 30.6	
	comp=Z,60nm,1.5s						
WLF	Walferdange	69.63	342	P	P	01 02 26.6	0.0
WLF				pmax	pmax		
	comp=Z,22nm,1.2s						
WLF				MLR	MLR		
	comp=Z,3µm,18.0s						
WLF	Walferdange	69.63	342	P	P	01 02 26.6	0.0
WLF				IAmb	IAmb	01 02 29.8	
	comp=Z,22nm,1.2s						
WLF				IAMs_20	IAMs_20	01 37 03.3	
	comp=Z,3µm,18.0s						
WLF	Walferdange	69.63	342	*d*P	P	01 02 28.4	+1.8
	comp=Z,7.9nm,1.2s						
WLF	Walferdange	69.63	342	*e*P	P	01 02 27.4	+0.8
	comp=Z,20nm,1.2s,baz=18,slow=6.3						
WLF	Walferdange	69.63	342	P	P	01 02 27.7	+1.1
	comp=Z,16nm,1.3s						
BRDY	Brady	69.63	63	P	P	01 02 26.5	-0.5
R49A	Shelbyville	69.64	49	P	P	01 02 26.4	-0.4
R49A				IAmb	IAmb	01 02 33.8	
	comp=Z,19nm,1.0s						
P52A	Corning	69.64	46	P	P	01 02 26.0	-0.8
P52A				IAmb	IAmb	01 03 05.9	
	comp=Z,53nm,1.8s						
I63A	Otisfield	69.64	36	P	P	01 02 26.4	-0.4
I63A				IAmb	IAmb	01 02 47.1	
	comp=Z,42nm,1.4s						
I63A				IAMs_20	IAMs_20	01 35 03.5	
	comp=Z,3µm,21.0s						
LMN	Caledonia Moun	69.65	31	P	P	01 02 26.1	-0.8
LMN				IAmb	IAmb	01 02 29.1	
	comp=Z,37nm,0.9s						
GNAR	Gosnell	69.66	54	P	P	01 02 25.7	-1.4
J61A	Chester	69.67	38	P	P	01 02 26.6	-0.4
J61A				IAMs_20	IAMs_20	01 34 57.1	
	comp=Z,2µm,19.0s						
UALR	University of	69.68	56	P	P	01 02 26.3	-0.9
UALR				IAmb	IAmb	01 02 29.0	
	comp=Z,25nm,0.9s						
GLAT	Glass	69.71	53	P	P	01 02 26.3	-1.0
Q51A	Peebles	69.71	47	P	P	01 02 26.2	-1.1
Q51A				IAmb	IAmb	01 02 52.5	
	comp=Z,17nm,0.7s						
Q51A				IAMs_20	IAMs_20	01 34 23.2	
	comp=Z,3µm,21.0s						
X40A	Basin Creek Fa	69.71	57	P	P	01 02 26.4	-1.0
X40A				IAmb	IAmb	01 02 29.9	
	comp=Z,29nm,0.9s						
MPLH	Magyarpolny	69.72	333	P	P	01 02 26.7	-0.5
	comp=Z,3µmcomp=Z,110nm,1.6s						
MPLH	Magyarpolny	69.72	333	P	P	01 02 28.8	+1.5
	comp=Z,1µmcomp=Z,44nm,1.6s						
HBAR	Harrisburg	69.74	55	P	P	01 02 26.4	-1.1
WHTX	Lake Whitney,	69.75	62	P	P	01 02 26.6	-1.1
WHTX				IAmb	IAmb	01 02 29.7	
	comp=Z,27nm,0.9s						
TREL	Terrell	69.75	60	P	P	01 02 27.4	-0.3
GGN	Saint George	69.77	33	P	P	01 02 26.7	-0.8
LNXT	Lenox	69.77	53	P	P	01 02 26.9	-0.8
Z38A	Mt. Pleasant	69.80	59	P	P	01 02 27.6	-0.4
O54A	Avella	69.81	45	P	P	01 02 27.1	-0.8
O54A				IAMs_20	IAMs_20	01 35 02.9	
	comp=Z,4µm,22.0s						
GURO	Guroymak-BITLI	69.81	312	P	P	01 02 28.3	+0.2
GURO				IAmb	IAmb	01 02 31.9	
	comp=Z,46nm,1.5s						
MOA	Molln	69.82	335	*i* pP	P	01 02 29.1	+1.2
	comp=Z,28nm,1.4s,SNR=6.7						
MOA	Molln	69.82	335	P	P	01 02 28.8	+0.9
	comp=Z,20nm,1.7s						
UTMT	University of	69.82	53	P	P	01 02 27.4	-0.6
TRY	Troy	69.86	39	IAMs_20	IAMs_20	01 37 16.3	
	comp=Z,3µm,19.0s						
SPSI	Sidrap Palu	69.88	222	P	P	01 02 29.6	+1.1
	comp=Z,7µmcomp=Z,22nm,0.8s						
L59A	Walton	69.89	40	P	P	01 02 27.2	-1.3
L59A				IAmb	IAmb	01 02 35.0	
	comp=Z,28nm,1.1s						
L59A				IAMs_20	IAMs_20	01 35 32.2	
	comp=Z,3µm,18.0s						
JCT	Junction City	69.93	64	P	P	01 02 28.5	-0.4
JCT				pmax	pmax		
	comp=Z,26nm,1.1s						
JCT				MLR	MLR		
	comp=Z,3µm,20.0s						
JCT	Junction City	69.93	64	P	P	01 02 28.5	-0.4
JCT				IAmb	IAmb	01 02 31.4	
	comp=Z,26nm,1.1s						
JCT				IAMs_20	IAMs_20	01 33 28.2	
	comp=Z,3µm,20.0s						
M57A	Sunshine Farm,	69.94	42	P	P	01 02 28.3	-0.5
M57A				IAmb	IAmb	01 02 53.8	
	comp=Z,17nm,0.9s						
STU	Stuttgart	69.96	339	P	P	01 02 28.2	-0.5
STU				pmax	pmax		
	comp=Z,21nm,1.2s						
STU				MLR	MLR		
	comp=Z,2µm,22.0s						
STU	Stuttgart	69.96	339	P	P	01 02 28.2	-0.5
STU				IAMs_20	IAMs_20	01 33 42.1	
	comp=Z,2µm,22.0s						
STU	Stuttgart	69.96	339	*e*P	P	01 02 29.1	+0.5
	comp=Z,56nm,1.2s,baz=18,slow=6.3						
EMMW	East Machias	69.97	33	P	P	01 02 27.9	-0.8
EMMW				IAmb	IAmb	01 02 30.2	
	comp=Z,43nm,1.3s						
R50A	Paris	69.97	48	P	P	01 02 28.0	-0.9
R50A				IAmb	IAmb	01 02 30.5	
	comp=Z,24nm,1.0s						
R50A				IAMs_20	IAMs_20	01 38 18.3	
	comp=Z,3µm,19.0s						
T47A	Sharon Grove	69.99	51	P	P	01 02 27.7	-1.3
HALT	Halls	69.99	53	P	P	01 02 28.5	-0.6
IPM	Ipoh	70.00	244	P	P	01 02 27.9	-1.5
IPM	Ipoh	70.00	244	P	P	01 02 29.9	+0.5
	comp=Z,50nm,1.5s						
IPM	Ipoh	70.00	244	P	P	01 02 28.5	-0.9
	comp=Z,50nm,1.5s						
P53A	Whipple	70.04	46	P	P	01 02 27.2	-2.2
P53A				IAmb	IAmb	01 02 53.7	
	comp=Z,24nm,1.2s						
HPIG		70.06	71	P	P	01 02 28.3	-1.6
HPIG		70.06	71	P	P	01 02 31.4	+1.5
	comp=Z,12nm,1.7s						
BIOA	Bad Ischl, Aus	70.11	336	*e*pP	P	01 02 30.3	+0.7
	comp=Z,12nm,1.3s						
ARSA	Arzberg	70.11	334	P	P	01 02 28.3	-1.4
ARSA				IAmb	IAmb	01 02 32.8	
	comp=Z,19nm,1.0s						
ARSA	Arzberg	70.11	334	*i* pP	P	01 02 30.9	+1.2
	comp=Z,14nm,0.8s,SNR=8.0						
ARSA	Arzberg	70.11	334	P	P	01 02 31.0	+1.3
	comp=Z,595nmcomp=Z,27nm,1.9s,comp=Z,595nm						
FUR	Furstenfeldbru	70.14	338	*e*P	P	01 02 30.6	+0.8
	comp=Z,21nm,1.0s,baz=18,slow=6.3						
FUR	Furstenfeldbru	70.14	338	P	P	01 02 30.9	+1.1
	comp=Z,20nm,1.8s						
BZS	Buzias	70.15	330	⇓P	P	01 02 27.6	-2.3
BZS	Buzias	70.15	330	⇓P	P	01 02 27.6	-2.3
BZS	Buzias	70.15	330	P	P	01 02 30.3	+0.4
	comp=Z,452nmcomp=Z,24nm,1.6s,comp=Z,452nm						
Q52A	Bidwell	70.17	47	P	P	01 02 28.3	-1.8
Q52A				IAmb	IAmb	01 04 14.7	
	comp=Z,29nm,1.3s						
Q52A				IAMs_20	IAMs_20	01 37 55.6	
	comp=Z,3µm,18.0s						
SBD	Saint Breward	70.18	349	*e*P	P	01 02 29.4	-0.6
SBD				IAmb	IAmb	01 02 32.2	
	comp=Z,19nm,0.8s						
DYA	Yadsworthy	70.23	348	*e*P	P	01 02 29.8	-0.5
DYA				IAmb	IAmb	01 02 32.7	
	comp=Z,28nm,0.8s						
WLAR	White Oak Lake	70.27	57	P	P	01 02 30.4	-0.3
SSPA	Standing Stone	70.30	43	IAMs_20	IAMs_20	01 37 58.7	
	comp=Z,3µm,19.0s						
HYB	Hyderabad	70.31	271	*e*P	P	01 02 30.6	-0.6
HYB				*e*PcP	PcP	01 02 52.9	0.0
HYB				*e*S	S	01 11 43.3	-0.3
HYB				IAMs_20	IAMs_20	01 35 43.3	
	comp=Z,2µm,16.0s						
MORH	Mrgy, Hungar	70.35	332	P	P	01 02 32.5	+1.4
	comp=Z,373nmcomp=Z,11nm,1.4s,comp=Z,373nm						
K62A	Royalston	70.38	38	P	P	01 02 31.1	-0.3
K62A				IAmb	IAmb	01 02 33.5	
	comp=Z,49nm,1.6s						
K62A				IAMs_20	IAMs_20	01 38 29.1	
	comp=Z,2µm,18.0s						
UNH	University of	70.42	36	P	P	01 02 30.4	-1.1
UNH				IAmb	IAmb	01 02 33.7	
	comp=Z,29nm,0.9s						
WVT	Waverly	70.43	52	P	P	01 02 30.9	-0.8
WVT				pmax	pmax		
	comp=Z,27nm,0.8s						
WVT				MLR	MLR		
	comp=Z,5µm,21.0s						
WVT	Waverly	70.43	52	P	P	01 02 30.9	-0.8
WVT				IAmb	IAmb	01 02 33.9	
	comp=Z,27nm,0.8s						
WVT	Waverly	70.43	52	P	P	01 02 31.7	-0.1
	comp=Z,48nm,0.9s						
L61B	Northampton	70.43	38	IAMs_20	IAMs_20	01 35 21.4	
	comp=Z,3µm,18.0s						
SESA	Seetaler Alpe,	70.45	335	*i* pP	P	01 02 33.0	+1.0
	comp=Z,74nm,1.3s,SNR=12						
MCWV	Mont Chateau	70.46	44	P	P	01 02 31.9	0.0

MCWV				IAmb	IAmb	01 04 36.8	
	comp=Z,52nm,1.7s						
MCWV				IAMs_20	IAMs_20	01 36 06.2	
	comp=Z,3µm,19.0s						
N58A	**Sunbury**	**70.53**	**42**	P	**P**	**01 02 31.7**	**-0.6**
N58A				IAmb	IAmb	01 03 05.1	
	comp=Z,28nm,1.2s						
N58A				IAMs_20	IAMs_20	01 36 46.0	
	comp=Z,3µm,19.0s						
BFO	**Black Forest**	**70.54**	**340**	P	**P**	**01 02 31.5**	**-0.8**
BFO				pmax	pmax		
	comp=Z,60nm,1.9s						
BFO	**Black Forest**	**70.54**	**340**	P	**P**	**01 02 31.5**	**-0.8**
BFO				IAmb	IAmb	01 02 34.1	
	comp=Z,60nm,1.9s						
BFO				IAMs_20	IAMs_20	01 33 37.5	
	comp=Z,2µm,22.0s						
BFO	**Black Forest**	**70.54**	**340**	*e*P	**P**	**01 02 32.7**	**+0.4**
	comp=Z,49nm,1.8s,baz=18,slow=6.3						
BEHE	**Becsehely**	**70.56**	**333**	P	**P**	**01 02 33.0**	**+0.6**
BEHE				IAmb	IAmb	01 03 02.3	
	comp=Z,39nm,1.6s						
LESA	**Schwarzleotal**	**70.56**	**336**	*i* pP	**P**	**01 02 33.3**	**+0.8**
	comp=Z,19nm,1.2s,SNR=6.0						
NPNY	**Mohonk Preserv**	**70.58**	**39**	P	**P**	**01 02 32.6**	**0.0**
NPNY				IAmb	IAmb	01 02 33.8	
	comp=Z,21nm,1.1s						
CCA1	**Carnmenellis**	**70.61**	**349**	*e*P	**P**	**01 02 32.1**	**-0.5**
CCA1				IAmb	IAmb	01 02 35.0	
	comp=Z,13nm,0.8s						
SLBS	**Sierra La Lagu**	**70.62**	**76**	P	**P**	**01 02 32.7**	**-0.5**
SLBS				IAmb	IAmb	01 02 40.4	
	comp=Z,75nm,1.7s						
SLBS				IAMs_20	IAMs_20	01 35 30.5	
	comp=Z,2µm,19.0s						
SLBS	**Sierra La Lagu**	**70.62**	**76**	P	**P**	**01 02 35.1**	**+1.9**
	comp=Z,24nm,1.5s						
CDF	**Champ du Feu**	**70.65**	**340**	*e*P	**P**	**01 02 32.6**	**-0.4**
CDF				pmax	pmax		
	comp=Z,55nm,1.6s						
CCAR	**Cane Creek**	**70.66**	**56**	P	**P**	**01 02 33.5**	**+0.4**
Q54A	**Coxs Mills**	**70.69**	**46**	P	**P**	**01 02 32.0**	**-1.3**
Q54A				IAmb	IAmb	01 03 48.6	
	comp=Z,45nm,1.5s						
Q54A				IAMs_20	IAMs_20	01 34 12.3	
	comp=Z,3µm,21.0s						
435B	**Jarrell**	**70.71**	**62**	P	**P**	**01 02 33.5**	**0.0**
HRV	**Adam Dziewonsk**	**70.74**	**37**	P	**P**	**01 02 32.9**	**-0.6**
HRV				pmax	pmax		
	comp=Z,124nm,2.0s						
HRV	**Adam Dziewonsk**	**70.74**	**37**	P	**P**	**01 02 32.9**	**-0.6**
HRV	**Adam Dziewonsk**	**70.74**	**37**	IAMs_20	IAMs_20	01 39 25.4	
	comp=Z,2µm,18.0s						
HRV	**Adam Dziewonsk**	**70.74**	**37**	P	**P**	**01 02 34.4**	**+0.8**
	comp=Z,31nm,1.6s						
KBA	**Koelnbreinsper**	**70.75**	**336**	*i* pP	**P**	**01 02 35.1**	**+1.3**
	comp=Z,50nm,1.5s,SNR=10						
KBA	**Koelnbreinsper**	**70.75**	**336**	P	**P**	**01 02 35.1**	**+1.3**
	comp=Z,939nmcomp=Z,47nm,1.6s						
SOKA	**Soboth**	**70.76**	**335**	*e*pP	**P**	**01 02 34.7**	**+0.9**
	comp=Z,12nm,0.9s						
Z41A	**Richland Creek**	**70.77**	**57**	P	**P**	**01 02 33.1**	**-0.7**
Z41A				IAmb	IAmb	01 02 41.8	
	comp=Z,40nm,1.2s						
PRD	**Provadia**	**70.77**	**325**	P	**P**	**01 02 35.7**	**+2.0**
S51A	**Beattyville**	**70.82**	**48**	P	**P**	**01 02 33.0**	**-1.1**
S51A				IAmb	IAmb	01 02 37.9	
	comp=Z,16nm,0.8s						
UBR	**Ueberruh**	**70.83**	**338**	*e*P	**P**	**01 02 34.8**	**+0.7**
	comp=Z,26nm,1.1s,baz=18,slow=6.3						
UBR	**Ueberruh**	**70.83**	**338**	P	**P**	**01 02 34.5**	**+0.3**
	comp=Z,22nm,1.7s						
ECH	**Echery**	**70.86**	**340**	P	**P**	**01 02 33.4**	**-0.8**
ECH				pmax	pmax		
	comp=Z,45nm,1.6s						
ECH				MLR	MLR		
	comp=Z,2µm,20.0s						
ECH	**Echery**	**70.86**	**340**	P	**P**	**01 02 33.4**	**-0.8**
ECH				IAmb	IAmb	01 02 36.9	
	comp=Z,45nm,1.6s						
ECH	**Echery**	**70.86**	**340**	P	**P**	**01 02 34.2**	**0.0**
	comp=Z,392nmcomp=Z,20nm,1.6s						
KAPI	**Kappang**	**70.86**	**222**	LR	LR	01 33 10.2	
	comp=Z,236nm,21.7s,baz=34,slow=36						
KAPI	**Kappang**	**70.86**	**222**	S	**S**	**01 11 49.8**	**0.0**
KAPI	**Kappang**	**70.86**	**222**	P	**P**	**01 02 33.3**	**-1.2**
KAPI				pmax	pmax		
	comp=Z,58nm,1.4s						
KAPI	**Kappang**	**70.86**	**222**	P	**P**	**01 02 33.3**	**-1.2**
KAPI				IAmb	IAmb	01 02 36.3	
	comp=Z,58nm,1.4s						
WATA	**Walderalm**	**70.87**	**337**	*i* pP	**P**	**01 02 35.0**	**+0.5**
	comp=Z,40nm,1.9s,SNR=6.9						
RETA	**Reutte**	**70.89**	**338**	*e*pP	**P**	**01 02 34.9**	**+0.4**
	comp=Z,13nm,1.2s						
WES	**Weston**	**70.92**	**37**	P	**P**	**01 02 33.9**	**-0.8**
WES				pmax	pmax		
	comp=Z,30nm,1.2s						
WES				MLR	MLR		
	comp=Z,3µm,19.0s						
WES	**Weston**	**70.92**	**37**	P	**P**	**01 02 33.9**	**-0.8**
WES				IAmb	IAmb	01 02 40.9	
	comp=Z,30nm,1.2s						
WES				IAMs_20	IAMs_20	01 34 47.4	
	comp=Z,3µm,19.0s						
WTTA	**Wattenberg**	**70.93**	**337**	*i* pP	**P**	**01 02 35.7**	**+0.9**
	comp=Z,52nm,1.7s,SNR=11						
WTTA	**Wattenberg**	**70.93**	**337**	P	**P**	**01 02 35.8**	**+0.9**
	comp=Z,754nmcomp=Z,27nm,2.0s						
U49A	**Red Boiling Sp**	**70.93**	**50**	P	**P**	**01 02 33.7**	**-1.1**
U49A				IAmb	IAmb	01 02 36.3	
	comp=Z,21nm,1.1s						
MOTA	**Moosalm**	**70.96**	**337**	*i* pP	**P**	**01 02 35.0**	**0.0**
	comp=Z,26nm,1.5s,SNR=5.5						
HNDO	**Hondo**	**70.97**	**64**	P	**P**	**01 02 33.8**	**-1.4**
OBKA	**Obir**	**71.03**	**335**	*i* pP	**P**	**01 02 36.4**	**+1.0**
	comp=Z,36nm,0.8s,SNR=5.1						
OBKA	**Obir**	**71.03**	**335**	P	**P**	**01 02 37.0**	**+1.6**
	comp=Z,1µmcomp=Z,78nm,1.0s						
SQTA	**Sankt Quirin**	**71.06**	**337**	*i* pP	**P**	**01 02 36.0**	**+0.5**
	comp=Z,35nm,1.4s,SNR=8.8						
PAGS	**Pennsylvania G**	**71.07**	**42**	P	**P**	**01 02 35.4**	**-0.2**
PAGS				IAmb	IAmb	01 03 11.4	
	comp=Z,60nm,1.5s						
CLTN	**Cedars of Leba**	**71.08**	**51**	P	**P**	**01 02 34.6**	**-1.1**
MYKOM	**Kota Tinggi**	**71.08**	**240**	P	**P**	**01 02 35.6**	**-0.2**
MYKOM				IAmb	IAmb	01 02 38.3	
	comp=Z,29nm,1.0s						
MYKOM	**Kota Tinggi**	**71.08**	**240**	P	**P**	**01 02 36.6**	**+0.7**
	comp=Z,30nm,1.3s						
MYKOM	**Kota Tinggi**	**71.08**	**240**	P	**P**	**01 02 37.2**	**+1.3**
	comp=Z,30nm,1.3s						
HAL	**Halifax**	**71.10**	**31**	P	**P**	**01 02 35.1**	**-0.6**
HAL				pmax	pmax		
	comp=Z,43nm,1.0s						
HAL	**Halifax**	**71.10**	**31**	P	**P**	**01 02 35.1**	**-0.6**
HAL				IAmb	IAmb	01 02 37.4	
	comp=Z,43nm,1.0s						
SZH	**Strazhitsa**	**71.10**	**326**	P	**P**	**01 02 35.7**	**-0.1**
MYKA	**Terra Mystica**	**71.11**	**336**	*i* pP	**P**	**01 02 36.3**	**+0.5**
	comp=Z,34nm,1.6s,SNR=6.4						
V48A	**Smith Brothers**	**71.18**	**52**	P	**P**	**01 02 35.4**	**-1.0**
V48A				IAmb	IAmb	01 02 37.7	
	comp=Z,18nm,1.0s						
HAU	**Haudompre**	**71.20**	**341**	*e*P	**P**	**01 02 35.1**	**-1.2**
HAU				pmax	pmax		
	comp=Z,24nm,1.2s						
NATX	**Nacogdoches**	**71.22**	**60**	P	**P**	**01 02 36.6**	**0.0**
NATX				IAMs_20	IAMs_20	01 34 36.2	
	comp=Z,3µm,21.0s						
ACOM	**Acomizza, Ital**	**71.22**	**336**	P	**P**	**01 02 36.9**	**+0.3**
ABTA	**Abfaltersbach**	**71.24**	**336**	*i* pP	**P**	**01 02 37.2**	**+0.5**
	comp=Z,28nm,1.2s,SNR=5.8						
Q56A	**Snyder Ridge,**	**71.25**	**44**	P	**P**	**01 02 36.0**	**-0.7**
Q56A				IAMs_20	IAMs_20	01 36 49.0	
	comp=Z,3µm,19.0s						
DAVA	**Damuels**	**71.25**	**338**	*e*pP	**P**	**01 02 37.1**	**+0.3**
	comp=Z,14nm,1.2s						
P57A	**Homestead Farm**	**71.28**	**43**	IAMs_20	IAMs_20	01 39 12.8	
	comp=Z,3µm,19.0s						
LHMI	**Lhok Sumawe**	**71.29**	**248**	P	**P**	**01 02 36.4**	**-0.8**
PRED	**Cave del Predi**	**71.31**	**335**	P	**P**	**01 02 36.3**	**-0.8**
PRED				IAmb	IAmb	01 02 52.3	
	comp=Z,27nm,1.2s						
PRED	**Cave del Predi**	**71.31**	**335**	P	**P**	**01 02 37.5**	**+0.5**
	comp=Z,22nm,1.4s						
PAL	**Palisades**	**71.33**	**40**	P	**P**	**01 02 36.2**	**-0.9**
PAL				pmax	pmax		
	comp=Z,44nm,1.3s						
PAL				MLR	MLR		
	comp=Z,3µm,21.0s						
PAL	**Palisades**	**71.33**	**40**	P	**P**	**01 02 36.2**	**-0.9**
PAL				IAmb	IAmb	01 02 43.8	
	comp=Z,44nm,1.3s						
PAL				IAMs_20	IAMs_20	01 35 25.2	
	comp=Z,3µm,21.0s						
FETA	**Feichten**	**71.34**	**338**	*i* pP	**P**	**01 02 37.7**	**+0.4**
	comp=Z,22nm,1.0s,SNR=11						
WSPT	**Westport, CT**	**71.38**	**39**	P	**P**	**01 02 36.6**	**-0.8**
WSPT				IAmb	IAmb	01 04 56.6	
	comp=Z,22nm,1.0s						
WSPT				IAMs_20	IAMs_20	01 35 49.3	
	comp=Z,3µm,20.0s						
FLN	**La Foliniere**	**71.48**	**346**	*e*P	**P**	**01 02 37.9**	**0.0**
FLN				pmax	pmax		
	comp=Z,42nm,1.1s						
L64A	**Middleborough**	**71.48**	**37**	P	**P**	**01 02 37.0**	**-1.0**
L64A				IAmb	IAmb	01 02 40.0	
	comp=Z,39nm,1.0s						
L64A				IAMs_20	IAMs_20	01 36 04.2	
	comp=Z,3µm,19.0s						
N62A	**Caumsett State**	**71.54**	**39**	IAMs_20	IAMs_20	01 35 54.8	
	comp=Z,3µm,19.0s						
S54A	**Dingess, Beckl**	**71.55**	**46**	P	**P**	**01 02 38.0**	**-0.6**
S54A				IAmb	IAmb	01 04 49.1	
	comp=Z,19nm,0.6s						
S54A				IAMs_20	IAMs_20	01 38 32.1	
	comp=Z,3µm,18.0s						
R55A	**Marlinton**	**71.57**	**45**	P	**P**	**01 02 38.8**	**0.0**
R55A				IAmb	IAmb	01 03 37.2	
	comp=Z,30nm,1.4s						
M63A	**Gales Ferry**	**71.58**	**38**	IAMs_20	IAMs_20	01 36 11.8	
	comp=Z,2µm,19.0s						
LDF	**La Druitiere**	**71.60**	**346**	*e*P	**P**	**01 02 38.6**	**-0.1**
LDF				pmax	pmax		
	comp=Z,28nm,1.2s						
JMB	**Yambol**	**71.65**	**325**	P	**P**	**01 02 40.2**	**+1.2**
Y45A	**Yeager Farm, C**	**71.66**	**55**	P	**P**	**01 02 38.8**	**-0.5**
STAL	**STALIGIAL**	**71.66**	**336**	P	**P**	**01 02 39.7**	**+0.6**
STAL				IAmb	IAmb	01 02 44.4	
	comp=Z,83nm,1.9s						
DAVOX	**Davos/Dischmat**	**71.74**	**338**	P	**P**	**01 02 40.1**	**+0.3**
	comp=Z,7.6nm,0.9s,baz=356,slow=8.0,SNR=12						
DAVOX				LR	LR	01 36 32.2	
	comp=Z,3µm,21.6s,baz=30,slow=38						
	comp=Z,7.6nm,0.9s						
SDMD	**Soldier's Deli**	**71.76**	**42**	P	**P**	**01 02 37.8**	**-1.9**
SDMD				IAmb	IAmb	01 02 41.6	
	comp=Z,44nm,1.9s						
MLDN	**Muldoon**	**71.79**	**63**	P	**P**	**01 02 40.1**	**0.0**
TZTN	**Tazewell**	**71.79**	**49**	P	**P**	**01 02 39.0**	**-1.0**
TZTN				IAmb	IAmb	01 02 41.8	
	comp=Z,35nm,1.1s						
TZTN	**Tazewell**	**71.79**	**49**	P	**P**	**01 02 39.9**	**-0.1**
	comp=Z,36nm,1.4s						
FUORN	**Ofenpass-Fuorn**	**71.82**	**338**	P	**P**	**01 02 40.4**	**+0.1**
FUORN				IAmb	IAmb	01 03 04.5	
	comp=Z,52nm,1.6s						
FUORN				IAMs_20	IAMs_20	01 39 29.1	
	comp=Z,2µm,21.0s						
CLF	**Chambon-Foret**	**71.83**	**344**	P	**P**	**01 02 39.8**	**-0.2**
CLF				IAMs_20	IAMs_20	01 37 38.3	
	comp=Z,2µm,18.0s						
CLF	**Chambon-Foret**	**71.83**	**344**	P	**P**	**01 02 40.7**	**+0.7**
	comp=Z,46nm,1.6s						
BR131	**Keskin Array S**	**71.85**	**319**	S	**S**	**01 12 00.1**	**-1.1**
BR131	**Keskin Array S**	**71.85**	**319**	P	**P**	**01 02 40.5**	**0.0**
BR131				pmax	pmax		
	comp=Z,66nm,1.8s						
BR131	**Keskin Array S**	**71.85**	**319**	P	**P**	**01 02 40.5**	**-0.1**
BR131				IAmb	IAmb	01 02 43.7	
	comp=Z,66nm,1.8s						
BRTR	**Keskin Array B**	**71.85**	**319**	P	**P**	**01 02 40.5**	**0.0**
	comp=Z,4.0nm,0.8s,baz=29,slow=3.3,SNR=1.4						
BRTR				LR	LR	01 36 51.1	
	comp=Z,2µm,18.9s,baz=31,slow=38						
	comp=Z,4.0nm,0.8s						
BRTR	**Keskin Array B**	**71.85**	**319**	P	**P**	**01 02 40.4**	**-0.1**
BRTR	**Keskin Array B**	**71.85**	**319**	P	**P**	**01 02 40.4**	**-0.1**
143A	**Socs Landing,**	**71.85**	**57**	P	**P**	**01 02 40.3**	**-0.1**
BNN	**Bunyan**	**71.85**	**316**	P	**P**	**01 02 39.8**	**-0.7**
M65A	**Busby, Falmout**	**71.88**	**37**	IAMs_20	IAMs_20	01 36 16.7	
	comp=Z,2µm,20.0s						
GRR	**Gorron**	**71.89**	**346**	*e*P	**P**	**01 02 40.6**	**+0.2**
GRR				pmax	pmax		
	comp=Z,39nm,1.0s						
833A	**Chaparral WMA,**	**71.93**	**65**	P	**P**	**01 02 39.2**	**-1.8**
SWET	**Sewanee**	**71.99**	**51**	P	**P**	**01 02 40.1**	**-1.2**
SWET				IAmb	IAmb	01 02 48.1	
	comp=Z,30nm,1.0s						
MDUB	**Mudurnu**	**72.01**	**321**	P	**P**	**01 02 40.1**	**-1.3**
MDUB				IAmb	IAmb	01 02 44.7	
	comp=Z,53nm,1.2s						
TUE	**Stuetta**	**72.14**	**338**	P	**P**	**01 02 41.2**	**-1.0**
TUE				IAmb	IAmb	01 02 58.0	
	comp=Z,35nm,1.6s						
TUE				IAMs_20	IAMs_20	01 35 59.6	
	comp=Z,3µm,19.0s						
TUE	**Stuetta**	**72.14**	**338**	P	**P**	**01 02 41.5**	**-0.7**
	comp=Z,2µmcomp=Z,58nm,1.2s						
TUE	**Stuetta**	**72.14**	**338**	P	**P**	**01 02 42.8**	**+0.6**
	comp=Z,403nmcomp=Z,14nm,1.7s						
X48A	**Hartselle**	**72.20**	**52**	P	**P**	**01 02 41.1**	**-1.4**
X48A				IAMs_20	IAMs_20	01 36 07.3	
	comp=Z,3µm,20.0s						
HKT	**Hockley**	**72.22**	**62**	P	**P**	**01 02 41.1**	**-1.5**
HKT				P	**P**	**01 02 41.2**	**-1.3**
HKT				pmax	pmax		
	comp=Z,117nm,1.9s						
HKT	**Hockley**	**72.22**	**62**		**P**	**01 02 41.2**	**-1.3**
HKT	**Hockley**	**72.22**	**62**	P	**P**	**01 02 41.1**	**-1.5**
HKT				IAmb	IAmb	01 02 46.0	
	comp=Z,117nm,1.9s						
HKT				IAMs_20	IAMs_20	01 35 21.4	
	comp=Z,5µm,19.0s						
HKT	**Hockley**	**72.22**	**62**	P	**P**	**01 02 42.6**	**0.0**
	comp=Z,20nm,1.7s						
735A	**Kenedy**	**72.23**	**64**	P	**P**	**01 02 41.4**	**-1.4**
735A				IAmb	IAmb	01 03 11.7	
	comp=Z,51nm,1.3s						
735A				IAMs_20	IAMs_20	01 37 27.1	
	comp=Z,3µm,19.0s						
P61A	**Hammonton**	**72.23**	**41**	IAMs_20	IAMs_20	01 34 17.0	
	comp=Z,2µm,20.0s						
ROSF	**Rostrenen**	**72.23**	**348**	*e*P	**P**	**01 02 42.8**	**+0.3**
ROSF				pmax	pmax		
	comp=Z,38nm,1.2s						
ROSF	**Rostrenen**	**72.23**	**348**	P	**P**	**01 02 42.6**	**+0.1**
	comp=Z,34nm,1.5s						
W50A	**Signal Mountai**	**72.26**	**51**	P	**P**	**01 02 41.6**	**-1.3**
LOR	**Lormes**	**72.32**	**342**	*e*P	**P**	**01 02 42.3**	**-0.8**
LOR				pmax	pmax		
	comp=Z,67nm,1.4s						
LOR	**Lormes**	**72.32**	**342**	P	**P**	**01 02 43.0**	**0.0**
	comp=Z,853nmcomp=Z,37nm,2.0s						
CPCT	**Cooper Cave**	**72.36**	**50**	P	**P**	**01 02 42.6**	**-0.9**
BLA	**Blacksburg**	**72.40**	**46**	P	**P**	**01 02 42.7**	**-1.0**
BLA				pmax	pmax		
	comp=Z,107nm,1.9s						
BLA				MLR	MLR		
	comp=Z,4µm,19.0s						
BLA	**Blacksburg**	**72.40**	**46**	P	**P**	**01 02 42.7**	**-1.0**
PSI	**Prapat**	**72.46**	**245**	P	**P**	**01 02 43.4**	**-1.0**
PSI				pmax	pmax		
	comp=Z,41nm,1.2s						
PSI				MLR	MLR		
	comp=Z,1µm,19.0s						
PSI	**Prapat**	**72.46**	**245**	P	**P**	**01 02 44.9**	**+0.5**
	comp=Z,33nm,1.7s						
S57A	**Dark Hollow, R**	**72.46**	**45**	P	**P**	**01 02 43.1**	**-0.9**
TKL	**Tuckaleechee C**	**72.47**	**49**	LR	LR	01 38 00.8	
	comp=Z,5µm,19.9s,baz=336,slow=39						
TKL	**Tuckaleechee C**	**72.47**	**49**	P	**P**	**01 02 43.6**	**-0.5**
TKL				pmax	pmax		
	comp=Z,10.0nm,0.9s						
TKL	**Tuckaleechee C**	**72.47**	**49**	P	**P**	**01 02 43.6**	**-0.5**
U54A	**Nelsons Funny**	**72.48**	**47**	P	**P**	**01 02 44.0**	**-0.2**
U54A				IAmb	IAmb	01 02 53.9	
	comp=Z,65nm,1.7s						
U54A				IAMs_20	IAMs_20	01 36 58.7	
	comp=Z,3µm,20.0s						
VTS	**Vitosha**	**72.49**	**327**	P	**P**	**01 02 43.5**	**-0.8**
PLD	**Plovdiv**	**72.49**	**326**	P	**P**	**01 02 44.7**	**+0.6**
YLV	**Yalova**	**72.52**	**322**	P	**P**	**01 02 43.7**	**-0.7**
	comp=Z,837nmcomp=Z,39nm,2.0s						
RPSI	**Rantau Prapat**	**72.56**	**245**	P	**P**	**01 02 43.4**	**-1.4**
RPSI				IAmb	IAmb	01 02 45.8	
	comp=Z,41nm,1.2s						
RPSI	**Rantau Prapat**	**72.56**	**245**	P	**P**	**01 02 45.1**	**+0.3**
	comp=Z,33nm,1.7s						
PLNA	**Plana**	**72.56**	**327**	P	**P**	**01 02 45.2**	**+0.5**
SSF	**Saint Saulge**	**72.58**	**343**	*e*P	**P**	**01 02 44.7**	**+0.1**
SSF				pmax	pmax		
	comp=Z,22nm,1.0s						
CABF	**La Chapelle**	**72.60**	**341**	*e*P	**P**	**01 02 45.4**	**+0.6**
CABF				pmax	pmax		
	comp=Z,26nm,1.1s						
SENIN	**Lac Senin/Sane**	**72.62**	**340**	P	**P**	**01 02 43.9**	**-1.2**
SENIN				IAMs_20	IAMs_20	01 39 48.4	
	comp=Z,2µm,18.0s						
QUIF	**Quistinic**	**72.64**	**347**	*e*P	**P**	**01 02 45.1**	**+0.3**
QUIF				pmax	pmax		
	comp=Z,21nm,1.0s						
CBN	**Corbin Frederi**	**72.64**	**43**	P	**P**	**01 02 43.4**	**-1.6**
CBN				IAmb	IAmb	01 03 30.4	
	comp=Z,26nm,0.9s						
CBN				IAMs_20	IAMs_20	01 40 20.9	
	comp=Z,3µm,18.0s						
VBMS	**Vicksburg**	**72.65**	**56**	P	**P**	**01 02 44.7**	**-0.5**
R58B	**Mineral**	**72.67**	**44**	P	**P**	**01 02 44.2**	**-1.0**
R58B				IAMs_20	IAMs_20	01 37 39.8	
	comp=Z,3µm,19.0s						
FPAL	**Fort Paine**	**72.71**	**51**	P	**P**	**01 02 44.1**	**-1.4**
FPAL				IAmb	IAmb	01 02 46.9	
	comp=Z,20nm,1.0s						
441A	**DeRidder**	**72.73**	**59**	P	**P**	**01 02 44.4**	**-1.3**
TEOL	**Teolo**	**72.74**	**336**	P	**P**	**01 02 45.2**	**-0.3**
BORA	**Eskisehir**	**72.79**	**321**	P	**P**	**01 02 45.6**	**-0.4**
BORA				IAmb	IAmb	01 02 48.3	
	comp=Z,36nm,1.4s						
KDZ	**Kurdzhali**	**72.79**	**325**	P	**P**	**01 02 46.3**	**+0.4**
V53A	**Saluda**	**72.84**	**49**	P	**P**	**01 02 45.9**	**-0.5**
GAZ	**Gaziantep**	**72.84**	**315**	P	**P**	**01 02 46.9**	**+0.5**
GAZ				IAmb	IAmb	01 02 50.0	
	comp=Z,48nm,1.2s						
Z47A	**Carrollton**	**72.86**	**54**	P	**P**	**01 02 45.7**	**-0.7**
AVF	**Avril sur Loir**	**72.87**	**343**	*e*P	**P**	**01 02 45.7**	**-0.6**
AVF				pmax	pmax		
	comp=Z,40nm,1.2s						
W52A	**Murphy**	**72.91**	**50**	P	**P**	**01 02 46.3**	**-0.5**
W52A				IAmb	IAmb	01 02 53.6	
	comp=Z,23nm,1.0s						
146A	**Union**	**72.92**	**55**	P	**P**	**01 02 47.0**	**+0.2**
SMF	**Signal de Mont**	**72.93**	**342**	*e*P	**P**	**01 02 46.0**	**-0.7**
SMF				pmax	pmax		
	comp=Z,52nm,1.8s						
Y49A	**Blount Mountai**	**72.97**	**52**	P	**P**	**01 02 45.9**	**-1.2**
Y49A				IAmb	IAmb	01 02 48.3	
	comp=Z,39nm,1.1s						
Y49A				IAMs_20	IAMs_20	01 36 31.8	
	comp=Z,3µm,21.0s						
X51A	**Calhoun**	**72.99**	**51**	P	**P**	**01 02 46.4**	**-0.9**
X51A				IAmb	IAmb	01 02 54.5	
	comp=Z,34nm,1.1s						
BGF	**Bois d'Agland**	**73.17**	**343**	*e*P	**P**	**01 02 48.4**	**+0.3**
BGF				pmax	pmax		
	comp=Z,12nm,1.0s						
U56A	**King**	**73.18**	**47**	P	**P**	**01 02 48.3**	**0.0**
U56A				IAmb	IAmb	01 02 55.4	
	comp=Z,34nm,1.2s						
U56A				IAMs_20	IAMs_20	01 39 41.2	
	comp=Z,3µm,19.0s						
KKB	**Krupnik**	**73.23**	**327**	P	**P**	**01 02 49.1**	**+0.6**
R61A	**Willards**	**73.25**	**42**	IAMs_20	IAMs_20	01 36 38.9	
	comp=Z,3µm,19.0s						
ALN	**Alexandroupoli**	**73.25**	**325**	P	**P**	**01 02 48.5**	**-0.1**
ALN				pmax	pmax		
	comp=Z,10.0nm,1.0s						
ALN	**Alexandroupoli**	**73.25**	**325**	P	**P**	**01 02 48.5**	**-0.1**
V55A	**Taylorsville**	**73.30**	**47**	P	**P**	**01 02 48.5**	**-0.5**
V55A				IAmb	IAmb	01 03 45.8	
	comp=Z,30nm,1.4s						
MMB	**Musomishta**	**73.33**	**326**	P	**P**	**01 02 49.4**	**+0.3**
HBVL	**Hebbronville**	**73.33**	**65**	P	**P**	**01 02 48.5**	**-0.8**
PEHC	**Pehcevo**	**73.36**	**327**	*i* P	**P**	**01 02 51.6**	**+2.3**
BG3	**Lake Jocassee**	**73.39**	**49**	P	**P**	**01 02 48.3**	**-1.3**
BG3				IAmb	IAmb	01 02 51.2	
	comp=Z,24nm,1.0s						
MMRI	**Maumere**	**73.42**	**218**	P	**P**	**01 02 47.8**	**-2.0**
LRAL	**Lakeview Retre**	**73.45**	**53**	P	**P**	**01 02 47.7**	**-2.2**
LRAL				IAmb	IAmb	01 02 51.3	
	comp=Z,28nm,0.6s						
TCF	**Toulx Ste Croi**	**73.53**	**343**	*e*P	**P**	**01 02 50.6**	**+0.4**
TCF				pmax	pmax		
	comp=Z,17nm,1.2s						
LPL	**La Plagne**	**73.54**	**340**	*e*P	**P**	**01 02 51.9**	**+1.3**
LPL				pmax	pmax		
	comp=Z,25nm,1.0s						
MFF	**Saint Martin d**	**73.56**	**345**	P	**P**	**01 02 51.0**	**+0.7**
	comp=Z,6.3nm,1.6s						
LPG	**La Plagne**	**73.56**	**340**	*e*P	**P**	**01 02 51.2**	**+0.5**
LPG				pmax	pmax		
	comp=Z,54nm,1.1s						
PRMA	**PARMA**	**73.59**	**337**	P	**P**	**01 02 51.1**	**+0.6**
BKNI	**Bangkinang**	**73.65**	**242**	P	**P**	**01 02 50.3**	**-1.0**
BKNI	**Bangkinang**	**73.65**	**242**	P	**P**	**01 02 52.9**	**+1.6**
BKNI	**Bangkinang**	**73.65**	**242**	P	**P**	**01 02 52.2**	**+1.0**
	comp=Z,117nm,0.6s						
T59A	**Double "B" Far**	**73.67**	**44**	P	**P**	**01 02 50.1**	**-1.0**
T59A				IAMs_20	IAMs_20	01 36 19.2	
	comp=Z,3µm,20.0s						
EDFI	**Ende, Flores**	**73.70**	**219**	P	**P**	**01 02 50.3**	**-1.3**
S61A	**Accomac**	**73.71**	**42**	IAMs_20	IAMs_20	01 39 32.2	
	comp=Z,3µm,20.0s						
PDG	**Podgorica**	**73.74**	**330**	P	**P**	**01 02 50.9**	**-0.6**
PDG				IAMs_20	IAMs_20	01 34 23.1	
	comp=Z,3µm,21.0s						
346A	**Big Creek Wild**	**73.82**	**56**	P	**P**	**01 02 51.4**	**-0.8**
346A				IAMs_20	IAMs_20	01 35 54.2	
	comp=Z,2µm,19.0s						
BALB	**Balikesir**	**73.83**	**323**	P	**P**	**01 02 52.1**	**0.0**
BALB				IAmb	IAmb	01 02 55.0	
	comp=Z,56nm,1.1s						
ZCCA	**Zocca**	**73.85**	**337**	P	**P**	**01 02 51.9**	**-0.2**
VAY	**Valandovo**	**73.87**	**327**	*i* P	**P**	**01 02 53.3**	**+1.0**
KMSC	**Kings Mountain**	**73.88**	**48**	P	**P**	**01 02 51.2**	**-1.2**
KMSC				IAMs_20	IAMs_20	01 38 27.7	
	comp=Z,3µm,19.0s						
Y52A	**Lilburn**	**73.93**	**50**	P	**P**	**01 02 50.8**	**-1.9**
Y52A				IAmb	IAmb	01 02 54.3	
	comp=Z,24nm,1.0s						
PAULI	**Pauline**	**73.98**	**48**	P	**P**	**01 02 50.8**	**-2.2**
V58A	**Windy Hill, Pi**	**74.15**	**46**	P	**P**	**01 02 52.9**	**-1.1**
V58A				IAMs_20	IAMs_20	01 38 35.7	
	comp=Z,3µm,20.0s						
EZN	**Ezine**	**74.15**	**324**	P	**P**	**01 02 54.1**	**+0.2**
SSB	**Saint Sauveur**	**74.15**	**342**	P	**P**	**01 02 53.1**	**-0.8**
SSB				pmax	pmax		
	comp=Z,27nm,1.2s						
SSB	**Saint Sauveur**	**74.15**	**342**	P	**P**	**01 02 53.1**	**-0.8**
SSB	**Saint Sauveur**	**74.15**	**342**	IAMs_20	IAMs_20	01 41 51.8	
	comp=Z,2µm,18.0s						
SSB	**Saint Sauveur**	**74.15**	**342**	P	**P**	**01 02 54.3**	**+0.4**
	comp=Z,24nm,1.6s						
VLC	**Villacollemand**	**74.15**	**337**	P	**P**	**01 02 56.6**	**+2.7**
	comp=Z,44nm,1.5s						
ORIF	**Oris-en-Rattie**	**74.27**	**340**	*e*P	**P**	**01 02 55.9**	**+1.2**
ORIF				pmax	pmax		
	comp=Z,53nm,1.4s						
ORIF	**Oris-en-Rattie**	**74.27**	**340**	P	**P**	**01 02 56.2**	**+1.5**
	comp=Z,33nm,1.9s						
SANVU	**Saraoutou**	**74.28**	**172**	P	**P**	**01 02 53.4**	**-1.4**
MBDF	**Montbardon**	**74.30**	**340**	*e*P	**P**	**01 02 55.8**	**+0.9**
MBDF				pmax	pmax		
	comp=Z,10.0nm,0.8s						
HODGE	**Hodges**	**74.32**	**49**	P	**P**	**01 02 53.4**	**-1.6**
W57A	**Gilead**	**74.38**	**47**	P	**P**	**01 02 54.1**	**-1.2**
SHME	**Shamm**	**74.39**	**294**	P	**P**	**01 02 54.4**	**-1.1**
	SNR=7.8						
SHME				S	**S**	**01 12 27.9**	**-2.1**
SHME	**Shamm**	**74.39**	**294**	*i* P	**P**	**01 02 54.4**	**-1.1**
	SNR=5.5						
GSI	**Gunungsitoli**	**74.41**	**246**	P	**P**	**01 02 54.5**	**-1.2**
BANOM	**Banah**	**74.42**	**294**	P	**P**	**01 02 56.5**	**+0.7**
BANOM				S	**S**	**01 12 30.8**	**+0.3**
BANOM	**Banah**	**74.42**	**294**	P	**P**	**01 02 54.9**	**-0.9**
KDU	**Kakadu**	**74.42**	**207**	P	**P**	**01 02 56.5**	**+0.8**

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      comp=Z,25nm,1.4s
VIVF  Saint-Julien-l  74.54 341 eP        P        01 02 57.0 +0.8
VIVF                             pmax     pmax
      comp=Z,32nm,1.3s
OHR   Ohrid           74.56 328 iP        P        01 02 58.0 +1.7
MURB  Monte Urbino    74.56 335  P        P        01 02 56.7 +0.4
GUMA  Gualdo di Mace  74.57 335  P        P        01 02 56.0 -0.4
GUMA                             IAmb     IAmb     01 03 25.4
      comp=Z,40nm,1.0s
SDSI  Sungai Dareh    74.58 241  P        P        01 02 57.0 +0.3
      comp=Z,16nm,1.2s
RJF   Les Rejaudoux   74.60 344 eP        P        01 02 56.9 +0.4
RJF                              pmax     pmax
      comp=Z,228nm,2.0s
ISP   Isparta         74.62 320  P        P        01 02 56.7 -0.2
ISP                              pmax     pmax
      comp=Z,27nm,0.9s
ISP                              MLR      MLR
      comp=Z,2µm,19.0s
ISP   Isparta         74.62 320  P        P        01 02 56.7 -0.2
ISP                              IAmb     IAmb     01 02 59.5
      comp=Z,27nm,0.9s
ISP   Isparta         74.62 320  IAMs_20  IAMs_20  01 40 46.3
      comp=Z,2µm,19.0s
BIRD  Birdtown, Kers  74.65  47  P        P        01 02 56.9  0.0
FDMO  Fiordimonte     74.65 335  P        P        01 02 57.5 +0.6
FDMO                             IAmb     IAmb     01 03 30.0
      comp=Z,48nm,1.3s
MANT  Manisa          74.66 322  P        P        01 02 56.5 -0.8
MANT                             IAmb     IAmb     01 02 60.0
      comp=Z,72nm,1.5s
JSC   Jenkinsville    74.67  48  P        P        01 02 56.4 -0.6
JSC                              pmax     pmax
      comp=Z,14nm,1.0s
JSC   Jenkinsville    74.67  48  P        P        01 02 56.4 -0.6
250A  Grady           74.67  53  P        P        01 02 55.9 -1.2
250A                             IAmb     IAmb     01 03 00.0
      comp=Z,34nm,0.8s
152A  Waverly Hall    74.70  52  P        P        01 02 56.4 -0.9
ISO   Isola           74.78 339  P        P        01 02 58.5 +0.9
      comp=Z,21nm,1.6s
NRCA  Norcia          74.84 335  P        P        01 02 58.0  0.0
CAF   Calviac         74.89 343 eP        P        01 02 59.2 +1.0
CAF                              pmax     pmax
      comp=Z,22nm,1.2s
MTN   Manton Dam      74.90 208  P        P        01 02 56.9 -1.5
MTN                              IAmb     IAmb     01 03 00.1
      comp=Z,31nm,1.1s
MDH   Madha           74.95 294  P        P        01 02 58.6 -0.2
MDH                              S        S        01 12 34.6 -1.7
MDH   Madha           74.95 294  P        P        01 02 58.6 -0.2
MASF  Masafi          74.95 294  P        P        01 02 59.9 +1.1
      SNR=5.1
MASF                             S        S        01 12 34.7 -1.8
W59A  Clinton         74.95  46  P        P        01 02 58.0 -0.7
W59A                             IAMs_20  IAMs_20  01 42 04.1
      comp=Z,3µm,19.0s
MSFE  Esma-Masafi     74.96 294  P        P        01 02 58.2 -0.7
SBF   Sospel          75.01 339 eP        P        01 03 00.7 +1.7
SBF                              pmax     pmax
      comp=Z,60nm,1.2s
KBN   Korca           75.02 328  P        P        01 02 58.9 -0.2
      comp=Z,425nmcomp=Z,15nm,1.2s
LIT   Litokhoron      75.03 327  P        P        01 02 58.8 -0.3
LIT   Litokhoron      75.03 327  P        P        01 02 58.8 -0.3
BRAL  Brewton         75.04  54  IAMs_20  IAMs_20  01 36 12.5
      comp=Z,3µm,21.0s
UMQ   Umm Al-Quwin    75.06 294  P        P        01 03 00.1 +0.7
LFF   La Frestale     75.06 344 eP        P        01 03 01.1 +2.0
LFF                              pmax     pmax
      comp=Z,130nm,1.3s
ZAIG  Zacatecas       75.07  71  P        P        01 02 59.2 -0.6
ZAIG  Zacatecas       75.07  71  P        P        01 03 01.2 +1.3
      comp=Z,13nm,1.8s
V61A  Roper           75.08  44  IAMs_20  IAMs_20  01 38 40.5
      comp=Z,3µm,19.0s
X58A  Rowland         75.16  47  P        P        01 02 58.9 -1.0
X58A                             IAmb     IAmb     01 03 07.7
      comp=Z,37nm,0.9s
CESX  Cesi            75.17 335  P        P        01 03 00.1 +0.2
CESX                             IAmb     IAmb     01 03 03.0
      comp=Z,71nm,1.7s
AQU   L'Aquila        75.23 334  P        P        01 02 59.9 -0.4
AQU                              pmax     pmax
      comp=Z,39nm,1.1s
AQU   L'Aquila        75.23 334  P        P        01 02 59.9 -0.4
AQU                              IAmb     IAmb     01 03 18.4
      comp=Z,39nm,1.1s
AQU   L'Aquila        75.23 334  P        P        01 03 02.0 +1.8
      comp=Z,885nmcomp=Z,38nm,1.3s
Y57A  Sumter          75.23  48  P        P        01 02 59.0 -1.3
Y57A                             IAmb     IAmb     01 03 02.9
      comp=Z,101nm,2.0s
RUSF  Rustrel         75.29 341  P        P        01 03 02.6 +2.1
      comp=Z,44nm,1.8s
UOSS  Minazif         75.29 294  P        P        01 02 58.9 -1.9
UOSS                             S        S        01 12 38.6 -1.6
UOSS  Minazif         75.29 294  P        P        01 02 59.0 -1.9
UOSS                             IAmb     IAmb     01 03 02.9
      comp=Z,22nm,0.8s
UOSS  Minazif         75.29 294 iP        P        01 02 59.8 -1.0
      SNR=5.8
UOSS  Minazif         75.29 294  P        P        01 02 58.8 -1.9
      comp=Z,720nmcomp=Z,42nm,1.0s
154A  Montrose        75.40  50  P        P        01 03 00.4 -0.9
HATD  Hatta, Dubai    75.43 294  P        P        01 03 01.1 -0.5
      SNR=12
HATD                             S        S        01 12 41.3 -0.4
HATD  Hatta, Dubai    75.43 294 iP        P        01 03 00.8 -0.7
      SNR=17
INTR  Introdacqua     75.44 334  P        P        01 03 01.6 +0.1
INTR                             IAmb     IAmb     01 03 18.2
      comp=Z,44nm,1.2s
NAZ   Nazwa, Dubai    75.51 294  P        P        01 03 02.4 +0.4
      SNR=6.7
NAZ                              S        S        01 12 43.0 +0.3
NAZ   Nazwa, Dubai    75.51 294 iP        P        01 03 01.0 -1.0
      SNR=10
WSAR  Wadi Sarin      75.57 291  LR       LR       01 39 44.5
      comp=Z,5.5nm,18.6s,baz=68,slow=38
WSAR  Wadi Sarin      75.57 291  P        P        01 03 03.0 +0.6
BIDO  Bidbid          75.57 291  P        P        01 03 04.0 +1.6
ASHO  Ashiyiah        75.58 294  P        P        01 03 01.3 -1.2
      SNR=8.1
ASHO                             S        S        01 12 42.6 -0.9
ASHO  Ashiyiah        75.58 294 iP        P        01 03 01.7 -0.8
      SNR=13
Y58A  Scranton        75.61  47  P        P        01 03 01.7 -0.7
352A  Blakely         75.66  52  P        P        01 03 01.6 -1.1
352A                             IAmb     IAmb     01 03 04.7
      comp=Z,27nm,0.7s
LMR   La Mourre       75.70 340 eP        P        01 03 04.7 +1.9
LMR                              pmax     pmax
      comp=Z,62nm,1.4s
ELL   Elmali          75.80 320  P        P        01 03 03.5 -0.2
ELL                              pmax     pmax
      comp=Z,17nm,1.0s
ELL   Elmali          75.80 320  P        P        01 03 03.5 -0.2
SOHO  SOHO            75.82 293  P        P        01 03 02.7 -1.1
SOHO                             S        S        01 12 44.4 -1.7
SOHO  SOHO            75.82 293 iP        P        01 03 02.8 -1.0
      SNR=10
HOQ   Hoqain          75.92 292  P        P        01 03 04.0 -0.4
      SNR=7.1
HOQ                              S        S        01 12 46.5 -0.7
WBK   Wadi Bani Khal  75.93 290  P        P        01 03 05.7 +1.2
ASUD  Al Ashush, Dub  75.98 294  P        P        01 03 05.1 +0.4
ASUD                             S        S        01 12 47.6 -0.2
ASUD  Al Ashush, Dub  75.98 294  P        P        01 03 02.9 -1.8
YER   Yerkesik        75.99 321  P        P        01 03 05.3 +0.6
SMDO  Samad           76.00 291  P        P        01 03 05.3 +0.4
Y60A  Bolivia         76.07  46  P        P        01 03 03.2 -1.9
Y60A                             IAMs_20  IAMs_20  01 39 29.7
      comp=Z,2µm,21.0s
JLN   Jalan Bani Buh  76.10 290  P        P        01 03 06.2 +0.7
NHSC  New Hope        76.12  48  P        P        01 03 04.4 -1.0
PAOL  Paolisi         76.22 333  P        P        01 03 05.0 -0.9
PAOL                             IAmb     IAmb     01 03 13.4
      comp=Z,29nm,1.3s
CSS   Mathiatis       76.23 317  P        P        01 03 04.6 -1.4
CSS                              IAMs_20  IAMs_20  01 42 11.3
      comp=Z,2µm,20.0s
CSS   Mathiatis       76.23 317  P        P        01 03 05.4 -0.6
      comp=Z,873nmcomp=Z,35nm,1.8s
CSS   Mathiatis       76.23 317  P        P        01 03 06.5 +0.5
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      comp=Z,874nmcomp=Z,35nm,1.8s
TIGA  Tifton          76.24  51  P        P        01 03 05.5 -0.6
ALNE  Al Ain          76.26 294  P        P        01 03 06.1 -0.2
      SNR=6.7
ALNE                             S        S        01 12 48.8 -2.2
ALNE  Al Ain          76.26 294 iP        P        01 03 05.3 -1.1
      SNR=5.9
CSU   Charleston Sou  76.27  48  P        P        01 03 05.3 -0.9
AFI   Afiamalu        76.29 151  LR       LR       01 30 16.1
      comp=Z,978nm,20.8s,baz=359,slow=31
AFI   Afiamalu        76.29 151  P        P        01 03 04.9 -1.5
AFI                              pmax     pmax
      comp=Z,139nm,1.4s
AFI   Afiamalu        76.29 151  P        P        01 03 04.9 -1.5
RGRS  Roger Stewart   76.29  48  P        P        01 03 04.2 -2.1
CY601 RAF Akrotiri,   76.36 315  P        P        01 03 05.9 -0.5
CY601                            IAmb     IAmb     01 03 09.2
      comp=Z,34nm,1.1s
CY606 RAF Akrotiri,   76.36 315  P        P        01 03 06.4  0.0
CY606                            IAmb     IAmb     01 03 09.2
      comp=Z,31nm,1.1s
CY604 RAF Akrotiri,   76.36 315  P        P        01 03 05.7 -0.6
CY604                            IAmb     IAmb     01 03 09.3
      comp=Z,29nm,1.1s
CY603 RAF Akrotiri,   76.37 315  P        P        01 03 06.0 -0.3
CY603                            IAmb     IAmb     01 03 21.2
      comp=Z,21nm,0.9s
ARQ   Araqi           76.50 293  P        P        01 03 07.9 +0.2
      SNR=6.0
ARQ                              S        S        01 12 53.3 -0.3
MDSI  Maura Dua       76.52 237  P        P        01 03 06.9 -0.8
JMDO  Jabal Madar     76.56 291  P        P        01 03 07.7 -0.3
      SNR=7.3
BSY   Bisya           76.68 292  P        P        01 03 08.6 -0.2
      SNR=6.8
BSY                              S        S        01 12 55.5 -0.1
ARG   Arkhangelos     76.88 321  P        P        01 03 08.0 -1.6
ARG                              pmax     pmax
      comp=Z,126nm,1.5s
ARG   Arkhangelos     76.88 321  P        P        01 03 08.0 -1.6
CUC   Castrocucco     76.90 332  IAMs_20  IAMs_20  01 39 25.8
      comp=Z,2µm,20.0s
MMAI  Mount Meron Ar  77.21 314  P        P        01 03 11.7  0.0
      comp=Z,7.8nm,0.8s,baz=30,slow=23,SNR=9.8
MMAI                             LR       LR       01 40 04.5
      comp=Z,3µm,18.7s,baz=20,slow=38
      comp=Z,7.8nm,0.8s
ETSF  Etsaut          77.25 345 eP        P        01 03 12.8 +1.1
ETSF                             pmax     pmax
      comp=Z,90nm,1.2s
CEST  Esterri de Car  77.28 343  P        P        01 03 11.9 -0.1
CEST                             IAmb     IAmb     01 03 15.4
      comp=Z,29nm,1.2s
ASF   Jabal al Asfar  77.40 313  P        P        01 03 12.7  0.0
      comp=Z,11nm,1.1s,baz=349,slow=1.7,SNR=15
ASF                              LR       LR       01 43 44.6
      comp=Z,2µm,19.3s,baz=23,slow=41
      comp=Z,11nm,1.1s
TIP   Timpagrande     77.44 331  P        P        01 03 12.8  0.0
TIP   Timpagrande     77.44 331  P        P        01 03 12.6 -0.2
      comp=Z,35nm,1.6s
TIP   Timpagrande     77.44 331  P        P        01 03 14.2 +1.3
      comp=Z,44nm,1.6s
UMZA  Um Al Zommool   77.69 293  P        P        01 03 13.1 -1.2
UMZA                             S        S        01 13 04.6 -1.9
GHWR  Ruwais          77.70 296  P        P        01 03 13.1 -1.3
GHWR                             S        S        01 13 06.1 -0.4
MHTO  MHTO            77.80 290  P        P        01 03 14.6 -0.4
      SNR=8.2
MHTO                             S        S        01 13 08.5 +0.8
KARP  Karpathos       77.80 322  P        P        01 03 14.0 -0.9
KARP                             IAMs_20  IAMs_20  01 43 48.8
      comp=Z,2µm,20.0s
MSVF  Nonsavu         77.86 161  LR       LR       01 32 47.4
      comp=Z,694nm,19.3s,baz=345,slow=32
ITM   Ithomi          77.90 326  P        P        01 03 14.2 -1.2
UJAP  Al Uja          78.14 314  P        P        01 03 17.2 +0.5
      comp=Z,736nmcomp=Z,42nm,1.4s,comp=Z,736nm
KNRA  Kununurra       78.21 210  P        P        01 03 16.5 -0.6
      comp=Z,32nm,1.1s
KNRA  Kununurra       78.21 210  P        P        01 03 15.4 -1.7
KNRA                             IAmb     IAmb     01 03 18.5
      comp=Z,32nm,1.1s
MZR   Muzera          78.24 295  P        P        01 03 16.5 -0.9
      SNR=5.4
MZR   Muzera          78.24 295 iP        P        01 03 15.9 -1.5
      SNR=9.3
MOIG  Morelia         78.36  71  P        P        01 03 18.4  0.0
MOIG                             IAmb     IAmb     01 05 36.1
      comp=Z,25nm,0.5s
656A  Willston        78.49  52  P        P        01 03 18.8 +0.1
CEL   Celeste         78.52 331  IAMs_20  IAMs_20  01 43 11.7
      comp=Z,2µm,19.0s
GHAJ  Ghor Haditha    78.68 313  P        P        01 03 19.2 -0.5
GHAJ                             IAmb     IAmb     01 03 52.1
      comp=Z,35nm,1.3s
GHAJ                             IAMs_20  IAMs_20  01 41 05.3
      comp=Z,2µm,21.0s
IDI   Anoyia          78.76 323  P        P        01 03 20.0 -0.2
      comp=Z,4.2nm,0.5s,baz=27,slow=6.8,SNR=3.4
IDI                              LR       LR       01 42 04.9
      comp=Z,1µm,19.2s,baz=33,slow=39
      comp=Z,4.2nm,0.5s
IDI   Anoyia          78.76 323  IAmb     IAmb     01 04 20.3
      comp=Z,56nm,1.6s
VSL   Villasalto      78.84 336  P        P        01 03 21.1 +0.6
VSL                              IAmb     IAmb     01 03 23.6
      comp=Z,38nm,1.2s
VSL                              IAMs_20  IAMs_20  01 42 01.0
      comp=Z,2µm,20.0s
IMMV  Iera Moni Meta  78.88 324  P        P        01 03 20.7 -0.1
      comp=Z,634nmcomp=Z,41nm,1.1s
PGAV  Gavieira, Arco  79.04 350 eP        P        01 03 21.9 +0.2
PGAV                            iIAmb     IAmb     01 03 25.1
      comp=Z,43nm,2.3s
PGAV                            eS        S        01 13 23.5 +2.8
PGAV                            eLR       LR       01 31 34.6
PGAV                            iIAMs_20  IAMs_20  01 47 32.4
      comp=Z,1µm,18.0s
PBRG  Braganca        79.06 349⇑eP        P        01 03 22.3 +0.5
PBRG                            iIAmb     IAmb     01 03 25.1
      comp=Z,26nm,1.7s
KOUNC Koumac, New Ca  79.17 175  P        P        01 03 22.8 +0.5
KOUNC                            IAmb     IAmb     01 03 27.3
      comp=Z,50nm,1.4s
PCAB  Cabril          79.27 350 eP        P        01 03 23.7 +0.8
PCAB                            iIAmb     IAmb     01 03 44.2
      comp=Z,27nm,1.9s
CTA   Charters Tower  79.29 192  LR       LR       01 34 05.1
      comp=Z,855nm,22.0s,baz=24,slow=32
POLO  Lamas de Olo    79.58 350 eP        P        01 03 25.1 +0.5
POLO                            iIAmb     IAmb     01 03 28.1
      comp=Z,14nm,2.1s
VAE   Valguarnera     79.63 332  LR       LR       01 41 06.7
      comp=Z,2µm,19.5s,baz=358,slow=38
UNM   Universidad Na  79.65  70  IAMs_20  IAMs_20  01 40 45.0
      comp=Z,3µm,20.0s
PVRL  Vila Real       79.67 350 eP        P        01 03 25.7 +0.6
PVRL                            iIAmb     IAmb     01 03 28.5
      comp=Z,41nm,1.6s
PTO   Porto           79.89 350 eP        P        01 03 27.0 +0.8
PTO                             iIAmb     IAmb     01 03 30.8
      comp=Z,25nm,1.4s
PVIS  Viseu           80.25 350 eP        P        01 03 29.0 +0.8
EIL   Elat            80.38 313  P        P        01 03 27.8 -1.3
      comp=Z,7.9nm,0.9s,baz=327,slow=1.5,SNR=8.2
EIL                              LR       LR       01 44 48.5
      comp=Z,2µm,18.5s,baz=34,slow=40
      comp=Z,7.9nm,0.9s
EIL   Elat            80.38 313  P        P        01 03 29.7 +0.7
      comp=Z,474nmcomp=Z,18nm,1.7s
MTE   Manteigas       80.53 350 eP        P        01 03 30.8 +1.0
MTE                             iIAmb     IAmb     01 03 34.3
      comp=Z,40nm,1.6s
MTE                             eS        S        01 13 39.9 +3.5
MTE                             eLR       LR       01 32 38.9
MTE                             iIAMs_20  IAMs_20  01 43 46.3
      comp=Z,1µm,18.0s
MTE   Manteigas       80.53 350  P        P        01 03 29.0 -0.7
MTE                              IAmb     IAmb     01 03 32.5
      comp=Z,73nm,1.8s
MTE                              IAMs_20  IAMs_20  01 43 14.4
      comp=Z,2µm,19.0s
MTE   Manteigas       80.53 350  P        P        01 03 31.6 +1.9
      comp=Z,20nm,1.8s
QIS   Mount Isa       80.66 198  P        P        01 03 30.5 +0.1
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      comp=Z,23nm,1.3s
WB0   Warramunga Arr  80.85 203  P        P        01 03 31.4 -0.1
ESBB  Sonseca Array   80.86 347  P        P        01 03 31.4 -0.2
ESBB                             IAmb     IAmb     01 03 34.4
      comp=Z,61nm,1.9s
ESDC  Sonseca Array   80.86 347  P        P        01 03 30.9 -0.6
      comp=Z,8.0nm,0.8s,baz=3.6,slow=5.6,SNR=52
      comp=Z,8.0nm,0.8s
ESDC  Sonseca Array   80.86 347  P        P        01 03 31.0 -0.6
PCAS  Casmilo, Conde  80.96 350 eP        P        01 03 33.1 +1.1
PCAS                            iIAmb     IAmb     01 03 35.4
      comp=Z,23nm,2.6s
WR0   Warramunga Arr  81.01 203  P        P        01 03 31.4 -0.8
WR0                              IAmb     IAmb     01 03 34.1
      comp=Z,56nm,1.4s
WR8   Warramunga Arr  81.01 203  P        P        01 03 31.4 -0.9
WR8                              IAmb     IAmb     01 03 34.1
      comp=Z,34nm,1.3s
WRAB  Tennant Creek   81.02 203⇓iP        P        01 03 32.1 -0.3
WRAB                             pmax     pmax
      comp=Z,58nm,1.4s
WRAB  Tennant Creek   81.02 203  P        P        01 03 32.0 -0.3
WRAB                             IAmb     IAmb     01 03 34.2
      comp=Z,69nm,1.4s
WRAB  Tennant Creek   81.02 203  P        P        01 03 32.9 +0.6
      comp=Z,34nm,1.2s
WB2   Warramunga Arr  81.03 203  P        P        01 03 31.3 -1.1
WB2                              IAmb     IAmb     01 03 34.3
      comp=Z,64nm,1.4s
WRA   Warramunga Arr  81.03 203  P        P        01 03 31.9 -0.6
      comp=Z,17nm,1.0s,baz=17,slow=5.7,SNR=29
WRA                              LR       LR       01 40 27.5
      comp=Z,597nm,19.8s,baz=88,slow=36
      comp=Z,17nm,1.0s
WRA   Warramunga Arr  81.03 203 iP        P        01 03 32.7 +0.3
WRA                              pmax     pmax
      comp=Z,17nm,1.0s
WRA   Warramunga Arr  81.03 203  P        P        01 03 30.8 -1.7
ONTNC Ouen Toro       81.04 173  P        P        01 03 31.4 -1.0
ONTNC                            IAmb     IAmb     01 03 35.1
      comp=Z,28nm,1.0s
PCBR  Castelo Branco  81.07 349 eP        P        01 03 32.8 +0.2
PCBR                            iIAmb     IAmb     01 03 45.4
      comp=Z,28nm,1.9s
WDD   Wied Dalam      81.16 331  P        P        01 03 32.8 -0.3
OUENC Ouen Island, N  81.17 173  P        P        01 03 32.6 -0.4
OUENC                            IAmb     IAmb     01 03 48.0
      comp=Z,35nm,1.1s
FITZ  Fitzroy Crossi  81.36 212  P        P        01 03 34.3 +0.2
FITZ  Fitzroy Crossi  81.36 212  LR       LR       01 38 57.6
      comp=Z,226nm,21.9s,baz=20,slow=35
FITZ  Fitzroy Crossi  81.36 212  P        P        01 03 33.2 -0.9
RAYN  Ar Rayn         81.44 302  P        P        01 03 34.4 -0.5
RAYN                             S        S        01 13 45.6 -0.8
RAYN  Ar Rayn         81.44 302  P        P        01 03 33.4 -1.5
RAYN                             pmax     pmax
      comp=Z,85nm,1.7s
RAYN                             MLR      MLR
      comp=Z,3µm,21.0s
RAYN  Ar Rayn         81.44 302  P        P        01 03 33.4 -1.5
RAYN                             IAmb     IAmb     01 03 36.7
      comp=Z,85nm,1.6s
RAYN  Ar Rayn         81.44 302 iP        P        01 03 34.1 -0.8
      SNR=6.6
RAYN  Ar Rayn         81.44 302  P        P        01 03 34.3 -0.6
      comp=Z,607nmcomp=Z,22nm,1.5s,comp=Z,607nm
TLIG  Tlapa           81.45  70  P        P        01 03 33.0 -2.0
PMRV  Marv??o         81.47 349 eP        P        01 03 35.4 +0.6
PMRV                            iIAmb     IAmb     01 03 38.2
      comp=Z,23nm,1.6s
PMRV                            eLR       LR       01 33 02.5
PMRV                            iIAMs_20  IAMs_20  01 48 54.3
      comp=Z,2µm,18.0s
PSBE  So Bento        81.52 350 eP        P        01 03 35.5 +0.6
NIUE  Niue            81.72 150  P        P        01 03 34.9 -1.1
PMTG  Montargil       81.91 350 eP        P        01 03 38.5 +1.5
PARRA Arraiolos       82.14 350 eP        P        01 03 38.3  0.0
BBSR  BB Station      82.18  36  IAMs_20  IAMs_20  01 41 50.4
      comp=Z,2µm,20.0s
EVO   Evora           82.42 350 eP        P        01 03 40.0 +0.3
WHFO  Wadi Hawf       82.45 292  P        P        01 03 38.7 -1.4
MOE   Montemor        82.46 350 eP        P        01 03 41.3 +1.3
KEST  Kesra           82.47 335  P        P        01 03 40.0 -0.1
      comp=Z,9.2nm,1.0s,baz=356,slow=4.7,SNR=4.6
KEST                             LR       LR       01 44 29.2
      comp=Z,2µm,20.9s,baz=24,slow=39
      comp=Z,9.2nm,1.0s
PBAR  Barrancos       82.68 349 eP        P        01 03 41.4 +0.3
PBAR                            iIAmb     IAmb     01 04 05.3
      comp=Z,28nm,1.5s
TAOE  Nuku Hiva Isla  83.13 120 eLR       LR       01 29 44.1
      comp=Z,3µm,23.2s
ABTO  Aybut           83.16 292  P        P        01 03 42.7 -1.2
ABTO                             P        pP       01 03 43.6 -3.0
PCVE  Castro Verde    83.32 350 eP        P        01 03 45.4 +1.0
PVAQ  Vaqueiros       83.51 349 eP        P        01 03 46.3 +0.9
PVAQ                            eLR       LR       01 34 16.8
PVAQ                            iIAMs_20  IAMs_20  01 49 36.1
      comp=Z,2µm,18.0s
CMIG  Matias Romero   83.65  68  LR       LR       01 40 49.1
      comp=Z,1µm,21.5s,baz=342,slow=36
TEIG  Tepich          84.03  61  IAMs_20  IAMs_20  01 48 01.5
      comp=Z,1µm,19.0s
SOR   Soroa           84.09  55  P        P        01 03 46.9 -1.7
SOR                              pmax     pmax
      comp=Z,28nm,1.3s
SOR   Soroa           84.09  55  P        P        01 03 46.9 -1.7
SOR                              IAmb     IAmb     01 03 56.5
      comp=Z,28nm,1.3s
EIDS  Eidsvold        84.10 187  P        P        01 03 49.8 +1.6
      comp=Z,21nm,1.7s
EIDS  Eidsvold        84.10 187  P        P        01 03 47.3 -0.9
EIDS                             IAmb     IAmb     01 04 32.1
      comp=Z,38nm,1.1s
AS15  Alice Springs   84.71 203  P        P        01 03 52.1 +0.7
      comp=Z,22nm,1.3s
AS17  Alice Springs   84.72 203  P        P        01 03 52.4 +0.9
      comp=Z,22nm,1.4s
AS31  Alice Springs   84.74 203  P        P        01 03 51.1 -0.5
ASAR  Alice Springs   84.74 203  P        P        01 03 51.0 -0.5
      comp=Z,8.0nm,0.6s,baz=12,slow=4.8,SNR=42
ASAR                             LR       LR       01 45 57.2
      comp=Z,253nm,18.0s,baz=9.5,slow=39
      comp=Z,8.0nm,0.6s
AS09  Alice Springs   84.76 203  P        P        01 03 52.6 +0.9
      comp=Z,22nm,1.3s
CAIB  Caibarien       85.84  52  P        P        01 03 55.7 -1.6
QLP   Quilpie         85.93 193  P        P        01 03 58.8 +1.3
      comp=Z,53nm,1.2s
MBWA  Marble Bar      85.98 216  P        P        01 03 57.1 -0.6
MBWA  Marble Bar      85.98 216  P        P        01 03 56.9 -0.9
MBWA                             IAmb     IAmb     01 04 04.3
      comp=Z,43nm,1.2s
MBWA  Marble Bar      85.98 216  P        P        01 03 57.6 -0.2
      comp=Z,29nm,1.2s
PETF  Flores          86.17  63  P        P        01 03 57.3 -1.7
PETF                             IAmb     IAmb     01 04 01.9
      comp=Z,14nm,0.8s
RAR   Rarotonga       86.68 142  LR       LR       01 37 27.7
      comp=Z,589nm,18.8s,baz=308,slow=32
PPT   Papeete         86.95 132  LR       LR       01 35 58.6
      comp=Z,635nm,19.2s,baz=358,slow=31
PPT2  Papeete2        86.97 132 eP        P        01 04 06.9 +4.1
      comp=Z,54nm,24.5s
PPT2                            eS        S        01 14 35.6 -5.9
      comp=Z,113nm,23.5s
PPT2                            eSS       SS       01 20 31.4 +6.7
      comp=Z,140nm,26.5s
PPT2                            eLQ       LQ       01 27 24.6
      comp=Z,2µm,41.5s
PPT2                            eLR       LR       01 31 30.6
      comp=Z,3µm,28.8s
PPT2                            eLR       LR       01 31 31.7
      comp=Z,2µm,30.8s
WRKA  Warakurna       87.31 208  P        P        01 04 04.3 +0.1
      comp=Z,19nm,1.3s
INKA  Innaminka       87.53 196  P        P        01 04 05.9 +0.7
INKA                             IAmb     IAmb     01 04 09.1
      comp=Z,14nm,0.9s
AVE   Averroes        87.55 349  P        P        01 04 05.4 -0.2
AVE                              IAMs_20  IAMs_20  01 51 08.3
      comp=Z,1µm,20.0s
APG   El Apazote      87.55  65  LR       LR       01 45 06.1
      comp=Z,111nm,21.9s,baz=36,slow=37
MD01  Midelt array s  87.67 346  P        P        01 04 05.7 -0.7
MD31  MD31            87.67 346           P        01 04 05.9 -0.4
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MDT	Midelt	87.71	346	LR	LR	01 47 51.7	
	comp=Z,853nm,19.1s,baz=39,slow=39						
ESQI	Esquipulas	88.47	64	P	P	01 04 09.6	-0.7
MTO3	Montecristo	88.60	64	P	P	01 04 10.3	-0.7
PMOZ	Porto Moniz, M	88.67	357	*e*LR	LR	01 37 02.2	
PMOZ				*i* IAMs_20	IAMs_20	01 44 37.8	
	comp=Z,688nm,22.0s						
ARMA	Armidale	89.08	186	P	P	01 04 15.5	+2.8
	comp=Z,34nm,1.4s						
ARMA	Armidale	89.08	186	P	P	01 04 11.8	-0.9
TGUH	Tegucigalpa,Un	89.87	63	P	P	01 04 16.8	-0.1
TGUH				IAMs_20	IAMs_20	01 51 35.4	
	comp=Z,2µm,19.0s						
GTBY	Guantanamo Bay	89.90	50	IAMs_20	IAMs_20	01 49 23.1	
	comp=Z,2µm,21.0s						
GRTK	Grand Turk	89.99	46	IAMs_20	IAMs_20	01 43 46.5	
	comp=Z,2µm,22.0s						
CMSA	Cobar Meteorol	90.67	191	P	P	01 04 20.8	+0.9
	comp=Z,27nm,1.1s						
CRIN	San Cristobal	91.16	63	P	P	01 04 21.6	-1.2
STKA	Stephens Creek	91.48	195	P	P	01 04 24.4	+0.7
	comp=Z,109nm,1.7s						
STKA	Stephens Creek	91.48	195	P	P	01 04 23.6	0.0
	comp=Z,13nm,0.9s,baz=1.2,slow=3.0,SNR=13						
STKA				LR	LR	01 42 50.8	
	comp=Z,1µm,22.0s,baz=3.2,slow=34						
	comp=Z,13nm,0.9s						
BOAB	BOACO BROADBAN	92.02	62	P	P	01 04 27.0	+0.3
	comp=Z,24nm,1.9s						
SDDR	Presa de Saban	92.24	47	IAMs_20	IAMs_20	01 45 33.1	
	comp=Z,2µm,21.0s						
FORT	Forrest	92.88	206	P	P	01 04 30.0	-0.2
FORT				IAmb	IAmb	01 07 42.9	
	comp=Z,21nm,1.1s						
ATD	Arta Tunnel	93.14	298	LR	LR	01 51 25.3	
	comp=Z,50nm,18.9s,baz=16,slow=39						
ATD	Arta Tunnel	93.14	298	IAMs_20	IAMs_20	01 52 55.9	
	comp=Z,1µm,18.0s						
JTS	Las Juntas de	94.24	62	LR	LR	01 51 35.7	
	comp=Z,679nm,20.3s,baz=341,slow=38						
JTS	Las Juntas de	94.24	62	IAMs_20	IAMs_20	01 50 05.2	
	comp=Z,2µm,21.0s						
MORW	Morawa	94.52	217	P	P	01 04 37.4	-0.4
HDC	Heredia	94.88	62	IAMs_20	IAMs_20	01 48 59.1	
	comp=Z,2µm,22.0s						
SJG	San Juan	94.92	43	LR	LR	01 52 42.3	
	comp=Z,1µm,18.8s,baz=300,slow=39						
SJG	San Juan	94.92	43	IAMs_20	IAMs_20	01 52 49.0	
	comp=Z,1µm,20.0s						
PDPR	Patillas Dam,	95.05	42	P	P	01 04 39.2	-1.4
TAM	Tamanrasset	95.79	335	IAMs_20	IAMs_20	01 51 52.9	
	comp=Z,1µm,21.0s						
SMRT	St. Maarten	96.03	40	IAMs_20	IAMs_20	01 50 58.3	
	comp=Z,1µm,20.0s						
SABA	Saba	96.38	40	IAMs_20	IAMs_20	01 52 43.4	
	comp=Z,2µm,20.0s						
SEUS	St. Eustatius	96.58	40	IAMs_20	IAMs_20	01 52 49.9	
	comp=Z,2µm,19.0s						
BRU2	Volcan	96.59	61	P	P	01 04 47.4	-0.5
FURI	Furi	97.36	301	IAMs_20	IAMs_20	01 53 32.8	
	comp=Z,2µm,20.0s						
NWAO	Narrogin (SRO)	97.76	214	LR	LR	01 49 43.5	
	comp=Z,452nm,21.5s,baz=44,slow=36						
URZ	Urewera	97.88	166	LR	LR	01 44 04.7	
	comp=Z,312nm,21.6s,baz=2.0,slow=32						
GDHS	Morne Mazeau,	98.12	39	IAMs_20	IAMs_20	01 53 09.3	
	comp=Z,2µm,21.0s						
CBE	Ff, Capester	98.36	39	IAMs_20	IAMs_20	01 53 25.2	
	comp=Z,2µm,20.0s						
MAGL	Barre de l'ile	98.58	39	IAMs_20	IAMs_20	01 51 33.9	
	comp=Z,2µm,20.0s						
SVN	Savane Anatole	99.66	39	IAMs_20	IAMs_20	01 50 39.3	
	comp=Z,2µm,22.0s						
FDFM	Morne la Roset	99.76	39	IAMs_20	IAMs_20	01 51 39.1	
	comp=Z,2µm,21.0s						
ILAM	Ilet Lapin Mar	99.82	39	IAMs_20	IAMs_20	01 51 06.6	
	comp=Z,1µm,22.0s						
BIM	Bigot	99.99	39	IAMs_20	IAMs_20	01 51 45.3	
	comp=Z,2µm,22.0s						
MPOM	Morne Pois Mar	100.13	39	IAMs_20	IAMs_20	01 51 13.9	
	comp=Z,1µm,21.0s						
TUWZ	Tuamarina	100.64	169	Pdif	Pdif	01 05 04.1	-0.9
SDV	Santo Domingo	101.69	50	IAMs_20	IAMs_20	01 53 50.5	
	comp=Z,2µm,20.0s						
GRGR	Grenville	102.02	41	IAMs_20	IAMs_20	01 56 14.1	
	comp=Z,1µm,19.0s						
LODK	Lodwar	103.70	301	IAMs_20	IAMs_20	02 01 01.8	
	comp=Z,984nm,18.0s						
TORD	Torodi Ar. Bea	105.94	337	PP	PKiKP	01 09 47.3	+5.6
	comp=Z,1.0nm,1.1s,baz=19,slow=7.3,SNR=2.2						
KIBK	Kibwezi	107.56	296	IAMs_20	IAMs_20	01 59 23.8	
	comp=Z,1µm,20.0s						
DBIC	Dimbokro	113.46	342	PP	PP	01 10 45.7	-0.4
	comp=Z,1.2nm,0.3s,baz=101,slow=4.5,SNR=6.7						
ITTB	Itaituba	119.44	41	*e*P	PKPdf	01 10 07.4	0.0
LSZ	Lusaka	123.47	299	P	PKPdf	01 10 13.8	-1.3
LPAZ	La Paz	125.35	60	PKP	PKPdf	01 10 18.8	-0.5
	comp=Z,3.2nm,0.9s,baz=30,slow=2.9,SNR=7.9						
LPAZ	La Paz	125.35	60	*e*P	PKiKP	01 10 19.5	-0.2
CLDB	Colider	125.47	43	*e*P	PKPdf	01 10 18.6	-0.3
VILB	Vilhena	125.72	49	*e*P	PKPdf	01 10 19.3	0.0
SMTB	Santa Maria do	126.23	33	*e*P	PKiKP	01 10 20.6	-0.2
SNDB	Serra Nova Dou	128.04	39	*e*P	PKPdf	01 10 23.6	-0.2
PTLB	Pontes e Lacer	128.41	49		PKiKP	01 10 25.2	+0.2
PTLB	Pontes e Lacer	128.41	49	*e*P	PKiKP	01 10 24.7	-0.3
SALV	Santo Antonio	130.14	46	*e*P	PKiKP	01 10 28.6	+0.1
SDBA	SAO DESIDERIO	130.35	31	*e*P	PKPdf	01 10 28.2	0.0
ARAG	Araguaiana, MT	131.35	41	*e*P	PKPdf	01 10 30.1	+0.1
BDFB	Brasilia	132.52	36	PKP	PKPdf	01 10 31.8	-0.5
	comp=Z,2.8nm,0.7s,baz=24,slow=4.8,SNR=4.2						
COIM	Forte Coimbra	132.97	50	*e*P	PKPdf	01 10 32.2	-0.7
AC05	El Transito	135.08	70	IAMs_20	IAMs_20	01 59 49.5	
	comp=Z,1µm,21.0s						
BOSA	Boshof	136.30	293	PKP	PKPdf	01 10 38.5	-0.6
	comp=Z,3.5nm,1.0s,baz=327,slow=3.6,SNR=3.4						
BOSA	Boshof	136.30	293	P	PKPdf	01 10 38.5	-0.6
VA01	Torpederas	137.80	75	IAMs_20	IAMs_20	02 06 50.7	
	comp=Z,979nm,20.0s						
MT05	Renca	138.55	74	IAMs_20	IAMs_20	02 04 45.5	
	comp=Z,740nm,19.0s						
CPUP	Villa Florida	138.88	54	PKP	PKPdf	01 10 42.9	-0.8
	comp=Z,1.5nm,1.0s,baz=3.0,slow=4.8,SNR=3.1						
PSAL	Palomas, Salto	142.89	58	*e*P	PKPdf	01 10 51.1	+0.3
MAW	Mawson	144.07	220	P	PKPdf	01 10 51.1	-0.6
MAW	Mawson	144.07	220	PKP	PKPdf	01 10 51.1	-0.6
	comp=Z,35nm,1.0s,baz=47,slow=3.2,SNR=38						
CPSB	Cacapava Do Su	144.08	52		PKPbc	01 10 51.9	+0.9
CPSB	Cacapava Do Su	144.08	52	*e*P	PKPbc	01 10 51.4	+0.4
PLCA	Paso Flores	144.29	82	PKP	PKPbc	01 10 52.1	+0.7
	comp=Z,6.8nm,0.7s,baz=284,slow=3.2,SNR=18						
PLCA	Paso Flores	144.29	82	*e*P	PKPbc	01 10 51.8	+0.4
ANCO	Parque Anchore	145.42	61	*e*P	PKPab	01 10 55.4	+0.1
TRQA	Tornquist	146.58	70	IAMs_20	IAMs_20	02 23 35.8	
	comp=Z,891nm,20.0s						
COYC	Coyhaique	146.90	89		PKPbc	01 10 59.5	+0.2
GO08	Villa O'Higgin	148.53	94		PKPab	01 11 06.5	-0.6
QSPA	South Pole Qui	148.56	180	PKP	PKPdf	01 10 59.1	-0.3
	comp=Z,65nm,1.1s,baz=313,slow=1.1,SNR=49						
QSPA				PKPbc	sPKPdf	01 11 02.7	-0.4
	comp=Z,59nm,0.9s,baz=341,slow=1.4,SNR=54						
QSPA	South Pole Qui	148.56	180		PKPdf	01 10 59.1	-0.3
QSPA				pPKPdf	PKiKP	01 11 04.2	-0.4
QSPA	South Pole Qui	148.56	180	IAMs_20	IAMs_20	02 09 11.1	
	comp=Z,758nm,21.0s						
BELA	Belgrano 2	160.30	172	PKPdf	PKPdf	01 11 17.4	+2.0
NVL	N'lazarevskaya	161.88	215	*e*PKP2	PKPab	01 12 01.5	-1.8
NVL				pmax	pmax		
	comp=Z,10.0nm,1.0s						
ESPZ	Base Esperanza	162.20	120	PKPdf	PKPdf	01 11 15.7	-2.0
ESPZ				PKPab	PKPab	01 12 05.8	+0.9
TROLL	Troll, Antarti	163.69	206	⇑PKPdf	PKPdf	01 11 19.8	+0.7
	comp=Z,155nm,1.1s						
TROLL				⇑PKPab	PKPab	01 12 11.6	+0.2
	comp=Z,294nm,0.8s						
SNAA	Sanae	165.10	203	PKP	PKPdf	01 11 20.0	-0.3
	comp=Z,1.9nm,1.0s,baz=192,slow=2.6,SNR=6.1						
SNAA				PKPab	PKPab	01 12 15.8	-1.7
	comp=Z,6.1nm,1.1s,baz=62,slow=6.1,SNR=4.5						
SNAA	Sanae	165.10	203	PKIKP	PKPdf	01 11 19.7	-0.6
SNAA	Sanae	165.10	203		PKPdf	01 11 19.7	-0.6
VNA2	Neumayer--Watz	166.57	200	⇑PKPab	PKPab	01 12 23.8	-0.1
	comp=Z,4.2nm,0.8s,baz=132,slow=1.5						
VNA3	Neumayer Olymp	166.65	196	⇑PKPdf	PKPdf	01 11 22.2	+0.7
	comp=Z,2.1nm,0.8s						
VNA3				⇑PKPab	PKPab	01 12 23.8	-0.4
	comp=Z,5.3nm,0.7s						
VNA1	Neumayer--Stat	166.95	199	⇑PKPdf	PKPdf	01 11 22.2	+0.6
	comp=Z,7.2nm,1.2s						
VNA1				⇑PKPab	PKPab	01 12 25.4	-0.2
	comp=Z,5.9nm,0.9s						
ORCD	Orcadas	167.93	109	PKPdf	PKPdf	01 11 19.8	-2.8
ORCD				PKPab	PKPab	01 12 30.6	+0.4

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*NAO **01** 00:58:59.7, 42°.22N×37°.83E, h33^{km}, MB3.8*
*IDC **01** 00:59:04.5±0.6, 44°.13N×39°.15E, h0^{km}, mb4.0/13, mbtmp4.1/28, ML4.3/12, MS2.9/6, Error ellipse: s-maj=10.3km s-min=7.2km az=1.0*
*NEIC **01** 00:59:05.9±1.8, 44°.17N±0°.04×39°.04E±0°.05, h10^{km}±1^{km}, mb4.5/18, Error ellipse: s-maj=8.5km s-min=3.0km az=222.0*
*MCSM **01** 00:59:05.0±0.4, 44°N±3°×3°9E±°, h10^{km}±3^{km}, mB4.9, mb4.4, MLv4.4, Mw(mB)4.2*
*MOS **01** 00:59:05.2, 43°.98N×39°.11E, h7^{km}, MPVA5.1, FELT I=IV-V MSK at Tuapse, Armavirskaya, Nebuga, Agui-Shapsug; I=III-IV MSK at Sochi*
*CFUSG **01** 00:59:06.0, 43°.74N×39°.00E, h5^{km}, Mb3.4/9, MD4.0/8, MSH3.7/9*

ISC 01 00:59:06.6±0.7, **44°.03N**±0°.02×**39°.21E**±0°.02, **h18**^{km}±3^{km}, **n306**, σ1^{s}**.92**/399, **mb4.4**/24, **31C-43D, Western Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GOYR	Goytkh	0.25	29	*i* Pg	Pb	00 59 12.6	+0.2
GOYR				*e*Sg	Sb	00 59 16.9	+0.5
GOYR	Goytkh	0.25	29	⇓*i*PG	Pb	00 59 12.7	+0.2
GOYR				*i* S	Sb	00 59 16.8	+0.5
SOC	Sochi	0.58	140	*e*Pg	Pb	00 59 18.6	+0.4
SOC				*e*Sg	Sn	00 59 27.4	-1.6
SOC	Sochi	0.58	140	⇓*i*PG	Pb	00 59 18.7	+0.5
SOC				*i* S	Sn	00 59 27.6	-1.4
GUZR	Guzeripl'	0.66	93	*e*Pg	Pb	00 59 19.8	+0.2
GUZR				*e*Sg	Sb	00 59 29.3	+0.9
GUZR	Guzeripl'	0.66	93	⇓*i*PG	Pb	00 59 20.1	+0.5
GUZR				*i* S	Sb	00 59 29.3	+0.9
VSLR	Vesyoloye	0.83	133	⇓*i*PG	Pg	00 59 22.4	-0.3
VSLR				*e*S	Sn	00 59 36.4	+1.3
RPOR	Krasnaya Polya	0.83	113	*e*Pg	Pg	00 59 22.7	-0.2
RPOR				*e*Sg	Sn	00 59 36.0	+0.7
RPOR	Krasnaya Polya	0.83	113	*i* PG	Pn	00 59 23.6	+0.1
RPOR				*i*		00 59 37.0	
RPOR				pmax	pmax		
	comp=Z,418nm,0.3s						
RPOR				smax	smax		
	comp=E,3µm,0.4s						
RPOR				smax	smax		
	comp=N,3µm,0.5s						
SPGR	Shapsug	1.08	312	⇑*i*PG	Pg	00 59 28.0	+0.5
SPGR				*e*S	Sg	00 59 43.7	+2.0
LABN	Labinsk	1.25	60	*e*Pg	Pg	00 59 31.0	+0.3
LABN				*e*Sg	Sg	00 59 49.5	+2.5
LABN	Labinsk	1.25	60	⇓*i*PG	Pg	00 59 31.7	+1.0
LABN				*i* S	Sg	00 59 50.9	+3.9
GRYR	Gornoye	1.36	86	*i* Pg	Pb	00 59 31.8	+0.1
GRYR				*e*Sg	Sg	00 59 50.0	-0.7
GRYR	Gornoye	1.36	86	⇑*i*PG	Pg	00 59 32.9	0.0
GRYR				*i* S	Sg	00 59 51.3	+0.6
SRGR	Sergiyevskiy	1.39	359	*i* Pg	Pg	00 59 33.5	+0.1
SRGR				*e*Sg	Sg	00 59 54.0	+2.5
SRGR	Sergiyevskiy	1.39	359	⇑*i*PG	Pg	00 59 33.5	+0.1
SRGR				*e*S	Sg	00 59 54.0	+2.5
GLDR	Gladkovskiy	1.43	312	*i* Pg	Pb	00 59 33.2	+0.5
GLDR				*e*Sg	Sg	00 59 53.5	+0.8
GLDR	Gladkovskiy	1.43	312	⇑*i*PG	Pb	00 59 33.2	+0.5
GLDR				*e*S	Sg	00 59 53.5	+0.8
ANN	Anapa	1.49	302	*e*Pg	Pg	00 59 34.6	-0.6
ANN				*e*Sg	Sg	00 59 56.8	+2.2
ANN	Anapa	1.49	302	⇓*e*PG	Pg	00 59 34.7	-0.6
ANN				*e*S	Sg	00 59 56.8	+2.2
SUKR	Sukko	1.49	302	*e*Pg	Pn	00 59 32.7	+0.3
SUKR				*e*Sg	Sb	00 59 52.5	+0.3
SUKR	Sukko	1.49	302	⇓*i*PG	Pn	00 59 33.3	+0.9
SUKR				*e*S	Sb	00 59 52.7	+0.5
DOMR	Dombai	1.90	112	*e*Pg	Pb	00 59 40.9	0.0
DOMR				*e*Sg	Sb	01 00 05.7	+1.3
DOMR	Dombai	1.90	112	*e*PN	Pb	00 59 40.9	0.0
ERBR	Yeremizino-Bor	1.91	28	*e*Pg	Pb	00 59 40.8	-0.2
ERBR				*e*Sg	Sg	01 00 07.3	-0.9
ERBR	Yeremizino-Bor	1.91	28	⇑*e*PN	Pb	00 59 40.8	-0.2
ERBR				*e*S	Sg	01 00 07.3	-0.9
NVNR	Nevinnomyssk	2.06	73	*i* Pg	Pb	00 59 42.9	-0.7
NVNR				*e*Sg	Sb	01 00 08.9	+0.1
NVNR	Nevinnomyssk	2.06	73	⇓*i*PN	Pb	00 59 42.8	-0.7
NVNR				*e*S	Sb	01 00 08.9	+0.1
TMNR	Tamanskiy	2.06	304	*e*Pg	Pb	00 59 43.9	+0.4
TMNR				*e*Sg	Sn	01 00 07.3	+1.8
TMNR	Tamanskiy	2.06	304	⇓*e*PN	Pb	00 59 43.9	+0.4
TMNR				*e*S	Sn	01 00 07.3	+1.8
KERU	Kerch	2.34	304	*e*Pn	Pb	00 59 47.9	-0.2
KERU				*e*Sn	Sn	01 00 14.4	+2.0
KERU	Kerch	2.34	304	*e*PN	Pb	00 59 48.0	-0.2
KERU				pmax	pmax		
	comp=Z,26nm,0.3s						
KERU	Kerch	2.34	304	*e*P	Pb	00 59 48.0	-0.2
KERU				P	Pg	00 59 49.0	-2.5
	comp=Z,26nm,0.2s						
KERU				*e*S	Sb	01 00 18.9	+2.2
KERU				S	Sg	01 00 34.5	+13
	comp=N,257nm,0.7s						
KERU				S	Sg	01 00 34.5	+13
	comp=E,630nm,1.5s						
KIV	Kislovodsk	2.51	91	*i* Pn	Pn	00 59 48.2	+1.7
KIV				*e*Sn	Sb	01 00 21.7	-0.1
KIV	Kislovodsk	2.51	91	⇑*i*PN	Pn	00 59 48.3	+1.7
KIV				*e*S	Sb	01 00 21.4	-0.4
KIV	Kislovodsk	2.51	91		Pn	00 59 47.8	+1.2
KIV				Sn	Sb	01 00 20.9	-0.9
KIV	Kislovodsk	2.51	91	⇓P	Pn	00 59 48.7	+2.1
KIV	Kislovodsk	2.51	91	P	Pn	00 59 47.4	+0.8
KIV				AML	AML		
SHA1	Shidzhatmaz	2.51	96	*e*Pn	Pn	00 59 47.9	+1.1
SHA1				*e*Sn	Sb	01 00 21.1	-0.8
SHA1	Shidzhatmaz	2.51	96	*c* *i*PN	Pn	00 59 48.6	+1.9
KIV0	Kislovodsk Arr	2.52	91	*i* Pn	Pn	00 59 48.3	+1.6
KIV0				*e*Sn	Sb	01 00 21.4	-0.6
KVAR	Kislovodsk Arr	2.52	91	Pn	Pn	00 59 48.9	+2.2
	baz=270,slow=20						
KVAR				Pg	Pb	00 59 51.1	-0.3
	baz=264,slow=22						
KVAR				Lg	Lg	01 00 24.6	
	baz=312,slow=14						
KVAR				LR	LR	01 00 54.7	
	comp=E,410nm,21.8s,baz=3.0,slow=43						
	comp=E,56nm,0.3s						
BEYR	Belyy Ugol+	2.60	89	*e*Pn	Pn	00 59 49.5	+1.7
BEYR				*e*Sn	Sb	01 00 23.4	-1.0
BEYR	Belyy Ugol+	2.60	89	⇑*e*PN	Pn	00 59 49.5	+1.7
BEYR				*e*S	Sb	01 00 23.4	-1.0
NEUR	Neytrino	2.65	106	*e*PN	Pb	00 59 52.6	-1.0
NEUR				*e*S	Sb	01 00 25.4	-0.5
KBZ	Khabaz	2.69	95	Pn	Pn	00 59 51.0	+2.1
	comp=E,9.6nm,0.3s,baz=292,slow=7.4,SNR=50						
KBZ				Pg	Pb	00 59 54.2	+0.1
	comp=E,22nm,0.3s,baz=309,slow=8.8,SNR=71						
KBZ				Lg	Lg	01 00 30.2	
	comp=E,40nm,0.3s,baz=0.0,slow=17,SNR=9.5						
	comp=E,67nm,0.4s						
KBZ				AML	AML		
KBZ	Khabaz	2.69	95	*i* Pn	Pn	00 59 51.3	+2.4
KBZ				*e*Sn	Sb	01 00 26.4	-0.3
KBZ	Khabaz	2.69	95	⇓*i*PN	Pn	00 59 51.3	+2.4
KBZ				*e*S	Sb	01 00 26.4	-0.3
ALER	Alexandrovskoy	2.76	73	⇑*i*PN	Pn	00 59 52.2	+2.3
ALER				*e*S	Sb	01 00 30.0	+1.2
PYA1	Pyatigorsk	2.80	88	*e*Pn	Pn	00 59 52.3	+1.7
PYA1				*e*Sn	Sb	01 00 29.1	-1.0
PYA1	Pyatigorsk	2.80	88	*c* *i*PN	Pn	00 59 52.2	+1.7
FEO	Feodosiya	2.90	291	*e*Pn	Pn	00 59 51.5	-0.4
FEO				*e*Sn	Sn	01 00 26.7	+0.4
FEO	Feodosiya	2.90	291	*e*PN	Pn	00 59 52.7	+0.8
FEO				*e*S	Sn	01 00 28.0	+1.7
FEO				pmax	pmax		
	comp=Z,34nm,0.3s						
FEO				smax	smax		
	comp=N,173nm,0.4s						
FEO				smax	smax		
	comp=E,116nm,0.4s						
FEO	Feodosiya	2.90	291	*e*P	Pn	00 59 52.7	+0.8
FEO				pmax	pmax	01 00 05.5	
	comp=Z,34nm,0.3s						
FEO				*e*S	Sn	01 00 28.0	+1.7
FEO				smax	smax	01 00 32.9	
	comp=N,173nm,0.4s						
FEO				smax	smax	01 00 32.9	
	comp=E,116nm,0.4s						
GOF	Gofitskoye	2.93	68	*i* Pn	Pn	00 59 54.9	+2.6
GOF				*e*Sn	Sb	01 00 31.0	-2.7
GOF	Gofitskoye	2.93	68	⇓*i*PN	Pn	00 59 54.9	+2.6
GOF				*e*S	Sb	01 00 31.0	-2.7
BATM	Batumi	3.04	142	⇑P	Pn	00 59 54.5	+0.8
KTUT	Trabzon	3.07	172	⇓P	Pn	00 59 54.5	+0.3
SUDU	Sudak	3.13	287	*e*Pn	Pn	00 59 54.4	-0.7
SUDU				*e*Sn	Sn	01 00 31.7	-0.2
SUDU	Sudak	3.13	287	⇓*e*PN	Pn	00 59 54.5	-0.5
SUDU				*e*S	Sn	01 00 32.0	+0.1
SUDU				pmax	pmax		
	comp=Z,87nm,0.5s						
SUDU				smax	smax		
	comp=N,312nm,0.6s						
SUDU				smax	smax		
	comp=E,280nm,0.6s						
SUDU	Sudak	3.13	287	⇓*e*P	Pn	00 59 54.5	-0.5
SUDU				pmax	pmax	01 00 09.5	
	comp=Z,87nm,0.5s						
SUDU				*e*S	Sn	01 00 32.0	+0.1
SUDU				smax	smax	01 00 33.7	
	comp=N,312nm,0.6s						
SUDU				smax	smax	01 00 33.7	
	comp=E,280nm,0.6s						
NCK	Nalchik	3.22	98	*i* PN	Pn	00 59 57.9	+1.6
DIGR	Digorskoe uzhe	3.38	108	*e*Pn	Pn	01 00 00.4	+1.8
DIGR				*e*Sn	Sb	01 00 42.5	-4.4
DIGR	Digorskoe uzhe	3.38	108	*e*PN	Pn	01 00 00.4	+1.8
DIGR				*e*S	Sb	01 00 42.5	-4.4
ALU	Alushta	3.51	282	*e*Pn	Pn	00 59 59.8	-0.4
ALU				*e*Sn	Sn	01 00 39.9	-1.3
ALU	Alushta	3.51	282	⇓*e*PN	Pn	00 59 59.8	-0.4
ALU				*e*S	Sn	01 00 39.9	-1.3
ALU	Alushta	3.51	282	*e*P	Pn	00 59 59.7	-0.4
ALU				pmax	pmax	01 00 17.9	
	comp=Z,60nm,0.6s						
ALU				*e*S	Sn	01 00 40.9	-0.3
ALU				smax	smax	01 00 50.6	
	comp=N,74nm,0.3s						
ALU				smax	smax	01 00 50.6	
	comp=E,63nm,0.4s						
STDR	Stavd-Durt	3.58	99	*e*Pn	Pn	01 00 04.8	+3.5
STDR				*e*Sn	Sn	01 00 47.2	+4.1
STDR	Stavd-Durt	3.58	99	⇑*e*PN	Pn	01 00 04.8	+3.5
STDR				*e*S	Sn	01 00 47.2	+4.1
KORR	Kora	3.66	103	*e*Pn	Pn	01 00 06.0	+3.7
KORR				*e*Sn	Sn	01 00 48.6	+3.6
KORR	Kora	3.66	103	*e*PN	Pn	01 00 06.0	+3.7
KORR				*e*S	Sn	01 00 48.6	+3.6
YAL	Yalta	3.66	279	*e*Pn	Pn	01 00 01.9	-0.3
YAL				*e*Sn	Sn	01 00 43.8	-1.1
YAL	Yalta	3.66	279	*e*PN	Pn	01 00 02.1	-0.1
YAL				*e*S	Sn	01 00 44.5	-0.4
YAL				pmax	pmax		
	comp=Z,20nm,0.3s						
YAL				smax	smax		
	comp=N,143nm,0.4s						
YAL				smax	smax		
	comp=E,133nm,0.3s						
YAL	Yalta	3.66	279	*e*P	Pn	01 00 02.1	-0.1
YAL				pmax	pmax	01 00 16.9	
	comp=Z,20nm,0.3s						
YAL				*e*S	Sn	01 00 44.5	-0.4
YAL				smax	smax	01 00 46.3	
	comp=N,143nm,0.4s						
YAL				smax	smax	01 00 46.3	
	comp=E,133nm,0.3s						
SIM	Simferopol'	3.76	286	*e*Pn	Pn	01 00 03.7	0.0
SIM				*e*Sn	Sn	01 00 46.3	-1.1
SIM	Simferopol'	3.76	286	*e*PN	Pn	01 00 04.2	+0.6
SIM				*e*		01 00 48.0	
SIM				pmax	pmax		
	comp=Z,82nm,0.9s						
SIM				smax	smax		
	comp=E,173nm,1.0s						
SIM	Simferopol'	3.76	286	*e*P	Pn	01 00 04.1	+0.5
SIM				pmax	pmax	01 00 11.2	
	comp=Z,107nm,0.8s						
SIM				*e*S	Sn	01 00 48.4	+1.0
SIM				smax	smax	01 00 55.4	
	comp=N,318nm,1.1s						
SIM				smax	smax	01 00 55.4	
	comp=E,216nm,0.8s						
ARNR	Ardon	3.78	101	*e*Pn	Pn	01 00 07.8	+3.8
ARNR				*e*Sn	Sb	01 00 54.5	-3.9
ARNR	Ardon	3.78	101	*e*PN	Pn	01 00 07.8	+3.8
ARNR				*e*S	Sb	01 00 54.5	-3.9
LACR	Lac	3.90	106	*e*PN	Pn	01 00 09.2	+3.5
LACR				*e*S	Sb	01 00 56.7	-5.0
BTKR	Batakoyurt	3.92	98	*e*Pn	Pn	01 00 08.4	+2.5
BTKR				*e*Sn	Sn	01 00 54.2	+2.7
BTKR	Batakoyurt	3.92	98	*e*PN	Pn	01 00 08.4	+2.5
BTKR				*e*S	Sn	01 00 54.2	+2.7
SEV	Sevastopol'	4.01	279	⇓*e*PN	Pn	01 00 07.0	-0.1
SEV				*e*S	Sn	01 00 52.2	-1.4
SEV	Sevastopol'	4.01	279	⇓*e*P	Pn	01 00 07.0	-0.1
SEV				pmax	pmax	01 00 17.7	
	comp=Z,24nm,0.3s						
SEV				*e*S	Sn	01 00 52.9	-0.7
SEV				smax	smax	01 00 57.1	
	comp=N,72nm,0.4s						
SEV				smax	smax	01 00 57.1	
	comp=E,58nm,0.3s						
KOPT	Kop Dagi	4.12	166		Pn	01 00 11.3	+2.4
TOKA	Tokat	4.22	210		Pn	01 00 11.1	+1.0
BZK	Bozkurt	4.34	243		Pn	01 00 11.9	+0.2
BZK				Sn	Sn	01 01 01.9	+0.1
BZK	Bozkurt	4.34	243	⇓P	Pn	01 00 11.0	-0.7
BZK	Bozkurt	4.34	243	P	Pn	01 00 10.9	-0.7
BZK				AML	AML		
HOMI	Horasan	4.46	152	⇓P	Pn	01 00 16.5	+3.0
DNZ2	Donuzlav2	4.48	290	*e*Pn	Pn	01 00 14.3	+0.8
DNZ2				*e*Sn	Sn	01 01 04.4	-0.7
DNZ2	Donuzlav2	4.48	290	smax	smax	01 00 07.3	
	comp=E,137nm,0.3s						
DNZ2				*e*P	Pn	01 00 14.4	+0.9
DNZ2				pmax	pmax	01 00 22.2	
	comp=Z,65nm,0.7s						
DNZ2				*e*S	Sn	01 01 06.2	+1.1
DNZ2				smax	smax	01 01 07.3	
	comp=N,199nm,0.6s						
GROC	Groznyy	4.86	98	*e*Pn	Pn	01 00 21.6	+2.9
GROC				*e*Sn	Sn	01 01 19.8	+5.4
GROC	Groznyy	4.86	98	*e*PN	Pn	01 00 21.6	+2.9
GROC				*e*S	Sn	01 01 19.8	+5.4
TARU	Tarkhankut	4.95	288	*e*Pn	Pn	01 00 20.5	+0.5
TARU				*e*Sn	Sn	01 01 16.2	-0.3
TARU	Tarkhankut	4.95	288	*e*P	Pn	01 00 21.1	+1.2
TARU				smax	smax	01 00 21.9	
	comp=E,62nm,0.3s						
TARU				pmax	pmax	01 00 22.4	
	comp=Z,41nm,0.4s						
TARU				*e*S	Sn	01 01 16.7	+0.1
TARU				smax	smax	01 01 21.9	
	comp=N,116nm,0.4s						
CIDE	Kastamonu/Cide	5.07	247	⇓P	Pn	01 00 22.5	+0.8
GNI	Garni	5.66	131	Pn	Pn	01 00 33.2	+3.3
	comp=N,4.9nm,0.7s,baz=46,slow=18,SNR=3.1						
GNI				LR	LR	01 03 16.6	
	comp=N,72nm,21.0s,baz=310,slow=44						
GNI	Garni	5.66	131	P	Pn	01 00 32.5	+2.6
GNI	Garni	5.66	131		Pn	01 00 32.5	+2.6
GNI	Garni	5.66	131	P	Pn	01 00 31.3	+1.4
	comp=N,0.2nmcomp=N,23nm,1.0s						
GNI				AML	AML		
BNN	Bunyan	5.76	207		Pn	01 00 33.0	+1.7
GURO	Guroymak-BITLI	5.87	158		Pn	01 00 35.0	+2.1
BR131	Keskin Array S	5.98	226	P	Pn	01 00 35.4	+1.1
BR131						01 01 43.1	
BR131	Keskin Array S	5.98	226		Pn	01 00 35.4	+1.1
BR131				Sn	Sn	01 01 43.1	+0.7
BRTR	Keskin Array B	5.98	226	Pn	Pn	01 00 35.8	+1.4
	comp=N,6.8nm,0.3s,baz=55,slow=12,SNR=315						
BRTR				Sn	Sn	01 01 43.9	+1.4

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      comp=N,3.6nm,0.3s,baz=62,slow=21,SNR=11
BRTR                                 LR    LR     01 03 19.6
      comp=N,77nm,20.3s,baz=38,slow=42
      comp=N,30nm,0.6s
BRTR                                 AML   AML
BRTR  Keskin Array B      5.98 226   P     Pn     01 00 35.0 +0.7
BRTR                                              01 01 43.1
BRTR  Keskin Array B      5.98 226         Pn     01 00 35.0 +0.7
BRTR                                 Sn    Sn     01 01 43.1 +0.6
BR106 Keskin Array S      5.99 226   P     Pn     01 00 33.9 -0.5
      comp=N,0.2nmcomp=N,437nmcomp=N,42nm,0.7s
BR106                                AML   AML
BR104 Keskin Array S      5.99 226   P     Pn     01 00 34.0 -0.5
      comp=N,0.2nmcomp=N,510nmcomp=N,51nm,0.7s
BR104                                AML   AML
BR105 Keskin Array S      6.00 226   P     Pn     01 00 34.0 -0.6
      comp=N,0.2nmcomp=N,574nmcomp=N,47nm,0.6s
BR105                                AML   AML
KIRS  Kirsehir-Merke      6.30 221  ⇓P     Pn     01 00 39.9 +1.3
GEVA  Gevas               6.41 152   Pn    Pn     01 00 40.4 +0.1
MDUB  Mudurnu             6.92 242         Pn     01 00 46.5 -0.7
VORD  Divnogorie          6.94   0  eP     Pn     01 00 47.5 +0.2
VORD                                 pmax  pmax
      comp=Z,20nm,0.4s
GAZ   Gaziantep           7.02 193   Pn    Pn     01 00 49.0 +0.5
PURM  Purcari             7.04 294  ⇑P     Pn     01 00 48.6 -0.1
PURM  Purcari             7.04 294   P     Pn     01 00 46.0 -2.7
      comp=Z,0.4nmcomp=Z,83nm,0.8s
PURM                                 AML   AML
VSR   Storozhevoye        7.19 360  eP     Pn     01 00 51.3 +0.6
VSR                                  S     Sn     01 02 08.9 -2.9
VSR                                  pmax  pmax
      comp=Z,27nm,0.7s
VRH   Novokhopyorsk       7.37  12  eP     Pn     01 00 53.9 +0.7
VRH                                  S     Sn     01 02 14.1 -2.2
VRH                                  pmax  pmax
      comp=Z,114nm,0.9s
JURR  Jurilovca           7.44 279  ⇑P     Pn     01 00 53.5 -0.6
TLCR                      7.51 282  ⇓P     Pn     01 00 55.0 -0.1
TLCR                      7.51 282  ⇓P     Pn     01 00 55.0 -0.1
VORR  Voronezh            7.64   0  eP     Pn     01 00 57.0  0.0
VORR                                 S     Sn     01 02 20.0 -3.0
VORR                                 pmax  pmax
      comp=Z,24nm,0.7s
MANR  Mangalia            7.67 272  ⇓P     Pn     01 00 57.8 +0.5
BORA  Eskisehir           7.73 241         Pn     01 00 58.5 +0.3
TIRR  Tirgusor            7.76 277  ⇓P     Pn     01 00 57.7 -0.9
TIRR  Tirgusor            7.76 277         Pn     01 00 56.8 -1.8
TIRR  Tirgusor            7.76 277  ⇓P     Pn     01 00 57.7 -0.9
TIRR  Tirgusor            7.76 277   P     Pn     01 00 56.6 -2.0
      comp=Z,0.2nmcomp=Z,628nmcomp=Z,57nm,0.7s
TIRR                                 AML   AML
MFTR  Murfatlar           7.76 275  ⇓P     Pn     01 00 57.3 -1.3
TPGR  Topolog             7.76 280  ⇑P     Pn     01 00 57.3 -1.4
CFR   Carcaliu            7.98 282  ⇑P     Pn     01 01 01.0 -0.6
CFR   Carcaliu            7.98 282  ⇑P     Pn     01 01 01.0 -0.6
TLBR  Topalu              8.03 278  ⇓P     Pn     01 01 01.4 -0.8
CVDA  Cernavoda           8.04 276  ⇑P     Pn     01 01 02.1 -0.2
HARR  Harsova             8.11 279  ⇓P     Pn     01 01 02.9 -0.4
HARR  Harsova             8.11 279  ⇓P     Pn     01 01 02.9 -0.4
ICOR  Ion Corvin          8.21 275  ⇑P     Pn     01 01 04.5 -0.3
LPSR  Galich'ya Gora      8.58 359  eP     Pn     01 01 09.8  0.0
LPSR                                 S     Sn     01 02 41.8 -4.2
LPSR                                 pmax  pmax
      comp=Z,87nm,0.8s
SORM  Soroca              8.59 302   P     Pn     01 01 07.1 -2.8
      comp=Z,2µmcomp=Z,18nm,0.5s
GHRR                      8.60 288  ⇑P     Pn     01 01 11.2 +1.2
BISRR Bisoca              9.02 284  ⇑P     Pn     01 01 17.8 +1.9
BISRR Bisoca              9.02 284   P     Pn     01 01 13.1 -2.8
      comp=Z,36nm,0.5s
VRI   Vrincioaia          9.04 286  ⇑P     Pn     01 01 18.6 +2.5
VRI   Vrincioaia          9.04 286  ⇑P     Pn     01 01 18.6 +2.5
VRI   Vrincioaia          9.04 286   P     Pn     01 01 13.3 -2.9
      comp=Z,12nm,0.7s
PLOR  Plostina            9.09 286  ⇓P     Pn     01 01 16.7 -0.2
PLOR  Plostina            9.09 286  ⇓P     Pn     01 01 16.7 -0.2
ISR   Istrita             9.11 281   P     Pn     01 01 14.4 -2.7
      comp=Z,1µmcomp=Z,26nm,0.8s
KEPZ  Antalya-Kepez       9.18 222  ⇓P     Pn     01 01 21.6 +3.5
TESR  Tescani             9.20 290  ⇑P     Pn     01 01 17.8 -0.5
TESR  Tescani             9.20 290   P     Pn     01 01 15.4 -2.9
      comp=Z,28nm,0.8s
RAZG  Razgrad             9.20 272  ⇓P     Pn     01 01 17.1 -1.3
ONER  Baraj Valea Uz      9.34 289  ⇑P     Pn     01 01 20.1 -0.2
AK07  Malin Array Si      9.41 317   P     Pn     01 01 18.4 -2.8
AK09  Malin Array Si      9.42 318   P     Pn     01 01 18.4 -2.9
AK10  Malin Array Si      9.42 318   P     Pn     01 01 18.5 -2.8
AK06  Malin Array Si      9.44 318   P     Pn     01 01 18.7 -2.9
AK08  Malin Array Si      9.44 318   P     Pn     01 01 18.8 -2.8
AK05  Malin Array Si      9.46 318   P     Pn     01 01 19.0 -2.8
AK02  Malin Array Si      9.48 318   P     Pn     01 01 19.3 -2.9
AKASG Malin Array Be      9.50 318   Pn    Pn     01 01 21.1 -1.3
      comp=Z,11nm,0.3s,baz=137,slow=11,SNR=47
AKASG                                Sn    Sn     01 03 03.9 -4.7
      comp=Z,4.2nm,0.3s,baz=129,slow=24,SNR=4.3
      comp=Z,2.3nm,0.3s
AKASG                                AML   AML
AKASG Malin Array Be      9.50 318 i P     Pn     01 01 21.1 -1.3
AKASG                                pmax  pmax
      comp=Z,7.0nm,0.3s
AKASG Malin Array Be      9.50 318         Pn     01 01 20.3 -2.1
AKBB  Malin Array Si      9.50 318 i P     Pn     01 01 21.0 -1.4
AKBB  Malin Array Si      9.50 318         Pn     01 01 19.8 -2.6
AKBB  Malin Array Si      9.50 318   P     Pn     01 01 19.6 -2.8
KIEV  Kiev                9.51 318  ⇑P     Pn     01 01 21.0 -1.4
KIEV  Kiev                9.51 318         Pn     01 01 19.6 -2.8
KIEV  Kiev                9.51 318  ⇑P     Pn     01 01 21.0 -1.4
KIEV  Kiev                9.51 318   P     Pn     01 01 19.6 -2.8
      comp=Z,3µmcomp=Z,166nm,1.2s
BALB  Balikesir           9.52 246   Pn    Pn     01 01 21.2 -1.5
AK13  Malin Array Si      9.52 317   P     Pn     01 01 19.9 -2.8
AK16  Malin Array Si      9.54 318   P     Pn     01 01 20.1 -2.8
MLR   Muntele Rosu        9.55 283   Pn    Pn     01 01 22.2 -1.0
      comp=Z,0.6nm,0.3s,baz=116,slow=16,SNR=5.4
MLR                                  Sn    Sn     01 03 08.3 -1.8
      comp=Z,1.6nm,0.3s,baz=19,slow=18,SNR=4.5
      comp=Z,1.7nm,0.4s
MLR                                  AML   AML
MLR   Muntele Rosu        9.55 283  ⇓P     Pn     01 01 23.0 -0.2
MLR   Muntele Rosu        9.55 283         Pn     01 01 21.6 -1.7
MLR   Muntele Rosu        9.55 283  ⇓P     Pn     01 01 23.0 -0.2
MLR   Muntele Rosu        9.55 283   P     Pn     01 01 20.7 -2.5
      comp=Z,13nm,1.3s
TURR  Turia               9.56 287  ⇑P     Pn     01 01 23.2 -0.1
AK17  Malin Array Si      9.57 318   P     Pn     01 01 20.5 -2.9
BIZ   Bicaz               9.65 292  ⇓P     Pn     01 01 26.7 +2.2
MANT  Manisa              9.74 239   Pn    Pn     01 01 24.4 -1.6
LUBAR Lubar, Ukraine      9.79 311   P     Pn     01 01 23.5 -2.9
BOSR  Bodos               9.80 287  ⇓P     Pn     01 01 31.1 +4.5
KMPD  K-Podol'skiy        9.91 302   P     Pn     01 01 25.3 -2.8
DOPR  Dopca               9.98 286  ⇑P     Pn     01 01 30.0 +0.9
MI29  MI29, Kamyanyy     10.02 314   P     Pn     01 01 26.8 -2.7
      comp=Z,214nm,0.9s
MI30  MI30,Zelenitsa     10.04 316   P     Pn     01 01 27.0 -2.8
      comp=Z,2µmcomp=Z,47nm,0.7s
BELG  Belogornoye        10.07  31   Pn    Pn     01 01 29.1 -1.1
      comp=Z,5.9nm,0.3s,baz=180,slow=5.1,SNR=12
BELG                                 Sn    Sn     01 03 19.2 -3.4
      comp=Z,1.3nm,0.3s,baz=165,slow=19,SNR=1.0
      comp=Z,42nm,0.5s
BELG                                 AML   AML
CSS   Mathiatis          10.13 209   Pn    Pn     01 01 30.6 -0.5
ELL   Elmali             10.15 227   P     Pn     01 01 30.8 -0.8
ELL   Elmali             10.15 227   Pn    Pn     01 01 30.8 -0.8
MTUR  Matau              10.16 282  ⇓P     Pn     01 01 34.4 +2.9
VOIR                     10.17 283  ⇑P     Pn     01 01 31.6 -0.2
VOIR                     10.17 283  ⇑P     Pn     01 01 31.6 -0.2
VOIR                     10.17 283   P     Pn     01 01 29.6 -2.2
      comp=Z,443nmcomp=Z,8.9nm,1.0s
ALN   Alexandroupoli     10.22 257   P     Pn     01 01 30.6 -1.7
ALN   Alexandroupoli     10.22 257   Pn    Pn     01 01 30.6 -1.7
BURAR Bucovina Array     10.40 295  ⇓P     Pn     01 01 33.7 -1.1
BURAR Bucovina Array     10.40 295         Pn     01 01 32.2 -2.6
BURAR Bucovina Array     10.40 295  ⇓P     Pn     01 01 33.7 -1.1
BUR08 Bucovina Ar. S     10.42 295         Pn     01 01 32.5 -2.6
ARCR  ARCALIA            10.85 292  ⇓P     Pn     01 01 39.9 -1.1
OBN   Obninsk            11.22 352   Pn    Pn     01 01 44.1 -1.8
      comp=Z,7.7nm,0.3s,baz=209,slow=19,SNR=4.9
OBN                                  LR    LR     01 05 56.9
      comp=Z,108nm,19.9s,baz=189,slow=37
      comp=Z,21nm,0.4s
OBN                                  AML   AML
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OBN   Obninsk            11.22 352 i P     Pn     01 01 44.1 -1.8
OBN                                  pmax  pmax
      comp=Z,46nm,1.4s
OBN   Obninsk            11.22 352   Pn    Pn     01 01 43.7 -2.2
MMAI  Mount Meron Ar     11.39 196   Pn    Pn     01 01 51.3 +2.9
      comp=Z,0.5nm,0.3s,baz=24,slow=14,SNR=2.5
MMAI                                 LR    LR     01 07 00.6
      comp=Z,31nm,21.4s,baz=288,slow=42
      comp=Z,2.5nm,0.7s
MMAI                                 AML   AML
RNPP5 Staryi Chortor     11.51 313   P     Pn     01 01 48.4 -1.4
RNPP8 Varash             11.58 314   P     Pn     01 01 48.8 -2.1
RNPP9 Sopachiv           11.61 314   P     Pn     01 01 48.2 -3.0
RNPP9 Sopachiv           11.61 314   P     Pn     01 01 47.8 -3.4
ASF   Jabal al Asfar     11.98 189   Pn    Pn     01 01 59.7 +3.2
      comp=Z,0.5nm,0.3s,baz=338,slow=4.0,SNR=3.6
ASF                                  LR    LR     01 06 46.0
      comp=Z,52nm,18.2s,baz=205,slow=38
IDI   Anoyia             14.05 236   Pn    Pn     01 02 26.1 +1.4
      comp=Z,6.4nm,0.9s,baz=316,slow=5.7,SNR=5.6
IDI   Anoyia             14.05 236         Pn     01 02 26.6 +1.8
AKTO  Aktyubinsk         14.28  57   Pn    Pn     01 02 24.9 -2.8
      comp=Z,2.1nm,0.3s,baz=250,slow=6.6,SNR=24
AKTO                                 Sn    Sn     01 04 57.9 -7.5
      comp=Z,0.5nm,0.3s,baz=223,slow=18,SNR=2.7
      comp=Z,3.8nm,0.3s
AKTO                                 AML   AML
MORH  Mrgy, Hungar       14.68 286   P     Pn     01 02 30.6 -2.6
      comp=Z,337nmcomp=Z,9.6nm,1.4s
AB31  Akbulak array      15.15  63   Pn    Pn     01 02 39.1 -0.4
ABKAR Akbulak array      15.15  63   Pn    Pn     01 02 37.5 -2.0
KIRV  Kirov              15.88  20   Pn    Pn     01 02 45.3 -3.6
      comp=Z,2.9nm,0.3s,baz=248,slow=5.4,SNR=5.2
KIRV                                 Sn    Sn     01 05 33.8  -10
      comp=Z,0.4nm,0.3s,baz=234,slow=19,SNR=2.0
      comp=Z,9.7nm,0.6s
KIRV                                 AML   AML
VSU   Vasula             16.38 336 i P     Pn     01 02 54.0 -1.3
VSU                                  pmax  pmax
      comp=Z,24nm,0.9s
KLMR  Klimovskoe         16.85   1  eP     Pn     01 03 00.2 -1.1
KLMR                                 pmax  pmax
      comp=Z,63nm,1.3s
ARTI  Arti               17.35  38   P     Pn     01 03 05.2 -2.4
      comp=Z,1.1nm,0.3s,baz=234,slow=4.9,SNR=6.0
      comp=Z,3.1nm,0.4s
ARTI                                 AML   AML
ARTI  Arti               17.35  38 i P     P      01 03 08.4 -0.4
ARTI                                 pmax  pmax
      comp=Z,11nm,1.0s
BRG   Berggiesshubel     18.35 301   P     Pn     01 03 26.2 +6.3
BRG                                  Amp          01 03 27.7
      comp=Z,7.7nm,1.1s
CLL   Collm              19.02 302 i P     Pn     01 03 34.9 +6.8
CLL                                  pmax  pmax
      comp=Z,33nm,1.4s
CLL   Collm              19.02 302 i (PP)  Pn     01 03 34.9 +6.8
      comp=Z,33nm,1.4s
FIA1  FINESS Array S     19.10 341   P     P      01 03 26.6 -1.5
FIA1                                 IAmb  IAmb   01 03 29.8
      comp=Z,38nm,1.0s
FINES FINESS Array B     19.10 341   P     P      01 03 25.4 -2.7
      comp=Z,2.5nm,0.3s,baz=148,slow=9.0,SNR=35
FINES                                S     Sn     01 06 47.9  -14
      comp=Z,1.9nm,0.5s,baz=154,slow=20,SNR=2.1
      comp=Z,5.9nm,0.4s
FINES                                AML   AML
FINES FINESS Array B     19.10 341 i P     P      01 03 28.1 +0.1
FINES                                pmax  pmax
      comp=Z,6.0nm,0.4s
FINES FINESS Array B     19.10 341   P     P      01 03 25.7 -2.3
BSD   Bornholm Skovb     19.16 314 i P     P      01 03 25.8 -2.9
BLEU  Blekinge           19.26 318 i P     P      01 03 27.6 -2.2
LUNU  Lund               20.14 314 i P     P      01 03 38.0 -1.5
DEL   Delary             20.29 317 i P     P      01 03 39.0 -2.1
FUORN Ofenpass-Fuorn     20.47 287   Pn    P      01 03 43.6 +0.2
COP   Copenhagen         20.68 314 i P     P      01 03 44.6 -0.7
DAVOX Davos/Dischmat     20.72 288   P     P      01 03 45.3 -0.8
      comp=Z,2.8nm,0.3s,baz=17,slow=6.4,SNR=7.8
      comp=Z,2.8nm,0.3s
FABU  Falkenberg         21.09 317 i P     P      01 03 49.0 -0.8
ONAU  Onsala             21.66 318 i P     P      01 03 55.7 -0.1
TJOU  Tjoern             22.09 319 i P     P      01 03 58.7 -1.7
HFS   Hagfors            22.27 325   P     P      01 04 01.3 -1.1
      comp=Z,6.5nm,0.4s,baz=119,slow=12,SNR=35
      comp=Z,6.5nm,0.4s
BORK  Borovoye           22.33  55   P     P      01 04 03.1 -0.1
BORK                                 pmax  pmax
      comp=Z,8.0nm,0.6s
BORK  Borovoye           22.33  55   P     P      01 04 03.0 -0.1
BORK                                 IAmb  IAmb   01 04 04.8
      comp=Z,8.3nm,0.6s
BVAR  Borovoye Array     22.37  55   P     P      01 04 03.5  0.0
      comp=Z,4.4nm,0.6s,baz=275,slow=6.7,SNR=4.6
      comp=Z,4.4nm,0.6s
ECH   Echery             22.51 292   P     P      01 04 01.5 -3.6
ECH                                  pmax  pmax
      comp=Z,11nm,1.3s
ECH   Echery             22.51 292   P     P      01 04 01.5 -3.6
SENIN Lac Senin/Sane     22.53 287   P     P      01 04 04.4 -1.1
SENIN                                IAmb  IAmb   01 04 13.1
      comp=Z,8.9nm,0.8s
KKAR  Karatay Array      22.64  81   P     P      01 04 08.6 +2.1
KKAR  Karatay Array      22.64  81   P     P      01 04 08.6 +2.1
STRU  Stroemstad         22.77 321 i P     P      01 04 07.1 -0.6
OSL   Oslo               23.42 323  eP     P      01 04 14.0 -0.3
NC602 NORSAR Array S     23.49 325  eP     P      01 04 14.0 -1.0
UOSS  Minazif            23.55 138   P     P      01 04 18.1 +2.1
UOSS                                 IAmb  IAmb   01 04 41.2
      comp=Z,9.6nm,1.1s
NC405 NORSAR Array S     23.62 326   P     P      01 04 14.6 -1.8
NC405                                IAmb  IAmb   01 04 36.8
      comp=Z,10nm,0.7s
HOMB  Homborsund         23.68 318  eP     P      01 04 16.4 -0.6
KONO  Kongsberg          23.77 322  eP     P      01 04 16.9 -0.9
NB2   NORSAR Subarra     23.79 326   P     P      01 04 17.5 -0.5
      comp=Z,1.3nm,0.5s,baz=127,slow=10
NOA   NORSAR Array B     23.79 326   P     P      01 04 17.0 -1.0
      comp=Z,0.7nm,0.3s,baz=127,slow=9.9,SNR=12
      comp=Z,0.7nm,0.3s
NOA   NORSAR Array B     23.79 326   P     P      01 04 17.0 -1.0
NAO01 NORSAR Array S     23.82 325   P     P      01 04 16.1 -2.1
NAO01                                IAmb  IAmb   01 04 25.4
      comp=Z,16nm,1.2s
NC303 NORSAR Array S     23.83 326   P     P      01 04 17.1 -1.2
NC303                                IAmb  IAmb   01 04 37.8
      comp=Z,22nm,1.4s
NBO00 NORSAR Array S     23.96 325   P     P      01 04 18.5 -1.1
NBO00                                IAmb  IAmb   01 04 54.4
      comp=Z,18nm,1.4s
LVZ   Lovozero           24.05 356   P     P      01 04 19.9 -0.4
LVZ                                  pmax  pmax
      comp=Z,13nm,0.8s
LVZ   Lovozero           24.05 356   P     P      01 04 19.9 -0.4
LVZ                                  IAmb  IAmb   01 04 22.7
      comp=Z,13nm,0.8s
LVZ   Lovozero           24.05 356   P     P      01 04 18.9 -1.4
LVZ                                  sP    pP     01 04 23.5 -2.4
NC204 NORSAR Array S     24.10 326   P     P      01 04 19.5 -1.5
NC204                                IAmb  IAmb   01 04 27.4
      comp=Z,9.7nm,0.8s
SNART Snartemo           24.34 317  eP     P      01 04 21.7 -1.4
SKAR  Skarslia           24.83 323  eP     P      01 04 28.0 +0.4
BLS5  Blasjo             25.12 319  eP     P      01 04 30.0 -0.1
DOMB  Dombas             25.20 326  eP     P      01 04 32.0 +1.2
ODD1  Odda               25.24 320  eP     P      01 04 32.2 +1.0
NSS   Namsos             25.60 333  eP     P      01 04 34.6 +0.3
HYA   Hoyanger           25.98 323  eP     P      01 04 37.4 -0.4
MOL   Molde              26.08 326  eP     P      01 04 38.6 -0.1
AKN   Aaknes             26.10 325  eP     P      01 04 39.3 +0.3
RAUS  Rausandaksla       26.28 337  eP     P      01 04 41.0 +0.5
LEIR  Leirfjorden        26.31 336  eP     P      01 04 42.0 +1.1
KTK1  Kautokeino         26.37 347  eP     P      01 04 41.4 +0.1
ARA0  ARCESS Array S     26.51 349  eP     P      01 04 41.6 -1.0
ARCES ARCESS Array B     26.51 349   P     P      01 04 42.2 -0.5
      comp=Z,2.9nm,0.5s,baz=161,slow=9.9,SNR=32
      comp=Z,2.9nm,0.5s
ARCES ARCESS Array B     26.51 349  eP     P      01 04 42.6 -0.1
ARCES ARCESS Array B     26.51 349   P     P      01 04 42.4 -0.3
KEV   Kevo               26.53 351   P     P      01 04 42.4 -0.3
KEV                                  pmax  pmax
      comp=Z,59nm,1.5s
KEV   Kevo               26.53 351   P     P      01 04 42.4 -0.3
KONS  Konsvik            26.58 337  eP     P      01 04 43.0 -0.3
FAUS  Fauske             26.65 340  eP     P      01 04 43.9  0.0
```

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VAGH  Vaagaholmen        26.70 337  eP     P      01 04 44.6 +0.2
KURBB Kurchatov Arra     27.21  62   P     P      01 04 49.5 +0.4
      comp=Z,1.4nm,0.5s,baz=272,slow=9.0,SNR=9.7
      comp=Z,1.4nm,0.5s
KURK  Kurchatov          27.26  62   P     P      01 04 49.5 -0.1
JETT  Jettan, Norway     27.33 346  eP     P      01 04 50.0  0.0
TRO   Tromso             27.67 345  eP     P      01 04 53.1 +0.1
EKA   Eskdalemuir Ar     29.20 308   P     P      01 05 06.5 -0.3
      comp=Z,0.2nm,0.4s,baz=99,slow=8.5,SNR=3.8
      comp=Z,0.2nm,0.4s
MKAR  Makanchi Array     30.09  69   P     P      01 05 15.5 +0.7
      comp=Z,1.2nm,0.8s,baz=287,slow=4.9,SNR=3.1
      comp=Z,1.2nm,0.8s
MKAR  Makanchi Array     30.09  69   P     P      01 05 15.8 +1.0
MKAR  Makanchi Array     30.09  69   P     P      01 05 15.8 +1.0
ZALV  Zalesovo Beam      31.03  55   P     P      01 05 23.0  0.0
      comp=Z,1.4nm,0.7s,baz=265,slow=12,SNR=4.1
      comp=Z,1.4nm,0.7s
ZALV  Zalesovo Beam      31.03  55 i P     P      01 05 23.5 +0.5
ZALV                                 pmax  pmax
      comp=Z,1.0nm,0.7s
ESDC  Sonseca Array      32.17 277   P     P      01 05 34.2 +0.9
      comp=Z,0.9nm,0.9s,baz=77,slow=9.6,SNR=1.6
      comp=Z,0.9nm,0.9s
WMQ   Urumqi             34.52  73  eP     P      01 05 56.7 +3.0
WMQ                                  pmax  pmax
      comp=Z,11nm,0.9s
WMQ                                  LR    LR
      comp=N,6µm,15.1s
WMQ                                  LR    LR
      comp=E,4µm,17.3s
WMQ                                  LR    LR
      comp=Z,4µm,23.3s
SPB2  Spitsbergen Ar     35.43 352   P     P      01 06 00.8 -0.3
SPITS Spitsbergen Ar     35.43 352   P     P      01 06 00.6 -0.5
      comp=Z,9.0nm,0.8s,baz=154,slow=7.2,SNR=2.6
      comp=Z,9.0nm,0.8s
TORD  Torodi Ar. Bea     44.45 238   P     P      01 07 17.9 +1.3
      comp=Z,1.3nm,0.7s,baz=45,slow=6.6,SNR=10
      comp=Z,1.3nm,0.7s
SONM  Songino Array      45.55  60   P     P      01 07 25.2  0.0
      comp=Z,0.5nm,0.4s,baz=284,slow=8.8,SNR=1.7
      comp=Z,0.5nm,0.4s
HHC   Hu-ho-hao-te       51.89  67  eP     P      01 08 14.1 +0.1
HHC                                  pmax  pmax
      comp=Z,12nm,0.6s
HHC                                  pmax  pmax
      comp=Z,490nm,8.6s
```

KRSC 01 00:59:43.0±1.5**,58°.93N**×**158°.83E,h29**^{km}±13^{km}**,Ml4.0,**
Kamchatka Peninsula

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Code  Station Name         Δ°   AZ°     Phase ID          Time     Res
                                      Op    ISC        h  m  s    ISC
PALN  Palana              0.61  74  eP     Pb     00 59 55.2  0.0
PALN                                eS     Sb     01 00 03.7 +0.3
TIGL  Tigil               1.17 184  eP     Pb     01 00 04.8 +0.3
TIGL                                eS     Sb     01 00 20.8 +1.5
OSSR  Ossora              2.21  80  eP     Pb     01 00 20.8 -1.4
SRDR  Sredinnyy           2.66 169  eP     Pn     01 00 26.0 +2.1
ESO   Esso                3.01 181  eP     Pn     01 00 31.2 +2.5
```

NERS ***01*** *00:59:42.0, 59°.42N×159°.58E, h0*^{km}

KRSC ***01*** *01:00:00.8±1.8, 58°.81N×158°.88E, h2*^{km}*±10*^{km}*, Ml4.2*

NEIC ***01*** *01:00:01.7±1.3, 58°.8N±0°.1×159°.17E±0°.08, h10*^{km}*±1*^{km}*,*
mb4.2/15, Error ellipse: s-maj=18.0km s-min=5.9km
az=15.0

IDC ***01*** *01:00:01.3±1.2, 58°.64N×158°.99E, h0*^{km}*, mb3.9/3,*
mbtmp3.7/4, ML2.2/1, Error ellipse: s-maj=35.2km
s-min=22.7km az=113.0

ISC 01 01:00:02.5±0.5**,58°.75N**±0°.04×**159°.03E**±0°.04**,h10**^{km}**,n39,**
σ**2**^{s}**.49**/41**,mb4.1**/8**,Kamchatka Peninsula**

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Code  Station Name         Δ°   AZ°     Phase ID          Time     Res
                                      Op    ISC        h  m  s    ISC
PALN  Palana              0.59  55  eP     Pg     01 00 14.8 +1.0
PALN                                eS     Sg     01 00 23.6 +2.0
TIGL  Tigil               1.01 191  eS     Sg     01 00 37.7 +2.7
OSSR  Ossora              2.14  75  eS     Sb     01 01 10.8 +3.0
SRDR  Sredinnyy           2.47 171  eS     Sn     01 01 17.0 +3.9
GADL  Gadlja              4.07 286  eSg    Sb     01 02 01.1 -2.2
GADL                                 Sgmax        01 02 24.2
      670nm,0.6s
TLAR  Talaya              4.10 308  eSg    Sb     01 02 06.4 +2.1
TLAR                                 Sgmax        01 02 17.3
      210nm,0.6s
MA2   Magadan             4.33 284   Pn    Pn     01 01 08.4  0.0
MA2                                  Sn    Sn     01 01 59.6 +0.7
MA2   Magadan             4.33 284  ePg    Pn     01 01 08.0 -0.3
MA2                                  Pgmax        01 01 10.2
      20nm,0.8s
MA2                                 eSg    Sb     01 02 11.8 +0.9
MA2                                  Sgmax        01 02 24.7
      140nm,0.7s
MGD   Magadan 1           4.44 291  eSg    Sb     01 02 13.5 -0.4
MGD                                  Sgmax        01 02 21.9
      140nm,0.5s
SEY   Seymchan            5.30 325  eSg    Sb     01 02 44.5 +5.7
SEY                                  Sgmax        01 03 05.9
      40nm,0.8s
TLON  Talon               5.42 285  eSg    Sb     01 02 47.6 +5.5
TLON                                 Sgmax        01 03 10.5
      190nm,0.7s
PEA0B Petropavlovsk-      5.71 188   Pn    Pn     01 01 27.3 +0.1
PETK  Petropavlovsk-      5.71 188   Pn    Pn     01 01 28.6 +1.4
      0.4nm,0.3s,baz=14,slow=7.4,SNR=6.9
      1.8nm,0.6s
PETK                                 AML   AML
PETK  Petropavlovsk-      5.71 188         Pn     01 01 25.9 -1.3
SUUS  Susuman             6.68 312  eSg    Sb     01 03 27.0 +8.8
SUUS                                 Sgmax        01 03 54.1
      80nm,1.0s
ANM   Nome               17.68  56         Pn     01 04 08.0 -0.5
I20K  Naaghedeneel       22.35  55   P     P      01 04 58.6 -1.5
I20K                                 IAmb  IAmb   01 05 24.8
      comp=Z,20nm,1.2s
I21K  Tanana             23.36  53   P     P      01 05 10.6  0.0
I21K                                 IAmb  IAmb   01 05 41.1
      comp=Z,8.8nm,1.3s
H23K  Yukon River        24.28  52   P     P      01 05 19.1 -0.3
H23K                                 IAmb  IAmb   01 05 48.0
      comp=Z,14nm,1.4s
ILAR  Eielson Array      25.56  54   P     P      01 05 32.0 +1.0
      comp=Z,1.2nm,0.8s,baz=270,slow=8.5,SNR=6.8
      comp=Z,1.2nm,0.8s
ILAR  Eielson Array      25.56  54   P     P      01 05 30.8 -0.3
MJAR  Matsushiro Arr     26.07 221   P     P      01 05 35.6 -0.3
      comp=Z,1.0nm,0.3s,baz=8.7,slow=9.7,SNR=4.3
      comp=Z,1.0nm,0.3s
MJAR  Matsushiro Arr     26.07 221   P     P      01 05 35.1 -0.8
BBB   Bella Bella        39.91  66   P     P      01 07 34.3 -1.8
KURK  Kurchatov          44.44 296   P     P      01 08 14.8 +1.7
KURK                                 IAmb  IAmb   01 08 16.6
      comp=Z,2.8nm,0.8s
KURBB Kurchatov Arra     44.55 296   P     P      01 08 14.3 +0.3
      comp=Z,1.4nm,0.8s,baz=52,slow=8.3,SNR=5.7
      comp=Z,1.4nm,0.8s
AB31  Akbulak array      53.79 307   P     P      01 09 24.0 -0.7
AB31                                 IAmb  IAmb   01 09 40.1
      comp=Z,1.3nm,0.8s
ABKAR Akbulak array      53.79 307   P     P      01 09 24.0 -0.7
PV17  East Wray Mesa     59.19  66   P     P      01 10 03.7 +0.1
CLL   Collm              66.86 338  eP     P      01 10 52.0 -2.0
INTR  Introdacqua        75.50 334   P     P      01 11 44.5 -2.2
KOUNC Koumac, New Ca     79.13 175   P     P      01 12 05.5 -1.4
MARNC Mare, Loyalty      80.28 172   P     P      01 12 12.2 -0.9
WB0   Warramunga Arr     80.83 203   P     P      01 12 15.2 -1.0
ESDC  Sonseca Array      80.91 347   P     P      01 12 14.9 -1.7
WRA   Warramunga Arr     81.02 203   P     P      01 12 16.2 -0.9
BANI  BANI               93.12  46   P     P      01 13 15.7 -1.1
QSPA  South Pole Qui    148.51 180   PKPbc PKPdf  01 19 48.0 +3.9
      comp=Z,1.5nm,1.0s,baz=0.0,slow=0.0,SNR=5.0
QSPA  South Pole Qui    148.51 180   PKPdf PKPdf  01 19 45.0 +0.9
```

MAN ***01*** *01:02:20.0, 13°.77N×120°.54E, h105*^{km}*, MS3.4*

IDC ***01*** *01:02:20.8±10.0, 13°.74N×120°.89E, h144*^{km}*±103*^{km}*,*
mb3.7/11, mbtmp4.1/11, Error ellipse: s-maj=65.0km
s-min=22.7km az=60.0

NEIC ***01*** *01:02:26.9±1.2, 13°.61N±0°.06×120°.8E±0°.2, h203*^{km}*±6*^{km}*,*
mb4.4/20, Error ellipse: s-maj=23.0km s-min=8.5km

az=89.0

ISC 01 01:02:20.9±0.5**, 13°.71N**±0°.07×**120°.70E**±0°.08**, h150km, n43, σ2s.01**/44**, mb4.1**/19**, Mindoro**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PGP	Puerto Galera	0.32	131	*i* P	Pn	01 02 38.2	-3.4
PGP				*e*S	Sn	01 02 51.2	-6.0
PCPS	Palayan City	0.99	20	*e*P	Pn	01 02 51.2	+5.5
PCPS				*e*S	Sn	01 03 20.8	+16
QVPH	Quezon City--P	0.99	20	*i* P	Pn	01 02 42.4	-3.2
QVPH				*i* S	Sn	01 02 59.5	-5.0
GQP	Guinayangan	1.70	83	*i* P	Pn	01 02 52.5	-0.2
GQP				*i* S	Sn	01 03 20.5	+3.6
BOLP	Bolinao	2.76	344	*i* P	Pn	01 03 02.7	-2.6
BOLP				*i* S	Sn	01 03 27.6	-12
MYLDM	Lahad Datu	8.75	195	Pn	Pn	01 04 30.0	+5.6
SBUM	Sibu	13.98	218	P	P	01 05 38.1	+2.1
CMAR	Chiang Mai Arr	21.43	286	P	P	01 06 59.5	+2.2
	0.9nm,0.3s,baz=98,slow=7.3,SNR=7.4						
	0.9nm,0.3s						
CMAR	Chiang Mai Arr	21.43	286	P	P	01 06 59.6	+2.3
IPM	Ipoh	21.47	247	P	P	01 06 58.4	+0.6
IPM				IAmb	IAmb	01 07 13.0	
	comp=Z,18nm,1.1s						
WB0	Warramunga Arr	35.90	158	P	P	01 09 05.6	-1.2
WB0				IAmb	IAmb	01 09 10.9	
	comp=Z,4.0nm,1.0s						
WRA	Warramunga Arr	36.04	158	P	P	01 09 08.0	0.0
	comp=Z,1.1nm,1.0s,baz=353,slow=8.1,SNR=2.4						
	comp=Z,1.1nm,1.0s						
WRA	Warramunga Arr	36.04	158	P	P	01 09 05.7	-2.3
WB2	Warramunga Arr	36.04	158	P	P	01 09 06.4	-1.6
WB2				IAmb	IAmb	01 09 24.8	
	comp=Z,8.8nm,1.2s						
SONM	Songino Array	36.05	344	P	P	01 09 08.5	+0.6
	comp=Z,1.2nm,0.6s,baz=163,slow=11,SNR=3.7						
	comp=Z,1.2nm,0.6s						
SONM	Songino Array	36.05	344	P	P	01 09 09.1	+1.2
SONM				IAmb	IAmb	01 09 19.3	
	comp=Z,12nm,1.4s						
MORW	Morawa	42.77	186	P	P	01 10 03.0	-0.6
MORW				IAmb	IAmb	01 10 08.9	
	comp=Z,42nm,1.5s						
PDGK	Podgornoye	46.01	318	P	P	01 10 30.7	+1.3
MK31	Makanchi Array	46.02	324	P	P	01 10 30.5	+1.1
MKAR	Makanchi Array	46.02	324	P	P	01 10 30.6	+1.3
	comp=Z,0.9nm,0.5s,baz=131,slow=9.6,SNR=6.8						
	comp=Z,0.9nm,0.5s						
MKAR	Makanchi Array	46.02	324	P	P	01 10 29.4	0.0
NWAO	Narrogin (SRO)	46.50	184	P	P	01 10 32.1	-1.0
ZAA0	Zalesovo Array	49.05	333	P	P	01 10 53.0	+0.5
ZALV	Zalesovo Beam	49.05	333	P	P	01 10 52.9	+0.4
	comp=Z,1.3nm,0.3s,baz=123,slow=6.5,SNR=9.0						
	comp=Z,1.3nm,0.3s						
ZALV	Zalesovo Beam	49.05	333	P	P	01 10 52.2	-0.3
KURBB	Kurchatov Arra	50.18	326	P	P	01 11 02.4	+1.3
	comp=Z,1.8nm,0.4s,baz=127,slow=7.5,SNR=9.6						
	comp=Z,1.8nm,0.4s						
KURK	Kurchatov	50.18	326		P	01 11 02.5	+1.4
KURK				IAmb	IAmb	01 11 03.3	
	comp=Z,7.5nm,0.6s						
KKAR	Karatay Array	51.97	314	P	P	01 11 15.2	+0.4
CAN	Canberra	55.65	152	P	P	01 11 41.1	-0.5
BVAR	Borovoye Array	55.76	326	P	P	01 11 43.3	+1.2
	comp=Z,1.6nm,0.7s,baz=122,slow=7.4,SNR=3.6						
	comp=Z,1.6nm,0.7s						
AB31	Akbulak array	60.73	319	P	P	01 12 17.8	+1.3
AB31				IAmb	IAmb	01 12 18.3	
	comp=Z,1.3nm,0.6s						
ABKAR	Akbulak array	60.73	319	P	P	01 12 17.5	+1.0
AKTO	Aktyubinsk	62.21	320	P	P	01 12 27.5	+1.0
	comp=Z,0.9nm,0.4s,baz=74,slow=5.2,SNR=6.3						
	comp=Z,0.9nm,0.4s						
CAST	Castle Rocks	76.61	28	P	P	01 13 56.3	+1.6
ARCES	ARCESS Array B	79.07	339	P	P	01 14 09.0	+0.7
	comp=Z,3.4nm,0.9s,baz=77,slow=6.4,SNR=6.7						
	comp=Z,3.4nm,0.9s						
ARCES	ARCESS Array B	79.07	339	P	P	01 14 08.9	+0.7
ARCES				IAmb	IAmb	01 14 09.9	
	comp=Z,23nm,1.5s						
BMAR	Burnt Mountain	79.25	23	P	P	01 14 11.4	+2.1
SPITS	Spitsbergen Ar	79.58	348	P	P	01 14 11.9	+1.0
	comp=Z,8.1nm,1.0s,baz=63,slow=6.6,SNR=1.5						
	comp=Z,8.1nm,1.0s						
FINES	FINESS Array B	80.28	331	P	P	01 14 15.5	+0.7
	comp=Z,3.6nm,1.1s,baz=117,slow=5.2,SNR=1.4						
	comp=Z,3.6nm,1.1s						
F28M	Old Crow	80.99	22	P	P	01 14 19.4	+0.8
F28M				IAmb	IAmb	01 14 33.7	
	comp=Z,9.2nm,1.4s						
BURAR	Bucovina Array	83.65	317	P	P	01 14 32.9	0.0
NC405	NORSAR Array S	87.00	333	P	P	01 14 49.1	0.0
NC405				IAmb	IAmb	01 15 00.6	
	comp=Z,11nm,1.3s						
U33K	Whale Pass	87.51	33	P	P	01 14 48.1	-3.5

IDC 01 01:12:36.8±1.9**, 5°.37S**×**130°.99E, h0km, mb3.9**/1**, mbtmp3.6**/4**, ML3.2**/3**, MS4.2**/2**, Error ellipse: s-maj=51.1km s-min=19.3km az=84.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	13.69	202	Pn	Pn	01 15 48.7	-3.6
	0.3nm,0.3s,baz=49,slow=8.7,SNR=6.0						
FITZ				Sn	Sn	01 18 08.7	-17
	0.5nm,0.3s,baz=42,slow=16,SNR=6.1						
	0.6nm,0.3s						
FITZ				AML	AML		
WRA	Warramunga Arr	14.85	168	Pn	Pn	01 16 02.9	-5.3
	0.1nm,0.3s,baz=350,slow=13,SNR=5.1						
WRA				Sn	Sn	01 18 35.8	-18
	0.5nm,0.3s,baz=348,slow=21,SNR=8.2						
WRA				LR	LR	01 22 08.9	
	comp=Z,287nm,18.4s,baz=257,slow=38						
	0.4nm,0.6s						
WRA				AML	AML		
ASAR	Alice Springs	18.41	172	P	Pn	01 16 52.0	-1.6
	0.1nm,0.3s,baz=355,slow=10,SNR=6.8						
	0.8nm,0.6s						
ASAR				AML	AML		
MKAR	Makanchi Array	67.42	326	P	P	01 23 34.1	-0.1
	0.7nm,0.6s,baz=130,slow=7.7,SNR=6.4						
	0.7nm,0.6s						
MATP	Matopo	99.77	248	LR	LR	02 07 06.0	
	comp=Z,358nm,21.6s,baz=28,slow=33						

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*TEH **01** 01:20:36.4, 34°.63N×46°.11E, h10km±27km, ML2.9, Presumed earthquake*

*ISN **01** 01:20:40.8±2.2, 34°.66N×46°.11E, h10km, ML2.9, Presumed earthquake*

ISC 01 01:20:38.2±1.2**, 34°.66N**±0°.05×**46°.19E**±0°.04**, h10km, n9, σ1s.08**/12**, Western Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IDHR	Dehrash	0.16	77	Pg	Pg	01 20 41.8	-0.1
IDHR				Sg	Sg	01 20 45.7	+1.2
IGHG	Ghaleghazi	0.45	137	Pg	Pg	01 20 46.3	-0.8
KCHF	Cheshme Sefid,	0.80	119	Pg	Pg	01 20 52.8	-0.9
SNJK	Sanadaj _Korde	1.06	43	Pg	Pb	01 20 58.3	-0.5
SNQR	Sonqor, Kerman	1.20	80	Pg	Pg	01 21 01.0	-0.2
IBZA	Bozab	1.39	97	Pg	Pg	01 21 04.6	-0.3
IBDR	Badra	1.56	188	*i* P	Pg	01 21 07.4	-0.8
	baz=5.5						
IBDR				*i* S	Sg	01 21 30.4	+1.9
IBDR				IAML		01 21 37.2	
	comp=N,174nm,1.0s						
IBDR				IAML		01 21 38.2	
	comp=E,184nm,1.0s						
IALM	Almabolaq	1.64	83	Pg	Pg	01 21 08.8	-0.9
IKRK	Kirkuk	1.69	296	*i* P	Pg	01 21 09.9	-0.7
IKRK				*i* S	Sg	01 21 33.7	+1.2

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*IDC **01** 01:25:26.2±2.3, 54°.46N×164°.13W, h0km, mb3.5/3, mbtmp3.5/6, ML3.3/3, Error ellipse: s-maj=41.0km s-min=31.1km az=130.0*

*NEIC **01** 01:25:27.5±1.8, 54°.07N±0°.08×164°.20W±0°.06, h22km±6km, mb4.2/11, ML3.8/14, ML3.7(AEIC), Error ellipse: s-maj=11.5km s-min=3.8km az=161.0*

*AEIC **01** 01:25:27.1±2.2, 54°.09N±0°.08×164°.18W±0°.07, h19km±5km, Error ellipse: s-maj=12.2km s-min=3.7km az=156.0*

ISC 01 01:25:26.9±1.4**, 54°.07N**±0°.07×**164°.16W**±0°.03**, h20km**±5km**, n78, σ1s.24**/76**, mb4.0**/6**, Unimak Island region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SSLS	Shishaldin Sou	0.66	8		Pg	01 25 39.6	-0.4
SSLS					Sg	01 25 48.8	+0.1
AKUT	Akutan	0.95	275	P	Pb	01 25 44.0	-0.7
AKUT	Akutan	0.95	275	S	Sg	01 25 57.6	-0.4
AKUT	Akutan	0.95	275		Pb	01 25 44.2	-0.5
AKUT				Sn	Sg	01 25 57.3	-0.7
AKUT				IAML		01 26 03.4	
	comp=N,4μm,0.5s						
AKUT				IAML		01 26 03.7	
	comp=E,2μm,0.5s						
AKLV	Akutan Long Va	1.06	276		Pb	01 25 45.8	-0.8
AKGG	Akutan Green G	1.08	278		Pb	01 25 45.8	-1.2
LVA	Lava Point	1.11	276		Pn	01 25 47.2	-0.2
LVA				Sn	Sb	01 26 01.1	-0.3
LVA				IAML		01 26 09.6	
	comp=E,2μm,0.7s						
AKRB	Akutan Reef Bi	1.12	274		Pb	01 25 48.1	+0.4
UNV	Unalaska Valle	1.40	262	P	Pn	01 25 50.0	-1.4
UNV	Unalaska Valle	1.40	262	S	Sn	01 26 08.5	-0.8
UNV	Unalaska Valle	1.40	262		Pn	01 25 50.0	-1.4
UNV				IAML		01 26 17.3	
	comp=N,840nm,0.6s						
MNAT	Makushin Natee	1.50	264		Pn	01 25 51.9	-0.8
MNAT					Sn	01 26 11.9	+0.1
DT1	Dutton Round H	1.51	46		Pn	01 25 51.9	-1.0
DT1					Sn	01 26 11.4	-0.7
DTNA	Dutton South F	1.55	45		Pn	01 25 52.7	-0.8
DTNA					Sn	01 26 13.4	+0.3
MGOD	Makushin Gods	1.63	262		Pn	01 25 54.2	-0.3
DOL	Dolgoi Island	1.72	50		Pn	01 25 55.1	-0.7
PS4A	Pavlof South-4	1.85	45		Pn	01 25 58.0	+0.4
PN7A	Pavlof North-7	1.86	42		Pn	01 25 58.6	+0.9
PS1A	Pavlof South-1	1.95	45		Pn	01 25 59.8	+0.8
SDPT	Sand Point	2.50	57	P	Pn	01 26 06.5	+0.1
SDPT	Sand Point	2.50	57	S	Sn	01 26 37.7	+1.5
SDPT	Sand Point	2.50	57		Pn	01 26 06.7	+0.3
SDPT				IAML		01 26 46.8	
	comp=N,637nm,1.2s						
SDPT				IAML		01 26 47.1	
	comp=E,546nm,0.9s						
CNBA	Chernabura Isl	2.77	72	Pn	Pn	01 26 10.2	0.0
CHNA	Chernabura Isl	2.78	72	P	Pn	01 26 09.5	-0.8
VNKR	Veniaminof 5	3.39	53		Pn	01 26 19.2	+0.5
VNFG	Fog Glacier, M	3.45	48		Pn	01 26 20.7	+1.0
CHGN	Chignik	3.98	53		Pn	01 26 28.1	+1.3
CHGN				IAML		01 27 30.6	
	comp=E,119nm,0.7s						
CHGN				IAML		01 27 30.6	
	comp=N,103nm,0.7s						
BPBCA	Veniaminof	4.13	50		Pn	01 26 29.0	+0.2
O14K	Tigyukauivet M	5.44	16	Pn	Pn	01 26 47.9	+1.1
O15K	Ungalikthiuk R	5.66	23	Pn	Pn	01 26 50.5	+0.7
N14K	Kuskokwak Cree	6.03	12	Pn	Pn	01 26 56.6	+1.8
O16K	Kokwok River B	6.46	29	Pn	Pn	01 27 02.1	+1.3
N15K	Kwethluk River	6.51	18	Pn	Pn	01 27 02.6	+1.1
M14K	Bethel	6.81	9	Pn	Pn	01 27 07.5	+1.9
M15K	Kasigluk River	6.91	14		Pn	01 27 07.4	+0.5
OHAK	Old Harbor	6.92	58	P	Pn	01 27 06.4	-0.7
N16K	Nishlik Lake	7.06	22		Pn	01 27 09.9	+0.8
L14K	Kuka Creek	7.34	6		Pn	01 27 14.3	+1.5
KDAK	Kodiak Island	7.49	56	Pn	Pn	01 27 14.1	-0.9
	comp=N,0.8nm,0.3s,baz=260,slow=9.7,SNR=5.6						
KDAK				Sn	Sn	01 28 34.7	-4.6
	baz=309,slow=18						
	comp=N,3.6nm,0.4s						
KDAK				AML	AML		
KDAK	Kodiak Island	7.49	56	Pn	Pn	01 27 15.1	+0.1
N17K	Nushagak Hills	7.50	27	Pn	Pn	01 27 16.4	+1.4
M16K	Timber Creek	7.51	20	Pn	Pn	01 27 15.7	+0.4
Q19K	Cape Douglas,	7.59	46	Pn	Pn	01 27 17.8	+1.5
K13K	Kusilvak Mount	7.89	358	Pn	Pn	01 27 21.7	+1.2
L16K	Owhat River	8.06	16		Pn	01 27 23.2	+0.4
M17K	Holitna River	8.18	23		Pn	01 27 25.2	+0.7
K20K	Telida	10.68	25		Pn	01 27 58.9	+0.2
J20K	Nowinta River	11.35	23		Pn	01 28 07.1	-0.7
ILAR	Eielson Array	13.81	32	Pn	Pn	01 28 36.8	-4.5
	baz=221,slow=10,SNR=1.7						
	comp=N,0.1nm,0.4s						
ILAR	Eielson Array	13.81	32		Pn	01 28 40.6	-0.7
SCRK	Sand Creek	14.30	38	Pn	Pn	01 28 48.7	+0.5
M29M	Somme Creek	15.81	48	Pn	Pn	01 29 07.5	-0.9
M29M				IAmb	IAmb	01 29 15.3	
	comp=Z,9.1nm,0.9s						
I28M	Miner Creek	16.56	37	Pn	Pn	01 29 17.6	-0.3
MMPY	Sheldon Lake,	19.07	50		Pn	01 29 48.6	-0.1
F30M	Barrier River	19.12	34	P	Pn	01 29 49.3	+0.1
F30M				IAmb	IAmb	01 30 16.5	
	comp=Z,10.0nm,1.1s						
G31M	Satah River	19.29	36	P	P	01 29 47.9	-2.3
G31M				IAmb	IAmb	01 29 53.5	
	comp=Z,18nm,1.2s						
INK	Inuvik	20.20	33	P	P	01 29 58.9	-1.2
	comp=Z,0.1nm,0.3s,baz=218,slow=9.9,SNR=1.1						
	comp=Z,0.8nm,0.5s						
INK				AML	AML		
INK	Inuvik	20.20	33	P	P	01 29 59.9	-0.2
INK				IAmb	IAmb	01 30 27.4	
	comp=Z,7.5nm,1.2s						
NVAR	Mina Array Bea	34.67	98	P	P	01 32 19.0	+3.7
	comp=Z,0.7nm,0.7s,baz=314,slow=10.0,SNR=2.5						
	comp=Z,0.7nm,0.7s						
NVAR	Mina Array Bea	34.67	98	P	P	01 32 15.1	-0.1
H11N2	WAKE ISLAND Hy	40.80	224	T	T	02 16 41.4	
	baz=26,slow=76,SNR=180						
H11N3	WAKE ISLAND Hy	40.80	224	T	T	02 16 41.9	
	baz=26,slow=76,SNR=254						
H11N1	WAKE ISLAND Hy	40.82	224	T	T	02 16 37.1	
	baz=26,slow=76,SNR=154						
H11S1	WAKE ISLAND Hy	41.98	224	T	T	02 18 08.0	
	baz=26,slow=76,SNR=214						
H11S2	WAKE ISLAND Hy	41.99	224	T	T	02 18 13.8	
	baz=26,slow=76,SNR=212						
H11S3	WAKE ISLAND Hy	41.99	224	T	T	02 18 06.9	
	baz=26,slow=76,SNR=149						
TXAR	Lajitas Array	49.67	95	P	P	01 34 18.7	+1.3
	comp=Z,0.3nm,0.7s,baz=303,slow=8.0,SNR=4.0						
	comp=Z,0.3nm,0.7s						
TXAR	Lajitas Array	49.67	95	P	P	01 34 17.3	0.0
IVI	Ivigtut	54.43	32	P	P	01 34 53.2	+1.1
Q56A	Snyder Ridge,	56.84	68	P	P	01 35 10.0	+0.1
G62A	West of Eustis	56.97	57	P	P	01 35 09.6	-1.1
G62A				IAmb	IAmb	01 35 50.9	
	comp=Z,14nm,1.3s						
MAKZ	Makanchi	64.96	316	P	P	01 36 05.1	+0.2
MAKZ				IAmb	IAmb	01 36 32.8	
	comp=Z,8.8nm,1.5s						
AB31	Akbulak array	70.55	331	P	P	01 36 40.0	-0.1
AB31				IAmb	IAmb	01 37 07.5	
	comp=Z,4.0nm,1.4s						
ABKAR	Akbulak array	70.55	331	P	P	01 36 39.8	-0.3
CLL	Collm	74.97	2	*e*sP	sP	01 37 16.0	+1.0
ESDC	Sonseca Array	85.09	15	P	P	01 38 01.4	+0.2
	comp=Z,0.2nm,0.5s,baz=351,slow=5.0,SNR=4.1						
	comp=Z,0.2nm,0.5s						
H03N2	Juan Fernandez	113.71	114	T	T	03 47 23.1	
	baz=313,slow=76,SNR=51						
H03N1	Juan Fernandez	113.72	114	T	T	03 47 24.4	
	baz=309,slow=76,SNR=52						

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*IDC **01** 01:47:21.1±1.3, 61°.86N×151°.82W, h109km±15km, mb3.7/17, mbtmp4.1/21, Error ellipse: s-maj=22.3km s-min=9.5km az=113.0*

*NEIC **01** 01:47:22.6±0.6, 61°.93N±0°.04×151°.94W±0°.07, h118km±4km, mb4.3/7, ML3.6/214, ML3.4(AEIC), Error ellipse: s-maj=5.2km s-min=5.0km az=146.0*

*AEIC **01** 01:47:23.8±0.9, 61°.93N±0°.03×151°.96W±0°.07, h113km±3km, Error ellipse: s-maj=5.1km s-min=4.9km az=142.0*

ISC 01 01:47:22.7±0.6**, 61°.91N**±0°.03×**151°.97W**±0°.03**, h121km**±5km**, n277, σ0s.69**/278**, mb4.1**/19**, Southern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKT	Skwentna	0.22	71	Pn	Pn	01 47 38.9	-0.5
SKT				Sn	Sn	01 47 50.9	-1.3
STLK	Strandline Lak	0.42	171		Pn	01 47 40.0	-0.3
STLK				Sn	Sn	01 47 52.5	-1.1
M20K	Styx River	0.55	268	Pn	Pn	01 47 40.6	-0.5
M20K				IAML		01 47 54.2	
	comp=N,806nm,0.5s						
M20K				IAML		01 47 54.3	
	comp=E,2μm,0.5s						
M20K	Styx River	0.55	268		Sn	01 47 53.6	-1.5
SPNN	North Nagishla	0.65	213		Pn	01 47 41.7	-0.2
SPWE	Spurr West	0.70	204		Pn	01 47 42.1	-0.1
CKL	Chakachamna La	0.74	194		Pn	01 47 42.4	-0.2
M22K	Willow	0.89	99		Pn	01 47 43.3	-0.4
M22K				Sn	Sn	01 47 59.0	-0.5
CUT	Chulitna	0.94	57		Pn	01 47 43.7	-0.4
CUT				Sn	Sn	01 47 59.6	-0.8
PPLA	Purkeypile	0.99	354		Pn	01 47 44.6	-0.3
PPLA	Purkeypile	0.99	354		Sn	01 48 01.1	-0.6
PPLA	Purkeypile	0.99	354	IAML		01 48 02.4	
	comp=E,1μm,0.8s						
PPLA				IAML		01 48 06.5	
	comp=N,1μm,0.8s						
CAPN	Captain Cook N	1.21	161		Pn	01 47 48.4	+1.5
RC01	Rabbit Creek A	1.35	127		Pn	01 47 48.4	0.0
RC01				IAML		01 48 08.8	
	comp=N,2μm,0.3s						
RC01				IAML		01 48 10.7	
	comp=E,1μm,0.4s						
RC01	Rabbit Creek A	1.35	127		Sn	01 48 07.7	-0.3
RDT	Redoubt	1.36	189		Pn	01 47 48.6	+0.1
RDT					Sn	01 48 08.1	-0.1
DFR	Drift River	1.37	195		Pn	01 47 48.9	+0.2
RDJH	Redoubt Jeurge	1.38	197		Pn	01 47 49.1	+0.2
RDJH					Sn	01 48 09.2	+0.3
L19K	White Mountain	1.39	283		Pn	01 47 48.5	-0.3
L19K	White Mountain	1.39	283		Sn	01 48 07.9	-0.8
L19K	White Mountain	1.39	283	IAML		01 48 08.3	
	comp=N,196nm,0.7s						
L19K				IAML		01 48 08.9	
	comp=E,201nm,1.0s						
PMR	Palmer	1.39	102	P	Pn	01 47 47.9	-0.8
PMR	Palmer	1.39	102	P	Sn	01 48 08.0	-0.6
PMR	Palmer	1.39	102		Pn	01 47 48.0	-0.8
PMR				IAML		01 48 08.3	
	comp=N,817nm,0.4s						
PMR				IAML		01 48 08.4	
	comp=E,820nm,0.6s						
PMR	Palmer	1.39	102		Sn	01 48 08.1	-0.6
NCT	North Crescent	1.43	199		Pn	01 47 49.6	+0.2
NCT					Sn	01 48 09.9	+0.1
GHO	Glory Hole Cre	1.45	94		Pn	01 47 49.1	-0.5
GHO	Glory Hole Cre	1.45	94		Sn	01 48 10.0	-0.1
RDSO	Redoubt South	1.51	195		Pn	01 47 50.4	+0.1
RDSO					Sn	01 48 11.6	+0.2
CAST	Castle Rocks	1.52	358		Pn	01 47 49.7	-0.6
CAST	Castle Rocks	1.52	358		Sn	01 48 09.9	-1.5
CAST	Castle Rocks	1.52	358	IAML		01 48 10.4	
	comp=E,302nm,0.4s						
CAST				IAML		01 48 11.9	
	comp=N,195nm,0.5s						
N19K	Bonanza Creek	1.64	229		Pn	01 47 51.9	0.0
N19K	Bonanza Creek	1.64	229		Sn	01 48 13.2	-0.8
N19K	Bonanza Creek	1.64	229	IAML		01 48 14.9	
	comp=N,469nm,1.0s						
N19K				IAML		01 48 15.0	
	comp=E,193nm,1.0s						
SLKM	Skilak Lake	1.64	148		Pn	01 47 51.3	-0.5
SLKM				IAML		01 48 14.4	
	comp=N,1μm,0.3s						
SLKM				IAML		01 48 16.8	
	comp=E,926nm,0.3s						
KTH	Kantishna Hill	1.72	16		Pn	01 47 52.3	-0.4
KTH	Kantishna Hill	1.72	16		Sn	01 48 14.5	-1.2
KTH	Kantishna Hill	1.72	16	IAML		01 48 28.2	
	comp=N,218nm,0.8s						
KTH				IAML		01 48 38.8	
	comp=E,358nm,0.9s						
WAT7	Susitna Watana	1.72	56		Pn	01 47 52.7	-0.1
WAT7					Sn	01 48 15.5	-0.4
SML	Sawmill	1.73	92		Pn	01 47 52.1	-0.7
SML	Sawmill	1.73	92		Sn	01 48 15.5	-0.3
SML	Sawmill	1.73	92	IAML		01 48 16.0	
	comp=N,1μm,0.5s						
SML				IAML		01 48 16.9	
	comp=E,2μm,0.7s						
TRF	Thorofare Moun	1.73	26		Pn	01 47 52.7	-0.2
TRF				IAML		01 48 17.4	
	comp=N,556nm,1.0s						
TRF				IAML		01 48 18.8	
	comp=E,310nm,0.4s						
K20K	Telida	1.75	327		Pn	01 47 52.6	-0.4
K20K	Telida	1.75	327		Sn	01 48 14.5	-1.7
K20K	Telida	1.75	327	IAML		01 48 15.4	
	comp=E,402nm,0.7s						
K20K				IAML		01 48 15.4	
	comp=N,431nm,1.0s						
KNK	Knik Glacier	1.75	105		Pn	01 47 52.6	-0.5
KNK					Sn	01 48 16.0	-0.2
O22K	Cooper Landing	1.80	142		Pn	01 47 53.7	+0.1
WAT1	Susitna Watana	1.84	58		Pn	01 47 54.0	-0.2
WAT1					Sn	01 48 17.9	-0.3
M18K	Stony River	1.89	259		Pn	01 47 54.6	-0.1
M18K					Sn	01 48 18.7	-0.4
IVE	Iliamna Volcan	1.97	196		Pn	01 47 56.0	+0.1
CHUM	Lake Minchumin	1.99	356		Pn	01 47 55.6	-0.3
CHUM					Sn	01 48 20.4	-0.9
M23K	Glacier View	2.01	91		Pn	01 47 55.8	-0.5
ILSW	Iliamna Southw	2.02	197		Pn	01 47 56.8	+0.3
ILSW				IAML		01 48 25.3	
	comp=E,203nm,0.9s						
ILSW				IAML		01 48 30.8	
	comp=N,201nm,1.1s						
ILS	Iliamna Low So	2.03	196		Pn	01 47 56.8	+0.2
PWL	Port Wells	2.04	120		Pn	01 47 55.9	-0.8
O19K	Port Alsworth	2.07	215		Pn	01 47 57.0	+0.1
O19K				IAML		01 48 24.5	
	comp=E,360nm,0.5s						
O19K				IAML		01 48 26.6	
	comp=N,311nm,0.5s						
RND	Reindeer	2.08	42		Pn	01 47 56.8	-0.3
RND				IAML		01 48 24.3	
	comp=E,291nm,0.5s						
RND				IAML		01 48 26.8	
	comp=N,285nm,0.5s						
WAT6	Susitna Watana	2.09	69		Pn	01 47 57.0	-0.4
WAT6					Sn	01 48 22.9	-1.0
SEW	Seward	2.19	145		Pn	01 47 58.3	-0.2
SEW	Seward	2.19	145		Sn	01 48 23.2	-2.6
SEW	Seward	2.19	145	IAML		01 48 24.1	
	comp=N,605nm,0.5s						
SEW				IAML		01 48 25.2	
	comp=E,445nm,0.5s						
SCM	Sheep Creek Mo	2.20	90		Pn	01 47 58.2	-0.4
SCM					Sn	01 48 26.1	-0.1
BRLK	Bradley Lake	2.22	166		Pn	01 47 58.7	-0.2
BRLK				IAML		01 48 30.4	
	comp=E,414nm,0.4s						
BRLK				IAML		01 48 33.6	
	comp=N,489nm,0.2s						
L18K	Granite Mounta	2.24	280		Pn	01 47 59.1	-0.1
BRSE	Bradley Lake S	2.26	164		Pn	01 47 58.8	-0.6
N18K	Kilae Creek	2.26	239		Pn	01 47 59.3	-0.1
HOM	Homer	2.27	176	Pn	Pn	01 47 59.7	+0.3
MCK	McKinley	2.30	36		Pn	01 47 59.4	-0.4
MCK				IAML		01 48 33.7	
	comp=E,153nm,0.5s						
MCK				IAML		01 48 56.4	
	comp=N,139nm,0.6s						
P19K	Oil Pt	2.35	196		Pn	01 48 00.9	+0.4
CNPM	China Poot	2.42	171		Pn	01 48 00.8	-0.6
CNPM				IAML		01 48 33.8	
	comp=E,409nm,0.4s						
CNPM				IAML		01 48 36.0	
	comp=N,439nm,0.4s						
DHY	Denali Highway	2.43	59		Pn	01 48 01.3	-0.4
DHY				IAML		01 48 33.0	
	comp=N,410nm,0.6s						
DHY				IAML		01 48 33.2	
	comp=E,481nm,0.8s						
J20K	Nowinta River	2.48	337		Pn	01 48 01.6	-0.6
J20K				IAML		01 48 32.4	
	comp=N,274nm,0.7s						
J20K				IAML		01 48 34.0	
	comp=E,161nm,1.0s						
GLI	Glacier Island	2.56	112		Pn	01 48 01.8	-1.5
GLI				IAML		01 48 38.9	

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      comp=N,545nm,0.3s
AU22  Augustine Moun    2.64 196               Pn      01 48 04.2  0.0
AGU   Augustine-Summ    2.66 196               Pn      01 48 04.5 -0.1
M17K  Holitna River     2.66 261               Pn      01 48 04.4 -0.1
M17K                              IAML                 01 48 52.9
      comp=E,115nm,0.9s
M17K                              IAML                 01 49 00.5
      comp=N,112nm,0.8s
AUJK  Augustine Jueg    2.67 196               Pn      01 48 04.8 +0.2
J19K  Poorman           2.68 323               Pn      01 48 04.1 -0.6
J19K                              IAML                 01 48 37.2
      comp=N,97nm,0.9s
J19K                              IAML                 01 48 37.2
      comp=E,100nm,0.9s
AUI   Augustine Isla    2.68 196               Pn      01 48 04.9 +0.1
J18K  Innoko River      2.69 308               Pn      01 48 04.5 -0.4
J18K                              IAML                 01 48 36.0
      comp=N,85nm,1.0s
N17K  Nushagak Hills    2.88 244               Pn      01 48 07.4 +0.1
FID   Port Fidalgo      2.89 111               Pn      01 48 05.8 -1.6
KLU   Klutina           2.91  96               Pn      01 48 07.2 -0.6
KLU                               IAML                 01 48 42.1
      comp=E,306nm,0.7s
P23K  Montague Islan    2.94 129               Pn      01 48 06.9 -1.2
L17K  Donlin            2.99 277               Pn      01 48 08.6 -0.2
NEA2  Nenana            3.00  25               Pn      01 48 08.0 -0.8
HIN   Hinchinbrook I    3.05 117               Pn      01 48 08.4 -1.2
HIN                               IAML                 01 48 47.2
      comp=E,273nm,0.5s
HIN                               IAML                 01 48 48.5
      comp=N,306nm,0.6s
K17K  Iditarod          3.07 288               Pn      01 48 09.6 -0.2
DIV   Divide            3.07 102               Pn      01 48 09.0 -0.9
DIV                               IAML                 01 48 46.7
      comp=E,277nm,0.7s
Q19K  Cape Douglas,     3.10 196               Pn      01 48 10.3 -0.1
Q19K                              IAML                 01 49 07.8
      comp=N,285nm,1.0s
Q19K                              IAML                 01 49 07.9
      comp=E,301nm,1.1s
I20K  Naaghedeneel      3.11 340               Pn      01 48 09.6 -0.7
I20K                              IAML                 01 48 52.9
      comp=N,265nm,0.7s
WRH   Wood River Hil    3.11  33               Pn      01 48 09.9 -0.5
MLY   Manley            3.18   9               Pn      01 48 10.8 -0.5
MLY                               IAML                 01 48 51.2
      comp=N,71nm,0.7s
HARP  HAARP             3.23  78               Pn      01 48 12.2 +0.3
I21K  Tanana            3.28 360               Pn      01 48 12.1 -0.4
I21K                              IAML                 01 48 49.7
      comp=E,79nm,1.0s
I21K                              IAML                 01 48 51.5
      comp=N,121nm,1.0s
O17K  Koliganek Bris    3.30 232               Pn      01 48 13.0 +0.1
EYAK  Cordova Ski Ar    3.30 112  P            Pn      01 48 12.8  0.0
EYAK  Cordova Ski Ar    3.30 112  S            Sn      01 48 51.9 +0.3
EYAK  Cordova Ski Ar    3.30 112               Pn      01 48 11.8 -1.1
EYAK                              IAML                 01 48 53.7
      comp=E,115nm,0.8s
EYAK                              IAML                 01 48 53.9
      comp=N,169nm,0.5s
CCB   Clear Creek Bu    3.33  33               Pn      01 48 12.2 -0.9
HDA   Harding Lake      3.39  40               Pn      01 48 13.3 -0.6
HDA                               IAML                 01 48 53.2
      comp=E,133nm,0.4s
HDA                               IAML                 01 48 55.7
      comp=N,124nm,0.5s
K24K  Donnelly Dome     3.41  53               Pn      01 48 14.7 +0.4
I23K  Minto, Yukon-K    3.45  19               Pn      01 48 14.4 -0.4
I23K                              IAML                 01 49 26.3
      comp=N,56nm,1.0s
M16K  Timber Creek      3.47 258               Pn      01 48 15.2 +0.1
MDM   Murphy Dome       3.49  27               Pn      01 48 14.8 -0.5
COLA  College           3.50  30               Pn      01 48 14.7 -0.8
COLA  College           3.50  30  IAML                 01 49 21.2
      comp=N,167nm,0.5s
COLA                              IAML                 01 49 26.4
      comp=N,170nm,0.6s
P17K  Kvichak River     3.51 221               Pn      01 48 16.4 +0.8
N25K  Chitina, Valde    3.52  92               Pn      01 48 15.7 -0.1
PS08  TAPS Pump Stn8    3.52  39               Pn      01 48 15.2 -0.6
L16K  Owhat River       3.57 270               Pn      01 48 16.4 +0.1
N16K  Nishlik Lake      3.59 249               Pn      01 48 16.9 +0.2
J17K  VABM Dome         3.60 298               Pn      01 48 16.3 -0.6
GCSA  Galena City Sc    3.61 324               Pn      01 48 16.5 -0.3
Q18K  Katmai Hardscr    3.61 206               Pn      01 48 17.2 +0.2
BMRM  Bremner River     3.66 102               Pn      01 48 17.0 -0.7
BMRM                              IAML                 01 49 01.5
      comp=N,209nm,0.5s
BMRM                              IAML                 01 49 15.5
      comp=E,162nm,0.6s
KAHG  Katmai Hook Gl    3.66 202               Pn      01 48 17.9 +0.2
IL31                    3.67  36               Pn      01 48 16.7 -1.0
ILAR  Eielson Array     3.67  36  P            Pn      01 48 17.0 -0.7
      comp=E,38nm,0.3s,baz=222,slow=14,SNR=176
ILAR                              S            Sn      01 48 58.2 -2.2
      comp=E,12nm,0.6s,baz=215,slow=15,SNR=1.4
KARR  Katmai Rainbow    3.69 203               Pn      01 48 18.4 +0.4
RIDG  Independent Ri    3.75  58               Pn      01 48 19.3 +0.5
RIDG                              IAML                 01 49 10.5
      comp=N,199nm,0.8s
H21K  Melozitna Rive    3.78 355               Pn      01 48 18.7 -0.5
H21K                              IAML                 01 49 01.2
      comp=E,67nm,1.2s
H21K                              IAML                 01 49 02.9
      comp=N,73nm,0.6s
PS07  TAPS Pump Stn7    3.79  24               Pn      01 48 18.8 -0.4
O16K  Kokwok River B    3.80 235               Pn      01 48 19.4  0.0
POKR  Poker Plat Res    3.81  30               Pn      01 48 19.2 -0.3
KAWH  Katmai            3.81 203               Pn      01 48 19.8 +0.1
H20K  Anotleneega Mo    3.82 341               Pn      01 48 19.5 -0.2
RAGM  Ragged Mountai    3.85 110               Pn      01 48 19.4 -0.8
GLB   Gilahina Butte    3.92  93               Pn      01 48 20.5 -0.5
GLB                               IAML                 01 49 08.6
      comp=N,125nm,0.6s
GLB                               IAML                 01 49 11.4
      comp=E,109nm,0.7s
KAKN  Katmai Knife C    3.94 204               Pn      01 48 21.6 +0.2
MENT  Mentasta          3.97  71               Pn      01 48 21.7 -0.1
H22K  Ishtalitna Cre    4.01   3               Pn      01 48 22.0 -0.2
H22K                              IAML                 01 49 07.3
      comp=E,75nm,1.2s
H22K                              IAML                 01 49 08.3
      comp=N,34nm,0.9s
J25K  Salcha River,     4.03  45               Pn      01 48 22.1 -0.5
J25K                              IAML                 01 49 15.4
      comp=E,103nm,0.7s
J25K                              IAML                 01 49 15.8
      comp=N,109nm,0.4s
H23K  Yukon River       4.07  14               Pn      01 48 22.9 -0.2
H23K  Yukon River       4.07  14  IAML                 01 49 12.8
      comp=E,30nm,0.8s
ACHA  Angle Creek He    4.08 206               Pn      01 48 23.4 +0.2
MGLS  Mageik Landsli    4.11 204               Pn      01 48 24.1 +0.5
ANCK  Angle Creek       4.12 207               Pn      01 48 24.4 +0.5
Q17K  Contact Creek     4.15 210               Pn      01 48 24.8 +0.5
KDAK  Kodiak Island     4.15 185  P            Pn      01 48 22.8 -1.3
      comp=E,21nm,0.3s,baz=51,slow=4.2,SNR=59
KDAK                              S            Sn      01 49 08.5 -3.3
      comp=E,32nm,0.4s,baz=36,slow=5.2,SNR=9.4
KDAK  Kodiak Island     4.15 185               Pn      01 48 23.1 -1.1
KDAK                              IAML                 01 49 11.5
      comp=E,59nm,0.6s
KDAK                              IAML                 01 49 18.4
      comp=E,66nm,0.6s
IM05  Indian Mountai    4.15 350               Pn      01 48 24.0 -0.1
L26K  Log Cabin Wild    4.16  71               Pn      01 48 23.9 -0.3
IMAR  Indian Mountai    4.16 350               Pn      01 48 23.7 -0.6
IM01  Indian Mountai    4.17 350               Pn      01 48 24.3 -0.1
SCRK  Sand Creek        4.19  57               Pn      01 48 24.4 -0.5
SCRK                              IAML                 01 49 12.4
      comp=N,90nm,0.6s
SCRK                              IAML                 01 49 12.9
      comp=E,77nm,0.6s
J16K  Anvik River       4.22 293               Pn      01 48 25.0 -0.1
J16K  Anvik River       4.22 293  IAML                 01 49 11.5
      comp=N,29nm,0.8s
M26K  Nabesna, AK       4.24  79               Pn      01 48 25.0 -0.4
M26K                              IAML                 01 49 32.4
      comp=N,117nm,0.6s
M26K                              IAML                 01 49 32.6
      comp=E,65nm,0.4s
BERG  Berg Lake         4.29 107               Pn      01 48 25.1 -0.8
MCARA McCarthy VSAT     4.30  93               Pn      01 48 25.9 -0.2
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N15K  Kwethluk River    4.32 250               Pn      01 48 26.7 +0.3
N15K                              IAML                 01 49 52.0
      comp=E,37nm,1.1s
N15K                              IAML                 01 49 59.0
      comp=N,31nm,1.0s
H18K  Honhosa River     4.33 321               Pn      01 48 26.6 +0.1
H24K  Noodor Dome       4.34  23               Pn      01 48 26.3 -0.4
M15K  Kasigluk River    4.38 258               Pn      01 48 27.4 +0.2
CRQM  Cirque            4.41 101               Pn      01 48 28.0 +0.3
CRQM                              IAML                 01 49 19.1
      comp=E,130nm,0.6s
I17K  Unalakleet        4.46 300               Pn      01 48 28.3 +0.1
K15K  Wolf Creek Mou    4.51 279               Pn      01 48 29.0 +0.1
L15K  Ungalak Mounta    4.53 271               Pn      01 48 29.3 +0.2
TGL   Tana Glacier      4.55 101               Pn      01 48 29.9 +0.3
PTPK  Patty Peak        4.60  95               Pn      01 48 30.2 -0.1
PRP   Porcupine Dome    4.62  36               Pn      01 48 30.5  0.0
PRP                               IAML                 01 49 24.4
      comp=N,39nm,0.5s
PRP                               IAML                 01 49 25.1
      comp=E,35nm,0.7s
G21K  Allakaket         4.67 352               Pn      01 48 30.9 -0.2
G21K                              IAML                 01 49 22.6
      comp=N,40nm,0.9s
G21K                              IAML                 01 49 25.6
      comp=E,42nm,0.9s
H17K  Granite Mounta    4.69 314               Pn      01 48 31.7 +0.5
BALM  Baldy             4.70  97               Pn      01 48 31.0 -0.6
KIAG  Kiagna River      4.72  98               Pn      01 48 31.2 -0.8
O15K  Ungalikthiuk R    4.75 238               Pn      01 48 32.0 -0.2
O15K                              IAML                 01 50 02.0
      comp=E,23nm,1.2s
OHAK  Old Harbor        4.75 189  P            Pn      01 48 30.6 -1.6
OHAK  Old Harbor        4.75 189  S            Sn      01 49 22.3 -3.9
OHAK  Old Harbor        4.75 189               Pn      01 48 30.4 -1.8
OHAK                              IAML                 01 49 25.1
      comp=E,22nm,1.0s
OHAK                              IAML                 01 49 30.7
      comp=N,35nm,1.0s
M27K  Edge Creek, AK    4.76  80               Pn      01 48 32.9 +0.5
M27K                              IAML                 01 49 27.9
      comp=E,47nm,0.7s
M27K                              IAML                 01 49 54.1
      comp=N,44nm,1.2s
G19K  Purcell Mounta    4.81 334               Pn      01 48 32.2 -0.7
G19K                              IAML                 01 49 28.0
      comp=E,25nm,0.8s
R17L  Mt. Peulik Vol    4.83 209               Pn      01 48 34.2 +0.9
BC01  Beaver Creek A    4.84  72               Pn      01 48 33.2 -0.2
L27K  Beaver Creek,     4.84  72               Pn      01 48 33.0 -0.4
L27K                              IAML                 01 49 22.2
      comp=E,26nm,0.7s
L27K                              IAML                 01 49 59.5
      comp=N,20nm,0.9s
BCAR  Beaver Creek A    4.86  72               Pn      01 48 33.3 -0.4
G23K  Bananza Creek     4.89   9               Pn      01 48 33.7 -0.4
G23K                              IAML                 01 49 43.3
      comp=E,19nm,1.1s
M14K  Bethel            4.95 261               Pn      01 48 35.4 +0.6
M14K  Bethel            4.95 261  IAML                 01 49 21.2
      comp=E,18nm,1.2s
G18K  Tagagawik         4.97 326               Pn      01 48 34.9 -0.2
K27K  Chicken           4.99  60               Pn      01 48 35.1 -0.2
K27K  Chicken           4.99  60  IAML                 01 49 36.1
      comp=E,26nm,0.9s
K27K                              IAML                 01 49 49.0
      comp=N,32nm,0.9s
BARN  Barnard Glacie    5.01  95               Pn      01 48 36.0 +0.1
BARN                              IAML                 01 49 35.1
      comp=N,51nm,0.5s
BARN                              IAML                 01 49 36.1
      comp=E,54nm,0.4s
GRNC  Granite Creek     5.06  99               Pn      01 48 36.3 -0.2
GRNC                              IAML                 01 49 35.4
      comp=E,52nm,0.4s
H25L  Birch Creek       5.14  29               Pn      01 48 37.6 +0.3
N14K  Kuskokwak Cree    5.14 252               Pn      01 48 37.8 +0.4
N14K  Kuskokwak Cree    5.14 252  IAML                 01 50 31.4
      comp=E,35nm,1.2s
N14K                              IAML                 01 50 52.8
      comp=N,25nm,1.1s
L14K  Kuka Creek        5.14 268               Pn      01 48 37.8 +0.4
L14K                              IAML                 01 50 38.5
      comp=N,20nm,1.0s
L14K                              IAML                 01 50 48.8
      comp=E,21nm,1.1s
G24K  Hadweenzic Riv    5.19  20               Pn      01 48 37.6 -0.4
G24K                              IAML                 01 50 32.8
      comp=N,21nm,0.9s
YAH   Yahtse            5.19 103               Pn      01 48 38.0 -0.3
YUK2  White River       5.27  86               Pn      01 48 39.2  0.0
H16K  Elim              5.38 305               Pn      01 48 40.9 +0.3
LOGN  Logan Glacier     5.39  97               Pn      01 48 40.6 -0.2
LOGN  Logan Glacier     5.39  97  IAML                 01 49 41.9
      comp=N,55nm,0.7s
LOGN                              IAML                 01 49 44.1
      comp=E,59nm,0.6s
F20K  Avaraart Lake     5.41 344               Pn      01 48 41.0 +0.1
F20K  Avaraart Lake     5.41 344  IAML                 01 49 57.2
      comp=N,18nm,0.8s
YUK3  Moose Creek       5.45  86               Pn      01 48 41.8  0.0
J14K  Nanvaranak Lak    5.47 284               Pn      01 48 42.0 +0.3
SII   Sitkinak Islan    5.49 193  P            Pn      01 48 41.9 -0.2
G25K  Bearman Lake      5.50  25               Pn      01 48 42.2 +0.1
F19K  Shaleruckik Mo    5.54 336               Pn      01 48 42.2 -0.6
F22K  John River        5.62 359               Pn      01 48 44.6 +0.8
O28M  Mount Upton       5.78  96               Pn      01 48 47.0 +0.7
F24K  Squaw Lake        5.89  15               Pn      01 48 47.1 -0.5
I27K  Kandik River      5.90  47               Pn      01 48 47.2 -0.4
PCA   Pinnacle          5.98 103               Pn      01 48 48.7  0.0
E19K  Redstone River    6.01 340               Pn      01 48 49.2 +0.2
F17K  Baldwin Pennin    6.09 322               Pn      01 48 50.8 +0.7
DAWY  Dawson            6.12  64               Pn      01 48 50.5 -0.1
G26K  Porcupine Rive    6.17  31               Pn      01 48 50.5 -0.7
E23K  Chandalar         6.25   8               Pn      01 48 52.5  0.0
H27K  Steamboat Moun    6.30  42               Pn      01 48 52.7 -0.3
F25K  Christian Rive    6.31  23               Pn      01 48 52.6 -0.5
M29M  Somme Creek       6.35  79               Pn      01 48 53.8 +0.1
BM01  Burnt Mountain    6.41  27               Pn      01 48 54.0 -0.5
I28M  Miner Creek       6.42  51               Pn      01 48 54.0 -0.6
L29M  L29M              6.52  73               Pn      01 48 55.6 -0.4
PNL   Peninsula         6.55 104  P            Pn      01 48 57.3 +0.9
G27K  Doyon Strip       6.64  38               Pn      01 48 56.4 -1.2
F26K  Sheenjek River    6.69  26               Pn      01 48 57.6 -0.7
E17K  Hotham Inlet      6.71 325               Pn      01 48 59.2 +0.8
TOLK  Toolik Lake Re    6.83   7               Pn      01 49 02.0 +1.8
K29M  Barlow Dome       6.88  67               Pn      01 49 00.5 -0.5
I29M  Ogilvie Camp,     6.99  54               Pn      01 49 02.5 +0.1
N30M  Aishikik Lake     7.09  87               Pn      01 49 03.5 -0.2
D23K  Nanushuk River    7.11   4               Pn      01 49 03.6 -0.2
P29M  Windy Craggy      7.33 102               Pn      01 49 06.7 -0.2
H29M  Whitestone        7.36  48               Pn      01 49 07.0 -0.2
J30M  Hart River        7.54  62               Pn      01 49 09.7 -0.2
F28M  Old Crow          7.70  37               Pn      01 49 11.1 -0.8
I30M  Mount Dempster    7.70  58               Pn      01 49 11.7 -0.4
G29M  Pine Creek        7.84  44               Pn      01 49 13.3 -0.4
G30M  tAoh Zraii Nji    8.48  46               Pn      01 49 21.2 -1.2
H31M  Peel River        8.69  56               Pn      01 49 24.9 -0.4
E29M  Blow River        8.77  36               Pn      01 49 25.7 -0.6
F30M  Barrier River     8.95  43               Pn      01 49 28.5 -0.1
G31M  Satah River       9.14  49               Pn      01 49 29.8 -1.4
SIT   Sitka             9.75 112  P            Pn      01 49 40.2 +0.7
INK   Inuvik           10.04  42  P            Pn      01 49 43.2 -0.1
      comp=N,11nm,0.5s,baz=246,slow=17,SNR=37
INK   Inuvik           10.04  42               Pn      01 49 42.5 -0.8
YKA   Yellowknife Ar   17.28  72  P            P       01 51 15.8 +0.2
      comp=N,1.4nm,0.7s,baz=281,slow=10,SNR=1.6
YKA   Yellowknife Ar   17.28  72  P            P       01 51 15.1 -0.6
SPITS Spitsbergen Ar   39.97   4  P            P       01 54 44.3 -0.2
      comp=N,17nm,1.1s,baz=33,slow=6.3,SNR=5.0
      comp=N,17nm,1.1s
NRIK  Noril'sk         42.41 333  P            P       01 55 05.1 +0.6
      comp=N,1.9nm,0.4s,baz=74,slow=6.3,SNR=4.2
      comp=N,1.9nm,0.4s
NRIK  Noril'sk         42.41 333  P            P       01 55 05.0 +0.5
NRIK                              IAmb         IAmb    01 55 26.4
      comp=Z,2.5nm,0.8s
HILR  Hailar Array B   47.33 298  P            P       01 55 44.0 +0.3
      comp=Z,1.9nm,0.3s,baz=72,slow=9.5,SNR=5.3
      comp=Z,1.9nm,0.3s
ARCES ARCESS Array B   48.83   1  P            P       01 55 53.6 -1.3
      comp=Z,3.9nm,1.0s,baz=9.8,slow=9.2,SNR=4.3
      comp=Z,3.9nm,1.0s
ARCES ARCESS Array B   48.83   1  P            P       01 55 55.1 +0.1
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ARCES                             IAmb         IAmb    01 56 03.3
      comp=Z,26nm,1.4s
KSRS  Korea Array      53.26 282  P            P       01 56 28.7 +0.2
      comp=Z,1.0nm,0.5s,baz=24,slow=7.4,SNR=2.6
      comp=Z,1.0nm,0.5s
SONM  Songino Array    54.08 305  P            P       01 56 36.0 +1.5
      comp=Z,1.2nm,0.6s,baz=38,slow=7.5,SNR=6.7
      comp=Z,1.2nm,0.6s
SONM  Songino Array    54.08 305  P            P       01 56 34.8 +0.3
SONM                              IAmb         IAmb    01 56 37.0
      comp=Z,2.1nm,1.0s
ZALV  Zalesovo Beam    56.13 323  P            P       01 56 49.3 +0.4
      comp=Z,1.5nm,0.5s,baz=34,slow=6.5,SNR=8.8
      comp=Z,1.5nm,0.5s
ZALV  Zalesovo Beam    56.13 323  P            P       01 56 49.1 +0.1
NB2   NORSAR Subarra   56.70  10  P            P       01 56 52.8 -0.1
      comp=Z,0.4nm,0.6s,baz=352,slow=6.9
NOA   NORSAR Array B   56.70  10  P            P       01 56 52.4 -0.6
      comp=Z,0.4nm,0.6s,baz=351,slow=6.9,SNR=3.9
      comp=Z,0.4nm,0.6s
FINES FINESS Array B   56.96   1  P            P       01 56 54.0 -0.6
      comp=Z,1.6nm,0.8s,baz=8.6,slow=6.6,SNR=1.5
      comp=Z,1.6nm,0.8s
FINES FINESS Array B   56.96   1  P            P       01 56 54.2 -0.4
NC602 NORSAR Array S   57.03  10  P            P       01 56 55.3 +0.1
NC602                             IAmb         IAmb    01 57 35.5
      comp=Z,12nm,1.4s
HFS   Hagfors          57.78   8  P            P       01 57 00.1 -0.4
      comp=Z,0.8nm,0.4s,baz=324,slow=7.1,SNR=5.5
      comp=Z,0.8nm,0.4s
EKA   Eskdalemuir Ar   60.55  20  P            P       01 57 19.2 -0.4
      comp=Z,0.7nm,0.6s,baz=2.5,slow=5.8,SNR=4.1
      comp=Z,0.7nm,0.6s
BVAR  Borovoye Array   60.61 332  P            P       01 57 20.1 +0.1
      comp=Z,1.3nm,0.5s,baz=31,slow=5.7,SNR=6.4
      comp=Z,1.3nm,0.5s
KURK  Kurchatov        60.73 326  P            P       01 57 21.0 +0.2
KURK                              IAmb         IAmb    01 57 23.5
      comp=Z,1.9nm,0.8s
BBSR  BB Station       60.76  76  P            P       01 57 22.1 +0.8
KURBB Kurchatov Arra   60.84 326  P            P       01 57 21.3 -0.3
      comp=Z,1.1nm,0.4s,baz=27,slow=6.9,SNR=1.7
      comp=Z,1.1nm,0.4s
MKAR  Makanchi Array   63.25 321  P            P       01 57 37.6 -0.2
      comp=Z,0.6nm,0.6s,baz=50,slow=8.3,SNR=6.4
      comp=Z,0.6nm,0.6s
MKAR  Makanchi Array   63.25 321  P            P       01 57 37.4 -0.5
AB31  Akbulak array    66.28 338  P            P       01 57 58.2 +0.9
ABKAR Akbulak array    66.28 338  P            P       01 57 58.0 +0.6
ESDC  Sonseca Array    75.50  25  P            P       01 58 53.9 +0.6
      comp=Z,0.4nm,0.6s,baz=339,slow=6.5,SNR=2.2
      comp=Z,0.4nm,0.6s
ESDC  Sonseca Array    75.50  25  P            P       01 58 53.5 +0.2
BRTR  Keskin Array B   78.61 356  P            P       01 59 09.3 -1.5
      comp=Z,0.2nm,0.5s,baz=17,slow=2.0,SNR=1.6
      comp=Z,0.2nm,0.5s
CMAR  Chiang Mai Arr   82.51 295  P            P       01 59 32.4 +0.7
      comp=Z,1.3nm,0.3s,baz=11,slow=6.5,SNR=5.6
      comp=Z,1.3nm,0.3s
BOSA  Boshof          146.65   4  PKPbc        PKPbc   02 06 50.3 +0.6
      comp=Z,1.1nm,0.4s,baz=31,slow=4.0,SNR=5.7
BOSA  Boshof          146.65   4  PKPdf        PKPdf   02 06 48.4 +0.5
QSPA  South Pole Qui  151.72 180  PKPbc        PKPbc   02 07 01.0 -0.1
      comp=Z,2.4nm,0.9s,baz=101,slow=1.8,SNR=9.0
```

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*IDC **01** 02:06:47.4±1.2, 25°.88N×96°.26E, h0^{km}, mb3.8/4, mbtmp3.8/4, Error ellipse: s-maj=73.1km s-min=15.5km az=67.0*

*NDI **01** 02:06:49.7±1.2, 26°.24N×96°.99E, h10^{km}, ML3.6, MW3.6, Presumed earthquake*

ISC 01 02:06:50.9±1.2**, 26°.26N**±0°.08×**96°.86E**±0°.09**, h10^{km}, n9, σ1s31**/12**, mb3.8**/4**, Myanmar**

```
Code  Station Name       Δ°   AZ°    Phase ID              Time      Res
                                  Op           ISC     h  m  s     ISC
ZIRO  ZIRO              2.96 296  eP           Pn      02 07 39.0 +0.9
ZIRO                              eS           Sn      02 08 15.1 +1.2
ZIRO                               IAML                02 08 18.8
      comp=N,183nm,0.5s
ZIRO                               IAML                02 08 19.3
      comp=E,178nm,0.3s
IMP   Imphal            2.99 242  eP           Pn      02 07 39.6 +1.2
IMP                               eS           Sn      02 08 14.5 +0.1
IMP                                IAML                02 08 15.2
      comp=E,358nm,0.0s
IMP                                IAML                02 08 15.3
      comp=N,355nm,0.1s
TEZP  TEZPUR            3.65 276  eP           Pn      02 07 47.3 -0.2
TEZP                              eS           Sn      02 08 30.1 -0.6
TEZP                               IAML                02 08 30.7
      comp=E,201nm,0.1s
TEZP                               IAML                02 08 31.2
      comp=N,395nm,0.2s
AZL   Aizawl            4.54 237  eP           Pn      02 07 59.1 -0.7
AZL                               eS           Sn      02 08 51.0 -1.7
AZL                                IAML                02 08 51.5
      comp=E,255nm,0.1s
AZL                                IAML                02 08 52.6
      comp=N,187nm,0.1s
CMAR  Chiang Mai Arr    8.01 166  Pg           Pb      02 09 11.8 +2.0
      comp=N,0.3nm,0.3s,baz=349,slow=14,SNR=4.5
CMAR                              Lg           Lg      02 10 54.4
      comp=N,0.7nm,0.3s,baz=338,slow=31,SNR=4.1
MKAR  Makanchi Array   23.52 334  P            P       02 12 01.6 +0.6
      comp=N,3.0nm,0.7s,baz=148,slow=9.8,SNR=23
      comp=N,3.0nm,0.7s
ZALV  Zalesovo Beam    29.06 345  P            P       02 12 50.2 -1.0
      comp=N,1.1nm,0.6s,baz=177,slow=8.7,SNR=5.1
      comp=N,1.1nm,0.6s
AKASG Malin Array Be   56.15 315  P            P       02 16 27.7 -2.9
      comp=N,0.3nm,0.5s,baz=80,slow=6.1,SNR=4.1
      comp=N,0.3nm,0.5s
WRA   Warramunga Arr   58.59 138  P            P       02 16 46.5 -1.7
      comp=N,0.5nm,0.8s,baz=320,slow=7.3,SNR=2.5
      comp=N,0.5nm,0.8s
```

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*KRSC **01** 02:11:02.1±1.8, 59°.01N×158°.60E, h14^{km}±13^{km}, Ml3.8*

*NERS **01** 02:11:14.4, 59°.04N×158°.15E, h11^{km}*

ISC 01 02:11:03.7±1.0**, 58°.90N**±0°.05×**158°.75E**±0°.04**, h10^{km}, n15, σ1s56**/19**, Kamchatka Peninsula**

```
Code  Station Name       Δ°   AZ°    Phase ID              Time      Res
                                  Op           ISC     h  m  s     ISC
PALN  Palana            0.66  73  eP           Pb      02 11 16.2 -1.1
PALN                              eS           Sg      02 11 25.0  0.0
TIGL  Tigil             1.14 182  eP           Pn      02 11 25.0 -0.7
TIGL                              eS           Sb      02 11 39.9 -0.4
OSSR  Ossora            2.25  79  eP           Pn      02 11 41.5 +0.5
SRDR  Sredinnyy         2.64 168  eP           Pn      02 11 48.8 +2.3
SRDR                              eS           Sb      02 12 23.1 -0.6
ESO   Esso              2.98 180  eP           Pn      02 11 51.9 +0.8
KPT   Kopyto            3.05 164  eP           Pn      02 11 55.0 +3.0
BZWR  Bezymyannyi-We    3.09 161  eP           Pn      02 11 55.2 +2.5
ZLN   Zelenaya          3.10 158  eP           Pb      02 11 57.2 -1.8
BZGR  Bezymyannyi-Gr    3.15 160  eP           Pn      02 11 55.3 +1.8
GADL  Gadlja            3.89 285  eSg          Sg      02 13 09.1 +0.7
GADL                               Sgmax               02 13 23.2
      270nm,0.7s
GADL                              e                    02 13 31.2
TLAR  Talaya            3.89 308  eP           Pb      02 12 10.8 -1.6
TLAR                               Pmax                02 12 11.1
TLAR                              ePg          Pg      02 12 19.2 +1.0
TLAR                               Pgmax               02 12 24.0
      10.0nm,0.8s
TLAR                              eSg          Sg      02 13 08.9 +0.4
TLAR                               Sgmax               02 13 16.5
      80nm,0.6s
MA2   Magadan           4.15 283  eSg          Sg      02 13 15.6 -1.3
MA2                                Sgmax               02 13 29.9
      40nm,0.7s
MGD   Magadan 1         4.25 289  eSg          Sg      02 13 21.5 +1.6
MGD                                Sgmax               02 13 35.3
      60nm,0.4s
SEY   Seymchan          5.10 325  ePg          Pg      02 12 45.6 +4.4
SEY                                Pgmax               02 12 54.5
SEY                               eSg          Sg      02 13 47.4 +0.2
SEY                                Sgmax               02 14 05.1
      10.0nm,1.0s
SUUS  Susuman           6.47 311  eSg          Sg      02 14 32.3 +1.3
SUUS                               Sgmax               02 14 50.4
      20nm,0.8s
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*NEIC **01** 02:25:48.5±1.9, 42°.39N±0°.03×118°.51W±0°.05, h10^{km}±2^{km},* *ML3.3/154, ML3.5/16(SEA), Error ellipse: s-maj=5.8km s-min=5.6km az=297.0*

SEA ***01*** *02:25:49.1±2.1, 42°.37N±0°.01×118°.44W±0°.03, h8^{km}±8^{km}, Error ellipse: s-maj=3.2km s-min=2.0km az=75.0*

IDC ***01*** *02:25:50.0±1.0, 42°.37N×118°.61W, h0^{km}, mbtmp2.9/5, ML3.1/5, Error ellipse: s-maj=10.4km s-min=9.8km az=78.0*

ISC 01 02:25:49.4±1.0, **42°.41N**±0°.03×**118°.52W**±0°.03, **h8**^{km}±8^{km}, **n69**, σ**1^{s}.27**/43, **Oregon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WVOR	**Wild Horse Val**	**0.09**	**284**	Pg	**Pg**	**02 25 52.5**	**+0.7**
WVOR				Sg	**Sg**	**02 25 53.8**	**+0.3**
J08A	**Circle Bar Ran**	**0.95**	**2**		**Pg**	**02 26 06.6**	**-1.0**
J08A				Sg	**Sg**	**02 26 20.2**	**+0.3**
J08A				IAML		02 26 24.4	
	comp=N,1µm,0.7s						
JORV	**Jorden Valley**	**1.22**	**62**		**Pg**	**02 26 12.8**	**+0.1**
BURN	**Burns**	**1.25**	**339**		**Pn**	**02 26 13.0**	**-0.2**
LKVW	**Lakeview**	**1.38**	**263**		**Pg**	**02 26 15.5**	**-0.3**
MOD	**Modoc Plateau**	**1.42**	**250**		**Pb**	**02 26 16.0**	**-0.2**
MOD				IAML		02 26 39.7	
	comp=N,615nm,0.8s						
MOD	**Modoc Plateau**	**1.42**	**250**		**Sg**	**02 26 36.9**	**+1.8**
K05A	**Summer Lake**	**1.78**	**281**		**Sg**	**02 26 46.7**	**0.0**
K05A	**Summer Lake**	**1.78**	**281**	Pn	**Pn**	**02 26 20.8**	**+0.2**
K05A	**Summer Lake**	**1.78**	**281**	IAML		02 26 48.7	
	comp=E,200nm,0.8s						
K05A				IAML		02 26 53.6	
	comp=N,221nm,1.1s						
J05D	**Fort Rock, OR**	**2.18**	**295**		**Sg**	**02 27 00.3**	**+0.8**
J05D	**Fort Rock, OR**	**2.18**	**295**		**Pn**	**02 26 26.3**	**+0.2**
J05D	**Fort Rock, OR**	**2.18**	**295**	IAML		02 27 02.1	
	comp=N,169nm,0.6s						
J05D				IAML		02 27 11.2	
	comp=E,203nm,1.6s						
BMN	**Battle Mountai**	**2.21**	**153**		**Pb**	**02 26 27.3**	**-2.3**
MFID	**Camas Ranch**	**2.22**	**62**		**Pn**	**02 26 27.6**	**+1.1**
PINE	**Pine Mountain**	**2.25**	**309**		**Sg**	**02 27 01.7**	**+0.1**
PINE	**Pine Mountain**	**2.25**	**309**		**Pn**	**02 26 27.6**	**+0.6**
PINE	**Pine Mountain**	**2.25**	**309**	IAML		02 27 11.8	
	comp=E,157nm,0.8s						
PINE				IAML		02 27 11.8	
	comp=N,190nm,1.3s						
TMBU	**Tom Butte, New**	**2.27**	**303**		**Pn**	**02 26 28.2**	**+1.0**
SVIC	**Surveyors Ice**	**2.35**	**302**		**Pn**	**02 26 29.3**	**+0.8**
HOG	**Hogback Mounta**	**2.37**	**267**		**Pn**	**02 26 29.3**	**+0.6**
K04D	**Chiloquin, OR**	**2.40**	**276**		**Pn**	**02 26 28.6**	**-0.5**
LASM	**Arnica Sink**	**2.42**	**251**		**Pn**	**02 26 29.6**	**+0.2**
M04C	**Macdoel**	**2.55**	**257**		**Pn**	**02 26 31.3**	**+0.2**
BMO	**Blue Mountains**	**2.59**	**19**		**Pn**	**02 26 31.4**	**-0.3**
HATC	**Hat Creek Radi**	**2.72**	**235**		**Pn**	**02 26 32.7**	**-0.8**
HATC				IAML		02 26 50.6	
	comp=E,162nm,0.6s						
HATC				IAML		02 27 33.0	
	comp=N,128nm,1.4s						
J04A	**Umpqua Nationa**	**2.77**	**289**		**Pn**	**02 26 34.1**	**-0.1**
PAHR	**Pah Rah Range**	**2.78**	**194**		**Pn**	**02 26 35.1**	**+0.8**
PAHR				IAML		02 27 25.1	
	comp=E,76nm,0.8s						
L04D	**Klamath Falls**	**2.82**	**267**		**Pn**	**02 26 34.5**	**-0.3**
L04D				IAML		02 27 24.7	
	comp=E,89nm,1.4s						
I05D	**Terrebonne, OR**	**2.82**	**314**	Pn	**Pn**	**02 26 33.8**	**-0.9**
I05D				IAML		02 27 27.7	
	comp=E,107nm,1.2s						
I05D				IAML		02 27 33.9	
	comp=N,96nm,1.6s						
G08A	**Pilot Rock**	**2.90**	**354**	Pn	**Pn**	**02 26 35.3**	**-0.5**
BEKR	**Beckworth**	**2.90**	**209**		**Pn**	**02 26 36.4**	**+0.5**
WIFE	**Three Sisters-**	**2.92**	**305**		**Pn**	**02 26 35.9**	**-0.4**
WIFE				IAML		02 27 36.5	
	comp=N,63nm,2.1s						
WIFE				IAML		02 27 52.5	
	comp=E,72nm,1.6s						
M03C	**McCloud**	**2.92**	**248**		**Pn**	**02 26 35.9**	**-0.3**
M03C				IAML		02 27 08.4	
	comp=N,76nm,0.9s						
M03C				IAML		02 27 28.6	
	comp=E,105nm,1.0s						
ELK	**Elko**	**2.97**	**123**	Pg	**Pb**	**02 26 42.0**	**-0.7**
	comp=E,7.2nm,0.3s,baz=308,slow=16,SNR=113						
ELK				Lg	Lg	02 27 22.0	
	comp=E,3.8nm,0.3s,baz=4.6,slow=3.0,SNR=5.0						
ELK	**Elko**	**2.97**	**123**		**Pn**	**02 26 36.0**	**-1.0**
ELK				IAML		02 27 23.2	
	comp=E,105nm,0.6s						
ELK				IAML		02 27 24.4	
	comp=E,123nm,0.6s						
HUOR	**Husband**	**2.97**	**306**		**Pn**	**02 26 38.2**	**+1.3**
YBH	**Yreka Blue Hor**	**3.19**	**259**	Pn	**Pn**	**02 26 39.8**	**-0.1**
	comp=E,0.4nm,0.3s,baz=72,slow=13,SNR=9.4						
YBH				Pg	**Pg**	**02 26 48.9**	**-1.7**
	comp=E,2.4nm,0.3s,baz=50,slow=16,SNR=32						
YBH				Lg	Lg	02 27 32.0	
	comp=E,1.5nm,0.3s,baz=149,slow=11,SNR=3.3						
	comp=E,5.4nm,0.8s						
YBH				AML	AML		
PLID	**Pearl Lake**	**3.24**	**33**	IAML		02 27 45.2	
	comp=E,56nm,1.1s						
MPK	**Martis Peak**	**3.32**	**201**	IAML		02 27 45.9	
	comp=N,92nm,0.7s						
MPK				IAML		02 27 55.4	
	comp=E,85nm,0.9s						
KVN	**Kaiserville**	**3.37**	**174**	IAML		02 27 41.1	
	comp=N,61nm,0.7s						
KVN				IAML		02 27 42.5	
	comp=E,44nm,1.0s						
LNOR	**Lincton Mounta**	**3.46**	**3**	IAML		02 27 51.4	
	comp=E,40nm,1.9s						
YERR	**Yerington**	**3.47**	**189**	IAML		02 27 43.8	
	comp=N,94nm,0.8s						
G05A	**Wamic**	**3.48**	**325**	IAML		02 27 53.2	
	comp=N,57nm,3.1s						
G05A				IAML		02 28 01.9	
	comp=E,51nm,2.5s						
H04A	**Detroit Lake**	**3.50**	**312**	IAML		02 27 48.3	
	comp=E,36nm,1.2s						
F07A	**Phinny Hill Vi**	**3.63**	**344**	IAML		02 28 03.6	
	comp=E,44nm,1.1s						
YPT	**Yellepit**	**3.65**	**355**	IAML		02 27 52.0	
	comp=E,53nm,0.9s						
YPT				IAML		02 27 59.5	
	comp=N,41nm,0.8s						
F10A	**Beach Ranch, E**	**3.68**	**14**	IAML		02 28 01.3	
	comp=N,61nm,1.2s						
F10A				IAML		02 28 16.0	
	comp=E,47nm,1.4s						
HOOD	**Mount Hood Mea**	**3.69**	**323**	IAML		02 28 01.6	
	comp=N,64nm,1.0s						
HOOD				IAML		02 28 03.8	
	comp=E,49nm,1.5s						
BUCK	**Buck Mountain**	**3.72**	**300**	IAML		02 27 15.9	
	comp=N,41nm,3.1s						
BUCK				IAML		02 27 16.3	
	comp=E,39nm,2.9s						
H04D	**Lebanon**	**3.73**	**306**	IAML		02 27 57.3	
	comp=E,60nm,2.8s						
H04D				IAML		02 28 07.6	
	comp=N,65nm,1.6s						
I03D	**Drain, OR**	**3.77**	**292**	IAML		02 28 01.9	
	comp=N,35nm,2.2s						
I03D				IAML		02 28 04.1	
	comp=E,30nm,2.5s						
O02D	**Mt. Diablo Mer**	**3.92**	**237**	IAML		02 27 25.5	
	comp=E,32nm,3.2s						
KHBM	**Hayfork Bally**	**3.94**	**245**	IAML		02 27 24.6	
	comp=N,30nm,4.0s						
WAKR	**Walker**	**3.97**	**190**	IAML		02 28 00.2	
	comp=N,33nm,0.7s						
NVAR	**Mina Array Bea**	**3.98**	**178**	Pn	**Pn**	**02 26 52.2**	**+1.4**
	comp=N,0.9nm,0.3s,baz=355,slow=14,SNR=18						
NVAR				Pg	**Pg**	**02 27 03.5**	**-2.1**
	comp=N,2.6nm,0.3s,baz=357,slow=14,SNR=15						
NVAR				Lg	Lg	02 27 55.5	
	comp=N,10.0nm,0.3s,baz=354,slow=33,SNR=8.8						
	comp=N,2.2nm,0.6s						
NVAR				AML	AML		
NV11	**Mina Array Sit**	**3.98**	**176**	IAML		02 28 02.4	
	comp=E,45nm,1.8s						
NV11				IAML		02 28 11.4	
	comp=N,39nm,1.4s						
KSXB	**Camp Six Broad**	**4.03**	**264**	IAML		02 28 04.7	
	comp=N,40nm,3.3s						
KSXB				IAML		02 28 24.9	
	comp=E,47nm,3.8s						
SUTB	**Sutter Butte**	**4.03**	**219**	IAML		02 27 21.8	
	comp=E,55nm,0.7s						
SUTB				IAML		02 28 24.3	
	comp=N,37nm,1.7s						
HAWA	**Hanford**	**4.05**	**350**	IAML		02 28 12.5	
	comp=N,40nm,1.2s						
HAWA				IAML		02 28 25.1	
	comp=N,24nm,1.2s						
E08A	**Dider Farm, El**	**4.10**	**355**	IAML		02 28 27.0	
	comp=E,25nm,1.3s						
COR	**Corvallis**	**4.10**	**304**	IAML		02 28 11.0	
	comp=E,45nm,3.1s						
COR				IAML		02 28 48.9	
	comp=E,40nm,1.8s						
KHMM	**Horse Mountain**	**4.20**	**250**	IAML		02 27 34.7	
	comp=N,52nm,3.1s						
KHMM				IAML		02 28 54.9	
	comp=E,52nm,3.0s						
E07A	**Sunnyside**	**4.25**	**347**	IAML		02 28 19.8	
	comp=E,32nm,1.0s						
E07A				IAML		02 28 26.2	
	comp=N,37nm,1.0s						
MXC	**Moxie City**	**4.35**	**344**	IAML		02 28 16.2	
	comp=E,29nm,1.1s						
G03D	**McMinnville, O**	**4.43**	**311**	IAML		02 28 22.3	
	comp=N,38nm,1.6s						
NEW	**Newport**	**5.94**	**9**	Pn	**Pn**	**02 27 21.4**	**+3.9**
	comp=N,0.2nm,0.3s,baz=197,slow=12,SNR=2.2						
NEW				Pg	**Pg**	**02 27 40.0**	**-2.9**
	comp=N,0.2nm,0.3s,baz=192,slow=13,SNR=4.2						
NEW				Lg	Lg	02 28 57.8	
	comp=N,0.2nm,0.3s,baz=114,slow=20,SNR=4.7						
	comp=N,0.5nm,0.3s						
NEW				AML	AML		
PDAR	**Pinedale Array**	**6.62**	**84**	Pn	Pn	02 27 34.0	+6.8
	comp=N,0.1nm,0.3s,baz=265,slow=13,SNR=11						
	comp=N,1.9nm,0.9s						
PDAR				AML	AML		
TXAR	**Lajitas Array**	**17.72**	**133**	P	**P**	**02 30 00.4**	**+3.0**
	baz=328,slow=14,SNR=2.2						
	comp=N,0.2nm,0.7s						

DJA 01 02:32:49.8±1.1, **9°S**±5°×**12°4E**±°, **h75**^{km}±9^{km}, **M3.9**/9, **mb4.3**/2, **MLv3.7**/9, **Timor region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SOEI	**Soe**	**0.77**	**170**	P	Pn	02 33 07.5	+1.4
SOEI				S	Sn	02 33 19.6	+1.5
SOEI				AML	AML		
MMRI	**Maumere**	**1.90**	**281**	P	Pn	02 33 20.2	-0.1
MMRI				AML	AML		
EDFI	**Ende, Flores**	**2.42**	**275**	P	Pn	02 33 27.5	+0.1
EDFI				AML	AML		
WSI	**Waingapu**	**3.84**	**260**	P	Pn	02 33 45.9	-0.7
DBNI	**Kabupaten Domp**	**5.77**	**274**	P	Pn	02 34 12.6	-0.3
	0.1nm24nm,1.1s						
DBNI				AML	AML		
PLAI	**Plampang**	**6.28**	**271**	P	Pn	02 34 20.0	+0.1
PLAI				AML	AML		

IDC ***01*** *02:56:46.1±2.3, 36°.17N×71°.02E, h94^{km}±21^{km}, mb3.9/26, mbtmp4.3/31, MS3.2/2, Error ellipse: s-maj=13.4km s-min=10.5km az=41.0*

NNC ***01*** *02:56:48.9±1.8, 36°.82N×70°.54E, h0^{km}, mb4.9, mpv4.9, Error ellipse: s-maj=15.6km s-min=11.5km az=9.0*

MOS ***01*** *02:56:48.5±1.1, 36°.34N×70°.99E, h124^{km}, mb4.5/25, Error ellipse: s-maj=7.3km s-min=3.9km az=88.2*

NEIC ***01*** *02:56:49.6±1.9, 36°.37N±0°.06×71°.08E±0°.08, h128^{km}±6^{km}, mb4.4/19, Error ellipse: s-maj=10.4km s-min=7.0km az=119.0*

GFZ ***01*** *02:56:51.5±0.3, 36°N±3°×7°1E±°, h124^{km}±4^{km}, M4.4/19, mb4.4/19, confirmed*

ISC 01 02:56:51.0±0.4, **36°.45N**±0°.04×**70°.97E**±0°.04, **h150**^{km}, **n215**, σ**1^{s}.98**/202, **mb4.3**/48, **11C-5D**, **Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBL	**Kabul**	**2.47**	**220**	Pn	**Pn**	**02 57 30.3**	**-1.7**
KBL				Sn	**Sn**	**02 58 00.6**	**-3.0**
KBL	**Kabul**	**2.47**	**220**	P	**Pn**	**02 57 30.9**	**-1.1**
DRK	**Karamyk**	**3.10**	**12**	PN	**Pn**	**02 57 40.0**	**+0.2**
DRK	**Karamyk**	**3.10**	**12**		**Pn**	**02 57 40.0**	**+0.2**
DRK	**Karamyk**	**3.10**	**12**	P	**Pn**	**02 57 40.8**	**+0.9**
NIL	**Nilore**	**3.36**	**146**	PN	**Pn**	**02 57 40.6**	**-2.4**
NIL	**Nilore**	**3.36**	**146**	Pn	**Pn**	**02 57 40.6**	**-2.4**
NIL	**Nilore**	**3.36**	**146**	P	**Pn**	**02 57 42.0**	**-1.1**
BTK	**Batken**	**3.60**	**358**	PN	**Pn**	**02 57 46.6**	**+0.4**
BTK	**Batken**	**3.60**	**358**		**Pn**	**02 57 46.5**	**+0.4**
BTK	**Batken**	**3.60**	**358**	P	**Pn**	**02 57 47.3**	**+1.1**
OHH	**Osh**	**4.31**	**19**	P	**Pn**	**02 57 55.4**	**0.0**
KSH2	**Kashi**	**4.53**	**52**	Pn	**Pn**	**02 58 00.6**	**+2.3**
KSH2				Sn	**Sn**	**02 58 50.9**	**+0.3**
KSH2				smax	smax		
	comp=N,2µm,1.0s						
KSH2				smax	smax		
	comp=E,1µm,1.1s						
ARK	**Arkit**	**5.40**	**8**	P	**Pn**	**02 58 09.1**	**-0.6**
	comp=Z,85nm,0.5s						
IUG	**Iuzhnay**	**5.74**	**353**	*e*PN	**Pn**	**02 58 14.3**	**+0.1**
IUG	**Iuzhnay**	**5.74**	**353**	*e*P	**Pn**	**02 58 14.4**	**+0.1**
CHM	**Chimkent**	**5.96**	**350**	*e*PN	**Pn**	**02 58 17.8**	**+0.7**
CHM				*e*S	**Sn**	**02 59 25.5**	**+1.1**
CHM	**Chimkent**	**5.96**	**350**	*e*P	**Pn**	**02 58 17.9**	**+0.7**
CHM				*e*S	**Sn**	**02 59 25.6**	**+1.1**
ASAI	**AK-SAY(Kyrgyzs**	**6.22**	**43**	P	**Pn**	**02 58 21.0**	**+0.1**
	comp=Z,23nm,0.6s						
UCH	**Uchtor**	**6.39**	**24**	P	**Pn**	**02 58 23.2**	**-0.1**
	SNR=17						
DZA	**Taraz**	**6.44**	**2**	*e*PN	**Pn**	**02 58 23.8**	**+0.3**
DZA	**Taraz**	**6.44**	**2**	*e*P	**Pn**	**02 58 23.9**	**+0.4**
DZA				*e*S	**Sn**	**02 59 36.7**	**+0.7**
EKS2	**Erkin-Say**	**6.57**	**18**	P	**Pn**	**02 58 25.3**	**-0.1**
	SNR=62						
BRLS	**Borolday**	**6.63**	**353**	*e*PN	**Pn**	**02 58 22.7**	**-3.3**
BRLS	**Borolday**	**6.63**	**353**	*e*P	**Pn**	**02 58 22.8**	**-3.3**
BRLS				*e*S	**Sn**	**02 59 35.2**	**-5.4**
KK31	**Karatay Array**	**6.66**	**357**	P	**Pn**	**02 58 23.6**	**-2.8**
	comp=Z,117nm,0.6s,baz=186,slow=16,SNR=886						
KK31				⇑S	**Sn**	**02 59 36.4**	**-4.8**
	comp=Z,45nm,0.3s,baz=187,slow=24,SNR=11						
KK31	**Karatay Array**	**6.66**	**357**	PN	**Pn**	**02 58 25.8**	**-0.6**
KK31	**Karatay Array**	**6.66**	**357**		**Pn**	**02 58 25.8**	**-0.6**
KKAR	**Karatay Array**	**6.66**	**357**	PN	**Pn**	**02 58 25.9**	**-0.5**
KKAR	**Karatay Array**	**6.66**	**357**		**Pn**	**02 58 25.9**	**-0.5**
AAK	**Ala-Archa**	**6.75**	**23**	P	**Pn**	**02 58 27.3**	**-0.5**
	comp=Z,42nm,0.5s,baz=215,slow=6.4,SNR=27						
AAK				S	**Sn**	**02 59 41.4**	**-2.3**
	comp=Z,68nm,0.6s,baz=162,slow=20,SNR=8.3						
AAK				LR	LR	03 01 11.5	
	comp=Z,101nm,21.3s,baz=306,slow=38						
AAK	**Ala-Archa**	**6.75**	**23**	P	**Pn**	**02 58 28.1**	**+0.3**
	SNR=56						
AAK	**Ala-Archa**	**6.75**	**23**	⇓P	**Pn**	**02 58 27.9**	**+0.1**
	comp=Z,46nm,0.8s						
AAK				⇑S	**Sn**	**02 59 43.4**	**-0.3**
	comp=Z,119nm,0.7s						
AAK	**Ala-Archa**	**6.75**	**23**	*i* PN	**Pn**	**02 58 27.8**	**0.0**
AAK	**Ala-Archa**	**6.75**	**23**		**Pn**	**02 58 26.9**	**-0.9**
AAK					**Sn**	**02 59 41.2**	**-2.5**
AAK	**Ala-Archa**	**6.75**	**23**	P	**Pn**	**02 58 27.9**	**+0.1**
	comp=Z,90nm,0.8s						
KBK	**Karagaybulak**	**6.92**	**25**	P	Pn	02 58 33.5	+3.5
	SNR=26						
ULHL	**Ulahol**	**7.08**	**34**	P	Pn	02 58 36.4	+4.1
	SNR=5.8						
BOOM	**Boomskoye usch**	**7.15**	**31**	PN	**Pn**	**02 58 32.3**	**-0.9**
BOOM	**Boomskoye usch**	**7.15**	**31**		**Pn**	**02 58 32.3**	**-0.9**
BOOM	**Boomskoye usch**	**7.15**	**31**	P	**Pn**	**02 58 33.8**	**+0.6**
	comp=Z,53nm,0.7s						
CHMS	**Chumysh**	**7.16**	**23**	P	**Pn**	**02 58 34.1**	**+1.0**
	SNR=7.7						
USP	**Ospenovka**	**7.33**	**21**	P	**Pn**	**02 58 35.6**	**+0.2**
	SNR=23						
TKM2	**Tokmak 2**	**7.38**	**27**	P	**Pn**	**02 58 38.9**	**+2.6**
	SNR=10						
HRA	**Herat**	**7.42**	**256**	Pn	**Pn**	**02 58 34.0**	**-2.8**
KDJ	**Kajisay**	**7.44**	**38**	PN	**Pn**	**02 58 35.6**	**-1.4**
KDJ	**Kajisay**	**7.44**	**38**		**Pn**	**02 58 35.6**	**-1.4**
KDJ	**Kajisay**	**7.44**	**38**	P	**Pn**	**02 58 37.4**	**+0.4**
	comp=Z,18nm,0.7s						
TARG	**Taragay, Kyrgy**	**7.48**	**43**	PN	**Pn**	**02 58 36.8**	**-1.0**
TARG	**Taragay, Kyrgy**	**7.48**	**43**	Pn	**Pn**	**02 58 36.8**	**-1.0**
TARG	**Taragay, Kyrgy**	**7.48**	**43**	P	**Pn**	**02 58 38.1**	**+0.3**
	comp=Z,29nm,0.8s						
SGDS	**Sogindy**	**7.54**	**21**	*e*P	**Pn**	**02 58 38.7**	**+0.5**
WUS	**Wushi**	**7.99**	**51**		**Pn**	**02 58 42.7**	**-1.7**
WUS	**Wushi**	**7.99**	**51**	P	**Pn**	**02 58 45.1**	**+0.7**
	comp=Z,40nm,0.8s						
TNSS	**Tian-Shan**	**8.03**	**33**	*e*PN	**Pn**	**02 58 45.4**	**+0.3**
TNSS	**Tian-Shan**	**8.03**	**33**	*e*P	**Pn**	**02 58 45.4**	**+0.3**
AAA	**Alma-Ata**	**8.15**	**32**	*e*PN	**Pn**	**02 58 47.2**	**+0.8**
AAA	**Alma-Ata**	**8.15**	**32**	*e*P	**Pn**	**02 58 47.2**	**+0.8**
MDOK	**Medeo**	**8.17**	**33**	*e*PN	**Pn**	**02 58 47.3**	**+0.6**
MDOK	**Medeo**	**8.17**	**33**	*e*P	**Pn**	**02 58 47.4**	**+0.6**
MDOK				*e*S	**Sn**	**03 00 18.8**	**+1.0**
PRZ	**Przheval'sk**	**8.32**	**41**	PN	**Pn**	**02 58 46.1**	**-2.7**
PRZ	**Przheval'sk**	**8.32**	**41**		**Pn**	**02 58 46.1**	**-2.7**
PRZ	**Przheval'sk**	**8.32**	**41**	P	**Pn**	**02 58 49.4**	**+0.5**
	comp=Z,86nm,0.9s						
SATY	**Saty**	**8.73**	**39**	*e*PN	**Pn**	**02 58 54.7**	**+0.5**
SATY	**Saty**	**8.73**	**39**	*e*P	**Pn**	**02 58 54.8**	**+0.5**
SATY				*e*S	**Sn**	**03 00 32.4**	**+1.1**
BTLS	**Baital**	**8.89**	**14**	*e*PN	**Pn**	**02 58 57.2**	**+1.0**
BTLS	**Baital**	**8.89**	**14**	*e*P	**Pn**	**02 58 57.2**	**+1.0**
UZB	**Uzynbulak**	**9.11**	**40**	*e*P	**Pn**	**02 58 59.9**	**+0.6**
UZB	**Uzynbulak**	**9.11**	**40**	*e*P	**Pn**	**02 58 60.0**	**+0.6**
SHLS	**Shalkode**	**9.35**	**42**	*e*P	Pn	02 59 06.2	+3.7
SHLS	**Shalkode**	**9.35**	**42**	*e*P	Pn	02 59 06.3	+3.8
PDGK	**Podgornoye**	**9.49**	**41**	⇓P	**Pn**	**02 59 05.2**	**+0.9**
	comp=Z,18nm,1.1s						
PDGK				⇑S	**Sn**	**03 00 54.5**	**+5.1**
	comp=Z,48nm,1.0s						
PDGK	**Podgornoye**	**9.49**	**41**	P	**Pn**	**02 59 02.8**	**-1.4**
PDGK	**Podgornoye**	**9.49**	**41**		**Pn**	**02 59 02.8**	**-1.4**
TDK	**Taldyqorghan**	**10.23**	**31**	*e*P	**Pn**	**02 59 14.9**	**+0.9**
TDK	**Taldyqorghan**	**10.23**	**31**	*e*P	**Pn**	**02 59 14.9**	**+0.9**
MAKZ	**Makanchi**	**13.21**	**35**	⇑P	**P**	**02 59 55.1**	**-2.1**
	comp=Z,13nm,1.3s						
MAKZ	**Makanchi**	**13.21**	**35**	P	**Pn**	**02 59 51.3**	**-1.5**
MAKZ	**Makanchi**	**13.21**	**35**	Pn	**Pn**	**02 59 51.3**	**-1.5**
MAKZ	**Makanchi**	**13.21**	**35**	P	**P**	**02 59 53.4**	**-3.9**
	comp=Z,10nm,1.0s						
MK31	**Makanchi Array**	**13.35**	**36**	⇓P	**P**	**02 59 58.1**	**-0.7**
	comp=Z,4.4nm,0.7s,baz=217,slow=15,SNR=52						
MK31	**Makanchi Array**	**13.35**	**36**	*c i*P	**P**	**02 59 56.2**	**-2.5**
MKAR	**Makanchi Array**	**13.35**	**36**	P	**Pn**	**02 59 54.6**	**+0.2**
	comp=Z,12nm,0.8s,baz=219,slow=13,SNR=52						
MKAR	**Makanchi Array**	**13.35**	**36**	*i* P	**P**	**02 59 57.2**	**-1.5**
MKAR				pmax	pmax		
	comp=Z,12nm,0.8s						
MKAR	**Makanchi Array**	**13.35**	**36**		**Pn**	**02 59 53.5**	**-1.0**
AB31	**Akbulak array**	**15.12**	**331**	⇑P	**P**	**03 00 16.9**	**-1.4**
	comp=Z,18nm,0.6s,baz=141,slow=10,SNR=294						
AB31				⇑S	**Sn**	**03 03 00.2**	**-4.4**
	comp=Z,8.3nm,0.5s,baz=149,slow=23,SNR=10						
AB31	**Akbulak array**	**15.12**	**331**	P	**P**	**03 00 16.9**	**-1.4**
AB31				S	**Sn**	**03 03 00.2**	**-4.4**
AB31	**Akbulak array**	**15.12**	**331**		**P**	**03 00 15.8**	**-2.5**
ABKAR	**Akbulak array**	**15.12**	**331**	P	**P**	**03 00 16.8**	**-1.6**
KURBB	**Kurchatov Arra**	**15.18**	**19**	P	**P**	**03 00 16.3**	**-2.6**
	comp=Z,2.5nm,0.7s,baz=209,slow=12,SNR=16						
KURK	**Kurchatov**	**15.29**	**19**	*i* P	**P**	**03 00 22.3**	**+2.1**
KURK	**Kurchatov**	**15.29**	**19**		**Pn**	**03 00 17.1**	**-1.7**
KURK	**Kurchatov**	**15.29**	**19**	P	**P**	**03 00 18.5**	**-1.7**
	comp=Z,16nm,1.0s						
EVN	**Everest**	**15.85**	**118**	Pn	**Pn**	**03 00 23.3**	**-3.2**
EVN				IAmb	IAmb	03 00 39.7	
	comp=Z,12nm,0.7s						
EVN	**Everest**	**15.85**	**118**	P	**Pn**	**03 00 23.9**	**-2.6**
	comp=Z,16nm,0.8s						
BVAR	**Borovoye Array**	**16.58**	**359**	P	**Pn**	**03 00 35.0**	**+0.4**
	comp=Z,21nm,0.8s,baz=179,slow=12,SNR=48						
BVAR				S	**S**	**03 03 30.5**	**-8.2**
	comp=Z,1.4nm,0.5s,baz=168,slow=24,SNR=2.0						
BVAR	**Borovoye Array**	**16.58**	**359**	P	**Pn**	**03 00 35.0**	**+0.4**
BORK	**Borovoye**	**16.60**	**359**	*c i*P	**Pn**	**03 00 36.1**	**+1.3**
BORK				pmax	pmax		
	comp=Z,41nm,1.4s						
BORK	**Borovoye**	**16.60**	**359**		**Pn**	**03 00 34.5**	**-0.3**
AKTO	**Aktyubinsk**	**16.81**	**330**	P	**Pn**	**03 00 38.2**	**+0.7**
	comp=Z,58nm,0.8s,baz=126,slow=11,SNR=55						
AKTO				S	**S**	**03 03 36.8**	**-7.4**
	comp=Z,16nm,0.7s,baz=116,slow=17,SNR=4.2						
AKTO	**Aktyubinsk**	**16.81**	**330**	⇑P	**Pn**	**03 00 39.1**	**+1.7**
	comp=Z,38nm,0.8s						
AKTO				⇑S	**S**	**03 03 41.5**	**-2.7**
	comp=Z,9.6nm,0.6s						
UOSS	**Minazif**	**17.09**	**232**	P	**P**	**03 00 38.0**	**-2.3**
UOSS				IAmb	IAmb	03 00 44.5	
	comp=Z,9.4nm,0.7s						
UOSS	**Minazif**	**17.09**	**232**	P	**Pn**	**03 00 42.6**	**+1.6**
	comp=Z,17nm,1.2s						
ZAA0	**Zalesovo Array**	**19.97**	**24**	P	**P**	**03 01 10.8**	**-0.6**
ZALV	**Zalesovo Beam**	**19.97**	**24**	P	**Pn**	**03 01 13.4**	**-1.2**
	comp=Z,14nm,0.5s,baz=220,slow=11,SNR=41						
ZALV				S	**S**	**03 04 50.2**	**+2.7**
	comp=Z,0.5nm,0.4s,baz=205,slow=16,SNR=1.3						
	comp=Z,14nm,0.5s						
ZALV	**Zalesovo Beam**	**19.97**	**24**	*i* P	**Pn**	**03 01 13.6**	**-1.0**
ZALV				pmax	pmax		
	comp=Z,14nm,0.5s						
ZALV	**Zalesovo Beam**	**19.97**	**24**	P	**Pn**	**03 01 11.4**	**-3.2**
ZALV					**S**	**03 04 49.5**	**+1.9**
GNI	**Garni**	**20.89**	**288**	P	Pn	03 01 22.3	-3.7
	comp=Z,3.0nm,0.4s,baz=180,slow=21,SNR=6.8						
	comp=Z,3.0nm,0.4s						
GNI	**Garni**	**20.89**	**288**	*i* P	Pn	03 01 24.2	-1.8
GNI				pmax	pmax		
	comp=Z,32nm,1.3s						
GNI	**Garni**	**20.89**	**288**	P	**P**	**03 01 19.4**	**-2.2**
GNI				IAmb	IAmb	03 01 32.2	
	comp=Z,26nm,1.1s						
GNI	**Garni**	**20.89**	**288**	P	Pn	03 01 25.8	-0.2
	comp=Z,25nm,1.3s						
GNI	**Garni**	**20.89**	**288**	P	Pn	03 01 27.2	+1.2
	comp=Z,25nm,1.3s						
SVE	**Sverdlovsk**	**21.54**	**344**	*e*P	**P**	**03 01 31.4**	**+3.3**
SVE				pmax	pmax		
	comp=Z,27nm,1.0s						
ARTI	**Arti**	**21.68**	**341**	P	**P**	**03 01 31.9**	**+2.2**
	comp=Z,18nm,0.9s,baz=155,slow=6.0,SNR=20						
ARTI				S	S	03 05 30.1	+10
	comp=Z,4.9nm,0.6s,baz=170,slow=19,SNR=4.3						
	comp=Z,18nm,0.9s						
ARTI	**Arti**	**21.68**	**341**	*d i*P	**P**	**03 01 32.3**	**+2.6**
ARTI						03 02 07.1	
ARTI				S	**S**	**03 05 24.6**	**+4.9**
ARTI				pmax	pmax		
	comp=Z,25nm,0.9s						
ARTI	**Arti**	**21.68**	**341**	P	**P**	**03 01 31.2**	**+1.5**
NCK	**Nalchik**	**22.07**	**297**	*i* P	**P**	**03 01 35.5**	**+1.7**
NCK				pmax	pmax		
	comp=Z,14nm,0.9s						
EPOS	**Posof**	**22.48**	**292**	P	P	03 01 43.9	+5.9
	comp=Z,8.4nm,1.5s						
PYA1	**Pyatigorsk**	**22.52**	**298**	*i* P	**P**	**03 01 40.3**	**+2.1**
KBZ	**Khabaz**	**22.60**	**297**	P	**P**	**03 01 40.2**	**+1.3**
	comp=Z,2.1nm,0.9s,baz=133,slow=9.0,SNR=5.4						
KBZ				S	S	03 05 50.9	+16
	comp=Z,1.4nm,0.8s,baz=149,slow=13,SNR=1.8						
	comp=Z,2.1nm,0.9s						
KBZ	**Khabaz**	**22.60**	**297**	*e*P	**P**	**03 01 39.9**	**+1.0**
KBZ				pmax	pmax		
	comp=Z,3.0nm,0.8s						
SHA1	**Shidzhatmaz**	**22.78**	**297**	⇑*i*P	**P**	**03 01 44.2**	**+3.4**
KVAR	**Kislovodsk Arr**	**22.79**	**298**	P	**P**	**03 01 41.9**	**+1.1**
	comp=Z,1.4nm,0.4s,baz=117,slow=14,SNR=1.7						
KVAR				S	S	03 05 54.2	+16
	comp=Z,5.1nm,0.7s,baz=148,slow=19,SNR=3.1						
	comp=Z,1.4nm,0.4s						
KIV	**Kislovodsk**	**22.79**	**298**	*e*P	**P**	**03 01 43.8**	**+3.0**
KIV				*e*S	**S**	**03 05 42.0**	**+3.6**
KIV				pmax	pmax		
	comp=Z,7.0nm,1.1s						
KIV	**Kislovodsk**	**22.79**	**298**	P	**P**	**03 01 44.0**	**+3.2**
	comp=Z,9.1nm,0.7s						
BELG	**Belogornoye**	**22.91**	**321**	P	**P**	**03 01 43.6**	**+2.0**
	comp=Z,34nm,0.8s,baz=74,slow=3.4,SNR=6.1						
	comp=Z,34nm,0.8s						
BELG	**Belogornoye**	**22.91**	**321**	*e*P	**P**	**03 01 43.2**	**+1.5**
BELG				pmax	pmax		
	comp=Z,6.0nm,0.9s						
SOC	**Sochi**	**24.87**	**296**	*e*P	**P**	**03 01 58.7**	**-0.9**
SOC				*e*		03 02 49.8	
SOC				*e*S	**S**	**03 06 10.5**	**-1.0**

RAYN	**Ar Rayn**	**25.46**	**247**	P	**P**	**03 02 06.0**	**+0.8**
RAYN				pmax	pmax		
	comp=Z,10.0nm,0.9s						
RAYN	**Ar Rayn**	**25.46**	**247**	P	**P**	**03 02 06.0**	**+0.8**
RAYN				IAmb	IAmb	03 02 08.3	
	comp=Z,9.9nm,0.8s						
RAYN	**Ar Rayn**	**25.46**	**247**	P	**P**	**03 02 06.5**	**+1.4**
	comp=Z,11nm,0.8s						
VRH	**Novokhopyorsk**	**25.53**	**314**	*e*P	**P**	**03 02 07.0**	**+1.5**
VRH				pmax	pmax		
	comp=Z,8.0nm,0.8s						
ARPR	**Arapgir-MALATY**	**25.86**	**286**	P	**P**	**03 02 07.8**	**-0.9**
	comp=Z,3.5nm,1.3s						
KIRV	**Kirov**	**26.28**	**334**	P	**P**	**03 02 14.5**	**+2.5**
	comp=Z,15nm,0.8s,baz=101,slow=5.2,SNR=8.5						
	comp=Z,15nm,0.8s						
VORD	**Divnogorie**	**26.86**	**313**	*e*P	**P**	**03 02 19.1**	**+1.7**
VORD				pmax	pmax		
	comp=Z,4.0nm,0.9s						
VSR	**Storozhevoye**	**27.02**	**313**	*e*P	**P**	**03 02 20.1**	**+1.2**
VSR				pmax	pmax		
	comp=Z,5.0nm,1.0s						
VORR	**Voronezh**	**27.16**	**314**	*e*P	**P**	**03 02 20.2**	**+0.1**
VORR				pmax	pmax		
	comp=Z,9.0nm,0.9s						
LPSR	**Galich'ya Gora**	**27.67**	**316**	*e*P	**P**	**03 02 25.2**	**+0.6**
LPSR				pmax	pmax		
	comp=Z,10.0nm,0.9s						
PZH	**PanZhiHua**	**27.95**	**102**	P	**P**	**03 02 22.8**	**-4.8**
SONM	**Songino Array**	**28.38**	**55**	P	**P**	**03 02 32.9**	**+1.7**
	comp=Z,1.1nm,0.7s,baz=258,slow=9.1,SNR=5.5						
	comp=Z,1.1nm,0.7s						
SONM	**Songino Array**	**28.38**	**55**	P	**P**	**03 02 31.1**	**-0.1**
KHAM	**Kharkiv**	**28.41**	**309**	P	P	03 02 34.4	+3.1
BR104	**Keskin Array S**	**29.43**	**288**	P	**P**	**03 02 42.5**	**+2.0**
	comp=Z,1.3nm,1.1s						
BR131	**Keskin Array S**	**29.43**	**288**	*i* P	P	03 02 43.3	+2.7
BRTR	**Keskin Array B**	**29.43**	**288**	P	P	03 02 43.5	+2.9
	comp=Z,1.0nm,0.7s,baz=102,slow=9.2,SNR=7.8						
	comp=Z,1.0nm,0.7s						
BRTR	**Keskin Array B**	**29.43**	**288**	*i* P	P	03 02 44.4	+3.8
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
BRTR	**Keskin Array B**	**29.43**	**288**	P	P	03 02 43.8	+3.3
BR106	**Keskin Array S**	**29.44**	**288**	P	P	03 02 43.4	+2.7
	comp=Z,1.5nm,0.7s						
OBN	**Obninsk**	**29.96**	**319**	⇓*e*P	P	03 02 48.2	+3.4
OBN				*e**PP	pP	03 03 19.0	+1.9
OBN				*e*		03 03 49.5	
OBN				pmax	pmax		
	comp=Z,10.0nm,1.1s						
CMAR	**Chiang Mai Arr**	**30.45**	**119**	P	**P**	**03 02 49.9**	**+0.3**
	comp=Z,1.0nm,0.3s,baz=302,slow=8.2,SNR=12						
	comp=Z,1.0nm,0.3s						
CMAR	**Chiang Mai Arr**	**30.45**	**119**	*i* P	**P**	**03 02 52.0**	**+2.4**
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
CMAR	**Chiang Mai Arr**	**30.45**	**119**	P	**P**	**03 02 49.0**	**-0.6**
KLMR	**Klimovskoe**	**31.51**	**331**	*e*P	**P**	**03 02 59.2**	**+0.8**
KLMR				*e**PP	**pP**	**03 03 30.1**	**-0.9**
KLMR				pmax	pmax		
	comp=Z,13nm,1.3s						
HHC	**Hu-ho-hao-te**	**31.80**	**69**	*e*P	**P**	**03 03 00.3**	**-1.1**
HHC				pmax	pmax		
	comp=Z,6.0nm,0.5s						
HHC				pmax	pmax		
	comp=Z,210nm,4.6s						
AK09	**Malin Array Si**	**32.91**	**309**	P	P	03 03 13.6	+2.9
AK10	**Malin Array Si**	**32.93**	**309**	P	P	03 03 13.9	+3.0
AK08	**Malin Array Si**	**32.93**	**309**	P	**P**	**03 03 13.0**	**+2.1**
AKASG	**Malin Array Be**	**32.96**	**309**	P	P	03 03 14.3	+3.1
	comp=Z,1.2nm,0.4s,baz=83,slow=7.0,SNR=20						
	comp=Z,1.2nm,0.4s						
AKASG	**Malin Array Be**	**32.96**	**309**	*i* P	P	03 03 14.0	+2.8
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.4s						
AKASG	**Malin Array Be**	**32.96**	**309**	P	**P**	**03 03 12.3**	**+1.2**
AKBB	**Malin Array Si**	**32.96**	**309**	*e*P	P	03 03 14.4	+3.2
AKBB				pmax	pmax		
	comp=Z,23nm,3.4s						
LUBAR	**Lubar, Ukraine**	**33.78**	**307**	P	**P**	**03 03 20.2**	**+1.9**
NRIK	**Noril'sk**	**34.18**	**10**	P	P	03 03 25.6	+4.1
	comp=Z,4.8nm,0.8s,baz=125,slow=5.2,SNR=2.2						
	comp=Z,4.8nm,0.8s						
NRIK	**Noril'sk**	**34.18**	**10**	*e*P	P	03 03 25.0	+3.5
NRIK				pmax	pmax		
	comp=Z,7.0nm,1.1s						
NRIK	**Noril'sk**	**34.18**	**10**	P	**P**	**03 03 23.4**	**+1.9**
NRIK				IAmb	IAmb	03 03 27.6	
	comp=Z,6.9nm,1.1s						
MLR	**Muntele Rosu**	**34.78**	**299**	P	P	03 03 30.8	+3.6
	comp=Z,7.7nm,1.0s						
MLR	**Muntele Rosu**	**34.78**	**299**	P	P	03 03 32.7	+5.5
	comp=Z,7.7nm,1.0s						
RNPP5	**Staryi Chortor**	**35.12**	**309**	P	**P**	**03 03 31.2**	**+1.3**
RNPP9	**Sopachiv**	**35.14**	**310**	P	**P**	**03 03 32.2**	**+2.2**
RNPP8	**Varash**	**35.16**	**309**	P	**P**	**03 03 31.0**	**+0.9**
NACGM	**Naroch**	**35.23**	**316**	*e*P	P	03 03 34.3	+3.5
	comp=Z,20nm,0.9s,baz=103						
HILR	**Hailar Array B**	**37.35**	**54**	LR	LR	03 22 30.8	
	comp=Z,70nm,21.1s,baz=65,slow=41						
FINES	**FINESS Array B**	**37.51**	**326**	P	P	03 03 53.0	+3.0
	comp=Z,3.8nm,0.7s,baz=122,slow=8.3,SNR=11						
	comp=Z,3.8nm,0.7s						
FINES	**FINESS Array B**	**37.51**	**326**	P	P	03 03 53.0	+3.0
FINES	**FINESS Array B**	**37.51**	**326**	P	**P**	**03 03 51.8**	**+1.8**
NJ2	**Nanjing**	**39.50**	**82**	*e*P	**P**	**03 04 03.8**	**-3.2**
NJ2				pmax	pmax		
	comp=Z,13nm,0.6s						
ARCES	**ARCESS Array B**	**41.18**	**338**	P	P	03 04 23.6	+3.3
	comp=Z,3.1nm,0.6s,baz=106,slow=6.8,SNR=12						
	comp=Z,3.1nm,0.6s						
ARCES	**ARCESS Array B**	**41.18**	**338**	P	**P**	**03 04 22.7**	**+2.4**
ARCES				pmax	pmax		
	comp=Z,17nm,1.3s						
ARCES	**ARCESS Array B**	**41.18**	**338**	P	**P**	**03 04 22.7**	**+2.4**
ARCES				IAmb	IAmb	03 04 33.9	
	comp=Z,17nm,1.3s						
BLEU	**Blekinge**	**41.59**	**316**	*i* P	P	03 04 26.9	+3.1
BSD	**Bornholm Skovb**	**42.03**	**315**	*i* P	P	03 04 29.9	+2.6
BSD				IAmb	IAmb	03 04 34.9	
	comp=Z,20nm,0.9s						
DEL	**Delary**	**42.68**	**317**	*i* P	P	03 04 35.8	+3.2
LUNU	**Lund**	**42.88**	**315**	*i* P	P	03 04 38.1	+3.9
GERES	**GERESS Array B**	**42.94**	**305**	P	**P**	**03 04 37.4**	**+2.4**
	comp=Z,0.4nm,0.8s,baz=83,slow=5.7,SNR=2.4						
	comp=Z,0.4nm,0.8s						
GERES	**GERESS Array B**	**42.94**	**305**	P	**P**	**03 04 35.9**	**+0.9**
HFS	**Hagfors**	**43.09**	**322**	P	P	03 04 38.8	+2.9
	comp=Z,11nm,0.7s,baz=116,slow=8.4,SNR=25						
	comp=Z,11nm,0.7s						
CLL	**Collm**	**43.21**	**309**	*e*P	**P**	**03 04 39.0**	**+2.1**
CLL				pmax	pmax		
	comp=Z,4.0nm,1.0s						
CLL	**Collm**	**43.21**	**309**	*e*P	**P**	**03 04 39.0**	**+2.1**
	comp=Z,4.0nm,1.0s						
FABU	**Falkenberg**	**43.34**	**317**	*i* P	**P**	**03 04 38.8**	**+0.9**
TJOU	**Tjoern**	**43.98**	**319**	*i* P	**P**	**03 04 40.7**	**-2.3**
NC405	**NORSAR Array S**	**44.17**	**323**		**P**	**03 04 46.4**	**+1.9**
NC405				IAmb	IAmb	03 04 48.5	
	comp=Z,12nm,0.9s						
STRU	**Stroemstad**	**44.27**	**320**	*i* P	**P**	**03 04 42.9**	**-2.3**
NB2	**NORSAR Subarra**	**44.41**	**323**	P	**P**	**03 04 48.7**	**+2.3**
	comp=Z,6.2nm,0.7s,baz=95,slow=7.9						
NOA	**NORSAR Array B**	**44.41**	**323**	P	**P**	**03 04 48.8**	**+2.3**
	comp=Z,6.1nm,0.7s,baz=97,slow=7.8,SNR=48						
	comp=Z,6.1nm,0.7s						
SPITS	**Spitsbergen Ar**	**47.54**	**347**	P	P	03 05 14.6	+4.0
	comp=Z,5.4nm,0.8s,baz=120,slow=12,SNR=4.9						
	comp=Z,5.4nm,0.8s						
EKA	**Eskdalemuir Ar**	**52.31**	**316**	P	**P**	**03 05 48.9**	**+2.0**
	comp=Z,0.4nm,0.4s,baz=103,slow=7.0,SNR=4.4						
	comp=Z,0.4nm,0.4s						
ESDC	**Sonseca Array**	**57.46**	**298**	P	**P**	**03 06 25.4**	**+1.1**
	comp=Z,0.3nm,0.5s,baz=56,slow=7.9,SNR=5.7						
	comp=Z,0.3nm,0.5s						
ESDC	**Sonseca Array**	**57.46**	**298**	P	**P**	**03 06 25.1**	**+0.8**
TORD	**Torodi Ar. Bea**	**65.69**	**269**	P	**P**	**03 07 19.7**	**0.0**
	comp=Z,3.5nm,0.6s,baz=48,slow=6.0,SNR=40						
	comp=Z,3.5nm,0.6s						
TORD	**Torodi Ar. Bea**	**65.69**	**269**	P	**P**	**03 07 20.2**	**+0.5**
TORD				IAmb	IAmb	03 07 21.5	
	comp=Z,2.4nm,0.7s						
ILAR	**Eielson Array**	**74.83**	**16**	P	**P**	**03 08 15.8**	**+1.3**
	comp=Z,0.6nm,0.9s,baz=313,slow=6.3,SNR=7.0						
	comp=Z,0.6nm,0.9s						
BOSA	**Boshof**	**77.69**	**220**	P	**P**	**03 08 31.8**	**+0.6**
	comp=Z,6.6nm,0.7s,baz=25,slow=4.7,SNR=15						
	comp=Z,6.6nm,0.7s						
BOSA	**Boshof**	**77.69**	**220**	P	**P**	**03 08 30.9**	**-0.3**
BOSA				IAmb	IAmb	03 08 33.7	
	comp=Z,8.0nm,0.8s						
YKA	**Yellowknife Ar**	**81.30**	**3**	P	**P**	**03 08 52.7**	**+2.6**
	comp=Z,1.5nm,0.5s,baz=353,slow=5.3,SNR=5.7						
	comp=Z,1.5nm,0.5s						
YKA	**Yellowknife Ar**	**81.30**	**3**	P	**P**	**03 08 50.7**	**+0.6**
WB0	**Warramunga Arr**	**81.90**	**122**	P	**P**	**03 08 53.0**	**-0.9**
WB0				IAmb	IAmb	03 08 54.1	
	comp=Z,8.5nm,1.2s						
WRA	**Warramunga Arr**	**81.98**	**122**	P	**P**	**03 08 54.2**	**-0.1**
	comp=Z,2.4nm,0.8s,baz=324,slow=4.9,SNR=16						
	comp=Z,2.4nm,0.8s						
WRA	**Warramunga Arr**	**81.98**	**122**	*i* P	**P**	**03 08 54.0**	**-0.3**
WRA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
WRA	**Warramunga Arr**	**81.98**	**122**	P	**P**	**03 08 52.4**	**-1.9**
WR8	**Warramunga Arr**	**82.10**	**122**	P	**P**	**03 08 54.3**	**-0.7**
WR8				IAmb	IAmb	03 09 07.8	
	comp=Z,17nm,1.4s						
ASAR	**Alice Springs**	**84.24**	**125**	P	**P**	**03 09 06.5**	**+0.5**
	comp=Z,3.0nm,0.7s,baz=311,slow=4.8,SNR=26						
	comp=Z,3.0nm,0.7s						
ASAR	**Alice Springs**	**84.24**	**125**	P	**P**	**03 09 05.7**	**-0.2**
EIDS	**Eidsvold**	**97.28**	**116**	P	Pdif	03 10 08.0	+0.9
	comp=Z,63nm,0.8s						
QSPA	**South Pole Qui**	**126.25**	**180**	PKP	**PKiKP**	**03 15 35.2**	**0.0**
	comp=Z,1.1nm,0.9s,baz=293,slow=2.1,SNR=2.1						
PLCA	**Paso Flores**	**149.79**	**250**	PKPbc	**PKiKP**	**03 16 24.0**	**0.0**
	comp=Z,2.8nm,1.1s,baz=130,slow=8.2,SNR=4.0						

KRSZO 01 03:59:11.4±0.8**, 48°.72N**×**19°.61E, h10**^{km}**, ML1.6**/7**, Error ellipse: s-maj=4.0km s-min=3.8km az=89.0, Czech and Slovak Republics**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LANS	**Liptovska Anna**	**0.44**	**347**	Pg	Pg	03 59 20.5	+0.4
LANS				Lg	Lg	03 59 26.0	
LANS				AML	AML		
LANS	**Liptovska Anna**	**0.44**	**347**	*e*PG	Pg	03 59 20.5	+0.4
LANS				*e*SG	Sg	03 59 26.0	0.0
LANS				*e*LG	Lg	03 59 26.9	
VYHS	**Vyhne**	**0.56**	**247**	Pg	Pb	03 59 23.2	-0.2
VYHS				Lg	Lg	03 59 30.7	
VYHS				AML	AML		
VYHS	**Vyhne**	**0.56**	**247**	*e*PG	Pb	03 59 23.1	-0.3
VYHS				*e*SG	Sb	03 59 30.8	-0.7
VYHS				*e*LG	Lg	03 59 31.5	
KECS	**Kecovo**	**0.62**	**112**	*e*PG	Pb	03 59 24.2	-0.2
KECS				*e*SG	Sg	03 59 32.4	+0.7
KECS				*e*LG	Lg	03 59 32.6	
PSZ	**Piszkesteto**	**0.82**	**167**	Pn	Pn	03 59 28.9	-0.3
PSZ				Lg	Lg	03 59 40.0	
PSZ				AML	AML		
NIE	**Niedzica**	**0.83**	**32**	Pg	Pg	03 59 27.7	+0.2
NIE				Lg	Lg	03 59 37.8	
NIE				AML	AML		
ABAH	**Abaujker**	**1.16**	**111**	Pn	Pn	03 59 34.2	+0.5
ABAH				Sn	Sn	03 59 49.5	0.0
ABAH				AML	AML		

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*IDC **01** 03:59:37.2±1.0, 19°.47S×168°.80E, h0^{km}, mb4.0/4, mbtmp3.9/6, ML4.0/1, MS3.0/2, Error ellipse: s-maj=38.8km s-min=15.5km az=143.0*

*NOU **01** 03:59:41.5, 19°.84S×168°.99E, h36^{km}, MLv4.3/15, Vanuatu Islands*

*NEIC **01** 03:59:42.7±0.7, 19°.87S±0°.05×168°.92E±0°.07, h35^{km}±2^{km}, mb4.3/10, Error ellipse: s-maj=14.4km s-min=3.0km az=128.0*

ISC 01 03:59:42.0±0.6**, 19°.87S**±0°.05×**168°.93E**±0°.08**, h35**^{km}**, n38, σ0**^{s}**89**/40**, mb4.2**/12**, 1C-2D, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MARNC	**Mare, Loyalty**	**1.81**	**208**	P	**Pn**	**04 00 10.7**	**-0.1**
MARNC	**Mare, Loyalty**	**1.81**	**208**		**Pn**	**04 00 11.0**	**+0.2**
MARNC				Sn	**Sn**	**04 00 31.7**	**-0.9**
RTV	**Rentapao**	**2.12**	**347**	P	**Pn**	**04 00 15.5**	**+0.5**
RTV	**Rentapao**	**2.12**	**347**	S	**Sn**	**04 00 39.9**	**-0.2**
YATNC	**Mamie plateau,**	**2.90**	**221**	P	**Pn**	**04 00 24.7**	**-1.0**
DZM	**Mont Dzumac**	**3.20**	**226**	Pn	**Pn**	**04 00 30.4**	**+0.5**
	15nm,0.3s,baz=104,slow=9.4,SNR=335						
DZM				LR	LR	04 01 01.1	
	comp=Z,118nm,21.5s,baz=145,slow=25						
DZM				Sn	**Sn**	**04 01 07.2**	**+0.4**
	22nm,0.3s,baz=72,slow=20,SNR=7.2						
	38nm,0.3s						
DZM				AML	AML		
OUENC	**Ouen Island, N**	**3.20**	**217**	P	**Pn**	**04 00 30.8**	**+0.9**
OUENC	**Ouen Island, N**	**3.20**	**217**	S	**Sn**	**04 01 08.1**	**+1.3**
OUENC	**Ouen Island, N**	**3.20**	**217**		**Pn**	**04 00 30.4**	**+0.5**
NOUC	**Port Laguerre**	**3.31**	**227**	P	**Pn**	**04 00 32.3**	**+0.9**
ONTNC	**Ouen Toro**	**3.35**	**223**	P	**Pn**	**04 00 33.4**	**+1.4**
ONTNC	**Ouen Toro**	**3.35**	**223**		**Pn**	**04 00 32.3**	**+0.3**
KOUNC	**Koumac, New Ca**	**4.42**	**260**	P	**Pn**	**04 00 48.3**	**+1.7**
KOUNC	**Koumac, New Ca**	**4.42**	**260**		**Pn**	**04 00 46.8**	**+0.2**
SANVU	**Saraoutou**	**4.69**	**339**	Pn	**Pn**	**04 00 50.9**	**+0.4**
MSVF	**Nonsavu**	**8.89**	**78**	Pn	**Pn**	**04 01 50.6**	**+2.5**
	1.8nm,0.6s,baz=196,slow=20,SNR=1.5						
MSVF				LR	LR	04 04 45.2	
	comp=Z,200nm,18.5s,baz=197,slow=34						
MSVF	**Nonsavu**	**8.89**	**78**		**Pn**	**04 01 48.6**	**+0.5**
BBOO	**Buckleboo**	**32.02**	**240**	P	**P**	**04 06 05.5**	**+0.2**
WR8	**Warramunga Arr**	**32.34**	**264**	P	**P**	**04 06 07.3**	**-1.0**
WR8				IAmb	IAmb	04 06 14.7	
	comp=Z,4.4nm,1.1s						
WB0	**Warramunga Arr**	**32.46**	**264**	P	**P**	**04 06 08.2**	**-1.1**
WB0				IAmb	IAmb	04 06 24.5	
	comp=Z,4.2nm,1.1s						
WRA	**Warramunga Arr**	**32.49**	**264**	P	**P**	**04 06 08.8**	**-0.8**
	comp=Z,0.4nm,0.4s,baz=93,slow=8.5,SNR=8.3						
	comp=Z,0.4nm,0.4s						
WRA	**Warramunga Arr**	**32.49**	**264**	P	**P**	**04 06 09.1**	**-0.5**
AS31	**Alice Springs**	**32.70**	**257**	P	**P**	**04 06 11.3**	**-0.2**
AS31				IAmb	IAmb	04 06 12.3	
	comp=Z,1.8nm,0.6s						
ASAR	**Alice Springs**	**32.70**	**257**	P	**P**	**04 06 11.4**	**0.0**
	comp=Z,3.6nm,0.6s,baz=87,slow=9.1,SNR=41						
	comp=Z,3.6nm,0.6s						
ASAR	**Alice Springs**	**32.70**	**257**	P	**P**	**04 06 10.8**	**-0.7**
FITZ	**Fitzroy Crossi**	**40.90**	**265**	P	**P**	**04 07 21.5**	**+0.4**
SBA	**Scott Base**	**58.04**	**181**	P	**P**	**04 09 31.5**	**+0.5**
SBA				IAmb	IAmb	04 09 47.2	
	comp=Z,4.0nm,1.1s						
BBJI	**Bungbulang**	**60.52**	**273**	P	**P**	**04 09 50.0**	**+0.7**
JKA	**Kamikawa-asahi**	**68.08**	**340**	P	**P**	**04 10 37.8**	**-0.3**
JKA				IAmb	IAmb	04 10 38.0	
	comp=Z,9.8nm,1.0s						
QSPA	**South Pole Qui**	**70.19**	**180**	P	**P**	**04 10 52.0**	**+0.9**
QSPA				IAmb	IAmb	04 10 59.5	
	comp=Z,0.6nm,0.9s						
TROLL	**Troll, Antarti**	**87.89**	**184**	⇓P	**P**	**04 12 26.5**	**-1.4**
	comp=Z,63nm,0.6s						
VNA3	**Neumayer Olymp**	**89.12**	**180**	⇑P	**P**	**04 12 32.4**	**-1.1**
	comp=Z,3.4nm,0.8s						
VNA2	**Neumayer--Watz**	**89.41**	**181**	⇓P	**P**	**04 12 34.2**	**-0.6**
	comp=Z,3.1nm,0.6s,baz=178,slow=4.5						
NVAR	**Mina Array Bea**	**89.43**	**49**	P	**P**	**04 12 34.7**	**-1.0**
	comp=Z,0.3nm,0.5s,baz=234,slow=5.3,SNR=2.2						
	comp=Z,0.3nm,0.5s						
ILAR	**Eielson Array**	**90.91**	**17**	P	**P**	**04 12 41.3**	**-0.4**
	comp=Z,0.5nm,0.6s,baz=235,slow=3.2,SNR=5.1						
	comp=Z,0.5nm,0.6s						
EKA	**Eskdalemuir Ar**	**144.09**	**352**	PKP	**PKPdf**	**04 19 12.8**	**-1.0**
	comp=Z,0.4nm,0.5s,baz=8.6,slow=2.9,SNR=4.4						
GERES	**GERESS Array B**	**144.90**	**331**	PKP	**PKPdf**	**04 19 15.0**	**-0.5**
	comp=Z,0.6nm,0.6s,baz=29,slow=2.4,SNR=5.1						
GERES	**GERESS Array B**	**144.90**	**331**		**PKPdf**	**04 19 15.1**	**-0.4**

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*OSUNB **01** 04:09:25.7±0.2, 27°.97S×70°.93W, h0^{km}, Mw6.9/45, Error ellipse: s-maj=2.5km s-min=2.4km az=0.0*

*PTWC **01** 04:09:25, 27°.90S×71°.50W, h10^{km}, Mwp6.8/15*

*IDC **01** 04:09:25.6±0.3, 27°.95S×70°.94W, h0^{km}, mb5.8/20, mbtmp5.7/24, ML5.1/5, MS6.7/51, Error ellipse: s-maj=10.6km s-min=7.7km az=67.0*

*GUC **01** 04:09:27.3±0.9, 27°.97S×71°.24W, h31^{km}±3^{km}, ML6.5, MS6.6*

*SJA **01** 04:09:27.5±0.7, 27°.94S×71°.42W, h39^{km}, ML6.7, MW6.7*

*MOS **01** 04:09:27.2±1.3, 27°.90S×71°.07W, h21^{km}, mb6.6/43, MS6.6/21, Error ellipse: s-maj=11.2km s-min=6.5km az=94.8*

*VAO **01** 04:09:28.2±0.2, 28°.13S×70°.68W, h23^{km}, mb6.4, Presumed earthquake*

*BJI **01** 04:09:28.5, 27°.94S×71°.10W, h10^{km}, mB6.9/34, Ms7.1/96, Ms7 7.1/91*

*NEIC **01** 04:09:28.8, 28°.01S×71°.24W, h23^{km}*

*GFZ **01** 04:09:28.3, 27°.96S×71°.09W, h26^{km}, Mw6.9/84, Moment Tensor Solution. Moment tensor: Scale 10^{19}Nm; M$_{rr}$1.31; M$_{\theta\theta}$0.08; M$_{\phi\phi}$-1.39; M$_{r\theta}$0.41; M$_{\theta\phi}$-0.03; M$_{\phi r}$-2.22; Fault plane solution: M$_{0}$2.63166×10^{19} NP1: φ$_{s}$171.15944°, δ74.71324°, λ84.37876°. NP2: φ$_{s}$11.63090°, δ16.26437°, λ109.71651°. Principal axes: T 2.6118, Plg59.9098°, Azm73.2187°; N 0.0393, Plg5.4217°, Azm172.6459°; P -2.6511, Plg29.4971°, Azm265.7237°;*

*NEIC **01** 04:09:28.7, 27°.97S×71°.30W, h23^{km}*

*NEIC **01** 04:09:28.5±1.8, 27°.97S±0°.04×71°.31W±0°.07, h21^{km}±1^{km}, mb6.5/423, Ms_20 6.7/657, Mwb6.8/271, Mww6.8/62, Mww7.0(GUC), Error ellipse: s-maj=10.2km s-min=6.9km az=285.0, Moment Tensor Solution. Moment tensor: Scale 10^{19}Nm; M$_{rr}$1.27; M$_{\theta\theta}$0.32; M$_{\phi\phi}$-1.58; M$_{r\theta}$0.42; M$_{\theta\phi}$-0.13; M$_{\phi r}$-0.87; Fault plane solution: M$_{0}$1.75000×10^{19} NP1: φ$_{s}$24.43000°, δ33.14000°, λ123.59000°. NP2: φ$_{s}$166.01000°, δ62.91000°, λ70.14000°. Principal axes: T 1.6547, Plg66.0000°, Azm40.0000°; N 0.1726, Plg18.0000°, Azm175.0000°; P -1.8273, Plg16.0000°, Azm270.0000°;*

*IPGP **01** 04:09:30.0, 28°.01S×71°.20W, h33^{km}, Mw6.9, Fault plane solution: NP1: φ$_{s}$2.00000°, δ28.00000°, λ101.00000°. NP2: φ$_{s}$169.00000°, δ62.00000°, λ84.00000°.*

*GFZ **01** 04:09:31.0±0.2, 28°S±2°×7°1W±°, h26^{km}±1^{km}, M6.7/128, mB6.9/120, mb6.2/128, Mw(mB)6.8/120, MwMwp6.7/124, Mwp6.6/124, Error ellipse: s-maj=7.3km s-min=4.5km az=67.6, confirmed*

*CATAC **01** 04:09:32.2±0.1, 28°S±1°×7°1W±°, h27^{km}, M6.7/102, mb6.2/102, mB6.8/93, MLv7.5/7, Mw(mB)6.7/93, MwMwp6.7/74, Mwp6.5/74, Error ellipse: s-maj=7.0km s-min=3.2km az=83.0, confirmed*

*GCMT **01** 04:09:38.5±0.0, 28°.01S×71°.41W, h34^{km}, MW6.9/176, Moment Tensor Solution. s176,c460; s174,c834; Duration: 6^{s}6 Moment tensor: Scale 10^{19}Nm; M$_{rr}$1.67±.01; M$_{\theta\theta}$0.07±.01; M$_{\phi\phi}$-1.75±.01; M$_{r\theta}$0.43±.01; M$_{\theta\phi}$-0.09±.00; M$_{\phi r}$-1.72±.01; Best double couple: M$_{0}$2.46600×10^{19} NP1: φ$_{s}$15.00000°, δ24.00000°, λ112.00000°. NP2: φ$_{s}$171.00000°, δ68.00000°, λ81.00000°. Principal axes: T 2.4640, Plg65.0000°, Azm65.0000°; N -0.0010, Plg9.0000°, Azm174.0000°; P -2.4680, Plg23.0000°, Azm268.0000°; nsta1 refers to body waves, cutoff=50s. nsta2 refers to surface/mantle waves, cutoff=50s. Triangular moment-rate function*

*NEIC **01** 04:09:53.1, 28°.01S×71°.24W, h36^{km}, Moment Tensor Solution. Duration: 30^{s}6 Moment tensor: Scale 10^{19}Nm; M$_{rr}$1.37; M$_{\theta\theta}$-0.05; M$_{\phi\phi}$-1.32; M$_{r\theta}$0.32; M$_{\theta\phi}$-0.08; M$_{\phi r}$-1.73; Fault plane solution: M$_{0}$2.21000×10^{19} NP1: φ$_{s}$12.89000°, δ19.71000°, λ109.23000°. NP2: φ$_{s}$172.56000°, δ71.43000°, λ83.27000°. Principal axes: T 2.2590, Plg63.0000°, Azm72.0000°; N -0.0920, Plg6.0000°, Azm175.0000°; P -2.1670, Plg26.0000°, Azm268.0000°;*

ISC 01 04:09:28.4±0.3**, 27°.99S**±0°.02×**71°.17W**±0°.03**, h17**^{km}±1^{km}**, h17**^{km}**:pP-P, n2198, σ2**^{s}**15**/1947**, mb6.4**/371**, MS6.7**/424**, 140C-45D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AC04	**Llanos de Chal**	**0.23**	**158**	*e*P	**Pb**	**04 09 34.5**	**+0.2**
AC04	**Llanos de Chal**	**0.23**	**158**	⇑*e*P	**Pb**	**04 09 34.6**	**+0.5**
AC04				*e*S	**Sb**	**04 09 40.5**	**+2.4**
AC04	**Llanos de Chal**	**0.23**	**158**	Pg	**Pb**	**04 09 34.7**	**+0.5**
AC04				Sg	**Sb**	**04 09 41.8**	**+3.7**
AC04	**Llanos de Chal**	**0.23**	**158**	P	**Pb**	**04 09 34.7**	**+0.5**
AC04	**Llanos de Chal**	**0.23**	**158**	P	**Pb**	**04 09 34.7**	**+0.5**
GO03	**Copiapo**	**0.92**	**65**	*e*P	**Pn**	**04 09 46.9**	**+0.2**
GO03	**Copiapo**	**0.92**	**65**	⇑*e*P	**Pb**	**04 09 46.0**	**0.0**
GO03				*i* S	**Sb**	**04 09 57.4**	**-0.6**
GO03	**Copiapo**	**0.92**	**65**		**Pg**	**04 09 46.3**	**0.0**
GO03				Sn	**Sg**	**04 09 58.6**	**+0.2**
GO03	**Copiapo**	**0.92**	**65**	P	**Pn**	**04 09 47.1**	**+0.4**
AC06	**Mina Casimiro**	**0.96**	**49**	⇑*e*P	**Pb**	**04 09 46.7**	**+0.1**
AC06				*e*S	**Sn**	**04 10 00.4**	**-0.1**
AC06				IAML		04 10 04.6	
	comp=N,3106μm,0.7s						
LCO	**Las Campanas**	**1.10**	**158**	*e*P	**Pb**	**04 09 47.4**	**-1.7**
LCO				*e*S	**Sb**	**04 10 03.0**	**-0.4**
LCO				IAML		04 10 14.1	
	comp=N,3242μm,0.5s						
LCO	**Las Campanas**	**1.10**	**158**	P	**Pb**	**04 09 48.2**	**-1.0**
LCO	**Las Campanas**	**1.10**	**158**	⇑P	**Pb**	**04 09 47.6**	**-1.6**
LCO	**Las Campanas**	**1.10**	**158**	P	**Pb**	**04 09 48.9**	**-0.3**
LCO				S	**Sb**	**04 10 02.4**	**-1.0**
AC05	**El Transito**	**1.16**	**137**	*e*P	**Pn**	**04 09 49.8**	**-0.3**
AC05				*e*S	**Sg**	**04 10 09.1**	**+3.0**
AC05	**El Transito**	**1.16**	**137**	⇓*e*P	**Pn**	**04 09 49.2**	**-0.8**
AC05				*e*S	**Sg**	**04 10 07.3**	**+1.3**
AC05	**El Transito**	**1.16**	**137**		**Pn**	**04 09 49.2**	**-0.8**
AC05	**El Transito**	**1.16**	**137**	P	**Pn**	**04 09 49.3**	**-0.8**
AC01	**Pan de Azucar**	**1.90**	**16**	*e*P	**Pn**	**04 09 59.6**	**-0.5**
AC01				*e*S	**Sn**	**04 10 23.4**	**-0.4**
AC01	**Pan de Azucar**	**1.90**	**16**	IAML		04 10 34.5	
	comp=E,561μm,0.6s						
AC01	**Pan de Azucar**	**1.90**	**16**		**Pn**	**04 09 59.7**	**-0.5**
AC01	**Pan de Azucar**	**1.90**	**16**	P	**Pn**	**04 10 00.5**	**+0.3**
AC01	**Pan de Azucar**	**1.90**	**16**	P	**Pn**	**04 09 59.4**	**-0.8**
AC01				S	**Sn**	**04 10 24.4**	**+0.6**
AC02	**Maricunga**	**2.15**	**58**	*e*P	**Pb**	**04 10 06.4**	**-0.8**
AC02				*e*S	**Sb**	**04 10 35.0**	**+1.2**
AC02				IAML		04 10 39.7	
	comp=Z,308μm,0.7s						
AC02	**Maricunga**	**2.15**	**58**	⇑*e*P	**Pb**	**04 10 06.2**	**-1.0**
AC02				*e*S	**Sb**	**04 10 35.0**	**+1.2**
AC02				IAML		04 10 37.2	
	comp=E,466μm,0.4s						
AC02	**Maricunga**	**2.15**	**58**		**Pn**	**04 10 05.6**	**+1.6**
AC02	**Maricunga**	**2.15**	**58**	P	**Pb**	**04 10 06.8**	**-0.4**
CO01	**Juntas del Tor**	**2.19**	**155**	*e*P	**Pb**	**04 10 06.3**	**-1.5**
CO01	**Juntas del Tor**	**2.19**	**155**	⇑*e*P	**Pn**	**04 10 05.3**	**+0.9**
CO01				*e*S	**Sb**	**04 10 35.0**	**+0.2**
CO01				IAML		04 10 43.4	
	comp=N,318μm,0.5s						
CO01	**Juntas del Tor**	**2.19**	**155**		**Pn**	**04 10 05.3**	**+0.9**
GO04	**Tololo Observa**	**2.20**	**172**	*e*P	**Pn**	**04 10 05.0**	**+0.5**
GO04				IAML		04 10 46.1	
	comp=Z,400μm,0.8s						
GO04	**Tololo Observa**	**2.20**	**172**	*e*P	**Pn**	**04 10 03.9**	**-0.6**
GO04				*e*S	**Sn**	**04 10 32.3**	**+0.9**
GO04				IAML		04 10 55.7	
	comp=E,1358μm,0.7s						
GO04	**Tololo Observa**	**2.20**	**172**		**Pn**	**04 10 04.3**	**-0.1**
GO04	**Tololo Observa**	**2.20**	**172**	P	**Pn**	**04 10 04.7**	**+0.2**
GO04	**Tololo Observa**	**2.20**	**172**	⇓P	**Pn**	**04 10 03.6**	**-0.9**
AROD	**Rodeo**	**2.63**	**146**	*e*P	**Pb**	**04 10 13.0**	**-2.4**
CO06	**Fray Jorge**	**2.71**	**188**	*e*P	**Pn**	**04 10 09.0**	**-2.2**
CO06				*e*S	**Sn**	**04 10 42.4**	**-1.2**
CO06				IAML		04 11 09.9	
	comp=E,116μm,0.6s						
CO06	**Fray Jorge**	**2.71**	**188**		**Pn**	**04 10 10.1**	**-1.1**
VCA	**Vinchina**	**2.72**	**107**	*e*P	**Pb**	**04 10 15.9**	**-0.9**
VCA				IAML		04 11 03.4	
	comp=Z,251μm,2.1s						
ACDV	**Cuesta del Vie**	**2.82**	**141**	*e*P	**Pb**	**04 10 16.2**	**-2.3**
CO03	**El Pedregal**	**2.87**	**172**	*e*P	**Pn**	**04 10 14.6**	**+1.0**
CO03				IAML		04 11 18.0	
	comp=Z,204μm,0.9s						
CO03	**El Pedregal**	**2.87**	**172**		**Pn**	**04 10 13.5**	**-0.1**
CO03	**El Pedregal**	**2.87**	**172**	P	**Pn**	**04 10 13.9**	**+0.3**
CO03				S	**Sg**	**04 10 59.6**	**-1.2**
ACCO	**Cerro Coronel**	**3.18**	**145**	*e*P	**Pn**	**04 10 20.9**	**+3.0**
ACCO				*e*S	**Sb**	**04 11 05.5**	**+2.2**
ACCO				IAML		04 11 20.3	
	comp=Z,123μm,1.5s						
TINO	**Tinogasta**	**3.19**	**92**	*e*P	**Pn**	**04 10 21.2**	**+3.3**
CO02	**Combarbal**	**3.21**	**177**	*e*P	**Pn**	**04 10 17.5**	**-0.7**

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CO02                              IAML             04 11 17.7
      comp=Z,275µm,1.1s
CO02  Combarbal           3.21 177          Pn     04 10 17.1 -1.1
CO02  Combarbal           3.21 177  P       Pn     04 10 17.4 -0.8
CO02  Combarbal           3.21 177 ⇑P       Pn     04 10 17.1 -1.1
PB14  IPOC Station P      3.42  12  P       Pn     04 10 20.3 -1.0
PB14                                S       Sn     04 11 01.2 -0.5
PB14  IPOC Station P      3.42  12 eP       Pn     04 10 20.2 -1.0
PB14                                IAML           04 11 20.7
      comp=Z,244µm,0.7s
PB14  IPOC Station P      3.42  12          Pn     04 10 19.7 -1.6
ACLC  CERRO LA CRUZ       3.98 112 eP       Pn     04 10 32.2 +3.4
ACLC                               eS       Sn     04 11 19.5 +4.4
ACLC                                IAML           04 11 34.6
      comp=Z,66µm,1.1s
CO04  Los Peladeros       4.04 178          Pn     04 10 29.3 -0.6
RTLL  Cerro Villicun      4.07 145 eP       Pn     04 10 32.5 +2.5
RTLL                                IAML           04 11 59.2
      comp=Z,69µm,0.7s
RTLS  Leoncito            4.13 157 eP       Pn     04 10 34.2 +3.1
ZON   Zonda               4.16 149 eP       Pn     04 10 33.8 +2.7
ZON                                 IAML           04 11 58.1
      comp=Z,79µm,1.4s
ZON   Zonda               4.16 149  P       Pn     04 10 33.3 +2.1
ZON   Zonda               4.16 149 ⇑P       Pn     04 10 33.2 +2.1
SJA   San Juan            4.20 148 eP       Pn     04 10 34.7 +3.0
SJA                                 IAML           04 12 14.3
      comp=Z,93µm,1.5s
CFA   Coronel Fontan      4.42 145  Pn      Pn     04 10 36.4 +1.6
      comp=Z,249nm,0.3s,baz=320,slow=14,SNR=580
CFA                                 Sn      Sn     04 11 26.8 +1.0
      comp=Z,532nm,0.3s,baz=328,slow=15,SNR=5.8
CFA                                 Lg      Lg     04 11 38.5
      comp=Z,636nm,0.3s,baz=266,slow=19,SNR=5.8
CFA                                 LR      LR     04 12 41.5
      comp=Z,744µm,18.7s,baz=327,slow=45
      comp=Z,697nm,0.4s
CFA                                 AML     AML
CFA   Coronel Fontan      4.42 145 eP       Pn     04 10 37.1 +2.4
CYA   Choya               4.76  97 eP       Pn     04 10 42.7 +3.2
VA03  San Esteban         4.79 174 eP       Pn     04 10 40.1 +0.2
VA03  San Esteban         4.79 174          Pn     04 10 39.8 -0.1
VA01  Torpederas          5.03 185          Pn     04 10 40.7 -2.5
VA01  Torpederas          5.03 185  P       Pn     04 10 41.1 -2.1
PEL   Peldehue            5.16 175 eP       Pn     04 10 43.9 -1.0
PEL                                 IVMs_BB IVMs_BB 04 12 26.2
      comp=Z,844µm,2.9s
PEL   Peldehue            5.16 175          Pn     04 10 44.3 -0.6
PEL   Peldehue            5.16 175  P       Pn     04 10 45.5 +0.6
PEL   Peldehue            5.16 175 ⇑P       Pn     04 10 44.4 -0.6
PEL   Peldehue            5.16 175  P       Pn     04 10 45.5 +0.6
PEL                                 S       Sb     04 11 58.8 -1.1
PB05  IPOC Station P      5.19  10 eP       Pn     04 10 42.8 -2.6
PB05  IPOC Station P      5.19  10          Pn     04 10 43.5 -2.0
MT02  Curacav             5.25 180 eP       Pn     04 10 44.8 -1.4
MT02  Curacav             5.25 180          Pn     04 10 44.3 -1.9
MT05  Renca               5.40 176          Pn     04 10 47.2 -1.0
MT16  CCHEN               5.45 174          Pn     04 10 48.6 -0.3
PB06  IPOC Station P      5.46  16          Pn     04 10 46.6 -2.5
PB06  IPOC Station P      5.46  16  P       Pn     04 10 46.8 -2.4
PB06  IPOC Station P      5.46  16  P       Pn     04 10 47.2 -1.9
PB06                                S       Sb     04 12 08.9 +0.2
AF01  San Pedro de A      5.70  29          Pn     04 10 52.2 -0.4
PB09  IPOC Station P      6.41  16  P       Pn     04 11 00.9 -1.4
PB09                                S       Sb     04 12 37.3 +1.2
PB02  IPOC Station P      6.74  10 eP       Pn     04 11 03.4 -3.3
PB02                                IVMs_BB IVMs_BB 04 13 42.4
      comp=Z,537µm,14.2s
PB02  IPOC Station P      6.74  10  P       Pn     04 11 03.5 -3.3
PB02  IPOC Station P      6.74  10  P       Pn     04 11 03.5 -3.3
PB02                                S       Sb     04 12 52.6 +7.0
BO02  Sierra Bellavi      6.79 177 ⇓P       Pn     04 11 05.8 -1.6
GO05  Hualane             7.03 185  P       Pn     04 11 07.2 -3.4
GO05  Hualane             7.03 185 ⇑P       Pn     04 11 06.8 -3.8
TA01  Diego Aracena       7.45   7 eP       Pn     04 11 12.4 -3.9
TA01                                IVMs_BB IVMs_BB 04 14 07.2
      comp=Z,471µm,14.2s
TA01  Diego Aracena       7.45   7  P       Pn     04 11 12.8 -3.5
PB08  IPOC Station P      8.03  14  P       Pn     04 11 23.6 -1.1
PB08  IPOC Station P      8.03  14 eP       Pn     04 11 21.9 -2.8
PB08                                IVMs_BB IVMs_BB 04 14 24.0
      comp=Z,372µm,18.0s
PB11  IPOC Station P      8.31  10 eP       Pn     04 11 24.0 -4.4
PB11                                IVMs_BB IVMs_BB 04 14 33.5
      comp=Z,352µm,28.5s
H03N1 Juan Fernandez      8.59 229  Pn      Pn     04 11 29.4 -2.4
      baz=210,slow=74
H03N1                               Sn      Sn     04 13 01.4 -6.8
H03N1                               T       T      04 20 19.8
      baz=55,slow=74,SNR=2196
H03N2 Juan Fernandez      8.61 229  Pn      Pn     04 11 29.9 -2.0
      baz=52,slow=74
H03N2                               Sn      Sn     04 13 03.1 -5.5
H03N2                               T       T      04 20 09.0
      baz=207,slow=74,SNR=3063
H03N3 Juan Fernandez      8.61 229  T       T      04 20 47.1
      SNR=15
VA04  Juan Fernndez       8.66 228 eP       Pn     04 11 28.9 -4.1
VA04  Juan Fernndez       8.66 228  Pn      Pn     04 11 29.4 -3.6
VA04  Juan Fernndez       8.66 228  P       Pn     04 11 29.7 -3.3
VA04  Juan Fernndez       8.66 228 ⇑P       Pn     04 11 28.9 -4.1
H03S3 Juan Fernandez      8.83 227  Pn      Pn     04 11 31.4 -3.7
      baz=37,slow=21
H03S3                               Sn      Sn     04 13 06.3 -7.8
      baz=12,slow=8.6
H03S1 Juan Fernandez      8.84 227  Pn      Pn     04 11 31.0 -4.2
      baz=37,slow=21
H03S1                               Sn      Sn     04 13 08.5 -5.7
      baz=12,slow=8.6
H03S2 Juan Fernandez      8.85 227  Pn      Pn     04 11 30.9 -4.4
      baz=37,slow=21
H03S2                               Sn      Sn     04 13 06.0 -8.5
      baz=12,slow=8.6
PB12  IPOC Station P      9.36   5 eP       Pn     04 11 38.8 -4.0
PB12                                IVMs_BB IVMs_BB 04 15 21.4
      comp=Z,289µm,21.2s
PB16  IPOC Station P      9.73   9 eP       Pn     04 11 44.7 -3.5
PB16                                IVMs_BB IVMs_BB 04 15 38.6
      comp=Z,325µm,15.7s
PB16  IPOC Station P      9.73   9          Pn     04 11 45.6 -2.6
PB18  Visviri            10.47   9          Pn     04 11 57.5 -0.8
GO06  Curarrehue         11.57 181          Pn     04 12 11.9 -1.0
GO06  Curarrehue         11.57 181 ⇑P       Pn     04 12 11.4 -1.5
LR03  Panguipulli        11.65 184          Pn     04 12 11.2 -2.7
LPAZ  La Paz             11.98  14  Pn      Pn     04 12 17.1 -2.0
      comp=Z,18nm,0.3s,baz=204,slow=6.3,SNR=206
LPAZ                                LR      LR     04 17 28.7
      comp=Z,643µm,19.8s,baz=183,slow=41
      comp=Z,123nm,0.5s
LPAZ                                AML     AML
LPAZ  La Paz             11.98  14          Pn     04 12 17.4 -1.7
LPAZ  La Paz             11.98  14 ⇑P       Pn     04 12 16.9 -2.2
LPAZ  La Paz             11.98  14  P       Pn     04 12 16.2 -2.9
LPAZ  La Paz             11.98  14 eP       Pn     04 12 15.6 -3.5
I08BO LAS PENAS INFR     11.98  13  I       I      05 16 37.3
      baz=185,slow=328,SNR=1.4
PSAL  Palomas, Salto     12.21 108 eP       Pn     04 12 14.4 -7.2
CPUP  Villa Florida      12.44  86  Pn      Pn     04 12 22.9 -1.9
      comp=Z,1.9nm,0.3s,baz=269,slow=13,SNR=59
CPUP                                Sn      Sn     04 14 37.8 -5.2
      comp=Z,8.6nm,0.3s,baz=260,slow=17,SNR=1.3
CPUP                                Lg      Lg     04 15 45.7
      comp=Z,16nm,0.3s,baz=342,slow=20,SNR=2.2
CPUP                                LR      LR     04 17 44.7
      comp=Z,686µm,18.8s,baz=270,slow=41
      comp=Z,186nm,1.0s
CPUP                                AML     AML
CPUP  Villa Florida      12.44  86          Pn     04 12 24.5 -0.3
CPUP  Villa Florida      12.44  86 ⇑P       Pn     04 12 21.5 -3.3
CPUP  Villa Florida      12.44  86  P       Pn     04 12 21.2 -3.5
I41PY VILLA FLORIDA      12.45  86  Pn      Pn     04 12 17.5 -7.4
      baz=275,slow=16
PLCA  Paso Flores        12.72 178  Pn      Pn     04 12 28.1 -0.5
      comp=Z,0.7nm,0.3s,baz=346,slow=11,SNR=13
PLCA                                Sn      Sn     04 14 53.8 +3.8
      comp=Z,1.2nm,0.3s,baz=1.0,slow=18,SNR=1.1
PLCA                                Lg      Lg     04 15 59.7
      comp=Z,3.6nm,0.3s,baz=90,slow=20,SNR=3.7
PLCA                                LR      LR     04 17 49.2
      comp=Z,553µm,20.5s,baz=350,slow=40
PLCA                                AML     AML
PLCA  Paso Flores        12.72 178  P       Pn     04 12 32.4 +3.7
PLCA                                pmax    pmax
      comp=Z,383nm,1.2s
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PLCA  Paso Flores        12.72 178 eP       Pn     04 12 28.3 -0.3
PLCA  Paso Flores        12.72 178          Pn     04 12 27.7 -0.9
PLCA  Paso Flores        12.72 178 ⇓P       Pn     04 12 28.9 +0.3
PLCA  Paso Flores        12.72 178  P       Pn     04 12 30.7 +2.0
PLCA  Paso Flores        12.72 178 eP       Pn     04 12 21.0 -7.7
ANCO  Parque Anchore     12.93 122 eP       Pn     04 12 24.8 -6.6
LPA   La Plata           13.24 125ceP       Pn     04 12 34.9 -0.7
LPA                                 PP      PbPb   04 13 14.3 -4.7
LPA                                 S       Sn     04 14 59.4 -3.0
LPA                                 SS      SbSb   04 16 11.5  +14
SJPY  San Joaquin        13.82  81 eP       Pn     04 12 36.6 -7.0
MURT  Porto Murtinho     13.83  66 eP       Pn     04 12 37.8 -6.0
COIM  Forte Coimbra      14.63  60 eP       Pn     04 12 49.1 -5.7
BDQN  Bodoquena, MS      15.14  63 eP       Pn     04 12 56.0 -5.6
SIV   San Ignacio        15.16  40  Pn      Pn     04 12 56.4 -5.6
      comp=Z,1.2nm,0.3s,baz=217,slow=13,SNR=214
SIV                                 Sn      Sn     04 15 45.8 -3.8
      comp=Z,0.4nm,0.3s,baz=239,slow=19,SNR=1.4
      comp=Z,82nm,0.5s
SIV                                 AML     AML
LL02  Futaleuf           15.18 182  Pn      Pn     04 13 00.9 -1.1
LL02  Futaleuf           15.18 182 ⇑P       P      04 13 04.7 -2.3
GO07  Milladeo Hill,     15.23 187 eP       Pn     04 13 02.6  0.0
GO07                                IVMs_BB IVMs_BB 04 18 16.1
      comp=Z,119µm,19.9s
GO07  Milladeo Hill,     15.23 187  P       Pn     04 13 02.5 -0.1
CPSB  Cacapava Do Su     15.68 103  P       Pn     04 13 04.3 -4.3
CPSB                                S       Sn     04 15 56.9 -5.0
CPSB  Cacapava Do Su     15.68 103 eP       Pn     04 12 55.2  -13
AQDB  Aquidauana         15.96  65  Pn      Pn     04 13 11.9 -0.4
AQDB  Aquidauana         15.96  65  P       Pn     04 13 08.4 -4.0
AQDB  Aquidauana         15.96  65 eP       Pn     04 13 07.6 -4.7
PTLB  Pontes e Lacer     16.74  44  P       Pn     04 13 16.9 -5.3
PTLB  Pontes e Lacer     16.74  44 eP       Pn     04 13 18.2 -4.1
NNA   Nana               16.78 340  Pn      P      04 13 25.0  0.0
      comp=Z,1.6nm,0.3s,baz=159,slow=10,SNR=7.8
NNA                                 Sn      Sn     04 16 21.0 -8.0
      comp=Z,2.0nm,0.3s,baz=238,slow=9.5,SNR=1.4
NNA                                 Lg      Lg     04 18 09.7
      comp=Z,2.2nm,0.3s,baz=197,slow=14,SNR=2.3
NNA                                 LR      LR     04 18 31.3
      comp=Z,321µm,21.4s,baz=168,slow=32
NNA   Nana               16.78 340          Pn     04 13 22.1 -0.7
NNA   Nana               16.78 340 ⇑P       P      04 13 24.3 -0.7
NNA   Nana               16.78 340  P       P      04 13 26.0 +1.0
AYSN  Puerto Aysn        17.40 184 eP       Pn     04 13 28.5 -1.8
AYSN                                IVMs_BB IVMs_BB 04 20 35.6
      comp=Z,117µm,18.6s
PTGB  Pitanga            17.43  84  P       Pn     04 13 28.1 -2.9
PTGB  Pitanga            17.43  84 eP       Pn     04 13 25.2 -5.8
TRCB  Terra Rica         17.53  77  Pn      Pn     04 13 31.6 -0.6
TRCB  Terra Rica         17.53  77  P       Pn     04 13 29.4 -2.7
COYC  Coyhaique          17.57 182⇑eP       Pn     04 13 29.9 -2.4
COYC  Coyhaique          17.57 182          Pn     04 13 31.4 -1.0
COYC  Coyhaique          17.57 182 ⇑P       Pn     04 13 32.5 +0.1
VILB  Vilhena            18.13  37  P       Pn     04 13 36.0 -3.7
VILB  Vilhena            18.13  37  P       Pn     04 13 34.2 -5.4
VILB  Vilhena            18.13  37 eP       Pn     04 13 35.6 -4.0
PP1B  Ponte de Pedra     18.22  59  S       Sn     04 17 03.2 -0.6
PP1B  Ponte de Pedra     18.22  59 eP       Pn     04 13 35.8 -4.8
LDASE Londrina, Braz     18.64  80 eP       P      04 13 40.8 -4.6
SALV  Santo Antonio      18.71  53  P       P      04 13 41.9 -4.3
SALV                                S       Sn     04 17 12.0 -3.6
SALV  Santo Antonio      18.71  53 eP       P      04 13 41.8 -4.3
C2SB  Chapadao do Su     19.15  65  P       P      04 13 48.6 -2.5
C2SB  Chapadao do Su     19.15  65 eP       P      04 13 51.5 +0.4
FRTB  Fartura            20.01  82  P       P      04 13 58.5 -2.0
FRTB  Fartura            20.01  82 eP       P      04 13 55.4 -5.1
CZSB  Cruzeiro do Su     20.20 356  P       P      04 14 01.8 -0.7
CZSB                                IAmb    IAmb   04 14 17.3
      comp=Z,3µm,1.1s
CZSB  Cruzeiro do Su     20.20 356  P       P      04 14 01.8 -0.7
CZSB  Cruzeiro do Su     20.20 356 eP       P      04 14 02.4 -0.1
GO08  Villa O’Higgin     20.47 183⇑eP       Pn     04 14 06.3 -1.1
GO08                                IVMs_BB IVMs_BB 04 22 12.2
      comp=Z,73µm,15.9s
GO08  Villa O’Higgin     20.47 183  P       P      04 14 04.5 -0.7
ARAG  Araguaiana, MT     21.70  60 eP       P      04 14 15.8 -2.8
BB19B Bebedouro          21.71  76  P       P      04 14 16.7 -2.1
BB19B Bebedouro          21.71  76 eP       P      04 14 14.0 -4.8
PET01 Itanhaem-SP        21.76  86  P       P      04 14 16.7 -2.6
PET01 Itanhaem-SP        21.76  86 eP       P      04 14 15.0 -4.3
SPB   Sao Paulo          21.81  84  P       P      04 14 19.4 -0.5
SPB   Sao Paulo          21.81  84 ⇑P       P      04 14 18.4 -1.5
SPB   Sao Paulo          21.81  84  P       P      04 14 18.6 -1.2
SPB   Sao Paulo          21.81  84 eP       P      04 14 15.0 -4.9
ATAH  Atahualpa          21.84 340  P       P      04 14 23.0 +2.4
      comp=Z,94nm,0.9s,baz=179,slow=6.3,SNR=22
ATAH                                S       S      04 18 24.9 +3.0
      comp=Z,80nm,1.0s,baz=221,slow=19,SNR=2.2
ATAH                                Lg      Lg     04 20 57.9
      comp=Z,0.1nm,0.3s,baz=90,slow=20,SNR=2.4
ATAH                                LR      LR     04 22 14.8
      comp=Z,125µm,19.5s,baz=165,slow=35
RCLB  Rio Claro- Sao     22.08  81  P       P      04 14 20.0 -2.8
RCLB  Rio Claro- Sao     22.08  81 eP       P      04 14 18.0 -4.9
CLDB  Colider            22.32  43  P       P      04 14 22.7 -2.7
CLDB  Colider            22.32  43 eP       P      04 14 21.6 -3.8
ITU3  Corumbazu          22.67  69  P       P      04 14 26.5 -2.6
IPMB  Ipameri, GO        23.33  70  P       P      04 14 32.3 -3.7
IPMB  Ipameri, GO        23.33  70 eP       P      04 14 31.5 -4.5
CANS  Sao Roque de M     23.85  77 eP       P      04 14 37.5 -3.6
SNDB  Serra Nova Dou     24.49  53  P       P      04 14 44.3 -2.7
SNDB  Serra Nova Dou     24.49  53 eP       P      04 14 44.0 -2.9
PMNB  Patos De Minas     24.55  73 ⇑P       P      04 14 45.6 -2.1
PMNB  Patos De Minas     24.55  73  P       P      04 14 45.4 -2.3
PMNB  Patos De Minas     24.55  73 eP       P      04 14 43.4 -4.3
BDFB  Brasilia           24.71  65  P       P      04 14 47.4 -1.7
      comp=Z,237nm,0.6s,baz=234,slow=9.9,SNR=81
BDFB                                S       S      04 19 09.5 -1.0
      comp=Z,87nm,0.9s,baz=173,slow=15,SNR=1.5
BDFB                                LR      LR     04 26 04.3
      comp=Z,687µm,19.0s,baz=239,slow=41
      comp=Z,237nm,0.6s
BDFB  Brasilia           24.71  65  P       P      04 14 47.5 -1.6
MCRA  Macar, Loja        24.93 339  P       P      04 14 51.7 +0.7
      comp=Z,188µmcomp=Z,23µmcomp=Z,576nm,1.1s
BSCB  Bom Sucesso        24.98  80  P       P      04 14 49.7 -1.7
BSCB  Bom Sucesso        24.98  80 eP       P      04 14 45.4 -6.0
TEFE  Tefe               25.13  16  P       P      04 14 51.5 -1.1
TEFE  Tefe               25.13  16 eP       P      04 14 51.6 -1.1
GO10  Punta Arenas       25.14 180 ⇑P       P      04 14 53.5 +1.0
EFI   East Falkland      25.63 161 eP       P      04 14 56.9  0.0
EFI                                 pmax    pmax
      comp=Z,519nm,0.9s
EFI                                 MLR     MLR
      comp=Z,213µm,19.0s
EFI   East Falkland      25.63 161  P       P      04 14 56.4 -0.5
EFI                                 IAmb    IAmb   04 15 24.0
      comp=Z,899nm,1.1s
EFI   East Falkland      25.63 161  IAMs_20 IAMs_20 04 25 52.5
      comp=Z,225µm,20.0s
EFI   East Falkland      25.63 161 ⇑P       P      04 14 55.0 -1.9
EFI   East Falkland      25.63 161  P       P      04 14 57.3 +0.4
EFI                                 S       S      04 19 30.3 +6.0
CAN3  Cana Brava         25.98  60  P       P      04 14 58.9 -1.6
MACA  Manacapuru-AM      26.64  24  P       P      04 15 05.9 -0.5
MACA  Manacapuru-AM      26.64  24  P       P      04 15 04.9 -1.5
MACA  Manacapuru-AM      26.64  24 eP       P      04 15 05.3 -1.1
USHA  Ushuaia            26.89 176  LR      LR     04 26 38.4
      comp=Z,319µm,19.0s,baz=2.0,slow=38
DIAM  Diamantina, MG     27.01  75  P       P      04 15 08.1 -1.9
DIAM  Diamantina, MG     27.01  75 eP       P      04 15 04.8 -5.2
PUYO  Puyo, Santa Ro     27.15 345  P       P      04 15 16.1 +4.9
PUYO                                S       S      04 19 50.6 +1.5
NTVB  Natividade         27.31  58  P       P      04 15 10.9 -1.6
CHSH  Refugio Sur-Vo     27.36 343  P       P      04 15 16.6 +3.1
CAM01 Campos-RJ          27.42  84  P       P      04 15 11.4 -2.0
CAM01 Campos-RJ          27.42  84 eP       P      04 15 07.9 -5.5
MC01  Montes Claros      27.51  72  P       P      04 15 11.7 -2.7
MC01  Montes Claros      27.51  72 eP       P      04 15 10.4 -4.0
PIAT  Ana Tenorio        27.68 345  P       P      04 15 18.3 +2.1
      comp=Z,162µmcomp=Z,20µmcomp=Z,349nm,1.3s
ITTB  Itaituba           27.71  35  P       P      04 15 13.8 -2.2
ITTB  Itaituba           27.71  35 eP       P      04 15 13.8 -2.2
LAJE  UHE Lajeado        27.98  55  P       P      04 15 16.4 -2.1
SLOR  San Lorenzo -      28.00 344  P       P      04 15 22.3 +3.2
JANB  Januaria           28.03  68  P       P      04 15 16.8 -2.2
JANB  Januaria           28.03  68 eP       P      04 15 14.9 -4.1
ANTS  Antisana-Sarah     28.15 345  P       P      04 15 24.9 +4.3
PTLC  Puerto Leguiza     28.21 352  P       P      04 15 19.4 -1.1
      comp=Z,169µmcomp=Z,25µmcomp=Z,1µm,1.3s
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GGPC  Guagua Pichinc     28.55 344  P       P      04 15 29.3 +5.1
ALF01 Guarapari-ES       28.65  82  P       P      04 15 22.9 -1.5
ALF01 Guarapari-ES       28.65  82 eP       P      04 15 20.2 -4.2
PULU  Pululahua          28.73 345  P       P      04 15 28.2 +2.7
IMBA  Imbabura, San      28.90 345  P       P      04 15 30.4 +3.3
OTAV  Otavalo            28.92 345  P       P      04 15 29.9 +2.6
OTAV                                pmax    pmax
      comp=Z,448nm,2.1s
OTAV  Otavalo            28.92 345  P       P      04 15 28.7 +1.4
      comp=Z,150µmcomp=Z,17µmcomp=Z,442nm,2.1s
OTAV  Otavalo            28.92 345 ⇑P       P      04 15 28.5 +1.2
OTAV  Otavalo            28.92 345  P       P      04 15 28.3 +0.9
OTAV  Otavalo            28.92 345  P       P      04 15 30.3 +3.0
OTAV  Otavalo            28.92 345 eP       P      04 15 27.1 -0.3
CUSE  Cuicocha Este      28.98 345  P       P      04 15 29.9 +2.1
      comp=Z,26µmcomp=Z,217nm,1.9s
SJMB  Sao Joao De Ma     28.98  78  P       P      04 15 25.2 -2.2
SJMB  Sao Joao De Ma     28.98  78 eP       P      04 15 22.2 -5.1
SDBA  SAO DESIDERIO      29.03  63  P       P      04 15 25.3 -2.6
SDBA  SAO DESIDERIO      29.03  63 eP       P      04 15 23.7 -4.1
PAC1  Pacto, Paraso      29.03 344  P       P      04 15 30.6 +2.7
      comp=Z,130µmcomp=Z,19µmcomp=Z,717nm,1.8s
ARCA  Ara§uai, MG        29.12  74 eP       P      04 15 23.5 -5.1
BSFB  Barra de Sao F     29.22  78  P       P      04 15 27.3 -2.2
BSFB  Barra de Sao F     29.22  78 eP       P      04 15 25.3 -4.2
TULM  Tulcn-Chalpat      29.24 346  P       P      04 15 35.5 +5.3
      comp=Z,148µmcomp=Z,16µmcomp=Z,557nm,1.5s
TULM  Tulcn-Chalpat      29.24 346  P       P      04 15 35.5 +5.4
SMTB  Santa Maria do     29.27  54  P       P      04 15 28.5 -1.4
SMTB  Santa Maria do     29.27  54 eP       P      04 15 27.3 -2.7
RIB01 Linhares ES        29.42  80  P       P      04 15 29.5 -1.8
RIB01 Linhares ES        29.42  80 eP       P      04 15 27.6 -3.7
CMBC  Cumbal             29.46 346  P       P      04 15 34.0 +1.9
MACC  Macarena, Meta     30.07 355  P       P      04 15 37.0  0.0
      comp=Z,147µmcomp=Z,12µmcomp=Z,226nm,1.4s
GARC  Garzon, Huila      30.29 351  P       P      04 15 38.8 -0.4
      comp=Z,161µmcomp=Z,12µmcomp=Z,311nm,1.8s
BBAC  Balboa, Cauca      30.40 348  P       P      04 15 41.1 +0.9
      comp=Z,155µmcomp=Z,20µmcomp=Z,738nm,1.9s
ATM1  UHE Belo Monte     30.50  40  P       P      04 15 38.9 -1.9
POPC  Popayan, Colom     30.81 349  P       P      04 15 44.4 +0.6
      comp=Z,145µmcomp=Z,16µmcomp=Z,335nm,1.7s
BMO1  UHE Belo Monte     30.87  40  P       P      04 15 42.2 -1.9
PAL2  UHE Estreito -     30.93  51  P       P      04 15 42.7 -1.9
GUA01 Guaratinga, BA     31.07  75  P       P      04 15 43.7 -2.2
GUA01 Guaratinga, BA     31.07  75 eP       P      04 15 41.9 -4.0
PRAC  Prado              31.72 353  P       P      04 15 51.9 +0.3
      comp=Z,135µmcomp=Z,26µmcomp=Z,1µm,2.0s
PRAC  Prado              31.72 353  P       P      04 15 53.6 +2.0
CMC01 Camacan, BA        31.89  73  P       P      04 15 51.3 -1.7
CMC01 Camacan, BA        31.89  73 eP       P      04 15 47.6 -5.4
BOAV  Boa Vista          31.90  20  P       P      04 15 52.5 -0.6
BOAV                                IAmb    IAmb   04 15 56.8
      comp=Z,539nm,0.9s
BOAV  Boa Vista          31.90  20  P       P      04 15 51.8 -1.3
BOAV  Boa Vista          31.90  20 eP       P      04 15 51.0 -2.1
ORTC  Ortega, Tolima     31.95 352  P       P      04 15 55.3 +1.7
      comp=Z,138µmcomp=Z,31µmcomp=Z,1µm,1.3s
VILC  Villavicencio,     32.01 355  P       P      04 15 56.0 +1.8
NBIT  Itapeh - BA        32.16  73  P       P      04 15 54.3 -1.2
NBIT  Itapeh - BA        32.16  73 eP       P      04 15 50.8 -4.7
CVER  Cruz Verde, Cu     32.44 355  P       P      04 16 00.1 +1.7
      comp=Z,160µmcomp=Z,20µmcomp=Z,587nm,2.1s
CHIC  Chingaza           32.52 355  P       P      04 15 58.6 -0.4
      comp=Z,138µmcomp=Z,16µmcomp=Z,588nm,1.6s
ROSC  El Rosal           32.78 354  P       P      04 16 03.4 +2.1
      comp=Z,269nm,0.9s,baz=156,slow=6.3,SNR=49
ROSC                                S       S      04 21 19.1 +1.2
      comp=Z,20nm,0.9s,baz=172,slow=23,SNR=1.2
ROSC                                LR      LR     04 29 26.5
      comp=Z,144µm,20.0s,baz=193,slow=37
ROSC  El Rosal           32.78 354  IAmb    IAmb   04 16 28.4
      comp=Z,866nm,1.2s
GUY2C Guyana, Caldas     33.27 352  P       P      04 16 05.4 -0.2
      comp=Z,111µmcomp=Z,16µmcomp=Z,599nm,0.9s
SPBC  San Pablo de B     33.56 355  P       P      04 16 06.1 -1.7
      comp=Z,120µmcomp=Z,17µmcomp=Z,322nm,1.6s
NBPN  Ponto Novo - B     33.68  66  P       P      04 16 06.6 -2.3
NBPN  Ponto Novo - B     33.68  66 eP       P      04 16 05.6 -3.2
RUSC  La Rusia           33.73 357  P       P      04 16 09.1 -0.6
      comp=Z,125µmcomp=Z,31µmcomp=Z,2µm,1.5s
RUSC  La Rusia           33.73 357  P       P      04 16 11.4 +1.7
RPN   Rapa Nui           33.75 262  LR      LR     04 26 22.6
      comp=Z,219µm,19.2s,baz=90,slow=30
RPN   Rapa Nui           33.75 262  P       P      04 16 17.0 +7.6
CBOC  Ciudad Bolivar     33.98 351  P       P      04 16 11.7 +0.2
      comp=Z,104µmcomp=Z,17µmcomp=Z,754nm,1.0s
PTBC  PUERTO BERRIO,     34.47 354  P       P      04 16 13.2 -2.4
      comp=Z,102µmcomp=Z,11µmcomp=Z,423nm,1.2s
DBBC  Dabeiba            35.14 351  P       P      04 16 22.6 +1.2
PAMC  Pamplona, Colo     35.15 357  P       P      04 16 21.5 -0.5
PTAC  Punta Ardita,      35.51 349  P       P      04 16 26.3 +1.8
      comp=Z,16µmcomp=Z,439nm,1.2s
UREC  San Jos de Ur      35.78 353  P       P      04 16 27.1 +0.3
      comp=Z,111µmcomp=Z,16µmcomp=Z,354nm,0.9s
APAC  Apartado, Choc     36.06 351  P       P      04 16 31.2 +2.0
      comp=Z,129µmcomp=Z,23µmcomp=Z,587nm,1.2s
NBTA  Tacaratu-PE        36.39  65  P       P      04 16 30.2 -2.0
NBTA  Tacaratu-PE        36.39  65 eP       P      04 16 28.1 -4.1
HOPE  Hope Point         36.43 146 i P      P      04 16 32.6 +0.6
HOPE  Hope Point         36.43 146  P       P      04 16 31.5 -0.5
HOPE  Hope Point         36.43 146 ⇓P       P      04 16 32.5 +0.4
HOPE  Hope Point         36.43 146  P       P      04 16 32.7 +0.6
HOPE  Hope Point         36.43 146  P       P      04 16 32.9 +0.8
      comp=Z,92µmcomp=Z,454nm,1.2s
ESPZ  Base Esperanza     36.60 169  P       P      04 16 32.4 -0.9
ESPZ                                IAmb    IAmb   04 16 53.2
      comp=Z,643nm,1.3s
SDV   Santo Domingo      36.66   1  LR      LR     04 33 00.0
      comp=Z,148µm,20.8s,baz=192,slow=39
SDV   Santo Domingo      36.66   1  P       P      04 16 33.8 -0.8
SDV                                 IAMs_20 IAMs_20 04 32 49.5
      comp=Z,155µm,21.0s
SDV   Santo Domingo      36.66   1  P       P      04 16 33.1 -1.5
      comp=Z,646µmcomp=Z,56µmcomp=Z,2µm,1.2s
SDV   Santo Domingo      36.66   1  P       P      04 16 34.0 -0.6
      comp=Z,653µmcomp=Z,57µmcomp=Z,2µm,1.9s
NBPS  Pedro II - PI      36.75  56  P       P      04 16 33.5 -1.8
NBPS  Pedro II - PI      36.75  56 eP       P      04 16 31.5 -3.8
NBMA  Muriti-CE          36.87  62  P       P      04 16 34.9 -1.4
NBMA  Muriti-CE          36.87  62 eP       P      04 16 32.2 -4.1
LCBC  Los crdobas,       36.97 351  P       P      04 16 40.5 +3.5
      comp=Z,122µmcomp=Z,26µmcomp=Z,595nm,0.9s
PMSA  Palmer Station     37.08 175  LR      LR     04 31 37.3
      comp=Z,222µm,20.5s,baz=349,slow=36
PMSA  Palmer Station     37.08 175  P       P      04 16 37.0 -0.4
PMSA                                IAmb    IAmb   04 17 00.5
      comp=Z,980nm,1.7s
PMSA  Palmer Station     37.08 175 eP       P      04 16 37.0 -0.4
PMSA  Palmer Station     37.08 175  P       P      04 16 37.9 +0.5
      comp=Z,50µmcomp=Z,8µmcomp=Z,277nm,1.1s
ORCD  Orcadas            37.28 159  P       P      04 16 37.8 -1.4
NBPB  Pedra_Branca-C     37.38  59  P       P      04 16 39.2 -1.4
MDP   Montagnes des      37.44  31  LR      LR     04 32 54.5
      comp=Z,256µm,19.0s,baz=204,slow=38
MPGF  Montagnes des      37.45  31 ⇑P       P      04 16 39.8 -1.4
NBAN  Anadia - AL        37.53  68  P       P      04 16 39.4 -2.5
SJCC  San Jacinto, C     37.86 354  P       P      04 16 44.6  0.0
      comp=Z,125µmcomp=Z,19µmcomp=Z,1µm,1.2s
SJCC  San Jacinto, C     37.86 354  P       P      04 16 45.4 +0.8
BCIP  Isla Barro Col     37.88 346 ⇑P       P      04 16 46.0 +1.4
BCIP  Isla Barro Col     37.88 346  P       P      04 16 46.4 +1.7
BCIP  Isla Barro Col     37.88 346  P       P      04 16 46.9 +2.2
      comp=Z,87µmcomp=Z,15µmcomp=Z,641nm,1.7s
BCIP                                pP      sP     04 16 56.3 +4.8
PFBR  Pau dos Ferros     38.02  61  P       P      04 16 43.8 -2.2
PIRO  Carate, Puerto     38.04 340  P       P      04 16 50.9 +4.9
CDITO Canoas             38.07 341  P       P      04 16 49.3 +3.0
BRU2  Volcan             38.23 341  P       P      04 16 50.4 +2.7
BRU2  Volcan             38.23 341  P       P      04 16 50.5 +2.7
      comp=Z,50µmcomp=Z,11µmcomp=Z,479nm,2.0s
NBMO  Morrinhos-CE       38.51  56  P       P      04 16 48.2 -1.9
NBMO  Morrinhos-CE       38.51  56 eP       P      04 16 48.0 -2.1
RGM0  Gandoca            38.96 342  P       P      04 16 59.7 +5.9
QUEP  Quepos             39.27 339  P       P      04 17 00.8 +4.4
SVQ2  Quepos             39.27 339 eP       P      04 17 03.0 +6.6
PITB  Pirrs, San         39.44 340 eP       P      04 17 03.1 +5.1
URI   Uribia             39.46 359  P       P      04 16 54.3 -3.6
ABE2  San Pablo          39.49 340 eP       P      04 17 03.5 +4.9
LCR2  La Lucha 2         39.51 340  P       P      04 17 00.9 +2.3
VERB  Verbena            39.61 340 eP       P      04 17 03.2 +3.8
TRIO  Tres Rios          39.66 340 eP       P      04 17 02.8 +2.9
ABRB  Las Abras (San     39.67 340 eP       P      04 17 02.5 +2.5
CVTQ  Turrialba Volc     39.69 340 eP       P      04 17 02.8 +2.5
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SJS3  Mercedes San J  39.71 340 eP      P        04 17 03.6 +3.3
BELE  Belen           39.79 340 eP      P        04 17 03.2 +2.4
HDC   Heredia         39.79 340 ⇑P      P        04 17 02.7 +1.8
HDC   Heredia         39.79 340 eP      P        04 17 02.7 +1.8
HDC   Heredia         39.79 340  P      P        04 17 04.0 +3.1
      comp=Z,79µmcomp=Z,21µmcomp=Z,780nm,2.1s,comp=Z,21µm
TRB2  Turrubares      39.81 339  P      P        04 17 03.6 +2.7
TCS1  Tacares         39.88 340  P      P        04 17 04.6 +3.0
TCS1  Tacares         39.88 340 eP      P        04 17 04.3 +2.6
VBV1  V. Barva        39.89 340 eP      P        04 17 03.6 +1.7
PILE  Guapiles        39.90 340 eP      P        04 17 04.6 +3.0
VPS5  V. Poas         40.00 340 eP      P        04 17 05.0 +2.1
ZARE  Zarcero         40.05 340 eP      P        04 17 06.5 +3.4
VPL1  V. Platanar     40.11 340 eP      P        04 17 06.0 +2.4
ARTO  Ro Cuarto       40.14 340 eP      P        04 17 05.5 +1.7
VPL2  V. Platanar     40.16 340 eP      P        04 17 06.5 +2.5
NBPV  Pedro Velho     40.19  65  P      P        04 17 03.0 -1.2
NBPV  Pedro Velho     40.19  65 eP      P        04 16 59.2 -5.0
CMARA Lajas Hojancha  40.22 338 eP      P        04 17 05.9 +1.5
SMAI  San Martin Ant  40.24 178  P      P        04 17 03.1 -0.8
MTEVE Monteverde      40.31 339 eP      P        04 17 07.6 +2.3
JUNT  Juntas          40.32 339 eP      P        04 17 08.5 +3.4
JTS   Las Juntas de   40.32 339c iP     P        04 17 06.3 +1.1
JTS                              pmax   pmax
      comp=Z,799nm,1.9s
JTS                              MLR    MLR
      comp=Z,51µm,19.0s
JTS   Las Juntas de   40.32 339 ⇑P      P        04 17 06.8 +1.6
JTS   Las Juntas de   40.32 339  P      P        04 17 06.8 +1.6
JTS   Las Juntas de   40.32 339 eP      P        04 17 07.6 +2.4
JTS   Las Juntas de   40.32 339  P      P        04 17 07.7 +2.5
      comp=Z,80µmcomp=Z,12µmcomp=Z,319nm,1.1s
CASO  Castillo        40.39 339 eP      P        04 17 08.3 +2.5
JUD3  Juan Diaz 3     40.40 338 eP      P        04 17 07.8 +1.9
VACR  Volcan Arenal   40.41 339 eP      P        04 17 08.3 +2.4
ARE1  Arenal 1        40.41 339 eP      P        04 17 07.6 +1.7
VARE2 V. Arenal       40.41 339 eP      P        04 17 08.3 +2.3
CEDE  Laguna Cedeo    40.43 339 eP      P        04 17 07.8 +1.7
TABAC Tabacon         40.46 339 eP      P        04 17 08.4 +2.0
TILA  Tilaran         40.50 339 eP      P        04 17 08.4 +1.7
CNAS  Canas           40.50 339 eP      P        04 17 10.4 +3.8
COVE  Coope Vega, Sa  40.56 340  P      P        04 17 09.5 +2.4
COTE  Lago Cote       40.58 339 eP      P        04 17 09.6 +2.2
QUEB  Quebradon, Cot  40.62 339 eP      P        04 17 10.0 +2.4
TIMP  Tierras Morena  40.62 339 eP      P        04 17 09.6 +1.9
TENO  El Achiote      40.72 339 eP      P        04 17 10.4 +1.9
CUI   Cuipilapa       40.74 339 eP      P        04 17 10.6 +2.0
HORNC Hornillas       40.79 339 eP      P        04 17 13.1 +3.9
ALIBA Liberia Airpor  40.80 338 eP      P        04 17 11.4 +2.4
MESS  Mesas           40.83 339 eP      P        04 17 10.7 +1.4
CLARA Aguas Claras    40.86 339 eP      P        04 17 11.4 +1.8
CANAL Canalete        40.87 339 eP      P        04 17 11.6 +1.9
VMAR  Armenia, Volca  40.87 339 eP      P        04 17 11.6 +1.9
GPS2  Hotel Rincn d   40.89 338 eP      P        04 17 12.3 +2.4
UPAL  Upala           40.91 339  P      P        04 17 12.2 +2.2
UPAL  Upala           40.91 339 eP      P        04 17 11.6 +1.5
VRLE  La Escondida,   40.92 338 eP      P        04 17 12.2 +1.9
LAPC  Finca la Perla  40.93 338 eP      P        04 17 11.9 +1.7
GRGR  Grenville       40.94  14  P      P        04 17 09.2 -1.0
GRGR                             IAMs_20 IAMs_20 04 35 03.6
      comp=Z,136µm,21.0s
GRGR  Grenville       40.94  14  P      P        04 17 09.2 -1.0
GRGR  Grenville       40.94  14  P      P        04 17 09.7 -0.5
      comp=Z,105µmcomp=Z,25µmcomp=Z,3µm,0.9s
VORI  VORI            40.95 338 eP      P        04 17 11.6 +1.0
LCHIL Los Chiles      40.95 339 eP      P        04 17 14.2 +3.8
LCRUZ La Cruz         41.28 338 eP      P        04 17 14.9 +1.8
CARN  Rivas           41.35 338  P      P        04 17 19.0 +5.4
CARN  Rivas           41.35 338 eP      P        04 17 14.9 +1.2
BLUN  Bluefields      41.59 341  P      P        04 17 18.3 +2.7
OMEN  Al SSO del Vol  41.69 338  P      P        04 17 21.7 +5.3
NADN  Granada         42.04 338  P      P        04 17 22.0 +2.7
NADN  Granada         42.04 338 eP      P        04 17 23.1 +3.8
NANN  Nandasmo        42.25 338  P      P        04 17 23.7 +2.7
PRVC  Isla de Provid  42.29 345  P      P        04 17 22.7 +1.4
PRVC  Isla de Provid  42.29 345 eP      P        04 17 21.8 +0.5
BBGH  Gun Hill        42.41  17  P      P        04 17 24.3 +2.0
BBGH  Gun Hill        42.41  17  P      P        04 17 25.9 +3.6
BBGH  Gun Hill        42.41  17  P      P        04 17 25.7 +3.4
      comp=Z,164µmcomp=Z,27µmcomp=Z,1µm,1.8s
WILN  Americas 2      42.48 338  P      P        04 17 25.4 +2.6
MGAN  Managua         42.49 338  P      P        04 17 27.2 +4.3
MGAN  Managua         42.49 338  P      P        04 17 23.0 +0.1
      comp=Z,15µmcomp=Z,451nm,2.1s
MGAN                             pP     sP       04 17 33.7 +3.9
TISN  Laguna Tiscapa  42.49 338  P      P        04 17 26.8 +3.8
BOAB  BOACO BROADBAN42.58 339    P      P        04 17 21.9 -1.8
BOAB                             IAmb   IAmb     04 17 37.5
      comp=Z,2µm,1.7s
BOAB  BOACO BROADBAN42.58 339   ⇑P      P        04 17 23.6 -0.1
BOAB  BOACO BROADBAN42.58 339    P      P        04 17 24.3 +0.6
BOAB  BOACO BROADBAN42.58 339    P      P        04 17 24.5 +0.9
      comp=Z,176µmcomp=Z,20µmcomp=Z,398nm,1.2s
CNGN  Cerro Negro     42.97 337  P      P        04 17 27.6 +0.7
      comp=Z,575µmcomp=Z,95µmcomp=Z,2µm,0.9s
H05S1 Guadeloupe/Mar  43.34  15  P      P        04 17 29.6 -0.2
      SNR=124
MPOM  Morne Pois Mar  43.35  15  P      P        04 17 29.0 -0.9
MPOM                             IAmb   IAmb     04 17 32.0
      comp=Z,999nm,0.9s
MPOM                             IAMs_20 IAMs_20 04 36 57.6
      comp=Z,99µm,20.0s
MPOM  Morne Pois Mar  43.35  15  P      P        04 17 26.7 -3.2
      comp=Z,99µmcomp=Z,20µmcomp=Z,1µm,0.9s
BIM   Bigot           43.37  14  P      P        04 17 29.5 -0.6
BIM                              IAmb   IAmb     04 17 32.3
      comp=Z,935nm,0.8s
BIM                              IAMs_20 IAMs_20 04 36 29.2
      comp=Z,96µm,21.0s
BIM   Bigot           43.37  14  P      P        04 17 26.3 -3.8
      comp=Z,92µmcomp=Z,17µmcomp=Z,1µm,0.8s
BILN  Bilwi Airport   43.43 343  P      P        04 17 34.6 +4.0
SIUN  Universidad Ur  43.50 341  P      P        04 17 31.8 +0.7
FDFM  Morne la Roset  43.56  14  IAMs_20 IAMs_20 04 36 34.2
      comp=Z,111µm,22.0s
CXM   Morne La Croix  43.64  14  P      P        04 17 31.4 -1.0
CXM                              IAmb   IAmb     04 17 35.8
      comp=Z,512nm,0.8s
ILAM  Ilet Lapin Mar  43.67  15  P      P        04 17 32.2 -0.2
ILAM                             IAmb   IAmb     04 17 36.1
      comp=Z,686nm,1.0s
ILAM                             IAMs_20 IAMs_20 04 36 25.9
      comp=Z,119µm,22.0s
ILAM  Ilet Lapin Mar  43.67  15  P      P        04 17 29.9 -2.5
      comp=Z,93µmcomp=Z,13µmcomp=Z,847nm,1.1s
SVN   Savane Anatole  43.67  14  P      P        04 17 31.8 -0.7
SVN                              IAmb   IAmb     04 17 36.2
      comp=Z,604nm,0.7s
SVN                              IAMs_20 IAMs_20 04 36 48.0
      comp=Z,90µm,20.0s
SVN   Savane Anatole  43.67  14  P      P        04 17 29.9 -2.6
      comp=Z,103µmcomp=Z,16µmcomp=Z,993nm,0.8s
CSGN  Cosiguina Volc  43.71 337  P      P        04 17 37.3 +4.4
RCFN  Al S de San Ju  43.77 339  P      P        04 17 35.2 +1.7
RCVN  Varillal2       43.81 339  P      P        04 17 35.3 +1.5
OCON  Estacion meteo  43.95 338  P      P        04 17 35.9 +1.1
CNCH  Conchagua       44.08 336  P      P        04 17 37.6 +1.7
LCND  La Caada        44.13 336  P      P        04 17 37.9 +1.7
RANC  El Ranchito     44.39 336  P      P        04 17 33.3 -5.1
ALJI  Alcalda de J    44.40 335  P      P        04 17 40.6 +2.3
PACA  Pacayal         44.44 336  P      P        04 17 41.1 +2.3
TDBA  Terre de Bas,   44.55  13  P      P        04 17 39.5  0.0
TDBA  Terre de Bas,   44.55  13  P      P        04 17 38.3 -1.2
      comp=Z,85µmcomp=Z,8µmcomp=Z,168nm,1.1s
TGUH  Tegucigalpa,Un  44.61 337  P      P        04 17 38.8 -1.4
TGUH  Tegucigalpa,Un  44.61 337 ⇑P      P        04 17 40.0 -0.2
TGUH  Tegucigalpa,Un  44.61 337  P      P        04 17 41.4 +1.1
TGUH  Tegucigalpa,Un  44.61 337  P      P        04 17 41.3 +1.1
      comp=Z,73µmcomp=Z,11µmcomp=Z,458nm,0.9s
TECO  Alcaldia de Te  44.67 335  P      P        04 17 43.0 +2.5
MAGL  Barre de l'ile  44.72  14  IAMs_20 IAMs_20 04 39 08.8
      comp=Z,80µm,18.0s
CBE   Ff, Capester    44.77  13  P      P        04 17 40.7 -0.6
CBE                              IAMs_20 IAMs_20 04 37 57.0
      comp=Z,102µm,20.0s
CBE   Ff, Capester    44.77  13  P      P        04 17 41.7 +0.4
CBE   Ff, Capester    44.77  13  P      P        04 17 40.3 -1.0
      comp=Z,91µmcomp=Z,8µmcomp=Z,182nm,1.1s
COEG  Centro de Oper  44.78 335  P      P        04 17 43.8 +2.3
LALI  Alcalda de L    44.83 335  P      P        04 17 48.2 +6.5
PAVA  Las Pavas       44.89 335  P      P        04 17 44.3 +2.0
LOMA  Loma Larga      44.91 335  P      P        04 17 44.8 +2.2
GDHS  Morne Mazeau,   44.93  13  P      P        04 17 41.5 -1.1
GDHS                             IAMs_20 IAMs_20 04 38 02.9
      comp=Z,104µm,20.0s
GDHS  Morne Mazeau,   44.93  13  P      P        04 17 39.2 -3.4
      comp=Z,93µmcomp=Z,7µmcomp=Z,244nm,1.2s
JAYA  Jayaque - finc  45.02 334  P      P        04 17 46.0 +2.4
PMON  Piamonte        45.03 335  P      P        04 17 46.5 +3.0
P5NO  Presa 5 de nov  45.07 336  P      P        04 17 45.8 +2.1
GDSD  La Dsirade Is   45.12  14  P      P        04 17 41.9 -2.2
GDSD                             IAMs_20 IAMs_20 04 37 40.3
      comp=Z,77µm,20.0s
GDSD  La Dsirade Is   45.12  14  P      P        04 17 39.6 -4.4
      comp=Z,96µmcomp=Z,7µmcomp=Z,213nm,0.8s
H05N1 Guadeloupe/Mar  45.12  14  P      P        04 17 43.1 -1.0
      SNR=46
CEDA  San Andres      45.14 335  P      P        04 17 46.5 +2.2
ABD   La Joyeuse, An  45.19  13  IAMs_20 IAMs_20 04 38 09.2
      comp=Z,95µm,21.0s
CEVE  Cerro Verde     45.25 334  P      P        04 17 47.8 +2.3
UNIC  Universidad Ca  45.36 335  P      P        04 17 51.0 +4.9
NUBE  Las Nubes       45.38 334  P      P        04 17 48.7 +2.4
FAME  Alcaldia de Sa  45.42 334  P      P        04 17 50.9 +4.5
MTO3  Montecristo     45.67 335  P      P        04 17 50.3 +1.6
SARH  Santa Rosa de   45.80 336  P      P        04 17 52.6 +3.1
ESQI  Esquipulas      45.81 335  P      P        04 17 52.1 +2.3
PCJ   Portland Cotta  45.83 352 i P     P        04 17 51.4 +1.8
MLPR  Magueyes Islan  45.86   5  P      P        04 17 48.8 -1.1
CRPR  Cabo Rojo, PR   45.89   5  P      P        04 17 49.3 -0.8
SEUS  St. Eustatius   45.90  11  P      P        04 17 49.5 -0.7
SEUS  St. Eustatius   45.90  11  P      P        04 17 49.9 -0.4
      comp=Z,89µmcomp=Z,112µmcomp=Z,315nm,1.3s,comp=Z,112µm
OBIP  Obispado Ponce  45.97   6  IAmb   IAmb     04 17 54.3
      comp=Z,401nm,0.9s
SABA  Saba            45.99  11  IAmb   IAmb     04 17 55.7
      comp=Z,491nm,0.8s
SABA  Saba            45.99  11  P      P        04 17 51.3 +0.3
SABA  Saba            45.99  11  P      P        04 17 47.9 -3.0
      comp=Z,92µmcomp=Z,18µmcomp=Z,778nm,1.6s
PDPR  Patillas Dam,   46.01   7  IAmb   IAmb     04 17 53.2
      comp=Z,555nm,0.8s
CELP  Cerrillos       46.01   6  P      P        04 17 49.7 -1.3
HOJ   Hope            46.04 353 i P     P        04 17 53.2 +1.9
HOJ                            ⇓iP      pP       04 17 56.1 -0.3
MCJ   Malvern         46.08 351 i P     P        04 17 53.0 +1.3
SJG   San Juan        46.09   7  LR     LR       04 39 11.8
      comp=Z,38µm,19.3s,baz=194,slow=39
SJG   San Juan        46.09   7  P      P        04 17 49.1 -2.5
SJG                              pmax   pmax
      comp=Z,465nm,0.8s
SJG                              MLR    MLR
      comp=Z,47µm,19.0s
SJG   San Juan        46.09   7  P      P        04 17 49.1 -2.5
SJG                              IAmb   IAmb     04 17 57.5
      comp=Z,465nm,0.8s
SJG   San Juan        46.09   7  P      P        04 17 50.4 -1.2
SJG   San Juan        46.09   7  P      P        04 17 50.1 -1.5
      comp=Z,95µmcomp=Z,14µmcomp=Z,670nm,0.8s
PRSN  Puerto Rico Se  46.10   5  IAmb   IAmb     04 17 56.0
      comp=Z,512nm,0.8s
GWJ   Greenwich       46.11 353⇑iP      P        04 17 51.8 -0.2
GWJ                            ⇓iP      pP       04 17 52.8 -4.2
BANI  BANI            46.11   1  P      P        04 17 51.5 -0.5
STH   Stony Hill      46.12 353⇑iP      P        04 17 52.6 +0.6
STH                             i P     pP       04 17 52.7 -4.3
STH   Stony Hill      46.12 353 eP      P        04 17 47.8 -4.2
STH                              IAmb   IAmb     04 18 10.5
      comp=Z,15µm,1.7s
SDD   Santo Domingo   46.19   2  P      P        04 17 52.9 +0.5
LGNH  Logne           46.25 358  P      P        04 17 54.1 +1.2
AOPR  Arecibo Observ  46.26   6  P      P        04 17 51.5 -1.6
AOPR                             IAmb   IAmb     04 17 57.0
      comp=Z,460nm,0.8s
ECPR  Experimental S  46.27   6  P      P        04 17 50.6 -2.6
ECPR                             IAmb   IAmb     04 17 54.7
      comp=Z,410nm,0.9s
ANWB  Willy Bob       46.29  12  IAmb   IAmb     04 17 53.9
      comp=Z,463nm,0.8s
ANWB                             IAMs_20 IAMs_20 04 38 41.4
      comp=Z,89µm,21.0s
ANWB  Willy Bob       46.29  12  P      P        04 17 51.1 -2.2
ANWB  Willy Bob       46.29  12  P      P        04 17 48.7 -4.5
      comp=Z,86µmcomp=Z,13µmcomp=Z,862nm,1.0s
AGPR  Aguadilla, PR   46.35   5  IAmb   IAmb     04 18 59.8
      comp=Z,429nm,1.1s
CVJ   Coleyville      46.35 352⇑iP      P        04 17 54.3 +0.4
SMRT  St. Maarten     46.44  11  P      P        04 17 52.7 -1.7
SMRT                             IAMs_20 IAMs_20 04 39 43.2
      comp=Z,72µm,18.0s
SMRT  St. Maarten     46.44  11  P      P        04 17 50.6 -3.8
      comp=Z,98µmcomp=Z,12µmcomp=Z,425nm,1.1s
APG   El Apazote      46.65 334  LR     LR       04 33 40.2
      comp=Z,5µm,20.2s,baz=64,slow=31
SDDR  Presa de Saban  46.69 360  IAMs_20 IAMs_20 04 39 56.3
      comp=Z,83µm,19.0s
SDDR  Presa de Saban  46.69 360 ⇑P      P        04 17 55.6 -0.9
SDDR  Presa de Saban  46.69 360⇑iP      P        04 17 56.6 +0.1
SDDR  Presa de Saban  46.69 360  P      P        04 17 56.8 +0.3
SDDR  Presa de Saban  46.69 360 eP      P        04 17 54.3 -2.2
SDDR  Presa de Saban  46.69 360  P      P        04 17 56.8 +0.3
      comp=Z,97µmcomp=Z,13µmcomp=Z,411nm,1.7s
RTAL  Retalhuleu      46.71 332  P      P        04 17 59.5 +2.9
SC01  Santiago de lo  47.14   1  P      P        04 18 01.0 +1.1
HUEH  Huehuetenango   47.34 333  P      P        04 18 03.8 +1.9
GTBY  Guantanamo Bay  47.79 355  P      P        04 18 04.3 -0.6
GTBY                             IAmb   IAmb     04 18 09.4
      comp=Z,611nm,1.0s
GTBY  Guantanamo Bay  47.79 355 ⇑P      P        04 18 05.2 +0.2
GTBY  Guantanamo Bay  47.79 355  P      P        04 18 05.5 +0.6
GTBY  Guantanamo Bay  47.79 355 eP      P        04 18 04.5 -0.4
GTBY  Guantanamo Bay  47.79 355 eP      P        04 18 03.2 -1.7
GTBY                             IAmb   IAmb     04 18 08.4
      comp=Z,600nm,1.3s
GTBY  Guantanamo Bay  47.79 355  P      P        04 18 05.5 +0.6
      comp=Z,89µmcomp=Z,13µmcomp=Z,576nm,1.0s
RCC   Rio Carpintero  47.90 354 eP      P        04 18 06.7 +0.9
RCC   Rio Carpintero  47.90 354 eP      P        04 18 04.5 -1.4
CHIV  Chivirico       47.95 353  P      P        04 18 04.5 -1.7
CHIV  Chivirico       47.95 353  P      P        04 18 06.4 +0.2
CHIV  Chivirico       47.95 353 eP      P        04 18 04.5 -1.7
CHIV                             IAmb   IAmb     04 18 09.2
      comp=Z,84nm,1.2s
FSCY  Frank Sound, G  48.01 347  P      P        04 18 07.2 +0.5
FSCY  Frank Sound, G  48.01 347 eP      P        04 18 09.3 +2.6
QMBU  Quimbuelo       48.03 355  P      P        04 18 09.3 +2.4
QMBU  Quimbuelo       48.03 355 eP      P        04 18 09.1 +2.2
QMBU  Quimbuelo       48.03 355 eP      P        04 18 04.5 -2.4
QMBU                             IAmb   IAmb     04 18 09.7
      comp=Z,127nm,1.0s
LMGC  Las Mercedes    48.10 353 eP      P        04 18 08.3 +0.9
LCCY  Blossom Villag  48.15 349 eP      P        04 18 09.9 +2.1
CBCY  The Bluff, Cay  48.17 349  P      P        04 18 10.4 +2.5
PETF  Flores          48.17 336  P      P        04 18 09.3 +1.3
YAR   Yar             48.34 353 eP      P        04 18 11.3 +2.1
YAR   Yar             48.34 353 eP      P        04 18 06.1 -3.1
YAR                              IAmb   IAmb     04 18 12.9
      comp=Z,308nm,1.3s
PINC  Pinares de May  48.40 354 eP      P        04 18 08.6 -1.0
PINC  Pinares de May  48.40 354 eP      P        04 18 08.1 -1.5
PINC                             IAmb   IAmb     04 18 12.8
      comp=Z,383nm,1.4s
NMDO  Nuevo Mundo     48.40 355  P      P        04 18 11.3 +1.6
NMDO  Nuevo Mundo     48.40 355 eP      P        04 18 12.1 +2.4
NMDO  Nuevo Mundo     48.40 355 eP      P        04 18 05.3 -4.4
NMDO                             IAmb   IAmb     04 18 12.9
      comp=Z,139nm,1.2s
MOAC  Moa             48.50 355 eP      P        04 18 08.6 -1.9
MOAC  Moa             48.50 355 eP      P        04 18 08.5 -1.9
MOAC                             IAmb   IAmb     04 18 15.7
      comp=Z,192nm,1.2s
HLGC  Holguin         48.82 354 eP      P        04 18 15.4 +2.4
HLGC  Holguin         48.82 354 eP      P        04 18 12.2 -0.8
GRTK  Grand Turk      49.21   0  IAMs_20 IAMs_20 04 41 43.0
      comp=Z,67µm,19.0s
GRTK  Grand Turk      49.21   0 ⇑P      P        04 18 15.1 -0.8
GRTK  Grand Turk      49.21   0  P      P        04 18 16.0 +0.1
GRTK  Grand Turk      49.21   0  P      P        04 18 18.6 +2.8
      comp=Z,93µmcomp=Z,35µmcomp=Z,1µm,2.0s
CCCC  Cccc            49.31 352 eP      P        04 18 17.7 +1.0
CCCC  Cccc            49.31 352 eP      P        04 18 15.4 -1.2
H09W1 TRISTAN DA CUN  49.74 116  P      P        04 18 22.4 +2.5
      SNR=8.2
H09N1 TRISTAN DA CUN  49.76 116  P      P        04 18 20.3 +0.3
      SNR=7.6
TRIS  Tristan da Cun  49.76 116  P      P        04 18 19.7 -0.4
TRIS  Tristan da Cun  49.76 116  P      P        04 18 20.9 +0.9
      comp=Z,109µmcomp=Z,27µmcomp=Z,1µm,1.0s
CMIG  Matias Romero   50.36 330  LR     LR       04 34 54.5
      comp=Z,53µm,21.6s,baz=170,slow=30
MGV   Manicaragua     50.53 349 eP      P        04 18 27.6 +1.7
MGV   Manicaragua     50.53 349 eP      P        04 18 21.9 -4.0
MGV                              IAmb   IAmb     04 18 29.2
      comp=Z,999nm,1.7s
SCIG  Sabancuy        50.54 335  P      P        04 18 26.8 +0.7
TEIG  Tepich          50.71 339  P      P        04 18 26.4 -0.9
TEIG                             PcP    PcP      04 19 43.7 -0.8
TEIG  Tepich          50.71 339 ⇑P      P        04 18 26.6 -0.7
TEIG  Tepich          50.71 339  P      P        04 18 28.2 +0.9
TEIG  Tepich          50.71 339  P      P        04 18 28.1 +0.9
      comp=Z,70µmcomp=Z,27µmcomp=Z,1µm,1.9s
CAIB  Caibarien       50.82 350  P      P        04 18 27.1 -1.0
CAIB  Caibarien       50.82 350  P      P        04 18 28.6 +0.4
CAIB  Caibarien       50.82 350 eP      P        04 18 26.4 -1.7
CAMR  Camarioca       51.70 348  P      P        04 18 34.7  0.0
CAMR  Camarioca       51.70 348 eP      P        04 18 33.3 -1.4
SOR   Soroa           51.76 346  P      P        04 18 33.4 -1.8
SOR                              pmax   pmax
      comp=Z,1µm,1.4s
SOR   Soroa           51.76 346  P      P        04 18 33.4 -1.8
SOR   Soroa           51.76 346 eP      P        04 18 35.1 -0.1
SOR   Soroa           51.76 346 eP      P        04 18 32.9 -2.3
SOR   Soroa           51.76 346  P      P        04 18 35.9 +0.7
      comp=Z,62µmcomp=Z,15µmcomp=Z,708nm,1.6s
PTCN  Pitcairn Islan  52.36 259  P      P        04 18 41.6 +1.8
TLIG  Tlapa           52.48 326  P      P        04 18 42.7 +1.9
UNM   Universidad Na  54.29 327  P      P        04 18 59.1 +4.9
UNM                              pmax   pmax
      comp=Z,787nm,1.1s
UNM   Universidad Na  54.29 327  P      P        04 18 57.8 +3.6
      comp=Z,73µmcomp=Z,12µmcomp=Z,786nm,1.1s
VNA3  Neumayer Olymp  54.67 160 ⇑P      P        04 18 54.6 -1.5
      comp=Z,228nm,0.8s
VNA3                            ⇑S      S        04 26 33.1 -2.1
      comp=N,12nm,1.1s
VNA3  Neumayer Olymp  54.67 160  P      P        04 18 55.2 -0.9
      comp=Z,71µmcomp=Z,13µmcomp=Z,556nm,1.1s,comp=Z,13µm
VNA1  Neumayer--Stat  54.94 159 ⇑P      P        04 18 57.5 -0.5
      comp=Z,304nm,1.0s
VNA2  Neumayer--Watz  55.30 159 ⇑P      P        04 18 59.1 -1.5
      comp=Z,290nm,0.7s,baz=284,slow=8.1
VNA2                            ⇑S      S        04 26 41.4 -2.1
      comp=N,12nm,1.1s,baz=312,slow=6.9
VNA2  Neumayer--Watz  55.30 159  P      P        04 18 59.3 -1.3
      comp=Z,74µmcomp=Z,12µmcomp=Z,836nm,1.3s
MOIG  Morelia         55.58 325  P      P        04 19 05.7 +2.1
H10S3 ASCENSION HYDR56.34  82    P      P        04 19 10.6 +2.0
      baz=190,slow=74,SNR=3.3
H10S2 ASCENSION HYDR56.35  82    P      P        04 19 08.5 -0.2
      baz=30,slow=74,SNR=4.8
DWPF  Disney Wildern  56.64 349  P      P        04 19 09.0 -1.6
DWPF                             IAmb   IAmb     04 19 14.3
      comp=Z,509nm,1.2s
DWPF  Disney Wildern  56.64 349 ⇑P      P        04 19 09.8 -0.9
DWPF  Disney Wildern  56.64 349  P      P        04 19 13.1 +2.5
      comp=Z,74µmcomp=Z,9µmcomp=Z,361nm,1.2s,comp=Z,9µm
SNAA  Sanae           56.90 159 ⇑P      P        04 19 10.5 -1.7
      comp=Z,10µm,1.0s
SNAA                            ⇑S      S        04 27 01.5 -3.4
      comp=N,380nm,1.6s
SNAA  Sanae           56.90 159  P      P        04 19 10.8 -1.3
      comp=N,537nm,1.1s,baz=289,slow=5.9,SNR=144
SNAA                             S      S        04 27 00.9 -4.0
      comp=N,3.7nm,0.8s,baz=237,slow=22,SNR=8.4
SNAA                             LR     LR       04 44 23.2
      comp=N,40µm,18.8s,baz=298,slow=37
      comp=N,537nm,1.1s
SNAA  Sanae           56.90 159c iP     P        04 19 10.6 -1.5
SNAA                             pmax   pmax
      comp=Z,805nm,1.1s
SNAA                             MLR    MLR
      comp=Z,39µm,19.0s
SNAA  Sanae           56.90 159  P      P        04 19 11.4 -0.7
SNAA  Sanae           56.90 159  P      P        04 19 11.1 -1.1
      comp=Z,66µmcomp=Z,14µmcomp=Z,863nm,1.3s,comp=Z,14µm
H10N3 ASCENSION HYDR57.00  81    P      P        04 19 14.1 +0.9
      baz=14,slow=74,SNR=6.4
H10N1 ASCENSION HYDR57.01  81    P      P        04 19 14.3 +0.9
      baz=191,slow=74,SNR=8.7
H10N2 ASCENSION HYDR57.02  81    P      P        04 19 13.2 -0.2
      SNR=7.6
ASCN  Ascension       57.08  81  P      P        04 19 12.3 -1.9
      comp=Z,126µmcomp=Z,21µmcomp=Z,721nm,0.8s
656A  Willston        58.06 348  P      P        04 19 20.1 -0.5
656A                             IAmb   IAmb     04 19 24.9
      comp=Z,547nm,1.1s
TROLL Troll, Antarti  58.61 160 ⇑P      P        04 19 22.7 -1.6
      comp=Z,22µm,1.0s
TROLL                           ⇑S      S        04 27 24.4 -3.1
      comp=N,554nm,1.0s
ZAIG  Zacatecas       58.86 326  P      P        04 19 28.5 +1.7
ZAIG  Zacatecas       58.86 326  P      P        04 19 29.2 +2.4
      comp=Z,63µmcomp=Z,8µmcomp=Z,153nm,1.1s,comp=Z,8µm
456A  Hilliard        59.30 349  P      P        04 19 28.5 -0.7
TIGA  Tifton          60.27 348  P      P        04 19 34.5 -1.4
H06S1 SOCORRO T       60.33 316  T      T        05 25 13.6
      SNR=26
BBSR  BB Station      60.34   6  P      P        04 19 35.4 -1.0
BBSR                             IAmb   IAmb     04 19 40.1
      comp=Z,266nm,0.9s
BBSR  BB Station      60.34   6  P      P        04 19 37.1 +0.7
BBSR  BB Station      60.34   6  P      P        04 19 38.5 +2.1
      comp=Z,90µmcomp=Z,12µmcomp=Z,325nm,0.9s
H06N1 SOCORRO T-PHAS60.45 316    P      P        04 19 39.0 +1.6
      SNR=6.1
H06N1                            T      T        05 25 10.2
      SNR=35
KVTX  Kingsville      60.88 333  P      P        04 19 38.9 -1.3
KVTX  Kingsville      60.88 333  P      P        04 19 43.1 +2.9
      comp=Z,93µmcomp=Z,15µmcomp=Z,426nm,1.3s
SHEL  Horse Pasture   61.23  94 i P     P        04 19 44.5 +1.5
SHEL  Horse Pasture   61.23  94  P      P        04 19 42.0 -0.9
SHEL  Horse Pasture   61.23  94  P      P        04 19 40.0 -3.0
      comp=Z,117µmcomp=Z,20µmcomp=Z,955nm,1.1s
NVL   N'lazarevskaya  61.57 158 eP      P        04 19 38.5 -5.8
NVL                              pmax   pmax
      comp=Z,1µm,1.3s
NVL                              MLR    MLR
      comp=Z,44µm,18.0s
346A  Big Creek Wild  61.57 342  IAmb   IAmb     04 19 49.0
      comp=Z,567nm,1.2s
152A  Waverly Hall    61.68 347  IAmb   IAmb     04 19 58.4
      comp=Z,256nm,1.0s
Y58A  Scranton        62.08 352  IAMs_20 IAMs_20 04 47 15.7
      comp=Z,53µm,22.0s
GOGA  Godfrey         62.17 348  IAmb   IAmb     04 19 51.9
      comp=Z,337nm,1.2s
GOGA  Godfrey         62.17 348  P      P        04 19 48.4 -0.4
      comp=Z,66µmcomp=Z,6µmcomp=Z,256nm,1.2s
GOGA                             pP     sP       04 19 58.5 +2.7
QSPA  South Pole Qui  62.23 180  P      P        04 19 48.3 -0.7
      comp=Z,106nm,0.9s,baz=151,slow=0.8,SNR=78
QSPA                             S      S        04 28 11.6 -2.4
      comp=Z,11nm,1.2s,baz=158,slow=12,SNR=1.4
QSPA                             LR     LR       04 46 14.3
      comp=Z,37µm,21.4s,baz=166,slow=36
QSPA                             PKPPKP P'P'df   04 48 54.8 -7.4
      comp=Z,17nm,1.0s,baz=246,slow=4.6,SNR=3.2
QSPA                             PKP2bc          04 49 03.8
      comp=Z,59nm,1.0s,baz=286,slow=2.3,SNR=6.8
      comp=Z,106nm,0.9s
QSPA  South Pole Qui  62.23 180  P      P        04 19 48.2 -0.8
HKT   Hockley         62.25 336  P      P        04 19 48.4 -0.9
HKT                              pmax   pmax
      comp=Z,1µm,1.9s
HKT   Hockley         62.25 336  P      P        04 19 48.4 -0.9
HKT   Hockley         62.25 336  P      P        04 19 50.8 +1.6
HKT   Hockley         62.25 336  P      P        04 19 49.9 +0.6
      comp=Z,79µmcomp=Z,11µmcomp=Z,182nm,0.9s
Y57A  Sumter          62.28 351  IAmb   IAmb     04 19 53.8
      comp=Z,471nm,1.0s
LRAL  Lakeview Retre  62.52 345  IAmb   IAmb     04 19 54.4
      comp=Z,336nm,1.4s
146A  Union           62.64 343  IAmb   IAmb     04 19 58.0
      comp=Z,380nm,1.0s
JSC   Jenkinsville    62.66 351  IAmb   IAmb     04 19 55.6
      comp=Z,378nm,1.2s
X58A  Rowland         62.68 352  IAMs_20 IAMs_20 04 47 43.7
      comp=Z,45µm,22.0s
Y52A  Lilburn         62.72 348  IAmb   IAmb     04 19 56.3
      comp=Z,327nm,1.1s
HODGE Hodges          62.77 350  IAmb   IAmb     04 19 56.2
      comp=Z,333nm,1.3s
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SACV	Santiago Islan	62.81	53	P	P	04 19 52.3	-1.2
SACV	Santiago Islan	62.81	53	P	P	04 19 54.6	+1.1
	comp=Z,110µmcomp=Z,11µmcomp=Z,335nm,1.7s						
BIRD	Birdtown, Kers	62.91	351	IAmb	IAmb	04 19 57.4	
	comp=Z,562nm,1.3s						
Z47A	Carrollton	62.93	344	IAmb	IAmb	04 20 07.1	
	comp=Z,247nm,0.9s						
HNDO	Hondo	63.20	333	IAmb	IAmb	04 20 22.6	
	comp=Z,263nm,0.8s						
PAULI	Pauline	63.28	350	IAmb	IAmb	04 19 59.8	
	comp=Z,462nm,1.2s						
KMSC	Kings Mountain	63.52	351	IAmb	IAmb	04 20 01.3	
	comp=Z,408nm,1.2s						
KMSC				IAMs_20	IAMs_20	04 50 16.8	
	comp=Z,42µm,20.0s						
SLBS	Sierra La Lagu	63.54	320	⇑P	P	04 20 00.2	+2.0
SLBS	Sierra La Lagu	63.54	320	P	P	04 20 00.8	+2.6
SLBS	Sierra La Lagu	63.54	320	P	P	04 20 00.3	+2.1
	comp=Z,58µmcomp=Z,8µmcomp=Z,133nm,1.8s						
BG3	Lake Jocassee	63.62	349	IAmb	IAmb	04 20 02.1	
	comp=Z,382nm,1.2s						
HPIG		63.87	326	P	P	04 20 02.5	+1.9
HPIG		63.87	326	P	P	04 20 02.2	+1.7
	comp=Z,61µmcomp=Z,7µmcomp=Z,178nm,1.1s						
V58A	Windy Hill, Pi	63.88	353	IAmb	IAmb	04 20 04.3	
	comp=Z,310nm,1.0s						
W52A	Murphy	63.89	348	IAmb	IAmb	04 20 13.7	
	comp=Z,470nm,1.0s						
X48A	Hartselle	63.89	345	IAmb	IAmb	04 20 04.3	
	comp=Z,474nm,1.0s						
LPIG	La Paz	64.07	320	LR	LR	04 42 20.8	
	comp=Z,31µm,19.4s,baz=135,slow=31						
V55A	Taylorsville	64.20	351	IAmb	IAmb	04 20 06.6	
	comp=Z,410nm,1.0s						
JCT	Junction City	64.25	333	IAmb	IAmb	04 20 29.2	
	comp=Z,313nm,0.8s						
W50A	Signal Mountai	64.25	347	IAmb	IAmb	04 20 16.0	
	comp=Z,448nm,0.9s						
V53A	Saluda	64.26	349	IAmb	IAmb	04 20 06.1	
	comp=Z,391nm,1.2s						
V53A				IAMs_20	IAMs_20	04 49 37.5	
	comp=Z,45µm,22.0s						
CPCT	Cooper Cave	64.34	348	IAmb	IAmb	04 20 07.3	
	comp=Z,446nm,1.0s						
TKL	Tuckaleechee C	64.41	349	IAmb	IAmb	04 20 07.5	
	comp=Z,489nm,1.1s						
U56A	King	64.58	352	IAmb	IAmb	04 20 09.3	
	comp=Z,352nm,1.0s						
U56A				IAMs_20	IAMs_20	04 49 04.8	
	comp=Z,46µm,22.0s						
BRDY	Brady	64.64	334	IAmb	IAmb	04 20 24.5	
	comp=Z,296nm,1.0s						
SAND	Sanderson	64.77	330	IAmb	IAmb	04 20 13.2	
	comp=Z,269nm,1.0s						
T59A	Double "B" Far	64.89	354	IAmb	IAmb	04 20 11.4	
	comp=Z,529nm,1.0s						
TXAR	Lajitas Array	64.93	329	P	P	04 20 07.3	+0.1
	comp=Z,32nm,0.9s,baz=153,slow=5.8,SNR=90						
TXAR				S	S	04 28 50.5	+2.2
	comp=Z,0.8nm,0.9s,baz=105,slow=20,SNR=1.5						
TXAR				LR	LR	04 44 46.5	
	comp=Z,39µm,18.9s,baz=142,slow=33						
TXAR				PKPPKP	P'P'df	04 48 52.9	+6.1
	comp=Z,7.1nm,1.1s,baz=336,slow=3.3,SNR=5.5						
	comp=Z,32nm,0.9s						
TXAR	Lajitas Array	64.93	329	P	P	04 20 05.4	-1.9
U54A	Nelsons Funny	64.94	351	IAmb	IAmb	04 20 11.2	
	comp=Z,526nm,1.0s						
U54A				IAMs_20	IAMs_20	04 49 12.5	
	comp=Z,44µm,21.0s						
ELIB	Princess Elisa	65.05	160	*d*P	P	04 20 05.9	-1.7
	comp=Z,200nm,1.4s						
OZNA	Ozona	65.18	332	IAmb	IAmb	04 20 28.3	
	comp=Z,373nm,1.0s						
TZTN	Tazewell	65.24	349	IAmb	IAmb	04 20 12.2	
	comp=Z,493nm,1.4s						
TZTN				IAMs_20	IAMs_20	04 49 11.3	
	comp=Z,46µm,22.0s						
TZTN	Tazewell	65.24	349	P	P	04 20 08.5	-0.5
	comp=Z,64µmcomp=Z,7µmcomp=Z,323nm,1.8s,comp=Z,7µm						
TZTN				pP	sP	04 20 19.0	+2.9
CLTN	Cedars of Leba	65.32	347	IAmb	IAmb	04 20 13.0	
	comp=Z,393nm,1.4s						
BLA	Blacksburg	65.44	352	IAmb	IAmb	04 20 24.0	
	comp=Z,283nm,1.1s						
UALR	University of	65.56	341	IAmb	IAmb	04 20 27.6	
	comp=Z,398nm,1.3s						
U49A	Red Boiling Sp	65.62	347	IAmb	IAmb	04 20 24.6	
	comp=Z,297nm,1.0s						
WVT	Waverly	65.68	345	P	P	04 20 10.2	-1.6
WVT				pmax	pmax		
	comp=Z,377nm,0.9s						
WVT				MLR	MLR		
	comp=Z,22µm,21.0s						
WVT	Waverly	65.68	345	P	P	04 20 10.2	-1.6
WVT				IAmb	IAmb	04 20 16.8	
	comp=Z,377nm,0.9s						
WVT	Waverly	65.68	345	P	P	04 20 11.5	-0.3
	comp=Z,68µmcomp=Z,9µmcomp=Z,509nm,0.9s						
MIAR	Mount Ida	65.71	340	IAmb	IAmb	04 20 28.2	
	comp=Z,329nm,1.1s						
MIAR	Mount Ida	65.71	340	P	P	04 20 12.7	+0.6
	comp=Z,72µmcomp=Z,9µmcomp=Z,347nm,1.3s						
ALPN	Alpine	65.80	329	IAmb	IAmb	04 20 37.0	
	comp=Z,688nm,1.9s						
S57A	Dark Hollow, R	65.81	353	IAmb	IAmb	04 20 16.7	
	comp=Z,526nm,1.2s						
HBAR	Harrisburg	65.82	343	IAmb	IAmb	04 20 25.1	
	comp=Z,628nm,1.2s						
SGCY	Sterling City	66.05	332	IAmb	IAmb	04 20 41.6	
	comp=Z,286nm,0.9s						
CBN	Corbin Frederi	66.10	355	IAmb	IAmb	04 20 18.8	
	comp=Z,632nm,1.3s						
S54A	Dingess, Beckl	66.13	351	IAmb	IAmb	04 20 27.9	
	comp=Z,315nm,1.0s						
MNHN	Monahans	66.24	331	IAmb	IAmb	04 20 42.3	
	comp=Z,285nm,1.1s						
S51A	Beattyville	66.31	349	IAmb	IAmb	04 20 19.1	
	comp=Z,397nm,1.2s						
S51A				IAMs_20	IAMs_20	04 49 53.8	
	comp=Z,40µm,20.0s						
R55A	Marlinton	66.45	352	IAmb	IAmb	04 20 21.1	
	comp=Z,489nm,1.3s						
WTFS	Witchita Falls	66.65	335	IAmb	IAmb	04 20 24.4	
	comp=Z,238nm,0.9s						
APMT	Aspermont	66.88	334	IAmb	IAmb	04 20 39.0	
	comp=Z,399nm,1.0s						
SN07	Snyder 07	66.98	333	IAmb	IAmb	04 20 39.4	
	comp=Z,233nm,0.9s						
R50A	Paris	67.06	349	IAMs_20	IAMs_20	04 47 42.7	
	comp=Z,48µm,22.0s						
Q56A	Snyder Ridge,	67.10	353	IAmb	IAmb	04 20 25.5	
	comp=Z,638nm,1.3s						
X34A	Smith Ranch, M	67.17	336	IAmb	IAmb	04 20 28.3	
	comp=Z,422nm,1.0s						
POST	Post	67.20	333	IAmb	IAmb	04 20 40.2	
	comp=Z,289nm,1.1s						
Q54A	Coxs Mills	67.23	352	IAMs_20	IAMs_20	04 49 08.1	
	comp=Z,43µm,22.0s						
T42A	Van Buren	67.33	343	IAmb	IAmb	04 20 27.8	
	comp=Z,246nm,0.9s						
W35A	Tecumseh	67.33	337	IAmb	IAmb	04 20 38.4	
	comp=Z,974nm,1.9s						
WCI	Wyandotte Cave	67.38	347	P	P	04 20 21.5	-1.2
WCI				pmax	pmax		
	comp=Z,372nm,1.0s						
WCI				MLR	MLR		
	comp=Z,31µm,21.0s						
WCI	Wyandotte Cave	67.38	347	P	P	04 20 21.4	-1.2
WCI				IAmb	IAmb	04 20 35.5	
	comp=Z,372nm,1.0s						
WCI	Wyandotte Cave	67.38	347	P	P	04 20 22.1	-0.6
	comp=Z,63µmcomp=Z,8µmcomp=Z,402nm,1.0s						
Q52A	Bidwell	67.41	351	IAmb	IAmb	04 20 26.1	
	comp=Z,472nm,1.3s						
HHAR	Hobbs	67.43	340	IAmb	IAmb	04 20 29.0	
	comp=Z,368nm,1.0s						
Q51A	Peebles	67.63	350	IAmb	IAmb	04 20 28.1	
	comp=Z,293nm,1.0s						
WMOK	Wichita Mounta	67.63	336	IAmb	IAmb	04 20 38.1	
	comp=Z,433nm,1.8s						
WMOK	Wichita Mounta	67.63	336	P	P	04 20 24.4	+0.1
	comp=Z,58µmcomp=Z,7µmcomp=Z,134nm,2.7s						
RLO	Rose Lookout	67.65	339	IAmb	IAmb	04 20 30.5	
	comp=Z,336nm,1.0s						
SRIG	Santa Rosalia	67.66	321	P	P	04 20 26.9	+2.2
SRIG	Santa Rosalia	67.66	321	P	P	04 20 24.7	0.0
	comp=Z,54µmcomp=Z,6µmcomp=Z,107nm,1.4s						
MNTX	Cornudas Mount	67.71	329	IAMs_20	IAMs_20	04 46 13.3	
	comp=Z,47µm,19.0s						
MNTX	Cornudas Mount	67.71	329	P	P	04 20 25.1	+0.2
	comp=Z,55µmcomp=Z,5µmcomp=Z,156nm,1.0s						
OKCSW	OKLAHOMA CITY	67.75	337	IAmb	IAmb	04 20 30.9	
	comp=Z,420nm,1.0s						
MCWV	Mont Chateau	67.78	353	IAmb	IAmb	04 20 29.2	
	comp=Z,491nm,1.3s						
P53A	Whipple	67.80	351	IAmb	IAmb	04 20 28.8	
	comp=Z,561nm,1.3s						
P51A	Williamsport	68.03	350	IAmb	IAmb	04 20 30.4	
	comp=Z,365nm,1.0s						
P52A	Corning	68.05	351	IAmb	IAmb	04 20 30.6	
	comp=Z,462nm,1.1s						
OK029	Liberty Lake	68.11	337	IAmb	IAmb	04 20 33.2	
	comp=Z,453nm,0.9s						
OLIL	Olney	68.24	346	IAmb	IAmb	04 20 31.1	
	comp=Z,731nm,1.4s						
HSIG		68.29	323	P	P	04 20 29.9	+1.3
EPT	El Paso	68.29	328	IAMs_20	IAMs_20	04 45 42.7	
	comp=Z,66µm,20.0s						
CCM	Cathedral Cave	68.34	343	P	P	04 20 27.6	-1.1
CCM				pmax	pmax		
	comp=Z,1µm,1.5s						
CCM				MLR	MLR		
	comp=Z,19µm,22.0s						
CCM	Cathedral Cave	68.34	343	P	P	04 20 27.6	-1.1
CCM	Cathedral Cave	68.34	343	P	P	04 20 28.5	-0.2
	comp=Z,69µmcomp=Z,12µmcomp=Z,612nm,1.0s,comp=Z,12µm						
P48A	Milroy	68.41	348	IAmb	IAmb	04 20 31.8	
	comp=Z,497nm,1.3s						
O52A	Adamsville	68.48	351	IAmb	IAmb	04 20 32.8	
	comp=Z,422nm,1.3s						
SMWD	Samnorwood	68.50	335	IAmb	IAmb	04 20 36.6	
	comp=Z,291nm,0.9s						
MSTX	Muleshoe	68.51	332	IAmb	IAmb	04 20 49.2	
	comp=Z,350nm,0.9s						
O53A	New Philadelph	68.53	352	IAmb	IAmb	04 20 33.3	
	comp=Z,531nm,1.4s						
Q44A	Meyer Farm, Va	68.60	345	IAmb	IAmb	04 20 34.1	
	comp=Z,364nm,1.0s						
PAL	Palisades	68.69	358	IAMs_20	IAMs_20	04 52 00.8	
	comp=Z,35µm,20.0s						
ACSO	Alum Creek Sta	68.76	350	IAmb	IAmb	04 20 35.2	
	comp=Z,503nm,1.0s						
ODNJ	Ogdensburg	68.80	357	IAmb	IAmb	04 20 35.9	
	comp=Z,513nm,1.2s						
T35A	Sooner Cattle	68.82	338	IAmb	IAmb	04 20 45.8	
	comp=Z,399nm,1.2s						
WSPT	Westport, CT	68.84	358	IAMs_20	IAMs_20	04 53 05.7	
	comp=Z,39µm,20.0s						
AMTX	Amarillo	68.86	333	IAMs_20	IAMs_20	04 49 09.9	
	comp=Z,41µm,19.0s						
AMTX	Amarillo	68.86	333	⇑P	P	04 20 31.9	-0.2
P46A	Rosedale	68.90	347	IAmb	IAmb	04 20 44.9	
	comp=Z,414nm,1.1s						
P46A				IAMs_20	IAMs_20	04 53 37.1	
	comp=Z,42µm,21.0s						
BLOK	Blackwell	68.91	338	IAmb	IAmb	04 20 38.5	
	comp=Z,333nm,0.9s						
O49A	Covington	68.92	349	IAmb	IAmb	04 20 35.4	
	comp=Z,579nm,1.3s						
O49A				IAMs_20	IAMs_20	04 48 59.9	
	comp=Z,46µm,21.0s						
CROK	Carrier	68.94	337	IAmb	IAmb	04 20 38.5	
	comp=Z,268nm,0.9s						
N53A	Lisbon	69.03	352	IAmb	IAmb	04 20 36.6	
	comp=Z,520nm,1.4s						
M63A	Gales Ferry	69.05	359	IAMs_20	IAMs_20	04 49 04.3	
	comp=Z,39µm,22.0s						
PAMR	Moraine State	69.08	353	IAmb	IAmb	04 20 37.2	
	comp=Z,589nm,1.3s						
SBA	Scott Base	69.10	191	P	P	04 20 36.5	+3.5
SBA				pmax	pmax		
	comp=Z,391nm,2.4s						
SBA	Scott Base	69.10	191	P	P	04 20 35.2	+2.2
	comp=Z,40µmcomp=Z,13µmcomp=Z,390nm,2.4s,comp=Z,13µm						
O48B	Farmland	69.13	349	IAmb	IAmb	04 20 36.6	
	comp=Z,443nm,1.2s						
KSPA	Keystone Colle	69.33	356	IAmb	IAmb	04 20 39.3	
	comp=Z,668nm,1.3s						
N51A	Ashland	69.34	351	IAmb	IAmb	04 20 38.1	
	comp=Z,490nm,1.3s						
PH02	Texas Public H	69.41	333	IAmb	IAmb	04 20 42.6	
	comp=Z,261nm,1.0s						
PAOC	Oil Creek Stat	69.60	353	IAmb	IAmb	04 20 41.4	
	comp=Z,253nm,0.8s						
SFIN	Lafayette	69.61	347	IAMs_20	IAMs_20	04 55 15.9	
	comp=Z,41µm,21.0s						
N49A	Columbus Grove	69.62	350	IAMs_20	IAMs_20	04 52 11.2	
	comp=Z,43µm,21.0s						
ALLY	Alegheny Colle	69.78	353	IAmb	IAmb	04 20 41.2	
	comp=Z,606nm,1.3s						
M52A	Chesterland	69.82	352	IAmb	IAmb	04 20 42.0	
	comp=Z,374nm,1.0s						
M50A	Fremont	69.91	351	IAmb	IAmb	04 20 42.4	
	comp=Z,363nm,1.0s						
L59A	Walton	69.92	357	IAMs_20	IAMs_20	04 52 44.2	
	comp=Z,50µm,21.0s						
BINY	Binghamton	69.98	356	IAmb	IAmb	04 20 44.0	
	comp=Z,540nm,1.1s						
BINY				IAMs_20	IAMs_20	04 53 03.0	
	comp=Z,34µm,20.0s						
BINY	Binghamton	69.98	356	P	P	04 20 39.6	+0.8
	comp=Z,72µmcomp=Z,11µmcomp=Z,623nm,1.3s						
HRV	Adam Dziewonsk	70.14	360	P	P	04 20 40.8	+1.0
HRV				pmax	pmax		
	comp=Z,66nm,1.2s						
HRV	Adam Dziewonsk	70.14	360	P	P	04 20 38.9	-0.9
HRV	Adam Dziewonsk	70.14	360	P	P	04 20 41.0	+1.2
HRV	Adam Dziewonsk	70.14	360	P	P	04 20 41.4	+1.6
	comp=Z,85µmcomp=Z,13µmcomp=Z,945nm,1.2s						
HDIL	Hopedale	70.24	345	IAmb	IAmb	04 20 45.1	
	comp=Z,383nm,0.8s						
K62A	Royalston	70.31	359	IAmb	IAmb	04 20 47.8	
	comp=Z,407nm,1.0s						
TRY	Troy	70.41	358	IAMs_20	IAMs_20	04 54 13.2	
	comp=Z,35µm,20.0s						
P38A	Dawn	70.42	342	IAmb	IAmb	04 20 51.6	
	comp=Z,414nm,1.2s						
K57A	Scipio Center	70.54	356	IAmb	IAmb	04 20 46.8	
	comp=Z,447nm,1.0s						
K57A				IAMs_20	IAMs_20	04 52 10.9	
	comp=Z,37µm,22.0s						
RTBA	Rita Blanca	70.64	333	IAmb	IAmb	04 21 09.7	
	comp=Z,769nm,2.0s						
M44A	Midewin, Midew	70.77	347	IAmb	IAmb	04 20 46.7	
	comp=Z,722nm,1.3s						
M44A				IAMs_20	IAMs_20	04 55 52.7	
	comp=Z,39µm,21.0s						
TUC	Tucson	70.82	325	P	P	04 20 46.0	+1.7
TUC	Tucson	70.82	325	P	P	04 20 44.9	+0.6
	comp=Z,60µmcomp=Z,5µmcomp=Z,90nm,1.2s						
AAM	Ann Arbor	70.88	350	IAmb	IAmb	04 20 50.6	
	comp=Z,392nm,1.1s						
ALQ	Albuquerque	70.92	330	IAMs_20	IAMs_20	04 48 21.3	
	comp=Z,75µm,19.0s						
ANMO	Albuquerque	70.92	330	LR	LR	04 48 32.0	
	comp=Z,78µm,18.8s,baz=152,slow=33						
ANMO	Albuquerque	70.92	330	*c i*P	P	04 20 45.0	0.0
ANMO				pmax	pmax		
	comp=Z,286nm,1.6s						
ANMO	Albuquerque	70.92	330	P	P	04 20 43.7	-1.3
ANMO				IAmb	IAmb	04 21 08.4	
	comp=Z,425nm,1.6s						
ANMO	Albuquerque	70.92	330	P	P	04 20 46.5	+1.5
	comp=Z,62µmcomp=Z,9µmcomp=Z,119nm,2.4s						
TASM	ASL Pad, Albuq	70.92	330	IAMs_20	IAMs_20	04 48 12.4	
	comp=Z,77µm,19.0s						
TASM	ASL Pad, Albuq	70.92	330	IAMs_20	IAMs_20	04 48 12.4	
	comp=Z,77µm,19.0s						
TASM	ASL Pad, Albuq	70.92	330	IAMs_20	IAMs_20	04 48 12.4	
	comp=Z,77µm,19.0s						
J59A	Piesco	71.17	357	IAmb	IAmb	04 20 51.0	
	comp=Z,490nm,1.0s						
J59A				IAMs_20	IAMs_20	04 54 51.3	
	comp=Z,39µm,21.0s						
J57A	Williamstown	71.19	356	IAMs_20	IAMs_20	04 53 46.9	
	comp=Z,41µm,20.0s						
L44A	Lake County Fo	71.51	347	IAMs_20	IAMs_20	04 54 01.2	
	comp=Z,38µm,22.0s						
MCVT	Middlebury Col	71.61	359	IAmb	IAmb	04 20 53.4	
	comp=Z,743nm,1.4s						
L42A	Oliver, Polo	71.71	346	IAmb	IAmb	04 21 03.5	
	comp=Z,475nm,1.3s						
L42A				IAMs_20	IAMs_20	04 55 19.4	
	comp=Z,38µm,21.0s						
LBNH	Lisbon	71.88	359	IAmb	IAmb	04 20 55.8	
	comp=Z,443nm,0.9s						
CFNY	Clifton-Fine,	71.89	357	IAmb	IAmb	04 20 55.1	
	comp=Z,382nm,0.9s						
T25A	Trinidad	71.92	333	IAMs_20	IAMs_20	04 50 38.7	
	comp=Z,35µm,19.0s						
PPTF	Pamatai, Papee	71.94	259	P	P	04 20 59.1	+7.6
PPTF	Pamatai, Papee	71.94	259	P	P	04 20 54.0	+2.6
	comp=Z,40µmcomp=Z,288nm,1.2s						
PPT	Papeete	71.96	259	P	P	04 20 53.5	+2.0
	comp=Z,53nm,0.9s,baz=79,slow=20,SNR=3.7						
PPT				LR	LR	04 45 04.6	
	comp=Z,72µm,18.0s,baz=135,slow=30						
	comp=Z,53nm,0.9s						
J47A	Sunmer	71.98	350	IAMs_20	IAMs_20	04 53 41.7	
	comp=Z,43µm,21.0s						
LONY	Lake Ozonia	72.32	357	IAmb	IAmb	04 20 57.9	
	comp=Z,354nm,0.9s						
I49A	Point Hope	72.37	351	IAmb	IAmb	04 20 57.0	
	comp=Z,480nm,1.0s						
EMMW	East Machias	72.42	3	P	P	04 20 52.8	-0.7
EMMW				IAmb	IAmb	04 20 58.7	
	comp=Z,405nm,0.9s						
DBIC	Dimbokro	72.60	72	P	P	04 20 54.2	-1.2
	comp=Z,1µm,0.8s,baz=234,slow=6.0,SNR=117						
DBIC				S	S	04 30 19.2	-0.6
	comp=Z,11nm,1.0s,baz=16,slow=19,SNR=2.6						
DBIC				LR	LR	04 51 51.3	
	comp=Z,59µm,19.8s,baz=243,slow=35						
DBIC	Dimbokro	72.60	72	P	P	04 20 54.4	-0.9
DBIC	Dimbokro	72.60	72	P	P	04 20 53.9	-1.4
DBIC	Dimbokro	72.60	72	P	P	04 20 54.5	-0.9
	comp=Z,114µmcomp=Z,14µmcomp=Z,1µm,0.8s						
JFWS	Jewell Farm	72.71	345	IAMs_20	IAMs_20	04 55 58.8	
	comp=Z,36µm,20.0s						
JFWS	Jewell Farm	72.71	345	IAmb	IAmb	04 20 59.2	
	comp=Z,583nm,1.3s						
SADO	Sadowa	72.77	354	LR	LR	04 54 22.8	
	comp=Z,27µm,20.8s,baz=185,slow=37						
SADO	Sadowa	72.77	354	IAmb	IAmb	04 20 59.9	
	comp=Z,518nm,1.0s						
G62A	West of Eustis	72.86	0	IAMs_20	IAMs_20	04 54 54.2	
	comp=Z,32µm,20.0s						
GGN	Saint George	72.86	3	IAmb	IAmb	04 21 00.8	
	comp=Z,485nm,1.1s						
SDCO	Great Sand Dun	72.88	332	IAMs_20	IAMs_20	04 50 59.3	
	comp=Z,32µm,18.0s						
G65A	Princeton	72.91	3	IAmb	IAmb	04 21 01.1	
	comp=Z,426nm,1.1s						
PKME	Peaks-Kenny Pk	72.92	1	IAmb	IAmb	04 21 01.6	
	comp=Z,343nm,0.8s						
I45A	Fountain	72.99	349	IAMs_20	IAMs_20	04 54 37.5	
	comp=Z,32µm,20.0s						
MNTQ	Montreal, Queb	73.17	358	IAmb	IAmb	04 21 02.9	
	comp=Z,661nm,1.2s						
I42A	Draeger Farm,	73.36	347	IAmb	IAmb	04 21 02.9	
	comp=Z,480nm,1.3s						
L34A	Svendsen Farm,	73.40	341	IAmb	IAmb	04 21 04.5	
	comp=Z,448nm,0.9s						
S22A	4UR Ranch, Cre	73.44	331	IAMs_20	IAMs_20	04 50 03.0	
	comp=Z,46µm,20.0s						
F64A	Sherman	73.55	2	P	P	04 20 59.2	-0.9
F64A				IAmb	IAmb	04 21 05.4	
	comp=Z,398nm,0.9s						
H43A	Windswept, Lux	73.69	348	IAmb	IAmb	04 21 14.6	
	comp=Z,311nm,0.9s						
H43A				IAMs_20	IAMs_20	04 54 34.9	
	comp=Z,36µm,21.0s						
I40A	Norwalk	73.72	345	IAmb	IAmb	04 21 14.9	
	comp=Z,605nm,1.5s						
I40A				IAMs_20	IAMs_20	04 57 48.6	
	comp=Z,36µm,21.0s						
MVCO	Mesa Verde	73.72	330	P	P	04 21 03.3	+1.6
	comp=Z,9µmcomp=Z,60µmcomp=Z,161nm,1.0s						
TRQ	Mont Tremblant	73.92	358	IAmb	IAmb	04 21 06.9	
	comp=Z,516nm,0.9s						
BC3	Big Chuckawall	74.30	323	IAMs_20	IAMs_20	04 49 24.7	
	comp=Z,31µm,18.0s						
I37A	Lemond, Waseca	74.49	344	IAmb	IAmb	04 21 15.9	
	comp=Z,705nm,1.2s						
IRM	Iron Mountain	74.52	323	IAMs_20	IAMs_20	04 50 03.5	
	comp=Z,51µm,19.0s						
ISCO	Idaho Springs	74.68	333	P	P	04 21 08.2	+0.9
	comp=Z,64µmcomp=Z,6µmcomp=Z,116nm,1.7s,comp=Z,6µm						
D62A	Allapoint, All	74.74	2	P	P	04 21 06.3	-0.9
D62A				IAmb	IAmb	04 21 12.2	
	comp=Z,516nm,0.9s						
PFO	Pinyon Flats O	74.81	322	LR	LR	04 47 22.5	
	comp=Z,30µm,21.1s,baz=134,slow=30						
PFO	Pinyon Flats O	74.81	322	IAMs_20	IAMs_20	04 49 50.1	
	comp=Z,33µm,18.0s						
PFO	Pinyon Flats O	74.81	322	P	P	04 21 10.0	+1.9
	comp=Z,59µmcomp=Z,6µmcomp=Z,102nm,1.1s						
BELC	Belle Mtn. Jos	74.86	323	IAMs_20	IAMs_20	04 49 23.4	
	comp=Z,36µm,20.0s						
E46A	Sault Ste Mari	74.96	351	IAmb	IAmb	04 21 12.5	
	comp=Z,558nm,1.0s						
F42A	Maple Grove Fa	75.00	348	IAMs_20	IAMs_20	04 55 33.6	
	comp=Z,34µm,21.0s						
ECSD	EROS Data Cent	75.09	341	IAmb	IAmb	04 21 19.6	
	comp=Z,475nm,1.2s						
ECSD	EROS Data Cent	75.09	341	P	P	04 21 08.6	-0.7
	comp=Z,65µmcomp=Z,10µmcomp=Z,380nm,1.2s						
SPMN	Marine on St.	75.48	344	IAmb	IAmb	04 21 25.0	
	comp=Z,411nm,1.3s						
CER	Ceres	75.55	120	P	P	04 21 12.9	+0.5
	comp=Z,99µmcomp=Z,10µmcomp=Z,606nm,1.1s						
LDAQ	Lac Daran	75.60	360	IAmb	IAmb	04 21 16.3	
	comp=Z,539nm,1.2s						
HAYD	Hayden	75.96	332	IAMs_20	IAMs_20	04 52 27.9	
	comp=Z,29µm,18.0s						
ACRG	Accra	76.03	76	P	P	04 21 14.4	-0.9
ACRG				IAmb	IAmb	04 21 19.1	
	comp=Z,371nm,0.8s						
ACRG	Accra	76.03	76	P	P	04 21 14.7	-0.6
	comp=Z,115µmcomp=Z,11µmcomp=Z,636nm,1.4s						
MWC	Mount Wilson	76.14	321	IAMs_20	IAMs_20	04 49 12.5	
	comp=Z,46µm,19.0s						
PASC	Pasadena Art C	76.18	321	IAMs_20	IAMs_20	04 49 12.3	
	comp=Z,39µm,20.0s						
SHOC	Shoshone, Teco	76.45	324	IAMs_20	IAMs_20	04 51 20.6	
	comp=Z,32µm,19.0s						
E38A	The Farm, Brul	76.50	346	IAMs_20	IAMs_20	04 57 10.3	
	comp=Z,34µm,22.0s						
MACI	Morro de la Ar	76.62	48	P	P	04 21 21.4	+2.8
	comp=Z,89µmcomp=Z,14µmcomp=Z,392nm,1.6s,comp=Z,14µm						
H07S1	FLORES T-PHASE	76.69	31	P	P	04 21 21.3	+2.8
	SNR=31						
CVNA	Calvinia	76.69	119	P	P	04 21 19.7	+0.7
	comp=Z,236µmcomp=Z,31µmcomp=Z,1µm,1.1s						
OSI	Osito Audit: C	76.80	321	IAMs_20	IAMs_20	04 49 29.9	
	comp=Z,33µm,19.0s						
LRMC	Laurel Mtn Rad	76.88	323	IAMs_20	IAMs_20	04 50 45.9	
	comp=Z,41µm,19.0s						
H07N1	FLORES T-PHASE	76.98	31	P	P	04 21 22.6	+2.5
	SNR=40						
SUR	Sutherland	77.12	120	LR	LR	04 52 04.4	
	comp=Z,88µm,19.4s,baz=236,slow=33						
SUR	Sutherland	77.12	120	P	P	04 21 21.1	-0.5
SUR				S	S	04 31 07.1	-3.2
SUR	Sutherland	77.12	120	P	P	04 21 20.7	-0.8
SUR				IAmb	IAmb	04 21 28.0	
	comp=Z,604nm,1.3s						
SUR	Sutherland	77.12	120	P	P	04 21 22.4	+0.8
	comp=Z,95µmcomp=Z,12µmcomp=Z,362nm,1.7s						
SUR	Sutherland	77.12	120	P	P	04 21 21.7	+0.2
PFCBR	Castelo Branco	77.16	33	*e*P	P	04 21 24.1	+3.0
PFCBR				*i* IAmb	IAmb	04 21 50.6	
	comp=Z,239nm,1.9s						
FURC	Furnace Creek,	77.19	324	IAMs_20	IAMs_20	04 51 26.2	
	comp=Z,32µm,19.0s						
HOR	Horta	77.21	33	*e*P	P	04 21 22.4	+1.0
HOR				*i* IAmb	IAmb	04 21 38.5	
	comp=Z,519nm,2.0s						
HOR				*e*S	SKSac	04 31 27.6	-5.7
HOR				*e*LR	LR	04 47 10.6	
HOR				*i* IAMs_20	IAMs_20	04 53 50.4	
	comp=Z,66µm,20.0s						
MPMC	Manual Prospec	77.21	323	IAMs_20	IAMs_20	04 48 31.7	
	comp=Z,33µm,21.0s						
CALA	Caldeira	77.22	33	*e*P	P	04 21 24.4	+2.8
CALA				*i* IAmb	IAmb	04 21 52.0	
	comp=Z,478nm,1.7s						
CALA				*e*S	SKSac	04 31 34.5	+0.9
CALA				*e*LR	LR	04 48 30.3	
CALA				*i* IAMs_20	IAMs_20	04 53 48.4	
	comp=Z,49µm,20.0s						
PCAN	Candelaria	77.23	33	*e*P	P	04 21 23.7	+2.2

PCAN				*i* IAmb	IAmb	04 21 29.3	
	comp=Z,491nm,1.9s						
ICQ	**Pointe Anglais**	77.24	3	P	P	04 21 20.7	-0.6
ICQ				IAmb	IAmb	04 21 26.1	
	comp=Z,578nm,0.9s						
TPNV	**Topopah Spring**	77.24	324	IAMs_20	IAMs_20	04 50 58.5	
	comp=Z,28µm,19.0s						
PCED	**Cedros**	77.25	33	*e*P	P	04 21 24.7	+3.1
PCED				*i* IAmb	IAmb	04 21 38.9	
	comp=Z,435nm,1.9s						
PICO	**Pico**	77.28	33	*e*P	P	04 21 24.0	+2.1
PICO				*i* IAmb	IAmb	04 21 31.1	
	comp=Z,689nm,1.9s						
PICO				*e*S	SKSac	04 31 29.3	-4.8
PICO				*e*LR	LR	04 47 16.5	
PICO				*i* IAMs_20	IAMs_20	04 53 53.6	
	comp=Z,70µm,20.0s						
PPNO	**Prainha do Nor**	77.34	33	*e*P	P	04 21 25.1	+2.9
PPNO				*i* IAmb	IAmb	04 21 30.2	
	comp=Z,682nm,2.2s						
PID	**Ribeirinha**	77.39	33	*e*P	P	04 21 25.5	+3.1
PID				*i* IAmb	IAmb	04 21 40.6	
	comp=Z,923nm,1.7s						
ROSA	**Rosais**	77.55	33	*e*P	P	04 21 24.6	+1.3
ROSA				*i* IAmb	IAmb	04 21 44.2	
	comp=Z,986nm,1.7s						
ROSA				*e*S	SKSac	04 31 32.1	-3.7
ROSA				*e*LR	LR	04 47 20.5	
ROSA				*i* IAMs_20	IAMs_20	04 54 00.4	
	comp=Z,66µm,20.0s						
ROSA	**Rosais**	77.55	33	P	P	04 21 25.4	+2.1
	comp=Z,64µmcomp=Z,14µmcomp=Z,380nm,1.9s,comp=Z,14µm						
PMAN	**Manadas**	77.55	33	*e*P	P	04 21 26.4	+3.1
PMAN				*i* IAmb	IAmb	04 21 46.0	
	comp=Z,923nm,1.3s						
EYMN	**Ely**	77.76	346	P	P	04 21 23.3	-1.0
EYMN	**Ely**	77.76	346	IAMs_20	IAMs_20	04 57 55.7	
	comp=Z,29µm,20.0s						
EYMN	**Ely**	77.76	346	P	P	04 21 24.4	+0.1
	comp=Z,66µmcomp=Z,7µmcomp=Z,182nm,1.5s						
CWC	**Cottonwood Cre**	77.81	323	IAMs_20	IAMs_20	04 51 44.6	
	comp=Z,41µm,18.0s						
RSSD	**Black Hills**	77.81	336	P	P	04 21 26.2	+1.3
RSSD	**Black Hills**	77.81	336	P	P	04 21 25.5	+0.6
	comp=Z,65µmcomp=Z,8µmcomp=Z,160nm,0.8s						
PSMN	**Pico do Norte,**	77.82	36	*e*P	P	04 21 25.1	+0.2
PSMN				*i* IAmb	IAmb	04 21 52.9	
	comp=Z,471nm,1.6s						
PSMN				*e*PP	PP	04 24 31.3	+10
PSMN				*e*S	S	04 31 23.8	+6.9
PSMN				*e*LR	LR	04 47 08.6	
PSMN				*i* IAMs_20	IAMs_20	04 53 39.9	
	comp=Z,41µm,20.0s						
DRLN	**Deer Lake**	77.86	9	P	P	04 21 24.2	-0.5
DRLN				IAmb	IAmb	04 21 28.9	
	comp=Z,667nm,1.0s						
SRBC	**Serra Branca**	77.89	33	*e*P	P	04 21 25.9	+0.7
SRBC				*i* IAmb	IAmb	04 21 43.2	
	comp=Z,1µm,1.8s						
SRBC				*e*S	SKSac	04 31 36.7	-1.6
SRBC				*e*LR	LR	04 47 30.5	
SRBC				*i* IAMs_20	IAMs_20	04 54 10.2	
	comp=Z,59µm,20.0s						
VES	**Vestal, Richgr**	77.91	322	IAMs_20	IAMs_20	04 51 44.2	
	comp=Z,47µm,18.0s						
PGRA	**Graciosa**	77.91	33	*e*P	P	04 21 26.3	+1.0
PGRA				*i* IAmb	IAmb	04 21 56.8	
	comp=Z,665nm,2.1s						
PGRA				*e*PP	PP	04 24 32.2	+10
PGRA				*e*S	SKSac	04 31 36.4	-2.1
PGRA				*e*LR	LR	04 47 28.5	
PGRA				*i* IAMs_20	IAMs_20	04 54 09.5	
	comp=Z,70µm,20.0s						
PSCRZ	**Santa Cruz da**	77.94	33	*e*P	P	04 21 28.6	+3.1
PSCRZ				*i* IAmb	IAmb	04 21 30.9	
	comp=Z,444nm,1.9s						
ADH	**Angra Heroismo**	77.98	34	*e*P	P	04 21 27.1	+1.4
ADH				*i* IAmb	IAmb	04 21 32.4	
	comp=Z,634nm,2.5s						
ADH				*e*S	SKSac	04 31 36.7	-2.3
ADH				*e*LR	LR	04 47 34.5	
ADH				*i* IAMs_20	IAMs_20	04 55 23.3	
	comp=Z,42µm,18.0s						
TBO	**Thunder Bay**	78.02	348	IAmb	IAmb	04 21 39.5	
	comp=Z,440nm,1.3s						
PSBA	**Serra de Santa**	78.03	34	*e*P	P	04 21 28.2	+2.2
PSBA				*i* IAmb	IAmb	04 21 43.3	
	comp=Z,753nm,1.7s						
PSCM	**Serra do Cume**	78.08	34	*e*P	P	04 21 25.9	-0.3
PSCM				*i* IAmb	IAmb	04 21 47.0	
	comp=Z,669nm,1.9s						
PAGU	**Agualva, Azore**	78.10	34	*e*P	P	04 21 27.3	+1.0
PAGU				*i* IAmb	IAmb	04 21 44.6	
	comp=Z,725nm,1.9s						
PAGU				*e*S	SKSac	04 31 37.4	-2.4
PAGU				*e*LR	LR	04 47 34.5	
PAGU				*i* IAMs_20	IAMs_20	04 55 25.8	
	comp=Z,49µm,20.0s						
PSET	**Sete Cidades**	78.10	35	*e*P	P	04 21 26.6	+0.2
PSET				*i* IAmb	IAmb	04 21 43.4	
	comp=Z,638nm,1.7s						
PSET				*e*S	SKSac	04 31 37.4	-2.5
PSET				*e*LR	LR	04 46 57.7	
PSET				*i* IAMs_20	IAMs_20	04 55 48.0	
	comp=Z,38µm,18.0s						
DUG	**Dugway, Tooele**	78.11	329	P	P	04 21 28.1	+1.6
	comp=Z,63µmcomp=Z,8µmcomp=Z,237nm,1.1s,comp=Z,8µm						
POVGA	**Lagoa**	78.11	35	*e*P	P	04 21 28.6	+2.2
POVGA				*i* IAmb	IAmb	04 22 06.9	
	comp=Z,324nm,1.8s						
CMLA	**Cha da Macela**	78.16	35	*e*P	P	04 21 28.2	+1.5
CMLA				*i* IAmb	IAmb	04 21 52.0	
	comp=Z,260nm,1.9s						
CMLA				*e*S	SKSac	04 31 38.9	-1.4
CMLA				*e*LR	LR	04 46 34.1	
CMLA				*i* IAMs_20	IAMs_20	04 55 58.5	
	comp=Z,39µm,20.0s						
CMLA	**Cha da Macela**	78.16	35	P	P	04 21 30.6	+3.8
PGRON	**Lagoa das Cont**	78.24	35	*e*P	P	04 21 27.3	+0.1
PGRON				*i* IAmb	IAmb	04 21 44.2	
	comp=Z,506nm,1.7s						
WIN	**Windhoek**	78.30	109	P	P	04 21 28.3	0.0
WIN				pmax	pmax		
	comp=Z,346nm,1.1s						
WIN	**Windhoek**	78.30	109	IAmb	IAmb	04 21 36.0	
	comp=Z,307nm,1.0s						
WIN	**Windhoek**	78.30	109	P	P	04 21 28.0	-0.3
	comp=Z,104µmcomp=Z,11µmcomp=Z,345nm,1.1s,comp=Z,11µm						
WIN	**Windhoek**	78.30	109	P	P	04 21 27.9	-0.3
BART	**Pico Bartolome**	78.35	36	*e*P	P	04 21 28.4	+0.5
BART				*i* IAmb	IAmb	04 21 51.1	
	comp=Z,609nm,1.5s						
BART				*e*S	SKSac	04 31 45.1	+3.2
BART				*e*LR	LR	04 48 58.8	
BART				*i* IAMs_20	IAMs_20	04 56 12.0	
	comp=Z,31µm,18.0s						
TIN	**Tinemaha, Big**	78.35	323	IAMs_20	IAMs_20	04 49 07.9	
	comp=Z,39µm,21.0s						
HWUT	**Hardware Ranch**	78.68	330	IAmb	IAmb	04 21 37.0	
	comp=Z,343nm,1.0s						
HWUT	**Hardware Ranch**	78.68	330	P	P	04 21 30.2	+0.4
	comp=Z,59µmcomp=Z,7µmcomp=Z,335nm,1.0s,comp=Z,7µm						
MAW	**Mawson**	78.72	164	P	P	04 21 28.4	-1.1
	comp=Z,104nm,1.1s,baz=234,slow=6.3,SNR=42						
MAW				S	S	04 31 24.4	-1.4
	comp=Z,1.6nm,0.2s,baz=321,slow=19,SNR=1.1						
MAW				PKKPbc	PKKPbc	04 40 24.8	-0.3
	comp=Z,6.1nm,1.1s,baz=62,slow=3.6,SNR=4.9						
MAW				LR	LR	04 57 10.0	
	comp=Z,48µm,20.3s,baz=232,slow=36						
	comp=Z,104nm,1.1s						
MAW	**Mawson**	78.72	164	P	P	04 21 29.2	-0.3
MAW	**Mawson**	78.72	164	P	P	04 21 29.4	-0.1
	comp=Z,10µmcomp=Z,2µmcomp=Z,80nm,1.6s						
BW06	**Boulder Array**	78.78	332	IAMs_20	IAMs_20	04 53 16.3	
	comp=Z,33µm,20.0s						
PDAR	**Pinedale Array**	78.78	332	P	P	04 21 30.9	+0.5
	comp=Z,23nm,0.8s,baz=137,slow=3.3,SNR=71						
PDAR				S	S	04 31 30.3	+2.8
	comp=Z,1.1nm,0.9s,baz=102,slow=6.1,SNR=2.2						
PDAR				PKKP	PKKPdf	04 40 13.8	-2.1
	comp=Z,1.4nm,1.0s,baz=48,slow=2.2,SNR=3.6						
PDAR				PKKPbc	PKKPbc	04 40 24.0	-2.6
	comp=Z,2.1nm,0.7s,baz=343,slow=1.5,SNR=6.1						
PDAR				PKPPKP	P'P'df	04 48 28.4	+5.5
	comp=Z,0.8nm,0.6s,baz=62,slow=1.8,SNR=3.5						
PDAR				LR	LR	04 53 27.6	
	comp=Z,20µm,20.1s,baz=147,slow=34						
	comp=Z,23nm,0.8s						
PDAR	**Pinedale Array**	78.78	332	P	P	04 21 29.3	-1.0
PKD	**Bear Valley Ra**	78.79	321	IAMs_20	IAMs_20	04 49 41.4	
	comp=Z,33µm,20.0s						
AGMN	**Agassiz Nation**	79.10	343	IAMs_20	IAMs_20	04 59 55.0	
	comp=Z,33µm,21.0s						
AGMN	**Agassiz Nation**	79.10	343	P	P	04 21 32.0	+0.3
	comp=Z,65µmcomp=Z,8µmcomp=Z,254nm,2.0s,comp=Z,8µm						
RAR	**Rarotonga**	79.16	252	LR	LR	04 47 48.3	
	comp=Z,55µm,21.1s,baz=142,slow=29						
RAR	**Rarotonga**	79.16	252	P	P	04 21 39.6	+6.9
PMOZ	**Porto Moniz, M**	79.28	44	P	P	04 21 32.1	-1.1
PMOZ	**Porto Moniz, M**	79.28	44⇑	*i*P	P	04 21 33.3	+0.2
PMOZ				*i* IAmb	IAmb	04 21 46.3	
	comp=Z,503nm,2.1s						
PMOZ				*e*PP	PP	04 24 34.0	+0.6
PMOZ				*e*S	SKSac	04 31 47.7	-1.0
PMOZ				*e*SS	SS	04 36 42.3	+1.9
PMOZ				*e*LR	LR	04 47 40.6	
PMOZ				*i* IAMs_20	IAMs_20	04 56 30.4	
	comp=Z,41µm,20.0s						
PMOZ	**Porto Moniz, M**	79.28	44	P	P	04 21 35.7	+2.6
	comp=Z,66µmcomp=Z,12µmcomp=Z,357nm,0.8s						
FUL	**Funchal**	79.34	44⇓	*i*P	P	04 21 35.6	+2.2
FUL				*i* IAmb	IAmb	04 21 38.4	
	comp=Z,576nm,1.8s						
PMAR	**Madeira**	79.38	44⇑	*i*P	P	04 21 34.1	+0.3
PMAR				*i* IAmb	IAmb	04 21 55.6	
	comp=Z,616nm,1.5s						
AHID	**Auburn Hatcher**	79.42	331	IAMs_20	IAMs_20	04 54 12.4	
	comp=Z,35µm,19.0s						
AHID	**Auburn Hatcher**	79.42	331	P	P	04 21 34.9	+1.1
	comp=Z,60µmcomp=Z,8µmcomp=Z,263nm,1.7s						
NVAR	**Mina Array Bea**	79.42	324	P	P	04 21 35.3	+1.4
	comp=Z,20nm,0.8s,baz=151,slow=5.6,SNR=66						
NVAR				S	S	04 31 30.2	-4.3
	comp=Z,0.8nm,0.8s,baz=99,slow=7.3,SNR=1.9						
NVAR				PKKPbc	PKKPbc	04 40 24.7	-0.2
	comp=Z,5.9nm,0.8s,baz=277,slow=1.2,SNR=12						
NVAR				PKPPKP	P'P'df	04 48 27.3	+4.7
	comp=Z,7.0nm,1.0s,baz=255,slow=0.9,SNR=7.6						
NVAR				LR	LR	04 52 56.2	
	comp=Z,25µm,20.3s,baz=130,slow=33						
	comp=Z,20nm,0.8s						
NVAR	**Mina Array Bea**	79.42	324	P	P	04 21 33.1	-0.8
ELK	**Elko**	79.67	328	P	P	04 21 35.8	+0.5
	comp=Z,70nm,0.9s,baz=141,slow=3.6,SNR=95						
ELK				PKKPbc	PKKPbc	04 40 23.9	-0.5
	comp=Z,7.5nm,1.1s,baz=346,slow=4.2,SNR=7.0						
ELK				LR	LR	04 53 47.6	
	comp=Z,53µm,18.2s,baz=147,slow=33						
	comp=Z,70nm,0.9s						
SNOW	**Snow King Moun**	79.85	332	IAMs_20	IAMs_20	04 53 02.5	
	comp=Z,42µm,21.0s						
EPLO	**Experimental L**	79.88	345	IAmb	IAmb	04 21 39.7	
	comp=Z,717nm,1.7s						
SAO	**San Andreas Ge**	79.88	321	IAMs_20	IAMs_20	04 50 11.4	
	comp=Z,37µm,19.0s						
PMPST	**Porto Santo, M**	79.98	44⇑	*i*P	P	04 21 37.5	+0.6
PMPST				*i* IAmb	IAmb	04 21 45.5	
	comp=Z,934nm,2.2s						
FXWY	**Fox Creek**	80.10	332	IAMs_20	IAMs_20	04 53 09.4	
	comp=Z,41µm,21.0s						
TSUM	**Tsumeb**	80.17	106	LR	LR	04 54 23.7	
	comp=Z,93µm,18.9s,baz=236,slow=34						
TSUM	**Tsumeb**	80.17	106	P	P	04 21 37.1	-1.3
TSUM	**Tsumeb**	80.17	106	P	P	04 21 38.1	-0.3
	comp=Z,104µmcomp=Z,13µmcomp=Z,346nm,1.0s,comp=Z,13µm						
TSUM	**Tsumeb**	80.17	106	P	P	04 21 38.3	-0.2
CMB	**Columbia Colle**	80.23	323	IAMs_20	IAMs_20	04 52 28.6	
	comp=Z,29µm,20.0s						
MHC	**Mount Hamilton**	80.41	321	IAMs_20	IAMs_20	04 52 14.3	
	comp=Z,42µm,19.0s						
RLMT	**Red Lodge**	80.62	334	IAmb	IAmb	04 21 53.2	
	comp=Z,758nm,1.6s						
RLMT				IAMs_20	IAMs_20	04 54 54.0	
	comp=Z,34µm,20.0s						
KOOLE	**Kule**	80.69	111	IAmb	IAmb	04 22 00.5	
	comp=Z,285nm,0.7s						
KOOLE	**Kule**	80.69	111	P	P	04 21 40.7	-0.5
WELL	**Weller Preserv**	80.70	323	IAMs_20	IAMs_20	04 52 43.2	
	comp=Z,28µm,19.0s						
LAO	**LASA Array**	80.81	336	IAmb	IAmb	04 21 47.6	
	comp=Z,371nm,0.9s						
LAO				IAMs_20	IAMs_20	04 55 25.1	
	comp=Z,27µm,20.0s						
ULM	**Lac du Bonnet**	80.92	344	P	P	04 21 41.3	-0.2
	comp=Z,193nm,0.9s,baz=156,slow=5.2,SNR=29						
ULM				S	S	04 31 46.5	-2.7
	comp=Z,2.9nm,1.1s,baz=108,slow=16,SNR=0.8						
ULM				PKKPbc	PKKPbc	04 40 19.6	-2.3
	comp=Z,8.9nm,1.0s,baz=292,slow=1.5,SNR=5.0						
ULM				LR	LR	04 59 15.2	
	comp=Z,22µm,20.2s,baz=150,slow=37						
	comp=Z,193nm,0.9s						
ULM	**Lac du Bonnet**	80.92	344*c*	*i*P	P	04 21 41.0	-0.4
ULM	**Lac du Bonnet**	80.92	344	P	P	04 21 40.5	-1.0
ULM				IAmb	IAmb	04 21 47.1	
	comp=Z,383nm,1.1s						
GRHM	**Grahamstown, E**	80.93	123	P	P	04 21 41.4	-0.9
GRHM				IAmb	IAmb	04 21 49.4	
	comp=Z,435nm,1.0s						
LKGWB	**Lokgwabe**	81.03	112	P	P	04 21 43.9	+0.9
LKGWB				IAmb	IAmb	04 21 50.3	
	comp=Z,333nm,1.1s						
LKGWB	**Lokgwabe**	81.03	112	P	P	04 21 44.7	+1.7
CTZ	**Chatham Island**	81.32	225	IAMs_20	IAMs_20	04 47 58.1	
	comp=Z,49µm,22.0s						
TORD	**Torodi Ar. Bea**	81.47	70	P	P	04 21 44.0	-1.2
	comp=Z,565nm,0.8s,baz=257,slow=4.4,SNR=151						
TORD				PKKPbc	PKKPbc	04 40 20.1	+1.7
	comp=Z,4.9nm,1.1s,baz=47,slow=3.8,SNR=6.2						
TORD				LR	LR	04 57 27.9	
	comp=Z,67µm,19.8s,baz=242,slow=36						
	comp=Z,565nm,0.8s						
TORD	**Torodi Ar. Bea**	81.47	70	P	P	04 21 44.1	-1.2
TORD				IAmb	IAmb	04 21 49.1	
	comp=Z,462nm,0.8s						
HLID	**Hailey**	81.50	330	IAMs_20	IAMs_20	04 54 09.5	
	comp=Z,48µm,21.0s						
HLID	**Hailey**	81.50	330	P	P	04 21 46.0	+1.0
	comp=Z,61µmcomp=Z,7µmcomp=Z,251nm,1.0s,comp=Z,7µm						
CVS	**Carmenet Viney**	81.58	322	IAMs_20	IAMs_20	04 54 08.3	
	comp=Z,35µm,18.0s						
SUTB	**Sutter Butte**	81.85	323	IAMs_20	IAMs_20	04 52 31.4	
	comp=Z,33µm,18.0s						
ORV	**Oroville**	81.93	323	IAMs_20	IAMs_20	04 53 20.6	
	comp=Z,38µm,18.0s						
BOZ	**Bozeman (W)**	81.95	333	IAMs_20	IAMs_20	04 56 59.3	
	comp=Z,30µm,20.0s						
BOSA	**Boshof**	82.22	118	P	P	04 21 47.7	-1.5
	comp=Z,160nm,0.8s,baz=258,slow=3.6,SNR=94						
BOSA				S	S	04 32 03.9	-0.3
	comp=Z,3.3nm,0.9s,baz=137,slow=18,SNR=1.9						
BOSA				PKKPbc	PKKPbc	04 40 16.9	+0.4
	comp=Z,5.6nm,1.0s,baz=62,slow=1.1,SNR=3.7						
BOSA				LR	LR	04 54 07.5	
	comp=Z,79µm,20.7s,baz=236,slow=33						
	comp=Z,160nm,0.8s						
BOSA	**Boshof**	82.22	118	P	P	04 21 47.8	-1.5
BOSA				IAmb	IAmb	04 21 55.1	
	comp=Z,564nm,1.1s						
BOSA	**Boshof**	82.22	118	P	P	04 21 47.4	-1.8
BOSA	**Boshof**	82.22	118	P	P	04 21 48.4	-0.9
	comp=Z,75µmcomp=Z,10µmcomp=Z,515nm,1.1s,comp=Z,10µm						
BOSA	**Boshof**	82.22	118	P	P	04 21 47.6	-1.7
GRTLG	**Ghanzi**	82.26	110	IAmb	IAmb	04 21 55.1	
	comp=Z,603nm,1.4s						
GRTLG	**Ghanzi**	82.26	110	P	P	04 21 49.0	-0.5
SCHQ	**Schefferville**	82.56	3	P	P	04 21 49.7	-0.3
	comp=Z,137nm,1.1s,baz=174,slow=4.7,SNR=45						
SCHQ				S	S	04 32 03.9	-2.1
	comp=Z,4.5nm,0.9s,baz=302,slow=17,SNR=2.0						
SCHQ				LR	LR	04 58 11.3	
	comp=Z,18µm,21.6s,baz=185,slow=36						
	comp=Z,137nm,1.1s						
SCHQ	**Schefferville**	82.56	3	P	P	04 21 48.4	-1.7
SCHQ				IAmb	IAmb	04 21 53.7	
	comp=Z,481nm,1.4s						
WVOR	**Wild Horse Val**	82.60	327	IAMs_20	IAMs_20	04 55 34.4	
	comp=Z,35µm,18.0s						
WVOR	**Wild Horse Val**	82.60	327	P	P	04 21 51.5	+0.8
	comp=Z,55µmcomp=Z,6µmcomp=Z,133nm,1.3s						
O03E	**Paynes Creek**	82.63	323	IAmb	IAmb	04 22 01.0	
	comp=Z,352nm,1.1s						
O03E				IAMs_20	IAMs_20	04 53 55.1	
	comp=Z,38µm,19.0s						
MOD	**Modoc Plateau**	83.03	325	IAMs_20	IAMs_20	04 54 31.8	
	comp=Z,35µm,19.0s						
SKOMA	**Sekoma**	83.05	114	P	P	04 21 52.5	-1.1
O02D	**Mt. Diablo Mer**	83.07	323	IAMs_20	IAMs_20	04 52 15.7	
	comp=Z,37µm,20.0s						
KCPM	**Cahto Peak**	83.14	322	IAMs_20	IAMs_20	04 55 15.8	
	comp=Z,33µm,18.0s						
PLID	**Pearl Lake**	83.41	330	IAmb	IAmb	04 22 01.5	
	comp=Z,213nm,0.9s						
KHBM	**Hayfork Bally**	83.64	323	IAMs_20	IAMs_20	04 52 52.9	
	comp=Z,44µm,19.0s						
MSO	**Missoula**	83.89	332	IAMs_20	IAMs_20	04 56 32.7	
	comp=Z,44µm,19.0s						
M02C	**Callahan**	83.97	324	IAMs_20	IAMs_20	04 54 37.6	
	comp=Z,29µm,21.0s						
KHMM	**Horse Mountain**	84.07	323	IAMs_20	IAMs_20	04 53 53.2	
	comp=Z,31µm,19.0s						
EDA	**Edea**	84.12	83	IAmb	IAmb	04 22 04.5	
	comp=Z,452nm,1.4s						
YBH	**Yreka Blue Hor**	84.14	324	P	P	04 21 58.7	+0.2
	comp=Z,23nm,0.8s,baz=138,slow=4.2,SNR=30						
YBH				LR	LR	04 56 02.6	
	comp=Z,25µm,20.2s,baz=146,slow=33						
	comp=Z,23nm,0.8s						
LBTB	**Lobatse**	84.16	115	LR	LR	04 56 00.4	
	comp=Z,59µm,19.0s,baz=234,slow=33						
LBTB	**Lobatse**	84.16	115	P	P	04 21 58.0	-1.3
LBTB				pmax	pmax		
	comp=Z,394nm,1.0s						
LBTB	**Lobatse**	84.16	115	P	P	04 21 58.0	-1.3
LBTB				IAmb	IAmb	04 22 04.5	
	comp=Z,394nm,1.0s						
LBTB	**Lobatse**	84.16	115	P	P	04 21 58.5	-0.8
	comp=Z,68µmcomp=Z,8µmcomp=Z,420nm,1.0s,comp=Z,8µm						
LBTB	**Lobatse**	84.16	115	P	P	04 21 58.0	-1.3
L04D	**Klamath Falls**	84.28	324	P	P	04 21 57.4	-1.9
CKGRV	**CKGRV**	84.36	111	P	P	04 21 59.2	-1.1
TIO	**Tiouine**	84.52	51	P	P	04 22 00.9	0.0
TIO	**Tiouine**	84.52	51	P	P	04 22 01.3	+0.5
	comp=Z,204µmcomp=Z,24µmcomp=Z,941nm,1.5s						
KRMB	**Red Mountain**	84.62	323	IAMs_20	IAMs_20	04 55 37.8	
	comp=Z,26µm,18.0s						
F10A	**Beach Ranch, E**	84.64	330	P	P	04 21 58.8	-2.2
JTMT	**Jette**	84.77	332	P	P	04 22 00.6	-1.1
KSXB	**Camp Six Broad**	84.82	323	IAMs_20	IAMs_20	04 53 44.1	
	comp=Z,31µm,20.0s						
G08A	**Pilot Rock**	84.91	328	P	P	04 22 01.3	-1.1
BBOR	**Butler Butte**	84.95	325	P	P	04 22 01.7	-1.0
LNOR	**Lincton Mounta**	85.04	329	P	P	04 22 01.5	-1.5
I04A	**Tendick Farm,**	85.47	325	P	P	04 22 03.6	-1.5
LDM	**Libby Dam**	85.75	332	P	P	04 22 06.2	-0.3
LDM				IAmb	IAmb	04 22 13.2	
	comp=Z,290nm,1.1s						
AVE	**Averroes**	85.85	49	P	P	04 22 06.4	-0.8
AVE	**Averroes**	85.85	49	P	P	04 22 08.3	+1.1
	comp=Z,80µmcomp=Z,17µmcomp=Z,1µm,1.8s,comp=Z,17µm						
E08A	**Dider Farm, El**	85.86	329	P	P	04 22 06.3	-0.7
HAWA	**Hanford**	86.00	329	P	P	04 22 06.3	-1.4
HAWA				IAmb	IAmb	04 22 14.9	
	comp=Z,263nm,1.1s						
H04A	**Detroit Lake**	86.00	326	P	P	04 22 06.5	-1.3
H04A				IAmb	IAmb	04 22 14.4	
	comp=Z,410nm,1.5s						
CASY	**Casey**	86.02	181	P	P	04 22 06.5	-1.1
CASY				IAmb	IAmb	04 22 14.7	
	comp=Z,402nm,1.0s						
CASY	**Casey**	86.02	181	IAMs_20	IAMs_20	05 03 41.4	
	comp=Z,48µm,21.0s						
CASY	**Casey**	86.02	181	P	P	04 22 08.2	+0.5
	comp=Z,48µmcomp=Z,10µmcomp=Z,469nm,1.2s						
D08A	**Wollman Farm,**	86.22	330	P	P	04 22 07.8	-0.9
E07A	**Sunnyside**	86.27	329	P	P	04 22 08.6	-0.5
NEW	**Newport**	86.36	331	P	P	04 22 09.1	-0.3
	comp=Z,20nm,0.9s,baz=139,slow=6.1,SNR=22						
NEW				PKKPbc	PKKPbc	04 40 08.3	-0.5
	comp=Z,3.1nm,0.9s,baz=262,slow=4.7,SNR=3.5						
NEW				LR	LR	04 57 58.3	
	comp=Z,43µm,19.1s,baz=144,slow=34						
	comp=Z,20nm,0.9s						
NEW	**Newport**	86.36	331	P	P	04 22 08.1	-1.3
NEW	**Newport**	86.36	331	IAMs_20	IAMs_20	04 57 56.9	
	comp=Z,42µm,19.0s						
NEW	**Newport**	86.36	331	P	P	04 22 09.3	-0.1
	comp=Z,46µmcomp=Z,5µmcomp=Z,85nm,1.1s						
COR	**Corvallis**	86.48	326	IAMs_20	IAMs_20	04 56 47.2	
	comp=Z,24µm,20.0s						
COR	**Corvallis**	86.48	326	P	P	04 22 12.4	+2.3
COR	**Corvallis**	86.48	326	P	P	04 22 12.3	+2.3
	comp=Z,38µmcomp=Z,10µmcomp=Z,640nm,1.2s						
C09A	**Chrisman Ranch**	86.50	330	P	P	04 22 08.6	-1.5
C09A				IAmb	IAmb	04 22 16.3	
	comp=Z,202nm,0.8s						
RTC	**Rabat Centre**	86.64	49	P	P	04 22 11.7	+0.6
RTC	**Rabat Centre**	86.64	49	P	P	04 22 13.2	+2.1
	comp=Z,8µmcomp=Z,344nm,1.2s,comp=Z,8µm						
EPH	**Ephrata**	86.75	329	P	P	04 22 09.9	-1.5
SOOWA	**Sowa**	86.77	111	P	P	04 22 12.1	-0.3
LTY	**Liberty**	87.17	329	P	P	04 22 12.9	-0.5
KSANE	**Kasane**	87.20	109	P	P	04 22 12.5	-2.0
PFVI	**Vila Bisbo**	87.28	45	P	P	04 22 14.1	-0.1
PFVI	**Vila Bisbo**	87.28	45⇑	*i*P	P	04 22 14.2	0.0
PFVI				*i* IAmb	IAmb	04 22 19.1	
	comp=Z,671nm,1.6s						
PFVI	**Vila Bisbo**	87.28	45	P	P	04 22 12.8	-1.4
PFVI				IAmb	IAmb	04 22 18.5	
	comp=Z,412nm,1.1s						
PFVI	**Vila Bisbo**	87.28	45	P	P	04 22 15.2	+1.0
	comp=Z,74µmcomp=Z,10µmcomp=Z,434nm,1.4s						
MD01	**Midelt array s**	87.39	51	P	P	04 22 14.9	-0.1
MD31	**MD31**	87.39	51	P	P	04 22 13.8	-1.1
MD31				IAmb	IAmb	04 22 35.2	
	comp=Z,510nm,1.8s						
B08A	**Colville Reser**	87.39	330	P	P	04 22 13.1	-1.3
BFZ	**Birch Farm**	87.43	225	P	P	04 22 20.1	+5.0
BFZ	**Birch Farm**	87.43	225	IAMs_20	IAMs_20	04 52 47.7	
	comp=Z,39µm,20.0s						
BFZ	**Birch Farm**	87.43	225	P	P	04 22 19.2	+4.1
BROLN	**Tlhalogang**	87.43	112	P	P	04 22 14.7	-0.9
MDT	**Midelt**	87.46	51	P	P	04 22 14.6	-0.7
	comp=Z,23nm,0.8s,baz=237,slow=4.1,SNR=36						
MDT				S	SKSac	04 32 42.6	+0.1
	comp=Z,2.0nm,0.9s,baz=174,slow=9.2,SNR=1.8						
MDT				LR	LR	05 01 04.3	
	comp=Z,74µm,19.8s,baz=241,slow=36						
	comp=Z,23nm,0.8s						
MORF	**Marmelete**	87.50	45	*e*P	P	04 22 15.0	-0.2
MORF				*e*PP	PP	04 25 39.7	-0.8
MORF				IAMs_20	IAMs_20	05 02 19.7	
	comp=Z,60µm,15.6s						
MORF	**Marmelete**	87.50	45⇑	*i*P	P	04 22 15.2	-0.1
MORF				*i* IAmb	IAmb	04 22 20.2	
	comp=Z,522nm,1.5s						
IFR	**Ifrane**	87.52	50	P	P	04 22 15.2	-0.4
IFR	**Ifrane**	87.52	50	P	P	04 22 16.1	+0.5
	comp=Z,28µmcomp=Z,4µmcomp=Z,110nm,1.6s						
PTEO	**Sao Teotonio**	87.60	45⇑	*i*P	P	04 22 16.1	+0.4
PTEO				*i* IAmb	IAmb	04 22 20.8	
	comp=Z,862nm,1.1s						
D05A	**Enumclaw**	87.73	328	IAmb	IAmb	04 22 22.6	
	comp=Z,310nm,1.0s						
MQZ	**McQueen’s Vall**	87.79	221	IAMs_20	IAMs_20	04 51 56.1	
	comp=Z,35µm,21.0s						
MQZ	**McQueen’s Vall**	87.79	221	P	P	04 22 18.2	+1.5
MRZ	**Mangatainoka R**	87.85	224	IAMs_20	IAMs_20	04 53 10.0	
	comp=Z,34µm,19.0s						
MXZ	**Matakaoa Point**	87.88	228	IAMs_20	IAMs_20	04 51 31.8	
	comp=Z,44µm,21.0s						
PNHZ	**Pukenui**	87.90	225	P	P	04 22 21.2	+3.8
PBDV	**Barranco-do-Ve**	87.91	45	P	P	04 22 17.1	-0.2
PBDV	**Barranco-do-Ve**	87.91	45⇑	*i*P	P	04 22 17.8	+0.5
PBDV				*i* IAmb	IAmb	04 22 22.5	
	comp=Z,714nm,1.4s						
MWZ	**Matawai**	87.95	227	P	P	04 22 22.2	+4.5
TSZ	**Takapari Road**	87.96	225	P	P	04 22 23.1	+5.4
SNZO	**South Karori**	88.01	223	IAMs_20	IAMs_20	04 55 53.1	
	comp=Z,25µm,18.0s						
GVZ	**Greta Valley S**	88.02	221	IAMs_20	IAMs_20	04 53 28.1	
	comp=Z,30µm,20.0s						
GVZ	**Greta Valley S**	88.02	221	P	P	04 22 24.9	+7.1
KHZ	**Kahutara**	88.05	222	P	P	04 22 21.3	+3.3
	comp=Z,39µmcomp=Z,265nm,1.1s						
LIS	**Lisbon**	88.07	44	*e*P	P	04 22 17.6	-0.3
LIS				*e*PP	PP	04 25 44.3	-0.7
LIS				IAMs_20	IAMs_20	05 01 22.7	

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       comp=Z,56µm,23.3s
LIS    Lisbon             88.07  44⇑iP       P         04 22 17.6 -0.3
LIS                                 i IAmb   IAmb      04 22 25.0
       comp=Z,511nm,2.3s
PCVE   Castro Verde       88.08  45   P      P         04 22 17.8 -0.2
PCVE   Castro Verde       88.08  45⇑iP       P         04 22 18.3 +0.2
PCVE                                i IAmb   IAmb      04 22 23.1
       comp=Z,467nm,1.5s
PLOUS  Minas do Lousa     88.09  45⇑iP       P         04 22 18.4 +0.4
PLOUS                               i IAmb   IAmb      04 22 23.0
       comp=Z,392nm,1.6s
MESJ   Messejana          88.10  45  eP      P         04 22 17.8 -0.3
MESJ                                ePP      PP        04 25 44.5 -0.8
MESJ                                eSKSac   SKSac     04 32 44.3 -1.7
MESJ                                 IAMs_20 IAMs_20   04 59 42.4
       comp=Z,55µm,19.0s
MESJ   Messejana          88.10  45⇑iP       P         04 22 18.2 +0.1
MESJ                                i IAmb   IAmb      04 22 24.0
       comp=Z,472nm,1.5s
MESJ   Messejana          88.10  45   IAmb   IAmb      04 22 22.4
       comp=Z,278nm,1.2s
ODZ    Otahua Downs       88.10 219   IAMs_20 IAMs_20  04 54 30.1
       comp=Z,23µm,20.0s
PMAFR  Mafra              88.14  43   P      P         04 22 17.1 -1.2
PMAFR  Mafra              88.14  43⇑iP       P         04 22 17.8 -0.4
BKZ    Black Stump Fm     88.14 226   P      P         04 22 23.5 +4.9
PVAQ   Vaqueiros          88.15  45⇑iP       P         04 22 18.2 -0.1
PVAQ                                i IAmb   IAmb      04 22 25.4
       comp=Z,539nm,1.9s
PVAQ                                ePP      PP        04 25 46.7 +1.0
PVAQ                                eS       S         04 32 60.0 -1.9
PVAQ                                eSS      SS        04 38 59.3 +7.9
PVAQ                                eLQ      LQ        04 45 56.5
PVAQ                                eLR      LR        04 52 05.4
PVAQ                                i IAMs_20 IAMs_20  05 01 32.8
       comp=Z,50µm,20.0s
PVAQ   Vaqueiros          88.15  45   P      P         04 22 19.3 +1.0
       comp=Z,68µmcomp=Z,9µmcomp=Z,253nm,2.3s,comp=Z,9µm
URZ    Urewera            88.26 227   LR     LR        04 52 07.7
       comp=Z,53µm,21.7s,baz=150,slow=29
URZ    Urewera            88.26 227   P      P         04 22 27.6 +8.5
URZ    Urewera            88.26 227   P      P         04 22 21.6 +2.5
       comp=Z,40µmcomp=Z,6µmcomp=Z,150nm,2.3s,comp=Z,6µm
EGRO   El Granado         88.37  45   P      P         04 22 18.2 -1.2
OXZ    Oxford             88.38 221   IAMs_20 IAMs_20  04 51 48.6
       comp=Z,33µm,21.0s
PBEJ   Beja               88.43  45⇑iP       P         04 22 20.5 +0.8
PBEJ                                i IAmb   IAmb      04 22 26.6
       comp=Z,449nm,2.3s
MOE    Montemor           88.44  44⇑iP       P         04 22 19.1 -0.6
MOE                                 i IAmb   IAmb      04 22 25.4
       comp=Z,401nm,2.1s
FCC    Fort Churchill     88.51 348   P      P         04 22 18.4 -1.1
FCC                                   pmax   pmax
       comp=Z,256nm,0.9s
FCC    Fort Churchill     88.51 348   P      P         04 22 18.4 -1.1
FCC                                   IAmb   IAmb      04 22 25.0
       comp=Z,256nm,0.9s
SFS    San Fernando       88.55  47   P      P         04 22 20.3 +0.1
LTZ    Lake Taylor        88.58 221   IAMs_20 IAMs_20  04 53 55.9
       comp=Z,26µm,20.0s
LTZ    Lake Taylor        88.58 221   P      P         04 22 22.1 +1.5
CNIL   Conil              88.59  47   P      P         04 22 21.1 +0.6
WNVZ   Wahianoa           88.62 225   P      P         04 22 27.1 +6.2
EVO    Evora              88.65  44   P      P         04 22 20.1 -0.6
EVO    Evora              88.65  44⇑iP       P         04 22 20.4 -0.3
EVO                                 i IAmb   IAmb      04 22 26.6
       comp=Z,232nm,1.7s
EVO    Evora              88.65  44   P      P         04 22 21.3 +0.7
       comp=Z,26µmcomp=Z,3µmcomp=Z,69nm,1.7s,comp=Z,3µm
ETVZ   East Tongariro     88.66 226   P      P         04 22 25.3 +4.2
TRVZ   Turoa              88.66 225   P      P         04 22 24.9 +3.6
TMVZ   Te Maari           88.67 226   P      P         04 22 25.7 +4.5
FWVZ   Far West T-bar     88.69 226   P      P         04 22 25.2 +3.8
RPZ    Rata Peaks         88.70 220   LR     LR        04 52 13.8
       comp=Z,9µm,21.6s,baz=114,slow=29
RPZ    Rata Peaks         88.70 220   P      P         04 22 23.6 +2.5
MATP   Matopo             88.70 112   LR     LR        04 58 26.3
       comp=Z,84µm,20.3s,baz=242,slow=33
ECEU   Ceuta              88.75  48   P      P         04 22 21.1 -0.2
NLWA   Neilton Lookou     88.76 327   IAMs_20 IAMs_20  04 59 38.4
       comp=Z,31µm,19.0s
LBZ    Lake Benmore       88.77 219   P      P         04 22 24.1 +2.7
PSBE   So Bento           88.78  43⇑iP       P         04 22 21.5 +0.2
PSBE                                i IAmb   IAmb      04 22 27.3
       comp=Z,406nm,1.7s
EDM    Edmonton           88.79 336   P      P         04 22 19.7 -1.4
EDM                                   pmax   pmax
       comp=Z,439nm,1.0s
EDM    Edmonton           88.79 336   P      P         04 22 19.6 -1.4
PARRA  Arraiolos          88.81  44⇑iP       P         04 22 21.3 -0.2
PARRA                               i IAmb   IAmb      04 22 27.2
       comp=Z,280nm,1.7s
THZ    Tophouse           88.82 222   IAMs_20 IAMs_20  04 52 58.5
       comp=Z,25µm,21.0s
THZ    Tophouse           88.82 222   P      P         04 22 26.3 +4.5
PMTG   Montargil          88.85  44⇑iP       P         04 22 21.2 -0.4
PMTG                                i IAmb   IAmb      04 22 27.2
       comp=Z,416nm,1.9s
NNZ    Nelson             88.87 223   P      P         04 22 26.8 +4.9
ESPR   Espera             89.01  47   P      P         04 22 21.8 -0.6
WHZ    Wether Hill Ro     89.02 217   IAMs_20 IAMs_20  04 52 40.3
       comp=Z,42µm,21.0s
EMIN   Mina Concepcio     89.03  46   P      P         04 22 21.6 -0.8
PBAR   Barrancos          89.04  45   P      P         04 22 21.8 -0.8
PBAR   Barrancos          89.04  45⇑iP       P         04 22 21.8 -0.8
PBAR                                i IAmb   IAmb      04 23 26.1
       comp=Z,200nm,1.8s
A05A   Maple Falls        89.09 329   P      P         04 22 21.2 -1.2
INZ    Inchbonnie         89.09 221   IAMs_20 IAMs_20  04 52 26.5
       comp=Z,40µm,22.0s
INZ    Inchbonnie         89.09 221   P      P         04 22 25.7 +2.8
PESTR  Estremoz           89.12  44   P      P         04 22 22.5 -0.4
PESTR  Estremoz           89.12  44⇑iP       P         04 22 23.1 +0.2
PESTR                               i IAmb   IAmb      04 23 32.1
       comp=Z,125nm,2.2s
PESTR  Estremoz           89.12  44   P      P         04 22 25.3 +2.4
       comp=Z,18µmcomp=Z,4µmcomp=Z,80nm,1.0s,comp=Z,4µm
WKZ    Wanaka             89.13 218   IAMs_20 IAMs_20  04 52 27.4
       comp=Z,37µm,22.0s
A04D   Lummi Island       89.17 329   P      P         04 22 21.4 -1.4
A04D                                  IAmb   IAmb      04 22 33.5
       comp=Z,286nm,1.2s
PSARD  Sardoal            89.22  44⇑iP       P         04 22 22.4 -0.9
PSARD                               i IAmb   IAmb      04 22 28.2
       comp=Z,171nm,2.8s
VRZ    Vera Road          89.26 225   P      P         04 22 29.1 +5.3
MLZ    Mavora Lakes       89.27 217   IAMs_20 IAMs_20  04 53 37.0
       comp=Z,37µm,20.0s
WVZ    Waitaha Valley     89.28 220   P      P         04 22 26.8 +3.1
PCAS   Casmilo, Conde     89.29  43⇑iP       P         04 22 23.6 -0.1
PCAS                                i IAmb   IAmb      04 22 28.1
       comp=Z,168nm,1.0s
EBAD   Badajoz            89.41  45   P      P         04 22 23.5 -0.8
DSZ    Denniston Nort     89.48 222   IAMs_20 IAMs_20  04 54 05.0
       comp=Z,25µm,20.0s
DSZ    Denniston Nort     89.48 222   P      P         04 22 26.8 +2.0
PYZ    Puysegur Point     89.50 216   IAMs_20 IAMs_20  04 52 54.1
       comp=Z,29µm,20.0s
FOZ    Fox Glacier        89.51 219   IAMs_20 IAMs_20  04 52 24.6
       comp=Z,24µm,21.0s
H04S2  CROZET ISLANDS     89.52 145   P      P         04 22 24.4 -0.2
       baz=271,slow=2.4,SNR=5.5
H04S3  CROZET ISLANDS     89.53 145   P      P         04 22 25.1 +0.5
       baz=271,slow=2.4,SNR=6.6
EMIJ   Mijas              89.53  48   P      P         04 22 23.5 -1.5
H04S1  CROZET ISLANDS     89.54 145   P      P         04 22 28.4 +3.7
       baz=271,slow=2.4,SNR=9.8
TAM    Tamanrasset        89.54  64   P      P         04 22 25.4  0.0
TAM                                   pmax   pmax
       comp=Z,62nm,1.2s
TAM    Tamanrasset        89.54  64   P      P         04 22 23.6 -1.8
TAM    Tamanrasset        89.54  64   P      P         04 22 25.1 -0.4
       comp=Z,63µmcomp=Z,5µmcomp=Z,62nm,1.2s,comp=Z,5µm
HIZ    Hauiti             89.56 226   IAMs_20 IAMs_20  04 53 32.3
       comp=Z,40µm,20.0s
HIZ    Hauiti             89.56 226   P      P         04 22 28.0 +2.8
       comp=Z,30µmcomp=Z,7µmcomp=Z,390nm,1.9s,comp=Z,7µm
PMRV   Marv??o            89.58  44⇑iP       P         04 22 24.3 -0.8
PMRV                                i IAmb   IAmb      04 22 28.9
       comp=Z,125nm,1.1s
PMRV                                ePP      PP        04 26 00.8 +3.6
PMRV                                eS       S         04 33 09.3 -6.0
PMRV                                eSS      SS        04 39 21.9  +10
PMRV                                eLQ      LQ        04 48 40.4
PMRV                                eLR      LR        04 52 49.2
PMRV                                i IAMs_20 IAMs_20  05 00 40.8
       comp=Z,33µm,22.0s
TOZ    Tahuroa Road       89.61 227   IAMs_20 IAMs_20  04 54 08.5
       comp=Z,43µm,20.0s
QRZ    Quartz Range       89.61 223   P      P         04 22 25.0 -0.4
KHEZ   Kahui Hut          89.63 225   P      P         04 22 30.9 +5.3
DCZ    Deep Cove          89.72 217   IAMs_20 IAMs_20  04 53 31.9
       comp=Z,33µm,20.0s
JCZ    Jackson Bay        89.74 219   P      P         04 22 31.0 +4.9
PCBR   Castelo Branco     89.78  44⇑eP       P         04 22 25.0 -0.9
PCBR                                i IAmb   IAmb      04 22 32.1
       comp=Z,136nm,2.8s
CRZF   Crozet Islands     89.79 145   IAMs_20 IAMs_20  04 56 01.9
       comp=Z,34µm,22.0s
CRZF   Crozet Islands     89.79 145   P      P         04 22 27.1 +1.1
       comp=Z,34µmcomp=Z,7µmcomp=Z,239nm,1.4s
EMAL   Malaga-Limoner     89.87  48   P      P         04 22 25.9 -0.6
EMAL   Malaga-Limoner     89.87  48   P      P         04 22 27.2 +0.8
       comp=Z,24µmcomp=Z,2µmcomp=Z,178nm,0.8s
PTO    Porto              89.90  42⇑eP       P         04 22 25.8 -0.6
PTO                                 i IAmb   IAmb      04 22 30.1
       comp=Z,212nm,2.1s
H04N3  CROZET ISLANDS     89.92 144   P      P         04 22 24.8 -1.6
       baz=210,slow=6.0,SNR=12
H04N1  CROZET ISLANDS     89.93 144   P      P         04 22 28.4 +1.9
       baz=210,slow=6.0,SNR=14
H04N2  CROZET ISLANDS     89.94 144   P      P         04 22 28.9 +2.4
       baz=210,slow=6.0,SNR=8.4
ECAB   El Cabril          90.01  46   P      P         04 22 25.3 -1.8
EMLI   Melilla            90.01  49   P      P         04 22 26.2 -0.9
WMELI  Melilla            90.02  49   P      P         04 22 25.7 -1.4
PVIS   Viseu              90.06  43⇑iP       P         04 22 26.8 -0.5
MTE    Manteigas          90.08  43⇑iP       P         04 22 26.5 -1.0
MTE                                 i IAmb   IAmb      04 22 31.6
       comp=Z,182nm,1.1s
MTE                                 ePP      PP        04 26 03.2 +2.0
MTE                                 eS       S         04 33 12.3 -7.8
MTE                                 eSS      SS        04 39 28.8 +9.3
MTE                                 eLQ      LQ        04 51 11.3
MTE                                 eLR      LR        04 53 56.8
MTE                                 i IAMs_20 IAMs_20  05 03 26.4
       comp=Z,54µm,18.0s
MTE    Manteigas          90.08  43   P      P         04 22 26.0 -1.4
MTE    Manteigas          90.08  43   P      P         04 22 27.5 +0.1
       comp=Z,59µmcomp=Z,5µmcomp=Z,129nm,1.0s,comp=Z,5µm
EGOR   Sierra Gorda,      90.28  47   P      P         04 22 27.3 -1.3
EALB   Alboran            90.32  49   P      P         04 22 26.7 -1.8
PVRL   Vila Real          90.51  42⇑eP       P         04 22 28.0 -1.4
PVRL                                i IAmb   IAmb      04 22 36.6
       comp=Z,208nm,1.3s
POLO   Lamas de Olo       90.53  42⇑iP       P         04 22 28.4 -1.1
POLO                                i IAmb   IAmb      04 22 35.5
       comp=Z,69nm,2.3s
PCAB   Cabril             90.59  42⇑eP       P         04 22 28.7 -1.0
PCAB                                i IAmb   IAmb      04 23 47.6
       comp=Z,153nm,1.5s
PGAV   Gavieira, Arco     90.61  42⇑iP       P         04 22 28.5 -1.4
PGAV                                i IAmb   IAmb      04 23 35.1
       comp=Z,163nm,1.8s
PGAV                                ePP      PP        04 26 06.0 +0.6
PGAV                                eS       S         04 33 14.4  -10
PGAV                                eSS      SS        04 39 36.1 +9.0
PGAV                                eLQ      LQ        04 51 00.8
PGAV                                eLR      LR        04 53 15.0
PGAV                                i IAMs_20 IAMs_20  05 00 05.7
       comp=Z,83µm,22.0s
IVI    Ivigtut            90.82  11   IAMs_20 IAMs_20  05 01 59.1
       comp=Z,36µm,22.0s
IVI    Ivigtut            90.82  11 i P      P         04 22 31.7 +1.4
IVI                                   IAmb   IAmb      04 22 34.6
       comp=Z,230nm,1.2s
IVI    Ivigtut            90.82  11   P      P         04 22 32.4 +2.2
       comp=Z,46µmcomp=Z,150nm,1.2s
LSZ    Lusaka             90.95 108   LR     LR        04 59 55.4
       comp=Z,92µm,20.1s,baz=244,slow=33
LSZ    Lusaka             90.95 108   P      P         04 22 31.9 -0.3
LSZ                                   S      SKSac     04 33 09.7 +5.5
LSZ    Lusaka             90.95 108   P      P         04 22 32.8 +0.6
       comp=Z,65µmcomp=Z,7µmcomp=Z,227nm,1.6s
LSZ    Lusaka             90.95 108   P      P         04 22 32.8 +0.6
NRS    Narsarsuaq         91.27  12   P      P         04 22 32.5 +0.2
NRS                                   pmax   pmax
       comp=Z,204nm,1.1s
NRS                                   MLR    MLR
       comp=Z,27µm,20.0s
NRS    Narsarsuaq         91.27  12   P      P         04 22 32.5 +0.2
NRS                                   IAmb   IAmb      04 22 36.0
       comp=Z,204nm,1.1s
NRS                                   IAMs_20 IAMs_20  05 04 02.9
       comp=Z,27µm,20.0s
NRS    Narsarsuaq         91.27  12 i P      P         04 22 33.0 +0.7
NRS                                   IAmb   IAmb      04 22 35.7
       comp=Z,208nm,1.1s
NRS    Narsarsuaq         91.27  12   P      P         04 22 34.1 +1.9
       comp=Z,47µmcomp=Z,168nm,1.1s
CBB    Campbell River     91.33 328   P      P         04 22 31.6 -1.2
WCZ    Waipu Caves        91.41 228   P      P         04 22 38.3 +4.4
PBRG   Braganca           91.42  42⇑iP       P         04 22 32.6 -1.0
PBRG                                i IAmb   IAmb      04 22 38.6
       comp=Z,146nm,2.0s
FRB    Frobisher Bay      91.45   1   P      P         04 22 32.7 -0.3
       comp=Z,13nm,0.8s,baz=209,slow=7.0,SNR=7.0
FRB                                   LR     LR        05 04 50.3
       comp=Z,21µm,20.4s,baz=176,slow=36
       comp=Z,13nm,0.8s
FRB    Frobisher Bay      91.45   1   P      P         04 22 34.5 +1.4
       comp=Z,46µmcomp=Z,4µmcomp=Z,68nm,2.1s,comp=Z,4µm
ECAL   Calabor            91.50  42   P      P         04 22 35.5 +1.4
       comp=Z,85µmcomp=Z,7µmcomp=Z,109nm,1.3s,comp=Z,7µm
ESDC   Sonseca Array      91.86  45   P      P         04 22 35.2 -0.5
       comp=Z,47nm,0.9s,baz=254,slow=3.9,SNR=83
ESDC                                  S      SKSac     04 33 08.1 +0.1
       comp=Z,0.6nm,0.9s,baz=348,slow=4.2,SNR=1.4
ESDC                                  LR     LR        05 02 43.2
       comp=Z,58µm,20.1s,baz=221,slow=35
       comp=Z,47nm,0.9s
ESDC   Sonseca Array      91.86  45   P      P         04 22 34.0 -1.7
OUZ    Omahuta            92.33 228   IAMs_20 IAMs_20  04 54 39.7
       comp=Z,39µm,20.0s
OUZ    Omahuta            92.33 228   P      P         04 22 37.7 -0.4
       comp=Z,26µmcomp=Z,103nm,1.9s
EMUR   La Murta           92.58  48   P      P         04 22 39.8 +0.8
       comp=Z,50µmcomp=Z,3µmcomp=Z,66nm,0.9s,comp=Z,3µm
CART   Cartagena          92.59  48   P      P         04 22 37.0 -2.0
CART                                  IAMs_20 IAMs_20  05 02 12.6
       comp=Z,37µm,22.0s
CART   Cartagena          92.59  48   P      P         04 22 39.7 +0.7
       comp=Z,43µmcomp=Z,4µmcomp=Z,123nm,1.4s
AFI    Afiamalu           92.67 253   LR     LR        04 54 54.8
       comp=Z,38µm,20.5s,baz=118,slow=29
AFI    Afiamalu           92.67 253   IAMs_20 IAMs_20  04 54 33.0
       comp=Z,37µm,20.0s
UCM    Universidad Co     92.68  45   P      P         04 22 41.3 +1.9
       comp=Z,53µmcomp=Z,4µmcomp=Z,110nm,1.0s,comp=Z,4µm
NUUK   Nuuk               93.12   8 i P      P         04 22 43.0 +2.2
NUUK                                  IAmb   IAmb      04 22 44.8
       comp=Z,147nm,1.0s
NUUK   Nuuk               93.12   8   P      P         04 22 43.2 +2.4
       comp=Z,37µmcomp=Z,6µmcomp=Z,141nm,0.9s,comp=Z,6µm
BBB    Bella Bella        94.06 329   LR     LR        05 01 16.2
       comp=Z,14µm,19.9s,baz=131,slow=33
POHA   Pohakuloa          94.30 290   IAMs_20 IAMs_20  04 54 52.2
       comp=Z,43µm,22.0s
PAF    Port-aux-Franc     95.66 156   IAMs_20 IAMs_20  05 09 08.0
       comp=Z,27µm,19.0s
VAL    Valentia           95.78  33   P      P         04 22 49.7 -3.5
VAL    Valentia           95.78  33   P      P         04 22 54.3 +1.0
ATE    Arette             95.81  44   P      P         04 22 54.4 +0.7
       comp=Z,35µmcomp=Z,3µmcomp=Z,133nm,1.6s,comp=Z,3µm
SFJD   Kangerlussuaq      95.96   8   LR     LR        05 07 45.7
       comp=Z,16µm,19.3s,baz=201,slow=36
SFJD   Kangerlussuaq      95.96   8   IAMs_20 IAMs_20  05 07 43.8
       comp=Z,21µm,20.0s
SFJD   Kangerlussuaq      95.96   8   P      P         04 22 55.6 +1.8
SFJD   Kangerlussuaq      95.96   8 i P      P         04 22 55.2 +1.5
SFJD                                  IAmb   IAmb      04 22 57.4
       comp=Z,78nm,1.2s
SFJD   Kangerlussuaq      95.96   8   P      P         04 22 54.0 +0.2
       comp=Z,37µmcomp=Z,50nm,1.0s
YKAW1  Yellowknife Wh     96.58 341   P      P         04 22 55.6 -1.1
YKA    Yellowknife Ar     96.62 341   P      P         04 22 56.7 -0.1
       comp=Z,29nm,0.8s,baz=141,slow=4.5,SNR=29
YKA                                   PP     PP        04 26 54.1 +2.3
       comp=Z,5.8nm,0.8s,baz=141,slow=7.3,SNR=3.9
YKA                                   S      SKSac     04 33 31.5 -1.0
       comp=Z,0.7nm,0.6s,baz=124,slow=3.8,SNR=1.4
YKA                                   LR     LR        05 10 31.0
       comp=Z,13µm,18.1s,baz=136,slow=38
       comp=Z,29nm,0.8s
YKA    Yellowknife Ar     96.62 341   P      P         04 22 55.6 -1.3
YKA    Yellowknife Ar     96.62 341   P      P         04 22 55.6 -1.3
YKAW3  Yellowknife Wh     96.68 341   P      P         04 22 55.7 -1.4
H02S2  DAWSON INLET T     96.75 328   P      P         04 22 59.5 +1.8
       SNR=5.0
H02S1  DAWSON INLET T     96.75 328   P      P         04 22 59.2 +1.5
       SNR=4.2
CEST   Esterri de Car     96.76  45   P      P         04 22 56.6 -1.6
ANGG   Ammassalik, Gr     96.82  13   IAMs_20 IAMs_20  05 05 12.6
       comp=Z,22µm,21.0s
ANGG   Ammassalik, Gr     96.82  13 i P      P         04 22 58.9 +1.2
ANGG                                  IAmb   IAmb      04 22 59.7
       comp=Z,73nm,1.1s
CORI   Orista             96.93  46   P      P         04 22 57.9 -1.0
IGLA   Glengowla, Co      97.11  32   P      Pdif      04 23 00.0 +0.6
ROSF   Rostrenen          97.22  39   P      Pdif      04 23 01.1 +1.0
ROSF                                  pmax   pmax
       comp=Z,97nm,1.0s
ROSF   Rostrenen          97.22  39   P      Pdif      04 23 01.1 +1.1
       comp=Z,36µmcomp=Z,2µmcomp=Z,97nm,1.0s
CCA1   Carnmenellis       97.23  36   P      Pdif      04 23 01.1 +1.1
       comp=Z,32µmcomp=Z,3µmcomp=Z,82nm,2.1s,comp=Z,3µm
MAHO   Mahon              97.31  49   IAMs_20 IAMs_20  05 04 23.4
       comp=Z,28µm,22.0s
MAHO   Mahon              97.31  49   P      Pdif      04 23 03.0 +2.3
       comp=Z,37µmcomp=Z,4µmcomp=Z,280nm,1.1s
V35K   Ketchikan          97.69 330   IAMs_20 IAMs_20  05 04 18.6
       comp=Z,24µm,20.0s
EJON   La Jonquera        97.71  46   P      Pdif      04 23 02.7 +0.2
       comp=Z,34µmcomp=Z,3µmcomp=Z,94nm,1.9s,comp=Z,3µm
SJAF   Saint Jean de      97.73  46   P      Pdif      04 23 04.2 +1.7
       comp=Z,32µmcomp=Z,2µmcomp=Z,82nm,0.9s,comp=Z,2µm
IWEX   Carrickbyrne,      97.73  34   P      Pdif      04 23 04.7 +2.5
MTLF   Montolieu          97.75  45   P      Pdif      04 23 03.4 +0.8
MTLF                                  pmax   pmax
       comp=Z,139nm,1.6s
MTLF   Montolieu          97.75  45   P      Pdif      04 23 02.6  0.0
       comp=Z,35µmcomp=Z,3µmcomp=Z,138nm,1.6s,comp=Z,3µm
FUTU   Fugatoga           97.77 249   IAMs_20 IAMs_20  04 56 07.1
       comp=Z,22µm,21.0s
GDH    Godhavn            97.81   6 i P      Pdif      04 23 04.7 +2.6
GDH                                   IAmb   IAmb      04 23 05.2
       comp=Z,176nm,1.6s
ILULI  Ilulissat          98.02   7   P      P         04 23 02.6 -0.5
ILULI                                 pmax   pmax
       comp=Z,129nm,1.3s
ILULI                                 MLR    MLR
       comp=Z,22µm,21.0s
ILULI  Ilulissat          98.02   7   P      P         04 23 02.6 -0.5
ILULI                                 IAmb   IAmb      04 23 06.6
       comp=Z,128nm,1.3s
ILULI                                 IAMs_20 IAMs_20  05 08 12.2
       comp=Z,22µm,21.0s
ILULI  Ilulissat          98.02   7 i P      Pdif      04 23 03.8 +0.7
ILULI                                 IAmb   IAmb      04 23 06.3
       comp=Z,108nm,1.2s
ILULI  Ilulissat          98.02   7   P      Pdif      04 23 03.2 +0.1
       comp=Z,27µmcomp=Z,4µmcomp=Z,76nm,2.2s,comp=Z,4µm
MFF    Saint Martin d     98.04  41   P      Pdif      04 23 03.8 +0.1
       comp=Z,8µmcomp=Z,552nmcomp=Z,29nm,1.1s,comp=Z,552nm
DYA    Yadsworthy         98.06  37  eP      P         04 23 03.0 -0.6
DYA                                   IAMs_20 IAMs_20  05 05 09.2
       comp=Z,59µm,21.4s
HTL    Hartland           98.09  36   P      Pdif      04 23 05.0 +1.1
       comp=Z,8µmcomp=Z,542nmcomp=Z,18nm,1.6s
T35M   Bob Quinn          98.16 332   IAMs_20 IAMs_20  05 05 38.9
       comp=Z,31µm,19.0s
DSB    Dublin             98.44  33   P      P         04 23 02.6 -2.8
DSB    Dublin             98.44  33   P      Pdif      04 23 05.8 +0.4
DSB    Dublin             98.44  33   P      P         04 23 04.8 -0.5
DSB                                   IAMs_20 IAMs_20  05 03 45.6
       comp=Z,36µm,21.0s
DSB    Dublin             98.44  33  eP      Pdif      04 23 05.6 +0.3
DSB    Dublin             98.44  33   P      Pdif      04 23 06.5 +1.1
       comp=Z,2µmcomp=Z,43nm,2.0s,comp=Z,2µm
WRAK   Wrangell Islan     98.70 330   IAMs_20 IAMs_20  05 05 01.2
       comp=Z,35µm,20.0s
SAQQ   Saqqaq             98.70   7 i P      Pdif      04 23 08.6 +2.5
SAQQ                                  IAmb   IAmb      04 23 10.2
       comp=Z,150nm,1.4s
KEST   Kesra              98.80  54   P      Pdif      04 23 08.3 +0.8
       comp=Z,12nm,1.0s,baz=123,slow=2.3,SNR=13
KEST                                  S      SKSac     04 33 45.6 +0.5
       comp=Z,1.1nm,0.5s,baz=324,slow=8.7,SNR=0.9
KEST                                  LR     LR        05 08 58.8
       comp=Z,203µm,21.3s,baz=239,slow=36
       comp=Z,12nm,1.0s
KEST   Kesra              98.80  54   P      Pdif      04 23 08.9 +1.4
KEST                                  S      SKSac     04 33 47.2 +2.1
KEST   Kesra              98.80  54   P      Pdif      04 23 07.8 +0.2
U33K   Whale Pass         98.85 330   IAMs_20 IAMs_20  05 05 56.2
       comp=Z,19µm,19.0s
ILTH   Belurgan, Co L     98.92  33   P      Pdif      04 23 07.9 +0.5
ILTH   Belurgan, Co L     98.92  33  eP      Pdif      04 23 07.8 +0.4
IDGL   Inch Island, C     98.99  31   P      Pdif      04 23 09.1 +1.4
MSVF   Nonsavu            99.07 244   LR     LR        04 57 05.4
       comp=Z,23µm,21.1s,baz=108,slow=29
MSVF   Nonsavu            99.07 244   IAMs_20 IAMs_20  04 56 53.4
       comp=Z,24µm,22.0s
S34M   Telegraph Cree     99.12 332   P      Pdif      04 23 06.6 -1.6
S34M                                  IAMs_20 IAMs_20  05 03 31.3
       comp=Z,35µm,22.0s
MCH1   Michaelchurch      99.42  36  eP      Pdif      04 23 09.6 -0.1
MCH1                                  IAMs_20 IAMs_20  05 02 31.6
       comp=Z,43µm,23.3s
MONM   Monmouth           99.43  36  eP      Pdif      04 23 10.1 +0.3
MONM                                  IAMs_20 IAMs_20  05 02 31.4
       comp=Z,41µm,23.2s
WTLY   Watson Lake, Y     99.61 335          Pdif      04 23 09.3 -1.2
CLGH   Cloghs, Cushen     99.65  32  eP      Pdif      04 23 09.8 -0.8
CLGH                                  IAMs_20 IAMs_20  05 04 31.8
       comp=Z,47µm,19.9s
CLGH   Cloghs, Cushen     99.65  32   P      Pdif      04 23 10.7  0.0
       comp=Z,26µmcomp=Z,2µmcomp=Z,72nm,0.9s
STRD   Stroud             99.73  36  eP      Pdif      04 23 10.9 -0.2
STRD                                  IAMs_20 IAMs_20  05 02 50.7
       comp=Z,44µm,23.9s
HLM1   Long Mynd          99.77  35  eP      Pdif      04 23 10.6 -0.7
HLM1                                  IAMs_20 IAMs_20  04 59 32.3
       comp=Z,55µm,33.9s
ARBF   Arbois             99.79  46   P      Pdif      04 23 13.9 +2.3
       comp=Z,30µmcomp=Z,3µmcomp=Z,131nm,2.0s,comp=Z,3µm
FOEL   Foel Wylfa         99.81  35  eP      Pdif      04 23 11.7 +0.2
FOEL                                  IAMs_20 IAMs_20  05 05 40.3
       comp=Z,61µm,21.1s
FOEL   Foel Wylfa         99.81  35   P      Pdif      04 23 11.9 +0.4
       comp=Z,13µmcomp=Z,1µmcomp=Z,24nm,1.1s
R33M   Jennings River     99.99 333   IAMs_20 IAMs_20  05 07 05.4
       comp=Z,30µm,19.0s
RUSF   Rustrel           100.10  46   P      Pdif      04 23 15.8 +2.8
       comp=Z,30µmcomp=Z,3µmcomp=Z,138nm,1.1s,comp=Z,3µm
SSB    Saint Sauveur     100.17  44   P      Pdif      04 23 14.2 +0.8
       comp=Z,31µmcomp=Z,2µmcomp=Z,100nm,1.4s,comp=Z,2µm
CLF    Chambon-Foret     100.18  41   IAMs_20 IAMs_20  05 08 20.0
       comp=Z,32µm,20.0s
CLF    Chambon-Foret     100.18  41   P      Pdif      04 23 13.6 +0.4
       comp=Z,27µmcomp=Z,3µmcomp=Z,140nm,1.3s,comp=Z,3µm
GAL1   Galloway          100.18  33  eP      Pdif      04 23 12.1 -0.9
GAL1                                  IAMs_20 IAMs_20  05 10 13.4
       comp=Z,46µm,18.3s
BORG   Borgarnes         100.20  19   IAMs_20 IAMs_20  05 04 24.3
       comp=Z,24µm,22.0s
MBAR   Mbarara           100.23  96   P      Pdif      04 23 17.8 +3.2
       comp=Z,35µmcomp=Z,2µmcomp=Z,19nm,2.1s,comp=Z,2µm
MBAR   Mbarara           100.23  96   P      Pdif      04 23 15.7 +1.1
Q32M   Nakina River      100.24 333   IAMs_20 IAMs_20  05 06 36.0
       comp=Z,33µm,19.0s
STNC   Stoke             100.43  35   P      Pdif      04 23 15.8 +1.6
       comp=Z,25µmcomp=Z,3µmcomp=Z,84nm,1.6s,comp=Z,3µm
NEWG   New Galloway      100.55  33  eP      Pdif      04 23 15.2 +0.5
NEWG                                  IAMs_20 IAMs_20  05 10 33.6
       comp=Z,39µm,18.0s
CWF    Charnwood Fore    100.69  36  eP      Pdif      04 23 15.0 -0.4
CWF                                   IAMs_20 IAMs_20  05 03 08.9
       comp=Z,37µm,23.4s
CWF    Charnwood Fore    100.69  36   P      Pdif      04 23 16.4 +1.1
       comp=Z,24µmcomp=Z,2µmcomp=Z,39nm,2.4s
JIS    Juneau Island     100.70 331   P      Pdif      04 23 17.1 +1.8
LOR    Lormes            100.74  42   P      Pdif      04 23 16.9 +1.1
LOR                                   pmax   pmax
       comp=Z,37nm,1.4s
LOR    Lormes            100.74  42   P      Pdif      04 23 17.1 +1.3
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      comp=Z,25µmcomp=Z,2µmcomp=Z,37nm,1.4s,comp=Z,2µm
KESW  Keswick, Cumbr  100.80  33 eP        Pdif     04 23 15.5 -0.3
KESW                             IAMs_20   IAMs_20  05 04 22.6
      comp=Z,51µm,22.5s
KESW  Keswick, Cumbr  100.80  33 P         Pdif     04 23 17.6 +1.8
      comp=Z,24µmcomp=Z,2µmcomp=Z,80nm,1.0s
ORIF  Oris-en-Rattie  100.82  45 P         Pdif     04 23 17.5 +1.2
ORIF                             pmax      pmax
      comp=Z,139nm,1.0s
ORIF  Oris-en-Rattie  100.82  45 P         Pdif     04 23 17.5 +1.2
      comp=Z,28µmcomp=Z,2µmcomp=Z,139nm,1.0s
CALF  Calern          100.92  46 P         Pdif     04 23 19.5 +2.6
      comp=Z,27µmcomp=Z,3µmcomp=Z,245nm,1.0s,comp=Z,3µm
TAU   Tasmania Unive  101.06 208 IAMs_20   IAMs_20  04 58 01.4
      comp=Z,32µm,22.0s
EAB   Aberfoyle       101.10  32 eP        Pdif     04 23 17.4 +0.3
EAB                              IAMs_20   IAMs_20  05 04 45.7
      comp=Z,75µm,20.0s
ESK   Eskdalemuir     101.15  33 i P       Pdif     04 23 19.9 +2.5
ESK   Eskdalemuir     101.15  33 eP        Pdif     04 23 17.8 +0.4
ESK                              IAMs_20   IAMs_20  05 01 41.5
      comp=Z,43µm,29.8s
ESK   Eskdalemuir     101.15  33 P         Pdif     04 23 19.4 +2.1
      comp=Z,24µmcomp=Z,29nm,1.0s
ESK   Eskdalemuir     101.15  33 P         Pdif     04 23 19.5 +2.1
      comp=Z,24µmcomp=Z,28nm,1.0s
KPL   Plockton        101.16  30 eP        Pdif     04 23 16.8 -0.5
KPL                              IAMs_20   IAMs_20  05 06 42.8
      comp=Z,44µm,19.1s
EKA   Eskdalemuir Ar  101.18  33 P         Pdif     04 23 16.8 -0.8
      comp=Z,21nm,0.9s,baz=218,slow=3.8,SNR=16
EKA                              PP        PP       04 27 25.7 -1.3
      comp=Z,2.9nm,0.8s,baz=239,slow=5.4,SNR=2.6
EKA                              PKKPbc    PKKPbc   04 39 29.4 -0.1
      comp=Z,2.2nm,0.7s,baz=54,slow=4.2,SNR=4.7
ISO   Isola           101.21  46 P         Pdif     04 23 20.5 +2.5
      comp=Z,27µmcomp=Z,2µmcomp=Z,77nm,1.2s,comp=Z,2µm
P33M  Teslin, Yukon   101.23 333 IAMs_20   IAMs_20  05 05 09.2
      comp=Z,19µm,21.0s
MON   Monaco          101.24  46 P         Pdif     04 23 21.5 +3.5
      comp=Z,25µmcomp=Z,3µmcomp=Z,163nm,1.1s,comp=Z,3µm
ESCA  l'Escarene      101.25  46 P         Pdif     04 23 20.7 +2.5
      comp=Z,3µmcomp=Z,197nm,1.1s,comp=Z,3µm
S31K  Pelican         101.31 330 IAMs_20   IAMs_20  05 05 00.5
      comp=Z,29µm,22.0s
INVG  Invergeldie, C  101.37  31 eP        Pdif     04 23 18.7 +0.4
INVG                             IAMs_20   IAMs_20  05 05 02.4
      comp=Z,74µm,19.8s
EDMD  Edmundbyers     101.49  34 eP        Pdif     04 23 18.6 -0.2
EDMD                             IAMs_20   IAMs_20  05 04 42.9
      comp=Z,47µm,22.1s
EDMD  Edmundbyers     101.49  34 P         Pdif     04 23 20.0 +1.1
      comp=Z,23µmcomp=Z,62nm,1.8s
WACR  West Acre       101.69  36 eP        Pdif     04 23 20.1 +0.3
WACR                             IAMs_20   IAMs_20  05 07 11.7
      comp=Z,50µm,20.7s
GIMEL St. Georges /   101.83  44 P         Pdif     04 23 22.8 +2.1
      comp=Z,27µmcomp=Z,2µmcomp=Z,41nm,2.2s
BOST  Ostende         102.17  38 dP        Pdif     04 23 21.1 -0.9
      comp=Z,49nm,1.0s
BSKQ  Steenkerk       102.52  39 dPdif     Pdif     04 23 25.2 +1.7
DOU   Dourbes         102.54  40 dx        x        04 23 23.3
      comp=Z,27nm,1.1s
BMRD  Maredsous       102.74  40 dP        Pdif     04 23 23.5 -1.1
      comp=Z,46nm,1.0s
UCC   Uccle           102.74  39 dPdif     Pdif     04 23 24.2 -0.4
      comp=Z,30nm,1.0s
UCC   Uccle           102.74  39 P         Pdif     04 23 26.0 +1.5
      comp=Z,2µmcomp=Z,234nmcomp=Z,8.5nm,0.9s,comp=Z,234nm
SUMG  Summit          102.77  10 IAMs_20   IAMs_20  05 09 36.7
      comp=Z,25µm,21.0s
BOURR Bourrignon      102.81  43 P         Pdif     04 23 26.9 +1.8
      comp=Z,23µmcomp=Z,2µmcomp=Z,44nm,1.7s,comp=Z,2µm
P29M  Windy Craggy    102.91 331 IAMs_20   IAMs_20  05 08 12.6
      comp=Z,21µm,20.0s
RCHB  Rochefort       102.93  40 dPdif     Pdif     04 23 25.0 -0.4
      comp=Z,14nm,1.4s
RCHB  Rochefort       102.93  40 P         Pdif     04 23 25.3 -0.1
      comp=Z,2µmcomp=Z,32nm,1.2s,comp=Z,2µm
M31M  Drury Creek, Y  103.03 335 IAMs_20   IAMs_20  05 15 33.9
      comp=Z,25µm,19.0s
BCLA  Clavier         103.09  40 dPdif     Pdif     04 23 24.2 -1.9
      comp=Z,12nm,1.0s
ECH   Echery          103.15  42 P         Pdif     04 23 26.6 +0.1
      comp=Z,21µmcomp=Z,2µmcomp=Z,32nm,2.3s,comp=Z,2µm
N31M  Braeburn, Yuko  103.16 334 IAMs_20   IAMs_20  05 08 13.1
      comp=Z,31µm,21.0s
WLF   Walferdange     103.23  41 P         Pdif     04 23 26.4 -0.3
WLF   Walferdange     103.23  41 P         Pdif     04 23 28.7 +2.0
WLF                              pmax      pmax
      comp=Z,84nm,2.1s
WLF   Walferdange     103.23  41 dP        Pdif     04 23 25.8 -0.9
      comp=Z,39nm,1.1s
WLF   Walferdange     103.23  41 ePdiff    Pdif     04 23 29.2 +2.5
      baz=247,slow=4.6
WLF                              ePP       PP       04 27 40.9 -1.6
      baz=241,slow=7.7
WLF   Walferdange     103.23  41 P         Pdif     04 23 27.4 +0.7
      comp=Z,23µmcomp=Z,2µmcomp=Z,84nm,2.1s,comp=Z,2µm
BNALP Bannalp         103.30  44 P         Pdif     04 23 29.6 +2.3
      comp=Z,25µmcomp=Z,2µmcomp=Z,53nm,1.1s,comp=Z,2µm
VLC   Villacollemand  103.34  47 P         Pdif     04 23 30.6 +3.2
      comp=Z,25µmcomp=Z,2µmcomp=Z,42nm,1.0s,comp=Z,2µm
MEM   Membach         103.58  40 dPdif     Pdif     04 23 28.9 +0.6
      comp=Z,21nm,0.9s
MEM   Membach         103.58  40 P         Pdif     04 23 30.0 +1.7
      comp=Z,11µmcomp=Z,1µmcomp=Z,34nm,0.9s,comp=Z,1µm
BOPT  Opiter          103.60  39 dPdif     Pdif     04 23 26.8 -1.6
HGN   Heimansgroeve   103.61  40 P         Pdif     04 23 29.9 +1.5
      comp=Z,20µmcomp=Z,2µmcomp=Z,26nm,1.3s,comp=Z,2µm
O29M  Mount Kennedy   103.63 332 IAMs_20   IAMs_20  05 05 15.6
      comp=Z,21µm,20.0s
BTNL  Ternell         103.64  40 dPdif     Pdif     04 23 29.7 +1.1
      comp=Z,12nm,1.0s
TUE   Stuetta         103.69  45 P         Pdif     04 23 29.0 -0.2
      comp=Z,8µmcomp=Z,307nm,1.9s
TUE   Stuetta         103.69  45 P         Pdif     04 23 29.8 +0.6
      comp=Z,26µmcomp=Z,2µmcomp=Z,77nm,1.9s,comp=Z,2µm
SLE   Schleitheim     103.74  43 P         Pdif     04 23 31.1 +2.0
      comp=Z,22µmcomp=Z,2µmcomp=Z,40nm,1.9s,comp=Z,2µm
BFO   Black Forest    103.90  43 IAMs_20   IAMs_20  05 13 40.4
      comp=Z,27µm,19.0s
BFO   Black Forest    103.90  43 ePdiff    Pdif     04 23 31.8 +1.9
      baz=247,slow=4.6
BFO                              ePP       PP       04 27 46.0 -1.6
      baz=241,slow=7.7
DAVOX Davos/Dischmat  104.16  44 Pdiff     Pdif     04 23 31.5 +0.3
      comp=Z,47nm,0.9s,baz=294,slow=1.8,SNR=34
DAVOX                            PP        PKiKP    04 27 47.2 -1.0
      comp=Z,9.2nm,0.8s,baz=201,slow=6.2,SNR=3.6
SCO   Scoresbysund    104.22  15 IAMs_20   IAMs_20  05 06 34.2
      comp=Z,21µm,22.0s
PCA   Pinnacle        104.23 331 IAMs_20   IAMs_20  05 07 24.5
      comp=Z,25µm,20.0s
TULEG Thule           104.29   1 IAMs_20   IAMs_20  05 18 45.2
      comp=Z,18µm,18.0s
FUORN Ofenpass-Fuorn  104.33  45 P         Pdif     04 23 32.8 +0.7
      comp=Z,25µmcomp=Z,2µmcomp=Z,75nm,1.2s,comp=Z,2µm
DAVA  Damuels         104.38  44 i Pdiff   Pdif     04 23 32.6 +0.4
      comp=Z,52nm,1.1s,SNR=16
DAVA                             ePKiKP    PKiKP    04 27 48.6 +0.1
      comp=Z,689nm,3.8s
DAVA  Damuels         104.38  44 P         Pdif     04 23 34.4 +2.2
      comp=Z,30µmcomp=Z,2µmcomp=Z,76nm,1.3s
O28M  Mount Upton     104.56 332 IAMs_20   IAMs_20  05 07 10.1
      comp=Z,25µm,22.0s
STU   Stuttgart       104.61  42 IAMs_20   IAMs_20  05 13 58.2
      comp=Z,25µm,19.0s
STU   Stuttgart       104.61  42 ePdiff    Pdif     04 23 35.2 +2.2
      baz=247,slow=4.6
STU                              ePP       PKiKP    04 27 50.7 +2.0
      baz=241,slow=7.7
STU   Stuttgart       104.61  42 P         Pdif     04 23 35.3 +2.4
      comp=Z,19µmcomp=Z,1µmcomp=Z,32nm,1.1s,comp=Z,1µm
WTSB  Winterswijk     104.64  39 P         Pdif     04 23 34.8 +1.8
      comp=Z,20µmcomp=Z,2µmcomp=Z,54nm,1.9s,comp=Z,2µm
BUG   Bochum--Univer  104.67  39 ePdiff    Pdif     04 23 35.2 +2.1
      baz=247,slow=4.6
BUG   Bochum--Univer  104.67  39 P         Pdif     04 23 35.0 +1.9
      comp=Z,20µmcomp=Z,1µmcomp=Z,58nm,1.2s
UBR   Ueberruh        104.69  44 ePdiff    Pdif     04 23 36.0 +2.6
      baz=247,slow=4.6
UBR   Ueberruh        104.69  44 P         Pdif     04 23 34.2 +0.8
      comp=Z,20µmcomp=Z,2µmcomp=Z,59nm,1.3s,comp=Z,2µm
FETA  Feichten        104.79  44 i Pdiff   Pdif     04 23 33.7 -0.3
      comp=Z,50nm,1.1s,SNR=24
FETA                             ePKiKP    PKiKP    04 27 49.0 -0.2
      comp=Z,545nm,3.2s
FETA                             i PKKP    PKKPbc   04 39 20.6 +2.0
      comp=Z,11nm,1.3s
LOGN  Logan Glacier   104.92 332 IAMs_20   IAMs_20  05 07 07.9
      comp=Z,27µm,22.0s
L29M  L29M            104.97 334 IAMs_20   IAMs_20  05 09 43.2
      comp=Z,23µm,20.0s
RETA  Reutte          105.01  44 i Pdiff   Pdif     04 23 34.7 -0.1
      comp=Z,41nm,1.0s,SNR=16
RETA                             ePKiKP    PKiKP    04 27 49.7 +0.1
      comp=Z,776nm,2.6s
RETA                             eSKS      SKSac    04 34 21.4 +7.3
      comp=Z,8µm,13.9s
RETA                             ePKKP     PKKPbc   04 39 21.8 +4.0
      comp=Z,5.1nm,1.0s
J30M  Hart River      105.11 336 IAMs_20   IAMs_20  05 07 26.8
      comp=Z,23µm,22.0s
K29M  Barlow Dome     105.14 335 IAMs_20   IAMs_20  05 11 29.6
      comp=Z,28µm,18.0s
MOTA  Moosalm         105.16  44 i Pdiff   Pdif     04 23 35.2 -0.4
      comp=Z,60nm,1.2s,SNR=21
MOTA                             ePKiKP    PKiKP    04 27 49.2 -0.7
      comp=Z,648nm,2.6s
MOTA                             eSKS      SKSac    04 34 16.9 +1.9
      comp=Z,3µm,10.1s
SQTA  Sankt Quirin    105.17  44 i Pdiff   Pdif     04 23 35.2 -0.4
      comp=Z,38nm,0.9s,SNR=28
SQTA                             ePKiKP    PKiKP    04 27 49.3 -0.6
      comp=Z,678nm,4.7s
SQTA                             eSKS      SKSac    04 34 16.5 +1.6
      comp=Z,5µm,10.5s
SQTA                             i PKKP    PKKPbc   04 39 19.1 +1.7
      comp=Z,12nm,1.3s
GRNC  Granite Creek   105.19 331 IAMs_20   IAMs_20  05 07 34.0
      comp=Z,23µm,20.0s
ONTNC Ouen Toro       105.21 234 IAMs_20   IAMs_20  05 00 13.3
      comp=Z,28µm,22.0s
KASTN Kahler Asten    105.21  40 ePdiff    Pdif     04 23 37.6 +2.0
      baz=247,slow=4.6
KASTN                            ePP       PP       04 27 55.9 -1.3
      baz=241,slow=7.7
BARN  Barnard Glacie  105.32 332 IAMs_20   IAMs_20  05 10 30.4
      comp=Z,23µm,20.0s
IBBN  Ibbenburen      105.32  39 ePdiff    Pdif     04 23 38.3 +2.4
      baz=247,slow=4.6
IBBN                             ePP       PP       04 27 59.4 +1.5
      baz=241,slow=7.7
WATA  Walderalm       105.44  44 i Pdiff   Pdif     04 23 36.6 -0.3
      comp=Z,48nm,1.0s,SNR=15
WATA                             ePKiKP    PKiKP    04 27 49.9 -0.5
      comp=Z,601nm,2.8s
WATA                             eSKS      SKSac    04 34 18.0 +1.7
      comp=Z,196nm,2.6s
WATA                             i PKKP    PKKPbc   04 39 20.4 +3.9
      comp=Z,8.6nm,1.1s
WTTA  Wattenberg      105.45  45 i Pdiff   Pdif     04 23 35.9 -1.1
      comp=Z,77nm,1.0s,SNR=20
WTTA                             ePKiKP    PKiKP    04 27 50.0 -0.6
      comp=Z,496nm,2.4s
WTTA                             eSKS      SKSac    04 34 16.2 -0.1
      comp=Z,253nm,3.4s
WTTA                             i PKKP    PKKPbc   04 39 20.6 +4.0
      comp=Z,8.6nm,1.1s
I30M  Mount Dempster  105.49 337 IAMs_20   IAMs_20  05 09 49.8
      comp=Z,20µm,20.0s
FUR   Furstenfeldbru  105.61  44 ePP       PP       04 27 58.3 -1.9
      baz=241,slow=7.7
TGL   Tana Glacier    105.67 331 IAMs_20   IAMs_20  05 09 37.5
      comp=Z,32µm,20.0s
KMBO  Kilima Mbogo    105.69 100 S         SKSac    04 34 21.2 +2.0
      baz=226,slow=4.6
J29N  Klondike Camp   105.73 335 IAMs_20   IAMs_20  05 11 27.1
      comp=Z,27µm,19.0s
KIBK  Kibwezi         105.78 101 P         Pdif     04 23 40.4 +1.3
ABTA  Abfaltersbach   105.79  45 i Pdiff   Pdif     04 23 38.2 -0.1
      comp=Z,45nm,1.1s,SNR=12
ABTA                             ePKiKP    PKiKP    04 27 51.5 +0.5
      comp=Z,536nm,3.9s
ABTA                             eSKS      SKSac    04 34 24.2 +6.5
      comp=Z,2µm,8.6s
CRQM  Cirque          105.80 331 IAMs_20   IAMs_20  05 06 51.4
      comp=Z,31µm,22.0s
BERG  Berg Lake       105.87 331 IAMs_20   IAMs_20  05 09 47.8
      comp=Z,20µm,20.0s
NEEM  North Greenlan  105.89   4 i P       Pdif     04 23 41.9 +3.5
KAIM  Kayak Island    105.96 330 IAMs_20   IAMs_20  05 21 22.2
      comp=Z,18µm,18.0s
MCARA McCarthy VSAT   106.06 332 IAMs_20   IAMs_20  05 07 40.8
      comp=Z,27µm,22.0s
M27K  Edge Creek, AK  106.06 333 IAMs_20   IAMs_20  05 12 39.9
      comp=Z,28µm,18.0s
VRDI  Verde Repeater  106.16 331 IAMs_20   IAMs_20  05 08 43.6
      comp=Z,26µm,22.0s
LESA  Schwarzleotal   106.16  45 i Pdiff   Pdif     04 23 39.4 -0.6
      comp=Z,34nm,1.0s,SNR=13
LESA                             ePKiKP    PKiKP    04 27 51.6 -0.1
      comp=Z,472nm,2.5s
GRFO  Grafenberg      106.20  42 IAMs_20   IAMs_20  05 09 32.3
      comp=Z,31µm,21.0s
GRA1  Grafenberg Arr  106.20  42 IAMs_20   IAMs_20  05 09 43.3
      comp=Z,29µm,21.0s
GRF   Grafenberg Arr  106.20  42 ePdiff    Pdif     04 23 42.6 +2.6
      baz=247,slow=4.6
GRF                              eL        L        05 09 32.3
      comp=Z,31µm,21.6s
GTTG  Gottingen       106.23  40 ePdiff    Pdif     04 23 42.8 +2.7
      baz=247,slow=4.6
I29M  Ogilvie Camp,   106.25 336 IAMs_20   IAMs_20  05 10 57.8
      comp=Z,19µm,20.0s
RAGM  Ragged Mountai  106.29 330 IAMs_20   IAMs_20  05 20 31.0
      comp=Z,23µm,19.0s
L27K  Beaver Creek,   106.39 333 IAMs_20   IAMs_20  05 09 25.6
      comp=Z,31µm,21.0s
RETH  Rethem/Aller,   106.39  39 ePdiff    Pdif     04 23 43.6 +2.9
      baz=247,slow=4.6
G30M  tAoh Zraii Nji  106.41 338 IAMs_20   IAMs_20  05 13 34.1
      comp=Z,29µm,18.0s
GLB   Gilahina Butte  106.42 331 IAMs_20   IAMs_20  05 09 03.3
      comp=Z,23µm,21.0s
KBA   Koelnbreinsper  106.44  45 ePdiff    Pdif     04 23 41.4 +0.1
      comp=Z,9.4nm,0.8s
KBA                              ePKiKP    PKiKP    04 27 53.5 +1.1
      comp=Z,583nm,3.5s
MYKA  Terra Mystica   106.45  46 i Pdiff   Pdif     04 23 42.2 +0.9
      comp=Z,13nm,0.7s,SNR=5.4
MYKA                             ePKiKP    PKiKP    04 27 54.4 +2.2
      comp=Z,664nm,2.3s
MYKA                             eSKS      SKSac    04 34 29.5 +8.9
      comp=Z,2µm,9.5s
BMRM  Bremner River   106.53 331 IAMs_20   IAMs_20  05 07 44.3
      comp=Z,25µm,22.0s
M26K  Nabesna, AK     106.54 333 IAMs_20   IAMs_20  05 08 59.5
      comp=Z,28µm,20.0s
CLZ   Clausthal       106.59  40 ePdiff    Pdif     04 23 44.3 +2.6
      baz=247,slow=4.6
CLZ                              ePP       PP       04 28 08.0 +0.6
      baz=241,slow=7.7
H29M  Whitestone      106.72 337 IAMs_20   IAMs_20  05 08 52.4
      comp=Z,24µm,22.0s
LJU   Ljubljana       106.79  47 ePdiff    Pdif     04 23 43.0 +0.3
LJU                              ePP       PP       04 28 05.5 -3.5
LJU                              eSKSac    SKSac    04 34 34.7  +13
LJU                              e                  04 37 30.5
LJU                              e                  04 43 39.2
MOX   Moxa            106.82  41 ePdiff    Pdif     04 23 45.6 +2.9
      baz=247,slow=4.6
MOX                              eL        L        05 11 03.3
      comp=Z,25µm,21.4s
EYAK  Cordova Ski Ar  106.83 330 IAMs_20   IAMs_20  05 21 17.4
      comp=Z,22µm,18.0s
BIOA  Bad Ischl, Aus  106.87  45 i Pdiff   Pdif     04 23 43.4 +0.3
      comp=Z,23nm,1.1s,SNR=8.0
BIOA                             ePKiKP    PKiKP    04 27 55.4 +2.5
      comp=Z,714nm,4.6s
BIOA                             eSKS      SKSac    04 34 22.1 -0.2
      comp=Z,1.5nm,0.4s
ASSE  Asse, Remlinge  106.88  40 ePdiff    Pdif     04 23 45.8 +3.0
      baz=247,slow=4.6
ASSE                             ePP       PP       04 28 10.5 +1.2
      baz=241,slow=7.7
I28M  Miner Creek     106.88 336 IAMs_20   IAMs_20  05 11 15.4
      comp=Z,29µm,21.0s
L26K  Log Cabin Wild  106.98 333 IAMs_20   IAMs_20  05 07 18.2
      comp=Z,24µm,22.0s
OBKA  Obir            106.98  46 ePdiff    Pdif     04 23 43.9 +0.2
      comp=Z,16nm,1.0s
OBKA                             epPKiKP   pPKiKP   04 28 00.3 +1.2
      comp=Z,1µm,2.7s
OBKA                             eSKS      SKSac    04 34 24.2 +1.3
      comp=Z,3.6nm,0.5s
PLN   Plauen          107.07  42 ePdiff    Pdif     04 23 46.5 +2.6
      baz=247,slow=4.6
HIN   Hinchinbrook I  107.10 330 IAMs_20   IAMs_20  05 21 49.4
      comp=Z,19µm,18.0s
DIV   Divide          107.11 331 IAMs_20   IAMs_20  05 12 54.7
      comp=Z,21µm,18.0s
NEUB  Neuenburg       107.14  41 ePdiff    Pdif     04 23 46.9 +2.9
      baz=247,slow=4.6
NKC   Novy Kostel     107.14  42 ePP       PP       04 28 05.5 -6.0
NKC                              AMS       AMS      05 09 20.0
      comp=Z,44µm,22.0s
TANN  Tannenbergstha  107.22  42 ePdiff    Pdif     04 23 47.4 +2.8
      baz=247,slow=4.6
TANN                             ePP       PP       04 28 11.3 -0.8
      baz=241,slow=7.7
SESA  Seetaler Alpe,  107.22  45 i Pdiff   Pdif     04 23 44.6 -0.3
      comp=Z,36nm,1.1s,SNR=5.9
SESA                             epPKiKP   pPKiKP   04 28 00.6 +0.9
      comp=Z,1µm,3.8s
FID   Port Fidalgo    107.25 330 IAMs_20   IAMs_20  05 21 47.4
      comp=Z,22µm,18.0s
FLTG  Flechtingen     107.27  40 ePdiff    Pdif     04 23 47.0 +2.4
      baz=247,slow=4.6
FLTG                             ePP       PP       04 28 12.9 +0.7
      baz=241,slow=7.7
CRES  Cresnjevec Ost  107.30  47 i Pdiff   Pdif     04 23 45.1 +0.1
CRES                             ePP       PP       04 28 09.5 -3.2
MOA   Molln           107.32  45 i Pdiff   Pdif     04 23 45.0  0.0
      comp=Z,26nm,1.0s,SNR=9.9
MOA                              epPKiKP   pPKiKP   04 27 58.1 -1.5
      comp=Z,946nm,3.8s
MOA                              eSKS      SKSac    04 34 21.6 -2.7
      comp=Z,12nm,1.6s
P23K  Montague Islan  107.33 329 IAMs_20   IAMs_20  05 08 14.4
      comp=Z,26µm,21.0s
SOKA  Soboth          107.35  46 ePdiff    Pdif     04 23 45.1 -0.2
      comp=Z,15nm,1.3s
SOKA                             ePKiKP    PKiKP    04 27 55.3 +1.4
      comp=Z,628nm,3.6s
GEC2  GERESS Array S  107.36  44 ePdiff    Pdif     04 23 47.6 +2.3
      baz=247,slow=4.6
GEC2                             ePP       PP       04 28 10.8 -2.4
      baz=241,slow=7.7
GERES GERESS Array B  107.36  44 Pdiff     Pdif     04 23 45.1 -0.2
      comp=Z,5.2nm,1.0s,baz=220,slow=3.5,SNR=20
GERES                            PKiKP     PKiKP    04 27 54.2 +0.3
      comp=Z,7.8nm,0.8s,baz=222,slow=1.8,SNR=11
GERES                            PKKPbc    PKKPbc   04 39 10.5 -0.1
      comp=Z,4.3nm,1.0s,baz=82,slow=1.9,SNR=7.8
GERES                            PKPPKP             04 47 34.5
      comp=Z,1.6nm,0.9s,baz=116,slow=2.3,SNR=6.6
GERES GERESS Array B  107.36  44 i P       Pdif     04 23 44.5 -0.8
GERES GERESS Array B  107.36  44           Pdif     04 23 44.5 -0.8
GERES                                      PKiKP    04 27 54.2 +0.3
KHC   Kasperske Hory  107.39  43 i P       Pdif     04 23 48.3 +3.0
KHC                              e                  04 34 30.7
KHC                              MLR       MLR
      comp=Z,41µm,24.3s
KHC   Kasperske Hory  107.39  43 ePDIFF    Pdif     04 23 48.3 +3.0
KHC                              ex        x        04 27 11.0
KHC                              ePKP      PKiKP    04 27 57.3 +3.4
KHC                              ePP       PP       04 28 08.1 -5.2
KHC                              eSKS      SKSac    04 34 30.7 +6.2
KHC                              AMS       AMS      05 07 10.0
      comp=Z,41µm,24.3s
KHC   Kasperske Hory  107.39  43 IAMs_20   IAMs_20  05 18 30.9
      comp=Z,25µm,19.0s
BSEG  Bad Segeberg    107.41  38 ePdiff    Pdif     04 23 48.0 +2.8
      baz=247,slow=4.6
HARP  HAARP           107.43 332 IAMs_20   IAMs_20  05 08 39.0
      comp=Z,24µm,22.0s
I27K  Kandik River    107.56 336 IAMs_20   IAMs_20  05 13 54.5
      comp=Z,22µm,18.0s
GORT1 Trebel          107.57  39 ePdiff    Pdif     04 23 48.9 +3.0
      baz=247,slow=4.6
GLI   Glacier Island  107.58 330 IAMs_20   IAMs_20  05 11 53.0
      comp=Z,18µm,20.0s
CKRC  Cesky Krumlov   107.72  44 i P       Pdif     04 23 49.3 +2.5
CKRC                             MLR       MLR
      comp=Z,41µm,21.5s
CKRC  Cesky Krumlov   107.72  44 ePDIFF    Pdif     04 23 49.3 +2.5
CKRC                             AMS       AMS      05 11 10.0
      comp=Z,41µm,21.5s
HSKC  Hora Svate Kat  107.87  42 AMS       AMS      05 10 10.0
      comp=Z,42µm,22.7s
ZVC   Zvikov          107.88  43 ePDIFF    Pdif     04 23 50.8 +3.3
ZVC                              AMS       AMS      05 07 20.0
      comp=Z,41µm,25.2s
ARSA  Arzberg         107.88  46 i Pdiff   Pdif     04 23 47.6  0.0
      comp=Z,14nm,1.0s,SNR=5.6
ARSA                             epPKiKP   PKiKP    04 28 02.7 +7.9
      comp=Z,538nm,2.8s
ARSA                             eSKS      SKSac    04 34 27.4 +0.7
      comp=Z,4µm,11.9s
CLL   Collm           107.88  41 i P       Pdif     04 23 49.6 +2.2
CLL                              ePS       PS       04 37 44.0 +4.4
CLL                              pmax      pmax
      comp=Z,69nm,2.0s
CLL                              MLR       MLR
      comp=Z,36µm,24.9s
CLL   Collm           107.88  41 IAMs_20   IAMs_20  05 09 03.8
      comp=Z,30µm,22.0s
CLL   Collm           107.88  41 ePdiff    Pdif     04 23 50.0 +2.6
      baz=247,slow=4.6
CLL   Collm           107.88  41 i Pdif    Pdif     04 23 49.6 +2.2
      comp=Z,69nm,2.0s
CLL                              ePdifflp           04 23 51.0
      comp=Z,3µm,24.2s
CLL                              ePKiKP    PKiKP    04 27 58.0 +3.4
      comp=Z,21nm,1.3s
CLL                              ePP       PP       04 28 19.0 +2.2
      comp=Z,6µm,21.4s
CLL                              ex        x        04 28 30.0
CLL                              ePPP      PPP      04 30 31.0
CLL                              eSKSac    SKSac    04 34 25.0 -1.4
CLL                              esSdif    sSdif    04 36 06.0 +4.8
CLL                              ePS       PS       04 37 44.0 +4.4
CLL                              ePPS      PPS      04 38 42.0
CLL                              ePKKPdf   PKKPdf   04 39 22.0 -1.2
CLL                              eSS       SS       04 43 30.0 +1.6
CLL                              eSSS      SSS      04 47 36.0
CLL                              ex        x        04 51 30.0
CLL                              LQ        LQ       04 53 00.0
CLL                              AMS       AMS      05 07 00.0
      comp=Z,0.0nm,24.3s
CLL                              AMS       AMS      05 07 00.0
      comp=N,17µm,25.8s
CLL                              AMS       AMS      05 07 00.0
      comp=E,32µm,25.3s
CLL                              AMS       AMS      05 07 00.0
      comp=Z,36µm,24.9s
CLL                              AMS       AMS      05 19 00.0
      comp=N,13µm,21.0s
CLL                              AMS       AMS      05 19 00.0
      comp=E,16µm,21.1s
CLL                              AMS       AMS      05 19 00.0
      comp=Z,24µm,19.6s
RIDG  Independent Ri  107.91 333 IAMs_20   IAMs_20  05 13 02.8
      comp=Z,25µm,19.0s
ORTH  Orthonies,Zaky  107.94  56 P         Pdif     04 23 47.3 -0.8
KEK   Kerkira         107.98  54 P         Pdif     04 23 47.4 -0.7
VLS   Valsamata       107.99  56 P         Pdif     04 23 46.3 -1.9
LTHK  Lithakia        108.00  56 P         Pdif     04 23 48.2  0.0
KOGS  Kog             108.05  47 ePdiff    Pdif     04 23 47.4 -0.9
FSK   Fiskardo        108.07  56 P         Pdif     04 23 47.9 -0.6
SRN   Sarande         108.19  54 P         Pdif     04 23 49.5 +0.5
RICC  Richard         108.24  42 AMS       AMS      05 10 20.0
      comp=Z,38µm,22.4s
LKD2  Lefkada island  108.26  55 P         Pdif     04 23 48.9 -0.6
BRG   Berggiesshubel  108.27  42 ePdiff    Pdif     04 23 52.0 +2.8
      baz=247,slow=4.6
BRG   Berggiesshubel  108.27  42 PPP       PPP      04 30 37.0
BRG   Berggiesshubel  108.27  42 PS        PS       04 37 44.0 +0.4
BRG                              PKKP      PKKPbc   04 39 12.1 +4.4
BRG                              Amp                04 39 14.3
      comp=Z,8.0nm,1.1s
BRG   Berggiesshubel  108.27  42 Amp                04 39 31.8
      comp=Z,20nm,1.4s
BRG                              P         PKKPdf   04 39 30.2 +7.7
PRU   Pruhonice       108.30  43 i P       Pdif     04 23 52.2 +2.9
PRU                              MLR       MLR
      comp=Z,36µm,25.3s
PRU   Pruhonice       108.30  43 ePDIFF    Pdif     04 23 52.2 +2.9
PRU                              AMS       AMS      05 07 20.0
      comp=Z,36µm,25.3s
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IGT	Igoumenitsa	108.30	55	P	Pdif	04 23 50.1	+0.5
SEW	Seward	108.30	329	IAMs_20	IAMs_20	05 22 13.2	
	comp=Z,18µm,20.0s						
K24K	Donnelly Dome	108.31	333	IAMs_20	IAMs_20	05 09 38.3	
	comp=Z,30µm,22.0s						
CONA	Conrad Observa	108.34	45	*i* Pdiff	Pdif	04 23 49.7	0.0
	comp=Z,16nm,1.3s,SNR=8.0						
CONA				*e*pPKiKP	pPKiKP	04 28 04.3	+2.8
	comp=Z,1µm,4.1s						
CONA				*e*SKS	SKSac	04 34 29.4	+0.6
	comp=Z,2µm,9.9s						
KNK	Knik Glacier	108.40	330	IAMs_20	IAMs_20	05 12 27.8	
	comp=Z,22µm,21.0s						
PVCC	Panska Ves	108.51	42	*e*PKP	PKiKP	04 27 58.5	+2.7
PVCC				AMS	AMS	05 10 30.0	
	comp=Z,41µm,22.5s						
RONA	Rosalia, Austr	108.53	45	*e*Pdiff	Pdif	04 23 50.5	+0.1
	comp=Z,12nm,1.0s						
RONA				*e*pPKiKP	pPKiKP	04 28 05.1	+3.2
	comp=Z,1µm,4.9s						
RONA				*e*SKS	SKSac	04 34 21.8	-7.8
	comp=Z,0.5nm,0.3s						
WINA	Alland / Wiene	108.54	45	*e*Pdiff	Pdif	04 23 50.3	-0.2
	comp=Z,16nm,1.1s						
WINA				*e*pPKiKP	PKiKP	04 28 04.1	+8.1
	comp=Z,2µm,6.0s						
WINA				*e*SKS	SKSac	04 34 29.9	+0.4
AXS	Araxos	108.57	56	P	Pdif	04 23 50.8	0.0
PDO	Prodromos	108.58	56	P	Pdif	04 23 50.7	-0.1
AMT	Artemida-Makis	108.58	57	P	Pdif	04 23 50.9	0.0
O22K	Cooper Landing	108.58	329	IAMs_20	IAMs_20	05 22 46.6	
	comp=Z,25µm,19.0s						
RLS	Riolos of Patr	108.59	56	P	Pdif	04 23 51.3	+0.4
ITM	Ithomi	108.61	57	P	Pdif	04 23 50.8	-0.2
TREC	Trest	108.61	44	AMS	AMS	05 11 40.0	
	comp=Z,33µm,21.6s						
PLEV	Plevrona-Mesol	108.67	56	P	Pdif	04 23 51.6	+0.4
AMPL	Ampelaki	108.71	55	P	Pdif	04 23 51.3	-0.1
JAN	Janina	108.72	55	P	Pdif	04 23 52.6	+1.1
DRO	Drossia	108.73	56	P	Pdif	04 23 52.6	+1.1
GHO	Glory Hole Cre	108.75	331	IAMs_20	IAMs_20	05 17 40.1	
	comp=Z,18µm,21.0s						
SLKM	Skilak Lake	108.82	329	IAMs_20	IAMs_20	05 23 03.9	
	comp=Z,22µm,19.0s						
BRLK	Bradley Lake	108.83	328	IAMs_20	IAMs_20	05 09 10.2	
	comp=Z,18µm,21.0s						
PVO	Paravola	108.83	56	P	Pdif	04 23 51.9	0.0
RC01	Rabbit Creek A	108.83	330	IAMs_20	IAMs_20	05 07 01.2	
	comp=Z,18µm,22.0s						
PRMD	Pramanda	108.85	55	P	Pdif	04 23 53.4	+1.3
CNPM	China Poot	108.90	328	IAMs_20	IAMs_20	05 11 39.0	
	comp=Z,20µm,21.0s						
TETR	Tetrakomo, Epi	108.91	55	P	Pdif	04 23 53.0	+0.6
G26K	Porcupine Rive	108.97	337	IAMs_20	IAMs_20	05 20 25.8	
	comp=Z,15µm,18.0s						
KBN	Korca	109.02	54	P	Pdif	04 23 53.9	+1.1
VLX	Vlachokerasia	109.02	57	P	Pdif	04 23 54.0	+1.1
LAKA	Lakka	109.03	56	P	Pdif	04 23 53.5	+0.6
HDA	Harding Lake	109.03	334	IAMs_20	IAMs_20	05 11 51.5	
	comp=Z,22µm,20.0s						
KRUC	Moravsky	109.08	44	*e*PDIFF	Pdif	04 23 51.0	-1.8
KRUC				*e*PP	PP	04 28 25.3	-0.4
KRUC				*e*		04 34 43.4	
KRUC				*e*		04 37 54.3	
KLV	Kalavryta, Ach	109.09	57	P	Pdif	04 23 54.0	+0.8
ANX	Ano Chora	109.11	56	P	Pdif	04 23 54.4	+1.1
KTHA	Kythira Island	109.13	59	P	Pdif	04 23 54.5	+1.1
MPLH	Magyarpolny	109.13	46	P	Pdif	04 23 52.7	-0.4
PHP	Peshkopia	109.14	52	P	Pdif	04 23 54.6	+1.2
EVR	Evrytania	109.15	56	P	Pdif	04 23 53.9	+0.4
SERG	Sergoula	109.15	56	P	Pdif	04 23 54.4	+1.0
ILAR	Eielson Array	109.16	334	Pdiff	Pdif	04 23 53.2	+0.3
	comp=Z,3.2nm,0.9s,baz=147,slow=3.5,SNR=15						
ILAR				PKiKP	PKiKP	04 27 57.2	+0.6
	comp=Z,10nm,1.1s,baz=72,slow=0.7,SNR=6.5						
ILAR				PKKPbc	PKKPbc	04 39 01.5	-3.7
	comp=Z,2.6nm,0.9s,baz=311,slow=3.7,SNR=5.1						
ILAR	Eielson Array	109.16	334		Pdif	04 23 51.4	-1.4
ILAR					PKiKP	04 27 55.7	-1.0
ANKY	Antikythira Is	109.17	59	P	Pdif	04 23 54.5	+0.9
GUR	Goura	109.19	57	P	Pdif	04 23 54.4	+0.6
KPRO	Kipourio	109.19	54	P	Pdif	04 23 53.5	-0.1
VLI	Veliai	109.20	58	P	Pdif	04 23 54.2	+0.6
KALE	Kalithea	109.20	56	P	Pdif	04 23 55.0	+1.3
SII	Sitkinak Islan	109.22	324	IAMs_20	IAMs_20	05 08 01.5	
	comp=Z,19µm,21.0s						
VRAC	Vranov	109.29	44	Pdiff	Pdif	04 23 53.6	-0.1
	comp=Z,4.8nm,0.9s,baz=256,slow=4.4,SNR=7.3						
VRAC				PKiKP	PKiKP	04 27 57.5	+0.2
	comp=Z,7.2nm,0.9s,baz=85,slow=2.0,SNR=4.6						
VRAC				S	SKSac	04 34 35.0	+2.3
	comp=Z,1.5nm,0.5s,baz=45,slow=7.1,SNR=1.6						
VRAC	Vranov	109.29	44	*e*PDIFF	Pdif	04 23 53.1	-0.7
VRAC				*e*PP	PP	04 28 26.2	-1.0
VRAC				*e*		04 34 42.6	
VRAC				*e*		04 37 52.6	
FYU	Fort Yukon	109.31	336	IAMs_20	IAMs_20	05 10 10.9	
	comp=Z,24µm,22.0s						
UPC	Upice	109.36	43	AMS	AMS	05 12 20.0	
	comp=Z,36µm,20.2s						
GVDS	Gavdos	109.38	60	P	Pdif	04 23 55.7	+1.2
RND	Reindeer	109.39	332	IAMs_20	IAMs_20	05 13 42.9	
	comp=Z,24µm,19.0s						
MODS	Modra-Piesok	109.39	45	*i* P	Pdif	04 23 57.4	+3.2
MODS	Modra-Piesok	109.39	45	*e*PDIFF	Pdif	04 23 57.4	+3.2
MODS	Modra-Piesok	109.39	45	*e*PKP	PKiKP	04 27 49.8	-7.8
MODS				*e*PP	PP	04 28 23.5	-4.4
GVD	Gavdhos	109.40	60	P	Pdif	04 23 55.7	+1.1
CHVC	Chvalec	109.42	42	*i* P	Pdif	04 23 58.0	+3.7
CHVC				MLR	MLR		
	comp=Z,36µm,20.2s						
CHVC	Chvalec	109.42	42	*e*PDIFF	Pdif	04 23 58.0	+3.7
CHVC				*e*PKP	PKiKP	04 28 00.7	+3.1
CHVC				AMS	AMS	05 12 30.0	
	comp=Z,36µm,20.2s						
SUA	Susitna One	109.43	330	IAMs_20	IAMs_20	05 23 26.0	
	comp=Z,16µm,19.0s						
CCB	Clear Creek Bu	109.47	334	IAMs_20	IAMs_20	05 12 04.0	
	comp=Z,22µm,20.0s						
DPC	Dobruska-Polom	109.49	43	*i* P	Pdif	04 23 57.6	+2.9
DPC				MLR	MLR		
	comp=Z,40µm,25.4s						
DPC	Dobruska-Polom	109.49	43	*e*PDIFF	Pdif	04 23 57.6	+2.9
DPC				*e*PKP	PKiKP	04 27 59.8	+2.0
DPC				AMS	AMS	05 08 10.0	
	comp=Z,40µm,25.4s						
DPC	Dobruska-Polom	109.49	43	P	Pdif	04 23 54.9	+0.2
OSTC	Ostas	109.50	43	*i* P	Pdif	04 23 58.3	+3.6
OSTC				MLR	MLR		
	comp=Z,33µm,20.1s						
OSTC	Ostas	109.50	43	*e*PDIFF	Pdif	04 23 58.3	+3.6
OSTC				AMS	AMS	05 12 40.0	
	comp=Z,33µm,20.1s						
WRH	Wood River Hil	109.51	333	IAMs_20	IAMs_20	05 12 05.1	
	comp=Z,25µm,21.0s						
THL	Klokotos Trika	109.52	55	P	Pdif	04 23 56.3	+1.3
IMMV	Iera Moni Meta	109.54	60	P	Pdif	04 23 56.0	+0.8
MCK	McKinley	109.55	333	IAMs_20	IAMs_20	05 09 46.2	
	comp=Z,23µm,22.0s						
AGG	Agios Georgios	109.56	56	P	Pdif	04 23 55.1	-0.2
COLA	College	109.58	334	IAMs_20	IAMs_20	05 12 36.1	
	comp=Z,21µm,19.0s						
KZN	Kozani	109.61	54	P	Pdif	04 23 55.6	+0.2
KSP	Ksiaz	109.65	42	*e*Pdif	Pdif	04 23 56.9	+1.6
KSP	Ksiaz	109.65	42	P	Pdif	04 23 55.5	+0.2
KRLC	Kraliky	109.68	43	*i* P	Pdif	04 23 58.7	+3.2
KRLC				MLR	MLR		
	comp=Z,30µm,20.7s						
KRLC	Kraliky	109.68	43	*e*PDIFF	Pdif	04 23 58.7	+3.2
KRLC				AMS	AMS	05 12 10.0	
	comp=Z,30µm,20.7s						
LTK	Loutraki	109.68	57	P	Pdif	04 23 55.9	+0.1
VAM	Vamos	109.69	60	P	Pdif	04 23 58.1	+2.3
CHIR	Chirikof Islan	109.70	323	IAMs_20	IAMs_20	05 07 04.3	
	comp=Z,17µm,21.0s						
AXAR	Agios Charalam	109.71	56	P	Pdif	04 23 56.4	+0.5
JAVC	Velka Javorina	109.80	45	*e*PDIFF	Pdif	04 23 54.1	-2.0
JAVC				*e*PP	PP	04 28 30.2	-0.7
Q19K	Cape Douglas,	109.82	327	IAMs_20	IAMs_20	05 10 23.3	
	comp=Z,18µm,21.0s						
SRO	Srobarova	109.85	46	*e*PP	PP	04 28 30.9	-0.3
F25K	Christian Rive	109.90	337	IAMs_20	IAMs_20	05 24 45.4	
	comp=Z,19µm,19.0s						
LKR	Lokris	109.92	56	P	Pdif	04 23 57.5	+0.7
BWN	Browne	109.94	333	IAMs_20	IAMs_20	05 11 02.7	
	comp=Z,24µm,20.0s						
NEA2	Nenana	109.95	333	IAMs_20	IAMs_20	05 12 27.7	
	comp=Z,24µm,20.0s						
ATAL	Atalanti	109.95	56	P	Pdif	04 23 57.2	+0.3
VILL	Villia	109.99	57	P	Pdif	04 23 57.4	+0.2
TRF	Thorofare Moun	110.00	332	IAMs_20	IAMs_20	05 24 16.0	
	comp=Z,21µm,18.0s						
MORC	Moravsky Berou	110.04	44	*e*PDIFF	Pdif	04 23 55.5	-1.6
MORC				*e*PP	PP	04 28 29.8	-2.8
MORC				*e*		04 37 58.1	
LIT	Litokhoron	110.05	55	P	Pdif	04 23 57.5	+0.1
IDI	Anoyia	110.18	60	Pdiff	Pdif	04 23 57.4	-0.7
	comp=Z,2.8nm,0.7s,baz=238,slow=7.8,SNR=1.4						
IDI				PKiKP	PKiKP	04 28 00.6	+1.0
	comp=Z,17nm,1.0s,baz=27,slow=4.4,SNR=4.1						
IDI	Anoyia	110.18	60	P	Pdif	04 23 58.6	+0.5
G24K	Hadweenzic Riv	110.18	336	IAMs_20	IAMs_20	05 13 17.8	
	comp=Z,29µm,19.0s						
STEB	Steborice	110.23	44	*e*PKP	PKiKP	04 28 02.7	+3.6
VLY	Voula,Athens	110.24	57	P	Pdif	04 23 58.2	-0.1
ATHU	Athens Univers	110.27	57	P	Pdif	04 23 59.0	+0.7
I23K	Minto, Yukon-K	110.28	334	IAMs_20	IAMs_20	05 10 42.4	
	comp=Z,21µm,21.0s						
GRG	Griva	110.28	54	P	Pdif	04 23 58.6	+0.2
KTH	Kantishna Hill	110.30	332	IAMs_20	IAMs_20	05 24 34.0	
	comp=Z,20µm,18.0s						
XOR	Xorichti	110.31	56	P	Pdif	04 23 57.6	-1.0
NEO	Neokhori	110.31	56	P	Pdif	04 23 57.7	-0.9
PTL	Penteli	110.36	57	P	Pdif	04 23 58.8	0.0
VYHS	Vyhne	110.41	45	*i* P	Pdif	04 24 01.8	+3.1
VYHS				*e*		04 28 00.6	
VYHS	Vyhne	110.41	45	*e*PKP	PKiKP	04 28 00.6	+1.1
VYHS				*e*PP	PP	04 28 30.4	-4.9
VYHS	Vyhne	110.41	45	*e*PDIFF	Pdif	04 24 01.8	+3.1
DION	Dionisos Attik	110.42	57	P	Pdif	04 24 00.0	+0.9
OKC	Ostrava-Krasne	110.42	44	*e*PKP	PKiKP	04 28 03.0	+3.5
OKC				*e*PP	PP	04 28 28.0	-7.3
OKC				AMS	AMS	05 12 50.0	
	comp=Z,23µm,21.5s						
NB2	NORSAR Subarra	110.54	31	P	Pdif	04 24 01.1	+2.0
	comp=Z,118nm,3.3s,baz=248,slow=4.6						
NB2				PP	PKiKP	04 28 03.9	+4.5
	comp=Z,1.0nm,0.6s,baz=236,slow=1.6						
NB2				P'P'		04 59 42.7	
	comp=Z,0.5nm,0.7s,baz=67,slow=4.8						
NB2	NORSAR Subarra	110.54	31	P	Pdif	04 24 01.1	+2.0
NOA	NORSAR Array B	110.54	31	Pdiff	Pdif	04 23 59.3	+0.2
	comp=Z,3.0nm,1.1s,baz=254,slow=4.9,SNR=4.2						
NOA				PKiKP	PKiKP	04 27 59.7	+0.3
	comp=Z,2.1nm,0.8s,baz=252,slow=2.0,SNR=8.1						
NOA				PKKPbc	PKKPbc	04 39 01.1	+0.4
	comp=Z,3.0nm,1.1s,baz=71,slow=4.1,SNR=3.6						
NOA				PKPPKP	P'P'df	04 47 28.9	+4.5
	comp=Z,0.5nm,0.8s,baz=72,slow=4.7,SNR=3.3						
O19K	Port Alsworth	110.59	328	IAMs_20	IAMs_20	05 11 31.7	
	comp=Z,16µm,19.0s						
PPLA	Purkeypile	110.59	331	IAMs_20	IAMs_20	05 24 36.8	
	comp=Z,14µm,18.0s						
H23K	Yukon River	110.61	334	IAMs_20	IAMs_20	05 13 29.1	
	comp=Z,28µm,20.0s						
M20K	Styx River	110.64	330	IAMs_20	IAMs_20	05 12 40.0	
	comp=Z,21µm,20.0s						
F24K	Squaw Lake	110.66	336	IAMs_20	IAMs_20	05 13 32.4	
	comp=Z,24µm,20.0s						
HORT	Hortiatis	110.66	54	P	Pdif	04 23 60.0	-0.2
KNT	Kendrikon	110.70	54	P	Pdif	04 24 01.7	+1.5
NPS	Neapolis	110.72	60	P	Pdif	04 24 01.1	+0.7
KYMI	Kymi, Euboea I	110.73	56	P	Pdif	04 24 00.2	-0.1
CAST	Castle Rocks	110.74	332	IAMs_20	IAMs_20	05 24 59.5	
	comp=Z,23µm,18.0s						
AOS	Alonnisos	110.75	56	P	Pdif	04 24 00.2	-0.3
KARY	Karystos	110.78	57	P	Pdif	04 24 01.0	+0.4
MLY	Manley	110.78	333	IAMs_20	IAMs_20	05 13 12.6	
	comp=Z,29µm,20.0s						
PLG	Polygyros	110.83	55	P	Pdif	04 24 00.3	-0.6
PAIG	Paliouri	110.85	55	P	Pdif	04 24 00.5	-0.4
D25K	Kavik River	110.86	338	IAMs_20	IAMs_20	05 17 00.9	
	comp=Z,31µm,21.0s						
N19K	Bonanza Creek	110.88	329	IAMs_20	IAMs_20	05 21 45.4	
	comp=Z,23µm,21.0s						
SOH	Sokhos	110.92	54	P	Pdif	04 24 01.6	+0.4
THERA	Ancient Thera,	110.99	59	P	Pdif	04 24 01.0	-0.7
LANS	Liptovska Anna	111.02	45	*i* P	Pdif	04 24 06.4	+4.9
LANS	Liptovska Anna	111.02	45	*e*PKP	PKiKP	04 28 03.2	+2.5
LANS	Liptovska Anna	111.02	45	*e*PDIFF	Pdif	04 24 06.4	+4.9
E24K	Your Creek	111.08	337	IAMs_20	IAMs_20	05 13 30.6	
	comp=Z,19µm,20.0s						
KKB	Krupnik	111.09	53	P	Pdif	04 24 00.3	-1.6
KKB	Krupnik	111.09	53	P	PP	04 28 38.4	-2.0
G23K	Bananza Creek	111.12	335	IAMs_20	IAMs_20	05 13 32.7	
	comp=Z,28µm,20.0s						
SRS	Serrai	111.18	54	P	Pdif	04 24 01.6	-0.8
OUR	Ouranopolis	111.21	55	P	Pdif	04 24 02.6	+0.1
BZS	Buzias	111.27	49	⇑P	PKiKP	04 27 52.5	-8.7
I21K	Tanana	111.32	333	IAMs_20	IAMs_20	05 13 28.9	
	comp=Z,26µm,21.0s						
H22K	Ishtalitna Cre	111.34	334	IAMs_20	IAMs_20	05 14 02.4	
	comp=Z,23µm,20.0s						
HFS	Hagfors	111.38	32	PKiKP	PKiKP	04 28 01.1	+0.2
	comp=Z,4.3nm,0.7s,baz=267,slow=2.9,SNR=3.4						
VTS	Vitosha	111.42	52	P	Pdif	04 24 03.5	0.0
VTS	Vitosha	111.42	52	P	PP	04 28 39.8	-3.1
MMB	Musomishta	111.43	53	P	Pdif	04 24 02.4	-1.2
MMB	Musomishta	111.43	53	P	PP	04 28 37.9	-5.0
NVR	Nevrokopi	111.45	54	P	Pdif	04 24 02.4	-1.2
E23K	Chandalar	111.47	337	IAMs_20	IAMs_20	05 13 20.9	
	comp=Z,23µm,20.0s						
N18K	Kilae Creek	111.49	328	IAMs_20	IAMs_20	05 22 17.4	
	comp=Z,21µm,20.0s						
CNBA	Chernabura Isl	111.50	322	IAMs_20	IAMs_20	05 04 39.1	
	comp=Z,27µm,20.0s						
K20K	Telida	111.56	331	IAMs_20	IAMs_20	05 14 56.2	
	comp=Z,16µm,20.0s						
OJC	Ojcow	111.56	44	*e*Pdif	Pdif	04 24 08.1	+4.3
HERR	Herculane	111.57	50	⇑P	PKiKP	04 28 01.9	+0.1
NIE	Niedzica	111.62	45	*e*Pdif	Pdif	04 24 08.1	+4.0
NIE	Niedzica	111.62	45	P	Pdif	04 24 04.5	+0.4
C24K	Franklin Bluff	111.78	338	IAMs_20	IAMs_20	05 14 36.9	
	comp=Z,30µm,21.0s						
KAVA	Kavala	111.80	54	P	Pdif	04 24 03.6	-1.5
H21K	Melozitna Rive	111.81	334	IAMs_20	IAMs_20	05 14 04.8	
	comp=Z,25µm,21.0s						
THAS	Thassos island	111.83	55	P	Pdif	04 24 04.4	-0.8
J20K	Nowinta River	111.86	332	IAMs_20	IAMs_20	05 15 29.2	
	comp=Z,18µm,21.0s						
VNFG	Fog Glacier, M	111.94	323	IAMs_20	IAMs_20	05 08 24.4	
	comp=Z,18µm,19.0s						
LIA	Limnos Island	111.94	56	P	Pdif	04 24 04.6	-1.1
GZR	Gura Zlata	111.97	49	⇑PKIKP	PKiKP	04 28 04.4	+1.7
GZR	Gura Zlata	111.97	49	⇑P	PKiKP	04 28 04.4	+1.7
KARP	Karpathos	112.01	60	P	Pdif	04 24 05.7	-0.5
PGB	Panagyurishte	112.04	53	P	PP	04 28 35.7	-12
N17K	Nushagak Hills	112.05	328	IAMs_20	IAMs_20	05 22 14.2	
	comp=Z,25µm,20.0s						
CHOS	Chios island	112.09	57	P	Pdif	04 24 05.6	-1.0
RZN	Rozhen	112.18	54	P	Pdif	04 24 06.9	-0.1
RZN	Rozhen	112.18	54	P	PP	04 28 45.7	-2.7
O16K	Kokwok River B	112.19	327	IAMs_20	IAMs_20	05 08 06.2	
	comp=Z,20µm,21.0s						
E22K	Anaktuvuk Pass	112.27	336	IAMs_20	IAMs_20	05 12 05.0	
	comp=Z,31µm,22.0s						
PLD	Plovdiv	112.33	53	P	PP	04 28 47.1	-2.1
L18K	Granite Mounta	112.34	330	IAMs_20	IAMs_20	05 11 10.8	
	comp=Z,25µm,21.0s						
DRGR		112.36	48	⇑PKIKP	PKiKP	04 28 01.7	-1.6
DRGR		112.36	48	⇑P	PKiKP	04 28 01.7	-1.6
SMTH	Samothraki Isl	112.37	55	P	Pdif	04 24 07.1	-0.5
J19K	Poorman	112.42	332	IAMs_20	IAMs_20	05 13 43.9	
	comp=Z,17µm,21.0s						
PRK	Paraskevi	112.53	56	P	Pdif	04 24 09.7	+1.3
GADA	Gvkgeada	112.55	55	P	Pdif	04 24 08.7	+0.2
F21K	Alatna River	112.58	335	IAMs_20	IAMs_20	05 15 45.1	
	comp=Z,25µm,18.0s						
MARR	Marisel-Cluj	112.59	48	⇑P	PKiKP	04 28 01.3	-2.5
KDZ	Kurdzhali	112.59	54	P	Pdif	04 24 07.2	-1.4
KDZ	Kurdzhali	112.59	54	P	PP	04 28 48.9	-2.2
BEL	Belsk	112.64	42	*e*Pdif	Pdif	04 24 08.0	-0.5
J18K	Innoko River	112.72	331	IAMs_20	IAMs_20	05 15 53.0	
	comp=Z,16µm,20.0s						
STKA	Stephens Creek	112.79	210	PKiKP	PKiKP	04 28 05.1	+0.4
	comp=Z,6.0nm,0.9s,baz=297,slow=1.1,SNR=5.5						
STKA				PKKPbc	PKKPbc	04 38 51.4	-1.0
	comp=Z,8.5nm,0.8s,baz=321,slow=4.4,SNR=8.2						
STKA	Stephens Creek	112.79	210	*i* PKIKP	PKiKP	04 28 04.3	-0.4
BLCB	Balcova	112.83	58	P	Pdif	04 24 09.5	-0.3
ALN	Alexandroupoli	112.88	55	P	Pdif	04 24 09.1	-0.7
ENEZ	Enez	112.90	55	P	Pdif	04 24 09.3	-0.7
R9F13	Warsaw-Wawer	112.96	42	*e*PKiKP	PKiKP	04 28 04.6	+0.4
M16K	Timber Creek	113.02	328	IAMs_20	IAMs_20	05 12 59.1	
	comp=Z,16µm,19.0s						
ARR	Arges	113.22	50	⇓P	PKiKP	04 27 59.1	-5.9
N15K	Kwethluk River	113.33	327	IAMs_20	IAMs_20	05 22 47.1	
	comp=Z,24µm,22.0s						
F20K	Avaraart Lake	113.36	335	IAMs_20	IAMs_20	05 14 50.8	
	comp=Z,27µm,20.0s						
YER	Yerkesik	113.38	59	P	Pdif	04 24 10.8	-1.4
TARA	Tarawa	113.40	258	IAMs_20	IAMs_20	05 03 58.1	
	comp=Z,24µm,22.0s						
L16K	Owhat River	113.45	329	IAMs_20	IAMs_20	05 14 36.3	
	comp=Z,19µm,21.0s						
VOIR		113.52	50	⇑PKIKP	PKiKP	04 28 07.1	+1.5
VOIR		113.52	50	⇑P	PKiKP	04 28 07.1	+1.5
ARCR	ARCALIA	113.52	48	⇓P	PKiKP	04 28 05.9	+0.5
SZH	Strazhitsa	113.53	52	P	Pdif	04 24 12.4	-0.3
SZH	Strazhitsa	113.53	52	P	PP	04 28 54.7	-3.1
G19K	Purcell Mounta	113.63	334	IAMs_20	IAMs_20	05 17 02.0	
	comp=Z,15µm,20.0s						
O14K	Tigyukauivet M	113.66	326	IAMs_20	IAMs_20	05 26 54.8	
	comp=Z,17µm,21.0s						
JMB	Yambol	113.69	53	P	PP	04 28 55.5	-3.4
J17K	VABM Dome	113.72	331	IAMs_20	IAMs_20	05 16 25.4	
	comp=Z,18µm,18.0s						
H18K	Honhosa River	113.88	333	IAMs_20	IAMs_20	05 16 48.6	
	comp=Z,16µm,20.0s						
TAVA	DENIZLI_Tavas	113.95	59	⇑P	PKiKP	04 28 08.4	+1.7
N14K	Kuskokwak Cree	114.03	327	IAMs_20	IAMs_20	05 26 44.8	
	comp=Z,15µm,19.0s						
E19K	Redstone River	114.04	335	IAMs_20	IAMs_20	05 14 54.7	
	comp=Z,22µm,20.0s						
F19K	Shaleruckik Mo	114.08	334	IAMs_20	IAMs_20	05 13 40.8	
	comp=Z,19µm,21.0s						
MLR	Muntele Rosu	114.14	50	Pdiff	Pdif	04 24 15.3	-0.3
	comp=Z,0.9nm,0.4s,baz=135,slow=11,SNR=1.3						
MLR				PKiKP	PKPdf	04 28 06.7	-0.2
	comp=Z,25nm,1.1s,baz=302,slow=3.3,SNR=9.0						
MLR	Muntele Rosu	114.14	50	⇑PKIKP	PKPdf	04 28 05.7	-1.2
MLR	Muntele Rosu	114.14	50	⇑P	PKPdf	04 28 05.7	-1.1
NEHR	Nehoiu	114.36	50	⇑P	PKiKP	04 28 08.3	+1.2
J16K	Anvik River	114.36	330	IAMs_20	IAMs_20	05 12 27.3	
	comp=Z,17µm,21.0s						
H17K	Granite Mounta	114.46	332	IAMs_20	IAMs_20	05 17 19.0	
	comp=Z,22µm,20.0s						
K15K	Wolf Creek Mou	114.54	329	IAMs_20	IAMs_20	05 15 28.1	
	comp=Z,16µm,20.0s						
I17K	Unalakleet	114.54	331	IAMs_20	IAMs_20	05 17 09.1	
	comp=Z,21µm,18.0s						
SUW	Suwalki	114.61	40	IAMs_20	IAMs_20	05 14 11.7	
	comp=Z,31µm,22.0s						
BIZ	Bicaz	114.63	48	⇑P	PKPdf	04 28 06.5	-1.1
BISRR	Bisoca	114.67	50	⇓P	PKPdf	04 28 07.5	-0.3
SAHR	Sahastru	114.70	50	⇑P	PKiKP	04 28 11.1	+3.2
PLOR	Plostina	114.71	50	⇓PKIKP	PKiKP	04 28 10.3	+2.4
PLOR	Plostina	114.71	50	⇓P	PKiKP	04 28 10.3	+2.4
VRI	Vrincioaia	114.77	50	⇑PKIKP	PKPdf	04 28 06.9	-1.0
VRI	Vrincioaia	114.77	50	⇑P	PKPdf	04 28 06.9	-1.0
L14K	Kuka Creek	114.85	328	IAMs_20	IAMs_20	05 14 16.3	
	comp=Z,16µm,19.0s						
TESR	Tescani	114.88	49	⇓P	PKPdf	04 28 07.1	-0.9
ODBI	Odobesti	114.96	50	⇓P	PKiKP	04 28 09.7	+1.4
GHRR		115.28	50	⇓P	PKiKP	04 28 12.9	+4.1
HARR	Harsova	115.28	51	⇑PKIKP	PKiKP	04 28 09.6	+0.7
HARR	Harsova	115.28	51	⇑P	PKiKP	04 28 09.6	+0.7
E18K	Tukpahlearik C	115.29	335	IAMs_20	IAMs_20	05 16 07.9	
	comp=Z,22µm,19.0s						
TLBR	Topalu	115.32	51	⇓P	PKiKP	04 28 10.1	+1.2
F17K	Baldwin Pennin	115.34	334	IAMs_20	IAMs_20	05 16 26.1	
	comp=Z,17µm,21.0s						
CFR	Carcaliu	115.55	51	⇓PKIKP	PKPdf	04 28 08.2	-1.1
CFR	Carcaliu	115.55	51	⇓P	PKPdf	04 28 08.2	-1.1
TIRR	Tirgusor	115.55	52	⇑PKIKP	PKPdf	04 28 08.7	-0.7
TIRR	Tirgusor	115.55	52	⇑P	PKPdf	04 28 08.7	-0.7
J14K	Nanvaranak Lak	115.55	329	IAMs_20	IAMs_20	05 11 48.9	
	comp=Z,19µm,22.0s						
G16K	Koyuk River	115.57	332	IAMs_20	IAMs_20	05 16 48.2	
	comp=Z,16µm,20.0s						
TPGR	Topolog	115.66	51	⇑P	PKPdf	04 28 09.3	-0.3
VLDR	Vladesti	115.67	50	⇑P	PKPdf	04 28 09.4	-0.2
VASR	Vaslui	115.68	49	⇓P	PKiKP	04 28 10.6	+1.0
KEPZ	Antalya-Kepez	115.84	60	⇓P	PKPdf	04 28 09.5	-0.8
K13K	Kusilvak Mount	115.90	328	IAMs_20	IAMs_20	05 15 08.0	
	comp=Z,18µm,20.0s						
KBS	Kingsbay	115.95	12	IAMs_20	IAMs_20	05 18 59.0	
	comp=Z,16µm,19.0s						
QLP	Quilpie	115.95	215	P	PKPdf	04 28 13.4	+2.5
TLCR		116.01	51	⇑PKIKP	PKPdf	04 28 09.8	-0.5
TLCR		116.01	51	⇑P	PKPdf	04 28 09.8	-0.5
RDOG	Red Dog Mine	116.27	335	IAMs_20	IAMs_20	05 15 15.8	
	comp=Z,25µm,22.0s						
EIL	Elat	116.34	69	PKP	PKPdf	04 28 11.2	-0.2
	comp=Z,22nm,0.9s,baz=337,slow=3.0,SNR=11						
M11K	Mekoryuk	116.34	326	IAMs_20	IAMs_20	05 25 02.7	
	comp=Z,16µm,20.0s						
SORM	Soroca	116.40	48	⇓PKIKP	PKPdf	04 28 09.7	-1.2
SORM	Soroca	116.40	48	⇓P	PKPdf	04 28 09.7	-1.2
SPITS	Spitsbergen Ar	116.68	13	PKKPbc	PKKPbc	04 38 37.9	-2.1
	comp=Z,15nm,0.9s,baz=26,slow=7.0,SNR=3.5						
ANM	Nome	116.68	331	IAMs_20	IAMs_20	05 15 32.7	
	comp=Z,20µm,20.0s						
NACGM	Naroch	116.86	40	*e*PKiKP	PKiKP	04 28 11.9	+0.3
	comp=Z,115nm,0.9s,baz=259						
C16K	Lisburne Hills	117.21	335	IAMs_20	IAMs_20	05 15 44.5	
	comp=Z,26µm,22.0s						
MNK	Minsk	117.41	40	*i* PKIKP	PKiKP	04 28 13.4	+0.7
MNK				*i*		04 29 24.3	
MNK				*i* PPP	PPP	04 31 53.6	
MNK				*i*		04 35 24.0	
MNK				*i* SS	SS	04 45 37.6	+2.9
MNK				pmax	pmax		
	comp=Z,123nm,0.8s						
MNK				pmax	pmax		
	comp=N,20nm,0.8s						
MNK				pmax	pmax		
	comp=E,37nm,0.8s						
MNK				MLR	MLR		
	comp=E,12µm,19.0s						
MNK				MLR	MLR		
	comp=N,30µm,20.0s						
MNK				MLR	MLR		
	comp=Z,33µm,19.0s						
MNK	Minsk	117.41	40	*i* PKP	PKiKP	04 28 13.4	+0.7
	comp=E,37nm,0.8s						
MNK				*i* PKP	PKiKP	04 28 13.4	+0.7
	comp=N,20nm,0.8s						
MNK				*i* PKP	PKiKP	04 28 13.4	+0.7
	comp=Z,123nm,0.8s,baz=260						
MNK				*i* PP	PP	04 29 24.3	-0.4
MNK				*i* PPP	PPP	04 31 53.7	
MNK				*i* SKS	SKSdf	04 35 24.1	+0.3
MNK				*i* SS	SS	04 45 37.6	+3.0
MNK				*i* LQ	LQ	05 10 51.7	
MNK				*i* LRM	MLR	05 17 09.1	
	comp=E,12µm,19.1s						
MNK				*i* LRM	MLR	05 17 20.6	
	comp=N,30µm,19.8s						
MNK				*i* LRM	MLR	05 17 20.6	
	comp=Z,33µm,18.8s						
VSU	Vasula	117.46	36	*i* PKIKP	PKiKP	04 28 13.3	+0.7
VSU				MLR	MLR		
	comp=Z,29µm,19.0s						
KIEV	Kiev	117.49	45	⇑PKIKP	PKPdf	04 28 11.5	-1.4
KIEV	Kiev	117.49	45	*i* PKiKP	PKiKP	04 28 13.3	+0.3
	SNR=42						
KIEV	Kiev	117.49	45	⇑P	PKPdf	04 28 11.5	-1.4
AKASG	Malin Array Be	117.50	45	PKP	PKPdf	04 28 12.7	-0.3
	comp=Z,30nm,0.7s,baz=268,slow=2.5,SNR=30						
AKASG				PKKPbc	PKKPbc	04 38 36.6	+0.1
	comp=Z,1.9nm,0.7s,baz=71,slow=3.9,SNR=4.7						
AKASG	Malin Array Be	117.50	45	PKIKP	PKPdf	04 28 10.6	-2.4
AKASG	Malin Array Be	117.50	45		PKPdf	04 28 10.6	-2.4
AKBB	Malin Array Si	117.50	45	*d* *i* PKIKP	PKiKP	04 28 13.1	+0.1
FINES	FINESS Array B	117.58	33	PKP	PKiKP	04 28 12.9	+0.1
	comp=Z,10nm,0.8s,baz=186,slow=1.9,SNR=13						
FINES				PKKPbc	PKKPbc	04 38 35.6	-0.8
	comp=Z,3.6nm,0.9s,baz=119,slow=2.4,SNR=3.8						
FINES	FINESS Array B	117.58	33	PKIKP	PKPdf	04 28 12.6	-0.2
FINES	FINESS Array B	117.58	33		PKPdf	04 28 12.6	-0.2
MMAI	Mount Meron Ar	117.72	65	PKP	PKiKP	04 28 14.6	+0.5
	comp=Z,19nm,0.7s,baz=191,slow=1.5,SNR=5.8						

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MMAI                                 PKKPbc PKKPbc  04 38 35.7 +0.4
       comp=Z,1.0nm,0.3s,baz=35,slow=4.5,SNR=4.3
SPIA   Saint Paul Isl    117.87 323  IAMs_20 IAMs_20 05 08 12.4
       comp=Z,22µm,20.0s
TNA    Tin City          117.89 332  IAMs_20 IAMs_20 05 17 35.6
       comp=Z,18µm,22.0s
BR131  Keskin Array S    118.14  58  P       PKiKP   04 28 16.2 +1.4
       SNR=21
BR131  Keskin Array S    118.14  58c iPKIKP  PKiKP   04 28 15.5 +0.7
BRTR   Keskin Array B    118.14  58  PKP     PKPdf   04 28 14.5 -0.2
       comp=Z,27nm,0.8s,baz=190,slow=3.8,SNR=26
BRTR                                 PKKPbc PKKPbc  04 38 34.2 +0.2
       comp=Z,1.9nm,0.8s,baz=113,slow=2.8,SNR=4.8
BRTR   Keskin Array B    118.14  58  PKIKP   PKPdf   04 28 13.4 -1.4
BRTR   Keskin Array B    118.14  58          PKPdf   04 28 13.4 -1.4
CIDE   Kastamonu/Cide    118.14  55 ⇑P       PKPdf   04 28 13.3 -1.2
HNR    Honiara           118.14 241  IAMs_20 IAMs_20 05 08 35.5
       comp=Z,27µm,22.0s
KIRS   Kirsehir-Merke    118.20  58 ⇑P       PKPdf   04 28 12.8 -2.0
ARCES  ARCESS Array B    118.24  23  PKP     PKiKP   04 28 14.2 +0.3
       comp=Z,6.9nm,0.8s,baz=252,slow=2.4,SNR=6.7
ARCES                                PKKPbc PKKPab  04 38 32.4 -1.0
       comp=Z,2.1nm,0.6s,baz=90,slow=3.6,SNR=5.8
ASF    Jabal al Asfar    118.69  67  PKP     PKPdf   04 28 16.0  0.0
       comp=Z,30nm,0.9s,baz=209,slow=1.4,SNR=21
ASF                                  PP      PP      04 29 32.1 -2.2
       comp=Z,18nm,1.2s,baz=234,slow=6.1,SNR=4.7
ASF    Jabal al Asfar    118.69  67  PKIKP   PKPdf   04 28 16.0  0.0
KEV    Kevo              118.78  23  IAMs_20 IAMs_20 05 15 05.5
       comp=Z,23µm,22.0s
NWAO   Narrogin (SRO)    118.89 188  IAMs_20 IAMs_20 05 21 47.8
       comp=Z,17µm,20.0s
BZK    Bozkurt           118.92  55 ⇓P       PKiKP   04 28 17.1 +1.1
MSEY   Mahe Island       119.24 114  PKPdf   PKPdf   04 28 15.0 -2.5
GAMB   Gambell           119.34 330  IAMs_20 IAMs_20 05 14 08.1
       comp=Z,18µm,21.0s
ATKA   Atka Island       119.38 317  IAMs_20 IAMs_20 05 13 19.5
       comp=Z,21µm,18.0s
SIM    Simferopol'       119.62  52  P       Pdif    04 24 39.4 -0.4
SIM                                 i                04 28 18.0
SIM                                                  04 29 36.0
SIM                                  PS      PS      04 39 30.0 +0.7
SIM                                  pmax    pmax
       comp=Z,210nm,11.0s
SIM                                  pmax    pmax
       comp=Z,160µm,2.0s
SIM                                  pmax    pmax
       comp=Z,1µm,6.8s
CTA    Charters Tower    120.04 221  P       PKiKP   04 28 20.5 +1.5
CTAO   Charters Tower    120.04 221  P       PKiKP   04 28 20.9 +1.9
CTAO   Charters Tower    120.04 221  IAMs_20 IAMs_20 05 09 55.2
       comp=Z,18µm,21.0s
KLBR   Kellerberrin      120.14 189  P       PKiKP   04 28 21.4 +2.5
APA    Apatity           121.10  26 iPKIKP   PKPdf   04 28 19.2 -0.2
APA                                 e                04 29 52.5
APA                                 ePS      PS      04 39 33.5 -8.2
APA                                  pmax    pmax
       comp=Z,24nm,0.9s
ARPR   Arapgir-MALATY    121.53  59  PKPdf   PKPdf   04 28 20.6 -0.7
ARPR                                 IAMs_20 IAMs_20 05 27 28.2
       comp=Z,21µm,19.0s
LVZ    Lovozero          121.56  25⇑iPKIKP   PKiKP   04 28 22.2 +1.7
LVZ    Lovozero          121.56  25  PKPdf   PKPdf   04 28 20.4  0.0
LVZ                                  IAMs_20 IAMs_20 05 18 33.2
       comp=Z,24µm,21.0s
ANN    Anapa             121.92  53 iPKIKP   PKiKP   04 28 22.5 +0.7
ANN                                 e                04 28 25.9
ANN                                 ePPP     PPP     04 32 30.9
ANN                                 e                04 35 21.4
ANN                                 ePS      PS      04 39 51.3 +1.5
ANN                                  pmax    pmax
       comp=Z,122nm,1.2s
OBN    Obninsk           122.47  40d iPKIKP  PKPdf   04 28 21.8 -0.6
OBN                                 e                04 30 02.6
OBN                                 ePPP     PPP     04 32 33.9
OBN                                  pmax    pmax
       comp=Z,280nm,1.7s
OBN                                  MLR     MLR
       comp=Z,50µm,21.0s
OBN    Obninsk           122.47  40 ⇓P       PKPdf   04 28 22.0 -0.4
MTSU   Mount Surprise    122.70 221  P       PKiKP   04 28 26.2 +1.9
KTUT   Trabzon           122.98  57 ⇑P       PKPdf   04 28 23.8  0.0
MOS    Moscow            123.11  40 iPKIKP   PKPdf   04 28 22.7 -0.9
MOS                                 e                04 30 04.2
MOS                                 ePPP     PPP     04 32 41.7
MOS                                 e                04 35 18.0
MOS                                 ePS      PS      04 40 01.2 +1.3
MOS                                  pmax    pmax
       comp=Z,122nm,0.8s
MOS                                  MLR     MLR
       comp=Z,18µm,19.0s
AS01   Alice Springs     123.22 208  P       PKiKP   04 28 26.4 +1.2
ASAR   Alice Springs     123.23 208  PKP     PKPdf   04 28 23.5 -1.5
       comp=Z,23nm,0.9s,baz=145,slow=2.1,SNR=47
ASAR                                 PKKPbc PKKPbc  04 38 13.6 -1.3
       comp=Z,20nm,0.8s,baz=338,slow=3.2,SNR=26
ASAR                                 SKKPbc SKKPbc  04 41 57.9 -3.6
       comp=Z,5.1nm,0.8s,baz=340,slow=4.6,SNR=4.3
ASAR   Alice Springs     123.23 208  PKIKP   PKPdf   04 28 22.8 -2.2
ASAR   Alice Springs     123.23 208  PKPdf   PKPdf   04 28 22.8 -2.2
ADZR   Andozero          123.30  30 ePKIKP   PKiKP   04 28 24.2 +0.3
ADZR                                                 04 35 23.5
ADZR                                 SP      SP      04 39 59.4 +1.2
ADZR                                 pmax    pmax
       comp=Z,131nm,0.7s
ADZR                                 MLR     MLR
       comp=Z,26µm,22.0s
QIS    Mount Isa         123.30 215  P       PKiKP   04 28 27.7 +2.3
RAYN   Ar Rayn           123.35  79  P       PKiKP   04 28 25.7 +0.4
RAYN   Ar Rayn           123.35  79 ⇓PKIKP   PKiKP   04 28 25.4  0.0
RAYN   Ar Rayn           123.35  79 iPKiKP   PKPdf   04 28 24.4 -0.7
       SNR=28
SOC    Sochi             123.36  54 eP       Pdif    04 25 00.3 +3.9
SOC                                 i                04 28 25.6
SOC                                 e                04 30 04.2
SOC                                 ePPP     PPP     04 32 42.7
SOC                                  pmax    pmax
       comp=Z,79nm,0.8s
VSLR   Vesyoloye         123.57  55 iPKIKP   PKiKP   04 28 25.4 +0.3
LPSR   Galich'ya Gora    123.73  44 ePKIKP   PKPdf   04 28 23.1 -1.8
LPSR                                e                04 28 25.7
LPSR                                eSPP     SPP     04 41 39.0
LPSR                                 pmax    pmax
       comp=Z,220nm,0.8s
LPSR                                 MLR     MLR
       comp=Z,23µm,24.0s
VSR    Storozhevoye      123.80  45 ePKIKP   PKPdf   04 28 24.6 -0.5
VSR                                 e                04 28 26.2
VSR                                 eSPP     SPP     04 41 30.5
VSR                                  pmax    pmax
       comp=Z,140nm,1.0s
VORR   Voronezh          123.85  45 ePKIKP   PKPdf   04 28 24.5 -0.6
VORR                                e                04 28 25.4
VORR                                 pmax    pmax
       comp=Z,210nm,1.2s
VORD   Divnogorie        123.86  46 ePKIKP   PKiKP   04 28 26.4 +1.0
VORD                                e                04 28 27.7
VORD                                 pmax    pmax
       comp=Z,100nm,0.7s
KLMR   Klimovskoe        124.06  34 ePKIKP   PKPdf   04 28 25.1 -0.1
KLMR                                 SP      SP      04 40 01.6 -3.5
KLMR                                 PS      PS      04 40 05.2 -3.0
KLMR                                 pmax    pmax
       comp=Z,249nm,1.1s
ERBR   Yeremizino-Bor    124.18  52 iPKIKP   PKiKP   04 28 26.9 +0.6
ERBR                                e                04 28 30.6
ERBR                                e                04 35 28.1
ERBR                                 pmax    pmax
       comp=Z,75nm,0.8s
LABN   Labinsk           124.22  53 iPKIKP   PKiKP   04 28 27.2 +0.8
LABN                                e                04 28 30.6
LABN                                e                04 35 28.8
LABN                                 pmax    pmax
       comp=Z,117nm,0.9s
HOMI   Horasan           124.42  59 ⇑P       PKiKP   04 28 27.7 +0.4
BATM   Batumi            124.51  57 ⇑PKIKP   PKiKP   04 28 26.9 -0.1
BATM   Batumi            124.51  57 ⇑P       PKiKP   04 28 26.9 -0.1
MEEK   Meekatharra       124.88 191  P       PKiKP   04 28 30.6 +2.2
VRH    Novokhopyorsk     125.40  45 ePKIKP   PKPdf   04 28 27.3 -0.8
VRH                                 e                04 28 29.0
VRH                                 eSPP     SPP     04 41 42.9
VRH                                  pmax    pmax
       comp=Z,130nm,1.0s
SHA1   Shidzhatmaz       125.49  55 iPKIKP   PKiKP   04 28 29.9 +0.6
KIV    Kislovodsk        125.54  54  P       PKiKP   04 28 29.6 +0.5
KIV    Kislovodsk        125.54  54 iP       Pdif    04 25 07.7 +1.4
KIV                                 i                04 28 30.3
KIV                                 e                04 30 20.6
KIV                                 ePPP     PPP     04 33 01.5
KIV                                 ePS      PS      04 40 21.5 -0.6
KIV                                 eSS      SS      04 47 18.7 -0.7
KIV                                 eSSS     SSS     04 52 01.0
KIV                                  pmax    pmax
       comp=Z,103nm,1.0s
KIV                                  MLR     MLR
       comp=Z,15µm,23.0s
KIV    Kislovodsk        125.54  54  IAMs_20 IAMs_20 05 28 35.8
       comp=Z,17µm,20.0s
KIV    Kislovodsk        125.54  54 iPKPdf   PKPdf   04 28 27.8 -1.0
       SNR=14
KIV    Kislovodsk        125.54  54 ⇑P       PKiKP   04 28 29.1 -0.1
KIV    Kislovodsk        125.54  54  PKP     PKPdf   04 28 26.2 -2.6
KIV                                  PKP     PKiKP   04 28 29.3 +0.1
KBZ    Khabaz            125.67  55  PKP     PKPdf   04 28 28.2 -0.7
       comp=Z,3.1nm,0.7s,baz=228,slow=3.8,SNR=4.5
KBZ    Khabaz            125.67  55 iPKIKP   PKiKP   04 28 30.3 +1.1
OZAP   Van, Ozalp-Mer    125.79  61 ⇑P       PKiKP   04 28 30.9 +0.9
PYA1   Pyatigorsk        125.84  54⇓iPKIKP   PKiKP   04 28 31.5 +1.8
GOF    Gofitskoye        125.91  53ce PKIKP  PKiKP   04 28 30.6 +0.9
NCK    Nalchik           126.14  55 iPKIKP   PKiKP   04 28 31.1 +0.8
WRA    Warramunga Arr    126.34 210  PKP     PKPdf   04 28 29.6 -1.4
       comp=Z,24nm,0.9s,baz=154,slow=1.8,SNR=11
WRA                                  PKKPbc PKKPbc  04 38 02.0 -0.8
       comp=Z,4.0nm,0.9s,baz=337,slow=4.1,SNR=7.9
WRAB   Tennant Creek     126.34 210  P       PKiKP   04 28 32.4 +0.9
WRAB   Tennant Creek     126.34 210  IAMs_20 IAMs_20 05 13 41.9
       comp=Z,17µm,20.0s
H11S2  WAKE ISLAND Hy    126.40 273  T       T       06 47 42.4
       baz=112,slow=75,SNR=4183
H11S1  WAKE ISLAND Hy    126.41 273  T       T       06 47 44.2
       baz=112,slow=75,SNR=5975
H11S3  WAKE ISLAND Hy    126.42 273  T       T       06 47 43.8
       baz=112,slow=75,SNR=2884
GNI    Garni             126.59  59  PKPdf   PKPdf   04 28 30.2 -0.8
H11N3  WAKE ISLAND Hy    126.66 275  PKP     PKiKP   04 28 33.1 +1.4
H11N3                                T       T       06 48 07.2
       baz=113,slow=75,SNR=668
H11N1  WAKE ISLAND Hy    126.67 275  PKP     PKiKP   04 28 34.7 +2.9
H11N1                                T       T       06 48 08.3
       baz=113,slow=75,SNR=365
H11N2  WAKE ISLAND Hy    126.67 275  PKP     PKiKP   04 28 35.5 +3.8
H11N2                                T       T       06 47 59.7
       baz=113,slow=75,SNR=982
WAKE   Wake Island       126.73 274  P       PKiKP   04 28 34.5 +2.4
PMG    Port Moresby      127.50 230  P       PKiKP   04 28 35.9 +2.1
PMG    Port Moresby      127.50 230  P       PKiKP   04 28 36.0 +2.1
BILL   Bilibino          127.70 336d iPKIKP  PKiKP   04 28 34.4 +1.8
BILL   Bilibino          127.70 336  IAMs_20 IAMs_20 05 25 59.9
       comp=Z,17µm,20.0s
ABTO   Aybut             128.06  89  P       PKPdf   04 28 33.8 -0.5
WHFO   Wadi Hawf         128.68  89  P       PKiKP   04 28 36.4 +0.3
PATS   Pohnpei           128.73 255  P       PKiKP   04 28 39.1 +2.8
MAK    Makhachkala       128.94  56 iP       Pdif    04 25 11.5  -10
MAK                                 i                04 28 33.1
MAK                                 e                04 30 40.5
MAK                                 ePPP     PPP     04 33 29.3
MAK                                 e                04 35 45.4
MAK                                 ePS      PS      04 40 42.1  -10
MAK                                  pmax    pmax
       comp=Z,172nm,1.3s
BELG   Belogornoye       129.05  44c iPKIKP  PKPdf   04 28 33.9 -1.1
KIRV   Kirov             129.30  36c iPKIKP  PKPdf   04 28 34.6 -0.7
DMTO   DMTO              129.65  90  P       PKiKP   04 28 39.4 +1.4
MBWA   Marble Bar        130.02 193  P       PKiKP   04 28 39.3 +0.5
MBWA   Marble Bar        130.02 193  P       PKPdf   04 28 37.8 -0.2
MBWA   Marble Bar        130.02 193  IAMs_20 IAMs_20 05 25 37.5
       comp=Z,19µm,21.0s
MBWA   Marble Bar        130.02 193  PKP     PKPdf   04 28 37.4 -0.6
MBWA                                 PKP     PKiKP   04 28 39.5 +0.7
MZR    Muzera            130.15  83  P       PKiKP   04 28 39.6 +0.7
       SNR=25
MZR    Muzera            130.15  83 iPKiKP   PKPdf   04 28 37.7 -0.3
       SNR=16
JRN    Qarnain Island    130.16  80  P       PKiKP   04 28 40.7 +1.8
SHAO   Shalim            130.36  90  P       PKiKP   04 28 40.4 +1.0
FITZ   Fitzroy Crossi    131.38 202  P       PKiKP   04 28 42.1 +0.5
FITZ   Fitzroy Crossi    131.38 202  PKPdf   PKPdf   04 28 39.2 -1.4
UMZA   Um Al Zommool     131.53  84  P       PKPdf   04 28 41.1 +0.4
AJN    Ajban             131.92  81  P       PKiKP   04 28 43.7 +1.3
       SNR=6.1
AJN    Ajban             131.92  81 iPKPdf   PKPdf   04 28 40.7 -0.7
       SNR=7.9
ASUD   Al Ashush, Dub    132.24  81  P       PKiKP   04 28 44.0 +0.9
       SNR=8.6
ASUD   Al Ashush, Dub    132.24  81 iPKiKP   PKPdf   04 28 41.8 -0.2
       SNR=9.0
ALNE   Al Ain            132.45  82  P       PKiKP   04 28 44.6 +1.1
       SNR=27
ALNE   Al Ain            132.45  82 iPKPdf   PKPdf   04 28 41.3 -1.1
       SNR=14
FAQ    Al Faqa, Dubai    132.50  81  P       PKiKP   04 28 45.0 +1.4
       SNR=18
FAQ    Al Faqa, Dubai    132.50  81 iPKPdf   PKPdf   04 28 42.0 -0.5
       SNR=12
NAZ    Nazwa, Dubai      132.63  81  P       PKiKP   04 28 46.0 +2.2
       SNR=19
NAZ    Nazwa, Dubai      132.63  81 iPKPdf   PKPdf   04 28 42.2 -0.5
       SNR=17
UMQ    Umm Al-Quwin      132.77  80 iPKiKP   PKPdf   04 28 42.8 -0.1
       SNR=6.0
ASHO   Ashiyiah          132.89  81  P       PKiKP   04 28 44.1 -0.3
       SNR=21
ASHO   Ashiyiah          132.89  81 iPKPdf   PKPdf   04 28 42.5 -0.8
       SNR=16
ARQ    Araqi             132.91  83  P       PKiKP   04 28 46.0 +1.5
       SNR=9.8
HATD   Hatta, Dubai      133.00  81  P       PKiKP   04 28 45.0 +0.4
       SNR=23
HATD   Hatta, Dubai      133.00  81 iPKPdf   PKPdf   04 28 42.2 -1.3
       SNR=14
UOSS   Minazif           133.09  81  P       PKiKP   04 28 45.6 +0.8
UOSS   Minazif           133.09  81 iPKPdf   PKPdf   04 28 42.0 -1.6
       SNR=10
UOSS   Minazif           133.09  81  PKP     PKPdf   04 28 41.7 -1.9
UOSS                                 PKP     PKiKP   04 28 45.0 +0.2
SOHO   SOHO              133.16  82  P       PKPdf   04 28 43.1 -0.6
SOHO   SOHO              133.16  82 iPKPdf   PKPdf   04 28 42.5 -1.2
       SNR=18
MSFE   Esma-Masafi       133.16  80 iPKPdf   PKPdf   04 28 42.6 -1.1
       SNR=16
MASF   Masafi            133.17  80  P       PKPdf   04 28 43.5 -0.3
       SNR=23
MDH    Madha             133.27  81  P       PKiKP   04 28 45.8 +0.6
       SNR=12
MDH    Madha             133.27  81 iPKPdf   PKPdf   04 28 42.1 -1.8
       SNR=20
SHME   Shamm             133.33  80  P       PKPdf   04 28 44.1 +0.1
       SNR=14
SHME   Shamm             133.33  80 iPKPdf   PKPdf   04 28 42.9 -1.1
       SNR=17
BSY    Bisya             133.34  84  P       PKiKP   04 28 45.6 +0.2
       SNR=18
BANOM  Banah             133.43  80  P       PKiKP   04 28 46.7 +1.2
BANOM  Banah             133.43  80 iPKPdf   PKPdf   04 28 43.3 -1.0
       SNR=8.4
MHTO   MHTO              133.46  87  P       PKiKP   04 28 47.0 +1.4
       SNR=12
HOQ    Hoqain            133.68  83  P       PKiKP   04 28 47.0 +0.9
       SNR=15
JMDO   Jabal Madar       134.02  85  P       PKiKP   04 28 48.0 +1.3
       SNR=7.0
SMDO   Samad             134.18  84  P       PKiKP   04 28 48.0 +0.8
       SNR=24
BIDO   Bidbid            134.38  84  P       PKiKP   04 28 47.0 -0.5
       SNR=12
DRS    Darwin Rock St    134.48 211  P       PKiKP   04 28 48.1 +0.2
ARTI   Arti              134.53  37 iPKIKP   PKiKP   04 28 47.2 +0.5
ARTI                                                 04 31 17.3
ARTI                                 PPP     PPP     04 34 11.6
ARTI                                 SSS     SSS     04 54 16.6
ARTI                                 MLR     MLR
       comp=Z,29µm,20.0s
WSAR   Wadi Sarin        134.74  84  P       PKiKP   04 28 50.0 +1.8
       SNR=12
WBK    Wadi Bani Khal    134.85  85  P       PKiKP   04 28 48.1 -0.4
       SNR=12
TIXI   Tiksi             134.91 351⇑iPKIKP   PKiKP   04 28 46.3 -0.7
TIXI                                 MLR     MLR
       comp=Z,14µm,20.0s
TIXI   Tiksi             134.91 351  IAMs_20 IAMs_20 05 32 31.2
       comp=Z,15µm,20.0s
SEY    Seymchan          135.10 333 ePKIKP   PKPdf   04 28 45.9 -0.3
SEY                                  MLR     MLR
       comp=Z,12µm,19.0s
JLN    Jalan Bani Buh    135.10  86  P       PKPdf   04 28 47.0 -0.5
       SNR=9.9
SVE    Sverdlovsk        135.57  36 iPKIKP   PKPdf   04 28 47.4 +0.2
SVE                                 e                04 31 23.5
SVE                                 ePPP     PPP     04 34 19.9
SVE                                 e                04 49 19.8
SVE                                  pmax    pmax
       comp=Z,151nm,1.8s
SVE                                  MLR     MLR
       comp=E,20µm,22.0s
SVE                                  MLR     MLR
       comp=Z,42µm,21.0s
PET    Petropavlovsk     135.78 319 ePKHKP   PKPpre  04 28 29.7
PET                                 e                04 31 28.7
PET                                 e                04 35 58.2
PET                                 ePPS     PPS     04 43 40.8
PET                                 eSS      SS      04 49 26.9 +3.1
PET                                  pmax    pmax
       comp=Z,3µm,14.8s
PET                                  pmax    pmax
       comp=Z,4µm,18.2s
PET    Petropavlovsk     135.78 319  IAMs_20 IAMs_20 05 28 14.2
       comp=Z,13µm,21.0s
KAAM   Kaadhehdhoo       136.13 122  P       PKPdf   04 28 49.6  0.0
PEA0B  Petropavlovsk-    136.31 319c iPKIKP  PKPdf   04 28 48.6 -0.2
PETK   Petropavlovsk-    136.31 319  PKhKP   PKPpre  04 28 39.5
       comp=Z,9.0nm,0.9s,baz=101,slow=5.1,SNR=12
PETK                                 PKP     PKPdf   04 28 49.0 +0.3
       comp=Z,10nm,0.8s,baz=88,slow=2.9,SNR=12
NRIK   Noril'sk          136.80  11  PKhKP   PKPpre  04 28 39.5
       comp=Z,2.0nm,0.4s,baz=322,slow=5.7,SNR=4.5
NRIK                                 PKP     PKPdf   04 28 49.4 +0.2
       comp=Z,34nm,0.9s,baz=8.0,slow=1.3,SNR=19
NRIK   Noril'sk          136.80  11 iPKIKP   PKiKP   04 28 50.1 -0.8
NRIK                                 MLR     MLR
       comp=Z,16µm,22.0s
GENI   Genyem            137.19 230  P       PKPdf   04 28 52.0 +0.4
AB31   Akbulak array     137.20  47 iPKHKP   PKPpre  04 28 39.4
MA2    Magadan           137.45 330  P       PKiKP   04 28 51.9 -0.6
MA2    Magadan           137.45 330 ePKIKP   PKPdf   04 28 50.8 +0.2
MA2                                  MLR     MLR
       comp=Z,13µm,20.0s
MA2    Magadan           137.45 330  IAMs_20 IAMs_20 05 42 55.6
       comp=Z,13µm,20.0s
SKR    Severo-Kuril’s    137.88 316 iPKHKP   PKPpre  04 28 45.1
SKR                                 e                04 31 43.3
SKR                                 eSS      SS      04 49 56.0 +7.0
SKR                                  pmax    pmax
       comp=Z,96nm,1.1s
SKR                                  pmax    pmax
       comp=Z,2µm,12.7s
COCO   West Island       138.40 162  IAMs_20 IAMs_20 05 24 09.1
       comp=Z,15µm,21.0s
SOEI   Soe               139.61 204  PKP     PKPdf   04 28 50.1 -6.1
SOEI   Soe               139.61 204  P       PKPdf   04 28 57.0 +0.8
MMRI   Maumere           141.35 202  P       PKiKP   04 29 00.9 -1.1
MMRI   Maumere           141.35 202  IAMs_20 IAMs_20 05 25 50.2
       comp=Z,15µm,20.0s
FAKI   Fak Fak           141.89 220  P       PKiKP   04 29 01.9 -1.2
FAKI   Fak Fak           141.89 220  IAMs_20 IAMs_20 05 25 56.9
       comp=Z,14µm,22.0s
BVAR   Borovoye Array    142.23  38  PKhKP   PKPpre  04 28 54.2
       comp=Z,24nm,0.8s,baz=294,slow=3.2,SNR=40
YAK    Yakutsk           143.26 344  PKP     PKPdf   04 29 00.4 -0.7
       comp=Z,238nm,0.9s,baz=39,slow=1.1,SNR=11
YAK    Yakutsk           143.26 344 ePKIKP   PKPbc   04 28 57.9 -0.2
YAK                                 e                04 32 09.9
YAK                                 e                04 44 43.2
YAK                                  pmax    pmax
       comp=Z,307nm,1.1s
YAK                                  pmax    pmax
       comp=N,20nm,0.9s
YAK                                  pmax    pmax
       comp=E,35nm,1.0s
YAK    Yakutsk           143.26 344  IAMs_20 IAMs_20 05 35 37.6
       comp=Z,12µm,20.0s
JAGI   Jajag, Banyuwa    143.39 189  P       PKPdf   04 29 02.7 -0.1
JAGI   Jajag, Banyuwa    143.39 189  IAMs_20 IAMs_20 05 27 05.9
       comp=Z,15µm,22.0s
GUMO   Guam              143.54 254  P       PKPdf   04 29 04.0 +1.0
GUMO   Guam              143.54 254  IAMs_20 IAMs_20 05 22 04.7
       comp=Z,20µm,22.0s
UGM    Wanagama          144.27 183  P       PKPdf   04 29 04.1 -0.3
UGM    Wanagama          144.27 183  PKPdf   PKPab   04 29 00.5 -1.8
UGM                                  IAMs_20 IAMs_20 05 28 16.2
       comp=Z,20µm,21.0s
BHUJ   Bhuj              144.47  89 eP       PKPab   04 29 01.5 -1.2
KUR    Kuril'sk          144.66 310c iPKIKP  PKPab   04 29 01.9 -0.8
KUR                                 i                04 29 06.3
KUR                                 iSS      SS      04 51 08.8 +0.5
KUR                                 eSSS     SSS     04 56 35.6
BBJI   Bungbulang        144.74 178  P       PKPab   04 29 03.5 -0.5
MNGI   Mangalore         144.96 108 eP       PKPab   04 29 03.7 -1.0
SMRI   Semarang          145.13 183  P       PKPdf   04 29 06.0 +0.1
CHM    Chimkent          145.21  55 ePKIKP   PKPdf   04 29 06.1 +1.0
CHM    Chimkent          145.21  55 ePKP     PKPdf   04 29 06.2 +1.0
CHM                                  LR      LR      05 37 34.4
       comp=Z,7µm,21.4s
BRLS   Borolday          145.23  54 ePKIKP   PKPdf   04 29 05.9 +0.7
BRLS   Borolday          145.23  54 ePKP     PKPdf   04 29 05.9 +0.7
GOA    Goa               145.32 104 eP       PKPbc   04 29 04.6 -1.2
KBL    Kabul             145.54  69  P       PKPdf   04 29 04.7 -1.5
       SNR=103
KBL    Kabul             145.54  69  PKP2    PKPdf   04 29 04.9 -1.3
KBL    Kabul             145.54  69  PKPdf   PKPdf   04 29 04.9 -1.3
KAPI   Kappang           145.54 199  PKPbc   PKPab   04 29 06.7 -0.1
       comp=Z,609nm,1.2s,baz=180,slow=3.6,SNR=48
KAPI   Kappang           145.54 199  P       PKPab   04 29 07.0 +0.2
KAPI   Kappang           145.54 199  P       PKPab   04 29 07.3 +0.5
KAPI   Kappang           145.54 199  PKP2    PKPdf   04 29 06.5 -0.1
KAPI                                 MLR     MLR
       comp=Z,10µm,21.0s
KAPI   Kappang           145.54 199          PKPdf   04 29 06.5 -0.1
KAPI   Kappang           145.54 199  PKP     PKPdf   04 29 05.7 -0.9
KAPI                                 PKP     PKPab   04 29 07.4 +0.6
IUG    Iuzhnay           145.56  55 ePKIKP   PKPab   04 29 06.8 +0.5
IUG                                 e                04 32 28.5
IUG    Iuzhnay           145.56  55 ePKP     PKPab   04 29 06.8 +0.5
IUG                                 ePP      PP      04 32 28.5 +1.8
NKL    Nikolayevsk       145.60 326 iPKP2    PKPdf   04 29 03.7 -1.7
NKL                                 e                04 32 28.0
KOD    Kodaikanal        145.66 115 eP       PKPdf   04 29 05.1 -2.0
KK31   Karatay Array     145.69  54 iPKP2    PKPdf   04 29 05.0 -1.0
TYV    Tymovskoe         145.76 321 ePKP2    PKPab   04 29 07.5 +0.9
TYV                                  pmax    pmax
       comp=Z,11µm,4.4s
TYV                                  pmax    pmax
       comp=Z,674nm,1.0s
BOM    Bombay            145.85  97 eP       PKPdf   04 29 05.0 -1.9
SANI   Sanana            145.88 212  PKP     PKPdf   04 29 06.4 -0.8
SANI   Sanana            145.88 212  P       PKPbc   04 29 07.5 -0.2
BHV    Bhavnagar         146.24  92 eP       PKPdf   04 29 06.1 -1.4
DZA    Taraz             146.33  54 ePKP2    PKPbc   04 29 08.1 -0.2
DZA    Taraz             146.33  54 ePKP     PKPbc   04 29 08.1 -0.2
YUK    Yuzh-Kuril'sk     146.36 308c iPKP2   PKPbc   04 29 08.3 +0.1
YUK                                 e                04 32 33.7
YUK                                 e                04 45 07.6
YUK                                 eSS      SS      04 51 30.2 +2.4
YUK                                 eSSS     SSS     04 56 55.4
KAD    Karad             146.41 101 eP       PKPdf   04 29 07.1 -0.8
POO    Poona             146.61  99 eP       PKPdf   04 29 06.4 -1.8
UGL    Uglegorsk         146.94 319 ePKIKP   PKPdf   04 29 08.2 +0.4
UGL                                  pmax    pmax
       comp=Z,5µm,1.1s
UGL                                  pmax    pmax
       comp=Z,3µm,14.0s
SALM   Salem             147.02 113 eP       PKPdf   04 29 07.0 -2.1
MNAI   Manna             147.34 169  P       PKPdf   04 29 10.3 +0.7
MNAI   Manna             147.34 169  PKPdf   PKPdf   04 29 07.8 -1.8
MNAI                                 IAMs_20 IAMs_20 05 28 03.5
       comp=Z,14µm,22.0s
DRK    Karamyk           147.36  60  PKIKP   PKPdf   04 29 08.5 -0.8
DRK    Karamyk           147.36  60  PKPdf   PKPdf   04 29 08.5 -0.8
YSS    Yuzhno-Sakhali    147.43 315  P       PKPbc   04 29 11.0 -0.2
YSS    Yuzhno-Sakhali    147.43 315 iPKIKP   PKPdf   04 29 09.0 +0.3
YSS                                 e                04 32 46.0
YSS                                 ePPS     PPS     04 45 21.0
YSS                                 eSS      SS      04 51 44.1 +4.5
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YSS				pmax	pmax		
	comp=Z,9µm,7.9s						
YSS				pmax	pmax		
	comp=Z,310nm,1.0s						
YSS	Yuzhno-Sakhali	147.43	315		PKPdf	04 29 08.2	-0.5
TNTI	Ternate	147.63	216	P	PKPbc	04 29 13.2	+0.4
TNTI	Ternate	147.63	216	PKPdf	PKPdf	04 29 08.5	-1.6
KURK	Kurchatov	147.80	37	P	PKPdf	04 29 10.5	+1.3
KURK	Kurchatov	147.80	37	PKIKP	PKPbc	04 29 10.7	-1.4
KURK	Kurchatov	147.80	37	PKPdf	PKPdf	04 29 09.2	0.0
KURBB	Kurchatov Arra	147.81	37	PKPbc	PKPbc	04 29 10.7	-1.4
	comp=Z,65nm,0.8s,baz=296,slow=2.5,SNR=134						
KURBB	Kurchatov Arra	147.81	37	PKIKP	PKPdf	04 29 08.6	-0.6
EKS2	Erkin-Say	148.13	53	P	PKPdf	04 29 11.5	+1.3
	SNR=63						
LUWI	Luwuk	148.18	207	PKP	PKPdf	04 29 09.4	-1.6
LUWI	Luwuk	148.18	207	P	PKPbc	04 29 13.2	-1.0
LUWI	Luwuk	148.18	207	PKPdf	PKPdf	04 29 09.0	-2.0
LUWI				IAMs_20	IAMs_20	05 28 14.6	
	comp=Z,11µm,20.0s						
UDPR	Udaipur	148.40	88	*e*P	PKPdf	04 29 09.2	-1.9
USP	Ospenovka	148.46	52	P	PKPab	04 29 19.1	+1.6
	SNR=8.3						
SGDS	Sogindy	148.50	52	*e*PKP	PKPdf	04 29 11.7	+1.0
JKA	Kamikawa-asahi	148.57	310	PKPdf	PKPdf	04 29 09.8	-0.9
ASAJ	Asahikawa	148.58	310	PKHKP	PKPpre	04 29 09.8	
AAK	Ala-Archa	148.64	53	P	PKPdf	04 29 12.3	+1.3
	SNR=62						
AAK	Ala-Archa	148.64	53	P	PKPbc	04 29 13.6	-1.3
AAK	Ala-Archa	148.64	53	PKIKP	PKPdf	04 29 10.5	-0.6
AAK	Ala-Archa	148.64	53	*i* PKPdf	PKPdf	04 29 11.1	0.0
	SNR=206						
ZAA0	Zalesovo Array	148.66	28	PKPdf	PKPdf	04 29 10.4	-0.1
ZALV	Zalesovo Beam	148.66	28	PKPbc	PKPdf	04 29 11.6	+1.1
	comp=Z,390nm,0.9s,baz=300,slow=2.9,SNR=86						
ZALV	Zalesovo Beam	148.66	28	PKIKP	PKPdf	04 29 10.0	-0.5
ZALV	Zalesovo Beam	148.66	28	PKPdf	PKPdf	04 29 10.0	-0.5
BKNR	BIKANER	148.68	81	*e*P	PKPdf	04 29 10.3	-1.1
FRU1	Bishkek	148.69	53	PKIKP	PKPdf	04 29 10.4	-0.6
FRU1	Bishkek	148.69	53	PKPdf	PKPdf	04 29 10.4	-0.6
CHMS	Chumysh	148.72	52	P	PKiKP	04 29 15.6	-0.7
	SNR=40						
UCH	Uchtor	148.77	54	P	PKPdf	04 29 13.0	+1.3
	SNR=87						
ERM	Erimo	148.82	306	P	PKPbc	04 29 14.0	-1.0
ERM	Erimo	148.82	306	PKP	PKPdf	04 29 11.5	+0.3
ERM				PKP	PKPbc	04 29 12.8	-2.2
JEM	Erimo	148.82	306	P	PKPbc	04 29 13.9	-1.1
LATR	Latur	148.91	101	*e*P	PKPdf	04 29 10.7	-1.4
KBK	Karagaybulak	148.96	53	P	PKPdf	04 29 12.6	+1.0
	SNR=21						
PMBI	Palembang	149.02	172	P	PKPdf	04 29 14.2	+1.8
NIL	Nilore	149.03	71	P	PKPdf	04 29 13.5	+1.7
NIL	Nilore	149.03	71	PKIKP	PKPdf	04 29 11.2	-0.7
NIL	Nilore	149.03	71	PKPdf	PKPdf	04 29 11.2	-0.7
GRNR	Gornyy	149.13	325	*e*PKIKP	PKPdf	04 29 12.3	+0.9
TKM2	Tokmak 2	149.33	52	P	PKPab	04 29 20.3	-1.1
	SNR=8.2						
SRGN	SRI GANGA NAGA	149.44	78	*e*P	PKPdf	04 29 11.1	-1.5
MDRS	Chennai	149.50	113	*e*P	PKPdf	04 29 11.0	-2.1
KUU	Kurty	149.52	50	*e*PKIKP	PKPdf	04 29 13.3	+1.0
KUU	Kurty	149.52	50	*e*PKP	PKPdf	04 29 13.4	+1.0
AJM	Ajmer	149.60	85	*e*P	PKPdf	04 29 11.5	-1.5
BOOM	Boomskoye usch	149.71	53	PKIKP	PKPdf	04 29 12.2	-0.6
BOOM	Boomskoye usch	149.71	53	PKPdf	PKPdf	04 29 12.2	-0.6
BKB	Balikpapan	149.90	196	P	PKPbc	04 29 16.4	-2.2
BKB	Balikpapan	149.90	196	PKPdf	PKPdf	04 29 12.8	-1.0
BKB				IAMs_20	IAMs_20	05 47 52.5	
	comp=Z,11µm,21.0s						
ULHL	Ulahol	150.00	53	P	PKPdf	04 29 14.1	+0.7
	SNR=24						
AAA	Alma-Ata	150.15	51	*e*PKIKP	PKPdf	04 29 14.3	+1.0
AAA	Alma-Ata	150.15	51	*e*PKP	PKPdf	04 29 14.3	+1.0
AAA				LR	LR	05 41 27.8	
	comp=Z,19µm,21.7s						
HYB	Hyderabad	150.23	104	*e*P	PKPdf	04 29 12.6	-1.6
HYB	Hyderabad	150.23	104	*e*PKiKP	PKPbc	04 29 18.7	-0.6
HYB				IAMs_20	IAMs_20	04 29 29.5	
	comp=Z,21µm,21.9s						
TNSS	Tian-Shan	150.23	51	*e*PKIKP	PKPdf	04 29 14.4	+0.5
TNSS	Tian-Shan	150.23	51	*e*PKP	PKPdf	04 29 14.5	+0.5
MDOK	Medeo	150.26	51	*e*PKIKP	PKPdf	04 29 14.5	+0.9
MDOK				*e*		04 32 56.1	
MDOK	Medeo	150.26	51	*e*PKP	PKPdf	04 29 14.6	+0.9
MDOK				*e*PP	PP	04 32 56.1	+1.9
MDOK				LR	LR	05 42 05.9	
KSH2	Kashi	150.29	59	PKPbc	PKPdf	04 29 13.6	-0.2
KSH2				pPKP	pPKPbc	04 29 23.2	-1.6
KSH2				PP	PP	04 32 54.0	-0.7
KSH2				SS	SS	04 52 10.8	-2.0
KSH2				L	L		
	comp=Z,21µm,24.7s						
KSH2				L	L		
	comp=Z,12µm,25.4s						
KSH2				L	L		
	comp=Z,31µm,24.8s						
SRNI	Srinagar	150.31	70	*e*P	PKPdf	04 29 12.7	-1.3
JMU	Jammu	150.37	72	*e*P	PKPdf	04 29 12.6	-1.4
TDK	Taldyqorghan	150.46	47	*e*PKIKP	PKPdf	04 29 14.8	+1.1
TDK				*e*		04 32 57.3	
TDK	Taldyqorghan	150.46	47	*e*PKP	PKPdf	04 29 14.8	+1.1
TDK				*e*PP	PP	04 32 57.3	+2.2
TDK				LR	LR	05 41 27.8	
	comp=Z,14µm,18.9s						
JTM	Tenmabayashi	150.66	304	P	PKPdf	04 29 16.2	+2.1
KDJ	Kajisay	150.69	53	PKIKP	PKPdf	04 29 14.1	-0.3
KDJ	Kajisay	150.69	53	PKPdf	PKPdf	04 29 14.1	-0.3
ZEA	Zeya	150.92	337	*i* PKIKP	PKPdf	04 29 13.5	-0.6
ZEA				*e*		04 33 00.8	
ZEA				*e*PPP	PPP	04 36 27.6	
ZEA				*e*		04 52 24.2	
ZEA				pmax	pmax		
	comp=N,90nm,1.2s						
ZEA				pmax	pmax		
	comp=Z,170nm,1.4s						
ZEA				pmax	pmax		
	comp=E,800nm,9.8s						
ZEA				pmax	pmax		
	comp=Z,3µm,14.5s						
TOLI2	Tolitoli	150.93	205	P	PKPdf	04 29 16.8	+1.4
TOLI2	Tolitoli	150.93	205	PKPdf	PKPdf	04 29 14.3	-1.1
TOLI2				IAMs_20	IAMs_20	05 36 17.2	
	comp=Z,14µm,22.0s						
THN	Thein Dam	151.15	73	*e*P	PKPdf	04 29 13.1	-2.1
TARG	Taragay, Kyrgy	151.26	53	PKIKP	PKPdf	04 29 15.0	-0.6
TARG	Taragay, Kyrgy	151.26	53	PKPdf	PKPdf	04 29 15.0	-0.6
BHPL	Bhopal	151.34	92	*e*P	PKPdf	04 29 13.8	-2.0
GSI	Gunungsitoli	151.36	156	P	PKPdf	04 29 18.3	+2.2
TSSA	Tissa	151.48	72	*e*P	PKPdf	04 29 14.2	-1.7
BKNI	Bangkinang	151.50	164	PKP	PKPdf	04 29 14.7	-1.6
BKNI	Bangkinang	151.50	164	P	PKPdf	04 29 17.8	+1.5
BKNI	Bangkinang	151.50	164	IAMs_20	IAMs_20	05 31 50.2	
	comp=Z,19µm,22.0s						
KUDL	Kundal	151.51	82	*e*P	PKPdf	04 29 14.2	-1.6
VJD	Vijayawada	151.60	108	*e*P	PKPdf	04 29 14.3	-1.9
DHRM	DHARAMSHALA	151.61	73	*e*P	PKPdf	04 29 14.1	-2.1
UZB	Uzynbulak	151.61	50	*e*PKIKP	PKPdf	04 29 16.5	+0.8
UZB	Uzynbulak	151.61	50	*e*PKP	PKPdf	04 29 16.6	+0.8
GUNA	GUNA	151.62	89	*e*P	PKPdf	04 29 13.9	-2.3
BHK	Bhakra	151.67	75	*e*P	PKPdf	04 29 15.2	-0.8
JHJR	Jhajjar	151.70	81	*e*P	PKPdf	04 29 14.5	-1.6
MAKZ	Makanchi	151.79	41	PKIKP	PKPdf	04 29 14.4	-1.3
PDGK	Podgornoye	151.86	49	PKIKP	PKPdf	04 29 15.6	-0.5
SHLS	Shalkode	151.91	50	*e*PKIKP	PKPdf	04 29 17.4	+1.3
SHLS	Shalkode	151.91	50	*e*PKP	PKPdf	04 29 17.4	+1.3
BHGR	Bahadurgarh	151.97	81	*e*P	PKPdf	04 29 15.0	-1.5
BHGR				IAMs_20	IAMs_20	04 33 32.9	
	comp=Z,15µm,19.8s						
MK31	Makanchi Array	151.98	41*c*	*i*PKIKP	PKPdf	04 29 14.5	-1.5
MKAR	Makanchi Array	151.98	41	PKP	PKPdf	04 29 15.6	-0.4
	comp=Z,25nm,0.8s,baz=286,slow=1.2,SNR=35						
MKAR				PKPbc	pPKPdf	04 29 21.8	+0.4
	comp=Z,560nm,0.9s,baz=317,slow=1.6,SNR=67						
MKAR	Makanchi Array	151.98	41	PKIKP	PKPdf	04 29 15.1	-0.9
MKAR	Makanchi Array	151.98	41		PKPdf	04 29 15.1	-0.9
CGRH	CHANDIGARH	151.99	77	*e*P	PKPdf	04 29 14.5	-2.0
GNR	GANAUR	152.08	80	*e*P	PKPdf	04 29 15.2	-1.5
AYAN	Aya Nagar	152.11	81	*e*P	PKPdf	04 29 15.2	-1.5
AYAN				IAMs_20	IAMs_20	04 33 34.3	
	comp=Z,11µm,20.9s						
NRLA	Narela	152.11	81	*e*P	PKPdf	04 29 15.3	-1.4
NGP	Nagpur	152.13	97	*e*P	PKPdf	04 29 15.3	-1.6
NPLP	NPLP New Delhi	152.16	81	*e*P	PKPdf	04 29 14.8	-2.0
LDR	Lodi Road	152.20	81	*e*P	PKPdf	04 29 15.3	-1.5
NDI	New Delhi	152.21	81	*e*P	PKPdf	04 29 15.1	-1.8
JMIU	JAMIA UNIVERSI	152.26	81	*e*P	PKPdf	04 29 15.9	-1.0
ALCI	Alchi Leh	152.28	69	*e*P	PKPdf	04 29 15.3	-2.0
ALCI				IAMs_20	IAMs_20	04 33 25.3	
	comp=Z,14µm,27.5s						
SMLA	Simla	152.33	76	*e*P	PKPdf	04 29 15.1	-1.8
BISR	Bishrakh	152.39	81	*e*P	PKPdf	04 29 15.9	-1.2
KLR	Kul'dur	152.43	327	PKP	PKPdf	04 29 16.9	+0.4
	comp=Z,17nm,1.1s,baz=65,slow=2.4,SNR=22						
KLR				PKPbc	pPKPdf	04 29 22.6	+0.6
	comp=Z,53nm,1.1s,baz=42,slow=3.7,SNR=32						
KLR	Kul'dur	152.43	327*c*	*i*PKIKP	PKPdf	04 29 15.8	-0.7
AGRA	Agra	152.66	84	*e*P	PKPdf	04 29 16.0	-1.6
MERT	Meerut	152.69	80	*e*P	PKPdf	04 29 15.3	-2.2
ASOR	Ausora	152.70	81	*e*P	PKPdf	04 29 16.0	-1.6
ASOR				IAMs_20	IAMs_20	04 33 49.0	
	comp=Z,1µm,22.5s						
UGON	Onchagaon	152.77	82	*e*P	PKPdf	04 29 15.3	-2.4
JHNI	Jhansi	152.93	88	*e*P	PKPdf	04 29 16.0	-2.0
ZSN	Zaisan	153.04	37	*e*PKIKP	PKPdf	04 29 18.6	+1.1
ZSN				*e*		04 33 11.9	
ZSN	Zaisan	153.04	37	*e*PKP	PKPdf	04 29 18.7	+1.1
ZSN				*e*PP	PP	04 33 11.9	+2.5
BTDF	Bukit Timah Da	153.08	169	P	PKPdf	04 29 19.8	+1.2
PSI	Prapat	153.23	158	P	PKPdf	04 29 19.1	+0.1
KLP	Kalpa	153.27	75	*e*P	PKPdf	04 29 17.0	-1.8
UTK	UTTARKASHI	153.42	77	*e*P	PKPdf	04 29 17.5	-1.2
MYKOM	Kota Tinggi	153.52	169	P	PKPdf	04 29 19.9	+0.7
HEH	HeiHe	153.64	333	*e*PKPbc	PKPdf	04 29 17.4	-0.8
HEH				PP	PP	04 33 13.5	+1.0
HEH				SS	SS	04 52 46.8	-0.7
HEH				PPMZ			
	comp=Z,9µm,10.1s						
HEH				L	L		
	comp=Z,4µm,20.3s						
HEH				L	L		
	comp=Z,15µm,21.9s						
HEH				L	L		
	comp=Z,24µm,19.0s						
TKRD	Thakurdwara	153.68	80	*e*P	PKPdf	04 29 17.4	-1.6
MJAR	Matsushiro Arr	153.81	296	PKP	PKPdf	04 29 20.0	+1.0
	comp=Z,60nm,1.2s,baz=116,slow=0.5,SNR=26						
MJAR	Matsushiro Arr	153.81	296	PKIKP	PKPdf	04 29 19.2	+0.2
MJAR	Matsushiro Arr	153.81	296		PKPdf	04 29 19.2	+0.2
MAJO	Matsushiro	153.81	296	P	PKPdf	04 29 20.6	+1.6
MAJO	Matsushiro	153.81	296	⇑PKIKP	PKPdf	04 29 20.9	+1.9
MAJO	Matsushiro	153.81	296	PKP	PKPdf	04 29 18.5	-0.5
MAJO				PKP	pPKPdf	04 29 19.6	-4.8
DAV	Davao City (W)	153.84	220	PKPbc	PKiKP	04 29 27.9	+0.3
	comp=Z,127nm,0.3s,baz=135,slow=1.4,SNR=4.9						
DAV	Davao City (W)	153.84	220	IAMs_20	IAMs_20	05 35 49.6	
	comp=Z,13µm,20.0s						
HNLY	HANLEY	153.85	72	*e*P	PKPdf	04 29 17.6	-2.2
KCP	Kidapawan	154.06	219	*e*P	PKPdf	04 29 21.9	+1.8
JOSI	Joshimath	154.37	77	*e*P	PKPdf	04 29 18.6	-1.6
SBUM	Sibu	154.40	188	P	PKPdf	04 29 21.8	+1.3
VIS	Vishakhapatnam	154.43	108	*e*P	PKPdf	04 29 18.4	-1.9
BNDA	BANDA	154.45	89	*e*P	PKPdf	04 29 18.4	-1.7
JGF	Kuroka	154.65	295	P	PKPdf	04 29 22.1	+1.9
LHMI	Lhok Sumawe	154.70	151	P	PKPdf	04 29 20.8	-0.1
PTH	Pithoragarh	154.89	79	*e*P	PKPdf	04 29 19.3	-1.6
INU	Inuyama	154.97	294	P	PKPdf	04 29 22.7	+2.1
INU	Inuyama	154.97	294	IAMs_20	IAMs_20	05 27 26.2	
	comp=Z,16µm,21.0s						
LKN	LUCKNOW	155.18	86	*e*P	PKPdf	04 29 19.3	-1.8
USRK	Ussuriysk Ar.	155.39	317	PKP	PKPdf	04 29 22.2	+1.3
	comp=Z,34nm,1.1s,baz=11,slow=1.9,SNR=14						
IPM	Ipoh	155.47	161	P	PKPdf	04 29 22.6	+0.6
IPM	Ipoh	155.47	161	IAMs_20	IAMs_20	05 32 09.5	
	comp=Z,17µm,21.0s						
MYLDM	Lahad Datu	155.52	204	P	PKPdf	04 29 23.2	+1.2
MYLDM	Lahad Datu	155.52	204	IAMs_20	IAMs_20	05 35 54.9	
	comp=Z,18µm,21.0s						
IRK	Irkutsk	155.53	7	*e*PKIKP	PKPdf	04 29 20.7	-0.2
IRK				*e*		04 33 22.3	
IRK				pmax	pmax		
	comp=Z,567nm,2.1s						
MOY	Mondy	155.63	12	*e*PKIKP	PKPdf	04 29 20.8	-0.3
MOY				pmax	pmax		
	comp=Z,498nm,1.8s						
ALBI	Allahabad	155.72	90	*e*P	PKPdf	04 29 20.3	-1.7
ALBI				IAMs_20	IAMs_20	04 33 44.2	
	comp=Z,11µm,20.0s						
CIT	Chita	155.74	353	*e*PKIKP	PKPdf	04 29 22.2	+1.0
CIT				pmax	pmax		
	comp=Z,711nm,3.5s						
TLY	Talaya	156.02	8	PKP	PKPdf	04 29 21.9	+0.3
	comp=Z,19nm,1.1s,baz=204,slow=1.1,SNR=14						
TLY	Talaya	156.02	8		PKPdf	04 29 20.9	-0.6
SCPH	Surigao	156.04	224	*e*P	PKPdf	04 29 24.4	+1.7
KULM	Kulim	156.12	160	P	PKPdf	04 29 22.7	-0.1
MDJ	Mudanjiang	156.54	321	PKP	PKPdf	04 29 20.8	-1.6
MDJ				L	L		
	comp=Z,7µm,24.5s						
MDJ				L	L		
	comp=Z,21µm,18.3s						
MDJ				L	L		
	comp=Z,46µm,19.8s						
WMQ	Urumqi	156.81	41	PKP	PKPdf	04 29 25.0	+2.1
WMQ				PKPab	pPKPab	04 29 56.2	-2.0
WMQ				PP	PP	04 33 38.2	+7.5
WMQ				SS	SS	04 53 29.3	+6.6
WMQ				PPMZ			
	comp=Z,8µm,11.5s						
WMQ				L	L		
	comp=Z,22µm,23.5s						
WMQ				L	L		
	comp=Z,15µm,20.5s						
WMQ				L	L		
	comp=Z,19µm,20.5s						
HILR	Hailar Array B	156.89	342	PKP	PKPdf	04 29 22.6	-0.2
	comp=Z,15nm,1.0s,baz=29,slow=3.4,SNR=31						
TBP	Tagbilaran	156.94	221	*i* P	PKPdf	04 29 22.0	-1.8
BNX	BinXian	156.97	325	⇓PKP	PKPdf	04 29 21.9	-1.0
BNX				PP	PP	04 33 33.9	+2.6
BNX				S		04 42 44.2	
BNX				SS	SS	04 53 30.7	+6.8
BNX				PPMZ			
	comp=Z,10µm,12.7s						
BNX				L	L		
	comp=Z,13µm,17.3s						
BNX				L	L		
	comp=Z,11µm,18.6s						
BNX				L	L		
	comp=Z,29µm,22.8s						
KKM	Kota Kinabalu	157.07	199	P	PKPdf	04 29 25.5	+1.3
KKM	Kota Kinabalu	157.07	199	IAMs_20	IAMs_20	05 36 34.9	
	comp=Z,16µm,22.0s						
ZAK	Zakamensk	157.24	9	*e*PKIKP	PKPdf	04 29 23.0	-0.3
ZAK				pmax	pmax		
	comp=Z,92nm,1.7s						
BWNR	Bhubaneshwar	157.66	105	*e*P	PKPdf	04 29 22.9	-1.6
JMN	Monobe	157.77	291	P	PKPdf	04 29 26.4	+2.0
PBA	Port Blair	157.84	134	P	PKPdf	04 29 26.7	+1.8
	SNR=26						
PBA	Port Blair	157.84	134	*e*P	PKPdf	04 29 22.8	-2.1
GAYA	Gaya	158.63	93	*e*P	PKPdf	04 29 23.2	-2.4
BOK	Bokaro	158.95	96	*e*P	PKPdf	04 29 24.1	-2.0
CN2	Changchun	159.32	324	PKP	PKPdf	04 29 24.5	-1.3
CN2				pPKP	sPKPdf	04 29 35.2	+2.1
CN2				PP	PP	04 33 46.7	+2.5
CN2				SKKS		04 40 29.1	
CN2				SS	SS	04 53 47.7	-1.3
CN2				L	L		
	comp=Z,3µm,20.0s						
CN2				L	L		
	comp=Z,13µm,20.0s						
CN2				L	L		
	comp=Z,5µm,20.0s						
JMUI	Jamui	159.54	93	*e*P	PKPdf	04 29 25.1	-1.5
PPR	Puerto Princes	159.62	209	*i* P	PKPdf	04 29 26.4	-0.7
SONM	Songino Array	160.10	5	PKP	PKPdf	04 29 27.0	+0.2
	comp=Z,16nm,0.8s,baz=200,slow=0.6,SNR=49						
SONM				PP	PP	04 33 48.2	+0.3
	comp=Z,13nm,0.9s,baz=334,slow=4.7,SNR=6.3						
SONM	Songino Array	160.10	5	PKIKP	PKPdf	04 29 25.1	-1.7
SONM	Songino Array	160.10	5		PKPdf	04 29 25.1	-1.7
ULN	Ulaanbaatar	160.11	4	P	PKPdf	04 29 28.9	+2.1
ULN	Ulaanbaatar	160.11	4	⇓PKIKP	PKPdf	04 29 27.5	+0.7
JNU	Nakatsue	160.34	291	PKP	PKPdf	04 29 27.5	+0.1
	comp=Z,24nm,1.1s,baz=270,slow=1.0,SNR=3.6						
HHU	Hamhung	160.49	312	PKPbc	PKPdf	04 29 20.5	-6.8
HHU				AMS	AMS		
	comp=Z,462nm,5.4s						
CAL	Calcutta	160.69	102	*e*P	PKPdf	04 29 26.6	-1.4
SHBG	Sahibganj	160.85	93	*e*P	PKPdf	04 29 25.6	-2.5
KSRS	Korea Array	161.39	305	PKP	PKPdf	04 29 28.4	+0.1
	comp=Z,24nm,1.0s,baz=77,slow=0.6,SNR=53						
SNY	Shenyang	161.68	323	PKP	PKPdf	04 29 27.1	-1.4
SNY				PP	PP	04 34 01.5	+4.6
SNY				L	L		
	comp=Z,6µm,22.0s						
SNY				L	L		
	comp=Z,13µm,22.6s						
SNY				L	L		
	comp=Z,28µm,23.4s						
LQP	Lukban	161.82	223	*e*P	PKPdf	04 29 31.8	+2.2
JPG	JALPAIGURI	162.06	90	*e*P	PKPdf	04 29 28.2	-1.2
PYAG	Pyongyang	162.11	312	PKPbc	PKPdf	04 29 22.0	-7.0
PYAG				AMS	AMS		
	comp=Z,356nm,7.1s						
TJN	Taejon	162.24	303	P	PKPdf	04 29 31.2	+2.0
INCN	Inchon	162.30	307	P	PKPdf	04 29 30.8	+1.5
HJU	Haeju	162.66	310	PKPbc	PKPdf	04 29 22.6	-7.0
HJU				PP	PP	04 33 57.3	-5.3
HJU				AMS	AMS		
	comp=Z,109nm,2.3s						
COBR	COOCHBEHAR	162.68	91	*e*P	PKPdf	04 29 28.6	-1.4
XLT	XiLinHaoTe	163.08	342	*e*PKP	PKPdf	04 29 29.9	-0.1
XLT				PKPab	PKPab	04 30 20.0	+0.2
XLT				PP	PP	04 34 03.3	-0.7
XLT				SKKS		04 40 57.3	
XLT				L	L		
	comp=Z,20µm,20.8s						
XLT				L	L		
	comp=Z,30µm,24.1s						
DHUB	DHUBRI	163.10	92	*e*P	PKPdf	04 29 28.6	-1.7
GUWA	GUWAHATI	164.63	93	*e*P	PKPdf	04 29 30.1	-1.7
SHL	Shillong	164.68	95	P	PKPdf	04 29 33.0	+0.9
SHL	Shillong	164.68	95	*e*P	PKPdf	04 29 30.3	-1.8
DL2	Dalian	164.76	319	⇑*i*PKP	PKPdf	04 29 30.5	-1.0
DL2				PKPab	PKPab	04 30 27.1	-0.1
DL2				PP	PP	04 34 16.2	+2.8
DL2				PPMZ			
	comp=Z,12µm,11.4s						
DL2				L	L		
	comp=Z,13µm,18.7s						
DL2				L	L		
	comp=Z,16µm,21.1s						
DL2				L	L		
	comp=Z,35µm,21.3s						
AZL	Aizawl	164.87	103	*e*P	PKPdf	04 29 31.0	-1.2
TAWA	Tawang	164.98	88	*e*P	PKPdf	04 29 30.8	-1.8
SILR	SILCHAR	165.29	99	*e*P	PKPdf	04 29 31.0	-1.4
GOMU	GeErMu	165.59	52	PKP	PKPdf	04 29 31.2	-1.6
GOMU				SS	SS	04 54 53.4	-2.5
GOMU				PPMZ			
	comp=Z,10µm,9.6s						
GOMU				L	L		
	comp=Z,19µm,22.5s						
GOMU				L	L		
	comp=Z,19µm,21.9s						
GOMU				L	L		
	comp=Z,62µm,23.1s						
TEZP	TEZPUR	165.68	92	*e*P	PKPdf	04 29 29.8	-2.9
GTA2	Gaotai	166.28	31	PKP	PKPdf	04 29 33.0	0.0
GTA2				PKPab	PKPab	04 30 36.3	+2.2
GTA2				PP	PP	04 34 20.8	-0.3
GTA2				SKKS		04 41 14.9	
GTA2				PPMZ			
	comp=Z,8µm,10.2s						
GTA2				L	L		
	comp=Z,18µm,22.5s						
GTA2				L	L		
	comp=Z,19µm,22.9s						
GTA2				L	L		
	comp=Z,38µm,22.5s						
IMP	Imphal	166.30	100	*e*P	PKPdf	04 29 31.7	-1.7
BJI2	Beijing	166.55	335	PKP	PKPdf	04 29 32.4	-0.6
BJI2				pPKP	pPKPdf	04 29 38.4	0.0
BJI2				sPKP	sPKPdf	04 29 43.3	+3.1
BJI2				PP	PP	04 34 24.9	+2.8
BJI2				SS	SS	04 55 04.3	+1.0
BJI2				PPMZ			
	comp=Z,5µm,14.1s						
BJI2				L	L		
	comp=Z,7µm,23.3s						
BJI2				L	L		
	comp=Z,12µm,22.0s						
BJI2				L	L		
	comp=Z,20µm,23.5s						
ZIRO	ZIRO	166.73	88	*e*P	PKPdf	04 29 31.0	-2.8
CM31	Chiang Mai Arr	166.87	134	P	PKPdf	04 29 33.9	+0.1
	SNR=36						
CMAR	Chiang Mai Arr	166.87	134	PKP	PKPdf	04 29 34.0	+0.1
	comp=Z,19nm,1.0s,baz=258,slow=2.3,SNR=54						
CMAR				PKPab	PKPab	04 30 36.7	-0.3
	comp=Z,79nm,1.0s,baz=233,slow=4.6,SNR=6.8						
CMAR				PP	PP	04 34 24.7	+0.2
	comp=Z,11nm,1.1s,baz=206,slow=4.3,SNR=3.8						
HHC	Hu-ho-hao-te	166.97	351	*e*PKP	PKPdf	04 29 32.5	-0.9
HHC				SS	SS	04 55 05.8	-1.4
HHC				L	L		
	comp=Z,10µm,22.9s						
HHC				L	L		
	comp=Z,15µm,20.6s						
HHC				L	L		
	comp=Z,29µm,20.6s						
JORH	JORHAT	166.99	92	*e*P	PKPdf	04 29 32.7	-1.0
CHTO	Chiang Mai	167.13	133	P	PKPdf	04 29 34.3	+0.3
CHTO	Chiang Mai	167.13	133	P	PKPdf	04 29 35.2	+1.1
CHTO	Chiang Mai	167.13	133	PKP	PKPdf	04 29 33.2	-0.8
CHTO				PKP	pPKPdf	04 29 34.1	-5.3
BTO2	Baotou	167.25	356	*e*PKP	PKPdf	04 29 33.5	-0.2
BTO2				PKPab	PKPab	04 30 38.0	-0.2
BTO2				L	L		
	comp=Z,39µm,16.9s						
BTO2				L	L		
	comp=Z,34µm,18.4s						
BTO2				L	L		
	comp=Z,105µm,20.7s						
TWGBT	Beinan	167.79	248	P	PKPdf	04 29 37.6	+3.2
YULB	Yu-li	167.86	251	P	PKPdf	04 29 37.7	+3.2
SSLB	Suanglung	168.31	252	P	PKPdf	04 29 37.1	+2.3
TPUB	Ta-pu	168.38	249	P	PKPdf	04 29 37.7	+2.9
SSE	Sheshan	168.80	289	PKP	PKPdf	04 29 30.0	-4.8
SSE				PPMZ			
	comp=Z,2µm,12.0s						
SSE				L	L		
	comp=Z,4µm,22.8s						
SSE				L	L		
	comp=Z,7µm,17.7s						
TIA	Tai'an	169.20	321	PKP	PKPdf	04 29 34.9	-0.1
TIA				PP	PP	04 34 37.5	+1.4
TIA				SKKS		04 41 23.3	
TIA				SS	SS	04 55 34.4	+3.7
TIA				PPMZ			
	comp=Z,13µm,12.4s						
TIA				L	L		
	comp=Z,26µm,20.7s						
TIA				L	L		
	comp=Z,10µm,18.5s						
TIA				L	L		
	comp=Z,43µm,19.8s						
HNS	HongShan	169.39	334	⇑PKP	PKPdf	04 29 35.2	+0.2
HNS				PKPab	pPKPab	04 30 51.3	-1.7
HNS				PP	PP	04 34 39.8	+3.2
HNS				SKKS		04 41 26.4	
HNS				SS	SS	04 55 29.6	-2.2
HNS				PPMZ			
	comp=Z,13µm,12.0s						
HNS				L	L		
	comp=Z,20µm,18.1s						
HNS				L	L		
	comp=Z,31µm,17.5s						
HNS				L	L		
	comp=Z,50µm,22.2s						
TIY	Taiyuan	169.84	344	PKP	PKPdf	04 29 34.5	-0.9
TIY				PP	PP	04 34 38.8	0.0
TIY				SS	SS	04 55 35.1	-0.9
TIY				L	L		
	comp=Z,30µm,20.6s						
TIY				L	L		
	comp=Z,14µm,20.6s						
TIY				L	L		
	comp=Z,32µm,21.3s						
TNCH	TengChong	170.31	105	PKP	PKPdf	04 29 35.6	-0.6
TNCH				PKPab	PKPab	04 30 53.9	+1.4

TNCH				PP	**PP**	**04 34 45.1**	**+2.0**
TNCH				SKKS		04 41 29.1	
TNCH				SS	**SS**	**04 55 42.2**	**-2.0**
TNCH				PPMZ			
	comp=Z,13µm,6.3s						
TNCH				L	L		
	comp=Z,6µm,19.6s						
TNCH				L	L		
	comp=Z,9µm,18.1s						
TNCH				L	L		
	comp=Z,33µm,20.4s						
NJ2	**Nanjing**	**170.41**	**297**	*e*PKP	**PKPdf**	**04 29 37.1**	**+1.3**
NJ2				pPKP	**pPKPdf**	**04 29 41.2**	**0.0**
NJ2				PKPab	**sPKPab**	**04 31 00.1**	**+0.4**
NJ2				SS	SS	04 55 47.2	+3.0
NJ2				PPMZ			
	comp=Z,13µm,10.9s						
NJ2				L	L		
	comp=Z,44µm,17.9s						
NJ2				L	L		
	comp=Z,31µm,20.0s						
NJ2				L	L		
	comp=Z,44µm,19.1s						
QZH2	**Quanzhou**	**170.74**	**253**	PKP	**PKPdf**	**04 29 35.6**	**-0.5**
QZH2				PKPab	**pPKPab**	**04 30 57.2**	**-2.3**
QZH2				PP	**PP**	**04 34 45.3**	**+0.4**
QZH2				SS	SS	04 55 43.1	-4.8
QZH2				L	L		
	comp=Z,22µm,19.9s						
QZH2				L	L		
	comp=Z,21µm,20.3s						
QZH2				L	L		
	comp=Z,37µm,21.3s						
LZH	**Lanzhou**	**170.89**	**26**	PKP	**PKPdf**	**04 29 36.6**	**+0.5**
LZH				PKPab	**PKPab**	**04 30 55.1**	**+0.6**
LZH				PP	**PP**	**04 34 43.1**	**-1.3**
LZH				SKS	**SKSdf**	**04 36 37.3**	**-1.8**
LZH				SKKS	**SKKSac**	**04 41 33.1**	**+1.7**
LZH				SS	**SS**	**04 55 46.0**	**-1.1**
LZH				PPMZ			
	comp=Z,8µm,6.4s						
LZH				L	L		
	comp=Z,12µm,21.8s						
LZH				L	L		
	comp=Z,23µm,21.6s						
LZH				L	L		
	comp=Z,39µm,22.3s						
LZDM	**Lanzhou Array**	**170.94**	**27**	PKP	**PKPdf**	**04 29 36.8**	**+0.4**
	comp=Z,27nm,0.8s,baz=252,slow=0.9,SNR=14						
LZDM				PKPab	**PKPab**	**04 30 54.4**	**-0.6**
	comp=Z,55nm,0.9s,baz=316,slow=4.1,SNR=7.9						
QIZ	**Qiongzhong**	**171.03**	**186**	PKP	**PKPdf**	**04 29 36.8**	**+0.3**
QIZ				PKPab	**PKPab**	**04 30 54.6**	**-0.6**
QIZ				PP	**PP**	**04 34 44.9**	**+0.4**
QIZ				SS	SS	04 55 52.4	+5.0
QIZ				PPMZ			
	comp=Z,12µm,14.2s						
QIZ				L	L		
	comp=Z,15µm,21.6s						
QIZ				L	L		
	comp=Z,13µm,21.4s						
QIZ				L	L		
	comp=Z,29µm,21.8s						
SLVN	**Son La**	**172.00**	**145**	P	**PKPdf**	**04 29 38.2**	**+1.2**
HKPS	**Hong Kong Po S**	**172.55**	**221**	P	**PKPdf**	**04 29 39.6**	**+2.5**
LYN	**LuoYang**	**172.75**	**335**	⇑*i*PKP	**PKPdf**	**04 29 36.2**	**-0.6**
LYN				pPKP	pPKPdf	04 29 42.1	-0.1
LYN				PKPab	**PKPab**	**04 31 03.2**	**+0.6**
LYN				PPMZ			
	comp=Z,19µm,14.1s						
LYN				L	L		
	comp=Z,43µm,19.6s						
LYN				L	L		
	comp=Z,17µm,21.2s						
LYN				L	L		
	comp=Z,54µm,20.2s						
PZH	**PanZhiHua**	**173.52**	**102**	PKP	**PKPdf**	**04 29 38.9**	**+1.3**
PZH				PKPab	**PKPab**	**04 31 07.6**	**+0.9**
PZH				PP	**PP**	**04 34 57.0**	**-2.0**
PZH				SKKS		04 41 48.1	
PZH				SS	**SS**	**04 56 15.5**	**-0.2**
PZH				PPMZ			
	comp=Z,12µm,8.6s						
PZH				L	L		
	comp=Z,15µm,24.1s						
PZH				L	L		
	comp=Z,16µm,21.9s						
PZH				L	L		
	comp=Z,28µm,24.5s						
KMI2	**Kunming**	**173.87**	**116**	⇑PKP	**PKPdf**	**04 29 36.4**	**-1.4**
KMI2				pPKP	pPKPdf	04 29 43.3	+0.1
GZH2	**Guangzhou**	**173.87**	**226**	⇓PKP	**PKPdf**	**04 29 40.0**	**+2.4**
GZH2				PKPab	**PKPab**	**04 31 10.2**	**+2.3**
GZH2				PP	PP	04 35 07.6	+8.0
GZH2				SKKS		04 41 51.2	
GZH2				SS	**SS**	**04 56 23.2**	**+6.2**
GZH2				L	L		
	comp=Z,16µm,22.7s						
GZH2				L	L		
	comp=Z,12µm,21.2s						
GZH2				L	L		
	comp=Z,40µm,22.1s						
XAN	**Xi'an**	**173.97**	**359**	PKP	**PKPdf**	**04 29 37.7**	**+0.3**
XAN				PKPab	**PKPab**	**04 31 08.5**	**+0.5**
XAN				PP	**PP**	**04 34 58.0**	**-1.0**
XAN				SKKS		04 41 49.2	
XAN				SS	**SS**	**04 56 16.9**	**+0.8**
XAN				L	L		
	comp=Z,22µm,21.6s						
XAN				L	L		
	comp=Z,15µm,23.5s						
XAN				L	L		
	comp=Z,52µm,23.9s						
WHN	**Wuhan**	**174.54**	**299**	⇑PKP	**PKPdf**	**04 29 35.6**	**-2.0**
WHN				PKPab	**PKPab**	**04 31 10.4**	**-0.5**
WHN				PP	**PP**	**04 35 06.9**	**+3.5**
WHN				L	L		
	comp=Z,77µm,21.2s						
WHN				L	L		
	comp=Z,25µm,19.8s						
WHN				L	L		
	comp=Z,132µm,21.9s						
CD2	**Chengdu**	**174.71**	**55**	PKP	**PKPdf**	**04 29 36.0**	**-1.7**
CD2				pPKP	sPKPdf	04 29 44.3	-0.6
CD2				PKPab	**PKPab**	**04 31 12.4**	**+0.7**
CD2				PP	**PP**	**04 35 03.3**	**-0.8**
CD2				SKKS		04 41 49.0	
CD2				L	L		
	comp=Z,42µm,26.9s						
CD2				L	L		
	comp=Z,27µm,25.5s						
CD2				L	L		
	comp=Z,37µm,23.5s						
CNSH	**ChangSha**	**176.37**	**274**	PKP	**PKPdf**	**04 29 36.8**	**-1.3**
CNSH				PP	**PP**	**04 35 17.4**	**+4.8**
CNSH				PPMZ			
	comp=Z,6µm,11.0s						
CNSH				L	L		
	comp=Z,7µm,26.1s						
CNSH				L	L		
	comp=Z,13µm,22.6s						
CNSH				L	L		
	comp=Z,16µm,23.0s						
GULI	**GuiLin**	**176.98**	**208**	PKP	**PKPdf**	**04 29 38.6**	**+0.2**
GULI				L	L		
	comp=Z,14µm,20.7s						
GULI				L	L		
	comp=Z,8µm,18.1s						
GULI				L	L		
	comp=Z,28µm,21.1s						
GYA	**Guiyang**	**177.54**	**128**	PKP	**PKPdf**	**04 29 40.3**	**+1.7**
GYA				PKPab	PKPab	04 31 25.4	+1.0
GYA				PP	**PP**	**04 35 18.9**	**+1.4**
GYA				L	L		
	comp=Z,9µm,21.6s						
GYA				L	L		
	comp=Z,22µm,20.3s						
GYA				L	L		
	comp=Z,24µm,21.3s						

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*SJA **01** 04:20:42.1±0.7,27°.86S×71°.45W,h9^{km}±3^{km},ML4.3, MW3.9*

*IDC **01** 04:20:42.2±1.0,28°.11S×71°.16W,h0^{km},mb4.3/5, mbtmp4.3/5,Error ellipse: s-maj=52.2km s-min=32.8km az=61.0*

*NEIC **01** 04:20:46.4±1.4,27°.95S±0°.03×71°.15W±0°.06,h23^{km}±5^{km}, mb5.1/7,ML4.3(GUC),Error ellipse: s-maj=7.9km s-min=4.7km az=82.0*

*GUC **01** 04:20:47.4±0.9,27°.99S×71°.00W,h20^{km}±11^{km},ML4.3*

ISC 01 04:20:45.6±1.1,27°.92S±0°.03×71°.24W±0°.05,h23^{km}±7^{km}, n60,σ1^{s}20/73,mb4.8/6,2C,Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	**Llanos de Chal**	**0.32**	**152**	⇑*e*P	**Pb**	**04 20 53.4**	**+0.5**
AC04				*e*S	**Sb**	**04 20 57.6**	**0.0**
AC04				IAML		04 20 58.5	
	comp=E,51µm,0.1s						
AC04	**Llanos de Chal**	**0.32**	**152**	Pg	**Pb**	**04 20 53.3**	**+0.5**
AC04				Sg	**Sb**	**04 20 57.3**	**-0.4**
GO03	**Copiapo**	**0.95**	**70**	*e*P	**Pn**	**04 21 03.8**	**+0.1**
GO03				IAML		04 21 22.8	
	comp=Z,5µm,0.7s						
GO03	**Copiapo**	**0.95**	**70**	*e*P	**Pn**	**04 21 03.3**	**-0.3**
GO03				*e*S	**Sn**	**04 21 14.9**	**-1.6**
GO03				IAML		04 21 17.8	
	comp=E,14µm,0.4s						
GO03	**Copiapo**	**0.95**	**70**		**Pn**	**04 21 03.5**	**-0.1**
GO03				Sn	**Sn**	**04 21 15.3**	**-1.2**
AC06	**Mina Casimiro**	**0.97**	**55**	*e*P	**Pn**	**04 21 03.8**	**0.0**
AC06				*e*S	**Sb**	**04 21 15.5**	**-0.6**
AC06				IAML		04 21 19.8	
	comp=N,22µm,0.7s						
AC06	**Mina Casimiro**	**0.97**	**55**	Pn	**Pn**	**04 21 04.0**	**+0.2**
LCO	**Las Campanas**	**1.19**	**156**	*e*P	**Pb**	**04 21 07.3**	**-0.3**
LCO				IAML		04 22 14.7	
	comp=Z,3µm,0.3s						
LCO	**Las Campanas**	**1.19**	**156**	*e*P	**Pb**	**04 21 07.0**	**-0.6**
LCO				*i* S	**Sb**	**04 21 21.7**	**-1.0**
LCO	**Las Campanas**	**1.19**	**156**		**Pn**	**04 21 06.6**	**-0.5**
AC05	**El Transito**	**1.25**	**137**	*e*P	**Pb**	**04 21 08.8**	**+0.2**
AC05	**El Transito**	**1.25**	**137**	*e*P	**Pb**	**04 21 08.4**	**-0.1**
AC05				*e*S	**Sb**	**04 21 23.0**	**-1.3**
AC05				IAML		04 21 26.8	
	comp=E,8µm,0.6s						
AC05	**El Transito**	**1.25**	**137**		**Pb**	**04 21 07.6**	**-1.0**
AC01	**Pan de Azucar**	**1.86**	**18**	*e*P	**Pn**	**04 21 16.6**	**+0.6**
AC01				*e*S	**Sb**	**04 21 41.6**	**0.0**
AC01				IAML		04 21 46.2	
	comp=Z,1µm,0.9s						
AC01	**Pan de Azucar**	**1.86**	**18**	⇑*e*P	**Pn**	**04 21 16.5**	**+0.4**
AC01				IAML		04 21 49.3	
	comp=E,4µm,0.5s						
AC01	**Pan de Azucar**	**1.86**	**18**		**Pn**	**04 21 16.9**	**+0.8**
AC02	**Maricunga**	**2.17**	**61**	*e*P	**Pb**	**04 21 23.7**	**-0.7**
AC02				IAML		04 22 01.7	
	comp=Z,2µm,0.4s						
AC02	**Maricunga**	**2.17**	**61**	*e*P	**Pb**	**04 21 23.9**	**-0.6**
AC02				IAML		04 21 54.2	
	comp=N,9µm,0.3s						
AC02	**Maricunga**	**2.17**	**61**		**Pb**	**04 21 22.8**	**-1.6**
GO04	**Tololo Observa**	**2.28**	**170**	*e*P	**Pn**	**04 21 23.7**	**+1.7**
GO04				IAML		04 22 12.5	
	comp=N,6µm,0.7s						
GO04	**Tololo Observa**	**2.28**	**170**	Pn	**Pn**	**04 21 22.2**	**+0.1**
CO01	**Juntas del Tor**	**2.28**	**154**	*e*P	**Pb**	**04 21 24.2**	**-2.1**
CO01				IAML		04 21 56.1	
	comp=N,2µm,0.2s						
CO01	**Juntas del Tor**	**2.28**	**154**	Pn	**Pn**	**04 21 21.7**	**-0.4**
AROD	**Rodeo**	**2.72**	**146**	*e*P	**Pb**	**04 21 32.6**	**-1.1**
AROD				*e*S	**Sb**	**04 22 08.4**	**+1.5**
CO06	**Fray Jorge**	**2.76**	**187**	*e*P	**Pn**	**04 21 29.0**	**+0.5**
CO06	**Fray Jorge**	**2.76**	**187**	Pn	**Pn**	**04 21 27.8**	**-0.7**
VCA	**Vinchina**	**2.80**	**108**	*e*P	**Pb**	**04 21 35.1**	**+0.1**
VCA				IAML		04 22 17.1	
	comp=N,2µm,0.7s						
CO03	**El Pedregal**	**2.95**	**171**	Pn	**Pn**	**04 21 30.9**	**-0.2**
TINO	**Tinogasta**	**3.25**	**93**	*e*P	**Pb**	**04 21 38.8**	**-4.0**
TINO				IAML		04 22 43.4	
	comp=Z,523nm,1.5s						
PB14	**IPOC Station P**	**3.37**	**13**	Pn	**Pn**	**04 21 36.6**	**-0.4**
ACLC	**CERRO LA CRUZ**	**4.06**	**113**	*e*P	**Pn**	**04 21 49.9**	**+3.4**
ACLC				*e*S	**Sb**	**04 22 44.7**	**-0.4**
ACLC				IAML		04 22 57.6	
	comp=Z,333nm,0.9s						
CO04	**Los Peladeros**	**4.12**	**177**	Pn	**Pn**	**04 21 47.3**	**0.0**
CYA	**Choya**	**4.83**	**97**	*e*P	**Pn**	**04 22 00.7**	**+3.7**
CYA				*e*S	**Sn**	**04 22 55.0**	**+2.7**
CYA				IAML		04 23 01.9	
	comp=Z,337nm,2.3s						
PB05	**IPOC Station P**	**5.13**	**11**	*e*P	**Pn**	**04 22 00.4**	**-0.8**
PB05				*e*S	**Sn**	**04 22 59.9**	**0.0**
PB05				IAML		04 24 01.5	
	comp=Z,428nm,3.4s						
PB06	**IPOC Station P**	**5.41**	**17**	*e*P	**Pn**	**04 22 05.2**	**+0.2**
PB06				*e*S	**Sb**	**04 23 25.8**	**+1.7**
PB06				IAML		04 24 11.3	
	comp=Z,290nm,3.8s						
AF01	**San Pedro de A**	**5.67**	**30**	Pn	**Pn**	**04 22 10.5**	**+1.8**
BI02	**San Fabin de**	**8.72**	**180**	Pn	**Pn**	**04 22 49.6**	**-0.8**
LPAZ	**La Paz**	**11.93**	**15**	Pn	**Pn**	**04 23 34.0**	**-0.9**
EFI	**East Falkland**	**25.71**	**161**	P	**P**	**04 26 14.2**	**+0.2**
JTS	**Las Juntas de**	**40.24**	**339**	P	**P**	**04 28 21.4**	**+0.6**
SNAA	**Sanae**	**56.98**	**159**	P	**P**	**04 30 28.5**	**-0.4**
	comp=Z,4.1nm,0.9s,baz=287,slow=9.2,SNR=2.4						
	comp=Z,4.1nm,0.9s						
SNAA	**Sanae**	**56.98**	**159**	P	**P**	**04 30 28.6**	**-0.4**
SNAA				IAmb	IAmb	04 30 30.3	
	comp=Z,50nm,1.8s						
EF04	**Eagle Ford 04**	**62.23**	**334**	P	**P**	**04 31 06.5**	**+0.9**
EF04				IAmb	IAmb	04 31 14.6	
	comp=Z,15nm,1.0s						
QSPA	**South Pole Qui**	**62.30**	**180**	P	**P**	**04 31 05.1**	**-0.7**
QSPA				IAmb	IAmb	04 31 12.6	
	comp=Z,15nm,1.4s						
TXAR	**Lajitas Array**	**64.84**	**329**	P	**P**	**04 31 24.6**	**+1.7**
	comp=Z,0.7nm,0.8s,baz=142,slow=8.8,SNR=4.1						
	comp=Z,0.7nm,0.8s						
TXAR	**Lajitas Array**	**64.84**	**329**	P	**P**	**04 31 25.0**	**+2.1**
DBIC	**Dimbokro**	**72.64**	**72**	P	**P**	**04 32 11.5**	**-0.2**
TORD	**Torodi Ar. Bea**	**81.51**	**70**	P	**P**	**04 33 01.3**	**-0.3**
	comp=Z,14nm,0.9s,baz=251,slow=6.3,SNR=4.4						
	comp=Z,14nm,0.9s						
BOSA	**Boshof**	**82.31**	**118**	P	**P**	**04 33 04.9**	**-1.0**
	comp=Z,1.4nm,0.6s,baz=211,slow=5.9,SNR=1.4						
	comp=Z,1.4nm,0.6s						
BOSA	**Boshof**	**82.31**	**118**	P	**P**	**04 33 05.1**	**-0.8**
BOSA				IAmb	IAmb	04 33 07.7	
	comp=Z,37nm,1.9s						
ESDC	**Sonseca Array**	**91.86**	**45**	P	**P**	**04 33 53.6**	**+1.7**
	comp=Z,0.7nm,1.0s,baz=205,slow=5.4,SNR=1.8						
	comp=Z,0.7nm,1.0s						
ESDC	**Sonseca Array**	**91.86**	**45**	P	**P**	**04 33 52.9**	**+1.0**
WRA	**Warramunga Arr**	**126.36**	**210**	PKP	**PKPdf**	**04 39 46.7**	**-0.5**
	comp=Z,2.9nm,1.1s,baz=152,slow=1.8,SNR=6.3						
KURK	**Kurchatov**	**147.79**	**37**		**PKPbc**	**04 40 28.0**	**-0.2**
KURBB	**Kurchatov Arra**	**147.79**	**37**	PKPbc	**PKPbc**	**04 40 28.7**	**+0.5**
	comp=Z,1.9nm,0.7s,baz=302,slow=3.2,SNR=8.0						
ZALV	**Zalesovo Beam**	**148.62**	**27**	PKPbc	**PKPbc**	**04 40 30.9**	**+0.6**
	comp=Z,7.6nm,0.9s,baz=306,slow=4.4,SNR=5.8						
HYB	**Hyderabad**	**150.31**	**104**	*e*PKiKP	**PKiKP**	**04 40 36.3**	**-0.1**
MKAR	**Makanchi Array**	**151.97**	**41**	PKPbc	**PKPbc**	**04 40 38.8**	**+0.1**
	comp=Z,2.0nm,0.8s,baz=308,slow=2.2,SNR=4.6						
MKAR	**Makanchi Array**	**151.97**	**41**		**PKPbc**	**04 40 37.9**	**-0.8**
KLR	**Kul'dur**	**152.34**	**327**	PKPbc	**PKPbc**	**04 40 39.5**	**+0.1**
	comp=Z,4.9nm,1.1s,baz=69,slow=1.7,SNR=1.6						

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*SJA **01** 04:29:59.8±1.1,27°.97S×71°.43W,h35^{km},ML6.2,MW6.1*

*IDC **01** 04:29:59.6±0.3,28°.01S×70°.90W,h0^{km},mb5.5/26, mbtmp5.4/29,ML5.0/3,MS6.1/31,Error ellipse: s-maj=15.9km s-min=9.7km az=80.0*

*PTWC **01** 04:30:00,28°.00S×71°.50W,h10^{km},Mb6.2/90*

*NEIC **01** 04:30:00.5,28°.04S×71°.32W,h6^{km}*

*VAO **01** 04:30:02.0±0.2,28°.10S×71°.18W,h17^{km},mb6.0, Presumed earthquake*

*GFZ **01** 04:30:02.5±0.1,28°S±1°×7°1W±°,h10^{km},M6.4/112, mb5.9/112*

*GFZ **01** 04:30:02.5,27°.99S×71°.14W,h22^{km},Mw6.2/41,Moment Tensor Solution. Moment tensor: Scale 10^{18}Nm; M_{rr}1.51; $M_{\theta\theta}$0.07; $M_{\phi\phi}$-1.57; $M_{r\theta}$0.68; $M_{\theta\phi}$-0.15; $M_{\phi r}$-1.80; Fault plane solution: $M_0$2.47360×10^{18} NP1: ϕ_s165.70755°,δ71.37622°,λ76.74682°. NP2:ϕ_s22.11689°, δ22.72092°,λ124.22675°. Principal axes: T 2.5296, Plg61.4080°, Azm55.9078°; N -0.1161, Plg12.5476°, Azm170.0090°; P -2.4135, Plg25.2404°, Azm266.0318°;*

*ISC-PP **01** 04:30:02,28°.03S×71°.27W,h8^{km},Mwppsm7.7,Moment Tensor Solution. s34 Moment tensor: Scale 10^{20}Nm; M_{rr}-0.35±.11; $M_{\theta\theta}$0.67±.22; $M_{\phi\phi}$-0.29±.17; $M_{r\theta}$0.17±.35; $M_{\theta\phi}$-0.29±.19; $M_{\phi r}$0.26±.21; Fault plane solution: $M_0$4.57000×10^{20} NP1:ϕ_s40.30000°,δ55.60000°, λ211.70000°. NP2:ϕ_s291.10000°,δ64.30000°, λ-38.80000°.*

*GUC **01** 04:30:02.8±0.8,28°.07S×71°.21W,h36^{km}±7^{km},ML6.1*

*NEIC **01** 04:30:02.2±1.8,28°.03S±0°.03×71°.27W±0°.06,h16^{km}±3^{km}, mb6.1/415,Ms_20 6.3/14,Mwr6.0/58,Mww6.3/29, Mww6.1(GUC),Error ellipse: s-maj=7.0km s-min=3.8km az=91.0,Moment Tensor Solution. Moment tensor: Scale 10^{18}Nm; M_{rr}0.65; $M_{\theta\theta}$0.15; $M_{\phi\phi}$-0.79; $M_{r\theta}$0.42; $M_{\theta\phi}$-0.04; $M_{\phi r}$-1.17; Fault plane solution: $M_0$1.44000×10^{18} NP1: ϕ_s162.94000°,δ75.86000°,λ77.83000°. NP2:ϕ_s24.39000°, δ18.57000°,λ129.94000°. Principal axes: T 1.4158, Plg57.0000°, Azm57.0000°; N 0.0486, Plg12.0000°, Azm166.0000°; P -1.4644, Plg30.0000°, Azm263.0000°;*

*NEIC **01** 04:30:02.4,28°.04S×71°.28W,h18^{km}*

*BJI **01** 04:30:02.7,28°.05S×71°.40W,h10^{km},mB6.5/15,Ms6.8/44, Ms7 6.7/22*

*MOS **01** 04:30:03.4±1.2,27°.97S×71°.02W,h28^{km},mb5.9/23, MS6.3/4,Error ellipse: s-maj=13.0km s-min=6.7km az=101.2*

*GCMT **01** 04:30:10.2±0.1,28°.05S±0°.01×71°.37W±0°.01,h38^{km}, MW6.3/163,Moment Tensor Solution. s87,c127; s163,c481; Duration: 3^{s}4 Moment tensor: Scale 10^{18} Nm; M_{rr}2.58±.06; $M_{\theta\theta}$0.13±.04; $M_{\phi\phi}$-2.71±.04; $M_{r\theta}$0.85±.04; $M_{\theta\phi}$-0.24±.02; $M_{\phi r}$-1.93±.05; Best double couple: $M_0$3.39100×10^{18} NP1:ϕ_s21.00000°,δ30.00000°, λ119.00000°. NP2:ϕ_s168.00000°,δ65.00000°,λ74.00000°. Principal axes: T 3.4430, Plg67.0000°, Azm49.0000°; N -0.1000, Plg14.0000°, Azm175.0000°; P -3.3400, Plg18.0000°, Azm269.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s. Triangular moment-rate function*

*NEIC **01** 04:30:11.8,28°.04S×71°.17W,h18^{km},Moment Tensor Solution. Duration: 7^{s}3 Moment tensor: Scale 10^{18}Nm; M_{rr}0.53; $M_{\theta\theta}$0.10; $M_{\phi\phi}$-0.63; $M_{r\theta}$1.37; $M_{\theta\phi}$-0.01; $M_{\phi r}$-3.54; Fault plane solution: $M_0$3.84000×10^{18} NP1:ϕ_s21.96000°, δ5.45000°,λ132.77000°. NP2:ϕ_s159.07000°,δ86.00000°, λ86.30000°. Principal axes: T 3.8409, Plg49.0000°, Azm65.0000°; N -0.0019, Plg4.0000°, Azm159.0000°; P -3.8389, Plg41.0000°, Azm253.0000°;*

ISC 01 04:30:03.4±0.5,28°.05S±0°.02×71°.12W±0°.03,h23^{km}±3^{km}, h23^{km}:pP-P,n1065,σ1^{s}56/957,mb6.0/306,MS6.3/41, 47C-16D,Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	**Llanos de Chal**	**0.16**	**166**	*e*P	**Pb**	**04 30 09.5**	**+1.2**
AC04	**Llanos de Chal**	**0.16**	**166**	*e*P	**Pb**	**04 30 09.6**	**+1.2**
AC04	**Llanos de Chal**	**0.16**	**166**		**Pb**	**04 30 09.4**	**+1.0**
AC04	**Llanos de Chal**	**0.16**	**166**	P	**Pb**	**04 30 09.7**	**+1.3**
AC04	**Llanos de Chal**	**0.16**	**166**	P	**Pb**	**04 30 09.7**	**+1.3**
GO03	**Copiapo**	**0.90**	**60**	*e*P	**Pn**	**04 30 21.9**	**+1.2**
GO03				*e*S	**Sn**	**04 30 36.5**	**+3.4**
GO03				IAML		04 30 39.0	
	comp=Z,405µm,0.5s						
GO03	**Copiapo**	**0.90**	**60**	*e*P	**Pn**	**04 30 21.8**	**+1.1**
GO03				*e*S	**Sn**	**04 30 35.9**	**+2.8**
GO03				IAML		04 30 39.8	
	comp=N,489µm,0.6s						
GO03	**Copiapo**	**0.90**	**60**	Pn	**Pn**	**04 30 21.6**	**+0.9**
GO03				Sn	**Sn**	**04 30 35.6**	**+2.5**
GO03	**Copiapo**	**0.90**	**60**	P	**Pn**	**04 30 21.6**	**+0.9**
GO03				S	**Sn**	**04 30 38.6**	**+5.5**
GO03	**Copiapo**	**0.90**	**60**	P	**Pn**	**04 30 21.6**	**+0.9**
AC06	**Mina Casimiro**	**0.97**	**44**	*e*P	**Pn**	**04 30 22.4**	**+0.8**
AC06				*e*S	**Sn**	**04 30 36.8**	**+2.2**
AC06				IAML		04 30 40.6	
	comp=E,709µm,0.4s						
LCO	**Las Campanas**	**1.02**	**159**	*e*P	**Pb**	**04 30 22.7**	**+0.1**
LCO				IAML		04 30 47.6	
	comp=Z,484µm,0.8s						
LCO	**Las Campanas**	**1.02**	**159**	P	**Pn**	**04 30 22.9**	**+0.3**
LCO	**Las Campanas**	**1.02**	**159**	⇓*i*P	**Pb**	**04 30 22.4**	**-0.2**
LCO	**Las Campanas**	**1.02**	**159**	Pn	**Pb**	**04 30 22.7**	**+0.1**
LCO				Sn	**Sb**	**04 30 36.0**	**+0.3**
AC05	**El Transito**	**1.08**	**137**	*e*P	**Pb**	**04 30 24.3**	**+0.8**
AC05				IAML		04 30 48.3	
	comp=Z,155µm,0.8s						
AC05	**El Transito**	**1.08**	**137**	⇓*i*P	**Pb**	**04 30 23.9**	**+0.5**
AC05				IAML		04 30 44.4	
	comp=N,228µm,0.5s						
AC05	**El Transito**	**1.08**	**137**	Pn	**Pb**	**04 30 23.8**	**+0.4**
AC05				Sn	**Sn**	**04 30 38.2**	**+0.7**
AC05	**El Transito**	**1.08**	**137**	P	**Pb**	**04 30 24.0**	**+0.6**
AC01	**Pan de Azucar**	**1.95**	**14**	*e*P	**Pn**	**04 30 35.0**	**-0.1**
AC01				IAML		04 31 11.2	
	comp=Z,74µm,1.1s						
AC01	**Pan de Azucar**	**1.95**	**14**	*e*P	**Pn**	**04 30 35.1**	**-0.1**
AC01				IAML		04 31 12.8	
	comp=E,81µm,0.2s						
AC01	**Pan de Azucar**	**1.95**	**14**	Pn	**Pn**	**04 30 35.0**	**-0.1**
AC01				Sn	**Sn**	**04 30 57.2**	**-1.8**
AC01	**Pan de Azucar**	**1.95**	**14**	P	**Pn**	**04 30 34.0**	**-1.1**
AC01	**Pan de Azucar**	**1.95**	**14**	P	**Pn**	**04 30 35.0**	**-0.1**
CO01	**Juntas del Tor**	**2.12**	**155**	*e*P	**Pb**	**04 30 40.5**	**-0.7**
CO01				*e*S	**Sb**	**04 31 08.9**	**+1.7**
CO01				IAML		04 31 12.2	
	comp=Z,102µm,1.8s						
CO01	**Juntas del Tor**	**2.12**	**155**	*e*P	**Pb**	**04 30 40.4**	**-0.9**
CO01				*e*S	**Sb**	**04 31 07.4**	**+0.2**
CO01				IAML		04 31 17.7	
	comp=N,238µm,0.8s						
CO01	**Juntas del Tor**	**2.12**	**155**	Pn	**Pn**	**04 30 39.4**	**+1.8**
CO01	**Juntas del Tor**	**2.12**	**155**	P	**Pb**	**04 30 40.4**	**-0.9**
GO04	**Tololo Observa**	**2.13**	**173**	*e*P	**Pn**	**04 30 39.5**	**+1.6**
GO04				*e*S	**Sb**	**04 31 08.8**	**+1.3**
GO04				IAML		04 31 12.9	
	comp=Z,135µm,1.1s						
GO04	**Tololo Observa**	**2.13**	**173**	⇓*i*P	**Pn**	**04 30 39.0**	**+1.2**
GO04				IAML		04 31 15.3	
	comp=N,737µm,0.6s						
GO04	**Tololo Observa**	**2.13**	**173**	Pn	**Pn**	**04 30 38.9**	**+1.0**
GO04	**Tololo Observa**	**2.13**	**173**	P	**Pn**	**04 30 39.2**	**+1.4**
GO04	**Tololo Observa**	**2.13**	**173**	P	**Pn**	**04 30 39.3**	**+1.4**
AC02	**Maricunga**	**2.14**	**56**	*e*P	**Pb**	**04 30 41.6**	**-0.1**
AC02				*e*S	**Sb**	**04 31 12.8**	**+4.7**
AC02				IAML		04 31 15.7	
	comp=Z,135µm,0.8s						
AC02	**Maricunga**	**2.14**	**56**	⇑*e*P	**Pb**	**04 30 41.8**	**+0.1**
AC02				IAML		04 31 17.5	
	comp=E,224µm,0.5s						
AC02	**Maricunga**	**2.14**	**56**	Pn	**Pb**	**04 30 40.9**	**-0.9**
AC02	**Maricunga**	**2.14**	**56**	P	**Pb**	**04 30 41.4**	**-0.4**
AROD	**Rodeo**	**2.55**	**146**	*e*P	**Pb**	**04 30 47.9**	**-0.8**
CO06	**Fray Jorge**	**2.65**	**190**	*e*P	**Pn**	**04 30 44.9**	**+0.2**
CO06				IAML		04 31 34.4	
	comp=E,69µm,0.9s						
CO06	**Fray Jorge**	**2.65**	**190**	Pn	**Pn**	**04 30 44.2**	**-0.5**
VCA	**Vinchina**	**2.65**	**106**	*e*P	**Pb**	**04 30 51.0**	**+0.7**
VCA				*e*S	Sb	04 31 32.4	+10
VCA				IAML		04 31 36.6	
	comp=Z,85µm,1.1s						
VCA	**Vinchina**	**2.65**	**106**	*e*P	**Pb**	**04 30 50.1**	**-0.2**
ACDV	**Cuesta del Vie**	**2.74**	**141**	*e*P	**Pb**	**04 30 50.9**	**-0.9**
ACDV				*e*S	Sb	04 31 36.5	+11
ACDV				IAML		04 31 39.0	
	comp=Z,50µm,1.4s						
CO03	**El Pedregal**	**2.80**	**172**	*e*P	**Pn**	**04 30 48.5**	**+1.6**
CO03				*e*S	**Sb**	**04 31 25.4**	**-1.3**
CO03				IAML		04 31 41.1	
	comp=Z,44µm,0.5s						
CO03	**El Pedregal**	**2.80**	**172**	*e*P	**Pn**	**04 30 48.3**	**+1.4**
CO03				IAML		04 31 35.6	
	comp=N,79µm,0.6s						
CO03	**El Pedregal**	**2.80**	**172**	Pn	**Pn**	**04 30 48.6**	**+1.6**
CO03	**El Pedregal**	**2.80**	**172**	P	**Pn**	**04 30 49.0**	**+2.1**
ACCO	**Cerro Coronel**	**3.10**	**145**	*e*P	**Pb**	**04 30 56.7**	**-1.2**
ACCO				*e*S	**Sb**	**04 31 40.8**	**+5.4**
ACCO				IAML		04 31 46.2	
	comp=Z,44µm,1.0s						
TINO	**Tinogasta**	**3.13**	**91**	*e*P	**Pb**	**04 30 55.9**	**-2.6**

TINO				IAML		04 31 52.8	
	comp=Z,51µm,1.9s						
CO02	Combarbal	3.14	178	eP	Pn	04 30 52.3	+0.7
CO02				eS	Sb	04 31 34.6	-2.0
CO02				IAML		04 31 44.9	
	comp=Z,128µm,0.6s						
CO02	Combarbal	3.14	178	eP	Pn	04 30 52.2	+0.7
CO02				IAML		04 31 45.9	
	comp=E,267µm,0.5s						
CO02	Combarbal	3.14	178	Pn	Pn	04 30 52.9	+1.3
CO02	Combarbal	3.14	178	P	Pn	04 30 52.7	+1.1
CO02	Combarbal	3.14	178	P	Pn	04 30 53.1	+1.5
PB14	IPOC Station P	3.47	11	P	Pn	04 30 55.5	-0.8
PB14	IPOC Station P	3.47	11	eP	Pn	04 30 56.0	-0.3
PB14				eS	Sb	04 31 51.5	+5.3
PB14				IAML		04 32 01.0	
	comp=Z,38µm,0.6s						
PB14	IPOC Station P	3.47	11	i P	Pn	04 30 57.1	+0.8
PB14				IAML		04 32 04.7	
	comp=E,20µm,0.6s						
PB14	IPOC Station P	3.47	11	Pn	Pn	04 30 55.2	-1.1
PB14	IPOC Station P	3.47	11	P	Pn	04 30 55.4	-0.8
ACLC	CERRO LA CRUZ	3.90	112	eP	Pn	04 31 06.6	+4.5
ACLC				eS	Sb	04 31 56.9	-1.6
ACLC				IAML		04 32 01.7	
	comp=Z,18µm,1.4s						
CO04	Los Peladeros	3.98	178	eP	Pn	04 31 04.2	+1.0
CO04				IAML		04 32 13.2	
	comp=E,44µm,0.6s						
CO04	Los Peladeros	3.98	178	Pn	Pn	04 31 03.5	+0.3
CO04	Los Peladeros	3.98	178	P	Pn	04 31 05.1	+1.8
RTLL	Cerro Villicun	3.99	146	eP	Pn	04 31 07.8	+4.5
RTLL				eS	Sb	04 31 59.4	-1.6
RTLL				IAML		04 32 17.8	
	comp=Z,63µm,1.7s						
RTLS	Leoncito	4.05	158	eP	Pn	04 31 09.3	+5.0
RTLS				eS	Sb	04 32 08.6	+5.6
RTLS				IAML		04 32 28.2	
	comp=Z,111µm,2.5s						
ZON	Zonda	4.08	149	eP	Pn	04 31 08.4	+4.0
ZON				eS	Sb	04 32 02.7	-0.7
ZON				IAML		04 32 22.0	
	comp=Z,31µm,4.1s						
ZON	Zonda	4.08	149	P	Pn	04 31 05.6	+1.2
ZON	Zonda	4.08	149	Pn	Pn	04 31 05.6	+1.2
ZON	Zonda	4.08	149	P	Pn	04 31 08.4	+4.0
ZON	Zonda	4.08	149	P	Pn	04 31 08.8	+4.5
SJA	San Juan	4.12	148	eP	Pn	04 31 09.4	+4.5
SJA				eS	Sb	04 32 12.8	+8.3
SJA				IAML		04 32 33.0	
	comp=Z,48µm,2.0s						
CFA	Coronel Fontan	4.33	145	Pn	Pn	04 31 11.6	+3.7
	comp=Z,113nm,0.3s,baz=292,slow=11,SNR=63						
CFA				Lg	Lg	04 32 04.9	
	comp=Z,529nm,0.3s,baz=75,slow=20,SNR=4.5						
CFA				LR	LR	04 33 09.6	
	comp=Z,144µm,18.1s,baz=325,slow=45						
CFA	Coronel Fontan	4.33	145	eP	Pn	04 31 12.0	+4.1
CFA				eS	Sb	04 32 06.2	-4.5
CFA				IAML		04 32 22.0	
	comp=Z,29µm,0.9s						
CYA	Choya	4.70	96	eP	Pn	04 31 16.8	+3.8
CYA				eS	Sb	04 32 17.7	-3.7
CYA				IAML		04 32 20.4	
	comp=Z,17µm,0.9s						
CYA	Choya	4.70	96	eP	Pn	04 31 16.1	+3.1
VA03	San Esteban	4.72	174	eP	Pn	04 31 15.3	+2.0
VA03				eS	Sb	04 32 22.8	+0.8
VA03				IAML		04 32 41.5	
	comp=Z,31µm,1.0s						
VA03	San Esteban	4.72	174	eP	Pn	04 31 15.4	+2.1
VA03	San Esteban	4.72	174	P	Pn	04 31 15.7	+2.4
VA01	Torpederas	4.98	185	eP	Pn	04 31 15.9	-0.8
VA01				IAML		04 32 42.9	
	comp=Z,24µm,1.5s						
VA01	Torpederas	4.98	185	Pn	Pn	04 31 15.5	-1.1
VA01	Torpederas	4.98	185	P	Pn	04 31 15.9	-0.8
VA01	Torpederas	4.98	185	P	Pn	04 31 16.1	-0.5
	comp=Z,4µm,0.7s						
PEL	Peldehue	5.09	176	P	Pn	04 31 18.3	0.0
PEL	Peldehue	5.09	176	Pn	Pn	04 31 18.3	0.0
PEL	Peldehue	5.09	176	P	Pn	04 31 20.0	+1.8
PEL	Peldehue	5.09	176	P	Pn	04 31 20.1	+1.8
	comp=Z,5µm,0.9s						
MT02	Curacav	5.19	180	Pn	Pn	04 31 20.0	+0.3
PB05	IPOC Station P	5.24	9	Pn	Pn	04 31 18.1	-2.4
PB05	IPOC Station P	5.24	9	P	Pn	04 31 18.6	-1.9
	comp=Z,3µm,0.8s						
AHML	Horco Molle	5.29	78	⇑eP	Pn	04 31 21.0	-0.1
MT05	Renca	5.33	177	Pn	Pn	04 31 22.9	+1.2
MT16	CCHEN	5.38	175	Pn	Pn	04 31 23.0	+0.7
PB06	IPOC Station P	5.50	15	P	Pn	04 31 22.7	-1.4
PB06	IPOC Station P	5.50	15	P	Pn	04 31 22.8	-1.4
	comp=Z,5µm,1.4s						
AF01	San Pedro de A	5.73	28	eP	Pn	04 31 28.5	+1.2
PB03	IPOC Station P	6.10	12	Pn	Pn	04 31 31.1	-1.3
PB03	IPOC Station P	6.10	12	P	Pn	04 31 30.3	-2.1
	comp=Z,2µm,0.9s						
BO01	Tunca	6.32	180	P	Pn	04 31 36.9	+1.7
	comp=Z,2µm,0.8s						
PB07	IPOC Station P	6.40	10	P	Pn	04 31 34.4	-2.0
	comp=Z,2µm,0.7s						
PB09	IPOC Station P	6.46	16	P	Pn	04 31 37.8	+0.6
	comp=Z,4µm,1.3s						
BO03	Pichilemu	6.46	186	P	Pn	04 31 35.5	-1.6
	comp=Z,1µm,0.8s						
TCA	Tanti	6.55	122	eP	Pn	04 31 39.5	+1.1
BO02	Sierra Bellavi	6.73	178	P	Pn	04 31 40.8	0.0
	comp=Z,2µm,0.7s						
PB02	IPOC Station P	6.79	10	P	Pn	04 31 39.0	-2.8
PB02	IPOC Station P	6.79	10	P	Pn	04 31 40.1	-1.7
	comp=Z,2µm,0.7s						
GO05	Hualane	6.97	186	P	Pn	04 31 42.4	-1.7
GO05	Hualane	6.97	186	P	Pn	04 31 42.4	-1.7
	comp=Z,2µm,0.8s						
TA01	Diego Aracena	7.50	7	P	Pn	04 31 49.8	-1.6
	comp=Z,1µm,1.2s						
ML02	Panimavida	7.69	182	P	Pn	04 31 56.4	+2.4
	comp=Z,2µm,0.7s						
PB08	IPOC Station P	8.08	13	P	Pn	04 31 58.7	-1.0
PB08	IPOC Station P	8.08	13	P	Pn	04 31 58.8	-0.8
PB08	IPOC Station P	8.08	13	P	Pn	04 31 58.9	-0.8
	comp=Z,978nm,1.2s						
PB11	IPOC Station P	8.36	9	Pn	Pn	04 32 00.8	-2.6
PB11	IPOC Station P	8.36	9	P	Pn	04 32 01.2	-2.2
	comp=Z,1µm,1.4s						
PSGCX	Pisagua	8.46	6	P	Pn	04 32 02.9	-1.8
PSGCX	Pisagua	8.46	6	P	Pn	04 32 01.8	-2.9
	comp=Z,581nm,1.0s						
GO01	Chusmiza	8.53	12	P	Pn	04 32 05.1	-0.8
GO01	Chusmiza	8.53	12	P	Pn	04 32 05.2	-0.8
	comp=Z,715nm,0.6s						
BI02	San Fabin de	8.59	181	P	Pn	04 32 05.9	-0.5
	comp=Z,1µm,0.8s						
H03N1	Juan Fernandez	8.59	229	T	T	04 40 45.4	
	baz=55,slow=74,SNR=708						
H03N2	Juan Fernandez	8.61	229	T	T	04 40 42.9	
	baz=206,slow=74,SNR=882						
VA04	Juan Fernndez	8.66	228		Pn	04 32 04.0	-3.3
VA04	Juan Fernndez	8.66	228	P	Pn	04 32 04.7	-2.5
VA04	Juan Fernndez	8.66	228	P	Pn	04 32 04.8	-2.5
H03S3	Juan Fernandez	8.82	227	Pn	Pn	04 32 04.8	-4.5
	baz=33,slow=20						
H03S3				Sn	Sn	04 33 37.3	-11
	baz=44,slow=15						
H03S1	Juan Fernandez	8.83	227	Pn	Pn	04 32 04.9	-4.5
	baz=33,slow=20						
H03S1				Sn	Sn	04 33 37.4	-11
	baz=44,slow=15						
H03S2	Juan Fernandez	8.84	227	Pn	Pn	04 32 05.3	-4.2
	baz=33,slow=20						
H03S2				Sn	Sn	04 33 37.9	-10
	baz=44,slow=15						
BI05	Punta Hualpn	8.85	191	P	Pn	04 32 07.8	-2.0
PB12	IPOC Station P	9.42	5	P	Pn	04 32 15.9	-2.0
	comp=Z,364nm,1.4s						
PB16	IPOC Station P	9.78	9	P	Pn	04 32 25.1	+1.8
	comp=Z,546nm,0.9s						
PB18	Visviri	10.52	9	Pn	Pn	04 32 32.8	-0.5
PB18	Visviri	10.52	9	P	Pn	04 32 35.6	+2.3
	comp=Z,764nm,0.8s						
GO06	Curarrehue	11.51	181	Pn	Pn	04 32 45.6	-0.7
LPAZ	La Paz	12.03	14	Pn	Pn	04 32 52.6	-1.4
	comp=Z,22nm,0.3s,baz=190,slow=6.7,SNR=93						
LPAZ				LR	LR	04 38 03.5	
	comp=Z,118µm,18.9s,baz=178,slow=40						
	comp=Z,68nm,0.4s						
LPAZ				AML	AML		
LPAZ	La Paz	12.03	14	eP	Pn	04 32 52.4	-1.7
LPAZ	La Paz	12.03	14	P	Pn	04 32 53.8	-0.3
	comp=Z,237nm,0.8s						
PSAL	Palomas, Salto	12.14	108	eP	Pn	04 32 55.5	+0.6
PSAL				eS	Sn	04 35 11.0	+1.4
CPUP	Villa Florida	12.39	85	Pn	Pn	04 32 58.8	+0.4
	comp=Z,5.0nm,0.3s,baz=263,slow=12,SNR=33						
CPUP				Sn	Sn	04 35 10.4	-5.4
	comp=Z,0.9nm,0.3s,baz=315,slow=20,SNR=1.6						
CPUP				LR	LR	04 38 16.6	
	comp=Z,190µm,18.1s,baz=264,slow=41						
CPUP	Villa Florida	12.39	85	P	Pn	04 32 58.3	-0.1
CPUP	Villa Florida	12.39	85	Pn	Pn	04 32 58.3	-0.1
CPUP	Villa Florida	12.39	85	eP	Pn	04 32 58.5	+0.1
CPUP	Villa Florida	12.39	85	P	Pn	04 32 59.1	+0.7
	comp=Z,315nm,0.9s						
PLCA	Paso Flores	12.66	178	Pn	Pn	04 33 01.0	-1.0
	comp=Z,0.7nm,0.3s,baz=337,slow=12,SNR=13						
PLCA				Sn	Sn	04 35 24.4	+2.1
	comp=Z,1.9nm,0.3s,baz=334,slow=17,SNR=3.2						
PLCA				Lg	Lg	04 36 18.8	
	comp=Z,1.5nm,0.3s,baz=226,slow=21,SNR=3.9						
PLCA				LR	LR	04 38 16.3	
	comp=Z,139µm,20.0s,baz=356,slow=39						
	comp=Z,5.4nm,0.6s						
PLCA				AML	AML		
PLCA	Paso Flores	12.66	178	eP	Pn	04 32 58.5	-3.6
ANCO	Parque Anchore	12.85	122	eP	Pn	04 33 04.7	+0.1
ANCO				epP	P	04 33 09.2	-6.1
LL03	Petrohue	13.10	184	P	Pn	04 33 11.2	+3.2
	comp=Z,666nm,0.8s						
LL05	Los Muermos	13.46	188	P	Pn	04 33 16.9	+4.0
	comp=Z,286nm,1.0s						
SJPY	San Joaquin	13.78	81	eP	Pn	04 33 18.5	+1.2
MURT	Porto Murtinho	13.81	66	eP	Pn	04 33 16.8	-1.0
COIM	Forte Coimbra	14.62	59	eP	Pn	04 33 29.1	+0.3
LL07	Hotel Espejo d	14.87	187	Pn	Pn	04 33 29.9	-2.2
LL07	Hotel Espejo d	14.87	187	P	P	04 33 36.5	-1.2
	comp=Z,717nm,1.1s						
LL02	Futaleuf	15.12	182	Pn	Pn	04 33 33.9	-1.6
LL02	Futaleuf	15.12	182	P	Pn	04 33 35.5	+0.1
	comp=Z,64nm,0.8s						
BDQN	Bodoquena, MS	15.12	63	eP	Pn	04 33 35.4	-0.2
GO07	Milladeo Hill,	15.17	187	P	Pn	04 33 36.5	+0.4
	comp=Z,319nm,0.9s						
SIV	San Ignacio	15.18	40	Pn	Pn	04 33 30.2	-6.3
	comp=Z,0.9nm,0.3s,baz=226,slow=10,SNR=61						
SIV				LR	LR	04 38 33.8	
	comp=Z,13µm,18.0s,baz=220,slow=34						
	comp=Z,28nm,0.4s						
SIV				AML	AML		
CPSB	Cacapava Do Su	15.61	103	Pn	Pn	04 33 41.5	-0.5
CPSB	Cacapava Do Su	15.61	103	eP	Pn	04 33 39.6	-2.3
CPSB	Cacapava Do Su	15.61	103	P	Pn	04 33 42.9	+0.9
	comp=Z,586nm,1.0s						
AQDB	Aquidauana	15.94	65	Pn	Pn	04 33 46.0	-0.3
AQDB	Aquidauana	15.94	65	eP	Pn	04 33 46.7	+0.4
AQDB	Aquidauana	15.94	65	P	P	04 33 49.8	0.0
	comp=Z,397nm,1.3s						
PTLB	Pontes e Lacer	16.75	44	Pn	Pn	04 33 55.3	-1.3
PTLB	Pontes e Lacer	16.75	44	eP	P	04 33 57.9	-0.8
NNA	Nana	16.86	340	Pn	Pn	04 33 58.1	+0.1
	comp=Z,0.6nm,0.3s,baz=189,slow=13,SNR=4.1						
NNA				Lg	Lg	04 38 50.8	
	comp=Z,1.0nm,0.3s,baz=226,slow=19,SNR=3.6						
NNA				LR	LR	04 39 05.6	
	comp=Z,54µm,20.1s,baz=164,slow=32						
NNA	Nana	16.86	340	P	Pn	04 33 56.8	-1.2
NNA				pmax	pmax		
	comp=Z,144nm,1.4s						
NNA	Nana	16.86	340	Pn	Pn	04 33 56.8	-1.2
NNA	Nana	16.86	340	P	P	04 33 59.5	-0.5
	comp=Z,232nm,1.5s						
PTGB	Pitanga	17.39	83	eP	P	04 34 05.5	-0.4
TRCB	Terra Rica	17.49	77	eP	P	04 34 07.1	+0.1
COYC	Coyhaique	17.50	182	P	P	04 34 07.8	+0.9
	comp=Z,414nm,1.2s						
VILB	Vilhena	18.15	36		Pn	04 34 13.1	-1.0
VILB	Vilhena	18.15	36	eP	Pn	04 34 13.0	-1.0
PP1B	Ponte de Pedra	18.20	59	eP	P	04 34 15.6	+0.7
LDASE	Londrina, Braz	18.60	80	eP	Pn	04 34 20.0	+0.4
LDASE				eS	S	04 37 50.8	+0.8
SALV	Santo Antonio	18.70	53	eP	P	04 34 19.7	-0.6
C2SB	Chapadao do Su	19.13	65	eP	Pn	04 34 27.2	+1.3
C2SB	Chapadao do Su	19.13	65	P	Pn	04 34 27.5	+1.6
	comp=Z,3µm,2.8s						
FRTB	Fartura	19.97	81	eP	P	04 34 34.8	+0.6
FRTB	Fartura	19.97	81	P	Pn	04 34 35.4	-0.6
	comp=Z,3µm,1.2s						
CZSB	Cruzeiro do Su	20.27	355		P	04 34 36.3	-1.2
CZSB				IAmb	IAmb	04 34 52.8	
	comp=Z,1µm,1.3s						
CZSB	Cruzeiro do Su	20.27	355	eP	P	04 34 36.4	-1.0
GO08	Villa O’Higgin	20.41	183	P	P	04 34 38.3	-0.4
GO08	Villa O’Higgin	20.41	183	P	Pn	04 34 41.8	+0.9
	comp=Z,292nm,1.5s						
BB19B	Bebedouro	21.67	76	eP	P	04 34 52.1	-0.5
ARAG	Araguaiana, MT	21.68	60	eP	P	04 34 52.2	-0.5
PET01	Itanhaem-SP	21.71	86	eP	P	04 34 53.0	0.0
SPB	Sao Paulo	21.77	84	P	P	04 34 53.4	-0.2
SPB				IAmb	IAmb	04 35 09.0	
	comp=Z,1µm,1.1s						
SPB				IAMs_20	IAMs_20	04 43 54.2	
	comp=Z,125µm,20.0s						
SPB	Sao Paulo	21.77	84	eP	P	04 34 54.2	+0.6
SPB	Sao Paulo	21.77	84	P	P	04 34 54.1	+0.6
	comp=Z,1µm,1.3s						
ATAH	Atahualpa	21.92	340	P	P	04 34 58.0	+2.4
	comp=Z,62nm,1.0s,baz=168,slow=7.0,SNR=16						
ATAH				S	S	04 39 00.9	+3.9
	comp=Z,10nm,0.7s,baz=149,slow=18,SNR=1.6						
ATAH				Lg	Lg	04 41 29.6	
	comp=Z,0.2nm,0.3s,baz=294,slow=18,SNR=3.1						
ATAH				LR	LR	04 42 57.5	
	comp=Z,16µm,20.8s,baz=222,slow=35						
RCLB	Rio Claro- Sao	22.04	81	eP	P	04 34 56.1	-0.5
CLDB	Colider	22.33	43	eP	P	04 34 58.8	-0.9
CLDB	Colider	22.33	43	P	P	04 35 01.0	+1.4
	comp=Z,781nm,1.2s						
IPMB	Ipameri, GO	23.30	69	eP	P	04 35 08.6	-1.2
CANS	Sao Roque de M	23.81	77	eP	P	04 35 14.1	-0.7
SNDB	Serra Nova Dou	24.49	53	eP	P	04 35 19.2	-1.8
PMNB	Patos De Minas	24.52	73	eP	P	04 35 20.3	-1.1
PMNB	Patos De Minas	24.52	73	P	P	04 35 21.6	+0.1
	comp=Z,1µm,1.6s						
BDFB	Brasilia	24.69	65	P	P	04 35 22.2	-0.8
	comp=Z,361nm,1.0s,baz=222,slow=7.9,SNR=54						
BDFB				LR	LR	04 46 37.3	
	comp=Z,113µm,19.4s,baz=233,slow=41						
	comp=Z,361nm,1.0s						
BDFB	Brasilia	24.69	65	P	P	04 35 22.8	-0.2
BDFB				pmax	pmax		
	comp=Z,675nm,1.1s						
BDFB	Brasilia	24.69	65	P	P	04 35 22.8	-0.2
BDFB				IAmb	IAmb	04 35 26.8	
	comp=Z,675nm,1.1s						
BSCB	Bom Sucesso	24.94	79	eP	P	04 35 26.4	+1.2
MCRA	Macar, Loja	25.01	339	P	P	04 35 24.8	-1.0
	comp=Z,167nm,1.6s						
GO10	Punta Arenas	25.08	180	P	P	04 35 29.2	+3.2
	comp=Z,574nm,1.6s						
TEFE	Tefe	25.18	15	eP	P	04 35 27.1	-0.1
EFI	East Falkland	25.55	161	⇑iP	P	04 35 30.9	+0.6
EFI				pmax	pmax		
	comp=Z,158nm,1.0s						
EFI	East Falkland	25.55	161	P	P	04 35 28.4	-1.9
EFI				IAmb	IAmb	04 36 02.7	
	comp=Z,377nm,1.1s						
EFI	East Falkland	25.55	161	P	P	04 35 29.1	-1.2
	comp=Z,322nm,0.9s						
MACA	Manacapuru-AM	26.68	24	P	P	04 35 40.0	-0.8
MACA				IAmb	IAmb	04 35 43.5	
	comp=Z,597nm,1.2s						
MACA	Manacapuru-AM	26.68	24	eP	P	04 35 40.5	-0.3
USHA	Ushuaia	26.83	177	LR	LR	04 46 46.4	
	comp=Z,83µm,19.1s,baz=3.5,slow=38						
DIAM	Diamantina, MG	26.98	75	eP	P	04 35 44.3	+0.6
CAM01	Campos-RJ	27.38	84	eP	P	04 35 48.8	+1.7
MC01	Montes Claros	27.48	72	eP	P	04 35 47.1	-1.1
ITTB	Itaituba	27.73	35	eP	P	04 35 47.4	-2.9
PIAT	Ana Tenorio	27.76	345	P	P	04 35 52.3	+1.3
	comp=Z,154nm,1.4s						
JANB	Januaria	28.01	68	eP	P	04 35 52.8	-0.1
ALF01	Guarapari-ES	28.61	82	eP	P	04 35 58.9	+0.8
SJMB	Sao Joao De Ma	28.94	78	eP	P	04 36 01.6	+0.5
OTAV	Otavalo	29.00	345	P	P	04 36 04.2	+2.2
OTAV	Otavalo	29.00	345	P	P	04 36 04.5	+2.5
	comp=Z,93nm,2.7s						
OTAV	Otavalo	29.00	345	eP	P	04 36 05.1	+3.1
OTAV	Otavalo	29.00	345	P	P	04 36 05.4	+3.4
	comp=Z,93nm,2.7s						
SDBA	SAO DESIDERIO	29.01	63	eP	P	04 36 01.8	0.0
CUSE	Cuicocha Este	29.05	345	P	P	04 36 04.8	+2.3
	comp=Z,47nm,1.4s						
ARCA	Ara§uai, MG	29.09	74	eP	P	04 36 02.8	+0.4
BSFB	Barra de Sao F	29.18	78	eP	P	04 36 03.6	+0.4
BSFB	Barra de Sao F	29.18	78	P	P	04 36 03.6	+0.4
	comp=Z,597nm,1.5s						
SMTB	Santa Maria do	29.26	54	eP	P	04 36 02.7	-1.3
RIB01	Linhares ES	29.38	80	P	P	04 36 05.2	+0.2
RIB01	Linhares ES	29.38	80	eP	P	04 36 02.1	-2.9
CMBC	Cumbal	29.54	346	P	P	04 36 08.8	+1.9
BBAC	Balboa, Cauca	30.48	348	P	P	04 36 14.7	-0.2
	comp=Z,231nm,1.3s						
POPC	Popayan, Colom	30.88	349	P	P	04 36 19.0	+0.5
	comp=Z,94nm,1.7s						
GUA01	Guaratinga, BA	31.04	75	eP	P	04 36 20.0	+0.3
CMC01	Camacan, BA	31.85	73	eP	P	04 36 27.1	+0.2
BOAV	Boa Vista	31.94	20	P	P	04 36 27.0	-0.6
BOAV				IAmb	IAmb	04 36 30.7	
	comp=Z,227nm,1.0s						
BOAV	Boa Vista	31.94	20	P	P	04 36 25.3	-2.3
	comp=Z,223nm,1.4s						
BOAV	Boa Vista	31.94	20	eP	P	04 36 28.0	+0.5
ORTC	Ortega, Tolima	32.02	352	P	P	04 36 29.2	+0.9
	comp=Z,615nm,1.2s						
VILC	Villavicencio,	32.07	355	P	P	04 36 30.0	+1.1
NBIT	Itapeh - BA	32.13	73	eP	P	04 36 27.1	-2.2
ROSC	El Rosal	32.85	354	P	P	04 36 36.8	+0.9
	comp=Z,74nm,0.9s,baz=155,slow=6.4,SNR=23						
ROSC				LR	LR	04 49 48.8	
	comp=Z,30µm,21.0s,baz=70,slow=36						
	comp=Z,74nm,0.9s						
ROSC	El Rosal	32.85	354	IAmb	IAmb	04 36 51.0	
	comp=Z,299nm,1.2s						
NBPN	Ponto Novo - B	33.66	66	eP	P	04 36 40.0	-2.7
RPN	Rapa Nui	33.80	262	LR	LR	04 46 43.1	
	comp=Z,54µm,21.2s,baz=106,slow=30						
RPN	Rapa Nui	33.80	262	IAMs_20	IAMs_20	04 46 32.2	
	comp=Z,53µm,21.0s						
CBOC	Ciudad Bolivar	34.05	351	P	P	04 36 45.7	-0.5
	comp=Z,237nm,1.1s						
DBBC	Dabeiba	35.21	351	P	P	04 36 56.7	+0.6
PAMC	Pamplona, Colo	35.22	357	P	P	04 36 54.7	-1.9
PTAC	Punta Ardita,	35.59	349	P	P	04 36 59.4	+0.2
	comp=Z,133nm,1.0s						
UREC	San Jos de Ur	35.85	353	P	P	04 36 59.0	-2.5
	comp=Z,224nm,1.1s						
APAC	Apartado, Choc	36.13	351	P	P	04 37 04.1	+0.2
	comp=Z,197nm,1.4s						
HOPE	Hope Point	36.35	146	P	P	04 37 05.8	+0.4
HOPE				pmax	pmax		
	comp=Z,189nm,1.1s						
HOPE				MLR	MLR		
	comp=Z,64µm,19.0s						
HOPE	Hope Point	36.35	146	P	P	04 37 05.8	+0.4
HOPE	Hope Point	36.35	146	IAMs_20	IAMs_20	04 51 57.3	
	comp=Z,64µm,19.0s						
HOPE	Hope Point	36.35	146	P	P	04 37 07.2	+1.8
	comp=Z,208nm,2.9s						
NBTA	Tacaratu-PE	36.37	65	eP	P	04 37 05.8	-0.3
CACAO	El Cacao, Vera	36.43	344	P	P	04 37 06.5	+0.1
	comp=Z,133nm,1.0s						
SDV	Santo Domingo	36.72	1	P	P	04 37 08.4	-0.7
	comp=Z,45nm,0.9s,baz=279,slow=7.3,SNR=12						
	comp=Z,45nm,0.9s						
SDV	Santo Domingo	36.72	1	P	P	04 37 08.2	-1.0
SDV	Santo Domingo	36.72	1	P	P	04 37 08.9	-0.3
	comp=Z,787nm,1.2s						
SDV	Santo Domingo	36.72	1	P	P	04 37 10.6	+1.4
	comp=Z,780nm,1.1s						
NBPS	Pedro II - PI	36.74	56	eP	P	04 37 09.5	+0.2
NBMA	Muriti-CE	36.86	62	eP	P	04 37 10.5	+0.3
GMAL	Guarumal, Vera	36.92	343	P	P	04 37 12.8	+2.1
	comp=Z,137nm,1.0s						
PMSA	Palmer Station	37.01	175	LR	LR	04 52 14.4	
	comp=Z,61µm,19.6s,baz=350,slow=36						
PMSA	Palmer Station	37.01	175	P	P	04 37 10.4	-0.5
PMSA	Palmer Station	37.01	175	IAMs_20	IAMs_20	04 52 03.3	
	comp=Z,56µm,19.0s						
PMSA	Palmer Station	37.01	175	eP	P	04 37 11.2	+0.3
PMSA	Palmer Station	37.01	175	P	P	04 37 12.0	+1.1
	comp=Z,85nm,2.1s						
ORCD	Orcadas	37.21	159	P	P	04 37 11.8	-0.8
PNME	Penonome	37.40	345	P	P	04 37 17.1	+2.4
	comp=Z,164nm,1.1s						
MDP	Montagnes des	37.47	31	P	P	04 37 14.2	-1.1
	comp=Z,178nm,0.9s,baz=202,slow=9.1,SNR=28						
MDP				LR	LR	04 53 29.3	
	comp=Z,32µm,19.0s,baz=206,slow=38						
	comp=Z,178nm,0.9s						
SJCC	San Jacinto, C	37.93	353	P	P	04 37 18.7	-0.6
	comp=Z,567nm,1.3s						
BCIP	Isla Barro Col	37.95	346	P	P	04 37 19.8	+0.5
	comp=Z,293nm,1.7s						
BCIP	Isla Barro Col	37.95	346	P	P	04 37 21.5	+2.1
	comp=Z,299nm,1.7s						
BRU2	Volcan	38.30	341	P	P	04 37 25.2	+2.7
	comp=Z,184nm,1.6s						
NBMO	Morrinhos-CE	38.50	56	eP	P	04 37 25.1	+0.9
HDC	Heredia	39.87	340	eP	P	04 37 35.7	+0.1
HDC	Heredia	39.87	340	P	P	04 37 39.0	+3.4
	comp=Z,149nm,1.9s						
NBPV	Pedro Velho	40.17	64	eP	P	04 37 37.4	-0.6
JTS	Las Juntas de	40.40	339	P	P	04 37 40.6	+0.7
	comp=Z,42nm,0.9s,baz=142,slow=4.4,SNR=24						
	comp=Z,42nm,0.9s						
JTS	Las Juntas de	40.40	339	i P	P	04 37 39.9	0.0
JTS				pmax	pmax		
	comp=Z,192nm,1.9s						
JTS	Las Juntas de	40.40	339	P	P	04 37 39.5	-0.4
JTS	Las Juntas de	40.40	339	P	P	04 37 42.4	+2.5
	comp=Z,108nm,1.7s						
GRGR	Grenville	40.98	14	P	P	04 37 43.2	-1.4
GRGR				IAMs_20	IAMs_20	04 55 04.1	
	comp=Z,34µm,21.0s						
GRGR	Grenville	40.98	14	P	P	04 37 41.8	-2.9
	comp=Z,567nm,1.0s						
GRGR	Grenville	40.98	14	P	P	04 37 44.0	-0.7
	comp=Z,701nm,1.0s						
BOAB	BOACO BROADBA	42.66	339	P	P	04 37 59.1	+0.8
	comp=Z,136nm,2.2s						
CNGN	Cerro Negro	43.05	337	P	P	04 38 02.0	+0.5
	comp=Z,650nm,0.9s						
MPOM	Morne Pois Mar	43.40	15	P	P	04 38 02.3	-2.0
MPOM	Morne Pois Mar	43.40	15	P	P	04 38 02.9	-1.4
	comp=Z,512nm,1.1s						
BIM	Bigot	43.42	14	IAmb	IAmb	04 38 07.1	
	comp=Z,318nm,0.9s						
BIM	Bigot	43.42	14	P	P	04 38 03.7	-0.9
	comp=Z,394nm,1.1s						
ILAM	Ilet Lapin Mar	43.71	14	P	P	04 38 05.1	-1.7
ILAM				IAmb	IAmb	04 38 09.0	
	comp=Z,328nm,1.2s						
ILAM	Ilet Lapin Mar	43.71	14	P	P	04 38 05.5	-1.4
	comp=Z,264nm,1.2s						
SVN	Savane Anatole	43.72	14	P	P	04 38 08.2	+1.3
	comp=Z,203nm,1.4s						
TGUH	Tegucigalpa,Un	44.69	337	P	P	04 38 13.6	-1.3
TGUH				IAmb	IAmb	04 38 26.8	
	comp=Z,212nm,1.2s						
TGUH	Tegucigalpa,Un	44.69	337	P	P	04 38 13.6	-1.3
	comp=Z,177nm,1.4s						
TGUH	Tegucigalpa,Un	44.69	337	P	P	04 38 16.0	+1.1
	comp=Z,177nm,1.4s						
GDSD	La Dsirade Is	45.16	14	P	P	04 38 15.6	-2.9
	comp=Z,68nm,1.2s						
PCJ	Portland Cotta	45.90	352	i P	P	04 38 25.6	+1.4
MLPR	Magueyes Islan	45.92	5	IAmb	IAmb	04 38 27.1	
	comp=Z,220nm,0.9s						
CRPR	Cabo Rojo, PR	45.95	5	IAmb	IAmb	04 38 26.8	
	comp=Z,196nm,0.9s						
PDPR	Patillas Dam,	46.06	7	IAmb	IAmb	04 38 27.1	
	comp=Z,138nm,0.9s						
CELP	Cerrillos	46.06	6	IAmb	IAmb	04 38 28.2	
	comp=Z,267nm,1.0s						
SJG	San Juan	46.14	7	P	P	04 38 24.1	-2.0
	comp=Z,145nm,1.0s,baz=191,slow=4.1,SNR=18						

SJG				LR	LR	04 58 24.3	
	comp=Z,18µm,20.2s,baz=179,slow=37						
	comp=Z,145nm,1.0s						
SJG	San Juan	46.14	7	P	P	04 38 24.1	-2.0
SJG				IAmb	IAmb	04 38 27.7	
	comp=Z,130nm,0.9s						
SJG	San Juan	46.14	7	P	P	04 38 24.5	-1.7
	comp=Z,170nm,1.1s						
MCJ	Malvern	46.15	351	iP	P	04 38 27.1	+0.8
PRSN	Puerto Rico Se	46.16	5	IAmb	IAmb	04 38 28.3	
	comp=Z,183nm,1.0s						
GWJ	Greenwich	46.17	353	⇑iP	P	04 38 27.2	+0.6
GWJ				⇑iP	P	04 38 27.2	+0.6
STH	Stony Hill	46.19	352	iP	P	04 38 27.8	+1.2
STH				iP	P	04 38 28.1	+1.6
AOPR	Arecibo Observ	46.32	6	IAmb	IAmb	04 38 29.2	
	comp=Z,153nm,1.1s						
ANWB	Willy Bob	46.34	12	P	P	04 38 26.7	-1.0
	comp=Z,212nm,1.1s						
CVJ	Coleyville	46.42	352	⇑iP	P	04 38 29.2	+0.7
SMRT	St. Maarten	46.49	11	P	P	04 38 26.3	-2.5
SDDR	Presa de Saban	46.76	360	P	P	04 38 30.1	-0.9
SDDR				IAmb	IAmb	04 38 57.2	
	comp=Z,154nm,1.2s						
SDDR	Presa de Saban	46.76	360	P	P	04 38 30.9	-0.1
SDDR	Presa de Saban	46.76	360	iP	P	04 38 32.6	+1.6
SDDR	Presa de Saban	46.76	360	P	P	04 38 31.0	-0.1
	comp=Z,129nm,1.2s						
GTBY	Guantanamo Bay	47.85	355	IAmb	IAmb	04 38 43.1	
	comp=Z,187nm,0.9s						
GTBY	Guantanamo Bay	47.85	355	iP	P	04 38 39.7	+0.2
GTBY	Guantanamo Bay	47.85	355	P	P	04 38 39.9	+0.4
	comp=Z,278nm,1.0s						
GRTK	Grand Turk	49.27	360	P	P	04 38 51.3	+0.9
	comp=Z,353nm,1.3s						
CMIG	Matias Romero	50.44	330	LR	LR	04 55 28.2	
	comp=Z,8µm,20.4s,baz=122,slow=30						
TEIG	Tepich	50.78	339	P	P	04 39 01.3	-0.6
TEIG	Tepich	50.78	339	P	P	04 39 02.4	+0.5
	comp=Z,323nm,1.6s						
SOR	Soroa	51.83	346	P	P	04 39 10.2	+0.4
	comp=Z,128nm,1.1s						
BELA	Belgrano 2	52.59	171	P	P	04 39 14.9	0.0
VNA3	Neumayer Olymp	54.60	160	⇑P	P	04 39 29.5	-0.1
	comp=Z,121nm,0.7s						
VNA3	Neumayer Olymp	54.60	160	P	P	04 39 29.6	-0.1
	comp=Z,216nm,0.8s						
VNA1	Neumayer--Stat	54.87	159	⇑P	P	04 39 31.7	+0.2
	comp=Z,144nm,1.1s						
VNA2	Neumayer--Watz	55.22	159	⇑P	P	04 39 33.9	-0.2
	comp=Z,149nm,0.6s,baz=285,slow=6.9						
VNA2	Neumayer--Watz	55.22	159	P	P	04 39 34.1	0.0
	comp=Z,298nm,0.9s						
DWPF	Disney Wildern	56.71	349	P	P	04 39 46.0	+0.8
	comp=Z,86nm,0.9s						
SNAA	Sanae	56.82	159	⇑P	P	04 39 45.3	-0.3
	comp=Z,5µm,0.9s						
SNAA	Sanae	56.82	159	P	P	04 39 45.3	-0.3
	comp=Z,330nm,1.1s,baz=280,slow=6.8,SNR=123						
SNAA				LR	LR	05 04 32.9	
	comp=Z,11µm,19.1s,baz=304,slow=36						
	comp=Z,330nm,1.1s						
SNAA	Sanae	56.82	159	eP	P	04 39 45.8	+0.2
SNAA				pmax	pmax		
	comp=Z,371nm,1.1s						
SNAA	Sanae	56.82	159	P	P	04 39 45.4	-0.3
SNAA	Sanae	56.82	159	P	P	04 39 45.4	-0.3
	comp=Z,327nm,1.1s						
656A	Willston	58.13	348	IAmb	IAmb	04 39 58.4	
	comp=Z,127nm,0.8s						
TROLL	Troll, Antarti	58.53	160	⇑P	P	04 39 57.6	-0.2
	comp=Z,8µm,0.9s						
ZAIG	Zacatecas	58.94	326	P	P	04 40 03.9	+2.5
	comp=Z,90nm,1.8s						
TIGA	Tifton	60.34	348	IAmb	IAmb	04 40 21.6	
	comp=Z,238nm,1.2s						
BBSR	BB Station	60.40	6	P	P	04 40 09.7	-1.1
BBSR				IAmb	IAmb	04 40 14.3	
	comp=Z,114nm,0.9s						
BBSR	BB Station	60.40	6	P	P	04 40 10.1	-0.7
	comp=Z,174nm,1.1s						
H06S1	SOCORRO T	60.41	316	T	T	05 45 47.2	
	SNR=5.7						
H06N1	SOCORRO T-PHAS	60.53	316	T	T	05 45 42.3	
	SNR=22						
BRAL	Brewton	60.82	344	IAmb	IAmb	04 40 17.1	
	comp=Z,178nm,0.8s						
KVTX	Kingsville	60.96	333	P	P	04 40 19.1	+4.4
	comp=Z,214nm,1.5s						
250A	Grady	61.42	345	P	P	04 40 16.5	-1.2
NHSC	New Hope	61.43	351	P	P	04 40 16.8	-1.0
NVL	N'lazarevskaya	61.49	158	eP	P	04 40 14.4	-3.4
NVL				pmax	pmax		
	comp=Z,272nm,1.0s						
NVL				MLR	MLR		
	comp=Z,12µm,17.0s						
346A	Big Creek Wild	61.64	342	IAmb	IAmb	04 40 31.2	
	comp=Z,199nm,1.1s						
152A	Waverly Hall	61.76	347	IAmb	IAmb	04 40 30.9	
	comp=Z,116nm,1.1s						
QSPA	South Pole Qui	62.17	180	P	P	04 40 22.8	+0.1
	comp=Z,129nm,1.0s,baz=160,slow=2.1,SNR=85						
QSPA				LR	LR	05 07 12.5	
	comp=Z,12µm,19.3s,baz=168,slow=36						
QSPA				PKPPKP	P'P'df	05 09 28.7	-7.2
	comp=Z,3.3nm,1.0s,baz=268,slow=4.7,SNR=4.3						
	comp=Z,129nm,1.0s						
QSPA	South Pole Qui	62.17	180	P	P	04 40 22.4	-0.2
QSPA				IAmb	IAmb	04 40 33.7	
	comp=Z,150nm,0.9s						
GOGA	Godfrey	62.24	348	IAmb	IAmb	04 40 34.2	
	comp=Z,153nm,1.4s						
GOGA	Godfrey	62.24	348	P	P	04 40 22.6	-0.6
	comp=Z,94nm,1.4s						
HKT	Hockley	62.33	336	P	P	04 40 25.2	+1.4
	comp=Z,113nm,1.6s						
Y57A	Sumter	62.35	351	IAmb	IAmb	04 40 35.5	
	comp=Z,200nm,1.2s						
LRAL	Lakeview Retre	62.60	345	IAmb	IAmb	04 40 37.7	
	comp=Z,233nm,1.9s						
146A	Union	62.72	343	IAmb	IAmb	04 40 38.3	
	comp=Z,181nm,1.2s						
JSC	Jenkinsville	62.73	351	IAmb	IAmb	04 40 37.9	
	comp=Z,112nm,1.1s						
Y52A	Lilburn	62.79	348	IAmb	IAmb	04 40 38.0	
	comp=Z,136nm,1.1s						
SACV	Santiago Islan	62.81	53	P	P	04 40 28.5	+1.0
	comp=Z,128nm,1.1s						
HODGE	Hodges	62.84	350	IAmb	IAmb	04 40 38.5	
	comp=Z,145nm,1.4s						
BIRD	Birdtown, Kers	62.98	351	IAmb	IAmb	04 40 39.7	
	comp=Z,196nm,1.3s						
Z47A	Carrollton	63.01	344	IAmb	IAmb	04 40 39.6	
	comp=Z,120nm,1.1s						
PAULI	Pauline	63.35	350	IAmb	IAmb	04 40 42.1	
	comp=Z,181nm,1.4s						
W57A	Gilead	63.42	352	IAmb	IAmb	04 40 42.5	
	comp=Z,123nm,1.0s						
KMSC	Kings Mountain	63.59	351	P	P	04 40 30.8	-1.5
KMSC				IAmb	IAmb	04 40 43.6	
	comp=Z,106nm,1.1s						
SLBS	Sierra La Lagu	63.62	320	P	P	04 40 34.8	+2.0
	comp=Z,63nm,2.2s						
BG3	Lake Jocassee	63.69	349	IAmb	IAmb	04 40 44.5	
	comp=Z,135nm,1.1s						
FPAL	Fort Paine	63.75	347	IAmb	IAmb	04 40 44.3	
	comp=Z,113nm,1.2s						
V58A	Windy Hill, Pi	63.95	353	IAmb	IAmb	04 40 46.0	
	comp=Z,149nm,1.2s						
HPIG		63.95	326	P	P	04 40 36.7	+1.7
	comp=Z,92nm,1.1s						
W52A	Murphy	63.96	348	IAmb	IAmb	04 40 46.2	
	comp=Z,192nm,1.3s						
X48A	Hartselle	63.97	345	IAmb	IAmb	04 40 37.7	
	comp=Z,160nm,0.9s						
LPIG	La Paz	64.15	320	P	P	04 40 36.7	+0.6
	comp=Z,30nm,1.0s,baz=138,slow=4.0,SNR=1.7						
	comp=Z,30nm,1.0s						
V55A	Taylorsville	64.27	351	IAmb	IAmb	04 40 48.3	
	comp=Z,180nm,1.1s						
W50A	Signal Mountai	64.33	347	IAmb	IAmb	04 40 48.5	
	comp=Z,175nm,1.0s						
V53A	Saluda	64.33	349	IAmb	IAmb	04 40 48.5	
	comp=Z,164nm,1.3s						
SWET	Sewanee	64.47	347	IAmb	IAmb	04 40 40.9	
	comp=Z,154nm,0.8s						
U56A	King	64.65	352	P	P	04 40 38.8	-0.4
U56A				IAmb	IAmb	04 40 51.0	
	comp=Z,146nm,1.1s						
WHTX	Lake Whitney,	64.76	335	IAmb	IAmb	04 40 52.2	
	comp=Z,258nm,1.3s						
T59A	Double "B" Far	64.96	354	IAmb	IAmb	04 40 53.1	
	comp=Z,263nm,1.4s						
ELIB	Princess Elisa	64.97	160	dP	P	04 40 40.4	-0.7
	comp=Z,64nm,1.0s						
TXAR	Lajitas Array	65.01	329	P	P	04 40 42.4	+0.6
	comp=Z,15nm,0.9s,baz=152,slow=7.4,SNR=38						
TXAR				PKP2bc	P'P'bc	05 09 25.4	-0.7
	comp=Z,1.3nm,1.0s,baz=263,slow=3.1,SNR=3.9						
	comp=Z,15nm,0.9s						
TXAR	Lajitas Array	65.01	329	P	P	04 40 41.3	-0.5
TXAR	Lajitas Array	65.01	329	P	P	04 40 41.3	-0.5
U54A	Nelsons Funny	65.02	350	IAmb	IAmb	04 40 52.8	
	comp=Z,183nm,1.1s						
OZNA	Ozona	65.26	332	IAmb	IAmb	04 40 55.7	
	comp=Z,185nm,1.2s						
TZTN	Tazewell	65.31	349	P	P	04 40 43.3	-0.2
	comp=Z,104nm,1.6s						
CLTN	Cedars of Leba	65.39	346	IAmb	IAmb	04 40 55.3	
	comp=Z,171nm,1.4s						
UALR	University of	65.63	341	IAmb	IAmb	04 40 57.3	
	comp=Z,192nm,1.4s						
U49A	Red Boiling Sp	65.69	347	IAmb	IAmb	04 40 57.1	
	comp=Z,160nm,1.2s						
WVT	Waverly	65.75	345	P	P	04 40 44.1	-2.2
WVT				pmax	pmax		
	comp=Z,128nm,0.9s						
WVT	Waverly	65.75	345	P	P	04 40 44.1	-2.2
WVT				IAmb	IAmb	04 40 49.0	
	comp=Z,128nm,0.9s						
WVT	Waverly	65.75	345	P	P	04 40 45.5	-0.9
	comp=Z,168nm,0.9s						
MIAR	Mount Ida	65.79	340	P	P	04 40 47.3	+0.7
	comp=Z,120nm,1.1s						
PLPT	Palo Pinto	65.82	335	IAmb	IAmb	04 40 50.8	
	comp=Z,95nm,0.9s						
S57A	Dark Hollow, R	65.88	353	IAmb	IAmb	04 40 59.0	
	comp=Z,177nm,1.3s						
ALPN	Alpine	65.88	329	IAmb	IAmb	04 41 01.0	
	comp=Z,248nm,1.6s						
R58B	Mineral	65.97	354	IAmb	IAmb	04 40 51.8	
	comp=Z,187nm,1.0s						
SGCY	Sterling City	66.12	332	IAmb	IAmb	04 41 00.1	
	comp=Z,113nm,1.0s						
S54A	Dingess, Beckl	66.20	351	IAmb	IAmb	04 41 00.4	
	comp=Z,130nm,1.1s						
S51A	Beattyville	66.39	349	P	P	04 40 48.9	-1.4
S51A				IAmb	IAmb	04 41 01.4	
	comp=Z,123nm,1.1s						
R55A	Marlinton	66.52	352	IAmb	IAmb	04 41 03.5	
	comp=Z,242nm,1.6s						
VHRN	Van Horn	66.84	329	IAmb	IAmb	04 41 06.0	
	comp=Z,122nm,1.2s						
SN07	Snyder 07	67.06	333	IAmb	IAmb	04 41 06.8	
	comp=Z,230nm,1.5s						
Q56A	Snyder Ridge,	67.17	353	IAmb	IAmb	04 41 07.8	
	comp=Z,192nm,1.3s						
X34A	Smith Ranch, M	67.25	336	IAmb	IAmb	04 40 59.9	
	comp=Z,172nm,0.9s						
128A	Castleberry Fa	67.30	332	P	P	04 40 55.2	-1.2
128A				IAmb	IAmb	04 41 08.7	
	comp=Z,127nm,1.2s						
T42A	Van Buren	67.41	343	IAmb	IAmb	04 41 08.1	
	comp=Z,135nm,1.2s						
W35A	Tecumseh	67.41	337	IAmb	IAmb	04 41 08.1	
	comp=Z,363nm,1.8s						
WCI	Wyandotte Cave	67.45	347	P	P	04 40 55.2	-1.9
WCI				pmax	pmax		
	comp=Z,248nm,1.5s						
WCI	Wyandotte Cave	67.45	347	P	P	04 40 55.2	-1.9
WCI				IAmb	IAmb	04 41 07.9	
	comp=Z,248nm,1.4s						
WCI	Wyandotte Cave	67.45	347	P	P	04 40 56.0	-1.1
	comp=Z,112nm,1.3s						
Q52A	Bidwell	67.48	351	IAmb	IAmb	04 41 08.4	
	comp=Z,108nm,1.1s						
HHAR	Hobbs	67.50	340	IAmb	IAmb	04 41 09.4	
	comp=Z,235nm,1.2s						
Q51A	Peebles	67.70	350	IAmb	IAmb	04 41 09.8	
	comp=Z,116nm,1.1s						
WMOK	Wichita Mounta	67.71	336	P	P	04 40 59.1	+0.2
	comp=Z,62nm,1.6s						
RLO	Rose Lookout	67.73	339	IAmb	IAmb	04 41 02.6	
	comp=Z,111nm,0.8s						
MNTX	Cornudas Mount	67.79	329	P	P	04 40 59.7	+0.2
	comp=Z,72nm,1.2s						
MCWV	Mont Chateau	67.85	353	IAmb	IAmb	04 41 11.5	
	comp=Z,234nm,1.4s						
P53A	Whipple	67.87	351	P	P	04 40 58.6	-1.2
P53A				IAmb	IAmb	04 41 11.2	
	comp=Z,181nm,1.3s						
MVL	Millersville	67.88	356	IAmb	IAmb	04 41 11.6	
	comp=Z,120nm,1.1s						
P51A	Williamsport	68.10	350	IAmb	IAmb	04 41 12.1	
	comp=Z,122nm,1.0s						
P52A	Corning	68.12	351	IAmb	IAmb	04 41 12.3	
	comp=Z,141nm,1.1s						
HSIG		68.37	323	IAmb	IAmb	04 41 16.2	
	comp=Z,135nm,1.3s						
CCM	Cathedral Cave	68.41	343	P	P	04 41 02.6	-0.6
CCM				pmax	pmax		
	comp=Z,218nm,1.0s						
CCM	Cathedral Cave	68.41	343	P	P	04 41 02.6	-0.6
CCM	Cathedral Cave	68.41	343	P	P	04 41 03.1	-0.1
	comp=Z,271nm,1.0s						
BRNJ	Basking Ridge	68.46	357	IAmb	IAmb	04 41 07.6	
	comp=Z,136nm,1.0s						
P48A	Milroy	68.48	348	IAmb	IAmb	04 41 15.2	
	comp=Z,225nm,1.5s						
O52A	Adamsville	68.55	351	IAmb	IAmb	04 41 14.5	
	comp=Z,120nm,1.2s						
O53A	New Philadelph	68.60	352	IAmb	IAmb	04 41 15.7	
	comp=Z,251nm,1.4s						
Q44A	Meyer Farm, Va	68.68	345	IAmb	IAmb	04 41 15.7	
	comp=Z,155nm,1.1s						
N58A	Sunbury	68.74	355	IAmb	IAmb	04 41 16.9	
	comp=Z,184nm,1.2s						
PAL	Palisades	68.76	358	IAmb	IAmb	04 41 17.5	
	comp=Z,223nm,1.8s						
ACSO	Alum Creek Sta	68.83	350	IAmb	IAmb	04 41 16.9	
	comp=Z,225nm,1.1s						
ODNJ	Ogdensburg	68.86	357	IAmb	IAmb	04 41 10.0	
	comp=Z,97nm,1.0s						
WSPT	Westport, CT	68.90	358	IAmb	IAmb	04 41 10.3	
	comp=Z,170nm,1.0s						
P46A	Rosedale	68.97	347	IAmb	IAmb	04 41 17.3	
	comp=Z,214nm,1.2s						
O49A	Covington	69.00	349	IAmb	IAmb	04 41 17.8	
	comp=Z,158nm,1.1s						
CROK	Carrier	69.01	337	IAmb	IAmb	04 41 18.8	
	comp=Z,257nm,1.3s						
SBA	Scott Base	69.05	191	P	P	04 41 09.3	+2.6
	comp=Z,85nm,2.0s						
N53A	Lisbon	69.10	352	IAmb	IAmb	04 41 19.0	
	comp=Z,174nm,1.3s						
M63A	Gales Ferry	69.11	359	IAmb	IAmb	04 41 11.8	
	comp=Z,182nm,1.4s						
PAMR	Moraine State	69.15	353	IAmb	IAmb	04 41 19.5	
	comp=Z,344nm,1.7s						
O48B	Farmland	69.20	349	P	P	04 41 06.8	-1.3
O48B				IAmb	IAmb	04 41 19.0	
	comp=Z,240nm,1.3s						
KSPA	Keystone Colle	69.39	356	IAmb	IAmb	04 41 21.7	
	comp=Z,297nm,1.6s						
N51A	Ashland	69.41	351	IAmb	IAmb	04 41 22.2	
	comp=Z,168nm,1.4s						
L64A	Middleborough	69.64	0	IAmb	IAmb	04 41 14.9	
	comp=Z,155nm,1.0s						
M52A	Chesterland	69.89	352	IAmb	IAmb	04 41 15.3	
	comp=Z,106nm,1.0s						
M50A	Fremont	69.98	350	IAmb	IAmb	04 41 24.1	
	comp=Z,193nm,1.2s						
BCX	Boston College	70.04	360	IAmb	IAmb	04 41 25.6	
	comp=Z,187nm,1.6s						
BINY	Binghamton	70.05	356	IAmb	IAmb	04 41 25.8	
	comp=Z,254nm,1.3s						
BINY	Binghamton	70.05	356	P	P	04 41 14.4	+1.1
	comp=Z,152nm,1.6s						
WES	Weston	70.09	360	IAmb	IAmb	04 41 17.6	
	comp=Z,128nm,1.1s						
HRV	Adam Dziewonsk	70.21	360	P	P	04 41 14.4	+0.2
HRV				pmax	pmax		
	comp=Z,153nm,1.0s						
HRV	Adam Dziewonsk	70.21	360	P	P	04 41 14.4	+0.2
HRV				IAmb	IAmb	04 41 18.6	
	comp=Z,153nm,0.9s						
HRV	Adam Dziewonsk	70.21	360	P	P	04 41 15.4	+1.2
	comp=Z,189nm,1.1s						
HDIL	Hopedale	70.32	345	IAmb	IAmb	04 41 26.1	
	comp=Z,135nm,0.8s						
K62A	Royalston	70.37	359	IAmb	IAmb	04 41 28.2	
	comp=Z,213nm,1.3s						
P38A	Dawn	70.50	342	IAmb	IAmb	04 41 27.7	
	comp=Z,223nm,1.2s						
K57A	Scipio Center	70.61	356	IAmb	IAmb	04 41 27.9	
	comp=Z,116nm,1.0s						
UNH	University of	70.79	0	IAmb	IAmb	04 41 30.4	
	comp=Z,150nm,1.4s						
TUC	Tucson	70.90	325	P	P	04 41 20.2	+1.4
	comp=Z,49nm,1.5s						
AAM	Ann Arbor	70.95	350	IAmb	IAmb	04 41 31.0	
	comp=Z,134nm,1.1s						
ANMO	Albuquerque	71.00	330	P	P	04 41 20.7	+1.2
	comp=Z,9.6nm,0.6s,baz=151,slow=8.7,SNR=15						
	comp=Z,9.6nm,0.6s						
ANMO	Albuquerque	71.00	330	eP	P	04 41 20.4	+0.9
ANMO				pmax	pmax		
	comp=Z,116nm,1.5s						
ANMO	Albuquerque	71.00	330	P	P	04 41 19.4	-0.1
ANMO				IAmb	IAmb	04 41 32.6	
	comp=Z,160nm,1.6s						
J59A	Piesco	71.23	357	IAmb	IAmb	04 41 32.9	
	comp=Z,255nm,1.4s						
J57A	Williamstown	71.25	356	IAmb	IAmb	04 41 32.5	
	comp=Z,241nm,1.3s						
K50A	Casco	71.27	351	IAmb	IAmb	04 41 23.2	
	comp=Z,200nm,0.9s						
HNH	Hanover	71.41	359	IAmb	IAmb	04 41 34.7	
	comp=Z,235nm,1.3s						
N38A	Joes South For	71.51	342	IAmb	IAmb	04 41 33.8	
	comp=Z,222nm,1.2s						
I62A	Tamworth	71.58	360	IAmb	IAmb	04 41 35.5	
	comp=Z,238nm,1.6s						
MCVT	Middlebury Col	71.67	359	IAmb	IAmb	04 41 36.9	
	comp=Z,303nm,1.6s						
CBKS	Cedar Bluff	71.69	337	IAmb	IAmb	04 41 35.9	
	comp=Z,294nm,1.4s						
I63A	Otisfield	71.75	0	IAmb	IAmb	04 41 36.8	
	comp=Z,291nm,1.3s						
L42A	Oliver, Polo	71.78	346	IAmb	IAmb	04 41 35.2	
	comp=Z,224nm,1.3s						
PPT	Papeete	72.00	259	LR	LR	05 04 57.4	
	comp=Z,19µm,20.5s,baz=164,slow=29						
J47A	Sunmer	72.05	350	IAmb	IAmb	04 41 36.5	
	comp=Z,265nm,1.2s						
L40A	Anamosa	72.19	344	P	P	04 41 25.1	-1.1
LONY	Lake Ozonia	72.39	357	IAmb	IAmb	04 41 39.7	
	comp=Z,171nm,1.4s						
FLET	Fletcher	72.44	359	IAmb	IAmb	04 41 40.2	
	comp=Z,241nm,1.4s						
DBIC	Dimbokro	72.57	72	P	P	04 41 28.9	-0.3
	comp=Z,118nm,0.9s,baz=238,slow=6.0,SNR=76						
DBIC				LR	LR	05 12 04.1	
	comp=Z,12µm,19.7s,baz=249,slow=35						
	comp=Z,118nm,0.9s						
DBIC	Dimbokro	72.57	72	P	P	04 41 28.6	-0.5
DBIC	Dimbokro	72.57	72	P	P	04 41 29.4	+0.2
	comp=Z,223nm,1.4s						
WBO	Williamsburg	72.80	357	IAmb	IAmb	04 41 33.5	
	comp=Z,140nm,0.9s						
SADO	Sadowa	72.84	354	IAmb	IAmb	04 41 41.6	
	comp=Z,267nm,1.3s						
G62A	West of Eustis	72.92	0	IAmb	IAmb	04 41 35.0	
	comp=Z,146nm,0.9s						
G65A	Princeton	72.97	3	IAmb	IAmb	04 41 43.6	
	comp=Z,189nm,1.4s						
MNTQ	Montreal, Queb	73.24	358	IAmb	IAmb	04 41 44.6	
	comp=Z,245nm,1.3s						
I42A	Draeger Farm,	73.43	347	IAmb	IAmb	04 41 45.2	
	comp=Z,425nm,1.8s						
L34A	Svendsen Farm,	73.47	341	P	P	04 41 32.9	-1.0
L34A				IAmb	IAmb	04 41 37.0	
	comp=Z,209nm,1.1s						
H43A	Windswept, Lux	73.76	348	IAmb	IAmb	04 41 47.0	
	comp=Z,207nm,1.1s						
LMN	Caledonia Moun	73.78	5	IAmb	IAmb	04 41 39.4	
	comp=Z,128nm,1.0s						
I40A	Norwalk	73.79	345	IAmb	IAmb	04 41 47.3	
	comp=Z,342nm,1.7s						
MVCO	Mesa Verde	73.80	330	P	P	04 41 38.0	+1.8
	comp=Z,103nm,1.5s						
ISCO	Idaho Springs	74.76	333	P	P	04 41 43.4	+1.6
	comp=Z,53nm,1.8s						
D62A	Allapoint, All	74.81	1	P	P	04 41 41.7	+0.2
PFO	Pinyon Flats O	74.89	322	P	P	04 41 43.7	+1.3
	comp=Z,21nm,1.0s,baz=140,slow=6.2,SNR=17						
	comp=Z,21nm,1.0s						
PFO	Pinyon Flats O	74.89	322	P	P	04 41 42.4	-0.1
PFO				pmax	pmax		
	comp=Z,169nm,1.7s						
PFO	Pinyon Flats O	74.89	322	P	P	04 41 42.4	-0.1
PFO	Pinyon Flats O	74.89	322	P	P	04 41 44.5	+2.0
	comp=Z,60nm,2.0s						
G40A	Rib Lake	75.01	346	IAmb	IAmb	04 41 55.8	
	comp=Z,204nm,1.6s						
E46A	Sault Ste Mari	75.03	351	IAmb	IAmb	04 41 54.2	
	comp=Z,225nm,1.1s						
BATG	Bathurst New B	75.12	4	P	P	04 41 42.7	-0.6
ECSD	EROS Data Cent	75.17	341	IAmb	IAmb	04 41 55.8	
	comp=Z,204nm,1.1s						
ECSD	EROS Data Cent	75.17	341	P	P	04 41 44.1	+0.4
	comp=Z,193nm,1.4s						
CER	Ceres	75.48	120	P	P	04 41 46.7	+0.7
	comp=Z,120nm,1.1s						
LDAQ	Lac Daran	75.66	360	IAmb	IAmb	04 41 58.8	
	comp=Z,258nm,1.5s						
ACRG	Accra	75.99	76	P	P	04 41 48.4	-0.7
ACRG				IAmb	IAmb	04 41 52.2	
	comp=Z,371nm,1.6s						
ACRG	Accra	75.99	76	P	P	04 41 49.5	+0.3
	comp=Z,157nm,1.4s						
VLDQ	Val d'Or	76.03	356	IAmb	IAmb	04 42 00.5	
	comp=Z,185nm,1.2s						
SUSD	Miller	76.50	340	IAmb	IAmb	04 42 03.2	
	comp=Z,153nm,1.1s						
E38A	The Farm, Brul	76.58	346	IAmb	IAmb	04 42 03.3	
	comp=Z,161nm,1.3s						
CVNA	Calvinia	76.61	119	P	P	04 41 53.5	+1.0
SUR	Sutherland	77.05	120	LR	LR	05 10 47.0	
	comp=Z,18µm,21.5s,baz=257,slow=32						
SUR	Sutherland	77.05	120	P	P	04 41 53.5	-1.7
SUR	Sutherland	77.05	120	P	P	04 41 55.3	+0.2
SUR				IAmb	IAmb	04 42 11.5	
	comp=Z,216nm,1.4s						
SUR	Sutherland	77.05	120	P	P	04 41 57.0	+1.9
	comp=Z,118nm,1.8s						
SUR	Sutherland	77.05	120	P	P	04 41 55.7	+0.5
ICQ	Pointe Anglais	77.30	3	P	P	04 41 54.9	-0.7
ICQ				IAmb	IAmb	04 42 08.1	
	comp=Z,312nm,1.3s						
ROSA	Rosais	77.57	33	P	P	04 41 59.7	+2.3
	comp=Z,142nm,2.0s						
EYMN	Ely	77.84	346	P	P	04 41 58.8	+0.1
	comp=Z,76nm,1.4s						
RSSD	Black Hills	77.89	336	P	P	04 41 59.1	-0.3
RSSD				pmax	pmax		
	comp=Z,62nm,1.0s						
RSSD	Black Hills	77.89	336	P	P	04 41 59.1	-0.3
RSSD	Black Hills	77.89	336	P	P	04 42 00.7	+1.4
	comp=Z,67nm,1.4s						
DRLN	Deer Lake	77.91	9	IAmb	IAmb	04 42 02.9	
	comp=Z,120nm,0.8s						
TBO	Thunder Bay	78.09	348	IAmb	IAmb	04 42 11.8	
	comp=Z,136nm,1.1s						
DUG	Dugway, Tooele	78.19	329	P	P	04 42 03.0	+1.9
	comp=Z,138nm,2.0s						
WIN	Windhoek	78.23	109	P	P	04 42 01.8	-0.1
WIN				pmax	pmax		
	comp=Z,147nm,1.1s						
WIN	Windhoek	78.23	109	P	P	04 42 01.8	-0.1
WIN				IAmb	IAmb	04 42 17.8	
	comp=Z,147nm,1.1s						
WIN	Windhoek	78.23	109	P	P	04 42 02.9	+1.0
	comp=Z,130nm,2.1s						
WIN	Windhoek	78.23	109	P	P	04 42 02.9	+1.0
MAW	Mawson	78.64	164	P	P	04 42 02.8	-0.3
	comp=Z,21nm,1.2s						
MAW	Mawson	78.64	164	P	P	04 42 03.1	+0.1
	comp=Z,48nm,1.1s,baz=198,slow=6.1,SNR=23						
MAW				PKKPbc	PKKPbc	05 00 58.3	-0.9
	comp=Z,1.0nm,0.6s,baz=153,slow=6.8,SNR=1.7						
MAW				PKPPKP	P'P'df	05 08 50.2	-16
	comp=Z,2.1nm,0.9s,baz=39,slow=5.9,SNR=4.0						

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      comp=Z,48nm,1.1s
MAW   Mawson            78.64 164   P        P        04 42 02.8 -0.3
MAW                                 pmax     pmax
      comp=Z,17nm,1.0s
MAW   Mawson            78.64 164   P        P        04 42 02.8 -0.3
MAW   Mawson            78.64 164   P        P        04 42 03.5 +0.5
      comp=Z,21nm,1.2s
HWUT  Hardware Ranch    78.76 330   P        P        04 42 05.5 +1.3
      comp=Z,139nm,0.9s
PDAR  Pinedale Array    78.86 332   P        P        04 42 05.9 +1.2
      comp=Z,16nm,0.8s,baz=134,slow=6.4,SNR=19
PDAR                                PKKPbc   PKKPbc   05 00 58.6 -1.8
      comp=Z,0.9nm,0.7s,baz=155,slow=1.6,SNR=5.1
      comp=Z,16nm,0.8s
PDAR  Pinedale Array    78.86 332            P        04 42 03.9 -0.9
AGMN  Agassiz Nation    79.18 343   P        P        04 42 05.8 -0.3
      comp=Z,86nm,0.9s
RAR   Rarotonga         79.19 252   LR       LR       05 08 17.0
      comp=Z,18µm,19.7s,baz=189,slow=29
PMOZ  Porto Moniz, M    79.29  44   P        P        04 42 07.3 +0.1
PMOZ  Porto Moniz, M    79.29  44⇑eP        P        04 42 07.9 +0.7
PMOZ                              i IAmb     IAmb     04 42 14.1
      comp=Z,194nm,1.5s
FUL   Funchal           79.35  44  eP        P        04 42 09.2 +1.8
FUL                               i IAmb     IAmb     04 42 11.1
      comp=Z,253nm,1.4s
PMAR  Madeira           79.39  44⇑eP        P        04 42 08.6 +0.8
PMAR                              i IAmb     IAmb     04 42 15.1
      comp=Z,367nm,1.4s
HVU   Hansel Valley     79.44 330   IAmb     IAmb     04 42 20.5
      comp=Z,201nm,1.4s
AHID  Auburn Hatcher    79.50 331   IAmb     IAmb     04 42 12.5
      comp=Z,156nm,1.1s
AHID  Auburn Hatcher    79.50 331   P        P        04 42 09.5 +1.2
      comp=Z,125nm,1.2s
NVAR  Mina Array Bea    79.50 324   P        P        04 42 09.1 +0.7
      comp=Z,8.0nm,0.8s,baz=157,slow=6.4,SNR=12
NVAR                                PKKPbc   PKKPbc   05 00 58.1 -0.5
      comp=Z,1.5nm,0.8s,baz=330,slow=1.9,SNR=5.6
NVAR                                PKPPKP   P'P'df   05 08 59.9 +3.2
      comp=Z,1.0nm,0.9s,baz=318,slow=2.0,SNR=5.2
      comp=Z,8.0nm,0.8s
NVAR  Mina Array Bea    79.50 324   P        P        04 42 07.4 -0.9
ELK   Elko              79.75 327   P        P        04 42 10.2 +0.5
      comp=Z,46nm,1.0s,baz=147,slow=3.0,SNR=25
      comp=Z,46nm,1.0s
EPLO  Experimental L    79.95 345   IAmb     IAmb     04 42 22.1
      comp=Z,219nm,1.4s
LOHW  Long Hollow       79.99 332   IAmb     IAmb     04 42 23.7
      comp=Z,236nm,1.6s
PMPST Porto Santo, M    79.99  44⇑eP        P        04 42 12.4 +1.5
PMPST                             i IAmb     IAmb     04 42 21.4
      comp=Z,320nm,1.6s
TSUM  Tsumeb            80.10 106   LR       LR       05 14 54.4
      comp=Z,27µm,18.9s,baz=273,slow=34
TSUM  Tsumeb            80.10 106   P        P        04 42 11.5 -0.6
TSUM  Tsumeb            80.10 106   P        P        04 42 13.1 +1.0
      comp=Z,108nm,1.1s
TSUM  Tsumeb            80.10 106   P        P        04 42 12.3 +0.2
KOOLE Kule              80.61 111   IAmb     IAmb     04 42 31.1
      comp=Z,393nm,1.7s
KOOLE Kule              80.61 111   P        P        04 42 14.7 -0.2
RLMT  Red Lodge         80.70 334   IAmb     IAmb     04 42 28.7
      comp=Z,475nm,1.8s
GRHM  Grahamstown, E    80.86 123   P        P        04 42 15.4 -0.4
LKGWB Lokgwabe          80.96 112   P        P        04 42 18.7 +2.1
ULM   Lac du Bonnet     80.99 344   P        P        04 42 15.2 -0.6
      comp=Z,83nm,1.0s,baz=157,slow=4.5,SNR=18
      comp=Z,83nm,1.0s
ULM   Lac du Bonnet     80.99 344  eP        P        04 42 16.0 +0.2
ULM   Lac du Bonnet     80.99 344   IAmb     IAmb     04 42 27.6
      comp=Z,251nm,1.2s
TORD  Torodi Ar. Bea    81.45  70   P        P        04 42 18.5 -0.5
      comp=Z,207nm,1.1s,baz=247,slow=2.7,SNR=113
TORD                                LR       LR       05 18 00.2
      comp=Z,12µm,19.2s,baz=241,slow=36
      comp=Z,207nm,1.1s
TORD  Torodi Ar. Bea    81.45  70   P        P        04 42 18.6 -0.5
TORD                                IAmb     IAmb     04 42 22.2
      comp=Z,222nm,1.2s
HLID  Hailey            81.58 330   P        P        04 42 20.9 +1.5
      comp=Z,93nm,1.7s
ORV   Oroville          82.01 323   IAmb     IAmb     04 42 35.6
      comp=Z,253nm,1.4s
BOSA  Boshof            82.15 118   P        P        04 42 22.1 -0.7
      comp=Z,98nm,0.8s,baz=243,slow=3.9,SNR=57
BOSA                                LR       LR       05 14 36.9
      comp=Z,15µm,20.9s,baz=256,slow=33
      comp=Z,98nm,0.8s
BOSA  Boshof            82.15 118   IAmb     IAmb     04 42 25.3
      comp=Z,172nm,1.2s
BOSA  Boshof            82.15 118   P        P        04 42 22.4 -0.4
      comp=Z,124nm,0.9s
BOSA  Boshof            82.15 118   P        P        04 42 22.3 -0.5
GRTLG Ghanzi            82.19 110   P        P        04 42 23.0 -0.1
SCHQ  Schefferville     82.62   2   P        P        04 42 23.8 -0.6
      comp=Z,41nm,1.1s,baz=193,slow=6.0,SNR=13
      comp=Z,41nm,1.1s
SCHQ  Schefferville     82.62   2   IAmb     IAmb     04 42 36.4
      comp=Z,161nm,1.4s
WVOR  Wild Horse Val    82.68 327   P        P        04 42 26.8 +1.7
      comp=Z,39nm,1.1s
O03E  Paynes Creek      82.71 323   IAmb     IAmb     04 42 37.8
      comp=Z,258nm,1.6s
EGMT  Eagleton          83.30 335   IAmb     IAmb     04 42 40.3
      comp=Z,122nm,1.4s
PLID  Pearl Lake        83.49 330   IAmb     IAmb     04 42 42.0
      comp=Z,243nm,1.6s
M03C  McCloud           83.58 324   IAmb     IAmb     04 42 42.9
      comp=Z,119nm,1.3s
LBTB  Lobatse           84.09 115   IAmb     IAmb     04 42 34.4
      comp=Z,106nm,0.8s
LBTB  Lobatse           84.09 115   P        P        04 42 32.8 -0.1
      comp=Z,154nm,0.8s
LBTB  Lobatse           84.09 115   P        P        04 42 32.3 -0.6
YBH   Yreka Blue Hor    84.22 324   P        P        04 42 32.8 -0.2
      comp=Z,9.5nm,0.6s,baz=78,slow=3.1,SNR=28
      comp=Z,9.5nm,0.6s
CKGRV CKGRV             84.29 111   P        P        04 42 33.6 -0.3
L04D  Klamath Falls     84.36 324   IAmb     IAmb     04 42 46.0
      comp=Z,116nm,1.4s
TIO   Tiouine           84.52  51   P        P        04 42 36.0 +1.1
TIO   Tiouine           84.52  51   P        P        04 42 36.4 +1.5
      comp=Z,302nm,1.4s
AVE   Averroes          85.85  49   P        P        04 42 42.2 +0.9
AVE   Averroes          85.85  49   P        P        04 42 41.2  0.0
AVE   Averroes          85.85  49   P        P        04 42 42.8 +1.5
      comp=Z,226nm,1.4s
CASY  Casey             85.96 181   P        P        04 42 41.0 -0.4
CASY  Casey             85.96 181   P        P        04 42 41.9 +0.6
      comp=Z,222nm,0.8s
HAWA  Hanford           86.08 329   IAmb     IAmb     04 42 54.8
      comp=Z,160nm,1.4s
H04A  Detroit Lake      86.08 326   IAmb     IAmb     04 42 54.4
      comp=Z,134nm,1.3s
H04D  Lebanon           86.24 326   IAmb     IAmb     04 43 09.0
      comp=Z,115nm,1.3s
NEW   Newport           86.44 331   P        P        04 42 43.1 -0.7
      comp=Z,9.9nm,0.9s,baz=122,slow=4.9,SNR=18
      comp=Z,9.9nm,0.9s
NEW   Newport           86.44 331   P        P        04 42 43.8  0.0
      comp=Z,26nm,1.1s
COR   Corvallis         86.56 326   P        P        04 42 46.4 +1.9
      comp=Z,167nm,1.6s
KSANE Kasane            87.13 109   IAmb     IAmb     04 43 02.0
      comp=Z,177nm,1.6s
LTY   Liberty           87.25 329   IAmb     IAmb     04 43 00.0
      comp=Z,174nm,1.7s
PFVI  Vila Bisbo        87.29  45   P        P        04 42 48.9 +0.7
PFVI  Vila Bisbo        87.29  45⇑eP        P        04 42 49.4 +1.1
PFVI                              i IAmb     IAmb     04 43 03.0
      comp=Z,155nm,1.9s
PFVI  Vila Bisbo        87.29  45   IAmb     IAmb     04 42 52.4
      comp=Z,186nm,1.4s
PFVI  Vila Bisbo        87.29  45   P        P        04 42 49.1 +0.9
      comp=Z,93nm,1.2s
BROLN Tlhalogang        87.36 112   P        P        04 42 48.6 -0.6
MD01  Midelt array s    87.39  51   P        P        04 42 48.5 -0.5
MD31  MD31              87.39  51   IAmb     IAmb     04 42 53.5
      comp=Z,124nm,1.5s
MDT   Midelt            87.46  51   LR       LR       05 21 09.0
      comp=Z,20µm,20.2s,baz=206,slow=35
MORF  Marmelete         87.51  45  eP        P        04 42 49.4 +0.1
MORF                                IAmb     IAmb     04 42 53.2
      comp=Z,120nm,1.5s
MORF  Marmelete         87.51  45⇑eP        P        04 42 50.0 +0.7
MORF                              i IAmb     IAmb     04 42 53.0
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      comp=Z,130nm,1.4s
IFR   Ifrane            87.52  50   P        P        04 42 50.6 +1.0
IFR   Ifrane            87.52  50   P        P        04 42 50.8 +1.2
      comp=Z,21nm,1.4s
PTEO  Sao Teotonio      87.61  45⇑eP        P        04 42 50.9 +1.2
PTEO                              i IAmb     IAmb     04 42 53.5
      comp=Z,203nm,1.4s
D05A  Enumclaw          87.81 328   IAmb     IAmb     04 43 02.6
      comp=Z,222nm,1.6s
PBDV  Barranco-do-Ve    87.92  45   P        P        04 42 52.1 +0.9
PBDV  Barranco-do-Ve    87.92  45⇑eP        P        04 42 52.4 +1.1
PBDV                              i IAmb     IAmb     04 42 55.0
      comp=Z,187nm,1.6s
LIS   Lisbon            88.08  44⇑eP        P        04 42 53.1 +1.2
LIS                               i IAmb     IAmb     04 43 07.2
      comp=Z,156nm,1.7s
PCVE  Castro Verde      88.09  45   P        P        04 42 52.0  0.0
PCVE  Castro Verde      88.09  45⇑eP        P        04 42 53.0 +0.9
PCVE                              i IAmb     IAmb     04 43 07.0
      comp=Z,109nm,2.1s
PLOUS Minas do Lousa    88.10  45⇑eP        P        04 42 53.1 +1.1
PLOUS                             i IAmb     IAmb     04 42 56.3
      comp=Z,122nm,1.6s
MESJ  Messejana         88.11  45  eP        P        04 42 52.2 +0.1
MESJ                                IAmb     IAmb     04 42 56.9
      comp=Z,288nm,1.8s
MESJ  Messejana         88.11  45⇑eP        P        04 42 53.0 +0.9
MESJ                              i IAmb     IAmb     04 42 56.5
      comp=Z,159nm,1.5s
BKZ   Black Stump Fm    88.14 226   P        P        04 42 55.7 +3.1
BKZ   Black Stump Fm    88.14 226   S        S        04 53 38.6 +3.0
RTZ   Ruatahuna         88.14 227   IAMs_20  IAMs_20  05 12 11.1
      comp=Z,18µm,22.0s
PMAFR Mafra             88.14  43   P        P        04 42 52.9 +0.6
PMAFR Mafra             88.14  43⇑eP        P        04 42 52.8 +0.6
PMAFR                             i IAmb     IAmb     04 43 37.0
      comp=Z,100nm,1.5s
PVAQ  Vaqueiros         88.15  45⇑eP        P        04 42 53.4 +1.1
PVAQ                              i IAmb     IAmb     04 43 12.1
      comp=Z,115nm,1.5s
PVAQ  Vaqueiros         88.15  45   P        P        04 42 53.6 +1.2
      comp=Z,42nm,1.5s
URZ   Urewera           88.26 227   LR       LR       05 13 36.0
      comp=Z,12µm,19.7s,baz=164,slow=30
EGRO  El Granado        88.38  45   P        P        04 42 53.9 +0.5
PBEJ  Beja              88.44  45⇑eP        P        04 42 54.4 +0.7
PBEJ                              i IAmb     IAmb     04 42 59.9
      comp=Z,78nm,2.1s
MOE   Montemor          88.45  44⇑eP        P        04 42 54.4 +0.7
MOE                               i IAmb     IAmb     04 43 08.5
      comp=Z,100nm,1.5s
SFS   San Fernando      88.55  47   P        P        04 42 56.4 +2.2
EVO   Evora             88.66  44   P        P        04 42 57.0 +2.3
EVO   Evora             88.66  44⇑eP        P        04 42 55.4 +0.7
EVO                               i IAmb     IAmb     04 43 55.5
      comp=Z,55nm,1.7s
RPZ   Rata Peaks        88.69 220   LR       LR       05 15 00.8
      comp=Z,2µm,20.8s,baz=108,slow=30
ECEU  Ceuta             88.75  48   P        P        04 42 58.3 +3.0
PSBE  So Bento          88.79  43⇑eP        P        04 42 56.0 +0.7
PSBE                              i IAmb     IAmb     04 43 53.9
      comp=Z,122nm,1.4s
PARRA Arraiolos         88.82  44⇑eP        P        04 42 55.9 +0.5
PARRA                             i IAmb     IAmb     04 43 10.2
      comp=Z,66nm,1.8s
NLWA  Neilton Lookou    88.84 327   IAmb     IAmb     04 43 08.2
      comp=Z,163nm,1.6s
PMTG  Montargil         88.86  44⇑eP        P        04 42 56.0 +0.4
PMTG                              i IAmb     IAmb     04 42 58.8
      comp=Z,87nm,1.6s
ESPR  Espera            89.02  47   P        P        04 42 57.3 +0.8
EMIN  Mina Concepcio    89.03  46   P        P        04 42 57.3 +0.8
PBAR  Barrancos         89.05  45   P        P        04 42 57.3 +0.7
PBAR  Barrancos         89.05  45⇑eP        P        04 42 57.1 +0.5
PBAR                              i IAmb     IAmb     04 43 54.4
      comp=Z,63nm,1.5s
PESTR Estremoz          89.13  44   P        P        04 42 58.7 +1.8
B04A  Port Angeles      89.14 328   IAmb     IAmb     04 43 09.6
      comp=Z,106nm,1.4s
A05A  Maple Falls       89.17 329   IAmb     IAmb     04 43 08.8
      comp=Z,90nm,1.2s
PSARD Sardoal           89.23  43  etx       tx       04 42 57.6
PSARD                             ⇑eP        P        04 42 57.6 +0.3
PSARD                             i IAmb     IAmb     04 43 55.5
      comp=Z,51nm,1.3s
A04D  Lummi Island      89.25 329   IAmb     IAmb     04 43 09.6
      comp=Z,236nm,1.7s
PCAS  Casmilo, Conde    89.30  43⇑eP        P        04 42 58.1 +0.4
PCAS                              i IAmb     IAmb     04 44 06.8
      comp=Z,77nm,1.4s
TAM   Tamanrasset       89.53  64   P        P        04 43 00.6 +1.3
TAM                                 pmax     pmax
      comp=Z,22nm,1.2s
TAM   Tamanrasset       89.53  64   P        P        04 42 60.0 +0.6
      comp=Z,22nm,1.2s
PGC   Sidney            89.54 328   IAmb     IAmb     04 43 11.1
      comp=Z,150nm,1.6s
HIZ   Hauiti            89.56 226   IAMs_20  IAMs_20  05 12 52.6
      comp=Z,12µm,22.0s
PMRV  Marv??o           89.59  44⇑eP        P        04 42 59.4 +0.3
PMRV                              i IAmb     IAmb     04 43 56.8
      comp=Z,57nm,1.6s
PCBR  Castelo Branco    89.79  44⇑eP        P        04 43 00.1 +0.1
PCBR                              i IAmb     IAmb     04 43 57.8
      comp=Z,70nm,1.5s
EMAL  Malaga-Limoner    89.88  48   P        P        04 43 01.5 +1.1
      comp=Z,39nm,1.1s
PTO   Porto             89.91  42⇑eP        P        04 43 00.5  0.0
PTO                               i IAmb     IAmb     04 43 03.9
      comp=Z,86nm,1.5s
PVIS  Viseu             90.07  43⇑eP        P        04 43 01.3  0.0
MTE   Manteigas         90.09  43⇑eP        P        04 43 01.6 +0.1
MTE                               i IAmb     IAmb     04 44 02.5
      comp=Z,58nm,1.3s
MTE   Manteigas         90.09  43   P        P        04 43 01.6 +0.1
      comp=Z,39nm,1.0s
PVRL  Vila Real         90.52  42  eP        P        04 43 04.3 +0.8
PVRL                              i IAmb     IAmb     04 43 42.9
      comp=Z,43nm,1.4s
POLO  Lamas de Olo      90.54  42⇑eP        P        04 43 03.9 +0.3
POLO                              i IAmb     IAmb     04 44 05.0
      comp=Z,22nm,1.6s
PCAB  Cabril            90.61  42⇓eP        P        04 43 04.4 +0.6
PCAB                              i IAmb     IAmb     04 43 07.6
      comp=Z,58nm,1.6s
PGAV  Gavieira, Arco    90.62  42⇑eP        P        04 43 04.0 +0.1
PGAV                              i IAmb     IAmb     04 43 18.8
      comp=Z,46nm,1.7s
LSZ   Lusaka            90.88 108   LR       LR       05 22 09.0
      comp=Z,17µm,18.2s,baz=270,slow=34
LSZ   Lusaka            90.88 108   P        P        04 43 03.9 -1.9
LSZ                                 S        SKSac    04 53 28.8 -8.2
LSZ   Lusaka            90.88 108   P        P        04 43 05.8 -0.1
LSZ                                 pmax     pmax
      comp=Z,146nm,1.4s
LSZ   Lusaka            90.88 108   P        P        04 43 05.8 -0.1
LSZ                                 IAmb     IAmb     04 44 02.7
      comp=Z,146nm,1.4s
LSZ   Lusaka            90.88 108   P        P        04 43 07.7 +1.8
      comp=Z,54nm,1.3s
LSZ   Lusaka            90.88 108   P        P        04 43 07.6 +1.8
PBRG  Braganca          91.43  42⇑eP        P        04 43 07.9 +0.3
PBRG                              i IAmb     IAmb     04 43 11.0
      comp=Z,48nm,1.6s
ECAL  Calabor           91.51  42   P        P        04 43 09.2 +1.1
      comp=Z,29nm,1.6s
ESDC  Sonseca Array     91.87  45   P        P        04 43 09.8  0.0
      comp=Z,11nm,1.2s,baz=236,slow=4.2,SNR=18
ESDC                                LR       LR       05 22 44.8
      comp=Z,14µm,20.7s,baz=200,slow=34
      comp=Z,11nm,1.2s
ESDC  Sonseca Array     91.87  45            P        04 43 09.6 -0.2
OUZ   Omahuta           92.32 228   IAMs_20  IAMs_20  05 14 15.9
      comp=Z,8µm,20.0s
AFI   Afiamalu          92.70 253   LR       LR       05 16 29.5
      comp=Z,9µm,18.8s,baz=123,slow=30
BBB   Bella Bella       94.14 329   P        P        04 43 20.2 +0.5
      comp=Z,27nm,1.1s,baz=174,slow=10,SNR=3.5
      comp=Z,27nm,1.1s
BBB   Bella Bella       94.14 329   IAmb     IAmb     04 43 23.4
      comp=Z,137nm,1.4s
ATE   Arette            95.82  44   P        P        04 43 26.3 -1.4
      comp=Z,31nm,1.4s
YKA   Yellowknife Ar    96.70 341   P        P        04 43 30.7 -0.5
      comp=Z,6.3nm,0.6s,baz=147,slow=4.5,SNR=13
      comp=Z,6.3nm,0.6s
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YKA   Yellowknife Ar    96.70 341   P        P        04 43 30.6 -0.6
YKA   Yellowknife Ar    96.70 341   P        P        04 43 30.6 -0.6
CEST  Esterri de Car    96.77  45   IAmb     IAmb     04 43 38.3
      comp=Z,86nm,1.4s
IGLA  Glengowla, Co     97.14  32   P        Pdif     04 43 36.0 +2.5
ROSF  Rostrenen         97.24  39   P        P        04 43 33.8 -0.3
      comp=Z,17nm,1.1s
MTLF  Montolieu         97.76  45   P        Pdif     04 43 36.9 +0.4
      comp=Z,32nm,1.3s
MFF   Saint Martin d    98.06  41   P        Pdif     04 43 38.0 +0.2
      comp=Z,6.7nm,1.7s
DSB   Dublin            98.47  33   P        Pdif     04 43 40.3 +0.9
ILTH  Belurgan, Co L    98.95  33   P        Pdif     04 43 42.4 +0.9
MSVF  Nonsavu           99.09 244   LR       LR       05 18 30.9
      comp=Z,3µm,19.9s,baz=139,slow=29
RUSF  Rustrel          100.11  46   P        Pdif     04 43 48.5 +1.5
      comp=Z,29nm,1.2s
SSB   Saint Sauveur    100.18  44   P        Pdif     04 43 48.6 +1.2
      comp=Z,31nm,1.4s
CLF   Chambon-Foret    100.19  41   P        Pdif     04 43 47.8 +0.5
      comp=Z,34nm,1.1s
LOR   Lormes           100.75  42   P        Pdif     04 43 50.0 +0.2
      comp=Z,12nm,1.3s
ORIF  Oris-en-Rattie   100.83  45   P        Pdif     04 43 51.9 +1.6
      comp=Z,30nm,1.3s
CALF  Calern           100.93  46   P        Pdif     04 43 47.9 -2.9
      comp=Z,42nm,1.1s
EKA   Eskdalemuir Ar   101.21  33   P        Pdif     04 43 51.4 -0.2
      comp=Z,3.5nm,0.8s,baz=227,slow=3.3,SNR=5.4
ISO   Isola            101.22  46   P        Pdif     04 43 52.9 +0.9
      comp=Z,25nm,1.3s
BOST  Ostende          102.19  38  dPdif     Pdif     04 43 54.8 -1.3
      comp=Z,15nm,1.3s
BSKQ  Steenkerk        102.53  39  dPdif     Pdif     04 43 59.9 +2.3
DOU   Dourbes          102.56  40  dPdif     Pdif     04 43 57.8  0.0
      comp=Z,5.4nm,1.2s
BMRD  Maredsous        102.75  40  dPdif     Pdif     04 43 58.8 +0.2
      comp=Z,11nm,1.0s
UCC   Uccle            102.76  39  dPdif     Pdif     04 43 59.8 +1.2
RCHB  Rochefort        102.94  40  dPdif     Pdif     04 44 00.4 +1.0
ECH   Echery           103.16  42   P        Pdif     04 43 59.2 -1.3
      comp=Z,12nm,1.4s
WLF   Walferdange      103.24  41   P        Pdif     04 43 55.8 -5.0
WLF   Walferdange      103.24  41  dPdif     Pdif     04 44 01.9 +1.2
WLF   Walferdange      103.24  41   P        Pdif     04 44 01.2 +0.4
BNALP Bannalp          103.31  44   P        Pdif     04 44 03.0 +1.7
      comp=Z,12nm,1.2s
MEM   Membach          103.60  40  dPdif     Pdif     04 44 02.9 +0.6
TUE   Stuetta          103.70  45   P        Pdif     04 44 04.8 +1.6
      comp=Z,18nm,1.4s
SLE   Schleitheim      103.75  43   P        Pdif     04 44 04.0 +0.8
      comp=Z,11nm,1.5s
FUORN Ofenpass-Fuorn   104.34  45   P        Pdif     04 44 09.3 +3.2
      comp=Z,19nm,1.2s
DAVA  Damuels          104.39  44 i Pdiff    Pdif     04 44 06.8 +0.6
      comp=Z,26nm,1.3s
DAVA  Damuels          104.39  44   P        Pdif     04 44 07.2 +1.0
      comp=Z,24nm,1.4s
UBR   Ueberruh         104.70  44   P        Pdif     04 44 09.1 +1.7
      comp=Z,19nm,1.4s
FETA  Feichten         104.80  44  ePdiff    Pdif     04 44 08.8 +0.8
      comp=Z,17nm,1.2s
FETA                              i PKiKP    PKiKP    04 48 22.9 -0.3
      comp=Z,13nm,1.2s
RETA  Reutte           105.02  44  ePdiff    Pdif     04 44 09.5 +0.7
      comp=Z,21nm,1.5s
RETA                               ePKiKP    PKiKP    04 48 24.5 +1.0
      comp=Z,17nm,1.3s
MOTA  Moosalm          105.17  44 i Pdiff    Pdif     04 44 10.0 +0.4
      comp=Z,35nm,1.5s
SQTA  Sankt Quirin     105.18  44 i Pdiff    Pdif     04 44 10.6 +1.0
      comp=Z,32nm,1.3s
WTTA  Wattenberg       105.46  45  ePdiff    Pdif     04 44 11.8 +0.8
      comp=Z,42nm,1.4s
ABTA  Abfaltersbach    105.80  45 i Pdiff    Pdif     04 44 13.1 +0.8
      comp=Z,8.8nm,1.2s
LESA  Schwarzleotal    106.17  45  epPKiKP   PKiKP    04 48 29.7 +4.0
      comp=Z,26nm,1.6s
KBA   Koelnbreinsper   106.45  45 i Pdiff    Pdif     04 44 17.0 +1.7
      comp=Z,15nm,1.3s
KBA                                epPKiKP   pPKiKP   04 48 34.5 +0.4
      comp=Z,20nm,1.3s
MYKA  Terra Mystica    106.46  46 i Pdiff    Pdif     04 44 15.3  0.0
      comp=Z,11nm,1.0s
MYKA                               epPKiKP   pPKiKP   04 48 32.9 -1.1
      comp=Z,40nm,1.4s
BIOA  Bad Ischl, Aus   106.88  45 i Pdiff    Pdif     04 44 18.9 +1.8
      comp=Z,15nm,1.5s
BIOA                               ePP       PP       04 48 40.4 -3.2
      comp=Z,18nm,1.3s
OBKA  Obir             106.99  46 i Pdiff    Pdif     04 44 16.2 -1.5
      comp=Z,11nm,1.0s
OBKA                              i pPKiKP   pPKiKP   04 48 33.1 -1.9
      comp=Z,34nm,1.3s
MOA   Molln            107.33  45  epPKiKP   PKiKP    04 48 40.2  +12
      comp=Z,19nm,1.2s
SOKA  Soboth           107.36  46 i Pdiff    Pdif     04 44 19.6 +0.3
      comp=Z,8.7nm,1.4s
GERES GERESS Array B   107.36  44   PKiKP    PKiKP    04 48 27.5 -0.3
      comp=Z,0.7nm,0.5s,baz=272,slow=2.6,SNR=2.4
GERES                               PKKPbc   PKKPbc   04 59 43.3 -1.3
      comp=Z,0.6nm,0.7s,baz=50,slow=2.3,SNR=4.2
CLL   Collm            107.90  41  ePP       PP       04 48 49.0 -2.0
CLL                                ePPP      PPP      04 51 06.0
BRG   Berggiesshubel   108.28  42  eP        PKiKP    04 48 18.8  -11
BRG                                 Amp               04 48 26.3
      comp=Z,2.7nm,0.9s
BRG   Berggiesshubel   108.28  42   P        PKiKP    04 48 32.6 +3.3
BRG                                 Amp               04 48 33.3
      comp=Z,11nm,1.4s
CONA  Conrad Observa   108.35  45 i Pdiff    Pdif     04 44 23.7  0.0
      comp=Z,9.7nm,1.6s
KRUC  Moravsky         109.09  44  ePP       PP       04 48 56.1 -3.7
ILAR  Eielson Array    109.24 334   Pdiff    Pdif     04 44 27.5 +0.4
      comp=Z,0.9nm,0.8s,baz=143,slow=2.8,SNR=5.3
ILAR                                PKiKP    PKiKP    04 48 30.8  0.0
      comp=Z,1.5nm,0.9s,baz=174,slow=0.5,SNR=5.3
ILAR                                PKKPbc   PKKPbc   04 59 35.5 -3.5
      comp=Z,1.8nm,0.9s,baz=275,slow=3.1,SNR=8.4
VRAC  Vranov           109.30  44  ePP       PP       04 48 57.7 -3.6
MORC  Moravsky Berou   110.05  44  ePP       PP       04 49 03.0 -3.7
NOA   NORSAR Array B   110.56  31   PKiKP    PKiKP    04 48 33.1 -0.3
      comp=Z,0.5nm,0.9s,baz=256,slow=2.1,SNR=7.1
NOA                                 PP       PP       04 49 08.5 -1.6
      comp=Z,0.8nm,0.9s,baz=244,slow=7.0,SNR=3.2
NOA                                 PKKPbc   PKKPbc   04 59 32.4 -2.2
      comp=Z,0.3nm,0.6s,baz=27,slow=6.1,SNR=1.9
SPITS Spitsbergen Ar   116.73  13   PKKPbc   PKKPbc   04 59 12.6 -1.2
      comp=Z,9.4nm,0.8s,baz=106,slow=8.8,SNR=4.3
MNK   Minsk            117.43  40 i PKIKP    PKPdf    04 48 46.3 -0.3
MNK                               i                   04 49 58.2
MNK                               i PPP      PPP      04 52 26.8
MNK                               i                   04 55 57.2
MNK                               i SS       SS       05 06 09.2 +0.9
MNK                               i SSS      SSS      05 10 34.9
MNK                                 pmax     pmax
      comp=N,12nm,0.8s
MNK                                 pmax     pmax
      comp=E,11nm,0.8s
MNK                                 pmax     pmax
      comp=Z,24nm,1.1s
MNK                                 MLR      MLR
      comp=N,6µm,20.0s
MNK                                 MLR      MLR
      comp=E,7µm,17.0s
MNK                                 MLR      MLR
      comp=Z,11µm,19.0s
MNK   Minsk            117.43  40 i PKP      PKPdf    04 48 46.3 -0.3
      comp=E,11nm,0.8s
MNK                               i PKP      PKPdf    04 48 46.3 -0.3
      comp=N,12nm,0.8s
MNK                               i PKP      PKPdf    04 48 46.3 -0.3
      comp=Z,24nm,1.1s,baz=259
MNK                               i PP       PP       04 49 58.3 -0.5
MNK                               i PPP      PPP      04 52 26.9
MNK                               i SKS      SKSdf    04 55 57.3 +0.2
MNK                               i SS       SS       05 06 09.3 +1.0
MNK                               i SSS      SSS      05 10 34.9
MNK                               i LQ       LQ       05 31 40.1
MNK                               i LRM      MLR      05 38 01.3
      comp=N,6µm,20.1s
MNK                               i LRM      MLR      05 38 05.7
      comp=E,7µm,17.5s
MNK                               i LRM      MLR      05 38 14.6
      comp=Z,11µm,19.1s
MNK   Minsk            117.43  40 i SSS      PP       04 49 58.0 -0.9
MNK   Minsk            117.43  40 i SSS      PP       04 49 57.9 -0.9
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KIEV	Kiev	117.50	45	PKIKP	PKPdf	04 48 46.0	-0.9
KIEV	Kiev	117.50	45		PKPdf	04 48 46.0	-0.9
AKASG	Malin Array Be	117.51	45	PKP	PKPdf	04 48 45.6	-1.3
	comp=Z,3.6nm,0.6s,baz=269,slow=2.8,SNR=24						
AKASG				PP	PP	04 49 54.8	-4.7
	comp=Z,8.3nm,1.1s,baz=256,slow=8.0,SNR=16						
AKASG				PKKPbc	PKKPbc	04 59 09.4	-1.0
	comp=Z,0.2nm,0.3s,baz=73,slow=3.2,SNR=4.0						
AKASG	Malin Array Be	117.51	45		PKPdf	04 48 46.4	-0.5
AKBB	Malin Array Si	117.51	45	i PKIKP	PKPdf	04 48 46.2	-0.7
FINES	FINESS Array B	117.61	33	PKP	PKPdf	04 48 45.5	-1.2
	comp=Z,1.7nm,0.6s,baz=163,slow=2.0,SNR=4.5						
FINES				PP	PP	04 49 55.8	-4.0
	comp=Z,6.7nm,0.9s,baz=265,slow=11,SNR=5.1						
FINES	FINESS Array B	117.61	33		PKPdf	04 48 46.5	-0.3
MMAI	Mount Meron Ar	117.70	65	PKP	PKPdf	04 48 47.9	-0.1
	comp=Z,1.8nm,0.3s,baz=32,slow=6.8,SNR=2.4						
BR131	Keskin Array S	118.12	58	P	PKiKP	04 48 50.0	+1.3
	SNR=6.1						
BR131	Keskin Array S	118.12	58	i P	PKPdf	04 48 48.0	-0.7
BRTR	Keskin Array B	118.12	58	PKP	PKPdf	04 48 48.3	-0.4
	comp=Z,1.6nm,0.6s,baz=201,slow=3.1,SNR=10.0						
BRTR				PP	PP	04 49 58.6	-5.7
	comp=Z,4.6nm,1.0s,baz=207,slow=5.8,SNR=3.5						
BRTR				PKKPbc	PKKPbc	04 59 08.4	+0.3
	comp=Z,0.4nm,0.5s,baz=78,slow=8.1,SNR=2.2						
BRTR	Keskin Array B	118.12	58	PKIKP	PKPdf	04 48 47.8	-0.9
BRTR	Keskin Array B	118.12	58	P	PKPdf	04 48 48.3	-0.4
BRTR	Keskin Array B	118.12	58		PKPdf	04 48 47.8	-0.9
ARCES	ARCESS Array B	118.28	23	PKP	PKPdf	04 48 46.0	-1.9
	comp=Z,2.6nm,0.8s,baz=338,slow=1.3,SNR=3.6						
ARCES				PKKPbc	PKKPab	04 59 06.4	-0.7
	comp=Z,4.4nm,0.8s,baz=106,slow=3.9,SNR=8.3						
ARCES	ARCESS Array B	118.28	23	PKIKP	PKPdf	04 48 46.0	-1.9
ARCES	ARCESS Array B	118.28	23		PKPdf	04 48 47.6	-0.3
NWAO	Narrogin (SRO)	118.84	188	P	PKPdf	04 48 48.8	-1.5
APA	Apatity	121.13	26	i PKIKP	PKPdf	04 48 52.6	-0.8
APA				e		04 50 22.5	
APA				e		04 55 46.9	
APA				ePS	PS	05 00 15.9	-0.2
APA				pmax	pmax		
	comp=Z,7.0nm,1.1s						
OBN	Obninsk	122.49	40	dePKIKP	PKPdf	04 48 55.5	-0.8
OBN				ePPP	PPP	04 53 06.0	
OBN				i SS	SS	05 07 39.1	+26
OBN				pmax	pmax		
	comp=Z,70nm,1.4s						
OBN				MLR	MLR		
	comp=Z,12µm,19.0s						
MTSU	Mount Surprise	122.69	221	P	PKiKP	04 48 59.0	+0.8
MORW	Morawa	122.79	187	P	PKiKP	04 49 00.3	+2.2
MOS	Moscow	123.12	40	i PKIKP	PKiKP	04 48 58.3	+0.5
MOS				e		04 50 38.4	
AS09	Alice Springs	123.16	208	P	PKPdf	04 48 58.2	-0.6
AS17	Alice Springs	123.17	208	P	PKPdf	04 48 58.2	-0.7
ASAR	Alice Springs	123.20	208	PKhKP	PKPpre	04 48 53.6	
	comp=Z,5.2nm,0.8s,baz=138,slow=1.8,SNR=7.1						
ASAR				PKP	PKPdf	04 48 58.0	-1.0
	comp=Z,19nm,1.0s,baz=143,slow=2.2,SNR=30						
ASAR				PKKPbc	PKKPbc	04 58 48.0	-1.0
	comp=Z,1.6nm,0.6s,baz=335,slow=3.3,SNR=16						
ASAR				SKKPbc	SKKPbc	05 02 36.4	+1.5
	comp=Z,0.7nm,0.7s,baz=340,slow=4.5,SNR=1.7						
ASAR	Alice Springs	123.20	208	PKIKP	PKPdf	04 48 57.2	-1.7
ASAR	Alice Springs	123.20	208		PKPdf	04 48 57.2	-1.7
AS15	Alice Springs	123.23	208	P	PKPdf	04 48 58.7	-0.3
QIS	Mount Isa	123.28	215	P	PKPdf	04 48 59.1	0.0
RAYN	Ar Rayn	123.31	79	P	PKPdf	04 48 58.2	-0.8
RAYN	Ar Rayn	123.31	79	PKIKP	PKPdf	04 48 58.0	-1.0
RAYN	Ar Rayn	123.31	79		PKPdf	04 48 58.0	-1.0
ADZR	Andozero	123.33	30	ePKIKP	PKPdf	04 48 57.1	-0.6
ADZR				pmax	pmax		
	comp=Z,25nm,0.6s						
VSLR	Vesyoloye	123.56	55	i PKIKP	PKiKP	04 48 59.7	+0.6
LPSR	Galich'ya Gora	123.74	44	ePKIKP	PKPdf	04 48 57.5	-1.3
LPSR				pmax	pmax		
	comp=Z,10.0nm,1.0s						
VSR	Storozhevoye	123.81	45	ePKIKP	PKPdf	04 48 56.2	-2.8
VSR				pmax	pmax		
	comp=Z,10.0nm,1.1s						
VORR	Voronezh	123.86	45	ePKIKP	PKPdf	04 48 56.6	-2.5
VORR				pmax	pmax		
	comp=Z,10.0nm,0.9s						
VORD	Divnogorie	123.87	46	ePKIKP	PKPdf	04 48 57.5	-1.6
VORD				pmax	pmax		
	comp=Z,10.0nm,1.0s						
WRKA	Warakurna	124.01	201	P	PKPdf	04 49 00.4	0.0
KLMR	Klimovskoe	124.08	34	ePKIKP	PKPdf	04 48 57.8	-1.4
KLMR				pmax	pmax		
	comp=Z,89nm,1.4s						
VRH	Novokhopyorsk	125.41	45	ePKIKP	PKPdf	04 48 59.1	-3.0
VRH				pmax	pmax		
	comp=Z,10.0nm,1.0s						
SHA1	Shidzhatmaz	125.49	55	⇑iPKIKP	PKPdf	04 49 03.0	+0.2
KIV	Kislovodsk	125.53	54	ePKIKP	PKPdf	04 49 02.8	+0.1
KIV				pmax	pmax		
	comp=Z,17nm,1.1s						
KBZ	Khabaz	125.66	55	PKP	PKPdf	04 49 02.5	-0.3
	comp=Z,7.7nm,0.9s,baz=298,slow=1.9,SNR=12						
KBZ	Khabaz	125.66	55	⇑iPKIKP	PKPdf	04 49 02.9	+0.1
PYA1	Pyatigorsk	125.84	54	⇑iPKIKP	PKiKP	04 49 04.4	+0.8
NCK	Nalchik	126.14	55	i PKIKP	PKiKP	04 49 04.3	+0.1
WRA	Warramunga Arr	126.31	210	PKP	PKPdf	04 49 04.2	-0.8
	comp=Z,25nm,0.7s,baz=161,slow=1.7,SNR=75						
WRA	Warramunga Arr	126.31	210	PKIKP	PKPdf	04 49 02.5	-2.4
WRA	Warramunga Arr	126.31	210		PKPdf	04 49 02.5	-2.4
WRAB	Tennant Creek	126.31	210	PKIKP	PKPdf	04 49 03.2	-1.7
WRAB	Tennant Creek	126.31	210		PKPdf	04 49 03.2	-1.7
H11S2	WAKE ISLAND Hy	126.45	273	T	T	07 08 17.1	
	baz=112,slow=75,SNR=382						
H11S1	WAKE ISLAND Hy	126.46	273	T	T	07 08 08.3	
	baz=112,slow=75,SNR=485						
H11S3	WAKE ISLAND Hy	126.47	273	T	T	07 08 07.7	
	baz=112,slow=75,SNR=568						
H11N3	WAKE ISLAND Hy	126.71	275	T	T	07 08 30.0	
	baz=113,slow=75,SNR=91						
H11N1	WAKE ISLAND Hy	126.73	274	T	T	07 08 32.6	
	baz=113,slow=75,SNR=46						
H11N2	WAKE ISLAND Hy	126.73	275	T	T	07 08 26.3	
	baz=113,slow=75,SNR=125						
BILL	Bilibino	127.78	336	ePKIKP	PKPdf	04 49 05.5	-0.7
ABTO	Aybut	128.00	89	P	PKPdf	04 49 07.8	-0.4
WHFO	Wadi Hawf	128.63	89	P	PKPdf	04 49 08.5	-0.9
MAK	Makhachkala	128.94	56	c iP	Pdif	04 45 59.2	+4.0
MAK				i		04 49 06.4	
MAK				ePPP	PPP	04 54 05.4	
MAK				ePS	PS	05 01 17.9	-7.8
MAK				pmax	pmax		
	comp=Z,305nm,1.5s						
BELG	Belogornoye	129.06	44	⇓iPKIKP	PKPdf	04 49 09.4	+0.4
KIRV	Kirov	129.32	36	i PKIKP	PKiKP	04 49 10.0	0.0
DMTO	DMTO	129.60	90	P	PKPdf	04 49 09.1	-2.0
MBWA	Marble Bar	129.97	193	P	PKPdf	04 49 10.8	-1.1
MBWA	Marble Bar	129.97	193	P	PKPdf	04 49 10.2	-1.7
MBWA	Marble Bar	129.97	193		PKPdf	04 49 10.7	-1.1
FITZ	Fitzroy Crossi	131.34	201	P	PKiKP	04 49 15.3	-0.2
UMZA	Um Al Zommool	131.49	84	P	PKPdf	04 49 14.6	0.0
ALNE	Al Ain	132.41	82	P	PKiKP	04 49 17.6	+0.2
	SNR=6.0						
KNRA	Kununurra	132.46	206	P	PKiKP	04 49 17.6	-0.1
ASHO	Ashiyiah	132.85	81	P	PKPdf	04 49 15.9	-1.3
ARQ	Araqi	132.87	83	P	PKPdf	04 49 16.0	-1.2
HATD	Hatta, Dubai	132.95	81	P	PKiKP	04 49 18.5	0.0
	SNR=5.9						
UOSS	Minazif	133.05	81		PKPdf	04 49 16.4	-1.1
SOHO	SOHO	133.11	82	P	PKPdf	04 49 16.4	-1.1
SHME	Shamm	133.29	80	P	PKPdf	04 49 18.5	+0.6
BSY	Bisya	133.29	84	P	PKPdf	04 49 18.1	+0.1
BANOM	Banah	133.39	80	P	PKPdf	04 49 17.7	-0.5
MHTO	MHTO	133.41	87	P	PKPdf	04 49 16.8	-1.4
HOQ	Hoqain	133.64	83	P	PKPdf	04 49 17.5	-1.2
MTN	Manton Dam	133.99	211	P	PKPdf	04 49 20.0	+0.4
SMDO	Samad	134.13	84	P	PKPdf	04 49 19.0	-0.7
	SNR=6.8						
ARTI	Arti	134.54	37	i PKIKP	PKiKP	04 49 20.2	-0.5
ARTI						04 51 49.3	
ARTI	Arti	134.54	37		PKPdf	04 49 19.1	-0.2
WSAR	Wadi Sarin	134.70	84	P	PKPdf	04 49 19.9	-0.7
WBK	Wadi Bani Khal	134.81	85	P	PKPdf	04 49 20.4	-0.5
TIXI	Tiksi	134.98	351	PKP	PKPdf	04 49 19.6	-0.1
	comp=Z,11nm,0.8s,baz=42,slow=2.2,SNR=2.4						
JLN	Jalan Bani Buh	135.06	86	P	PKPdf	04 49 20.6	-0.7
SEY	Seymchan	135.18	333	PKP	PKPdf	04 49 20.1	-0.2
	comp=Z,16nm,0.7s,baz=130,slow=4.3,SNR=27						
SEY	Seymchan	135.18	333	⇑iPKIKP	PKiKP	04 49 21.7	-0.1
AKTO	Aktyubinsk	135.75	45	PKIKP	PKPdf	04 49 21.4	-0.3
PEA0B	Petropavlovsk-	136.40	319	i PKIKP	PKiKP	04 49 24.5	-0.1
PETK	Petropavlovsk-	136.40	319	PKhKP	PKPpre	04 49 15.5	
	comp=Z,2.1nm,0.6s,baz=55,slow=5.6,SNR=3.6						
PETK				PKP	PKPdf	04 49 22.9	0.0
	comp=Z,8.6nm,0.8s,baz=108,slow=4.8,SNR=7.0						
PETK	Petropavlovsk-	136.40	319	PKIKP	PKPdf	04 49 22.3	-0.6
PETK	Petropavlovsk-	136.40	319		PKPdf	04 49 22.3	-0.6
NRIK	Noril'sk	136.85	11	PKP	PKPdf	04 49 23.5	+0.3
	comp=Z,3.5nm,0.5s,baz=242,slow=0.5,SNR=2.6						
NRIK	Noril'sk	136.85	11	i PKIKP	PKPdf	04 49 24.2	+1.0
GENI	Genyem	137.18	230	PKP	PKiKP	04 49 28.1	+0.7
AB31	Akbulak array	137.20	47	i PKHKP	PKPpre	04 49 14.8	
MA2	Magadan	137.53	330	PKP	PKPdf	04 49 24.7	0.0
	comp=Z,13nm,0.8s,baz=142,slow=13,SNR=4.1						
SOEI	Soe	139.57	204	PKP	PKPdf	04 49 31.1	+1.0
SOEI	Soe	139.57	204	PKP	PKiKP	04 49 38.3	+5.9
BAKI	Biak	140.91	226	PKP	PKiKP	04 49 39.1	+4.1
EDFI	Ende, Flores	141.38	201	PKP	PKPdf	04 49 29.9	-3.4
LBFI	Labuhan Bajo,	142.16	198	PKP	PKPdf	04 49 36.3	+1.7
BVAR	Borovoye Array	142.25	38	PKhKP	PKPpre	04 49 29.0	
	comp=Z,4.7nm,0.6s,baz=290,slow=3.1,SNR=16						
BVAR				SKPbc	SKiKP	04 53 11.8	+0.5
	comp=Z,7.9nm,0.9s,baz=304,slow=3.4,SNR=4.3						
TWSI	Taliwang, Sumb	142.62	193	PKP	PKPdf	04 49 34.8	-0.6
YAK	Yakutsk	143.33	344	PKP	PKPbc	04 49 32.5	+0.2
	comp=Z,44nm,0.5s,baz=35,slow=2.2,SNR=9.7						
YAK	Yakutsk	143.33	344	ePKIKP	PKPbc	04 49 32.3	+0.1
YAK				e		04 49 41.4	
YAK				e		04 52 43.6	
YAK				e		04 56 07.6	
YAK				eSS	SS	05 11 21.6	-3.0
YAK				pmax	pmax		
	comp=N,8.0nm,1.2s						
YAK				pmax	pmax		
	comp=Z,46nm,1.0s						
YAK				pmax	pmax		
	comp=E,13nm,2.2s						
YAK				pmax	pmax		
	comp=Z,1µm,4.7s						
YAK				pmax	pmax		
	comp=N,654nm,5.3s						
YAK				pmax	pmax		
	comp=E,3µm,16.0s						
YAK	Yakutsk	143.33	344		PKPbc	04 49 32.9	+0.6
ABJI	Asem Bagus	143.99	189	PKP	PKiKP	04 49 40.0	-1.3
SWI	Sorong	144.12	220	PKP	PKPbc	04 49 36.5	+0.5
BLJI	Banyuglugur	144.12	188	PKP	PKPbc	04 49 36.9	+0.9
WOJI	Wonogiri, Jawa	144.27	183	PKP	PKPdf	04 49 37.8	-0.5
SNJI	Sawahan-Nganju	144.27	185	PKP	PKPdf	04 49 38.3	-0.2
BHUJ	Bhuj	144.42	89	eP	PKPdf	04 49 38.6	+0.3
BBJI	Bungbulang	144.67	178		PKPab	04 49 37.5	-0.2
BBJI	Bungbulang	144.67	178	PKP	PKPbc	04 49 38.6	+0.7
KUR	Kuril'sk	144.74	310	ePKHKP	PKPpre	04 49 35.0	
KUR				pmax	pmax		
	comp=Z,740nm,1.3s						
SMRI	Semarang	145.07	183	PKP	PKPdf	04 49 40.0	+0.3
CTJI	Waduk Cacaban	145.15	181	PKP	PKPdf	04 49 39.9	+0.1
CHM	Chimkent	145.20	55	ePKIKP	PKPbc	04 49 38.8	+0.1
CHM	Chimkent	145.20	55	ePKP	PKPbc	04 49 38.9	+0.1
BRLS	Borolday	145.22	54	ePKIKP	PKPbc	04 49 38.6	-0.2
BRLS	Borolday	145.22	54	ePKP	PKPbc	04 49 38.6	-0.2
KAPI	Kappang	145.50	199	P	PKPdf	04 49 40.7	+0.2
KAPI	Kappang	145.50	199	PKP	PKPab	04 49 40.9	+0.3
KBL	Kabul	145.51	69	P	PKPdf	04 49 39.9	-0.3
	SNR=24						
KBL	Kabul	145.51	69	PKP2	PKPdf	04 49 39.1	-1.0
KBL	Kabul	145.51	69		PKPdf	04 49 39.1	-1.0
KDI	Kendari	145.53	205	PKP	PKPbc	04 49 40.9	+0.3
IUG	Iuzhnay	145.55	56	ePKIKP	PKPdf	04 49 39.6	-0.2
IUG				e		04 53 00.6	
IUG	Iuzhnay	145.55	56	ePKP	PKPdf	04 49 39.7	-0.2
IUG				ePP	PP	04 53 00.6	-0.1
KOD	Kodaikanal	145.59	115	eP	PKPdf	04 49 41.0	+0.1
KKSI	Kolaka, Sulawe	145.68	203	PKP	PKPab	04 49 42.2	+0.9
KK31	Karatay Array	145.69	54	PKP2	PKPdf	04 49 39.4	-0.5
KKAR	Karatay Array	145.69	54	PKP2	PKPdf	04 49 39.3	-0.6
KKAR	Karatay Array	145.69	54		PKPdf	04 49 39.3	-0.6
TYV	Tymovskoe	145.84	321	ePKP2	PKPab	04 49 41.2	+0.3
TYV				pmax	pmax		
	comp=Z,79nm,1.3s						
TYV				pmax	pmax		
	comp=Z,2µm,5.3s						
SANI	Sanana	145.85	212	PKP	PKPdf	04 49 38.5	-2.5
SANI	Sanana	145.85	212	PKP	PKPdf	04 49 41.5	+0.4
DZA	Taraz	146.32	54	ePKP2	PKPdf	04 49 40.9	-0.1
DZA	Taraz	146.32	54	ePKP	PKPdf	04 49 40.9	-0.1
KAD	Karad	146.35	101	eP	PKPbc	04 49 42.6	-0.4
POO	Poona	146.55	99	eP	PKPdf	04 49 42.5	+0.4
SALM	Salem	146.95	113	eP	PKPbc	04 49 44.6	-0.2
UGL	Uglegorsk	147.02	319	ePKP2	PKPab	04 49 45.6	+0.1
UGL				pmax	pmax		
	comp=Z,6µm,7.0s						
PMSI	Majene	147.18	199	PKP	PKiKP	04 49 50.2	+2.3
YSS	Yuzhno-Sakhali	147.51	315	ePKIKP	PKPdf	04 49 43.9	+1.1
YSS				pmax	pmax		
	comp=Z,3µm,7.6s						
YSS				pmax	pmax		
	comp=Z,130nm,1.1s						
YSS	Yuzhno-Sakhali	147.51	315	PKPdf	PKPdf	04 49 42.3	-0.5
BTLS	Baital	147.59	49	ePKIKP	PKPdf	04 49 42.9	-0.1
BTLS	Baital	147.59	49	ePKP	PKPdf	04 49 43.0	-0.1
TNTI	Ternate	147.61	216	PKP	PKPab	04 49 50.9	+2.1
KURK	Kurchatov	147.82	37	P	PKPdf	04 49 43.6	+0.4
KURK	Kurchatov	147.82	37	i PKIKP	PKPdf	04 49 43.7	+0.5
KURK	Kurchatov	147.82	37		PKPdf	04 49 43.0	-0.2
KURBB	Kurchatov Arra	147.82	37	PKPbc	PKPdf	04 49 43.9	+0.7
	comp=Z,25nm,0.5s,baz=305,slow=3.0,SNR=67						
KURBB	Kurchatov Arra	147.82	37	PKIKP	PKPdf	04 49 42.7	-0.5
KSI	Kapahiang	147.90	168	PKP	PKiKP	04 49 49.2	-0.3
MMSI	Mamuju	147.95	199	PKP	PKPbc	04 49 48.0	+0.4
EKS2	Erkin-Say	148.12	53	P	PKPdf	04 49 45.4	+1.2
	SNR=29						
BBKI	Banjar Baru	148.15	191	PKP	PKPab	04 49 51.4	+0.5
LUWI	Luwuk	148.15	207	PKP	PKPbc	04 49 49.0	+0.9
LUWI	Luwuk	148.15	207	PKP	PKPab	04 49 51.2	+0.3
UDPR	Udaipur	148.35	88	eP	PKPdf	04 49 46.0	+1.1
USP	Ospenovka	148.46	52	P	PKPdf	04 49 45.0	+0.5
	SNR=27						
SGDS	Sogindy	148.50	52	ePKP	PKPdf	04 49 44.5	-0.1
SGDS				ePP	PP	04 53 18.0	+0.1
AAK	Ala-Archa	148.64	53	P	PKPdf	04 49 46.3	+1.2
	SNR=17						
AAK	Ala-Archa	148.64	53	P	PKPdf	04 49 45.6	+0.6
AAK	Ala-Archa	148.64	53	i PKIKP	PKPdf	04 49 46.3	+1.2
ZALV	Zalesovo Beam	148.69	28	PKPbc	PKPdf	04 49 45.3	+0.8
	comp=Z,53nm,0.8s,baz=283,slow=2.6,SNR=53						
ZALV	Zalesovo Beam	148.69	28	PKIKP	PKPdf	04 49 44.8	+0.3
ZALV	Zalesovo Beam	148.69	28		PKPdf	04 49 44.8	+0.3
APSI	Ampana	148.70	205	PKP	PKiKP	04 49 51.0	0.0
CHMS	Chumysh	148.72	52	P	PKiKP	04 49 51.2	+1.0
	SNR=10						
UCH	Uchtor	148.77	54	P	PKPdf	04 49 46.6	+1.0
	SNR=30						
KBK	Karagaybulak	148.96	53	P	PKPdf	04 49 46.9	+1.3
	SNR=20						
NIL	Nilore	149.01	71	P	PKPdf	04 49 45.8	0.0
TKM2	Tokmak 2	149.33	52	P	PKPdf	04 49 46.8	+0.6
	SNR=20						
TPI	Tanjungpandan	149.35	178	PKP	PKiKP	04 49 52.1	-0.3
MDRS	Chennai	149.43	113	eP	PKPdf	04 49 47.4	+0.5
MNI	Manado	149.45	213	PKP	PKPab	04 49 55.7	-0.5
AJM	Ajmer	149.56	85	eP	PKPdf	04 49 47.0	+0.1
AJM				IAMs_20	IAMs_20	04 53 41.4	
	comp=Z,4µm,25.8s						
GTOI	Gorontalo	149.56	209	PKP	PKPbc	04 49 51.5	-0.2
ULHL	Ulahol	149.99	53	P	PKPdf	04 49 48.6	+1.3
	SNR=13						
PDSI	Padang	150.09	163	PKP	PKPbc	04 49 53.4	+0.3
AAA	Alma-Ata	150.15	51	ePKIKP	PKPdf	04 49 47.0	-0.3
AAA	Alma-Ata	150.15	51	ePKP	PKPdf	04 49 47.1	-0.3
HYB	Hyderabad	150.17	104	eP	PKPdf	04 49 49.0	+0.9
HYB	Hyderabad	150.17	104	ePKiKP	PKPbc	04 49 53.3	+0.2
HYB				IAMs_20	IAMs_20	05 25 33.0	
	comp=Z,16µm,27.4s						
TNSS	Tian-Shan	150.23	51	ePKIKP	PKPdf	04 49 47.3	-0.6
TNSS	Tian-Shan	150.23	51	ePKP	PKPdf	04 49 47.4	-0.6
MDOK	Medeo	150.26	51	ePKIKP	PKPdf	04 49 47.2	-0.4
MDOK				e		04 53 28.2	
MDOK	Medeo	150.26	51	ePKP	PKPdf	04 49 47.3	-0.4
MDOK				ePP	PP	04 53 28.2	0.0
KSH2	Kashi	150.28	59	PKPbc	PKPdf	04 49 48.9	+1.1
KSH2				pPKP	PKiKP	04 49 53.6	-0.1
KSH2				PP	PP	04 53 29.2	+0.6
KSH2				L	L		
	comp=Z,9µm,17.8s						
KSH2				L	L		
	comp=Z,11µm,20.9s						
SRNI	Srinagar	150.29	70	eP	PKPdf	04 49 50.0	+2.1
TDK	Taldyqorghan	150.47	47	ePKIKP	PKPdf	04 49 47.5	-0.2
TDK	Taldyqorghan	150.47	47	ePKP	PKPdf	04 49 47.5	-0.2
PPI	Padang Panjang	150.51	163	PKP	PKPbc	04 49 53.9	-0.1
ZEA	Zeya	151.00	337	ePKIKP	PKPdf	04 49 48.3	+0.1
ZEA				pmax	pmax		
	comp=Z,70nm,1.2s						
THN	Thein Dam	151.12	73	eP	PKPdf	04 49 50.4	+1.2
TLWR	Talawar	151.28	74	eP	PKPdf	04 49 50.3	+0.9
GSI	Gunungsitoli	151.28	156	PKP	PKiKP	04 49 57.4	+1.0
DSRI	Dabo	151.33	171	PKP	PKiKP	04 49 58.5	+2.0
BKNI	Bangkinang	151.43	163	PKP	PKPbc	04 49 54.9	-1.3
TSSA	Tissa	151.45	72	eP	PKPdf	04 49 50.7	+0.9
KUDL	Kundal	151.47	82	eP	PKPdf	04 49 50.9	+1.2
MNSI	Mandailing Nat	151.47	160	PKP	PKPab	04 50 08.5	+4.1
GUNA	GUNA	151.56	90	eP	PKPdf	04 49 51.7	+1.7
DHRM	DHARAMSHALA	151.58	73	eP	PKPdf	04 49 49.2	-0.9
DHRM				IAMs_20	IAMs_20	04 57 01.8	
	comp=Z,2µm,19.2s						
UZB	Uzynbulak	151.61	50	ePKIKP	PKPdf	04 49 49.3	-0.4
UZB				e		04 53 36.0	
UZB	Uzynbulak	151.61	50	ePKP	PKPdf	04 49 49.4	-0.4
UZB				ePP	PP	04 53 36.0	+0.1
BHK	Bhakra	151.63	75	eP	PKPdf	04 49 50.1	+0.2
MAKZ	Makanchi	151.81	41	PKIKP	PKPdf	04 49 49.5	-0.2
MAKZ	Makanchi	151.81	41	PKPdf	PKPdf	04 49 49.5	-0.2
PDGK	Podgornoye	151.86	49	PKIKP	PKPdf	04 49 49.6	-0.4
SHLS	Shalkode	151.91	50	ePKIKP	PKPdf	04 49 50.3	+0.2
SHLS				e		04 53 39.3	
SHLS	Shalkode	151.91	50	ePKP	PKPdf	04 49 50.3	+0.2
SHLS				ePP	PP	04 53 39.3	+1.8
SBSI	Sibolga	151.97	158	PKP	PKPab	04 50 08.0	+1.5
MK31	Makanchi Array	152.00	41	i PKIKP	PKPdf	04 49 50.3	+0.3
MKAR	Makanchi Array	152.00	41	PKP	PKPdf	04 49 49.5	-0.5
	comp=Z,2.6nm,0.7s,baz=351,slow=1.0,SNR=16						
MKAR				PKPbc	PKPbc	04 49 56.4	-0.1
	comp=Z,34nm,0.6s,baz=312,slow=1.7,SNR=72						
MKAR	Makanchi Array	152.00	41		PKPdf	04 49 49.7	-0.3
STKI	Sintang	152.06	186	PKP	PKiKP	04 49 59.0	+1.0
AYAN	Aya Nagar	152.07	82	eP	PKPdf	04 49 51.1	+0.5
NGP	Nagpur	152.07	98	eP	PKPdf	04 49 51.1	+0.3
NPLP	NPLP New Delhi	152.12	81	eP	PKPdf	04 49 51.7	+1.0
NDI	New Delhi	152.17	81	eP	PKPdf	04 49 51.8	+1.0
SMLA	Simla	152.30	76	eP	PKPdf	04 49 51.5	+0.7
KLR	Kul'dur	152.51	327	PKP	PKPdf	04 49 50.5	-0.1
	comp=Z,9.9nm,1.1s,baz=29,slow=3.3,SNR=11						
KLR				PKPbc	PKPbc	04 49 57.0	-0.6
	comp=Z,24nm,0.8s,baz=5.9,slow=3.4,SNR=13						
KLR	Kul'dur	152.51	327	i PKIKP	PKPdf	04 49 50.8	+0.2
AGRA	Agra	152.61	84	eP	PKPdf	04 49 52.4	+1.0
TPRI	Tanjung Pinang	152.70	170	PKP	PKPab	04 50 12.2	+2.6
JHNI	Jhansi	152.88	88	eP	PKPdf	04 49 52.5	+0.6
ZSN	Zaisan	153.06	38	ePKIKP	PKPdf	04 49 51.5	0.0
ZSN	Zaisan	153.06	38	ePKP	PKPdf	04 49 51.5	0.0
PSI	Prapat	153.15	158	PKP	PKPbc	04 50 00.2	0.0
KCSI	Kotacane, Aceh	153.40	155	PKP	PKiKP	04 50 04.3	+3.5
HEH	HeiHe	153.72	333	ePKPbc	PKPdf	04 49 52.2	-0.1
HEH				L	L		
	comp=Z,6µm,20.8s						
HEH				L	L		
	comp=Z,16µm,24.3s						
MJAR	Matsushiro Arr	153.88	296	PKP	PKPdf	04 49 52.8	-0.3
	comp=Z,6.0nm,1.1s,baz=219,slow=0.8,SNR=7.3						
MJAR				PKPbc	PKPbc	04 50 01.1	+0.1
	comp=Z,21nm,1.1s,baz=78,slow=1.4,SNR=13						
MJAR	Matsushiro Arr	153.88	296		PKPdf	04 49 52.6	-0.4
BSI	Banda Aceh	154.12	148	PKP	PKiKP	04 50 03.4	+1.2
SBUM	Sibu	154.34	188	PKP	PKPdf	04 49 57.7	+3.4
VIS	Vishakhapatnam	154.36	108	eP	PKPdf	04 49 55.3	+1.2
LGTI	Lohaghat	154.74	80	eP	PKPdf	04 49 54.3	-0.4
PTH	Pithoragarh	154.85	80	eP	PKPdf	04 49 55.9	+1.1
RAGD	RAYAGADA	155.15	105	eP	PKPdf	04 49 56.0	+0.8
USRK	Ussuriysk Ar.	155.47	317	PKP	PKPdf	04 49 54.8	-0.1
	comp=Z,1.9nm,0.8s,baz=60,slow=3.8,SNR=4.4						
USRK				PKPbc	sPKPdf	04 50 04.1	-1.3
	comp=Z,8.7nm,0.7s,baz=83,slow=3.3,SNR=9.3						
USRK	Ussuriysk Ar.	155.47	317	PKIKP	PKPdf	04 49 54.2	-0.8
USRK						04 50 03.5	
USRK	Ussuriysk Ar.	155.47	317		PKPdf	04 49 54.1	-0.8
USRK					pPKPdf	04 50 03.5	+0.7
IRK	Irkutsk	155.59	7	ePKIKP	PKPdf	04 49 53.9	-1.0
IRK				e		04 50 20.6	
IRK				e		04 53 58.2	
IRK				pmax	pmax		
	comp=Z,177nm,3.3s						
MOY	Mondy	155.68	12	ePKIKP	PKPdf	04 49 56.8	+1.6
MOY				pmax	pmax		
	comp=Z,128nm,2.0s						
CIT	Chita	155.80	353	ePKIKP	PKPdf	04 49 56.2	+1.0
CIT				e		04 50 07.4	
CIT				e		04 50 19.4	
TLY	Talaya	156.07	8	PKP	PKPdf	04 49 55.5	-0.1
	comp=Z,3.2nm,0.4s,baz=163,slow=3.8,SNR=18						
TLY	Talaya	156.07	8	P	PKPdf	04 49 57.3	+1.7
TLY	Talaya	156.07	8	i PKIKP	PKPdf	04 49 56.7	+1.1
TLY	Talaya	156.07	8		PKPdf	04 49 55.2	-0.4
WMQ	Urumqi	156.82	42	PKP	PKPdf	04 49 57.8	+1.0
WMQ				pPKP	sPKPdf	04 50 06.0	-1.3
WMQ				PKPab	PKPab	04 50 28.9	+2.3
WMQ				PP	PP	04 54 08.0	+3.2
WMQ				PPMZ			
	comp=Z,4µm,11.7s						
WMQ				L	L		
	comp=Z,7µm,21.9s						
WMQ				L	L		
	comp=Z,8µm,20.5s						
HILR	Hailar Array B	156.97	342	PKP	PKPdf	04 49 56.5	-0.3
	comp=Z,2.6nm,0.6s,baz=116,slow=3.4,SNR=12						
BNX	BinXian	157.05	325	⇓PKP	PKPdf	04 49 56.3	-0.7
ZAK	Zakamensk	157.29	9	ePKIKP	PKPdf	04 49 57.4	+0.1
ZAK				pmax	pmax		
	comp=Z,27nm,1.7s						
PBA	Port Blair	157.76	134	eP	PKPdf	04 49 59.8	+1.0
BOK	Bokaro	158.89	96	eP	PKPdf	04 50 00.1	+0.2
BOK				IAMs_20	IAMs_20	04 55 32.6	
	comp=Z,6µm,24.7s						
SONM	Songino Array	160.15	5	PKP	PKPdf	04 50 00.5	-0.3
	comp=Z,4.0nm,0.8s,baz=210,slow=1.2,SNR=18						
SONM				PP	PP	04 54 22.4	+0.2
	comp=Z,5.5nm,1.1s,baz=341,slow=3.1,SNR=5.8						
SONM	Songino Array	160.15	5	PKIKP	PKPdf	04 50 00.1	-0.7
SONM	Songino Array	160.15	5		PKPdf	04 50 00.1	-0.7
SONM					PP	04 54 18.6	-3.6
ULN	Ulaanbaatar	160.17	4	PKP	PKPdf	04 50 01.7	+0.8
KSRS	Korea Array	161.47	305	PKP	PKPdf	04 50 02.1	-0.2
	comp=Z,9.3nm,1.1s,baz=141,slow=0.4,SNR=18						
SNY	Shenyang	161.76	323	P	PKPab	04 50 35.0	-13
SNY				pmax	pmax		
	comp=Z,11nm,0.5s						
XLT	XiLinHaoTe	163.16	342	ePKP	PKPdf	04 50 04.0	0.0
XLT				PKPab	PKPab	04 50 54.1	0.0
XLT				L	L		
	comp=Z,8µm,18.5s						
XLT				L	L		
	comp=Z,12µm,19.9s						
GUWA	GUWAHATI	164.58	93	eP	PKPdf	04 50 06.1	+0.4
SHL	Shillong	164.62	95	eP	PKPdf	04 50 06.7	+0.7
AZL	Aizawl	164.81	103	eP	PKPdf	04 50 06.2	+0.1
AZL				IAMs_20	IAMs_20	04 55 20.9	
	comp=Z,4µm,19.1s						
DL2	Dalian	164.84	319	PKP	PKPdf	04 50 07.0	+1.5
DL2				PKPab	PKPab	04 51 02.5	+0.9
DL2				ePP	PP	04 54 49.8	+2.0
DL2				PPMZ			
	comp=Z,4µm,8.1s						
DL2				L	L		
	comp=Z,5µm,16.8s						
DL2				L	L		
	comp=Z,10µm,18.8s						
DL2	Dalian	164.84	319	SS	PP	04 54 49.4	+1.6
TAWA	Tawang	164.93	88	eP	PKPdf	04 50 06.9	+0.4
SILR	SILCHAR	165.23	99	eP	PKPdf	04 50 07.1	+0.8
GOMU	GeErMu	165.59	52	PKP	PKPdf	04 50 06.6	-0.2
GOMU				SS	SS	05 15 35.9	+6.6
GOMU				PPMZ			
	comp=Z,3µm,10.1s						
GOMU				L	L		

	comp=Z,5µm,19.0s						
GOMU				L	L		
	comp=Z,6µm,18.9s						
GOMU				L	L		
	comp=Z,16µm,19.0s						
TEZP	**TEZPUR**	**165.63**	**92**	*e*P	**PKPdf**	**04 50 07.7**	**+1.1**
GTA2	**Gaotai**	**166.31**	**31**	PKP	**PKPdf**	**04 50 07.8**	**+0.9**
GTA2				PKPab	**PKPab**	**04 51 08.5**	**+0.3**
GTA2				PP	**PP**	**04 54 55.7**	**+0.4**
GTA2				L	L		
	comp=Z,18µm,23.5s						
BJI2	**Beijing**	**166.63**	**335**	PKP	**PKPdf**	**04 50 07.2**	**+0.2**
BJI2				L	L		
	comp=Z,9µm,19.4s						
BJI2				L	L		
	comp=Z,14µm,20.1s						
ZIRO	**ZIRO**	**166.68**	**89**	*e*P	**PKPdf**	**04 50 07.9**	**+0.3**
CMAR	**Chiang Mai Arr**	**166.79**	**134**	PKP	**PKPdf**	**04 50 07.5**	**-0.2**
	comp=Z,4.5nm,0.7s,baz=254,slow=2.1,SNR=22						
CMAR				PKPab	**PKPab**	**04 51 09.5**	**-1.1**
	comp=Z,15nm,1.0s,baz=234,slow=4.0,SNR=13						
CMAR	**Chiang Mai Arr**	**166.79**	**134**	PKIKP	**PKPdf**	**04 50 06.8**	**-0.9**
CMAR						04 51 09.1	
CMAR	**Chiang Mai Arr**	**166.79**	**134**		**PKPdf**	**04 50 06.8**	**-0.9**
CMAR					**PKPab**	**04 51 09.1**	**-1.5**
HHC	**Hu-ho-hao-te**	**167.04**	**351**	*e*PKP	**PKPdf**	**04 50 06.6**	**-0.8**
HHC				L	L		
	comp=Z,5µm,17.6s						
HHC				L	L		
	comp=Z,2µm,16.8s						
HHC				L	L		
	comp=Z,7µm,16.8s						
CHTO	**Chiang Mai**	**167.05**	**133**	P	**PKPdf**	**04 50 07.7**	**-0.3**
CHTO	**Chiang Mai**	**167.05**	**133**	PKP	**PKPdf**	**04 50 08.3**	**+0.4**
TIA	**Tai'an**	**169.28**	**321**	PKP	**PKPdf**	**04 50 09.5**	**+0.6**
TIA				sPKP	**sPKPdf**	**04 50 17.9**	**-1.6**
TIA				SS	SS	05 16 05.6	+0.7
TIA				L	L		
	comp=Z,5µm,19.8s						
TIA				L	L		
	comp=Z,6µm,16.9s						
TIA				L	L		
	comp=Z,10µm,17.5s						
HNS	**HongShan**	**169.47**	**334**	⇑PKP	**PKPdf**	**04 50 09.9**	**+0.9**
HNS				PKPab	**PKPab**	**04 51 22.7**	**+0.8**
NJ2	**Nanjing**	**170.49**	**297**	*e*PKP	**PKPdf**	**04 50 10.1**	**+0.4**
NJ2				L	L		
	comp=Z,25µm,16.7s						
LZH	**Lanzhou**	**170.92**	**27**	*e*PKP	**PKPdf**	**04 50 11.9**	**+1.8**
LZH				PKPab	**PKPab**	**04 51 29.9**	**+1.2**
LZH				PP	**PP**	**04 55 17.8**	**-0.8**
LZH				PPMZ			
	comp=Z,3µm,5.3s						
LZH				L	L		
	comp=Z,21µm,21.5s						
LZDM	**Lanzhou Array**	**170.97**	**28**	PKP	**PKPdf**	**04 50 10.6**	**+0.3**
	comp=Z,1.3nm,0.3s,baz=308,slow=7.3,SNR=3.6						
LZDM				PKPab	**PKPab**	**04 51 28.6**	**-0.5**
	comp=Z,5.9nm,0.6s,baz=282,slow=2.9,SNR=5.2						
QIZ	**Qiongzhong**	**170.98**	**186**	PKP	**PKPdf**	**04 50 10.9**	**+0.5**
QIZ				PP	**PP**	**04 55 20.3**	**+2.1**
QIZ				SS	SS	05 16 23.1	+2.9
QIZ				L	L		
	comp=Z,6µm,19.7s						
QIZ				L	L		
	comp=Z,9µm,19.0s						
QIZ				L	L		
	comp=Z,12µm,20.2s						
LYN	**LuoYang**	**172.83**	**336**	*e*PKP	**PKPdf**	**04 50 11.5**	**+0.7**
LYN				sPKP	sPKPdf	04 50 18.6	-2.7
LYN				PKPab	**PKPab**	**04 51 37.0**	**+0.1**
LYN				PP	**PP**	**04 55 28.0**	**+0.3**
PZH	**PanZhiHua**	**173.46**	**102**	PKP	**PKPdf**	**04 50 12.3**	**+0.8**
PZH				PKPab	**PKPab**	**04 51 40.3**	**-0.1**
KMI2	**Kunming**	**173.79**	**116**	PKP	**PKPdf**	**04 50 11.8**	**0.0**
KMI2				sPKP	sPKPdf	04 50 20.8	-1.5
XAN	**Xi'an**	**174.03**	**360**	PKP	**PKPdf**	**04 50 11.8**	**+0.4**
XAN				PKPab	**PKPab**	**04 51 44.5**	**+2.2**
XAN				PP	PP	04 55 43.0	+10
XAN				PPMZ			
	comp=Z,6µm,13.1s						
XAN				L	L		
	comp=Z,9µm,18.7s						
XAN				L	L		
	comp=Z,15µm,17.9s						
WHN	**Wuhan**	**174.62**	**299**	PKP	**PKPdf**	**04 50 12.1**	**+0.5**
GYA	**Guiyang**	**177.47**	**128**	PKP	**PKPdf**	**04 50 14.0**	**+1.5**
GYA				PKPab	PKPab	04 51 56.9	-1.2
GYA				PP	**PP**	**04 55 54.1**	**+3.0**
GYA				L	L		
	comp=Z,3µm,18.8s						
GYA				L	L		
	comp=Z,2µm,23.6s						
GYA				L	L		
	comp=Z,5µm,18.4s						

NEIC ***01*** *04:36:32.8, 28°.00S×71°.42W, h1km*

IDC ***01*** *04:36:32.6±0.6, 27°.87S×71°.34W, h0km, mb4.8/11, mbtmp4.8/14, ML4.8/3, Error ellipse: s-maj=22.2km s-min=12.8km az=70.0*

GFZ ***01*** *04:36:33.1±0.2, 28°S±1°×7°2W±°, h10km, M5.6/23, mb5.4/23, Error ellipse: s-maj=9.0km s-min=2.9km az=93.9, confirmed*

SJA ***01*** *04:36:34.5±0.9, 27°.97S×71°.27W, h32km±2km, ML5.2, MW4.9*

NEIC ***01*** *04:36:37.0±1.9, 27°.968S±0°.010×71°.20W±0°.09, h28km±1km, mb5.4/116, Mwr5.1/12, Mwr5.1(GUC), Error ellipse: s-maj=13.8km s-min=2.8km az=267.0, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}1.13; $M_{\theta\theta}$2.38; $M_{\phi\phi}$-3.51; $M_{r\theta}$1.36; $M_{\theta\phi}$-0.57; $M_{\phi r}$-5.15; Fault plane solution: $M_0$6.19000×10^{16} NP1: ϕ_s159.70000°, δ81.58000°, λ68.11000°. NP2:ϕ_s49.68000°, δ23.38000°, λ158.36000°. Principal axes: T 5.2022, Plg49.0000°, Azm46.0000°; N 1.6396, Plg22.0000°, Azm163.0000°; P -6.8418, Plg33.0000°, Azm268.0000°;*

MOS ***01*** *04:36:36.4±1.6, 27°.79S×71°.14W, h22km, mb5.4/10 Error ellipse: s-maj=24.5km s-min=10.1km az=96.1*

GUC ***01*** *04:36:36.2±0.9, 27°.98S×71°.12W, h25km±3km, ML4.8*

ISC 01 04:36:36.7±0.4**, 27°.96S**±0°.03×**71°.35W**±0°.05**, h29**km±2km**, h29**km**:pP-P, n295,** σ1**.56**/303**, mb5.3**/65**, 11C-5D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	**Llanos de Chal**	**0.34**	**135**	*e*P	**Pb**	**04 36 42.6**	**-2.2**
AC04				*i* S	**Sb**	**04 36 47.9**	**-2.3**
AC04				IAML		04 36 49.7	
	comp=Z,80µm,0.5s						
AC04	**Llanos de Chal**	**0.34**	**135**	⇓*e*P	**Pb**	**04 36 42.5**	**-2.2**
AC04				*e*S	**Sb**	**04 36 47.3**	**-2.9**
AC04				IAML		04 36 48.8	
	comp=E,347µm,0.2s						
AC04	**Llanos de Chal**	**0.34**	**135**	Pg	**Pb**	**04 36 42.6**	**-2.2**
AC04				Sg	**Sb**	**04 36 47.1**	**-3.1**
AC04	**Llanos de Chal**	**0.34**	**135**	P	**Pb**	**04 36 42.6**	**-2.2**
GO03	**Copiapo**	**1.05**	**70**	*i* P	**Pb**	**04 36 55.7**	**-0.7**
GO03				*i* S	**Sn**	**04 37 08.5**	**-0.8**
GO03				IAML		04 37 14.8	
	comp=Z,22µm,1.1s						
GO03	**Copiapo**	**1.05**	**70**	*e*P	**Pn**	**04 36 52.8**	**-2.8**
GO03				*e*S	**Sn**	**04 37 05.8**	**-3.5**
GO03				IAML		04 37 15.2	
	comp=N,26µm,0.5s						
GO03	**Copiapo**	**1.05**	**70**	Pn	Pn	04 36 50.0	-5.5
AC06	**Mina Casimiro**	**1.06**	**56**	*e*P	**Pn**	**04 36 54.4**	**-1.3**
AC06				*e*S	**Sn**	**04 37 07.3**	**-2.3**
AC06				IAML		04 37 16.2	
	comp=E,24µm,0.4s						
LCO	**Las Campanas**	**1.19**	**152**	*i* P	**Pn**	**04 36 56.8**	**-0.9**
LCO				*i* S	**Sn**	**04 37 13.0**	**-0.1**
LCO				IAML		04 37 15.9	
	comp=Z,79µm,0.5s						
LCO	**Las Campanas**	**1.19**	**152**	P	**Pn**	**04 36 57.0**	**-0.7**
LCO	**Las Campanas**	**1.19**	**152**	*e*P	**Pn**	**04 36 57.1**	**-0.7**
LCO				*e*S	**Sn**	**04 37 11.8**	**-1.2**
LCO	**Las Campanas**	**1.19**	**152**		**Pn**	**04 36 55.9**	**-1.8**
LCO					**Sn**	**04 37 11.3**	**-1.7**
LCO	**Las Campanas**	**1.19**	**152**	P	**Pn**	**04 36 56.6**	**-1.1**
AC05	**El Transito**	**1.29**	**133**	*i* P	**Pn**	**04 36 58.9**	**0.0**
AC05				*i* S	**Sn**	**04 37 14.8**	**-0.5**
AC05				IAML		04 37 18.2	
	comp=Z,11µm,0.8s						
AC05	**El Transito**	**1.29**	**133**	*e*P	**Pn**	**04 36 58.4**	**-0.4**
AC05				*e*S	**Sn**	**04 37 14.3**	**-0.9**
AC05				IAML		04 37 20.0	
	comp=N,24µm,0.5s						
AC05	**El Transito**	**1.29**	**133**		**Pn**	**04 36 57.2**	**-1.6**
AC05				Sg	**Sn**	**04 37 14.2**	**-1.1**
AC05	**El Transito**	**1.29**	**133**	P	**Pn**	**04 36 57.7**	**-1.2**
AC01	**Pan de Azucar**	**1.92**	**20**	*i* P	**Pn**	**04 37 06.7**	**-0.8**
AC01				IAML		04 37 43.1	
	comp=Z,11µm,0.6s						
AC01	**Pan de Azucar**	**1.92**	**20**	*e*P	**Pn**	**04 37 06.5**	**-1.0**
AC01				*e*S	**Sb**	**04 37 34.3**	**-0.4**
AC01				IAML		04 37 44.9	
	comp=E,9µm,0.6s						
AC01	**Pan de Azucar**	**1.92**	**20**	Pn	**Pn**	**04 37 04.7**	**-2.8**
AC01	**Pan de Azucar**	**1.92**	**20**	P	**Pn**	**04 37 05.7**	**-1.8**
GO04	**Tololo Observa**	**2.26**	**168**	*i* P	**Pn**	**04 37 12.6**	**+0.3**
GO04				*e*S	**Sn**	**04 37 39.1**	**-0.2**
GO04				IAML		04 37 48.5	
	comp=Z,22µm,0.3s						
GO04	**Tololo Observa**	**2.26**	**168**	*e*P	**Pn**	**04 37 12.4**	**+0.1**
GO04				*e*S	**Sb**	**04 37 43.8**	**-0.8**
GO04	**Tololo Observa**	**2.26**	**168**	Pn	**Pn**	**04 37 10.6**	**-1.8**
GO04	**Tololo Observa**	**2.26**	**168**	P	**Pn**	**04 37 13.2**	**+0.8**
AC02	**Maricunga**	**2.27**	**61**	*i* P	**Pb**	**04 37 15.2**	**-2.1**
AC02				*i* S	**Sb**	**04 37 45.4**	**+0.3**
AC02				IAML		04 37 52.9	
	comp=Z,8µm,0.5s						
AC02	**Maricunga**	**2.27**	**61**	⇑*e*P	**Pn**	**04 37 14.1**	**+1.4**
AC02				*e*S	**Sb**	**04 37 42.3**	**-2.8**
AC02				IAML		04 37 51.6	
	comp=N,16µm,0.4s						
AC02	**Maricunga**	**2.27**	**61**	Pn	**Pn**	**04 37 11.4**	**-1.3**
AC02	**Maricunga**	**2.27**	**61**	P	**Pn**	**04 37 13.5**	**+0.8**
CO01	**Juntas del Tor**	**2.29**	**152**	*i* P	**Pb**	**04 37 15.0**	**-2.6**
CO01				*i* S	**Sb**	**04 37 42.8**	**-2.8**
CO01				IAML		04 37 50.8	
	comp=Z,18µm,1.1s						
CO01	**Juntas del Tor**	**2.29**	**152**	*e*P	**Pn**	**04 37 14.1**	**+1.3**
CO01				*e*S	**Sn**	**04 37 42.1**	**+1.9**
CO01				IAML		04 37 46.3	
	comp=E,16µm,0.4s						
CO01	**Juntas del Tor**	**2.29**	**152**	Pn	**Pn**	**04 37 12.2**	**-0.6**
CO01	**Juntas del Tor**	**2.29**	**152**	P	**Pn**	**04 37 14.4**	**+1.6**
CO06	**Fray Jorge**	**2.72**	**185**	*e*P	**Pn**	**04 37 16.4**	**-2.0**
CO06				IAML		04 38 11.6	
	comp=E,7µm,0.7s						
CO06	**Fray Jorge**	**2.72**	**185**	Pn	**Pn**	**04 37 16.5**	**-2.0**
VCA	**Vinchina**	**2.87**	**106**	*e*P	**Pb**	**04 37 27.2**	**-0.2**
CO03	**El Pedregal**	**2.93**	**169**	⇓*i*P	**Pn**	**04 37 21.8**	**+0.3**
CO03				*e*S	**Sn**	**04 37 58.8**	**+3.2**
CO03				IAML		04 38 06.7	
	comp=E,13µm,0.6s						
CO03	**El Pedregal**	**2.93**	**169**	P	**Pn**	**04 37 21.7**	**+0.3**
ACDV	**Cuesta del Vie**	**2.94**	**139**	*i* P	**Pb**	**04 37 27.8**	**-0.8**
ACDV				IAML		04 38 12.3	
	comp=Z,5µm,0.7s						
CO02	**Combarbal**	**3.25**	**175**	*i* P	**Pn**	**04 37 25.6**	**-0.2**
CO02				IAML		04 38 20.5	
	comp=Z,13µm,0.8s						
CO02	**Combarbal**	**3.25**	**175**	Pn	**Pn**	**04 37 24.4**	**-1.5**
CO02	**Combarbal**	**3.25**	**175**	P	**Pn**	**04 37 25.4**	**-0.4**
PB14	**IPOC Station P**	**3.43**	**15**	*i* P	**Pn**	**04 37 27.6**	**-0.9**
PB14				IAML		04 38 27.9	
	comp=Z,4µm,0.9s						
PB14	**IPOC Station P**	**3.43**	**15**	*e*P	**Pn**	**04 37 26.9**	**-1.6**
PB14	**IPOC Station P**	**3.43**	**15**	Pn	**Pn**	**04 37 26.3**	**-2.2**
PB14	**IPOC Station P**	**3.43**	**15**	P	**Pn**	**04 37 26.6**	**-1.8**
CO04	**Los Peladeros**	**4.08**	**176**	P	**Pn**	**04 37 37.2**	**-0.3**
RTLS	**Leoncito**	**4.22**	**156**	*i* P	**Pn**	**04 37 43.4**	**+4.0**
RTLS				IAML		04 38 48.5	
	comp=Z,16µm,0.7s						
ZON	**Zonda**	**4.26**	**148**	*i* P	**Pn**	**04 37 44.0**	**+4.3**
ZON				IAML		04 38 58.2	
	comp=Z,3µm,1.8s						
ZON	**Zonda**	**4.26**	**148**	P	**Pn**	**04 37 41.2**	**+1.5**
CFA	**Coronel Fontan**	**4.53**	**144**	Pn	**Pn**	**04 37 45.6**	**+2.3**
	comp=Z,53nm,0.3s,baz=15,slow=10.0,SNR=11						
CFA				Sn	**Sn**	**04 38 39.5**	**+4.4**
	comp=Z,69nm,0.3s,baz=219,slow=23,SNR=6.5						
	comp=Z,106nm,0.3s						
CFA				AML	AML		
VA03	**San Esteban**	**4.84**	**172**	*i* P	**Pn**	**04 37 50.0**	**+2.4**
VA03				IAML		04 39 17.8	
	comp=Z,4µm,0.7s						
VA03	**San Esteban**	**4.84**	**172**	Pn	**Pn**	**04 37 48.2**	**+0.6**
VA03	**San Esteban**	**4.84**	**172**	P	**Pn**	**04 37 47.8**	**+0.1**
VA01	**Torpederas**	**5.05**	**183**	P	**Pn**	**04 37 52.1**	**+1.6**
	comp=Z,405nm,0.7s						
PB05	**IPOC Station P**	**5.19**	**12**	*i* P	**Pn**	**04 37 51.0**	**-1.6**
PB05				IAML		04 39 26.2	
	comp=Z,1µm,0.7s						
PB05	**IPOC Station P**	**5.19**	**12**	Pn	**Pn**	**04 37 49.9**	**-2.7**
PB05	**IPOC Station P**	**5.19**	**12**	P	**Pn**	**04 37 49.5**	**-3.0**
	comp=Z,579nm,0.6s						
PEL	**Peldehue**	**5.20**	**174**	P	**Pn**	**04 37 52.8**	**+0.2**
	comp=Z,579nm,1.4s						
PB06	**IPOC Station P**	**5.47**	**17**	Pn	**Pn**	**04 37 55.1**	**-1.4**
PB06	**IPOC Station P**	**5.47**	**17**	P	**Pn**	**04 37 54.3**	**-2.2**
	comp=Z,855nm,1.1s						
MT03	**Universidad Ad**	**5.56**	**173**	Pn	**Pn**	**04 37 57.6**	**0.0**
MT01	**Popeta**	**5.89**	**179**	Pn	**Pn**	**04 38 01.2**	**-0.8**
PB03	**IPOC Station P**	**6.06**	**14**	Pn	**Pn**	**04 38 03.4**	**-1.1**
PB03	**IPOC Station P**	**6.06**	**14**	P	**Pn**	**04 38 03.6**	**-1.0**
	comp=Z,605nm,1.9s						
PB07	**IPOC Station P**	**6.35**	**12**	Pn	**Pn**	**04 38 05.8**	**-2.7**
PB07	**IPOC Station P**	**6.35**	**12**	P	**Pn**	**04 38 05.7**	**-2.8**
	comp=Z,630nm,1.2s						
BO01	**Tunca**	**6.42**	**178**	P	**Pn**	**04 38 09.7**	**+0.5**
	comp=Z,527nm,0.7s						
PB09	**IPOC Station P**	**6.43**	**18**	P	**Pn**	**04 38 08.2**	**-1.4**
	comp=Z,1µm,1.3s						
BO03	**Pichilemu**	**6.54**	**184**	P	**Pn**	**04 38 10.6**	**-0.4**
	comp=Z,346nm,1.6s						
PB02	**IPOC Station P**	**6.74**	**12**	Pn	**Pn**	**04 38 10.7**	**-3.1**
PB02	**IPOC Station P**	**6.74**	**12**	P	**Pn**	**04 38 11.3**	**-2.6**
	comp=Z,465nm,0.7s						
BO02	**Sierra Bellavi**	**6.83**	**176**	P	**Pn**	**04 38 14.9**	**-0.1**
	comp=Z,376nm,0.9s						
GO05	**Hualane**	**7.05**	**184**	P	**Pn**	**04 38 16.0**	**-2.0**
	comp=Z,435nm,0.7s						
TA01	**Diego Aracena**	**7.44**	**8**	P	**Pn**	**04 38 20.5**	**-2.8**
	comp=Z,389nm,1.5s						
PB08	**IPOC Station P**	**8.04**	**15**	P	**Pn**	**04 38 30.2**	**-1.7**
	comp=Z,291nm,2.1s						
PB11	**IPOC Station P**	**8.31**	**11**	P	**Pn**	**04 38 32.2**	**-3.2**
	comp=Z,346nm,2.8s						
PSGCX	**Pisagua**	**8.40**	**8**	Pn	**Pn**	**04 38 33.9**	**-2.8**
PSGCX	**Pisagua**	**8.40**	**8**	P	**Pn**	**04 38 32.3**	**-4.4**
	comp=Z,204nm,1.2s						
GO01	**Chusmiza**	**8.48**	**14**	P	**Pn**	**04 38 36.6**	**-1.6**
	comp=Z,301nm,1.9s						
VA04	**Juan Fernndez**	**8.57**	**227**	P	**Pn**	**04 38 34.6**	**-4.2**
	comp=Z,392nm,0.5s						
BI02	**San Fabin de**	**8.68**	**180**	P	**Pn**	**04 38 37.9**	**-2.5**
	comp=Z,190nm,1.7s						
H03S3	**Juan Fernandez**	**8.74**	**226**	Pn	**Pn**	**04 38 37.0**	**-3.9**
H03S1	**Juan Fernandez**	**8.75**	**226**	Pn	**Pn**	**04 38 36.8**	**-4.2**
H03S2	**Juan Fernandez**	**8.76**	**226**	Pn	**Pn**	**04 38 37.0**	**-4.1**
PB12	**IPOC Station P**	**9.35**	**6**	P	**Pn**	**04 38 46.1**	**-3.6**
	comp=Z,172nm,2.3s						
PB16	**IPOC Station P**	**9.73**	**10**	P	**Pn**	**04 38 53.4**	**-1.9**
	comp=Z,160nm,1.6s						
PB18	**Visviri**	**10.46**	**10**	P	**Pn**	**04 39 04.5**	**-0.8**
	comp=Z,768nm,1.8s						
LPAZ	**La Paz**	**11.99**	**15**	Pn	**Pn**	**04 39 26.1**	**-0.2**
	comp=Z,2.9nm,0.3s,baz=201,slow=7.5,SNR=6.3						
	comp=Z,10nm,0.5s						
LPAZ				AML	AML		
LPAZ	**La Paz**	**11.99**	**15**	Pn	**Pn**	**04 39 25.2**	**-1.1**
LPAZ	**La Paz**	**11.99**	**15**	P	**Pn**	**04 39 24.8**	**-1.5**
	comp=Z,100nm,1.6s						
SIV	**San Ignacio**	**15.24**	**41**	Pn	**Pn**	**04 40 06.2**	**-3.8**
	comp=Z,0.3nm,0.3s,baz=227,slow=11,SNR=6.7						
	comp=Z,36nm,1.0s						
SIV				AML	AML		
COYC	**Coyhaique**	**17.59**	**182**	P	**Pn**	**04 40 39.3**	**-0.3**
	comp=Z,382nm,2.2s						
C2SB	**Chapadao do Su**	**19.28**	**66**	P	**Pn**	**04 40 59.6**	**-0.8**
	comp=Z,752nm,1.3s						
CZSB	**Cruzeiro do Su**	**20.16**	**356**		**P**	**04 41 07.2**	**-1.7**
GO08	**Villa O'Higgin**	**20.50**	**182**	P	**P**	**04 41 12.9**	**+0.7**
GO08	**Villa O'Higgin**	**20.50**	**182**	P	**P**	**04 41 10.6**	**-1.6**
	comp=Z,85nm,2.7s						
CLDB	**Colider**	**22.41**	**44**	P	**P**	**04 41 31.9**	**-1.2**
	comp=Z,120nm,2.1s						
PMNB	**Patos De Minas**	**24.69**	**73**	P	**P**	**04 41 54.9**	**-0.6**
	comp=Z,94nm,1.2s						
MACA	**Manacapuru-AM**	**26.68**	**24**	P	**P**	**04 42 13.2**	**-0.1**
MACA				IAmb	IAmb	04 42 27.0	
	comp=Z,74nm,0.9s						
BSFB	**Barra de Sao F**	**29.36**	**79**	P	**P**	**04 42 37.3**	**-0.1**
	comp=Z,92nm,1.4s						
ORCD	**Orcadas**	**37.37**	**159**	P	**P**	**04 43 46.6**	**+0.1**
MDP	**Montagnes des**	**37.50**	**32**	P	**P**	**04 43 47.8**	**-0.3**
	comp=Z,33nm,0.8s,baz=216,slow=8.5,SNR=9.8						
	comp=Z,33nm,0.8s						
MPGF	**Montagnes des**	**37.50**	**32**	P	**P**	**04 43 47.0**	**-1.1**
MPGF				x	x	04 43 55.7	
MPGF				pP	**pP**	**04 43 57.8**	**+1.5**
MLPR	**Magueyes Islan**	**45.85**	**6**	P	**P**	**04 44 56.0**	**-0.3**
MLPR				IAmb	IAmb	04 44 57.1	
	comp=Z,42nm,0.8s						
OBIP	**Obispado Ponce**	**45.96**	**6**	P	**P**	**04 44 56.5**	**-0.7**
CELP	**Cerrillos**	**45.99**	**6**	P	**P**	**04 44 56.3**	**-1.2**
CELP				IAmb	IAmb	04 44 58.3	
	comp=Z,38nm,0.8s						
PDPR	**Patillas Dam,**	**46.00**	**7**	P	**P**	**04 44 56.4**	**-1.1**
PDPR				IAmb	IAmb	04 44 57.1	
	comp=Z,30nm,0.8s						
SJG	**San Juan**	**46.07**	**7**	P	**P**	**04 44 56.8**	**-1.3**
	comp=Z,23nm,0.8s,baz=262,slow=1.3,SNR=7.2						
	comp=Z,23nm,0.8s						
SJG	**San Juan**	**46.07**	**7**	P	**P**	**04 44 57.2**	**-0.9**
SJG				pmax	pmax		
	comp=Z,26nm,0.9s						
SJG	**San Juan**	**46.07**	**7**	P	**P**	**04 44 57.2**	**-0.9**
SJG	**San Juan**	**46.07**	**7**	P	**P**	**04 44 55.9**	**-2.2**
SJG				sP	**sP**	**04 45 12.5**	**+2.6**
TEIG	**Tepich**	**50.62**	**339**	P	**P**	**04 45 33.6**	**+0.4**
TEIG				IAmb	IAmb	04 45 36.8	
	comp=Z,36nm,1.2s						
TEIG	**Tepich**	**50.62**	**339**	P	**P**	**04 45 34.3**	**+1.1**
TEIG				pP	**sP**	**04 45 46.7**	**+2.0**
VNA3	**Neumayer Olymp**	**54.76**	**160**	⇑P	**P**	**04 46 02.9**	**-0.4**
	comp=Z,6.5nm,0.7s						
VNA2	**Neumayer--Watz**	**55.38**	**159**	⇑P	**P**	**04 46 07.8**	**+0.1**
	comp=Z,8.5nm,0.6s,baz=289,slow=7.2						
SNAA	**Sanae**	**56.98**	**159**	⇑P	**P**	**04 46 19.3**	**+0.1**
	comp=Z,657nm,0.7s						
SNAA	**Sanae**	**56.98**	**159**	⇑*i*P	**P**	**04 46 19.9**	**+0.7**
SNAA				pmax	pmax		
	comp=Z,20nm,1.0s						
SNAA	**Sanae**	**56.98**	**159**	P	**P**	**04 46 19.1**	**-0.1**
SNAA				IAmb	IAmb	04 46 51.9	
	comp=Z,27nm,0.7s						
TROLL	**Troll, Antarti**	**58.69**	**160**	⇑P	**P**	**04 46 31.6**	**+0.3**
	comp=Z,742nm,0.8s						
154A	**Montrose**	**61.27**	**349**	P	**P**	**04 46 49.3**	**+0.1**
154A				IAmb	IAmb	04 46 50.3	
	comp=Z,43nm,1.0s						
NHSC	**New Hope**	**61.31**	**352**	P	**P**	**04 46 49.9**	**+0.5**
152A	**Waverly Hall**	**61.62**	**347**	P	**P**	**04 46 51.0**	**-0.5**
NVL	**N'lazarevskaya**	**61.65**	**158**	*e*P	**P**	**04 46 50.4**	**-1.0**
NVL				pmax	pmax		
	comp=Z,16nm,0.9s						
Y57A	**Sumter**	**62.23**	**352**	P	**P**	**04 46 56.3**	**+0.6**
QSPA	**South Pole Qui**	**62.26**	**180**	P	**P**	**04 46 56.4**	**+0.7**
	comp=Z,11nm,0.9s,baz=183,slow=5.8,SNR=4.2						
	comp=Z,11nm,0.9s						
QSPA	**South Pole Qui**	**62.26**	**180**	P	**P**	**04 46 55.5**	**-0.3**
VBMS	**Vicksburg**	**62.56**	**342**	P	**P**	**04 46 57.8**	**-0.1**
JSC	**Jenkinsville**	**62.61**	**351**	P	**P**	**04 46 58.1**	**-0.1**
JSC				pmax	pmax		
	comp=Z,63nm,1.9s						
JSC	**Jenkinsville**	**62.61**	**351**	P	**P**	**04 46 58.1**	**-0.1**
JSC				IAmb	IAmb	04 46 58.8	
	comp=Z,63nm,1.9s						
HNDO	**Hondo**	**63.10**	**333**	P	**P**	**04 47 02.5**	**+0.9**
143A	**Socs Landing,**	**63.27**	**341**	P	**P**	**04 47 03.5**	**+0.9**
X51A	**Calhoun**	**63.49**	**348**	P	**P**	**04 47 03.9**	**-0.2**
X51A				IAmb	IAmb	04 47 06.2	
	comp=Z,37nm,1.0s						
BG3	**Lake Jocassee**	**63.56**	**349**	P	**P**	**04 47 04.8**	**+0.3**
FPAL	**Fort Paine**	**63.61**	**347**	P	**P**	**04 47 04.8**	**-0.1**
FPAL				IAmb	IAmb	04 49 08.3	
	comp=Z,56nm,2.0s						
X48A	**Hartselle**	**63.83**	**346**	P	**P**	**04 47 06.4**	**+0.1**
X48A				IAmb	IAmb	04 47 19.8	
	comp=Z,23nm,1.0s						
W52A	**Murphy**	**63.83**	**349**	P	**P**	**04 47 06.5**	**+0.1**
W50A	**Signal Mountai**	**64.19**	**347**	P	**P**	**04 47 07.9**	**-0.8**
W50A				IAmb	IAmb	04 47 21.6	
	comp=Z,25nm,1.0s						
SWET	**Sewanee**	**64.33**	**347**	IAmb	IAmb	04 47 11.5	
	comp=Z,25nm,0.9s						
BRDY	**Brady**	**64.55**	**334**	P	**P**	**04 47 11.7**	**+0.6**
TXAR	**Lajitas Array**	**64.82**	**329**	P	**P**	**04 47 14.2**	**+1.2**
	comp=Z,1.4nm,0.9s,baz=143,slow=6.9,SNR=3.4						
	comp=Z,1.4nm,0.9s						
TXAR	**Lajitas Array**	**64.82**	**329**	P	**P**	**04 47 12.9**	**-0.2**
T59A	**Double "B" Far**	**64.85**	**355**	P	**P**	**04 47 13.7**	**+0.8**
T59A				IAmb	IAmb	04 49 04.0	
	comp=Z,70nm,1.6s						
U54A	**Nelsons Funny**	**64.89**	**351**	IAmb	IAmb	04 47 14.4	
	comp=Z,20nm,0.9s						
V48A	**Smith Brothers**	**65.02**	**346**	IAmb	IAmb	04 49 21.5	
	comp=Z,56nm,1.5s						
ELIB	**Princess Elisa**	**65.13**	**160**	*d*P	**P**	**04 47 14.6**	**+0.1**
WVT	**Waverly**	**65.61**	**345**	P	**P**	**04 47 17.7**	**-0.1**
WVT				x	x	04 47 24.2	
WVT				pP	**sP**	**04 47 29.9**	**+0.4**
WVT				PcP	**PcP**	**04 47 48.9**	**-0.3**
MIAR	**Mount Ida**	**65.63**	**340**	P	**P**	**04 47 19.1**	**+1.1**
MIAR				pmax	pmax		
	comp=Z,64nm,1.5s						
MIAR	**Mount Ida**	**65.63**	**340**	P	**P**	**04 47 19.1**	**+1.1**
MIAR				IAmb	IAmb	04 48 55.8	
	comp=Z,64nm,1.4s						
Z35A	**Perchaven, San**	**65.73**	**336**	P	**P**	**04 47 18.9**	**+0.2**
R58B	**Mineral**	**65.86**	**354**	IAmb	IAmb	04 47 21.7	
	comp=Z,18nm,0.9s						
ABTX	**Abilene, Hawle**	**65.98**	**334**	P	**P**	**04 47 21.2**	**+0.8**
TMB01	**Midkiff**	**66.13**	**332**	P	**P**	**04 47 22.5**	**+1.1**
TMB01				IAmb	IAmb	04 48 59.3	
	comp=Z,60nm,1.7s						
T47A	**Sharon Grove**	**66.28**	**346**	P	**P**	**04 47 22.2**	**0.0**
T47A				IAmb	IAmb	04 47 24.7	
	comp=Z,36nm,1.0s						
LCAR	**Lake Charles**	**66.37**	**343**	IAmb	IAmb	04 49 06.6	
	comp=Z,69nm,1.6s						
T45A	**Paducah**	**66.65**	**345**	P	**P**	**04 47 24.8**	**+0.3**
ODSA	**Odessa**	**66.72**	**331**	IAmb	IAmb	04 47 39.4	
	comp=Z,33nm,0.9s						
PBMO	**Poplar Bluff**	**66.85**	**343**	IAmb	IAmb	04 47 28.9	
	comp=Z,37nm,1.2s						
128A	**Castleberry Fa**	**67.13**	**332**	P	**P**	**04 47 27.6**	**-0.1**
128A				IAmb	IAmb	04 49 04.8	
	comp=Z,54nm,1.6s						
R49A	**Shelbyville**	**67.17**	**348**	P	**P**	**04 47 26.9**	**-0.9**
R49A				IAmb	IAmb	04 48 59.0	
	comp=Z,102nm,2.0s						
TPB11	**China Draw**	**67.20**	**330**	P	**P**	**04 47 28.9**	**+0.7**
WCI	**Wyandotte Cave**	**67.31**	**347**	P	**P**	**04 47 27.9**	**-0.8**
WCI				pmax	pmax		
	comp=Z,21nm,1.1s						
WCI	**Wyandotte Cave**	**67.31**	**347**	P	**P**	**04 47 27.9**	**-0.8**
HHAR	**Hobbs**	**67.35**	**340**	P	**P**	**04 47 29.3**	**+0.3**
P57A	**Homestead Farm**	**67.38**	**354**	P	**P**	**04 47 29.6**	**+0.5**
CLNB	**Carlsbad**	**67.42**	**330**	P	**P**	**04 47 30.7**	**+1.1**
RLO	**Rose Lookout**	**67.57**	**339**	IAmb	IAmb	04 48 55.7	
	comp=Z,59nm,1.2s						
TUL3	**Leonard**	**67.58**	**339**	IAmb	IAmb	04 47 44.5	
	comp=Z,21nm,0.9s						
CCM	**Cathedral Cave**	**68.27**	**343**	P	**P**	**04 47 35.4**	**+0.7**
CCM				x	x	04 47 44.7	
CCM				pP	**sP**	**04 47 47.7**	**+1.3**
CCM				PcP	**PcP**	**04 48 01.6**	**+1.4**
Q44A	**Meyer Farm, Va**	**68.53**	**345**	P	**P**	**04 47 35.0**	**-1.3**
ACSO	**Alum Creek Sta**	**68.70**	**350**	IAmb	IAmb	04 48 50.2	
	comp=Z,91nm,1.8s						
P46A	**Rosedale**	**68.84**	**347**	IAmb	IAmb	04 47 39.7	
	comp=Z,28nm,1.0s						
P43A	**Skaggs, Pawnee**	**69.35**	**345**	IAmb	IAmb	04 47 43.1	
	comp=Z,31nm,0.8s						
N49A	**Columbus Grove**	**69.56**	**350**	IAmb	IAmb	04 47 45.4	
	comp=Z,56nm,1.3s						
P40A	**Paris**	**69.86**	**343**	IAmb	IAmb	04 47 48.0	

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               comp=Z,56nm,1.1s
L59A  Walton            69.88 357   IAmb      IAmb      04 47 47.3
               comp=Z,24nm,0.9s
L56A  Greenwood         69.98 355   IAmb      IAmb      04 47 58.0
               comp=Z,91nm,1.8s
L61B  Northampton       70.07 359   P         P         04 47 46.3 +0.5
L61B                                IAmb      IAmb      04 47 48.2
               comp=Z,27nm,0.9s
HRV   Adam Dziewonsk    70.11 360   P         P         04 47 46.7 +0.6
HRV                                 pmax      pmax
               comp=Z,23nm,1.0s
HRV   Adam Dziewonsk    70.11 360   P         P         04 47 46.7 +0.6
HRV                                 IAmb      IAmb      04 47 48.7
               comp=Z,23nm,0.9s
HRV   Adam Dziewonsk    70.11 360   P         P         04 47 46.8 +0.8
HRV                                 pP        sP        04 47 58.2 +0.5
HDIL  Hopedale          70.18 346   IAmb      IAmb      04 47 48.4
               comp=Z,30nm,0.9s
TRY   Troy              70.37 358   IAmb      IAmb      04 47 50.5
               comp=Z,40nm,1.1s
N41A  Harden Midland    70.68 344   IAmb      IAmb      04 47 52.3
               comp=Z,47nm,1.1s
ANMO  Albuquerque       70.82 330   P         P         04 47 51.1 +0.2
               comp=Z,2.8nm,1.0s,baz=136,slow=11,SNR=3.4
               comp=Z,2.8nm,1.0s
ANMO  Albuquerque       70.82 330⇑ iP        P         04 47 53.2 +2.4
ANMO  Albuquerque       70.82 330   P         P         04 47 50.2 -0.7
ANMO                                IAmb      IAmb      04 49 08.8
               comp=Z,101nm,1.9s
J61A  Chester           70.96 359   IAmb      IAmb      04 47 55.6
               comp=Z,33nm,1.3s
I63A  Otisfield         71.66   1   P         P         04 47 56.5 +1.0
I63A                                IAmb      IAmb      04 48 00.0
               comp=Z,33nm,1.1s
LBNH  Lisbon            71.85 360   P         P         04 47 57.1 +0.5
LBNH                                pmax      pmax
               comp=Z,20nm,1.0s
LBNH  Lisbon            71.85 360   P         P         04 47 57.1 +0.5
L40A  Anamosa           72.05 345   IAmb      IAmb      04 48 00.1
               comp=Z,49nm,1.0s
EMMW  East Machias      72.40   3   IAmb      IAmb      04 48 06.0
               comp=Z,101nm,1.9s
HAL   Halifax           72.59   6   P         P         04 48 01.5 +0.5
HAL                                 pmax      pmax
               comp=Z,61nm,1.4s
HAL   Halifax           72.59   6   P         P         04 48 01.5 +0.5
HAL                                 IAmb      IAmb      04 48 50.3
               comp=Z,61nm,1.4s
DBIC  Dimbokro          72.74  73   P         P         04 48 02.9 +0.3
               comp=Z,43nm,0.9s,baz=237,slow=7.1,SNR=16
               comp=Z,43nm,0.9s
DBIC  Dimbokro          72.74  73   P         P         04 48 01.9 -0.7
DBIC                                IAmb      IAmb      04 48 04.2
               comp=Z,46nm,0.9s
DBIC  Dimbokro          72.74  73   P         P         04 48 02.9 +0.3
DBIC                                x         x         04 48 10.5
DBIC                                PcP       PcP       04 48 18.3 -1.5
G62A  West of Eustis    72.83   1   P         P         04 48 02.8 +0.4
PKME  Peaks-Kenny Pk    72.90   2   IAmb      IAmb      04 49 49.8
               comp=Z,88nm,1.8s
TRQ   Mont Tremblant    73.89 358   IAmb      IAmb      04 50 51.7
               comp=Z,61nm,1.9s
PFO   Pinyon Flats O    74.69 322 i P         P         04 48 18.3 +4.5
PDAR  Pinedale Array    78.68 332   P         P         04 48 36.8 +0.6
               comp=Z,5.2nm,1.0s,baz=132,slow=4.2,SNR=7.2
               comp=Z,5.2nm,1.0s
TSUM  Tsumeb            80.32 107   P         P         04 48 46.4 +0.7
ULM   Lac du Bonnet     80.85 344   P         P         04 48 47.5  0.0
               comp=Z,12nm,0.9s,baz=128,slow=5.4,SNR=5.1
               comp=Z,12nm,0.9s
ULM   Lac du Bonnet     80.85 344⇑ iP        P         04 48 48.8 +1.3
TORD  Torodi Ar. Bea    81.61  70   P         P         04 48 52.7 +0.3
               comp=Z,20nm,0.9s,baz=272,slow=4.3,SNR=12
               comp=Z,20nm,0.9s
TORD  Torodi Ar. Bea    81.61  70   P         P         04 48 52.2 -0.2
BOSA  Boshof            82.37 118   P         P         04 48 56.6 +0.2
               comp=Z,22nm,0.8s,baz=251,slow=4.4,SNR=12
               comp=Z,22nm,0.8s
BOSA  Boshof            82.37 118   P         P         04 48 54.7 -1.7
BOSA                                IAmb      IAmb      04 48 57.2
               comp=Z,25nm,1.0s
BOSA  Boshof            82.37 118   P         P         04 48 56.7 +0.2
BOSA                                pP        sP        04 49 09.2 +0.8
LBTB  Lobatse           84.31 115   P         P         04 49 06.1 -0.4
LBTB                                pmax      pmax
               comp=Z,23nm,1.0s
LBTB  Lobatse           84.31 115   P         P         04 49 06.1 -0.4
LBTB                                IAmb      IAmb      04 49 07.8
               comp=Z,23nm,1.0s
LBTB  Lobatse           84.31 115   P         P         04 49 06.4 -0.1
LBTB                                pP        sP        04 49 18.4 -0.1
MD01  Midelt array s    87.48  51   P         P         04 49 22.5 +0.6
ESDC  Sonseca Array     91.95  45   P         P         04 49 43.2 +0.7
               comp=Z,1.8nm,0.9s,baz=235,slow=4.2,SNR=3.5
               comp=Z,1.8nm,0.9s
ESDC  Sonseca Array     91.95  45   P         P         04 49 42.2 -0.3
ESDC                                IAmb      IAmb      04 50 25.0
               comp=Z,23nm,1.6s
AKBB  Malin Array Si   117.59  45 i PKIKP     PKPdf     04 55 18.9 -0.6
BR131 Keskin Array S   118.25  58⇑ iPKIKP    PKiKP     04 55 21.8 +0.4
BRTR  Keskin Array B   118.25  58   PKP       PKPdf     04 55 21.4 +0.1
               comp=Z,1.4nm,0.9s,baz=188,slow=2.5,SNR=4.9
BRTR  Keskin Array B   118.25  58   PKIKP     PKPdf     04 55 21.0 -0.3
BRTR  Keskin Array B   118.25  58             PKPdf     04 55 21.0 -0.3
OBN   Obninsk          122.55  40⇓ iPKIKP    PKiKP     04 55 29.1 +0.1
OBN                               e                     04 57 09.9
OBN                               ePPP        PPP       04 59 42.0
OBN                               i SSS       SSS       05 18 22.9
OBN                                 pmax      pmax
               comp=Z,9.0nm,0.5s
ASAR  Alice Springs    123.19 208   PKP       PKPdf     04 55 31.2 -0.1
               comp=Z,2.3nm,0.8s,baz=134,slow=1.8,SNR=6.5
SHA1  Shidzhatmaz      125.60  55⇓ iPKIKP    PKiKP     04 55 36.0 +0.2
KIV   Kislovodsk       125.65  54 ePKIKP      PKiKP     04 55 37.5 +1.8
KIV                                 pmax      pmax
               comp=Z,6.0nm,1.0s
KBZ   Khabaz           125.77  55⇑ ePKIKP    PKiKP     04 55 36.6 +0.8
H11S2 WAKE ISLAND Hy   126.25 273   T         T         07 14 40.2
               baz=112,slow=75,SNR=23
H11S1 WAKE ISLAND Hy   126.26 273   T         T         07 14 46.0
               baz=112,slow=75,SNR=19
H11S3 WAKE ISLAND Hy   126.26 273   T         T         07 14 43.9
               baz=112,slow=75,SNR=22
WRA   Warramunga Arr   126.29 210   PKP       PKPdf     04 55 37.6 +0.3
               comp=Z,3.4nm,0.6s,baz=154,slow=1.7,SNR=16
WRA   Warramunga Arr   126.29 210   PKIKP     PKPdf     04 55 37.0 -0.3
WRA   Warramunga Arr   126.29 210             PKPdf     04 55 37.0 -0.3
BELG  Belogornoye      129.13  44 i PKIKP     PKiKP     04 55 43.8 +1.6
SEY   Seymchan         135.00 333   PKP       PKiKP     04 55 53.6 -0.2
               comp=Z,3.3nm,0.8s,baz=87,slow=6.8,SNR=4.7
CHM   Chimkent         145.32  55 ePKIKP      PKPdf     04 56 13.7 +2.0
CHM   Chimkent         145.32  55 ePKP        PKPdf     04 56 13.8 +2.0
BRLS  Borolday         145.34  54 ePKIKP      PKPdf     04 56 13.7 +2.0
BRLS  Borolday         145.34  54 ePKP        PKPdf     04 56 13.8 +2.0
IUG   Iuzhnay          145.66  55 ePKIKP      PKPab     04 56 14.4 +1.3
IUG   Iuzhnay          145.66  55 ePKP        PKPab     04 56 14.4 +1.3
KK31  Karatay Array    145.80  54   PKP2      PKPdf     04 56 12.4 -0.1
KK31  Karatay Array    145.80  54             PKPdf     04 56 12.4 -0.1
KKAR  Karatay Array    145.80  54   PKP2      PKPdf     04 56 12.5  0.0
KKAR  Karatay Array    145.80  54             PKPdf     04 56 12.5  0.0
DZA   Taraz            146.44  54 ePKP2       PKPab     04 56 15.7 -0.2
DZA   Taraz            146.44  54 ePKP        PKPab     04 56 15.7 -0.2
BTLS  Baital           147.68  49 ePKIKP      PKPbc     04 56 17.7 -0.6
BTLS                              e                     04 59 46.6
BTLS  Baital           147.68  49 ePKP        PKPbc     04 56 17.7 -0.6
BTLS                              ePP         PP        04 59 46.7 +1.3
KURK  Kurchatov        147.87  37 i PKP2      PKPbc     04 56 18.7 +0.1
KURK  Kurchatov        147.87  37             PKPbc     04 56 17.4 -1.3
KURBB Kurchatov Arra   147.88  37   PKPbc     PKPbc     04 56 17.6 -1.0
               comp=Z,9.4nm,0.9s,baz=300,slow=3.0,SNR=8.7
ARSB  Arslanbob        148.00  56   PKIKP     PKPdf     04 56 16.2 -0.2
ARSB  Arslanbob        148.00  56   PKPdf     PKPdf     04 56 16.2 -0.2
SGDS  Sogindy          148.60  51 ePKP        PKPbc     04 56 19.4 -1.6
SGDS                              ePP         PP        04 59 52.3 +1.4
ZAA0  Zalesovo Array   148.70  27   PKPdf     PKPdf     04 56 17.3 +0.4
ZALV  Zalesovo Beam    148.70  27   PKPbc     PKPdf     04 56 18.8 +1.9
               comp=Z,35nm,0.9s,baz=308,slow=3.1,SNR=17
ZALV  Zalesovo Beam    148.70  27   PKIKP     PKPdf     04 56 17.4 +0.5
ZALV  Zalesovo Beam    148.70  27             PKPdf     04 56 17.4 +0.5
AAK   Ala-Archa        148.75  53⇑ iPKIKP    PKPbc     04 56 20.0 -1.5
AAA   Alma-Ata         150.25  51 ePKIKP      PKPdf     04 56 21.8 +2.0
AAA   Alma-Ata         150.25  51 ePKP        PKPdf     04 56 21.9 +2.0
TNSS  Tian-Shan        150.33  51 ePKIKP      PKPdf     04 56 22.0 +1.6
TNSS  Tian-Shan        150.33  51 ePKP        PKPdf     04 56 22.0 +1.6
MDOK  Medeo            150.36  51 ePKIKP      PKPdf     04 56 22.1 +2.0
MDOK  Medeo            150.36  51 ePKP        PKPdf     04 56 22.2 +2.0
HYB   Hyderabad        150.39 104 ePKiKP      PKPbc     04 56 26.2 +0.1
KSH2  Kashi            150.41  59   PKPbc     PKiKP     04 56 27.2 +0.8
TDK   Taldyqorghan     150.55  47 ePKIKP      PKPdf     04 56 22.3 +2.1
TDK   Taldyqorghan     150.55  47 ePKP        PKPdf     04 56 22.4 +2.1
ZEA   Zeya             150.84 337 ePKIKP      PKiKP     04 56 27.8 +1.2
ZEA                                 pmax      pmax
               comp=Z,10.0nm,1.2s
UZB   Uzynbulak        151.71  50 ePKIKP      PKPdf     04 56 24.1 +1.9
UZB   Uzynbulak        151.71  50 ePKP        PKPdf     04 56 24.1 +1.9
SHLS  Shalkode         152.00  49 ePKIKP      PKPdf     04 56 24.9 +2.3
SHLS  Shalkode         152.00  49 ePKP        PKPdf     04 56 25.0 +2.3
MK31  Makanchi Array   152.06  41 i PKIKP     PKiKP     04 56 29.7 +0.3
MKAR  Makanchi Array   152.06  41   PKPbc     PKPbc     04 56 28.9 -0.1
               comp=Z,13nm,0.9s,baz=316,slow=2.3,SNR=11
MKAR  Makanchi Array   152.06  41   PKIKP     PKPbc     04 56 29.2 +0.1
MKAR  Makanchi Array   152.06  41             PKPbc     04 56 29.2 +0.1
KLR   Kul'dur          152.32 326   PKPbc     PKiKP     04 56 30.0 +0.2
               comp=Z,4.3nm,0.7s,baz=34,slow=4.4,SNR=4.5
KLR                                 PKPab     sPKPbc    04 56 40.8 -0.8
               comp=Z,4.0nm,0.8s,baz=348,slow=4.9,SNR=4.9
KLR   Kul'dur          152.32 326 i PKIKP     PKiKP     04 56 30.3 +0.5
ZSN   Zaisan           153.11  37 ePKIKP      PKPdf     04 56 26.1 +2.2
ZSN   Zaisan           153.11  37 ePKP        PKPdf     04 56 26.2 +2.2
TLY   Talaya           156.01   8   PKPab     PKPab     04 56 55.8 +0.7
               comp=Z,4.5nm,0.7s,baz=240,slow=0.4,SNR=3.7
TLY   Talaya           156.01   8             PKPab     04 56 55.2 +0.1
HILR  Hailar Array B   156.81 341   PKPab     PKPab     04 56 58.9 +0.2
               comp=Z,4.9nm,0.9s,baz=74,slow=5.4,SNR=3.6
WMQ   Urumqi           156.88  41 ePKP        PKPdf     04 56 27.0 -2.3
WMQ                                 PKPab     PKPab     04 57 01.6 +2.3
WMQ                                 LR        LR
               comp=N,6µm,17.5s
WMQ                                 LR        LR
               comp=E,4µm,17.5s
WMQ                                 LR        LR
               comp=Z,4µm,16.5s
SONM  Songino Array    160.08   4   PKPab     PKPab     04 57 14.2 +1.2
               comp=Z,2.7nm,1.0s,baz=328,slow=5.1,SNR=2.9
SONM  Songino Array    160.08   4   PKP2      PKPab     04 57 12.6 -0.4
SONM  Songino Array    160.08   4             PKPab     04 57 12.6 -0.4
HHC   Hu-ho-hao-te     166.92 350 eP          PKPdf     04 56 36.2 -3.5
BTO2  Baotou           167.21 356 ePKPbc      PKPdf     04 56 37.1 -2.9
BTO2                                PP        PP        05 00 56.6  -35
NJ2   Nanjing          170.26 297 eP          PKPdf     04 56 44.4 +2.4
NJ2                                 pmax      pmax
               comp=Z,27nm,0.6s
NJ2                                 LR        LR
               comp=N,26µm,17.0s
NJ2                                 LR        LR
               comp=E,14µm,19.9s
NJ2                                 LR        LR
               comp=Z,25µm,15.7s
LZH   Lanzhou          170.93  26 eP          PKPdf     04 56 45.2 +2.7
LZH                                 sP        sPKPdf    04 56 58.7 +4.2
LZH                                 pmax      pmax
               comp=Z,19nm,1.5s
PZH   PanZhiHua        173.68 102   PKP       PKPdf     04 56 43.2 -0.7
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*MOS **01** 04:37:07.1±1.4, 42°.43N×143°.44E, h74km, mb4.6/3, Error ellipse: s-maj=17.6km s-min=9.6km az=65.5*

*SKHL **01** 04:37:07.4±0.3, 42°.30N×143°.50E, h71km±4km, mb5.1/4*

*NEIC **01** 04:37:08.9±1.8, 42°.49N±0°.03×143°.5E±0°.2, h66km±5km, mb4.8/12, Error ellipse: s-maj=17.3km s-min=2.2km az=99.0*

*JMA **01** 04:37:09.1±0.1, 42°.5N±0°.4×143°.4E±0°.7, h50km±1km, MD3.6/35, MV3.8/35, TOKACHI REGION*

JMA Felt III J1 at TOKACHI REGION .

*IDC **01** 04:37:11.6±4.3, 42°.47N×143°.22E, h89km±40km, mb3.5/7, mbtmp3.8/9, Error ellipse: s-maj=30.8km s-min=23.3km az=82.0*

ISC 01 04:37:08.3±0.7**, 42°.44N**±0°.04×**143°.45E**±0°.04**, h62**km±5km**, n71,** σ1§**46**/82**, mb4.4**/14**, 1C-8D, Hokkaido region**

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Code  Station Name       Δ°   AZ°    Phase ID            Time      Res
                                     Op        ISC       h  m  s   ISC
JTHR  Tokachihiroo      0.18 217⇓ iP         Pn        04 37 17.3 -0.5
JTHR                                A         A         04 37 17.3
               comp=N,6.0nm,0.4s,comp=E,7.0nm,0.4s
JTHR                             ⇓S          Sn        04 37 23.5 -1.3
JCH   Churui            0.19 341⇓ iP         Pn        04 37 17.1 -0.8
JCH                                 A         A         04 37 17.1
               comp=N,7.0nm,0.7s,comp=E,23nm,0.3s
JCH                              ⇓S          Sn        04 37 22.8 -2.1
JEM   Erimo             0.47 207    P         Pn        04 37 20.1  0.0
JEM                                 A         A         04 37 20.1
               comp=N,8.0nm,2.4s,comp=E,6.0nm,0.5s
ERM   Erimo             0.47 207    PN        Pn        04 37 19.9 -0.2
ERM                                                     04 37 31.6
ERM   Erimo             0.47 207              Pn        04 37 19.9 -0.2
ERM                                 Sn        Sn        04 37 31.6 +2.8
JNBK  Urakawa-nobuka    0.54 253⇓ iP         Pn        04 37 20.4 -0.4
JNBK                                A         A         04 37 20.4
               comp=N,8.0nm,0.4s,comp=E,10.0nm,0.5s
JOB   Onbets            0.55  32  i P         Pn        04 37 21.1 +0.2
JOB                                 A         A         04 37 21.1
               comp=N,11nm,0.6s,comp=E,14nm,1.0s
JOB                                 S         Sn        04 37 30.4 +0.3
JSHD  Hidakashinhida    0.72 268⇓ iP         Pn        04 37 23.1 +0.1
JSHD                                A         A         04 37 23.1
               comp=N,9.0nm,2.8s,comp=E,8.0nm,1.4s
JBT2  Biratori 2        0.87 294⇓ iP         Pn        04 37 23.8 -0.9
JAR   Ashorobuto        0.89  15  i P         Pn        04 37 24.8 -0.2
JAR                                 A         A         04 37 24.8
               comp=N,9.0nm,0.8s,comp=E,13nm,0.4s
JAR                                 S         Sn        04 37 36.6 -0.7
JFR   Furan             0.96 319    P         Pn        04 37 24.7 -1.2
JFR                               eS          Sn        04 37 36.4 -2.6
JAK   Akkeshi           1.08  58  i P         Pn        04 37 27.1 -0.3
JAK                                 S         Sn        04 37 41.6  0.0
JIAM  Iburiatsuma       1.14 280  eP          Pn        04 37 29.9 +1.7
AKK   Akkeshi           1.18  60  eP          Pn        04 37 28.0 -0.7
AKK                               eS          Sn        04 37 43.7 -0.3
JKA   Kamikawa-asahi    1.79 340              Pn        04 37 36.6 -0.3
JKA                                 Sn        Sn        04 37 59.0 +0.4
JKA   Kamikawa-asahi    1.79 340  eP          Pn        04 37 36.6 -0.3
ASAJ  Asahikawa         1.79 340    PN        Pn        04 37 36.6 -0.3
ASAJ                                                    04 37 59.0
NMR   Nemuro--Hokkai    1.92  60⇑ iPN        Pn        04 37 37.5 -1.1
NMR                               i S         Sn        04 37 59.7 -2.0
NMR   Nemuro--Hokkai    1.92  60  i P         Pn        04 37 37.5 -1.1
NMR                               i S         Sn        04 37 59.7 -2.0
RUSJ  Misakicho         2.12  38  ePN         Pn        04 37 42.3 +0.9
RUSJ                              i S         Sn        04 38 09.3 +2.6
YUK   Yuzh-Kuril'sk     2.38  47d iPN         Pn        04 37 45.1 +0.2
YUK                               i S         Sn        04 38 14.5 +1.6
YUK                                 pmax      pmax
               comp=Z,600nm,0.2s
YUK                                 pmax      pmax
               comp=N,179nm,0.1s
YUK                                 smax      smax
               comp=N,2µm,0.3s
YUK                                 smax      smax
               comp=E,1µm,0.2s
YUK   Yuzh-Kuril'sk     2.38  47  i P         Pn        04 37 45.4 +0.5
YUK                                 AMB       AMB       04 37 48.9
               comp=E,300nm,0.3s
YUK                               i S         Sn        04 38 12.2 -0.7
YUK                                 A         A         04 38 21.2
               comp=E,2µm,0.5s
YUK                                 A         A         04 38 21.2
               comp=E,1µm,0.5s
JTM   Tenmabayashi      2.43 228              Pn        04 37 46.2 +0.6
KUR   Kuril'sk          4.25  47  ePN         Pn        04 38 12.6 +2.2
KUR                               eS          Sn        04 39 02.7 +4.1
KUR                                 pmax      pmax
               comp=Z,103nm,0.4s
KUR                                 pmax      pmax
               comp=N,62nm,0.2s
KUR                                 pmax      pmax
               comp=E,28nm,0.2s
KUR                                 smax      smax
               comp=E,202nm,0.3s
KUR                                 smax      smax
               comp=N,107nm,0.2s
KUR   Kuril'sk          4.25  47  eP          Pn        04 38 12.6 +2.2
KUR                                 AMB       AMB       04 38 18.5
               comp=N,100nm,0.4s
KUR                               eS          Sn        04 39 02.7 +4.1
KUR                                 A         A         04 39 18.6
               comp=N,110nm,0.3s
KUR                                 A         A         04 39 18.6
               comp=N,200nm,0.3s
REI   Reidovoe          4.35  48  eP          Pn        04 38 13.4 +1.6
REI                                 AMB       AMB       04 38 16.6
               comp=N,100nm,0.5s
REI                               eS          Sn        04 39 02.2 +1.1
REI                                 A         A         04 39 09.6
               comp=N,40nm,0.4s
REI                                 A         A         04 39 09.6
               comp=N,50nm,0.4s
YSS   Yuzhno-Sakhali    4.54 354  eP          Pn        04 38 18.5 +4.1
MJAR  Matsushiro Arr    7.14 216    P         Pn        04 38 52.0 +1.9
               comp=N,3.6nm,0.6s,baz=35,slow=14,SNR=7.0
MJAR  Matsushiro Arr    7.14 216              Pn        04 38 50.7 +0.6
TYV   Tymovskoe         8.45 357  eP          Pn        04 39 11.1 +3.3
NKL   Nikolayevsk      10.88 351  eP          Pn        04 39 42.0 +1.0
KSRS  Korea Array      12.90 252    P         Pn        04 40 11.5 +2.8
               comp=N,0.7nm,0.4s,baz=58,slow=15,SNR=1.7
H11N2 WAKE ISLAND Hy   30.08 132    T         T         05 14 46.2
               baz=326,slow=75,SNR=93
H11N1 WAKE ISLAND Hy   30.09 132    T         T         05 14 48.2
               baz=326,slow=75,SNR=62
H11N3 WAKE ISLAND Hy   30.09 132    T         T         05 14 48.5
               baz=326,slow=75,SNR=64
H11S1 WAKE ISLAND Hy   30.96 133    T         T         05 15 51.5
               baz=327,slow=76,SNR=152
H11S3 WAKE ISLAND Hy   30.96 133    T         T         05 15 57.2
               baz=327,slow=76,SNR=103
H11S2 WAKE ISLAND Hy   30.98 133    T         T         05 15 59.0
               baz=327,slow=76,SNR=98
MKAR  Makanchi Array   42.79 298    P         P         04 44 58.7 -0.9
               comp=N,0.3nm,0.5s,baz=81,slow=9.2,SNR=1.6
               comp=N,0.3nm,0.5s
MKAR  Makanchi Array   42.79 298    P         P         04 44 59.4 -0.2
MKAR  Makanchi Array   42.79 298    P         P         04 44 59.4 -0.2
MKAR  Makanchi Array   42.79 298  eP          P         04 44 59.4 -0.2
KURK  Kurchatov        44.02 304    P         P         04 45 09.8 +0.5
KURK                                pmax      pmax
               comp=Z,15nm,1.8s
KURK  Kurchatov        44.02 304    P         P         04 45 09.8 +0.5
KURK  Kurchatov        44.02 304  eP          P         04 45 09.8 +0.5
KURBB Kurchatov Arra   44.09 304    P         P         04 45 09.2 -0.7
               comp=Z,0.7nm,0.6s,baz=77,slow=9.0,SNR=5.3
               comp=Z,0.7nm,0.6s
ILAR  Eielson Array    44.14  35    P         P         04 45 11.1 +0.9
               comp=Z,1.2nm,0.9s,baz=258,slow=5.9,SNR=6.6
               comp=Z,1.2nm,0.9s
ILAR  Eielson Array    44.14  35    P         P         04 45 09.9 -0.3
AB31  Akbulak array    55.75 308    P         P         04 46 37.7 -0.6
ABKAR Akbulak array    55.75 308    P         P         04 46 37.9 -0.5
WB0   Warramunga Arr   62.45 190    P         P         04 47 24.5 -0.4
WB0                                 IAmb      IAmb      04 47 31.6
               comp=Z,10nm,1.4s
WRAB  Tennant Creek    62.62 190    P         P         04 47 25.5 -0.5
WRAB                                pmax      pmax
               comp=Z,10.0nm,1.4s
WRAB  Tennant Creek    62.62 190    P         P         04 47 25.5 -0.5
WRAB                                IAmb      IAmb      04 47 39.5
               comp=Z,10nm,1.4s
WR8   Warramunga Arr   62.63 189    P         P         04 47 26.4 +0.3
WR8                                 IAmb      IAmb      04 47 32.7
               comp=Z,20nm,1.7s
WB2   Warramunga Arr   62.63 190    P         P         04 47 26.3 +0.2
WB2                                 IAmb      IAmb      04 47 29.8
               comp=Z,9.4nm,1.2s
WRA   Warramunga Arr   62.63 190    P         P         04 47 26.4 +0.2
               comp=Z,1.0nm,1.0s,baz=7.3,slow=6.8,SNR=7.6
               comp=Z,1.0nm,1.0s
WRA   Warramunga Arr   62.63 190    P         P         04 47 23.8 -2.3
FINES FINESS Array B   64.78 332    P         P         04 47 39.6 -0.2
               comp=Z,3.4nm,0.9s,baz=51,slow=7.6,SNR=6.1
               comp=Z,3.4nm,0.9s
FINES FINESS Array B   64.78 332    P         P         04 47 39.7 -0.1
NOA   NORSAR Array B   69.81 337    P         P         04 48 11.0 -0.6
               comp=Z,0.8nm,0.9s,baz=25,slow=3.1,SNR=2.0
               comp=Z,0.8nm,0.9s
HFS   Hagfors          69.81 336    P         P         04 48 11.4 -0.2
               comp=Z,1.1nm,0.6s,baz=2.9,slow=3.0,SNR=4.6
               comp=Z,1.1nm,0.6s
DUG   Dugway, Tooele   72.69  51    P         P         04 48 28.8 -0.8
DUG                                 pmax      pmax
               comp=Z,16nm,1.2s
DUG   Dugway, Tooele   72.69  51    P         P         04 48 28.8 -0.8
DUG                                 IAmb      IAmb      04 48 39.3
               comp=Z,16nm,1.1s
FURC  Furnace Creek,   72.70  56    P         P         04 48 30.0 +0.5
FURC                                IAmb      IAmb      04 48 31.3
               comp=Z,12nm,1.1s
OSI   Osito Audit: C   72.72  59    P         P         04 48 27.8 -2.0
SHOC  Shoshone, Teco   73.43  56    P         P         04 48 33.8  0.0
BRG   Berggiesshubel   77.19 330    P         P         04 48 52.0 -3.1
BRG                                 Amp                 04 48 53.3
               comp=Z,18nm,1.4s
ILAM  Ilet Lapin Mar  118.83  27    PKPdf     PKPdf     04 55 48.5 -1.3
PB03  IPOC Station P  145.65  64    PKPdf     PKPdf     04 56 39.1 -0.8
SIV   San Ignacio     146.29  46    PKPbc     PKPbc     04 56 42.5 +0.4
               comp=Z,1.4nm,0.6s,baz=333,slow=2.2,SNR=8.5
CO04  Los Peladeros   150.88  81    PKPdf     PKPdf     04 56 47.8 -0.5
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*SJA **01** 04:44:07.9±0.4, 27°.63S×71°.65W, h10km, ML4.3, MW4.2*

*IDC **01** 04:44:07.9±0.7, 27°.81S×71°.36W, h0km, mb4.6/9, mbtmp4.6/11, ML4.2/2, Error ellipse: s-maj=26.5km s-min=15.5km az=85.0*

*GUC **01** 04:44:08.3±0.7, 27°.97S×71°.15W, h48km±2km, ML4.2*

*NEIC **01** 04:44:10.2±1.4, 27°.84S±0°.02×70°.89W±0°.09, h15km±4km, mb4.8/18, ML4.2(GUC), Error ellipse: s-maj=11.5km s-min=2.3km az=89.0*

ISC 01 04:44:08.2±1.0**, 27°.89S**±0°.03×**71°.18W**±0°.06**, h7**km±6km**, n87,** σ1§**61**/98**, mb4.7**/16**, 4C, Near coast of northern Chile**

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Code  Station Name       Δ°   AZ°    Phase ID            Time      Res
                                     Op        ISC       h  m  s   ISC
AC04  Llanos de Chal    0.32 164  eP          Pn        04 44 18.9 -0.5
AC04                              eS          Sb        04 44 24.1 +2.4
AC04                                IAML                04 44 24.6
               comp=E,39µm,0.1s
AC04  Llanos de Chal    0.32 164              Pn        04 44 18.7 -0.6
AC04                                Sg        Sb        04 44 23.9 +2.2
GO03  Copiapo           0.89  70  eP          Pb        04 44 25.4 -0.5
GO03                              eS          Sn        04 44 39.0 -1.2
GO03                                IAML                04 44 49.8
               comp=N,7µm,0.4s
GO03  Copiapo           0.89  70    Pg        Pg        04 44 22.7 -2.5
AC06  Mina Casimiro     0.90  54  eP          Pn        04 44 26.5 -0.9
AC06                              eS          Sn        04 44 39.9 -0.8
AC06                                IAML                04 44 48.8
               comp=N,6µm,0.5s
AC06  Mina Casimiro     0.90  54    Pg        Pg        04 44 23.6 -2.0
LCO   Las Campanas      1.19 160  eP          Pb        04 44 27.6 -3.7
LCO                               eS          Sg        04 44 45.6 -0.9
LCO                                 IAML                04 44 53.5
               comp=N,50µm,0.5s
LCO   Las Campanas      1.19 160    Pn        Pn        04 44 32.8 +1.3
AC05  El Transito       1.23 140  eP          Pb        04 44 30.0 -1.8
AC05                              eS          Sb        04 44 46.4 -1.6
AC05                                IAML                04 44 54.1
               comp=N,5µm,0.8s
AC05  El Transito       1.23 140    Pn        Pb        04 44 29.6 -2.3
AC01  Pan de Azucar     1.81  17  i P         Pn        04 44 40.4 +0.6
AC01                              eS          Sb        04 45 03.9 -0.7
AC01                                IAML                04 45 15.6
               comp=E,2µm,0.4s
AC01  Pan de Azucar     1.81  17    Pn        Pn        04 44 38.9 -0.9
AC02  Maricunga         2.10  60  eP          Pg        04 44 49.8 +1.3
AC02                              eS          Sg        04 45 20.8 +5.0
AC02                                IAML                04 45 28.3
               comp=Z,2µm,1.1s
AC02  Maricunga         2.10  60  eP          Pg        04 44 48.5  0.0
AC02                              eS          Sb        04 45 13.4 -0.1
AC02                                IAML                04 45 26.8
               comp=N,4µm,0.8s
CO01  Juntas del Tor    2.28 156  eS          Sn        04 45 14.0 -1.0
CO01                                IAML                04 45 24.8
               comp=N,2µm,0.4s
GO04  Tololo Observa    2.29 172  i P         Pn        04 44 44.9 -1.8
GO04                              i S         Sn        04 45 14.3 -1.1
VCA   Vinchina          2.75 108  eP          Pg        04 45 01.8 +0.9
VCA                                 IAML                04 45 54.9
               comp=Z,959nm,0.5s
CO06  Fray Jorge        2.80 188    IAML                04 45 45.0
               comp=N,1µm,0.5s
ACDV  Cuesta del Vie    2.90 142  eP          Pg        04 45 04.2 +0.6
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ACDV				IAML		04 46 02.1	
	comp=Z,357nm,0.6s						
CO03	El Pedregal	2.96	172	eS	Sn	04 45 29.7	-2.0
CO03				IAML		04 45 54.2	
	comp=E,3µm,0.5s						
ACCO	Cerro Coronel	3.26	146	eP	Pb	04 45 07.6	+1.1
ACCO				eS	Sg	04 45 54.4	+1.6
ACCO				IAML		04 46 04.9	
	comp=Z,1µm,0.7s						
PB14	IPOC Station P	3.33	12	Pn	Pn	04 45 00.5	-0.5
ACLC	CERRO LA CRUZ	4.01	113	eP	Pb	04 45 17.6	-1.7
ACLC				IAML		04 46 37.0	
	comp=Z,181nm,1.4s						
AVFE	Valle Fertil	4.26	131	eP	Pb	04 45 19.2	-4.3
AVFE				IAML		04 46 46.3	
	comp=Z,288nm,0.8s						
CFA	Coronel Fontan	4.49	146	Pn	Pn	04 45 21.9	+5.2
	comp=Z,10nm,0.3s,baz=329,slow=14,SNR=1.3						
CFA				Lg	Lg	04 46 23.5	
	comp=Z,24nm,0.3s,baz=79,slow=20,SNR=8.9						
	comp=Z,30nm,0.4s						
CFA				AML	AML		
PB05	IPOC Station P	5.10	10	Pn	Pn	04 45 23.7	-1.4
PB06	IPOC Station P	5.37	16	Pn	Pn	04 45 27.1	-1.8
PB11	IPOC Station P	8.21	10	Pn	Pn	04 46 05.6	-2.4
PSGCX	Pisagua	8.31	7	Pn	Pn	04 46 06.8	-2.5
PB12	IPOC Station P	9.27	5	Pn	Pn	04 46 20.3	-2.1
LPAZ	La Paz	11.89	14	Pn	Pn	04 46 58.9	+0.1
	comp=Z,0.6nm,0.3s,baz=198,slow=8.7,SNR=7.1						
	comp=Z,1.3nm,0.4s						
LPAZ				AML	AML		
LPAZ	La Paz	11.89	14		Pn	04 46 57.2	-1.5
SIV	San Ignacio	15.09	40	Pn	Pn	04 47 37.5	-4.5
	comp=Z,0.1nm,0.3s,baz=238,slow=9.1,SNR=6.9						
BDFB	Brasilia	24.67	65	P	P	04 49 30.9	+1.0
	comp=Z,14nm,0.8s,baz=241,slow=10,SNR=1.6						
	comp=Z,14nm,0.8s						
BDFB	Brasilia	24.67	65	P	P	04 49 29.2	-0.8
BOAV	Boa Vista	31.81	21	P	P	04 50 32.1	-1.5
MDP	Montagnes des	37.36	31	P	P	04 51 22.6	+0.9
	comp=Z,9.4nm,0.9s,baz=218,slow=10,SNR=6.4						
	comp=Z,9.4nm,0.9s						
ORCD	Orcadas	37.37	159	P	P	04 51 19.7	-1.5
TEIG	Tepich	50.62	339	P	P	04 53 08.5	+0.6
TEIG				IAmb	IAmb	04 53 16.2	
	comp=Z,11nm,1.0s						
VNA3	Neumayer Olymp	54.76	160	⇑P	P	04 53 39.3	+1.2
	comp=Z,4.1nm,0.6s						
VNA2	Neumayer--Watz	55.38	159	⇑P	P	04 53 43.7	+1.1
	comp=Z,5.7nm,0.5s,baz=285,slow=7.1						
SNAA	Sanae	56.99	159	⇑P	P	04 53 55.1	+1.1
	comp=Z,159nm,0.8s						
SNAA	Sanae	56.99	159	P	P	04 53 55.3	+1.2
	comp=Z,7.4nm,0.8s,baz=278,slow=8.6,SNR=11						
	comp=Z,7.4nm,0.8s						
SNAA	Sanae	56.99	159	P	P	04 53 52.9	-1.2
SNAA				IAmb	IAmb	04 53 56.0	
	comp=Z,8.1nm,0.9s						
TROLL	Troll, Antarti	58.70	160	⇑P	P	04 54 07.4	+1.2
	comp=Z,342nm,0.9s						
QSPA	South Pole Qui	62.32	180	P	P	04 54 32.1	+1.1
	comp=Z,5.7nm,1.1s,baz=204,slow=0.9,SNR=5.4						
	comp=Z,5.7nm,1.1s						
QSPA	South Pole Qui	62.32	180	P	P	04 54 31.9	+0.8
QSPA				IAmb	IAmb	04 54 41.0	
	comp=Z,5.7nm,1.0s						
W50A	Signal Mountai	64.16	347	P	P	04 54 42.6	-0.8
SWET	Sewanee	64.30	347	P	P	04 54 44.4	+0.1
TXAR	Lajitas Array	64.85	329	P	P	04 54 48.1	0.0
	comp=Z,0.3nm,0.5s,baz=150,slow=8.0,SNR=4.5						
TXAR				PP	PP	04 57 02.6	-8.4
	comp=Z,1.0nm,1.0s,baz=138,slow=7.5,SNR=4.1						
TXAR	Lajitas Array	64.85	329	P	P	04 54 47.8	-0.3
LCAR	Lake Charles	66.35	342	P	P	04 54 57.9	+0.4
LCAR				IAmb	IAmb	04 54 58.6	
	comp=Z,4.2nm,0.6s						
PBMO	Poplar Bluff	66.83	343	P	P	04 55 01.2	+0.7
R40A	Maddies Statio	68.74	342	P	P	04 55 12.8	+0.2
EMMW	East Machias	72.33	3	P	P	04 55 36.0	+1.7
EMMW				IAmb	IAmb	04 55 38.3	
	comp=Z,11nm,1.2s						
DBIC	Dimbokro	72.58	72	P	P	04 55 38.2	+1.7
	comp=Z,17nm,0.8s,baz=232,slow=5.2,SNR=16						
	comp=Z,17nm,0.8s						
DBIC	Dimbokro	72.58	72	P	P	04 55 35.9	-0.7
WBO	Williamsburg	72.64	357	P	P	04 55 37.1	+1.0
WBO				IAmb	IAmb	04 55 38.0	
	comp=Z,6.3nm,0.7s						
G62A	West of Eustis	72.76	0	P	P	04 55 36.8	-0.2
G62A				IAmb	IAmb	04 55 40.0	
	comp=Z,6.5nm,0.9s						
PDAR	Pinedale Array	78.69	332	P	P	04 56 11.8	+0.5
	comp=Z,0.5nm,0.6s,baz=142,slow=8.4,SNR=4.3						
	comp=Z,0.5nm,0.6s						
PDAR	Pinedale Array	78.69	332	P	P	04 56 11.0	-0.3
MAW	Mawson	78.81	164	P	P	04 56 12.8	+1.5
	comp=Z,3.0nm,1.0s,baz=231,slow=12,SNR=2.8						
	comp=Z,3.0nm,1.0s						
MAW	Mawson	78.81	164	P	P	04 56 12.1	+0.8
TORD	Torodi Ar. Bea	81.44	70	P	P	04 56 28.1	+1.7
	comp=Z,33nm,1.0s,baz=256,slow=5.2,SNR=4.4						
	comp=Z,33nm,1.0s						
BOSA	Boshof	82.27	118	P	P	04 56 31.9	+1.1
	comp=Z,4.5nm,0.8s,baz=238,slow=3.4,SNR=7.2						
	comp=Z,4.5nm,0.8s						
BOSA	Boshof	82.27	118	P	P	04 56 30.7	-0.2
PINE	Pine Mountain	84.66	326	P	P	04 56 44.0	+1.3
BRTR	Keskin Array B	118.08	58	PKPdf	PKiKP	05 02 56.6	+0.5
ASAR	Alice Springs	123.32	208	PKP	PKPdf	05 03 06.7	0.0
	comp=Z,0.8nm,0.5s,baz=132,slow=1.4,SNR=1.8						
ASAR	Alice Springs	123.32	208		PKPdf	05 03 06.1	-0.6
WRA	Warramunga Arr	126.42	210	PKP	PKPdf	05 03 12.7	+0.1
	comp=Z,1.4nm,0.6s,baz=152,slow=1.8,SNR=17						
WB0	Warramunga Arr	126.55	210	PKPdf	PKPdf	05 03 12.3	-0.6
KKAR	Karatay Array	145.64	54	PKPab	PKPab	05 03 48.7	+0.8
KURK	Kurchatov	147.73	37		PKPdf	05 03 50.6	+0.1
KURBB	Kurchatov Arra	147.73	37	PKP	PKPdf	05 03 51.8	+1.3
	comp=Z,2.6nm,0.7s,baz=305,slow=3.1,SNR=15						
KURBB				PKPbc	PKPbc	05 03 54.8	+1.4
	comp=Z,2.6nm,0.7s,baz=304,slow=3.1,SNR=18						
ARSB	Arslanbob	147.84	56	PKPdf	PKPdf	05 03 51.5	+0.2
ZAA0	Zalesovo Array	148.57	27		PKPbc	05 03 54.8	-0.7
ZALV	Zalesovo Beam	148.57	27	PKPbc	PKiKP	05 03 56.5	-0.4
	comp=Z,8.9nm,0.8s,baz=304,slow=3.4,SNR=19						
ZALV	Zalesovo Beam	148.57	27	PKPdf	PKPdf	05 03 52.7	+0.9
KSH2	Kashi	150.24	59	PKPbc	PKiKP	05 04 01.5	+0.3
MKAR	Makanchi Array	151.91	41	PKPbc	PKiKP	05 04 04.6	+0.4
	comp=Z,3.3nm,0.7s,baz=331,slow=2.0,SNR=15						
MKAR	Makanchi Array	151.91	41		PKiKP	05 04 04.4	+0.2
WMQ	Urumqi	156.74	41	ePKP	PKPdf	05 04 05.2	+1.0
WMQ				sPKP	sPKPdf	05 04 21.0	+14
WMQ				PKPab	sPKPab	05 04 37.6	+1.4
WMQ				LR	LR		
	comp=N,4µm,17.9s						
WMQ				LR	LR		
	comp=E,6µm,18.9s						
WMQ				LR	LR		
	comp=Z,4µm,19.7s						
HHC	Hu-ho-hao-te	166.88	351	eP	PKPdf	05 04 11.3	-3.5
BTO2	Baotou	167.15	356	ePKP	PKPdf	05 04 12.5	-2.5
BTO2				pmax	pmax		
	comp=Z,9.0nm,0.5s						
BTO2				pmax	pmax		
	comp=Z,1µm,9.1s						
NJ2	Nanjing	170.37	298	eP	PKPdf	05 04 18.2	+1.0
NJ2				pmax	pmax		
	comp=Z,12nm,0.6s						
NJ2				LR	LR		
	comp=N,11µm,14.2s						
NJ2				LR	LR		
	comp=E,11µm,17.1s						
NJ2				LR	LR		
	comp=Z,28µm,17.7s						
LZH	Lanzhou	170.80	26	eP	PKPdf	05 04 13.0	-4.5
LZH				sP	sPKPdf	05 04 27.6	+7.4
LZH				pmax	pmax		
	comp=Z,18nm,1.6s						

SJA 01 04:53:29.8±1.0, 27°.99S×71°.72W, h10^{km}, ML4.1, MW3.8, Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC02	Maricunga	2.57	64	eP	Pn	04 54 12.3	+0.3
AC02				IAML		04 54 55.1	
	comp=Z,619nm,0.2s						
ACDV	Cuesta del Vie	3.15	134	eP	Pb	04 54 24.4	-1.6
ACDV				IAML		04 55 16.0	
	comp=Z,196nm,1.1s						
VCA	Vinchina	3.19	104	eP	Pb	04 54 23.4	-3.2
VCA				eS	Sb	04 55 02.0	-3.6
VCA				IAML		04 55 13.1	
	comp=Z,714nm,0.6s						
ACCO	Cerro Coronel	3.48	139	eP	Pb	04 54 28.6	-3.1
ACCO				eS	Sb	04 55 10.9	-3.4
ACCO				IAML		04 55 18.7	
	comp=Z,646nm,0.5s						
TINO	Tinogasta	3.67	92	eP	Pn	04 54 27.5	+0.7
TINO				IAML		04 55 28.3	
	comp=Z,142nm,1.3s						
RTLS	Leoncito	4.34	152	eP	Pn	04 54 39.7	+3.5
RTLS				IAML		04 56 02.7	
	comp=Z,433nm,0.6s						
RTLL	Cerro Villicun	4.37	140	eP	Pn	04 54 39.0	+2.7
RTLL				IAML		04 56 01.3	
	comp=Z,109nm,0.6s						
ACLC	CERRO LA CRUZ	4.43	110	eP	Pn	04 54 38.3	+1.0
ACLC				IAML		04 56 14.0	
	comp=Z,72nm,0.5s						
AVFE	Valle Fertil	4.58	127	eP	Pn	04 54 40.0	+0.7
AVFE				eS	Sn	04 55 33.6	+1.0
AVFE				IAML		04 55 39.7	
	comp=Z,318nm,0.5s						
AUSP	Uspallata	4.68	155	eP	Pn	04 54 45.2	+4.4
VA03	San Esteban	4.87	168	eP	Pn	04 54 46.5	+3.3
VA03				IAML		04 56 13.0	
	comp=Z,169nm,0.5s						
CYA	Choya	5.25	96	eP	Pn	04 54 50.1	+1.8
CYA				eS	Sn	04 55 29.2	-20
CYA				IAML		04 55 54.3	
	comp=Z,107nm,0.8s						
ARCO	CERRO ARCO	5.41	154	eP	Pn	04 54 54.0	+3.3
ARCO				IAML		04 56 30.5	
	comp=Z,144nm,1.0s						
AAGR	Agrelo	5.66	155	eP	Pn	04 54 57.6	+3.5
AAGR				IAML		04 56 42.4	
	comp=Z,92nm,0.9s						
ACAN	Cantantal	5.80	139	eP	Pn	04 54 58.4	+2.4
ACAN				IAML		04 56 41.1	
	comp=Z,356nm,0.7s						
MRA	San Martin	6.82	132	eP	Pn	04 55 10.6	+0.6
MRA				IAML		04 57 12.1	
	comp=Z,52nm,0.8s						
TCA	Tanti	7.04	120	eP	Pn	04 55 14.5	+1.4
TCA				IAML		04 57 17.5	
	comp=Z,35nm,0.6s						

SJA 01 04:59:46.9±0.8, 27°.97S×71°.86W, h40^{km}±31^{km}, ML3.5, MW3.1, Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GO04	Tololo Observa	2.38	157	iP	Pn	05 00 25.2	+1.5
GO04				IAML		05 01 02.5	
	comp=Z,242nm,0.3s						
CO03	El Pedregal	3.04	161	iP	Pn	05 00 35.4	+2.9
CO03				IAML		05 01 29.1	
	comp=Z,59nm,0.3s						
CO02	Combarbal	3.31	167	iP	Pn	05 00 38.4	+2.1
CO02				IAML		05 01 32.2	
	comp=Z,104nm,0.7s						
ACCO	Cerro Coronel	3.57	138	iP	Pn	05 00 43.3	+3.1
ACCO				eS	Sn	05 01 24.9	+3.6
ACCO				IAML		05 01 38.2	
	comp=Z,66nm,0.4s						
ACCO	Cerro Coronel	3.57	138	IAML		05 02 33.6	
	comp=Z,73nm,1.4s						
ACCO	Cerro Coronel	3.57	138	eP	Sn	05 01 24.6	+3.3
RTLS	Leoncito	4.42	150	iP	Pn	05 00 55.5	+3.8
RTLS				IAML		05 02 07.6	
	comp=Z,90nm,0.5s						
CFA	Coronel Fontan	4.80	140	iP	Pn	05 00 59.4	+2.6

SJA 01 05:00:20.6±1.6, 27°.20S×71°.55W, h10^{km}, ML3.9, MW3.8
GUC 01 05:00:28.2±0.7, 27°.98S×71°.28W, h18^{km}±6^{km}, ML3.4

ISC 01 05:00:18.6±3.2, 27°.5S±0°.1×71°.3W±0°.1, h18^{km}, n17, $\sigma 2^{s}.73$/17, Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.73	166	eP	Pn	05 00 35.4	+1.3
AC04				eS	Sb	05 00 39.9	-2.7
AC04				IAML		05 00 40.5	
	comp=E,6µm,0.2s						
AC06	Mina Casimiro	0.83	81	IAML		05 01 07.8	
	comp=N,1µm,0.3s						
GO03	Copiapo	0.93	97	eP	Sg	05 00 47.7	-1.3
AC01	Pan de Azucar	1.47	25	IAML		05 01 37.8	
	comp=E,597nm,0.4s						
LCO	Las Campanas	1.60	162	eP	Pg	05 00 50.3	+0.9
AC05	El Transito	1.61	147	eP	Pg	05 00 51.6	+2.0
AC05				IAML		05 01 18.6	
	comp=E,776nm,0.7s						
AC02	Maricunga	2.02	72	IAML		05 01 41.0	
	comp=E,983nm,0.3s						
CO01	Juntas del Tor	2.69	158	IAML		05 01 38.9	
	comp=N,273nm,0.6s						
VCA	Vinchina	2.98	115	eP	Pg	05 01 16.4	+0.7
VCA				IAML		05 02 15.7	
	comp=Z,194nm,0.9s						
ACDV	Cuesta del Vie	3.27	145	eP	Pb	05 01 18.0	+1.8
ACDV				IAML		05 02 19.6	
	comp=Z,95nm,1.9s						
TINO	Tinogasta	3.33	101	eP	Pg	05 01 23.1	+0.7
TINO				IAML		05 02 28.9	
	comp=Z,134nm,1.1s						
ACLC	CERRO LA CRUZ	4.27	118	eP	Pb	05 01 33.3	+0.1
ACLC				eS	Sb	05 02 27.6	+3.2
ACLC				IAML		05 02 31.3	
	comp=Z,88nm,0.9s						
AVFE	Valle Fertil	4.60	134	eP	Pb	05 01 35.0	-3.8
AVFE				eS	Sb	05 02 29.7	-4.2
AVFE				IAML		05 02 34.8	
	comp=Z,148nm,1.0s						
RTLS	Leoncito	4.63	159	eP	Pb	05 01 38.3	-1.1
RTLS				eS	Sb	05 02 39.4	+4.5
RTLS				IAML		05 02 40.8	
	comp=Z,422nm,0.8s						
CYA	Choya	4.93	102	eP	Pb	05 01 42.9	-1.6
CYA				IAML		05 03 07.9	
	comp=Z,37nm,1.1s						
AUSP	Uspallata	5.00	161	eP	Pb	05 01 41.8	-3.8
AAGR	Agrelo	5.96	160	eP	Pb	05 01 60.0	-2.1
AAGR				IAML		05 03 40.3	
	comp=Z,87nm,1.3s						

NAO 01 05:01:14.6±0.6, 66°.52N×12°.14E, h12^{km}±3^{km}, ML2.9
IDC 01 05:01:14.1±2.1, 66°.46N×12°.58E, h0^{km}, mbtmp3.1/4, ML2.2/4, Error ellipse: s-maj=23.2km s-min=9.9km az=115.0
BER 01 05:01:15.2±3.6, 66°.49N×12°.25E, h6^{km}±6^{km}, ML2.2, ML2.9(NAO), Confirmed Earthquake
UPP 01 05:01:17.0±2.4, 66°.36N×13°.19E, h0^{km}, ML2.3, Presumed earthquake

ISC 01 05:01:14.2±0.9, 66°.42N±0°.02×12°.35E±0°.05, h10^{km}, n52, $\sigma 2^{s}.63$/101, 2C-2D, Northern Norway

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STOK	Stokkvaagen	0.28	108	Pg	Pg	05 01 22.6	+2.7
STOK				Sg	Sg	05 01 27.3	+3.6
STOK	Stokkvaagen	0.28	108	eP	Pg	05 01 22.5	+2.7
STOK				eS	Sg	05 01 27.3	+3.6
STOK				IAML		05 01 28.0	
	comp=Z,287nm,0.1s						
KONS	Konsvik	0.32	76	⇑iP	Pg	05 01 22.6	+2.1
KONS				eS	Sg	05 01 27.5	+2.8
KONS				IAML		05 01 29.3	
	comp=Z,261nm,0.3s						
LEIR	Leirfjorden	0.44	135	Pg	Pb	05 01 24.9	+0.8
LEIR				Sg	Sb	05 01 31.4	+0.8
LEIR	Leirfjorden	0.44	135	⇓iP	Pb	05 01 24.8	+0.8
LEIR				eS	Sb	05 01 31.2	+0.6
LEIR				IAML		05 01 32.0	
	comp=Z,313nm,0.1s						
VAGH	Vaagaholmen	0.48	49	Pg	Pb	05 01 24.8	+0.2
VAGH				Sg	Sb	05 01 31.5	-0.3
VAGH	Vaagaholmen	0.48	49	⇑iP	Pb	05 01 24.9	+0.2
VAGH				eS	Sb	05 01 31.1	-0.6
VAGH				IAML		05 01 32.8	
	comp=Z,150nm,0.3s						
RAUS	Rausandaksla	0.68	88	⇓iP	Pb	05 01 27.6	-0.4
RAUS				eS	Sb	05 01 36.6	-0.9
RAUS				IAML		05 01 37.0	
	comp=Z,457nm,0.1s						
MOR8	Moi Rana	0.88	106	Pb	Pn	05 01 32.1	-0.5
MOR8				Sb	Sn	05 01 44.6	-0.9
FAUS	Fauske	1.51	49	Pb	Pn	05 01 40.9	-0.3
FAUS				Sb	Sn	05 02 00.8	0.0
FAUS	Fauske	1.51	49	eP	Pn	05 01 40.5	-0.7
FAUS				eS	Sn	05 02 00.6	-0.3
FAUS				IAML		05 02 02.8	
	comp=Z,114nm,0.1s						
LOF	Lofoten	1.78	15	Pn	Pn	05 01 42.2	-2.7
LOF	Lofoten	1.78	15	eP	Pn	05 01 42.3	-2.6
LOF				i		05 01 47.0	
LOF				e		05 02 01.8	
LOF				eSg	Sb	05 02 09.9	+0.8
LOF				IAML		05 02 13.5	
	comp=Z,20nm,0.6s						
STEI	Steigen	1.89	35	Pn	Pn	05 01 45.3	-1.0
STEI				Sg	Sb	05 02 13.2	+0.9
STEI	Steigen	1.89	35	eP	Pn	05 01 45.4	-1.0
STEI				ePg	Pb	05 01 47.8	-0.9
STEI				eSg	Sb	05 02 12.7	+0.4
STEI				IAML		05 02 15.0	
	comp=Z,33nm,0.2s						
NSS	Namsos	1.91	185	Pn	Pn	05 01 48.4	+1.7
NSS				Sn	Sb	05 02 13.3	+0.5
NSS	Namsos	1.91	185	eP	Pn	05 01 48.2	+1.6
NSS				eS	Sb	05 02 13.3	+0.5
NSS				IAML		05 02 14.8	
	comp=Z,56nm,0.5s						
SALU	Saltoluokta	2.61	66	P	Pn	05 01 56.8	+0.5
SALU	Saltoluokta	2.61	66	eP	Pn	05 01 56.9	+0.5
SALU				eS	Sn	05 02 29.2	+1.1
SVAU	Svanoeiden	3.58	119	P	Pn	05 02 09.2	-0.4
	baz=299						
SVAU				S	Sn	05 02 48.5	-3.5
BREU	Bredtraesk	3.66	131	P	Pn	05 02 10.7	0.0
UMAU	Umeaa	4.34	122	P	Pn	05 02 19.5	-0.6
UMAU				S	Sn	05 03 07.0	-3.7
JETT	Jettan, Norway	4.37	40	Pn	Pn	05 02 20.8	+0.3
JETT				Sn	Sn	05 03 08.6	-2.8
JETT				Sg	Sb	05 03 28.6	+5.0
JETT	Jettan, Norway	4.37	40	Pn	Pn	05 02 20.8	+0.3
JETT				Sn	Sn	05 03 08.6	-2.8
JETT				Sg	Sb	05 03 28.6	+5.0
MOL	Molde	4.39	210	Pn	Pn	05 02 20.0	-0.7
MOL				Sn	Sn	05 03 06.0	-5.9
MOL	Molde	4.39	210	eP	Pn	05 02 20.4	-0.3
MOL				eS	Sn	05 03 11.7	-0.1
MOL				IAML		05 03 33.2	
	comp=Z,3.0nm,0.6s						
DOMB	Dombas	4.62	200	eP	Pn	05 02 23.4	-0.6
HEF	Hetta	4.79	60	Pn	Pn	05 02 26.4	+0.1
HEF				Sn	Sn	05 03 19.1	-2.7
HEF	Hetta	4.79	60	eP	Pn	05 02 26.3	0.0
HEF				eS	Sn	05 03 19.3	-2.5
AKN	Aaknes	4.86	211	Pn	Pn	05 02 27.0	-0.2
AKN				Sn	Sn	05 03 21.3	-2.1
AKN	Aaknes	4.86	211	Pn	Pn	05 02 27.0	-0.2
AKN				Sn	Sn	05 03 21.3	-2.1
KTK1	Kautokeino	4.89	53	Pn	Pn	05 02 27.0	-0.6
KTK1				Sn	Sn	05 03 21.7	-2.5
KTK1	Kautokeino	4.89	53	eP	Pn	05 02 27.2	-0.4
KTK1				eS	Sn	05 03 22.1	-2.0
KTK1				IAML		05 03 24.7	
	comp=Z,4.1nm,0.3s						
NC4	NORSAR Subarra	5.37	183	Pn	Pn	05 02 34.9	+0.6
NC4				Sn	Sn	05 03 33.3	-2.9
NC4	NORSAR Subarra	5.37	183	Pn	Pn	05 02 34.9	+0.6
NC4				Sn	Sn	05 03 33.3	-2.9
NB2	NORSAR Subarra	5.43	186	Pn	Pn	05 02 35.5	+0.4
NB2				Sn	Sn	05 03 35.8	-1.8
NB2	NORSAR Subarra	5.43	186	Pn	Pn	05 02 35.5	+0.4
NB2				Sn	Sn	05 03 35.8	-1.8
NOA	NORSAR Array B	5.43	186	Pn	Pn	05 02 36.5	+1.4
	baz=1.9,slow=12,SNR=1.8						
NOA				Sn	Sn	05 03 39.2	+1.6
	baz=51,slow=21,SNR=1.7						
NOA				Lg	Lg	05 04 02.1	
	comp=Z,0.2nm,0.3s,baz=56,slow=19,SNR=3.5						
	comp=Z,0.2nm,0.6s						
NRA0	NORESS Array S	5.72	184	Pn	Pn	05 02 39.9	+0.8
	baz=8.6,slow=16						
NRA0				Sn	Sn	05 03 42.2	-2.5
	baz=12,slow=22						
NRA0	NORESS Array S	5.72	184	Pn	Pn	05 02 39.9	+0.8
NRA0				Sn	Sn	05 03 42.2	-2.5
ARA0	ARCESS Array S	5.85	52	Pn	Pn	05 02 39.7	-1.1
	baz=236,slow=14						
ARA0				Sn	Sn	05 03 43.0	-4.7
	baz=235,slow=22						
ARA0	ARCESS Array S	5.85	52	Pn	Pn	05 02 39.7	-1.1
ARA0				Sn	Sn	05 03 43.0	-4.7
ARA0				IAML		05 03 46.6	
	comp=Z,2.9nm,0.2s						
ARCES	ARCESS Array B	5.85	52	Pn	Pn	05 02 39.7	-1.1
	comp=Z,0.1nm,0.3s,baz=232,slow=14,SNR=10						
ARCES				Sn	Sn	05 03 43.0	-4.7
	comp=Z,0.5nm,0.3s,baz=240,slow=24,SNR=6.1						
ARCES				Lg	Lg	05 04 08.7	
	comp=Z,0.3nm,0.3s,baz=239,slow=23,SNR=3.5						
	comp=Z,2.9nm,0.8s						
ARCES				AML	AML		
HFS	Hagfors	6.34	174	Pn	Pn	05 02 48.9	+1.3
	comp=Z,0.1nm,0.3s,baz=7.3,slow=16,SNR=2.7						
HFS				Lg	Lg	05 04 30.8	
	comp=Z,1.8nm,0.3s,baz=344,slow=31,SNR=9.4						
	comp=Z,2.3nm,0.8s						
HFS				AML	AML		
HFS	Hagfors	6.34	174	Pn	Pn	05 02 47.7	+0.1
	baz=357,slow=18						
HFS				Sn	Sn	05 03 55.4	-4.6
	baz=357,slow=37						
HFS	Hagfors	6.34	174	Pn	Pn	05 02 47.7	+0.1
HFS				Sn	Sn	05 03 55.4	-4.6
VADS	Vadso	7.31	52	eS	Sn	05 04 17.8	-5.8
FIA0	FINESS Array S	7.83	123	Pn	Pn	05 03 06.9	-1.1
	baz=319,slow=12						
FIA0				Sn	Sn	05 04 30.6	-5.9
	baz=320,slow=28						
FIA0	FINESS Array S	7.83	123	Pn	Pn	05 03 06.9	-1.1
FIA0				Sn	Sn	05 04 30.6	-5.9
FINES	FINESS Array B	7.83	123	Pn	Pn	05 03 06.7	-1.2
	comp=Z,0.4nm,0.3s,baz=316,slow=11,SNR=14						
FINES				Sn	Sn	05 04 31.1	-5.4
	comp=Z,0.5nm,0.3s,baz=317,slow=22,SNR=8.2						
FINES				Lg	Lg	05 05 13.4	
	comp=Z,1.8nm,0.3s,baz=331,slow=25,SNR=13						
	comp=Z,0.9nm,0.3s						
FINES				AML	AML		
APA0	Apatity Array	8.15	72	Pn	Pn	05 03 10.0	-2.4
	baz=278,slow=12						
APA0				Sn	Sn	05 04 36.4	-8.1
	baz=266,slow=22						
APA0	Apatity Array	8.15	72	Pn	Pn	05 03 10.0	-2.4
APA0				Sn	Sn	05 04 36.4	-8.1

IDC 01 05:04:20.5±2.8, 27°.46S×70°.92W, h0^{km}, mb4.9/1, mbtmp4.2/2, ML3.3/1, Error ellipse: s-maj=121.0km s-min=44.9km az=93.0, Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ	La Paz	11.42	14	Pn	Pn	05 07 06.7	+1.2
	0.1nm,0.3s,baz=176,slow=9.7,SNR=2.3						
	0.9nm,0.6s						
LPAZ				AML	AML		
CPUP	Villa Florida	12.19	88	Pn	Pn	05 07 11.8	-3.7
	0.1nm,0.3s,baz=266,slow=13,SNR=3.3						
TORD	Torodi Ar. Bea	81.09	70	P	P	05 16 38.1	+0.1
	11nm,1.0s,baz=242,slow=4.7,SNR=3.7						
	11nm,1.0s						
ZALV	Zalesovo Beam	148.09	27	PKPbc	PKPbc	05 24 07.5	-0.2
	0.9nm,0.5s,baz=298,slow=3.2,SNR=4.5						
MKAR	Makanchi Array	151.44	40	PKPbc	PKPbc	05 24 15.7	-0.6
	1.0nm,0.9s,baz=321,slow=1.6,SNR=6.1						

*IDC **01** 05:06:38.9±0.8, 34°.14N×25°.77E, h0^{km}, mb3.9/11, mbtmp3.9/18, ML3.6/7, Error ellipse: s-maj=16.8km s-min=9.2km az=21.0*

*NEIC **01** 05:06:39.1±1.1, 34°.03N±0°.07×25°.73E±0°.07, h10^{km}±1^{km}, mb4.0/25, Error ellipse: s-maj=12.3km s-min=9.9km az=172.0*

*ISK **01** 05:06:41.3, 34°.12N×25°.78E, h88^{km}, ML3.7/8*

*THE **01** 05:06:44.9, 34°N±6°×2°6E±°, h59^{km}±16^{km}, M3.4/10, MLh3.4/10*

*ATH **01** 05:06:44.4, 34°.26N×25°.77E, h20^{km}±3^{km}, ML3.5/10, Latitude uncertainty: 4 km; Longitude uncertainty: 2 km*

ISC 01 05:06:40.8±1.1**, 34°.01N**±0°.05×**25°.83E**±0°.03**, h22**^{km}±4^{km}**, n132, σ1^{s}.26**/149**, mb4.0**/18**, Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZKR	Zakros	1.14	16	P	Pb	05 07 02.4	+0.5
ZKR	Zakros	1.14	16	Pg	Pb	05 07 02.2	+0.3
ZKR				AML	AML		
ZKR	Zakros	1.14	16	P	Pb	05 07 01.9	0.0
ZKR				S	Sb	05 07 13.9	-2.5
ZKR				AML	AML		
NPS	Neapolis	1.26	352	P	Pn	05 07 03.2	0.0
NPS				S	Sn	05 07 18.7	-0.7
NPS				AML	AML		
NPS	Neapolis	1.26	352	P	Pn	05 07 03.4	+0.2
SIVA	Sivas	1.31	320	P	Pn	05 07 04.1	+0.3
SIVA				S	Sn	05 07 19.9	-0.7
SIVA	Sivas	1.31	320	P	Pb	05 07 04.6	-0.2
SIVA				AML	AML		
IDI	Anoyia	1.49	329	Pg	Pb	05 07 07.4	-0.5
	8.6nm,0.3s,baz=145,slow=21,SNR=37						
IDI				Lg	Lg	05 07 29.5	
	27nm,0.3s,baz=41,slow=18,SNR=10						
IDI	Anoyia	1.49	329	P	Pb	05 07 07.3	-0.5
IDI				S	Sn	05 07 23.3	-1.9
IDI	Anoyia	1.49	329	Pn	Pn	05 07 06.4	0.0
IDI	Anoyia	1.49	329	Pn	Pn	05 07 05.0	-1.4
IDI	Anoyia	1.49	329	P	Pb	05 07 07.4	-0.5
IDI				AML	AML		
GVD	Gavdhos	1.66	300	P	Pn	05 07 09.5	+0.9
GVD				AML	AML		
GVD	Gavdhos	1.66	300	Pn	Pn	05 07 08.9	+0.3
GVD	Gavdhos	1.66	300	P	Pn	05 07 09.6	+0.9
GVD				AML	AML		
GVDS	Gavdos	1.68	300	P	Pn	05 07 09.8	+0.9
GVDS				S	Sn	05 07 29.7	-0.1
GVDS				AML	AML		
KARP	Karpathos	1.88	35	P	Pb	05 07 13.6	-0.9
KARP				S	Sn	05 07 35.4	+0.6
KARP				AML	AML		
KARP	Karpathos	1.88	35	Pn	Pn	05 07 12.5	+0.8
KARP				Sn	Sn	05 07 35.0	+0.2
KARP				AML	AML		
KARP	Karpathos	1.88	35	Pn	Pn	05 07 10.1	-1.6
KARP	Karpathos	1.88	35	P	Pb	05 07 13.6	-0.9
KARP				AML	AML		
KARP	Karpathos	1.88	35	P	Pb	05 07 13.4	-1.1
KARP				AML	AML		
IMMV	Iera Moni Meta	2.10	314	P	Pn	05 07 15.6	+0.9
IMMV				S	Sn	05 07 38.2	-1.9
IMMV				AML	AML		
IMMV	Iera Moni Meta	2.10	314	Pn	Pn	05 07 14.7	0.0
IMMV				AML	AML		
IMMV	Iera Moni Meta	2.10	314	P	Pn	05 07 15.7	+1.0
IMMV				AML	AML		
KNDR	Palaiochora Ch	2.19	304	P	Pn	05 07 17.5	+1.6
KNDR				AML	AML		
THR6	Thira Island,	2.37	351	P	Pn	05 07 18.8	+0.5
THR6	Thira Island,	2.37	351	P	Pn	05 07 18.8	+0.5
THERA	Ancient Thera,	2.37	353	P	Pn	05 07 18.1	-0.3
THERA				AML	AML		
THERA	Ancient Thera,	2.37	353	P	Pn	05 07 18.0	-0.3
THERA				AML	AML		
THR9	Santorini-Faro	2.37	351	P	Pn	05 07 19.1	+0.8
THR8	Santorini-Mono	2.41	353	P	Pn	05 07 18.3	-0.6
SNT5	Nea Kammeni, S	2.41	352	P	Pn	05 07 19.9	+1.0
SNT5				S	Sn	05 07 45.7	-2.1
SNT5				AML	AML		
THR3	Thira Island,	2.42	352	P	Pn	05 07 19.2	+0.2
THR5	Thira Island,	2.43	351	P	Pn	05 07 19.1	-0.1
THR5	Thira Island,	2.43	351	P	Pn	05 07 19.2	-0.1
ANKY	Antikythira Is	2.78	312	P	Pn	05 07 25.3	+1.2
ANKY				AML	AML		
ANKY	Antikythira Is	2.78	312	P	Pn	05 07 25.2	+1.2
ANKY				AML	AML		
ARG	Arkhangelos	2.89	40	P	Pn	05 07 27.4	+1.8
ARG	Arkhangelos	2.89	40	Pn	Pn	05 07 26.1	+0.5
ARG				Sn	Sn	05 07 58.8	-0.9
ARG				AML	AML		
ARG	Arkhangelos	2.89	40		Pn	05 07 24.6	-1.0
ARG	Arkhangelos	2.89	40	P	Pn	05 07 27.4	+1.8
ARG				AML	AML		
MHLO	Agia Marina, M	2.92	337	P	Pn	05 07 26.9	+1.0
MHLO				AML	AML		
MHLO	Agia Marina, M	2.92	337	P	Pn	05 07 27.1	+1.2
DAT	Datca	3.06	27	Pn	Pn	05 07 27.9	-0.1
KTHA	Kythira Island	3.19	315	P	Pn	05 07 30.0	+0.3
BODT	Bodrum	3.27	21	Pn	Pn	05 07 30.6	-0.2
BODT				Sn	Sn	05 08 06.9	-2.2
TURN	Turunc	3.39	35	Pn	Pn	05 07 32.5	+0.1
TURN				Sn	Sn	05 08 09.5	-2.4
TURN				AML	AML		
VLI	Veliai	3.59	320	P	Pn	05 07 34.9	-0.3
DALY	Dalyan (Mula)	3.62	39	Pn	Pn	05 07 35.8	+0.2
DALY				Sn	Sn	05 08 15.5	-2.2
DALY				AML	AML		
MLSB	Milas	3.64	25	Pn	Pn	05 07 35.9	+0.1
MLSB				AML	AML		
YER	Yerkesik	3.70	32	Pn	Pn	05 07 36.7	0.0
YER				AML	AML		
AKAS	Kas	3.80	53		Pn	05 07 38.9	+0.7
ELL	Elmali	4.30	50	Pn	Pn	05 07 46.5	+1.4
ELL	Elmali	4.30	50	P	Pn	05 07 46.9	+1.8
DION	Dionisos Attik	4.34	340	P	Pn	05 07 45.7	+0.2
ITM	Ithomi	4.48	316	Pn	Pn	05 07 46.9	-0.5
MANT	Manisa	4.98	25	Pn	Pn	05 07 54.9	+0.4
CSS	Mathiatis	6.26	79	Pn	Pn	05 08 12.3	+0.3
LIT	Litokhoron	6.64	337	Pn	Pn	05 08 15.7	-1.4
CY603	RAF Akrotiri,	7.19	85	Pn	Pn	05 08 24.5	+0.1
CY601	RAF Akrotiri,	7.20	85	Pn	Pn	05 08 24.8	+0.4
CY604	RAF Akrotiri,	7.20	85	Pn	Pn	05 08 25.0	+0.5
KEK	Kerkira	7.46	321	Pn	Pn	05 08 25.2	-3.1
KZIT	Kziot	7.87	111	P	Pn	05 08 35.1	+1.1
	21nm,0.8s						
MMAI	Mount Meron Ar	8.05	94	Pn	Pn	05 08 38.1	+1.6
	6.2nm,0.3s,baz=281,slow=8.7,SNR=4.1						
MMAI				Sn	Sn	05 10 03.6	-3.4
	2.0nm,0.3s,baz=277,slow=16,SNR=1.3						
	1.8nm,0.2s						
MMAI				AML	AML		
BR131	Keskin Array S	8.46	45	Pn	Pn	05 08 41.1	-1.1
BRTR	Keskin Array B	8.46	45	Pn	Pn	05 08 42.2	+0.1
	0.2nm,0.3s,baz=233,slow=12,SNR=7.4						
BRTR				Sn	Sn	05 10 13.1	-4.0
	0.1nm,0.3s,baz=222,slow=21,SNR=6.6						
	1.4nm,0.8s						
BRTR				AML	AML		
MSBI	Mazada	8.47	106	P	Pn	05 08 42.0	-0.1
	5.3nm,0.6s						
PRNI	Paran	8.59	113	P	Pn	05 08 44.6	+0.8
	30nm,0.9s						
HRFI	Mount Harif	8.76	114	P	Pn	05 08 46.5	+0.3
EIL	Elat	8.88	117	Pn	Pn	05 08 48.4	+0.5
	2.1nm,0.3s,baz=324,slow=1.9,SNR=16						
EIL				Sn	Sn	05 10 21.7	-5.5
	0.6nm,0.3s,baz=25,slow=14,SNR=1.6						
	4.7nm,0.3s						
EIL				AML	AML		
EIL	Elat	8.88	117	P	Pn	05 08 48.2	+0.4
TIP	Timpagrande	8.93	308	Pn	Pn	05 08 46.6	-1.9
CEL	Celeste	9.09	301	Pn	Pn	05 08 49.2	-1.5
BNN	Bunyan	9.40	56		Pn	05 08 56.6	+1.5
ASF	Jabal al Asfar	9.46	98	Pn	Pn	05 08 56.4	+0.5
	0.3nm,0.3s,baz=285,slow=12,SNR=1.7						
ASF				Sn	Sn	05 10 39.5	-2.2
	0.4nm,0.3s,baz=10.0,slow=21,SNR=1.8						
	1.0nm,0.3s						
ASF				AML	AML		
WDD	Wied Dalam	9.46	284	Pn	Pn	05 08 53.7	-2.1
RAFF	Raffo Rosso	9.87	292	Pn	Pn	05 08 59.5	-1.9
VAE	Valguarnera	9.90	294	Pn	Pn	05 09 01.4	-0.5
	6.7nm,0.3s,baz=146,slow=18,SNR=8.7						
	18nm,0.3s						
VAE				AML	AML		
CUC	Castrocucco	9.99	310	Pn	Pn	05 09 01.8	-1.2
SGRT	San Giovanni R	11.10	317	Pn	Pn	05 09 16.2	-2.1
NRCA	Norcia	13.29	315	Pn	Pn	05 09 46.1	-2.1
FDMO	Fiordimonte	13.43	316	Pn	Pn	05 09 49.0	-1.0
BUR08	Bucovina Ar. S	13.63	358	Pn	Pn	05 09 52.7	-0.1
MURB	Monte Urbino	13.89	316	Pn	Pn	05 09 54.1	-2.3
VSL	Villasalto	14.28	297	Pn	Pn	05 10 01.2	-0.4
KBZ	Khabaz	16.43	49	Pn	P	05 10 32.8	+0.3
	0.2nm,0.3s,baz=245,slow=8.5,SNR=6.9						
KIEV	Kiev	16.85	7	Pn	Pn	05 10 35.2	0.0
KIEV				IAmb	IAmb	05 10 46.0	
	comp=Z,4.7nm,0.8s						
AKASG	Malin Array Be	16.86	7	Pn	Pn	05 10 35.5	+0.1
	comp=Z,1.4nm,0.3s,baz=199,slow=11,SNR=7.9						
	comp=Z,0.8nm,0.5s						
AKASG				AML	AML		
AKBB	Malin Array Si	16.86	7		Pn	05 10 35.4	0.0
AKBB				IAmb	IAmb	05 10 46.0	
	comp=Z,5.0nm,0.8s						
MORC	Moravsky Berou	16.90	341	Pn	Pn	05 10 34.4	-1.5
FUORN	Ofenpass-Fuorn	17.27	321	Pn	Pn	05 10 38.2	-2.5
FUORN				IAmb	IAmb	05 10 50.5	
	comp=Z,6.0nm,0.9s						
GEC2	GERESS Array S	17.35	332	P	Pn	05 10 41.5	-0.1
GERES	GERESS Array B	17.35	332	P	Pn	05 10 41.3	-0.3
	baz=139,slow=11,SNR=6.5						
	comp=Z,1.3nm,0.6s						
GERES	GERESS Array B	17.35	332		Pn	05 10 41.8	+0.2
KHC	Kasperske Hory	17.63	333		Pn	05 10 44.7	-0.3
MAHO	Mahon	18.19	295		Pn	05 10 50.3	-1.6
MAHO				IAmb	IAmb	05 10 55.8	
	comp=Z,59nm,1.3s						
SENIN	Lac Senin/Sane	18.72	317	P	P	05 10 56.5	-1.6
CLL	Collm	19.64	336	P	P	05 11 07.5	-0.3
ESDC	Sonseca Array	24.44	292	P	P	05 11 59.0	+1.0
	comp=Z,1.4nm,1.1s,baz=79,slow=7.3,SNR=5.8						
	comp=Z,1.4nm,1.1s						
ESDC	Sonseca Array	24.44	292	P	P	05 11 56.8	-1.2
SFS	San Fernando	26.22	285	P	P	05 12 13.5	-0.5
HFS	Hagfors	27.32	347	P	P	05 12 23.3	-0.3
	comp=Z,1.0nm,0.5s,baz=143,slow=8.4,SNR=2.0						
	comp=Z,1.0nm,0.5s						
FINES	FINESS Array B	27.45	0	P	P	05 12 24.3	-0.5
	comp=Z,1.0nm,0.4s,baz=156,slow=11,SNR=9.8						
	comp=Z,1.0nm,0.4s						
FIA1	FINESS Array S	27.45	0	P	P	05 12 25.4	+0.5
NOA	NORSAR Array B	28.65	345	P	P	05 12 36.0	+0.4
	comp=Z,0.2nm,0.6s,baz=152,slow=9.5,SNR=1.6						
	comp=Z,0.2nm,0.6s						
NOA	NORSAR Array B	28.65	345	P	P	05 12 36.0	+0.4
EKA	Eskdalemuir Ar	29.30	326	P	P	05 12 41.4	0.0
	comp=Z,0.2nm,0.4s,baz=120,slow=9.7,SNR=1.5						
	comp=Z,0.2nm,0.4s						
AB31	Akbulak array	29.40	48	P	P	05 12 42.9	+0.5
AB31				IAmb	IAmb	05 13 16.4	
	comp=Z,3.5nm,1.4s						
ABKAR	Akbulak array	29.40	48	P	P	05 12 42.4	+0.1
TORD	Torodi Ar. Bea	30.20	232	P	P	05 12 51.6	+1.9
	comp=Z,7.7nm,0.9s,baz=32,slow=9.0,SNR=5.2						
	comp=Z,7.7nm,0.9s						
TORD	Torodi Ar. Bea	30.20	232	P	P	05 12 47.5	-2.3
TORD				IAmb	IAmb	05 13 24.9	
	comp=Z,6.2nm,1.5s						
ARTI	Arti	31.56	35	P	P	05 13 00.1	-1.2
ARCES	ARCESS Array B	35.57	360	P	P	05 13 34.1	-2.1
	comp=Z,2.2nm,0.8s,baz=176,slow=7.9,SNR=8.1						
ARCES	ARCESS Array B	35.57	360	P	P	05 13 34.5	-1.6
BOOM	Boomskoye usch	39.76	63	P	P	05 14 12.4	+0.3
BOOM				IAmb	IAmb	05 14 14.4	
	comp=Z,4.2nm,1.2s						
KDJ	Kajisay	40.71	63	P	P	05 14 20.3	+0.3
KDJ				IAmb	IAmb	05 14 36.0	
	comp=Z,3.5nm,0.9s						
KURBB	Kurchatov Arra	41.42	50	P	P	05 14 26.3	+0.8
	comp=Z,1.1nm,0.4s,baz=275,slow=8.7,SNR=11						
	comp=Z,1.1nm,0.4s						
KURK	Kurchatov	41.48	50	P	P	05 14 25.9	-0.1
KURK				IAmb	IAmb	05 14 28.0	
	comp=Z,2.1nm,0.9s						
MKAR	Makanchi Array	43.95	56	P	P	05 14 47.4	+1.2
	comp=Z,1.3nm,0.7s,baz=279,slow=6.4,SNR=8.1						
	comp=Z,1.3nm,0.7s						
ZAA0	Zalesovo Array	45.41	45	P	P	05 14 57.6	0.0
ZAA0				IAmb	IAmb	05 15 30.6	
	comp=Z,2.2nm,1.1s						
ZALV	Zalesovo Beam	45.41	45	P	P	05 14 58.2	+0.6
	comp=Z,1.8nm,0.5s,baz=265,slow=9.8,SNR=4.9						
	comp=Z,1.8nm,0.5s						
ZALV	Zalesovo Beam	45.41	45	P	P	05 14 57.7	+0.1
NRIK	Noril'sk	48.68	25	P	P	05 15 23.6	+0.6
SUMG	Summit	50.24	339	P	P	05 15 35.2	-0.1
SUMG				IAmb	IAmb	05 15 36.5	
	comp=Z,2.6nm,1.0s						
SONM	Songino Array	59.79	50	P	P	05 16 45.7	+1.4
	comp=Z,0.4nm,0.4s,baz=289,slow=8.7,SNR=2.5						
	comp=Z,0.4nm,0.4s						
SONM	Songino Array	59.79	50	P	P	05 16 43.7	-0.6
SONM				IAmb	IAmb	05 17 21.2	
	comp=Z,1.4nm,1.1s						
BOSA	Boshof	62.29	181	P	P	05 17 01.0	-0.3
SCHQ	Schefferville	64.42	320	P	P	05 17 14.4	-0.7
	comp=Z,6.4nm,0.9s,baz=39,slow=5.7,SNR=5.5						
	comp=Z,6.4nm,0.9s						
SCHQ	Schefferville	64.42	320	P	P	05 17 14.4	-0.7
CMAR	Chiang Mai Arr	66.15	83	P	P	05 17 27.3	+0.4
YAK	Yakutsk	66.59	30	P	P	05 17 29.2	+0.2

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*TAP **01** 05:07:21.4, 24°.62N×122°.57E, h15^{km}, ML3.2, C*

*JMA **01** 05:07:22.1±0.1, 25°N±1°×122°.6E±0°.4, h20^{km}±1^{km}, MV2.3/11, NW OFF ISHIGAKIJIMA IS*

ISC 01 05:07:21.8±0.9**, 24°.62N**±0°.02×**122°.57E**±0°.02**, h17**^{km}±7^{km}**, n77, σ0^{s}.56**/151**, 1C-1D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EOS2	EOS2	0.37	237	*i* P	Pb	05 07 29.8	0.0
EOS2				*e*S	Sb	05 07 35.5	+0.3
JYNG	Yonagunijimaku	0.38	117	P	Pg	05 07 29.8	+0.1
JYNG				S	Sg	05 07 35.2	+0.3
EOS3	EOS3	0.41	215	*i* P	Pb	05 07 30.4	0.0
EOS3				S	Sb	05 07 36.9	+0.7
YOJ	Yonaguni jima	0.43	112	*e*P	Pb	05 07 30.8	-0.1
YOJ				S	Sb	05 07 36.7	-0.3
YOJ	Yonaguni jima	0.43	112	P	Pg	05 07 30.6	+0.1
YOJ				S	Sg	05 07 36.6	+0.1
EOS4	EOS4	0.55	205	*e*P	Pb	05 07 33.4	+0.7
EOS4				*e*S	Sb	05 07 41.0	+0.8
EGS		0.62	291	*e*P	Pg	05 07 34.0	-0.1
TWB1	Santiao Chiao	0.66	306	P	Pg	05 07 34.6	-0.1
TWB1				*e*S	Sg	05 07 43.1	-0.4
ESAO	Su ao	0.67	266	*e*P	Pb	05 07 35.6	+0.7
ESAO				S	Sb	05 07 43.8	-0.1
NTC	Toucheng	0.71	289	P	Pg	05 07 35.8	0.0
NTC				S	Sg	05 07 46.2	+0.8
EWUT	Wuta	0.75	257	P	Pb	05 07 36.0	-0.3
EWUT				*e*S	Sn	05 07 47.5	-0.9
TIPB	Shuangxi	0.76	297	*e*P	Pg	05 07 36.9	+0.1
TIPB				*e*S	Sg	05 07 47.4	+0.4
ILA	Ilan	0.77	281	P	Pb	05 07 36.5	-0.1
ILA				S	Sg	05 07 47.5	+0.6
NDS	Dongshan	0.78	271	*i* P	Pg	05 07 37.0	0.0
NDS				*i* S	Sg	05 07 47.6	+0.2
ENA	Nanau	0.78	256	*e*P	Pb	05 07 34.6	-2.3
ENA				*e*S	Sb	05 07 44.8	-2.4
SXI1	Grass Mountain	0.79	307	*i* P	Pg	05 07 37.2	-0.1
SXI1				S	Sg	05 07 48.0	+0.2
EAHA	Aohua	0.81	249	*e*P	Pg	05 07 37.5	-0.2
EAHA				*e*S	Sg	05 07 48.2	-0.2
EHP	Heping Village	0.82	248	*e*P	Pb	05 07 37.4	-0.2
TWE	Neicheng	0.83	277	*e*P	Pg	05 07 37.9	-0.1
TWE				S	Sg	05 07 48.8	-0.2
WFSB	Wu-fen Shan	0.85	302	*i* P	Pg	05 07 38.3	-0.1
WFSB				S	Sg	05 07 49.5	-0.1
TNOU	National Taiwa	0.90	306	P	Pb	05 07 39.0	+0.2
TNOU				*e*S	Sb	05 07 50.8	+0.2
FUSB	Fushanzhiwuyua	0.91	279	*e*P	Pn	05 07 39.8	0.0
FUSB				*e*S	Sb	05 07 50.8	-0.1
LATG	Datong	0.96	265	P	Pg	05 07 40.3	-0.1
LATG				S	Sg	05 07 52.7	-0.3
NDT	Datong Townshi	0.97	269	*e*P	Pn	05 07 40.7	+0.2
NDT				*e*S	Sg	05 07 53.4	+0.1
TWA	Mucha	0.97	292	⇓P	Pb	05 07 40.2	+0.1
TWA				S	Sg	05 07 53.0	-0.4
ETL	Fush Village	0.98	242	P	Pb	05 07 40.4	+0.1
ETL				S	Sn	05 07 54.2	0.0
NWLT	Wulai	0.99	279	*e*P	Pg	05 07 41.2	+0.2
NWLT				*e*S	Sb	05 07 52.5	-0.6
NACB	Ninganchiao	1.00	244	*i* P	Pb	05 07 40.5	-0.1
NACB				*i* S	Sg	05 07 54.1	-0.2
NHDH	Xindian Distri	1.01	290	P	Pb	05 07 40.9	0.0
NHDH				S	Sg	05 07 54.3	-0.4
NWRT	Kuosheng	1.01	305	P	Pn	05 07 41.0	-0.2
NWRT				*e*S	Sn	05 07 55.4	+0.4
TWD	Chiawan	1.04	239	P	Pn	05 07 41.6	0.0
TWD				S	Sn	05 07 56.1	+0.4
TATO	Taipei	1.05	290	P	Pb	05 07 41.3	-0.1
TATO				S	Sb	05 07 54.6	-0.3
YM01	YM01	1.05	300	*e*P	Pg	05 07 43.2	+1.1
YM01				S	Sb	05 07 55.0	0.0
TAP	Taipei	1.06	293	P	Pb	05 07 41.4	-0.1
TAP				S	Sg	05 07 56.2	+0.1
YM08	YM08	1.06	302	*e*P	Pg	05 07 43.1	+0.8
YM08				*i* S	Sb	05 07 54.8	-0.4
ETLH	Xiulin Townshi	1.08	248	*e*P	Pn	05 07 42.2	0.0
ETLH				S	Sg	05 07 57.3	+0.4
ZUZH	Zhuzihu	1.08	300	P	Pb	05 07 41.7	-0.3
ZUZH				*e*S	Sn	05 07 56.7	0.0
IRIF	Iriomote-Funau	1.09	105	P	Pb	05 07 41.9	-0.2
IRIF				*e*S	Sb	05 07 55.9	-0.2
YHNB	Yeheng	1.09	273	*e*P	Pg	05 07 42.7	-0.2
YHNB				S	Sn	05 07 56.9	-0.1
TWY	Chenhua	1.10	307	P	Pn	05 07 42.5	+0.2
TWY				S	Sg	05 07 57.5	+0.1
NNSB	Datong	1.10	260	P	Pn	05 07 42.7	+0.2
NNSB				*i* S	Sn	05 07 57.3	-0.1
NNSH	Datong	1.10	260	⇑P	Pn	05 07 42.5	-0.1
NNSH				S	Sn	05 07 57.0	-0.3
PCYT	Pengchaiyu	1.10	336	P	Pb	05 07 41.9	-0.4
PCYT				*e*S	Sg	05 07 58.2	+0.5
NSK	Sanguang	1.11	273	*i* P	Pg	05 07 43.2	-0.1
NSK				*e*S	Sb	05 07 55.9	-0.7
NNS	Nan Shan	1.11	261	*i* P	Pb	05 07 42.4	-0.1
NNS				*i* S	Sb	05 07 57.0	+0.2
ETM	Tongmen	1.18	237	P	Pb	05 07 43.9	+0.1
ETM				S	Sg	05 07 59.8	-0.4
SHUL	Shoufeng	1.24	228	*e*P	Pb	05 07 44.9	+0.1
SHUL				S	Sg	05 08 01.4	-0.6
HATJ	Hateruma jima	1.26	116	P	Pb	05 07 45.2	+0.2
HATJ				*e*S	Sn	05 08 00.9	0.0
FUSS	Fushou	1.27	253	*e*P	Pg	05 07 45.9	-0.5
FUSS				S	Sg	05 08 02.8	-0.1
KSHI	Guanxi Townshi	1.28	277	P	Pb	05 07 45.6	+0.1
KSHI				S	Sg	05 08 03.4	+0.1
WHF	Hehuan Shan	1.28	249	*e*P	Pg	05 07 46.1	-0.5
WHF				*e*S	Sg	05 08 03.7	+0.2
ESL	Shilin	1.32	233	P	Pb	05 07 45.8	-0.2
ESL				S	Sb	05 08 03.2	+0.6
NFF	Wufeng Townshi	1.32	271	P	Pb	05 07 46.6	+0.4
NFF				*i* S	Sg	05 08 04.1	-0.6
TWT	Tachien	1.33	254	P	Pg	05 07 47.2	-0.3
TWT				S	Sg	05 08 04.3	-0.4
TDCB	Techi	1.34	254	*e*P	Pg	05 07 47.4	-0.3
TDCB				S	Sb	05 08 04.1	+0.6
JKRS	Kuro-shima	1.36	106	P	Pn	05 07 46.2	+0.3
JKRS				S	Sn	05 08 02.8	-0.8
WARBT	Fenglin Townsh	1.41	231	*e*P	Pn	05 07 47.0	+0.3
WARBT				S	Sb	05 08 05.4	+0.1
LIOB	Emei	1.42	271	*e*P	Pg	05 07 49.1	0.0
LIOB				*e*S	Sg	05 08 08.0	+0.4
OWD	Renai	1.44	243	*e*P	Pb	05 07 48.3	+0.1
OWD				*e*S	Sg	05 08 08.0	-0.3
JIJ	Ishigaki jima	1.45	100	*e*P	Pn	05 07 46.6	-0.6
WUSB	Renai	1.47	245	*e*P	Pg	05 07 49.7	-0.4
WUSB				*e*S	Sg	05 08 08.4	-0.9
WHP	Taichung City	1.52	257	*e*P	Pg	05 07 50.9	-0.2
WHP				S	Sg	05 08 10.6	-0.4
HGSD	Ruisui	1.54	223	*e*P	Pn	05 07 48.9	+0.5
HGSD				S	Sb	05 08 08.8	-0.2
DPDB	Guoxing	1.61	249	*e*P	Pg	05 07 53.0	+0.1
DPDB				*e*S	Sg	05 08 14.5	+0.6
WCS	Beigang Elemen	1.62	250	*e*P	Pg	05 07 52.5	-0.4
WCS				S	Sg	05 08 12.6	-1.4
YULB	Yu-li	1.69	224	*e*P	Pn	05 07 51.0	+0.5
YULB				S	Sb	05 08 12.7	-0.7
SMLT	Sun Moon Lake	1.70	245	*e*P	Pb	05 07 53.4	+0.8
SMLT				*e*S	Sb	05 08 14.9	+1.2
SSLB	Suanglung	1.70	241	*e*P	Pg	05 07 53.7	-0.8
SSLB				*e*S	Sb	05 08 14.4	+0.9
TWF1	Yuli	1.72	223	P	Pn	05 07 51.4	+0.5
TWF1				S	Sn	05 08 13.2	+0.7
TYC	Yuchr	1.72	246	*e*P	Pn	05 07 50.9	0.0
TYC				S	Sn	05 08 13.3	+0.8
WHYT	Xinyi Township	1.82	240	*e*P	Pb	05 07 55.0	+0.3
WHYT				*e*S	Sb	05 08 16.8	-0.4
FULB	Fuli	1.84	220	*e*P	Pn	05 07 53.1	+0.5
FULB				S	Sn	05 08 16.2	+0.8
ALS	Alishan	1.96	236	P	Pn	05 07 55.1	+0.6
ALS				S	Sn	05 08 19.4	+0.6
CHN5	Tsauling	2.01	240	*e*P	Pb	05 07 57.3	-0.7
CHN5				*e*S	Sn	05 08 21.1	+1.3
EDH	Donghe	2.01	216	P	Pn	05 07 54.1	-0.8
EDH				*e*S	Sn	05 08 19.9	+0.3
LONT	Longtian	2.16	218	*e*P	Pn	05 07 57.4	+0.5
LONT				*e*S	Sn	05 08 24.4	+1.1
STYT	Tauyuan	2.21	229	*e*P	Pb	05 07 59.6	-1.7
STYT				S	Sn	05 08 25.3	+0.7

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*SJA **01** 05:09:09.2±1.1, 27°.82S×71°.67W, h10^{km}, ML3.8, MW3.8*

*GUC **01** 05:09:11.9±0.8, 27°.95S×71°.44W, h28^{km}±3^{km}, ML3.3*

ISC 01 05:09:13.6±1.3**, 27°.95S**±0°.03×**71°.29W**±0°.06**, h30**^{km}±10^{km}**, n20, σ2^{s}.05**/34**, 1C, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.32	143	*i* P	Pb	05 09 21.2	-0.2
AC04				*e*S	Sb	05 09 26.1	-0.5
AC04				IAML		05 09 26.7	
	comp=E,7μm,0.3s						
GO03	Copiapo	1.00	70	*i* P	Pn	05 09 30.3	-1.4
GO03				IAML		05 09 50.3	
	comp=E,1μm,0.4s						
AC06	Mina Casimiro	1.02	55	*i* P	Pn	05 09 30.7	-1.2
AC06				*e*S	Sb	05 09 49.5	+3.7
LCO	Las Campanas	1.18	154	*e*P	Pb	05 09 35.8	+0.2
LCO				*e*S	Sb	05 09 51.3	+0.6
AC05	El Transito	1.26	135	*e*P	Pn	05 09 35.6	+0.3
AC05				*e*S	Sn	05 09 52.3	+1.0
AC05				IAML		05 09 55.8	
	comp=N,890nm,0.4s						
AC01	Pan de Azucar	1.90	19	*e*P	Pn	05 09 43.7	-0.3
AC01				*e*S	Sb	05 10 11.4	+0.5
AC01	Pan de Azucar	1.90	19	*i* P	Pn	05 09 43.4	-0.6
AC01				IAML		05 10 16.0	
	comp=E,206nm,0.4s						
AC02	Maricunga	2.22	61	*e*P	Pb	05 09 52.0	-1.4
AC02				*e*S	Sb	05 10 23.2	+2.6
AC02				IAML		05 10 25.5	
	comp=E,541nm,0.2s						
GO04	Tololo Observa	2.26	169	*e*P	Pb	05 09 52.9	-1.1
GO04				*e*S	Sb	05 10 22.9	+1.4
GO04				IAML		05 10 26.0	
	comp=Z,610nm,0.6s						
GO04	Tololo Observa	2.26	169	⇑*i*P	Pb	05 09 51.3	-2.6
GO04				*e*S	Sb	05 10 18.8	-2.8
CO01	Juntas del Tor	2.28	153	*i* P	Pb	05 09 52.9	-1.4
CO01				*e*S	Sb	05 10 21.8	-0.3
CO01				IAML		05 10 25.4	
	comp=E,369nm,0.2s						
VCA	Vinchina	2.83	107	*e*P	Pb	05 10 04.3	+0.7
VCA				*e*S	Sb	05 10 39.8	+1.9
VCA				IAML		05 10 50.3	
	comp=Z,227nm,0.9s						
ACDV	Cuesta del Vie	2.92	140	*e*P	Pb	05 10 06.0	+0.9
ACDV				*e*S	Sb	05 10 37.3	-3.1
CO03	El Pedregal	2.93	170	*e*P	Pb	05 10 01.4	-3.8
CO03				*e*S	Sb	05 10 41.8	+1.1

CO03				IAML		05 10 47.1	
	comp=Z,225nm,0.7s						
CO03	**El Pedregal**	**2.93**	**170**	eP	**Pn**	**05 10 00.4**	**+2.2**
CO02	**Combarbal**	**3.25**	**176**	eP	**Pn**	**05 10 04.1**	**+1.3**
TINO	**Tinogasta**	**3.29**	**93**	eP	**Pb**	**05 10 08.4**	**-3.1**
TINO				eS	**Sb**	**05 10 52.8**	**+1.7**
TINO				IAML		05 10 58.2	
	comp=Z,91nm,0.5s						
RTLL	**Cerro Villicun**	**4.17**	**145**	eP	Pb	05 10 20.6	-5.7
RTLL				eS	**Sb**	**05 11 13.3**	**-2.9**
RTLL				IAML		05 11 26.9	
	comp=Z,70nm,0.5s						
RTLS	**Leoncito**	**4.21**	**156**	eP	Pb	05 10 21.8	-5.4
RTLS				eS	**Sb**	**05 11 17.8**	**+0.1**
RTLS				IAML		05 11 31.5	
	comp=Z,351nm,0.9s						
VA01	**Torpederas**	**5.07**	**183**	eP	**Pn**	**05 10 28.5**	**+1.0**
VA01				eS	**Sb**	**05 11 46.4**	**+4.4**
VA01				IAML		05 12 22.7	
	comp=Z,31nm,1.9s						

GUC 01 05:14:35.5±0.8,28°05S×71°27W,h27km±2km,ML3.4, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	**Llanos de Chal**	**0.23**	**133**	eP	Pn	05 14 42.5	-0.6
AC04				eS	Sb	05 14 46.7	+0.6
AC04				IAML		05 14 47.6	
	comp=E,3μm,0.1s						
GO03	**Copiapo**	**1.02**	**64**	eP	Pb	05 14 54.9	+0.3
GO03				iS	Sb	05 15 09.7	+2.1
GO03				IAML		05 15 10.5	
	comp=E,4μm,0.5s						
AC06	**Mina Casimiro**	**1.06**	**50**	eP	Pb	05 14 55.4	+0.1
AC06				iS	Sb	05 15 10.8	+2.1
AC06				IAML		05 15 11.6	
	comp=E,2μm,0.3s						
LCO	**Las Campanas**	**1.08**	**153**	eP	Pb	05 14 56.3	+0.5
LCO				iS	Sb	05 15 12.8	+3.2
LCO				IAML		05 15 15.4	
	comp=E,6μm,0.2s						
AC05	**El Transito**	**1.18**	**132**	eP	Pb	05 14 57.7	+0.5
AC05				eS	Sb	05 15 14.3	+2.2
AC05				IAML		05 15 16.4	
	comp=N,910nm,0.3s						
AC01	**Pan de Azucar**	**1.98**	**18**	eP	Pn	05 15 08.1	+0.8
GO04	**Tololo Observa**	**2.16**	**169**	eP	Pb	05 15 12.4	-1.6
GO04				iS	Sb	05 15 41.9	+1.5
GO04				IAML		05 15 42.5	
	comp=N,1μm,0.5s						
GO04	**Tololo Observa**	**2.16**	**169**	iP	Pb	05 15 12.7	-1.4
CO01	**Juntas del Tor**	**2.18**	**152**	eP	Pb	05 15 13.5	-0.9
CO01				eS	Sb	05 15 42.3	+1.2
CO01				IAML		05 15 46.6	
	comp=N,233nm,0.4s						
AC02	**Maricunga**	**2.25**	**58**	eP	Pb	05 15 15.1	-0.7

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*SJA **01** 05:14:13.1±1.1,26°99S×73°08W,h24km±55km,ML5.0, MW4.7*

*IDC **01** 05:14:41.8±0.7,27°98S×70°67W,h0km,mb3.9/6, mbtmp4.0/10,ML4.0/4,Error ellipse: s-maj=19.3km s-min=12.1km az=75.0*

*GUC **01** 05:14:45.4±0.9,28°04S×71°13W,h31km±2km,ML4.2*

*NEIC **01** 05:14:45.9±1.4,28°01S±0°03×71°22W±0°04,h34km±4km, mb4.5/37,ML4.2(GUC),Error ellipse: s-maj=5.7km s-min=3.7km az=103.0*

ISC 01 05:14:43.0±0.9,**27°98S**±0°02×**71°27W**±0°04,**h19**km±3km, **n134**,σ**1^{s}60**/148,**mb4.5**/20,**Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	**Llanos de Chal**	**0.29**	**142**	eP	**Pn**	**05 14 52.4**	**+0.2**
AC04				eS	**Sn**	**05 14 56.6**	**-1.4**
AC04				IAML		05 14 57.2	
	comp=E,78μm,0.2s						
AC04	**Llanos de Chal**	**0.29**	**142**		**Pn**	**05 14 52.6**	**+0.4**
AC04				Sg	**Sn**	**05 14 56.8**	**-1.2**
GO03	**Copiapo**	**0.99**	**68**	eP	**Pg**	**05 15 03.0**	**+0.7**
GO03				eS	**Sn**	**05 15 15.9**	**+0.3**
GO03				IAML		05 15 19.1	
	comp=E,9μm,0.2s						
GO03	**Copiapo**	**0.99**	**68**	Pn	**Pg**	**05 15 03.5**	**+1.2**
GO03				Sn	**Sn**	**05 15 16.0**	**+0.4**
AC06	**Mina Casimiro**	**1.02**	**53**	eP	**Pg**	**05 15 03.5**	**+0.7**
AC06				eS	**Sn**	**05 15 17.7**	**+1.5**
AC06				IAML		05 15 21.2	
	comp=E,8μm,0.2s						
AC06	**Mina Casimiro**	**1.02**	**53**	Pn	**Pg**	**05 15 03.5**	**+0.7**
LCO	**Las Campanas**	**1.15**	**154**	eP	**Pg**	**05 15 06.0**	**+0.7**
LCO				eS	**Sg**	**05 15 20.7**	**+0.4**
LCO	**Las Campanas**	**1.15**	**154**	Pn	**Pg**	**05 15 06.6**	**+1.4**
LCO				Sn	**Sg**	**05 15 19.8**	**-0.5**
AC05	**El Transito**	**1.23**	**134**	eP	**Pg**	**05 15 07.2**	**+0.4**
AC05				eS	**Sn**	**05 15 22.0**	**+0.6**
AC05				IAML		05 15 27.2	
	comp=N,7μm,0.6s						
AC05	**El Transito**	**1.23**	**134**	Pn	**Pg**	**05 15 07.4**	**+0.7**
AC05				Sn	**Sg**	**05 15 22.8**	**0.0**
AC01	**Pan de Azucar**	**1.92**	**18**	eP	**Pb**	**05 15 16.4**	**-0.9**
AC01				IAML		05 15 50.0	
	comp=E,2μm,0.5s						
AC01	**Pan de Azucar**	**1.92**	**18**	Pn	**Pb**	**05 15 16.6**	**-0.8**
AC01				Sn	**Sn**	**05 15 38.2**	**-0.1**
AC02	**Maricunga**	**2.22**	**60**	eP	**Pb**	**05 15 23.6**	**+0.8**
AC02				eS	**Sg**	**05 15 52.6**	**-1.9**
AC02				IAML		05 15 54.7	
	comp=E,4μm,0.4s						
AC02	**Maricunga**	**2.22**	**60**	Pn	**Pn**	**05 15 20.0**	**+0.7**
GO04	**Tololo Observa**	**2.23**	**169**	eS	**Sb**	**05 15 52.1**	**+2.0**
GO04				IAML		05 15 56.0	
	comp=Z,3μm,0.8s						
GO04	**Tololo Observa**	**2.23**	**169**	eP	**Pb**	**05 15 22.0**	**-0.8**
GO04				eS	**Sb**	**05 15 50.9**	**+0.8**
GO04	**Tololo Observa**	**2.23**	**169**	Pn	**Pn**	**05 15 20.0**	**+0.9**
CO01	**Juntas del Tor**	**2.24**	**153**	eP	**Pb**	**05 15 22.4**	**-0.7**
CO01				IAML		05 16 00.9	
	comp=N,2μm,0.3s						
CO01	**Juntas del Tor**	**2.24**	**153**	Pn	**Pn**	**05 15 20.2**	**+0.8**
CO06	**Fray Jorge**	**2.71**	**187**	eP	**Pn**	**05 15 26.2**	**+0.7**
CO06				IAML		05 16 13.4	
	comp=E,935nm,0.8s						
CO06	**Fray Jorge**	**2.71**	**187**	Pn	**Pn**	**05 15 26.9**	**+1.4**
VCA	**Vinchina**	**2.81**	**106**	eP	**Pb**	**05 15 34.0**	**+1.4**
ACDV	**Cuesta del Vie**	**2.88**	**140**	iP	**Pn**	**05 15 26.5**	**-1.6**
ACDV				eS	**Sg**	**05 16 21.9**	**+6.1**
ACDV				IAML		05 16 23.7	
	comp=Z,626nm,0.6s						
CO03	**El Pedregal**	**2.90**	**170**	iP	Pn	05 15 21.7	-6.5
CO03				eS	**Sb**	**05 16 11.9**	**+2.6**
CO03				IAML		05 16 29.5	
	comp=Z,751nm,0.7s						
CO03	**El Pedregal**	**2.90**	**170**	eP	**Pb**	**05 15 31.5**	**-2.6**
CO03				IAML		05 16 18.8	
	comp=N,1μm,0.5s						
CO03	**El Pedregal**	**2.90**	**170**	Pn	**Pn**	**05 15 29.3**	**+1.1**
CO02	**Combarbal**	**3.22**	**176**	iP	Pn	05 15 25.4	-7.4
CO02				eS	**Sb**	**05 16 16.7**	**-1.9**
CO02				IAML		05 16 29.5	
	comp=Z,2μm,0.8s						
CO02	**Combarbal**	**3.22**	**176**	eP	**Pn**	**05 15 34.8**	**+2.1**
CO02	**Combarbal**	**3.22**	**176**	Pn	**Pn**	**05 15 33.8**	**+1.1**
PB14	**IPOC Station P**	**3.43**	**13**	Pn	**Pn**	**05 15 36.6**	**+0.9**
CO04	**Los Peladeros**	**4.06**	**176**	Pn	**Pn**	**05 15 44.4**	**+0.1**
RTLS	**Leoncito**	**4.18**	**156**	iP	**Pn**	**05 15 42.8**	**-3.2**
RTLS				eS	**Sb**	**05 16 48.6**	**+2.4**
RTLS				IAML		05 17 01.6	
	comp=Z,2μm,0.7s						
ZON	**Zonda**	**4.21**	**148**		**Pn**	**05 15 45.4**	**-0.8**
CFA	**Coronel Fontan**	**4.47**	**145**	Pn	**Pn**	**05 15 46.7**	**-3.2**
	comp=Z,5.7nm,0.3s,baz=299,slow=15,SNR=32						
CFA				Lg	Lg	05 16 52.6	
	comp=Z,20nm,0.3s,baz=70,slow=21,SNR=13						
	comp=Z,12nm,0.3s						
CFA				AML	AML		
CFA	**Coronel Fontan**	**4.47**	**145**	iP	**Pn**	**05 15 46.5**	**-3.4**
CFA				eS	**Sb**	**05 16 56.8**	**+2.2**
CFA				IAML		05 17 14.4	
	comp=Z,166nm,0.8s						
CFA	**Coronel Fontan**	**4.47**	**145**		**Pn**	**05 15 46.7**	**-3.2**
VA03	**San Esteban**	**4.81**	**173**		**Pn**	**05 15 52.7**	**-1.8**
VA01	**Torpederas**	**5.04**	**184**		**Pn**	**05 15 58.3**	**+0.8**
PEL	**Peldehue**	**5.17**	**175**	Pn	**Pn**	**05 16 00.1**	**+0.7**
PB05	**IPOC Station P**	**5.19**	**11**		**Pn**	**05 15 59.8**	**0.0**
MT02	**Curacav**	**5.27**	**179**		**Pn**	**05 15 58.1**	**-2.6**
MT05	**Renca**	**5.42**	**175**	Pn	**Pn**	**05 16 01.4**	**-1.4**
PB06	**IPOC Station P**	**5.47**	**17**		**Pn**	**05 16 04.4**	**+0.8**
MT16	**CCHEN**	**5.47**	**173**		**Pn**	**05 16 01.9**	**-1.7**
MT03	**Universidad Ad**	**5.54**	**173**	Pn	**Pn**	**05 16 01.6**	**-3.0**
MT08	**Bocatoma Ro**	**5.56**	**169**		**Pn**	**05 16 02.9**	**-2.0**
AF01	**San Pedro de A**	**5.73**	**30**		**Pn**	**05 16 07.7**	**+0.3**
MT09	**Talagante**	**5.79**	**178**	Pn	**Pn**	**05 16 06.4**	**-1.6**
MT13	**San Alfonso**	**5.81**	**172**		**Pn**	**05 16 06.4**	**-1.8**
MT01	**Popeta**	**5.87**	**180**		**Pn**	**05 16 06.2**	**-2.7**
BO04	**La Punta**	**6.02**	**175**	Pn	**Pn**	**05 16 09.5**	**-1.6**
PB03	**IPOC Station P**	**6.06**	**13**		**Pn**	**05 16 10.1**	**-1.7**
PB07	**IPOC Station P**	**6.35**	**12**		**Pn**	**05 16 15.3**	**-0.4**
BO01	**Tunca**	**6.40**	**179**	Pn	**Pn**	**05 16 13.2**	**-3.0**
PB09	**IPOC Station P**	**6.42**	**17**		**Pn**	**05 16 18.1**	**+1.3**
PB02	**IPOC Station P**	**6.75**	**11**		**Pn**	**05 16 19.8**	**-1.3**
GO05	**Hualane**	**7.03**	**184**		**Pn**	**05 16 24.8**	**-0.2**
TA01	**Diego Aracena**	**7.45**	**8**	Pn	**Pn**	**05 16 29.2**	**-1.4**
ML02	**Panimavida**	**7.76**	**181**	Pn	**Pn**	**05 16 31.7**	**-3.3**
PB08	**IPOC Station P**	**8.04**	**14**	Pn	**Pn**	**05 16 38.1**	**-1.1**
PB11	**IPOC Station P**	**8.31**	**11**		**Pn**	**05 16 41.6**	**-1.1**
PSGCX	**Pisagua**	**8.41**	**7**	Pn	**Pn**	**05 16 42.9**	**-1.0**
GO01	**Chusmiza**	**8.49**	**13**	Pn	**Pn**	**05 16 44.4**	**-1.0**
BI02	**San Fabin de**	**8.66**	**180**	Pn	**Pn**	**05 16 44.4**	**-2.9**
H03S3	**Juan Fernandez**	**8.78**	**226**	Pn	**Pn**	**05 16 47.8**	**-0.8**
	baz=76,slow=71						
H03S1	**Juan Fernandez**	**8.78**	**226**	Pn	**Pn**	**05 16 48.1**	**-0.6**
	baz=76,slow=71						
H03S2	**Juan Fernandez**	**8.79**	**226**	Pn	**Pn**	**05 16 48.9**	**0.0**
	baz=76,slow=71						
PB12	**IPOC Station P**	**9.36**	**6**	Pn	**Pn**	**05 16 56.2**	**-0.8**
PB16	**IPOC Station P**	**9.73**	**10**	Pn	**Pn**	**05 17 02.8**	**+0.2**
PB18	**Visviri**	**10.47**	**9**	Pn	**Pn**	**05 17 12.4**	**-0.2**
LPAZ	**La Paz**	**11.99**	**15**	Pn	**Pn**	**05 17 34.0**	**+0.4**
	comp=Z,1.5nm,0.3s,baz=210,slow=5.7,SNR=42						
	comp=Z,4.4nm,0.4s						
LPAZ				AML	AML		
LPAZ	**La Paz**	**11.99**	**15**		**Pn**	**05 17 34.1**	**+0.6**
CPUP	**Villa Florida**	**12.52**	**86**	Pn	**Pn**	**05 17 35.9**	**-4.3**
	comp=Z,0.1nm,0.3s,baz=244,slow=12,SNR=1.7						
CPUP				Lg	Lg	05 20 58.1	
	comp=Z,0.2nm,0.3s,baz=318,slow=20,SNR=4.2						
	comp=Z,1.6nm,1.1s						
CPUP				AML	AML		
SIV	**San Ignacio**	**15.21**	**40**	Pn	**Pn**	**05 18 12.7**	**-4.2**
	comp=Z,0.2nm,0.3s,baz=234,slow=12,SNR=19						
	comp=Z,3.2nm,0.4s						
SIV				AML	AML		
CPSB	**Cacapava Do Su**	**15.76**	**103**	Pn	**Pn**	**05 18 24.2**	**+0.2**
NNA	**Nana**	**16.74**	**341**	Pn	**P**	**05 18 37.9**	**-0.9**
NNA				IAmb	IAmb	05 18 53.2	
	comp=Z,44nm,0.7s						
PTLB	**Pontes e Lacer**	**16.79**	**45**	Pn	**Pn**	**05 18 38.0**	**+0.8**
TRCB	**Terra Rica**	**17.61**	**77**	Pn	**Pn**	**05 18 46.0**	**-1.4**
TRCB				IAmb	IAmb	05 19 03.3	
	comp=Z,18nm,0.7s						
VILB	**Vilhena**	**18.18**	**37**	P	**Pn**	**05 18 53.5**	**-0.9**
CZSB	**Cruzeiro do Su**	**20.18**	**356**	P	**P**	**05 19 17.5**	**+0.9**
CZSB				IAmb	IAmb	05 19 22.5	
	comp=Z,22nm,1.1s						
VAO	**Valinhos**	**22.48**	**83**	P	**P**	**05 19 39.8**	**-1.6**
BDFB	**Brasilia**	**24.78**	**65**	P	**P**	**05 20 02.2**	**-1.8**
	comp=Z,2.0nm,0.5s,baz=215,slow=9.9,SNR=5.6						
	comp=Z,2.0nm,0.5s						
BDFB	**Brasilia**	**24.78**	**65**	P	**P**	**05 20 02.5**	**-1.5**
MACA	**Manacapuru-AM**	**26.67**	**24**	P	**P**	**05 20 21.3**	**+0.4**
MACA				IAmb	IAmb	05 20 28.6	
	comp=Z,9.1nm,0.8s						
BOAV	**Boa Vista**	**31.92**	**21**	P	**P**	**05 21 06.5**	**-1.0**
PAYG	**Puerto Ayora**	**32.69**	**323**	P	**P**	**05 21 14.7**	**+0.4**
ESPZ	**Base Esperanza**	**36.62**	**169**	P	**P**	**05 21 47.5**	**-0.2**
PMSA	**Palmer Station**	**37.09**	**175**	P	**P**	**05 21 52.2**	**+0.5**
PMSA				IAmb	IAmb	05 22 08.9	
	comp=Z,8.0nm,1.1s						
ORCD	**Orcadas**	**37.32**	**159**	P	**P**	**05 21 53.0**	**-0.8**
TEIG	**Tepich**	**50.66**	**339**	P	**P**	**05 23 42.0**	**+0.8**
TEIG				IAmb	IAmb	05 23 52.3	
	comp=Z,7.7nm,0.8s						
SNAA	**Sanae**	**56.94**	**159**	P	**P**	**05 24 28.0**	**+1.4**
	comp=Z,2.5nm,0.9s,baz=360,slow=4.7,SNR=5.2						
	comp=Z,2.5nm,0.9s						
SNAA	**Sanae**	**56.94**	**159**	P	**P**	**05 24 25.5**	**-1.1**
SNAA				IAmb	IAmb	05 24 43.9	
	comp=Z,3.5nm,1.0s						
656A	**Willston**	**58.03**	**348**	P	**P**	**05 24 35.0**	**+0.3**
QSPA	**South Pole Qui**	**62.24**	**180**	P	**P**	**05 25 06.0**	**+2.6**
	comp=Z,1.0nm,0.8s,baz=157,slow=1.8,SNR=11						
	comp=Z,1.0nm,0.8s						
QSPA	**South Pole Qui**	**62.24**	**180**	P	**P**	**05 25 03.5**	**+0.1**
VBMS	**Vicksburg**	**62.60**	**342**	P	**P**	**05 25 07.2**	**+1.3**
HPIG		**63.81**	**326**	P	**P**	**05 25 14.3**	**0.0**
V58A	**Windy Hill, Pi**	**63.86**	**353**	P	**P**	**05 25 13.5**	**-0.7**
V58A				IAmb	IAmb	05 25 15.6	
	comp=Z,8.5nm,1.2s						
W50A	**Signal Mountai**	**64.22**	**347**	P	**P**	**05 25 18.2**	**+1.5**
W50A				IAmb	IAmb	05 25 19.6	
	comp=Z,3.5nm,0.7s						
TKL	**Tuckaleechee C**	**64.38**	**349**	P	**P**	**05 25 18.1**	**+0.5**
TKL				IAmb	IAmb	05 25 20.8	
	comp=Z,4.0nm,0.9s						
TXAR	**Lajitas Array**	**64.87**	**329**	P	**P**	**05 25 24.5**	**+3.4**
	comp=Z,0.6nm,0.8s,baz=165,slow=10,SNR=4.1						
	comp=Z,0.6nm,0.8s						
TXAR	**Lajitas Array**	**64.87**	**329**	P	**P**	**05 25 21.3**	**+0.2**
TX31	**Lajitas Ar. Si**	**64.87**	**329**	P	**P**	**05 25 21.6**	**+0.5**
WVT	**Waverly**	**65.65**	**345**	P	**P**	**05 25 26.1**	**+0.3**
WVT				IAmb	IAmb	05 25 36.6	
	comp=Z,3.9nm,1.0s						
HBAR	**Harrisburg**	**65.79**	**343**	P	**P**	**05 25 26.2**	**-0.6**
ABTX	**Abilene, Hawle**	**66.03**	**334**	P	**P**	**05 25 28.7**	**+0.3**
ABTX				IAmb	IAmb	05 25 36.4	
	comp=Z,3.2nm,0.8s						
229A	**Bryant Ranch,**	**66.32**	**332**	P	**P**	**05 25 30.5**	**+0.1**
LCAR	**Lake Charles**	**66.40**	**343**	P	**P**	**05 25 32.1**	**+1.4**
LCAR				IAmb	IAmb	05 25 34.4	
	comp=Z,6.5nm,1.1s						
WTFS	**Witchita Falls**	**66.60**	**335**	P	**P**	**05 25 33.0**	**+1.0**
WTFS				IAmb	IAmb	05 25 49.8	
	comp=Z,4.4nm,0.8s						
OLIL	**Olney**	**68.20**	**346**	P	**P**	**05 25 42.8**	**+0.8**
HSIG		**68.22**	**323**	P	**P**	**05 25 41.8**	**-0.6**
HSIG				IAmb	IAmb	05 25 42.7	
	comp=Z,2.9nm,0.9s						
CCM	**Cathedral Cave**	**68.30**	**343**	P	**P**	**05 25 45.2**	**+2.5**
CCM				IAmb	IAmb	05 25 46.1	
	comp=Z,4.3nm,0.8s						
MSTX	**Muleshoe**	**68.46**	**332**	P	**P**	**05 25 44.7**	**+0.7**
MSTX				IAmb	IAmb	05 25 45.8	
	comp=Z,7.3nm,1.1s						
R40A	**Maddies Statio**	**68.79**	**342**	P	**P**	**05 25 47.1**	**+1.4**
R40A				IAmb	IAmb	05 25 49.2	
	comp=Z,6.2nm,0.8s						
PDAR	**Pinedale Array**	**78.73**	**332**	P	**P**	**05 26 47.3**	**+3.0**
	comp=Z,0.1nm,0.3s,baz=156,slow=0.9,SNR=2.0						
	comp=Z,0.1nm,0.3s						
PDAR	**Pinedale Array**	**78.73**	**332**	P	**P**	**05 26 45.4**	**+1.1**
BOSA	**Boshof**	**82.30**	**118**	P	**P**	**05 27 03.8**	**-0.1**
	comp=Z,3.4nm,1.0s,baz=249,slow=3.0,SNR=3.5						
	comp=Z,3.4nm,1.0s						
BOSA	**Boshof**	**82.30**	**118**	P	**P**	**05 27 03.5**	**-0.3**
WRA	**Warramunga Arr**	**126.30**	**210**	PKP	**PKiKP**	**05 33 47.0**	**+1.4**
	comp=Z,0.4nm,0.9s,baz=154,slow=1.7,SNR=7.0						
WRA	**Warramunga Arr**	**126.30**	**210**		**PKiKP**	**05 33 47.0**	**+1.4**
H11S2	**WAKE ISLAND Hy**	**126.31**	**273**	T	T	07 52 55.2	
	baz=112,slow=75,SNR=13						
H11S1	**WAKE ISLAND Hy**	**126.32**	**273**	T	T	07 52 56.0	
	baz=112,slow=75,SNR=26						
H11S3	**WAKE ISLAND Hy**	**126.33**	**273**	T	T	07 52 57.5	
	baz=112,slow=75,SNR=27						
KK31	**Karatay Array**	**145.76**	**54**	PKPdf	**PKPab**	**05 34 22.5**	**+1.4**
KKAR	**Karatay Array**	**145.76**	**54**	PKPdf	**PKPab**	**05 34 22.4**	**+1.2**
MNAI	**Manna**	**147.37**	**169**	PKPdf	**PKPdf**	**05 34 22.4**	**-1.5**
KURK	**Kurchatov**	**147.85**	**37**	PKPdf	**PKPdf**	**05 34 22.7**	**-0.7**
KURBB	**Kurchatov Arra**	**147.85**	**37**	PKPbc	**PKPbc**	**05 34 26.5**	**+0.1**
	comp=Z,1.4nm,0.7s,baz=303,slow=3.4,SNR=8.7						
ZALV	**Zalesovo Beam**	**148.69**	**27**	PKPbc	**PKiKP**	**05 34 29.7**	**-0.2**
	comp=Z,3.4nm,0.6s,baz=306,slow=3.5,SNR=16						
KSH2	**Kashi**	**150.36**	**59**	PKPbc	**PKiKP**	**05 34 35.8**	**+1.6**
MKAR	**Makanchi Array**	**152.03**	**41**	PKPbc	**PKiKP**	**05 34 37.9**	**+0.7**
	comp=Z,1.6nm,0.8s,baz=304,slow=2.4,SNR=9.2						
MKAR				PKPab	**PKPab**	**05 34 46.7**	**+0.4**
	comp=Z,0.9nm,0.6s,baz=332,slow=2.9,SNR=5.4						
MKAR	**Makanchi Array**	**152.03**	**41**		**PKiKP**	**05 34 37.9**	**+0.7**
MKAR					**PKPab**	**05 34 46.7**	**+0.4**
HHC	**Hu-ho-hao-te**	**166.95**	**350**	eP	**PKPdf**	**05 34 43.8**	**-3.8**
NJ2	**Nanjing**	**170.33**	**297**	eP	**PKPdf**	**05 34 48.4**	**-1.5**
NJ2				pmax	pmax		
	comp=Z,16nm,0.6s						

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*IDC **01** 05:19:37.2±0.6,27°77S×71°22W,h0km,mb4.4/10, mbtmp4.4/14,ML4.2/4,Error ellipse: s-maj=19.7km s-min=13.7km az=81.0*

*SJA **01** 05:19:39.0±2.1,27°97S×71°38W,h10km±17km,ML4.6, MW4.3*

*GFZ **01** 05:19:39.7±0.2,28°S±2°×7°1W±°,h10km,M4.8/26, mb4.8/26,Error ellipse: s-maj=7.1km s-min=3.3km az=92.8,confirmed*

*GUC **01** 05:19:39.6±0.9,27°98S×71°27W,h29km±3km,ML4.1*

*NEIC **01** 05:19:40.3±1.4,27°94S±0°02×71°28W±0°05,h17km±2km, mb4.6/53,ML4.1(GUC),Error ellipse: s-maj=6.1km s-min=3.5km az=83.0*

*VAO **01** 05:19:40.3±1.4,27°87S×71°22W,h17km,mb4.6, Presumed earthquake*

ISC 01 05:19:36.9±1.5,**27°94S**±0°03×**71°42W**±0°05,**h1**km±9km, **n221**,σ**1^{s}56**/230,**mb4.7**/38,**7C-3D,Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	**Llanos de Chal**	**0.41**	**131**	⇑eP	**Pb**	**05 19 47.6**	**+0.6**
AC04				eS	**Sb**	**05 19 52.5**	**-1.2**
AC04				IAML		05 19 53.7	
	comp=E,64μm,0.5s						
AC04	**Llanos de Chal**	**0.41**	**131**		**Pb**	**05 19 47.9**	**+0.9**
AC04				Sg	**Sb**	**05 19 52.1**	**-1.6**
AC04	**Llanos de Chal**	**0.41**	**131**	P	**Pb**	**05 19 48.0**	**+1.0**
AC04				S	**Sb**	**05 19 52.7**	**-1.0**
GO03	**Copiapo**	**1.10**	**72**	iP	**Pn**	**05 19 59.8**	**+0.1**
GO03				eS	**Sn**	**05 20 14.6**	**-1.1**
GO03				IAML		05 20 18.5	
	comp=Z,8μm,0.6s						
GO03	**Copiapo**	**1.10**	**72**	eP	**Pg**	**05 19 58.8**	**+0.7**
GO03				eS	**Sg**	**05 20 13.1**	**+0.6**
GO03				IAML		05 20 17.3	
	comp=E,6μm,0.6s						
GO03	**Copiapo**	**1.10**	**72**		**Pg**	**05 19 59.1**	**+1.0**
GO03				Sn	**Sb**	**05 20 13.7**	**-0.2**
GO03	**Copiapo**	**1.10**	**72**	P	**Pb**	**05 19 59.3**	**+0.4**
AC06	**Mina Casimiro**	**1.11**	**59**	⇓eP	**Pb**	**05 19 59.0**	**0.0**
AC06				eS	**Sg**	**05 20 13.7**	**+1.2**
AC06				IAML		05 20 19.0	
	comp=E,7μm,0.3s						
AC06	**Mina Casimiro**	**1.11**	**59**	Pn	**Pb**	**05 19 58.8**	**-0.1**
LCO	**Las Campanas**	**1.25**	**150**	iP	**Pn**	**05 20 02.6**	**+0.7**
LCO				⇓eS	**Sn**	**05 20 17.9**	**-1.5**
LCO				IAML		05 20 19.4	
	comp=Z,16μm,0.6s						
LCO	**Las Campanas**	**1.25**	**150**	⇑eP	**Pb**	**05 20 01.3**	**-0.2**
LCO				eS	**Sb**	**05 20 16.9**	**-1.3**
LCO	**Las Campanas**	**1.25**	**150**		**Pn**	**05 20 01.9**	**+0.1**
LCO				Sn	**Sb**	**05 20 17.1**	**-1.1**
AC05	**El Transito**	**1.35**	**132**	iP	**Pg**	**05 20 03.8**	**+1.0**
AC05				⇓eS	**Sb**	**05 20 20.1**	**-0.9**
AC05				IAML		05 20 37.6	
	comp=Z,3μm,0.8s						
AC05	**El Transito**	**1.35**	**132**	eP	**Pn**	**05 20 02.4**	**-0.8**
AC05				eS	**Sb**	**05 20 19.9**	**-1.2**
AC05				IAML		05 20 28.4	
	comp=N,6μm,0.6s						
AC05	**El Transito**	**1.35**	**132**		**Pg**	**05 20 03.5**	**+0.6**
AC05				Sn	**Sb**	**05 20 20.0**	**-1.1**
AC05	**El Transito**	**1.35**	**132**	P	**Pg**	**05 20 03.5**	**+0.6**
AC01	**Pan de Azucar**	**1.93**	**23**	iP	**Pn**	**05 20 11.4**	**+0.5**
AC01				IAML		05 20 43.7	
	comp=Z,2μm,0.6s						
AC01	**Pan de Azucar**	**1.93**	**23**	eP	**Pn**	**05 20 11.2**	**+0.4**
AC01	**Pan de Azucar**	**1.93**	**23**		**Pn**	**05 20 11.3**	**+0.4**
AC01				Sn	**Sn**	**05 20 34.3**	**-1.5**
AC01	**Pan de Azucar**	**1.93**	**23**	P	**Pn**	**05 20 11.4**	**+0.5**
GO04	**Tololo Observa**	**2.29**	**166**	iP	**Pb**	**05 20 18.2**	**-1.1**
GO04				IAML		05 20 55.6	
	comp=Z,5μm,0.7s						
GO04	**Tololo Observa**	**2.29**	**166**	eP	**Pb**	**05 20 17.9**	**-1.5**
GO04	**Tololo Observa**	**2.29**	**166**		**Pn**	**05 20 17.0**	**+0.8**
GO04	**Tololo Observa**	**2.29**	**166**	P	**Pn**	**05 20 17.2**	**+1.0**
AC02	**Maricunga**	**2.31**	**62**	eP	**Pn**	**05 20 17.8**	**+1.1**
AC02	**Maricunga**	**2.31**	**62**		**Pn**	**05 20 16.4**	**-0.3**
AC02	**Maricunga**	**2.31**	**62**	P	**Pb**	**05 20 18.6**	**-1.2**
CO01	**Juntas del Tor**	**2.34**	**151**	eP	**Pb**	**05 20 19.1**	**-1.1**
CO01				eS	**Sb**	**05 20 47.8**	**-2.0**
CO01				IAML		05 20 52.4	
	comp=E,3μm,0.5s						
CO01	**Juntas del Tor**	**2.34**	**151**	Pn	**Pn**	**05 20 16.0**	**-0.9**
CO01	**Juntas del Tor**	**2.34**	**151**	P	**Pb**	**05 20 19.4**	**-0.8**
CO06	**Fray Jorge**	**2.74**	**184**	eP	**Pn**	**05 20 21.8**	**-0.3**
CO06				IAML		05 21 15.1	
	comp=E,1μm,0.4s						
CO06	**Fray Jorge**	**2.74**	**184**		**Pn**	**05 20 22.1**	**0.0**
AROD	**Rodeo**	**2.80**	**143**	iP	**Pb**	**05 20 27.7**	**-0.3**
VCA	**Vinchina**	**2.94**	**106**	iP	**Pb**	**05 20 30.8**	**+0.4**
VCA				IAML		05 21 17.8	
	comp=Z,3μm,1.2s						
VCA	**Vinchina**	**2.94**	**106**	eP	**Pb**	**05 20 29.4**	**-1.0**
CO03	**El Pedregal**	**2.96**	**168**	iP	**Pn**	**05 20 27.4**	**+2.1**
CO03				IAML		05 21 18.3	
	comp=Z,3μm,0.7s						
CO03	**El Pedregal**	**2.96**	**168**	eP	**Pn**	**05 20 26.9**	**+1.6**
CO03	**El Pedregal**	**2.96**	**168**	Pn	**Pn**	**05 20 26.6**	**+1.3**
CO03				Sn	**Sn**	**05 21 01.7**	**+0.1**
CO03	**El Pedregal**	**2.96**	**168**	P	**Pn**	**05 20 27.1**	**+1.8**
ACDV	**Cuesta del Vie**	**3.00**	**138**	iP	**Pb**	**05 20 31.2**	**-0.2**
ACDV				IAML		05 21 23.6	
	comp=Z,973nm,1.1s						
CO02	**Combarbal**	**3.28**	**174**	iP	**Pn**	**05 20 31.2**	**+1.6**
CO02				IAML		05 21 25.3	
	comp=Z,4μm,1.1s						
CO02	**Combarbal**	**3.28**	**174**	eP	**Pn**	**05 20 30.7**	**+1.1**
CO02	**Combarbal**	**3.28**	**174**	Pn	**Pn**	**05 20 30.6**	**+0.9**
CO02	**Combarbal**	**3.28**	**174**	P	**Pb**	**05 20 33.0**	**-3.0**
TINO	**Tinogasta**	**3.41**	**93**	iP	**Pb**	**05 20 34.9**	**-3.4**
TINO				IAML		05 21 30.7	
	comp=Z,1μm,0.8s						
PB14	**IPOC Station P**	**3.42**	**16**		**Pn**	**05 20 31.7**	**-0.1**
PB14	**IPOC Station P**	**3.42**	**16**	P	**Pn**	**05 20 31.6**	**-0.1**
CO04	**Los Peladeros**	**4.11**	**175**	Pn	**Pn**	**05 20 41.6**	**+0.4**
CO04	**Los Peladeros**	**4.11**	**175**	P	**Pn**	**05 20 42.6**	**+1.4**
ACLC	**CERRO LA CRUZ**	**4.20**	**112**	iP	**Pn**	**05 20 45.9**	**+3.5**
ACLC				IAML		05 21 57.7	
	comp=Z,575nm,1.5s						
RTLL	**Cerro Villicun**	**4.24**	**144**	iP	**Pn**	**05 20 47.4**	**+4.5**
RTLL				IAML		05 21 54.9	
	comp=Z,922nm,0.6s						
RTLS	**Leoncito**	**4.27**	**155**	iP	Pb	05 20 48.4	-4.6
RTLS				IAML		05 21 54.9	
	comp=Z,4μm,0.8s						
ZON	**Zonda**	**4.32**	**147**	iP	Pb	05 20 48.8	-4.9
ZON				IAML		05 22 03.8	
	comp=Z,608nm,1.2s						
ZON	**Zonda**	**4.32**	**147**	Pn	**Pn**	**05 20 44.1**	**+0.3**
ZON	**Zonda**	**4.32**	**147**	P	**Pn**	**05 20 48.2**	**+4.4**
CFA	**Coronel Fontan**	**4.59**	**144**	Pn	**Pn**	**05 20 50.6**	**+3.1**
	comp=Z,17nm,0.3s,baz=332,slow=13,SNR=16						
CFA				Sn	**Sb**	**05 21 47.4**	**-6.7**
	comp=Z,19nm,0.3s,baz=65,slow=16,SNR=4.9						
	comp=Z,34nm,0.3s						
CFA				AML	AML		
CFA	**Coronel Fontan**	**4.59**	**144**	iP	**Pn**	**05 20 51.5**	**+4.0**
CFA				IAML		05 22 10.4	
	comp=Z,573nm,0.8s						
VA03	**San Esteban**	**4.87**	**171**	iP	**Pn**	**05 20 54.3**	**+2.8**
VA03				IAML		05 22 13.6	
	comp=Z,956nm,0.8s						
VA03	**San Esteban**	**4.87**	**171**	Pn	**Pn**	**05 20 52.6**	**+1.1**
VA03	**San Esteban**	**4.87**	**171**	P	Pn	05 20 57.0	+5.4
	comp=Z,394nm,0.8s						
CYA	**Choya**	**4.98**	**97**	iP	**Pn**	**05 20 56.3**	**+3.3**
CYA				IAML		05 22 01.3	
	comp=Z,566nm,0.9s						
CYA	**Choya**	**4.98**	**97**	⇑eP	**Pn**	**05 20 55.3**	**+2.2**
VA01	**Torpederas**	**5.08**	**182**		**Pn**	**05 20 54.7**	**+0.5**
VA01	**Torpederas**	**5.08**	**182**	P	**Pn**	**05 20 57.7**	**+3.5**

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      comp=Z,210nm,0.9s
PB05  IPOC Station P      5.18  13        Pn      05 20 54.5 -1.3
PB05  IPOC Station P      5.18  13  P     Pn      05 20 54.8 -1.0
      comp=Z,161nm,0.6s
PEL   Peldehue            5.23 173        Pn      05 20 56.9 +0.5
PEL   Peldehue            5.23 173  P     Pn      05 21 00.1 +3.7
      comp=Z,211nm,0.8s
MT02  Curacav             5.31 177        Pn      05 20 58.6 +1.1
PB06  IPOC Station P      5.47  18        Pn      05 20 59.2 -0.6
MT05  Renca               5.47 174        Pn      05 21 00.6 +0.9
MT16  CCHEN               5.53 172        Pn      05 21 01.0 +0.5
MT03  Universidad Ad      5.60 172  Pn    Pn      05 21 01.8 +0.3
MT08  Bocatoma Ro         5.62 168  Pn    Pn      05 21 01.7 -0.3
AF01  San Pedro de A      5.76  31  Pn    Pn      05 21 03.6 -0.4
MT09  Talagante           5.83 176        Pn      05 21 05.5 +0.8
MT13  San Alfonso         5.87 171  Pn    Pn      05 21 06.2 +0.9
MT01  Popeta              5.91 179  Pn    Pn      05 21 06.6 +0.8
PB03  IPOC Station P      6.05  15        Pn      05 21 07.6 -0.2
BO04  La Punta            6.08 174  Pn    Pn      05 21 09.6 +1.5
SLA   San Lorenzo         6.20  60  eP    Pn      05 21 13.8 +4.0
PB07  IPOC Station P      6.34  13  Pn    Pn      05 21 12.0 +0.3
PB07  IPOC Station P      6.34  13  P     Pn      05 21 11.2 -0.5
      comp=Z,95nm,0.7s
PB09  IPOC Station P      6.42  18  Pn    Pn      05 21 13.2 +0.2
BO01  Tunca               6.44 178  Pn    Pn      05 21 13.1 +0.1
BO01  Tunca               6.44 178  P     Pn      05 21 16.4 +3.3
      comp=Z,101nm,0.9s
PB02  IPOC Station P      6.73  12        Pn      05 21 17.4 +0.3
TCA   Tanti               6.84 121  eP    Pn      05 21 19.4 +0.8
BO02  Sierra Bellavi      6.86 176  P     Pn      05 21 22.3 +3.5
      comp=Z,74nm,0.7s
GO05  Hualane             7.07 183  P     Pn      05 21 23.9 +2.3
      comp=Z,72nm,0.8s
ML02  Panimavida          7.80 180  P     Pn      05 21 35.4 +3.7
      comp=Z,92nm,0.7s
PSGCX Pisagua             8.38   8  P     Pn      05 21 37.5 -2.3
      comp=Z,29nm,0.7s
BI02  San Fabin de        8.70 179  P     Pn      05 21 45.8 +1.6
      comp=Z,55nm,0.6s
H03S3 Juan Fernandez      8.71 226  Pn    Pn      05 21 41.9 -1.9
      baz=36,slow=20
H03S1 Juan Fernandez      8.72 226  Pn    Pn      05 21 41.2 -2.8
      baz=36,slow=20
H03S2 Juan Fernandez      8.73 226  Pn    Pn      05 21 42.0 -2.1
      baz=36,slow=20
LPAZ  La Paz             11.98  15  Pn    Pn      05 22 28.4 -1.3
      comp=Z,1.3nm,0.3s,baz=207,slow=4.7,SNR=22
      comp=Z,2.8nm,0.4s
LPAZ                                AML   AML
LPAZ  La Paz             11.98  15  eP    Pn      05 22 29.6  0.0
LPAZ  La Paz             11.98  15  P     Pn      05 22 29.2 -0.4
      comp=Z,16nm,1.7s
PSAL  Palomas, Salto     12.43 108  eP    Pn      05 22 35.1  0.0
CPUP  Villa Florida      12.65  86  Pn    Pn      05 22 35.9 -2.3
      comp=Z,0.1nm,0.3s,baz=238,slow=15,SNR=1.8
      comp=Z,4.9nm,0.9s
CPUP                                AML   AML
PLCA  Paso Flores        12.79 177  Pn    Pn      05 22 43.6 +3.6
      comp=Z,0.1nm,0.3s,baz=304,slow=10,SNR=2.8
SIV   San Ignacio        15.27  41  Pn    Pn      05 23 07.2 -6.6
      comp=Z,0.1nm,0.3s,baz=249,slow=8.9,SNR=16
      comp=Z,2.3nm,0.4s
SIV                                 AML   AML
AQDB  Aquidauana         16.14  66  P     Pn      05 23 26.2 +1.0
PTLB  Pontes e Lacer     16.86  45        Pn      05 23 33.3 -1.0
PTLB  Pontes e Lacer     16.86  45  eP    Pn      05 23 33.5 -0.8
COYC  Coyhaique          17.61 182  Pn    Pn      05 23 44.0 +0.4
COYC  Coyhaique          17.61 182  P     P       05 23 44.7 -0.1
      comp=Z,14nm,1.1s
PTGB  Pitanga            17.64  84  eP    Pn      05 23 44.4 +0.1
TRCB  Terra Rica         17.73  77        Pn      05 23 44.1 -1.2
TRCB                                IAmb  IAmb    05 23 57.7
      comp=Z,27nm,0.8s
TRCB  Terra Rica         17.73  77  eP    Pn      05 23 44.3 -0.9
TRCB  Terra Rica         17.73  77  P     P       05 23 46.8 +0.6
      comp=Z,33nm,0.6s
VILB  Vilhena            18.22  37        Pn      05 23 49.4 -2.0
VILB  Vilhena            18.22  37  eP    Pn      05 23 49.3 -2.0
LDASE Londrina, Braz     18.85  81  eP    P       05 23 57.7 -0.8
SALV  Santo Antonio      18.85  54  eP    P       05 23 58.6  0.0
CZSB  Cruzeiro do Su     20.13 356  P     P       05 24 12.7 +0.1
CZSB                                IAmb  IAmb    05 24 23.3
      comp=Z,20nm,0.9s
CZSB  Cruzeiro do Su     20.13 356  eP    P       05 24 13.5 +0.8
FRTB  Fartura            20.22  82  eP    P       05 24 13.4 -0.2
FRTB  Fartura            20.22  82  P     P       05 24 13.5 -0.1
      comp=Z,96nm,1.1s
GO08  Villa O'Higgin     20.52 182  P     P       05 24 16.9 +0.3
GO08  Villa O'Higgin     20.52 182  P     Pn      05 24 19.3 +0.7
      comp=Z,13nm,2.8s
ARAG  Araguaiana, MT     21.86  60  eP    P       05 24 30.0 -1.3
BB19B Bebedouro          21.91  77  eP    P       05 24 30.9 -0.9
SPB   Sao Paulo          22.02  84  P     P       05 24 30.9 -2.1
SPB                                 IAmb  IAmb    05 24 45.7
      comp=Z,31nm,1.1s
SPB   Sao Paulo          22.02  84  P     P       05 24 33.5 +0.5
      comp=Z,26nm,1.6s
CLDB  Colider            22.43  44  eP    P       05 24 35.7 -1.8
CLDB  Colider            22.43  44  P     P       05 24 36.5 -1.0
      comp=Z,15nm,0.9s
VAO   Valinhos           22.60  83        P       05 24 36.4 -2.9
VAO   Valinhos           22.60  83  eP    P       05 24 37.4 -1.9
IPMB  Ipameri, GO        23.52  70  eP    P       05 24 46.4 -2.3
CANS  Sao Roque de M     24.05  77  eP    P       05 24 51.6 -2.4
SNDB  Serra Nova Dou     24.64  54  eP    P       05 24 57.7 -1.6
PMNB  Patos De Minas     24.75  73  eP    P       05 24 58.8 -1.6
PMNB  Patos De Minas     24.75  73  P     P       05 24 59.4 -0.9
      comp=Z,25nm,1.4s
BDFB  Brasilia           24.89  65  P     P       05 25 00.1 -1.6
      comp=Z,6.0nm,0.7s,baz=245,slow=7.8,SNR=8.1
      comp=Z,6.0nm,0.7s
BDFB  Brasilia           24.89  65  P     P       05 24 59.4 -2.2
TEFE  Tefe               25.14  16  eP    P       05 25 04.0 +0.3
MACA  Manacapuru-AM      26.68  24  P     P       05 25 18.2 +0.4
MACA                                IAmb  IAmb    05 25 18.7
      comp=Z,16nm,0.7s
ITTB  Itaituba           27.79  35  eP    P       05 25 26.8 -1.0
JANB  Januaria           28.21  69  eP    P       05 25 30.6 -1.1
BSFB  Barra de Sao F     29.42  79  P     P       05 25 41.6 -0.7
      comp=Z,22nm,1.5s
BOAV  Boa Vista          31.93  21  P     P       05 26 04.5 +0.1
NBPN  Ponto Novo - B     33.86  66  eP    P       05 26 20.3 -1.0
ESPZ  Base Esperanza     36.69 169  P     P       05 26 45.2 +0.1
ESPZ                                IAmb  IAmb    05 26 58.4
      comp=Z,6.8nm,1.1s
NBMA  Muriti-CE          37.04  63  eP    P       05 26 48.4 -0.4
ORCD  Orcadas            37.41 159        P       05 26 51.1 -0.2
VNA3  Neumayer Olymp     54.80 160 ⇑P     P       05 29 08.4 +0.2
      comp=Z,6.1nm,0.7s
VNA3  Neumayer Olymp     54.80 160  P     P       05 29 08.2  0.0
      comp=Z,21nm,0.7s
VNA1  Neumayer--Stat     55.07 159  P     P       05 29 11.4 +1.3
VNA2  Neumayer--Watz     55.42 159 ⇑P     P       05 29 12.8 +0.2
      comp=Z,9.6nm,0.6s,baz=286,slow=7.4
VNA2  Neumayer--Watz     55.42 159  P     P       05 29 13.1 +0.4
      comp=Z,18nm,1.1s
SNAA  Sanae              57.02 159 ⇑P     P       05 29 24.2 +0.1
      comp=Z,268nm,0.9s
SNAA  Sanae              57.02 159  P     P       05 29 24.4 +0.3
      comp=Z,11nm,0.8s,baz=279,slow=6.7,SNR=32
      comp=Z,11nm,0.8s
SNAA  Sanae              57.02 159        P       05 29 24.7 +0.5
SNAA                                PcP   PcP     05 30 20.1 +0.9
SNAA  Sanae              57.02 159  P     P       05 29 24.4 +0.3
      comp=Z,17nm,1.0s
TROLL Troll, Antarti     58.74 160 ⇑P     P       05 29 36.4 +0.1
      comp=Z,564nm,0.9s
QSPA  South Pole Qui     62.28 180  P     P       05 30 01.5 +0.9
      comp=Z,8.4nm,0.9s,baz=144,slow=1.8,SNR=26
      comp=Z,8.4nm,0.9s
QSPA  South Pole Qui     62.28 180  P     P       05 30 01.5 +0.9
SWET  Sewanee            64.29 347        P       05 30 14.7 +0.7
TXAR  Lajitas Array      64.77 329  P     P       05 30 17.7 +0.3
      comp=Z,0.8nm,0.9s,baz=151,slow=8.6,SNR=5.0
      comp=Z,0.8nm,0.9s
WVT   Waverly            65.57 345  P     P       05 30 22.4 +0.1
WVT                                 IAmb  IAmb    05 30 23.5
      comp=Z,5.1nm,0.9s
WVT   Waverly            65.57 345  P     P       05 30 22.4 +0.1
      comp=Z,7.3nm,2.5s
MIAR  Mount Ida          65.58 340  P     P       05 30 23.2 +0.8
MIAR                                IAmb  IAmb    05 30 25.5
      comp=Z,4.4nm,1.1s
MNHN  Monahans           66.08 331        P       05 30 27.1 +1.3
MNHN                                IAmb  IAmb    05 30 40.3
      comp=Z,3.5nm,0.9s
TPB01 Permian Basin      66.19 330  P     P       05 30 26.5  0.0
TPB01                               IAmb  IAmb    05 30 41.4
      comp=Z,4.7nm,0.9s
T47A  Sharon Grove       66.24 346        P       05 30 27.5 +0.9
T47A                                IAmb  IAmb    05 30 29.3
      comp=Z,7.3nm,0.9s
LCAR  Lake Charles       66.32 343  P     P       05 30 27.3 +0.2
LCAR                                IAmb  IAmb    05 30 28.9
      comp=Z,8.1nm,1.0s
T45A  Paducah            66.61 345  P     P       05 30 30.1 +1.2
ODSA  Odessa             66.67 331  P     P       05 30 30.6 +1.0
APMT  Aspermont          66.74 334  P     P       05 30 30.9 +1.0
APMT                                IAmb  IAmb    05 30 44.1
      comp=Z,6.0nm,1.0s
CCM   Cathedral Cave     68.22 343  P     P       05 30 40.1 +0.9
CCM                                 IAmb  IAmb    05 30 41.6
      comp=Z,6.2nm,0.8s
CCM   Cathedral Cave     68.22 343  P     P       05 30 40.0 +0.9
      comp=Z,9.4nm,0.9s
S39A  Bolivar            68.44 341  IAmb  IAmb    05 30 43.1
      comp=Z,5.1nm,0.8s
HRV   Adam Dziewonsk     70.09 360  P     P       05 30 52.3 +1.6
      comp=Z,14nm,0.9s
DBIC  Dimbokro           72.80  73  P     P       05 31 07.5 -0.2
      comp=Z,12nm,0.6s,baz=230,slow=6.3,SNR=14
      comp=Z,12nm,0.6s
DBIC  Dimbokro           72.80  73  P     P       05 31 07.2 -0.4
DBIC  Dimbokro           72.80  73  P     P       05 31 07.2 -0.4
      comp=Z,24nm,1.0s
ECSD  EROS Data Cent     74.97 341  P     P       05 31 21.1 +1.4
O20A  White River Ci     75.89 332        P       05 31 25.6 +0.3
O20A                                IAmb  IAmb    05 31 42.1
      comp=Z,6.2nm,1.0s
SRU   San Rafael Swe     76.03 330  P     P       05 31 26.1 -0.1
P18A  Preston Nutter     76.33 330  P     P       05 31 28.5 +0.5
P18A                                IAmb  IAmb    05 31 43.0
      comp=Z,7.1nm,1.2s
P17A  Butcher Ranch,     76.42 330  P     P       05 31 28.0 -0.4
BSUT  Blindstream Ca     77.30 330  P     P       05 31 33.6  0.0
SUR   Sutherland         77.34 120  P     P       05 31 32.7 -1.2
SUR                                 IAmb  IAmb    05 31 36.5
      comp=Z,2.9nm,0.8s
HWUT  Hardware Ranch     78.53 330  IAmb  IAmb    05 31 54.5
      comp=Z,5.0nm,0.9s
HWUT  Hardware Ranch     78.53 330  P     P       05 31 42.0 +1.9
      comp=Z,5.2nm,0.9s
PDAR  Pinedale Array     78.63 332  P     P       05 31 41.6 +0.9
      comp=Z,0.5nm,0.6s,baz=146,slow=4.3,SNR=4.5
      comp=Z,0.5nm,0.6s
PDAR  Pinedale Array     78.63 332  P     P       05 31 41.1 +0.4
MAW   Mawson             78.83 164  P     P       05 31 41.9 +0.6
      comp=Z,4.2nm,1.0s,baz=199,slow=6.6,SNR=5.0
      comp=Z,4.2nm,1.0s
MAW   Mawson             78.83 164  P     P       05 31 41.6 +0.3
MAW   Mawson             78.83 164  P     P       05 31 41.6 +0.3
      comp=Z,1.0nm,1.4s
NVAR  Mina Array Bea     79.25 324  P     P       05 31 45.7 +1.5
      comp=Z,0.8nm,0.8s,baz=160,slow=7.0,SNR=7.0
      comp=Z,0.8nm,0.8s
NVAR  Mina Array Bea     79.25 324  P     P       05 31 46.0 +1.7
ELK   Elko               79.51 328        P       05 31 46.4 +0.8
TSUM  Tsumeb             80.39 107  P     P       05 31 50.7 -0.2
      comp=Z,12nm,1.9s
HLID  Hailey             81.35 330  P     P       05 31 57.7 +2.3
      comp=Z,3.8nm,1.6s
TORD  Torodi Ar. Bea     81.66  70  P     P       05 31 57.4 -0.1
      comp=Z,8.3nm,1.0s,baz=248,slow=5.6,SNR=12
      comp=Z,8.3nm,1.0s
TORD  Torodi Ar. Bea     81.66  70  P     P       05 31 57.2 -0.2
TORD                                IAmb  IAmb    05 31 57.6
      comp=Z,3.1nm,0.8s
BOSA  Boshof             82.44 118  P     P       05 32 01.1 -0.5
      comp=Z,6.6nm,0.8s,baz=245,slow=2.9,SNR=12
      comp=Z,6.6nm,0.8s
BOSA  Boshof             82.44 118  P     P       05 32 01.2 -0.4
BOSA                                IAmb  IAmb    05 32 01.9
      comp=Z,7.8nm,0.9s
BOSA  Boshof             82.44 118  P     P       05 32 00.8 -0.8
      comp=Z,14nm,1.1s
PLID  Pearl Lake         83.25 330        P       05 32 07.0 +1.6
PLID                                IAmb  IAmb    05 32 19.6
      comp=Z,2.6nm,0.9s
LBTB  Lobatse            84.38 115  P     P       05 32 11.0 -0.6
LBTB  Lobatse            84.38 115  P     P       05 32 10.9 -0.7
      comp=Z,20nm,1.3s
TIO   Tiouine            84.66  51  P     P       05 32 14.3 +1.6
      comp=Z,28nm,1.2s
CASY  Casey              86.08 181  P     P       05 32 20.5 +1.4
      comp=Z,11nm,0.9s
H11S2 WAKE ISLAND Hy126.18 273  T     T       07 57 50.9
      baz=112
H11S1 WAKE ISLAND Hy126.19 273  T     T       07 57 49.6
      baz=112,slow=74,SNR=15
H11S3 WAKE ISLAND Hy126.20 273  T     T       07 57 51.0
      baz=112,slow=74,SNR=13
WRA   Warramunga Arr    126.27 210  PKP   PKPdf   05 38 42.4 +0.2
      comp=Z,1.7nm,0.6s,baz=158,slow=1.8,SNR=12
KURK  Kurchatov         147.89  37  PKPdf PKPdf   05 39 21.1 +0.4
KURBB Kurchatov Arra    147.90  37  PKPbc PKPdf   05 39 22.1 +1.4
      comp=Z,4.2nm,0.8s,baz=299,slow=2.9,SNR=23
ARSB  Arslanbob         148.04  56  PKPdf PKPdf   05 39 21.3 -0.1
ZAA0  Zalesovo Array    148.71  27  PKPdf PKPdf   05 39 21.8 -0.1
ZALV  Zalesovo Beam     148.71  27  PKPbc PKPdf   05 39 23.4 +1.5
      comp=Z,11nm,0.8s,baz=257,slow=3.9,SNR=18
ZALV  Zalesovo Beam     148.71  27        PKPdf   05 39 22.2 +0.3
KSH2  Kashi             150.45  59  PKPbc PKiKP   05 39 31.6 +0.2
MKAR  Makanchi Array    152.08  41  PKPbc PKPbc   05 39 34.1  0.0
      comp=Z,4.1nm,0.8s,baz=326,slow=2.1,SNR=26
HHC   Hu-ho-hao-te      166.88 350  eP    PKPdf   05 39 40.3 -4.4
NJ2   Nanjing           170.19 297  eP    PKPdf   05 39 48.2 +1.2
NJ2                                 pmax  pmax
      comp=Z,58nm,0.7s
```

IDC 01 05:20:47.3±1.9**,5°.79S**×**130°.08E,h0**^{km}**,mb3.9**/1**,**
mbtmp3.8/4**,ML4.0**/3**,Error ellipse: s-maj=64.6km**
s-min=21.1km az=79.0,Banda Sea

```
Code  Station Name        Δ°   AZ°   Phase ID          Time     Res
                                    Op    ISC       h  m  s    ISC
FITZ  Fitzroy Crossi     12.98 199  Pn    Pn      05 23 48.6 -4.6
      0.8nm,0.3s,baz=25,slow=13,SNR=26
FITZ                                Sn    Sn      05 25 56.6  -22
      1.0nm,0.3s,baz=82,slow=23,SNR=5.7
      1.8nm,0.2s
FITZ                                AML   AML
WRA   Warramunga Arr     14.67 164  Pn    Pn      05 24 09.0 -7.2
      0.7nm,0.3s,baz=345,slow=13,SNR=32
WRA                                 Sn    Sn      05 26 35.8  -24
      0.9nm,0.3s,baz=343,slow=22,SNR=7.6
      0.3nm,0.3s
WRA                                 AML   AML
ASAR  Alice Springs      18.16 169  Pn    Pn      05 24 56.1 -5.0
      0.3nm,0.3s,baz=350,slow=10,SNR=8.7
ASAR                                Sn    Sn      05 28 00.1  -24
      0.2nm,0.3s,baz=353,slow=29,SNR=4.3
      1.1nm,0.8s
ASAR                                AML   AML
MKAR  Makanchi Array     67.26 327  P     P       05 31 43.7  0.0
      0.8nm,0.5s,baz=121,slow=8.2,SNR=10
      0.8nm,0.5s
```

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*IDC **01** 05:21:05.3±0.9,27°.96S×71°.09W,h0^{km},mb4.5/7,*
mbtmp4.4/9,ML4.2/2,Error ellipse: s-maj=33.3km
s-min=19.9km az=101.0

*NEIC **01** 05:21:09.3±1.7,28°.04S±0°.04×71°.30W±0°.06,h24^{km}±4^{km},*
mb4.9/23,Error ellipse: s-maj=7.0km s-min=5.3km
az=94.0

ISC 01 05:21:09.0±0.5**,28°.05S**±0°.05×**71°.32W**±0°.07**,h28**^{km}**,n66,**
σ1^{s}**.40**/65**,mb4.8**/16**,2C,Near coast of central Chile**

```
Code  Station Name        Δ°   AZ°   Phase ID          Time     Res
                                    Op    ISC       h  m  s    ISC
AC04  Llanos de Chal      0.26 125        Pb      05 21 15.8  0.0
AC04                                Sg    Sb      05 21 20.7 +0.3
GO03  Copiapo             1.06  65  Pn    Pn      05 21 28.4 +0.3
LCO   Las Campanas        1.10 150  Pn    Pn      05 21 29.3 +0.6
LCO                                 Sn    Sn      05 21 43.9 +0.7
AC06  Mina Casimiro       1.10  51  Pn    Pn      05 21 28.2 -0.4
AC05  El Transito         1.21 131  Pn    Pn      05 21 30.7 +0.6
AC05                                Sn    Sb      05 21 47.5 +1.0
AC01  Pan de Azucar       2.00  19  Pn    Pn      05 21 40.7 -0.3
GO04  Tololo Observa      2.16 168  Sn    Sn      05 22 09.8 +0.5
CO01  Juntas del Tor      2.20 151  Pn    Pn      05 21 42.7 -1.1
AC02  Maricunga           2.29  59  Pn    Pn      05 21 44.1 -1.3
CO06  Fray Jorge          2.62 186  Pn    Pn      05 21 48.8 -0.7
CO03  El Pedregal         2.83 169  Pn    Pn      05 21 51.9 -0.6
CO02  Combarbal           3.15 175  Pn    Pn      05 21 56.2 -0.7
CO04  Los Peladeros       3.99 176  Pn    Pn      05 22 08.0 -0.5
CFA   Coronel Fontan      4.44 144  Lg    Lg      05 23 20.3
      94nm,0.3s,baz=177,slow=15,SNR=8.0
VA01  Torpederas          4.96 183  Pn    Pn      05 22 22.3 +0.7
PEL   Peldehue            5.10 174  Pn    Pn      05 22 23.1 -0.5
MT02  Curacav             5.19 178  Pn    Pn      05 22 22.9 -1.9
H03S3 Juan Fernandez      8.69 227  Pn    Pn      05 23 08.9 -3.6
      baz=35,slow=20
H03S1 Juan Fernandez      8.70 227  Pn    Pn      05 23 08.9 -3.8
      baz=35,slow=20
H03S2 Juan Fernandez      8.71 227  Pn    Pn      05 23 10.1 -2.7
      baz=35,slow=20
LPAZ  La Paz             12.07  15  Pn    Pn      05 23 57.7 -2.1
      0.6nm,0.3s,baz=158,slow=11,SNR=1.3
      1.7nm,0.4s
LPAZ                                AML   AML
SIV   San Ignacio        15.30  40  Pn    Pn      05 24 36.8 -6.3
      0.1nm,0.3s,baz=282,slow=13,SNR=1.6
      2.6nm,0.4s
SIV                                 AML   AML
VAO   Valinhos           22.53  83        P       05 26 06.0 -0.9
VAO                                 IAmb  IAmb    05 26 07.7
      comp=Z,40nm,0.9s
BDFB  Brasilia           24.86  65  P     P       05 26 27.6 -1.8
      comp=Z,8.4nm,0.8s,baz=204,slow=10.0,SNR=4.4
      comp=Z,8.4nm,0.8s
BDFB  Brasilia           24.86  65  P     P       05 26 27.8 -1.6
MACA  Manacapuru-AM      26.75  24  P     P       05 26 46.6 +0.2
BOAV  Boa Vista          32.01  21  P     P       05 27 33.4 +0.3
ORCD  Orcadas            37.27 159  P     P       05 28 18.1  0.0
VNA1  Neumayer--Stat     54.93 159 ⇑P     P       05 30 38.3 +1.4
      comp=Z,4.9nm,0.9s
SNAA  Sanae              56.88 159 ⇑P     P       05 30 51.8 +0.9
      comp=Z,118nm,0.8s
SNAA  Sanae              56.88 159  P     P       05 30 51.0 +0.1
      comp=Z,7.0nm,0.9s,baz=286,slow=4.7,SNR=5.2
      comp=Z,7.0nm,0.9s
SNAA  Sanae              56.88 159  P     P       05 30 51.6 +0.6
SNAA                                IAmb  IAmb    05 30 52.9
      comp=Z,9.1nm,1.0s
TROLL Troll, Antarti     58.59 160  P     P       05 31 04.2 +1.1
      comp=Z,285nm,0.9s
QSPA  South Pole Qui     62.16 180  P     P       05 31 28.5 +1.0
      comp=Z,5.9nm,0.9s,baz=164,slow=5.3,SNR=5.3
      comp=Z,5.9nm,0.9s
QSPA  South Pole Qui     62.16 180  P     P       05 31 28.6 +1.1
QSPA                                IAmb  IAmb    05 31 31.6
      comp=Z,9.8nm,1.1s
X58A  Rowland            62.73 353  P     P       05 31 32.5 +1.1
Y52A  Lilburn            62.75 348  P     P       05 31 33.6 +2.0
Y52A                                IAmb  IAmb    05 32 06.0
      comp=Z,7.6nm,1.2s
X51A  Calhoun            63.59 348  P     P       05 31 38.1 +1.1
X51A                                IAmb  IAmb    05 31 38.3
      comp=Z,14nm,0.9s
V58A  Windy Hill, Pi     63.93 353  P     P       05 31 39.9 +0.6
JCT   Junction City      64.25 333  P     P       05 31 42.7 +1.1
JCT                                 IAmb  IAmb    05 32 35.8
      comp=Z,4.7nm,0.3s
SWET  Sewanee            64.43 347  P     P       05 31 43.1 +0.4
SWET                                IAmb  IAmb    05 31 45.6
      comp=Z,6.3nm,0.9s
TKL   Tuckaleechee C     64.45 349  P     P       05 31 43.3 +0.6
TKL                                 IAmb  IAmb    05 31 43.6
      comp=Z,12nm,1.2s
TXAR  Lajitas Array      64.92 329  P     P       05 31 47.2 +1.2
      comp=Z,0.5nm,0.8s,baz=148,slow=7.0,SNR=2.4
      comp=Z,0.5nm,0.8s
TXAR  Lajitas Array      64.92 329  P     P       05 31 47.0 +0.9
TX31  Lajitas Ar. Si     64.92 329  P     P       05 31 47.1 +1.1
TX31                                IAmb  IAmb    05 33 00.8
      comp=Z,13nm,2.0s
T47A  Sharon Grove       66.38 346  P     P       05 31 55.7 +0.5
T47A                                IAmb  IAmb    05 31 56.3
      comp=Z,10.0nm,1.1s
LCAR  Lake Charles       66.46 343  P     P       05 31 56.4 +0.7
LCAR                                IAmb  IAmb    05 31 57.0
      comp=Z,9.1nm,1.1s
DBIC  Dimbokro           72.75  72  P     P       05 32 35.5 +0.5
      comp=Z,14nm,0.9s,baz=223,slow=6.9,SNR=7.9
      comp=Z,14nm,0.9s
DBIC  Dimbokro           72.75  72  P     P       05 32 34.7 -0.3
DBIC                                IAmb  IAmb    05 32 36.8
      comp=Z,27nm,1.1s
HLID  Hailey             81.50 330  P     P       05 33 25.1 +1.3
TORD  Torodi Ar. Bea     81.62  70  P     P       05 33 24.8  0.0
      comp=Z,7.2nm,1.1s,baz=249,slow=5.0,SNR=5.3
      comp=Z,7.2nm,1.1s
TORD  Torodi Ar. Bea     81.62  70  P     P       05 33 24.4 -0.4
BOSA  Boshof             82.30 118  P     P       05 33 28.4 -0.1
      comp=Z,3.4nm,0.5s,baz=252,slow=4.4,SNR=9.2
      comp=Z,3.4nm,0.5s
BOSA  Boshof             82.30 118  P     P       05 33 28.1 -0.4
TOZ   Tahuroa Road       89.47 227  P     P       05 34 03.4 -0.2
WRA   Warramunga Arr    126.22 210  PKP   PKPdf   05 40 09.8 +0.3
      comp=Z,0.9nm,0.7s,baz=146,slow=1.8,SNR=3.5
H11S2 WAKE ISLAND Hy126.27 273  T     T       07 59 15.8
      baz=112,slow=75,SNR=14
H11S1 WAKE ISLAND Hy126.28 273  T     T       07 59 14.4
      baz=112,slow=75,SNR=15
H11S3 WAKE ISLAND Hy126.29 273  T     T       07 59 14.7
      baz=112,slow=75,SNR=16
KURK  Kurchatov         147.93  37  PKPdf PKPdf   05 40 48.9 +0.8
KURBB Kurchatov Arra    147.94  37  PKPbc PKPbc   05 40 50.8 -0.5
      comp=Z,3.5nm,0.9s,baz=300,slow=3.3,SNR=6.2
ARSB  Arslanbob         148.03  56  PKPdf PKPdf   05 40 48.3 -0.6
ZALV  Zalesovo Beam     148.77  27  PKPbc PKiKP   05 40 54.1 -0.6
      comp=Z,8.6nm,0.8s,baz=306,slow=3.3,SNR=7.3
ZALV  Zalesovo Beam     148.77  27  PKPdf PKPdf   05 40 50.4 +0.9
AAK   Ala-Archa         148.79  53  PKPdf PKPdf   05 40 49.4 -0.7
MKAR  Makanchi Array    152.12  41  PKPbc PKiKP   05 41 02.1 +0.2
      comp=Z,2.7nm,0.7s,baz=322,slow=2.4,SNR=5.7
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*SJA **01** 05:26:16.3±1.5,27°.83S×71°.56W,h10^{km}±6^{km},ML4.9,*
MW4.2

*IDC **01** 05:26:18.3±0.5,27°.83S×71°.18W,h0^{km},mb4.6/12,*
mbtmp4.6/14,ML4.8/2,Error ellipse: s-maj=22.1km
s-min=12.0km az=70.0

*GUC **01** 05:26:20.9±0.9,27°.97S×71°.21W,h28^{km}±4^{km},ML4.4*

*NEIC **01** 05:26:21.3±1.2,27°.90S±0°.03×71°.24W±0°.06,h17^{km}±3^{km},*
mb4.8/169,ML4.4(GUC),Error ellipse: s-maj=8.2km
s-min=3.8km az=90.0

*VAO **01** 05:26:21.2±1.6,27°.93S×71°.26W,h27^{km}±9^{km},mb4.8,*
Presumed earthquake

*GFZ **01** 05:26:21.6±0.2,28°S±2°×7°1W±°,h18^{km}±1^{km},M4.8/24,*
mb4.8/24,Error ellipse: s-maj=7.7km s-min=4.6km
az=88.5,confirmed

ISC 01 05:26:20.9±0.6**,27°.89S**±0°.02×**71°.26W**±0°.04**,h19**^{km}±2^{km}**,**
n298,σ**1**^{s}**.12**/282**,mb4.8**/98**,7C-5D,Near coast of**
northern Chile

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Code  Station Name        Δ°   AZ°   Phase ID          Time     Res
                                    Op    ISC       h  m  s    ISC
AC04  Llanos de Chal      0.35 153 i P    Pb      05 26 28.6 -0.1
AC04                               eS     Sg      05 26 33.2 -0.4
AC04  Llanos de Chal      0.35 153        Pb      05 26 28.7  0.0
AC04                                      Sg      05 26 33.5 -0.1
AC04  Llanos de Chal      0.35 153  P     Pb      05 26 28.9 +0.2
AC04                                S     Sg      05 26 33.4 -0.2
GO03  Copiapo             0.95  72 i P    Pn      05 26 39.3  0.0
GO03                              ⇓iS     Sn      05 26 55.0 +2.6
GO03  Copiapo             0.95  72⇓iP     Pn      05 26 39.3  0.0
GO03                                IAML          05 26 58.7
      comp=N,18µm,0.4s
GO03  Copiapo             0.95  72        Pn      05 26 39.4  0.0
GO03                                Sn    Sb      05 26 49.7 -1.4
GO03  Copiapo             0.95  72  P     Pg      05 26 39.5  0.0
AC06  Mina Casimiro       0.96  57⇓iP     Pb      05 26 39.1 +0.1
AC06                                IAML          05 26 58.7
      comp=E,12µm,0.4s
AC06  Mina Casimiro       0.96  57        Pb      05 26 39.1 +0.1
LCO   Las Campanas        1.22 156 i P    Pn      05 26 42.9 -0.4
LCO                                i S    Sb      05 26 57.6 -1.4
LCO                                 IAML          05 27 00.3
      comp=Z,25µm,0.7s
LCO   Las Campanas        1.22 156⇓iP     Pn      05 26 42.7 -0.4
LCO   Las Campanas        1.22 156  Pn    Pn      05 26 42.8 -0.4
LCO                                 Sn    Sb      05 26 58.0 -0.9
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AC05  El Transito        1.28 138  i P   Pb    05 26 44.5  0.0
AC05  El Transito        1.28 138⇓ iP    Pn    05 26 44.0 +0.1
AC05                               eS    Sb    05 27 00.1 -0.5
AC05                                IAML       05 27 05.0
      comp=N,12µm,0.6s
AC05  El Transito        1.28 138        Pn    05 26 43.8 -0.1
AC05                                Sn   Sb    05 26 60.0 -0.6
AC05  El Transito        1.28 138   P    Pb    05 26 44.2 -0.2
AC01  Pan de Azucar      1.83  19  i P   Pn    05 26 51.7 +0.4
AC01                               i S   Sb    05 27 16.0 -0.4
AC01  Pan de Azucar      1.83  19  i P   Pn    05 26 51.7 +0.4
AC01                                IAML       05 27 28.2
      comp=E,4µm,0.5s
AC01  Pan de Azucar      1.83  19   Pn   Pn    05 26 51.8 +0.4
AC01  Pan de Azucar      1.83  19   P    Pn    05 26 51.9 +0.6
AC02  Maricunga          2.17  61  i P   Pb    05 26 58.3 -1.4
AC02                               i S   Sg    05 27 29.8 -1.0
AC02                                IAML       05 27 31.3
      comp=Z,5µm,0.7s
AC02  Maricunga          2.17  61  eP    Pb    05 26 59.5 -0.3
AC02                                IAML       05 27 31.2
      comp=N,10µm,0.3s
AC02  Maricunga          2.17  61   Pn   Pn    05 26 55.9 -0.5
AC02  Maricunga          2.17  61   P    Pb    05 27 00.0 +0.2
GO04  Tololo Observa     2.31 170  i P   Pn    05 26 59.1 +1.0
GO04                               i S   Sb    05 27 28.7 -1.7
GO04                                IAML       05 27 32.5
      comp=Z,10µm,0.8s
GO04  Tololo Observa     2.31 170⇑ eP    Pn    05 26 59.2 +1.0
GO04  Tololo Observa     2.31 170   Pn   Pn    05 26 57.6 -0.5
CO01  Juntas del Tor     2.32 154  i P   Pb    05 27 00.6 -1.6
CO01                                IAML       05 27 34.9
      comp=Z,3µm,0.3s
CO01  Juntas del Tor     2.32 154  eP    Pb    05 27 00.6 -1.6
CO01                                IAML       05 27 32.9
      comp=N,3µm,0.3s
CO01  Juntas del Tor     2.32 154   Pn   Pn    05 26 57.2 -1.0
CO01  Juntas del Tor     2.32 154   P    Pb    05 27 01.1 -1.1
AROD  Rodeo              2.76 146  i P   Pn    05 27 06.9 +2.5
AROD                               i S   Sb    05 27 42.6 -0.6
CO06  Fray Jorge         2.79 187  eP    Pn    05 27 03.1 -1.4
CO06                                IAML       05 27 53.0
      comp=E,2µm,0.5s
CO06  Fray Jorge         2.79 187   Pn   Pn    05 27 03.6 -1.0
VCA   Vinchina           2.82 108  i P   Pb    05 27 11.6 +0.9
VCA                                i S   Sg    05 27 50.7 -0.9
VCA                                 IAML       05 27 56.3
      comp=Z,4µm,0.5s
VCA   Vinchina           2.82 108  eP    Pb    05 27 10.1 -0.7
ACDV  Cuesta del Vie     2.94 141  i P   Pn    05 27 09.4 +2.6
ACDV                               i S   Sb    05 27 48.9 +0.3
ACDV                                IAML       05 27 56.5
      comp=Z,2µm,0.5s
CO03  El Pedregal        2.98 171  i P   Pn    05 27 07.0 -0.2
CO03                                IAML       05 27 58.7
      comp=Z,3µm,1.0s
CO03  El Pedregal        2.98 171  eP    Pn    05 27 06.9 -0.3
CO03                                IAML       05 27 57.9
      comp=E,4µm,0.3s
CO03  El Pedregal        2.98 171   Pn   Pn    05 27 06.9 -0.3
TINO  Tinogasta          3.27  94  i P   Pb    05 27 14.9 -3.4
TINO                                IAML       05 28 09.9
      comp=Z,1µm,1.0s
ACCO  Cerro Coronel      3.30 145  i P   Pn    05 27 14.5 +2.7
ACCO                                IAML       05 28 07.8
      comp=Z,2µm,0.5s
CO02  Combarbal          3.31 176  eP    Pn    05 27 11.8 +0.1
CO02  Combarbal          3.31 176        Pn    05 27 11.9 +0.1
PB14  IPOC Station P     3.34  13  i P   Pn    05 27 11.3 -1.0
PB14                                IAML       05 28 08.2
      comp=Z,2µm,0.6s
PB14  IPOC Station P     3.34  13        Pn    05 27 12.0 -0.3
PB14  IPOC Station P     3.34  13   P    Pn    05 27 12.1 -0.2
ACLC  CERRO LA CRUZ      4.08 113  i P   Pn    05 27 25.5 +3.1
ACLC                               i S   Sb    05 28 18.4 -2.9
ACLC                                IAML       05 28 22.2
      comp=Z,972nm,1.3s
CO04  Los Peladeros      4.15 177        Pn    05 27 23.8 +0.4
RTLL  Cerro Villicun     4.20 145  i P   Pn    05 27 26.8 +2.9
RTLS  Leoncito           4.25 157  i P   Pn    05 27 28.0 +3.1
RTLS                                IAML       05 28 37.5
      comp=Z,4µm,0.7s
ZON   Zonda              4.28 149  i P   Pn    05 27 28.1 +3.1
ZON                                 IAML       05 28 37.8
      comp=Z,680nm,1.0s
ZON   Zonda              4.28 149        Pn    05 27 25.8 +0.8
CFA   Coronel Fontan     4.54 145   Pn   Pn    05 27 31.5 +2.9
      comp=Z,42nm,0.3s,baz=327,slow=12,SNR=36
CFA                                 Sn   Sn    05 28 24.1 +3.2
      comp=Z,39nm,0.3s,baz=236,slow=22,SNR=10
      comp=Z,153nm,0.3s
CFA                                 AML  AML
CFA   Coronel Fontan     4.54 145  i P   Pn    05 27 31.2 +2.6
CFA                                 IAML       05 28 40.5
      comp=Z,791nm,0.5s
CYA   Choya              4.85  98  i P   Pn    05 27 36.2 +3.3
CYA                                 IAML       05 28 39.0
      comp=Z,568nm,0.6s
CYA   Choya              4.85  98⇑ eP    Pn    05 27 35.6 +2.7
VA03  San Esteban        4.90 173  i P   Pn    05 27 34.8 +1.3
VA03                                IAML       05 29 02.2
      comp=Z,1µm,1.0s
VA03  San Esteban        4.90 173        Pn    05 27 34.2 +0.7
VA03  San Esteban        4.90 173   P    Pn    05 27 35.8 +2.2
PB05  IPOC Station P     5.11  11  i P   Pn    05 27 34.9 -1.6
PB05                                IAML       05 29 11.5
      comp=Z,458nm,1.1s
PB05  IPOC Station P     5.11  11        Pn    05 27 34.9 -1.6
VA01  Torpederas         5.13 184        Pn    05 27 35.1 -1.5
PEL   Peldehue           5.26 175        Pn    05 27 39.2 +0.7
MT02  Curacav            5.35 179        Pn    05 27 39.3 -0.4
PB06  IPOC Station P     5.38  17        Pn    05 27 39.5 -0.9
MT05  Renca              5.50 175   Pn   Pn    05 27 42.6 +0.8
MT16  CCHEN              5.56 174   Pn   Pn    05 27 42.5  0.0
MT08  Bocatoma Ro        5.64 169   Pn   Pn    05 27 43.2 -0.7
AF01  San Pedro de A     5.65  30   Pn   Pn    05 27 44.3 +0.2
TCA   Tanti              6.74 122  eP    Pn    05 27 59.8 +0.9
LPAZ  La Paz            11.90  15   Pn   Pn    05 29 09.6 -0.6
      comp=Z,2.4nm,0.3s,baz=213,slow=5.1,SNR=39
      comp=Z,7.5nm,0.4s
LPAZ                                AML  AML
LPAZ  La Paz            11.90  15  eP    Pn    05 29 09.1 -1.1
LPAZ  La Paz            11.90  15   P    Pn    05 29 09.6 -0.6
      comp=Z,8.9nm,0.5s
PSAL  Palomas, Salto    12.31 108  eP    Pn    05 29 14.7 -0.4
CPUP  Villa Florida     12.51  86   Pn   Pn    05 29 19.2 +1.4
      comp=Z,0.4nm,0.3s,baz=240,slow=17,SNR=1.1
CPUP  Villa Florida     12.51  86   Pn   Pn    05 29 17.7 -0.1
CPUP  Villa Florida     12.51  86  eP    Pn    05 29 17.9 +0.1
ANCO  Parque Anchore    13.04 122  eP    Pn    05 29 24.3 -0.8
SIV   San Ignacio       15.14  41   Pn   Pn    05 29 47.6 -6.2
      comp=Z,0.3nm,0.3s,baz=229,slow=11,SNR=26
CPSB  Cacapava Do Su    15.77 103   Pn   Pn    05 30 02.1 +0.2
PTLB  Pontes e Lacer    16.72  45        Pn    05 30 11.9 -2.2
PTLB  Pontes e Lacer    16.72  45  eP    Pn    05 30 13.4 -0.8
TRCB  Terra Rica        17.58  77   Pn   Pn    05 30 23.0 -1.9
TRCB                                IAmb IAmb  05 30 27.6
      comp=Z,59nm,1.1s
TRCB  Terra Rica        17.58  77  eP    Pn    05 30 24.3 -0.6
COYC  Coyhaique         17.66 182   Pn   Pn    05 30 25.4 -0.3
VILB  Vilhena           18.10  37        Pn    05 30 29.4 -1.9
VILB  Vilhena           18.10  37  eP    Pn    05 30 30.7 -0.6
LDASE Londrina, Braz    18.70  81  eP    P     05 30 37.9 -0.4
SALV  Santo Antonio     18.71  54  eP    P     05 30 37.9 -0.4
C2SB  Chapadao do Su    19.18  66  eP    P     05 30 42.8 -0.6
C2SB  Chapadao do Su    19.18  66   P    Pn    05 30 45.8 +1.3
      comp=Z,82nm,1.1s
FRTB  Fartura           20.07  82  eP    P     05 30 52.5 -0.8
CZSB  Cruzeiro do Su    20.10 356   P    P     05 30 52.7 -0.8
CZSB                                IAmb IAmb  05 30 57.4
      comp=Z,34nm,0.9s
CZSB  Cruzeiro do Su    20.10 356  eP    P     05 30 53.5  0.0
GO08  Villa O'Higgin    20.57 182   P    P     05 30 57.9 -0.5
ARAG  Araguaiana, MT    21.71  60  eP    P     05 31 10.4 -0.6
BB19B Bebedouro         21.76  77  eP    P     05 31 09.9 -1.6
RCLB  Rio Claro- Sao    22.14  81  eP    P     05 31 15.1 -0.5
CLDB  Colider           22.30  44  eP    P     05 31 16.2 -1.1
CLDB  Colider           22.30  44   P    P     05 31 16.7 -0.6
      comp=Z,20nm,1.4s
VAO   Valinhos          22.46  83        P     05 31 18.4 -0.6
VAO   Valinhos          22.46  83  eP    P     05 31 18.6 -0.5
IPMB  Ipameri, GO       23.37  70  eP    P     05 31 26.6 -1.9
CANS  Sao Roque de M    23.90  77  eP    P     05 31 32.7 -1.0
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SNDB  Serra Nova Dou    24.49  54  eP    P     05 31 36.8 -2.3
PMNB  Patos De Minas    24.60  73  eP    P     05 31 39.5 -0.6
PMNB  Patos De Minas    24.60  73   P    P     05 31 40.2 +0.1
      comp=Z,33nm,0.8s
BDFB  Brasilia          24.74  65   P    P     05 31 40.7 -0.7
      comp=Z,8.5nm,0.7s,baz=228,slow=10,SNR=11
      comp=Z,8.5nm,0.7s
BDFB  Brasilia          24.74  65        P     05 31 40.4 -1.0
BSCB  Bom Sucesso       25.04  80  eP    P     05 31 43.4 -0.7
TEFE  Tefe              25.05  16  eP    P     05 31 44.6 +0.5
MACA  Manacapuru-AM     26.58  24   P    P     05 31 58.2 +0.2
MACA                                IAmb IAmb  05 32 15.7
      comp=Z,18nm,0.6s
MACA  Manacapuru-AM     26.58  24  eP    P     05 31 58.3 +0.4
DIAM  Diamantina, MG    27.06  75  eP    P     05 32 01.8 -0.7
MC01  Montes Claros     27.55  72  eP    P     05 32 06.0 -0.7
ITTB  Itaituba          27.67  35  eP    P     05 32 07.2 -0.5
JANB  Januaria          28.07  69  eP    P     05 32 11.3 -0.1
OTAV  Otavalo           28.81 345   P    P     05 32 18.0 -0.4
SDBA  SAO DESIDERIO     29.05  63  eP    P     05 32 19.8 -0.3
SMTB  Santa Maria do    29.27  54  eP    P     05 32 21.7 -0.3
BSFB  Barra de Sao F    29.27  79  eP    P     05 32 21.2 -0.9
BSFB  Barra de Sao F    29.27  79   P    P     05 32 22.8 +0.8
      comp=Z,26nm,2.1s
RIB01 Linhares ES       29.48  80  eP    P     05 32 24.2 +0.4
GUA01 Guaratinga, BA    31.12  75  eP    P     05 32 38.7 +0.3
BOAV  Boa Vista         31.83  21   P    P     05 32 44.9 +0.3
BOAV  Boa Vista         31.83  21  eP    P     05 32 44.7  0.0
NBIT  Itapeh - BA       32.20  73  eP    P     05 32 48.2 +0.3
NBPN  Ponto Novo - B    33.71  66  eP    P     05 33 00.7 -0.5
NBTA  Tacaratu-PE       36.41  66  eP    P     05 33 24.1 -0.4
SDV   Santo Domingo     36.56   1   P    P     05 33 25.4 -0.4
SDV                                 IAmb IAmb  05 33 28.2
      comp=Z,7.0nm,0.3s
ESPZ  Base Esperanza    36.71 169   P    P     05 33 25.0 -1.3
NBMA  Muriti-CE         36.89  63  eP    P     05 33 28.2 -0.4
PMSA  Palmer Station    37.18 175   P    P     05 33 28.9 -1.4
PMSA                                IAmb IAmb  05 33 34.4
      comp=Z,17nm,1.1s
ORCD  Orcadas           37.40 159        P     05 33 31.7 -0.6
PIRO  Carate, Puerto    37.92 340   P    P     05 33 36.2 -0.9
BRU2  Volcan            38.11 341   P    P     05 33 37.6 -1.3
BRU2                                IAmb IAmb  05 33 50.4
      comp=Z,17nm,1.1s
TGUH  Tegucigalpa,Un    44.49 338   P    P     05 34 31.1 -0.2
TGUH                                IAmb IAmb  05 34 31.3
      comp=Z,7.5nm,0.5s
TGUH  Tegucigalpa,Un    44.49 338   P    P     05 34 30.5 -0.8
      comp=Z,9.2nm,0.5s
SJG   San Juan          46.00   7   P    P     05 34 42.0 -1.0
SJG                                 IAmb IAmb  05 34 50.5
      comp=Z,11nm,1.0s
TEIG  Tepich            50.59 339   P    P     05 35 20.0 +1.6
TEIG                                IAmb IAmb  05 35 20.1
      comp=Z,13nm,0.7s
TEIG  Tepich            50.59 339   P    P     05 35 19.7 +1.3
      comp=Z,27nm,0.9s
VNA3  Neumayer Olymp    54.79 160 ⇑P     P     05 35 49.2 +0.1
      comp=Z,6.7nm,0.6s
VNA3  Neumayer Olymp    54.79 160   P    P     05 35 48.9 -0.1
      comp=Z,14nm,0.9s
VNA1  Neumayer--Stat    55.06 159 ⇑P     P     05 35 51.4 +0.5
      comp=Z,8.4nm,1.1s
VNA2  Neumayer--Watz    55.41 159 ⇑P     P     05 35 53.6 +0.1
      comp=Z,12nm,0.6s,baz=287,slow=7.9
VNA2  Neumayer--Watz    55.41 159   P    P     05 35 53.8 +0.2
      comp=Z,22nm,0.9s
SNAA  Sanae             57.02 159 ⇑P     P     05 36 05.0 -0.1
      comp=Z,176nm,0.5s
SNAA  Sanae             57.02 159   P    P     05 36 05.3 +0.2
      comp=Z,13nm,0.8s,baz=274,slow=7.5,SNR=33
      comp=Z,13nm,0.8s
SNAA  Sanae             57.02 159        P     05 36 05.0 -0.1
SNAA                                IAmb IAmb  05 36 06.0
      comp=Z,17nm,1.0s
SNAA  Sanae             57.02 159   P    P     05 36 05.1 +0.1
      comp=Z,19nm,1.1s
SNAA                                pP   pP    05 36 11.5 +0.4
TROLL Troll, Antarti    58.73 160 ⇑P     P     05 36 17.2 +0.1
      comp=Z,598nm,0.9s
154A  Montrose          61.22 349   P    P     05 36 34.8 +0.4
152A  Waverly Hall      61.57 347   P    P     05 36 37.2 +0.4
152A                                IAmb IAmb  05 36 37.8
      comp=Z,5.4nm,0.9s
Y60A  Bolivia           61.91 353   P    P     05 36 39.2 +0.2
Y58A  Scranton          61.97 352   P    P     05 36 40.0 +0.5
QSPA  South Pole Qui    62.33 180   P    P     05 36 42.3 +0.5
      comp=Z,12nm,0.9s,baz=144,slow=1.8,SNR=31
      comp=Z,12nm,0.9s
QSPA  South Pole Qui    62.33 180   P    P     05 36 42.3 +0.5
QSPA                                IAmb IAmb  05 36 43.2
      comp=Z,12nm,0.8s
X58A  Rowland           62.58 352   P    P     05 36 44.2 +0.7
Z47A  Carrollton        62.82 344   P    P     05 36 46.1 +1.0
Z47A                                IAmb IAmb  05 37 01.9
      comp=Z,6.3nm,1.1s
W52A  Murphy            63.78 348   IAmb IAmb  05 36 53.0
      comp=Z,14nm,1.1s
JCT   Junction City     64.12 333   IAmb IAmb  05 36 56.4
      comp=Z,8.2nm,0.8s
CPCT  Cooper Cave       64.23 348   IAmb IAmb  05 36 55.8
      comp=Z,12nm,1.1s
BRDY  Brady             64.52 334   IAmb IAmb  05 36 58.3
      comp=Z,5.7nm,0.7s
SAND  Sanderson         64.64 330   IAmb IAmb  05 37 00.3
      comp=Z,8.3nm,1.0s
TX31  Lajitas Ar. Si    64.80 329        P     05 36 60.0 +1.5
TXAR  Lajitas Array     64.80 329   P    P     05 36 59.9 +1.5
      comp=Z,1.9nm,0.8s,baz=151,slow=8.3,SNR=16
      comp=Z,1.9nm,0.8s
V48A  Smith Brothers    64.97 346   P    P     05 36 59.7 +0.4
V48A                                IAmb IAmb  05 37 00.6
      comp=Z,12nm,1.1s
OZNA  Ozona             65.06 332        P     05 37 01.0 +0.9
OZNA                                IAmb IAmb  05 37 02.5
      comp=Z,8.8nm,0.9s
CLTN  Cedars of Leba    65.21 347   P    P     05 37 00.6 -0.2
CLTN                                IAmb IAmb  05 37 02.2
      comp=Z,5.2nm,1.0s
U49A  Red Boiling Sp    65.50 347   IAmb IAmb  05 37 03.8
      comp=Z,6.8nm,1.1s
WVT   Waverly           65.56 345   P    P     05 37 03.4 +0.3
      comp=Z,12nm,0.9s
MIAR  Mount Ida         65.59 340   IAmb IAmb  05 37 05.4
      comp=Z,7.5nm,0.9s
MIAR  Mount Ida         65.59 340   P    P     05 37 04.7 +1.3
      comp=Z,9.3nm,1.0s
PLPT  Palo Pinto        65.62 335   IAmb IAmb  05 37 06.4
      comp=Z,4.5nm,0.9s
ALPN  Alpine            65.67 329   P    P     05 37 05.3 +1.1
HBAR  Harrisburg        65.71 343   P    P     05 37 04.2 +0.1
R58B  Mineral           65.80 354   IAmb IAmb  05 37 06.5
      comp=Z,11nm,0.9s
WHAR  Wooly Hollow      65.91 341   P    P     05 37 04.9 -0.4
WHAR                                IAmb IAmb  05 37 07.1
      comp=Z,7.8nm,0.9s
SGCY  Sterling City     65.92 332        P     05 37 05.7 +0.1
SGCY                                IAmb IAmb  05 37 08.3
      comp=Z,7.2nm,0.8s
LNXT  Lenox             65.93 344   P    P     05 37 05.7 +0.2
GNAR  Gosnell           65.93 343   P    P     05 37 06.2 +0.7
ABTX  Abilene, Hawle    65.95 334        P     05 37 06.0 +0.2
ABTX                                IAmb IAmb  05 37 09.3
      comp=Z,10nm,1.0s
TMB01 Midkiff           66.11 331   P    P     05 37 07.1 +0.2
TMB01                               IAmb IAmb  05 37 09.9
      comp=Z,4.8nm,0.9s
MNHN  Monahans          66.11 331        P     05 37 06.9  0.0
MNHN                                IAmb IAmb  05 37 09.4
      comp=Z,6.3nm,0.6s
TPB01 Permian Basin     66.22 330   P    P     05 37 07.6  0.0
TPB01                               IAmb IAmb  05 37 10.6
      comp=Z,7.2nm,0.8s
T47A  Sharon Grove      66.23 346        P     05 37 07.7 +0.3
LCAR  Lake Charles      66.32 342        P     05 37 08.8 +0.8
APMT  Aspermont         66.76 334   IAmb IAmb  05 37 13.3
      comp=Z,12nm,1.0s
129A  Stewart Farms,    66.85 332   P    P     05 37 11.4 -0.1
SN07  Snyder 07         66.86 333   IAmb IAmb  05 37 13.6
      comp=Z,6.0nm,0.7s
128A  Castleberry Fa    67.10 332   IAmb IAmb  05 37 15.5
      comp=Z,4.4nm,0.9s
TPB11 China Draw        67.18 330   IAmb IAmb  05 37 17.2
      comp=Z,14nm,1.0s
T42A  Van Buren         67.21 343        P     05 37 14.0 +0.3
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T42A                                IAmb IAmb  05 37 15.9
      comp=Z,5.5nm,1.0s
WCI   Wyandotte Cave    67.26 347   P    P     05 37 13.8 -0.2
WCI                                 IAmb IAmb  05 37 14.3
      comp=Z,6.5nm,0.8s
HHAR  Hobbs             67.31 340        P     05 37 15.3 +1.0
HHAR                                IAmb IAmb  05 37 16.2
      comp=Z,7.5nm,0.8s
P57A  Homestead Farm    67.32 354   P    P     05 37 15.6 +1.3
P57A                                IAmb IAmb  05 37 16.9
      comp=Z,8.6nm,0.8s
DKNS  Dickens           67.38 333   P    P     05 37 15.1 +0.2
DKNS                                IAmb IAmb  05 37 16.8
      comp=Z,5.3nm,0.7s
WMOK  Wichita Mounta    67.51 336   P    P     05 37 16.3 +0.6
WMOK  Wichita Mounta    67.51 336   P    P     05 37 16.1 +0.4
      comp=Z,4.1nm,2.4s
Q51A  Peebles           67.52 350   P    P     05 37 15.5 -0.1
Q51A                                IAmb IAmb  05 37 16.6
      comp=Z,9.4nm,1.1s
RLO   Rose Lookout      67.53 339   P    P     05 37 16.6 +0.8
TUL3  Leonard           67.54 339   P    P     05 37 16.1 +0.3
GDL2  Guadalupe Moun    67.55 330   P    P     05 37 17.0 +0.9
MNTX  Cornudas Mount    67.59 329   P    P     05 37 16.8 +0.6
MNTX  Cornudas Mount    67.59 329   P    P     05 37 17.0 +0.8
      comp=Z,4.6nm,1.1s
U38A  Gravette          67.59 340   P    P     05 37 16.5 +0.4
U38A                                IAmb IAmb  05 37 17.5
      comp=Z,4.0nm,0.8s
CCM   Cathedral Cave    68.22 343   P    P     05 37 20.9 +0.9
CCM   Cathedral Cave    68.22 343   P    P     05 37 21.1 +1.0
      comp=Z,20nm,1.1s
SMWD  Samnorwood        68.38 335   IAmb IAmb  05 37 23.2
      comp=Z,14nm,1.2s
MSTX  Muleshoe          68.39 332   IAmb IAmb  05 37 23.4
      comp=Z,10nm,0.9s
S39A  Bolivar           68.44 341   IAmb IAmb  05 37 23.3
      comp=Z,13nm,0.9s
NPNY  Mohonk Preserv    69.35 358   IAmb IAmb  05 37 29.5
      comp=Z,9.2nm,0.8s
L59A  Walton            69.82 357        P     05 37 30.7 +0.8
R32A  Long Quarter,     70.79 337   IAmb IAmb  05 37 38.3
      comp=Z,7.8nm,0.9s
ALQ   Albuquerque       70.80 330   P    P     05 37 37.3 +1.0
ANMO  Albuquerque       70.80 330   P    P     05 37 37.0 +0.7
ANMO  Albuquerque       70.80 330   P    P     05 37 37.8 +1.5
      comp=Z,2.4nm,1.5s
TASM  ASL Pad, Albuq    70.80 330   P    P     05 37 36.8 +0.5
TASM  ASL Pad, Albuq    70.80 330   IAmb IAmb  05 37 41.7
      comp=Z,1.6nm,0.9s
J61A  Chester           70.89 359   IAmb IAmb  05 37 38.8
      comp=Z,14nm,1.1s
HNH   Hanover           71.25 359   IAmb IAmb  05 37 41.5
      comp=Z,11nm,0.9s
FLET  Fletcher          72.28 359   IAmb IAmb  05 37 47.0
      comp=Z,13nm,1.1s
DBIC  Dimbokro          72.65  72   P    P     05 37 48.0 +0.3
      comp=Z,18nm,0.6s,baz=243,slow=5.8,SNR=25
      comp=Z,18nm,0.6s
DBIC  Dimbokro          72.65  72   P    P     05 37 47.0 -0.6
DBIC  Dimbokro          72.65  72   P    P     05 37 47.1 -0.6
      comp=Z,42nm,1.3s
SADO  Sadowa            72.67 354   P    P     05 37 47.5 +0.5
SADO                                IAmb IAmb  05 37 48.9
      comp=Z,14nm,1.0s
G62A  West of Eustis    72.76   1        P     05 37 48.1 +0.6
G62A                                IAmb IAmb  05 37 50.4
      comp=Z,10nm,0.8s
Y14A  Wickenburg        73.11 325   P    P     05 37 51.1 +1.1
L34A  Svendsen Farm,    73.28 341   P    P     05 37 51.4 +0.6
MVCO  Mesa Verde        73.60 330   P    P     05 37 55.5 +2.5
      comp=Z,6.2nm,3.0s
TRQ   Mont Tremblant    73.82 358   P    P     05 37 54.9 +1.0
TRQ                                 IAmb IAmb  05 37 55.6
      comp=Z,7.0nm,0.8s
PV13  Radium Mtn., P    74.53 330   IAmb IAmb  05 38 01.3
      comp=Z,5.7nm,1.0s
ISCO  Idaho Springs     74.56 333   P    P     05 38 00.1 +1.5
      comp=Z,5.0nm,2.5s
D62A  Allapoint, All    74.65   2   P    P     05 37 58.8 +0.2
D62A                                IAmb IAmb  05 38 01.1
      comp=Z,8.6nm,0.9s
K30B  Basset            74.92 339   IAmb IAmb  05 38 03.9
      comp=Z,12nm,0.8s
ECSD  EROS Data Cent    74.97 341   IAmb IAmb  05 38 02.5
      comp=Z,9.4nm,0.9s
ECSD  EROS Data Cent    74.97 341   P    P     05 38 01.8 +1.2
      comp=Z,13nm,1.1s
O20A  White River Ci    75.92 332   IAmb IAmb  05 38 09.5
      comp=Z,6.3nm,0.8s
PRN   Pahroc Range      76.86 326   IAmb IAmb  05 38 15.4
      comp=Z,6.2nm,1.1s
HWUT  Hardware Ranch    78.56 330   IAmb IAmb  05 38 23.6
      comp=Z,6.0nm,0.8s
HWUT  Hardware Ranch    78.56 330   P    P     05 38 22.9 +1.8
      comp=Z,9.5nm,1.2s
PD31  Pinedale Array    78.66 332   P    P     05 38 22.1 +0.4
PDAR  Pinedale Array    78.66 332   P    P     05 38 22.9 +1.2
      comp=Z,0.7nm,0.5s,baz=128,slow=7.3,SNR=8.2
      comp=Z,0.7nm,0.5s
E28A  Huff              78.76 340   P    P     05 38 22.5 +0.6
E28A                                IAmb IAmb  05 38 24.4
      comp=Z,14nm,1.1s
MAW   Mawson            78.83 164   P    P     05 38 22.7 +0.5
      comp=Z,1.1nm,1.7s
MAW   Mawson            78.83 164   P    P     05 38 22.7 +0.5
      comp=Z,2.1nm,0.6s,baz=240,slow=9.4,SNR=4.1
      comp=Z,2.1nm,0.6s
MAW   Mawson            78.83 164   P    P     05 38 22.4 +0.2
MAW   Mawson            78.83 164   P    P     05 38 22.3 +0.2
      comp=Z,1.1nm,1.7s
AGMN  Agassiz Nation    78.99 344   P    P     05 38 23.9 +0.8
AGMN                                IAmb IAmb  05 38 24.4
      comp=Z,6.0nm,0.9s
HVU   Hansel Valley     79.23 330   P    P     05 38 25.7 +0.9
HVU                                 IAmb IAmb  05 38 27.1
      comp=Z,6.4nm,0.9s
NVAR  Mina Array Bea    79.30 324   P    P     05 38 26.3 +1.0
      comp=Z,1.2nm,0.8s,baz=160,slow=6.4,SNR=9.4
      comp=Z,1.2nm,0.8s
NVAR  Mina Array Bea    79.30 324   P    P     05 38 26.5 +1.2
AHID  Auburn Hatcher    79.30 331   P    P     05 38 26.4 +1.2
AHID  Auburn Hatcher    79.30 331   P    P     05 38 26.8 +1.6
      comp=Z,5.5nm,1.1s
MDND  Maddock           79.58 341   P    P     05 38 27.5 +1.1
RLMT  Red Lodge         80.50 334   P    P     05 38 32.6 +1.0
RLMT                                IAmb IAmb  05 38 42.7
      comp=Z,6.8nm,1.1s
YNE   Yellowstone No    80.69 333   P    P     05 38 33.0 +0.3
ULM   Lac du Bonnet     80.80 344   P    P     05 38 33.1 +0.3
      comp=Z,7.6nm,0.9s,baz=187,slow=4.2,SNR=6.5
      comp=Z,7.6nm,0.9s
ULM   Lac du Bonnet     80.80 344   P    P     05 38 33.2 +0.4
ULM                                 IAmb IAmb  05 38 35.3
      comp=Z,7.3nm,0.9s
HLID  Hailey            81.38 330        P     05 38 37.4 +1.0
HLID                                IAmb IAmb  05 38 39.5
      comp=Z,7.6nm,1.1s
HLID  Hailey            81.38 330   P    P     05 38 38.7 +2.3
      comp=Z,7.0nm,1.0s
HLID                                pP   sP    05 38 45.4 +0.4
TORD  Torodi Ar. Bea    81.51  70   P    P     05 38 37.4 -0.1
      comp=Z,7.3nm,0.6s,baz=263,slow=4.7,SNR=22
      comp=Z,7.3nm,0.6s
TORD  Torodi Ar. Bea    81.51  70   P    P     05 38 37.4 -0.1
TORD                                IAmb IAmb  05 38 38.5
      comp=Z,7.2nm,0.8s
BOSA  Boshof            82.33 118   P    P     05 38 41.8 -0.1
      comp=Z,6.4nm,0.5s,baz=262,slow=3.3,SNR=22
      comp=Z,6.4nm,0.5s
BOSA  Boshof            82.33 118   P    P     05 38 41.8 -0.1
BOSA                                IAmb IAmb  05 38 42.5
      comp=Z,18nm,1.1s
BOSA  Boshof            82.33 118   P    P     05 38 41.5 -0.3
      comp=Z,17nm,1.6s
GRTLG Ghanzi            82.36 110   P    P     05 38 42.4 +0.3
GRTLG                               IAmb IAmb  05 38 47.9
      comp=Z,6.2nm,1.1s
O03E  Paynes Creek      82.50 323   P    P     05 38 42.8 +0.6
J08A  Circle Bar Ran    83.10 327   IAmb IAmb  05 38 48.1
      comp=Z,9.1nm,1.1s
EGMT  Eagleton          83.10 335   P    P     05 38 45.6 +0.4
EGMT                                IAmb IAmb  05 38 46.5
      comp=Z,6.7nm,1.1s
PLID  Pearl Lake        83.28 330   IAmb IAmb  05 38 48.7
      comp=Z,4.3nm,0.8s
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LBTB	Lobatse	84.27	115	P	P	05 38 51.4	-0.4
	comp=Z,15nm,0.7s						
TIO	Tiouine	84.52	51	P	P	05 38 54.8	+1.9
	comp=Z,24nm,2.3s						
PINE	Pine Mountain	84.61	326	IAmb	IAmb	05 38 56.1	
	comp=Z,4.9nm,0.8s						
HAWA	Hanford	85.88	329	IAmb	IAmb	05 39 01.6	
	comp=Z,5.5nm,1.1s						
H04A	Detroit Lake	85.88	326	P	P	05 39 00.4	+1.2
H04A				IAmb	IAmb	05 39 01.0	
	comp=Z,4.0nm,0.8s						
CASY	Casey	86.12	181		P	05 39 01.2	+1.0
CASY				IAmb	IAmb	05 39 02.0	
	comp=Z,9.1nm,0.8s						
CASY	Casey	86.12	181	P	P	05 39 01.3	+1.1
	comp=Z,12nm,0.9s						
CASY				pP	sP	05 39 07.9	-0.2
EDM	Edmonton	88.67	336	IAmb	IAmb	05 39 13.3	
	comp=Z,7.7nm,1.0s						
ESDC	Sonseca Array	91.85	45	P	P	05 39 28.2	+0.6
	comp=Z,0.6nm,0.8s,baz=259,slow=4.2,SNR=5.1						
	comp=Z,0.6nm,0.8s						
ESDC	Sonseca Array	91.85	45	P	P	05 39 27.5	-0.1
ASAR	Alice Springs	123.29	208	PKP	PKPdf	05 45 16.6	-0.5
	comp=Z,1.3nm,0.5s,baz=135,slow=1.8,SNR=9.7						
H11S2	WAKE ISLAND Hy	126.32	273	T	T	08 04 33.0	
	baz=112,slow=74,SNR=13						
H11S1	WAKE ISLAND Hy	126.33	273	T	T	08 04 32.0	
	baz=112,slow=74,SNR=12						
H11S3	WAKE ISLAND Hy	126.34	273	T	T	08 04 34.3	
	baz=112,slow=74,SNR=14						
WRA	Warramunga Arr	126.39	210	PKP	PKPdf	05 45 23.0	-0.1
	comp=Z,2.7nm,0.6s,baz=153,slow=1.7,SNR=49						
KK31	Karatay Array	145.70	54	PKPdf	PKPab	05 45 58.7	0.0
KKAR	Karatay Array	145.70	54	PKPdf	PKPab	05 45 58.6	-0.1
KURK	Kurchatov	147.77	37	PKPdf	PKPdf	05 46 01.9	+0.8
KURBB	Kurchatov Arra	147.77	37	PKPbc	PKPbc	05 46 03.1	-0.9
	comp=Z,5.8nm,0.8s,baz=301,slow=3.1,SNR=23						
ZAA0	Zalesovo Array	148.60	27	PKPdf	PKPdf	05 46 02.8	+0.3
ZALV	Zalesovo Beam	148.60	27	PKP	PKPdf	05 46 02.6	+0.1
	comp=Z,12nm,0.7s,baz=298,slow=3.1,SNR=9.0						
ZALV				PKPbc	PKPbc	05 46 06.7	+0.5
	comp=Z,13nm,0.7s,baz=299,slow=3.0,SNR=24						
KSH2	Kashi	150.31	59	PKPbc	PKiKP	05 46 11.7	-0.2
KSH2				pPKP	PKPab	05 46 17.8	+0.4
MKAR	Makanchi Array	151.96	41	PKPbc	PKiKP	05 46 14.8	0.0
	comp=Z,4.7nm,0.6s,baz=318,slow=1.9,SNR=34						
HHC	Hu-ho-hao-te	166.87	351	*e*P	PKPdf	05 46 23.4	-2.0
NJ2	Nanjing	170.30	298	*e*P	PKPdf	05 46 28.4	+0.7
NJ2	Nanjing	170.30	298	pmax	pmax		
	comp=Z,18nm,0.6s						

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*SJA **01** 05:29:34.2±0.7, 27.°91S×71.°68W, h9^{km}, ML5.4, MW5.4*
*IDC **01** 05:29:36.1±0.4, 27.°98S×71.°15W, h0^{km}, mb5.0/15, mbtmp4.9/17, ML4.5/2, MS5.1/5, Error ellipse: s-maj=21.3km s-min=12.3km az=80.0*
*MOS **01** 05:29:37.6±1.1, 27.°90S×71.°16W, h15^{km}, mb5.5/27, Error ellipse: s-maj=14.1km s-min=6.1km az=103.6*
*VAO **01** 05:29:38.6±0.3, 27.°97S×71.°21W, h16^{km}, mb5.3, Presumed earthquake*
*GFZ **01** 05:29:38.8±0.1, 28°S±2°×7°1W±°, h10^{km}, M5.5/48, mb5.2/48*
*NEIC **01** 05:29:38.8, 27.°97S×71.°34W, h15^{km}*
*NEIC **01** 05:29:39.4±1.0, 27.°98S±0.°01×71.°28W±0.°06, h19^{km}±3^{km}, mb5.3/515, Mwr5.2/57, Mww5.4/12, Mwr5.4(GUC), Error ellipse: s-maj=7.8km s-min=2.0km az=93.0, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}3.56; $M_{\theta\theta}$1.05; $M_{\phi\phi}$-4.61; $M_{r\theta}$2.48; $M_{\theta\phi}$-0.80; $M_{\phi r}$-5.29; Fault plane solution: $M_0$7.23000×10^{16} NP1:ϕ_s34.29000°, δ25.06000°, λ140.14000°. NP2:ϕ_s161.39000°, δ74.25000°, λ70.26000°. Principal axes: T 7.2386, Plg56.0000°, Azm46.0000°; N -0.0083, Plg19.0000°, Azm167.0000°; P -7.2303, Plg27.0000°, Azm267.0000°;*
*GUC **01** 05:29:39.0±0.9, 28.°06S×71.°36W, h24^{km}±2^{km}, ML5.2*
ISC 01 05:29:37.1±1.1, **28.°01S**±0.°02×**71.°43W**±0.°03, **h10**^{km}±6^{km}, **n739**, σ**1.^{s}44**/595, **mb5.3**/299, **26C-11D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.37	122	*e*P	Pb	05 29 46.2	+0.4
AC04	Llanos de Chal	0.37	122⇑	*e*P	Pb	05 29 46.0	+0.2
AC04				*e*S	Sg	05 29 50.8	+1.3
AC04				IAML		05 29 51.1	
	comp=N,735µm,0.3s						
AC04	Llanos de Chal	0.37	122	Pg	Pb	05 29 46.0	+0.2
AC04				Sg	Sg	05 29 50.8	+1.3
AC04	Llanos de Chal	0.37	122	P	Pb	05 29 46.2	+0.4
GO03	Copiapo	1.14	69	*e*P	Pn	05 29 58.9	-0.2
GO03				IAML		05 30 20.4	
	comp=Z,37µm,0.7s						
GO03	Copiapo	1.14	69⇑	*e*P	Pn	05 29 58.6	-0.5
GO03				*e*S	Sb	05 30 13.1	-0.7
GO03				IAML		05 30 17.9	
	comp=E,69µm,0.5s						
GO03	Copiapo	1.14	69		Pn	05 29 58.7	-0.5
GO03	Copiapo	1.14	69	P	Pn	05 29 58.8	-0.4
AC06	Mina Casimiro	1.16	56	*e*P	Pn	05 29 58.7	-0.7
AC06				*e*S	Sb	05 30 14.3	+0.1
AC06				IAML		05 30 19.7	
	comp=E,40µm,0.3s						
AC06	Mina Casimiro	1.16	56	Pn	Pn	05 29 58.6	-0.7
LCO	Las Campanas	1.19	147	*e*P	Pb	05 30 00.3	+0.4
LCO				IAML		05 30 22.3	
	comp=Z,55µm,0.5s						
LCO	Las Campanas	1.19	147	P	Pn	05 29 59.6	-0.4
LCO	Las Campanas	1.19	147	*e*P	Pn	05 29 58.9	-1.2
LCO				*e*S	Sb	05 30 13.9	-1.6
LCO				IAML		05 30 20.2	
	comp=Z,456µm,0.2s						
LCO	Las Campanas	1.19	147		Pn	05 29 59.6	-0.4
AC05	El Transito	1.31	129	*e*P	Pn	05 30 01.8	+0.2
AC05				*e*S	Sb	05 30 17.8	-1.1
AC05	El Transito	1.31	129⇑	*e*P	Pn	05 30 01.4	-0.2
AC05				*e*S	Sb	05 30 17.0	-1.9
AC05				IAML		05 30 21.6	
	comp=E,37µm,0.3s						
AC05	El Transito	1.31	129		Pn	05 30 01.6	0.0
AC05	El Transito	1.31	129	P	Pn	05 30 01.8	+0.2
AC01	Pan de Azucar	2.00	22	*e*P	Pn	05 30 10.8	-0.1
AC01				*e*S	Sg	05 30 41.0	-0.3
AC01	Pan de Azucar	2.00	22⇑	*e*P	Pn	05 30 10.6	-0.2
AC01				*e*S	Sb	05 30 38.7	+0.3
AC01				IAML		05 30 46.4	
	comp=E,11µm,0.3s						
AC01	Pan de Azucar	2.00	22		Pn	05 30 10.8	-0.1
AC01	Pan de Azucar	2.00	22	P	Pn	05 30 10.8	-0.1
GO04	Tololo Observa	2.23	166	*e*P	Pn	05 30 15.7	+1.4
GO04				*e*S	Sb	05 30 47.0	+1.7
GO04				IAML		05 30 55.3	
	comp=Z,47µm,0.9s						
GO04	Tololo Observa	2.23	166⇑	*e*P	Pn	05 30 15.1	+0.8
GO04				*e*S	Sn	05 30 42.8	+0.8
GO04	Tololo Observa	2.23	166	Pn	Pn	05 30 15.4	+1.2
GO04	Tololo Observa	2.23	166	P	Pb	05 30 16.3	-1.3
CO01	Juntas del Tor	2.29	149	*e*P	Pb	05 30 17.3	-1.3
CO01				*e*S	Sb	05 30 46.7	-0.3
CO01				IAML		05 30 50.6	
	comp=Z,17µm,0.8s						
CO01	Juntas del Tor	2.29	149	*e*P	Pn	05 30 16.4	+1.3
CO01				*e*S	Sn	05 30 44.5	+1.1
CO01				IAML		05 30 48.7	
	comp=N,16µm,0.4s						
CO01	Juntas del Tor	2.29	149	Pn	Pn	05 30 15.9	+0.8
CO01	Juntas del Tor	2.29	149	P	Pb	05 30 17.6	-1.0
AC02	Maricunga	2.36	61	*e*P	Pn	05 30 18.6	+2.3
AC02				*e*S	Sn	05 30 44.5	-1.0
AC02				*e*S	Sb	05 30 46.0	-3.3
AC02				*e*S		05 30 51.2	
AC02				IAML		05 30 51.7	
	comp=Z,30µm,0.9s						
AC02	Maricunga	2.36	61	*e*P	Pn	05 30 18.1	+1.9
AC02				*e*S	Sb	05 30 48.6	-0.6
AC02				IAML		05 30 53.0	
	comp=E,42µm,0.6s						
AC02	Maricunga	2.36	61		Pn	05 30 15.6	-0.7
AC02	Maricunga	2.36	61	P	Pn	05 30 18.6	+2.3
CO06	Fray Jorge	2.66	184	*e*P	Pn	05 30 19.4	-0.6
CO06	Fray Jorge	2.66	184		Pn	05 30 21.0	+1.0
AROD	Rodeo	2.75	142	*e*P	Pb	05 30 25.1	-1.4
AROD				*e*S	Sb	05 31 03.0	+2.5
CO03	El Pedregal	2.90	167	*e*P	Pn	05 30 24.6	+1.3
CO03				*e*P	Pb	05 30 25.5	-3.3
CO03				*e*S	Sb	05 31 04.0	-0.3
CO03				IAML		05 31 12.4	
	comp=Z,13µm,0.6s						
CO03	El Pedregal	2.90	167	*e*P	Pn	05 30 24.2	+0.9
CO03				*e*S	Sn	05 30 59.0	+0.7
CO03				IAML		05 31 13.8	
	comp=E,19µm,0.6s						
CO03	El Pedregal	2.90	167	Pn	Pn	05 30 24.1	+0.8
CO03	El Pedregal	2.90	167	P	Pb	05 30 26.4	-2.4
VCA	Vinchina	2.94	105	*e*P	Pn	05 30 25.5	+1.6
VCA				*e*S	Sb	05 31 06.5	+0.9
VCA				IAML		05 31 19.0	
	comp=Z,14µm,0.4s						
VCA	Vinchina	2.94	105⇑	*e*P	Pb	05 30 28.5	-1.1
ACDV	Cuesta del Vie	2.96	137	*e*P	Pb	05 30 28.6	-1.4
ACDV				*e*S	Sb	05 31 07.0	+0.8
ACDV				IAML		05 31 13.0	
	comp=Z,6µm,0.4s						
CO02	Combarbal	3.21	173	*e*P	Pn	05 30 28.3	+0.6
CO02				*e*S	Sb	05 31 12.6	-0.8
CO02				IAML		05 31 22.0	
	comp=Z,22µm,1.4s						
CO02	Combarbal	3.21	173⇓	*e*P	Pn	05 30 28.0	+0.4
CO02	Combarbal	3.21	173	Pn	Pn	05 30 28.1	+0.4
CO02	Combarbal	3.21	173	P	Pb	05 30 32.3	-1.9
ACCO	Cerro Coronel	3.30	142	*e*P	Pb	05 30 33.4	-2.6
ACCO				*e*S	Sb	05 31 14.0	-2.2
ACCO				IAML		05 31 24.8	
	comp=Z,8µm,0.4s						
TINO	Tinogasta	3.42	92	*e*P	Pn	05 30 33.5	+3.0
TINO				*e*S	Sg	05 31 25.6	-1.3
TINO				IAML		05 31 25.9	
	comp=Z,5µm,0.6s						
PB14	IPOC Station P	3.49	16	*e*P	Pn	05 30 25.5	-6.2
PB14				*e*P	Pb	05 30 31.3	-7.9
PB14				*e*S	Sn	05 31 12.9	-0.3
PB14				*e*S	Sb	05 31 25.5	+3.8
PB14				IAML		05 31 32.2	
	comp=Z,5µm,1.4s						
PB14	IPOC Station P	3.49	16⇑	*e*P	Pn	05 30 30.6	-1.1
PB14	IPOC Station P	3.49	16	Pn	Pn	05 30 30.8	-0.9
PB14	IPOC Station P	3.49	16	P	Pn	05 30 30.8	-0.9
CO04	Los Peladeros	4.04	174	Pn	Pn	05 30 40.5	+1.2
CO04	Los Peladeros	4.04	174	P	Pb	05 30 44.1	-4.4
ACLC	CERRO LA CRUZ	4.18	111	*e*P	Pn	05 30 44.2	+3.1
ACLC				*e*S	Sb	05 31 37.2	-4.3
ACLC				IAML		05 31 43.4	
	comp=Z,3µm,0.5s						
RTLL	Cerro Villicun	4.19	143	*e*P	Pn	05 30 44.5	+3.4
RTLL				*e*S	Sb	05 31 38.7	-3.0
RTLL				IAML		05 31 51.1	
	comp=Z,7µm,0.5s						
RTLS	Leoncito	4.21	154	*e*P	Pn	05 30 46.0	+4.5
RTLS				*e*S	Sn	05 31 35.0	+4.1
ZON	Zonda	4.26	146	*e*P	Pn	05 30 45.8	+3.7
ZON				*e*S	Sn	05 31 37.5	+5.6
ZON				IAML		05 32 00.6	
	comp=Z,2µm,0.6s						
ZON	Zonda	4.26	146	P	Pn	05 30 42.4	+0.3
ZON	Zonda	4.26	146	Pn	Pn	05 30 42.4	+0.3
SJA	San Juan	4.31	145	*e*S	Sb	05 31 41.0	-3.9
SJA				IAML		05 32 08.2	
	comp=Z,2µm,0.6s						
CFA	Coronel Fontan	4.54	143	Pn	Pn	05 30 49.0	+3.2
	comp=Z,139nm,0.3s,baz=309,slow=15,SNR=21						
CFA				Sn	Sn	05 31 41.1	+2.5
	comp=Z,162nm,0.3s,baz=251,slow=23,SNR=4.3						
CFA				Lg	Lg	05 31 49.1	
	comp=Z,391nm,0.3s,baz=238,slow=23,SNR=10						
VA03	San Esteban	4.80	171	Pn	Pn	05 30 50.8	+1.3
CYA	Choya	4.99	96⇑	*e*P	Pn	05 30 54.0	+2.0
VA01	Torpederas	5.00	182	Pn	Pn	05 30 52.0	-0.2
PEL	Peldehue	5.16	173	P	Pn	05 30 55.3	+0.9
PEL	Peldehue	5.16	173	Pn	Pn	05 30 55.3	+0.9
PEL	Peldehue	5.16	173	P	Pn	05 30 59.9	+5.5
	comp=Z,1µm,1.2s						
PB05	IPOC Station P	5.25	13	Pn	Pn	05 30 53.7	-2.0
TCA	Tanti	6.81	121	*e*P	Pn	05 31 17.8	+0.6
H03N1	Juan Fernandez	8.41	228	T	T	05 40 01.7	
	baz=206,slow=74,SNR=107						
H03N2	Juan Fernandez	8.42	228	T	T	05 40 16.9	
	baz=55,slow=74,SNR=82						
H03S3	Juan Fernandez	8.65	226	Pn	Pn	05 31 40.6	-1.5
	baz=27,slow=20						
H03S3				Sn	Sn	05 33 11.5	-8.0
	baz=48,slow=72						
H03S1	Juan Fernandez	8.66	226	Pn	Pn	05 31 39.8	-2.3
	baz=27,slow=20						
H03S1				Sn	Sn	05 33 09.1	-11
	baz=48,slow=72						
H03S2	Juan Fernandez	8.67	226	Pn	Pn	05 31 41.5	-0.8
	baz=27,slow=20						
H03S2				Sn	Sn	05 33 11.0	-8.9
	baz=48,slow=72						
LPAZ	La Paz	12.06	15	Pn	Pn	05 32 28.3	-1.3
	comp=Z,2.6nm,0.3s,baz=211,slow=5.4,SNR=16						
	comp=Z,10nm,0.4s						
LPAZ				AML	AML		
LPAZ	La Paz	12.06	15	P	Pn	05 32 28.5	-1.1
LPAZ	La Paz	12.06	15		Pn	05 32 28.5	-1.1
LPAZ	La Paz	12.06	15	*e*P	Pn	05 32 28.1	-1.4
LPAZ	La Paz	12.06	15	P	Pn	05 32 28.3	-1.3
	comp=Z,42nm,0.6s						
PSAL	Palomas, Salto	12.42	108	*e*P	Pn	05 32 33.3	-0.7
CPUP	Villa Florida	12.67	86	Pn	Pn	05 32 39.3	+2.0
	comp=Z,3.1nm,0.3s,baz=251,slow=12,SNR=8.1						
CPUP				LR	LR	05 37 55.3	
	comp=Z,12µm,18.1s,baz=254,slow=40						
CPUP	Villa Florida	12.67	86	P	Pn	05 32 35.5	-1.8
CPUP	Villa Florida	12.67	86	Pn	Pn	05 32 35.5	-1.8
CPUP	Villa Florida	12.67	86	*e*P	Pn	05 32 35.6	-1.8
CPUP	Villa Florida	12.67	86	P	Pn	05 32 39.6	+2.3
	comp=Z,69nm,0.8s						
PLCA	Paso Flores	12.71	177	Pn	Pn	05 32 38.7	+0.7
	comp=Z,0.4nm,0.3s,baz=350,slow=8.6,SNR=4.0						
PLCA				Lg	Lg	05 36 05.2	
	comp=Z,0.8nm,0.3s,baz=39,slow=16,SNR=2.9						
PLCA				LR	LR	05 37 19.8	
	comp=Z,7µm,18.4s,baz=9.5,slow=36						
	comp=Z,3.7nm,0.6s						
PLCA				AML	AML		
PLCA	Paso Flores	12.71	177	*e*P	Pn	05 32 38.6	+0.7
ANCO	Parque Anchore	13.11	122	*e*P	Pn	05 32 43.0	-0.4
LL03	Petrohue	13.12	183	Pn	Pn	05 32 43.8	+0.3
LL05	Los Muermos	13.47	187	Pn	Pn	05 32 48.4	+0.2
MURT	Porto Murtinho	14.05	66	*e*P	Pn	05 32 55.5	-0.7
SJPY	San Joaquin	14.05	81	*e*P	Pn	05 32 54.4	-1.8
COIM	Forte Coimbra	14.84	60	*e*P	Pn	05 33 04.3	-2.7
LL02	Futaleuf	15.15	181	Pn	Pn	05 33 12.4	+1.3
GO07	Milladeo Hill,	15.18	186		Pn	05 33 11.2	-0.3
GO07				IAmb	IAmb	05 33 20.1	
	comp=Z,86nm,0.5s						
GO07	Milladeo Hill,	15.18	186	P	P	05 33 14.8	-1.8
	comp=Z,111nm,0.6s						
SIV	San Ignacio	15.33	41	Pn	Pn	05 33 06.6	-7.0
	comp=Z,0.9nm,0.3s,baz=242,slow=8.2,SNR=26						
BDQN	Bodoquena, MS	15.36	64	*e*P	Pn	05 33 13.6	-0.3
CPSB	Cacapava Do Su	15.89	103	Pn	Pn	05 33 18.6	-2.3
CPSB	Cacapava Do Su	15.89	103	*e*P	Pn	05 33 18.4	-2.5
CPSB	Cacapava Do Su	15.89	103	P	Pn	05 33 21.2	+0.3
	comp=Z,114nm,1.1s						
AQDB	Aquidauana	16.18	66		Pn	05 33 24.1	-0.5
AQDB	Aquidauana	16.18	66	*e*P	Pn	05 33 23.3	-1.3
AQDB	Aquidauana	16.18	66	P	Pn	05 33 26.1	+1.5
	comp=Z,52nm,1.0s						
NNA	Nana	16.72	341	Pn	P	05 33 33.7	-0.1
	comp=Z,0.8nm,0.3s,baz=181,slow=8.5,SNR=5.1						
NNA				LR	LR	05 38 56.5	
	comp=Z,4µm,19.7s,baz=212,slow=33						
NNA	Nana	16.72	341	P	Pn	05 33 31.6	0.0
NNA				pmax	pmax		
	comp=Z,49nm,1.3s						
NNA	Nana	16.72	341	Pn	Pn	05 33 31.6	0.0
PTLB	Pontes e Lacer	16.91	45		Pn	05 33 33.1	-0.8
PTLB	Pontes e Lacer	16.91	45	*e*P	Pn	05 33 32.6	-1.4
COYC	Coyhaique	17.54	182		P	05 33 43.1	+0.5
COYC	Coyhaique	17.54	182	P	P	05 33 43.7	+1.0
	comp=Z,66nm,1.0s						
PTGB	Pitanga	17.66	84	*e*P	Pn	05 33 42.3	-1.0
TRCB	Terra Rica	17.75	77		Pn	05 33 44.3	-0.2
TRCB	Terra Rica	17.75	77	*e*P	Pn	05 33 42.3	-2.2
TRCB	Terra Rica	17.75	77	P	P	05 33 45.8	+0.5
	comp=Z,343nm,1.1s						
VILB	Vilhena	18.29	37	P	Pn	05 33 50.7	-0.3
VILB	Vilhena	18.29	37	*e*P	Pn	05 33 48.8	-2.2
PP1B	Ponte de Pedra	18.42	59	*e*P	P	05 33 49.9	-2.8
LDASE	Londrina, Braz	18.87	80	*e*P	P	05 33 56.4	-1.2
SALV	Santo Antonio	18.90	54	*e*P	P	05 33 55.5	-2.4
C2SB	Chapadao do Su	19.37	66	*e*P	P	05 34 02.0	-1.0
C2SB	Chapadao do Su	19.37	66	P	Pn	05 34 04.3	+0.2
	comp=Z,366nm,1.2s						
CZSB	Cruzeiro do Su	20.20	356		Pn	05 34 13.6	-0.5
CZSB				IAmb	IAmb	05 34 16.3	
	comp=Z,228nm,1.1s						
CZSB	Cruzeiro do Su	20.20	356	P	Pn	05 34 13.4	-0.7
	comp=Z,147nm,0.9s						
CZSB	Cruzeiro do Su	20.20	356	*e*P	Pn	05 34 13.9	-0.1
FRTB	Fartura	20.24	82	*e*P	P	05 34 12.3	-0.3
FRTB	Fartura	20.24	82	P	P	05 34 12.6	0.0
	comp=Z,503nm,1.1s						
GO08	Villa O’Higgin	20.44	182		Pn	05 34 15.9	-0.7
GO08	Villa O’Higgin	20.44	182	P	Pn	05 34 17.3	+0.7
	comp=Z,73nm,1.0s						
ATAH	Atahualpa	21.78	341	P	P	05 34 31.8	+2.2
	comp=Z,6.8nm,0.7s,baz=345,slow=10,SNR=6.3						
	comp=Z,6.8nm,0.7s						
ARAG	Araguaiana, MT	21.90	60	*e*P	P	05 34 28.8	-1.7
BB19B	Bebedouro	21.93	77	*e*P	P	05 34 29.6	-1.3
PET01	Itanhaem-SP	21.99	86	*e*P	P	05 34 27.8	-3.6
SPB	Sao Paulo	22.04	84	P	P	05 34 30.8	-1.0
SPB				IAmb	IAmb	05 34 34.8	
	comp=Z,239nm,1.5s						
SPB	Sao Paulo	22.04	84	*e*P	P	05 34 30.9	-1.0
SPB	Sao Paulo	22.04	84	P	P	05 34 30.9	-1.0
	comp=Z,106nm,2.0s						
RCLB	Rio Claro- Sao	22.31	81	*e*P	P	05 34 32.9	-2.1
CLDB	Colider	22.49	44	*e*P	P	05 34 34.9	-1.9
CLDB	Colider	22.49	44	P	P	05 34 35.2	-1.7
	comp=Z,157nm,1.4s						
VAO	Valinhos	22.62	83		P	05 34 37.0	-1.2
VAO	Valinhos	22.62	83	*e*P	P	05 34 36.7	-1.6
IPMB	Ipameri, GO	23.55	70	*e*P	P	05 34 44.6	-3.2
CANS	Sao Roque de M	24.08	77	*e*P	P	05 34 50.7	-2.2
SNDB	Serra Nova Dou	24.69	54	*e*P	P	05 34 56.4	-2.0
PMNB	Patos De Minas	24.78	73	*e*P	P	05 34 57.7	-1.6
PMNB	Patos De Minas	24.78	73	P	P	05 34 58.1	-1.2
	comp=Z,126nm,1.3s						
MG02	Cerro Sombrero	24.80	177	P	P	05 35 00.3	+1.3
BDFB	Brasilia	24.93	65	P	P	05 34 59.5	-1.3
	comp=Z,37nm,0.7s,baz=230,slow=11,SNR=24						
	comp=Z,37nm,0.7s						
BDFB	Brasilia	24.93	65		P	05 34 59.4	-1.3
BDFB				IAmb	IAmb	05 35 01.1	
	comp=Z,63nm,0.9s						
GO10	Punta Arenas	25.12	179	P	P	05 35 03.1	+1.1
BSCB	Bom Sucesso	25.21	80	*e*P	P	05 35 02.3	-0.9
BSCB	Bom Sucesso	25.21	80	P	P	05 35 03.2	+0.1
	comp=Z,76nm,1.7s						
TEFE	Tefe	25.21	16	*e*P	P	05 35 03.3	+0.3
EFI	East Falkland	25.69	161⇑	*e*P	P	05 35 07.4	+0.3
EFI				pmax	pmax		
	comp=Z,127nm,1.5s						
MACA	Manacapuru-AM	26.75	24		P	05 35 17.1	+0.1
MACA	Manacapuru-AM	26.75	24	*e*P	P	05 35 17.2	+0.1
USHA	Ushuaia	26.89	176	LR	LR	05 46 50.6	
	comp=Z,5µm,18.2s,baz=358,slow=38						
DIAM	Diamantina, MG	27.24	75	*e*P	P	05 35 20.7	-0.9
CAM01	Campos-RJ	27.66	84	*e*P	P	05 35 24.6	-0.6
MC01	Montes Claros	27.73	72	*e*P	P	05 35 24.6	-1.4
ITTB	Itaituba	27.86	35	*e*P	P	05 35 25.6	-1.4
PTLC	Puerto Leguiza	28.20	353	P	P	05 35 27.1	-3.0
	comp=Z,54nm,1.1s						
JANB	Januaria	28.25	69	*e*P	P	05 35 29.7	-0.9
OTAV	Otavalo	28.88	345	P	P	05 35 40.4	+3.8
OTAV	Otavalo	28.88	345	*e*P	P	05 35 37.0	+0.4
OTAV	Otavalo	28.88	345	P	P	05 35 40.6	+4.0
	comp=Z,17nm,1.5s						
ALF01	Guarapari-ES	28.88	82	*e*P	P	05 35 33.5	-2.6
SJMB	Sao Joao De Ma	29.21	78	*e*P	P	05 35 38.1	-0.9
SDBA	SAO DESIDERIO	29.24	63	*e*P	P	05 35 37.6	-1.8
ARCA	Ara§uai, MG	29.34	74	*e*P	P	05 35 36.5	-3.8
BSFB	Barra de Sao F	29.45	79	*e*P	P	05 35 39.9	-1.2
BSFB	Barra de Sao F	29.45	79	P	P	05 35 40.5	-0.6
	comp=Z,67nm,1.4s						
SMTB	Santa Maria do	29.46	54	*e*P	P	05 35 40.9	-0.4
RIB01	Linhares ES	29.65	80	*e*P	P	05 35 42.2	-0.7
BBAC	Balboa, Cauca	30.38	348	P	P	05 35 50.5	+0.9
	comp=Z,23nm,1.4s						
POPC	Popayan, Colom	30.79	350	P	P	05 35 54.0	+0.8
	comp=Z,15nm,2.3s						
GUA01	Guaratinga, BA	31.30	75	*e*P	P	05 35 56.8	-0.8
PRAC	Prado	31.71	353	P	P	05 36 02.6	+1.4
	comp=Z,61nm,1.3s						
ORTC	Ortega, Tolima	31.94	353	P	P	05 36 05.7	+2.5
	comp=Z,119nm,1.3s						
BOAV	Boa Vista	32.00	21		P	05 36 03.5	-0.1
BOAV	Boa Vista	32.00	21	*e*P	P	05 36 02.2	-1.5
VILC	Villavicencio,	32.01	356	P	P	05 36 03.0	-0.8
CMC01	Camacan, BA	32.11	74	*e*P	P	05 36 02.7	-2.0
NBIT	Itapeh - BA	32.39	73	*e*P	P	05 36 06.3	-0.8
ROSC	El Rosal	32.77	355	P	P	05 36 13.1	+2.2
	comp=Z,21nm,0.7s,baz=159,slow=8.2,SNR=12						
	comp=Z,21nm,0.7s						
ROSC	El Rosal	32.77	355	P	P	05 36 11.2	+0.4
ROSC				pmax	pmax		
	comp=Z,75nm,1.4s						
ROSC	El Rosal	32.77	355	P	P	05 36 11.2	+0.4
ROSC				IAmb	IAmb	05 36 17.6	
	comp=Z,75nm,1.4s						
RUSC	La Rusia	33.74	357	P	P	05 36 20.1	+0.7
	comp=Z,97nm,1.3s						
NBPN	Ponto Novo - B	33.90	66	*e*P	P	05 36 19.4	-0.9
CBOC	Ciudad Bolivar	33.96	352	P	P	05 36 22.1	+1.1
	comp=Z,37nm,1.0s						
UREC	San Jos de Ur	35.77	353	P	P	05 36 38.0	+1.6
	comp=Z,43nm,1.3s						
APAC	Apartado, Choc	36.04	351	P	P	05 36 41.2	+2.5
	comp=Z,51nm,1.1s						
NBTA	Tacaratu-PE	36.60	66	*e*P	P	05 36 42.9	-0.8
ESPZ	Base Esperanza	36.62	169	P	P	05 36 43.4	+0.3
SDV	Santo Domingo	36.68	1	P	P	05 36 44.6	+0.1
SDV	Santo Domingo	36.68	1	P	P	05 36 44.2	-0.2
	comp=Z,98nm,1.1s						
SDV	Santo Domingo	36.68	1	P	P	05 36 44.2	-0.2
	comp=Z,100nm,1.1s						
NBPS	Pedro II - PI	36.95	56	*e*P	P	05 36 45.3	-1.4
PMSA	Palmer Station	37.08	175	LR	LR	05 52 25.8	
	comp=Z,3µm,18.6s,baz=26,slow=37						
NBMA	Muriti-CE	37.09	63	*e*P	P	05 36 46.4	-1.4
PNME	Penonome	37.28	345	P	P	05 36 52.8	+3.5
ORCD	Orcadas	37.35	159		P	05 36 48.9	-0.5
SJCC	San Jacinto, C	37.85	354	P	P	05 36 54.4	+0.2
	comp=Z,98nm,1.1s						
BRU2	Volcan	38.17	342	P	P	05 37 00.9	+3.9
	comp=Z,26nm,1.1s						
LCR2	La Lucha 2	39.45	340	P	P	05 37 07.3	-0.5
JTS	Las Juntas de	40.26	339⇑	*e*P	P	05 37 17.3	+3.0
JTS				pmax	pmax		
	comp=Z,17nm,1.1s						
NBPV	Pedro Velho	40.41	65	*e*P	P	05 37 15.7	+0.1
GRGR	Grenville	41.01	15	P	P	05 37 19.6	-0.9
GRGR				IAmb	IAmb	05 37 20.7	
	comp=Z,71nm,0.7s						
BOAB	BOACO BROADBAN	42.52	339	P	P	05 37 33.1	+0.3
MPOM	Morne Pois Mar	43.43	15		P	05 37 39.0	-1.2
MPOM				IAmb	IAmb	05 37 39.8	
	comp=Z,87nm,1.0s						
MPOM	Morne Pois Mar	43.43	15	P	P	05 37 39.2	-1.0
	comp=Z,92nm,1.2s						
SIUN	Universidad Ur	43.44	341	P	P	05 37 41.5	+1.2
CXM	Morne La Croix	43.71	14	P	P	05 37 42.0	-0.6
CXM				IAmb	IAmb	05 37 56.6	
	comp=Z,45nm,0.9s						
SVN	Savane Anatole	43.74	14	P	P	05 37 42.1	-0.7
TGUH	Tegucigalpa,Un	44.54	338		P	05 37 49.2	-0.1
TGUH				IAmb	IAmb	05 38 13.7	
	comp=Z,29nm,1.0s						
TGUH	Tegucigalpa,Un	44.54	338	P	P	05 37 51.2	+1.9
	comp=Z,33nm,0.9s						
TDBA	Terre de Bas,	44.62	13	P	P	05 37 48.7	-1.0
TDBA				IAmb	IAmb	05 38 19.0	
	comp=Z,72nm,1.0s						
MTO3	Montecristo	45.59	335	P	P	05 37 58.6	+0.8
ESQI	Esquipulas	45.73	335	P	P	05 37 58.8	+0.1
ESQI				IAmb	IAmb	05 38 28.3	

	comp=Z,43nm,1.2s						
MLPR	Magueyes Islan	45.90	6	P	P	05 37 59.5	-0.4
CRPR	Cabo Rojo, PR	45.93	6	P	P	05 37 59.8	-0.3
CELP	Cerrillos	46.05	6	P	P	05 38 00.1	-0.9
PDPR	Patillas Dam,	46.05	7	IAmb	IAmb	05 38 00.9	
	comp=Z,44nm,0.8s						
SJG	San Juan	46.13	7	P	P	05 38 00.9	-0.8
SJG				pmax	pmax		
	comp=Z,47nm,1.0s						
SJG	San Juan	46.13	7	P	P	05 38 00.9	-0.8
SJG				IAmb	IAmb	05 38 01.6	
	comp=Z,47nm,0.9s						
SJG	San Juan	46.13	7	P	P	05 38 00.8	-0.8
SJG	San Juan	46.13	7	P	P	05 38 00.6	-1.1
	comp=Z,66nm,1.1s						
BANI	BANI	46.14	1	P	P	05 38 02.3	+0.4
PRSN	Puerto Rico Se	46.14	6	P	P	05 38 01.2	-0.6
AOPR	Arecibo Observ	46.30	6		P	05 38 02.8	-0.3
ECPR	Experimental S	46.31	7	P	P	05 38 02.3	-0.8
ECPR				IAmb	IAmb	05 38 02.9	
	comp=Z,36nm,0.8s						
MTDJ	Mount Denham	46.34	352	P	P	05 38 03.0	-0.5
MTDJ				IAmb	IAmb	05 38 12.5	
	comp=Z,64nm,1.2s						
PETF	Flores	48.09	336	IAmb	IAmb	05 38 19.5	
	comp=Z,15nm,0.7s						
TEIG	Tepich	50.64	339		P	05 38 36.9	+0.5
TEIG	Tepich	50.64	339	P	P	05 38 34.9	-1.6
	comp=Z,104nm,0.9s						
CAIB	Caibarien	50.80	350	P	P	05 38 38.5	+0.9
CAIB				IAmb	IAmb	05 38 39.8	
	comp=Z,42nm,1.1s						
SOR	Soroa	51.72	346	P	P	05 38 45.2	+0.6
SOR				pmax	pmax		
	comp=Z,144nm,2.0s						
SOR	Soroa	51.72	346	P	P	05 38 45.2	+0.6
BELA	Belgrano 2	52.68	171		P	05 38 51.6	+0.5
BELA				IAmb	IAmb	05 38 53.0	
	comp=Z,36nm,1.3s						
VNA3	Neumayer Olymp	54.74	160	⇑P	P	05 39 06.4	+0.2
	comp=Z,20nm,0.7s						
VNA3	Neumayer Olymp	54.74	160	P	P	05 39 06.3	0.0
	comp=Z,62nm,1.3s						
VNA1	Neumayer--Stat	55.01	159	⇑P	P	05 39 08.8	+0.6
	comp=Z,32nm,1.2s						
VNA2	Neumayer--Watz	55.36	159	⇑P	P	05 39 11.0	+0.2
	comp=Z,26nm,0.5s,baz=286,slow=7.7						
VNA2	Neumayer--Watz	55.36	159	P	P	05 39 11.0	+0.2
	comp=Z,66nm,1.2s						
SNAA	Sanae	56.96	159	⇑P	P	05 39 22.3	+0.1
	comp=Z,623nm,0.8s						
SNAA	Sanae	56.96	159	P	P	05 39 22.3	+0.1
	comp=Z,47nm,1.0s,baz=278,slow=6.5,SNR=55						
	comp=Z,47nm,1.0s						
SNAA	Sanae	56.96	159	P	P	05 39 22.5	+0.2
SNAA				pmax	pmax		
	comp=Z,101nm,1.2s						
SNAA	Sanae	56.96	159		P	05 39 22.5	+0.2
SNAA	Sanae	56.96	159	P	P	05 39 22.5	+0.2
	comp=Z,72nm,1.2s						
TROLL	Troll, Antarti	58.67	160	⇑P	P	05 39 34.6	+0.2
	comp=Z,2µm,0.9s						
ZAIG	Zacatecas	58.75	326		P	05 39 36.4	+0.7
ZAIG	Zacatecas	58.75	326	P	P	05 39 39.0	+3.4
	comp=Z,12nm,1.2s						
553A	Crawfordville	59.19	347	P	P	05 39 39.4	+1.2
RGRS	Roger Stewart	61.15	352	P	P	05 39 52.5	+0.9
154A	Montrose	61.30	349	P	P	05 39 52.8	+0.2
250A	Grady	61.30	346		P	05 39 53.0	+0.4
250A				IAmb	IAmb	05 39 53.5	
	comp=Z,34nm,1.1s						
NHSC	New Hope	61.34	352		P	05 39 53.6	+0.8
NVL	N'lazarevskaya	61.63	158	*e*P	P	05 39 50.1	-4.4
NVL				pmax	pmax		
	comp=Z,76nm,1.2s						
152A	Waverly Hall	61.65	347	IAmb	IAmb	05 39 56.2	
	comp=Z,28nm,1.0s						
833A	Chaparral WMA,	62.09	332	IAmb	IAmb	05 40 01.4	
	comp=Z,23nm,0.9s						
GOGA	Godfrey	62.14	349	P	P	05 39 58.4	+0.1
GOGA	Godfrey	62.14	349	IAmb	IAmb	05 39 59.0	
	comp=Z,13nm,0.8s						
GOGA	Godfrey	62.14	349	P	P	05 39 58.6	+0.3
	comp=Z,25nm,1.0s						
HKT	Hockley	62.17	336	⇑*i*P	P	05 40 00.4	+1.9
HKT				pmax	pmax		
	comp=Z,20nm,1.3s						
HKT	Hockley	62.17	336	P	P	05 39 59.3	+0.8
HKT	Hockley	62.17	336	P	P	05 40 00.6	+2.1
	comp=Z,15nm,1.1s						
QSPA	South Pole Qui	62.21	180	P	P	05 39 59.3	+0.6
	comp=Z,29nm,0.8s,baz=318,slow=0.9,SNR=35						
	comp=Z,29nm,0.8s						
QSPA	South Pole Qui	62.21	180	P	P	05 39 59.3	+0.6
Y57A	Sumter	62.27	352	P	P	05 39 59.6	+0.5
Y57A				IAmb	IAmb	05 40 00.9	
	comp=Z,35nm,0.9s						
LRAL	Lakeview Retre	62.48	345		P	05 40 00.8	+0.2
146A	Union	62.59	343	IAmb	IAmb	05 40 03.5	
	comp=Z,23nm,1.0s						
JSC	Jenkinsville	62.65	351	IAmb	IAmb	05 40 03.3	
	comp=Z,31nm,1.1s						
Y52A	Lilburn	62.69	348	P	P	05 40 02.2	+0.2
Y52A				IAmb	IAmb	05 40 02.8	
	comp=Z,20nm,0.8s						
Z47A	Carrollton	62.89	344	IAmb	IAmb	05 40 04.8	
	comp=Z,42nm,1.2s						
BIRD	Birdtown, Kers	62.90	352	P	P	05 40 03.8	+0.5
BIRD				IAmb	IAmb	05 40 04.5	
	comp=Z,18nm,0.8s						
HNDO	Hondo	63.11	333	IAmb	IAmb	05 40 19.1	
	comp=Z,33nm,0.9s						
Y49A	Blount Mountai	63.15	346	IAmb	IAmb	05 40 06.3	
	comp=Z,20nm,1.3s						
PAULI	Pauline	63.26	350	IAmb	IAmb	05 40 07.4	
	comp=Z,32nm,1.1s						
BG3	Lake Jocassee	63.60	349	P	P	05 40 08.3	+0.4
BG3				IAmb	IAmb	05 40 09.2	
	comp=Z,18nm,0.7s						
FPAL	Fort Paine	63.64	347		P	05 40 08.4	+0.1
FPAL				IAmb	IAmb	05 40 09.6	
	comp=Z,24nm,1.1s						
W52A	Murphy	63.86	349	IAmb	IAmb	05 40 11.4	
	comp=Z,33nm,1.0s						
V58A	Windy Hill, Pi	63.87	353	IAmb	IAmb	05 40 10.9	
	comp=Z,21nm,0.7s						
JCT	Junction City	64.16	333	P	P	05 40 13.7	+1.9
JCT	Junction City	64.16	333	IAmb	IAmb	05 40 14.7	
	comp=Z,21nm,0.8s						
V55A	Taylorsville	64.18	351	IAmb	IAmb	05 40 13.6	
	comp=Z,46nm,1.1s						
Z41A	Richland Creek	64.22	340	IAmb	IAmb	05 40 14.5	
	comp=Z,25nm,0.7s						
V53A	Saluda	64.24	350	IAmb	IAmb	05 40 13.8	
	comp=Z,36nm,1.2s						
CPCT	Cooper Cave	64.31	348		P	05 40 13.2	+0.6
TKL	Tuckaleechee C	64.39	349	P	P	05 40 13.3	+0.2
TKL				pmax	pmax		
	comp=Z,58nm,1.2s						
TKL	Tuckaleechee C	64.39	349		P	05 40 13.3	+0.2
CCAR	Cane Creek	64.53	341	P	P	05 40 15.7	+1.6
BRDY	Brady	64.55	334	IAmb	IAmb	05 40 16.5	
	comp=Z,17nm,0.8s						
U56A	King	64.56	352	IAmb	IAmb	05 40 15.8	
	comp=Z,25nm,0.8s						
TXAR	Lajitas Array	64.82	329	P	P	05 40 17.8	+1.5
	comp=Z,5.2nm,0.8s,baz=149,slow=8.6,SNR=36						
TXAR				PKP2bc	P'P'bc	06 09 06.2	+4.4
	comp=Z,0.4nm,0.9s,baz=327,slow=2.1,SNR=3.7						
	comp=Z,5.2nm,0.8s						
TXAR	Lajitas Array	64.82	329	P	P	05 40 18.2	+1.9
TXAR	Lajitas Array	64.82	329		P	05 40 18.2	+1.9
TX31	Lajitas Ar. Si	64.83	329		P	05 40 17.9	+1.6
T59A	Double "B" Far	64.89	355		P	05 40 16.4	+0.1
T59A				IAmb	IAmb	05 40 18.0	
	comp=Z,26nm,0.8s						
T59A				PcP	PcP	05 40 49.9	+0.4
Z38A	Mt. Pleasant	64.90	338	IAmb	IAmb	05 40 19.5	
	comp=Z,40nm,1.2s						
FW13	Cleburne	64.92	336	IAmb	IAmb	05 40 18.7	
	comp=Z,20nm,0.6s						
V48A	Smith Brothers	65.05	346	IAmb	IAmb	05 40 18.5	
	comp=Z,25nm,0.8s						
OZNA	Ozona	65.09	332	IAmb	IAmb	05 40 20.8	
	comp=Z,25nm,0.9s						
ELIB	Princess Elisa	65.11	160	*d*P	P	05 40 17.7	0.0
TZTN	Tazewell	65.21	349	IAmb	IAmb	05 40 19.9	
	comp=Z,60nm,1.6s						
TZTN	Tazewell	65.21	349	P	P	05 40 18.9	+0.3
	comp=Z,15nm,1.1s						
CLTN	Cedars of Leba	65.28	347	IAmb	IAmb	05 40 20.6	
	comp=Z,16nm,1.0s						
BLA	Blacksburg	65.42	352	IAmb	IAmb	05 40 21.3	
	comp=Z,17nm,1.0s						
U49A	Red Boiling Sp	65.58	347	IAmb	IAmb	05 40 21.8	
	comp=Z,19nm,0.8s						
WVT	Waverly	65.64	345	P	P	05 40 21.8	+0.5
WVT				pmax	pmax		
	comp=Z,29nm,0.8s						
WVT	Waverly	65.64	345	P	P	05 40 21.8	+0.5
WVT				IAmb	IAmb	05 40 22.5	
	comp=Z,29nm,0.8s						
WVT	Waverly	65.64	345	P	P	05 40 21.7	+0.4
	comp=Z,50nm,1.4s						
MIAR	Mount Ida	65.65	340	P	P	05 40 22.6	+1.2
MIAR				pmax	pmax		
	comp=Z,19nm,0.8s						
MIAR	Mount Ida	65.65	340		P	05 40 22.6	+1.2
MIAR				IAmb	IAmb	05 40 23.7	
	comp=Z,18nm,0.8s						
MIAR	Mount Ida	65.65	340	P	P	05 40 22.8	+1.4
	comp=Z,27nm,1.6s						
PLPT	Palo Pinto	65.66	335	IAmb	IAmb	05 40 23.6	
	comp=Z,16nm,0.7s						
ALPN	Alpine	65.70	330	IAmb	IAmb	05 40 32.5	
	comp=Z,24nm,1.3s						
S57A	Dark Hollow, R	65.80	353	IAmb	IAmb	05 40 23.8	
	comp=Z,21nm,0.7s						
SGCY	Sterling City	65.95	333	IAmb	IAmb	05 40 26.9	
	comp=Z,26nm,0.9s						
WHAR	Wooly Hollow	65.97	341		P	05 40 24.5	+1.1
WHAR				IAmb	IAmb	05 40 25.0	
	comp=Z,18nm,0.7s						
ABTX	Abilene, Hawle	65.99	334	IAmb	IAmb	05 40 43.0	
	comp=Z,39nm,1.1s						
TPB05	Hovey Rd	66.03	330	IAmb	IAmb	05 40 27.2	
	comp=Z,22nm,0.8s						
TMB01	Midkiff	66.14	332	IAmb	IAmb	05 40 27.6	
	comp=Z,16nm,0.9s						
TPB01	Permian Basin	66.25	330	IAmb	IAmb	05 40 28.8	
	comp=Z,24nm,0.9s						
229A	Bryant Ranch,	66.28	332	IAmb	IAmb	05 40 29.4	
	comp=Z,14nm,0.8s						
S51A	Beattyville	66.29	349	IAmb	IAmb	05 40 26.8	
	comp=Z,28nm,1.1s						
LCAR	Lake Charles	66.39	343		P	05 40 26.3	+0.2
R55A	Marlinton	66.44	353	IAmb	IAmb	05 40 28.2	
	comp=Z,17nm,0.8s						
FCAR	Ozark Folk Cen	66.48	342	P	P	05 40 27.5	+0.8
FCAR				IAmb	IAmb	05 40 28.7	
	comp=Z,34nm,1.4s						
WTFS	Witchita Falls	66.57	336	IAmb	IAmb	05 40 29.9	
	comp=Z,34nm,1.2s						
T45A	Paducah	66.67	345	P	P	05 40 28.7	+0.8
APMT	Aspermont	66.80	334	IAmb	IAmb	05 40 31.1	
	comp=Z,22nm,0.7s						
TPB13	Reeves - Culbe	66.80	330	IAmb	IAmb	05 40 47.9	
	comp=Z,17nm,0.8s						
SN07	Snyder 07	66.89	333	IAmb	IAmb	05 40 31.8	
	comp=Z,14nm,0.7s						
X34A	Smith Ranch, M	67.09	337	IAmb	IAmb	05 40 33.2	
	comp=Z,46nm,1.2s						
Q56A	Snyder Ridge,	67.09	353	IAmb	IAmb	05 40 32.6	
	comp=Z,20nm,1.0s						
128A	Castleberry Fa	67.13	332		P	05 40 32.2	+1.2
128A				IAmb	IAmb	05 40 35.4	
	comp=Z,15nm,1.0s						
TPB28		67.19	330	IAmb	IAmb	05 40 46.8	
	comp=Z,48nm,1.5s						
R49A	Shelbyville	67.19	348	IAmb	IAmb	05 40 31.7	
	comp=Z,14nm,0.8s						
Q54A	Coxs Mills	67.22	352	IAmb	IAmb	05 40 32.0	
	comp=Z,13nm,0.6s						
W35A	Tecumseh	67.26	338	IAmb	IAmb	05 40 45.1	
	comp=Z,62nm,1.7s						
T42A	Van Buren	67.28	343		P	05 40 32.3	+0.5
T42A				IAmb	IAmb	05 40 33.4	
	comp=Z,15nm,0.8s						
WCI	Wyandotte Cave	67.34	347	P	P	05 40 32.2	+0.1
WCI				pmax	pmax		
	comp=Z,25nm,0.8s						
WCI	Wyandotte Cave	67.34	347	P	P	05 40 32.2	+0.1
WCI				IAmb	IAmb	05 40 33.1	
	comp=Z,25nm,0.8s						
WCI	Wyandotte Cave	67.34	347	P	P	05 40 32.4	+0.2
	comp=Z,41nm,1.1s						
USIN	University of	67.37	346	P	P	05 40 32.8	+0.5
HHAR	Hobbs	67.37	340		P	05 40 32.8	+0.5
HHAR				IAmb	IAmb	05 40 34.0	
	comp=Z,23nm,0.9s						
Q52A	Bidwell	67.39	351	IAmb	IAmb	05 40 33.2	
	comp=Z,20nm,0.9s						
DKNS	Dickens	67.41	334	IAmb	IAmb	05 40 35.8	
	comp=Z,20nm,0.9s						
P57A	Homestead Farm	67.42	354	P	P	05 40 34.0	+1.4
P57A				IAmb	IAmb	05 40 34.9	
	comp=Z,28nm,0.8s						
FNO	Franklin	67.53	337	IAmb	IAmb	05 40 43.0	
	comp=Z,17nm,0.9s						
WMOK	Wichita Mounta	67.55	336	P	P	05 40 34.0	+0.4
WMOK				pmax	pmax		
	comp=Z,8.0nm,1.0s						
WMOK	Wichita Mounta	67.55	336	P	P	05 40 34.0	+0.4
WMOK	Wichita Mounta	67.55	336	P	P	05 40 34.6	+1.0
	comp=Z,7.1nm,1.3s						
RLO	Rose Lookout	67.59	339	P	P	05 40 34.6	+0.8
RLO				IAmb	IAmb	05 40 35.5	
	comp=Z,24nm,0.7s						
TUL3	Leonard	67.60	339	P	P	05 40 34.6	+0.8
MNTX	Cornudas Mount	67.61	329	P	P	05 40 35.0	+1.1
MNTX	Cornudas Mount	67.61	329	P	P	05 40 35.1	+1.1
	comp=Z,15nm,0.9s						
Q51A	Peebles	67.61	350	IAmb	IAmb	05 40 35.1	
	comp=Z,33nm,1.1s						
U38A	Gravette	67.65	340	IAmb	IAmb	05 40 35.6	
	comp=Z,13nm,0.8s						
DEOK	Depew	67.76	338	IAmb	IAmb	05 40 36.3	
	comp=Z,25nm,0.7s						
MCWV	Mont Chateau	67.77	353	IAmb	IAmb	05 40 36.3	
	comp=Z,22nm,0.9s						
P53A	Whipple	67.78	352	IAmb	IAmb	05 40 35.9	
	comp=Z,19nm,1.0s						
MVL	Millersville	67.81	356		P	05 40 36.1	+1.1
MVL				IAmb	IAmb	05 40 37.1	
	comp=Z,21nm,1.0s						
FVM	French Village	68.02	344	P	P	05 40 37.2	+0.8
FVM				pmax	pmax		
	comp=Z,61nm,0.9s						
FVM	French Village	68.02	344		P	05 40 37.2	+0.8
P52A	Corning	68.03	351	IAmb	IAmb	05 40 37.1	
	comp=Z,25nm,0.8s						
PAGS	Pennsylvania G	68.06	356	IAmb	IAmb	05 40 38.4	
	comp=Z,27nm,0.7s						
OLIL	Olney	68.20	346	IAmb	IAmb	05 40 38.1	
	comp=Z,28nm,1.0s						
CCM	Cathedral Cave	68.29	343	P	P	05 40 39.0	+0.9
CCM				pmax	pmax		
	comp=Z,77nm,1.2s						
CCM	Cathedral Cave	68.29	343	P	P	05 40 39.0	+0.9
CCM	Cathedral Cave	68.29	343	P	P	05 40 39.3	+1.2
	comp=Z,63nm,1.5s						
BLO	Bloomington	68.30	347	IAmb	IAmb	05 40 38.6	
	comp=Z,14nm,0.6s						
P48A	Milroy	68.38	348	IAmb	IAmb	05 40 38.9	
	comp=Z,18nm,1.0s						
MSTX	Muleshoe	68.42	332	IAmb	IAmb	05 40 41.6	
	comp=Z,34nm,1.0s						
SMWD	Samnorwood	68.42	335	IAmb	IAmb	05 40 41.6	
	comp=Z,42nm,1.2s						
O52A	Adamsville	68.46	351	IAmb	IAmb	05 40 39.9	
	comp=Z,20nm,0.7s						
OK051	E0350 and S346	68.48	338	P	P	05 40 39.6	+0.3
Q44A	Meyer Farm, Va	68.56	345	IAmb	IAmb	05 40 41.0	
	comp=Z,49nm,1.2s						
N58A	Sunbury	68.67	356		P	05 40 41.4	+1.0
N58A				IAmb	IAmb	05 40 42.4	
	comp=Z,26nm,1.0s						
ACSO	Alum Creek Sta	68.73	351		P	05 40 41.2	+0.4
T35A	Sooner Cattle	68.75	339	IAmb	IAmb	05 40 54.9	
	comp=Z,25nm,1.0s						
AMTX	Amarillo	68.78	334	IAmb	IAmb	05 40 50.7	
	comp=Z,16nm,0.9s						
ODNJ	Ogdensburg	68.80	357	IAmb	IAmb	05 40 43.2	
	comp=Z,18nm,1.0s						
BLOK	Blackwell	68.84	338	IAmb	IAmb	05 40 44.0	
	comp=Z,22nm,0.9s						
CROK	Carrier	68.86	337	IAmb	IAmb	05 40 55.5	
	comp=Z,34nm,1.2s						
O49A	Covington	68.90	349		P	05 40 42.0	+0.1
O49A				IAmb	IAmb	05 40 43.1	
	comp=Z,35nm,1.0s						
PAMR	Moraine State	69.07	353	IAmb	IAmb	05 40 44.3	
	comp=Z,19nm,0.7s						
O48B	Farmland	69.11	349	IAmb	IAmb	05 40 43.6	
	comp=Z,20nm,0.7s						
M57A	Sunshine Farm,	69.20	355	IAmb	IAmb	05 40 45.7	
	comp=Z,19nm,0.9s						
PH02	Texas Public H	69.33	334	IAmb	IAmb	05 40 59.2	
	comp=Z,54nm,1.5s						
KSPA	Keystone Colle	69.33	357	IAmb	IAmb	05 40 46.5	
	comp=Z,37nm,1.3s						
121A	Cookes Peak, D	69.42	328	IAmb	IAmb	05 40 56.0	
	comp=Z,37nm,1.5s						
NPNY	Mohonk Preserv	69.46	358	P	P	05 40 46.9	+1.6
PAOC	Oil Creek Stat	69.59	353	IAmb	IAmb	05 40 47.2	
	comp=Z,19nm,0.7s						
L64A	Middleborough	69.59	0	IAmb	IAmb	05 40 48.7	
	comp=Z,45nm,1.1s						
BINY	Binghamton	69.98	356		P	05 40 49.2	+0.7
BINY				IAmb	IAmb	05 40 51.1	
	comp=Z,17nm,0.9s						
BINY	Binghamton	69.98	356	P	P	05 40 50.1	+1.5
	comp=Z,28nm,2.2s						
WES	Weston	70.04	0	IAmb	IAmb	05 40 51.5	
	comp=Z,32nm,1.2s						
HRV	Adam Dziewonsk	70.16	360	P	P	05 40 50.9	+1.3
HRV				pmax	pmax		
	comp=Z,29nm,0.8s						
HRV	Adam Dziewonsk	70.16	360	P	P	05 40 50.9	+1.3
HRV				IAmb	IAmb	05 40 51.9	
	comp=Z,29nm,0.8s						
HRV	Adam Dziewonsk	70.16	360	P	P	05 40 51.6	+2.0
	comp=Z,56nm,1.4s						
HDIL	Hopedale	70.20	346		P	05 40 50.4	+0.5
K62A	Royalston	70.33	359	IAmb	IAmb	05 40 53.6	
	comp=Z,39nm,1.3s						
P38A	Dawn	70.37	342	IAmb	IAmb	05 40 52.9	
	comp=Z,20nm,0.8s						
LENM	Lemitar	70.40	329		P	05 40 52.0	+0.5
TUC	Tucson	70.70	325	P	P	05 40 54.2	+0.9
TUC				pmax	pmax		
	comp=Z,16nm,1.5s						
TUC	Tucson	70.70	325		P	05 40 54.2	+0.9
TUC	Tucson	70.70	325	P	P	05 40 55.6	+2.3
	comp=Z,8.4nm,0.5s						
UNH	University of	70.75	0	IAmb	IAmb	05 40 55.9	
	comp=Z,61nm,1.4s						
ALQ	Albuquerque	70.82	330		P	05 40 55.4	+1.3
ANMO	Albuquerque	70.83	330	⇑*i*P	P	05 40 56.0	+1.9
ANMO				pmax	pmax		
	comp=Z,12nm,1.4s						
ANMO	Albuquerque	70.83	330	P	P	05 40 53.8	-0.3
ANMO	Albuquerque	70.83	330	P	P	05 40 56.6	+2.5
	comp=Z,7.1nm,1.1s						
TASM	ASL Pad, Albuq	70.83	330	IAmb	IAmb	05 41 10.8	
	comp=Z,30nm,1.8s						
R32A	Long Quarter,	70.84	338	IAmb	IAmb	05 41 13.1	
	comp=Z,36nm,1.3s						
J61A	Chester	71.01	359	IAmb	IAmb	05 40 57.3	
	comp=Z,27nm,0.7s						
J59A	Piesco	71.18	358	IAmb	IAmb	05 40 57.6	
	comp=Z,17nm,0.7s						
J57A	Williamstown	71.19	356	IAmb	IAmb	05 40 57.3	
	comp=Z,24nm,0.8s						
SYO	Syowa Base	71.25	159	⇓*e*PKiKP	PKiKP	05 46 56.4	-6.7
HNH	Hanover	71.36	359	IAmb	IAmb	05 40 59.5	
	comp=Z,28nm,0.8s						
N38A	Joes South For	71.38	343	IAmb	IAmb	05 40 58.5	
	comp=Z,31nm,0.7s						
I62A	Tamworth	71.53	0	IAmb	IAmb	05 41 00.8	
	comp=Z,35nm,1.3s						
CBKS	Cedar Bluff	71.54	337	IAmb	IAmb	05 41 00.4	
	comp=Z,17nm,0.8s						
I63A	Otisfield	71.71	1	IAmb	IAmb	05 41 02.3	
	comp=Z,49nm,1.1s						
T25A	Trinidad	71.83	333	P	P	05 41 00.7	+0.6
T25A				IAmb	IAmb	05 41 15.4	
	comp=Z,43nm,1.4s						
CFNY	Clifton-Fine,	71.90	357		P	05 41 00.8	+0.7
CFNY				IAmb	IAmb	05 41 01.7	
	comp=Z,21nm,0.6s						
LBNH	Lisbon	71.90	360	IAmb	IAmb	05 41 02.4	
	comp=Z,30nm,1.1s						
J47A	Sunmer	71.96	350	IAmb	IAmb	05 41 01.2	
	comp=Z,38nm,0.8s						
L40A	Anamosa	72.08	345	P	P	05 41 01.4	+0.2
WVL	Waterville	72.24	1	P	P	05 41 03.2	+1.1
WVL				IAmb	IAmb	05 41 04.4	
	comp=Z,35nm,1.2s						
LONY	Lake Ozonia	72.33	358	IAmb	IAmb	05 41 04.5	
	comp=Z,17nm,0.8s						
FLET	Fletcher	72.39	359	P	P	05 41 04.5	+1.5
FLET				IAmb	IAmb	05 41 05.7	
	comp=Z,31nm,1.0s						
W18A	Petrified Fore	72.46	328	IAmb	IAmb	05 41 19.3	
	comp=Z,44nm,1.3s						
HAL	Halifax	72.65	6	P	P	05 41 05.8	+1.3
HAL				pmax	pmax		
	comp=Z,36nm,1.0s						
HAL	Halifax	72.65	6		P	05 41 05.8	+1.3
HAL				IAmb	IAmb	05 41 07.1	
	comp=Z,36nm,1.0s						
JFWS	Jewell Farm	72.67	346	P	P	05 41 05.8	+1.0
JFWS				pmax	pmax		
	comp=Z,22nm,0.8s						
JFWS	Jewell Farm	72.67	346	P	P	05 41 05.8	+1.0
JFWS				IAmb	IAmb	05 41 06.2	
	comp=Z,22nm,0.8s						
WBO	Williamsburg	72.74	357		P	05 41 06.0	+0.9
KSCO	Kaye Shedlock’	72.76	335	P	P	05 41 07.1	+1.5
KSCO				IAmb	IAmb	05 41 20.6	
	comp=Z,37nm,1.1s						
SDCO	Great Sand Dun	72.79	332		P	05 41 06.3	+0.3
DBIC	Dimbokro	72.83	73	P	P	05 41 06.3	-0.1
	comp=Z,44nm,0.5s,baz=236,slow=6.6,SNR=81						
	comp=Z,44nm,0.5s						
DBIC	Dimbokro	72.83	73		P	05 41 05.3	-1.1
DBIC	Dimbokro	72.83	73	P	P	05 41 06.2	-0.1
	comp=Z,94nm,1.0s						
G62A	West of Eustis	72.88	1	IAmb	IAmb	05 41 08.3	
	comp=Z,38nm,0.8s						
GGN	Saint George	72.89	3	IAmb	IAmb	05 41 08.8	
	comp=Z,48nm,1.3s						
G65A	Princeton	72.94	3	IAmb	IAmb	05 41 08.5	
	comp=Z,20nm,0.9s						
PKME	Peaks-Kenny Pk	72.95	2	P	P	05 41 07.8	+1.5
PKME				IAmb	IAmb	05 41 08.4	
	comp=Z,20nm,0.7s						
MNTQ	Montreal, Queb	73.18	358	IAmb	IAmb	05 41 10.2	
	comp=Z,40nm,1.2s						
ESJX	Sierra Juarez	73.19	322	P	P	05 41 09.4	+1.1
L34A	Svendsen Farm,	73.34	341	IAmb	IAmb	05 41 10.1	
	comp=Z,28nm,0.7s						
WUAZ	Wupatki	73.57	327	IAmb	IAmb	05 41 26.1	
	comp=Z,46nm,1.4s						
F64A	Sherman	73.57	2	IAmb	IAmb	05 41 12.6	
	comp=Z,71nm,1.4s						
MVCO	Mesa Verde	73.62	330		P	05 41 11.9	+1.1
MVCO	Mesa Verde	73.62	330	P	P	05 41 13.2	+2.4
	comp=Z,17nm,1.0s						
I40A	Norwalk	73.68	346	IAmb	IAmb	05 41 12.0	
	comp=Z,22nm,0.9s						
LMN	Caledonia Moun	73.75	5		P	05 41 12.0	+0.9
LMN				IAmb	IAmb	05 41 13.4	
	comp=Z,57nm,1.2s						
BLYC	Blythe	73.76	324	IAmb	IAmb	05 41 22.7	
	comp=Z,52nm,1.8s						
TRQ	Mont Tremblant	73.93	358	IAmb	IAmb	05 41 13.5	
	comp=Z,25nm,0.7s						
BC3	Big Chuckawall	74.18	323	IAmb	IAmb	05 41 29.4	
	comp=Z,55nm,1.6s						
I37A	Lemond, Waseca	74.44	344	IAmb	IAmb	05 41 17.2	
	comp=Z,43nm,1.2s						
PV02	Paradox Valley	74.55	330	IAmb	IAmb	05 41 35.9	
	comp=Z,33nm,1.3s						
PV15	Paradox Valley	74.55	331	IAmb	IAmb	05 41 26.8	
	comp=Z,30nm,1.4s						
ISCO	Idaho Springs	74.59	333	P	P	05 41 18.4	+1.9
ISCO	Idaho Springs	74.59	333	P	P	05 41 18.5	+1.9
	comp=Z,7.2nm,1.8s						

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PV18  Skein Mesa, Pa   74.66 330   IAmb    IAmb    05 43 48.7
      comp=Z,20nm,0.6s
PMD   Palm Desert      74.67 322           P       05 41 18.2 +1.5
PV12  Saucer Basin,    74.67 330   IAmb    IAmb    05 41 31.5
      comp=Z,32nm,1.1s
PFO   Pinyon Flats O   74.68 322⇑ePP       P       05 41 19.7 +2.7
PFO                                pmax    pmax
      comp=Z,21nm,1.1s
PFO   Pinyon Flats O   74.68 322           P       05 41 16.7  -0.3
BELC  Belle Mtn. Jos   74.73 323   P       P       05 41 17.9 +0.6
U15A  North Rim        74.74 327   IAmb    IAmb    05 41 33.2
      comp=Z,33nm,1.3s
D62A  Allapoint, All   74.77   2           P       05 41 17.5 +0.5
D62A                               IAmb    IAmb    05 41 19.0
      comp=Z,29nm,0.9s
PV10  Paradox Valley   74.83 330   IAmb    IAmb    05 41 32.4
      comp=Z,78nm,1.7s
K30B  Basset           74.97 339   IAmb    IAmb    05 41 21.1
      comp=Z,55nm,1.1s
ECSD  EROS Data Cent   75.03 341   IAmb    IAmb    05 41 20.3
      comp=Z,23nm,0.8s
ECSD  EROS Data Cent   75.03 341   P       P       05 41 19.9 +1.3
      comp=Z,44nm,1.1s
BATG  Bathurst New B   75.09   4   IAmb    IAmb    05 41 20.8
      comp=Z,20nm,0.9s
HMU   Henry Mountain   75.23 329   IAmb    IAmb    05 41 39.7
      comp=Z,24nm,1.1s
LDAQ  Lac Daran        75.62   0           P       05 41 21.8  -0.2
LDAQ                               IAmb    IAmb    05 41 24.2
      comp=Z,42nm,1.3s
LCMT  Little Creek M   75.67 327   P       P       05 41 23.5 +0.9
BFSC  Mount Baldy Ra   75.81 322   IAmb    IAmb    05 41 39.0
      comp=Z,31nm,1.5s
O20A  White River Ci   75.95 332   IAmb    IAmb    05 41 39.5
      comp=Z,28nm,1.0s
MWC   Mount Wilson     76.02 322   IAmb    IAmb    05 41 40.2
      comp=Z,63nm,1.9s
Q16A  Castle Valley    76.22 329   IAmb    IAmb    05 41 41.3
      comp=Z,30nm,1.3s
ACRG  Accra            76.26  76   P       P       05 41 24.8  -1.5
ACRG  Accra            76.26  76   P       P       05 41 25.6  -0.7
      comp=Z,60nm,1.2s
P18A  Preston Nutter   76.39 330   IAmb    IAmb    05 41 42.2
      comp=Z,32nm,1.1s
P17A  Butcher Ranch,   76.48 330   IAmb    IAmb    05 41 42.3
      comp=Z,25nm,1.1s
TMUT  Trail Mountain   76.55 329   P       P       05 41 28.0 +0.2
TCRU  Three Creeks R   76.56 328   IAmb    IAmb    05 41 41.8
      comp=Z,31nm,1.5s
CCCA  Chr Cany lake    76.62 323   P       P       05 41 27.5  -0.4
CCCA                               IAmb    IAmb    05 41 47.8
      comp=Z,20nm,1.0s
QSM   Queen of Sheba   76.69 324   IAmb    IAmb    05 41 44.3
      comp=Z,51nm,1.8s
LRMC  Laurel Mtn Rad   76.75 323   IAmb    IAmb    05 41 28.2
      comp=Z,18nm,0.8s
PRN   Pahroc Range     76.87 326   IAmb    IAmb    05 41 45.3
      comp=Z,30nm,1.1s
FURC  Furnace Creek,   77.07 324   IAmb    IAmb    05 41 41.7
      comp=Z,34nm,1.5s
ICQ   Pointe Anglais   77.27   3           P       05 41 31.3 +0.2
ICQ                                IAmb    IAmb    05 41 32.9
      comp=Z,27nm,0.8s
SUR   Sutherland       77.31 120   P       P       05 41 33.3 +1.0
BSUT  Blindstream Ca   77.36 330           P       05 41 33.4 +1.0
BSUT                               IAmb    IAmb    05 41 47.8
      comp=Z,43nm,1.3s
K22A  Casper           77.38 334   IAmb    IAmb    05 41 47.3
      comp=Z,38nm,1.2s
NLU   North Lily Min   77.47 329   IAmb    IAmb    05 41 48.2
      comp=Z,33nm,1.4s
GRAC  Grapevine Rang   77.73 324   P       P       05 41 33.9  -0.3
GRAC                               IAmb    IAmb    05 41 48.4
      comp=Z,56nm,1.9s
RSSD  Black Hills      77.74 337   P       P       05 41 34.2  -0.1
RSSD                               pmax    pmax
      comp=Z,9.0nm,0.9s
RSSD  Black Hills      77.74 337   P       P       05 41 34.2  -0.1
RSSD  Black Hills      77.74 337   P       P       05 41 36.1 +1.9
      comp=Z,13nm,2.6s
VES   Vestal, Richgr   77.78 322   P       P       05 41 35.2 +0.8
DRLN  Deer Lake        77.91   9           P       05 41 34.8   0.0
CTU   Camp Tracy       77.92 330   P       P       05 41 35.8 +0.5
DUG   Dugway, Tooele   78.00 329   P       P       05 41 36.4 +0.7
DUG                                pmax    pmax
      comp=Z,59nm,1.6s
DUG   Dugway, Tooele   78.00 329           P       05 41 36.4 +0.7
DUG                                IAmb    IAmb    05 41 50.3
      comp=Z,58nm,1.6s
DUG   Dugway, Tooele   78.00 329   P       P       05 41 38.2 +2.5
      comp=Z,17nm,1.0s
TCUT  Toone Canyon     78.12 330   P       P       05 41 37.1 +0.6
WIN   Windhoek         78.51 109   P       P       05 41 37.6  -1.5
WIN                                pmax    pmax
      comp=Z,90nm,1.5s
WIN   Windhoek         78.51 109           P       05 41 37.6  -1.5
WIN   Windhoek         78.51 109   P       P       05 41 39.5 +0.4
      comp=Z,38nm,1.3s
HWUT  Hardware Ranch   78.58 330           P       05 41 39.7 +0.7
HWUT                               IAmb    IAmb    05 41 53.6
      comp=Z,27nm,1.0s
HWUT  Hardware Ranch   78.58 330   P       P       05 41 40.8 +1.9
      comp=Z,34nm,0.9s
BGU   Big Grassy Mou   78.68 329   P       P       05 41 39.8 +0.3
BGU                                IAmb    IAmb    05 41 55.0
      comp=Z,33nm,1.4s
BW06  Boulder Array    78.69 332   P       P       05 41 40.6 +1.0
PD31  Pinedale Array   78.69 332   P       P       05 41 40.2 +0.7
PDAR  Pinedale Array   78.69 332   P       P       05 41 41.0 +1.4
      comp=Z,3.7nm,0.7s,baz=134,slow=7.8,SNR=24
      comp=Z,3.7nm,0.7s
PDAR  Pinedale Array   78.69 332           P       05 41 40.1 +0.5
MAW   Mawson           78.77 164   P       P       05 41 40.3 +0.8
      comp=Z,5.3nm,1.3s
MAW   Mawson           78.77 164   P       P       05 41 40.0 +0.5
      comp=Z,15nm,1.0s,baz=223,slow=6.9,SNR=16
      comp=Z,15nm,1.0s
MAW   Mawson           78.77 164   P       P       05 41 39.9 +0.5
MAW                                pmax    pmax
      comp=Z,8.0nm,1.3s
MAW   Mawson           78.77 164           P       05 41 39.9 +0.5
MAW   Mawson           78.77 164   P       P       05 41 40.1 +0.7
      comp=Z,5.3nm,1.3s
E28A  Huff             78.82 340   IAmb    IAmb    05 41 42.1
      comp=Z,26nm,0.9s
AGMN  Agassiz Nation   79.06 344   P       P       05 41 42.2 +1.1
      comp=Z,25nm,1.3s
NV11  Mina Array Sit   79.23 324   P       P       05 41 42.5   0.0
LHV   Little Huntoon   79.27 324   IAmb    IAmb    05 41 57.4
      comp=Z,55nm,1.7s
NVAR  Mina Array Bea   79.30 324   P       P       05 41 45.1 +2.1
      comp=Z,3.2nm,0.8s,baz=154,slow=6.7,SNR=23
      comp=Z,3.2nm,0.8s
NVAR  Mina Array Bea   79.30 324   P       P       05 41 43.5 +0.4
AHID  Auburn Hatcher   79.33 331   IAmb    IAmb    05 41 57.8
      comp=Z,44nm,1.4s
AHID  Auburn Hatcher   79.33 331   P       P       05 41 44.9 +1.8
      comp=Z,21nm,1.1s
BBGB  Big Mountain B   79.39 321   IAmb    IAmb    05 42 07.2
      comp=Z,34nm,0.9s
RYN   Ryan             79.57 324   IAmb    IAmb    05 42 11.4
      comp=Z,49nm,0.9s
SNOW  Snow King Moun   79.75 332   IAmb    IAmb    05 42 04.2
      comp=Z,39nm,1.5s
TSUM  Tsumeb           80.38 107           P       05 41 48.8  -0.5
TSUM                               IAmb    IAmb    05 41 50.2
      comp=Z,20nm,0.8s
TSUM  Tsumeb           80.38 107   P       P       05 41 49.7 +0.4
      comp=Z,35nm,1.3s
TSUM  Tsumeb           80.38 107   P       P       05 41 49.8 +0.4
RLMT  Red Lodge        80.53 334   IAmb    IAmb    05 42 04.5
      comp=Z,48nm,1.5s
LAO   LASA Array       80.73 337   IAmb    IAmb    05 41 53.2
      comp=Z,35nm,1.2s
PAHR  Pah Rah Range    80.82 325   IAmb    IAmb    05 42 06.5
      comp=Z,30nm,1.3s
YMR   Madison River    80.83 333   IAmb    IAmb    05 41 54.9
      comp=Z,33nm,1.0s
ULM   Lac du Bonnet    80.87 344   P       P       05 41 51.5 +0.6
      comp=Z,19nm,0.8s,baz=154,slow=5.0,SNR=14
      comp=Z,19nm,0.8s
ULM   Lac du Bonnet    80.87 344   IAmb    IAmb    05 41 52.7
      comp=Z,29nm,1.0s
KOOLE Kule             80.89 111   IAmb    IAmb    05 41 52.5
      comp=Z,38nm,0.9s
YHL   Hebgen Lake      81.07 333   IAmb    IAmb    05 42 08.0
      comp=Z,59nm,1.6s
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LKGWB Lokgwabe         81.23 113           P       05 41 55.5 +1.7
HLID  Hailey           81.41 330   IAmb    IAmb    05 42 12.7
      comp=Z,22nm,1.1s
HLID  Hailey           81.41 330   P       P       05 41 56.6 +2.5
      comp=Z,21nm,1.6s
BEKR  Beckworth        81.44 324           P       05 41 55.5 +1.1
BCYI  Bear Canyon      81.56 331   IAmb    IAmb    05 42 10.3
      comp=Z,36nm,1.5s
TORD  Torodi Ar. Bea   81.70  70   P       P       05 41 55.9  -0.3
      comp=Z,23nm,0.6s,baz=252,slow=4.5,SNR=55
      comp=Z,23nm,0.6s
TORD  Torodi Ar. Bea   81.70  70   P       P       05 41 55.6  -0.5
ORV   Oroville         81.81 323   IAmb    IAmb    05 42 11.4
      comp=Z,44nm,1.4s
BOZ   Bozeman (W)      81.86 333   P       P       05 41 58.4 +1.9
DLMT  Dillon           82.07 332   IAmb    IAmb    05 42 12.5
      comp=Z,30nm,1.3s
BOSA  Boshof           82.42 118   P       P       05 41 59.6  -0.3
      comp=Z,22nm,0.5s,baz=253,slow=3.4,SNR=88
      comp=Z,22nm,0.5s
BOSA  Boshof           82.42 118   P       P       05 41 59.8  -0.3
      comp=Z,55nm,1.0s
BOSA  Boshof           82.42 118   P       P       05 41 59.9  -0.1
GRTLG Ghanzi           82.47 110   IAmb    IAmb    05 42 00.8
      comp=Z,27nm,0.9s
GRTLG Ghanzi           82.47 110   P       P       05 42 00.5 +0.1
WVOR  Wild Horse Val   82.49 327   P       P       05 42 01.2 +1.4
WVOR  Wild Horse Val   82.49 327   P       P       05 42 01.4 +1.6
      comp=Z,11nm,1.8s
O03E  Paynes Creek     82.50 324           P       05 42 00.8 +0.9
O03E                               IAmb    IAmb    05 42 13.7
      comp=Z,41nm,1.4s
SCHQ  Schefferville    82.59   3   P       P       05 42 00.3 +0.4
      comp=Z,6.8nm,1.0s,baz=208,slow=5.8,SNR=9.4
      comp=Z,6.8nm,1.0s
SCHQ  Schefferville    82.59   3   IAmb    IAmb    05 42 01.7
      comp=Z,47nm,1.5s
DRV   Dumont d'Urvil   82.65 192   P       P       05 42 00.9 +0.7
MOD   Modoc Plateau    82.91 325           P       05 42 03.2 +1.1
J08A  Circle Bar Ran   83.11 327           P       05 42 04.2 +1.2
J08A                               IAmb    IAmb    05 42 06.2
      comp=Z,30nm,1.2s
EGMT  Eagleton         83.14 335           P       05 42 03.9 +0.9
PLID  Pearl Lake       83.31 330           P       05 42 05.7 +1.6
PLID                               IAmb    IAmb    05 42 06.3
      comp=Z,13nm,0.8s
BMO   Blue Mountains   83.71 329   P       P       05 42 07.5 +1.4
BMO   Blue Mountains   83.71 329   IAmb    IAmb    05 42 20.4
      comp=Z,36nm,1.8s
MSO   Missoula         83.80 332   P       P       05 42 07.2 +0.7
MSO                                IAmb    IAmb    05 42 22.5
      comp=Z,41nm,1.9s
K05A  Summer Lake      83.82 326   IAmb    IAmb    05 42 21.9
      comp=Z,34nm,1.2s
EDA   Edea             84.35  83   IAmb    IAmb    05 42 13.1
      comp=Z,42nm,1.5s
LBTB  Lobatse          84.36 115   P       P       05 42 09.9  -0.2
F10A  Beach Ranch, E   84.54 330   IAmb    IAmb    05 42 31.7
      comp=Z,18nm,1.2s
CKGRV CKGRV            84.56 111   P       P       05 42 11.1   0.0
PINE  Pine Mountain    84.63 326   IAmb    IAmb    05 42 13.8
      comp=Z,14nm,0.9s
TIO   Tiouine          84.71  51   P       P       05 42 13.2 +1.6
      comp=Z,129nm,1.2s
I05D  Terrebonne, OR   85.22 327   IAmb    IAmb    05 42 28.7
      comp=Z,35nm,1.3s
WIFE  Three Sisters-   85.25 326   IAmb    IAmb    05 42 35.6
      comp=Z,24nm,1.2s
G06A  Carlson Farm,    85.55 328   IAmb    IAmb    05 42 25.4
      comp=Z,22nm,1.4s
LDM   Libby Dam        85.66 332   IAmb    IAmb    05 42 18.1
      comp=Z,21nm,1.1s
H04A  Detroit Lake     85.89 326   IAmb    IAmb    05 42 30.9
      comp=Z,44nm,1.6s
HAWA  Hanford          85.90 329   IAmb    IAmb    05 42 31.4
      comp=Z,18nm,1.1s
CASY  Casey            86.00 181           P       05 42 18.4 +1.1
CASY  Casey            86.00 181   P       P       05 42 18.7 +1.4
      comp=Z,47nm,1.1s
AVE   Averroes         86.04  49   P       P       05 42 19.1 +1.2
      comp=Z,82nm,1.3s
HOOD  Mount Hood Mea   86.09 327   IAmb    IAmb    05 42 33.8
      comp=Z,16nm,0.9s
D08A  Wollman Farm,    86.12 330           P       05 42 18.4 +0.4
NEW   Newport          86.26 331   P       P       05 42 19.3 +0.6
      comp=Z,5.0nm,1.8s
G04A  Mulino           86.41 327   IAmb    IAmb    05 42 59.0
      comp=Z,32nm,1.0s
STD   Studebaker Rid   87.04 327   IAmb    IAmb    05 42 32.8
      comp=Z,25nm,1.2s
MD31  MD31             87.57  51           P       05 42 25.5  -0.1
MD31                               IAmb    IAmb    05 42 28.1
      comp=Z,33nm,1.4s
MD01  Midelt array s   87.58  51           P       05 42 25.1  -0.6
D05A  Enumclaw         87.62 328   P       P       05 42 26.2 +1.0
MORF  Marmelete        87.67  45   eP      P       05 42 26.4 +0.5
MORF                               IAmb    IAmb    05 42 27.6
      comp=Z,15nm,1.3s
MORF  Marmelete        87.67  45   eP      P       05 42 26.9 +1.1
MORF                               i IAmb  IAmb    05 42 30.5
      comp=Z,82nm,1.8s
PTEO  Sao Teotonio     87.78  45   eP      P       05 42 27.7 +1.4
PTEO                               i IAmb  IAmb    05 42 32.9
      comp=Z,62nm,1.8s
PBDV  Barranco-do-Ve   88.09  46   eP      P       05 42 29.1 +1.2
PBDV                               i IAmb  IAmb    05 42 31.0
      comp=Z,48nm,1.4s
PCVE  Castro Verde     88.26  45   eP      P       05 42 29.6 +1.1
PCVE                               i IAmb  IAmb    05 42 52.2
      comp=Z,48nm,1.8s
PLOUS Minas do Lousa   88.27  45   eP      P       05 42 29.4 +0.9
PLOUS                              i IAmb  IAmb    05 42 37.2
      comp=Z,44nm,1.8s
MESJ  Messejana        88.27  45   eP      P       05 42 29.2 +0.5
MESJ                               IAmb    IAmb    05 42 31.4
      comp=Z,22nm,1.1s
MESJ  Messejana        88.27  45   eP      P       05 42 29.6 +1.0
MESJ                               i IAmb  IAmb    05 42 31.8
      comp=Z,39nm,1.4s
PVAQ  Vaqueiros        88.32  46   eP      P       05 42 29.9 +1.1
PVAQ                               i IAmb  IAmb    05 42 34.3
      comp=Z,52nm,1.8s
PBEJ  Beja             88.61  45   eP      P       05 42 30.9 +0.7
PBEJ                               i IAmb  IAmb    05 42 40.8
      comp=Z,22nm,2.0s
EVO   Evora            88.83  45   eP      P       05 42 32.4 +1.2
PSBE  So Bento         88.95  43   eP      P       05 42 33.6 +1.8
PARRA Arraiolos        88.98  44   eP      P       05 42 32.8 +0.9
PARRA                              i IAmb  IAmb    05 42 35.8
      comp=Z,20nm,2.1s
A05A  Maple Falls      88.99 329   IAmb    IAmb    05 42 46.0
      comp=Z,15nm,0.9s
PMTG  Montargil        89.02  44   eP      P       05 42 33.3 +1.1
PMTG                               i IAmb  IAmb    05 42 34.0
      comp=Z,28nm,2.0s
A04D  Lummi Island     89.06 329   IAmb    IAmb    05 42 44.8
      comp=Z,35nm,1.4s
PBAR  Barrancos        89.22  45   eP      P       05 42 33.6 +0.5
PSARD Sardoal          89.39  44   eP      P       05 42 34.9 +1.0
PSARD                              i IAmb  IAmb    05 42 42.5
      comp=Z,19nm,1.6s
PCAS  Casmilo, Conde   89.46  43   eP      P       05 42 34.8 +0.6
PMRV  Marv??o          89.76  44   eP      P       05 42 36.6 +1.0
PMRV                               i IAmb  IAmb    05 42 36.9
      comp=Z,15nm,1.2s
TAM   Tamanrasset      89.76  64   P       P       05 42 35.6  -0.5
      comp=Z,6.4nm,2.1s
PCBR  Castelo Branco   89.95  44   eP      P       05 42 37.8 +1.3
PCBR                               i IAmb  IAmb    05 42 48.7
      comp=Z,12nm,1.5s
EMAL  Malaga-Limoner   90.06  48   P       P       05 42 38.1 +1.1
      comp=Z,20nm,1.0s
PVIS  Viseu            90.23  43   eP      P       05 42 38.4 +0.6
MTE   Manteigas        90.25  43   eP      P       05 42 39.5 +1.5
MTE                                i IAmb  IAmb    05 42 51.0
      comp=Z,19nm,1.8s
PVRL  Vila Real        90.68  43   eP      P       05 42 41.8 +1.9
PVRL                               i IAmb  IAmb    05 42 42.9
      comp=Z,22nm,1.5s
POLO  Lamas de Olo     90.69  42   eP      P       05 42 41.9 +1.8
PCAB  Cabril           90.76  42   eP      P       05 42 40.3   0.0
LSZ   Lusaka           91.17 108   P       P       05 42 42.7  -0.3
LSZ                                pmax    pmax
      comp=Z,33nm,1.4s
LSZ   Lusaka           91.17 108           P       05 42 42.7  -0.3
LSZ                                IAmb    IAmb    05 42 45.4
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      comp=Z,33nm,1.4s
LSZ   Lusaka            91.17 108   P        P        05 42 44.2 +1.3
      comp=Z,18nm,1.4s
LSZ   Lusaka            91.17 108   P        P        05 42 44.4 +1.4
ESDC  Sonseca Array     92.04  46   P        P        05 42 46.1  -0.2
      comp=Z,2.7nm,1.0s,baz=231,slow=4.4,SNR=14
      comp=Z,2.7nm,1.0s
ESDC  Sonseca Array     92.04  46            P        05 42 46.5 +0.2
FETA  Feichten         104.96  45   ePdiff   Pdif     05 43 45.6 +1.1
      comp=Z,13nm,1.6s
RETA  Reutte           105.18  44   ePdiff   Pdif     05 43 46.7 +1.3
      comp=Z,3.1nm,0.8s
MOTA  Moosalm          105.33  44   ePdiff   Pdif     05 43 47.2 +1.1
      comp=Z,5.7nm,1.0s
WTTA  Wattenberg       105.63  45   ePdiff   Pdif     05 43 48.7 +1.2
      comp=Z,7.2nm,1.2s
LESA  Schwarzleotal    106.34  45   ePdiff   Pdif     05 43 51.2 +0.6
      comp=Z,3.0nm,1.0s
MOA   Molln            107.50  45   ePdiff   Pdif     05 43 55.4  -0.1
      comp=Z,5.8nm,1.2s
GERES GERESS Array B   107.53  44   PKiKP    PKiKP    05 48 04.0 +0.1
      comp=Z,0.2nm,0.4s,baz=240,slow=4.0,SNR=3.6
CLL   Collm            108.05  41   ePKiKP   PKiKP    05 48 04.0  -0.7
AKASG Malin Array Be   117.68  45   PKP      PKPdf    05 48 22.1  -1.0
      comp=Z,2.1nm,0.6s,baz=270,slow=2.5,SNR=9.1
AKBB  Malin Array Si   117.68  45⇓iPKIKP   PKPdf    05 48 22.7  -0.4
BR131 Keskin Array S   118.34  58⇓iPKIKP   PKiKP    05 48 24.9   0.0
BRTR  Keskin Array B   118.34  58   PKP      PKiKP    05 48 25.1 +0.1
      comp=Z,1.4nm,0.6s,baz=191,slow=3.8,SNR=9.0
BRTR  Keskin Array B   118.34  58   PKIKP    PKPdf    05 48 24.4  -0.5
BRTR  Keskin Array B   118.34  58            PKPdf    05 48 24.4  -0.5
ARPR  Arapgir-MALATY   121.74  59            PKiKP    05 48 32.2 +0.6
OBN   Obninsk          122.64  40⇑iPKIKP   PKiKP    05 48 32.9 +0.3
OBN                                 e                 05 50 14.4
OBN                                 ePPP     PPP      05 52 50.5
OBN                                 eSS      SS       06 07 10.1  +18
OBN                                 pmax     pmax
      comp=Z,9.0nm,0.9s
ASAR  Alice Springs    123.11 208   PKP      PKPdf    05 48 34.2  -0.3
      comp=Z,2.9nm,0.6s,baz=135,slow=1.7,SNR=22
ASAR                                PKKPbc   PKKPbc   05 58 24.4  -0.6
      comp=Z,0.7nm,0.7s,baz=341,slow=3.4,SNR=6.6
QIS   Mount Isa        123.15 215   P        PKiKP    05 48 35.2 +0.3
LPSR  Galich'ya Gora   123.91  44   ePKIKP   PKPdf    05 48 33.1  -1.9
LPSR                                pmax     pmax
      comp=Z,10.0nm,0.9s
VSR   Storozhevoye     123.97  45   PKIKP    PKPdf    05 48 35.0  -0.1
VSR                                 pmax     pmax
      comp=Z,12nm,1.2s
VORR  Voronezh         124.03  45   ePKIKP   PKPdf    05 48 33.4  -1.8
VORR                                pmax     pmax
      comp=Z,10.0nm,0.9s
KLMR  Klimovskoe       124.20  34   ePKIKP   PKPdf    05 48 34.0  -1.3
KLMR                                pmax     pmax
      comp=Z,28nm,1.3s
VRH   Novokhopyorsk    125.58  45   PKIKP    PKiKP    05 48 38.5  -0.1
VRH                                 pmax     pmax
      comp=Z,12nm,1.2s
NEUR  Neytrino         125.67  55⇑iPKIKP   PKiKP    05 48 39.5 +0.2
SHA1  Shidzhatmaz      125.69  55d iPKIKP  PKiKP    05 48 39.8 +0.4
KIV   Kislovodsk       125.74  54   ePKIKP   PKPdf    05 48 38.9   0.0
KIV                                 pmax     pmax
      comp=Z,10.0nm,1.1s
KBZ   Khabaz           125.86  55   PKP      PKiKP    05 48 39.4   0.0
      comp=Z,3.8nm,0.8s,baz=235,slow=2.3,SNR=7.6
KBZ   Khabaz           125.86  55⇑ePKIKP   PKPdf    05 48 38.9  -0.1
WR8   Warramunga Arr   126.12 211            PKiKP    05 48 40.5  -0.3
H11S2 WAKE ISLAND Hy126.17 273      T        T        08 07 46.6
      baz=112,slow=75,SNR=35
H11S1 WAKE ISLAND Hy126.18 273      T        T        08 07 49.7
      baz=112,slow=75,SNR=38
H11S3 WAKE ISLAND Hy126.19 273      T        T        08 07 46.6
      baz=112,slow=75,SNR=40
WRA   Warramunga Arr   126.21 210   PKP      PKPdf    05 48 40.6   0.0
      comp=Z,5.2nm,0.5s,baz=153,slow=1.7,SNR=62
WRAB  Tennant Creek    126.21 210⇑iPKIKP   PKPdf    05 48 40.3  -0.2
H11N3 WAKE ISLAND Hy126.43 275      T        T        08 08 06.0
      baz=112,slow=75,SNR=10
H11N1 WAKE ISLAND Hy126.44 275      T        T        08 08 05.1
      baz=112,slow=75,SNR=8.1
H11N2 WAKE ISLAND Hy126.45 275      T        T        08 08 22.5
      baz=112,slow=75,SNR=16
BILL  Bilibino         127.63 336⇓ePKIKP   PKiKP    05 48 42.3 +0.1
BELG  Belogornoye      129.22  44dePKIKP   PKiKP    05 48 45.5  -0.3
KIRV  Kirov            129.45  36⇑iPKIKP   PKiKP    05 48 46.9 +0.8
FITZ  Fitzroy Crossi   131.28 202   P        PKiKP    05 48 51.0  -0.1
FITZ  Fitzroy Crossi   131.28 202            PKiKP    05 48 50.9  -0.2
MTN   Manton Dam       133.88 211   P        PKPdf    05 48 54.4  -0.7
MTN   Manton Dam       133.88 211            PKPdf    05 48 54.4  -0.7
ARTI  Arti             134.68  37 i PKIKP    PKiKP    05 48 56.5  -0.3
ARTI                                                  05 51 28.8
SEY   Seymchan         135.01 333⇑ePKIKP   PKiKP    05 48 57.3 +0.1
PETK  Petropavlovsk-   136.18 319   PKP      PKPdf    05 48 58.5 +0.2
      comp=Z,1.8nm,0.5s,baz=64,slow=3.4,SNR=4.1
AB31  Akbulak array    137.38  47            PKPdf    05 48 57.8  -2.8
ABKAR Akbulak array    137.38  47            PKPdf    05 48 57.5  -3.1
BORK  Borovoye         142.34  38⇓ePKIKP   PKPdf    05 49 10.1 +0.6
BVAR  Borovoye Array   142.38  38   PKP      PKPdf    05 49 10.6 +1.0
      comp=Z,2.4nm,0.5s,baz=300,slow=2.8,SNR=6.0
YAK   Yakutsk          143.21 344   ePKIKP   PKiKP    05 49 12.4  -1.6
YAK                                 pmax     pmax
      comp=Z,23nm,1.0s
YAK                                 pmax     pmax
      comp=N,4.0nm,0.8s
YAK                                 pmax     pmax
      comp=E,7.0nm,1.4s
BBJI  Bungbulang       144.73 178   PKPdf    PKPdf    05 49 14.3  -0.7
SMRI  Semarang         145.10 183   PKPbc    PKPbc    05 49 14.5  -0.4
KAPI  Kappang          145.44 200   PKP2     PKPdf    05 49 16.0  -0.2
KAPI  Kappang          145.44 200   PKPdf    PKPdf    05 49 16.0  -0.2
TYV   Tymovskoe        145.63 321   ePKP2    PKPab    05 49 16.7 +0.8
TYV                                 pmax     pmax
      comp=Z,34nm,0.8s
TYV                                 pmax     pmax
      comp=Z,900nm,4.4s
KBL   Kabul            145.76  69   PKIKP    PKPdf    05 49 15.8  -0.6
KBL   Kabul            145.76  69            PKPdf    05 49 15.8  -0.6
KK31  Karatay Array    145.89  54   PKIKP    PKPdf    05 49 16.2 +0.1
KK31  Karatay Array    145.89  54   PKPdf    PKPdf    05 49 16.2 +0.1
KKAR  Karatay Array    145.89  54   PKIKP    PKPdf    05 49 16.0  -0.1
KKAR  Karatay Array    145.89  54   PKPdf    PKPdf    05 49 15.9  -0.1
BTK   Batken           146.72  59   PKP2     PKPdf    05 49 17.9 +0.3
BTK   Batken           146.72  59   PKPdf    PKPdf    05 49 17.9 +0.3
YSS   Yuzhno-Sakhali   147.28 315   ePKIKP   PKPdf    05 49 18.8 +0.6
YSS                                 pmax     pmax
      comp=Z,20nm,0.8s
YSS   Yuzhno-Sakhali   147.28 315   PKPdf    PKPdf    05 49 18.6 +0.4
KURK  Kurchatov        147.96  37cePKIKP   PKPdf    05 49 20.1 +0.9
KURK  Kurchatov        147.96  37   PKPdf    PKPdf    05 49 20.4 +1.2
KURBB Kurchatov Arra   147.96  37   PKPbc    PKPbc    05 49 20.9  -1.4
      comp=Z,12nm,0.6s,baz=305,slow=3.0,SNR=39
ARSB  Arslanbob        148.09  56   PKIKP    PKPdf    05 49 20.9 +0.9
ARSB  Arslanbob        148.09  56            PKPdf    05 49 20.9 +0.9
EKS2  Erkin-Say        148.32  53   P        PKPbc    05 49 22.4  -1.3
      SNR=12
USP   Ospenovka        148.66  52   P        PKPdf    05 49 22.1 +1.4
      SNR=13
ZAA0  Zalesovo Array   148.78  27            PKPdf    05 49 20.9 +0.5
ZALV  Zalesovo Beam    148.78  27   PKP      PKPdf    05 49 21.1 +0.6
      comp=Z,46nm,0.7s,baz=281,slow=2.2,SNR=27
ZALV                                PKPbc    pPKPdf   05 49 25.0 +1.8
      comp=Z,46nm,0.7s,baz=303,slow=3.4,SNR=56
AAK   Ala-Archa        148.84  53   P        PKPbc    05 49 23.2  -1.9
      SNR=21
AAK   Ala-Archa        148.84  53cePKIKP   PKPdf    05 49 22.5 +1.3
AAK   Ala-Archa        148.84  53            PKPbc    05 49 23.1  -1.9
CHMS  Chumysh          148.91  52   P        PKiKP    05 49 26.2  -0.2
      SNR=8.7
UCH   Uchtor           148.97  54   P        PKPdf    05 49 22.0 +0.2
      SNR=9.2
KBK   Karagaybulak     149.15  53   P        PKiKP    05 49 27.2 +0.1
      SNR=7.4
TKM2  Tokmak 2         149.53  52   P        PKPdf    05 49 23.3 +1.0
      SNR=8.4
ULHL  Ulahol           150.19  53   P        PKPdf    05 49 24.0 +0.6
      SNR=23
HYB   Hyderabad        150.45 104   ePKiKP   PKiKP    05 49 30.1  -0.2
TOLI2 Tolitoli         150.81 206            PKPbc    05 49 30.2  -0.4
ZEA   Zeya             150.85 337   ePKIKP   PKPdf    05 49 23.6  -0.1
ZEA                                 e                 05 49 30.5
ZEA                                 pmax     pmax
      comp=Z,10.0nm,0.5s
MAKZ  Makanchi         151.96  41   PKIKP    PKiKP    05 49 32.5  -0.1
MAKZ  Makanchi         151.96  41            PKiKP    05 49 32.5  -0.1
MK31  Makanchi Array   152.15  41⇓ePKIKP   PKPdf    05 49 26.3 +0.3
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MKAR	Makanchi Array	152.15	41	PKP	PKPdf	05 49 26.4	+0.4
	comp=Z,2.3nm,0.9s,baz=318,slow=1.6,SNR=5.0						
MKAR				PKPbc	PKiKP	05 49 33.0	0.0
	comp=Z,24nm,0.7s,baz=312,slow=1.9,SNR=58						
MKAR	Makanchi Array	152.15	41		PKPdf	05 49 26.0	0.0
KLR	Kul'dur	152.32	326	⇓ePKIKP	PKPdf	05 49 26.3	+0.2
MJAR	Matsushiro Arr	153.61	296	PKP	PKPdf	05 49 28.4	-0.1
	comp=Z,1.0nm,0.4s,baz=338,slow=1.3,SNR=4.1						
HILR	Hailar Array B	156.83	341	PKP	PKPdf	05 49 32.5	+0.1
	comp=Z,0.3nm,0.3s,baz=108,slow=9.5,SNR=4.9						
ZAK	Zakamensk	157.29	9	ePKIKP	PKPdf	05 49 34.5	+1.4
ZAK				pmax	pmax		
	comp=Z,8.0nm,1.3s						
SONM	Songino Array	160.13	4	PKP	PKPdf	05 49 37.2	+0.6
	comp=Z,4.6nm,1.2s,baz=349,slow=1.5,SNR=12						
SONM				PP	PP	05 53 59.9	+2.0
	comp=Z,2.4nm,1.1s,baz=343,slow=4.6,SNR=6.8						
KSRS	Korea Array	161.22	305	PKP	PKPdf	05 49 38.6	+0.8
	comp=Z,2.6nm,0.9s,baz=15,slow=1.1,SNR=8.5						
CMAR	Chiang Mai Arr	167.02	135	PKP	PKPdf	05 49 43.9	+0.2
	comp=Z,0.6nm,0.2s,baz=266,slow=2.0,SNR=10						
CMAR	Chiang Mai Arr	167.02	135		PKPdf	05 49 44.2	+0.5
CMAR					PKPab	05 50 46.8	-0.7
CHTO	Chiang Mai	167.29	134	PKP2	PKPab	05 50 48.3	-0.3
CHTO	Chiang Mai	167.29	134		PKPab	05 50 48.3	-0.3

*IDC **01** 05:29:59.3±2.6, 5°.66S×147°.65E, h198km±28km, mb3.6/6, mbtmp4.2/8, Error ellipse: s-maj=45.4km s-min=21.0km az=111.0*

*NEIC **01** 05:30:00.1±0.5, 5°.74S±0°.09×147°.6E±0°.1, h208km±8km, mb4.3/17, Error ellipse: s-maj=18.6km s-min=8.5km az=56.0*

ISC 01 05:29:59.2±0.7**, 5°.76S**±0°.07×**147°.5E**±0°.2**, h200km, n31, σ0s.89**/33**, mb4.1**/11**, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	3.64	186	P	Pn	05 30 58.2	+1.5
	27nm,0.3s,baz=344,slow=7.5,SNR=11						
PMG				S	Sn	05 31 39.5	-2.2
	80nm,0.4s,baz=340,slow=18,SNR=12						
PMG	Port Moresby	3.64	186	Pn	Pn	05 30 58.1	+1.5
PMG				Sn	Sn	05 31 42.2	+0.4
MTN	Manton Dam	17.62	245	P	Pn	05 33 52.1	-0.8
MTN				IAmb	IAmb	05 33 52.8	
	comp=Z,16nm,1.1s						
WR8	Warramunga Arr	18.96	221		Pn	05 34 07.3	-1.3
WB2	Warramunga Arr	19.04	221	P	Pn	05 34 08.3	-1.3
WB2				IAmb	IAmb	05 34 12.3	
	comp=Z,20nm,0.8s						
WRA	Warramunga Arr	19.05	221	P	Pn	05 34 08.2	-1.5
	comp=Z,16nm,0.8s,baz=48,slow=12,SNR=98						
WRA	Warramunga Arr	19.05	221	P	P	05 34 06.8	+0.3
EIDS	Eidsvold	19.80	170	P	P	05 34 14.2	-0.3
EIDS				IAmb	IAmb	05 34 41.5	
	comp=Z,12nm,1.4s						
KNRA	Kununurra	20.88	240	P	P	05 34 26.4	+0.3
KNRA				IAmb	IAmb	05 35 07.7	
	comp=Z,4.5nm,0.9s						
AS31	Alice Springs	22.11	215	P	P	05 34 37.9	-0.7
AS31				IAmb	IAmb	05 34 46.1	
	comp=Z,4.3nm,0.4s						
ASAR	Alice Springs	22.11	215	P	P	05 34 40.6	+2.0
	comp=Z,5.7nm,0.6s,baz=52,slow=8.7,SNR=41						
	comp=Z,5.7nm,0.6s						
ASAR	Alice Springs	22.11	215		P	05 34 38.7	+0.1
INKA	Innaminka	22.79	196	P	P	05 34 44.9	+0.1
INKA				IAmb	IAmb	05 34 59.2	
	comp=Z,4.9nm,0.8s						
FITZ	Fitzroy Crossi	24.63	238	P	P	05 35 02.3	+0.8
BBJI	Bungbulang	39.63	265	P	P	05 37 12.4	+0.4
BBJI				IAmb	IAmb	05 37 22.7	
	comp=Z,46nm,1.5s						
KSRS	Korea Array	46.71	338	P	P	05 38 08.4	+0.3
	comp=Z,0.9nm,0.5s,baz=156,slow=6.9,SNR=2.4						
	comp=Z,0.9nm,0.5s						
HILR	Hailar Array B	60.15	340	P	P	05 39 45.8	+0.1
	comp=Z,0.6nm,0.3s,baz=125,slow=13,SNR=3.8						
	comp=Z,0.6nm,0.3s						
SONM	Songino Array	64.44	331	P	P	05 40 14.7	+0.3
	comp=Z,0.6nm,0.5s,baz=133,slow=5.5,SNR=5.1						
	comp=Z,0.6nm,0.5s						
SONM	Songino Array	64.44	331	P	P	05 40 14.3	0.0
SBA	Scott Base	72.76	176	P	P	05 41 05.3	+0.2
MKAR	Makanchi Array	77.64	320	P	P	05 41 33.2	-0.3
	comp=Z,0.7nm,0.4s,baz=95,slow=6.7,SNR=4.2						
	comp=Z,0.7nm,0.4s						
MKAR	Makanchi Array	77.64	320	P	P	05 41 33.5	0.0
OHAK	Old Harbor	78.84	28	P	P	05 41 39.4	-0.4
KDAK	Kodiak Island	79.44	28	P	P	05 41 42.4	-0.7
BOOM	Boomskoye usch	80.47	315	P	P	05 41 48.4	-0.7
J18K	Innoko River	80.65	22	P	P	05 41 49.3	-0.2
J18K				IAmb	IAmb	05 41 58.5	
	comp=Z,8.1nm,1.4s						
ILAR	Eielson Array	85.06	23	P	P	05 42 11.5	-0.6
	comp=Z,1.5nm,0.6s,baz=254,slow=4.6,SNR=15						
	comp=Z,1.5nm,0.6s						
ILAR	Eielson Array	85.06	23	P	P	05 42 11.8	-0.2
H24K	Noodor Dome	85.13	22	P	P	05 42 12.1	-0.4
H24K				IAmb	IAmb	05 42 30.5	
	comp=Z,5.8nm,1.4s						
GERES	GERESS Array B	122.00	326	PKP	PKiKP	05 48 30.2	0.0
	comp=Z,0.4nm,0.5s,baz=39,slow=1.9,SNR=1.9						
TORD	Torodi Ar. Bea	145.53	285	PKPbc	PKPab	05 49 15.3	-0.3
	comp=Z,2.1nm,0.6s,baz=70,slow=3.7,SNR=6.8						

*SJA **01** 05:36:22.3±0.5, 27°.79S×71°.63W, h10km, ML4.2, MW3.8*

*GUC **01** 05:36:26.5±0.8, 27°.92S×71°.19W, h22km±5km, ML3.1*

ISC 01 05:36:25.4±1.5**, 27°.85S**±0°.04×**71°.39W**±0°.08**, h28km, n20, σ1s.88**/26**, 1D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.45	142	⇓iP	Pb	05 36 34.1	-0.8
AC04				eS	Sb	05 36 39.2	-2.2
AC06	Mina Casimiro	1.04	62	eP	Pb	05 36 44.5	-0.3
GO03	Copiapo	1.05	76	iP	Pb	05 36 45.0	-0.1
GO03	Copiapo	1.05	76	eP	Pb	05 36 44.6	-0.4
GO03				eS	Sn	05 36 57.2	-1.0
GO03				IAML		05 37 04.9	
	comp=E,1µm,0.3s						
LCO	Las Campanas	1.30	153	eP	Pb	05 36 48.7	-0.8
AC05	El Transito	1.39	135	iP	Pb	05 36 50.1	-0.7
AC05				IAML		05 37 52.1	
	comp=Z,1µm,0.6s						
AC05	El Transito	1.39	135	eP	Pn	05 36 49.5	+0.4
AC05				IAML		05 37 09.5	
	comp=E,630nm,0.3s						
AC01	Pan de Azucar	1.84	23	iP	Pn	05 36 56.4	+1.3
AC01				IAML		05 38 11.1	
	comp=Z,452nm,0.4s						
AC02	Maricunga	2.25	64	eP	Pb	05 37 04.8	-0.9
GO04	Tololo Observa	2.37	168	eP	Pn	05 37 04.2	+1.4
GO04	Tololo Observa	2.37	168	eP	Sn	05 37 33.6	+2.7
CO01	Juntas del Tor	2.40	152	eP	Pb	05 37 05.7	-2.4
AROD	Rodeo	2.85	144	iP	Pb	05 37 14.2	-1.7
AROD				eS	Sb	05 37 51.8	+1.3
CO03	El Pedregal	3.04	169	iP	Pn	05 37 14.3	+2.6
CO03				eS	Sb	05 37 53.3	-2.4
CO03				IAML		05 38 45.1	
	comp=Z,1µm,0.8s						
CO03	El Pedregal	3.04	169	eP	Pn	05 37 13.3	+1.6
CO02	Combarbal	3.36	174	iP	Pn	05 37 18.0	+1.9
CO02				eS	Sb	05 38 04.0	-0.8
CO02				IAML		05 38 54.4	
	comp=Z,2µm,0.8s						
CO02	Combarbal	3.36	174	eP	Pn	05 37 19.0	+2.8
ACLC	CERRO LA CRUZ	4.20	113	iP	Pn	05 37 32.1	+4.3
ACLC				eS	Sb	05 38 27.1	-2.0
ACLC				IAML		05 39 11.7	
	comp=Z,269nm,1.6s						
RTLS	Leoncito	4.33	156	iP	Pn	05 37 34.6	+4.9
RTLS				eS	Sn	05 38 18.1	-1.3
RTLS				IAML		05 39 25.8	
	comp=Z,1µm,1.4s						
PB05	IPOC Station P	5.09	12	iP	Pn	05 37 40.4	+0.3
PB05				IAML		05 39 38.2	
	comp=Z,44nm,1.3s						

*IDC **01** 05:37:05.4±1.0, 27°.90S×71°.50W, h0km, mb4.4/4, mbtmp4.4/5, ML4.1/1, Error ellipse: s-maj=46.4km s-min=23.3km az=75.0*

*NEIC **01** 05:37:07.5±1.6, 27°.95S±0°.02×71°.30W±0°.09, h21km±5km, mb4.5/3, ML4.0(GUC), Error ellipse: s-maj=11.9km s-min=1.6km az=100.0*

*GUC **01** 05:37:08.4±0.9, 27°.97S×71°.33W, h20km±5km, ML4.0*

ISC 01 05:37:07.8±0.6**, 27°.95S**±0°.03×**71°.48W**±0°.06**, h28km, n61, σ1s.72**/61**, mb4.5**/6**, 4C, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.43	125	eP	Pb	05 37 16.3	-0.9
AC04				eS	Sb	05 37 21.3	-2.1
AC04				IAML		05 37 22.3	
	comp=E,39µm,0.4s						
AC04	Llanos de Chal	0.43	125		Pb	05 37 15.0	-2.2
AC04				Sg	Sb	05 37 21.4	-2.1
GO03	Copiapo	1.16	72	eP	Pb	05 37 28.5	-0.7
GO03				eS	Sb	05 37 43.1	-0.8
GO03				IAML		05 37 48.2	
	comp=N,3µm,0.3s						
GO03	Copiapo	1.16	72	Pn	Pn	05 37 26.0	-2.2
GO03	Copiapo	1.16	72	eS	Pn	05 37 30.5	+2.2
AC06	Mina Casimiro	1.16	59	eP	Pb	05 37 28.5	-0.8
AC06				IAML		05 37 48.0	
	comp=N,5µm,0.2s						
AC06	Mina Casimiro	1.16	59	Pn	Pn	05 37 26.2	-2.1
LCO	Las Campanas	1.26	147	iP	Pb	05 37 30.9	-0.2
LCO	Las Campanas	1.26	147	Pn	Pn	05 37 28.0	-1.8
AC05	El Transito	1.38	130	iP	Pb	05 37 32.2	-0.8
AC05				IAML		05 38 00.1	
	comp=E,3µm,1.0s						
AC05	El Transito	1.38	130	Pn	Pn	05 37 29.8	-1.5
AC05	El Transito	1.38	130	eS	Pn	05 37 33.1	+1.7
AC01	Pan de Azucar	1.96	24	eP	Pb	05 37 41.3	-1.6
AC01				IAML		05 38 13.1	
	comp=E,1µm,0.4s						
AC01	Pan de Azucar	1.96	24	Pn	Pn	05 37 38.8	-0.5
GO04	Tololo Observa	2.29	165	Pn	Pn	05 37 43.5	-0.5
CO01	Juntas del Tor	2.35	149	eP	Pb	05 37 48.4	-1.4
CO01				IAML		05 38 22.1	
	comp=N,2µm,0.5s						
CO01	Juntas del Tor	2.35	149	Pn	Pn	05 37 44.0	-0.9
AC02	Maricunga	2.37	62	eP	Pb	05 37 49.0	-1.0
AC02				IAML		05 38 24.6	
	comp=N,2µm,0.1s						
AC02	Maricunga	2.37	62	Pn	Pn	05 37 43.3	-2.0
CO06	Fray Jorge	2.71	183	eP	Pb	05 37 52.5	-3.2
CO06				IAML		05 38 39.1	
	comp=E,791nm,0.6s						
CO06	Fray Jorge	2.71	183	Pn	Pn	05 37 50.1	+0.5
CO03	El Pedregal	2.96	167	eP	Pn	05 37 48.8	-4.2
CO03				IAML		05 38 43.5	
	comp=E,2µm,0.2s						
CO03	El Pedregal	2.96	167	Pn	Pn	05 37 52.2	-0.8
CO02	Combarbal	3.27	173	eP	Pb	05 38 02.3	-2.9
CO02	Combarbal	3.27	173	Pn	Pn	05 37 56.5	-0.8
PB14	IPOC Station P	3.45	16	Pn	Pn	05 37 58.3	-1.7
CO04	Los Peladeros	4.10	174	Pn	Pn	05 38 07.8	-1.1
ZON	Zonda	4.33	146	Pn	Pn	05 38 10.6	-1.3
CFA	Coronel Fontan	4.60	143	Pn	Pn	05 38 18.0	+2.4
	comp=E,8.5nm,0.3s,baz=318,slow=16,SNR=10						
	comp=E,17nm,0.5s						
CFA				AML	AML		
VA03	San Esteban	4.86	171	Pn	Pn	05 38 18.7	-0.5
VA01	Torpederas	5.05	182	Pn	Pn	05 38 21.3	-0.5
PB05	IPOC Station P	5.21	13	Pn	Pn	05 38 23.6	-0.4
PB05	IPOC Station P	5.21	13	eS	Pn	05 38 24.1	0.0
MT02	Curacav	5.30	177	Pn	Pn	05 38 24.2	-0.9
SIV	San Ignacio	15.31	41	Pn	Pn	05 40 37.3	-4.9
	baz=219,slow=14,SNR=2.6						
VNA3	Neumayer Olymp	54.80	160	⇑P	P	05 46 36.7	+1.9
	comp=Z,2.5nm,0.7s						
VNA2	Neumayer--Watz	55.42	159	⇑P	P	05 46 41.2	+1.9
	comp=Z,3.8nm,0.6s,baz=283,slow=7.5						
SNAA	Sanae	57.02	159	⇑P	P	05 46 52.6	+1.8
	comp=Z,93nm,0.8s						
SNAA	Sanae	57.02	159	P	P	05 46 52.7	+1.9
	comp=Z,3.8nm,0.8s,baz=294,slow=6.7,SNR=9.7						
	comp=Z,3.8nm,0.8s						
SNAA	Sanae	57.02	159	P	P	05 46 51.7	+0.9
SNAA				IAmb	IAmb	05 46 53.6	
	comp=Z,5.2nm,0.9s						
TROLL	Troll, Antarti	58.74	160	⇑P	P	05 47 04.8	+1.9
	comp=Z,202nm,0.8s						
QSPA	South Pole Qui	62.26	180	P	P	05 47 29.5	+2.4
	comp=Z,3.4nm,0.8s,baz=163,slow=1.0,SNR=9.7						
	comp=Z,3.4nm,0.8s						
QSPA	South Pole Qui	62.26	180	P	P	05 47 27.8	+0.7
QSPA				IAmb	IAmb	05 47 30.7	
	comp=Z,3.6nm,0.8s						
TORD	Torodi Ar. Bea	81.72	70	P	P	05 49 26.4	+2.2
	comp=Z,2.1nm,0.9s,baz=253,slow=5.8,SNR=3.6						
	comp=Z,2.1nm,0.9s						
TORD	Torodi Ar. Bea	81.72	70	P	P	05 49 23.6	-0.7
TORD				IAmb	IAmb	05 49 37.0	
	comp=Z,2.1nm,1.1s						
BOSA	Boshof	82.47	118	P	P	05 49 29.8	+1.5
	comp=Z,6.3nm,1.0s,baz=234,slow=3.8,SNR=4.3						
	comp=Z,6.3nm,1.0s						
BOSA	Boshof	82.47	118	P	P	05 49 28.4	+0.2
H11S2	WAKE ISLAND Hy	126.13	273	T	T	08 15 15.4	
	baz=112,slow=75,SNR=4.4						
H11S1	WAKE ISLAND Hy	126.14	273	T	T	08 15 16.0	
	baz=112,slow=75,SNR=5.1						
H11S3	WAKE ISLAND Hy	126.15	273	T	T	08 15 18.2	
	baz=112,slow=75,SNR=4.8						
WRA	Warramunga Arr	126.23	211	PKP	PKiKP	05 56 10.5	+1.6
	comp=Z,0.8nm,0.7s,baz=158,slow=1.7,SNR=6.9						
KK31	Karatay Array	145.89	54	PKPdf	PKPdf	05 56 43.8	-0.2
KKAR	Karatay Array	145.89	54	PKPdf	PKPdf	05 56 43.5	-0.4
YSS	Yuzhno-Sakhali	147.22	315	PKPdf	PKPdf	05 56 46.4	+0.4
KURK	Kurchatov	147.94	37	PKPdf	PKPdf	05 56 46.0	-1.1
KURBB	Kurchatov Arra	147.94	37	PKPbc	PKPbc	05 56 50.7	+0.6
	comp=Z,0.6nm,0.3s,baz=300,slow=3.4,SNR=7.9						
ARSB	Arslanbob	148.09	56	PKPdf	PKPdf	05 56 46.4	-1.5
ZAA0	Zalesovo Array	148.75	27	PKPdf	PKPdf	05 56 49.7	+1.4
ZALV	Zalesovo Beam	148.75	27	PKPbc	PKiKP	05 56 54.5	+0.9
	comp=Z,4.2nm,0.7s,baz=306,slow=3.5,SNR=12						
ZALV	Zalesovo Beam	148.75	27	PKPdf	PKPdf	05 56 48.9	+0.6
MKAR	Makanchi Array	152.13	41	PKPbc	PKiKP	05 57 02.9	+2.0
	comp=Z,1.8nm,0.7s,baz=0.9,slow=2.0,SNR=10						

*KRSC **01** 05:42:05.5±1.5, 59°.04N×158°.53E, h21km±10km, Ml3.8*

*NERS **01** 05:42:15.9, 59°.24N×158°.61E, h13km*

ISC 01 05:42:07.8±0.8**, 58°.98N**±0°.05×**158°.78E**±0°.04**, h10km, n10, σ2s.03**/17**, Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALN	Palana	0.62	79	eP	Pb	05 42 20.4	-0.3
PALN				eS	Sb	05 42 29.3	-0.2
TIGL	Tigil	1.22	183	eP	Pn	05 42 29.5	-1.4
TIGL				eS	Sb	05 42 45.5	-1.2
OSSR	Ossora	2.23	81	eP	Pn	05 42 44.2	-0.4
OSSR				eS	Sb	05 43 15.2	-0.4
ESO	Esso	3.06	181	eP	Pn	05 42 55.8	-0.4
ESO				eS	Sn	05 43 33.1	+0.2
ZLN	Zelenaya	3.17	159	eP	Pn	05 42 58.7	+0.9
TLAR	Talaya	3.86	307	eP	Pb	05 43 12.3	-3.5
TLAR				Pmax		05 43 12.7	
TLAR				ePg	Pg	05 43 21.9	+0.3
TLAR				Pgmax		05 43 28.6	
	30nm,0.5s						
TLAR				eSg	Sg	05 44 12.2	+0.7
TLAR				Sgmax		05 44 25.6	
	70nm,0.7s						
GADL	Gadlja	3.88	283	ePg	Pg	05 43 26.2	+4.1
GADL				eSg	Sg	05 44 17.7	+5.4
GADL				Sgmax		05 44 40.4	
	280nm,0.8s						
MA2	Magadan	4.15	282	ePg	Pg	05 43 31.1	+3.9
MA2				Pgmax		05 43 33.6	
	10.0nm,0.6s						
MA2				eSg	Sg	05 44 23.7	+2.7
MA2				Sgmax		05 44 38.1	
	40nm,0.8s						
SEY	Seymchan	5.04	325	eP	Pb	05 43 30.0	-6.0
SEY				ePg	Pg	05 43 45.5	+1.3
SEY				Pgmax		05 43 54.3	
SEY				eSg	Sg	05 44 49.8	+0.4
SEY				Sgmax		05 45 05.9	
	10.0nm,0.6s						
SUUS	Susuman	6.43	311	eSg	Sg	05 45 34.9	+1.1
SUUS				Sgmax		05 45 59.6	
	20nm,0.8s						

*ASRS **01** 05:59:40.0±0.5, 54°.36N×86°.92E, h0km, M2.7(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

*NNC **01** 05:59:41.1±2.4, 54°.26N×87°.07E, h0km, mb3.3, mpv3.1, Error ellipse: s-maj=21.4km s-min=15.1km az=10.0, Suspected Mining explosion.*

*IDC **01** 05:59:42.0±3.9, 54°.37N×86°.91E, h0km, mbtmp3.4/2, ML3.1/2, Error ellipse: s-maj=35.2km s-min=18.7km az=65.0*

ISC 01 05:59:42.5±4.1**, 54°.3N**±0°.2×**87°.0E**±0°.2**, h0km, n8, σ1s.19**/13**, 7C-3D, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	1.29	257	I	I	06 08 10.0	
	baz=72,slow=324,SNR=3.4						
ZAA0	Zalesovo Array	1.29	257	⇑P	Pg	06 00 05.7	-1.6
	3.1nm,0.2s						
ZAA0				⇑S	Sb	06 00 25.9	+1.0
	7.3nm,0.4s						
ZALV	Zalesovo Beam	1.29	257	Pg	Pg	06 00 05.7	-1.7
	4.7nm,0.3s,baz=68,slow=16,SNR=52						
ZALV				Lg	Lg	06 00 24.9	
	2.4nm,0.3s,baz=72,slow=28,SNR=6.0						
KURK	Kurchatov	6.21	238	⇓Pn	Pn	06 01 16.5	+1.2
	0.5nm,0.6s						
KURK				⇑Sn	Sn	06 02 27.1	+0.2
	0.3nm,0.6s						
KURK				⇑Lg	Lg	06 02 59.9	
	1.1nm,0.9s						
KURBB	Kurchatov Arra	6.31	238	Pn	Pn	06 01 18.2	+1.5
	0.3nm,0.3s,baz=54,slow=14,SNR=16						
KURBB				Sn	Sn	06 02 29.6	+0.2
	baz=43,slow=20,SNR=1.7						
	2.8nm,0.5s						
KURBB				AML	AML		
KURBB	Kurchatov Arra	6.31	238	⇓Pn	Pn	06 01 17.3	+0.6
	4.5nm,0.5s						
KURBB				⇑Sn	Sn	06 02 29.7	+0.2
	2.6nm,0.5s						
KURBB				⇑Lg	Lg	06 03 03.3	
	3.8nm,0.6s						
MK31	Makanchi Array	8.05	203	Pn	Pn	06 01 40.3	-0.3
	0.1nm,0.2s,baz=26,slow=13,SNR=20						
MK31				⇓Sn	Sn	06 03 12.1	-0.2
	0.1nm,0.3s						
MK31				⇑Lg	Lg	06 03 56.4	
	0.3nm,0.6s						
MKAR	Makanchi Array	8.05	203	Pn	Pn	06 01 42.4	+1.8
	0.3nm,0.3s,baz=25,slow=13,SNR=13						
MKAR				Sn	Sn	06 03 11.7	-0.6
	0.1nm,0.3s,baz=27,slow=26,SNR=2.4						
	0.5nm,0.3s						
MKAR				AML	AML		

*IDC **01** 06:11:20.9±1.9, 17°.33S×178°.91W, h615km±20km, mb3.0/7, mbtmp3.9/8, Error ellipse: s-maj=89.7km s-min=17.2km az=151.0*

ISC 01 06:11:19.7±1.5**, 17°.5S**±0°.6×**178°.8W**±0°.4**, h600km, n8, σ0s.98**/8**, mb3.4**/7**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	3.05	264	P	P	06 12 41.0	+1.7
	18nm,0.8s,baz=167,slow=2.3,SNR=12						
STKA	Stephens Creek	38.55	241	P	P	06 17 52.0	-0.6
	1.8nm,0.7s,baz=84,slow=10,SNR=1.7						
	1.8nm,0.7s						
WRA	Warramunga Arr	44.38	259	P	P	06 18 38.0	-0.6
	1.3nm,0.5s,baz=96,slow=7.2,SNR=50						
	1.3nm,0.5s						
ASAR	Alice Springs	44.59	254	P	P	06 18 39.8	-0.4
	6.5nm,0.6s,baz=88,slow=8.8,SNR=126						
	6.5nm,0.6s						
NVAR	Mina Array Bea	79.33	44	P	P	06 22 24.9	+0.3
	0.6nm,0.7s,baz=222,slow=8.7,SNR=4.7						
	0.6nm,0.7s						
ILAR	Eielson Array	85.52	13	P	P	06 22 54.2	-0.7
	0.3nm,0.4s,baz=218,slow=5.0,SNR=8.3						
	0.3nm,0.4s						
TXAR	Lajitas Array	86.04	58	P	P	06 22 58.6	+0.3
	0.5nm,0.7s,baz=222,slow=6.9,SNR=6.9						
	0.5nm,0.7s						
PDAR	Pinedale Array	87.26	44	P	P	06 23 03.5	-0.4
	0.4nm,0.6s,baz=222,slow=2.0,SNR=4.9						
	0.4nm,0.6s						

SJA 01 06:19:16.0±1.4**, 27°.87S**×**71°.53W, h10km, ML3.6, MW3.5, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC05	El Transito	1.47	131	iP	Pn	06 19 42.7	+0.1
AC05				eS	Sn	06 19 60.0	-2.0
AC05				IAML		06 20 00.1	
	comp=Z,346nm,0.2s						
AC01	Pan de Azucar	1.90	26	iP	Pb	06 19 50.7	-0.1
AC01				IAML		06 20 23.0	
	comp=Z,161nm,1.1s						
GO04	Tololo Observa	2.38	165	iP	Pn	06 19 57.1	+1.7
GO04				eS	Sb	06 20 29.0	+0.3
GO04				IAML		06 20 33.3	
	comp=Z,609nm,0.3s						
CO01	Juntas del Tor	2.45	149	iP	Pb	06 19 58.8	-1.4
CO01				IAML		06 20 31.7	
	comp=Z,227nm,0.3s						
AROD	Rodeo	2.91	142	iP	Pb	06 20 06.7	-1.5
CO03	El Pedregal	3.05	166	iP	Pn	06 20 06.0	+1.6
CO03				IAML		06 20 53.6	
	comp=Z,190nm,0.5s						
ACDV	Cuesta del Vie	3.12	138	iP	Pb	06 20 10.6	-1.0
ACDV				IAML		06 20 54.4	
	comp=Z,128nm,0.5s						
CO02	Combarbal	3.35	172	iP	Pn	06 20 09.2	+0.5
CO02				IAML		06 21 06.2	
	comp=Z,306nm,0.4s						
ACLC	CERRO LA CRUZ	4.31	112	iP	Pn	06 20 25.1	+3.3
ACLC				IAML		06 22 02.5	
	comp=Z,72nm,0.4s						
RTLS	Leoncito	4.37	154	iP	Pn	06 20 27.3	+4.6
RTLS				IAML		06 21 36.3	
	comp=Z,299nm,1.4s						
CFA	Coronel Fontan	4.69	143	iP	Pn	06 20 30.6	+3.6
CFA				IAML		06 22 08.0	
	comp=Z,59nm,0.3s						
PB05	IPOC Station P	5.14	14	iP	Pn	06 20 34.9	+1.8
PB05				IAML		06 22 10.9	
	comp=Z,50nm,0.5s						

ISC 01 06:20:20.4±1.1**, 49°.53N**±0°.07×**17°.68E**±0°.05**, h7km, n6, σ0s.61**/10**, Czech and Slovak Republics**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MORC	Moravsky Berou	0.26	340	ePG	Pg	06 20 25.4	-0.2
JAVC	Velka Javorina	0.67	180	ePG	Pb	06 20 35.1	+0.6
VRAC	Vranov	0.74	253	ePG	Pb	06 20 35.5	-0.2
VRAC				eSG	Sg	06 20 44.7	+0.4
KRUC	Moravsky	0.96	241	ePG	Pb	06 20 39.8	+0.4
KRUC				eSG	Sg	06 20 51.7	+0.4
LANS	Liptovska Anna	1.23	107	ePG	Pn	06 20 44.7	+0.6
LANS				eSG	Sn	06 21 01.0	0.0
VYHS	Vyhne	1.29	143	ePG	Pn	06 20 44.0	-0.8
VYHS				eSG	Sb	06 21 00.9	-0.8

*IDC **01** 06:20:48.9±1.0, 27°.82S×71°.78W, h0km, mb4.1/6, mbtmp4.0/9, ML4.1/3, Error ellipse: s-maj=26.8km s-min=16.4km az=77.0*

*SJA **01** 06:20:50.0±0.3, 27°.85S×71°.39W, h10km, ML4.4, MW4.1*

*GUC **01** 06:20:53.0±0.8, 28°.03S×71°.40W, h32km±3km, ML3.8*

*NEIC **01** 06:20:53.7±2.7, 28°.02S±0°.01×71°.31W±0°.06, h19km±3km, mb4.1/17, Error ellipse: s-maj=7.8km s-min=1.6km az=97.0*

ISC 01 06:20:50.9±1.7**, 27°.99S**±0°.03×**71°.47W**±0°.06**, h9km**±10km**, n95, σ1s.76**/98**, mb4.2**/10**, 2D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.41	122	⇓*i*P	Pb	06 21 00.6	+0.2
AC04				*i* S	Sg	06 21 05.3	+0.8
AC04				IAML		06 21 05.8	
	comp=E,36µm,0.3s						
AC04	Llanos de Chal	0.41	122		Pb	06 21 00.6	+0.2
GO03	Copiapo	1.16	71	*i* P	Pn	06 21 12.9	-0.6
GO03				IAML		06 21 54.8	
	comp=Z,7µm,0.8s						
GO03	Copiapo	1.16	71	*e*P	Pn	06 21 12.4	-1.0
GO03	Copiapo	1.16	71	Pn	Pn	06 21 13.0	-0.4
AC06	Mina Casimiro	1.17	58	*e*P	Pn	06 21 12.5	-1.0
AC06	Mina Casimiro	1.17	58	Pn	Pn	06 21 12.5	-1.0
LCO	Las Campanas	1.23	147	*e*P	Pn	06 21 13.7	-0.8
LCO				*i* S	Sb	06 21 29.6	-0.8
LCO	Las Campanas	1.23	147		Pn	06 21 13.7	-0.8
AC05	El Transito	1.35	129	⇓*i*P	Pn	06 21 16.0	0.0
AC05				*i* S	Sn	06 21 31.9	-2.3
AC05				IAML		06 21 38.4	
	comp=E,2µm,0.3s						
AC05	El Transito	1.35	129	Pn	Pn	06 21 15.2	-0.9
AC01	Pan de Azucar	1.99	23	*i* P	Pn	06 21 23.1	-1.7
AC01				*e*S	Sn	06 21 48.6	-1.2
AC01				IAML		06 22 01.3	
	comp=Z,1µm,0.5s						
AC01	Pan de Azucar	1.99	23	IAML		06 21 59.5	
	comp=E,1µm,0.4s						
AC01	Pan de Azucar	1.99	23	Pn	Pn	06 21 24.6	-0.2
GO04	Tololo Observa	2.26	165	*e*P	Pn	06 21 30.2	+1.6
GO04				IAML		06 22 30.2	
	comp=Z,5µm,0.5s						
GO04	Tololo Observa	2.26	165	*e*P	Pn	06 21 29.3	+0.7
GO04	Tololo Observa	2.26	165	Pn	Pn	06 21 28.3	-0.3
CO01	Juntas del Tor	2.32	149	*i* S	Sn	06 21 58.7	+0.3
CO01				IAML		06 22 03.6	
	comp=N,2µm,0.6s						
CO01	Juntas del Tor	2.32	149	Pn	Pn	06 21 28.7	-0.8
AC02	Maricunga	2.38	62	*i* P	Pb	06 21 34.1	-0.1
AC02				*e*S	Sn	06 21 59.5	-0.6
AC02				IAML		06 22 29.6	
	comp=Z,3µm,0.5s						
AC02	Maricunga	2.38	62	*e*P	Pn	06 21 32.1	+1.6
AC02	Maricunga	2.38	62	Pn	Pn	06 21 30.6	+0.1
CO06	Fray Jorge	2.68	183	Pn	Pn	06 21 33.8	-0.5
AROD	Rodeo	2.79	142	*e*P	Pg	06 21 45.1	+0.8
CO03	El Pedregal	2.92	167	*e*P	Pn	06 21 39.2	+1.5
CO03				IAML		06 26 08.8	
	comp=Z,56nm,0.3s						
CO03	El Pedregal	2.92	167	*e*P	Pn	06 21 38.8	+1.1
CO03	El Pedregal	2.92	167	Pn	Pn	06 21 37.5	-0.1
VCA	Vinchina	2.97	105	*e*P	Pb	06 21 46.2	+2.1
VCA				IAML		06 22 55.0	
	comp=Z,2µm,0.4s						
ACDV	Cuesta del Vie	3.00	137	*e*P	Pb	06 21 46.5	+2.0
ACDV				IAML		06 26 12.6	
	comp=Z,271nm,0.5s						
ACDV	Cuesta del Vie	3.00	137	*i* P	Pb	06 21 46.2	+1.7
ACDV				*e*S	Sn	06 22 12.6	-2.3
ACDV				IAML		06 22 50.2	
	comp=Z,663nm,0.8s						
CO02	Combarbal	3.23	173	Pn	Pn	06 21 41.6	-0.3
ACCO	Cerro Coronel	3.34	142	*e*P	Pb	06 21 49.6	-0.8
ACCO				IAML		06 26 20.5	
	comp=Z,111nm,0.6s						
ACCO	Cerro Coronel	3.34	142	*i* P	Pb	06 21 50.6	+0.1
ACCO				IAML		06 23 05.6	
	comp=Z,1µm,0.6s						
TINO	Tinogasta	3.45	92	*e*P	Pn	06 21 47.9	+3.0
TINO				IAML		06 23 08.4	
	comp=Z,1µm,0.7s						
TINO	Tinogasta	3.45	92	*i* P	Pb	06 21 49.0	-3.2
TINO				IAML		06 23 08.4	
	comp=Z,1µm,0.7s						
PB14	IPOC Station P	3.48	16	*i* P	Pn	06 21 45.4	-0.2
PB14				IAML		06 23 17.0	
	comp=Z,773nm,0.6s						
PB14	IPOC Station P	3.48	16	Pn	Pn	06 21 46.2	+0.7
CO04	Los Peladeros	4.07	174	Pn	Pn	06 21 52.6	-0.9
ACLC	CERRO LA CRUZ	4.22	111	*e*P	Pn	06 22 00.4	+4.8
ACLC				IAML		06 26 33.8	
	comp=Z,65nm,0.4s						
RTLL	Cerro Villicun	4.23	143	*e*P	Pb	06 22 01.2	-4.3
RTLL				IAML		06 26 32.8	
	comp=Z,50nm,0.4s						
RTLL	Cerro Villicun	4.23	143	*i* P	Pn	06 22 00.4	+4.9
RTLL				IAML		06 23 34.7	
	comp=Z,727nm,1.7s						
RTLS	Leoncito	4.24	154	*e*P	Pn	06 22 00.6	+4.6
RTLS				IAML		06 26 37.8	
	comp=Z,129nm,0.4s						
ZON	Zonda	4.30	146	*e*P	Pb	06 22 04.6	-2.1
ZON				IAML		06 26 38.5	
	comp=Z,28nm,1.8s						
ZON	Zonda	4.30	146	Pn	Pn	06 21 54.9	-1.6
AVFE	Valle Fertil	4.40	128	*e*P	Pn	06 22 00.9	+2.9
AVFE				IAML		06 26 36.0	
	comp=Z,89nm,0.5s						
CFA	Coronel Fontan	4.57	143	Pn	Pn	06 22 04.0	+3.8
	comp=Z,15nm,0.3s,baz=320,slow=10,SNR=10						
CFA				Sn	Sb	06 23 02.1	-4.4
	comp=Z,11nm,0.3s,baz=356,slow=12,SNR=4.0						
	comp=Z,33nm,0.3s						
CFA				AML	AML		
CFA	Coronel Fontan	4.57	143	*i* P	Pn	06 22 03.6	+3.4
CFA				IAML		06 23 39.3	
	comp=Z,339nm,0.6s						
AUSP	Uspallata	4.59	157	*e*P	Pn	06 22 05.9	+5.1
VA03	San Esteban	4.83	171	Pn	Pn	06 22 03.3	-0.6
CYA	Choya	5.02	96	*e*P	Pn	06 22 10.3	+3.8
CYA				IAML		06 26 28.2	
	comp=Z,55nm,0.4s						
PEL	Peldehue	5.18	173	Pn	Pn	06 22 06.4	-2.3
PB05	IPOC Station P	5.24	13	*i* P	Pn	06 22 06.6	-3.0
PB05				IAML		06 24 10.3	
	comp=Z,271nm,0.9s						
MT02	Curacav	5.26	177	Pn	Pn	06 22 08.4	-1.3
MT16	CCHEN	5.48	172	Pn	Pn	06 22 10.6	-2.2
PB06	IPOC Station P	5.53	19	*i* P	Pn	06 22 11.2	-2.4
PB06				IAML		06 24 09.5	
	comp=Z,311nm,0.6s						
LPAZ	La Paz	12.05	16	Pn	Pn	06 23 42.8	-0.6
	comp=Z,0.3nm,0.3s,baz=213,slow=6.7,SNR=5.4						
	comp=Z,0.8nm,0.4s						
LPAZ				AML	AML		
CPUP	Villa Florida	12.70	86	Pn	Pn	06 23 54.3	+2.6
	comp=Z,0.2nm,0.3s,baz=249,slow=12,SNR=4.0						
	comp=Z,0.6nm,0.4s						
CPUP				AML	AML		
CPUP	Villa Florida	12.70	86	Pn	Pn	06 23 50.9	-0.9
PLCA	Paso Flores	12.74	177	Pn	Pn	06 23 51.4	-0.8
SIV	San Ignacio	15.34	41	Pn	Pn	06 24 21.1	-6.5
	baz=239,slow=7.6,SNR=12						
AQDB	Aquidauana	16.20	66	Pn	Pn	06 24 38.6	-0.3
PTLB	Pontes e Lacer	16.92	45	Pn	Pn	06 24 47.5	-0.6
VILB	Vilhena	18.29	37	P	P	06 25 05.3	+0.2
VILB				IAmb	IAmb	06 25 19.5	
	comp=Z,5.2nm,0.7s						
GO08	Villa O'Higgin	20.46	182	P	P	06 25 28.2	-0.4
VAO	Valinhos	22.66	83	P	P	06 25 51.7	-0.9
VAO				IAmb	IAmb	06 25 52.4	
	comp=Z,13nm,0.7s						
BDFB	Brasilia	24.95	65	P	P	06 26 14.7	-0.1
	comp=Z,2.0nm,0.5s,baz=237,slow=17,SNR=4.3						
	comp=Z,2.0nm,0.5s						
BDFB	Brasilia	24.95	65	P	P	06 26 14.6	-0.3
MACA	Manacapuru-AM	26.75	25	P	P	06 26 31.6	+0.6
MACA				IAmb	IAmb	06 26 46.0	
	comp=Z,6.8nm,0.7s						
OTAV	Otavalo	28.85	345	P	P	06 26 51.8	+1.4
OTAV				IAmb	IAmb	06 27 10.2	
	comp=Z,2.5nm,0.9s						
BOAV	Boa Vista	31.99	21	P	P	06 27 18.9	+1.4
BOAV				IAmb	IAmb	06 27 28.6	
	comp=Z,1.2nm,0.8s						
HOPE	Hope Point	36.58	146	P	P	06 27 56.3	-0.7
ESPZ	Base Esperanza	36.65	169	P	P	06 27 57.8	+0.4
ESPZ				IAmb	IAmb	06 28 10.2	
	comp=Z,4.5nm,1.0s						
SNAA	Sanae	56.99	159	P	P	06 30 36.8	+0.3
	comp=Z,1.0nm,0.7s,baz=276,slow=8.8,SNR=4.3						
	comp=Z,1.0nm,0.7s						
SNAA	Sanae	56.99	159	P	P	06 30 35.9	-0.6
SNAA				IAmb	IAmb	06 30 45.6	
	comp=Z,1.6nm,0.6s						
656A	Willston	58.01	349	P	P	06 30 46.2	+2.2
QSPA	South Pole Qui	62.23	180	P	P	06 31 13.6	+0.8
	comp=Z,0.5nm,0.6s,baz=180,slow=4.0,SNR=1.6						
	comp=Z,0.5nm,0.6s						
QSPA	South Pole Qui	62.23	180	P	P	06 31 13.8	+1.0
QSPA				IAmb	IAmb	06 31 14.7	
	comp=Z,1.2nm,0.9s						
TXAR	Lajitas Array	64.79	329	P	P	06 31 32.2	+2.1
DBIC	Dimbokro	72.86	73	P	P	06 32 20.9	+0.3
	comp=Z,4.0nm,0.6s,baz=236,slow=7.3,SNR=5.0						
	comp=Z,4.0nm,0.6s						
DBIC	Dimbokro	72.86	73	P	P	06 32 20.3	-0.3
MCMT	McKenzie Canyo	81.71	332	P	P	06 33 12.3	+2.4
TORD	Torodi Ar. Bea	81.72	70	P	P	06 33 10.2	-0.1
	comp=Z,1.0nm,0.6s,baz=264,slow=4.3,SNR=4.6						
	comp=Z,1.0nm,0.6s						
BOSA	Boshof	82.45	118	P	P	06 33 14.1	-0.1
	comp=Z,1.7nm,0.5s,baz=244,slow=7.2,SNR=3.9						
	comp=Z,1.7nm,0.5s						
BOSA	Boshof	82.45	118	P	P	06 33 13.6	-0.6
BOSA				IAmb	IAmb	06 33 22.8	
	comp=Z,2.9nm,1.1s						
GRTLG	Ghanzi	82.51	110	P	P	06 33 14.1	-0.5
WRA	Warramunga Arr	126.20	211	PKP	PKPdf	06 39 53.8	-0.8
	comp=Z,0.3nm,0.7s,baz=169,slow=2.2,SNR=2.1						
KBL	Kabul	145.78	69	PKPdf	PKPdf	06 40 30.1	-0.4
KK31	Karatay Array	145.91	54	PKPdf	PKPbc	06 40 30.7	-0.1
KKAR	Karatay Array	145.91	54	PKPdf	PKPdf	06 40 30.3	+0.1
YSS	Yuzhno-Sakhali	147.24	315	PKPdf	PKPdf	06 40 32.4	+0.2
KURK	Kurchatov	147.96	37	PKPdf	PKPdf	06 40 32.2	-1.1
KURBB	Kurchatov Arra	147.96	37	PKPbc	PKPbc	06 40 35.5	-0.8
	comp=Z,0.6nm,0.6s,baz=297,slow=3.3,SNR=7.0						
ZALV	Zalesovo Beam	148.78	27	PKPbc	PKPbc	06 40 38.7	+0.3
	comp=Z,2.2nm,0.7s,baz=321,slow=3.8,SNR=8.4						
ZALV	Zalesovo Beam	148.78	27		PKiKP	06 40 39.4	-0.4
MKAR	Makanchi Array	152.15	41	PKPbc	PKPbc	06 40 46.5	-0.2
	comp=Z,1.0nm,0.7s,baz=320,slow=2.4,SNR=8.3						

*IDC **01** 06:21:15.3±0.7, 27°.82S×71°.49W, h0^{km}, mb4.3/7, mbtmp4.2/10, ML3.9/3, Error ellipse: s-maj=27.1km s-min=13.3km az=74.0*

*NEIC **01** 06:21:19.9±1.7, 27°.95S±0°.03×70°.93W±0°.06, h20^{km}±3^{km}, mb4.5/24, Error ellipse: s-maj=7.3km s-min=4.0km az=109.0*

ISC 01 06:21:17.8±0.5, **27°.84S**±0°.03×**71°.19W**±0°.05, **h10**^{km}, **n81**, σ**1**^{s}**.64**/81, **mb4.5**/17, **4C-1D**, **Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.38	164	Pg	Pg	06 21 26.5	+1.0
AC04				Sg	Sg	06 21 31.2	+0.7
GO03	Copiapo	0.88	74		Pg	06 21 33.8	-1.1
GO03					Pb	06 21 34.3	-0.9
AC06	Mina Casimiro	0.88	58	Pg	Pg	06 21 35.1	+0.3
LCO	Las Campanas	1.25	160	Pn	Pn	06 21 41.1	-0.5
AC05	El Transito	1.28	141	Pn	Pn	06 21 39.2	-2.8
AC01	Pan de Azucar	1.76	18	Pn	Pb	06 21 50.1	-0.1
AC02	Maricunga	2.09	62	Pn	Pn	06 21 52.7	-0.6
CO01	Juntas del Tor	2.34	156	Pn	Pn	06 21 54.6	-2.0
GO04	Tololo Observa	2.35	172	Pn	Pn	06 21 55.5	-1.3
GO04	Tololo Observa	2.35	172	*e*S	Sn	06 22 28.6	+2.7
AROD	Rodeo	2.77	147	⇓*e*S	Sb	06 22 42.1	+0.3
VCA	Vinchina	2.78	110	*e*S	Sg	06 22 49.4	+2.1
CO06	Fray Jorge	2.85	188	Pn	Pn	06 22 02.9	-0.6
CO03	El Pedregal	3.03	172	Pn	Pn	06 22 03.9	-2.0
TINO	Tinogasta	3.21	95	*e*S	Sg	06 23 02.3	+1.2
PB14	IPOC Station P	3.27	13	Pn	Pn	06 22 09.6	+0.1
CO02	Combarbal	3.36	177	Pn	Pn	06 22 09.4	-1.1
CO04	Los Peladeros	4.20	177	Pn	Pn	06 22 20.2	-2.0
ZON	Zonda	4.30	150	Pn	Pn	06 22 21.0	-2.3
CFA	Coronel Fontan	4.55	146	Pn	Pn	06 22 29.1	+2.3
	28nm,0.3s,baz=326,slow=11,SNR=13						
CFA				Sn	Sn	06 23 25.8	+5.9
	49nm,0.3s,baz=212,slow=18,SNR=4.7						
	44nm,0.3s						
CFA				AML	AML		
VA03	San Esteban	4.94	174	Pn	Pn	06 22 30.5	-1.8
PB05	IPOC Station P	5.04	10	Pn	Pn	06 22 32.5	-1.2
VA01	Torpederas	5.19	184	Pn	Pn	06 22 34.8	-0.6
PB06	IPOC Station P	5.31	16	Pn	Pn	06 22 36.5	-0.9
LPAZ	La Paz	11.84	14	Pn	Pn	06 24 07.7	+0.3
	0.8nm,0.3s,baz=222,slow=6.1,SNR=6.7						
	2.0nm,0.4s						
LPAZ				AML	AML		
LPAZ	La Paz	11.84	14		Pn	06 24 07.9	+0.6
CPUP	Villa Florida	12.44	86	Pn	Pn	06 24 18.2	+3.2
PLCA	Paso Flores	12.88	178	Pn	Pn	06 24 17.6	-3.4
	0.1nm,0.3s,baz=37,slow=18,SNR=2.9						
	0.5nm,0.6s						
PLCA				AML	AML		
PLCA	Paso Flores	12.88	178	Pn	Pn	06 24 24.4	+3.4
CPSB	Cacapava Do Su	15.73	104		P	06 25 02.3	-1.2
NNA	Nana	16.63	340		P	06 25 17.1	+3.4
PTLB	Pontes e Lacer	16.64	45		Pn	06 25 11.9	+0.6
VILB	Vilhena	18.02	37	P	Pn	06 25 29.2	+0.6
VAO	Valinhos	22.39	83	P	P	06 26 13.6	-3.0
BDFB	Brasilia	24.66	65	P	P	06 26 37.5	-1.5
ORCD	Orcadas	37.43	159	P	P	06 28 30.2	-0.7
VNA3	Neumayer Olymp	54.82	160	P	P	06 30 46.9	-0.8
VNA3	Neumayer Olymp	54.82	160	⇑P	P	06 30 46.9	-0.8
	comp=Z,3.1nm,0.7s						
VNA2	Neumayer--Watz	55.45	159	P	P	06 30 51.4	-0.8
	baz=286,slow=7.4						
VNA2	Neumayer--Watz	55.45	159	⇑P	P	06 30 51.4	-0.8
	comp=Z,4.2nm,0.6s,baz=286,slow=7.4						
SNAA	Sanae	57.05	159	P	P	06 31 02.7	-0.9
SNAA	Sanae	57.05	159	⇑P	P	06 31 02.7	-0.9
	comp=Z,98nm,0.7s						
SNAA	Sanae	57.05	159	P	P	06 31 02.7	-0.9
	comp=Z,3.3nm,0.6s,baz=302,slow=5.9,SNR=11						
	comp=Z,3.3nm,0.6s						
SNAA	Sanae	57.05	159	P	P	06 31 03.1	-0.6
SNAA				IAmb	IAmb	06 31 03.3	
	comp=Z,4.0nm,0.7s						
TROLL	Troll, Antarti	58.76	160	P	P	06 31 15.0	-0.8
TROLL	Troll, Antarti	58.76	160	⇑P	P	06 31 15.0	-0.8
	comp=Z,249nm,0.9s						
QSPA	South Pole Qui	62.38	180	P	P	06 31 39.2	-1.4
	comp=Z,2.7nm,0.7s,baz=166,slow=3.3,SNR=7.2						
	comp=Z,2.7nm,0.7s						
QSPA	South Pole Qui	62.38	180	P	P	06 31 39.9	-0.7
QSPA				IAmb	IAmb	06 31 40.5	
	comp=Z,3.5nm,0.9s						
HNDO	Hondo	63.05	333	P	P	06 31 47.4	+2.1
HNDO				IAmb	IAmb	06 31 48.2	
	comp=Z,3.6nm,0.8s						
TXAR	Lajitas Array	64.79	329	P	P	06 31 55.3	-1.6
	comp=Z,0.4nm,0.8s,baz=155,slow=9.1,SNR=4.1						
	comp=Z,0.4nm,0.8s						
TXAR	Lajitas Array	64.79	329	P	P	06 31 57.5	+0.7
TPB01	Permian Basin	66.21	330	P	P	06 32 08.0	+2.0
TPB01				IAmb	IAmb	06 32 08.7	
	comp=Z,2.9nm,0.8s						
LCAR	Lake Charles	66.29	342	P	P	06 32 07.1	+0.8
FCAR	Ozark Folk Cen	66.39	342	P	P	06 32 07.2	+0.3
FCAR				IAmb	IAmb	06 32 14.8	
	comp=Z,3.1nm,1.2s						
R40A	Maddies Statio	68.68	342	P	P	06 32 22.1	+0.8
DBIC	Dimbokro	72.57	72	P	P	06 32 46.0	+0.4
	comp=Z,8.1nm,0.7s,baz=247,slow=6.9,SNR=7.5						
	comp=Z,8.1nm,0.7s						
DBIC	Dimbokro	72.57	72	P	P	06 32 43.2	-2.5
G62A	West of Eustis	72.70	0	P	P	06 32 46.6	+0.8
G62A				IAmb	IAmb	06 32 56.1	
	comp=Z,2.6nm,0.9s						
PKME	Peaks-Kenny Pk	72.77	1	P	P	06 32 47.1	+1.1
PKME				IAmb	IAmb	06 32 48.0	
	comp=Z,5.0nm,1.0s						
HWUT	Hardware Ranch	78.54	330	P	P	06 33 19.9	+0.4
HWUT				IAmb	IAmb	06 33 22.1	
	comp=Z,2.9nm,0.8s						
NVAR	Mina Array Bea	79.29	324	P	P	06 33 22.7	-1.1
	comp=Z,0.5nm,0.8s,baz=158,slow=4.7,SNR=4.2						
	comp=Z,0.5nm,0.8s						
NVAR	Mina Array Bea	79.29	324	P	P	06 33 24.3	+0.5
TSUM	Tsumeb	80.23	107	P	P	06 33 27.9	-1.4
TSUM				IAmb	IAmb	06 33 46.6	
	comp=Z,9.9nm,1.1s						
HLID	Hailey	81.36	330	P	P	06 33 36.8	+2.0
TORD	Torodi Ar. Bea	81.44	70	P	P	06 33 35.2	-0.4
	comp=Z,4.8nm,0.9s,baz=267,slow=4.7,SNR=9.0						
	comp=Z,4.8nm,0.9s						
TORD	Torodi Ar. Bea	81.44	70	P	P	06 33 34.1	-1.4
TORD				IAmb	IAmb	06 33 36.5	
	comp=Z,4.4nm,1.0s						
BOSA	Boshof	82.31	118	P	P	06 33 39.5	-0.7
	comp=Z,4.0nm,0.8s,baz=264,slow=6.3,SNR=5.4						
	comp=Z,4.0nm,0.8s						
BOSA	Boshof	82.31	118	P	P	06 33 38.0	-2.2
BOSA				IAmb	IAmb	06 33 47.0	
	comp=Z,3.1nm,0.8s						
MOD	Modoc Plateau	82.89	325	P	P	06 33 44.2	+1.4
MOD				IAmb	IAmb	06 33 54.6	
	comp=Z,1.5nm,0.8s						
ASAR	Alice Springs	123.36	208	PKP	PKPdf	06 40 14.3	-1.5
	comp=Z,0.5nm,0.7s,baz=135,slow=1.5,SNR=5.9						
H11S2	WAKE ISLAND Hy	126.37	273	T	T	08 59 27.0	
	baz=112,slow=75,SNR=7.4						
H11S1	WAKE ISLAND Hy	126.39	273	T	T	08 59 30.7	
	baz=112,slow=75,SNR=7.3						
H11S3	WAKE ISLAND Hy	126.39	273	T	T	08 59 31.1	
	baz=112,slow=75,SNR=7.8						
WRA	Warramunga Arr	126.46	210	PKP	PKPdf	06 40 20.6	-1.2
	comp=Z,1.5nm,0.8s,baz=152,slow=1.7,SNR=11						
KKAR	Karatay Array	145.62	53	PKPdf	PKPdf	06 40 56.6	+0.2
KURK	Kurchatov	147.69	37	PKPdf	PKPdf	06 41 00.3	+0.7
KURBB	Kurchatov Arra	147.69	37	PKPbc	PKPdf	06 41 01.0	+1.4
	comp=Z,1.6nm,0.7s,baz=302,slow=3.2,SNR=9.4						
ARSB	Arslanbob	147.82	56		PKPdf	06 41 00.9	+0.5
LUWI	Luwuk	148.31	207	PKPdf	PKPdf	06 41 00.2	-1.6
ZALV	Zalesovo Beam	148.53	27	PKPbc	PKPbc	06 41 04.4	-0.1
	comp=Z,6.1nm,0.8s,baz=329,slow=2.8,SNR=11						
MKAR	Makanchi Array	151.88	41	PKPbc	PKPbc	06 41 12.7	-0.2
	comp=Z,2.0nm,0.6s,baz=322,slow=2.1,SNR=12						

*IDC **01** 06:25:08.2±1.2, 27°.77S×71°.30W, h0^{km}, mb3.9/2, mbtmp3.9/5, ML3.9/3, Error ellipse: s-maj=38.6km s-min=16.2km az=82.0*

*SJA **01** 06:25:09.8±0.7, 27°.88S×71°.23W, h8^{km}±3^{km}, ML4.0, MW3.7*

*GUC **01** 06:25:11.7±0.9, 28°.00S×71°.08W, h35^{km}±3^{km}, ML3.9*

*NEIC **01** 06:25:11.9±1.6, 27°.93S±0°.02×71°.20W±0°.07, h29^{km}±5^{km}, mb4.3/9, ML3.9(GUC), Error ellipse: s-maj=8.6km s-min=2.4km az=99.0*

ISC 01 06:25:10.4±0.8, **27°.87S**±0°.02×**71°.33W**±0°.05, **h22**^{km}±6^{km}, **n85**, σ**1**^{s}**.77**/101, **mb4.2**/5, **5C**, **Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.40	147	⇑*e*P	Pb	06 25 19.5	+0.6
AC04				*e*S	Sb	06 25 23.9	-0.8
AC04				IAML		06 25 24.4	
	comp=E,31µm,0.3s						
AC04	Llanos de Chal	0.40	147	Sg	Sb	06 25 23.9	-0.8
AC06	Mina Casimiro	1.00	60	*e*P	Pb	06 25 29.1	0.0
AC06				*e*S	Sn	06 25 41.6	-0.9
AC06				IAML		06 25 44.5	
	comp=N,6µm,0.2s						
AC06	Mina Casimiro	1.00	60	Pn	Pb	06 25 29.8	+0.7
GO03	Copiapo	1.00	75	*e*P	Pn	06 25 27.8	-1.4
GO03				IAML		06 25 42.6	
	comp=Z,5µm,0.5s						
GO03	Copiapo	1.00	75	*e*P	Pn	06 25 28.6	-0.7
GO03				*e*S	Sn	06 25 41.1	-1.7
GO03				IAML		06 25 41.9	
	comp=N,7µm,0.4s						
GO03	Copiapo	1.00	75		Pb	06 25 29.2	0.0
GO03				Sn	Sn	06 25 41.3	-1.4
LCO	Las Campanas	1.27	154	⇑*e*P	Pn	06 25 32.5	-0.5
LCO				*e*S	Sn	06 25 47.6	-2.0
LCO	Las Campanas	1.27	154		Pn	06 25 33.1	+0.1
LCO				Sn	Sn	06 25 47.4	-2.1
AC05	El Transito	1.34	136	*e*P	Pb	06 25 34.5	-0.4
AC05				*e*S	Sn	06 25 38.0	-13
AC05	El Transito	1.34	136	⇑*e*P	Pn	06 25 33.6	-0.3
AC05				*e*S	Sn	06 25 48.2	-3.0
AC05				IAML		06 25 54.4	
	comp=N,4µm,0.5s						
AC05	El Transito	1.34	136	Pn	Pn	06 25 33.7	-0.3
AC01	Pan de Azucar	1.83	21	*e*P	Pb	06 25 42.8	-0.5
AC01				*e*S	Sb	06 26 08.5	+2.8
AC01	Pan de Azucar	1.83	21	⇑*e*P	Pn	06 25 42.3	+1.7
AC01				*e*S	Sb	06 26 05.7	-0.1
AC01				IAML		06 26 17.2	
	comp=E,948nm,0.2s						
AC01	Pan de Azucar	1.83	21		Pb	06 25 42.5	-0.8
AC01				Sn	Sb	06 26 04.7	-1.1
AC02	Maricunga	2.21	63	*e*P	Pb	06 25 49.3	-0.6
AC02				*e*S	Sb	06 26 17.2	+0.2
AC02				IAML		06 26 19.3	
	comp=Z,2µm,0.2s						
AC02	Maricunga	2.21	63	⇑*e*P	Pb	06 25 49.5	-0.4
AC02				*e*S	Sb	06 26 16.5	-0.5
AC02				IAML		06 26 19.3	
	comp=N,3µm,0.2s						
AC02	Maricunga	2.21	63	Pn	Pn	06 25 46.0	-0.2
GO04	Tololo Observa	2.34	169	*e*P	Pb	06 25 50.7	-1.4
GO04				*e*S	Sb	06 26 21.0	+0.3
GO04				IAML		06 26 21.6	
	comp=Z,858nm,0.4s						
GO04	Tololo Observa	2.34	169	*e*P	Pn	06 25 49.2	+1.4
GO04	Tololo Observa	2.34	169	Pn	Pn	06 25 46.8	-1.0
CO01	Juntas del Tor	2.36	153	*e*P	Pn	06 25 48.7	+0.6
CO01				IAML		06 26 28.1	
	comp=N,1µm,0.7s						
CO01	Juntas del Tor	2.36	153	Pn	Pn	06 25 46.3	-1.8
CO06	Fray Jorge	2.81	185	*e*P	Pn	06 25 54.0	-0.1
CO06	Fray Jorge	2.81	185	Pn	Pn	06 25 54.1	+0.1
ACDV	Cuesta del Vie	3.00	140	*e*P	Pb	06 26 02.7	-0.6
ACDV				*e*S	Sb	06 26 43.8	+4.2
ACDV				IAML		06 26 47.8	
	comp=Z,232nm,1.1s						
CO03	El Pedregal	3.01	170	*e*P	Pn	06 25 57.9	+1.0
CO03				IAML		06 26 44.4	
	comp=E,636nm,0.4s						
CO03	El Pedregal	3.01	170	Pn	Pn	06 25 56.1	-0.9
TINO	Tinogasta	3.33	94	*e*P	Pn	06 26 04.0	+2.8
PB14	IPOC Station P	3.33	15	*e*P	Pn	06 26 02.3	+0.8
PB14	IPOC Station P	3.33	15	Pn	Pn	06 26 01.8	+0.3
CO02	Combarbal	3.34	175	*e*P	Pn	06 26 01.9	+0.5
CO02	Combarbal	3.34	175	Pn	Pn	06 26 00.7	-0.8
ACLC	CERRO LA CRUZ	4.14	113	*e*P	Pn	06 26 15.9	+3.3
CO04	Los Peladeros	4.17	176	Pn	Pn	06 26 12.9	-0.1
CO04				Sn	Sn	06 27 01.6	+0.4
RTLL	Cerro Villicun	4.25	145	*e*P	Pn	06 26 17.8	+3.9
RTLL				*e*S	Sn	06 27 07.8	+4.9
RTLS	Leoncito	4.30	156	*e*P	Pn	06 26 18.9	+4.2
RTLS				*e*S	Sn	06 27 08.8	+4.4
ZON	Zonda	4.33	149	Pn	Pn	06 26 13.3	-1.7
CFA	Coronel Fontan	4.59	145	Pn	Pn	06 26 21.4	+2.9
	comp=E,5.8nm,0.3s,baz=328,slow=10,SNR=3.1						
CFA				Sn	Sn	06 27 15.3	+4.1
	comp=E,13nm,0.3s,baz=65,slow=22,SNR=6.7						
	comp=E,18nm,0.3s						
CFA				AML	AML		
CFA	Coronel Fontan	4.59	145	*e*P	Pn	06 26 22.1	+3.5
CFA				*e*S	Sn	06 27 05.0	-6.3
VA03	San Esteban	4.93	172	Pn	Pn	06 26 22.5	-0.7
PB05	IPOC Station P	5.09	12	Pn	Pn	06 26 25.9	+0.3
VA01	Torpederas	5.15	183	Pn	Pn	06 26 26.4	+0.3
PEL	Peldehue	5.29	174	Pn	Pn	06 26 27.7	-0.4
MT02	Curacav	5.38	178	Pn	Pn	06 26 29.0	-0.4
PB06	IPOC Station P	5.38	18	Pn	Pn	06 26 30.4	+0.9
AHML	Horco Molle	5.44	80	*e*P	Pn	06 26 32.0	+1.8
MT05	Renca	5.53	175	Pn	Pn	06 26 30.2	-1.2
AF01	San Pedro de A	5.66	31	Pn	Pn	06 26 34.3	+0.8
MT08	Bocatoma Ro	5.67	169	Pn	Pn	06 26 30.7	-2.9
MT09	Talagante	5.90	177	Pn	Pn	06 26 36.5	-0.1
PB03	IPOC Station P	5.97	14	Pn	Pn	06 26 38.5	+0.9
PB07	IPOC Station P	6.25	12	Pn	Pn	06 26 41.6	+0.1
PB02	IPOC Station P	6.65	12	Pn	Pn	06 26 47.3	+0.4
GO05	Hualane	7.14	184	Pn	Pn	06 26 53.4	-0.2
BI02	San Fabin de	8.77	180	Pn	Pn	06 27 15.6	-0.4
PB12	IPOC Station P	9.26	6	Pn	Pn	06 27 22.6	-0.1
LPAZ	La Paz	11.90	15	Pn	Pn	06 27 59.5	+0.1
	comp=E,0.6nm,0.3s,baz=201,slow=6.2,SNR=9.0						
	comp=E,1.8nm,0.4s						
LPAZ				AML	AML		
LPAZ	La Paz	11.90	15	Pn	Pn	06 28 00.2	+0.9
SIV	San Ignacio	15.16	41	Pn	Pn	06 28 39.0	-4.3
	baz=216,slow=15,SNR=1.7						
	comp=E,0.9nm,0.6s						

NNA	Nana	16.62	341		P	06 29 05.6	+1.1
NNA				IAmb	IAmb	06 29 19.4	
	comp=Z,17nm,1.0s						
VAO	Valinhos	22.51	83	P	P	06 30 07.2	-1.6
PMSA	Palmer Station	37.21	175	P	P	06 32 19.7	0.0
PMSA				IAmb	IAmb	06 32 38.5	
	comp=Z,3.4nm,1.0s						
BELA	Belgrano 2	52.81	171	P	P	06 34 24.0	+0.4
SNAA	Sanae	57.06	159	P	P	06 34 55.8	+1.3
	comp=Z,1.8nm,1.1s,baz=278,slow=7.1,SNR=2.6						
	comp=Z,1.8nm,1.1s						
SNAA	Sanae	57.06	159	P	P	06 34 54.8	+0.4
SNAA				IAmb	IAmb	06 35 03.6	
	comp=Z,3.8nm,1.1s						
QSPA	South Pole Qui	62.35	180	P	P	06 35 32.3	+1.2
	comp=Z,1.1nm,1.0s,baz=131,slow=6.0,SNR=1.7						
	comp=Z,1.1nm,1.0s						
QSPA	South Pole Qui	62.35	180	P	P	06 35 31.0	0.0
TMB01	Midkiff	66.06	332	P	P	06 35 56.3	+0.6
T47A	Sharon Grove	66.19	346	P	P	06 35 56.2	-0.1
T47A				IAmb	IAmb	06 36 11.3	
	comp=Z,3.2nm,0.9s						
T25A	Trinidad	71.75	333	P	P	06 36 31.9	+0.8
T25A				IAmb	IAmb	06 36 40.2	
	comp=Z,4.3nm,1.1s						
YHL	Hebgen Lake	80.99	333	P	P	06 37 23.4	-0.1
H11S2	WAKE ISLAND Hy	126.26	273	T	T	09 03 25.5	
	baz=112,slow=75,SNR=8.7						
H11S1	WAKE ISLAND Hy	126.27	273	T	T	09 03 25.0	
	baz=112,slow=75,SNR=13						
H11S3	WAKE ISLAND Hy	126.28	273	T	T	09 03 29.3	
	baz=112,slow=75,SNR=11						
WRA	Warramunga Arr	126.38	210	PKP	PKiKP	06 44 13.3	+0.6
	comp=Z,0.3nm,0.8s,baz=152,slow=1.8,SNR=1.6						
KAPI	Kappang	145.61	200	PKPdf	PKPdf	06 44 47.3	-0.5
BTK	Batken	146.57	59	PKPdf	PKPdf	06 44 46.3	-2.4
KURK	Kurchatov	147.79	37	PKPdf	PKPdf	06 44 50.2	-0.1
KURBB	Kurchatov Arra	147.79	37	PKPbc	PKiKP	06 44 54.8	-0.4
	comp=Z,0.3nm,0.4s,baz=301,slow=3.4,SNR=2.5						
ZALV	Zalesovo Beam	148.61	27	PKPbc	PKiKP	06 44 56.8	+0.1
	comp=Z,0.5nm,0.3s,baz=325,slow=2.3,SNR=4.5						
ZALV	Zalesovo Beam	148.61	27	PKPdf	PKPdf	06 44 52.2	+0.6
MKAR	Makanchi Array	151.98	41	PKPbc	PKiKP	06 45 04.9	+0.9
	comp=Z,0.9nm,0.7s,baz=297,slow=3.8,SNR=4.9						
HHC	Hu-ho-hao-te	166.83	350	*e*P	PKPdf	06 45 12.3	-2.1
NJ2	Nanjing	170.24	298	*e*P	PKPdf	06 45 17.7	+0.9
NJ2				pmax	pmax		
	comp=Z,19nm,0.7s						

SJA ***01*** *06:28:16.8±0.6, 27°.72S×71°.64W, h13km±3km, ML4.9, MW4.5*

IDC ***01*** *06:28:19.6±0.5, 27°.91S×71°.00W, h0km, mb4.4/12, mbtmp4.4/14, ML4.7/2, Error ellipse: s-maj=17.6km s-min=15.8km az=69.0*

NEIC ***01*** *06:28:23.3±0.9, 27°.90S±0°.03×71°.13W±0°.06, h21km±4km, mb4.8/127, Mwr4.7(GUC), Error ellipse: s-maj=8.2km s-min=3.7km az=96.0*

GUC ***01*** *06:28:23.3±0.9, 28°.01S×71°.07W, h32km±3km, ML4.5*

VAO ***01*** *06:28:23.2±0.7, 27°.89S×71°.07W, h24km, mb4.7, Presumed earthquake*

ISC 01 06:28:22.6±0.3**, 27°.88S**±0°.02×**71°.21W**±0°.04**, h21**km±2km**, n260,** $\sigma 1^{s}45$/266**, mb4.7**/69**, 10C-2D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	Llanos de Chal	0.34	160	*e*P	Pb	06 28 30.4	+0.5
AC04	Llanos de Chal	0.34	160	⇑*i*P	Pb	06 28 30.4	+0.5
AC04				*e*S	Sb	06 28 35.0	0.0
AC04				IAML		06 28 36.0	
	comp=E,104µm,0.2s						
AC04	Llanos de Chal	0.34	160	Pg	Pb	06 28 30.5	+0.5
AC04				Sg	Sb	06 28 35.0	0.0
GO03	Copiapo	0.91	72	*e*P	Pn	06 28 40.7	+0.5
GO03				IAML		06 30 00.0	
	comp=Z,7µm,0.9s						
GO03	Copiapo	0.91	72	⇓*i*P	Pn	06 28 40.2	+0.1
GO03				IAML		06 28 53.3	
	comp=N,22µm,0.4s						
GO03	Copiapo	0.91	72		Pn	06 28 40.2	+0.1
GO03					Sn	06 28 52.5	-0.1
AC06	Mina Casimiro	0.92	56	*e*P	Pn	06 28 40.1	-0.2
AC06				*e*S	Sn	06 28 52.1	-0.8
AC06				IAML		06 28 57.0	
	comp=N,21µm,0.5s						
AC06	Mina Casimiro	0.92	56	Pn	Pn	06 28 40.1	-0.2
LCO	Las Campanas	1.21	159	*e*P	Pb	06 28 44.7	-0.3
LCO				*e*S	Sb	06 28 59.4	-0.9
LCO				IAML		06 29 01.4	
	comp=Z,50µm,0.5s						
LCO	Las Campanas	1.21	159	⇑*e*P	Pn	06 28 44.0	-0.6
LCO	Las Campanas	1.21	159		Pn	06 28 44.3	-0.2
LCO				Sn	Sb	06 28 59.3	-1.0
AC05	El Transito	1.26	139	*e*P	Pb	06 28 45.5	-0.1
AC05				*e*S	Sn	06 29 01.1	-0.3
AC05				IAML		06 29 02.9	
	comp=Z,11µm,0.8s						
AC05	El Transito	1.26	139	⇓*i*P	Pb	06 28 45.4	-0.3
AC05				*e*S	Sn	06 28 59.4	-2.0
AC05				IAML		06 29 04.5	
	comp=N,20µm,0.8s						
AC05	El Transito	1.26	139		Pb	06 28 45.3	-0.3
AC05				Sn	Sn	06 29 00.7	-0.7
AC01	Pan de Azucar	1.81	18	*e*P	Pn	06 28 53.3	+0.8
AC01	Pan de Azucar	1.81	18	⇑*e*P	Pn	06 28 53.3	+0.8
AC01	Pan de Azucar	1.81	18		Pn	06 28 53.3	+0.8
AC01				Sn	Sn	06 29 15.4	+0.6
AC02	Maricunga	2.12	61	*e*P	Pb	06 29 00.9	+0.3
AC02				*e*S	Sb	06 29 29.7	+3.0
AC02				IAML		06 29 30.8	
	comp=Z,5µm,0.4s						
AC02	Maricunga	2.12	61	⇑*e*P	Pb	06 29 00.1	-0.5
AC02	Maricunga	2.12	61	Pn	Pn	06 28 57.0	-0.2
CO01	Juntas del Tor	2.31	155	*e*P	Pb	06 29 01.9	-1.7
CO01				IAML		06 30 37.7	
	comp=Z,4µm,1.0s						
CO01	Juntas del Tor	2.31	155	⇑*e*P	Pn	06 29 01.2	+1.7
CO01				*e*S	Sn	06 29 29.0	+1.5
CO01				IAML		06 29 33.3	
	comp=N,4µm,0.4s						
CO01	Juntas del Tor	2.31	155		Pn	06 28 59.4	-0.2
CO01				Sn	Sn	06 29 26.6	-0.9
GO04	Tololo Observa	2.31	171	*e*P	Pn	06 29 00.7	+1.0
GO04				*e*S	Sb	06 29 31.6	-0.4
GO04				IAML		06 30 39.6	
	comp=Z,7µm,0.7s						
GO04	Tololo Observa	2.31	171	*i* P	Pn	06 29 00.6	+0.9
GO04				IAML		06 29 36.2	
	comp=N,24µm,0.4s						
GO04	Tololo Observa	2.31	171		Pn	06 29 00.3	+0.7
GO04				Sn	Sn	06 29 29.0	+1.4
AROD	Rodeo	2.74	147	*e*P	Pb	06 29 09.1	-1.9
VCA	Vinchina	2.78	109	*e*P	Pb	06 29 11.5	-0.2
VCA				*e*S	Sb	06 29 51.5	+6.1
VCA				IAML		06 29 59.5	
	comp=Z,4µm,1.5s						
VCA	Vinchina	2.78	109	*e*P	Pb	06 29 11.0	-0.7
CO06	Fray Jorge	2.81	188	*e*P	Pn	06 29 05.3	-1.0
CO06				IAML		06 29 56.0	
	comp=E,2µm,0.4s						
CO06	Fray Jorge	2.81	188	Pn	Pn	06 29 05.7	-0.6
ACDV	Cuesta del Vie	2.92	142	*e*P	Pb	06 29 12.2	-1.9
ACDV				*e*S	Sb	06 29 53.8	+4.3
ACDV				IAML		06 30 02.2	
	comp=Z,2µm,1.4s						
CO03	El Pedregal	2.98	171	*e*P	Pn	06 29 10.1	+1.4
CO03				*e*S	Sb	06 29 49.1	-2.0
CO03				IAML		06 30 04.8	
	comp=Z,2µm,1.2s						
CO03	El Pedregal	2.98	171	*e*P	Pn	06 29 09.5	+0.7
CO03				IAML		06 30 03.3	
	comp=E,4µm,0.3s						
CO03	El Pedregal	2.98	171		Pn	06 29 09.2	+0.5
TINO	Tinogasta	3.22	94	*e*P	Pn	06 29 15.4	+3.4
TINO				*e*S	Sb	06 30 02.1	+4.0
TINO				IAML		06 30 08.1	
	comp=Z,2µm,0.8s						
ACCO	Cerro Coronel	3.28	146	*e*P	Pb	06 29 17.3	-3.1
ACCO				*e*S	Sb	06 30 02.4	+2.4
ACCO				IAML		06 30 12.5	
	comp=Z,2µm,1.0s						
CO02	Combarbal	3.32	177	*e*P	Pn	06 29 13.8	+0.4
CO02				*e*S	Sb	06 30 01.8	+1.0
CO02				IAML		06 30 08.2	
	comp=Z,4µm,0.5s						
CO02	Combarbal	3.32	177	*e*P	Pn	06 29 13.1	-0.2
CO02	Combarbal	3.32	177	Pn	Pn	06 29 13.4	+0.1
PB14	IPOC Station P	3.32	13	*e*P	Pn	06 29 13.7	+0.1
PB14	IPOC Station P	3.32	13	*e*P	Pn	06 29 13.6	0.0
PB14	IPOC Station P	3.32	13		Pn	06 29 13.5	0.0
ACLC	CERRO LA CRUZ	4.04	113	*e*P	Pn	06 29 26.9	+3.5
ACLC				*e*S	Sb	06 30 20.0	-1.7
ACLC				IAML		06 30 34.5	
	comp=Z,1µm,1.0s						
CO04	Los Peladeros	4.16	177	*e*P	Pn	06 29 25.2	+0.2
CO04	Los Peladeros	4.16	177	Pn	Pn	06 29 25.3	+0.2
RTLL	Cerro Villicun	4.18	146	*e*P	Pn	06 29 28.8	+3.7
RTLL				*e*S	Sb	06 30 21.7	-3.8
RTLL				IAML		06 30 38.1	
	comp=Z,1µm,1.3s						
RTLS	Leoncito	4.24	157	*e*P	Pn	06 29 30.1	+3.9
RTLS				*e*S	Sb	06 30 29.6	+2.1
RTLS				IAML		06 30 37.1	
	comp=Z,4µm,1.0s						
ZON	Zonda	4.26	150	*e*P	Pn	06 29 29.9	+3.5
ZON				IAML		06 30 44.1	
	comp=Z,688nm,1.3s						
ZON	Zonda	4.26	150	Pn	Pn	06 29 25.6	-0.7
CFA	Coronel Fontan	4.52	146	Pn	Pn	06 29 32.6	+2.7
	comp=Z,38nm,0.3s,baz=319,slow=10,SNR=44						
CFA				Sn	Sn	06 30 25.6	+3.8
	comp=Z,35nm,0.3s,baz=77,slow=22,SNR=12						
CFA	Coronel Fontan	4.52	146	*e*P	Pn	06 29 33.3	+3.4
CFA				*e*S	Sb	06 30 30.7	-4.7
CFA				IAML		06 30 35.7	
	comp=Z,637nm,0.7s						
CYA	Choya	4.80	98	*e*P	Pn	06 29 36.9	+3.2
CYA				*e*S	Sb	06 30 36.9	-6.6
CYA				IAML		06 30 39.7	
	comp=Z,614nm,0.5s						
VA03	San Esteban	4.90	174	*e*P	Pn	06 29 36.7	+1.6
VA03				*e*S	Sb	06 30 46.3	0.0
VA03				IAML		06 31 55.7	
	comp=Z,1µm,0.9s						
VA03	San Esteban	4.90	174	Pn	Pn	06 29 34.8	-0.3
PB05	IPOC Station P	5.09	11	*e*P	Pn	06 29 37.3	-0.4
PB05				*e*S	Sn	06 30 37.6	+1.7
PB05				IAML		06 31 08.1	
	comp=Z,428nm,0.5s						
PB05	IPOC Station P	5.09	11	Pn	Pn	06 29 36.8	-0.9
VA01	Torpederas	5.14	184	Pn	Pn	06 29 36.8	-1.5
PEL	Peldehue	5.27	175	Pn	Pn	06 29 40.8	+0.7
PB06	IPOC Station P	5.36	16		Pn	06 29 41.2	-0.3
MT02	Curacav	5.36	179	Pn	Pn	06 29 41.4	0.0
MT05	Renca	5.51	176	Pn	Pn	06 29 42.8	-0.7
MT16	CCHEN	5.56	174	Pn	Pn	06 29 44.2	0.0
AF01	San Pedro de A	5.62	30	Pn	Pn	06 29 46.3	+1.1
MT03	Universidad Ad	5.63	174	Pn	Pn	06 29 45.1	0.0
MT08	Bocatoma Ro	5.64	170	Pn	Pn	06 29 45.3	-0.1
MT09	Talagante	5.88	178	Pn	Pn	06 29 48.1	-0.5
MT13	San Alfonso	5.90	173	Pn	Pn	06 29 49.5	+0.7
MT01	Popeta	5.97	180		Pn	06 29 49.9	+0.3
TCA	Tanti	6.71	122	*e*P	Pn	06 30 00.4	+0.5
H03S3	Juan Fernandez	8.88	226	Pn	Pn	06 30 26.5	-2.9
H03S1	Juan Fernandez	8.89	226	Pn	Pn	06 30 25.7	-3.8
H03S2	Juan Fernandez	8.90	226	Pn	Pn	06 30 26.5	-3.2
LPAZ	La Paz	11.88	14	Pn	Pn	06 31 11.0	-0.3
	comp=Z,3.6nm,0.3s,baz=207,slow=5.7,SNR=71						
	comp=Z,8.5nm,0.4s						
LPAZ				AML	AML		
LPAZ	La Paz	11.88	14	*e*P	Pn	06 31 11.1	-0.3
PSAL	Palomas, Salto	12.27	108	*e*P	Pn	06 31 14.9	-1.2
CPUP	Villa Florida	12.46	86	Pn	Pn	06 31 17.2	-1.4
	comp=Z,0.5nm,0.3s,baz=258,slow=15,SNR=4.6						
CPUP				Lg	Lg	06 34 46.0	
	comp=Z,0.5nm,0.3s,baz=178,slow=16,SNR=3.1						
	comp=Z,3.5nm,0.8s						
CPUP				AML	AML		
CPUP	Villa Florida	12.46	86	*e*P	Pn	06 31 16.7	-2.0
PLCA	Paso Flores	12.83	178	Pn	Pn	06 31 26.0	+2.2
	comp=Z,0.1nm,0.3s,baz=340,slow=15,SNR=0.8						
ANCO	Parque Anchore	13.01	123	*e*P	Pn	06 31 24.8	-1.3
MURT	Porto Murtinho	13.81	66	*e*P	Pn	06 31 36.2	-1.0
SJPY	San Joaquin	13.83	81	*e*P	Pn	06 31 37.2	-0.3
COIM	Forte Coimbra	14.61	60	*e*P	Pn	06 31 46.8	-1.3
SIV	San Ignacio	15.10	41	Pn	Pn	06 31 48.7	-6.1
	comp=Z,0.1nm,0.3s,baz=227,slow=12,SNR=20						
CPSB	Cacapava Do Su	15.73	103	*e*P	Pn	06 32 00.3	-2.6
AQDB	Aquidauana	15.95	66	*e*P	Pn	06 32 05.5	-0.2
PTLB	Pontes e Lacer	16.68	45		Pn	06 32 14.6	-0.5
PTLB	Pontes e Lacer	16.68	45	*e*P	Pn	06 32 14.6	-0.5
PTGB	Pitanga	17.45	84	*e*P	Pn	06 32 24.7	-0.2
VILB	Vilhena	18.06	37		Pn	06 32 32.3	-0.1
VILB	Vilhena	18.06	37	*e*P	Pn	06 32 31.5	-0.9
LDASE	Londrina, Braz	18.65	81	*e*P	P	06 32 37.7	-1.5
SALV	Santo Antonio	18.67	54	*e*P	P	06 32 36.1	-3.2
C2SB	Chapadao do Su	19.13	66	*e*P	P	06 32 41.9	-2.5
FRTB	Fartura	20.03	82	*e*P	P	06 32 54.4	+0.2
CZSB	Cruzeiro do Su	20.09	356	P	P	06 32 55.4	+0.5
CZSB	Cruzeiro do Su	20.09	356	*e*P	Pn	06 32 57.3	+0.6
GO08	Villa O'Higgin	20.58	183	P	P	06 33 00.7	+0.8
ARAG	Araguaiana, MT	21.67	60	*e*P	P	06 33 10.5	-1.5
BB19B	Bebedouro	21.71	77	*e*P	P	06 33 12.5	+0.1
SPB	Sao Paulo	21.83	84	P	P	06 33 12.5	-1.1
SPB				IAmb	IAmb	06 33 28.6	
	comp=Z,58nm,1.1s						
RCLB	Rio Claro- Sao	22.10	81	*e*P	P	06 33 15.7	-0.9
CLDB	Colider	22.26	44	*e*P	P	06 33 16.9	-1.5
VAO	Valinhos	22.41	83	P	P	06 33 19.2	-0.8
VAO	Valinhos	22.41	83	*e*P	P	06 33 18.8	-1.1
IPMB	Ipameri, GO	23.32	70	*e*P	P	06 33 27.9	-1.6
CANS	Sao Roque de M	23.85	77	*e*P	P	06 33 33.9	-0.7
SNDB	Serra Nova Dou	24.45	54	*e*P	P	06 33 38.7	-1.4
PMNB	Patos De Minas	24.55	73	*e*P	P	06 33 40.0	-1.1
BDFB	Brasilia	24.69	65	P	P	06 33 40.8	-1.7
	comp=Z,4.9nm,0.7s,baz=237,slow=11,SNR=7.5						
	comp=Z,4.9nm,0.7s						
BDFB	Brasilia	24.69	65	P	P	06 33 41.6	-0.8
BSCB	Bom Sucesso	24.99	80	*e*P	P	06 33 45.3	+0.2
TEFE	Tefe	25.03	16	*e*P	P	06 33 45.9	+0.6
MACA	Manacapuru-AM	26.55	24		P	06 33 59.3	+0.2
MACA				IAmb	IAmb	06 34 02.9	
	comp=Z,18nm,0.6s						
MACA	Manacapuru-AM	26.55	24	*e*P	P	06 33 59.0	-0.2
DIAM	Diamantina, MG	27.01	75	*e*P	P	06 34 03.5	+0.1
MC01	Montes Claros	27.50	72	*e*P	P	06 34 06.9	-0.9
ITTB	Itaituba	27.64	35	*e*P	P	06 34 08.3	-0.6
JANB	Januaria	28.02	68	*e*P	P	06 34 11.6	-0.8
SJMB	Sao Joao De Ma	28.99	78	*e*P	P	06 34 20.2	-0.8
SDBA	SAO DESIDERIO	29.00	63	*e*P	P	06 34 19.8	-1.4
SMTB	Santa Maria do	29.23	54	*e*P	P	06 34 21.3	-1.7
BSFB	Barra de Sao F	29.23	79	*e*P	P	06 34 22.0	-1.1
BOAV	Boa Vista	31.81	21		P	06 34 45.4	-0.4
BOAV				IAmb	IAmb	06 34 47.1	
	comp=Z,6.2nm,0.9s						
BOAV	Boa Vista	31.81	21	*e*P	P	06 34 45.6	-0.2
PAYG	Puerto Ayora	32.65	323	P	P	06 34 53.1	-0.1
ROSC	El Rosal	32.67	354	P	P	06 34 52.8	-1.0
NBPN	Ponto Novo - B	33.66	66	*e*P	P	06 35 01.8	-0.3
VA02	Isla de Pascua	33.82	262	P	P	06 35 03.7	+0.3
NBTA	Tacaratu-PE	36.37	66	*e*P	P	06 35 25.1	-0.4
HOPE	Hope Point	36.54	146	P	P	06 35 26.5	+0.1
ESPZ	Base Esperanza	36.71	169	P	P	06 35 27.6	-0.1
ESPZ				IAmb	IAmb	06 35 28.5	
	comp=Z,9.8nm,1.1s						
NBMA	Muriti-CE	36.85	63	*e*P	P	06 35 29.6	0.0
PMSA	Palmer Station	37.19	175	P	P	06 35 31.9	0.0
ORCD	Orcadas	37.40	159		P	06 35 33.3	-0.4
GRGR	Grenville	40.84	14	P	P	06 36 03.4	+0.5
MLPR	Magueyes Islan	45.76	6	P	P	06 36 42.4	-0.1
TEIG	Tepich	50.59	339	P	P	06 37 21.3	+1.4
TEIG				IAmb	IAmb	06 37 21.8	
	comp=Z,12nm,0.8s						
VNA3	Neumayer Olymp	54.79	160	⇑P	P	06 37 50.2	-0.2
	comp=Z,5.7nm,0.8s						
VNA1	Neumayer--Stat	55.06	159	⇑P	P	06 37 52.3	0.0
	comp=Z,5.4nm,0.9s						
VNA2	Neumayer--Watz	55.41	159	⇑P	P	06 37 54.7	-0.2
	comp=Z,6.6nm,0.6s,baz=285,slow=7.5						
SNAA	Sanae	57.01	159	⇑P	P	06 38 06.0	-0.4
	comp=Z,324nm,1.2s						
SNAA	Sanae	57.01	159	P	P	06 38 06.0	-0.4
	comp=Z,11nm,0.8s,baz=272,slow=7.3,SNR=27						
	comp=Z,11nm,0.8s						
SNAA	Sanae	57.01	159		P	06 38 06.4	0.0
TROLL	Troll, Antarti	58.72	160	⇑P	P	06 38 18.3	-0.2
	comp=Z,358nm,0.9s						
QSPA	South Pole Qui	62.34	180	P	P	06 38 43.6	+0.4
	comp=Z,8.2nm,0.9s,baz=151,slow=2.8,SNR=16						
	comp=Z,8.2nm,0.9s						
QSPA	South Pole Qui	62.34	180	P	P	06 38 43.9	+0.6
QSPA				IAmb	IAmb	06 38 45.0	
	comp=Z,11nm,1.1s						
JSC	Jenkinsville	62.55	351	P	P	06 38 44.3	-0.5
JSC				IAmb	IAmb	06 38 52.7	
	comp=Z,7.4nm,1.1s						
X58A	Rowland	62.57	352	P	P	06 38 46.1	+1.2
SACV	Santiago Islan	62.77	53	P	P	06 38 47.1	+0.4
HNDO	Hondo	63.09	333		P	06 38 50.1	+1.6
HNDO				IAmb	IAmb	06 38 51.4	
	comp=Z,7.4nm,0.7s						
143A	Socs Landing,	63.23	341	P	P	06 38 50.4	+1.0
X51A	Calhoun	63.44	347	P	P	06 38 51.7	+1.1
BG3	Lake Jocassee	63.51	349	P	P	06 38 51.7	+0.5
X48A	Hartselle	63.78	345	P	P	06 38 53.5	+0.6
X48A				IAmb	IAmb	06 38 54.3	
	comp=Z,8.8nm,0.9s						
Y45A	Yeager Farm, C	63.82	343	P	P	06 38 54.8	+1.6
Y45A				IAmb	IAmb	06 38 55.2	
	comp=Z,6.9nm,0.7s						
JCT	Junction City	64.14	333	P	P	06 38 55.9	+0.5
JCT				IAmb	IAmb	06 38 58.1	
	comp=Z,5.2nm,0.7s						
W50A	Signal Mountai	64.14	347	P	P	06 38 56.3	+0.9
W50A				IAmb	IAmb	06 38 56.8	
	comp=Z,8.8nm,0.8s						
Z41A	Richland Creek	64.17	340	P	P	06 38 56.3	+0.8
Z41A				IAmb	IAmb	06 38 58.2	
	comp=Z,9.9nm,0.9s						
SWET	Sewanee	64.28	347		P	06 38 56.5	+0.3
SWET				IAmb	IAmb	06 38 57.2	
	comp=Z,9.1nm,0.7s						
BRDY	Brady	64.53	334		P	06 38 58.5	+0.5
BRDY				IAmb	IAmb	06 39 00.3	
	comp=Z,5.1nm,1.0s						
SAND	Sanderson	64.66	330	IAmb	IAmb	06 39 02.0	
	comp=Z,6.4nm,1.0s						
WLAR	White Oak Lake	64.66	340	P	P	06 38 59.6	+0.9
TX31	Lajitas Ar. Si	64.82	329	P	P	06 39 01.0	+1.0
TX31				IAmb	IAmb	06 39 11.1	
	comp=Z,4.7nm,1.1s						
TXAR	Lajitas Array	64.82	329	P	P	06 39 01.9	+1.9
	comp=Z,1.2nm,0.7s,baz=156,slow=9.1,SNR=14						
	comp=Z,1.2nm,0.7s						
TXAR	Lajitas Array	64.82	329	P	P	06 39 01.2	+1.2
U54A	Nelsons Funny	64.83	351	P	P	06 39 00.8	+0.9
U54A				IAmb	IAmb	06 39 01.6	
	comp=Z,8.6nm,0.8s						
V48A	Smith Brothers	64.97	346	P	P	06 39 01.0	+0.3
V48A				IAmb	IAmb	06 39 01.6	
	comp=Z,3.6nm,0.7s						
OZNA	Ozona	65.07	332	IAmb	IAmb	06 39 12.2	
	comp=Z,8.0nm,1.0s						
WVT	Waverly	65.57	345	P	P	06 39 04.5	0.0
WVT				IAmb	IAmb	06 39 05.6	
	comp=Z,6.3nm,0.8s						
MIAR	Mount Ida	65.60	340		P	06 39 05.7	+0.9
MIAR				IAmb	IAmb	06 39 15.0	
	comp=Z,7.6nm,1.1s						
PLPT	Palo Pinto	65.63	335	P	P	06 39 05.6	+0.5
PLPT				IAmb	IAmb	06 39 15.9	
	comp=Z,7.3nm,1.2s						
Z35A	Perchaven, San	65.70	336	P	P	06 39 05.6	+0.1
HBAR	Harrisburg	65.71	343	P	P	06 39 06.2	+0.7
R58B	Mineral	65.80	354	P	P	06 39 06.0	0.0
R58B				IAmb	IAmb	06 39 16.5	
	comp=Z,12nm,1.1s						
WHAR	Wooly Hollow	65.91	341	P	P	06 39 07.4	+0.6
WHAR				IAmb	IAmb	06 39 08.4	
	comp=Z,6.4nm,0.9s						
ABTX	Abilene, Hawle	65.96	334	IAmb	IAmb	06 39 10.4	
	comp=Z,9.9nm,1.1s						
MNHN	Monahans	66.13	331		P	06 39 08.4	0.0
MNHN				IAmb	IAmb	06 39 10.7	
	comp=Z,7.2nm,1.0s						
T47A	Sharon Grove	66.23	346	P	P	06 39 09.2	+0.4
T47A				IAmb	IAmb	06 39 10.2	
	comp=Z,13nm,1.1s						
229A	Bryant Ranch,	66.27	332	P	P	06 39 10.2	+1.0
229A				IAmb	IAmb	06 39 20.5	
	comp=Z,5.3nm,1.0s						
LCAR	Lake Charles	66.33	342	P	P	06 39 09.9	+0.5
FCAR	Ozark Folk Cen	66.42	342	P	P	06 39 10.9	+0.8
FCAR				IAmb	IAmb	06 39 11.7	
	comp=Z,4.0nm,0.9s						
PARMO	Parma	66.53	344	P	P	06 39 11.4	+0.7
APMT	Aspermont	66.77	334		P	06 39 12.5	+0.1
APMT				IAmb	IAmb	06 39 15.0	
	comp=Z,6.8nm,0.9s						
PBMO	Poplar Bluff	66.81	343	P	P	06 39 12.7	+0.1
SN07	Snyder 07	66.87	333	IAmb	IAmb	06 39 15.3	
	comp=Z,4.5nm,0.9s						
HHAR	Hobbs	67.32	340	P	P	06 39 16.6	+0.8
HHAR				IAmb	IAmb	06 39 17.8	
	comp=Z,8.8nm,1.0s						
DKNS	Dickens	67.39	333	IAmb	IAmb	06 39 26.8	
	comp=Z,4.6nm,0.8s						
S44A	Carbondale	67.39	345	P	P	06 39 16.7	+0.5
S44A				IAmb	IAmb	06 39 25.8	
	comp=Z,9.3nm,0.9s						
GDL2	Guadalupe Moun	67.57	330	P	P	06 39 17.9	+0.3
MNTX	Cornudas Mount	67.60	329	P	P	06 39 18.8	+1.1
OK052	Battle Ridge R	67.96	338	IAmb	IAmb	06 39 21.7	
	comp=Z,8.0nm,0.6s						
CCM	Cathedral Cave	68.22	343	P	P	06 39 22.5	+1.1
SMWD	Samnorwood	68.39	335	IAmb	IAmb	06 39 33.0	
	comp=Z,9.6nm,1.0s						
MSTX	Muleshoe	68.40	332	P	P	06 39 23.1	+0.3
MSTX				IAmb	IAmb	06 39 33.1	
	comp=Z,9.8nm,0.9s						
OK051	E0350 and S346	68.44	338	P	P	06 39 23.1	+0.3
S39A	Bolivar	68.45	341	IAmb	IAmb	06 39 24.9	
	comp=Z,9.3nm,0.9s						
TRY	Troy	70.30	358	P	P	06 39 35.0	+0.8
P38A	Dawn	70.31	342	P	P	06 39 34.9	+0.5
P38A				IAmb	IAmb	06 39 36.5	
	comp=Z,3.8nm,0.7s						
ALQ	Albuquerque	70.81	330	P	P	06 39 37.6	-0.1
TASM	ASL Pad, Albuq	70.81	330	P	P	06 39 37.6	-0.2
DBIC	Dimbokro	72.60	72	P	P	06 39 48.9	+0.1
	comp=Z,15nm,0.7s,baz=243,slow=6.2,SNR=12						
	comp=Z,15nm,0.7s						
DBIC	Dimbokro	72.60	72	P	P	06 39 48.6	-0.2
X16A	Lo Mia Camp, P	72.72	326		P	06 39 49.9	+0.6
SDCO	Great Sand Dun	72.77	332	P	P	06 39 49.9	+0.3
ECSD	EROS Data Cent	74.98	341	P	P	06 40 02.5	+0.5
ECSD				IAmb	IAmb	06 40 04.0	
	comp=Z,5.8nm,0.9s						
KNB	Kanab	75.47	327	IAmb	IAmb	06 40 17.3	
	comp=Z,7.7nm,1.1s						
O20A	White River Ci	75.93	332	IAmb	IAmb	06 40 11.1	
	comp=Z,6.5nm,0.9s						
P18A	Preston Nutter	76.38	330	P	P	06 40 10.8	+0.3
P18A				IAmb	IAmb	06 40 22.1	
	comp=Z,4.8nm,0.9s						
PRN	Pahroc Range	76.88	326	IAmb	IAmb	06 40 25.2	
	comp=Z,6.8nm,1.0s						
PSUT	Pine Spring	77.17	327		P	06 40 14.8	-0.1
MPU	Maple Canyon	77.31	329	IAmb	IAmb	06 40 27.1	
	comp=Z,5.0nm,1.0s						
BSUT	Blindstream Ca	77.35	330	IAmb	IAmb	06 40 19.5	
	comp=Z,7.3nm,1.2s						
HWUT	Hardware Ranch	78.57	330	IAmb	IAmb	06 40 33.5	
	comp=Z,6.2nm,0.8s						
BW06	Boulder Array	78.67	332	P	P	06 40 24.2	+1.0
PD31	Pinedale Array	78.67	332	P	P	06 40 23.6	+0.4
PDAR	Pinedale Array	78.67	332	P	P	06 40 24.4	+1.2
	comp=Z,0.7nm,0.7s,baz=106,slow=5.3,SNR=8.1						
	comp=Z,0.7nm,0.7s						
PDAR	Pinedale Array	78.67	332	P	P	06 40 23.9	+0.7
MAW	Mawson	78.83	164	P	P	06 40 23.3	-0.3
	comp=Z,1.4nm,0.6s,baz=229,slow=12,SNR=2.5						
	comp=Z,1.4nm,0.6s						
MAW	Mawson	78.83	164	P	P	06 40 23.5	-0.1
NVAR	Mina Array Bea	79.32	324	P	P	06 40 28.8	+2.0
	comp=Z,0.5nm,0.5s,baz=153,slow=7.3,SNR=8.9						
	comp=Z,0.5nm,0.5s						
NVAR	Mina Array Bea	79.32	324	P	P	06 40 26.7	-0.2
ELK	Elko	79.56	328		P	06 40 28.8	+0.6

MDND	**Maddock**	**79.59**	**341**	IAmb	IAmb	06 40 30.2	
	comp=Z,17nm,1.0s						
SNOW	**Snow King Moun**	**79.74**	**332**	IAmb	IAmb	06 40 40.1	
	comp=Z,6.5nm,1.1s						
YNE	**Yellowstone No**	**80.70**	**333**	IAmb	IAmb	06 40 44.6	
	comp=Z,7.5nm,1.2s						
ULM	**Lac du Bonnet**	**80.81**	**344**	P	**P**	**06 40 34.8**	**+0.5**
	comp=Z,3.9nm,0.8s,baz=266,slow=8.3,SNR=3.2						
	comp=Z,3.9nm,0.8s						
ULM	**Lac du Bonnet**	**80.81**	**344**	IAmb	IAmb	06 40 35.7	
	comp=Z,7.6nm,1.0s						
YMR	**Madison River**	**80.81**	**332**	IAmb	IAmb	06 40 38.2	
	comp=Z,7.0nm,0.9s						
HLID	**Hailey**	**81.40**	**330**		**P**	**06 40 39.7**	**+1.9**
HLID				IAmb	IAmb	06 40 49.4	
	comp=Z,5.5nm,1.0s						
TORD	**Torodi Ar. Bea**	**81.47**	**70**	P	**P**	**06 40 38.3**	**-0.3**
	comp=Z,7.6nm,0.8s,baz=257,slow=5.0,SNR=25						
	comp=Z,7.6nm,0.8s						
TORD	**Torodi Ar. Bea**	**81.47**	**70**	P	**P**	**06 40 38.4**	**-0.3**
TORD				IAmb	IAmb	06 40 39.0	
	comp=Z,4.2nm,0.8s						
BOSA	**Boshof**	**82.30**	**118**	P	**P**	**06 40 42.7**	**-0.4**
	comp=Z,5.2nm,0.9s,baz=278,slow=2.9,SNR=5.4						
	comp=Z,5.2nm,0.9s						
BOSA	**Boshof**	**82.30**	**118**	P	**P**	**06 40 42.1**	**-1.0**
BOSA				IAmb	IAmb	06 40 52.9	
	comp=Z,4.5nm,0.8s						
J08A	**Circle Bar Ran**	**83.11**	**327**		**P**	**06 40 47.8**	**+1.1**
J08A				IAmb	IAmb	06 40 58.0	
	comp=Z,6.7nm,0.8s						
PLID	**Pearl Lake**	**83.30**	**330**		**P**	**06 40 48.9**	**+1.0**
PLID				IAmb	IAmb	06 40 58.7	
	comp=Z,3.9nm,0.8s						
ESDC	**Sonseca Array**	**91.81**	**45**	P	**P**	**06 41 29.2**	**+0.3**
	comp=Z,0.8nm,0.8s,baz=251,slow=2.8,SNR=6.5						
	comp=Z,0.8nm,0.8s						
ESDC	**Sonseca Array**	**91.81**	**45**	P	**P**	**06 41 29.3**	**+0.4**
ASAR	**Alice Springs**	**123.32**	**208**	PKP	**PKPdf**	**06 47 18.2**	**-0.4**
	comp=Z,1.2nm,0.7s,baz=129,slow=1.9,SNR=9.9						
H11S2	**WAKE ISLAND Hy**	**126.36**	**273**	T	T	09 06 34.5	
	baz=112,slow=75,SNR=23						
H11S1	**WAKE ISLAND Hy**	**126.37**	**273**	T	T	09 06 32.3	
	baz=112,slow=75,SNR=23						
H11S3	**WAKE ISLAND Hy**	**126.38**	**273**	T	T	09 06 35.9	
	baz=112,slow=75,SNR=26						
WRA	**Warramunga Arr**	**126.42**	**210**	PKP	**PKPdf**	**06 47 24.5**	**-0.1**
	comp=Z,2.8nm,0.7s,baz=152,slow=1.7,SNR=30						
H11N3	**WAKE ISLAND Hy**	**126.62**	**275**	T	T	09 06 54.5	
	baz=113,slow=74,SNR=6.5						
H11N1	**WAKE ISLAND Hy**	**126.63**	**275**	T	T	09 06 57.4	
	baz=113						
H11N2	**WAKE ISLAND Hy**	**126.64**	**275**	T	T	09 06 57.5	
	baz=113,slow=74						
KK31	**Karatay Array**	**145.66**	**54**	PKPdf	**PKPdf**	**06 47 58.9**	**-0.4**
KKAR	**Karatay Array**	**145.66**	**54**	PKPdf	**PKPdf**	**06 47 58.4**	**-0.9**
BTK	**Batken**	**146.49**	**59**	PKPdf	**PKPdf**	**06 48 00.9**	**0.0**
KURK	**Kurchatov**	**147.73**	**37**	PKPdf	**PKPdf**	**06 48 03.0**	**+0.5**
KURBB	**Kurchatov Arra**	**147.74**	**37**	PKPbc	**PKPdf**	**06 48 03.7**	**+1.2**
	comp=Z,6.0nm,0.7s,baz=300,slow=3.1,SNR=27						
ZALV	**Zalesovo Beam**	**148.57**	**27**	PKP	**PKPdf**	**06 48 04.3**	**+0.5**
	comp=Z,14nm,0.8s,baz=336,slow=3.2,SNR=20						
ZALV				PKPbc	**PKPbc**	**06 48 08.2**	**+0.7**
	comp=Z,14nm,0.8s,baz=337,slow=3.4,SNR=18						
KSH2	**Kashi**	**150.26**	**59**	PKPbc	**PKiKP**	**06 48 13.3**	**+0.1**
KSH2				sPKP	sPKPdf	06 48 19.1	+2.7
MKAR	**Makanchi Array**	**151.92**	**41**	PKP	**PKPdf**	**06 48 10.0**	**+0.7**
	comp=Z,0.5nm,0.7s,baz=321,slow=2.0,SNR=3.1						
MKAR				PKPbc	**PKiKP**	**06 48 16.1**	**0.0**
	comp=Z,5.8nm,0.7s,baz=320,slow=2.1,SNR=40						
MKAR	**Makanchi Array**	**151.92**	**41**		**PKPbc**	**06 48 16.0**	**+0.2**
WMQ	**Urumqi**	**156.75**	**41**	*e*PKP	**PKPdf**	**06 48 17.6**	**+1.4**
WMQ				PKPab	**PKPab**	**06 48 47.5**	**+1.8**
HHC	**Hu-ho-hao-te**	**166.86**	**351**	*e*P	**PKPdf**	**06 48 24.4**	**-2.4**
CMAR	**Chiang Mai Arr**	**166.97**	**134**	PKP	**PKPdf**	**06 48 27.8**	**+0.5**
	comp=Z,0.5nm,0.3s,baz=311,slow=2.2,SNR=4.1						
NJ2	**Nanjing**	**170.34**	**298**	*e*P	**PKPdf**	**06 48 30.4**	**+1.3**
NJ2				pmax	pmax		
	comp=Z,9.0nm,0.5s						
LZH	**Lanzhou**	**170.80**	**26**	*e*PKP	**PKPdf**	**06 48 28.8**	**-0.7**
LZH				sPKP	sPKPdf	06 48 37.7	-1.1

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*IDC **01** 06:29:19.9±0.9, 27°.88S×71°.09W, h0^{km}, mb4.4/9, mbtmp4.4/11, ML4.6/2, MS4.5/1, Error ellipse: s-maj=25.6km s-min=21.6km az=42.0*

*GFZ **01** 06:29:22.9±0.6, 28°S±5°×7°1W±°, h15^{km}±3^{km}, M4.9/18, mb4.9/18, Error ellipse: s-maj=11.5km s-min=9.4km az=43.5, confirmed*

*NEIC **01** 06:29:23.9±0.9, 27°.96S±0°.03×71°.18W±0°.08, h22^{km}±4^{km}, mb4.7/120, Mwr4.4/15, Error ellipse: s-maj=10.4km s-min=3.8km az=91.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M$_{rr}$0.76; M$_{\theta\theta}$2.25; M$_{\phi\phi}$-3.01; M$_{r\theta}$3.62; M$_{\theta\phi}$-0.01; M$_{\phi r}$-3.65; Fault plane solution: M$_0$5.82000×10^{15} NP1:ϕ_s138.22000°, δ85.96000°, λ63.12000°. NP2:ϕ_s40.31000°, δ27.16000°, λ171.13000°. Principal axes: T 5.8837, Plg43.0000°, Azm22.0000°; N -0.1359, Plg27.0000°, Azm140.0000°; P -5.7478, Plg35.0000°, Azm251.0000°;*

*VAO **01** 06:29:23.6±0.8, 27°.88S×71°.06W, h22^{km}, mb4.8, Presumed earthquake*

*NEIC **01** 06:29:24.3, 27°.96S×71°.22W, h24^{km}*

ISC 01 06:29:23.3±0.5**, 27°.93S**±0°.03×**71°.19W**±0°.06**, h22**^{km}±4^{km}**, n203, σ0^{s}.96**/181**, mb4.7**/76**, 2D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	**Llanos de Chal**	**0.29**	**159**	Pg	**Pb**	**06 29 30.4**	**+0.5**
AC04				Sg	**Sb**	**06 29 35.1**	**+0.7**
AC04	**Llanos de Chal**	**0.29**	**159**	P	**Pb**	**06 29 30.6**	**+0.7**
AC04				S	**Sb**	**06 29 35.3**	**+0.8**
GO03	**Copiapo**	**0.91**	**68**	Pn	**Pn**	**06 29 41.6**	**+0.7**
GO03				Sn	**Sn**	**06 29 54.7**	**+1.3**
GO03	**Copiapo**	**0.91**	**68**	P	**Pn**	**06 29 43.0**	**+2.1**
AC06	**Mina Casimiro**	**0.94**	**52**		**Pb**	**06 29 40.7**	**-0.2**
LCO	**Las Campanas**	**1.16**	**158**	Pn	**Pn**	**06 29 43.8**	**-0.6**
LCO					**Sb**	**06 29 58.8**	**-0.6**
AC05	**El Transito**	**1.21**	**138**	Pn	**Pn**	**06 29 45.2**	**+0.2**
AC05				Sn	**Sb**	**06 30 01.9**	**+1.1**
AC01	**Pan de Azucar**	**1.85**	**17**	Pn	**Pn**	**06 29 53.7**	**-0.1**
AC01				Sn	**Sb**	**06 30 18.6**	**-0.7**
AC02	**Maricunga**	**2.13**	**60**	Pn	**Pn**	**06 29 57.3**	**-0.8**
CO01	**Juntas del Tor**	**2.25**	**155**	Pn	**Pn**	**06 29 58.2**	**-1.2**
ZON	**Zonda**	**4.21**	**149**	P	**Pn**	**06 30 27.3**	**+1.1**
ZON	**Zonda**	**4.21**	**149**	*e*S	**Pn**	**06 30 27.6**	**+1.4**
MT16	**CCHEN**	**5.51**	**174**	Pn	**Pn**	**06 30 43.3**	**-0.8**
MT01	**Popeta**	**5.91**	**180**	Pn	**Pn**	**06 30 47.6**	**-1.9**
PB07	**IPOC Station P**	**6.29**	**11**	Pn	**Pn**	**06 30 54.1**	**-0.8**
PB02	**IPOC Station P**	**6.69**	**10**	Pn	**Pn**	**06 31 01.2**	**+0.8**
H03S3	**Juan Fernandez**	**8.86**	**227**	Pn	Pn	06 31 23.7	-6.0
	baz=34,slow=20						
H03S1	**Juan Fernandez**	**8.87**	**226**	Pn	Pn	06 31 23.5	-6.3
	baz=34,slow=20						
H03S2	**Juan Fernandez**	**8.87**	**227**	Pn	Pn	06 31 23.7	-6.2
	baz=34,slow=20						
LPAZ	**La Paz**	**11.93**	**14**	Pn	**Pn**	**06 32 11.9**	**-0.8**
	1.2nm,0.3s,baz=192,slow=8.1,SNR=9.9						
	3.6nm,0.5s						
LPAZ				AML	AML		
LPAZ	**La Paz**	**11.93**	**14**		**Pn**	**06 32 12.4**	**-0.2**
LPAZ	**La Paz**	**11.93**	**14**	*e*P	**Pn**	**06 32 11.6**	**-1.0**
CPUP	**Villa Florida**	**12.45**	**86**	*e*P	**Pn**	**06 32 18.3**	**-0.9**
PLCA	**Paso Flores**	**12.78**	**178**	LR	LR	06 38 18.6	
	comp=Z,2µm,19.3s,baz=134,slow=42						
SIV	**San Ignacio**	**15.13**	**40**	Pn	**Pn**	**06 32 50.7**	**-5.1**
	0.3nm,0.3s,baz=247,slow=8.5,SNR=7.6						
	5.9nm,0.4s						
SIV				AML	AML		
GO07	**Milladeo Hill,**	**15.28**	**187**	Pn	**Pn**	**06 32 57.9**	**+0.3**
GO07				IAmb	IAmb	06 33 10.8	
	comp=Z,27nm,0.7s						
AQDB	**Aquidauana**	**15.96**	**66**	Pn	**Pn**	**06 33 07.4**	**+0.9**
PTLB	**Pontes e Lacer**	**16.71**	**44**		**Pn**	**06 33 15.4**	**-0.7**
PTLB	**Pontes e Lacer**	**16.71**	**44**	*e*P	**Pn**	**06 33 13.5**	**-2.6**
PTGB	**Pitanga**	**17.44**	**84**	*e*P	**Pn**	**06 33 25.5**	**+0.2**
COYC	**Coyhaique**	**17.62**	**182**		**Pn**	**06 33 27.3**	**0.0**
VILB	**Vilhena**	**18.10**	**37**		**Pn**	**06 33 32.9**	**-0.5**
VILB	**Vilhena**	**18.10**	**37**	*e*P	**Pn**	**06 33 32.2**	**-1.2**
LDASE	**Londrina, Braz**	**18.65**	**80**	*e*P	**P**	**06 33 39.8**	**+0.1**
SALV	**Santo Antonio**	**18.69**	**53**	*e*P	**P**	**06 33 38.3**	**-1.8**
C2SB	**Chapadao do Su**	**19.14**	**65**	*e*P	**P**	**06 33 44.4**	**-0.7**
FRTB	**Fartura**	**20.02**	**82**	*e*P	**P**	**06 33 54.7**	**-0.1**
FRTB	**Fartura**	**20.02**	**82**	P	Pn	06 33 56.9	+0.3
	comp=Z,83nm,0.9s						
CZSB	**Cruzeiro do Su**	**20.15**	**356**	P	**P**	**06 33 56.5**	**+0.5**
CZSB				IAmb	IAmb	06 34 02.7	
	comp=Z,46nm,0.8s						
CZSB	**Cruzeiro do Su**	**20.15**	**356**	*e*P	**P**	**06 33 56.8**	**+0.7**
GO08	**Villa O'Higgin**	**20.53**	**183**	P	**P**	**06 34 00.2**	**+0.2**
ARAG	**Araguaiana, MT**	**21.68**	**60**	*e*P	**P**	**06 34 12.4**	**-0.2**
ATAH	**Atahualpa**	**21.78**	**340**	P	**P**	**06 34 14.5**	**+0.4**
	comp=Z,4.7nm,0.8s,baz=138,slow=15,SNR=4.0						
	comp=Z,4.7nm,0.8s						
SPB	**Sao Paulo**	**21.82**	**84**	P	**P**	**06 34 13.6**	**-0.5**
SPB				IAmb	IAmb	06 34 16.6	
	comp=Z,21nm,1.1s						
RCLB	**Rio Claro- Sao**	**22.09**	**81**	*e*P	**P**	**06 34 16.4**	**-0.8**
CLDB	**Colider**	**22.29**	**43**	*e*P	**P**	**06 34 16.7**	**-2.5**
CLDB	**Colider**	**22.29**	**43**	P	**P**	**06 34 19.0**	**-0.3**
	comp=Z,26nm,1.2s						
VAO	**Valinhos**	**22.40**	**83**		**P**	**06 34 20.2**	**-0.2**
VAO				IAmb	IAmb	06 34 30.0	
	comp=Z,21nm,0.7s						
VAO	**Valinhos**	**22.40**	**83**	*e*P	**P**	**06 34 18.0**	**-2.4**
IPMB	**Ipameri, GO**	**23.33**	**70**	*e*P	**P**	**06 34 27.5**	**-2.6**
CANS	**Sao Roque de M**	**23.85**	**77**	*e*P	**P**	**06 34 35.4**	**+0.2**
SNDB	**Serra Nova Dou**	**24.47**	**54**	*e*P	**P**	**06 34 39.1**	**-1.8**
PMNB	**Patos De Minas**	**24.55**	**73**	*e*P	**P**	**06 34 41.4**	**-0.3**
PMNB	**Patos De Minas**	**24.55**	**73**	P	**P**	**06 34 42.5**	**+0.7**
	comp=Z,38nm,0.9s						
BDFB	**Brasilia**	**24.70**	**65**	P	**P**	**06 34 43.0**	**0.0**
	comp=Z,9.5nm,0.7s,baz=242,slow=12,SNR=5.7						
	comp=Z,9.5nm,0.7s						
BDFB	**Brasilia**	**24.70**	**65**	P	**P**	**06 34 43.1**	**0.0**
TEFE	**Tefe**	**25.08**	**16**	*e*P	**P**	**06 34 47.5**	**+1.1**
MACA	**Manacapuru-AM**	**26.60**	**24**	P	**P**	**06 35 00.2**	**+0.1**
MACA	**Manacapuru-AM**	**26.60**	**24**	*e*P	**P**	**06 34 58.0**	**-2.1**
ITTB	**Itaituba**	**27.68**	**35**	*e*P	**P**	**06 35 08.5**	**-1.3**
JANB	**Januaria**	**28.02**	**68**	*e*P	**P**	**06 35 11.9**	**-1.1**
OTAV	**Otavalo**	**28.86**	**345**	P	**P**	**06 35 19.7**	**-1.2**
BSFB	**Barra de Sao F**	**29.22**	**79**	*e*P	**P**	**06 35 23.7**	**+0.1**
BSFB	**Barra de Sao F**	**29.22**	**79**	P	**P**	**06 35 24.4**	**+0.8**
	comp=Z,37nm,1.8s						
BOAV	**Boa Vista**	**31.85**	**21**		**P**	**06 35 47.2**	**+0.4**
BOAV	**Boa Vista**	**31.85**	**21**	*e*P	**P**	**06 35 46.4**	**-0.4**
NBIT	**Itapeh - BA**	**32.16**	**73**	*e*P	**P**	**06 35 47.5**	**-2.1**
NBPN	**Ponto Novo - B**	**33.67**	**66**	*e*P	**P**	**06 36 02.8**	**-0.1**
VA02	**Isla de Pascua**	**33.83**	**262**	P	**P**	**06 36 03.0**	**-1.0**
NBTA	**Tacaratu-PE**	**36.38**	**65**	*e*P	**P**	**06 36 25.2**	**-0.9**
NBPS	**Pedro II - PI**	**36.73**	**56**	*e*P	**P**	**06 36 28.8**	**-0.4**
NBMA	**Muriti-CE**	**36.86**	**62**	*e*P	**P**	**06 36 29.7**	**-0.6**
ORCD	**Orcadas**	**37.34**	**159**	P	**P**	**06 36 33.9**	**+0.2**
GRGR	**Grenville**	**40.89**	**14**	P	**P**	**06 37 03.7**	**-0.1**
	comp=Z,75nm,1.1s						
TGUH	**Tegucigalpa,Un**	**44.56**	**337**	P	**P**	**06 37 33.6**	**-0.2**
TGUH				IAmb	IAmb	06 37 43.4	
	comp=Z,8.9nm,0.6s						
MTO3	**Montecristo**	**45.62**	**335**	P	**P**	**06 37 42.0**	**-0.3**
MLPR	**Magueyes Islan**	**45.81**	**6**	P	**P**	**06 37 44.1**	**+0.6**
MLPR				IAmb	IAmb	06 37 46.2	
	comp=Z,7.4nm,0.7s						
CRPR	**Cabo Rojo, PR**	**45.84**	**5**	P	**P**	**06 37 44.0**	**+0.2**
CRPR				IAmb	IAmb	06 37 51.2	
	comp=Z,6.2nm,0.6s						
OBIP	**Obispado Ponce**	**45.92**	**6**	P	**P**	**06 37 44.3**	**-0.1**
PDPR	**Patillas Dam,**	**45.95**	**7**	P	**P**	**06 37 43.9**	**-0.8**
PDPR				IAmb	IAmb	06 37 47.8	
	comp=Z,3.6nm,0.7s						
CELP	**Cerrillos**	**45.95**	**6**	P	**P**	**06 37 44.6**	**0.0**
CELP				IAmb	IAmb	06 38 01.2	
	comp=Z,6.5nm,0.7s						
SJG	**San Juan**	**46.03**	**7**	P	**P**	**06 37 44.7**	**-0.6**
TEIG	**Tepich**	**50.65**	**339**	P	**P**	**06 38 21.7**	**+0.8**
	comp=Z,29nm,0.8s						
CAIB	**Caibarien**	**50.77**	**350**	P	**P**	**06 38 21.9**	**+0.2**
CAIB				IAmb	IAmb	06 38 29.6	
	comp=Z,6.5nm,0.7s						
352A	**Blakely**	**60.52**	**347**	P	**P**	**06 39 31.7**	**+0.1**
154A	**Montrose**	**61.27**	**349**	P	**P**	**06 39 37.0**	**+0.3**
152A	**Waverly Hall**	**61.62**	**347**	P	**P**	**06 39 39.4**	**+0.2**
GOGA	**Godfrey**	**62.11**	**348**	P	**P**	**06 39 42.3**	**-0.1**
	comp=Z,11nm,0.9s						
833A	**Chaparral WMA,**	**62.13**	**332**	IAmb	IAmb	06 40 02.1	
	comp=Z,3.1nm,0.7s						
HNDO	**Hondo**	**63.14**	**333**		**P**	**06 39 51.0**	**+1.6**
143A	**Socs Landing,**	**63.29**	**341**	P	**P**	**06 39 51.5**	**+1.2**
143A				IAmb	IAmb	06 39 56.6	
	comp=Z,5.9nm,0.6s						
KMSC	**Kings Mountain**	**63.46**	**351**	IAmb	IAmb	06 39 53.0	
	comp=Z,5.1nm,0.7s						
X51A	**Calhoun**	**63.49**	**347**	IAmb	IAmb	06 40 05.8	
	comp=Z,1.6nm,0.5s						
FPAL	**Fort Paine**	**63.62**	**347**		**P**	**06 39 52.6**	**+0.2**
FPAL				IAmb	IAmb	06 40 05.2	
	comp=Z,1.4nm,0.4s						
V58A	**Windy Hill, Pi**	**63.83**	**353**	P	**P**	**06 39 54.3**	**+0.6**
V58A				IAmb	IAmb	06 39 54.5	
	comp=Z,5.6nm,0.6s						
W52A	**Murphy**	**63.83**	**348**	IAmb	IAmb	06 39 58.5	
	comp=Z,2.1nm,0.7s						
X48A	**Hartselle**	**63.84**	**345**	P	**P**	**06 39 54.4**	**+0.5**
X48A				IAmb	IAmb	06 40 12.2	
	comp=Z,2.5nm,0.7s						
TKL	**Tuckaleechee C**	**64.36**	**349**		**P**	**06 39 57.5**	**+0.2**
TKL				IAmb	IAmb	06 40 11.4	
	comp=Z,2.2nm,0.7s						
U56A	**King**	**64.52**	**352**	P	**P**	**06 39 59.0**	**+0.7**
U56A				IAmb	IAmb	06 39 59.5	
	comp=Z,5.0nm,0.5s						
BRDY	**Brady**	**64.58**	**334**		**P**	**06 39 59.4**	**+0.5**
BRDY				IAmb	IAmb	06 40 00.6	
	comp=Z,6.2nm,0.8s						
SAND	**Sanderson**	**64.71**	**330**		**P**	**06 39 60.0**	**+0.2**
WLAR	**White Oak Lake**	**64.72**	**340**	P	**P**	**06 39 59.3**	**-0.3**
TXAR	**Lajitas Array**	**64.87**	**329**	P	**P**	**06 40 01.9**	**+1.0**
	comp=Z,1.6nm,0.8s,baz=148,slow=6.9,SNR=7.3						
	comp=Z,1.6nm,0.8s						
TXAR	**Lajitas Array**	**64.87**	**329**	P	**P**	**06 40 01.4**	**+0.5**
TX31	**Lajitas Ar. Si**	**64.87**	**329**	P	**P**	**06 40 01.3**	**+0.4**
U54A	**Nelsons Funny**	**64.89**	**351**	P	**P**	**06 40 01.0**	**+0.2**
U54A				IAmb	IAmb	06 40 05.6	
	comp=Z,3.5nm,0.5s						
V48A	**Smith Brothers**	**65.03**	**346**	IAmb	IAmb	06 40 02.3	
	comp=Z,5.0nm,0.7s						
ELIB	**Princess Elisa**	**65.11**	**160**	*d*P	**P**	**06 40 01.8**	**-0.2**
ELIB				*d*pP	**pP**	**06 40 08.7**	**-0.4**
OZNA	**Ozona**	**65.12**	**332**		**P**	**06 40 02.5**	**0.0**
CLTN	**Cedars of Leba**	**65.26**	**347**		**P**	**06 40 03.4**	**+0.2**
U49A	**Red Boiling Sp**	**65.56**	**347**	IAmb	IAmb	06 40 09.2	
	comp=Z,1.9nm,0.7s						
WVT	**Waverly**	**65.62**	**345**	P	**P**	**06 40 05.1**	**-0.4**
WVT	**Waverly**	**65.62**	**345**	P	**P**	**06 40 05.5**	**0.0**
	comp=Z,15nm,0.9s						
MIAR	**Mount Ida**	**65.65**	**340**	P	**P**	**06 40 06.4**	**+0.7**
MIAR				IAmb	IAmb	06 40 12.6	
	comp=Z,1.9nm,0.7s						
MIAR	**Mount Ida**	**65.65**	**340**	P	**P**	**06 40 06.4**	**+0.7**
	comp=Z,7.8nm,1.4s						
SGCY	**Sterling City**	**65.99**	**332**	IAmb	IAmb	06 40 11.6	
	comp=Z,5.5nm,0.7s						
ABTX	**Abilene, Hawle**	**66.02**	**334**		**P**	**06 40 08.2**	**0.0**
ABTX				IAmb	IAmb	06 40 14.2	
	comp=Z,2.2nm,0.4s						
TPB05	**Hovey Rd**	**66.07**	**330**	P	**P**	**06 40 09.0**	**+0.4**
TPB05				IAmb	IAmb	06 40 10.4	
	comp=Z,4.1nm,0.6s						
TMB01	**Midkiff**	**66.17**	**331**	IAmb	IAmb	06 40 30.7	
	comp=Z,3.2nm,0.6s						
MNHN	**Monahans**	**66.18**	**331**		**P**	**06 40 09.3**	**0.0**
MNHN				IAmb	IAmb	06 40 11.7	
	comp=Z,7.8nm,1.0s						
S51A	**Beattyville**	**66.26**	**349**	IAmb	IAmb	06 40 25.4	
	comp=Z,2.0nm,0.6s						
T47A	**Sharon Grove**	**66.29**	**346**		**P**	**06 40 09.9**	**+0.1**
T47A				IAmb	IAmb	06 40 28.2	
	comp=Z,2.1nm,0.7s						
ODSA	**Odessa**	**66.76**	**331**	IAmb	IAmb	06 40 24.2	
	comp=Z,3.6nm,0.6s						
APMT	**Aspermont**	**66.83**	**334**	P	**P**	**06 40 13.6**	**+0.3**
129A	**Stewart Farms,**	**66.92**	**332**	P	**P**	**06 40 14.7**	**+0.7**
129A				IAmb	IAmb	06 40 15.2	
	comp=Z,2.5nm,0.5s						
SN07	**Snyder 07**	**66.92**	**333**	IAmb	IAmb	06 40 16.2	
	comp=Z,2.9nm,0.7s						
R49A	**Shelbyville**	**67.17**	**348**	IAmb	IAmb	06 40 28.0	
	comp=Z,2.1nm,0.6s						
WCI	**Wyandotte Cave**	**67.32**	**347**	P	**P**	**06 40 15.8**	**-0.5**
WCI	**Wyandotte Cave**	**67.32**	**347**	P	**P**	**06 40 16.1**	**-0.2**
	comp=Z,12nm,0.8s						
USIN	**University of**	**67.35**	**346**	P	**P**	**06 40 16.8**	**+0.4**
P57A	**Homestead Farm**	**67.37**	**354**	IAmb	IAmb	06 40 34.9	
	comp=Z,2.0nm,0.5s						
HHAR	**Hobbs**	**67.37**	**340**		**P**	**06 40 17.4**	**+0.7**
HHAR				IAmb	IAmb	06 40 34.0	
	comp=Z,2.6nm,0.7s						
DKNS	**Dickens**	**67.44**	**333**	P	**P**	**06 40 17.0**	**-0.2**
DKNS				IAmb	IAmb	06 40 19.5	
	comp=Z,6.2nm,0.8s						
S44A	**Carbondale**	**67.45**	**345**	IAmb	IAmb	06 40 20.3	
	comp=Z,4.5nm,0.6s						
TUL3	**Leonard**	**67.61**	**339**	P	**P**	**06 40 18.5**	**+0.3**
GDL2	**Guadalupe Moun**	**67.62**	**330**	P	**P**	**06 40 18.5**	**0.0**
U38A	**Gravette**	**67.65**	**340**	P	**P**	**06 40 18.6**	**+0.1**
MNTX	**Cornudas Mount**	**67.66**	**329**	P	**P**	**06 40 18.6**	**-0.1**
MNTX	**Cornudas Mount**	**67.66**	**329**	P	**P**	**06 40 18.9**	**+0.3**
	comp=Z,4.9nm,1.0s						
OK029	**Liberty Lake**	**68.06**	**337**	IAmb	IAmb	06 40 39.4	
	comp=Z,4.6nm,0.6s						
CCM	**Cathedral Cave**	**68.28**	**343**	P	**P**	**06 40 22.6**	**+0.3**
CCM				IAmb	IAmb	06 40 32.3	
	comp=Z,3.8nm,0.6s						
CCM	**Cathedral Cave**	**68.28**	**343**	P	**P**	**06 40 23.0**	**+0.7**
	comp=Z,22nm,1.7s						
SMWD	**Samnorwood**	**68.44**	**335**	IAmb	IAmb	06 40 24.8	
	comp=Z,5.9nm,0.6s						
OK048	**Pawnee Station**	**68.45**	**338**	IAmb	IAmb	06 40 34.6	
	comp=Z,5.0nm,0.7s						
MSTX	**Muleshoe**	**68.45**	**332**	IAmb	IAmb	06 40 36.1	
	comp=Z,3.2nm,0.7s						
OK051	**E0350 and S346**	**68.49**	**338**	P	**P**	**06 40 24.0**	**+0.3**
P46A	**Rosedale**	**68.84**	**347**	IAmb	IAmb	06 40 33.0	
	comp=Z,4.8nm,0.6s						
NPNY	**Mohonk Preserv**	**69.39**	**358**	P	**P**	**06 40 29.9**	**+0.7**
P40A	**Paris**	**69.88**	**343**	IAmb	IAmb	06 40 44.4	
	comp=Z,3.8nm,0.7s						
L56A	**Greenwood**	**69.97**	**355**	IAmb	IAmb	06 40 49.8	
	comp=Z,1.6nm,0.6s						
L40A	**Anamosa**	**72.06**	**344**	P	**P**	**06 40 45.6**	**+0.2**
L40A				IAmb	IAmb	06 40 59.9	
	comp=Z,3.5nm,0.6s						
DBIC	**Dimbokro**	**72.60**	**72**	P	**P**	**06 40 49.8**	**+0.4**
	comp=Z,17nm,0.8s,baz=228,slow=7.1,SNR=9.7						
	comp=Z,17nm,0.8s						
DBIC	**Dimbokro**	**72.60**	**72**	P	**P**	**06 40 49.2**	**-0.2**
DBIC	**Dimbokro**	**72.60**	**72**	P	**P**	**06 40 50.3**	**+0.9**
	comp=Z,34nm,0.9s						
WBO	**Williamsburg**	**72.68**	**357**		**P**	**06 40 49.9**	**+0.8**
SDCO	**Great Sand Dun**	**72.83**	**332**	P	**P**	**06 40 51.6**	**+1.1**
F64A	**Sherman**	**73.49**	**2**	P	**P**	**06 40 55.2**	**+1.4**
D62A	**Allapoint, All**	**74.69**	**2**	P	**P**	**06 41 01.3**	**+0.5**
PV18	**Skein Mesa, Pa**	**74.70**	**330**	P	**P**	**06 41 01.3**	**-0.1**
PV18				IAmb	IAmb	06 41 02.5	
	comp=Z,3.8nm,0.5s						
ECSD	**EROS Data Cent**	**75.03**	**341**	P	**P**	**06 41 03.8**	**+0.8**
	comp=Z,14nm,0.9s						
RSSD	**Black Hills**	**77.76**	**336**	P	**P**	**06 41 19.7**	**+1.1**
	comp=Z,3.8nm,0.7s						
HWUT	**Hardware Ranch**	**78.62**	**330**	P	**P**	**06 41 25.1**	**+1.6**
	comp=Z,11nm,0.8s						
BW06	**Boulder Array**	**78.72**	**332**	P	**P**	**06 41 24.0**	**0.0**
PD31	**Pinedale Array**	**78.72**	**332**	P	**P**	**06 41 23.7**	**-0.4**
PDAR	**Pinedale Array**	**78.72**	**332**	P	**P**	**06 41 24.2**	**+0.2**
	comp=Z,1.3nm,0.7s,baz=130,slow=6.8,SNR=6.4						
	comp=Z,1.3nm,0.7s						
PDAR	**Pinedale Array**	**78.72**	**332**	P	**P**	**06 41 24.1**	**+0.1**
AGMN	**Agassiz Nation**	**79.05**	**344**	P	**P**	**06 41 26.0**	**+0.6**
	comp=Z,9.4nm,0.8s						
AHID	**Auburn Hatcher**	**79.37**	**331**	P	**P**	**06 41 28.6**	**+1.0**
	comp=Z,6.6nm,2.9s						
NVAR	**Mina Array Bea**	**79.37**	**324**	P	**P**	**06 41 27.3**	**-0.4**
	comp=Z,1.1nm,0.8s,baz=161,slow=6.3,SNR=5.2						
	comp=Z,1.1nm,0.8s						
NVAR	**Mina Array Bea**	**79.37**	**324**	P	**P**	**06 41 27.0**	**-0.7**
ELK	**Elko**	**79.62**	**328**	P	**P**	**06 41 29.4**	**+0.4**
TSUM	**Tsumeb**	**80.20**	**106**	P	**P**	**06 41 33.6**	**+1.0**
ULM	**Lac du Bonnet**	**80.86**	**344**	P	**P**	**06 41 35.1**	**0.0**
	comp=Z,5.6nm,0.9s,baz=134,slow=2.3,SNR=4.1						
	comp=Z,5.6nm,0.9s						
ULM	**Lac du Bonnet**	**80.86**	**344**	P	**P**	**06 41 35.4**	**+0.2**
HLID	**Hailey**	**81.45**	**330**	P	**P**	**06 41 40.3**	**+1.6**
	comp=Z,6.9nm,0.9s						
TORD	**Torodi Ar. Bea**	**81.47**	**70**	P	**P**	**06 41 38.4**	**-0.9**
	comp=Z,6.4nm,0.9s,baz=268,slow=5.3,SNR=6.5						
	comp=Z,6.4nm,0.9s						
TORD	**Torodi Ar. Bea**	**81.47**	**70**	P	**P**	**06 41 38.2**	**-1.0**
TORD				IAmb	IAmb	06 41 48.0	
	comp=Z,2.6nm,0.6s						
MCMT	**McKenzie Canyo**	**81.78**	**331**	P	**P**	**06 41 41.1**	**+0.6**
BOZ	**Bozeman (W)**	**81.90**	**333**	P	**P**	**06 41 41.4**	**+0.4**
BOSA	**Boshof**	**82.26**	**118**	P	**P**	**06 41 43.3**	**-0.1**
	comp=Z,3.7nm,0.5s,baz=274,slow=4.0,SNR=6.9						
	comp=Z,3.7nm,0.5s						
BOSA	**Boshof**	**82.26**	**118**	P	**P**	**06 41 43.2**	**-0.3**
BOSA	**Boshof**	**82.26**	**118**	P	**P**	**06 41 43.5**	**+0.1**
	comp=Z,15nm,2.2s						
WVOR	**Wild Horse Val**	**82.55**	**327**	P	**P**	**06 41 46.0**	**+1.6**
	comp=Z,5.2nm,2.8s						
LBTB	**Lobatse**	**84.20**	**115**	P	**P**	**06 41 53.9**	**+0.4**
	comp=Z,16nm,1.2s						
TIO	**Tiouine**	**84.50**	**51**	P	**P**	**06 41 57.0**	**+2.2**
	comp=Z,24nm,1.1s						
PINE	**Pine Mountain**	**84.68**	**326**	P	**P**	**06 41 56.4**	**+0.9**
PINE				IAmb	IAmb	06 42 07.2	
	comp=Z,2.5nm,0.7s						
NUUK	**Nuuk**	**93.07**	**8**	P	**P**	**06 42 36.9**	**+2.3**
WRA	**Warramunga Arr**	**126.38**	**210**	PKP	**PKPdf**	**06 48 24.4**	**-0.7**
	comp=Z,1.2nm,0.7s,baz=157,slow=1.8,SNR=5.0						
H11S2	**WAKE ISLAND Hy**	**126.38**	**273**	T	T	09 07 30.3	
	baz=112,slow=75,SNR=4.3						
H11S1	**WAKE ISLAND Hy**	**126.39**	**273**	T	T	09 07 30.7	
	baz=112,slow=75,SNR=4.2						
H11S3	**WAKE ISLAND Hy**	**126.40**	**273**	T	T	09 07 30.2	
	baz=112,slow=75,SNR=5.0						
SMRI	**Semarang**	**145.19**	**183**	PKPbc	**PKPbc**	**06 48 58.0**	**-1.5**
KBL	**Kabul**	**145.53**	**69**	PKPdf	**PKPdf**	**06 48 58.7**	**-1.5**
KK31	**Karatay Array**	**145.68**	**54**	PKPdf	**PKPdf**	**06 48 59.2**	**-0.7**
KKAR	**Karatay Array**	**145.68**	**54**	PKPdf	**PKPdf**	**06 48 59.6**	**-0.3**
BTK	**Batken**	**146.50**	**59**	PKPdf	**PKPdf**	**06 49 00.1**	**-1.4**
KURK	**Kurchatov**	**147.77**	**37**	PKPdf	**PKPdf**	**06 49 02.4**	**-0.7**
KURBB	**Kurchatov Arra**	**147.77**	**37**	PKPbc	**PKPdf**	**06 49 04.5**	**+1.4**
	comp=Z,5.3nm,0.8s,baz=297,slow=3.1,SNR=9.8						
ARSB	**Arslanbob**	**147.87**	**56**	PKPdf	**PKPdf**	**06 49 03.7**	**-0.1**
ZALV	**Zalesovo Beam**	**148.62**	**27**	PKPbc	**PKPbc**	**06 49 08.2**	**+0.1**
	comp=Z,14nm,0.8s,baz=308,slow=3.2,SNR=11						
ZALV	**Zalesovo Beam**	**148.62**	**27**	PKPdf	**PKPdf**	**06 49 04.6**	**+0.2**
MKAR	**Makanchi Array**	**151.95**	**41**	PKPbc	**PKiKP**	**06 49 16.6**	**-0.2**
	comp=Z,4.7nm,0.7s,baz=327,slow=2.0,SNR=8.0						
CMAR	**Chiang Mai Arr**	**166.92**	**134**	PKP	**PKPdf**	**06 49 28.2**	**+0.4**
	comp=Z,0.6nm,0.3s,baz=195,slow=3.9,SNR=4.0						

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*IDC **01** 06:38:57.4±4.5, 22°.08N×95°.12E, h0^{km}, mb3.9/3, mbtmp3.7/4, ML3.6/1, Error ellipse: s-maj=220.4km s-min=13.8km az=53.0*

*NEIC **01** 06:39:06.3±1.7, 22°.3N±0°.1×95°.02E±0°.09, h76^{km}±4^{km}, mb4.3/11, Error ellipse: s-maj=22.7km s-min=6.9km az=205.0*

*NDI **01** 06:39:49.0±0.4, 22°.29N×95°.00E, h75^{km}, ML4.1, MW3.9, Presumed earthquake*

ISC 01 06:39:01.4±0.8**, 22°.2N**±0°.2×**95°.1E**±0°.2**, h35**^{km}**, n26, σ1^{s}.10**/21**, mb4.1**/10**, Myanmar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AZL	**Aizawl**	**2.71**	**305**	*e*P	Pn	06 40 28.4	+46
AZL				*e*S	Sn	06 40 57.5	+43
AZL				IAML		06 40 59.1	
	comp=E,1µm,0.0s						
AZL				IAML		06 41 00.2	
	comp=N,1µm,0.1s						
IMP	**Imphal**	**2.83**	**338**	*e*P	Pn	06 40 30.5	+46
IMP				*e*S	Sn	06 41 00.6	+44
IMP				IAML		06 41 01.9	
	comp=N,949nm,0.1s						
IMP				IAML		06 41 02.1	
	comp=E,1µm,0.1s						
KOHI	**KOHIMA**	**3.62**	**345**	*e*P	Pn	06 40 41.1	+46
KOHI				*e*S	Sn	06 41 19.4	+43
KOHI				IAML		06 41 20.4	
	comp=E,898nm,0.2s						
KOHI				IAML		06 41 20.5	

	comp=N,856nm,0.2s						
MOKO	MOKOCHONG	4.14	352	*e*S	Sn	06 41 31.7	+42
TEZP	TEZPUR	4.88	335	*e*P	Pn	06 40 57.9	+46
TEZP				*e*S	Sn	06 41 47.9	+40
TEZP				IAML		06 41 48.0	
	comp=E,586nm,0.1s						
TEZP				IAML		06 41 48.1	
	comp=N,600nm,0.1s						
CMAR	Chiang Mai Arr	5.17	135	Pn	Pn	06 40 16.6	+0.2
	comp=N,0.6nm,0.3s,baz=300,slow=14,SNR=14						
CMAR				Lg	Lg	06 41 36.9	
	comp=N,0.6nm,0.3s,baz=292,slow=33,SNR=7.2						
	comp=N,0.8nm,0.3s						
CMAR				AML	AML		
EVN	Everest	9.45	309	Pn	Pn	06 41 16.5	+0.8
MKAR	Makanchi Array	26.64	340	P	P	06 44 39.2	+2.4
	comp=N,0.5nm,0.6s,baz=156,slow=8.6,SNR=4.4						
	comp=N,0.5nm,0.6s						
MKAR	Makanchi Array	26.64	340	P	P	06 44 36.6	-0.2
MAKZ	Makanchi	26.75	340	P	P	06 44 36.4	-1.4
MAKZ				IAmb	IAmb	06 44 47.6	
	comp=Z,5.1nm,1.4s						
KURBB	Kurchatov Arra	31.20	339	P	P	06 45 19.2	+2.1
	comp=Z,1.1nm,0.5s,baz=152,slow=8.4,SNR=6.8						
	comp=Z,1.1nm,0.5s						
KURK	Kurchatov	31.25	340	P	P	06 45 17.8	+0.1
TOLI2	Tolitoli	32.61	127	P	P	06 45 29.9	0.0
TOLI2				IAmb	IAmb	06 46 05.3	
	comp=Z,3.9nm,0.8s						
ZALV	Zalesovo Beam	32.65	349	P	P	06 45 31.6	+1.8
	comp=Z,1.4nm,0.6s,baz=174,slow=5.8,SNR=3.6						
	comp=Z,1.4nm,0.6s						
ZALV	Zalesovo Beam	32.65	349	P	P	06 45 30.2	+0.4
BORK	Borovoye	36.15	335	P	P	06 45 59.1	-1.1
BORK				IAmb	IAmb	06 46 10.9	
	comp=Z,2.5nm,0.8s						
AB31	Akbulak array	38.72	323	P	P	06 46 21.2	-0.8
AB31				IAmb	IAmb	06 46 22.8	
	comp=Z,1.1nm,0.5s						
ABKAR	Akbulak array	38.72	323	P	P	06 46 21.9	-0.1
MJB9	Matsu-Tunnel	39.84	59	P	P	06 46 30.1	-1.6
MAJO	Matsushiro	39.85	59	P	P	06 46 31.5	-0.1
MAJO				IAmb	IAmb	06 47 08.4	
	comp=Z,14nm,1.4s						
MJAR	Matsushiro Arr	39.85	59	P	P	06 46 31.9	+0.2
MJAR				IAmb	IAmb	06 46 31.9	
	comp=Z,5.2nm,1.5s						
PETK	Petropavlovsk-	56.15	40	P	P	06 48 38.0	+0.5
WRA	Warramunga Arr	56.77	135	P	P	06 48 42.5	+0.2
TIRR	Tirgusor	58.35	309	P	P	06 48 52.7	-0.4
TIRR				IAmb	IAmb	06 48 57.2	
	comp=Z,19nm,1.5s						
FIA1	FINESS Array S	60.74	329	P	P	06 49 08.7	-0.5
FINES	FINESS Array B	60.74	329	P	P	06 49 08.6	-0.6

SJA **01** *07:01:20.3±0.7, 27.°93S×71.°74W, h8^{km}, ML5.8, MW5.4*

PTWC **01** *07:01:23, 28.°00S×71.°60W, h10^{km}, Mwp5.8/9*

IDC **01** *07:01:23.1±0.4, 28.°04S×71.°15W, h0^{km}, mb5.1/16, mbtmp5.0/18, ML4.6/2, MS5.3/40, Error ellipse: s-maj=15.3km s-min=11.2km az=73.0*

MOS **01** *07:01:24.9±1.6, 27.°89S×71.°16W, h16^{km}, mb5.6/30, MS5.3/5, Error ellipse: s-maj=13.1km s-min=5.9km az=102.0*

GUC **01** *07:01:24.9±0.9, 28.°05S×71.°33W, h30^{km}±3^{km}, ML5.5*

NEIC **01** *07:01:25.6±2.1, 28.°00S±0.°03×71.°38W±0.°05, h18^{km}±2^{km}, mb5.4/446, Ms_20 5.4/155, Mwr5.5/56, Mww5.8/16, Mwr5.6(GUC), Error ellipse: s-maj=6.1km s-min=3.8km az=86.0, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M$_{rr}$1.37; M$_{\theta\theta}$0.51; M$_{\phi\phi}$-1.89; M$_{r\theta}$0.87; M$_{\theta\phi}$-0.04; M$_{\phi r}$-1.45; Fault plane solution: M$_0$2.39000×10^{17} NP1: ϕ_s157.05000°, δ69.93000°, λ67.36000°. NP2: ϕ_s27.60000°, δ29.90000°, λ136.50000°. Principal axes: T 2.3107, Plg59.0000°, Azm35.0000°; N 0.1513, Plg21.0000°, Azm165.0000°; P -2.4620, Plg22.0000°, Azm264.0000°;*

NEIC **01** *07:01:25.1, 27.°97S×71.°43W, h11^{km}*

VAO **01** *07:01:25.5±0.2, 27.°94S×71.°29W, h20^{km}, mb5.3, Presumed earthquake*

GFZ **01** *07:01:25.7±0.3, 28˚S±1˚×7˚1W±˚, h14^{km}±1^{km}, M5.4/60, mb5.4/60, Error ellipse: s-maj=5.3km s-min=2.7km az=92.3, confirmed*

NEIC **01** *07:01:26.4, 27.°97S×71.°42W, h21^{km}*

GFZ **01** *07:01:26.9, 27.°99S×71.°26W, h28^{km}, Mw5.7/30, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M$_{rr}$3.46; M$_{\theta\theta}$0.34; M$_{\phi\phi}$-3.80; M$_{r\theta}$0.94; M$_{\theta\phi}$-0.30; M$_{\phi r}$-2.32; Fault plane solution: M$_0$4.42909×10^{17} NP1: ϕ_s169.36810°, δ62.49693°, λ75.05911°. NP2: ϕ_s19.38909°, δ31.01870°, λ116.34495°. Principal axes: T 4.3775, Plg68.8326°, Azm49.0450°; N 0.1015, Plg13.2197°, Azm176.3931°; P -4.4790, Plg16.2274°, Azm270.3134°;*

GCMT **01** *07:01:30.3±0.2, 28.°17S±0.°02×71.°65W±0.°02, h36^{km}, MW5.8/128, Moment Tensor Solution. s78,c98; s128,c192; Duration: 2^{s}0 Moment tensor: Scale 10^{17} Nm; M$_{rr}$6.31±.25; M$_{\theta\theta}$-0.81±.14; M$_{\phi\phi}$-5.49±.15; M$_{r\theta}$1.37±.16; M$_{\theta\phi}$0.12±.08; M$_{\phi r}$-3.30±.15; Best double couple: M$_0$6.88200×10^{17} NP1: ϕ_s6.00000°, δ31.00000°, λ105.00000°. NP2: ϕ_s169.00000°, δ60.00000°, λ81.00000°. Principal axes: T 7.3760, Plg73.0000°, Azm57.0000°; N -0.9810, Plg7.0000°, Azm173.0000°; P -6.3890, Plg15.0000°, Azm265.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

NEIC **01** *07:01:34.8, 27.°97S×71.°43W, h18^{km}, Moment Tensor Solution. Duration: 3^{s}1.0 Moment tensor: Scale 10^{17} Nm; M$_{rr}$1.93; M$_{\theta\theta}$0.43; M$_{\phi\phi}$-2.36; M$_{r\theta}$-0.11; M$_{\theta\phi}$-0.10; M$_{\phi r}$-5.94; Fault plane solution: M$_0$6.33000×10^{17} NP1: ϕ_s3.24000°, δ9.95000°, λ92.08000°. NP2: ϕ_s181.12000°, δ80.06000°, λ89.63000°. Principal axes: T 6.1040, Plg55.0000°, Azm91.0000°; N 0.4340, Plg0.0000°, Azm181.0000°; P -6.5380, Plg35.0000°, Azm271.0000°;*

ISC 01 07:01:24.6±0.5, **28.°00S**±0.°02×**71.°31W**±0.°03, **h14**^{km}±2^{km}, **h14^{km}:pP-P, n961, σ1^{s}72**/773, **mb5.4**/272, **MS5.4**/118, **38C-16D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.29	135	*e*P	Pb	07 01 32.8	+1.1
AC04	Llanos de Chal	0.29	135⇓	*e*P	Pb	07 01 32.7	+1.1
AC04				*e*S	Sb	07 01 37.7	+1.2
AC04				IAML		07 01 39.0	
	comp=E,1496µm,0.4s						
AC04	Llanos de Chal	0.29	135	Pg	Pb	07 01 32.6	+0.9
AC04				Sg	Sb	07 01 37.2	+0.7
AC04	Llanos de Chal	0.29	135	P	Pb	07 01 32.8	+1.1
AC04	Llanos de Chal	0.29	135	P	Pb	07 01 32.8	+1.1
	comp=Z,830µm,1.0s						
GO03	Copiapo	1.03	67	*e*P	Pn	07 01 45.7	+0.9
GO03	Copiapo	1.03	67⇑	*e*P	Pn	07 01 45.3	+0.5
GO03				*e*S	Sn	07 02 00.3	+1.3
GO03	Copiapo	1.03	67	Pn	Pn	07 01 45.2	+0.5
GO03				Sn	Sn	07 02 00.9	+1.9
GO03	Copiapo	1.03	67	P	Pn	07 01 46.0	+1.3
GO03	Copiapo	1.03	67	P	Pn	07 01 45.5	+0.7
AC06	Mina Casimiro	1.06	53⇑	*e*P	Pg	07 01 45.9	+0.8
AC06				*e*S	Sn	07 02 01.1	+1.5
AC06				IAML		07 02 06.9	
	comp=E,113µm,0.5s						
AC06	Mina Casimiro	1.06	53	Pn	Pn	07 01 45.3	+0.3
AC06				Sn	Sn	07 02 02.1	+2.5
LCO	Las Campanas	1.15	152	P	Pg	07 01 47.2	+0.4
LCO	Las Campanas	1.15	152⇑	*e*P	Pb	07 01 45.9	-0.4
LCO				*e*S	Sg	07 02 01.9	+0.2
LCO				IAML		07 02 05.9	
	comp=E,813µm,0.6s						
LCO	Las Campanas	1.15	152	Pn	Pb	07 01 46.4	0.0
LCO				Sn	Sg	07 02 02.0	+0.2
LCO	Las Campanas	1.15	152	P	Pg	07 01 47.8	+1.0
LCO				S	Sn	07 02 03.5	+1.4
AC05	El Transito	1.24	133⇓	*e*P	Pb	07 01 48.3	+0.4
AC05				*e*S	Sg	07 02 05.0	+0.3
AC05				IAML		07 02 11.8	
	comp=N,117µm,0.7s						
AC05	El Transito	1.24	133	Pn	Pb	07 01 47.9	0.0
AC05				Sn	Sn	07 02 04.6	+0.4
AC05	El Transito	1.24	133	P	Pg	07 01 48.8	+0.2
AC05	El Transito	1.24	133	P	Pb	07 01 48.3	+0.4
	comp=Z,106µm,0.6s						
AC01	Pan de Azucar	1.95	19	*e*P	Pn	07 01 57.5	+0.3
AC01				*e*S	Sn	07 02 19.4	-2.0
AC01	Pan de Azucar	1.95	19⇑	*e*P	Pn	07 01 57.1	-0.1
AC01				*e*S	Sn	07 02 22.7	+1.2
AC01				IAML		07 02 39.0	
	comp=E,26µm,0.6s						
AC01	Pan de Azucar	1.95	19		Pn	07 01 57.1	-0.1
AC01	Pan de Azucar	1.95	19	P	Pn	07 01 57.4	+0.1
AC01	Pan de Azucar	1.95	19	P	Pn	07 01 57.4	+0.1
GO04	Tololo Observa	2.21	168	*e*P	Pn	07 02 02.3	+1.1
GO04				*e*S	Sb	07 02 33.0	+1.0
GO04				IAML		07 02 36.9	
	comp=Z,82µm,0.8s						
GO04	Tololo Observa	2.21	168	*e*P	Pn	07 02 01.7	+0.5
GO04				*e*S	Sb	07 02 31.1	-0.9
GO04				IAML		07 02 42.7	
	comp=E,294µm,0.5s						
GO04	Tololo Observa	2.21	168		Pn	07 02 01.6	+0.5
GO04				Sn	Sn	07 02 29.6	+1.2
GO04	Tololo Observa	2.21	168	P	Pn	07 02 02.1	+0.9
GO04	Tololo Observa	2.21	168	P	Pn	07 02 01.9	+0.8
	comp=Z,20µm,0.6s						
CO01	Juntas del Tor	2.24	152	*e*P	Pb	07 02 04.2	-0.9
CO01				*e*S	Sn	07 02 26.9	-2.2
CO01				IAML		07 02 40.9	
	comp=Z,37µm,0.5s						
CO01	Juntas del Tor	2.24	152⇑	*e*P	Pb	07 02 03.5	-1.6
CO01				*e*S	Sb	07 02 32.1	-0.7
CO01				IAML		07 02 42.5	
	comp=N,34µm,0.6s						
CO01	Juntas del Tor	2.24	152		Pn	07 02 03.3	+1.7
CO01	Juntas del Tor	2.24	152	P	Pb	07 02 03.5	-1.6
	comp=Z,17µm,0.7s						
AC02	Maricunga	2.26	60	*e*P	Pb	07 02 05.8	+0.4
AC02				*e*S	Sg	07 02 39.1	+1.8
AC02				IAML		07 02 43.2	
	comp=Z,20µm,0.3s						
AC02	Maricunga	2.26	60⇑	*e*P	Pb	07 02 05.0	-0.5
AC02				*e*S	Sg	07 02 36.0	-1.3
AC02				IAML		07 02 41.1	
	comp=N,40µm,0.4s						
AC02	Maricunga	2.26	60		Pb	07 02 04.9	-0.6
AC02	Maricunga	2.26	60	P	Pb	07 02 05.2	-0.2
AC02	Maricunga	2.26	60	P	Pb	07 02 05.3	-0.2
CO06	Fray Jorge	2.68	186	*e*P	Pn	07 02 05.9	-1.5
CO06				*e*S	Sn	07 02 40.0	+0.3
CO06				IAML		07 02 53.0	
	comp=N,14µm,0.5s						
CO06	Fray Jorge	2.68	186		Pn	07 02 06.3	-1.0
AROD	Rodeo	2.70	144	*e*P	Pb	07 02 12.2	-0.6
VCA	Vinchina	2.83	106	*e*P	Pb	07 02 15.8	+0.7
VCA				*e*S	Sg	07 02 54.0	-1.8
VCA				IAML		07 03 16.1	
	comp=Z,14µm,0.7s						
VCA	Vinchina	2.83	106⇑	*e*P	Pb	07 02 15.1	0.0
CO03	El Pedregal	2.88	169	*e*P	Pn	07 02 11.5	+1.2
CO03				IAML		07 02 59.7	
	comp=Z,27µm,0.5s						
CO03	El Pedregal	2.88	169⇑	*e*P	Pn	07 02 11.1	+0.8
CO03				*e*S	Sn	07 02 45.0	+0.2
CO03				IAML		07 02 57.3	
	comp=N,28µm,0.3s						
CO03	El Pedregal	2.88	169		Pn	07 02 10.8	+0.6
CO03	El Pedregal	2.88	169	P	Pn	07 02 11.3	+1.1
	comp=Z,6µm,0.6s						
ACDV	Cuesta del Vie	2.89	139	*e*P	Pb	07 02 15.5	-0.7
ACDV				*e*S	Sb	07 02 54.0	+2.5
ACDV				*e*S	Sg	07 02 55.0	-2.7
ACDV				IAML		07 03 02.3	
	comp=Z,15µm,1.1s						
CO02	Combarbal	3.21	175	*e*P	Pn	07 02 14.9	+0.2
CO02				IAML		07 03 13.0	
	comp=Z,24µm,0.6s						
CO02	Combarbal	3.21	175	*e*P	Pn	07 02 14.7	0.0
CO02	Combarbal	3.21	175		Pn	07 02 14.3	-0.4
CO02	Combarbal	3.21	175	P	Pn	07 02 14.7	0.0
CO02	Combarbal	3.21	175	P	Pn	07 02 14.9	+0.2
	comp=Z,7µm,1.0s						
ACCO	Cerro Coronel	3.24	143	*e*P	Pb	07 02 20.1	-2.1
ACCO				*e*S	Sb	07 03 03.0	+1.3
ACCO				IAML		07 03 11.9	
	comp=Z,15µm,0.6s						
TINO	Tinogasta	3.31	92	*e*P	Pb	07 02 20.1	-3.0
TINO				*e*S	Sg	07 03 08.0	-3.0
TINO				IAML		07 03 18.4	
	comp=Z,18µm,0.8s						
PB14	IPOC Station P	3.45	14	P	Pn	07 02 17.2	-1.1
PB14	IPOC Station P	3.45	14	*e*P	Pn	07 02 17.9	-0.3
PB14				*e*S	Sg	07 03 12.9	-2.7
PB14				IAML		07 03 23.2	
	comp=Z,11µm,0.6s						
PB14	IPOC Station P	3.45	14⇑	*e*P	Pn	07 02 17.2	-1.1
PB14	IPOC Station P	3.45	14		Pn	07 02 17.0	-1.2
PB14	IPOC Station P	3.45	14	P	Pn	07 02 17.3	-0.9
CO04	Los Peladeros	4.04	176		Pn	07 02 26.2	-0.1
ACLC	CERRO LA CRUZ	4.08	111	*e*P	Pn	07 02 30.7	+3.9
ACLC				*e*S	Sb	07 03 22.4	-3.3
ACLC				IAML		07 03 29.3	
	comp=Z,9µm,1.1s						
RTLL	Cerro Villicun	4.14	144	*e*P	Pn	07 02 31.7	+4.3
RTLL				*e*S	Sn	07 03 13.4	-2.2
RTLL				IAML		07 03 45.8	
	comp=Z,10µm,2.1s						
RTLS	Leoncito	4.17	156	*e*P	Pn	07 02 32.7	+4.6
RTLS				*e*S	Sb	07 03 28.4	0.0
RTLS				IAML		07 03 39.2	
	comp=Z,31µm,0.9s						
ZON	Zonda	4.21	148	*e*P	Pn	07 02 32.6	+4.2
ZON				*e*S	Sb	07 03 26.4	-2.9
ZON				IAML		07 03 48.3	
	comp=Z,7µm,1.6s						
ZON	Zonda	4.21	148	P	Pn	07 02 31.5	+3.0
ZON	Zonda	4.21	148		Pn	07 02 31.5	+3.0
ZON	Zonda	4.21	148	P	Pn	07 02 32.8	+4.4
ZON	Zonda	4.21	148	P	Pn	07 02 32.9	+4.4
SJA	San Juan	4.25	146	*e*P	Pn	07 02 28.4	-0.6
SJA				*e*P	Pb	07 02 34.1	-5.2
SJA				*e*S	Sb	07 03 30.4	0.0
SJA				IAML		07 04 02.4	
	comp=Z,12µm,2.8s						
CFA	Coronel Fontan	4.48	144	Pn	Pn	07 02 34.7	+2.6
	comp=Z,56nm,0.3s,baz=321,slow=14,SNR=76						
CFA				Sn	Sn	07 03 28.0	+4.0
	comp=Z,83nm,0.3s,baz=330,slow=15,SNR=6.5						
CFA	Coronel Fontan	4.48	144	*e*P	Pn	07 02 35.9	+3.8
CFA				*e*S	Sn	07 03 23.4	-0.6
CFA				*e*S	Sb	07 03 28.4	-8.5
CFA				IAML		07 03 53.1	
	comp=Z,4µm,0.9s						
VA03	San Esteban	4.80	172	*e*P	Pn	07 02 38.0	+1.5
VA03				*e*S	Sn	07 03 37.0	+5.0
VA03				IAML		07 03 59.1	
	comp=Z,13µm,0.7s						
VA03	San Esteban	4.80	172		Pn	07 02 37.5	+1.0
VA03	San Esteban	4.80	172	P	Pn	07 02 38.0	+1.5
CYA	Choya	4.88	97	*e*P	Pn	07 02 41.0	+3.4
CYA				*e*S	Sb	07 03 45.4	-3.1
CYA				IAML		07 03 48.7	
	comp=Z,6µm,0.7s						
VA01	Torpederas	5.02	183		Pn	07 02 38.1	-1.3
VA01	Torpederas	5.02	183	P	Pn	07 02 37.7	-1.8
PEL	Peldehue	5.16	174	P	Pn	07 02 42.0	+0.5
PEL	Peldehue	5.16	174		Pn	07 02 42.0	+0.5
PEL	Peldehue	5.16	174	P	Pn	07 02 42.4	+0.9
PB05	IPOC Station P	5.22	11	*e*P	Pn	07 02 40.9	-1.4
PB05				*e*S	Sb	07 03 60.0	+1.6
PB05	IPOC Station P	5.22	11		Pn	07 02 40.2	-2.1
PB05	IPOC Station P	5.22	11	P	Pn	07 02 40.5	-1.8
	comp=Z,834nm,0.7s						
MT02	Curacav	5.25	178	*e*P	Pn	07 02 42.0	-0.7
MT02				*e*S	Sn	07 03 48.0	+5.0
MT02				IAML		07 04 04.9	
	comp=Z,5µm,0.6s						
MT02	Curacav	5.25	178		Pn	07 02 42.7	0.0
PB06	IPOC Station P	5.50	17		Pn	07 02 45.2	-1.0
PB06	IPOC Station P	5.50	17	P	Pn	07 02 45.3	-1.0
PB06	IPOC Station P	5.50	17	P	Pn	07 02 45.1	-1.2
	comp=Z,669nm,1.2s						
SALTA		5.84	51	P	Pn	07 02 54.0	+2.8
	comp=Z,452nm,1.1s						
PB03	IPOC Station P	6.09	14	P	Pn	07 02 52.9	-1.4
	comp=Z,369nm,0.6s						
SLA	San Lorenzo	6.14	59	*e*P	Pn	07 02 59.1	+4.0
PB07	IPOC Station P	6.37	12	P	Pn	07 02 56.5	-1.8
	comp=Z,662nm,0.7s						
BO01	Tunca	6.38	178	P	Pn	07 02 59.8	+1.6
	comp=Z,578nm,0.5s						
PB09	IPOC Station P	6.45	17		Pn	07 02 60.0	+0.6
PB09	IPOC Station P	6.45	17	P	Pn	07 03 00.7	+1.3
	comp=Z,767nm,1.0s						
BO03	Pichilemu	6.50	185	P	Pn	07 02 57.3	-2.6
	comp=Z,360nm,0.6s						
TCA	Tanti	6.72	121⇑	*e*P	Pn	07 03 04.2	+1.2
PB02	IPOC Station P	6.77	11	P	Pn	07 03 01.4	-2.3
PB02	IPOC Station P	6.77	11	P	Pn	07 03 01.5	-2.2
	comp=Z,491nm,0.5s						
BO02	Sierra Bellavi	6.79	176		Pn	07 03 04.5	+0.6
BO02	Sierra Bellavi	6.79	176	P	Pn	07 03 04.6	+0.7
	comp=Z,967nm,0.6s						
GO05	Hualane	7.01	184	P	Pn	07 03 04.2	-2.7
GO05	Hualane	7.01	184	P	Pn	07 03 04.2	-2.7
	comp=Z,495nm,0.9s						
TA01	Diego Aracena	7.47	8	P	Pn	07 03 12.3	-0.8
TA01	Diego Aracena	7.47	8	P	Pn	07 03 12.8	-0.3
	comp=Z,234nm,0.7s						
ML02	Panimavida	7.75	181	P	Pn	07 03 17.1	+0.2
	comp=Z,765nm,0.8s						
PB08	IPOC Station P	8.06	15	P	Pn	07 03 20.8	-0.8
PB08	IPOC Station P	8.06	15	P	Pn	07 03 21.2	-0.5
	comp=Z,152nm,0.7s						
PSGCX	Pisagua	8.43	8	P	Pn	07 03 23.7	-2.7
PSGCX	Pisagua	8.43	8	P	Pn	07 03 23.8	-2.7
	comp=Z,175nm,0.6s						
H03N1	Juan Fernandez	8.50	228	Pn	Pn	07 03 23.6	-3.4
	baz=210,slow=74						
H03N1				T	T	07 12 03.8	
	baz=56,slow=74						
GO01	Chusmiza	8.51	14	P	Pn	07 03 27.2	-0.7
GO01	Chusmiza	8.51	14	P	Pn	07 03 27.3	-0.7
	comp=Z,160nm,0.6s						
H03N2	Juan Fernandez	8.51	229	Pn	Pn	07 03 23.6	-3.6
	baz=52,slow=74						
H03N2				T	T	07 12 01.8	
	baz=56,slow=74						
H03N3	Juan Fernandez	8.52	228	Pn	Pn	07 03 23.9	-3.4
H03N3				T	T	07 12 04.6	
	baz=56						
VA04	Juan Fernndez	8.57	227		Pn	07 03 24.1	-4.2
VA04	Juan Fernndez	8.57	227	P	Pn	07 03 24.5	-3.7
VA04	Juan Fernndez	8.57	227	P	Pn	07 03 24.8	-3.4
	comp=Z,1µm,0.8s						
BI02	San Fabin de	8.64	180	P	Pn	07 03 28.1	-1.2
BI02	San Fabin de	8.64	180	P	Pn	07 03 27.9	-1.4
	comp=Z,331nm,0.8s						
H03S3	Juan Fernandez	8.74	226	Pn	Pn	07 03 26.0	-4.3
	baz=30,slow=20						
H03S1	Juan Fernandez	8.75	226	Pn	Pn	07 03 25.5	-4.9
	baz=30,slow=20						
H03S2	Juan Fernandez	8.76	226	Pn	Pn	07 03 25.9	-4.6
	baz=30,slow=20						
BI05	Punta Hualpn	8.87	190	P	Pn	07 03 30.4	-1.9
PB12	IPOC Station P	9.38	6	P	Pn	07 03 36.9	-2.6
	comp=Z,85nm,0.7s						
PB16	IPOC Station P	9.76	10	P	Pn	07 03 46.0	+0.9
	comp=Z,70nm,0.5s						
PB18	Visviri	10.49	10		Pn	07 03 55.8	+0.6
PB18	Visviri	10.49	10	P	Pn	07 03 57.4	+2.3
	comp=Z,219nm,0.7s						
GO06	Curarrehue	11.56	181	P	Pn	07 04 08.4	-0.9
GO06	Curarrehue	11.56	181	P	Pn	07 04 12.3	+3.1
	comp=Z,48nm,0.5s						
LPAZ	La Paz	12.02	15	Pn	Pn	07 04 15.0	-1.1
	comp=Z,3.7nm,0.3s,baz=190,slow=7.2,SNR=65						
LPAZ				LR	LR	07 09 24.0	
	comp=Z,20µm,18.9s,baz=185,slow=40						
LPAZ	La Paz	12.02	15	P	Pn	07 04 15.2	-0.9
LPAZ	La Paz	12.02	15	*e*P	Pn	07 04 14.2	-1.9
LPAZ	La Paz	12.02	15	P	Pn	07 04 15.9	-0.2
PSAL	Palomas, Salto	12.32	108	*e*P	Pn	07 04 20.2	+0.5
PSAL				*e*S	Sn	07 06 37.2	+0.5
CPUP	Villa Florida	12.56	86	Pn	Pn	07 04 21.6	-1.3
	comp=Z,2.4nm,0.3s,baz=260,slow=14,SNR=31						
CPUP				Sn	Sn	07 06 40.9	-1.7
	comp=Z,2.3nm,0.3s,baz=258,slow=12,SNR=2.4						
CPUP				LR	LR	07 09 06.9	
	comp=Z,10µm,19.4s,baz=272,slow=37						
	comp=Z,3.4nm,0.8s						
CPUP				AML	AML		
CPUP	Villa Florida	12.56	86	*e*P	Pn	07 04 23.4	+0.5
CPUP	Villa Florida	12.56	86	P	Pn	07 04 23.8	+0.9
	comp=Z,65nm,0.7s						
PLCA	Paso Flores	12.72	177	Pn	Pn	07 04 23.7	-1.5
	comp=Z,0.5nm,0.3s,baz=338,slow=11,SNR=18						
PLCA				Sn	Sn	07 06 46.5	-0.1
	comp=Z,0.7nm,0.3s,baz=322,slow=10,SNR=2.5						
PLCA				LR	LR	07 09 37.5	
	comp=Z,27µm,19.2s,baz=349,slow=39						
	comp=Z,1.3nm,0.4s						
PLCA				AML	AML		
PLCA	Paso Flores	12.72	177	P	Pn	07 04 27.6	+2.5
PLCA	Paso Flores	12.72	177	P	Pn	07 04 25.8	+0.7
PLCA	Paso Flores	12.72	177	*e*P	Pn	07 04 24.0	-1.1
ANCO	Parque Anchore	13.03	122	*e*P	Pn	07 04 29.3	+0.1
LL03	Petrohue	13.14	184	P	Pn	07 04 34.2	+3.5
	comp=Z,191nm,0.8s						
LPA	La Plata	13.33	124*d*	*e*P	Pn	07 04 32.0	-1.4
LPA				PPP	PPP	07 05 21.8	
LPA				S	Sn	07 06 56.4	-5.0
LPA				SSS	SSS	07 07 29.0	
LPA				SSS(2)		07 08 22.0	
LL05	Los Muermos	13.49	187	P	Pn	07 04 35.8	+0.2
	comp=Z,140nm,1.1s						
SJPY	San Joaquin	13.94	81	*e*P	Pn	07 04 41.8	0.0
MURT	Porto Murtinho	13.94	66	*e*P	Pn	07 04 42.2	+0.4
COIM	Forte Coimbra	14.74	60	*e*P	Pn	07 04 52.7	-0.1
GO07	Milladeo Hill,	15.21	187	P	Pn	07 04 59.6	+0.8
GO07				IAmb	IAmb	07 05 06.6	
	comp=Z,101nm,0.5s						
GO07	Milladeo Hill,	15.21	187	P	Pn	07 05 00.7	+1.9
GO07	Milladeo Hill,	15.21	187	P	Pn	07 05 00.8	+2.0
	comp=Z,130nm,0.5s						
SIV	San Ignacio	15.25	41	Pn	Pn	07 04 54.3	-5.3
	comp=Z,0.2nm,0.3s,baz=257,slow=6.5,SNR=45						
BDQN	Bodoquena, MS	15.25	64	*e*P	Pn	07 05 00.4	+0.8
CPSB	Cacapava Do Su	15.79	103		Pn	07 05 06.4	-0.2
CPSB	Cacapava Do Su	15.79	103	*e*P	Pn	07 05 06.0	-0.6
CPSB	Cacapava Do Su	15.79	103	P	Pn	07 05 08.1	+1.5
	comp=Z,138nm,0.8s						
AQDB	Aquidauana	16.08	66		Pn	07 05 11.8	+1.5
AQDB	Aquidauana	16.08	66	*e*P	Pn	07 05 11.2	+0.9
AQDB	Aquidauana	16.08	66	P	P	07 05 13.9	+0.3
	comp=Z,48nm,1.3s						
NNA	Nana	16.75	341	Pn	P	07 05 21.3	+0.2
	comp=Z,1.1nm,0.3s,baz=183,slow=11,SNR=7.0						
NNA				LR	LR	07 10 13.8	
	comp=Z,6µm,21.5s,baz=176,slow=32						
NNA	Nana	16.75	341	P	P	07 05 20.1	-1.0
NNA				pmax	pmax		
	comp=Z,25nm,0.8s						
NNA	Nana	16.75	341	P	P	07 05 20.1	-1.0
PTLB	Pontes e Lacer	16.83	45	Pn	Pn	07 05 17.5	-2.4
PTLB	Pontes e Lacer	16.83	45	*e*P	Pn	07 05 19.9	0.0
COYC	Coyhaique	17.55	182	P	P	07 05 29.2	-0.6
COYC	Coyhaique	17.55	182	P	P	07 05 30.7	+0.9
	comp=Z,140nm,1.0s						
PTGB	Pitanga	17.55	84	*e*P	P	07 05 30.3	+0.2
TRCB	Terra Rica	17.65	77	P	P	07 05 30.8	-0.3
TRCB				IAmb	IAmb	07 05 36.2	
	comp=Z,465nm,1.7s						
TRCB	Terra Rica	17.65	77	*e*P	P	07 05 30.7	-0.3
TRCB	Terra Rica	17.65	77	P	P	07 05 31.7	+0.6
	comp=Z,290nm,0.7s						
VILB	Vilhena	18.21	37	Pn	Pn	07 05 34.6	-2.5
VILB	Vilhena	18.21	37	*e*P	Pn	07 05 33.8	-3.3
PP1B	Ponte de Pedra	18.32	59	*e*P	Pn	07 05 37.4	-1.1
LDASE	Londrina, Braz	18.76	80	*e*P	Pn	07 05 44.5	+0.6
SALV	Santo Antonio	18.81	53	*e*P	P	07 05 43.9	0.0
C2SB	Chapadao do Su	19.26	66	*e*P	P	07 05 49.0	+0.2
C2SB	Chapadao do Su	19.26	66	P	Pn	07 05 51.1	+1.2
	comp=Z,214nm,1.0s						
FRTB	Fartura	20.14	82	*e*P	P	07 05 59.0	+0.7
FRTB				*e*S	S	07 09 44.5	+0.3
FRTB	Fartura	20.14	82	P	P	07 05 59.2	+0.9
	comp=Z,458nm,1.0s						
CZSB	Cruzeiro do Su	20.20	356	P	P	07 05 59.9	+0.9
CZSB				IAmb	IAmb	07 06 04.3	
	comp=Z,329nm,1.2s						

CZSB	Cruzeiro do Su	20.20	356	P	Pn	07 06 00.4	-0.6
	comp=Z,5µmcomp=Z,269nm,1.4s						
CZSB	Cruzeiro do Su	20.20	356	eP	P	07 05 59.8	+0.8
CZSB				eS	S	07 09 44.5	-1.0
GO08	Villa O'Higgin	20.46	182	P	Pn	07 06 03.2	-0.6
GO08	Villa O'Higgin	20.46	182	P	Pn	07 06 04.2	+0.4
	comp=Z,63nm,0.8s						
ARAG	Araguaiana, MT	21.80	60	eP	P	07 06 15.4	-1.0
ATAH	Atahualpa	21.81	341	P	P	07 06 19.6	+2.7
	comp=Z,18nm,0.9s,baz=155,slow=12,SNR=8.3						
	comp=Z,18nm,0.9s						
PET01	Itanhaem-SP	21.88	86	eP	P	07 06 16.2	-1.0
PET01				eS	S	07 10 18.2	-0.4
SPB	Sao Paulo	21.93	84	P	P	07 06 18.2	+0.5
SPB	Sao Paulo	21.93	84	eP	P	07 06 17.1	-0.7
SPB	Sao Paulo	21.93	84	P	P	07 06 19.6	+1.9
	comp=Z,117nm,0.9s						
RCLB	Rio Claro- Sao	22.20	81	eP	P	07 06 19.8	-1.0
RCLB				eS	S	07 10 22.8	-2.2
CLDB	Colider	22.41	44	eP	P	07 06 21.5	-1.4
CLDB				eS	S	07 10 28.7	-0.1
CLDB	Colider	22.41	44	P	P	07 06 21.9	-1.0
	comp=Z,70nm,1.6s						
VAO	Valinhos	22.51	83	P	P	07 06 23.6	-0.5
VAO	Valinhos	22.51	83	eP	P	07 06 22.7	-1.4
VAO				eS	S	07 10 30.2	-0.6
IPMB	Ipameri, GO	23.45	70	eP	P	07 06 31.8	-2.0
IPMB				eS	S	07 10 45.6	-1.3
CANS	Sao Roque de M	23.97	77	eP	P	07 06 38.3	-0.5
SNDB	Serra Nova Dou	24.59	54	eP	P	07 06 43.3	-1.1
PMNB	Patos De Minas	24.67	73	eP	P	07 06 44.9	-0.4
PMNB	Patos De Minas	24.67	73	P	P	07 06 45.7	+0.5
	comp=Z,122nm,1.3s						
MG02	Cerro Sombrero	24.81	177	P	P	07 06 46.7	+0.7
MG02				IAMs_20	IAMs_20	07 16 51.6	
	comp=Z,14µm,19.0s						
BDFB	Brasilia	24.82	65	P	P	07 06 46.0	-0.6
	comp=Z,23nm,0.6s,baz=246,slow=7.0,SNR=26						
BDFB				LR	LR	07 18 02.4	
	comp=Z,27µm,18.4s,baz=243,slow=40						
	comp=Z,23nm,0.6s						
BDFB	Brasilia	24.82	65	P	P	07 06 45.9	-0.8
BDFB				IAmb	IAmb	07 06 49.8	
	comp=Z,107nm,1.3s						
MCRA	Macar, Loja	24.90	339	P	P	07 06 47.8	+0.6
	comp=Z,66nm,1.0s						
BSCB	Bom Sucesso	25.10	80	eP	P	07 06 49.4	+0.3
BSCB	Bom Sucesso	25.10	80	P	P	07 06 50.8	+1.7
	comp=Z,82nm,2.0s						
GO10	Punta Arenas	25.13	180	P	P	07 06 49.7	+0.6
GO10	Punta Arenas	25.13	180	P	P	07 06 52.7	+3.7
	comp=Z,256nm,1.0s						
TEFE	Tefe	25.17	16	eP	P	07 06 50.1	+0.5
EFI	East Falkland	25.66	161	ceP	P	07 06 55.0	+1.2
EFI				pmax	pmax		
	comp=Z,231nm,1.5s						
MACA	Manacapuru-AM	26.70	24	P	P	07 07 03.2	-0.3
MACA				IAmb	IAmb	07 07 27.2	
	comp=Z,64nm,0.7s						
MACA	Manacapuru-AM	26.70	24	eP	P	07 07 03.6	+0.1
USHA	Ushuaia	26.90	176	LR	LR	07 18 36.8	
	comp=Z,17µm,18.6s,baz=5.0,slow=38						
DIAM	Diamantina, MG	27.13	75	eP	P	07 07 06.7	-0.9
MC01	Montes Claros	27.63	72	eP	P	07 07 10.7	-1.3
PIAT	Ana Tenorio	27.66	345	P	P	07 07 15.0	+2.4
	comp=Z,36nm,1.3s						
ITTB	Itaituba	27.79	35	eP	P	07 07 12.7	-0.6
SLOR	San Lorenzo -	27.97	345	P	P	07 07 14.5	-0.9
JANB	Januaria	28.15	68	eP	P	07 07 16.3	-0.3
ALF01	Guarapari-ES	28.77	82	eP	P	07 07 22.0	0.0
OTAV	Otavalo	28.90	345	P	P	07 07 22.0	-1.6
OTAV				pmax	pmax		
	comp=Z,108nm,1.8s						
OTAV	Otavalo	28.90	345	P	P	07 07 22.0	-1.6
OTAV				IAmb	IAmb	07 08 11.2	
	comp=Z,108nm,1.8s						
OTAV	Otavalo	28.90	345	eP	P	07 07 20.6	-3.1
OTAV	Otavalo	28.90	345	P	P	07 07 25.4	+1.8
	comp=Z,25nm,1.2s						
SJMB	Sao Joao De Ma	29.10	78	eP	P	07 07 24.7	-0.3
SDBA	SAO DESIDERIO	29.14	63	eP	P	07 07 25.1	-0.3
ARCA	Ara§uai, MG	29.24	74	eP	P	07 07 26.1	-0.2
BSFB	Barra de Sao F	29.34	79	eP	P	07 07 27.1	-0.1
BSFB	Barra de Sao F	29.34	79	P	P	07 07 27.6	+0.5
	comp=Z,73nm,0.9s						
SMTB	Santa Maria do	29.37	54	eP	P	07 07 27.5	+0.1
RIB01	Linhares ES	29.54	80	eP	P	07 07 28.8	-0.1
BBAC	Balboa, Cauca	30.39	348	P	P	07 07 38.3	+1.7
	comp=Z,44nm,1.5s						
POPC	Popayan, Colom	30.80	349	P	P	07 07 41.4	+1.2
	comp=Z,991nmcomp=Z,27nm,1.6s						
GUA01	Guaratinga, BA	31.19	75	eP	P	07 07 43.3	-0.2
PRAC	Prado	31.71	353	P	P	07 07 49.8	+1.7
	comp=Z,2µmcomp=Z,85nm,1.5s						
ORTC	Ortega, Tolima	31.95	353	P	P	07 07 52.9	+2.8
	comp=Z,2µmcomp=Z,111nm,1.8s						
BOAV	Boa Vista	31.95	21	P	P	07 07 49.5	-0.7
BOAV	Boa Vista	31.95	21	eP	P	07 07 50.0	-0.1
CMC01	Camacan, BA	32.00	74	eP	P	07 07 50.4	-0.3
NBIT	Itapeh - BA	32.28	73	eP	P	07 07 52.8	-0.3
ROSC	El Rosal	32.77	354	P	P	07 07 59.9	+2.1
	comp=Z,23nm,0.9s,baz=152,slow=7.1,SNR=10						
	comp=Z,23nm,0.9s						
ROSC	El Rosal	32.77	354	P	P	07 07 57.6	-0.2
ROSC				pmax	pmax		
	comp=Z,56nm,1.3s						
ROSC	El Rosal	32.77	354	P	P	07 07 57.6	-0.2
ROSC				IAmb	IAmb	07 08 33.8	
	comp=Z,56nm,1.3s						
GUY2C	Guyana, Caldas	33.26	353	P	P	07 08 03.9	+1.8
	comp=Z,1µmcomp=Z,41nm,1.0s						
SPBC	San Pablo de B	33.56	355	P	P	07 08 03.6	-0.7
	comp=Z,21nm,1.1s						
RPN	Rapa Nui	33.63	262	LR	LR	07 18 08.5	
	comp=Z,9µm,19.0s,baz=114,slow=30						
RPN	Rapa Nui	33.63	262	IAMs_20	IAMs_20	07 17 45.6	
	comp=Z,12µm,22.0s						
VA02	Isla de Pascua	33.71	262	IAMs_20	IAMs_20	07 17 50.8	
	comp=Z,11µm,20.0s						
RUSC	La Rusia	33.73	357	P	P	07 08 07.4	+1.1
	comp=Z,3µmcomp=Z,135nm,1.1s						
NBPN	Ponto Novo - B	33.79	66	eP	P	07 08 06.1	-0.3
CBOC	Ciudad Bolivar	33.97	352	P	P	07 08 10.4	+2.5
	comp=Z,1µmcomp=Z,43nm,1.0s						
UREC	San Jos de Ur	35.77	353	P	P	07 08 23.8	+0.5
	comp=Z,40nm,1.5s						
APAC	Apartado, Choc	36.05	351	P	P	07 08 28.0	+2.3
	comp=Z,2µmcomp=Z,63nm,1.2s						
HOPE	Hope Point	36.49	146	IAMs_20	IAMs_20	07 24 40.2	
	comp=Z,8µm,20.0s						
NBTA	Tacaratu-PE	36.50	66	eP	P	07 08 29.6	-0.1
ESPZ	Base Esperanza	36.61	169	P	P	07 08 29.7	-0.3
SDV	Santo Domingo	36.67	1	LR	LR	07 25 06.1	
	comp=Z,5µm,18.2s,baz=158,slow=39						
SDV	Santo Domingo	36.67	1	P	P	07 08 29.9	-1.4
SDV				IAMs_20	IAMs_20	07 24 55.8	
	comp=Z,5µm,18.0s						
SDV	Santo Domingo	36.67	1	P	P	07 08 32.4	+1.2
	comp=Z,119nm,1.1s						
SDV	Santo Domingo	36.67	1	P	P	07 08 32.4	+1.2
	comp=Z,120nm,1.0s						
GMAL	Guarumal, Vera	36.82	343	P	P	07 08 32.6	+0.3
	comp=Z,41nm,1.1s						
NBPS	Pedro II - PI	36.85	56	eP	P	07 08 32.7	-0.1
NBMA	Muriti-CE	36.98	62	eP	P	07 08 34.2	+0.4
PMSA	Palmer Station	37.08	175	LR	LR	07 23 54.8	
	comp=Z,9µm,18.3s,baz=348,slow=36						
PMSA	Palmer Station	37.08	175	P	P	07 08 34.3	+0.3
PMSA	Palmer Station	37.08	175	eP	P	07 08 35.3	+1.4
PMSA	Palmer Station	37.08	175	P	P	07 08 35.8	+1.8
	comp=Z,32nm,1.4s						
PNME	Penonome	37.30	345	P	P	07 08 40.2	+3.8
	comp=Z,65nm,1.2s						
ORCD	Orcadas	37.32	159	P	P	07 08 36.0	-0.1
MDP	Montagnes des	37.51	32	LR	LR	07 25 48.2	
	comp=Z,6µm,19.1s,baz=204,slow=39						
SJCC	San Jacinto, C	37.85	354	P	P	07 08 41.4	+0.3
	comp=Z,2µmcomp=Z,118nm,1.3s						
PIRO	Carate, Puerto	38.01	340	P	P	07 08 43.2	+0.8
PIRO				IAmb	IAmb	07 08 46.5	
	comp=Z,34nm,0.6s						
BRU2	Volcan	38.19	342	P	P	07 08 45.1	+1.0
LCR2	La Lucha 2	39.48	340	P	P	07 08 56.2	+1.3
RAFA	San Farael, Vo	39.62	340	P	P	07 08 56.6	+0.3
RAFA				IAmb	IAmb	07 09 00.8	
	comp=Z,69nm,1.0s						
HDC	Heredia	39.75	340	P	P	07 08 57.6	+0.4
HDC				IAmb	IAmb	07 09 02.6	
	comp=Z,194nm,2.0s						
SMAI	San Martin Ant	40.24	178	P	P	07 09 00.6	+0.2
JTS	Las Juntas de	40.29	339	d iP	P	07 09 02.5	+1.0
JTS				pmax	pmax		
	comp=Z,66nm,2.3s						
JTS	Las Juntas de	40.29	339	P	P	07 09 01.9	+0.4
JTS	Las Juntas de	40.29	339	P	P	07 09 04.1	+2.6
	comp=Z,28nm,2.0s						
NBPV	Pedro Velho	40.30	65	eP	P	07 09 02.1	+0.5
GRGR	Grenville	40.97	14	P	P	07 09 05.9	-1.2
GRGR				IAmb	IAmb	07 09 44.6	
	comp=Z,65nm,0.8s						
MGAN	Managua	42.45	338	P	P	07 09 16.1	-3.0
BOAB	BOACO BROADBAN	42.54	339	P	P	07 09 17.5	-2.4
BOAB				IAmb	IAmb	07 09 48.4	
	comp=Z,95nm,1.5s						
BOAB	BOACO BROADBAN	42.54	339	P	P	07 09 19.1	-0.8
	comp=Z,40nm,1.1s						
CRIN	San Cristobal	43.23	337	P	P	07 09 22.8	-2.9
MPOM	Morne Pois Mar	43.39	15	P	P	07 09 24.8	-2.0
MPOM				IAmb	IAmb	07 09 40.4	
	comp=Z,60nm,0.9s						
BIM	Bigot	43.41	15	P	P	07 09 24.7	-2.3
SIUN	Universidad Ur	43.47	341	P	P	07 09 24.4	-3.0
CXM	Morne La Croix	43.67	14	P	P	07 09 27.1	-2.1
CXM				IAmb	IAmb	07 09 52.7	
	comp=Z,45nm,0.8s						
TGUH	Tegucigalpa,Un	44.57	338	P	P	07 09 38.2	+1.7
TGUH	Tegucigalpa,Un	44.57	338	P	P	07 09 37.9	+1.4
	comp=Z,53nm,1.3s						
CBE	Ff, Capester	44.80	13	P	P	07 09 36.6	-1.5
MLPR	Magueyes Islan	45.88	6	IAmb	IAmb	07 09 48.5	
	comp=Z,59nm,1.0s						
CRPR	Cabo Rojo, PR	45.91	6	IAmb	IAmb	07 09 48.6	
	comp=Z,97nm,1.2s						
CELP	Cerrillos	46.03	6	P	P	07 09 46.0	-1.8
CELP				IAmb	IAmb	07 09 50.0	
	comp=Z,61nm,1.0s						
PDPR	Patillas Dam,	46.03	7	P	P	07 09 46.0	-1.8
PDPR				IAmb	IAmb	07 09 48.9	
	comp=Z,46nm,1.0s						
SJG	San Juan	46.11	7	LR	LR	07 31 17.3	
	comp=Z,1µm,18.9s,baz=204,slow=39						
SJG	San Juan	46.11	7	P	P	07 09 47.4	-1.0
	comp=Z,46nm,1.0s						
ECPR	Experimental S	46.29	7	P	P	07 09 48.4	-1.4
ECPR				IAmb	IAmb	07 09 50.9	
	comp=Z,67nm,1.3s						
APG	El Apazote	46.60	334	LR	LR	07 25 51.9	
	comp=Z,125nm,20.2s,baz=64,slow=31						
SDDR	Presa de Saban	46.70	0	P	P	07 09 53.8	+0.6
	comp=Z,33nm,0.9s						
TEIG	Tepich	50.67	339	P	P	07 10 22.8	-0.8
TEIG	Tepich	50.67	339	P	P	07 10 24.6	+1.0
	comp=Z,122nm,1.2s						
CAIB	Caibarien	50.81	350	P	P	07 10 23.5	-1.1
CAIB				IAmb	IAmb	07 10 27.6	
	comp=Z,39nm,1.0s						
SOR	Soroa	51.74	346	P	P	07 10 31.2	-0.4
SOR				pmax	pmax		
	comp=Z,37nm,1.0s						
SOR	Soroa	51.74	346	P	P	07 10 31.2	-0.4
SOR				IAmb	IAmb	07 10 34.3	
	comp=Z,37nm,1.0s						
SOR	Soroa	51.74	346	P	P	07 10 31.8	+0.2
	comp=Z,47nm,1.2s						
BELA	Belgrano 2	52.68	171	P	P	07 10 37.3	-0.7
VNA3	Neumayer Olymp	54.71	160	⇑P	P	07 10 53.0	0.0
	comp=Z,24nm,0.7s						
VNA3				⇑S	S	07 18 31.6	-1.0
	comp=N,0.4nm,0.8s						
VNA3	Neumayer Olymp	54.71	160	P	P	07 10 53.2	+0.2
	comp=Z,81nm,1.1s						
VNA1	Neumayer--Stat	54.98	159	⇑P	P	07 10 55.3	+0.4
	comp=Z,46nm,1.2s						
VNA2	Neumayer--Watz	55.33	159	⇑P	P	07 10 57.5	0.0
	comp=Z,38nm,0.6s,baz=286,slow=7.0						
VNA2				⇑S	S	07 18 39.4	-1.5
	comp=E,0.5nm,0.6s,baz=272,slow=7.6						
VNA2	Neumayer--Watz	55.33	159	P	P	07 10 57.7	+0.2
	comp=Z,48nm,0.6s						
SNAA	Sanae	56.93	159	⇑P	P	07 11 08.9	-0.1
	comp=Z,1µm,0.9s						
SNAA				⇑S	S	07 19 00.2	-2.0
	comp=N,16nm,0.7s						
SNAA	Sanae	56.93	159	P	P	07 11 08.8	-0.1
	comp=N,83nm,1.0s,baz=274,slow=6.9,SNR=96						
SNAA				LR	LR	07 36 13.4	
	comp=N,2µm,18.1s,baz=293,slow=37						
	comp=N,83nm,1.0s						
SNAA	Sanae	56.93	159	c iP	P	07 11 08.7	-0.3
SNAA				pmax	pmax		
	comp=Z,127nm,1.1s						
SNAA	Sanae	56.93	159	P	P	07 11 08.4	-0.6
SNAA				IAMs_20	IAMs_20	07 37 19.2	
	comp=Z,3µm,18.0s						
SNAA	Sanae	56.93	159	P	P	07 11 09.1	+0.1
	comp=Z,104nm,1.1s						
SNAA				pP	sP	07 11 16.4	+1.4
ASCN	Ascension	57.20	81	IAMs_20	IAMs_20	07 33 15.1	
	comp=Z,4µm,20.0s						
656A	Willston	58.04	348	IAmb	IAmb	07 11 19.8	
	comp=Z,57nm,0.9s						
TROLL	Troll, Antarti	58.65	160	⇑P	P	07 11 21.1	0.0
	comp=Z,3µm,0.9s						
TROLL				⇑S	S	07 19 23.4	-1.4
	comp=N,66nm,1.0s						
TIGA	Tifton	60.25	348	P	P	07 11 32.0	-0.4
352A	Blakely	60.55	347	P	P	07 11 34.2	-0.3
250A	Grady	61.32	346	IAmb	IAmb	07 11 41.9	
	comp=Z,37nm,1.0s						
NHSC	New Hope	61.35	352	P	P	07 11 39.0	-0.8
SHEL	Horse Pasture	61.35	94	IAMs_20	IAMs_20	07 35 25.9	
	comp=Z,4µm,21.0s						
NVL	N'lazarevskaya	61.60	158	eP	P	07 11 38.9	-2.3
NVL				pmax	pmax		
	comp=Z,54nm,1.0s						
NVL				MLR	MLR		
	comp=Z,1µm,17.0s						
152A	Waverly Hall	61.66	347	IAmb	IAmb	07 11 44.0	
	comp=Z,35nm,0.9s						
GOGA	Godfrey	62.15	349	P	P	07 11 44.8	-0.4
GOGA	Godfrey	62.15	349	P	P	07 11 44.8	-0.4
	comp=Z,28nm,1.0s						
HKT	Hockley	62.20	336	⇑eP	P	07 11 48.2	+2.6
HKT				pmax	pmax		
	comp=Z,29nm,1.1s						
HKT	Hockley	62.20	336	P	P	07 11 48.4	+2.8
	comp=Z,32nm,1.6s						
HKT				pP	pwP	07 11 54.1	+4.2
QSPA	South Pole Qui	62.22	180	P	P	07 11 45.9	+0.3
	comp=Z,76nm,1.1s,baz=156,slow=1.7,SNR=97						
QSPA				LR	LR	07 38 23.4	
	comp=Z,2µm,20.2s,baz=159,slow=36						
QSPA				PKPPKP	P'P'df	07 40 58.4	-0.5
	comp=Z,5.2nm,1.0s,baz=255,slow=2.0,SNR=7.8						
	comp=Z,76nm,1.1s						
QSPA	South Pole Qui	62.22	180	P	P	07 11 45.3	-0.3
LRAL	Lakeview Retre	62.50	345	IAmb	IAmb	07 11 49.8	
	comp=Z,36nm,1.4s						
JSC	Jenkinsville	62.65	351	IAmb	IAmb	07 11 51.1	
	comp=Z,36nm,1.0s						
Y52A	Lilburn	62.70	348	IAmb	IAmb	07 11 51.1	
	comp=Z,44nm,1.1s						
BIRD	Birdtown, Kers	62.90	352	IAmb	IAmb	07 11 53.0	
	comp=Z,33nm,1.0s						
HNDO	Hondo	63.15	333	P	P	07 11 51.9	-0.1
PAULI	Pauline	63.26	350	IAmb	IAmb	07 11 55.3	
	comp=Z,40nm,1.0s						
KMSC	Kings Mountain	63.51	351	IAmb	IAmb	07 11 56.8	
	comp=Z,35nm,0.9s						
BG3	Lake Jocassee	63.60	349	IAmb	IAmb	07 11 57.6	
	comp=Z,38nm,1.1s						
FPAL	Fort Paine	63.65	347	P	P	07 11 54.5	-0.8
FPAL				IAmb	IAmb	07 11 57.4	
	comp=Z,27nm,1.0s						
HPIG		63.81	326	P	P	07 11 59.4	+2.7
	comp=Z,30nm,1.1s						
V58A	Windy Hill, Pi	63.87	353	IAmb	IAmb	07 11 59.3	
	comp=Z,36nm,1.0s						
V55A	Taylorsville	64.19	351	IAmb	IAmb	07 12 01.5	
	comp=Z,44nm,1.0s						
JCT	Junction City	64.20	333	IAmb	IAmb	07 12 02.5	
	comp=Z,34nm,0.8s						
V53A	Saluda	64.25	350	IAmb	IAmb	07 12 01.6	
	comp=Z,34nm,1.0s						
U56A	King	64.57	352	IAmb	IAmb	07 12 04.2	
	comp=Z,39nm,1.0s						
BRDY	Brady	64.59	334	IAmb	IAmb	07 12 04.8	
	comp=Z,32nm,0.9s						
WHTX	Lake Whitney,	64.64	336	P	P	07 12 01.6	-0.1
WHTX				IAmb	IAmb	07 12 05.1	
	comp=Z,39nm,1.0s						
SAND	Sanderson	64.71	331	IAmb	IAmb	07 12 06.4	
	comp=Z,51nm,1.1s						
TXAR	Lajitas Array	64.87	329	P	P	07 12 04.7	+1.2
	comp=Z,9.0nm,0.8s,baz=150,slow=5.6,SNR=72						
TXAR				LR	LR	07 36 45.5	
	comp=Z,989nm,18.8s,baz=147,slow=33						
TXAR				PKPPKP	P'P'df	07 40 54.0	+11
	comp=Z,2.5nm,1.2s,baz=334,slow=2.0,SNR=7.5						
	comp=Z,9.0nm,0.8s						
TXAR	Lajitas Array	64.87	329	P	P	07 12 04.1	+0.6
TXAR	Lajitas Array	64.87	329	P	P	07 12 04.1	+0.6
TXAR					P'P'bc	07 40 53.0	+4.3
T59A	Double "B" Far	64.89	354	IAmb	IAmb	07 12 06.4	
	comp=Z,43nm,1.1s						
FW13	Cleburne	64.95	336	IAmb	IAmb	07 12 06.9	
	comp=Z,26nm,0.8s						
V48A	Smith Brothers	65.06	346	IAmb	IAmb	07 12 06.9	
	comp=Z,52nm,1.1s						
ELIB	Princess Elisa	65.08	160	dP	P	07 12 04.2	-0.2
	comp=Z,24nm,1.1s						
TZTN	Tazewell	65.22	349	IAmb	IAmb	07 12 07.7	
	comp=Z,46nm,1.2s						
TZTN	Tazewell	65.22	349	P	P	07 12 06.8	+1.3
	comp=Z,35nm,1.3s						
CLTN	Cedars of Leba	65.30	347	IAmb	IAmb	07 12 08.4	
	comp=Z,25nm,1.0s						
UALR	University of	65.52	341	IAmb	IAmb	07 12 26.0	
	comp=Z,40nm,1.4s						
U49A	Red Boiling Sp	65.59	347	IAmb	IAmb	07 12 10.1	
	comp=Z,28nm,0.9s						
WVT	Waverly	65.66	345	P	P	07 12 07.7	-0.6
WVT				pmax	pmax		
	comp=Z,48nm,1.0s						
WVT	Waverly	65.66	345	P	P	07 12 07.7	-0.6
WVT	Waverly	65.66	345	P	P	07 12 08.2	0.0
	comp=Z,64nm,1.0s						
MIAR	Mount Ida	65.67	340	P	P	07 12 09.8	+1.4
MIAR	Mount Ida	65.67	340	IAmb	IAmb	07 12 11.5	
	comp=Z,38nm,1.0s						
MIAR	Mount Ida	65.67	340	P	P	07 12 09.8	+1.4
	comp=Z,44nm,1.1s						
PLPT	Palo Pinto	65.69	335	IAmb	IAmb	07 12 11.9	
	comp=Z,29nm,0.9s						
S57A	Dark Hollow, R	65.80	353	IAmb	IAmb	07 12 12.2	
	comp=Z,27nm,0.9s						
WHAR	Wooly Hollow	65.99	341	IAmb	IAmb	07 12 12.8	
	comp=Z,29nm,0.9s						
SGCY	Sterling City	66.00	332	IAmb	IAmb	07 12 14.8	
	comp=Z,35nm,0.9s						
S54A	Dingess, Beckl	66.12	351	IAmb	IAmb	07 12 13.6	
	comp=Z,35nm,0.9s						
TMB01	Midkiff	66.18	332	IAmb	IAmb	07 12 15.4	
	comp=Z,33nm,1.0s						
MNHN	Monahans	66.18	331	IAmb	IAmb	07 12 15.5	
	comp=Z,39nm,0.9s						
TPB01	Permian Basin	66.29	330	IAmb	IAmb	07 12 16.6	
	comp=Z,42nm,0.9s						
S51A	Beattyville	66.30	349	IAmb	IAmb	07 12 14.6	
	comp=Z,43nm,1.0s						
T47A	Sharon Grove	66.32	346	P	P	07 12 12.6	0.0
LOOK	Love County	66.34	337	IAmb	IAmb	07 12 16.1	
	comp=Z,37nm,1.0s						
R55A	Marlinton	66.45	352	IAmb	IAmb	07 12 16.6	
	comp=Z,30nm,1.0s						
FCAR	Ozark Folk Cen	66.50	342	IAmb	IAmb	07 12 16.5	
	comp=Z,32nm,1.2s						
WTFS	Witchita Falls	66.60	336	IAmb	IAmb	07 12 17.6	
	comp=Z,39nm,0.9s						
VHRN	Van Horn	66.70	329	IAmb	IAmb	07 12 18.8	
	comp=Z,32nm,1.3s						
APMT	Aspermont	66.83	334	IAmb	IAmb	07 12 19.4	
	comp=Z,41nm,0.9s						
SN07	Snyder 07	66.93	333	IAmb	IAmb	07 12 19.7	
	comp=Z,27nm,0.9s						
Q56A	Snyder Ridge,	67.09	353	IAmb	IAmb	07 12 21.0	
	comp=Z,36nm,1.1s						
POST	Post	67.15	333	IAmb	IAmb	07 12 21.8	
	comp=Z,24nm,1.1s						
128A	Castleberry Fa	67.17	332	IAmb	IAmb	07 12 21.6	
	comp=Z,26nm,1.0s						
R49A	Shelbyville	67.21	348	IAmb	IAmb	07 12 20.1	
	comp=Z,21nm,0.9s						
SDMD	Soldier's Deli	67.26	355	P	P	07 12 18.7	+0.2
T42A	Van Buren	67.30	343	IAmb	IAmb	07 12 21.2	
	comp=Z,24nm,1.0s						
WCI	Wyandotte Cave	67.36	347	P	P	07 12 18.3	-0.8
WCI				pmax	pmax		
	comp=Z,40nm,0.9s						
WCI	Wyandotte Cave	67.36	347	P	P	07 12 18.3	-0.8
WCI				IAmb	IAmb	07 12 21.0	
	comp=Z,40nm,0.9s						
WCI	Wyandotte Cave	67.36	347	P	P	07 12 19.3	+0.2
	comp=Z,52nm,0.9s						
Q52A	Bidwell	67.39	351	IAmb	IAmb	07 12 21.6	
	comp=Z,37nm,1.2s						
HHAR	Hobbs	67.39	340	IAmb	IAmb	07 12 22.4	
	comp=Z,44nm,1.0s						
P57A	Homestead Farm	67.42	354	IAmb	IAmb	07 12 23.3	
	comp=Z,49nm,1.0s						
DKNS	Dickens	67.45	333	IAmb	IAmb	07 12 22.9	
	comp=Z,24nm,0.9s						
FNO	Franklin	67.57	337	IAmb	IAmb	07 12 30.8	
	comp=Z,66nm,1.4s						
WMOK	Wichita Mounta	67.59	336	P	P	07 12 22.2	+1.5
WMOK	Wichita Mounta	67.59	336	P	P	07 12 22.2	+1.5
	comp=Z,15nm,1.1s						
Q51A	Peebles	67.61	350	IAmb	IAmb	07 12 23.0	
	comp=Z,36nm,0.9s						
RLO	Rose Lookout	67.62	339	IAmb	IAmb	07 12 23.8	
	comp=Z,41nm,0.9s						
MNTX	Cornudas Mount	67.65	329	P	P	07 12 22.1	+0.9
	comp=Z,24nm,1.0s						
U38A	Gravette	67.67	340	IAmb	IAmb	07 12 24.1	
	comp=Z,28nm,1.0s						
MCWV	Mont Chateau	67.77	353	IAmb	IAmb	07 12 24.7	
	comp=Z,25nm,0.9s						
P53A	Whipple	67.79	352	IAmb	IAmb	07 12 24.4	
	comp=Z,53nm,1.1s						
DEOK	Depew	67.79	338	IAmb	IAmb	07 12 24.7	
	comp=Z,36nm,0.9s						
MVL	Millersville	67.81	356	IAmb	IAmb	07 12 25.6	
	comp=Z,26nm,0.9s						
P51A	Williamsport	68.02	350	IAmb	IAmb	07 12 25.3	
	comp=Z,48nm,1.0s						
P52A	Corning	68.03	351	IAmb	IAmb	07 12 25.5	
	comp=Z,40nm,1.0s						
PAGS	Pennsylvania G	68.06	356	IAmb	IAmb	07 12 26.8	
	comp=Z,48nm,1.1s						
OLIL	Olney	68.21	346	IAmb	IAmb	07 12 26.5	
	comp=Z,43nm,1.0s						
HSIG		68.22	323	IAmb	IAmb	07 12 40.7	
	comp=Z,71nm,1.7s						
EPT	El Paso	68.23	328	IAMs_20	IAMs_20	07 38 39.2	
	comp=Z,2µm,19.0s						
CCM	Cathedral Cave	68.31	343	P	P	07 12 25.3	+0.2
CCM				pmax	pmax		
	comp=Z,70nm,1.0s						
CCM	Cathedral Cave	68.31	343	P	P	07 12 25.3	+0.2
CCM	Cathedral Cave	68.31	343	P	P	07 12 25.9	+0.8
	comp=Z,90nm,1.1s						
P48A	Milroy	68.39	348	IAmb	IAmb	07 12 27.3	
	comp=Z,27nm,1.1s						
O52A	Adamsville	68.47	351	IAmb	IAmb	07 12 28.2	
	comp=Z,28nm,1.0s						
O53A	New Philadelph	68.52	352	P	P	07 12 26.6	+0.2
O53A				IAmb	IAmb	07 12 28.9	
	comp=Z,84nm,1.7s						
Q44A	Meyer Farm, Va	68.58	345	IAmb	IAmb	07 12 28.8	
	comp=Z,46nm,1.1s						
N58A	Sunbury	68.67	356	IAmb	IAmb	07 12 30.8	
	comp=Z,29nm,0.9s						
T35A	Sooner Cattle	68.78	339	IAmb	IAmb	07 12 31.2	
	comp=Z,31nm,1.0s						
AMTX	Amarillo	68.81	334	IAmb	IAmb	07 12 31.9	
	comp=Z,54nm,1.4s						
WSPT	Westport, CT	68.84	358	IAmb	IAmb	07 12 31.3	
	comp=Z,32nm,1.1s						
BLOK	Blackwell	68.87	338	IAmb	IAmb	07 12 31.8	
	comp=Z,43nm,0.9s						

CROK	**Carrier**	**68.89**	**337**	IAmb	IAmb	07 12 31.7	
	comp=Z,44nm,1.1s						
O49A	**Covington**	**68.91**	**349**	IAmb	IAmb	07 12 30.9	
	comp=Z,41nm,1.1s						
N53A	**Lisbon**	**69.02**	**352**	IAmb	IAmb	07 12 32.1	
	comp=Z,29nm,1.2s						
SBA	**Scott Base**	**69.07**	**191**	P	**P**	**07 12 30.0**	**+0.6**
SBA				pmax	pmax		
	comp=Z,52nm,1.5s						
SBA	**Scott Base**	**69.07**	**191**	P	**P**	**07 12 30.0**	**+0.6**
SBA				IAmb	IAmb	07 12 48.5	
	comp=Z,52nm,1.5s						
SBA	**Scott Base**	**69.07**	**191**	P	**P**	**07 12 31.8**	**+2.3**
	comp=Z,29nm,2.0s						
PAMR	**Moraine State**	**69.07**	**353**	IAmb	IAmb	07 12 32.1	
	comp=Z,31nm,1.0s						
O48B	**Farmland**	**69.11**	**349**	IAmb	IAmb	07 12 32.1	
	comp=Z,32nm,1.0s						
M57A	**Sunshine Farm,**	**69.19**	**355**	IAmb	IAmb	07 12 33.4	
	comp=Z,23nm,1.0s						
319A	**Douglas**	**69.25**	**326**	IAmb	IAmb	07 12 35.5	
	comp=Z,27nm,0.9s						
KSPA	**Keystone Colle**	**69.33**	**356**	IAmb	IAmb	07 13 00.9	
	comp=Z,36nm,1.4s						
PH02	**Texas Public H**	**69.36**	**334**	IAmb	IAmb	07 12 35.3	
	comp=Z,47nm,1.0s						
L64A	**Middleborough**	**69.58**	**0**	IAmb	IAmb	07 12 36.5	
	comp=Z,44nm,1.0s						
PAOC	**Oil Creek Stat**	**69.59**	**353**	IAmb	IAmb	07 12 36.9	
	comp=Z,31nm,1.2s						
M50A	**Fremont**	**69.90**	**351**	IAmb	IAmb	07 12 36.6	
	comp=Z,32nm,0.8s						
BINY	**Binghamton**	**69.98**	**356**	IAmb	IAmb	07 12 39.0	
	comp=Z,36nm,1.1s						
BINY	**Binghamton**	**69.98**	**356**	P	**P**	**07 12 37.9**	**+2.5**
	comp=Z,42nm,1.4s						
BCX	**Boston College**	**69.98**	**0**	P	**P**	**07 12 35.5**	**+0.1**
WES	**Weston**	**70.03**	**360**	P	**P**	**07 12 36.3**	**+0.6**
WES				pmax	pmax		
	comp=Z,34nm,1.0s						
WES	**Weston**	**70.03**	**360**	P	**P**	**07 12 36.2**	**+0.6**
WES				IAmb	IAmb	07 12 39.3	
	comp=Z,34nm,1.0s						
HRV	**Adam Dziewonsk**	**70.15**	**360**	P	**P**	**07 12 37.0**	**+0.6**
HRV				pmax	pmax		
	comp=Z,51nm,1.0s						
HRV	**Adam Dziewonsk**	**70.15**	**360**	P	**P**	**07 12 37.0**	**+0.6**
HRV				IAmb	IAmb	07 12 40.3	
	comp=Z,50nm,0.9s						
HRV	**Adam Dziewonsk**	**70.15**	**360**	P	**P**	**07 12 38.5**	**+2.1**
	comp=Z,74nm,1.1s						
P38A	**Dawn**	**70.39**	**342**	IAmb	IAmb	07 12 40.7	
	comp=Z,36nm,0.9s						
K57A	**Scipio Center**	**70.54**	**356**	IAmb	IAmb	07 12 41.8	
	comp=Z,35nm,1.1s						
M44A	**Midewin, Midew**	**70.75**	**347**	IAmb	IAmb	07 12 42.1	
	comp=Z,53nm,1.0s						
TUC	**Tucson**	**70.75**	**325**	P	**P**	**07 12 43.3**	**+2.8**
TUC	**Tucson**	**70.75**	**325**	P	**P**	**07 12 43.4**	**+3.0**
	comp=Z,11nm,1.2s						
ABQ	**Albuquerque**	**70.87**	**330**	IAMs_20	IAMs_20	07 40 11.9	
	comp=Z,2µm,18.0s						
ALQ	**Albuquerque**	**70.87**	**330**	P	**P**	**07 12 41.2**	**0.0**
ALQ				IAMs_20	IAMs_20	07 40 11.9	
	comp=Z,2µm,18.0s						
AAM	**Ann Arbor**	**70.87**	**350**	IAmb	IAmb	07 12 44.3	
	comp=Z,23nm,0.9s						
ANMO	**Albuquerque**	**70.87**	**330**	LR	LR	07 40 22.9	
	comp=Z,2µm,18.7s,baz=145,slow=33						
ANMO	**Albuquerque**	**70.87**	**330**⇓	*e*P	**P**	**07 12 43.3**	**+2.0**
ANMO				pmax	pmax		
	comp=Z,15nm,1.1s						
ANMO	**Albuquerque**	**70.87**	**330**	P	**P**	**07 12 40.9**	**-0.4**
ANMO	**Albuquerque**	**70.87**	**330**	IAMs_20	IAMs_20	07 40 12.0	
	comp=Z,2µm,18.0s						
ANMO	**Albuquerque**	**70.87**	**330**	P	**P**	**07 12 44.4**	**+3.2**
	comp=Z,18nm,2.0s						
TASM	**ASL Pad, Albuq**	**70.87**	**330**	IAMs_20	IAMs_20	07 40 12.0	
	comp=Z,2µm,18.0s						
TASM	**ASL Pad, Albuq**	**70.87**	**330**	IAMs_20	IAMs_20	07 40 12.0	
	comp=Z,2µm,18.0s						
TASM	**ASL Pad, Albuq**	**70.87**	**330**	IAMs_20	IAMs_20	07 40 12.0	
	comp=Z,2µm,18.0s						
TASM	**ASL Pad, Albuq**	**70.87**	**330**	IAMs_20	IAMs_20	07 40 12.0	
	comp=Z,2µm,18.0s						
R32A	**Long Quarter,**	**70.87**	**338**	IAmb	IAmb	07 12 44.4	
	comp=Z,43nm,1.1s						
J61A	**Chester**	**71.00**	**359**	IAmb	IAmb	07 12 45.7	
	comp=Z,49nm,1.1s						
J59A	**Piesco**	**71.17**	**358**	IAmb	IAmb	07 12 46.0	
	comp=Z,29nm,1.0s						
J57A	**Williamstown**	**71.18**	**356**	IAmb	IAmb	07 12 45.7	
	comp=Z,38nm,1.0s						
SYO	**Syowa Base**	**71.22**	**159**⇑	*e*PKiKP	**PKiKP**	**07 18 46.2**	**-3.7**
HNH	**Hanover**	**71.36**	**359**	IAmb	IAmb	07 12 47.3	
	comp=Z,32nm,0.9s						
CBKS	**Cedar Bluff**	**71.58**	**337**	IAmb	IAmb	07 12 48.2	
	comp=Z,26nm,0.9s						
MCVT	**Middlebury Col**	**71.61**	**359**	IAmb	IAmb	07 12 49.3	
	comp=Z,55nm,1.5s						
L42A	**Oliver, Polo**	**71.69**	**346**	IAmb	IAmb	07 12 48.3	
	comp=Z,64nm,1.3s						
I63A	**Otisfield**	**71.70**	**1**	IAmb	IAmb	07 12 50.1	
	comp=Z,47nm,1.1s						
PPT	**Papeete**	**71.84**	**259**	LR	LR	07 37 00.5	
	comp=Z,3µm,18.4s,baz=106,slow=30						
T25A	**Trinidad**	**71.86**	**333**	IAmb	IAmb	07 12 51.5	
	comp=Z,26nm,1.0s						
LBNH	**Lisbon**	**71.89**	**360**	IAmb	IAmb	07 12 50.8	
	comp=Z,28nm,0.9s						
CFNY	**Clifton-Fine,**	**71.89**	**357**	IAmb	IAmb	07 12 49.5	
	comp=Z,25nm,0.9s						
J47A	**Sunmer**	**71.96**	**350**	IAmb	IAmb	07 12 49.5	
	comp=Z,32nm,0.9s						
FLET	**Fletcher**	**72.38**	**359**	IAmb	IAmb	07 12 53.5	
	comp=Z,27nm,0.9s						
EMMW	**East Machias**	**72.44**	**3**	P	**P**	**07 12 50.7**	**+0.5**
EMMW				IAmb	IAmb	07 12 54.0	
	comp=Z,41nm,1.1s						
HAL	**Halifax**	**72.62**	**6**	P	**P**	**07 12 52.3**	**+1.0**
HAL				pmax	pmax		
	comp=Z,28nm,0.9s						
HAL	**Halifax**	**72.62**	**6**	P	**P**	**07 12 52.3**	**+1.0**
HAL				IAmb	IAmb	07 12 55.0	
	comp=Z,28nm,0.9s						
JFWS	**Jewell Farm**	**72.68**	**346**	IAmb	IAmb	07 12 54.5	
	comp=Z,35nm,0.9s						
DBIC	**Dimbokro**	**72.72**	**72**	P	**P**	**07 12 52.7**	**0.0**
	comp=Z,37nm,0.5s,baz=238,slow=6.3,SNR=44						
DBIC				LR	LR	07 43 38.3	
	comp=Z,2µm,19.7s,baz=242,slow=35						
	comp=Z,37nm,0.5s						
WBO	**Williamsburg**	**72.73**	**357**	IAmb	IAmb	07 12 55.0	
	comp=Z,52nm,1.0s						
SADO	**Sadowa**	**72.77**	**354**	IAmb	IAmb	07 12 54.8	
	comp=Z,56nm,1.0s						
SDCO	**Great Sand Dun**	**72.83**	**332**	IAmb	IAmb	07 12 57.2	
	comp=Z,70nm,1.9s						
G62A	**West of Eustis**	**72.87**	**1**	IAmb	IAmb	07 12 56.7	
	comp=Z,53nm,1.0s						
GGN	**Saint George**	**72.88**	**3**	P	**P**	**07 12 53.7**	**+0.9**
GGN				IAmb	IAmb	07 12 56.6	
	comp=Z,38nm,1.1s						
G65A	**Princeton**	**72.92**	**3**	IAmb	IAmb	07 12 56.8	
	comp=Z,34nm,1.2s						
PKME	**Peaks-Kenny Pk**	**72.93**	**1**	IAmb	IAmb	07 12 56.8	
	comp=Z,31nm,1.1s						
MNTQ	**Montreal, Queb**	**73.17**	**358**	IAmb	IAmb	07 12 58.0	
	comp=Z,57nm,1.3s						
I42A	**Draeger Farm,**	**73.33**	**347**	IAmb	IAmb	07 12 57.7	
	comp=Z,24nm,0.9s						
L34A	**Svendsen Farm,**	**73.36**	**341**	IAmb	IAmb	07 12 58.4	
	comp=Z,61nm,1.0s						
F64A	**Sherman**	**73.56**	**2**	IAmb	IAmb	07 13 00.5	
	comp=Z,45nm,1.1s						
WUAZ	**Wupatki**	**73.62**	**327**	IAMs_20	IAMs_20	07 41 04.8	
	comp=Z,2µm,19.0s						
H43A	**Windswept, Lux**	**73.67**	**348**	IAmb	IAmb	07 13 00.1	
	comp=Z,45nm,0.9s						
LMN	**Caledonia Moun**	**73.73**	**5**	IAmb	IAmb	07 13 01.2	
	comp=Z,62nm,1.1s						
TRQ	**Mont Tremblant**	**73.92**	**358**	IAmb	IAmb	07 13 01.9	
	comp=Z,44nm,1.0s						
ISCO	**Idaho Springs**	**74.63**	**333**	P	**P**	**07 13 06.4**	**+2.7**
ISCO	**Idaho Springs**	**74.63**	**333**	P	**P**	**07 13 06.6**	**+3.0**
	comp=Z,16nm,1.3s						
PFO	**Pinyon Flats O**	**74.74**	**322**⇑	*e*P	**P**	**07 13 06.7**	**+2.5**
PFO				pmax	pmax		
	comp=Z,30nm,1.3s						
PFO	**Pinyon Flats O**	**74.74**	**322**	P	**P**	**07 13 07.5**	**+3.3**
	comp=Z,16nm,1.6s						
D62A	**Allapoint, All**	**74.75**	**2**	IAmb	IAmb	07 13 07.4	
	comp=Z,35nm,1.0s						
E46A	**Sault Ste Mari**	**74.94**	**351**	IAmb	IAmb	07 13 07.3	
	comp=Z,49nm,1.0s						
ECSD	**EROS Data Cent**	**75.06**	**341**	IAmb	IAmb	07 13 08.7	
	comp=Z,47nm,1.0s						
ECSD	**EROS Data Cent**	**75.06**	**341**	P	**P**	**07 13 06.5**	**+0.8**
	comp=Z,60nm,1.2s						
SPMN	**Marine on St.**	**75.46**	**344**	IAmb	IAmb	07 13 10.3	
	comp=Z,26nm,0.9s						
KNB	**Kanab**	**75.52**	**327**	IAmb	IAmb	07 13 24.5	
	comp=Z,60nm,1.2s						
O20A	**White River Ci**	**75.99**	**332**	IAmb	IAmb	07 13 15.5	
	comp=Z,42nm,0.9s						
O20A				IAMs_20	IAMs_20	07 44 04.5	
	comp=Z,2µm,18.0s						
ACRG	**Accra**	**76.15**	**76**	P	**P**	**07 13 12.0**	**-0.6**
ACRG	**Accra**	**76.15**	**76**	P	**P**	**07 13 13.6**	**+1.0**
	comp=Z,71nm,1.1s						
GSC	**Goldstone, Bar**	**76.21**	**323**	IAmb	IAmb	07 13 28.9	
	comp=Z,47nm,1.7s						
Q16A	**Castle Valley**	**76.27**	**329**	IAmb	IAmb	07 13 29.1	
	comp=Z,36nm,1.1s						
SUSD	**Miller**	**76.39**	**340**	IAmb	IAmb	07 13 16.1	
	comp=Z,34nm,1.0s						
P18A	**Preston Nutter**	**76.43**	**330**	IAmb	IAmb	07 13 31.0	
	comp=Z,42nm,1.1s						
E38A	**The Farm, Brul**	**76.48**	**346**	IAmb	IAmb	07 13 16.4	
	comp=Z,36nm,1.1s						
P17A	**Butcher Ranch,**	**76.53**	**330**	IAmb	IAmb	07 13 18.3	
	comp=Z,33nm,1.0s						
CVNA	**Calvinia**	**76.79**	**119**	P	**P**	**07 13 17.9**	**+1.8**
	comp=Z,213nm,1.0s						
SUR	**Sutherland**	**77.22**	**120**	LR	LR	07 42 33.4	
	comp=Z,3µm,20.6s,baz=239,slow=32						
SUR	**Sutherland**	**77.22**	**120**	P	**P**	**07 13 18.6**	**-0.1**
SUR				IAmb	IAmb	07 13 21.5	
	comp=Z,36nm,0.8s						
ICQ	**Pointe Anglais**	**77.25**	**3**	IAmb	IAmb	07 13 21.3	
	comp=Z,47nm,1.0s						
BSUT	**Blindstream Ca**	**77.40**	**330**	IAmb	IAmb	07 13 23.8	
	comp=Z,35nm,1.0s						
RSSD	**Black Hills**	**77.77**	**337**	P	**P**	**07 13 21.7**	**+0.4**
RSSD				pmax	pmax		
	comp=Z,13nm,1.0s						
RSSD	**Black Hills**	**77.77**	**337**	P	**P**	**07 13 21.7**	**+0.4**
DRLN	**Deer Lake**	**77.89**	**9**	P	**P**	**07 13 22.5**	**+1.0**
DUG	**Dugway, Tooele**	**78.05**	**329**	P	**P**	**07 13 26.1**	**+3.2**
DUG	**Dugway, Tooele**	**78.05**	**329**	IAMs_20	IAMs_20	07 43 56.0	
	comp=Z,2µm,20.0s						
DUG	**Dugway, Tooele**	**78.05**	**329**	P	**P**	**07 13 26.1**	**+3.2**
	comp=Z,38nm,1.2s						
WIN	**Windhoek**	**78.41**	**109**	P	**P**	**07 13 26.0**	**+0.5**
WIN				pmax	pmax		
	comp=Z,71nm,1.3s						
WIN	**Windhoek**	**78.41**	**109**	P	**P**	**07 13 25.9**	**+0.5**
WIN				IAmb	IAmb	07 13 28.4	
	comp=Z,71nm,1.3s						
WIN	**Windhoek**	**78.41**	**109**	P	**P**	**07 13 27.6**	**+2.1**
	comp=Z,42nm,2.5s						
HWUT	**Hardware Ranch**	**78.63**	**330**	IAmb	IAmb	07 13 29.6	
	comp=Z,44nm,0.9s						
HWUT				IAMs_20	IAMs_20	07 45 24.3	
	comp=Z,2µm,18.0s						
HWUT	**Hardware Ranch**	**78.63**	**330**	P	**P**	**07 13 27.4**	**+1.4**
	comp=Z,57nm,1.0s						
PDAR	**Pinedale Array**	**78.73**	**332**	P	**P**	**07 13 27.3**	**+0.6**
	comp=Z,6.9nm,0.9s,baz=134,slow=6.4,SNR=32						
PDAR				LR	LR	07 45 29.7	
	comp=Z,417nm,20.0s,baz=142,slow=34						
	comp=Z,6.9nm,0.9s						
PDAR	**Pinedale Array**	**78.73**	**332**	P	**P**	**07 13 26.7**	**0.0**
MAW	**Mawson**	**78.75**	**164**	P	**P**	**07 13 27.9**	**+1.7**
	comp=Z,7.8nm,1.3s						
MAW	**Mawson**	**78.75**	**164**	P	**P**	**07 13 26.1**	**-0.2**
	comp=Z,28nm,1.1s,baz=211,slow=7.0,SNR=26						
MAW				LR	LR	07 47 14.6	
	comp=Z,2µm,21.7s,baz=234,slow=35						
	comp=Z,28nm,1.1s						
MAW	**Mawson**	**78.75**	**164**	P	**P**	**07 13 26.9**	**+0.6**
MAW	**Mawson**	**78.75**	**164**	P	**P**	**07 13 27.9**	**+1.7**
	comp=Z,7.8nm,1.3s						
RAR	**Rarotonga**	**79.04**	**252**	LR	LR	07 40 12.8	
	comp=Z,2µm,18.9s,baz=112,slow=29						
AGMN	**Agassiz Nation**	**79.08**	**344**	P	**P**	**07 13 30.1**	**+2.0**
	comp=Z,38nm,1.4s						
HVU	**Hansel Valley**	**79.30**	**330**	IAmb	IAmb	07 13 33.1	
	comp=Z,30nm,0.9s						
NVAR	**Mina Array Bea**	**79.36**	**324**	P	**P**	**07 13 32.0**	**+1.8**
	comp=Z,5.6nm,0.8s,baz=154,slow=6.3,SNR=38						
	comp=Z,5.6nm,0.8s						
AHID	**Auburn Hatcher**	**79.37**	**331**	IAmb	IAmb	07 13 33.7	
	comp=Z,37nm,1.0s						
ELK	**Elko**	**79.61**	**328**	LR	LR	07 45 28.9	
	comp=Z,1µm,18.7s,baz=153,slow=33						
ELK	**Elko**	**79.61**	**328**	P	**P**	**07 13 32.9**	**+1.3**
EPLO	**Experimental L**	**79.86**	**345**	IAmb	IAmb	07 13 35.1	
	comp=Z,46nm,1.2s						
TSUM	**Tsumeb**	**80.28**	**107**	LR	LR	07 46 20.3	
	comp=Z,3µm,18.9s,baz=242,slow=34						
TSUM	**Tsumeb**	**80.28**	**107**	P	**P**	**07 13 35.6**	**-0.1**
TSUM				IAmb	IAmb	07 13 38.6	
	comp=Z,31nm,0.8s						
RLMT	**Red Lodge**	**80.57**	**334**	IAmb	IAmb	07 13 53.4	
	comp=Z,110nm,1.9s						
LAO	**LASA Array**	**80.76**	**336**	IAmb	IAmb	07 13 41.0	
	comp=Z,38nm,0.9s						
KOOLE	**Kule**	**80.80**	**111**	P	**P**	**07 13 38.3**	**-0.1**
KOOLE				IAmb	IAmb	07 13 40.9	
	comp=Z,46nm,0.8s						
YMR	**Madison River**	**80.87**	**333**	IAmb	IAmb	07 13 42.6	
	comp=Z,59nm,1.0s						
ULM	**Lac du Bonnet**	**80.89**	**344**	P	**P**	**07 13 38.5**	**+0.6**
	comp=Z,30nm,0.9s,baz=147,slow=5.5,SNR=20						
	comp=Z,30nm,0.9s						
ULM	**Lac du Bonnet**	**80.89**	**344**⇑	*e*P	**P**	**07 13 37.9**	**0.0**
ULM	**Lac du Bonnet**	**80.89**	**344**	IAmb	IAmb	07 13 40.6	
	comp=Z,64nm,1.1s						
GRHM	**Grahamstown, E**	**81.03**	**123**	P	**P**	**07 13 39.3**	**0.0**
GRHM				IAmb	IAmb	07 13 42.0	
	comp=Z,42nm,0.7s						
HLID	**Hailey**	**81.45**	**330**	IAmb	IAmb	07 13 45.5	
	comp=Z,28nm,0.9s						
HLID				IAMs_20	IAMs_20	07 46 00.1	
	comp=Z,1µm,20.0s						
TORD	**Torodi Ar. Bea**	**81.59**	**70**	P	**P**	**07 13 42.1**	**-0.3**
	comp=Z,23nm,0.7s,baz=253,slow=4.4,SNR=65						
TORD				LR	LR	07 49 34.3	
	comp=Z,2µm,19.0s,baz=237,slow=36						
	comp=Z,23nm,0.7s						
TORD	**Torodi Ar. Bea**	**81.59**	**70**	P	**P**	**07 13 42.2**	**-0.3**
TORD				IAmb	IAmb	07 13 45.0	
	comp=Z,55nm,1.2s						
ORV	**Oroville**	**81.86**	**323**	IAmb	IAmb	07 13 58.5	
	comp=Z,44nm,1.4s						
MFID	**Camas Ranch**	**81.97**	**329**	IAmb	IAmb	07 13 47.8	
	comp=Z,41nm,1.4s						
MFID				IAMs_20	IAMs_20	07 46 57.9	
	comp=Z,1µm,19.0s						
BOSA	**Boshof**	**82.33**	**118**	P	**P**	**07 13 45.9**	**-0.5**
	comp=Z,36nm,0.7s,baz=258,slow=3.6,SNR=59						
	comp=Z,36nm,0.7s						
BOSA	**Boshof**	**82.33**	**118**	P	**P**	**07 13 46.2**	**-0.2**
WVOR	**Wild Horse Val**	**82.54**	**327**	P	**P**	**07 13 49.2**	**+2.2**
WVOR	**Wild Horse Val**	**82.54**	**327**	IAMs_20	IAMs_20	07 47 42.0	
	comp=Z,1µm,18.0s						
O03E	**Paynes Creek**	**82.56**	**323**	IAmb	IAmb	07 14 07.8	
	comp=Z,27nm,1.1s						
O03E				IAMs_20	IAMs_20	07 45 35.6	
	comp=Z,1µm,19.0s						
SCHQ	**Schefferville**	**82.58**	**3**	P	**P**	**07 13 47.0**	**+0.3**
	comp=Z,8.6nm,1.1s,baz=211,slow=5.6,SNR=5.2						
SCHQ				LR	LR	07 49 54.6	
	comp=Z,579nm,22.0s,baz=196,slow=35						
	comp=Z,8.6nm,1.1s						
SCHQ	**Schefferville**	**82.58**	**3**	IAmb	IAmb	07 13 49.5	
	comp=Z,48nm,1.5s						
MOD	**Modoc Plateau**	**82.97**	**325**	IAmb	IAmb	07 13 52.9	
	comp=Z,23nm,1.0s						
MOD				IAMs_20	IAMs_20	07 48 55.3	
	comp=Z,2µm,18.0s						
J08A	**Circle Bar Ran**	**83.16**	**327**	IAmb	IAmb	07 13 54.0	
	comp=Z,42nm,1.0s						
PLID	**Pearl Lake**	**83.35**	**330**	IAmb	IAmb	07 13 54.7	
	comp=Z,27nm,0.9s						
PLID				IAMs_20	IAMs_20	07 49 04.4	
	comp=Z,2µm,18.0s						
M03C	**McCloud**	**83.44**	**324**	IAmb	IAmb	07 14 12.6	
	comp=Z,21nm,0.9s						
LBTB	**Lobatse**	**84.27**	**115**	LR	LR	07 48 24.2	
	comp=Z,2µm,18.6s,baz=228,slow=34						
LBTB	**Lobatse**	**84.27**	**115**	P	**P**	**07 13 56.0**	**-0.5**
LBTB				pmax	pmax		
	comp=Z,48nm,0.8s						
LBTB	**Lobatse**	**84.27**	**115**	P	**P**	**07 13 56.0**	**-0.5**
TIO	**Tiouine**	**84.62**	**51**	P	**P**	**07 13 59.1**	**+1.2**
G08A	**Pilot Rock**	**84.85**	**328**	IAmb	IAmb	07 14 02.4	
	comp=Z,50nm,1.8s						
WIFE	**Three Sisters-**	**85.30**	**326**	IAmb	IAmb	07 14 04.3	
	comp=Z,25nm,1.1s						
I04A	**Tendick Farm,**	**85.41**	**326**	IAmb	IAmb	07 15 35.5	
	comp=Z,31nm,1.5s						
LDM	**Libby Dam**	**85.70**	**332**	IAmb	IAmb	07 14 06.0	
	comp=Z,25nm,0.9s						
H04A	**Detroit Lake**	**85.94**	**326**	IAmb	IAmb	07 14 07.0	
	comp=Z,22nm,1.1s						
HAWA	**Hanford**	**85.94**	**329**	IAmb	IAmb	07 14 07.5	
	comp=Z,29nm,1.1s						
HAWA				IAMs_20	IAMs_20	07 49 31.0	
	comp=Z,2µm,19.0s						
AVE	**Averroes**	**85.95**	**49**	P	**P**	**07 14 05.1**	**+0.7**
CASY	**Casey**	**86.02**	**181**	P	**P**	**07 14 04.8**	**+0.5**
NEW	**Newport**	**86.31**	**331**	LR	LR	07 50 41.8	
	comp=Z,1µm,18.1s,baz=136,slow=34						
NEW	**Newport**	**86.31**	**331**	P	**P**	**07 14 06.9**	**+1.1**
C09A	**Chrisman Ranch**	**86.44**	**330**	IAmb	IAmb	07 14 09.5	
	comp=Z,22nm,0.9s						
G04A	**Mulino**	**86.46**	**327**	IAmb	IAmb	07 14 09.9	
	comp=Z,40nm,1.0s						
STD	**Studebaker Rid**	**87.09**	**327**	IAmb	IAmb	07 14 13.1	
	comp=Z,44nm,1.2s						
PFVI	**Vila Bisbo**	**87.37**	**45**	*e*P	**P**	**07 14 12.1**	**+0.8**
MD31	**MD31**	**87.48**	**51**	P	**P**	**07 14 12.2**	**+0.2**
MD01	**Midelt array s**	**87.48**	**51**	P	**P**	**07 14 12.1**	**0.0**
MDT	**Midelt**	**87.56**	**51**	LR	LR	07 53 31.5	
	comp=Z,2µm,19.4s,baz=239,slow=36						
IFR	**Ifrane**	**87.61**	**50**	P	**P**	**07 14 12.7**	**0.0**
D05A	**Enumclaw**	**87.67**	**328**	IAmb	IAmb	07 14 15.3	
	comp=Z,31nm,1.0s						
PTEO	**Sao Teotonio**	**87.69**	**45**	*e*P	**P**	**07 14 15.1**	**+2.4**
PTEO				*i* IAmb	IAmb	07 14 59.0	
	comp=Z,76nm,1.6s						
MXZ	**Matakaoa Point**	**87.78**	**228**	IAMs_20	IAMs_20	07 45 16.1	
	comp=Z,2µm,19.0s						
SNZO	**South Karori**	**87.92**	**224**	IAMs_20	IAMs_20	07 47 21.3	
	comp=Z,2µm,21.0s						
PBDV	**Barranco-do-Ve**	**88.00**	**46**	P	**P**	**07 14 15.0**	**+0.7**
PBDV	**Barranco-do-Ve**	**88.00**	**46**	*e*P	**P**	**07 14 16.6**	**+2.3**
URZ	**Urewera**	**88.17**	**227**	LR	LR	07 45 13.0	
	comp=Z,2µm,19.1s,baz=156,slow=30						
PCVE	**Castro Verde**	**88.17**	**45**	P	**P**	**07 14 15.0**	**0.0**
PCVE	**Castro Verde**	**88.17**	**45**	*e*P	**P**	**07 14 15.8**	**+0.8**
PCVE				*i* IAmb	IAmb	07 14 19.6	
	comp=Z,32nm,1.7s						
PLOUS	**Minas do Lousa**	**88.18**	**45**	*e*P	**P**	**07 14 16.2**	**+1.1**
MESJ	**Messejana**	**88.19**	**45**	*e*P	**P**	**07 14 15.9**	**+0.8**
MESJ				IAmb	IAmb	07 14 19.4	
	comp=Z,13nm,0.9s						
MESJ	**Messejana**	**88.19**	**45**	*e*P	**P**	**07 14 16.0**	**+0.8**
MESJ				*i* IAmb	IAmb	07 14 33.9	
	comp=Z,37nm,1.6s						
MESJ	**Messejana**	**88.19**	**45**	*e*P	**P**	**07 14 15.9**	**+0.8**
PVAQ	**Vaqueiros**	**88.24**	**46**	*e*P	**P**	**07 14 16.5**	**+1.2**
PVAQ				*i* IAmb	IAmb	07 14 49.7	
	comp=Z,44nm,1.9s						
PVAQ				*e*LQ	LQ	07 42 48.0	
PVAQ				*e*LR	LR	07 47 12.8	
PVAQ				*i* IAMs_20	IAMs_20	07 52 44.4	
	comp=Z,2µm,18.0s						
EGRO	**El Granado**	**88.47**	**46**	P	**P**	**07 14 16.7**	**+0.3**
PBEJ	**Beja**	**88.52**	**45**	*e*P	**P**	**07 14 17.9**	**+1.2**
PBEJ				*i* IAmb	IAmb	07 14 27.4	
	comp=Z,30nm,1.8s						
MOE	**Montemor**	**88.53**	**44**	*e*P	**P**	**07 14 18.2**	**+1.5**
MOE				*i* IAmb	IAmb	07 14 27.4	
	comp=Z,30nm,1.8s						
RPZ	**Rata Peaks**	**88.62**	**220**	LR	LR	07 44 34.8	
	comp=Z,304nm,21.2s,baz=112,slow=29						
NLWA	**Neilton Lookou**	**88.70**	**327**	IAmb	IAmb	07 14 20.9	
	comp=Z,26nm,1.2s						
EVO	**Evora**	**88.74**	**44**	P	**P**	**07 14 16.6**	**-1.1**
EDM	**Edmonton**	**88.75**	**336**	P	**P**	**07 14 17.3**	**-0.2**
EDM				pmax	pmax		
	comp=Z,56nm,1.1s						
EDM	**Edmonton**	**88.75**	**336**	P	**P**	**07 14 17.3**	**-0.2**
MATP	**Matopo**	**88.81**	**112**	LR	LR	07 50 22.4	
	comp=Z,4µm,20.3s,baz=236,slow=33						
PSBE	**So Bento**	**88.87**	**43**	*e*P	**P**	**07 14 19.9**	**+1.6**
PARRA	**Arraiolos**	**88.90**	**44**	*e*P	**P**	**07 14 19.8**	**+1.3**
PMTG	**Montargil**	**88.94**	**44**	*e*P	**P**	**07 14 20.1**	**+1.5**
PMTG				*i* IAmb	IAmb	07 14 29.8	
	comp=Z,21nm,1.7s						
A05A	**Maple Falls**	**89.03**	**329**	IAmb	IAmb	07 14 21.4	
	comp=Z,26nm,1.0s						
ESPR	**Espera**	**89.10**	**47**	P	**P**	**07 14 19.8**	**+0.4**
A04D	**Lummi Island**	**89.11**	**329**	IAmb	IAmb	07 14 22.4	
	comp=Z,32nm,1.1s						
EMIN	**Mina Concepcio**	**89.12**	**46**	P	**P**	**07 14 19.4**	**-0.1**
PBAR	**Barrancos**	**89.13**	**45**	P	**P**	**07 14 18.8**	**-0.7**
PBAR	**Barrancos**	**89.13**	**45**	*e*P	**P**	**07 14 21.4**	**+1.9**
PBAR				*i* IAmb	IAmb	07 14 49.1	
	comp=Z,21nm,2.0s						
PSARD	**Sardoal**	**89.31**	**44**	*e*P	**P**	**07 14 21.6**	**+1.2**
PSARD				*i* IAmb	IAmb	07 14 50.0	
	comp=Z,22nm,1.6s						
PCAS	**Casmilo, Conde**	**89.38**	**43**	*e*P	**P**	**07 14 21.7**	**+1.0**
PGC	**Sidney**	**89.40**	**328**	IAmb	IAmb	07 14 23.8	
	comp=Z,18nm,1.0s						
PMRV	**Marv??o**	**89.67**	**44**	*e*P	**P**	**07 14 23.3**	**+1.2**
PMRV				*e*LR	LR	07 48 16.7	
PMRV				*i* IAMs_20	IAMs_20	07 59 09.5	
	comp=Z,1µm,18.0s						
PCBR	**Castelo Branco**	**89.87**	**44**	*e*P	**P**	**07 14 24.4**	**+1.4**
EMAL	**Malaga-Limoner**	**89.97**	**48**	P	**P**	**07 14 18.8**	**-4.6**
LLLB	**Lillooet**	**90.12**	**331**	IAmb	IAmb	07 14 39.2	
	comp=Z,38nm,1.8s						
MTE	**Manteigas**	**90.17**	**43**	*e*P	**P**	**07 14 25.7**	**+1.3**
MTE				*i* IAmb	IAmb	07 15 03.8	
	comp=Z,15nm,1.9s						
MTE				*e*LQ	LQ	07 43 47.4	
MTE				*e*LR	LR	07 47 08.6	
MTE				*i* IAMs_20	IAMs_20	07 55 18.3	
	comp=Z,2µm,18.0s						
MTE	**Manteigas**	**90.17**	**43**	IAMs_20	IAMs_20	07 54 49.8	
	comp=Z,2µm,19.0s						
POLO	**Lamas de Olo**	**90.61**	**42**	*e*P	**P**	**07 14 27.6**	**+1.0**
POLO				*i* IAmb	IAmb	07 14 60.0	
	comp=Z,7.3nm,1.5s						
PGAV	**Gavieira, Arco**	**90.69**	**42**	*e*P	**P**	**07 14 27.8**	**+0.9**
PGAV				*e*LR	LR	07 45 09.9	
PGAV				*i* IAMs_20	IAMs_20	07 51 23.9	
	comp=Z,2µm,20.0s						
LSZ	**Lusaka**	**91.06**	**108**	LR	LR	07 51 51.1	
	comp=Z,4µm,19.7s,baz=242,slow=33						
CBB	**Campbell River**	**91.27**	**329**	IAmb	IAmb	07 15 52.6	
	comp=Z,30nm,1.7s						
FRB	**Frobisher Bay**	**91.46**	**1**	LR	LR	07 57 33.9	
	comp=Z,565nm,19.4s,baz=182,slow=37						
PBRG	**Braganca**	**91.50**	**42**⇑	*e*P	**P**	**07 14 32.2**	**+1.6**
PBRG				*i* IAmb	IAmb	07 14 35.3	
	comp=Z,17nm,1.8s						
ESDC	**Sonseca Array**	**91.95**	**45**	P	**P**	**07 14 31.9**	**-0.8**
	comp=Z,1.8nm,0.9s,baz=257,slow=3.7,SNR=11						
ESDC				LR	LR	07 54 50.2	
	comp=Z,2µm,19.6s,baz=228,slow=35						
	comp=Z,1.8nm,0.9s						
ESDC	**Sonseca Array**	**91.95**	**45**	P	**P**	**07 14 31.2**	**-1.6**
ESDC				IAmb	IAmb	07 14 47.2	
	comp=Z,30nm,1.4s						
AFI	**Afiamalu**	**92.55**	**253**	LR	LR	07 47 36.8	
	comp=Z,1µm,18.3s,baz=134,slow=30						
CART	**Cartagena**	**92.69**	**48**	P	**P**	**07 14 33.6**	**-2.5**
BBB	**Bella Bella**	**94.00**	**329**	LR	LR	07 55 07.3	
	comp=Z,275nm,18.7s,baz=126,slow=34						
SFJD	**Kangerlussuaq**	**95.98**	**8**	LR	LR	07 59 23.2	
	comp=Z,451nm,19.1s,baz=210,slow=36						
YKA	**Yellowknife Ar**	**96.59**	**341**	P	**P**	**07 14 53.2**	**-0.2**
	comp=Z,4.3nm,1.0s,baz=146,slow=4.3,SNR=4.3						
YKA				LR	LR	08 01 17.6	
	comp=Z,666nm,18.1s,baz=144,slow=37						

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            comp=Z,4.3nm,1.0s
YKA   Yellowknife Ar    96.59 341  P        P         07 14 52.8  -0.6
YKA   Yellowknife Ar    96.59 341  P        P         07 14 52.8  -0.6
DSB   Dublin            98.52  33  P        P         07 14 56.1  -6.1
DSB   Dublin            98.52  33  IAMs_20  IAMs_20   08 01 31.1
            comp=Z,1µm,20.0s
KEST  Kesra             98.90  54  LR       LR        08 01 07.0
            comp=Z,6µm,20.9s,baz=236,slow=36
MSVF  Nonsavu           98.96 245  LR       LR        07 49 36.5
            comp=Z,677nm,21.4s,baz=106,slow=29
CLF   Chambon-Foret    100.27  41  IAMs_20  IAMs_20   08 00 17.9
            comp=Z,1µm,20.0s
VSL   Villasalto       100.67  51  IAMs_20  IAMs_20   08 01 05.1
            comp=Z,1µm,22.0s
N32M  Quiet Lake       101.86 334  IAMs_20  IAMs_20   08 00 41.7
            comp=Z,1µm,19.0s
SENIN Lac Senin/Sane   102.47  44  IAMs_20  IAMs_20   08 00 02.4
            comp=Z,2µm,20.0s
ECH   Echery           103.23  42  IAMs_20  IAMs_20   08 02 54.5
            comp=Z,1µm,20.0s
TUE   Stuetta          103.78  45  IAMs_20  IAMs_20   08 00 49.2
            comp=Z,2µm,20.0s
BFO   Black Forest     103.98  43  IAMs_20  IAMs_20   08 03 53.3
            comp=Z,996nm,21.0s
ABPO  Ambohimpanom     104.39 121  IAMs_20  IAMs_20   07 56 25.9
            comp=Z,2µm,21.0s
M29M  Somme Creek      104.70 334  IAMs_20  IAMs_20   08 01 02.7
            comp=Z,1µm,20.0s
CUC   Castrocucco      105.36  53  IAMs_20  IAMs_20   08 07 54.4
            comp=Z,1µm,20.0s
L27K  Beaver Creek,    106.34 333  IAMs_20  IAMs_20   08 02 52.3
            comp=Z,1µm,19.0s
K27K  Chicken          106.92 334  IAMs_20  IAMs_20   08 02 59.4
            comp=Z,1µm,20.0s
GERES GERESS Array B   107.44  44  PKiKP    PKiKP     07 19 50.0  -0.7
            comp=Z,0.5nm,0.6s,baz=217,slow=0.7,SNR=4.3
KHC   Kasperske Hory   107.48  43  AMS      AMS       08 10 10.0
            comp=Z,800nm,17.6s
H27K  Steamboat Moun   107.79 336  IAMs_20  IAMs_20   08 04 33.4
            comp=Z,1µm,20.0s
CKRC  Cesky Krumlov    107.81  44  AMS      AMS       08 02 50.0
            comp=Z,1µm,22.2s
RIDG  Independent Ri   107.86 333  IAMs_20  IAMs_20   08 04 13.4
            comp=Z,858nm,18.0s
I26K  Coal Creek Min   107.94 335  IAMs_20  IAMs_20   08 13 33.4
            comp=Z,771nm,19.0s
HSKC  Hora Svate Kat   107.95  42  AMS      AMS       08 05 30.0
            comp=Z,1µm,17.2s
CLL   Collm            107.97  41  IAMs_20  IAMs_20   08 13 41.6
            comp=Z,1µm,19.0s
CLL   Collm            107.97  41 ePP       PP        07 20 13.0  -1.0
CLL                                LQ       LQ        07 51 00.0
CLL                                L        L         07 57 00.0
CLL                                AMS      AMS       07 59 00.0
            comp=N,600nm,23.2s
CLL                                AMS      AMS       07 59 00.0
            comp=E,800nm,26.8s
CLL                                AMS      AMS       07 59 00.0
            comp=Z,1µm,23.4s
CLL                                AMS      AMS       08 13 00.0
            comp=Z,1µm,18.2s
G27K  Doyon Strip      108.12 337  IAMs_20  IAMs_20   08 04 32.0
            comp=Z,858nm,19.0s
PRU   Pruhonice        108.38  43  AMS      AMS       08 06 40.0
            comp=Z,900nm,17.3s
J25K  Salcha River,    108.46 334  IAMs_20  IAMs_20   08 04 39.2
            comp=Z,1µm,18.0s
PVCC  Panska Ves       108.60  42  AMS      AMS       08 02 20.0
            comp=Z,1µm,21.5s
SANVU Saraoutou        108.77 240  IAMs_20  IAMs_20   08 01 13.5
            comp=Z,1µm,21.0s
ILAR  Eielson Array    109.12 334  Pdiff    Pdif      07 15 49.6  +0.4
            comp=Z,0.4nm,0.7s,baz=157,slow=3.4,SNR=5.0
ILAR                               PKiKP    PKiKP     07 19 53.0  -0.1
            comp=Z,0.4nm,0.9s,baz=222,slow=1.2,SNR=4.1
FYU   Fort Yukon       109.27 336  IAMs_20  IAMs_20   08 12 07.6
            comp=Z,788nm,20.0s
RGN   Rugen            109.35  38  IAMs_20  IAMs_20   08 02 03.9
            comp=Z,1µm,22.0s
F26K  Sheenjek River   109.39 337  IAMs_20  IAMs_20   08 04 53.6
            comp=Z,1µm,20.0s
UPC   Upice            109.45  43  AMS      AMS       08 07 10.0
            comp=Z,1µm,18.9s
CHVC  Chvalec          109.50  42  AMS      AMS       08 07 10.0
            comp=Z,1µm,18.3s
DPC   Dobruska-Polom   109.58  43  AMS      AMS       08 07 10.0
            comp=Z,1µm,17.9s
OSTC  Ostas            109.59  43  AMS      AMS       08 07 00.0
            comp=Z,1µm,17.6s
BWN   Browne           109.89 333  IAMs_20  IAMs_20   08 01 01.4
            comp=Z,906nm,22.0s
OKC   Ostrava-Krasne   110.51  44  AMS      AMS       08 12 00.0
            comp=Z,900nm,18.4s
KARP  Karpathos        112.12  61  IAMs_20  IAMs_20   08 10 29.7
            comp=Z,934nm,19.0s
KWP   Kalwaria Pacla   113.27  45  P        Pdif      07 16 06.9  -1.1
F20K  Avaraart Lake    113.31 335  IAMs_20  IAMs_20   08 08 07.6
            comp=Z,927nm,18.0s
SUW   Suwalki          114.70  40  IAMs_20  IAMs_20   08 11 25.5
            comp=Z,988nm,19.0s
TIRR  Tirgusor         115.65  52  IAMs_20  IAMs_20   08 11 17.6
            comp=Z,1µm,22.0s
CSS   Mathiatis        116.74  63  IAMs_20  IAMs_20   08 11 02.3
            comp=Z,1µm,22.0s
MNK   Minsk            117.50  40 i PKIKP   PKiKP     07 20 09.5   0.0
MNK                               i                   07 21 20.3
MNK                               i PPP     PPP       07 23 49.3
MNK                               i                   07 27 21.9
MNK                               i SS      SS        07 37 34.1  +1.5
MNK                               i SSS     SSS       07 41 54.9
MNK                                 pmax    pmax
            comp=E,27nm,0.7s
MNK                                 pmax    pmax
            comp=Z,22nm,0.7s
MNK                                 pmax    pmax
            comp=N,35nm,0.9s
MNK                                 MLR     MLR
            comp=E,488nm,20.0s
MNK                                 MLR     MLR
            comp=N,642nm,20.0s
MNK                                 MLR     MLR
            comp=Z,807nm,20.0s
MNK   Minsk            117.50  40 i PKP     PKiKP     07 20 09.5   0.0
            comp=E,27nm,0.7s
MNK                               i PKP     PKiKP     07 20 09.5   0.0
            comp=N,35nm,0.9s
MNK                               i PKP     PKiKP     07 20 09.5   0.0
            comp=Z,22nm,0.7s,baz=260
MNK                               i PP      PP        07 21 20.3  -1.6
MNK                               i PPP     PPP       07 23 49.4
MNK                               i SKS     SKSdf     07 27 22.0  +1.1
MNK                               i SS      SS        07 37 34.2  +1.6
MNK                               i SSS     SSS       07 41 55.0
MNK                               i LQ      LQ        08 03 20.6
MNK                               i LRM     MLR       08 09 08.6
            comp=E,488nm,20.1s
MNK                               i LRM     MLR       08 09 15.6
            comp=N,642nm,20.1s
MNK                               i LRM     MLR       08 09 31.1
            comp=Z,807nm,20.0s
KIEV  Kiev             117.58  45   PKIKP   PKPdf     07 20 08.5  -1.2
KIEV                                MLR     MLR
            comp=Z,1µm,21.0s
KIEV  Kiev             117.58  45           PKPdf     07 20 08.5  -1.2
KIEV  Kiev             117.58  45   IAMs_20 IAMs_20   08 11 29.5
            comp=Z,1µm,21.0s
AKASG Malin Array Be   117.59  45   PKP     PKPdf     07 20 09.0  -0.8
            comp=Z,3.9nm,0.7s,baz=266,slow=2.7,SNR=16
AKASG Malin Array Be   117.59  45   PKIKP   PKPdf     07 20 08.5  -1.3
AKASG Malin Array Be   117.59  45           PKPdf     07 20 08.5  -1.3
AKBB  Malin Array Si   117.59  45d iPKIKP   PKiKP     07 20 10.5  +0.7
AKBB  Malin Array Si   117.59  45           PKPdf     07 20 08.6  -1.1
BR131 Keskin Array S   118.24  58⇑iPKIKP    PKiKP     07 20 11.8  +0.2
BRTR  Keskin Array B   118.24  58   PKP     PKPdf     07 20 11.2  -0.3
            comp=Z,2.5nm,0.8s,baz=177,slow=1.9,SNR=14
BRTR  Keskin Array B   118.24  58   PKIKP   PKPdf     07 20 09.7  -1.9
BRTR  Keskin Array B   118.24  58           PKPdf     07 20 09.7  -1.9
ARPR  Arapgir-MALATY   121.64  59   IAMs_20 IAMs_20   08 19 24.8
            comp=Z,839nm,19.0s
OBN   Obninsk          122.56  40⇓iPKIKP    PKiKP     07 20 20.6  +1.3
OBN                               e                   07 21 52.8
OBN                                 pmax    pmax
            comp=Z,11nm,0.5s
OBN                                 MLR     MLR
            comp=Z,1µm,20.0s
OBN   Obninsk          122.56  40   IAMs_20 IAMs_20   08 11 53.4
            comp=Z,1µm,21.0s
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MTSU  Mount Surprise   122.62 221  P        PKPdf     07 20 18.8  -1.7
AS09  Alice Springs    123.13 208  P        PKiKP     07 20 22.3  +0.6
AS17  Alice Springs    123.14 208  P        PKPdf     07 20 21.4  -0.1
AS01  Alice Springs    123.15 208  P        PKiKP     07 20 23.3  +1.6
AS31  Alice Springs    123.17 208  P        PKiKP     07 20 21.8   0.0
ASAR  Alice Springs    123.17 208  PKP      PKPdf     07 20 21.2  -0.3
            comp=Z,7.4nm,0.8s,baz=146,slow=2.1,SNR=40
ASAR  Alice Springs    123.17 208  PKIKP    PKPdf     07 20 20.0  -1.6
ASAR  Alice Springs    123.17 208           PKPdf     07 20 20.0  -1.6
AS15  Alice Springs    123.20 208  P        PKPdf     07 20 21.4  -0.2
QIS   Mount Isa        123.22 215  P        PKiKP     07 20 22.8  +0.9
ADZR  Andozero         123.36  30 ePKIKP    PKiKP     07 20 21.8  +1.1
ADZR                               pmax     pmax
            comp=Z,15nm,0.5s
VSLR  Vesyoloye        123.67  55⇓iPKIKP    PKiKP     07 20 23.6  +1.6
LPSR  Galich'ya Gora   123.82  44 ePKIKP    PKPdf     07 20 21.7   0.0
LPSR                               pmax     pmax
            comp=Z,20nm,1.0s
VSR   Storozhevoye     123.89  45 ePKIKP    PKPdf     07 20 19.9  -1.9
VSR                                pmax     pmax
            comp=Z,10.0nm,1.0s
VORR  Voronezh         123.94  45  PKIKP    PKiKP     07 20 23.0  +0.8
VORR                               pmax     pmax
            comp=Z,13nm,0.9s
VORD  Divnogorie       123.95  46 ePKIKP    PKPdf     07 20 21.9  -0.1
VORD                               pmax     pmax
            comp=Z,10.0nm,0.9s
KLMR  Klimovskoe       124.13  34 ePKIKP    PKPdf     07 20 20.2  -1.8
KLMR                               pmax     pmax
            comp=Z,31nm,1.2s
VRH   Novokhopyorsk    125.49  45 ePKIKP    PKPdf     07 20 23.7  -1.2
VRH                                pmax     pmax
            comp=Z,10.0nm,0.9s
NEUR  Neytrino         125.57  55⇑iPKIKP    PKiKP     07 20 28.3  +2.3
SHA1  Shidzhatmaz      125.60  55⇓iPKIKP    PKiKP     07 20 26.6  +0.5
KIV   Kislovodsk       125.64  54 i PKIKP   PKiKP     07 20 27.5  +1.5
KIV                                pmax     pmax
            comp=Z,10.0nm,1.1s
KIV                                MLR      MLR
            comp=Z,541nm,23.0s
KIV   Kislovodsk       125.64  54  IAMs_20  IAMs_20   08 16 31.2
            comp=Z,655nm,21.0s
KBZ   Khabaz           125.77  55  PKP      PKiKP     07 20 27.8  +1.8
            comp=Z,5.6nm,0.9s,baz=234,slow=1.3,SNR=10
KBZ   Khabaz           125.77  55c iPKIKP   PKiKP     07 20 26.7  +0.6
NCK   Nalchik          126.25  55⇑iPKIKP    PKiKP     07 20 27.7  +0.6
WRA   Warramunga Arr   126.27 210  PKP      PKPdf     07 20 27.4  -0.2
            comp=Z,12nm,0.8s,baz=160,slow=1.7,SNR=59
WRA   Warramunga Arr   126.27 210  PKIKP    PKPdf     07 20 26.5  -1.0
WRA   Warramunga Arr   126.27 210           PKPdf     07 20 26.5  -1.0
WRAB  Tennant Creek    126.27 210  P        PKiKP     07 20 28.8  +0.9
WRAB  Tennant Creek    126.27 210c iPKIKP   PKPdf     07 20 27.6  +0.1
WRAB  Tennant Creek    126.27 210           PKPdf     07 20 26.4  -1.1
H11S2 WAKE ISLAND Hy   126.28 273  T        T         09 39 31.6
            baz=112,slow=75,SNR=36
H11S1 WAKE ISLAND Hy   126.29 273  T        T         09 39 41.6
            baz=112,slow=75,SNR=30
H11S3 WAKE ISLAND Hy   126.30 273  T        T         09 39 31.9
            baz=112,slow=75,SNR=115
GNI   Garni            126.70  59  IAMs_20  IAMs_20   08 18 14.6
            comp=Z,782nm,20.0s
BILL  Bilibino         127.66 336⇑ePKIKP    PKPdf     07 20 27.0  -1.6
BILL  Bilibino         127.66 336  IAMs_20  IAMs_20   08 27 07.6
            comp=Z,633nm,20.0s
AKT   Akhty            129.10  58 i PKIKP   PKPdf     07 20 32.2  -0.1
BELG  Belogornoye      129.14  44cePKIKP    PKiKP     07 20 32.8  +0.3
KIRV  Kirov            129.38  36  PKP      PKiKP     07 20 33.5  +0.8
            comp=Z,9.9nm,0.5s,baz=290,slow=3.0,SNR=6.1
KIRV  Kirov            129.38  36⇑ePKIKP    PKiKP     07 20 32.7  -0.1
FITZ  Fitzroy Crossi   131.33 202  P        PKiKP     07 20 38.7  +0.7
FITZ  Fitzroy Crossi   131.33 202  PKP      PKiKP     07 20 38.9  +0.8
            comp=Z,10nm,0.8s,baz=186,slow=2.0,SNR=16
FITZ  Fitzroy Crossi   131.33 202  P        PKiKP     07 20 38.8  +0.7
ARTI  Arti             134.60  37  PKP      PKiKP     07 20 43.3  -0.1
            comp=Z,7.7nm,0.7s,baz=258,slow=2.9,SNR=11
ARTI  Arti             134.60  37 i PKIKP   PKPdf     07 20 42.2  +0.2
ARTI                                                  07 23 13.7
ARTI                               SS       SS        07 41 09.9  +3.6
ARTI  Arti             134.60  37           PKPdf     07 20 42.2  +0.2
ARTI                               IAMs_20  IAMs_20   08 25 14.6
            comp=Z,849nm,20.0s
SEY   Seymchan         135.05 333  PKP      PKiKP     07 20 44.3  +0.2
            comp=Z,7.5nm,0.7s,baz=96,slow=3.7,SNR=11
SEY   Seymchan         135.05 333⇑ePKIKP    PKPdf     07 20 43.0  +0.3
AKTO  Aktyubinsk       135.84  45  PKP      PKiKP     07 20 46.3  +0.1
            comp=Z,5.0nm,0.8s,baz=284,slow=2.6,SNR=12
PETK  Petropavlovsk-   136.24 319  PKP      PKiKP     07 20 47.6  +0.7
            comp=Z,6.8nm,0.8s,baz=88,slow=4.0,SNR=8.7
PETK  Petropavlovsk-   136.24 319  PKIKP    PKiKP     07 20 46.1  -0.8
PETK  Petropavlovsk-   136.24 319           PKiKP     07 20 46.1  -0.8
NRIK  Noril'sk         136.83  11  PKP      PKiKP     07 20 47.4  -0.3
            comp=Z,1.7nm,0.5s,baz=50,slow=3.8,SNR=4.9
NRIK  Noril'sk         136.83  11cePKIKP    PKiKP     07 20 47.5  -0.1
SKR   Severo-Kuril's   137.80 316⇑ePKIKP    PKPdf     07 20 48.8  +0.7
BORK  Borovoye         142.26  38⇓ePKIKP    PKPdf     07 20 54.2  -2.0
BORK  Borovoye         142.26  38  IAMs_20  IAMs_20   08 24 16.3
            comp=Z,1µm,21.0s
BVAR  Borovoye Array   142.31  38  PKhKP    PKPpre    07 20 52.2
            comp=Z,3.0nm,0.8s,baz=308,slow=3.6,SNR=6.6
TWSI  Taliwang, Sumb   142.63 193  PKP      PKPdf     07 20 58.9  +0.8
TWSI                               PKP      PKiKP     07 20 59.6  -1.6
YAK   Yakutsk          143.23 344  PKP      PKPdf     07 20 56.3  -1.3
            comp=Z,23nm,0.4s,baz=29,slow=3.2,SNR=8.5
YAK   Yakutsk          143.23 344 ePKIKP    PKPbc     07 20 56.0  +1.4
YAK                               e                   07 24 07.2
YAK                               eSS       SS        07 42 41.8  -5.1
YAK                                pmax     pmax
            comp=Z,32nm,0.8s
YAK                                pmax     pmax
            comp=N,10.0nm,1.8s
YAK                                pmax     pmax
            comp=E,9.0nm,1.5s
YAK                                pmax     pmax
            comp=Z,280nm,4.8s
YAK                                pmax     pmax
            comp=N,122nm,3.6s
YAK                                pmax     pmax
            comp=E,123nm,5.4s
SWI   Sorong           144.04 221  PKP      PKPdf     07 21 02.1  +1.5
BBJI  Bungbulang       144.74 178  P        PKPdf     07 21 01.8  -0.1
BBJI  Bungbulang       144.74 178           PKPbc     07 21 00.8  +0.1
BBJI  Bungbulang       144.74 178  PKP      PKiKP     07 21 11.5  +5.9
KPJI  Karang Pucung    144.88 180  PKP      PKPdf     07 21 02.5  +0.5
MNGI  Mangalore        145.07 109 eP        PKPbc     07 20 59.5  -2.2
SMRI  Semarang         145.12 183  P        PKPdf     07 21 04.1  +1.6
SMRI  Semarang         145.12 183  PKP      PKiKP     07 21 04.9  -1.4
CHM   Chimkent         145.31  55 ePKIKP    PKPdf     07 21 03.3  +1.4
CHM   Chimkent         145.31  55 ePKP      PKPdf     07 21 03.4  +1.4
BRLS  Borolday         145.33  54 ePKIKP    PKPab     07 21 03.2  +1.3
BRLS  Borolday         145.33  54 ePKP      PKPab     07 21 03.2  +1.3
KAPI  Kappang          145.49 200  PKPbc    PKPab     07 21 04.0  +0.7
            comp=E,86nm,0.9s,baz=164,slow=7.1,SNR=23
KAPI  Kappang          145.49 200  P        PKPab     07 21 05.0  +1.7
KAPI  Kappang          145.49 200  PKHKP    PKPpre    07 21 01.0
KAPI  Kappang          145.49 200           PKPbc     07 21 01.0  -2.0
KAPI  Kappang          145.49 200  PKP      PKPab     07 21 04.9  +1.7
KDI   Kendari          145.51 205  PKP      PKPab     07 21 04.5  +1.2
NKL   Nikolayevsk      145.53 326 i PKIKP   PKPab     07 21 02.4  +0.1
NKL                               e                   07 24 22.9
IUG   Iuzhnay          145.66  55 ePKIKP    PKPab     07 21 03.8  +0.5
IUG   Iuzhnay          145.66  55 ePKP      PKPab     07 21 03.8  +0.5
TYV   Tymovskoe        145.69 321 ePKP2     PKiKP     07 21 04.6  -1.7
TYV                                pmax     pmax
            comp=Z,900nm,4.0s
TYV                                pmax     pmax
            comp=Z,73nm,1.2s
KOD   Kodaikanal       145.77 115 eP        PKPdf     07 21 00.9  -3.0
SANI  Sanana           145.81 212  PKP      PKPdf     07 21 00.7  -2.9
SANI  Sanana           145.81 212  P        PKPab     07 21 05.5  +1.0
SANI  Sanana           145.81 212  PKP      PKPab     07 21 05.3  +0.8
DZA   Taraz            146.43  54 ePKP2     PKPbc     07 21 05.2   0.0
DZA   Taraz            146.43  54 ePKP      PKPbc     07 21 05.3   0.0
SPSI  Sidrap Palu      146.48 200  PKP      PKPab     07 21 07.9  +0.9
KAD   Karad            146.53 101 eP        PKPdf     07 21 01.7  -3.1
POO   Poona            146.73  99 eP        PKPdf     07 21 01.9  -3.2
SALM  Salem            147.13 114 eP        PKPdf     07 21 02.8  -3.1
YSS   Yuzhno-Sakhali   147.35 315  P        PKPab     07 21 09.3  -0.2
YSS   Yuzhno-Sakhali   147.35 315 ePKP2     PKPab     07 21 08.6  -0.9
YSS                                pmax     pmax
            comp=Z,30nm,0.9s
YSS   Yuzhno-Sakhali   147.35 315  IAMs_20  IAMs_20   08 13 31.9
            comp=Z,586nm,20.0s
KURK  Kurchatov        147.88  37c iPKP2    PKPbc     07 21 07.9  -1.0
KURK  Kurchatov        147.88  37           PKPdf     07 21 07.4  +1.4
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KURK  Kurchatov        147.88  37  IAMs_20  IAMs_20   08 36 42.8
            comp=Z,867nm,21.0s
KURBB Kurchatov Arra   147.88  37  PKPbc    PKPdf     07 21 07.3  +1.4
            comp=Z,28nm,0.9s,baz=300,slow=3.1,SNR=64
LUWI  Luwuk            148.12 207  PKP      PKPdf     07 21 03.0  -4.5
EKS2  Erkin-Say        148.23  53  P        PKPdf     07 21 08.7  +1.7
            SNR=27
JKA   Kamikawa-asahi   148.49 310           PKPbc     07 21 09.3  -1.4
ASAJ  Asahikawa        148.49 310  PKIKP    PKPbc     07 21 09.4  -1.4
UDPR  Udaipur          148.52  88 eP        PKPdf     07 21 05.7  -2.2
USP   Ospenovka        148.56  52  P        PKPbc     07 21 10.4  -0.7
            SNR=21
SGDS  Sogindy          148.60  52 ePKP      PKPdf     07 21 08.8  +1.3
ZAA0  Zalesovo Array   148.72  27           PKPdf     07 21 06.8  -0.4
ZALV  Zalesovo Beam    148.72  27  PKP      PKPdf     07 21 08.2  +1.0
            comp=Z,40nm,0.7s,baz=291,slow=2.2,SNR=44
ZALV                               PKPbc    pPKPdf    07 21 12.1  +0.3
            comp=Z,89nm,0.8s,baz=302,slow=2.9,SNR=71
ZALV  Zalesovo Beam    148.72  27  PKIKP    PKPdf     07 21 07.1  -0.1
ZALV  Zalesovo Beam    148.72  27           PKPdf     07 21 07.0  -0.1
AAK   Ala-Archa        148.75  53  PKPbc    PKPbc     07 21 11.0  -0.7
            comp=Z,49nm,0.8s,baz=179,slow=2.2,SNR=19
AAK   Ala-Archa        148.75  53  P        PKPdf     07 21 09.8  +1.9
            SNR=32
AAK   Ala-Archa        148.75  53⇓ePKIKP    PKPdf     07 21 07.3  -0.6
AAK   Ala-Archa        148.75  53           PKPdf     07 21 09.4  +1.5
BKNR  BIKANER          148.80  81 eP        PKPdf     07 21 05.8  -2.4
CHMS  Chumysh          148.82  52  P        PKiKP     07 21 12.9  -0.2
            SNR=7.6
UCH   Uchtor           148.87  54  P        PKPbc     07 21 11.9  -0.6
            SNR=43
KBK   Karagaybulak     149.06  53  P        PKPab     07 21 15.5  -1.2
            SNR=7.9
TKM2  Tokmak 2         149.43  52  P        PKPdf     07 21 09.9  +0.9
            SNR=12
SRGN  SRI GANGA NAGA149.56     78 eP        PKPdf     07 21 06.8  -2.6
MDRS  Chennai          149.61 113 eP        PKPdf     07 21 06.8  -3.0
KUU   Kurty            149.62  50 ePKHKP    PKPpre    07 21 10.3
KUU   Kurty            149.62  50 ePKP      PKPdf     07 21 10.3  +1.3
AJM   Ajmer            149.72  85 eP        PKPdf     07 21 06.8  -3.0
AJM                                IAmb     IAmb      07 21 16.6
            comp=Z,179nm,1.9s
ULHL  Ulahol           150.10  53  P        PKPbc     07 21 12.9  -2.2
            SNR=11
AAA   Alma-Ata         150.25  51 ePKIKP    PKPdf     07 21 11.4  +1.3
AAA   Alma-Ata         150.25  51 ePKP      PKPdf     07 21 11.4  +1.3
TNSS  Tian-Shan        150.33  51 ePKIKP    PKPdf     07 21 11.4  +0.7
TNSS  Tian-Shan        150.33  51 ePKP      PKPdf     07 21 11.4  +0.7
HYB   Hyderabad        150.35 104 eP        PKPdf     07 21 08.3  -2.6
HYB   Hyderabad        150.35 104 ePKiKP    PKPbc     07 21 16.6  +0.4
HYB                                IAMs_20  IAMs_20   07 40 19.3
            comp=Z,2µm,44.6s
MDOK  Medeo            150.36  51 ePKIKP    PKPdf     07 21 11.4  +1.0
MDOK  Medeo            150.36  51 ePKP      PKPdf     07 21 11.5  +1.0
KSH2  Kashi            150.40  59  PKPbc    PKPdf     07 21 11.6  +1.0
KSH2                               pPKP     PKiKP     07 21 18.4  +1.8
KSH2                               PPMZ
            comp=Z,610nm,14.6s
KSH2                               L        L
            comp=Z,710nm,16.5s
KSH2                               L        L
            comp=Z,700nm,21.3s
KSH2                               L        L
            comp=Z,890nm,22.5s
JMU   Jammu            150.48  72 eP        PKPdf     07 21 08.3  -2.4
TDK   Taldyqorghan     150.56  47 ePKIKP    PKPdf     07 21 11.8  +1.3
TDK   Taldyqorghan     150.56  47 ePKP      PKPdf     07 21 11.8  +1.3
KDJ   Kajisay          150.79  53  PKIKP    PKPdf     07 21 13.3  +2.1
KDJ   Kajisay          150.79  53           PKPdf     07 21 13.2  +2.1
TOLI2 Tolitoli         150.87 205  P        PKPbc     07 21 15.7  -1.8
TOLI2 Tolitoli         150.87 205           PKPdf     07 21 13.8  +1.9
ZEA   Zeya             150.88 337 i PKIKP   PKiKP     07 21 17.6  +0.7
ZEA                               e                   07 28 11.1
ZEA                                pmax     pmax
            comp=Z,30nm,1.1s
SATY  Saty             151.32  50 ePKIKP    PKPdf     07 21 13.0  +1.2
SATY  Saty             151.32  50 ePKP      PKPdf     07 21 13.1  +1.2
BHPL  Bhopal           151.46  92 eP        PKPdf     07 21 09.5  -3.1
TSSA  Tissa            151.59  72 eP        PKPdf     07 21 09.8  -2.9
KUDL  Kundal           151.63  82 eP        PKPdf     07 21 10.1  -2.5
RTK   Rohtak           151.67  80 eP        PKPdf     07 21 06.4  -6.2
UZB   Uzynbulak        151.71  50 ePKIKP    PKPdf     07 21 13.5  +1.0
UZB   Uzynbulak        151.71  50 ePKP      PKPdf     07 21 13.6  +1.0
VJD   Vijayawada       151.71 108 eP        PKPdf     07 21 10.0  -3.0
BHK   Bhakra           151.78  75 eP        PKPdf     07 21 11.2  -1.5
BHK                                IAmb     IAmb      07 21 30.5
            comp=Z,54nm,0.7s
BHK                                IAMs_20  IAMs_20   07 24 18.0
            comp=Z,414nm,6.4s
SHLS  Shalkode         152.00  50 ePKIKP    PKPdf     07 21 14.5  +1.6
SHLS  Shalkode         152.00  50 ePKP      PKPdf     07 21 14.5  +1.6
MK31  Makanchi Array   152.07  41dePKIKP    PKPdf     07 21 14.1  +1.4
MKAR  Makanchi Array   152.07  41  PKP      PKPdf     07 21 13.6  +0.8
            comp=Z,35nm,0.8s,baz=298,slow=2.6,SNR=24
MKAR                               PKPbc    PKiKP     07 21 19.9  +0.2
            comp=Z,35nm,0.8s,baz=321,slow=1.8,SNR=85
MKAR  Makanchi Array   152.07  41  PKIKP    PKPdf     07 21 12.2  -0.6
MKAR                                                  07 21 18.3
MKAR  Makanchi Array   152.07  41           PKPdf     07 21 12.2  -0.6
MKAR                                        sPKPdf    07 21 18.3  -0.5
BHGR  Bahadurgarh      152.09  81 eP        PKPdf     07 21 10.8  -2.5
STKI  Sintang          152.10 186  PKP      PKiKP     07 21 23.4  +2.7
CGRH  CHANDIGARH       152.10  77 eP        PKPdf     07 21 10.8  -2.4
GNR   GANAUR           152.20  80 eP        PKPdf     07 21 10.9  -2.5
AYAN  Aya Nagar        152.23  81 eP        PKPdf     07 21 10.6  -2.9
AYAN                               IAmb     IAmb      07 21 22.5
            comp=Z,17nm,0.8s
NPLP  NPLP New Delhi   152.28  81 eP        PKPdf     07 21 10.8  -2.8
LDR   Lodi Road        152.32  81 eP        PKPdf     07 21 13.9  +0.3
NDI   New Delhi        152.33  81 eP        PKPdf     07 21 11.3  -2.3
KLR   Kul'dur          152.37 326  PKP      PKPdf     07 21 15.0  +1.9
            comp=Z,4.2nm,0.9s,baz=310,slow=1.3,SNR=7.1
KLR                                PKPbc    PKPbc     07 21 19.7  -0.2
            comp=Z,3.9nm,0.6s,baz=20,slow=3.9,SNR=5.8
KLR   Kul'dur          152.37 326⇓ePKIKP    PKPdf     07 21 12.6  -0.5
JMIU  JAMIA UNIVERSI   152.38  81 eP        PKPdf     07 21 11.2  -2.5
ALCI  Alchi Leh        152.39  69 eP        PKPdf     07 21 09.5  -4.6
ALCI                               IAmb     IAmb      07 21 23.9
            comp=Z,293nm,0.9s
SMLA  Simla            152.45  76 eP        PKPdf     07 21 11.6  -2.1
WUS   Wushi            152.54  54  IAMs_20  IAMs_20   08 33 24.0
            comp=Z,723nm,19.0s
AGRA  Agra             152.78  84 eP        PKPdf     07 21 11.9  -2.5
ASOR  Ausora           152.82  81 eP        PKPdf     07 21 11.6  -2.8
ASOR                               IAmb     IAmb      07 21 15.3
            comp=Z,322nm,0.4s
UGON  Onchagaon        152.89  82 eP        PKPdf     07 21 11.9  -2.6
JHNI  Jhansi           153.05  88 eP        PKPdf     07 21 11.8  -3.0
ZSN   Zaisan           153.12  37 ePKIKP    PKPdf     07 21 15.7  +1.5
ZSN   Zaisan           153.12  37 ePKP      PKPdf     07 21 15.7  +1.5
UTK   UTTARKASHI       153.54  77 eP        PKPdf     07 21 12.8  -2.7
HEH   HeiHe            153.59 332 ePKPbc    PKPdf     07 21 16.1  +1.3
MJAR  Matsushiro Arr   153.70 296  PKP      PKPdf     07 21 16.0  +0.6
            comp=Z,0.8nm,0.3s,baz=246,slow=0.8,SNR=7.3
MJAR  Matsushiro Arr   153.70 296  PKIKP    PKPdf     07 21 14.5  -1.0
MJAR                                                  07 21 34.2
MJAR  Matsushiro Arr   153.70 296           PKPdf     07 21 14.5  -1.0
MJAR                                        PKPab     07 21 34.2  -1.9
TKRD  Thakurdwara      153.80  80 eP        PKPdf     07 21 14.1  -1.7
HNLY  HANLEY           153.97  72 eP        PKPdf     07 21 13.5  -3.1
SBUM  Sibu             154.37 188  P        PKPdf     07 21 19.7  +2.6
SBUM  Sibu             154.37 188  IAMs_20  IAMs_20   08 30 44.3
            comp=Z,891nm,20.0s
JOSI  Joshimath        154.49  77 eP        PKPdf     07 21 14.3  -2.7
LKN   LUCKNOW          155.30  86 eP        PKPdf     07 21 15.2  -2.7
RAGD  RAYAGADA         155.34 105 eP        PKPdf     07 21 15.6  -2.6
IPM   Ipoh             155.50 161  IAMs_20  IAMs_20   08 35 49.1
            comp=Z,693nm,20.0s
IRK   Irkutsk          155.56   7 ePKIKP    PKPdf     07 21 19.0  +1.5
IRK                               e                   07 21 45.0
IRK                               e                   07 25 17.6
IRK                                pmax     pmax
            comp=Z,142nm,2.6s
MOY   Mondy            155.66  12 ePKIKP    PKPdf     07 21 21.2  +3.4
MOY                                pmax     pmax
            comp=Z,60nm,2.9s
CIT   Chita            155.73 353 ePKIKP    PKPdf     07 21 20.4  +2.6
CIT                               e                   07 21 46.0
CIT                                pmax     pmax
            comp=Z,46nm,2.7s
TLY   Talaya           156.04   8  PKP      PKPdf     07 21 19.1  +0.9
            comp=Z,4.5nm,0.6s,baz=178,slow=1.6,SNR=5.6
HILR  Hailar Array B   156.86 341  PKP      PKPdf     07 21 20.4  +1.0
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	comp=Z,0.3nm,0.3s,baz=116,slow=6.8,SNR=7.7						
HILR				PKPab	**pPKPab**	**07 21 51.1**	**-2.4**
	comp=Z,9.2nm,0.9s,baz=76,slow=7.6,SNR=11						
WMQ	**Urumqi**	**156.89**	**41**	*e*PKP	**PKPdf**	**07 21 22.6**	**+3.0**
WMQ				PKPab	**pPKPab**	**07 21 53.2**	**-0.7**
WMQ				L	L		
	comp=Z,770nm,19.7s						
WMQ				L	L		
	comp=Z,830nm,18.5s						
WMQ				L	L		
	comp=Z,420nm,19.7s						
BNX	**BinXian**	**156.91**	**325**	⇓PKP	**PKPdf**	**07 21 20.0**	**+0.6**
KKM	**Kota Kinabalu**	**157.03**	**199**	IAMs_20	IAMs_20	08 23 04.4	
	comp=Z,542nm,21.0s						
ZAK	**Zakamensk**	**157.27**	**9**	*e*PKIKP	**PKPdf**	**07 21 21.7**	**+1.8**
ZAK				pmax	pmax		
	comp=Z,11nm,1.3s						
GAYA	**Gaya**	**158.76**	**93**	*e*P	**PKPdf**	**07 21 19.7**	**-2.7**
STMR	**SITAMARHI**	**159.17**	**88**	*e*P	**PKPdf**	**07 21 17.3**	**-5.5**
CN2	**Changchun**	**159.25**	**324**	PKP	**PKPdf**	**07 21 24.2**	**+1.8**
CN2				PP	**PP**	**07 25 45.4**	**+5.0**
CN2				SKKS		07 32 28.5	
CN2				SS	**SS**	**07 45 45.6**	**+0.5**
CN2				L	L		
	comp=Z,190nm,18.0s						
CN2				L	L		
	comp=Z,410nm,18.0s						
CN2				L	L		
	comp=Z,420nm,18.0s						
SONM	**Songino Array**	**160.11**	**5**	PKP	**PKPdf**	**07 21 24.9**	**+1.5**
	comp=Z,3.2nm,0.8s,baz=200,slow=0.4,SNR=15						
SONM				PKPab	**pPKPab**	**07 22 05.9**	**-1.9**
	comp=Z,3.4nm,0.8s,baz=340,slow=3.8,SNR=7.3						
SONM				PP	**PP**	**07 25 45.6**	**+1.0**
	comp=Z,2.1nm,0.9s,baz=346,slow=7.5,SNR=5.8						
SONM	**Songino Array**	**160.11**	**5**		**PKPdf**	**07 21 24.4**	**+1.0**
SONM					**pPKPab**	**07 22 05.8**	**-1.9**
ULN	**Ulaanbaatar**	**160.12**	**3**	PKP	**PKPdf**	**07 21 25.8**	**+2.3**
KSRS	**Korea Array**	**161.30**	**305**	PKP	**PKPdf**	**07 21 26.7**	**+1.9**
	comp=Z,5.2nm,1.0s,baz=112,slow=0.9,SNR=16						
DHUB	**DHUBRI**	**163.22**	**92**	*e*P	**PKPdf**	**07 21 24.4**	**-2.7**
DL2	**Dalian**	**164.69**	**319**	*e*PKP	**PKPdf**	**07 21 26.6**	**-1.5**
DL2				PKPab	**pPKPab**	**07 22 26.1**	**-1.9**
DL2				SS	SS	07 46 42.4	+0.3
DL2				PPMZ			
	comp=Z,610nm,5.5s						
DL2				L	L		
	comp=Z,780nm,19.4s						
DL2				L	L		
	comp=Z,760nm,14.3s						
DL2				L	L		
	comp=Z,1μm,17.0s						
SHL	**Shillong**	**164.80**	**95**	*e*P	**PKPdf**	**07 21 26.4**	**-2.5**
AZL	**Aizawl**	**164.99**	**103**	*e*P	**PKPdf**	**07 21 26.4**	**-2.6**
AZL				IAmb	IAmb	07 21 32.3	
	comp=Z,40nm,1.5s						
TAWA	**Tawang**	**165.10**	**88**	*e*P	**PKPdf**	**07 21 26.2**	**-3.1**
TEZP	**TEZPUR**	**165.80**	**92**	*e*P	**PKPdf**	**07 21 27.0**	**-2.4**
TEZP				IAMs_20	IAMs_20	07 30 12.9	
	comp=Z,208nm,15.2s						
GTA2	**Gaotai**	**166.35**	**31**	PKP	**PKPdf**	**07 21 31.7**	**+2.1**
GTA2				PKPab	**PKPab**	**07 22 33.1**	**+2.1**
GTA2				PP	**PP**	**07 26 19.0**	**+0.9**
GTA2				L	L		
	comp=Z,490nm,18.7s						
GTA2				L	L		
	comp=Z,450nm,21.3s						
GTA2				L	L		
	comp=Z,1μm,21.6s						
BJI2	**Beijing**	**166.50**	**335**	PKP	**PKPdf**	**07 21 31.0**	**+1.5**
BJI2				L	L		
	comp=Z,510nm,18.6s						
BJI2				L	L		
	comp=Z,280nm,18.5s						
BJI2				L	L		
	comp=Z,360nm,20.6s						
KOHI	**KOHIMA**	**166.79**	**97**	*e*P	**PKPdf**	**07 21 27.4**	**-3.0**
ZIRO	**ZIRO**	**166.85**	**89**	*e*P	**PKPdf**	**07 21 27.4**	**-3.0**
ZIRO				IAMs_20	IAMs_20	07 30 20.0	
	comp=Z,375nm,14.1s						
CMAR	**Chiang Mai Arr**	**166.95**	**135**	PKP	**PKPdf**	**07 21 32.0**	**+1.5**
	comp=Z,1.4nm,0.7s,baz=257,slow=2.1,SNR=14						
CMAR				PKPab	**PKPab**	**07 22 35.0**	**+0.9**
	comp=Z,3.8nm,0.8s,baz=237,slow=5.0,SNR=12						
CMAR	**Chiang Mai Arr**	**166.95**	**135**	PKP2	**PKPab**	**07 22 32.3**	**-1.7**
CMAR						08 21 28.5	
CMAR	**Chiang Mai Arr**	**166.95**	**135**		**PKPdf**	**07 21 28.5**	**-2.0**
CMAR					**PKPab**	**07 22 32.3**	**-1.7**
HHC	**Hu-ho-hao-te**	**166.96**	**350**	*e*PKP	**PKPdf**	**07 21 26.2**	**-3.8**
HHC				L	L		
	comp=Z,220nm,16.0s						
HHC				L	L		
	comp=Z,720nm,18.3s						
HHC				L	L		
	comp=Z,1μm,16.8s						
JORH	**JORHAT**	**167.11**	**92**	*e*P	**PKPdf**	**07 21 27.8**	**-2.6**
CHTO	**Chiang Mai**	**167.22**	**134**	P	**PKPdf**	**07 21 32.5**	**+1.8**
CHTO	**Chiang Mai**	**167.22**	**134**	PKIKP	**PKPdf**	**07 21 28.3**	**-2.4**
CHTO						07 22 32.7	
CHTO	**Chiang Mai**	**167.22**	**134**	PKPdf	**PKPdf**	**07 21 28.2**	**-2.4**
CHTO					**PKPab**	**07 22 32.7**	**-2.5**
CHTO	**Chiang Mai**	**167.22**	**134**	PKP	**PKPdf**	**07 21 33.2**	**+2.5**
HNS	**HongShan**	**169.34**	**333**	⇓PKP	**PKPdf**	**07 21 33.8**	**+2.2**
HNS				PKPab	**PKPab**	**07 22 45.7**	**+1.7**
NJ2	**Nanjing**	**170.31**	**297**	*e*PKP	**PKPdf**	**07 21 31.2**	**-1.1**
LZH	**Lanzhou**	**170.95**	**26**	*e*PKP	**PKPdf**	**07 21 33.3**	**+0.5**
LZH				sPKP	sPKPdf	07 21 46.7	+7.9
LZH				L	L		
	comp=Z,600nm,15.5s						
LZH				L	L		
	comp=Z,890nm,16.5s						
LZH				L	L		
	comp=Z,1μm,18.7s						
QIZ	**Qiongzhong**	**171.01**	**187**	PKP	**PKPdf**	**07 21 35.7**	**+2.6**
QIZ				PP	**PP**	**07 26 43.0**	**+2.0**
QIZ				SS	SS	07 47 48.0	+3.9
QIZ				L	L		
	comp=Z,530nm,21.2s						
QIZ				L	L		
	comp=Z,550nm,15.1s						
QIZ				L	L		
	comp=Z,810nm,19.4s						
SLVN	**Son La**	**172.07**	**146**	P	**PKPdf**	**07 21 36.3**	**+2.7**
PZH	**PanZhiHua**	**173.64**	**102**	PKP	**PKPdf**	**07 21 34.8**	**+0.6**
XAN	**Xi'an**	**173.97**	**358**	PKP	**PKPdf**	**07 21 35.8**	**+1.8**
CD2	**Chengdu**	**174.81**	**55**	PKP	**PKPdf**	**07 21 34.0**	**-0.4**

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*KRSC **01** 07:07:14.8±1.8, 58°.83N×158°.45E, h20^{km}±13^{km}, Ml4.3*

*IDC **01** 07:07:17.4±1.1, 58°.67N×158°.86E, h0^{km}, mb3.6/5, mbtmp3.4/8, ML3.2/3, Error ellipse: s-maj=19.8km s-min=12.8km az=49.0*

*MOS **01** 07:07:18.1±1.0, 58°.70N×158°.84E, h24^{km}, mb3.9/1, Error ellipse: s-maj=17.8km s-min=6.0km az=95.0*

*NERS **01** 07:07:30.0, 58°.92N×157°.99E, h33^{km}*

ISC 01 07:07:18.5±0.7**, 58°.70N**±0°.03×**158°.99E**±0°.03**, h10^{km}, n46, σ1^{s}.78**/62**, mb3.6**/5**, Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALN	**Palana**	**0.64**	**52**	PN	**Pg**	**07 07 30.7**	**-0.1**
PALN				S	**Sb**	**07 07 40.5**	**-0.2**
PALN	**Palana**	**0.64**	**52**	*e*P	**Pg**	**07 07 30.8**	**-0.1**
PALN				*e*S	**Sb**	**07 07 40.5**	**-0.2**
TIGL	**Tigil**	**0.95**	**190**	PN	**Pg**	**07 07 35.6**	**-1.2**
TIGL				S	**Sg**	**07 07 49.6**	**+0.4**
TIGL	**Tigil**	**0.95**	**190**	*e*P	**Pg**	**07 07 35.6**	**-1.2**
TIGL				*e*S	**Sg**	**07 07 49.6**	**+0.4**
OSSR	**Ossora**	**2.18**	**74**	PN	**Pn**	**07 07 56.2**	**+1.5**
OSSR				S	**Sb**	**07 08 25.4**	**+0.5**
OSSR	**Ossora**	**2.18**	**74**	*e*P	**Pn**	**07 07 56.3**	**+1.5**
OSSR				*e*S	**Sb**	**07 08 25.4**	**+0.5**
SRDR	**Sredinnyy**	**2.42**	**170**	PN	**Pn**	**07 07 58.3**	**+0.2**
SRDR	**Sredinnyy**	**2.42**	**170**	*e*P	**Pn**	**07 07 58.3**	**+0.2**
KOZ	**Kozyrevsk**	**2.69**	**169**	PN	**Pn**	**07 08 02.6**	**+0.8**
KOZ	**Kozyrevsk**	**2.69**	**169**	*e*P	**Pn**	**07 08 02.7**	**+0.8**
CIRR	**Tsirk**	**2.76**	**159**	PN	**Pn**	**07 08 05.2**	**+2.3**
CIRR	**Tsirk**	**2.76**	**159**	*e*P	**Pn**	**07 08 05.2**	**+2.3**
ESO	**Esso**	**2.79**	**183**	PN	**Pn**	**07 08 02.7**	**-0.4**
ESO	**Esso**	**2.79**	**183**	*e*P	**Pn**	**07 08 02.7**	**-0.4**
BZWR	**Bezymyannyi-We**	**2.86**	**163**	PN	**Pn**	**07 08 06.1**	**+1.9**
BZWR	**Bezymyannyi-We**	**2.86**	**163**	*e*P	**Pn**	**07 08 06.2**	**+1.9**
ZLN	**Zelenaya**	**2.86**	**159**	PN	**Pn**	**07 08 05.7**	**+1.5**
ZLN	**Zelenaya**	**2.86**	**159**	*e*P	**Pn**	**07 08 05.8**	**+1.5**
BZMR	**Bezymyannaya**	**2.89**	**163**	PN	**Pn**	**07 08 04.9**	**+0.3**
BZMR	**Bezymyannaya**	**2.89**	**163**	*e*P	**Pn**	**07 08 05.0**	**+0.3**
BZGR	**Bezymyannyi-Gr**	**2.92**	**161**	PN	**Pn**	**07 08 04.9**	**-0.1**
BZGR	**Bezymyannyi-Gr**	**2.92**	**161**	*e*P	**Pn**	**07 08 04.9**	**-0.1**
KMNR	**Kamenistaya**	**3.03**	**167**	PN	**Pn**	**07 08 06.6**	**+0.1**
KMNR	**Kamenistaya**	**3.03**	**167**	*e*P	**Pn**	**07 08 06.6**	**+0.1**
KBTR	**Krutoberegovo**	**3.24**	**139**	PN	**Pb**	**07 08 13.2**	**-2.8**
KBTR	**Krutoberegovo**	**3.24**	**139**	*e*P	**Pb**	**07 08 13.3**	**-2.8**
TUMR	**Tumrok**	**3.48**	**169**	PN	**Pn**	**07 08 13.6**	**+0.9**
TUMR	**Tumrok**	**3.48**	**169**	*e*P	**Pn**	**07 08 13.7**	**+0.9**
TILK	**Tilichiki**	**4.04**	**61**	PN	**Pn**	**07 08 22.0**	**+1.8**
TILK	**Tilichiki**	**4.04**	**61**	*e*P	**Pn**	**07 08 22.1**	**+1.8**
GADL	**Gadlja**	**4.06**	**287**	*e*Pg	**Pb**	**07 08 33.0**	**+3.0**
GADL				*e*Sg	**Sb**	**07 09 20.2**	**+1.1**
GADL				Sgmax		07 09 42.1	
	520nm,0.7s						
TLAR	**Talaya**	**4.12**	**309**	*e*P	**Pn**	**07 08 22.1**	**+0.7**
TLAR				*e*Pg	**Pg**	**07 08 34.8**	**-2.4**
TLAR				*e*Sg	**Sb**	**07 09 22.1**	**+1.4**
TLAR				Sgmax		07 09 32.8	
	180nm,0.7s						
MA2	**Magadan**	**4.33**	**285**	Pn	**Pn**	**07 08 24.4**	**+0.2**
	0.6nm,0.3s,baz=356,slow=23,SNR=1.4						
MA2				Pg	**Pb**	**07 08 36.3**	**+1.8**
	5.8nm,0.3s,baz=101,slow=13,SNR=11						
MA2				Lg	Lg	07 09 29.8	
	5.0nm,0.3s,baz=6.2,slow=12,SNR=5.7 3.6nm,0.5s						
MA2				AML	AML		
MA2	**Magadan**	**4.33**	**285**	*e*P	**Pn**	**07 08 25.8**	**+1.6**
MA2				*e*Pg	**Pg**	**07 08 38.9**	**-2.3**
MA2				Pgmax		07 08 43.1	
	30nm,0.6s						
MA2				*e*Sg	**Sb**	**07 09 27.4**	**+0.7**
MA2				Sgmax		07 09 49.4	
	90nm,0.7s						
MGD	**Magadan 1**	**4.43**	**291**	*e*Sg	**Sb**	**07 09 33.2**	**+3.4**
MGD				Sgmax		07 09 44.7	
	110nm,0.7s						
SEY	**Seymchan**	**5.33**	**326**	Pn	**Pn**	**07 08 38.7**	**+0.6**
	0.3nm,0.3s,baz=170,slow=22,SNR=2.2						
SEY				Pg	**Pb**	**07 08 53.5**	**+1.9**
	0.9nm,0.3s,baz=125,slow=15,SNR=7.0						
SEY				Lg	Lg	07 10 00.8	
	2.5nm,0.3s,baz=192,slow=16,SNR=7.3 1.4nm,0.5s						
SEY				AML	AML		
SEY	**Seymchan**	**5.33**	**326**	*e*P	**Pn**	**07 08 38.3**	**+0.2**
SEY				*e*Pg	**Pg**	**07 08 59.6**	**-0.9**
SEY				Pgmax		07 09 05.6	
	10.0nm,0.7s						
SEY				*e*Sg	**Sg**	**07 10 04.1**	**-5.5**
SEY				Sgmax		07 10 20.2	
	30nm,0.8s						
PETK	**Petropavlovsk-**	**5.65**	**188**	Pn	**Pn**	**07 08 43.7**	**+1.3**
	0.4nm,0.3s,baz=32,slow=14,SNR=4.6 1.3nm,0.5s						
PETK				AML	AML		
SUUS	**Susuman**	**6.70**	**312**	*e*Pg	**Pg**	**07 09 24.4**	**-2.1**
SUUS				*e*Sg	**Sg**	**07 10 46.5**	**-6.6**
SUUS				Sgmax		07 11 10.3	
	90nm,0.9s						
ILAR	**Eielson Array**	**25.61**	**53**	P	**P**	**07 12 48.0**	**+0.4**
	0.4nm,0.7s,baz=276,slow=9.1,SNR=6.7 0.4nm,0.7s						
ILAR	**Eielson Array**	**25.61**	**53**	P	**P**	**07 12 48.0**	**+0.4**
KURK	**Kurchatov**	**44.45**	**296**	P	**P**	**07 15 29.6**	**+0.5**
KURBB	**Kurchatov Arra**	**44.55**	**296**	P	**P**	**07 15 29.6**	**-0.4**
	1.5nm,0.8s,baz=50,slow=8.4,SNR=8.3 1.5nm,0.8s						
MKAR	**Makanchi Array**	**45.39**	**290**	P	**P**	**07 15 37.8**	**+1.0**
	0.3nm,0.8s,baz=40,slow=7.6,SNR=2.6 0.3nm,0.8s						
BVAR	**Borovoye Array**	**46.57**	**304**	P	**P**	**07 15 46.2**	**+0.2**
	0.8nm,0.5s,baz=67,slow=11,SNR=2.1 0.8nm,0.5s						
ASAR	**Alice Springs**	**84.66**	**203**	P	**P**	**07 19 53.4**	**+1.4**
	0.2nm,0.5s,baz=16,slow=4.4,SNR=4.1 0.2nm,0.5s						

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*SJA **01** 07:20:12.9±0.7, 27°.98S×71°.76W, h12^{km}, ML4.0, MW3.7*

*GUC **01** 07:20:17.1±0.9, 28°.10S×71°.37W, h30^{km}±5^{km}, ML3.6*

ISC 01 07:20:17.4±1.2**, 28°.09S**±0°.03×**71°.33W**±0°.06**, h33^{km}**±4^{km}**, n29, σ2^{s}.29**/38**, 2C-4D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	**Llanos de Chal**	**0.26**	**117**	*e*P	**Pn**	**07 20 25.2**	**+0.5**
AC04	**Llanos de Chal**	**0.26**	**117**	⇓*i*P	**Pn**	**07 20 25.1**	**+0.5**
AC04				*e*S	**Sb**	**07 20 29.7**	**+0.1**
AC04				IAML		07 20 30.1	
	comp=E,17μm,0.3s						
LCO	**Las Campanas**	**1.08**	**149**	*e*P	**Pb**	**07 20 37.6**	**-0.2**
GO03	**Copiapo**	**1.09**	**64**	*e*P	**Pb**	**07 20 38.7**	**+0.9**
GO03				IAML		07 21 00.7	
	comp=Z,1μm,0.4s						
GO03	**Copiapo**	**1.09**	**64**	⇓*i*P	**Pb**	**07 20 38.2**	**+0.4**
GO03				IAML		07 20 56.7	
	comp=N,2μm,0.5s						
AC06	**Mina Casimiro**	**1.13**	**50**	*e*P	**Pb**	**07 20 38.2**	**-0.2**
AC05	**El Transito**	**1.20**	**129**	*e*P	**Pb**	**07 20 40.7**	**+1.1**
AC05	**El Transito**	**1.20**	**129**	*e*P	**Pb**	**07 20 40.0**	**+0.3**
AC05				⇓*i*P	**Pn**	**07 20 40.2**	**+2.3**
AC05				IAML		07 20 58.3	
	comp=N,1μm,0.3s						
AC01	**Pan de Azucar**	**2.04**	**19**	*e*P	**Pn**	**07 20 50.4**	**+1.0**
AC01				*e*S	**Sb**	**07 21 19.5**	**+0.7**
AC01	**Pan de Azucar**	**2.04**	**19**	⇑*e*P	**Pn**	**07 20 50.2**	**+0.8**
GO04	**Tololo Observa**	**2.13**	**167**	*e*P	**Pb**	**07 20 53.9**	**-1.7**
GO04				*e*S	**Sb**	**07 21 24.7**	**+3.0**
GO04				IAML		07 21 26.8	
	comp=Z,915nm,0.5s						
GO04	**Tololo Observa**	**2.13**	**167**	*e*P	**Pb**	**07 20 53.7**	**-1.8**
CO01	**Juntas del Tor**	**2.17**	**150**	*e*P	**Pb**	**07 20 55.8**	**-0.5**
CO01	**Juntas del Tor**	**2.17**	**150**	⇓*e*P	**Pb**	**07 20 55.7**	**-0.5**
CO01				IAML		07 21 27.3	
	comp=E,584nm,0.2s						
AC02	**Maricunga**	**2.32**	**58**	⇑*e*P	**Pb**	**07 20 57.9**	**-1.0**
AC02				IAML		07 21 32.5	
	comp=N,724nm,0.4s						
CO06	**Fray Jorge**	**2.59**	**186**	*e*P	**Pn**	**07 20 57.8**	**+0.8**
CO06				IAML		07 21 42.5	
	comp=E,207nm,0.3s						
AROD	**Rodeo**	**2.64**	**142**	*e*P	**Pb**	**07 21 04.0**	**-0.2**
AROD				*e*S	**Sb**	**07 21 40.7**	**+4.5**
CO03	**El Pedregal**	**2.80**	**169**	*e*P	**Pn**	**07 21 03.0**	**+3.0**
CO03				*e*S	**Sb**	**07 21 37.5**	**-3.3**
CO03				IAML		07 21 49.6	
	comp=Z,222nm,0.3s						
CO03	**El Pedregal**	**2.80**	**169**	*e*P	**Pn**	**07 21 02.8**	**+2.8**
CO03				IAML		07 21 51.3	
	comp=E,342nm,0.6s						
VCA	**Vinchina**	**2.83**	**104**	*e*P	**Pb**	**07 21 07.7**	**+0.3**
CO02	**Combarbal**	**3.12**	**175**	*e*P	**Pn**	**07 21 06.8**	**+2.4**
CO02				*e*S	**Sn**	**07 21 41.5**	**+0.9**
CO02				IAML		07 21 58.9	
	comp=Z,386nm,0.5s						
CO02	**Combarbal**	**3.12**	**175**	*e*P	**Pn**	**07 21 06.4**	**+2.0**
ACLC	**CERRO LA CRUZ**	**4.07**	**110**	*e*P	Pb	07 21 23.5	-5.0
ACLC				*e*S	**Sb**	**07 22 13.5**	**-3.9**
RTLS	**Leoncito**	**4.10**	**155**	*e*P	**Pb**	**07 21 24.7**	**-4.4**
RTLS				*e*S	**Sb**	**07 22 16.0**	**-2.3**
RTLS				IAML		07 22 31.6	
	comp=Z,373nm,0.9s						
CFA	**Coronel Fontan**	**4.42**	**143**	*e*P	Pn	07 21 27.8	+5.6
CFA				IAML		07 23 37.1	
	comp=Z,197nm,0.8s						
VA03	**San Esteban**	**4.71**	**172**	*e*P	**Pn**	**07 21 30.0**	**+3.7**
VA03				*e*S	**Sb**	**07 22 32.0**	**-3.7**
VA03				IAML		07 22 52.7	
	comp=Z,124nm,0.6s						
CYA	**Choya**	**4.89**	**95**	*e*P	Pn	07 21 34.0	+5.3
CYA				*e*S	**Sb**	**07 22 36.9**	**-3.9**
CYA				IAML		07 22 38.8	
	comp=Z,74nm,0.8s						
PB05	**IPOC Station P**	**5.31**	**11**	*e*P	**Pn**	**07 21 33.8**	**-0.7**
PB05				*e*S	**Sn**	**07 22 33.8**	**-0.8**
PB05				IAML		07 23 24.3	
	comp=Z,38nm,0.6s						
TCA	**Tanti**	**6.70**	**121**	*e*P	**Pn**	**07 21 56.6**	**+3.1**

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*DJA **01** 07:21:24.3±0.7, 8°S±3°×11°9E±°, h10^{km}±6^{km}, M4.2/16, mb4.4/1, MLv4.2/16*

*IDC **01** 07:21:28.4±4.1, 8°.07S×119°.46E, h42^{km}±41^{km}, mb3.8/3, mbtmp3.9/6, ML3.7/3, Error ellipse: s-maj=52.8km s-min=9.6km az=66.0*

ISC 01 07:21:21.9±0.7**, 8°.06S**±0°.05×**118°.96E**±0°.04**, h10^{km}, n19, σ2^{s}.68**/22**, mb4.1**/3**, Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DBNI	**Kabupaten Domp**	**0.78**	**236**	P	**Pg**	**07 21 38.2**	**+1.2**
DBNI				AML	AML		
LBFI	**Labuhan Bajo,**	**1.01**	**114**	P	**Pn**	**07 21 44.1**	**+2.0**
PLAI	**Plampang**	**1.40**	**237**	P	**Pn**	**07 21 48.3**	**+0.7**
PLAI				AML	AML		
WBSI	**Waikabubak, Su**	**1.62**	**165**	P	**Pn**	**07 21 52.5**	**+1.8**
WBSI				AML	AML		
WSI	**Waingapu**	**2.07**	**141**	P	**Pn**	**07 21 59.4**	**+2.6**
TWSI	**Taliwang, Sumb**	**2.17**	**252**	P	**Pn**	**07 21 59.3**	**+1.2**
TWSI				AML	AML		
BSSI	**Bau Bau, Buton**	**2.44**	**39**	P	**Pb**	**07 22 04.9**	**-1.0**
BSSI				AML	AML		
BASI	**Baing, Sumba**	**2.67**	**143**	P	**Pn**	**07 22 07.3**	**+2.2**
BASI				AML	AML		
EDFI	**Ende, Flores**	**2.78**	**104**	P	**Pb**	**07 22 09.9**	**-2.0**
EDFI				AML	AML		
KAPI	**Kappang**	**3.13**	**15**	P	**Pb**	**07 22 14.3**	**-3.4**
	5.0nm,0.3s,baz=175,slow=4.5,SNR=23						
KAPI				S	**Sn**	**07 22 49.8**	**+1.1**
	19nm,0.3s,baz=337,slow=19,SNR=7.1 14nm,0.2s						
KAPI				AML	AML		
KAPI	**Kappang**	**3.13**	**15**	P	**Pb**	**07 22 14.5**	**-3.2**
MMRI	**Maumere**	**3.29**	**100**	P	**Pn**	**07 22 16.5**	**+2.9**
MMRI				AML	AML		
KHKI	**Kahang-Kahang**	**3.33**	**265**	P	**Pn**	**07 22 15.3**	**+1.1**
KHKI				AML	AML		
IGBI	**Denpasar**	**3.85**	**258**	P	**Pn**	**07 22 22.6**	**+1.3**
FITZ	**Fitzroy Crossi**	**11.90**	**148**	P	**Pn**	**07 24 12.2**	**+0.3**
	0.4nm,0.3s,baz=334,slow=12,SNR=8.5						
FITZ				S	**Sn**	**07 26 20.7**	**-4.2**
	2.1nm,0.8s,baz=159,slow=5.3,SNR=1.5 2.9nm,0.7s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**19.00**	**130**	P	**P**	**07 25 44.3**	**+0.2**
	0.4nm,0.3s,baz=308,slow=11,SNR=18						
WRA				S	**Sn**	**07 29 10.5**	**-7.2**
	1.2nm,0.8s,baz=298,slow=25,SNR=5.9 0.5nm,0.4s						
WRA				AML	AML		
ASAR	**Alice Springs**	**21.11**	**139**	P	**P**	**07 26 08.0**	**+0.9**
	4.9nm,0.6s,baz=318,slow=11,SNR=59 4.9nm,0.6s						
STKA	**Stephens Creek**	**31.70**	**141**	P	**P**	**07 27 45.9**	**-0.1**
	2.7nm,0.5s,baz=311,slow=9.3,SNR=4.5 2.7nm,0.5s						
MKAR	**Makanchi Array**	**63.61**	**333**	P	**P**	**07 31 55.1**	**+2.0**
	0.3nm,0.5s,baz=127,slow=7.4,SNR=2.7 0.3nm,0.5s						

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*SJA **01** 07:27:35.6±1.3, 27°.86S×71°.75W, h10^{km}, ML3.8, MW3.4*

*GUC **01** 07:27:41.8±0.7, 28°.06S×71°.24W, h34^{km}±2^{km}, ML3.7*

ISC 01 07:27:40.6±1.6**, 28°.03S**±0°.03×**71°.36W**±0°.09**, h25^{km}**±12^{km}**, n18, σ1^{s}.52**/26**, 2C-1D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	**Llanos de Chal**	**0.31**	**125**	⇑*e*P	**Pb**	**07 27 48.4**	**+0.7**
AC04				IAML		07 27 52.6	
	comp=E,16μm,0.1s						
GO03	**Copiapo**	**1.09**	**67**	*i* P	**Pb**	**07 28 01.6**	**+0.8**
GO03				IAML		07 28 16.8	
	comp=Z,1μm,0.3s						
GO03	**Copiapo**	**1.09**	**67**	*e*P	**Pb**	**07 28 01.1**	**+0.4**
GO03				*e*S	**Sb**	**07 28 13.5**	**-1.0**
GO03				IAML		07 28 16.8	
	comp=E,2μm,0.2s						
AC06	**Mina Casimiro**	**1.11**	**53**	*e*P	**Pb**	**07 28 01.7**	**+0.5**
AC06				*e*S	**Sn**	**07 28 15.5**	**+0.3**
AC06				IAML		07 28 19.5	
	comp=E,2μm,0.2s						
LCO	**Las Campanas**	**1.14**	**150**	⇓*e*P	**Pn**	**07 28 01.1**	**-0.1**
LCO				*e*S	**Sn**	**07 28 14.1**	**-2.0**
LCO				IAML		07 28 15.2	
	comp=E,8μm,0.2s						
LCO				IAML		07 28 16.1	
	comp=E,10μm,0.2s						
AC05	**El Transito**	**1.25**	**130**	*e*P	**Pn**	**07 28 02.3**	**-0.3**
AC05				*e*S	**Sn**	**07 28 16.8**	**-1.9**
AC05				IAML		07 28 17.3	
	comp=N,976nm,0.2s						
AC01	**Pan de Azucar**	**1.99**	**20**	*e*P	**Pb**	**07 28 14.4**	**-1.8**
AC01				*e*S	**Sb**	**07 28 39.3**	**-1.3**
AC01				IAML		07 28 50.2	
	comp=E,290nm,0.3s						
GO04	**Tololo Observa**	**2.19**	**167**	*i* P	**Pb**	**07 28 18.1**	**-1.6**
GO04				*e*S	**Sb**	**07 28 46.5**	**0.0**
GO04				IAML		07 28 49.4	
	comp=Z,495nm,0.3s						
GO04	**Tololo Observa**	**2.19**	**167**	⇑*e*P	**Pn**	**07 28 17.2**	**+1.5**
GO04				*e*S	**Sn**	**07 28 44.2**	**+2.1**
GO04				IAML		07 28 49.6	
	comp=N,2μm,0.4s						
CO01	**Juntas del Tor**	**2.23**	**151**	*e*P	**Pn**	**07 28 17.3**	**+1.0**
CO01				*e*S	**Sn**	**07 28 44.6**	**+1.4**
CO01				AMP		07 28 47.8	
	comp=E,7μm,0.1s						
AC02	**Maricunga**	**2.31**	**60**	*i* P	**Pb**	**07 28 21.0**	**-0.9**
AC02				*i* S	**Sn**	**07 28 47.4**	**+2.0**
AC02				IAML		07 28 56.6	
	comp=N,612nm,0.2s						
CO06	**Fray Jorge**	**2.65**	**185**	IAML		07 29 12.4	
	comp=E,177nm,0.4s						
AROD	**Rodeo**	**2.69**	**143**	*i* P	**Pb**	**07 28 26.6**	**-1.7**
AROD				*e*S	**Sb**	**07 29 01.5**	**+0.4**
CO03	**El Pedregal**	**2.86**	**168**	*i* P	**Pn**	**07 28 27.0**	**+2.3**
CO03				IAML		07 29 11.8	
	comp=Z,183nm,0.5s						
CO03	**El Pedregal**	**2.86**	**168**	*e*P	**Pn**	**07 28 26.6**	**+1.9**
CO03				*e*S	**Sn**	**07 28 59.5**	**+1.1**
CO03				IAML		07 29 15.0	
	comp=N,304nm,0.2s						
CO02	**Combarbal**	**3.18**	**174**	IAML		07 29 21.6	
	comp=E,1μm,0.3s						
RTLS	**Leoncito**	**4.16**	**155**	*i* P	Pb	07 28 48.1	-5.2
RTLS				*e*S	**Sb**	**07 29 40.9**	**-2.4**
RTLS				IAML		07 29 54.6	
	comp=Z,197nm,0.8s						
ARCO	**CERRO ARCO**	**5.23**	**157**	*i* P	Pn	07 29 03.5	+6.1
ARCO				IAML		07 30 36.3	
	comp=Z,33nm,0.8s						

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*IDC **01** 07:31:17.9±1.4, 28°.28S×71°.54W, h0^{km}, mb4.0/1, mbtmp3.9/3, ML3.5/2, Error ellipse: s-maj=80.8km s-min=31.0km az=114.0*

*GUC **01** 07:31:20.6±0.9, 28°.04S×71°.37W, h24^{km}±6^{km}, ML3.4*

*NEIC **01** 07:31:21.5±1.5, 28°.03S±0°.04×71°.38W±0°.05, h20^{km}±5^{km}, mb4.1/5, ML3.4(GUC), Error ellipse: s-maj=6.3km s-min=5.3km az=73.0*

ISC 01 07:31:21.9±0.8**, 28°.04S**±0°.04×**71°.34W**±0°.08**, h28^{km}, n34, σ1^{s}.18**/34**, 2C-4D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	**Llanos de Chal**	**0.28**	**126**	⇓*i*P	**Pb**	**07 31 28.4**	**-0.5**
AC04				*e*S	**Sb**	**07 31 33.2**	**-0.6**
AC04	**Llanos de Chal**	**0.28**	**126**		**Pb**	**07 31 28.6**	**-0.4**
GO03	**Copiapo**	**1.07**	**66**	⇓*e*P	**Pn**	**07 31 41.1**	**0.0**
GO03				IAML		07 32 00.5	
	comp=E,3μm,0.4s						
GO03	**Copiapo**	**1.07**	**66**		**Pn**	**07 31 41.5**	**+0.4**
AC06	**Mina Casimiro**	**1.10**	**52**	*e*P	**Pn**	**07 31 41.5**	**0.0**
AC06				IAML		07 32 03.4	
	comp=N,2μm,0.4s						
AC06	**Mina Casimiro**	**1.10**	**52**	Pn	**Pb**	**07 31 42.0**	**-0.3**
LCO	**Las Campanas**	**1.12**	**150**	*e*P	**Pb**	**07 31 42.4**	**-0.3**
LCO	**Las Campanas**	**1.12**	**150**		**Pn**	**07 31 41.9**	**0.0**
AC05	**El Transito**	**1.23**	**131**	⇓*i*P	**Pb**	**07 31 44.0**	**-0.5**
AC05				IAML		07 32 05.1	
	comp=E,1μm,0.3s						
AC05	**El Transito**	**1.23**	**131**	Pn	**Pb**	**07 31 44.0**	**-0.5**

AC01	Pan de Azucar	1.99	19	⇑eP	Pn	07 31 52.9	-0.9
AC01				IAML		07 32 33.8	
	comp=E,576nm,0.6s						
AC01	Pan de Azucar	1.99	19		Pn	07 31 53.6	-0.2
GO04	Tololo Observa	2.18	168	eP	Pn	07 31 58.0	+1.5
CO01	Juntas del Tor	2.22	151	⇑eP	Pb	07 31 59.8	-1.7
CO01				IAML		07 32 31.9	
	comp=E,510nm,0.3s						
AC02	Maricunga	2.30	59	eP	Pb	07 32 01.1	-1.9
AC02	Maricunga	2.30	59		Pn	07 32 00.6	+2.3
CO06	Fray Jorge	2.64	186	eP	Pn	07 32 02.2	-0.4
CO06				IAML		07 32 52.1	
	comp=E,192nm,0.4s						
CO06	Fray Jorge	2.64	186	Pn	Pn	07 32 01.6	-1.0
CO02	Combarbal	3.17	175	⇓eP	Pn	07 32 10.7	+0.7
GO01	Chusmiza	8.56	14	Pn	Pn	07 33 27.4	+3.0
LPAZ	La Paz	12.06	15	Pn	Pn	07 34 16.1	+3.6
	comp=E,0.1nm,0.3s,baz=198,slow=5.8,SNR=4.7						
	comp=E,1.4nm,0.7s						
LPAZ				AML	AML		
LPAZ	La Paz	12.06	15		Pn	07 34 12.9	+0.3
SIV	San Ignacio	15.29	41	Pn	P	07 34 59.6	-0.9
	baz=226,slow=12,SNR=14						
	comp=E,3.0nm,0.8s						
NNA	Nana	16.78	341	Pn	Pn	07 35 14.8	-0.2
PTLB	Pontes e Lacer	16.88	45	Pn	Pn	07 35 14.9	-1.2
VILB	Vilhena	18.26	37		Pn	07 35 33.5	+0.2
VILB				IAmb	IAmb	07 35 55.0	
	comp=Z,16nm,1.4s						
BOAV	Boa Vista	32.00	21	P	P	07 37 45.8	0.0
BOAV				IAmb	IAmb	07 38 31.1	
	comp=Z,3.7nm,1.2s						
TORD	Torodi Ar. Bea	81.63	70	P	P	07 43 38.4	+0.6
	comp=Z,1.2nm,0.9s,baz=237,slow=6.7,SNR=3.7						
	comp=Z,1.2nm,0.9s						
TORD	Torodi Ar. Bea	81.63	70	IAmb	IAmb	07 43 46.0	
	comp=Z,2.0nm,0.9s						
WRA	Warramunga Arr	126.22	210	PKP	PKiKP	07 50 22.8	-0.1
	comp=Z,0.2nm,0.7s,baz=148,slow=1.6,SNR=4.6						
KURK	Kurchatov	147.93	37		PKiKP	07 51 05.7	-0.3
KURBB	Kurchatov Arra	147.93	37	PKPbc	PKiKP	07 51 05.7	-0.3
	comp=Z,0.2nm,0.3s,baz=303,slow=3.4,SNR=4.8						
ZALV	Zalesovo Beam	148.77	27	PKPbc	PKiKP	07 51 07.4	-0.2
	comp=Z,2.9nm,0.8s,baz=321,slow=2.1,SNR=8.4						
MKAR	Makanchi Array	152.11	41	PKPbc	PKiKP	07 51 15.2	+0.4
	comp=Z,1.1nm,0.7s,baz=356,slow=2.3,SNR=7.8						

TRN 01 07:33:26.2, 15°.38N×60°.44W, h21^{km}, MD3.7, East of Dominica., Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ILAM	Ilet Lapin Mar	0.74	215	eP	Pn	07 33 42.2	+0.8
ILAM				eS	Sn	07 33 53.8	+1.8
DWS	Wesley	0.86	282	eP	Pn	07 33 44.4	+1.3
DWS				eS	Sn	07 33 56.9	+1.9
SVN	Savane Anatole	0.89	233	eP	Pn	07 33 44.7	+1.2
SVN				eS	Sn	07 33 58.1	+2.3
DSLB	Salisbury	0.95	273	eP	Pn	07 33 45.7	+1.4
DSLB				eS	Sn	07 33 59.5	+2.2
BIM	Bigot	1.06	215	eP	Pn	07 33 46.8	+1.0
BIM				eS	Sn	07 34 01.4	+1.5
DSDZ	La Diserade, G	1.10	327	eP	Pb	07 33 46.6	+0.1
DSDZ				eS	Sn	07 34 01.2	+0.2
TBG	Guadaloupe-3	1.25	292	eP	Pb	07 33 49.5	+0.4
TBG				eS	Sb	07 34 07.1	+2.3
MMLZ	Guadeloupe Bro	1.35	299	eP	Pb	07 33 51.4	+0.5
MMLZ				eS	Sb	07 34 08.2	+0.4
SLBI	Saint Lucia, B	1.45	201	eP	Pn	07 33 51.7	+0.5
SLBI				eS	Sb	07 34 11.3	+0.9
SLCP	Castries, St.	1.47	201	eP	Pb	07 33 52.3	-0.5
SLCP				eS	Sb	07 34 12.4	+1.4
SLAC	Saint Lucia, A	1.54	197	eP	Pn	07 33 53.2	+0.7
SLAC				eS	Sb	07 34 13.6	+0.4
DHSZ	Broadband at M	1.55	305	eP	Pb	07 33 54.8	+0.6
DHSZ				eS	Sb	07 34 14.3	+0.9
MBWH	Windy Hill	2.16	309	eP	Pb	07 34 03.1	-1.5
MBWH				eS	Sn	07 34 28.9	+1.7
ANWB	Willy Bob	2.61	331	eP	Pn	07 34 08.3	+1.1
ANWB				eS	Sn	07 34 39.8	+1.5
GRW	Mount Saint Ca	3.42	200	eP	Pn	07 34 20.3	+1.9
GRW				eS	Sn	07 34 59.9	+1.6
GRGR	Grenville	3.44	200	eP	Pn	07 34 20.4	+1.8
GRGR				eS	Sn	07 35 00.3	+1.5

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*NEIC **01** 07:41:34.4±2.4, 31°.45N±0°.03×115°.65W±0°.03, h21^{km}±8^{km}, ML3.3/44, ML3.7/76(PAS), Error ellipse: s-maj=4.7km s-min=3.5km az=177.0*

*PAS **01** 07:41:35.7±1.3, 31°.49N±0°.05×115°.67W±0°.02, h16^{km}±7^{km}, Error ellipse: s-maj=7.2km s-min=2.8km az=171.0*

*ECX **01** 07:41:36.0±0.5, 31°.52N×115°.62W, h6^{km}±2^{km}, MD3.4, ML3.6*

ISC 01 07:41:35.3±0.9, **31°.51N**±0°.02×**115°.63W**±0°.02, **h15**^{km}±7^{km}, **n64**, σ1^{s}**09**/82, **8C-10D, Baja California**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VTX	Valle De La Tr	0.18	229	⇑iP	Pg	07 41 39.6	0.0
VTX				eS	Sg	07 41 42.8	+0.3
VTX	Valle De La Tr	0.18	229		Sg	07 41 43.0	+0.5
SJX	San Joaquin	0.38	312	⇓iP	Pn	07 41 46.1	-0.2
SJX				eS	Sn	07 41 53.6	+0.3
SJX				⇑e		07 41 54.1	
SJX				IAML		07 41 54.1	
	comp=N,3µm,0.1s						
SJX				⇑e		07 41 54.3	
SJX				IAML		07 41 54.3	
	comp=E,3µm,0.1s						
ECBX	El Chinero	0.49	94	⇑iP	Pg	07 41 44.8	-0.3
ECBX				eS	Sg	07 41 51.2	-0.4
ECBX				⇑e		07 41 51.5	
ECBX				IAML		07 41 51.5	
	comp=E,4µm,0.3s						
ALAMX	Rancho Alamar	0.50	352	⇓iP	Pg	07 41 44.8	-0.4
ALAMX				eS	Sg	07 41 51.4	-0.6
ALAMX				⇓e		07 41 52.2	
ALAMX				IAML		07 41 52.2	
	comp=N,7µm,0.2s						
SV2X	San Vicente	0.55	252	⇑iP	Pg	07 41 45.9	-0.2
SV2X				eS	Sg	07 41 53.5	+0.1
SV2X				IAML		07 41 53.7	
	comp=N,3µm,0.1s						
SV2X				⇑e		07 41 53.7	
ESJX	Sierra Juarez	0.56	331		Pg	07 41 46.1	-0.4
ESJX					Sg	07 41 53.6	-0.4
ESJX	Sierra Juarez	0.56	331	IAML		07 41 54.1	
	comp=N,2µm,0.1s						
ESJX				IAML		07 41 54.3	
	comp=E,3µm,0.1s						
RHX	Rio Hardy	0.69	25	eP	Pg	07 41 48.0	-0.7
RHX				eS	Sg	07 41 56.9	-1.0
SFX	San Felipe	0.81	125	⇓iP	Pb	07 41 50.7	-0.5
SFX				eS	Sb	07 42 01.1	-0.8
SFX	San Felipe	0.81	125		Pb	07 41 50.6	-0.5
SFX	San Felipe	0.81	125	IAML		07 42 03.7	
	comp=E,2µm,0.4s						
AGSX	Ej. Aguas Cali	0.85	28	⇓iP	Pb	07 41 51.4	-0.4
AGSX				eS	Sb	07 42 02.9	-0.2
RITX	Riito Sonora	0.87	41		Pb	07 41 52.2	+0.2
RITX					Sg	07 42 04.8	+1.4
EDOMX	El Doctor, EDO	0.88	59		Pb	07 41 52.5	+0.3
GUVIX	Guadalupe Vict	0.92	30		Pb	07 41 52.9	-0.1
CPBX	Cerro Prieto	0.95	17		Pb	07 41 53.9	+0.4
CPBX					Sb	07 42 06.6	+0.8
CCX	Cicese	0.95	292	eP	Pb	07 41 52.9	-0.6
CCX				eS	Sb	07 42 05.8	-0.2
CCX	Cicese	0.95	292		Pb	07 41 52.9	-0.6
CCX					Sb	07 42 05.8	-0.2
CCX	Cicese	0.95	292	IAML		07 42 06.9	
	comp=N,1µm,0.3s						
CCX				IAML		07 42 09.7	
	comp=E,1µm,0.4s						
SQX	San Quintin	0.95	193	⇑iP	Pb	07 41 52.9	-0.6
SQX				eS	Sb	07 42 05.4	-0.6
SQX				IAML		07 42 05.8	
	comp=N,3µm,0.2s						
SQX				⇓e		07 42 05.8	
PBX	Punta Banda	0.96	284	⇓eP	Pb	07 41 53.3	-0.4
PBX				eS	Sb	07 42 06.1	-0.3
JARAX	Ej. Heriberto	1.03	2	⇓eP	Pb	07 41 54.0	-0.8
PESCX	Ej. Pescaderos	1.08	31		Pb	07 41 54.7	-1.0
UABX	UABC, Campus M	1.13	8		Pb	07 41 57.3	+0.7
SGL	Mount Signal	1.14	356		Pn	07 41 55.7	-1.0
SGL					Sb	07 42 11.2	-0.2
RMX	La Rumorosa	1.16	341	⇓eP	Pn	07 41 55.5	-1.6
RMX				eS	Sb	07 42 09.2	-2.7
RMX	La Rumorosa	1.16	341		Pn	07 41 55.5	-1.6
RMX					Sb	07 42 09.2	-2.7
YUH	Yuha Desert	1.16	348		Pn	07 41 56.3	-0.7
YUH				IAML		07 42 13.3	
	comp=E,704nm,0.4s						
YUH				IAML		07 42 13.8	
	comp=N,287nm,0.2s						
YUH	Yuha Desert	1.16	348		Sb	07 42 11.5	-0.5
CBX	Cerro Bola	1.19	313	eP	Pn	07 41 57.1	-0.4
CBX				eS	Sb	07 42 12.9	-0.1
CBX				IAML		07 42 13.7	
	comp=N,1µm,0.2s						
CBX				⇓e		07 42 13.7	
CBX	Cerro Bola	1.19	313		Pn	07 41 57.2	-0.4
CBX				IAML		07 42 13.7	
	comp=N,1µm,0.5s						
CBX				IAML		07 42 16.6	
	comp=E,1µm,0.9s						
TKX	Tecate	1.34	322	eP	Pn	07 41 59.5	-0.1
TKX				eS	Sn	07 42 17.0	-0.3
BAR	Barrett	1.47	323		Pn	07 42 01.5	+0.2
BAR				IAML		07 42 22.3	
	comp=N,671nm,0.2s						
TJX	Tijuana	1.57	310	eP	Pn	07 42 03.6	+0.9
TJX				eS	Sb	07 42 24.8	+1.0
TJX	Tijuana	1.57	310		Pb	07 42 03.8	-0.3
PIX	Pinacate	1.85	88		Pn	07 42 05.8	-0.6
DPP	Dos Picos Cty	1.86	323		Pn	07 42 07.5	+0.9
DPP				IAML		07 42 34.3	
	comp=E,494nm,0.2s						
DPP				IAML		07 42 34.5	
	comp=N,289nm,0.1s						
BORC	Borrego Spring	1.88	339		Pn	07 42 06.7	-0.2
BORC				IAML		07 42 34.4	
	comp=N,179nm,0.2s						
BORC				IAML		07 42 38.4	
	comp=E,192nm,0.6s						
113A	Mohawk Valley,	2.02	51		Pn	07 42 08.1	-0.7
BC3	Big Chuckawall	2.15	4		Pn	07 42 10.2	-0.5
PFO	Pinyon Flats O	2.21	342		Pn	07 42 11.1	-0.5
PFO				IAML		07 42 46.2	
	comp=E,86nm,0.8s						
DNR	Dunn Ranch,Anz	2.22	338		Pn	07 42 11.9	+0.1
PMD	Palm Desert	2.23	344		Pn	07 42 11.2	-0.5
PMD				IAML		07 42 45.5	
	comp=E,110nm,0.9s						
PMD				IAML		07 42 46.1	
	comp=N,97nm,0.8s						
BLYC	Blythe	2.42	22	Pn	Pn	07 42 16.1	+1.8
BELC	Belle Mtn. Jos	2.50	353		Pn	07 42 15.8	+0.2
ELS	Elsinore Mount	2.62	325		Pn	07 42 18.2	+1.0
ELS				IAML		07 42 56.1	
	comp=E,149nm,0.4s						
ELS				IAML		07 42 56.6	
	comp=N,104nm,0.5s						
IRM	Iron Mountain	2.67	9	Pn	Pn	07 42 19.4	+1.5
Y14A	Wickenburg	3.28	42		Pn	07 42 26.6	+0.3
MWC	Mount Wilson	3.39	324	Pn	Pn	07 42 29.2	+1.3
MWC				IAML		07 43 20.2	
	comp=N,60nm,1.3s						
MWC				IAML		07 43 22.9	
	comp=E,68nm,0.5s						
PASC	Pasadena Art C	3.42	322	Pn	Pn	07 42 31.3	+3.2
PASC				IAML		07 43 21.3	
	comp=E,40nm,0.5s						
PASC				IAML		07 43 21.8	
	comp=N,52nm,0.6s						
TPRS	Tripped Ranch	3.58	317		Pn	07 42 30.6	+0.3
W13A	Hualapai Mount	3.87	22	Pn	Pn	07 42 35.5	+1.1
TPO	Tropico Hills	4.01	328	Pn	Pn	07 42 36.9	+0.7
X16A	Lo Mia Camp, P	4.56	49		Pn	07 42 44.9	+1.0
CLC	China Lake	4.60	340	Pn	Pn	07 42 45.4	+1.0
GWY	Greenwater Val	4.75	350	Pn	Pn	07 42 47.7	+1.2
TPNV	Topopah Spring	5.45	355		Pn	07 42 57.5	+1.4
GRAC	Grapevine Rang	5.66	346	Pn	Pn	07 43 01.3	+2.4
LCMT	Little Creek M	5.83	19	Pn	Pn	07 43 03.4	+2.0
KNB	Kanab	5.96	22		Pn	07 43 05.4	+2.2
W18A	Petrified Fore	6.11	52		Pn	07 43 07.1	+2.0
DSP	Deep Springs	6.16	342	Pn	Pn	07 43 08.4	+2.7
SZCU	Shurtz Canyon	6.42	18		Pn	07 43 11.1	+1.6

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*JMA **01** 07:43:25.8±0.1, 23°.5N±0°.7×122°.1E±0°.6, h39^{km}, MV3.5/15, TAIWAN REGION*

*TAP **01** 07:43:26.2, 23°.49N×122°.12E, h39^{km}, ML4.2, D*

ISC 01 07:43:23.6±1.0, **23°.45N**±0°.02×**122°.18E**±0°.02, **h18**^{km}±8^{km}, **n162**, σ1^{s}**79**/304, **1C-13D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TEGC	Jichi Village	0.64	294	iP	Pg	07 43 37.0	+0.8
TEGC				iS	Sg	07 43 45.8	+1.0
SHUL	Shoufeng	0.66	301	iP	Pg	07 43 37.7	+1.2
SHUL				iS	Sg	07 43 46.2	+0.8
TEYL	Yanliau Villag	0.68	308	iP	Pg	07 43 38.0	+1.1
TEYL				S	Sg	07 43 47.3	+1.4
EOS4	EOS4	0.68	11	iP	Pg	07 43 38.6	+1.7
EOS4				iS	Sg	07 43 47.3	+1.4
ECBN	Changbin	0.68	259	iP	Pg	07 43 38.2	+1.2
ECBN				iS	Sg	07 43 47.0	+0.9
HGSD	Ruisui	0.70	274	⇓iP	Pg	07 43 37.9	+0.6
HGSD				iS	Sg	07 43 46.6	+0.1
EGFH	Guangfu	0.72	288	iP	Pg	07 43 38.5	+0.7
EGFH				S	Sg	07 43 48.5	+1.1
HWA	Hwalien	0.74	315	iP	Pg	07 43 39.0	+0.8
HWA				iS	Sg	07 43 48.1	+0.1
CHKH	Chenggong	0.77	251	iP	Pg	07 43 39.0	+0.4
CHKH				iS	Sg	07 43 48.2	-0.5
EHYH	Wanrong	0.77	273	iP	Pg	07 43 39.4	+0.8
EHYH				iS	Sg	07 43 49.0	+0.2
ESL	Shilin	0.78	298	iP	Pg	07 43 38.6	-0.2
ESL				iS	Sg	07 43 47.6	-1.5
WARBT	Fenglin Townsh	0.78	290	⇓iP	Pg	07 43 38.9	+0.1
WARBT				iS	Sg	07 43 48.6	-0.5
EHY	Hungye	0.79	274	iP	Pg	07 43 39.6	+0.6
EHY				iS	Sg	07 43 49.6	+0.1
EYUL	Yuli	0.80	263	iP	Pg	07 43 39.8	+0.6
EYUL				iS	Sg	07 43 50.1	+0.4
ETM	Tongmen	0.81	309	iP	Pg	07 43 39.3	-0.2
ETM				S	Sg	07 43 48.8	-1.5
YULB	Yu-li	0.81	266	P	Pg	07 43 40.1	+0.7
YULB	Yu-li	0.81	266	S	Sg	07 43 49.6	-0.6
YULB	Yu-li	0.81	266	iP	Pg	07 43 40.2	+0.8
YULB				S	Sg	07 43 50.2	0.0
TWF1	Yuli	0.82	263	iP	Pg	07 43 40.6	+1.0
TWF1				S	Sg	07 43 51.2	+0.8
TWD	Chiawan	0.82	320	⇓iP	Pg	07 43 39.6	-0.1
TWD				iS	Sg	07 43 49.6	-1.0
CHKT	Chengkung	0.83	245	iP	Pg	07 43 39.9	+0.2
CHKT				iS	Sg	07 43 49.9	-0.8
EOS3	EOS3	0.84	9	⇑iP	Pg	07 43 41.4	+1.4
EOS3				iS	Sg	07 43 52.3	+1.2
FULB	Fuli	0.85	253	iP	Pg	07 43 40.3	+0.1
FULB				iS	Sg	07 43 50.6	-0.8
ETL	Fush Village	0.87	324	iP	Pg	07 43 40.4	-0.2
ETL				iS	Sg	07 43 51.0	-1.1
NACB	Ninganchiao	0.90	324	P	Pg	07 43 40.4	-0.7
NACB	Ninganchiao	0.90	324	S	Sg	07 43 51.5	-1.5
NACB	Ninganchiao	0.90	324	⇓iP	Pg	07 43 40.6	-0.5
NACB				iS	Sg	07 43 51.3	-1.7
EDH	Donghe	0.94	240	iP	Pg	07 43 41.6	-0.1
EDH				iS	Sg	07 43 52.5	-1.6
EHD	Haiduan	0.94	252	iP	Pg	07 43 41.9	0.0
EHD				iS	Sg	07 43 53.3	-1.1
EHP	Heping Village	0.95	335	iP	Pg	07 43 41.6	-0.4
EHP				S	Sg	07 43 52.8	-1.7
ECS	Chishang	0.95	248	iP	Pg	07 43 42.4	+0.3
ECS				S	Sg	07 43 55.4	+0.8
EAHA	Aohua	0.96	335	iP	Pg	07 43 42.0	-0.4
EAHA				iS	Sg	07 43 53.6	-1.5
EOS2	EOS2	0.97	3	P	Pg	07 43 43.4	+1.0
EOS2				S	Sg	07 43 54.6	-0.5
ETLH	Xiulin Townshi	0.99	320	iP	Pg	07 43 42.1	-0.7
ETLH				S	Sg	07 43 53.5	-2.4
LDUT	Ludao	1.01	220	iP	Pg	07 43 42.6	-0.6
LDUT				S	Sg	07 43 54.9	-1.6
OWD	Renai	1.05	299	⇓iP	Pg	07 43 43.3	-0.6
OWD				iS	Sg	07 43 55.3	-2.4
ENA	Nanau	1.05	338	eP	Pg	07 43 41.2	-2.8
ENA				eS	Sg	07 43 53.9	-4.0
WHF	Hehuan Shan	1.09	310	iP	Pg	07 43 43.9	-0.8
WHF				iS	Sg	07 43 56.9	-2.1
ELDTW	Lidau	1.10	257	iP	Pg	07 43 44.0	-0.9
ELDTW				eS	Sg	07 43 56.7	-2.6
LONT	Longtian	1.11	241	iP	Pg	07 43 44.6	-0.4
LONT				S	Sg	07 43 57.9	-1.6
WUSB	Renai	1.11	299	⇓iP	Pg	07 43 44.5	-0.6
WUSB				iS	Sg	07 43 57.2	-2.6
YUS	Yu-Shan	1.13	272	iP	Pg	07 43 45.3	-0.3
YUS				iS	Sg	07 43 58.7	-1.7
ESAO	Su ao	1.16	345	iP	Pg	07 43 45.0	-1.1
ESAO				iS	Sg	07 43 59.2	-2.1
FUSS	Fushou	1.17	313	⇓iP	Pg	07 43 45.3	-1.0
FUSS				iS	Sg	07 43 59.4	-2.2
SSLB	Suanglung	1.17	287	P	Pg	07 43 44.9	-1.4
SSLB	Suanglung	1.17	287	S	Sg	07 43 58.4	-3.3
SSLB	Suanglung	1.17	287	iP	Pg	07 43 45.1	-1.2
SSLB				S	Sg	07 43 58.7	-3.0
TTN	Taitung	1.18	234	eP	Pg	07 43 46.0	-0.3
TTN				S	Sg	07 44 00.7	-1.0
TWGBT	Beinan	1.19	238	P	Pg	07 43 45.4	-1.2
TWGBT	Beinan	1.19	238	S	Sg	07 44 00.1	-2.2
TWGBT	Beinan	1.19	238	iP	Pg	07 43 45.7	-1.0
TWGBT				iS	Sg	07 44 00.0	-2.2
TWG	Pinlang	1.20	239	iP	Pg	07 43 45.6	-1.1
TWG				iS	Sg	07 43 59.6	-2.7
NNSB	Datong	1.22	323	⇓iP	Pg	07 43 45.9	-1.3
NNSB				iS	Sg	07 44 00.2	-2.9
JYNG	Yonagunijimaku	1.22	35	eP	Pg	07 43 47.4	+0.3
JYNG				eS	Sg	07 44 02.5	-0.6
TWT	Tachien	1.22	311	iP	Pg	07 43 46.3	-0.9
TWT				iS	Sg	07 44 00.7	-2.5
TDCB	Techi	1.23	311	⇓iP	Pg	07 43 46.4	-1.0
TDCB				iS	Sg	07 44 00.6	-2.9
NNS	Nan Shan	1.23	323	iP	Pg	07 43 46.1	-1.4
NNS				iS	Sg	07 44 00.7	-2.8
LATG	Datong	1.24	331	iP	Pg	07 43 46.1	-1.4
LATG				iS	Sg	07 44 00.8	-2.9
WHYT	Xinyi Township	1.24	282	⇓iP	Pg	07 43 46.8	-0.8
WHYT				iS	Sg	07 44 01.4	-2.5
SMLT	Sun Moon Lake	1.25	290	iP	Pg	07 43 46.6	-1.1
SMLT				iS	Sg	07 44 02.0	-2.1
NDS	Dongshan	1.25	340	iP	Pg	07 43 46.7	-1.1
NDS				iS	Sg	07 44 01.4	-2.9
YOJ	Yonaguni jima	1.26	37	P	Pg	07 43 47.1	-0.9
YOJ	Yonaguni jima	1.26	37	S	Sg	07 44 03.4	-1.1
YOJ	Yonaguni jima	1.26	37	iP	Pg	07 43 47.3	-0.6
YOJ				S	Sg	07 44 03.2	-1.2
YOJ	Yonaguni jima	1.26	37	eP	Pg	07 43 47.5	-0.4
YOJ				eS	Sg	07 44 03.3	-1.2
ALS	Alishan	1.26	273	⇓iP	Pg	07 43 47.6	-0.5
ALS				iS	Sg	07 44 02.7	-1.9
DPDB	Guoxing	1.29	297	iP	Pg	07 43 47.4	-1.0
DPDB				S	Sg	07 44 02.5	-2.8
TYC	Yuchr	1.29	291	iP	Pg	07 43 47.2	-1.4
TYC				iS	Sg	07 44 03.4	-2.1
NDT	Datong Townshi	1.30	332	iP	Pg	07 43 47.4	-1.3
NDT				S	Sg	07 44 03.3	-2.4
WCS	Beigang Elemen	1.31	298	iP	Pg	07 43 47.7	-1.2
WCS				S	Sg	07 44 03.2	-2.8
STYH	Taoyuan	1.32	258	iP	Pg	07 43 47.9	-1.2
STYH				iS	Sg	07 44 03.6	-2.7
STYT	Tauyuan	1.34	258	iP	Pg	07 43 48.2	-1.2
STYT				iS	Sg	07 44 04.1	-2.8
TWE	Neicheng	1.35	340	iP	Pg	07 43 48.3	-1.3
TWE				iS	Sg	07 44 04.3	-3.0
ILA	Ilan	1.37	343	P	Pg	07 43 49.4	-0.6
ILA				iS	Sg	07 44 06.3	-1.5
CHN5	Tsauling	1.39	276	iP	Pg	07 43 49.5	-0.8
CHN5				iS	Sg	07 44 07.1	-1.3
WHP	Taichung City	1.40	306	iP	Pg	07 43 49.3	-1.3
WHP				iS	Sg	07 44 06.0	-2.8
ECL	Taimali	1.41	233	iP	Pn	07 43 48.3	-0.1
ECL				S	Sg	07 44 04.6	-4.6
FUSB	Fushanzhiwuyua	1.41	338	iP	Pg	07 43 49.0	-1.8
FUSB				iS	Sg	07 44 05.8	-3.5
YHNB	Yeheng	1.42	329	P	Pg	07 43 48.9	-2.1
YHNB	Yeheng	1.42	329	S	Sg	07 44 05.9	-3.6
YHNB	Yeheng	1.42	329	⇓iP	Pg	07 43 49.0	-1.9
YHNB				S	Sg	07 44 05.8	-3.8
TPUB	Ta-pu	1.43	264	S	Sg	07 44 08.1	-1.8
TPUB	Ta-pu	1.43	264	P	Pn	07 43 50.0	+1.3
TPUB	Ta-pu	1.43	264	iP	Pn	07 43 50.3	+1.6
TPUB				iS	Sg	07 44 07.8	-2.1
NSK	Sanguang	1.43	329	iP	Pn	07 43 49.2	+0.4
NSK				iS	Sg	07 44 05.9	-4.1
WNT	Mingjian	1.44	288	iP	Pn	07 43 50.5	+1.8
WNT				iS	Sg	07 44 08.1	-1.9
WCKO	Fanlu	1.45	270	iP	Pn	07 43 50.7	+1.8
WCKO				iS	Sg	07 44 09.1	-1.3
WTP	Ta-pu	1.45	262	iP	Pn	07 43 50.9	+1.9
WTP				iS	Sg	07 44 09.2	-1.4
NWLT	Wulai	1.46	335	iP	Pn	07 43 49.8	+0.7
NWLT				iS	Sg	07 44 06.6	-4.1
WWF	Wufeng	1.48	294	iP	Pn	07 43 51.5	+2.2
WWF				S	Sg	07 44 11.2	-0.2
SLGT	Liugui	1.48	252	iP	Pn	07 43 50.8	+1.4
SLGT				S	Sg	07 44 09.2	-2.3
SGST	Jiashian	1.51	256	iP	Pn	07 43 50.6	+0.8
SGST				iS	Sg	07 44 09.5	-3.0
LAY	Lan-yu	1.52	203	iP	Pn	07 43 49.6	-0.3
LAY				iS	Sg	07 44 07.3	-5.3
WDLH	Douliu	1.52	279	iP	Pn	07 43 52.0	+2.0
WDLH				S	Sg	07 44 11.0	-1.9
NFF	Wufeng Townshi	1.53	321	iP	Pn	07 43 51.2	+1.1
NFF				iS	Sg	07 44 08.5	-4.4
CHN1	Nanshi	1.54	261	iP	Pn	07 43 52.2	+2.0
CHN1				iS	Sg	07 44 12.3	-1.1
LYUB	Lan-yu	1.54	201	eP	Pn	07 43 49.7	-0.5
LYUB				eS	Sn	07 44 08.0	-1.8
TCU	Taichung	1.54	297	iP	Pn	07 43 53.0	+2.8
TCU				S	Sg	07 44 10.9	-2.5
TIPB	Shuangxi	1.55	348	iP	Pn	07 43 51.8	+1.5
TIPB				iS	Sg	07 44 09.9	-3.8
TWB1	Santiao Chiao	1.56	354	eP	Pn	07 43 50.4	-0.1
TWB1				eS	Sn	07 44 11.6	+1.3
TWK	Hsinying	1.56	264	iP	Pn	07 43 52.4	+1.8
TWK				iS	Sg	07 44 12.5	-1.6
CHN2	Minshiung	1.57	273	iP	Pn	07 43 53.3	+2.8
CHN2				iS	Sn	07 44 13.1	+2.7
TWQ1	Liyutan	1.57	305	⇓iP	Pn	07 43 52.5	+2.0
TWQ1				iS	Sn	07 44 12.1	+1.6
SSD	Sandimen	1.59	244	iP	Pn	07 43 52.2	+1.3
SSD				S	Sn	07 44 10.1	-0.8
NSTT	Nanjuang	1.60	318	iP	Pn	07 43 52.7	+1.7
NSTT				iS	Sn	07 44 11.2	0.0
TSMG	Majia	1.60	243	iP	Pn	07 43 52.4	+1.4
TSMG				eS	Sn	07 44 10.3	-0.9
LIOB	Emei	1.60	318	iP	Pn	07 43 53.0	+2.0
LIOB				iS	Sn	07 44 11.8	+0.6
HATJ	Hateruma jima	1.61	68	eP	Pn	07 43 52.6	+1.5
HATJ				S	Sn	07 44 12.0	+0.6
TAW	Tawu	1.61	228	eP	Pn	07 43 51.8	+0.7
TAW				iS	Sn	07 44 08.4	-3.0
KSHI	Guanxi Townshi	1.61	325	iP	Pn	07 43 53.1	+2.0
KSHI				S	Sn	07 44 12.0	+0.5
CHY	Chiayi	1.61	272	iP	Pn	07 43 53.4	+2.3
CHY				iS	Sn	07 44 13.8	+2.3
WCHH	Zhanghua	1.61	293	iP	Pn	07 43 53.8	+2.6
WCHH				iS	Sn	07 44 14.4	+2.8
TWA	Mucha	1.62	340	iP	Pn	07 43 52.9	+1.6
TWA				iS	Sn	07 44 12.2	+0.4
WCH1	Changhua City	1.62	293	iP	Pn	07 43 54.0	+2.8
WCH1				eS	Sn	07 44 12.8	+1.1
EAST	Anshuo	1.62	229	iP	Pn	07 43 51.6	+0.2
EAST				S	Sn	07 44 10.4	-1.5
NJD	Zhudong	1.62	322	iP	Pn	07 43 53.6	+2.3
NJD				iS	Sn	07 44 13.1	+1.2
TAWH	Dawu Township	1.62	227	iP	Pn	07 43 51.8	+0.4
TAWH				iS	Sn	07 44 07.3	-4.6
TATO	Taipei	1.65	338	P	Pn	07 43 52.6	+1.0
TATO	Taipei	1.65	338	S	Sn	07 44 13.0	+0.6
SCST	Cishan	1.65	250	iP	Pn	07 43 54.6	+2.9
SCST				iS	Sn	07 44 17.0	+4.5

MASBT	Mashibuluo	1.65	240	*i* P	Pn	07 43 52.5	+0.8
MASBT				*e*S	Sn	07 44 13.1	+0.7
WFSB	Wu-fen Shan	1.66	347	*i* P	Pn	07 43 53.1	+1.4
WFSB				*i* S	Sn	07 44 12.9	+0.3
SXI1	Grass Mountain	1.66	350	*i* P	Pn	07 43 53.0	+1.1
SXI1				S	Sn	07 44 12.1	-0.7
WTK	Tuku	1.66	279	*i* P	Pn	07 43 53.8	+2.0
WTK				*e*S	Sn	07 44 15.4	+2.7
WDJ	Dajia District	1.67	303	*i* P	Pn	07 43 54.0	+2.0
WDJ				S	Sn	07 44 13.7	+0.8
IRIF	Iriomote-Funau	1.67	58	*e*P	Pn	07 43 54.1	+2.1
IRIF				S	Sn	07 44 13.8	+0.9
NMLH	Miaoli	1.67	311	*i* P	Pn	07 43 53.8	+1.9
NMLH				*e*S	Sn	07 44 13.7	+0.7
WRL	Guolierlin Hig	1.71	286	*i* P	Pn	07 43 54.7	+2.2
WRL				*i* S	Sn	07 44 16.2	+2.2
RLNB	Erlin	1.73	285	*i* P	Pn	07 43 55.3	+2.6
RLNB				S	Sn	07 44 17.0	+2.7
SBCB	Hsinchu	1.73	321	*e*P	Pn	07 43 55.8	+3.0
SBCB				*e*S	Sn	07 44 17.8	+3.4
TWM1	Shoushan	1.73	249	P	Pn	07 43 57.0	+4.1
TWM1				S	Sn	07 44 18.7	+4.1
ICHU	Yijhu	1.75	267	*i* P	Pn	07 43 55.0	+1.9
ICHU				S	Sn	07 44 16.2	+1.3
NCUH	Zhongli	1.76	329	*e*P	Pn	07 43 54.5	+1.2
NCUH				*e*S	Sn	07 44 16.8	+1.5
NCU	National Centr	1.77	329	P	Pn	07 43 54.9	+1.6
NCU				S	Sn	07 44 15.1	-0.2
SLIU	Shizi	1.77	226	*i* P	Pn	07 43 53.8	+0.5
SLIU				*e*S	Sn	07 44 14.3	-1.1
SSPT	Xinbi	1.77	237	*e*P	Pn	07 43 55.6	+2.3
SSPT				*e*S	Sn	07 44 16.3	+0.9
YM01	YM01	1.78	342	*i* P	Pn	07 43 54.5	+1.0
YM01				S	Sn	07 44 16.4	+0.7
TWS1	Kuangyinshan	1.79	337	*i* P	Pn	07 43 53.9	+0.4
TWS1				*i* S	Sn	07 44 16.3	+0.5
SCZT	Fangliau	1.79	234	*i* P	Pn	07 43 55.2	+1.5
SCZT				*e*S	Sn	07 44 17.4	+1.4
WSL	Shuilin Townsh	1.79	273	*i* P	Pn	07 43 55.4	+1.8
WSL				*i* S	Sn	07 44 16.9	+0.9
ZUZH	Zhuzihu	1.80	341	*i* P	Pn	07 43 54.5	+0.7
ZUZH				*i* S	Sn	07 44 15.9	-0.4
WSF	Szhu	1.81	276	*e*P	Pn	07 43 55.5	+1.7
WSF				*i* S	Sn	07 44 18.3	+2.0
CHN8	Yiju	1.81	267	*e*P	Pn	07 43 55.9	+2.0
CHN8				*i* S	Sn	07 44 18.2	+1.8
YM08	YM08	1.81	343	*i* P	Pn	07 43 54.4	+0.4
YM08				S	Sn	07 44 15.9	-0.6
ANP	Anpu	1.83	341	*i* P	Pn	07 43 55.7	+1.4
ANP				*e*S	Sn	07 44 17.5	+0.5
NTST	Danshui	1.83	339	*e*P	Pn	07 43 57.6	+3.4
NTST				S	Sn	07 44 17.9	+1.0
JKRS	Kuro-shima	1.85	65	*e*P	Pn	07 43 56.2	+1.7
JKRS				*e*S	Sn	07 44 18.7	+1.3
SMST	Manzhou Townsh	1.89	221	*i* P	Pn	07 43 56.5	+1.6
SMST				*i* S	Sn	07 44 17.9	-0.3
WSSB	Gushan	1.94	246	P	Pn	07 43 58.5	+2.7
WSSB				S	Sn	07 44 22.3	+2.6
TSEB	Hengchuen, Pin	1.94	218	*e*P	Pn	07 43 58.0	+2.4
TSEB				*i* S	Sn	07 44 22.4	+2.8
TSCK	Chigu Township	1.95	262	*i* P	Pn	07 43 58.6	+2.8
TSCK				S	Sn	07 44 21.4	+1.6
HEN	Hengchun	1.96	223	*i* P	Pn	07 43 58.1	+2.2
HEN				*i* S	Sn	07 44 20.4	+0.3
TWKBT	Hengchun	1.96	220	*i* P	Pn	07 43 57.8	+1.8
TWKBT				S	Sn	07 44 21.4	+1.3
TWK1	Hengchun	1.96	221	*i* P	Pn	07 43 58.1	+2.1
TWK1				*i* S	Sn	07 44 21.7	+1.5
JIJ	Ishigaki jima	2.01	63	*e*P	Pn	07 43 58.0	+1.3
JIJ				*e*S	Sn	07 44 21.5	0.0
JISG	Ishigakijimahi	2.25	59	*e*P	Pn	07 44 01.6	+1.7
JISG				*e*S	Sn	07 44 27.2	-0.2
WDGT	Dungji	2.32	266	*i* P	Pn	07 44 02.2	+1.3
WDGT				*i* S	Sn	07 44 28.7	-0.4
PHUB	P'eng-hu	2.40	272	*i* P	Pn	07 44 03.2	+1.3
PHUB				*i* S	Sn	07 44 30.2	-0.6
PNG	Penghu	2.41	273	*i* P	Pn	07 44 03.5	+1.3
PNG				*i* S	Sn	07 44 31.1	-0.1
VCHM	Qimei	2.54	265	*i* P	Pn	07 44 05.2	+1.2
VCHM				*i* S	Sn	07 44 34.3	-0.1
JTJ	Tarama	2.59	62	*e*P	Pn	07 44 06.7	+2.0
JTJ				*e*S	Sn	07 44 37.1	+1.3
VWUC	VWUC	2.93	302	*i* P	Pn	07 44 09.6	+0.3
VWUC				S	Sn	07 44 41.2	-2.7

SJA 01 07:45:09.3±1.3, 27°.80S×71°.68W, h20^{km}, ML3.3, MW3.5, Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC02	Maricunga	2.47	68	*e*P	Pb	07 45 52.4	-0.9
AC02				*e*S	Sb	07 46 22.6	-0.8
AC02				IAML		07 46 23.5	
	comp=Z,221nm,0.9s						
AROD	Rodeo	3.05	141	*e*P	Pn	07 45 59.8	+3.0
AROD				*e*S	Sb	07 46 37.9	-2.3
VCA	Vinchina	3.21	108	*e*P	Pb	07 46 02.4	-3.3
VCA				*e*S	Sb	07 46 42.9	-1.6
VCA				IAML		07 46 48.5	
	comp=Z,145nm,0.4s						
ACDV	Cuesta del Vie	3.26	137	*e*P	Pn	07 46 02.6	+3.1
ACDV				*e*S	Sn	07 46 40.2	+2.4
ACDV				IAML		07 46 46.5	
	comp=Z,62nm,0.4s						
ACCO	Cerro Coronel	3.60	141	*e*P	Pn	07 46 06.6	+2.2
ACCO				*e*S	Sb	07 46 52.0	-3.9
ACCO				IAML		07 47 00.6	
	comp=Z,57nm,0.4s						
ACLC	CERRO LA CRUZ	4.46	112	*e*P	Pn	07 46 18.1	+2.1
ACLC				IAML		07 47 43.4	
	comp=Z,7.5nm,1.0s						
AVFE	Valle Fertil	4.67	129	*e*P	Pn	07 46 19.2	+0.4
AVFE				*e*S	Sn	07 47 12.6	+0.2
AVFE				IAML		07 47 17.6	
	comp=Z,44nm,0.7s						
CYA	Choya	5.23	98	*e*P	Pn	07 46 28.0	+1.5
CYA				*e*S	Sn	07 47 29.9	+3.6
CYA				IAML		07 47 32.7	
	comp=Z,21nm,0.4s						

IDC ***01*** *07:49:10.8±0.5, 3°.30S×131°.03E, h0^{km}, mb4.5/19, mbtmp4.5/22, ML4.1/3, MS4.2/3, Error ellipse: s-maj=21.6km s-min=11.4km az=87.0*

NEIC ***01*** *07:49:12.6±2.4, 3°.36S±0°.06×130°.88E±0°.06, h10^{km}±1^{km}, mb4.9/44, Error ellipse: s-maj=10.3km s-min=9.7km az=328.0*

GFZ ***01*** *07:49:13.9±0.2, 3°S±3°×13°1E±°, h10^{km}, M4.9/19, mb4.8/19, confirmed*

DJA ***01*** *07:49:14.6±0.6, 3°S±2°×13°1E±°, h10^{km}±5^{km}, M4.8/26, mB5.4/12, mb5.0/23, MLv4.8/26, Mw(mB)4.8/12, MwMwp6.0/1, Mwp6.0/1*

ISC 01 07:49:12.5±0.3, 3°.34S±0°.04×130°.90E±0°.05, h10^{km}, n165, σ1^{s}96/153, mb4.8/54, MS4.7/6, 1D, Seram

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FAKI	Fak Fak	1.42	73		Pn	07 49 38.6	+0.2
FAKI	Fak Fak	1.42	73	P	Pn	07 49 38.3	-0.1
FAKI	Fak Fak	1.42	73	P	Pn	07 49 38.8	+0.4
BNDI	Bandanaira	1.53	220	P	Pg	07 49 43.7	+1.7
BNDI				AML	AML		
BNDI	Bandanaira	1.53	220	P	Pg	07 49 43.2	+1.2
MSAI	Masohi	1.96	270	P	Pb	07 49 48.6	+0.2
MSAI				AML	AML		
SWI	Sorong	2.49	8	P	Pn	07 49 52.5	-0.6
SWI				AML	AML		
KRAI	Karang Ratu	2.50	270	P	Pb	07 49 55.7	-1.8
AAI	Ambon	2.72	263	P	Pb	07 49 59.0	-2.3
AAI				AML	AML		
KMPI	Kaimana, Papua	2.82	97	P	Pn	07 49 58.8	+1.1
KMPI				AML	AML		
NLAI	Namlea	3.79	271	P	Pn	07 50 13.9	+2.9
NLAI				AML	AML		
MWPI	Manokwari, Pap	3.95	53	P	Pn	07 50 14.9	+1.6
SAUI	Saumlaki	4.63	175	P	Pn	07 50 27.4	+4.8
SAUI				AML	AML		
SANI	Sanana	5.07	285	P	Pn	07 50 28.8	+0.2
	0.5nm140nm,0.7s						
SANI				AML	AML		
SANI	Sanana	5.07	285	P	Pn	07 50 29.3	+0.7
	comp=Z,142nm,0.7s						
TNTI	Ternate	5.40	319	P	Pg	07 50 52.3	-3.7
TNTI	Ternate	5.40	319	P	Pn	07 50 34.8	+1.6
	comp=Z,76nm,0.6s						
BAKI	Biak	5.63	68	P	Pn	07 50 38.2	+1.9
KDI	Kendari	8.28	266	P	Pn	07 51 16.1	+3.3
	comp=Z,49nm,0.7s						
LUWI	Luwuk	8.43	286	Pn	Pn	07 51 14.0	-0.8
DRS	Darwin Rock St	9.03	180	P	Pn	07 51 13.4	-10
SOEI	Soe	9.16	226	Pn	Pn	07 51 23.6	-1.4
SOEI	Soe	9.16	226	P	Pn	07 51 29.7	+4.7
	comp=Z,144nm,1.0s						
SOEI	Soe	9.16	226	P	Pn	07 51 30.6	+5.6
	comp=Z,146nm,1.1s						
KKSI	Kolaka, Sulawe	9.26	265	P	Pn	07 51 37.4	+11
GENI	Genyem	9.29	86	P	Pn	07 51 28.7	+2.1
	comp=Z,79nm,0.9s						
GENI	Genyem	9.29	86	P	Pn	07 51 28.1	+1.4
	comp=Z,76nm,1.1s						
MTN	Manton Dam	9.44	179		Pn	07 51 28.1	-0.7
APSI	Ampana	9.55	284	P	Pn	07 51 31.5	+1.3
EDFI	Ende, Flores	10.61	239	P	Pn	07 51 50.2	+5.4
	comp=Z,36nm,0.9s						
TOLI2	Tolitoli	11.03	293		Pn	07 51 50.5	-0.1
TOLI2	Tolitoli	11.03	293	P	Pn	07 51 50.9	+0.4
	comp=Z,29nm,0.7s						
SPSI	Sidrap Palu	11.12	266	P	Pn	07 51 55.8	+4.1
	comp=Z,57nm,0.7s						
KAPI	Kappang	11.24	261	Pn	Pn	07 51 56.9	+3.5
	comp=Z,1.2nm,0.3s,baz=109,slow=7.8,SNR=9.7						
	comp=Z,28nm,0.7s						
KAPI				AML	AML		
KAPI	Kappang	11.24	261		Pn	07 51 52.6	-0.7
DAV	Davao City (W)	11.62	333	LR	LR	07 57 12.0	
	comp=Z,560nm,21.2s,baz=134,slow=41						
KNRA	Kununurra	12.44	190		Pn	07 52 06.8	-2.9
PLAI	Plampang	14.13	247	P	Pn	07 52 35.3	+2.4
	comp=Z,111nm,0.8s						
FITZ	Fitzroy Crossi	15.54	199	Pn	Pn	07 52 48.6	-3.3
	comp=Z,0.7nm,0.3s,baz=38,slow=11,SNR=20						
FITZ				Sn	Sn	07 55 31.1	-13
	comp=Z,0.4nm,0.3s,baz=120,slow=16,SNR=2.3						
	comp=Z,8.1nm,0.6s						
FITZ				AML	AML		
FITZ	Fitzroy Crossi	15.54	199	P	Pn	07 52 41.6	-10
FITZ	Fitzroy Crossi	15.54	199		Pn	07 52 49.0	-2.9
FITZ	Fitzroy Crossi	15.54	199	P	Pn	07 52 52.2	+0.3
	comp=Z,2.4nm,1.2s						
WB0	Warramunga Arr	16.68	168		Pn	07 53 01.0	-5.5
WRAB	Tennant Creek	16.83	169	P	Pn	07 53 02.7	-5.7
WRAB	Tennant Creek	16.83	169		Pn	07 53 02.8	-5.7
WRAB	Tennant Creek	16.83	169	P	P	07 53 10.9	+0.3
	comp=Z,50nm,0.9s						
WRA	Warramunga Arr	16.84	169	Pn	Pn	07 53 03.0	-5.5
	comp=Z,0.8nm,0.3s,baz=341,slow=14,SNR=25						
WRA				Sn	Sn	07 56 02.4	-13
	comp=Z,1.0nm,0.3s,baz=357,slow=23,SNR=4.8						
	comp=Z,1.7nm,0.6s						
WRA				AML	AML		
WRA	Warramunga Arr	16.84	169	Pn	Pn	07 53 03.2	-5.3
WB1	Warramunga Ar.	16.86	169	P	Pn	07 53 03.0	-5.8
WR8	Warramunga Arr	16.88	168	Pn	Pn	07 53 04.7	-4.4
KKM	Kota Kinabalu	17.37	302		Pn	07 53 13.7	-1.7
KKM	Kota Kinabalu	17.37	302	P	Pn	07 53 16.0	+0.6
	comp=Z,30nm,0.9s						
QIS	Mount Isa	19.10	154	P	Pn	07 53 36.5	0.0
QIS	Mount Isa	19.10	154	P	Pn	07 53 37.4	+1.0
	comp=Z,20nm,0.7s						
SBUM	Sibu	19.53	287		P	07 53 40.0	-0.4
SBUM				IAmb	IAmb	07 53 49.8	
	comp=Z,24nm,0.7s						
SBUM	Sibu	19.53	287	P	Pn	07 53 43.1	+1.4
	comp=Z,37nm,0.8s						
MTSU	Mount Surprise	19.72	139	P	Pn	07 53 44.5	+0.5
	comp=Z,23nm,0.8s						
AS31	Alice Springs	20.41	172		P	07 53 50.5	+0.6
AS31				IAmb	IAmb	07 53 52.2	
	comp=Z,19nm,0.7s						
ASAR	Alice Springs	20.41	172	P	P	07 53 50.2	+0.3
	comp=Z,41nm,0.6s,baz=352,slow=10,SNR=436						
ASAR				S	S	07 57 29.5	-9.3
	comp=Z,4.2nm,0.8s,baz=348,slow=21,SNR=6.1						
ASAR				LR	LR	08 03 18.6	
	comp=Z,1µm,21.9s,baz=140,slow=42						
	comp=Z,41nm,0.6s						
AS01	Alice Springs	20.42	172	P	P	07 53 47.8	-2.2
MBWA	Marble Bar	20.78	211	P	P	07 53 51.0	-2.9
MBWA	Marble Bar	20.78	211		P	07 53 52.3	-1.6
MBWA				IAmb	IAmb	07 54 00.7	
	comp=Z,80nm,1.7s						
BBJI	Bungbulang	23.50	259	P	P	07 54 21.1	-1.8
BBJI				IAmb	IAmb	07 54 24.5	
	comp=Z,33nm,0.7s						
BBJI	Bungbulang	23.50	259	P	P	07 54 22.6	-0.3
MEEK	Meekatharra	25.98	206	P	P	07 54 45.5	-0.1
INKA	Innaminka	26.02	160	P	P	07 54 45.5	-0.5
INKA				IAmb	IAmb	07 55 13.9	
	comp=Z,29nm,1.7s						
QLP	Quilpie	26.41	152	P	P	07 54 54.1	+4.6
QLP	Quilpie	26.41	152	P	P	07 54 50.6	+1.2
	comp=Z,36nm,0.9s						
FORT	Forrest	27.42	185	P	P	07 54 56.4	-2.1
FORT				IAmb	IAmb	07 55 07.0	
	comp=Z,14nm,0.7s						
MORW	Morawa	29.22	207	P	P	07 55 13.7	-0.9
BBOO	Buckleboo	29.71	171	P	P	07 55 16.2	-2.7
BBOO				IAmb	IAmb	07 55 27.9	
	comp=Z,43nm,1.2s						
STKA	Stephens Creek	30.12	162	P	P	07 55 22.1	-0.4
	comp=Z,6.0nm,0.9s,baz=333,slow=6.8,SNR=5.8						
	comp=Z,6.0nm,0.9s						
STKA	Stephens Creek	30.12	162	P	P	07 55 25.9	+3.4
BLDU	Ballidu	30.26	205	P	P	07 55 23.5	-0.3
KLBR	Kellerberrin	30.70	202	P	P	07 55 27.6	-0.1
IPM	Ipoh	30.84	284	P	P	07 55 30.7	+1.5
	comp=Z,24nm,1.0s						
CAN	Canberra	35.97	154	P	P	07 56 13.6	0.0
CAN				IAmb	IAmb	07 56 16.5	
	comp=Z,14nm,0.9s						
NJ2	Nanjing	37.01	343	*e*P	P	07 56 23.9	+1.4
NJ2				pmax	pmax		
	comp=Z,22nm,0.6s						
WHN	Wuhan	37.22	336	P	P	07 56 25.9	+1.7
GYA	Guiyang	37.77	323	P	P	07 56 39.0	+10
GYA				pmax	pmax		
	comp=Z,17nm,0.8s						
CMAR	Chiang Mai Arr	38.20	306	P	P	07 56 34.2	+1.4
	comp=Z,3.5nm,0.7s,baz=136,slow=7.2,SNR=27						
	comp=Z,3.5nm,0.7s						
CMAR	Chiang Mai Arr	38.20	306		P	07 56 32.6	-0.2
CHTO	Chiang Mai	38.39	306		P	07 56 34.1	-0.3
CHTO				IAmb	IAmb	07 56 51.3	
	comp=Z,11nm,0.8s						
CHTO	Chiang Mai	38.39	306	P	P	07 56 35.5	+1.1
	comp=Z,15nm,0.9s						
KMI2	Kunming	39.35	318	P	P	07 56 43.9	+1.3
KMI2				pmax	pmax		
	comp=Z,10.0nm,0.7s						
MJAR	Matsushiro Arr	40.26	9	P	P	07 56 47.2	-2.5
	comp=Z,2.5nm,0.6s,baz=192,slow=9.4,SNR=8.1						
	comp=Z,2.5nm,0.6s						
KSRS	Korea Array	40.68	356	P	P	07 56 52.2	-0.9
	comp=Z,3.0nm,0.6s,baz=176,slow=8.7,SNR=12						
	comp=Z,3.0nm,0.6s						
PZH	PanZhiHua	40.92	318	P	P	07 56 55.1	-0.4
TIA	Tai'an	41.40	343	P	P	07 56 59.9	+0.7
TIA				sP	sP	07 57 05.6	+2.3
TIA				pmax	pmax		
	comp=Z,24nm,0.6s						
LZH	Lanzhou	46.67	330	*e*P	P	07 57 47.3	+5.6
LZH				pP	sP	07 57 51.4	+5.5
LZH				pmax	pmax		
	comp=Z,22nm,1.0s						
LZH				L	L		
	comp=Z,720nm,16.8s						
LZH				L	L		
	comp=Z,890nm,18.6s						
LZH				L	L		
	comp=Z,1µm,19.8s						
USRK	Ussuriysk Ar.	47.34	1	P	P	07 57 46.0	-0.5
	comp=Z,3.5nm,0.5s,baz=184,slow=7.9,SNR=4.3						
	comp=Z,3.5nm,0.5s						
HHC	Hu-ho-hao-te	47.40	340	*e*P	P	07 57 49.6	+2.4
HHC				pmax	pmax		
	comp=Z,250nm,6.1s						
GTA2	Gaotai	51.35	329	*e*P	P	07 58 18.4	+0.9
GTA2				pmax	pmax		
	comp=Z,6.0nm,0.9s						
GTA2				L	L		
	comp=Z,390nm,19.7s						
GTA2				L	L		
	comp=Z,450nm,21.3s						
GTA2				L	L		
	comp=Z,640nm,22.5s						
EVN	Everest	52.60	309		P	07 58 27.8	+0.2
EVN				IAmb	IAmb	07 58 29.0	
	comp=Z,20nm,0.6s						
EVN	Everest	52.60	309	P	P	07 58 27.9	+0.3
	comp=Z,32nm,0.6s						
HILR	Hailar Array B	53.56	351	P	P	07 58 34.1	+0.5
	comp=Z,2.4nm,0.6s,baz=138,slow=12,SNR=7.1						
	comp=Z,2.4nm,0.6s						
URZ	Urewera	54.58	136	LR	LR	08 21 42.6	
	comp=Z,285nm,18.5s,baz=174,slow=36						
ULN	Ulaanbaatar	55.11	341	P	P	07 58 46.6	+1.6
	comp=Z,4.6nm,0.9s						
SONM	Songino Array	55.30	340	P	P	07 58 46.6	+0.2
	comp=Z,1.6nm,0.6s,baz=152,slow=7.2,SNR=5.4						
	comp=Z,1.6nm,0.6s						
SONM	Songino Array	55.30	340		P	07 58 46.9	+0.5
PETK	Petropavlovsk-	60.59	18	P	P	07 59 23.1	-0.2
	comp=Z,4.9nm,0.9s,baz=186,slow=6.7,SNR=6.5						
	comp=Z,4.9nm,0.9s						
WMQ	Urumqi	60.87	325	*e*P	P	07 59 27.1	+1.6
WMQ				pmax	pmax		
	comp=Z,12nm,0.9s						
WMQ				L	L		
	comp=Z,620nm,24.1s						
WMQ				L	L		
	comp=Z,410nm,23.8s						
WMQ				L	L		
	comp=Z,590nm,24.2s						
ZSN	Zaisan	64.67	327	*e*P	P	07 59 51.6	+0.9
YAK	Yakutsk	65.20	359	P	P	07 59 54.2	+0.5
	comp=Z,21nm,0.5s,baz=77,slow=1.3,SNR=5.3						
	comp=Z,21nm,0.5s						
YAK	Yakutsk	65.20	359	IAmb	IAmb	07 59 55.1	
	comp=Z,27nm,0.6s						
SHLS	Shalkode	65.42	321	*e*P	P	07 59 54.6	-1.2
UZB	Uzynbulak	65.69	321	*e*P	P	07 59 58.4	+0.8
MK31	Makanchi Array	65.70	326	P	P	07 59 58.2	+0.9
MK31				IAmb	IAmb	08 00 14.8	
	comp=Z,8.9nm,0.8s						
MKAR	Makanchi Array	65.70	326	P	P	07 59 58.1	+0.7
	comp=Z,4.5nm,0.8s,baz=122,slow=7.9,SNR=42						
	comp=Z,4.5nm,0.8s						
MAKZ	Makanchi	65.89	325		P	07 59 57.3	-1.3
MAKZ				IAmb	IAmb	08 00 15.9	
	comp=Z,14nm,0.9s						
MAKZ	Makanchi	65.89	325	P	P	07 59 59.4	+0.9
	comp=Z,18nm,1.0s						
SATY	Saty	66.04	320	*e*P	P	08 00 00.3	+0.6
	comp=Z,4.5nm,0.6s						
KPKS	Kokpek	66.06	321	*e*P	P	08 00 00.5	+0.6
KSH2	Kashi	66.10	316	P	P	08 00 01.4	+1.1
KSH2				L	L		
	comp=Z,690nm,17.9s						
KSH2				L	L		
	comp=Z,690nm,22.0s						
KSH2				L	L		
	comp=Z,770nm,21.5s						
MDOK	Medeo	66.95	320	*e*P	P	08 00 06.1	+0.5
TNSS	Tian-Shan	66.96	320	*e*P	P	08 00 06.2	+0.2
TDK	Taldyqorghan	67.02	322	*e*P	P	08 00 06.6	+0.7
	comp=Z,6.1nm,0.7s						
AAA	Alma-Ata	67.06	320	*e*P	P	08 00 06.8	+0.6
BOOM	Boomskoye usch	67.35	319	P	P	08 00 09.4	+1.1
	comp=Z,5.8nm,1.2s						
KUU	Kurty	67.76	320	*e*P	P	08 00 11.2	+0.6
SGDS	Sogindy	68.65	319	*e*P	P	08 00 16.8	+0.6
ZAA0	Zalesovo Array	68.74	333	IAmb	IAmb	08 00 32.3	
	comp=Z,9.9nm,1.4s						
ZALV	Zalesovo Beam	68.74	333	P	P	08 00 16.1	-0.4
	comp=Z,3.1nm,0.8s,baz=103,slow=4.3,SNR=11						
	comp=Z,3.1nm,0.8s						
ZALV	Zalesovo Beam	68.74	333		P	08 00 15.6	-0.8
ARSB	Arslanbob	68.82	317	P	P	08 00 17.9	+0.5
ARSB				IAmb	IAmb	08 00 35.0	
	comp=Z,9.3nm,0.9s						
ARK	Arkit	69.71	317	P	P	08 00 24.1	+1.2
	comp=Z,7.5nm,0.9s						
BTK	Batken	69.81	315	P	P	08 00 24.4	+0.9
	comp=Z,8.2nm,1.2s						
KURBB	Kurchatov Arra	69.90	328	P	P	08 00 24.2	+0.5
	comp=Z,4.7nm,0.6s,baz=127,slow=5.5,SNR=60						
	comp=Z,4.7nm,0.6s						
KURK	Kurchatov	69.90	328		P	08 00 23.0	-0.7
KURK				IAmb	IAmb	08 00 43.1	
	comp=Z,6.3nm,0.7s						
KURK	Kurchatov	69.90	328	P	P	08 00 24.1	+0.4
	comp=Z,11nm,0.7s						
DZA	Taraz	70.59	318	*e*P	P	08 00 28.7	+0.5
	comp=Z,4.7nm,0.3s						
IUG	Iuzhnay	71.17	317	*e*P	P	08 00 32.5	+0.7
KKAR	Karatay Array	71.22	318		P	08 00 31.6	-0.4
CHM	Chimkent	71.53	317	*e*P	P	08 00 34.7	+0.8
BRLS	Borolday	71.65	317	*e*P	P	08 00 35.2	+0.6
BVAR	Borovoye Array	75.48	327	P	P	08 00 57.5	+0.6
	comp=Z,6.2nm,0.7s,baz=120,slow=8.8,SNR=26						
	comp=Z,6.2nm,0.7s						
BORK	Borovoye	75.53	327		P	08 00 57.6	+0.5
BORK				IAmb	IAmb	08 00 58.5	
	comp=Z,7.5nm,0.7s						
SBA	Scott Base	76.82	173	P	P	08 01 04.8	+0.8
SBA				IAmb	IAmb	08 02 28.9	
	comp=Z,30nm,1.7s						
UNV	Unalaska Valle	76.96	33	P	P	08 01 05.7	+0.5
NRIK	Noril'sk	78.25	346	P	P	08 01 12.2	0.0
	comp=Z,3.2nm,0.7s,baz=153,slow=5.8,SNR=4.7						
	comp=Z,3.2nm,0.7s						
MAW	Mawson	78.66	201	P	P	08 01 14.6	+0.1
	comp=Z,3.5nm,0.7s,baz=89,slow=5.5,SNR=16						
	comp=Z,3.5nm,0.7s						
MAW	Mawson	78.66	201		P	08 01 15.1	+0.6
ABKAR	Akbulak array	80.23	321		P	08 01 22.9	-0.5
L16K	Owhat River	83.42	27	P	P	08 01 40.4	+0.5
J16K	Anvik River	83.47	25	P	P	08 01 40.8	+0.6
L18K	Granite Mounta	84.83	27	P	P	08 01 48.3	+1.2
J18K	Innoko River	85.19	25	P	P	08 01 49.2	+0.3
J18K				IAmb	IAmb	08 01 50.1	
	comp=Z,6.2nm,0.8s						
QSPA	South Pole Qui	86.61	180	P	P	08 01 55.5	-0.6
	comp=Z,3.2nm,0.7s,baz=304,slow=1.4,SNR=18						
	comp=Z,3.2nm,0.7s						
QSPA	South Pole Qui	86.61	180	IAmb	IAmb	08 01 58.3	
	comp=Z,4.5nm,0.8s						
RAYN	Ar Rayn	87.10	294	P	P	08 02 00.3	+1.0
	comp=Z,8.0nm,0.8s						
SKT	Skwentna	87.11	28	P	P	08 01 56.8	-1.7
CAST	Castle Rocks	87.18	26	P	P	08 01 58.9	+0.1
CAST				IAmb	IAmb	08 05 20.4	
	comp=Z,22nm,1.8s						
SEW	Seward	87.72	30	P	P	08 02 00.3	-1.1
MLY	Manley	88.11	25	P	P	08 02 03.6	+0.3
MLY				IAmb	IAmb	08 02 06.0	
	comp=Z,3.0nm,0.8s						
RND	Reindeer	88.60	26	P	P	08 02 05.3	-0.3
CCB	Clear Creek Bu	89.27	25	P	P	08 02 07.3	-1.3
CCB				IAmb	IAmb	08 02 23.6	
	comp=Z,12nm,1.6s						
ILAR	Eielson Array	89.68	25	P	P	08 02 08.9	-1.7
	comp=Z,0.8nm,0.7s,baz=251,slow=4.9,SNR=9.1						
	comp=Z,0.8nm,0.7s						
BMAR	Burnt Mountain	90.95	23	P	P	08 02 16.1	-0.5
I27K	Kandik River	91.98	25	P	P	08 02 21.5	+0.2
ELIB	Princess Elisa	92.22	197	*d*P	P	08 02 23.5	+1.0
	comp=Z,6.0nm,0.7s						
ARCES	ARCESS Array B	98.48	340	P	P	08 02 48.9	-1.9
	comp=Z,2.7nm,0.9s,baz=61,slow=5.3,SNR=4.8						
	comp=Z,2.7nm,0.9s						
TORD	Torodi Ar. Bea	128.88	284	PKP	PKPdf	08 08 21.0	-0.6
	comp=Z,1.0nm,0.6s,baz=78,slow=2.1,SNR=6.1						
CPUP	Villa Florida	149.45	165	PKPbc	PKPbc	08 09 01.9	-0.9
	comp=Z,1.7nm,0.8s,baz=226,slow=3.3,SNR=5.7						
LPAZ	La Paz	152.90	137	PKPbc	PKiKP	08 09 13.2	+1.2
	comp=Z,1.2nm,0.4s,baz=20,slow=1.3,SNR=9.6						
LPAZ	La Paz	152.90	137		PKiKP	08 09 13.6	+1.5

SJA ***01*** *07:57:00.8±0.5, 27°.62S×71°.96W, h15^{km}, ML3.5, MW3.5*

*GUC **01** 07:57:06.4±0.8, 27°.92S×71°.30W, h26^{km}±3^{km}, ML3.1*
ISC 01 07:57:02.9±2.3**, 27°.88S**±0°.03×**71°.51W**±0°.10**, h6**^{km}±12^{km}**, n17, σ1^{s}.30**/28**, 3C-2D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	**Llanos de Chal**	**0.50**	**130**	*e*P	**Pb**	**07 57 15.2**	**+1.0**
AC04				*e*S	**Sb**	**07 57 20.6**	**-1.1**
AC04				IAML		07 57 21.4	
	comp=E,3µm,0.2s						
AC06	**Mina Casimiro**	**1.15**	**63**	⇑*e*P	**Pg**	**07 57 25.4**	**+0.4**
AC06				*e*S	**Sg**	**07 57 39.5**	**-0.4**
AC06				IAML		07 57 46.7	
	comp=E,437nm,0.5s						
GO03	**Copiapo**	**1.17**	**76**	⇓*e*P	**Pn**	**07 57 25.9**	**+0.1**
GO03				*e*S	**Sg**	**07 57 40.1**	**-0.3**
GO03				IAML		07 57 47.1	
	comp=E,1µm,0.4s						
LCO	**Las Campanas**	**1.33**	**148**	⇓*e*P	**Pg**	**07 57 29.2**	**+0.7**
LCO				*e*S	**Sn**	**07 57 45.9**	**-0.5**
LCO				IAML		07 57 49.7	
	comp=E,5µm,0.5s						
AC05	**El Transito**	**1.44**	**131**	⇑*e*P	**Pg**	**07 57 31.0**	**+0.4**
AC05				*e*S	**Sg**	**07 57 48.8**	**-0.6**
AC05				IAML		07 57 55.4	
	comp=N,369nm,0.5s						
AC01	**Pan de Azucar**	**1.91**	**25**	*i* P	**Pn**	**07 57 36.4**	**+0.5**
AC01				*i* S	**Sn**	**07 57 59.6**	**-0.7**
AC01				IAML		07 58 13.0	
	comp=N,178nm,0.6s						
AC02	**Maricunga**	**2.36**	**64**	*e*P	**Pb**	**07 57 45.6**	**-0.5**
AC02				*e*S	**Sb**	**07 58 15.5**	**-0.2**
AC02				IAML		07 58 19.4	
	comp=Z,268nm,0.3s						
AC02	**Maricunga**	**2.36**	**64**	*e*P	**Pb**	**07 57 45.8**	**-0.3**
AC02				*e*S	**Sb**	**07 58 15.7**	**0.0**
AC02				IAML		07 58 19.3	
	comp=N,500nm,0.3s						
GO04	**Tololo Observa**	**2.37**	**165**	⇑*e*P	**Pn**	**07 57 44.0**	**+1.5**
GO04				*e*S	**Sb**	**07 58 14.0**	**-1.7**
CO01	**Juntas del Tor**	**2.43**	**150**	*e*P	**Pb**	**07 57 46.3**	**-0.9**
CO01				*e*S	**Sb**	**07 58 16.6**	**-0.8**
CO01				IAML		07 58 21.7	
	comp=E,226nm,0.4s						
AROD	**Rodeo**	**2.89**	**142**	*e*P	**Pb**	**07 57 54.8**	**-0.3**
CO03	**El Pedregal**	**3.03**	**167**	*e*P	**Pn**	**07 57 53.1**	**+1.6**
ACDV	**Cuesta del Vie**	**3.09**	**138**	*e*P	**Pb**	**07 57 58.7**	**+0.2**
ACDV				*e*S	**Sg**	**07 58 41.6**	**-0.8**
ACDV				IAML		07 58 46.8	
	comp=Z,62nm,1.1s						
ACCO	**Cerro Coronel**	**3.44**	**142**	*e*P	**Pb**	**07 58 04.3**	**-0.1**
ACCO				*e*S	**Sg**	**07 58 51.2**	**-2.3**
ACCO				IAML		07 58 56.7	
	comp=Z,88nm,0.5s						
AVFE	**Valle Fertil**	**4.49**	**129**	*e*P	**Pn**	**07 58 15.4**	**+3.8**
AVFE				IAML		08 00 08.1	
	comp=Z,39nm,0.5s						
AUSP	**Uspallata**	**4.70**	**157**	*e*P	Pb	07 58 21.1	-4.9
AUSP				*e*S	**Sb**	**07 59 20.4**	**-2.5**
ARCO	**CERRO ARCO**	**5.42**	**156**	*e*P	Pb	07 58 33.2	-4.9
ARCO				IAML		08 00 43.1	
	comp=Z,22nm,0.5s						

IDC 01 08:00:49.5±3.1**, 6°.05S**×**147°.27E, h0**^{km}**, mb3.3**/2**, mbtmp3.3**/4**, ML3.2**/1**, Error ellipse: s-maj=64.7km s-min=36.1km az=82.0, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**3.34**	**182**	Pn	Pn	08 01 43.1	+0.2
	8.6nm,0.3s,baz=90,slow=12,SNR=1.6						
PMG				Sn	Sn	08 02 15.8	-7.5
	12nm,0.3s,baz=147,slow=18,SNR=8.9						
WRA	**Warramunga Arr**	**18.67**	**221**	P	Pn	08 05 10.5	+1.0
	0.1nm,0.3s,baz=47,slow=12,SNR=6.8 0.2nm,0.6s						
WRA				AML	AML		
ASAR	**Alice Springs**	**21.73**	**215**	P	P	08 05 42.0	-0.6
	0.3nm,0.6s,baz=37,slow=11,SNR=6.3 0.3nm,0.6s						
FITZ	**Fitzroy Crossi**	**24.27**	**239**	P	P	08 06 08.2	-0.4
	4.0nm,1.1s,baz=72,slow=9.6,SNR=2.2 4.0nm,1.1s						
TORD	**Torodi Ar. Bea**	**145.36**	**284**	PKPbc	PKPbc	08 20 29.5	-0.8
	0.3nm,0.4s,baz=57,slow=4.2,SNR=5.5						

*ISK **01** 08:16:52.4, 39°.46N×26°.30E, h5^{km}, ML2.6/12*
*ATH **01** 08:16:52.7, 39°.46N×26°.33E, h15^{km}±1^{km}, ML2.3/7, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*
*AFAD **01** 08:16:53.4, 39°.49N×26°.28E, h7^{km}±3^{km}, ML2.2*
ISC 01 08:16:53.0±0.8**, 39°.46N**±0°.02×**26°.27E**±0°.02**, h10**^{km}±6^{km}**, n37, σ0^{s}.58**/67**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GPNR	**Gulpinar-Canak**	**0.11**	**266**	Pg	**Pg**	**08 16 55.6**	**-0.1**
GPNR				Sg	**Sg**	**08 16 58.0**	**+0.3**
GPNR				AML	AML		
KOCA	**Canakkale, Ayv**	**0.11**	**290**	P	**Pg**	**08 16 55.6**	**-0.2**
KOCA				S	**Sg**	**08 16 57.7**	**-0.1**
PRK	**Paraskevi**	**0.22**	**180**	P	**Pg**	**08 16 57.7**	**+0.2**
PRK				S	**Sg**	**08 17 01.2**	**+0.7**
BAYC	**CANAKKALE_Bayr**	**0.35**	**37**	P	**Pg**	**08 16 59.1**	**-0.9**
BAYC				S	**Sg**	**08 17 04.8**	**+0.2**
BAYC				IAML		08 17 05.0	
	comp=N,168nm,0.3s						
BAYC				IAML		08 17 05.0	
	comp=E,303nm,0.3s						
AYVA	**Ayvalik**	**0.36**	**116**	P	**Pg**	**08 16 59.8**	**-0.3**
AYVA				S	**Sb**	**08 17 06.9**	**-0.3**
AYVA				IAML		08 17 07.0	
	comp=N,176nm,0.6s						
AYVA				IAML		08 17 07.0	
	comp=E,167nm,0.7s						
EZN	**Ezine**	**0.36**	**6**	Pg	**Pg**	**08 17 00.3**	**0.0**
EZN				Sg	**Sg**	**08 17 05.4**	**+0.3**
EZN				AML	AML		
BOZC	**Bozcaada**	**0.41**	**336**	Pg	**Pg**	**08 17 01.3**	**+0.1**
BOZC				Sg	**Sg**	**08 17 06.9**	**+0.2**
BOZC				AML	AML		
BOZC	**Bozcaada**	**0.41**	**336**	P	**Pg**	**08 17 01.1**	**-0.1**
BOZC				IAML		08 17 07.0	
	comp=N,196nm,0.2s						
BOZC				S	**Sg**	**08 17 07.2**	**+0.5**
BOZC				IAML		08 17 08.0	
	comp=E,272nm,0.2s						
ECEA	**Canakkale, Ece**	**0.58**	**353**	P	**Pg**	**08 17 04.6**	**+0.2**
ECEA				S	**Sb**	**08 17 13.5**	**-0.2**
ECEA				IAML		08 17 14.0	
	comp=N,202nm,0.2s						
ECEA				IAML		08 17 17.0	
	comp=E,204nm,0.8s						
CNKL	**anakkale-Mer**	**0.61**	**8**	P	**Pg**	**08 17 04.8**	**0.0**
CNKL				S	**Sg**	**08 17 13.5**	**+0.6**
CNKL				IAML		08 17 14.0	
	comp=N,152nm,0.2s						
CNKL				IAML		08 17 15.0	
	comp=E,130nm,0.3s						
BUHA	**Balikesir, Bur**	**0.62**	**86**	P	**Pg**	**08 17 05.2**	**+0.1**
BUHA				S	**Sb**	**08 17 14.5**	**-0.3**
BUHA				IAML		08 17 15.0	
	comp=N,60nm,0.5s						
BUHA				IAML		08 17 24.0	
	comp=E,60nm,0.7s						
DKL	**Dikili**	**0.63**	**128**	Pg	**Pg**	**08 17 04.9**	**-0.3**
DKL				AML	AML		
GADA	**Gvkgeada**	**0.78**	**338**	Pg	**Pg**	**08 17 08.1**	**0.0**
GADA				AML	AML		
ZEDA	**zmir-Bergama**	**0.80**	**128**	P	**Pn**	**08 17 10.1**	**-0.2**
ZEDA				S	**Sn**	**08 17 22.8**	**+0.5**
ZEDA				IAML		08 17 23.0	
	comp=N,41nm,0.6s						
ZEDA				IAML		08 17 23.0	
	comp=E,28nm,0.3s						
KARB	**zmir-Karabur**	**0.81**	**172**	P	**Pb**	**08 17 09.5**	**+0.4**
KARB				S	**Sn**	**08 17 21.9**	**-0.6**
KARB				IAML		08 17 22.0	
	comp=N,69nm,0.3s						
KARB				IAML		08 17 22.0	
	comp=E,131nm,0.4s						
FOCM	**Foa**	**0.83**	**154**	Pg	**Pg**	**08 17 08.7**	**-0.3**
FOCM				Sg	**Sb**	**08 17 20.3**	**-0.4**
FOCM				AML	AML		
KRBN	**Karaburun**	**0.90**	**166**	Pg	**Pg**	**08 17 09.5**	**-0.8**
KRBN				Sg	**Sb**	**08 17 22.7**	**+0.1**
KRBN				AML	AML		
LAPS	**Lapseki, ANA**	**0.90**	**29**	P	**Pg**	**08 17 09.4**	**-1.0**
LAPS				IAML		08 17 22.0	
	comp=N,140nm,0.3s						
LAPS				S	**Sb**	**08 17 22.5**	**-0.3**
LAPS				IAML		08 17 26.0	
	comp=E,104nm,0.4s						
BAGT	**Foa**	**0.92**	**151**	P	**Pn**	**08 17 11.6**	**-0.5**
BAGT				IAML		08 17 25.0	
	comp=N,142nm,1.3s						
BAGT				S	**Sn**	**08 17 25.7**	**+0.4**
BAGT				IAML		08 17 29.0	
	comp=E,52nm,0.7s						
GELI	**Tayfur-Gelibol**	**0.95**	**9**	Pg	**Pg**	**08 17 11.1**	**-0.1**
GELI				AML	AML		
LIA	**Limnos Island**	**0.95**	**298**	P	**Pg**	**08 17 11.4**	**+0.2**
LIA				S	**Sb**	**08 17 24.1**	**0.0**
LIA				AML	AML		
EFSA	**Agios Efstrati**	**1.00**	**275**	P	**Pb**	**08 17 12.4**	**+0.1**
EFSA				S	**Sb**	**08 17 25.9**	**+0.4**
BALY	**Balya**	**1.08**	**75**	P	**Pg**	**08 17 13.1**	**-0.6**
BALY				S	**Sn**	**08 17 28.9**	**-0.3**
BALY				IAML		08 17 30.0	
	comp=N,200nm,0.5s						
BALY				IAML		08 17 30.0	
	comp=E,108nm,0.4s						
CHOS	**Chios island**	**1.09**	**189**	Pn	**Pg**	**08 17 13.6**	**-0.4**
CHOS				Sn	**Sn**	**08 17 29.2**	**-0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**1.09**	**189**	P	**Pg**	**08 17 13.5**	**-0.5**
CHOS				S	**Sb**	**08 17 28.6**	**+0.3**
CHOS				AML	AML		
STEP	**BALIKESIR_Sava**	**1.12**	**94**	P	**Pb**	**08 17 14.5**	**0.0**
STEP				S	**Sn**	**08 17 31.9**	**+1.6**
STEP				IAML		08 17 33.0	
	comp=E,93nm,0.3s						
STEP				IAML		08 17 34.0	
	comp=N,72nm,0.3s						
SMTH	**Samothraki Isl**	**1.16**	**331**	P	**Pb**	**08 17 14.8**	**-0.3**
SMTH				S	**Sb**	**08 17 30.3**	**+0.1**
SMTH				AML	AML		
ERIK	**Erikli-Kesan**	**1.22**	**9**	Pn	**Pb**	**08 17 16.2**	**0.0**
ERIK				AML	AML		
GOKT	**Kean, EDRN**	**1.23**	**13**	P	**Pn**	**08 17 16.2**	**0.0**
GOKT				S	**Sn**	**08 17 33.0**	**+0.1**
GOKT				IAML		08 17 35.0	
	comp=N,145nm,0.4s						
GOKT				IAML		08 17 35.0	
	comp=E,113nm,0.3s						
ENEZ	**Enez**	**1.27**	**356**	Pn	**Pg**	**08 17 17.4**	**-0.1**
ENEZ				AML	AML		
BKES	**Balkesir-Mer**	**1.31**	**78**	P	**Pn**	**08 17 17.1**	**-0.3**
BKES				S	**Sg**	**08 17 37.6**	**+2.5**
BKES				IAML		08 17 38.0	
	comp=E,102nm,0.5s						
BKES				IAML		08 17 39.0	
	comp=N,32nm,0.3s						
KESN	**Edirne-Kesan**	**1.40**	**13**	P	**Pn**	**08 17 18.4**	**-0.6**
KESN				S	**Sg**	**08 17 39.8**	**+1.8**
KESN				IAML		08 17 41.0	
	comp=E,125nm,0.7s						
KESN				IAML		08 17 42.0	
	comp=N,98nm,0.3s						
CMHT	**Manyas**	**1.42**	**67**	P	**Pg**	**08 17 20.5**	**+0.2**
CMHT				S	**Sg**	**08 17 38.5**	**-0.1**
CMHT				IAML		08 17 41.0	
	comp=E,62nm,0.7s						
CMHT				IAML		08 18 20.0	
	comp=N,54nm,1.9s						
ALN	**Alexandroupoli**	**1.44**	**353**	Pn	**Pn**	**08 17 19.5**	**+0.3**
ALN				AML	AML		
ALN	**Alexandroupoli**	**1.44**	**353**	P	**Pn**	**08 17 19.1**	**-0.1**
ALN				S	**Sn**	**08 17 37.0**	**-1.2**
ALN				AML	AML		
MADA	**Marmara adas**	**1.49**	**41**	P	**Pb**	**08 17 20.4**	**-0.5**
MADA				S	**Sg**	**08 17 41.5**	**+0.4**
MADA				IAML		08 17 42.0	
	comp=N,67nm,0.8s						
MADA				IAML		08 17 42.0	
	comp=E,47nm,0.3s						
KYMI	**Kymi, Euboea I**	**1.89**	**245**	P	**Pn**	**08 17 24.9**	**-0.4**
KYMI				AML	AML		

SJA 01 08:18:06.3±1.2**, 27°.79S**×**71°.85W, h25**^{km}**, ML3.1, MW3.6, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC02	**Maricunga**	**2.60**	**69**	*e*P	Pb	08 18 50.1	-2.5
AC02				IAML		08 19 41.2	
	comp=Z,46nm,0.3s						
AROD	**Rodeo**	**3.16**	**139**	*e*P	Pn	08 18 57.7	+2.9
AROD				*e*S	Sn	08 19 35.9	+4.1
VCA	**Vinchina**	**3.35**	**107**	*e*P	Pb	08 19 02.1	-3.1
VCA				IAML		08 20 03.6	
	comp=Z,31nm,0.7s						
ACDV	**Cuesta del Vie**	**3.37**	**135**	*e*P	Pn	08 19 01.2	+3.6
ACDV				*e*S	Sb	08 19 42.3	-3.9
ACDV				IAML		08 19 44.4	
	comp=Z,34nm,0.4s						
ACCO	**Cerro Coronel**	**3.71**	**140**	*e*P	Pn	08 19 05.6	+3.3
ACCO				*e*S	Sn	08 19 49.4	+4.0
ACCO				IAML		08 20 03.9	
	comp=Z,44nm,1.0s						
TINO	**Tinogasta**	**3.80**	**95**	*e*P	Pn	08 19 07.0	+3.6
TINO				*e*S	Sb	08 19 54.0	-4.5
TINO				IAML		08 19 59.9	
	comp=Z,36nm,0.5s						
AVFE	**Valle Fertil**	**4.79**	**128**	*e*P	Pn	08 19 16.7	-0.3
AVFE				*e*S	Sn	08 20 13.8	+2.0
AVFE				IAML		08 20 24.0	
	comp=Z,27nm,0.7s						
CYA	**Choya**	**5.38**	**98**	*e*P	Pn	08 19 28.7	+3.6
CYA				*e*S	Sn	08 20 28.9	+2.5
CYA				IAML		08 20 30.3	
	comp=Z,11nm,1.0s						

TUN 01 08:19:06.0, 36°.43N×**8°.68E, h0**^{km}**, MD3.1, Tunisia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KRIT	**Krib**	**0.33**	**106**	*i* P	Pg	08 19 11.7	-0.6
KRIT	**Krib**	**0.33**	**106**	*i* P	Pg	08 19 11.9	-0.4
BLIT	**Baltah**	**0.36**	**38**	*i* P	Pg	08 19 12.7	-0.2
BLIT	**Baltah**	**0.36**	**38**	*i* P	Pg	08 19 12.8	-0.1
THTN	**Thala**	**0.87**	**180**	*i* P	Pg	08 19 21.5	-1.1
THTN	**Thala**	**0.87**	**180**	*i* P	Pg	08 19 21.7	-0.9
TROT	**Trozza**	**1.14**	**139**	*i* P	Pg	08 19 28.1	+0.2
TROT	**Trozza**	**1.14**	**139**	*i* P	Pg	08 19 28.2	+0.3
ZGN	**Zaghouan**	**1.15**	**93**	*i* P	Pg	08 19 28.0	0.0
ZGN	**Zaghouan**	**1.15**	**93**	*i* P	Pg	08 19 28.3	+0.3
SYA	**Sidi Yaiche**	**1.69**	**176**	*i* P	Pn	08 19 36.8	0.0
OAR	**Oum El Arais**	**1.91**	**187**	*i* P	Pg	08 19 43.8	+1.2
OAR	**Oum El Arais**	**1.91**	**187**	*i* P	Pg	08 19 45.1	+2.5
BERT	**Berda**	**2.20**	**173**	*i* P	Pn	08 19 43.9	+0.1
BERT	**Berda**	**2.20**	**173**	*i* P	Pn	08 19 44.1	+0.3

*IDC **01** 08:20:50.1±3.5, 53°.85N×91°.27E, h0^{km}, mbtmp3.0/3, ML2.8/2, Error ellipse: s-maj=27.1km s-min=27.0km az=112.0*
*ASRS **01** 08:20:52.0±3.0, 53°.75N×91°.11E, h0^{km}, M3.3(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*
*NNC **01** 08:21:00.1±5.1, 53°.64N×90°.74E, h0^{km}, mb3.5, mpv3.2, Error ellipse: s-maj=42.4km s-min=16.1km az=93.0, Suspected Mining explosion.*
ISC 01 08:20:52.3±4.7**, 53°.9N**±0°.1×**91°.0E**±0°.3**, h0**^{km}**, n9, σ0^{s}.93**/7**, 4C-2D, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	**ZALESOVO INFRA**	**3.66**	**273**	I	I	08 45 20.0	
	baz=92,slow=326,SNR=4.1						
ZAA0	**Zalesovo Array**	**3.66**	**273**	⇑Pn	**Pb**	**08 21 56.7**	**-1.1**
	6.1nm,0.9s,baz=93,slow=15						
ZAA0				⇓Lg	Lg	08 22 52.2	
	76nm,1.0s,baz=91,slow=27						
ZALV	**Zalesovo Beam**	**3.66**	**273**	Pn	**Pn**	**08 21 51.0**	**+0.9**
	1.3nm,0.3s,baz=95,slow=16,SNR=11						
ZALV				Lg	Lg	08 22 50.5	
	2.2nm,0.3s,baz=92,slow=26,SNR=5.5 0.3nm,0.3s						
ZALV				AML	AML		
TLY	**Talaya**	**7.98**	**101**	Lg	Lg	08 25 01.4	
	0.3nm,0.3s,baz=38,slow=5.8,SNR=6.4						
KURBB	**Kurchatov Arra**	**8.35**	**252**	Pn	**Pn**	**08 22 54.8**	**+0.4**
	1.2nm,0.5s,baz=66,slow=15,SNR=4.0						
KURBB				Sn	**Sn**	**08 24 30.0**	**+0.8**
	0.1nm,0.3s,baz=67,slow=26,SNR=12						
KURBB				Lg	Lg	08 25 16.9	
	0.1nm,0.3s,baz=54,slow=26,SNR=7.4						
MK31	**Makanchi Array**	**9.07**	**221**	⇓Sn	**Sn**	**08 24 47.6**	**+0.5**
	0.5nm,0.6s						
MK31				⇑Lg	Lg	08 25 36.9	
	5.8nm,0.9s,baz=35,slow=30,SNR=4.2						
MKAR	**Makanchi Array**	**9.07**	**221**	Pn	**Pn**	**08 23 04.8**	**+0.4**
	0.2nm,0.3s,baz=25,slow=15,SNR=2.6						
MKAR				Lg	Lg	08 25 36.4	
	0.2nm,0.3s,baz=41,slow=27,SNR=6.4 0.4nm,0.5s						
MKAR				AML	AML		
MAKZ	**Makanchi**	**9.18**	**223**	⇑Sn	**Sn**	**08 24 49.3**	**-0.6**
	3.1nm,0.9s						
MAKZ				⇑Lg	Lg	08 25 38.3	
	4.7nm,0.9s						
SONM	**Songino Array**	**11.47**	**116**	Lg	Lg	08 26 52.1	
	0.2nm,0.3s,baz=303,slow=25,SNR=6.3						

IDC 01 08:27:17.9±4.6**, 1°.69S**×**131°.48E, h0**^{km}**, mb3.4**/2**, mbtmp3.4**/3**, ML2.8**/1**, Error ellipse: s-maj=313.3km s-min=28.0km az=73.0, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**18.36**	**171**	P	Pn	08 31 33.9	-0.2
	baz=350,slow=11,SNR=1.5 0.7nm,1.0s						
ASAR	**Alice Springs**	**21.97**	**174**	P	P	08 32 13.2	-0.5
	0.3nm,0.5s,baz=352,slow=11,SNR=5.7 0.3nm,0.5s						
MKAR	**Makanchi Array**	**64.69**	**325**	P	P	08 37 58.1	+0.2
	0.8nm,0.6s,baz=134,slow=6.9,SNR=5.4 0.8nm,0.6s						

*SJA **01** 08:28:16.0±0.7, 27°.94S×71°.70W, h9^{km}±6^{km}, ML4.2, MW4.0*
*IDC **01** 08:28:17.7±0.7, 27°.96S×71°.25W, h0^{km}, mb3.9/6, mbtmp3.8/11, ML3.5/5, MS3.6/3, Error ellipse: s-maj=22.2km s-min=12.7km az=75.0*
*GUC **01** 08:28:19.9±0.9, 28°.05S×71°.34W, h32^{km}±4^{km}, ML3.8*
*NEIC **01** 08:28:19.5±2.0, 27°.97S±0°.04×71°.46W±0°.06, h10^{km}±1^{km}, mb4.4/8, ML3.8(GUC), Error ellipse: s-maj=8.6km s-min=5.7km az=247.0*
ISC 01 08:28:17.7±1.6**, 27°.96S**±0°.03×**71°.50W**±0°.05**, h2**^{km}±9^{km}**, n93, σ1^{s}.96**/106**, mb4.2**/9**, 2C-5D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	**Llanos de Chal**	**0.45**	**123**	*e*P	**Pb**	**08 28 28.2**	**-0.1**
AC04	**Llanos de Chal**	**0.45**	**123**	*i* P	**Pg**	**08 28 28.1**	**+1.8**
AC04				*e*S	**Sg**	**08 28 33.0**	**+0.9**
AC04	**Llanos de Chal**	**0.45**	**123**		**Pg**	**08 28 27.9**	**+1.6**
AC04				Sg	**Sg**	**08 28 33.0**	**+0.9**
GO03	**Copiapo**	**1.18**	**72**	*e*P	**Pb**	**08 28 41.1**	**+0.2**
GO03				*e*S	**Sg**	**08 28 56.9**	**+1.2**
GO03				IAML		08 28 59.6	
	comp=Z,3µm,0.3s						
GO03	**Copiapo**	**1.18**	**72**	⇓*e*P	**Pb**	**08 28 40.6**	**-0.3**
GO03				*e*S	**Sb**	**08 28 56.0**	**-0.6**
GO03				IAML		08 28 59.6	
	comp=N,3µm,0.6s						
GO03	**Copiapo**	**1.18**	**72**		**Pb**	**08 28 40.8**	**-0.1**
AC06	**Mina Casimiro**	**1.18**	**60**		**Pb**	**08 28 41.0**	**+0.2**
LCO	**Las Campanas**	**1.26**	**146**	*e*P	**Pb**	**08 28 41.5**	**-0.8**
LCO				*e*S	**Sb**	**08 28 56.5**	**-2.6**
LCO	**Las Campanas**	**1.26**	**146**		**Pb**	**08 28 42.1**	**-0.3**
LCO				Sn	**Sb**	**08 28 56.5**	**-2.6**
AC05	**El Transito**	**1.39**	**129**	*e*P	**Pn**	**08 28 44.1**	**-0.1**
AC05				*e*S	**Sb**	**08 29 01.8**	**-0.9**
AC05				IAML		08 29 03.8	
	comp=Z,1µm,0.5s						
AC05	**El Transito**	**1.39**	**129**	*e*P	**Pn**	**08 28 43.5**	**-0.6**
AC05				*e*S	**Sb**	**08 28 59.9**	**-2.7**
AC05				IAML		08 29 07.4	
	comp=N,3µm,0.6s						
AC05	**El Transito**	**1.39**	**129**		**Pn**	**08 28 43.9**	**-0.3**
AC01	**Pan de Azucar**	**1.98**	**24**	*e*P	**Pn**	**08 28 52.5**	**+0.3**
AC01				*e*S	**Sn**	**08 29 16.9**	**-0.7**
AC01	**Pan de Azucar**	**1.98**	**24**	⇑*e*P	**Pn**	**08 28 52.2**	**0.0**
AC01				IAML		08 29 30.6	
	comp=E,508nm,0.5s						
AC01	**Pan de Azucar**	**1.98**	**24**		**Pn**	**08 28 52.4**	**+0.1**
GO04	**Tololo Observa**	**2.29**	**165**	*e*P	**Pn**	**08 28 57.6**	**+1.0**
GO04				*e*S	**Sn**	**08 29 26.4**	**+0.9**
GO04				IAML		08 29 34.7	
	comp=Z,2µm,0.5s						
GO04	**Tololo Observa**	**2.29**	**165**	*e*P	**Pn**	**08 28 56.9**	**+0.3**
GO04	**Tololo Observa**	**2.29**	**165**		**Pn**	**08 28 57.2**	**+0.6**
CO01	**Juntas del Tor**	**2.35**	**149**	⇑*e*P	**Pn**	**08 28 55.9**	**-1.7**
CO01				IAML		08 29 32.1	
	comp=E,898nm,0.3s						
CO01	**Juntas del Tor**	**2.35**	**149**		**Pn**	**08 28 57.8**	**+0.2**
CO01				Sn	**Sn**	**08 29 26.8**	**-0.4**
AC02	**Maricunga**	**2.39**	**62**	*e*P	**Pb**	**08 29 00.6**	**-1.1**
AC02				IAML		08 29 37.5	
	comp=Z,654nm,0.3s						
AC02	**Maricunga**	**2.39**	**62**		**Pn**	**08 29 00.3**	**+2.1**
CO06	**Fray Jorge**	**2.70**	**182**	*e*P	**Pn**	**08 29 01.5**	**-0.7**
CO06				IAML		08 29 48.6	
	comp=E,566nm,0.4s						
CO06	**Fray Jorge**	**2.70**	**182**		**Pn**	**08 29 01.7**	**-0.5**
AROD	**Rodeo**	**2.82**	**142**	*e*P	**Pb**	**08 29 07.8**	**-1.2**
AROD				*e*S	**Sb**	**08 29 44.6**	**+0.5**
CO03	**El Pedregal**	**2.95**	**166**	*e*P	**Pn**	**08 29 06.8**	**+1.1**
CO03				*e*S	**Sn**	**08 29 41.4**	**-0.4**
CO03				IAML		08 29 57.0	
	comp=Z,587nm,0.4s						
CO03	**El Pedregal**	**2.95**	**166**	*e*P	**Pn**	**08 29 06.2**	**+0.5**
CO03				IAML		08 30 00.2	
	comp=N,877nm,0.5s						
CO03	**El Pedregal**	**2.95**	**166**		**Pn**	**08 29 06.8**	**+1.1**
ACDV	**Cuesta del Vie**	**3.03**	**137**	*e*P	**Pb**	**08 29 10.9**	**-1.6**
ACDV				*e*S	**Sb**	**08 29 48.4**	**-1.6**
ACDV				IAML		08 29 56.1	
	comp=Z,806nm,1.2s						
CO02	**Combarbal**	**3.26**	**172**	*e*P	**Pn**	**08 29 10.5**	**+0.5**
CO02				*e*S	Sn	08 29 34.9	-14
CO02				IAML		08 30 02.8	
	comp=Z,2µm,0.9s						
CO02	**Combarbal**	**3.26**	**172**	*e*P	**Pn**	**08 29 10.0**	**+0.1**
PB14	**IPOC Station P**	**3.47**	**17**		**Pn**	**08 29 12.2**	**-0.7**
TINO	**Tinogasta**	**3.48**	**93**	*e*P	**Pn**	**08 29 16.0**	**+3.1**
TINO				*e*S	**Sg**	**08 30 06.3**	**-3.1**
TINO				IAML		08 30 12.2	
	comp=Z,379nm,0.9s						
CO04	**Los Peladeros**	**4.09**	**174**		**Pn**	**08 29 22.2**	**+0.7**
ACLC	**CERRO LA CRUZ**	**4.25**	**111**	*e*P	**Pn**	**08 29 26.9**	**+3.3**
ACLC				*e*S	**Sb**	**08 30 19.9**	**-5.3**
ACLC				IAML		08 30 24.7	
	comp=Z,194nm,1.1s						
RTLL	**Cerro Villicun**	**4.26**	**143**	*e*P	**Pn**	**08 29 27.4**	**+3.7**
RTLL				*e*S	**Sn**	**08 30 16.9**	**+2.8**
RTLL				IAML		08 30 35.9	
	comp=Z,285nm,0.6s						
RTLS	**Leoncito**	**4.27**	**154**	*e*P	**Pn**	**08 29 28.4**	**+4.4**
RTLS				*e*S	**Sn**	**08 30 18.4**	**+3.7**
CFA	**Coronel Fontan**	**4.61**	**143**	Pn	**Pn**	**08 29 29.4**	**+1.0**
	comp=Z,3.4nm,0.3s,baz=321,slow=12,SNR=12						
CFA				Sn	**Sn**	**08 30 19.7**	**-2.7**
	comp=Z,3.2nm,0.3s,baz=321,slow=14,SNR=4.1						
CFA				LR	LR	08 30 53.2	
	comp=Z,182nm,19.8s,baz=344,slow=35 comp=Z,10.0nm,0.5s						
CFA				AML	AML		
CFA	**Coronel Fontan**	**4.61**	**143**	*e*P	**Pn**	**08 29 31.7**	**+3.3**
CFA				*e*S	**Sb**	**08 30 28.9**	**-6.3**
CFA				IAML		08 30 50.9	
	comp=Z,143nm,0.7s						
VA03	**San Esteban**	**4.85**	**171**	*e*P	**Pn**	**08 29 33.7**	**+1.8**
VA03				*e*S	**Sn**	**08 30 33.9**	**+5.2**

VA03				IAML		08 30 53.6	
	comp=Z,508nm,0.8s						
VA03	San Esteban	4.85	171		Pn	08 29 33.4	+1.5
CYA	Choya	5.05	97	eP	Pn	08 29 37.1	+2.6
CYA				eS	Sn	08 30 39.7	+6.3
CYA				IAML		08 30 40.9	
	comp=Z,144nm,0.9s						
PEL	Peldehue	5.21	172		Pn	08 29 38.9	+2.2
PB05	IPOC Station P	5.22	13	eP	Pn	08 29 35.8	-1.1
PB05				IAML		08 31 29.7	
	comp=Z,64nm,1.3s						
PB05	IPOC Station P	5.22	13		Pn	08 29 34.8	-2.1
PB06	IPOC Station P	5.52	19		Pn	08 29 39.9	-1.1
MT09	Talagante	5.81	176		Pn	08 29 44.8	-0.2
PB03	IPOC Station P	6.10	15	Pn	Pn	08 29 48.1	-0.9
BO01	Tunca	6.42	177		Pn	08 29 53.6	+0.3
BO02	Sierra Bellavi	6.84	175		Pn	08 30 02.3	+3.3
PB11	IPOC Station P	8.34	12	Pn	Pn	08 30 17.6	-2.1
H03N1	Juan Fernandez	8.40	228	T	T	08 38 59.7	
	baz=52,slow=74						
H03N2	Juan Fernandez	8.41	228	T	T	08 39 00.0	
	baz=52,slow=74						
H03N3	Juan Fernandez	8.41	228	T	T	08 39 13.0	
	baz=52						
BI02	San Fabin de	8.68	179	Pn	Pn	08 30 25.5	+1.1
LPAZ	La Paz	12.03	16	Pn	Pn	08 31 11.3	+0.5
	comp=Z,0.2nm,0.3s,baz=218,slow=6.8,SNR=6.2						
	comp=Z,0.7nm,0.4s						
LPAZ				AML	AML		
LPAZ	La Paz	12.03	16	Pn	Pn	08 31 11.1	+0.3
CPUP	Villa Florida	12.72	86	Pn	Pn	08 31 17.3	-2.4
	comp=Z,0.1nm,0.3s,baz=264,slow=19,SNR=1.8						
CPUP				Sn	Sn	08 33 39.9	-2.1
	comp=Z,0.1nm,0.3s,baz=154,slow=2.0,SNR=3.2						
	comp=Z,1.5nm,1.1s						
CPUP				AML	AML		
CPUP	Villa Florida	12.72	86	Pn	Pn	08 31 20.3	+0.6
PLCA	Paso Flores	12.76	177	Pn	Pn	08 31 20.8	+0.5
	baz=348,slow=16,SNR=3.1						
PLCA				Sn	Sn	08 33 45.7	+2.8
	baz=29,slow=1.1,SNR=2.3						
	comp=Z,0.6nm,0.9s						
PLCA	Paso Flores	12.76	177	Pn	Pn	08 31 18.8	-1.4
TRQA	Tornquist	12.84	144	Pn	Pn	08 31 21.1	-0.2
SIV	San Ignacio	15.33	41	Pn	Pn	08 31 51.7	-3.6
	baz=230,slow=5.6,SNR=3.5						
	comp=Z,0.5nm,0.3s						
CZSB	Cruzeiro do Su	20.16	357	Pn	Pn	08 32 55.7	+0.5
CZSB				IAmb	IAmb	08 32 57.9	
	comp=Z,15nm,1.2s						
GO08	Villa O’Higgin	20.49	182	Pn	Pn	08 32 59.6	+0.7
BDFB	Brasilia	24.96	65	LR	LR	08 44 25.9	
	comp=Z,165nm,18.6s,baz=152,slow=39						
BOAV	Boa Vista	31.98	21	P	P	08 34 45.7	+0.4
BOAV				IAmb	IAmb	08 34 49.4	
	comp=Z,4.0nm,1.2s						
VNA3	Neumayer Olymp	54.80	160	⇓P	P	08 37 48.7	+0.1
	comp=Z,1.5nm,0.7s						
VNA2	Neumayer--Watz	55.42	159	⇓P	P	08 37 53.3	+0.1
	comp=Z,2.2nm,0.6s,baz=283,slow=7.1						
SNAA	Sanae	57.02	159	⇓P	P	08 38 04.6	-0.1
	comp=Z,76nm,0.9s						
SNAA	Sanae	57.02	159	P	P	08 38 03.6	-1.0
	comp=Z,3.0nm,0.8s,baz=283,slow=6.4,SNR=8.3						
	comp=Z,3.0nm,0.8s						
SNAA	Sanae	57.02	159	P	P	08 38 04.1	-0.6
SNAA				IAmb	IAmb	08 38 05.3	
	comp=Z,5.0nm,1.0s						
TROLL	Troll, Antarti	58.73	160	⇓P	P	08 38 16.9	+0.2
	comp=Z,147nm,0.8s						
QSPA	South Pole Qui	62.25	180	P	P	08 38 40.6	-0.3
	comp=Z,3.5nm,0.8s,baz=150,slow=1.3,SNR=15						
	comp=Z,3.5nm,0.8s						
QSPA	South Pole Qui	62.25	180	P	P	08 38 41.3	+0.4
QSPA				IAmb	IAmb	08 38 42.5	
	comp=Z,4.3nm,0.9s						
TXAR	Lajitas Array	64.76	329	P	P	08 38 58.8	+1.0
	comp=Z,0.5nm,0.9s,baz=147,slow=7.4,SNR=4.7						
	comp=Z,0.5nm,0.9s						
TXAR	Lajitas Array	64.76	329	P	P	08 38 58.3	+0.5
R40A	Maddies Statio	68.72	343		P	08 39 23.0	+0.3
DBIC	Dimbokro	72.87	73	LR	LR	09 08 34.4	
	comp=Z,113nm,21.6s,baz=54,slow=33						
DBIC	Dimbokro	72.87	73	P	P	08 39 48.2	-0.3
PDAR	Pinedale Array	78.62	332	P	P	08 40 23.3	+2.2
	comp=Z,0.4nm,0.8s,baz=172,slow=4.5,SNR=4.5						
	comp=Z,0.4nm,0.8s						
NVAR	Mina Array Bea	79.23	324	P	P	08 40 26.9	+2.3
	comp=Z,0.5nm,0.9s,baz=141,slow=4.8,SNR=2.1						
	comp=Z,0.5nm,0.9s						
TORD	Torodi Ar. Bea	81.74	70	P	P	08 40 37.1	-1.1
	comp=Z,2.0nm,1.0s,baz=253,slow=5.6,SNR=5.3						
	comp=Z,2.0nm,1.0s						
TORD	Torodi Ar. Bea	81.74	70	IAmb	IAmb	08 40 55.5	
	comp=Z,2.0nm,0.7s						
ASAR	Alice Springs	123.12	208	PKP	PKPdf	08 47 15.7	-0.9
	comp=Z,0.4nm,0.8s,baz=165,slow=3.8,SNR=4.8						
H11S2	WAKE ISLAND Hy	126.11	273	T	T	11 06 40.4	
	baz=110						
H11S1	WAKE ISLAND Hy	126.12	273	T	T	11 06 37.1	
	baz=110,slow=74						
H11S3	WAKE ISLAND Hy	126.13	273	T	T	11 06 40.2	
	baz=110,slow=74						
WRA	Warramunga Arr	126.21	211	PKP	PKPdf	08 47 21.6	-1.0
	comp=Z,0.3nm,0.8s,baz=176,slow=1.6,SNR=6.4						
KURK	Kurchatov	147.96	37		PKPdf	08 48 03.0	+1.8
KURBB	Kurchatov Arra	147.96	37	PKPbc	PKPdf	08 48 03.0	+1.8
	comp=Z,0.4nm,0.3s,baz=304,slow=2.8,SNR=9.2						
ZALV	Zalesovo Beam	148.77	27	PKPbc	PKPbc	08 48 06.8	+0.6
	comp=Z,3.9nm,0.8s,baz=298,slow=3.2,SNR=9.8						
MKAR	Makanchi Array	152.15	41	PKPbc	PKPbc	08 48 14.9	+0.3
	comp=Z,1.5nm,0.8s,baz=337,slow=1.6,SNR=12						

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*THE **01** 08:29:17.9, 39°N±1°×2°6E±°, h1^{km}±4^{km}, M2.5/7, MLh2.5/7*
*ISK **01** 08:29:17.9, 39°.50N×26°.24E, h7^{km}, ML2.7/20*
*AFAD **01** 08:29:17.8, 39°.48N×26°.27E, h11^{km}±1^{km}, ML2.7*
*ATH **01** 08:29:17.6, 39°.46N×26°.29E, h11^{km}±3^{km}, ML2.4/6, Latitude uncertainty: 1 km; Longitude uncertainty: 2 km*
ISC 01 08:29:17.8±0.8**, 39°.47N**±0°.01×**26°.26E**±0°.02**, h10**^{km}±5^{km}**,**
n59, σ0^{s}.60/100**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KOCA	Canakkale, Ayv	0.10	286	P	Pg	08 29 20.3	-0.1
KOCA				IAML		08 29 22.0	
	comp=N,2µm,0.5s						
KOCA				IAML		08 29 22.0	
	comp=E,3µm,0.3s						
KOCA				S	Sg	08 29 22.6	+0.3
KOCA	Canakkale, Ayv	0.10	286	P	Pg	08 29 20.2	-0.3
KOCA				IAML		08 29 22.0	
	comp=N,2µm,0.5s						
KOCA				IAML		08 29 22.0	
	comp=E,3µm,0.3s						
KOCA				S	Sg	08 29 22.6	+0.3
GPNR	Gulpinar-Canak	0.10	260	Pg	Pg	08 29 20.1	-0.3
GPNR				Sg	Sg	08 29 22.7	+0.4
GPNR				AML	AML		
PRK	Paraskevi	0.23	178	P	Pg	08 29 22.3	-0.2
PRK				S	Sg	08 29 26.1	+0.5
PRK				AML	AML		
PRK	Paraskevi	0.23	178	P	Pg	08 29 22.2	-0.3
PRK				S	Sg	08 29 25.5	-0.1
PRK				AML	AML		
EZNE	Ezine-Canakkal	0.29	16	Pg	Pg	08 29 24.1	+0.4
EZNE				Sg	Sg	08 29 28.4	+0.7
BAYC	CANAKKALE_Bayr	0.35	39	P	Pg	08 29 24.2	-0.5
BAYC				S	Sg	08 29 29.5	+0.2
BAYC	CANAKKALE_Bayr	0.35	39	P	Pg	08 29 23.8	-0.9
BAYC				S	Sg	08 29 29.5	+0.2
EZN	Ezine	0.35	8	P	Pg	08 29 25.2	+0.3
EZN				S	Sg	08 29 30.1	+0.5
EZN				AML	AML		
EZN	Ezine	0.35	8	Pg	Pg	08 29 25.0	+0.1
EZN				Sg	Sg	08 29 30.4	+0.8
EZN				AML	AML		
AYVA	Ayvalik	0.37	116	P	Pg	08 29 25.0	-0.1
AYVA				S	Sg	08 29 30.8	+0.8
AYVA	Ayvalik	0.37	116	P	Pg	08 29 24.9	-0.1
AYVA				S	Sg	08 29 30.9	+0.9
AYVA				IAML		08 29 31.0	
	comp=E,320nm,0.5s						
BOZC	Bozcaada	0.40	336	Pg	Pg	08 29 25.9	+0.2
BOZC				Sg	Sg	08 29 31.6	+0.5
BOZC				AML	AML		
BOZC	Bozcaada	0.40	336	P	Pg	08 29 25.1	-0.6
BOZC				IAML		08 29 32.0	
	comp=N,508nm,0.3s						
BOZC				IAML		08 29 32.0	
	comp=E,567nm,0.5s						
BOZC				S	Sg	08 29 32.1	+1.0
BOZC	Bozcaada	0.40	336	P	Pg	08 29 26.0	+0.2
BOZC				S	Sg	08 29 31.6	+0.5
BOZC				IAML		08 29 32.0	
	comp=N,392nm,0.2s						
BOZC				IAML		08 29 32.0	
	comp=E,380nm,0.3s						
ECEA	Canakkale, Ece	0.57	353	P	Pb	08 29 30.1	+0.1
ECEA				S	Sb	08 29 38.2	0.0
ECEA				IAML		08 29 42.0	
	comp=N,432nm,0.5s						
ECEA				IAML		08 29 43.0	
	comp=E,374nm,0.6s						
ECEA	Canakkale, Ece	0.57	353	P	Pg	08 29 29.0	0.0
ECEA				S	Sb	08 29 37.8	-0.4
ECEA				IAML		08 29 38.0	
	comp=N,548nm,0.6s						
ECEA				IAML		08 29 38.0	
	comp=E,822nm,0.6s						
CNKL	anakkale-Mer	0.60	9	P	Pg	08 29 26.0	-3.4
CNKL				S	Sg	08 29 37.5	+0.2
BUHA	Balikesir, Bur	0.63	87	P	Pg	08 29 29.9	-0.1
BUHA				S	Sg	08 29 38.8	+0.5
BUHA	Balikesir, Bur	0.63	87	P	Pg	08 29 30.3	+0.3
BUHA				S	Sg	08 29 38.7	+0.4
COMU	Canakkale	0.65	14	Pg	Pg	08 29 30.5	+0.2
COMU				Sg	Sb	08 29 39.9	-0.4
COMU				AML	AML		
GADA	Gvkgeada	0.77	339	Pg	Pg	08 29 32.3	-0.4
GADA				AML	AML		
ZEDA	zmir-Bergama	0.81	128	P	Pg	08 29 32.7	-0.7
ZEDA				S	Sn	08 29 47.4	0.0
ZEDA	zmir-Bergama	0.81	128	P	Pg	08 29 33.4	-0.1
ZEDA				S	Sb	08 29 45.4	+0.4
CANM	Can-anakkale	0.81	48	Pg	Pg	08 29 33.7	+0.2
CANM				AML	AML		
KARB	zmir-Karabur	0.82	172	P	Pg	08 29 33.9	+0.3
KARB				S	Sn	08 29 46.6	-1.0
KARB	zmir-Karabur	0.82	172	P	Pb	08 29 34.2	+0.1
KARB				S	Sb	08 29 46.2	+1.1
KARB				IAML		08 29 47.0	
	comp=N,150nm,0.3s						
KARB				IAML		08 29 47.0	
	comp=E,196nm,0.3s						
YENI	Yenice-Canakka	0.89	58	Pg	Pn	08 29 35.8	-0.5
LAPS	Lapseki, ANA	0.90	29	P	Pb	08 29 35.5	0.0
LAPS				S	Sg	08 29 46.9	+0.1
LAPS				IAML		08 29 50.0	
	comp=E,249nm,0.6s						
LAPS	Lapseki, ANA	0.90	29	P	Pg	08 29 35.2	+0.2
LAPS				S	Sg	08 29 46.6	-0.1
LAPS				IAML		08 29 50.0	
	comp=E,249nm,0.6s						
KRBN	Karaburun	0.91	165	Pg	Pn	08 29 36.9	+0.3
KRBN				AML	AML		
LIA	Limnos Island	0.94	297	P	Pg	08 29 35.6	-0.2
LIA				S	Sb	08 29 49.3	+0.8
LIA				AML	AML		
LIA	Limnos Island	0.94	297	P	Pg	08 29 35.9	+0.1
LIA				S	Sb	08 29 48.7	+0.1
BAGT	Foa	0.94	151	P	Pg	08 29 35.3	-0.5
BAGT				IAML		08 29 48.0	
	comp=N,245nm,0.9s						
BAGT				IAML	Sn	08 29 50.0	-0.5
	comp=E,156nm,0.6s						
BAGT				S	Sn	08 29 50.0	-0.5
GELI	Tayfur-Gelibol	0.94	10	Pg	Pb	08 29 36.1	-0.1
GELI				AML	AML		
EFSA	Agios Efstrati	0.99	274	P	Pb	08 29 37.0	0.0
EFSA				S	Sb	08 29 50.6	+0.5
EFSA				AML	AML		
SOMA	Soma-Manisa	1.03	107	Pg	Pn	08 29 38.6	+0.2
SOMA				AML	AML		
BALY	Balya	1.08	75	P	Pb	08 29 38.5	-0.1
BALY				S	Sn	08 29 54.6	+0.5
BALY				IAML		08 29 55.0	
	comp=N,391nm,0.6s						
BALY				IAML		08 29 55.0	
	comp=E,177nm,0.5s						
BALY	Balya	1.08	75	P	Pb	08 29 37.1	-1.5
BALY				S	Sn	08 29 54.7	+0.5
CHOS	Chios island	1.10	189	P	Pb	08 29 38.0	-0.9
CHOS				S	Sg	08 29 53.6	+0.5
CHOS				AML	AML		
CHOS	Chios island	1.10	189	Pn	Pb	08 29 38.3	-0.6
CHOS				AML	AML		
CHOS	Chios island	1.10	189	P	Pb	08 29 38.3	-0.6
CHOS				S	Sb	08 29 53.1	-0.2
CHOS				AML	AML		
SMTH	Samothraki Isl	1.14	331	P	Pb	08 29 39.2	-0.5
SMTH				S	Sn	08 29 55.3	-0.4
SMTH				AML	AML		
ATIT	Gnen	1.17	58	P	Pb	08 29 39.3	-0.9
ATIT				S	Sg	08 29 55.7	+0.1
ATIT				IAML		08 29 56.0	
	comp=E,239nm,0.3s						
ERIK	Erikli-Kesan	1.21	9	Pn	Pn	08 29 40.6	-0.2
ERIK				AML	AML		
KRBG	Karabiga-Canak	1.22	41	Pn	Pb	08 29 40.8	-0.1
GONE	Gonen-Balikesi	1.24	62	Pn	Pg	08 29 41.9	+0.3
GONE				AML	AML		
BALB	Balikesir	1.26	82	Pn	Pg	08 29 42.3	+0.3
BALB				AML	AML		
ENEZ	Enez	1.26	356	P	Pg	08 29 42.2	0.0
ENEZ				S	Sg	08 30 00.1	+1.6
ENEZ				AML	AML		
ENEZ	Enez	1.26	356	Pn	Pg	08 29 42.1	0.0
ENEZ				AML	AML		
ALN	Alexandroupoli	1.43	353	P	Pb	08 29 44.3	-0.3
ALN				S	Sg	08 30 03.8	-0.1
ALN	Alexandroupoli	1.43	353	Pn	Pn	08 29 43.8	0.0
ALN				AML	AML		
ALN	Alexandroupoli	1.43	353	P	Pn	08 29 43.9	0.0
ALN				S	Sb	08 30 02.9	0.0
SUSR	Susurluk-Balik	1.49	70	Pn	Pb	08 29 45.7	+0.2
SUSR				AML	AML		
EDC	Edincik	1.51	54	Pn	Pb	08 29 45.7	-0.2
EDC				AML	AML		
GAZK	Gazikoy-TEKIRD	1.51	32	Pn	Pb	08 29 45.9	0.0
GAZK				AML	AML		
GORD	Gordes-Manisa	1.59	110	Pn	Pb	08 29 47.4	+0.1
GORD				AML	AML		
THAS	Thassos island	1.64	314	P	Pn	08 29 46.8	+0.1
THAS				AML	AML		
UKOP	Uzunkopru-Edir	1.68	10	Pn	Pb	08 29 48.0	-0.8
UKOP				AML	AML		

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*IDC **01** 08:41:15.7±1.5, 8°.37N×103°.30W, h0^{km}, mb3.4/4, mbtmp3.5/6, ML3.0/2, MS3.3/1, Error ellipse: s-maj=36.3km s-min=25.0km az=149.0*
ISC 01 08:41:18.2±1.7**, 8°.4N**±0°.2×**103°.1W**±0°.2**, h19**^{km}**, n10,**
σ**0^{s}.66**/9**, mb3.7**/3**, Northern East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMIG	Matias Romero	11.80	42	Pn	Pn	08 44 05.8	0.0
	0.1nm,0.3s,baz=127,slow=16,SNR=1.7						
	0.9nm,0.5s						
CMIG				AML	AML		
APG	El Apazote	14.03	61	Pn	Pn	08 44 36.4	+0.1
	0.1nm,0.3s,baz=185,slow=10.0,SNR=11						
	0.8nm,0.7s						
APG				AML	AML		
JTS	Las Juntas de	18.03	83	LR	LR	08 50 40.1	
	comp=Z,94nm,20.2s,baz=9.6,slow=31						
TXAR	Lajitas Array	20.85	359	P	P	08 45 59.1	-0.1
	0.5nm,0.8s,baz=190,slow=14,SNR=7.1						
	0.5nm,0.8s						
NVAR	Mina Array Bea	32.90	338	P	P	08 47 51.2	-0.3
	0.8nm,0.8s,baz=172,slow=7.6,SNR=4.8						
	0.8nm,0.8s						
PDAR	Pinedale Array	34.71	352	P	P	08 48 06.5	-0.7
	0.4nm,0.7s,baz=149,slow=12,SNR=5.1						
	0.4nm,0.7s						
ILAR	Eielson Array	64.08	341	P	P	08 51 51.4	+0.7
	0.4nm,0.5s,baz=157,slow=5.7,SNR=9.6						
	0.4nm,0.5s						
WRA	Warramunga Arr	123.35	252	PKP	PKPdf	09 00 14.5	-0.5
	0.4nm,0.7s,baz=92,slow=1.8,SNR=5.4						
ASAR	Alice Springs	123.48	247	PKP	PKPdf	09 00 14.6	-0.6
	0.4nm,0.8s,baz=78,slow=1.5,SNR=4.2						
CMAR	Chiang Mai Arr	145.57	321	PKPbc	PKPab	09 00 57.6	+0.9
	1.2nm,0.3s,baz=14,slow=1.9,SNR=6.9						

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*ISK **01** 08:42:15.5, 39°.49N×26°.26E, h5^{km}, ML2.6/14*
*AFAD **01** 08:42:15.8, 39°.48N×26°.27E, h10^{km}±1^{km}, ML2.4*
ISC 01 08:42:15.7±0.9**, 39°.48N**±0°.02×**26°.27E**±0°.03**, h9**^{km}±7^{km}**,**
n31, σ0^{s}.65/49**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KOCA	Canakkale, Ayv	0.11	283	P	Pg	08 42 18.2	-0.1
KOCA				IAML		08 42 20.0	
	comp=N,3µm,0.3s						
KOCA				S	Sg	08 42 20.3	+0.2
KOCA				IAML		08 42 21.0	
	comp=E,3µm,0.2s						
GPNR	Gulpinar-Canak	0.11	259	Pg	Pg	08 42 17.9	-0.4
GPNR				Sg	Sg	08 42 20.1	0.0
GPNR				AML	AML		
EZNE	Ezine-Canakkal	0.29	14	Pg	Pg	08 42 21.6	+0.2
EZNE				Sg	Sg	08 42 26.5	+1.2
BAYC	CANAKKALE_Bayr	0.34	39	P	Pg	08 42 21.7	-0.7
BAYC				S	Sg	08 42 27.2	+0.3
EZN	Ezine	0.35	7	Pg	Pg	08 42 23.1	+0.5
EZN				Sg	Sg	08 42 27.9	+0.6
EZN				AML	AML		
AYVA	Ayvalik	0.36	117	P	Pg	08 42 23.0	+0.1
AYVA				S	Sg	08 42 29.0	+1.3
BOZC	Bozcaada	0.40	335	Pg	Pg	08 42 23.8	+0.2
BOZC				Sg	Sg	08 42 29.3	+0.4
BOZC				AML	AML		
BOZC	Bozcaada	0.40	335	P	Pg	08 42 23.5	-0.1
BOZC				S	Sb	08 42 29.9	-1.4
BOZC				IAML		08 42 30.0	
	comp=N,519nm,0.2s						
BOZC				IAML		08 42 30.0	
	comp=E,598nm,0.2s						
ECEA	Canakkale, Ece	0.57	352	P	Pb	08 42 27.4	-0.5
ECEA				S	Sb	08 42 36.1	0.0
ECEA				IAML		08 42 38.0	
	comp=E,225nm,0.3s						
ECEA				IAML		08 42 40.0	
	comp=N,257nm,0.7s						
CNKL	anakkale-Mer	0.59	8	P	Pg	08 42 26.8	-0.4
CNKL				S	Sg	08 42 35.5	+0.5
CNKL				IAML		08 42 37.0	
	comp=N,178nm,0.3s						
BUHA	Balikesir, Bur	0.62	88	P	Pg	08 42 25.4	-2.3
BUHA				S	Sg	08 42 36.6	+0.7
COMU	Canakkale	0.64	14	Pg	Pg	08 42 28.3	+0.2
COMU				AML	AML		
GOAD	anakkale-G¶	0.74	338	P	Pg	08 42 29.9	-0.1
GOAD				S	Sb	08 42 40.5	-0.5
GADA	Gvkgeada	0.77	338	Pg	Pb	08 42 31.1	-0.2
GADA				AML	AML		
CANM	Can-anakkale	0.80	48	Pg	Pg	08 42 31.4	+0.2
CANM				AML	AML		
KARB	zmir-Karabur	0.82	172	P	Pb	08 42 32.0	-0.1
KARB				S	Sb	08 42 44.3	+1.1
KARB				IAML		08 42 45.0	
	comp=E,108nm,0.3s						
KARB				IAML		08 42 47.0	
	comp=N,101nm,0.3s						
YENI	Yenice-Canakka	0.88	58	Pg	Pg	08 42 32.8	+0.2
LAPS	Lapseki, ANA	0.89	29	P	Pg	08 42 32.0	-0.8
LAPS				S	Sb	08 42 44.8	-0.5
LAPS				IAML		08 42 45.0	
	comp=N,130nm,0.3s						
LAPS				IAML		08 42 48.0	
	comp=E,134nm,0.5s						
GELI	Tayfur-Gelibol	0.93	9	Pg	Pb	08 42 33.8	-0.2
GELI				AML	AML		
BALY	Balya	1.07	75	P	Pg	08 42 35.4	-0.9
BALY				S	Sn	08 42 51.8	-0.2
BALY				IAML		08 42 53.0	
	comp=N,171nm,0.5s						
BALY				IAML		08 42 53.0	
	comp=E,95nm,0.4s						
CAMT	Merkez	1.09	132	P	Pg	08 42 35.6	-1.0
CAMT				S	Sn	08 42 52.6	+0.3
CHOS	Chios island	1.10	189	Pn	Pn	08 42 37.5	+0.1
CHOS				AML	AML		
STEP	BALIKESIR_Sava	1.12	95	P	Pg	08 42 37.4	+0.1
STEP				S	Sn	08 42 53.6	+0.4
STEP				IAML		08 42 56.0	
	comp=N,67nm,0.7s						
STEP				IAML		08 42 56.0	
	comp=E,79nm,0.4s						
ERIK	Erikli-Kesan	1.21	9	Pn	Pb	08 42 38.4	-0.3
ERIK				AML	AML		
KRBG	Karabiga-Canak	1.21	40	Pn	Pn	08 42 38.9	+0.1
GOKT	Kean, EDRN	1.21	13	P	Pb	08 42 37.9	-1.0
GOKT				S	Sn	08 42 55.4	0.0
GOKT				IAML		08 42 57.0	
	comp=E,168nm,0.4s						
GOKT				IAML		08 42 58.0	
	comp=N,169nm,0.4s						
GONE	Gonen-Balikesi	1.23	62	Pn	Pg	08 42 39.5	+0.2
ENEZ	Enez	1.26	356	Pn	Pg	08 42 40.1	+0.2
ENEZ				AML	AML		
ALN	Alexandroupoli	1.43	353	Pn	Pb	08 42 42.6	+0.1
ALN				AML	AML		
SUSR	Susurluk-Balik	1.48	70	Pn	Pb	08 42 43.4	0.0
SUSR				AML	AML		
GAZK	Gazikoy-TEKIRD	1.50	32	Pn	Pb	08 42 43.8	0.0
GAZK				AML	AML		

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*SJA **01** 08:43:13.1±0.7, 27°.88S×71°.77W, h7^{km}±3^{km}, ML3.8, MW3.6*
*GUC **01** 08:43:18.3±0.9, 28°.04S×71°.39W, h31^{km}±3^{km}, ML3.6*
ISC 01 08:43:15.7±1.4**, 27°.98S**±0°.03×**71°.57W**±0°.06**, h19**^{km}±3^{km}**,**
n29, σ2^{s}.03/53**, 4C-3D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.49	117	eP	Pn	08 43 27.1	-0.6
AC04	Llanos de Chal	0.49	117	⇓eP	Pn	08 43 27.1	-0.6
AC04				eS	Sg	08 43 32.0	-0.3
AC04				IAML		08 43 32.7	
	comp=E,13µm,0.3s						
AC06	Mina Casimiro	1.24	60	⇓eP	Pg	08 43 39.3	-0.5
AC06				eS	Sg	08 43 55.5	-0.6
AC06				IAML		08 44 00.8	
	comp=E,689nm,0.3s						
GO03	Copiapo	1.24	72	eP	Pg	08 43 39.5	-0.3
GO03				eS	Sg	08 43 56.8	+0.7
GO03				IAML		08 43 56.9	
	comp=Z,1µm,0.6s						
GO03	Copiapo	1.24	72	⇑eP	Pg	08 43 39.4	-0.4
GO03				eS	Sg	08 43 55.5	-0.6
GO03				IAML		08 44 00.8	
	comp=N,1µm,0.4s						
LCO	Las Campanas	1.28	144	eP	Pn	08 43 35.5	-3.3
LCO				eP	Pg	08 43 40.8	+0.3
LCO				eS	Sg	08 43 57.5	+0.1
LCO				IAML		08 44 00.1	
	comp=Z,1µm,0.2s						
LCO	Las Campanas	1.28	144	⇑eP	Pb	08 43 40.2	+0.8
LCO				eS	Sn	08 43 55.8	+0.2
LCO				IAML		08 43 58.2	
	comp=Z,10µm,0.3s						
AC05	El Transito	1.42	127	eP	Pb	08 43 42.9	+1.1
AC05	El Transito	1.42	127	⇓eP	Pb	08 43 42.6	+0.9
AC05				eS	Sn	08 43 59.8	+0.8
AC05				IAML		08 44 04.3	
	comp=E,994nm,0.6s						
AC01	Pan de Azucar	2.02	26	⇑eP	Pb	08 43 50.9	-1.0
AC01				eS	Sg	08 44 18.6	-2.2
AC01				IAML		08 44 32.0	
	comp=E,381nm,0.3s						
GO04	Tololo Observa	2.29	163	eP	Pb	08 43 56.0	-0.5
GO04				eS	Sg	08 44 27.8	-1.6
GO04				IAML		08 44 34.1	
	comp=Z,1µm,0.8s						
GO04	Tololo Observa	2.29	163	eP	Pb	08 43 56.0	-0.5
GO04				eS	Sb	08 44 24.8	+0.3

GO04				IAML		08 44 33.7	
	comp=N,4µm,0.7s						
CO01	Juntas del Tor	2.37	147	eP	Pb	08 43 58.1	+0.1
CO01				eS	Sn	08 44 21.6	-1.0
CO01				IAML		08 44 29.9	
	comp=Z,556nm,0.7s						
CO01	Juntas del Tor	2.37	147	eP	Pb	08 43 58.0	0.0
CO01				eS	Sb	08 44 26.5	-0.5
CO01				IAML		08 44 32.3	
	comp=N,526nm,0.4s						
AC02	Maricunga	2.45	63	eP	Pb	08 43 59.2	-0.2
AC02				eS	Sb	08 44 31.4	+2.0
AC02				IAML		08 44 36.2	
	comp=Z,415nm,0.5s						
AC02	Maricunga	2.45	63	⇑eP	Pb	08 43 59.1	-0.3
AC02				eS	Sb	08 44 30.2	+0.7
AC02				IAML		08 44 35.1	
	comp=N,872nm,0.5s						
CO06	Fray Jorge	2.68	181	eP	Pn	08 44 00.1	+2.1
CO06				eS	Sn	08 44 31.1	+1.2
CO06				IAML		08 44 47.9	
	comp=E,221nm,0.4s						
AROD	Rodeo	2.85	140	eP	Pb	08 44 06.2	0.0
AROD				eS	Sb	08 44 43.7	+3.0
VCA	Vinchina	3.06	105	eP	Pb	08 44 09.9	+0.3
VCA				eS	Sb	08 44 49.5	+2.9
VCA				IAML		08 45 00.5	
	comp=Z,283nm,0.4s						
ACDV	Cuesta del Vie	3.06	136	eP	Pb	08 44 09.6	0.0
ACDV				eP	Pg	08 44 09.9	-4.4
ACDV				eS	Sb	08 44 47.5	+0.9
ACDV				IAML		08 44 52.8	
	comp=Z,111nm,0.5s						
CO02	Combarbal	3.25	171	eP	Pn	08 44 09.1	+3.3
CO02				eS	Sb	08 44 50.5	-1.6
CO02				IAML		08 45 06.2	
	comp=Z,464nm,0.5s						
TINO	Tinogasta	3.54	92	eP	Pb	08 44 14.2	-3.5
TINO				eS	Sb	08 45 01.6	+1.2
TINO				IAML		08 45 08.1	
	comp=Z,165nm,0.7s						
RTLS	Leoncito	4.29	153	eP	Pb	08 44 26.9	-3.7
RTLS				eS	Sb	08 45 19.6	-2.6
ACLC	CERRO LA CRUZ	4.30	111	eP	Pn	08 44 25.5	+5.2
ACLC				eS	Sb	08 45 19.8	-2.8
ACLC				IAML		08 45 26.9	
	comp=Z,52nm,1.0s						
CFA	Coronel Fontan	4.63	142	eP	Pn	08 44 30.1	+5.5
CFA				eS	Sb	08 45 27.6	-4.2
CFA				IAML		08 45 39.1	
	comp=Z,66nm,0.5s						
VA03	San Esteban	4.85	170	eP	Pn	08 44 32.1	+4.4
VA03				eS	Sb	08 45 35.5	-2.5
VA03				IAML		08 45 48.7	
	comp=Z,145nm,0.7s						
CYA	Choya	5.11	97	eP	Pn	08 44 36.0	+4.7
CYA				IAML		08 45 41.4	
	comp=Z,39nm,0.9s						
CYA				eS	Sb	08 45 41.6	-3.9
PB05	IPOC Station P	5.25	14	eP	Pn	08 44 34.4	+1.0
PB05				IAML		08 46 18.5	
	comp=Z,41nm,0.5s						
MT02	Curacav	5.27	176	eP	Pn	08 44 36.6	+3.1
MT02				IAML		08 46 08.7	
	comp=Z,60nm,0.6s						

SNET ***01*** *08:46:35.7±1.4, 12°.85N×88°.90W, h59^{km}, ML3.2, Presumed earthquake*
CATAC ***01*** *08:46:35.9±0.5, 13°N±3°×8°9W±°, h35^{km}±4^{km}, M3.1/19, MLv3.1/19, Error ellipse: s-maj=7.0km s-min=2.7km az=21.6, confirmed*
GCG ***01*** *08:46:36.9±0.6, 12°.93N×89°.01W, h70^{km}±13^{km}, MD3.9, Presumed earthquake*
ISC 01 08:46:36.0±1.7**, 12°.84N**±0°.10×**88°.90W**±0°.04**, h61**^{km}±14^{km}**, n41, σ0^{s}.53**/73**, 3C-2D, Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ALJI	Alcalda de J	0.58	34	⇑iP	Pn	08 46 49.0	0.0
ALJI				eS	Sn	08 46 59.6	+1.3
ALJI	Alcalda de J	0.58	34	P	Pn	08 46 48.9	-0.1
ALJI				S	Sn	08 46 59.2	+0.9
TECO	Alcaldia de Te	0.70	10	P	Pn	08 46 49.9	-0.5
TECO				S	Sn	08 47 00.7	-0.1
LALI	Alcalda de L	0.76	327	i P	Pn	08 46 50.8	-0.3
LALI	Alcalda de L	0.76	327	P	Pn	08 46 50.8	-0.3
LALI				S	Sn	08 47 01.2	-0.9
COEG	Centro de Oper	0.77	1	P	Pn	08 46 50.8	-0.5
COEG				S	Sn	08 47 02.4	-0.1
SJTE	Alcalda de S	0.77	352	⇓iP	Pn	08 46 51.0	-0.4
SJTE				eS	Sn	08 47 02.2	-0.4
PANCS	Alcalda de	0.81	340	S	Sn	08 47 02.5	-0.8
RANC	El Ranchito	0.84	45	P	Pn	08 46 52.0	-0.2
RANC				S	Sn	08 47 04.9	+0.9
PACA	Pacayal	0.84	42	P	Pn	08 46 52.0	-0.2
PACA				S	Sn	08 47 04.8	+0.7
LOMA	Loma Larga	0.84	342	i P	Pn	08 46 52.0	-0.2
LOMA				eS	Sn	08 47 03.9	-0.2
LOMA	Loma Larga	0.84	342	P	Pn	08 46 52.0	-0.2
LOMA				S	Sn	08 47 04.3	+0.2
PQSS	Presa 15 de Se	0.84	23	S	Sn	08 47 04.7	+0.7
PAVA	Las Pavas	0.86	358	P	Pn	08 46 52.4	-0.1
PAVA				S	Sn	08 47 04.7	0.0
SCLA	Alcaldia de Sa	0.87	11	S	Sn	08 47 05.2	+0.6
INTP	Intipuca	0.90	67	⇑iP	Pn	08 46 52.7	0.0
INTP				eS	Sn	08 47 05.5	+0.3
UEES	Universidad Ev	0.93	339	P	Pn	08 46 53.2	-0.1
UEES				S	Sn	08 47 06.1	+0.1
PMON	Piamonte	0.95	335	⇓iP	Pn	08 46 53.4	-0.2
PMON				eS	Sn	08 47 06.3	-0.3
PMON	Piamonte	0.95	335	P	Pn	08 46 53.4	-0.2
PMON				S	Sn	08 47 06.4	-0.2
JAYA	Jayaque - finc	0.97	327	i P	Pn	08 46 53.5	-0.4
JAYA				i S	Sn	08 47 06.2	-0.9
JAYA	Jayaque - finc	0.97	327	⇑iP	Pn	08 46 53.6	-0.2
JAYA				eS	Sn	08 47 07.1	+0.1
JAYA	Jayaque - finc	0.97	327	P	Pn	08 46 53.4	-0.4
JAYA				S	Sn	08 47 06.6	-0.5
CEDA	San Andres	1.07	333	P	Pn	08 46 54.9	-0.2
CEDA				S	Sn	08 47 09.3	+0.1
LCND	La Caada	1.09	65	i P	Pn	08 46 55.0	-0.3
LCND				i P		08 46 55.4	
LCND				eS	Sn	08 47 09.3	-0.2
LCND				eS		08 47 09.5	
LCND	La Caada	1.09	65	P	Pn	08 46 55.0	-0.3
CNCH	Conchagua	1.12	67	i P	Pn	08 46 55.6	-0.3
CNCH				eS	Sn	08 47 10.1	-0.5
CNCH	Conchagua	1.12	67	P	Pn	08 46 55.6	-0.3
CNCH				S	Sn	08 47 10.4	-0.2
CEVE	Cerro Verde	1.21	324	i P	Pn	08 46 57.5	+0.4
CEVE	Cerro Verde	1.21	324	P	Pn	08 46 57.3	+0.2
CEVE				S	Sn	08 47 14.4	+1.6
SBLS	San Blas	1.21	325	i P	Pn	08 46 57.5	+0.3
SBLS				eS	Sn	08 47 14.0	+1.1
UNIC	Universidad Ca	1.29	331	P	Pn	08 46 58.0	-0.1
UNIC				S	Sn	08 47 15.2	+0.6
CSGN	Cosiguina Volc	1.31	84	P	Pn	08 46 57.5	-0.8
CSGN				S	Sn	08 47 15.4	+0.4
NUBE	Las Nubes	1.36	321	i P	Pn	08 46 58.9	-0.1
NUBE				i S	Sn	08 47 15.8	-0.3
NUBE	Las Nubes	1.36	321	i P	Pn	08 46 59.1	+0.1
NUBE				eS	Sn	08 47 16.1	-0.1
NUBE	Las Nubes	1.36	321	P	Pn	08 46 58.9	-0.1
NUBE				S	Sn	08 47 16.4	+0.3
FAME	Alcaldia de Sa	1.47	313	P	Pn	08 47 01.6	+1.2
FAME				S	Sn	08 47 18.0	-0.7
MTO3	Montecristo	1.61	344	i P	Pn	08 47 02.2	-0.2
MTO3	Montecristo	1.61	344	P	Pn	08 47 02.0	-0.5
MTO3				S	Sn	08 47 22.3	-0.1
CRIN	San Cristobal	1.81	94	S	Sn	08 47 27.9	+0.9
SARH	Santa Rosa de	1.93	4	i P	Pn	08 47 07.2	+0.6
TGUH	Tegucigalpa,Un	1.99	53	P	Pn	08 47 07.4	-0.1
TGUH				S	Sn	08 47 30.6	-0.9

SJA ***01*** *08:49:22.0±1.6, 27°.96S×71°.60W, h10^{km}±9^{km}, ML3.7, MW3.5*
GUC ***01*** *08:49:22.1±0.5, 27°.94S×71°.59W, h17^{km}±4^{km}, ML3.4*
ISC 01 08:49:20.5±1.8**, 27°.98S**±0°.03×**71°.63W**±0°.07**, h2**^{km}±13^{km}**, n32, σ1^{s}.83**/37**, 2C-4D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.54	115	⇓eP	Pb	08 49 32.8	+0.1
AC04				eS	Sg	08 49 37.3	-0.6
AC04				IAML		08 49 38.1	
	comp=E,10µm,0.4s						
AC06	Mina Casimiro	1.29	62	⇓eP	Pg	08 49 45.4	+0.2
AC06				IAML		08 50 08.6	
	comp=E,818nm,0.3s						
GO03	Copiapo	1.29	73	i P	Pg	08 49 45.9	+0.5
GO03				eS	Sn	08 50 01.9	-1.6
GO03				IAML		08 50 03.0	
	comp=Z,2µm,0.6s						
GO03	Copiapo	1.29	73	⇓eP	Pg	08 49 45.5	+0.2
GO03				IAML		08 50 06.3	
	comp=N,1µm,0.6s						
LCO	Las Campanas	1.31	142	i P	Pg	08 49 46.5	+0.8
LCO				⇓eS	Sg	08 50 02.7	-0.1
LCO				IAML		08 50 04.7	
	comp=Z,1µm,0.4s						
LCO	Las Campanas	1.31	142	eP	Pg	08 49 46.2	+0.5
LCO				eS	Sb	08 50 01.1	-2.4
AC05	El Transito	1.47	126	eP	Pb	08 49 48.3	-0.3
AC05				IAML		08 50 07.3	
	comp=N,1µm,0.4s						
AC01	Pan de Azucar	2.04	27	i P	Pb	08 49 57.2	-1.1
AC01				IAML		08 50 32.5	
	comp=Z,221nm,0.7s						
AC01	Pan de Azucar	2.04	27	⇑iP	Pb	08 49 57.0	-1.3
AC01				IAML		08 50 35.8	
	comp=E,344nm,0.2s						
GO04	Tololo Observa	2.30	162	i P	Pb	08 50 02.1	-0.8
GO04				IAML		08 50 39.0	
	comp=Z,518nm,0.8s						
GO04	Tololo Observa	2.30	162	i P	Pb	08 50 01.8	-1.1
GO04				eS	Sg	08 50 34.5	-0.1
CO01	Juntas del Tor	2.40	146	i P	Pb	08 50 04.1	-0.5
CO01				eS	Sb	08 50 34.2	-0.6
CO01				IAML		08 50 35.4	
	comp=Z,378nm,0.4s						
CO01	Juntas del Tor	2.40	146	⇑eP	Pb	08 50 04.0	-0.6
CO01				IAML		08 50 37.6	
	comp=N,328nm,0.4s						
AC02	Maricunga	2.50	63	i P	Pb	08 50 05.7	-0.7
AC02				eS	Sb	08 50 37.6	-0.2
AC02				IAML		08 50 39.1	
	comp=Z,311nm,0.6s						
AC02	Maricunga	2.50	63	eP	Pb	08 50 05.3	-1.0
CO06	Fray Jorge	2.69	180	eP	Pn	08 50 05.9	+1.2
CO06				IAML		08 50 51.1	
	comp=E,147nm,0.2s						
AROD	Rodeo	2.88	140	i P	Pb	08 50 12.2	-0.7
ACDV	Cuesta del Vie	3.10	135	i P	Pb	08 50 15.6	-0.8
ACDV				IAML		08 51 01.1	
	comp=Z,127nm,1.0s						
VCA	Vinchina	3.11	105	i P	Pb	08 50 16.1	-0.5
VCA				IAML		08 51 05.4	
	comp=Z,185nm,0.4s						
VCA	Vinchina	3.11	105	eP	Pb	08 50 15.4	-1.2
CO02	Combarbal	3.26	170	i P	Pn	08 50 14.7	+2.0
CO02				IAML		08 51 12.6	
	comp=Z,380nm,0.5s						
CO02	Combarbal	3.26	170	eP	Pn	08 50 14.4	+1.7
ACCO	Cerro Coronel	3.43	140	i P	Pb	08 50 20.3	-1.9
ACCO				IAML		08 51 15.9	
	comp=Z,98nm,0.5s						
TINO	Tinogasta	3.59	92	i P	Pb	08 50 20.5	-4.2
TINO				IAML		08 51 17.2	
	comp=Z,113nm,0.6s						
RTLS	Leoncito	4.31	153	i P	Pb	08 50 32.7	-4.5
RTLS				IAML		08 51 40.5	
	comp=Z,362nm,0.7s						
RTLL	Cerro Villicun	4.32	141	i P	Pn	08 50 31.3	+4.0
RTLL				IAML		08 51 35.8	
	comp=Z,71nm,0.5s						
ACLC	CERRO LA CRUZ	4.35	110	i P	Pn	08 50 31.4	+3.5
ACLC				IAML		08 51 29.5	
	comp=Z,66nm,0.8s						
CFA	Coronel Fontan	4.66	142	i P	Pn	08 50 36.1	+4.1
CFA				IAML		08 51 47.6	
	comp=Z,34nm,0.5s						
VA03	San Esteban	4.86	169	i P	Pn	08 50 38.5	+3.8
VA03				IAML		08 52 04.8	
	comp=Z,54nm,0.6s						
CYA	Choya	5.16	96	i P	Pn	08 50 41.8	+3.0
CYA				IAML		08 51 48.8	
	comp=Z,48nm,0.5s						
PB05	IPOC Station P	5.26	14	i P	Pn	08 50 40.7	+0.4
PB05				IAML		08 52 21.9	
	comp=Z,36nm,1.0s						
TCA	Tanti	6.97	120	eP	Pn	08 51 06.0	+2.3

IDC ***01*** *08:50:55.7±1.2, 27°.90S×72°.92W, h0^{km}, mb3.9/2, mbtmp3.8/6, ML3.6/4, Error ellipse: s-maj=27.6km s-min=18.1km az=75.0*
ISC 01 08:50:58.5±1.2**, 27°.9S**±0°.1×**72°.6W**±0°.1**, h10**^{km}**, n12, σ1^{s}.54**/10**, Off coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CFA	Coronel Fontan	5.28	136	Pn	Pn	08 52 17.9	+0.5
	2.2nm,0.3s,baz=276,slow=9.9,SNR=1.2						
CFA				Sn	Sn	08 53 18.0	-0.4
	3.7nm,0.3s,baz=64,slow=23,SNR=5.8						
	7.7nm,0.4s						
CFA				AML	AML		
H03N1	Juan Fernandez	7.79	223	T	T	09 00 18.1	
	baz=51						
H03N2	Juan Fernandez	7.80	223	T	T	09 00 09.6	
	baz=51						
H03N3	Juan Fernandez	7.81	223	T	T	09 00 10.9	
	baz=51						
LPAZ	La Paz	12.24	20	Pn	Pn	08 53 52.9	-0.7
	0.2nm,0.3s,baz=209,slow=10,SNR=4.4						
	0.3nm,0.4s						
LPAZ				AML	AML		
CPUP	Villa Florida	13.65	87	Pn	Pn	08 54 12.6	+0.5
	0.1nm,0.3s,baz=250,slow=15,SNR=1.9						
	0.9nm,0.7s						
CPUP				AML	AML		
SIV	San Ignacio	15.90	44	Pn	Pn	08 54 41.7	-0.8
	baz=226,slow=14,SNR=11						
	3.2nm,0.8s						
SNAA	Sanae	57.42	159	P	P	09 00 46.2	-0.8
	1.4nm,0.9s,baz=264,slow=5.8,SNR=3.8						
	1.4nm,0.9s						
QSPA	South Pole Qui	62.34	180	P	P	09 01 20.4	-0.6
	1.6nm,1.0s,baz=108,slow=3.2,SNR=3.8						
	1.6nm,1.0s						
KURBB	Kurchatov Arra	148.45	36	PKPbc	PKPdf	09 10 42.8	+1.3
	0.5nm,0.3s,baz=294,slow=3.0,SNR=9.9						
ZALV	Zalesovo Beam	149.11	26	PKPbc	PKPdf	09 10 45.8	+3.3
	0.7nm,0.3s,baz=343,slow=4.5,SNR=4.8						
MKAR	Makanchi Array	152.69	40	PKPbc	PKPbc	09 10 54.3	-1.1
	0.8nm,0.8s,baz=300,slow=3.3,SNR=5.6						

SJA ***01*** *08:56:27.6±0.6, 27°.90S×71°.66W, h9^{km}±4^{km}, ML3.6, MW3.6*
GUC ***01*** *08:56:32.5±0.9, 28°.04S×71°.34W, h24^{km}±3^{km}, ML3.6*
ISC 01 08:56:31.1±1.7**, 27°.96S**±0°.03×**71°.42W**±0°.07**, h14**^{km}±9^{km}**, n22, σ2^{s}.02**/40**, 5C-1D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.39	129	eP	Pg	08 56 39.5	+0.5
AC04				eP	Pg	08 56 39.6	+0.5
AC04	Llanos de Chal	0.39	129	eP	Pg	08 56 39.6	+0.5
AC04				eS	Sg	08 56 44.0	-0.4
AC04				IAML		08 56 44.5	
	comp=E,35µm,0.1s						
GO03	Copiapo	1.11	71	eP	Pb	08 56 52.2	+0.1
GO03				IAML		08 57 12.8	
	comp=Z,810nm,0.5s						
GO03	Copiapo	1.11	71	⇑eP	Pb	08 56 51.8	-0.4
GO03				eS	Sb	08 57 06.2	-0.2
GO03				IAML		08 57 11.1	
	comp=E,2µm,0.6s						
AC06	Mina Casimiro	1.11	58	⇑eP	Pn	08 56 51.8	-0.6
AC06				eS	Sb	08 57 06.9	+0.3
AC06				IAML		08 57 12.3	
	comp=E,1µm,0.6s						
LCO	Las Campanas	1.23	149	⇓eP	Pn	08 56 53.0	-1.1
LCO				eS	Sb	08 57 07.9	-2.2
LCO				IAML		08 57 11.5	
	comp=E,9µm,0.4s						
AC05	El Transito	1.34	131	eP	Pn	08 56 49.5	-6.0
AC05				eP	Pb	08 56 55.3	-0.8
AC05				IAML		08 57 11.5	
	comp=Z,359nm,0.5s						
AC05	El Transito	1.34	131	⇑eP	Pn	08 56 54.6	-0.9
AC05				eS	Sn	08 57 10.6	-2.6
AC05				IAML		08 57 24.0	
	comp=N,742nm,0.3s						
AC01	Pan de Azucar	1.94	22	eP	Pn	08 57 03.8	0.0
AC01				eS	Sb	08 57 29.5	-0.9
AC01				IAML		08 57 39.2	
	comp=Z,313nm,0.5s						
AC01	Pan de Azucar	1.94	22	⇑eP	Pn	08 57 03.8	0.0
AC01				i S	Sn	08 57 28.4	+0.4
AC01				IAML		08 57 39.9	
	comp=N,298nm,0.4s						
GO04	Tololo Observa	2.27	166	eP	Pn	08 57 09.4	+0.9
GO04				eS	Sb	08 57 40.4	+0.1
GO04				IAML		08 57 43.9	
	comp=Z,821nm,0.4s						
GO04	Tololo Observa	2.27	166	⇑eP	Pn	08 57 08.9	+0.3
GO04				eS	Sn	08 57 36.9	+0.4
GO04				IAML		08 57 45.1	
	comp=N,3µm,0.5s						
AC02	Maricunga	2.32	62	eP	Pb	08 57 11.9	-1.2
AC02				IAML		08 57 46.1	
	comp=Z,254nm,0.6s						
AC02	Maricunga	2.32	62	i P	Pb	08 57 11.7	-1.4
AC02				i S	Sb	08 57 40.3	-1.5
AC02				IAML		08 57 47.0	
	comp=E,858nm,0.4s						
CO01	Juntas del Tor	2.33	150	eP	Pn	08 57 10.1	+0.9
CO01				eS	Sn	08 57 38.6	+0.8
CO01				IAML		08 57 43.0	
	comp=E,447nm,0.4s						
AROD	Rodeo	2.79	143	eP	Pb	08 57 19.1	-1.8
AROD				eS	Sb	08 57 56.7	+1.7
TINO	Tinogasta	3.40	93	eP	Pn	08 57 27.0	+3.1
TINO				IAML		08 58 24.1	
	comp=Z,104nm,0.6s						
ACLC	CERRO LA CRUZ	4.19	112	eP	Pn	08 57 37.5	+2.7
ACLC				eS	Sb	08 58 38.6	+3.4
ACLC				IAML		08 58 46.2	
	comp=Z,35nm,1.2s						
RTLS	Leoncito	4.25	155	eP	Pn	08 57 39.6	+3.9
RTLS				eS	Sb	08 58 34.0	-3.2
CFA	Coronel Fontan	4.57	144	eP	Pn	08 57 42.9	+3.0
CFA				eS	Sb	08 58 39.5	-6.6
CFA				IAML		08 58 55.1	
	comp=Z,48nm,0.5s						
VA03	San Esteban	4.85	171	eP	Pn	08 57 45.8	+1.9
VA03				eS	Sb	08 58 56.5	+2.3
VA03				IAML		08 59 02.0	
	comp=Z,92nm,0.7s						
PB05	IPOC Station P	5.20	12	eP	Pn	08 57 47.4	-1.2
PB05				eS	Sn	08 58 49.5	+1.0
PB05				IAML		08 59 33.0	
	comp=Z,30nm,0.6s						

SJA 01 09:01:32.3±0.7**, 27°.91S**×**71°.68W, h10**^{km}**, ML3.6, MW3.5, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC02	Maricunga	2.51	65	eP	Pb	09 02 16.4	-1.4
AC02				IAML		09 02 54.9	
	comp=Z,191nm,0.4s						
AROD	Rodeo	2.97	140	eP	Pb	09 02 22.7	-2.8
AROD				eS	Sb	09 03 00.3	-1.6
VCA	Vinchina	3.17	106	eP	Pn	09 02 24.9	+2.5
VCA				IAML		09 03 18.7	
	comp=Z,147nm,0.7s						
ACDV	Cuesta del Vie	3.18	136	eP	Pb	09 02 26.3	-2.7
ACDV				eS	Sb	09 03 04.9	-3.0
ACDV				IAML		09 03 11.2	
	comp=Z,102nm,0.7s						
RTLS	Leoncito	4.39	152	eP	Pn	09 02 43.4	+4.0
RTLS				IAML		09 04 00.6	
	comp=Z,140nm,0.8s						
ACLC	CERRO LA CRUZ	4.42	111	eP	Pn	09 02 41.6	+2.0
ACLC				eS	Sn	09 03 32.2	+0.9
ACLC				IAML		09 03 39.1	
	comp=Z,50nm,1.0s						
ZON	Zonda	4.47	145	eP	Pn	09 02 43.2	+3.1
ZON				IAML		09 04 02.8	
	comp=Z,24nm,0.9s						
AUSP	Uspallata	4.74	156	eP	Pn	09 02 48.0	+4.0
VA03	San Esteban	4.94	169	eP	Pn	09 02 47.8	+1.1
VA03				IAML		09 04 17.5	
	comp=Z,67nm,0.9s						
CYA	Choya	5.22	97	eP	Pn	09 02 53.5	+3.0
CYA				IAML		09 04 26.3	
	comp=Z,10nm,1.4s						
ARCO	CERRO ARCO	5.46	155	eP	Pn	09 02 57.0	+3.1
ARCO				IAML		09 04 33.3	
	comp=Z,34nm,1.5s						
AAGR	Agrelo	5.71	155	eP	Pn	09 03 01.0	+3.6
AAGR				IAML		09 04 41.9	
	comp=Z,54nm,1.1s						

SJA ***01*** *09:21:28.9±0.7, 23°.70S×69°.08W, h106^{km}±5^{km}, ML3.7, MW3.9*
GUC ***01*** *09:21:30.8±0.9, 23°.70S×69°.10W, h90^{km}±4^{km}, ML3.7*
ISC 01 09:21:30.8±1.4**, 23°.73S**±0°.03×**69°.08W**±0°.04**, h90**^{km}±14^{km}**, n29, σ1^{s}.47**/43**, 2D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB06	IPOC Station P	1.11	336	eP	Pn	09 21 51.7	-0.3
PB06				eS	Sn	09 22 08.8	+0.8
PB06				IAML		09 22 09.8	
	comp=Z,930nm,0.1s						
PB06	IPOC Station P	1.11	336	i P	Pn	09 21 51.5	-0.6
PB06				eS	Sn	09 22 07.5	-0.4
PB06				IAML		09 22 09.1	
	comp=E,2µm,0.1s						
AF01	San Pedro de A	1.13	47	eP	Pn	09 21 52.2	-0.2
AF01				eS	Sn	09 22 09.3	+0.8
AF01				IAML		09 22 17.3	
	comp=Z,2µm,0.5s						
AF01	San Pedro de A	1.13	47	i P	Pn	09 21 52.1	-0.3
AF01				eS	Sn	09 22 08.6	+0.1
AF01				IAML		09 22 09.6	
	comp=E,8µm,0.4s						
PB05	IPOC Station P	1.35	310	eP	Pn	09 21 48.8	-6.1
PB05				eP		09 21 54.3	
PB05				eS	Sn	09 22 13.2	+0.2
PB05				IAML		09 22 18.2	
	comp=Z,427nm,0.6s						
PB05	IPOC Station P	1.35	310	i P	Pn	09 21 54.1	-0.7
PB05				eS	Sn	09 22 12.5	-0.5
PB14	IPOC Station P	1.51	233	eP	Pn	09 21 57.6	+0.6
PB14				eS	Sn	09 22 17.8	+1.0
PB14				IAML		09 22 18.5	
	comp=Z,615nm,0.9s						
PB14	IPOC Station P	1.51	233	i P	Pn	09 21 57.3	+0.3
PB14				eS	Sn	09 22 17.3	+0.5
PB03	IPOC Station P	1.78	339	eP	Pn	09 22 00.1	-0.3
PB03				eS	Sn	09 22 22.5	-0.3
PB03				IAML		09 22 26.1	
	comp=Z,399nm,0.3s						
PB03	IPOC Station P	1.78	339	i P	Pn	09 22 00.1	-0.3
PB03				eS	Sn	09 22 22.3	-0.5
PB03				IAML		09 22 23.9	
	comp=E,441nm,0.5s						
PB09	IPOC Station P	1.93	355	eP	Pn	09 22 02.9	+0.5
PB09				eS	Sn	09 22 27.6	+1.4
PB09				IAML		09 22 32.5	
	comp=Z,861nm,0.4s						
PB09	IPOC Station P	1.93	355	⇓iP	Pn	09 22 02.8	+0.5
PB09				eS	Sn	09 22 27.4	+1.2
PB09				IAML		09 22 33.1	
	comp=E,624nm,0.5s						
PB07	IPOC Station P	2.13	339	eP	Pn	09 22 04.3	-0.6
PB07				eS	Sn	09 22 31.8	+0.9
PB07				IAML		09 22 40.2	
	comp=Z,306nm,0.6s						
PB07	IPOC Station P	2.13	339	⇓eP	Pn	09 22 04.4	-0.6
PB02	IPOC Station P	2.51	342	eP	Pn	09 22 09.2	-0.7

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PB02                                  eS     Sn     09 22 41.0 +1.1
PB02                                   IAML         09 22 50.7
      comp=Z,510nm,0.5s
PB02  IPOC Station P     2.51 342      IAML         09 22 47.6
      comp=E,602nm,0.3s
SALTA                    2.55 102     eP     Pn     09 21 55.3  -16
SALTA                                 eS     Sn     09 22 36.1 -5.3
AC01  Pan de Azucar      2.78 210     eP     Pn     09 22 12.5 -1.0
AC02  Maricunga          3.10 181     eP     Pn     09 22 19.4 +1.2
TA01  Diego Aracena      3.31 342     eP     Pn     09 22 20.0 -0.5
TA01                                   IAML         09 23 10.6
      comp=Z,167nm,0.6s
HJA   Humahuaca          3.41  82     eP     Pn     09 22 25.1 +2.9
HJA                                   eS     Sn     09 23 09.6 +7.7
PB08  IPOC Station P     3.57 359     eP     Pn     09 22 23.8 -0.7
PB08                                  eS     Sn     09 23 14.9 +9.1
PB08                                  eS            09 23 20.0
PB08                                   IAML         09 23 20.9
      comp=Z,84nm,1.1s
PB08  IPOC Station P     3.57 359     eP     Pn     09 22 23.6 -0.8
AC06  Mina Casimiro      3.79 197     eP     Pn     09 22 26.1 -1.1
PB11  IPOC Station P     3.98 352     eP     Pn     09 22 28.1 -1.7
PB11                                  eS     Sn     09 23 17.8 +2.2
PB11                                  eS            09 23 23.6
PB11                                   IAML         09 23 48.7
      comp=Z,136nm,0.8s
GO01  Chusmiza           4.04 358     eP     Pn     09 22 29.9 -1.0
GO01                                  eS     Sn     09 23 26.5 +9.1
GO01                                   IAML         09 23 34.4
      comp=Z,87nm,0.5s
PSGCX Pisagua            4.22 346     eP     Pn     09 22 30.5 -2.5
PSGCX                                 eS     Sn     09 23 32.8  +11
PSGCX                                  IAML         09 23 38.1
      comp=Z,88nm,0.9s
PB12  IPOC Station P     5.22 347     eP     Pn     09 22 44.4 -2.2
PB12                                  eS     Sn     09 23 48.8 +3.2
PB12                                   IAML         09 24 02.7
      comp=Z,72nm,0.7s
PB16  IPOC Station P     5.38 356     eP     Pn     09 22 48.6 -0.7
PB16                                  eS     Sn     09 23 57.8 +7.6
PB16                                   IAML         09 24 10.8
      comp=Z,58nm,0.5s
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*VAO **01** 09:36:28.9±0.3, 13.°00S×39.°59W, h0km, mbR2.5, Presumed earthquake*

*OSUNB **01** 09:36:30.6±0.3, 12.°98S×39.°57W, h0km, mR2.5/7, Error ellipse: s-maj=1.9km s-min=2.6km az=0.0*

ISC 01 09:36:27.8±0.8**, 13.°02S**±0.°02×**39.°50W**±0.°06**, h10km, n14, σ2.s72**/24**, Brazil**

```
Code  Station Name        Δ°  AZ°    Phase ID          Time     Res
                                    Op     ISC       h  m  s    ISC
NBIT  Itapeh - BA        1.90 178    P     Pg     09 37 04.6 +0.2
NBIT                                 S     Sg     09 37 27.0 -2.0
NBIT  Itapeh - BA        1.90 178   eP     Pg     09 37 03.5 -0.8
NBIT                                eS     Sg     09 37 27.8 -1.2
NBPN  Ponto Novo - B     2.26 342    P     Pg     09 37 11.6 +0.3
NBPN                                 S     Sg     09 37 39.4 -1.3
NBPN  Ponto Novo - B     2.26 342   eP     Pb     09 37 07.0 -1.8
NBPN                                eS     Sb     09 37 35.8 -1.2
CMC01 Camacan, BA        2.33 180    P     Pg     09 37 11.3 -1.2
CMC01 Camacan, BA        2.33 180   eP     Pb     09 37 08.6 -1.3
CMC01                               eS     Sb     09 37 38.5 -0.2
GUA01 Guaratinga, BA     3.56 185    P     Pb     09 37 28.6 -2.3
GUA01                                S     Sb     09 38 14.3 +0.2
GUA01 Guaratinga, BA     3.56 185   eP     Pb     09 37 25.3 -5.6
GUA01                               eS     Sb     09 38 08.7 -5.4
NBTA  Tacaratu-PE        4.12  20   eP     Pn     09 37 33.2 +2.3
NBTA                                eS     Sb     09 38 22.9 -7.5
ARCA  Ara§uai, MG        4.49 212   eP     Pn     09 37 37.6 +1.6
ARCA                                eS     Sn     09 38 30.8 +2.5
NBAN  Anadia - AL        4.59  44    P     Pn     09 37 40.1 +2.7
NBAN                                 S     Sn     09 38 35.0 +4.2
JANB  Januaria           5.09 246    P     Pb     09 37 49.2 -7.9
JANB                                 S     Sn     09 38 45.6 +2.4
JANB  Januaria           5.09 246   eP     Pn     09 37 45.4 +1.1
JANB                                eS     Sn     09 38 44.8 +1.5
SDBA  SAO DESIDERIO      5.31 276    P     Pn     09 37 50.2 +3.0
SDBA                                 S     Sn     09 38 48.6  0.0
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*IDC **01** 09:38:34.5±0.7, 55.°76S×123.°34W, h0km, mb4.3/10, mbtmp4.3/10, MS4.1/16, Error ellipse: s-maj=26.6km s-min=20.3km az=153.0*

*NEIC **01** 09:38:35.4±1.3, 55.°65S±0.°09×123.°3W±0.°2, h10km±1km, mb4.7/16, Error ellipse: s-maj=21.7km s-min=10.4km az=234.0*

ISC 01 09:38:35.6±0.5**, 55.°7S**±0.°1×**123.°2W**±0.°1**, h10km, n59, σ0.s88**/37**, mb4.6**/16**, MS4.2**/16**, 5C, Southern East Pacific Rise**

```
Code  Station Name        Δ°  AZ°    Phase ID          Time     Res
                                    Op     ISC       h  m  s    ISC
SMAI  San Martin Ant    28.06 139   P      P      09 44 25.2 -1.4
PMSA  Palmer Station    29.65 132   LR     LR     09 53 25.1
      comp=Z,305nm,18.1s,baz=272,slow=30
PMSA  Palmer Station    29.65 132   P      P      09 44 41.0 +0.3
PMSA                                IAmb   IAmb   09 45 02.3
      comp=Z,18nm,1.1s
ESPZ  Base Esperanza    32.99 131   P      P      09 45 09.9 -0.3
ESPZ                                IAmb   IAmb   09 45 17.8
      comp=Z,7.4nm,1.1s
QSPA  South Pole Qui    34.51 180   P      P      09 45 24.4 +0.8
      comp=Z,5.6nm,0.9s,baz=101,slow=3.4,SNR=13
QSPA                                LR     LR     09 57 17.6
      comp=Z,206nm,19.4s,baz=88,slow=33
      comp=Z,5.6nm,0.9s
QSPA  South Pole Qui    34.51 180   P      P      09 45 25.0 +1.4
QSPA                                IAmb   IAmb   09 45 36.8
      comp=Z,17nm,1.4s
BELA  Belgrano 2        36.06 159   P      P      09 45 36.8 +0.2
H03S2 Juan Fernandez    37.41  73   T      T      10 25 35.1
      baz=218,slow=74,SNR=167
H03S1 Juan Fernandez    37.41  73   T      T      10 25 36.1
      baz=218,slow=74,SNR=224
H03S3 Juan Fernandez    37.42  73   T      T      10 25 36.9
      baz=218,slow=74,SNR=220
RPZ   Rata Peaks        42.59 258   LR     LR     10 00 14.8
      comp=Z,73nm,19.7s,baz=106,slow=31
URZ   Urewera           42.84 268   LR     LR     10 00 05.4
      comp=Z,217nm,18.8s,baz=124,slow=30
PPT   Papeete           43.00 322   LR     LR     10 00 11.5
      comp=Z,208nm,18.9s,baz=161,slow=30
VNA3  Neumayer Olymp    45.04 155 ⇑P      P      09 46 50.5 -0.4
      comp=Z,3.9nm,0.9s
VNA1  Neumayer--Stat    45.79 155 ⇑P      P      09 46 56.8 +0.1
      comp=Z,11nm,1.0s
VNA2  Neumayer--Watz    45.80 156 ⇑P      P      09 46 56.9 +0.1
      comp=Z,6.9nm,0.8s,baz=220,slow=8.0
SNAA  Sanae             46.28 158 ⇑P      P      09 47 00.3 -0.4
      comp=Z,65nm,1.0s
SNAA  Sanae             46.28 158   P      P      09 46 59.8 -0.9
      comp=Z,1.7nm,0.9s,baz=213,slow=12,SNR=3.7
SNAA                                LR     LR     10 06 49.5
      comp=Z,278nm,18.2s,baz=18,slow=37
      comp=Z,1.7nm,0.9s
SNAA  Sanae             46.28 158   P      P      09 47 00.8 +0.1
SNAA                                IAmb   IAmb   09 47 06.6
      comp=Z,7.3nm,1.2s
TROLL Troll, Antarti    47.12 160 ⇑P      P      09 47 07.5 +0.1
      comp=Z,205nm,0.8s
CPUP  Villa Florida     55.15  86   P      P      09 48 08.5 +0.4
      comp=Z,2.4nm,1.0s,baz=241,slow=9.2,SNR=4.2
      comp=Z,2.4nm,1.0s
CPUP  Villa Florida     55.15  86   P      P      09 48 08.6 +0.6
CPUP                                IAmb   IAmb   09 48 26.4
      comp=Z,7.5nm,1.2s
NNA   Nana              56.45  58   LR     LR     10 06 10.5
      comp=Z,138nm,21.0s,baz=234,slow=29
MAW   Mawson            56.95 183   P      P      09 48 20.5 +0.2
      comp=Z,7.0nm,1.0s,baz=201,slow=6.5,SNR=7.1
MAW                                 LR     LR     10 11 17.4
      comp=Z,324nm,20.2s,baz=162,slow=34
      comp=Z,7.0nm,1.0s
MAW   Mawson            56.95 183   P      P      09 48 20.5 +0.2
LPAZ  La Paz            57.23  69   P      P      09 48 25.3 +1.6
      comp=Z,2.1nm,0.8s,baz=181,slow=4.5,SNR=5.0
      comp=Z,2.1nm,0.8s
LPAZ  La Paz            57.23  69   P      P      09 48 22.4 -1.3
LPAZ                                IAmb   IAmb   09 48 37.4
      comp=Z,7.2nm,1.1s
LHI   Lord Howe Isla    57.90 260   P      P      09 48 26.5 -1.1
ATAH  Atahualpa         59.96  54   LR     LR     10 08 20.3
      comp=Z,221nm,21.9s,baz=268,slow=30
PAYG  Puerto Ayora      60.98  38   P      P      09 48 47.9 -1.0
STKA  Stephens Creek    67.09 247   P      P      09 49 29.1 +0.1
      comp=Z,4.0nm,1.1s,baz=130,slow=7.9,SNR=2.3
STKA                                LR     LR     10 12 11.8
      comp=Z,208nm,21.0s,baz=201,slow=30
      comp=Z,4.0nm,1.1s
INKA  Innaminka         70.82 249   P      P      09 49 52.0 -0.2
INKA                                IAmb   IAmb   09 49 54.5
      comp=Z,11nm,1.3s
MACA  Manacapuru-AM     72.17  69   P      P      09 49 59.6 -0.9
CTA   Charters Tower    73.96 258   LR     LR     10 17 39.3
      comp=Z,95nm,20.4s,baz=56,slow=32
H01W1 Cape Leeuwin H    77.41 225   T      T      11 16 06.9
      baz=150,slow=75,SNR=38
H01W2 Cape Leeuwin H    77.41 225   T      T      11 16 07.1
      baz=150,slow=75,SNR=42
H01W3 Cape Leeuwin H    77.42 225   T      T      11 16 08.0
      baz=150,slow=75,SNR=33
AS31  Alice Springs     77.70 246   P      P      09 50 31.7 -0.8
ASAR  Alice Springs     77.70 246   P      P      09 50 31.9 -0.6
      comp=Z,3.1nm,0.9s,baz=146,slow=5.2,SNR=20
ASAR                                LR     LR     10 19 29.2
      comp=Z,162nm,20.4s,baz=150,slow=32
      comp=Z,3.1nm,0.9s
ASAR  Alice Springs     77.70 246   P      P      09 50 31.6 -0.9
NWAO  Narrogin (SRO)    77.83 228   LR     LR     10 18 20.1
      comp=Z,160nm,18.3s,baz=53,slow=31
WRA   Warramunga Arr    80.54 249   P      P      09 50 47.7 -0.3
      comp=Z,5.4nm,0.8s,baz=145,slow=5.0,SNR=29
      comp=Z,5.4nm,0.8s
PMG   Port Moresby      82.11 265   P      P      09 50 57.8 +1.5
      comp=Z,17nm,0.8s,baz=135,slow=4.3,SNR=2.6
PMG                                 LR     LR     10 23 04.3
      comp=Z,94nm,20.1s,baz=155,slow=32
      comp=Z,17nm,0.8s
SRIG  Santa Rosalia     83.19  10   P      P      09 51 02.2 +0.7
TXAR  Lajitas Array     86.30  17   P      P      09 51 19.7 +2.4
      comp=Z,0.2nm,0.6s,baz=196,slow=5.1,SNR=1.6
      comp=Z,0.2nm,0.6s
FITZ  Fitzroy Crossi    86.56 243   LR     LR     10 24 16.5
      comp=Z,165nm,21.1s,baz=168,slow=32
PFO   Pinyon Flats O    89.11   6   LR     LR     10 22 11.3
      comp=Z,88nm,19.8s,baz=106,slow=29
H11S2 WAKE ISLAND Hy    94.40 296   T      T      11 36 46.8
      baz=148,slow=76,SNR=22
H11S3 WAKE ISLAND Hy    94.41 296   T      T      11 36 48.3
      baz=148,slow=76,SNR=20
H11S1 WAKE ISLAND Hy    94.42 297   T      T      11 36 48.3
      baz=148,slow=76,SNR=16
H11N3 WAKE ISLAND Hy    95.33 297   T      T      11 37 58.1
      baz=148,slow=76,SNR=11
H11N1 WAKE ISLAND Hy    95.33 297   T      T      11 37 59.3
      baz=148,slow=76,SNR=8.7
H11N2 WAKE ISLAND Hy    95.35 297   T      T      11 37 59.4
      baz=148,slow=76,SNR=13
ILAR  Eielson Array    121.48 348   PKP    PKiKP  09 57 28.5 +0.7
      comp=Z,0.3nm,0.7s,baz=205,slow=2.9,SNR=4.7
ESDC  Sonseca Array    137.52  86   PKP    PKiKP  09 58 00.3 -0.5
      comp=Z,0.4nm,0.7s,baz=194,slow=3.6,SNR=2.2
EKA   Eskdalemuir Ar   146.97  65   PKPbc  PKPbc  09 58 16.9 -0.2
      comp=Z,1.6nm,0.6s,baz=240,slow=1.6,SNR=5.6
SONM  Songino Array    148.91 277   PKPbc  PKPbc  09 58 22.3 -0.4
      comp=Z,1.4nm,0.8s,baz=85,slow=3.2,SNR=5.1
GERES GERESS Array B   153.11  86   PKPbc  PKPbc  09 58 31.8 -0.7
      comp=Z,0.6nm,0.6s,baz=304,slow=2.3,SNR=4.3
MKAR  Makanchi Array   161.82 251   PKPab  PKPab  09 59 20.8 -1.0
      comp=Z,0.8nm,0.8s,baz=141,slow=4.7,SNR=6.2
```

IDC 01 09:54:54.2±2.0**, 1.°84N×124.°92E, h0km, mb3.5**/3**, mbtmp3.5**/4**, ML3.8**/1**, Error ellipse: s-maj=150.5km s-min=26.3km az=67.0, Minahassa Peninsula, Sulawesi**

```
Code  Station Name        Δ°  AZ°    Phase ID          Time     Res
                                    Op     ISC       h  m  s    ISC
FITZ  Fitzroy Crossi    19.82 178   P      P      09 59 26.6 -0.1
      0.2nm,0.3s,baz=9.1,slow=11,SNR=2.1
      0.6nm,0.3s
FITZ                                AML    AML
WRA   Warramunga Arr    23.53 157   P      P      10 00 06.3  0.0
      1.2nm,0.3s,baz=336,slow=9.8,SNR=21
      1.2nm,0.3s
ASAR  Alice Springs     26.81 161   P      P      10 00 35.8 -0.6
      0.2nm,0.4s,baz=342,slow=8.8,SNR=6.5
      0.2nm,0.4s
MKAR  Makanchi Array    58.10 327   P      P      10 04 50.3 +0.7
      0.2nm,0.4s,baz=119,slow=8.2,SNR=2.1
      0.2nm,0.4s
```

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*SJA **01** 09:55:23.9±0.8, 27.°88S×71.°67W, h10km, ML4.6, MW4.4*

*IDC **01** 09:55:25.3±0.8, 27.°76S×71.°32W, h0km, mb4.3/6, mbtmp4.0/11, ML3.7/4, Error ellipse: s-maj=22.8km s-min=14.2km az=94.0*

*NEIC **01** 09:55:27.7±1.8, 27.°90S±0.°02×71.°44W±0.°06, h13km±5km, mb4.7/7, Mwr4.2/30, ML4.0(GUC), Error ellipse: s-maj=8.2km s-min=2.7km az=81.0, Moment Tensor Solution. Moment tensor: Scale 10¹⁵Nm; Mrr1.35; Mθθ0.57; Mφφ-1.92; Mrθ0.57; Mθφ-0.26; Mφr-1.37; Fault plane solution: M0 2.28000×10¹⁵ NP1:φs164.03000°, δ68.04000°, λ67.16000°. NP2:φs32.43000°, δ31.27000°, λ133.91000°. Principal axes: T 2.1033, Plg60.0000°, Azm40.0000°; N 0.3132, Plg21.0000°, Azm173.0000°; P -2.4165, Plg20.0000°, Azm271.0000°;*

*NEIC **01** 09:55:27.5, 27.°90S×71.°45W, h12km*

*GFZ **01** 09:55:28.4±0.2, 28°S±2°×7°1W±°, h10km, M4.7/10, mb4.7/10*

*GUC **01** 09:55:28.0±0.8, 27.°97S×71.°27W, h43km±2km, ML4.0*

ISC 01 09:55:25.9±1.3**, 27.°81S**±0.°02×**71.°36W**±0.°04**, h7km**±8km**, n112, σ1.s97**/140**, mb4.6**/10**, 6C-5D, Near coast of northern Chile**

```
Code  Station Name        Δ°  AZ°    Phase ID          Time     Res
                                    Op     ISC       h  m  s    ISC
AC04  Llanos de Chal     0.47 147   eP     Pb     09 55 37.0 +0.4
AC04  Llanos de Chal     0.47 147⇓eP     Pb     09 55 37.0 +0.4
AC04                                eS     Sg     09 55 42.3 +1.2
AC04                                 IAML         09 55 43.0
      comp=E,37µm,0.2s
AC04  Llanos de Chal     0.47 147    Pg    Pb     09 55 36.9 +0.4
AC04                                 Sg    Sg     09 55 42.4 +1.2
AC04  Llanos de Chal     0.47 147    P     Pb     09 55 37.0 +0.4
AC04                                 S     Sg     09 55 42.2 +1.2
AC06  Mina Casimiro      1.00  63⇓eP     Pn     09 55 47.3 +0.9
AC06                                eS     Sn     09 56 00.9 +0.1
AC06                                 IAML         09 56 11.8
      comp=E,2µm,0.6s
GO03  Copiapo            1.02  78⇓eP     Pn     09 55 47.6 +0.8
GO03                                eS     Sn     09 56 00.1 -1.3
GO03                                 IAML         09 56 10.3
      comp=E,3µm,0.6s
GO03  Copiapo            1.02  78    Pn    Pn     09 55 47.8 +1.0
GO03  Copiapo            1.02  78    P     Pn     09 55 47.8 +1.0
GO03                                 S     Sn     09 55 59.2 -2.2
LCO   Las Campanas       1.33 154   eP     Pn     09 55 51.6 +0.4
LCO                                 eS     Sb     09 56 08.5 -0.2
LCO                                  IAML         09 56 10.9
      comp=Z,14µm,0.3s
LCO   Las Campanas       1.33 154   eP     Pn     09 55 51.0 -0.2
LCO                                 eS     Sb     09 56 05.4 -3.4
LCO                                  IAML         09 56 10.5
      comp=Z,47µm,0.5s
LCO   Las Campanas       1.33 154    Pn    Pn     09 55 51.3 +0.1
AC05  El Transito        1.40 137   eP     Pg     09 55 53.0 +0.1
AC05                                eS     Sg     09 56 11.9 +0.9
AC05  El Transito        1.40 137⇓eP     Pb     09 55 52.5  0.0
AC05                                eS     Sb     09 56 06.9 -3.7
AC05                                 IAML         09 56 12.2
      comp=N,4µm,0.7s
AC05  El Transito        1.40 137    Pn    Pg     09 55 52.9 +0.1
AC05  El Transito        1.40 137    P     Pb     09 55 52.7 +0.2
AC05                                 S     Sb     09 56 09.5 -1.2
AC01  Pan de Azucar      1.79  22   eP     Pb     09 55 59.0 -0.1
AC01                                eS     Sn     09 56 19.4 -0.9
AC01  Pan de Azucar      1.79  22⇑eP     Pb     09 55 58.7 -0.4
AC01                                eS     Sg     09 56 22.7 -0.8
AC01                                 IAML         09 56 32.7
      comp=E,827nm,0.5s
AC01  Pan de Azucar      1.79  22          Pb     09 55 59.0 -0.1
AC01  Pan de Azucar      1.79  22    P     Pb     09 55 59.1 -0.1
AC02  Maricunga          2.21  64⇑eP     Pg     09 56 07.6 -0.8
AC02                                 IAML         09 56 45.2
      comp=N,2µm,0.8s
GO04  Tololo Observa     2.40 168   eP     Pn     09 56 07.2 +1.3
GO04                                eS     Sn     09 56 31.4 -4.4
GO04                                 IAML         09 56 44.4
      comp=Z,3µm,0.4s
GO04  Tololo Observa     2.40 168    P     Pn     09 56 07.8 +1.9
CO01  Juntas del Tor     2.43 153   eP     Pb     09 56 08.9 -1.2
CO01                                eS     Sn     09 56 31.9 -4.5
CO01                                eS     Sb     09 56 39.0 -1.3
CO01                                 IAML         09 56 41.6
      comp=Z,3µm,0.6s
CO01  Juntas del Tor     2.43 153   eP     Pn     09 56 08.2 +2.0
CO01                                 IAML         09 56 42.2
      comp=N,3µm,0.5s
CO01  Juntas del Tor     2.43 153    P     Pn     09 56 08.7 +2.4
CO06  Fray Jorge         2.86 185⇓eP     Pn     09 56 10.8 -1.2
CO06                                 IAML         09 56 59.6
      comp=E,834nm,0.4s
CO06  Fray Jorge         2.86 185          Pn     09 56 11.0 -1.0
AROD  Rodeo              2.87 145   eP     Pb     09 56 16.8 -1.0
AROD                                eS     Sb     09 56 54.1 +0.9
VCA   Vinchina           2.93 109   eP     Pb     09 56 19.7 +1.0
VCA                                 eS     Sg     09 56 55.9 -4.2
VCA                                  IAML         09 57 03.1
      comp=Z,1µm,1.4s
ACDV  Cuesta del Vie     3.06 141   eP     Pn     09 56 06.4 -8.5
ACDV                                eS     Sb     09 56 57.4 -1.1
ACDV                                 IAML         09 57 06.2
      comp=Z,844nm,0.4s
PB14  IPOC Station P     3.29  15   eP     Pn     09 56 19.0 +0.8
PB14  IPOC Station P     3.29  15          Pn     09 56 19.2 +1.1
PB14  IPOC Station P     3.29  15    P     Pn     09 56 19.3 +1.1
TINO  Tinogasta          3.36  95   eP     Pb     09 56 23.7 -2.3
TINO                                eS     Sg     09 57 18.8 +4.8
CO02  Combarbal          3.40 175   eP     Pn     09 56 19.4  0.0
CO02                                eP     Pb     09 56 19.7 -6.9
CO02                                eS     Sb     09 57 09.9 +1.8
CO02                                 IAML         09 57 14.0
      comp=Z,2µm,0.5s
CO02  Combarbal          3.40 175   eP     Pn     09 56 19.4  0.0
CO02  Combarbal          3.40 175    Pn    Pn     09 56 19.5  0.0
CO02  Combarbal          3.40 175    P     Pn     09 56 22.8 +3.3
ACLC  CERRO LA CRUZ      4.20 114   eP     Pn     09 56 34.9 +4.3
ACLC                                eS     Sb     09 57 26.9 -4.3
CO04  Los Peladeros      4.23 176          Pn     09 56 31.7 +0.6
CO04  Los Peladeros      4.23 176    P     Pn     09 56 34.4 +3.3
RTLL  Cerro Villicun     4.31 145   eP     Pn     09 56 36.0 +4.0
RTLL                                eS     Sn     09 57 26.4 +3.8
RTLS  Leoncito           4.36 156   eP     Pn     09 56 37.4 +4.5
RTLS                                eS     Sb     09 57 33.4 -2.6
ZON   Zonda              4.39 149   eP     Pn     09 56 37.1 +3.9
ZON                                 eS     Sb     09 57 31.9 -4.8
ZON   Zonda              4.39 149          Pn     09 56 36.7 +3.5
ZON   Zonda              4.39 149    P     Pn     09 56 37.2 +4.1
CFA   Coronel Fontan     4.65 145    Pn    Pn     09 56 39.7 +3.0
      comp=Z,8.4nm,0.3s,baz=320,slow=14,SNR=106
CFA                                  Sn    Sn     09 57 28.4 -2.7
      comp=Z,6.4nm,0.3s,baz=22,slow=14,SNR=4.0
      comp=Z,19nm,0.4s
CFA                                  AML   AML
CFA   Coronel Fontan     4.65 145   eP     Pn     09 56 40.5 +3.8
VA03  San Esteban        4.99 172   eP     Pn     09 56 42.4 +1.1
VA03                                eS     Sn     09 57 36.9 -2.4
VA03  San Esteban        4.99 172    Pn    Pn     09 56 41.8 +0.4
VA03  San Esteban        4.99 172    P     Pn     09 56 45.2 +3.9
      comp=Z,131nm,0.5s
PB05  IPOC Station P     5.05  12   eP     Pn     09 56 42.4 +0.2
PB05  IPOC Station P     5.05  12          Pn     09 56 42.2  0.0
PB05  IPOC Station P     5.05  12    P     Pn     09 56 42.3 +0.1
      comp=Z,63nm,0.9s
VA01  Torpederas         5.20 183    Pn    Pn     09 56 43.6 -0.5
VA01  Torpederas         5.20 183    P     Pn     09 56 44.6 +0.4
      comp=Z,44nm,0.5s
PB06  IPOC Station P     5.33  18    Pn    Pn     09 56 47.0 +0.8
PB06  IPOC Station P     5.33  18    P     Pn     09 56 47.0 +0.8
      comp=Z,82nm,0.8s
PEL   Peldehue           5.35 174    P     Pn     09 56 49.4 +3.2
      comp=Z,79nm,0.7s
MT02  Curacav            5.43 178    Pn    Pn     09 56 47.6 +0.2
MT16  CCHEN              5.64 173    Pn    Pn     09 56 50.9 +0.6
MT03  Universidad Ad     5.71 173    Pn    Pn     09 56 51.7 +0.4
MT08  Bocatoma Ro        5.73 169    Pn    Pn     09 56 54.3 +2.6
PB03  IPOC Station P     5.92  15          Pn     09 56 54.3 +0.1
PB03  IPOC Station P     5.92  15    P     Pn     09 56 53.9 -0.3
      comp=Z,42nm,0.7s
MT09  Talagante          5.95 177    Pn    Pn     09 56 54.4 -0.3
MT13  San Alfonso        5.99 171    Pn    Pn     09 56 57.9 +2.8
MT01  Popeta             6.03 179          Pn     09 56 56.3 +0.6
PB07  IPOC Station P     6.21  13          Pn     09 56 57.8 -0.4
PB07  IPOC Station P     6.21  13    P     Pn     09 56 57.8 -0.4
      comp=Z,36nm,0.7s
PB09  IPOC Station P     6.29  18    P     Pn     09 57 00.8 +1.4
      comp=Z,51nm,0.9s
PB02  IPOC Station P     6.60  12          Pn     09 57 03.0 -0.6
PB02  IPOC Station P     6.60  12    P     Pn     09 57 03.8 +0.3
      comp=Z,41nm,0.6s
TCA   Tanti              6.86 122   eP     Pn     09 57 07.2 +0.1
BO02  Sierra Bellavi     6.98 176    P     Pn     09 57 13.3 +4.6
      comp=Z,33nm,0.5s
GO05  Hualane            7.19 184    P     Pn     09 57 12.8 +1.3
      comp=Z,43nm,0.9s
PB11  IPOC Station P     8.16  11    Pn    Pn     09 57 24.3 -0.8
PSGCX Pisagua            8.26   8    Pn    Pn     09 57 24.1 -2.2
PB12  IPOC Station P     9.20   6    P     Pn     09 57 40.7 +1.4
      comp=Z,32nm,1.7s
AP01  Chacalluta         9.44   6    P     Pn     09 57 45.2 +2.7
      comp=Z,591nm,0.5s
LPAZ  La Paz            11.85  15    Pn    Pn     09 58 15.5 -0.5
      comp=Z,0.4nm,0.3s,baz=205,slow=8.5,SNR=6.9
      comp=Z,0.6nm,0.4s
LPAZ                                 AML   AML
CPUP  Villa Florida     12.59  86    Pn    Pn     09 58 24.3 -1.3
      comp=Z,1.2nm,1.0s,baz=196,slow=13,SNR=2.1
CPUP                                 Sn    Sn     10 00 46.4 +0.3
      baz=202,slow=19
PLCA  Paso Flores       12.91 177    Pn    Pn     09 58 28.1 -1.8
      baz=270,slow=20,SNR=1.4
PLCA                                 Sn    Sn     10 00 56.8 +3.0
      baz=95,slow=12
      comp=Z,0.8nm,0.8s
SIV   San Ignacio       15.14  41    Pn    Pn     09 58 56.3 -4.1
      baz=245,slow=7.5,SNR=7.4
      comp=Z,0.9nm,0.5s
VILB  Vilhena           18.09  37    P     P      09 59 39.3 +0.9
CZSB  Cruzeiro do Su    20.02 356    P     P      10 00 00.1 +0.7
CZSB                                 IAmb  IAmb   10 00 07.2
      comp=Z,13nm,0.7s
CLDB  Colider           22.31  44    P     P      10 00 24.5 +0.3
      comp=Z,7.2nm,1.8s
VAO   Valinhos          22.54  83    P     P      10 00 27.6 +0.9
PMNB  Patos De Minas    24.66  73    P     P      10 00 47.5 -0.2
BDFB  Brasilia          24.79  66    P     P      10 00 48.1 -0.7
      comp=Z,4.8nm,0.8s,baz=237,slow=8.2,SNR=5.9
      comp=Z,4.8nm,0.8s
MACA  Manacapuru-AM     26.55  24    P     P      10 01 04.5 -0.1
MACA                                 IAmb  IAmb   10 01 10.2
      comp=Z,10nm,0.6s
VNA3  Neumayer Olymp    54.90 160 ⇑P      P      10 04 57.2 +0.4
      comp=Z,3.2nm,1.0s
VNA2  Neumayer--Watz    55.52 159 ⇑P      P      10 05 01.7 +0.4
      comp=Z,3.0nm,0.5s,baz=284,slow=7.8
SNAA  Sanae             57.12 159 ⇑P      P      10 05 13.1 +0.3
      comp=Z,72nm,0.6s
SNAA  Sanae             57.12 159    P     P      10 05 12.5 -0.3
      comp=Z,4.6nm,0.8s,baz=291,slow=5.1,SNR=11
      comp=Z,4.6nm,0.8s
SNAA  Sanae             57.12 159    P     P      10 05 13.1 +0.3
SNAA                                 IAmb  IAmb   10 05 14.1
      comp=Z,6.3nm,1.0s
TROLL Troll, Antarti    58.83 160 ⇑P      P      10 05 25.3 +0.4
      comp=Z,135nm,0.6s
QSPA  South Pole Qui    62.41 180    P     P      10 05 49.2 -0.1
      comp=Z,4.0nm,1.1s,baz=183,slow=1.8,SNR=8.7
      comp=Z,4.0nm,1.1s
QSPA  South Pole Qui    62.41 180    P     P      10 05 50.3 +1.0
QSPA                                 IAmb  IAmb   10 05 51.3
      comp=Z,7.9nm,1.2s
TXAR  Lajitas Array     64.69 329    P     P      10 06 06.3 +1.5
      comp=Z,0.3nm,0.8s,baz=144,slow=7.3,SNR=2.8
      comp=Z,0.3nm,0.8s
P40A  Paris             69.72 343    P     P      10 06 37.3 +0.9
P40A                                 IAmb  IAmb   10 06 51.4
      comp=Z,9.1nm,1.1s
DBIC  Dimbokro          72.71  73    P     P      10 06 55.5 +0.4
      comp=Z,6.9nm,0.8s,baz=221,slow=5.8,SNR=4.8
      comp=Z,6.9nm,0.8s
```

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
TORD	**Torodi Ar. Bea**	**81.57**	**70**	P	**P**	**10 07 45.4**	**+0.5**
	comp=Z,3.5nm,0.9s,baz=256,slow=4.6,SNR=11						
	comp=Z,3.5nm,0.9s						
ASAR	**Alice Springs**	**123.31**	**208**	PKP	**PKPdf**	**10 14 23.9**	**-0.6**
	comp=Z,0.8nm,0.8s,baz=127,slow=1.7,SNR=7.4						
WRA	**Warramunga Arr**	**126.41**	**210**	PKP	**PKPdf**	**10 14 30.3**	**-0.1**
	comp=Z,1.1nm,0.7s,baz=154,slow=1.7,SNR=14						
KURBB	**Kurchatov Arra**	**147.76**	**37**	PKPbc	**PKPbc**	**10 15 10.3**	**-0.9**
	comp=Z,1.8nm,0.8s,baz=303,slow=3.6,SNR=12						
ZALV	**Zalesovo Beam**	**148.58**	**27**	PKPbc	**PKiKP**	**10 15 14.9**	**+0.2**
	comp=Z,5.5nm,0.8s,baz=315,slow=3.7,SNR=18						
KSH2	**Kashi**	**150.34**	**59**	PKPbc	**PKiKP**	**10 15 20.2**	**+1.1**
MKAR	**Makanchi Array**	**151.96**	**40**	PKPbc	**PKiKP**	**10 15 22.8**	**+0.7**
	comp=Z,2.1nm,0.7s,baz=320,slow=2.1,SNR=17						
HHC	**Hu-ho-hao-te**	**166.77**	**350**	*e*P	**PKPdf**	**10 15 28.2**	**-4.3**
NJ2	**Nanjing**	**170.18**	**298**	*e*P	**PKPdf**	**10 15 35.7**	**+0.9**
NJ2				pmax	pmax		
	comp=Z,34nm,0.5s						
LZH	**Lanzhou**	**170.80**	**25**	PKP	**PKPdf**	**10 15 35.6**	**+0.3**
LZH				pP	sPKPdf	10 15 43.4	+6.1
LZH				pmax	pmax		
	comp=Z,19nm,1.4s						

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*SJA **01** 09:59:51.3±0.4, 25°.83S×68°.77W, h131^{km}, ML3.8, MW3.7*

*GUC **01** 10:00:12.5±0.7, 27°.90S×71°.17W, h39^{km}±3^{km}, ML3.5*

ISC 01 10:00:13.1±1.8**, 27°.90S**±0°.05×**71°.2W**±0°.1**, h35^{km}, n17,**
σ**1^{s}34**/20**, 3C-4D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	**Llanos de Chal**	**0.34**	**156⇑**	*e*P	**Pn**	**10 00 20.5**	**-1.0**
AC04				*e*S	**Sn**	**10 00 25.6**	**-1.6**
GO03	**Copiapo**	**0.93**	**71**	*e*P	**Pn**	**10 00 28.7**	**-1.0**
GO03				IAML		10 01 00.8	
	comp=Z,375nm,0.4s						
GO03	**Copiapo**	**0.93**	**71⇓**	*e*P	**Pn**	**10 00 28.4**	**-1.3**
GO03				IAML		10 00 43.9	
	comp=N,3μm,0.2s						
AC06	**Mina Casimiro**	**0.94**	**56⇓**	*i*P	**Pn**	**10 00 28.6**	**-1.3**
AC06				IAML		10 00 43.5	
	comp=E,3μm,0.3s						
LCO	**Las Campanas**	**1.20**	**157⇑**	*i*P	**Pn**	**10 00 33.6**	**-0.1**
LCO				*i* S	**Sn**	**10 00 48.7**	**-0.2**
AC05	**El Transito**	**1.26**	**138**	*e*P	**Pn**	**10 00 34.4**	**0.0**
AC05				IAML		10 01 12.9	
	comp=Z,130nm,0.5s						
AC05	**El Transito**	**1.26**	**138⇑**	*e*P	**Pn**	**10 00 34.0**	**-0.3**
AC05				IAML		10 00 50.9	
	comp=N,1μm,0.3s						
AC01	**Pan de Azucar**	**1.83**	**18**	*e*P	**Pn**	**10 00 41.7**	**-0.3**
AC02	**Maricunga**	**2.15**	**61**	*e*P	**Pn**	**10 00 48.6**	**+1.8**
AC02				*e*S	**Sn**	**10 01 14.6**	**+2.1**
AC02				IAML		10 01 18.3	
	comp=E,1μm,0.6s						
GO04	**Tololo Observa**	**2.30**	**171**	*e*P	**Pn**	**10 00 49.6**	**+0.9**
CO01	**Juntas del Tor**	**2.30**	**155**	*e*P	**Pn**	**10 00 49.9**	**+1.2**
CO01				IAML		10 01 28.7	
	comp=E,496nm,0.5s						
AROD	**Rodeo**	**2.73**	**146**	*e*P	**Pn**	**10 00 57.9**	**+3.1**
CO06	**Fray Jorge**	**2.79**	**187⇓**	*i*P	**Pn**	**10 00 54.6**	**-0.6**
CO06				IAML		10 01 43.2	
	comp=E,189nm,0.3s						
VCA	**Vinchina**	**2.79**	**108**	*e*P	**Pn**	**10 00 53.9**	**-1.6**
VCA				IAML		10 01 43.2	
	comp=Z,172nm,0.7s						
ACDV	**Cuesta del Vie**	**2.92**	**141**	*e*P	**Pn**	**10 00 56.9**	**-0.3**
ACDV				IAML		10 01 49.6	
	comp=Z,85nm,0.5s						
ACCO	**Cerro Coronel**	**3.28**	**145**	*e*P	**Pn**	**10 01 02.2**	**-0.1**
ACCO				*e*S	Sn	10 01 55.9	+16
ACCO				IAML		10 02 03.3	
	comp=Z,120nm,0.4s						
CO02	**Combarbal**	**3.30**	**177⇓**	*i*P	**Pn**	**10 01 02.5**	**+0.1**

SCB 01 10:24:44.5±1.2**, 22°.33S×67°.48W, h130^{km}**±65^{km}**, ML2.9**/2**,**
Error ellipse: s-maj=19.0km s-min=17.9km az=1.0,
Chile-Bolivia border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PB09	**IPOC Station P**	**1.72**	**288**	P	Pn	10 25 16.7	+1.4
PB09	**IPOC Station P**	**1.72**	**288**	P	Pn	10 25 16.6	+1.3
YJA	**Yavi**	**1.82**	**86**	P	Pn	10 25 18.7	+1.9
PB06	**IPOC Station P**	**1.97**	**259**	P	Pn	10 25 19.2	+0.9
PB06	**IPOC Station P**	**1.97**	**259**	P	Pn	10 25 19.3	+1.0
PB02	**IPOC Station P**	**2.46**	**294**	P	Pn	10 25 25.0	+0.7
PB02				S	Sn	10 25 55.0	+0.1
PB02				IAML		10 25 55.5	
	50nm,0.3s						
PB02	**IPOC Station P**	**2.46**	**294**	P	Pn	10 25 25.2	+0.9
PB02				S	Sn	10 25 55.0	+0.1
PB08	**IPOC Station P**	**2.68**	**324**	P	Pn	10 25 28.8	+1.4
PB08	**IPOC Station P**	**2.68**	**324**	P	Pn	10 25 29.5	+2.1
GO01	**Chusmiza**	**3.10**	**328**	P	Pn	10 25 34.1	+1.3
GO01	**Chusmiza**	**3.10**	**328**	P	Pn	10 25 34.7	+1.9
PB11	**IPOC Station P**	**3.27**	**321**	P	Pn	10 25 35.5	+0.7
PB11				S	Sn	10 26 13.8	+0.2
PB11				IAML		10 26 15.6	
	19nm,0.2s						
PB11	**IPOC Station P**	**3.27**	**321**	P	Pn	10 25 35.2	+0.4
PB11				S	Sn	10 26 13.8	+0.2
PB11				IAML		10 26 15.7	
	24nm,0.2s						
PB16	**IPOC Station P**	**4.41**	**334**	P	Pn	10 25 50.8	+0.6
PB16	**IPOC Station P**	**4.41**	**334**	P	Pn	10 25 51.4	+1.2
BBOJ	**La Paz, Jacaqu**	**5.37**	**353**	P	Pn	10 26 03.3	+0.2
BBOB	**La Paz, Bander**	**6.19**	**354**	P	Pn	10 26 14.2	+0.1
BBOB	**La Paz, Bander**	**6.19**	**354**	P	Pn	10 26 14.6	+0.6
SIV	**San Ignacio**	**8.74**	**45**	P	Pn	10 26 45.1	-2.9
SIV	**San Ignacio**	**8.74**	**45**	P	Pn	10 26 45.3	-2.7

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*SJA **01** 10:31:47.7±0.6, 27°.83S×71°.65W, h7^{km}, ML5.6, MW5.4*

*IDC **01** 10:31:50.0±0.4, 27°.77S×71°.18W, h0^{km}, mb5.0/17, mbtmp4.9/23, ML4.7/6, MS5.1/49, Error ellipse: s-maj=15.6km s-min=9.3km az=75.0*

*IPGP **01** 10:31:50.0, 27°.89S×71°.48W, h22^{km}, Mw5.6, Fault plane solution: NP1:φ$_s$42.00000°, δ34.00000°, λ122.00000°. NP2:φ$_s$185.00000°, δ61.00000°, λ70.00000°.*

*GUC **01** 10:31:51.8±0.8, 27°.92S×71°.35W, h25^{km}±6^{km}, ML5.3*

*NEIC **01** 10:31:51.2, 27°.89S×71°.44W, h13^{km}*

*NEIC **01** 10:31:51.2, 27°.89S×71°.44W, h13^{km}*

*NEIC **01** 10:31:52.5±1.4, 27°.87S±0°.02×71°.39W±0°.07, h22^{km}±1^{km}, mb5.5/405, Ms_20 5.2/335, Mwb5.6/97, Mwr5.5/54, Mww5.7/26, Mwr5.4(GUC), Error ellipse: s-maj=10.4km s-min=4.1km az=268.0, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M$_{rr}$1.33; M$_{\theta\theta}$0.21; M$_{\phi\phi}$-1.55; M$_{r\theta}$0.48; M$_{\theta\phi}$0.06; M$_{\phi r}$-1.35; Fault plane solution: M$_0$2.04000×10^{17} NP1:φ$_s$12.90000°, δ24.74000°, λ115.58000°. NP2:φ$_s$165.11000°, δ67.82000°, λ78.75000°. Principal axes: T 1.9650, Plg65.0000°, Azm56.0000°; N 0.1358, Plg10.0000°, Azm169.0000°; P -2.1008, Plg22.0000°, Azm264.0000°; Moment Tensor Solution. Moment tensor: Scale 10^{17} Nm; M$_{rr}$2.54; M$_{\theta\theta}$0.35; M$_{\phi\phi}$-2.89; M$_{r\theta}$-0.11; M$_{\theta\phi}$0.48; M$_{\phi r}$-1.48; Fault plane solution: M$_0$3.14000×10^{17} NP1:φ$_s$343.91000°, δ31.55000°, λ77.47000°. NP2:φ$_s$178.52000°, δ59.29000°, λ97.58000°. Principal axes: T 2.9333, Plg75.0000°, Azm109.0000°; N 0.3834, Plg7.0000°, Azm355.0000°; P -3.3167, Plg14.0000°, Azm263.0000°;*

*MOS **01** 10:31:52.3±1.4, 27°.70S×71°.20W, h18^{km}, mb5.5/30, MS5.1/12 Error ellipse: s-maj=13.4km s-min=6.3km az=101.6*

*VAO **01** 10:31:52.2±1.3, 27°.83S×71°.16W, h10^{km}±7^{km}, mb5.3, Presumed earthquake*

*BJI **01** 10:31:52.0, 27°.90S×71°.50W, h12^{km}, mB5.7/29, Ms5.7/33, Ms7 5.5/33*

*CATAC **01** 10:31:53.0±0.2, 28°S±2°×7°1W±°, h12^{km}, M5.7/12, mb5.5/12, mB5.9/10, MLv6.3/6, Mw(mB)5.5/10, MwMwp5.2/4, Mwp5.4/4, Error ellipse: s-maj=14.2km s-min=3.7km az=86.9, confirmed*

*NEIC **01** 10:31:52.5, 27°.87S×71°.39W, h22^{km}*

*GFZ **01** 10:31:52.0, 27°.81S×71°.31W, h26^{km}, Mw5.6/64, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M$_{rr}$2.50; M$_{\theta\theta}$0.23; M$_{\phi\phi}$-2.73; M$_{r\theta}$0.21; M$_{\theta\phi}$-0.25; M$_{\phi r}$-2.03; Fault plane solution: M$_0$3.33050×10^{17} NP1: φ$_s$177.85687°, δ64.06125°, λ83.43567°. NP2:φ$_s$12.59617°, δ26.70060°, λ103.22593°. Principal axes: T 3.2205, Plg70.2204°, Azm74.0368°; N 0.2101, Plg5.9006°, Azm180.7384°; P -3.4306, Plg18.8087°, Azm272.7556°;*

*GFZ **01** 10:31:52.0±0.1, 28°S±1°×7°1W±°, h10^{km}, M5.4/75, mb5.5/75*

*GCMT **01** 10:31:57.5±0.1, 27°.94S±0°.01×71°.53W±0°.01, h23^{km}, MW5.7/156, Moment Tensor Solution. s109,c188; s156,c283; Duration: 1^{s}7 Moment tensor: Scale 10^{17} Nm; M$_{rr}$2.81±.06; M$_{\theta\theta}$0.06±.03; M$_{\phi\phi}$-2.87±.04; M$_{r\theta}$0.53±.06; M$_{\theta\phi}$0.03±.03; M$_{\phi r}$-2.62±.08; Best double couple: M$_0$3.90000×10^{17} NP1:φ$_s$7.00000°, δ24.00000°, λ104.00000°. NP2:φ$_s$172.00000°, δ67.00000°, λ84.00000°. Principal axes: T 3.8940, Plg68.0000°, Azm71.0000°; N 0.0120, Plg5.0000°, Azm174.0000°; P -3.9060, Plg22.0000°, Azm267.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*NEIC **01** 10:32:02.9, 27°.77S×71°.28W, h24^{km}, Moment Tensor Solution. Duration: 3^{s}4 Moment tensor: Scale 10^{17}Nm; M$_{rr}$2.76; M$_{\theta\theta}$0.20; M$_{\phi\phi}$-2.96; M$_{r\theta}$-0.51; M$_{\theta\phi}$-0.53; M$_{\phi r}$-3.79; Fault plane solution: M$_0$4.80000×10^{17} NP1:φ$_s$10.84000°, δ18.65000°, λ92.80000°. NP2:φ$_s$187.88000°, δ71.38000°, λ89.06000°. Principal axes: T 4.6587, Plg64.0000°, Azm96.0000°; N 0.2802, Plg1.0000°, Azm188.0000°; P -4.9390, Plg26.0000°, Azm279.0000°;*

ISC 01 10:31:49.9±0.5**, 27°.85S**±0°.02×**71°.43W**±0°.04**, h4^{km}**±2^{km}**,**
h4^{km}:pP-P, n1027, σ**1^{s}72**/750**, mb5.5**/281**, MS5.2**/213**,**
33C-23D, Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	**Llanos de Chal**	**0.47**	**138**	*e*P	**Pb**	**10 32 00.7**	**0.0**
AC04	**Llanos de Chal**	**0.47**	**138⇓**	*i*P	**Pb**	**10 32 00.8**	**+0.1**
AC04				*e*S	**Sg**	**10 32 06.3**	**+1.2**
AC04				IAML		10 32 08.7	
	comp=E,273μm,0.4s						
AC04	**Llanos de Chal**	**0.47**	**138**	Pg	**Pb**	**10 32 00.7**	**0.0**
AC04				Sg	**Sg**	**10 32 06.5**	**+1.4**
AC04	**Llanos de Chal**	**0.47**	**138**	P	**Pb**	**10 32 00.9**	**+0.1**
AC06	**Mina Casimiro**	**1.08**	**63⇓**	*i*P	**Pb**	**10 32 11.2**	**+0.2**
AC06				IAML		10 32 31.8	
	comp=E,66μm,0.7s						
GO03	**Copiapo**	**1.09**	**77**	*e*P	**Pn**	**10 32 11.8**	**-0.3**
GO03				IAML		10 32 32.8	
	comp=Z,86μm,0.7s						
GO03	**Copiapo**	**1.09**	**77⇓**	*e*P	**Pb**	**10 32 11.5**	**+0.1**
GO03				IAML		10 32 34.6	
	comp=E,61μm,0.7s						
GO03	**Copiapo**	**1.09**	**77**		**Pn**	**10 32 11.7**	**-0.3**
GO03	**Copiapo**	**1.09**	**77**	P	**Pn**	**10 32 11.7**	**-0.3**
LCO	**Las Campanas**	**1.32**	**151**	*e*P	**Pg**	**10 32 15.2**	**0.0**
LCO				*e*S	**Sb**	**10 32 33.1**	**+0.4**
LCO				IAML		10 32 35.3	
	comp=Z,60μm,0.3s						
LCO	**Las Campanas**	**1.32**	**151**	P	**Pg**	**10 32 14.9**	**-0.3**
LCO						10 32 32.5	
LCO	**Las Campanas**	**1.32**	**151**		**Pg**	**10 32 14.9**	**-0.3**
LCO				Sn	**Sg**	**10 32 31.7**	**-0.6**
LCO					**Sb**	**10 32 32.5**	**-0.3**
LCO	**Las Campanas**	**1.32**	**151**	P	**Pg**	**10 32 15.0**	**-0.3**
LCO				S	**Sg**	**10 32 32.0**	**-0.3**
AC05	**El Transito**	**1.41**	**134**	*e*P	**Pb**	**10 32 16.8**	**-0.1**
AC05				*e*S	**Sn**	**10 32 36.2**	**+0.6**
AC05	**El Transito**	**1.41**	**134⇓**	*i*P	**Pn**	**10 32 16.4**	**-0.1**
AC05				IAML		10 32 41.4	
	comp=N,74μm,0.6s						
AC05	**El Transito**	**1.41**	**134**		**Pn**	**10 32 16.5**	**-0.1**
AC05	**El Transito**	**1.41**	**134**	P	**Pn**	**10 32 16.6**	**+0.1**
AC01	**Pan de Azucar**	**1.85**	**24**	*e*P	**Pn**	**10 32 22.7**	**+0.2**
AC01				*e*S	**Sg**	**10 32 49.2**	**-0.3**
AC01				IAML		10 32 57.1	
	comp=Z,22μm,0.7s						
AC01	**Pan de Azucar**	**1.85**	**24⇑**	*e*P	**Pn**	**10 32 22.6**	**+0.1**
AC01				IAML		10 32 57.2	
	comp=E,26μm,0.6s						
AC01	**Pan de Azucar**	**1.85**	**24**		**Pn**	**10 32 22.4**	**+0.1**
AC01	**Pan de Azucar**	**1.85**	**24**	P	**Pn**	**10 32 22.6**	**+0.2**
AC01				S	**Sn**	**10 32 45.8**	**-0.5**
AC01	**Pan de Azucar**	**1.85**	**24**	P	**Pn**	**10 32 22.7**	**+0.2**
AC02	**Maricunga**	**2.29**	**64**	*e*P	**Pb**	**10 32 31.3**	**-0.7**
AC02				*e*S	**Sg**	**10 33 03.4**	**0.0**
AC02				IAML		10 33 09.5	
	comp=Z,24μm,0.5s						
AC02	**Maricunga**	**2.29**	**64⇑**	*e*P	**Pb**	**10 32 31.4**	**-0.5**
AC02				IAML		10 33 06.8	
	comp=N,65μm,0.4s						
AC02	**Maricunga**	**2.29**	**64**		**Pb**	**10 32 31.5**	**-0.5**
AC02	**Maricunga**	**2.29**	**64**	P	**Pb**	**10 32 31.5**	**-0.5**
GO04	**Tololo Observa**	**2.38**	**167**	*e*P	**Pn**	**10 32 30.9**	**+1.0**
GO04				*e*S	**Sg**	**10 33 05.2**	**-1.1**
GO04				IAML		10 33 11.0	
	comp=Z,41μm,1.4s						
GO04	**Tololo Observa**	**2.38**	**167**	*e*P	**Pn**	**10 32 30.3**	**+0.4**
GO04				IAML		10 33 14.2	
	comp=N,123μm,0.6s						
GO04	**Tololo Observa**	**2.38**	**167**	Pn	**Pn**	**10 32 30.6**	**+0.7**
GO04	**Tololo Observa**	**2.38**	**167**	P	**Pn**	**10 32 30.4**	**+0.6**
CO01	**Juntas del Tor**	**2.42**	**151**	*e*P	**Pn**	**10 32 32.1**	**+1.7**
CO01				*e*S	**Sb**	**10 33 04.5**	**+0.1**
CO01				IAML		10 33 17.1	
	comp=Z,19μm,1.3s						
CO01	**Juntas del Tor**	**2.42**	**151⇑**	*e*P	**Pn**	**10 32 32.0**	**+1.7**
CO01				IAML		10 33 07.1	
	comp=N,24μm,0.8s						
CO01	**Juntas del Tor**	**2.42**	**151**		**Pn**	**10 32 32.1**	**+1.7**
CO01	**Juntas del Tor**	**2.42**	**151**	P	**Pn**	**10 32 32.1**	**+1.7**
CO06	**Fray Jorge**	**2.81**	**184⇓**	*i*P	**Pn**	**10 32 34.6**	**-1.0**
CO06				IAML		10 33 27.4	
	comp=E,10μm,0.8s						
CO06	**Fray Jorge**	**2.81**	**184**		**Pn**	**10 32 34.6**	**-1.0**
AROD	**Rodeo**	**2.87**	**144**	*e*P	**Pb**	**10 32 40.5**	**-1.4**
VCA	**Vinchina**	**2.98**	**108**	*e*P	**Pb**	**10 32 42.7**	**-0.9**
VCA				*e*S	**Sg**	**10 33 28.1**	**+2.5**
VCA				IAML		10 33 33.6	
	comp=Z,16μm,1.0s						
VCA	**Vinchina**	**2.98**	**108⇑**	*e*P	**Pb**	**10 32 42.7**	**-0.9**
VCA				IAML		10 33 30.4	
	comp=N,21μm,0.7s						
ACDV	**Cuesta del Vie**	**3.07**	**139**	*e*P	**Pb**	**10 32 43.6**	**-1.6**
ACDV				IAML		10 33 42.3	
	comp=Z,11μm,1.6s						
PB14	**IPOC Station P**	**3.34**	**16**	P	**Pn**	**10 32 42.5**	**-0.8**
PB14	**IPOC Station P**	**3.34**	**16**	*e*P	**Pn**	**10 32 43.0**	**-0.2**
PB14				*e*S	**Sg**	**10 33 39.7**	**+2.4**
PB14				IAML		10 33 56.8	
	comp=Z,8μm,0.6s						
PB14	**IPOC Station P**	**3.34**	**16⇑**	*e*P	**Pn**	**10 32 42.6**	**-0.6**
PB14				IAML		10 33 45.5	
	comp=E,6μm,0.6s						
PB14	**IPOC Station P**	**3.34**	**16**	Pn	**Pn**	**10 32 42.6**	**-0.6**
PB14	**IPOC Station P**	**3.34**	**16**	P	**Pn**	**10 32 42.7**	**-0.5**
CO02	**Combarbal**	**3.36**	**174**	*e*P	**Pn**	**10 32 43.4**	**+0.2**
CO02				*e*S	**Sb**	**10 33 33.6**	**+2.3**
CO02				IAML		10 33 51.5	
	comp=Z,29μm,0.8s						
CO02	**Combarbal**	**3.36**	**174**	*e*P	**Pn**	**10 32 43.3**	**+0.1**
CO02				IAML		10 33 43.8	
	comp=N,39μm,0.4s						
CO02	**Combarbal**	**3.36**	**174**		**Pn**	**10 32 43.5**	**+0.2**
CO02	**Combarbal**	**3.36**	**174**	P	**Pn**	**10 32 44.0**	**+0.8**
ACCO	**Cerro Coronel**	**3.42**	**143**	*e*P	**Pb**	**10 32 48.0**	**-3.2**
ACCO				*e*S	**Sg**	**10 33 43.0**	**+3.2**
ACCO				IAML		10 33 47.3	
	comp=Z,13μm,1.2s						
TINO	**Tinogasta**	**3.42**	**94**	*e*P	**Pn**	**10 32 47.2**	**+3.1**
TINO				*e*S	**Sg**	**10 33 40.3**	**+0.4**
TINO				IAML		10 33 44.1	
	comp=Z,8μm,1.8s						
CO04	**Los Peladeros**	**4.19**	**175**	Pn	**Pn**	**10 32 55.1**	**+0.3**
CO04	**Los Peladeros**	**4.19**	**175**	P	**Pn**	**10 32 55.5**	**+0.6**
ACLC	**CERRO LA CRUZ**	**4.24**	**113**	*e*P	**Pn**	**10 32 58.5**	**+3.2**
ACLC				IAML		10 34 11.2	
	comp=Z,4μm,1.5s						
RTLL	**Cerro Villicun**	**4.32**	**144**	*e*P	**Pn**	**10 32 59.5**	**+3.2**
RTLL				*e*S	**Sb**	**10 33 58.0**	**-0.8**
RTLL				IAML		10 34 18.2	
	comp=Z,10μm,1.1s						
RTLS	**Leoncito**	**4.35**	**155**	*e*P	**Pn**	**10 33 01.2**	**+4.3**
RTLS				*e*S	**Sg**	**10 34 06.5**	**-3.1**
ZON	**Zonda**	**4.39**	**148**	*e*P	**Pn**	**10 33 00.4**	**+3.0**
ZON				*e*S	**Sb**	**10 34 04.1**	**+3.2**
ZON				IAML		10 34 20.9	
	comp=Z,6μm,1.1s						
ZON	**Zonda**	**4.39**	**148**	P	**Pn**	**10 33 00.4**	**+3.0**
ZON	**Zonda**	**4.39**	**148**		**Pn**	**10 33 00.4**	**+3.0**
ZON	**Zonda**	**4.39**	**148**	P	**Pn**	**10 33 00.8**	**+3.4**
CFA	**Coronel Fontan**	**4.66**	**144**	Pn	**Pn**	**10 33 02.7**	**+1.7**
	comp=Z,73nm,0.3s,baz=321,slow=14,SNR=203						
CFA				Sn	**Sn**	**10 33 57.5**	**+2.0**
	comp=Z,70nm,0.3s,baz=239,slow=22,SNR=4.9						
CFA				LR	LR	10 34 48.6	
	comp=Z,16μm,18.1s,baz=316,slow=39						
	comp=Z,176nm,0.4s						
CFA				AML	AML		
CFA	**Coronel Fontan**	**4.66**	**144**	*e*P	**Pn**	**10 33 04.4**	**+3.4**
CFA				*e*S	**Sb**	**10 34 03.3**	**-5.3**
CFA				IAML		10 34 22.4	
	comp=Z,4μm,0.8s						
VA03	**San Esteban**	**4.95**	**171**	*e*P	**Pn**	**10 33 06.7**	**+1.6**
VA03				*e*S	**Sb**	**10 34 21.6**	**+4.5**
VA03				IAML		10 34 34.3	
	comp=Z,8μm,1.4s						
VA03	**San Esteban**	**4.95**	**171**		**Pn**	**10 33 06.5**	**+1.3**
VA03	**San Esteban**	**4.95**	**171**	P	**Pn**	**10 33 07.4**	**+2.3**
	comp=Z,3μm,0.9s						
CYA	**Choya**	**5.01**	**98**	*e*P	**Pn**	**10 33 08.3**	**+2.5**
CYA				*e*S	**Sn**	**10 34 10.1**	**+6.0**
CYA				IAML		10 34 19.2	
	comp=Z,3μm,2.0s						
PB05	**IPOC Station P**	**5.10**	**13**	*e*P	**Pn**	**10 33 05.9**	**-1.3**
PB05				IAML		10 34 39.3	
	comp=Z,4μm,0.7s						
PB05	**IPOC Station P**	**5.10**	**13**		**Pn**	**10 33 05.7**	**-1.5**
PB05	**IPOC Station P**	**5.10**	**13**	P	**Pn**	**10 33 05.8**	**-1.5**
	comp=Z,1μm,0.7s						
VA01	**Torpederas**	**5.16**	**182**		**Pn**	**10 33 06.4**	**-1.4**
VA01	**Torpederas**	**5.16**	**182**	P	**Pn**	**10 33 08.2**	**+0.4**
	comp=Z,1μm,1.0s						
PEL	**Peldehue**	**5.31**	**173**	P	**Pn**	**10 33 11.8**	**+1.8**
PEL	**Peldehue**	**5.31**	**173**	P	**Pn**	**10 33 11.9**	**+1.9**
PEL				S	**Sn**	**10 34 17.7**	**+6.0**
PEL	**Peldehue**	**5.31**	**173**	P	**Pn**	**10 33 11.8**	**+1.8**
	comp=Z,2μm,0.8s						
PB06	**IPOC Station P**	**5.40**	**19**		**Pn**	**10 33 10.1**	**-1.2**
PB06	**IPOC Station P**	**5.40**	**19**	P	**Pn**	**10 33 10.2**	**-1.1**
PB06	**IPOC Station P**	**5.40**	**19**	P	**Pn**	**10 33 10.4**	**-0.9**
	comp=Z,1μm,1.3s						
MT08	**Bocatoma Ro**	**5.70**	**168**		**Pn**	**10 33 18.9**	**+3.3**
SALTA		**5.83**	**53**	P	**Pn**	**10 33 20.1**	**+2.5**
	comp=Z,458nm,0.9s						
PB03	**IPOC Station P**	**5.98**	**15**	P	**Pn**	**10 33 17.7**	**-1.6**
	comp=Z,872nm,0.7s						
PB07	**IPOC Station P**	**6.26**	**13**	P	**Pn**	**10 33 21.4**	**-1.8**
	comp=Z,1μm,0.8s						
PB09	**IPOC Station P**	**6.35**	**19**		**Pn**	**10 33 24.2**	**-0.2**
PB09	**IPOC Station P**	**6.35**	**19**	P	**Pn**	**10 33 24.4**	**0.0**
PB09	**IPOC Station P**	**6.35**	**19**	P	**Pn**	**10 33 24.0**	**-0.4**
	comp=Z,618nm,0.7s						
BO01	**Tunca**	**6.52**	**177**	P	**Pn**	**10 33 28.7**	**+2.1**
	comp=Z,496nm,0.9s						
BO03	**Pichilemu**	**6.64**	**184**	P	**Pn**	**10 33 26.9**	**-1.2**
	comp=Z,411nm,0.9s						
PB02	**IPOC Station P**	**6.65**	**12**	P	**Pn**	**10 33 26.6**	**-2.0**
PB02				S	**Sn**	**10 34 44.4**	**-0.5**
PB02	**IPOC Station P**	**6.65**	**12**	P	**Pn**	**10 33 26.8**	**-1.7**
	comp=Z,856nm,0.7s						
TCA	**Tanti**	**6.89**	**122⇑**	*e*P	**Pn**	**10 33 32.2**	**+0.5**
BO02	**Sierra Bellavi**	**6.94**	**176**	P	**Pn**	**10 33 33.4**	**+1.0**
	comp=Z,548nm,0.8s						
GO05	**Hualane**	**7.15**	**183**	P	**Pn**	**10 33 33.8**	**-1.4**
	comp=Z,467nm,0.8s						
TA01	**Diego Aracena**	**7.34**	**9**	P	**Pn**	**10 33 37.8**	**-0.1**
	comp=Z,222nm,0.8s						
ML02	**Panimavida**	**7.88**	**180**	P	**Pn**	**10 33 45.6**	**+0.3**
	comp=Z,526nm,0.9s						
PB08	**IPOC Station P**	**7.96**	**16**	P	**Pn**	**10 33 45.5**	**-1.2**
PB08	**IPOC Station P**	**7.96**	**16**	P	**Pn**	**10 33 45.7**	**-1.0**
	comp=Z,224nm,0.9s						
PB11	**IPOC Station P**	**8.22**	**12**	P	**Pn**	**10 33 47.4**	**-2.7**
	comp=Z,242nm,0.8s						
PSGCX	**Pisagua**	**8.31**	**9**	P	**Pn**	**10 33 48.2**	**-3.0**
	comp=Z,197nm,0.8s						
GO01	**Chusmiza**	**8.40**	**15**	P	**Pn**	**10 33 51.5**	**-1.4**
	comp=Z,208nm,0.5s						
H03N1	**Juan Fernandez**	**8.51**	**227**	Pn	**Pn**	**10 33 51.0**	**-2.7**
	baz=52,slow=73						
H03N1				Sn	Sn	10 35 19.8	-10
	baz=244,slow=74						
H03N1				T	T	10 42 30.4	
	baz=89,slow=25,SNR=2151						
H03N2	**Juan Fernandez**	**8.53**	**227**	Pn	**Pn**	**10 33 51.0**	**-2.9**
	baz=52,slow=73						
H03N2				Sn	Sn	10 35 18.6	-12
	baz=17,slow=74						
H03N2				T	T	10 42 31.0	
	baz=89,slow=25,SNR=1577						
H03N3	**Juan Fernandez**	**8.53**	**227**	Pn	Pn	10 33 40.7	-13
	baz=52,slow=73						
H03N3				T	T	10 42 05.0	
	baz=89,slow=25,SNR=6.2						
VA04	**Juan Fernndez**	**8.59**	**226**		**Pn**	**10 33 52.2**	**-2.8**
VA04	**Juan Fernndez**	**8.59**	**226**	P	**Pn**	**10 33 52.9**	**-2.1**
	comp=Z,664nm,0.8s						
H03S3	**Juan Fernandez**	**8.76**	**225**	Pn	**Pn**	**10 33 54.2**	**-2.8**
	baz=34,slow=20						
H03S3				Sn	Sn	10 35 24.3	-12
	baz=118,slow=76						
H03S3				T	T	10 42 55.5	
	baz=49,slow=73,SNR=22						
H03S1	**Juan Fernandez**	**8.77**	**225**	Pn	**Pn**	**10 33 54.0**	**-3.2**
	baz=34,slow=20						
H03S1				Sn	Sn	10 35 22.3	-14
	baz=118,slow=76						
H03S1				T	T	10 42 58.3	
	baz=49,slow=73,SNR=18						
H03S2	**Juan Fernandez**	**8.78**	**225**	Pn	**Pn**	**10 33 54.6**	**-2.7**
	baz=34,slow=20						
H03S2				Sn	Sn	10 35 23.6	-13
	baz=118,slow=76						
H03S2				T	T	10 42 59.3	
	baz=49,slow=73,SNR=20						
BI02	**San Fabin de**	**8.79**	**179**	P	**Pn**	**10 33 57.1**	**-0.6**
	comp=Z,279nm,0.9s						
PB12	**IPOC Station P**	**9.25**	**7**		**Pn**	**10 34 02.3**	**-1.9**
PB12	**IPOC Station P**	**9.25**	**7**	P	**Pn**	**10 34 02.5**	**-1.8**
	comp=Z,191nm,0.8s						
PB16	**IPOC Station P**	**9.64**	**11**	P	**Pn**	**10 34 08.9**	**-1.0**
	comp=Z,128nm,0.8s						
PB18	**Visviri**	**10.37**	**10**		**Pn**	**10 34 19.4**	**-0.6**
PB18	**Visviri**	**10.37**	**10**	P	**Pn**	**10 34 21.4**	**+1.5**
	comp=Z,322nm,0.6s						
GO06	**Curarrehue**	**11.70**	**180**	Pn	**Pn**	**10 34 36.2**	**-1.5**
GO06	**Curarrehue**	**11.70**	**180**	P	**Pn**	**10 34 41.4**	**+3.7**
	comp=Z,60nm,0.9s						
LPAZ	**La Paz**	**11.91**	**16**	Pn	**Pn**	**10 34 40.1**	**-1.0**
	comp=Z,4.9nm,0.3s,baz=196,slow=5.6,SNR=50						
LPAZ				LR	LR	10 39 46.2	
	comp=Z,17μm,18.6s,baz=189,slow=40						
	comp=Z,12nm,0.4s						
LPAZ				AML	AML		
LPAZ	**La Paz**	**11.91**	**16**	P	**Pn**	**10 34 40.2**	**-0.9**
LPAZ	**La Paz**	**11.91**	**16**		**Pn**	**10 34 40.2**	**-0.9**
LPAZ	**La Paz**	**11.91**	**16**	*e*P	**Pn**	**10 34 40.5**	**-0.5**
LPAZ	**La Paz**	**11.91**	**16**	P	**Pn**	**10 34 40.6**	**-0.5**
	comp=Z,79nm,0.6s						
PSAL	**Palomas, Salto**	**12.47**	**108**	*e*P	**Pn**	**10 34 47.0**	**-1.1**
CPUP	**Villa Florida**	**12.66**	**86**	Pn	**Pn**	**10 34 48.9**	**-1.9**
	comp=Z,1.6nm,0.3s,baz=258,slow=13,SNR=26						
CPUP				Lg	Lg	10 38 17.5	
	comp=Z,1.9nm,0.3s,baz=154,slow=20,SNR=3.3						
CPUP				LR	LR	10 40 01.4	
	comp=Z,11μm,21.1s,baz=268,slow=40						
	comp=Z,8.9nm,1.1s						
CPUP				AML	AML		
CPUP	**Villa Florida**	**12.66**	**86**	P	**Pn**	**10 34 50.6**	**-0.1**
CPUP	**Villa Florida**	**12.66**	**86**		**Pn**	**10 34 50.6**	**-0.1**
CPUP	**Villa Florida**	**12.66**	**86**	P	**Pn**	**10 34 50.2**	**-0.5**
	comp=Z,85nm,0.8s						
PLCA	**Paso Flores**	**12.87**	**177**	Pn	**Pn**	**10 34 55.0**	**+1.4**
	comp=Z,0.4nm,0.3s,baz=331,slow=13,SNR=11						
PLCA				Lg	Lg	10 38 30.1	
	comp=Z,0.2nm,0.3s,baz=136,slow=15,SNR=2.8						
PLCA				LR	LR	10 40 08.7	
	comp=Z,21μm,19.2s,baz=350,slow=38						

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             comp=Z,3.0nm,0.6s
PLCA                                  AML       AML
PLCA  Paso Flores       12.87 177     P         Pn        10 34 55.0 +1.4
PLCA  Paso Flores       12.87 177     Pn        Pn        10 34 52.7  -0.9
PLCA  Paso Flores       12.87 177    eP         Pn        10 34 54.7 +1.1
PLCA  Paso Flores       12.87 177     P         Pn        10 34 58.9 +5.3
             comp=Z,60nm,1.6s
ANCO  Parque Anchore    13.19 122    eP         Pn        10 34 57.1  -0.9
LPA   La Plata          13.50 125d iP           Pn        10 34 59.6  -2.6
LPA                                   SSS       SSS       10 37 57.2
LPA                                   SSS(S)              10 38 47.7
LPA                                   PCP       PcP       10 40 24.8  -4.8
MURT  Porto Murtinho    13.98  67    eP         Pn        10 35 08.2  -0.6
SJPY  San Joaquin       14.03  82    eP         Pn        10 35 08.3  -1.1
COIM  Forte Coimbra     14.77  61    eP         Pn        10 35 17.3  -2.2
SIV   San Ignacio       15.21  41     Pn        Pn        10 35 19.7  -5.9
             comp=Z,0.3nm,0.3s,baz=240,slow=9.1,SNR=27
             comp=Z,11nm,0.5s
SIV                                   AML       AML
BDQN  Bodoquena, MS     15.29  64    eP         Pn        10 35 24.9  -1.6
LL02  Futaleuf          15.31 181     Pn        Pn        10 35 24.4  -2.3
LL02  Futaleuf          15.31 181     P         P         10 35 32.0 +0.3
             comp=Z,45nm,1.0s
CPSB  Cacapava Do Su    15.93 103               Pn        10 35 32.5  -2.4
CPSB  Cacapava Do Su    15.93 103    eP         Pn        10 35 31.7  -3.2
CPSB  Cacapava Do Su    15.93 103     P         Pn        10 35 32.5  -2.4
             comp=Z,105nm,0.8s
AQDB  Aquidauana        16.12  66     P         Pn        10 35 38.5 +1.1
AQDB  Aquidauana        16.12  66    eP         Pn        10 35 37.4   0.0
AQDB  Aquidauana        16.12  66     P         Pn        10 35 38.9 +1.5
             comp=Z,68nm,1.1s
NNA   Nana              16.58 341     Pn        Pn        10 35 41.8  -1.5
             comp=Z,2.0nm,0.3s,baz=198,slow=11,SNR=5.1
NNA                                   LR        LR        10 40 44.8
             comp=Z,5µm,20.0s,baz=170,slow=32
             comp=Z,5.5nm,0.4s
NNA                                   AML       AML
NNA   Nana              16.58 341     P         P         10 35 45.7  -0.3
PTLB  Pontes e Lacer    16.81  45               Pn        10 35 42.7  -3.4
PTLB  Pontes e Lacer    16.81  45    eP         Pn        10 35 45.5  -0.7
PTGB  Pitanga           17.65  84    eP         Pn        10 35 56.0  -0.8
COYC  Coyhaique         17.69 182     P         Pn        10 35 57.6 +0.5
COYC  Coyhaique         17.69 182     P         P         10 35 59.0 +0.9
             comp=Z,155nm,0.9s
TRCB  Terra Rica        17.72  78     P         Pn        10 35 57.9 +0.3
VILB  Vilhena           18.16  38               Pn        10 36 02.7  -0.4
VILB  Vilhena           18.16  38    eP         Pn        10 36 00.8  -2.3
PP1B  Ponte de Pedra    18.34  60    eP         Pn        10 36 03.7  -1.6
SALV  Santo Antonio     18.81  54    eP         P         10 36 08.9  -1.7
LDASE Londrina, Braz    18.84  81    eP         P         10 36 09.3  -1.6
C2SB  Chapadao do Su    19.30  66    eP         P         10 36 14.9  -1.0
C2SB  Chapadao do Su    19.30  66     P         Pn        10 36 17.6 +0.6
             comp=Z,387nm,1.7s
CZSB  Cruzeiro do Su    20.05 356     P         Pn        10 36 25.8  -0.1
CZSB                                  IAmb      IAmb      10 36 39.7
             comp=Z,338nm,1.1s
CZSB  Cruzeiro do Su    20.05 356    eP         Pn        10 36 26.1 +0.2
GO08  Villa O'Higgin    20.60 182     P         P         10 36 28.6  -1.2
GO08                                  IAMs_20   IAMs_20   10 44 11.6
             comp=Z,8µm,18.0s
GO08  Villa O'Higgin    20.60 182     P         Pn        10 36 32.8 +0.8
             comp=Z,158nm,1.2s
ATAH  Atahualpa         21.64 341     P         P         10 36 44.0 +2.3
             comp=Z,9.6nm,0.9s,baz=125,slow=6.0,SNR=7.4
ATAH                                  LR        LR        10 43 32.2
             comp=Z,3µm,20.1s,baz=164,slow=32
             comp=Z,9.6nm,0.9s
ARAG  Araguaiana, MT    21.83  60    eP         P         10 36 41.7  -1.6
BB19B Bebedouro         21.90  77    eP         P         10 36 42.9  -1.2
PET01 Itanhaem-SP       21.98  86    eP         P         10 36 44.6  -0.3
SPB   Sao Paulo         22.02  84     P         P         10 36 43.7  -1.7
SPB                                   IAmb      IAmb      10 36 57.0
             comp=Z,115nm,0.9s
SPB   Sao Paulo         22.02  84     P         P         10 36 44.8  -0.6
SPB   Sao Paulo         22.02  84    eP         P         10 36 44.0  -1.4
SPB   Sao Paulo         22.02  84     P         P         10 36 45.4   0.0
             comp=Z,163nm,1.0s
RCLB  Rio Claro- Sao    22.29  81    eP         P         10 36 47.4  -1.0
CLDB  Colider           22.38  44    eP         P         10 36 47.5  -1.8
CLDB  Colider           22.38  44     P         P         10 36 48.0  -1.3
             comp=Z,94nm,1.7s
VAO   Valinhos          22.60  83     P         P         10 36 50.6  -1.1
VAO   Valinhos          22.60  83    eP         P         10 36 50.9  -0.8
IPMB  Ipameri, GO       23.50  70    eP         P         10 36 59.0  -1.9
CANS  Sao Roque de M    24.04  77    eP         P         10 37 05.6  -0.7
SNDB  Serra Nova Dou    24.60  54    eP         P         10 37 09.8  -1.5
MCRA  Macar, Loja       24.73 339     P         P         10 37 12.8 +0.3
             comp=Z,1µmcomp=Z,61nm,1.1s
PMNB  Patos De Minas    24.73  73    eP         P         10 37 11.1  -1.5
PMNB  Patos De Minas    24.73  73     P         P         10 37 11.5  -1.1
             comp=Z,128nm,0.9s
BDFB  Brasilia          24.86  66     P         P         10 37 12.7  -1.0
             comp=Z,34nm,0.7s,baz=236,slow=11,SNR=39
BDFB                                  LR        LR        10 48 18.5
             comp=Z,23µm,18.9s,baz=241,slow=40
             comp=Z,34nm,0.7s
BDFB  Brasilia          24.86  66     P         P         10 37 12.8  -1.0
BDFB                                  pmax      pmax
             comp=Z,74nm,0.9s
BDFB  Brasilia          24.86  66     P         P         10 37 12.8  -1.0
MG02  Cerro Sombrero    24.95 177     IAMs_20   IAMs_20   10 47 14.5
             comp=Z,10µm,19.0s
MG02  Cerro Sombrero    24.95 177     P         P         10 37 16.6 +2.4
             comp=Z,318nm,1.1s
TEFE  Tefe              25.06  16    eP         P         10 37 16.0 +0.6
BSCB  Bom Sucesso       25.18  80    eP         P         10 37 16.3  -0.3
BSCB  Bom Sucesso       25.18  80     P         P         10 37 17.0 +0.3
             comp=Z,101nm,1.0s
GO10  Punta Arenas      25.28 179     IAMs_20   IAMs_20   10 47 59.4
             comp=Z,7µm,18.0s
GO10  Punta Arenas      25.28 179     P         P         10 37 21.3 +4.2
             comp=Z,235nm,1.9s
EFI   East Falkland     25.83 161d iP           P         10 37 23.3 +1.2
EFI                                   pmax      pmax
             comp=Z,102nm,0.9s
EFI   East Falkland     25.83 161     P         P         10 37 18.9  -3.2
EFI                                   IAmb      IAmb      10 37 51.3
             comp=Z,103nm,1.1s
EFI   East Falkland     25.83 161     IAMs_20   IAMs_20   10 48 12.8
             comp=Z,7µm,20.0s
EFI   East Falkland     25.83 161     P         P         10 37 23.1 +1.0
USHA  Ushuaia           27.04 176     P         P         10 37 33.6 +0.6
             comp=Z,29nm,0.7s,baz=354,slow=6.9,SNR=7.8
USHA                                  LR        LR        10 49 07.9
             comp=Z,14µm,18.3s,baz=3.0,slow=38
             comp=Z,29nm,0.7s
DIAM  Diamantina, MG    27.20  75    eP         P         10 37 35.3 +0.3
PIAT  Ana Tenorio       27.50 345     P         P         10 37 42.3 +4.4
             comp=Z,55nm,1.2s
MC01  Montes Claros     27.69  72    eP         P         10 37 38.4  -0.9
ITTB  Itaituba          27.73  35    eP         P         10 37 38.8  -0.8
ANTS  Antisana-Sarah    27.96 346     P         P         10 37 45.0 +2.7
PTLC  Puerto Leguiza    28.05 353     P         P         10 37 41.0  -1.4
             comp=Z,2µmcomp=Z,109nm,1.2s
JANB  Januaria          28.20  69    eP         P         10 37 42.5  -1.4
OTAV  Otavalo           28.73 345     P         P         10 37 52.2 +3.2
OTAV  Otavalo           28.73 345    eP         P         10 37 51.8 +2.8
SDBA  SAO DESIDERIO     29.17  64    eP         P         10 37 50.8  -1.7
SJMB  Sao Joao De Ma    29.18  78    eP         P         10 37 52.0  -0.5
SMTB  Santa Maria do    29.37  55    eP         P         10 37 54.2  -0.1
BSFB  Barra de Sao F    29.42  79    eP         P         10 37 54.2  -0.4
BSFB  Barra de Sao F    29.42  79     P         P         10 37 54.7   0.0
             comp=Z,107nm,0.9s
RIB01 Linhares ES       29.62  80    eP         P         10 37 57.0 +0.6
MACC  Macarena, Meta    29.92 355     P         P         10 37 59.5 +0.5
             comp=Z,807nmcomp=Z,36nm,1.1s
BBAC  Balboa, Cauca     30.23 348     P         P         10 38 05.0 +3.0
             comp=Z,1µmcomp=Z,51nm,0.9s
POPC  Popayan, Colom    30.64 350     P         P         10 38 09.4 +3.8
             comp=Z,797nmcomp=Z,26nm,1.1s
GUA01 Guaratinga, BA    31.26  76    eP         P         10 38 10.7  -0.2
PRAC  Prado             31.56 353     P         P         10 38 15.6 +2.0
             comp=Z,3µmcomp=Z,2µmcomp=Z,121nm,1.3s
PRAC  Prado             31.56 353     P         P         10 38 16.5 +2.9
ORTC  Ortega, Tolima    31.79 353     P         P         10 38 18.4 +2.8
             comp=Z,3µmcomp=Z,127nm,1.3s
BOAV  Boa Vista         31.86  21     P         P         10 38 15.2  -0.9
BOAV                                  IAmb      IAmb      10 38 17.3
             comp=Z,120nm,1.8s
BOAV  Boa Vista         31.86  21    eP         P         10 38 16.4 +0.3
CMC01 Camacan, BA       32.07  74    eP         P         10 38 17.8  -0.3
NBIT  Itapeh - BA       32.34  73    eP         P         10 38 20.1  -0.3
PAYG  Puerto Ayora      32.51 323     IAMs_20   IAMs_20   10 48 11.5
             comp=Z,5µm,20.0s
ROSC  El Rosal          32.62 355     P         P         10 38 23.2  -0.1
             comp=Z,8.5nm,0.6s,baz=167,slow=5.7,SNR=8.9
ROSC                                  LR        LR        10 52 58.7
             comp=Z,3µm,18.3s,baz=187,slow=39
             comp=Z,8.5nm,0.6s
ROSC  El Rosal          32.62 355     P         P         10 38 22.2  -1.1
ROSC                                  IAmb      IAmb      10 38 42.1
             comp=Z,45nm,0.8s
GUY2C Guyana, Caldas    33.10 353     P         P         10 38 28.7 +1.1
             comp=Z,1µmcomp=Z,41nm,0.7s
SPBC  San Pablo de B    33.41 355     P         P         10 38 30.0 +0.2
             comp=Z,1µmcomp=Z,39nm,1.1s
RPN   Rapa Nui          33.54 262     LR        LR        10 48 35.8
             comp=Z,8µm,19.9s,baz=104,slow=30
RUSC  La Rusia          33.59 357     P         P         10 38 32.1 +0.3
             comp=Z,3µmcomp=Z,205nm,1.1s
RUSC  La Rusia          33.59 357     P         P         10 38 34.0 +2.2
CBOC  Ciudad Bolivar    33.81 352     P         P         10 38 36.9 +3.5
             comp=Z,987nmcomp=Z,69nm,1.2s
NBPN  Ponto Novo - B    33.84  66    eP         P         10 38 32.2  -1.3
UREC  San Jos de Ur     35.62 353     P         P         10 38 50.3 +1.5
             comp=Z,1µmcomp=Z,63nm,0.7s
APAC  Apartado, Choc    35.89 351     P         P         10 38 53.4 +2.2
             comp=Z,2µmcomp=Z,50nm,1.1s
SDV   Santo Domingo     36.53   1     LR        LR        10 55 27.4
             comp=Z,4µm,18.2s,baz=196,slow=39
SDV   Santo Domingo     36.53   1     P         P         10 38 55.6  -1.3
SDV                                   IAMs_20   IAMs_20   10 55 16.7
             comp=Z,4µm,18.0s
SDV   Santo Domingo     36.53   1     P         P         10 38 56.9   0.0
             comp=Z,154nm,1.0s
SDV   Santo Domingo     36.53   1     P         P         10 38 56.9   0.0
             comp=Z,153nm,1.0s
NBTA  Tacaratu-PE       36.54  66    eP         P         10 38 56.6  -0.2
HOPE  Hope Point        36.67 146     P         P         10 38 59.4 +1.9
NBPS  Pedro II - PI     36.87  56    eP         P         10 38 58.5  -1.2
NBMA  Muriti-CE         37.01  63    eP         P         10 39 00.8  -0.1
PMSA  Palmer Station    37.23 175     P         P         10 39 01.8  -0.2
PMSA  Palmer Station    37.23 175    eP         P         10 39 03.9 +1.8
PMSA  Palmer Station    37.23 175     P         P         10 39 04.0 +1.9
             comp=Z,47nm,1.2s
MDP   Montagnes des     37.45  32     LR        LR        10 55 12.6
             comp=Z,5µm,19.1s,baz=205,slow=38
ORCD  Orcadas           37.49 159     P         P         10 39 02.8  -1.6
BCIP  Isla Barro Col    37.69 346     P         P         10 39 09.5 +3.0
             comp=Z,68nm,1.7s
SJCC  San Jacinto, C    37.70 354     P         P         10 39 07.1 +0.4
             comp=Z,2µmcomp=Z,148nm,1.2s
JTS   Las Juntas de     40.12 339⇓eP            P         10 39 30.0 +3.1
JTS                                   pmax      pmax
             comp=Z,44nm,1.1s
NBPV  Pedro Velho       40.34  65    eP         P         10 39 28.2  -0.6
SMAI  San Martin Ant    40.38 178     P         P         10 39 27.0  -1.5
GRGR  Grenville         40.86  15     IAMs_20   IAMs_20   10 56 46.2
             comp=Z,2µm,20.0s
GRGR  Grenville         40.86  15     P         P         10 39 33.0   0.0
             comp=Z,6µmcomp=Z,3µmcomp=Z,147nm,1.3s
GRGR  Grenville         40.86  15     P         P         10 39 33.5 +0.5
             comp=Z,182nm,1.3s
BLUN  Bluefields        41.39 342     P         P         10 39 49.1  +12
BOAB  BOACO BROADBA42.37 339          P         P         10 39 46.6 +1.3
BOAB                                  IAmb      IAmb      10 40 06.0
             comp=Z,97nm,1.3s
BOAB  BOACO BROADBA42.37 339          P         P         10 39 47.2 +1.8
BOAB  BOACO BROADBA42.37 339          P         P         10 39 47.9 +2.5
             comp=Z,64nm,1.1s
MPOM  Morne Pois Mar    43.28  15     P         P         10 39 50.8  -1.9
MPOM                                  IAmb      IAmb      10 40 04.9
             comp=Z,105nm,0.9s
MPOM                                  IAMs_20   IAMs_20   10 59 24.3
             comp=Z,2µm,20.0s
MPOM  Morne Pois Mar    43.28  15     P         P         10 39 52.4  -0.3
             comp=Z,132nm,1.1s
BIM   Bigot             43.30  15     IAmb      IAmb      10 40 05.2
             comp=Z,74nm,0.7s
BIM   Bigot             43.30  15     P         P         10 39 52.4  -0.6
             comp=Z,104nm,1.0s
ILAM  Ilet Lapin Mar    43.59  15     IAMs_20   IAMs_20   10 59 44.6
             comp=Z,2µm,20.0s
TGUH  Tegucigalpa,Un    44.40 338     P         P         10 40 00.9  -1.0
TGUH                                  IAmb      IAmb      10 40 16.4
             comp=Z,56nm,0.9s
TGUH  Tegucigalpa,Un    44.40 338     P         P         10 40 04.2 +2.3
             comp=Z,73nm,1.1s
MAGL  Barre de l'ile    44.64  14     IAMs_20   IAMs_20   11 01 18.3
             comp=Z,2µm,18.0s
CBE   Ff, Capester      44.69  13     IAMs_20   IAMs_20   10 59 12.5
             comp=Z,2µm,19.0s
GDHS  Morne Mazeau,     44.85  13     IAMs_20   IAMs_20   10 59 06.4
             comp=Z,2µm,20.0s
MLPR  Magueyes Islan    45.75   6     IAmb      IAmb      10 40 13.7
             comp=Z,59nm,0.8s
CRPR  Cabo Rojo, PR     45.78   6     IAmb      IAmb      10 40 13.8
             comp=Z,58nm,0.7s
SABA  Saba              45.90  11     IAMs_20   IAMs_20   11 01 03.6
             comp=Z,2µm,22.0s
CELP  Cerrillos         45.90   6     IAmb      IAmb      10 40 26.8
             comp=Z,63nm,0.9s
PDPR  Patillas Dam,     45.90   7     P         P         10 40 12.5  -1.1
PDPR                                  IAmb      IAmb      10 40 14.1
             comp=Z,43nm,0.8s
SJG   San Juan          45.98   7     LR        LR        11 01 30.0
             comp=Z,1µm,19.0s,baz=196,slow=39
SJG   San Juan          45.98   7     P         P         10 40 13.7  -0.6
SJG                                   pmax      pmax
             comp=Z,40nm,0.8s
SJG                                   MLR       MLR
             comp=Z,2µm,21.0s
SJG   San Juan          45.98   7     P         P         10 40 13.7  -0.6
SJG                                   IAmb      IAmb      10 40 31.1
             comp=Z,40nm,0.8s
SJG   San Juan          45.98   7     P         P         10 40 14.3 +0.1
             comp=Z,48nm,0.8s
AOPR  Arecibo Observ    46.15   6     IAmb      IAmb      10 40 27.7
             comp=Z,41nm,0.9s
ECPR  Experimental S    46.16   7     IAmb      IAmb      10 40 27.7
             comp=Z,41nm,1.1s
SMRT  St. Maarten       46.35  11     IAMs_20   IAMs_20   11 01 46.5
             comp=Z,3µm,19.0s
APG   El Apazote        46.43 334     LR        LR        10 56 04.3
             comp=Z,80nm,19.3s,baz=46,slow=31
SDDR  Presa de Saban    46.56   0     IAMs_20   IAMs_20   11 02 14.2
             comp=Z,3µm,18.0s
SDDR  Presa de Saban    46.56   0   i P         P         10 40 20.5 +1.6
SDDR                                  IAML                10 40 44.0
             comp=Z,51nm,1.0s
SC01  Santiago de lo    47.01   1     P         P         10 40 21.3  -1.1
CHIV  Chivirico         47.79 354   i P         P         10 40 34.0 +5.6
CHIV                                  IAML                10 40 41.8
             comp=Z,49nm,1.0s
FSCY  Frank Sound, G    47.83 348   i P         P         10 40 30.4 +1.7
FSCY                                  IAmb      IAmb      10 40 42.6
             comp=Z,230nm,1.1s
LMGC  Las Mercedes      47.94 353   i P         P         10 40 30.9 +1.4
LMGC                                  IAmb      IAmb      10 40 43.1
             comp=Z,18nm,1.2s
LMGC                                  IVmB_BB             10 41 26.5
             comp=Z,2µm,1.0s
LMGC                                  IAML                10 41 33.3
             comp=Z,48nm,1.0s
CBCY  The Bluff, Cay    47.99 349   i P         P         10 40 30.8 +0.8
CBCY                                  IAmb      IAmb      10 40 45.6
             comp=Z,72nm,1.1s
PINC  Pinares de May    48.24 355   i P         P         10 40 31.8  -0.1
PINC                                  IAML                10 40 33.7
             comp=Z,37nm,1.0s
GRTK  Grand Turk        49.08   0     IAMs_20   IAMs_20   11 04 09.9
             comp=Z,2µm,18.0s
CCCC  Cccc              49.15 352   i P         P         10 40 38.7  -0.2
CCCC                                  IVmB_BB             10 40 40.9
             comp=Z,780nm,1.0s
CCCC                                  IAML                10 40 41.9
             comp=Z,43nm,1.0s
CCCC                                  IAmb      IAmb      10 40 52.8
             comp=Z,15nm,0.9s
CMIG  Matias Romero     50.12 330     LR        LR        10 56 57.3
             comp=Z,1µm,21.4s,baz=167,slow=30
TEIG  Tepich            50.50 339     P         P         10 40 49.8 +0.6
TEIG  Tepich            50.50 339     P         P         10 40 51.1 +1.9
             comp=Z,145nm,1.2s
CAIB  Caibarien         50.65 350   i P         P         10 40 51.1 +0.8
CAIB                                  IVmB_BB             10 40 52.1
             comp=Z,1µm,1.0s
CAIB                                  IAmb      IAmb      10 41 04.3
             comp=Z,43nm,1.0s
SOR   Soroa             51.58 346     IAmb      IAmb      10 41 10.9
             comp=Z,58nm,1.0s
SOR   Soroa             51.58 346     P         P         10 40 59.1 +1.9
             comp=Z,63nm,1.2s
BELA  Belgrano 2        52.83 171     P         P         10 41 06.1 +0.1
VNA3  Neumayer Olymp    54.88 160   ⇑P          P         10 41 21.0   0.0
             comp=Z,29nm,0.7s
VNA3                                ⇑S          S         10 49 00.7  -2.1
             comp=N,0.5nm,0.3s
VNA3  Neumayer Olymp    54.88 160     P         P         10 41 21.3 +0.2
             comp=Z,85nm,1.0s
VNA1  Neumayer--Stat    55.15 159   ⇑P          P         10 41 23.5 +0.5
             comp=Z,54nm,1.0s
VNA2  Neumayer--Watz    55.50 159   ⇑P          P         10 41 25.6   0.0
             comp=Z,40nm,0.6s,baz=284,slow=7.5
VNA2                                ⇑S          S         10 49 09.1  -2.0
             comp=N,0.4nm,0.4s
VNA2  Neumayer--Watz    55.50 159     P         P         10 41 25.7 +0.1
             comp=Z,98nm,1.1s
SNAA  Sanae             57.10 159   ⇑P          P         10 41 36.9  -0.1
             comp=Z,968nm,0.6s
SNAA                                ⇑S          S         10 49 29.2  -3.2
             comp=N,11nm,0.7s
SNAA  Sanae             57.10 159     P         P         10 41 37.0  -0.1
             comp=N,48nm,0.7s,baz=281,slow=6.6,SNR=144
             comp=N,48nm,0.7s
SNAA  Sanae             57.10 159     P         P         10 41 36.4  -0.7
SNAA                                  pmax      pmax
             comp=Z,195nm,1.2s
SNAA                                  MLR       MLR
             comp=Z,4µm,19.0s
SNAA  Sanae             57.10 159     P         P         10 41 36.4  -0.7
SNAA  Sanae             57.10 159     P         P         10 41 37.2 +0.1
             comp=Z,151nm,1.1s
ZAIG  Zacatecas         58.62 326     P         P         10 41 46.9  -1.7
TROLL Troll, Antarti    58.82 160   ⇑P          P         10 41 49.2   0.0
             comp=Z,3µm,0.8s
TROLL                               ⇑S          S         10 49 52.2  -2.8
             comp=N,33nm,0.8s
TIGA  Tifton            60.09 348     P         P         10 41 57.6  -0.6
TIGA                                  IAmb      IAmb      10 42 09.7
             comp=Z,43nm,0.9s
257A  Skidaway Islan    60.20 351     IAMs_20   IAMs_20   11 09 20.6
             comp=Z,1µm,20.0s
352A  Blakely           60.39 347     P         P         10 41 59.0  -1.2
250A  Grady             61.16 346     IAmb      IAmb      10 42 18.6
             comp=Z,33nm,0.9s
250A                                  IAMs_20   IAMs_20   11 12 05.1
             comp=Z,1µm,19.0s
SHEL  Horse Pasture     61.47  94     P         P         10 42 05.2  -2.9
SHEL                                  pmax      pmax
             comp=Z,479nm,1.5s
SHEL  Horse Pasture     61.47  94     P         P         10 42 05.2  -2.9
152A  Waverly Hall      61.50 347     IAmb      IAmb      10 42 20.8
             comp=Z,28nm,0.9s
NVL   N'lazarevskaya    61.78 158    eP         P         10 42 07.5  -1.7
NVL                                  eS         S         10 50 28.9  -3.7
NVL                                   pmax      pmax
             comp=Z,32nm,0.9s
NVL                                   MLR       MLR
             comp=Z,938nm,18.0s
GOGA  Godfrey           61.99 349     P         P         10 42 11.2 +0.1
GOGA  Godfrey           61.99 349     P         P         10 42 11.3 +0.3
             comp=Z,26nm,1.0s
HKT   Hockley           62.03 336ceP            P         10 42 13.4 +2.1
HKT                                   pmax      pmax
             comp=Z,57nm,1.9s
HKT   Hockley           62.03 336     P         P         10 42 11.7 +0.3
HKT   Hockley           62.03 336     P         P         10 42 14.1 +2.8
             comp=Z,27nm,2.6s
LRAL  Lakeview Retre    62.33 345     IAmb      IAmb      10 42 26.5
             comp=Z,68nm,1.8s
QSPA  South Pole Qui    62.36 180     P         P         10 42 14.1 +0.6
             comp=Z,42nm,1.0s,baz=145,slow=1.9,SNR=88
QSPA                                  PKPPKP    P'P'df    11 11 18.7  -7.5
             comp=Z,2.7nm,1.0s,baz=302,slow=1.8,SNR=3.8
             comp=Z,42nm,1.0s
QSPA  South Pole Qui    62.36 180     P         P         10 42 13.7 +0.3
QSPA                                  PcP       PcP       10 42 53.0   0.0
QSPA  South Pole Qui    62.36 180     IAMs_20   IAMs_20   11 13 21.1
             comp=Z,2µm,21.0s
QSPA  South Pole Qui    62.36 180     P         P         10 42 14.7 +1.2
             comp=Z,99nm,1.0s
JSC   Jenkinsville      62.50 351     IAmb      IAmb      10 42 27.9
             comp=Z,30nm,1.0s
Z47A  Carrollton        62.74 344     IAmb      IAmb      10 42 29.4
             comp=Z,41nm,1.2s
BIRD  Birdtown, Kers    62.74 352     IAmb      IAmb      10 42 29.6
             comp=Z,39nm,1.0s
SACV  Santiago Islan    62.92  54     IAMs_20   IAMs_20   11 08 48.5
             comp=Z,2µm,21.0s
Y49A  Blount Mountai    63.00 346     IAmb      IAmb      10 42 30.9
             comp=Z,47nm,1.6s
NATX  Nacogdoches       63.28 338     IAmb      IAmb      10 42 34.6
             comp=Z,48nm,0.9s
SLBS  Sierra La Lagu    63.29 320     P         P         10 42 23.9 +3.9
             comp=Z,26nm,2.2s
KMSC  Kings Mountain    63.35 351     IAmb      IAmb      10 42 33.6
             comp=Z,24nm,0.8s
KMSC                                  IAMs_20   IAMs_20   11 10 45.2
             comp=Z,942nm,19.0s
BG3   Lake Jocassee     63.45 349     IAmb      IAmb      10 42 34.3
             comp=Z,35nm,1.0s
FPAL  Fort Paine        63.49 347     IAmb      IAmb      10 42 34.1
             comp=Z,48nm,1.4s
HPIG                    63.63 326     P         P         10 42 24.8 +2.3
             comp=Z,20nm,0.9s
X48A  Hartselle         63.71 346     IAmb      IAmb      10 42 35.9
             comp=Z,41nm,0.9s
W52A  Murphy            63.71 349     IAmb      IAmb      10 42 36.1
             comp=Z,33nm,1.0s
V58A  Windy Hill, Pi    63.72 353     IAmb      IAmb      10 42 36.0
             comp=Z,32nm,0.9s
LPIG  La Paz            63.82 320     LR        LR        11 04 34.4
             comp=Z,666nm,19.1s,baz=141,slow=31
JCT   Junction City     64.02 333     P         P         10 42 26.5 +1.8
JCT   Junction City     64.02 333     IAmb      IAmb      10 42 39.5
             comp=Z,35nm,0.8s
V55A  Taylorsville      64.03 351     IAmb      IAmb      10 42 38.2
             comp=Z,40nm,0.9s
W50A  Signal Mountai    64.07 347     P         P         10 42 23.9  -1.0
W50A                                  IAMs_20   IAMs_20   11 14 46.3
             comp=Z,980nm,19.0s
V53A  Saluda            64.09 350     IAmb      IAmb      10 42 38.4
             comp=Z,35nm,1.1s
V53A                                  IAMs_20   IAMs_20   11 11 31.7
             comp=Z,1µm,20.0s
CPCT  Cooper Cave       64.17 348     IAmb      IAmb      10 42 38.9
             comp=Z,55nm,1.1s
U56A  King              64.41 352     IAmb      IAmb      10 42 40.9
             comp=Z,39nm,0.9s
BRDY  Brady             64.42 334     IAmb      IAmb      10 42 41.7
             comp=Z,27nm,0.9s
TXAR  Lajitas Array     64.69 329     P         P         10 42 31.3 +2.1
             comp=Z,6.2nm,0.8s,baz=150,slow=8.4,SNR=53
TXAR                                  LR        LR        11 07 09.5
             comp=Z,887nm,18.2s,baz=150,slow=33
             comp=Z,6.2nm,0.8s
TXAR  Lajitas Array     64.69 329     P         P         10 42 29.1  -0.2
T59A  Double "B" Far    64.74 355     IAmb      IAmb      10 42 43.1
             comp=Z,36nm,0.9s
T59A                                  IAMs_20   IAMs_20   11 13 31.9
             comp=Z,1µm,19.0s
U54A  Nelsons Funny     64.78 351     P         P         10 42 28.6  -1.0
OZNA  Ozona             64.95 332     IAmb      IAmb      10 42 45.6
             comp=Z,34nm,0.9s
TZTN  Tazewell          65.06 349     IAmb      IAmb      10 42 45.3
             comp=Z,96nm,1.8s
TZTN                                  IAMs_20   IAMs_20   11 14 24.5
             comp=Z,1µm,21.0s
TZTN  Tazewell          65.06 349     P         P         10 42 32.6 +1.3
             comp=Z,27nm,1.4s
X40A  Basin Creek Fa    65.23 341     IAmb      IAmb      10 42 37.1
             comp=Z,53nm,2.0s
ELIB  Princess Elisa    65.25 160    dP         P         10 42 32.2  -0.2
             comp=Z,27nm,1.0s
UALR  University of     65.36 341     IAmb      IAmb      10 42 47.2
             comp=Z,37nm,1.2s
U49A  Red Boiling Sp    65.43 347     IAmb      IAmb      10 42 46.9
             comp=Z,30nm,0.9s
WVT   Waverly           65.49 345     P         P         10 42 33.6  -0.5
WVT                                   pmax      pmax
             comp=Z,33nm,0.8s
WVT   Waverly           65.49 345     P         P         10 42 33.6  -0.5
WVT                                   IAmb      IAmb      10 42 35.8
             comp=Z,33nm,0.8s
WVT   Waverly           65.49 345     P         P         10 42 34.4 +0.3
             comp=Z,65nm,0.8s
MIAR  Mount Ida         65.50 340     IAmb      IAmb      10 42 48.5
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	comp=Z,76nm,1.4s						
MIAR	**Mount Ida**	**65.50**	**340**	P	**P**	**10 42 35.5**	**+1.3**
	comp=Z,34nm,1.5s						
PLPT	**Palo Pinto**	**65.52**	**335**	IAmb	IAmb	10 42 48.7	
	comp=Z,28nm,0.7s						
ALPN	**Alpine**	**65.57**	**330**	IAmb	IAmb	10 42 49.7	
	comp=Z,62nm,1.6s						
S57A	**Dark Hollow, R**	**65.65**	**353**	IAmb	IAmb	10 42 49.0	
	comp=Z,32nm,0.9s						
SGCY	**Sterling City**	**65.82**	**332**	IAmb	IAmb	10 42 51.4	
	comp=Z,24nm,0.8s						
WHAR	**Wooly Hollow**	**65.82**	**341**	P	**P**	**10 42 36.6**	**+0.4**
WHAR				IAmb	IAmb	10 42 38.4	
	comp=Z,24nm,0.8s						
ABTX	**Abilene, Hawle**	**65.86**	**334**	IAmb	IAmb	10 42 51.2	
	comp=Z,60nm,1.1s						
TPB05	**Hovey Rd**	**65.89**	**330**	IAmb	IAmb	10 42 55.2	
	comp=Z,27nm,0.9s						
MNHN	**Monahans**	**66.01**	**331**	IAmb	IAmb	10 42 49.5	
	comp=Z,25nm,0.7s						
S51A	**Beattyville**	**66.14**	**349**	IAmb	IAmb	10 42 51.4	
	comp=Z,31nm,1.0s						
R55A	**Marlinton**	**66.29**	**353**	IAmb	IAmb	10 43 03.2	
	comp=Z,30nm,1.0s						
FCAR	**Ozark Folk Cen**	**66.34**	**342**	P	**P**	**10 42 39.6**	**0.0**
FCAR				IAmb	IAmb	10 42 53.3	
	comp=Z,82nm,1.6s						
WTFS	**Witchita Falls**	**66.43**	**336**	IAmb	IAmb	10 42 54.6	
	comp=Z,64nm,1.4s						
PECS	**Pecos**	**66.52**	**330**	IAmb	IAmb	10 42 55.6	
	comp=Z,70nm,1.6s						
VHRN	**Van Horn**	**66.53**	**329**	IAmb	IAmb	10 42 55.9	
	comp=Z,56nm,1.5s						
T45A	**Paducah**	**66.53**	**345**	P	**P**	**10 42 41.5**	**+0.7**
SN07	**Snyder 07**	**66.76**	**333**	IAmb	IAmb	10 42 56.7	
	comp=Z,28nm,0.7s						
Q56A	**Snyder Ridge,**	**66.94**	**353**	IAmb	IAmb	10 42 57.8	
	comp=Z,47nm,1.2s						
X34A	**Smith Ranch, M**	**66.95**	**337**	IAmb	IAmb	10 42 58.0	
	comp=Z,42nm,0.9s						
R49A	**Shelbyville**	**67.05**	**348**	IAMs_20	IAMs_20	11 15 32.0	
	comp=Z,1µm,19.0s						
Q54A	**Coxs Mills**	**67.07**	**352**	IAmb	IAmb	10 42 57.1	
	comp=Z,21nm,0.8s						
WCI	**Wyandotte Cave**	**67.19**	**347**	P	**P**	**10 42 44.5**	**-0.5**
WCI				pmax	pmax		
	comp=Z,46nm,0.9s						
WCI				MLR	MLR		
	comp=Z,500nm,19.0s						
WCI	**Wyandotte Cave**	**67.19**	**347**	P	**P**	**10 42 44.5**	**-0.5**
WCI				IAmb	IAmb	10 42 57.8	
	comp=Z,46nm,0.8s						
WCI	**Wyandotte Cave**	**67.19**	**347**	P	**P**	**10 42 45.2**	**+0.2**
	comp=Z,62nm,0.8s						
HHAR	**Hobbs**	**67.22**	**340**	IAmb	IAmb	10 42 59.3	
	comp=Z,40nm,1.0s						
Q52A	**Bidwell**	**67.24**	**351**	IAmb	IAmb	10 42 58.4	
	comp=Z,59nm,1.4s						
P61A	**Hammonton**	**67.25**	**357**	IAMs_20	IAMs_20	11 15 44.4	
	comp=Z,894nm,20.0s						
P57A	**Homestead Farm**	**67.27**	**354**	IAmb	IAmb	10 43 00.6	
	comp=Z,47nm,0.9s						
DKNS	**Dickens**	**67.28**	**334**	IAmb	IAmb	10 42 48.5	
	comp=Z,21nm,0.7s						
WMOK	**Wichita Mounta**	**67.42**	**336**	P	**P**	**10 42 47.3**	**+0.8**
WMOK	**Wichita Mounta**	**67.42**	**336**	IAmb	IAmb	10 43 28.6	
	comp=Z,31nm,1.2s						
WMOK	**Wichita Mounta**	**67.42**	**336**	P	**P**	**10 42 47.2**	**+0.8**
	comp=Z,11nm,1.1s						
RLO	**Rose Lookout**	**67.45**	**339**	IAmb	IAmb	10 43 00.7	
	comp=Z,52nm,1.1s						
Q51A	**Peebles**	**67.46**	**350**	IAmb	IAmb	10 42 59.8	
	comp=Z,32nm,0.9s						
MNTX	**Cornudas Mount**	**67.48**	**329**	IAMs_20	IAMs_20	11 08 35.7	
	comp=Z,1µm,18.0s						
MNTX	**Cornudas Mount**	**67.48**	**329**	P	**P**	**10 42 48.0**	**+1.0**
	comp=Z,24nm,0.9s						
U38A	**Gravette**	**67.50**	**340**	IAmb	IAmb	10 43 00.9	
	comp=Z,28nm,1.0s						
P53A	**Whipple**	**67.64**	**352**	IAmb	IAmb	10 43 01.1	
	comp=Z,32nm,0.9s						
P51A	**Williamsport**	**67.86**	**350**	IAmb	IAmb	10 43 02.1	
	comp=Z,47nm,1.0s						
PAGS	**Pennsylvania G**	**67.91**	**356**	IAmb	IAmb	10 43 03.6	
	comp=Z,45nm,0.8s						
OLIL	**Olney**	**68.05**	**346**	IAmb	IAmb	10 43 03.4	
	comp=Z,33nm,0.9s						
EPT	**El Paso**	**68.06**	**328**	IAMs_20	IAMs_20	11 09 02.1	
	comp=Z,2µm,18.0s						
CCM	**Cathedral Cave**	**68.14**	**343**	P	**P**	**10 42 51.0**	**0.0**
CCM				pmax	pmax		
	comp=Z,44nm,0.8s						
CCM				MLR	MLR		
	comp=Z,600nm,22.0s						
CCM	**Cathedral Cave**	**68.14**	**343**	P	**P**	**10 42 51.0**	**0.0**
CCM	**Cathedral Cave**	**68.14**	**343**	P	**P**	**10 42 52.1**	**+1.2**
	comp=Z,94nm,1.1s						
P48A	**Milroy**	**68.23**	**348**	IAmb	IAmb	10 43 04.1	
	comp=Z,32nm,1.1s						
P48A				IAMs_20	IAMs_20	11 16 17.3	
	comp=Z,833nm,19.0s						
BRNJ	**Basking Ridge**	**68.25**	**357**	IAmb	IAmb	10 42 54.2	
	comp=Z,26nm,0.8s						
SMWD	**Samnorwood**	**68.28**	**335**	IAmb	IAmb	10 43 06.3	
	comp=Z,45nm,1.0s						
MSTX	**Muleshoe**	**68.28**	**332**	IAmb	IAmb	10 43 06.5	
	comp=Z,44nm,0.9s						
O52A	**Adamsville**	**68.31**	**351**	IAmb	IAmb	10 43 05.0	
	comp=Z,29nm,0.8s						
S39A	**Bolivar**	**68.36**	**341**	IAmb	IAmb	10 43 06.4	
	comp=Z,54nm,1.0s						
N62A	**Caumsett State**	**68.46**	**358**	IAMs_20	IAMs_20	11 16 43.4	
	comp=Z,869nm,20.0s						
N58A	**Sunbury**	**68.52**	**356**	IAmb	IAmb	10 43 07.6	
	comp=Z,29nm,0.9s						
PAL	**Palisades**	**68.55**	**358**	IAMs_20	IAMs_20	11 13 57.7	
	comp=Z,978nm,20.0s						
T35A	**Sooner Cattle**	**68.61**	**339**	IAmb	IAmb	10 43 08.2	
	comp=Z,63nm,1.4s						
AMTX	**Amarillo**	**68.64**	**334**	IAmb	IAmb	10 43 09.0	
	comp=Z,24nm,0.8s						
BLOK	**Blackwell**	**68.70**	**338**	IAmb	IAmb	10 42 57.4	
	comp=Z,35nm,0.8s						
P46A	**Rosedale**	**68.72**	**347**	IAmb	IAmb	10 43 07.3	
	comp=Z,43nm,0.9s						
P46A				IAMs_20	IAMs_20	11 18 47.3	
	comp=Z,1µm,18.0s						
O49A	**Covington**	**68.75**	**349**	IAmb	IAmb	10 43 07.7	
	comp=Z,40nm,1.0s						
O49A				IAMs_20	IAMs_20	11 15 17.1	
	comp=Z,917nm,20.0s						
O48B	**Farmland**	**68.95**	**349**	IAmb	IAmb	10 43 08.9	
	comp=Z,44nm,1.0s						
M57A	**Sunshine Farm,**	**69.04**	**355**	IAmb	IAmb	10 43 22.8	
	comp=Z,26nm,1.0s						
KSPA	**Keystone Colle**	**69.18**	**357**	IAmb	IAmb	10 43 11.6	
	comp=Z,26nm,1.0s						
SBA	**Scott Base**	**69.18**	**191**	P	**P**	**10 42 55.4**	**-1.7**
SBA	**Scott Base**	**69.18**	**191**	IAMs_20	IAMs_20	11 18 02.9	
	comp=Z,1µm,20.0s						
SBA	**Scott Base**	**69.18**	**191**	P	**P**	**10 43 00.4**	**+3.3**
KAN01	**Argonia South**	**69.23**	**338**	IAmb	IAmb	10 43 12.3	
	comp=Z,42nm,1.1s						
KAN08	**Anthony NE Sta**	**69.37**	**338**	IAmb	IAmb	10 43 13.2	
	comp=Z,45nm,1.0s						
L64A	**Middleborough**	**69.44**	**0**	IAmb	IAmb	10 43 13.8	
	comp=Z,54nm,1.0s						
N49A	**Columbus Grove**	**69.44**	**350**	IAMs_20	IAMs_20	11 14 16.4	
	comp=Z,1000nm,20.0s						
N47A	**Urbana**	**69.66**	**349**	IAmb	IAmb	10 43 13.1	
	comp=Z,49nm,1.0s						
N47A				IAMs_20	IAMs_20	11 18 55.1	
	comp=Z,821nm,18.0s						
L59A	**Walton**	**69.77**	**357**	IAMs_20	IAMs_20	11 14 42.1	
	comp=Z,904nm,20.0s						
BINY	**Binghamton**	**69.83**	**356**	IAmb	IAmb	10 43 16.4	
	comp=Z,33nm,1.1s						
BINY	**Binghamton**	**69.83**	**356**	P	**P**	**10 43 03.8**	**+2.4**
	comp=Z,39nm,1.1s						
BCX	**Boston College**	**69.84**	**0**	IAMs_20	IAMs_20	11 06 58.9	
	comp=Z,1µm,22.0s						
WES	**Weston**	**69.89**	**0**	IAmb	IAmb	10 43 16.6	
	comp=Z,40nm,1.0s						
HRV	**Adam Dziewonsk**	**70.01**	**360**	P	**P**	**10 43 01.0**	**-1.5**
HRV				pmax	pmax		
	comp=Z,69nm,0.9s						
HRV				MLR	MLR		
	comp=Z,800nm,22.0s						
HRV	**Adam Dziewonsk**	**70.01**	**360**	P	**P**	**10 43 01.0**	**-1.5**
HRV	**Adam Dziewonsk**	**70.01**	**360**	P	**P**	**10 43 04.4**	**+1.9**
	comp=Z,97nm,1.0s						
K62A	**Royalston**	**70.17**	**359**	IAmb	IAmb	10 43 18.1	
	comp=Z,48nm,1.1s						
P38A	**Dawn**	**70.22**	**342**	IAmb	IAmb	10 43 17.6	
	comp=Z,54nm,1.2s						
TRY	**Troy**	**70.27**	**358**	IAMs_20	IAMs_20	11 18 14.1	
	comp=Z,947nm,19.0s						
RTBA	**Rita Blanca**	**70.42**	**334**	IAmb	IAmb	10 43 20.2	
	comp=Z,90nm,1.9s						
TUC	**Tucson**	**70.58**	**325**	P	**P**	**10 43 09.6**	**+3.3**
TUC	**Tucson**	**70.58**	**325**	IAMs_20	IAMs_20	11 10 15.8	
	comp=Z,2µm,19.0s						
TUC	**Tucson**	**70.58**	**325**	P	**P**	**10 43 09.6**	**+3.3**
	comp=Z,18nm,1.9s						
ABQ	**Albuquerque**	**70.69**	**330**	IAMs_20	IAMs_20	11 10 33.8	
	comp=Z,2µm,19.0s						
ALQ	**Albuquerque**	**70.69**	**330**	IAmb	IAmb	10 43 22.6	
	comp=Z,61nm,1.8s						
ALQ				IAMs_20	IAMs_20	11 11 00.7	
	comp=Z,2µm,18.0s						
ALQ	**Albuquerque**	**70.69**	**330**	IAmb	IAmb	10 43 22.6	
	comp=Z,62nm,1.8s						
ALQ				IAMs_20	IAMs_20	11 11 00.7	
	comp=Z,2µm,18.0s						
ANMO	**Albuquerque**	**70.69**	**330**	LR	LR	11 10 54.7	
	comp=Z,2µm,18.0s,baz=149,slow=33						
ANMO	**Albuquerque**	**70.69**	**330**	*c i*P	**P**	**10 43 09.1**	**+2.0**
ANMO				pmax	pmax		
	comp=Z,34nm,2.5s						
ANMO	**Albuquerque**	**70.69**	**330**	P	**P**	**10 43 07.5**	**+0.4**
ANMO	**Albuquerque**	**70.69**	**330**	IAMs_20	IAMs_20	11 10 34.8	
	comp=Z,2µm,19.0s						
ANMO	**Albuquerque**	**70.69**	**330**	P	**P**	**10 43 10.2**	**+3.1**
	comp=Z,18nm,1.9s						
TASM	**ASL Pad, Albuq**	**70.69**	**330**	IAMs_20	IAMs_20	11 10 43.9	
	comp=Z,2µm,18.0s						
TASM	**ASL Pad, Albuq**	**70.69**	**330**	IAMs_20	IAMs_20	11 10 35.4	
	comp=Z,2µm,19.0s						
TASM	**ASL Pad, Albuq**	**70.69**	**330**	IAMs_20	IAMs_20	11 10 35.4	
	comp=Z,2µm,19.0s						
TASM	**ASL Pad, Albuq**	**70.69**	**330**	IAMs_20	IAMs_20	11 10 33.8	
	comp=Z,2µm,19.0s						
R32A	**Long Quarter,**	**70.70**	**338**	IAmb	IAmb	10 43 21.4	
	comp=Z,62nm,1.2s						
J61A	**Chester**	**70.86**	**359**	IAmb	IAmb	10 43 22.5	
	comp=Z,56nm,1.0s						
J59A	**Piesco**	**71.02**	**358**	IAmb	IAmb	10 43 22.9	
	comp=Z,41nm,1.1s						
J59A				IAMs_20	IAMs_20	11 18 21.2	
	comp=Z,1µm,18.0s						
J57A	**Williamstown**	**71.04**	**356**	IAmb	IAmb	10 43 22.6	
	comp=Z,34nm,0.9s						
HNH	**Hanover**	**71.21**	**359**	IAmb	IAmb	10 43 24.7	
	comp=Z,55nm,1.0s						
L44A	**Lake County Fo**	**71.33**	**347**	IAMs_20	IAMs_20	11 17 59.3	
	comp=Z,820nm,20.0s						
SYO	**Syowa Base**	**71.39**	**159**	⇑*i*PcP	**P**	**10 43 11.0**	**+0.3**
SYO	**Syowa Base**	**71.39**	**159**	⇓*e*PKiKP	**PKiKP**	**10 49 10.8**	**-6.3**
CBKS	**Cedar Bluff**	**71.40**	**337**	IAmb	IAmb	10 43 13.9	
	comp=Z,27nm,0.8s						
MCVT	**Middlebury Col**	**71.47**	**359**	IAmb	IAmb	10 43 14.9	
	comp=Z,112nm,1.8s						
L42A	**Oliver, Polo**	**71.52**	**346**	IAmb	IAmb	10 43 25.9	
	comp=Z,34nm,1.0s						
L42A				IAMs_20	IAMs_20	11 20 07.5	
	comp=Z,741nm,18.0s						
T25A	**Trinidad**	**71.69**	**333**	IAMs_20	IAMs_20	11 12 53.2	
	comp=Z,831nm,18.0s						
CFNY	**Clifton-Fine,**	**71.75**	**357**	IAmb	IAmb	10 43 26.9	
	comp=Z,32nm,0.9s						
LBNH	**Lisbon**	**71.75**	**360**	IAmb	IAmb	10 43 28.3	
	comp=Z,37nm,0.9s						
PPT	**Papeete**	**71.76**	**259**	LR	LR	11 07 27.5	
	comp=Z,3µm,18.1s,baz=130,slow=30						
K43A	**Burlington**	**71.92**	**347**	IAMs_20	IAMs_20	11 18 26.9	
	comp=Z,830nm,19.0s						
LONY	**Lake Ozonia**	**72.18**	**358**	IAmb	IAmb	10 43 29.8	
	comp=Z,34nm,1.0s						
LONY				IAMs_20	IAMs_20	11 19 13.8	
	comp=Z,1µm,18.0s						
FLET	**Fletcher**	**72.24**	**359**	IAmb	IAmb	10 43 30.9	
	comp=Z,47nm,1.0s						
EMMW	**East Machias**	**72.30**	**3**	P	**P**	**10 43 14.8**	**-1.5**
EMMW				IAmb	IAmb	10 43 30.8	
	comp=Z,42nm,0.9s						
HAL	**Halifax**	**72.50**	**6**	P	**P**	**10 43 16.6**	**-0.8**
HAL				pmax	pmax		
	comp=Z,43nm,0.9s						
HAL	**Halifax**	**72.50**	**6**	P	**P**	**10 43 16.6**	**-0.8**
HAL				IAmb	IAmb	10 43 32.3	
	comp=Z,43nm,0.9s						
JFWS	**Jewell Farm**	**72.52**	**346**	IAmb	IAmb	10 43 31.4	
	comp=Z,38nm,0.8s						
WBO	**Williamsburg**	**72.59**	**357**	IAmb	IAmb	10 43 32.0	
	comp=Z,55nm,0.9s						
SADO	**Sadowa**	**72.61**	**354**	LR	LR	11 18 30.9	
	comp=Z,630nm,19.1s,baz=182,slow=39						
SADO	**Sadowa**	**72.61**	**354**	IAmb	IAmb	10 43 31.7	
	comp=Z,52nm,0.9s						
G62A	**West of Eustis**	**72.73**	**1**	IAmb	IAmb	10 43 34.1	
	comp=Z,62nm,0.9s						
GGN	**Saint George**	**72.74**	**3**	IAmb	IAmb	10 43 33.9	
	comp=Z,34nm,0.9s						
DBIC	**Dimbokro**	**72.78**	**73**	P	**P**	**10 43 19.9**	**+0.1**
	comp=Z,57nm,0.7s,baz=235,slow=5.8,SNR=48						
DBIC				LR	LR	11 14 25.0	
	comp=Z,1µm,19.8s,baz=242,slow=35						
	comp=Z,57nm,0.7s						
DBIC	**Dimbokro**	**72.78**	**73**	P	**P**	**10 43 20.0**	**+0.1**
DBIC	**Dimbokro**	**72.78**	**73**	P	**P**	**10 43 20.1**	**+0.1**
DBIC	**Dimbokro**	**72.78**	**73**	P	**P**	**10 43 20.2**	**+0.3**
	comp=Z,102nm,0.8s						
G65A	**Princeton**	**72.79**	**3**	IAmb	IAmb	10 43 34.2	
	comp=Z,33nm,0.9s						
PKME	**Peaks-Kenny Pk**	**72.79**	**2**	IAmb	IAmb	10 43 33.6	
	comp=Z,38nm,0.9s						
I42A	**Draeger Farm,**	**73.17**	**347**	IAmb	IAmb	10 43 35.1	
	comp=Z,34nm,0.8s						
I42A				IAMs_20	IAMs_20	11 18 54.2	
	comp=Z,993nm,21.0s						
S22A	**4UR Ranch, Cre**	**73.21**	**331**	IAMs_20	IAMs_20	11 12 26.5	
	comp=Z,1µm,20.0s						
F64A	**Sherman**	**73.42**	**2**	IAmb	IAmb	10 43 37.9	
	comp=Z,47nm,0.9s						
WUAZ	**Wupatki**	**73.44**	**327**	IAMs_20	IAMs_20	11 11 25.6	
	comp=Z,2µm,19.0s						
MVCO	**Mesa Verde**	**73.49**	**330**	IAMs_20	IAMs_20	11 11 36.5	
	comp=Z,2µm,19.0s						
MVCO	**Mesa Verde**	**73.49**	**330**	P	**P**	**10 43 26.8**	**+2.9**
	comp=Z,27nm,1.0s						
H43A	**Windswept, Lux**	**73.51**	**348**	IAmb	IAmb	10 43 37.0	
	comp=Z,47nm,0.8s						
I40A	**Norwalk**	**73.53**	**346**	IAMs_20	IAMs_20	11 19 45.7	
	comp=Z,1µm,20.0s						
LMN	**Caledonia Moun**	**73.60**	**5**	P	**P**	**10 43 24.0**	**0.0**
LMN				IAmb	IAmb	10 43 38.6	
	comp=Z,51nm,0.9s						
TRQ	**Mont Tremblant**	**73.78**	**358**	IAmb	IAmb	10 43 38.8	
	comp=Z,41nm,0.9s						
BAR	**Barrett**	**73.98**	**321**	IAMs_20	IAMs_20	11 11 34.9	
	comp=Z,2µm,18.0s						
BC3	**Big Chuckawall**	**74.06**	**323**	IAMs_20	IAMs_20	11 11 38.0	
	comp=Z,927nm,18.0s						
IRM	**Iron Mountain**	**74.28**	**323**	IAMs_20	IAMs_20	11 12 17.9	
	comp=Z,1µm,18.0s						
I37A	**Lemond, Waseca**	**74.30**	**344**	IAmb	IAmb	10 43 42.0	
	comp=Z,43nm,0.9s						
ISCO	**Idaho Springs**	**74.46**	**333**	P	**P**	**10 43 31.6**	**+2.0**
ISCO	**Idaho Springs**	**74.46**	**333**	IAMs_20	IAMs_20	11 14 38.4	
	comp=Z,717nm,19.0s						
ISCO	**Idaho Springs**	**74.46**	**333**	P	**P**	**10 43 31.7**	**+2.2**
	comp=Z,14nm,1.4s						
PFO	**Pinyon Flats O**	**74.56**	**322**	LR	LR	11 11 07.2	
	comp=Z,565nm,18.5s,baz=139,slow=32						
PFO	**Pinyon Flats O**	**74.56**	**322**	⇓*e*P	**P**	**10 43 33.0**	**+2.9**
PFO				pmax	pmax		
	comp=Z,34nm,1.3s						
PFO	**Pinyon Flats O**	**74.56**	**322**	P	**P**	**10 43 33.5**	**+3.4**
	comp=Z,14nm,1.0s						
PV19	**Morning Glory**	**74.61**	**330**	IAmb	IAmb	10 44 03.6	
	comp=Z,67nm,1.5s						
D62A	**Allapoint, All**	**74.62**	**2**	IAmb	IAmb	10 43 44.7	
	comp=Z,50nm,0.9s						
G40A	**Rib Lake**	**74.76**	**346**	IAMs_20	IAMs_20	11 19 54.1	
	comp=Z,965nm,22.0s						
E46A	**Sault Ste Mari**	**74.79**	**351**	IAmb	IAmb	10 43 44.2	
	comp=Z,47nm,1.0s						
ECSD	**EROS Data Cent**	**74.89**	**341**	IAmb	IAmb	10 43 45.7	
	comp=Z,42nm,0.8s						
ECSD				IAMs_20	IAMs_20	11 19 11.7	
	comp=Z,2µm,20.0s						
ECSD	**EROS Data Cent**	**74.89**	**341**	P	**P**	**10 43 32.8**	**+1.2**
	comp=Z,60nm,0.9s						
BATG	**Bathurst New B**	**74.94**	**4**	IAmb	IAmb	10 43 46.2	
	comp=Z,35nm,1.0s						
ELS	**Elsinore Mount**	**75.12**	**322**	IAmb	IAmb	10 43 48.8	
	comp=Z,32nm,0.9s						
SPMN	**Marine on St.**	**75.29**	**345**	IAmb	IAmb	10 43 47.3	
	comp=Z,44nm,1.1s						
LDAQ	**Lac Daran**	**75.47**	**0**	IAmb	IAmb	10 43 48.9	
	comp=Z,49nm,1.0s						
VLDQ	**Val d'Or**	**75.81**	**356**	IAmb	IAmb	10 43 50.6	
	comp=Z,34nm,0.9s						
O20A	**White River Ci**	**75.81**	**332**	IAmb	IAmb	10 43 41.2	
	comp=Z,29nm,0.8s						
MWC	**Mount Wilson**	**75.90**	**322**	IAMs_20	IAMs_20	11 12 42.8	
	comp=Z,1µm,18.0s						
PASC	**Pasadena Art C**	**75.93**	**321**	IAMs_20	IAMs_20	11 11 16.6	
	comp=Z,1µm,20.0s						
ACRG	**Accra**	**76.22**	**76**	P	**P**	**10 43 38.9**	**-1.0**
ACRG				IAmb	IAmb	10 43 41.3	
	comp=Z,43nm,0.9s						
ACRG	**Accra**	**76.22**	**76**	P	**P**	**10 43 40.0**	**+0.1**
	comp=Z,45nm,1.2s						
SUSD	**Miller**	**76.22**	**340**	IAmb	IAmb	10 43 53.2	
	comp=Z,29nm,0.8s						
E38A	**The Farm, Brul**	**76.32**	**346**	IAmb	IAmb	10 43 53.3	
	comp=Z,33nm,1.0s						
OSI	**Osito Audit: C**	**76.56**	**321**	IAMs_20	IAMs_20	11 13 20.2	
	comp=Z,1µm,18.0s						
LRMC	**Laurel Mtn Rad**	**76.63**	**323**	IAMs_20	IAMs_20	11 12 59.2	
	comp=Z,980nm,18.0s						
F33A	**5 Mile Ranch,**	**76.75**	**342**	IAmb	IAmb	10 43 55.7	
	comp=Z,68nm,1.8s						
TPNV	**Topopah Spring**	**77.00**	**325**	IAMs_20	IAMs_20	11 13 11.8	
	comp=Z,762nm,20.0s						
ICQ	**Pointe Anglais**	**77.12**	**3**	IAmb	IAmb	10 43 58.2	
	comp=Z,50nm,1.0s						
ISA	**Isabella, Lake**	**77.20**	**322**	IAMs_20	IAMs_20	11 13 05.2	
	comp=Z,1µm,18.0s						
BSUT	**Blindstream Ca**	**77.23**	**330**	IAmb	IAmb	10 43 58.7	
	comp=Z,36nm,1.1s						
SUR	**Sutherland**	**77.39**	**120**	LR	LR	11 14 37.8	
	comp=Z,2µm,18.9s,baz=231,slow=33						
CWC	**Cottonwood Cre**	**77.57**	**323**	IAMs_20	IAMs_20	11 14 08.0	
	comp=Z,1µm,18.0s						
EYMN	**Ely**	**77.58**	**346**	P	**P**	**10 43 46.9**	**+0.1**
	comp=Z,27nm,0.9s						
RSSD	**Black Hills**	**77.60**	**337**	P	**P**	**10 43 47.1**	**-0.2**
RSSD				pmax	pmax		
	comp=Z,22nm,1.2s						
RSSD	**Black Hills**	**77.60**	**337**	P	**P**	**10 43 47.1**	**-0.2**
RSSD	**Black Hills**	**77.60**	**337**	P	**P**	**10 43 48.8**	**+1.5**
	comp=Z,20nm,2.7s						
VES	**Vestal, Richgr**	**77.66**	**322**	IAMs_20	IAMs_20	11 13 08.5	
	comp=Z,1µm,19.0s						
TBO	**Thunder Bay**	**77.84**	**348**	IAmb	IAmb	10 44 01.8	
	comp=Z,38nm,1.0s						
DUG	**Dugway, Tooele**	**77.87**	**329**	P	**P**	**10 43 51.2**	**+2.4**
	comp=Z,31nm,1.1s						
TIN	**Tinemaha, Big**	**78.11**	**323**	IAMs_20	IAMs_20	11 14 19.2	
	comp=Z,897nm,18.0s						
HWUT	**Hardware Ranch**	**78.45**	**330**	IAmb	IAmb	10 44 06.8	
	comp=Z,34nm,0.8s						
HWUT				IAMs_20	IAMs_20	11 16 04.2	
	comp=Z,1µm,18.0s						
HWUT	**Hardware Ranch**	**78.45**	**330**	P	**P**	**10 43 53.9**	**+1.9**
	comp=Z,50nm,0.8s						
BW06	**Boulder Array**	**78.55**	**332**	IAMs_20	IAMs_20	11 15 09.8	
	comp=Z,804nm,20.0s						
PDAR	**Pinedale Array**	**78.55**	**332**	P	**P**	**10 43 53.9**	**+1.3**
	comp=Z,3.7nm,0.6s,baz=124,slow=7.0,SNR=38						
PDAR				LR	LR	11 15 31.8	
	comp=Z,424nm,20.5s,baz=150,slow=33						
	comp=Z,3.7nm,0.6s						
PDAR	**Pinedale Array**	**78.55**	**332**	P	**P**	**10 43 52.4**	**-0.2**
WIN	**Windhoek**	**78.56**	**109**	IAmb	IAmb	10 44 34.5	
	comp=Z,47nm,1.3s						
WIN	**Windhoek**	**78.56**	**109**	P	**P**	**10 43 54.4**	**+1.2**
	comp=Z,20nm,1.1s						
E28A	**Huff**	**78.67**	**340**	IAmb	IAmb	10 44 07.6	
	comp=Z,37nm,0.9s						
AGMN	**Agassiz Nation**	**78.91**	**344**	P	**P**	**10 43 54.9**	**+0.8**
	comp=Z,29nm,1.0s						
MAW	**Mawson**	**78.91**	**164**	P	**P**	**10 43 54.5**	**+0.4**
	comp=Z,7.8nm,0.9s						
MAW	**Mawson**	**78.91**	**164**	P	**P**	**10 43 55.1**	**+1.0**
	comp=Z,15nm,0.9s,baz=216,slow=7.1,SNR=24						
MAW				LR	LR	11 20 43.1	
	comp=Z,2µm,19.2s,baz=230,slow=37						
	comp=Z,15nm,0.9s						
MAW	**Mawson**	**78.91**	**164**	P	**P**	**10 43 54.8**	**+0.7**
MAW				pmax	pmax		
	comp=Z,5.0nm,0.9s						
MAW	**Mawson**	**78.91**	**164**	P	**P**	**10 43 54.8**	**+0.7**
MAW	**Mawson**	**78.91**	**164**	P	**P**	**10 43 54.5**	**+0.4**
	comp=Z,7.8nm,0.9s						
RAR	**Rarotonga**	**78.98**	**252**	LR	LR	11 10 30.8	
	comp=Z,2µm,19.8s,baz=112,slow=29						
HVU	**Hansel Valley**	**79.12**	**330**	IAmb	IAmb	10 44 10.4	
	comp=Z,33nm,1.0s						
NVAR	**Mina Array Bea**	**79.18**	**324**	P	**P**	**10 43 58.0**	**+1.9**
	comp=Z,3.7nm,0.8s,baz=156,slow=6.4,SNR=22						
NVAR				LR	LR	11 15 19.3	
	comp=Z,514nm,18.9s,baz=126,slow=33						
	comp=Z,3.7nm,0.8s						
NVAR	**Mina Array Bea**	**79.18**	**324**	P	**P**	**10 43 54.2**	**-2.0**
AHID	**Auburn Hatcher**	**79.19**	**331**	IAMs_20	IAMs_20	11 16 16.8	
	comp=Z,864nm,19.0s						
AHID	**Auburn Hatcher**	**79.19**	**331**	P	**P**	**10 43 57.9**	**+1.7**
	comp=Z,32nm,1.2s						
PMOZ	**Porto Moniz, M**	**79.34**	**44**	*e*P	**P**	**10 43 57.2**	**+0.2**
PMOZ				*e*LR	LR	11 12 16.9	
PMOZ				*i* IAMs_20	IAMs_20	11 19 04.6	
	comp=Z,1µm,20.0s						
ELK	**Elko**	**79.44**	**328**	LR	LR	11 16 01.5	
	comp=Z,1µm,18.3s,baz=142,slow=33						
ELK	**Elko**	**79.44**	**328**	P	**P**	**10 43 59.3**	**+1.8**
ELK	**Elko**	**79.44**	**328**	IAMs_20	IAMs_20	11 15 51.3	
	comp=Z,1µm,19.0s						
SNOW	**Snow King Moun**	**79.62**	**332**	IAMs_20	IAMs_20	11 16 20.0	
	comp=Z,742nm,19.0s						
FXWY	**Fox Creek**	**79.88**	**332**	IAMs_20	IAMs_20	11 16 44.9	
	comp=Z,718nm,18.0s						
CMB	**Columbia Colle**	**79.98**	**323**	IAMs_20	IAMs_20	11 14 40.9	
	comp=Z,697nm,19.0s						
LKWY	**Lake**	**80.38**	**333**	IAMs_20	IAMs_20	11 16 40.2	
	comp=Z,1µm,21.0s						
RLMT	**Red Lodge**	**80.40**	**334**	IAmb	IAmb	10 44 17.7	
	comp=Z,115nm,1.8s						
RLMT				IAMs_20	IAMs_20	11 16 57.5	
	comp=Z,911nm,20.0s						
TSUM	**Tsumeb**	**80.43**	**107**	LR	LR	11 14 54.0	
	comp=Z,3µm,21.3s,baz=260,slow=32						
TSUM	**Tsumeb**	**80.43**	**107**	P	**P**	**10 44 03.0**	**-0.3**
TSUM	**Tsumeb**	**80.43**	**107**	P	**P**	**10 44 03.6**	**+0.2**
	comp=Z,37nm,1.0s						
WELL	**Weller Preserv**	**80.46**	**323**	IAMs_20	IAMs_20	11 14 57.5	
	comp=Z,692nm,18.0s						
LAO	**LASA Array**	**80.59**	**337**	IAmb	IAmb	10 44 18.1	
	comp=Z,74nm,1.4s						
ULM	**Lac du Bonnet**	**80.73**	**344**	P	**P**	**10 44 04.3**	**+0.4**
	comp=Z,24nm,1.0s,baz=148,slow=3.7,SNR=14						
ULM				LR	LR	11 21 19.7	
	comp=Z,365nm,19.6s,baz=148,slow=37						
	comp=Z,24nm,1.0s						
ULM	**Lac du Bonnet**	**80.73**	**344**	*c i*P	**P**	**10 44 04.5**	**+0.6**
ULM	**Lac du Bonnet**	**80.73**	**344**	IAmb	IAmb	10 44 17.6	
	comp=Z,56nm,1.1s						
KOOLE	**Kule**	**80.95**	**111**	IAmb	IAmb	10 44 25.2	
	comp=Z,29nm,0.8s						
GRHM	**Grahamstown, E**	**81.20**	**123**	P	**P**	**10 44 07.2**	**0.0**
GRHM				IAmb	IAmb	10 44 08.9	
	comp=Z,61nm,1.0s						
HLID	**Hailey**	**81.27**	**330**	IAMs_20	IAMs_20	11 18 08.9	
	comp=Z,1µm,18.0s						
HLID	**Hailey**	**81.27**	**330**	P	**P**	**10 44 09.6**	**+2.3**
	comp=Z,30nm,1.0s						
SUTB	**Sutter Butte**	**81.60**	**323**	IAmb	IAmb	10 44 22.4	
	comp=Z,55nm,1.4s						
TORD	**Torodi Ar. Bea**	**81.64**	**70**	P	**P**	**10 44 09.0**	**-0.6**
	comp=Z,30nm,0.8s,baz=256,slow=4.9,SNR=101						
TORD				LR	LR	11 19 51.9	
	comp=Z,1µm,19.1s,baz=265,slow=35						

	comp=Z,30nm,0.8s						
TORD	**Torodi Ar. Bea**	**81.64**	**70**	P	**P**	**10 44 08.7**	**-1.0**
TORD				IAmb	IAmb	10 44 11.3	
	comp=Z,38nm,1.0s						
ORV	**Oroville**	**81.69**	**323**	IAMs_20	IAMs_20	11 15 44.0	
	comp=Z,901nm,18.0s						
BOZ	**Bozeman (W)**	**81.73**	**333**	P	**P**	**10 44 11.6**	**+2.0**
BOZ	**Bozeman (W)**	**81.73**	**333**	IAMs_20	IAMs_20	11 19 14.8	
	comp=Z,654nm,19.0s						
MFID	**Camas Ranch**	**81.80**	**329**	IAMs_20	IAMs_20	11 17 46.7	
	comp=Z,1µm,18.0s						
DLMT	**Dillon**	**81.93**	**332**	IAmb	IAmb	10 44 25.9	
	comp=Z,37nm,1.1s						
DLMT				IAMs_20	IAMs_20	11 18 19.3	
	comp=Z,1µm,18.0s						
WVOR	**Wild Horse Val**	**82.36**	**327**	P	**P**	**10 44 15.5**	**+2.5**
WVOR	**Wild Horse Val**	**82.36**	**327**	IAMs_20	IAMs_20	11 17 15.3	
	comp=Z,633nm,18.0s						
WVOR	**Wild Horse Val**	**82.36**	**327**	P	**P**	**10 44 15.8**	**+2.8**
	comp=Z,15nm,1.1s						
O03E	**Paynes Creek**	**82.38**	**324**	IAmb	IAmb	10 44 34.8	
	comp=Z,26nm,0.9s						
O03E				IAMs_20	IAMs_20	11 15 58.9	
	comp=Z,1µm,18.0s						
SCHQ	**Schefferville**	**82.44**	**3**	P	**P**	**10 44 13.0**	**+0.1**
	comp=Z,12nm,0.9s,baz=170,slow=4.1,SNR=8.2						
SCHQ				LR	LR	11 21 37.7	
	comp=Z,272nm,20.0s,baz=182,slow=36						
	comp=Z,12nm,0.9s						
SCHQ	**Schefferville**	**82.44**	**3**	IAmb	IAmb	10 44 26.5	
	comp=Z,44nm,1.2s						
BOSA	**Boshof**	**82.49**	**118**	P	**P**	**10 44 13.5**	**-0.6**
	comp=Z,22nm,0.7s,baz=262,slow=3.9,SNR=34						
BOSA				LR	LR	11 16 42.1	
	comp=Z,2µm,20.1s,baz=228,slow=33						
	comp=Z,22nm,0.7s						
BOSA	**Boshof**	**82.49**	**118**	P	**P**	**10 44 12.9**	**-1.3**
BOSA				pmax	pmax		
	comp=Z,29nm,0.9s						
BOSA	**Boshof**	**82.49**	**118**	P	**P**	**10 44 12.9**	**-1.3**
BOSA				IAmb	IAmb	10 44 15.3	
	comp=Z,29nm,0.8s						
BOSA	**Boshof**	**82.49**	**118**	P	**P**	**10 44 13.8**	**-0.4**
	comp=Z,52nm,0.9s						
MOD	**Modoc Plateau**	**82.79**	**325**	IAmb	IAmb	10 44 30.3	
	comp=Z,26nm,0.9s						
MOD				IAMs_20	IAMs_20	11 16 53.6	
	comp=Z,925nm,19.0s						
DRV	**Dumont d'Urvil**	**82.80**	**192**	P	**P**	**10 44 15.3**	**+0.5**
EGMT	**Eagleton**	**83.00**	**335**	IAmb	IAmb	10 44 30.3	
	comp=Z,44nm,1.4s						
EGMT				IAMs_20	IAMs_20	11 18 49.0	
	comp=Z,1µm,20.0s						
PLID	**Pearl Lake**	**83.18**	**330**	IAmb	IAmb	10 44 32.0	
	comp=Z,32nm,0.9s						
PLID				IAMs_20	IAMs_20	11 18 36.8	
	comp=Z,1µm,18.0s						
M03C	**McCloud**	**83.26**	**324**	IAmb	IAmb	10 44 38.1	
	comp=Z,31nm,1.0s						
KHBM	**Hayfork Bally**	**83.40**	**323**	IAMs_20	IAMs_20	11 15 16.7	
	comp=Z,1µm,19.0s						
BMO	**Blue Mountains**	**83.58**	**329**	P	**P**	**10 44 21.6**	**+2.4**
MSO	**Missoula**	**83.67**	**332**	IAMs_20	IAMs_20	11 19 13.8	
	comp=Z,1µm,18.0s						
K05A	**Summer Lake**	**83.69**	**326**	IAmb	IAmb	10 44 33.7	
	comp=Z,48nm,1.1s						
YBH	**Yreka Blue Hor**	**83.89**	**324**	LR	LR	11 18 26.9	
	comp=Z,487nm,19.6s,baz=146,slow=33						
L04D	**Klamath Falls**	**84.04**	**325**	IAmb	IAmb	10 44 47.2	
	comp=Z,60nm,1.6s						
F10A	**Beach Ranch, E**	**84.41**	**330**	IAmb	IAmb	10 44 39.7	
	comp=Z,26nm,1.1s						
LBTB	**Lobatse**	**84.43**	**115**	LR	LR	11 19 01.8	
	comp=Z,2µm,18.2s,baz=228,slow=34						
LBTB	**Lobatse**	**84.43**	**115**	IAmb	IAmb	10 44 25.3	
	comp=Z,28nm,0.8s						
LBTB	**Lobatse**	**84.43**	**115**	P	**P**	**10 44 24.3**	**+0.1**
	comp=Z,49nm,1.2s						
PINE	**Pine Mountain**	**84.50**	**326**	IAmb	IAmb	10 44 39.9	
	comp=Z,43nm,1.0s						
TIO	**Tiouine**	**84.62**	**51**	P	**P**	**10 44 26.1**	**+1.2**
TIO	**Tiouine**	**84.62**	**51**	P	**P**	**10 44 26.7**	**+1.9**
	comp=Z,120nm,1.8s						
WIFE	**Three Sisters-**	**85.13**	**326**	IAmb	IAmb	10 44 43.5	
	comp=Z,51nm,1.4s						
I04A	**Tendick Farm,**	**85.23**	**326**	IAmb	IAmb	10 44 39.6	
	comp=Z,29nm,1.3s						
LDM	**Libby Dam**	**85.53**	**332**	IAmb	IAmb	10 44 43.3	
	comp=Z,24nm,1.1s						
H04A	**Detroit Lake**	**85.76**	**326**	IAmb	IAmb	10 44 44.4	
	comp=Z,24nm,0.9s						
HAWA	**Hanford**	**85.77**	**329**	IAmb	IAmb	10 44 44.9	
	comp=Z,24nm,1.0s						
AVE	**Averroes**	**85.94**	**49**	P	**P**	**10 44 32.1**	**+0.8**
AVE	**Averroes**	**85.94**	**49**	P	**P**	**10 44 31.4**	**+0.2**
AVE	**Averroes**	**85.94**	**49**	P	**P**	**10 44 33.0**	**+1.8**
	comp=Z,126nm,2.0s						
NEW	**Newport**	**86.13**	**331**	LR	LR	11 20 30.5	
	comp=Z,992nm,18.5s,baz=142,slow=34						
NEW	**Newport**	**86.13**	**331**	P	**P**	**10 44 32.3**	**+0.4**
NEW	**Newport**	**86.13**	**331**	IAMs_20	IAMs_20	11 20 00.9	
	comp=Z,1µm,20.0s						
NEW	**Newport**	**86.13**	**331**	P	**P**	**10 44 32.5**	**+0.6**
	comp=Z,8.5nm,2.0s						
CASY	**Casey**	**86.16**	**181**	P	**P**	**10 44 32.2**	**+0.4**
CASY	**Casey**	**86.16**	**181**	P	**P**	**10 44 33.0**	**+1.1**
	comp=Z,61nm,0.9s						
C09A	**Chrisman Ranch**	**86.27**	**330**	IAmb	IAmb	10 44 46.9	
	comp=Z,21nm,0.8s						
LTY	**Liberty**	**86.93**	**329**	IAmb	IAmb	10 44 50.0	
	comp=Z,20nm,1.0s						
MD31	**MD31**	**87.48**	**51**	IAmb	IAmb	10 44 42.1	
	comp=Z,23nm,1.1s						
MD01	**Midelt array s**	**87.48**	**51**	P	**P**	**10 44 38.4**	**-0.6**
D05A	**Enumclaw**	**87.49**	**328**	IAmb	IAmb	10 44 52.8	
	comp=Z,31nm,0.8s						
MDT	**Midelt**	**87.55**	**51**	LR	LR	11 24 14.6	
	comp=Z,2µm,18.9s,baz=234,slow=36						
MORF	**Marmelete**	**87.57**	**45**	*e*P	**P**	**10 44 39.5**	**+0.3**
MORF				IAmb	IAmb	10 44 53.5	
	comp=Z,271nm,2.3s						
MORF	**Marmelete**	**87.57**	**45**	*e*P	**P**	**10 44 40.6**	**+1.4**
MORF				*i* IAmb	IAmb	10 44 55.0	
	comp=Z,84nm,1.6s						
IFR	**Ifrane**	**87.60**	**50**	P	**P**	**10 44 40.0**	**+0.4**
IFR	**Ifrane**	**87.60**	**50**	P	**P**	**10 44 40.9**	**+1.3**
	comp=Z,8.8nm,2.5s						
PTEO	**Sao Teotonio**	**87.67**	**45**	*e*P	**P**	**10 44 40.4**	**+0.8**
PTEO				*i* IAmb	IAmb	10 44 42.7	
	comp=Z,95nm,1.4s						
PBDV	**Barranco-do-Ve**	**87.98**	**46**	P	**P**	**10 44 41.9**	**+0.7**
PBDV	**Barranco-do-Ve**	**87.98**	**46**	*e*P	**P**	**10 44 42.6**	**+1.4**
PBDV				*i* IAmb	IAmb	10 44 49.6	
	comp=Z,64nm,2.0s						
PCVE	**Castro Verde**	**88.15**	**45**	P	**P**	**10 44 42.9**	**+1.0**
PCVE	**Castro Verde**	**88.15**	**45**	*e*P	**P**	**10 44 42.9**	**+1.0**
PCVE				*i* IAmb	IAmb	10 44 57.4	
	comp=Z,69nm,1.8s						
GNW	**Green Mountain**	**88.16**	**328**	IAmb	IAmb	10 44 55.7	
	comp=Z,14nm,0.8s						
PLOUS	**Minas do Lousa**	**88.16**	**45**	*e*P	**P**	**10 44 42.6**	**+0.7**
PLOUS				*i* IAmb	IAmb	10 44 57.5	
	comp=Z,43nm,1.6s						
MESJ	**Messejana**	**88.17**	**45**	*e*P	**P**	**10 44 42.2**	**+0.3**
MESJ				IAmb	IAmb	10 44 45.4	
	comp=Z,105nm,2.0s						
MESJ				*e*SKSac	**SKSac**	**10 55 09.9**	**-1.5**
MESJ	**Messejana**	**88.17**	**45**	*e*P	**P**	**10 44 42.8**	**+0.8**
MESJ				*i* IAmb	IAmb	10 44 58.3	
	comp=Z,56nm,1.6s						
MESJ	**Messejana**	**88.17**	**45**	*e*P	**P**	**10 44 44.9**	**+2.9**
MESJ	**Messejana**	**88.17**	**45**	IAmb	IAmb	10 44 57.5	
	comp=Z,43nm,1.4s						
URZ	**Urewera**	**88.19**	**227**	LR	LR	11 15 23.4	
	comp=Z,2µm,20.0s,baz=158,slow=30						
PMAFR	**Mafra**	**88.19**	**44**	P	**P**	**10 44 42.3**	**+0.2**
PVAQ	**Vaqueiros**	**88.22**	**46**	*e*P	**P**	**10 44 43.3**	**+1.1**
PVAQ				*i* IAmb	IAmb	10 44 46.0	
	comp=Z,60nm,2.0s						
PVAQ				*e*PP	**PP**	**10 48 13.8**	**+4.1**
PVAQ				*e*S	**S**	**10 55 26.6**	**-0.8**
PVAQ				*e*LR	LR	11 16 29.2	
PVAQ				*i* IAMs_20	IAMs_20	11 23 14.9	
	comp=Z,2µm,20.0s						
EGRO	**El Granado**	**88.44**	**46**	P	**P**	**10 44 43.6**	**+0.3**
PBEJ	**Beja**	**88.50**	**45**	*e*P	**P**	**10 44 44.2**	**+0.7**
PBEJ				*i* IAmb	IAmb	10 44 48.3	
	comp=Z,41nm,2.2s						
MOE	**Montemor**	**88.50**	**44**	*e*P	**P**	**10 44 44.6**	**+1.1**
MOE				*i* IAmb	IAmb	10 44 47.1	
	comp=Z,26nm,1.9s						
NLWA	**Neilton Lookou**	**88.53**	**327**	IAmb	IAmb	10 44 56.8	
	comp=Z,25nm,1.2s						
NLWA				IAMs_20	IAMs_20	11 20 57.3	
	comp=Z,647nm,20.0s						
SFS	**San Fernando**	**88.62**	**47**	P	**P**	**10 44 44.4**	**+0.3**
RPZ	**Rata Peaks**	**88.66**	**220**	LR	LR	11 14 19.3	
	comp=Z,279nm,22.0s,baz=118,slow=29						
EVO	**Evora**	**88.72**	**45**	P	**P**	**10 44 45.1**	**+0.6**
EVO	**Evora**	**88.72**	**45**	*e*P	**P**	**10 44 45.5**	**+0.9**
EVO				*i* IAmb	IAmb	10 44 50.4	
	comp=Z,21nm,2.2s						
ECEU	**Ceuta**	**88.83**	**48**	P	**P**	**10 44 45.6**	**+0.4**
PSBE	**So Bento**	**88.84**	**43**	*e*P	**P**	**10 44 45.7**	**+0.5**
PSBE				*i* IAmb	IAmb	10 45 00.8	
	comp=Z,42nm,1.6s						
PARRA	**Arraiolos**	**88.87**	**44**	*e*P	**P**	**10 44 46.0**	**+0.7**
PARRA				*i* IAmb	IAmb	10 44 48.5	
	comp=Z,24nm,2.5s						
PMTG	**Montargil**	**88.91**	**44**	*e*P	**P**	**10 44 46.1**	**+0.7**
PMTG				*i* IAmb	IAmb	10 45 00.7	
	comp=Z,27nm,1.3s						
MATP	**Matopo**	**88.97**	**112**	LR	LR	11 20 51.3	
	comp=Z,3µm,20.6s,baz=238,slow=33						
ESPR	**Espera**	**89.09**	**47**	P	**P**	**10 44 46.8**	**+0.5**
EMIN	**Mina Concepcio**	**89.10**	**46**	P	**P**	**10 44 46.7**	**+0.3**
PBAR	**Barrancos**	**89.11**	**45**	P	**P**	**10 44 47.1**	**+0.7**
PBAR	**Barrancos**	**89.11**	**45**	*e*P	**P**	**10 44 47.2**	**+0.8**
PESTR	**Estremoz**	**89.18**	**44**	P	**P**	**10 44 47.3**	**+0.5**
PESTR	**Estremoz**	**89.18**	**44**	*e*P	**P**	**10 44 47.5**	**+0.8**
PESTR				*i* IAmb	IAmb	10 45 01.4	
	comp=Z,19nm,1.7s						
PGC	**Sidney**	**89.23**	**328**	IAmb	IAmb	10 45 01.2	
	comp=Z,18nm,1.0s						
PSARD	**Sardoal**	**89.28**	**44**	*e*P	**P**	**10 44 47.3**	**+0.1**
PSARD				*i* IAmb	IAmb	10 45 09.2	
	comp=Z,18nm,1.6s						
PCAS	**Casmilo, Conde**	**89.35**	**43**	*e*P	**P**	**10 44 48.1**	**+0.6**
EBAD	**Badajoz**	**89.47**	**45**	P	**P**	**10 44 48.5**	**+0.4**
EMIJ	**Mijas**	**89.61**	**48**	P	**P**	**10 44 48.5**	**-0.3**
PMRV	**Marv??o**	**89.65**	**44**	*e*P	**P**	**10 44 49.4**	**+0.4**
PMRV				*i* IAmb	IAmb	10 45 37.9	
	comp=Z,13nm,1.6s						
PMRV				*e*PP	PP	10 48 29.3	+8.1
PMRV				*e*LR	LR	11 17 23.5	
PMRV				*i* IAMs_20	IAMs_20	11 28 40.3	
	comp=Z,875nm,16.0s						
TAM	**Tamanrasset**	**89.69**	**64**	P	**P**	**10 44 50.2**	**+0.5**
	comp=Z,6.8nm,1.1s						
PCBR	**Castelo Branco**	**89.84**	**44**	*e*P	**P**	**10 44 50.6**	**+0.8**
PCBR				*i* IAmb	IAmb	10 45 07.7	
	comp=Z,16nm,2.0s						
EMAL	**Malaga-Limoner**	**89.95**	**48**	P	**P**	**10 44 50.1**	**-0.3**
EMAL	**Malaga-Limoner**	**89.95**	**48**	P	**P**	**10 44 51.4**	**+1.1**
	comp=Z,23nm,0.7s						
ECAB	**El Cabril**	**90.08**	**46**	P	**P**	**10 44 50.5**	**-0.5**
MTE	**Manteigas**	**90.14**	**43**	*e*P	**P**	**10 44 52.1**	**+0.8**
MTE				*i* IAmb	IAmb	10 45 16.5	
	comp=Z,19nm,2.0s						
MTE				*e*S	**S**	**10 55 42.9**	**-2.6**
MTE				*e*LR	LR	11 17 58.6	
MTE				*i* IAMs_20	IAMs_20	11 25 03.3	
	comp=Z,2µm,18.0s						
EGOR	**Sierra Gorda,**	**90.36**	**48**	P	**P**	**10 44 52.4**	**-0.1**
POLO	**Lamas de Olo**	**90.58**	**42**	*e*P	**P**	**10 44 53.9**	**+0.5**
PCAB	**Cabril**	**90.65**	**42**	*e*P	**P**	**10 44 53.1**	**-0.5**
PCAB				*i* IAmb	IAmb	10 45 08.9	
	comp=Z,29nm,2.0s						
PGAV	**Gavieira, Arco**	**90.66**	**42**	*e*P	**P**	**10 44 54.1**	**+0.5**
PGAV				*i* IAmb	IAmb	10 44 57.2	
	comp=Z,20nm,1.6s						
PGAV				*e*S	**S**	**10 55 48.1**	**-2.2**
PGAV				*e*LR	LR	11 15 40.2	
PGAV				*i* IAMs_20	IAMs_20	11 22 00.9	
	comp=Z,1µm,22.0s						
CBB	**Campbell River**	**91.09**	**329**	IAmb	IAmb	10 45 27.8	
	comp=Z,62nm,1.8s						
LSZ	**Lusaka**	**91.21**	**108**	LR	LR	11 22 48.9	
	comp=Z,2µm,18.9s,baz=240,slow=34						
LSZ	**Lusaka**	**91.21**	**108**	P	**P**	**10 44 59.2**	**+2.2**
	comp=Z,16nm,2.2s						
FRB	**Frobisher Bay**	**91.32**	**1**	LR	LR	11 28 05.0	
	comp=Z,535nm,19.3s,baz=166,slow=37						
PBRG	**Braganca**	**91.47**	**43**	*e*P	**P**	**10 44 57.8**	**+0.4**
PBRG				*i* IAmb	IAmb	10 45 39.1	
	comp=Z,16nm,1.6s						
PAB	**San Pablo**	**91.61**	**45**	P	**P**	**10 44 57.8**	**-0.4**
PAB				pmax	pmax		
	comp=Z,14nm,1.3s						
PAB				MLR	MLR		
	comp=Z,2µm,20.0s						
PAB	**San Pablo**	**91.61**	**45**	P	**P**	**10 44 57.8**	**-0.4**
ESDC	**Sonseca Array**	**91.93**	**46**	P	**P**	**10 45 00.9**	**+1.3**
	comp=Z,2.3nm,0.8s,baz=264,slow=4.1,SNR=10						
ESDC				LR	LR	11 25 23.9	
	comp=Z,1µm,19.2s,baz=226,slow=35						
	comp=Z,2.3nm,0.8s						
ESDC	**Sonseca Array**	**91.93**	**46**	P	**P**	**10 44 59.4**	**-0.2**
AFI	**Afiamalu**	**92.49**	**253**	LR	LR	11 17 55.7	
	comp=Z,1µm,18.7s,baz=141,slow=30						
CART	**Cartagena**	**92.68**	**49**	IAMs_20	IAMs_20	11 27 06.6	
	comp=Z,597nm,21.0s						
BBB	**Bella Bella**	**93.83**	**329**	LR	LR	11 23 39.6	
	comp=Z,234nm,21.0s,baz=114,slow=33						
SFJD	**Kangerlussuaq**	**95.86**	**8**	LR	LR	11 30 05.2	
	comp=Z,176nm,18.2s,baz=198,slow=36						
YKA	**Yellowknife Ar**	**96.42**	**341**	P	**P**	**10 45 20.3**	**+0.8**
	comp=Z,2.5nm,0.7s,baz=144,slow=4.5,SNR=5.4						
YKA				LR	LR	11 30 28.1	
	comp=Z,344nm,18.0s,baz=136,slow=36						
	comp=Z,2.5nm,0.7s						
MAHO	**Mahon**	**97.39**	**49**	IAMs_20	IAMs_20	11 32 04.4	
	comp=Z,655nm,18.0s						
KEST	**Kesra**	**98.90**	**54**	LR	LR	11 31 00.5	
	comp=Z,4µm,21.8s,baz=240,slow=36						
MSVF	**Nonsavu**	**98.92**	**245**	LR	LR	11 20 04.5	
	comp=Z,564nm,21.5s,baz=119,slow=29						
BORG	**Borgarnes**	**100.15**	**20**	LR	LR	11 27 14.8	
	comp=Z,438nm,21.9s,baz=227,slow=33						
VSL	**Villasalto**	**100.66**	**51**	IAMs_20	IAMs_20	11 32 50.0	
	comp=Z,1µm,20.0s						
M31M	**Drury Creek, Y**	**102.82**	**335**	IAMs_20	IAMs_20	11 31 19.7	
	comp=Z,804nm,20.0s						
ECH	**Echery**	**103.20**	**42**	IAMs_20	IAMs_20	11 30 00.9	
	comp=Z,887nm,21.0s						
TUE	**Stuetta**	**103.76**	**45**	IAMs_20	IAMs_20	11 32 24.8	
	comp=Z,1µm,21.0s						
BFO	**Black Forest**	**103.95**	**43**	IAMs_20	IAMs_20	11 30 33.8	
	comp=Z,867nm,22.0s						
C36M	**Paulatuk**	**104.12**	**343**	IAMs_20	IAMs_20	11 32 48.9	
	comp=Z,935nm,20.0s						
STU	**Stuttgart**	**104.66**	**42**	IAMs_20	IAMs_20	11 30 44.6	
	comp=Z,848nm,22.0s						
J30M	**Hart River**	**104.90**	**336**	IAMs_20	IAMs_20	11 39 04.7	
	comp=Z,472nm,18.0s						
H31M	**Peel River**	**104.91**	**338**	IAMs_20	IAMs_20	11 33 02.9	
	comp=Z,738nm,20.0s						
I30M	**Mount Dempster**	**105.28**	**337**	IAMs_20	IAMs_20	11 40 29.7	
	comp=Z,636nm,19.0s						
J29N	**Klondike Camp**	**105.51**	**336**	IAMs_20	IAMs_20	11 33 34.0	
	comp=Z,862nm,19.0s						
G31M	**Satah River**	**105.53**	**339**	IAMs_20	IAMs_20	11 33 44.4	
	comp=Z,901nm,18.0s						
G30M	**tAoh Zraii Nji**	**106.20**	**338**	IAMs_20	IAMs_20	11 34 53.1	
	comp=Z,732nm,18.0s						
M26K	**Nabesna, AK**	**106.31**	**333**	IAMs_20	IAMs_20	11 43 32.2	
	comp=Z,673nm,18.0s						
F30M	**Barrier River**	**106.41**	**339**	IAMs_20	IAMs_20	11 35 31.6	
	comp=Z,805nm,18.0s						
I28M	**Miner Creek**	**106.66**	**336**	IAMs_20	IAMs_20	11 34 04.3	
	comp=Z,824nm,18.0s						
L26K	**Log Cabin Wild**	**106.76**	**333**	IAMs_20	IAMs_20	11 32 56.9	
	comp=Z,515nm,20.0s						
I27K	**Kandik River**	**107.34**	**336**	IAMs_20	IAMs_20	11 36 01.3	
	comp=Z,577nm,18.0s						
GERES	**GERESS Array B**	**107.42**	**44**	PKiKP	**PKiKP**	**10 50 18.4**	**+0.8**
	comp=Z,0.6nm,0.6s,baz=241,slow=3.2,SNR=4.6						
KHC	**Kasperske Hory**	**107.45**	**43**	IAMs_20	IAMs_20	11 34 20.1	
	comp=Z,776nm,21.0s						
SCRK	**Sand Creek**	**107.46**	**334**	IAMs_20	IAMs_20	11 34 50.5	
	comp=Z,886nm,18.0s						
E29M	**Blow River**	**107.50**	**339**	IAMs_20	IAMs_20	11 34 22.4	
	comp=Z,1µm,21.0s						
H27K	**Steamboat Moun**	**107.62**	**336**	IAMs_20	IAMs_20	11 34 54.6	
	comp=Z,777nm,19.0s						
RIDG	**Independent Ri**	**107.69**	**333**	IAMs_20	IAMs_20	11 33 35.5	
	comp=Z,620nm,18.0s						
F28M	**Old Crow**	**107.74**	**338**	IAMs_20	IAMs_20	11 34 49.7	
	comp=Z,961nm,20.0s						
CLL	**Collm**	**107.93**	**41**	IAMs_20	IAMs_20	11 36 55.8	
	comp=Z,677nm,18.0s						
CLL	**Collm**	**107.93**	**41**	*e*Pdif	**Pdif**	**10 46 13.0**	**+1.8**
CLL				*e*PP	**PP**	**10 50 39.0**	**-1.6**
CLL				*e*PPP	PPP	10 52 55.0	
CLL				*e*SKSac	**SKSac**	**10 56 46.0**	**-5.7**
CLL				*e*SKKS	**SKKSac**	**10 57 48.0**	**+3.3**
CLL				*e*Sdif	**Sdif**	**10 58 18.0**	**+0.8**
CLL				*e*PS	**PS**	**11 00 06.0**	**+2.6**
CLL				*e*PPS	PPS	11 01 05.0	
CLL				*e*SS	**SS**	**11 05 54.0**	**+0.2**
CLL				*e*SSS	SSS	11 09 54.0	
CLL				*e*SSSS		11 13 12.0	
CLL				LQ	LQ	11 16 00.0	
CLL				L	L	11 22 00.0	
CLL				AMS	AMS	11 29 00.0	
	comp=N,300nm,28.6s						
CLL				AMS	AMS	11 29 00.0	
	comp=E,800nm,26.4s						
CLL				AMS	AMS	11 29 00.0	
	comp=Z,800nm,24.3s						
CLL				AMS	AMS	11 36 00.0	
	comp=N,300nm,20.9s						
CLL				AMS	AMS	11 36 00.0	
	comp=E,700nm,20.8s						
CLL				AMS	AMS	11 36 00.0	
	comp=Z,700nm,18.7s						
G27K	**Doyon Strip**	**107.95**	**337**	IAMs_20	IAMs_20	11 36 12.2	
	comp=Z,789nm,19.0s						
E28M	**Babbage River**	**108.13**	**339**	IAMs_20	IAMs_20	11 36 35.0	
	comp=Z,713nm,19.0s						
BRG	**Berggiesshubel**	**108.32**	**42**⇓	*e*Pif		10 46 15.0	
BRG	**Berggiesshubel**	**108.32**	**42**	PP	**PP**	**10 50 43.0**	**-0.5**
BRG	**Berggiesshubel**	**108.32**	**42**	PS	PS	11 00 12.0	+4.6
GHO	**Glory Hole Cre**	**108.52**	**331**	IAMs_20	IAMs_20	11 44 53.7	
	comp=Z,767nm,19.0s						
D27M	**Malcolm River**	**108.90**	**339**	IAMs_20	IAMs_20	11 35 28.3	
	comp=Z,692nm,20.0s						
ILAR	**Eielson Array**	**108.94**	**334**	Pdiff	**Pdif**	**10 46 15.8**	**+0.4**
	comp=Z,0.5nm,0.7s,baz=148,slow=3.8,SNR=6.2						
ILAR				PKiKP	**PKiKP**	**10 50 21.1**	**+1.3**
	comp=Z,1.3nm,1.0s,baz=222,slow=2.1,SNR=4.2						
ILAR				PKKPbc	**PKKPbc**	**11 01 27.4**	**-2.0**
	comp=Z,0.4nm,0.8s,baz=297,slow=4.0,SNR=4.4						
F26K	**Sheenjek River**	**109.22**	**337**	IAMs_20	IAMs_20	11 35 45.4	
	comp=Z,843nm,19.0s						
COLA	**College**	**109.36**	**334**	IAMs_20	IAMs_20	11 34 48.8	
	comp=Z,619nm,19.0s						
C27K	**Jago River**	**109.94**	**339**	IAMs_20	IAMs_20	11 35 50.7	
	comp=Z,778nm,20.0s						
I23K	**Minto, Yukon-K**	**110.06**	**334**	IAMs_20	IAMs_20	11 36 20.2	
	comp=Z,549nm,19.0s						
H23K	**Yukon River**	**110.39**	**335**	IAMs_20	IAMs_20	11 36 08.6	
	comp=Z,767nm,18.0s						
MLY	**Manley**	**110.55**	**334**	IAMs_20	IAMs_20	11 35 16.3	
	comp=Z,658nm,19.0s						
D25K	**Kavik River**	**110.66**	**338**	IAMs_20	IAMs_20	11 39 16.8	
	comp=Z,636nm,18.0s						
I21K	**Tanana**	**111.10**	**333**	IAMs_20	IAMs_20	11 35 22.7	
	comp=Z,596nm,21.0s						
K20K	**Telida**	**111.33**	**331**	IAMs_20	IAMs_20	11 37 09.5	
	comp=Z,417nm,19.0s						
E22K	**Anaktuvuk Pass**	**112.06**	**337**	IAMs_20	IAMs_20	11 37 44.6	
	comp=Z,738nm,19.0s						
KARP	**Karpathos**	**112.14**	**61**	IAMs_20	IAMs_20	11 41 07.0	
	comp=Z,810nm,20.0s						
D22K	**Ayikyak River**	**112.60**	**337**	IAMs_20	IAMs_20	11 37 27.9	
	comp=Z,735nm,19.0s						
F20K	**Avaraart Lake**	**113.14**	**335**	IAMs_20	IAMs_20	11 36 54.6	
	comp=Z,600nm,20.0s						
G19K	**Purcell Mounta**	**113.41**	**334**	IAMs_20	IAMs_20	11 39 15.8	
	comp=Z,383nm,19.0s						
J17K	**VABM Dome**	**113.49**	**331**	IAMs_20	IAMs_20	11 47 38.1	
	comp=Z,509nm,18.0s						
H17K	**Granite Mounta**	**114.24**	**332**	IAMs_20	IAMs_20	11 46 09.0	
	comp=Z,554nm,21.0s						
I17K	**Unalakleet**	**114.31**	**331**	IAMs_20	IAMs_20	11 39 14.8	
	comp=Z,611nm,18.0s						
D19K	**Kuna River**	**114.40**	**336**	IAMs_20	IAMs_20	11 39 06.6	
	comp=Z,715nm,19.0s						
SUW	**Suwalki**	**114.66**	**40**	IAMs_20	IAMs_20	11 44 31.5	
	comp=Z,768nm,19.0s						
E18K	**Tukpahlearik C**	**115.07**	**335**	IAMs_20	IAMs_20	11 40 00.4	
	comp=Z,550nm,18.0s						
ISP	**Isparta**	**115.41**	**59**	IAMs_20	IAMs_20	11 43 15.3	
	comp=Z,896nm,21.0s						
RDOG	**Red Dog Mine**	**116.06**	**335**	IAMs_20	IAMs_20	11 46 36.6	
	comp=Z,580nm,20.0s						
MNK	**Minsk**	**117.46**	**40**	*i* PKIKP	**PKiKP**	**10 50 37.3**	**+0.9**
MNK				*i*		10 51 49.2	
MNK				*i* PPP	PPP	10 54 17.5	
MNK				*i*		10 57 50.1	
MNK				*i* SS	SS	11 08 01.8	+1.8
MNK				*i* SSS	SSS	11 12 23.7	
MNK				pmax	pmax		
	comp=N,14nm,0.9s						
MNK				pmax	pmax		
	comp=E,18nm,0.8s						
MNK				pmax	pmax		
	comp=Z,12nm,0.8s						
MNK				MLR	MLR		
	comp=E,669nm,18.0s						
MNK	**Minsk**	**117.46**	**40**	*i* PKP	**PKiKP**	**10 50 37.3**	**+0.9**
	comp=E,18nm,0.8s						
MNK				*i* PKP	**PKiKP**	**10 50 37.3**	**+0.9**
	comp=N,14nm,0.9s						
MNK				*i* PKP	**PKiKP**	**10 50 37.3**	**+0.9**
	comp=Z,12nm,0.8s,baz=260						
MNK				*i* PP	**PP**	**10 51 49.3**	**+0.8**
MNK				*i* PPP	PPP	10 54 17.6	
MNK				*i* SKS	**SKSdf**	**10 57 50.1**	**+1.2**
MNK				*i* SS	**SS**	**11 08 01.9**	**+1.8**
MNK				*i* SSS	SSS	11 12 23.7	
VSU	**Vasula**	**117.48**	**36**⇓	*i*PKIKP	**PKiKP**	**10 50 39.0**	**+2.7**
KIEV	**Kiev**	**117.56**	**45**	PKIKP	**PKiKP**	**10 50 36.8**	**+0.1**
KIEV				MLR	MLR		
	comp=Z,800nm,20.0s						
KIEV	**Kiev**	**117.56**	**45**		**PKiKP**	**10 50 36.8**	**+0.1**
KIEV	**Kiev**	**117.56**	**45**	IAMs_20	IAMs_20	11 40 26.9	
	comp=Z,763nm,20.0s						
AKASG	**Malin Array Be**	**117.57**	**45**	PKP	**PKPdf**	**10 50 35.8**	**-0.9**
	comp=Z,2.3nm,0.6s,baz=263,slow=2.9,SNR=12						
AKASG				PP	**PP**	**10 51 46.5**	**-2.8**
	comp=Z,0.1nm,0.2s,baz=274,slow=2.4,SNR=7.4						
AKASG	**Malin Array Be**	**117.57**	**45**		**PKiKP**	**10 50 36.9**	**+0.2**
AKBB	**Malin Array Si**	**117.57**	**45***c*	*i*PKIKP	**PKPdf**	**10 50 36.1**	**-0.6**
AKBB	**Malin Array Si**	**117.57**	**45**		**PKiKP**	**10 50 36.8**	**+0.1**
MMAI	**Mount Meron Ar**	**117.87**	**65**	PKP	**PKPdf**	**10 50 37.1**	**-0.9**
	comp=Z,1.9nm,0.4s,baz=289,slow=4.4,SNR=1.6						
ARCES	**ARCESS Array B**	**118.21**	**23**	PKKPbc	PKKPbc	11 00 55.2	-2.7
	comp=Z,2.5nm,1.0s,baz=119,slow=3.2,SNR=4.6						
BR131	**Keskin Array S**	**118.26**	**58**⇓	*i*PKIKP	**PKPdf**	**10 50 38.6**	**0.0**
BRTR	**Keskin Array B**	**118.26**	**58**	PKP	**PKPdf**	**10 50 38.4**	**-0.2**
	comp=Z,1.7nm,0.7s,baz=195,slow=2.7,SNR=9.5						
BRTR	**Keskin Array B**	**118.26**	**58**		**PKiKP**	**10 50 38.7**	**+0.1**
APA	**Apatity**	**121.08**	**26**	*i* PKIKP	**PKPdf**	**10 50 42.6**	**-0.4**
APA				*e*		10 52 14.9	
APA				pmax	pmax		
	comp=Z,5.0nm,1.3s						
APA				MLR	MLR		
	comp=Z,899nm,19.2s						
ARPR	**Arapgir-MALATY**	**121.66**	**59**	IAMs_20	IAMs_20	11 49 51.0	
	comp=Z,487nm,19.0s						
OBN	**Obninsk**	**122.52**	**40**⇑	*i*PKIKP	**PKiKP**	**10 50 47.4**	**+1.2**
OBN				*e*		10 52 26.2	
OBN				*e*PPP	PPP	10 55 05.7	
OBN				pmax	pmax		
	comp=Z,7.0nm,0.6s						
OBN				MLR	MLR		
	comp=Z,1µm,19.0s						
MOS	**Moscow**	**123.15**	**40**	*i* PKIKP	**PKPdf**	**10 50 42.3**	**-5.0**
AS31	**Alice Springs**	**123.25**	**208**		**PKPdf**	**10 50 48.4**	**-0.3**
ASAR	**Alice Springs**	**123.25**	**208**	PKP	**PKPdf**	**10 50 48.3**	**-0.4**
	comp=Z,8.2nm,0.8s,baz=133,slow=2.0,SNR=68						
ASAR				PKKPbc	**PKKPbc**	**11 00 38.8**	**+0.4**
	comp=Z,1.0nm,0.7s,baz=333,slow=2.9,SNR=12						
ASAR				SKKPbc	SKKPbc	11 04 30.4	+3.9
	comp=Z,0.4nm,0.8s,baz=340,slow=5.0,SNR=5.2						
ADZR	**Andozero**	**123.29**	**30**	*e*PKIKP	**PKPdf**	**10 50 45.8**	**-1.5**
ADZR				pmax	pmax		

Sta	Name	Dist	Az	Phase	ISC phase	Time	Res
	comp=Z,15nm,0.6s						
SOC	Sochi	123.47	54	*e*P	Pdif	10 47 13.0	-7.5
SOC				*i*		10 50 48.1	
SOC				*e*		10 52 31.3	
SOC				pmax	pmax		
	comp=Z,9.0nm,0.6s						
VSLR	Vesyoloye	123.67	55	⇓*i*PKIKP	PKPdf	10 50 48.4	-0.3
LPSR	Galich'ya Gora	123.79	43	*e*PKIKP	PKPdf	10 50 48.4	-0.2
LPSR				pmax	pmax		
	comp=Z,10.0nm,1.0s						
VSR	Storozhevoye	123.87	45	*e*PKIKP	PKPdf	10 50 47.8	-1.0
VSR				pmax	pmax		
	comp=Z,5.0nm,0.9s						
VORR	Voronezh	123.92	45	PKIKP	PKiKP	10 50 49.4	+0.3
VORR				pmax	pmax		
	comp=Z,10.0nm,0.7s						
VORD	Divnogorie	123.93	45	*e*PKIKP	PKPdf	10 50 47.5	-1.4
VORD				pmax	pmax		
	comp=Z,6.0nm,0.8s						
KLMR	Klimovskoe	124.07	33	*e*PKIKP	PKPdf	10 50 48.5	-0.4
KLMR				pmax	pmax		
	comp=Z,31nm,1.4s						
VRH	Novokhopyorsk	125.47	45	PKIKP	PKiKP	10 50 52.8	+0.6
VRH				pmax	pmax		
	comp=Z,12nm,1.2s						
NEUR	Neytrino	125.58	55	⇓*i*PKIKP	PKiKP	10 50 54.1	+1.1
KIV	Kislovodsk	125.65	54	*i* PKIKP	PKiKP	10 50 55.6	+2.6
KIV				*e*		10 52 46.9	
KIV				*e*PS	PS	11 02 49.2	+2.8
KIV				pmax	pmax		
	comp=Z,10.0nm,1.0s						
KIV				MLR	MLR		
	comp=Z,378nm,23.0s						
KIV	Kislovodsk	125.65	54	IAMs_20	IAMs_20	11 46 57.1	
	comp=Z,540nm,22.0s						
KBZ	Khabaz	125.77	55	PKP	PKiKP	10 50 54.0	+1.0
	comp=Z,5.1nm,0.9s,baz=228,slow=5.0,SNR=7.3						
KBZ	Khabaz	125.77	55	*d i*PKIKP	PKiKP	10 50 55.0	+1.9
GOF	Gofitskoye	126.01	53	*ce*PKHKP	PKPpre	10 50 31.5	
H11S2	WAKE ISLAND Hy	126.16	273	T	T	13 10 03.1	
	baz=112,slow=75,SNR=82						
H11S1	WAKE ISLAND Hy	126.17	273	T	T	13 10 04.0	
	baz=112,slow=75,SNR=102						
H11S3	WAKE ISLAND Hy	126.18	273	T	T	13 10 02.5	
	baz=112,slow=75,SNR=101						
WRA	Warramunga Arr	126.34	211	PKP	PKPdf	10 50 54.5	-0.1
	comp=Z,16nm,0.7s,baz=160,slow=1.8,SNR=161						
WRAB	Tennant Creek	126.34	211	P	PKPdf	10 50 54.8	+0.2
WRAB	Tennant Creek	126.34	211	*d i*PKIKP	PKPdf	10 50 54.8	+0.2
WRAB				pmax	pmax		
	comp=Z,63nm,2.5s						
H11N3	WAKE ISLAND Hy	126.42	275	T	T	13 10 29.0	
	baz=113,slow=75,SNR=18						
H11N1	WAKE ISLAND Hy	126.43	275	T	T	13 10 30.4	
	baz=113,slow=75,SNR=7.3						
H11N2	WAKE ISLAND Hy	126.43	275	T	T	13 10 29.3	
	baz=113,slow=75,SNR=17						
GNI	Garni	126.72	59	⇑*i*PKIKP	PKPdf	10 50 54.1	-0.8
GNI	Garni	126.72	59	IAMs_20	IAMs_20	11 48 47.7	
	comp=Z,593nm,21.0s						
BILL	Bilibino	127.49	336	⇑*e*PKIKP	PKiKP	10 50 56.1	+0.3
BILL	Bilibino	127.49	336	IAMs_20	IAMs_20	11 48 13.7	
	comp=Z,427nm,20.0s						
BELG	Belogornoye	129.11	44	*de*PKIKP	PKiKP	10 50 59.4	0.0
AKT	Akhty	129.12	58	*i* PKIKP	PKPdf	10 50 53.9	-5.4
AKT				*e*SP	SP	11 03 12.7	-3.1
AKT				pmax	pmax		
	comp=Z,24nm,1.4s						
KIRV	Kirov	129.32	36	⇓*i*PKIKP	PKiKP	10 51 00.2	+0.5
MBWA	Marble Bar	130.09	194	P	PKiKP	10 51 02.9	+0.4
KNRA	Kununurra	132.51	207		PKPdf	10 51 05.8	-0.6
ARTI	Arti	134.56	37	*i* PKIKP	PKiKP	10 51 10.7	+0.3
ARTI						10 53 40.2	
ARTI				MLR	MLR		
	comp=Z,1μm,20.0s						
TIXI	Tiksi	134.74	351	⇑*e*PKIKP	PKiKP	10 51 09.8	-0.5
SEY	Seymchan	134.88	333	⇓*i*PKIKP	PKiKP	10 51 11.2	+0.4
PET	Petropavlovsk	135.53	319	IAMs_20	IAMs_20	12 02 59.9	
	comp=Z,382nm,20.0s						
PEA0B	Petropavlovsk-	136.06	319	⇑*e*PKIKP	PKPdf	10 51 10.2	-1.7
PETK	Petropavlovsk-	136.06	319	PKhKP	PKPpre	10 51 04.1	
	comp=Z,3.1nm,0.7s,baz=106,slow=3.2,SNR=3.6						
PETK				PKP	sPKPdf	10 51 12.7	+0.2
	comp=Z,4.6nm,0.7s,baz=83,slow=5.6,SNR=8.4						
NRIK	Noril'sk	136.71	11	PKP	PKiKP	10 51 13.7	-0.7
	comp=Z,1.7nm,0.3s,baz=4.5,slow=3.5,SNR=4.3						
NRIK	Noril'sk	136.71	11	*c i*PKIKP	PKPdf	10 51 13.5	+0.9
GENI	Genyem	137.10	230	P	PKiKP	10 51 17.4	+0.5
MA2	Magadan	137.22	330	⇑*e*PKIKP	PKiKP	10 51 15.7	0.0
BAKI	Biak	140.84	227	PKP	PKiKP	10 51 30.0	+5.5
EDFI	Ende, Flores	141.46	201	PKP	PKPdf	10 51 17.3	-5.8
EDFI				PKP	pPKPdf	10 51 18.1	-5.5
BORK	Borovoye	142.22	38	⇑*e*PKIKP	PKPdf	10 51 20.4	-2.7
BORK	Borovoye	142.22	38	IAMs_20	IAMs_20	11 57 10.5	
	comp=Z,596nm,20.0s						
LBFI	Labuhan Bajo,	142.25	198	PKP	PKPdf	10 51 22.8	-1.6
BVAR	Borovoye Array	142.26	38	PKhKP	PKPpre	10 51 19.5	
	comp=Z,3.6nm,0.7s,baz=315,slow=4.4,SNR=10						
YAK	Yakutsk	143.06	344	*e*PKIKP	PKPbc	10 51 21.8	+0.7
YAK				*e*		10 51 25.2	
YAK				*e*		10 54 32.0	
YAK				*e*SS	SS	11 13 10.6	-2.4
YAK				pmax	pmax		
	comp=Z,40nm,1.1s						
YAK				pmax	pmax		
	comp=N,4.0nm,1.4s						
YAK				pmax	pmax		
	comp=E,5.0nm,1.3s						
YAK				pmax	pmax		
	comp=Z,180nm,3.0s						
YAK				pmax	pmax		
	comp=N,58nm,3.2s						
YAK				pmax	pmax		
	comp=E,186nm,6.6s						
YAK	Yakutsk	143.06	344		PKPbc	10 51 22.7	+1.6
YAK	Yakutsk	143.06	344	IAMs_20	IAMs_20	11 57 45.5	
	comp=Z,328nm,20.0s						
AAI	Ambon	143.38	214	PKP	PKiKP	10 51 33.0	+3.3
SWI	Sorong	144.08	221	PKP	PKPdf	10 51 27.2	-0.5
NLAI	Namlea	144.30	213	PKP	PKiKP	10 51 39.9	+8.3
SNJI	Sawahan-Nganju	144.44	185	PKP	PKPdf	10 51 29.9	+1.4
BBJI	Bungbulang	144.88	178	PKP	PKiKP	10 51 32.8	-0.1
MNGI	Mangalore	145.22	108	*e*P	PKPbc	10 51 27.7	-1.4
SMRI	Semarang	145.25	183	P	PKPdf	10 51 30.8	+1.1
SMRI	Semarang	145.25	183	PKP	PKPdf	10 51 31.3	+1.6
CHM	Chimkent	145.32	55	*e*PKIKP	PKPdf	10 51 29.3	+0.4
CHM	Chimkent	145.32	55	*e*PKP	PKPdf	10 51 29.4	+0.4
NKL	Nikolayevsk	145.36	326	*i* PKIKP	PKPab	10 51 29.0	+0.4
TYV	Tymovskoe	145.51	321	*e*PKIKP	PKPab	10 51 30.7	+1.4
TYV				pmax	pmax		
	comp=Z,69nm,0.8s						
TYV				pmax	pmax		
	comp=Z,700nm,3.3s						
KAPI	Kappang	145.59	200	PKPbc	PKPab	10 51 31.4	+0.8
	comp=Z,88nm,0.8s,baz=195,slow=1.7,SNR=23						
KAPI	Kappang	145.59	200	P	PKPab	10 51 32.0	+1.4
KAPI	Kappang	145.59	200		PKPab	10 51 31.6	+1.1
KAPI	Kappang	145.59	200	IAMs_20	IAMs_20	11 51 14.3	
	comp=Z,590nm,20.0s						
KAPI	Kappang	145.59	200	PKP	PKPab	10 51 31.9	+1.4
KDI	Kendari	145.59	205	PKP	PKPab	10 51 31.2	+0.6
IUG	Iuzhnay	145.67	55	*e*PKIKP	PKPbc	10 51 30.0	0.0
IUG	Iuzhnay	145.67	55	*e*PKP	PKPbc	10 51 30.0	0.0
KBL	Kabul	145.70	69	PKP2	PKPdf	10 51 28.2	-1.9
KBL	Kabul	145.70	69	PKPdf	PKPdf	10 51 28.2	-1.9
KKSI	Kolaka, Sulawe	145.75	204	PKP	PKPab	10 51 32.8	+1.6
KK31	Karatay Array	145.80	53	PKIKP	PKPdf	10 51 29.6	-0.2
KK31	Karatay Array	145.80	53	PKPdf	PKPdf	10 51 29.6	-0.2
KKAR	Karatay Array	145.80	53	PKIKP	PKPdf	10 51 29.7	0.0
KKAR	Karatay Array	145.80	53		PKPdf	10 51 29.7	0.0
SANI	Sanana	145.87	212	PKP	PKPdf	10 51 30.1	-0.6
SANI	Sanana	145.87	212	P	PKPab	10 51 32.2	+0.5
SANI	Sanana	145.87	212	PKP	PKPab	10 51 31.8	+0.1
KOD	Kodaikanal	145.92	115	*e*P	PKPdf	10 51 29.1	-2.0
DZA	Taraz	146.43	54	*e*PKP2	PKPdf	10 51 31.3	+0.5
DZA	Taraz	146.43	54	*e*PKP	PKPdf	10 51 31.4	+0.5
KAD	Karad	146.66	101	*e*P	PKPdf	10 51 30.3	-1.7
YSS	Yuzhno-Sakhali	147.18	315	*i* PKP2	PKPbc	10 51 34.8	+0.7
YSS				*e*		10 55 07.0	
YSS				pmax	pmax		
	comp=Z,600nm,5.3s						
YSS				pmax	pmax		
	comp=Z,70nm,1.0s						
YSS	Yuzhno-Sakhali	147.18	315		PKPbc	10 51 34.0	-0.1
YSS				IAMs_20	IAMs_20	11 46 10.2	
	comp=Z,539nm,20.0s						
SALM	Salem	147.28	113	*e*P	PKPdf	10 51 31.8	-1.2
TNTI	Ternate	147.60	217	P	PKPbc	10 51 37.1	+0.8
KURK	Kurchatov	147.83	37	*c i*PKIKP	PKPdf	10 51 33.7	+0.8
KURBB	Kurchatov Arra	147.84	37	PKPbc	PKPdf	10 51 33.9	+1.0
	comp=Z,15nm,0.7s,baz=302,slow=3.2,SNR=65						
ARSB	Arslanbob	148.00	56	PKIKP	PKPbc	10 51 35.4	-1.4
ARSB	Arslanbob	148.00	56		PKPbc	10 51 35.4	-1.4
MMSI	Mamuju	148.04	200	PKP	PKiKP	10 51 38.8	-0.6
KSI	Kapahiang	148.15	169	PKP	PKPab	10 51 42.2	+1.6
LUWI	Luwuk	148.19	208	PKP	PKPdf	10 51 34.7	0.0
LUWI	Luwuk	148.19	208	P	PKPbc	10 51 37.3	-0.6
LUWI	Luwuk	148.19	208	PKP	PKiKP	10 51 39.8	+0.2
EKS2	Erkin-Say	148.23	53	P	PKPbc	10 51 35.8	-1.6
	SNR=18						
BBKI	Banjar Baru	148.28	192	PKP	PKPab	10 51 41.4	+0.4
JKA	Kamikawa-asahi	148.31	310		PKiKP	10 51 38.5	-0.4
ASAJ	Asahikawa	148.31	310	PKP2	PKiKP	10 51 38.5	-0.4
USP	Ospenovka	148.56	52	P	PKPdf	10 51 35.6	+1.2
	SNR=17						
SGDS	Sogindy	148.59	51	*e*PKP	PKPdf	10 51 34.9	+0.4
UDPR	Udaipur	148.62	88	*e*P	PKPdf	10 51 33.9	-1.2
ZAA0	Zalesovo Array	148.64	27		PKPdf	10 51 35.0	+0.9
ZALV	Zalesovo Beam	148.64	27	PKPbc	PKPdf	10 51 35.8	+1.7
	comp=Z,71nm,0.7s,baz=304,slow=3.0,SNR=46						
ZALV	Zalesovo Beam	148.64	27	PKIKP	PKPdf	10 51 34.7	+0.6
ZALV	Zalesovo Beam	148.64	27		PKPdf	10 51 34.7	+0.6
AAK	Ala-Archa	148.75	53	P	PKPbc	10 51 37.4	-1.3
	SNR=15						
AAK	Ala-Archa	148.75	53	*ce*PKIKP	PKPbc	10 51 36.9	-1.8
AAK	Ala-Archa	148.75	53		PKPbc	10 51 37.4	-1.3
CHMS	Chumysh	148.82	52	P	PKiKP	10 51 40.2	+0.2
	SNR=5.2						
UCH	Uchtor	148.88	54	P	PKPdf	10 51 37.2	+1.7
	SNR=42						
BKNR	BIKANER	148.89	81	*e*P	PKPdf	10 51 34.1	-1.2
GRNR	Gornyy	148.89	325	⇑*i*PKP2	PKiKP	10 51 39.8	-0.1
GRNR				pmax	pmax		
	comp=Z,20nm,0.8s						
KBK	Karagaybulak	149.06	53	P	PKiKP	10 51 41.8	+1.0
	SNR=9.7						
NIL	Nilore	149.21	70	PKP2	PKPbc	10 51 40.5	+0.5
NIL	Nilore	149.21	70		PKPbc	10 51 40.5	+0.5
TKM2	Tokmak 2	149.43	52	P	PKPdf	10 51 38.0	+1.9
	SNR=9.3						
MNI	Manado	149.47	213	PKP	PKPab	10 51 52.1	+6.2
GTOI	Gorontalo	149.60	210	PKP	PKPbc	10 51 42.0	+0.5
PKKI	Palangkaraya	149.63	191	PKP	PKPab	10 51 54.8	+8.4
SRGN	SRI GANGA NAGA	149.63	78	*e*P	PKPdf	10 51 32.4	-4.0
AJM	Ajmer	149.82	85	*e*P	PKPdf	10 51 35.6	-1.3
ULHL	Ulahol	150.10	53	P	PKiKP	10 51 44.0	+1.0
	SNR=13						
NRN	Naryn	150.17	54	PKHKP	PKPpre	10 51 39.3	
NRN	Naryn	150.17	54		PKPdf	10 51 39.3	+1.9
AAA	Alma-Ata	150.25	51	*e*PKHKP	PKPpre	10 51 37.4	
AAA	Alma-Ata	150.25	51	*e*PKP	PKPdf	10 51 37.4	+0.3
TNSS	Tian-Shan	150.33	51	*e*PKIKP	PKPdf	10 51 37.6	-0.1
TNSS	Tian-Shan	150.33	51	*e*PKP	PKPdf	10 51 37.6	-0.1
MDOK	Medeo	150.35	51	*e*PKIKP	PKPdf	10 51 37.5	+0.1
MDOK	Medeo	150.35	51	*e*PKP	PKPdf	10 51 37.6	+0.1
KSH2	Kashi	150.42	59	PKPbc	PKPdf	10 51 39.6	+2.0
KSH2				PP	PP	10 55 19.7	+0.8
KSH2				L	L		
	comp=Z,510nm,20.0s						
KSH2				L	L		
	comp=Z,410nm,19.4s						
KSH2				L	L		
	comp=Z,620nm,23.8s						
SRNI	Srinagar	150.48	69	*e*P	PKPdf	10 51 34.0	-3.9
HYB	Hyderabad	150.49	104	*e*PKiKP	PKPbc	10 51 42.9	-0.7
HYB				IAMs_20	IAMs_20	10 51 49.8	
	comp=Z,490nm,12.3s						
TDK	Taldyqorghan	150.54	46	*e*PKIKP	PKPdf	10 51 37.8	+0.4
TDK	Taldyqorghan	150.54	46	*e*PKP	PKPdf	10 51 37.9	+0.4
JMU	Jammu	150.54	72	*e*P	PKPdf	10 51 36.9	-1.0
ZEA	Zeya	150.71	337	*i* PKIKP	PKiKP	10 51 43.6	0.0
ZEA				*e*		10 51 54.3	
ZEA				pmax	pmax		
	comp=Z,20nm,1.7s						
ZEA				pmax	pmax		
	comp=Z,200nm,3.6s						
TOLI2	Tolitoli	150.95	206	P	PKPdf	10 51 39.8	+0.8
TOLI2	Tolitoli	150.95	206	IAMs_20	IAMs_20	11 55 40.9	
	comp=Z,543nm,22.0s						
THN	Thein Dam	151.33	73	*e*P	PKPdf	10 51 38.1	-1.0
GSI	Gunungsitoli	151.58	156	PKP	PKiKP	10 51 48.8	+2.2
TSSA	Tissa	151.65	72	*e*P	PKPdf	10 51 38.5	-1.3
BKNI	Bangkinang	151.69	164	PKP	PKPab	10 52 02.4	+7.4
UZB	Uzynbulak	151.70	50	*e*PKIKP	PKPdf	10 51 39.5	+0.1
UZB	Uzynbulak	151.70	50	*e*PKP	PKPdf	10 51 39.6	+0.1
KUDL	Kundal	151.72	82	*e*P	PKPdf	10 51 38.6	-1.2
RTK	Rohtak	151.75	80	*e*P	PKPdf	10 51 38.9	-0.9
MNSI	Mandailing Nat	151.75	161	PKP	PKiKP	10 51 49.1	+2.1
GUNA	GUNA	151.84	89	*e*P	PKPdf	10 51 38.1	-2.0
JHJR	Jhajjar	151.91	81	*e*P	PKPdf	10 51 38.8	-1.3
SHLS	Shalkode	151.99	49	*e*PKIKP	PKPdf	10 51 40.5	+0.6
SHLS	Shalkode	151.99	49	*e*PKP	PKPdf	10 51 40.5	+0.6
MK31	Makanchi Array	152.03	40	*ce*PKIKP	PKPdf	10 51 39.4	-0.3
MKAR	Makanchi Array	152.03	40	PKP	PKPdf	10 51 40.3	+0.6
	comp=Z,1.4nm,0.7s,baz=344,slow=1.7,SNR=12						
MKAR				PKPbc	PKiKP	10 51 47.0	+0.5
	comp=Z,27nm,0.7s,baz=338,slow=1.7,SNR=123						
BHGR	Bahadurgarh	152.17	81	*e*P	PKPdf	10 51 39.1	-1.3
KKR	Kurukshetra	152.17	78	*e*P	PKPdf	10 51 40.0	-0.4
KLR	Kul'dur	152.20	326	⇓*e*PKIKP	PKPdf	10 51 40.9	+1.1
STKI	Sintang	152.23	186	PKP	PKiKP	10 51 49.5	+1.5
GNR	GANAUR	152.28	80	*e*P	PKPdf	10 51 40.1	-0.4
NPLP	NPLP New Delhi	152.37	81	*e*P	PKPdf	10 51 35.9	-4.8
NGP	Nagpur	152.38	97	*e*P	PKPdf	10 51 38.7	-2.3
LDR	Lodi Road	152.40	81	*e*P	PKPdf	10 51 42.1	+1.3
NDI	New Delhi	152.41	81	*e*P	PKPdf	10 51 38.6	-2.2
ALCI	Alchi Leh	152.44	69	*e*P	PKPdf	10 51 40.5	-0.6
BISR	Bishrakh	152.60	81	*e*P	PKPdf	10 51 40.0	-1.0
AGRA	Agra	152.87	84	*e*P	PKPdf	10 51 40.1	-1.4
MERT	Meerut	152.89	80	*e*P	PKPdf	10 51 40.0	-1.4
ASOR	Ausora	152.91	81	*e*P	PKPdf	10 51 40.5	-1.0
ZSN	Zaisan	153.07	37	*e*PKIKP	PKPdf	10 51 41.6	+0.4
ZSN	Zaisan	153.07	37	*e*PKP	PKPdf	10 51 41.7	+0.4
JHNI	Jhansi	153.15	88	*e*P	PKPdf	10 51 40.4	-1.6
HEH	HeiHe	153.42	332	*e*PKPbc	PKPdf	10 51 42.4	+0.9
HEH				L	L		
	comp=Z,260nm,18.4s						
HEH				L	L		
	comp=Z,510nm,18.7s						
HEH				L	L		
	comp=Z,720nm,16.2s						
KLP	Kalpa	153.45	75	*e*P	PKPdf	10 51 41.4	-1.3
MJAR	Matsushiro Arr	153.54	297	PKP	PKPdf	10 51 41.8	-0.4
	comp=Z,0.9nm,0.5s,baz=222,slow=1.6,SNR=0.7						
MJAR				PKPbc	sPKPbc	10 51 50.8	+0.2
	comp=Z,5.6nm,0.8s,baz=128,slow=1.6,SNR=8.1						
MJAR	Matsushiro Arr	153.54	297		PKiKP	10 51 51.8	+1.8
MAJO	Matsushiro	153.55	297	P	PKPdf	10 51 46.1	+3.9
MAJO	Matsushiro	153.55	297		PKPab	10 52 01.0	-1.4
UTK	UTTARKASHI	153.61	76	*e*P	PKPdf	10 51 41.0	-1.6
TKRD	Thakurdwara	153.88	80	*e*P	PKPdf	10 51 41.9	-1.0
HNLY	HANLEY	154.03	72	*e*P	PKPdf	10 51 42.6	-1.1
SBUM	Sibu	154.50	189	PKP	PKiKP	10 51 53.4	+0.8
JOSI	Joshimath	154.56	77	*e*P	PKPdf	10 51 42.6	-1.5
BNDA	BANDA	154.68	89	*e*P	PKPdf	10 51 42.6	-1.5
INU	Inuyama	154.70	294	P	PKPdf	10 51 45.6	+1.8
PTH	Pithoragarh	155.09	79	*e*P	PKPdf	10 51 43.6	-1.2
USRK	Ussuriysk Ar.	155.13	317	PKP	PKPdf	10 51 44.1	-0.1
	comp=Z,2.1nm,0.6s,baz=52,slow=2.4,SNR=1.9						
IRK	Irkutsk	155.43	6	*e*PKIKP	PKPdf	10 51 45.6	+1.3
IRK				*e*		10 52 09.5	
IRK				*e*		10 55 46.2	
IRK				pmax	pmax		
	comp=Z,66nm,3.1s						
MOY	Mondy	155.54	11	*e*PKIKP	PKPdf	10 51 46.8	+2.2
MOY				pmax	pmax		
	comp=Z,57nm,2.7s						
CIT	Chita	155.57	353	*e*PKIKP	PKPdf	10 51 46.1	+1.5
HILR	Hailar Array B	156.69	341	PKP	PKPdf	10 51 46.5	+0.4
	comp=Z,0.3nm,0.3s,baz=90,slow=7.4,SNR=5.0						
HILR				PKPab	sPKPab	10 52 16.2	+0.3
	comp=Z,4.9nm,0.7s,baz=62,slow=6.9,SNR=5.9						
WMQ	Urumqi	156.86	41	PKP	PKPdf	10 51 47.7	+1.1
WMQ				PKPab	sPKPab	10 52 18.7	+1.8
WMQ				PP	PP	10 55 58.8	+4.3
WMQ				PPMZ			
	comp=Z,350nm,7.3s						
WMQ				L	L		
	comp=Z,470nm,18.9s						
WMQ				L	L		
	comp=Z,520nm,18.9s						
WMQ				L	L		
	comp=Z,560nm,21.3s						
ZAK	Zakamensk	157.14	9	*e*PKIKP	PKPdf	10 51 48.0	+1.2
ZAK				pmax	pmax		
	comp=Z,17nm,1.9s						
CN2	Changchun	159.08	324	PKP	PKPdf	10 51 47.6	-1.6
CN2				SS	SS	11 16 07.3	-4.0
CN2				L	L		
	comp=Z,170nm,18.0s						
CN2				L	L		
	comp=Z,370nm,18.0s						
CN2				L	L		
	comp=Z,370nm,20.0s						
SONM	Songino Array	159.98	4	PKP	PKPdf	10 51 50.6	+0.3
	comp=Z,2.1nm,0.7s,baz=255,slow=0.7,SNR=7.0						
SONM				PKPab	sPKPab	10 52 30.6	+0.3
	comp=Z,3.9nm,0.8s,baz=343,slow=3.7,SNR=5.1						
SONM	Songino Array	159.98	4		PKPdf	10 51 52.0	+1.7
ULN	Ulaanbaatar	159.99	3	PKP	PKPdf	10 51 52.7	+2.4
CAL	Calcutta	160.94	102	*e*P	PKPdf	10 51 52.8	+0.9
KSRS	Korea Array	161.13	305	PKP	PKPdf	10 51 51.4	-0.2
	comp=Z,2.8nm,0.9s,baz=52,slow=1.0,SNR=7.2						
COBR	COOCHBEHAR	162.91	91	*e*P	PKPdf	10 51 52.9	-0.9
DL2	Dalian	164.51	319	*e*PKP	PKPdf	10 51 53.1	-1.8
DL2				*e*PKPab	PKPab	10 52 48.3	-1.4
DL2				SS	SS	11 17 03.6	-4.7
DL2				PPMZ			
	comp=Z,270nm,3.7s						
DL2				L	L		
	comp=Z,870nm,18.1s						
DL2				L	L		
	comp=Z,820nm,20.5s						
DL2				L	L		
	comp=Z,830nm,18.9s						
GUWA	GUWAHATI	164.87	92	*e*P	PKPdf	10 51 55.0	-0.6
SHL	Shillong	164.91	95	*e*P	PKPdf	10 51 54.8	-1.1
SHL				IAMs_20	IAMs_20	10 56 53.4	
	comp=Z,307nm,11.6s						
TAWA	Tawang	165.20	87	*e*P	PKPdf	10 51 54.9	-1.5
TAWA				IAMs_20	IAMs_20	10 56 56.9	
	comp=Z,240nm,14.5s						
GOMU	GeErMu	165.68	51	PKP	PKPdf	10 51 57.8	+1.3
GOMU				PP	PP	10 56 41.6	-1.0
GOMU				PPMZ			
	comp=Z,340nm,7.7s						
GOMU				L	L		
	comp=Z,340nm,16.8s						
GOMU				L	L		
	comp=Z,470nm,16.7s						
GOMU				L	L		
	comp=Z,360nm,16.2s						
GTA2	Gaotai	166.28	30	PKP	PKPdf	10 51 57.8	+1.2
GTA2				PKPab	sPKPab	10 52 58.1	-0.1
GTA2				PP	PP	10 56 44.9	+0.3
GTA2				SS	SS	11 17 29.2	+3.2
GTA2				PPMZ			
	comp=Z,490nm,8.6s						
GTA2				L	L		
	comp=Z,600nm,18.1s						
GTA2				L	L		
	comp=Z,540nm,18.4s						
GTA2				L	L		
	comp=Z,960nm,20.6s						
BJI2	Beijing	166.33	335	PKP	PKPdf	10 51 55.3	-1.1
BJI2				PPMZ			
	comp=Z,210nm,4.6s						
BJI2				L	L		
	comp=Z,260nm,18.5s						
BJI2				L	L		
	comp=Z,290nm,22.7s						
BJI2				L	L		
	comp=Z,300nm,22.7s						
HHC	Hu-ho-hao-te	166.80	350	*e*PKP	PKPdf	10 51 51.2	-5.7
HHC				PKPab	PKPab	10 52 58.6	-1.2
HHC				PP	PP	10 56 47.5	+0.7
HHC				SS	SS	11 17 28.9	-1.5
HHC				L	L		
	comp=Z,270nm,16.0s						
HHC				L	L		
	comp=Z,410nm,16.0s						
HHC				L	L		
	comp=Z,670nm,16.8s						
KOHI	KOHIMA	166.91	96	*e*P	PKPdf	10 51 56.1	-1.4
KOHI				IAmb	IAmb	10 52 06.8	
	comp=Z,13nm,0.7s						
KOHI				IAMs_20	IAMs_20	10 57 17.1	
	comp=Z,287nm,8.3s						
ZIRO	ZIRO	166.95	88	*e*P	PKPdf	10 51 56.2	-1.3
ZIRO				IAMs_20	IAMs_20	10 57 02.6	
	comp=Z,391nm,15.5s						
CMAR	Chiang Mai Arr	167.13	135	PKP	PKPdf	10 51 57.8	+0.1
	comp=Z,2.1nm,0.9s,baz=254,slow=2.1,SNR=13						
CMAR				PKPab	PKPab	10 53 01.8	+0.1
	comp=Z,3.1nm,0.8s,baz=238,slow=4.8,SNR=7.9						
CMAR	Chiang Mai Arr	167.13	135		PKPdf	10 51 59.0	+1.4
CHTO	Chiang Mai	167.39	133	P	PKPdf	10 51 58.7	+0.8
CHTO	Chiang Mai	167.39	133	PKP2	PKPab	10 53 02.9	0.0
CHTO	Chiang Mai	167.39	133		PKPab	10 53 02.9	0.0
TIA	Tai'an	168.95	321	PKP	PKPdf	10 52 00.0	+1.6
HNS	HongShan	169.17	333	⇓PKP	PKPdf	10 52 00.4	+1.9
HNS				PKPab	sPKPab	10 53 11.4	+0.6
NJ2	Nanjing	170.15	298	*e*PKP	PKPdf	10 51 58.1	-1.1
TNCH	TengChong	170.57	105	PKP	PKPdf	10 51 57.5	-2.4
TNCH				PP	PP	10 57 07.8	-0.1
TNCH				PPMZ			
	comp=Z,760nm,7.0s						
TNCH				L	L		
	comp=Z,720nm,18.9s						
LZH	Lanzhou	170.87	25	*e*PKP	PKPdf	10 51 54.9	-4.8
LZH				sPKP	sPKPdf	10 52 09.3	+8.9
LZH				PP	PP	10 57 07.3	-0.5
LZH				SS	SS	11 18 16.2	+4.5
LZH				PPMZ			
	comp=Z,460nm,5.7s						
LZH				L	L		
	comp=Z,460nm,18.0s						
LZH				L	L		
	comp=Z,860nm,19.6s						
LZH				L	L		
	comp=Z,1μm,20.3s						
QIZ	Qiongzhong	171.14	188	PKP	PKPdf	10 52 00.9	+0.8
QIZ				PP	PP	10 57 09.5	+0.9
QIZ				SS	SS	11 18 15.1	+1.7
QIZ				L	L		
	comp=Z,420nm,23.1s						
QIZ				L	L		
	comp=Z,690nm,22.5s						
QIZ				L	L		
	comp=Z,1μm,19.2s						
LYN	LuoYang	172.54	334	*e*PKP	PKPdf	10 51 57.5	-2.9
LYN				PP	PP	10 57 17.1	+1.2
LYN				SS	SS	11 18 31.7	+4.0
LYN				PPMZ			
	comp=Z,720nm,6.3s						
LYN				L	L		
	comp=Z,1μm,13.5s						
LYN				L	L		
	comp=Z,1μm,17.1s						
LYN				L	L		
	comp=Z,1μm,13.1s						
PZH	PanZhiHua	173.77	101	PKP	PKPdf	10 51 59.8	-1.5
PZH				SS	SS	11 18 40.4	-2.7
PZH				PPMZ			
	comp=Z,360nm,8.4s						
PZH				L	L		
	comp=Z,630nm,17.5s						
PZH				L	L		
	comp=Z,550nm,18.0s						
PZH				L	L		
	comp=Z,990nm,21.6s						
XAN	Xi'an	173.83	357	PKP	PKPdf	10 52 00.5	-0.5

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*IDC **01** 10:53:09.8±0.6, 62°.19S×57°.63W, $h0^{km}$, mb4.3/10, mbtmp4.2/11, ML3.3/1, Error ellipse: s-maj=23.9km s-min=14.4km az=91.0*

*NEIC **01** 10:53:10.9±1.8, 62°.29S±0°.06×58°.22W±0°.07, $h10^{km}\pm1^{km}$, mb4.5/13, Error ellipse: s-maj=11.1km s-min=4.9km az=14.0*

*GFZ **01** 10:53:14.1±0.3, 62°S±4°×5°8W±°, $h10^{km}$, M4.5/12,* *mb4.5/12, confirmed*

ISC 01 10:53:11.6±0.4,**62°.27S**±0°.06×**58°.00W**±0°.09,**h10^{km},n69,** σ**1^s.67**/60,**mb4.5**/22,**5C,South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ESPZ	Base Esperanza	1.22	158		Pn	10 53 34.1	-0.6
ESPZ					Sb	10 53 51.0	+0.5
PMSA	Palmer Station	3.70	224	Pn	Pn	10 54 08.0	-0.7
	2.0nm,0.3s,baz=48,slow=9.8,SNR=14						
PMSA				Lg	Lg	10 54 59.7	
	19nm,0.3s,baz=284,slow=9.8,SNR=6.9						
	12nm,0.6s						
PMSA				AML	AML		
PMSA	Palmer Station	3.70	224	Pn	Pn	10 54 08.0	-0.7
PMSA	Palmer Station	3.70	224	P	Pn	10 54 11.5	+2.8
ORCD	Orcadas	6.53	82	Pn	Pn	10 54 48.8	+1.3
SMAI	San Martin Ant	7.01	209	Pn	Pn	10 54 53.8	-0.4
GO08	Villa O'Higgin	16.06	323	P	P	10 57 00.2	-0.4
	comp=Z,15nm,2.1s						
BELA	Belgrano 2	17.32	164	P	P	10 57 14.3	-0.2
COYC	Coyhaique	18.60	328	P	Pn	10 57 32.2	+3.3
	comp=Z,19nm,0.9s						
VNA3	Neumayer Olymp	20.46	136	⇑P	Pn	10 57 51.8	+0.8
	comp=Z,13nm,0.8s						
VNA3	Neumayer Olymp	20.46	136	P	Pn	10 57 52.6	+1.6
	comp=Z,25nm,1.1s						
LL02	Futaleuf	20.78	330	P	Pn	10 57 54.8	-0.1
	comp=Z,13nm,0.7s						
VNA1	Neumayer--Stat	20.92	135	⇑P	Pn	10 57 58.2	+1.9
	comp=Z,8.9nm,0.8s						
VNA2	Neumayer--Watz	21.20	135	⇑P	P	10 58 00.0	+3.2
	comp=Z,7.6nm,0.7s,baz=269,slow=11						
VNA2	Neumayer--Watz	21.20	135	P	P	10 58 00.6	+3.8
	comp=Z,20nm,0.8s						
SNAA	Sanae	22.63	138	⇑P	P	10 58 15.3	+3.0
	comp=Z,154nm,0.8s						
SNAA	Sanae	22.63	138	P	P	10 58 12.2	-0.1
	comp=Z,4.3nm,0.9s,baz=277,slow=7.4,SNR=19						
	comp=Z,4.3nm,0.9s						
SNAA	Sanae	22.63	138	P	P	10 58 11.7	-0.6
SNAA				IAmb	IAmb	10 58 29.4	
	comp=Z,21nm,1.3s						
PLCA	Paso Flores	22.86	335	P	P	10 58 14.7	-0.1
	comp=Z,17nm,1.1s,baz=163,slow=9.1,SNR=14						
	comp=Z,17nm,1.1s						
PLCA	Paso Flores	22.86	335	P	P	10 58 14.9	+0.1
PLCA				IAmb	IAmb	10 58 20.1	
	comp=Z,28nm,1.2s						
PLCA	Paso Flores	22.86	335	P	P	10 58 16.5	+1.6
	comp=Z,24nm,1.2s						
LL05	Los Muermos	22.86	329	P	P	10 58 17.4	+2.7
	comp=Z,63nm,1.3s						
GO06	Curarrehue	24.15	334	P	P	10 58 27.3	-0.4
GO06	Curarrehue	24.15	334	P	P	10 58 28.9	+1.3
	comp=Z,44nm,1.1s						
TROLL	Troll, Antarti	24.27	139	⇑P	P	10 58 31.9	+3.4
	comp=Z,190nm,0.9s						
BI02	San Fabin de	26.93	336	P	P	10 58 56.1	+3.3
	comp=Z,13nm,2.0s						
ML02	Panimavida	27.83	336	P	P	10 58 59.0	-1.9
ML02				IAmb	IAmb	10 59 18.5	
	comp=Z,18nm,0.9s						
QSPA	South Pole Qui	27.96	180	P	P	10 59 04.0	+2.1
	comp=Z,2.7nm,0.8s,baz=159,slow=1.5,SNR=16						
	comp=Z,2.7nm,0.8s						
QSPA	South Pole Qui	27.96	180	P	P	10 58 59.1	-2.8
QSPA				IAmb	IAmb	10 59 21.1	
	comp=Z,7.6nm,1.0s						
GO05	Hualane	28.66	336	P	P	10 59 11.3	+3.0
	comp=Z,23nm,1.3s						
MT13	San Alfonso	29.60	339	P	P	10 59 14.9	-1.8
AC04	Llanos de Chal	35.15	340	P	P	11 00 06.0	+0.9
	comp=Z,44nm,1.0s						
CPUP	Villa Florida	35.94	1	P	P	11 00 12.3	+0.4
	comp=Z,2.3nm,0.7s,baz=170,slow=1.3,SNR=5.1						
	comp=Z,2.3nm,0.7s						
SALTA		38.45	348	P	P	11 00 34.8	+0.9
	comp=Z,5.6nm,1.3s						
MAW	Mawson	43.58	152	P	P	11 01 16.5	+1.5
	comp=Z,3.4nm,0.9s,baz=250,slow=12,SNR=5.3						
MAW				PcP	PcP	11 03 01.3	-1.0
	comp=Z,1.9nm,0.9s,baz=146,slow=3.6,SNR=1.6						
	comp=Z,3.4nm,0.9s						
MAW	Mawson	43.58	152	P	P	11 01 15.8	+0.7
LPAZ	La Paz	46.48	347	P	P	11 01 40.5	+1.1
	comp=Z,1.0nm,0.3s,baz=203,slow=7.7,SNR=9.0						
	comp=Z,1.0nm,0.3s						
LPAZ	La Paz	46.48	347	P	P	11 01 38.8	-0.5
LPAZ				IAmb	IAmb	11 02 08.9	
	comp=Z,4.9nm,1.3s						
BDFB	Brasilia	47.10	13	P	P	11 01 43.3	-0.3
	comp=Z,3.6nm,0.8s,baz=136,slow=4.7,SNR=4.1						
	comp=Z,3.6nm,0.8s						
BDFB	Brasilia	47.10	13	P	P	11 01 43.5	-0.2
CLDB	Colider	51.33	3	P	P	11 02 15.2	-0.7
	comp=Z,6.2nm,2.7s						
CASY	Casey	51.48	174	P	P	11 02 15.4	-1.0
CASY				IAmb	IAmb	11 02 28.9	
	comp=Z,4.2nm,1.1s						
CASY	Casey	51.48	174	P	P	11 02 18.5	+2.1
H10S2	ASCENSION HYDR	61.78	50	T	T	12 10 43.8	
	baz=202,slow=74,SNR=4.9						
H10S3	ASCENSION HYDR	61.78	50	T	T	12 10 46.6	
	baz=18,slow=74,SNR=4.3						
H10N3	ASCENSION HYDR	62.87	50	T	T	12 12 03.0	
	baz=202,slow=75,SNR=21						
H10N1	ASCENSION HYDR	62.87	50	T	T	12 12 05.2	
	baz=202,slow=75,SNR=25						
H10N2	ASCENSION HYDR	62.89	50	T	T	12 12 06.3	
	baz=202,slow=75,SNR=22						
OTAV	Otavalo	64.24	337	P	P	11 03 48.2	+1.1
	comp=Z,6.1nm,1.5s						
MTO3	Montecristo	80.29	329	P	P	11 05 21.6	-1.0
MTO3				IAmb	IAmb	11 05 22.6	
	comp=Z,6.0nm,0.9s						
TORD	Torodi Ar. Bea	88.27	57	P	P	11 06 00.5	-2.4
	comp=Z,0.8nm,1.0s,baz=214,slow=6.2,SNR=4.0						
	comp=Z,0.8nm,1.0s						
QLP	Quilpie	89.68	200	P	P	11 06 09.9	+0.3
	comp=Z,27nm,1.0s						
ASAR	Alice Springs	93.84	191	P	P	11 06 28.2	-0.7
	comp=Z,1.5nm,1.0s,baz=174,slow=2.7,SNR=5.7						
	comp=Z,1.5nm,1.0s						
ASAR	Alice Springs	93.84	191	P	P	11 06 27.8	-1.2
WRA	Warramunga Arr	97.48	192	P	P	11 06 44.2	-1.3
	comp=Z,1.1nm,0.8s,baz=177,slow=4.2,SNR=7.9						
	comp=Z,1.1nm,0.8s						
WRA	Warramunga Arr	97.48	192	P	P	11 06 44.5	-1.1
GERES	GERESS Array B	124.51	50	PKP	PKPdf	11 12 08.9	-1.0
	comp=Z,0.6nm,0.5s,baz=260,slow=2.4,SNR=3.6						
ILAR	Eielson Array	142.62	315	PKhKP	PKPpre	11 12 38.6	
	comp=Z,0.2nm,0.5s,baz=173,slow=1.7,SNR=5.7						
KSH2	Kashi	143.74	108	PKP	PKPbc	11 12 44.2	+0.5
ARCES	ARCESS Array B	143.97	36	PKP	PKPab	11 12 42.4	-0.4
	comp=Z,5.8nm,0.8s,baz=297,slow=0.3,SNR=9.3						
SPITS	Spitsbergen Ar	147.02	21	PKPbc	PKPdf	11 12 48.9	-1.5
	comp=Z,8.5nm,1.0s,baz=245,slow=3.0,SNR=1.8						
LZDM	Lanzhou Array	151.28	148	PKPbc	PKPbc	11 13 03.4	-1.5
	comp=Z,1.3nm,0.3s,baz=232,slow=6.8,SNR=3.8						
LZH	Lanzhou	151.44	148	*e*P	PKPbc	11 13 03.4	-1.6
LZH				pP	PKPab	11 13 11.9	-1.5
LZH				pmax	pmax		
	comp=Z,16nm,1.5s						
BVAR	Borovoye Array	151.62	85	PKPbc	PKPbc	11 13 04.2	-0.5
	comp=Z,5.9nm,0.8s,baz=236,slow=1.6,SNR=17						
MJAR	Matsushiro Arr	152.34	209	PKPbc	PKPbc	11 13 05.0	-1.9
	comp=Z,0.9nm,0.6s,baz=164,slow=3.4,SNR=2.6						
MKAR	Makanchi Array	152.80	106	PKPbc	PKPbc	11 13 07.0	-0.5
	comp=Z,1.6nm,0.8s,baz=247,slow=2.5,SNR=11						
GTA2	Gaotai	153.49	139	P	PKiKP	11 13 10.2	+0.6
GTA2				sP	PKPab	11 13 22.3	+0.4
GTA2				pmax	pmax		
	comp=Z,9.0nm,0.9s						
KURBB	Kurchatov Arra	153.84	96	PKPbc	PKPbc	11 13 08.8	-0.9
	comp=Z,0.9nm,0.8s,baz=229,slow=2.9,SNR=8.2						
SONM	Songino Array	163.07	141	PKPab	PKPab	11 14 03.6	+0.5
	comp=Z,0.5nm,0.4s,baz=186,slow=4.2,SNR=5.9						

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*NEIC **01** 10:56:19.1±1.7,62°.40S±0°.04×58°.21W±0°.08,h10^{km}±2^{km}, mb5.3/55,Mww5.3/12,Error ellipse: s-maj=6.8km s-min=5.9km az=321.0*

*NEIC **01** 10:56:19.4,62°.51S×57°.56W,h18^{km},Moment Tensor Solution. Duration: 2^{s}1 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-1.35; M$_{\theta\theta}$0.80; M$_{\phi\phi}$0.55; M$_{r\theta}$-0.78; M$_{\theta\phi}$7.59; M$_{\phi r}$-5.72; Fault plane solution: M$_0$9.61000×10^{16} NP1: φ$_s$270.33000°,δ51.97000°,λ-4.96000°. NP2:φ$_s$3.39000°, δ86.09000°,λ-141.87000°. Principal axes: T 10.1985, Plg23.0000°, Azm130.0000°; N -1.3038, Plg52.0000°, Azm8.0000°; P -8.8947, Plg29.0000°, Azm234.0000°;*

*NEIC **01** 10:56:19,62°.41S×58°.21W,h10^{km}*

*IDC **01** 10:56:20.1±0.4,62°.26S×57°.92W,h0^{km},mb4.7/14, mbtmp4.7/16,ML4.1/2,MS4.5/25,Error ellipse: s-maj=18.9km s-min=12.5km az=81.0*

*GCMT **01** 10:56:22.2±0.2,62°.33S±0°.01×58°.09W±0°.03,h18^{km}±1^{km}, MW5.2/127,Moment Tensor Solution. s34,c42; s127,c180; Duration: 1^{s}0 Moment tensor: Scale 10^{16} Nm; M$_{rr}$-1.49±.31; M$_{\theta\theta}$1.94±.25; M$_{\phi\phi}$-0.45±.28; M$_{r\theta}$0.25±.59; M$_{\theta\phi}$8.03±.20; M$_{\phi r}$-1.21±.59; Best double couple: M$_0$8.23200×10^{16} NP1:φ$_s$274.00000°,δ80.00000°, λ-5.00000°. NP2:φ$_s$5.00000°,δ85.00000°,λ-170.00000°. Principal axes: T 8.8980, Plg3.0000°, Azm139.0000°; N -1.3320, Plg79.0000°, Azm31.0000°; P -7.5660, Plg10.0000°, Azm230.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*GFZ **01** 10:56:22.7±0.2,62°S±4°×5°8W±°,h10^{km},M5.2/23, mb5.2/23*

*BJI **01** 10:56:23.0,62°.40S×58°.40W,h10^{km},mB5.2/3,Ms5.7/11, Ms7 5.5/12*

ISC 01 10:56:20.3±0.3,**62°.33S**±0°.05×**58°.13W**±0°.07,**h10^{km},n216,** σ**1^s.65**/188,**mb5.2**/50,**MS4.6**/29,**5C-1D,South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ESPZ	Base Esperanza	1.20	155		Pn	10 56 40.4	-2.7
PMSA	Palmer Station	3.61	225	Pn	Pn	10 57 15.4	-0.9
	14nm,0.3s,baz=42,slow=9.2,SNR=8.7						
PMSA				Lg	Lg	10 58 06.1	
	47nm,0.3s,baz=314,slow=12,SNR=3.7						
PMSA				LR	LR	10 58 33.6	
	comp=Z,8μm,21.8s,baz=2.5,slow=36						
	85nm,0.5s						
PMSA				AML	AML		
PMSA	Palmer Station	3.61	225		Pn	10 57 14.3	-1.9
PMSA	Palmer Station	3.61	225	*e*P	Pn	10 57 14.4	-1.9
PMSA	Palmer Station	3.61	225	P	Pn	10 57 16.1	-0.1
ORCD	Orcadas	6.60	82	Pn	Pn	10 57 55.9	-1.3
SMAI	San Martin Ant	6.94	209	Pn	Pn	10 57 59.8	-2.0
USHA	Ushuaia	9.23	320	Pn	Pn	10 58 31.9	-1.5
	1.8nm,0.3s,baz=212,slow=0.9,SNR=2.2						
USHA				LR	LR	11 01 29.0	
	comp=Z,4μm,18.6s,baz=128,slow=33						
	24nm,0.6s						
USHA				AML	AML		
EFI	East Falkland	10.68	0	Pn	Pn	10 58 53.6	+0.4
GO10	Punta Arenas	11.47	317	Pn	Pn	10 59 04.3	+0.3
GO08	Villa O'Higgin	16.07	323	Pn	Pn	11 00 05.8	-0.3
GO08	Villa O'Higgin	16.07	323	P	P	11 00 08.6	-0.8
	comp=Z,88nm,1.0s						
BELA	Belgrano 2	17.29	164	P	Pn	11 00 20.2	-1.1
COYC	Coyhaique	18.61	328		P	11 00 36.3	-1.3
COYC	Coyhaique	18.61	328	P	Pn	11 00 40.3	+2.5
	comp=Z,124nm,1.0s						
VNA3	Neumayer Olymp	20.46	136	⇑P	Pn	11 00 59.4	-0.3
	comp=Z,40nm,0.7s						
VNA3	Neumayer Olymp	20.46	136	P	Pn	11 01 00.4	+0.6
	comp=Z,96nm,0.9s						
LL02	Futaleuf	20.80	331		P	11 01 00.3	-1.1
LL02				IAmb	IAmb	11 01 07.1	
	comp=Z,308nm,1.7s						
LL02	Futaleuf	20.80	331	P	Pn	11 01 05.2	+1.3
	comp=Z,105nm,1.4s						
VNA1	Neumayer--Stat	20.93	134	⇑P	Pn	11 01 05.2	+0.1
	comp=Z,60nm,0.9s						
VNA2	Neumayer--Watz	21.20	135	⇑P	P	11 01 07.6	+2.0
	comp=Z,30nm,0.8s,baz=272,slow=11						
VNA2	Neumayer--Watz	21.20	135	P	P	11 01 07.2	+1.6
	comp=Z,65nm,0.9s						
GO07	Milladeo Hill,	21.31	327	P	P	11 01 06.1	-0.8
GO07				IAmb	IAmb	11 01 10.7	
	comp=Z,120nm,0.9s						
GO07	Milladeo Hill,	21.31	327	P	P	11 01 09.7	+2.7
	comp=Z,137nm,0.9s						
LL07	Hotel Espejo d	21.53	328	P	P	11 01 08.3	-1.0
SNAA	Sanae	22.63	137	⇑P	P	11 01 22.4	+1.4
	comp=Z,1μm,0.9s						
SNAA	Sanae	22.63	137	P	P	11 01 22.8	+1.8
	comp=Z,52nm,0.9s,baz=265,slow=9.7,SNR=40						
SNAA				LR	LR	11 08 10.2	
	comp=Z,4μm,19.6s,baz=286,slow=31						
	comp=Z,52nm,0.9s						
SNAA	Sanae	22.63	137		P	11 01 21.2	+0.2
SNAA				IAmb	IAmb	11 01 26.0	
	comp=Z,120nm,1.1s						
LL05	Los Muermos	22.87	329	P	P	11 01 22.6	-1.0
LL05	Los Muermos	22.87	329	P	P	11 01 25.8	+2.1
	comp=Z,305nm,1.2s						
LL03	Petrohue	22.88	331	P	P	11 01 22.3	-1.5
LL03				IAmb	IAmb	11 01 36.6	
	comp=Z,74nm,0.9s						
LL03	Petrohue	22.88	331	P	P	11 01 27.3	+3.6
	comp=Z,83nm,0.8s						
PLCA	Paso Flores	22.88	335	P	P	11 01 24.9	+1.1
	comp=Z,56nm,1.0s,baz=169,slow=7.9,SNR=25						
PLCA				LR	LR	11 09 51.8	
	comp=Z,1μm,19.0s,baz=160,slow=36						
	comp=Z,56nm,1.0s						
PLCA	Paso Flores	22.88	335	P	P	11 01 23.0	-0.8
PLCA				IAmb	IAmb	11 01 29.8	
	comp=Z,110nm,1.2s						
PLCA	Paso Flores	22.88	335	*e*P	P	11 01 24.1	+0.2
PLCA	Paso Flores	22.88	335	P	P	11 01 25.2	+1.3
	comp=Z,84nm,1.2s						
GO06	Curarrehue	24.17	334		P	11 01 36.3	-0.3
GO06	Curarrehue	24.17	334	P	P	11 01 37.1	+0.5
	comp=Z,180nm,1.2s						
TROLL	Troll, Antarti	24.27	139	⇑P	P	11 01 39.3	+2.0
	comp=Z,1μm,1.0s						
LR03	Panguipulli	24.31	333	P	P	11 01 35.6	-2.1
LR03				IAmb	IAmb	11 01 41.9	
	comp=Z,62nm,0.9s						
BI02	San Fabin de	26.96	336	P	P	11 02 01.6	-0.2
BI02				IAmb	IAmb	11 02 10.3	
	comp=Z,46nm,0.9s						
BI02	San Fabin de	26.96	336	P	P	11 02 04.5	+2.6
	comp=Z,57nm,1.5s						
BI05	Punta Hualpn	27.26	333	P	P	11 02 03.7	-0.7
BI05				IAmb	IAmb	11 02 11.9	
	comp=Z,86nm,1.1s						
ML02	Panimavida	27.86	336	P	P	11 02 07.4	-2.4
ML02				IAmb	IAmb	11 02 14.3	
	comp=Z,106nm,1.1s						
ML02	Panimavida	27.86	336	P	P	11 02 12.5	+2.7
	comp=Z,77nm,1.0s						
QSPA	South Pole Qui	27.90	180	P	P	11 02 12.1	+1.9
	comp=Z,7.7nm,0.8s,baz=178,slow=2.2,SNR=14						
	comp=Z,7.7nm,0.8s						
QSPA	South Pole Qui	27.90	180	P	P	11 02 08.5	-1.7
QSPA				IAmb	IAmb	11 02 17.8	
	comp=Z,56nm,1.3s						
GO05	Hualane	28.69	336	P	P	11 02 16.6	-0.7
GO05	Hualane	28.69	336	P	P	11 02 20.2	+3.0
	comp=Z,147nm,1.1s						
BO02	Sierra Bellavi	28.69	338	P	P	11 02 17.3	0.0
BO02				IAmb	IAmb	11 02 26.3	
	comp=Z,62nm,0.9s						
BO02	Sierra Bellavi	28.69	338	P	P	11 02 20.0	+2.7
	comp=Z,69nm,1.0s						
BO01	Tunca	29.13	338	P	P	11 02 21.7	+0.6
BO01				IAmb	IAmb	11 02 29.8	
	comp=Z,89nm,1.2s						
BO01	Tunca	29.13	338	P	P	11 02 21.6	+0.4
	comp=Z,60nm,1.5s						
BO03	Pichilemu	29.19	336	P	P	11 02 24.4	+2.7
	comp=Z,59nm,1.1s						
BO04	La Punta	29.44	339	P	P	11 02 22.9	-1.1
BO04				IAmb	IAmb	11 02 28.5	
	comp=Z,53nm,0.9s						
MT09	Talagante	29.71	338	P	P	11 02 25.1	-1.4
MT08	Bocatoma Ro	29.88	340		P	11 02 26.8	-1.3
MT03	Universidad Ad	29.91	339	P	P	11 02 28.1	-0.1
MT03				IAmb	IAmb	11 02 37.1	
	comp=Z,83nm,0.9s						
MT16	CCHEN	29.98	339	P	P	11 02 27.9	-0.8
MT05	Renca	30.05	339	P	P	11 02 27.1	-2.3
MT02	Curacav	30.25	338	P	P	11 02 31.0	0.0
PEL	Peldehue	30.28	339		P	11 02 30.7	-0.7
PEL	Peldehue	30.28	339	P	P	11 02 34.3	+2.9
	comp=Z,101nm,1.1s						
ELIB	Princess Elisa	30.48	143	*d*P	P	11 02 34.9	+1.9
	comp=Z,6.4nm,1.1s						
VA03	San Esteban	30.63	339	P	P	11 02 35.9	+1.4
VA03	San Esteban	30.63	339	P	P	11 02 38.8	+4.2
	comp=Z,173nm,1.1s						
PSAL	Palomas, Salto	31.26	1	*e*P	P	11 02 40.5	+0.6
CFA	Coronel Fontan	31.42	343	LR	LR	11 14 44.4	
	comp=Z,701nm,19.2s,baz=202,slow=35						
LCO	Las Campanas	34.33	340	P	P	11 03 06.5	-0.7
LCO				IAmb	IAmb	11 03 11.8	
	comp=Z,58nm,0.8s						
AC04	Llanos de Chal	35.18	340	P	P	11 03 13.2	-1.0
CPUP	Villa Florida	35.99	1	P	P	11 03 20.9	-0.2
	comp=Z,4.5nm,0.8s,baz=176,slow=8.9,SNR=8.3						
CPUP				LR	LR	11 19 06.2	
	comp=Z,678nm,19.4s,baz=168,slow=38						
	comp=Z,4.5nm,0.8s						
CPUP	Villa Florida	35.99	1		P	11 03 19.7	-1.5
CPUP	Villa Florida	35.99	1	P	P	11 03 22.5	+1.3
	comp=Z,15nm,1.0s						
AC02	Maricunga	36.23	343	P	P	11 03 23.3	-0.5
AC02				IAmb	IAmb	11 03 37.4	
	comp=Z,86nm,1.3s						
SJPY	San Joaquin	37.34	3	*e*P	P	11 03 33.6	+0.9
SBA	Scott Base	37.42	194		P	11 03 29.1	-3.7
SBA				IAmb	IAmb	11 04 05.5	
	comp=Z,73nm,1.9s						
SALTA		38.49	348	P	P	11 03 47.0	+4.0
	comp=Z,22nm,1.3s						
MURT	Porto Murtinho	40.64	1	*e*P	P	11 03 57.4	-2.9
AQDB	Aquidauana	41.85	3	P	P	11 04 09.1	-1.1
AQDB	Aquidauana	41.85	3	*e*P	P	11 04 10.9	+0.7
AQDB	Aquidauana	41.85	3	P	P	11 04 11.8	+1.5
	comp=Z,15nm,2.2s						
BDQN	Bodoquena, MS	41.85	2	*e*P	P	11 04 10.1	-0.2
COIM	Forte Coimbra	42.38	0	*e*P	P	11 04 14.0	-0.6
GO01	Chusmiza	43.31	345	P	P	11 04 21.6	-1.1
GO01				IAmb	IAmb	11 04 35.7	
	comp=Z,51nm,1.3s						
GO01	Chusmiza	43.31	345	P	P	11 04 25.9	+3.2
	comp=Z,36nm,1.4s						
MAW	Mawson	43.56	152	P	P	11 04 26.7	+3.1
	comp=Z,3.7nm,1.2s						
MAW	Mawson	43.56	152	P	P	11 04 24.6	+1.0
	comp=Z,5.4nm,0.8s,baz=244,slow=7.0,SNR=8.2						
MAW				PcP	PcP	11 06 13.4	+2.5
	comp=Z,6.3nm,0.8s,baz=222,slow=6.7,SNR=4.7						
	comp=Z,5.4nm,0.8s						
MAW	Mawson	43.56	152	P	P	11 04 23.3	-0.3
MAW	Mawson	43.56	152	P	P	11 04 26.1	+2.5
	comp=Z,3.7nm,1.2s						
PB12	IPOC Station P	44.49	343		P	11 04 31.3	-0.4
PB12				IAmb	IAmb	11 04 44.4	
	comp=Z,133nm,1.7s						
PB12	IPOC Station P	44.49	343	P	P	11 04 36.4	+4.6
	comp=Z,47nm,1.4s						
PB16	IPOC Station P	44.66	345		P	11 04 33.0	-0.7
PB16				IAmb	IAmb	11 04 46.5	
	comp=Z,45nm,1.3s						
PB16	IPOC Station P	44.66	345	P	P	11 04 37.2	+3.6
	comp=Z,26nm,1.2s						
PP1B	Ponte de Pedra	44.73	4	*e*P	P	11 04 34.1	+0.5
IPMB	Ipameri, GO	44.84	13	*e*P	P	11 04 34.6	+0.1
BSFB	Barra de Sao F	45.09	23	P	P	11 04 43.0	+6.5
	comp=Z,28nm,1.3s						
DIAM	Diamantina, MG	45.13	20	*e*P	P	11 04 36.5	-0.5
PB18	Visviri	45.39	345	P	P	11 04 38.3	-1.2
SIV	San Ignacio	46.32	356	LR	LR	11 25 32.7	
	comp=Z,1μm,18.1s,baz=182,slow=38						
LPAZ	La Paz	46.52	347	P	P	11 04 49.3	+0.9
	comp=Z,4.4nm,0.8s,baz=138,slow=7.9,SNR=9.2						
LPAZ				LR	LR	11 26 19.7	
	comp=Z,627nm,19.2s,baz=160,slow=39						
	comp=Z,4.4nm,0.8s						
LPAZ	La Paz	46.52	347	P	P	11 04 46.7	-1.7
ARAG	Araguaiana, MT	46.77	8	*e*P	P	11 04 49.7	0.0
PTLB	Pontes e Lacer	46.82	359		P	11 04 48.7	-1.4
PTLB	Pontes e Lacer	46.82	359	*e*P	P	11 04 50.4	+0.4
BDFB	Brasilia	47.17	13	P	P	11 04 53.5	+0.5
	comp=Z,18nm,0.9s,baz=176,slow=3.5,SNR=11						
BDFB				LR	LR	11 22 54.9	
	comp=Z,510nm,21.5s,baz=161,slow=34						
	comp=Z,18nm,0.9s						
BDFB	Brasilia	47.17	13	P	P	11 04 51.7	-1.3
BDFB				IAmb	IAmb	11 04 57.1	
	comp=Z,18nm,0.9s						
GUA01	Guaratinga, BA	47.48	24	*e*P	P	11 04 55.2	0.0
JANB	Januaria	48.22	18	*e*P	P	11 05 00.6	-0.4
RPN	Rapa Nui	48.56	292	LR	LR	11 20 04.1	
	comp=Z,440nm,19.9s,baz=135,slow=29						
CMC01	Camacan, BA	48.73	24	*e*P	P	11 05 05.9	+1.1
VILB	Vilhena	49.32	357	P	P	11 05 07.6	-1.8
VILB				IAmb	IAmb	11 05 23.5	
	comp=Z,24nm,0.8s						
VILB	Vilhena	49.32	357	*e*P	P	11 05 08.0	-1.4
SDBA	SAO DESIDERIO	50.74	17	*e*P	P	11 05 19.1	-1.1
CLDB	Colider	51.39	3	*e*P	P	11 05 22.9	-2.2
CLDB	Colider	51.39	3	P	P	11 05 24.7	-0.4
	comp=Z,22nm,1.1s						
CASY	Casey	51.43	174		P	11 05 22.9	-1.9
NNA	Nana	52.03	337	LR	LR	11 25 55.0	
	comp=Z,334nm,18.2s,baz=134,slow=34						
SMTB	Santa Maria do	53.92	13	*e*P	P	11 05 44.2	+0.4
CZSB	Cruzeiro do Su	55.53	342	P	P	11 05 53.6	-1.8
CZSB				IAmb	IAmb	11 06 04.1	
	comp=Z,40nm,1.0s						
CZSB	Cruzeiro do Su	55.53	342	*e*P	P	11 05 55.6	+0.1
SUR	Sutherland	56.83	97	LR	LR	11 24 38.7	
	comp=Z,788nm,21.2s,baz=208,slow=30						
ATAH	Atahualpa	57.06	336	LR	LR	11 28 11.6	
	comp=Z,246nm,18.5s,baz=128,slow=34						
ITTB	Itaituba	57.86	3	*e*P	P	11 06 11.5	-0.5
NBPS	Pedro II - PI	59.12	19	*e*P	P	11 06 21.8	+0.9
H10S2	ASCENSION HYDR	61.87	50	T	T	12 13 51.4	
	baz=18,slow=74,SNR=24						
H10S3	ASCENSION HYDR	61.87	50	T	T	12 13 51.0	
	baz=202,slow=74,SNR=27						
BOSA	Boshof	62.06	99	P	P	11 06 41.6	+0.7
	comp=Z,7.2nm,1.0s,baz=242,slow=7.0,SNR=5.1						
	comp=Z,7.2nm,1.0s						
BOSA	Boshof	62.06	99	P	P	11 06 39.3	-1.7
BOSA				IAmb	IAmb	11 06 56.2	
	comp=Z,70nm,1.8s						
H10N3	ASCENSION HYDR	62.95	50	T	T	12 15 11.0	
	baz=202,slow=75,SNR=90						
H10N1	ASCENSION HYDR	62.96	50	T	T	12 15 11.4	
	baz=202,slow=75,SNR=63						
H10N2	ASCENSION HYDR	62.97	50	T	T	12 15 12.4	
	baz=202,slow=75,SNR=71						
OTAV	Otavalo	64.27	337	P	P	11 06 54.0	-2.0
OTAV				IAmb	IAmb	11 07 12.7	
	comp=Z,52nm,1.6s						
OTAV	Otavalo	64.27	337	*e*P	P	11 06 55.6	-0.4
OTAV	Otavalo	64.27	337	P	P	11 06 57.0	+0.9
	comp=Z,18nm,1.2s						
BOAV	Boa Vista	64.57	357	P	P	11 06 55.8	-1.7
BOAV				IAmb	IAmb	11 07 06.5	
	comp=Z,25nm,1.7s						
LBTB	Lobatse	65.28	97	LR	LR	11 30 48.6	
	comp=Z,628nm,18.1s,baz=220,slow=32						
LBTB	Lobatse	65.28	97	P	P	11 07 01.6	-0.6
LBTB				IAmb	IAmb	11 07 24.7	
	comp=Z,28nm,1.2s						
TSUM	Tsumeb	66.55	87	P	P	11 07 09.1	-1.4
RPZ	Rata Peaks	67.19	217	LR	LR	11 33 10.1	
	comp=Z,71nm,19.2s,baz=144,slow=33						
ROSC	El Rosal	68.12	343	P	P	11 07 21.9	+1.3
	comp=Z,8.7nm,0.5s,baz=167,slow=15,SNR=3.7						
ROSC				LR	LR	11 40 16.7	
	comp=Z,504nm,19.6s,baz=223,slow=39						
	comp=Z,8.7nm,0.5s						
ROSC	El Rosal	68.12	343	IAmb	IAmb	11 07 56.1	
	comp=Z,12nm,0.8s						
URZ	Urewera	70.38	223	LR	LR	11 34 07.2	
	comp=Z,351nm,19.5s,baz=172,slow=32						
SDV	Santo Domingo	71.66	347	LR	LR	11 41 44.2	
	comp=Z,314nm,18.2s,baz=166,slow=38						
LSZ	Lusaka	74.90	94		P	11 08 01.9	+0.6
PPT2	Papeete2	75.26	260	*e*LR	LR	11 30 59.3	
	comp=Z,308nm,22.8s						
PPT2				*e*LR	LR	11 31 06.9	
	comp=Z,302nm,25.2s						
PPT	Papeete	75.28	260	P	P	11 08 06.2	+2.8

	comp=Z,18nm,0.6s,baz=70,slow=18,SNR=1.3						
	comp=Z,18nm,0.6s						
DBIC	Dimbokro	79.90	54	LR	LR	11 36 21.6	
	comp=Z,354nm,20.6s,baz=184,slow=30						
MTO3	Montecristo	80.31	329		P	11 08 30.2	-1.2
SJG	San Juan	80.42	352	LR	LR	11 45 40.9	
	comp=Z,301nm,21.2s,baz=166,slow=37						
APG	El Apazote	81.16	328	LR	LR	11 37 16.1	
	comp=Z,19nm,19.0s,baz=16,slow=30						
HTT	Hallett	83.59	194	P	P	11 08 51.1	+2.6
	comp=Z,12nm,2.1s						
CMIG	Matias Romero	84.29	325	LR	LR	11 38 09.9	
	comp=Z,273nm,21.9s,baz=164,slow=30						
CMSA	Cobar Meteorol	84.52	200	P	P	11 08 54.9	+1.7
	comp=Z,11nm,2.7s						
STKA	Stephens Creek	84.79	197	P	P	11 08 56.5	+1.9
	comp=Z,4.3nm,0.9s,baz=246,slow=4.1,SNR=4.3						
	comp=Z,4.3nm,0.9s						
TORD	Torodi Ar. Bea	88.35	57	P	P	11 09 12.3	+0.3
	comp=Z,2.4nm,1.1s,baz=233,slow=2.8,SNR=5.2						
	comp=Z,2.4nm,1.1s						
MSVF	Nonsavu	88.85	232	LR	LR	11 45 37.8	
	comp=Z,159nm,18.2s,baz=155,slow=33						
INKA	Innaminka	88.98	197		P	11 09 13.5	-1.5
INKA				IAmb	IAmb	11 09 21.2	
	comp=Z,14nm,1.1s						
QLP	Quilpie	89.60	200	P	P	11 09 20.7	+2.7
	comp=Z,39nm,1.0s						
ASAR	Alice Springs	93.77	191	P	P	11 09 37.4	+0.1
	comp=Z,3.8nm,1.0s,baz=169,slow=5.0,SNR=14						
	comp=Z,3.8nm,1.0s						
LPIG	La Paz	95.59	314	LR	LR	11 43 44.1	
	comp=Z,158nm,20.9s,baz=159,slow=30						
WRA	Warramunga Arr	97.42	192	P	P	11 09 54.4	+0.4
	comp=Z,1.6nm,0.8s,baz=177,slow=4.2,SNR=9.4						
	comp=Z,1.6nm,0.8s						
TXAR	Lajitas Array	98.36	321	LR	LR	11 46 59.3	
	comp=Z,74nm,18.2s,baz=118,slow=31						
TKL	Tuckaleechee C	99.81	339	LR	LR	11 59 14.6	
	comp=Z,108nm,19.8s,baz=152,slow=38						
GERES	GERESS Array B	124.59	50	PKP	PKPdf	11 15 19.0	+0.3
	comp=Z,1.4nm,0.7s,baz=222,slow=1.8,SNR=10						
BRTR	Keskin Array B	125.03	70	PKP	PKiKP	11 15 20.8	+0.4
	comp=Z,1.0nm,0.9s,baz=192,slow=3.7,SNR=4.1						
MODS	Modra-Piesok	125.49	52	*e*PKP	PKiKP	11 15 21.5	+0.7
HYB	Hyderabad	125.97	126	*e*PKiKP	PKPdf	11 15 21.7	-0.6
HYB				*e*SKKSac	SKKSac	11 24 11.5	-2.2
VOIR		126.08	60	PKP	PKPdf	11 15 20.7	-1.0
VYHS	Vyhne	126.17	53	*e*PKP	PKiKP	11 15 23.3	+1.2
CLL	Collm	126.41	48	PKP	PKPdf	11 15 21.2	-0.8
CLL	Collm	126.41	48	*i* PKPdf	PKiKP	11 15 23.4	+0.9
	comp=Z,4.0nm,0.7s						
KMPD	K-Podol'skiy	129.18	59	PKP	PKPdf	11 15 26.5	-0.9
YKA	Yellowknife Ar	131.57	329	PKP	PKiKP	11 15 33.0	+0.6
	comp=Z,0.6nm,0.5s,baz=164,slow=2.0,SNR=5.4						
AKASG	Malin Array Be	131.97	59	PKP	PKPdf	11 15 33.2	+0.7
	comp=Z,0.2nm,0.3s,baz=258,slow=1.2,SNR=4.6						
CMAR	Chiang Mai Arr	133.35	149	PKP	PKiKP	11 15 37.7	+0.2
	comp=Z,1.6nm,0.7s,baz=217,slow=3.5,SNR=6.5						
NOA	NORSAR Array B	133.82	39	PKP	PKiKP	11 15 36.9	-0.2
	comp=Z,0.7nm,0.8s,baz=225,slow=1.3,SNR=3.3						
QIZ	Qiongzhong	135.94	164	PKP	PKPdf	11 15 42.2	+1.1
QIZ				SS	SS	11 36 22.5	+4.5
QIZ				L	L		
	comp=Z,380nm,11.8s						
QIZ				L	L		
	comp=Z,470nm,17.9s						
QIZ				L	L		
	comp=Z,1µm,19.6s						
PZH	PanZhiHua	141.75	150	PKP	PKPdf	11 15 52.3	+0.6
ILAR	Eielson Array	142.62	315	PKP	PKPdf	11 15 50.5	-1.3
	comp=Z,1.5nm,1.0s,baz=173,slow=3.1,SNR=9.6						
CHM	Chimkent	143.62	99	*e*PKP	PKPdf	11 15 53.7	-0.7
IUG	Iuzhnay	143.68	99	*e*PKP	PKPdf	11 15 53.8	-0.8
KSH2	Kashi	143.79	108	PKP	PKPdf	11 15 54.6	-0.3
ARCES	ARCESS Array B	144.06	37	PKP	PKPbc	11 15 52.8	+0.5
	comp=Z,15nm,0.8s,baz=236,slow=2.2,SNR=21						
ARCES	ARCESS Array B	144.06	37		PKPab	11 15 51.9	+0.1
BRLS	Borolday	144.28	98	*e*PKP	PKPbc	11 15 54.4	+0.5
BRLS				*e*PP	PP	11 19 08.7	-2.6
ABKAR	Akbulak array	144.29	82	PKPdf	PKPab	11 15 51.1	-2.1
L18K	Granite Mounta	144.47	307	PKPdf	PKPbc	11 15 54.1	+0.3
KK31	Karatay Array	144.65	99	PKPdf	PKPab	11 15 54.0	-0.8
KKAR	Karatay Array	144.65	99	PKPdf	PKPab	11 15 54.2	-0.6
DZA	Taraz	144.86	100	*e*PKP	PKPab	11 15 55.8	+0.1
J19K	Poorman	145.14	310		PKPbc	11 15 53.8	-2.0
E24K	Your Creek	145.15	319		PKPbc	11 15 55.4	-0.5
AAA	Alma-Ata	147.66	105	*e*PKP	PKPdf	11 16 00.4	-0.9
MDOK	Medeo	147.68	105	*e*PKP	PKPdf	11 16 00.4	-1.0
MDOK				*e*PP	PP	11 19 30.4	-1.2
KUU	Kurty	147.93	104	*e*PKP	PKPdf	11 16 00.9	-0.7
SATY	Saty	148.21	107	*e*PKP	PKPdf	11 16 01.4	-0.9
UZB	Uzynbulak	148.55	107	*e*PKP	PKPdf	11 16 01.9	-1.0
KPKS	Kokpek	148.65	107	*e*PKP	PKPdf	11 16 02.0	-0.9
GOMU	GeErMu	148.90	135	PKPbc	PKPbc	11 16 07.8	-0.1
GOMU				PPMZ			
	comp=Z,140nm,8.4s						
GOMU				L	L		
	comp=Z,320nm,16.4s						
GOMU				L	L		
	comp=Z,190nm,16.5s						
GOMU				L	L		
	comp=Z,380nm,16.6s						
NJ2	Nanjing	149.65	175	*e*PKPbc	PKPdf	11 16 05.4	+0.6
XAN	Xi'an	150.53	158	PKPbc	PKiKP	11 16 12.8	+0.5
LZDM	Lanzhou Array	151.27	148	PKPbc	PKiKP	11 16 14.9	+0.8
	comp=Z,1.4nm,0.3s,baz=181,slow=5.9,SNR=5.7						
LZH	Lanzhou	151.43	148	*e*PKPbc	PKPdf	11 16 02.0	-5.6
LZH				sPKP	sPKPbc	11 16 16.0	-1.7
BVAR	Borovoye Array	151.69	85	PKPbc	PKiKP	11 16 15.5	+1.5
	comp=Z,18nm,0.7s,baz=248,slow=2.1,SNR=42						
MJAR	Matsushiro Arr	152.26	209	PKPbc	PKiKP	11 16 17.8	+2.1
	comp=Z,1.0nm,0.5s,baz=200,slow=2.3,SNR=4.3						
WMQ	Urumqi	152.84	117	*e*PKPbc	PKPdf	11 16 08.7	-0.7
WMQ				L	L		
	comp=Z,350nm,16.9s						
WMQ				L	L		
	comp=Z,260nm,16.9s						
WMQ				L	L		
	comp=Z,260nm,19.5s						
MKAR	Makanchi Array	152.85	106	PKPbc	PKiKP	11 16 17.4	+0.8
	comp=Z,3.6nm,0.7s,baz=239,slow=2.4,SNR=18						
GTA2	Gaotai	153.49	139	PKPbc	PKPdf	11 16 13.9	+3.4
GTA2				L	L		
	comp=Z,600nm,18.4s						
GTA2				L	L		
	comp=Z,610nm,19.0s						
GTA2				L	L		
	comp=Z,800nm,18.1s						
KURBB	Kurchatov Arra	153.90	96	PKP	PKPdf	11 16 11.9	+1.4
	comp=Z,1.2nm,1.0s,baz=242,slow=1.7,SNR=4.3						
KURBB				PKPbc	PKiKP	11 16 20.1	+1.5
	comp=Z,2.4nm,0.7s,baz=229,slow=2.5,SNR=16						
KSRS	Korea Array	154.82	191	PKP	PKPdf	11 16 14.6	+2.3
	comp=Z,0.7nm,0.8s,baz=235,slow=1.3,SNR=2.1						
DL2	Dalian	156.55	180	*e*PKP	PKPdf	11 16 15.3	+0.8
DL2				*e*PKPab	pPKPab	11 16 45.9	-0.3
DL2				SS	SS	11 40 13.5	+1.6
DL2				PPMZ			
	comp=Z,220nm,5.6s						
DL2				L	L		
	comp=Z,870nm,17.9s						
DL2				L	L		
	comp=Z,820nm,20.7s						
DL2				L	L		
	comp=Z,1µm,18.0s						
BTO2	Baotou	157.21	156	*e*PKPab	PKPdf	11 16 12.8	-2.7
BTO2				PP	PP	11 19 56.8	-28
BTO2				pmax	pmax		
	comp=Z,17nm,0.5s						
BTO2				pmax	pmax		
	comp=Z,410nm,5.8s						
HHC	Hu-ho-hao-te	157.62	159	*e*P	PKPdf	11 16 12.4	-3.6
CN2	Changchun	161.32	188	PKP	PKPdf	11 16 12.5	-7.5
CN2				LR	LR		
	comp=N,140nm,18.0s						
CN2				LR	LR		
	comp=E,220nm,18.0s						
CN2				LR	LR		
	comp=Z,290nm,19.0s						
SONM	Songino Array	163.07	142	PKP	PKPdf	11 16 23.3	+1.5
	comp=Z,2.0nm,0.8s,baz=204,slow=1.4,SNR=6.2						
SONM				PKPab	PKPab	11 17 12.9	+1.1
	comp=Z,3.0nm,0.9s,baz=194,slow=4.9,SNR=8.5						
HILR	Hailar Array B	167.15	174	PKPab	PKPab	11 17 31.4	+1.8
	comp=Z,0.6nm,0.3s,baz=204,slow=3.2,SNR=1.2						

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*SJA **01** 11:00:27.0±0.7, 27°.70S×71°.53W, h9^{km}±3^{km}, ML3.6, MW3.3*

*GUC **01** 11:00:32.9±0.6, 27°.87S×71°.17W, h34^{km}±3^{km}, ML3.2*

ISC 01 11:00:29.4±1.6**, 27°.85S**±0°.03×**71°.16W**±0°.05**, h7**^{km}±11^{km}**,**
n27, σ2^{s}.01/45**, 2D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.36	168	*i* P	Pn	11 00 40.3	-0.8
GO03	Copiapo	0.86	73	*e*P	Pn	11 00 49.0	+1.0
GO03				*e*S	Sn	11 01 00.8	0.0
GO03				IAML		11 01 01.4	
	comp=Z,1µm,0.6s						
GO03	Copiapo	0.86	73	*e*P	Pn	11 00 48.7	+0.6
GO03				*e*S	Sb	11 00 58.9	+0.4
GO03				IAML		11 01 01.6	
	comp=N,2µm,0.3s						
AC06	Mina Casimiro	0.87	56	⇓*i*P	Pn	11 00 48.6	+0.5
AC06				IAML		11 01 04.5	
	comp=E,1µm,0.2s						
LCO	Las Campanas	1.23	161	*e*P	Pg	11 00 54.6	+1.6
LCO				IAML		11 01 55.0	
	comp=Z,711nm,0.1s						
LCO	Las Campanas	1.23	161	⇓*i*P	Pg	11 00 54.5	+1.5
LCO				*e*S	Sn	11 01 09.9	-0.4
AC05	El Transito	1.26	142	*i* P	Pg	11 00 55.0	+1.4
AC05				*e*S	Sg	11 01 10.8	+0.9
AC05				IAML		11 01 13.3	
	comp=N,894nm,0.5s						
AC01	Pan de Azucar	1.77	17	*e*P	Pn	11 01 01.6	+1.2
AC01				*e*S	Sn	11 01 23.7	+0.5
AC01	Pan de Azucar	1.77	17	*e*P	Pn	11 01 01.8	+1.4
AC02	Maricunga	2.07	61	*e*P	Pb	11 01 09.0	+1.4
AC02				*e*S	Sg	11 01 37.3	+1.3
AC02				IAML		11 01 38.5	
	comp=Z,356nm,0.4s						
AC02	Maricunga	2.07	61	*e*P	Pg	11 01 09.3	+0.2
CO01	Juntas del Tor	2.32	156	*e*P	Pb	11 01 11.0	-0.8
CO01				*e*S	Sb	11 01 39.7	-1.0
CO01				IAML		11 01 49.7	
	comp=E,200nm,0.4s						
GO04	Tololo Observa	2.34	172	*e*P	Pb	11 01 10.7	-1.3
AROD	Rodeo	2.74	148	*e*P	Pb	11 01 19.0	-0.1
AROD				*e*S	Sg	11 01 57.2	-0.4
VCA	Vinchina	2.75	109	*e*P	Pb	11 01 20.5	+1.4
VCA				*e*S	Sg	11 01 58.0	+0.1
VCA				IAML		11 02 06.5	
	comp=Z,161nm,0.4s						
ACDV	Cuesta del Vie	2.92	143	*e*P	Pb	11 01 21.4	-0.6
ACDV				*e*S	Sb	11 01 58.0	-0.1
ACDV				IAML		11 02 08.8	
	comp=Z,73nm,0.6s						
TINO	Tinogasta	3.19	95	*e*P	Pb	11 01 24.4	-2.1
TINO				*e*S	Sg	11 02 10.6	-1.2
TINO				IAML		11 02 11.4	
	comp=Z,86nm,0.5s						
ACCO	Cerro Coronel	3.29	147	*e*P	Pb	11 01 27.7	-0.6
ACCO				*e*S	Sb	11 02 09.5	+0.8
ACCO				IAML		11 02 19.4	
	comp=Z,58nm,0.4s						
ACLC	CERRO LA CRUZ	4.02	114	*e*P	Pb	11 01 36.2	-4.5
ACLC				*e*S	Sn	11 02 21.9	+2.8
RTLL	Cerro Villicun	4.18	147	*e*P	Pn	11 01 38.5	+4.7
RTLL				*e*S	Sg	11 02 41.7	-2.1
RTLL				IAML		11 02 46.8	
	comp=Z,59nm,0.6s						
RTLS	Leoncito	4.26	158	*e*P	Pn	11 01 39.8	+4.8
RTLS				*e*S	Sb	11 02 33.5	-3.1
RTLS				IAML		11 02 48.5	
	comp=Z,141nm,0.6s						
CYA	Choya	4.77	98	*e*P	Pn	11 01 45.8	+4.0
CYA				*e*S	Sb	11 02 47.0	-4.0
CYA				IAML		11 02 48.4	
	comp=Z,23nm,0.8s						
VA03	San Esteban	4.93	174	*e*P	Pn	11 01 48.4	+4.3
VA03				*e*S	Sg	11 03 06.0	-1.7
PB05	IPOC Station P	5.05	10	*e*P	Pn	11 01 45.7	0.0
PB05				*e*S	Sn	11 02 42.7	-1.7
PB05				IAML		11 03 18.6	
	comp=Z,21nm,2.9s						
AHML	Horco Molle	5.29	80	*e*P	Pn	11 01 51.1	+2.1
AHML				*e*S	Sg	11 03 13.8	-5.6
AHML				IAML		11 03 27.3	
	comp=Z,46nm,1.3s						
PB06	IPOC Station P	5.32	16	*e*P	Pn	11 01 50.0	+0.6
PB06				*e*S	Sn	11 02 51.5	+0.5
PB06				IAML		11 03 33.7	
	comp=Z,31nm,0.7s						
SALV	Santo Antonio	18.61	54	*e*P	P	11 04 47.2	-0.4

NOU 01 11:24:49.9, 17°.14S×167°.95E, h19^{km}**, MLv4.3**/26**,**
Vanuatu Islands, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DVP	Devils Point	0.62	159	P	Pg	11 25 02.9	+0.6
DVP	Devils Point	0.62	159	S	Sn	11 25 13.0	-0.2
RTV	Rentapao	0.79	145	P	Pb	11 25 05.2	+0.1
RTV	Rentapao	0.79	145	S	Sn	11 25 17.6	+0.2
SANVU	Saraoutou	1.83	337	P	Pn	11 25 19.3	-1.0
SANVU	Saraoutou	1.83	337	S	Sb	11 25 44.2	-1.1
MARNC	Mare, Loyalty	4.32	179	P	Pn	11 25 55.2	+0.6
KOUNC	Koumac, New Ca	4.85	225	P	Pn	11 26 02.4	+0.5
KOUNC	Koumac, New Ca	4.85	225	S	Sn	11 26 58.7	+1.1
YATNC	Mamie plateau,	4.99	191	P	Pn	11 26 04.2	+0.3
ONTNC	Ouen Toro	5.33	195	P	Pn	11 26 09.9	+1.4
ONTNC	Ouen Toro	5.33	195	S	Sn	11 27 08.5	-0.9
OUENC	Ouen Island, N	5.35	191	P	Pn	11 26 10.3	+1.5
OUENC	Ouen Island, N	5.35	191	S	Sn	11 27 09.2	-0.8

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*AEIC **01** 11:28:47.5±1.1, 59°.73N±0°.04×152°.43W±0°.04, h88^{km}±4^{km}, Error ellipse: s-maj=5.3km s-min=3.1km az=189.0*

NEIC 01 11:28:46.8±0.8**, 59°.76N**±0°.04×**152°.46W**±0°.06**, h91**^{km}±4^{km}**,**
ML3.4/162**, ML3.2**(AEIC)**, Error ellipse: s-maj=5.5km**
s-min=4.4km az=170.0, Southern Alaska

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
O20K	Slope Mountain	0.34	346		Pn	11 29 00.9	+0.3
O20K					Sn	11 29 11.0	0.0
ILS	Iliamna Low So	0.37	304		Pn	11 29 00.8	-0.1
ILS					Sn	11 29 10.9	-0.5
IVE	Iliamna Volcan	0.38	313		Pn	11 29 00.7	-0.2
IVE					Sn	11 29 11.2	-0.3
P19K	Oil Pt	0.41	255		Pn	11 29 01.2	+0.2
P19K					Sn	11 29 11.8	+0.2
ILSW	Iliamna Southw	0.41	304		Pn	11 29 01.0	-0.2
ILSW					Sn	11 29 11.3	-0.6
ILSW				IAML		11 29 11.9	
	comp=N,1µm,0.2s						
ILSW				IAML		11 29 13.1	
	comp=E,828nm,0.4s						
HOM	Homer	0.43	103		Pn	11 29 01.3	+0.2
HOM					Sn	11 29 12.4	+0.6
AU22	Augustine Moun	0.60	230		Pn	11 29 02.5	+0.1
AU22					Sn	11 29 14.2	+0.1
AUJK	Augustine Jueg	0.63	230		Pn	11 29 02.9	+0.2
AUJK					Sn	11 29 14.9	+0.3
AUI	Augustine Isla	0.65	230		Pn	11 29 03.0	+0.1
AUI					Sn	11 29 14.9	0.0
CNPM	China Poot	0.66	110		Pn	11 29 03.1	0.0
CNPM					Sn	11 29 15.0	-0.2
RDSO	Redoubt South	0.71	349		Sn	11 29 16.5	+0.1
REF	Redoubt East F	0.74	351		Pn	11 29 04.1	0.0
REF					Sn	11 29 17.1	+0.2
BRLK	Bradley Lake	0.80	89		Pn	11 29 04.2	-0.2
BRLK					Sn	11 29 17.3	-0.3
RDT	Redoubt	0.82	2		Pn	11 29 04.5	-0.1
RDT					Sn	11 29 18.0	-0.1
DFR	Drift River	0.85	352		Sn	11 29 18.8	+0.2
BRSE	Bradley Lake S	0.87	90		Pn	11 29 04.9	-0.2
Q19K	Cape Douglas,	1.03	217		Pn	11 29 06.6	-0.3
Q19K					Sn	11 29 21.5	-0.5
Q19K				IAML		11 29 22.9	
	comp=E,972nm,0.6s						
Q19K				IAML		11 29 29.4	
	comp=N,682nm,0.7s						
O19K	Port Alsworth	1.03	296		Pn	11 29 06.9	0.0
O19K	Port Alsworth	1.03	296		Sn	11 29 22.1	+0.1
CAPN	Captain Cook N	1.21	32		Pn	11 29 10.8	+1.9
SLKM	Skilak Lake	1.35	55	Pn	Pn	11 29 10.3	-0.4
SPWE	Spurr West	1.52	358		Pn	11 29 13.5	+0.6
O22K	Cooper Landing	1.55	61		Pn	11 29 13.3	+0.2
SEW	Seward	1.55	76		Sn	11 29 32.1	-1.1
SEW	Seward	1.55	76	Pn	Pn	11 29 12.6	-0.6
SEW				IAML		11 29 32.5	
	comp=N,319nm,0.4s						
SEW				IAML		11 29 33.7	
	comp=E,408nm,0.4s						
SPNN	North Nagishla	1.62	356		Pn	11 29 14.7	+0.4
KAHG	Katmai Hook Gl	1.66	221		Sn	11 29 35.5	-0.3
Q18K	Katmai Hardscr	1.72	231		Sn	11 29 35.9	-1.3
STLK	Strandline Lak	1.77	10		Pn	11 29 16.7	+0.5
STLK				IAML		11 29 41.6	
	comp=E,191nm,0.3s						
STLK				IAML		11 29 42.1	
	comp=N,178nm,0.4s						
KAWH	Katmai	1.83	222		Sn	11 29 38.8	-0.9
RC01	Rabbit Creek A	1.90	44		Pn	11 29 17.8	+0.1
SUA	Susitna One	1.91	26	Pn	Pn	11 29 18.6	+0.6
SUA				IAML		11 29 44.7	
	comp=N,548nm,0.7s						
N18K	Kilae Creek	1.95	300		Pn	11 29 18.2	-0.1
N18K	Kilae Creek	1.95	300		Sn	11 29 41.6	-0.7
N18K	Kilae Creek	1.95	300	IAML		11 29 42.5	
	comp=N,100nm,1.0s						
N18K				IAML		11 29 43.0	
	comp=E,119nm,1.2s						
KDAK	Kodiak Island	1.98	182		Pn	11 29 17.6	-1.1
KDAK	Kodiak Island	1.98	182	IAML		11 29 42.9	
	comp=E,158nm,0.2s						
KDAK				IAML		11 29 48.6	
	comp=E,150nm,0.7s						
KAKN	Katmai Knife C	1.99	224		Sn	11 29 42.2	-1.2
P17K	Kvichak River	2.11	256	Pn	Pn	11 29 20.4	+0.1
P17K				IAML		11 29 56.0	
	comp=E,235nm,0.9s						
P17K				IAML		11 30 07.9	
	comp=N,266nm,0.8s						
ACHA	Angle Creek He	2.15	225	Pn	Pn	11 29 20.8	-0.2
MGLS	Mageik Landsli	2.15	222		Pn	11 29 20.9	0.0
SKT	Skwentna	2.28	11		Pn	11 29 22.8	+0.1
SKT				IAML		11 29 53.7	
	comp=E,118nm,0.3s						
SKT				IAML		11 29 56.8	
	comp=N,127nm,0.4s						
M22K	Willow	2.31	29	Pn	Pn	11 29 23.6	+0.6
Q17K	Contact Creek	2.32	231		Pn	11 29 23.2	-0.1
PWL	Port Wells	2.33	60		Pn	11 29 22.9	-0.5
PWL	Port Wells	2.33	60	IAML		11 29 52.0	
	comp=E,326nm,0.3s						
M19K	Big River Lodg	2.35	337		Pn	11 29 23.9	+0.3
M18K	Stony River	2.40	318		Pn	11 29 24.2	-0.1
M18K					Sn	11 29 53.0	-0.1
Q16K	King Salmon	2.41	245		Pn	11 29 24.6	+0.3
PMR	Palmer	2.46	40	P	Pn	11 29 24.8	-0.3
PMR	Palmer	2.46	40	S	Sn	11 29 52.9	-1.6
PMR	Palmer	2.46	40	Pn	Pn	11 29 24.7	-0.4
PMR	Palmer	2.46	40		Sn	11 29 52.8	-1.6
PMR	Palmer	2.46	40	IAML		11 29 53.5	
	comp=E,248nm,0.6s						
PMR				IAML		11 29 54.6	
	comp=N,225nm,0.5s						
N17K	Nushagak Hills	2.49	290		Pn	11 29 25.5	+0.1
N17K				IAML		11 29 54.5	
	comp=N,97nm,0.6s						
P23K	Montague Islan	2.56	82	Pn	Pn	11 29 25.8	-0.6
P23K				IAML		11 29 57.5	
	comp=E,231nm,0.4s						
P23K				IAML		11 29 59.0	
	comp=N,166nm,0.5s						
OHAK	Old Harbor	2.58	190	Pn	Pn	11 29 25.0	-1.6
OHAK				IAML		11 29 55.5	
	comp=N,71nm,0.4s						
KNK	Knik Glacier	2.58	48	Pn	Pn	11 29 26.2	-0.5
GHO	Glory Hole Cre	2.67	39	Pn	Pn	11 29 27.6	-0.3
L19K	White Mountain	2.70	335		Pn	11 29 28.6	+0.3
O16K	Kokwok River B	2.86	269	Pn	Pn	11 29 30.2	-0.2
O16K				IAML		11 30 18.2	
	comp=N,57nm,0.6s						
CUT	Chulitna	2.86	21		Pn	11 29 30.6	+0.2
CUT	Chulitna	2.86	21	IAML		11 30 19.1	
	comp=N,211nm,0.4s						
SML	Sawmill	2.89	43		Pn	11 29 30.3	-0.4
SML	Sawmill	2.89	43	IAML		11 30 04.2	
	comp=E,215nm,0.6s						
GLI	Glacier Island	2.90	65	Pn	Pn	11 29 29.4	-1.5
GLI				IAML		11 30 03.8	
	comp=N,124nm,0.5s						
GLI				IAML		11 30 04.1	
	comp=E,198nm,0.4s						
PLK1	Peulik 1	2.92	230		Pn	11 29 31.7	+0.6
P16K	Nushagak River	2.92	258		Pn	11 29 31.8	+0.6
P16K	Nushagak River	2.92	258	IAML		11 30 26.9	
	comp=E,93nm,1.5s						
P16K				IAML		11 31 03.2	
	comp=N,83nm,1.3s						
R17L	Mt. Peulik Vol	2.95	225		Pn	11 29 32.0	+0.4
M17K	Holitna River	2.96	306		Pn	11 29 31.8	+0.1
M17K	Holitna River	2.96	306	IAML		11 30 06.2	
	comp=N,106nm,0.8s						
M17K				IAML		11 30 22.5	
	comp=E,102nm,0.8s						
HIN	Hinchinbrook I	3.06	75	Pn	Pn	11 29 32.2	-0.8
HIN				IAML		11 30 08.4	
	comp=E,103nm,1.3s						
HIN				IAML		11 30 21.0	
	comp=N,86nm,1.2s						
M23K	Glacier View	3.09	47		Pn	11 29 33.1	-0.4
MID	Middleton Isla	3.13	93		Pn	11 29 33.5	-0.4
MID	Middleton Isla	3.13	93	IAML		11 30 08.8	
	comp=E,170nm,1.4s						
MID				IAML		11 30 13.6	
	comp=N,142nm,1.2s						
FID	Port Fidalgo	3.14	69		Pn	11 29 32.5	-1.7
FID	Port Fidalgo	3.14	69	IAML		11 30 09.0	
	comp=E,168nm,0.2s						
FID				IAML		11 30 11.1	
	comp=N,179nm,0.2s						
PPLA	Purkeypile	3.15	2		Pn	11 29 35.1	+0.6
PPLA	Purkeypile	3.15	2	IAML		11 30 54.6	
	comp=E,52nm,1.5s						
L18K	Granite Mounta	3.22	322		Pn	11 29 35.2	0.0
L18K				IAML		11 30 12.6	
	comp=N,41nm,0.9s						
N16K	Nishlik Lake	3.24	286		Pn	11 29 35.8	+0.3
SCM	Sheep Creek Mo	3.27	48		Pn	11 29 35.6	-0.3
SII	Sitkinak Islan	3.33	197	P	Pn	11 29 35.4	-1.4
EYAK	Cordova Ski Ar	3.45	74	P	Pn	11 29 37.1	-1.2
EYAK	Cordova Ski Ar	3.45	74	S	Sn	11 30 15.9	-2.2
EYAK	Cordova Ski Ar	3.45	74		Pn	11 29 37.1	-1.1
EYAK	Cordova Ski Ar	3.45	74	IAML		11 30 18.4	
	comp=N,41nm,0.4s						
M16K	Timber Creek	3.47	294	Pn	Pn	11 29 38.9	+0.4
WAT7	Susitna Watana	3.54	28		Pn	11 29 39.6	-0.1
DIV	Divide	3.59	65		Pn	11 29 39.4	-0.9
DIV	Divide	3.59	65	IAML		11 30 20.8	
	comp=E,36nm,0.8s						
DIV				IAML		11 30 22.9	
	comp=N,71nm,0.3s						
WAT6	Susitna Watana	3.64	37		Pn	11 29 40.7	-0.3
KLU	Klutina	3.66	59		Pn	11 29 40.7	-0.5
KLU	Klutina	3.66	59	IAML		11 30 24.6	
	comp=E,100nm,0.4s						
CAST	Castle Rocks	3.68	3		Pn	11 29 41.5	0.0
K20K	Telida	3.69	349		Pn	11 29 42.1	+0.5
L17K	Donlin	3.71	312		Pn	11 29 41.8	-0.1
O15K	Ungalikthiuk R	3.80	264		Pn	11 29 43.8	+0.8
TRF	Thorofare Moun	3.85	15		Pn	11 29 43.7	-0.1
TRF	Thorofare Moun	3.85	15	IAML		11 30 52.0	
	comp=N,45nm,0.5s						
TRF				IAML		11 30 54.8	
	comp=E,34nm,0.9s						
N15K	Kwethluk River	3.86	279		Pn	11 29 44.1	+0.3
N15K	Kwethluk River	3.86	279	IAML		11 30 43.1	
	comp=N,38nm,1.2s						
N15K				IAML		11 30 55.6	
	comp=E,43nm,0.8s						
KTH	Kantishna Hill	3.88	10		Pn	11 29 44.0	-0.1
KTH	Kantishna Hill	3.88	10	IAML		11 31 00.8	
	comp=E,35nm,1.2s						
KTH				IAML		11 31 01.7	
	comp=N,51nm,1.0s						
RAGM	Ragged Mountai	3.95	77	Pn	Pn	11 29 44.2	-1.0

L16K	Owhat River	3.96	303		Pn	11 29 45.0	-0.2
RND	Reindeer	4.05	24	IAML		11 30 36.2	
	comp=E,33nm,0.4s						
RND				IAML		11 30 53.2	
	comp=N,28nm,0.8s						
KAIM	Kayak Island	4.06	84	Pn	Pn	11 29 46.0	-0.5
BMRM	Bremner River	4.09	69		Pn	11 29 45.9	-1.1
BMRM	Bremner River	4.09	69	IAML		11 30 34.1	
	comp=E,40nm,0.7s						
BMRM				IAML		11 30 34.2	
	comp=N,36nm,0.7s						
K17K	Iditarod	4.10	319		Pn	11 29 47.1	+0.1
K17K	Iditarod	4.10	319	IAML		11 30 35.6	
	comp=E,30nm,1.4s						
K17K				IAML		11 30 52.5	
	comp=N,25nm,0.8s						
DHY	Denali Highway	4.13	34		Pn	11 29 47.6	-0.1
DHY	Denali Highway	4.13	34	IAML		11 30 37.6	
	comp=E,49nm,0.4s						
DHY				IAML		11 30 38.5	
	comp=N,43nm,0.3s						
CHUM	Lake Minchumin	4.14	1		Pn	11 29 47.6	0.0
J18K	Innoko River	4.24	333		Pn	11 29 48.5	-0.4
N25K	Chitina, Valde	4.29	61		Pn	11 29 49.0	-0.7
MCK	McKinley	4.33	21		Pn	11 29 49.9	-0.3
MCK	McKinley	4.33	21	IAML		11 30 43.7	
	comp=N,27nm,0.5s						
MCK				IAML		11 31 18.1	
	comp=E,25nm,1.3s						
HARP	HAARP	4.43	50		Pn	11 29 51.1	-0.5
BERG	Berg Lake	4.43	78	Pn	Pn	11 29 50.7	-0.9
J20K	Nowinta River	4.51	351		Pn	11 29 53.0	+0.4
J19K	Poorman	4.51	342		Pn	11 29 52.7	+0.1
GLB	Gilahina Butte	4.59	65		Pn	11 29 53.0	-0.7
GLB	Gilahina Butte	4.59	65	IAML		11 30 45.2	
	comp=N,25nm,0.5s						
GLB				IAML		11 31 06.8	
	comp=E,15nm,0.8s						
N14K	Kuskokwak Cree	4.66	276		Pn	11 29 55.5	+0.9
N14K	Kuskokwak Cree	4.66	276	IAML		11 30 57.2	
	comp=E,47nm,1.4s						
N14K				IAML		11 31 18.3	
	comp=N,43nm,1.5s						
VRDI	Verde Repeater	4.69	68		Pn	11 29 54.8	-0.6
VRDI	Verde Repeater	4.69	68	IAML		11 30 47.3	
	comp=N,20nm,0.7s						
CRQM	Cirque	4.75	74		Pn	11 29 55.3	-0.8
CRQM	Cirque	4.75	74	IAML		11 30 49.6	
	comp=N,56nm,0.4s						
J17K	VABM Dome	4.83	322		Pn	11 29 56.7	-0.3
TGL	Tana Glacier	4.90	74		Pn	11 29 57.3	-0.8
TGL	Tana Glacier	4.90	74	IAML		11 30 54.9	
	comp=N,30nm,0.6s						
TGL				IAML		11 30 55.6	
	comp=E,28nm,1.1s						
MCARA	McCarthy VSAT	4.93	67	Pn	Pn	11 29 58.4	0.0
MCARA				IAML		11 30 54.8	
	comp=E,40nm,0.5s						
MCARA				IAML		11 30 58.8	
	comp=N,37nm,0.6s						
BARK	Barkley Ridge	5.04	78		Pn	11 29 59.2	-0.6
NEA2	Nenana	5.11	17		Pn	11 30 00.1	-0.6
I20K	Naaghedeneel	5.14	350	IAML		11 31 40.9	
	comp=N,37nm,1.4s						
I20K				IAML		11 31 48.3	
	comp=E,36nm,1.5s						
PTPK	Patty Peak	5.15	70		Pn	11 30 01.6	+0.1
WRH	Wood River Hil	5.16	22		Pn	11 30 00.8	-0.5
WRH	Wood River Hil	5.16	22	IAML		11 30 59.8	
	comp=N,14nm,0.4s						
WRH				IAML		11 31 34.9	
	comp=E,13nm,1.0s						
BALM	Baldy	5.18	71		Pn	11 30 01.5	-0.3
J16K	Anvik River	5.26	316		Pn	11 30 02.8	-0.1
J16K	Anvik River	5.26	316	IAML		11 31 37.0	
	comp=E,11nm,1.5s						
M26K	Nabesna, AK	5.30	56		Pn	11 30 03.1	-0.4
M26K	Nabesna, AK	5.30	56	IAML		11 31 05.1	
	comp=N,13nm,0.8s						
M26K				IAML		11 31 24.2	
	comp=E,14nm,0.5s						
HDA	Harding Lake	5.34	27		Pn	11 30 03.7	-0.2
HDA	Harding Lake	5.34	27	IAML		11 31 03.8	
	comp=N,33nm,0.5s						
HDA				IAML		11 31 03.9	
	comp=E,40nm,0.4s						
MLY	Manley	5.35	8		Pn	11 30 04.4	+0.3
CCB	Clear Creek Bu	5.37	22		Pn	11 30 04.0	-0.3
CCB	Clear Creek Bu	5.37	22	IAML		11 31 04.8	
	comp=E,11nm,0.3s						
RIDG	Independent Ri	5.39	39	Pn	Pn	11 30 04.8	+0.1
RIDG				IAML		11 31 26.7	
	comp=N,37nm,1.0s						
RIDG				IAML		11 31 26.7	
	comp=E,38nm,0.7s						
YAH	Yahtse	5.40	79		Pn	11 30 04.8	-0.2
GCSA	Galena City Sc	5.42	340		Pn	11 30 05.3	+0.4
GRNC	Granite Creek	5.42	75		Pn	11 30 05.0	-0.3
I21K	Tanana	5.45	2		Pn	11 30 06.0	+0.6
BARN	Barnard Glacie	5.51	72		Pn	11 30 05.8	-0.7
COLA	College	5.57	21	P	Pn	11 30 06.5	-0.4
COLA	College	5.57	21		Pn	11 30 06.8	-0.1
MDM	Murphy Dome	5.58	19		Pn	11 30 06.6	-0.5
I23K	Minto, Yukon-K	5.60	14		Pn	11 30 07.0	-0.4
ILAR	Eielson Array	5.66	25	Pn	Pn	11 30 07.7	-0.7
I17K	Unalakleet	5.69	320		Pn	11 30 09.0	+0.4
CHX	Chaix Hills	5.72	82		Pn	11 30 09.2	+0.1
M27K	Edge Creek, AK	5.76	59		Pn	11 30 09.8	0.0
LOGN	Logan Glacier	5.80	74		Pn	11 30 09.8	-0.5
SCRK	Sand Creek	5.83	40		Pn	11 30 09.9	-0.7
H20K	Anotleneega Mo	5.86	350		Pn	11 30 11.4	+0.3
SAMH	Samovar Hills	5.88	81		Pn	11 30 11.9	+0.5
H21K	Melozitna Rive	5.92	359		Pn	11 30 11.6	-0.3
YUK2	White River	6.04	65		Pn	11 30 14.0	+0.4
H18K	Honhosa River	6.07	336		Pn	11 30 13.8	0.0
BC01	Beaver Creek A	6.08	52		Pn	11 30 13.5	-0.6
PCA	Pinnacle	6.15	82		Pn	11 30 14.7	-0.2
SDPT	Sand Point	6.17	228		Pn	11 30 14.8	-0.5
H22K	Ishtalitna Cre	6.18	4		Pn	11 30 15.4	+0.1
O28M	Mount Upton	6.19	75		Pn	11 30 15.6	-0.1
H23K	Yukon River	6.24	11		Pn	11 30 16.1	+0.1
H17K	Granite Mounta	6.25	329		Pn	11 30 16.5	+0.3
IM05	Indian Mountai	6.27	355		Pn	11 30 16.3	-0.2
IMAR	Indian Mountai	6.28	355	Pn	Pn	11 30 16.4	-0.2
H24K	Noodor Dome	6.45	17		Pn	11 30 18.8	-0.2
PRP	Porcupine Dome	6.60	26		Pn	11 30 20.9	-0.3
PNL	Peninsula	6.61	85	P	Pn	11 30 20.7	-0.5
PNL	Peninsula	6.61	85	S	Sn	11 31 34.5	-0.5
PNL	Peninsula	6.61	85		Pn	11 30 20.7	-0.5
H16K	Elim	6.70	321		Pn	11 30 22.6	+0.3
G19K	Purcell Mounta	6.75	344		Pn	11 30 23.1	+0.1
G21K	Allakaket	6.80	356		Pn	11 30 23.9	+0.1
G23K	Bananza Creek	7.07	8		Pn	11 30 27.2	-0.2
H25L	Birch Creek	7.20	22		Pn	11 30 28.9	-0.1
G16K	Koyuk River	7.26	325		Pn	11 30 30.7	+0.7
G24K	Hadweenzic Riv	7.32	16		Pn	11 30 30.4	-0.5
P29M	Windy Craggy	7.45	85		Pn	11 30 33.3	+0.6
F19K	Shaleruckik Mo	7.49	344		Pn	11 30 33.5	+0.4
HYT	Haines Junctio	7.51	75		Pn	11 30 33.9	+0.4
G25K	Bearman Lake	7.59	19		Pn	11 30 34.2	-0.2
N30M	Aishikik Lake	7.75	71		Pn	11 30 36.1	-0.7
F24K	Squaw Lake	8.05	13		Pn	11 30 40.5	-0.3
BM04	Burnt Mountain	8.45	21		Pn	11 30 45.3	-0.9
E25K	Arctic Village	8.92	17	Pn	Pn	11 30 51.5	-1.1
SIT	Sitka	9.39	99	P	Pn	11 30 58.1	-0.9
JIS	Juneau Island	9.44	91	P	Pn	11 31 00.2	+0.6
UNV	Unalaska Valle	9.71	239	P	Pn	11 31 02.8	-0.5
MMPY	Sheldon Lake,	10.61	65	Pn	Pn	11 31 15.5	-0.1
AB31	Akbulak array	68.19	338	P	P	11 39 35.1	-1.7
ABKAR	Akbulak array	68.19	338	P	P	11 39 34.7	-2.1

IDC ***01*** *11:29:01.1±0.8, 27°.79S×71°.61W, h0^{km}, mb4.0/5, mbtmp3.9/10, ML3.7/5, Error ellipse: s-maj=24.7km s-min=15.1km az=88.0*

SJA ***01*** *11:29:01.0±0.7, 27°.91S×71°.64W, h10^{km}±3^{km}, ML4.3, MW4.0*

NEIC ***01*** *11:29:04.4±1.3, 27°.99S±0°.02×71°.42W±0°.06, h20^{km}±4^{km}, mb4.4/5, ML3.9(GUC), Error ellipse: s-maj=7.8km s-min=3.4km az=91.0*

GUC ***01*** *11:29:04.3±0.7, 28°.02S×71°.34W, h23^{km}±4^{km}, ML4.0*

ISC 01 11:29:00.8±1.6**, 27°.95S**±0°.03×**71°.59W**±0°.05**, h2**^{km}±9^{km}**, n80,** σ**2**^{s}.**14**/98**, mb4.3**/5**, 2C-6D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.52	119	eP	Pg	11 29 12.5	+1.8
AC04				IAML		11 29 28.5	
	comp=Z,4µm,0.4s						
AC04	Llanos de Chal	0.52	119	⇓iP	Pg	11 29 12.6	+1.9
AC04				eS	Sg	11 29 16.9	-0.5
AC04				IAML		11 29 17.6	
	comp=E,49µm,0.2s						
AC04	Llanos de Chal	0.52	119		Pg	11 29 12.7	+1.9
AC04				Sg	Sg	11 29 17.3	-0.1
AC06	Mina Casimiro	1.24	62	⇓eP	Pn	11 29 24.7	-0.5
AC06				IAML		11 29 45.6	
	comp=E,3µm,0.2s						
GO03	Copiapo	1.25	74	eP	Pn	11 29 25.1	-0.2
GO03				IAML		11 29 45.4	
	comp=Z,4µm,0.7s						
GO03	Copiapo	1.25	74	⇓iP	Pn	11 29 24.8	-0.5
GO03				IAML		11 29 43.8	
	comp=E,6µm,0.5s						
GO03	Copiapo	1.25	74		Pn	11 29 24.8	-0.5
GO03				Sg	Sb	11 29 38.6	-3.0
LCO	Las Campanas	1.31	144	eP	Pn	11 29 26.0	-0.4
LCO				eS	Sb	11 29 41.0	-2.7
LCO	Las Campanas	1.31	144		Pn	11 29 26.2	-0.2
LCO				Sg	Sb	11 29 40.8	-2.8
AC05	El Transito	1.45	128	⇓eP	Pn	11 29 27.9	-0.3
AC05				eS	Sn	11 29 44.1	-3.8
AC05				IAML		11 29 45.9	
	comp=E,5µm,0.3s						
AC05	El Transito	1.45	128		Pn	11 29 28.0	-0.2
AC05				Sn	Sn	11 29 44.4	-3.4
AC01	Pan de Azucar	2.00	26	eP	Pb	11 29 36.8	-1.1
AC01				eS	Sb	11 30 01.8	-1.5
AC01				IAML		11 30 14.7	
	comp=Z,515nm,0.5s						
AC01	Pan de Azucar	2.00	26	⇑iP	Pb	11 29 36.8	-1.1
AC01				IAML		11 30 15.5	
	comp=E,1µm,0.6s						
AC01	Pan de Azucar	2.00	26		Pb	11 29 36.9	-1.1
GO04	Tololo Observa	2.32	163	eP	Pn	11 29 36.8	-3.4
GO04				eP	Pb	11 29 42.4	-1.0
GO04				eS	Sb	11 30 12.8	+0.2
GO04				IAML		11 30 23.2	
	comp=Z,2µm,0.7s						
GO04	Tololo Observa	2.32	163	eP	Pb	11 29 42.2	-1.3
GO04	Tololo Observa	2.32	163		Pb	11 29 42.2	-1.3
CO01	Juntas del Tor	2.40	147	eP	Pb	11 29 43.8	-1.1
CO01				eS	Sn	11 30 12.8	+1.2
CO01				IAML		11 30 14.4	
	comp=Z,1µm,0.8s						
CO01	Juntas del Tor	2.40	147	eP	Pb	11 29 43.7	-1.2
CO01				IAML		11 30 15.6	
	comp=N,2µm,0.3s						
CO01	Juntas del Tor	2.40	147	Pn	Pb	11 29 43.7	-1.2
AC02	Maricunga	2.45	64	eP	Pb	11 29 45.0	-0.9
AC02				eS	Sb	11 30 16.4	-0.3
AC02				IAML		11 30 17.7	
	comp=Z,2µm,0.6s						
AC02	Maricunga	2.45	64	⇑eP	Pb	11 29 44.6	-1.3
AC02				eS	Sb	11 30 15.9	-0.8
AC02				IAML		11 30 18.5	
	comp=E,2µm,0.6s						
AC02	Maricunga	2.45	64		Pb	11 29 44.8	-1.0
CO06	Fray Jorge	2.71	181	⇓eP	Pn	11 29 46.1	+0.7
CO06				IAML		11 30 33.7	
	comp=E,895nm,0.3s						
CO06	Fray Jorge	2.71	181		Pn	11 29 46.4	+1.0
AROD	Rodeo	2.88	141	eP	Pb	11 29 51.8	-1.3
AROD				eS	Sb	11 30 28.1	-0.7
VCA	Vinchina	3.08	105	eP	Pb	11 29 55.1	-1.3
VCA				eS	Sb	11 30 32.8	-1.7
VCA				IAML		11 30 42.5	
	comp=Z,1µm,0.4s						
ACDV	Cuesta del Vie	3.09	136	eP	Pb	11 29 54.7	-1.9
ACDV				eS	Sn	11 30 30.3	+2.0
ACDV				IAML		11 30 41.0	
	comp=Z,445nm,0.3s						
CO02	Combarbal	3.28	171	eP	Pn	11 29 55.0	+1.7
CO02				eS	Sn	11 30 29.8	-3.1
CO02				IAML		11 30 49.6	
	comp=Z,2µm,0.5s						
CO02	Combarbal	3.28	171	eP	Pn	11 29 54.6	+1.3
CO02	Combarbal	3.28	171	Pn	Pn	11 29 54.7	+1.4
ACCO	Cerro Coronel	3.43	141	eP	Pb	11 29 59.8	-2.6
ACCO				eS	Sn	11 30 40.8	+3.9
ACCO				IAML		11 30 54.6	
	comp=Z,617nm,0.4s						
TINO	Tinogasta	3.55	93	eP	Pn	11 30 00.1	+3.0
TINO				eS	Sb	11 30 46.3	-1.7
TINO				IAML		11 30 55.5	
	comp=Z,388nm,0.7s						
CO04	Los Peladeros	4.11	173	Pn	Pn	11 30 06.8	+1.9
RTLS	Leoncito	4.32	153	eP	Pn	11 30 12.4	+4.7
RTLS				eS	Sn	11 31 03.8	+5.0
RTLS				IAML		11 31 17.5	
	comp=Z,1µm,0.6s						
RTLL	Cerro Villicun	4.32	142	eP	Pn	11 30 11.6	+4.1
RTLL				eS	Sn	11 30 59.8	+1.3
RTLL				eS	Sb	11 31 02.3	-7.7
RTLL				IAML		11 31 18.4	
	comp=Z,389nm,0.4s						
ACLC	CERRO LA CRUZ	4.33	111	eP	Pn	11 30 10.6	+2.9
ACLC				eS	Sn	11 31 03.3	+4.4
ACLC				IAML		11 31 09.0	
	comp=Z,212nm,0.4s						
CFA	Coronel Fontan	4.66	142	Pn	Pn	11 30 15.5	+3.3
	comp=Z,7.6nm,0.3s,baz=321,slow=14,SNR=43						
CFA				Sn	Sn	11 31 08.0	+1.1
	comp=Z,5.9nm,0.3s,baz=322,slow=12,SNR=3.6						
	comp=Z,16nm,0.3s						
CFA				AML	AML		
CFA	Coronel Fontan	4.66	142	eP	Pn	11 30 15.8	+3.6
CFA				eS	Sb	11 31 19.5	-0.3
CFA				IAML		11 31 25.9	
	comp=Z,188nm,0.6s						
VA03	San Esteban	4.88	170	eP	Pn	11 30 18.7	+3.5
VA03				eS	Sb	11 31 20.8	-5.4
VA03				IAML		11 31 42.9	
	comp=Z,338nm,0.6s						
VA03	San Esteban	4.88	170	Pn	Pn	11 30 18.1	+2.8
CYA	Choya	5.13	97	eP	Pn	11 30 21.3	+2.7
CYA				IAML		11 32 09.3	
	comp=Z,130nm,0.9s						
PB05	IPOC Station P	5.23	14		Pn	11 30 20.0	-0.1
MT02	Curacav	5.30	176	Pn	Pn	11 30 21.5	+0.5
PB03	IPOC Station P	6.11	16	Pn	Pn	11 30 31.6	-0.6
TCA	Tanti	6.96	121	eP	Pn	11 30 44.5	+0.7
H03N1	Juan Fernandez	8.35	227	T	T	11 39 45.5	
	baz=207,slow=74,SNR=186						
H03N2	Juan Fernandez	8.36	227	T	T	11 39 45.8	
	baz=55,slow=74,SNR=208						
PSGCX	Pisagua	8.42	9	Pn	Pn	11 31 03.0	-0.9
H03S3	Juan Fernandez	8.59	225	Pn	Pn	11 31 06.1	+0.1
	baz=127,slow=15						
H03S1	Juan Fernandez	8.60	225	Pn	Pn	11 31 06.0	-0.1
	baz=127,slow=15						
H03S2	Juan Fernandez	8.61	225	Pn	Pn	11 31 06.3	+0.1
	baz=127,slow=15						
BI02	San Fabin de	8.69	178	Pn	Pn	11 31 08.0	+0.4
LPAZ	La Paz	12.04	16	Pn	Pn	11 31 52.6	-1.4
	comp=Z,0.2nm,0.3s,baz=216,slow=5.2,SNR=3.9						
	comp=Z,0.5nm,0.4s						
LPAZ				AML	AML		
PLCA	Paso Flores	12.78	176	Pn	Pn	11 32 05.2	+1.6
	baz=169,slow=3.6,SNR=1.8						
	comp=Z,1.6nm,1.1s						
CPUP	Villa Florida	12.80	86	Pn	Pn	11 32 05.0	+1.2
	comp=Z,0.2nm,0.3s,baz=240,slow=14,SNR=1.9						
	comp=Z,0.7nm,0.4s						
CPUP				AML	AML		
SIV	San Ignacio	15.37	41	Pn	Pn	11 32 35.5	-3.4
	baz=227,slow=11,SNR=17						
	comp=Z,0.7nm,0.3s						
SNAA	Sanae	57.06	159	⇓P	P	11 38 48.6	+0.6
	comp=Z,60nm,0.9s						
SNAA	Sanae	57.06	159	P	P	11 38 48.3	+0.4
	comp=Z,1.9nm,0.7s,baz=289,slow=6.0,SNR=6.5						
	comp=Z,1.9nm,0.7s						
SNAA	Sanae	57.06	159	P	P	11 38 48.6	+0.6
SNAA				IAmb	IAmb	11 38 49.8	
	comp=Z,3.8nm,1.0s						
TROLL	Troll, Antarti	58.77	160	P	P	11 39 00.9	+0.8
	comp=Z,118nm,0.9s						
QSPA	South Pole Qui	62.27	180	P	P	11 39 25.4	+1.3
	comp=Z,2.8nm,1.0s,baz=129,slow=1.3,SNR=7.0						
	comp=Z,2.8nm,1.0s						
QSPA	South Pole Qui	62.27	180	P	P	11 39 25.3	+1.3
QSPA				IAmb	IAmb	11 39 27.3	
	comp=Z,3.9nm,1.1s						
TX31	Lajitas Ar. Si	64.71	329	P	P	11 39 41.3	+0.8
TXAR	Lajitas Array	64.71	329	P	P	11 39 41.0	+0.4
	comp=Z,0.1nm,0.6s,baz=136,slow=13,SNR=2.0						
	comp=Z,0.1nm,0.6s						
TXAR	Lajitas Array	64.71	329	P	P	11 39 41.2	+0.7
TORD	Torodi Ar. Bea	81.81	70	P	P	11 41 21.6	-0.2
	comp=Z,0.9nm,0.6s,baz=261,slow=5.8,SNR=7.5						
	comp=Z,0.9nm,0.6s						
BOSA	Boshof	82.56	118	P	P	11 41 26.1	+0.3
	comp=Z,5.0nm,1.1s,baz=217,slow=5.1,SNR=3.7						
	comp=Z,5.0nm,1.1s						
CASY	Casey	86.06	181	P	P	11 41 43.2	+0.6
CASY				IAmb	IAmb	11 42 11.6	
	comp=Z,3.2nm,1.2s						
ASAR	Alice Springs	123.10	208	PKP	PKiKP	11 48 00.4	+0.5
	comp=Z,0.2nm,0.7s,baz=137,slow=1.6,SNR=1.4						
H11S2	WAKE ISLAND Hy	126.03	273	T	T	14 07 13.6	
	baz=112,slow=75,SNR=7.9						
H11S1	WAKE ISLAND Hy	126.05	273	T	T	14 07 17.4	
	baz=112,slow=75,SNR=8.7						
H11S3	WAKE ISLAND Hy	126.05	273	T	T	14 07 18.0	
	baz=112,slow=75,SNR=8.6						
WRA	Warramunga Arr	126.19	211	PKP	PKiKP	11 48 06.8	+0.7
	comp=Z,0.5nm,0.9s,baz=157,slow=1.6,SNR=6.0						
H11N3	WAKE ISLAND Hy	126.29	275	T	T	14 07 33.2	
	baz=113						
H11N1	WAKE ISLAND Hy	126.31	275	T	T	14 07 32.2	
	baz=113						
H11N2	WAKE ISLAND Hy	126.31	275	T	T	14 07 43.1	
	baz=113						
KURBB	Kurchatov Arra	148.00	37	PKPbc	PKPab	11 48 48.5	-1.6
	comp=Z,1.1nm,0.9s,baz=303,slow=3.2,SNR=5.7						
ZALV	Zalesovo Beam	148.79	27	PKPbc	PKPbc	11 48 47.9	-1.5
	comp=Z,2.4nm,0.8s,baz=336,slow=3.3,SNR=8.8						
MKAR	Makanchi Array	152.19	40	PKPbc	PKiKP	11 48 59.0	+0.9
	comp=Z,1.3nm,0.7s,baz=309,slow=1.8,SNR=11						

SKO ***01*** *11:29:06.2, 41°.92N×22°.77E, h23^{km}, ML2.3*

BEO ***01*** *11:29:07.3±0.8, 41°.79N×22°.72E, h21^{km}±6^{km}, ML2.4/9*

SOF ***01*** *11:29:08.6, 41°.89N±0°.01×22°.89E±0°.02, h12^{km}±2^{km}, MD2.5/6*

ISC 01 11:29:07.3±1.0**, 41°.81N**±0°.03×**22°.78E**±0°.04**, h10**^{km}±9^{km}**, n18,** σ**0**^{s}.**96**/30**, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
PEHC	Pehcevo	0.10	107	i Pg	Pg	11 29 09.9	0.0
KKB	Krupnik	0.27	82	Pg	Pg	11 29 13.0	+0.3
KKB				Sg	Sg	11 29 16.6	+0.3
VAY	Valandovo	0.51	198	i Pg	Pb	11 29 18.9	+0.6
VAY				i Sg	Sb	11 29 26.5	+0.7
VAY				eLg	Lg	11 29 26.7	
	comp=N,103nm,0.5s						
VAY				eLg	Lg	11 29 27.4	
	comp=E,168nm,0.7s						
BOSS	Bosilegrad	0.72	342	ePg	Pb	11 29 22.1	+0.1
BOSS				eSg	Sg	11 29 30.6	-0.1
MMB	Musomishta	0.77	109	Pg	Pb	11 29 22.8	-0.1
MMB				Sg	Sb	11 29 33.1	-0.4
PLNA	Plana	0.82	36	Pg	Pg	11 29 23.0	-0.2
PLNA				Sg	Sg	11 29 34.0	0.0
VTS	Vitosha	0.88	23	Pg	Pg	11 29 23.9	-0.4
VTS				Sg	Sg	11 29 34.6	-1.1
VTS	Vitosha	0.88	23	ePg	Pg	11 29 23.8	-0.5
VTS				eSg	Sg	11 29 34.9	-0.8
BLSH	Balsha	1.11	19	P	Pn	11 29 28.7	-0.3
BARS	Barje	1.23	325	ePg	Pb	11 29 31.2	+0.4
BARS				eSg	Sb	11 29 46.9	+0.1
ZAPS	Zavoj	1.47	356	ePg	Pg	11 29 35.8	+0.3
ZAPS				eSg	Sg	11 29 55.4	+0.8
RZN	Rozhen	1.47	94	P	Pg	11 29 35.4	-0.2
SELS	Selova	1.87	320	ePg	Pn	11 29 40.5	+1.1
SELS				eSg	Sg	11 30 06.7	-0.7
BOVS	Bovan	1.99	337	ePg	Pn	11 29 42.2	+1.2
BOVS				eSg	Sb	11 30 09.4	+0.9
ZAGS	Zajecar	2.04	349	ePg	Pn	11 29 43.0	+1.2
ZAGS				eSg	Sg	11 30 12.7	-0.3
SJES	Sjenica	2.53	306	ePn	Pn	11 29 44.9	-3.7
GRUS	Gruza	2.57	325	ePn	Pn	11 29 49.3	+0.2
KUBS	Kucevo	2.73	343	ePn	Pn	11 29 50.6	-0.6

IDC ***01*** *11:30:51.8±1.2, 27°.64S×70°.97W, h0^{km}, mb4.0/4, mbtmp4.0/6, ML4.0/2, Error ellipse: s-maj=36.2km s-min=18.6km az=63.0*

NEIC ***01*** *11:30:55.7±0.9, 27°.89S±0°.03×71°.11W±0°.07, h35^{km}±6^{km}, mb4.6/3, Error ellipse: s-maj=8.9km s-min=3.6km az=84.0*

ISC 01 11:30:54.9±0.8**, 27°.82S**±0°.05×**71°.20W**±0°.07**, h35**^{km}**, n32,** σ**2**^{s}.**00**/29**, mb4.6**/5**, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.40	163	Pg	Pn	11 31 02.7	-1.4
AC04				Sg	Sn	11 31 07.8	-2.7
AC06	Mina Casimiro	0.89	59		Pn	11 31 11.6	+0.7
GO03	Copiapo	0.89	75		Pn	11 31 10.8	-0.1
GO03					Sn	11 31 21.5	-1.2
LCO	Las Campanas	1.26	160	Pn	Pn	11 31 15.9	-0.4
LCO				Sn	Sn	11 31 30.7	-1.5
AC05	El Transito	1.30	141		Pn	11 31 16.5	-0.2
AC05					Sn	11 31 31.3	-1.7
AC01	Pan de Azucar	1.75	18	Pn	Pn	11 31 24.9	+2.1
AC02	Maricunga	2.09	62	Pn	Pn	11 31 28.3	+0.4
CO01	Juntas del Tor	2.36	156	Pn	Pn	11 31 30.6	-0.8
CO06	Fray Jorge	2.87	187	Pn	Pn	11 31 37.4	-0.8
CFA	Coronel Fontan	4.57	146	Pn	Pn	11 32 04.8	+3.3
	8.1nm,0.3s,baz=327,slow=14,SNR=1.2						
CFA				Sn	Sn	11 32 57.2	+3.8
	24nm,0.3s,baz=255,slow=24,SNR=7.2						
	31nm,0.3s						
CFA				AML	AML		
H03N1	Juan Fernandez	8.68	228	T	T	11 41 18.9	
	baz=207,slow=74,SNR=309						
H03N2	Juan Fernandez	8.70	228	T	T	11 41 45.0	
	baz=55,slow=74,SNR=22						
H03S3	Juan Fernandez	8.93	226	Pn	Pn	11 32 58.4	-2.6
H03S1	Juan Fernandez	8.93	226	Pn	Pn	11 32 57.7	-3.5
H03S2	Juan Fernandez	8.94	226	Pn	Pn	11 32 57.9	-3.4
CPUP	Villa Florida	12.45	86	Pn	Pn	11 33 48.8	-0.8
	0.2nm,0.3s,baz=259,slow=16,SNR=1.6						
	2.1nm,0.6s						
CPUP				AML	AML		
SIV	San Ignacio	15.06	41	Pn	Pn	11 34 23.3	-1.8
	baz=215,slow=14,SNR=1.2						
VAO	Valinhos	22.40	83	P	P	11 35 49.5	-1.1
VAO				IAmb	IAmb	11 35 50.9	
	comp=Z,30nm,1.1s						
SNAA	Sanae	57.06	159	P	P	11 40 39.9	+2.8
	comp=Z,0.6nm,0.5s,baz=259,slow=8.5,SNR=1.8						
	comp=Z,0.6nm,0.5s						
SNAA	Sanae	57.06	159	P	P	11 40 37.8	+0.7
SNAA				IAmb	IAmb	11 40 53.6	
	comp=Z,4.8nm,1.1s						
QSPA	South Pole Qui	62.39	180	P	P	11 41 14.4	+0.4
QSPA				IAmb	IAmb	11 41 44.1	
	comp=Z,6.7nm,1.4s						
TXAR	Lajitas Array	64.77	329	P	P	11 41 32.9	+2.8
	comp=Z,0.2nm,0.9s,baz=143,slow=5.3,SNR=1.5						
	comp=Z,0.2nm,0.9s						
DBIC	Dimbokro	72.58	72	P	P	11 42 19.1	+0.2
	comp=Z,7.5nm,0.9s,baz=232,slow=4.4,SNR=3.9						
	comp=Z,7.5nm,0.9s						
TORD	Torodi Ar. Bea	81.44	70	P	P	11 43 09.2	+0.4
	comp=Z,2.1nm,0.8s,baz=250,slow=5.4,SNR=7.0						
	comp=Z,2.1nm,0.8s						
H11S2	WAKE ISLAND Hy	126.36	273	T	T	14 09 09.3	
	baz=115,slow=75						
H11S1	WAKE ISLAND Hy	126.37	273	T	T	14 09 09.9	
	baz=115,slow=75						
H11S3	WAKE ISLAND Hy	126.38	273	T	T	14 09 10.4	
	baz=115,slow=75						
H11N3	WAKE ISLAND Hy	126.62	275	T	T	14 09 26.4	
	baz=112						
H11N1	WAKE ISLAND Hy	126.63	275	T	T	14 09 28.1	
	baz=112						

H11N2	WAKE ISLAND Hy	126.63	275	T	T	14 09 27.6	
	baz=112						
ZALV	Zalesovo Beam	148.52	27	PKPbc	PKPab	11 50 39.3	-1.7
	comp=Z,2.9nm,0.8s,baz=318,slow=2.0,SNR=6.0						
MKAR	Makanchi Array	151.87	41	PKPbc	PKiKP	11 50 46.7	+0.4
	comp=Z,1.1nm,0.8s,baz=302,slow=2.3,SNR=5.1						

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*SOF **01** 11:31:21.6,41°.88N±0°.01×22°.84E±0°.02,h15^{km}±2^{km}, MD3.5/13*

*PDG **01** 11:31:21.6±0.6,41°.84N×22°.76E,h16^{km}±1^{km},ML3.1/10, Error ellipse: s-maj=0.6km s-min=1.0km az=0.0*

*THE **01** 11:31:22.0,42°N±2°×2°3E±°,h1^{km}±1^{km},M3.2/16, MLh3.2/16*

*BEO **01** 11:31:23.6±0.5,41°.94N×22°.79E,h16^{km}±3^{km},ML3.5/18*

*ATH **01** 11:31:24.0,41°.67N×22°.88E,h7^{km}±3^{km},ML3.2/19, Latitude uncertainty: 2 km; Longitude uncertainty: 2 km*

ISC 01 11:31:21.9±0.9**,41°.87N**±0°.02×**22°.84E**±0°.02**,h14**^{km}±7^{km}**, n155,**σ1^{s}**45**/210**,30C-7D,Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KKB	Krupnik	0.22	97	P	Pg	11 31 26.6	-0.1
KKB				S	Sg	11 31 30.1	+0.1
KKB				AML	AML		
KKB	Krupnik	0.22	97	P	Pg	11 31 26.6	-0.1
KKB				S	Sg	11 31 30.1	+0.1
BOSS	Bosilegrad	0.68	337	*e*Pg	Pb	11 31 35.7	+0.1
BOSS				*e*Sg	Sg	11 31 43.5	-0.7
KNT	Kendrikon	0.71	176	P	Pg	11 31 37.0	+1.4
KNT				S	Sb	11 31 46.1	+0.6
KNT				AML	AML		
PLNA	Plana	0.75	35	P	Pb	11 31 36.5	-0.2
PLNA				S	Sn	11 31 47.6	-1.7
MMB	Musomishta	0.75	115	P	Pb	11 31 36.4	-0.4
MMB				S	Sg	11 31 46.7	+0.3
MMB				AML	AML		
MMB	Musomishta	0.75	115	P	Pb	11 31 36.4	-0.4
MMB				S	Sb	11 31 46.5	-0.4
VTS	Vitosha	0.81	21	P	Pb	11 31 36.8	-0.9
VTS				S	Sg	11 31 48.1	0.0
VTS				AML	AML		
VTS	Vitosha	0.81	21	P	Pb	11 31 37.0	-0.7
VTS				S	Sg	11 31 48.2	+0.1
VTS	Vitosha	0.81	21	*e*Pg	Pb	11 31 37.1	-0.7
VTS				*e*Sg	Sg	11 31 48.1	0.0
NVR	Nevrokopi	0.92	124	P	Pb	11 31 39.4	-0.3
NVR				S	Sg	11 31 52.3	+0.5
NVR				AML	AML		
NVR	Nevrokopi	0.92	124	P	Pb	11 31 39.4	-0.3
NVR				S	Sb	11 31 50.8	-1.0
NVR				AML	AML		
GRG	Griva	0.97	200	P	Pb	11 31 38.7	-1.8
GRG				S	Sb	11 31 51.6	-1.5
GRG				AML	AML		
GRG	Griva	0.97	200	P	Pb	11 31 38.6	-1.8
GRG				AML	AML		
TRAN	Tran	0.98	352	P	Pb	11 31 40.0	-0.6
TRAN				S	Sn	11 31 54.6	-0.2
BLSH	Balsha	1.04	18	P	Pn	11 31 41.7	-0.4
BLSH				S	Sn	11 31 56.7	+0.3
SOH	Sokhos	1.11	160	P	Pn	11 31 42.1	-0.9
SOH				S	Sb	11 31 56.9	-0.4
SOH				AML	AML		
SOH	Sokhos	1.11	160	P	Pn	11 31 42.2	-0.8
SOH				S	Sb	11 31 54.1	-3.1
PGB	Panagyurishte	1.18	56	P	Pg	11 31 44.6	0.0
BARS	Barje	1.22	322	*e*Pg	Pn	11 31 44.7	+0.3
BARS				*e*Sg	Sb	11 32 00.0	-0.2
THE	Thessaloniki	1.24	176	P	Pn	11 31 44.0	-0.7
THE				S	Sb	11 32 00.2	-0.5
THE				AML	AML		
THE	Thessaloniki	1.24	176	P	Pn	11 31 44.0	-0.7
THE				S	Sb	11 31 57.5	-3.3
THE				AML	AML		
HORT	Hortiatis	1.28	171	P	Pn	11 31 44.9	-0.5
HORT	Hortiatis	1.28	171	P	Pn	11 31 44.9	-0.5
HORT				S	Sn	11 31 59.0	-3.5
NASA	Naoussa	1.37	206	P	Pn	11 31 47.6	+1.1
NASA				AML	AML		
ZAPS	Zavoj	1.41	354	*e*Pg	Pg	11 31 48.9	-0.1
ZAPS				*e*Sg	Sg	11 32 06.4	-1.0
RZN	Rozhen	1.43	96	P	Pb	11 31 48.6	+0.2
RZN				AML	AML		
RZN	Rozhen	1.43	96	P	Pb	11 31 48.8	+0.4
RZN				S	Sg	11 32 09.4	+1.4
PLD	Plovdiv	1.45	78	P	Pg	11 31 49.1	-0.6
PLD				S	Sg	11 32 09.8	+1.3
PLD				AML	AML		
PLD	Plovdiv	1.45	78	P	Pg	11 31 49.5	-0.2
PLD	Plovdiv	1.45	78	*e*Pg	Pg	11 31 49.7	0.0
PLD				*e*Sg	Sg	11 32 09.8	+1.3
KAVA	Kavala	1.53	124	P	Pb	11 31 50.1	+0.1
KAVA				S	Sb	11 32 10.2	+1.1
KAVA				AML	AML		
KAVA	Kavala	1.53	124	P	Pb	11 31 50.0	+0.1
PLG	Polygyros	1.56	163	P	Pn	11 31 49.9	+0.7
PLG				S	Sn	11 32 10.1	+0.9
PLG				AML	AML		
PLG	Polygyros	1.56	163	P	Pn	11 31 49.8	+0.6
KTI	Kastanea	1.57	201	P	Pn	11 31 49.5	0.0
MPEP	Malo Peshtene	1.63	24	P	Pg	11 31 53.3	+0.2
LMS2	Laimos Florina	1.64	232	P	Pn	11 31 51.0	+0.6
LMS2				AML	AML		
KZN	Kozani	1.76	208	P	Pn	11 31 52.2	+0.3
KZN				S	Sn	11 32 15.0	+0.9
KZN				AML	AML		
KZN	Kozani	1.76	208	P	Pn	11 31 52.3	+0.4
KZN				AML	AML		
BLKB	Belogradchik	1.76	356	*e*Pg	Pb	11 31 54.0	+0.1
BLKB				*e*Sg	Sg	11 32 17.5	-0.9
OUR	Ouranopolis	1.76	150	P	Pn	11 31 52.6	+0.8
OUR				S	Sb	11 32 16.0	+0.2
OUR				AML	AML		
OUR	Ouranopolis	1.76	150	P	Pn	11 31 52.4	+0.6
LIT	Litokhoron	1.79	189	P	Pn	11 31 52.0	-0.3
LIT				AML	AML		
LIT	Litokhoron	1.79	189	P	Pn	11 31 51.9	-0.4
SELS	Selova	1.86	317	*e*Pg	Pn	11 31 53.9	+0.7
SELS				*e*Sg	Sg	11 32 20.7	-0.9
KDZ	Kurdzhali	1.89	96	P	Pb	11 31 55.3	-0.7
THAS	Thassos island	1.90	131	S	Sb	11 32 18.6	-1.1
THAS	Thassos island	1.90	131	P	Pn	11 31 54.1	+0.3
THAS				AML	AML		
BOVS	Bovan	1.95	335	*e*Pg	Pn	11 31 55.3	+0.7
BOVS				*e*Sg	Sb	11 32 22.9	+1.5
BOVS	Bovan	1.95	335	⇑P	Pn	11 31 54.6	+0.1
BOVS				⇓S	Sn	11 32 14.8	-4.1
ZAGS	Zajecar	1.99	347	*e*Pg	Pb	11 31 56.6	-1.3
ZAGS				*e*Sg	Sg	11 32 25.1	-0.9
PLVB	Pleven	2.01	40	⇑P	Pg	11 32 00.4	0.0
PLVB				⇑S	Sg	11 32 23.7	-2.7
DIM	Dimitrovgrad	2.05	84	P	Pg	11 32 00.7	-0.5
PVL	Pavlikeni	2.13	53	P	Pg	11 32 02.8	+0.1
KPRO	Kipourio	2.21	211	P	Pn	11 31 59.4	+1.2
KPRO				AML	AML		
PVY	Plav	2.26	290	*e*Pn	Pn	11 31 58.8	-0.1
PVY				*i* Sn	Sn	11 32 27.8	+1.2
PVY				AML	AML		
BORS2	Bor- Borsko je	2.30	345	*e*Pn	Pn	11 31 59.2	-0.2
THL	Klokotos Trika	2.38	196	P	Pn	11 32 00.8	+0.4
THL				AML	AML		
IVA	Berane	2.40	296	⇑*i*Pn	Pn	11 32 00.8	0.0
IVA				*i* Sn	Sn	11 32 31.4	+1.3
IVA				AML	AML		
PUNG	Punghina	2.41	2	⇑P	Pn	11 32 01.5	+0.7
PUNG				⇑S	Sn	11 32 26.6	-3.5
VLAD	Vladila	2.42	28	⇑P	Pb	11 32 04.1	-1.0
SMTH	Samothraki Isl	2.46	124	P	Pn	11 32 02.1	+0.5
SMTH				AML	AML		
XOR	Xorichti	2.51	174	P	Pn	11 32 02.7	+0.4
SJES	Sjenica	2.54	304	*e*Pn	Pn	11 32 03.5	+0.8
SJES	Sjenica	2.54	304	*e*Pn	Pb	11 32 08.9	+1.7
GRUS	Gruza	2.55	323	*e*Pn	Pn	11 32 03.3	+0.5
GRUS				*e*Sg	Sg	11 32 43.9	0.0
NEO	Neokhori	2.58	173	P	Pn	11 32 03.3	+0.1
NEO				AML	AML		
ALN	Alexandroupoli	2.60	111	P	Pn	11 32 05.1	+1.7
ALN				AML	AML		
IVAS	Ivanjica	2.62	312	*e*Pn	Pn	11 32 04.0	+0.3
IVAS				*e*Sg	Sg	11 32 45.1	-0.8
LIA	Limnos Island	2.65	137	P	Pn	11 32 04.7	+0.6
LIA				AML	AML		
KOME	Kolasin	2.65	293	*e*Pn	Pn	11 32 04.3	0.0
KOME				*i* Sn	Sn	11 32 37.3	+1.0
KOME				AML	AML		
KUBS	Kucevo	2.68	342	*e*Pn	Pn	11 32 03.9	-0.7
PDG	Podgorica	2.73	283	⇑P	Pn	11 32 07.3	+2.2
PDG				⇑S	Sn	11 32 38.0	+0.2
PDG	Podgorica	2.73	283	*e*Pn	Pn	11 32 05.1	0.0
PDG	Podgorica	2.73	283	*e*Pn	Pn	11 32 05.1	0.0
PDG				*i* Sn	Sn	11 32 38.8	+0.9
PDG				AML	AML		
DRME	Dracevica, Mon	2.74	278	*e*Pn	Pn	11 32 08.3	+2.9
DRME	Dracevica, Mon	2.74	278	*e*Pn	Pn	11 32 05.5	+0.1
DRME				*i* Sn	Sn	11 32 39.2	+0.9
DRME				AML	AML		
CAVK	Edirne/Enez-Ca	2.77	114	⇑P	Pg	11 32 17.1	+2.1
TETR	Tetrakomo, Epi	2.79	206	P	Pn	11 32 07.5	+1.3
TETR				AML	AML		
AOS2	Alonissos-2	2.82	164	P	Pn	11 32 06.5	0.0
AOS2				AML	AML		
AGG	Agios Georgios	2.87	188	P	Pn	11 32 07.7	+0.6
PLE	Pljevlja	2.94	301	*e*Pn	Pn	11 32 08.3	+0.1
PLE				*i* Sn	Sn	11 32 44.2	+0.9
PLE				AML	AML		
TRUS	Trudelj	2.95	324	*e*Pn	Pn	11 32 08.8	+0.5
BUM	Brajici-Budva	2.97	280	*e*Pn	Pn	11 32 08.5	-0.1
BUM				*i* Sn	Sn	11 32 44.7	+0.7
BUM				AML	AML		
IGT	Igoumenitsa	3.01	220	*e*Pn	Pn	11 32 12.2	+3.1
IGT	Igoumenitsa	3.01	220	P	Pn	11 32 12.2	+3.1
NKME	Niksic	3.02	289	*e*Pn	Pn	11 32 09.3	0.0
NKME				*i* Sn	Sn	11 32 46.0	+0.8
NKME				AML	AML		
MDVR	Moldovita	3.03	345	⇑P	Pn	11 32 09.2	-0.1
MDVR				⇑S	Sn	11 32 41.1	-4.3
HERR	Herculane	3.03	354	⇑P	Pn	11 32 09.2	-0.1
HERR				⇓S	Sn	11 32 42.3	-3.1
DIVS	Divibare	3.06	318	*e*Pn	Pn	11 32 10.4	+0.6
AXAR	Agios Charalam	3.10	183	P	Pn	11 32 11.1	+0.7
LOZB	Loznitsa	3.15	60	⇓P	Pb	11 32 17.0	-0.6
ATAL	Atalanti	3.17	177	P	Pn	11 32 11.5	+0.2
RAZG	Razgrad	3.19	57	⇑P	Pb	11 32 17.5	-0.8
BBLS	Lazi&#263i	3.22	309	*e*Pn	Pn	11 32 13.8	+1.8
BBLS	Lazi&#263i	3.22	309	*e*Pn	Pg	11 32 22.1	-1.4
HCY	Herceg Novi	3.28	282	*e*Pn	Pn	11 32 13.0	+0.2
HCY				*i* Sn	Sn	11 32 52.2	+0.5
HCY				AML	AML		
ANX	Ano Chora	3.35	192	P	Pn	11 32 14.7	+0.9
ANX				AML	AML		
BRY	Bratogost	3.35	289	*e*Pn	Pn	11 32 16.1	+2.2
BRY	Bratogost	3.35	289	*e*Pn	Pn	11 32 14.0	+0.1
BRY				*i* Sn	Sn	11 32 54.0	+0.5
BRY				AML	AML		
PVO	Paravola	3.40	198	P	Pn	11 32 16.8	+2.4
KLINJ	Klinje	3.40	294	*e*Pn	Pn	11 32 18.0	+3.4
VRSS	Vrsac	3.44	342	*e*Pn	Pn	11 32 15.3	+0.4
TREB	Trebinje	3.44	286	*e*Pn	Pn	11 32 17.8	+2.8
LKD2	Lefkada island	3.50	209	P	Pn	11 32 17.8	+2.0
SERG	Sergoula	3.50	190	P	Pn	11 32 16.7	+0.8
PDO	Prodromos	3.50	202	P	Pn	11 32 18.6	+2.8
PYRG	Pyrgos, Dorida	3.51	191	P	Pn	11 32 17.0	+1.0
MG00	Magoula, Dorid	3.52	192	P	Pn	11 32 17.2	+1.2
MG00				AML	AML		
GZR	Gura Zlata	3.52	359	⇑P	Pn	11 32 16.2	0.0
NYDR	Nydri-Lefkada	3.55	208	P	Pn	11 32 18.6	+2.1
TEKS	Tekeris	3.61	319	*e*Pn	Pn	11 32 17.6	+0.2
TEKS	Tekeris	3.61	319	*e*Pn	Pn	11 32 17.2	-0.2
LOT	Lotru	3.64	10	⇑P	Pn	11 32 18.3	+0.4
VIL2	Platees	3.67	175	P	Pn	11 32 19.5	+1.4
PRK	Paraskevi	3.70	134	P	Pn	11 32 20.3	+1.7
BANR	Banloc	3.73	341	⇓P	Pn	11 32 17.9	-1.0
ARR	Arges	3.73	20	⇑P	Pn	11 32 20.7	+1.6
LTK	Loutraki	3.84	179	P	Pn	11 32 21.1	+0.6
BZS	Buzias	3.85	347	⇓P	Pn	11 32 21.0	+0.4
KLV	Kalavryta, Ach	3.86	188	P	Pn	11 32 21.2	+0.5
DION	Dionisos Attik	3.88	167	P	Pn	11 32 22.1	+1.1
VOIR		3.91	23	⇑P	Pn	11 32 23.6	+2.0
GUR	Goura	3.94	186	P	Pn	11 32 22.8	+0.7
FRGS	Fruska Gora	3.96	327	*e*Pn	Pn	11 32 22.4	+0.3
FRGS	Fruska Gora	3.96	327	*e*Pn	Pg	11 32 35.2	-2.5
DEV	Deva	4.01	1	⇑P	Pn	11 32 24.4	+1.5
CHOS	Chios island	4.26	144	P	Pn	11 32 27.6	+1.3
MET4	Agioi Theodoro	4.26	174	P	Pn	11 32 27.4	+1.1
MLR	Muntele Rosu	4.26	31	⇑P	Pn	11 32 29.5	+3.1
MET2	Kameni Chora,	4.27	175	P	Pn	11 32 27.1	+0.8
NEHR	Nehoiu	4.35	34	⇑P	Pn	11 32 31.4	+3.9
TLBR	Topalu	4.65	53	⇑P	Pn	11 32 36.4	+4.8
HARR	Harsova	4.67	51	⇓P	Pn	11 32 35.8	+4.0
MARR	Marisel-Cluj	4.81	2	⇑P	Pn	11 32 35.0	+1.1
TIRR	Tirgusor	4.83	56	⇓P	Pn	11 32 39.6	+5.6
PLOR	Plostina	4.84	33	⇑P	Pn	11 32 37.3	+3.0
VRI	Vrincioaia	4.88	34	⇑P	Pn	11 32 37.9	+3.0
DRGR		4.92	359	⇑P	Pn	11 32 36.0	+0.5
BLY	Banja Luka	5.03	307	*e*Pn	Pn	11 32 38.1	+1.2
ONER	Baraj Valea Uz	5.15	29	⇑P	Pn	11 32 41.5	+3.1
MORH	Mrgy, Hungar	5.29	327	⇑P	Pn	11 32 40.0	-0.4
MORH	Mrgy, Hungar	5.29	327	*e*Pn	Pn	11 32 40.7	+0.3
BURAR	Bucovina Array	5.99	16	⇑P	Pn	11 32 52.3	+2.2
BEHE	Becsehely	6.34	319	*e*Pn	Pn	11 32 53.3	-1.5
PSZ	Piszkesteto	6.40	342	⇑P	Pn	11 32 56.2	+0.5
KECS	Kecovo	6.82	347	*e*PN	Pn	11 33 02.9	+1.5
KECS				*e*SN	Sn	11 34 19.3	+0.5
VYHS	Vyhne	7.20	338	*e*PN	Pn	11 33 08.4	+1.7
VYHS				*e*SN	Sn	11 34 29.9	+1.7
RONA	Rosalia, Austr	7.46	324	*e*Pn	Pn	11 33 12.1	+1.8
	2.3nm,0.2s						
ARSA	Arzberg	7.50	318	*e*Pn	Pn	11 33 12.6	+1.8
	2.8nm,0.4s						
ARSA				*i* Sn	Sn	11 34 39.3	+3.8
	3.2nm,0.4s						
MODS	Modra-Piesok	7.60	331	*e*PN	Pn	11 33 13.6	+1.5
MODS				*e*SN	Sn	11 34 36.7	-1.3
CONA	Conrad Observa	7.82	323	*e*Pn	Pn	11 33 16.7	+1.4
	1.9nm,0.3s						
CONA				*i* Sn	Sn	11 34 47.3	+3.7
	2.1nm,0.4s						
LESA	Schwarzleotal	9.12	311	*e*Pn	Pn	11 33 35.8	+2.7
	3.0nm,0.4s						
LESA				*i* Sn	Sn	11 35 15.3	-0.3
	1.1nm,0.3s						
WTTA	Wattenberg	9.64	308	*e*Pn	Pn	11 33 43.8	+3.5
	4.3nm,0.4s						

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*IDC **01** 11:42:43.4±1.7,20°.15S×177°.54W,h517^{km}±21^{km},mb3.3/6, mbtmp4.2/9,Error ellipse: s-maj=24.7km s-min=21.9km az=171.0*

ISC 01 11:42:42.2±0.8**,20°.3S**±0°.1×**177°.4W**±0°.1**,h500**^{km}**,n11,** σ1^{s}**11**/11**,mb3.9**/7**,1C,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	Nonsavu	4.98	300	P	P	11 44 11.2	+2.1
	5.0nm,0.4s,baz=97,slow=23,SNR=15						
AFI	Afiamalu	8.34	41	P	P	11 44 42.3	0.0
	50nm,0.9s,baz=168,slow=11,SNR=2.4						
URZ	Urewera	18.51	194	P	P	11 46 26.9	-0.2
	2.2nm,0.5s,baz=34,slow=17,SNR=1.2						
STKA	Stephens Creek	38.36	244	P	P	11 49 19.4	-0.5
	2.2nm,0.5s,baz=94,slow=9.9,SNR=6.4						
	2.2nm,0.5s						
ASAR	Alice Springs	45.09	256	P	P	11 50 12.5	-0.9
	7.7nm,0.8s,baz=98,slow=7.6,SNR=110						
	7.7nm,0.8s						
WRA	Warramunga Arr	45.16	262	P	P	11 50 12.6	-1.4
	1.1nm,0.3s,baz=97,slow=7.6,SNR=90						
	1.1nm,0.3s						
QSPA	South Pole Qui	69.77	180	P	P	11 53 02.6	+1.1
	2.1nm,0.8s,baz=296,slow=0.3,SNR=13						
	2.1nm,0.8s						
ILAR	Eielson Array	88.00	13	P	P	11 54 37.1	-1.0
	0.2nm,0.8s,baz=202,slow=5.0,SNR=1.6						
	0.2nm,0.8s						
VNA3	Neumayer Olymp	88.30	176	⇑P	P	11 54 39.8	+0.2
	comp=Z,1.3nm,0.2s						
VNA2	Neumayer--Watz	88.75	177	P	P	11 54 42.2	+0.5
	baz=184,slow=3.8						
CMAR	Chiang Mai Arr	90.55	289	P	P	11 54 50.6	-0.4
	comp=Z,0.5nm,0.3s,baz=100,slow=4.5,SNR=4.4						
	comp=Z,0.5nm,0.3s						

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*IDC **01** 11:45:23.7±1.1,27°.79S×71°.49W,h0^{km},mb4.1/4, mbtmp4.1/7,ML4.0/3,Error ellipse: s-maj=31.2km s-min=16.1km az=78.0*

*NEIC **01** 11:45:25.7±1.9,27°.94S±0°.02×71°.48W±0°.05,h12^{km}±5^{km}, mb4.4/5,ML4.0(GUC),Error ellipse: s-maj=6.9km s-min=3.2km az=80.0*

*SJA **01** 11:45:26.9±1.9,27°.95S×71°.34W,h19^{km}±8^{km},ML4.0, MW3.8*

*GUC **01** 11:45:26.7±0.9,27°.97S×71°.33W,h25^{km}±6^{km},ML4.0*

ISC 01 11:45:24.7±1.5**,27°.89S**±0°.03×**71°.49W**±0°.06**,h10**^{km}±8^{km}**, n73,**σ1^{s}**31**/75**,mb4.4**/5**,4C-4D,Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	Llanos de Chal	0.48	130	*e*P	Pg	11 45 35.0	+0.8
AC04				IAML		11 45 42.0	
	comp=Z,12µm,0.4s						
AC04	Llanos de Chal	0.48	130	⇓*i*P	Pg	11 45 35.1	+0.9
AC04				*e*S	Sg	11 45 40.0	-0.6
AC04				IAML		11 45 40.6	
	comp=E,65µm,0.2s						
AC04	Llanos de Chal	0.48	130	Pg	Pg	11 45 35.1	+0.9
AC04				Sg	Sg	11 45 40.0	-0.6
AC06	Mina Casimiro	1.14	62	*e*P	Pn	11 45 46.3	-0.6
AC06				IAML		11 46 05.2	
	comp=N,6µm,0.5s						
GO03	Copiapo	1.15	75	*e*P	Pn	11 45 45.9	-1.2
GO03				*e*S	Sb	11 46 02.0	+0.2
GO03				IAML		11 46 03.7	
	comp=Z,4µm,0.5s						
GO03	Copiapo	1.15	75	⇓*i*P	Pn	11 45 46.5	-0.5
GO03				IAML		11 46 06.7	
	comp=E,5µm,0.3s						
GO03	Copiapo	1.15	75		Pn	11 45 46.5	-0.5
LCO	Las Campanas	1.31	148	*e*P	Pb	11 45 50.4	+0.7
LCO				IAML		11 46 09.8	
	comp=Z,5µm,0.2s						
LCO	Las Campanas	1.31	148	⇓*e*P	Pn	11 45 48.9	-0.6
LCO				*e*S	Sb	11 46 04.8	-1.9
LCO	Las Campanas	1.31	148		Pn	11 45 48.8	-0.6
AC05	El Transito	1.43	132	*e*P	Pn	11 45 51.1	+0.3
AC05				IAML		11 46 11.1	
	comp=Z,1µm,0.6s						
AC05	El Transito	1.43	132	⇓*i*P	Pn	11 45 50.6	-0.3
AC05				IAML		11 46 08.4	
	comp=N,4µm,0.5s						
AC05	El Transito	1.43	132		Pn	11 45 50.7	-0.1
AC05				Sn	Sn	11 46 06.9	-2.9
AC01	Pan de Azucar	1.91	25	*e*P	Pn	11 45 59.0	+1.6
AC01				*e*S	Sg	11 46 27.2	+1.0
AC01				IAML		11 46 33.9	
	comp=Z,816nm,0.8s						
AC01	Pan de Azucar	1.91	25	⇑*e*P	Pn	11 45 58.3	+0.9
AC01				IAML		11 46 34.0	
	comp=E,2µm,0.4s						
AC01	Pan de Azucar	1.91	25		Pn	11 45 58.3	+0.9
AC02	Maricunga	2.35	64	*e*P	Pb	11 46 06.5	-1.0
AC02				IAML		11 46 39.5	
	comp=Z,1µm,0.5s						
AC02	Maricunga	2.35	64	*e*P	Pb	11 46 06.5	-1.0
AC02				IAML		11 46 40.1	
	comp=N,3µm,0.3s						
AC02	Maricunga	2.35	64		Pb	11 46 06.6	-1.0
GO04	Tololo Observa	2.35	165	*e*P	Pn	11 46 04.5	+0.8
GO04				IAML		11 46 42.8	
	comp=Z,2µm,0.3s						
GO04	Tololo Observa	2.35	165	*e*P	Pn	11 46 04.5	+0.8
GO04	Tololo Observa	2.35	165		Pn	11 46 04.9	+1.2
CO01	Juntas del Tor	2.41	150	*e*P	Pb	11 46 06.9	-1.5
CO01				*e*S	Sn	11 46 35.1	+0.8
CO01				IAML		11 46 39.7	
	comp=Z,1µm,0.3s						
CO01	Juntas del Tor	2.41	150	*e*P	Pn	11 46 06.4	+1.8
CO01				IAML		11 46 38.5	
	comp=N,1µm,0.6s						
CO01	Juntas del Tor	2.41	150		Pn	11 46 06.5	+2.0
CO06	Fray Jorge	2.77	183	*e*P	Pn	11 46 09.0	-0.3
CO06				IAML		11 46 58.8	
	comp=E,573nm,0.3s						
CO06	Fray Jorge	2.77	183		Pn	11 46 09.3	0.0
AROD	Rodeo	2.87	143	*e*P	Pb	11 46 14.8	-1.5
VCA	Vinchina	3.02	107	*e*P	Pb	11 46 17.8	-0.8
VCA				IAML		11 47 01.1	
	comp=Z,742nm,0.3s						
ACDV	Cuesta del Vie	3.08	138	*e*P	Pn	11 46 17.0	+3.4
ACDV				IAML		11 47 00.5	
	comp=Z,312nm,0.7s						
CO02	Combarbal	3.33	173	*e*P	Pn	11 46 17.6	+0.6
CO02	Combarbal	3.33	173		Pn	11 46 17.8	+0.8
PB14	IPOC Station P	3.40	17	Pn	Pn	11 46 18.6	+0.5
ACCO	Cerro Coronel	3.42	142	*e*P	Pn	11 46 22.2	+3.7
ACCO				IAML		11 47 15.8	
	comp=Z,542nm,0.5s						
TINO	Tinogasta	3.47	94	*e*P	Pn	11 46 21.2	+2.2
TINO				IAML		11 47 16.5	
	comp=Z,343nm,0.8s						
CO04	Los Peladeros	4.16	174		Pn	11 46 29.9	+1.3
ACLC	CERRO LA CRUZ	4.27	112	*e*P	Pn	11 46 32.6	+2.6
ACLC				IAML		11 47 32.9	
	comp=Z,204nm,0.3s						
CFA	Coronel Fontan	4.66	143	Pn	Pn	11 46 38.2	+3.0
	comp=Z,11nm,0.3s,baz=320,slow=13,SNR=49						
CFA				Sn	Sn	11 47 31.4	+2.0
	comp=Z,13nm,0.3s,baz=107,slow=21,SNR=7.0						
	comp=Z,36nm,0.2s						
CFA				AML	AML		
VA03	San Esteban	4.92	171	Pn	Pn	11 46 40.8	+1.9
PB05	IPOC Station P	5.15	13		Pn	11 46 41.6	-0.5
PB06	IPOC Station P	5.45	19		Pn	11 46 46.4	+0.2
MT09	Talagante	5.88	176	Pn	Pn	11 46 52.6	+0.4
MT01	Popeta	5.96	178	Pn	Pn	11 46 53.8	+0.8
H03S3	Juan Fernandez	8.70	225	Pn	Pn	11 47 27.7	-2.7
H03S1	Juan Fernandez	8.70	225	Pn	Pn	11 47 28.5	-2.0
H03S2	Juan Fernandez	8.71	225	Pn	Pn	11 47 29.3	-1.3
BI02	San Fabin de	8.75	179		Pn	11 47 30.9	-0.5
LPAZ	La Paz	11.96	16	Pn	Pn	11 48 15.0	-1.0
	comp=Z,0.6nm,0.3s,baz=214,slow=4.4,SNR=7.4						
	comp=Z,1.2nm,0.3s						
LPAZ				AML	AML		
LPAZ	La Paz	11.96	16	Pn	Pn	11 48 16.2	+0.2
CPUP	Villa Florida	12.71	86	Pn	Pn	11 48 25.0	-0.6
	comp=Z,0.1nm,0.3s,baz=248,slow=16,SNR=1.7						
	comp=Z,0.7nm,0.6s						
CPUP				AML	AML		
CPUP	Villa Florida	12.71	86		Pn	11 48 25.2	-0.4
TRQA	Tornquist	12.89	144	Pn	Pn	11 48 27.7	-0.5
VNA2	Neumayer--Watz	55.49	159	⇑P	P	11 54 59.9	+0.5
	comp=Z,2.1nm,0.5s,baz=284,slow=6.9						
SNAA	Sanae	57.09	159	⇑P	P	11 55 11.4	+0.5
	comp=Z,28nm,0.5s						
SNAA	Sanae	57.09	159	P	P	11 55 11.2	+0.3
	comp=Z,1.6nm,0.7s,baz=298,slow=5.8,SNR=5.3						
	comp=Z,1.6nm,0.7s						
SNAA	Sanae	57.09	159	P	P	11 55 11.2	+0.3
TROLL	Troll, Antarti	58.80	160	⇑P	P	11 55 23.6	+0.6
	comp=Z,79nm,0.7s						
QSPA	South Pole Qui	62.33	180	P	P	11 55 48.0	+0.9
	comp=Z,1.5nm,0.8s,baz=161,slow=2.0,SNR=7.1						
	comp=Z,1.5nm,0.8s						
QSPA	South Pole Qui	62.33	180	P	P	11 55 47.5	+0.3
DBIC	Dimbokro	72.84	73	P	P	11 56 54.1	-0.1
TORD	Torodi Ar. Bea	81.71	70	P	P	11 57 44.3	+0.4
	comp=Z,1.1nm,0.7s,baz=263,slow=4.4,SNR=10.0						
	comp=Z,1.1nm,0.7s						
BOSA	Boshof	82.52	118	P	P	11 57 48.5	+0.3
	comp=Z,3.3nm,0.9s,baz=248,slow=3.9,SNR=3.6						
	comp=Z,3.3nm,0.9s						
BOSA	Boshof	82.52	118	P	P	11 57 46.6	-1.6
BOSA				IAmb	IAmb	11 57 59.0	
	comp=Z,3.9nm,1.2s						
CASY	Casey	86.12	181	P	P	11 58 06.9	+1.3
CASY				IAmb	IAmb	11 58 11.2	
	comp=Z,4.8nm,1.4s						
H11S2	WAKE ISLAND Hy	126.11	273	T	T	14 23 39.1	
	baz=112,slow=75,SNR=20						
H11S1	WAKE ISLAND Hy	126.12	273	T	T	14 23 39.7	
	baz=112,slow=75,SNR=28						
H11S3	WAKE ISLAND Hy	126.13	273	T	T	14 23 40.1	
	baz=112,slow=75,SNR=24						

H11N3	WAKE ISLAND Hy	126.37	275	T	T	14 23 58.1	
	baz=112,slow=74						
H11N1	WAKE ISLAND Hy	126.39	275	T	T	14 24 00.1	
	baz=112						
H11N2	WAKE ISLAND Hy	126.39	275	T	T	14 23 57.5	
	baz=112,slow=74						
KURBB	Kurchatov Arra	147.90	37	PKPbc	PKPbc	12 05 09.3	-0.6
	comp=Z,0.7nm,0.6s,baz=305,slow=3.3,SNR=2.1						
ZALV	Zalesovo Beam	148.70	27	PKPbc	PKiKP	12 05 12.9	-0.4
	comp=Z,1.8nm,0.6s,baz=297,slow=2.2,SNR=4.0						
MKAR	Makanchi Array	152.09	40	PKPbc	PKiKP	12 05 21.4	+0.8
	comp=Z,1.0nm,0.7s,baz=298,slow=3.0,SNR=4.2						

IDC ***01*** *11:52:49.1±0.5, 3°.14N×95°.85E, h0^{km}, mb4.6/31, mbtmp4.6/32, ML4.9/1, MS4.1/4, Error ellipse: s-maj=16.9km s-min=11.6km az=71.0*

BJI ***01*** *11:52:50.7, 3°.12N×95°.80E, h24^{km}, mB5.2/10, mb4.9/50, Ms4.7/14, Ms7 4.4/15*

NEIC ***01*** *11:52:50.7±1.0, 3°.04N±0°.06×95°.73E±0°.07, h9^{km}±4^{km}, mb4.9/50, Error ellipse: s-maj=13.7km s-min=3.0km az=48.0*

DJA ***01*** *11:52:51.8±0.9, 3°N±2°×9°6E±°, h11^{km}±7^{km}, M5.1/30, mB5.6/11, mb5.3/17, MLv5.1/30, Mw4.8/14, Mw(mB)5.1/11*

GFZ ***01*** *11:52:53.9±0.2, 3°N±3°×9°6E±°, h26^{km}, M5.2/44, mb4.9/44, confirmed*

ISC 01 11:52:53.7±0.7, **3°.10N**±0°.04×**95°.88E**±0°.05, **h31**^{km}±4^{km}, **n275, σ1^{s}21**/261, **mb4.8**/102, **MS4.3**/9, **4D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNSI	Sinabang, Aceh	0.81	147	P	Pb	11 53 09.3	0.0
SNSI				AML	AML		
MLSI	Meulaboh, Aceh	1.27	24	P	Pn	11 53 16.5	+1.1
MLSI	Meulaboh, Aceh	1.27	24	P	Pn	11 53 16.3	+0.9
TPTI		1.31	83	P	Pn	11 53 16.4	+0.6
KCSI	Kotacane, Aceh	1.93	77	P	Pb	11 53 27.0	-1.3
KCSI				AML	AML		
LHMI	Lhok Sumawe	2.37	27		Pn	11 53 33.0	+2.5
LHMI	Lhok Sumawe	2.37	27	P	Pn	11 53 32.8	+2.3
LHMI				AML	AML		
LHMI	Lhok Sumawe	2.37	27	P	Pn	11 53 33.2	+2.7
BSI	Banda Aceh	2.46	346	P	Pn	11 53 31.4	-0.3
BSI				AML	AML		
GSI	Gunungsitoli	2.46	136	P	Pn	11 53 32.5	+0.8
GSI	Gunungsitoli	2.46	136	S	Sn	11 53 59.5	-1.2
GSI	Gunungsitoli	2.46	136		Pn	11 53 32.3	+0.7
GSI	Gunungsitoli	2.46	136	P	Pn	11 53 32.2	+0.5
GSI				AML	AML		
GSI	Gunungsitoli	2.46	136	P	Pn	11 53 32.5	+0.8
TSI	Tuntungan	2.71	81	P	Pb	11 53 40.1	-1.4
PSI	Prapat	3.05	95	P	Pn	11 53 42.7	+2.7
PSI	Prapat	3.05	95	P	Pn	11 53 42.7	+2.7
RPSI	Rantau Prapat	3.06	97	Pn	Pn	11 53 42.1	+2.1
RPSI	Rantau Prapat	3.06	97	P	Pn	11 53 43.4	+3.3
PBSI	Pulau Batu	3.94	143	P	Pn	11 53 52.7	+0.6
PBSI				AML	AML		
MNSI	Mandailing Nat	4.34	122	P	Pn	11 54 00.1	+2.5
MNSI				AML	AML		
KULM	Kulim	5.23	65	P	Pn	11 54 12.4	+2.6
KULM	Kulim	5.23	65		Pn	11 54 10.7	+0.9
KULM	Kulim	5.23	65	P	Pn	11 54 11.8	+2.0
	114nm,0.6s						
KULM	Kulim	5.23	65	P	Pn	11 54 12.6	+2.8
	comp=Z,114nm,0.6s						
IPM	Ipoh	5.31	75	P	Pn	11 54 14.3	+3.3
IPM	Ipoh	5.31	75		Pn	11 54 12.5	+1.5
IPM	Ipoh	5.31	75	P	Pn	11 54 13.1	+2.1
	comp=Z,137nm,0.7s						
IPM	Ipoh	5.31	75	P	Pn	11 54 14.0	+3.0
	comp=Z,137nm,0.7s						
PPI	Padang Panjang	5.73	128	P	Pn	11 54 19.1	+2.4
	comp=Z,0.6nmcomp=Z,144nm,0.8s						
PPI				AML	AML		
BKNI	Bangkinang	5.84	118	Pn	Pn	11 54 19.1	+0.8
BKNI	Bangkinang	5.84	118	P	Pb	11 54 30.2	-4.7
BKNI	Bangkinang	5.84	118	P	Pn	11 54 19.4	+1.2
	comp=Z,190nm,0.6s						
PDSI	Padang	6.07	131	P	Pn	11 54 22.3	+0.9
PDSI				AML	AML		
SDSI	Sungai Dareh	6.84	126	P	Pn	11 54 33.9	+2.0
SDSI				AML	AML		
KRJI	Kerinci	7.59	133	P	Pn	11 54 45.6	+3.2
MYKOM	Kota Tinggi	8.07	99	P	Pn	11 54 50.7	+1.9
MYKOM	Kota Tinggi	8.07	99		Pn	11 54 50.5	+1.8
MYKOM	Kota Tinggi	8.07	99	P	Pn	11 54 50.7	+1.9
MYKOM	Kota Tinggi	8.07	99	P	Pn	11 54 51.2	+2.4
	comp=Z,33nm,0.8s						
MASI	Maura Aman, Be	8.88	134	P	Pn	11 55 01.3	+1.4
	comp=Z,215nm,1.2s						
UBSI	University, Be	9.34	137	P	Pn	11 55 07.1	+0.9
	comp=Z,230nm,0.9s						
KSI	Kapahiang	9.48	135	P	Pn	11 55 22.7	+14
MNAI	Manna	10.24	136	P	Pn	11 55 17.7	-0.9
MNAI	Manna	10.24	136	Pn	Pn	11 55 18.7	+0.1
LHSI	Lahat	10.28	132	P	Pn	11 55 22.0	+2.9
MDSI	Maura Dua	11.20	132	P	Pn	11 55 31.8	0.0
MDSI	Maura Dua	11.20	132	P	Pn	11 55 31.4	-0.4
	comp=Z,64nm,0.8s						
DLV	Lat	15.27	54	P	Pn	11 56 27.0	-0.4
	comp=Z,23nm,1.4s						
CM31	Chiang Mai Arr	15.56	11	Pn	Pn	11 56 30.4	-0.5
CM31				IAmb	IAmb	11 56 35.7	
	comp=Z,64nm,1.0s						
CMAR	Chiang Mai Arr	15.56	11	Pn	Pn	11 56 31.1	+0.2
	comp=Z,1.7nm,0.3s,baz=202,slow=12,SNR=41						
CMAR				LR	LR	12 03 09.1	
	comp=Z,897nm,18.0s,baz=195,slow=40						
	comp=Z,27nm,0.8s						
CMAR				AML	AML		
CMAR	Chiang Mai Arr	15.56	11		Pn	11 56 31.0	0.0
CHTO	Chiang Mai	15.91	11		Pn	11 56 35.7	+0.3
CHTO	Chiang Mai	15.91	11	P	Pn	11 56 35.6	+0.2
	comp=Z,30nm,1.0s						
SBUM	Sibu	16.33	92	Pn	Pn	11 56 41.8	+0.9
SBUM	Sibu	16.33	92	P	P	11 56 42.9	-0.7
	comp=Z,14nm,1.8s						
NPW	Naypyitaw	16.58	1	P	Pn	11 56 41.7	-2.4
	comp=Z,108nm,1.1s						
SLVN	Son La	19.74	23	P	Pn	11 57 22.5	-0.2
SLVN	Son La	19.74	23		P	11 57 21.5	+0.4
SLVN				IAmb	IAmb	11 57 33.6	
	comp=Z,38nm,0.9s						
SLVN	Son La	19.74	23	P	P	11 57 22.0	+0.8
	comp=Z,50nm,1.0s						
KKM	Kota Kinabalu	20.48	81	P	Pn	11 57 30.8	-0.8
KKM	Kota Kinabalu	20.48	81	S	S	12 01 18.3	+1.1
KKM	Kota Kinabalu	20.48	81	P	P	11 57 30.1	+0.8
KKM				IAmb	IAmb	11 57 44.1	
	comp=Z,28nm,0.8s						
KKM	Kota Kinabalu	20.48	81	P	Pn	11 57 30.9	-0.7
	comp=Z,42nm,1.2s						
MORE	Moreh	21.07	356		P	11 57 32.8	-2.7
HYB	Hyderabad	22.17	311	*e*P	P	11 57 45.8	-1.7
HYB				*e*PcP	PcP	12 01 43.5	-0.4
HYB				*e*S	S	12 01 50.9	+0.6
MYLDM	Lahad Datu	22.65	84	P	P	11 57 52.8	+0.2
MYLDM	Lahad Datu	22.65	84	P	P	11 57 52.5	-0.1
MYLDM	Lahad Datu	22.65	84	P	P	11 57 55.9	+3.3
	comp=Z,65nm,1.4s						
SHL	Shillong	22.67	351	P	P	11 57 50.5	-2.3
KMI2	Kunming	22.90	16	P	P	11 57 55.8	+0.5
KMI2				pP	sP	11 58 05.7	-1.4
KMI2				pmax	pmax		
	comp=Z,26nm,1.2s						
PZH	PanZhiHua	23.94	13	P	P	11 58 04.3	-1.1
PZH				pmax	pmax		
	comp=Z,30nm,1.4s						
MPSI	Mapaga	24.16	96	P	P	11 58 07.8	+0.4
	comp=Z,12nm,1.1s						
PLAI	Plampang	24.84	119	P	P	11 58 13.0	-0.6
PLAI	Plampang	24.84	119	S	S	12 02 34.0	-0.7
TOLI2	Tolitoli	24.96	94	P	P	11 58 15.6	+0.9
TOLI2	Tolitoli	24.96	94	P	P	11 58 15.6	+0.9
TOLI2				IAmb	IAmb	11 58 30.9	
	comp=Z,24nm,0.8s						
TOLI2	Tolitoli	24.96	94	P	P	11 58 15.5	+0.9
	comp=Z,32nm,0.9s						
KAPI	Kappang	25.17	109	P	P	11 58 16.2	-0.4
KAPI	Kappang	25.17	109	P	P	11 58 16.9	+0.3
KAPI				IAmb	IAmb	11 58 19.8	
	comp=Z,57nm,1.2s						
KAPI	Kappang	25.17	109	P	P	11 58 18.3	+1.7
	comp=Z,44nm,1.1s						
GYA	Guiyang	25.43	23	P	P	11 58 18.6	-0.3
GYA				pmax	pmax		
	comp=Z,34nm,0.9s						
H08S2	Diego Garcia H	25.66	245	T	T	12 24 38.1	
	baz=66,slow=75,SNR=257						
H08S3	Diego Garcia H	25.66	245	T	T	12 24 38.2	
	baz=66,slow=75,SNR=3350						
H08S1	Diego Carcia H	25.68	245	T	T	12 24 39.4	
	baz=66,slow=75,SNR=55						
EVN	Everest	26.19	342	P	P	11 58 25.6	-0.8
EVN				IAmb	IAmb	11 58 50.0	
	comp=Z,15nm,0.7s						
EVN	Everest	26.19	342	P	P	11 58 27.7	+1.3
	comp=Z,23nm,0.7s						
LSA	Lhasa	26.84	351	P	P	11 58 31.3	-0.8
LSA	Lhasa	26.84	351	P	P	11 58 32.4	+0.3
	comp=Z,25nm,1.1s						
XAN	Xi'an	33.10	20	P	P	11 59 25.9	-1.1
XAN				pP	pP	11 59 36.0	+0.2
XAN				pmax	pmax		
	comp=Z,23nm,0.7s						
LZDM	Lanzhou Array	33.49	12	P	P	11 59 30.0	-0.7
	comp=Z,4.6nm,0.5s,baz=182,slow=9.8,SNR=5.7						
	comp=Z,4.6nm,0.5s						
MBWA	Marble Bar	33.57	137	P	P	11 59 31.8	+0.6
MBWA	Marble Bar	33.57	137	S	S	12 04 50.2	-1.6
LZH	Lanzhou	33.64	12	*e*P	P	11 59 31.4	-0.5
LZH				pP	pP	11 59 41.9	+1.3
LZH				pmax	pmax		
	comp=Z,31nm,1.0s						
LZH				L	L		
	comp=Z,680nm,16.3s						
LZH				L	L		
	comp=Z,800nm,15.6s						
LZH				L	L		
	comp=Z,1µm,17.5s						
LYN	LuoYang	34.90	24	P	P	11 59 43.0	+0.5
LYN				pP	pP	11 59 50.4	-0.9
LYN				sP	sP	11 59 53.1	-1.8
LYN				pmax	pmax		
	comp=Z,22nm,0.7s						
LYN				L	L		
	comp=Z,1µm,12.7s						
LYN				L	L		
	comp=Z,1µm,17.1s						
LYN				L	L		
	comp=Z,1µm,15.9s						
NJ2	Nanjing	36.00	34	*e*P	P	11 59 54.3	+2.3
NJ2				pmax	pmax		
	comp=Z,18nm,0.5s						
FITZ	Fitzroy Crossi	36.10	127	LR	LR	12 14 30.3	
	comp=Z,339nm,21.3s,baz=321,slow=36						
FITZ	Fitzroy Crossi	36.10	127	P	P	11 59 52.4	-0.7
FITZ	Fitzroy Crossi	36.10	127		P	11 59 52.2	-0.9
FITZ	Fitzroy Crossi	36.10	127	P	P	11 59 52.2	-0.9
	comp=Z,3.3nm,1.9s						
GTA2	Gaotai	36.39	5	P	P	11 59 55.1	-0.4
GTA2				pP	pP	12 00 04.9	+0.6
NIL	Nilore	37.02	328	P	P	11 59 59.8	-1.0
NIL	Nilore	37.02	328	P	P	12 00 00.6	-0.2
	comp=Z,49nm,0.8s						
MORW	Morawa	37.38	150	P	P	12 00 02.9	-0.9
MORW	Morawa	37.38	150	S	S	12 05 47.8	-2.2
KNRA	Kununurra	37.50	121	P	P	12 00 03.9	-1.1
HNS	HongShan	38.27	25	⇓P	P	12 00 12.2	+1.0
HNS				pmax	pmax		
	comp=Z,21nm,0.9s						
HNS				L	L		
	comp=Z,670nm,17.1s						
HNS				L	L		
	comp=Z,810nm,17.6s						
HNS				L	L		
	comp=Z,1µm,17.5s						
MUN	Mundaring	39.87	153	P	P	12 00 24.9	+0.2
MUN	Mundaring	39.87	153	S	S	12 06 25.6	-2.0
HHC	Hu-ho-hao-te	40.16	19	*e*P	P	12 00 28.0	+0.9
HHC				pmax	pmax		
	comp=Z,18nm,0.6s						
HHC				pmax	pmax		
	comp=Z,230nm,5.7s						
KLBR	Kellerberrin	40.29	151	P	P	12 00 27.5	-0.7
KLBR	Kellerberrin	40.29	151	S	S	12 06 31.4	-2.5
KSH2	Kashi	40.37	335	P	P	12 00 28.8	-0.1
KSH2				pmax	pmax		
	comp=Z,21nm,0.7s						
WUS	Wushi	40.79	341	IAmb	IAmb	12 00 33.9	
	comp=Z,35nm,0.8s						
WUS	Wushi	40.79	341	P	P	12 00 33.0	+0.6
	comp=Z,49nm,1.0s						
BJT	Baijiatuau	41.09	24	P	P	12 00 34.6	-0.1
BJT				IAmb	IAmb	12 00 48.3	
	comp=Z,26nm,1.1s						
BJT	Baijiatuau	41.09	24	P	P	12 00 35.9	+1.2
	comp=Z,26nm,1.3s						
BJI2	Beijing	41.09	24	P	P	12 00 35.9	+1.2
BJI2				sP	sP	12 00 46.2	-1.0
BJI2				pmax	pmax		
	comp=Z,8.0nm,0.9s						
BJI2				L	L		
	comp=Z,280nm,17.9s						
BJI2				L	L		
	comp=Z,230nm,18.6s						
BJI2				L	L		
	comp=Z,290nm,17.2s						
NWAO	Narrogin (SRO)	41.14	152	P	P	12 00 36.1	+0.9
WMQ	Urumqi	41.20	351	*e*P	P	12 00 36.3	+0.7
WMQ				pmax	pmax		
	comp=Z,19nm,0.7s						
H01W3	Cape Leeuwin H	41.49	157	T	T	12 44 17.7	
	baz=332,slow=76						
ASAI	AK-SAY(Kyrgyzs	41.50	338	P	P	12 00 39.3	+0.8
	comp=Z,11nm,0.8s						
H01W2	Cape Leeuwin H	41.50	157	T	T	12 44 19.4	
	baz=332,slow=76						
H01W1	Cape Leeuwin H	41.51	157	T	T	12 44 19.3	
	baz=332,slow=76						
TARG	Taragay, Kyrgy	41.74	340	P	P	12 00 41.7	+1.1
	comp=Z,54nm,0.9s						
NRN	Naryn	42.14	338	IAmb	IAmb	12 00 45.2	
	comp=Z,29nm,0.8s						
PRZ	Przheval'sk	42.21	341	P	P	12 00 45.7	+1.6
	comp=Z,30nm,0.7s						
DRK	Karamyk	42.31	332	P	P	12 00 46.5	+1.4
	comp=Z,158nm,0.7s						
KDJ	Kajisay	42.32	339	P	P	12 00 46.1	+1.2
	comp=Z,84nm,0.8s						
SHLS	Shalkode	42.48	342	*e*P	P	12 00 45.8	-0.4
UZB	Uzynbulak	42.61	342	*e*P	P	12 00 47.8	+0.5
	comp=Z,11nm,0.7s						
DL2	Dalian	42.67	30	P	P	12 00 47.8	+0.2
DL2				S	S	12 07 08.9	0.0
DL2				pmax	pmax		
	comp=Z,44nm,1.0s						
DL2				L	L		
	comp=Z,870nm,16.5s						
DL2				L	L		
	comp=Z,790nm,16.8s						
DL2				L	L		
	comp=Z,1µm,17.0s						
OHH	Osh	42.70	334	P	P	12 00 47.7	-0.3
	comp=Z,30nm,0.9s						
SATY	Saty	42.73	341	*e*P	P	12 00 48.8	+0.5
	comp=Z,16nm,0.8s						
ULHL	Ulahol	42.76	338	P	P	12 00 49.2	+0.7
	SNR=25						
KPKS	Kokpek	43.00	342	*e*P	P	12 00 50.9	+0.4
BOOM	Boomskoye usch	43.08	338	IAmb	IAmb	12 00 52.6	
	comp=Z,27nm,0.7s						
BOOM	Boomskoye usch	43.08	338	P	P	12 00 51.8	+0.6
	comp=Z,39nm,0.8s						
TNSS	Tian-Shan	43.20	340	*e*P	P	12 00 52.6	+0.3
BTK	Batken	43.23	332	IAmb	IAmb	12 01 11.6	
	comp=Z,15nm,0.7s						
BTK	Batken	43.23	332	P	P	12 00 53.9	+1.6
	comp=Z,20nm,0.7s						
MDOK	Medeo	43.27	340	*e*P	P	12 00 53.2	+0.5
AAA	Alma-Ata	43.36	340	*e*P	P	12 00 53.8	+0.5
	comp=Z,30nm,0.9s						
UCH	Uchtor	43.40	337	P	P	12 00 55.1	+1.1
	SNR=34						
TKM2	Tokmak 2	43.58	338	P	P	12 00 56.0	+0.8
	SNR=18						
AAK	Ala-Archa	43.75	337	P	P	12 00 59.0	+2.4
	SNR=6.5						
AAK	Ala-Archa	43.75	337	P	P	12 00 55.8	-0.8
AAK				IAmb	IAmb	12 00 59.1	
	comp=Z,11nm,0.8s						
AAK	Ala-Archa	43.75	337	P	P	12 00 58.3	+1.8
	comp=Z,19nm,1.1s						
EKS2	Erkin-Say	44.06	336	P	P	12 01 00.2	+1.3
	SNR=14						
ARK	Arkit	44.10	334	P	P	12 01 00.3	+1.0
	comp=Z,22nm,0.8s						
WRA	Warramunga Arr	44.16	123	P	P	12 00 59.7	-0.3
	comp=Z,7.6nm,0.5s,baz=300,slow=9.1,SNR=192						
WRA				PcP	PcP	12 02 44.3	-0.4
	comp=Z,2.0nm,0.7s,baz=299,slow=3.6,SNR=3.9						
	comp=Z,7.6nm,0.5s						
WRA	Warramunga Arr	44.16	123	P	P	12 00 59.5	-0.5
KUU	Kurty	44.16	340	*e*P	P	12 01 00.2	+0.6
WRAB	Tennant Creek	44.16	123	P	P	12 00 59.9	-0.1
WRAB				IAmb	IAmb	12 01 00.6	
	comp=Z,22nm,1.2s						
WRAB	Tennant Creek	44.16	123	P	P	12 01 00.1	+0.1
	comp=Z,22nm,0.8s						
USP	Ospenovka	44.29	338	P	P	12 01 01.5	+0.8
	SNR=34						
WR8	Warramunga Arr	44.30	123		P	12 01 01.1	+0.1
SGDS	Sogindy	44.40	338	*e*P	P	12 01 02.1	+0.5
KSRS	Korea Array	45.08	37	P	P	12 01 06.5	-0.5
	comp=Z,2.8nm,0.8s,baz=225,slow=9.1,SNR=10.0						
	comp=Z,2.8nm,0.8s						
MKAR	Makanchi Array	45.10	347	P	P	12 01 06.8	-0.3
	comp=Z,14nm,0.7s,baz=158,slow=8.3,SNR=119						
	comp=Z,14nm,0.7s						
MAKZ	Makanchi	45.19	347		P	12 01 07.4	-0.3
MAKZ	Makanchi	45.19	347	P	P	12 01 07.5	-0.2
	comp=Z,28nm,0.9s						
ZSN	Zaisan	45.20	349	*e*P	P	12 01 08.6	+0.8
IUG	Iuzhnay	45.24	333	*e*P	P	12 01 08.8	+0.5
	comp=Z,9.5nm,0.7s						
SONM	Songino Array	45.48	10	P	P	12 01 10.1	-0.1
	comp=Z,8.5nm,0.5s,baz=195,slow=8.4,SNR=49						
SONM				PcP	PcP	12 02 49.0	+0.2
	comp=Z,1.4nm,0.5s,baz=185,slow=3.2,SNR=2.5						
	comp=Z,8.5nm,0.5s						
SONM	Songino Array	45.48	10	P	P	12 01 10.1	-0.1
SONM				IAmb	IAmb	12 01 11.2	
	comp=Z,23nm,1.2s						
CHM	Chimkent	45.57	333	*e*P	P	12 01 11.5	+0.6
ASAR	Alice Springs	45.59	128	P	P	12 01 11.2	-0.1
	comp=Z,6.7nm,0.6s,baz=299,slow=7.9,SNR=182						
ASAR				PcP	PcP	12 02 50.0	+0.4
	comp=Z,2.9nm,0.8s,baz=306,slow=3.6,SNR=9.3						
	comp=Z,6.7nm,0.6s						
ASAR	Alice Springs	45.59	128	P	P	12 01 11.3	-0.1
ASAR					PcP	12 02 49.5	0.0
ULN	Ulaanbaatar	45.63	11		P	12 01 10.6	-0.8
ULN				IAmb	IAmb	12 01 22.9	
	comp=Z,13nm,0.9s						
ULN	Ulaanbaatar	45.63	11	P	P	12 01 11.2	-0.2
	comp=Z,17nm,1.4s						
KK31	Karatay Array	45.78	334	IAmb	IAmb	12 01 14.0	
	comp=Z,12nm,1.1s						
KKAR	Karatay Array	45.78	334	P	P	12 01 12.2	-0.3
CN2	Changchun	48.25	29	P	P	12 01 31.4	-0.4
CN2				sP	pP	12 01 42.3	+1.5
CN2				S	S	12 08 29.4	0.0
CN2				SS	SS	12 11 53.9	-5.3
CN2				pmax	pmax		
	comp=Z,10.0nm,0.8s						
CN2				L	L		
	comp=Z,140nm,18.0s						
CN2				L	L		
	comp=Z,220nm,18.0s						
CN2				L	L		
	comp=Z,290nm,20.0s						
TLY	Talaya	48.85	6	P	P	12 01 36.4	+0.1
	comp=Z,15nm,0.9s						
QIS	Mount Isa	48.89	121	P	P	12 01 37.5	+0.4
	comp=Z,6.5nm,1.1s						
QIS				pP	pP	12 01 46.0	-0.3
KURBB	Kurchatov Arra	49.57	346	P	P	12 01 42.0	+0.2
	comp=Z,14nm,0.8s,baz=168,slow=6.7,SNR=68						
	comp=Z,14nm,0.8s						
KURK	Kurchatov	49.64	346		P	12 01 42.5	+0.3
KURK				IAmb	IAmb	12 01 43.4	
	comp=Z,16nm,0.8s						
KURK	Kurchatov	49.64	346	P	P	12 01 42.6	+0.3
	comp=Z,27nm,1.1s						
HIA	Hailar	50.30	20	IAmb	IAmb	12 01 59.5	
	comp=Z,16nm,1.1s						
HIA	Hailar	50.30	20	P	P	12 01 47.6	+0.2
	comp=Z,13nm,1.1s						
HILR	Hailar Array B	50.55	20	P	P	12 01 50.0	+0.7
	comp=Z,7.0nm,0.8s,baz=185,slow=7.6,SNR=14						
	comp=Z,7.0nm,0.8s						
BNX	BinXian	50.62	28	⇓P	P	12 01 49.6	-0.2
BNX				pmax	pmax		
	comp=Z,26nm,0.7s						
MJAR	Matsushiro Arr	51.22	44	P	P	12 01 54.6	+0.1
	comp=Z,1.0nm,0.7s,baz=241,slow=9.0,SNR=2.8						
	comp=Z,1.0nm,0.7s						
ZALV	Zalesovo Beam	51.50	352	P	P	12 01 56.1	-0.1
	comp=Z,22nm,0.6s,baz=179,slow=7.0,SNR=98						
	comp=Z,22nm,0.6s						
ZALV	Zalesovo Beam	51.50	352		P	12 01 56.0	-0.3
USRK	Ussuriysk Ar.	51.86	33	P	P	12 01 59.2	0.0
	comp=Z,4.0nm,0.6s,baz=236,slow=6.8,SNR=7.3						
	comp=Z,4.0nm,0.6s						
USRK	Ussuriysk Ar.	51.86	33	P	P	12 01 59.5	+0.3
RAYN	Ar Rayn	52.71	297	P	P	12 02 06.7	+0.7
	comp=Z,8.7nm,1.2s						
HEH	HeiHe	54.02	25	*e*P	P	12 02 15.2	+0.2
HEH				pmax	pmax		
	comp=Z,9.0nm,1.1s						
BVAR	Borovoye Array	54.04	341	P	P	12 02 14.8	-0.3
	comp=Z,9.7nm,0.6s,baz=134,slow=8.5,SNR=33						
	comp=Z,9.7nm,0.6s						
BORK	Borovoye	54.08	341		P	12 02 15.2	-0.2
BORK				IAmb	IAmb	12 02 27.7	
	comp=Z,10nm,0.6s						
AB31	Akbulak array	55.23	332	IAmb	IAmb	12 02 25.0	
	comp=Z,12nm,0.8s						
ABKAR	Akbulak array	55.23	332		P	12 02 23.9	+0.1
STKA	Stephens Creek	55.60	132	P	P	12 02 26.6	-0.1
	comp=Z,5.1nm,0.9s,baz=304,slow=7.5,SNR=4.5						
	comp=Z,5.1nm,0.9s						
AKTO	Aktyubinsk	56.95	332	P	P	12 02 35.7	-0.4
	comp=Z,9.0nm,0.8s,baz=140,slow=5.7,SNR=19						
	comp=Z,9.0nm,0.8s						
CMSA	Cobar Meteorol	58.51	130	P	P	12 02 48.1	+0.7
	comp=Z,20nm,1.0s						
LODK	Lodwar	60.41	272	P	P	12 03 03.0	+2.0
	comp=Z,4.8nm,1.1s						
ARTI	Arti	60.98	337		P	12 03 03.6	-0.3
KBZ	Khabaz	61.79	319	P	P	12 03 09.4	-0.2
	comp=Z,1.7nm,0.7s,baz=125,slow=4.4,SNR=4.0						
	comp=Z,1.7nm,0.7s						
H04N2	CROZET ISLANDS	62.61	213	T	T	13 10 52.4	
	baz=52,slow=76						
H04N1	CROZET ISLANDS	62.62	213	T	T	13 10 53.0	
	baz=52,slow=76,SNR=5544						
H04N3	CROZET ISLANDS	62.63	213	T	T	13 10 48.3	
	baz=52,slow=76,SNR=9842						
H04S1	CROZET ISLANDS	62.98	212	T	T	13 11 16.3	
	baz=50,slow=76,SNR=831						
H04S3	CROZET ISLANDS	62.99	212	T	T	13 11 16.1	
	baz=50,slow=76,SNR=929						
H04S2	CROZET ISLANDS	63.00	212	T	T	13 11 17.3	
	baz=50,slow=76,SNR=933						
BELG	Belogornoye	63.27	329	P	P	12 03 18.9	-0.3
	comp=Z,26nm,0.7s,baz=246,slow=3.4,SNR=8.5						
	comp=Z,26nm,0.7s						
YAK	Yakutsk	63.99	17	P	P	12 03 23.8	-0.1
	comp=Z,42nm,0.8s						
NRIK	Noril'sk	66.37	357	P	P	12 03 38.8	-0.5
	comp=Z,5.1nm,0.7s,baz=173,slow=7.4,SNR=6.9						
	comp=Z,5.1nm,0.7s						
BRTR	Keskin Array B	66.87	312	P	P	12 03 42.8	-0.4
	comp=Z,1.9nm,0.9s,baz=115,slow=7.0,SNR=5.0						
	comp=Z,1.9nm,0.9s						
BRTR	Keskin Array B	66.87	312	P	P	12 03 41.8	-1.4
IDI	Anoyia	72.73	306	P	P	12 04 18.5	-0.8
	comp=Z,4.0nm,0.7s,baz=291,slow=8.6,SNR=1.8						
	comp=Z,4.0nm,0.7s						
SORM	Soroca	72.81	320	P	P	12 04 18.6	-0.8
	comp=Z,16nm,0.6s						
AK09	Malin Array Si	72.90	322	P	P	12 04 19.2	-0.6
AK10	Malin Array Si	72.92	322	P	P	12 04 19.1	-0.8
AK07	Malin Array Si	72.93	322	P	P	12 04 19.3	-0.7

AK05	Malin Array Si	72.95	322	P	P	12 04 19.3	-0.8
AKASG	Malin Array Be	72.96	322	P	P	12 04 19.4	-0.8
	comp=Z,1.1nm,0.4s,baz=93,slow=5.1,SNR=16						
AKASG				LR	LR	12 38 07.4	
	comp=Z,151nm,20.7s,baz=247,slow=37						
	comp=Z,1.1nm,0.4s						
AKASG	Malin Array Be	72.96	322	P	P	12 04 19.2	-1.0
AKASG				IAmb	IAmb	12 04 33.0	
	comp=Z,10nm,1.4s						
AKBB	Malin Array Si	72.96	322		P	12 04 19.6	-0.6
AKBB				IAmb	IAmb	12 04 33.5	
	comp=Z,5.6nm,0.8s						
AKBB	Malin Array Si	72.96	322	P	P	12 04 19.4	-0.8
KIEV	Kiev	72.97	322		P	12 04 19.6	-0.6
KIEV				IAmb	IAmb	12 04 33.6	
	comp=Z,5.0nm,0.8s						
KIEV	Kiev	72.97	322	P	P	12 04 19.6	-0.6
	comp=Z,8.0nm,1.1s						
VRI	Vrincioaia	73.34	317	P	P	12 04 23.6	+1.0
	comp=Z,14nm,1.0s						
TESR	Tescani	73.54	318	P	P	12 04 22.9	-0.9
	comp=Z,13nm,0.8s						
TESR	Tescani	73.54	318	P	P	12 04 24.0	+0.2
	comp=Z,13nm,0.8s						
LUBAR	Lubar, Ukraine	73.65	321	P	P	12 04 23.5	-0.8
MI29	MI29, Kamyanyy	73.73	322	P	P	12 04 23.4	-1.3
MLR	Muntele Rosu	73.79	317	P	P	12 04 26.2	+0.8
	comp=Z,1.8nm,0.5s,baz=40,slow=6.3,SNR=3.2						
	comp=Z,1.8nm,0.5s						
MLR	Muntele Rosu	73.79	317	P	P	12 04 24.5	-0.9
	comp=Z,13nm,1.5s						
MLR	Muntele Rosu	73.79	317	P	P	12 04 25.6	+0.1
	comp=Z,13nm,1.5s						
KMPD	K-Podol'skiy	74.14	320	P	P	12 04 26.5	-0.7
MAW	Mawson	74.26	193	P	P	12 04 29.1	+1.7
	comp=Z,2.1nm,0.6s,baz=63,slow=6.4,SNR=6.7						
	comp=Z,2.1nm,0.6s						
MAW	Mawson	74.26	193	P	P	12 04 27.7	+0.3
VOIR		74.40	316	P	P	12 04 27.9	-1.0
	comp=Z,2.3nm,0.8s						
BOSA	Boshof	74.59	239	P	P	12 04 30.1	-0.3
	comp=Z,4.6nm,0.9s,baz=60,slow=4.4,SNR=4.0						
	comp=Z,4.6nm,0.9s						
BURAR	Bucovina Array	74.74	319	P	P	12 04 30.5	-0.4
BUR08	Bucovina Ar. S	74.76	319	P	P	12 04 30.7	-0.3
BUR08				IAmb	IAmb	12 04 53.5	
	comp=Z,15nm,1.6s						
RNPP5	Staryi Chortor	75.14	322	P	P	12 04 32.1	-0.8
RNPP9	Sopachiv	75.18	323	P	P	12 04 32.6	-0.5
DRGR		76.25	317	P	P	12 04 40.1	+0.6
	comp=Z,3.5nm,0.6s						
TRPA	Tarpa	76.61	319	P	P	12 04 42.1	+0.7
	comp=Z,7.1nm,0.8s						
KOLS	Kolonicke sedl	76.93	319	*e*P	P	12 04 43.7	+0.5
KOLS	Kolonicke sedl	76.93	319	P	P	12 04 43.9	+0.7
	comp=Z,10nm,0.8s						
FINES	FINESS Array B	77.72	333	P	P	12 04 47.2	-0.1
	comp=Z,3.6nm,0.7s,baz=91,slow=4.5,SNR=15						
	comp=Z,3.6nm,0.7s						
FINES	FINESS Array B	77.72	333	P	P	12 04 47.4	+0.1
MORH	Mrgy, Hungar	78.94	316	P	P	12 04 54.2	-0.3
	comp=Z,5.7nm,0.7s						
JAVC	Velka Javorina	79.92	319	*e*P	P	12 05 04.4	+4.6
MORC	Moravsky Berou	80.11	320	*e*P	P	12 05 02.7	+1.9
ARCES	ARCESS Array B	80.32	340	P	P	12 05 02.0	+0.5
	comp=Z,1.1nm,0.3s,baz=96,slow=5.8,SNR=25						
	comp=Z,1.1nm,0.3s						
ARCES	ARCESS Array B	80.32	340	P	P	12 05 01.5	+0.1
KRLC	Kraliky	80.64	320	P	P	12 05 04.5	+0.9
	comp=Z,10nm,1.0s						
DPC	Dobruska-Polom	80.96	320	P	P	12 05 06.7	+1.3
	comp=Z,5.9nm,1.2s						
SESA	Seetaler Alpe,	81.83	317	*e*pP	P	12 05 17.4	+7.2
	comp=Z,4.7nm,0.5s						
MOA	Molln	82.08	318	*e*PcP	PcP	12 05 16.0	-0.7
	comp=Z,3.4nm,0.5s						
CLL	Collm	83.14	321	*i* P	P	12 05 17.4	+0.7
	comp=Z,4.0nm,0.8s						
HFS	Hagfors	83.43	330	P	P	12 05 16.6	-1.4
	comp=Z,1.5nm,0.6s,baz=165,slow=6.2,SNR=4.2						
	comp=Z,1.5nm,0.6s						
NB2	NORSAR Subarra	84.72	331	P	P	12 05 23.9	-0.7
	comp=Z,14nm,1.7s,baz=97,slow=4.6						
NB2	NORSAR Subarra	84.72	331	P	P	12 05 23.9	-0.7
NOA	NORSAR Array B	84.72	331	P	P	12 05 24.3	-0.3
	comp=Z,0.6nm,0.7s,baz=94,slow=5.3,SNR=3.7						
	comp=Z,0.6nm,0.7s						
SPITS	Spitsbergen Ar	84.84	348	P	P	12 05 24.4	-0.5
	comp=Z,6.7nm,0.8s,baz=115,slow=9.3,SNR=6.5						
SPITS				LR	LR	12 48 14.3	
	comp=Z,91nm,22.0s,baz=84,slow=39						
	comp=Z,6.7nm,0.8s						
KEST	Kesra	85.39	305	P	P	12 05 28.3	-0.3
	comp=Z,3.7nm,0.8s,baz=50,slow=3.9,SNR=3.6						
	comp=Z,3.7nm,0.8s						
ELIB	Princess Elisa	87.57	197	*d*P	P	12 05 40.5	+2.0
	comp=Z,5.9nm,1.0s						
BMRD	Maredsous	88.35	320	*d*P	P	12 05 42.0	-0.6
QSPA	South Pole Qui	93.03	180	P	P	12 06 05.3	+1.2
	comp=Z,3.4nm,0.6s,baz=288,slow=1.3,SNR=25						
	comp=Z,3.4nm,0.6s						
QSPA	South Pole Qui	93.03	180	P	P	12 06 04.0	-0.1
	comp=Z,7.9nm,3.0s						
TORD	Torodi Ar. Bea	93.38	283	P	P	12 06 06.7	0.0
	comp=Z,0.7nm,0.6s,baz=117,slow=6.8,SNR=4.0						
	comp=Z,0.7nm,0.6s						
F20K	Avaraart Lake	94.26	22	P	P	12 06 09.8	+0.2
F20K				IAmb	IAmb	12 06 28.3	
	comp=Z,4.3nm,0.8s						
NVAR	Mina Array Bea	127.99	34	PKP	PKPdf	12 11 57.6	+0.2
	comp=Z,0.8nm,0.8s,baz=70,slow=1.7,SNR=4.6						
PDAR	Pinedale Array	128.88	24	PKP	PKPdf	12 11 58.6	-0.3
	comp=Z,0.3nm,0.5s,baz=126,slow=2.0,SNR=5.3						
TXAR	Lajitas Array	142.70	29	PKhKP	PKPpre	12 12 20.3	
	comp=Z,0.2nm,0.4s,baz=330,slow=1.7,SNR=7.9						
BI05	Punta Hualpn	145.03	195	PKPdf	PKPdf	12 12 28.2	-0.2
CPUP	Villa Florida	145.45	225	PKPbc	PKPbc	12 12 29.2	-0.2
	comp=Z,3.0nm,0.7s,baz=166,slow=4.2,SNR=8.4						
352A	Blakely	145.61	1		PKPab	12 12 30.2	+0.2
LPAZ	La Paz	159.53	229	PKP	PKPdf	12 12 51.3	+0.2
	comp=Z,0.5nm,0.4s,baz=270,slow=1.0,SNR=2.3						
LPAZ				PKPab	PKPab	12 13 30.1	+1.0
	comp=Z,4.1nm,0.7s,baz=152,slow=4.1,SNR=13						

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*IDC **01** 11:56:26.3±0.7, 35°.23S×16°.03W, h0^{km}, mb4.1/10, mbtmp4.1/10, MS4.2/26, Error ellipse: s-maj=21.3km s-min=19.7km az=1.0*

*NEIC **01** 11:56:27.7±1.6, 35°.3S±0°.1×15°.9W±0°.1, h10^{km}±1^{km}, mb4.6/20, Error ellipse: s-maj=22.6km s-min=15.6km az=318.0*

*GCMT **01** 11:56:32.8±0.2, 35°.32S±0°.01×15°.79W±0°.01, h20^{km}±1^{km}, MW5.1/118, Moment Tensor Solution. s37,c37; s118,c183; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-0.36±.20; M$_{\theta\theta}$-1.99±.18; M$_{\phi\phi}$2.36±.17; M$_{r\theta}$-1.68±.36; M$_{\theta\phi}$5.07±.15; M$_{\phi r}$-0.45±.33; Best double couple: M$_0$5.78400×10^{16} NP1:ϕ_s168.00000°,δ72.00000°, λ-179.00000°. NP2:ϕ_s78.00000°,δ89.00000°, λ-18.00000°. Principal axes: T 5.9720, Plg12.0000°, Azm125.0000°; N -0.3720, Plg72.0000°, Azm256.0000°; P -5.5950, Plg13.0000°, Azm32.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 01 11:56:27.5±0.5**, 35°.2S**±0°.1×**16°.00W**±0°.09**, h10^{km}, n63, σ1^{s}.04**/37**, mb4.4**/17**, MS4.2**/26**, 2C, Tristan da Cunha region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H09N1	TRISTAN DA CUN	3.51	123	T	T	12 00 44.1	
	SNR=11						
H09W1	TRISTAN DA CUN	3.51	123	T	T	12 00 47.6	
	SNR=8.3						
HOPE	Hope Point	23.83	211	P	P	12 01 39.7	-0.8
H10N1	ASCENSION HYDR	27.27	3	T	T	12 31 06.1	
	baz=190,slow=78,SNR=14						
H10N3	ASCENSION HYDR	27.28	3	T	T	12 31 16.3	
	baz=190,slow=78,SNR=128						
H10N2	ASCENSION HYDR	27.29	3	T	T	12 31 12.2	
	baz=190,slow=78,SNR=34						
SUR	Sutherland	30.61	95	P	P	12 02 42.3	+0.3
BDFB	Brasilia	34.65	296	P	P	12 03 16.6	-0.8
	4.4nm,0.9s,baz=154,slow=8.4,SNR=3.6						
BDFB				LR	LR	12 15 00.0	
	comp=Z,639nm,20.6s,baz=121,slow=32						
	4.4nm,0.9s						
BDFB	Brasilia	34.65	296	P	P	12 03 17.2	-0.1
BDFB				IAmb	IAmb	12 03 19.5	
	comp=Z,8.6nm,1.1s						
GRTLG	Ghanzi	35.34	77	P	P	12 03 21.7	-1.7
BOSA	Boshof	35.44	91	P	P	12 03 23.2	-0.9
	comp=Z,5.7nm,1.0s,baz=247,slow=11,SNR=4.0						
	comp=Z,5.7nm,1.0s						
BOSA	Boshof	35.44	91	P	P	12 03 23.8	-0.4
BOSA				IAmb	IAmb	12 03 23.9	
	comp=Z,8.1nm,1.0s						
VNA2	Neumayer--Watz	36.07	175	⇑P	P	12 03 30.5	+1.6
	comp=Z,2.1nm,0.6s,baz=333,slow=8.1						
VNA3	Neumayer Olymp	36.25	177	⇑P	P	12 03 31.5	+1.1
	comp=Z,2.2nm,0.4s						
CPUP	Villa Florida	36.39	272	P	P	12 03 32.8	+0.6
	comp=Z,2.9nm,1.0s,baz=101,slow=5.2,SNR=3.6						
CPUP				LR	LR	12 15 36.1	
	comp=Z,289nm,21.4s,baz=117,slow=32						
	comp=Z,2.9nm,1.0s						
CPUP	Villa Florida	36.39	272	P	P	12 03 32.9	+0.8
CPUP				IAmb	IAmb	12 03 45.5	
	comp=Z,10nm,1.4s						
LBTB	Lobatse	37.16	86	P	P	12 03 36.8	-2.0
LBTB				IAmb	IAmb	12 03 59.8	
	comp=Z,11nm,1.2s						
SNAA	Sanae	37.17	173	P	P	12 03 40.0	+1.6
	comp=Z,0.4nm,0.3s,baz=7.1,slow=5.9,SNR=3.9						
SNAA				LR	LR	12 15 14.5	
	comp=Z,247nm,20.4s,baz=337,slow=30						
	comp=Z,0.4nm,0.3s						
SNAA	Sanae	37.17	173	P	P	12 03 38.8	+0.5
ESPZ	Base Esperanza	37.74	209	P	P	12 03 42.4	-0.8
ESPZ				IAmb	IAmb	12 04 05.5	
	comp=Z,10nm,0.5s						
TROLL	Troll, Antarti	38.10	171	P	P	12 03 49.1	+2.8
	comp=Z,131nm,0.9s						
KSANE	Kasane	40.38	75	P	P	12 04 04.2	-1.7
KSANE				IAmb	IAmb	12 04 07.4	
	comp=Z,25nm,1.4s						
PMSA	Palmer Station	41.13	209	LR	LR	12 17 58.8	
	comp=Z,208nm,18.8s,baz=46,slow=31						
PMSA	Palmer Station	41.13	209	P	P	12 04 10.1	-1.3
PMSA				IAmb	IAmb	12 04 18.4	
	comp=Z,15nm,1.2s						
PLCA	Paso Flores	42.78	246	P	P	12 04 24.8	-0.5
	comp=Z,2.3nm,1.0s,baz=100,slow=8.4,SNR=3.3						
PLCA				LR	LR	12 18 53.3	
	comp=Z,243nm,20.6s,baz=94,slow=32						
	comp=Z,2.3nm,1.0s						
DBIC	Dimbokro	42.96	16	LR	LR	12 17 55.5	
	comp=Z,198nm,20.1s,baz=194,slow=30						
PTLB	Pontes e Lacer	43.27	286		P	12 04 29.6	+0.1
LL02	Futaleuf	43.31	242	P	P	12 04 28.3	-1.2
LL02				IAmb	IAmb	12 04 40.2	
	comp=Z,19nm,1.1s						
SMAI	San Martin Ant	43.54	205	P	P	12 04 31.0	0.0
BI02	San Fabin de	44.25	251	P	P	12 04 36.7	-0.5
BI02				IAmb	IAmb	12 04 39.8	
	comp=Z,8.9nm,0.9s						
SIV	San Ignacio	44.50	284	LR	LR	12 21 22.6	
	comp=Z,419nm,19.9s,baz=120,slow=34						
GO01	Chusmiza	49.13	274	P	P	12 05 16.2	0.0
PB11	IPOC Station P	49.47	273	P	P	12 05 18.0	-0.3
LPAZ	La Paz	50.01	278	P	P	12 05 23.1	0.0
	comp=Z,1.9nm,0.8s,baz=57,slow=5.5,SNR=3.9						
LPAZ				LR	LR	12 26 29.3	
	comp=Z,289nm,18.7s,baz=107,slow=36						
	comp=Z,1.9nm,0.8s						
LPAZ	La Paz	50.01	278	P	P	12 05 23.1	0.0
TORD	Torodi Ar. Bea	50.94	22	P	P	12 05 30.4	+1.2
	comp=Z,3.1nm,0.8s,baz=198,slow=8.4,SNR=12						
	comp=Z,3.1nm,0.8s						
TORD	Torodi Ar. Bea	50.94	22	P	P	12 05 28.9	-0.3
MDP	Montagnes des	52.87	312	LR	LR	12 26 56.7	
	comp=Z,234nm,18.3s,baz=136,slow=35						
MAW	Mawson	53.78	152	P	P	12 05 49.3	-0.5
	comp=Z,2.5nm,0.9s,baz=231,slow=6.5,SNR=3.7						
MAW				LR	LR	12 23 32.5	
	comp=Z,234nm,21.3s,baz=280,slow=30						
	comp=Z,2.5nm,0.9s						
QSPA	South Pole Qui	55.03	180	P	P	12 05 58.9	-0.2
	comp=Z,4.1nm,1.0s,baz=183,slow=8.0,SNR=5.5						
	comp=Z,4.1nm,1.0s						
QSPA	South Pole Qui	55.03	180	P	P	12 05 59.9	+0.8
NNA	Nana	59.42	277	LR	LR	12 32 13.6	
	comp=Z,177nm,18.8s,baz=148,slow=36						
ATAH	Atahualpa	63.43	280	LR	LR	12 31 08.0	
	comp=Z,54nm,21.4s,baz=158,slow=33						
ROSC	El Rosal	67.64	294	LR	LR	12 35 34.8	
	comp=Z,512nm,18.5s,baz=110,slow=35						
SDV	Santo Domingo	67.66	299	LR	LR	12 35 58.8	
	comp=Z,329nm,18.4s,baz=188,slow=35						
MDT	Midelt	68.51	10	LR	LR	12 33 45.3	
	comp=Z,146nm,19.1s,baz=231,slow=33						
KEST	Kesra	74.44	21	LR	LR	12 37 30.1	
	comp=Z,372nm,20.3s,baz=225,slow=33						
ESDC	Sonseca Array	75.34	10	P	P	12 08 11.0	+0.1
	comp=Z,0.2nm,0.4s,baz=177,slow=7.6,SNR=4.5						
ESDC				LR	LR	12 36 55.9	
	comp=Z,108nm,21.8s,baz=131,slow=32						
	comp=Z,0.2nm,0.4s						
VAE	Valguarnera	77.64	24	LR	LR	12 39 54.1	
	comp=Z,112nm,18.4s,baz=138,slow=34						
JTS	Las Juntas de	79.20	291	LR	LR	12 42 13.3	
	comp=Z,187nm,20.8s,baz=134,slow=35						
EIL	Elat	80.43	43	LR	LR	12 43 20.2	
	comp=Z,168nm,18.1s,baz=119,slow=35						
MMAI	Mount Meron Ar	83.23	41	LR	LR	12 45 42.6	
	comp=Z,105nm,18.1s,baz=146,slow=36						
ASF	Jabal al Asfar	83.41	43	LR	LR	12 44 30.3	
	comp=Z,136nm,18.6s,baz=199,slow=35						
DAVOX	Davos/Dischmat	84.88	18	LR	LR	12 43 48.9	
	comp=Z,100nm,20.7s,baz=136,slow=34						
GERES	GERESS Array B	87.77	19	P	P	12 09 17.8	+1.3
VRAC	Vranov	89.00	21	LR	LR	12 46 23.4	
	comp=Z,136nm,20.1s,baz=203,slow=34						
CMIG	Matias Romero	90.96	290	LR	LR	12 48 40.7	
	comp=Z,89nm,20.2s,baz=168,slow=34						
H01W2	Cape Leeuwin H	96.13	141	T	T	13 57 30.3	
	baz=220,slow=75,SNR=13						
H01W3	Cape Leeuwin H	96.15	141	T	T	13 57 45.7	
	baz=220,slow=75,SNR=12						
H01W1	Cape Leeuwin H	96.15	141	T	T	13 57 30.8	
	baz=220,slow=75,SNR=12						
NOA	NORSAR Array B	98.46	13	LR	LR	12 53 36.8	
	comp=Z,31nm,19.1s,baz=65,slow=35						
KSRS	Korea Array	150.96	75	PKPbc	PKiKP	12 16 21.1	+0.1
	comp=Z,2.2nm,0.9s,baz=264,slow=4.8,SNR=5.3						
KSRS				PKPab	PKPab	12 16 28.6	+0.7
	comp=Z,2.3nm,0.9s,baz=264,slow=4.9,SNR=6.8						
MJAR	Matsushiro Arr	159.07	79	PKPab	PKPab	12 17 03.1	+0.4
	comp=Z,0.6nm,0.5s,baz=254,slow=3.7,SNR=4.0						

IDC 01 12:20:03.8±488.0**, 50°.69N**×**47°.04E, h0^{km}, Error ellipse: s-maj=228.4km s-min=135.6km az=172.0, Baltic States-Belarus-Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I43RU	DUBNA INFRASON	8.39	320	I	I	13 09 10.0	
	baz=132,slow=329,SNR=3.3						
I37NO	I37NO	22.92	334	I	I	14 42 30.0	
	baz=130,slow=322,SNR=3.5						
I46RU	ZALESOVO INFRA	23.14	67	I	I	14 40 50.0	
	baz=280,slow=314,SNR=3.3						

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*TAP **01** 12:23:43.0, 25°.53N×122°.94E, h241^{km}, ML3.9, D*

*JMA **01** 12:23:45.2±0.3, 25°N±3°×12°3E±°, h233^{km}, MV3.4/11, NW OFF ISHIGAKIJIMA IS*

ISC 01 12:23:44.8±2.6**, 25°.4N**±0°.1×**122°.79E**±0°.04**, h237^{km}**±15^{km}**, n68, σ0^{s}.72**/117**, 1C, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TWB1	Santiao Chiao	0.80	245	P	Pn	12 24 17.5	+0.1
SXI1	Grass Mountain	0.87	253	*e*P	Pn	12 24 17.4	-0.4
SXI1				*e*S	S	12 24 43.4	-0.2
YOJ	Yonaguni jima	0.91	167	*e*P	Pn	12 24 16.8	-1.2
EGS		0.93	237	*e*P	Pn	12 24 19.5	+1.5
TIPB	Shuangxi	0.95	247	*e*P	Pn	12 24 18.6	+0.4
TIPB				S	S	12 24 44.5	+0.2
EOS2	EOS2	1.06	209	*e*P	Pn	12 24 19.4	+0.8
EOS2				*e*S	S	12 24 46.2	+1.0
TWY	Chenhua	1.08	266	*e*P	Pn	12 24 19.1	+0.2
YM01	YM01	1.12	260	*e*P	Pn	12 24 19.4	+0.2
YM01				*e*S	S	12 24 46.4	+0.2
EOS3	EOS3	1.15	202	*e*P	Pn	12 24 19.9	+0.8
EOS3				*e*S	S	12 24 46.2	+0.1
ESAO	Su ao	1.16	228	*e*P	Pn	12 24 20.3	+0.9
TWE	Neicheng	1.20	239	*e*P	Pn	12 24 20.2	+0.6
TWE				*e*S	S	12 24 48.0	+1.0
NDS	Dongshan	1.21	234	*e*P	Pn	12 24 20.9	+1.1
NDS				*i* S	S	12 24 47.2	+0.1
TATO	Taipei	1.24	253	*e*P	Pn	12 24 19.6	-0.3
TATO				*e*S	S	12 24 47.4	0.0
FUSB	Fushanzhiwuyua	1.24	242	P	Pn	12 24 19.7	-0.4
FUSB				*e*S	S	12 24 47.9	+0.3
EWUT	Wuta	1.29	226	P	Pn	12 24 20.5	+0.2
EWUT				*e*S	S	12 24 47.7	-0.4
EOS4	EOS4	1.30	199	*e*P	Pn	12 24 20.6	+0.6
EOS4				*e*S	S	12 24 48.1	+0.5
NWLT	Wulai	1.30	244	*e*P	Pn	12 24 21.0	+0.6
NWLT				S	S	12 24 47.8	-0.5
ENA	Nanau	1.32	226	*e*P	Pn	12 24 18.8	-1.7
ENA				*e*S	S	12 24 46.1	-2.4
NDT	Datong Townshi	1.38	237	P	Pn	12 24 21.4	+0.5
NDT				*e*S	S	12 24 50.6	+1.4
LATG	Datong	1.41	235	P	Pn	12 24 21.8	+0.5
LATG				S	S	12 24 50.1	+0.2
YHNB	Yeheng	1.45	242	*e*P	Pn	12 24 22.0	+0.4
YHNB				S	S	12 24 49.6	-0.8
NSK	Sanguang	1.46	243	P	Pn	12 24 21.7	0.0
NSK				*e*S	S	12 24 49.4	-1.1
JKRS	Kuro-shima	1.57	135	*e*P	Pn	12 24 23.0	+0.6
JKRS				*e*S	S	12 24 51.8	-0.1
KSHI	Guanxi Townshi	1.57	249	*e*S	S	12 24 51.0	-0.8
NNS	Nan Shan	1.57	235	*e*P	Pn	12 24 23.2	+0.6
NNS				S	S	12 24 52.1	-0.1
NNSB	Datong	1.57	235	⇑*i*P	Pn	12 24 22.9	+0.2
NNSB				S	S	12 24 52.0	-0.2
JIJ	Ishigaki jima	1.58	128	*e*P	Pn	12 24 22.6	+0.1
JIJ				*e*S	S	12 24 50.5	-1.5
JISG	Ishigakijimahi	1.58	119	*e*P	Pn	12 24 22.6	+0.1
JISG				*e*S	S	12 24 51.8	-0.2
HATJ	Hateruma jima	1.59	144	*e*P	Pn	12 24 23.3	+0.7
NACB	Ninganchiao	1.60	223	*e*P	Pn	12 24 23.1	+0.4
NACB				*e*S	S	12 24 51.6	-0.7
ETLH	Xiulin Townshi	1.65	226	*e*P	Pn	12 24 23.5	+0.3
ETLH				*e*S	S	12 24 51.9	-1.3
TWD	Chiawan	1.67	221	*e*P	Pn	12 24 23.4	+0.1
TWD				*e*S	S	12 24 52.9	-0.5
NFF	Wufeng Townshi	1.68	245	*e*P	Pn	12 24 23.6	+0.2
NFF				*e*S	S	12 24 52.0	-1.6
LIOB	Emei	1.76	247	P	Pn	12 24 24.1	+0.1
LIOB				*e*S	S	12 24 54.0	-0.7
NSTT	Nanjuang	1.77	246	*e*P	Pn	12 24 24.1	0.0
NSTT				*e*S	S	12 24 54.5	-0.5
FUSS	Fushou	1.78	232	P	Pn	12 24 25.4	+0.8
FUSS				S	S	12 24 55.8	+0.1
ETM	Tongmen	1.82	221	*e*P	Pn	12 24 24.2	-0.3
ETM				*e*S	S	12 24 54.8	-0.9
TWT	Tachien	1.83	234	P	Pn	12 24 25.6	+0.7
TWT				*e*S	S	12 24 56.8	+0.6
WHF	Hehuan Shan	1.83	229	*e*P	Pn	12 24 25.8	+0.6
WHF				*i* S	S	12 24 56.4	-0.4
TDCB	Techi	1.84	234	*e*P	Pn	12 24 25.8	+0.9
TDCB				*i* S	S	12 24 56.4	0.0
JTJ	Tarama	1.88	112	*e*P	Pn	12 24 25.6	+0.6
JTJ				*e*S	S	12 24 56.2	-0.3
SHUL	Shoufeng	1.92	216	*e*P	Pn	12 24 24.8	-0.6
SHUL				*e*S	S	12 24 57.3	0.0
ESL	Shilin	1.97	219	*e*P	Pn	12 24 25.7	-0.2
WHP	Taichung City	1.99	238	P	Pn	12 24 26.3	+0.1
WHP				S	S	12 24 57.8	-0.8
OWD	Renai	2.02	227	*e*P	Pn	12 24 27.4	+0.8
OWD				S	S	12 24 59.5	+0.1
WUSB	Renai	2.04	229	*e*P	Pn	12 24 27.8	+1.1
WUSB				S	S	12 25 00.3	+0.7
WARBT	Fenglin Townsh	2.07	218	*e*P	Pn	12 24 26.4	-0.5
WARBT				*e*S	S	12 24 58.5	-1.5
TWQ1	Liyutan	2.09	242	*e*P	Pn	12 24 26.4	-0.6
TWQ1				S	S	12 25 00.2	+0.1
WCS	Beigang Elemen	2.14	233	*i* P	Pn	12 24 28.0	+0.5
WCS				S	S	12 25 00.7	-0.3
HGSD	Ruisui	2.23	214	*e*P	Pn	12 24 29.1	+0.7
HGSD				*e*S	S	12 25 04.0	+1.3
SMLT	Sun Moon Lake	2.26	230	P	Pn	12 24 29.1	+0.3
SMLT				*e*S	S	12 25 03.7	+0.4
TYC	Yuchr	2.27	231	P	Pn	12 24 29.1	+0.3
SSLB	Suanglung	2.28	227	P	Pn	12 24 29.3	+0.3
SSLB				*e*S	S	12 25 03.8	+0.1
YULB	Yu-li	2.38	215	*e*P	Pn	12 24 29.9	0.0
YULB				*e*S	S	12 25 04.0	-1.4
JMJ2	Miyako jima3	2.38	104	*e*P	Pn	12 24 30.7	+0.8
JMJ2				*e*S	S	12 25 04.2	-1.1
EYUL	Yuli	2.41	214	*e*P	Pn	12 24 30.8	+0.6
TWF1	Yuli	2.41	215	*e*P	Pn	12 24 29.1	-1.2
WNT	Mingjian	2.41	233	*e*P	Pn	12 24 30.0	-0.2
WHYT	Xinyi Township	2.41	227	*e*P	Pn	12 24 30.9	+0.6
WHYT				S	S	12 25 06.1	+0.1
FULB	Fuli	2.54	213	*e*P	Pn	12 24 32.8	+1.2
ALS	Alishan	2.58	225	*i* P	Pn	12 24 32.8	+0.5
ALS				*e*S	S	12 25 09.4	-0.1
CHN5	Tsauling	2.60	228	*e*P	Pn	12 24 33.0	+0.7
CHN5				*e*S	S	12 25 09.5	-0.1
ELDTW	Lidau	2.69	217	*e*P	Pn	12 24 33.6	+0.3
TPUB	Ta-pu	2.84	224	S	S	12 25 13.7	-0.4
WTP	Ta-pu	2.89	224	*e*P	Pn	12 24 36.0	+0.6
TWK	Hsinying	2.95	226	P	Pn	12 24 36.2	+0.2
CHN1	Nanshi	2.98	224	*e*P	Pn	12 24 36.2	-0.1
SGST	Jiashian	3.03	222	*e*S	S	12 25 16.5	-1.3

TAP 01 12:24:19.5, 22°.58N×**120°.64E, h21^{km}, ML1.8, 1C, B, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MASBT	Mashibuluo	0.03	356	*i* P	Pb	12 24 23.6	+0.4
MASBT				*i* S	Sb	12 24 26.4	+0.8
SSPT	Xinbi	0.12	212	*e*P	Pb	12 24 24.3	-1.6
SSPT				*e*S	Sb	12 24 27.9	-2.5
TSMG	Majia	0.12	4	P	Pb	12 24 24.3	-1.6
TSMG				S	Sb	12 24 27.4	-3.0
SSD	Sandimen	0.16	359	⇑*i*P	Pb	12 24 24.7	-0.8
SSD				*i* S	Sb	12 24 28.2	-1.4
SGLT	Jiouru	0.19	317	*e*P	Pb	12 24 25.6	+0.2
SCZT	Fangliau	0.21	184	*i* P	Pb	12 24 25.3	-0.1
SCZT				*i* S	Sb	12 24 29.2	-0.3
EAST	Anshuo	0.28	135	*i* P	Pb	12 24 26.9	+0.8
EAST				S	Sn	12 24 32.4	-1.7
ECL	Taimali	0.29	87	*i* P	Pb	12 24 26.9	+0.7
ECL				S	Sb	12 24 32.0	+1.3
SCST	Cishan	0.33	337	*e*P	Pb	12 24 27.9	+1.2
SLIU	Shizi	0.40	157	P	Pb	12 24 28.4	+0.7
SLIU				S	Sb	12 24 34.6	+1.4
SLGT	Liugui	0.41	1	*e*P	Pb	12 24 29.0	+1.0
TWG	Pinlang	0.47	60	*e*P	Pb	12 24 29.7	+0.7
TWGBT	Beinan	0.47	60	P	Pb	12 24 29.7	+0.6
SGST	Jiashian	0.50	354	*e*P	Pn	12 24 30.7	-0.8
SGST				*e*S	Sb	12 24 37.4	+0.9
SGST	Jiashian	0.50	354	*e*P	Pn	12 24 37.1	+5.6
LONT	Longtian	0.56	55	*e*P	Pb	12 24 31.5	+0.7
CHN1	Nanshi	0.61	351	*e*P	Pb	12 24 32.1	+0.5
TWK1	Hengchun	0.66	166	*e*P	Pb	12 24 31.9	-0.5
TWKBT	Hengchun	0.66	166	*e*P	Pb	12 24 32.7	+0.2
TWKBT				*e*S	Sn	12 24 42.8	-0.6
TWK	Hsinying	0.69	349	*e*P	Pn	12 24 34.5	+0.3
TPUB	Ta-pu	0.71	360	*e*P	Pn	12 24 34.6	+0.2
TPUB	Ta-pu	0.71	360	P	Pn	12 24 35.0	+0.6
TSEB	Hengchuen, Pin	0.72	160	*e*P	Pb	12 24 32.9	-0.5

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*RSPR **01** 12:29:17.4, 19°.08N×64°.50W, h69^{km}±5^{km}, MD3.8/8*

NEIC 01 12:29:15.9±0.3**, 19°.09N**±0°.10×**64°.44W**±0°.10**, h35^{km}**±2^{km}**, ML2.9**/25**, Md3.8**/8(RSPR)**, 7C-4D, Error ellipse: s-maj=17.4km s-min=15.1km az=142.0, Virgin Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HUMP	Col San Antoni	1.63	235		Pn	12 29 42.1	-0.1
HUMP					Sn	12 30 01.8	-0.2
HUMP	Col San Antoni	1.63	235	IAML		12 30 06.0	
	106nm,0.2s						

HUMP	**Col San Antoni**	**1.63**	**235**	⇓*e*P	Pn	12 29 42.1	-0.1
PDPR	**Patillas Dam,**	**1.84**	**235**		Pn	12 29 44.8	-0.1
PDPR					Sn	12 30 06.8	-0.2
PDPR	**Patillas Dam,**	**1.84**	**235**	⇑*e*P	Pn	12 29 45.5	+0.5
SJG	**San Juan**	**1.89**	**239**	Pn	Pn	12 29 45.2	-0.4
SJG				IAML		12 30 19.7	
	82nm,0.4s						
SJG				IAML		12 30 21.5	
	76nm,0.4s						
IGPR	**InterUniversit**	**1.94**	**235**		Pn	12 29 46.8	+0.6
IGPR					Sn	12 30 09.9	+0.6
IGPR	**InterUniversit**	**1.94**	**235**	⇓*e*P	Pn	12 29 46.8	+0.6
ECPR	**Experimental S**	**1.98**	**248**	Pn	Pn	12 29 46.8	-0.1
ECPR				Sn	Sn	12 30 09.8	-0.7
ECPR				IAML		12 30 20.9	
	143nm,0.3s						
ECPR				IAML		12 30 21.6	
	133nm,0.3s						
ECPR	**Experimental S**	**1.98**	**248**	⇓*e*P	Pn	12 29 47.1	+0.2
EMPR	**Esperanza - Ma**	**2.07**	**253**		Pn	12 29 48.5	+0.4
EMPR					Sn	12 30 13.0	+0.3
EMPR	**Esperanza - Ma**	**2.07**	**253**	⇑*e*P	Pn	12 29 48.5	+0.4
EMPR				*e*S	Sn	12 30 13.0	+0.3
CELP	**Cerrillos**	**2.26**	**244**		Pn	12 29 50.6	-0.2
CELP				IAML		12 30 24.6	
	61nm,0.5s						
CELP	**Cerrillos**	**2.26**	**244**	⇑*e*P	Pn	12 29 51.2	+0.3
OBIP	**Obispado Ponce**	**2.30**	**244**	Pn	Pn	12 29 51.5	+0.2
OBIP	**Obispado Ponce**	**2.30**	**244**	⇓*e*P	Pn	12 29 52.0	+0.6
OBIP				*e*S	Sn	12 30 18.5	+0.1
AOPR	**Arecibo Observ**	**2.31**	**252**		Pn	12 29 51.4	-0.2
AOPR	**Arecibo Observ**	**2.31**	**252**	⇑*e*P	Pn	12 29 51.4	-0.2
AGPR	**Aguadilla, PR**	**2.60**	**257**	Pn	Pn	12 29 55.3	-0.2
AGPR				IAML		12 30 23.4	
	76nm,2.0s						
AGPR				IAML		12 31 39.4	
	76nm,2.9s						
LSP	**Las Mesas**	**2.67**	**251**		Pn	12 29 57.0	+0.6
LSP					Sn	12 30 27.6	+0.1
LSP	**Las Mesas**	**2.67**	**251**	⇑*e*P	Pn	12 29 57.0	+0.6
LSP				*e*S	Sn	12 30 27.6	+0.1
MLPR	**Magueyes Islan**	**2.71**	**246**		Pn	12 29 57.5	+0.6
MLPR	**Magueyes Islan**	**2.71**	**246**	IAML		12 30 34.2	
	35nm,1.1s						
MLPR	**Magueyes Islan**	**2.71**	**246**	⇑*e*P	Pn	12 29 57.5	+0.6
CRPR	**Cabo Rojo, PR**	**2.75**	**247**		Pn	12 29 58.1	+0.6
CRPR	**Cabo Rojo, PR**	**2.75**	**247**	IAML		12 30 34.3	
	40nm,1.7s						
CRPR				IAML		12 31 02.2	
	33nm,1.8s						
CRPR	**Cabo Rojo, PR**	**2.75**	**247**	⇑*e*P	Pn	12 29 58.1	+0.6

IDC ***01*** *12:29:47.5±0.9, 11°.46S×66°.36E, h0^{km}, mb3.8/8, mbtmp3.8/8, MS3.5/2, Error ellipse: s-maj=30.8km s-min=26.1km az=24.0*

ISC 01 12:29:49.2±0.9**, 11°.5S**±0°.2×**66°.4E**±0°.2**, h13^{km}, n18, σ0^s.92**/10**, mb3.9**/8**, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H08S1	**Diego Carcia H**	**7.13**	**58**	T	T	12 38 32.3	
	baz=240						
H08S2	**Diego Garcia H**	**7.14**	**58**	T	T	12 38 43.2	
	baz=240,slow=74						
H08S3	**Diego Garcia H**	**7.15**	**58**	T	T	12 38 48.0	
	baz=240,slow=74						
BOSA	**Boshof**	**41.96**	**240**	P	**P**	**12 37 39.8**	**-0.5**
	0.8nm,0.4s,baz=106,slow=7.4,SNR=1.3						
	0.8nm,0.4s						
CMAR	**Chiang Mai Arr**	**43.79**	**48**	P	**P**	**12 37 54.1**	**-0.9**
	0.5nm,0.4s,baz=226,slow=7.5,SNR=1.9						
	0.5nm,0.4s						
TSUM	**Tsumeb**	**47.53**	**254**	LR	LR	12 55 54.3	
	comp=Z,44nm,19.1s,baz=286,slow=33						
H01W3	**Cape Leeuwin H**	**49.16**	**126**	T	T	13 31 10.5	
	baz=287,slow=75,SNR=28						
H01W2	**Cape Leeuwin H**	**49.16**	**126**	T	T	13 31 09.8	
	baz=287,slow=75,SNR=40						
H01W1	**Cape Leeuwin H**	**49.17**	**126**	T	T	13 31 20.7	
	baz=287,slow=75,SNR=40						
KURBB	**Kurchatov Arra**	**62.73**	**9**	P	**P**	**12 40 14.5**	**+0.7**
	1.2nm,0.8s,baz=207,slow=7.0,SNR=7.6						
	1.2nm,0.8s						
ASAR	**Alice Springs**	**65.03**	**111**	P	**P**	**12 40 30.0**	**+0.2**
	0.7nm,0.9s,baz=268,slow=6.7,SNR=3.6						
	0.7nm,0.9s						
WRA	**Warramunga Arr**	**65.63**	**107**	P	**P**	**12 40 33.8**	**+0.2**
	1.1nm,0.9s,baz=268,slow=6.3,SNR=6.4						
	1.1nm,0.9s						
ZALV	**Zalesovo Beam**	**67.02**	**12**	P	**P**	**12 40 41.8**	**0.0**
	0.9nm,0.6s,baz=212,slow=7.0,SNR=4.4						
	0.9nm,0.6s						
AKASG	**Malin Array Be**	**69.84**	**336**	P	**P**	**12 40 58.8**	**-0.6**
	0.5nm,0.4s,baz=165,slow=7.1,SNR=4.4						
	0.5nm,0.4s						
ESDC	**Sonseca Array**	**82.57**	**313**	P	**P**	**12 42 12.8**	**+0.6**
	0.7nm,0.7s,baz=114,slow=5.1,SNR=6.2						
	0.7nm,0.7s						
PETK	**Petropavlovsk-**	**99.87**	**38**	LR	LR	13 30 31.8	
	comp=Z,29nm,21.6s,baz=335,slow=36						
PDAR	**Pinedale Array**	**148.61**	**354**	PKPbc	**PKiKP**	**12 49 37.5**	**-0.6**
	1.0nm,0.8s,baz=77,slow=1.8,SNR=7.0						
NVAR	**Mina Array Bea**	**152.83**	**8**	PKPbc	**PKiKP**	**12 49 48.7**	**+1.8**
	0.9nm,0.7s,baz=294,slow=2.6,SNR=5.3						

IDC 01 12:29:54.0±4.3**, 22°.91N×12°.61W, h0^{km}, mb4.1**/1**, mbtmp3.9**/2**, ML3.5**/1**, Error ellipse: s-maj=126.3km s-min=46.7km az=66.0, Mauritania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TORD	**Torodi Ar. Bea**	**16.70**	**123**	Pn	Pn	12 33 45.6	-3.9
	0.2nm,0.3s,baz=309,slow=13,SNR=5.8						
	0.6nm,0.3s						
TORD				AML	AML		
I42PT	**GRACIOSA ISLAN**	**20.75**	**324**	I	I	14 39 00.0	
	baz=140,slow=323,SNR=1.9						
FINES	**FINESS Array B**	**46.74**	**24**	P	P	12 38 24.3	-0.3
	3.0nm,1.0s,baz=231,slow=8.8,SNR=2.4						
	3.0nm,1.0s						
ASAR	**Alice Springs**	**149.27**	**98**	PKPbc	PKPbc	12 49 45.1	-0.3
	0.3nm,0.7s,baz=270,slow=2.8,SNR=2.3						

IDC ***01*** *12:34:02.8±0.7, 47°.71N×116°.91E, h0^{km}, mb3.8/10, mbtmp3.8/16, ML3.6/6, MS4.0/2, Error ellipse: s-maj=14.7km s-min=8.0km az=4.0*

NEIC ***01*** *12:34:03.2±0.8, 47°.66N±0°.06×116°.84E±0°.08, h10^{km}±1^{km}, mb4.3/9, Error ellipse: s-maj=11.8km s-min=8.0km az=214.0*

ISC 01 12:34:03.4±0.5**, 47°.76N**±0°.05×**116°.83E**±0°.05**, h10^{km}, n44, σ1^s.61**/47**, mb3.9**/15**, Mongolia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HIA	**Hailar**	**2.46**	**51**		**Pn**	**12 34 43.8**	**+0.3**
HILR	**Hailar Array B**	**2.64**	**46**	Pn	**Pn**	**12 34 46.2**	**0.0**
	baz=160,slow=9.9						
HILR				Sn	**Sn**	**12 35 17.5**	**-0.8**
	baz=193,slow=12						
HILR				Lg	Lg	12 35 26.8	
	baz=213,slow=21						
	34nm,0.2s						
XLT	**XiLinHaoTe**	**3.89**	**188**	*e*Pn	**Pn**	**12 35 02.7**	**-0.6**
XLT				Pg	**Pb**	**12 35 14.4**	**+2.2**
XLT				Sg	**Sb**	**12 35 59.7**	**+0.4**
XLT				smax	smax		
	comp=N,31nm,0.7s						
XLT				smax	smax		
	comp=E,610nm,0.6s						
ULN	**Ulaanbaatar**	**6.59**	**275**		**Pn**	**12 35 40.0**	**-0.4**
SONM	**Songino Array**	**7.03**	**275**	Pn	**Pn**	**12 35 46.0**	**-0.5**
	comp=E,2.5nm,0.3s,baz=90,slow=13,SNR=25						
SONM				Sn	**Sn**	**12 37 03.3**	**-3.2**
	comp=E,6.1nm,0.3s,baz=77,slow=20,SNR=6.0						
SONM				Lg	Lg	12 37 44.7	
	comp=E,24nm,0.3s,baz=93,slow=27,SNR=11						
	comp=E,4.3nm,0.3s						
SONM				AML	AML		
SONM	**Songino Array**	**7.03**	**275**		**Pn**	**12 35 46.0**	**-0.5**
HEH	**HeiHe**	**7.39**	**66**	*e*P	**Pn**	**12 35 52.6**	**+1.3**
HEH				S	**Sn**	**12 37 11.9**	**-3.3**
HEH				smax	smax		
	comp=N,470nm,0.9s						
HEH				smax	smax		
	comp=E,350nm,0.7s						
BJI2	**Beijing**	**7.75**	**184**	Pn	**Pn**	**12 35 54.8**	**-1.4**
BJI2				Sn	Sn	12 37 11.5	-12
BJI2				smax	smax		
	comp=N,56nm,0.8s						
BJI2				smax	smax		
	comp=E,56nm,0.8s						
BJT	**Baijiatuau**	**7.75**	**184**	Pn	**Pn**	**12 35 54.5**	**-1.7**
BTO2	**Baotou**	**8.60**	**218**	*e*Pg	Pg	12 36 40.7	-7.3
BTO2				Sg	Sn	12 38 12.2	+27
BTO2				smax	smax		
	comp=N,300nm,0.9s						
BTO2				smax	smax		
	comp=E,140nm,0.8s						
TLY	**Talaya**	**9.40**	**300**	Pn	**Pn**	**12 36 19.5**	**+0.6**
	comp=E,0.2nm,0.3s,baz=120,slow=14,SNR=1.8						
TLY				Pg		12 36 57.4	
	comp=E,0.5nm,0.3s,baz=135,slow=14,SNR=4.2						
TLY				Sn	**Sn**	**12 38 01.3**	**-3.2**
	comp=E,0.8nm,0.3s,baz=96,slow=23,SNR=3.0						
TLY				Lg	Lg	12 38 56.6	
	comp=E,0.9nm,0.3s,baz=302,slow=6.8,SNR=5.5						
	comp=E,2.1nm,0.5s						
TLY				AML	AML		
KLR	**Kul'dur**	**10.02**	**76**	Pn	**Pn**	**12 36 25.9**	**-1.3**
	comp=E,1.2nm,0.3s,baz=284,slow=13,SNR=18						
KLR				Sn	**Sn**	**12 38 15.1**	**-4.5**
	comp=E,1.6nm,0.3s,baz=60,slow=8.6,SNR=5.1						
KLR				Lg	Lg	12 39 13.5	
	comp=E,2.7nm,0.3s,baz=210,slow=9.6,SNR=8.8						
	comp=E,4.9nm,0.4s						
KLR				AML	AML		
USRK	**Ussuriysk Ar.**	**11.13**	**103**	Pn	**Pn**	**12 36 40.9**	**-1.6**
	comp=E,0.2nm,0.3s,baz=294,slow=16,SNR=2.3						
USRK				Lg	Lg	12 39 45.6	
	comp=E,0.2nm,0.3s,baz=283,slow=26,SNR=4.4						
	comp=E,0.7nm,0.5s						
USRK				AML	AML		
KSRS	**Korea Array**	**13.13**	**138**	Pn	**Pn**	**12 37 10.3**	**+0.5**
	baz=329,slow=12,SNR=5.0						
KSRS				Lg	Lg	12 40 52.4	
	comp=E,0.4nm,0.3s,baz=319,slow=29,SNR=4.5						
	comp=E,1.9nm,1.0s						
GTA2	**Gaotai**	**14.85**	**242**	*e*P	**Pn**	**12 37 32.5**	**-1.0**
GTA2				pmax	pmax		
	comp=Z,3.0nm,0.9s						
GTA2				LR	LR		
	comp=N,480nm,13.3s						
GTA2				LR	LR		
	comp=E,300nm,17.8s						
GTA2				LR	LR		
	comp=Z,350nm,17.8s						
YAK	**Yakutsk**	**16.05**	**22**	Lg	Lg	12 42 22.8	
	comp=Z,1.0nm,0.3s,baz=94,slow=22,SNR=5.6						
ZALV	**Zalesovo Beam**	**21.01**	**299**	P	**P**	**12 38 49.2**	**+2.3**
	comp=Z,0.5nm,0.4s,baz=102,slow=6.3,SNR=4.0						
ZALV				Lg	Lg	12 45 09.4	
	comp=Z,0.1nm,0.3s,baz=88,slow=22,SNR=5.1						
	comp=Z,0.5nm,0.4s						
ZALV	**Zalesovo Beam**	**21.01**	**299**	P	**P**	**12 38 46.8**	**-0.1**
MKAR	**Makanchi Array**	**23.35**	**281**	P	**P**	**12 39 15.0**	**+3.2**
	comp=Z,1.7nm,0.8s,baz=83,slow=13,SNR=14						
MKAR				Lg	Lg	12 46 19.5	
	baz=74,slow=32,SNR=2.3						
	comp=Z,1.7nm,0.8s						
MKAR	**Makanchi Array**	**23.35**	**281**	P	**P**	**12 39 10.9**	**-0.9**
MAKZ	**Makanchi**	**23.55**	**281**	P	**P**	**12 39 13.7**	**-0.1**
MAKZ				IAmb	IAmb	12 39 41.2	
	comp=Z,4.5nm,0.7s						
TIXI	**Tiksi**	**24.62**	**9**	P	**P**	**12 39 22.1**	**-1.5**
KURK	**Kurchatov**	**24.94**	**291**		**P**	**12 39 26.3**	**-0.3**
KURK				IAmb	IAmb	12 39 33.9	
	comp=Z,1.8nm,0.8s						
KURBB	**Kurchatov Arra**	**25.01**	**291**	P	**P**	**12 39 29.5**	**+2.3**
	comp=Z,1.2nm,0.7s,baz=83,slow=10,SNR=9.9						
KURBB				Lg	Lg	12 47 15.7	
	baz=79,slow=30,SNR=5.0						
	comp=Z,1.2nm,0.7s						
PETK	**Petropavlovsk-**	**26.30**	**63**	P	**P**	**12 39 39.5**	**+0.5**
	comp=Z,2.5nm,0.9s,baz=272,slow=6.9,SNR=2.3						
	comp=Z,2.5nm,0.9s						
PETK	**Petropavlovsk-**	**26.30**	**63**	P	**P**	**12 39 38.6**	**-0.4**
BRDH	**Bariadhala**	**32.13**	**228**	LR	LR	12 55 24.8	
	comp=Z,226nm,18.6s,baz=197,slow=40						
AB31	**Akbulak array**	**36.96**	**294**	P	**P**	**12 41 12.5**	**0.0**
ABKAR	**Akbulak array**	**36.96**	**294**	P	**P**	**12 41 12.5**	**0.0**
G24K	**Hadweenzic Riv**	**49.42**	**31**	P	**P**	**12 42 53.6**	**+0.7**
FINES	**FINESS Array B**	**49.99**	**321**	P	**P**	**12 42 58.9**	**+1.7**
	comp=Z,1.1nm,0.6s,baz=82,slow=4.0,SNR=7.3						
	comp=Z,1.1nm,0.6s						
FINES	**FINESS Array B**	**49.99**	**321**	P	**P**	**12 42 56.6**	**-0.6**
BMAR	**Burnt Mountain**	**50.06**	**30**	P	**P**	**12 42 58.5**	**+0.6**
WRH	**Wood River Hil**	**50.26**	**34**	P	**P**	**12 43 00.4**	**+1.1**
WRH				IAmb	IAmb	12 43 13.0	
	comp=Z,4.8nm,1.0s						
IL31		**50.57**	**33**	P	**P**	**12 43 01.9**	**+0.3**
IL31				IAmb	IAmb	12 43 09.9	
	comp=Z,4.8nm,0.9s						
ILAR	**Eielson Array**	**50.57**	**33**	P	**P**	**12 43 03.0**	**+1.3**
	comp=Z,1.7nm,0.7s,baz=296,slow=7.8,SNR=21						
	comp=Z,1.7nm,0.7s						
ILAR	**Eielson Array**	**50.57**	**33**	P	**P**	**12 43 02.1**	**+0.4**
INK	**Inuvik**	**53.07**	**26**	LR	LR	13 09 05.1	
	comp=Z,118nm,18.4s,baz=4.0,slow=40						
YKA	**Yellowknife Ar**	**62.72**	**24**	P	**P**	**12 44 30.7**	**+2.7**
	comp=Z,2.2nm,0.6s,baz=322,slow=6.5,SNR=4.1						
	comp=Z,2.2nm,0.6s						
WRAB	**Tennant Creek**	**69.19**	**162**	P	**P**	**12 45 09.0**	**-1.1**
WRAB				IAmb	IAmb	12 45 15.2	
	comp=Z,6.1nm,1.2s						
WRA	**Warramunga Arr**	**69.20**	**162**	P	**P**	**12 45 10.3**	**+0.2**
	comp=Z,0.4nm,0.7s,baz=352,slow=6.9,SNR=5.5						
	comp=Z,0.4nm,0.7s						
WRA	**Warramunga Arr**	**69.20**	**162**	P	**P**	**12 45 09.4**	**-0.7**
ASAR	**Alice Springs**	**72.73**	**164**	P	**P**	**12 45 32.4**	**+0.8**
	comp=Z,0.2nm,0.3s,baz=349,slow=5.5,SNR=2.3						
	comp=Z,0.2nm,0.3s						
NVAR	**Mina Array Bea**	**81.15**	**41**	P	**P**	**12 46 20.1**	**+0.8**
	comp=Z,0.7nm,0.8s,baz=335,slow=6.1,SNR=4.0						
	comp=Z,0.7nm,0.8s						

IDC ***01*** *12:39:27.9±1.0, 12°.31N×140°.82E, h0^{km}, mb3.6/7, mbtmp3.7/8, ML3.8/1, Error ellipse: s-maj=23.9km s-min=22.7km az=140.0*

ISC 01 12:39:32.0±0.9**, 12°.3N**±0°.2×**140°.9E**±0°.1**, h30^{km}, n8, σ0^s.81**/8**, mb3.6**/7**, Western Caroline Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	**Guam**	**4.10**	**71**	Pn	**Pn**	**12 40 32.1**	**-0.5**
	5.8nm,0.3s,baz=212,slow=18,SNR=2.5						
	59nm,0.7s						
GUMO				AML	AML		
WRA	**Warramunga Arr**	**32.68**	**191**	P	**P**	**12 46 01.6**	**-0.2**
	0.9nm,1.0s,baz=7.6,slow=8.6,SNR=3.0						
	0.9nm,1.0s						
ASAR	**Alice Springs**	**36.39**	**191**	P	**P**	**12 46 34.6**	**+0.6**
	0.4nm,0.8s,baz=17,slow=10,SNR=4.8						
	0.4nm,0.8s						
CMAR	**Chiang Mai Arr**	**40.83**	**284**	P	**P**	**12 47 10.2**	**-1.2**
	0.4nm,0.3s,baz=82,slow=7.4,SNR=4.5						
	0.4nm,0.3s						
MKAR	**Makanchi Array**	**59.75**	**317**	P	**P**	**12 49 34.5**	**+0.2**
	0.2nm,0.7s,baz=99,slow=7.5,SNR=4.5						
	0.2nm,0.7s						
KURBB	**Kurchatov Arra**	**63.12**	**321**	P	**P**	**12 49 57.4**	**+0.5**
	1.1nm,0.8s,baz=103,slow=7.1,SNR=8.2						
	1.1nm,0.8s						
BVAR	**Borovoye Array**	**68.54**	**322**	P	**P**	**12 50 32.6**	**+0.9**
	0.7nm,0.5s,baz=95,slow=7.7,SNR=3.8						
	0.7nm,0.5s						
ILAR	**Eielson Array**	**71.40**	**26**	P	**P**	**12 50 49.5**	**+0.4**
	0.2nm,0.6s,baz=248,slow=6.1,SNR=4.7						
	0.2nm,0.6s						

IDC 01 12:50:20.5±477.0**, 54°.02N×42°.50E, h0^{km}, Error ellipse: s-maj=178.8km s-min=83.4km az=135.0, Baltic States-Belarus-Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I43RU	**DUBNA INFRASON**	**4.05**	**314**	I	I	13 15 10.0	
	0.1nm,0.8s,baz=129,slow=326,SNR=3.4						
I31KZ	**AKTYUBINSK INF**	**10.20**	**104**	I	I	13 54 30.0	
	baz=296,slow=311,SNR=1.6						
I37NO	**I37NO**	**18.69**	**333**	I	I	14 50 00.0	
	baz=132,slow=323,SNR=2.5						

IDC ***01*** *13:00:40.2±1.9, 7°.94S×119°.18E, h0^{km}, mb3.5/2, mbtmp3.5/5, ML3.2/3, Error ellipse: s-maj=50.7km s-min=15.7km az=78.0*

DJA ***01*** *13:00:41.3±0.5, 8°S±2°×11°9E±°, h12^{km}±5^{km}, M4.0/13, MLv4.0/13*

ISC 01 13:00:42.8±0.8**, 8°.08S**±0°.04×**118°.86E**±0°.04**, h34^{km}, n18, σ1^s.13**/22**, Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DBNI	**Kabupaten Domp**	**0.69**	**232**	P	**Pn**	**13 00 55.2**	**-0.8**
DBNI				S	**Sn**	**13 01 05.4**	**-0.1**
DBNI				AML	AML		
LBFI	**Labuhan Bajo,**	**1.09**	**111**	P	**Pn**	**13 01 01.0**	**-0.7**
PLAI	**Plampang**	**1.30**	**235**	P	**Pn**	**13 01 05.5**	**+0.9**
PLAI				S	**Sb**	**13 01 22.3**	**-0.9**
PLAI				AML	AML		
WBSI	**Waikabubak, Su**	**1.64**	**161**	P	**Pn**	**13 01 09.4**	**+0.2**
WBSI				S	**Sn**	**13 01 30.1**	**+1.0**
TWSI	**Taliwang, Sumb**	**2.06**	**251**	P	**Pn**	**13 01 16.0**	**+1.0**
TWSI				AML	AML		
WSI	**Waingapu**	**2.12**	**138**	P	**Pn**	**13 01 16.3**	**+0.5**
BSSI	**Bau Bau, Buton**	**2.52**	**40**	P	**Pn**	**13 01 21.1**	**-0.2**
BSSI				AML	AML		
EDFI	**Ende, Flores**	**2.88**	**104**	P	**Pn**	**13 01 26.6**	**+0.3**
EDFI				AML	AML		
MKS	**Makassar**	**2.91**	**12**	P	**Pn**	**13 01 26.9**	**+0.2**
MKS				AML	AML		
KAPI	**Kappang**	**3.17**	**16**	Pn	**Pn**	**13 01 30.7**	**+0.3**
	4.3nm,0.3s,baz=186,slow=8.5,SNR=8.5						
KAPI				Sn	**Sn**	**13 02 05.9**	**-1.1**
	5.1nm,0.3s,baz=263,slow=23,SNR=10.0						
	23nm,0.6s						
KAPI				AML	AML		
KAPI	**Kappang**	**3.17**	**16**	P	**Pn**	**13 01 31.0**	**+0.7**
KHKI	**Kahang-Kahang**	**3.23**	**265**	P	**Pb**	**13 01 36.7**	**-2.8**
MMRI	**Maumere**	**3.39**	**100**	P	**Pn**	**13 01 33.5**	**+0.2**
MMRI				AML	AML		
SRBI	**Singaraja**	**3.61**	**270**	P	**Pn**	**13 01 37.8**	**+1.4**
FITZ	**Fitzroy Crossi**	**11.94**	**147**	Pn	**Pn**	**13 03 31.1**	**+0.4**
	0.1nm,0.3s,baz=324,slow=15,SNR=2.0						
	2.1nm,1.0s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**19.07**	**130**	P	**P**	**13 05 01.8**	**-0.7**
	0.1nm,0.3s,baz=307,slow=11,SNR=8.1						
	0.4nm,0.7s						
WRA				AML	AML		
ASAR	**Alice Springs**	**21.17**	**139**	P	**P**	**13 05 25.4**	**+0.1**
	2.9nm,0.7s,baz=312,slow=8.9,SNR=38						
	2.9nm,0.7s						
MKAR	**Makanchi Array**	**63.58**	**333**	P	**P**	**13 11 12.7**	**+2.6**
	0.2nm,0.6s,baz=150,slow=6.7,SNR=1.9						
	0.2nm,0.6s						

IDC 01 13:02:05.2±1.9**, 8°.02S×119°.04E, h0^{km}, mb3.6**/2**, mbtmp3.6**/5**, ML3.6**/3**, Error ellipse: s-maj=48.7km s-min=14.7km az=75.0, Flores region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAPI	**Kappang**	**3.06**	**13**	Pn	Pn	13 02 57.2	+2.3
	4.6nm,0.3s,baz=266,slow=20,SNR=1.8						
KAPI				Sn	Sn	13 03 33.6	+1.3
	8.0nm,0.3s,baz=354,slow=20,SNR=2.1						
	28nm,0.4s						
KAPI				AML	AML		
FITZ	**Fitzroy Crossi**	**11.90**	**148**	Pn	Pn	13 04 55.8	-0.5
	0.2nm,0.3s,baz=336,slow=15,SNR=1.7						
FITZ				Sn	Sn	13 06 58.1	-12
	0.2nm,0.3s,baz=169,slow=16,SNR=1.4						
	0.8nm,0.4s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**18.98**	**130**	P	P	13 06 27.5	-0.9
	0.3nm,0.3s,baz=306,slow=11,SNR=10						
	0.5nm,0.4s						
WRA				AML	AML		
ASAR	**Alice Springs**	**21.10**	**139**	P	P	13 06 51.5	-0.1
	3.9nm,0.7s,baz=312,slow=9.0,SNR=14						
	3.9nm,0.7s						
MKAR	**Makanchi Array**	**63.60**	**333**	P	P	13 12 37.7	-0.2
	0.2nm,0.4s,baz=129,slow=6.5,SNR=2.2						
	0.2nm,0.4s						

WEL 01 13:04:19.8±0.5**, 38°S**±4°×**17°7E**±°**, h34^{km}**±5^{km}**, M2.6**/14**, ML2.2**/14**, MLv2.6**/14**, Error ellipse: s-maj=5.8km s-min=4.0km az=166.1, confirmed, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	**Urewera**	**0.12**	**269**	P	Pb	13 04 27.5	+1.7
URZ				S	Sb	13 04 33.2	+3.3
URZ				AML	AML		
MWZ	**Matawai**	**0.22**	**111**	P	Pb	13 04 27.9	+1.2
MWZ				S	Sb	13 04 34.6	+3.2
MWZ				AML	AML		
RAGZ	**Rawiri**	**0.27**	**154**	P	Pb	13 04 28.3	+1.0
RAGZ				S	Sb	13 04 35.4	+2.9
RAGZ				AML	AML		
RAGZ				AML	AML		
RTZ	**Ruatahuna**	**0.42**	**212**	P	Pn	13 04 29.6	-0.1
RTZ				AML	AML		
RTZ				AML	AML		
RUGZ	**Raukumara Rang**	**0.43**	**48**	P	Pn	13 04 30.3	+0.4
RUGZ				S	Sn	13 04 37.9	+1.3
RUGZ				AML	AML		
RUGZ				AML	AML		
MUGZ	**Murupara**	**0.45**	**240**	P	Pn	13 04 30.4	+0.4
MUGZ				S	Sn	13 04 37.9	+1.1
MUGZ				AML	AML		
MUGZ				AML	AML		
TKGZ	**Te Karaka**	**0.49**	**112**	P	Pn	13 04 31.2	+0.8
TKGZ				S	Sn	13 04 40.4	+2.5
TKGZ				AML	AML		
TKGZ				AML	AML		
TWGZ	**Tauwhareparae**	**0.57**	**82**	P	Pb	13 04 32.7	+1.1
TWGZ				AML	AML		
TWGZ				AML	AML		
RIGZ	**Rimuhau**	**0.59**	**139**	P	Pb	13 04 32.1	+0.1
RIGZ				S	Sn	13 04 42.1	+1.7
RIGZ				AML	AML		
RIGZ				AML	AML		
TARZ	**Mount Tarawera**	**0.60**	**272**	P	Pb	13 04 33.2	+1.1
TARZ				AML	AML		
TARZ				AML	AML		
HAZ	**Te Kaha**	**0.64**	**39**	P	Pn	13 04 32.5	0.0
HAZ				AML	AML		
RAHZ	**Arahi**	**0.67**	**192**	P	Pb	13 04 33.4	+0.1
RAHZ				AML	AML		
RAHZ				AML	AML		
MTHZ	**Maungataniwha**	**0.68**	**209**	P	Pn	13 04 32.9	-0.2
MTHZ				AML	AML		
MTHZ				AML	AML		
PKGZ	**Pakihiroa**	**0.75**	**59**	P	Pb	13 04 35.0	+0.5
PKGZ				AML	AML		
PKGZ				AML	AML		
PUZ	**Puketiti**	**0.80**	**77**	P	Pb	13 04 36.3	+0.9
PUZ				AML	AML		
NMHZ	**Naumai**	**0.91**	**203**	P	Pb	13 04 37.1	-0.2
NMHZ				AML	AML		
NMHZ				AML	AML		

WEL 01 13:04:33.0±0.3**, 39°S**±2°×**17°7E**±°**, h26^{km}**±3^{km}**, M2.4**/24**, ML2.5**/16**, MLv2.4**/24**, Error ellipse: s-maj=4.1km s-min=2.8km az=112.9, confirmed, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NGHS	**Napier Girls H**	**0.07**	**267**	P	Pb	13 04 38.4	+0.8
NGHS				S	Sb	13 04 43.1	+2.5
NSPS	**Napier St Paul**	**0.07**	**264**	P	Pb	13 04 38.3	+0.8
NSPS				S	Sb	13 04 42.7	+2.2
NCHS	**Napier Colenso**	**0.09**	**254**	P	Pb	13 04 38.5	+0.8
NCDS	**Napier Civil D**	**0.10**	**261**	P	Pn	13 04 38.5	-0.5
NAAS	**Napier Airport**	**0.11**	**277**	P	Pn	13 04 38.5	-0.5
CKHZ	**Cape Kidnapper**	**0.18**	**163**	P	Pn	13 04 39.6	-0.5

CKHZ				AML	AML		
CKHZ	Cape Kidnapper	0.18	163	P	Pn	13 04 39.6	-0.6
CKHZ				S	Sb	13 04 45.1	+2.8
CKHZ				AML	AML		
CKHZ				AML	AML		
HCDS	Hastings Civil	0.21	218	P	Pn	13 04 39.8	-0.7
HNPS	Havelock North	0.21	208	P	Pn	13 04 39.8	-0.7
ARHZ	Aropaoanui	0.22	357	P	Pn	13 04 39.9	-0.8
ARHZ				AML	AML		
ARHZ				AML	AML		
ARHZ	Aropaoanui	0.22	357	P	Pn	13 04 39.8	-0.8
ARHZ				S	Sb	13 04 45.2	+2.2
ARHZ				AML	AML		
ARHZ				AML	AML		
MCHZ	McNeill Hill	0.24	279	P	Pn	13 04 40.3	-0.6
MCHZ				AML	AML		
MCHZ				AML	AML		
MCHZ	McNeill Hill	0.24	279	P	Pn	13 04 40.3	-0.7
MCHZ				S	Sb	13 04 46.2	+2.6
MCHZ				AML	AML		
MCHZ				AML	AML		
KAHZ	Kahuranaki	0.33	198	P	Pn	13 04 42.1	-0.1
KAHZ				AML	AML		
KAHZ	Kahuranaki	0.33	198	P	Pn	13 04 42.2	0.0
KAHZ				AML	AML		
KAHZ				AML	AML		
NMHZ	Naumai	0.41	338	P	Pn	13 04 42.8	-0.6
NMHZ				AML	AML		
NMHZ				AML	AML		
KFHS	Kaweka Forest	0.42	276	P	Pn	13 04 42.8	-0.6
WHHZ	Waihua	0.44	23	P	Pn	13 04 43.6	-0.1
WHHZ				S	Sn	13 04 51.7	+0.9
WHHZ				AML	AML		
WHHZ				AML	AML		
KWHZ	Kaweka Forest	0.46	277	P	Pb	13 04 43.1	+0.6
KWHZ				AML	AML		
KWHZ	Kaweka Forest	0.46	277	P	Pn	13 04 43.3	-0.6
KWHZ				S	Sn	13 04 51.3	0.0
KWHZ				AML	AML		
KWHZ				AML	AML		
KRHZ	Kereru	0.52	252	P	Pn	13 04 44.4	-0.4
KRHZ				AML	AML		
KRHZ	Kereru	0.52	252	P	Pn	13 04 44.4	-0.4
KRHZ				S	Sn	13 04 53.1	+0.3
KRHZ				AML	AML		
KRHZ				AML	AML		
WFSS	Wairoa Fire St	0.55	36	P	Pn	13 04 45.6	+0.4
PXZ	Pawanui	0.56	192	P	Pn	13 04 44.9	-0.4
PXZ	Pawanui	0.56	192	P	Pn	13 04 44.9	-0.4
PXZ				AML	AML		
WPWS	Waipawa Distri	0.56	215	P	Pn	13 04 45.3	-0.1
WPWS				S	Sn	13 04 55.3	+1.4
RAHZ	Arahi	0.57	6	P	Pn	13 04 45.3	-0.2
RAHZ				S	Sn	13 04 54.6	+0.6
RAHZ				AML	AML		
RAHZ				AML	AML		
MTHZ	Maungataniwha	0.64	348	P	Pn	13 04 46.2	-0.3
MTHZ				S	Sn	13 04 56.1	+0.3
MTHZ				AML	AML		
MTHZ				AML	AML		
KNZ	Kokohu	0.69	49	P	Pn	13 04 46.8	-0.3
KNZ				AML	AML		
WPHZ	Waipukurau	0.73	217	P	Pn	13 04 47.9	+0.3
WPHZ	Waipukurau	0.73	217	P	Pn	13 04 47.8	+0.2
WPHZ				AML	AML		
WPHZ				AML	AML		
BHHZ	Black Hill Sta	0.73	269	P	Pn	13 04 47.6	-0.1
BHHZ				AML	AML		
BHHZ	Black Hill Sta	0.73	269	P	Pn	13 04 47.5	-0.2
BHHZ				AML	AML		
BHHZ				AML	AML		
PNHZ	Pukenui	0.76	235	P	Pn	13 04 47.9	-0.2
PNHZ	Pukenui	0.76	235	P	Pn	13 04 47.9	-0.2
PNHZ				AML	AML		
PNHZ				AML	AML		
MHGZ	Mahia Peninsul	0.77	65	P	Pb	13 04 47.9	+0.1
MHGZ				AML	AML		
MRHZ	Matea Rd	0.79	324	P	Pn	13 04 48.8	+0.2
MRHZ				S	Sn	13 05 00.4	+0.8
MRHZ				AML	AML		
MRHZ				AML	AML		
PRHZ	Porangahau	0.83	200	P	Pb	13 04 48.5	-0.3
PRHZ	Porangahau	0.83	200	P	Pb	13 04 48.6	-0.3
PRHZ				AML	AML		
PRHZ				AML	AML		
RTZ	Ruatahuna	0.87	359	P	Pn	13 04 49.7	+0.1
RTZ				AML	AML		
RTZ				AML	AML		
PRGZ	Paritu Road	0.88	51	P	Pn	13 04 49.7	0.0
PRGZ				AML	AML		
MOVZ	Moawhango	0.97	274	P	Pb	13 04 51.8	+0.5
MOVZ				AML	AML		
TSZ	Takapari Road	0.99	234	P	Pn	13 04 51.0	-0.2
TSZ	Takapari Road	0.99	234	P	Pn	13 04 50.9	-0.4
RITZ	Rihia Road	1.03	299	P	Pb	13 04 53.0	+0.9
RITZ				AML	AML		
DVHZ	Dannevirke	1.04	218	P	Pn	13 04 51.7	-0.3
DVHZ	Dannevirke	1.04	218	P	Pn	13 04 51.6	-0.4
DVHZ				AML	AML		
ALRZ	Allen Road	1.05	330	P	Pb	13 04 53.2	+0.6
ALRZ				AML	AML		
ETVZ	East Tongariro	1.06	289	P	Pb	13 04 53.6	+0.7
TUVZ	Tukino	1.07	281	P	Pb	13 04 53.9	+0.9
TUVZ				AML	AML		
TMVZ	Te Maari	1.08	289	P	Pb	13 04 53.5	+0.5
OTVZ	Oturere	1.09	287	P	Pb	13 04 54.0	+0.7
SNVZ	South Ngauruho	1.10	285	P	Pb	13 04 54.1	+0.6
SNVZ				AML	AML		
NTVZ	North Tongarir	1.10	290	P	Pb	13 04 53.8	+0.3
WNVZ	Wahianoa	1.10	278	P	Pb	13 04 54.3	+0.8
WNVZ				AML	AML		
WHVZ	Whangaehu Hut	1.12	280	P	Pb	13 04 54.5	+0.7
KRVZ	Karewarewa	1.13	290	P	Pb	13 04 54.1	+0.2
KRVZ				AML	AML		
NGZ	Ngauruhoe	1.13	285	P	Pb	13 04 54.5	+0.4
NGZ				AML	AML		
KATZ	Kakaramea	1.14	296	P	Pn	13 04 50.7	-2.7
KATZ				AML	AML		
KATZ				AML	AML		
RATZ	Rangitukua	1.14	302	P	Pb	13 04 54.2	+0.1
MAVZ	Matarangi	1.14	280	P	Pb	13 04 55.1	+0.9
FWVZ	Far West T-bar	1.15	281	P	Pb	13 04 54.8	+0.5
WHTZ	Whakaora	1.16	315	P	Pb	13 04 55.6	+1.3
WHTZ				AML	AML		
WTVZ	West Tongariro	1.16	288	P	Pb	13 04 55.2	+0.7
COVZ	Chateau Observ	1.17	283	P	Pb	13 04 55.3	+0.7
MTVZ	Mangateitei	1.20	274	P	Pb	13 04 55.8	+0.8
MTVZ				AML	AML		
HRRZ	Handcock Road	1.23	332	P	Pb	13 04 56.3	+0.8
HRRZ				AML	AML		
MRZ	Mangatainoka R	1.61	223	P	Pn	13 04 59.8	0.0
TLZ	Tolley Road	1.62	315	P	Pn	13 05 00.4	+0.4

IDC ***01*** *13:07:49.5±0.6, 62°.19S×57°.52W, h0*^{km}*, mb4.1/9, mbtmp4.1/11, ML3.9/2, MS3.8/18, Error ellipse: s-maj=21.2km s-min=15.3km az=87.0*

NEIC ***01*** *13:07:51.3±1.1, 62°.31S±0°.06×58°.1W±0°.2, h10*^{km}*±1*^{km}*, mb4.7/22, Error ellipse: s-maj=13.4km s-min=9.8km az=240.0*

ISC 01 13:07:51.1±0.5**, 62°.26S**±0°.07×**58°.15W**±0°.09**, h10**^{km}**, n73, σ1**^{s}**.22**/50**, mb4.5**/17**, MS3.7**/18**, 5C-1D, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ESPZ	Base Esperanza	1.26	156		Pn	13 08 13.9	-0.9
PMSA	Palmer Station	3.65	224	Pn	Pn	13 08 48.0	+0.4
	9.5nm,0.3s,baz=59,slow=9.8,SNR=64						
PMSA				Lg	Lg	13 09 39.4	
	28nm,0.3s,baz=305,slow=11,SNR=10						
	26nm,0.3s						
PMSA				AML	AML		
PMSA	Palmer Station	3.65	224		Pn	13 08 47.5	-0.1
ORCD	Orcadas	6.60	83		Pn	13 09 28.0	-0.1
SMAI	San Martin Ant	6.99	209		Pn	13 09 33.4	+0.1
USHA	Ushuaia	9.17	320	Pn	Pn	13 10 03.2	-0.2
	1.3nm,0.3s,baz=268,slow=3.0,SNR=2.5						
	23nm,0.8s						
USHA				AML	AML		
GO08	Villa O'Higgin	16.01	323	Pn	Pn	13 11 36.4	+0.3
BELA	Belgrano 2	17.35	164	Pn	Pn	13 11 50.7	-2.2
VNA3	Neumayer Olymp	20.51	136	⇑P	Pn	13 12 32.1	+0.9
	comp=Z,15nm,0.6s						
VNA1	Neumayer--Stat	20.98	135	⇑P	Pn	13 12 37.5	+0.9
	comp=Z,35nm,1.0s						
VNA2	Neumayer--Watz	21.26	135	⇑P	P	13 12 40.4	+3.4
	comp=Z,11nm,0.6s,baz=270,slow=11						
SNAA	Sanae	22.69	138	⇑P	P	13 12 55.3	+2.9
	comp=Z,308nm,0.7s						
SNAA	Sanae	22.69	138	P	P	13 12 53.8	+1.4
	comp=Z,22nm,1.0s,baz=265,slow=9.8,SNR=26						
SNAA				LR	LR	13 20 30.3	
	comp=Z,237nm,20.9s,baz=290,slow=34						
SNAA	Sanae	22.69	138	P	P	13 12 52.0	-0.4
SNAA				IAmb	IAmb	13 12 58.1	
	comp=Z,36nm,1.0s						
PLCA	Paso Flores	22.82	335	P	P	13 12 54.0	0.0
	comp=Z,4.1nm,1.0s,baz=163,slow=11,SNR=9.3						
PLCA				LR	LR	13 20 39.5	
	comp=Z,211nm,21.1s,baz=166,slow=34						
	comp=Z,4.1nm,1.0s						
PLCA	Paso Flores	22.82	335	P	P	13 12 54.1	+0.2
PLCA				IAmb	IAmb	13 13 00.9	
	comp=Z,26nm,1.2s						
GO06	Curarrehue	24.11	334		P	13 13 06.7	-0.1
GO06				IAmb	IAmb	13 13 12.8	
	comp=Z,35nm,1.1s						
TROLL	Troll, Antarti	24.33	139	⇑P	P	13 13 11.7	+3.1
	comp=Z,466nm,0.8s						
BI02	San Fabin de	26.89	336	P	P	13 13 32.0	0.0
BI02				IAmb	IAmb	13 13 39.7	
	comp=Z,14nm,1.2s						
QSPA	South Pole Qui	27.96	180	P	P	13 13 42.8	+1.2
	comp=Z,2.7nm,0.7s,baz=215,slow=1.1,SNR=11						
QSPA				LR	LR	13 25 50.3	
	comp=Z,147nm,19.5s,baz=164,slow=38						
	comp=Z,2.7nm,0.7s						
QSPA	South Pole Qui	27.96	180	P	P	13 13 41.6	0.0
QSPA				IAmb	IAmb	13 13 52.6	
	comp=Z,6.3nm,0.9s						
BO02	Sierra Bellavi	28.62	338		P	13 13 48.5	+1.0
BO02				IAmb	IAmb	13 13 57.7	
	comp=Z,23nm,1.3s						
MT08	Bocatoma Ro	29.81	340		P	13 14 00.1	+1.8
MT08				IAmb	IAmb	13 14 13.0	
	comp=Z,13nm,1.0s						
ELIB	Princess Elisa	30.54	143	*d*P	P	13 14 06.8	+2.5
CFA	Coronel Fontan	31.35	343	P	P	13 14 11.4	-0.3
	comp=Z,1.1nm,0.4s,baz=174,slow=12,SNR=4.3						
	comp=Z,1.1nm,0.4s						
ZON	Zonda	31.47	343	IAmb	IAmb	13 14 14.6	
	comp=Z,4.8nm,0.8s						
CO02	Combarbal	32.16	339	P	P	13 14 19.9	+1.0
CPUP	Villa Florida	35.93	1	P	P	13 14 50.5	-0.8
	comp=Z,0.5nm,0.3s,baz=170,slow=7.9,SNR=3.6						
CPUP				LR	LR	13 27 50.7	
	comp=Z,65nm,21.5s,baz=185,slow=34						
	comp=Z,0.5nm,0.3s						
CPUP	Villa Florida	35.93	1	P	P	13 14 52.3	+0.9
CPUP				IAmb	IAmb	13 15 31.5	
	comp=Z,5.2nm,1.2s						
MAW	Mawson	43.62	152	P	P	13 15 55.0	+0.1
	comp=Z,0.8nm,0.5s,baz=301,slow=5.9,SNR=1.4						
MAW				LR	LR	13 34 15.9	
	comp=Z,264nm,18.2s,baz=237,slow=36						
	comp=Z,0.8nm,0.5s						
SIV	San Ignacio	46.26	356	LR	LR	13 35 51.2	
	comp=Z,140nm,21.4s,baz=128,slow=36						
LPAZ	La Paz	46.46	347	LR	LR	13 36 18.9	
	comp=Z,82nm,18.9s,baz=150,slow=37						
BDFB	Brasilia	47.11	13	LR	LR	13 36 59.9	
	comp=Z,38nm,19.0s,baz=13,slow=37						
NNA	Nana	51.97	337	LR	LR	13 37 40.3	
	comp=Z,50nm,20.3s,baz=182,slow=34						
SUR	Sutherland	56.85	97	LR	LR	13 36 32.3	
	comp=Z,67nm,21.1s,baz=169,slow=30						
H10S2	ASCENSION HYDR	61.84	50	T	T	14 25 20.7	
	baz=202,slow=74,SNR=19						
H10S3	ASCENSION HYDR	61.84	50	T	T	14 25 21.2	
	baz=18,slow=74,SNR=22						
BOSA	Boshof	62.08	99	P	P	13 18 10.6	-1.3
	comp=Z,3.6nm,1.1s,baz=220,slow=5.7,SNR=4.0						
	comp=Z,3.6nm,1.1s						
BOSA	Boshof	62.08	99	P	P	13 18 12.0	+0.1
BOSA				IAmb	IAmb	13 18 35.9	
	comp=Z,14nm,1.4s						
H10N3	ASCENSION HYDR	62.92	50	T	T	14 26 42.4	
	baz=202,slow=75,SNR=38						
H10N1	ASCENSION HYDR	62.92	50	T	T	14 26 48.5	
	baz=202,slow=75,SNR=41						
H10N2	ASCENSION HYDR	62.94	50	T	T	14 26 43.3	
	baz=202,slow=75,SNR=37						
BOAV	Boa Vista	64.51	357	P	P	13 18 28.0	+0.2
BOAV				IAmb	IAmb	13 18 41.8	
	comp=Z,3.6nm,1.0s						
LBTB	Lobatse	65.30	97	LR	LR	13 41 09.7	
	comp=Z,95nm,21.9s,baz=184,slow=31						
ROSC	El Rosal	68.05	343	LR	LR	13 49 38.0	
	comp=Z,100nm,20.3s,baz=89,slow=37						
MATP	Matopo	70.59	97	LR	LR	13 43 48.8	
	comp=Z,60nm,21.5s,baz=182,slow=31						
SDV	Santo Domingo	71.59	347	LR	LR	13 53 03.9	
	comp=Z,79nm,18.9s,baz=118,slow=38						
DBIC	Dimbokro	79.87	54	LR	LR	13 49 31.8	
	comp=Z,34nm,18.1s,baz=164,slow=31						
SJG	San Juan	80.35	352	LR	LR	13 57 31.5	
	comp=Z,36nm,19.3s,baz=70,slow=37						
BBOO	Buckleboo	84.57	192	P	P	13 20 24.1	-0.2
STKA	Stephens Creek	84.85	197	LR	LR	13 55 37.9	
	comp=Z,129nm,18.1s,baz=214,slow=34						
TEIG	Tepich	85.62	332	P	P	13 20 29.9	+0.5
TORD	Torodi Ar. Bea	88.33	57	P	P	13 20 43.2	+0.4
	comp=Z,0.4nm,0.6s,baz=216,slow=4.1,SNR=2.0						
	comp=Z,0.4nm,0.6s						
TORD	Torodi Ar. Bea	88.33	57	P	P	13 20 43.1	+0.4
ASAR	Alice Springs	93.83	191	P	P	13 21 08.8	+0.4
	comp=Z,1.1nm,0.9s,baz=168,slow=4.6,SNR=7.7						
	comp=Z,1.1nm,0.9s						
ASAR	Alice Springs	93.83	191	P	P	13 21 08.3	-0.1
WR8	Warramunga Arr	97.45	192	P	P	13 21 24.6	-0.4
WR8				IAmb	IAmb	13 22 00.8	
	comp=Z,8.2nm,1.4s						
WRA	Warramunga Arr	97.48	192	P	P	13 21 24.4	-0.7
	comp=Z,0.7nm,0.7s,baz=177,slow=4.0,SNR=11						
	comp=Z,0.7nm,0.7s						
WRAB	Tennant Creek	97.48	192	P	P	13 21 24.7	-0.4
TKL	Tuckaleechee C	99.75	339	LR	LR	14 08 55.2	
	comp=Z,22nm,21.7s,baz=176,slow=37						
GERES	GERESS Array B	124.56	50	PKP	PKPdf	13 26 46.6	-2.9
	comp=Z,0.6nm,0.5s,baz=245,slow=2.5,SNR=4.3						
CMAR	Chiang Mai Arr	133.41	149	PKP	PKPdf	13 27 07.4	+0.2
	comp=Z,0.4nm,0.5s,baz=193,slow=1.9,SNR=1.9						
FINES	FINESS Array B	138.80	47	PKP	PKPdf	13 27 15.0	-0.7
	comp=Z,1.8nm,0.8s,baz=192,slow=4.1,SNR=5.2						
ILAR	Eielson Array	142.57	315	PKhKP	PKPpre	13 27 18.1	
	comp=Z,0.3nm,0.5s,baz=73,slow=1.2,SNR=1.4						
ARCES	ARCESS Array B	144.01	37	PKP	PKPbc	13 27 22.4	-0.5
	comp=Z,2.6nm,0.5s,baz=234,slow=2.8,SNR=25						
SPITS	Spitsbergen Ar	147.04	21	PKPbc	PKPdf	13 27 29.9	-0.1
	comp=Z,15nm,1.1s,baz=270,slow=0.9,SNR=2.3						
BVAR	Borovoye Array	151.69	85	PKPbc	PKPbc	13 27 43.2	-1.2
	comp=Z,3.2nm,0.5s,baz=189,slow=2.1,SNR=8.6						
MKAR	Makanchi Array	152.87	106	PKPbc	PKiKP	13 27 47.5	+0.1
	comp=Z,1.0nm,0.5s,baz=226,slow=2.9,SNR=11						
MKAR	Makanchi Array	152.87	106		PKPbc	13 27 46.7	-0.6
KURBB	Kurchatov Arra	153.91	96	PKPbc	PKiKP	13 27 49.2	-0.2
	comp=Z,0.6nm,0.5s,baz=230,slow=2.9,SNR=6.0						
KURK	Kurchatov	154.02	96		PKiKP	13 27 49.2	-0.5
SONM	Songino Array	163.12	142	PKPab	PKPab	13 28 41.3	-1.6
	comp=Z,0.8nm,0.8s,baz=204,slow=3.3,SNR=5.0						
KLR	Kul'dur	165.83	207	PKPab	PKPab	13 28 54.5	0.0
	comp=Z,0.5nm,0.2s,baz=208,slow=3.7,SNR=3.9						

VAO ***01*** *13:13:05.1±4.3, 23°.03S×66°.78W, h236*^{km}*±18*^{km}*, mb4.1, Presumed earthquake*

IDC ***01*** *13:13:07.5±1.6, 23°.04S×66°.35W, h219*^{km}*±17*^{km}*, mb3.3/4, mbtmp4.0/9, Error ellipse: s-maj=23.6km s-min=13.5km az=100.0*

SJA ***01*** *13:13:08.4±0.6, 22°.98S×66°.46W, h253*^{km}*±5*^{km}*, ML4.5, MW4.1*

NEIC ***01*** *13:13:09.2±2.0, 23°.00S±0°.06×66°.47W±0°.08, h248*^{km}*±9*^{km}*, mb4.4/6, Mwr4.2(GUC), Error ellipse: s-maj=13.1km s-min=5.0km az=128.0*

GFZ ***01*** *13:13:09.9±0.3, 23°S±3°×6°6W±°, h228*^{km}*, M4.1/8, mb4.1/8*

GUC ***01*** *13:13:10.0±0.6, 22°.95S×66°.51W, h240*^{km}*±5*^{km}*, ML4.5*

ISC 01 13:13:09.0±0.6**, 23°.00S**±0°.04×**66°.52W**±0°.04**, h241**^{km}±6^{km}**, n108, σ1**^{s}**.26**/131**, mb3.7**/6**, 12C-1D, Jujuy Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HJA	Humahuaca	1.04	102	*e*P	Pn	13 13 44.4	+0.7
SALTA		1.23	173	*e*P	Pn	13 13 46.0	+1.0
SALTA		1.23	173	P	Pn	13 13 46.1	+1.0
YJA	Yavi	1.23	49	*e*P	Pn	13 13 45.9	+0.8
YJA				*e*S	S	13 14 14.2	+0.9
YJA	Yavi	1.23	49	⇑*e*P	Pn	13 13 45.5	+0.4
YJA				*e*S	S	13 14 11.7	-1.5
AF01	San Pedro de A	1.53	271	*e*P	Pn	13 13 37.2	-10
AF01				*e*S	S	13 14 28.3	+12
AF01	San Pedro de A	1.53	271	*e*P	Pn	13 13 49.1	+2.0
AF01				IAML		13 14 32.2	
	comp=E,497nm,0.4s						
AF01	San Pedro de A	1.53	271		Pn	13 13 49.0	+2.0
SLA	San Lorenzo	1.95	152	*e*P	Pn	13 13 51.2	+0.8
SLA				IAML		13 14 52.3	
	comp=Z,476nm,2.8s						
SLA	San Lorenzo	1.95	152	⇓*e*P	Pn	13 13 51.2	+0.8
SLA				*e*S	S	13 14 23.3	+0.3
PB09	IPOC Station P	2.79	295	*e*P	Pn	13 14 00.8	+1.9
PB09				*e*S	S	13 14 40.7	+2.7
PB09				IAML		13 14 45.6	
	comp=Z,418nm,0.2s						
PB09	IPOC Station P	2.79	295	⇑*e*P	Pn	13 14 00.6	+1.7
PB09				*e*S	S	13 14 38.1	+0.1
PB09				IAML		13 14 42.5	
	comp=N,824nm,0.2s						
PB09	IPOC Station P	2.79	295		Pn	13 14 00.5	+1.7
PB09	IPOC Station P	2.79	295	P	Pn	13 14 00.7	+1.9
PB06	IPOC Station P	2.83	275	*e*P	Pn	13 14 00.7	+1.4
PB06				*e*S	S	13 14 39.6	+0.8
PB06				IAML		13 14 42.2	
	comp=Z,670nm,0.3s						
PB06	IPOC Station P	2.83	275	⇑*e*P	Pn	13 14 00.4	+1.1
PB06				*e*S	S	13 14 38.7	-0.2
PB06				IAML		13 14 42.5	
	comp=N,1µm,0.4s						
PB06	IPOC Station P	2.83	275		Pn	13 14 00.3	+1.1
PB06	IPOC Station P	2.83	275	P	Pn	13 14 00.6	+1.4
PB03	IPOC Station P	3.14	287	*e*P	Pn	13 14 03.8	+1.1
PB03				*e*S	S	13 14 44.2	-0.7
PB03				IAML		13 14 46.7	
	comp=Z,2µm,0.3s						
PB03	IPOC Station P	3.14	287	⇑*e*P	Pn	13 14 03.6	+1.0
PB03				*e*S	S	13 14 43.9	-1.0
PB03	IPOC Station P	3.14	287		Pn	13 14 03.4	+0.8
PB03	IPOC Station P	3.14	287	P	Pn	13 14 03.7	+1.1
PB07	IPOC Station P	3.37	291	*e*P	Pn	13 14 06.3	+1.1
PB07				*e*S	S	13 14 48.7	-0.9
PB07				IAML		13 14 50.2	
	comp=Z,1µm,0.2s						
PB07	IPOC Station P	3.37	291	⇑*e*P	Pn	13 14 06.1	+0.9
PB07				*e*S	S	13 14 48.2	-1.3
PB07	IPOC Station P	3.37	291		Pn	13 14 05.9	+0.7
PB07	IPOC Station P	3.37	291	P	Pn	13 14 06.3	+1.1
PB05	IPOC Station P	3.40	272	*e*P	Pn	13 14 06.5	+0.9
PB05				*e*S	S	13 14 49.5	-0.6
PB05				IAML		13 14 52.9	
	comp=Z,542nm,0.6s						
PB05	IPOC Station P	3.40	272	⇑*e*P	Pn	13 14 06.4	+0.9
PB05				*e*S	S	13 14 49.4	-0.8
PB05	IPOC Station P	3.40	272		Pn	13 14 06.4	+0.9
PB05	IPOC Station P	3.40	272	P	Pn	13 14 06.6	+1.1
PB02	IPOC Station P	3.55	297	*e*P	Pn	13 14 08.2	+0.9
PB02				*e*S	S	13 14 52.2	-1.0
PB02	IPOC Station P	3.55	297	⇑*e*P	Pn	13 14 07.8	+0.6
PB02	IPOC Station P	3.55	297		Pn	13 14 08.1	+0.8
PB02	IPOC Station P	3.55	297	P	Pn	13 14 08.1	+0.8
PB08	IPOC Station P	3.76	319	*e*P	Pn	13 14 11.5	+1.6
PB08				*e*S	S	13 14 59.0	+1.0
PB08				IAML		13 15 00.3	
	comp=Z,312nm,0.9s						
PB08	IPOC Station P	3.76	319	⇑*e*P	Pn	13 14 11.6	+1.6
PB08	IPOC Station P	3.76	319		Pn	13 14 11.3	+1.3
PB08	IPOC Station P	3.76	319	P	Pn	13 14 11.7	+1.8
PB14	IPOC Station P	3.91	245	*e*P	Pn	13 14 12.6	+1.0
PB14				*e*S	S	13 15 00.4	-0.8
PB14				IAML		13 15 02.4	
	comp=Z,718nm,0.2s						
PB14	IPOC Station P	3.91	245	⇑*e*P	Pn	13 14 12.4	+0.7
PB14				*e*S	S	13 14 59.9	-1.3
PB14	IPOC Station P	3.91	245		Pn	13 14 12.2	+0.6
PB14	IPOC Station P	3.91	245	P	Pn	13 14 12.5	+0.8
GO01	Chusmiza	4.15	322	*e*P	Pn	13 14 15.9	+1.2
GO01				*e*S	S	13 15 08.3	+1.7
GO01				IAML		13 15 12.5	
	comp=Z,265nm,0.3s						
GO01	Chusmiza	4.15	322	⇑*e*P	Pn	13 14 15.6	+0.9
GO01	Chusmiza	4.15	322		Pn	13 14 15.5	+0.8
GO01	Chusmiza	4.15	322	P	Pn	13 14 15.8	+1.2
TA01	Diego Aracena	4.18	305	*e*P	Pn	13 14 14.7	+0.2
TA01				*e*S	S	13 15 05.0	-1.5
TA01				IAML		13 15 05.7	
	comp=Z,251nm,0.2s						
TA01	Diego Aracena	4.18	305	⇑*e*P	Pn	13 14 14.2	-0.3
TA01	Diego Aracena	4.18	305		Pn	13 14 14.2	-0.3
TA01	Diego Aracena	4.18	305	P	Pn	13 14 14.5	0.0
TA02	Huaiquique	4.32	308	*e*P	Pn	13 14 15.6	-0.7
PB11	IPOC Station P	4.35	317	*e*P	Pn	13 14 17.0	+0.2
PB11				*e*S	S	13 15 08.5	-2.0
PB11				IAML		13 15 13.8	
	comp=Z,310nm,0.2s						
PB11	IPOC Station P	4.35	317	*e*P	Pn	13 14 16.6	-0.2
PB11				*e*S	S	13 15 07.7	-2.9
PB11	IPOC Station P	4.35	317		Pn	13 14 16.6	-0.2
PB11	IPOC Station P	4.35	317	P	Pn	13 14 17.1	+0.2
AC02	Maricunga	4.50	211		Pn	13 14 19.5	+0.7
AC02	Maricunga	4.50	211	P	Pn	13 14 19.8	+1.0
PSGCX	Pisagua	4.77	314	*e*P	Pn	13 14 21.4	-0.4
PSGCX				*e*S	S	13 15 17.9	-1.7
PSGCX				IAML		13 15 20.4	
	comp=Z,193nm,0.3s						
PSGCX	Pisagua	4.77	314	⇑*e*P	Pn	13 14 20.8	-1.0
PSGCX	Pisagua	4.77	314		Pn	13 14 20.9	-1.0
PSGCX	Pisagua	4.77	314	P	Pn	13 14 23.1	+1.2
AC01	Pan de Azucar	4.86	229	*e*P	Pn	13 14 22.6	-0.2
AC01				*e*S	S	13 15 19.3	-2.2
AC01				IAML		13 15 20.1	
	comp=Z,215nm,0.2s						
AC01	Pan de Azucar	4.86	229		Pn	13 14 22.3	-0.5
AC01	Pan de Azucar	4.86	229	P	Pn	13 14 22.6	-0.2
TINO	Tinogasta	5.13	190	*e*P	Pn	13 14 27.2	+1.0
PB16	IPOC Station P	5.42	328	P	Pn	13 14 31.7	+1.4
	comp=Z,41nm,0.9s						
PB12	IPOC Station P	5.63	320		Pn	13 14 31.2	-1.3
LPAZ	La Paz	6.84	347	P	Pn	13 14 49.1	+0.8
	comp=Z,1.9nm,0.3s,baz=123,slow=12,SNR=6.9						
LPAZ				S	S	13 16 06.2	-1.4
	comp=Z,4.8nm,0.8s,baz=174,slow=11,SNR=4.5						
LPAZ	La Paz	6.84	347		Pn	13 14 48.4	+0.1
GO04	Tololo Observa	8.11	207	P	Pn	13 15 04.7	+0.8
	comp=Z,111nm,0.6s						
MURT	Porto Murtinho	8.35	83	*e*P	Pn	13 15 06.2	-0.6
SIV	San Ignacio	8.65	37	P	Pn	13 15 08.5	-2.2
	comp=Z,3.0nm,0.5s,baz=222,slow=10,SNR=21						
CFA	Coronel Fontan	8.71	190	P	Pn	13 15 09.1	-2.2
	comp=Z,2.7nm,0.3s,baz=41,slow=9.9,SNR=10						
BDQN	Bodoquena, MS	9.43	76	*e*P	Pn	13 15 19.8	-0.6
MT13	San Alfonso	11.21	196	Pn	Pn	13 15 41.8	-1.2
MT09	Talagante	11.44	199	Pn	Pn	13 15 44.9	-0.9
BO02	Sierra Bellavi	12.33	197	Pn	Pn	13 15 56.4	-0.5
BO02	Sierra Bellavi	12.33	197	P	P	13 15 59.5	-0.3
	comp=Z,38nm,0.6s						
SALV	Santo Antonio	12.40	57	*e*P	Pn	13 15 56.4	-1.6
CPSB	Cacapava Do Su	13.81	125		Pn	13 16 15.2	+0.1
ARAG	Araguaiana, MT	15.65	65	*e*P	P	13 16 36.1	-0.5
CLDB	Colider	15.81	42	*e*P	P	13 16 37.7	-0.8
CLDB	Colider	15.81	42	P	P	13 16 38.4	-0.1
	comp=Z,9.1nm,0.9s						
GO06	Curarrehue	17.06	193	P	P	13 16 50.8	-1.2
GO06				IAmb	IAmb	13 16 58.0	
	comp=Z,12nm,1.3s						
IPMB	Ipameri, GO	17.85	77	*e*P	P	13 16 59.8	-1.0
VAO	Valinhos	18.00	94		P	13 17 01.6	-0.7
VAO	Valinhos	18.00	94	*e*P	P	13 17 01.4	-1.0

PLCA	Paso Flores	18.01	190	P	P	13 17 02.1	-0.2
	comp=Z,3.8nm,0.8s,baz=359,slow=12,SNR=7.8						
PLCA	Paso Flores	18.01	190	P	P	13 17 03.4	+1.1
	comp=Z,6.4nm,0.9s						
BDFB	Brasilia	18.92	71	P	P	13 17 11.4	-0.9
	comp=Z,18nm,0.8s,baz=244,slow=9.1,SNR=15						
BDFB	Brasilia	18.92	71	P	P	13 17 11.5	-0.9
BDFB				IAmb	IAmb	13 17 13.2	
	comp=Z,27nm,1.0s						
NPGB	Novo Progresso	19.15	36	*e*P	P	13 17 13.0	-1.8
PMNB	Patos De Minas	19.29	80	P	P	13 17 15.9	-0.3
	comp=Z,22nm,2.5s						
BSCB	Bom Sucesso	20.26	89	P	P	13 17 26.5	-0.1
	comp=Z,14nm,0.9s						
ITTB	Itaituba	21.25	31	*e*P	P	13 17 34.6	-2.2
JANB	Januaria	22.41	73	*e*P	P	13 17 46.1	-1.6
SMTB	Santa Maria do	22.95	55	*e*P	P	13 17 51.0	-1.6
SDBA	SAO DESIDERIO	23.09	67	*e*P	P	13 17 52.4	-1.5
PAYG	Puerto Ayora	32.03	311	P	P	13 19 11.3	-2.1
TXAR	Lajitas Array	63.13	324	P	P	13 23 12.4	+0.9
	comp=Z,0.2nm,0.5s,baz=143,slow=5.3,SNR=2.0 comp=Z,0.2nm,0.5s						
QSPA	South Pole Qui	67.20	180	P	P	13 23 37.6	+0.5
	comp=Z,0.6nm,0.4s,baz=290,slow=1.0,SNR=8.5 comp=Z,0.6nm,0.4s						
ANMO	Albuquerque	68.97	326	P	P	13 23 50.8	+2.2
	comp=Z,1.9nm,0.9s						
TORD	Torodi Ar. Bea	75.79	69	P	P	13 24 28.0	-1.1
	comp=Z,1.0nm,0.5s,baz=260,slow=4.9,SNR=6.6 comp=Z,1.0nm,0.5s						
HLID	Hailey	79.50	327	P	P	13 24 52.0	+3.0
	comp=Z,2.5nm,2.6s						
ESDC	Sonseca Array	85.36	43	P	P	13 25 19.7	+0.4
	comp=Z,1.5nm,1.0s,baz=241,slow=5.6,SNR=6.5 comp=Z,1.5nm,1.0s						
ILULI	Ilulissat	92.62	5	P	P	13 25 57.2	+4.6
	comp=Z,29nm,1.6s						
WRA	Warramunga Arr	132.72	207	PKP	PKiKP	13 31 57.6	+0.4
	comp=Z,0.2nm,0.5s,baz=146,slow=1.9,SNR=1.3						
MKAR	Makanchi Array	145.47	39	PKPbc	PKPab	13 32 19.9	+0.6
	comp=Z,1.2nm,0.7s,baz=308,slow=2.9,SNR=11						

IDC ***01*** *13:17:11.8±0.9, 56°.45N×34°.47W, h0km, mb3.6/8, mbtmp3.7/11, ML3.3/3, MS3.6/37, Error ellipse: s-maj=24.2km s-min=16.0km az=171.0*

ISC 01 13:17:15.2±0.8**, 56°.5N**±0°.1×**34°.47W**±0°.09**, h22**km**, n42, σ0ˢ.89**/14**, mb3.8**/8**, MS3.5**/33**, Reykjanes Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BORG	Borgarnes	10.46	33	Pn	Pn	13 19 43.0	-0.6
	0.9nm,0.3s,baz=225,slow=7.1,SNR=1.7						
BORG				Sn	Sn	13 21 40.2	+0.3
	0.2nm,0.3s,baz=34,slow=7.3,SNR=3.1						
BORG				LR	LR	13 22 44.2	
	comp=Z,1µm,18.3s,baz=260,slow=32 7.7nm,0.9s						
BORG				AML	AML		
EKA	Eskdalemuir Ar	17.51	81	P	Pn	13 21 17.3	-0.3
	baz=280,slow=9.2						
EKA				LR	LR	13 26 50.5	
	comp=Z,250nm,18.6s,baz=280,slow=33 1.1nm,0.7s						
SCHQ	Schefferville	18.24	278	P	Pn	13 21 25.2	-1.5
	0.2nm,0.3s,baz=135,slow=4.3,SNR=4.4						
SCHQ				LR	LR	13 27 14.9	
	comp=Z,170nm,19.4s,baz=105,slow=33 4.8nm,0.7s						
SCHQ				AML	AML		
FRB	Frobisher Bay	18.26	307	LR	LR	13 27 06.3	
	comp=Z,97nm,18.9s,baz=126,slow=32						
NOA	NORSAR Array B	23.72	60	LR	LR	13 30 29.7	
	comp=Z,71nm,18.3s,baz=275,slow=34						
HFS	Hagfors	25.10	62	LR	LR	13 31 29.7	
	comp=Z,88nm,18.3s,baz=288,slow=34						
ESDC	Sonseca Array	26.12	117	P	P	13 22 46.6	-0.8
	0.4nm,0.7s,baz=310,slow=8.5,SNR=4.1						
ESDC				LR	LR	13 31 26.9	
	comp=Z,69nm,19.0s,baz=320,slow=33 0.4nm,0.7s						
DAVOX	Davos/Dischmat	28.72	91	LR	LR	13 34 13.5	
	comp=Z,199nm,18.4s,baz=257,slow=36						
ARCES	ARCESS Array B	28.76	39	LR	LR	13 32 19.2	
	comp=Z,150nm,20.1s,baz=277,slow=32						
SADO	Sadowa	30.12	266	LR	LR	13 34 24.2	
	comp=Z,167nm,18.4s,baz=88,slow=34						
FINES	FINESS Array B	30.59	55	LR	LR	13 34 24.8	
	comp=Z,41nm,20.9s,baz=312,slow=34						
VRAC	Vranov	30.99	81	LR	LR	13 35 52.8	
	comp=Z,152nm,18.5s,baz=306,slow=36						
ULM	Lac du Bonnet	36.05	287	LR	LR	13 37 11.2	
	comp=Z,115nm,20.0s,baz=30,slow=33						
AKASG	Malin Array Be	37.01	71	LR	LR	13 39 28.6	
	comp=Z,62nm,19.1s,baz=25,slow=36						
VAE	Valguarnera	37.41	99	LR	LR	13 38 06.4	
	comp=Z,78nm,18.6s,baz=320,slow=34						
MLR	Muntele Rosu	38.37	80	LR	LR	13 41 19.0	
	comp=Z,132nm,18.3s,baz=359,slow=38						
YKA	Yellowknife Ar	38.63	313	P	P	13 24 35.2	-1.0
	2.1nm,0.8s,baz=62,slow=8.8,SNR=4.2						
YKA				LR	LR	13 38 52.2	
	comp=Z,50nm,18.4s,baz=346,slow=34 2.1nm,0.8s						
TKL	Tuckaleechee C	38.98	259	LR	LR	13 39 52.7	
	comp=Z,141nm,20.0s,baz=38,slow=35						
KIRV	Kirov	42.28	51	LR	LR	13 41 17.8	
	comp=Z,40nm,20.1s,baz=353,slow=34						
IDI	Anoyia	44.78	92	LR	LR	13 44 39.8	
	comp=Z,64nm,20.9s,baz=310,slow=37						
BRTR	Keskin Array B	46.44	81	P	P	13 25 40.5	+0.4
	0.8nm,0.7s,baz=346,slow=4.0,SNR=4.0						
BRTR				LR	LR	13 44 41.0	
	comp=Z,29nm,22.0s,baz=326,slow=36 0.8nm,0.7s						
ARTI	Arti	47.44	49	LR	LR	13 44 10.3	
	comp=Z,62nm,18.3s,baz=23,slow=34						
NRIK	Noril'sk	47.64	24	LR	LR	13 46 21.5	
	comp=Z,43nm,19.2s,baz=344,slow=37						
PDAR	Pinedale Array	48.08	287	P	P	13 25 52.9	-0.2
	0.9nm,0.8s,baz=64,slow=8.4,SNR=5.5						
PDAR				LR	LR	13 44 16.3	
	comp=Z,52nm,21.0s,baz=54,slow=34 0.9nm,0.8s						
NEW	Newport	48.20	297	LR	LR	13 44 52.3	
	comp=Z,86nm,19.6s,baz=42,slow=34						
ILAR	Eielson Array	48.59	328	P	P	13 25 57.5	+1.1
	1.0nm,0.8s,baz=41,slow=7.6,SNR=8.3 1.0nm,0.8s						
KBZ	Khabaz	48.61	71	LR	LR	13 45 36.9	
	comp=Z,51nm,21.7s,baz=352,slow=35						
AKTO	Aktyubinsk	51.36	55	LR	LR	13 47 38.9	
	comp=Z,85nm,18.0s,baz=232,slow=36						
GNI	Garni	52.12	73	LR	LR	13 48 17.1	
	comp=Z,36nm,21.6s,baz=352,slow=36						
MMAI	Mount Meron Ar	52.30	86	LR	LR	13 50 50.5	
	comp=Z,37nm,18.4s,baz=328,slow=39						
ELK	Elko	52.50	289	LR	LR	13 47 43.1	
	comp=Z,82nm,18.9s,baz=89,slow=35						
ASF	Jabal al Asfar	53.76	85	LR	LR	13 51 33.3	
	comp=Z,30nm,19.9s,baz=30,slow=38						
TXAR	Lajitas Array	54.72	271	P	P	13 26 44.3	+1.6
	0.2nm,0.6s,baz=46,slow=5.6,SNR=1.8 0.2nm,0.6s						
YBH	Yreka Blue Hor	55.62	295	LR	LR	13 49 08.6	
	comp=Z,64nm,18.3s,baz=86,slow=34						
NVAR	Mina Array Bea	55.81	289	P	P	13 26 50.6	-0.1
	0.3nm,0.5s,baz=19,slow=8.2,SNR=2.6						
NVAR				LR	LR	13 49 39.3	
	comp=Z,64nm,18.9s,baz=31,slow=35 0.3nm,0.5s						
PFO	Pinyon Flats O	58.46	284	LR	LR	13 50 08.2	
	comp=Z,49nm,19.5s,baz=78,slow=34						
KURBB	Kurchatov Arra	59.76	43	P	P	13 27 18.4	+0.5
	1.2nm,0.7s,baz=326,slow=7.0,SNR=9.1 1.2nm,0.7s						
LPIG	La Paz	62.49	273	LR	LR	13 55 38.7	
	comp=Z,52nm,19.1s,baz=182,slow=37						
MKAR	Makanchi Array	64.33	43	LR	LR	13 54 18.9	
	comp=Z,42nm,18.3s,baz=214,slow=35						
ATAH	Atahualpa	72.93	226	LR	LR	14 03 04.3	
	comp=Z,26nm,18.5s,baz=8.1,slow=38						
ASAR	Alice Springs	146.11	19	PKPbc	PKPbc	13 36 52.8	-0.4
	0.5nm,0.6s,baz=358,slow=3.6,SNR=5.5						
QSPA	South Pole Qui	146.41	180	PKPbc	PKPdf	13 36 51.5	0.0
	1.2nm,1.1s,baz=180,slow=5.1,SNR=2.0						

AUST 01 13:22:20.3±0.2**, 38°S**±2°×**14°6E**±°**, h2**km±1km**, ML2.8**/16**, ML3.9**/1**, MLv4.2**/1**, Error ellipse: s-maj=3.5km s-min=2.4km az=5.4, Near southeast coast of Australia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TOO	Toolangi	0.79	292	P	Pg	13 22 35.5	0.0
TOO				S	Sg	13 22 45.5	-0.3
TOO				AML	AML		
MLBS	Spotswood, Mel	1.21	272	S	Sb	13 22 59.9	0.0
GVL	Greenvale	1.23	282	P	Pg	13 22 43.4	-0.4
GVL				S	Sg	13 22 59.5	-0.3
GVL				AML	AML		
GEXS	Deakin Univers	1.71	258	S	Sn	13 23 13.8	+0.3
BRAT	Ballarat	2.00	279	S	Sn	13 23 21.2	+0.7
AUMTC	Mt Clear Colle	2.03	277	S	Sb	13 23 22.7	-0.8
MILA	Mila	2.33	70	P	Pn	13 22 59.6	0.0
MILA				S	Sn	13 23 28.5	-0.3
MILA				AML	AML		
AUBRN	Burnie High Sc	3.19	187	P	Pn	13 23 11.1	-0.3
AUBRN				AML	AML		
CAN	Canberra	3.29	40	P	Pn	13 23 13.2	+0.4
CAN				S	Sn	13 23 53.2	+0.7
CAN				AML	AML		
GLAD	Gladstone	3.34	159	P	Pn	13 23 12.4	-1.1
GLAD				S	Sn	13 23 54.0	+0.3
GLAD				AML	AML		
CNB	Canberra Magne	3.48	44	P	Pn	13 23 15.8	+0.3
CNB				AML	AML		
CORO	Coronation Par	3.62	171	P	Pn	13 23 17.5	+0.2
CORO				S	Sn	13 24 01.4	+0.9
CORO				AML	AML		
ARPS	Mount Arapiles	3.81	285	P	Pn	13 23 20.0	+0.1
ARPS				AML	AML		
MOO	Moorlands	4.60	173	P	Pn	13 23 30.3	-0.5
MOO				S	Sn	13 24 21.8	-3.0
MOO				AML	AML		
TAU	Tasmania Unive	5.08	172	P	Pn	13 23 37.2	-0.1
	comp=Z,22nm,1.5s,comp=Z,0.1nmcomp=Z,108µmcomp=Z,203µm						
TAU				AML	AML		
TAU				AML	AML		
TAU				AML	AML		
CMSA	Cobar Meteorol	6.35	354	P	Pn	13 23 53.3	-1.6
	comp=Z,7.8nm,2.6s,comp=Z,0.0nm						
CMSA				AML	AML		
STKA	Stephens Creek	7.17	325	P	Pn	13 24 06.1	-0.1
	comp=Z,75nm,2.8s,comp=Z,0.2nm						
STKA				S	Sn	13 25 24.7	-3.5
STKA				AML	AML		

IDC 01 13:23:09.0±2.3**, 1°.97N**×**126°.49E, h0**km**, mb3.3**/3**, mbtmp3.4**/3**, Error ellipse: s-maj=190.4km s-min=28.3km az=66.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	23.10	161	P	P	13 28 15.3	-1.3
	0.6nm,0.5s,baz=339,slow=10,SNR=7.7 0.6nm,0.5s						
ASAR	Alice Springs	26.48	165	P	P	13 28 49.3	+1.1
	0.2nm,0.3s,baz=349,slow=12,SNR=4.4 0.2nm,0.3s						
MKAR	Makanchi Array	58.86	326	P	P	13 33 09.7	0.0
	0.2nm,0.5s,baz=114,slow=6.8,SNR=2.0 0.2nm,0.5s						

IDC ***01*** *13:34:37.3±0.9, 39°.91N×70°.39E, h0km, mb3.9/8, mbtmp3.8/13, ML3.4/5, MS1.9/1, Error ellipse: s-maj=19.5km s-min=11.6km az=148.0*

MOS ***01*** *13:34:38.1±1.0, 39°.96N×70°.37E, h8km, mb4.6/3, Error ellipse: s-maj=7.8km s-min=4.4km az=58.1*

SOME ***01*** *13:34:38.6, 40°.03N×70°.42E, h10km*

NEIC ***01*** *13:34:39.7±1.5, 39°.95N±0°.06×70°.41E±0°.04, h10km±1km, mb4.3/14, Error ellipse: s-maj=9.8km s-min=4.7km az=160.0*

KRNET ***01*** *13:34:39.3±0.1, 39°.99N×70°.39E, h23km, mb4.0*

NNC ***01*** *13:34:39.3±1.4, 40°.01N×70°.29E, h0km, mb4.2, mpv4.0, Error ellipse: s-maj=11.0km s-min=6.2km az=15.0*

ISU ***01*** *13:34:42, 39°.99N×70°.24E, h27km*

ISC 01 13:34:39.6±0.7**, 39°.99N**±0°.02×**70°.43E**±0°.02**, h10**km±4km**, n198, σ2ˢ.37**/254**, mb4.2**/14**, 34C-38D, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BTK	Batken	0.31	77	⇑*i*P	Pg	13 34 46.2	+0.4
BTK				⇑*i*S	Sg	13 34 51.4	+1.4
BTK	Batken	0.31	77	PG	Pg	13 34 46.4	+0.6
BTK	Batken	0.31	77	Pg	Pg	13 34 46.4	+0.6
MINT	Mingtut	0.63	41	S	Sn	13 35 40.2	+35
MINT				S	Sb	13 35 50.2	+49
FRG	Fergana	1.11	69	P	Pn	13 35 03.9	+2.7
FRG				S	Sn	13 35 22.2	+5.7
DRK	Karamyk	1.18	115	⇓*i*P	Pg	13 35 01.5	-0.7
DRK				⇓*i*S	Sg	13 35 17.8	+0.3
DRK	Karamyk	1.18	115	PG	Pg	13 35 01.8	-0.4
DRK	Karamyk	1.18	115	Pn	Pg	13 35 01.8	-0.4
KSNS	Kasansay	1.43	35	P	Pb	13 35 07.1	+0.7
KSNS				S	Sn	13 35 28.7	+4.1
NZBK	Nazarbek	1.58	321	P	Pg	13 35 10.4	+0.4
NZBK				S	Sg	13 35 32.4	+1.8
TAS	Tashkent	1.59	327	P	Pg	13 35 10.2	+0.1
TAS				S	Sg	13 35 31.5	+0.8
CHMG	Chimgan	1.59	349	P	Pb	13 35 08.3	-0.9
CHMG				S	Sg	13 35 30.2	-0.6
TRKS	Terek-Say	1.63	19	⇓*i*P	Pn	13 35 08.5	0.0
TRKS				⇓*i*S	Sn	13 35 29.6	0.0
TRKS	Terek-Say	1.63	19	⇓*i*PN	Pn	13 35 08.5	0.0
TRKS				*i* S	Sn	13 35 29.6	0.0
TSTA	Tashata	1.67	69	P	Pn	13 35 10.8	+1.8
TSTA				S	Sg	13 35 35.9	+2.5
CHRV	Charvak	1.69	348	P	Pb	13 35 10.1	-0.7
CHRV				S	Sg	13 35 33.2	-0.7
TVKS	Tavaksay	1.69	340	P	Pg	13 35 10.4	-1.6
TVKS				S	Sg	13 35 33.5	-0.4
OHH	Osh	1.88	73	⇑*i*P	Pn	13 35 12.8	+0.9
OHH				⇑*i*S	Sn	13 35 37.7	+2.0
OHH	Osh	1.88	73	⇓*i*PN	Pn	13 35 12.0	+0.1
OHH				*i* S	Sn	13 35 37.7	+2.0
PSK	Pskem	1.93	359	P	Pb	13 35 14.7	-0.3
PSK				S	Sg	13 35 41.3	-0.5
ARK	Arkit	2.15	32	⇑*i*P	Pn	13 35 16.7	+1.1
ARK				⇑*i*S	Sn	13 35 44.2	+1.9
ARK	Arkit	2.15	32	*i* PN	Pn	13 35 16.7	+1.1
ARK				*i* S	Sn	13 35 44.2	+1.9
IUG	Iuzhnay	2.17	352	Pg	Pb	13 35 18.8	-0.3
	1µm,0.5s						
IUG				Lg	Lg	13 35 48.7	
	1µm,0.5s						
IUG	Iuzhnay	2.17	352	*e*P	Pb	13 35 18.8	-0.3
	1µm,0.5s						
IUG				*e*S	Sg	13 35 48.7	-0.8
	1µm,0.5s						
ARSB	Arslanbob	2.35	55	⇑*e*P	Pn	13 35 20.0	+1.5
ARSB				⇑*e*S	Sn	13 35 48.7	+1.2
SFK	Sufi-Kurgan	2.36	88	⇑*i*P	Pn	13 35 19.8	+1.1
SFK				⇑*i*S	Sn	13 35 49.4	+1.6
SFK	Sufi-Kurgan	2.36	88	*i* PN	Pn	13 35 19.8	+1.1
SFK				*i* S	Sn	13 35 49.4	+1.6
CHM	Chimkent	2.41	345	*e*P	Pg	13 35 23.8	-2.0
	344nm,0.5s						
CHM				*e*S	Sg	13 35 57.0	0.0
	605nm,0.7s						
SALK	Salom-Alik	2.74	70	⇓*i*P	Pn	13 35 25.0	+1.2
SALK				⇓*i*S	Sn	13 35 58.4	+1.4
SALK	Salom-Alik	2.74	70	⇓*i*PN	Pn	13 35 25.0	+1.2
SALK				*i* S	Sn	13 35 58.4	+1.4
AGL	Agalyk	2.78	261	P	Pb	13 35 27.3	-2.0
AGL				S	Sb	13 36 02.6	-0.8
DZA	Taraz	2.98	13	Pg	Pb	13 35 33.7	+0.9
	67nm,0.2s						
DZA				Lg	Lg	13 36 13.6	
	578nm,0.5s						
DZA	Taraz	2.98	13	*e*P	Pb	13 35 33.7	+0.9
	67nm,0.2s						
DZA				*e*S	Sg	13 36 13.6	-1.6
	578nm,0.5s						
BRLS	Borolday	3.07	352	Pg	Pn	13 35 30.5	+2.3
	45nm,0.7s						
BRLS				Lg	Lg	13 36 08.5	
	107nm,0.3s						
BRLS	Borolday	3.07	352	*e*P	Pn	13 35 30.5	+2.3
	45nm,0.7s						
BRLS				*e*S	Sb	13 36 08.5	-3.3
	107nm,0.3s						
KK31	Karatay Array	3.11	1	Pn	Pn	13 35 28.9	+0.2
	3.6nm,0.3s,baz=148,slow=89,SNR=255						
KK31				⇓Pg	Pb	13 35 36.1	+1.1
	52nm,0.6s,baz=182,slow=17,SNR=7.8						
KK31				⇑Lg	Lg	13 36 19.4	
	109nm,0.5s,baz=186,slow=26,SNR=18						
KK31	Karatay Array	3.11	1	PN	Pn	13 35 31.2	+2.5
KK31				*e*		13 35 36.0	
KK31						13 36 16.5	
KK31	Karatay Array	3.11	1		Pn	13 35 29.9	+1.2
KKAR	Karatay Array	3.11	1	PN	Pn	13 35 29.9	+1.2
KKAR	Karatay Array	3.11	1		Pn	13 35 29.9	+1.2
MRKS	Merke	3.46	37	Pg	Pb	13 35 42.8	+1.7
	37nm,0.5s						
MRKS				Lg	Lg	13 36 28.7	
	160nm,0.6s						
MRKS	Merke	3.46	37	*e*P	Pb	13 35 42.8	+1.7
	37nm,0.5s						
MRKS				*e*S	Sg	13 36 28.7	-2.1
	160nm,0.6s						
EKS2	Erkin-Say	3.67	42	P	Pn	13 35 39.3	+2.8
	SNR=18						
EKS2	Erkin-Say	3.67	42	⇓*i*P	Pn	13 35 37.8	+1.3
EKS2				⇓*i*S	Sn	13 36 20.7	+0.8
EKS2	Erkin-Say	3.67	42	*e*PN	Pn	13 35 37.8	+1.3
ZRB	Zarabog	3.74	241	P	Pn	13 35 37.7	+0.3
ZRB				S	Sn	13 36 24.3	+2.8
UCH	Uchtor	3.81	53	P	Pn	13 35 41.5	+2.7
	SNR=35						
UCH	Uchtor	3.81	53	⇑*i*P	Pn	13 35 40.0	+1.2
UCH				⇑*i*S	Sn	13 36 24.4	+0.6
UCH	Uchtor	3.81	53	*e*PN	Pn	13 35 40.0	+1.2
AAK	Ala-Archa	4.04	48	Pn	Pn	13 35 44.4	+2.7
	8.4nm,0.3s,baz=223,slow=3.2,SNR=24						
AAK				Sn	Sn	13 36 31.9	+2.7
	6.2nm,0.3s,baz=247,slow=13,SNR=3.8						
AAK				LR	LR	13 36 47.3	
	comp=Z,14nm,18.1s,baz=140,slow=32						
AAK				Lg	Lg	13 36 50.4	
	13nm,0.3s,baz=25,slow=12,SNR=6.1 19nm,0.4s						
AAK				AML	AML		
AAK	Ala-Archa	4.04	48	P	Pn	13 35 44.7	+2.9
	SNR=23						
AAK	Ala-Archa	4.04	48	⇓Pn	Pn	13 35 44.2	+2.5
	11nm,0.5s						
AAK				⇑Sn	Sb	13 36 37.3	-2.8
	16nm,0.5s						
AAK	Ala-Archa	4.04	48	⇓*i*P	Pn	13 35 43.2	+1.5
AAK				⇓*i*S	Sn	13 36 29.8	+0.6
AAK	Ala-Archa	4.04	48		Pn	13 35 43.2	+1.5
KSH2	Kashi	4.06	100	Pn	Pn	13 35 46.1	+4.2
KSH2				Sn	Sn	13 36 35.8	+6.2
KSH2				smax	smax		
	comp=N,110nm,0.7s						
KSH2				smax	smax		
	comp=E,81nm,0.8s						
FRU1	Bishkek	4.23	47	⇑*i*P	Pn	13 35 45.7	+1.5
FRU1				⇑*i*S	Sn	13 36 34.2	+0.5
FRU1	Bishkek	4.23	47	PN	Pn	13 35 44.7	+0.5
FRU1	Bishkek	4.23	47	Pn	Pn	13 35 44.7	+0.5
KBK	Karagaybulak	4.32	50	P	Pn	13 35 49.3	+3.8
	SNR=24						
KBK	Karagaybulak	4.32	50	⇓*i*P	Pn	13 35 46.9	+1.4
KBK				⇓*i*S	Sn	13 36 36.3	+0.3
KBK	Karagaybulak	4.32	50	⇓*i*PN	Pn	13 35 46.9	+1.4
KBK				*i* S	Sn	13 36 36.3	+0.3
CHMS	Chumysh	4.42	46	P	Pn	13 35 49.6	+2.8
	SNR=13						
CHMS	Chumysh	4.42	46	⇓*i*P	Pn	13 35 48.1	+1.3
CHMS				⇓*i*S	Sn	13 36 38.5	+0.1
CHMS	Chumysh	4.42	46	*e*PN	Pn	13 35 48.1	+1.3
NRN	Naryn	4.47	69	⇓*i*P	Pn	13 35 48.7	+1.0
NRN				⇓*i*S	Sn	13 36 39.5	-0.5
NRN	Naryn	4.47	69	PN	Pn	13 35 47.6	-0.1
NRN	Naryn	4.47	69		Pn	13 35 47.6	-0.1
USP	Ospenovka	4.47	42	P	Pn	13 35 50.0	+2.5
	SNR=14						
USP	Ospenovka	4.47	42	⇑*i*P	Pn	13 35 48.9	+1.4
USP				⇑*i*S	Sn	13 36 39.8	+0.2
USP	Ospenovka	4.47	42	*i* PN	Pn	13 35 48.9	+1.4
USP				*i* S	Sn	13 36 39.8	+0.2
SGDS	Sogindy	4.67	41	Pg	Pb	13 36 04.2	+2.6
	comp=E,15nm,0.7s						
SGDS				Lg	Lg	13 37 05.9	
	comp=E,44nm,0.7s						
TMD	Tamdy-Bulak	4.73	294	S	Sn	13 36 44.2	-1.6
BOOM	Boomskoye usch	4.85	57	⇓*e*P	Pn	13 35 54.3	+1.5
BOOM				⇓*i*S	Sn	13 36 49.0	0.0
BOOM	Boomskoye usch	4.85	57	PN	Pn	13 35 52.9	+0.1
BOOM	Boomskoye usch	4.85	57		Pn	13 35 52.9	+0.1
TKM2	Tokmak 2	4.86	51	P	Pn	13 35 56.0	+3.0
	SNR=21						
TKM2	Tokmak 2	4.86	51	⇓*i*P	Pn	13 35 54.3	+1.3
TKM2				⇓*i*S	Sn	13 36 49.3	-0.1
TKM2	Tokmak 2	4.86	51	*e*PN	Pn	13 35 54.3	+1.3
ULHL	Ulahol	4.93	61	P	Pn	13 35 57.2	+3.2
	SNR=7.7						
ULHL	Ulahol	4.93	61	⇑*i*P	Pn	13 35 55.5	+1.5
ULHL				⇑*i*S	Sn	13 36 51.1	-0.1
ULHL	Ulahol	4.93	61	*i* PN	Pn	13 35 55.5	+1.5
ULHL				*i* S	Sn	13 36 51.1	-0.1
KST	Kastek	5.15	52	Pg	Pb	13 36 13.7	+3.8
	comp=E,5.5nm,0.4s						
KST				Lg	Lg	13 37 22.5	
KST	Kastek	5.15	52	*e*P	Pb	13 36 13.7	+3.8
	comp=E,5.5nm,0.4s						
KST				*e*S	Sg	13 37 22.6	-2.5
	comp=E,75nm,0.6s						
DGS	Degeres	5.16	49	Pg	Pb	13 36 12.4	+2.5
	comp=E,16nm,0.4s						
DGS				Lg	Lg	13 37 20.0	
	comp=E,33nm,0.6s						
DGS	Degeres	5.16	49	*e*P	Pb	13 36 12.4	+2.5
	comp=E,16nm,0.4s						
DGS				*e*S	Sb	13 37 20.0	+8.0
	comp=E,33nm,0.6s						
KRBS	Karabastau	5.39	45	Pg	Pb	13 36 17.3	+3.4
	comp=E,10nm,0.6s						
KRBS				Lg	Lg	13 37 27.9	
	comp=E,9.6nm,0.6s						
KRBS	Karabastau	5.39	45	*e*P	Pb	13 36 17.3	+3.4
	comp=E,10nm,0.6s						
KRBS				*e*S	Sg	13 37 27.9	-4.7
	comp=E,9.6nm,0.6s						
KDJ	Kajisay	5.53	65	PN	Pn	13 36 02.8	+0.6
KDJ	Kajisay	5.53	65		Pn	13 36 02.8	+0.6
IZV	Izvestkoviy	5.55	55	Pg	Pg	13 36 23.0	-2.9
	comp=E,19nm,0.5s						
IZV				Lg	Lg	13 37 38.1	
	comp=E,34nm,0.8s						
IZV	Izvestkoviy	5.55	55	*e*P	Pg	13 36 23.0	-2.9
IZV				*e*S	Sg	13 37 38.1	+0.3
KBL	Kabul	5.55	192	PN	Pn	13 36 02.3	-0.2
KBL	Kabul	5.55	192		Pn	13 36 02.3	-0.2
TNSS	Tian-Shan	5.76	56	Pg	Pg	13 36 27.0	-3.0
	comp=E,2.4nm,0.5s						
TNSS				Lg	Lg	13 37 44.8	
	comp=E,5.9nm,1.7s						
TNSS	Tian-Shan	5.76	56	*e*P	Pg	13 36 27.0	-3.0
	comp=E,2.4nm,0.5s						
TNSS				*e*S	Sg	13 37 44.8	+0.2
	comp=E,5.9nm,1.7s						
TARG	Taragay, Kyrgy	5.86	70	PN	Pn	13 36 07.7	+0.9
TARG	Taragay, Kyrgy	5.86	70		Pn	13 36 07.7	+0.9
KNDC	Almaty	5.87	55	⇑Pn	Pn	13 36 09.9	+3.2
	comp=E,35nm,0.4s						
KNDC				⇑Lg	Lg	13 37 52.6	
	comp=E,124nm,0.9s						
KNDC	Almaty	5.87	55	PN	Pn	13 36 09.8	+3.2
KUU	Kurty	5.88	47	Pg	Pb	13 36 26.5	+4.2
	comp=E,2.8nm,0.1s						
KUU				Lg	Lg	13 37 43.7	
	comp=E,23nm,0.6s						
KUU	Kurty	5.88	47	*e*P	Pb	13 36 26.5	+4.2
	comp=E,2.8nm,0.1s						
KUU				*e*S	Sg	13 37 43.7	-4.7
	comp=E,23nm,0.6s						
MDOK	Medeo	5.89	55	Pg	Pb	13 36 27.2	+4.8
	comp=E,11nm,0.8s						
MDOK				Lg	Lg	13 37 45.8	

	comp=E,22nm,0.7s						
MDOK	**Medeo**	**5.89**	**55**	*e*P	Pb	13 36 27.2	+4.8
	comp=E,11nm,0.8s						
MDOK				*e*S	**Sg**	**13 37 45.8**	**-2.8**
	comp=E,22nm,0.7s						
KOTS	**Kotyrbulak**	**5.96**	**55**	Pg	**Pg**	**13 36 30.1**	**-3.8**
	comp=E,9.0nm,1.0s						
KOTS				Lg	Lg	13 37 50.1	
	comp=E,50nm,1.2s						
KOTS	**Kotyrbulak**	**5.96**	**55**	*e*P	**Pg**	**13 36 30.1**	**-3.8**
	comp=E,9.0nm,1.0s						
KOTS				*e*S	**Sg**	**13 37 50.1**	**-1.0**
	comp=E,50nm,1.2s						
KTBS	**Karatobe**	**5.97**	**49**	Pg	**Pb**	**13 36 28.1**	**+4.4**
	comp=E,4.7nm,0.4s						
KTBS				Lg	Lg	13 37 46.6	
	comp=E,25nm,0.6s						
KTBS	**Karatobe**	**5.97**	**49**	*e*P	**Pb**	**13 36 28.1**	**+4.4**
	comp=E,4.7nm,0.4s						
KTBS				*e*S	**Sg**	**13 37 46.6**	**-4.6**
	comp=E,25nm,0.6s						
NIL	**Nilore**	**6.72**	**159**	PN	**Pn**	**13 36 21.3**	**+2.9**
NIL	**Nilore**	**6.72**	**159**		**Pn**	**13 36 18.3**	**-0.1**
SATY	**Saty**	**6.72**	**60**	Pg	Pb	13 36 43.6	+6.9
	comp=E,7.1nm,0.7s						
SATY				Lg	Lg	13 38 12.9	
	comp=E,27nm,0.7s						
SATY	**Saty**	**6.72**	**60**	*e*P	Pb	13 36 43.6	+6.9
	comp=E,7.1nm,0.7s						
SATY				*e*S	**Sg**	**13 38 12.9**	**-2.5**
	comp=E,27nm,0.7s						
KURS	**Kuram**	**6.76**	**56**	Pg	Pb	13 36 42.4	+5.1
	comp=E,4.3nm,0.8s						
KURS				Lg	Lg	13 38 10.9	
	comp=E,14nm,1.0s						
KURS	**Kuram**	**6.76**	**56**	*e*P	Pb	13 36 42.4	+5.1
	comp=E,4.3nm,0.8s						
KURS				*e*S	**Sg**	**13 38 10.9**	**-5.7**
	comp=E,14nm,1.0s						
ARXS	**Arharly**	**6.93**	**50**	Pg	Pb	13 36 45.5	+5.3
	comp=E,6.4nm,0.8s						
ARXS				Lg	Lg	13 38 17.0	
	comp=E,22nm,1.3s						
ARXS	**Arharly**	**6.93**	**50**	*e*P	Pb	13 36 45.5	+5.3
	comp=E,6.4nm,0.8s						
ARXS				*e*S	**Sg**	**13 38 17.1**	**-5.0**
	comp=E,22nm,1.3s						
KPKS	**Kokpek**	**7.08**	**58**	Pg	Pb	13 36 49.5	+6.8
	comp=E,0.4nm,0.4s						
KPKS				Lg	Lg	13 38 24.1	
	comp=E,21nm,1.5s						
KPKS	**Kokpek**	**7.08**	**58**	*e*P	Pb	13 36 49.5	+6.8
	comp=E,0.4nm,0.4s						
KPKS				*e*S	**Sg**	**13 38 24.1**	**-2.8**
	comp=E,21nm,1.5s						
UZB	**Uzynbulak**	**7.17**	**61**	Pg	Pb	13 36 50.5	+6.2
	comp=E,3.5nm,1.9s						
UZB				Lg	Lg	13 38 24.9	
	comp=E,8.9nm,0.9s						
UZB	**Uzynbulak**	**7.17**	**61**	*e*P	Pb	13 36 50.5	+6.2
UZB				*e*S	**Sg**	**13 38 24.9**	**-4.9**
BLB	**Baldybastay**	**7.26**	**53**	Pg	Pb	13 36 50.9	+5.2
	comp=E,9.5nm,0.8s						
BLB				Lg	Lg	13 38 26.4	
	comp=E,27nm,1.4s						
SHLS	**Shalkode**	**7.47**	**62**	Pg	**Pg**	**13 37 04.7**	**+2.1**
	comp=E,7.3nm,0.5s						
SHLS				Lg	Lg	13 38 49.1	
	comp=E,17nm,1.1s						
SHLS	**Shalkode**	**7.47**	**62**	*e*P	**Pg**	**13 37 04.7**	**+2.1**
	comp=E,7.3nm,0.5s						
SHLS				*e*S	Sg	13 38 49.1	+10
	comp=E,17nm,1.1s						
PDGK	**Podgornoye**	**7.56**	**61**	⇑Pn	**Pn**	**13 36 32.3**	**+2.3**
	comp=E,3.8nm,0.9s						
PDGK				⇓Pg	Pg	13 36 60.0	-4.4
	comp=E,5.8nm,0.6s						
PDGK				⇑Lg	Lg	13 38 46.1	
	comp=E,15nm,0.7s						
PDGK	**Podgornoye**	**7.56**	**61**	P	**Pn**	**13 36 30.4**	**+0.4**
PDGK	**Podgornoye**	**7.56**	**61**		**Pn**	**13 36 30.4**	**+0.4**
TDK	**Taldyqorghan**	**7.73**	**47**	Pg	Pg	13 37 02.5	-5.1
	comp=E,43nm,0.3s						
TDK				Lg	Lg	13 38 45.2	
	comp=E,67nm,1.8s						
TDK	**Taldyqorghan**	**7.73**	**47**	*e*P	Pg	13 37 02.5	-5.1
	comp=E,43nm,0.3s						
TDK				*e*S	**Sg**	**13 38 45.2**	**-2.4**
	comp=E,67nm,1.8s						
KNOS	**Konyrlen**	**7.83**	**53**	Pg	Pg	13 37 04.3	-5.1
	comp=E,2.1nm,0.8s						
KNOS				Lg	Lg	13 38 48.9	
	comp=E,7.4nm,0.6s						
JMU	**Jammu**	**8.02**	**152**	*e*P	**Pn**	**13 36 39.7**	**+3.5**
JMU				*e*S	**Sn**	**13 38 04.2**	**-2.8**
JMU				IAML		13 38 05.5	
	comp=N,298nm,0.2s						
JMU				IAML		13 38 05.6	
	comp=E,398nm,0.3s						
DJR	**Jarkent**	**8.19**	**55**	Pg	Pg	13 37 11.5	-4.9
	comp=E,2.2nm,0.9s						
DJR				Lg	Lg	13 39 01.2	
	comp=E,3.4nm,0.7s						
DJR	**Jarkent**	**8.19**	**55**	*e*P	Pg	13 37 11.6	-4.9
	comp=E,2.2nm,0.9s						
DJR				*e*S	**Sg**	**13 39 01.2**	**-1.3**
	comp=E,3.4nm,0.7s						
KAPS	**Kapalarasan**	**8.44**	**48**	Pg	Pg	13 37 14.4	-6.8
	comp=E,1.3nm,0.2s						
KAPS				Lg	Lg	13 39 06.1	
	comp=E,13nm,1.1s						
KAPS	**Kapalarasan**	**8.44**	**48**	*e*P	Pg	13 37 14.4	-6.8
	comp=E,1.3nm,0.2s						
KAPS				*e*S	**Sg**	**13 39 06.1**	**-4.3**
	comp=E,13nm,1.1s						
TSSA	**Tissa**	**8.50**	**145**	*e*P	**Pn**	**13 36 47.1**	**+4.2**
TSSA				*e*S	**Sn**	**13 38 16.4**	**-2.6**
TSSA				IAML		13 38 22.4	
	comp=E,275nm,0.1s						
TSSA				IAML		13 38 23.1	
	comp=N,291nm,0.1s						
THN	**Thein Dam**	**8.68**	**149**	*e*P	**Pn**	**13 36 49.6**	**+4.4**
THN				*e*S	**Sn**	**13 38 20.5**	**-2.6**
THN				IAML		13 38 27.2	
	comp=E,267nm,0.4s						
THN				IAML		13 38 30.8	
	comp=N,199nm,0.5s						
DHRM	**DHARAMSHALA**	**9.07**	**147**	*e*P	**Pn**	**13 36 54.3**	**+3.6**
DHRM				*e*S	**Sn**	**13 38 29.0**	**-4.0**
DHRM				IAML		13 38 36.8	
	comp=E,54nm,0.3s						
DHRM				IAML		13 38 36.9	
	comp=N,52nm,0.3s						
BHK	**Bhakra**	**9.85**	**149**	*e*S	**Sn**	**13 38 52.7**	**+0.9**
BHK				IAML		13 38 53.2	
	comp=N,50nm,0.1s						
BHK				IAML		13 38 54.5	
	comp=E,54nm,0.1s						
SMLA	**Simla**	**10.40**	**146**	*e*P	**Pn**	**13 37 11.7**	**+2.9**
SMLA				*e*S	**Sn**	**13 39 00.5**	**-5.0**
SMLA				IAML		13 39 08.0	
	comp=N,43nm,0.6s						
SMLA				IAML		13 39 08.1	
	comp=E,42nm,0.3s						
KLP	**Kalpa**	**10.56**	**141**	*e*P	**Pn**	**13 37 14.0**	**+2.7**
KLP				*e*S	**Sn**	**13 39 04.4**	**-5.3**
KLP				IAML		13 39 13.8	
	comp=E,47nm,0.2s						
KLP				IAML		13 39 16.3	
	comp=N,56nm,0.4s						
MAKZ	**Makanchi**	**10.81**	**47**	⇑Pn	**Pn**	**13 37 17.8**	**+3.4**
	comp=N,3.9nm,1.4s						
MAKZ				⇑Lg	Lg	13 40 29.5	
	comp=N,8.7nm,1.1s						
MAKZ	**Makanchi**	**10.81**	**47**	P	**Pn**	**13 37 17.9**	**+3.5**
MK31	**Makanchi Array**	**10.98**	**48**	Pn	**Pn**	**13 37 17.9**	**+1.1**
	comp=N,0.8nm,0.6s,baz=230,slow=12,SNR=20						
MK31				⇓Lg	Lg	13 40 35.0	
	comp=N,7.2nm,1.1s						
MK31	**Makanchi Array**	**10.98**	**48**	⇑*e*P	**Pn**	**13 37 18.5**	**+1.8**
MKAR	**Makanchi Array**	**10.98**	**48**	Pn	**Pn**	**13 37 18.1**	**+1.4**
	comp=N,0.4nm,0.3s,baz=230,slow=14,SNR=14						
MKAR				Lg	Lg	13 40 24.6	
	comp=N,0.2nm,0.3s,baz=237,slow=24,SNR=2.7						
	comp=N,1.1nm,0.5s						
MKAR				AML	AML		
MKAR	**Makanchi Array**	**10.98**	**48**	*i* P	**Pn**	**13 37 19.1**	**+2.4**
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
MKAR	**Makanchi Array**	**10.98**	**48**		**Pn**	**13 37 16.2**	**-0.5**
AB31	**Akbulak array**	**11.89**	**325**	Pn	**Pn**	**13 37 26.9**	**-2.1**
	comp=Z,1.1nm,0.5s,baz=105,slow=11,SNR=22						
AB31				⇓Sn	**Sn**	**13 39 40.0**	**-1.6**
	comp=Z,3.1nm,0.7s,baz=165,slow=20,SNR=5.6						
AB31				⇓Lg	Lg	13 40 52.8	
	comp=Z,4.1nm,0.7s						
AB31	**Akbulak array**	**11.89**	**325**	P	**Pn**	**13 37 27.0**	**-2.1**
AB31				S	**Sn**	**13 39 40.2**	**-1.5**
AB31	**Akbulak array**	**11.89**	**325**	Pn	**Pn**	**13 37 27.3**	**-1.8**
ABKAR	**Akbulak array**	**11.89**	**325**	Pn	**Pn**	**13 37 27.6**	**-1.5**
KURBB	**Kurchatov Arra**	**12.05**	**25**	Pn	**Pn**	**13 37 29.6**	**-1.7**
	comp=Z,0.1nm,0.3s,baz=217,slow=12,SNR=7.4						
KURBB				Lg	Lg	13 40 52.4	
	comp=Z,0.1nm,0.3s,baz=212,slow=30,SNR=4.6						
	comp=Z,0.4nm,0.6s						
KURBB				AML	AML		
KURBB	**Kurchatov Arra**	**12.05**	**25**	⇑Pn	**Pn**	**13 37 32.6**	**+1.3**
	comp=Z,1.6nm,0.8s						
KURBB				⇑Sn	**Sn**	**13 39 53.0**	**+7.3**
	comp=Z,3.8nm,0.7s						
KURBB				⇑Lg	Lg	13 41 06.4	
	comp=Z,31nm,0.9s						
KURBB	**Kurchatov Arra**	**12.05**	**25**	P	**Pn**	**13 37 32.6**	**+1.3**
KURBB				S	**Sn**	**13 39 53.0**	**+7.3**
KURK	**Kurchatov**	**12.16**	**25**	⇑Pn	**Pn**	**13 37 33.5**	**+0.7**
	comp=Z,0.4nm,0.8s						
KURK				⇓Sn	**Sn**	**13 39 55.1**	**+6.7**
	comp=Z,1.5nm,1.1s						
KURK				⇓Lg	Lg	13 41 10.3	
	comp=Z,7.4nm,1.4s						
KURK	**Kurchatov**	**12.16**	**25**	P	**Pn**	**13 37 33.5**	**+0.7**
KURK				S	**Sn**	**13 39 55.5**	**+7.1**
KURK	**Kurchatov**	**12.16**	**25**		**Pn**	**13 37 29.6**	**-3.2**
BORK	**Borovoye**	**13.06**	**360**	⇓*e*P	**Pn**	**13 37 48.3**	**+3.2**
AKTO	**Aktyubinsk**	**13.60**	**324**	Pn	**Pn**	**13 37 50.9**	**-1.6**
	comp=Z,0.3nm,0.3s,baz=124,slow=11,SNR=1.7						
AKTO				Sn	Sn	13 40 13.9	-10
	comp=Z,0.2nm,0.3s,baz=326,slow=19,SNR=1.5						
	comp=Z,1.0nm,0.4s						
AKTO				AML	AML		
AKTO	**Aktyubinsk**	**13.60**	**324**	⇓Pn	**Pn**	**13 37 51.3**	**-1.2**
	comp=Z,1.7nm,0.7s						
AKTO				⇑Sn	**Sn**	**13 40 21.9**	**-1.7**
	comp=Z,3.7nm,1.2s						
AKTO				⇓Lg	Lg	13 41 46.8	
	comp=Z,4.1nm,0.9s						
AKTO	**Aktyubinsk**	**13.60**	**324**	P	**Pn**	**13 37 51.3**	**-1.2**
AKTO				S	**Sn**	**13 40 21.9**	**-1.7**
ZAA0	**Zalesovo Array**	**17.02**	**30**		**Pn**	**13 38 38.4**	**+0.9**
ZALV	**Zalesovo Beam**	**17.02**	**30**	P	**Pn**	**13 38 36.2**	**-1.3**
	comp=Z,0.3nm,0.3s,baz=225,slow=14,SNR=5.5						
	comp=Z,0.8nm,0.4s						
ZALV				AML	AML		
ZALV	**Zalesovo Beam**	**17.02**	**30**	*i* P	**P**	**13 38 39.4**	**0.0**
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ZALV	**Zalesovo Beam**	**17.02**	**30**		**Pn**	**13 38 38.4**	**+0.9**
EVN	**Everest**	**18.10**	**127**		**Pn**	**13 38 51.7**	**0.0**
ARTI	**Arti**	**18.22**	**338**	P	**P**	**13 38 53.5**	**+0.9**
ARTI				pmax	pmax		
	comp=Z,4.0nm,0.7s						
ARTI	**Arti**	**18.22**	**338**		**P**	**13 38 53.5**	**+0.9**
ARTI				IAmb	IAmb	13 39 03.6	
	comp=Z,4.2nm,0.7s						
SHA1	**Shidzhatmaz**	**20.98**	**289**	⇓*e*P	**P**	**13 39 19.8**	**-3.3**
KIRV	**Kirov**	**22.93**	**331**	⇓*e*P	**P**	**13 39 44.9**	**+1.3**
BR131	**Keskin Array S**	**28.12**	**281**	⇑*e*P	**P**	**13 40 33.8**	**+2.0**
HHC	**Hu-ho-hao-te**	**31.13**	**75**	*e*P	**P**	**13 40 58.6**	**+0.2**
HHC				pmax	pmax		
	comp=Z,10.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,79nm,5.8s						
FINES	**FINESS Array B**	**34.38**	**323**	P	**P**	**13 41 25.9**	**-0.5**
	comp=Z,0.7nm,0.6s,baz=111,slow=11,SNR=5.5						
	comp=Z,0.7nm,0.6s						
FINES	**FINESS Array B**	**34.38**	**323**	*i* P	**P**	**13 41 28.1**	**+1.7**
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	**FINESS Array B**	**34.38**	**323**	P	**P**	**13 41 26.7**	**+0.3**
ARCES	**ARCESS Array B**	**37.76**	**336**	P	**P**	**13 41 55.5**	**+0.2**
	comp=Z,1.3nm,0.6s,baz=108,slow=7.8,SNR=6.9						
	comp=Z,1.3nm,0.6s						
ARCES	**ARCESS Array B**	**37.76**	**336**	P	**P**	**13 41 55.8**	**+0.4**
ARCES				pmax	pmax		
	comp=Z,20nm,1.5s						
ARCES	**ARCESS Array B**	**37.76**	**336**	P	**P**	**13 41 55.8**	**+0.4**
ARCES				IAmb	IAmb	13 42 37.0	
	comp=Z,20nm,1.5s						
HFS	**Hagfors**	**40.08**	**319**	P	**P**	**13 42 14.9**	**+0.1**
	comp=Z,3.7nm,0.8s,baz=110,slow=11,SNR=4.9						
	comp=Z,3.7nm,0.8s						
KHC	**Kasperske Hory**	**40.66**	**302**	⇓*e*P	**P**	**13 42 18.4**	**-1.4**
NC602	**NORSAR Array S**	**41.19**	**320**	P	**P**	**13 42 24.0**	**+0.1**
NC602				IAmb	IAmb	13 42 56.3	
	comp=Z,6.3nm,1.1s						
NB2	**NORSAR Subarra**	**41.36**	**321**	P	**P**	**13 42 25.0**	**-0.4**
	comp=Z,0.7nm,0.6s,baz=94,slow=8.6						
NOA	**NORSAR Array B**	**41.36**	**321**	P	**P**	**13 42 24.4**	**-1.1**
	comp=Z,1.1nm,0.7s,baz=94,slow=8.1,SNR=4.6						
	comp=Z,1.1nm,0.7s						
YAK	**Yakutsk**	**41.44**	**38**	⇑*e*P	**P**	**13 42 27.8**	**+1.8**
YAK				pmax	pmax		
	comp=Z,7.0nm,0.8s						
YAK	**Yakutsk**	**41.44**	**38**	P	**P**	**13 42 24.6**	**-1.3**
YAK				IAmb	IAmb	13 42 33.0	
	comp=Z,6.0nm,0.8s						
NBO00	**NORSAR Array S**	**41.57**	**321**	P	**P**	**13 42 26.3**	**-0.9**
NBO00				IAmb	IAmb	13 43 01.4	
	comp=Z,5.7nm,0.9s						
NC204	**NORSAR Array S**	**41.59**	**321**	P	**P**	**13 42 26.8**	**-0.6**
NC204				IAmb	IAmb	13 42 59.7	
	comp=Z,7.8nm,1.1s						
TORD	**Torodi Ar. Bea**	**65.41**	**267**	P	**P**	**13 45 21.4**	**-1.3**
	comp=Z,1.3nm,0.6s,baz=50,slow=6.0,SNR=9.1						
	comp=Z,1.3nm,0.6s						
IMAR	**Indian Mountai**	**68.99**	**18**	P	**P**	**13 45 44.7**	**0.0**
ILAR	**Eielson Array**	**71.55**	**16**	P	**P**	**13 45 59.9**	**-0.5**
	comp=Z,0.3nm,0.7s,baz=325,slow=8.1,SNR=3.2						
	comp=Z,0.3nm,0.7s						
FITZ	**Fitzroy Crossi**	**77.33**	**127**	P	**P**	**13 46 34.9**	**+0.3**
FITZ				IAmb	IAmb	13 46 39.7	
	comp=Z,0.8nm,1.3s						
WRA	**Warramunga Arr**	**84.22**	**122**	P	**P**	**13 47 11.1**	**-0.3**
	comp=Z,0.3nm,0.3s,baz=325,slow=4.8,SNR=16						
	comp=Z,0.3nm,0.3s						
WRA	**Warramunga Arr**	**84.22**	**122**	P	**P**	**13 47 11.1**	**-0.3**
WRAB	**Tennant Creek**	**84.22**	**122**	P	**P**	**13 47 11.0**	**-0.4**
WRAB	**Tennant Creek**	**84.22**	**122**	P	**P**	**13 47 11.0**	**-0.4**
WR8	**Warramunga Arr**	**84.33**	**122**	P	**P**	**13 47 11.5**	**-0.5**
WR8				IAmb	IAmb	13 47 35.4	
	comp=Z,12nm,1.4s						
BATG	**Bathurst New B**	**84.87**	**332**	P	**P**	**13 47 14.6**	**+0.2**
ASAR	**Alice Springs**	**86.61**	**125**	P	**P**	**13 47 22.2**	**-1.1**
	comp=Z,0.3nm,0.5s,baz=314,slow=3.8,SNR=4.2						
	comp=Z,0.3nm,0.5s						
CTA	**Charters Tower**	**92.39**	**114**	LR	LR	14 33 28.1	
	comp=Z,57nm,18.1s,baz=221,slow=38						

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*SJA **01** 13:51:22.7±0.7,27°.80S×71°.77W,h7^{km},ML4.5,MW4.3*

*IDC **01** 13:51:25.8±0.7,27°.77S×71°.39W,h0^{km},mb4.2/7, mbtmp4.0/12,ML4.0/5,MS3.6/15,Error ellipse: s-maj=19.0km s-min=14.4km az=91.0*

*NEIC **01** 13:51:26.0±1.2,27°.82S±0°.04×71°.59W±0°.06,h10^{km}±1^{km}, mb4.5/7,Mwr4.3/28,ML3.9(GUC),Error ellipse: s-maj=8.9km s-min=6.2km az=248.0,Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M$_{rr}$1.77; M$_{\theta\theta}$0.73; M$_{\phi\phi}$-2.50; M$_{r\theta}$0.78; M$_{\theta\phi}$-0.76; M$_{\phi r}$-1.90; Fault plane solution: M$_0$3.12000×10^{15} NP1:φ$_s$166.80000°, δ69.08000°,λ62.72000°. NP2:φ$_s$42.09000°,δ33.88000°, λ140.16000°. Principal axes: T 2.9467, Plg57.0000°, Azm40.0000°; N 0.3222, Plg25.0000°, Azm177.0000°; P -3.2690, Plg20.0000°, Azm277.0000°;*

*NEIC **01** 13:51:25.8,27°.82S×71°.60W,h10^{km}*

*GUC **01** 13:51:27.5±0.8,27°.93S×71°.38W,h27^{km}±3^{km},ML3.9*

ISC 01 13:51:25.2±1.4,**27°.90S**±0°.02×**71°.50W**±0°.04,**h6**^{km}±8^{km}, **n107,**σ1^{s}**89**/122,**mb4.5**/9,**MS3.7**/12,**4C-1D,Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	**Llanos de Chal**	**0.48**	**129**	*e*P	**Pb**	**13 51 37.2**	**+1.0**
AC04	**Llanos de Chal**	**0.48**	**129**	*e*P	**Pb**	**13 51 37.1**	**+1.0**
AC04				*i* S	**Sb**	**13 51 43.1**	**-0.5**
AC04				IAML		13 51 43.7	
	comp=E,16µm,0.2s						
AC04	**Llanos de Chal**	**0.48**	**129**		**Pb**	**13 51 37.1**	**+1.0**
AC06	**Mina Casimiro**	**1.15**	**62**	*e*P	**Pn**	**13 51 47.9**	**0.0**
AC06				*i* S	**Sn**	**13 52 02.5**	**-1.6**
AC06				IAML		13 52 09.0	
	comp=E,3µm,0.3s						
GO03	**Copiapo**	**1.16**	**75**	*e*P	**Pn**	**13 51 48.3**	**+0.2**
GO03				*e*S	**Sn**	**13 52 03.8**	**-0.6**
GO03				*e*S	**Sb**	**13 52 07.8**	**+4.6**
GO03				IAML		13 52 08.8	
	comp=Z,4µm,0.5s						
GO03	**Copiapo**	**1.16**	**75**	*e*P	**Pb**	**13 51 47.7**	**-0.1**
GO03				*i* S	**Sn**	**13 52 03.1**	**-1.3**
GO03				IAML		13 52 09.9	
	comp=E,7µm,0.5s						
GO03	**Copiapo**	**1.16**	**75**		**Pn**	**13 51 48.3**	**+0.2**
LCO	**Las Campanas**	**1.31**	**148**	*e*P	**Pg**	**13 51 51.5**	**+1.2**
LCO				*e*S	**Sn**	**13 52 09.9**	**+1.5**
LCO				IAML		13 52 12.8	
	comp=Z,8µm,0.3s						
LCO	**Las Campanas**	**1.31**	**148**	*e*P	**Pb**	**13 51 50.9**	**+0.5**
LCO				*i* S	**Sn**	**13 52 08.2**	**-0.1**
LCO	**Las Campanas**	**1.31**	**148**		**Pg**	**13 51 51.5**	**+1.2**
AC05	**El Transito**	**1.43**	**131**	*e*P	**Pg**	**13 51 53.2**	**+0.6**
AC05				*e*S	**Sg**	**13 52 13.1**	**+2.0**
AC05	**El Transito**	**1.43**	**131**	*e*P	**Pb**	**13 51 52.3**	**0.0**
AC05				*i* S	**Sg**	**13 52 11.0**	**-0.1**
AC05				IAML		13 52 15.6	
	comp=N,2µm,0.7s						
AC05	**El Transito**	**1.43**	**131**		**Pg**	**13 51 52.9**	**+0.3**
AC01	**Pan de Azucar**	**1.92**	**25**	*e*P	**Pn**	**13 51 58.7**	**+0.1**
AC01				*e*S	**Sb**	**13 52 24.8**	**-0.2**
AC01	**Pan de Azucar**	**1.92**	**25**		**Pn**	**13 51 58.3**	**-0.2**
GO04	**Tololo Observa**	**2.34**	**165**	*e*P	**Pn**	**13 52 01.3**	**-3.2**
GO04				*e*P	**Pb**	**13 52 06.8**	**-1.2**
GO04				*e*S	**Sb**	**13 52 38.9**	**+1.5**
GO04				IAML		13 52 46.0	
	comp=Z,4µm,1.1s						
GO04	**Tololo Observa**	**2.34**	**165**	*e*P	**Pn**	**13 52 06.5**	**+2.0**
GO04				*i* S	**Sb**	**13 52 37.6**	**+0.2**
GO04	**Tololo Observa**	**2.34**	**165**		**Pn**	**13 52 06.6**	**+2.0**
AC02	**Maricunga**	**2.36**	**64**	*e*P	**Pb**	**13 52 07.7**	**-0.8**
AC02				*e*S	**Sg**	**13 52 40.6**	**-0.5**
AC02				IAML		13 52 43.7	
	comp=Z,2µm,1.2s						
AC02	**Maricunga**	**2.36**	**64**	*e*P	**Pb**	**13 52 07.9**	**-0.5**
AC02				*i* S	**Sb**	**13 52 38.1**	**+0.1**
AC02				IAML		13 52 43.6	
	comp=N,3µm,0.4s						
CO01	**Juntas del Tor**	**2.41**	**150**	*e*P	**Pb**	**13 52 08.4**	**-0.7**
CO01				*e*S	**Sn**	**13 52 32.8**	**-2.6**
CO01				IAML		13 52 45.4	
	comp=Z,1µm,0.7s						
CO01	**Juntas del Tor**	**2.41**	**150**	*e*P	**Pb**	**13 52 08.5**	**-0.7**
CO01				*i* S	**Sb**	**13 52 38.4**	**-0.8**
CO01				IAML		13 52 44.0	
	comp=E,2µm,0.5s						
CO01	**Juntas del Tor**	**2.41**	**150**		**Pb**	**13 52 08.1**	**-1.0**
CO06	**Fray Jorge**	**2.76**	**182**	*e*P	**Pn**	**13 52 10.6**	**+0.5**
CO06				*i* S	**Sn**	**13 52 42.5**	**-1.4**
CO06				IAML		13 53 08.2	
	comp=N,582nm,0.5s						
AROD	**Rodeo**	**2.87**	**142**	*e*P	**Pb**	**13 52 16.8**	**-0.2**
AROD				*e*S	**Sg**	**13 52 55.8**	**-1.7**
VCA	**Vinchina**	**3.02**	**107**	*e*P	**Pb**	**13 52 19.5**	**-0.1**
ACDV	**Cuesta del Vie**	**3.08**	**138**	*e*P	**Pb**	**13 52 19.7**	**-0.7**
ACDV				*e*S	**Sg**	**13 53 01.3**	**-2.7**
ACDV				IAML		13 53 18.1	
	comp=Z,620nm,1.5s						
CO02	**Combarbal**	**3.32**	**173**	*e*P	**Pn**	**13 52 19.4**	**+1.6**
CO02				*e*S	**Sn**	**13 52 53.3**	**-4.4**
CO02				IAML		13 53 21.2	
	comp=Z,2µm,0.6s						
CO02	**Combarbal**	**3.32**	**173**	*e*P	**Pn**	**13 52 19.2**	**+1.4**
CO02	**Combarbal**	**3.32**	**173**		**Pn**	**13 52 18.9**	**+1.1**
PB14	**IPOC Station P**	**3.41**	**17**	*e*P	**Pn**	**13 52 19.3**	**0.0**
PB14				*e*S	**Sb**	**13 53 06.8**	**-1.3**
PB14				*e*S	**Sg**	**13 53 12.3**	**-2.4**
PB14	**IPOC Station P**	**3.41**	**17**	⇑*e*P	**Pn**	**13 52 18.7**	**-0.5**
PB14	**IPOC Station P**	**3.41**	**17**		**Pn**	**13 52 18.4**	**-0.9**
TINO	**Tinogasta**	**3.48**	**94**	*e*P	**Pb**	**13 52 23.6**	**-3.7**
TINO				*e*S	**Sb**	**13 53 09.8**	**-0.1**
TINO				IAML		13 53 21.2	
	comp=Z,793nm,1.5s						
CO04	**Los Peladeros**	**4.15**	**174**		**Pn**	**13 52 31.0**	**+1.5**
ACLC	**CERRO LA CRUZ**	**4.28**	**112**	*e*P	**Pn**	**13 52 35.2**	**+4.1**
ACLC				*e*S	**Sb**	**13 53 30.8**	**-2.1**
ACLC				IAML		13 53 34.5	
	comp=Z,318nm,0.9s						
RTLL	**Cerro Villicun**	**4.31**	**143**	*e*P	**Pn**	**13 52 30.8**	**-0.6**
RTLL				*e*P	Pb	13 52 36.5	-5.0
RTLL				*e*S	**Sb**	**13 53 29.8**	**-4.0**
RTLL				IAML		13 53 51.6	
	comp=Z,352nm,0.5s						
RTLS	**Leoncito**	**4.33**	**154**	*e*P	Pn	13 52 37.3	+5.4
RTLS				*e*S	**Sb**	**13 53 35.8**	**+1.2**
RTLS				IAML		13 53 43.6	
	comp=Z,2µm,1.1s						
RTLS				*e*S	**Sg**	**13 53 44.3**	**0.0**
ZON	**Zonda**	**4.38**	**147**		**Pn**	**13 52 33.8**	**+1.4**
CFA	**Coronel Fontan**	**4.65**	**143**	Pn	**Pn**	**13 52 39.1**	**+3.0**
	comp=Z,6.8nm,0.3s,baz=320,slow=13,SNR=44						
CFA				Sn	**Sb**	**13 53 37.8**	**-5.9**
	comp=Z,5.2nm,0.3s,baz=55,slow=6.6,SNR=5.8						
	comp=Z,14nm,0.4s						
CFA				AML	AML		
CFA	**Coronel Fontan**	**4.65**	**143**	*e*P	**Pn**	**13 52 40.6**	**+4.5**
CFA				*e*P	Pb	13 52 40.8	-6.5
CFA				*e*S	**Sb**	**13 53 37.8**	**-5.9**
CFA				IAML		13 53 53.7	
	comp=Z,254nm,0.8s						
VA03	**San Esteban**	**4.91**	**171**	*e*P	**Pn**	**13 52 41.4**	**+1.7**
VA03				*e*S	**Sn**	**13 53 35.8**	**-1.2**
VA03				IAML		13 54 10.3	
	comp=Z,519nm,1.1s						
VA03	**San Esteban**	**4.91**	**171**		**Pn**	**13 52 41.3**	**+1.5**
CYA	**Choya**	**5.06**	**97**	*e*P	**Pn**	**13 52 40.8**	**-0.9**
CYA				IAML		13 54 12.2	
	comp=Z,118nm,1.9s						
CYA	**Choya**	**5.06**	**97**	*e*P	Pn	13 52 46.4	+4.7
PB05	**IPOC Station P**	**5.16**	**13**	*e*P	**Pn**	**13 52 42.2**	**-1.0**
PB05				*e*S	**Sb**	**13 54 03.8**	**+5.4**
PB05				IAML		13 54 15.3	
	comp=Z,200nm,0.7s						
PB05	**IPOC Station P**	**5.16**	**13**		**Pn**	**13 52 41.8**	**-1.4**
MT02	**Curacav**	**5.35**	**177**		**Pn**	**13 52 46.3**	**+0.7**
PB06	**IPOC Station P**	**5.46**	**19**		**Pn**	**13 52 46.5**	**-0.9**
MT16	**CCHEN**	**5.57**	**172**	Pn	**Pn**	**13 52 49.8**	**+1.0**
PB03	**IPOC Station P**	**6.04**	**16**		**Pn**	**13 52 53.7**	**-1.6**
SLA	**San Lorenzo**	**6.24**	**61**	*e*P	Pb	13 53 06.3	-8.2
TCA	**Tanti**	**6.92**	**121**	*e*P	**Pn**	**13 53 08.8**	**+1.5**
PSGCX	**Pisagua**	**8.36**	**9**		**Pn**	**13 53 24.9**	**-2.2**
H03N1	**Juan Fernandez**	**8.44**	**227**	Pn	**Pn**	**13 53 26.1**	**-1.7**
H03N2	**Juan Fernandez**	**8.45**	**227**	Pn	Pn	13 53 23.7	-4.2
H03S3	**Juan Fernandez**	**8.68**	**225**	Pn	**Pn**	**13 53 28.9**	**-2.3**
	baz=209,slow=74						
H03S1	**Juan Fernandez**	**8.69**	**225**	Pn	**Pn**	**13 53 29.3**	**-2.0**
	baz=209,slow=74						
H03S2	**Juan Fernandez**	**8.70**	**225**	Pn	**Pn**	**13 53 28.9**	**-2.5**
	baz=209,slow=74						
LPAZ	**La Paz**	**11.97**	**16**	Pn	**Pn**	**13 54 16.8**	**-0.3**
	comp=Z,0.2nm,0.3s,baz=212,slow=9.8,SNR=1.3						
	comp=Z,0.7nm,0.4s						
LPAZ				AML	AML		
CPUP	**Villa Florida**	**12.72**	**86**	Pn	**Pn**	**13 54 27.2**	**+0.5**
	comp=Z,0.8nm,0.3s,baz=337,slow=2.6,SNR=3.7						
CPUP				Lg	Lg	13 58 00.0	
	comp=Z,0.2nm,0.3s,baz=131,slow=11,SNR=1.8						
CPUP				LR	LR	13 59 09.5	
	comp=Z,161nm,18.8s,baz=280,slow=37						
	comp=Z,1.1nm,0.3s						
CPUP				AML	AML		
PLCA	**Paso Flores**	**12.82**	**177**	Pn	**Pn**	**13 54 30.3**	**+2.2**
	comp=Z,0.1nm,0.3s,baz=29,slow=10.0,SNR=1.8						
PLCA				Lg	Lg	13 58 07.5	
	comp=Z,0.2nm,0.3s,baz=127,slow=15,SNR=1.2						
PLCA				LR	LR	13 59 53.5	
	comp=Z,270nm,18.7s,baz=349,slow=39						
	comp=Z,0.7nm,0.7s						

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PLCA                                  AML     AML
SIV    San Ignacio        15.29  41   Pn      Pn        13 54 58.0 -3.7
       baz=231,slow=10,SNR=8.6
SIV                                   LR      LR        14 01 49.2
       comp=Z,157nm,19.4s,baz=282,slow=41
       comp=Z,0.9nm,0.5s
VAO    Valinhos           22.67  83   P       P         13 56 27.9 +0.3
VAO                                   IAmb    IAmb      13 56 28.3
       comp=Z,24nm,0.8s
BDFB   Brasilia           24.94  66   P       P         13 56 49.4 -0.2
       comp=Z,5.8nm,0.7s,baz=186,slow=4.8,SNR=6.0
BDFB                                  LR      LR        14 07 54.9
       comp=Z,374nm,18.8s,baz=176,slow=40
       comp=Z,5.8nm,0.7s
BDFB   Brasilia           24.94  66   P       P         13 56 49.6  0.0
BDFB                                  IAmb    IAmb      13 56 50.9
       comp=Z,7.2nm,0.8s
PMSA   Palmer Station     37.19 175   LR      LR        14 14 01.2
       comp=Z,98nm,18.5s,baz=348,slow=36
ORCD   Orcadas            37.47 159   P       P         13 58 40.0 +0.8
MDP    Montagnes des      37.52  32   LR      LR        14 14 26.4
       comp=Z,89nm,18.1s,baz=130,slow=37
VNA3   Neumayer Olymp     54.86 160  ⇑P       P         14 00 56.4 +0.4
       comp=Z,2.0nm,0.6s
VNA2   Neumayer--Watz     55.48 159  ⇓P       P         14 01 02.3 +1.8
       comp=Z,3.6nm,0.6s,baz=285,slow=7.4
SNAA   Sanae              57.08 159  ⇑P       P         14 01 13.4 +1.4
       comp=Z,53nm,0.6s
SNAA   Sanae              57.08 159   P       P         14 01 12.7 +0.7
       comp=Z,3.7nm,0.9s,baz=295,slow=3.2,SNR=9.4
       comp=Z,3.7nm,0.9s
SNAA   Sanae              57.08 159   P       P         14 01 13.3 +1.3
SNAA                                  IAmb    IAmb      14 01 25.4
       comp=Z,5.8nm,1.1s
TROLL  Troll, Antarti     58.79 160  ⇑P       P         14 01 25.6 +1.5
       comp=Z,174nm,0.9s
QSPA   South Pole Qui     62.31 180   P       P         14 01 49.9 +1.7
       comp=Z,3.9nm,1.0s,baz=151,slow=4.3,SNR=6.1
       comp=Z,3.9nm,1.0s
QSPA   South Pole Qui     62.31 180   P       P         14 01 49.4 +1.2
TXAR   Lajitas Array      64.70 329   P       P         14 02 05.2 +0.8
       comp=Z,0.5nm,1.1s,baz=163,slow=5.3,SNR=1.5
       comp=Z,0.5nm,1.1s
TXAR   Lajitas Array      64.70 329   P       P         14 02 03.3 -1.1
L59A   Walton             69.82 357   P       P         14 02 35.8 -0.7
PPT    Papeete            71.69 259   LR      LR        14 24 46.5
       comp=Z,10nm,21.4s,baz=111,slow=28
DBIC   Dimbokro           72.85  73   P       P         14 02 55.7 +0.3
       comp=Z,6.9nm,0.8s,baz=201,slow=4.0,SNR=4.2
DBIC                                  LR      LR        14 34 12.7
       comp=Z,21nm,20.3s,baz=290,slow=35
       comp=Z,6.9nm,0.8s
DBIC   Dimbokro           72.85  73   P       P         14 02 55.3 -0.1
SUR    Sutherland         77.42 120   LR      LR        14 32 29.6
       comp=Z,49nm,20.8s,baz=175,slow=32
PDAR   Pinedale Array     78.57 332   P       P         14 03 28.6 +0.8
       comp=Z,0.3nm,0.8s,baz=194,slow=8.4,SNR=2.0
       comp=Z,0.3nm,0.8s
MAW    Mawson             78.88 164   LR      LR        14 40 07.7
       comp=Z,49nm,19.1s,baz=235,slow=37
TSUM   Tsumeb             80.47 107   LR      LR        14 34 50.4
       comp=Z,46nm,18.5s,baz=157,slow=32
TORD   Torodi Ar. Bea     81.72  70   P       P         14 03 46.3 +1.1
       comp=Z,3.6nm,0.9s,baz=272,slow=4.1,SNR=11
       comp=Z,3.6nm,0.9s
TORD   Torodi Ar. Bea     81.72  70   P       P         14 03 44.5 -0.6
LBTB   Lobatse            84.46 115   LR      LR        14 36 08.6
       comp=Z,38nm,19.6s,baz=172,slow=32
MDT    Midelt             87.63  51   LR      LR        14 43 04.3
       comp=Z,23nm,19.4s,baz=60,slow=35
LSZ    Lusaka             91.25 108   LR      LR        14 44 33.9
       comp=Z,40nm,18.4s,baz=186,slow=35
ESDC   Sonseca Array      92.01  46   LR      LR        14 44 40.1
       comp=Z,24nm,18.3s,baz=284,slow=35
ASAR   Alice Springs     123.17 208   PKP     PKPdf     14 10 24.6 +1.0
       comp=Z,0.3nm,0.6s,baz=140,slow=1.5,SNR=9.0
H11S2  WAKE ISLAND Hy    126.11 273   T       T         16 29 44.0
       baz=112,slow=75,SNR=8.8
H11S1  WAKE ISLAND Hy    126.12 273   T       T         16 29 44.0
       baz=112,slow=75,SNR=6.1
H11S3  WAKE ISLAND Hy    126.12 273   T       T         16 29 38.7
       baz=112,slow=75,SNR=12
WRA    Warramunga Arr    126.27 211   PKP     PKiKP     14 10 31.1 +1.0
       comp=Z,1.0nm,0.8s,baz=158,slow=1.8,SNR=9.7
KURK   Kurchatov         147.91  37           PKPbc     14 11 11.2 +0.1
KURBB  Kurchatov Arra    147.91  37   PKPbc   PKPbc     14 11 11.2 +0.1
       comp=Z,2.4nm,0.2s,baz=304,slow=3.9,SNR=4.9
ZALV   Zalesovo Beam     148.71  27   PKPbc   PKiKP     14 11 15.2 +0.6
       comp=Z,6.7nm,0.8s,baz=300,slow=3.3,SNR=26
ZALV   Zalesovo Beam     148.71  27           PKiKP     14 11 14.8 +0.3
KSH2   Kashi             150.50  59   PKPbc   PKiKP     14 11 20.9 +2.0
MKAR   Makanchi Array    152.10  40   PKPbc   PKiKP     14 11 22.9 +1.1
       comp=Z,1.7nm,0.8s,baz=314,slow=2.2,SNR=14
MKAR   Makanchi Array    152.10  40           PKiKP     14 11 23.2 +1.4
WMQ    Urumqi            156.93  41   ePKP    PKPdf     14 11 19.1 -2.7
WMQ                                   pPKP    sPKPdf    14 11 29.6 +6.4
HHC    Hu-ho-hao-te      166.84 350   eP      PKPdf     14 11 27.1 -4.9
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SJA ***01*** *14:01:28.9±0.6, 27.°67S×71.°69W, h8^{km}±2^{km}, ML3.8, MW3.7*

IDC ***01*** *14:01:30.2±1.3, 27.°70S×71.°81W, h0^{km}, mb3.8/3, mbtmp3.7/6, ML3.8/3, MS3.2/1, Error ellipse: s-maj=39.9km s-min=22.6km az=109.0*

NEIC ***01*** *14:01:31.7, 27.°75S×71.°57W, h11^{km}*

NEIC ***01*** *14:01:32.7±1.5, 27.°75S±0.°04×71.°5W±0.°1, h16^{km}±5^{km}, mb4.4/8, Mwr3.8/23, ML3.4(GUC), Error ellipse: s-maj=13.5km s-min=5.6km az=93.0, Moment Tensor Solution. Moment tensor: Scale 10^{14}Nm; M_{rr}4.30; $M_{\theta\theta}$1.16; $M_{\phi\phi}$-5.46; $M_{r\theta}$2.47; $M_{\theta\phi}$-0.26; $M_{\phi r}$-3.58; Fault plane solution: $M_0$6.62000×10^{14} NP1:ϕ_s26.72000°, δ32.32000°, λ133.54000°. NP2:ϕ_s158.37000°, δ67.20000°, λ66.45000°. Principal axes: T 6.5653, Plg61.0000°, Azm33.0000°; N 0.1008, Plg22.0000°, Azm168.0000°; P -6.6660, Plg19.0000°, Azm266.0000°;*

GUC ***01*** *14:01:34.8±0.5, 27.°82S×71.°40W, h29^{km}±1^{km}, ML3.5*

ISC 01 14:01:30.4±1.5**, 27.°75S**±0.°02×**71.°58W**±0.°05**, h5**^{km}±9^{km}**, n65,** σ1.^{s}**84**/89**, mb4.2**/3**, 2C-3D, Near coast of northern Chile**

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Code   Station Name        Δ°   AZ°   Phase ID              Time     Res
                                      Op      ISC       h  m  s     ISC
AC04   Llanos de Chal      0.64 136   eP      Pg        14 01 43.9 +1.2
AC04   Llanos de Chal      0.64 136  ⇓eP      Pg        14 01 43.9 +1.2
AC04                                  eS      Sg        14 01 50.6 -0.3
AC04                                   IAML             14 01 51.2
       comp=E,8µm,0.3s
AC04   Llanos de Chal      0.64 136           Pg        14 01 43.7 +1.0
AC06   Mina Casimiro       1.16  71   eP      Pb        14 01 52.8 -0.1
AC06                                  eS      Sb        14 02 06.7 -1.5
AC06                                   IAML             14 02 08.2
       comp=N,1µm,0.5s
GO03   Copiapo             1.20  83   eP      Pn        14 01 48.1 -5.8
GO03                                  eP      Pb        14 01 53.6 -0.1
GO03                                  eS      Sb        14 02 08.6 -1.0
GO03                                   IAML             14 02 15.9
       comp=Z,749nm,0.5s
GO03   Copiapo             1.20  83  ⇓eP      Pn        14 01 53.2 -0.7
GO03                                  eS      Sb        14 02 07.6 -2.0
GO03                                   IAML             14 02 14.4
       comp=N,1µm,0.6s
GO03   Copiapo             1.20  83           Pn        14 01 53.2 -0.7
LCO    Las Campanas        1.48 149   eP      Pb        14 01 58.5  0.0
LCO                                   eS      Sb        14 02 17.2 -0.4
LCO                                    IAML             14 02 21.8
       comp=Z,3µm,0.3s
LCO    Las Campanas        1.48 149   eP      Pn        14 01 58.0 +0.1
LCO                                   eS      Sn        14 02 15.8 -2.0
LCO    Las Campanas        1.48 149           Pn        14 01 58.0 +0.1
AC05   El Transito         1.58 134   eS      Sb        14 02 19.6 -0.9
AC05                                   IAML             14 02 20.5
       comp=Z,535nm,0.5s
AC05   El Transito         1.58 134   eP      Pn        14 01 59.4 +0.2
AC05                                  eS      Sn        14 02 17.8 -2.3
AC05                                   IAML             14 02 20.1
       comp=N,879nm,0.6s
AC05   El Transito         1.58 134           Pn        14 01 59.4 +0.2
AC01   Pan de Azucar       1.82  29   eP      Pn        14 02 03.0 +0.6
AC01                                  eS      Sb        14 02 27.1 -0.2
AC01                                   IAML             14 02 36.1
       comp=Z,469nm,0.5s
AC01   Pan de Azucar       1.82  29  ⇑eP      Pn        14 02 03.0 +0.6
AC01                                   IAML             14 02 40.0
       comp=E,585nm,0.3s
AC01   Pan de Azucar       1.82  29           Pn        14 02 02.9 +0.6
AC02   Maricunga           2.36  68   eP      Pb        14 02 12.4 -1.3
AC02                                  i S     Sb        14 02 40.7 -2.7
AC02                                   IAML             14 02 48.5
       comp=N,1µm,0.3s
GO04   Tololo Observa      2.51 164   eP      Pn        14 02 13.4 +1.3
GO04                                  eS      Sb        14 02 47.6 +0.2
GO04                                   IAML             14 02 49.7
       comp=Z,964nm,0.8s
GO04   Tololo Observa      2.51 164  ⇑eP      Pn        14 02 13.2 +1.1
GO04                                  eS      Sb        14 02 44.5 -2.8
GO04   Tololo Observa      2.51 164           Pn        14 02 12.9 +0.8
CO01   Juntas del Tor      2.57 150   eP      Pb        14 02 15.4 -1.8
CO01                                  eS      Sb        14 02 46.8 -2.4
CO01                                   IAML             14 02 48.8
       comp=Z,619nm,0.5s
CO01   Juntas del Tor      2.57 150   eP      Pn        14 02 15.1 +2.2
CO01                                  eS      Sn        14 02 45.4 +0.6
CO01                                   IAML             14 02 50.2
       comp=E,562nm,0.3s
CO06   Fray Jorge          2.92 181  ⇓eP      Pn        14 02 17.4  0.0
CO06   Fray Jorge          2.92 181           Pn        14 02 17.4  0.0
AROD   Rodeo               3.04 143   eP      Pb        14 02 23.1 -2.0
AROD                                  eS      Sb        14 03 03.6 +1.0
ACDV   Cuesta del Vie      3.23 139   eP      Pb        14 02 26.2 -2.2
ACDV                                  eS      Sb        14 03 07.6 -0.6
ACDV                                   IAML             14 03 15.5
       comp=Z,229nm,1.3s
PB14   IPOC Station P      3.29  19   eP      Pn        14 02 23.6 +0.8
PB14                                  eS      Sg        14 03 16.1 +0.1
PB14                                   IAML             14 03 31.0
       comp=Z,134nm,0.6s
PB14   IPOC Station P      3.29  19           Pn        14 02 22.8 -0.1
CO02   Combarbal           3.48 172   eP      Pn        14 02 26.2 +0.8
CO02                                  eP      Pb        14 02 26.4 -6.2
CO02                                  eS      Sg        14 03 21.6 -0.6
CO02                                   IAML             14 03 23.7
       comp=Z,526nm,0.4s
CO02   Combarbal           3.48 172   eP      Pn        14 02 26.1 +0.8
CO02   Combarbal           3.48 172           Pn        14 02 25.8 +0.5
TINO   Tinogasta           3.56  96   eP      Pn        14 02 29.4 +3.0
TINO                                  eS      Sb        14 03 13.6 -4.0
TINO                                   IAML             14 03 25.9
       comp=Z,159nm,1.3s
CO04   Los Peladeros       4.31 173           Pn        14 02 37.2 +0.3
ACLC   CERRO LA CRUZ       4.40 113   eP      Pn        14 02 41.4 +3.4
ACLC                                  eS      Sb        14 03 39.4 -2.3
ACLC                                   IAML             14 03 41.1
       comp=Z,84nm,1.3s
RTLS   Leoncito            4.50 154   eP      Pn        14 02 44.1 +4.7
RTLS                                  eS      Sb        14 03 38.1 -6.6
CFA    Coronel Fontan      4.82 144   eP      Pn        14 02 47.1 +3.4
CFA                                   eS      Sn        14 03 45.1 +5.2
CFA                                   eS      Sb        14 03 47.1 -6.6
CFA                                    IAML             14 04 04.0
       comp=Z,102nm,0.7s
PB05   IPOC Station P      5.03  15   eP      Pn        14 02 46.5 -0.1
PB05                                  eS      Sn        14 03 42.0 -3.3
PB05                                   IAML             14 04 25.8
       comp=Z,58nm,0.5s
PB05   IPOC Station P      5.03  15           Pn        14 02 46.1 -0.6
VA03   San Esteban         5.08 170           Pn        14 02 46.7 -0.5
CYA    Choya               5.15  99   eP      Pn        14 02 47.1 -1.1
CYA                                   eP      Pb        14 02 51.8 -9.2
CYA                                   eS      Sn        14 03 48.1  0.0
PB06   IPOC Station P      5.34  20   eP      Pn        14 02 51.1 +0.1
PB06                                  eS      Sn        14 03 51.6 -1.4
PB06   IPOC Station P      5.34  20    Pn     Pn        14 02 51.0 +0.1
PEL    Peldehue            5.43 172    Pn     Pn        14 02 52.1 +0.1
MT02   Curacav             5.50 176           Pn        14 02 52.8 -0.2
PB03   IPOC Station P      5.91  17           Pn        14 02 58.3 -0.5
PB07   IPOC Station P      6.19  15           Pn        14 03 02.2 -0.4
PB09   IPOC Station P      6.30  20           Pn        14 03 04.7 +0.6
PB02   IPOC Station P      6.58  14           Pn        14 03 07.3 -0.6
PSGCX  Pisagua             8.22  10    Pn     Pn        14 03 29.2 -1.2
LPAZ   La Paz             11.85  16    Pn     Pn        14 04 19.8 -0.8
       comp=Z,0.3nm,0.3s,baz=197,slow=3.9,SNR=2.8
       comp=Z,0.9nm,0.4s
LPAZ                                   AML    AML
CPUP   Villa Florida      12.78  87    Pn     Pn        14 04 35.3 +2.5
       comp=Z,0.1nm,0.3s,baz=213,slow=17,SNR=1.0
CPUP                                   LR     LR        14 09 52.1
       comp=Z,94nm,19.2s,baz=252,slow=39
       comp=Z,0.4nm,0.3s
CPUP                                   AML    AML
SIV    San Ignacio        15.22  42    Pn     Pn        14 05 06.3 +0.1
       baz=223,slow=11,SNR=8.1
       comp=Z,0.5nm,0.3s
VILB   Vilhena            18.16  38           Pn        14 05 43.6 +0.1
VAO    Valinhos           22.72  84    P      P         14 06 33.5 +0.2
BDFB   Brasilia           24.94  66    P      P         14 06 54.5 -0.4
BDFB                                   IAmb   IAmb      14 07 23.3
       comp=Z,11nm,1.3s
ORCD   Orcadas            37.63 159    P      P         14 08 46.6 +0.7
CRPR   Cabo Rojo, PR      45.69   6    P      P         14 09 52.6 +0.3
SNAA   Sanae              57.25 159    P      P         14 11 19.2 +0.8
       comp=Z,0.4nm,0.3s,baz=259,slow=19,SNR=2.2
       comp=Z,0.4nm,0.3s
SNAA   Sanae              57.25 159    IAmb   IAmb      14 11 22.1
       comp=Z,4.5nm,1.2s
QSPA   South Pole Qui     62.47 180    P      P         14 11 55.6 +1.1
       comp=Z,0.9nm,1.0s,baz=153,slow=2.3,SNR=1.5
       comp=Z,0.9nm,1.0s
QSPA   South Pole Qui     62.47 180    P      P         14 11 55.1 +0.6
QSPA                                   IAmb   IAmb      14 12 28.6
       comp=Z,3.2nm,1.3s
TORD   Torodi Ar. Bea     81.73  71    P      P         14 13 51.2 +0.7
       comp=Z,1.4nm,0.9s,baz=243,slow=4.3,SNR=5.2
       comp=Z,1.4nm,0.9s
ZALV   Zalesovo Beam     148.61  27    PKPbc  PKiKP     14 21 19.7 +0.1
       comp=Z,2.1nm,0.7s,baz=312,slow=3.8,SNR=9.1
ZALV   Zalesovo Beam     148.61  27           PKiKP     14 21 20.0 +0.4
MKAR   Makanchi Array    152.03  40    PKPbc  PKiKP     14 21 27.5 +0.6
       comp=Z,0.6nm,0.8s,baz=302,slow=2.0,SNR=5.7
```

NEIC ***01*** *14:03:58.4±0.5, 24.°4S±0.°2×179.°9E±0.°2, h506^{km}±15^{km}, mb4.4/12, Error ellipse: s-maj=26.8km s-min=22.7km az=94.0*

IDC ***01*** *14:04:12.2±11.0, 24.°32S×179.°45E, h686^{km}±152^{km}, mb2.7/4, mbtmp3.8/4, Error ellipse: s-maj=66.3km s-min=31.3km az=66.0*

ISC 01 14:03:58.9±0.8**, 24.°2S**±0.°1×**179.°9E**±0.°2**, h526**^{km}**, n24,** σ0.^{s}**84**/24**, mb4.0**/11**, 5D, South of Fiji Islands**

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Code   Station Name        Δ°   AZ°   Phase ID              Time     Res
                                      Op      ISC       h  m  s     ISC
MSVF   Nonsavu             6.69 345   P       P         14 05 42.5 -0.7
FUNA   Funafuti           15.63 357   P       P         14 07 16.0 +0.6
NNZ    Nelson             17.80 196   P       P         14 07 35.0 -0.9
THZ    Tophouse           18.43 197   P       P         14 07 40.5 -1.3
CTAO   Charters Tower     31.39 271   P       P         14 09 37.4 +0.6
CTAO                                  IAmb    IAmb      14 09 59.4
       comp=Z,24nm,1.5s
BBOO   Buckleboo          39.23 247   P       P         14 10 42.1 +0.2
BBOO                                  IAmb    IAmb      14 10 49.8
       comp=Z,36nm,1.4s
AS31   Alice Springs      41.89 261   P       P         14 11 03.4  0.0
ASAR   Alice Springs      41.89 261   P       P         14 11 03.6 +0.2
       comp=Z,0.3nm,0.5s,baz=97,slow=6.8,SNR=11
       comp=Z,0.3nm,0.5s
ASAR   Alice Springs      41.89 261   P       P         14 11 03.7 +0.3
WR8    Warramunga Arr     42.15 267   P       P         14 11 05.4  0.0
WR8                                   IAmb    IAmb      14 11 40.5
       comp=Z,17nm,1.4s
WRAB   Tennant Creek      42.29 267   P       P         14 11 06.6 +0.2
WRAB                                  IAmb    IAmb      14 11 14.3
       comp=Z,15nm,1.4s
WB0    Warramunga Arr     42.29 267   P       P         14 11 06.5 +0.1
WB0                                   IAmb    IAmb      14 11 21.0
       comp=Z,9.0nm,1.4s
WRA    Warramunga Arr     42.30 267   P       P         14 11 06.6 +0.1
       comp=Z,0.5nm,0.4s,baz=105,slow=8.0,SNR=20
       comp=Z,0.5nm,0.4s
WRA    Warramunga Arr     42.30 267   P       P         14 11 06.4 -0.1
KNRA   Kununurra          48.60 270   P       P         14 11 55.4 +0.7
QSPA   South Pole Qui     65.86 180   P       P         14 13 52.6 +0.5
       comp=Z,2.0nm,0.7s,baz=32,slow=1.8,SNR=11
       comp=Z,2.0nm,0.7s
QSPA   South Pole Qui     65.86 180   P       P         14 13 53.0 +1.0
QSPA                                  IAmb    IAmb      14 13 54.6
       comp=Z,9.9nm,1.4s
ELIB   Princess Elisa     82.73 187   dP      P         14 15 27.8 +0.7
TROLL  Troll, Antarti     84.01 181  ⇓P       P         14 15 33.8 +0.3
       comp=Z,67nm,0.5s
SNAA   Sanae              84.34 179  ⇓P       P         14 15 34.9 -0.2
       comp=Z,41nm,0.6s
VNA3   Neumayer Olymp     84.56 177  ⇓P       P         14 15 35.9 -0.2
       comp=Z,1.1nm,0.6s
VNA2   Neumayer--Watz     84.97 178  ⇓P       P         14 15 38.1  0.0
       comp=Z,0.9nm,0.5s,baz=169,slow=4.9
TXAR   Lajitas Array      90.68  58   P       P         14 16 06.7 +1.0
       comp=Z,0.4nm,0.9s,baz=241,slow=4.8,SNR=4.0
       comp=Z,0.4nm,0.9s
HFS    Hagfors           142.85 349   PKP     PKPdf     14 22 29.1 -2.8
       comp=Z,1.0nm,0.5s,baz=333,slow=5.4,SNR=6.7
```

IDC ***01*** *14:05:26.5±2.0, 28.°43N×139.°86E, h386^{km}±23^{km}, mb3.1/8, mbtmp3.8/11, Error ellipse: s-maj=66.5km s-min=16.9km az=79.0*

NEIC ***01*** *14:05:27.1±1.6, 28.°48N±0.°07×139.°6E±0.°2, h383^{km}±8^{km}, mb4.1/14, Error ellipse: s-maj=23.9km s-min=6.4km az=72.0*

ISC 01 14:05:28.1±0.8**, 28.°5N**±0.°1×**139.°7E**±0.°2**, h400**^{km}**, n28,** σ0.^{s}**82**/27**, mb3.9**/15**, Bonin Islands region**

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Code   Station Name        Δ°   AZ°   Phase ID              Time     Res
                                      Op      ISC       h  m  s     ISC
JHJ    Hachijo jima 2      4.62   1   P       Pn        14 06 44.4 -1.7
       58nm,0.3s,baz=180,slow=20,SNR=1.1
MJAR   Matsushiro Arr      8.13 352   P       Pn        14 07 22.9 -1.6
       0.5nm,0.5s,baz=165,slow=11,SNR=1.3
MAJO   Matsushiro          8.13 352           Pn        14 07 22.6 -1.9
USA0B  Ussuriysk Arra     16.85 341   P       P         14 09 00.3  0.0
USA0B                                 IAmb    IAmb      14 09 05.7
       comp=Z,18nm,1.4s
USRK   Ussuriysk Ar.      16.85 341   P       P         14 09 00.9 +0.7
       comp=Z,2.4nm,0.5s,baz=144,slow=9.4,SNR=7.4
USRK   Ussuriysk Ar.      16.85 341   P       P         14 09 00.5 +0.3
MKAR   Makanchi Array     47.88 309   P       P         14 13 28.2 +0.5
       comp=Z,0.2nm,0.7s,baz=90,slow=8.6,SNR=1.7
       comp=Z,0.2nm,0.7s
WRAB   Tennant Creek      48.41 187   P       P         14 13 31.1 -0.7
WRAB                                  IAmb    IAmb      14 13 43.8
       comp=Z,6.4nm,1.2s
WR8    Warramunga Arr     48.41 187   P       P         14 13 31.5 -0.5
WR8                                   IAmb    IAmb      14 14 12.7
       comp=Z,9.3nm,1.4s
WRA    Warramunga Arr     48.41 187   P       P         14 13 31.3 -0.6
       comp=Z,0.3nm,0.6s,baz=6.5,slow=7.5,SNR=1.6
       comp=Z,0.3nm,0.6s
KURK   Kurchatov          50.43 314   P       P         14 13 47.6 +1.0
KURK   Kurchatov          50.43 314   IAmb    IAmb      14 13 56.6
       comp=Z,1.2nm,0.8s
KURBB  Kurchatov Arra     50.48 314   P       P         14 13 47.6 +0.6
       comp=Z,1.5nm,0.2s,baz=93,slow=7.9,SNR=1.5
       comp=Z,1.5nm,0.2s
ASAR   Alice Springs      52.14 187   P       P         14 13 58.8 -0.7
       comp=Z,0.2nm,0.6s,baz=5.5,slow=7.1,SNR=5.0
       comp=Z,0.2nm,0.6s
D20K   Etivluk River      54.27  24   P       P         14 14 14.8 +0.6
D20K                                  IAmb    IAmb      14 14 15.8
       comp=Z,12nm,1.4s
BVAR   Borovoye Array     55.52 317   P       P         14 14 24.0 +0.7
       comp=Z,0.6nm,0.4s,baz=81,slow=8.9,SNR=3.7
       comp=Z,0.6nm,0.4s
HON    Honolulu           56.44  82   P       P         14 14 30.4 +0.2
G29M   Pine Creek         61.15  26   P       P         14 15 02.3 +0.8
G29M                                  IAmb    IAmb      14 15 30.9
       comp=Z,9.3nm,1.4s
I30M   Mount Dempster     62.01  28   P       P         14 15 08.2 +0.9
I30M                                  IAmb    IAmb      14 15 48.7
       comp=Z,6.8nm,1.5s
AB31   Akbulak array      62.54 313   P       P         14 15 10.9  0.0
ABKAR  Akbulak array      62.54 313   P       P         14 15 10.7 -0.1
KEV    Kevo               70.94 340   P       P         14 16 03.1 +0.3
KEV                                   IAmb    IAmb      14 16 23.5
       comp=Z,33nm,1.4s
FIA1   FINESS Array S     75.72 333   P       P         14 16 31.2 +0.7
FINES  FINESS Array B     75.72 333   P       P         14 16 31.2 +0.7
       comp=Z,1.1nm,0.3s,baz=56,slow=4.6,SNR=22
       comp=Z,1.1nm,0.3s
BLKN   Baker Lake         77.83  22   P       P         14 16 42.2  0.0
HFS    Hagfors            81.27 336   P       P         14 17 00.6 +0.1
       comp=Z,0.7nm,0.3s,baz=93,slow=7.4,SNR=4.1
       comp=Z,0.7nm,0.3s
NC405  NORSAR Array S     81.27 337   P       P         14 17 01.1 +0.5
NC405                                 IAmb    IAmb      14 17 44.2
       comp=Z,9.2nm,1.1s
NOA    NORSAR Array B     81.49 337   P       P         14 17 01.9 +0.1
       comp=Z,0.7nm,0.7s,baz=39,slow=5.1,SNR=2.6
       comp=Z,0.7nm,0.7s
```

NEIC ***01*** *14:19:13.5±1.4, 20.°3S±0.°1×177.°5W±0.°1, h492^{km}±8^{km}, mb4.4/31, Error ellipse: s-maj=18.9km s-min=16.5km az=152.0*

IDC ***01*** *14:19:16.2±1.8, 20.°20S×177.°88W, h515^{km}±17^{km}, mb3.2/9, mbtmp4.1/11, Error ellipse: s-maj=25.5km s-min=18.1km az=134.0*

ISC 01 14:19:13.7±0.5**, 20.°19S**±0.°08×**177.°55W**±0.°07**, h500**^{km}**, n55,** σ1.^{s}**29**/59**, mb4.2**/29**, 2C-1D, Fiji Islands region**

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Code   Station Name        Δ°   AZ°   Phase ID              Time     Res
                                      Op      ISC       h  m  s     ISC
MSVF   Nonsavu             4.83 300   P       P         14 20 41.6 +2.3
       8.0nm,0.4s,baz=125,slow=19,SNR=37
MSVF                                  S       S         14 21 48.5 -0.5
       3.0nm,0.8s,baz=127,slow=20,SNR=1.1
MSVF   Nonsavu             4.83 300   P       P         14 20 40.3 +0.9
NIUE   Niue                7.27  83   P       P         14 21 02.0 -0.7
AFI    Afiamalu            8.33  42   P       P         14 21 13.5 -0.3
       22nm,0.4s,baz=237,slow=17,SNR=7.1
AFI                                   S       S         14 22 46.5 -5.7
       27nm,0.3s,baz=204,slow=20,SNR=9.4
AFI    Afiamalu            8.33  42   P       P         14 21 13.3 -0.5
MARNC  Mare, Loyalty      13.54 262   P       P         14 22 08.2 -0.5
OUENC  Ouen Island, N     14.72 259   P       P         14 22 20.4 -0.6
DZM    Mont Dzumac        15.05 260   P       P         14 22 23.4 -1.2
       6.0nm,0.7s,baz=81,slow=18,SNR=4.0
BFZ    Birch Farm         21.11 193   P       P         14 23 22.5 +0.3
NNZ    Nelson             22.34 198   P       P         14 23 32.8 -0.5
GVZ    Greta Valley S     24.05 197   P       P         14 23 47.5 -1.2
OXZ    Oxford             24.67 198   P       P         14 23 53.6 -0.5
OXZ                                   IAmb    IAmb      14 24 12.0
       comp=Z,31nm,1.2s
WKZ    Wanaka             26.98 201   P       P         14 24 14.3 -0.2
CAN    Canberra           33.03 236   P       P         14 25 07.2  0.0
CAN                                   IAmb    IAmb      14 25 08.9
       comp=Z,20nm,1.2s
CTAO   Charters Tower     33.94 264   P       P         14 25 14.8 -0.2
CTAO                                  IAmb    IAmb      14 25 26.7
       comp=Z,22nm,1.4s
PMG    Port Moresby       35.69 282   P       P         14 25 29.9 +0.3
TOO    Toolangi           36.42 234   P       P         14 25 35.1 -0.4
STKA   Stephens Creek     38.30 244   P       P         14 25 48.9 -2.1
       comp=Z,2.7nm,0.7s,baz=96,slow=12,SNR=4.5
       comp=Z,2.7nm,0.7s
INKA   Innaminka          38.70 251   P       P         14 25 54.2  0.0
BBOO   Buckleboo          43.06 243   P       P         14 26 28.2 -0.8
WR8    Warramunga Arr     44.91 262   P       P         14 26 42.6 -1.0
WR8                                   IAmb    IAmb      14 27 00.3
       comp=Z,15nm,1.5s
AS31   Alice Springs      45.00 256   P       P         14 26 43.4 -0.8
ASAR   Alice Springs      45.00 256   P       P         14 26 43.6 -0.6
       comp=Z,9.3nm,0.7s,baz=98,slow=8.2,SNR=129
ASAR                                  PcP     PcP       14 28 14.6 -0.3
       comp=Z,0.4nm,0.8s,baz=92,slow=2.5,SNR=1.7
       comp=Z,9.3nm,0.7s
ASAR   Alice Springs      45.00 256   P       P         14 26 43.0 -1.2
WB0    Warramunga Arr     45.04 262   P       P         14 26 43.5 -1.1
WRAB   Tennant Creek      45.05 262   P       P         14 26 43.6 -1.0
WRAB                                  IAmb    IAmb      14 26 47.6
       comp=Z,10nm,1.4s
WRA    Warramunga Arr     45.06 262   P       P         14 26 43.8 -0.9
       comp=Z,1.9nm,0.4s,baz=98,slow=8.3,SNR=51
WRA                                   PcP     PcP       14 28 15.1 -0.1
       comp=Z,0.4nm,0.8s,baz=107,slow=3.1,SNR=2.2
       comp=Z,1.9nm,0.4s
FORT   Forrest            49.81 246   P       P         14 27 19.4 -0.9
FORT                                  IAmb    IAmb      14 27 42.9
       comp=Z,10nm,0.9s
KNRA   Kununurra          51.10 266   P       P         14 27 29.5 -0.4
FITZ   Fitzroy Crossi     53.49 262   P       P         14 27 46.9 -0.2
SOEI   Soe                56.91 271   P       P         14 28 10.2 -1.0
SOEI                                  IAmb    IAmb      14 28 42.1
       comp=Z,27nm,1.0s
MBWA   Marble Bar         58.33 257   P       P         14 28 19.9 -0.8
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MBWA				IAmb	IAmb	14 28 35.0	
	comp=Z,23nm,1.4s						
NWAO	Narrogin (SRO)	58.89	243	P	P	14 28 23.4	-0.8
NWAO				IAmb	IAmb	14 28 26.8	
	comp=Z,58nm,1.4s						
CASY	Casey	64.43	205	P	P	14 28 59.6	-0.2
CASY				IAmb	IAmb	14 29 07.7	
	comp=Z,7.5nm,1.4s						
QSPA	South Pole Qui	69.88	180	P	P	14 29 34.7	+1.1
	comp=Z,1.0nm,0.6s,baz=38,slow=1.3,SNR=9.4						
	comp=Z,1.0nm,0.6s						
QSPA	South Pole Qui	69.88	180	P	P	14 29 34.0	+0.4
UGM	Wanagama	70.39	269	P	P	14 29 37.7	+0.2
PETK	Petropavlovsk-	76.08	345	P	P	14 30 10.4	+1.2
	comp=Z,1.2nm,0.7s,baz=156,slow=5.5,SNR=2.1						
	comp=Z,1.2nm,0.7s						
DHY	Denali Highway	86.32	13	P	P	14 31 02.1	+0.2
DHY				IAmb	IAmb	14 31 06.0	
	comp=Z,5.7nm,0.9s						
TXAR	Lajitas Array	86.53	57	P	P	14 31 06.2	+2.5
	comp=Z,0.3nm,0.7s,baz=250,slow=4.4,SNR=5.4						
	comp=Z,0.3nm,0.7s						
ELIB	Princess Elisa	87.00	186	*d*P	P	14 31 04.9	-0.3
	comp=Z,1.1nm,0.8s						
MLY	Manley	87.41	11	P	P	14 31 07.4	+0.5
MLY				IAmb	IAmb	14 31 08.8	
	comp=Z,8.2nm,1.4s						
CCB	Clear Creek Bu	87.62	12	P	P	14 31 08.7	+0.9
CCB				IAmb	IAmb	14 31 09.2	
	comp=Z,2.0nm,0.5s						
ILAR	Eielson Array	87.92	13	P	P	14 31 10.0	+0.8
	comp=Z,0.2nm,0.3s,baz=210,slow=5.2,SNR=5.5						
	comp=Z,0.2nm,0.3s						
H22K	Ishtalitna Cre	88.08	10	P	P	14 31 11.4	+1.5
H22K				IAmb	IAmb	14 31 17.2	
	comp=Z,5.7nm,1.4s						
G21K	Allakaket	88.31	9	P	P	14 31 12.9	+1.9
G21K				IAmb	IAmb	14 31 15.7	
	comp=Z,6.3nm,1.3s						
VNA3	Neumayer Olymp	88.42	176	⇑P	P	14 31 11.7	0.0
	comp=Z,2.9nm,0.7s						
PDAR	Pinedale Array	88.45	43	P	P	14 31 14.9	+2.4
	comp=Z,0.4nm,0.7s,baz=250,slow=4.1,SNR=2.7						
	comp=Z,0.4nm,0.7s						
PDAR	Pinedale Array	88.45	43	P	P	14 31 12.5	0.0
L29M	L29M	88.60	17	P	P	14 31 14.1	+1.6
L29M				IAmb	IAmb	14 31 38.0	
	comp=Z,12nm,1.4s						
VNA2	Neumayer--Watz	88.87	177	⇑P	P	14 31 14.0	+0.2
	comp=Z,1.7nm,0.7s,baz=195,slow=4.3						
I27K	Kandik River	89.78	14	P	P	14 31 19.5	+1.5
I27K				IAmb	IAmb	14 31 22.7	
	comp=Z,6.7nm,1.4s						
CMAR	Chiang Mai Arr	90.41	289	P	P	14 31 22.6	+0.8
	comp=Z,0.3nm,0.4s,baz=110,slow=3.7,SNR=1.5						
	comp=Z,0.3nm,0.4s						
AKASG	Malin Array Be	142.94	332	PKP	PKPdf	14 37 48.0	-1.9
	comp=Z,0.2nm,0.3s,baz=44,slow=4.4,SNR=8.4						
TORD	Torodi Ar. Bea	172.96	174	PKPab	PKPab	14 39 57.6	+1.6
	comp=Z,0.6nm,1.0s,baz=219,slow=1.8,SNR=1.3						

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*SJA **01** 14:23:10.4±0.7, 27°.78S×71°.74W, h7^{km}±4^{km}, ML4.1, MW3.7*
*IDC **01** 14:23:13.1±1.1, 27°.79S×71°.27W, h0^{km}, mb4.2/4, mbtmp4.0/6, ML3.7/2, MS3.0/2, Error ellipse: s-maj=36.4km s-min=24.0km az=107.0*
*NEIC **01** 14:23:13.9±1.1, 27°.85S±0°.05×71°.5W±0°.1, h17^{km}±10^{km}, Mwr3.9/29, ML3.8(GUC), Error ellipse: s-maj=18.1km s-min=6.7km az=90.0, Moment Tensor Solution. Moment tensor: Scale 10^{14}Nm; M_{rr}5.10; $M_{\theta\theta}$1.46; $M_{\phi\phi}$-6.55; $M_{r\theta}$1.92; $M_{\theta\phi}$-0.53; $M_{\phi r}$-5.05; Fault plane solution: $M_0$8.06000×10^{14} NP1:ϕ_s165.60000°, δ67.50000°, λ72.26000°. NP2:ϕ_s25.50000°, δ28.36000°, λ126.34000°. Principal axes: T 7.6207, Plg63.0000°, Azm47.0000°; N 0.8187, Plg16.0000°, Azm173.0000°; P -8.4395, Plg21.0000°, Azm269.0000°;*
*NEIC **01** 14:23:13.8, 27°.85S×71°.56W, h17^{km}*
*GUC **01** 14:23:16.5±0.7, 27°.89S×71°.44W, h24^{km}±3^{km}, ML3.8*
ISC 01 14:23:13.1±1.6**, 27°.84S**±0°.03×**71°.46W**±0°.05**, h8**^{km}±10^{km}**,**
n65, σ2^{s}01/84**, mb4.3**/3**, 1D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	Llanos de Chal	0.50	137	*e*P	Pb	14 23 25.1	+1.0
AC04	Llanos de Chal	0.50	137	⇓*i*P	Pb	14 23 25.0	+0.8
AC04				*e*S	Sb	14 23 31.4	-0.2
AC04				IAML		14 23 31.8	
	comp=E,25μm,0.1s						
AC04	Llanos de Chal	0.50	137		Pb	14 23 24.8	+0.7
AC06	Mina Casimiro	1.09	64	*i* P	Pn	14 23 35.4	+0.6
AC06				*e*S	Sn	14 23 50.0	-0.1
GO03	Copiapo	1.11	78	*e*P	Pn	14 23 36.1	+1.0
GO03				IAML		14 24 06.0	
	comp=Z,1μm,0.8s						
GO03	Copiapo	1.11	78	*e*P	Pn	14 23 35.7	+0.6
GO03				IAML		14 23 57.6	
	comp=E,4μm,0.5s						
GO03	Copiapo	1.11	78		Pn	14 23 34.8	-0.3
LCO	Las Campanas	1.34	150	*e*P	Pg	14 23 39.5	+0.6
LCO				IAML		14 24 02.9	
	comp=Z,4μm,0.7s						
LCO	Las Campanas	1.34	150	*i* P	Pg	14 23 39.2	+0.3
LCO				*e*S	Sb	14 23 56.0	-0.3
LCO	Las Campanas	1.34	150		Pn	14 23 38.5	0.0
AC05	El Transito	1.44	134	*e*P	Pg	14 23 41.1	+0.4
AC05				*e*S	Sg	14 24 00.2	+0.7
AC05				IAML		14 24 00.8	
	comp=Z,2μm,0.6s						
AC05	El Transito	1.44	134	*i* P	Pb	14 23 40.6	+0.3
AC05				*e*S	Sn	14 23 58.9	0.0
AC05				IAML		14 24 02.4	
	comp=E,2μm,0.6s						
AC05	El Transito	1.44	134		Pn	14 23 40.0	+0.3
AC01	Pan de Azucar	1.85	25	*e*P	Pn	14 23 45.8	+0.6
AC01				*e*S	Sn	14 24 04.0	-4.8
AC01	Pan de Azucar	1.85	25	*e*P	Pn	14 23 45.8	+0.6
AC01				IAML		14 24 22.9	
	comp=N,820nm,0.3s						
AC01	Pan de Azucar	1.85	25		Pn	14 23 45.5	+0.3
AC02	Maricunga	2.30	65	*e*P	Pb	14 23 55.7	+0.5
AC02				*e*S	Sg	14 24 26.6	-0.4
AC02				IAML		14 24 31.5	
	comp=Z,1μm,0.8s						
AC02	Maricunga	2.30	65	*e*P	Pb	14 23 55.1	0.0
AC02				IAML		14 24 32.7	
	comp=N,2μm,0.2s						
GO04	Tololo Observa	2.40	166	*e*P	Pn	14 23 54.4	+1.5
GO04				*e*S	Sb	14 24 28.4	+2.0
GO04				IAML		14 24 32.5	
	comp=Z,1μm,0.6s						
GO04	Tololo Observa	2.40	166	*e*P	Pn	14 23 54.2	+1.3
GO04				*e*S	Sb	14 24 25.4	-1.0
GO04	Tololo Observa	2.40	166		Pn	14 23 54.2	+1.3
CO01	Juntas del Tor	2.44	151	*e*P	Pb	14 23 56.3	-1.2
CO01				*e*S	Sb	14 24 26.1	-1.7
CO01				IAML		14 24 33.1	
	comp=Z,689nm,0.4s						
CO01	Juntas del Tor	2.44	151	*e*P	Pb	14 23 56.2	-1.2
CO01				IAML		14 24 30.9	
	comp=E,967nm,0.1s						
CO01	Juntas del Tor	2.44	151		Pb	14 23 56.0	-1.5
CO06	Fray Jorge	2.83	183	*e*P	Pn	14 23 58.2	-0.4
CO06	Fray Jorge	2.83	183		Pn	14 23 58.2	-0.4
AROD	Rodeo	2.90	144	*e*P	Pb	14 24 04.5	-0.8
AROD				*e*S	Sn	14 24 37.6	+2.4
VCA	Vinchina	3.00	108	*e*P	Pn	14 23 54.2	-7.0
VCA				*e*S	Sb	14 24 45.6	+1.7
VCA				IAML		14 24 56.4	
	comp=Z,617nm,1.3s						
ACDV	Cuesta del Vie	3.10	139	*e*P	Pn	14 24 02.2	-0.3
ACDV				*e*S	Sb	14 24 45.7	-0.9
ACDV				IAML		14 24 55.6	
	comp=Z,293nm,0.7s						
PB14	IPOC Station P	3.34	17	*e*P	Pn	14 24 05.9	0.0
PB14				*e*S	Sb	14 24 55.2	+1.6
PB14				IAML		14 25 13.0	
	comp=Z,252nm,0.6s						
PB14	IPOC Station P	3.34	17		Pn	14 24 05.1	-0.8
CO02	Combarbal	3.38	173	*e*P	Pn	14 24 07.2	+0.9
CO02				*e*S	Sn	14 24 39.6	-7.0
CO02				IAML		14 25 08.9	
	comp=Z,745nm,0.5s						
CO02	Combarbal	3.38	173		Pn	14 24 06.4	+0.2
ACCO	Cerro Coronel	3.45	143	*e*P	Pb	14 24 11.9	-2.7
ACCO				*e*S	Sb	14 24 55.6	-1.2
ACCO				IAML		14 25 08.4	
	comp=Z,467nm,0.5s						
TINO	Tinogasta	3.45	95	*e*P	Pb	14 24 11.3	-3.2
TINO				*e*S	Sb	14 24 58.0	+1.3
TINO				IAML		14 25 08.4	
	comp=Z,377nm,1.6s						
CO04	Los Peladeros	4.21	174		Pn	14 24 16.7	-1.2
ACLC	CERRO LA CRUZ	4.26	113	*e*P	Pn	14 24 17.2	-1.3
ACLC				*e*P	Pb	14 24 22.8	-5.7
ACLC				*e*S	Sb	14 25 17.2	-3.0
ACLC				IAML		14 25 22.5	
	comp=Z,167nm,1.0s						
RTLS	Leoncito	4.37	155	*e*P	Pn	14 24 25.0	+4.9
RTLS				*e*S	Sb	14 25 17.8	-5.6
RTLS				IAML		14 25 38.2	
	comp=Z,682nm,0.5s						
CFA	Coronel Fontan	4.68	144	*e*P	Pn	14 24 28.4	+4.3
CFA				*e*S	Sn	14 25 25.3	+6.5
CFA				IAML		14 25 37.8	
	comp=Z,146nm,0.5s						
VA03	San Esteban	4.97	171		Pn	14 24 27.9	-0.3
CYA	Choya	5.03	98	*e*P	Pn	14 24 33.0	+4.1
CYA				*e*S	Sb	14 25 34.9	-7.2
CYA				IAML		14 25 56.2	
	comp=Z,60nm,1.0s						
PB05	IPOC Station P	5.09	13	*e*P	Pn	14 24 29.4	-0.5
PB05				IAML		14 26 08.6	
	comp=Z,84nm,0.6s						
PB05	IPOC Station P	5.09	13		Pn	14 24 28.1	-1.8
PB06	IPOC Station P	5.39	19	*e*P	Pn	14 24 34.1	+0.1
PB06				*e*S	Sb	14 25 53.5	+0.9
PB06				IAML		14 26 19.9	
	comp=Z,138nm,0.6s						
PB06	IPOC Station P	5.39	19		Pn	14 24 33.7	-0.3
MT02	Curacav	5.41	177		Pn	14 24 33.2	-1.0
MT09	Talagante	5.93	176		Pn	14 24 40.5	-0.9
PB03	IPOC Station P	5.97	15		Pn	14 24 40.9	-1.1
MT13	San Alfonso	5.97	171		Pn	14 24 41.2	-0.7
PB07	IPOC Station P	6.25	14		Pn	14 24 44.7	-1.2
PB09	IPOC Station P	6.34	19		Pn	14 24 47.3	+0.2
PB02	IPOC Station P	6.64	13		Pn	14 24 50.2	-1.0
LPAZ	La Paz	11.90	16	Pn	Pn	14 26 04.3	+0.5
	comp=Z,0.1nm,0.3s,baz=194,slow=8.3,SNR=2.2						
LPAZ				LR	LR	14 31 17.5	
	comp=Z,57nm,18.0s,baz=200,slow=41						
	comp=Z,0.8nm,0.5s						
LPAZ				AML	AML		
LPAZ	La Paz	11.90	16		Pn	14 26 03.7	-0.1
CPUP	Villa Florida	12.68	86	Pn	Pn	14 26 13.3	-0.5
	comp=Z,0.2nm,0.3s,baz=215,slow=4.3,SNR=2.8						
	comp=Z,0.8nm,0.3s						
CPUP				AML	AML		
PLCA	Paso Flores	12.88	177	LR	LR	14 32 16.6	
	comp=Z,74nm,18.3s,baz=7.5,slow=42						
SNAA	Sanae	57.12	159	P	P	14 33 00.8	+0.9
	comp=Z,1.0nm,0.6s,baz=283,slow=14,SNR=4.3						
	comp=Z,1.0nm,0.6s						
QSPA	South Pole Qui	62.38	180	P	P	14 33 38.0	+1.8
	comp=Z,2.7nm,1.2s,baz=145,slow=1.7,SNR=2.1						
	comp=Z,2.7nm,1.2s						
DBIC	Dimbokro	72.80	73	P	P	14 34 42.8	+0.2
	comp=Z,4.8nm,0.8s,baz=246,slow=12,SNR=3.2						
	comp=Z,4.8nm,0.8s						
TORD	Torodi Ar. Bea	81.66	70	P	P	14 35 31.7	-0.7
	comp=Z,1.0nm,0.7s,baz=243,slow=3.2,SNR=7.2						
	comp=Z,1.0nm,0.7s						
ASAR	Alice Springs	123.25	208	PKP	PKiKP	14 42 12.5	+1.0
	comp=Z,0.9nm,1.2s,baz=141,slow=1.8,SNR=2.0						
KURK	Kurchatov	147.83	37		PKiKP	14 42 59.7	-0.7
KURBB	Kurchatov Arra	147.84	37	PKPbc	PKiKP	14 42 59.7	-0.7
	comp=Z,0.4nm,0.5s,baz=312,slow=4.1,SNR=5.6						
ZALV	Zalesovo Beam	148.64	27	PKPbc	PKiKP	14 43 02.1	+0.2
	comp=Z,2.9nm,0.8s,baz=329,slow=2.7,SNR=15						
MKAR	Makanchi Array	152.03	40	PKPbc	PKPbc	14 43 08.6	-0.3
	comp=Z,0.8nm,0.8s,baz=319,slow=2.2,SNR=6.4						

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*IDC **01** 15:11:32.8±3.1, 27°.77N×57°.25E, h0^{km}, mb3.5/5, mbtmp3.5/5, Error ellipse: s-maj=69.3km s-min=30.5km az=159.0*
*OMAN **01** 15:11:38.9±0.1, 28°.25N×57°.16E, h10^{km}, mb3.2/4, ml3.4/16, Error ellipse: s-maj=2.9km s-min=2.2km az=246.0*
*DSN **01** 15:11:39.8±1.8, 28°.35N×57°.30E, h27^{km}, ML3.3/11, Error ellipse: s-maj=53.8km s-min=15.6km az=114.0*
*TEH **01** 15:11:41.5, 28°.27N×56°.98E, h17^{km}±28^{km}, ML3.5, Presumed earthquake*
ISC 01 15:11:40.5±0.7**, 28°.23N**±0°.03×**57°.05E**±0°.05**, h24**^{km}**, n53,**
σ1^{s}97/70**, mb3.5**/4**, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KHNJ	Kahnooj	0.65	116	Pg	Pn	15 11 55.7	+1.5
IBND	Bandar-abas	0.90	210	Pg	Pn	15 11 59.2	+1.6
GENO	Geno	1.13	223	Pg	Pb	15 12 02.5	+1.0
NGRK	Negar Kerman	1.44	349	Pg	Pb	15 12 06.7	-0.2
KBAM	BAM	1.53	53	Pg	Pb	15 12 09.8	+1.6
CHMN	Cheshme madani	1.68	15	Pg	Pb	15 12 12.1	+1.1
KHGB	Koh Gabri	2.20	347	Pn	Pb	15 12 19.0	-0.7
SHME	Shamm	2.32	201	P	Pn	15 12 18.8	+1.6
	SNR=8.0						
SHME				S	Sn	15 12 46.1	+1.2
SHME	Shamm	2.32	201	*e*P	Pn	15 12 19.1	+2.0
	SNR=8.0						
SHME				S	Sb	15 12 51.4	+1.7
BANOM	Banah	2.39	196	P	Pn	15 12 18.9	+0.7
BANOM	Banah	2.39	196	*e*P	Pn	15 12 19.1	+0.9
	SNR=7.4						
BANOM				S	Sn	15 12 48.9	+2.1
JASK	Jask - Hormozg	2.46	163	Pn	Pb	15 12 23.1	-0.9
MASF	Masafi	2.96	196	P	Pn	15 12 26.1	+0.2
MASF				S	Sn	15 13 04.2	+3.5
MSFE	Esma-Masafi	2.97	196	P	Pn	15 12 27.9	+1.7
MDH	Madha	3.00	193	P	Pn	15 12 27.0	+0.6
MDH	Madha	3.00	193	P	Pn	15 12 27.0	+0.6
UOSS	Minazif	3.36	193	P	Pn	15 12 33.1	+1.7
UOSS				S	Sn	15 13 13.7	+3.1
UOSS	Minazif	3.36	193	P	Pn	15 12 33.2	+1.7
NAZ	Nazwa, Dubai	3.46	201	P	Pn	15 12 32.9	0.0
	SNR=6.9						
NAZ	Nazwa, Dubai	3.46	201	*i* P	Pn	15 12 35.1	+2.2
	SNR=6.9						
HATD	Hatta, Dubai	3.49	194	P	Pn	15 12 33.9	+0.7
HATD	Hatta, Dubai	3.49	194	P	Pn	15 12 35.5	+2.2
ZHSF	Zahedan	3.54	66	Pn	Pn	15 12 38.0	+3.9
IBAF	Bafgh	3.59	339	Pn	Pn	15 12 37.4	+2.6
ASHO	Ashiyiah	3.64	194	P	Pn	15 12 35.6	+0.2
	SNR=6.9						
ASHO				S	Sb	15 13 23.8	-4.2
ASHO	Ashiyiah	3.64	194	*i* P	Pn	15 12 37.3	+1.9
	SNR=6.8						
FAQ	Al Faqa, Dubai	3.71	201	P	Pn	15 12 39.0	+2.7
	SNR=9.4						
FAQ	Al Faqa, Dubai	3.71	201	*i* P	Pn	15 12 38.5	+2.2
	SNR=9.4						
IMEH	Mehriz	3.79	327	Pn	Pn	15 12 40.4	+2.7
ASUD	Al Ashush, Dub	3.91	204	P	Pn	15 12 42.0	+3.0
	SNR=23						
ASUD				S	Sn	15 13 27.0	+2.9
ASUD	Al Ashush, Dub	3.91	204	*i* P	Pn	15 12 41.5	+2.5
	SNR=23						
AJN	Ajban	4.09	207	P	Pn	15 12 43.0	+1.4
SOHO	SOHO	4.11	187	P	Pn	15 12 41.9	+0.2
SOHO				S	Sn	15 13 31.8	+2.8
TAFT	Taft - Yazd	4.28	325	Pn	Pn	15 12 46.9	+2.5
DOBD	Dorbid, Yazd	4.34	330	Pn	Pn	15 12 47.7	+2.5
HOQ	Hoqain	4.63	177	P	Pn	15 12 49.5	+0.5
HOQ				S	Sn	15 13 44.6	+2.5
BIDO	Bidbid	4.79	168	P	Pn	15 12 51.4	+0.2
BIDO				S	Sn	15 13 47.7	+1.8
ARQ	Araqi	4.89	186	P	Pn	15 12 55.7	+3.1
WSAR	Wadi Sarin	5.17	164	P	Pn	15 12 56.6	+0.1
	SNR=20						
WSAR				S	Sn	15 13 57.4	+2.1
SMDO	Samad	5.23	170	P	Pn	15 12 59.1	+1.9
SMDO				S	Sn	15 13 56.5	-0.3
BSY	Bisya	5.46	179	P	Pn	15 13 02.7	+2.2
BSY				S	Sn	15 14 03.1	+0.5
KLNJ	Kolanjah	5.50	302	Pn	Pn	15 13 03.4	+2.1
UMZA	Um Al Zommool	5.75	198	P	Pn	15 13 05.2	+0.9
UMZA				S	Sn	15 14 10.5	+0.9
WBK	Wadi Bani Khal	5.86	162	P	Pn	15 13 08.5	+2.6
WBK				S	Sn	15 14 13.1	+0.7
JMDO	Jabal Madar	5.91	170	P	Pn	15 13 09.1	+2.5
JMDO				S	Sn	15 14 16.2	+2.6
MZR	Muzera	6.12	213	P	Pn	15 13 09.9	+0.4
JLN	Jalan Bani Buh	6.42	160	P	Pn	15 13 13.5	-0.1
JLN				S	Sn	15 14 24.8	-1.3
ABTO	Aybut	11.36	198	P	Pn	15 14 19.8	-1.6
BRTR	Keskin Array B	22.48	307	P	P	15 16 37.5	-0.7
	0.7nm,0.7s,baz=118,slow=9.0,SNR=4.2						
	0.7nm,0.7s						
MKAR	Makanchi Array	27.09	40	P	P	15 17 18.3	-3.0
	0.1nm,0.4s,baz=243,slow=9.5,SNR=1.5						
	0.1nm,0.4s						
ZALV	Zalesovo Beam	32.75	31	P	P	15 18 10.6	-0.6
	0.3nm,0.3s,baz=227,slow=7.7,SNR=2.5						
	0.3nm,0.3s						
FINES	FINESS Array B	39.09	337	P	P	15 19 05.7	+0.2
	1.0nm,0.5s,baz=139,slow=6.6,SNR=12						
	1.0nm,0.5s						
TORD	Torodi Ar. Bea	53.49	266	P	P	15 20 56.5	-2.8
	0.6nm,0.6s,baz=66,slow=6.3,SNR=2.9						
	0.6nm,0.6s						

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*SJA **01** 15:19:33.1±0.8, 21°.41S×70°.50W, h32^{km}±3^{km}, ML3.4, MW3.6*
*GUC **01** 15:19:35.7±0.8, 21°.42S×70°.44W, h37^{km}±3^{km}, ML3.6*
ISC 01 15:19:34.7±5.7**, 21°.41S**±0°.03×**70°.53W**±0°.06**, h37**^{km}±6^{km}**,**
n27, σ2^{s}05/51**, 4C-4D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PB02	IPOC Station P	0.60	81	*e*P	Pn	15 19 45.8	-1.2
PB02				*e*S	Sn	15 19 54.0	-1.5
PB02	IPOC Station P	0.60	81	⇓*e*P	Pn	15 19 46.1	-0.8
PB02				*e*S	Sn	15 19 53.7	-1.8
PB02				IAML		15 19 54.6	
	comp=E,14μm,0.1s						
PB07	IPOC Station P	0.68	118	*e*P	Pn	15 19 47.2	-0.8
PB07				*e*S	Sn	15 19 56.6	-0.8
PB07				IAML		15 19 57.0	
	comp=Z,4μm,0.5s						
PB07	IPOC Station P	0.68	118	*e*P	Pn	15 19 47.4	-0.6
PB07				*e*S	Sn	15 19 56.0	-1.4
PB07				IAML		15 19 56.8	
	comp=E,13μm,0.1s						
TA01	Diego Aracena	0.91	21	*e*P	Pn	15 19 50.9	0.0
TA01				*e*S	Sn	15 19 55.5	-7.3
TA01				IAML		15 20 03.7	
	comp=Z,860nm,1.5s						
TA01	Diego Aracena	0.91	21	⇑*e*P	Pn	15 19 50.9	0.0
TA01				*e*S	Sn	15 20 02.2	-0.5
TA01				IAML		15 20 03.6	
	comp=E,2μm,0.4s						
PB03	IPOC Station P	0.96	131	*e*P	Pn	15 19 51.9	0.0
PB03				*e*S	Sn	15 20 04.3	-0.1
PB03				IAML		15 20 04.7	
	comp=Z,2μm,0.3s						
PB03	IPOC Station P	0.96	131	⇓*e*P	Pn	15 19 51.8	0.0
PB03				*e*S	Sn	15 20 03.8	-0.6
PB03				IAML		15 20 04.6	
	comp=E,2μm,0.4s						
TA02	Huaiquique	1.20	18	*e*P	Pn	15 19 56.1	+1.1
TA02				*e*S	Sn	15 20 01.5	-8.4
TA02				IAML		15 20 13.3	
	comp=Z,647nm,0.1s						
TA02	Huaiquique	1.20	18	*e*P	Pn	15 19 56.0	+1.1
TA02				*e*S	Sn	15 20 10.5	+0.6
TA02				IAML		15 20 12.2	
	comp=N,3μm,0.2s						
PB09	IPOC Station P	1.26	108	*e*P	Pn	15 19 56.5	+0.6
PB09				*e*S	Sn	15 20 12.0	+0.2
PB09				IAML		15 20 14.1	
	comp=Z,3μm,0.3s						
PB09	IPOC Station P	1.26	108	⇓*e*P	Pn	15 19 56.5	+0.6
PB09				*e*S	Sn	15 20 11.7	-0.1
PB09				IAML		15 20 12.9	
	comp=E,5μm,0.1s						
PB05	IPOC Station P	1.47	168	*e*P	Pn	15 19 59.2	+0.5
PB05				*e*S	Sn	15 20 06.9	-10
PB05				IAML		15 20 27.1	
	comp=Z,199nm,0.5s						
PB05	IPOC Station P	1.47	168	⇓*e*P	Pn	15 19 59.2	+0.5
PB06	IPOC Station P	1.56	145	*e*P	Pn	15 20 00.7	+0.6
PB06				*e*S	Sn	15 20 22.5	+3.3
PB06				IAML		15 20 25.2	
	comp=Z,534nm,0.3s						
PB06	IPOC Station P	1.56	145	⇑*e*P	Pn	15 20 00.6	+0.5
PB06				*e*S	Sn	15 20 20.8	+1.5
PB06				IAML		15 20 30.5	
	comp=N,690nm,0.3s						
PB08	IPOC Station P	1.81	46	*e*P	Pn	15 20 04.4	+0.8
PB08				*e*P	Pn	15 20 04.5	+0.8
PB08				*e*S	Sn	15 20 27.5	+2.0
PB08				IAML		15 20 31.4	
	comp=Z,304nm,0.2s						
PB08	IPOC Station P	1.81	46	*e*P	Pn	15 20 04.3	+0.6
PB08				*e*S	Sn	15 20 26.4	+0.9
PB08				IAML		15 20 29.1	
	comp=N,855nm,0.4s						
PB11	IPOC Station P	1.84	27	*e*P	Pn	15 20 04.5	+0.6
PB11				*e*S	Sn	15 20 29.8	+3.8
PB11				IAML		15 20 30.9	
	comp=Z,236nm,0.4s						
PB11	IPOC Station P	1.84	27	⇑*e*P	Pn	15 20 04.0	+0.1
PB11				*e*S	Sn	15 20 26.2	+0.2
PB11				IAML		15 20 41.1	
	comp=E,459nm,0.5s						
PSGCX	Pisagua	1.85	12	*e*P	Pn	15 20 04.4	+0.5
PSGCX				*e*S	Sn	15 20 26.7	+0.6
PSGCX				IAML		15 20 36.0	
	comp=Z,164nm,0.3s						
PSGCX	Pisagua	1.85	12	⇑*e*P	Pn	15 20 04.2	+0.2
PSGCX				*e*S	Sn	15 20 25.6	-0.5
GO01	Chusmiza	2.14	36	*e*P	Pn	15 20 09.4	+1.1
GO01				*e*S	Sn	15 20 37.0	+3.1
GO01				IAML		15 20 39.7	
	comp=Z,261nm,0.1s						
GO01	Chusmiza	2.14	36	*e*P	Pn	15 20 09.6	+1.2
GO01				*e*S	Sn	15 20 35.7	+1.8
GO01				IAML		15 20 40.7	
PB12	IPOC Station P	2.79	4	*e*P	Pn	15 20 18.0	+1.1
PB12				IAML		15 21 02.8	
	comp=Z,71nm,0.5s						
PB16	IPOC Station P	3.21	18	*e*P	Pn	15 20 24.4	+1.3
PB16				IAML		15 21 15.8	
	comp=Z,53nm,1.4s						
AC01	Pan de Azucar	4.71	181	*e*P	Pn	15 20 42.5	-0.8
AC01				*e*S	Sn	15 21 35.3	-1.4

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*IDC **01** 15:34:45.6±1.3, 69°.06N×16°.20E, h0^{km}, mb2.8/1, mbtmp3.4/7, ML3.1/6, Error ellipse: s-maj=17.0km s-min=11.2km az=111.0*
*DNK **01** 15:34:45.1±0.4, 69°.27N×16°.09E, h0^{km}, ML3.0(UPP), Suspected explosion*
*NAO **01** 15:34:47.6±0.5, 69°.17N×16°.33E, ML3.2*
*UPP **01** 15:34:47.4±1.2, 69°.16N×16°.46E, h0^{km}, ML3.0, Presumed earthquake*
*HEL **01** 15:34:47.4, 69°.16N×16°.46E, h0^{km}, ML3.0(UPP), Confirmed Earthquake*
*BER **01** 15:34:48.1±1.9, 69°.17N×16°.22E, h0^{km}, ML2.2, ML3.2(NAO), Suspected explosion*
ISC 01 15:34:45.8±0.9**, 69°.14N**±0°.04×**16°.26E**±0°.04**, h0**^{km}**, n93,**
σ1^{s}46/115**, Northern Norway**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TRO	Tromso	1.07	61	*e*P	Pg	15 35 06.6	+0.3
TRO				*e*S	Sg	15 35 20.6	+0.7
TRO				IAML		15 35 24.1	
	comp=Z,44nm,0.5s						
TRO	Tromso	1.07	61	*e*P	Pg	15 35 06.5	+0.3
TRO				*e*S	Sg	15 35 19.7	-0.3
STEI	Steigen	1.27	198	Pg	Pg	15 35 11.0	+0.8
STEI				Sb	Sn	15 35 29.6	+1.2
STEI	Steigen	1.27	198	*e*P	Pg	15 35 10.9	+0.8
STEI				IAML		15 35 31.4	
	comp=Z,46nm,0.7s						
STEI	Steigen	1.27	198	*e*P	Pg	15 35 11.0	+0.8

STEI				*e*S	Sg	15 35 27.6	+1.0
LOF	Lofoten	1.42	226	Pb	Pn	15 35 13.1	+0.3
LOF				Sb	Sn	15 35 33.0	+0.8
LOF	Lofoten	1.42	226	*e*P	Pn	15 35 12.8	0.0
LOF				*e*S	Sn	15 35 32.9	+0.8
LOF				IAML		15 35 35.3	
	comp=Z,232nm,0.6s						
LOF	Lofoten	1.42	226	*e*P	Pn	15 35 12.8	0.0
LOF				*e*SN	Sn	15 35 32.9	+0.8
LOF				IAML		15 35 35.3	
	comp=Z,232nm,0.6s						
JETT	Jettan, Norway	1.53	72	Pb	Pn	15 35 14.8	+0.5
JETT				Sb	Sn	15 35 36.6	+1.7
JETT	Jettan, Norway	1.53	72	Pb	Pn	15 35 14.8	+0.5
JETT				Sb	Sn	15 35 36.6	+1.7
JETT				IAML		15 35 38.1	
	comp=Z,106nm,0.4s						
JETT	Jettan, Norway	1.53	72	*e*PG	Pn	15 35 14.8	+0.5
JETT				*e*SN	Sn	15 35 36.6	+1.7
JETT				IAML		15 35 38.1	
	comp=Z,106nm,0.4s						
NIKU	Nikkaluokta	1.64	140	P	Pn	15 35 16.9	+1.1
NIKU				S	Sg	15 35 39.9	+1.6
NIKU	Nikkaluokta	1.64	140	P	Pn	15 35 16.9	+1.1
NIKU				S	Sg	15 35 39.9	+1.6
NIKU	Nikkaluokta	1.64	140	*e*P	Pn	15 35 16.9	+1.1
NIKU				*e*SG	Sg	15 35 39.9	+1.6
FAUS	Fauske	1.80	192	Pb	Pn	15 35 19.7	+1.6
FAUS				Sb	Sg	15 35 46.5	+2.8
FAUS	Fauske	1.80	192	*e*P	Pn	15 35 19.6	+1.5
FAUS				*e*S	Sn	15 35 41.8	+0.2
FAUS				IAML		15 35 49.0	
	comp=Z,52nm,0.4s						
FAUS	Fauske	1.80	192	*e*P	Pn	15 35 19.6	+1.5
FAUS				*e*S	Sn	15 35 41.8	+0.2
FAUS				IAML		15 35 49.0	
	comp=Z,52nm,0.4s						
RATU	Laukkuluspa	1.81	136	P	Pn	15 35 19.5	+1.4
RATU	Laukkuluspa	1.81	136	P	Pn	15 35 19.5	+1.4
RATU	Laukkuluspa	1.81	136	*e*P	Pn	15 35 19.5	+1.4
KUA	Kurravaara	1.92	127	P	Pn	15 35 20.8	+1.2
KUA	Kurravaara	1.92	127	P	Pn	15 35 20.8	+1.2
KUA	Kurravaara	1.92	127	*e*P	Pn	15 35 20.8	+1.2
SALU	Saltoluokta	1.96	154	P	Pn	15 35 21.9	+1.7
SALU	Saltoluokta	1.96	154	*e*P	Pn	15 35 21.8	+1.6
SALU				*e*S	Sn	15 35 45.4	-0.1
SALU				*i*		15 35 49.6	
SALU	Saltoluokta	1.96	154	P	Pn	15 35 21.9	+1.7
SALU	Saltoluokta	1.96	154	*e*P	Pn	15 35 21.9	+1.7
GILDE	Gildeskaal	2.35	200	*e*P	Pn	15 35 27.2	+1.5
GILDE				*e*SG	Sb	15 36 00.4	+1.8
GILDE				IAML		15 36 04.5	
	comp=Z,44nm,0.5s						
LANU	Lannavaara	2.38	115	P	Pn	15 35 26.9	+1.0
LANU	Lannavaara	2.38	115	*e*P	Pn	15 35 26.7	+0.8
LANU	Lannavaara	2.38	115	P	Pn	15 35 26.9	+1.0
LANU	Lannavaara	2.38	115	*e*P	Pn	15 35 26.6	+0.6
KTK1	Kautokeino	2.51	90	Pn	Pn	15 35 28.7	+0.9
KTK1	Kautokeino	2.51	90	*e*P	Pn	15 35 28.6	+0.9
KTK1				IAML		15 36 09.2	
	comp=Z,28nm,0.4s						
KTK1	Kautokeino	2.51	90	*e*P	Pn	15 35 28.5	+0.7
VAGH	Vaagaholmen	2.67	206	Pn	Pn	15 35 30.7	+0.7
VAGH	Vaagaholmen	2.67	206	*e*P	Pn	15 35 30.2	+0.3
VAGH				IAML		15 36 18.0	
	comp=Z,13nm,0.5s						
VAGH	Vaagaholmen	2.67	206	*e*P	Pn	15 35 30.2	+0.3
VAGH				IAML		15 36 18.0	
	comp=Z,13nm,0.5s						
MASU	Masugnsbyn	2.72	126	P	Pn	15 35 32.2	+1.5
MASU	Masugnsbyn	2.72	126	P	Pn	15 35 32.2	+1.5
MASU	Masugnsbyn	2.72	126	*e*P	Pn	15 35 32.2	+1.5
HEF	Hetta	2.79	102	Pn	Pn	15 35 32.5	+0.9
HEF	Hetta	2.79	102	*e*P	Pn	15 35 32.5	+0.9
HEF	Hetta	2.79	102	*e*P	Pn	15 35 32.4	+0.7
RAUS	Rausandaksla	2.84	198	*e*P	Pn	15 35 33.9	+1.5
RAUS	Rausandaksla	2.84	198	*e*P	Pn	15 35 33.9	+1.5
HAMF	Hammerfest	2.98	56	Pn	Pn	15 35 34.1	0.0
MOR8	Moi Rana	3.06	194	Pn	Pn	15 35 35.2	-0.3
MOR8	Moi Rana	3.06	194	*e*P	Pn	15 35 35.1	-0.3
MOR8				*e*S	Sn	15 36 08.3	-4.3
MOR8				*i*		15 36 19.9	
MOR8				IAML		15 36 28.4	
	comp=Z,14nm,0.5s						
MOR8	Moi Rana	3.06	194	*e*P	Pn	15 35 35.1	-0.3
MOR8				*e*S	Sn	15 36 08.3	-4.3
MOR8				*e*SG	Sb	15 36 19.9	+0.9
MOR8				IAML		15 36 28.4	
	comp=Z,14nm,0.5s						
STOK	Stokkvaagen	3.08	205	Pn	Pn	15 35 36.5	+1.0
LEIR	Leirfjorden	3.27	203	Pn	Pn	15 35 39.6	+1.4
LEIR	Leirfjorden	3.27	203	*e*P	Pn	15 35 38.9	+0.7
LEIR	Leirfjorden	3.27	203	*e*P	Pn	15 35 38.9	+0.7
ARA0	ARCESS Array S	3.30	79	Pn	Pn	15 35 39.3	+0.6
	baz=261,slow=12						
ARA0	ARCESS Array S	3.30	79	Pn	Pn	15 35 39.3	+0.6
ARA0				IAML		15 36 35.8	
	comp=Z,11nm,0.6s						
ARA0	ARCESS Array S	3.30	79	*e*P	Pn	15 35 39.3	+0.6
ARA0				IAML		15 36 35.8	
	comp=Z,11nm,0.6s						
ARCES	ARCESS Array B	3.30	79	Pn	Pn	15 35 38.8	+0.1
	comp=Z,1.0nm,0.3s,baz=265,slow=9.9,SNR=22						
ARCES				Lg	Lg	15 36 26.7	
	comp=Z,2.0nm,0.3s,baz=265,slow=29,SNR=8.6						
	comp=Z,2.5nm,0.3s						
ARCES				AML	AML		
ERTU	Ertsjaerv	3.44	136	P	Pn	15 35 41.6	+1.1
ERTU	Ertsjaerv	3.44	136	P	Pn	15 35 41.6	+1.1
ERTU	Ertsjaerv	3.44	136	*e*P	Pn	15 35 41.6	+1.1
KLF	Kolari	3.46	120	*e*P	Pn	15 35 41.4	+0.6
KEV	Kevo	3.84	76	Pn	Pn	15 35 46.1	+0.1
KEV	Kevo	3.84	76	Pn	Pn	15 35 46.1	+0.1
KEV	Kevo	3.84	76	*e*P	Pn	15 35 46.1	+0.1
LILU	Lilltraesk	4.12	158	P	Pn	15 35 51.3	+1.5
LILU	Lilltraesk	4.12	158	P	Pn	15 35 51.3	+1.5
LILU	Lilltraesk	4.12	158	*e*P	Pn	15 35 51.3	+1.5
VADS	Vadso	4.68	72	Pn	Pn	15 35 58.2	+0.6
VADS	Vadso	4.68	72	*e*P	Pn	15 35 57.6	0.0
VADS	Vadso	4.68	72	*e*P	Pn	15 35 57.6	0.0
NSS	Namsos	4.93	202	*e*P	Pn	15 36 03.2	+2.3
NSS	Namsos	4.93	202	*e*P	Pn	15 36 03.2	+2.3
APA0	Apatity Array	6.37	96	Pn	Pn	15 36 20.1	-0.7
	baz=295,slow=12						
APA0	Apatity Array	6.37	96	Pn	Pn	15 36 20.1	-0.7
APA0	Apatity Array	6.37	96	*e*P	Pn	15 36 20.1	-0.7
NOA	NORSAR Array B	8.40	197	Pn	Pn	15 36 47.1	-1.6
	comp=Z,0.1nm,0.3s,baz=9.0,slow=14,SNR=7.6						
	comp=Z,0.5nm,0.5s						
NOA				AML	AML		
NRA0	NORESS Array S	8.67	196	Pn	Pn	15 36 54.1	+1.8
	baz=11,slow=14						
NRA0	NORESS Array S	8.67	196	Pn	Pn	15 36 54.1	+1.8
NRA0	NORESS Array S	8.67	196	*e*P	Pn	15 36 54.1	+1.8
FIA0	FINESS Array S	8.74	147	Pn	Pn	15 36 53.5	+0.3
	baz=337,slow=11						
FIA0	FINESS Array S	8.74	147	Pn	Pn	15 36 53.5	+0.3
FIA0	FINESS Array S	8.74	147	*e*P	Pn	15 36 53.5	+0.3
FINES	FINESS Array B	8.74	147	Pn	Pn	15 36 51.9	-1.3
	comp=Z,0.5nm,0.3s,baz=338,slow=14,SNR=17						
FINES				Sn	Sn	15 38 25.0	-7.3
	comp=Z,0.2nm,0.3s,baz=336,slow=20,SNR=1.5						
FINES				Lg	Lg	15 39 09.5	
	comp=Z,0.2nm,0.3s,baz=341,slow=25,SNR=2.5						
	comp=Z,0.9nm,0.3s						
FINES				AML	AML		
SPA0	Spitsbergen Ar	9.09	0	Pn	Pn	15 36 58.8	+0.9
	baz=171,slow=18						
SPA0	Spitsbergen Ar	9.09	0	Pn	Pn	15 36 58.8	+0.9
SPITS	Spitsbergen Ar	9.09	0	Pn	Pn	15 36 57.7	-0.3
	baz=179,slow=22						
	comp=Z,5.6nm,0.9s						
HFS	Hagfors	9.11	188	Pn	Pn	15 36 56.8	-1.5
	comp=Z,0.3nm,0.3s,baz=6.8,slow=14,SNR=6.9						
HFS				Sn	Sn	15 38 31.8	-10
	comp=Z,0.2nm,0.3s,baz=5.7,slow=16,SNR=1.3						
HFS				Lg	Lg	15 39 22.3	
	comp=Z,0.3nm,0.3s,baz=4.4,slow=21,SNR=1.8						
	comp=Z,2.5nm,0.7s						
HFS				AML	AML		
HFS	Hagfors	9.11	188	Pn	Pn	15 36 58.7	+0.4
	baz=2.4,slow=14						
HFS	Hagfors	9.11	188	Pn	Pn	15 36 58.7	+0.4
HFS	Hagfors	9.11	188	*e*P	Pn	15 36 58.7	+0.4
AKASG	Malin Array Be	19.52	155	P	P	15 39 11.7	-2.6
	comp=Z,0.4nm,0.3s,baz=345,slow=11,SNR=2.6						
	comp=Z,0.5nm,0.5s						
AKASG				AML	AML		
GERES	GERESS Array B	20.40	185	P	P	15 39 21.5	-2.5
	comp=Z,0.3nm,0.5s,baz=7.6,slow=8.2,SNR=1.2						
	comp=Z,0.3nm,0.5s						

IDC ***01*** *15:50:19.6±1.4, 53°.48N×108°.20E, h0^{km}, mb3.4/3, mbtmp3.4/9, ML3.2/5, Error ellipse: s-maj=16.7km s-min=13.5km az=169.0*

MOS ***01*** *15:50:19.2±1.1, 53°.55N×108°.21E, h9^{km}, mb3.6/1, Error ellipse: s-maj=15.2km s-min=9.6km az=59.2*

BYKL ***01*** *15:50:20.5±0.1, 53°.56N×108°.14E, h8^{km}±2^{km}*

ISC 01 15:50:19.2±1.1, **53°.56N**±0°.02×**108°.24E**±0°.02, **h2**^{km}±8^{km}, **n51**, σ**1^{s}.82**/116, **mb3.4**/3, **6C-3D, Lake Baykal region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OGRR	Ongureny	0.39	283	⇑*i*Pg	Pg	15 50 27.6	+0.9
OGRR				*e*Sg	Sg	15 50 32.4	+0.6
OGRR				Pmax			
	1µm,0.2s						
OGRR				Smax			
	4µm,0.1s						
OGRR	Ongureny	0.39	283	⇑*i*PG	Pg	15 50 27.6	+0.9
OGRR				*e*		15 50 32.4	
OGRR				pmax	pmax		
	comp=Z,1µm,0.5s						
OGRR				smax	smax		
	comp=E,4µm,0.2s						
MXMB	Maximikha	0.42	134	⇑*i*Pg	Pb	15 50 29.4	-0.1
MXMB				*e*Sg	Sb	15 50 35.7	-0.6
MXMB				*e*Sb	Sg	15 50 40.7	+7.9
GORB	Goryachinsk	0.57	177	⇑*i*Pg	Pb	15 50 31.3	-0.7
GORB				*e*Sg	Sb	15 50 38.9	-1.7
KELR	Kotokel	0.80	187	*e*Pg	Pg	15 50 35.1	+0.5
KELR				*e*Sg	Sg	15 50 45.6	+0.7
KELR				*e*Sb	Sn	15 50 49.9	-0.3
SYVR	Suvo	1.06	84	*e*Pg	Pn	15 50 40.7	-0.4
SYVR				*e*Sg	Sn	15 50 55.7	-0.7
SYVR				Pmax			
	comp=E,99nm,0.3s						
SYVR				Smax			
	comp=E,708nm,0.4s						
SYVR	Suvo	1.06	84	*e*PG	Pn	15 50 40.7	-0.4
SYVR				*e*		15 50 55.7	
SYVR				pmax	pmax		
	comp=Z,107nm,0.3s						
SYVR				smax	smax		
	comp=E,744nm,0.4s						
ZRHB	Zarechye	1.20	214	⇑*i*Pg	Pg	15 50 41.0	-1.1
ZRHB				*e*Sg	Sg	15 50 57.0	-0.6
ZRHB				*e*Sb	Sn	15 50 58.9	-1.0
ZRHB				Pmax			
	comp=E,251nm,0.4s						
ZRHB				max			
	comp=E,2µm,0.5s						
TRG	Tyrgan	1.39	236	*e*Pg	Pn	15 50 45.1	-0.6
TRG				*e*Sg	Sb	15 51 02.3	-1.8
TRG				Pmax			
	comp=E,169nm,0.2s						
TRG				Smax			
	comp=E,1µm,0.2s						
TRG	Tyrgan	1.39	236	⇑*i*PG	Pn	15 50 44.3	-1.4
TRG				*e*		15 51 02.8	
TRG				pmax	pmax		
	comp=Z,206nm,0.2s						
TRG				smax	smax		
	comp=N,1µm,0.2s						
UUDB	Ulan-Yde	1.73	192	*e*Pn	Pb	15 50 50.7	-1.0
UUDB				*e*Pg	Pg	15 50 51.4	-0.9
UUDB				*e*Sg	Sg	15 51 13.9	-0.7
UUDB				Pmax			
	comp=N,155nm,0.4s						
UUDB				Smax			
	comp=N,878nm,0.6s						
FFNB	Fofonovo	1.76	211	*e*Pn	Pn	15 50 50.7	0.0
FFNB				*e*Pg	Pb	15 50 51.8	-0.4
FFNB				*e*Sg	Sb	15 51 13.8	-0.9
FFNB				*e*		15 51 19.0	
KAB	Kabansk	1.79	213	*e*Pg	Pb	15 50 52.2	-0.5
KAB				*e*		15 50 57.1	
KAB				*e*Sg	Sg	15 51 15.8	-0.8
KAB				*e*		15 51 17.3	
KAB				max			
	comp=N,183nm,0.5s						
KAB				max			
	comp=N,990nm,0.7s						
KAB	Kabansk	1.79	213	*e*PN	Pb	15 50 52.6	-0.1
KAB				*e*		15 51 15.9	
KAB				pmax	pmax		
	comp=Z,179nm,0.3s						
KAB				smax	smax		
	comp=E,1µm,0.8s						
STDB	Stepnoy Dvoret	1.79	220	⇓*i*Pn	Pb	15 50 51.8	-1.0
STDB				*e*Pg	Pg	15 50 52.5	-1.0
STDB				*e*Sg	Sg	15 51 15.7	-1.1
HRMR	Khuramsha	2.08	203	⇓*i*Pn	Pn	15 50 55.7	+0.5
HRMR				*e*Pg	Pb	15 50 57.7	-0.1
HRMR				*e*Sn	Sn	15 51 21.7	-0.1
HRMR				*e*Sg	Sg	15 51 25.0	-1.1
HRMR				Pmax			
	comp=E,175nm,0.2s						
HRMR				Smax			
	comp=E,2µm,0.6s						
YLYR	Ulyunkhan	2.17	51	⇓*i*Pn	Pb	15 50 58.0	-1.3
YLYR				*e*Pg	Pg	15 51 00.2	-0.5
YLYR				*e*Sn	Sb	15 51 25.9	-0.7
YLYR				*e*Sg	Sg	15 51 29.6	+0.8
YLYR				Pmax			
	comp=E,50nm,0.3s						
YLYR				Smax			
	comp=E,182nm,0.4s						
YLYR	Ulyunkhan	2.17	51	*e*PN	Pb	15 50 57.9	-1.3
YLYR				*e*		15 51 00.3	
YLYR				*e*		15 51 29.7	
YLYR				pmax	pmax		
	comp=Z,50nm,0.4s						
YLYR				smax	smax		
	comp=N,268nm,0.5s						
BGT	Bolshoye Golou	2.29	230	*e*Pn	Pn	15 50 58.1	+0.1
BGT				*e*Pg	Pb	15 51 00.6	-0.6
BGT				*e*Sn	Sn	15 51 24.7	-2.1
BGT				*e*Sg	Sb	15 51 29.5	-0.5
BGT				Pmax			
	comp=N,55nm,0.2s						
BGT				Smax			
	comp=N,206nm,0.2s						
NIZB	Nizh Angarsk	2.35	18	*e*Pn	Pb	15 51 00.5	-1.7
NIZB				*e*Pg	Pg	15 51 02.6	-1.5
NIZB				*e*Sn	Sb	15 51 30.0	-1.7
NIZB				*e*Sg	Sg	15 51 33.7	-0.8
NIZB				Pmax			
	comp=N,39nm,0.3s						
NIZB				Smax			
	comp=N,271nm,0.4s						
LSTR	Listvyanka	2.67	232	*e*Pn	Pn	15 51 03.4	+0.1
LSTR				*e*Pg	Pb	15 51 06.7	-1.1
LSTR				*e*Sn	Sn	15 51 34.8	-1.5
LSTR				*e*Sg	Sb	15 51 40.8	-0.2
LSTR				Pmax			
	comp=N,40nm,0.4s						
LSTR				Smax			
	comp=N,163nm,0.4s						
IRK	Irkutsk	2.74	243	*e*Sn	Sn	15 51 35.2	-2.7
IRK				*e*Sg	Sb	15 51 42.4	-0.5
IRK				*e*SgSg	SnSn	15 51 52.1	+3.6
IRK				Smax			
	comp=N,1µm,0.3s						
IRK	Irkutsk	2.74	243	*e*PN	Pb	15 51 07.7	-1.2
IRK				*e*		15 51 42.3	
IRK				pmax	pmax		
	comp=Z,75nm,0.2s						
IRK				smax	smax		
	comp=N,1µm,0.4s						
KMO	Kumora	2.90	35	*e*Pn	Pn	15 51 08.1	+1.7
KMO				*e*Pg	Pb	15 51 12.6	+0.9
KMO				*e*Sn	Sn	15 51 41.0	-0.9
KMO				*e*Sg	Sg	15 51 51.4	-0.9
KMO				Pmax			
	comp=N,53nm,0.4s						
KMO				Smax			
	comp=N,253nm,0.7s						
KMO	Kumora	2.90	35	*e*PN	Pn	15 51 08.1	+1.7
KMO				*e*		15 51 12.6	
IVK	Ivanovka	2.92	234	*e*Pn	Pn	15 51 07.2	+0.5
IVK				*e*Pg	Pb	15 51 12.1	+0.2
IVK				*e*Sn	Sn	15 51 41.9	-0.4
IVK				*e*Sg	Sb	15 51 48.4	+0.4
IVK				Pmax			
	comp=N,47nm,0.2s						
IVK				Smax			
	comp=N,353nm,0.4s						
YOAB	Uoyan, Buryati	3.28	36	*e*Sg	Sg	15 52 03.1	-1.5
YOAB				Smax			
	comp=N,217nm,1.9s						
TLY	Talaya	3.37	238	Pn	Pn	15 51 13.0	+0.1
	comp=N,3.9nm,0.3s,baz=55,slow=12,SNR=14						
TLY				Pg	Pb	15 51 19.0	-0.7
	comp=N,5.6nm,0.3s,baz=63,slow=8.5,SNR=12						
TLY				Sn	Sn	15 51 52.9	-0.6
	comp=N,5.1nm,0.3s,baz=73,slow=19,SNR=12						
TLY				Lg	Lg	15 52 00.7	
	comp=N,19nm,0.3s,baz=90,slow=20,SNR=12						
	comp=N,9.1nm,0.4s						
TLY				AML	AML		
CIT	Chita	3.58	113	*e*Pn	Pn	15 51 17.1	+1.4
CIT				*e*Pg	Pg	15 51 26.2	-1.5
CIT				*e*Sn	Sn	15 51 59.1	+0.5
CIT				*e*Sg	Sg	15 52 12.9	-1.1
CIT				Pmax			
	comp=N,66nm,0.4s						
CIT				Smax			
	comp=N,361nm,0.2s						
CIT	Chita	3.58	113	*e*PN	Pn	15 51 16.0	+0.3
CIT				*e*		15 51 24.7	
CIT				*e*S	Sn	15 51 59.0	+0.5
CIT				*e*		15 52 13.7	
CIT				pmax	pmax		
	comp=Z,75nm,0.8s						
CIT				smax	smax		
	comp=N,362nm,0.3s						
UKT	Uakit	3.69	56	*e*Pn	Pn	15 51 18.9	+1.5
UKT				*e*Pg	Pb	15 51 27.1	+1.9
UKT				*e*Sn	Sn	15 52 00.3	-1.2
UKT				*e*Sg	Sg	15 52 15.7	-2.0
UKT				Pmax			
	comp=N,24nm,1.0s						
UKT				Smax			
	comp=N,66nm,1.1s						
ZAK	Zakamensk	4.41	226	*e*Pn	Pn	15 51 28.2	+0.9
ZAK				*e*Pg	Pb	15 51 38.9	+1.4
ZAK				*e*Sn	Sn	15 52 16.6	-2.8
ZAK				*e*Sg	Sg	15 52 35.9	-5.0
ZAK				Pmax			
	comp=N,10.0nm,0.3s						
ZAK				Smax			
	comp=N,39nm,0.3s						
KPC	Khapcheranga	4.64	145	*e*Pn	Pn	15 51 31.8	+1.4
KPC				*e*Pg	Pb	15 51 44.5	+3.1
KPC				*e*Sn	Sn	15 52 22.5	-2.4
KPC				*e*Sg	Sg	15 52 44.7	-3.5
KPC				Pmax			
	comp=N,16nm,0.3s						
KPC				Smax			
	comp=N,40nm,0.3s						
KPC	Khapcheranga	4.64	145	*e*PN	Pb	15 51 42.7	+1.3
KPC				*e*S	Sn	15 52 22.4	-2.4
KPC				*e*		15 52 43.8	
KPC				pmax	pmax		
	comp=Z,18nm,0.5s						
KPC				smax	smax		
	comp=E,72nm,0.6s						
MOY	Mondy	4.80	250	*e*Pn	Pn	15 51 33.8	+1.1
MOY				*e*Pg	Pb	15 51 45.3	+1.2
MOY				*e*		15 52 29.5	
MOY				*e*Sg	Sb	15 52 46.1	+3.7
MOY				Pmax			
	comp=E,24nm,0.7s						
MOY				Smax			
	comp=E,159nm,0.7s						
MOY	Mondy	4.80	250	*e*PN	Pb	15 51 46.6	+2.5
ORL	Orlik	5.18	262	*e*Pn	Pn	15 51 39.8	+1.9
ORL				*e*Sg	Sb	15 52 58.5	+5.1
ORL				max			
	comp=E,23nm,0.5s						
ORL				Smax			
	comp=E,39nm,0.6s						
NLYR	Nelyaty	5.21	53	*e*Pn	Pn	15 51 39.8	+1.7
NLYR				*e*Pg	Pb	15 51 55.2	+4.3
NLYR				*e*		15 52 06.4	
NLYR				*e*Sg	Sg	15 53 03.6	-2.7
NLYR				Pmax			
	comp=E,13nm,0.8s						
NLYR				Smax			
	comp=E,70nm,1.8s						
BOD	Bodaibo	5.38	35	*e*Pn	Pn	15 51 42.1	+1.7
BOD				*e*Pg	Pb	15 51 57.4	+3.6
BOD				*e*Sn	Sn	15 52 41.1	-1.7
BOD				*e*Sg	Sg	15 53 06.9	-4.8
BOD				*e*		15 53 17.6	
BOD				Pmax			
	comp=E,8.0nm,0.4s						
BOD				max			
	comp=E,57nm,1.0s						
SONM	Songino Array	5.85	192	Pn	Pn	15 51 47.4	+0.4
	comp=E,0.4nm,0.3s,baz=9.8,slow=14,SNR=6.1						
SONM				Pg	Pb	15 52 04.3	+2.4
	comp=E,0.7nm,0.3s,baz=12,slow=15,SNR=5.8						
SONM				Sn	Sn	15 52 52.5	-2.2
	comp=E,1.7nm,0.3s,baz=15,slow=27,SNR=4.9						
SONM				Lg	Lg	15 53 19.7	
	comp=E,7.3nm,0.3s,baz=9.9,slow=24,SNR=16						
	comp=E,0.7nm,0.3s						
SONM				AML	AML		
TUP	Tupik	6.97	78	*e*PN	Pn	15 52 02.3	0.0
TUP				*e*		15 52 26.1	
TUP				*e*		15 53 56.8	
TUP				pmax	pmax		
	comp=Z,4.0nm,0.8s						
TUP				smax	smax		
	comp=N,78nm,1.1s						
HILR	Hailar Array B	8.22	115	Pn	Pn	15 52 19.2	-0.3
	baz=308,slow=13						
HILR				Lg	Lg	15 54 37.5	
	baz=306,slow=25						
	comp=N,0.9nm,0.4s						
ZALV	Zalesovo Beam	13.85	281	Lg	Lg	15 57 25.4	
	comp=N,0.1nm,0.3s,baz=86,slow=22,SNR=4.3						
MKAR	Makanchi Array	17.88	258	P	P	15 54 30.5	+0.8
	baz=63,slow=12,SNR=2.0						
	comp=N,0.1nm,0.4s						
LZDM	Lanzhou Array	17.88	192	P	P	15 54 29.5	-0.6
	comp=N,2.9nm,0.4s,baz=18,slow=11,SNR=1.6						
KURK	Kurchatov	18.34	273	P	P	15 54 36.6	+1.9
KURBB	Kurchatov Arra	18.42	273	P	P	15 54 36.6	+1.0
	baz=68,slow=12,SNR=1.5						
	comp=N,0.2nm,0.3s						
BVAR	Borovoye Array	22.46	284	P	P	15 55 18.6	-0.8
	comp=N,0.3nm,0.4s,baz=78,slow=13,SNR=6.4						
	comp=N,0.3nm,0.4s						
WRA	Warramunga Arr	76.59	155	P	P	16 02 11.3	+0.2
	comp=N,0.3nm,0.7s,baz=344,slow=5.9,SNR=2.0						
	comp=N,0.3nm,0.7s						
ASAR	Alice Springs	80.05	156	P	P	16 02 31.0	+0.8
	comp=N,0.4nm,0.8s,baz=354,slow=5.9,SNR=4.6						
	comp=N,0.4nm,0.8s						
ASAR	Alice Springs	80.05	156	P	P	16 02 31.0	+0.8

SJA ***01*** *16:09:56.2±1.4, 27°.82S×71°.91W, h40^{km}, ML3.3, MW3.6*

GUC ***01*** *16:09:58.8±0.7, 27°.98S×71°.32W, h27^{km}±2^{km}, ML2.8*

ISC 01 16:10:00.0±1.5, **27°.98S**±0°.03×**71°.29W**±0°.07, **h33**^{km}±3^{km}, **n19**, σ**2^{s}.56**/32, **Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.30	140	*e*P	Pn	16 10 07.5	-0.5
AC04				*i* S	Sn	16 10 12.3	-0.5
AC04				IAML		16 10 13.1	
	comp=E,5µm,0.1s						
GO03	Copiapo	1.01	68	*e*P	Pb	16 10 18.3	-0.8
GO03				*i* S	Sb	16 10 33.3	+1.1
GO03				IAML		16 10 39.5	
	comp=E,413nm,0.3s						

AC06	**Mina Casimiro**	**1.04**	**54**	*e*P	**Pb**	**16 10 18.8**	**-0.7**
AC06				*i* S	**Sb**	**16 10 34.1**	**+1.3**
AC06				IAML		16 10 39.4	
	comp=E,288nm,0.3s						
LCO	**Las Campanas**	**1.16**	**153**	*e*P	**Pb**	**16 10 21.5**	**-0.1**
LCO				*i* S	**Sb**	**16 10 38.2**	**+1.7**
AC05	**El Transito**	**1.24**	**134**	*e*P	**Pb**	**16 10 22.3**	**-0.7**
AC05				*i* S	**Sb**	**16 10 40.0**	**+1.2**
AC05				IAML		16 10 45.0	
	comp=N,181nm,0.4s						
AC01	**Pan de Azucar**	**1.92**	**19**	*e*P	**Pn**	**16 10 30.9**	**+0.4**
AC01				*i* S	**Sn**	**16 10 53.2**	**-0.3**
GO04	**Tololo Observa**	**2.23**	**169**	*e*P	**Pb**	**16 10 37.5**	**-2.3**
GO04				*i* S	**Sb**	**16 11 07.4**	**+0.2**
AC02	**Maricunga**	**2.23**	**60**	*e*P	**Pb**	**16 10 39.8**	**-0.2**
AC02				IAML		16 11 15.5	
	comp=Z,102nm,0.3s						
AC02	**Maricunga**	**2.23**	**60**	*e*P	**Pb**	**16 10 38.7**	**-1.4**
AC02				*i* S	**Sb**	**16 11 08.9**	**+1.4**
AC02				IAML		16 11 14.7	
	comp=E,219nm,0.4s						
CO01	**Juntas del Tor**	**2.25**	**152**	*e*P	**Pb**	**16 10 38.9**	**-1.3**
CO01				*i* S	**Sb**	**16 11 07.8**	**-0.1**
CO01				IAML		16 11 11.3	
	comp=E,116nm,0.3s						
AROD	**Rodeo**	**2.70**	**144**	*e*P	**Pb**	**16 10 47.0**	**-0.9**
AROD				*e*S	**Sb**	**16 11 24.6**	**+3.8**
VCA	**Vinchina**	**2.83**	**106**	*e*P	**Pb**	**16 10 47.0**	**-2.9**
VCA				*e*P	Pn	16 10 50.3	+7.3
VCA				*e*S	**Sb**	**16 11 29.5**	**+5.4**
VCA				IAML		16 11 37.2	
	comp=Z,60nm,1.2s						
ACCO	**Cerro Coronel**	**3.25**	**144**	*e*P	**Pb**	**16 10 55.2**	**-2.0**
ACCO				*e*S	**Sb**	**16 11 37.5**	**+1.0**
ACCO				IAML		16 11 50.4	
	comp=Z,31nm,0.4s						
TINO	**Tinogasta**	**3.29**	**92**	*e*P	**Pb**	**16 10 55.7**	**-2.1**
TINO				*e*S	**Sb**	**16 11 40.0**	**+2.4**
TINO				IAML		16 11 49.2	
	comp=Z,21nm,0.8s						
ACLC	**CERRO LA CRUZ**	**4.08**	**112**	*e*P	Pb	16 11 05.6	-5.6
ACLC				*e*S	**Sb**	**16 11 58.5**	**-1.6**
ACLC				IAML		16 12 03.6	
	comp=Z,15nm,0.5s						
RTLL	**Cerro Villicun**	**4.14**	**144**	*e*P	**Pb**	**16 11 09.2**	**-3.1**
RTLL				IAML		16 12 22.4	
	comp=Z,19nm,0.7s						
AVFE	**Valle Fertil**	**4.29**	**130**	*e*P	Pb	16 11 08.2	-6.5
AVFE				*e*S	**Sn**	**16 11 58.5**	**+6.6**
AVFE				IAML		16 12 08.5	
	comp=Z,28nm,0.6s						
CYA	**Choya**	**4.87**	**97**	*e*P	Pb	16 11 18.0	-6.6
CYA				*e*P	Pn	16 11 19.4	+8.4
CYA				*e*S	**Sb**	**16 12 16.5**	**-6.2**
CYA				IAML		16 12 22.1	
	comp=Z,15nm,0.6s						
AHML	**Horco Molle**	**5.43**	**79**	*e*P	Pn	16 11 23.6	+4.9
AHML				*e*S	**Sn**	**16 12 19.4**	**-0.7**
AHML				IAML		16 12 19.9	
	comp=Z,30nm,2.8s						

MOS ***01*** *16:30:03.8±1.2, 53°.52N×108°.28E, h8^{km}, mb3.7/1, Error ellipse: s-maj=18.2km s-min=10.6km az=69.5*

BYKL ***01*** *16:30:04.5±0.1, 53°.56N×108°.13E, h10^{km}±2^{km}*

IDC ***01*** *16:30:05.0±2.5, 53°.37N×108°.40E, h0^{km}, mbtmp3.2/3, ML3.1/3, Error ellipse: s-maj=23.7km s-min=20.5km az=70.0*

ISC 01 16:30:04.3±1.0**, 53°.55N**±0°.02×**108°.11E**±0°.02**, h12**^{km}±8^{km}**, n40, σ2^{s}11**/97**, 5C-1D, Lake Baykal region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OGRR	**Ongureny**	**0.32**	**287**	⇑*i*Pg	**Pg**	**16 30 11.6**	**+0.7**
OGRR				*e*Sg	**Sg**	**16 30 16.3**	**+1.0**
OGRR				Pmax			
	789nm,0.2s						
OGRR				Smax			
	4μm,0.1s						
OGRR	**Ongureny**	**0.32**	**287**	⇑*i*PG	**Pg**	**16 30 11.6**	**+0.7**
OGRR				*e*		16 30 16.4	
OGRR				pmax	pmax		
	comp=Z,786nm,0.1s						
OGRR				smax	smax		
	comp=E,4μm,0.2s						
MXMB	**Maximikha**	**0.47**	**127**	*e*Pg	**Pg**	**16 30 13.1**	**-0.5**
MXMB				*e*Sg	**Sg**	**16 30 20.1**	**+0.2**
MXMB				*e*		16 30 25.7	
GORB	**Goryachinsk**	**0.57**	**170**	⇑*i*Pg	**Pg**	**16 30 15.3**	**-0.2**
GORB				*e*Sg	**Sg**	**16 30 22.9**	**-0.1**
KELR	**Kotokel**	**0.79**	**181**	⇑*i*Pg	**Pg**	**16 30 19.1**	**-0.5**
KELR				*e*Sg	**Sg**	**16 30 29.7**	**-0.2**
KELR				*e*Sb	**Sn**	**16 30 33.7**	**+0.8**
SYVR	**Suvo**	**1.13**	**84**	*e*Pg	**Pb**	**16 30 24.7**	**-1.0**
SYVR				*e*Pb	**Pn**	**16 30 26.4**	**+0.5**
SYVR				*e*Sg	**Sg**	**16 30 39.6**	**-1.1**
SYVR				max			
	comp=E,64nm,0.2s						
SYVR				Smax			
	comp=E,331nm,0.4s						
SYVR	**Suvo**	**1.13**	**84**	*e*PG	**Pb**	**16 30 24.6**	**-1.1**
SYVR				*e*		16 30 39.5	
SYVR				pmax	pmax		
	comp=Z,68nm,0.3s						
SYVR				smax	smax		
	comp=E,347nm,0.4s						
ZRHB	**Zarechye**	**1.15**	**211**	*e*Pg	**Pb**	**16 30 25.3**	**-0.8**
ZRHB				*e*Sg	**Sb**	**16 30 41.2**	**+0.2**
ZRHB				Pmax			
	comp=E,257nm,0.4s						
ZRHB				Smax			
	comp=E,2μm,0.6s						
TRG	**Tyrgan**	**1.32**	**234**	⇑*i*Pg	**Pn**	**16 30 28.3**	**-0.3**
TRG				*e*		16 30 30.5	
TRG				*e*Sg	**Sb**	**16 30 46.0**	**0.0**
TRG				max			
	comp=E,99nm,0.3s						
TRG				Smax			
	comp=E,1μm,0.2s						
TRG	**Tyrgan**	**1.32**	**234**	*e*PG	**Pn**	**16 30 28.4**	**-0.2**
TRG				*e*		16 30 46.4	
TRG				pmax	pmax		
	comp=Z,99nm,0.2s						
TRG				smax	smax		
	comp=N,1μm,0.2s						
UUDB	**Ulan-Yde**	**1.71**	**189**	*e*Pn	**Pn**	**16 30 34.7**	**+0.9**
UUDB				*e*Pg	**Pb**	**16 30 35.7**	**+0.1**
UUDB				*e*Sg	**Sb**	**16 30 58.1**	**+1.2**
UUDB				Pmax			
	comp=N,97nm,0.4s						
UUDB				Smax			
	comp=N,703nm,0.6s						
FFNB	**Fofonovo**	**1.71**	**209**	*e*Pn	**Pn**	**16 30 34.9**	**+1.0**
FFNB				*e*Pg	**Pb**	**16 30 35.8**	**+0.1**
FFNB				*e*Sg	**Sb**	**16 30 58.6**	**+1.5**
STDB	**Stepnoy Dvoret**	**1.74**	**218**	*e*Pn	**Pn**	**16 30 35.7**	**+1.4**
STDB				*e*Pg	**Pb**	**16 30 36.6**	**+0.5**
STDB				*e*Sg	**Sb**	**16 30 59.7**	**+1.8**
KAB	**Kabansk**	**1.74**	**211**	*e*Pn	**Pn**	**16 30 35.5**	**+1.2**
KAB				*e*Pg	**Pb**	**16 30 36.5**	**+0.3**
KAB				*e*Sg	**Sb**	**16 30 59.5**	**+1.5**
KAB				Pmax			
	comp=N,207nm,0.3s						
KAB				Smax			
	comp=N,809nm,0.3s						
KAB	**Kabansk**	**1.74**	**211**	*e*PN	**Pb**	**16 30 36.5**	**+0.3**
KAB				*e*		16 31 00.3	
KAB				pmax	pmax		
	comp=Z,163nm,0.3s						
KAB				smax	smax		
	comp=E,866nm,0.4s						
HRMR	**Khuramsha**	**2.05**	**201**	⇓*i*Pn	**Pn**	**16 30 39.7**	**+1.2**
HRMR				*e*Pg	**Pb**	**16 30 42.1**	**+0.7**
HRMR				*e*Sn	**Sn**	**16 31 05.6**	**+1.6**
HRMR				*e*Sg	**Sb**	**16 31 08.9**	**+2.1**
HRMR				Pmax			
	comp=E,138nm,0.3s						
HRMR				Smax			
	comp=E,1μm,0.6s						
BGT	**Bolshoye Golou**	**2.23**	**229**	*e*Pg	**Pb**	**16 30 45.1**	**+0.7**
BGT				*e*Sn	**Sn**	**16 31 09.3**	**+0.9**
BGT				*e*Sg	**Sb**	**16 31 14.1**	**+2.1**
BGT				Pmax			
	comp=E,36nm,0.2s						
BGT				Smax			
	comp=E,250nm,0.2s						
YLYR	**Ulyunkhan**	**2.23**	**52**	*e*Pn	**Pn**	**16 30 42.0**	**+1.0**
YLYR				*e*Pg	**Pb**	**16 30 44.3**	**-0.2**
YLYR				*e*Sg	**Sb**	**16 31 13.6**	**+1.6**
YLYR				Pmax			
	comp=E,39nm,0.5s						
YLYR				Smax			
	comp=E,126nm,0.5s						
NIZB	**Nizh Angarsk**	**2.38**	**20**	*e*Pg	**Pb**	**16 30 46.3**	**-0.7**
NIZB				*e*	**Sn**	**16 31 13.5**	**+1.4**
NIZB				*e*Sn	**Sn**	**16 31 13.5**	**+1.4**
NIZB				*e*Sg	**Sb**	**16 31 17.4**	**+1.1**
NIZB				Pmax			
	comp=E,10.0nm,0.1s						
NIZB				Smax			
	comp=E,127nm,0.3s						
LSTR	**Listvyanka**	**2.61**	**231**	*e*Pn	**Pn**	**16 30 47.6**	**+1.4**
LSTR				*e*Pg	**Pb**	**16 30 50.6**	**-0.4**
LSTR				*e*Sn	**Sn**	**16 31 19.0**	**+1.2**
LSTR				*e*Sg	**Sb**	**16 31 25.0**	**+2.0**
LSTR				Pmax			
	comp=E,19nm,0.4s						
LSTR				Smax			
	comp=E,128nm,0.3s						
IRK	**Irkutsk**	**2.67**	**242**	*e*Pg	**Pb**	**16 30 52.5**	**+0.5**
IRK				*e*Sn	**Sn**	**16 31 20.7**	**+1.4**
IRK				*e*Sg	**Sb**	**16 31 26.5**	**+1.9**
IRK				Pmax			
	comp=E,72nm,0.2s						
IRK				Smax			
	comp=E,906nm,0.4s						
IRK	**Irkutsk**	**2.67**	**242**	*e*PN	**Pb**	**16 30 52.1**	**+0.1**
IRK				*e*		16 31 26.4	
IRK				pmax	pmax		
	comp=Z,74nm,0.3s						
IRK				smax	smax		
	comp=N,910nm,0.5s						
IVK	**Ivanovka**	**2.85**	**234**	*e*Pn	**Pn**	**16 30 51.2**	**+1.6**
IVK				*e*Pg	**Pb**	**16 30 55.7**	**+0.6**
IVK				*e*Sn	**Sn**	**16 31 24.0**	**+0.2**
IVK				*e*Sg	**Sb**	**16 31 32.2**	**+2.3**
IVK				Pmax			
	comp=N,37nm,0.2s						
IVK				Smax			
	comp=N,440nm,0.2s						
KMO	**Kumora**	**2.95**	**36**	*e*Pn	**Pn**	**16 30 51.4**	**+0.5**
KMO				*e*Pg	**Pb**	**16 30 56.7**	**0.0**
KMO				*e*Sn	**Sn**	**16 31 25.5**	**-0.7**
KMO				*e*Sg	**Sb**	**16 31 35.2**	**+2.5**
KMO				Pmax			
	comp=N,28nm,0.7s						
KMO				Smax			
	comp=N,148nm,1.3s						
KMO	**Kumora**	**2.95**	**36**	*e*PN	**Pn**	**16 30 51.9**	**+1.0**
KMO				*e*		16 30 56.9	
KMO				*e*S	**Sn**	**16 31 25.6**	**-0.7**
TLY	**Talaya**	**3.30**	**237**	*e*Pn	**Pn**	**16 30 56.9**	**+1.1**
TLY				*e*		16 31 00.7	
TLY				*e*		16 31 08.4	
TLY				max		16 31 10.0	
	comp=N,19nm,0.2s						
TLY				*e*Sn	**Sn**	**16 31 36.3**	**+1.3**
TLY				*e*Sg	**Sb**	**16 31 45.5**	**+2.6**
TLY				Smax			
	comp=N,154nm,0.4s						
YOAB	**Uoyan, Buryati**	**3.33**	**37**	*e*Sg	**Sb**	**16 31 47.0**	**+3.3**
YOAB				Smax			
	comp=N,86nm,0.8s						
CIT	**Chita**	**3.64**	**113**	*e*Pg	**Pb**	**16 31 10.1**	**+1.6**
CIT				*e*Sn	**Sn**	**16 31 43.4**	**+0.1**
CIT				*e*Sg	**Sb**	**16 31 56.9**	**+4.3**
CIT				Pmax			
	comp=N,28nm,0.2s						
CIT				Smax			
	comp=N,160nm,0.5s						
CIT	**Chita**	**3.64**	**113**	*e*PN	**Pn**	**16 30 59.8**	**-0.6**
CIT				*e*		16 31 08.4	
CIT				*e*		16 31 56.9	
CIT				pmax	pmax		
	comp=Z,47nm,0.6s						
CIT				smax	smax		
	comp=E,189nm,0.8s						
UKT	**Uakit**	**3.76**	**57**	*e*Pn	**Pn**	**16 31 03.7**	**+1.6**
UKT				*e*Pg	**Pb**	**16 31 11.7**	**+1.2**
UKT				*e*		16 31 17.6	
UKT				*e*		16 31 39.2	
UKT				*e*Sg	**Sb**	**16 31 59.9**	**+3.9**
UKT				max			
	comp=E,16nm,0.9s						
UKT				Smax			
	comp=E,30nm,1.2s						
ZAK	**Zakamensk**	**4.36**	**225**	*e*Pn	**Pn**	**16 31 11.0**	**+0.7**
ZAK				*e*Pg	**Pb**	**16 31 22.9**	**+2.1**
ZAK				*e*Sg	**Sg**	**16 32 19.9**	**-4.2**
ZAK				Pmax			
	comp=E,8.0nm,0.4s						
ZAK				Smax			
	comp=E,36nm,0.3s						
KPC	**Khapcheranga**	**4.68**	**144**	*e*Pg	**Pb**	**16 31 28.2**	**+2.0**
KPC				*e*Sg	**Sg**	**16 32 28.9**	**-5.5**
KPC				Pmax			
	comp=E,11nm,0.3s						
KPC				Smax			
	comp=E,58nm,1.0s						
MOY	**Mondy**	**4.73**	**249**	*e*Pn	**Pn**	**16 31 17.7**	**+2.2**
MOY				*e*Pg	**Pb**	**16 31 29.3**	**+2.2**
MOY				*e*		16 32 13.5	
MOY				*e*Sg	**Sb**	**16 32 30.3**	**+6.3**
MOY				*e*		16 32 41.9	
MOY				Pmax			
	comp=E,21nm,0.7s						
MOY				max			
	comp=E,183nm,1.4s						
MOY	**Mondy**	**4.73**	**249**	*e*PN	**Pb**	**16 31 30.9**	**+3.8**
ORL	**Orlik**	**5.11**	**262**	*e*Pn	**Pn**	**16 31 22.5**	**+1.8**
ORL				*e*Pg	**Pb**	**16 31 36.4**	**+2.8**
ORL				*e*Sn	**Sn**	**16 32 19.4**	**-0.2**
ORL				*e*Sg	**Sg**	**16 32 42.5**	**-5.8**
ORL				Pmax			
	comp=E,10.0nm,0.5s						
ORL				Smax			
	comp=E,32nm,0.7s						
NLYR	**Nelyaty**	**5.27**	**53**	*e*Pn	**Pn**	**16 31 23.9**	**+1.1**
NLYR				*e*Pg	**Pb**	**16 31 39.2**	**+3.0**
NLYR				*e*Sg	**Sg**	**16 32 47.1**	**-6.2**
NLYR				Pmax			
	comp=E,8.0nm,0.7s						
NLYR				Smax			
	comp=E,62nm,1.7s						
BOD	**Bodaibo**	**5.42**	**36**	*e*Sg	**Sb**	**16 32 50.7**	**+6.9**
BOD				Smax			
	comp=E,28nm,0.9s						
SONM	**Songino Array**	**5.82**	**191**	Pn	**Pn**	**16 31 31.1**	**+0.6**
	comp=E,0.5nm,0.3s,baz=10,slow=13,SNR=4.8						
SONM				Pg	**Pb**	**16 31 48.0**	**+2.2**
	comp=E,0.5nm,0.3s,baz=9.7,slow=15,SNR=5.2						
SONM				Sn	**Sn**	**16 32 36.7**	**-0.5**
	comp=E,0.9nm,0.3s,baz=14,slow=25,SNR=2.4						
SONM				Lg	Lg	16 33 03.2	
	comp=E,4.3nm,0.3s,baz=12,slow=29,SNR=11						
	comp=E,0.6nm,0.3s						
SONM				AML	AML		
HILR	**Hailar Array B**	**8.28**	**114**	Pn	**Pn**	**16 32 04.3**	**+0.2**
	baz=310,slow=15						
HILR				Lg	Lg	16 34 19.4	
	baz=306,slow=27						
	comp=E,0.3nm,0.3s						
ZALV	**Zalesovo Beam**	**13.78**	**281**	Pn	**P**	**16 33 24.1**	**-3.6**
	comp=E,0.1nm,0.3s,baz=83,slow=25,SNR=2.1						
ZALV				Lg	Lg	16 37 10.3	
	comp=E,0.1nm,0.3s,baz=86,slow=20,SNR=3.9						
	comp=E,0.5nm,0.5s						
ZALV				AML	AML		

IDC ***01*** *16:36:09.9±1.1, 6°.67S×153°.56E, h0^{km}, mb3.8/10, mbtmp3.8/12, ML2.0/1, MS3.0/1, Error ellipse: s-maj=23.5km s-min=15.8km az=114.0*

NEIC ***01*** *16:36:12.5±1.2, 6°.56S±0°.04×153°.4E±0°.1, h10^{km}±1^{km}, mb4.2/12, Error ellipse: s-maj=19.3km s-min=5.9km az=84.0*

ISC 01 16:36:14.9±0.8**, 6°.59S**±0°.06×**153°.4E**±0°.1**, h29**^{km}**, n29, σ0^{s}69**/27**, mb4.0**/15**, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KRVT	**Keravat (AS076**	**2.66**	**328**	Pn	**Pn**	**16 36 56.3**	**+0.4**
	81nm,0.4s,baz=93,slow=18,SNR=1.8						
KRVT				Sn	**Sn**	**16 37 26.4**	**-0.8**
	59nm,0.3s,baz=210,slow=20,SNR=4.2						
RABL	**Rabaul**	**2.69**	**332**	Pn	**Pn**	**16 36 56.5**	**+0.2**
RABL				Sn	**Sn**	**16 37 26.9**	**-1.1**
PMG	**Port Moresby**	**6.81**	**245**	Pn	**Pn**	**16 37 53.8**	**+0.9**
	1.7nm,0.3s,baz=68,slow=9.5,SNR=6.8						
PMG				Sn	**Sn**	**16 39 09.1**	**-0.4**
	3.0nm,0.3s,baz=350,slow=7.2,SNR=6.6						
PMG				LR	LR	16 40 09.2	
	comp=Z,115nm,19.3s,baz=90,slow=35						
	14nm,0.7s						
PMG				AML	AML		
WB0	**Warramunga Arr**	**22.66**	**233**	P	**P**	**16 41 13.5**	**-0.5**
WB0				IAmb	IAmb	16 41 26.3	
	comp=Z,9.1nm,1.4s						
WR8	**Warramunga Arr**	**22.67**	**232**	P	**P**	**16 41 13.6**	**-0.6**
WR8				IAmb	IAmb	16 41 33.0	
	comp=Z,8.6nm,1.2s						
WRA	**Warramunga Arr**	**22.79**	**233**	P	**P**	**16 41 14.7**	**-0.7**
	comp=Z,0.8nm,0.7s,baz=54,slow=11,SNR=8.9						
	comp=Z,0.8nm,0.7s						
ARMA	**Armidale**	**23.77**	**184**	P	**P**	**16 41 25.0**	**-0.2**
ARMA				IAmb	IAmb	16 41 51.5	
	comp=Z,18nm,1.3s						
INKA	**Innaminka**	**24.23**	**208**	P	**P**	**16 41 28.7**	**-0.7**
INKA				IAmb	IAmb	16 41 30.2	
	comp=Z,3.6nm,0.8s						
AS31	**Alice Springs**	**25.30**	**226**	P	**P**	**16 41 38.6**	**-0.6**
ASAR	**Alice Springs**	**25.30**	**226**	P	**P**	**16 41 38.6**	**-0.7**
	comp=Z,0.9nm,0.6s,baz=50,slow=10.0,SNR=34						
	comp=Z,0.9nm,0.6s						
H11S3	**WAKE ISLAND Hy**	**28.15**	**27**	T	T	17 11 47.5	
	baz=208						
H11S2	**WAKE ISLAND Hy**	**28.15**	**28**	T	T	17 11 48.9	
	baz=208						
H11S1	**WAKE ISLAND Hy**	**28.17**	**27**	T	T	17 11 48.0	
	baz=208						
FITZ	**Fitzroy Crossi**	**29.40**	**245**	P	**P**	**16 42 15.6**	**-0.5**
CMAR	**Chiang Mai Arr**	**59.20**	**296**	P	**P**	**16 46 15.4**	**+1.6**
	comp=Z,0.3nm,0.3s,baz=109,slow=6.7,SNR=1.9						
	comp=Z,0.3nm,0.3s						
PETK	**Petropavlovsk-**	**59.58**	**3**	P	**P**	**16 46 16.3**	**+0.6**
	comp=Z,4.3nm,1.0s,baz=197,slow=7.4,SNR=3.1						
	comp=Z,4.3nm,1.0s						
SONM	**Songino Array**	**68.16**	**328**	P	**P**	**16 47 12.0**	**-0.6**
	comp=Z,0.3nm,0.5s,baz=119,slow=5.1,SNR=2.2						
	comp=Z,0.3nm,0.5s						
SONM	**Songino Array**	**68.16**	**328**	IAmb	IAmb	16 47 17.0	
	comp=Z,2.5nm,1.4s						
OHAK	**Old Harbor**	**76.86**	**27**	P	**P**	**16 48 03.8**	**-0.2**
MKAR	**Makanchi Array**	**82.07**	**319**	P	**P**	**16 48 32.3**	**-0.4**
	comp=Z,0.7nm,1.1s,baz=103,slow=4.6,SNR=2.7						
	comp=Z,0.7nm,1.1s						
QSPA	**South Pole Qui**	**83.38**	**180**	P	**P**	**16 48 38.3**	**-1.0**
	comp=Z,0.6nm,0.8s,baz=0.0,slow=1.0,SNR=1.7						
	comp=Z,0.6nm,0.8s						
QSPA	**South Pole Qui**	**83.38**	**180**	P	**P**	**16 48 38.8**	**-0.5**
ILAR	**Eielson Array**	**83.58**	**22**	P	**P**	**16 48 40.5**	**+0.4**
	comp=Z,0.6nm,0.9s,baz=252,slow=4.9,SNR=4.1						
	comp=Z,0.6nm,0.9s						
KURK	**Kurchatov**	**85.55**	**322**	P	**P**	**16 48 50.8**	**+0.5**
KURK	**Kurchatov**	**85.55**	**322**	IAmb	IAmb	16 49 30.8	
	comp=Z,1.2nm,0.9s						
KURBB	**Kurchatov Arra**	**85.58**	**322**	P	**P**	**16 48 50.8**	**+0.3**
	comp=Z,0.1nm,0.3s,baz=87,slow=7.7,SNR=1.9						
	comp=Z,0.1nm,0.3s						
BMAR	**Burnt Mountain**	**85.70**	**20**	P	**P**	**16 48 51.5**	**+0.7**
C27K	**Jago River**	**87.02**	**18**	P	**P**	**16 48 57.7**	**+0.5**
BVAR	**Borovoye Array**	**91.04**	**323**	P	**P**	**16 49 16.6**	**+0.1**
	comp=Z,1.0nm,0.9s,baz=90,slow=3.3,SNR=3.8						
	comp=Z,1.0nm,0.9s						

IDC ***01*** *16:38:48.2±0.7, 31°.57N×93°.33E, h0^{km}, mb3.8/14, mbtmp3.7/18, ML3.6/3, MS3.4/4, Error ellipse: s-maj=32.4km s-min=13.4km az=57.0*

NEIC ***01*** *16:38:50.6±1.0, 31°.68N±0°.09×93°.4E±0°.1, h10^{km}±1^{km}, mb4.4/21, Error ellipse: s-maj=17.1km s-min=15.0km az=85.0*

NDI ***01*** *16:38:51.1±1.3, 31°.75N×93°.42E, h10^{km}, ML4.3, MW4.2, mb4.4(NEIC), Presumed earthquake*

ISC 01 16:38:50.1±0.5**, 31°.65N**±0°.05×**93°.37E**±0°.09**, h10**^{km}**, n52, σ1^{s}18**/55**, mb3.9**/20**, MS3.5**/3**, Xizang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LSA	**Lhasa**	**2.73**	**225**		**Pn**	**16 39 35.3**	**+0.8**
ZIRO	**ZIRO**	**4.13**	**174**	*e*P	**Pn**	**16 39 56.2**	**+2.7**
ZIRO				*e*S	**Sn**	**16 40 42.7**	**+0.7**
ZIRO				IAML		16 40 54.0	
	comp=E,2μm,0.3s						
ZIRO				IAML		16 40 58.6	
	comp=N,2μm,0.4s						
TAWA	**Tawang**	**4.25**	**198**	*e*P	**Pn**	**16 39 58.6**	**+3.4**
TAWA				*e*S	**Sn**	**16 40 44.9**	**-0.2**
TAWA				IAML		16 40 55.4	
	comp=E,1μm,0.5s						
TAWA				IAML		16 40 58.9	
	comp=N,1μm,0.3s						
TEZP	**TEZPUR**	**5.04**	**186**	*e*P	**Pn**	**16 40 07.5**	**+1.7**
TEZP				*e*S	**Sn**	**16 41 04.6**	**+0.4**
TEZP				IAML		16 41 08.7	
	comp=E,495nm,0.0s						
TEZP				IAML		16 41 09.7	
	comp=N,547nm,0.2s						
MOKO	**MOKOCHONG**	**5.41**	**169**	*e*S	**Sn**	**16 41 12.7**	**-0.7**
MOKO				IAML		16 41 27.3	
	comp=E,585nm,1.3s						
MOKO				IAML		16 41 29.0	
	comp=N,503nm,0.1s						
KOHI	**KOHIMA**	**5.95**	**174**	*e*P	**Pn**	**16 40 19.9**	**+1.5**
KOHI				*e*S	**Sn**	**16 41 25.2**	**-1.4**
KOHI				IAML		16 41 30.7	
	comp=N,494nm,1.6s						
KOHI				IAML		16 41 33.5	
	comp=E,418nm,0.7s						
IMP	**Imphal**	**6.81**	**176**	*e*P	**Pn**	**16 40 31.2**	**+1.0**
IMP				*e*S	**Sn**	**16 41 45.7**	**-2.2**
IMP				IAML		16 41 47.4	
	comp=N,193nm,0.1s						
IMP				IAML		16 41 47.6	
	comp=E,168nm,0.1s						
MORE	**Moreh**	**7.43**	**173**		**Pn**	**16 40 39.1**	**+0.4**
AZL	**Aizawl**	**7.91**	**185**	*e*P	**Pn**	**16 40 46.4**	**+1.1**
AZL				*e*S	**Sn**	**16 42 11.5**	**-3.4**
AZL				IAML		16 43 31.7	
	comp=E,180nm,3.3s						
AZL				IAML		16 43 54.7	
	comp=N,131nm,1.6s						
CMAR	**Chiang Mai Arr**	**14.07**	**158**	Pn	Pn	16 42 07.7	-1.9
	comp=N,0.1nm,0.3s,baz=344,slow=10,SNR=7.0						
CMAR				LR	LR	16 47 15.3	
	comp=N,25nm,19.2s,baz=165,slow=36						
	comp=N,0.4nm,0.6s						
CMAR				AML	AML		
CMAR	**Chiang Mai Arr**	**14.07**	**158**		**Pn**	**16 42 10.6**	**+1.0**
TARG	**Taragay, Kyrgy**	**16.01**	**313**	P	**Pn**	**16 42 37.6**	**+1.9**
MKAR	**Makanchi Array**	**17.36**	**334**	P	**Pn**	**16 42 53.7**	**+1.2**
	baz=142,slow=13,SNR=4.4						
MKAR				PcP	**PcP**	**16 47 33.5**	**-0.7**
	comp=N,0.2nm,0.5s,baz=163,slow=1.5,SNR=2.3						
	comp=N,0.1nm,0.4s						
MKAR	**Makanchi Array**	**17.36**	**334**		**Pn**	**16 42 52.9**	**+0.5**
AAK	**Ala-Archa**	**18.58**	**311**	P	**P**	**16 43 07.3**	**-0.1**
	comp=N,0.6nm,0.3s,baz=131,slow=9.3,SNR=2.1						
	comp=N,1.1nm,0.3s						
AAK				AML	AML		
SONM	**Songino Array**	**18.97**	**28**	P	**P**	**16 43 11.7**	**+0.1**
	comp=N,0.4nm,0.4s,baz=220,slow=11,SNR=4.1						
BTK	**Batken**	**20.07**	**301**	P	**P**	**16 43 25.0**	**+1.3**
BTK				IAmb	IAmb	16 43 31.0	
	comp=Z,7.2nm,1.2s						
KBL	**Kabul**	**20.57**	**285**	P	**P**	**16 43 30.3**	**+1.0**
KBL				IAmb	IAmb	16 43 35.0	
	comp=Z,15nm,0.9s						
KURBB	**Kurchatov Arra**	**21.93**	**334**	P	**P**	**16 43 43.8**	**+0.3**
	comp=Z,1.1nm,0.2s,baz=145,slow=11,SNR=9.7						
KURBB				PcP	**PcP**	**16 47 42.6**	**+0.3**
	comp=Z,0.2nm,0.3s,baz=149,slow=2.2,SNR=4.1						
	comp=Z,1.1nm,0.2s						

KURK	Kurchatov	21.97	334		PcP	16 47 42.6	+0.2
KURK	Kurchatov	21.97	334	P	P	16 43 44.6	+0.6
KURK				IAmb	IAmb	16 43 49.0	
	comp=Z,4.3nm,1.1s						
ZAA0	Zalesovo Array	23.12	347	P	P	16 43 54.1	-2.0
ZALV	Zalesovo Beam	23.12	347	P	P	16 43 55.3	-0.8
	comp=Z,0.4nm,0.5s,baz=178,slow=12,SNR=1.5						
	comp=Z,0.4nm,0.5s						
ZALV	Zalesovo Beam	23.12	347	P	P	16 43 54.1	-1.9
PALK	Pallekele	26.99	209	P	P	16 44 32.1	-0.2
PALK				IAmb	IAmb	16 45 05.2	
	comp=Z,23nm,1.4s						
BVAR	Borovoye Array	27.07	329	P	P	16 44 31.7	-1.0
	comp=Z,0.7nm,0.5s,baz=128,slow=8.1,SNR=5.2						
	comp=Z,0.7nm,0.5s						
ABKAR	Akbulak array	30.59	315	P	P	16 45 03.5	-0.5
BRTR	Keskin Array B	48.40	297	P	P	16 47 31.8	-0.8
	comp=Z,0.5nm,0.8s,baz=106,slow=9.1,SNR=3.9						
	comp=Z,0.5nm,0.8s						
AKASG	Malin Array Be	50.24	312	P	P	16 47 45.0	-1.2
	comp=Z,0.1nm,0.3s,baz=79,slow=6.2,SNR=1.7						
AKASG				LR	LR	17 09 50.9	
	comp=Z,28nm,18.2s,baz=36,slow=37						
	comp=Z,0.1nm,0.3s						
AKASG	Malin Array Be	50.24	312	IAmb	IAmb	16 47 50.5	
	comp=Z,2.8nm,1.4s						
FIA1	FINESS Array S	51.96	326	P	P	16 47 59.6	+0.6
FINES	FINESS Array B	51.96	326	P	P	16 47 59.6	+0.5
	comp=Z,1.1nm,0.6s,baz=94,slow=4.6,SNR=5.5						
	comp=Z,1.1nm,0.6s						
ARCES	ARCESS Array B	53.00	336	P	P	16 48 07.9	+1.3
	comp=Z,3.1nm,1.0s,baz=100,slow=5.4,SNR=1.8						
	comp=Z,3.1nm,1.0s						
ARCES	ARCESS Array B	53.00	336	IAmb	IAmb	16 48 35.5	
	comp=Z,23nm,1.5s						
HFS	Hagfors	58.09	325	P	P	16 48 43.5	+0.1
	comp=Z,2.7nm,0.8s,baz=90,slow=7.2,SNR=3.2						
HFS				LR	LR	17 13 12.7	
	comp=Z,31nm,18.6s,baz=69,slow=36						
	comp=Z,2.7nm,0.8s						
MBWA	Marble Bar	58.27	151	P	P	16 48 45.0	-0.1
GERES	GERESS Array B	60.46	312	P	P	16 49 00.7	+0.6
	comp=Z,0.3nm,0.5s,baz=76,slow=6.8,SNR=3.6						
	comp=Z,0.3nm,0.5s						
GERES	GERESS Array B	60.46	312	P	P	16 48 59.8	-0.3
MORW	Morawa	64.12	158	P	P	16 49 24.0	-0.5
WB0	Warramunga Arr	64.51	137	P	P	16 49 27.9	+0.6
WB0				IAmb	IAmb	16 49 47.6	
	comp=Z,9.2nm,1.4s						
WRA	Warramunga Arr	64.61	137	P	P	16 49 27.6	-0.4
	comp=Z,0.4nm,0.7s,baz=324,slow=6.5,SNR=5.9						
	comp=Z,0.4nm,0.7s						
AS31	Alice Springs	67.30	140	P	P	16 49 45.2	-0.1
AS31				IAmb	IAmb	16 50 06.3	
	comp=Z,1.1nm,1.1s						
ASAR	Alice Springs	67.30	140	P	P	16 49 45.3	0.0
	comp=Z,1.0nm,0.5s,baz=323,slow=6.4,SNR=25						
	comp=Z,1.0nm,0.5s						
EKA	Eskdalemuir Ar	68.09	322	P	P	16 49 49.5	-0.4
	comp=Z,0.3nm,0.4s,baz=72,slow=5.4,SNR=1.4						
	comp=Z,0.3nm,0.4s						
E22K	Anaktuvuk Pass	69.50	21	P	P	16 49 59.1	+0.6
E22K				IAmb	IAmb	16 49 59.4	
	comp=Z,9.8nm,1.4s						
ILAR	Eielson Array	73.11	23	P	P	16 50 20.3	-0.1
	comp=Z,0.5nm,0.8s,baz=296,slow=2.9,SNR=3.4						
	comp=Z,0.5nm,0.8s						
SCRK	Sand Creek	74.59	23	P	P	16 50 29.1	0.0
SCRK				IAmb	IAmb	16 50 31.1	
	comp=Z,6.0nm,1.4s						
CNPM	China Poot	74.76	29	P	P	16 50 30.3	+0.2
TORD	Torodi Ar. Bea	84.62	282	P	P	16 51 24.0	-0.3
	comp=Z,1.6nm,0.8s,baz=51,slow=5.2,SNR=8.2						
	comp=Z,1.6nm,0.8s						
TORD	Torodi Ar. Bea	84.62	282	IAmb	IAmb	16 52 00.0	
	comp=Z,4.2nm,0.6s						
DZM	Mont Dzumac	87.98	117	LR	LR	17 31 17.1	
	comp=Z,158nm,19.9s,baz=182,slow=36						
BOSA	Boshof	88.24	235	P	P	16 51 41.7	-0.2

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*UPP **01** 17:00:49.6±0.1, 67°.05N×20°.93E, h0^{km}, ML2.0, Suspected explosion*

*IDC **01** 17:00:51.3±1.8, 67°.17N×21°.23E, h0^{km}, mbtmp2.8/3, ML2.0/3, Error ellipse: s-maj=25.6km s-min=11.5km az=100.0*

ISC 01 17:00:49.4±0.9, **67°.05N**±0°.04×**20°.90E**±0°.03, **h0**^{km}**, n23,** σ**1^{s}.50**/27**, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MASU	Masugnsbyn	0.59	46	P	Pg	17 01 00.7	0.0
MASU				S	Sg	17 01 08.2	-0.1
ERTU	Ertsjaerv	0.71	134	P	Pg	17 01 02.9	-0.1
ERTU				S	Sg	17 01 12.5	+0.2
PAJU	Pajala	0.87	91	P	Pg	17 01 05.5	-0.5
PAJU				S	Sg	17 01 17.0	-0.2
RATU	Laukkuluspa	0.93	328	P	Pg	17 01 06.9	-0.2
KUA	Kurravaara	0.93	347	P	Pg	17 01 06.8	-0.4
SALU	Saltoluokta	0.99	291	P	Pg	17 01 08.4	+0.1
SALU	Saltoluokta	0.99	291	eP	Pb	17 01 09.2	-0.1
LANU	Lannavaara	1.08	22	P	Pg	17 01 09.3	-0.8
LANU	Lannavaara	1.08	22	eP	Pg	17 01 09.9	-0.3
NIKU	Nikkaluokta	1.09	320	P	Pg	17 01 10.1	-0.2
KALU	Kalix	1.55	139	P	Pb	17 01 18.0	-0.9
SJUU	Sjulsmark	1.58	169	P	Pb	17 01 18.6	-0.7
SJUU	Sjulsmark	1.58	169	eP	Pb	17 01 18.8	-0.5
HEF	Hetta	1.72	36	eP	Pg	17 01 21.9	-0.4
I37NO	I37NO	2.21	338	I	I	17 15 09.8	
	baz=152,slow=319,SNR=1.4						
ARCES	ARCESS Array B	3.02	32	Pn	Pn	17 01 38.7	+0.3
	0.3nm,0.3s,baz=216,slow=13,SNR=24						
ARCES				Lg	Lg	17 02 15.0	
	0.7nm,0.3s,baz=215,slow=20,SNR=7.3						
	0.8nm,0.2s						
ARCES				AML	AML		
VAF	Ylistaro	4.10	169	eP	Pn	17 01 55.0	+1.8
SUF	Sumiainen	4.89	150	eP	Pn	17 02 07.7	+3.6
KEF	Keuruu	5.19	159	eP	Pn	17 02 10.4	+2.2
JOF	Joensuu	6.05	128	eP	Pn	17 02 21.9	+1.9
FINES	FINESS Array B	6.06	156	Pn	Pn	17 02 22.1	+2.0
	0.1nm,0.3s,baz=349,slow=14,SNR=13						
FINES				Sn	Sn	17 03 29.7	-0.4
	0.3nm,0.3s,baz=340,slow=23,SNR=9.3						
FINES				Lg	Lg	17 03 58.9	
	0.3nm,0.3s,baz=345,slow=26,SNR=3.3						
	0.7nm,0.7s						
FINES				AML	AML		
RAF	Rauma	6.07	176	eP	Pn	17 02 21.6	+1.4
HFS	Hagfors	7.64	208	Pn	Pn	17 02 43.3	+1.5
	0.1nm,0.3s,baz=22,slow=16,SNR=1.5						
HFS				Sn	Sn	17 04 04.8	-4.3
	0.1nm,0.3s,baz=39,slow=31,SNR=5.3						
	1.0nm,0.7s						
HFS				AML	AML		

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*BEO **01** 17:12:31.6±0.7, 43°.65N×25°.64E, h1^{km}±9^{km}, ML3.4/8*

*SOF **01** 17:12:32.7, 43°.66N±0°.01×25°.76E, h13^{km}±1^{km}, MD3.5/12*

*CFUSG **01** 17:12:33.4, 43°.60N×25°.80E, h10^{km}, Mb2.2/1, MD2.7/1, MSH2.7/3*

ISC 01 17:12:32.7±1.0, **43°.67N**±0°.02×**25°.74E**±0°.02, **h15**^{km}±8^{km}, **n72,** σ**0^{s}.93**/97**, 20C-21D, Bulgaria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZIMR		0.27	268	⇓P	Pg	17 12 39.1	+0.5
ZIMR				⇑S	Sb	17 12 43.7	0.0
SZH	Strazhitsa	0.44	157	iP	Pb	17 12 41.8	-0.3
SZH				S	Sg	17 12 47.2	-0.2
RAZG	Razgrad	0.57	100	⇓P	Pb	17 12 44.0	-0.3
RAZG				⇑S	Sg	17 12 51.4	0.0
SGRR	Singureni	0.58	17	⇑P	Pb	17 12 44.8	+0.3
SGRR				⇑S	Sb	17 12 53.0	+0.5
PVL	Pavlikeni	0.69	217	iP	Pg	17 12 46.1	0.0
PVL				S	Sb	17 12 55.6	0.0
LOZB	Loznitsa	0.69	115	⇓P	Pb	17 12 46.1	-0.3
LOZB				⇑S	Sb	17 12 55.4	-0.2
BUC1	Bucharest	0.71	17	⇓P	Pb	17 12 47.4	+0.7
BUC1				⇓S	Sb	17 12 58.0	+1.7
PLVB	Pleven	0.86	251	⇑P	Pg	17 12 49.5	0.0
PLVB				⇑S	Sb	17 13 01.3	+0.6
HUMR	Humele	1.02	328	⇓P	Pb	17 12 52.9	+0.9
VLAD	Vladila	1.02	289	⇑P	Pb	17 12 52.8	+0.8
VLAD				⇑S	Sn	17 13 08.0	+1.5
CICN	Ciocanesti	1.07	60	⇑P	Pb	17 12 53.4	+0.6
CICN				⇑S	Sn	17 13 08.1	+0.5
SULR		1.07	20	⇑P	Pn	17 12 54.2	+1.0
LEHL	Lehliu	1.12	44	⇑P	Pn	17 12 54.8	+1.0
NEF	NEVSHA	1.19	109	eP	Pb	17 12 55.0	+0.1
PLAR	PLOIESTI	1.26	9	⇓P	Pg	17 12 57.1	+0.1
JMB	Yambol	1.31	154	eP	Pb	17 12 57.2	+0.2
JMB				S	Sg	17 13 14.7	-0.3
JMB	Yambol	1.31	154	ePg	Pn	17 12 56.5	+0.1
JMB				eSg	Sn	17 13 14.1	+0.5
PRD	Provadia	1.32	112	iP	Pb	17 12 57.2	+0.1
ROIA	ROIAK	1.32	115	iP	Pg	17 12 57.8	-0.4
AMRR	Amara	1.48	50	⇓P	Pg	17 13 01.0	-0.2
MPEP	Malo Peshtene	1.49	259	iP	Pb	17 13 01.0	+1.0
MPEP				S	Sg	17 13 20.7	0.0
AVR	AVREN	1.51	111	iP	Pb	17 13 00.5	+0.1
PGOR	Pogoanele	1.53	35	⇓P	Pg	17 13 01.8	-0.3
CRAR	CRAIOVA	1.55	296	⇓P	Pb	17 13 01.2	+0.2
ICOR	Ion Corvin	1.56	73	⇑P	Pb	17 13 01.5	+0.4
ISR	Istrita	1.56	21	⇓P	Pg	17 13 02.4	-0.2
DIM	Dimitrovgrad	1.63	184	iP	Pb	17 13 02.6	+0.2
PLD	Plovdiv	1.69	206	ePn	Pb	17 13 03.2	-0.2
PLD				eSn	Sn	17 13 23.8	+0.9
PSN	Preselentsi	1.74	90	eP	Pn	17 13 03.5	+1.2
PSN				S	Sg	17 13 27.6	-1.0
CVDA	Cernavoda	1.79	67	⇑P	Pb	17 13 04.6	-0.4
NEHR	Nehoiu	1.80	13	⇑P	Pb	17 13 05.5	+0.1
MLR	Muntele Rosu	1.83	4	ePn	Pn	17 13 04.9	+1.2
MLR	Muntele Rosu	1.83	4	⇓P	Pb	17 13 06.0	+0.1
VOIR		1.84	345	⇓P	Pb	17 13 06.8	+0.8
HARR	Harsova	1.88	56	⇓P	Pb	17 13 06.2	-0.5
HARR				⇓S	Sb	17 13 31.4	+1.5
TLBR	Topalu	1.88	61	⇓P	Pb	17 13 06.5	-0.2
MANR	Mangalia	2.07	85	⇑P	Pb	17 13 09.2	-0.7
PLNA	Plana	2.07	236	iP	Pb	17 13 10.9	+0.8
PLNA				S	Sg	17 13 38.3	-1.1
TIRR	Tirgusor	2.08	67	⇓P	Pb	17 13 09.4	-0.7
TIRR				⇓S	Sb	17 13 36.5	+0.7
RZN	Rozhen	2.11	201	iP	Pn	17 13 09.2	+1.6
VTS	Vitosha	2.11	241	iP	Pb	17 13 11.1	+0.3
VTS				S	Sb	17 13 38.7	+1.8
VTS	Vitosha	2.11	241	ePn	Pn	17 13 07.6	0.0
EFOR	EFORIE	2.13	78	⇓P	Pn	17 13 09.3	+1.7
SAHR	Sahastru	2.16	18	⇑P	Pb	17 13 10.8	-0.8
TPGR	Topolog	2.26	57	⇓P	Pb	17 13 12.2	-1.0
PLOR	Plostina	2.28	16	⇑P	Pb	17 13 12.4	-1.0
ZAPS	Zavoj	2.30	261	ePn	Pn	17 13 10.5	+0.5
ZAPS				eSn	Sn	17 13 38.4	+0.4
VRI	Vrincioaia	2.31	17	⇓P	Pb	17 13 13.2	-0.8
ZAGS	Zajecar	2.55	274	ePn	Pn	17 13 12.5	-0.9
MMB	Musomishta	2.58	215	iP	Pb	17 13 19.5	+0.8
KKB	Krupnik	2.65	227	iP	Pb	17 13 20.9	+1.0
KKB				S	Sg	17 13 55.7	-2.2
BOSS	Bosilegrad	2.66	245	ePn	Pn	17 13 15.4	+0.4
TLCR		2.67	54	⇑P	Pn	17 13 16.7	+1.6
BORS2	Bor- Borsko je	2.73	280	ePn	Pn	17 13 14.5	-1.4
GZR	Gura Zlata	2.73	310	ePn	Pn	17 13 15.6	-0.4
PEHC	Pehcevo	2.82	229	iPn	Pb	17 13 24.4	+1.6
PEHC				iSn	Sg	17 14 01.8	-1.5
BOVS	Bovan	2.93	271	ePn	Pn	17 13 17.7	-1.0
BARS	Barje	2.99	255	ePn	Pn	17 13 19.7	+0.1
SRS	Serrai	3.01	213	ePn	Pn	17 13 20.3	+0.6
MDVR	Moldovita	3.10	292	ePn	Pn	17 13 20.0	-1.1
VAY	Valandovo	3.32	226	iPn	Pb	17 13 33.7	+2.5
VAY				iSn	Sg	17 14 17.0	-2.2
SELS	Selova	3.40	264	ePn	Pn	17 13 25.8	+0.7
SELS				eSn	Sn	17 14 02.9	-2.2
VRSS	Vrsac	3.48	296	ePn	Pn	17 13 25.7	-0.6
BZS	Buzias	3.53	305	ePn	Pn	17 13 26.3	-0.6
GRUS	Gruza	3.65	275	ePn	Pn	17 13 27.8	-0.7
DRGR		3.79	327	ePn	Pn	17 13 30.9	+0.4
TRUS	Trudelj	3.89	280	ePn	Pn	17 13 30.6	-1.3
IVAS	Ivanjica	4.06	271	ePn	Pn	17 13 33.5	-0.8
IVAS				eSn	Sn	17 14 20.2	-1.3
DIVS	Divibare	4.18	278	ePn	Pn	17 13 34.9	-1.0
TARU	Tarkhankut	5.15	68	ex	x	17 14 48.2	
TARU				smax	smax	17 14 51.0	
	comp=N,17nm,0.9s						
TARU				smax	smax	17 14 51.0	
	comp=E,30nm,1.2s						
DNZ2	Donuzlav2	5.61	70	eS	Sn	17 14 59.4	-0.1
DNZ2				smax	smax	17 14 59.5	
	comp=N,5.0nm,0.3s						
DNZ2				smax	smax	17 14 59.5	
	comp=E,6.0nm,0.4s						
SEV	Sevastopol'	5.77	79	eP	Pn	17 13 58.1	+0.4
SEV				pmax	pmax	17 14 07.5	
	comp=Z,1.0nm,0.2s						
SEV				eS	Sn	17 15 02.9	-0.7
SEV				smax	smax	17 15 05.2	
	comp=N,2.0nm,0.3s						
SEV				smax	smax	17 15 05.2	
	comp=E,3.0nm,0.4s						

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*SJA **01** 17:13:17.9±0.7, 27°.81S×71°.76W, h14^{km}, ML5.2, MW5.0*

*IDC **01** 17:13:20.6±0.4, 27°.81S×71°.16W, h0^{km}, mb4.7/20, mbtmp4.6/26, ML4.2/6, MS4.2/39, Error ellipse: s-maj=14.2km s-min=9.1km az=67.0*

*BJI **01** 17:13:20.3, 28°.13S×71°.41W, h10^{km}, mB5.1/2, Ms5.2/1, Ms7 5.2/3*

*VAO **01** 17:13:21.9±0.3, 27°.80S×71°.27W, h10^{km}, mb5.0, Presumed earthquake*

*GFZ **01** 17:13:21.3±0.2, 28°S±2°×7°2W±°, h10^{km}, M5.0/25, mb5.2/25*

*NEIC **01** 17:13:21.4, 27°.88S×71°.51W, h12^{km}*

*GFZ **01** 17:13:22.2, 27°.83S×71°.41W, h35^{km}, Mw5.0/38, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}2.75; $M_{\theta\theta}$0.53; $M_{\phi\phi}$-3.27; $M_{r\theta}$1.05; $M_{\theta\phi}$-0.94; $M_{\phi r}$-2.33; Fault plane solution: $M_0$4.08572×10^{16} NP1: ϕ_s169.85869°, δ65.93401°, λ65.94939°. NP2: ϕ_s37.43966°, δ33.50803°, λ132.38132°. Principal axes: T 4.0303, Plg61.3950°, Azm42.8516°; N 0.1087, Plg21.8463°, Azm180.1731°; P -4.1390, Plg17.5322°, Azm277.4494°;*

*GUC **01** 17:13:22.2±0.8, 27°.96S×71°.34W, h31^{km}±3^{km}, ML4.8*

*NEIC **01** 17:13:22.2±1.8, 27°.878S±0°.005×71°.39W±0°.06, h16^{km}±2^{km}, mb5.2/270, Mwr4.8/42, Mww5.0/10, Mwr4.9(GUC), Error ellipse: s-maj=7.4km s-min=0.9km az=90.0, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}1.65; $M_{\theta\theta}$0.27; $M_{\phi\phi}$-1.92; $M_{r\theta}$0.69; $M_{\theta\phi}$-0.15; $M_{\phi r}$-1.14; Fault plane solution: $M_0$2.25000×10^{16} NP1: ϕ_s24.40000°, δ32.80000°, λ126.05000°. NP2: ϕ_s163.51000°, δ64.03000°, λ69.23000°. Principal axes: T 2.2369, Plg65.0000°, Azm38.0000°; N 0.0219, Plg19.0000°, Azm173.0000°; P -2.2588, Plg17.0000°, Azm269.0000°;*

*GCMT **01** 17:13:27.2±0.3, 27°.84S±0°.02×71°.61W±0°.02, h29^{km}±1^{km}, MW5.1/96, Moment Tensor Solution. s54,c64; s96,c129; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}4.08±.19; $M_{\theta\theta}$-0.02±.11; $M_{\phi\phi}$-4.05±.14; $M_{r\theta}$0.78±.17; $M_{\theta\phi}$0.02±.07; $M_{\phi r}$-3.96±.20; Best double couple: $M_0$5.72800×10^{16} NP1: ϕ_s7.00000°, δ23.00000°, λ104.00000°. NP2: ϕ_s172.00000°, δ67.00000°, λ84.00000°. Principal axes: T 5.7780, Plg67.0000°, Azm72.0000°; N -0.0950, Plg5.0000°, Azm174.0000°; P -5.6770, Plg22.0000°, Azm267.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 01 17:13:21.2±0.7, **27°.87S**±0°.02×**71°.41W**±0°.03, **h11**^{km}±3^{km}, **n505,** σ**1^{s}.60**/421, **mb5.2**/165, **MS4.4**/39, **13C-5D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.44	138	eP	Pb	17 13 31.3	+0.2
AC04	Llanos de Chal	0.44	138	⇓iP	Pb	17 13 31.2	+0.2
AC04				eS	Sg	17 13 36.7	+0.8
AC04				IAML		17 13 38.1	
	comp=E,114µm,0.5s						
AC04	Llanos de Chal	0.44	138		Pb	17 13 31.2	+0.2
AC04				Sg	Sg	17 13 35.9	0.0
AC04	Llanos de Chal	0.44	138	P	Pb	17 13 31.3	+0.2
AC06	Mina Casimiro	1.07	62	⇓iP	Pg	17 13 41.8	0.0
AC06				eS	Sn	17 13 57.3	+0.4
GO03	Copiapo	1.08	75	eP	Pn	17 13 42.2	0.0
GO03	Copiapo	1.08	75	⇓iP	Pn	17 13 42.1	-0.2
GO03				eS	Sn	17 13 57.0	-0.2
GO03	Copiapo	1.08	75		Pn	17 13 42.0	-0.2
GO03	Copiapo	1.08	75	P	Pn	17 13 42.2	0.0
LCO	Las Campanas	1.29	151	eP	Pn	17 13 45.5	+0.1
LCO				IAML		17 14 09.2	
	comp=Z,29µm,0.3s						
LCO	Las Campanas	1.29	151	⇓iP	Pn	17 13 45.0	-0.4
LCO				eS	Sb	17 14 01.7	-0.7
LCO	Las Campanas	1.29	151		Pn	17 13 45.2	-0.2
LCO				Sn	Sb	17 14 01.5	-0.9
AC05	El Transito	1.39	134	eP	Pn	17 13 41.5	-5.0
AC05				eP	Pb	17 13 47.1	-0.1
AC05	El Transito	1.39	134	⇓iP	Pn	17 13 46.8	+0.2
AC05				eS	Sn	17 14 04.1	-0.8
AC05				IAML		17 14 11.8	
	comp=N,25µm,0.6s						
AC05	El Transito	1.39	134	Pn	Pn	17 13 46.8	+0.2
AC05				Sn	Sn	17 14 04.2	-0.8
AC05	El Transito	1.39	134	P	Pn	17 13 47.0	+0.4
AC01	Pan de Azucar	1.86	23	eP	Pn	17 13 53.4	+0.3
AC01	Pan de Azucar	1.86	23	⇑iP	Pn	17 13 53.3	+0.3
AC01	Pan de Azucar	1.86	23		Pn	17 13 53.3	+0.3
AC01	Pan de Azucar	1.86	23	P	Pn	17 13 53.5	+0.3
AC02	Maricunga	2.28	64	eP	Pb	17 14 02.0	-0.5
AC02				eS	Sn	17 14 27.5	+0.1
AC02				IAML		17 14 43.1	
	comp=Z,6µm,1.0s						
AC02	Maricunga	2.28	64	⇑iP	Pb	17 14 01.9	-0.7
AC02				eS	Sb	17 14 32.3	+1.4
AC02				IAML		17 14 39.8	
	comp=E,9µm,0.4s						
AC02	Maricunga	2.28	64		Pb	17 14 01.9	-0.5
AC02	Maricunga	2.28	64	P	Pb	17 14 02.1	-0.5
GO04	Tololo Observa	2.35	167	eP	Pn	17 14 01.0	+1.1
GO04				eS	Sn	17 14 26.5	-2.4
GO04				IAML		17 14 45.4	
	comp=Z,23µm,0.8s						
GO04	Tololo Observa	2.35	167	eP	Pn	17 14 00.6	+0.7
GO04				eS	Sn	17 14 30.4	+1.4
GO04	Tololo Observa	2.35	167		Pn	17 14 00.7	+0.7
GO04	Tololo Observa	2.35	167	P	Pn	17 14 01.0	+1.1
CO01	Juntas del Tor	2.39	151	eP	Pn	17 14 02.5	+2.1
CO01				eS	Sn	17 14 26.5	-3.4
CO01				IAML		17 14 44.0	
	comp=Z,8µm,0.7s						
CO01	Juntas del Tor	2.39	151	⇑iP	Pn	17 14 02.0	+1.5
CO01				eS	Sn	17 14 31.9	+2.0
CO01				IAML		17 14 35.6	
	comp=N,11µm,0.8s						
CO01	Juntas del Tor	2.39	151		Pn	17 14 02.0	+1.5
CO01	Juntas del Tor	2.39	151	P	Pn	17 14 02.6	+2.1
CO06	Fray Jorge	2.80	184	eP	Pn	17 14 05.0	-0.8
CO06				IAML		17 14 56.6	
	comp=E,4µm,0.5s						
CO06	Fray Jorge	2.80	184		Pn	17 14 05.0	-0.8
AROD	Rodeo	2.85	144	eP	Pb	17 14 10.9	-1.2
AROD				eS	Sb	17 14 49.7	+2.6
VCA	Vinchina	2.95	108	eP	Pb	17 14 13.8	-0.1
VCA				eS	Sg	17 14 54.3	-1.8
VCA				IAML		17 15 06.2	
	comp=Z,5µm,1.4s						
VCA	Vinchina	2.95	108	⇑eP	Pb	17 14 13.2	-0.7
CO03	El Pedregal	3.02	168	eP	Pn	17 14 10.3	+1.4
CO03				eS	Sn	17 14 41.5	-3.7
CO03				IAML		17 14 57.1	
	comp=Z,7µm,0.8s						
CO03	El Pedregal	3.02	168	eP	Pn	17 14 09.9	+0.9
CO03				IAML		17 14 59.4	
	comp=E,7µm,0.5s						
CO03	El Pedregal	3.02	168		Pn	17 14 09.6	+0.6
CO03	El Pedregal	3.02	168	P	Pn	17 14 10.4	+1.4
ACDV	Cuesta del Vie	3.04	139	eP	Pn	17 13 55.1	-14
ACDV				eS	Sb	17 14 52.0	-0.7
ACDV				IAML		17 15 00.8	
	comp=Z,4µm,0.7s						
CO02	Combarbal	3.34	174	eP	Pn	17 14 14.0	+0.6
CO02				eS	Sn	17 14 55.0	+1.9
CO02				IAML		17 15 12.3	
	comp=Z,9µm,0.6s						
CO02	Combarbal	3.34	174	eP	Pn	17 14 13.7	+0.2
CO02	Combarbal	3.34	174		Pn	17 14 13.6	+0.2
CO02	Combarbal	3.34	174	P	Pn	17 14 14.9	+1.6
PB14	IPOC Station P	3.36	16	eP	Pn	17 14 13.8	-0.1
PB14				eS	Sg	17 15 08.5	-0.6
PB14	IPOC Station P	3.36	16	⇑eP	Pn	17 14 13.3	-0.5
PB14				IAML		17 15 15.6	
	comp=E,1µm,0.5s						
PB14	IPOC Station P	3.36	16		Pn	17 14 13.2	-0.7
PB14	IPOC Station P	3.36	16	P	Pn	17 14 13.4	-0.4
	comp=Z,2µm,0.9s						
ACCO	Cerro Coronel	3.39	143	eP	Pb	17 14 18.6	-3.0
ACCO				eS	Sb	17 15 06.0	+3.1
ACCO				IAML		17 15 17.9	
	comp=Z,4µm,1.2s						
TINO	Tinogasta	3.40	94	eP	Pn	17 14 17.8	+3.5
TINO				eS	Sg	17 15 08.5	-2.0
TINO				IAML		17 15 22.4	
	comp=Z,2µm,1.6s						
CO04	Los Peladeros	4.17	175	⇑eP	Pn	17 14 25.9	+0.9
CO04	Los Peladeros	4.17	175		Pn	17 14 25.3	+0.3
CO04	Los Peladeros	4.17	175	P	Pn	17 14 26.7	+1.7
ACLC	CERRO LA CRUZ	4.21	113	eP	Pn	17 14 29.3	+3.8
ACLC				eS	Sb	17 15 21.5	-4.8
ACLC				IAML		17 15 42.1	
	comp=Z,2µm,1.4s						
RTLL	Cerro Villicun	4.29	144	eP	Pn	17 14 30.4	+4.0
RTLL				eS	Sn	17 15 22.5	+6.1
RTLL				IAML		17 15 43.9	
	comp=Z,3µm,0.7s						
RTLS	Leoncito	4.32	155	eP	Pn	17 14 31.5	+4.4
RTLS				eS	Sb	17 15 27.0	-2.6
RTLS				IAML		17 15 38.6	
	comp=Z,10µm,0.9s						
ZON	Zonda	4.36	148	eP	Pn	17 14 31.7	+4.3
ZON				IAML		17 15 51.3	
	comp=Z,2µm,0.8s						
ZON	Zonda	4.36	148		Pn	17 14 30.3	+2.9
ZON	Zonda	4.36	148	P	Pn	17 14 31.2	+3.8
CFA	Coronel Fontan	4.63	144	Pn	Pn	17 14 33.5	+2.4
	comp=Z,25nm,0.3s,baz=325,slow=12,SNR=156						
CFA				Sn	Sn	17 15 26.6	+1.8
	comp=Z,25nm,0.3s,baz=295,slow=19,SNR=4.3						
CFA				Lg	Lg	17 15 39.9	
	comp=Z,62nm,0.3s,baz=248,slow=19,SNR=17						
	comp=Z,67nm,0.4s						
CFA				AML	AML		
CFA	Coronel Fontan	4.63	144	eP	Pn	17 14 34.6	+3.5
CFA				eS	Sb	17 15 35.0	-3.2
CFA				IAML		17 15 47.4	
	comp=Z,2µm,0.8s						
VA03	San Esteban	4.93	172	eP	Pn	17 14 37.3	+2.1
VA03				eS	Sb	17 15 46.0	-0.9
VA03				IAML		17 16 06.1	
	comp=Z,3µm,0.8s						
VA03	San Esteban	4.93	172	eP	Pn	17 14 36.4	+1.2
VA03	San Esteban	4.93	172		Pn	17 14 36.0	+0.8
VA03	San Esteban	4.93	172	P	Pn	17 14 37.8	+2.5
	comp=Z,756nm,0.7s						
CYA	Choya	4.98	98	eP	Pn	17 14 39.0	+3.1
CYA				eS	Sb	17 15 43.4	-5.0
CYA				IAML		17 15 50.4	
	comp=Z,632nm,1.6s						
PB05	IPOC Station P	5.12	13	eP	Pn	17 14 36.8	-1.0
PB05	IPOC Station P	5.12	13	⇑eP	Pn	17 14 36.4	-1.4
PB05	IPOC Station P	5.12	13		Pn	17 14 36.2	-1.7
PB05	IPOC Station P	5.12	13	P	Pn	17 14 36.6	-1.2
	comp=Z,610nm,0.7s						
VA01	Torpederas	5.14	182		Pn	17 14 37.0	-0.9
VA01	Torpederas	5.14	182	P	Pn	17 14 38.2	+0.3
	comp=Z,364nm,1.0s						
PEL	Peldehue	5.29	173		Pn	17 14 40.5	+0.4
PEL	Peldehue	5.29	173	P	Pn	17 14 43.2	+3.1
	comp=Z,622nm,1.0s						
MT02	Curacav	5.37	178		Pn	17 14 41.3	0.0
PB06	IPOC Station P	5.41	18		Pn	17 14 40.7	-1.2
PB06	IPOC Station P	5.41	18	P	Pn	17 14 41.2	-0.7
	comp=Z,573nm,0.9s						
MT05	Renca	5.53	174		Pn	17 14 43.4	-0.1
MT16	CCHEN	5.59	172		Pn	17 14 44.7	+0.5
MT03	Universidad Ad	5.66	172		Pn	17 14 45.0	-0.2
MT08	Bocatoma Ro	5.68	168		Pn	17 14 45.4	-0.3
AF01	San Pedro de A	5.70	32		Pn	17 14 45.8	-0.3
SALTA		5.83	53	P	Pn	17 14 51.3	+3.3

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      comp=Z,242nm,0.9s
MT09  Talagante          5.89 177          Pn     17 14 48.3 -0.2
MT13  San Alfonso        5.93 171          Pn     17 14 48.8 -0.3
MT01  Popeta             5.97 179          Pn     17 14 48.9 -0.6
PB03  IPOC Station P     5.99  15          Pn     17 14 48.1 -1.8
PB03  IPOC Station P     5.99  15  P       Pn     17 14 48.7 -1.2
      comp=Z,207nm,0.6s
PB07  IPOC Station P     6.27  13  P       Pn     17 14 52.6 -1.2
      comp=Z,251nm,0.6s
PB09  IPOC Station P     6.36  18  P       Pn     17 14 54.9 -0.2
      comp=Z,348nm,1.0s
BO01  Tunca              6.50 178  P       Pn     17 15 00.5 +3.7
      comp=Z,183nm,0.7s
BO03  Pichilemu          6.62 184  P       Pn     17 14 57.8 -0.5
      comp=Z,118nm,0.7s
PB02  IPOC Station P     6.67  12  P       Pn     17 14 57.3 -1.9
      comp=Z,350nm,0.7s
TCA   Tanti              6.86 122⇑eP       Pn     17 15 02.5 +0.7
BO02  Sierra Bellavi     6.92 176  P       Pn     17 15 05.5 +2.9
      comp=Z,158nm,0.8s
GO05  Hualane            7.13 183          Pn     17 15 03.0 -2.3
GO05  Hualane            7.13 183  P       Pn     17 15 04.7 -0.7
      comp=Z,167nm,0.9s
ML02  Panimavida         7.87 180          Pn     17 15 13.0 -2.5
ML02  Panimavida         7.87 180  P       Pn     17 15 18.3 +2.9
      comp=Z,253nm,0.9s
PB11  IPOC Station P     8.23  12          Pn     17 15 17.8 -2.9
PB11  IPOC Station P     8.23  12  P       Pn     17 15 18.4 -2.3
      comp=Z,160nm,0.9s
GO01  Chusmiza           8.41  14  P       Pn     17 15 27.2 +3.7
      comp=Z,85nm,0.8s
VA04  Juan Fernndez      8.59 226          Pn     17 15 21.9 -3.5
VA04  Juan Fernndez      8.59 226  P       Pn     17 15 22.7 -2.7
      comp=Z,366nm,0.7s
BI02  San Fabin de       8.77 179          Pn     17 15 26.1 -1.8
BI02  San Fabin de       8.77 179  P       Pn     17 15 27.6 -0.3
      comp=Z,138nm,0.8s
BI05  Punta Hualpn       8.98 189          Pn     17 15 28.4 -2.3
PB12  IPOC Station P     9.27   6  P       Pn     17 15 33.0 -1.9
      comp=Z,76nm,0.6s
PB16  IPOC Station P     9.65  11  P       Pn     17 15 38.9 -1.7
      comp=Z,36nm,0.7s
GO06  Curarrehue        11.68 180          Pn     17 16 06.6 -1.3
LPAZ  La Paz            11.92  15  Pn      Pn     17 16 10.8 -0.8
      comp=Z,0.9nm,0.3s,baz=196,slow=6.0,SNR=14
LPAZ                               LR      LR     17 21 16.6
      comp=Z,2µm,18.6s,baz=190,slow=40
      comp=Z,3.7nm,0.4s
LPAZ                               AML     AML
LPAZ  La Paz            11.92  15          Pn     17 16 09.8 -1.8
LPAZ  La Paz            11.92  15 eP       Pn     17 16 09.5 -2.2
LPAZ  La Paz            11.92  15  P       Pn     17 16 11.4 -0.3
      comp=Z,35nm,0.7s
PSAL  Palomas, Salto    12.44 108 eP       Pn     17 16 17.9 -0.3
PSAL                              eS       Sn     17 18 36.1 -0.7
CPUP  Villa Florida     12.64  86  Pn      Pn     17 16 19.5 -1.3
      comp=Z,0.2nm,0.3s,baz=280,slow=13,SNR=5.9
CPUP                               Lg      Lg     17 19 49.9
      comp=Z,0.3nm,0.3s,baz=354,slow=19,SNR=1.8
CPUP                               LR      LR     17 21 03.1
      comp=Z,1µm,18.2s,baz=267,slow=37
      comp=Z,4.9nm,1.0s
CPUP                               AML     AML
CPUP  Villa Florida     12.64  86  Pn      Pn     17 16 19.6 -1.3
CPUP  Villa Florida     12.64  86 eP       Pn     17 16 19.6 -1.3
CPUP  Villa Florida     12.64  86  P       Pn     17 16 20.3 -0.6
      comp=Z,27nm,0.7s
PLCA  Paso Flores       12.85 177  Pn      Pn     17 16 23.4 -0.3
      comp=Z,0.2nm,0.3s,baz=336,slow=8.0,SNR=5.1
PLCA                               Lg      Lg     17 20 02.0
      comp=Z,0.2nm,0.3s,baz=38,slow=20,SNR=2.8
PLCA                               LR      LR     17 21 47.3
      comp=Z,2µm,18.4s,baz=350,slow=39
      comp=Z,1.0nm,0.5s
PLCA                               AML     AML
PLCA  Paso Flores       12.85 177          Pn     17 16 22.9 -0.8
PLCA  Paso Flores       12.85 177 eP       Pn     17 16 25.5 +1.7
ANCO  Parque Anchore    13.17 122 eP       Pn     17 16 26.1 -1.9
ANCO                              eS       Sn     17 18 53.6 -0.9
MURT  Porto Murtinho    13.97  67 eP       Pn     17 16 38.3 -0.9
COIM  Forte Coimbra     14.76  60 eP       Pn     17 16 47.7 -2.2
LL07  Hotel Espejo d    15.02 186  Pn      Pn     17 16 52.7 -0.6
SIV   San Ignacio       15.21  41  Pn      Pn     17 16 50.8 -5.3
      comp=Z,0.1nm,0.3s,baz=240,slow=8.7,SNR=13
      comp=Z,3.9nm,0.5s
SIV                                AML     AML
BDQN  Bodoquena, MS     15.28  64 eP       Pn     17 16 55.2 -1.6
CPSB  Cacapava Do Su    15.90 103  Pn      Pn     17 17 06.0 +1.0
CPSB  Cacapava Do Su    15.90 103 eP       Pn     17 17 06.2 +1.3
CPSB  Cacapava Do Su    15.90 103  P       P      17 17 08.7 +0.1
      comp=Z,30nm,0.7s
AQDB  Aquidauana        16.11  66  Pn      Pn     17 17 07.8 +0.2
AQDB  Aquidauana        16.11  66 eP       Pn     17 17 07.5 -0.1
AQDB  Aquidauana        16.11  66  P       P      17 17 11.6 +0.6
      comp=Z,35nm,1.0s
NNA   Nana              16.60 341  Pn      Pn     17 17 14.3 +0.3
      comp=Z,1.3nm,0.3s,baz=204,slow=4.5,SNR=4.4
      comp=Z,4.9nm,0.3s
NNA                                AML     AML
NNA   Nana              16.60 341          Pn     17 17 13.0 -1.0
PTLB  Pontes e Lacer    16.80  45  Pn      Pn     17 17 14.8 -1.8
PTLB  Pontes e Lacer    16.80  45 eP       Pn     17 17 13.2 -3.3
PTGB  Pitanga           17.63  84 eP       Pn     17 17 25.6 -1.3
COYC  Coyhaique         17.67 182  Pn      Pn     17 17 26.4 -0.8
COYC  Coyhaique         17.67 182  P       P      17 17 29.4 +1.4
      comp=Z,42nm,1.1s
TRCB  Terra Rica        17.70  78  P       Pn     17 17 26.7 -1.1
TRCB  Terra Rica        17.70  78 eP       Pn     17 17 28.1 +0.3
TRCB  Terra Rica        17.70  78  P       Pn     17 17 28.0 +0.2
      comp=Z,99nm,0.9s
CNLB  Canela            18.11  99 eP       P      17 17 33.4 +0.3
CNLB  Canela            18.11  99  P       P      17 17 34.1 +0.9
      comp=Z,156nm,1.4s
VILB  Vilhena           18.17  37  Pn      Pn     17 17 31.6 -1.9
VILB  Vilhena           18.17  37 eP       Pn     17 17 32.2 -1.3
PP1B  Ponte de Pedra    18.34  60 eP       Pn     17 17 34.2 -1.4
SALV  Santo Antonio     18.81  54 eP       P      17 17 39.2 -1.6
LDASE Londrina, Braz    18.83  81 eP       P      17 17 40.6 -0.4
C2SB  Chapadao do Su    19.29  66 eP       Pn     17 17 47.4 +0.2
C2SB  Chapadao do Su    19.29  66  P       Pn     17 17 48.5 +1.4
      comp=Z,220nm,1.2s
CZSB  Cruzeiro do Su    20.07 356  P       P      17 17 53.8 -0.8
CZSB                               IAmb    IAmb   17 18 01.8
      comp=Z,128nm,0.9s
CZSB  Cruzeiro do Su    20.07 356 eP       P      17 17 55.1 +0.5
GO08  Villa O’Higgin    20.58 182  P       P      17 18 00.1 +0.2
GO08  Villa O’Higgin    20.58 182  P       Pn     17 18 01.9 -0.3
      comp=Z,31nm,1.7s
ATAH  Atahualpa         21.66 341  P       P      17 18 11.9 -0.4
      comp=Z,3.0nm,0.6s,baz=203,slow=18,SNR=3.6
ATAH                               LR      LR     17 25 02.9
      comp=Z,302nm,20.5s,baz=166,slow=32
      comp=Z,3.0nm,0.6s
ARAG  Araguaiana, MT    21.82  60 eP       P      17 18 12.7 -0.9
BB19B Bebedouro         21.88  77 eP       P      17 18 13.6 -0.6
PET01 Itanhaem-SP       21.96  86 eP       P      17 18 15.7 +0.7
SPB   Sao Paulo         22.01  84  P       P      17 18 14.9 -0.6
SPB                                IAmb    IAmb   17 18 27.8
      comp=Z,82nm,1.2s
SPB   Sao Paulo         22.01  84 eP       P      17 18 15.3 -0.2
CLDB  Colider           22.38  44 eP       P      17 18 18.6 -1.0
CLDB  Colider           22.38  44  P       P      17 18 18.7 -0.8
      comp=Z,39nm,1.3s
VAO   Valinhos          22.59  83  P       P      17 18 20.7 -1.1
VAO   Valinhos          22.59  83 eP       P      17 18 21.3 -0.5
IPMB  Ipameri, GO       23.49  70 eP       P      17 18 29.5 -1.6
CANS  Sao Roque de M    24.03  77 eP       P      17 18 36.0 -0.3
SNDB  Serra Nova Dou    24.59  54 eP       P      17 18 40.5 -1.0
PMNB  Patos De Minas    24.72  73 eP       P      17 18 41.8 -0.9
PMNB  Patos De Minas    24.72  73  P       P      17 18 42.1 -0.6
      comp=Z,64nm,1.0s
BDFB  Brasilia          24.85  66  P       P      17 18 42.3 -1.6
      comp=Z,31nm,0.8s,baz=232,slow=10.0,SNR=28
BDFB                               LR      LR     17 29 57.3
      comp=Z,3µm,18.0s,baz=243,slow=40
      comp=Z,31nm,0.8s
BDFB  Brasilia          24.85  66  P       P      17 18 42.5 -1.5
BDFB                               IAmb    IAmb   17 18 45.0
      comp=Z,34nm,0.8s
MG02  Cerro Sombrero    24.93 177  P       P      17 18 43.3 -0.9
MG02                               IAmb    IAmb   17 18 56.3
      comp=Z,90nm,0.9s
TEFE  Tefe              25.08  16 eP       P      17 18 46.8 +1.0
BSCB  Bom Sucesso       25.17  80 eP       P      17 18 46.5 -0.2
GO10  Punta Arenas      25.26 179  P       P      17 18 46.4 -0.7
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GO10  Punta Arenas      25.26 179  P       P      17 18 51.1 +3.9
      comp=Z,104nm,1.4s
NPGB  Novo Progresso    25.70  39 eP       P      17 18 51.2 -0.2
MACA  Manacapuru-AM     26.62  25  P       P      17 18 57.1 -2.7
MACA                               IAmb    IAmb   17 19 04.3
      comp=Z,65nm,0.8s
MACA  Manacapuru-AM     26.62  25 eP       P      17 18 59.6 -0.1
DIAM  Diamantina, MG    27.18  75 eP       P      17 19 04.7 -0.4
ITTB  Itaituba          27.74  35 eP       P      17 19 09.7 -0.1
SGC2  Sao Gabriel da    27.89  10 eP       P      17 19 11.1 -0.1
PTLC  Puerto Leguiza    28.07 353  P       P      17 19 11.9 -0.9
      comp=Z,809nmcomp=Z,38nm,1.2s
JANB  Januaria          28.18  69 eP       P      17 19 13.8 -0.1
OTAV  Otavalo           28.76 345  P       P      17 19 16.3 -3.1
OTAV  Otavalo           28.76 345 eP       P      17 19 19.1 -0.4
SJMB  Sao Joao De Ma    29.16  78 eP       P      17 19 20.5 -2.0
SDBA  SAO DESIDERIO     29.16  63 eP       P      17 19 22.7 +0.1
SMTB  Santa Maria do    29.37  54 eP       P      17 19 25.0 +0.6
RIB01 Linhares ES       29.61  80 eP       P      17 19 27.2 +0.7
BBAC  Balboa, Cauca     30.25 348  P       P      17 19 43.5  +11
      comp=Z,561nmcomp=Z,17nm,1.4s
URMC  La Uribe, Meta    31.07 354  P       P      17 19 42.3 +2.8
      comp=Z,1µmcomp=Z,102nm,1.0s
GUA01 Guaratinga, BA    31.25  76 eP       P      17 19 41.1 +0.1
PRAC  Prado             31.58 353  P       P      17 19 46.6 +2.7
      comp=Z,797nmcomp=Z,46nm,1.6s
ORTC  Ortega, Tolima    31.81 353  P       P      17 19 48.8 +2.8
      comp=Z,69nm,1.1s
BOAV  Boa Vista         31.87  21  P       P      17 19 45.2 -1.2
BOAV  Boa Vista         31.87  21 eP       P      17 19 47.0 +0.6
VILC  Villavicencio,    31.88 356  P       P      17 19 47.0 +0.4
CMC01 Camacan, BA       32.05  74 eP       P      17 19 48.2 +0.1
NBIT  Itapeh - BA       32.33  73 eP       P      17 19 51.2 +0.7
CHIC  Chingaza          32.39 356  P       P      17 19 53.3 +1.9
      comp=Z,25nm,0.8s
ROSC  El Rosal          32.64 355  P       P      17 19 54.8 +1.2
      comp=Z,8.3nm,0.4s,baz=178,slow=8.5,SNR=6.3
ROSC                               LR      LR     17 34 29.3
      comp=Z,282nm,18.6s,baz=222,slow=39
      comp=Z,8.3nm,0.4s
ROSC  El Rosal          32.64 355  P       P      17 19 51.9 -1.8
ROSC                               IAmb    IAmb   17 20 00.7
      comp=Z,23nm,1.0s
ROSC  El Rosal          32.64 355  P       P      17 19 55.1 +1.5
      comp=Z,24nm,1.0s
GUY2C Guyana, Caldas    33.12 353  P       P      17 20 00.0 +2.1
      comp=Z,20nm,0.9s
NORC  Norcasia          33.41 354  P       P      17 20 02.5 +2.5
      comp=Z,26nm,0.8s
RUSC  La Rusia          33.61 357  P       P      17 20 03.5 +1.3
      comp=Z,1µmcomp=Z,834nmcomp=Z,94nm,1.2s
NBPN  Ponto Novo - B    33.83  66 eP       P      17 20 03.7  0.0
CBOC  Ciudad Bolivar    33.83 352  P       P      17 20 05.9 +2.1
      comp=Z,19nm,0.9s
HELC  Santa Helena      34.10 353  P       P      17 20 08.6 +2.3
      comp=Z,24nm,0.8s
PTBC  PUERTO BERRIO,    34.34 355  P       P      17 20 07.8 -0.2
      comp=Z,350nmcomp=Z,32nm,0.8s
BRJC  Barrancabermej    34.72 356  P       P      17 20 11.9 +0.7
      comp=Z,700nmcomp=Z,82nm,0.8s
PAMC  Pamplona, Colo    35.03 358  P       P      17 20 16.6 +2.1
OCAC  Ocana             35.95 357  P       P      17 20 21.6 -0.4
NBTA  Tacaratu-PE       36.53  66 eP       P      17 20 27.1 +0.1
NBPS  Pedro II - PI     36.86  56 eP       P      17 20 29.5 -0.3
NBMA  Muriti-CE         37.01  63 eP       P      17 20 31.4 +0.4
PMSA  Palmer Station    37.21 175  LR      LR     17 35 55.0
      comp=Z,738nm,18.5s,baz=342,slow=36
PMSA  Palmer Station    37.21 175  P       P      17 20 32.0  0.0
PMSA  Palmer Station    37.21 175 eP       P      17 20 33.5 +1.5
MDP   Montagnes des     37.45  32  LR      LR     17 36 43.0
      comp=Z,580nm,18.7s,baz=194,slow=38
ORCD  Orcadas           37.47 159  P       P      17 20 33.7 -0.6
SJCC  San Jacinto, C    37.72 354  P       P      17 20 38.0 +1.0
MPOM  Morne Pois Mar    43.29  15  P       P      17 21 21.8 -1.2
MPOM                               IAmb    IAmb   17 21 24.1
      comp=Z,56nm,1.0s
BIM   Bigot             43.31  15  P       P      17 21 22.1 -1.1
BIM                                IAmb    IAmb   17 21 24.4
      comp=Z,61nm,0.8s
CXM   Morne La Croix    43.58  14  P       P      17 21 23.2 -2.2
CXM                                IAmb    IAmb   17 21 27.0
      comp=Z,32nm,0.7s
MTO3  Montecristo       45.48 335  P       P      17 21 38.5 -2.3
MLPR  Magueyes Islan    45.77   6  P       P      17 21 41.8 -1.0
CRPR  Cabo Rojo, PR     45.80   6  P       P      17 21 42.4 -0.6
CRPR                               IAmb    IAmb   17 21 50.0
      comp=Z,33nm,0.8s
OBIP  Obispado Ponce    45.88   6  P       P      17 21 42.6 -1.1
CELP  Cerrillos         45.91   6  P       P      17 21 43.6 -0.3
PDPR  Patillas Dam,     45.92   7  IAmb    IAmb   17 21 44.7
      comp=Z,39nm,0.8s
SJG   San Juan          46.00   7  LR      LR     17 43 00.5
      comp=Z,136nm,19.1s,baz=228,slow=39
SJG   San Juan          46.00   7  P       P      17 21 43.0 -1.6
SJG                                IAmb    IAmb   17 21 45.3
      comp=Z,32nm,0.8s
BANI  BANI              46.00   1  P       P      17 21 44.3 -0.4
PRSN  Puerto Rico Se    46.00   6  P       P      17 21 43.1 -1.5
CMIG  Matias Romero     50.15 330  LR      LR     17 38 27.9
      comp=Z,126nm,21.5s,baz=181,slow=30
TEIG  Tepich            50.52 339  P       P      17 22 20.3 +0.8
TEIG                               IAmb    IAmb   17 22 31.3
      comp=Z,35nm,0.8s
BELA  Belgrano 2        52.81 171          P      17 22 36.5 +0.5
VNA3  Neumayer Olymp    54.85 160 ⇑P       P      17 22 51.6 +0.5
      comp=Z,22nm,0.8s
VNA1  Neumayer--Stat    55.13 159 ⇑P       P      17 22 53.8 +0.8
      comp=Z,30nm,1.0s
VNA2  Neumayer--Watz    55.48 159 ⇑P       P      17 22 56.1 +0.6
      comp=Z,21nm,0.6s,baz=286,slow=7.9
SNAA  Sanae             57.08 159 ⇑P       P      17 23 07.3 +0.3
      comp=Z,782nm,0.9s
SNAA  Sanae             57.08 159  P       P      17 23 07.4 +0.3
      comp=Z,37nm,0.9s,baz=278,slow=6.4,SNR=84
SNAA                               LR      LR     17 48 13.9
      comp=Z,174nm,18.3s,baz=296,slow=37
      comp=Z,37nm,0.9s
SNAA  Sanae             57.08 159  P       P      17 23 07.2 +0.3
TROLL Troll, Antarti    58.79 160 ⇑P       P      17 23 19.7 +0.5
      comp=Z,1µm,0.8s
352A  Blakely           60.41 347  P       P      17 23 29.5 -1.0
250A  Grady             61.18 346  P       P      17 23 36.2 +0.5
250A                               IAmb    IAmb   17 23 37.5
      comp=Z,15nm,0.7s
152A  Waverly Hall      61.52 347  IAmb    IAmb   17 23 39.6
      comp=Z,14nm,0.9s
QSPA  South Pole Qui    62.34 180  P       P      17 23 44.4 +1.0
      comp=Z,25nm,0.9s,baz=154,slow=1.7,SNR=56
QSPA                               LR      LR     17 51 26.2
      comp=Z,102nm,18.8s,baz=166,slow=37
      comp=Z,25nm,0.9s
QSPA  South Pole Qui    62.34 180          P      17 23 44.1 +0.7
LRAL  Lakeview Retre    62.36 345  IAmb    IAmb   17 23 56.9
      comp=Z,29nm,1.6s
JSC   Jenkinsville      62.52 351  P       P      17 23 45.1 +0.4
JSC                                IAmb    IAmb   17 23 46.7
      comp=Z,12nm,0.9s
Y52A  Lilburn           62.56 348  IAmb    IAmb   17 23 58.7
      comp=Z,45nm,1.5s
KMSC  Kings Mountain    63.37 351  IAmb    IAmb   17 23 52.4
      comp=Z,13nm,0.9s
BG3   Lake Jocassee     63.47 349  IAmb    IAmb   17 24 05.2
      comp=Z,23nm,1.2s
FPAL  Fort Paine        63.51 347  IAmb    IAmb   17 25 53.8
      comp=Z,24nm,0.9s
X48A  Hartselle         63.73 346  P       P      17 23 52.8 +0.1
X48A                               IAmb    IAmb   17 23 54.7
      comp=Z,20nm,0.8s
V58A  Windy Hill, Pi    63.74 353  IAmb    IAmb   17 23 54.9
      comp=Z,12nm,0.9s
LPIG  La Paz            63.85 320  LR      LR     17 45 03.3
      comp=Z,98nm,21.4s,baz=176,slow=30
JCT   Junction City     64.05 333  IAmb    IAmb   17 24 10.7
      comp=Z,22nm,0.8s
V55A  Taylorsville      64.06 351  IAmb    IAmb   17 24 09.1
      comp=Z,22nm,1.1s
V53A  Saluda            64.11 350  IAmb    IAmb   17 24 08.7
      comp=Z,23nm,1.1s
CPCT  Cooper Cave       64.19 348  IAmb    IAmb   17 24 09.2
      comp=Z,22nm,1.0s
TKL   Tuckaleechee C    64.26 349  IAmb    IAmb   17 23 57.9
      comp=Z,19nm,0.9s
U56A  King              64.44 352  IAmb    IAmb   17 24 11.2
      comp=Z,29nm,1.2s
BRDY  Brady             64.44 334  IAmb    IAmb   17 24 11.9
      comp=Z,16nm,0.8s
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SAND  Sanderson         64.56 331  IAmb    IAmb   17 24 13.5
      comp=Z,15nm,0.8s
TXAR  Lajitas Array     64.72 329  P       P      17 24 01.9 +2.3
      comp=Z,2.1nm,0.7s,baz=150,slow=7.9,SNR=16
      comp=Z,2.1nm,0.7s
TXAR  Lajitas Array     64.72 329  P       P      17 24 01.2 +1.7
T59A  Double "B" Far    64.76 355  IAmb    IAmb   17 24 02.0
      comp=Z,13nm,0.8s
OZNA  Ozona             64.98 332  IAmb    IAmb   17 24 16.2
      comp=Z,20nm,0.8s
CLTN  Cedars of Leba    65.16 347  IAmb    IAmb   17 26 00.6
      comp=Z,21nm,0.8s
U49A  Red Boiling Sp    65.46 347  IAmb    IAmb   17 26 12.8
      comp=Z,14nm,0.9s
WVT   Waverly           65.52 345  P       P      17 24 04.3  0.0
WVT                                IAmb    IAmb   17 24 06.0
      comp=Z,18nm,0.8s
MIAR  Mount Ida         65.53 340  IAmb    IAmb   17 24 18.6
      comp=Z,18nm,1.0s
PLPT  Palo Pinto        65.55 335  IAmb    IAmb   17 24 07.6
      comp=Z,13nm,0.8s
S57A  Dark Hollow, R    65.67 353  IAmb    IAmb   17 24 19.4
      comp=Z,29nm,1.3s
R58B  Mineral           65.77 354  IAmb    IAmb   17 24 09.0
      comp=Z,26nm,0.9s
WHAR  Wooly Hollow      65.85 341  IAmb    IAmb   17 24 09.1
      comp=Z,13nm,0.9s
ABTX  Abilene, Hawle    65.88 334  IAmb    IAmb   17 24 21.4
      comp=Z,23nm,0.9s
MNHN  Monahans          66.03 331  IAmb    IAmb   17 24 22.7
      comp=Z,14nm,0.7s
S51A  Beattyville       66.16 349  IAmb    IAmb   17 25 38.1
      comp=Z,24nm,0.9s
LCAR  Lake Charles      66.27 343  IAmb    IAmb   17 24 11.4
      comp=Z,28nm,0.9s
FCAR  Ozark Folk Cen    66.36 342  IAmb    IAmb   17 24 23.5
      comp=Z,16nm,1.1s
T45A  Paducah           66.55 345  P       P      17 24 11.3 +0.3
APMT  Aspermont         66.69 334  IAmb    IAmb   17 24 26.6
      comp=Z,19nm,0.7s
SN07  Snyder 07         66.78 333  IAmb    IAmb   17 24 26.8
      comp=Z,15nm,0.7s
POST  Post              67.00 333  IAmb    IAmb   17 24 28.2
      comp=Z,10nm,0.7s
128A  Castleberry Fa    67.02 332  IAmb    IAmb   17 24 29.2
      comp=Z,11nm,0.8s
R49A  Shelbyville       67.07 348  IAmb    IAmb   17 24 27.2
      comp=Z,16nm,1.1s
WCI   Wyandotte Cave    67.22 347  P       P      17 24 15.4 +0.2
WCI                                IAmb    IAmb   17 24 16.7
      comp=Z,19nm,0.8s
HHAR  Hobbs             67.25 340  IAmb    IAmb   17 24 29.5
      comp=Z,20nm,0.9s
P57A  Homestead Farm    67.29 354  IAmb    IAmb   17 24 18.9
      comp=Z,18nm,0.9s
DKNS  Dickens           67.30 334  IAmb    IAmb   17 24 30.4
      comp=Z,12nm,0.7s
RLO   Rose Lookout      67.47 339  IAmb    IAmb   17 24 30.9
      comp=Z,21nm,0.9s
Q51A  Peebles           67.48 350  IAmb    IAmb   17 24 18.7
      comp=Z,16nm,0.9s
U38A  Gravette          67.53 340  IAmb    IAmb   17 24 31.1
      comp=Z,12nm,0.8s
P53A  Whipple           67.66 352  IAmb    IAmb   17 24 31.4
      comp=Z,22nm,1.2s
CCM   Cathedral Cave    68.17 343  P       P      17 24 21.8 +0.5
SMWD  Samnorwood        68.31 335  IAmb    IAmb   17 24 36.5
      comp=Z,20nm,0.8s
Q44A  Meyer Farm, Va    68.44 345  IAmb    IAmb   17 24 36.0
      comp=Z,28nm,1.0s
ACSO  Alum Creek Sta    68.61 351          P      17 24 24.4 +0.4
T35A  Sooner Cattle     68.63 339  IAmb    IAmb   17 24 38.4
      comp=Z,19nm,1.0s
BLOK  Blackwell         68.72 338  IAmb    IAmb   17 24 38.9
      comp=Z,20nm,0.8s
O49A  Covington         68.77 349  IAmb    IAmb   17 24 38.6
      comp=Z,18nm,0.8s
M57A  Sunshine Farm,    69.06 355  IAmb    IAmb   17 24 41.3
      comp=Z,38nm,1.6s
121A  Cookes Peak, D    69.32 328          P      17 24 29.8 +1.0
NPNY  Mohonk Preserv    69.32 358  IAmb    IAmb   17 24 31.6
      comp=Z,17nm,0.8s
L56A  Greenwood         69.89 355  IAmb    IAmb   17 24 34.6
      comp=Z,28nm,1.0s
HRV   Adam Dziewonsk    70.03 360  P       P      17 24 34.0 +1.3
HRV                                IAmb    IAmb   17 24 36.0
      comp=Z,30nm,0.9s
K62A  Royalston         70.19 359  IAmb    IAmb   17 24 37.4
      comp=Z,44nm,1.5s
P38A  Dawn              70.25 342  IAmb    IAmb   17 24 47.9
      comp=Z,21nm,1.1s
RTBA  Rita Blanca       70.44 334  IAmb    IAmb   17 24 48.0
      comp=Z,31nm,1.7s
TUC   Tucson            70.60 325          P      17 24 37.4 +0.8
ALQ   Albuquerque       70.72 330  IAmb    IAmb   17 24 52.6
      comp=Z,6.5nm,0.9s
ANMO  Albuquerque       70.72 330  P       P      17 24 39.5 +2.1
      comp=Z,2.1nm,0.7s,baz=136,slow=9.0,SNR=5.3
ANMO                               LR      LR     17 52 25.1
      comp=Z,196nm,18.1s,baz=155,slow=33
      comp=Z,2.1nm,0.7s
ANMO  Albuquerque       70.72 330  P       P      17 24 39.0 +1.6
J61A  Chester           70.88 359  IAmb    IAmb   17 24 41.4
      comp=Z,24nm,0.9s
J59A  Piesco            71.04 358  IAmb    IAmb   17 24 53.8
      comp=Z,25nm,1.2s
HNH   Hanover           71.23 359  IAmb    IAmb   17 24 43.6
      comp=Z,25nm,0.9s
CBKS  Cedar Bluff       71.43 337  IAmb    IAmb   17 24 44.0
      comp=Z,15nm,0.8s
LBNH  Lisbon            71.76 360  IAmb    IAmb   17 24 46.5
      comp=Z,16nm,0.8s
CFNY  Clifton-Fine,     71.77 357  IAmb    IAmb   17 24 45.7
      comp=Z,18nm,0.9s
PPT   Papeete           71.78 259  LR      LR     17 48 10.0
      comp=Z,272nm,18.2s,baz=124,slow=29
FLET  Fletcher          72.26 359  IAmb    IAmb   17 25 01.2
      comp=Z,23nm,1.2s
EMMW  East Machias      72.32   3  P       P      17 24 48.3 +1.8
EMMW                               IAmb    IAmb   17 24 49.6
      comp=Z,20nm,0.9s
HAL   Halifax           72.51   6  IAmb    IAmb   17 24 50.8
      comp=Z,28nm,0.9s
JFWS  Jewell Farm       72.54 346  IAmb    IAmb   17 25 01.7
      comp=Z,18nm,0.8s
WBO   Williamsburg      72.61 357  IAmb    IAmb   17 24 50.8
      comp=Z,22nm,0.8s
SADO  Sadowa            72.64 354  LR      LR     18 00 10.6
      comp=Z,65nm,19.2s,baz=174,slow=39
SADO  Sadowa            72.64 354  IAmb    IAmb   17 24 50.6
      comp=Z,23nm,0.9s
G62A  West of Eustis    72.75   1          P      17 24 50.9 +1.8
G62A                               IAmb    IAmb   17 24 52.4
      comp=Z,24nm,0.8s
GGN   Saint George      72.76   3  IAmb    IAmb   17 24 52.3
      comp=Z,24nm,1.0s
DBIC  Dimbokro          72.77  73  P       P      17 24 50.5 +0.6
      comp=Z,49nm,0.8s,baz=235,slow=6.7,SNR=35
DBIC                               LR      LR     17 55 44.8
      comp=Z,153nm,20.3s,baz=231,slow=35
      comp=Z,49nm,0.8s
DBIC  Dimbokro          72.77  73          P      17 24 49.8 -0.1
G65A  Princeton         72.81   3  IAmb    IAmb   17 24 52.6
      comp=Z,14nm,0.9s
PKME  Peaks-Kenny Pk    72.81   2  P       P      17 24 50.9 +1.5
PKME                               IAmb    IAmb   17 24 52.5
      comp=Z,19nm,0.9s
I42A  Draeger Farm,     73.19 347  IAmb    IAmb   17 25 54.9
      comp=Z,30nm,0.8s
F64A  Sherman           73.44   2  IAmb    IAmb   17 25 07.6
      comp=Z,17nm,0.8s
MVCO  Mesa Verde        73.52 330          P      17 24 54.9 +0.7
H43A  Windswept, Lux    73.53 348  IAmb    IAmb   17 25 54.4
      comp=Z,23nm,0.8s
LMN   Caledonia Moun    73.62   5  IAmb    IAmb   17 24 57.0
      comp=Z,22nm,0.9s
TRQ   Mont Tremblant    73.80 358  IAmb    IAmb   17 24 57.7
      comp=Z,18nm,0.9s
BC3   Big Chuckawall    74.08 323          P      17 24 58.4 +1.0
I37A  Lemond, Waseca    74.32 344  IAmb    IAmb   17 25 12.2
      comp=Z,19nm,0.8s
ISCO  Idaho Springs     74.48 333  P       P      17 25 00.5 +0.7
PV18  Skein Mesa, Pa    74.56 330  IAmb    IAmb   17 25 12.8
      comp=Z,17nm,1.0s
PFO   Pinyon Flats O    74.59 322  LR      LR     17 51 15.1
      comp=Z,77nm,18.6s,baz=190,slow=30
PV16  Nyswonger Mesa    74.61 330  IAmb    IAmb   17 25 15.7
      comp=Z,34nm,1.9s
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D62A	Allapoint, All	74.64	2		P	17 25 02.3	+2.2
D62A				IAmb	IAmb	17 25 03.1	
	comp=Z,20nm,0.8s						
E46A	Sault Ste Mari	74.81	351	IAmb	IAmb	17 25 03.0	
	comp=Z,25nm,0.9s						
ECSD	EROS Data Cent	74.92	341	IAmb	IAmb	17 25 15.9	
	comp=Z,21nm,0.8s						
SPMN	Marine on St.	75.32	345	IAmb	IAmb	17 25 17.6	
	comp=Z,22nm,1.0s						
VLDQ	Val d'Or	75.83	356	IAmb	IAmb	17 25 20.8	
	comp=Z,18nm,1.0s						
PRN	Pahroc Range	76.77	326		P	17 25 13.9	+1.1
ICQ	Pointe Anglais	77.13	3	IAmb	IAmb	17 25 17.1	
	comp=Z,26nm,1.0s						
SUR	Sutherland	77.36	120	LR	LR	17 56 07.3	
	comp=Z,253nm,18.8s,baz=267,slow=33						
RSSD	Black Hills	77.62	337		P	17 25 18.6	+1.0
TBO	Thunder Bay	77.86	348	IAmb	IAmb	17 25 20.7	
	comp=Z,18nm,1.0s						
HWUT	Hardware Ranch	78.48	330	IAmb	IAmb	17 25 37.0	
	comp=Z,16nm,0.8s						
PDAR	Pinedale Array	78.58	332	P	P	17 25 24.7	+1.8
	comp=Z,1.7nm,0.7s,baz=127,slow=5.8,SNR=15						
PDAR				LR	LR	17 56 51.5	
	comp=Z,49nm,20.2s,baz=152,slow=33						
	comp=Z,1.7nm,0.7s						
PDAR	Pinedale Array	78.58	332		P	17 25 23.3	+0.5
MAW	Mawson	78.89	164	P	P	17 25 25.5	+1.5
	comp=Z,3.2nm,1.4s						
MAW	Mawson	78.89	164	P	P	17 25 25.3	+1.3
	comp=Z,10nm,0.9s,baz=219,slow=6.2,SNR=15						
MAW				LR	LR	18 02 12.7	
	comp=Z,188nm,18.8s,baz=233,slow=37						
	comp=Z,10nm,0.9s						
MAW	Mawson	78.89	164		P	17 25 24.2	+0.2
RAR	Rarotonga	79.00	252	LR	LR	17 52 01.2	
	comp=Z,361nm,18.2s,baz=108,slow=29						
NVAR	Mina Array Bea	79.21	324	P	P	17 25 29.2	+2.8
	comp=Z,2.0nm,0.8s,baz=153,slow=6.6,SNR=9.9						
NVAR				LR	LR	17 56 40.3	
	comp=Z,75nm,18.9s,baz=94,slow=33						
	comp=Z,2.0nm,0.8s						
NVAR	Mina Array Bea	79.21	324	P	P	17 25 27.2	+0.8
AHID	Auburn Hatcher	79.22	331	IAmb	IAmb	17 25 38.8	
	comp=Z,15nm,0.8s						
PMOZ	Porto Moniz, M	79.34	44	eLR	LR	17 55 07.7	
PMOZ				i IAMs_20	IAMs_20	18 00 35.5	
	comp=Z,109nm,18.0s						
ELK	Elko	79.46	328	P	P	17 25 30.5	+2.7
	comp=Z,6.1nm,0.8s,baz=152,slow=3.4,SNR=29						
ELK				LR	LR	17 57 31.7	
	comp=Z,167nm,18.3s,baz=147,slow=33						
	comp=Z,6.1nm,0.8s						
TSUM	Tsumeb	80.40	107	LR	LR	17 56 23.4	
	comp=Z,328nm,21.2s,baz=230,slow=32						
TSUM	Tsumeb	80.40	107	P	P	17 25 34.0	+0.6
ULM	Lac du Bonnet	80.75	344	P	P	17 25 35.3	+1.2
	comp=Z,12nm,0.9s,baz=132,slow=3.5,SNR=9.8						
	comp=Z,12nm,0.9s						
ULM	Lac du Bonnet	80.75	344	IAmb	IAmb	17 25 47.8	
	comp=Z,26nm,1.0s						
TORD	Torodi Ar. Bea	81.63	70	P	P	17 25 40.1	+0.4
	comp=Z,26nm,1.0s,baz=252,slow=4.7,SNR=71						
	comp=Z,26nm,1.0s						
TORD	Torodi Ar. Bea	81.63	70	P	P	17 25 39.4	-0.3
TORD				IAmb	IAmb	17 25 41.3	
	comp=Z,31nm,1.1s						
O03E	Paynes Creek	82.41	324	IAmb	IAmb	17 25 56.5	
	comp=Z,12nm,0.8s						
SCHQ	Schefferville	82.46	3	P	P	17 25 44.1	+1.0
	comp=Z,4.0nm,0.7s,baz=188,slow=1.6,SNR=4.1						
SCHQ				LR	LR	18 04 56.2	
	comp=Z,33nm,18.5s,baz=174,slow=38						
	comp=Z,4.0nm,0.7s						
BOSA	Boshof	82.46	118	P	P	17 25 44.5	+0.4
	comp=Z,20nm,0.9s,baz=259,slow=3.6,SNR=18						
BOSA				LR	LR	17 58 11.4	
	comp=Z,267nm,19.7s,baz=212,slow=33						
	comp=Z,20nm,0.9s						
BOSA	Boshof	82.46	118		P	17 25 44.1	0.0
BOSA				IAmb	IAmb	17 25 45.2	
	comp=Z,25nm,0.9s						
GRTLG	Ghanzi	82.50	110	P	P	17 25 44.2	-0.2
MOD	Modoc Plateau	82.82	325	IAmb	IAmb	17 25 58.1	
	comp=Z,13nm,1.0s						
J08A	Circle Bar Ran	83.01	327	IAmb	IAmb	17 25 59.7	
	comp=Z,26nm,1.1s						
PLID	Pearl Lake	83.20	330	IAmb	IAmb	17 26 02.1	
	comp=Z,12nm,0.8s						
MAKGR	Makgori	83.39	116	IAmb	IAmb	17 25 50.7	
	comp=Z,15nm,0.9s						
YBH	Yreka Blue Hor	83.92	324	P	P	17 25 52.0	+0.9
	comp=Z,3.1nm,0.7s,baz=90,slow=7.8,SNR=6.9						
YBH				LR	LR	17 59 56.9	
	comp=Z,75nm,19.0s,baz=156,slow=33						
	comp=Z,3.1nm,0.7s						
YBH	Yreka Blue Hor	83.92	324	IAmb	IAmb	17 28 16.9	
	comp=Z,30nm,1.9s						
LBTB	Lobatse	84.40	115	LR	LR	18 02 08.0	
	comp=Z,238nm,18.1s,baz=217,slow=35						
LBTB	Lobatse	84.40	115		P	17 25 53.5	-0.6
LBTB				IAmb	IAmb	17 25 55.2	
	comp=Z,20nm,0.9s						
PINE	Pine Mountain	84.53	326	IAmb	IAmb	17 26 07.1	
	comp=Z,25nm,1.1s						
WIFE	Three Sisters-	85.15	326	IAmb	IAmb	17 26 10.0	
	comp=Z,15nm,1.1s						
LDM	Libby Dam	85.55	332	IAmb	IAmb	17 26 11.1	
	comp=Z,18nm,1.1s						
HAWA	Hanford	85.79	329	IAmb	IAmb	17 26 12.7	
	comp=Z,17nm,1.1s						
CASY	Casey	86.14	181		P	17 26 02.9	+1.0
CASY				IAmb	IAmb	17 26 04.5	
	comp=Z,24nm,1.0s						
NEW	Newport	86.16	331	P	P	17 26 02.9	+0.8
	comp=Z,1.5nm,0.4s,baz=124,slow=7.3,SNR=4.1						
NEW				LR	LR	18 02 09.9	
	comp=Z,108nm,18.2s,baz=166,slow=34						
	comp=Z,1.5nm,0.4s						
C09A	Chrisman Ranch	86.30	330	IAmb	IAmb	17 26 14.1	
	comp=Z,9.4nm,0.8s						
STD	Studebaker Rid	86.94	327	IAmb	IAmb	17 26 20.5	
	comp=Z,17nm,1.0s						
PFVI	Vila Bisbo	87.35	45	eP	P	17 26 09.4	+1.3
PFVI				i IAmb	IAmb	17 26 16.4	
	comp=Z,98nm,1.7s						
MD01	Midelt array s	87.47	51		P	17 26 08.3	-0.8
MD31	MD31	87.47	51	P	P	17 26 08.5	-0.5
MD31				IAmb	IAmb	17 26 12.2	
	comp=Z,10nm,1.1s						
MDT	Midelt	87.55	51	LR	LR	18 05 54.1	
	comp=Z,179nm,18.8s,baz=227,slow=36						
MORF	Marmelete	87.56	45	eP	P	17 26 11.2	+1.9
PTEO	Sao Teotonio	87.67	45	eP	P	17 26 11.8	+2.1
PTEO				i IAmb	IAmb	17 26 41.3	
	comp=Z,77nm,1.6s						
PBDV	Barranco-do-Ve	87.98	46	eP	P	17 26 13.3	+2.1
PLOUS	Minas do Lousa	88.16	45	eP	P	17 26 14.1	+2.1
PLOUS				i IAmb	IAmb	17 26 35.3	
	comp=Z,33nm,2.1s						
MESJ	Messejana	88.17	45	eP	P	17 26 12.8	+0.7
MESJ				i IAmb	IAmb	17 26 27.6	
	comp=Z,34nm,1.8s						
URZ	Urewera	88.19	227	LR	LR	17 57 02.1	
	comp=Z,243nm,19.5s,baz=154,slow=30						
PVAQ	Vaqueiros	88.22	46	eLR	LR	17 58 07.0	
PVAQ				i IAMs_20	IAMs_20	18 04 37.1	
	comp=Z,203nm,20.0s						
PBEJ	Beja	88.50	45	eP	P	17 26 15.2	+1.6
PBEJ				i IAmb	IAmb	17 26 26.3	
	comp=Z,21nm,1.6s						
MOE	Montemor	88.50	44	eP	P	17 26 15.6	+2.0
MOE				i IAmb	IAmb	17 26 18.1	
	comp=Z,30nm,1.8s						
RPZ	Rata Peaks	88.65	220	LR	LR	17 59 15.9	
	comp=Z,31nm,18.1s,baz=242,slow=31						
PARRA	Arraiolos	88.87	44	eP	P	17 26 17.3	+1.9
PMTG	Montargil	88.91	44	eP	P	17 26 17.6	+2.1
PMTG				i IAmb	IAmb	17 26 50.0	
	comp=Z,21nm,1.8s						
MATP	Matopo	88.94	112	LR	LR	18 02 20.9	
	comp=Z,329nm,20.6s,baz=236,slow=33						
PBAR	Barrancos	89.11	45	eP	P	17 26 17.4	+1.0
PBAR				i IAmb	IAmb	17 26 38.6	
	comp=Z,23nm,1.9s						
PCAS	Casmilo, Conde	89.35	43	eP	P	17 26 19.9	+2.3
PCAS				i IAmb	IAmb	17 26 28.2	
	comp=Z,26nm,1.6s						
PMRV	Marv??o	89.64	44	eLR	LR	17 58 52.6	
PMRV				i IAMs_20	IAMs_20	18 10 52.0	
	comp=Z,111nm,16.0s						
PCBR	Castelo Branco	89.84	44	eP	P	17 26 21.6	+1.8
PCBR				i IAmb	IAmb	17 26 25.3	
	comp=Z,16nm,1.7s						
MTE	Manteigas	90.14	43	eP	P	17 26 23.8	+2.4
MTE				i IAmb	IAmb	17 26 52.5	
	comp=Z,22nm,1.6s						
MTE				eLR	LR	17 59 31.7	
MTE				i IAMs_20	IAMs_20	18 06 34.2	
	comp=Z,212nm,18.0s						
PGAV	Gavieira, Arco	90.66	42	eLR	LR	18 01 04.0	
PGAV				i IAMs_20	IAMs_20	18 03 33.0	
	comp=Z,154nm,22.0s						
LSZ	Lusaka	91.19	108	LR	LR	18 04 18.3	
	comp=Z,292nm,18.7s,baz=256,slow=34						
FRB	Frobisher Bay	91.34	1	LR	LR	18 09 26.5	
	comp=Z,50nm,19.2s,baz=149,slow=37						
ESDC	Sonseca Array	91.93	45	P	P	17 26 30.3	+0.6
	comp=Z,1.8nm,1.0s,baz=261,slow=4.4,SNR=8.7						
ESDC				LR	LR	18 07 13.3	
	comp=Z,145nm,18.8s,baz=224,slow=35						
	comp=Z,1.8nm,1.0s						
ESDC	Sonseca Array	91.93	45		P	17 26 27.3	-2.4
ESDC				IAmb	IAmb	17 26 31.4	
	comp=Z,26nm,1.4s						
YKA	Yellowknife Ar	96.44	341	P	P	17 26 50.7	+1.0
	comp=Z,2.2nm,0.8s,baz=138,slow=5.2,SNR=5.2						
	comp=Z,2.2nm,0.8s						
YKA	Yellowknife Ar	96.44	341	P	P	17 26 50.0	+0.3
KEST	Kesra	98.90	54	LR	LR	18 12 41.2	
	comp=Z,442nm,21.6s,baz=265,slow=36						
MSVF	Nonsavu	98.93	245	LR	LR	18 01 12.1	
	comp=Z,88nm,19.7s,baz=105,slow=29						
CLL	Collm	107.94	41	eSKSac	SKSac	17 38 36.0	+15
CLL				ePS	PS	17 41 37.0	+3.3
CLL				L	L	18 03 00.0	
CLL				AMS	AMS	18 11 00.0	
	comp=E,100nm,23.0s						
CLL				AMS	AMS	18 11 00.0	
	comp=Z,100nm,26.1s						
NACGM	Naroch	116.91	40	ePKiKP	PKiKP	17 32 06.7	+1.4
	comp=Z,8.0nm,0.8s,baz=259						
AKASG	Malin Array Be	117.57	45	PKP	PKiKP	17 32 06.8	0.0
	comp=Z,0.5nm,0.5s,baz=265,slow=2.6,SNR=6.5						
BRTR	Keskin Array B	118.25	58	PKP	PKiKP	17 32 09.2	+0.5
	comp=Z,1.2nm,0.9s,baz=235,slow=1.0,SNR=6.4						
AS09	Alice Springs	123.19	208	P	PKiKP	17 32 19.4	+0.5
ASAR	Alice Springs	123.24	208	PKP	PKiKP	17 32 19.2	+0.2
	comp=Z,4.4nm,0.8s,baz=128,slow=1.6,SNR=46						
ASAR	Alice Springs	123.24	208		PKPpre	17 32 13.3	
AS31	Alice Springs	123.24	208	P	PKiKP	17 32 18.9	0.0
AS15	Alice Springs	123.26	208	P	PKiKP	17 32 19.1	+0.1
KBZ	Khabaz	125.77	55	PKP	PKiKP	17 32 23.8	+0.7
	comp=Z,3.8nm,1.0s,baz=294,slow=1.7,SNR=5.6						
H11S2	WAKE ISLAND Hy	126.18	273	T	T	19 51 32.5	
	baz=112,slow=75						
H11S1	WAKE ISLAND Hy	126.19	273	T	T	19 51 36.1	
	baz=112,slow=75						
H11S3	WAKE ISLAND Hy	126.20	273	T	T	19 51 34.0	
	baz=112,slow=75						
WRA	Warramunga Arr	126.33	210	PKP	PKiKP	17 32 25.5	+0.4
	comp=Z,8.6nm,0.8s,baz=157,slow=1.8,SNR=77						
WRA	Warramunga Arr	126.33	210		PKPdf	17 32 23.7	-1.0
H11N3	WAKE ISLAND Hy	126.44	275	T	T	19 51 57.1	
	baz=113						
H11N1	WAKE ISLAND Hy	126.45	275	T	T	19 51 54.7	
	baz=113						
H11N2	WAKE ISLAND Hy	126.46	275	T	T	19 51 55.7	
	baz=113						
FITZ	Fitzroy Crossi	131.41	202	P	PKPdf	17 32 32.1	-2.3
PETK	Petropavlovsk-	136.09	319	PKP	PKiKP	17 32 43.8	+0.1
	comp=Z,2.9nm,0.8s,baz=79,slow=7.7,SNR=5.5						
MA2	Magadan	137.24	330	PKP	PKPdf	17 32 43.0	-0.9
ABKAR	Akbulak array	137.27	46		PKPdf	17 32 42.1	-2.2
BVAR	Borovoye Array	142.27	38	PKhKP	PKPpre	17 32 49.1	
	comp=Z,2.0nm,0.8s,baz=306,slow=3.4,SNR=6.8						
BVAR				PKP	PKiKP	17 32 55.0	-1.3
	comp=Z,2.0nm,0.8s,baz=307,slow=3.6,SNR=6.6						
YAK	Yakutsk	143.09	344		PKPbc	17 32 52.5	+1.3
CHM	Chimkent	145.32	55	ePKP	PKPdf	17 32 59.2	+0.2
BRLS	Borolday	145.33	54	ePKP	PKPdf	17 32 59.1	+0.1
IUG	Iuzhnay	145.66	55	ePKP	PKPdf	17 32 59.9	+0.1
DZA	Taraz	146.43	54	ePKP	PKPdf	17 33 01.1	+0.2
KURK	Kurchatov	147.84	37		PKPbc	17 33 04.6	-1.3
KURBB	Kurchatov Arra	147.84	37	PKPbc	PKPbc	17 33 04.5	-1.4
	comp=Z,12nm,0.8s,baz=300,slow=3.1,SNR=35						
LUWI	Luwuk	148.19	208		PKPdf	17 33 00.7	-4.0
EKS2	Erkin-Say	148.23	53	P	PKPbc	17 33 06.3	-1.1
	SNR=11						
USP	Ospenovka	148.56	52	P	PKPbc	17 33 06.4	-1.7
	SNR=16						
SGDS	Sogindy	148.59	51	ePKP	PKPdf	17 33 04.7	+0.1
ZALV	Zalesovo Beam	148.65	27	PKP	PKPdf	17 33 05.6	+1.5
	comp=Z,46nm,0.8s,baz=251,slow=2.7,SNR=63						
ZALV				PKPbc	PKiKP	17 33 09.3	-0.1
	comp=Z,47nm,0.8s,baz=315,slow=2.4,SNR=82						
ZALV	Zalesovo Beam	148.65	27		PKPdf	17 33 02.5	-1.7
AAK	Ala-Archa	148.74	53	P	PKiKP	17 33 10.8	+0.6
	SNR=10						
AAK	Ala-Archa	148.74	53	PKPdf	PKPdf	17 33 02.5	-2.4
AAK					pPKPdf	17 33 06.9	-1.3
CHMS	Chumysh	148.81	52	P	PKiKP	17 33 10.2	+0.1
	SNR=12						
UCH	Uchtor	148.87	54	P	PKPbc	17 33 07.7	-1.8
	SNR=28						
KBK	Karagaybulak	149.06	53	P	PKiKP	17 33 11.4	+0.5
	SNR=8.6						
NIL	Nilore	149.19	70		PKiKP	17 33 11.1	-0.1
TKM2	Tokmak 2	149.43	52	P	PKPdf	17 33 08.0	+1.9
	SNR=11						
ULHL	Ulahol	150.09	53	P	PKiKP	17 33 14.2	+1.2
	SNR=18						
AAA	Alma-Ata	150.24	51	ePKP	PKPdf	17 33 07.3	+0.1
MDOK	Medeo	150.35	51	ePKP	PKPdf	17 33 07.5	0.0
KSH2	Kashi	150.41	59	PKPbc	PKiKP	17 33 14.4	+0.7
KSH2				PP	PP	17 36 49.3	+0.3
HYB	Hyderabad	150.46	104	ePKiKP	PKPbc	17 33 13.6	+0.1
TDK	Taldyqorghan	150.54	46	ePKP	PKPdf	17 33 07.8	+0.3
SATY	Saty	151.31	50	ePKP	PKPdf	17 33 08.9	0.0
UZB	Uzynbulak	151.70	50	ePKP	PKPdf	17 33 09.5	0.0
MKAR	Makanchi Array	152.03	40	PKP	PKPdf	17 33 11.0	+1.3
	comp=Z,1.2nm,0.8s,baz=310,slow=2.2,SNR=8.7						
MKAR				PKPbc	PKiKP	17 33 17.2	+0.5
	comp=Z,15nm,0.8s,baz=296,slow=2.2,SNR=89						
MKAR				PKPab	PKPab	17 33 25.0	-0.8
	comp=Z,6.5nm,0.8s,baz=314,slow=1.8,SNR=5.4						
MKAR	Makanchi Array	152.03	40		PKPdf	17 33 08.4	-1.4
MKAR					sPKPdf	17 33 15.5	+1.3
MKAR					sPKPbc	17 33 23.4	+2.7
KLR	Kul'dur	152.22	326	PKPbc	PKiKP	17 33 17.5	+0.6
	comp=Z,7.6nm,0.8s,baz=27,slow=3.7,SNR=24						
KLR				PKPab	PKPab	17 33 27.0	+0.7
	comp=Z,12nm,0.9s,baz=47,slow=5.3,SNR=10						
HEH	HeiHe	153.44	332	ePKPbc	PKPdf	17 33 12.5	+0.9
HEH				L	L		
	comp=Z,750nm,13.1s						
MJAR	Matsushiro Arr	153.57	297	PKP	PKPdf	17 33 13.4	+1.1
	comp=Z,0.4nm,0.7s,baz=58,slow=1.8,SNR=4.2						
MJAR				PKPbc	PKiKP	17 33 21.6	+1.5
	comp=Z,2.0nm,0.8s,baz=83,slow=1.9,SNR=5.9						
MJAR				PKPab	PKPab	17 33 33.6	+1.1
	comp=Z,5.0nm,0.8s,baz=75,slow=4.8,SNR=10						
MJAR	Matsushiro Arr	153.57	297		PKPdf	17 33 11.0	-1.3
MJAR					PKiKP	17 33 20.7	+0.6
MJAR					PKPab	17 33 30.2	-2.4
MAJO	Matsushiro	153.57	297	PKPdf	PKPdf	17 33 09.6	-2.7
MAJO					PKPab	17 33 30.8	-1.8
HILR	Hailar Array B	156.71	341	PKPab	PKPab	17 33 46.4	+1.0
	comp=Z,2.4nm,0.7s,baz=73,slow=4.8,SNR=3.4						
WMQ	Urumqi	156.86	41	ePKP	PKPdf	17 33 16.1	-0.5
WMQ				PKPab	pPKPab	17 33 49.2	-0.4
WMQ				L	L		
	comp=Z,130nm,23.9s						
SONM	Songino Array	160.00	4	PKP	PKPdf	17 33 21.8	+1.4
	comp=Z,0.9nm,0.6s,baz=2.1,slow=0.6,SNR=5.8						
SONM				PKPab	PKPab	17 34 00.9	+1.1
	comp=Z,2.6nm,0.9s,baz=355,slow=2.0,SNR=6.4						
KSRS	Korea Array	161.16	305	PKP	PKPdf	17 33 22.8	+1.0
	comp=Z,2.0nm,0.9s,baz=41,slow=1.5,SNR=6.9						
GTA2	Gaotai	166.29	30	PKP	PKPdf	17 33 28.1	+1.5
GTA2				PKPab	PKPab	17 34 29.0	+1.3
HHC	Hu-ho-hao-te	166.83	350	ePKP	PKPdf	17 33 22.2	-4.8
CMAR	Chiang Mai Arr	167.10	135	PKP	PKPdf	17 33 28.3	+0.6
	comp=Z,1.1nm,0.7s,baz=264,slow=1.9,SNR=11						
CMAR				PKPab	PKPab	17 34 31.8	+0.1
	comp=Z,2.0nm,0.9s,baz=219,slow=3.9,SNR=7.0						
CMAR	Chiang Mai Arr	167.10	135		PKPab	17 34 31.6	-0.1
TIA	Tai'an	168.98	321	PKP	PKPdf	17 33 29.9	+1.4
NJ2	Nanjing	170.17	298	ePKP	PKPdf	17 33 29.2	-0.1
LZH	Lanzhou	170.88	25	ePKP	PKPdf	17 33 22.6	-7.2
LZH				sPKP	sPKPdf	17 33 37.8	+3.6
PZH	PanZhiHua	173.75	101	PKP	PKPdf	17 33 29.4	-1.9

KRSC ***01*** *17:14:33.1±2.6, 59°.15N×158°.07E, h10^{km}±20^{km}, Ml3.8*
NERS ***01*** *17:14:49.9, 58°.93N×158°.09E, h33^{km}*
ISC 01 17:14:40.4±0.8**, 58°.82N**±0°.03×**158°.78E**±0°.03**, h10^{km}, n20,**
σ**1^{s}96**/29**, Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALN	Palana	0.67	66	eP	Pg	17 14 52.8	-0.6
PALN				eS	Sg	17 15 02.6	+0.5
TIGL	Tigil	1.06	183	eP	Pg	17 15 00.5	-0.2
TIGL				eS	Sn	17 15 16.5	+0.5
OSSR	Ossora	2.25	77	eP	Pn	17 15 17.2	-0.4
OSSR				eS	Sb	17 15 48.2	-0.8
SRDR	Sredinnyy	2.56	168	eP	Pn	17 15 22.4	+0.4
KLY	Klyuchi	2.71	157	eP	Pb	17 15 27.4	-1.4
KLY				eS	Sg	17 16 08.6	+1.3
KOZ	Kozyrevsk	2.83	167	eP	Pn	17 15 26.0	+0.3
ESO	Esso	2.90	181	eP	Pn	17 15 26.5	-0.2
CIRR	Tsirk	2.91	158	eP	Pn	17 15 28.9	+2.0
KPT	Kopyto	2.97	164	eP	Pn	17 15 28.5	+1.0
KIRR	Kirishev	3.00	163	eP	Pn	17 15 29.1	+1.1
BZWR	Bezymyannyi-We	3.01	161	eP	Pn	17 15 29.6	+1.3
ZLN	Zelenaya	3.02	158	eP	Pn	17 15 30.4	+2.1
BZP	Bezymyannyi-Pe	3.07	161	eP	Pn	17 15 31.2	+2.2
BZGR	Bezymyannyi-Gr	3.07	159	eP	Pn	17 15 31.7	+2.7
GADL	Gadlja	3.92	286	eSg	Sg	17 16 44.5	-1.8
GADL				Sgmax		17 17 03.1	
	140nm,0.8s						
TLAR	Talaya	3.96	309	eP	Pn	17 15 42.6	+1.5
TLAR				ePg	Pg	17 15 55.5	-0.6
TLAR				Pgmax		17 16 05.1	
	20nm,0.6s						
TLAR				eSg	Sg	17 16 44.7	-2.6
TLAR				Sgmax		17 16 49.3	
	60nm,0.6s						
MA2	Magadan	4.19	284	ePg	Pg	17 16 02.0	+1.4
MA2				Pgmax		17 16 04.4	
	10.0nm,0.7s						
MA2				eSg	Sg	17 16 50.5	-4.3
MA2				Sgmax		17 17 07.8	
	30nm,0.7s						
MGD	Magadan 1	4.29	290	eP	Pn	17 15 49.4	+3.7
MGD				Pmax		17 15 51.3	
MGD				eSg	Sg	17 16 55.3	-2.7
MGD				Sgmax		17 17 15.0	
	40nm,0.5s						
SEY	Seymchan	5.17	326	ePg	Pg	17 16 22.6	+3.2
SEY				Pgmax		17 16 36.7	
SEY				eSg	Sg	17 17 24.8	-1.5
SEY				Sgmax		17 17 43.0	
	10.0nm,0.9s						
SUUS	Susuman	6.53	312	eSg	Sg	17 18 08.5	-1.4
SUUS				Sgmax		17 18 24.0	
	20nm,0.7s						

IDC ***01*** *17:25:31.8±0.9, 23°.33S×179°.83W, h532^{km}±8^{km}, mb4.1/22, mbtmp4.9/25, Error ellipse: s-maj=12.2km s-min=9.5km az=93.0*
BJI ***01*** *17:25:31.0, 22°.93S×179°.57W, h529^{km}, mb4.7/21*
NEIC ***01*** *17:25:31.3±1.8, 23°.29S±0°.09×179°.85W±0°.09, h524^{km}±5^{km}, mb4.7/284, Error ellipse: s-maj=13.1km s-min=11.5km az=147.0*
NOU ***01*** *17:25:33.2, 23°.34S×179°.87W, h542^{km}, mb5.1/114, South of Fiji Islands*
GFZ ***01*** *17:25:33.4±0.1, 23°S±3°×18°0W±°, h546^{km}, M4.9/68, mb5.0/68, confirmed*
ISC 01 17:25:32.0±0.4**, 23°.30S**±0°.04×**179°.80W**±0°.04**,**
h539^{km}±4^{km}**, h540^{km}:pP-P, n786,** σ**1^{s}32**/729**, mb4.8**/239**,**
17C-16D, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	5.89	340	P	P	17 27 10.4	+1.1
	15nm,0.5s,baz=238,slow=22,SNR=22						
MSVF				S	S	17 28 27.9	-0.9
	8.1nm,0.7s,baz=231,slow=22,SNR=0.9						
MSVF	Nonsavu	5.89	340	P	P	17 27 10.7	+1.3
MSVF	Nonsavu	5.89	340	S	S	17 28 30.4	+1.6
MSVF	Nonsavu	5.89	340		P	17 27 10.2	+0.8
MSVF	Nonsavu	5.89	340	P	P	17 27 10.5	+1.1
	comp=Z,41nm,1.4s						
RIZ	Raoul Island	6.16	165	P	P	17 27 13.3	+1.9
GLKZ	Green Lake	6.17	165	P	P	17 27 11.9	+0.3
GLKZ				S	S	17 28 30.0	-3.1
GLKZ				AML	AML		
FUTU	Fugatoga	9.09	10	P	P	17 27 41.9	+1.4
FUTU	Fugatoga	9.09	10	P	P	17 27 37.8	-2.7
FUTU	Fugatoga	9.09	10	P	P	17 27 41.9	+1.4
	comp=Z,141nm,0.8s						
NIUE	Niue	10.12	67	P	P	17 27 51.1	-0.1
	comp=Z,314nm,2.2s						
NIUE	Niue	10.12	67	P	P	17 27 51.5	+0.4
	comp=Z,315nm,2.2s						
NIUE	Niue	10.12	67	P	P	17 27 51.0	-0.1
NIUE					S	17 29 45.4	-0.1
NIUE	Niue	10.12	67	P	P	17 27 51.0	-0.2
NIUE				S	S	17 29 49.5	+4.0
MARNC	Mare, Loyalty	11.40	277	P	P	17 28 05.5	+1.2
MARNC	Mare, Loyalty	11.40	277	S	S	17 30 10.3	+0.6
MARNC	Mare, Loyalty	11.40	277		P	17 28 04.1	-0.2
AFI	Afiamalu	12.04	41	P	P	17 28 08.2	-2.9
	comp=Z,18nm,0.3s,baz=120,slow=2.7,SNR=4.7						
AFI				S	S	17 30 10.9	-11
	comp=Z,37nm,0.9s,baz=196,slow=18,SNR=2.1						
AFI	Afiamalu	12.04	41	P	P	17 28 07.4	-3.8
AFI	Afiamalu	12.04	41	P	P	17 28 05.0	-6.1
AFI				S	S	17 30 13.8	-8.3
RTV	Rentapao	12.31	294	P	P	17 28 15.6	+1.8
OUENC	Ouen Island, N	12.35	271	P	P	17 28 15.7	+1.5
OUENC	Ouen Island, N	12.35	271	S	S	17 30 27.8	+0.1
OUENC	Ouen Island, N	12.35	271	P	P	17 28 13.0	-1.1
YATNC	Mamie plateau,	12.35	273	P	P	17 28 15.8	+1.6
ONTNC	Ouen Toro	12.72	272		P	17 28 15.4	-2.6
DZM	Mont Dzumac	12.76	273	P	P	17 28 17.2	-1.4
	comp=Z,14nm,0.6s,baz=75,slow=18,SNR=18						
DZM				S	S	17 30 35.9	+0.3
	comp=Z,20nm,1.1s,baz=182,slow=23,SNR=3.5						
NOUC	Port Laguerre	12.88	273	P	P	17 28 20.7	+1.0
NOUC	Port Laguerre	12.88	273	S	S	17 30 38.3	+0.5
OUZ	Omahuta	13.20	204	P	P	17 28 24.2	+1.5
OUZ	Omahuta	13.20	204	P	P	17 28 24.3	+1.6
	comp=Z,56nm,1.0s						
GRZ	Great Barrier	13.54	197	P	P	17 28 26.8	+0.4
WCZ	Waipu Caves	13.58	201	P	P	17 28 28.5	+1.8
ABAZ	Army Bay	14.04	198	P	P	17 28 32.8	+1.2
WIAZ	Waiheke Island	14.14	197	P	P	17 28 33.1	+0.6
MBAZ	Motutapu North	14.18	198	P	P	17 28 33.7	+0.8
MXZ	Matakaoa Point	14.31	186	P	P	17 28 32.1	-2.2
MXZ	Matakaoa Point	14.31	186	P	P	17 28 34.4	+0.1
ETAZ	East Tamaki Re	14.35	197	P	P	17 28 35.5	+0.8
MKAZ	Moumakai	14.43	196	P	P	17 28 35.8	+0.3
WTAZ	Waiatarua	14.43	198	P	P	17 28 36.2	+0.7
AWAZ	Awhitu Peninsu	14.53	198	P	P	17 28 36.9	+0.3
SANVU	Saraoutou	14.53	300	P	P	17 28 34.6	-2.3
WMGZ	Waiomatatini S	14.55	186	P	P	17 28 35.2	-1.7
HAZ	Te Kaha	14.56	188	P	P	17 28 34.8	-2.1
PKGZ	Pakihiroa	14.63	187	P	P	17 28 37.5	-0.2
TGRZ	Tauranga	14.77	192	P	P	17 28 39.7	+0.6
RUGZ	Raukumara Rang	14.78	188	P	P	17 28 37.8	-1.5
PUZ	Puketiti	14.82	186	P	P	17 28 39.6	0.0
OPRZ	Ohinepanea	14.83	191	P	P	17 28 38.9	-0.8
TOZ	Tahuroa Road	14.94	195		P	17 28 39.3	-1.5
TOZ	Tahuroa Road	14.94	195	P	P	17 28 40.9	+0.1
MARZ	Manawahe	14.95	191	P	P	17 28 43.2	+2.3
TWGZ	Tauwhareparae	14.95	187	P	P	17 28 39.2	-1.8
KMRZ	Kaimai	14.95	193	P	P	17 28 41.3	+0.3
KOUNC	Koumac, New Ca	15.02	277	P	P	17 28 43.0	+1.1
KOUNC	Koumac, New Ca	15.02	277		P	17 28 39.7	-2.2
KARZ	Kaharoa	15.06	192	P	P	17 28 44.2	+2.1

URZ	Urewera	15.14	189	P	P	17 28 39.5	-3.4
	comp=Z,99nm,0.5s,baz=341,slow=1.2,SNR=50						
URZ				S	S	17 31 14.6	-5.6
	comp=Z,21nm,0.4s,baz=148,slow=3.2,SNR=3.1						
URZ	Urewera	15.14	189	P	P	17 28 42.5	-0.4
URZ	Urewera	15.14	189	P	P	17 28 39.3	-3.6
URZ	Urewera	15.14	189	P	P	17 28 41.9	-1.1
	comp=Z,190nm,0.7s						
NGRZ	Ngongotaha	15.15	192	P	P	17 28 43.6	+0.5
MWZ	Matawai	15.16	188	P	P	17 28 40.6	-2.5
TARZ	Mount Tarawera	15.22	191	P	P	17 28 44.8	+0.9
TKGZ	Te Karaka	15.22	187	P	P	17 28 41.7	-2.1
RRRZ	Republican Roa	15.32	191	P	P	17 28 45.3	+0.4
RAGZ	Rawiri	15.33	188	P	P	17 28 42.9	-2.1
HRRZ	Handcock Road	15.41	192	P	P	17 28 46.5	+0.8
MUGZ	Murupara	15.41	190	P	P	17 28 42.3	-3.4
RIGZ	Rimuhau	15.50	187	P	P	17 28 45.4	-1.2
TLZ	Tolley Road	15.50	194	P	P	17 28 46.5	-0.2
RTZ	Ruatahuna	15.51	189		P	17 28 42.1	-4.8
RTZ	Ruatahuna	15.51	189	P	P	17 28 45.4	-1.4
KUTZ	Kaahu Road	15.60	193	P	P	17 28 48.6	+1.0
PRGZ	Paritu Road	15.70	187	P	P	17 28 49.4	+0.7
WHTZ	Whakaora	15.74	192	P	P	17 28 49.2	+0.1
MTHZ	Maungataniwha	15.77	190	P	P	17 28 46.3	-3.1
RAHZ	Arahi	15.79	189	P	P	17 28 46.7	-2.9
MRHZ	Matea Rd	15.82	191	P	P	17 28 47.5	-2.4
KNZ	Kokohu	15.82	187	P	P	17 28 48.5	-1.3
WATZ	Wairara	15.82	193	P	P	17 28 50.1	+0.1
HIZ	Hauiti	15.84	196	P	P	17 28 51.6	+1.5
HIZ	Hauiti	15.84	196		P	17 28 48.1	-2.0
HIZ	Hauiti	15.84	196	P	P	17 28 50.1	0.0
MHGZ	Mahia Peninsul	15.92	187	P	P	17 28 49.2	-1.7
RATZ	Rangitukua	15.97	193	P	P	17 28 50.9	-0.6
NMHZ	Naumai	16.01	190	P	P	17 28 49.3	-2.6
RITZ	Rihia Road	16.06	192	P	P	17 28 51.8	-0.5
KATZ	Kakaramea	16.09	193	P	P	17 28 54.3	+1.6
BKZ	Black Stump Fm	16.13	190	P	P	17 28 53.3	+0.3
BKZ	Black Stump Fm	16.13	190	S	S	17 31 38.0	+0.7
ARHZ	Aropaoanui	16.15	189	P	P	17 28 51.4	-1.7
TMVZ	Te Maari	16.22	193	P	P	17 28 51.4	-2.6
TWVZ	Taurewa	16.24	193	P	P	17 28 53.3	-0.8
ETVZ	East Tongariro	16.24	193	P	P	17 28 51.3	-2.8
WTVZ	West Tongariro	16.25	193	P	P	17 28 52.9	-1.3
OTVZ	Oturere	16.28	193	P	P	17 28 51.4	-3.1
NGZ	Ngauruhoe	16.30	193	P	P	17 28 53.5	-1.3
SNVZ	South Ngauruho	16.30	193	P	P	17 28 52.3	-2.5
COVZ	Chateau Observ	16.34	193	P	P	17 28 54.0	-1.1
MCHZ	McNeill Hill	16.37	190	P	P	17 28 51.9	-3.3
TUVZ	Tukino	16.38	193	P	P	17 28 52.7	-2.8
FWVZ	Far West T-bar	16.39	193	P	P	17 28 53.3	-2.3
KWHZ	Kaweka Forest	16.39	190	P	P	17 28 51.7	-3.8
MAVZ	Matarangi	16.40	193	P	P	17 28 54.6	-1.3
WHVZ	Whangaehu Hut	16.41	193	P	P	17 28 52.5	-3.4
VRZ	Vera Road	16.44	195	P	P	17 28 55.9	+0.1
WNVZ	Wahianoa	16.45	193	P	P	17 28 52.6	-3.6
PKVZ	Pokaka	16.47	193	P	P	17 28 54.1	-2.0
MOVZ	Moawhango	16.50	192	P	P	17 28 55.0	-1.5
BHHZ	Black Hill Sta	16.52	191	P	P	17 28 52.2	-4.5
CKHZ	Cape Kidnapper	16.52	188	P	P	17 28 55.3	-1.3
MTVZ	Mangateitei	16.53	193	P	P	17 28 56.1	-0.7
KRHZ	Kereru	16.61	190	P	P	17 28 53.6	-4.0
KAHZ	Kahuranaki	16.68	189	P	P	17 28 55.4	-2.8
NEZ	North Egmont	16.75	197	P	P	17 29 00.8	+2.0
KHEZ	Kahui Hut	16.79	197	P	P	17 29 01.4	+2.2
NBEZ	Newall Road No	16.80	197	P	P	17 29 02.2	+2.9
LREZ	Lake Rotokare	16.85	196	P	P	17 28 59.9	+0.3
PNHZ	Pukenui	16.91	191	P	P	17 28 56.8	-3.5
PXZ	Pawanui	16.92	189	P	P	17 28 57.1	-3.1
NMEZ	Namu Road	16.94	197	P	P	17 29 03.6	+3.1
WPHZ	Waipukurau	17.01	190	P	P	17 28 60.0	-1.2
TSZ	Takapari Road	17.09	191	P	P	17 29 00.1	-1.8
PRHZ	Porangahau	17.18	189	P	P	17 29 00.6	-2.1
DVHZ	Dannevirke	17.29	190	P	P	17 29 00.9	-2.8
ANWZ	Angora Road	17.40	190	P	P	17 29 02.9	-1.7
POWZ	Post Office Ro	17.45	191	P	P	17 29 03.3	-1.8
PRWZ	Pori Road	17.57	191	P	P	17 29 05.5	-0.8
BFZ	Birch Farm	17.65	190	P	P	17 29 06.0	-1.0
BFZ	Birch Farm	17.65	190	S	S	17 32 02.6	+0.4
BFZ	Birch Farm	17.65	190	P	P	17 29 02.7	-4.3
BFZ	Birch Farm	17.65	190	P	P	17 29 04.0	-3.0
BFZ	Birch Farm	17.65	190	P	P	17 29 05.6	-1.4
	comp=Z,120nm,0.6s						
MRZ	Mangatainoka R	17.74	192		P	17 29 04.0	-3.8
MRZ	Mangatainoka R	17.74	192	P	P	17 29 04.4	-3.5
TIWZ	Tintock	17.80	191	P	P	17 29 06.7	-1.7
CPWZ	Castlepoint	17.88	190	P	P	17 29 08.4	-0.7
OGWZ	Otaki Gorge	17.97	192	P	P	17 29 06.7	-3.2
HOWZ	Holdsworth Sta	17.98	192	P	P	17 29 07.5	-2.6
DUWZ	D'Urville Isla	18.23	195	P	P	17 29 11.5	-0.8
TRWZ	Traveller	18.44	191	P	P	17 29 12.3	-2.0
PAWZ	Paruwai Farm	18.47	191	P	P	17 29 12.2	-2.3
MSWZ	Moikau Station	18.54	192	P	P	17 29 12.3	-2.8
MSWZ	Moikau Station	18.54	192	P	P	17 29 13.4	-1.7
TCW	Tory Channel	18.54	194		P	17 29 13.3	-1.7
SNZO	South Karori	18.54	193	P	P	17 29 12.5	-2.5
QRZ	Quartz Range	18.63	198	P	P	17 29 16.5	+0.6
QRZ	Quartz Range	18.63	198	S	S	17 32 18.7	+0.6
QRZ	Quartz Range	18.63	198	P	P	17 29 15.6	-0.4
QRZ	Quartz Range	18.63	198	P	P	17 29 16.7	+0.8
QRZ	Quartz Range	18.63	198	P	P	17 29 16.3	+0.3
RAR	Rarotonga	18.66	87	P	P	17 29 16.4	0.0
	comp=Z,15nm,0.6s,baz=146,slow=22,SNR=1.7						
RAR				S	S	17 32 17.2	-1.8
	comp=Z,6.0nm,0.5s,baz=42,slow=17,SNR=3.6						
PLWZ	Palliser	18.68	192	P	P	17 29 14.8	-1.6
TKNZ	Takaka Hill	18.70	197	P	P	17 29 15.6	-1.0
TKNZ	Takaka Hill	18.70	197	P	P	17 29 16.0	-0.6
NNZ	Nelson	18.76	196	P	P	17 29 16.3	-0.8
TUWZ	Tuamarina	18.82	195	P	P	17 29 16.0	-1.7
TUWZ	Tuamarina	18.82	195	P	P	17 29 17.2	-0.5
MRNZ	Matariki Terra	19.10	197	P	P	17 29 19.2	-1.0
MRNZ	Matariki Terra	19.10	197	P	P	17 29 19.8	-0.4
BSWZ	Blackbirch Sta	19.11	195	P	P	17 29 20.4	0.0
THZ	Tophouse	19.39	197		P	17 29 21.8	-1.2
THZ	Tophouse	19.39	197	P	P	17 29 22.1	-0.9
DSZ	Denniston Nort	19.69	199	P	P	17 29 25.5	-0.2
KHZ	Kahutara	19.85	195	P	P	17 29 26.1	-0.9
KHZ	Kahutara	19.85	195	S	S	17 32 38.7	+1.0
KHZ	Kahutara	19.85	195		P	17 29 24.6	-2.4
KHZ	Kahutara	19.85	195	P	P	17 29 25.3	-1.7
LHI	Lord Howe Isla	20.45	242	P	P	17 29 34.8	+2.2
	comp=Z,84nm,0.8s						
LHI	Lord Howe Isla	20.45	242	P	P	17 29 34.2	+1.6
	comp=Z,84nm,0.8s						
LHI	Lord Howe Isla	20.45	242		P	17 29 31.5	-1.1
GVZ	Greta Valley S	20.50	195		P	17 29 30.7	-2.2
GVZ	Greta Valley S	20.50	195	P	P	17 29 31.3	-1.6
LTZ	Lake Taylor	20.52	197	P	P	17 29 30.9	-2.2
LTZ	Lake Taylor	20.52	197	P	P	17 29 30.9	-2.2
INZ	Inchbonnie	20.69	199		P	17 29 32.8	-1.9
INZ	Inchbonnie	20.69	199	P	P	17 29 33.4	-1.2
AMCZ	Amberley	20.79	196	P	P	17 29 34.8	-0.7
OXZ	Oxford	21.08	197	P	P	17 29 36.6	-1.6
OKCZ	Okains Bay	21.20	194	P	P	17 29 38.7	-0.6
WVZ	Waitaha Valley	21.22	199	P	P	17 29 37.9	-1.6
MQZ	McQueen's Vall	21.28	195	P	P	17 29 38.2	-1.7
MHCZ	Mount Hutt	21.40	197	P	P	17 29 39.6	-1.5
WACZ	Wakanui South	21.71	196	P	P	17 29 43.5	-0.3
RPZ	Rata Peaks	21.71	198	P	P	17 29 42.8	-1.1
	comp=Z,7.9nm,0.6s,baz=16,slow=2.1,SNR=34						
RPZ				S	S	17 33 03.3	-4.0
	comp=Z,1.0nm,0.5s,baz=322,slow=23,SNR=1.5						
	comp=Z,7.9nm,0.6s						
RPZ	Rata Peaks	21.71	198	P	P	17 29 42.3	-1.6
RPZ	Rata Peaks	21.71	198	P	P	17 29 43.2	-0.7
RPZ	Rata Peaks	21.71	198	P	P	17 29 43.8	-0.1
ARCZ	Arundel	21.89	198	P	P	17 29 45.0	-0.5
FOZ	Fox Glacier	21.93	201	P	P	17 29 44.2	-1.5
TMZ	Timaru	22.34	198	P	P	17 29 48.3	-1.2
LBZ	Lake Benmore	22.58	199	P	P	17 29 49.5	-2.2
JCZ	Jackson Bay	22.75	202	P	P	17 29 53.2	0.0
JCZ	Jackson Bay	22.75	202	P	P	17 29 52.6	-0.6
ODZ	Otahua Downs	23.05	197	P	P	17 29 54.7	-1.1
ODZ	Otahua Downs	23.05	197	P	P	17 29 54.4	-1.4
WKZ	Wanaka	23.34	200	P	P	17 29 57.4	-1.0
MSZ	Milford Sound	23.57	202	P	P	17 30 01.6	+1.2
EAZ	Earnscleugh	23.61	199	P	P	17 30 00.3	-0.5
HNR	Honiara	23.78	302	P	P	17 30 02.4	-0.3
	comp=Z,80nm,0.9s,baz=69,slow=2.3,SNR=5.1						
	comp=Z,80nm,0.9s						
HNR	Honiara	23.78	302		P	17 30 01.1	-1.6
MLZ	Mavora Lakes	24.11	201		P	17 30 04.2	-1.0
MLZ	Mavora Lakes	24.11	201	P	P	17 30 04.9	-0.4
TUZ	Tuapeka	24.17	198	P	P	17 30 05.5	-0.2
GC1S	Gold Coast 1 S	24.50	253	P	P	17 30 10.1	+1.2
DCZ	Deep Cove	24.53	202		P	17 30 08.4	-0.5
DCZ	Deep Cove	24.53	202	P	P	17 30 08.2	-0.7
WHZ	Wether Hill Ro	24.63	201	P	P	17 30 08.8	-1.0
WHZ	Wether Hill Ro	24.63	201	P	P	17 30 09.1	-0.7
AUBSH	Beerwah State	24.91	256	P	P	17 30 13.3	+0.7
AUBSH	Beerwah State	24.91	256	S	S	17 33 58.5	+0.4
APZ	The Paps	25.45	200	P	P	17 30 16.6	-0.5
TW1H	Toowoomba 1 Ha	25.82	255	P	P	17 30 21.4	+0.8
AUTOO	Toowoomba Stat	25.82	255	P	P	17 30 21.5	+0.8
ARMA	Armidale	26.41	248	P	P	17 30 26.8	+0.8
	comp=Z,74nm,0.9s						
ARMA	Armidale	26.41	248	P	P	17 30 26.7	+0.8
	comp=Z,74nm,0.9s						
ARMA	Armidale	26.41	248	P	P	17 30 27.1	+1.2
ARMA	Armidale	26.41	248		P	17 30 26.4	+0.5
ARMA	Armidale	26.41	248	P	P	17 30 27.3	+1.4
	comp=Z,74nm,0.9s						
EIDS	Eidsvold	26.59	260	P	P	17 30 27.8	+0.4
	comp=Z,107nm,1.1s						
EIDS	Eidsvold	26.59	260	P	P	17 30 27.7	+0.4
	comp=Z,107nm,1.1s						
EIDS	Eidsvold	26.59	260	P	P	17 30 28.0	+0.5
EIDS	Eidsvold	26.59	260		P	17 30 27.7	+0.3
EIDS	Eidsvold	26.59	260	P	P	17 30 27.9	+0.5
	comp=Z,107nm,1.1s						
AUPHS	Peel High Scho	27.14	247	P	P	17 30 33.2	+1.0
AUNRC	North Rockhamp	27.22	264	P	P	17 30 33.7	+0.7
MGCD	Mangrove Creek	27.38	242	P	P	17 30 34.9	+0.6
	comp=Z,100nm,0.7s						
MGCD	Mangrove Creek	27.38	242	P	P	17 30 35.4	+1.2
	comp=Z,100nm,0.7s						
MGCD	Mangrove Creek	27.38	242	P	P	17 30 34.9	+0.6
MGCD	Mangrove Creek	27.38	242	P	P	17 30 35.7	+1.4
	comp=Z,100nm,0.7s						
SYDH	Sydney Hard Ro	27.81	241	P	P	17 30 38.7	+0.7
WOLH	Wollongong Har	27.87	240	P	P	17 30 39.3	+0.8
RMQ	Roma	28.66	257	P	P	17 30 47.3	+1.7
	comp=Z,53nm,1.0s						
RMQ	Roma	28.66	257	P	P	17 30 47.2	+1.7
	comp=Z,53nm,1.0s						
RMQ	Roma	28.66	257	P	P	17 30 46.9	+1.4
PPTF	Pamatai, Papee	28.86	84	P	P	17 30 48.6	+1.1
AUDCS	Dubbo College	29.23	245	P	P	17 30 51.0	+0.6
CNB	Canberra Magne	29.31	239	P	P	17 30 51.8	+0.6
	comp=Z,2.4nm,0.9s						
CNB	Canberra Magne	29.31	239	P	P	17 30 52.3	+1.2
	comp=Z,2.4nm,0.9s						
AULRC	Lightning Ridg	29.45	251	P	P	17 30 52.9	+0.6
AUMHS	Melrose High S	29.54	239	P	P	17 30 54.0	+0.9
AUMTS	Mt Stromlo	29.60	239	P	P	17 30 54.5	+0.9
CAN	Canberra	29.60	239	P	P	17 30 54.1	+0.5
	comp=Z,111nm,0.9s						
CAN	Canberra	29.60	239	P	P	17 30 54.6	+1.0
	comp=Z,111nm,0.9s						
CAN	Canberra	29.60	239	P	P	17 30 54.5	+0.9
CAN	Canberra	29.60	239	P	P	17 30 54.5	+0.9
	comp=Z,111nm,0.9s						
MILA	Mila	29.98	236	P	P	17 30 57.4	+0.5
MILA	Mila	29.98	236	P	P	17 30 57.9	+0.9
AUSMG	Snowy Mountain	30.21	237	P	P	17 30 59.5	+0.6
CMSA	Cobar Meteorol	31.61	247	P	P	17 31 11.0	+0.2
	comp=Z,161nm,0.9s						
CMSA	Cobar Meteorol	31.61	247	P	P	17 31 11.2	+0.4
	comp=Z,161nm,0.9s						
CMSA	Cobar Meteorol	31.61	247	P	P	17 31 11.1	+0.2
CMSA	Cobar Meteorol	31.61	247	P	P	17 31 11.3	+0.4
	comp=Z,160nm,0.9s						
CTA	Charters Tower	31.66	269	P	P	17 31 11.9	+0.4
	comp=Z,136nm,1.0s						
CTA	Charters Tower	31.66	269	P	P	17 31 12.0	+0.6
	comp=Z,136nm,1.0s						
CTA	Charters Tower	31.66	269	P	P	17 31 12.1	+0.6
CTAO	Charters Tower	31.66	269	P	P	17 31 11.9	+0.4
CTAO	Charters Tower	31.66	269	P	P	17 31 11.8	+0.4
CTAO	Charters Tower	31.66	269	P	P	17 31 12.1	+0.6
	comp=Z,343nm,0.9s						
GLAD	Gladstone	32.22	229	P	P	17 31 16.7	+0.8
QLP	Quilpie	32.71	257	P	P	17 31 20.4	+0.1
	comp=Z,220nm,1.4s						
QLP	Quilpie	32.71	257	P	P	17 31 20.6	+0.3
	comp=Z,220nm,1.4s						
QLP	Quilpie	32.71	257	P	P	17 31 20.8	+0.5
QLP	Quilpie	32.71	257	P	P	17 31 20.6	+0.3
	comp=Z,220nm,1.4s						
TOO	Toolangi	32.93	236	P	P	17 31 22.5	+0.5
	comp=Z,33nm,0.9s						
TOO	Toolangi	32.93	236	P	P	17 31 22.4	+0.3
	comp=Z,33nm,0.9s						
TOO	Toolangi	32.93	236		P	17 31 22.5	+0.5
TOO				IAmb	IAmb	17 31 23.4	
	comp=Z,20nm,0.8s						
CORO	Coronation Par	33.00	229	P	P	17 31 23.2	+0.7
RABL	Rabaul	33.08	301		P	17 31 23.4	-0.2
AUMAG	Moama Anglican	33.14	239	P	P	17 31 24.3	+0.5
XMAS	Kiritimati	33.30	44	P	P	17 31 26.9	+1.5
XMAS	Kiritimati	33.30	44	P	P	17 31 26.3	+0.9
XMAS	Kiritimati	33.30	44	P	P	17 31 26.8	+1.5
	comp=Z,256nm,1.0s						
TAU	Tasmania Unive	33.48	226	P	P	17 31 27.0	+0.4
TAU	Tasmania Unive	33.48	226	P	P	17 31 26.9	+0.4
	comp=Z,58nm,0.8s						
MTSU	Mount Surprise	33.90	272	P	P	17 31 30.5	0.0
	comp=Z,127nm,0.8s						
MTSU	Mount Surprise	33.90	272	P	P	17 31 31.0	+0.6
	comp=Z,127nm,0.8s						
MTSU	Mount Surprise	33.90	272	P	P	17 31 30.8	+0.4
MTSU	Mount Surprise	33.90	272	P	P	17 31 31.0	+0.6
	comp=Z,127nm,0.8s						
BRAT	Ballarat	34.12	237	P	P	17 31 32.6	+0.6
PMG	Port Moresby	34.48	288	P	P	17 31 35.4	+0.2
PMG	Port Moresby	34.48	288	P	P	17 31 35.5	+0.2
PMG	Port Moresby	34.48	288		P	17 31 35.1	-0.3
PMG	Port Moresby	34.48	288	P	P	17 31 35.0	-0.3
	comp=Z,198nm,0.9s						
PMG	Port Moresby	34.48	288	P	P	17 31 35.6	+0.3
	comp=Z,202nm,0.9s						
STKA	Stephens Creek	35.12	247	P	P	17 31 41.0	+0.5
STKA	Stephens Creek	35.12	247	P	P	17 31 40.8	+0.3
	comp=Z,68nm,0.6s,baz=95,slow=10,SNR=128						
	comp=Z,68nm,0.6s						
STKA	Stephens Creek	35.12	247	P	P	17 31 41.0	+0.5
	comp=Z,456nm,0.8s						
ARPS	Mount Arapiles	35.58	239	P	P	17 31 44.2	-0.1
	comp=Z,28nm,0.8s						
INKA	Innaminka	35.77	254		P	17 31 46.8	+0.9
MGBR	Mount Gambier	36.76	238	P	P	17 31 53.8	-0.1
MGBR				IAmb	IAmb	17 32 21.8	
	comp=Z,55nm,1.4s						
PATS	Pohnpei	36.81	322	P	P	17 31 53.5	-1.1
AUMBR	Murray Bridge	37.36	242	P	P	17 31 59.0	+0.1
HTT	Hallett	37.49	245	P	P	17 32 00.0	0.0
	comp=Z,59nm,0.8s						
HTT	Hallett	37.49	245	P	P	17 32 00.2	+0.1
	comp=Z,59nm,0.8s						
HTT	Hallett	37.49	245	P	P	17 32 00.1	0.0
QIS	Mount Isa	37.67	266	P	P	17 32 01.3	-0.4
	comp=Z,35nm,1.3s						
QIS	Mount Isa	37.67	266	P	P	17 32 01.1	-0.6
	comp=Z,35nm,1.3s						
QIS	Mount Isa	37.67	266	P	P	17 32 01.1	-0.6
QIS	Mount Isa	37.67	266	P	P	17 32 01.3	-0.4
	comp=Z,35nm,1.3s						
AUMAR	Marden Senior	37.86	243	P	P	17 32 03.5	+0.5
GHSS	Government Hou	37.90	243	P	P	17 32 03.9	+0.6
MANU	Manus Island	38.19	299	P	P	17 32 04.9	-1.1
MANU				IAmb	IAmb	17 32 35.9	
	comp=Z,28nm,1.2s						
BBOO	Buckleboo	39.85	246	P	P	17 32 18.7	-0.4
	comp=Z,85nm,0.9s						
BBOO	Buckleboo	39.85	246	P	P	17 32 18.5	-0.7
	comp=Z,85nm,0.9s						
BBOO	Buckleboo	39.85	246	P	P	17 32 18.6	-0.5
BBOO	Buckleboo	39.85	246		P	17 32 18.4	-0.7
BBOO	Buckleboo	39.85	246	P	P	17 32 18.6	-0.5
	comp=Z,85nm,0.9s						
AUCAS	Cummins Area S	40.21	244	P	P	17 32 22.2	+0.3
TAOE	Nuku Hiva Isla	40.56	76	P	P	17 32 26.0	+0.9
AS17	Alice Springs	42.23	260	P	P	17 32 38.1	-0.1
	comp=Z,238nm,0.8s						
AS06	Alice Springs	42.26	260	P	P	17 32 38.2	-0.2
	comp=Z,311nm,0.8s						
AS01	Alice Springs	42.27	260	P	P	17 32 38.6	+0.1
AS09	Alice Springs	42.28	260	P	P	17 32 38.4	-0.2
AS04	Alice Springs	42.29	260	P	P	17 32 38.4	-0.3
AS15	Alice Springs	42.31	260	P	P	17 32 38.8	-0.1
	comp=Z,254nm,0.8s						
AS31	Alice Springs	42.31	260	P	P	17 32 38.7	-0.2
	comp=Z,60nm,0.8s						
AS31	Alice Springs	42.31	260	P	P	17 32 38.4	-0.4
ASAR	Alice Springs	42.31	260	P	P	17 32 38.8	-0.1
	comp=Z,120nm,0.8s,baz=95,slow=7.1,SNR=258						
ASAR				PcP	pwP	17 34 19.9	0.0
	comp=Z,6.3nm,0.8s,baz=91,slow=3.8,SNR=4.8						
ASAR				ScP	ScP	17 37 20.8	+1.3
	comp=Z,11nm,1.0s,baz=100,slow=3.8,SNR=17						
ASAR				S	S	17 38 18.6	-2.5
	comp=Z,2.4nm,0.7s,baz=98,slow=14,SNR=7.2						
	comp=Z,120nm,0.8s						
ASAR	Alice Springs	42.31	260		P	17 32 38.2	-0.7
ASAR	Alice Springs	42.31	260		ScP	17 37 21.0	+1.5
AUALC	St Philip's Co	42.33	260	P	P	17 32 38.9	-0.1
WR8	Warramunga Arr	42.48	265	P	P	17 32 39.4	-0.8
WR6	Warramunga Arr	42.52	265	P	P	17 32 40.1	-0.4
WR4	Warramunga Arr	42.57	265	P	P	17 32 40.4	-0.5
WB0	Warramunga Arr	42.62	266	P	P	17 32 40.6	-0.7
WRAB	Tennant Creek	42.62	265	P	P	17 32 40.6	-0.7
	comp=Z,157nm,0.8s						
WRA	Warramunga Arr	42.63	265	P	P	17 32 40.2	-1.1
	comp=Z,3.6nm,0.5s,baz=102,slow=8.0,SNR=5.3						
WRA				PcP	PcP	17 34 21.6	+0.4
	comp=Z,5.8nm,0.7s,baz=92,slow=2.8,SNR=3.9						
WRA				PP	PP	17 34 32.9	+0.1
	comp=Z,2.9nm,0.8s,baz=104,slow=9.2,SNR=1.8						
WRA				ScP	ScP	17 37 22.5	+1.7
	comp=Z,10nm,0.9s,baz=101,slow=3.9,SNR=13						
WRA				S	S	17 38 20.2	-5.5
	comp=Z,1.0nm,0.9s,baz=94,slow=14,SNR=2.3						
WRA	Warramunga Arr	42.63	265	P	P	17 32 40.6	-0.7
WRA				IAmb	IAmb	17 32 41.4	
	comp=Z,17nm,0.8s						
WRA	Warramunga Arr	42.63	265		ScP	17 37 22.7	+2.0
WC1	Warramunga Arr	42.64	265	P	P	17 32 40.9	-0.5
GENI	Genyem	43.87	292	P	P	17 32 52.1	+1.1
GENI	Genyem	43.87	292	P	P	17 32 50.9	-0.2
KDU	Kakadu	46.42	275	P	P	17 33 09.9	-0.7
	comp=Z,46nm,0.9s						
FORT	Forrest	46.69	249	P	P	17 33 11.8	-0.6
	comp=Z,161nm,0.7s						
FORT	Forrest	46.69	249		P	17 33 11.8	-0.6
FORT				PcP	PcP	17 34 35.2	0.0
WRKA	Warakurna	47.15	257	P	P	17 33 15.7	-0.3
	comp=Z,81nm,0.8s						
MTN	Manton Dam	47.59	274	P	P	17 33 18.8	-0.7
	comp=Z,29nm,0.6s						
MTN	Manton Dam	47.59	274		P	17 33 18.5	-0.9
MTN				IAmb	IAmb	17 33 19.1	
	comp=Z,21nm,0.6s						
DRS	Darwin Rock St	47.95	274	P	P	17 33 22.6	+0.6
BAKI	Biak	48.06	291	P	P	17 33 23.1	+0.2
	comp=Z,175nm,0.8s						
OVEH	Oceanview Est	48.28	31	P	P	17 33 25.1	+0.5
DAH	Dandelion	48.50	31	P	P	17 33 26.7	+0.2
KHLU	Kahalu`u	48.60	31	P	P	17 33 27.5	+0.6
CPK	Cone Peak	48.70	31	P	P	17 33 28.5	+0.9
MLH	Mauna Loa	48.75	31	P	P	17 33 28.5	+0.3
KNHH	Kane Nui o Ham	48.76	32	P	P	17 33 28.6	+0.6
STCH	Steam Cracks	48.78	32	P	P	17 33 28.6	+0.4
STCH				PcP	PcP	17 34 41.6	-1.3
KNRA	Kununurra	48.87	269	P	P	17 33 28.7	-0.2
	comp=Z,62nm,1.0s						
KNRA	Kununurra	48.87	269		P	17 33 28.5	-0.4
MWPI	Manokwari, Pap	49.98	290	P	P	17 33 36.9	-0.2
	comp=Z,71nm,0.8s						
GUMO	Guam	50.39	313	P	P	17 33 39.1	-0.9
	comp=Z,106nm,0.7s,baz=199,slow=13,SNR=4.3						
	comp=Z,106nm,0.7s						
GUMO	Guam	50.39	313	IAmb	IAmb	17 33 40.8	
	comp=Z,99nm,0.8s						
FAKI	Fak Fak	50.59	286	P	P	17 33 40.8	-0.8
	comp=Z,74nm,1.0s						
FITZ	Fitzroy Crossi	51.06	265	P	P	17 33 44.6	-0.3
	comp=Z,24nm,1.0s						
FITZ	Fitzroy Crossi	51.06	265	P	P	17 33 45.7	+0.8
FITZ	Fitzroy Crossi	51.06	265	IAmb	IAmb	17 33 45.9	
	comp=Z,16nm,0.7s						
FITZ	Fitzroy Crossi	51.06	265	P	P	17 33 45.0	+0.1
	comp=Z,24nm,1.0s						
KMBL	Kambalda	51.92	248	P	P	17 33 50.6	-0.4
	comp=Z,27nm,1.0s						
SWI	Sorong	52.43	288	P	P	17 33 54.2	-0.6
SOEI	Soe	54.98	274	P	P	17 34 14.5	+1.4
SOEI	Soe	54.98	274	P	P	17 34 13.4	+0.4
SOEI	Soe	54.98	274	P	P	17 34 14.4	+1.4
	comp=Z,269nm,1.0s						
SBA	Scott Base	54.98	183		P	17 34 14.4	+2.5
SBA				IAmb	IAmb	17 34 15.7	
	comp=Z,40nm,0.9s						
SBA				PcP	PcP	17 35 06.6	+1.2
SBA	Scott Base	54.98	183	P	P	17 34 14.9	+3.0
	comp=Z,49nm,1.0s						
NLAI	Namlea	55.02	283	P	P	17 34 12.3	-0.9
	comp=Z,1µmcomp=Z,118nm,1.0s						
KLBR	Kellerberrin	55.39	247	P	P	17 34 15.2	-0.3
	comp=Z,414nm,0.8s						
KLBR	Kellerberrin	55.39	247	P	P	17 34 15.3	-0.3
KLBR	Kellerberrin	55.39	247	P	P	17 34 15.2	-0.3
	comp=Z,414nm,0.8s						
MEEK	Meekatharra	55.46	253	P	P	17 34 15.4	-0.8
	comp=Z,53nm,0.9s						
MEEK	Meekatharra	55.46	253	P	P	17 34 15.7	-0.4
MEEK	Meekatharra	55.46	253	P	P	17 34 15.2	-1.0
	comp=Z,53nm,0.9s						
NWAO	Narrogin (SRO)	55.65	245	P	P	17 34 17.1	-0.2
	comp=Z,74nm,1.0s						
NWAO	Narrogin (SRO)	55.65	245	P	P	17 34 17.1	-0.2
	comp=Z,120nm,1.0s						
NWAO	Narrogin (SRO)	55.65	245	P	P	17 34 16.8	-0.5
	comp=Z,69nm,1.0s						
MBWA	Marble Bar	55.66	260	P	P	17 34 16.9	-0.6
	comp=Z,132nm,0.8s						
MBWA	Marble Bar	55.66	260	P	P	17 34 16.9	-0.6
MBWA	Marble Bar	55.66	260	P	P	17 34 16.4	-1.1
MBWA	Marble Bar	55.66	260	P	P	17 34 16.9	-0.6
	comp=Z,132nm,0.8s						
BLDU	Ballidu	56.42	248	P	P	17 34 22.1	-0.6
	comp=Z,124nm,0.7s						
BLDU	Ballidu	56.42	248	P	P	17 34 22.1	-0.6
BLDU	Ballidu	56.42	248	P	P	17 34 22.2	-0.6
	comp=Z,124nm,0.7s						
SANI	Sanana	56.54	284	P	P	17 34 23.6	-0.1
SANI	Sanana	56.54	284	P	P	17 34 22.0	-1.7
	comp=Z,676nmcomp=Z,68nm,0.8s						
SANI	Sanana	56.54	284	P	P	17 34 23.0	-0.8
	comp=Z,68nm,0.8s						
TNTI	Ternate	56.62	287	P	P	17 34 24.6	+0.3
TNTI	Ternate	56.62	287		P	17 34 23.1	-1.2
TNTI				IAmb	IAmb	17 34 24.8	
	comp=Z,68nm,1.0s						
TNTI	Ternate	56.62	287	P	P	17 34 23.4	-0.9
	comp=Z,779nmcomp=Z,74nm,0.9s						
TNTI	Ternate	56.62	287	P	P	17 34 24.0	-0.3
	comp=Z,74nm,1.0s						
MUN	Mundaring	56.64	246	P	P	17 34 23.9	-0.3
	comp=Z,136nm,1.0s						
MUN	Mundaring	56.64	246	P	P	17 34 24.2	0.0
MMRI	Maumere	57.25	275	P	P	17 34 28.5	-0.1
MMRI	Maumere	57.25	275	P	P	17 34 27.7	-0.9
	comp=Z,113nm,0.8s						
MMRI	Maumere	57.25	275	P	P	17 34 28.2	-0.4
	comp=Z,113nm,0.8s						
MORW	Morawa	57.25	250	P	P	17 34 28.1	-0.3
	comp=Z,119nm,0.8s						
MORW	Morawa	57.25	250	P	P	17 34 27.9	-0.6
MORW	Morawa	57.25	250		P	17 34 27.8	-0.6
MORW	Morawa	57.25	250	P	P	17 34 28.1	-0.3
	comp=Z,119nm,0.8s						
EDFI	Ende, Flores	57.71	274	P	P	17 34 31.1	-0.8
	comp=Z,1µmcomp=Z,159nm,0.8s						
WSI	Waingapu	58.65	273	P	P	17 34 37.7	-0.4
KDI	Kendari	58.75	280	P	P	17 34 37.7	-1.1
	comp=Z,53nm,0.9s						
LBFI	Labuhan Bajo,	59.46	274	P	P	17 34 42.7	-0.8
LUWI	Luwuk	59.87	283	P	P	17 34 47.1	+0.9
LUWI	Luwuk	59.87	283		P	17 34 45.9	-0.3
LUWI	Luwuk	59.87	283	P	P	17 34 45.7	-0.5
	comp=Z,1µmcomp=Z,141nm,1.0s						
LUWI	Luwuk	59.87	283	P	P	17 34 46.2	-0.1

	comp=Z,141nm,1.0s						
GIRL	Giralia	60.23	256	P	P	17 34 49.2	+0.7
	comp=Z,106nm,1.8s						
CASY	Casey	60.73	206		P	17 34 50.5	-0.5
CASY				IAmb	IAmb	17 34 51.5	
	comp=Z,31nm,0.8s						
CASY	Casey	60.73	206	P	P	17 34 50.8	-0.2
	comp=Z,47nm,0.8s						
DBNI	Kabupaten Domp	60.90	273	P	P	17 34 52.1	-1.0
KAPI	Kappang	60.93	277	P	P	17 34 52.5	-0.7
	comp=Z,21nm,0.6s						
APSI	Ampana	60.93	283	P	P	17 34 52.9	-0.3
	comp=Z,54nm,0.7s						
PLAI	Plampang	61.27	273	P	P	17 34 55.3	-0.2
PLAI	Plampang	61.27	273	P	P	17 34 54.7	-0.8
PLAI	Plampang	61.27	273	P	P	17 34 55.1	-0.4
	comp=Z,231nm,0.8s						
TWSI	Taliwang, Sumb	62.13	272	P	P	17 35 00.3	-0.8
	comp=Z,105nm,1.0s						
PCI	Palu	62.56	282	P	P	17 35 04.0	+0.1
	comp=Z,1µmcomp=Z,98nm,1.1s						
TOLI2	Tolitoli	62.60	284	P	P	17 35 04.0	-0.2
TOLI2	Tolitoli	62.60	284	P	P	17 35 03.4	-0.8
	comp=Z,94nm,0.8s						
JAGI	Jajag, Banyuwa	64.73	271	P	P	17 35 18.5	+0.7
JAGI	Jajag, Banyuwa	64.73	271		P	17 35 15.9	-1.8
JAGI	Jajag, Banyuwa	64.73	271	P	P	17 35 16.2	-1.6
	comp=Z,89nm,1.0s						
JAGI	Jajag, Banyuwa	64.73	271	P	P	17 35 16.4	-1.4
	comp=Z,86nm,1.1s						
BBKI	Banjar Baru	66.03	277	P	P	17 35 25.7	-0.2
	comp=Z,84nm,1.5s						
MYLDM	Lahad Datu	66.49	287	P	P	17 35 30.0	+1.3
MYLDM	Lahad Datu	66.49	287	P	P	17 35 29.8	+1.0
MYLDM				IAmb	IAmb	17 35 48.0	
	comp=Z,19nm,0.8s						
MYLDM	Lahad Datu	66.49	287	P	P	17 35 28.7	0.0
	comp=Z,29nm,0.9s						
MYLDM	Lahad Datu	66.49	287	P	P	17 35 30.2	+1.4
	comp=Z,29nm,0.9s						
QSPA	South Pole Qui	66.78	180	P	P	17 35 31.0	+1.2
	comp=Z,32nm,0.6s,baz=13,slow=0.5,SNR=251						
	comp=Z,32nm,0.6s						
QSPA	South Pole Qui	66.78	180		P	17 35 30.9	+1.2
QSPA	South Pole Qui	66.78	180	P	P	17 35 31.2	+1.4
	comp=Z,67nm,0.9s						
SNJI	Sawahan-Nganju	67.19	271	P	P	17 35 33.2	-0.1
	comp=Z,72nm,0.8s						
PKKI	Palangkaraya	67.32	278	P	P	17 35 33.6	-0.2
PCJI	Pacitan	67.57	271	P	P	17 35 34.8	-0.6
UGM	Wanagama	68.28	271	P	P	17 35 39.4	-0.4
	comp=Z,244nm,1.4s						
SMRI	Semarang	68.67	271	P	P	17 35 42.2	+0.1
	comp=Z,120nm,1.1s						
KKM	Kota Kinabalu	68.90	287	P	P	17 35 44.1	+0.5
KKM	Kota Kinabalu	68.90	287	P	P	17 35 43.0	-0.6
	comp=Z,608nmcomp=Z,58nm,0.8s						
KKM	Kota Kinabalu	68.90	287	P	P	17 35 43.6	0.0
	comp=Z,58nm,0.8s						
CTJI	Waduk Cacaban	69.84	271	P	P	17 35 48.7	-0.4
	comp=Z,93nm,1.1s						
KPJI	Karang Pucung	69.95	271	P	P	17 35 49.0	-0.8
	comp=Z,77nm,0.7s						
STKI	Sintang	70.54	279	P	P	17 35 53.1	-0.1
	comp=Z,68nm,0.9s						
SBUM	Sibu	70.87	281	P	P	17 35 56.4	+1.2
SBUM	Sibu	70.87	281		P	17 35 55.1	-0.1
SBUM	Sibu	70.87	281	P	P	17 35 54.8	-0.4
SBUM	Sibu	70.87	281	P	P	17 35 55.2	+0.1
	comp=Z,15nm,1.4s						
BBJI	Bungbulang	71.08	270	P	P	17 35 55.4	-1.2
	comp=Z,37nm,0.8s						
INU	Inuyama	71.25	324	P	P	17 35 58.0	+1.1
MJAR	Matsushiro Arr	71.51	325	P	P	17 35 58.7	+0.3
	comp=Z,7.6nm,0.8s,baz=158,slow=5.7,SNR=19						
	comp=Z,7.6nm,0.8s						
MJAR	Matsushiro Arr	71.51	325	P	P	17 35 58.4	0.0
MAJO	Matsushiro	71.51	325	P	P	17 35 58.2	-0.3
MAJO	Matsushiro	71.51	325	P	P	17 35 58.7	+0.2
	comp=Z,16nm,1.0s						
MJB9	Matsu-Tunnel	71.51	325		P	17 35 59.0	+0.5
JNU	Nakatsue	73.20	318	P	P	17 36 09.2	+0.9
	comp=Z,11nm,0.9s,baz=131,slow=6.1,SNR=3.5						
	comp=Z,11nm,0.9s						
TWG	Pinlang	73.52	304	P	P	17 36 08.9	-1.4
	comp=Z,36nm,2.1s						
NACB	Ninganchiao	73.90	306	P	P	17 36 13.4	+1.0
NACB	Ninganchiao	73.90	306	P	P	17 36 12.3	-0.1
	comp=Z,69nm,1.1s						
TPUB	Ta-pu	74.13	304	P	P	17 36 14.3	+0.5
TPUB	Ta-pu	74.13	304	P	P	17 36 13.0	-0.8
	comp=Z,70nm,1.3s						
SSLB	Suanglung	74.16	305	P	P	17 36 13.2	-0.8
SSLB	Suanglung	74.16	305		P	17 36 12.8	-1.1
SSLB	Suanglung	74.16	305	P	P	17 36 13.0	-1.0
	comp=Z,73nm,0.9s						
YHNB	Yeheng	74.35	306	P	P	17 36 16.2	+1.1
YHNB	Yeheng	74.35	306	P	P	17 36 14.4	-0.7
YHNB	Yeheng	74.35	306	P	P	17 36 15.3	+0.3
	comp=Z,80nm,1.1s						
TATO	Taipei	74.44	306	P	P	17 36 15.2	-0.2
	comp=Z,232nm,2.5s						
ADK	Adak	74.91	2	P	P	17 36 17.6	+0.2
	comp=Z,34nm,0.8s						
BELA	Belgrano 2	77.00	173		P	17 36 29.0	+0.1
KSRS	Korea Array	77.91	320	P	P	17 36 35.6	+1.4
	comp=Z,4.2nm,0.8s,baz=133,slow=5.1,SNR=18						
	comp=Z,4.2nm,0.8s						
MYKOM	Kota Tinggi	78.19	277	P	P	17 36 37.2	+0.8
MYKOM	Kota Tinggi	78.19	277		P	17 36 35.9	-0.4
MYKOM				IAmb	IAmb	17 36 37.3	
	comp=Z,25nm,0.8s						
MYKOM	Kota Tinggi	78.19	277	P	P	17 36 36.0	-0.4
	comp=Z,37nm,0.8s						
MYKOM	Kota Tinggi	78.19	277	P	P	17 36 36.3	-0.1
	comp=Z,37nm,0.8s						
MAW	Mawson	78.37	200	P	P	17 36 37.1	+0.7
	comp=Z,5.8nm,1.0s						
MAW	Mawson	78.37	200	P	P	17 36 37.0	+0.7
	comp=Z,15nm,0.6s,baz=138,slow=5.9,SNR=52						
	comp=Z,15nm,0.6s						
MAW	Mawson	78.37	200		P	17 36 36.8	+0.5
MAW	Mawson	78.37	200	P	P	17 36 37.2	+0.9
	comp=Z,5.8nm,1.0s						
DLV	Lat	78.38	288	P	P	17 36 38.3	+0.8
DLV	Lat	78.38	288	P	P	17 36 38.0	+0.5
DLV				IAmb	IAmb	17 36 39.3	
	comp=Z,29nm,1.0s						
DLV	Lat	78.38	288	P	P	17 36 38.3	+0.8
	comp=Z,29nm,1.1s						
PETK	Petropavlovsk-	78.56	346	P	P	17 36 38.0	+0.6
	comp=Z,5.2nm,0.6s,baz=116,slow=5.5,SNR=16						
	comp=Z,5.2nm,0.6s						
USRK	Ussuriysk Ar.	80.36	327	P	P	17 36 48.3	+1.2
	comp=Z,6.9nm,0.9s,baz=130,slow=4.2,SNR=7.4						
	comp=Z,6.9nm,0.9s						
USRK	Ussuriysk Ar.	80.36	327	P	P	17 36 48.1	+1.0
NJ2	Nanjing	80.41	311	*e*P	P	17 36 49.1	+1.5
NJ2				pmax	pmax		
	comp=Z,42nm,0.6s						
PMPB	Monarch Peak	81.28	45	IAmb	IAmb	17 36 55.0	
	comp=Z,23nm,1.1s						
PKD	Bear Valley Ra	81.29	45	IAmb	IAmb	17 36 54.7	
	comp=Z,23nm,1.1s						
MHC	Mount Hamilton	81.43	43	IAmb	IAmb	17 36 55.7	
	comp=Z,18nm,0.9s						
IPM	Ipoh	81.86	278	P	P	17 36 55.7	+0.1
IPM	Ipoh	81.86	278	P	P	17 36 55.0	-0.5
IPM	Ipoh	81.86	278	P	P	17 36 55.7	+0.1
	comp=Z,55nm,0.9s						
MDJ	Mudanjiang	81.87	326	P	P	17 36 56.1	+1.2
	comp=Z,13nm,1.4s						
MWC	Mount Wilson	81.92	47	IAmb	IAmb	17 36 57.8	
	comp=Z,23nm,1.1s						
DPP	Dos Picos Cty	82.00	49	IAmb	IAmb	17 36 58.2	
	comp=Z,25nm,0.8s						
VES	Vestal, Richgr	82.18	46	IAmb	IAmb	17 36 58.2	
	comp=Z,25nm,0.8s						
TPO	Tropico Hills	82.19	47	IAmb	IAmb	17 36 59.4	
	comp=Z,18nm,0.9s						
SLBS	Sierra La Lagu	82.35	60	P	P	17 36 59.2	+1.3
SLBS				IAmb	IAmb	17 37 00.8	
	comp=Z,27nm,0.9s						
SLBS	Sierra La Lagu	82.35	60	P	P	17 37 00.3	+2.4
	comp=Z,48nm,1.8s						
SRIG	Santa Rosalia	82.38	56	P	P	17 36 59.2	+1.4
	comp=Z,42nm,1.1s						
ISA	Isabella, Lake	82.48	46	IAmb	IAmb	17 37 00.8	
	comp=Z,24nm,0.9s						
O02D	Mt. Diablo Mer	82.48	40	IAmb	IAmb	17 37 01.6	
	comp=Z,47nm,1.2s						
BORC	Borrego Spring	82.51	49	IAmb	IAmb	17 37 01.0	
	comp=Z,41nm,1.4s						
YUH	Yuha Desert	82.51	50	IAmb	IAmb	17 37 01.1	
	comp=Z,26nm,1.3s						
KULM	Kulim	82.53	279	P	P	17 36 59.8	+0.9
KULM	Kulim	82.53	279	P	P	17 36 58.7	-0.3
KULM				IAmb	IAmb	17 37 00.1	
	comp=Z,20nm,0.8s						
KULM	Kulim	82.53	279	P	P	17 36 59.0	+0.1
	comp=Z,30nm,1.1s						
KHBM	Hayfork Bally	82.53	40	IAmb	IAmb	17 37 01.4	
	comp=Z,18nm,0.9s						
CMB	Columbia Colle	82.64	43	IAmb	IAmb	17 37 01.3	
	comp=Z,20nm,0.9s						
PFO	Pinyon Flats O	82.67	49		P	17 37 00.2	+0.8
PFO	Pinyon Flats O	82.67	49	P	P	17 37 01.0	+1.6
WHN	Wuhan	82.78	307	P	P	17 37 00.2	+0.4
RPSI	Rantau Prapat	83.05	276	P	P	17 37 00.4	-1.2
	comp=Z,23nm,1.2s						
CCCA	Chr Cany lake	83.14	47	IAmb	IAmb	17 37 04.2	
	comp=Z,27nm,1.0s						
CLC	China Lake	83.15	46	IAmb	IAmb	17 37 04.0	
	comp=Z,24nm,1.0s						
O03E	Paynes Creek	83.15	41	IAmb	IAmb	17 37 03.9	
	comp=Z,28nm,0.9s						
BELC	Belle Mtn. Jos	83.21	49	IAmb	IAmb	17 37 04.7	
	comp=Z,17nm,0.9s						
M02C	Callahan	83.21	39	IAmb	IAmb	17 37 04.6	
	comp=Z,16nm,0.8s						
GSC	Goldstone, Bar	83.39	47	IAmb	IAmb	17 37 05.2	
	comp=Z,17nm,0.9s						
WAKR	Walker	83.52	43		P	17 37 04.7	+1.1
WAKR				IAmb	IAmb	17 37 06.3	
	comp=Z,20nm,0.9s						
M03C	McCloud	83.57	40	IAmb	IAmb	17 37 06.2	
	comp=Z,27nm,0.8s						
HATC	Hat Creek Radi	83.67	41	IAmb	IAmb	17 37 06.8	
	comp=Z,32nm,0.9s						
ELIB	Princess Elisa	83.68	187	*d*P	P	17 37 03.5	-0.3
	comp=Z,12nm,0.6s						
GSI	Gunungsitoli	83.73	274	P	P	17 37 05.6	+0.6
	comp=Z,59nm,1.2s						
PNTR	Pine Nut	83.77	43	IAmb	IAmb	17 37 07.3	
	comp=Z,32nm,0.9s						
IRM	Iron Mountain	83.88	49	IAmb	IAmb	17 37 08.2	
	comp=Z,37nm,1.3s						
KDAK	Kodiak Island	83.92	14	P	P	17 37 05.9	+1.1
	comp=Z,7.3nm,1.0s,baz=8.0,slow=21,SNR=1.6						
	comp=Z,7.3nm,1.0s						
TIA	Tai'an	83.95	314	P	P	17 37 06.6	+1.1
TIA				pmax	pmax		
	comp=Z,32nm,1.0s						
LHV	Little Huntoon	83.96	44	IAmb	IAmb	17 37 08.3	
	comp=Z,16nm,1.0s						
GRAC	Grapevine Rang	83.97	46	IAmb	IAmb	17 37 08.4	
	comp=Z,17nm,0.8s						
L04D	Klamath Falls	84.05	39	IAmb	IAmb	17 37 08.7	
	comp=Z,27nm,1.2s						
BLYC	Blythe	84.09	50	IAmb	IAmb	17 37 09.1	
	comp=Z,17nm,0.9s						
113A	Mohawk Valley,	84.10	51	IAmb	IAmb	17 37 09.2	
	comp=Z,20nm,1.1s						
KLR	Kul'dur	84.10	330	P	P	17 37 07.8	+1.9
	comp=Z,0.9nm,0.5s,baz=128,slow=10,SNR=2.5						
	comp=Z,0.9nm,0.5s						
NVAR	Mina Array Bea	84.20	44	P	P	17 37 07.8	+0.8
	comp=Z,7.0nm,0.9s,baz=221,slow=8.1,SNR=22						
NVAR				PP	PP	17 40 30.6	-1.0
	comp=Z,0.3nm,0.5s,baz=278,slow=7.3,SNR=3.6						
	comp=Z,7.0nm,0.9s						
NVAR	Mina Array Bea	84.20	44	P	P	17 37 07.4	+0.4
HSIG		84.22	55	IAmb	IAmb	17 37 09.6	
	comp=Z,24nm,0.8s						
KCSI	Kotacane, Aceh	84.44	276	P	P	17 37 06.9	-1.5
	comp=Z,7.6nm,1.4s						
TROLL	Troll, Antarti	84.93	181	⇓P	P	17 37 09.7	-0.3
	comp=Z,1µm,0.4s						
MOD	Modoc Plateau	85.03	40	IAmb	IAmb	17 37 13.3	
	comp=Z,21nm,1.4s						
K05A	Summer Lake	85.18	39	IAmb	IAmb	17 37 14.4	
	comp=Z,23nm,1.1s						
COYC	Coyhaique	85.22	138	P	P	17 37 12.8	+1.1
COYC				IAmb	IAmb	17 37 14.3	
	comp=Z,12nm,0.7s						
COYC	Coyhaique	85.22	138	P	P	17 37 13.4	+1.7
	comp=Z,21nm,1.0s						
SNAA	Sanae	85.26	179	⇓P	P	17 37 10.9	-0.6
	comp=Z,137nm,0.4s						
SNAA	Sanae	85.26	179	P	P	17 37 11.1	-0.4
	comp=Z,4.9nm,0.5s,baz=207,slow=8.6,SNR=29						
	comp=Z,4.9nm,0.5s						
SNAA	Sanae	85.26	179	P	P	17 37 10.4	-1.0
SNAA				IAmb	IAmb	17 37 11.5	
	comp=Z,7.4nm,0.5s						
SNAA	Sanae	85.26	179	P	P	17 37 10.7	-0.8
	comp=Z,11nm,0.6s						
J05D	Fort Rock, OR	85.33	39	IAmb	IAmb	17 37 15.0	
	comp=Z,19nm,0.8s						
VNA3	Neumayer Olymp	85.46	177	⇓P	P	17 37 11.8	-0.6
	comp=Z,6.3nm,0.4s						
VNA3				⇑S	S	17 46 56.7	-1.7
	comp=E,2.4nm,0.8s						
VNA3	Neumayer Olymp	85.46	177	P	P	17 37 12.0	-0.4
	comp=Z,19nm,1.2s						
H04A	Detroit Lake	85.66	37	IAmb	IAmb	17 37 15.9	
	comp=Z,15nm,1.2s						
PRN	Pahroc Range	85.73	46	IAmb	IAmb	17 37 17.1	
	comp=Z,12nm,0.9s						
PINE	Pine Mountain	85.81	38	IAmb	IAmb	17 37 17.0	
	comp=Z,15nm,0.8s						
VNA2	Neumayer--Watz	85.88	178	⇓P	P	17 37 14.0	-0.4
	comp=Z,8.6nm,0.5s,baz=182,slow=4.6						
VNA2				⇑S	S	17 47 01.2	-1.1
	comp=E,1.8nm,0.6s,slow=4.5						
VNA2	Neumayer--Watz	85.88	178	P	P	17 37 14.2	-0.2
	comp=Z,16nm,0.6s						
TUC	Tucson	86.01	52	P	P	17 37 16.6	+0.9
TUC				IAmb	IAmb	17 37 19.0	
	comp=Z,18nm,0.9s						
TUC	Tucson	86.01	52	P	P	17 37 18.0	+2.3
	comp=Z,22nm,1.0s						
MA2	Magadan	86.05	345	P	P	17 37 15.5	+0.4
	comp=Z,21nm,1.3s						
VNA1	Neumayer--Stat	86.12	177	P	P	17 37 15.4	-0.1
	comp=Z,3.2nm,0.4s						
ENH	Enshi	86.25	305	P	P	17 37 17.8	+1.0
ENH	Enshi	86.25	305	IAmb	IAmb	17 37 18.8	
	comp=Z,24nm,0.9s						
ENH	Enshi	86.25	305	P	P	17 37 17.9	+1.1
	comp=Z,35nm,1.5s						
WVOR	Wild Horse Val	86.34	41	IAmb	IAmb	17 37 19.6	
	comp=Z,14nm,1.1s						
WVOR	Wild Horse Val	86.34	41	P	P	17 37 18.7	+1.6
	comp=Z,15nm,1.3s						
LL02	Futaleuf	86.50	136	P	P	17 37 18.9	+1.0
LL02	Futaleuf	86.50	136	P	P	17 37 19.4	+1.5
	comp=Z,12nm,1.0s						
SLVN	Son La	86.51	295	P	P	17 37 19.1	+0.8
SLVN	Son La	86.51	295	P	P	17 37 19.3	+1.0
BJI2	Beijing	86.72	316	P	P	17 37 19.4	+0.6
BJI2				pmax	pmax		
	comp=Z,6.0nm,0.8s						
I07A	Izee	86.81	39	IAmb	IAmb	17 37 21.9	
	comp=Z,21nm,1.0s						
HEH	HeiHe	86.83	329	*e*P	P	17 37 19.7	+0.7
HEH				pmax	pmax		
	comp=Z,8.0nm,1.1s						
G06A	Carlson Farm,	86.87	37	IAmb	IAmb	17 37 21.7	
	comp=Z,17nm,1.0s						
J08A	Circle Bar Ran	86.98	40	IAmb	IAmb	17 37 22.6	
	comp=Z,29nm,1.2s						
U15A	North Rim	87.07	48	IAmb	IAmb	17 37 23.7	
	comp=Z,21nm,0.8s						
GNW	Green Mountain	87.14	35	IAmb	IAmb	17 37 23.1	
	comp=Z,18nm,1.2s						
PSUT	Pine Spring	87.14	46	P	P	17 37 21.7	+0.6
WUAZ	Wupatki	87.23	49	IAmb	IAmb	17 37 24.2	
	comp=Z,11nm,0.9s						
CLRS	Cowichan Lake	87.28	33	IAmb	IAmb	17 37 23.7	
	comp=Z,21nm,1.1s						
HPIG		87.30	59	IAmb	IAmb	17 37 24.4	
	comp=Z,12nm,0.9s						
HPIG		87.30	59	P	P	17 37 23.5	+1.4
	comp=Z,19nm,0.9s						
L19K	White Mountain	87.49	11	IAmb	IAmb	17 37 23.5	
	comp=Z,8.2nm,0.8s						
PGC	Sidney	87.51	34	IAmb	IAmb	17 37 24.6	
	comp=Z,18nm,0.8s						
PKCU	Pink Cliffs	87.59	47	IAmb	IAmb	17 37 26.6	
	comp=Z,22nm,0.9s						
X18A	Snowflake	87.73	51	IAmb	IAmb	17 37 26.5	
	comp=Z,8.4nm,0.7s						
G08A	Pilot Rock	87.84	38	P	P	17 37 25.2	+1.1
G08A				IAmb	IAmb	17 37 26.5	
	comp=Z,19nm,1.0s						
MXC	Moxie City	87.88	36	IAmb	IAmb	17 37 26.5	
	comp=Z,11nm,0.8s						
ZAIG	Zacatecas	87.93	64	IAmb	IAmb	17 37 28.3	
	comp=Z,11nm,0.9s						
ZAIG	Zacatecas	87.93	64	P	P	17 37 27.2	+2.0
	comp=Z,16nm,1.1s						
LTY	Liberty	88.09	36	IAmb	IAmb	17 37 26.6	
	comp=Z,8.4nm,0.7s						
E07A	Sunnyside	88.11	37	IAmb	IAmb	17 37 27.7	
	comp=Z,22nm,1.0s						
HAWA	Hanford	88.18	37	IAmb	IAmb	17 37 28.0	
	comp=Z,19nm,1.0s						
121A	Cookes Peak, D	88.32	53	IAmb	IAmb	17 37 29.8	
	comp=Z,12nm,0.9s						
XAN	Xi'an	88.51	308	P	P	17 37 28.9	+1.5
XAN				pmax	pmax		
	comp=Z,25nm,0.8s						
BMO	Blue Mountains	88.53	39	P	P	17 37 27.9	+0.6
BMO				IAmb	IAmb	17 37 29.3	
	comp=Z,16nm,1.4s						
PLCA	Paso Flores	88.55	134	P	P	17 37 28.3	+0.7
	comp=Z,1.2nm,0.5s,baz=189,slow=2.0,SNR=4.0						
	comp=Z,1.2nm,0.5s						
MFID	Camas Ranch	88.59	41	IAmb	IAmb	17 37 29.9	
	comp=Z,19nm,0.9s						
DUG	Dugway, Tooele	88.71	45	P	P	17 37 29.7	+1.4
	comp=Z,5.6nm,1.3s						
EPH	Ephrata	88.73	36	IAmb	IAmb	17 37 29.6	
	comp=Z,7.5nm,0.7s						
D08A	Wollman Farm,	88.92	37	IAmb	IAmb	17 37 31.3	
	comp=Z,13nm,0.9s						
E09A	Wood Farm, Sta	89.03	37	IAmb	IAmb	17 37 31.4	
	comp=Z,11nm,1.0s						
TLIG	Tlapa	89.10	71	IAmb	IAmb	17 37 33.4	
	comp=Z,12nm,0.9s						
Q16A	Castle Valley	89.12	47	IAmb	IAmb	17 37 33.9	
	comp=Z,14nm,0.9s						
CAST	Castle Rocks	89.15	12	P	P	17 37 28.6	-1.0
CAST				IAmb	IAmb	17 37 29.4	
	comp=Z,9.2nm,0.9s						
KMI2	Kunming	89.15	298	P	P	17 37 32.1	+1.3
KMI2				pmax	pmax		
	comp=Z,15nm,1.0s						
F10A	Beach Ranch, E	89.23	38	IAmb	IAmb	17 37 32.1	
	comp=Z,11nm,1.0s						
MPU	Maple Canyon	89.39	45	IAmb	IAmb	17 37 33.9	
	comp=Z,10nm,0.9s						
PLID	Pearl Lake	89.43	39	P	P	17 37 31.6	0.0
PLID				IAmb	IAmb	17 37 33.6	
	comp=Z,15nm,1.4s						
B08A	Colville Reser	89.47	35	P	P	17 37 31.6	+0.1
B08A				IAmb	IAmb	17 37 33.0	
	comp=Z,9.3nm,1.1s						
CMAR	Chiang Mai Arr	89.49	290	P	P	17 37 33.8	+1.6
	comp=Z,10nm,0.9s,baz=133,slow=3.2,SNR=50						
CMAR				PP	PP	17 41 12.7	-1.0
	comp=Z,1.8nm,0.8s,baz=132,slow=6.9,SNR=7.1						
	comp=Z,10nm,0.9s						
CMAR	Chiang Mai Arr	89.49	290	P	P	17 37 33.4	+1.2
HLID	Hailey	89.53	41	IAmb	IAmb	17 37 34.5	
	comp=Z,8.7nm,0.9s						
HLID	Hailey	89.53	41	P	P	17 37 33.7	+1.7
	comp=Z,10nm,0.9s						
TRF	Thorofare Moun	89.53	13	IAmb	IAmb	17 37 33.2	
	comp=Z,11nm,0.9s						
HVU	Hansel Valley	89.58	44	IAmb	IAmb	17 37 34.5	
	comp=Z,15nm,0.9s						
Y22A	Socorro	89.60	53	IAmb	IAmb	17 37 35.1	
	comp=Z,14nm,1.0s						
VHRN	Van Horn	89.60	56	IAmb	IAmb	17 37 35.4	
	comp=Z,11nm,0.9s						
CHTO	Chiang Mai	89.64	291	P	P	17 37 33.6	+0.7
CHTO	Chiang Mai	89.64	291		P	17 37 33.1	+0.3
CHTO	Chiang Mai	89.64	291	P	P	17 37 33.2	+0.3
CHTO	Chiang Mai	89.64	291	P	P	17 37 34.4	+1.5
	comp=Z,25nm,1.0s						
SRU	San Rafael Swe	89.66	47	P	P	17 37 33.3	+0.5
P17A	Butcher Ranch,	89.70	46	IAmb	IAmb	17 37 35.5	
	comp=Z,13nm,1.0s						
MNTX	Cornudas Mount	89.72	55	IAmb	IAmb	17 37 35.6	
	comp=Z,10nm,0.9s						
MNTX	Cornudas Mount	89.72	55	P	P	17 37 34.8	+1.7
	comp=Z,16nm,1.3s						
RND	Reindeer	89.79	13	IAmb	IAmb	17 37 33.6	
	comp=Z,13nm,1.1s						
TX31	Lajitas Ar. Si	89.96	58	IAmb	IAmb	17 37 37.0	
	comp=Z,14nm,0.9s						
TXAR	Lajitas Array	89.96	58	P	P	17 37 36.2	+1.9
	comp=Z,7.4nm,0.8s,baz=210,slow=6.7,SNR=73						
TXAR				PKKPbc	PKKPbc	17 55 03.0	+0.1
	comp=Z,0.4nm,0.7s,baz=170,slow=2.2,SNR=4.1						
	comp=Z,7.4nm,0.8s						
TXAR	Lajitas Array	89.96	58	P	P	17 37 35.3	+1.0
BI02	San Fabin de	90.06	130	P	P	17 37 35.6	+0.9
BI02				IAmb	IAmb	17 37 37.0	
	comp=Z,8.6nm,0.9s						
BI02	San Fabin de	90.06	130	P	P	17 37 35.9	+1.1
	comp=Z,13nm,0.9s						
PV05	Paradox Valley	90.10	48	IAmb	IAmb	17 37 37.3	
	comp=Z,7.0nm,0.8s						
P18A	Preston Nutter	90.11	46	IAmb	IAmb	17 37 37.1	
	comp=Z,7.6nm,0.8s						
HHC	Hu-ho-hao-te	90.12	315	*e*P	P	17 37 34.0	-0.8
HHC				pmax	pmax		
	comp=Z,6.0nm,0.5s						
HWUT	Hardware Ranch	90.26	44	IAmb	IAmb	17 37 37.2	
	comp=Z,8.3nm,0.7s						
HWUT	Hardware Ranch	90.26	44	P	P	17 37 36.5	+0.9
	comp=Z,16nm,1.0s						
PV10	Paradox Valley	90.29	48	IAmb	IAmb	17 37 38.8	
	comp=Z,9.6nm,0.8s						
PV19	Morning Glory	90.30	48	P	P	17 37 36.5	+0.7
PV19				IAmb	IAmb	17 37 39.0	
	comp=Z,6.9nm,0.8s						
PV19				pP	pP	17 39 30.4	-3.4
PV18	Skein Mesa, Pa	90.31	48	IAmb	IAmb	17 37 37.7	
	comp=Z,8.2nm,0.9s						
PV20	West Nyswonger	90.32	48	IAmb	IAmb	17 37 37.8	
	comp=Z,12nm,1.0s						
PV23	Carpenter Ridg	90.35	48	IAmb	IAmb	17 37 38.0	
	comp=Z,12nm,0.8s						
PV04	Paradox Valley	90.39	48	IAmb	IAmb	17 37 37.8	
	comp=Z,7.2nm,0.9s						
PV02	Paradox Valley	90.41	48	P	P	17 37 36.9	+0.6
PV02				IAmb	IAmb	17 37 38.2	
	comp=Z,7.9nm,0.9s						
PV12	Saucer Basin,	90.42	48	IAmb	IAmb	17 37 38.5	
	comp=Z,18nm,1.3s						
PV21	Cone Mtn., Par	90.43	48	IAmb	IAmb	17 37 40.2	
	comp=Z,8.6nm,0.7s						
TASM	ASL Pad, Albuq	90.44	52	IAmb	IAmb	17 37 38.7	
	comp=Z,9.4nm,1.1s						
TASM	ASL Pad, Albuq	90.44	52	IAmb	IAmb	17 37 38.7	
	comp=Z,9.2nm,1.0s						
ALQ	Albuquerque	90.44	52	IAmb	IAmb	17 37 38.7	
	comp=Z,9.8nm,1.1s						
ALQ	Albuquerque	90.44	52	IAmb	IAmb	17 37 38.6	
	comp=Z,9.3nm,1.0s						
ANMO	Albuquerque	90.45	52	P	P	17 37 37.1	+0.5
ANMO				IAmb	IAmb	17 37 38.6	
	comp=Z,8.7nm,1.1s						
ANMO	Albuquerque	90.45	52	P	P	17 37 37.3	+0.8
	comp=Z,9.4nm,1.0s						
ALPN	Alpine	90.45	57	IAmb	IAmb	17 37 38.9	
	comp=Z,11nm,0.9s						
PV22	Blue Mesa, Par	90.54	48	IAmb	IAmb	17 37 38.9	
	comp=Z,7.0nm,0.9s						
PV15	Paradox Valley	90.66	48	IAmb	IAmb	17 37 39.7	
	comp=Z,5.6nm,0.8s						
RDMU	Red Mountain	91.03	46	IAmb	IAmb	17 37 40.9	
	comp=Z,9.2nm,0.8s						
AHID	Auburn Hatcher	91.16	43	P	P	17 37 40.5	+0.9
AHID				IAmb	IAmb	17 37 42.5	
	comp=Z,11nm,0.9s						
AHID	Auburn Hatcher	91.16	43	P	P	17 37 40.8	+1.2
	comp=Z,14nm,1.0s						

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COLA  College            91.29  13  P       P        17 37 39.1 -0.3
      comp=Z,6.5nm,0.7s
ILAR  Eielson Array      91.41  13  P       P        17 37 39.5 -0.5
      comp=Z,0.7nm,0.5s,baz=214,slow=6.8,SNR=7.0
      comp=Z,0.7nm,0.5s
SAND  Sanderson          91.44  58  IAmb    IAmb     17 37 42.9
      comp=Z,8.3nm,0.9s
S22A  4UR Ranch, Cre     91.51  49  IAmb    IAmb     17 37 43.8
      comp=Z,10nm,1.0s
LDM   Libby Dam          91.71  37  IAmb    IAmb     17 37 43.5
      comp=Z,7.1nm,0.8s
BW06  Boulder Array      92.13  44  IAmb    IAmb     17 37 45.8
      comp=Z,4.8nm,0.8s
PD31  Pinedale Array     92.13  44  P       P        17 37 43.9 -0.3
PD31                                IAmb    IAmb     17 37 45.8
      comp=Z,4.7nm,0.8s
PDAR  Pinedale Array     92.13  44  P       P        17 37 44.7 +0.5
      comp=Z,4.2nm,0.8s,baz=210,slow=3.9,SNR=32
PDAR                                PP      PP       17 41 33.3 -0.8
      comp=Z,1.3nm,0.9s,baz=248,slow=7.8,SNR=8.6
      comp=Z,4.2nm,0.8s
PDAR  Pinedale Array     92.13  44  P       P        17 37 44.1 -0.1
L29M  L29M               92.18  18  IAmb    IAmb     17 37 45.5
      comp=Z,8.1nm,1.0s
SDCO  Great Sand Dun     92.44  50  IAmb    IAmb     17 37 47.5
      comp=Z,4.4nm,0.8s
HNDO  Hondo              93.49  59  IAmb    IAmb     17 37 52.6
      comp=Z,10nm,0.9s
YAK   Yakutsk            94.08 339  P       P        17 37 52.5 +0.3
      comp=Z,4.8nm,0.8s
APMT  Aspermont          94.43  56  P       P        17 37 53.6 -1.0
APMT                                IAmb    IAmb     17 37 55.9
      comp=Z,3.6nm,0.7s
RSSD  Black Hills        96.32  45  P       P        17 38 03.5 +0.3
      comp=Z,3.3nm,0.5s
SONM  Songino Array      96.77 319  P       P        17 38 06.0 +1.0
      comp=Z,0.3nm,0.3s,baz=344,slow=26,SNR=1.9
      comp=Z,0.3nm,0.3s
SONM  Songino Array      96.77 319  P       P        17 38 06.0 +1.0
ZALV  Zalesovo Beam     111.60 321  PKiKP   PKiKP    17 43 04.1 -0.8
      comp=Z,0.4nm,0.3s,baz=119,slow=1.8,SNR=3.9
MKAR  Makanchi Array    111.88 313  PKiKP   PKiKP    17 43 04.8 -0.9
      comp=Z,0.9nm,0.6s,baz=88,slow=3.6,SNR=12
MKAR                                PKKPab  PKKPab   17 54 10.6 +0.9
      comp=Z,0.5nm,0.5s,baz=264,slow=5.6,SNR=5.3
KURK  Kurchatov         114.89 317          PKPdf    17 43 10.4 -0.8
KURBB Kurchatov Arra    114.94 317  PKP     PKPdf    17 43 10.6 -0.8
      comp=Z,1.6nm,0.6s,baz=101,slow=1.8,SNR=13
KK31  Karatay Array     119.65 307          PKPdf    17 43 20.0 -0.7
KKAR  Karatay Array     119.65 307          PKPdf    17 43 19.8 -0.9
BVAR  Borovoye Array    120.11 319  PKP     PKPdf    17 43 20.6 -0.7
      comp=Z,3.0nm,0.5s,baz=100,slow=1.6,SNR=18
BVAR                                PP      PP       17 44 55.8 -0.3
      comp=Z,1.2nm,0.8s,baz=76,slow=6.1,SNR=3.7
BVAR                                SKP     SKPdf    17 46 06.3 +0.7
      comp=Z,1.5nm,0.8s,baz=3.4,slow=5.0,SNR=3.9
BOSA  Boshof            123.02 206  PKP     PKPdf    17 43 27.4 -0.5
      comp=Z,2.4nm,0.7s,baz=281,slow=3.6,SNR=4.6
BOSA  Boshof            123.02 206          PKPdf    17 43 26.7 -1.2
SPITS Spitsbergen Ar    124.54 356  PKP     PKPdf    17 43 29.0 -0.2
      comp=Z,5.2nm,0.8s,baz=342,slow=10,SNR=6.6
ARTI  Arti              126.61 324  PKP     PKPdf    17 43 33.5 -0.2
      comp=Z,3.8nm,0.4s,baz=257,slow=1.1,SNR=8.2
ARTI  Arti              126.61 324          PKPdf    17 43 33.1 -0.6
KIRV  Kirov             130.51 329  PKP     PKiKP    17 43 41.5 -0.4
      comp=Z,4.0nm,0.5s,baz=75,slow=1.8,SNR=4.5
KIRV                                SKPbc   SKPab    17 46 14.8 -0.2
      comp=Z,24nm,0.8s,baz=344,slow=0.6,SNR=16
ARCES ARCESS Array B    131.34 348  PKhKP   PKPpre   17 43 33.3
      comp=Z,1.3nm,0.7s,baz=54,slow=3.1,SNR=3.9
ARCES                               PKP     PKPdf    17 43 41.8 -0.5
      comp=Z,0.9nm,0.5s,baz=8.1,slow=1.7,SNR=7.7
ARCES                               SKPbc   SKPab    17 46 17.9 -0.3
      comp=Z,4.3nm,0.7s,baz=28,slow=2.9,SNR=12
BELG  Belogornoye       133.79 321  PKP     PKPdf    17 43 48.0 +0.7
      comp=Z,9.3nm,0.8s,baz=263,slow=0.8,SNR=3.4
BELG                                SKPbc   SKPbc    17 46 25.9 +0.1
      comp=Z,22nm,0.9s,baz=37,slow=4.6,SNR=8.0
FINES FINESS Array B    137.94 342  PKhKP   PKPpre   17 43 45.2
      comp=Z,1.1nm,0.7s,baz=94,slow=2.7,SNR=6.7
FINES                               PKP     PKPdf    17 43 55.0 +0.2
      comp=Z,1.0nm,0.4s,baz=79,slow=4.1,SNR=2.8
FINES                               SKPbc   SKPbc    17 46 38.2 +0.1
      comp=Z,3.0nm,0.5s,baz=44,slow=4.0,SNR=14
LODK  Lodwar            140.68 245          PKPpre   17 43 55.6
NB2   NORSAR Subarra    141.52 351  PKP     PKPdf    17 43 56.5 -4.8
      comp=Z,0.5nm,0.4s,baz=16,slow=3.2
NB2                                 SKP     SKPdf    17 46 47.9 +3.0
      comp=Z,0.0nm,0.6s,baz=17,slow=2.6
NOA   NORSAR Array B    141.52 351  PKhKP   PKPpre   17 43 56.7
      comp=Z,2.1nm,0.7s,baz=16,slow=4.7,SNR=10
NOA                                 SKPbc   SKPbc    17 46 48.4 +0.6
      comp=Z,2.2nm,0.8s,baz=16,slow=4.3,SNR=5.5
MBAR  Mbarara           141.97 236          PKPdf    17 43 59.9 -3.9
HFS   Hagfors           142.00 349  PKhKP   PKPpre   17 43 57.9
      comp=Z,12nm,0.3s,baz=29,slow=3.4,SNR=88
KONO  Kongsberg         143.08 352          PKPab    17 44 01.1 -0.6
TJOU  Tjoern            144.34 350 i P      PKPbc    17 44 05.5 -0.6
AK03  Malin Array Si    144.55 328  PKP     PKPdf    17 44 06.2 -0.7
HOMB  Homborsund        144.56 352 i P      PKPab    17 44 07.1 -0.2
AKASG Malin Array Be    144.56 328  PKP     PKPdf    17 44 06.5 -0.4
      comp=Z,9.0nm,0.5s,baz=45,slow=4.1,SNR=58
AKASG                               SKPbc   SKPbc    17 46 55.3  0.0
      comp=Z,9.3nm,1.0s,baz=48,slow=2.1,SNR=10
AKASG Malin Array Be    144.56 328          PKPdf    17 44 05.6 -1.3
AKBB  Malin Array Si    144.56 328  PKP     PKPdf    17 44 06.6 -0.3
AK23  Malin Array Si    144.57 328  PKP     PKPdf    17 44 06.5 -0.4
AK01  Malin Array Si    144.58 328  PKP     PKPdf    17 44 06.5 -0.4
KIEV  Kiev              144.58 328          PKPdf    17 44 06.0 -0.9
KIEV  Kiev              144.58 328 ⇓P       PKPdf    17 44 06.7 -0.2
KIEV  Kiev              144.58 328  PKP     PKPdf    17 44 06.7 -0.2
AK04  Malin Array Si    144.58 328  PKP     PKPdf    17 44 06.4 -0.5
AK09  Malin Array Si    144.59 328  PKP     PKPdf    17 44 06.5 -0.5
AK08  Malin Array Si    144.59 328  PKP     PKPdf    17 44 06.5 -0.5
AK22  Malin Array Si    144.60 328  PKP     PKPdf    17 44 06.6 -0.4
SNART Snartemo          144.63 354 i P      PKPbc    17 44 07.3 +0.2
SUW   Suwalki           144.79 336 ePKP     PKPbc    17 44 07.9 +0.3
BLEU  Blekinge          145.09 345 i P      PKPdf    17 44 07.6  0.0
DEL   Delary            145.38 347 i P      PKPbc    17 44 08.9 -0.5
RNPP9 Sopachiv          145.64 331  PKP     PKPdf    17 44 08.6 -0.1
RNPP8 Varash            145.71 331  PKP     PKPbc    17 44 09.7 -0.7
RNPP5 Staryi Chortor    145.77 331  PKP     PKPbc    17 44 09.9 -0.7
LUBAR Lubar, Ukraine    145.79 328  PKP     PKPdf    17 44 09.4 +0.4
BZK   Bozkurt           146.28 312 ⇑P       PKPbc    17 44 13.2 +0.8
ASF   Jabal al Asfar    146.47 293  P       PKPbc    17 44 14.3 +1.0
ASF                                 AML     AML
SORM  Soroca            146.62 325  PKP     PKPdf    17 44 11.7 +1.2
HSUJ  Al Zarqa          147.07 293  P       PKiKP    17 44 16.4 -0.3
HSUJ                                AML     AML
KMPD  K-Podol'skiy      147.32 327  PKP     PKPdf    17 44 13.2 +1.6
BRTR  Keskin Array B    147.36 308  PKPbc   PKPbc    17 44 15.2 -0.3
      comp=Z,4.5nm,0.6s,baz=144,slow=4.8,SNR=25
BRTR  Keskin Array B    147.36 308  PKPdf   PKPdf    17 44 10.1 -2.2
BRTR                                        PKPbc    17 44 14.3 -1.2
GEM   Giv'at Ha'Em      147.37 296  P       PKiKP    17 44 16.9 -0.3
GEM                                 AML     AML
QRNJ  Al-Qirein         147.56 294  P       PKiKP    17 44 17.5 -0.1
QRNJ                                AML     AML
MMAI  Mount Meron Ar    147.62 295  PKPbc   PKiKP    17 44 17.3 -0.5
      comp=Z,48nm,0.7s,baz=45,slow=8.4,SNR=30
EKA   Eskdalemuir Ar    147.91   4  PKPbc   PKPbc    17 44 16.0 -0.2
      comp=Z,1.6nm,0.4s,baz=338,slow=2.3,SNR=20
SALP  Salfit            147.92 294  P       PKiKP    17 44 18.2 -0.2
SALP                                AML     AML
YTIR  Yattir            148.06 292  P       PKiKP    17 44 19.0 +0.2
YTIR                                AML     AML
HRFI  Mount Harif       148.24 290  P       PKiKP    17 44 18.8 -0.3
HRFI                                AML     AML
PRNI  Paran             148.25 290  P       PKiKP    17 44 18.9 -0.2
PRNI                                AML     AML
AQBJ  Aqaba             148.25 289  P       PKiKP    17 44 19.3 +0.2
AQBJ                                AML     AML
KWP   Kalwaria Pacla    148.33 332 ePKP     PKPbc    17 44 17.7 +0.2
EIL   Elat              148.34 289  P       PKiKP    17 44 19.1 -0.2
EIL                                 AML     AML
GHRR                    148.39 323 ⇓P       PKiKP    17 44 19.0 +0.1
BIZ   Bicaz             148.56 325 ⇓P       PKiKP    17 44 18.9 -0.4
BURAR Bucovina Array    148.57 327  PKPdf   PKPdf    17 44 12.0 -1.8
BURAR                                       PKPbc    17 44 17.4 -0.9
BURAR Bucovina Array    148.57 327 ⇓P       PKiKP    17 44 18.9 -0.5
KZIT  Kziot             148.72 292  P       PKiKP    17 44 20.0 -0.1
KZIT                                AML     AML
TIRR  Tirgusor          148.73 319 ⇑P       PKPbc    17 44 18.9 +0.3
ONER  Baraj Valea Uz    148.78 324 ⇓P       PKPbc    17 44 19.2 +0.5
VRI   Vrincioaia        148.89 323 ⇓P       PKPbc    17 44 19.0  0.0
CSS   Mathiatis         148.95 299  P       PKPbc    17 44 19.9 +0.4
MANR  Mangalia          148.97 318 ⇑P       PKiKP    17 44 19.7 -0.4
KOLS  Kolonicke sedl    149.04 331 ePKP     PKiKP    17 44 20.3 +0.1
OJC   Ojcow             149.07 335 ePKP     PKiKP    17 44 20.1 -0.1
NIE   Niedzica          149.51 334 ePKP     PKiKP    17 44 21.1  0.0
MLR   Muntele Rosu      149.55 323  PKPbc   PKPbc    17 44 20.8 +0.1
      comp=Z,2.1nm,0.6s,baz=322,slow=2.3,SNR=4.1
MLR   Muntele Rosu      149.55 323 ⇓P       PKPbc    17 44 20.8 +0.1
DOPR  Dopca             149.56 324 ⇑P       PKiKP    17 44 21.2 -0.1
BORA  Eskisehir         149.58 310  PKPdf   PKPdf    17 44 14.0 -1.7
BORA                                        PKPbc    17 44 19.9 -1.0
KSP   Ksiaz             149.79 340 ePKP     PKiKP    17 44 21.4 -0.2
LANS  Liptovska Anna    150.06 334 ePKP     PKiKP    17 44 23.3 +1.0
STEB  Steborice         150.06 337⇑ePKP     PKiKP    17 44 22.1 -0.1
STEB                               ePKPAB   PKPab    17 44 30.7 +0.8
OSTC  Ostas             150.06 339⇑ePKP     PKiKP    17 44 22.5 +0.2
VOIR                    150.08 324 ⇑P       PKPbc    17 44 22.1 +0.2
CHVC  Chvalec           150.09 340⇑ePKP     PKiKP    17 44 22.3  0.0
DPC   Dobruska-Polom    150.21 339⇑ePKP     PKiKP    17 44 22.9 +0.3
MARR  Marisel-Cluj      150.26 327 ⇑P       PKPbc    17 44 22.4 +0.1
MORC  Moravsky Berou    150.27 337 ePKP     PKiKP    17 44 22.6 -0.1
MORC                               e                 17 44 31.8
MORC                               epPKP    pPKPab   17 46 33.7 +3.1
KRLC  Kraliky           150.29 338⇑ePKP     PKiKP    17 44 22.7 -0.1
KRLC                               ePKPAB   PKPab    17 44 32.1 +1.2
CLL   Collm             150.33 344 ePKPdf   PKPdf    17 44 18.0 +1.6
CLL                                i PKPbc  PKiKP    17 44 22.7  0.0
      comp=Z,15nm,0.9s
CLL                                i PKPab  PKPab    17 44 30.9  0.0
      comp=Z,5.0nm,0.6s
CLL                                i pPKPab pPKPab   17 46 29.0 -1.7
MAUC  Maruska           150.51 336⇑ePKP     PKiKP    17 44 23.7 +0.5
VYHS  Vyhne             150.83 334 ePKP     PKiKP    17 44 24.1 +0.2
VYHS                               e                 17 44 33.9
HSKC  Hora Svate Kat    150.86 343⇑ePKP     PKiKP    17 44 23.9  0.0
JAVC  Velka Javorina    150.99 336 ePKP     PKiKP    17 44 25.2 +0.9
JAVC                               e                 17 44 35.7
JAVC                               epPKP    pPKPab   17 46 36.0 +2.5
VRAC  Vranov            151.00 338 ePKP     PKiKP    17 44 25.2 +1.0
VRAC                               e                 17 44 34.5
VRAC                               epPKP    pPKPab   17 46 34.6 +1.1
KRUC  Moravsky          151.28 338 ePKP     PKPbc    17 44 24.6 +0.1
KRUC                               e                 17 44 35.6
KRUC                               epPKP    pPKPab   17 46 35.9 +1.3
GZR   Gura Zlata        151.31 326 ⇓P       PKPbc    17 44 24.1 -0.6
MODS  Modra-Piesok      151.53 336 ePKP     PKiKP    17 44 25.5 +0.1
TAVA  DENIZLI_Tavas     151.62 306 ⇓P       PKiKP    17 44 26.2 +0.2
HERR  Herculane         151.85 325 ⇓P       PKPbc    17 44 24.7 -1.1
KHC   Kasperske Hory    152.14 341⇑ePKP     PKiKP    17 44 26.8 +0.2
CKRC  Cesky Krumlov     152.19 340⇑ePKP     PKiKP    17 44 27.0 +0.3
GERES GERESS Array B    152.35 341  PKPbc   PKPbc    17 44 26.9  0.0
      comp=Z,0.9nm,0.6s,baz=66,slow=1.6,SNR=7.7
GERES GERESS Array B    152.35 341  PKPdf   PKPdf    17 44 17.9 -1.8
GERES                                       PKPbc    17 44 26.2 -0.8
CONA  Conrad Observa    152.43 337  PKiKP   PKiKP    17 44 28.2 +0.9
      comp=Z,3.4nm,1.1s
CONA                               ePKP     PKPab    17 44 41.7 +1.7
      comp=Z,5.3nm,0.9s
RONA  Rosalia, Austr    152.46 336 ePKP     PKPab    17 44 41.5 +1.4
      comp=Z,6.7nm,0.8s
BMRD  Maredsous         152.81 354 dP       PKiKP    17 44 28.3 +0.5
DAVOX Davos/Dischmat    155.31 344  PKPab   PKPab    17 44 53.5 +1.0
      comp=Z,3.9nm,0.6s,baz=45,slow=4.3,SNR=7.1
ESDC  Sonseca Array     163.30  11  PKPab   PKPab    17 45 26.9 -0.4
      comp=Z,1.7nm,0.9s,baz=341,slow=3.3,SNR=10
ESDC  Sonseca Array     163.30  11          PKPab    17 45 26.0 -1.3
TORD  Torodi Ar. Bea    169.80 188  PKP     PKPdf    17 44 38.4 -0.2
      comp=Z,1.1nm,1.0s,baz=244,slow=4.3,SNR=3.5
TORD                                PKPab   PKPab    17 45 56.4 -0.1
      comp=Z,2.8nm,0.7s,baz=159,slow=2.4,SNR=9.7
TORD  Torodi Ar. Bea    169.80 188          PKPdf    17 44 36.8 -1.7
TORD                                        PKPab    17 45 55.6 -0.9
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LJU ***01*** *17:39:33.6, 45.°28N×15.°95E, h39^{km}, ML2.5*
VIE ***01*** *17:39:34.4±0.8, 45.°35N×16.°12E, h3^{km}, mb2.4/13, ml2.5/16, Error ellipse: s-maj=5.1km s-min=4.4km az=160.0   47 km ESE of Karlovac*
BEO ***01*** *17:39:35.5±0.3, 45.°31N×16.°09E, h0^{km}±4^{km}, ML2.5/11*
PRU ***01*** *17:39:37.2, 45.°49N×16.°29E, h10^{km}*
ISC 01 17:39:33.6±1.0, **45.°26N**±0.°02×**16.°09E**±0.°02, **h8**^{km}±9^{km}, **n56**, σ**1.°26**/96, **Northwestern Balkan Peninsula**

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Code  Station Name        Δ°  AZ°    Phase ID          Time      Res
                                    Op      ISC       h  m  s    ISC
OZLJ  Ozalj              0.56 309 i Pg     Pb        17 39 44.8 -0.9
OZLJ                                Sg     Sg        17 39 52.3 +0.5
ZAG   Zagreb             0.57 353 ePg      Pb        17 39 45.4 -0.5
MOSL  Moslavina          0.59  53 i Pg     Pg        17 39 45.2 +0.2
MOSL                                Sg     Sg        17 39 53.8 +1.2
BOJS  Bojanci            0.64 293 ePg      Pb        17 39 46.0 -0.9
BOJS                              eSg      Sg        17 39 54.1 -0.1
BOJS                                IAML             17 39 56.0
      comp=Z,56nm,0.1s
BOJS  Bojanci            0.64 293 ePg      Pb        17 39 46.1 -0.9
BOJS                              eSg      Sb        17 39 55.7 -0.4
PTJ   Puntijarka         0.65 353 ePg      Pg        17 39 46.0 -0.2
PTJ                                 Sg     Sg        17 39 55.6 +0.9
GCIS  Gornji Cirnik      0.69 332 i Pg     Pg        17 39 46.8  0.0
GCIS                              i Sg     Sg        17 39 55.9 +0.1
GCIS                                IAML             17 39 57.9
      comp=Z,48nm,0.1s
CRES  Cresnjevec Ost     0.72 322 i Pg     Pg        17 39 47.3 -0.1
CRES                              i Sg     Sb        17 39 57.9 -0.6
CRES                                IAML             17 40 02.4
      comp=Z,104nm,0.1s
UDBI  Udbina             0.77 197 i Pg     Pb        17 39 48.5 -0.7
UDBI                                Sg     Sb        17 39 59.3 -0.6
LOBO  Lobor              0.90 359 ePg      Pb        17 39 51.7 +0.3
LOBO                                Sg     Sb        17 40 04.6 +1.1
KALN  Kalnik             0.91  16 ePg      Pg        17 39 50.8 -0.3
KALN                                Sg     Sb        17 40 04.0 +0.1
BLY   Banja Luka         0.93 123 ePg      Pn        17 39 52.4 -0.6
BLY                               eSg      Sb        17 40 05.0 +0.5
RABC  Rab                1.06 242 ePg      Pn        17 39 54.5 -0.2
NVLJ  Novalja            1.11 232 ePg      Pn        17 39 55.0 -0.4
NVLJ                                Sg     Sn        17 40 11.2 +0.3
RIY   Rijeka             1.13 274 ePg      Pn        17 39 55.0 -0.8
RIY                               eSg      Sn        17 40 11.9 +0.4
VIRC  Vir                1.22 218 ePg      Pg        17 39 56.8 -0.1
VIRC                                Sg     Sn        17 40 14.6 +1.1
CEY   Cerknica           1.26 293 ePg      Pg        17 39 58.0 +0.2
CEY                               eSg      Sn        17 40 14.7 -0.1
KIJV  Kijevo             1.27 170 i Pg     Pg        17 39 57.8 -0.2
KIJV                                Sg     Sn        17 40 16.5 +1.5
LJU   Ljubljana          1.34 306 ePg      Pg        17 39 59.3 -0.1
LJU                               eSg      Sg        17 40 17.2 +0.4
MORI  Morici             1.42 191 ePg      Pg        17 40 00.4 -0.3
MORI                                Sg     Sg        17 40 20.4 +1.2
DUGI  Dugi Otok          1.47 210 ePn      Pg        17 40 01.2 -0.5
DUGI                                Sg     Sg        17 40 21.8 +1.2
SKDS  Skadanscina        1.49 282 ePg      Pg        17 40 01.5 -0.6
SKDS                              eSg      Sg        17 40 22.4 +1.0
SOKA  Soboth             1.60 333 ePn      Pn        17 40 02.1 -0.2
      comp=Z,3.9nm,0.2s,SNR=20
SOKA                              eSn      Sg        17 40 25.9 +1.0
      comp=Z,15nm,0.2s
ZIRJ  Zirje              1.64 191 ePn      Pg        17 40 04.2 -0.8
ZIRJ                                Sn     Sg        17 40 26.6 +0.5
OBKA  Obir               1.65 320 ePn      Pb        17 40 04.2 -0.1
      comp=Z,25nm,0.2s
OBKA                              eSn      Sg        17 40 27.3 +0.7
      comp=Z,53nm,0.3s
RICI  Ricice             1.92 157 ePn      Pb        17 40 09.1 +0.3
RICI                                Sn     Sg        17 40 33.5 -1.7
ARSA  Arzberg            2.03 349 ePn      Pn        17 40 08.1  0.0
      comp=Z,4.1nm,0.2s
ARSA                              eSg      Sg        17 40 38.5 -0.3
      comp=Z,12nm,0.4s
MAKA  Makarska           2.08 161 i Pn     Pn        17 40 09.6 +0.8
HVAR  Hvar               2.10 173 ePn      Pb        17 40 11.1 -0.7
HVAR                                Sn     Sb        17 40 38.3 +0.3
SESA  Seetaler Alpe,     2.13 331   Pn     Pn        17 40 10.1 +0.3
      comp=Z,12nm,0.5s
SESA                              eSg      Sg        17 40 43.2 +1.1
MYKA  Terra Mystica      2.19 310 ePg      Pg        17 40 14.8 -0.7
      comp=Z,4.0nm,0.3s
MYKA                              eSg      Sg        17 40 43.6 -0.3
      comp=Z,6.7nm,0.3s
RONA  Rosalia, Austr     2.44   3 ePn      Pn        17 40 14.1 +0.2
      comp=Z,13nm,0.4s,SNR=14
RONA                              eSn      Sn        17 40 44.3 +0.3
      comp=Z,2.1nm,0.2s,SNR=6.6
TEKS  Tekeris            2.55 105 ePn      Pb        17 40 18.3 -1.3
LSTV  Lastovo            2.56 167 ePn      Pn        17 40 16.9 +1.5
LSTV                                Sn     Sb        17 40 49.3 -2.0
FRGS  Fruska Gora        2.63  91 ePn      Pb        17 40 20.3 -0.7
FRGS                              eSn      Sn        17 40 50.7 +2.1
KBA   Koelnbreinsper     2.63 315 ePg      Pg        17 40 24.3 +0.3
      comp=Z,4.1nm,0.3s
KBA                               eSg      Sg        17 40 58.8 +0.6
      comp=Z,6.6nm,0.4s
STON  Ston               2.66 153 ePn      Pb        17 40 19.0 -2.3
STON  Ston               2.66 153 ePn      Pb        17 40 19.9 -1.5
STON                              eSn      Sb        17 40 53.9 -0.2
CONA  Conrad Observa     2.67 357 ePn      Pn        17 40 17.2 +0.2
      comp=Z,2.9nm,0.2s,SNR=7.7
CONA                              eSn      Sn        17 40 48.4 -1.3
      comp=Z,2.9nm,0.3s,SNR=4.4
BBLS  Lazi&#263i         2.75 119 ePn      Pb        17 40 21.1 -2.0
WINA  Alland / Wiene     2.85 360 ePn      Pn        17 40 19.9 +0.6
      comp=Z,3.3nm,0.2s,SNR=5.3
MOA   Molln              2.88 335 i Pn     Pn        17 40 21.2 +1.3
      comp=Z,1.1nm,0.1s
MOA                               eSn      Sn        17 40 54.6 -0.1
      comp=Z,4.5nm,0.4s
ABTA  Abfaltersbach      2.90 302 ePg      Pg        17 40 30.3 +1.1
      comp=Z,3.0nm,0.3s
ABTA                                Sn     Sb        17 40 59.1 -2.3
      comp=Z,2.8nm,0.1s
DBRK  Dubrovnik          2.99 149 ePn      Pn        17 40 23.6 +2.4
DIVS  Divibare           3.02 111 ePn      Pn        17 40 24.5 +2.7
LESA  Schwarzleotal      3.20 314 i Pn     Pn        17 40 25.6 +1.2
      comp=Z,1.2nm,0.3s
TRUS  Trudelj            3.25 107 ePn      Pb        17 40 29.1 -2.4
WTTA  Wattenberg         3.68 305 i Pn     Pn        17 40 34.1 +3.1
      comp=Z,1.0nm,0.2s
WATA  Walderalm          3.75 305 i Pn     Pn        17 40 34.3 +2.4
      comp=Z,0.8nm,0.2s
CKRC  Cesky Krumlov      3.76 342 ePN      Pn        17 40 32.9 +0.9
CKRC                              eSN      Sn        17 41 15.1 -1.4
KRUC  Moravsky           3.81   3 ePN      Pn        17 40 32.5 -0.1
MOTA  Moosalm            4.03 303 ePn      Pn        17 40 39.7 +3.9
      comp=Z,0.4nm,0.1s
VRAC  Vranov             4.07   5 ePN      Pn        17 40 35.6 -0.5
FETA  Feichten           4.12 297 i Pg     Pg        17 40 50.8 -1.7
      comp=Z,1.5nm,0.4s
FETA                              eSn      Sn        17 41 28.8 +3.4
      comp=Z,1.6nm,0.5s
KHC   Kasperske Hory     4.23 337 ePN      Pn        17 40 39.3 +0.9
KHC                               eSN      Sn        17 41 26.0 -2.1
ZVC   Zvikov             4.38 344 ePN      Pn        17 40 40.9 +0.6
ZVC                               eSN      Sn        17 41 28.1 -3.4
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IDC ***01*** *17:49:56.5±0.6, 36.°48N×136.°68E, h0^{km}, mb4.0/21, mbtmp4.0/26, ML3.5/5, MS3.8/28, Error ellipse: s-maj=12.6km s-min=9.5km az=164.0*
NEIC ***01*** *17:49:58.0±1.5, 36.°43N±0.°03×136.°73E±0.°05, h8^{km}±3^{km}, mb4.6/57, Mwr4.5/13, Error ellipse: s-maj=5.8km s-min=4.0km az=112.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}-0.95; $M_{\theta\theta}$4.95; $M_{\phi\phi}$-4.00; $M_{r\theta}$1.04; $M_{\theta\phi}$-3.92; $M_{\phi r}$1.09; Fault plane solution: $M_0$6.19000×10^{15} NP1:ϕ_s154.70000°, δ75.53000°, λ-8.03000°.   NP2:ϕ_s246.72000°, δ82.23000°, λ-165.39000°.   Principal axes: T 6.4723, Plg5.0000°, Azm20.0000°; N -0.6096, Plg73.0000°, Azm274.0000°; P -5.8626, Plg16.0000°, Azm111.0000°;*
NEIC ***01*** *17:49:57.6, 36.°44N×136.°73E, h5^{km}*
NIED ***01*** *17:49:58.1, 36.°45N×136.°79E, h8^{km}, MW4.5, Moment Tensor Solution.   s3   Moment tensor: Scale 10^{15}Nm; M_{rr}-0.89; $M_{\theta\theta}$3.94; $M_{\phi\phi}$-3.05; $M_{r\theta}$2.23; $M_{\theta\phi}$-4.71; $M_{\phi r}$2.26; Fault plane solution: $M_0$6.70000×10^{15} NP1: ϕ_s159.00000°, δ65.00000°, λ-14.00000°.   NP2: ϕ_s254.00000°, δ78.00000°, λ-154.00000°.*
JMA ***01*** *17:49:58.1±0.0, 36.°5N±0.°1×136.°8E±0.°2, h8^{km}±1^{km}, MD4.6/20, MW4.5/20, ISHIKAWA PREF*
JMA Felt III J1 at ISHIKAWA PREF .
ISC 01 17:49:57.7±1.2, **36.°45N**±0.°03×**136.°75E**±0.°03, **h8**^{km}±8^{km}, **n200**, σ**1.°13**/146, **mb4.5**/48, **MS3.9**/27, **2D**, **Near west coast of eastern Honshu**

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Code  Station Name        Δ°  AZ°    Phase ID          Time      Res
                                    Op      ISC       h  m  s    ISC
JKG   Kaga               0.38 243 i P      Pb        17 50 06.3 -0.3
JKG                                 A      A         17 50 06.3
      comp=N,229nm,0.3s,comp=E,127nm,0.2s
JKG                                 S      Sb        17 50 12.1 -0.5
JJH   Hakui              0.48   3   A      A         17 50 07.5
      comp=N,38nm,1.7s,comp=E,89nm,1.9s
JTT   Ttatey             0.50  71 i P      Pg        17 50 07.4  0.0
JTT                                 A      A         17 50 07.4
      comp=N,141nm,0.6s,comp=E,91nm,0.5s
JTT                                 S      Sg        17 50 14.3 +0.4
JGN   Niukaw             0.51 116⇓iP      Pg        17 50 07.3 -0.3
JGN                                 A      A         17 50 07.3
      comp=N,31nm,4.5s,comp=E,26nm,2.6s
JGN                                ⇓S      Sg        17 50 14.0 -0.3
JYTA  Yamagatataniai     0.85 181 i P      Pg        17 50 14.6 +0.5
JYTA                                A      A         17 50 14.6
      comp=N,28nm,5.0s,comp=E,66nm,1.8s
JYTA                                S      Sb        17 50 26.2 -0.1
JGF   Kuroka             0.98 150   P      Pg        17 50 16.1 -0.4
JGF   Kuroka             0.98 150   S      Sg        17 50 29.1 -0.1
JGF   Kuroka             0.98 150          Pg        17 50 16.4 -0.2
JGF                                 Sg     Sg        17 50 28.9 -0.4
JGF   Kuroka             0.98 150   A      A         17 50 16.4
      comp=N,20nm,4.7s,comp=E,27nm,5.3s
JNG   Nsakai             1.09  92   A      A         17 50 18.2
      comp=N,28nm,1.4s,comp=E,18nm,1.5s
JFM   Mihama             1.11 214   A      A         17 50 19.2
      comp=N,17nm,0.8s,comp=E,19nm,4.1s
JSZ   Suzu               1.11  26   A      A         17 50 18.7
      comp=N,11nm,1.5s,comp=E,10.0nm,1.0s
INU   Inuyama            1.12 169   P      Pg        17 50 19.4 +0.2
INU   Inuyama            1.12 169   S      Sb        17 50 34.4 +0.5
INU   Inuyama            1.12 169          Pg        17 50 19.1  0.0
INU                                 Sg     Sg        17 50 33.1 -0.6
JICN  Ichinomiyachia     1.14 176   A      A         17 50 19.6
      comp=N,40nm,0.8s,comp=E,104nm,3.5s
MJB9  Matsu-Tunnel       1.18  85          Pn        17 50 20.9 +0.4
MJB9                                Sg     Sb        17 50 36.8 +1.1
MAJO  Matsushiro         1.18  85   P      Pb        17 50 20.0 -0.4
MAJO  Matsushiro         1.18  85   S      Sb        17 50 36.6 +0.8
MAJO  Matsushiro         1.18  85          Pb        17 50 19.9 -0.4
MAJO                                Sg     Sg        17 50 36.3 +0.6
MJAR  Matsushiro Arr     1.18  85   Pg     Pb        17 50 20.6 +0.2
      comp=E,114nm,0.3s,baz=270,slow=15,SNR=4161
MJAR                                Lg     Lg        17 50 37.9
      comp=E,156nm,0.3s,baz=181,slow=14,SNR=27
MJAR                                LR     LR        17 50 43.7
      comp=E,591nm,20.3s,baz=87,slow=38
MJAR  Matsushiro Arr     1.18  85          Pb        17 50 20.0 -0.3
JAO   Obara              1.25 160   A      A         17 50 21.2
      comp=N,20nm,2.9s,comp=E,36nm,8.7s
JNT   Takato             1.26 116   A      A         17 50 21.1
      comp=N,8.0nm,1.1s,comp=E,11nm,4.4s
JJN   Nakama             1.31  60   A      A         17 50 21.9
      comp=N,29nm,1.9s,comp=E,26nm,1.8s
JEG   Eigenji            1.34 193   A      A         17 50 23.0
      comp=N,16nm,4.6s,comp=E,13nm,5.8s
JHG   Hegura jima        1.41   6   A      A         17 50 23.8
      comp=N,17nm,0.9s,comp=E,26nm,1.0s
JNY   Yasuok             1.41 140   A      A         17 50 23.7
      comp=N,33nm,4.0s,comp=E,24nm,2.3s
JGK   Kuni               1.53  85   A      A         17 50 25.3
      comp=N,22nm,1.2s,comp=E,22nm,1.9s
JKY   Yasaka             1.56 239   A      A         17 50 26.8
      comp=N,121nm,0.5s,comp=E,50nm,0.6s
JWT   Wachi              1.60 224   A      A         17 50 27.2
      comp=N,22nm,1.3s,comp=E,22nm,1.5s
JSSY  Shinshiroyabe      1.65 158   A      A         17 50 27.5
      comp=N,16nm,1.6s,comp=E,50nm,0.9s
JYN   Shimob             1.74 122   A      A         17 50 28.6
      comp=N,14nm,5.1s,comp=E,13nm,3.9s
TSUJ  Tsu 2              1.75 189   A      A         17 50 29.2
      comp=N,10.0nm,1.6s,comp=E,10.0nm,5.5s
HMMJ  Hamamatsu 2        1.77 153   A      A         17 50 29.3
      comp=N,12nm,1.1s,comp=E,22nm,1.2s
SHZ3  Shizuoka 3         1.82 139   A      A         17 50 29.9
      comp=N,24nm,3.8s,comp=E,19nm,8.1s
JAA   Atsumi             1.84 170   A      A         17 50 30.4
      comp=N,8.0nm,2.1s,comp=E,20nm,6.7s
JKSM  Kasumi             1.90 244   A      A         17 50 31.7
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	comp=N,13nm,2.0s,comp=E,6.0nm,1.4s						
JIZZ	Izumozaki	1.91	55	A	A	17 50 31.0	
	comp=N,20nm,3.0s,comp=E,18nm,3.7s						
JKKS	Kakegawashinom	1.97	149	A	A	17 50 32.2	
	comp=N,52nm,4.2s,comp=E,63nm,1.5s						
JHE	Heguri	1.99	206	A	A	17 50 32.9	
	comp=N,9.0nm,4.9s,comp=E,10.0nm,5.3s						
JUON	Uonuma	2.00	67	A	A	17 50 32.4	
	comp=N,6.0nm,4.6s,comp=E,5.0nm,2.9s						
JFNN	Fujinakano	2.01	128	A	A	17 50 32.6	
	comp=N,32nm,5.3s,comp=E,30nm,2.6s						
JKT	Katashina	2.04	80	A	A	17 50 33.0	
	comp=N,15nm,2.3s,comp=E,6.0nm,1.5s						
JIE	Ise	2.05	181	A	A	17 50 33.6	
	comp=N,9.0nm,5.6s,comp=E,18nm,4.1s						
JSG	Sagara	2.12	146	P	Pb	17 50 36.0	-0.4
JSG	Sagara	2.12	146		Pn	17 50 34.8	+1.4
JSG	Sagara	2.12	146	A	A	17 50 34.3	
	comp=N,35nm,1.2s,comp=E,45nm,6.9s						
JKS	Kasai	2.13	227	A	A	17 50 35.0	
	comp=N,9.0nm,5.1s,comp=E,9.0nm,1.5s						
JHU2	Hanno	2.13	106	A	A	17 50 34.4	
	comp=N,9.0nm,1.2s,comp=E,7.0nm,3.8s						
JMIK	Miki	2.14	221	A	A	17 50 35.2	
	comp=N,48nm,0.9s,comp=E,45nm,1.5s						
JSGW	Sagamiharawaka	2.16	112	A	A	17 50 34.8	
	comp=N,5.0nm,4.6s,comp=E,7.0nm,2.0s						
JAG	Ashikaga	2.18	90	A	A	17 50 35.0	
	comp=N,6.0nm,2.9s,comp=E,3.0nm,9.5s						
TTO5	TONANKAI O.B.S	2.33	160	A	A	17 50 35.5	
	comp=N,64nm,1.3s,comp=E,49nm,1.0s						
JHTM	Izuhatsuma	2.36	128	A	A	17 50 37.8	
	comp=N,21nm,1.6s,comp=E,33nm,1.7s						
JIZS	Izushimoda	2.45	134	A	A	17 50 38.9	
	comp=N,8.0nm,4.8s,comp=E,7.0nm,1.3s						
TTO4	TONANKAI O.B.S	2.52	165	A	A	17 50 38.3	
	comp=N,39nm,1.7s,comp=E,43nm,9.7s						
JMMH	Miemihama	2.69	193	A	A	17 50 42.9	
	comp=N,6.0nm,4.3s,comp=E,6.0nm,6.6s						
JYT	Yasato	2.79	93	Pn	Pn	17 50 42.6	0.0
JWM	Minabe	2.83	204	A	A	17 50 45.0	
	comp=N,6.0nm,5.1s,comp=E,6.0nm,2.4s						
JJS	Sakaide	3.09	229	A	A	17 50 48.9	
	comp=N,5.0nm,1.8s,comp=E,7.0nm,0.9s						
JWKM	Wakayamakushim	3.10	196	A	A	17 50 48.8	
	comp=N,9.0nm,4.4s,comp=E,10.0nm,5.2s						
JJG	Jouge	3.44	239	A	A	17 50 53.9	
	comp=N,6.0nm,1.8s,comp=E,3.0nm,1.5s						
JMN	Monobe	3.59	222	P	Pn	17 50 55.7	+2.0
JMN	Monobe	3.59	222		Pn	17 50 54.8	+1.1
JMN	Monobe	3.59	222	A	A	17 50 56.0	
	comp=N,9.0nm,1.5s,comp=E,8.0nm,1.8s						
JHJ2	Mitsune	4.18	142	Pn	Pn	17 51 01.2	-0.5
JTM	Tenmabayashi	5.50	37	P	Pn	17 51 21.6	+1.8
	comp=E,142nm,1.0s						
JTM				AML	AML		
JTM	Tenmabayashi	5.50	37		Pn	17 51 21.1	+1.3
JNU	Nakatsue	5.86	237	Pn	Pn	17 51 26.9	+2.0
	comp=E,1.4nm,0.3s,baz=121,slow=1.4,SNR=13						
JNU				Sn	Sn	17 52 33.5	+1.3
	comp=E,0.7nm,0.3s,baz=91,slow=13,SNR=1.3						
JNU				Lg	Lg	17 52 57.0	
	comp=E,3.3nm,0.3s,baz=330,slow=23,SNR=7.9						
JNU				LR	LR	17 53 42.3	
	comp=E,466nm,18.8s,baz=50,slow=39						
	comp=E,20nm,0.8s						
JNU				AML	AML		
JTU	Tsushima	6.30	254	P	Pn	17 51 34.7	+3.9
	comp=E,71nm,1.3s						
JTU				AML	AML		
KSRS	Korea Array	7.14	281	Pn	Pn	17 51 44.1	+1.8
	comp=E,1.1nm,0.3s,baz=95,slow=14,SNR=13						
KSRS				Sn	Sn	17 53 02.8	-0.9
	comp=E,1.1nm,0.3s,baz=90,slow=25,SNR=7.2						
KSRS				LR	LR	17 54 17.8	
	comp=E,773nm,19.6s,baz=95,slow=37						
	comp=E,3.0nm,0.4s						
KSRS				AML	AML		
KSAR	Wonju Array Be	7.17	281	Pn	Pn	17 51 43.8	+0.9
JSU	Suzuyama	7.18	228	Pn	Pn	17 51 43.5	+0.4
KS19	Wonju Array Si	7.19	281		Pn	17 51 42.6	-0.5
ERM	Erimo	7.46	40	P	Pn	17 51 49.2	+2.4
	comp=E,81nm,0.9s						
ERM				AML	AML		
ERM	Erimo	7.46	40	Pn	Pn	17 51 48.6	+1.8
JEM	Erimo	7.46	40	P	Pn	17 51 49.2	+2.4
	comp=E,42nm,1.0s						
JEM				AML	AML		
TJN	Taejon	7.57	272	Pn	Pn	17 51 47.3	-1.0
USA0B	Ussuriysk Arra	8.55	336	Pn	Pn	17 52 01.6	-0.2
USRK	Ussuriysk Ar.	8.55	336	Pn	Pn	17 52 02.5	+0.7
	comp=E,0.4nm,0.3s,baz=154,slow=12,SNR=8.4						
USRK				Sn	Sn	17 53 35.7	-2.7
	comp=E,0.2nm,0.3s,baz=160,slow=25,SNR=3.3						
USRK				LR	LR	17 55 05.8	
	comp=E,368nm,18.7s,baz=150,slow=36						
	comp=E,0.9nm,0.3s						
USRK				AML	AML		
USRK	Ussuriysk Ar.	8.55	336	Pn	Pn	17 52 01.6	-0.2
JKA	Kamikawa-asahi	8.87	28		Pn	17 52 06.5	+0.5
YSS	Yuzhno-Sakhali	11.41	21		Pn	17 52 40.6	-0.3
JMZ	Minamidaito 2	11.60	206		Pn	17 52 42.1	-1.4
JOW	Kunigami	11.99	219	Pn	Pn	17 52 47.7	-1.3
KLR	Kul'dur	13.29	346	Pn	Pn	17 53 09.6	+3.1
	comp=E,0.1nm,0.3s,baz=154,slow=11,SNR=10						
KLR				LR	LR	17 58 03.7	
	comp=E,368nm,19.6s,baz=167,slow=37						
	comp=E,3.8nm,0.9s						
KLR				AML	AML		
NJ2	Nanjing	15.43	259	*e*P	Pn	17 53 36.3	+0.6
NJ2				pmax	pmax		
	comp=Z,14nm,0.6s						
BJI2	Beijing	16.55	289	P	P	17 53 54.2	+1.5
BJI2				pmax	pmax		
	comp=Z,3.0nm,0.8s						
BJI2				LR	LR		
	comp=N,330nm,11.0s						
BJI2				LR	LR		
	comp=E,320nm,10.3s						
BJI2				LR	LR		
	comp=Z,210nm,11.7s						
HILR	Hailar Array B	18.01	322	P	Pn	17 54 07.9	-0.4
	baz=116,slow=17						
	comp=Z,1.5nm,0.6s						
YULB	Yu-li	18.64	230	P	P	17 54 13.3	-2.5
YULB				IAmb	IAmb	17 54 44.6	
	comp=Z,32nm,1.2s						
WHN	Wuhan	19.57	259	P	Pn	17 54 34.8	+7.5
LYN	LuoYang	19.85	272	*e*P	Pn	17 54 33.9	+3.3
LYN				pmax	pmax		
	comp=Z,19nm,0.8s						
LYN				LR	LR		
	comp=N,2µm,13.5s						
LYN				LR	LR		
	comp=E,1µm,13.1s						
LYN				LR	LR		
	comp=Z,2µm,12.4s						
HHC	Hu-ho-hao-te	20.13	290	*e*P	P	17 54 31.0	-1.2
HHC				pmax	pmax		
	comp=Z,15nm,0.6s						
PETK	Petropavlovsk-	22.20	35	P	P	17 54 54.2	-0.1
	comp=Z,8.5nm,1.2s,baz=223,slow=7.9,SNR=2.8						
PETK				LR	LR	18 03 33.3	
	comp=Z,223nm,18.6s,baz=214,slow=37						
	comp=Z,8.5nm,1.2s						
PETK	Petropavlovsk-	22.20	35	P	P	17 54 53.9	-0.4
GUMO	Guam	23.90	160	LR	LR	18 03 21.3	
	comp=Z,119nm,20.4s,baz=10.0,slow=34						
ULN	Ulaanbaatar	24.64	307	P	P	17 55 18.7	-0.1
MA2	Magadan	24.87	17	LR	LR	18 05 35.6	
	comp=Z,124nm,18.3s,baz=206,slow=38						
MA2	Magadan	24.87	17	P	P	17 55 20.3	-0.2
MA2				IAmb	IAmb	17 55 21.1	
	comp=Z,17nm,1.0s						
SONM	Songino Array	25.06	307	P	P	17 55 22.4	-0.1
	comp=Z,1.1nm,0.8s,baz=114,slow=6.6,SNR=8.6						
SONM				LR	LR	18 05 25.2	
	comp=Z,369nm,21.2s,baz=115,slow=37						
	comp=Z,1.1nm,0.8s						
SONM	Songino Array	25.06	307	P	P	17 55 21.5	-1.0
YAK	Yakutsk	25.99	352	LR	LR	18 05 47.2	
	comp=Z,259nm,19.3s,baz=164,slow=37						
YAK	Yakutsk	25.99	352	P	P	17 55 29.1	-1.5
YAK				IAmb	IAmb	17 55 31.4	
	comp=Z,7.5nm,0.8s						
TLY	Talaya	27.95	313	LR	LR	18 07 16.9	
	comp=Z,207nm,19.2s,baz=108,slow=37						
GTA2	Gaotai	29.19	287	*e*P	P	17 56 04.5	+4.8
GTA2				sP	sP	17 56 21.5	+18
GTA2				pmax	pmax		
	comp=Z,2.0nm,0.8s						
GTA2				LR	LR		
	comp=N,400nm,14.9s						
GTA2				LR	LR		
	comp=E,300nm,17.1s						
GTA2				LR	LR		
	comp=Z,320nm,15.9s						
QIZ	Qiongzhong	29.32	241	P	P	17 56 02.8	+1.9
QIZ				S	S	18 00 57.4	+3.0
QIZ				LR	LR		
	comp=N,480nm,11.7s						
QIZ				LR	LR		
	comp=E,480nm,15.5s						
QIZ				LR	LR		
	comp=Z,250nm,11.8s						
DAV	Davao City (W)	30.97	202	LR	LR	18 08 14.1	
	comp=Z,145nm,21.1s,baz=46,slow=35						
PZH	PanZhiHua	31.31	262	P	P	17 56 18.3	-0.3
TIXI	Tiksi	35.51	356	LR	LR	18 11 43.7	
	comp=Z,133nm,18.4s,baz=181,slow=37						
GSTR	Great Sitkin T	36.53	49	P	P	17 57 02.9	-0.7
CMAR	Chiang Mai Arr	37.74	252	P	P	17 57 14.4	+0.3
	comp=Z,0.5nm,0.7s,baz=45,slow=6.9,SNR=5.8						
	comp=Z,0.5nm,0.7s						
LUWI	Luwuk	39.50	202	P	P	17 57 27.5	-1.4
LUWI				IAmb	IAmb	17 58 09.2	
	comp=Z,21nm,1.1s						
MANU	Manus Island	39.55	163	P	P	17 57 27.5	-1.8
MANU				IAmb	IAmb	17 57 42.3	
	comp=Z,19nm,1.1s						
ZALV	Zalesovo Beam	39.56	313	LR	LR	18 14 09.9	
	comp=Z,91nm,21.3s,baz=99,slow=37						
SPIA	Saint Paul Isl	40.51	42	P	P	17 57 36.1	-0.7
MKAR	Makanchi Array	41.25	302	P	P	17 57 42.5	-0.7
	comp=Z,0.4nm,0.6s,baz=84,slow=11,SNR=4.6						
MKAR				LR	LR	18 15 05.7	
	comp=Z,171nm,20.3s,baz=103,slow=37						
	comp=Z,0.4nm,0.6s						
MAKZ	Makanchi	41.47	302	P	P	17 57 44.4	-0.6
NRIK	Noril'sk	42.27	336	P	P	17 57 50.9	-0.2
	comp=Z,5.9nm,0.8s,baz=129,slow=11,SNR=5.1						
NRIK				LR	LR	18 15 55.0	
	comp=Z,189nm,18.8s,baz=118,slow=37						
	comp=Z,5.9nm,0.8s						
NRIK	Noril'sk	42.27	336		P	17 57 50.8	-0.3
NRIK				IAmb	IAmb	17 57 52.1	
	comp=Z,14nm,1.2s						
M11K	Mekoryuk	43.01	38	P	P	17 57 57.4	+0.1
KURK	Kurchatov	43.34	308	P	P	17 58 00.1	-0.1
KURK	Kurchatov	43.34	308	IAmb	IAmb	17 58 00.5	
	comp=Z,2.8nm,0.6s						
KURBB	Kurchatov Arra	43.41	308	P	P	17 58 00.1	-0.6
	comp=Z,2.3nm,0.9s,baz=86,slow=8.4,SNR=18						
KURBB				LR	LR	18 16 33.1	
	comp=Z,289nm,19.7s,baz=170,slow=37						
	comp=Z,2.3nm,0.9s						
PDGK	Podgornoye	43.73	297	P	P	17 58 03.2	-0.3
WUS	Wushi	44.38	294		P	17 58 08.6	-0.2
WUS				IAmb	IAmb	17 58 12.6	
	comp=Z,7.7nm,1.1s						
F15K	North Star Dit	44.58	30	P	P	17 58 11.2	+1.3
N15K	Kwethluk River	46.03	38	P	P	17 58 21.6	+0.2
C18K	Utukok River	46.47	27	P	P	17 58 24.9	0.0
G18K	Tagagawik	47.05	30	P	P	17 58 29.9	+0.5
C19K	Lookout Ridge	47.12	26	P	P	17 58 30.0	+0.1
SOEI	Soe	47.43	197	P	P	17 58 32.5	-0.4
F19K	Shaleruckik Mo	47.50	29	P	P	17 58 33.3	+0.5
F19K				IAmb	IAmb	17 58 59.6	
	comp=Z,11nm,1.4s						
E19K	Redstone River	47.77	28	P	P	17 58 35.3	+0.3
E19K				IAmb	IAmb	17 58 36.9	
	comp=Z,6.7nm,1.0s						
BVAR	Borovoye Array	48.19	312	P	P	17 58 37.6	-0.8
	comp=Z,0.9nm,0.7s,baz=76,slow=6.9,SNR=4.5						
	comp=Z,0.9nm,0.7s						
J19K	Poorman	48.23	33	P	P	17 58 39.5	+1.0
J19K				IAmb	IAmb	17 58 41.5	
	comp=Z,11nm,1.4s						
IMAR	Indian Mountai	49.06	30	P	P	17 58 45.2	+0.3
MTN	Manton Dam	49.31	187	P	P	17 58 47.4	+0.2
MTN				IAmb	IAmb	17 58 56.9	
	comp=Z,11nm,1.3s						
KK31	Karatay Array	50.16	299	P	P	17 58 53.3	-0.3
KK31				IAmb	IAmb	17 58 57.4	
	comp=Z,4.7nm,1.1s						
KKAR	Karatay Array	50.16	299	P	P	17 58 53.2	-0.4
E24K	Your Creek	51.11	28	P	P	17 59 01.2	+0.6
E24K				IAmb	IAmb	17 59 05.2	
	comp=Z,8.0nm,1.1s						
SML	Sawmill	51.67	36	P	P	17 59 05.8	+1.0
ILAR	Eielson Array	51.98	32	P	P	17 59 07.2	+0.2
	comp=Z,1.4nm,0.9s,baz=283,slow=6.3,SNR=11						
ILAR				LR	LR	18 22 01.1	
	comp=Z,82nm,19.2s,baz=284,slow=37						
	comp=Z,1.4nm,0.9s						
F25K	Christian Rive	52.22	28	P	P	17 59 09.8	+1.0
KNRA	Kununurra	52.39	190	P	P	17 59 11.1	+0.7
PRP	Porcupine Dome	52.48	31	P	P	17 59 11.9	+1.1
BMAR	Burnt Mountain	52.64	28	P	P	17 59 13.2	+1.3
F26K	Sheenjek River	52.78	28	IAmb	IAmb	17 59 15.8	
	comp=Z,7.2nm,0.9s						
SCRK	Sand Creek	53.34	33	P	P	17 59 17.2	0.0
SCRK				IAmb	IAmb	17 59 17.9	
	comp=Z,4.2nm,1.0s						
ARTI	Arti	54.41	318	P	P	17 59 23.9	-1.1
ARTI				IAmb	IAmb	17 59 25.0	
	comp=Z,5.6nm,0.6s						
BCAR	Beaver Creek A	54.47	34	P	P	17 59 25.8	+0.4
M27K	Edge Creek, AK	54.58	34	P	P	17 59 27.1	+0.9
M27K				IAmb	IAmb	17 59 28.5	
	comp=Z,5.5nm,0.9s						
I28M	Miner Creek	54.79	31	IAmb	IAmb	17 59 30.2	
	comp=Z,12nm,1.4s						
FITZ	Fitzroy Crossi	55.26	193	P	P	17 59 32.4	+0.9
AB31	Akbulak array	55.43	309	P	P	17 59 31.1	-1.3
ABKAR	Akbulak array	55.43	309	P	P	17 59 31.0	-1.5
G30M	tAoh Zraii Nji	55.93	28	P	P	17 59 35.5	-0.3
G30M				IAmb	IAmb	17 59 37.9	
	comp=Z,8.2nm,1.1s						
WRA	Warramunga Arr	56.13	183	P	P	17 59 37.4	-0.3
	comp=Z,2.3nm,0.8s,baz=359,slow=7.6,SNR=17						
	comp=Z,2.3nm,0.8s						
WRA	Warramunga Arr	56.13	183	P	P	17 59 36.6	-1.1
WR8	Warramunga Arr	56.13	183	P	P	17 59 36.9	-0.9
I30M	Mount Dempster	56.29	30	P	P	17 59 38.6	0.0
I30M				IAmb	IAmb	17 59 41.5	
	comp=Z,11nm,1.2s						
MBWA	Marble Bar	59.51	198	P	P	18 00 01.5	+0.1
MBWA				IAmb	IAmb	18 00 07.7	
	comp=Z,8.1nm,1.1s						
ASAR	Alice Springs	59.85	183	P	P	18 00 04.8	+1.0
	comp=Z,0.6nm,0.7s,baz=15,slow=11,SNR=8.3						
	comp=Z,0.6nm,0.7s						
ARCES	ARCESS Array B	63.20	338	P	P	18 00 25.8	0.0
	comp=Z,4.5nm,1.0s,baz=58,slow=5.6,SNR=2.2						
	comp=Z,4.5nm,1.0s						
ARCES	ARCESS Array B	63.20	338	P	P	18 00 25.5	-0.4
DZM	Mont Dzumac	64.61	149	LR	LR	18 27 22.4	
	comp=Z,59nm,19.7s,baz=20,slow=35						
YKA	Yellowknife Ar	66.16	29	P	P	18 00 44.5	-0.8
	comp=Z,0.8nm,0.7s,baz=306,slow=7.0,SNR=1.7						
	comp=Z,0.8nm,0.7s						
FINES	FINESS Array B	67.55	331	P	P	18 00 53.8	-0.4
	comp=Z,4.2nm,0.8s,baz=77,slow=8.6,SNR=14						
	comp=Z,4.2nm,0.8s						
SUMG	Summit	71.22	358		P	18 01 16.9	-0.3
STD	Studebaker Rid	71.41	46	P	P	18 01 18.8	+0.3
AKASG	Malin Array Be	72.42	320	P	P	18 01 23.4	-0.9
	comp=Z,1.0nm,0.6s,baz=51,slow=6.2,SNR=8.2						
AKASG				LR	LR	18 35 17.2	
	comp=Z,111nm,18.3s,baz=294,slow=38						
	comp=Z,1.0nm,0.6s						
AKASG	Malin Array Be	72.42	320	IAmb	IAmb	18 01 29.8	
	comp=Z,3.4nm,1.3s						
AKBB	Malin Array Si	72.42	320	P	P	18 01 23.0	-1.2
WIFE	Three Sisters-	72.86	48	P	P	18 01 26.8	-0.6
WIFE				IAmb	IAmb	18 01 33.6	
	comp=Z,8.1nm,1.4s						
NC405	NORSAR Array S	73.00	335	P	P	18 01 26.1	-1.5
HFS	Hagfors	73.03	334	P	P	18 01 26.9	-0.8
	comp=Z,0.9nm,0.5s,baz=27,slow=9.7,SNR=1.6						
	comp=Z,0.9nm,0.5s						
NB2	NORSAR Subarra	73.22	336	P	P	18 01 28.4	-0.5
	comp=Z,4.1nm,0.9s,baz=42,slow=6.2						
NOA	NORSAR Array B	73.22	336	P	P	18 01 28.3	-0.7
	comp=Z,1.8nm,0.8s,baz=42,slow=6.0,SNR=7.4						
	comp=Z,1.8nm,0.8s						
PINE	Pine Mountain	73.54	48		P	18 01 29.4	-2.0
BEKR	Beckworth	76.16	51		P	18 01 46.8	+0.2
BEKR				IAmb	IAmb	18 01 48.5	
	comp=Z,4.9nm,0.8s						
BRTR	Keskin Array B	76.38	309	P	P	18 01 47.8	0.0
	comp=Z,0.6nm,0.7s,baz=46,slow=4.2,SNR=4.6						
	comp=Z,0.6nm,0.7s						
BRTR	Keskin Array B	76.38	309	P	P	18 01 47.4	-0.3
CMB	Columbia Colle	77.22	52	P	P	18 01 52.4	0.0
CMB				IAmb	IAmb	18 01 54.4	
	comp=Z,3.3nm,0.8s						
DLMT	Dillon	77.35	43	P	P	18 01 53.1	0.0
DLMT				IAmb	IAmb	18 01 55.2	
	comp=Z,6.9nm,0.8s						
BORG	Borgarnes	77.68	351	LR	LR	18 36 40.6	
	comp=Z,25nm,18.6s,baz=133,slow=36						
FRB	Frobisher Bay	78.14	11	LR	LR	18 39 34.8	
	comp=Z,49nm,19.4s,baz=276,slow=38						
NVAR	Mina Array Bea	78.30	51	P	P	18 01 59.5	+0.9
	comp=Z,1.7nm,0.7s,baz=294,slow=6.7,SNR=9.5						
	comp=Z,1.7nm,0.7s						
NVAR	Mina Array Bea	78.30	51	P	P	18 01 58.5	-0.2
VRAC	Vranov	79.51	325	LR	LR	18 38 25.2	
	comp=Z,95nm,19.1s,baz=296,slow=37						
CLL	Collm	79.67	328	*i* P	P	18 02 05.8	+0.2
	comp=Z,5.0nm,1.2s						
CLL				AMS	AMS	18 34 00.0	
	comp=N,100nm,19.5s						
CLL				AMS	AMS	18 34 00.0	
	comp=E,100nm,20.3s						
CLL				L	L	18 38 00.0	
	comp=Z,100nm,18.4s						
FURC	Furnace Creek,	80.41	52	P	P	18 02 09.9	+0.1
FURC				IAmb	IAmb	18 02 12.0	
	comp=Z,5.8nm,1.1s						
PDAR	Pinedale Array	80.70	43	P	P	18 02 11.6	-0.1
	comp=Z,0.7nm,0.4s,baz=299,slow=1.5,SNR=7.0						
	comp=Z,0.7nm,0.4s						
GWY	Greenwater Val	80.70	52	P	P	18 02 11.0	-0.7
GWY				IAmb	IAmb	18 02 23.1	
	comp=Z,4.0nm,1.0s						
GERES	GERESS Array B	81.17	326	P	P	18 02 13.4	-0.4
	comp=Z,0.2nm,0.5s,baz=64,slow=3.1,SNR=4.6						
	comp=Z,0.2nm,0.5s						
EKA	Eskdalemuir Ar	82.36	338	LR	LR	18 44 06.0	
	comp=Z,58nm,18.4s,baz=10,slow=40						
PFO	Pinyon Flats O	82.44	54	LR	LR	18 30 27.4	
	comp=Z,50nm,20.1s,baz=223,slow=30						
PPT	Papeete	87.78	114	LR	LR	18 35 22.6	
	comp=Z,46nm,20.0s,baz=92,slow=31						
SADO	Sadowa	92.88	25	LR	LR	18 48 37.1	
	comp=Z,39nm,19.4s,baz=358,slow=38						
TXAR	Lajitas Array	93.40	50	P	P	18 03 14.7	+0.8
	comp=Z,1.2nm,0.9s,baz=276,slow=3.0,SNR=6.1						
TXAR				LR	LR	18 45 16.9	
	comp=Z,19nm,19.7s,baz=320,slow=36						
	comp=Z,1.2nm,0.9s						
ESDC	Sonseca Array	96.06	331	LR	LR	18 51 44.2	
	comp=Z,62nm,18.2s,baz=22,slow=39						

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*IDC **01** 18:31:44.1±1.1, 27°.08S×67°.27E, h0km, mb3.9/10, mbtmp3.9/10, MS3.5/10, Error ellipse: s-maj=36.9km s-min=23.6km az=64.0*

*NEIC **01** 18:31:44.9±1.8, 27°.0S±0°.1×67°.0E±0°.2, h10km±1km, mb4.2/9, Error ellipse: s-maj=28.9km s-min=16.7km az=243.0*

ISC 01 18:31:45.2±0.9**, 27°.0S**±0°.1×**67°.1E**±0°.2**, h10km, n45, σ1^{s}16**/28**, mb4.1**/12**, MS3.5**/10**, Indian Ocean Triple Junction**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ROCAM	Rodrigues Isla	7.95	334	Pn	Pn	18 33 40.7	-0.2
ROCAM				Sn	Sn	18 35 08.6	-2.3
H08S1	Diego Carcia H	19.86	16	T	T	18 56 59.5	
	baz=195,slow=76,SNR=5.1						
H08S2	Diego Garcia H	19.87	16	T	T	18 56 58.0	
	baz=195,slow=76,SNR=7.9						
H08S3	Diego Garcia H	19.88	16	T	T	18 56 57.0	
	baz=195,slow=76,SNR=23						
H04N2	CROZET ISLANDS	22.71	208	T	T	19 00 05.4	
	baz=38,slow=74,SNR=139						
H04N1	CROZET ISLANDS	22.72	208	T	T	19 00 10.6	
	baz=38,slow=74,SNR=84						
H04N3	CROZET ISLANDS	22.73	208	T	T	19 00 11.8	
	baz=38,slow=74,SNR=151						
MATP	Matopo	35.86	272	LR	LR	18 51 49.5	
	comp=Z,51nm,19.4s,baz=218,slow=34						
BOSA	Boshof	36.95	258	LR	LR	18 52 00.8	
	comp=Z,56nm,18.4s,baz=31,slow=33						
LBTB	Lobatse	37.26	263	LR	LR	18 51 40.4	
	comp=Z,61nm,19.4s,baz=78,slow=32						
LSZ	Lusaka	37.99	280	LR	LR	18 53 19.7	
	comp=Z,68nm,20.0s,baz=167,slow=34						
MAW	Mawson	40.75	182	LR	LR	18 53 16.1	
	comp=Z,83nm,18.3s,baz=36,slow=32						
H01W2	Cape Leeuwin H	40.79	113	T	T	19 22 34.2	
	baz=267,slow=75,SNR=21						
H01W3	Cape Leeuwin H	40.80	113	T	T	19 22 34.6	
	baz=267,slow=75,SNR=21						
H01W1	Cape Leeuwin H	40.81	113	T	T	19 22 35.1	
	baz=267,slow=75,SNR=28						
MBAR	Mbarara	43.68	301	LR	LR	18 55 27.7	
	comp=Z,59nm,18.1s,baz=108,slow=32						
CMAR	Chiang Mai Arr	54.69	38	P	P	18 41 15.6	+0.9
	0.7nm,0.7s,baz=229,slow=8.2,SNR=5.2						
	0.7nm,0.7s						
CMAR	Chiang Mai Arr	54.69	38	P	P	18 41 13.6	-1.1
ASAR	Alice Springs	59.83	103	P	P	18 41 50.1	-1.1
	0.9nm,0.6s,baz=249,slow=6.5,SNR=12						
	0.9nm,0.6s						
ASAR	Alice Springs	59.83	103	P	P	18 41 49.4	-1.8
AS31	Alice Springs	59.83	103	P	P	18 41 48.6	-2.6
WRA	Warramunga Arr	61.44	99	P	P	18 42 01.6	-0.7
	1.4nm,0.7s,baz=251,slow=6.2,SNR=5.5						
	1.4nm,0.7s						
WRA	Warramunga Arr	61.44	99	P	P	18 42 01.1	-1.1
QSPA	South Pole Qui	63.19	180	P	P	18 42 13.6	+0.2
	2.8nm,0.9s,baz=261,slow=4.8,SNR=5.6						
QSPA				LR	LR	19 05 33.5	
	comp=Z,35nm,21.4s,baz=350,slow=32						
	2.8nm,0.9s						
QSPA	South Pole Qui	63.19	180	P	P	18 42 12.5	-0.9
EIL	Elat	64.18	329	LR	LR	19 05 31.8	
	comp=Z,36nm,19.2s,baz=92,slow=32						
KK31	Karatay Array	69.78	3	P	P	18 42 55.7	+0.2
KK31				IAmb	IAmb	18 43 01.0	
	comp=Z,1.5nm,0.8s						
KKAR	Karatay Array	69.78	3	P	P	18 42 56.1	+0.6
GNI	Garni	69.94	342	LR	LR	19 11 54.4	
	comp=Z,47nm,20.1s,baz=137,slow=34						
BR131	Keskin Array S	73.31	334	P	P	18 43 16.8	-0.2
BR131				IAmb	IAmb	18 43 19.4	
	comp=Z,2.0nm,1.0s						
BRTR	Keskin Array B	73.31	334	P	P	18 43 18.2	+1.2
	comp=Z,1.3nm,1.0s,baz=150,slow=4.3,SNR=6.6						
	comp=Z,1.3nm,1.0s						
BRTR	Keskin Array B	73.31	334	P	P	18 43 16.9	-0.1
KBZ	Khabaz	73.77	342	LR	LR	19 14 51.4	
	comp=Z,30nm,18.3s,baz=166,slow=35						
MKAR	Makanchi Array	74.67	11	P	P	18 43 26.6	+1.9
	comp=Z,0.2nm,0.6s,baz=196,slow=9.9,SNR=2.2						
	comp=Z,0.2nm,0.6s						
MKAR	Makanchi Array	74.67	11	P	P	18 43 25.5	+0.8
AB31	Akbulak array	76.13	355	P	P	18 43 33.5	+0.6
ABKAR	Akbulak array	76.13	355	P	P	18 43 33.5	+0.6
KURBB	Kurchatov Arra	77.89	7	P	P	18 43 44.5	+1.6
	comp=Z,0.5nm,0.3s,baz=198,slow=5.8,SNR=4.5						
	comp=Z,0.5nm,0.3s						
KURK	Kurchatov	77.99	7	P	P	18 43 43.8	+0.4
KURK				IAmb	IAmb	18 43 49.0	
	comp=Z,3.5nm,1.4s						
ZAA0	Zalesovo Array	82.01	10	P	P	18 44 04.9	-0.1
ZALV	Zalesovo Beam	82.01	10	P	P	18 44 06.1	+1.0
	comp=Z,1.6nm,0.8s,baz=211,slow=5.2,SNR=6.5						
	comp=Z,1.6nm,0.8s						
ZALV	Zalesovo Beam	82.01	10	P	P	18 44 04.6	-0.4
SONM	Songino Array	82.39	25	P	P	18 44 08.5	+1.2
	comp=Z,0.3nm,0.5s,baz=212,slow=5.1,SNR=4.3						
	comp=Z,0.3nm,0.5s						
SONM	Songino Array	82.39	25	P	P	18 44 07.5	+0.1
SONM				IAmb	IAmb	18 44 13.4	

	comp=Z,1.6nm,1.2s						
AKASG	Malin Array Be	84.26	337	P	P	18 44 17.2	+0.4
	comp=Z,0.3nm,0.4s,baz=149,slow=3.9,SNR=1.7						
	comp=Z,0.3nm,0.4s						

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*IDC **01** 18:49:19.3±1.0, 16°.20N×120°.41E, h0km, mb3.5/8, mbtmp3.5/8, Error ellipse: s-maj=40.7km s-min=17.1km az=66.0*

*MAN **01** 18:49:23.0, 16°.16N×119°.49E, h1km, MS4.6*

ISC 01 18:49:22.4±0.8, **16°.10N**±0°.04×**119°.56E**±0°.08, **h10**km, **n15**, σ**3s.46**/20, **mb3.6**/8, **Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SIPP	Brgy, Tapao	2.01	25	*e*P	Pb	18 49 58.1	-0.9
SIPP				*e*S	Sg	18 50 31.9	+4.8
PCPS	Palayan City	2.04	135	*e*P	Pn	18 49 52.8	-4.0
PCPS				*e*S	Sn	18 50 20.4	-2.0
TGY	Tagaytay City	2.39	146	*e*P	Pg	18 50 10.3	+2.1
TGY				*e*S	Sg	18 50 44.6	+5.4
LQP	Lukban	2.75	136	*e*P	Pb	18 50 11.8	0.0
PACPP	Pamplona Cagay	2.91	36	*i* P	Pb	18 50 13.8	-0.6
PACPP				*i* S	Sn	18 50 45.4	+1.6
GQP	Guinayangan	3.54	128	*e*P	Pb	18 50 24.1	-1.1
GQP				*e*S	Sg	18 51 22.1	+5.9
CMAR	Chiang Mai Arr	19.82	280	P	Pn	18 54 00.8	+5.9
	1.0nm,0.9s,baz=92,slow=7.6,SNR=10						
	1.0nm,0.9s						
KSRS	Korea Array	22.52	18	P	P	18 54 17.6	-4.8
	0.4nm,0.6s,baz=196,slow=11,SNR=2.4						
	0.4nm,0.6s						
SONM	Songino Array	33.46	344	P	P	18 56 00.9	-0.8
	0.5nm,0.6s,baz=158,slow=8.0,SNR=3.6						
	0.5nm,0.6s						
WRA	Warramunga Arr	38.65	157	P	P	18 56 43.7	-2.6
	0.7nm,1.1s,baz=339,slow=8.2,SNR=8.8						
	0.7nm,1.1s						
ASAR	Alice Springs	41.93	160	P	P	18 57 09.6	-3.9
	0.4nm,0.8s,baz=343,slow=8.4,SNR=12						
	0.4nm,0.8s						
MKAR	Makanchi Array	43.46	323	P	P	18 57 27.9	+2.2
	1.1nm,0.8s,baz=119,slow=9.9,SNR=9.1						
	1.1nm,0.8s						
ZALV	Zalesovo Beam	46.43	332	P	P	18 57 49.4	+0.2
	0.5nm,0.7s,baz=153,slow=9.7,SNR=2.1						
	0.5nm,0.7s						
KURBB	Kurchatov Arra	47.60	326	P	P	18 57 59.4	+1.0
	2.8nm,0.2s,baz=118,slow=9.2,SNR=6.3						
BVAR	Borovoye Array	53.18	325	P	P	18 58 41.6	+1.0
	1.3nm,0.7s,baz=105,slow=6.5,SNR=4.4						
	1.3nm,0.7s						

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*SJA **01** 18:58:34.6±0.9, 27°.67S×71°.59W, h18km±4km, ML3.7, MW3.9*

*IDC **01** 18:58:34.9±1.3, 27°.46S×71°.35W, h0km, mb3.8/3, mbtmp3.7/6, ML3.3/3, MS3.3/4, Error ellipse: s-maj=40.7km s-min=15.8km az=82.0*

*GUC **01** 18:58:38.4±0.8, 27°.68S×71°.40W, h29km±4km, ML3.4*

ISC 01 18:58:34.4±1.6, **27°.59S**±0°.03×**71°.52W**±0°.06, **h7**km±9km, **n37**, σ**2s.18**/55, **Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.73	148	*e*P	Pg	18 58 49.1	+0.7
AC04				*e*S	Sg	18 58 58.2	+0.2
AC04				IAML		18 58 58.7	
	comp=Z,2µm,0.3s						
AC04	Llanos de Chal	0.73	148	*e*P	Pg	18 58 48.9	+0.5
AC04				IAML		18 58 59.1	
	comp=E,4µm,0.6s						
AC06	Mina Casimiro	1.06	78	*e*P	Pn	18 58 55.7	0.0
AC06				*i* S	Sn	18 59 08.8	-1.9
AC06				IAML		18 59 10.5	
	comp=N,3µm,0.4s						
GO03	Copiapo	1.14	91	*e*P	Pn	18 58 57.0	+0.2
GO03				*e*S	Sn	18 59 11.5	-1.3
GO03				IAML		18 59 14.7	
	comp=Z,1µm,0.6s						
GO03	Copiapo	1.14	91	*e*P	Pn	18 58 56.8	0.0
GO03				*i* S	Sb	18 59 10.4	-1.0
GO03				IAML		18 59 17.9	
	comp=E,1µm,0.4s						
LCO	Las Campanas	1.59	153	*e*P	Pn	18 59 03.7	+0.4
LCO				*e*S	Sn	18 59 23.4	-0.9
LCO				IAML		18 59 26.4	
	comp=Z,2µm,0.7s						
LCO	Las Campanas	1.59	153	*e*P	Pn	18 59 03.4	+0.1
LCO				*i* S	Sn	18 59 22.4	-1.9
AC01	Pan de Azucar	1.65	30	*e*P	Pn	18 59 04.9	+1.0
AC01				*e*P	Pn	18 59 04.9	+1.0
AC01				*e*S	Sn	18 59 22.0	-3.3
AC01				IAML		18 59 37.5	
	comp=Z,433nm,0.7s						
AC01	Pan de Azucar	1.65	30	*e*P	Pn	18 59 04.8	+1.0
AC01				*i* S	Sg	18 59 28.4	+1.0
AC05	El Transito	1.66	139	*e*P	Pn	18 59 04.9	+0.7
AC05				*e*S	Sb	18 59 26.0	-0.6
AC05				IAML		18 59 29.1	
	comp=Z,572nm,0.7s						
AC05	El Transito	1.66	139	*e*P	Pn	18 59 04.8	+0.7
AC05				*i* S	Sn	18 59 24.6	-1.2
AC05				IAML		18 59 35.6	
	comp=E,776nm,0.6s						
AC02	Maricunga	2.25	71	*e*P	Pb	18 59 15.5	-0.2
AC02				*e*S	Sg	18 59 45.4	-1.4
AC02				IAML		18 59 48.7	
	comp=Z,649nm,0.9s						
AC02	Maricunga	2.25	71	*e*P	Pb	18 59 15.7	0.0
GO04	Tololo Observa	2.65	166	*e*P	Pn	18 59 18.1	+0.2
GO04				*e*S	Sn	18 59 50.0	-0.5
GO04				*e*S	Sb	18 59 50.8	-4.6
GO04				IAML		19 00 00.6	
	comp=Z,765nm,1.1s						
GO04	Tololo Observa	2.65	166	*e*P	Pn	18 59 18.6	+0.7
GO04				*i* S	Sn	18 59 51.8	+1.3
CO01	Juntas del Tor	2.69	153	*e*P	Pn	18 59 20.3	+1.9
CO01				*e*S	Sn	18 59 46.5	-4.9
CO01				*e*S	Sb	18 59 52.8	-3.7
CO01				IAML		19 00 03.8	
	comp=Z,224nm,0.6s						
CO01	Juntas del Tor	2.69	153	*e*P	Pn	18 59 20.0	+1.6
CO01				*i* S	Sn	18 59 51.9	+0.5
CO01				IAML		19 00 01.0	
	comp=N,223nm,0.5s						
AROD	Rodeo	3.13	146	*e*P	Pn	18 59 06.6	-18
AROD				*e*S	Sb	19 00 06.0	-3.3
CO02	Combarbal	3.63	173	*e*P	Pn	18 59 31.4	+0.2
CO02				*e*S	Sn	19 00 13.6	-0.9
CO02				IAML		19 00 40.3	
	comp=Z,375nm,0.8s						
ACLC	CERRO LA CRUZ	4.42	116	*e*P	Pn	18 59 45.7	+3.6
ACLC				IAML	Sb	19 00 47.0	+1.0
	comp=Z,43nm,1.1s						
ACLC				*e*S	Sb	19 00 47.0	+1.0
RTLS	Leoncito	4.62	156	*e*P	Pn	18 59 45.4	+0.4
RTLS				*e*S	Sb	19 00 46.5	-5.5
CFA	Coronel Fontan	4.92	145	Pn	Pn	18 59 51.9	+3.1
	comp=Z,1.7nm,0.3s,baz=320,slow=12,SNR=17						
CFA				Sn	Sn	19 00 47.7	+1.6
	comp=Z,0.9nm,0.3s,baz=87,slow=13,SNR=4.6						
	comp=Z,4.1nm,0.3s						
CFA				AML	AML		
CFA	Coronel Fontan	4.92	145	*e*P	Pn	18 59 52.3	+3.5
CFA				*e*S	Sn	19 00 50.0	+3.9
CFA				IAML		19 01 08.8	
	comp=Z,41nm,0.9s						
H03N1	Juan Fernandez	8.64	226	T	T	19 09 37.1	
	baz=47,slow=77						
H03N2	Juan Fernandez	8.66	226	T	T	19 09 37.3	
	baz=47,slow=77						
H03N3	Juan Fernandez	8.66	226	T	T	19 09 57.3	
	baz=47,slow=77						
LPAZ	La Paz	11.67	16	Pn	Pn	19 01 21.9	-0.2
	comp=Z,0.2nm,0.3s,baz=211,slow=5.9,SNR=2.1						
LPAZ				LR	LR	19 06 48.6	
	comp=Z,60nm,18.1s,baz=178,slow=43						
	comp=Z,0.6nm,0.4s						
LPAZ				AML	AML		
CPUP	Villa Florida	12.72	88	LR	LR	19 06 57.2	
	comp=Z,69nm,19.2s,baz=254,slow=40						
SIV	San Ignacio	15.06	42	Pn	Pn	19 02 01.9	-5.9
	baz=216,slow=19,SNR=1.2						
	comp=Z,0.5nm,0.6s						
BDFB	Brasilia	24.82	66	LR	LR	19 15 17.8	
	comp=Z,81nm,18.7s,baz=235,slow=41						
SNAA	Sanae	57.38	160	P	P	19 08 23.4	+0.3
	comp=Z,0.6nm,0.4s,baz=70,slow=20,SNR=1.7						
	comp=Z,0.6nm,0.4s						
QSPA	South Pole Qui	62.63	180	P	P	19 09 01.0	+1.6
	comp=Z,0.5nm,0.7s,baz=298,slow=4.8,SNR=1.1						
	comp=Z,0.5nm,0.7s						
VNDA	Vanda	70.47	191	LR	LR	19 36 53.0	
	comp=Z,91nm,21.5s,baz=126,slow=32						
TORD	Torodi Ar. Bea	81.63	71	P	P	19 10 54.4	+0.7
	comp=Z,1.0nm,0.8s,baz=254,slow=3.6,SNR=4.2						
	comp=Z,1.0nm,0.8s						
KURBB	Kurchatov Arra	147.67	36	PKPbc	PKPbc	19 18 20.9	+1.5
	comp=Z,0.6nm,0.2s,baz=295,slow=4.5,SNR=1.5						
ZALV	Zalesovo Beam	148.44	27	PKPbc	PKPbc	19 18 23.8	+2.4
	comp=Z,1.0nm,0.5s,baz=288,slow=1.4,SNR=6.8						
MKAR	Makanchi Array	151.87	40	PKPbc	PKPbc	19 18 29.9	0.0
	comp=Z,0.3nm,0.6s,baz=320,slow=1.4,SNR=5.2						

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*SJA **01** 19:20:26.0±1.0, 27°.81S×71°.68W, h46km, ML3.5, MW3.3*

*GUC **01** 19:20:28.2±0.8, 27°.95S×71°.26W, h24km±4km, ML3.5*

ISC 01 19:20:25.7±1.6, **27°.86S**±0°.04×**71°.54W**±0°.08, **h10**km, **n28**, σ**2s.21**/39, **Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.54	130	*e*P	Pg	19 20 35.7	-0.4
AC04				*e*S	Sg	19 20 40.7	-2.6
AC04				IAML		19 20 41.2	
	comp=E,14µm,0.2s						
AC06	Mina Casimiro	1.16	65	*e*P	Pb	19 20 47.0	-0.9
GO03	Copiapo	1.19	78	*e*P	Pb	19 20 47.0	-1.3
GO03				*e*S	Sb	19 21 01.1	-2.7
GO03				IAML		19 21 06.6	
	comp=E,875nm,0.3s						
LCO	Las Campanas	1.37	148	*e*P	Pn	19 20 50.4	-0.7
LCO				*e*S	Sb	19 21 05.3	-3.9
LCO				IAML		19 21 08.7	
	comp=E,9µm,0.3s						
AC05	El Transito	1.48	132	*e*P	Pn	19 20 51.7	-0.9
AC05				*e*S	Sn	19 21 06.6	-5.5
AC05				IAML		19 21 10.4	
	comp=E,610nm,0.1s						
AC01	Pan de Azucar	1.90	26	*e*P	Pn	19 20 59.2	+1.1
AC01				*e*S	Sn	19 21 21.6	-0.5
AC01				IAML		19 21 36.2	
	comp=E,191nm,0.5s						
AC02	Maricunga	2.37	65	*e*P	Pn	19 21 07.0	+1.8
AC02				*e*S	Sn	19 21 36.3	+1.8
AC02				IAML		19 21 39.0	
	comp=Z,263nm,0.5s						
AC02	Maricunga	2.37	65	*e*P	Pn	19 21 07.5	+2.3
AC02				*e*S	Sn	19 21 36.8	+2.3
AC02				IAML		19 21 41.6	
	comp=N,488nm,0.3s						
GO04	Tololo Observa	2.40	164	*e*P	Pn	19 21 06.0	+0.8
GO04				IAML		19 21 42.0	
	comp=E,2µm,0.6s						
CO01	Juntas del Tor	2.46	149	*e*P	Pn	19 21 07.6	+1.5
CO01				IAML		19 21 38.4	
	comp=E,275nm,0.4s						
AROD	Rodeo	2.93	142	*e*P	Pn	19 21 15.4	+2.8
AROD				*e*S	Sn	19 21 50.7	+2.7
VCA	Vinchina	3.07	107	*e*P	Pn	19 21 16.4	+2.0
VCA				*e*S	Sn	19 21 53.9	+2.6
VCA				IAML		19 22 03.9	
	comp=Z,157nm,0.4s						
ACDV	Cuesta del Vie	3.13	138	*e*P	Pn	19 21 16.9	+1.6
ACDV				IAML		19 22 55.6	
	comp=Z,71nm,0.2s						
ACCO	Cerro Coronel	3.48	142	*e*P	Pn	19 21 23.0	+2.8
ACCO				*e*S	Sn	19 22 05.2	+3.6
ACCO				IAML		19 22 15.1	
	comp=Z,84nm,0.5s						
TINO	Tinogasta	3.52	94	*e*P	Pn	19 21 22.5	+2.0
TINO				*e*S	Sn	19 22 04.1	+1.8
TINO				IAML		19 22 17.8	
	comp=Z,54nm,0.6s						
ACLC	CERRO LA CRUZ	4.33	112	*e*P	Pn	19 21 33.5	+1.8
ACLC				IAML		19 22 51.9	
	comp=Z,13nm,1.1s						
RTLL	Cerro Villicun	4.37	143	*e*P	Pn	19 21 34.2	+2.0
RTLL				*e*S	Sn	19 22 24.0	+0.8
RTLL				IAML		19 22 40.2	
	comp=Z,39nm,0.4s						
RTLS	Leoncito	4.39	154	*e*P	Pn	19 21 36.1	+3.5
RTLS				*e*S	Sn	19 22 26.5	+2.6
RTLS				IAML		19 22 45.3	
	comp=Z,145nm,0.9s						
ZON	Zonda	4.44	147	*e*P	Pn	19 21 37.4	+4.2
ZON				*e*S	Sn	19 22 26.2	+1.3
ZON				IAML		19 22 52.2	
	comp=Z,32nm,0.8s						
AVFE	Valle Fertil	4.53	129	*e*P	Pn	19 21 36.1	+1.7
AVFE				IAML		19 22 54.3	
	comp=Z,27nm,0.8s						
AUSP	Uspallata	4.74	157	*e*P	Pn	19 21 40.6	+3.2
VA03	San Esteban	4.97	170	*e*P	Pn	19 21 40.6	+0.2
VA03				IAML		19 23 01.1	
	comp=Z,64nm,0.8s						
CYA	Choya	5.10	98	*e*P	Pn	19 21 43.4	+1.2
CYA				*e*S	Sn	19 22 41.8	+0.6
CYA				IAML		19 22 48.8	
	comp=Z,26nm,1.0s						
PEL	Peldehue	5.32	172	*e*P	Pn	19 21 51.2	+5.9
PEL				IAML		19 23 14.3	
	comp=Z,39nm,1.3s						
ARCO	CERRO ARCO	5.46	156	*e*P	Pn	19 21 53.0	+5.8
ARCO				IAML		19 23 24.9	
	comp=Z,31nm,0.7s						
AHML	Horco Molle	5.62	80	*e*P	Pn	19 21 50.0	+0.6
AHML				IAML		19 23 22.9	
	comp=Z,9.2nm,1.0s						
AAGR	Agrelo	5.71	156	*e*P	Pn	19 21 50.2	-0.5
AAGR				IAML		19 23 30.5	
	comp=Z,31nm,2.2s						
ACAN	Cantantal	5.80	140	*e*P	Pn	19 21 53.5	+1.7
ACAN				IAML		19 23 42.6	
	comp=Z,56nm,0.8s						

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*CRAAG **01** 19:22:33.7, 36°.52N×6°.30E, Ml2.8, Algrie 02km NW Grarem-Gouga*

*MDD **01** 19:22:48.4±1.7, 37°.31N×5°.68E, h10km, Mb3.9/7, M_mb3.2/7, Error ellipse: s-maj=15.1km s-min=12.2km az=87.0*

ISC 01 19:22:30.0±0.9, **36°.79N**±0°.06×**5°.99E**±0°.05, **h10**km, **n16**, σ**1s.57**/20, **4C**, **Northern Algeria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DFRA	Djebel Bou Aff	0.26	200	P	Pn	19 22 42.0	+2.1
CBOS	Bilal Ibnou Ra	0.26	88	P	Pn	19 22 40.1	+0.2
CBHR	Beni Haroun da	0.32	134	P	Pg	19 22 36.4	+0.1
COAT	Oued Athmania	0.60	156	P	Pg	19 22 40.8	-0.8
CASM	Ain Smara	0.66	142	P	Pg	19 22 40.6	-2.2
CAEH	'Ain El Ouahch	0.69	90	P	Pb	19 22 44.5	+0.4
CTEI	Djebel Teioual	0.80	155	P	Pg	19 22 44.2	-1.1
CSGS	Sigus	0.88	138	P	Pg	19 22 45.5	-1.3
CMAH	Djebel Manchou	1.16	98	P	Pb	19 22 52.4	+0.2
MAHO	Mahon	3.39	337	Sn	Sb	19 24 10.9	-0.4
ETOS	Mallorca	3.88	321	Pn	Pb	19 23 39.5	+1.0
ETOS				Sn	Sb	19 24 24.7	-1.0
ETOS	Mallorca	3.88	321	Pn	Pb	19 23 39.3	+0.7
ETOS				⇑IVmb_VC		19 23 39.6	
	131nm,SNR=1.6						
ETOS				Sn	Sn	19 24 15.4	-0.1
EIBI	Ibiza	4.30	303	Pn	Pb	19 23 46.2	+0.7
EIBI				Sn	Sb	19 24 37.1	-0.5
EIBI	Ibiza	4.30	303	Pn	Pb	19 23 46.3	+0.7
EIBI				⇑IVmb_VC		19 23 48.0	
	234nm,SNR=2.1						
EIBI				Sn	Sn	19 24 27.5	+1.8
EVIV	Cofrentes, Val	6.13	296	Pn	Pb	19 24 12.6	-4.2
EVIV				⇑IVmb_VC		19 24 14.6	
	137nm,SNR=2.0						
EMOS	Mosqueruela	6.19	307	Pn	Pb	19 24 12.5	-5.5
EMOS				⇑IVmb_VC		19 24 21.6	
	83nm,SNR=1.1						
EMOS				Sn	Sn	19 25 14.6	+2.0

IDC 01 19:23:58.4±7.1, **18°.97S**×**176°.40W**, **h0**km, **mb3.9**/2, **mbtmp3.9**/2, **Error ellipse: s-maj=300.0km s-min=112.7km az=153.0**, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	46.32	260	P	P	19 32 26.5	+0.1
	0.5nm,0.3s,baz=96,slow=7.6,SNR=33						
	0.5nm,0.3s						
ASAR	Alice Springs	46.35	255	P	P	19 32 26.2	-0.4
	1.8nm,0.7s,baz=100,slow=7.6,SNR=5.1						
	1.8nm,0.7s						
AKASG	Malin Array Be	142.37	333	PKP	PKPdf	19 43 32.2	-0.7
	0.7nm,0.5s,baz=44,slow=3.8,SNR=9.4						

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*BUT **01** 20:02:10.5±1.6, 44°.47N±0°.02×115°.21W±0°.02, h7km±5km, Error ellipse: s-maj=2.8km s-min=2.0km az=199.0*

NEIC 01 20:02:10.0±0.7, **44°.48N**±0°.02×**115°.20W**±0°.03, **h13**km±9km, **ML3.2**/114, **ML3.7**/26(BUT), **Error ellipse: s-maj=3.2km s-min=2.3km az=99.0**, **Western Idaho**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLID	Pearl Lake	0.83	317		Pg	20 02 26.2	-0.1
PLID					Sg	20 02 37.0	-0.2
PLID				IAML		20 02 37.6	
	546nm,0.5s						
HLID	Hailey	1.08	148		Pb	20 02 30.4	-0.2
HLID					Sb	20 02 44.0	-0.7
HLID				IAML		20 02 45.4	
	617nm,0.2s						
HLID				IAML		20 02 47.4	
	755nm,0.3s						
MFID	Camas Ranch	1.16	203		Sg	20 02 47.3	-0.1
MFID	Camas Ranch	1.16	203		Pb	20 02 31.5	-0.4
BCYI	Bear Canyon	1.30	97		Pb	20 02 34.6	+0.2
BCYI					Sb	20 02 50.9	-0.2
CNCI	Crows Nest Can	1.37	113		Pb	20 02 35.7	+0.1
BMO	Blue Mountains	1.55	285		Pb	20 02 38.4	-0.2
BMO				IAML		20 02 59.6	
	358nm,0.5s						
BMO				IAML		20 03 00.9	
	476nm,0.4s						
ICI	Italian Canyon	1.63	94		Pb	20 02 40.0	-0.1
MCMT	McKenzie Canyo	1.71	77		Pn	20 02 40.6	+0.7
MOMT	Monida	2.01	86		Pb	20 02 45.2	-1.3
DLMT	Dillon	2.05	64		Pn	20 02 45.4	+1.0
F10A	Beach Ranch, E	2.07	317		Pn	20 02 45.8	+1.2
VCMT	Victor	2.09	20		Pb	20 02 46.4	-1.4
BPMT	Black Pine Rid	2.32	32		Pn	20 02 49.0	+0.8
BUT	Butte	2.41	50		Pn	20 02 50.5	+1.1
BUT				IAML		20 03 29.3	
	comp=N,149nm,0.5s						
BUT				IAML		20 03 29.9	
	comp=E,180nm,0.6s						
MSO	Missoula	2.51	20	Pn	Pn	20 02 52.0	+1.4
MSO				IAML		20 03 31.9	
	comp=E,190nm,0.4s						
LNOR	Lincton Mounta	2.59	304		Pn	20 02 52.9	+1.3
LNOR				IAML		20 03 34.1	
	comp=E,68nm,0.6s						
LNOR				IAML		20 03 37.4	
	comp=N,71nm,0.8s						
J08A	Circle Bar Ran	2.62	246		Pn	20 02 52.8	+0.7
J08A				IAML		20 03 41.3	
	comp=N,126nm,0.5s						
J08A				IAML		20 03 41.3	
	comp=E,162nm,0.6s						
QLMT	Earthquake Lak	2.71	81		Pn	20 02 55.0	+1.4
BOZ	Bozeman (W)	2.77	65		Pn	20 02 55.7	+1.5
G08A	Pilot Rock	2.79	288		Pn	20 02 55.2	+0.7
G08A				IAML		20 03 38.3	
	comp=N,93nm,0.6s						
G08A				IAML		20 03 40.0	
	comp=E,56nm,0.6s						
YHB	Horse Butte	2.87	83		Pn	20 02 57.4	+1.7
YHL	Hebgen Lake	2.89	81		Pn	20 02 57.5	+1.4
E09A	Wood Farm, Sta	2.91	316		Pn	20 02 57.4	+1.5
E09A				IAML		20 03 44.1	
	comp=E,69nm,0.9s						
E09A				IAML		20 03 47.5	
	comp=N,54nm,1.1s						
YMR	Madison River	3.03	85		Pn	20 02 59.2	+1.3
YPT	Yellepit	3.09	302		Pn	20 02 59.8	+1.3
YPT				IAML		20 03 49.0	
	comp=E,48nm,1.2s						
YPT				IAML		20 03 54.5	
	comp=N,44nm,0.9s						
YHH	Holmes Hill	3.12	83		Pn	20 03 01.4	+2.2
FXWY	Fox Creek	3.12	104		Pn	20 03 01.3	+2.1
YFT	Old Faithful	3.12	89		Pn	20 03 01.2	+2.0
YFT				IAML		20 03 47.9	
	comp=N,51nm,0.8s						
YFT				IAML		20 03 50.4	
	comp=E,58nm,0.7s						
YPP	Pitchstone Pla	3.16	92		Pn	20 03 00.2	+0.5
YPP				IAML		20 03 50.6	
	comp=N,58nm,0.4s						
LYMT	Lyon Mountain	3.22	38		Pn	20 03 00.6	+0.1
YNM	Yellowstone No	3.22	84		Pn	20 03 00.2	-0.3
HVU	Hansel Valley	3.23	146		Pn	20 03 00.1	-0.5
WVOR	Wild Horse Val	3.23	232		Pn	20 03 00.3	-0.2
YNR	Norris Junctio	3.24	84		Pn	20 03 00.7	-0.1
YNR				IAML		20 03 54.5	
	comp=E,91nm,0.8s						
YNR				IAML		20 03 56.3	
	comp=N,93nm,0.9s						
JTMT	Jette	3.33	11		Pn	20 03 02.7	+0.7
SNOW	Snow King Moun	3.37	106		Pn	20 03 03.3	+0.8
SNOW				IAML		20 04 03.3	
	comp=N,75nm,1.3s						
SNOW				IAML		20 04 07.7	
	comp=N,47nm,0.7s						
E08A	Dider Farm, El	3.38	308		Pn	20 03 03.3	+0.8
E08A				IAML		20 04 00.0	
	comp=E,36nm,0.8s						
E08A				IAML		20 04 07.2	
	comp=N,35nm,0.9s						
AHID	Auburn Hatcher	3.43	118		Pn	20 03 05.7	+2.3
AHID				IAML		20 04 39.9	
	comp=N,56nm,0.1s						
AHID				IAML		20 04 41.0	
	comp=N,62nm,0.2s						
HAWA	Hanford	3.60	304		Pn	20 03 06.3	+0.8
F07A	Phinny Hill Vi	3.63	295		Pn	20 03 07.2	+1.3
F07A				IAML		20 04 05.8	
	comp=N,59nm,0.7s						
F07A				IAML		20 04 08.0	
	comp=E,70nm,1.3s						
D08A	Wollman Farm,	3.67	316		Pn	20 03 08.8	+2.4
D08A				IAML		20 04 12.8	
	comp=E,29nm,0.9s						
ELK	Elko	3.73	180		Pn	20 03 08.9	+1.4
YNE	Yellowstone No	3.74	80		Pn	20 03 09.1	+1.5
YNE				IAML		20 04 13.2	
	comp=E,64nm,0.6s						
SPUT	South Promonto	3.76	147		Pn	20 03 07.9	+0.1
SPUT				IAML		20 04 13.0	
	comp=E,35nm,0.7s						
E07A	Sunnyside	3.88	304		Pn	20 03 09.9	+0.5
E07A				IAML		20 03 58.2	
	comp=E,53nm,0.5s						
E07A				IAML		20 03 59.0	
	comp=N,54nm,0.3s						
BGU	Big Grassy Mou	3.89	155		Pn	20 03 10.9	+1.2
HWUT	Hardware Ranch	3.92	136		Pn	20 03 10.1	+0.1
G06A	Carlson Farm,	3.94	283		Pn	20 03 10.9	+0.7
G06A				IAML		20 04 14.3	
	comp=N,32nm,1.6s						
C09A	Chrisman Ranch	3.95	328		Pn	20 03 11.5	+1.2
LDM	Libby Dam	3.98	359		Pn	20 03 12.0	+1.2
NEW	Newport	4.01	341		Pn	20 03 11.7	+0.4
NEW				IAML		20 04 21.6	
	comp=N,32nm,0.7s						
MXC	Moxie City	4.15	302		Pn	20 03 14.5	+1.4
MXC				IAML		20 04 30.7	
	comp=N,20nm,1.5s						
MXC				IAML		20 04 31.6	
	comp=E,20nm,0.9s						
PINE	Pine Mountain	4.19	263		Pn	20 03 13.2	-0.6
PINE				IAML		20 04 41.8	
	comp=E,25nm,3.6s						
PINE				IAML		20 04 45.4	

	comp=N,18nm,1.4s						
EPH	Ephrata	4.21	315		Pn	20 03 13.1	-0.8
EPH				IAML		20 04 27.6	
	comp=E,23nm,1.3s						
EPH				IAML		20 04 33.7	
	comp=N,23nm,0.9s						
RLMT	Red Lodge	4.27	79		Pn	20 03 15.2	+0.2
BMN	Battle Mountai	4.31	201		Pn	20 03 15.0	-0.5
BMN				IAML		20 04 24.1	
	comp=E,24nm,0.8s						
BMN				IAML		20 04 32.3	
	comp=N,20nm,0.9s						
TCUT	Toone Canyon	4.37	139		Pn	20 03 16.3	+0.1
TCUT				IAML		20 04 43.7	
	comp=E,38nm,0.8s						
BW06	Boulder Array	4.44	111		Pn	20 03 18.1	+0.9
PD31	Pinedale Array	4.44	111		Pn	20 03 18.2	+1.0
PDAR	Pinedale Array	4.44	111		Pn	20 03 18.8	+1.6
MOD	Modoc Plateau	4.53	237		Pn	20 03 19.6	+1.1
DUG	Dugway, Tooele	4.63	157	IAML		20 04 45.9	
	comp=E,20nm,1.1s						
DUG				IAML		20 04 46.2	
	comp=E,22nm,0.8s						
LTY	Liberty	4.72	308		Pn	20 03 19.7	-1.3
LTY				IAML		20 04 18.2	
	comp=E,13nm,0.5s						
WIFE	Three Sisters-	4.77	267		Pn	20 03 20.3	-1.5
WIFE				IAML		20 04 56.3	
	comp=N,18nm,3.2s						
WIFE				IAML		20 05 39.4	
	comp=E,24nm,4.2s						
NLU	North Lily Min	5.08	152		Pn	20 03 25.8	-0.2
BSUT	Blindstream Ca	5.12	139		Pn	20 03 27.2	+0.4
STD	Studebaker Rid	5.25	292		Pn	20 03 28.4	0.0
STD				IAML		20 04 59.8	
	comp=N,16nm,0.9s						
STD				IAML		20 05 09.9	
	comp=E,22nm,0.9s						
KVN	Kaiserville	5.84	203		Pn	20 03 35.3	-1.1
PNTR	Pine Nut	6.31	213		Pn	20 03 41.1	-1.8

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*IDC **01** 20:11:55.4±1.0, 27°.84S×71°.23W, $h0^{km}$, mb4.1/4, mbtmp4.0/8, ML4.0/4, MS2.8/4, Error ellipse: s-maj=28.2km s-min=15.1km az=82.0*

*SJA **01** 20:11:55.5±0.7, 27°.87S×71°.40W, $h15^{km}\pm 3^{km}$, ML4.1, MW3.9*

*GUC **01** 20:11:59.3±0.6, 27°.97S×71°.22W, $h38^{km}\pm 2^{km}$, ML4.0*

ISC 01 20:11:55.5±1.9**, 27°.94S**±0°.03×**71°.27W**±0°.05**, $h4^{km}\pm 12^{km}$, n52,** $\sigma 1^{s}.$**97**/66**, mb4.2**/3**, 4C-3D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.32	148	eP	Pg	20 11 45.4	-16
AC04				eS	Sb	20 12 11.5	+2.3
AC04				IAML		20 12 12.0	
	comp=Z,14μm,0.1s						
AC04	Llanos de Chal	0.32	148	⇑eP	Pn	20 12 07.1	+0.2
AC04				eS	Sb	20 12 11.5	+2.3
GO03	Copiapo	0.98	70	⇓eP	Pn	20 12 16.8	+0.8
GO03				eS	Sg	20 12 28.4	+1.5
GO03				IAML		20 12 30.4	
	comp=N,8μm,0.5s						
AC06	Mina Casimiro	0.99	55	eP	Pn	20 12 17.2	+1.0
AC06				eS	Sb	20 12 29.8	+1.1
AC06				IAML		20 12 30.6	
	comp=E,5μm,0.6s						
LCO	Las Campanas	1.18	155	⇓eP	Pn	20 12 19.7	+0.6
LCO				eS	Sg	20 12 33.8	+0.2
AC05	El Transito	1.25	136	⇓eP	Pn	20 12 20.6	+0.6
AC05				eS	Sg	20 12 35.6	-0.2
AC05				IAML		20 12 40.0	
	comp=N,2μm,0.6s						
AC01	Pan de Azucar	1.88	19	⇑eP	Pb	20 12 30.3	-0.1
AC01				eS	Sn	20 12 52.7	+0.1
AC01				IAML		20 13 04.6	
	comp=N,826nm,0.3s						
AC02	Maricunga	2.19	61	eP	Pb	20 12 36.7	+0.6
AC02				eS	Sb	20 13 05.0	+1.2
AC02	Maricunga	2.19	61	⇑eP	Pb	20 12 36.4	+0.3
AC02				eS	Sb	20 13 03.7	0.0
AC02				IAML		20 13 06.8	
	comp=N,3μm,0.6s						
GO04	Tololo Observa	2.27	170	eP	Pb	20 12 36.2	-1.0
GO04				eS	Sb	20 13 06.5	+0.9
GO04				IAML		20 13 08.6	
	comp=Z,1μm,0.6s						
GO04	Tololo Observa	2.27	170	eP	Pb	20 12 36.1	-1.0
GO04				eS	Sn	20 13 03.4	+0.9
CO01	Juntas del Tor	2.28	153	eP	Pb	20 12 36.8	-0.6
CO01				eS	Sb	20 13 05.7	-0.3
CO01				IAML		20 13 14.8	
	comp=Z,2μm,0.7s						
CO01	Juntas del Tor	2.28	153	⇑eP	Pb	20 12 36.6	-0.7
CO01				eS	Sn	20 13 03.9	+1.1
CO01				IAML		20 13 14.5	
	comp=N,2μm,0.5s						
AROD	Rodeo	2.72	145	eP	Pb	20 12 44.0	-0.9
AROD				eS	Sb	20 13 19.6	+0.8
CO06	Fray Jorge	2.75	187	eP	Pn	20 12 41.2	+0.9
CO06				IAML		20 13 31.1	
	comp=E,515nm,0.3s						
VCA	Vinchina	2.81	107	eP	Pb	20 12 46.4	0.0
CO03	El Pedregal	2.94	170	eP	Pn	20 12 45.4	+2.3
CO03				eS	Sb	20 13 24.4	-0.4
CO03				IAML		20 13 30.0	
	comp=Z,613nm,0.8s						
CO03	El Pedregal	2.94	170	eP	Pn	20 12 45.2	+2.1
CO03				IAML		20 13 32.7	
	comp=E,1μm,0.7s						
ACCO	Cerro Coronel	3.27	144	eP	Pb	20 12 52.0	-2.3
ACCO				eS	Sb	20 13 32.9	-1.7
ACCO				IAML		20 13 41.6	
	comp=Z,291nm,0.4s						
TINO	Tinogasta	3.27	93	eP	Pn	20 12 50.8	+3.1
TINO				eS	Sb	20 13 35.0	+0.5
TINO				IAML		20 13 37.5	
	comp=Z,388nm,0.5s						
PB14	IPOC Station P	3.39	13	eP	Pn	20 12 50.6	+1.2
ACLC	CERRO LA CRUZ	4.07	112	eP	Pn	20 13 02.0	+3.2
ACLC				eS	Sb	20 13 53.9	-3.6
ACLC				IAML		20 13 56.2	
	comp=Z,142nm,0.6s						
RTLL	Cerro Villicun	4.16	145	eP	Pn	20 13 03.9	+4.0
RTLL				eS	Sn	20 13 51.9	+2.9
RTLL				IAML		20 14 02.6	
	comp=Z,261nm,0.7s						
CFA	Coronel Fontan	4.50	145	Pn	Pn	20 13 08.2	+3.7
	comp=Z,13nm,0.3s,baz=311,slow=14,SNR=83						
CFA				Sn	Sn	20 14 00.8	+3.4
	comp=Z,3.4nm,0.3s,baz=9.4,slow=14,SNR=4.7						
	comp=Z,29nm,0.3s						
CFA				AML	AML		
CFA	Coronel Fontan	4.50	145	eP	Pn	20 13 08.4	+3.8
CFA				eS	Sn	20 13 49.4	-8.1
CFA				IAML		20 13 55.1	
	comp=Z,224nm,0.8s						
CYA	Choya	4.85	97	eP	Pn	20 13 11.7	+2.4
VA03	San Esteban	4.85	173	eP	Pn	20 13 11.6	+2.2
PB05	IPOC Station P	5.15	11	eP	Pn	20 13 13.4	-0.1
TCA	Tanti	6.72	122	eP	Pn	20 13 35.9	+0.8
H03N1	Juan Fernandez	8.57	228	Pn	Pn	20 14 00.3	+0.3
	baz=308,slow=74						
H03N1				T	T	20 22 49.0	
	baz=208,slow=74,SNR=919						
H03N2	Juan Fernandez	8.58	228	Pn	Pn	20 14 00.0	-0.2
	baz=313,slow=74						
H03N2				T	T	20 22 49.3	
	baz=54,slow=74,SNR=1177						
H03S3	Juan Fernandez	8.81	226	Pn	Pn	20 14 02.5	-0.8
	baz=96,slow=72						
H03S1	Juan Fernandez	8.81	226	Pn	Pn	20 14 02.6	-0.8
	baz=96,slow=72						
H03S2	Juan Fernandez	8.82	226	Pn	Pn	20 14 02.6	-1.0
	baz=96,slow=72						
LPAZ	La Paz	11.95	15	Pn	Pn	20 14 47.8	+0.5
	comp=Z,0.3nm,0.3s,baz=207,slow=6.5,SNR=5.5						
LPAZ				LR	LR	20 19 36.3	
	comp=Z,49nm,19.8s,baz=132,slow=39						
	comp=Z,0.7nm,0.4s						
LPAZ				AML	AML		
CPUP	Villa Florida	12.52	86	Pn	Pn	20 14 53.5	-1.0
	comp=Z,0.2nm,0.3s,baz=36,slow=17,SNR=1.5						
CPUP				LR	LR	20 20 07.7	
	comp=Z,74nm,18.6s,baz=258,slow=40						
	comp=Z,0.6nm,0.3s						
CPUP				AML	AML		
PLCA	Paso Flores	12.78	178	LR	LR	20 20 15.7	
	comp=Z,34nm,18.9s,baz=39,slow=39						
SIV	San Ignacio	15.18	41	Pn	Pn	20 15 27.1	-3.7
	baz=210,slow=12,SNR=5.9						
SIV				LR	LR	20 20 59.7	
	comp=Z,19nm,21.7s,baz=164,slow=36						
	comp=Z,0.7nm,0.3s						
SNAA	Sanae	56.97	159	P	P	20 21 41.7	-0.1
	comp=Z,1.2nm,0.5s,baz=255,slow=4.4,SNR=3.9						
	comp=Z,1.2nm,0.5s						
QSPA	South Pole Qui	62.28	180	P	P	20 22 19.5	+1.0
	comp=Z,2.1nm,1.0s,baz=178,slow=2.6,SNR=4.0						
	comp=Z,2.1nm,1.0s						
TORD	Torodi Ar. Bea	81.53	70	P	P	20 24 14.8	0.0
	comp=Z,0.8nm,0.6s,baz=271,slow=4.7,SNR=8.3						
	comp=Z,0.8nm,0.6s						
BOSA	Boshof	82.32	118	P	P	20 24 18.1	-0.8
	comp=Z,1.8nm,0.8s,baz=280,slow=15,SNR=1.2						
	comp=Z,1.8nm,0.8s						
H11S2	WAKE ISLAND Hy	126.31	273	T	T	22 50 09.4	
	baz=112,slow=75,SNR=7.6						
H11S1	WAKE ISLAND Hy	126.33	273	T	T	22 50 08.6	
	baz=112,slow=75,SNR=9.6						
H11S3	WAKE ISLAND Hy	126.33	273	T	T	22 50 09.3	
	baz=112,slow=75,SNR=9.0						
WRA	Warramunga Arr	126.34	210	PKP	PKPdf	20 30 59.4	-0.9
	comp=Z,0.2nm,0.6s,baz=139,slow=2.0,SNR=0.9						
H11N3	WAKE ISLAND Hy	126.57	275	T	T	22 50 27.6	
	baz=112						
H11N1	WAKE ISLAND Hy	126.59	275	T	T	22 50 32.0	
	baz=112						
H11N2	WAKE ISLAND Hy	126.59	275	T	T	22 50 26.8	
	baz=112						
KURBB	Kurchatov Arra	147.81	37	PKPbc	PKPbc	20 31 42.1	+0.7
	comp=Z,0.7nm,0.7s,baz=305,slow=3.3,SNR=6.6						
ZALV	Zalesovo Beam	148.65	27	PKPbc	PKPbc	20 31 44.1	+0.6
	comp=Z,1.4nm,0.5s,baz=308,slow=4.0,SNR=7.9						
MKAR	Makanchi Array	152.00	41	PKPbc	PKPbc	20 31 52.0	+0.1
	comp=Z,0.5nm,0.6s,baz=320,slow=1.9,SNR=5.4						
MKAR				PKPab	PKPab	20 32 01.8	+0.6
	comp=Z,1.1nm,1.0s,baz=331,slow=1.9,SNR=4.6						

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*IDC **01** 20:19:26.9±1.1, 5°.60N×127°.55E, $h0^{km}$, mb3.7/8, mbtmp3.7/9, ML4.4/1, MS2.9/1, Error ellipse: s-maj=52.7km s-min=15.7km az=56.0*

*MAN **01** 20:19:31.0, 5°.00N×126°.96E, $h33^{km}$, MS3.9*

ISC 01 20:19:35.4±2.3**, 5°.2N**±0°.1×**126°.8E**±0°.1**, $h52^{km}\pm 20^{km}$, n18,** $\sigma 1^{s}.$**51**/25**, mb3.8**/8**, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GSPH	General Santos	2.02	298	i P	Pn	20 20 05.8	-1.3
GSPH				i S	Sn	20 20 31.2	-0.1
DAV	Davao City (W)	2.24	329	Pn	Pn	20 20 08.3	-1.7
	80nm,0.3s,baz=180,slow=1.5,SNR=5.3						
DAV				Sn	Sn	20 20 37.0	+0.5
	84nm,0.3s,baz=253,slow=22,SNR=10						
DAV				LR	LR	20 21 27.7	
	comp=Z,223nm,20.4s,baz=68,slow=50						
	230nm,0.4s						
DAV				AML	AML		
DMPH	Davao City--Mi	2.29	327	eP	Pn	20 20 10.3	-0.4
DMPH				eS	Sn	20 20 36.4	-1.3
KCP	Kidapawan	2.48	318	i P	Pn	20 20 12.6	-0.8
KCP				eS	Sn	20 20 41.5	-1.0
CDOP	Cateel, Davao	2.64	353	i P	Pn	20 20 10.5	-5.0
CDOP				i S	Sn	20 20 44.7	-1.6
BIPH	Bislig	3.04	353	eP	Pn	20 20 20.2	-0.9
BIPH				eS	Sn	20 20 60.0	+3.7
CTBH	Cotabato--PC H	3.23	310	i P	Pn	20 20 25.2	+1.6
CGP	Cagayan de Oro	3.87	328	eP	Pn	20 20 33.1	+0.7
CGP				eS	Sn	20 21 19.5	+2.9
SCPH	Surigao	4.77	345	eP	Pn	20 20 44.1	-0.7
PLP	Palo	6.23	344	eP	Pn	20 21 05.5	+0.6
PLP				eS	Sn	20 22 15.0	+0.2
WRA	Warramunga Arr	26.02	164	P	P	20 25 03.6	-0.2
	0.6nm,0.6s,baz=342,slow=10,SNR=16						
	0.6nm,0.6s						
ASAR	Alice Springs	29.48	167	P	P	20 25 36.0	+1.4
	0.2nm,0.7s,baz=349,slow=7.4,SNR=4.5						
	0.2nm,0.7s						
CMAR	Chiang Mai Arr	30.20	298	P	P	20 25 43.0	+1.9
	0.3nm,0.4s,baz=112,slow=9.5,SNR=1.9						
	0.3nm,0.4s						
MKAR	Makanchi Array	56.41	325	P	P	20 29 10.8	-0.9
	0.3nm,0.3s,baz=132,slow=8.5,SNR=7.3						
	0.3nm,0.3s						
ZALV	Zalesovo Beam	59.34	333	P	P	20 29 31.4	-0.6
	0.4nm,0.4s,baz=120,slow=7.3,SNR=2.3						
	0.4nm,0.4s						
KURBB	Kurchatov Arra	60.57	327	P	P	20 29 39.4	-1.1
	0.8nm,0.9s,baz=131,slow=6.8,SNR=9.0						
	0.8nm,0.9s						
BVAR	Borovoye Array	66.15	327	P	P	20 30 16.7	-0.7
	0.9nm,0.6s,baz=111,slow=6.8,SNR=3.9						
	0.9nm,0.6s						
FINES	FINESS Array B	90.60	332	P	P	20 32 30.5	-1.4
	0.9nm,0.8s,baz=19,slow=5.0,SNR=1.6						
	0.9nm,0.8s						

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*IDC **01** 20:28:24.3±1.2, 47°.64N×25°.18E, $h0^{km}$, mb3.5/1, mbtmp3.2/5, ML2.7/4, Error ellipse: s-maj=15.8km s-min=11.5km az=111.0*

*SIGU **01** 20:28:26.8±0.2, 48°N±1°×2°5E±°, $h5^{km}$, mb2.4/9, MD2.8/16*

*BUC **01** 20:28:26.8±0.2, 47°.57N×25°.25E, $h2^{km}\pm 1^{km}$, ml2.8/36, Error ellipse: s-maj=2.0km s-min=1.4km az=3.0*

ISC 01 20:28:27.0±0.9**, 47°.57N**±0°.02×**25°.26E**±0°.02**, $h7^{km}\pm 6^{km}$, n63,** $\sigma 1^{s}.$**06**/93**, 23C-34D, Romania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BURAR	Bucovina Array	0.05	327	⇑S	Sg	20 28 31.1	+1.2
BURAR				AML	AML		
BUR08	Bucovina Ar. S	0.08	331	⇓P	Pg	20 28 28.5	-0.6
PRAR	RASCA	0.69	107	⇑P	Pg	20 28 39.8	-0.5
PRAR				⇓S	Sg	20 28 49.7	+0.4
PRAR				AML	AML		
PRAR				AML	AML		
KSV	Kosov	0.75	350	eP	Pb	20 28 42.8	+0.3
KSV				eS	Sb	20 28 54.5	+1.5
ARCR	ARCALIA	0.79	232	⇓P	Pg	20 28 41.4	-0.6
ARCR				⇓S	Sg	20 28 52.2	0.0
ARCR				AML	AML		
ARCR				AML	AML		
NSLU	Nyzhne Selyshc	0.82	320	eP	Pn	20 28 53.2	+8.2
NSLU				pmax	pmax	20 28 59.4	
NSLU				eS	Sn	20 29 13.6	+16
NSLU				smax	smax	20 29 17.8	
CHRU	Chernivtsi	0.85	31	⇓iP	Pg	20 28 43.4	0.0
CHRU				pmax	pmax	20 28 47.5	
CHRU				eS	Sb	20 28 55.7	0.0
CHRU				smax	smax	20 28 57.2	
BIZ	Bicaz	0.86	137	⇓P	Pg	20 28 43.0	-0.4
BIZ				⇓S	Sb	20 28 56.3	+0.5
BIZ				AML	AML		
BIZ				AML	AML		
RAKU	Rahkiv	0.86	302	eP	Pg	20 28 43.3	-0.3
RAKU				pmax	pmax	20 28 49.1	
RAKU				eS	Sb	20 28 56.5	+0.4
RAKU				smax	smax	20 29 02.9	
JOSR	Joseni	0.89	168	⇓P	Pg	20 28 42.2	-1.8
JOSR				⇓S	Sg	20 28 55.9	+0.5
JOSR				AML	AML		
JOSR				AML	AML		
GIRR	Girov	1.05	126	⇑P	Pg	20 28 47.2	+0.1
GIRR				⇓S	Sb	20 29 02.4	+1.1
GIRR				AML	AML		
GIRR				AML	AML		
DRBR	Darabani	1.11	55	⇑P	Pg	20 28 48.1	-0.1
DRBR				⇓S	Sb	20 29 03.4	+0.2
DRBR				AML	AML		
DRBR				AML	AML		
TGMR	Targu Mures	1.16	206	⇓P	Pg	20 28 48.6	-0.6
TGMR				⇑S	Sb	20 29 05.3	+0.8
TGMR				AML	AML		
TGMR				AML	AML		
BMR	Baia Mare	1.20	275	⇑P	Pg	20 28 48.9	-1.0
BMR				⇓S	Sb	20 29 06.4	+0.8
BMR				AML	AML		
BMR				AML	AML		
STNU	Starunia	1.25	336	eP	Pn	20 28 52.2	+1.4
STNU				eS	Sn	20 29 11.7	+3.8
KMPD	K-Podol'skiy	1.28	39	⇓iP	Pg	20 28 50.7	-0.8
KMPD				i S	Sg	20 29 07.5	-0.6
CJR	Cluj-Napoca	1.42	233	⇑P	Pn	20 28 53.5	+0.2
CJR				⇑S	Sn	20 29 13.1	+0.8
CJR				AML	AML		
CJR				AML	AML		
ONER	Baraj Valea Uz	1.46	147	⇓P	Pn	20 28 54.3	+0.5
ONER				⇑S	Sn	20 29 14.4	+1.2
ONER				AML	AML		
ONER				AML	AML		
MEZ	Mezhgor'ye	1.50	309	eP	Pn	20 28 54.6	+0.2
MEZ				pmax	pmax	20 29 09.3	
MEZ				eS	Sg	20 29 15.7	+0.4
MEZ				smax	smax	20 29 20.9	
OZUR		1.52	166	⇓P	Pn	20 28 54.2	-0.5
OZUR				AML	AML		
BOSR	Bodos	1.52	169	⇑S	Sg	20 29 16.9	+1.0
BOSR				AML	AML		
KORU	Korolevo	1.54	293	eP	Pn	20 28 55.2	+0.3
KORU				pmax	pmax	20 29 02.3	
KORU				eS	Sg	20 29 16.3	-0.3
KORU				smax	smax	20 29 25.1	
MDB	Medias	1.55	203	⇓P	Pn	20 28 55.6	+0.5
MDB				⇓S	Sg	20 29 17.6	+0.7
MDB				AML	AML		
MDB				AML	AML		
TURR	Turia	1.60	161	⇑P	Pn	20 28 55.9	+0.1
TURR				AML	AML		
DOPR	Dopca	1.61	177	⇓P	Pn	20 28 56.0	+0.2
DOPR				AML	AML		
MESR	Meseseni	1.62	256	⇓P	Pb	20 28 57.1	-0.2
MESR				AML	AML		
BRIU	Brid	1.69	298	eP	Pn	20 28 57.0	+0.1
BRIU				pmax	pmax	20 29 05.7	
BRIU				eS	Sb	20 29 19.9	+0.1
BRIU				smax	smax	20 29 33.7	
MARR	Marisel-Cluj	1.71	239	⇑P	Pn	20 28 57.9	+0.5
MARR				⇓S	Sb	20 29 21.1	+0.4
MARR				AML	AML		
MARR				AML	AML		
NDNU	Novodnistrovsk	1.75	53	⇓iP	Pn	20 28 57.4	-0.3
NDNU				pmax	pmax	20 29 00.5	
NDNU				eS	Sb	20 29 21.6	+0.2
NDNU				smax	smax	20 29 22.9	
HORU	Horodok	1.82	25	eP	Pn	20 28 59.7	+1.0
HORU				pmax	pmax	20 29 03.0	
HORU				i S	Sb	20 29 24.5	+1.0
HORU				smax	smax	20 29 27.3	
COVR	Voineasa-Covas	1.85	159	⇑P	Pn	20 28 59.6	+0.5
BERU	Beregovo	1.88	292	eP	Pn	20 28 59.3	-0.2
BERU				pmax	pmax	20 29 13.2	
BERU				eS	Sn	20 29 24.3	+0.9
BERU				smax	smax	20 29 31.8	
DRGR		1.91	247	⇑P	Pn	20 28 59.9	0.0
DRGR				⇑S	Sb	20 29 26.1	0.0
DRGR				AML	AML		
DRGR				AML	AML		
MUKU	Mukachevo	1.94	298	eP	Pn	20 29 00.4	+0.1
VASR	Vaslui	1.96	117	⇑P	Pn	20 29 02.2	+1.5
VASR				⇑S	Sb	20 29 27.4	-0.4
VASR				AML	AML		
VASR				AML	AML		
PLOR	Plostina	1.97	150	⇓P	Pn	20 29 00.8	-0.1
PLOR				AML	AML		
VRI	Vrincioaia	1.98	149	⇑P	Pn	20 29 00.8	-0.2
VRI				AML	AML		
SHIU	Shidnytsya	2.08	323	eP	Pn	20 29 02.5	+0.2
SHIU				eS	Sg	20 29 32.8	-1.0
BIR	Birlad	2.08	128	⇑P	Pn	20 29 03.9	+1.5
BIR				⇑S	Sb	20 29 30.9	-0.3
BIR				AML	AML		
BIR				AML	AML		
GHRR		2.11	135	⇓S	Sn	20 29 29.2	0.0
GHRR				AML	AML		
MLR	Muntele Rosu	2.14	167	Pn	Pn	20 29 02.0	-1.2
	2.1nm,0.3s,baz=348,slow=14,SNR=16						
MLR				Lg	Lg	20 29 39.2	
	0.8nm,0.3s,baz=151,slow=22,SNR=3.6						
MLR	Muntele Rosu	2.14	167	⇓P	Pn	20 29 03.0	-0.2
VOIR		2.14	184	⇑P	Pn	20 29 03.2	0.0
VOIR				⇓S	Sn	20 29 31.9	+1.9
SORM	Soroca	2.16	74	⇓P	Pn	20 29 02.6	-0.8
SORM				AML	AML		
ARR	Arges	2.25	191	⇑P	Pn	20 29 05.8	+1.1
ARR				AML	AML		
BISRR	Bisoca	2.26	153	⇓P	Pn	20 29 05.9	+1.1
BISRR				AML	AML		
NEHR	Nehoiu	2.26	161	⇓P	Pn	20 29 04.9	+0.1
STZU	Stuzhytsa	2.28	310	eP	Pn	20 29 05.1	+0.1
DEV	Deva	2.34	225	⇓P	Pn	20 29 07.1	+1.2
DEV				AML	AML		
LOT	Lotru	2.36	206	⇓P	Pn	20 29 06.1	-0.2
LOT				AML	AML		
KOLS	Kolonicke sedl	2.42	305	ePN	Pn	20 29 08.0	+1.1
VLDR	Vladesti	2.60	131	⇓P	Pn	20 29 10.1	+0.6
VLDR				AML	AML		
GZR	Gura Zlata	2.77	219	⇓P	Pn	20 29 12.4	+0.5
GZR				AML	AML		
CFR	Carcaliu	3.12	139	⇓P	Pn	20 29 17.3	+0.9
BZS	Buzias	3.18	233	⇑P	Pn	20 29 17.2	-0.2
KECS	Kecovo	3.33	288	ePN	Pn	20 29 19.4	-0.1
KECS				eSN	Sn	20 30 00.4	+1.1
AKASG	Malin Array Be	4.07	38	Pn	Pn	20 29 27.6	-2.1
	0.9nm,0.3s,baz=216,slow=13,SNR=4.6						
AKASG				Pg	Pb	20 29 40.2	+1.2
	4.2nm,0.3s,baz=223,slow=17,SNR=16						
AKASG				Sn	Sn	20 30 17.0	-0.5
	3.8nm,0.3s,baz=228,slow=24,SNR=7.2						
AKASG				Lg	Lg	20 30 31.6	
	6.8nm,0.3s,baz=216,slow=30,SNR=13						
AKASG				AML	AML		
VYHS	Vyhne	4.41	284	ePN	Pn	20 29 34.1	-0.2
VYHS				eSN	Sn	20 30 29.4	+3.6
VRAC	Vranov	6.02	290	Pn	Pn	20 29 53.2	-3.2
	0.2nm,0.3s,baz=271,slow=20,SNR=1.9						
	0.6nm,0.3s						
VRAC				AML	AML		
NACGM	Naroch	7.40	7	eP	Pn	20 30 14.1	-1.3
	comp=Z,4.0nm,0.9s,baz=188						
GERES	GERESS Array B	7.83	284	Pn	Pn	20 30 20.8	-0.5
	baz=99,slow=18,SNR=1.9						
	comp=Z,0.1nm,0.3s						
FINES	FINESS Array B	13.91	2	Pn	Pn	20 31 38.1	-6.1
	comp=Z,0.1nm,0.3s,baz=178,slow=12,SNR=4.2						
	comp=Z,1.9nm,1.0s						
FINES				AML	AML		
ARCES	ARCESS Array B	22.03	0	P	P	20 33 18.4	-3.3
	comp=Z,2.4nm,1.0s,baz=181,slow=9.7,SNR=2.3						
	comp=Z,2.4nm,1.0s						

IDC 01 20:29:50.8±5.2**, 5°.55S×152°.45E, $h46^{km}\pm 42^{km}$, mb3.1**/2**, mbtmp3.3**/2**, Error ellipse: s-maj=75.9km s-min=23.8km az=96.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KRVT	Keravat (AS076	1.31	341	P	Pn	20 30 12.7	+0.1
	464nm,0.3s,baz=277,slow=0.5,SNR=17						
KRVT				S	Sn	20 30 28.9	0.0
	2μm,0.4s,baz=119,slow=22,SNR=37						
KRVT				LR	LR	20 30 53.7	
	comp=Z,117nm,18.7s,baz=26,slow=48						
WRA	Warramunga Arr	22.69	229	P	P	20 34 47.8	-0.9
	0.4nm,0.7s,baz=53,slow=9.7,SNR=6.8						
	0.4nm,0.7s						
ASAR	Alice Springs	25.36	223	P	P	20 35 14.2	+0.3
	0.9nm,0.7s,baz=57,slow=8.8,SNR=12						
	0.9nm,0.7s						
TORD	Torodi Ar. Bea	150.20	287	PKPbc	PKPbc	20 49 37.8	-0.1
	0.4nm,0.4s,baz=103,slow=2.1,SNR=4.6						

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*ISK **01** 20:48:57.8, 39°.50N×26°.24E, $h5^{km}$, ML2.5/14*

*AFAD **01** 20:48:57.6, 39°.46N×26°.26E, $h6^{km}\pm 1^{km}$, ML2.2*

ISC 01 20:48:57.9±0.9**, 39°.47N**±0°.02×**26°.25E**±0°.03**, $h11^{km}\pm 7^{km}$, n26,** $\sigma 0^{s}.$**47**/39**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KOCA	**Canakkale, Ayv**	**0.09**	**289**	P	**Pg**	**20 49 00.3**	**-0.1**
KOCA				IAML		20 49 02.0	
	comp=N,1μm,0.2s						
KOCA				S	**Sg**	**20 49 02.3**	**0.0**
KOCA				IAML		20 49 03.0	
	comp=E,2μm,0.3s						
GPNR	**Gulpinar-Canak**	**0.09**	**258**	Pg	**Pg**	**20 49 00.1**	**-0.4**
GPNR				Sg	**Sg**	**20 49 02.4**	**+0.1**
GPNR				AML	AML		
EZNE	**Ezine-Canakkal**	**0.30**	**18**	Pg	**Pg**	**20 49 03.9**	**0.0**
EZNE				Sg	**Sg**	**20 49 08.6**	**+0.7**
BAYC	**CANAKKALE_Bayr**	**0.35**	**41**	P	**Pg**	**20 49 04.4**	**-0.6**
BAYC				S	**Sg**	**20 49 09.8**	**+0.1**
BAYC				IAML		20 49 10.0	
	comp=N,180nm,0.3s						
BAYC				IAML		20 49 10.0	
	comp=E,345nm,0.4s						
EZN	**Ezine**	**0.36**	**10**	Pg	**Pg**	**20 49 05.1**	**+0.1**
EZN				Sg	**Sg**	**20 49 10.3**	**+0.5**
EZN				AML	AML		
AYVA	**Ayvalik**	**0.38**	**116**	P	**Pg**	**20 49 05.1**	**-0.4**
AYVA				S	**Sg**	**20 49 11.0**	**+0.4**
AYVA				IAML		20 49 11.0	
	comp=N,187nm,0.1s						
AYVA				IAML		20 49 11.0	
	comp=E,163nm,0.2s						
BOZC	**Bozcaada**	**0.40**	**338**	Pg	**Pg**	**20 49 05.9**	**+0.1**
BOZC				Sg	**Sg**	**20 49 11.1**	**+0.1**
BOZC				AML	AML		
BOZC	**Bozcaada**	**0.40**	**338**	P	**Pg**	**20 49 05.9**	**+0.1**
BOZC				IAML		20 49 12.0	
	comp=N,332nm,0.2s						
BOZC				IAML		20 49 12.0	
	comp=E,254nm,0.2s						
BOZC				S	**Sb**	**20 49 12.1**	**-1.0**
ECEA	**Canakkale, Ece**	**0.57**	**355**	P	**Pb**	**20 49 09.4**	**-0.6**
ECEA				IAML		20 49 18.0	
	comp=N,398nm,0.2s						
ECEA				IAML		20 49 18.0	
	comp=E,326nm,0.5s						
ECEA				S	**Sb**	**20 49 18.1**	**0.0**
CNKL	**anakkale-Mer**	**0.60**	**10**	P	**Pg**	**20 49 09.3**	**-0.3**
CNKL				IAML		20 49 18.0	
	comp=N,194nm,0.2s						
CNKL				S	**Sb**	**20 49 18.4**	**-0.6**
CNKL				IAML		20 49 20.0	
	comp=E,156nm,0.4s						
BUHA	**Balikesir, Bur**	**0.64**	**87**	P	**Pg**	**20 49 10.0**	**-0.4**
BUHA				S	**Sg**	**20 49 19.1**	**+0.2**
BUHA				IAML		20 49 20.0	
	comp=N,96nm,0.5s						
BUHA				IAML		20 49 22.0	
	comp=E,78nm,0.5s						
COMU	**Canakkale**	**0.65**	**16**	Pg	**Pg**	**20 49 10.5**	**0.0**
COMU				AML	AML		
DKL	**Dikili**	**0.65**	**128**	Pg	**Pb**	**20 49 11.2**	**-0.1**
DKL				AML	AML		
GOAD	**anakkale-G¶**	**0.73**	**339**	P	**Pg**	**20 49 12.1**	**-0.1**
GOAD				S	**Sb**	**20 49 22.5**	**-0.3**
GOAD				IAML		20 49 23.0	
	comp=E,65nm,0.3s						
GOAD				IAML		20 49 25.0	
	comp=N,91nm,0.2s						
GADA	**Gvkgeada**	**0.76**	**340**	Pg	**Pg**	**20 49 12.8**	**+0.1**
GADA				AML	AML		
KARB	**zmir-Karabur**	**0.82**	**171**	P	**Pg**	**20 49 13.2**	**-0.5**
KARB				S	**Sb**	**20 49 26.1**	**+0.9**
KARB				IAML		20 49 27.0	
	comp=N,171nm,0.3s						
KARB				IAML		20 49 27.0	
	comp=E,238nm,0.3s						
CANM	**Can-anakkale**	**0.82**	**49**	Pg	**Pb**	**20 49 14.1**	**-0.1**
CANM				AML	AML		
YENI	**Yenice-Canakka**	**0.90**	**59**	Pg	**Pg**	**20 49 14.4**	**-0.8**
GELI	**Tayfur-Gelibol**	**0.94**	**11**	Pg	**Pg**	**20 49 15.6**	**-0.4**
GELI				AML	AML		
SOMA	**Soma-Manisa**	**1.05**	**107**	Pg	**Pb**	**20 49 18.4**	**+0.3**
SOMA				AML	AML		
CHOS	**Chios island**	**1.10**	**188**	Pn	**Pg**	**20 49 18.2**	**-0.8**
CHOS				AML	AML		
ERIK	**Erikli-Kesan**	**1.21**	**10**	Pn	**Pg**	**20 49 20.4**	**-0.8**
ERIK				AML	AML		
KRBG	**Karabiga-Canak**	**1.22**	**41**	Pn	**Pb**	**20 49 21.1**	**0.0**
GONE	**Gonen-Balikesi**	**1.25**	**62**	Pn	**Pn**	**20 49 21.9**	**+0.6**
GONE				AML	AML		
ENEZ	**Enez**	**1.26**	**357**	Pn	**Pn**	**20 49 21.9**	**+0.4**
ENEZ				AML	AML		
ALN	**Alexandroupoli**	**1.43**	**354**	Pn	**Pb**	**20 49 24.6**	**0.0**
ALN				AML	AML		

*NEIC **01** 20:54:54.1±1.5, 18°.1S±0°.1×177°.8W±0°.1, h579^{km}±5^{km}, mb4.4/39, Error ellipse: s-maj=15.5km s-min=15.3km az=46.0*

*IDC **01** 20:54:55.0±1.1, 18°.14S×178°.04W, h579^{km}±11^{km}, mb3.4/13, mbtmp4.3/15, Error ellipse: s-maj=16.8km s-min=13.6km az=117.0*

ISC 01 20:54:55.0±0.4**, 18°.07S**±0°.08×**177°.92W**±0°.07**, h590**^{km}**, n99, σ0^s.94**/105**, mb4.2**/29**, 3C-4D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FUTU	**Fugatoga**	**3.75**	**357**	P	**P**	**20 56 16.2**	**-2.0**
MSVF	**Nonsavu**	**3.86**	**274**	P	**P**	**20 56 18.6**	**-0.3**
	128nm,0.7s,baz=125,slow=6.4,SNR=78						
MSVF				S	**S**	**20 57 24.6**	**-2.5**
	8.4nm,0.8s,baz=174,slow=20,SNR=0.8						
MSVF	**Nonsavu**	**3.86**	**274**	P	**P**	**20 56 18.4**	**-0.4**
NIUE	**Niue**	**7.64**	**99**	P	**P**	**20 56 48.7**	**-1.9**
MARNC	**Mare, Loyalty**	**13.66**	**253**	P	**P**	**20 57 51.7**	**+1.1**
SANVU	**Saraoutou**	**14.49**	**278**	P	**P**	**20 57 59.5**	**+0.7**
DZM	**Mont Dzumac**	**15.22**	**252**	P	**P**	**20 58 05.4**	**-0.3**
	5.2nm,0.8s,baz=224,slow=19,SNR=2.4						
URZ	**Urewera**	**20.58**	**191**	P	**P**	**20 58 52.0**	**-2.2**
	7.8nm,0.5s,baz=265,slow=2.8,SNR=9.0						
	7.8nm,0.5s						
HNR	**Honiara**	**23.13**	**289**	P	**P**	**20 59 18.8**	**+1.4**
QRZ	**Quartz Range**	**24.12**	**198**	P	**P**	**20 59 25.3**	**-0.4**
TKNZ	**Takaka Hill**	**24.19**	**197**	P	**P**	**20 59 25.5**	**-0.9**
FOZ	**Fox Glacier**	**27.42**	**200**	P	**P**	**20 59 53.9**	**-0.8**
MLZ	**Mavora Lakes**	**29.60**	**200**	P	**P**	**21 00 13.5**	**-0.1**
EIDS	**Eidsvold**	**29.65**	**250**	P	**P**	**21 00 14.0**	**-0.4**
EIDS				IAmb	IAmb	21 00 37.4	
	comp=Z,18nm,1.5s						
CTAO	**Charters Tower**	**33.88**	**261**	P	**P**	**21 00 50.2**	**-0.1**
PMG	**Port Moresby**	**34.95**	**280**	P	**P**	**21 00 59.6**	**+0.4**
TOO	**Toolangi**	**37.43**	**231**	P	**P**	**21 01 19.9**	**+0.5**
TOO				IAmb	IAmb	21 01 43.7	
	comp=Z,13nm,1.4s						
STKA	**Stephens Creek**	**38.96**	**241**	P	**P**	**21 01 31.4**	**-0.4**
	comp=Z,2.6nm,0.6s,baz=98,slow=9.9,SNR=4.8						
	comp=Z,2.6nm,0.6s						
INKA	**Innaminka**	**39.12**	**248**	P	**P**	**21 01 33.7**	**+0.6**
WAKE	**Wake Island**	**40.10**	**337**	P	**P**	**21 01 40.5**	**-0.5**
BBOO	**Buckleboo**	**43.74**	**241**	P	**P**	**21 02 09.3**	**-0.1**
WR8	**Warramunga Arr**	**44.91**	**260**	P	**P**	**21 02 17.6**	**-1.1**
WR8				IAmb	IAmb	21 02 46.5	
	comp=Z,12nm,1.5s						
WRA	**Warramunga Arr**	**45.06**	**260**	P	**P**	**21 02 19.2**	**-0.6**
	comp=Z,4.3nm,0.7s,baz=96,slow=7.3,SNR=96						
WRA				PcP	**PcP**	**21 03 48.2**	**+0.4**
	comp=Z,0.4nm,0.5s,baz=96,slow=3.8,SNR=2.5						
	comp=Z,4.3nm,0.7s						
WRA	**Warramunga Arr**	**45.06**	**260**	P	**P**	**21 02 18.4**	**-1.4**
WRA					**PcP**	**21 03 47.5**	**-0.3**
AS31	**Alice Springs**	**45.20**	**254**	P	**P**	**21 02 20.6**	**-0.3**
AS31				IAmb	IAmb	21 02 21.6	
	comp=Z,4.2nm,0.5s						
ASAR	**Alice Springs**	**45.20**	**254**	P	**P**	**21 02 20.6**	**-0.2**
	comp=Z,15nm,0.8s,baz=87,slow=8.9,SNR=201						
ASAR				PcP	**PcP**	**21 03 48.5**	**+0.3**
	comp=Z,0.5nm,0.5s,baz=98,slow=5.9,SNR=4.8						
ASAR				S	**S**	**21 08 17.9**	**-1.0**
	comp=Z,1.4nm,0.8s,baz=94,slow=16,SNR=7.8						
	comp=Z,15nm,0.8s						
ASAR	**Alice Springs**	**45.20**	**254**	P	**P**	**21 02 19.8**	**-1.1**
ASAR					**PcP**	**21 03 47.9**	**-0.3**
FORT	**Forrest**	**50.36**	**245**	P	**P**	**21 02 58.5**	**-0.6**
FORT				IAmb	IAmb	21 03 30.6	
	comp=Z,13nm,1.0s						
KNRA	**Kununurra**	**50.94**	**264**	P	**P**	**21 03 02.9**	**-0.6**
FAKI	**Fak Fak**	**51.07**	**281**	P	**P**	**21 03 03.0**	**-1.5**
FITZ	**Fitzroy Crossi**	**53.46**	**261**	P	**P**	**21 03 21.4**	**-0.1**
	comp=Z,0.8nm,0.5s,baz=159,slow=6.0,SNR=1.3						
	comp=Z,0.8nm,0.5s						
FITZ	**Fitzroy Crossi**	**53.46**	**261**	P	**P**	**21 03 20.9**	**-0.6**
MBWA	**Marble Bar**	**58.49**	**256**	P	**P**	**21 03 56.1**	**+0.1**
MBWA				IAmb	IAmb	21 04 19.1	
	comp=Z,25nm,1.5s						
LUWI	**Luwuk**	**60.59**	**279**	P	**P**	**21 04 10.3**	**+0.2**
LUWI				IAmb	IAmb	21 04 25.2	
	comp=Z,16nm,1.0s						
CASY	**Casey**	**66.18**	**205**	P	**P**	**21 04 45.3**	**+0.4**
JAGI	**Jajag, Banyuwa**	**66.50**	**268**	P	**P**	**21 04 46.6**	**-1.2**
MJAR	**Matsushiro Arr**	**68.32**	**323**	P	**P**	**21 04 58.3**	**-0.1**
	comp=Z,2.6nm,0.6s,baz=152,slow=6.1,SNR=8.1						
	comp=Z,2.6nm,0.6s						
MAJO	**Matsushiro**	**68.32**	**323**	P	**P**	**21 04 58.6**	**+0.2**
MAJO				IAmb	IAmb	21 05 25.1	
	comp=Z,8.2nm,1.1s						
KKM	**Kota Kinabalu**	**69.24**	**284**	P	**P**	**21 05 04.1**	**-0.4**
ADK	**Adak**	**69.67**	**1**	P	**P**	**21 05 05.3**	**-0.7**
UGM	**Wanagama**	**70.11**	**268**	P	**P**	**21 05 09.2**	**-0.4**
JKA	**Kamikawa-asahi**	**71.64**	**331**	P	**P**	**21 05 19.2**	**+1.4**
JKA				IAmb	IAmb	21 05 34.4	
	comp=Z,28nm,1.4s						
QSPA	**South Pole Qui**	**71.98**	**180**	P	**P**	**21 05 21.3**	**+1.6**
	comp=Z,4.7nm,0.7s,baz=323,slow=0.7,SNR=30						
	comp=Z,4.7nm,0.7s						
QSPA	**South Pole Qui**	**71.98**	**180**	P	**P**	**21 05 20.8**	**+1.1**
QSPA				IAmb	IAmb	21 05 21.8	
	comp=Z,5.3nm,0.7s						
YULB	**Yu-li**	**72.25**	**303**	P	**P**	**21 05 21.2**	**-0.7**
YULB				IAmb	IAmb	21 06 03.0	
	comp=Z,16nm,1.1s						
SSLB	**Suanglung**	**72.72**	**303**	P	**P**	**21 05 23.8**	**-0.7**
SSLB				IAmb	IAmb	21 05 33.4	
	comp=Z,28nm,1.4s						
TPUB	**Ta-pu**	**72.74**	**302**	P	**P**	**21 05 23.0**	**-1.7**
PEA0B	**Petropavlovsk-**	**73.96**	**345**	P	**P**	**21 05 31.4**	**+0.5**
PETK	**Petropavlovsk-**	**73.96**	**345**	P	**P**	**21 05 31.6**	**+0.7**
	comp=Z,3.4nm,0.7s,baz=90,slow=6.2,SNR=5.8						
	comp=Z,3.4nm,0.7s						
PETK	**Petropavlovsk-**	**73.96**	**345**	P	**P**	**21 05 31.2**	**+0.3**
KSRS	**Korea Array**	**75.14**	**318**	P	**P**	**21 05 39.6**	**+1.8**
	comp=Z,0.6nm,0.5s,baz=143,slow=8.8,SNR=2.0						
	comp=Z,0.6nm,0.5s						
N14K	**Kuskokwak Cree**	**78.83**	**8**	P	**P**	**21 05 58.1**	**+0.8**
N14K				IAmb	IAmb	21 06 24.6	
	comp=Z,36nm,1.1s						
P17K	**Kvichak River**	**78.98**	**11**	P	**P**	**21 05 58.5**	**+0.3**
O16K	**Kokwok River B**	**79.06**	**10**	P	**P**	**21 05 58.1**	**-0.5**
O16K				IAmb	IAmb	21 06 25.8	
	comp=Z,19nm,1.3s						
BELA	**Belgrano 2**	**81.94**	**173**	P	**P**	**21 06 13.6**	**+0.2**
TRF	**Thorofare Moun**	**84.07**	**12**	P	**P**	**21 06 23.7**	**-0.5**
TRF				IAmb	IAmb	21 06 25.8	
	comp=Z,9.8nm,1.1s						
RND	**Reindeer**	**84.33**	**13**	P	**P**	**21 06 24.9**	**-0.6**
RND				IAmb	IAmb	21 06 26.4	
	comp=Z,5.5nm,0.8s						
TXAR	**Lajitas Array**	**85.69**	**57**	P	**P**	**21 06 34.6**	**+1.8**
	comp=Z,0.5nm,1.0s,baz=209,slow=1.3,SNR=2.4						
	comp=Z,0.5nm,1.0s						
TXAR	**Lajitas Array**	**85.69**	**57**	P	**P**	**21 06 32.2**	**-0.6**
ILAR	**Eielson Array**	**85.94**	**13**	P	**P**	**21 06 32.8**	**-0.3**
	comp=Z,0.6nm,0.4s,baz=219,slow=4.9,SNR=8.9						
	comp=Z,0.6nm,0.4s						
ILAR	**Eielson Array**	**85.94**	**13**	P	**P**	**21 06 32.6**	**-0.5**
CMAR	**Chiang Mai Arr**	**89.38**	**290**	P	**P**	**21 06 51.6**	**+1.4**
	comp=Z,0.6nm,0.4s,baz=100,slow=3.0,SNR=6.4						
	comp=Z,0.6nm,0.4s						
CMAR	**Chiang Mai Arr**	**89.38**	**290**	P	**P**	**21 06 50.7**	**+0.5**
TROLL	**Troll, Antarti**	**90.14**	**180**	⇑P	**P**	**21 06 53.5**	**+0.6**
	comp=Z,93nm,0.5s						
SNAA	**Sanae**	**90.42**	**178**	P	**P**	**21 06 54.8**	**+0.7**
	comp=Z,28nm,0.6s						
VNA3	**Neumayer Olymp**	**90.55**	**176**	P	**P**	**21 06 55.6**	**+1.0**
	comp=Z,4.3nm,0.6s						
VNA2	**Neumayer--Watz**	**90.99**	**177**	P	**P**	**21 06 58.1**	**+1.5**
	comp=Z,2.8nm,0.6s,baz=187,slow=3.9						
SONM	**Songino Array**	**93.98**	**319**	P	**P**	**21 07 12.1**	**+1.3**
	comp=Z,0.2nm,0.4s,baz=131,slow=7.9,SNR=2.0						
	comp=Z,0.2nm,0.4s						
ZALV	**Zalesovo Beam**	**108.65**	**322**	PKiKP	**PKiKP**	**21 12 18.0**	**+0.7**
	comp=Z,0.2nm,0.3s,baz=131,slow=5.9,SNR=1.5						
MKAR	**Makanchi Array**	**109.59**	**314**	PKiKP	**PKiKP**	**21 12 19.0**	**-0.4**
	comp=Z,0.1nm,0.4s,baz=90,slow=0.4,SNR=1.4						
ARCES	**ARCESS Array B**	**126.56**	**350**	PKP	**PKiKP**	**21 12 52.5**	**+0.7**
	comp=Z,3.5nm,0.9s,baz=50,slow=2.9,SNR=3.7						
FINES	**FINESS Array B**	**133.47**	**344**	PKP	**PKPdf**	**21 13 04.6**	**+0.1**
	comp=Z,1.4nm,0.9s,baz=359,slow=8.4,SNR=1.7						
VLDR	**Vladesti**	**144.90**	**328**	⇓P	PKPbc	21 13 27.5	+1.1
BURAR	**Bucovina Array**	**144.98**	**332**	⇑P	**PKPab**	**21 13 28.2**	**+0.3**
BIZ	**Bicaz**	**145.08**	**331**	⇓P	**PKPbc**	**21 13 28.2**	**+1.2**
BR131	**Keskin Array S**	**145.23**	**315**		**PKPdf**	**21 13 25.2**	**-1.4**
BRTR	**Keskin Array B**	**145.23**	**315**	PKPbc	**PKPbc**	**21 13 28.1**	**+0.3**
	comp=Z,2.0nm,0.7s,baz=132,slow=3.7,SNR=12						
BRTR	**Keskin Array B**	**145.23**	**315**		**PKPdf**	**21 13 24.9**	**-1.8**
OSTC	**Ostas**	**145.68**	**344**	*e*PKP	**PKPab**	**21 13 30.4**	**+0.1**
CLL	**Collm**	**145.72**	**348**	PKPdf	**PKPdf**	**21 13 24.9**	**-2.0**
CLL					**PKPbc**	**21 13 28.9**	**+0.2**
CLL	**Collm**	**145.72**	**348**	*i* PKPbc	**PKPbc**	**21 13 29.4**	**+0.7**
	comp=Z,6.0nm,0.8s						
HARR	**Harsova**	**145.77**	**326**	⇓P	**PKPbc**	**21 13 29.0**	**0.0**
STEB	**Steborice**	**145.81**	**342**	*e*PKP	**PKPbc**	**21 13 30.0**	**+1.0**
DPC	**Dobruska-Polom**	**145.84**	**344**	*e*PKP	**PKPbc**	**21 13 30.3**	**+1.2**
MORC	**Moravsky Berou**	**146.01**	**342**	*e*PKP	**PKPdf**	**21 13 29.2**	**+1.6**
MMAI	**Mount Meron Ar**	**146.62**	**303**	PKPbc	**PKPbc**	**21 13 33.2**	**+1.3**
	comp=Z,2.3nm,0.4s,baz=49,slow=10,SNR=5.5						
VOIR		**146.68**	**330**	⇑P	**PKPbc**	**21 13 31.7**	**+0.1**
VRAC	**Vranov**	**146.71**	**343**	*e*PKP	**PKPbc**	**21 13 32.3**	**+0.8**
ARR	**Arges**	**146.93**	**330**	⇓P	**PKiKP**	**21 13 34.0**	**-0.1**
KRUC	**Moravsky**	**146.99**	**343**	*e*PKP	**PKPbc**	**21 13 33.0**	**+0.8**
KHC	**Kasperske Hory**	**147.65**	**346**	*e*PKP	**PKPbc**	**21 13 35.3**	**+1.3**
GERES	**GERESS Array B**	**147.89**	**346**	PKPbc	**PKPbc**	**21 13 35.4**	**+0.7**
	comp=Z,1.6nm,0.6s,baz=17,slow=2.7,SNR=16						
GERES	**GERESS Array B**	**147.89**	**346**		**PKPbc**	**21 13 34.2**	**-0.5**
SESA	**Seetaler Alpe,**	**149.27**	**343**	*e*PKP	**PKPbc**	**21 13 38.7**	**+0.5**
	comp=Z,4.8nm,0.6s						
KBA	**Koelnbreinsper**	**149.62**	**345**	*e*PKP	**PKPbc**	**21 13 39.9**	**+0.9**
	comp=Z,1.7nm,0.5s						
WATA	**Walderalm**	**149.79**	**347**	*e*PKP	**PKPbc**	**21 13 39.5**	**+0.1**
	comp=Z,3.0nm,0.5s						
WTTA	**Wattenberg**	**149.85**	**347**	*e*PKP	**PKPbc**	**21 13 40.0**	**+0.4**
	comp=Z,4.1nm,0.9s						
SQTA	**Sankt Quirin**	**149.98**	**348**	*e*PKP	**PKPbc**	**21 13 40.4**	**+0.6**
	comp=Z,2.6nm,0.6s						
ABTA	**Abfaltersbach**	**150.14**	**346**	*e*PKP	**PKPbc**	**21 13 40.4**	**+0.2**
	comp=Z,3.4nm,0.6s						

*NAO **01** 21:02:31.0±0.9, 71°.89N×2°.02W, h10^{km}, ML3.3*

*BER **01** 21:02:31.2±3.9, 71°.85N×2°.37W, h10^{km}, Mw4.1, ML3.3(NAO), Confirmed Earthquake*

*IDC **01** 21:02:32.4±4.1, 71°.84N×1°.69W, h0^{km}, mb3.3/1, mbtmp3.5/6, ML2.6/4, MS2.8/5, Error ellipse: s-maj=64.7km s-min=20.0km az=86.0*

ISC 01 21:02:28.7±0.9**, 71°.85N**±0°.09×**2°.37W**±0°.07**, h10**^{km}**, n42, σ1^s.87**/42**, Jan Mayen Island region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JMIC	**Jan Mayen**	**2.15**	**249**	LR	LR	21 03 28.5	
	comp=Z,47nm,19.9s,baz=334,slow=24						
DBG	**Daneborg**	**5.75**	**304**	Pn	**Pn**	**21 03 54.6**	**+0.7**
DBG	**Daneborg**	**5.75**	**304**	*e*P	**Pn**	**21 03 54.5**	**+0.5**
DBG				*e*S	**Sn**	**21 04 53.9**	**-5.9**
DBG	**Daneborg**	**5.75**	**304**	*i* P	**Pn**	**21 03 54.6**	**+0.7**
DBG				IAML		21 05 03.5	
	comp=Z,13nm,1.4s						
SCO	**Scoresbysund**	**6.47**	**267**	*i* P	**Pn**	**21 04 06.3**	**+2.4**
DAG	**Danmarks Havn**	**6.60**	**326**	*e*P	**Pn**	**21 04 06.3**	**+0.8**
DAG				*e*S	Sn	21 05 11.6	-9.0
DAG	**Danmarks Havn**	**6.60**	**326**	*i* P	**Pn**	**21 04 06.0**	**+0.5**
DAG				*i* S	Sn	21 05 10.4	-10
LOF	**Lofoten**	**6.60**	**117**	Pn	**Pn**	**21 04 06.2**	**+0.6**
LOF				Sn	Sn	21 05 13.2	-7.5
LOF	**Lofoten**	**6.60**	**117**	*e*P	**Pn**	**21 04 06.0**	**+0.4**
LOF				*e*S	Sn	21 05 12.9	-7.8
LOF				IAML		21 05 35.6	
	comp=Z,4.9nm,0.7s						
STEI	**Steigen**	**7.21**	**114**	Pn	**Pn**	**21 04 13.8**	**-0.2**
STEI				Sn	Sn	21 05 29.1	-6.7
STEI	**Steigen**	**7.21**	**114**	*e*P	**Pn**	**21 04 13.6**	**-0.4**
STEI				*e*S	Sn	21 05 28.7	-7.1
STEI				IAML		21 05 31.9	
	comp=Z,2.1nm,0.6s						
TRO	**Tromso**	**7.37**	**97**	*e*P	**Pn**	**21 04 14.5**	**-1.5**
VAGH	**Vaagaholmen**	**7.54**	**125**	Pn	**Pn**	**21 04 17.7**	**-0.7**
VAGH				Sn	Sn	21 05 35.3	-8.4
VAGH	**Vaagaholmen**	**7.54**	**125**	*e*P	**Pn**	**21 04 17.5**	**-0.9**
FAUS	**Fauske**	**7.60**	**117**	Pn	**Pn**	**21 04 19.3**	**+0.1**
FAUS				Sn	Sn	21 05 37.6	-7.7
FAUS	**Fauske**	**7.60**	**117**	*e*P	**Pn**	**21 04 19.6**	**+0.3**
FAUS				*e*S	Sn	21 05 37.9	-7.3
FAUS				IAML		21 05 39.3	
	comp=Z,1.6nm,0.8s						
KONS	**Konsvik**	**7.68**	**127**	*e*P	**Pn**	**21 04 20.1**	**-0.2**
KONS				*e*S	Sn	21 05 37.9	-9.3
KONS				IAML		21 06 00.6	
	comp=Z,3.2nm,0.6s						
STOK	**Stokkvaagen**	**7.79**	**128**	Pn	**Pn**	**21 04 21.7**	**-0.1**
STOK				Sn	Sn	21 05 40.3	-10
JETT	**Jettan, Norway**	**7.86**	**96**	Pn	**Pn**	**21 04 22.6**	**-0.3**
JETT	**Jettan, Norway**	**7.86**	**96**	Pn	**Pn**	**21 04 22.6**	**-0.3**
JETT				*e*S	Sn	21 05 44.5	-7.3
KBS	**Kingsbay**	**7.94**	**20**	*e*P	**Pn**	**21 04 25.4**	**+1.5**
SPA0	**Spitsbergen Ar**	**7.94**	**29**	Pn	**Pn**	**21 04 27.0**	**+3.1**
	baz=209,slow=16						
SPA0	**Spitsbergen Ar**	**7.94**	**29**	Pn	**Pn**	**21 04 27.0**	**+3.1**
SPITS	**Spitsbergen Ar**	**7.94**	**29**	Pn	**Pn**	**21 04 26.8**	**+2.9**
	comp=Z,1.5nm,0.2s,baz=216,slow=20,SNR=59						
RAUS	**Rausandaksla**	**7.96**	**125**	*e*P	**Pn**	**21 04 24.7**	**+0.4**
RAUS				*e*S	Sn	21 05 47.3	-6.9
RAUS				IAML		21 05 57.5	
	comp=Z,2.6nm,0.7s						
LEIR	**Leirfjorden**	**7.99**	**128**	Pn	**Pn**	**21 04 25.6**	**+1.0**
LEIR				Sn	Sn	21 05 45.8	-8.9
LEIR	**Leirfjorden**	**7.99**	**128**	*e*P	**Pn**	**21 04 25.2**	**+0.7**
LEIR				*e*S	Sn	21 05 45.4	-9.4
LEIR				IAML		21 05 54.2	
	comp=Z,2.0nm,0.7s						
SALU	**Saltoluokta**	**8.52**	**111**	*e*P	**Pn**	**21 04 32.5**	**+0.6**
SALU				*e*S	**Sn**	**21 06 01.8**	**-6.1**
KTK1	**Kautokeino**	**9.01**	**96**	*e*P	**Pn**	**21 04 37.7**	**-0.8**
NSS	**Namsos**	**9.05**	**137**	*e*P	**Pn**	**21 04 39.9**	**+0.7**
NSS				*e*S	Sn	21 06 10.7	-10
NSS				IAML		21 06 17.6	
	comp=Z,1.8nm,0.7s						
LANU	**Lannavaara**	**9.15**	**103**	*e*P	**Pn**	**21 04 40.6**	**+0.1**
HEF	**Hetta**	**9.46**	**99**	*e*P	**Pn**	**21 04 44.6**	**-0.1**
ARA0	**ARCESS Array S**	**9.47**	**91**	Pn	**Pn**	**21 04 44.4**	**-0.4**
	baz=297,slow=12						
ARA0	**ARCESS Array S**	**9.47**	**91**	Pn	**Pn**	**21 04 44.4**	**-0.4**
ARCES	**ARCESS Array B**	**9.47**	**91**	Pn	**Pn**	**21 04 44.1**	**-0.8**
	comp=Z,0.2nm,0.3s,baz=295,slow=12,SNR=7.9						
ARCES				LR	LR	21 07 50.7	
	comp=Z,70nm,20.3s,baz=274,slow=34						
	comp=Z,1.0nm,0.5s						
ARCES				AML	AML		
AKN	**Aaknes**	**10.36**	**155**	P	**Pn**	**21 04 59.2**	**+2.1**
AKN	**Aaknes**	**10.36**	**155**	P	**Pn**	**21 04 59.2**	**+2.1**
NOA	**NORSAR Array B**	**12.09**	**147**	Pn	**Pn**	**21 05 21.7**	**+0.9**
	baz=336,slow=13,SNR=1.7						
NOA				LR	LR	21 09 55.5	
	comp=Z,59nm,18.8s,baz=340,slow=37						
	comp=Z,0.3nm,0.6s						
HFS	**Hagfors**	**13.38**	**143**	Pn	**Pn**	**21 05 39.2**	**+0.8**
	comp=Z,0.2nm,0.3s,baz=340,slow=11,SNR=6.4						
HFS				LR	LR	21 10 26.8	
	comp=Z,63nm,20.4s,baz=336,slow=36						
	comp=Z,2.8nm,0.7s						
HFS				AML	AML		
FINES	**FINESS Array B**	**15.16**	**119**	Pn	**Pn**	**21 06 02.0**	**-0.4**
	comp=Z,0.1nm,0.3s,baz=320,slow=18,SNR=3.9						
	comp=Z,1.6nm,0.9s						
FINES				AML	AML		
SFJD	**Kangerlussuaq**	**17.21**	**278**	LR	LR	21 12 32.7	
	comp=Z,52nm,20.0s,baz=62,slow=34						
MKAR	**Makanchi Array**	**44.76**	**76**	P	**P**	**21 10 44.5**	**+2.7**
	comp=Z,0.3nm,0.7s,baz=347,slow=6.4,SNR=3.8						
	comp=Z,0.3nm,0.7s						

*DJA **01** 21:05:28.9±0.8, 8°S±3°×12°3E±°, h238^{km}±10^{km}, M3.9/21, mB4.9/2, mb3.9/5, MLv3.9/21, Mw(mB)4.2/2*

*NEIC **01** 21:05:29.2±1.7, 7°.90S±0°.10×123°.03E±0°.09, h239^{km}±8^{km}, mb4.3/8, Error ellipse: s-maj=15.6km s-min=10.7km az=214.0*

*IDC **01** 21:05:30.3±1.7, 7°.98S×123°.05E, h247^{km}±17^{km}, mb3.4/5, mbtmp4.2/9, Error ellipse: s-maj=49.5km s-min=11.2km az=61.0*

ISC 01 21:05:29.0±0.6**, 7°.95S**±0°.05×**122°.97E**±0°.05**, h250**^{km}**, n61, σ1^s.50**/65**, mb3.6**/5**, Flores Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MMRI	**Maumere**	**0.99**	**227**	P	**Pn**	**21 06 03.0**	**-1.1**
MMRI	**Maumere**	**0.99**	**227**		**Pn**	**21 06 03.0**	**-1.1**
MMRI	**Maumere**	**0.99**	**227**	P	**Pn**	**21 06 02.9**	**-1.1**
MMRI				AML	AML		
EDFI	**Ende, Flores**	**1.49**	**238**	P	**Pn**	**21 06 06.4**	**-1.0**
EDFI				AML	AML		
SOEI	**Soe**	**2.20**	**145**	P	**Pn**	**21 06 13.3**	**-0.3**
SOEI	**Soe**	**2.20**	**145**	S	**S**	**21 06 46.9**	**-1.8**
SOEI	**Soe**	**2.20**	**145**	Pn	**Pn**	**21 06 12.1**	**-1.4**
SOEI	**Soe**	**2.20**	**145**	P	**Pn**	**21 06 13.3**	**-0.3**
SOEI				AML	AML		
BBSI	**Bau Bau**	**2.48**	**351**	P	**Pn**	**21 06 15.8**	**-0.4**
BBSI				AML	AML		
BSSI	**Bau Bau, Buton**	**3.05**	**306**	P	**Pn**	**21 06 21.1**	**-1.0**
BSSI				AML	AML		
LBFI	**Labuhan Bajo,**	**3.09**	**260**	P	**Pn**	**21 06 22.2**	**-0.4**
WSI	**Waingapu**	**3.14**	**237**	P	**Pn**	**21 06 22.2**	**-0.9**
KKSI	**Kolaka, Sulawe**	**3.98**	**341**	P	**Pn**	**21 06 33.0**	**+0.4**
KKSI				AML	AML		
KDI	**Kendari**	**3.98**	**355**	P	**Pn**	**21 06 29.8**	**-2.9**
KDI				AML	AML		
KAPI	**Kappang**	**4.33**	**312**	P	**Pn**	**21 06 37.0**	**+0.2**
	29nm,0.8s,baz=125,slow=9.3,SNR=12						
KAPI	**Kappang**	**4.33**	**312**	Pn	**Pn**	**21 06 36.4**	**-0.4**
KAPI	**Kappang**	**4.33**	**312**	P	**Pn**	**21 06 37.2**	**+0.4**
KAPI				AML	AML		
MKS	**Makassar**	**4.41**	**308**	P	**Pn**	**21 06 37.5**	**-0.3**
MKS				AML	AML		
DBNI	**Kabupaten Domp**	**4.64**	**263**	P	**Pn**	**21 06 38.5**	**-2.0**
DBNI				AML	AML		
PLAI	**Plampang**	**5.21**	**260**	P	**Pn**	**21 06 46.4**	**-1.1**
PLAI	**Plampang**	**5.21**	**260**	S	**S**	**21 07 48.4**	**-1.6**
PLAI	**Plampang**	**5.21**	**260**	P	**Pn**	**21 06 46.7**	**-0.8**
JAGI	**Jajag, Banyuwa**	**8.74**	**266**	P	**Pn**	**21 07 30.9**	**-0.9**
JAGI	**Jajag, Banyuwa**	**8.74**	**266**	Pn	**Pn**	**21 07 28.8**	**-3.0**
DRS	**Darwin Rock St**	**8.98**	**120**	P	**Pn**	**21 07 33.8**	**-1.0**
MTN	**Manton Dam**	**9.38**	**122**	Pn	**Pn**	**21 07 38.8**	**-1.2**
KNRA	**Kununurra**	**9.54**	**144**	Pn	**Pn**	**21 07 41.2**	**-0.7**
FITZ	**Fitzroy Crossi**	**10.41**	**166**	P	**Pn**	**21 07 52.9**	**0.0**
	2.5nm,0.3s,baz=0.0,slow=11,SNR=18						
FITZ				S	**S**	**21 09 46.1**	**-3.7**
	15nm,0.5s,baz=104,slow=7.3,SNR=9.1						
FITZ	**Fitzroy Crossi**	**10.41**	**166**	Pn	**Pn**	**21 07 52.5**	**-0.4**
FAKI	**Fak Fak**	**10.50**	**62**	P	**Pn**	**21 07 52.9**	**-1.1**
FAKI	**Fak Fak**	**10.50**	**62**	S	**S**	**21 09 50.4**	**-1.6**
FAKI	**Fak Fak**	**10.50**	**62**	Pn	**Pn**	**21 07 52.6**	**-1.4**
UGM	**Wanagama**	**12.33**	**269**	P	**P**	**21 08 17.2**	**-2.2**
MBWA	**Marble Bar**	**13.50**	**193**	P	**P**	**21 08 31.7**	**-0.6**
MBWA	**Marble Bar**	**13.50**	**193**	S	**S**	**21 11 04.0**	**+3.1**
MBWA	**Marble Bar**	**13.50**	**193**	P	**P**	**21 08 34.1**	**+1.8**
BBJI	**Bungbulang**	**15.19**	**271**	P	**Pn**	**21 08 51.8**	**+0.1**
WB0	**Warramunga Arr**	**16.14**	**138**	P	**Pn**	**21 09 02.0**	**-0.9**
WB0				IAmb	IAmb	21 09 04.5	
	comp=Z,7.1nm,0.7s						
WRA	**Warramunga Arr**	**16.23**	**138**	P	**Pn**	**21 09 03.5**	**-0.5**
	comp=Z,3.1nm,0.4s,baz=316,slow=12,SNR=42						
WRA				S	**S**	**21 12 00.6**	**+0.8**
	comp=Z,2.1nm,0.6s,baz=318,slow=23,SNR=8.4						
WRA	**Warramunga Arr**	**16.23**	**138**	P	**Pn**	**21 09 02.6**	**-1.4**
WRAB	**Tennant Creek**	**16.23**	**138**	P	**Pn**	**21 09 03.5**	**-0.5**
WRAB	**Tennant Creek**	**16.23**	**138**	S	**S**	**21 12 01.5**	**+1.7**
WRAB	**Tennant Creek**	**16.23**	**138**	P	**Pn**	**21 09 03.3**	**-0.7**
WRAB				IAmb	IAmb	21 09 05.1	
	comp=Z,6.2nm,0.8s						
WR8	**Warramunga Arr**	**16.34**	**138**	P	**Pn**	**21 09 04.0**	**-1.3**
WR8				IAmb	IAmb	21 09 07.4	
	comp=Z,18nm,1.1s						
AS31	**Alice Springs**	**18.82**	**147**	P	**Pn**	**21 09 31.8**	**-2.5**
AS31				IAmb	IAmb	21 09 37.2	
	comp=Z,7.1nm,0.6s						

ASAR	**Alice Springs**	**18.82**	**147**	P	**Pn**	**21 09 32.9**	**-1.4**
	comp=Z,16nm,0.7s,baz=332,slow=14,SNR=34						
ASAR				S	**S**	**21 12 50.4**	**-0.9**
	comp=Z,2.5nm,0.8s,baz=336,slow=23,SNR=4.6						
ASAR				ScP	**ScP**	**21 16 57.6**	**-0.3**
	comp=Z,0.9nm,0.7s,baz=317,slow=2.1,SNR=4.5						
ASAR	**Alice Springs**	**18.82**	**147**	P	**Pn**	**21 09 32.3**	**-2.0**
AS01	**Alice Springs**	**18.84**	**147**	P	**Pn**	**21 09 32.4**	**-2.2**
QIS	**Mount Isa**	**20.39**	**130**	P	**P**	**21 09 48.1**	**+0.7**
MORW	**Morawa**	**22.00**	**196**	P	**P**	**21 10 04.8**	**+1.8**
MORW	**Morawa**	**22.00**	**196**	P	**P**	**21 10 04.5**	**+1.5**
BLDU	**Ballidu**	**23.30**	**194**	P	**P**	**21 10 17.1**	**+2.2**
BBOO	**Buckleboo**	**27.55**	**156**	P	**P**	**21 10 54.3**	**+1.2**
STKA	**Stephens Creek**	**29.45**	**146**	P	**P**	**21 11 11.5**	**+1.6**
	comp=Z,2.3nm,0.4s,baz=319,slow=11,SNR=6.0						
	comp=Z,2.3nm,0.4s						
MKAR	**Makanchi Array**	**65.40**	**330**	P	**P**	**21 15 47.8**	**+2.8**
	comp=Z,0.4nm,0.5s,baz=137,slow=7.5,SNR=6.4						
	comp=Z,0.4nm,0.5s						
MKAR	**Makanchi Array**	**65.40**	**330**	P	**P**	**21 15 44.4**	**-0.6**
PETK	**Petropavlovsk-**	**67.60**	**22**	P	**P**	**21 15 59.5**	**+0.8**
	comp=Z,2.0nm,0.9s,baz=243,slow=6.3,SNR=1.9						
	comp=Z,2.0nm,0.9s						
ZALV	**Zalesovo Beam**	**69.54**	**337**	P	**P**	**21 16 12.4**	**+1.8**
	comp=Z,0.6nm,0.4s,baz=132,slow=5.0,SNR=2.8						
	comp=Z,0.6nm,0.4s						
ZALV	**Zalesovo Beam**	**69.54**	**337**	P	**P**	**21 16 11.6**	**+1.0**
QSPA	**South Pole Qui**	**82.03**	**180**	P	**P**	**21 17 23.1**	**+1.9**
	comp=Z,0.7nm,0.6s,baz=66,slow=4.5,SNR=1.9						
	comp=Z,0.7nm,0.6s						
QSPA	**South Pole Qui**	**82.03**	**180**	P	**P**	**21 17 22.6**	**+1.4**

TAP ***01*** *21:06:08.3, 24°.72N×121°.59E, h64^{km}, ML3.8, B*

ISC 01 21:06:08.1±1.2**, 24°.76N**±0°.02×**121°.57E**±0°.03**, h66**^{km}±4^{km}**,**
n162, σ1^{s}.04/314**, 11C-23D, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FUSB	**Fushanzhiwuyua**	**0.02**	**94**	⇓*i*P	**Pn**	**21 06 17.8**	**0.0**
FUSB				*i* S	**Sn**	**21 06 23.9**	**-0.9**
NWLT	**Wulai**	**0.06**	**285**	⇓*i*P	**Pn**	**21 06 17.8**	**0.0**
NWLT				*i* S	**Sn**	**21 06 24.0**	**-0.9**
TWE	**Neicheng**	**0.10**	**114**	⇑*i*P	**Pn**	**21 06 18.1**	**+0.3**
TWE				*i* S	**Sn**	**21 06 25.0**	**+0.1**
ILA	**Ilan**	**0.16**	**88**	*i* P	**Pn**	**21 06 18.5**	**+0.5**
ILA				*i* S	**Sn**	**21 06 25.6**	**+0.4**
NDT	**Datong Townshi**	**0.17**	**198**	⇑*i*P	**Pn**	**21 06 18.3**	**+0.2**
NDT				*i* S	**Sn**	**21 06 24.8**	**-0.5**
NDS	**Dongshan**	**0.18**	**133**	⇑*i*P	**Pn**	**21 06 18.3**	**+0.1**
NDS				*i* S	**Sn**	**21 06 25.5**	**0.0**
YHNB	**Yeheng**	**0.20**	**243**	P	**Pn**	**21 06 18.3**	**-0.1**
YHNB	**Yeheng**	**0.20**	**243**	S	**Sn**	**21 06 25.0**	**-0.8**
YHNB	**Yeheng**	**0.20**	**243**	*i* P	**Pn**	**21 06 18.3**	**-0.1**
YHNB				*i* S	**Sn**	**21 06 25.0**	**-0.8**
NHDH	**Xindian Distri**	**0.20**	**349**	⇓*i*P	**Pn**	**21 06 18.5**	**+0.3**
NHDH				*i* S	**Sn**	**21 06 25.7**	**0.0**
NSK	**Sanguang**	**0.21**	**246**	⇑*i*P	**Pn**	**21 06 18.3**	**-0.1**
NSK				*i* S	**Sn**	**21 06 24.9**	**-1.0**
TWA	**Mucha**	**0.22**	**4**	⇓*i*P	**Pn**	**21 06 18.7**	**+0.3**
TWA				*i* S	**Sn**	**21 06 25.7**	**-0.1**
TATO	**Taipei**	**0.23**	**341**	P	**Pn**	**21 06 18.5**	**+0.1**
TATO	**Taipei**	**0.23**	**341**	S	**Sn**	**21 06 25.2**	**-0.6**
TATO	**Taipei**	**0.23**	**341**	*i* P	**Pn**	**21 06 18.5**	**+0.1**
TATO				S	**Sn**	**21 06 25.6**	**-0.3**
LATG	**Datong**	**0.23**	**190**	⇑*i*P	**Pn**	**21 06 18.9**	**+0.3**
LATG				*i* S	**Sn**	**21 06 26.0**	**-0.1**
BACT	**New Taipei Cit**	**0.26**	**334**	*i* P	**Pn**	**21 06 19.1**	**+0.5**
BACT				S	**Sn**	**21 06 27.1**	**+0.9**
NHY	**Taipei**	**0.28**	**0**	*i* P	**Pn**	**21 06 18.8**	**+0.1**
NHY				*i* S	**Sn**	**21 06 26.8**	**+0.4**
TAP	**Taipei**	**0.28**	**348**	⇓*i*P	**Pn**	**21 06 19.1**	**+0.4**
TAP				*i* S	**Sn**	**21 06 26.7**	**+0.2**
ESAO	**Su ao**	**0.31**	**126**	*i* P	**Pn**	**21 06 18.9**	**0.0**
ESAO				*i* S	**Sn**	**21 06 26.5**	**-0.2**
TIPB	**Shuangxi**	**0.31**	**48**	⇓*i*P	**Pn**	**21 06 19.3**	**+0.3**
TIPB				*i* S	**Sn**	**21 06 26.8**	**-0.1**
EGS		**0.34**	**76**	*i* P	**Pn**	**21 06 19.9**	**+0.8**
EGS				S	**Sn**	**21 06 27.1**	**-0.1**
NTY	**Taoyuan**	**0.34**	**314**	⇓*i*P	**Pn**	**21 06 19.8**	**+0.6**
NTY				*i* S	**Sn**	**21 06 28.2**	**+1.0**
KSHI	**Guanxi Townshi**	**0.36**	**273**	⇓*i*P	**Pn**	**21 06 19.9**	**+0.6**
KSHI				*i* S	**Sn**	**21 06 27.5**	**+0.1**
WFSB	**Wu-fen Shan**	**0.36**	**32**	⇓*i*P	**Pn**	**21 06 19.8**	**+0.4**
WFSB				*i* S	**Sn**	**21 06 27.6**	**+0.1**
TWS1	**Kuangyinshan**	**0.36**	**338**	⇓*i*P	**Pn**	**21 06 19.9**	**+0.6**
TWS1				*i* S	**Sn**	**21 06 28.4**	**+0.9**
NNS	**Nan Shan**	**0.37**	**209**	*i* P	**Pn**	**21 06 19.7**	**+0.2**
NNS				*i* S	**Sn**	**21 06 27.7**	**-0.1**
ENA	**Nanau**	**0.37**	**155**	*e*P	**Pn**	**21 06 16.8**	**-2.6**
ENA				*e*S	**Sn**	**21 06 25.2**	**-2.3**
NNSB	**Datong**	**0.37**	**207**	⇑*i*P	**Pn**	**21 06 19.7**	**+0.2**
NNSB				*i* S	**Sn**	**21 06 27.4**	**-0.4**
NNSH	**Datong**	**0.37**	**207**	*i* P	**Pn**	**21 06 19.7**	**+0.1**
NNSH				*i* S	**Sn**	**21 06 27.5**	**-0.3**
YM01	**YM01**	**0.38**	**0**	⇓*i*P	**Pn**	**21 06 19.9**	**+0.3**
YM01				*i* S	**Sn**	**21 06 27.9**	**0.0**
ZUZH	**Zhuzihu**	**0.40**	**357**	⇓*i*P	**Pn**	**21 06 20.0**	**+0.3**
ZUZH				*i* S	**Sn**	**21 06 27.9**	**-0.2**
NCU	**National Centr**	**0.40**	**301**	*i* P	**Pn**	**21 06 20.3**	**+0.6**
NCU				*i* S	**Sn**	**21 06 29.1**	**+0.9**
NCUH	**Zhongli**	**0.41**	**301**	⇓*i*P	**Pn**	**21 06 20.1**	**+0.4**
NCUH				*i* S	**Sn**	**21 06 28.9**	**+0.8**
NTST	**Danshui**	**0.42**	**345**	⇓*i*P	**Pn**	**21 06 20.3**	**+0.5**
NTST				*i* S	**Sn**	**21 06 29.3**	**+1.0**
ANP	**Anpu**	**0.43**	**354**	⇓*i*P	**Pn**	**21 06 20.1**	**+0.1**
ANP				*i* S	**Sn**	**21 06 27.8**	**-0.8**
YM08	**YM08**	**0.43**	**3**	*i* P	**Pn**	**21 06 20.0**	**+0.1**
YM08				*i* S	**Sn**	**21 06 28.0**	**-0.5**
NFF	**Wufeng Townshi**	**0.43**	**253**	⇑*i*P	**Pn**	**21 06 20.2**	**+0.2**
NFF				*i* S	**Sn**	**21 06 28.4**	**-0.2**
TNOU	**National Taiwa**	**0.43**	**26**	⇓*i*P	**Pn**	**21 06 20.1**	**+0.2**
TNOU				*i* S	**Sn**	**21 06 28.3**	**-0.2**
SXI1	**Grass Mountain**	**0.43**	**40**	⇓*i*P	**Pn**	**21 06 20.2**	**+0.2**
SXI1				*i* S	**Sn**	**21 06 27.5**	**-1.2**
NJD	**Zhudong**	**0.44**	**267**	*i* P	**Pn**	**21 06 20.6**	**+0.7**
NJD				*i* S	**Sn**	**21 06 29.3**	**+0.7**
NWRT	**Kuosheng**	**0.45**	**11**	*i* P	**Pn**	**21 06 20.2**	**+0.2**
NWRT				*i* S	**Sn**	**21 06 28.6**	**-0.2**
TWB1	**Santiao Chiao**	**0.45**	**57**	⇓*i*P	**Pn**	**21 06 20.5**	**+0.4**
TWB1				*i* S	**Sn**	**21 06 28.6**	**-0.3**
EAHA	**Aohua**	**0.46**	**160**	*i* P	**Pn**	**21 06 19.7**	**-0.4**
EAHA				S	**Sn**	**21 06 27.4**	**-1.5**
TWY	**Chenhua**	**0.51**	**3**	*i* P	**Pn**	**21 06 21.3**	**+0.6**
TWY				*i* S	**Sn**	**21 06 30.7**	**+0.8**
LIOB	**Emei**	**0.52**	**257**	*i* P	**Pn**	**21 06 21.2**	**+0.5**
LIOB				*i* S	**Sn**	**21 06 28.9**	**-1.1**
SBCB	**Hsinchu**	**0.53**	**274**	⇓*i*P	**Pn**	**21 06 21.4**	**+0.6**
SBCB				*i* S	**Sn**	**21 06 30.9**	**+0.7**
NSTT	**Nanjuang**	**0.53**	**256**	⇓*i*P	**Pn**	**21 06 21.3**	**+0.4**
NSTT				*i* S	**Sn**	**21 06 30.1**	**-0.1**
HSN	**Hsinchu**	**0.55**	**274**	⇓*i*P	**Pn**	**21 06 21.3**	**+0.3**
HSN				*i* S	**Sn**	**21 06 30.5**	**0.0**
ETLH	**Xiulin Townshi**	**0.56**	**188**	*i* P	**Pn**	**21 06 21.2**	**0.0**
ETLH				*i* S	**Sn**	**21 06 30.9**	**0.0**
NACB	**Ninganchiao**	**0.58**	**178**	P	**Pn**	**21 06 20.3**	**-1.2**
NACB	**Ninganchiao**	**0.58**	**178**	⇑*i*P	**Pn**	**21 06 20.5**	**-1.0**
NACB				S	**Sn**	**21 06 30.3**	**-0.9**
FUSS	**Fushou**	**0.59**	**210**	⇑*i*P	**Pn**	**21 06 22.6**	**+0.8**
FUSS				*i* S	**Sn**	**21 06 32.1**	**+0.3**
ETL	**Fush Village**	**0.60**	**175**	*i* P	**Pn**	**21 06 20.9**	**-0.8**
ETL				S	**Sn**	**21 06 30.6**	**-1.0**
TWT	**Tachien**	**0.62**	**215**	⇑*i*P	**Pn**	**21 06 23.0**	**+1.0**
TWT				*i* S	**Sn**	**21 06 32.7**	**+0.6**
TDCB	**Techi**	**0.63**	**217**	⇑*i*P	**Pn**	**21 06 22.9**	**+0.8**
TDCB				*i* S	**Sn**	**21 06 32.7**	**+0.4**
NJN	**Zhunan**	**0.64**	**263**	P	**Pn**	**21 06 21.8**	**-0.2**
NJN				*i* S	**Sn**	**21 06 32.9**	**+0.7**
WHF	**Hehuan Shan**	**0.67**	**204**	⇓*i*P	**Pn**	**21 06 23.6**	**+0.8**
WHF				*i* S	**Sn**	**21 06 34.1**	**+0.4**
TWD	**Chiawan**	**0.68**	**178**	*i* P	**Pn**	**21 06 21.5**	**-1.0**
TWD				*i* S	**Sn**	**21 06 31.7**	**-1.3**
EOS2	**EOS2**	**0.69**	**119**	*i* P	**Pn**	**21 06 24.2**	**+1.7**
EOS2				*i* S	**Sn**	**21 06 36.3**	**+3.2**
NMLH	**Miaoli**	**0.74**	**253**	*i* P	**Pn**	**21 06 24.0**	**+0.8**
NMLH				*i* S	**Sn**	**21 06 35.2**	**+0.9**
WHP	**Taichung City**	**0.74**	**230**	*i* P	**Pn**	**21 06 24.2**	**+0.9**
WHP				*i* S	**Sn**	**21 06 35.0**	**+0.5**
HWA	**Hwalien**	**0.78**	**178**	*i* P	**Pn**	**21 06 23.0**	**-0.7**
HWA				*i* S	**Sn**	**21 06 35.4**	**+0.2**
ETM	**Tongmen**	**0.80**	**185**	*i* P	**Pn**	**21 06 22.8**	**-1.0**
ETM				*i* S	**Sn**	**21 06 34.4**	**-1.1**
NSY	**Sanyi**	**0.81**	**245**	*i* P	**Pn**	**21 06 25.0**	**+0.9**
NSY				S	**Sn**	**21 06 34.7**	**-1.1**
EOS3	**EOS3**	**0.83**	**125**	*i* P	**Pn**	**21 06 25.6**	**+1.4**
EOS3				*i* S	**Sn**	**21 06 38.5**	**+2.6**
TWQ1	**Liyutan**	**0.83**	**241**	*i* P	**Pn**	**21 06 24.9**	**+0.6**
TWQ1				S	**Sn**	**21 06 35.8**	**-0.5**
WUSB	**Renai**	**0.87**	**208**	*i* P	**Pn**	**21 06 25.8**	**+0.9**
WUSB				*i* S	**Sn**	**21 06 38.3**	**+1.0**
OWD	**Renai**	**0.88**	**204**	*i* P	**Pn**	**21 06 25.7**	**+0.7**
OWD				*i* S	**Sn**	**21 06 38.0**	**+0.4**
TEYL	**Yanliau Villag**	**0.89**	**178**	*i* P	**Pn**	**21 06 22.4**	**-2.6**
TEYL				*e*S	**Sn**	**21 06 36.5**	**-1.0**
WCS	**Beigang Elemen**	**0.92**	**221**	*i* P	**Pn**	**21 06 26.2**	**+0.8**
WCS				*i* S	**Sn**	**21 06 38.8**	**+0.6**
DPDB	**Guoxing**	**0.93**	**219**	*i* P	**Pn**	**21 06 26.4**	**+0.8**
DPDB				S	**Sn**	**21 06 39.4**	**+0.8**
WPL	**Puli Township**	**0.93**	**217**	*i* P	**Pn**	**21 06 26.7**	**+1.1**
WPL				S	**Sn**	**21 06 39.4**	**+0.9**
EOS4	**EOS4**	**0.93**	**133**	*i* P	**Pn**	**21 06 25.7**	**+0.5**
EOS4				*i* S	**Sn**	**21 06 38.2**	**+0.3**
WDJ	**Dajia District**	**0.94**	**244**	*i* P	**Pn**	**21 06 26.4**	**+0.7**
WDJ				*i* S	**Sn**	**21 06 39.5**	**+0.8**
ESL	**Shilin**	**0.95**	**187**	*i* P	**Pn**	**21 06 24.4**	**-1.4**
ESL				S	**Sn**	**21 06 37.3**	**-1.6**
SHUL	**Shoufeng**	**0.97**	**180**	*i* P	**Pn**	**21 06 25.5**	**-0.5**
SHUL				*i* S	**Sn**	**21 06 38.8**	**-0.5**
PCYT	**Pengchaiyu**	**0.98**	**28**	P	**Pn**	**21 06 26.3**	**+0.2**
PCYT				S	**Sn**	**21 06 40.5**	**+1.1**
TCU	**Taichung**	**1.02**	**233**	*i* P	**Pn**	**21 06 26.9**	**+0.3**
TCU				*i* S	**Sn**	**21 06 41.2**	**+0.9**
WARBT	**Fenglin Townsh**	**1.05**	**189**	*i* P	**Pn**	**21 06 25.6**	**-1.5**
WARBT				S	**Sn**	**21 06 39.6**	**-1.6**
SMLT	**Sun Moon Lake**	**1.07**	**215**	*i* P	**Pn**	**21 06 28.0**	**+0.6**
SMLT				*i* S	**Sn**	**21 06 43.2**	**+1.5**
WWF	**Wufeng**	**1.07**	**228**	*i* P	**Pn**	**21 06 28.1**	**+0.8**
WWF				S	**Sn**	**21 06 40.9**	**-0.6**
TYC	**Yuchr**	**1.07**	**217**	*i* P	**Pn**	**21 06 27.9**	**+0.6**
TYC				*i* S	**Sn**	**21 06 43.0**	**+1.4**
EGFH	**Guangfu**	**1.09**	**187**	*i* P	**Pn**	**21 06 26.4**	**-1.2**
EGFH				S	**Sn**	**21 06 41.3**	**-0.8**
SSLB	**Suanglung**	**1.12**	**210**	P	**Pn**	**21 06 28.5**	**+0.5**
SSLB	**Suanglung**	**1.12**	**210**	*i* P	**Pn**	**21 06 28.5**	**+0.5**
SSLB				S	**Sn**	**21 06 44.1**	**+1.4**
WCHH	**Zhanghua**	**1.14**	**234**	*i* P	**Pn**	**21 06 28.7**	**+0.4**
WCHH				*i* S	**Sn**	**21 06 43.9**	**+0.7**
WCH1	**Changhua City**	**1.16**	**234**	*i* P	**Pn**	**21 06 28.8**	**+0.4**
WCH1				*i* S	**Sn**	**21 06 44.3**	**+0.8**
WNT1	**Nantou City**	**1.18**	**224**	P	**Pn**	**21 06 29.4**	**+0.7**
WNT1				*i* S	**Sn**	**21 06 45.0**	**+1.0**
WNT	**Mingjian**	**1.19**	**223**	*i* P	**Pn**	**21 06 29.6**	**+0.7**
WNT				*i* S	**Sn**	**21 06 45.2**	**+0.8**
WYL	**Yuanlin Townsh**	**1.20**	**229**	*i* P	**Pn**	**21 06 29.7**	**+0.7**
WYL				*i* S	**Sn**	**21 06 45.4**	**+0.8**
WJS	**Zhushan**	**1.21**	**220**	*i* P	**Pn**	**21 06 29.7**	**+0.6**
WJS				*i* S	**Sn**	**21 06 45.3**	**+0.5**
WHYT	**Xinyi Township**	**1.25**	**212**	*i* P	**Pn**	**21 06 30.3**	**+0.7**
WHYT				*i* S	**Sn**	**21 06 47.0**	**+1.3**
EHY	**Hungye**	**1.27**	**190**	*i* P	**Pn**	**21 06 29.2**	**-0.7**
EHY				S	**Sn**	**21 06 44.5**	**-1.7**
HGSD	**Ruisui**	**1.27**	**186**	*i* P	**Pn**	**21 06 29.1**	**-0.8**
HGSD				*e*S	**Sn**	**21 06 45.9**	**-0.3**
EHYH	**Wanrong**	**1.28**	**189**	*i* P	**Pn**	**21 06 29.4**	**-0.6**
EHYH				*i* S	**Sn**	**21 06 45.5**	**-0.9**
WRL	**Guolierlin Hig**	**1.38**	**232**	*i* P	**Pn**	**21 06 31.5**	**+0.1**
WRL				*i* S	**Sn**	**21 06 48.3**	**-0.6**
YULB	**Yu-li**	**1.39**	**190**	P	**Pn**	**21 06 31.1**	**-0.4**
YULB	**Yu-li**	**1.39**	**190**	*i* P	**Pn**	**21 06 29.6**	**-1.9**
YULB				*e*S	**Sn**	**21 06 47.0**	**-1.9**
YUS	**Yu-Shan**	**1.39**	**204**	*i* P	**Pn**	**21 06 32.8**	**+0.9**
YUS				*i* S	**Sn**	**21 06 51.6**	**+2.0**
RLNB	**Erlin**	**1.40**	**232**	*i* P	**Pn**	**21 06 32.1**	**+0.5**
RLNB				*i* S	**Sn**	**21 06 49.7**	**+0.4**
WDL	**Douliou City**	**1.40**	**222**	P	**Pn**	**21 06 31.5**	**-0.2**
WDL				S	**Sn**	**21 06 50.1**	**+0.8**
CHN5	**Tsauling**	**1.42**	**215**	*i* P	**Pn**	**21 06 32.5**	**+0.5**
CHN5				*i* S	**Sn**	**21 06 51.0**	**+1.2**
WDLH	**Douliu**	**1.42**	**222**	*i* P	**Pn**	**21 06 32.6**	**+0.7**
WDLH				*i* S	**Sn**	**21 06 50.5**	**+0.7**
TWF1	**Yuli**	**1.42**	**190**	*i* P	**Pn**	**21 06 30.2**	**-1.8**
TWF1				S	**Sn**	**21 06 48.2**	**-1.7**
EYUL	**Yuli**	**1.43**	**189**	*i* P	**Pn**	**21 06 32.1**	**+0.2**
EYUL				*e*S	**Sn**	**21 06 48.4**	**-1.5**
ALS	**Alishan**	**1.43**	**209**	*i* P	**Pn**	**21 06 33.0**	**+0.7**
ALS				*i* S	**Sn**	**21 06 51.8**	**+1.4**
WTCT	**Ta-ch'eng**	**1.48**	**233**	*e*P	**Pn**	**21 06 32.8**	**+0.1**
WTCT				*e*S	**Sn**	**21 06 51.2**	**+0.2**
WTK	**Tuku**	**1.52**	**225**	*i* P	**Pn**	**21 06 33.6**	**+0.4**
WTK				*i* S	**Sn**	**21 06 52.1**	**+0.1**
CHKH	**Chenggong**	**1.57**	**186**	*i* P	**Pn**	**21 06 33.9**	**0.0**
CHKH				S	**Sn**	**21 06 51.7**	**-1.6**
FULB	**Fuli**	**1.57**	**189**	*i* P	**Pn**	**21 06 34.1**	**+0.1**
FULB				S	**Sn**	**21 06 54.0**	**+0.5**
WCKO	**Fanlu**	**1.58**	**214**	*i* P	**Pn**	**21 06 34.9**	**+0.8**
WCKO				*i* S	**Sn**	**21 06 55.1**	**+1.4**
CHY	**Chiayi**	**1.64**	**220**	*i* P	**Pn**	**21 06 35.5**	**+0.8**
CHY				*i* S	**Sn**	**21 06 55.5**	**+0.6**
EHD	**Haiduan**	**1.64**	**192**	*i* P	**Pn**	**21 06 35.0**	**+0.1**
EHD				S	**Sn**	**21 06 55.0**	**0.0**
ELDTW	**Lidau**	**1.64**	**198**	*i* P	**Pn**	**21 06 35.0**	**0.0**
ELDTW				*e*S	**Sn**	**21 06 55.9**	**+0.6**
WSF	**Szhu**	**1.66**	**228**	*i* P	**Pn**	**21 06 35.5**	**+0.4**
WSF				*i* S	**Sn**	**21 06 56.0**	**+0.5**
CHKT	**Chengkung**	**1.67**	**186**	*i* P	**Pn**	**21 06 34.5**	**-0.7**
CHKT				*i* S	**Sn**	**21 06 54.9**	**-0.7**
TPUB	**Ta-pu**	**1.69**	**211**	P	**Pn**	**21 06 36.1**	**+0.6**
TPUB	**Ta-pu**	**1.69**	**211**	S	**Sn**	**21 06 58.5**	**+2.3**
TPUB	**Ta-pu**	**1.69**	**211**	*i* P	**Pn**	**21 06 36.2**	**+0.6**
TPUB				S	**Sn**	**21 06 58.1**	**+1.9**
ECS	**Chishang**	**1.69**	**191**	*i* P	**Pn**	**21 06 35.1**	**-0.5**
ECS				*i* S	**Sn**	**21 06 56.3**	**+0.1**
WSL	**Shuilin Townsh**	**1.74**	**225**	*i* P	**Pn**	**21 06 36.5**	**+0.4**
WSL				*i* S	**Sn**	**21 06 57.4**	**0.0**
STYH	**Taoyuan**	**1.74**	**205**	*i* P	**Pn**	**21 06 37.2**	**+1.1**
STYH				*i* S	**Sn**	**21 07 00.2**	**+2.8**
WTP	**Ta-pu**	**1.74**	**210**	*i* P	**Pn**	**21 06 36.9**	**+0.6**
WTP				S	**Sn**	**21 06 59.8**	**+2.3**
STYT	**Tauyuan**	**1.75**	**205**	*i* P	**Pn**	**21 06 37.4**	**+1.0**
STYT				S	**Sn**	**21 07 00.4**	**+2.5**
TWK	**Hsinying**	**1.79**	**214**	*i* P	**Pn**	**21 06 37.4**	**+0.6**
TWK				*i* S	**Sn**	**21 07 01.5**	**+2.9**
EDH	**Donghe**	**1.80**	**188**	*e*P	**Pn**	**21 06 37.4**	**+0.5**
EDH				*i* S	**Sn**	**21 06 57.9**	**-0.9**
SNST	**Tainan City**	**1.82**	**213**	*i* P	**Pn**	**21 06 38.5**	**+1.2**
SNST				S	**Sn**	**21 06 59.2**	**-0.1**
ICHU	**Yijhu**	**1.82**	**220**	*i* P	**Pn**	**21 06 37.5**	**+0.2**
ICHU				*i* S	**Sn**	**21 07 00.7**	**+1.2**
CHN1	**Nanshi**	**1.83**	**211**	*i* P	**Pn**	**21 06 38.4**	**+0.9**
CHN1				*i* S	**Sn**	**21 07 01.0**	**+1.2**
CHN8	**Yiju**	**1.88**	**222**	*i* P	**Pn**	**21 06 38.5**	**+0.5**
CHN8				*i* S	**Sn**	**21 07 01.7**	**+1.0**
LONT	**Longtian**	**1.89**	**192**	*i* P	**Pn**	**21 06 37.3**	**-0.9**
LONT				S	**Sn**	**21 06 59.3**	**-1.8**
SGST	**Jiashian**	**1.90**	**209**	*i* P	**Pn**	**21 06 38.4**	**0.0**
SGST				S	**Sn**	**21 07 03.8**	**+2.5**
VWUC	**VWUC**	**1.94**	**277**	⇓*i*P	**Pn**	**21 06 38.8**	**0.0**
VWUC				*i* S	**Sn**	**21 07 00.6**	**-1.6**
SLGT	**Liugui**	**1.95**	**206**	*e*P	**Pn**	**21 06 41.3**	**+2.3**
SLGT				S	**Sn**	**21 07 05.3**	**+2.7**
TWG	**Pinlang**	**1.98**	**193**	*i* P	**Pn**	**21 06 38.3**	**-1.2**
TWG				*i* S	**Sn**	**21 07 01.4**	**-1.9**
TWGBT	**Beinan**	**1.99**	**193**	P	**Pn**	**21 06 38.4**	**-1.1**
TWGBT	**Beinan**	**1.99**	**193**	*i* P	**Pn**	**21 06 38.2**	**-1.3**
TWGBT				S	**Sn**	**21 07 01.7**	**-1.7**
MATB	**Ma-tsu**	**2.02**	**314**	*i* P	**Pn**	**21 06 39.6**	**-0.3**
MATB				S	**Sn**	**21 07 03.3**	**-0.8**
LDUT	**Ludao**	**2.08**	**183**	*e*P	**Pn**	**21 06 39.5**	**-1.2**
LDUT				S	**Sn**	**21 07 04.1**	**-1.5**
TSCK	**Chigu Township**	**2.10**	**220**	*i* P	**Pn**	**21 06 41.5**	**+0.5**
TSCK				S	**Sn**	**21 07 07.4**	**+1.2**
SCST	**Cishan**	**2.11**	**208**	P	**Pn**	**21 06 41.6**	**+0.4**
SCST				*e*S	**Sn**	**21 07 08.7**	**+2.3**
SSD	**Sandimen**	**2.18**	**203**	*i* P	**Pn**	**21 06 43.0**	**+0.8**
SSD				*e*S	**Sn**	**21 07 09.2**	**+1.0**
PNG	**Penghu**	**2.19**	**238**	*i* P	**Pn**	**21 06 42.0**	**-0.2**
PNG				*i* S	**Sn**	**21 07 05.8**	**-2.5**
PHUB	**P'eng-hu**	**2.21**	**236**	*i* P	**Pn**	**21 06 41.9**	**-0.5**
PHUB				*i* S	**Sn**	**21 07 06.7**	**-2.0**
TSMG	**Majia**	**2.21**	**203**	*i* P	**Pn**	**21 06 44.2**	**+1.7**
TSMG				*e*S	**Sn**	**21 07 10.3**	**+1.4**
ECL	**Taimali**	**2.23**	**195**	*i* P	**Pn**	**21 06 43.8**	**+1.1**
ECL				*e*S	**Sn**	**21 07 07.6**	**-1.6**
PTMZ	**Houxiangcun**	**2.24**	**278**	*i* P	**Pn**	**21 06 42.9**	**0.0**
PTMZ				*i* S	**Sn**	**21 07 08.0**	**-1.5**
WDGT	**Dungji**	**2.30**	**230**	*i* P	**Pn**	**21 06 43.3**	**-0.4**
WDGT				*e*S	**Sn**	**21 07 09.0**	**-1.9**
MASBT	**Mashibuluo**	**2.31**	**202**	*i* P	**Pn**	**21 06 44.6**	**+0.8**
MASBT				*e*S	**Sn**	**21 07 12.1**	**+0.9**
LYJJ	**Jianjiangzhen**	**2.42**	**318**	*i* P	**Pn**	**21 06 45.2**	**-0.1**
LYJJ				S	**Sn**	**21 07 13.3**	**-0.5**
EAST	**Anshuo**	**2.46**	**196**	*i* P	**Pn**	**21 06 48.8**	**+2.8**
EAST				*e*S	**Sn**	**21 07 17.4**	**+2.5**
XPSS	**Dashiqiu**	**2.49**	**330**	*i* P	**Pn**	**21 06 46.2**	**-0.1**
XPSS				*i* S	**Sn**	**21 07 15.3**	**-0.3**
VCHM	**Qimei**	**2.49**	**232**	*i* P	**Pn**	**21 06 46.5**	**+0.1**
VCHM				*i* S	**Sn**	**21 07 14.5**	**-1.2**
SCZT	**Fangliau**	**2.53**	**200**	*i* P	**Pn**	**21 06 47.5**	**+0.6**
SCZT				*e*S	**Sn**	**21 07 16.4**	**-0.3**
SLIU	**Shizi**	**2.63**	**196**	*i* P	**Pn**	**21 06 49.0**	**+0.8**
SLIU				*e*S	**Sn**	**21 07 21.4**	**+2.3**
MHZQ	**Yeshan**	**2.65**	**301**	*i* P	**Pn**	**21 06 47.9**	**-0.7**
MHZQ				*e*S	**Sn**	**21 07 18.7**	**-0.9**
KNM	**Kinmen**	**2.87**	**264**	*e*P	**Pn**	**21 06 54.0**	**+2.5**
KNM				S	**Sn**	**21 07 26.0**	**+1.0**
KNMB	**Chin-men Tao**	**2.91**	**265**	*i* P	**Pn**	**21 06 51.7**	**-0.4**
KNMB				S	**Sn**	**21 07 23.6**	**-2.2**
AXDP	**Jialang**	**3.27**	**273**	*i* P	**Pn**	**21 06 57.3**	**+0.3**
AXDP				*i* S	**Sn**	**21 07 32.6**	**-2.1**
ZPLA	**Ao Xicun**	**3.58**	**257**	*i* P	**Pn**	**21 07 01.1**	**-0.1**
ZPLA				*i* S	**Sn**	**21 07 40.1**	**-2.2**
DSXP	**Dongshan**	**3.92**	**255**	*e*P	**Pn**	**21 07 06.2**	**+0.3**
DSXP				*e*S	**Sn**	**21 07 48.5**	**-2.2**

SJA ***01*** *21:09:14.4±0.8, 27°.86S×71°.63W, h19^{km}±8^{km}, ML6.5, MW6.5*

PTWC ***01*** *21:09:14, 27°.90S×71°.70W, h10^{km}, Mwp6.2/15*

IDC ***01*** *21:09:15.9±0.3, 27°.97S×71°.25W, h0^{km}, mb5.5/16, mbtmp5.4/20, ML5.0/5, MS6.3/48, Error ellipse: s-maj=12.2km s-min=9.2km az=72.0*

GUC ***01*** *21:09:15.1±0.8, 27°.98S×71°.55W, h24^{km}±4^{km}, ML6.1*

ISC-PP ***01*** *21:09:17, 27°.92S×71°.37W, h36^{km}, Mwppsm6.8, Moment Tensor Solution. s34 Moment tensor: Scale 10^{19}Nm; M_{rr}0.55±.13; $M_{\theta\theta}$0.00±.17; $M_{\phi\phi}$-0.55±.18; $M_{r\theta}$0.01±.08; $M_{\theta\phi}$-0.43±.18; $M_{\phi r}$0.09±.09; Fault plane solution: $M_0$1.66000×10^{19} NP1:ϕ_s346.00000°, δ26.30000°, λ81.00000°. NP2:ϕ_s176.00000°, δ64.00000°, λ94.40000°.*

NEIC ***01*** *21:09:17.9±1.8, 27°.92S±0°.03×71°.37W±0°.05, h16^{km}±1^{km}, mb6.0/320, Ms_20 6.2/655, Mwb6.3/126, Mww6.5/19, Mww6.3(GUC) Error ellipse: s-maj=7.5km s-min=5.6km az=266.0, Moment Tensor Solution. Moment tensor: Scale 10^{18}Nm; M_{rr}2.18; $M_{\theta\theta}$0.96; $M_{\phi\phi}$-3.15; $M_{r\theta}$1.29; $M_{\theta\phi}$-0.10; $M_{\phi r}$-1.99; Fault plane solution: $M_0$3.67000×10^{18} NP1:ϕ_s29.30000°, δ33.41000°, λ137.45000°. NP2: ϕ_s156.76000°, δ68.14000°, λ64.08000°. Principal axes: T 3.4817, Plg59.0000°, Azm30.0000°; N 0.3511, Plg24.0000°, Azm167.0000°; P -3.8328, Plg19.0000°, Azm266.0000°;*

NEIC ***01*** *21:09:17.6, 27°.92S×71°.37W, h14^{km}*

NEIC ***01*** *21:09:17, 27°.93S×71°.42W, h14^{km}*

VAO ***01*** *21:09:17.3±0.2, 27°.86S×71°.17W, h10^{km}, mb5.8, Presumed earthquake*

IPGP ***01*** *21:09:17.0, 27°.93S×71°.39W, h24^{km}, Mw6.5, Fault plane solution: NP1:ϕ_s19.00000°, δ25.00000°, λ116.00000°. NP2:ϕ_s171.00000°, δ68.00000°, λ79.00000°.*

MOS ***01*** *21:09:18.0±1.2, 28°.00S×71°.28W, h18^{km}, mb6.0/28, MS6.3/31, Error ellipse: s-maj=11.0km s-min=6.1km az=100.4*

BJI ***01*** *21:09:18.2, 28°.00S×71°.33W, h10^{km}, mB6.5/45, Ms6.7/87, Ms7 6.7/83*

CATAC ***01*** *21:09:19.3±0.8, 28°S±2°×7°1W±°, h6^{km}±4^{km}, M6.5/7, mb6.1/7, mB6.5/7, MLv7.1/7, Mw(mB)6.3/7, MwMwp6.2/7, Mwp6.2/7, Error ellipse: s-maj=18.4km s-min=3.7km az=89.1, confirmed*

OSUNB ***01*** *21:09:19.6±0.2, 27°.83S×71°.22W, h14^{km}, Mw6.4/42, Error ellipse: s-maj=3.2km s-min=3.4km az=0.0*

GFZ ***01*** *21:09:20.7, 27°.91S×71°.32W, h27^{km}, Mw6.4/89, Moment Tensor Solution. Moment tensor: Scale 10^{18}Nm; M_{rr}3.01; $M_{\theta\theta}$0.46; $M_{\phi\phi}$-3.47; $M_{r\theta}$0.55; $M_{\theta\phi}$-0.06; $M_{\phi r}$-3.82; Fault plane solution: $M_0$5.05612×10^{18} NP1: ϕ_s173.55510°, δ70.12506°, λ84.22059°. NP2:ϕ_s10.13409°, δ20.66551°, λ105.56559°. Principal axes: T 4.8401, Plg64.4226°, Azm74.0620°; N 0.4074, Plg5.4341°, Azm175.5258°; P -5.2475, Plg24.9113°, Azm268.0580°;*

GFZ ***01*** *21:09:20.7±0.2, 28°S±2°×7°1W±°, h22^{km}±1^{km}, M6.2/94, mB6.5/82, mb5.8/94, Mw(mB)6.3/82, MwMwp6.2/84, Mwp6.2/84 Error ellipse: s-maj=6.5km s-min=3.7km az=76.2, confirmed*

GCMT ***01*** *21:09:25.9±0.0, 28°.03S×71°.46W, h24^{km}, MW6.4/177, Moment Tensor Solution. s175,c418; s177,c733; Duration: 4^{s}.0 Moment tensor: Scale 10^{18}Nm; M_{rr}3.30±.02; $M_{\theta\theta}$0.40±.01; $M_{\phi\phi}$-3.70±.02; $M_{r\theta}$1.02±.03; $M_{\theta\phi}$-0.18±.01; $M_{\phi r}$-3.97±.04; Best double couple: $M_0$5.40100×10^{18} NP1:ϕ_s17.00000°, δ22.00000°, λ116.00000°. NP2:ϕ_s169.00000°, δ70.00000°, λ80.00000°. Principal axes: T 5.2990, Plg63.0000°, Azm63.0000°; N 0.2030, Plg10.0000°, Azm173.0000°; P -5.5040, Plg25.0000°, Azm267.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s. Triangular moment-rate function*

NEIC ***01*** *21:09:33.6, 27°.83S×71°.76W, h24^{km}, Moment Tensor Solution. Duration: 9^{s}.5 Moment tensor: Scale 10^{18}Nm; M_{rr}3.66; $M_{\theta\theta}$0.05; $M_{\phi\phi}$-3.71; $M_{r\theta}$0.86; $M_{\theta\phi}$-0.89; $M_{\phi r}$-5.79; Fault plane solution: $M_0$6.97000×10^{18} NP1:ϕ_s28.80000°, δ18.79000°, λ122.14000°. NP2:ϕ_s175.22000°, δ74.17000°, λ79.74000°. Principal axes: T 7.0353, Plg60.0000°, Azm71.0000°; N -0.1282, Plg10.0000°, Azm178.0000°; P -6.9071, Plg28.0000°, Azm273.0000°;*

ISC 01 21:09:18.5±0.4**, 27°.95S**±0°.02×**71°.35W**±0°.03**, h16**^{km}±2^{km}**,**
h16^{km}:pP-P, n1713, σ2^{s}.17/1446**, mb5.9**/315**, MS6.2**/428**,**
102C-60D, Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AC04	**Llanos de Chal**	**0.35**	**137**	*e*P	**Pg**	**21 09 25.7**	**-0.1**
AC04	**Llanos de Chal**	**0.35**	**137**	⇓*i*P	**Pg**	**21 09 25.6**	**-0.1**
AC04	**Llanos de Chal**	**0.35**	**137**		**Pg**	**21 09 25.6**	**-0.1**
AC04				Sg	**Sg**	**21 09 29.8**	**-1.0**
AC04	**Llanos de Chal**	**0.35**	**137**	P	**Pg**	**21 09 25.8**	**-0.1**
AC04	**Llanos de Chal**	**0.35**	**137**	P	**Pg**	**21 09 25.7**	**-0.1**
GO03	**Copiapo**	**1.05**	**71**	*e*P	**Pb**	**21 09 38.0**	**-0.3**
GO03	**Copiapo**	**1.05**	**71**	⇓*i*P	**Pb**	**21 09 37.5**	**-0.8**
GO03				*e*S	**Sn**	**21 09 54.0**	**+1.1**
GO03	**Copiapo**	**1.05**	**71**		**Pb**	**21 09 37.7**	**-0.6**
GO03					**Sn**	**21 09 52.8**	**-0.1**
GO03	**Copiapo**	**1.05**	**71**	⇓P	**Pb**	**21 09 37.6**	**-0.6**
GO03	**Copiapo**	**1.05**	**71**	P	**Pb**	**21 09 37.7**	**-0.6**
AC06	**Mina Casimiro**	**1.06**	**57**	⇓*i*P	**Pb**	**21 09 37.4**	**-1.0**
AC06				*e*S	**Sn**	**21 09 55.3**	**+2.1**
AC06	**Mina Casimiro**	**1.06**	**57**		**Pb**	**21 09 37.5**	**-1.0**
AC06					**Sn**	**21 09 53.2**	**0.0**
LCO	**Las Campanas**	**1.21**	**152**	*e*P	**Pn**	**21 09 39.6**	**-1.4**
LCO				*e*S	**Sg**	**21 09 58.3**	**+0.7**
LCO				IAML		21 10 02.1	
	comp=Z,1415μm,0.7s						
LCO	**Las Campanas**	**1.21**	**152**	P	**Pn**	**21 09 39.2**	**-1.8**
LCO	**Las Campanas**	**1.21**	**152**	⇓*i*P	**Pn**	**21 09 39.2**	**-1.8**
LCO				*e*S	**Sn**	**21 09 57.2**	**0.0**
LCO	**Las Campanas**	**1.21**	**152**	Pn	**Pn**	**21 09 39.6**	**-1.4**
LCO	**Las Campanas**	**1.21**	**152**	P	**Pn**	**21 09 39.8**	**-1.2**
LCO	**Las Campanas**	**1.21**	**152**	⇓P	**Pn**	**21 09 39.4**	**-1.6**
LCO	**Las Campanas**	**1.21**	**152**	P	**Pg**	**21 09 42.3**	**+0.5**
LCO				S	**Sg**	**21 09 58.3**	**+0.7**
AC05	**El Transito**	**1.30**	**133**	*e*P	**Pn**	**21 09 41.6**	**-0.5**
AC05				*e*S	**Sg**	**21 10 00.8**	**+0.3**
AC05	**El Transito**	**1.30**	**133**	⇓*i*P	**Pn**	**21 09 41.2**	**-0.9**
AC05				*e*S	**Sg**	**21 10 00.4**	**0.0**
AC05				IAML		21 10 04.3	
	comp=E,158μm,0.8s						
AC05	**El Transito**	**1.30**	**133**	Pn	**Pn**	**21 09 41.7**	**-0.5**
AC05	**El Transito**	**1.30**	**133**	P	**Pn**	**21 09 41.5**	**-0.6**

AC05	El Transito	1.30	133	P	Pn	21 09 41.4	-0.8
AC01	Pan de Azucar	1.91	21	eP	Pn	21 09 49.2	-1.2
AC01	Pan de Azucar	1.91	21	⇑iP	Pn	21 09 49.1	-1.4
AC01				eS	Sb	21 10 16.8	+0.2
AC01	Pan de Azucar	1.91	21	Pn	Pn	21 09 49.0	-1.4
AC01	Pan de Azucar	1.91	21	P	Pn	21 09 49.2	-1.2
AC01	Pan de Azucar	1.91	21	P	Pn	21 09 49.0	-1.5
AC01				S	Sg	21 10 18.5	-1.4
AC01	Pan de Azucar	1.91	21	P	Pn	21 09 49.2	-1.2
AC02	Maricunga	2.26	61	eP	Pb	21 09 57.5	-1.8
AC02				eS	Sg	21 10 30.8	-0.5
AC02				IAML		21 10 33.1	
	comp=Z,107µm,0.9s						
AC02	Maricunga	2.26	61	eP	Pn	21 09 57.2	+1.5
AC02				eS	Sg	21 10 30.1	-1.2
AC02				IAML		21 10 37.0	
	comp=N,141µm,0.7s						
AC02	Maricunga	2.26	61	P	Pb	21 09 57.4	-1.8
GO04	Tololo Observa	2.27	168	eP	Pn	21 09 55.8	+0.1
GO04				eS	Sg	21 10 35.5	+3.9
GO04				IAML		21 10 40.5	
	comp=Z,366µm,1.1s						
GO04	Tololo Observa	2.27	168	eP	Pn	21 09 54.9	-0.7
GO04	Tololo Observa	2.27	168	P	Pn	21 09 55.5	-0.1
GO04	Tololo Observa	2.27	168	⇑P	Pn	21 09 55.3	-0.3
GO04	Tololo Observa	2.27	168	P	Pn	21 09 55.6	0.0
CO01	Juntas del Tor	2.30	152	eP	Pn	21 09 56.9	+0.8
CO01				eS	Sn	21 10 23.4	-0.8
CO01				IAML		21 10 32.6	
	comp=Z,211µm,1.7s						
CO01	Juntas del Tor	2.30	152	i P	Pn	21 09 56.4	+0.3
CO01				eS	Sb	21 10 27.7	-0.5
CO01				IAML		21 10 33.2	
	comp=N,269µm,1.0s						
CO01	Juntas del Tor	2.30	152	P	Pn	21 09 56.8	+0.7
CO06	Fray Jorge	2.73	185	eP	Pn	21 09 59.1	-2.6
CO06				IAML		21 10 47.6	
	comp=E,57µm,1.1s						
CO06	Fray Jorge	2.73	185	Pn	Pn	21 09 59.2	-2.6
AROD	Rodeo	2.76	144	eP	Pb	21 10 05.1	-2.5
VCA	Vinchina	2.88	107	eP	Pb	21 10 08.7	-1.0
VCA				eS	Sg	21 10 51.4	+0.4
VCA				IAML		21 11 05.0	
	comp=Z,89µm,1.2s						
VCA	Vinchina	2.88	107	eP	Pb	21 10 07.8	-1.8
CO03	El Pedregal	2.94	169	eP	Pn	21 09 59.9	-4.8
CO03				eP	Pb	21 10 04.8	-5.8
CO03				IAML		21 10 55.0	
	comp=Z,165µm,0.9s						
CO03	El Pedregal	2.94	169	i P	Pn	21 10 04.0	-0.7
CO03				IAML		21 10 55.7	
	comp=E,127µm,0.8s						
CO03	El Pedregal	2.94	169	P	Pn	21 10 06.7	+2.0
CO03				S	Sb	21 10 46.8	+0.4
ACDV	Cuesta del Vie	2.95	139	eP	Pb	21 10 09.4	-1.5
ACDV				eS	Sb	21 10 46.9	+0.1
ACDV				IAML		21 10 58.2	
	comp=Z,85µm,1.7s						
CO02	Combarbal	3.26	175	eP	Pn	21 10 08.0	-1.2
CO02				IAML		21 11 04.8	
	comp=Z,276µm,0.9s						
CO02	Combarbal	3.26	175	eP	Pn	21 10 07.5	-1.6
CO02	Combarbal	3.26	175	P	Pn	21 10 07.8	-1.4
CO02	Combarbal	3.26	175	⇑P	Pn	21 10 07.7	-1.4
ACCO	Cerro Coronel	3.30	143	eP	Pb	21 10 13.6	-3.3
ACCO				eS	Sb	21 10 58.4	+1.4
ACCO				IAML		21 11 10.5	
	comp=Z,81µm,0.7s						
TINO	Tinogasta	3.34	93	eP	Pn	21 10 12.8	+2.5
PB14	IPOC Station P	3.41	15	P	Pn	21 10 09.0	-2.4
PB14	IPOC Station P	3.41	15	eP	Pn	21 10 09.4	-2.0
PB14				eS	Sb	21 10 59.9	-0.3
PB14	IPOC Station P	3.41	15	⇑eP	Pn	21 10 08.9	-2.4
PB14	IPOC Station P	3.41	15	Pn	Pn	21 10 09.0	-2.4
CO04	Los Peladeros	4.10	176	eP	Pn	21 10 19.7	-1.1
ACLC	CERRO LA CRUZ	4.13	112	eP	Pn	21 10 23.9	+2.8
ACLC				eS	Sb	21 11 18.4	-2.4
RTLL	Cerro Villicun	4.20	144	eP	Pn	21 10 24.9	+2.9
RTLL				eSA		21 11 14.9	
RTLS	Leoncito	4.23	156	eP	Pn	21 10 25.9	+3.3
RTLS				eS	Sb	21 11 21.4	-2.4
ZON	Zonda	4.27	148	eP	Pn	21 10 25.7	+2.7
ZON				eS	Sb	21 11 21.4	-3.3
ZON	Zonda	4.27	148	P	Pn	21 10 25.0	+2.0
ZON	Zonda	4.27	148	P	Pn	21 10 25.2	+2.2
ZON	Zonda	4.27	148	⇓P	Pn	21 10 25.1	+2.2
CFA	Coronel Fontan	4.54	144	Pn	Pn	21 10 28.2	+1.6
	comp=Z,128nm,0.3s,baz=322,slow=14,SNR=126						
CFA				Sn	Sn	21 11 21.6	+2.4
	comp=Z,360nm,0.3s,baz=306,slow=14,SNR=4.9						
	comp=Z,341nm,0.3s						
CFA				AML	AML		
CFA	Coronel Fontan	4.54	144	eP	Pn	21 10 29.0	+2.4
CFA				eSA		21 11 23.9	
VA03	San Esteban	4.85	172	eP	Pn	21 10 31.5	+0.5
VA03				eS	Sb	21 11 36.9	-4.5
VA03	San Esteban	4.85	172	eP	Pn	21 10 30.8	-0.2
VA01	Torpederas	5.07	183	eP	Pn	21 10 26.4	-7.4
VA01				eS	Sn	21 11 39.4	+7.4
VA01	Torpederas	5.07	183	Pn	Pn	21 10 30.6	-3.2
VA01	Torpederas	5.07	183	P	Pn	21 10 30.9	-2.9
VA01	Torpederas	5.07	183	P	Pn	21 10 32.8	-1.0
	comp=Z,271µmcomp=Z,106µmcomp=Z,4µm,0.6s,comp=Z,106µm						
PB05	IPOC Station P	5.17	12	⇑eP	Pn	21 10 32.2	-3.3
PB05	IPOC Station P	5.17	12	Pn	Pn	21 10 32.0	-3.5
PB05	IPOC Station P	5.17	12	P	Pn	21 10 32.4	-3.0
	comp=Z,3µm,0.8s,comp=Z,34µmcomp=Z,177µmcomp=Z,34µm						
PEL	Peldehue	5.21	174	P	Pn	21 10 34.9	-0.9
PEL	Peldehue	5.21	174	P	Pn	21 10 35.0	-0.9
PEL	Peldehue	5.21	174	⇑P	Pn	21 10 35.6	-0.2
PEL	Peldehue	5.21	174	P	Pn	21 10 37.8	+1.9
PEL				S	Sn	21 11 41.4	+5.6
PEL	Peldehue	5.21	174	P	Pn	21 10 36.7	+0.8
	comp=Z,9µm,1.2s,comp=Z,133µmcomp=Z,145µmcomp=Z,133µm						
MT02	Curacav	5.30	178	Pn	Pn	21 10 36.0	-1.1
MT05	Renca	5.46	175	Pn	Pn	21 10 39.1	-0.1
PB06	IPOC Station P	5.46	18	Pn	Pn	21 10 36.6	-2.8
PB06	IPOC Station P	5.46	18	P	Pn	21 10 36.5	-2.9
PB06	IPOC Station P	5.46	18	P	Pn	21 10 39.3	0.0
PB06	IPOC Station P	5.46	18	P	Pn	21 10 36.9	-2.5
	comp=Z,4µm,0.7s,comp=Z,50µmcomp=Z,216µmcomp=Z,50µm						
AHML	Horco Molle	5.47	79	eP	Pn	21 10 36.9	-2.5
MT16	CCHEN	5.51	173	Pn	Pn	21 10 40.0	0.0
MT03	Universidad Ad	5.58	173	Pn	Pn	21 10 40.8	-0.2
AF01	San Pedro de A	5.74	31	eP	Pn	21 10 44.8	+1.5
AF01	San Pedro de A	5.74	31	Pn	Pn	21 10 43.3	0.0
MT09	Talagante	5.82	177	Pn	Pn	21 10 42.4	-1.9
PB03	IPOC Station P	6.05	14	P	Pn	21 10 44.4	-3.1
	comp=Z,1µm,0.8s,comp=Z,36µmcomp=Z,165µm						
SLA	San Lorenzo	6.15	60	eP	Pn	21 10 51.4	+2.6
PB09	IPOC Station P	6.41	18	Pn	Pn	21 10 50.7	-1.8
PB09	IPOC Station P	6.41	18	P	Pn	21 10 51.8	-0.7
PB09				S	Sb	21 12 33.2	+6.8
PB02	IPOC Station P	6.73	12	P	Pn	21 10 53.1	-3.7
PB02	IPOC Station P	6.73	12	P	Pn	21 10 54.0	-2.8
PB02				S	Sb	21 12 44.1	+8.7
TCA	Tanti	6.78	122	eP	Pn	21 10 57.3	-0.2
BO02	Sierra Bellavi	6.84	176	Pn	Pn	21 10 57.0	-1.3
BO02	Sierra Bellavi	6.84	176	⇓P	Pn	21 10 56.8	-1.5
TA01	Diego Aracena	7.42	8	P	Pn	21 11 02.6	-3.6
PB08	IPOC Station P	8.02	15	P	Pn	21 11 12.4	-2.4
PSGCX	Pisagua	8.38	8	Pn	Pn	21 11 14.5	-5.1
PSGCX	Pisagua	8.38	8	P	Pn	21 11 15.6	-3.9
H03N1	Juan Fernandez	8.51	228	Pn	Pn	21 11 17.1	-3.7
	baz=352,slow=74						
H03N1				Sn	Sn	21 12 50.2	-6.2
	baz=239,slow=20						
H03N1				T	T	21 19 59.0	
	baz=48,slow=74,SNR=3125						
H03N2	Juan Fernandez	8.52	228	Pn	Pn	21 11 17.5	-3.5
	baz=270,slow=74						
H03N2				Sn	Sn	21 12 50.5	-6.2
	baz=239,slow=20						
H03N2				T	T	21 19 57.2	
	baz=213,slow=74,SNR=2953						
H03N3	Juan Fernandez	8.53	228	Sn	Sn	21 13 02.0	+5.1
	baz=239,slow=20						
VA04	Juan Fernndez	8.58	227	Pn	Pn	21 11 16.5	-5.5
VA04	Juan Fernndez	8.58	227	P	Pn	21 11 16.2	-5.9
BI02	San Fabin de	8.69	180	P	Pn	21 11 21.0	-2.7
H03S3	Juan Fernandez	8.75	226	Pn	Pn	21 11 19.5	-4.7
	baz=31,slow=19						
H03S3				Sn	Sn	21 12 54.0	-8.3
	baz=116,slow=25						
H03S1	Juan Fernandez	8.76	226	Pn	Pn	21 11 19.5	-4.8
	baz=31,slow=19						
H03S1				Sn	Sn	21 12 54.8	-7.7
	baz=116,slow=25						
H03S2	Juan Fernandez	8.77	226	Pn	Pn	21 11 20.0	-4.4
	baz=31,slow=19						
H03S2				Sn	Sn	21 12 54.1	-8.6
	baz=116,slow=25						
AP01	Chacalluta	9.57	6	Pn	Pn	21 11 31.7	-4.0
PB16	IPOC Station P	9.71	10	P	Pn	21 11 33.0	-5.2
PB18	Visviri	10.45	10	Pn	Pn	21 11 47.5	-0.7
GO06	Curarrehue	11.61	180	Pn	Pn	21 12 03.0	-0.7
GO06	Curarrehue	11.61	180	⇓P	Pn	21 12 01.8	-1.9
LPAZ	La Paz	11.98	15	Pn	Pn	21 12 08.5	-0.7
	comp=Z,6.0nm,0.3s,baz=186,slow=4.7,SNR=40						
LPAZ				Sn	Sn	21 14 15.3	-7.6
	comp=Z,0.4nm,0.3s,baz=174,slow=21,SNR=1.0						
LPAZ				Lg	Lg	21 15 26.1	
	comp=Z,0.6nm,0.3s,baz=165,slow=2.0,SNR=3.7						
LPAZ				LR	LR	21 17 19.0	
	comp=Z,191µm,18.9s,baz=190,slow=40						
	comp=Z,33nm,0.4s						
LPAZ				AML	AML		
LPAZ	La Paz	11.98	15	P	Pn	21 12 11.2	+2.0
LPAZ	La Paz	11.98	15	Pn	Pn	21 12 06.3	-2.9
LPAZ	La Paz	11.98	15	P	Pn	21 12 08.1	-1.1
	comp=Z,68µmcomp=Z,9µmcomp=Z,207nm,1.6s						
LPAZ	La Paz	11.98	15	⇓P	Pn	21 12 07.3	-1.8
LPAZ	La Paz	11.98	15	P	Pn	21 12 07.4	-1.8
LPAZ	La Paz	11.98	15	eP	Pn	21 12 06.5	-2.7
PSAL	Palomas, Salto	12.37	108	eP	Pn	21 12 11.9	-2.0
CPUP	Villa Florida	12.59	86	Pn	Pn	21 12 15.6	-1.4
	comp=Z,2.4nm,0.3s,baz=266,slow=14,SNR=30						
CPUP				Sn	Sn	21 14 32.4	-4.5
	comp=Z,6.1nm,0.3s,baz=252,slow=13,SNR=3.5						
CPUP				Lg	Lg	21 15 42.7	
	comp=Z,3.2nm,0.3s,baz=344,slow=20,SNR=2.5						
CPUP				LR	LR	21 17 02.5	
	comp=Z,123µm,21.3s,baz=263,slow=37						
	comp=Z,35nm,0.7s						
CPUP				AML	AML		
CPUP	Villa Florida	12.59	86	P	Pn	21 12 17.8	+0.8
CPUP	Villa Florida	12.59	86	Pn	Pn	21 12 16.4	-0.6
CPUP	Villa Florida	12.59	86	⇑P	Pn	21 12 15.4	-1.6
CPUP	Villa Florida	12.59	86	P	Pn	21 12 17.0	0.0
PLCA	Paso Flores	12.77	177	Pn	Pn	21 12 16.7	-2.9
	comp=Z,1.7nm,0.3s,baz=336,slow=12,SNR=14						
PLCA				Sn	Sn	21 14 38.5	-2.9
	comp=Z,2.4nm,0.3s,baz=23,slow=6.7,SNR=4.0						
PLCA				Lg	Lg	21 15 45.8	
	comp=Z,2.2nm,0.3s,baz=11,slow=22,SNR=3.3						
PLCA				LR	LR	21 17 34.5	
	comp=Z,324µm,19.2s,baz=350,slow=39						
PLCA				AML	AML		
PLCA	Paso Flores	12.77	177	P	Pn	21 12 20.5	+1.0
PLCA	Paso Flores	12.77	177	Pn	Pn	21 12 20.5	+1.0
PLCA	Paso Flores	12.77	177	⇑P	Pn	21 12 20.1	+0.5
PLCA	Paso Flores	12.77	177	P	Pn	21 12 22.7	+3.2
PLCA	Paso Flores	12.77	177	eP	Pn	21 12 19.8	+0.2
PLCA				eS	Sn	21 14 44.0	+2.6
ANCO	Parque Anchore	13.08	122	eP	Pn	21 12 22.1	-1.6
LL03	Petrohue	13.19	183	Pn	Pn	21 12 22.6	-2.6
LPA	La Plata	13.39	125	d iP	Pn	21 12 28.0	+0.2
LPA				PP	PbPb	21 13 12.4	+0.7
LPA				PP(2)		21 13 32.7	
LPA				SSS	SSS	21 15 24.0	
LPA				SS	SgSg	21 16 38.2	+10
MURT	Porto Murtinho	13.95	66	eP	Pn	21 12 32.2	-3.4
SJPY	San Joaquin	13.96	81	eP	Pn	21 12 33.5	-2.3
COIM	Forte Coimbra	14.74	60	eP	Pn	21 12 44.1	-2.4
LL02	Futaleuf	15.22	181	P	Pn	21 12 53.8	+1.1
SIV	San Ignacio	15.23	41	Pn	Pn	21 12 46.4	-6.6
	comp=Z,0.8nm,0.3s,baz=227,slow=10,SNR=36						
BDQN	Bodoquena, MS	15.26	64	eP	Pn	21 12 49.9	-3.5
CPSB	Cacapava Do Su	15.84	103	Pn	Pn	21 12 59.1	-1.7
CPSB	Cacapava Do Su	15.84	103	P	Pn	21 13 01.6	+0.7
CPSB	Cacapava Do Su	15.84	103	eP	Pn	21 12 55.9	-4.9
CPSB				eS	Sn	21 15 54.2	-1.8
AQDB	Aquidauana	16.09	66	Pn	Pn	21 13 02.0	-2.1
AQDB	Aquidauana	16.09	66	P	P	21 13 05.9	-1.5
AQDB	Aquidauana	16.09	66	eP	Pn	21 13 01.8	-2.3
NNA	Nana	16.69	341	Pn	Pn	21 13 09.9	-2.0
	comp=Z,1.3nm,0.3s,baz=185,slow=5.2,SNR=8.5						
NNA				Lg	Lg	21 18 06.2	
	comp=Z,1.3nm,0.3s,baz=303,slow=4.3,SNR=1.1						
NNA				LR	LR	21 18 07.8	
	comp=Z,63µm,21.3s,baz=169,slow=32						
	comp=Z,7.1nm,0.3s						
NNA				AML	AML		
NNA	Nana	16.69	341	P	Pn	21 13 11.5	-0.4
NNA	Nana	16.69	341	Pn	Pn	21 13 08.7	-3.2
NNA	Nana	16.69	341	P	P	21 13 15.3	+1.1
	comp=Z,82µmcomp=Z,10µmcomp=Z,179nm,2.0s						
NNA	Nana	16.69	341	⇑P	P	21 13 14.7	+0.5
NNA	Nana	16.69	341	P	P	21 13 15.5	+1.3
PTLB	Pontes e Lacer	16.82	45	P	Pn	21 13 10.4	-3.0
PTLB	Pontes e Lacer	16.82	45	P	Pn	21 13 12.1	-1.3
PTLB	Pontes e Lacer	16.82	45	eP	Pn	21 13 09.0	-4.4
PTGB	Pitanga	17.58	84	P	Pn	21 13 23.2	+0.1
PTGB	Pitanga	17.58	84	eP	Pn	21 13 20.7	-2.3
COYC	Coyhaique	17.60	182	⇑P	P	21 13 26.1	+2.0
TRCB	Terra Rica	17.67	77		Pn	21 13 23.9	-0.1
TRCB				IAmb	IAmb	21 13 30.3	
	comp=Z,1µm,1.4s						
TRCB	Terra Rica	17.67	77	P	P	21 13 27.3	+2.4
CNLB	Canela	18.05	99	P	Pn	21 13 28.4	-0.3
CNLB	Canela	18.05	99	eP	Pn	21 13 26.8	-1.9
VILB	Vilhena	18.19	37	P	Pn	21 13 27.9	-2.6
VILB	Vilhena	18.19	37	P	P	21 13 31.2	+0.5
VILB	Vilhena	18.19	37	eP	Pn	21 13 26.0	-4.5
PP1B	Ponte de Pedra	18.33	59	eP	Pn	21 13 29.3	-2.9
LDASE	Londrina, Braz	18.79	81	eP	P	21 13 34.5	-2.8
SALV	Santo Antonio	18.80	54	P	P	21 13 36.1	-1.4
SALV	Santo Antonio	18.80	54	eP	P	21 13 35.5	-2.0
C2SB	Chapadao do Su	19.27	66	P	Pn	21 13 44.1	+0.4
C2SB	Chapadao do Su	19.27	66	eP	P	21 13 40.0	-2.6
CZSB	Cruzeiro do Su	20.15	356	P	P	21 13 50.9	-1.3
CZSB				IAmb	IAmb	21 14 04.5	
	comp=Z,1µm,1.4s						
CZSB	Cruzeiro do Su	20.15	356	P	P	21 13 52.4	+0.2
	comp=Z,143µmcomp=Z,29µmcomp=Z,698nm,1.4s						
CZSB				S	S	21 17 37.5	-0.5
	comp=Z,143µmcomp=Z,29µmcomp=Z,698nm,1.4s						
CZSB	Cruzeiro do Su	20.15	356	P	Pn	21 13 53.5	-0.5
CZSB	Cruzeiro do Su	20.15	356	eP	P	21 13 51.5	-0.6
GO08	Villa O'Higgin	20.51	182	P	P	21 13 56.0	+0.1
GO08				IAMs_20	IAMs_20	21 21 37.7	
	comp=Z,101µm,20.0s						
ATAH	Atahualpa	21.75	341	P	P	21 14 13.5	+3.7
	comp=Z,32nm,0.9s,baz=167,slow=8.2,SNR=11						
ATAH				LR	LR	21 20 55.1	
	comp=Z,33µm,21.6s,baz=166,slow=32						
ARAG	Araguaiana, MT	21.81	60	P	P	21 14 08.4	-1.7
ARAG	Araguaiana, MT	21.81	60	eP	P	21 14 08.7	-1.4
BB19B	Bebedouro	21.85	77	P	P	21 14 09.4	-1.2
BB19B	Bebedouro	21.85	77	eP	P	21 14 08.8	-1.8
PET01	Itanhaem-SP	21.91	86	P	P	21 14 12.1	+1.0
PET01	Itanhaem-SP	21.91	86	eP	P	21 14 09.2	-1.9
SPB	Sao Paulo	21.96	84		P	21 14 10.3	-1.3
SPB	Sao Paulo	21.96	84	⇑P	P	21 14 11.7	0.0
SPB	Sao Paulo	21.96	84	P	P	21 14 11.2	-0.5
SPB	Sao Paulo	21.96	84	eP	P	21 14 09.8	-1.8
CLDB	Colider	22.40	44	P	P	21 14 15.8	-0.7
CLDB	Colider	22.40	44	eP	P	21 14 13.8	-2.6
VABB	Valinhos	22.54	83	P	P	21 14 16.9	-1.2
VAO	Valinhos	22.54	83		P	21 14 16.7	-1.4
VAO	Valinhos	22.54	83	eP	P	21 14 16.5	-1.6
ITU3	Corumbazu	22.80	70	P	P	21 14 19.1	-1.7
IPMB	Ipameri, GO	23.46	70	P	P	21 14 26.3	-1.2
IPMB	Ipameri, GO	23.46	70	eP	P	21 14 24.6	-2.9
CANS	Sao Roque de M	23.99	77	eP	P	21 14 30.2	-2.5
SNDB	Serra Nova Dou	24.59	54	P	P	21 14 36.8	-1.3
SNDB	Serra Nova Dou	24.59	54	eP	P	21 14 36.2	-1.9
PMNB	Patos De Minas	24.69	73	⇑P	P	21 14 37.2	-1.9
PMNB	Patos De Minas	24.69	73	P	P	21 14 38.4	-0.7
PMNB	Patos De Minas	24.69	73	eP	P	21 14 38.4	-0.7
BDFB	Brasilia	24.83	65	P	P	21 14 39.5	-0.9
	comp=Z,141nm,0.9s,baz=230,slow=11,SNR=42						
BDFB				S	S	21 19 04.4	+1.6
	comp=Z,53nm,1.1s,baz=229,slow=24,SNR=1.2						
BDFB				LR	LR	21 25 57.3	
	comp=Z,336µm,18.3s,baz=240,slow=40						
	comp=Z,141nm,0.9s						
BDFB	Brasilia	24.83	65	P	P	21 14 38.3	-2.1
MCRA	Macar, Loja	24.84	339	P	P	21 14 41.5	+1.2
	comp=Z,46µmcomp=Z,6µmcomp=Z,147nm,1.3s						
MCRA				S	S	21 19 00.6	-2.1
	comp=Z,46µmcomp=Z,6µmcomp=Z,147nm,1.3s						
MG02	Cerro Sombrero	24.86	177	P	P	21 14 39.5	-0.7
MG02	Cerro Sombrero	24.86	177	⇓P	P	21 14 40.2	+0.1
BSCB	Bom Sucesso	25.12	80	P	P	21 14 43.0	0.0
TEFE	Tefe	25.13	16	P	P	21 14 43.0	+0.1
TEFE	Tefe	25.13	16	eP	P	21 14 42.4	-0.6
GO10	Punta Arenas	25.18	180	IAMs_20	IAMs_20	21 25 17.6	
	comp=Z,83µm,19.0s						
GO10	Punta Arenas	25.18	180	⇑P	P	21 14 47.9	+4.8
NPGB	Novo Progresso	25.72	39	P	P	21 14 46.9	-1.4
NPGB	Novo Progresso	25.72	39	eP	P	21 14 46.5	-1.8
EFI	East Falkland	25.72	161	ceP	P	21 14 47.8	-0.2
EFI				pmax	pmax		
	comp=Z,242nm,1.4s						
EFI				MLR	MLR		
	comp=Z,132µm,14.0s						
EFI	East Falkland	25.72	161	P	P	21 14 47.4	-0.6
EFI				IAmb	IAmb	21 15 14.4	
	comp=Z,247nm,0.9s						
EFI	East Falkland	25.72	161	⇑P	P	21 14 48.2	+0.3
EFI	East Falkland	25.72	161	P	P	21 14 49.9	+1.9
EFI				S	S	21 19 17.2	+1.1
MACA	Manacapuru-AM	26.66	24	P	P	21 14 54.5	-2.3
MACA				IAmb	IAmb	21 15 13.4	
	comp=Z,670nm,1.3s						
MACA	Manacapuru-AM	26.66	24	P	P	21 14 56.0	-0.8
MACA	Manacapuru-AM	26.66	24	eP	P	21 14 53.3	-3.5
USHA	Ushuaia	26.95	176	LR	LR	21 26 33.6	
	comp=Z,207µm,18.4s,baz=2.0,slow=38						
DIAM	Diamantina, MG	27.15	75	P	P	21 15 02.0	+0.6
DIAM	Diamantina, MG	27.15	75	eP	P	21 15 00.9	-0.5
NTVB	Natividade	27.42	59	P	P	21 15 04.0	+0.3
CAM01	Campos-RJ	27.57	84	P	P	21 15 06.4	+1.4
CAM01	Campos-RJ	27.57	84	eP	P	21 15 03.7	-1.3
PIAT	Ana Tenorio	27.60	345	P	P	21 15 09.8	+4.1
	comp=Z,38µmcomp=Z,5µmcomp=Z,107nm,1.5s						
PIAT				S	S	21 19 56.3	+9.2
	comp=Z,38µmcomp=Z,5µmcomp=Z,107nm,1.5s						
MC01	Montes Claros	27.64	72	P	P	21 15 05.6	-0.2
MC01	Montes Claros	27.64	72	eP	P	21 15 04.7	-1.0
PPLP	Puerto Lpez	27.76	339	P	P	21 15 13.1	+6.4
PPLP				S	S	21 19 56.3	+7.4
ITTB	Itaituba	27.76	35	P	P	21 15 05.2	-1.5
ITTB	Itaituba	27.76	35	eP	P	21 15 04.5	-2.2
SGC2	Sao Gabriel da	27.95	9	P	P	21 15 06.5	-1.9
	comp=Z,48µmcomp=Z,6µmcomp=Z,55nm,0.7s						
SGC2				S	S	21 19 48.7	-3.2
	comp=Z,48µmcomp=Z,6µmcomp=Z,55nm,0.7s						
SGC2	Sao Gabriel da	27.95	9	P	P	21 15 07.2	-1.2
SGC2	Sao Gabriel da	27.95	9	eP	P	21 15 06.7	-1.7
LAJE	UHE Lajeado	28.08	55	P	P	21 15 09.7	+0.1
PTLC	Puerto Leguiza	28.15	353	P	P	21 15 08.9	-1.3
	comp=Z,47µmcomp=Z,7µmcomp=Z,292nm,1.2s						
PTLC				S	S	21 19 50.1	-4.9
	comp=Z,47µmcomp=Z,7µmcomp=Z,292nm,1.2s						
JANB	Januaria	28.16	69	P	P	21 15 09.4	-1.0
JANB	Januaria	28.16	69	eP	P	21 15 09.1	-1.2
ALF01	Guarapari-ES	28.80	82	P	P	21 15 17.3	+1.4
ALF01	Guarapari-ES	28.80	82	eP	P	21 15 12.3	-3.6
OTAV	Otavalo	28.84	345	P	P	21 15 21.2	+4.4
PAC1	Pacto, Paraso	28.95	344	P	P	21 15 18.8	+1.4
	comp=Z,29µmcomp=Z,3µmcomp=Z,149nm,1.2s						
SJMB	Sao Joao De Ma	29.12	78	P	P	21 15 18.5	-0.3
SJMB	Sao Joao De Ma	29.12	78	eP	P	21 15 17.5	-1.4
SDBA	SAO DESIDERIO	29.14	63	P	P	21 15 19.4	+0.3
SDBA	SAO DESIDERIO	29.14	63	eP	P	21 15 17.9	-1.3
SMTB	Santa Maria do	29.36	54	P	P	21 15 20.9	-0.1
SMTB	Santa Maria do	29.36	54	eP	P	21 15 19.9	-1.2
RIB01	Linhares ES	29.57	80	P	P	21 15 23.1	+0.3
RIB01	Linhares ES	29.57	80	eP	P	21 15 20.8	-2.0
RIB01				eS	S	21 20 15.9	-1.5
MACC	Macarena, Meta	30.01	355	P	P	21 15 29.1	+2.4
	comp=Z,37µmcomp=Z,4µmcomp=Z,58nm,1.7s						
MACC				S	S	21 20 26.0	+1.7
	comp=Z,37µmcomp=Z,4µmcomp=Z,58nm,1.7s						
GARC	Garzon, Huila	30.22	352	P	P	21 15 31.0	+2.2
	comp=Z,46µmcomp=Z,5µmcomp=Z,52nm,1.4s						
GARC				S	S	21 20 34.5	+6.4
	comp=Z,46µmcomp=Z,5µmcomp=Z,52nm,1.4s						
BBAC	Balboa, Cauca	30.33	348	P	P	21 15 32.9	+3.2
	comp=Z,33µmcomp=Z,4µmcomp=Z,170nm,1.6s						
ATM1	UHE Belo Monte	30.56	40	P	P	21 15 31.5	-0.1
POPC	Popayan, Colom	30.74	350	P	P	21 15 36.2	+2.8
	comp=Z,31µmcomp=Z,3µmcomp=Z,99nm,1.4s						
BMO1	UHE Belo Monte	30.94	41	P	P	21 15 35.0	+0.1
PAL2	UHE Estreito -	31.02	52	P	P	21 15 36.2	+0.5
URMC	La Uribe, Meta	31.15	354	P	P	21 15 39.5	+2.7
	comp=Z,35µmcomp=Z,6µmcomp=Z,462nm,1.1s						
GUA01	Guaratinga, BA	31.21	75	P	P	21 15 37.8	+0.5
GUA01	Guaratinga, BA	31.21	75	eP	P	21 15 36.2	-1.1
PRAC	Prado	31.66	353	P	P	21 15 40.9	-0.4
	comp=Z,34µmcomp=Z,9µmcomp=Z,347nm,1.6s						
ORTC	Ortega, Tolima	31.89	353	P	P	21 15 45.2	+1.9
	comp=Z,34µmcomp=Z,10µmcomp=Z,375nm,1.1s						
BOAV	Boa Vista	31.91	21	P	P	21 15 41.5	-1.9
BOAV				IAmb	IAmb	21 15 48.9	
	comp=Z,351nm,1.6s						
BOAV	Boa Vista	31.91	21	P	P	21 15 42.4	-1.1
	comp=Z,44µmcomp=Z,5µmcomp=Z,142nm,1.5s						
BOAV	Boa Vista	31.91	21	P	P	21 15 43.2	-0.3
BOAV	Boa Vista	31.91	21	eP	P	21 15 42.4	-1.1
VILC	Villavicencio,	31.95	356	P	P	21 15 45.2	+1.3
CMC01	Camacan, BA	32.02	74	P	P	21 15 44.6	+0.2
CMC01	Camacan, BA	32.02	74	eP	P	21 15 43.2	-1.2
NBIT	Itapeh - BA	32.30	73	P	P	21 15 46.9	0.0
NBIT	Itapeh - BA	32.30	73	eP	P	21 15 45.8	-1.1
CVER	Cruz Verde, Cu	32.38	355	P	P	21 15 50.4	+2.3
	comp=Z,6µmcomp=Z,191nm,1.5s						
CHIC	Chingaza	32.47	356	P	P	21 15 47.6	-1.2
	comp=Z,33µmcomp=Z,5µmcomp=Z,128nm,1.3s						
PAYG	Puerto Ayora	32.63	323	IAMs_20	IAMs_20	21 25 43.6	
	comp=Z,61µm,19.0s						
ROSC	El Rosal	32.72	355	P	P	21 15 51.5	+0.5
	comp=Z,8.1nm,0.4s,baz=140,slow=10,SNR=16						
ROSC				LR	LR	21 29 05.8	
	comp=Z,32µm,19.9s,baz=188,slow=36						
	comp=Z,8.1nm,0.4s						
ROSC	El Rosal	32.72	355	P	P	21 15 54.6	+3.6
	comp=Z,43µmcomp=Z,6µmcomp=Z,145nm,1.3s						
GUY2C	Guyana, Caldas	33.20	353	P	P	21 15 56.5	+1.2
	comp=Z,30µmcomp=Z,7µmcomp=Z,114nm,1.3s						
PIZC	Pizarro, Choco	33.23	349	P	P	21 15 56.0	+1.0
	comp=Z,47µmcomp=Z,8µmcomp=Z,268nm,1.5s						
NORC	Norcasia	33.48	354	P	P	21 15 57.5	+0.2
	comp=Z,29µmcomp=Z,5µmcomp=Z,111nm,0.9s						
SPBC	San Pablo de B	33.50	355	P	P	21 15 56.5	-1.0
	comp=Z,36µmcomp=Z,5µmcomp=Z,92nm,1.6s						
RPN	Rapa Nui	33.61	262	LR	LR	21 25 55.5	
	comp=Z,122µm,21.6s,baz=92,slow=30						
RUSC	La Rusia	33.68	357	P	P	21 15 57.5	-2.0
	comp=Z,35µmcomp=Z,10µmcomp=Z,425nm,1.9s						
NBPN	Ponto Novo - B	33.80	66	P	P	21 15 59.5	-0.6
NBPN	Ponto Novo - B	33.80	66	eP	P	21 15 58.8	-1.3
CBOC	Ciudad Bolivar	33.91	352	P	P	21 16 03.2	+2.1
	comp=Z,26µmcomp=Z,5µmcomp=Z,207nm,1.6s						
HELC	Santa Helena	34.17	353	P	P	21 16 02.7	-0.9
	comp=Z,23µmcomp=Z,5µmcomp=Z,154nm,1.1s						
BARC	Barichara	34.38	357	P	P	21 16 05.5	+0.2
	comp=Z,56µmcomp=Z,5µmcomp=Z,128nm,1.4s						
PTBC	PUERTO BERRIO,	34.41	355	P	P	21 16 04.1	-1.2
	comp=Z,33µmcomp=Z,4µmcomp=Z,121nm,1.2s						
BRJC	Barrancabermej	34.79	356	P	P	21 16 06.4	-2.1
	comp=Z,29µmcomp=Z,5µmcomp=Z,181nm,0.8s						
DBBC	Dabeiba	35.07	352	P	P	21 16 12.6	+1.5
PAMC	Pamplona, Colo	35.10	358	P	P	21 16 13.0	+1.2
PTAC	Punta Ardita,	35.44	349	P	P	21 16 19.6	+5.5
	comp=Z,6µmcomp=Z,138nm,1.2s						
UREC	San Jos de Ur	35.72	353	P	P	21 16 17.8	+1.3
	comp=Z,38µmcomp=Z,5µmcomp=Z,172nm,1.3s						
APAC	Apartado, Choc	35.99	351	P	P	21 16 23.0	+4.1
	comp=Z,49µmcomp=Z,10µmcomp=Z,182nm,1.6s						
OCAC	Ocana	36.02	357	P	P	21 16 19.2	-0.1
	comp=Z,21µmcomp=Z,3µmcomp=Z,77nm,0.6s						
CACAO	El Cacao, Vera	36.27	344	P	P	21 16 25.8	+4.6
	comp=Z,29µmcomp=Z,4µmcomp=Z,112nm,1.8s						
NBTA	Tacaratu-PE	36.51	66	P	P	21 16 22.5	-1.0
NBTA	Tacaratu-PE	36.51	66	eP	P	21 16 17.8	-5.6
HOPE	Hope Point	36.55	146	P	P	21 16 22.7	-0.6
HOPE				pmax	pmax		

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      comp=Z,177nm,1.0s
HOPE                                MLR      MLR
      comp=Z,93µm,19.0s
HOPE  Hope Point         36.55 146  P        P         21 16 22.7  -0.6
HOPE                                IAmb     IAmb      21 16 29.0
      comp=Z,177nm,1.0s
HOPE  Hope Point         36.55 146 ⇑P        P         21 16 25.5  +2.2
HOPE  Hope Point         36.55 146  P        P         21 16 25.6  +2.2
      comp=Z,28µmcomp=Z,207nm,1.2s
SDV   Santo Domingo      36.62   1  LR       LR        21 33 00.5
      comp=Z,46µm,18.4s,baz=192,slow=39
SDV   Santo Domingo      36.62   1  IAMs_20  IAMs_20   21 32 50.3
      comp=Z,49µm,19.0s
SDV   Santo Domingo      36.62   1  P        P         21 16 25.8  +1.3
      comp=Z,172µmcomp=Z,25µmcomp=Z,444nm,1.2s
SDV   Santo Domingo      36.62   1  P        P         21 16 24.2  -0.2
      comp=Z,176µmcomp=Z,25µmcomp=Z,447nm,1.2s
GMAL  Guarumal, Vera     36.76 343  P        P         21 16 27.2  +1.7
      comp=Z,21µmcomp=Z,82nm,0.7s
NBPS  Pedro II - PI      36.85  56  P        P         21 16 26.1  -0.3
NBPS  Pedro II - PI      36.85  56 eP        P         21 16 24.3  -2.1
LCBC  Los crdobas,       36.91 352  P        P         21 16 31.0  +4.3
      comp=Z,36µmcomp=Z,11µmcomp=Z,202nm,1.1s
NBMA  Muriti-CE          36.99  63  P        P         21 16 27.6   0.0
NBMA  Muriti-CE          36.99  63 eP        P         21 16 25.9  -1.6
PMSA  Palmer Station     37.13 175  LR       LR        21 31 51.7
      comp=Z,110µm,18.5s,baz=348,slow=36
PMSA  Palmer Station     37.13 175  P        P         21 16 28.2  +0.1
PMSA  Palmer Station     37.13 175 ⇑P        P         21 16 29.3  +1.2
PMSA  Palmer Station     37.13 175 eP        P         21 16 29.9  +1.8
PMSA  Palmer Station     37.13 175  P        P         21 16 30.3  +2.2
      comp=Z,4µmcomp=Z,99nm,1.1s
PNME  Penonome           37.24 345  P        P         21 16 32.4  +2.9
      comp=Z,23µmcomp=Z,7µmcomp=Z,130nm,1.2s
ORCD  Orcadas            37.38 159  P        P         21 16 29.3  -0.9
MDP   Montagnes des      37.48  32  LR       LR        21 33 33.7
      comp=Z,73µm,18.6s,baz=204,slow=39
MPGF  Montagnes des      37.49  32 ⇑P        P         21 16 30.4  -1.3
NBPB  Pedra_Branca-C     37.49  59  P        P         21 16 31.6  -0.1
UPA   Univ. de Panam     37.55 347  P        P         21 16 35.7  +3.5
      comp=Z,2µmcomp=Z,37nm,1.8s
NBAN  Anadia - AL        37.66  68  P        P         21 16 32.1  -1.1
BCIP  Isla Barro Col     37.80 346  P        P         21 16 36.6  +2.4
      comp=Z,32µmcomp=Z,5µmcomp=Z,169nm,1.5s
BCIP  Isla Barro Col     37.80 346 ⇓P        P         21 16 37.1  +2.9
BCIP  Isla Barro Col     37.80 346  P        P         21 16 35.1  +0.9
      comp=Z,23µmcomp=Z,5µmcomp=Z,171nm,1.5s
SJCC  San Jacinto, C     37.80 354  P        P         21 16 35.2  +0.9
      comp=Z,50µmcomp=Z,6µmcomp=Z,292nm,1.1s
NBMO  Morrinhos-CE       38.61  56  P        P         21 16 41.0  -0.2
NBMO  Morrinhos-CE       38.61  56 eP        P         21 16 39.1  -2.1
SMRC  Santa Marta, M     38.98 356  P        P         21 16 44.2   0.0
      comp=Z,24µmcomp=Z,7µmcomp=Z,97nm,0.9s
URIC  Uribia, Colomb     39.42 359  P        P         21 16 44.4  -3.4
      comp=Z,21µmcomp=Z,3µmcomp=Z,55nm,1.2s
TRN   Trinidad (W)       39.55  15 eP        P         21 16 49.2  +0.3
TRN                                 x        x         21 23 04.4
HDC   Heredia            39.70 340  P        P         21 16 47.7  -2.6
HDC                                 IAmb     IAmb      21 17 08.1
      comp=Z,505nm,1.8s
JTS   Las Juntas de      40.23 339  P        P         21 16 57.4  +2.8
SMAI  San Martin Ant     40.29 178  P        P         21 16 53.5  -1.0
NBPV  Pedro Velho        40.31  65  P        P         21 16 55.4   0.0
NBPV  Pedro Velho        40.31  65 eP        P         21 16 53.0  -2.3
GRGR  Grenville          40.93  15  IAMs_20  IAMs_20   21 34 17.7
      comp=Z,31µm,21.0s
GRGR  Grenville          40.93  15  P        P         21 17 00.0  -0.4
      comp=Z,27µmcomp=Z,7µmcomp=Z,279nm,1.2s
GRGR  Grenville          40.93  15 ⇑P        P         21 16 58.8  -1.6
GRGR  Grenville          40.93  15 eP        P         21 16 59.7  -0.8
GRGR                                x        x         21 23 11.8
GRGR  Grenville          40.93  15  P        P         21 16 59.1  -1.3
      comp=Z,30µmcomp=Z,9µmcomp=Z,348nm,1.2s
GRW   Mount Saint Ca     40.96  15 eP        P         21 17 00.2  -0.5
GRW                                 x        x         21 23 32.5
GRHS  Sauteurs           41.02  15 eP        P         21 17 00.9  -0.2
GRHS                                x        x         21 23 11.8
GRSS  Sisters            41.10  15 eP        P         21 17 00.9  -0.8
GRSS                                x        x         21 23 13.0
PRVC  Isla de Provid     42.21 345  P        P         21 17 12.3  +1.5
      comp=Z,24µmcomp=Z,7µmcomp=Z,239nm,1.9s
MGAN  Managua            42.39 338  P        P         21 17 17.9  +5.6
      comp=Z,79nm,1.0s
MGAN  Managua            42.39 338  P        P         21 17 12.3   0.0
      comp=Z,83nm,1.0s
BBGH  Gun Hill           42.41  17  IAMs_20  IAMs_20   21 36 25.0
      comp=Z,46µm,22.0s
BBGH  Gun Hill           42.41  17  P        P         21 17 13.7  +1.2
      comp=Z,48µmcomp=Z,9µmcomp=Z,299nm,1.9s
BBGH  Gun Hill           42.41  17 eP        P         21 17 17.1  +4.6
BBGH                                x        x         21 23 56.7
BOAB  BOACO BROADBA42.48 339  IAMs_20  IAMs_20   21 37 32.3
      comp=Z,39µm,18.0s
BOAB  BOACO BROADBA42.48 339 ⇑P        P         21 17 14.9  +1.8
BOAB  BOACO BROADBA42.48 339  P        P         21 17 15.0  +1.9
      comp=Z,44µmcomp=Z,7µmcomp=Z,119nm,1.4s
SLAC  Saint Lucia, A     42.81  15 eP        P         21 17 14.8  -0.9
CNGN  Cerro Negro        42.87 338  P        P         21 17 19.3  +3.0
      comp=Z,319µmcomp=Z,31µmcomp=Z,732nm,1.2s
CNGN  Cerro Negro        42.87 338  P        P         21 17 17.3  +1.0
      comp=Z,142µmcomp=Z,28µmcomp=Z,766nm,1.2s
SLBI  Saint Lucia, B     42.91  15 eP        P         21 17 16.0  -0.6
SLBI                                x        x         21 23 47.0
CRIN  San Cristobal      43.17 337  P        P         21 17 19.8  +1.0
      comp=Z,23µmcomp=Z,4µmcomp=Z,93nm,0.9s
MPOM  Morne Pois Mar     43.35  15  P        P         21 17 17.1  -3.0
MPOM                                IAmb     IAmb      21 17 25.7
      comp=Z,267nm,1.1s
MPOM  Morne Pois Mar     43.35  15  P        P         21 17 19.3  -0.8
      comp=Z,25µmcomp=Z,5µmcomp=Z,223nm,1.2s
BIM   Bigot              43.37  15  P        P         21 17 17.6  -2.7
BIM                                 IAmb     IAmb      21 17 25.9
      comp=Z,208nm,1.0s
BIM   Bigot              43.37  15 eP        P         21 17 18.6  -1.7
BIM                                 x        x         21 23 52.5
BIM   Bigot              43.37  15  P        P         21 17 19.3  -1.0
      comp=Z,24µmcomp=Z,5µmcomp=Z,221nm,1.1s
SVN   Savane Anatole     43.66  14 eP        P         21 17 22.1  -0.6
SVN                                 x        x         21 27 10.1
SVN   Savane Anatole     43.66  14  P        P         21 17 21.7  -0.9
      comp=Z,5µmcomp=Z,213nm,1.0s
ILAM  Ilet Lapin Mar     43.66  15  P        P         21 17 20.2  -2.4
ILAM                                IAmb     IAmb      21 18 06.2
      comp=Z,529nm,1.7s
ILAM                                IAMs_20  IAMs_20   21 36 17.1
      comp=Z,32µm,21.0s
ILAM  Ilet Lapin Mar     43.66  15 eP        P         21 17 23.9  +1.3
ILAM                                x        x         21 27 19.0
ILAM  Ilet Lapin Mar     43.66  15  P        P         21 17 22.7  +0.1
      comp=Z,5µmcomp=Z,168nm,1.7s
DSLB  Salisbury          44.19  14 eP        P         21 17 25.4  -1.4
DSLB                                x        x         21 27 25.8
DWS   Wesley             44.34  14 eP        P         21 17 28.5  +0.5
DWS                                 x        x         21 27 30.1
TGUH  Tegucigalpa,Un     44.51 338  P        P         21 17 31.1  +1.5
      comp=Z,19µmcomp=Z,3µmcomp=Z,85nm,1.1s
TGUH  Tegucigalpa,Un     44.51 338  P        P         21 17 31.6  +2.0
      comp=Z,18µmcomp=Z,3µmcomp=Z,86nm,1.1s
MAGL  Barre de l’ile     44.71  14  IAMs_20  IAMs_20   21 39 00.8
      comp=Z,21µm,19.0s
MMLZ  Guadeloupe Bro     44.72  13 eP        P         21 17 29.7  -1.4
MMLZ                                x        x         21 27 23.2
CBE   Ff, Capester       44.76  13  IAMs_20  IAMs_20   21 36 35.1
      comp=Z,27µm,21.0s
DHSZ  Broadband at M     44.92  13 eP        P         21 17 31.6  -1.1
DHSZ                                x        x         21 27 35.9
GDHS  Morne Mazeau,      44.92  13  IAMs_20  IAMs_20   21 36 37.9
      comp=Z,29µm,20.0s
DSDZ  La Diserade, G     45.11  14 eP        P         21 17 32.8  -1.3
DSDZ                                x        x         21 27 40.3
GDSD  La Dsirade Is      45.11  14  IAMs_20  IAMs_20   21 37 30.4
      comp=Z,19µm,19.0s
ABD   La Joyeuse, An     45.18  13  IAMs_20  IAMs_20   21 36 47.2
      comp=Z,25µm,21.0s
MLYT  Lee's Yard         45.28  12 eP        P         21 17 34.6  -1.0
MBWH  Windy Hill         45.30  12 eP        P         21 17 34.6  -1.1
MBWH                                x        x         21 27 37.2
MLPR  Magueyes Islan     45.83   6  IAmb     IAmb      21 17 44.6
      comp=Z,114nm,0.8s
SEUS  St. Eustatius      45.89  11 eP        P         21 17 40.6  +0.2
SEUS                                x        x         21 27 59.6
SABA  Saba               45.97  11  IAMs_20  IAMs_20   21 38 45.2
      comp=Z,37µm,19.0s
SABA  Saba               45.97  11 eP        P         21 17 41.7  +0.7
SABA                                x        x         21 27 55.1
SJG   San Juan           46.06   7  LR       LR        21 39 02.6
      comp=Z,13µm,18.8s,baz=195,slow=39
SJG   San Juan           46.06   7  P        P         21 17 38.8  -2.9
SJG                                 pmax     pmax
      comp=Z,101nm,0.8s
SJG                                 MLR      MLR
      comp=Z,21µm,20.0s
SJG   San Juan           46.06   7  P        P         21 17 38.8  -2.9
SJG                                 IAmb     IAmb      21 17 48.1
      comp=Z,101nm,0.8s
SJG   San Juan           46.06   7  IAMs_20  IAMs_20   21 40 45.5
      comp=Z,21µm,20.0s
SJG   San Juan           46.06   7  P        P         21 17 38.7  -2.9
      comp=Z,22µmcomp=Z,5µmcomp=Z,142nm,0.9s
SJG   San Juan           46.06   7 eP        P         21 17 42.3  +0.6
SJG                                 x        x         21 28 01.4
SJG   San Juan           46.06   7  P        P         21 17 39.4  -2.3
      comp=Z,21µmcomp=Z,5µmcomp=Z,142nm,0.9s
PRSN  Puerto Rico Se     46.07   6  IAmb     IAmb      21 17 47.0
      comp=Z,147nm,1.0s
HUMP  Col San Antoni     46.12   7  P        P         21 17 39.4  -2.8
AOPR  Arecibo Observ     46.23   6  P        P         21 17 41.8  -1.3
AOPR                                IAmb     IAmb      21 17 48.0
      comp=Z,183nm,1.1s
ANWB  Willy Bob          46.28  13 eP        P         21 17 41.1  -2.3
ANWB                                x        x         21 27 43.2
ANWB  Willy Bob          46.28  13  P        P         21 17 41.0  -2.3
      comp=Z,26µmcomp=Z,4µmcomp=Z,158nm,1.2s
SMRT  St. Maarten        46.42  11  IAMs_20  IAMs_20   21 39 00.1
      comp=Z,21µm,18.0s
SMRT  St. Maarten        46.42  11 eP        P         21 17 43.5  -1.0
SMRT                                x        x         21 27 47.5
SMRT  St. Maarten        46.42  11  P        P         21 17 43.8  -0.7
      comp=Z,48nm,0.8s
APG   El Apazote         46.54 334  LR       LR        21 33 37.4
      comp=Z,1µm,20.3s,baz=60,slow=31
SDDR  Presa de Saban     46.65   0  P        P         21 17 45.1  -1.3
SDDR                                IAMs_20  IAMs_20   21 39 56.1
      comp=Z,28µm,18.0s
SDDR  Presa de Saban     46.65   0  P        P         21 17 47.7  +1.3
      comp=Z,28µmcomp=Z,5µmcomp=Z,129nm,1.4s
SDDR  Presa de Saban     46.65   0 ⇑P        P         21 17 47.2  +0.9
SDDR  Presa de Saban     46.65   0 i P       P         21 17 50.0  +3.6
SDDR  Presa de Saban     46.65   0  P        P         21 17 47.5  +1.1
      comp=Z,27µmcomp=Z,6µmcomp=Z,131nm,1.4s
SC01  Santiago de lo     47.10   1  P        P         21 17 48.7  -1.1
GTBY  Guantanamo Bay     47.73 355 ⇑P        P         21 17 55.9  +1.1
GTBY  Guantanamo Bay     47.73 355 i P       P         21 17 57.2  +2.5
GTBY  Guantanamo Bay     47.73 355 i P       P         21 17 53.2  -1.5
GTBY  Guantanamo Bay     47.73 355  P        P         21 17 55.5  +0.8
      comp=Z,24µmcomp=Z,7µmcomp=Z,181nm,1.1s
CHIV  Chivirico          47.89 354 i P       P         21 18 00.8  +4.8
CHIV  Chivirico          47.89 354 i P       P         21 17 56.4  +0.4
FSCY  Frank Sound, G     47.93 347 i P       P         21 17 59.8  +3.5
QMBU  Quimbuelo          47.98 356 i P       P         21 18 00.7  +4.0
LMGC  Las Mercedes       48.04 353 i P       P         21 18 00.5  +3.4
LCCY  Blossom Villag     48.08 349 i P       P         21 17 59.7  +2.3
CBCY  The Bluff, Cay     48.10 349 i P       P         21 18 01.3  +3.7
YAR   Yar                48.27 354 i P       P         21 18 00.7  +1.7
PINC  Pinares de May     48.34 354 i P       P         21 18 01.1  +1.7
NMDO  Nuevo Mundo        48.35 355 i P       P         21 18 03.6  +4.1
MOAC  Moa                48.45 355 i P       P         21 18 03.8  +3.6
MOAC  Moa                48.45 355 i P       P         21 18 02.6  +2.3
HLGC  Holguin            48.76 354 i P       P         21 18 08.0  +5.3
HLGC  Holguin            48.76 354 i P       P         21 18 02.8  +0.1
GRTK  Grand Turk         49.17   0  IAMs_20  IAMs_20   21 41 42.8
      comp=Z,22µm,18.0s
GRTK  Grand Turk         49.17   0 i P       P         21 18 09.7  +3.9
CCCC  Cccc               49.25 352 i P       P         21 18 09.0  +2.6
CCCC  Cccc               49.25 352 i P       P         21 18 04.8  -1.6
TRIS  Tristan da Cun     49.92 116  IAMs_20  IAMs_20   21 37 06.1
      comp=Z,39µm,20.0s
TRIS  Tristan da Cun     49.92 116  P        P         21 18 13.6  +2.1
      comp=Z,41µmcomp=Z,661nm,1.2s
CMIG  Matias Romero      50.24 330  LR       LR        21 34 40.6
      comp=Z,14µm,21.2s,baz=165,slow=30
MGV   Manicaragua        50.46 350 i P       P         21 18 20.6  +5.0
TEIG  Tepich             50.61 339  P        P         21 18 14.5  -2.3
TEIG  Tepich             50.61 339  P        P         21 18 15.8  -1.0
TEIG  Tepich             50.61 339 ⇓P        P         21 18 16.8   0.0
TEIG  Tepich             50.61 339  P        P         21 18 17.1  +0.3
      comp=Z,17µmcomp=Z,8µmcomp=Z,297nm,1.1s
CAIB  Caibarien          50.75 350 i P       P         21 18 19.3  +1.5
CAMR  Camarioca          51.62 348 i P       P         21 18 23.4  -0.9
SOR   Soroa              51.68 346  P        P         21 18 23.2  -1.6
SOR                                 pmax     pmax
      comp=Z,110nm,1.0s
SOR   Soroa              51.68 346  P        P         21 18 23.2  -1.6
SOR   Soroa              51.68 346 i P       P         21 18 25.2  +0.4
SOR                                i P       pP        21 18 25.7  -3.4
SOR   Soroa              51.68 346  P        P         21 18 26.1  +1.2
      comp=Z,16µmcomp=Z,5µmcomp=Z,157nm,1.4s,comp=Z,5µm
PTCN  Pitcairn Islan     52.22 259  IAMs_20  IAMs_20   21 34 44.7
      comp=Z,22µm,20.0s
TLIG  Tlapa              52.36 327 ⇓P        P         21 18 33.8  +3.7
BELA  Belgrano 2         52.73 171  P        P         21 18 31.3  -0.8
VNA3  Neumayer Olymp     54.77 160 ⇑P        P         21 18 46.5  -0.6
      comp=Z,94nm,0.8s
VNA3                               ⇑S        S         21 26 27.5  +0.7
      comp=N,2.3nm,0.8s
VNA3  Neumayer Olymp     54.77 160  P        P         21 18 46.5  -0.6
      comp=Z,17µmcomp=Z,5µmcomp=Z,181nm,1.0s
VNA1  Neumayer--Stat     55.04 159 ⇑P        P         21 18 48.8  -0.2
      comp=Z,110nm,1.1s
060A  Indiantown         55.35 350 i P       P         21 18 35.5   -16
VNA2  Neumayer--Watz     55.39 159 ⇑P        P         21 18 50.5  -1.1
      comp=Z,89nm,0.6s,baz=285,slow=7.2
VNA2                               ⇑S        S         21 26 36.1  +0.9
      comp=N,2.7nm,0.6s,baz=190,slow=18
VNA2  Neumayer--Watz     55.39 159  P        P         21 18 50.3  -1.2
      comp=Z,4µmcomp=Z,226nm,0.9s
DWPF  Disney Wildern     56.57 349 i P       P         21 19 04.0  +3.6
DWPF  Disney Wildern     56.57 349  P        P         21 19 01.1  +0.7
      comp=Z,19µmcomp=Z,3µmcomp=Z,116nm,1.2s
SNAA  Sanae              56.99 159 ⇑P        P         21 19 01.7  -1.3
      comp=Z,5µm,1.0s
SNAA                               ⇑S        S         21 26 55.8  -0.8
      comp=N,136nm,1.1s
SNAA  Sanae              56.99 159  P        P         21 19 01.8  -1.3
      comp=N,116nm,0.9s,baz=280,slow=5.6,SNR=71
SNAA                                LR       LR        21 44 10.6
      comp=N,28µm,18.1s,baz=298,slow=37
SNAA                                PKPPKP             21 48 54.5
      comp=N,0.8nm,0.5s,baz=64,slow=1.9,SNR=3.6
      comp=N,116nm,0.9s
SNAA  Sanae              56.99 159  P        P         21 19 01.7  -1.3
SNAA                                IAMs_20  IAMs_20   21 43 41.4
      comp=Z,28µm,19.0s
SNAA  Sanae              56.99 159 ⇑P        P         21 19 01.7  -1.3
SNAA  Sanae              56.99 159  P        P         21 19 02.1  -1.0
      comp=Z,15µmcomp=Z,5µmcomp=Z,262nm,1.0s
656A  Willston           57.99 348  P        P         21 19 08.8  -1.6
656A                                IAmb     IAmb      21 19 16.9
      comp=Z,164nm,1.0s
TROLL Troll, Antarti     58.71 160 ⇑P        P         21 19 14.1  -1.1
      comp=Z,8µm,1.0s
TROLL                              ⇑S        S         21 27 19.5  +0.4
      comp=N,289nm,1.1s
H06S1 SOCORRO T          60.19 316  T        T         22 24 58.9
      SNR=6.1
TIGA  Tifton             60.20 348  P        P         21 19 23.2  -2.4
TIGA                                IAmb     IAmb      21 19 30.4
      comp=Z,108nm,0.8s
257A  Skidaway Islan     60.30 351  IAMs_20  IAMs_20   21 46 54.4
      comp=Z,13µm,21.0s
H06N1 SOCORRO T-PHAS60.31 316  T        T         22 24 51.4
      SNR=38
BBSR  BB Station         60.32   6  P        P         21 19 27.8  +1.3
      comp=Z,25µmcomp=Z,5µmcomp=Z,102nm,1.8s
352A  Blakely            60.49 347  P        P         21 19 26.4  -1.3
154A  Montrose           61.25 349  P        P         21 19 31.0  -1.9
SHEL  Horse Pasture      61.38  94  P        P         21 19 36.3  +2.0
      comp=Z,37µmcomp=Z,348nm,1.3s
NVL   N'lazarevskaya     61.66 158⇑iP        P         21 19 32.3  -2.9
NVL                                e                   21 21 48.6
NVL                                eS        S         21 27 49.2  -7.6
NVL                                eSS       SS        21 31 58.4  +0.7
NVL                                eSSS      SSS       21 34 34.8
NVL                                 pmax     pmax
      comp=Z,150nm,0.9s
NVL                                 MLR      MLR
      comp=Z,12µm,17.0s
Y58A  Scranton           62.02 352  P        P         21 19 36.5  -1.4
GOGA  Godfrey            62.09 349 ⇑P        P         21 19 38.2  -0.3
GOGA  Godfrey            62.09 349  P        P         21 19 37.1  -1.4
      comp=Z,16µmcomp=Z,2µmcomp=Z,50nm,0.8s
HKT   Hockley            62.15 336ceP        P         21 19 41.5  +2.7
HKT                                 pmax     pmax
      comp=Z,117nm,1.4s
HKT                                 MLR      MLR
      comp=Z,3µm,17.0s
HKT   Hockley            62.15 336  P        P         21 19 40.6  +1.8
      comp=Z,20µmcomp=Z,3µmcomp=Z,69nm,1.2s
QSPA  South Pole Qui     62.27 180  P        P         21 19 38.9  -0.7
      comp=Z,100nm,0.9s,baz=160,slow=1.6,SNR=80
QSPA                                LR       LR        21 47 03.3
      comp=Z,17µm,19.9s,baz=168,slow=36
QSPA                                PKPPKP             21 48 46.3
      comp=Z,6.5nm,1.1s,baz=312,slow=0.6,SNR=5.3
      comp=Z,100nm,0.9s
QSPA  South Pole Qui     62.27 180  P        P         21 19 38.9  -0.7
QSPA  South Pole Qui     62.27 180  IAMs_20  IAMs_20   21 46 42.4
      comp=Z,17µm,20.0s
QSPA  South Pole Qui     62.27 180  P        P         21 19 40.3  +0.7
      comp=Z,14µmcomp=Z,5µmcomp=Z,226nm,1.2s
LRAL  Lakeview Retre     62.44 345  P        P         21 19 39.8  -1.0
LRAL                                IAmb     IAmb      21 19 43.9
      comp=Z,142nm,1.8s
JSC   Jenkinsville       62.60 351  IAmb     IAmb      21 19 47.6
      comp=Z,98nm,1.2s
X58A  Rowland            62.62 353  IAmb     IAmb      21 19 48.6
      comp=Z,111nm,0.7s
Y52A  Lilburn            62.64 348  P        P         21 19 41.2  -1.0
Y52A                                IAmb     IAmb      21 19 48.2
      comp=Z,98nm,1.0s
BIRD  Birdtown, Kers     62.85 352  IAmb     IAmb      21 19 50.1
      comp=Z,140nm,1.3s
SACV  Santiago Islan     62.91  53  IAMs_20  IAMs_20   21 45 22.6
      comp=Z,23µm,21.0s
SACV  Santiago Islan     62.91  53  P        P         21 19 46.3  +1.9
      comp=Z,31µmcomp=Z,110nm,1.3s
PAULI Pauline            63.21 350  P        P         21 19 44.1  -1.8
PAULI                               IAmb     IAmb      21 19 52.4
      comp=Z,110nm,1.2s
W57A  Gilead             63.29 352  IAmb     IAmb      21 19 52.1
      comp=Z,134nm,1.3s
SLBS  Sierra La Lagu     63.41 320 ⇑P        P         21 19 51.5  +3.9
KMSC  Kings Mountain     63.45 351  IAmb     IAmb      21 19 53.2
      comp=Z,84nm,1.1s
HPIG                     63.75 326  P        P         21 19 50.8  +0.9
      comp=Z,14µmcomp=Z,3µmcomp=Z,78nm,1.3s
X48A  Hartselle          63.81 346  IAmb     IAmb      21 19 56.2
      comp=Z,128nm,1.1s
W52A  Murphy             63.82 349  IAmb     IAmb      21 19 55.8
      comp=Z,111nm,1.0s
V58A  Windy Hill, Pi     63.82 353  IAmb     IAmb      21 19 56.4
      comp=Z,92nm,1.1s
LPIG  La Paz             63.94 320  LR       LR        21 42 06.8
      comp=Z,8µm,18.9s,baz=138,slow=31
V55A  Taylorsville       64.13 351  IAmb     IAmb      21 19 58.6
      comp=Z,152nm,1.2s
JCT   Junction City      64.14 333  P        P         21 19 55.0  +2.8
JCT   Junction City      64.14 333  P        P         21 19 51.8  -0.4
W50A  Signal Mountai     64.18 347  IAMs_20  IAMs_20   21 52 27.1
      comp=Z,10µm,18.0s
V53A  Saluda             64.19 350  IAmb     IAmb      21 19 58.8
      comp=Z,90nm,1.1s
V53A                                IAMs_20  IAMs_20   21 49 03.6
      comp=Z,13µm,20.0s
U56A  King               64.51 352  IAmb     IAmb      21 20 01.3
      comp=Z,121nm,1.2s
BRDY  Brady              64.53 334  IAmb     IAmb      21 20 10.6
      comp=Z,136nm,1.2s
TXAR  Lajitas Array      64.81 329  P        P         21 19 57.2  +0.5
      comp=Z,26nm,0.9s,baz=145,slow=8.9,SNR=40
TXAR                                LR       LR        21 44 42.0
      comp=Z,10µm,18.4s,baz=148,slow=33
TXAR                                PKPPKP   P'P'df    21 48 42.1  +5.0
      comp=Z,3.2nm,1.3s,baz=54,slow=2.2,SNR=4.2
      comp=Z,26nm,0.9s
TXAR  Lajitas Array      64.81 329  P        P         21 19 54.7  -2.0
T59A  Double "B" Far     64.84 355  IAmb     IAmb      21 20 03.5
      comp=Z,214nm,1.3s
T59A                                IAMs_20  IAMs_20   21 51 04.6
      comp=Z,11µm,20.0s
V48A  Smith Brothers     65.00 346  IAmb     IAmb      21 20 13.1
      comp=Z,147nm,1.2s
OZNA  Ozona              65.07 332  IAmb     IAmb      21 20 04.3
      comp=Z,87nm,0.8s
ELIB  Princess Elisa     65.14 160 dP        P         21 19 56.0  -2.4
TZTN  Tazewell           65.17 349  IAMs_20  IAMs_20   21 51 58.4
      comp=Z,13µm,21.0s
TZTN  Tazewell           65.17 349  P        P         21 19 58.9  +0.1
      comp=Z,15µmcomp=Z,3µmcomp=Z,72nm,1.6s
CLTN  Cedars of Leba     65.24 347  IAmb     IAmb      21 20 41.0
      comp=Z,177nm,1.8s
S61A  Accomac            65.41 356  IAMs_20  IAMs_20   21 52 11.8
      comp=Z,10µm,18.0s
WVT   Waverly            65.60 345  P        P         21 20 00.4  -1.1
      comp=Z,18µmcomp=Z,3µmcomp=Z,135nm,0.8s
MIAR  Mount Ida          65.61 340  IAmb     IAmb      21 20 17.8
      comp=Z,121nm,1.1s
MIAR  Mount Ida          65.61 340  P        P         21 20 01.9  +0.2
      comp=Z,18µmcomp=Z,3µmcomp=Z,116nm,1.2s
S57A  Dark Hollow, R     65.75 353  IAmb     IAmb      21 20 09.3
      comp=Z,109nm,1.2s
R58B  Mineral            65.85 354  IAmb     IAmb      21 20 10.4
      comp=Z,172nm,1.2s
WHAR  Wooly Hollow       65.93 341  P        P         21 20 01.8  -2.0
WHAR                                IAmb     IAmb      21 20 19.1
      comp=Z,152nm,1.2s
S54A  Dingess, Beckl     66.06 351  IAmb     IAmb      21 20 10.7
      comp=Z,138nm,1.4s
R55A  Marlinton          66.39 352  IAmb     IAmb      21 20 54.0
      comp=Z,81nm,1.1s
FCAR  Ozark Folk Cen     66.45 342  IAmb     IAmb      21 20 22.7
      comp=Z,118nm,1.2s
PBMO  Poplar Bluff       66.84 343  P        P         21 20 07.3  -2.1
PBMO                                IAmb     IAmb      21 20 14.1
      comp=Z,129nm,0.8s
SN07  Snyder 07          66.87 333  IAmb     IAmb      21 20 25.5
      comp=Z,235nm,1.5s
R50A  Paris              66.99 349  IAMs_20  IAMs_20   21 53 04.7
      comp=Z,11µm,20.0s
R49A  Shelbyville        67.15 348  IAmb     IAmb      21 20 16.5
      comp=Z,100nm,1.2s
R49A                                IAMs_20  IAMs_20   21 53 04.9
      comp=Z,12µm,20.0s
Q54A  Coxs Mills         67.17 352  IAmb     IAmb      21 20 16.9
      comp=Z,175nm,1.6s
W35A  Tecumseh           67.23 337  IAmb     IAmb      21 20 27.5
      comp=Z,187nm,1.4s
T42A  Van Buren          67.24 343  IAmb     IAmb      21 20 17.7
      comp=Z,87nm,1.1s
WCI   Wyandotte Cave     67.30 347  P        P         21 20 10.3  -2.1
WCI                                 pmax     pmax
      comp=Z,70nm,0.9s
WCI                                 MLR      MLR
      comp=Z,9µm,22.0s
WCI   Wyandotte Cave     67.30 347  P        P         21 20 10.3  -2.1
WCI                                 IAmb     IAmb      21 20 16.6
      comp=Z,70nm,0.8s
WCI   Wyandotte Cave     67.30 347  P        P         21 20 11.4  -1.0
      comp=Z,15µmcomp=Z,3µmcomp=Z,76nm,0.9s
USIN  University of      67.33 346  IAmb     IAmb      21 20 17.9
      comp=Z,112nm,0.8s
HHAR  Hobbs              67.34 340  IAmb     IAmb      21 20 28.7
      comp=Z,190nm,1.2s
P57A  Homestead Farm     67.37 354  IAmb     IAmb      21 20 19.7
      comp=Z,151nm,1.1s
WMOK  Wichita Mounta     67.53 336  P        P         21 20 14.7  +0.8
      comp=Z,16µmcomp=Z,2µmcomp=Z,55nm,1.4s
RLO   Rose Lookout       67.56 339  P        P         21 20 13.2  -0.9
RLO                                 IAmb     IAmb      21 20 30.1
      comp=Z,198nm,1.2s
MNTX  Cornudas Mount     67.59 329  IAMs_20  IAMs_20   21 45 59.4
      comp=Z,13µm,19.0s
MNTX  Cornudas Mount     67.59 329  P        P         21 20 13.9  -0.6
      comp=Z,13µmcomp=Z,2µmcomp=Z,61nm,1.0s
U38A  Gravette           67.61 340  IAmb     IAmb      21 20 29.8
      comp=Z,91nm,1.0s
MCWV  Mont Chateau       67.72 353  IAmb     IAmb      21 20 56.3
      comp=Z,191nm,1.6s
DEOK  Depew              67.73 338  P        P         21 20 13.2  -2.1
P53A  Whipple            67.73 352  IAmb     IAmb      21 20 21.5
      comp=Z,211nm,1.6s
P51A  Williamsport       67.96 350  IAmb     IAmb      21 20 21.8
      comp=Z,218nm,1.4s
P52A  Corning            67.98 351  IAmb     IAmb      21 20 22.6
      comp=Z,133nm,1.1s
PAGS  Pennsylvania G     68.01 356  IAmb     IAmb      21 20 23.2
      comp=Z,186nm,1.3s
OLIL  Olney              68.16 346  IAmb     IAmb      21 20 23.7
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	comp=Z,140nm,1.2s						
EPT	**El Paso**	**68.17**	**328**	IAMs_20	IAMs_20	21 46 33.8	
	comp=Z,18µm,18.0s						
CCM	**Cathedral Cave**	**68.25**	**343**	P	**P**	**21 20 18.1**	**-0.3**
	comp=Z,17µmcomp=Z,5µmcomp=Z,184nm,1.0s						
BLO	**Bloomington**	**68.26**	**347**	IAmb	IAmb	21 20 23.5	
	comp=Z,145nm,1.4s						
P48A	**Milroy**	**68.33**	**348**	IAmb	IAmb	21 20 24.4	
	comp=Z,102nm,1.3s						
O52A	**Adamsville**	**68.41**	**351**	IAmb	IAmb	21 20 24.5	
	comp=Z,177nm,1.6s						
O53A	**New Philadelph**	**68.46**	**352**	IAmb	IAmb	21 20 30.1	
	comp=Z,123nm,1.4s						
Q44A	**Meyer Farm, Va**	**68.52**	**345**	IAmb	IAmb	21 20 24.0	
	comp=Z,94nm,1.0s						
SLM	**Saint Louis**	**68.55**	**344**	IAmb	IAmb	21 20 26.8	
	comp=Z,157nm,1.1s						
PAL	**Palisades**	**68.64**	**358**	IAMs_20	IAMs_20	21 51 41.5	
	comp=Z,11µm,20.0s						
ACSO	**Alum Creek Sta**	**68.69**	**350**	IAmb	IAmb	21 20 25.2	
	comp=Z,90nm,0.8s						
ACSO				IAMs_20	IAMs_20	21 51 29.6	
	comp=Z,11µm,22.0s						
ODNJ	**Ogdensburg**	**68.75**	**357**	IAmb	IAmb	21 20 28.0	
	comp=Z,85nm,1.1s						
WSPT	**Westport, CT**	**68.79**	**358**	IAMs_20	IAMs_20	21 52 46.5	
	comp=Z,10µm,20.0s						
BLOK	**Blackwell**	**68.81**	**338**	IAmb	IAmb	21 20 38.1	
	comp=Z,122nm,1.0s						
P46A	**Rosedale**	**68.82**	**347**	IAmb	IAmb	21 20 26.9	
	comp=Z,113nm,0.9s						
P46A				IAMs_20	IAMs_20	21 54 27.1	
	comp=Z,11µm,21.0s						
O49A	**Covington**	**68.85**	**349**	IAmb	IAmb	21 20 28.0	
	comp=Z,89nm,1.0s						
O49A				IAMs_20	IAMs_20	21 52 48.0	
	comp=Z,11µm,20.0s						
N53A	**Lisbon**	**68.97**	**352**	IAmb	IAmb	21 20 29.4	
	comp=Z,99nm,1.3s						
PAMR	**Moraine State**	**69.02**	**353**	IAmb	IAmb	21 20 29.9	
	comp=Z,164nm,1.4s						
O48B	**Farmland**	**69.06**	**349**	IAMs_20	IAMs_20	21 55 56.4	
	comp=Z,9µm,19.0s						
SBA	**Scott Base**	**69.11**	**191**	IAMs_20	IAMs_20	21 47 49.9	
	comp=Z,11µm,19.0s						
SBA	**Scott Base**	**69.11**	**191**	P	**P**	**21 20 26.5**	**+3.2**
	comp=Z,16µmcomp=Z,8µmcomp=Z,81nm,1.6s						
M57A	**Sunshine Farm,**	**69.14**	**355**	IAmb	IAmb	21 20 31.3	
	comp=Z,205nm,1.5s						
KSPA	**Keystone Colle**	**69.27**	**356**	IAmb	IAmb	21 20 32.1	
	comp=Z,198nm,1.6s						
N51A	**Ashland**	**69.27**	**351**	IAmb	IAmb	21 20 30.8	
	comp=Z,148nm,1.4s						
PH02	**Texas Public H**	**69.30**	**334**	IAmb	IAmb	21 20 41.7	
	comp=Z,205nm,1.2s						
L64A	**Middleborough**	**69.53**	**0**	IAMs_20	IAMs_20	21 48 56.1	
	comp=Z,11µm,22.0s						
SFIN	**Lafayette**	**69.53**	**347**	IAMs_20	IAMs_20	21 54 55.8	
	comp=Z,12µm,21.0s						
PAOC	**Oil Creek Stat**	**69.54**	**353**	IAmb	IAmb	21 20 32.0	
	comp=Z,128nm,1.4s						
N49A	**Columbus Grove**	**69.55**	**350**	P	**P**	**21 20 24.5**	**-1.9**
M52A	**Chesterland**	**69.75**	**352**	IAmb	IAmb	21 20 33.9	
	comp=Z,146nm,1.2s						
N47A	**Urbana**	**69.76**	**348**	IAmb	IAmb	21 20 33.3	
	comp=Z,198nm,1.2s						
N47A				IAMs_20	IAMs_20	21 56 27.9	
	comp=Z,9µm,18.0s						
M50A	**Fremont**	**69.84**	**351**	IAmb	IAmb	21 20 34.3	
	comp=Z,116nm,1.0s						
L59A	**Walton**	**69.87**	**357**	IAMs_20	IAMs_20	21 52 23.9	
	comp=Z,12µm,21.0s						
BINY	**Binghamton**	**69.92**	**356**	IAMs_20	IAMs_20	21 55 09.4	
	comp=Z,9µm,19.0s						
BINY	**Binghamton**	**69.92**	**356**	P	**P**	**21 20 30.7**	**+1.9**
	comp=Z,18µmcomp=Z,4µmcomp=Z,119nm,1.7s						
WES	**Weston**	**69.98**	**0**	IAmb	IAmb	21 20 36.5	
	comp=Z,137nm,1.2s						
HRV	**Adam Dziewonsk**	**70.10**	**360**	P	**P**	**21 20 29.0**	**-0.8**
HRV				pmax	pmax		
	comp=Z,188nm,1.2s						
HRV				MLR	MLR		
	comp=Z,7µm,20.0s						
HRV	**Adam Dziewonsk**	**70.10**	**360**	P	**P**	**21 20 29.0**	**-0.8**
HRV				IAmb	IAmb	21 20 37.4	
	comp=Z,188nm,1.2s						
HRV	**Adam Dziewonsk**	**70.10**	**360**	P	**P**	**21 20 31.6**	**+1.9**
	comp=Z,22µmcomp=Z,4µmcomp=Z,128nm,0.8s						
P38A	**Dawn**	**70.33**	**342**	P	**P**	**21 20 29.3**	**-2.0**
P38A				IAmb	IAmb	21 20 47.0	
	comp=Z,150nm,1.1s						
TRY	**Troy**	**70.36**	**358**	IAMs_20	IAMs_20	21 55 45.9	
	comp=Z,11µm,19.0s						
K57A	**Scipio Center**	**70.49**	**356**	IAMs_20	IAMs_20	21 55 29.2	
	comp=Z,9µm,18.0s						
MMNY	**Mt. Morris Dam**	**70.58**	**355**	IAmb	IAmb	21 20 39.6	
	comp=Z,198nm,1.2s						
N41A	**Harden Midland**	**70.67**	**344**	P	**P**	**21 20 32.2**	**-1.0**
TUC	**Tucson**	**70.69**	**325**	P	**P**	**21 20 35.0**	**+1.2**
TUC	**Tucson**	**70.69**	**325**	IAMs_20	IAMs_20	21 47 39.3	
	comp=Z,18µm,19.0s						
TUC	**Tucson**	**70.69**	**325**	P	**P**	**21 20 34.6**	**+0.8**
	comp=Z,13µmcomp=Z,3µmcomp=Z,46nm,1.5s						
M44A	**Midewin, Midew**	**70.70**	**347**	IAmb	IAmb	21 20 39.4	
	comp=Z,196nm,1.4s						
M44A				IAMs_20	IAMs_20	21 55 32.7	
	comp=Z,13µm,20.0s						
ABQ	**Albuquerque**	**70.81**	**330**	IAMs_20	IAMs_20	21 48 42.5	
	comp=Z,20µm,18.0s						
ALQ	**Albuquerque**	**70.81**	**330**	IAMs_20	IAMs_20	21 48 42.5	
	comp=Z,20µm,18.0s						
ALQ	**Albuquerque**	**70.81**	**330**	IAMs_20	IAMs_20	21 48 42.5	
	comp=Z,20µm,18.0s						
ANMO	**Albuquerque**	**70.81**	**330**	LR	LR	21 48 18.1	
	comp=Z,20µm,18.6s,baz=149,slow=33						
ANMO	**Albuquerque**	**70.81**	**330***c*	*i*P	**P**	**21 20 36.9**	**+2.4**
ANMO				pmax	pmax		
	comp=Z,97nm,1.9s						
ANMO				MLR	MLR		
	comp=Z,4µm,15.0s						
ANMO	**Albuquerque**	**70.81**	**330**	IAMs_20	IAMs_20	21 48 42.6	
	comp=Z,20µm,18.0s						
ANMO	**Albuquerque**	**70.81**	**330**	P	**P**	**21 20 36.7**	**+2.2**
	comp=Z,14µmcomp=Z,3µmcomp=Z,47nm,2.0s						
TASM	**ASL Pad, Albuq**	**70.81**	**330**	IAMs_20	IAMs_20	21 48 41.6	
	comp=Z,20µm,18.0s						
TASM	**ASL Pad, Albuq**	**70.81**	**330**	IAMs_20	IAMs_20	21 48 41.6	
	comp=Z,20µm,18.0s						
TASM	**ASL Pad, Albuq**	**70.81**	**330**	IAMs_20	IAMs_20	21 48 41.6	
	comp=Z,20µm,18.0s						
TASM	**ASL Pad, Albuq**	**70.81**	**330**	IAMs_20	IAMs_20	21 48 41.5	
	comp=Z,20µm,18.0s						
AAM	**Ann Arbor**	**70.81**	**350**	IAMs_20	IAMs_20	21 50 28.8	
	comp=Z,10µm,21.0s						
J61A	**Chester**	**70.95**	**359**	IAmb	IAmb	21 20 46.0	
	comp=Z,176nm,1.3s						
J59A	**Piesco**	**71.12**	**358**	IAmb	IAmb	21 20 43.1	
	comp=Z,96nm,1.1s						
J59A				IAMs_20	IAMs_20	21 54 43.0	
	comp=Z,11µm,20.0s						
J57A	**Williamstown**	**71.13**	**356**	IAmb	IAmb	21 21 03.1	
	comp=Z,249nm,1.5s						
J57A				IAMs_20	IAMs_20	21 53 27.3	
	comp=Z,10µm,20.0s						
K50A	**Casco**	**71.13**	**351**	IAmb	IAmb	21 20 41.8	
	comp=Z,164nm,0.9s						
SYO	**Syowa Base**	**71.28**	**159**⇑	*e*PKiKP	**PKiKP**	**21 26 37.2**	**-6.4**
HNH	**Hanover**	**71.30**	**359**	IAmb	IAmb	21 20 45.0	
	comp=Z,161nm,1.2s						
N38A	**Joes South For**	**71.34**	**343**	IAmb	IAmb	21 20 44.0	
	comp=Z,121nm,0.9s						
L44A	**Lake County Fo**	**71.43**	**347**	IAmb	IAmb	21 20 44.0	
	comp=Z,161nm,1.0s						
MCVT	**Middlebury Col**	**71.56**	**359**	P	**P**	**21 20 38.7**	**+0.1**
MCVT				IAmb	IAmb	21 20 46.3	
	comp=Z,311nm,1.6s						
PPTF	**Pamatai, Papee**	**71.80**	**259**	P	**P**	**21 20 39.9**	**-1.0**
	comp=Z,167nm,1.3s						
T25A	**Trinidad**	**71.81**	**333**	IAMs_20	IAMs_20	21 50 15.9	
	comp=Z,10µm,18.0s						
PPT	**Papeete**	**71.82**	**259**	P	**P**	**21 20 41.6**	**+0.7**
	comp=Z,16nm,0.6s,baz=85,slow=22,SNR=1.2						
PPT				LR	LR	21 44 56.9	
	comp=Z,42µm,18.1s,baz=136,slow=30						
	comp=Z,16nm,0.6s						
CFNY	**Clifton-Fine,**	**71.84**	**357**	IAmb	IAmb	21 20 46.3	
	comp=Z,208nm,1.5s						
J47A	**Sunmer**	**71.91**	**350**	IAmb	IAmb	21 21 21.4	
	comp=Z,268nm,1.4s						
J47A				IAMs_20	IAMs_20	21 53 20.8	
	comp=Z,11µm,22.0s						
WVL	**Waterville**	**72.17**	**1**	IAMs_20	IAMs_20	21 53 18.0	
	comp=Z,10µm,21.0s						
LONY	**Lake Ozonia**	**72.27**	**358**	IAMs_20	IAMs_20	21 56 55.6	
	comp=Z,10µm,19.0s						
I49A	**Point Hope**	**72.30**	**351**	IAmb	IAmb	21 20 48.1	
	comp=Z,196nm,1.2s						
EMMW	**East Machias**	**72.39**	**3**	P	**P**	**21 20 42.1**	**-1.4**
EMMW				IAmb	IAmb	21 20 51.0	
	comp=Z,120nm,1.0s						
HAL	**Halifax**	**72.58**	**6**	IAmb	IAmb	21 20 52.0	
	comp=Z,168nm,1.1s						
JFWS	**Jewell Farm**	**72.62**	**346**	IAMs_20	IAMs_20	21 56 37.8	
	comp=Z,11µm,22.0s						
WBO	**Williamsburg**	**72.68**	**357**	IAmb	IAmb	21 20 51.4	
	comp=Z,291nm,1.5s						
SADO	**Sadowa**	**72.71**	**354**	LR	LR	21 56 03.9	
	comp=Z,6µm,19.0s,baz=185,slow=39						
SADO	**Sadowa**	**72.71**	**354**	IAmb	IAmb	21 20 51.9	
	comp=Z,138nm,1.1s						
DBIC	**Dimbokro**	**72.74**	**73**	P	**P**	**21 20 45.5**	**-0.9**
	comp=Z,139nm,0.8s,baz=238,slow=5.8,SNR=50						
DBIC				LR	LR	21 51 44.1	
	comp=Z,22µm,19.8s,baz=242,slow=35						
	comp=Z,139nm,0.8s						
DBIC	**Dimbokro**	**72.74**	**73**	P	**P**	**21 20 44.5**	**-1.9**
DBIC				pmax	pmax		
	comp=Z,462nm,1.4s						
DBIC	**Dimbokro**	**72.74**	**73**	P	**P**	**21 20 44.5**	**-1.9**
DBIC	**Dimbokro**	**72.74**	**73**	P	**P**	**21 20 45.6**	**-0.8**
DBIC	**Dimbokro**	**72.74**	**73**	P	**P**	**21 20 45.7**	**-0.7**
	comp=Z,33µmcomp=Z,6µmcomp=Z,300nm,1.2s						
G62A	**West of Eustis**	**72.82**	**1**	IAmb	IAmb	21 20 53.8	
	comp=Z,186nm,1.0s						
G62A				IAMs_20	IAMs_20	21 54 34.0	
	comp=Z,10µm,21.0s						
PKME	**Peaks-Kenny Pk**	**72.88**	**2**	IAmb	IAmb	21 20 53.8	
	comp=Z,125nm,1.1s						
OTT	**Ottawa**	**73.10**	**357**	P	**P**	**21 20 49.3**	**+1.6**
I42A	**Draeger Farm,**	**73.28**	**347**	IAmb	IAmb	21 20 54.6	
	comp=Z,184nm,1.6s						
I42A				IAMs_20	IAMs_20	21 56 37.1	
	comp=Z,11µm,21.0s						
S22A	**4UR Ranch, Cre**	**73.33**	**331**	IAMs_20	IAMs_20	21 50 08.2	
	comp=Z,11µm,19.0s						
F64A	**Sherman**	**73.51**	**2**	P	**P**	**21 20 49.3**	**-0.9**
F64A				IAmb	IAmb	21 20 57.6	
	comp=Z,126nm,1.1s						
WUAZ	**Wupatki**	**73.56**	**327**	IAMs_20	IAMs_20	21 48 39.1	
	comp=Z,20µm,20.0s						
MVCO	**Mesa Verde**	**73.61**	**330**	IAMs_20	IAMs_20	21 49 09.3	
	comp=Z,16µm,19.0s						
MVCO	**Mesa Verde**	**73.61**	**330**	P	**P**	**21 20 52.6**	**+1.3**
	comp=Z,13µmcomp=Z,3µmcomp=Z,90nm,1.3s						
H43A	**Windswept, Lux**	**73.61**	**348**	IAmb	IAmb	21 20 57.2	
	comp=Z,111nm,1.0s						
I40A	**Norwalk**	**73.64**	**346**	IAmb	IAmb	21 21 28.2	
	comp=Z,246nm,1.8s						
I40A				IAMs_20	IAMs_20	21 57 17.6	
	comp=Z,14µm,21.0s						
LMN	**Caledonia Moun**	**73.69**	**5**	IAmb	IAmb	21 20 58.3	
	comp=Z,162nm,1.1s						
TRQ	**Mont Tremblant**	**73.87**	**358**	IAmb	IAmb	21 20 59.0	
	comp=Z,131nm,1.1s						
BAR	**Barrett**	**74.09**	**321**	IAMs_20	IAMs_20	21 48 17.3	
	comp=Z,15µm,18.0s						
BC3	**Big Chuckawall**	**74.17**	**323**	IAMs_20	IAMs_20	21 49 12.4	
	comp=Z,9µm,18.0s						
IRM	**Iron Mountain**	**74.40**	**323**	IAMs_20	IAMs_20	21 49 50.3	
	comp=Z,14µm,18.0s						
I37A	**Lemond, Waseca**	**74.41**	**344**	IAmb	IAmb	21 21 28.6	
	comp=Z,141nm,1.2s						
ISCO	**Idaho Springs**	**74.57**	**333**	P	**P**	**21 20 59.2**	**+2.2**
ISCO	**Idaho Springs**	**74.57**	**333**	P	**P**	**21 20 58.8**	**+1.9**
	comp=Z,15µmcomp=Z,2µmcomp=Z,48nm,1.7s						
PV18	**Skein Mesa, Pa**	**74.64**	**330**	P	**P**	**21 20 56.2**	**-1.1**
PFO	**Pinyon Flats O**	**74.68**	**322**	LR	LR	21 47 08.2	
	comp=Z,8µm,21.7s,baz=138,slow=30						
PFO	**Pinyon Flats O**	**74.68**	**322***c*	*i*P	**P**	**21 20 59.8**	**+2.3**
PFO				pmax	pmax		
	comp=Z,161nm,1.8s						
PFO				MLR	MLR		
	comp=Z,6µm,14.0s						
PFO	**Pinyon Flats O**	**74.68**	**322**	P	**P**	**21 20 60.0**	**+2.5**
	comp=Z,13µmcomp=Z,3µmcomp=Z,61nm,1.6s						
D62A	**Allapoint, All**	**74.70**	**2**	IAmb	IAmb	21 21 04.4	
	comp=Z,150nm,1.1s						
BELC	**Belle Mtn. Jos**	**74.73**	**323**	IAMs_20	IAMs_20	21 49 09.1	
	comp=Z,10µm,19.0s						
PV10	**Paradox Valley**	**74.81**	**330**	IAmb	IAmb	21 21 42.0	
	comp=Z,300nm,1.6s						
G40A	**Rib Lake**	**74.86**	**346**	IAMs_20	IAMs_20	21 57 16.0	
	comp=Z,9µm,21.0s						
E46A	**Sault Ste Mari**	**74.89**	**351**	IAmb	IAmb	21 21 04.4	
	comp=Z,125nm,0.9s						
ECSD	**EROS Data Cent**	**75.00**	**341**	IAmb	IAmb	21 21 15.1	
	comp=Z,140nm,1.2s						
ECSD	**EROS Data Cent**	**75.00**	**341**	P	**P**	**21 20 58.8**	**-0.2**
	comp=Z,14µmcomp=Z,4µmcomp=Z,110nm,0.8s						
LDAQ	**Lac Daran**	**75.56**	**0**	IAmb	IAmb	21 21 09.1	
	comp=Z,152nm,1.3s						
CER	**Ceres**	**75.71**	**120**	P	**P**	**21 21 04.4**	**+0.9**
	comp=Z,28µmcomp=Z,145nm,1.4s						
BFSC	**Mount Baldy Ra**	**75.81**	**322**	IAMs_20	IAMs_20	21 48 52.6	
	comp=Z,15µm,18.0s						
HAYD	**Hayden**	**75.85**	**333**	IAMs_20	IAMs_20	21 52 14.1	
	comp=Z,8µm,18.0s						
O20A	**White River Ci**	**75.93**	**332**	IAmb	IAmb	21 21 22.1	
	comp=Z,157nm,1.2s						
MWC	**Mount Wilson**	**76.02**	**322**	IAMs_20	IAMs_20	21 49 33.1	
	comp=Z,12µm,18.0s						
PASC	**Pasadena Art C**	**76.05**	**321**	IAMs_20	IAMs_20	21 48 58.0	
	comp=Z,9µm,19.0s						
ACRG	**Accra**	**76.17**	**76**	P	**P**	**21 21 04.5**	**-1.9**
ACRG				IAmb	IAmb	21 21 09.1	
	comp=Z,130nm,0.9s						
ACRG	**Accra**	**76.17**	**76**	P	**P**	**21 21 06.6**	**+0.3**
	comp=Z,31µmcomp=Z,5µmcomp=Z,160nm,1.4s						
SHOC	**Shoshone, Teco**	**76.33**	**324**	IAMs_20	IAMs_20	21 51 16.4	
	comp=Z,11µm,18.0s						
E38A	**The Farm, Brul**	**76.42**	**346**	IAMs_20	IAMs_20	21 59 02.3	
	comp=Z,10µm,21.0s						
P17A	**Butcher Ranch,**	**76.47**	**330**	IAmb	IAmb	21 21 35.2	
	comp=Z,173nm,1.3s						
MACI	**Morro de la Ar**	**76.70**	**48**	P	**P**	**21 21 10.2**	**+1.0**
	comp=Z,115µmcomp=Z,6µmcomp=Z,127nm,1.2s						
LRMC	**Laurel Mtn Rad**	**76.75**	**323**	IAMs_20	IAMs_20	21 50 30.6	
	comp=Z,11µm,18.0s						
CVNA	**Calvinia**	**76.84**	**119**	P	**P**	**21 21 12.4**	**+2.3**
	comp=Z,75µmcomp=Z,440nm,1.4s						
F33A	**5 Mile Ranch,**	**76.85**	**342**	IAMs_20	IAMs_20	22 01 07.5	
	comp=Z,8µm,18.0s						
RDMU	**Red Mountain**	**76.85**	**331**	IAmb	IAmb	21 21 37.2	
	comp=Z,125nm,1.2s						
FURC	**Furnace Creek,**	**77.06**	**324**	IAMs_20	IAMs_20	21 51 38.9	
	comp=Z,9µm,18.0s						
MPMC	**Manual Prospec**	**77.08**	**323**	IAMs_20	IAMs_20	21 51 22.4	
	comp=Z,9µm,19.0s						
TPNV	**Topopah Spring**	**77.11**	**325**	IAMs_20	IAMs_20	21 50 44.3	
	comp=Z,10µm,19.0s						
ICQ	**Pointe Anglais**	**77.20**	**3**	IAmb	IAmb	21 21 18.3	
	comp=Z,195nm,1.2s						
HOR	**Horta**	**77.25**	**33**	*e*P	**P**	**21 21 14.1**	**+2.3**
HOR				*i* IAmb	IAmb	21 21 19.4	
	comp=Z,105nm,1.5s						
HOR				*e*S	**SKSac**	**21 31 13.3**	**-11**
HOR				*e*LQ	LQ	21 44 28.6	
HOR				*e*LR	LR	21 47 01.7	
HOR				*i* IAMs_20	IAMs_20	21 53 41.6	
	comp=Z,19µm,20.0s						
CALA	**Caldeira**	**77.26**	**33**	*e*P	P	21 21 17.7	+5.6
CALA				*i* IAmb	IAmb	21 21 29.7	
	comp=Z,193nm,1.7s						
CALA				*e*S	**SKSac**	**21 31 15.2**	**-9.1**
CALA				*e*LR	LR	21 48 23.8	
CALA				*i* IAMs_20	IAMs_20	21 53 39.4	
	comp=Z,14µm,20.0s						
PCAN	**Candelaria**	**77.27**	**33**	*e*P	P	21 21 17.2	+5.2
PCAN				*i* IAmb	IAmb	21 21 39.2	
	comp=Z,147nm,1.7s						
SUR	**Sutherland**	**77.28**	**120**	LR	LR	21 50 09.1	
	comp=Z,38µm,21.5s,baz=236,slow=32						
SUR	**Sutherland**	**77.28**	**120**	P	**P**	**21 21 12.4**	**-0.2**
SUR				IAmb	IAmb	21 21 18.2	
	comp=Z,182nm,1.3s						
SUR	**Sutherland**	**77.28**	**120**	P	**P**	**21 21 15.1**	**+2.4**
	comp=Z,29µmcomp=Z,121nm,2.3s						
SUR	**Sutherland**	**77.28**	**120**	P	**P**	**21 21 12.6**	**-0.1**
PCED	**Cedros**	**77.30**	**33**	*e*P	**P**	**21 21 14.5**	**+2.3**
PCED				*i* IAmb	IAmb	21 21 28.8	
	comp=Z,184nm,1.3s						
ISA	**Isabella, Lake**	**77.31**	**322**	IAMs_20	IAMs_20	21 50 27.6	
	comp=Z,15µm,18.0s						
PICO	**Pico**	**77.33**	**33**	*e*P	**P**	**21 21 16.4**	**+3.9**
PICO				*i* IAmb	IAmb	21 21 34.5	
	comp=Z,226nm,1.9s						
PICO				*e*S	**S**	**21 30 57.7**	**-4.4**
PICO				*e*LQ	LQ	21 44 44.5	
PICO				*e*LR	LR	21 47 24.5	
PICO				*i* IAMs_20	IAMs_20	21 53 44.5	
	comp=Z,21µm,20.0s						
K22A	**Casper**	**77.36**	**334**	IAMs_20	IAMs_20	21 54 10.0	
	comp=Z,9µm,18.0s						
PID	**Ribeirinha**	**77.43**	**33**	*e*P	**P**	**21 21 15.6**	**+2.6**
PID				*i* IAmb	IAmb	21 21 41.9	
	comp=Z,301nm,1.7s						
ROSA	**Rosais**	**77.59**	**33**	*e*P	**P**	**21 21 16.5**	**+2.7**
ROSA				*i* IAmb	IAmb	21 21 29.1	
	comp=Z,268nm,1.1s						
ROSA				*e*S	**SKSac**	**21 31 17.2**	**-9.3**
ROSA				*e*LQ	LQ	21 44 36.6	
ROSA				*e*LR	LR	21 47 10.6	
ROSA				*i* IAMs_20	IAMs_20	21 53 51.7	
	comp=Z,20µm,20.0s						
ROSA	**Rosais**	**77.59**	**33**	P	**P**	**21 21 16.1**	**+2.3**
	comp=Z,21µmcomp=Z,6µmcomp=Z,129nm,1.8s,comp=Z,6µm						
PMAN	**Manadas**	**77.60**	**33**	*e*P	**P**	**21 21 16.2**	**+2.4**
PMAN				*i* IAmb	IAmb	21 21 18.9	
	comp=Z,280nm,1.5s						
EYMN	**Ely**	**77.68**	**346**	P	**P**	**21 21 15.2**	**+1.1**
	comp=Z,16µmcomp=Z,3µmcomp=Z,54nm,1.9s						
CWC	**Cottonwood Cre**	**77.69**	**323**	IAMs_20	IAMs_20	21 51 31.4	
	comp=Z,13µm,18.0s						
RSSD	**Black Hills**	**77.71**	**337**	P	**P**	**21 21 16.2**	**+1.6**
RSSD	**Black Hills**	**77.71**	**337**	P	**P**	**21 21 15.4**	**+0.7**
VES	**Vestal, Richgr**	**77.78**	**322**	IAMs_20	IAMs_20	21 51 30.9	
	comp=Z,13µm,18.0s						
DRLN	**Deer Lake**	**77.84**	**9**	P	**P**	**21 21 13.9**	**-1.0**
DRLN				IAmb	IAmb	21 21 19.6	
	comp=Z,256nm,1.3s						
PSMN	**Pico do Norte,**	**77.87**	**36**	*e*P	**P**	**21 21 14.1**	**-1.3**
PSMN				*i* IAmb	IAmb	21 21 30.6	
	comp=Z,241nm,1.3s						
PSMN				*e*S	S	21 31 17.2	+9.4
PSMN				*e*LQ	LQ	21 44 28.6	
PSMN				*e*LR	LR	21 46 17.4	
PSMN				*i* IAMs_20	IAMs_20	21 56 16.0	
	comp=Z,15µm,18.0s						
SRBC	**Serra Branca**	**77.94**	**33**	*e*P	**P**	**21 21 19.8**	**+4.0**
SRBC				*i* IAmb	IAmb	21 21 22.1	
	comp=Z,336nm,1.8s						
SRBC				*e*S	**SKSac**	**21 31 19.2**	**-10**
SRBC				*e*LR	LR	21 47 02.1	
SRBC				*i* IAMs_20	IAMs_20	21 54 01.0	
	comp=Z,18µm,20.0s						
PGRA	**Graciosa**	**77.96**	**33**	*e*P	**P**	**21 21 18.2**	**+2.3**
PGRA				*i* IAmb	IAmb	21 21 32.3	
	comp=Z,215nm,1.3s						
PGRA				*e*S	**SKSac**	**21 31 21.2**	**-7.9**
PGRA				*e*LQ	LQ	21 42 39.0	
PGRA				*e*LR	LR	21 47 05.0	
PGRA				*i* IAMs_20	IAMs_20	21 54 02.4	
	comp=Z,21µm,20.0s						
DUG	**Dugway, Tooele**	**77.99**	**329**	P	**P**	**21 21 17.4**	**+1.3**
	comp=Z,14µmcomp=Z,3µmcomp=Z,77nm,1.5s						
DUG				pP	**PcP**	**21 21 26.3**	**+0.4**
ADH	**Angra Heroismo**	**78.03**	**34**	*e*P	**P**	**21 21 20.2**	**+4.0**
ADH				*i* IAmb	IAmb	21 21 21.3	
	comp=Z,241nm,1.6s						
ADH				*e*S	**SKSac**	**21 31 23.2**	**-6.4**
ADH				*e*LQ	LQ	21 43 06.9	
ADH				*e*LR	LR	21 46 26.2	
ADH				*i* IAMs_20	IAMs_20	21 55 14.8	
	comp=Z,20µm,18.0s						
PSBA	**Serra de Santa**	**78.08**	**34**	*e*P	**P**	**21 21 20.2**	**+3.7**
PSBA				*i* IAmb	IAmb	21 21 22.9	
	comp=Z,252nm,1.4s						
PDA	**Ponta Delgada**	**78.13**	**35**	*e*P	**P**	**21 21 16.9**	**+0.1**
PDA				*i* IAmb	IAmb	21 21 25.6	
	comp=Z,321nm,1.3s						
PSCM	**Serra do Cume**	**78.13**	**34**	*e*P	**P**	**21 21 16.8**	**0.0**
PSCM				*i* IAmb	IAmb	21 21 21.8	
	comp=Z,216nm,1.3s						
PAGU	**Agualva, Azore**	**78.15**	**34**	*e*P	**P**	**21 21 17.9**	**+1.0**
PAGU				*i* IAmb	IAmb	21 21 23.7	
	comp=Z,276nm,1.9s						
PAGU				*e*S	**SKSac**	**21 31 25.2**	**-5.3**
PAGU				*e*LR	LR	21 46 33.7	
PAGU				*i* IAMs_20	IAMs_20	21 55 17.6	
	comp=Z,21µm,20.0s						
PSET	**Sete Cidades**	**78.16**	**35**	*e*P	**P**	**21 21 16.7**	**-0.3**
PSET				*i* IAmb	IAmb	21 21 24.4	
	comp=Z,238nm,1.6s						
PSET				*e*S	**SKSac**	**21 31 21.2**	**-9.5**
PSET				*e*LR	LR	21 46 17.9	
PSET				*i* IAMs_20	IAMs_20	21 55 41.5	
	comp=Z,12µm,18.0s						
CMLA	**Cha da Macela**	**78.21**	**35**	*e*P	**P**	**21 21 16.8**	**-0.5**
CMLA				*i* IAmb	IAmb	21 21 24.6	
	comp=Z,139nm,1.2s						
CMLA				*e*S	**SKSac**	**21 31 27.2**	**-3.8**
CMLA				*e*LR	LR	21 46 15.5	
CMLA				*i* IAMs_20	IAMs_20	21 55 51.9	
	comp=Z,13µm,20.0s						
TIN	**Tinemaha, Big**	**78.23**	**323**	IAMs_20	IAMs_20	21 51 58.7	
	comp=Z,11µm,18.0s						
PGRON	**Lagoa das Cont**	**78.29**	**36**	*e*P	P	21 21 22.6	+4.9
PGRON				*i* IAmb	IAmb	21 21 36.7	
	comp=Z,292nm,1.7s						
BART	**Pico Bartolome**	**78.40**	**36**	*e*P	**P**	**21 21 18.4**	**0.0**
BART				*i* IAmb	IAmb	21 21 27.3	
	comp=Z,255nm,1.6s						
BART				*e*S	S	21 31 33.2	+20
WIN	**Windhoek**	**78.46**	**109**	P	**P**	**21 21 17.0**	**-2.4**
WIN				pmax	pmax		
	comp=Z,203nm,1.3s						
WIN				MLR	MLR		
	comp=Z,45µm,20.0s						
WIN	**Windhoek**	**78.46**	**109**	P	**P**	**21 21 17.0**	**-2.4**
WIN				IAmb	IAmb	21 21 24.4	
	comp=Z,203nm,1.3s						
WIN	**Windhoek**	**78.46**	**109**	P	**P**	**21 21 20.6**	**+1.2**
	comp=Z,28µmcomp=Z,5µmcomp=Z,127nm,1.3s						
WIN	**Windhoek**	**78.46**	**109**	P	**P**	**21 21 19.8**	**+0.4**
HWUT	**Hardware Ranch**	**78.57**	**330**	IAMs_20	IAMs_20	21 53 44.9	
	comp=Z,16µm,18.0s						
HWUT	**Hardware Ranch**	**78.57**	**330**	P	**P**	**21 21 19.8**	**+0.4**
	comp=Z,13µmcomp=Z,3µmcomp=Z,116nm,0.8s,comp=Z,3µm						
PKD	**Bear Valley Ra**	**78.66**	**321**	IAMs_20	IAMs_20	21 51 01.1	
	comp=Z,9µm,18.0s						
BW06	**Boulder Array**	**78.67**	**332**	IAMs_20	IAMs_20	21 55 03.5	
	comp=Z,11µm,18.0s						
PDAR	**Pinedale Array**	**78.67**	**332**	P	**P**	**21 21 20.3**	**+0.3**
	comp=Z,4.9nm,0.7s,baz=123,slow=5.5,SNR=29						
PDAR				PKKPbc	**PKKPbc**	**21 40 18.1**	**+1.0**
	comp=Z,0.8nm,0.8s,baz=349,slow=1.5,SNR=6.7						
PDAR				PKPPKP	**P'P'df**	**21 48 18.2**	**+4.9**
	comp=Z,1.3nm,1.1s,baz=270,slow=2.5,SNR=4.6						
PDAR				LR	LR	21 53 04.2	
	comp=Z,5µm,20.5s,baz=148,slow=33						
	comp=Z,4.9nm,0.7s						
PDAR	**Pinedale Array**	**78.67**	**332**	P	**P**	**21 21 18.9**	**-1.0**
SPUT	**South Promonto**	**78.72**	**330**	IAmb	IAmb	21 21 47.4	
	comp=Z,224nm,1.4s						
MAW	**Mawson**	**78.81**	**164**	P	**P**	**21 21 19.4**	**-0.8**
	comp=Z,15nm,1.0s,comp=Z,0.0nm						
MAW	**Mawson**	**78.81**	**164**	P	**P**	**21 21 19.7**	**-0.5**
	comp=Z,42nm,0.9s,baz=217,slow=7.2,SNR=38						
MAW				LR	LR	21 58 00.2	
	comp=Z,26µm,19.4s,baz=232,slow=37						
	comp=Z,42nm,0.9s						
MAW	**Mawson**	**78.81**	**164**	P	**P**	**21 21 19.3**	**-0.8**
MAW				pmax	pmax		
	comp=Z,28nm,1.2s						
MAW	**Mawson**	**78.81**	**164**	P	**P**	**21 21 19.3**	**-0.8**
MAW	**Mawson**	**78.81**	**164**	P	**P**	**21 21 21.5**	**+1.3**
	comp=Z,2µmcomp=Z,636nmcomp=Z,15nm,1.0s						
MAW				pP	**PcP**	**21 21 29.3**	**+0.4**
AGMN	**Agassiz Nation**	**79.02**	**344**	P	**P**	**21 21 22.3**	**+0.9**
	comp=Z,3µmcomp=Z,75nm,1.1s						

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RAR   Rarotonga         79.03 252  LR        LR        21 47 59.8
        comp=Z,28µm,19.7s,baz=154,slow=29
HULI  Fort Hunter Li    79.10 321  IAMs_20   IAMs_20   21 50 33.8
        comp=Z,9µm,18.0s
HVU   Hansel Valley     79.24 330  IAmb      IAmb      21 21 41.3
        comp=Z,389nm,2.0s
NVAR  Mina Array Bea    79.30 324  P         P         21 21 24.4 +0.9
        comp=Z,19nm,0.9s,baz=159,slow=6.3,SNR=22
NVAR                               PKKPbc    PKKPbc    21 40 14.7 -0.7
        comp=Z,1.5nm,0.9s,baz=354,slow=1.5,SNR=4.7
NVAR                               PKPPKP    P'P'df    21 48 17.2 +4.2
        comp=Z,0.8nm,0.8s,baz=298,slow=3.2,SNR=4.9
NVAR                               LR        LR        21 52 42.0
        comp=Z,5µm,19.9s,baz=127,slow=33
        comp=Z,19nm,0.9s
NVAR  Mina Array Bea    79.30 324  P         P         21 21 22.5 -1.0
AHID  Auburn Hatcher    79.31 331  IAmb      IAmb      21 21 50.4
        comp=Z,233nm,1.4s
AHID                               IAMs_20   IAMs_20   21 53 58.6
        comp=Z,11µm,19.0s
AHID  Auburn Hatcher    79.31 331  P         P         21 21 24.6 +1.2
        comp=Z,14µmcomp=Z,4µmcomp=Z,104nm,1.5s
AHID                               pP        PcP       21 21 32.6 +1.0
PMOZ  Porto Moniz, M    79.35  44  P         P         21 21 23.3 -0.5
PMOZ  Porto Moniz, M    79.35  44⇑ eP        P         21 21 26.6 +2.9
PMOZ                              i IAmb     IAmb      21 21 40.1
        comp=Z,251nm,1.7s
PMOZ                               ePP       PP        21 24 24.7 +0.5
PMOZ                               eS        SKSac     21 31 33.5 -6.1
PMOZ                               eLQ       LQ        21 47 17.7
PMOZ                               eLR       LR        21 49 48.2
PMOZ                              i IAMs_20  IAMs_20   21 56 34.3
        comp=Z,14µm,20.0s
FUL   Funchal           79.42  44⇓ eP        P         21 21 26.4 +2.4
FUL                               i IAmb     IAmb      21 21 28.9
        comp=Z,383nm,1.5s
PMAR  Madeira           79.46  44  eP        P         21 21 24.3 -0.2
PMAR                              i IAmb     IAmb      21 21 52.4
        comp=Z,329nm,1.7s
ELK   Elko              79.55 328  LR        LR        21 53 24.6
        comp=Z,17µm,18.4s,baz=147,slow=33
ELK   Elko              79.55 328  IAMs_20   IAMs_20   21 53 13.1
        comp=Z,17µm,19.0s
SNOW  Snow King Moun    79.74 332  IAMs_20   IAMs_20   21 55 50.8
        comp=Z,9µm,18.0s
SAO   San Andreas Ge    79.75 321  P         P         21 21 25.8  0.0
SAO   San Andreas Ge    79.75 321  IAMs_20   IAMs_20   21 51 24.1
        comp=Z,10µm,18.0s
FXWY  Fox Creek         79.99 332  IAMs_20   IAMs_20   21 52 44.6
        comp=Z,9µm,22.0s
PMPST Porto Santo, M    80.06  44⇑ iP        P         21 21 31.3 +3.8
PMPST                             i IAmb     IAmb      21 22 02.5
        comp=Z,387nm,1.9s
CMB   Columbia Colle    80.10 323  P         P         21 21 30.8 +3.1
CMB   Columbia Colle    80.10 323  IAMs_20   IAMs_20   21 52 13.3
        comp=Z,8µm,19.0s
MHC   Mount Hamilton    80.28 322  IAMs_20   IAMs_20   21 51 51.0
        comp=Z,11µm,18.0s
TSUM  Tsumeb            80.33 107  LR        LR        21 54 15.9
        comp=Z,42µm,19.0s,baz=235,slow=34
TSUM  Tsumeb            80.33 107  P         P         21 21 28.7 -0.9
TSUM  Tsumeb            80.33 107 i P        P         21 21 29.8 +0.3
TSUM  Tsumeb            80.33 107  P         P         21 21 30.4 +0.9
        comp=Z,29µmcomp=Z,6µmcomp=Z,120nm,1.4s
TSUM                               pP        PcP       21 21 40.5 +3.9
TSUM  Tsumeb            80.33 107  P         P         21 21 30.0 +0.5
LKWY  Lake              80.50 333  IAMs_20   IAMs_20   21 53 27.0
        comp=Z,13µm,21.0s
RLMT  Red Lodge         80.51 334  IAmb      IAmb      21 21 57.2
        comp=Z,415nm,1.8s
RLMT                               IAMs_20   IAMs_20   21 54 50.3
        comp=Z,9µm,19.0s
WELL  Weller Preserv    80.58 323  IAMs_20   IAMs_20   21 52 27.9
        comp=Z,9µm,19.0s
ULM   Lac du Bonnet     80.83 344  P         P         21 21 31.4 +0.2
        comp=Z,53nm,0.8s,baz=152,slow=4.7,SNR=20
ULM                                LR        LR        21 58 42.4
        comp=Z,5µm,20.3s,baz=148,slow=37
        comp=Z,53nm,0.8s
ULM   Lac du Bonnet     80.83 344d iP        P         21 21 31.6 +0.4
ULM   Lac du Bonnet     80.83 344  IAmb      IAmb      21 21 58.4
        comp=Z,208nm,1.4s
GRHM  Grahamstown, E    81.08 123  P         P         21 21 31.5 -1.8
GRHM                               IAmb      IAmb      21 21 38.1
        comp=Z,176nm,1.1s
LKGWB Lokgwabe          81.19 113  P         P         21 21 35.9 +1.8
LKGWB                              IAmb      IAmb      21 21 41.0
        comp=Z,231nm,1.5s
HLID  Hailey            81.39 330  IAMs_20   IAMs_20   21 54 58.6
        comp=Z,14µm,18.0s
HLID  Hailey            81.39 330  P         P         21 21 35.5 +0.9
        comp=Z,15µmcomp=Z,2µmcomp=Z,66nm,0.9s
HLID                               pP        pwP       21 21 44.6 +2.6
CVS   Carmenet Viney    81.45 322  IAMs_20   IAMs_20   21 53 37.0
        comp=Z,7µm,18.0s
TORD  Torodi Ar. Bea    81.61  70  P         P         21 21 36.0 -0.2
        comp=Z,340nm,1.2s,baz=249,slow=4.7,SNR=85
TORD                               LR        LR        21 57 29.8
        comp=Z,24µm,19.3s,baz=240,slow=36
        comp=Z,340nm,1.2s
TORD  Torodi Ar. Bea    81.61  70  P         P         21 21 34.3 -1.8
SUTB  Sutter Butte      81.72 323  IAMs_20   IAMs_20   21 52 51.2
        comp=Z,9µm,18.0s
ORV   Oroville          81.80 323  IAMs_20   IAMs_20   21 53 07.4
        comp=Z,12µm,18.0s
BOZ   Bozeman (W)       81.84 333  P         P         21 21 37.5 +0.6
BOZ   Bozeman (W)       81.84 333  IAMs_20   IAMs_20   21 56 46.6
        comp=Z,7µm,19.0s
MFID  Camas Ranch       81.91 329  IAMs_20   IAMs_20   21 54 43.4
        comp=Z,15µm,19.0s
DLMT  Dillon            82.05 332  IAMs_20   IAMs_20   21 55 43.0
        comp=Z,14µm,19.0s
BOSA  Boshof            82.38 118  P         P         21 21 39.2 -1.1
        comp=Z,98nm,1.0s,baz=250,slow=3.1,SNR=57
BOSA                               LR        LR        21 53 59.2
        comp=Z,39µm,20.2s,baz=238,slow=33
        comp=Z,98nm,1.0s
BOSA  Boshof            82.38 118  P         P         21 21 40.7 +0.4
BOSA  Boshof            82.38 118 i P        P         21 21 40.0 -0.2
BOSA  Boshof            82.38 118  P         P         21 21 39.6 -0.7
BOSA  Boshof            82.38 118  P         P         21 21 40.1 -0.2
        comp=Z,22µmcomp=Z,6µmcomp=Z,207nm,1.0s,comp=Z,6µm
BOSA  Boshof            82.38 118  P         P         21 21 39.5 -0.8
GRTLG Ghanzi            82.42 110  IAmb      IAmb      21 21 45.4
        comp=Z,170nm,1.4s
GRTLG Ghanzi            82.42 110  P         P         21 21 41.2 +0.5
WVOR  Wild Horse Val    82.48 327  P         P         21 21 41.3 +1.0
WVOR  Wild Horse Val    82.48 327  IAMs_20   IAMs_20   21 54 47.3
        comp=Z,9µm,18.0s
WVOR  Wild Horse Val    82.48 327  P         P         21 21 38.5 -1.9
        comp=Z,12µmcomp=Z,2µmcomp=Z,47nm,1.3s
O03E  Paynes Creek      82.50 323  IAMs_20   IAMs_20   21 53 31.8
        comp=Z,12µm,18.0s
SCHQ  Schefferville     82.53   3  P         P         21 21 40.4 +0.3
        comp=Z,18nm,0.8s,baz=175,slow=3.1,SNR=13
SCHQ                               LR        LR        21 59 09.5
        comp=Z,4µm,20.3s,baz=183,slow=36
        comp=Z,18nm,0.8s
SCHQ  Schefferville     82.53   3  IAmb      IAmb      21 21 46.5
        comp=Z,136nm,1.3s
HATC  Hat Creek Radi    82.70 324  IAMs_20   IAMs_20   21 54 14.1
        comp=Z,9µm,18.0s
DRV   Dumont d'Urvil    82.72 192  P         P         21 21 41.0 -0.2
MOD   Modoc Plateau     82.91 325  IAMs_20   IAMs_20   21 54 18.5
        comp=Z,9µm,19.0s
O02D  Mt. Diablo Mer    82.94 323  IAMs_20   IAMs_20   21 52 20.4
        comp=Z,9µm,19.0s
J08A  Circle Bar Ran    83.10 327  IAmb      IAmb      21 21 51.2
        comp=Z,84nm,1.0s
EGMT  Eagleton          83.11 335  IAMs_20   IAMs_20   21 56 22.2
        comp=Z,12µm,19.0s
PLID  Pearl Lake        83.29 330  IAmb      IAmb      21 22 10.5
        comp=Z,146nm,1.5s
PLID                               IAMs_20   IAMs_20   21 56 09.0
        comp=Z,15µm,18.0s
MAKGR Makgori           83.31 116  P         P         21 21 44.3 -0.9
M03C  McCloud           83.38 324  IAmb      IAmb      21 22 12.5
        comp=Z,117nm,1.4s
BMO   Blue Mountains    83.70 329  P         P         21 21 45.3 -1.2
MSO   Missoula          83.78 332  IAMs_20   IAMs_20   21 56 45.9
        comp=Z,12µm,18.0s
YBH   Yreka Blue Hor    84.01 324  LR        LR        21 55 59.1
        comp=Z,6µm,19.8s,baz=144,slow=33
JCC   Jacoby Creek,     84.06 323  IAMs_20   IAMs_20   21 55 50.1
        comp=Z,7µm,18.0s
EDA   Edea              84.26  83  IAmb      IAmb      21 21 57.0
        comp=Z,97nm,1.2s
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LBTB  Lobatse           84.32 115  LR        LR        21 56 19.5
        comp=Z,29µm,18.5s,baz=232,slow=34
LBTB  Lobatse           84.32 115 i P        P         21 21 49.8 -0.5
LBTB  Lobatse           84.32 115  P         P         21 21 50.2 -0.2
        comp=Z,20µmcomp=Z,201nm,1.2s
LBTB  Lobatse           84.32 115  P         P         21 21 50.1 -0.3
CKGRV CKGRV             84.52 111  P         P         21 21 51.2 -0.1
TIO   Tiouine           84.61  51  P         P         21 21 51.9 +0.3
TIO   Tiouine           84.61  51  P         P         21 21 52.2 +0.6
        comp=Z,64µmcomp=Z,10µmcomp=Z,385nm,1.4s,comp=Z,10µm
J04A  Umpqua Nationa    84.79 325  IAmb      IAmb      21 22 15.2
        comp=Z,116nm,1.3s
J01E  Myrtle Point      85.67 324  IAmb      IAmb      21 24 08.8
        comp=Z,72nm,0.7s
HAWA  Hanford           85.88 329  IAmb      IAmb      21 22 23.4
        comp=Z,103nm,1.4s
AVE   Averroes          85.94  49  P         P         21 21 57.7 -0.3
AVE   Averroes          85.94  49  P         P         21 21 60.0 +2.0
        comp=Z,23µmcomp=Z,7µmcomp=Z,254nm,1.6s
CASY  Casey             86.07 181  P         P         21 21 57.2 -1.0
CASY                               IAmb      IAmb      21 22 04.2
        comp=Z,143nm,0.9s
CASY  Casey             86.07 181  P         P         21 21 58.0 -0.1
        comp=Z,11µmcomp=Z,4µmcomp=Z,176nm,1.0s
NEW   Newport           86.25 331  LR        LR        21 58 02.7
        comp=Z,11µm,18.3s,baz=140,slow=34
NEW   Newport           86.25 331  IAMs_20   IAMs_20   21 58 44.1
        comp=Z,12µm,18.0s
NEW   Newport           86.25 331  P         P         21 22 00.4 +1.2
        comp=Z,11µmcomp=Z,2µmcomp=Z,26nm,1.7s
COR   Corvallis         86.36 326  P         P         21 22 00.3 +0.6
COR   Corvallis         86.36 326  IAMs_20   IAMs_20   21 56 43.0
        comp=Z,7µm,19.0s
COR   Corvallis         86.36 326  P         P         21 22 02.4 +2.7
        comp=Z,9µmcomp=Z,4µmcomp=Z,136nm,1.1s
LON   Longmire          87.20 328  IAmb      IAmb      21 22 29.9
        comp=Z,181nm,1.9s
KSANE Kasane            87.36 109  IAmb      IAmb      21 22 10.7
        comp=Z,108nm,1.2s
PFVI  Vila Bisbo        87.36  45  P         P         21 22 05.8 +1.0
PFVI  Vila Bisbo        87.36  45⇑ iP        P         21 22 07.9 +3.1
PFVI                              i IAmb     IAmb      21 22 09.7
        comp=Z,224nm,1.6s
PFVI  Vila Bisbo        87.36  45  P         P         21 22 08.1 +3.3
        comp=Z,22µmcomp=Z,4µmcomp=Z,115nm,1.4s
MD01  Midelt array s    87.48  51  P         P         21 22 05.2 -0.5
MDT   Midelt            87.55  51  LR        LR        22 01 26.5
        comp=Z,28µm,19.3s,baz=240,slow=36
MORF  Marmelete         87.58  45  eP        P         21 22 05.7 -0.2
MORF                               eSKSac    SKSac     21 32 32.5 -0.7
MORF                               IVMs_BB   IVMs_BB   22 03 49.3
        comp=Z,8µm,17.8s
MORF  Marmelete         87.58  45⇑ eP        P         21 22 09.1 +3.2
MORF                              i IAmb     IAmb      21 22 10.9
        comp=Z,157nm,1.6s
IFR   Ifrane            87.60  50  P         P         21 22 07.1 +0.7
IFR   Ifrane            87.60  50  P         P         21 22 07.7 +1.4
        comp=Z,8µmcomp=Z,1µmcomp=Z,30nm,1.4s
PTEO  Sao Teotonio      87.68  45⇑ eP        P         21 22 08.2 +1.9
PTEO                              i IAmb     IAmb      21 22 11.4
        comp=Z,240nm,1.5s
KHZ   Kahutara          87.98 222  IAMs_20   IAMs_20   21 52 24.8
        comp=Z,15µm,21.0s
PBDV  Barranco-do-Ve    87.99  46  P         P         21 22 08.9 +1.0
PBDV  Barranco-do-Ve    87.99  46⇑ eP        P         21 22 09.8 +1.9
PBDV                              i IAmb     IAmb      21 22 12.2
        comp=Z,173nm,1.5s
ODZ   Otahua Downs      88.04 219  P         P         21 22 11.9 +3.7
        comp=Z,11µmcomp=Z,66nm,2.9s
BKZ   Black Stump Fm    88.06 226  P         P         21 22 14.3 +5.8
LIS   Lisbon            88.14  44  eP        P         21 22 08.4 -0.1
LIS                                ePP       PP        21 25 35.2 -0.7
LIS                                eSKSac    SKSac     21 32 36.1 -0.4
LIS                                IAMs_20   IAMs_20   22 01 36.5
        comp=Z,20µm,20.2s
LIS   Lisbon            88.14  44⇑ eP        P         21 22 11.5 +3.0
LIS                               i IAmb     IAmb      21 22 30.0
        comp=Z,180nm,1.4s
LIS   Lisbon            88.14  44  eP        P         21 22 09.3 +0.8
PCVE  Castro Verde      88.16  45  P         P         21 22 10.3 +1.6
PCVE  Castro Verde      88.16  45⇑ eP        P         21 22 10.2 +1.6
PCVE                              i IAmb     IAmb      21 22 13.6
        comp=Z,136nm,1.5s
PLOUS Minas do Lousa    88.17  45⇑ eP        P         21 22 11.6 +3.0
PLOUS                             i IAmb     IAmb      21 22 14.3
        comp=Z,140nm,1.4s
MESJ  Messejana         88.18  45  eP        P         21 22 08.7  0.0
MESJ                               ePP       PP        21 25 35.4 -0.8
MESJ                               eSKSac    SKSac     21 32 36.3 -0.4
MESJ                               IAMs_20   IAMs_20   21 59 33.2
        comp=Z,22µm,20.0s
MESJ  Messejana         88.18  45⇑ eP        P         21 22 10.0 +1.2
MESJ                              i IAmb     IAmb      21 22 14.4
        comp=Z,160nm,1.3s
MESJ  Messejana         88.18  45  eP        P         21 22 09.9 +1.2
URZ   Urewera           88.18 227  LR        LR        21 52 50.8
        comp=Z,29µm,19.8s,baz=158,slow=30
URZ   Urewera           88.18 227  P         P         21 22 09.6 +0.7
PMAFR Mafra             88.21  44  P         P         21 22 10.0 +1.2
PMAFR Mafra             88.21  44⇑ eP        P         21 22 09.0 +0.1
PMAFR                             i IAmb     IAmb      21 22 20.2
        comp=Z,110nm,1.5s
PVAQ  Vaqueiros         88.23  46⇑ eP        P         21 22 10.4 +1.4
PVAQ                              i IAmb     IAmb      21 22 31.5
        comp=Z,180nm,1.5s
PVAQ                               ePP       PP        21 25 37.3 +0.7
PVAQ                               eS        S         21 32 56.3 +3.3
PVAQ                               eLQ       LQ        21 45 35.0
PVAQ                               eLR       LR        21 53 40.1
PVAQ                              i IAMs_20  IAMs_20   22 00 36.2
        comp=Z,23µm,20.0s
PVAQ  Vaqueiros         88.23  46  P         P         21 22 11.1 +2.2
        comp=Z,21µmcomp=Z,3µmcomp=Z,64nm,1.5s
OXZ   Oxford            88.31 221  IAMs_20   IAMs_20   21 51 56.5
        comp=Z,17µm,21.0s
EGRO  El Granado        88.45  46  P         P         21 22 11.0 +1.0
LTZ   Lake Taylor       88.51 221  IAMs_20   IAMs_20   21 53 28.7
        comp=Z,15µm,19.0s
PBEJ  Beja              88.51  45  eP        P         21 22 10.7 +0.4
PBEJ                              i IAmb     IAmb      21 22 33.4
        comp=Z,81nm,1.7s
MOE   Montemor          88.51  44⇑ eP        P         21 22 11.5 +1.2
MOE                               i IAmb     IAmb      21 22 15.0
        comp=Z,103nm,1.7s
SFS   San Fernando      88.63  47  P         P         21 22 11.7 +0.9
RPZ   Rata Peaks        88.63 220  LR        LR        21 52 30.7
        comp=Z,3µm,20.4s,baz=102,slow=29
NLWA  Neilton Lookou    88.64 327  IAMs_20   IAMs_20   21 59 06.3
        comp=Z,8µm,18.0s
LBZ   Lake Benmore      88.70 219  IAMs_20   IAMs_20   21 55 04.8
        comp=Z,13µm,20.0s
EVO   Evora             88.73  45  P         P         21 22 11.9 +0.6
EVO   Evora             88.73  45⇑ eP        P         21 22 12.6 +1.3
EVO                               i IAmb     IAmb      21 23 16.8
        comp=Z,49nm,1.3s
THZ   Tophouse          88.75 222  IAMs_20   IAMs_20   21 52 41.2
        comp=Z,15µm,21.0s
NNZ   Nelson            88.79 223  IAMs_20   IAMs_20   21 54 26.4
        comp=Z,15µm,19.0s
ECEU  Ceuta             88.83  48  P         P         21 22 12.9 +1.0
PSBE  So Bento          88.85  43⇑ eP        P         21 22 14.8 +2.9
PSBE                              i IAmb     IAmb      21 22 16.4
        comp=Z,74nm,1.8s
MATP  Matopo            88.86 112  LR        LR        21 58 18.4
        comp=Z,46µm,20.4s,baz=242,slow=33
MATP  Matopo            88.86 112 i P        P         21 22 13.2 +0.6
PARRA Arraiolos         88.89  44⇑ eP        P         21 22 10.9 -1.1
PARRA                             i IAmb     IAmb      21 22 34.9
        comp=Z,64nm,1.6s
PMTG  Montargil         88.93  44⇑ eP        P         21 22 13.7 +1.5
PMTG                              i IAmb     IAmb      21 23 26.4
        comp=Z,99nm,1.4s
A05A  Maple Falls       88.97 329  IAmb      IAmb      21 22 16.6
        comp=Z,49nm,0.9s
ESPR  Espera            89.09  47  P         P         21 22 13.7 +0.7
EMIN  Mina Concepcio    89.11  46  P         P         21 22 13.7 +0.6
PBAR  Barrancos         89.12  45  P         P         21 22 13.7 +0.6
PBAR  Barrancos         89.12  45⇑ eP        P         21 22 14.4 +1.2
PBAR                              i IAmb     IAmb      21 23 25.6
        comp=Z,60nm,1.4s
PESTR Estremoz          89.19  44  P         P         21 22 14.3 +0.8
PESTR Estremoz          89.19  44⇑ iP        P         21 22 16.5 +3.0
PESTR                             i IAmb     IAmb      21 23 14.8
        comp=Z,40nm,1.7s
PSARD Sardoal           89.29  44⇑ eP        P         21 22 14.9 +0.9
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PSARD                             i IAmb     IAmb      21 22 40.6
        comp=Z,56nm,1.8s
PCAS  Casmilo, Conde    89.36  43⇑ eP        P         21 22 15.7 +1.4
PCAS                              i IAmb     IAmb      21 22 55.5
        comp=Z,56nm,1.4s
DSZ   Denniston Nort    89.41 222  IAMs_20   IAMs_20   21 53 48.8
        comp=Z,14µm,19.0s
FOZ   Fox Glacier       89.45 220  IAMs_20   IAMs_20   21 52 10.6
        comp=Z,14µm,22.0s
HIZ   Hauiti            89.48 226  P         P         21 22 17.9 +2.8
        comp=Z,9µmcomp=Z,163nm,1.4s
EBAD  Badajoz           89.49  45  P         P         21 22 15.6 +0.7
EMIJ  Mijas             89.62  48  P         P         21 22 16.0 +0.4
RAO   Raoul Island      89.65 237  IAMs_20   IAMs_20   21 53 48.6
        comp=Z,11µm,21.0s
PMRV  Marv??o           89.66  44⇑ iP        P         21 22 16.6 +0.9
PMRV                              i IAmb     IAmb      21 23 29.4
        comp=Z,36nm,1.6s
PMRV                               ePP       PP        21 25 49.2 +1.2
PMRV                               eS        S         21 32 60.0 -6.5
PMRV                               eLQ       LQ        21 50 49.4
PMRV                               eLR       LR        21 54 42.4
PMRV                              i IAMs_20  IAMs_20   22 07 00.4
        comp=Z,12µm,18.0s
TAM   Tamanrasset       89.66  64  P         P         21 22 15.7 -0.6
TAM   Tamanrasset       89.66  64  IAmb      IAmb      21 22 21.8
        comp=Z,165nm,1.8s
TAM   Tamanrasset       89.66  64  P         P         21 22 16.9 +0.7
        comp=Z,16µmcomp=Z,2µmcomp=Z,34nm,1.5s,comp=Z,2µm
JCZ   Jackson Bay       89.68 219  P         P         21 22 21.0 +5.0
PCBR  Castelo Branco    89.86  44⇑ eP        P         21 22 18.4 +1.9
PCBR                              i IAmb     IAmb      21 23 32.7
        comp=Z,42nm,1.5s
CRZF  Crozet Islands    89.91 145  IAMs_20   IAMs_20   21 55 50.7
        comp=Z,10µm,21.0s
EMAL  Malaga-Limoner    89.96  48  P         P         21 22 17.6 +0.5
EMAL  Malaga-Limoner    89.96  48  P         P         21 22 18.3 +1.3
        comp=Z,5µmcomp=Z,1µmcomp=Z,50nm,1.3s
PTO   Porto             89.97  42  eP        P         21 22 19.4 +2.3
PTO                               i IAmb     IAmb      21 22 21.0
        comp=Z,110nm,1.4s
ECAB  El Cabril         90.09  46  P         P         21 22 17.4 -0.3
EMLI  Melilla           90.10  50  P         P         21 22 18.0 +0.2
WMELI Melilla           90.11  49  P         P         21 22 17.4 -0.4
PVIS  Viseu             90.14  43⇑ iP        P         21 22 18.7 +0.8
MTE   Manteigas         90.15  43⇑ iP        P         21 22 19.8 +1.7
MTE                               i IAmb     IAmb      21 24 09.6
        comp=Z,57nm,1.8s
MTE                                ePP       PP        21 25 53.4 +1.3
MTE                                eS        S         21 33 05.4 -5.7
MTE                                eLQ       LQ        21 48 11.3
MTE                                eLR       LR        21 55 11.4
MTE                               i IAMs_20  IAMs_20   22 03 10.4
        comp=Z,22µm,18.0s
MTE   Manteigas         90.15  43  P         P         21 22 19.7 +1.7
        comp=Z,17µmcomp=Z,2µmcomp=Z,28nm,1.4s
EGOR  Sierra Gorda,     90.37  47  P         P         21 22 19.0 -0.2
EALB  Alboran           90.41  49  P         P         21 22 19.8 +0.6
ELGU  Los Guajares,     90.55  48  P         P         21 22 19.8 -0.1
PVRL  Vila Real         90.58  42⇑ eP        P         21 22 22.2 +2.2
PVRL                              i IAmb     IAmb      21 22 59.2
        comp=Z,66nm,1.6s
POLO  Lamas de Olo      90.60  42⇑ iP        P         21 22 20.8 +0.7
POLO                              i IAmb     IAmb      21 22 40.6
        comp=Z,29nm,1.5s
PCAB  Cabril            90.66  42  eP        P         21 22 23.4 +3.1
PCAB                              i IAmb     IAmb      21 22 25.6
        comp=Z,50nm,1.3s
PGAV  Gavieira, Arco    90.68  42⇑ iP        P         21 22 21.3 +0.9
PGAV                              i IAmb     IAmb      21 23 21.5
        comp=Z,66nm,1.8s
PGAV                               ePP       PP        21 25 56.5 +0.3
PGAV                               eLQ       LQ        21 48 03.5
PGAV                               eLR       LR        21 53 04.6
PGAV                              i IAMs_20  IAMs_20   21 59 45.2
        comp=Z,20µm,22.0s
EADA  Adamuz            90.68  46  P         P         21 22 20.7 +0.2
IVI   Ivigtut           90.81  11  IAMs_20   IAMs_20   22 04 24.0
        comp=Z,11µm,20.0s
LSZ   Lusaka            91.11 108  LR        LR        22 00 06.8
        comp=Z,44µm,19.4s,baz=242,slow=34
LSZ   Lusaka            91.11 108  P         P         21 22 24.1 +0.9
LSZ   Lusaka            91.11 108  P         P         21 22 26.0 +2.7
        comp=Z,18µmcomp=Z,3µmcomp=Z,84nm,1.3s
LSZ   Lusaka            91.11 108  P         P         21 22 25.8 +2.6
NRS   Narsarsuaq        91.26  12  P         P         21 22 23.9 +1.4
NRS   Narsarsuaq        91.26  12  IAMs_20   IAMs_20   22 04 02.9
        comp=Z,11µm,20.0s
NRS   Narsarsuaq        91.26  12  P         P         21 22 24.5 +2.0
        comp=Z,62nm,1.0s
PBRG  Braganca          91.49  43⇑ iP        P         21 22 26.1 +2.0
PBRG                              i IAmb     IAmb      21 22 29.0
        comp=Z,45nm,1.7s
ECAL  Calabor           91.57  42  P         P         21 22 24.9 +0.3
        comp=Z,23µmcomp=Z,3µmcomp=Z,48nm,2.4s
PAB   San Pablo         91.62  45  P         P         21 22 24.2 -0.7
PAB                                pmax      pmax
        comp=Z,82nm,1.5s
PAB                                MLR       MLR
        comp=Z,27µm,20.0s
PAB   San Pablo         91.62  45  P         P         21 22 24.2 -0.7
PAB                                IAmb      IAmb      21 22 30.4
        comp=Z,82nm,1.4s
PAB   San Pablo         91.62  45  P         P         21 22 26.1 +1.2
        comp=Z,15µmcomp=Z,2µmcomp=Z,40nm,1.4s,comp=Z,2µm
ESDC  Sonseca Array     91.94  45  P         P         21 22 26.4 +0.1
        comp=Z,11nm,1.2s,baz=237,slow=4.7,SNR=31
ESDC                               LR        LR        22 02 45.1
        comp=Z,23µm,19.6s,baz=222,slow=35
        comp=Z,11nm,1.2s
ESDC  Sonseca Array     91.94  45  P         P         21 22 25.7 -0.6
EMUR  La Murta          92.66  48  P         P         21 22 30.2 +0.5
        comp=Z,13µmcomp=Z,1µmcomp=Z,17nm,1.2s,comp=Z,1µm
CART  Cartagena         92.68  48  P         P         21 22 28.8 -0.9
CART  Cartagena         92.68  48  P         P         21 22 28.5 -1.2
CART                               IAmb      IAmb      21 22 31.8
        comp=Z,60nm,1.2s
CART  Cartagena         92.68  48  P         P         21 22 29.9 +0.2
        comp=Z,1µmcomp=Z,46nm,1.3s
UCM   Universidad Co    92.76  45  P         P         21 22 30.2 +0.1
UCM   Universidad Co    92.76  45  P         P         21 22 31.6 +1.5
        comp=Z,14µmcomp=Z,1µmcomp=Z,26nm,1.6s,comp=Z,1µm
BBB   Bella Bella       93.94 329  LR        LR        22 01 12.8
        comp=Z,3µm,21.1s,baz=122,slow=33
POHA  Pohakuloa         94.14 290  IAMs_20   IAMs_20   21 56 23.4
        comp=Z,12µm,20.0s
ATE   Arette            95.88  44  P         P         21 22 45.9 +1.6
        comp=Z,1µmcomp=Z,34nm,1.5s,comp=Z,1µmcomp=Z,9µm
SFJD  Kangerlussuaq     95.94   8  LR        LR        22 07 27.2
        comp=Z,4µm,18.9s,baz=199,slow=36
SFJD  Kangerlussuaq     95.94   8  IAMs_20   IAMs_20   22 07 16.5
        comp=Z,6µm,20.0s
YKA   Yellowknife Ar    96.53 341  P         P         21 22 46.7  0.0
        comp=Z,8.4nm,0.8s,baz=143,slow=4.4,SNR=18
YKA                                LR        LR        22 09 02.7
        comp=Z,6µm,18.1s,baz=136,slow=37
        comp=Z,8.4nm,0.8s
YKA   Yellowknife Ar    96.53 341  P         P         21 22 44.6 -2.1
YKA   Yellowknife Ar    96.53 341  P         P         21 22 44.6 -2.1
ANGG  Ammassalik, Gr    96.81  13  IAMs_20   IAMs_20   22 05 11.7
        comp=Z,7µm,20.0s
ROSF  Rostrenen         97.28  39  P         Pdif      21 22 53.2 +2.6
        comp=Z,8µmcomp=Z,28nm,1.3s
CCA1  Carnmenellis      97.29  36  eP        Pdif      21 22 51.2 +0.7
CCA1                               IAMs_20   IAMs_20   22 09 18.6
        comp=Z,16µm,17.7s
MAHO  Mahon             97.39  49  P         Pdif      21 22 51.9 +0.6
MAHO  Mahon             97.39  49  IAMs_20   IAMs_20   22 09 33.7
        comp=Z,9µm,19.0s
MAHO  Mahon             97.39  49  P         Pdif      21 22 53.5 +2.2
        comp=Z,2µmcomp=Z,60nm,1.3s,comp=Z,2µm
V35K  Ketchikan         97.57 330  IAMs_20   IAMs_20   22 03 33.8
        comp=Z,6µm,20.0s
FUTU  Fugatoga          97.64 249  IAMs_20   IAMs_20   21 55 59.7
        comp=Z,11µm,22.0s
MTLF  Montolieu         97.83  45  P         Pdif      21 22 54.7 +1.5
        comp=Z,10µmcomp=Z,1µmcomp=Z,34nm,1.4s,comp=Z,1µm
ILULI Ilulissat         98.00   7  IAMs_20   IAMs_20   22 10 17.9
        comp=Z,6µm,19.0s
T35M  Bob Quinn         98.04 332  IAMs_20   IAMs_20   22 05 26.1
        comp=Z,10µm,18.0s
MFF   Saint Martin d    98.11  41  P         Pdif      21 22 54.6 +0.3
        comp=Z,2µmcomp=Z,286nmcomp=Z,5.7nm,1.5s
HTL   Hartland          98.14  36  eP        Pdif      21 22 55.6 +1.3
HTL                                IAMs_20   IAMs_20   22 09 55.1
        comp=Z,17µm,17.7s
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JSA   Saint Aubin      98.36  38 eP       Pdif     21 22 55.9 +0.6
JSA                              IAMs_20  IAMs_20  22 02 43.5
      comp=Z,16µm,23.2s
WRAK  Wrangell Islan   98.58 331 IAMs_20  IAMs_20  22 04 47.4
      comp=Z,10µm,19.0s
U33K  Whale Pass       98.73 330 IAMs_20  IAMs_20  22 15 50.4
      comp=Z,6µm,18.0s
KEST  Kesra            98.89  54 LR       LR       22 09 02.4
      comp=Z,72µm,21.0s,baz=238,slow=36
MSVF  Nonsavu          98.95 245 LR       LR       21 56 48.7
      comp=Z,9µm,21.7s,baz=105,slow=29
MSVF  Nonsavu          98.95 245 IAMs_20  IAMs_20  21 56 36.8
      comp=Z,10µm,22.0s
S34M  Telegraph Cree   99.01 332 IAMs_20  IAMs_20  22 03 16.6
      comp=Z,9µm,22.0s
MCH1  Michaelchurch    99.47  36 eP       Pdif     21 23 00.6 +0.4
MCH1                             IAMs_20  IAMs_20  22 05 49.4
      comp=Z,16µm,20.5s
MONM  Monmouth         99.49  36 eP       Pdif     21 23 00.1 -0.2
MONM                             IAMs_20  IAMs_20  22 05 48.3
      comp=Z,16µm,21.0s
CLGH  Cloghs, Cushen   99.69  32 eP       Pdif     21 23 01.5 +0.4
CLGH                             IAMs_20  IAMs_20  22 05 25.5
      comp=Z,17µm,19.2s
HLM1  Long Mynd        99.82  35 eP       Pdif     21 23 03.3 +1.5
HLM1                             IAMs_20  IAMs_20  22 05 51.9
      comp=Z,15µm,21.1s
SWN1  Swindon          99.83  36 eP       Pdif     21 23 03.3 +1.5
SWN1                             IAMs_20  IAMs_20  22 06 25.0
      comp=Z,16µm,20.3s
FOEL  Foel Wylfa       99.86  35 eP       Pdif     21 23 03.5 +1.5
FOEL                             IAMs_20  IAMs_20  22 08 53.4
      comp=Z,19µm,18.2s
R33M  Jennings River   99.88 333 IAMs_20  IAMs_20  22 06 51.6
      comp=Z,9µm,19.0s
Q32M  Nakina River    100.13 333 IAMs_20  IAMs_20  22 06 22.3
      comp=Z,10µm,18.0s
RUSF  Rustrel         100.18  46 P        Pdif     21 23 06.6 +2.9
      comp=Z,8µmcomp=Z,953nmcomp=Z,28nm,1.7s,comp=Z,953nm
BORG  Borgarnes       100.21  20 IAMs_20  IAMs_20  22 07 42.8
      comp=Z,10µm,18.0s
SSB   Saint Sauveur   100.24  44 P        Pdif     21 23 05.6 +1.7
SSB   Saint Sauveur   100.24  44 P        Pdif     21 23 04.7 +0.8
      comp=Z,8µmcomp=Z,954nmcomp=Z,22nm,1.3s,comp=Z,954nm
CLF   Chambon-Foret   100.25  41 P        Pdif     21 23 06.2 +2.4
      comp=Z,7µmcomp=Z,27nm,1.3s
STNC  Stoke           100.48  35 eP       Pdif     21 23 05.1 +0.5
STNC                             IAMs_20  IAMs_20  22 06 12.0
      comp=Z,18µm,20.6s
NEWG  New Galloway    100.60  33 eP       Pdif     21 23 05.5 +0.3
NEWG                             IAMs_20  IAMs_20  22 09 59.1
      comp=Z,17µm,18.3s
R32K  Eaglecrest      100.65 331 IAMs_20  IAMs_20  22 06 33.0
      comp=Z,11µm,19.0s
CWF   Charnwood Fore  100.75  36 eP       Pdif     21 23 07.4 +1.6
CWF                              IAMs_20  IAMs_20  22 06 48.6
      comp=Z,15µm,20.2s
LOR   Lormes          100.81  42 P        Pdif     21 23 07.7 +1.4
      comp=Z,6µmcomp=Z,673nmcomp=Z,11nm,1.6s
PGBU  Gleniffferbraes 100.87  32 eP       Pdif     21 23 07.7 +1.4
PGBU                             IAMs_20  IAMs_20  22 04 18.5
      comp=Z,44µm,20.2s
ORIF  Oris-en-Rattie  100.90  45 P        Pdif     21 23 08.5 +1.6
      comp=Z,7µmcomp=Z,858nmcomp=Z,27nm,1.3s
BESE  Bessie Mountai  100.97 331 IAMs_20  IAMs_20  22 06 51.6
      comp=Z,11µm,19.0s
CALF  Calern          101.01  46 P        Pdif     21 23 06.6 -0.8
      comp=Z,7µmcomp=Z,1µmcomp=Z,41nm,1.3s,comp=Z,1µm
P32M  Atlin           101.11 333 IAMs_20  IAMs_20  22 06 52.0
      comp=Z,11µm,19.0s
EAB   Aberfoyle       101.15  32 eP       Pdif     21 23 09.2 +1.7
EAB                              IAMs_20  IAMs_20  22 04 36.6
      comp=Z,25µm,20.1s
S31K  Pelican         101.20 331 IAMs_20  IAMs_20  22 03 32.6
      comp=Z,7µm,22.0s
EKA   Eskdalemuir Ar  101.23  33 P        Pdif     21 23 08.1 +0.1
      comp=Z,2.0nm,0.9s,baz=263,slow=4.4,SNR=2.7
EKA                              PP       PP       21 27 17.3 -0.2
      comp=Z,2.2nm,0.8s,baz=216,slow=4.4,SNR=3.0
HPK   Haverah Park    101.24  34 eP       Pdif     21 23 08.9 +0.9
HPK                              IAMs_20  IAMs_20  22 09 36.1
      comp=Z,20µm,18.1s
ISO   Isola           101.29  46 P        Pdif     21 23 09.7 +1.1
      comp=Z,7µmcomp=Z,692nmcomp=Z,17nm,1.5s
ESCA  l'Escarene      101.33  46 P        Pdif     21 23 11.2 +2.4
      comp=Z,934nmcomp=Z,33nm,1.2s
ELMS  Elmsett, Ipswi  101.61  37 eP       Pdif     21 23 10.0 +0.3
ELMS                             IAMs_20  IAMs_20  22 04 13.4
      comp=Z,17µm,23.8s
N32M  Quiet Lake      101.80 334 IAMs_20  IAMs_20  22 08 30.3
      comp=Z,10µm,18.0s
DOU   Dourbes         102.61  40 dPdif    Pdif     21 23 13.1 -1.1
SUMG  Summit          102.75  10 IAMs_20  IAMs_20  22 11 47.5
      comp=Z,9µm,19.0s
P29M  Windy Craggy    102.80 331 IAMs_20  IAMs_20  22 04 38.8
      comp=Z,8µm,22.0s
BMRD  Maredsous       102.80  40 dPdif    Pdif     21 23 14.8 -0.2
      comp=Z,8.4nm,1.1s
UCC   Uccle           102.81  39 P        Pdif     21 23 12.6 -2.5
      comp=Z,469nmcomp=Z,114nmcomp=Z,2.0nm,1.3s,
      comp=Z,114nm
M31M  Drury Creek, Y  102.93 335 IAMs_20  IAMs_20  22 08 42.2
      comp=Z,7µm,19.0s
RCHB  Rochefort       102.99  40 dPdif    Pdif     21 23 15.2 -0.7
      comp=Z,5.0nm,1.5s
RCHB  Rochefort       102.99  40 P        Pdif     21 23 17.5 +1.6
      comp=Z,684nmcomp=Z,13nm,2.5s,comp=Z,684nm
N31M  Braeburn, Yuko  103.05 334 IAMs_20  IAMs_20  22 07 59.4
      comp=Z,7µm,19.0s
BCLA  Clavier         103.16  40 dPdif    Pdif     21 23 16.9 +0.2
ECH   Echery          103.22  42 P        Pdif     21 23 18.9 +1.9
ECH   Echery          103.22  42 P        Pdif     21 23 17.9 +0.9
      comp=Z,5µmcomp=Z,738nmcomp=Z,9.2nm,2.9s
WLF   Walferdange     103.29  41 P        Pdif     21 23 18.8 +1.5
WLF   Walferdange     103.29  41 dPdif    Pdif     21 23 17.6 +0.3
      comp=Z,9.7nm,1.3s
WLF   Walferdange     103.29  41 ePdiff   Pdif     21 23 19.9 +2.6
      baz=247,slow=4.5
WLF                              ePP      PP       21 27 34.6 +1.5
      baz=245,slow=7.0
WLF   Walferdange     103.29  41 P        Pdif     21 23 18.4 +1.1
      comp=Z,6µmcomp=Z,693nmcomp=Z,24nm,1.6s
BNALP Bannalp         103.38  44 P        Pdif     21 23 19.8 +1.9
      comp=Z,7µmcomp=Z,856nmcomp=Z,13nm,1.6s
O29M  Mount Kennedy   103.52 332 IAMs_20  IAMs_20  22 05 13.9
      comp=Z,8µm,22.0s
MEM   Membach         103.65  40 dPdif    Pdif     21 23 20.3 +1.5
BOPT  Opiter          103.67  39 dPdif    Pdif     21 23 21.9 +3.0
      comp=Z,13nm,1.6s
HGN   Heimansgroeve   103.67  40 P        Pdif     21 23 20.5 +1.6
      comp=Z,5µmcomp=Z,676nmcomp=Z,6.7nm,1.2s
BTNL  Ternell         103.70  40 dPdif    Pdif     21 23 21.8 +2.7
TUE   Stuetta         103.77  45 P        Pdif     21 23 21.2 +1.4
      comp=Z,6µmcomp=Z,697nmcomp=Z,16nm,1.5s
SLE   Schleitheim     103.82  43 P        Pdif     21 23 21.3 +1.6
SLE   Schleitheim     103.82  43 P        Pdif     21 23 21.1 +1.3
      comp=Z,6µmcomp=Z,668nmcomp=Z,9.6nm,1.6s
BFO   Black Forest    103.97  43 P        Pdif     21 23 21.7 +1.3
BFO   Black Forest    103.97  43 IAMs_20  IAMs_20  22 11 48.3
      comp=Z,10µm,19.0s
BFO   Black Forest    103.97  43 ePdiff   Pdif     21 23 22.6 +2.2
      baz=247,slow=4.5
BFO                              ePP      PKiKP    21 27 36.9 -0.9
      baz=245,slow=7.0
PCA   Pinnacle        104.12 331 IAMs_20  IAMs_20  22 07 19.7
      comp=Z,7µm,20.0s
SCO   Scoresbysund    104.21  15 IAMs_20  IAMs_20  22 13 01.4
      comp=Z,6µm,21.0s
C36M  Paulatuk        104.23 343 IAMs_20  IAMs_20  22 10 21.2
      comp=Z,10µm,22.0s
FUORN Ofenpass-Fuorn  104.41  45 P        Pdif     21 23 24.2 +1.6
      comp=Z,5µmcomp=Z,694nmcomp=Z,11nm,1.7s
O28M  Mount Upton     104.44 332 IAMs_20  IAMs_20  22 11 08.4
      comp=Z,6µm,18.0s
DAVA  Damuels         104.45  44 epPdiff  Pdif     21 23 25.4 +2.6
      comp=Z,20nm,1.2s,SNR=9.4
DAVA                             ePP      PP       21 27 41.0 -1.1
      comp=Z,914nm,5.8s
DAVA                             eSKS     SKSac    21 34 04.4 +2.3
      comp=Z,1µm,10.0s
DAVA  Damuels         104.45  44 P        Pdif     21 23 24.9 +2.1
      comp=Z,8µmcomp=Z,923nmcomp=Z,20nm,1.4s
STU   Stuttgart       104.68  42 IAMs_20  IAMs_20  22 12 59.1
      comp=Z,9µm,18.0s
STU   Stuttgart       104.68  42 ePP      PP       21 27 41.5 -2.0
      baz=245,slow=7.0
BUG   Bochum--Univer  104.73  39 ePdiff   Pdif     21 23 26.0 +2.4
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      baz=247,slow=4.5
BUG                              ePP      PP       21 27 41.3 -2.5
      baz=245,slow=7.0
BUG   Bochum--Univer  104.73  39 P        Pdif     21 23 24.7 +1.1
      comp=Z,5µmcomp=Z,13nm,1.3s
UBR   Ueberruh        104.76  44 ePdiff   Pdif     21 23 26.6 +2.7
      baz=247,slow=4.5
UBR                              ePP      PP       21 27 41.5 -2.8
      baz=245,slow=7.0
UBR   Ueberruh        104.76  44 P        Pdif     21 23 26.3 +2.3
      comp=Z,8µmcomp=Z,647nmcomp=Z,12nm,1.3s
LOGN  Logan Glacier   104.81 332 IAMs_20  IAMs_20  22 11 18.1
      comp=Z,8µm,18.0s
FETA  Feichten        104.86  45 ePdiff   Pdif     21 23 25.9 +1.3
      comp=Z,20nm,1.4s,SNR=11
FETA                             epPKiKP  pPKiKP   21 27 43.1 -1.1
      comp=Z,454nm,4.6s
FETA                             eSKS     SKSac    21 34 06.3 +2.2
      comp=Z,641nm,10.6s
L29M  L29M            104.87 334 IAMs_20  IAMs_20  22 09 20.4
      comp=Z,6µm,20.0s
YAH   Yahtse          104.89 331 IAMs_20  IAMs_20  22 07 32.2
      comp=Z,9µm,22.0s
J30M  Hart River      105.01 336 IAMs_20  IAMs_20  22 16 13.1
      comp=Z,6µm,21.0s
H31M  Peel River      105.02 338 IAMs_20  IAMs_20  22 10 35.4
      comp=Z,9µm,19.0s
K29M  Barlow Dome     105.04 335 IAMs_20  IAMs_20  22 10 34.9
      comp=Z,8µm,18.0s
CGRP  Cima Grappa     105.06  46 P        Pdif     21 23 27.6 +2.1
RETA  Reutte          105.08  44 ePdiff   Pdif     21 23 26.7 +1.3
      comp=Z,26nm,1.3s,SNR=10
RETA                             epPKiKP  pPKiKP   21 27 45.4 +0.9
      comp=Z,580nm,4.8s
GRNC  Granite Creek   105.08 331 IAMs_20  IAMs_20  22 12 40.3
      comp=Z,7µm,21.0s
BARN  Barnard Glacie  105.21 332 IAMs_20  IAMs_20  22 10 06.6
      comp=Z,6µm,19.0s
MOTA  Moosalm         105.23  44 i Pdiff  Pdif     21 23 27.5 +1.3
      comp=Z,32nm,1.5s,SNR=16
MOTA                             epPKiKP  pPKiKP   21 27 43.9 -1.0
      comp=Z,14nm,1.3s
SQTA  Sankt Quirin    105.25  44 ePdiff   Pdif     21 23 27.1 +0.9
      comp=Z,33nm,1.4s,SNR=16
SQTA                             epPKiKP  pPKiKP   21 27 44.0 -0.9
      comp=Z,14nm,1.4s
KASTN Kahler Asten    105.28  40 ePdiff   Pdif     21 23 28.3 +2.2
      baz=247,slow=4.5
KASTN                            ePP      PP       21 27 46.5 -1.5
      baz=245,slow=7.0
IBBN  Ibbenburen      105.38  39 ePdiff   Pdif     21 23 28.8 +2.3
      baz=247,slow=4.5
IBBN  Ibbenburen      105.38  39 P        Pdif     21 23 28.4 +1.9
I30M  Mount Dempster  105.39 337 IAMs_20  IAMs_20  22 18 11.1
      comp=Z,5µm,19.0s
WATA  Walderalm       105.52  44 ePdiff   Pdif     21 23 28.7 +1.3
      comp=Z,26nm,1.5s,SNR=11
WATA                             epPKiKP  pPKiKP   21 27 45.7 +0.3
      comp=Z,15nm,1.2s
WTTA  Wattenberg      105.53  45 Pdiff    Pdif     21 23 28.8 +1.3
      comp=Z,30nm,1.3s,SNR=12
WTTA                             SKS      SKSac    21 34 07.4 +0.3
      comp=Z,1µm,8.3s
WTTA  Wattenberg      105.53  45 P        Pdif     21 23 28.7 +1.1
TGL   Tana Glacier    105.55 331 IAMs_20  IAMs_20  22 09 12.6
      comp=Z,8µm,21.0s
J29N  Klondike Camp   105.63 336 IAMs_20  IAMs_20  22 11 47.4
      comp=Z,9µm,18.0s
G31M  Satah River     105.64 339 IAMs_20  IAMs_20  22 11 24.8
      comp=Z,9µm,19.0s
FUR   Furstenfeldbru  105.68  44 ePdiff   Pdif     21 23 30.6 +2.6
      baz=247,slow=4.5
FUR                              ePP      PP       21 27 48.1 -2.9
      baz=245,slow=7.0
FUR   Furstenfeldbru  105.68  44 P        Pdif     21 23 30.4 +2.5
CRQM  Cirque          105.69 331 IAMs_20  IAMs_20  22 07 09.6
      comp=Z,7µm,22.0s
BERG  Berg Lake       105.75 331 IAMs_20  IAMs_20  22 11 13.9
      comp=Z,6µm,18.0s
KAIM  Kayak Island    105.84 330 IAMs_20  IAMs_20  22 19 14.4
      comp=Z,7µm,19.0s
ABTA  Abfaltersbach   105.87  45 ePdiff   Pdif     21 23 30.2 +1.3
      comp=Z,17nm,1.4s
ABTA                             ePP      PP       21 27 50.7 -1.8
      comp=Z,11nm,1.3s
ABTA                             eSKS     SKSac    21 34 09.6 +1.1
      comp=Z,143nm,3.0s
MCARA McCarthy VSAT   105.94 332 IAMs_20  IAMs_20  22 08 40.0
      comp=Z,6µm,21.0s
M27K  Edge Creek, AK  105.95 333 IAMs_20  IAMs_20  22 12 27.2
      comp=Z,10µm,18.0s
UBBA  Unterbreizbach  106.02  41 ePdiff   Pdif     21 23 31.6 +2.4
      baz=247,slow=4.5
VRDI  Verde Repeater  106.05 331 IAMs_20  IAMs_20  22 08 18.8
      comp=Z,7µm,21.0s
I29M  Ogilvie Camp,   106.14 336 IAMs_20  IAMs_20  22 17 04.1
      comp=Z,6µm,19.0s
GRC3  Grafenberg Arr  106.16  43 P        Pdif     21 23 31.9 +1.8
RAGM  Ragged Mountai  106.17 330 IAMs_20  IAMs_20  22 20 01.1
      comp=Z,8µm,19.0s
LESA  Schwarzleotal   106.24  45 ePdiff   Pdif     21 23 32.2 +1.6
      comp=Z,9.5nm,1.5s
LESA                             ePKiKP   PKiKP    21 27 43.0 +0.9
LESA                             eSKS     SKSac    21 34 11.7 +1.6
      comp=Z,917nm,7.9s
GRF   Grafenberg Arr  106.27  42 ePP      PP       21 27 56.6 +1.3
      baz=245,slow=7.0
GRF                              eL       L        22 09 24.2
      comp=Z,11µm,21.3s
L27K  Beaver Creek,   106.28 333 IAMs_20  IAMs_20  22 10 47.9
      comp=Z,9µm,18.0s
GLB   Gilahina Butte  106.30 331 IAMs_20  IAMs_20  22 08 49.5
      comp=Z,6µm,22.0s
A36M  Sachs Harbour   106.31 345 IAMs_20  IAMs_20  22 11 50.5
      comp=Z,13µm,22.0s
G30M  tAoh Zraii Nji  106.31 338 IAMs_20  IAMs_20  22 17 18.5
      comp=Z,7µm,20.0s
DRE   Drenchia        106.35  46 P        Pdif     21 23 32.8 +1.7
GRB4  Grafenberg Arr  106.38  42 P        Pdif     21 23 32.8 +1.7
PRED  Cave del Predi  106.41  46 P        Pdif     21 23 33.1 +1.7
BMRM  Bremner River   106.42 331 IAMs_20  IAMs_20  22 12 15.5
      comp=Z,7µm,19.0s
ACOM  Acomizza, Ital  106.42  46 P        Pdif     21 23 32.5 +1.0
M26K  Nabesna, AK     106.43 333 IAMs_20  IAMs_20  22 08 45.7
      comp=Z,7µm,21.0s
CADS  Cadrg           106.43  46 i Pdiff  Pdif     21 23 32.9 +1.5
CADS                             ePP      PP       21 27 54.8 -1.8
CADS                             e                 21 30 16.8
CADS                             eSKSac   SKSac    21 34 14.0 +3.2
CADS                             e                 21 35 47.2
CADS                             e                 21 37 17.9
CAN   Canberra        106.44 214 IAMs_20  IAMs_20  22 06 01.0
      comp=Z,8µm,18.0s
RETH  Rethem/Aller,   106.45  39 ePdiff   Pdif     21 23 34.3 +3.1
      baz=247,slow=4.5
GRB3  Grafenberg Arr  106.48  43 P        Pdif     21 23 34.0 +2.5
F30M  Barrier River   106.52 339 IAMs_20  IAMs_20  22 13 03.0
      comp=Z,10µm,19.0s
KBA   Koelnbreinsper  106.52  45 ePdiff   Pdif     21 23 33.9 +1.9
      comp=Z,12nm,1.4s
KBA                              ePP      PP       21 27 53.0 -4.5
      comp=Z,19nm,1.4s
KBA   Koelnbreinsper  106.52  45 P        Pdif     21 23 32.8 +0.9
MYKA  Terra Mystica   106.53  46 epPdiff  Pdif     21 23 34.5 +2.6
      comp=Z,11nm,1.1s
MYKA                             epPKiKP  pPKiKP   21 27 51.4 +4.2
      comp=Z,32nm,1.6s
H29M  Whitestone      106.62 337 IAMs_20  IAMs_20  22 11 33.7
      comp=Z,6µm,20.0s
CRNS  Crni Vrh        106.71  46 ePdiff   Pdif     21 23 35.5 +2.9
CRNS                             ePP      PP       21 27 57.1 -1.6
EYAK  Cordova Ski Ar  106.72 330 IAMs_20  IAMs_20  22 20 39.6
      comp=Z,8µm,19.0s
I28M  Miner Creek     106.77 336 IAMs_20  IAMs_20  22 11 36.7
      comp=Z,8µm,18.0s
LJU   Ljubljana       106.87  47 ePdiff   Pdif     21 23 36.2 +2.9
L26K  Log Cabin Wild  106.87 333 IAMs_20  IAMs_20  22 19 09.4
      comp=Z,6µm,20.0s
G29M  Pine Creek      106.87 338 IAMs_20  IAMs_20  22 11 51.3
      comp=Z,9µm,18.0s
MOX   Moxa            106.89  41 eL       L        22 09 51.9
      comp=Z,9µm,21.6s
BIOA  Bad Ischl, Aus  106.94  45 ePdiff   Pdif     21 23 35.0 +1.4
      comp=Z,6.5nm,1.3s
BIOA                             ePKiKP   PKiKP    21 27 43.8 +0.5
      comp=Z,15nm,1.8s
HIN   Hinchinbrook I  106.98 330 IAMs_20  IAMs_20  22 19 26.6
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      comp=Z,7µm,20.0s
DIV   Divide          107.00 331 IAMs_20  IAMs_20  22 12 40.9
      comp=Z,6µm,18.0s
OBKA  Obir            107.06  46 epPdiff  Pdif     21 23 38.2 +3.9
      comp=Z,7.2nm,0.7s
OBKA                             pPKiKP   pPKiKP   21 27 53.1 +4.9
      comp=Z,12nm,1.0s
FID   Port Fidalgo    107.13 330 IAMs_20  IAMs_20  22 11 30.6
      comp=Z,6µm,20.0s
P23K  Montague Islan  107.21 329 IAMs_20  IAMs_20  22 07 48.6
      comp=Z,5µm,21.0s
NKC   Novy Kostel     107.21  42 i P      Pdif     21 23 37.5 +2.7
NKC                              e                 21 34 20.2
NKC                              MLR      MLR
      comp=Z,14µm,21.1s
NKC   Novy Kostel     107.21  42 ePDIFF   Pdif     21 23 37.5 +2.7
NKC                              ePP      PP       21 27 56.9 -5.3
NKC                              eSKS     SKSac    21 34 20.2 +6.2
NKC                              AMS      AMS      22 09 30.0
      comp=Z,14µm,21.1s
KLU   Klutina         107.22 331 IAMs_20  IAMs_20  22 15 57.9
      comp=Z,5µm,20.0s
SESA  Seetaler Alpe,  107.30  46 ePdiff   Pdif     21 23 37.3 +1.8
      comp=Z,6.9nm,0.9s
HARP  HAARP           107.31 332 IAMs_20  IAMs_20  22 08 36.2
      comp=Z,6µm,22.0s
MOA   Molln           107.40  45 ePdiff   Pdif     21 23 37.0 +1.4
      comp=Z,13nm,1.2s
MOA   Molln           107.40  45 P        Pdif     21 23 37.1 +1.4
GEC2  GERESS Array S  107.43  44 ePdiff   Pdif     21 23 38.2 +2.4
      baz=247,slow=4.5
GEC2                             ePP      PP       21 28 01.4 -2.5
      baz=245,slow=7.0
GEC2  GERESS Array S  107.43  44 P        Pdif     21 23 37.3 +1.5
GERES GERESS Array B  107.43  44 Pdiff    Pdif     21 23 37.3 +1.5
      comp=Z,0.8nm,0.9s,baz=278,slow=4.7,SNR=7.0
GERES                            PKiKP    PKiKP    21 27 44.7 +0.4
      comp=Z,2.4nm,1.0s,baz=211,slow=1.6,SNR=5.5
GERES                            PP       PP       21 28 03.8 -0.2
      comp=Z,1.1nm,0.7s,baz=208,slow=4.5,SNR=3.5
GERES                            PKKPbc   PKKPbc   21 38 59.8 -0.8
      comp=Z,0.2nm,0.4s,baz=29,slow=3.0,SNR=5.2
GERES GERESS Array B  107.43  44 i P      Pdif     21 23 38.4 +2.6
GERES GERESS Array B  107.43  44          Pdif     21 23 38.4 +2.6
SOKA  Soboth          107.43  46 i pPdiff Pdif     21 23 40.0 +4.1
      comp=Z,1.7nm,0.6s
SOKA                             ePP      PP       21 27 59.2 -4.8
      comp=Z,754nm,6.2s
I27K  Kandik River    107.46 336 IAMs_20  IAMs_20  22 13 00.8
      comp=Z,7µm,19.0s
GLI   Glacier Island  107.46 330 IAMs_20  IAMs_20  22 11 40.2
      comp=Z,5µm,19.0s
KHC   Kasperske Hory  107.46  43c iP      Pdif     21 23 38.0 +2.1
KHC   Kasperske Hory  107.46  43 ePDIFF   Pdif     21 23 36.2 +0.3
KHC                              ex       x        21 27 02.5
KHC                              ePP      PP       21 27 58.7 -5.4
KHC                              eSKS     SKSac    21 34 18.2 +3.0
KHC                              AMS      AMS      22 07 10.0
      comp=Z,14µm,24.8s
KHC   Kasperske Hory  107.46  43 IAMs_20  IAMs_20  22 18 32.8
      comp=Z,10µm,18.0s
KHC   Kasperske Hory  107.46  43 P        Pdif     21 23 37.4 +1.5
SCRK  Sand Creek      107.57 334 IAMs_20  IAMs_20  22 11 40.0
      comp=Z,8µm,18.0s
E29M  Blow River      107.61 339 IAMs_20  IAMs_20  22 11 43.8
      comp=Z,11µm,21.0s
H27K  Steamboat Moun  107.73 336 IAMs_20  IAMs_20  22 12 27.1
      comp=Z,9µm,19.0s
CKRC  Cesky Krumlov   107.79  44 i P      Pdif     21 23 40.0 +2.6
CKRC                             MLR      MLR
      comp=Z,14µm,21.5s
CKRC  Cesky Krumlov   107.79  44 ePDIFF   Pdif     21 23 40.0 +2.6
CKRC                             AMS      AMS      22 10 50.0
      comp=Z,14µm,21.5s
RIDG  Independent Ri  107.80 333 IAMs_20  IAMs_20  22 12 41.0
      comp=Z,9µm,18.0s
F28M  Old Crow        107.85 338 IAMs_20  IAMs_20  22 12 23.2
      comp=Z,10µm,19.0s
HSKC  Hora Svate Kat  107.94  42 ePDIFF   Pdif     21 23 38.0  0.0
HSKC                             AMS      AMS      22 10 00.0
      comp=Z,14µm,21.4s
CLL   Collm           107.95  41 i P      Pdif     21 23 39.4 +1.4
CLL                              e                 21 28 06.0
CLL                              ePS      PS       21 37 32.0 +1.4
CLL                              pmax     pmax
      comp=Z,32nm,2.1s
CLL                              MLR      MLR
      comp=Z,10µm,25.3s
CLL   Collm           107.95  41 ePdiff   Pdif     21 23 40.6 +2.7
      baz=247,slow=4.5
CLL                              ePP      PP       21 28 05.0 -2.5
      baz=245,slow=7.0
CLL   Collm           107.95  41 i Pdif   Pdif     21 23 39.4 +1.4
      comp=Z,32nm,2.1s
CLL                              ePdifflp          21 23 42.0
      comp=Z,800nm,21.0s
CLL                              ePP      PP       21 28 06.0 -1.6
      comp=Z,2µm,22.0s
CLL                              eSKSac   SKSac    21 34 14.0 -3.1
CLL                              eSdif    Sdif     21 35 48.0 +5.2
CLL                              ePS      PS       21 37 32.0 +1.4
CLL                              ePPS     PPS      21 38 31.0
CLL                              eSS      SS       21 43 42.0  +22
CLL                              eSSS     SSS      21 47 27.0
CLL                              eSSSS             21 50 48.0
CLL                              LQ       LQ       21 53 00.0
CLL                              L        L        22 00 00.0
CLL                              AMS      AMS      22 07 00.0
      comp=N,4µm,25.9s
CLL                              AMS      AMS      22 07 00.0
      comp=E,10µm,25.1s
CLL                              AMS      AMS      22 07 00.0
      comp=Z,10µm,25.3s
CLL                              AMS      AMS      22 19 00.0
      comp=Z,8µm,19.9s
CLL                              AMS      AMS      22 21 00.0
      comp=N,6µm,18.4s
CLL                              AMS      AMS      22 21 00.0
      comp=E,6µm,17.7s
CLL                              AMS      AMS      22 21 00.0
      comp=Z,10µm,17.7s
ZVC   Zvikov          107.95  43 ePDIFF   Pdif     21 23 40.1 +2.1
ZVC                              AMS      AMS      22 07 10.0
      comp=Z,13µm,24.6s
ARSA  Arzberg         107.96  46 ePdiff   Pdif     21 23 40.2 +2.1
      comp=Z,3.0nm,1.1s
ARSA                             ePKiKP   PKiKP    21 27 45.7 +0.5
      comp=Z,3.9nm,1.0s
PWL   Port Wells      108.00 330 IAMs_20  IAMs_20  22 20 28.4
      comp=Z,6µm,20.0s
G27K  Doyon Strip     108.06 337 IAMs_20  IAMs_20  22 12 26.7
      comp=Z,8µm,19.0s
SEW   Seward          108.19 329 IAMs_20  IAMs_20  22 22 53.4
      comp=Z,6µm,18.0s
K24K  Donnelly Dome   108.20 333 IAMs_20  IAMs_20  22 09 23.6
      comp=Z,7µm,22.0s
E28M  Babbage River   108.24 339 IAMs_20  IAMs_20  22 13 18.5
      comp=Z,8µm,19.0s
KNK   Knik Glacier    108.29 330 IAMs_20  IAMs_20  22 12 05.0
      comp=Z,5µm,19.0s
RICC  Richard         108.31  42 ePDIFF   Pdif     21 23 42.8 +3.2
RICC                             AMS      AMS      22 14 00.0
      comp=Z,13µm,18.1s
BRG   Berggiesshubel  108.34  42⇓ePif     Pdif     21 23 42.0 +2.3
BRG   Berggiesshubel  108.34  42 P        PKiKP    21 27 47.8 +2.0
BRG                              Amp               21 27 49.1
      comp=Z,6.5nm,1.3s
BRG   Berggiesshubel  108.34  42 PP       PP       21 28 08.0 -2.4
BRG   Berggiesshubel  108.34  42 PS       PS       21 37 40.0 +5.5
PRU   Pruhonice       108.37  43 P        Pdif     21 23 40.7 +0.8
PRU   Pruhonice       108.37  43 ePDIFF   Pdif     21 23 38.8 -1.1
PRU                              AMS      AMS      22 11 40.0
      comp=Z,11µm,20.5s
PRU   Pruhonice       108.37  43 P        Pdif     21 23 43.2 +3.3
SML   Sawmill         108.40 331 IAMs_20  IAMs_20  22 20 27.9
      comp=Z,5µm,19.0s
CONA  Conrad Observa  108.42  45 ePdiff   Pdif     21 23 41.8 +1.5
      comp=Z,5.2nm,1.6s
CONA                             ePP      PP       21 28 02.5 -8.7
      comp=Z,1µm,5.5s
CONA                             eSKS     SKSac    21 34 20.9 +1.4
      comp=Z,404nm,6.5s
O22K  Cooper Landing  108.47 329 IAMs_20  IAMs_20  22 22 37.7
      comp=Z,6µm,20.0s
DHY   Denali Highway  108.53 332 IAMs_20  IAMs_20  22 21 38.4
      comp=Z,5µm,18.0s
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PVCC  Panska Ves         108.58  42 ePDIFF    Pdif      21 23 44.2 +3.4
PVCC                                 AMS      AMS       22 10 20.0
      comp=Z,14µm,22.7s
RONA  Rosalia, Austr     108.61  45 epPdiff   Pdif      21 23 44.5 +3.5
      comp=Z,4.0nm,0.8s
RONA                                ePP       PP        21 28 03.0  -10
      comp=Z,842nm,6.5s
WINA  Alland / Wiene     108.62  45 epPdiff   Pdif      21 23 43.8 +2.8
      comp=Z,4.7nm,1.2s
WINA                                ePP       PP        21 28 03.1 -9.4
      comp=Z,1µm,5.2s
GHO   Glory Hole Cre     108.64 331  IAMs_20  IAMs_20   22 23 20.3
      comp=Z,5µm,18.0s
TREC  Trest              108.69  44  P        Pdif      21 23 42.1 +0.8
TREC  Trest              108.69  44 ePP       PP        21 28 06.8 -6.2
TREC                                 AMS      AMS       22 08 30.0
      comp=Z,14µm,23.7s
TREC  Trest              108.69  44  P        Pdif      21 23 43.4 +2.0
SLKM  Skilak Lake        108.70 329  IAMs_20  IAMs_20   22 23 05.0
      comp=Z,6µm,20.0s
E27K  Coleen River       108.70 338  IAMs_20  IAMs_20   22 12 57.6
      comp=Z,9µm,19.0s
SANVU Saraoutou          108.77 240  IAMs_20  IAMs_20   22 02 01.8
      comp=Z,8µm,22.0s
CNPM  China Poot         108.78 328  IAMs_20  IAMs_20   22 08 27.1
      comp=Z,5µm,20.0s
PRP   Porcupine Dome     108.86 335  IAMs_20  IAMs_20   22 12 26.9
      comp=Z,11µm,19.0s
G26K  Porcupine Rive     108.87 337  IAMs_20  IAMs_20   22 12 24.1
      comp=Z,5µm,20.0s
D27M  Malcolm River      109.01 339  IAMs_20  IAMs_20   22 13 00.7
      comp=Z,8µm,21.0s
ILAR  Eielson Array      109.06 334  Pdiff    Pdif      21 23 43.0 +0.5
      comp=Z,1.3nm,0.9s,baz=145,slow=3.6,SNR=7.8
ILAR                                 PKiKP    PKiKP     21 27 47.6 +0.9
      comp=Z,0.5nm,0.8s,baz=328,slow=2.8,SNR=4.9
ILAR                                 PKKPbc   PKKPbc    21 38 54.9 -0.9
      comp=Z,0.7nm,0.7s,baz=291,slow=2.6,SNR=4.6
SII   Sitkinak Islan     109.09 324  IAMs_20  IAMs_20   22 07 48.3
      comp=Z,6µm,18.0s
KRUC  Moravsky           109.16  44 ePDIFF    Pdif      21 23 45.6 +2.2
KRUC                                ePP       PP        21 28 12.4 -4.0
KRUC                                eSKS      SKSac     21 34 22.6 +0.2
KRUC                                e                   21 37 39.2
KRUC  Moravsky           109.16  44  P        Pdif      21 23 46.4 +3.0
FYU   Fort Yukon         109.21 336  IAMs_20  IAMs_20   22 09 58.2
      comp=Z,6µm,21.0s
CAPN  Captain Cook N     109.23 329  IAMs_20  IAMs_20   22 20 38.4
      comp=Z,6µm,21.0s
RND   Reindeer           109.28 332  IAMs_20  IAMs_20   22 13 30.2
      comp=Z,6µm,19.0s
SUA   Susitna One        109.31 330  IAMs_20  IAMs_20   22 23 18.1
      comp=Z,6µm,19.0s
F26K  Sheenjek River     109.33 337  IAMs_20  IAMs_20   22 12 40.3
      comp=Z,10µm,20.0s
VRAC  Vranov             109.37  44 ePDIFF    Pdif      21 23 46.4 +2.0
VRAC                                ePP       PP        21 28 14.1 -3.9
VRAC                                eSKS      SKSac     21 34 24.1 +0.8
VRAC                                e                   21 37 40.2
VRAC  Vranov             109.37  44 ⇓P        PKiKP     21 27 47.8  0.0
WRH   Wood River Hil     109.40 333  IAMs_20  IAMs_20   22 10 21.4
      comp=Z,5µm,20.0s
UPC   Upice              109.44  43  AMS      AMS       22 12 20.0
      comp=Z,13µm,20.0s
MCK   McKinley           109.44 333  IAMs_20  IAMs_20   22 09 20.5
      comp=Z,6µm,22.0s
MODS  Modra-Piesok       109.47  45 i P       Pdif      21 23 47.9 +3.1
MODS                                e                   21 28 15.9
MODS  Modra-Piesok       109.47  45 ePDIFF    Pdif      21 23 47.9 +3.1
MODS                                ePP       PP        21 28 15.9 -2.8
COLA  College            109.47 334⇑iP        Pdif      21 23 45.4 +1.0
COLA                                 MLR      MLR
      comp=Z,6µm,16.0s
COLA  College            109.47 334  IAMs_20  IAMs_20   22 12 13.3
      comp=Z,6µm,19.0s
CHVC  Chvalec            109.49  42 i P       Pdif      21 23 48.0 +3.1
CHVC                                 MLR      MLR
      comp=Z,12µm,19.9s
CHVC  Chvalec            109.49  42 ePDIFF    Pdif      21 23 48.0 +3.1
CHVC                                 AMS      AMS       22 12 20.0
      comp=Z,12µm,19.9s
DPC   Dobruska-Polom     109.57  43 i P       Pdif      21 23 47.5 +2.3
DPC                                  MLR      MLR
      comp=Z,11µm,18.2s
DPC   Dobruska-Polom     109.57  43 ePDIFF    Pdif      21 23 47.5 +2.3
DPC                                 ePP       PP        21 28 15.7 -3.7
DPC                                  AMS      AMS       22 15 10.0
      comp=Z,11µm,18.2s
DPC   Dobruska-Polom     109.57  43  P        Pdif      21 23 48.1 +2.9
OSTC  Ostas              109.57  43 i P       Pdif      21 23 47.7 +2.5
OSTC                                 MLR      MLR
      comp=Z,12µm,19.8s
OSTC  Ostas              109.57  43 ePDIFF    Pdif      21 23 47.7 +2.5
OSTC                                 AMS      AMS       22 12 30.0
      comp=Z,12µm,19.8s
MORH  Mrgy, Hungar       109.59  47  P        Pdif      21 23 48.2 +2.8
KSP   Ksiaz              109.72  42  P        Pdif      21 23 46.7 +0.9
KRLC  Kraliky            109.75  43 i P       Pdif      21 23 49.0 +2.9
KRLC                                 MLR      MLR
      comp=Z,9µm,23.8s
KRLC  Kraliky            109.75  43 ePDIFF    Pdif      21 23 49.0 +2.9
KRLC                                 AMS      AMS       22 08 50.0
      comp=Z,9µm,23.8s
KRLC  Kraliky            109.75  43  P        Pdif      21 23 47.2 +1.2
F25K  Christian Rive     109.80 337  IAMs_20  IAMs_20   22 20 04.7
      comp=Z,6µm,19.0s
BWN   Browne             109.83 333  IAMs_20  IAMs_20   22 09 54.0
      comp=Z,8µm,22.0s
NEA2  Nenana             109.84 333  IAMs_20  IAMs_20   22 10 42.9
      comp=Z,6µm,20.0s
SKT   Skwentna           109.86 330  IAMs_20  IAMs_20   22 21 32.5
      comp=Z,5µm,19.0s
JAVC  Velka Javorina     109.88  45 ePDIFF    Pdif      21 23 49.1 +2.4
JAVC                                ePP       PP        21 28 18.9 -2.8
TRF   Thorofare Moun     109.89 332  IAMs_20  IAMs_20   22 24 16.2
      comp=Z,5µm,19.0s
C27K  Jago River         110.05 339  IAMs_20  IAMs_20   22 13 23.1
      comp=Z,9µm,20.0s
G24K  Hadweenzic Riv     110.08 336  IAMs_20  IAMs_20   22 12 55.1
      comp=Z,8µm,19.0s
MORC  Moravsky Berou     110.11  44 ePDIFF    Pdif      21 23 50.5 +2.8
MORC                                ePP       PP        21 28 20.5 -2.9
MORC                                eSKS      SKSac     21 34 28.4 +1.9
MAUC  Maruska            110.15  44 ePDIFF    Pdif      21 23 51.4 +3.6
I23K  Minto, Yukon-K     110.17 334  IAMs_20  IAMs_20   22 13 52.7
      comp=Z,5µm,18.0s
KTH   Kantishna Hill     110.19 332  IAMs_20  IAMs_20   22 22 39.2
      comp=Z,6µm,18.0s
O19K  Port Alsworth      110.47 328  IAMs_20  IAMs_20   22 22 41.9
      comp=Z,5µm,20.0s
PPLA  Purkeypile         110.48 331  IAMs_20  IAMs_20   22 14 44.0
      comp=Z,5µm,18.0s
VYHS  Vyhne              110.48  45 ePP       PP        21 28 24.0 -2.1
OKC   Ostrava-Krasne     110.50  44  AMS      AMS       22 19 50.0
      comp=Z,10µm,17.4s
H23K  Yukon River        110.50 335  IAMs_20  IAMs_20   22 13 15.4
      comp=Z,9µm,19.0s
M20K  Styx River         110.53 330  IAMs_20  IAMs_20   22 12 26.2
      comp=Z,5µm,19.0s
F24K  Squaw Lake         110.56 336  IAMs_20  IAMs_20   22 20 21.7
      comp=Z,6µm,20.0s
CAST  Castle Rocks       110.63 332  IAMs_20  IAMs_20   22 24 39.8
      comp=Z,6µm,18.0s
MLY   Manley             110.67 334  IAMs_20  IAMs_20   22 12 48.8
      comp=Z,7µm,20.0s
D25K  Kavik River        110.77 338  IAMs_20  IAMs_20   22 16 39.2
      comp=Z,7µm,20.0s
PSZ   Piszkesteto        110.97  46  IAMs_20  IAMs_20   22 20 09.7
      comp=Z,10µm,19.0s
E24K  Your Creek         110.98 337  IAMs_20  IAMs_20   22 13 55.0
      comp=Z,7µm,19.0s
KKB   Krupnik            111.19  53  P        PP        21 28 30.9 -0.4
I21K  Tanana             111.21 333  IAMs_20  IAMs_20   22 13 05.2
      comp=Z,6µm,21.0s
H22K  Ishtalitna Cre     111.23 334  IAMs_20  IAMs_20   22 13 38.6
      comp=Z,7µm,19.0s
N18K  Kilae Creek        111.37 328  IAMs_20  IAMs_20   22 15 53.6
      comp=Z,4µm,19.0s
E23K  Chandalar          111.37 337  IAMs_20  IAMs_20   22 20 57.2
      comp=Z,6µm,21.0s
CNBA  Chernabura Isl     111.37 322  IAMs_20  IAMs_20   22 04 24.8
      comp=Z,8µm,20.0s
L19K  White Mountain     111.39 330  IAMs_20  IAMs_20   22 22 41.1
      comp=Z,4µm,18.0s
HFS   Hagfors            111.43  32  PP       PP        21 28 33.0 +0.5
      comp=Z,1.7nm,0.7s,baz=199,slow=12,SNR=2.0
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VTS   Vitosha            111.51  52  P        PP        21 28 33.1 -0.7
MMB   Musomishta         111.53  53  P        PP        21 28 34.1 +0.3
PLNA  Plana              111.60  52  P        PP        21 28 33.7 -0.7
BLSH  Balsha             111.62  52  P        PP        21 28 34.1 -0.3
HERR  Herculane          111.66  50 ⇓P        PKiKP     21 27 51.9 -0.3
C24K  Franklin Bluff     111.68 339  IAMs_20  IAMs_20   22 14 13.3
      comp=Z,7µm,21.0s
H21K  Melozitna Rive     111.70 334  IAMs_20  IAMs_20   22 13 52.1
      comp=Z,6µm,20.0s
J20K  Nowinta River      111.75 332  IAMs_20  IAMs_20   22 15 07.4
      comp=Z,5µm,19.0s
VNFG  Fog Glacier, M     111.81 323  IAMs_20  IAMs_20   22 05 22.1
      comp=Z,6µm,21.0s
N17K  Nushagak Hills     111.93 328  IAMs_20  IAMs_20   22 25 13.3
      comp=Z,6µm,19.0s
O16K  Kokwok River B     112.07 327  IAMs_20  IAMs_20   22 07 52.0
      comp=Z,5µm,21.0s
I20K  Naaghedeneel       112.08 333  IAMs_20  IAMs_20   22 14 19.3
      comp=Z,4µm,19.0s
MPEP  Malo Peshtene      112.09  52  P        PP        21 28 38.0 +0.2
PGB   Panagyurishte      112.14  53  P        PP        21 28 36.9 -1.2
E22K  Anaktuvuk Pass     112.17 336  IAMs_20  IAMs_20   22 15 09.3
      comp=Z,8µm,19.0s
L18K  Granite Mounta     112.22 330  IAMs_20  IAMs_20   22 10 58.0
      comp=Z,5µm,22.0s
G21K  Allakaket          112.25 335  IAMs_20  IAMs_20   22 15 03.7
      comp=Z,7µm,18.0s
RZN   Rozhen             112.28  54  P        PP        21 28 39.3 -0.1
M17K  Holitna River      112.31 329  IAMs_20  IAMs_20   22 25 23.4
      comp=Z,5µm,19.0s
C23K  Itkillik River     112.34 338  IAMs_20  IAMs_20   22 14 20.8
      comp=Z,9µm,21.0s
PLD   Plovdiv            112.43  53  P        PP        21 28 40.2  0.0
F21K  Alatna River       112.47 335  IAMs_20  IAMs_20   22 14 58.4
      comp=Z,5µm,18.0s
MARR  Marisel-Cluj       112.67  48 ⇑P        PKiKP     21 27 52.3 -1.9
KDZ   Kurdzhali          112.69  54  P        PP        21 28 42.0 -0.1
D22K  Ayikyak River      112.72 337  IAMs_20  IAMs_20   22 15 27.8
      comp=Z,8µm,20.0s
M16K  Timber Creek       112.91 328  IAMs_20  IAMs_20   22 12 46.2
      comp=Z,5µm,19.0s
N15K  Kwethluk River     113.21 327  IAMs_20  IAMs_20   22 26 18.9
      comp=Z,7µm,19.0s
F20K  Avaraart Lake      113.25 335  IAMs_20  IAMs_20   22 15 13.1
      comp=Z,6µm,19.0s
TARA  Tarawa             113.26 259  IAMs_20  IAMs_20   22 04 01.2
      comp=Z,9µm,22.0s
B22K  Teshekpuk Lake     113.41 339  IAMs_20  IAMs_20   22 15 05.1
      comp=Z,9µm,22.0s
G19K  Purcell Mounta     113.52 334  IAMs_20  IAMs_20   22 16 48.3
      comp=Z,4µm,19.0s
O14K  Tigyukauivet M     113.53 326  IAMs_20  IAMs_20   22 26 46.6
      comp=Z,4µm,19.0s
VOIR                     113.61  50 ⇓PKIKP    PKiKP     21 27 52.9 -3.1
VOIR                     113.61  50 ⇓P        PKiKP     21 27 52.9 -3.1
J17K  VABM Dome          113.61 331  IAMs_20  IAMs_20   22 16 11.6
      comp=Z,5µm,18.0s
SZH   Strazhitsa         113.62  52  P        PP        21 28 45.3 -3.4
JMB   Yambol             113.79  53  P        PP        21 28 49.8 -0.1
N14K  Kuskokwak Cree     113.91 327  IAMs_20  IAMs_20   22 22 49.6
      comp=Z,5µm,21.0s
F19K  Shaleruckik Mo     113.97 334  IAMs_20  IAMs_20   22 15 22.1
      comp=Z,5µm,19.0s
MLR   Muntele Rosu       114.23  50 ⇑PKIKP    PKiKP     21 27 58.4 +1.1
MLR   Muntele Rosu       114.23  50 ⇑P        PKiKP     21 27 58.4 +1.1
MLR   Muntele Rosu       114.23  50  P        PKiKP     21 27 58.4 +1.1
BURAR Bucovina Array     114.31  48 ⇑PKIKP    PKPdf     21 27 55.2 -2.1
BURAR Bucovina Array     114.31  48 ⇑P        PKPdf     21 27 55.2 -2.1
H17K  Granite Mounta     114.35 332  IAMs_20  IAMs_20   22 16 57.2
      comp=Z,6µm,19.0s
I17K  Unalakleet         114.43 331  IAMs_20  IAMs_20   22 16 47.3
      comp=Z,6µm,18.0s
D19K  Kuna River         114.52 336  IAMs_20  IAMs_20   22 16 31.3
      comp=Z,8µm,18.0s
PRD   Provadia           114.60  53  P        PP        21 28 53.4 -2.2
ELL   Elmali             114.61  60  P        Pdif      21 24 08.2 +0.1
SUW   Suwalki            114.68  40  P        Pdif      21 24 08.7 +0.9
L14K  Kuka Creek         114.73 328  IAMs_20  IAMs_20   22 13 53.5
      comp=Z,5µm,20.0s
SAHR  Sahastru           114.79  50 ⇓P        PKPdf     21 27 57.9 -0.3
PLOR  Plostina           114.80  50 ⇓PKIKP    PKPdf     21 27 57.5 -0.7
PLOR  Plostina           114.80  50 ⇓P        PKPdf     21 27 57.5 -0.8
M13K  Dall Lake          114.84 327  IAMs_20  IAMs_20   22 25 13.1
      comp=Z,5µm,19.0s
VRI   Vrincioaia         114.86  50 ⇓PKIKP    PKiKP     21 27 58.8 +0.5
VRI   Vrincioaia         114.86  50 ⇓P        PKiKP     21 27 58.8 +0.5
VRI   Vrincioaia         114.86  50  P        PKPdf     21 27 58.2 -0.1
TESR  Tescani            114.97  49  P        PKiKP     21 28 00.2 +1.7
UNV   Unalaska Valle     115.00 319  IAMs_20  IAMs_20   22 05 58.7
      comp=Z,9µm,20.0s
F17K  Baldwin Pennin     115.23 334  IAMs_20  IAMs_20   22 12 27.4
      comp=Z,5µm,22.0s
PSN   Preselentsi        115.24  52  P        PP        21 28 58.2 -1.9
J14K  Nanvaranak Lak     115.44 329  IAMs_20  IAMs_20   22 26 55.0
      comp=Z,4µm,18.0s
G16K  Koyuk River        115.46 332  IAMs_20  IAMs_20   22 18 20.4
      comp=Z,5µm,20.0s
CFR   Carcaliu           115.64  51 ⇓PKIKP    PKPdf     21 27 59.7 -0.1
CFR   Carcaliu           115.64  51 ⇓P        PKPdf     21 27 59.7 -0.1
TIRR  Tirgusor           115.64  52 ⇓PKIKP    PKPdf     21 27 58.5 -1.3
TIRR  Tirgusor           115.64  52 ⇓P        PKPdf     21 27 58.5 -1.3
SCTR  Scanteiesti        115.66  50 ⇑P        PKiKP     21 28 00.9 +1.1
TPGR  Topolog            115.75  51 ⇑P        PKiKP     21 28 00.8 +0.7
VLDR  Vladesti           115.76  50 ⇓P        PKPdf     21 27 59.8 -0.2
K13K  Kusilvak Mount     115.78 328  IAMs_20  IAMs_20   22 15 03.1
      comp=Z,5µm,18.0s
KEPZ  Antalya-Kepez      115.95  60 ⇓P        PKPdf     21 27 59.1 -1.6
TLCR                     116.10  51 ⇓PKIKP    PKPdf     21 28 00.6 -0.1
TLCR                     116.10  51 ⇓P        PKPdf     21 28 00.6 -0.1
RDOG  Red Dog Mine       116.17 335  IAMs_20  IAMs_20   22 24 41.1
      comp=Z,7µm,21.0s
F15K  North Star Dit     116.45 333  IAMs_20  IAMs_20   22 14 55.8
      comp=Z,4µm,19.0s
ANM   Nome               116.57 331  IAMs_20  IAMs_20   22 15 18.9
      comp=Z,5µm,20.0s
SPITS Spitsbergen Ar     116.67  13  PKP      PKiKP     21 28 01.1 +0.1
      comp=Z,3.6nm,0.7s,baz=256,slow=0.6,SNR=1.5
CSS   Mathiatis          116.75  63  P        PKiKP     21 28 03.5 +1.1
NACGM Naroch             116.92  40 ePKiKP    PKiKP     21 28 02.2 +0.2
      comp=E,66nm,4.4s
C16K  Lisburne Hills     117.10 335  IAMs_20  IAMs_20   22 20 46.8
      comp=Z,6µm,20.0s
MNK   Minsk              117.48  40 i PKIKP   PKPdf     21 28 02.8 -0.2
MNK                                 i                   21 29 14.5
MNK                                 i PPP     PPP       21 31 42.4
MNK                                 i SS      SS        21 45 27.4 +1.5
MNK                                 i SSS     SSS       21 49 49.4
MNK                                  pmax     pmax
      comp=E,13nm,0.8s
MNK                                  pmax     pmax
      comp=N,14nm,0.8s
MNK                                  pmax     pmax
      comp=Z,40nm,1.1s
MNK                                  MLR      MLR
      comp=E,5µm,20.0s
MNK   Minsk              117.48  40 i PKP     PKPdf     21 28 02.9 -0.2
      comp=E,13nm,0.8s
MNK                                 i PKP     PKPdf     21 28 02.9 -0.2
      comp=N,14nm,0.8s
MNK                                 i PKP     PKPdf     21 28 02.9 -0.2
      comp=Z,40nm,1.1s,baz=260
MNK                                 i PP      PP        21 29 14.5 -0.9
MNK                                 i PPP     PPP       21 31 42.4
MNK                                 i SS      SS        21 45 27.4 +1.5
MNK                                 i SSS     SSS       21 49 49.4
MNK                                 i LQ      LQ        22 10 40.9
MNK                                 i LRM     MLR       22 17 54.0
      comp=E,5µm,20.1s
VSU   Vasula             117.51  36⇑iPKIKP    PKiKP     21 28 03.2 +0.2
VSU                                  MLR      MLR
      comp=Z,13µm,19.0s
KKUL  Konya-Kulu         117.56  58  P        PKiKP     21 28 04.8 +0.9
KIEV  Kiev               117.57  45 ⇑PKIKP    PKPdf     21 28 01.5 -1.8
KIEV  Kiev               117.57  45  PKPdf    PKPdf     21 28 02.1 -1.2
KIEV  Kiev               117.57  45  IAMs_20  IAMs_20   22 18 09.5
      comp=Z,10µm,21.0s
KIEV  Kiev               117.57  45  P        PKPdf     21 28 02.6 -0.7
KIEV  Kiev               117.57  45 ⇑P        PKPdf     21 28 01.5 -1.8
KIEV  Kiev               117.57  45  P        PKiKP     21 28 04.0 +0.6
AKASG Malin Array Be     117.58  45  PKP      PKPdf     21 28 02.5 -0.8
      comp=Z,3.2nm,0.6s,baz=267,slow=3.0,SNR=14
AKASG                                PP       PP        21 29 13.4 -2.8
      comp=Z,18nm,1.3s,baz=257,slow=8.0,SNR=12
AKASG                                PKKPbc   PKKPbc    21 38 26.8 +0.4
      comp=Z,0.3nm,0.4s,baz=77,slow=2.4,SNR=1.4
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AKASG Malin Array Be     117.58  45  PKIKP    PKPdf     21 28 01.9 -1.5
AKASG Malin Array Be     117.58  45           PKPdf     21 28 01.9 -1.5
AKBB  Malin Array Si     117.58  45d iPKIKP   PKiKP     21 28 03.6 +0.2
AKBB                                 MLR      MLR
      comp=Z,11µm,21.0s
AKBB  Malin Array Si     117.58  45           PKPdf     21 28 02.0 -1.3
FINES FINESS Array B     117.63  33  PKP      PKiKP     21 28 03.3 +0.2
      comp=Z,4.0nm,1.0s,baz=321,slow=2.4,SNR=7.3
FINES                                PKKP     PKKPdf    21 38 55.0 -0.1
      comp=Z,0.7nm,0.6s,baz=91,slow=5.7,SNR=3.4
SPIA  Saint Paul Isl     117.74 323  IAMs_20  IAMs_20   22 07 16.1
      comp=Z,7µm,21.0s
TNA   Tin City           117.78 332  IAMs_20  IAMs_20   22 17 11.8
      comp=Z,5µm,21.0s
MMAI  Mount Meron Ar     117.84  65  PKP      PKPdf     21 28 04.4 -0.2
      comp=Z,2.4nm,0.4s,baz=17,slow=7.1,SNR=6.8
BR131 Keskin Array S     118.24  58  PKIKP    PKPdf     21 28 04.3 -0.9
BR131 Keskin Array S     118.24  58  PKPdf    PKPdf     21 28 04.3 -0.9
BRTR  Keskin Array B     118.24  58  PKP      PKPdf     21 28 05.2 -0.1
      comp=Z,4.5nm,0.8s,baz=212,slow=2.2,SNR=13
BRTR                                 PKKPbc   PKKPab    21 38 27.6 +2.4
      comp=Z,0.4nm,0.8s,baz=85,slow=1.7,SNR=1.1
BRTR  Keskin Array B     118.24  58  PKIKP    PKPdf     21 28 03.7 -1.5
BRTR  Keskin Array B     118.24  58  PKPdf    PKPdf     21 28 03.7 -1.5
ARCES ARCESS Array B     118.26  23  PKP      PKiKP     21 28 04.3 +0.1
      comp=Z,4.6nm,1.1s,baz=255,slow=1.8,SNR=4.0
ARCES                                PKKPbc   PKKPab    21 38 23.7 +0.2
      comp=Z,3.2nm,0.9s,baz=48,slow=1.8,SNR=4.5
ARCES ARCESS Array B     118.26  23  PKIKP    PKPdf     21 28 03.3 -0.9
ARCES ARCESS Array B     118.26  23           PKPdf     21 28 03.3 -0.9
ILGA  Ilgaz              118.61  56  PKPdf    PKPdf     21 28 04.8 -1.1
KEV   Kevo               118.80  23  IAMs_20  IAMs_20   22 18 48.2
      comp=Z,7µm,19.0s
ATKA  Atka Island        119.24 317  IAMs_20  IAMs_20   22 12 56.1
      comp=Z,7µm,18.0s
SIM   Simferopol'        119.72  52  P        Pdif      21 24 29.5 -1.0
SIM                                 i                   21 28 07.0
SIM                                                     21 29 30.0
SIM                                  PS       PKKPdf    21 39 21.0  +30
SIM                                  SS       SS        21 45 56.0 +0.6
SIM                                  pmax     pmax
      comp=Z,80nm,11.0s
SIM                                  pmax     pmax
      comp=Z,42µm,1.5s
SIM                                  pmax     pmax
      comp=Z,740nm,7.0s
ANDN  Andirin            119.78  61  P        PKiKP     21 28 09.1 +0.9
APA   Apatity            121.13  26 i PKIKP   PKPdf     21 28 09.1 -0.6
APA                                 e                   21 29 40.8
APA                                 eS        SKSac     21 35 04.9 -2.3
APA                                 ePS       PS        21 39 33.6 +1.4
APA                                 eSS       SS        21 46 12.2 +0.1
LVZ   Lovozero           121.59  25⇑iPKIKP    PKiKP     21 28 11.3 +0.5
ARPR  Arapgir-MALATY     121.64  59  IAMs_20  IAMs_20   22 27 21.2
      comp=Z,8µm,19.0s
ARPR  Arapgir-MALATY     121.64  59  P        PKiKP     21 28 13.2 +1.2
ANN   Anapa              122.02  53 i PKIKP   PKPdf     21 28 11.8 -0.3
ANN                                 e                   21 28 15.7
ANN                                 e                   21 29 45.6
ANN                                 e                   21 35 10.7
ANN                                 ePS       PS        21 39 42.8 +1.9
ANN                                 eSS       SS        21 46 29.3 +4.5
ANN                                  pmax     pmax
      comp=Z,34nm,1.4s
OBN   Obninsk            122.54  40d iPKIKP   PKiKP     21 28 13.7 +0.8
OBN                                 e                   21 29 49.8
OBN                                 ePPP      PPP       21 32 23.4
OBN                                 i SSS     SSS       21 51 04.1
OBN                                  pmax     pmax
      comp=Z,87nm,1.4s
OBN                                  MLR      MLR
      comp=Z,12µm,19.0s
OBN   Obninsk            122.54  40 ⇑P        PKiKP     21 28 14.1 +1.1
OBN   Obninsk            122.54  40  P        PKiKP     21 28 14.0 +1.1
KELT  Kelkit             122.55  58  P        PKiKP     21 28 14.9 +1.1
MTSU  Mount Surprise     122.64 221  P        PKiKP     21 28 16.5 +2.1
MTSU  Mount Surprise     122.64 221  P        PKPdf     21 28 13.3 -1.0
MOS   Moscow             123.17  40 i PKIKP   PKiKP     21 28 15.1 +0.9
MOS                                 e                   21 30 03.4
MOS                                 ePPP      PPP       21 32 35.9
MOS                                 e                   21 35 15.8
MOS                                 eSS       SS        21 46 53.9  +15
MOS                                  pmax     pmax
      comp=Z,61nm,1.3s
ASAR  Alice Springs      123.20 208  PKP      PKPdf     21 28 13.6 -1.6
      comp=Z,5.3nm,0.7s,baz=135,slow=1.8,SNR=29
ASAR                                 PKKPbc   PKKPbc    21 38 04.5 -0.7
      comp=Z,1.3nm,0.7s,baz=332,slow=2.9,SNR=7.8
ASAR                                 SKKPbc   SKKPbc    21 41 53.3 +1.3
      comp=Z,2.0nm,0.9s,baz=338,slow=4.4,SNR=4.6
ASAR  Alice Springs      123.20 208  PKIKP    PKPdf     21 28 12.3 -2.9
ASAR  Alice Springs      123.20 208  PKPdf    PKPdf     21 28 12.3 -2.9
AS31  Alice Springs      123.20 208  P        PKPdf     21 28 14.7 -0.5
QIS   Mount Isa          123.25 215  P        PKiKP     21 28 15.9 +0.3
QIS   Mount Isa          123.25 215  P        PKiKP     21 28 16.5 +1.0
ADZR  Andozero           123.33  30 ePKIKP    PKPdf     21 28 13.6 -0.4
ADZR                                                    21 29 54.6
ADZR                                 pmax     pmax
      comp=Z,47nm,1.1s
SOC   Sochi              123.46  54 ePKIKP    PKPdf     21 28 14.5 -0.4
SOC                                 e                   21 29 56.4
SOC                                 ePPP      PPP       21 32 34.8
SOC                                 ePS       PS        21 39 54.7 +0.9
SOC                                 eSSS      SSS       21 51 16.5
SOC                                  pmax     pmax
      comp=Z,22nm,1.1s
SOC                                  pmax     pmax
      comp=Z,16nm,0.9s
RAYN  Ar Rayn            123.49  79 ⇑PKIKP    PKPdf     21 28 13.5 -2.2
RAYN  Ar Rayn            123.49  79 i P       PKPdf     21 28 14.6 -1.1
      SNR=9.5
RAYN  Ar Rayn            123.49  79  P        PKiKP     21 28 16.5 +0.6
LPSR  Galich'ya Gora     123.81  44 ePKIKP    PKPdf     21 28 14.1 -1.2
LPSR                                e                   21 28 16.8
LPSR                                 pmax     pmax
      comp=Z,30nm,0.6s
LPSR                                 MLR      MLR
      comp=Z,13µm,20.0s
VSR   Storozhevoye       123.88  45 ePKIKP    PKPdf     21 28 14.4 -1.1
VSR                                 e                   21 28 17.0
VSR                                  pmax     pmax
      comp=Z,50nm,1.3s
VORR  Voronezh           123.93  45 ePKIKP    PKPdf     21 28 15.1 -0.4
VORR                                e                   21 28 16.3
VORR                                 pmax     pmax
      comp=Z,20nm,0.3s
VORR                                 MLR      MLR
      comp=Z,7µm,17.0s
VORD  Divnogorie         123.94  46 ePKIKP    PKPdf     21 28 15.4 -0.2
VORD                                e                   21 28 17.3
VORD                                e                   21 29 58.1
VORD                                 pmax     pmax
      comp=Z,30nm,1.3s
VORD                                 MLR      MLR
      comp=Z,2µm,19.0s
WRKA  Warakurna          124.03 202  P        PKiKP     21 28 18.1 +1.1
KLMR  Klimovskoe         124.11  34 ePKIKP    PKPdf     21 28 14.2 -1.4
KLMR                                e                   21 29 58.1
KLMR                                 SP       SP        21 39 58.7 +2.8
KLMR                                 PS       PS        21 40 00.6 +1.8
KLMR                                 pmax     pmax
      comp=Z,121nm,1.2s
ERBR  Yeremizino-Bor     124.27  52 i PKIKP   PKPdf     21 28 16.5 +0.1
ERBR                                e                   21 28 19.5
ERBR                                e                   21 35 18.2
ERBR                                 pmax     pmax
      comp=Z,34nm,1.2s
LABN  Labinsk            124.32  53 i PKIKP   PKiKP     21 28 16.9 +0.1
LABN                                e                   21 28 19.9
LABN                                e                   21 35 19.0
LABN                                 pmax     pmax
      comp=Z,10.0nm,0.7s
HOMI  Horasan            124.53  59 ⇓P        PKPdf     21 28 17.1 -0.3
EPOS  Posof              125.37  57  P        PKiKP     21 28 20.8 +1.6
VRH   Novokhopyorsk      125.48  45 ePKIKP    PKPdf     21 28 17.0 -1.5
VRH                                 e                   21 28 18.8
VRH                                  pmax     pmax
      comp=Z,40nm,1.2s
HAKT  HAKKARI            125.50  62  P        PKiKP     21 28 20.5 +0.8
NEUR  Neytrino           125.57  55⇓ePKIKP    PKPdf     21 28 16.2 -3.0
NEUR                                 MLR      MLR
      comp=Z,20µm,26.0s
SHA1  Shidzhatmaz        125.59  55⇑ePKIKP    PKPdf     21 28 18.9 -0.4
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KIV   Kislovodsk         125.64  54 i P       Pdif     21 24 55.8 -1.1
KIV                                 i                  21 28 19.9
KIV                                 e                  21 30 10.7
KIV                                 ePPP      PPP      21 32 51.4
KIV                                 e                  21 35 23.5
KIV                                 ePS       PS       21 40 13.3 +0.1
KIV                                 eSS       SS       21 47 07.8 -3.1
KIV                                   pmax    pmax
      comp=Z,22nm,1.0s
KIV                                   MLR     MLR
      comp=Z,6µm,23.0s
KIV   Kislovodsk         125.64  54   IAMs_20 IAMs_20  22 24 26.5
      comp=Z,8µm,22.0s
KIV   Kislovodsk         125.64  54 i P       PKiKP    21 28 19.5 -0.1
      SNR=11
KIV   Kislovodsk         125.64  54 ⇑P        PKiKP    21 28 20.0 +0.4
KIV   Kislovodsk         125.64  54   PKP     PKiKP    21 28 20.1 +0.6
KIV   Kislovodsk         125.64  54   P       PKiKP    21 28 20.2 +0.6
KBZ   Khabaz             125.77  55   PKP     PKPdf    21 28 18.4 -0.9
      comp=Z,7.5nm,1.0s,baz=314,slow=2.4,SNR=14
KBZ   Khabaz             125.77  55⇓iPKIKP    PKPdf    21 28 18.7 -0.6
KBZ                                   MLR     MLR
      comp=Z,7µm,22.0s
OZAP  Van, Ozalp-Mer     125.91  61 ⇑P        PKiKP    21 28 21.5 +1.0
GOF   Gofitskoye         126.00  53cePKIKP    PKPdf    21 28 13.7 -6.0
H11S2 WAKE ISLAND Hy     126.24 273   T       T        23 47 27.8
      baz=112,slow=75,SNR=467
NCK   Nalchik            126.25  55⇓ePKIKP    PKPdf    21 28 19.4 -0.9
H11S1 WAKE ISLAND Hy     126.25 273   T       T        23 47 26.7
      baz=112,slow=75,SNR=676
H11S3 WAKE ISLAND Hy     126.26 273   T       T        23 47 28.6
      baz=112,slow=75,SNR=686
WRA   Warramunga Arr     126.30 210   PKP     PKPdf    21 28 20.0 -1.2
      comp=Z,17nm,0.8s,baz=159,slow=1.7,SNR=49
WRA                                   SKKPbc  SKKPbc   21 41 42.3 +0.7
      comp=Z,2.0nm,1.1s,baz=324,slow=4.6,SNR=4.6
WRA   Warramunga Arr     126.30 210   PKIKP   PKPdf    21 28 17.9 -3.3
WRA   Warramunga Arr     126.30 210           PKPdf    21 28 17.9 -3.3
WRAB  Tennant Creek      126.30 210⇑ePKIKP    PKPdf    21 28 19.0 -2.2
WRAB  Tennant Creek      126.30 210   PKPdf   PKPdf    21 28 19.6 -1.6
WRAB  Tennant Creek      126.30 210   P       PKPdf    21 28 21.3 +0.1
H11N3 WAKE ISLAND Hy     126.50 275   T       T        23 47 48.3
      baz=112,slow=75,SNR=184
H11N1 WAKE ISLAND Hy     126.52 275   T       T        23 47 49.6
      baz=112,slow=75,SNR=89
H11N2 WAKE ISLAND Hy     126.52 275   T       T        23 47 49.7
      baz=112,slow=75,SNR=242
GNI   Garni              126.70  59c iPKIKP   PKiKP    21 28 22.4 +0.5
GNI                                   MLR     MLR
      comp=Z,9µm,21.0s
GNI   Garni              126.70  59   P       PKiKP    21 28 22.6 +0.6
NAX   Nakhchivan         127.14  60   PKIKP   PKPdf    21 28 21.1 -1.1
KRVT  Keravat (AS076     127.34 239   SKP     SKPdf    21 31 57.6 -0.5
      comp=Z,257nm,0.3s,baz=87,slow=16,SNR=4.1
BILL  Bilibino           127.60 336⇑ePKIKP    PKPdf    21 28 22.3 +0.2
BILL                                  MLR     MLR
      comp=Z,7µm,20.0s
BILL  Bilibino           127.60 336   IAMs_20 IAMs_20  22 25 37.2
      comp=Z,4µm,20.0s
GANJ  Ganja              127.96  59   PKIKP   PKPdf    21 28 22.7 -1.0
MNGR  Mingechevir, A     128.55  59   PKIKP   PKPdf    21 28 23.8 -0.9
SEKA  Sheki              128.68  58   PKIKP   PKPdf    21 28 24.1 -1.0
MAK   Makhachkala        129.05  56 i P       Pdif     21 25 00.3  -12
MAK                                 ePS       PS       21 40 46.4 +3.6
MAK                                 eSS       SS       21 47 53.4 +0.2
AKT   Akhty              129.10  58 i P       Pdif     21 25 12.0 -0.4
AKT                                 i                  21 28 25.9
AKT                                 e                  21 30 32.6
AKT                                 ePPP      PPP      21 33 20.2
AKT                                 ePS       PS       21 40 41.1 -2.5
AKT                                 eSS       SS       21 47 52.8 -1.4
AKT                                   pmax    pmax
      comp=Z,45nm,1.5s
BELG  Belogornoye        129.12  44c iPKIKP   PKiKP    21 28 25.8 -0.3
BELG                                  MLR     MLR
      comp=Z,2µm,20.0s
KIRV  Kirov              129.35  36⇓ePKIKP    PKPdf    21 28 25.2 -0.5
LKRN  Lenkeran, Azer     129.62  61   PKIKP   PKPdf    21 28 25.8 -1.0
MBWA  Marble Bar         130.02 194   P       PKiKP    21 28 29.2 +0.2
MBWA  Marble Bar         130.02 194   PKP     PKiKP    21 28 29.8 +0.7
MZR   Muzera             130.29  83 i P       PKiKP    21 28 29.6 +0.1
      SNR=16
FITZ  Fitzroy Crossi     131.36 202   PKP     PKPdf    21 28 30.4 -0.4
      comp=Z,19nm,1.0s,baz=168,slow=2.7,SNR=12
FITZ                                  SKPbc   SKPbc    21 31 54.6 -0.7
      comp=Z,11nm,1.0s,baz=171,slow=1.7,SNR=11
FITZ  Fitzroy Crossi     131.36 202   PKPdf   PKPdf    21 28 30.0 -0.8
AJN   Ajban              132.07  81 i P       PKiKP    21 28 32.8 -0.2
      SNR=5.8
ASUD  Al Ashush, Dub     132.38  81 i P       PKiKP    21 28 33.8 +0.2
      SNR=6.7
KNRA  Kununurra          132.46 207   P       PKiKP    21 28 34.4 +0.4
ALNE  Al Ain             132.59  82 i P       PKiKP    21 28 34.4 +0.4
      SNR=6.4
FAQ   Al Faqa, Dubai     132.65  81   P       PKiKP    21 28 34.3 +0.2
NAZ   Nazwa, Dubai       132.77  81 i P       PKPdf    21 28 33.1 -0.1
      SNR=6.2
ASHO  Ashiyiah           133.04  81 i P       PKPdf    21 28 33.4 -0.4
      SNR=6.3
HATD  Hatta, Dubai       133.14  81 i P       PKiKP    21 28 35.0 -0.2
      SNR=8.6
UOSS  Minazif            133.24  81 i P       PKPdf    21 28 33.9 -0.2
      SNR=6.6
UOSS  Minazif            133.24  81   PKP     PKiKP    21 28 34.8 -0.5
SOHO  SOHO               133.30  82 i P       PKiKP    21 28 35.0 -0.5
      SNR=14
MSFE  Esma-Masafi        133.31  81 i P       PKiKP    21 28 35.0 -0.5
      SNR=6.3
SHME  Shamm              133.47  80 i P       PKiKP    21 28 35.2 -0.5
      SNR=8.8
ARTI  Arti               134.58  37 i PKIKP   PKPdf    21 28 34.2 -1.4
ARTI                                                   21 31 06.4
ARTI                                  SSS     SSS      21 54 01.4
ARTI                                  MLR     MLR
      comp=Z,11µm,20.0s
ARTI  Arti               134.58  37   PKPdf   PKPdf    21 28 34.2 -1.4
TIXI  Tiksi              134.84 351   PKP     PKiKP    21 28 36.9 -0.2
      comp=Z,11nm,0.7s,baz=10,slow=4.6,SNR=3.4
TIXI  Tiksi              134.84 351⇓ePKIKP    PKPdf    21 28 33.8 -1.9
TIXI  Tiksi              134.84 351   IAMs_20 IAMs_20  22 32 10.5
      comp=Z,5µm,20.0s
SEY   Seymchan           134.99 333   PKP     PKPdf    21 28 36.6 +0.4
      comp=Z,16nm,0.8s,baz=136,slow=5.7,SNR=11
SEY   Seymchan           134.99 333⇓ePKIKP    PKPdf    21 28 35.8 -0.4
SEY                                   MLR     MLR
      comp=Z,4µm,19.0s
SVE   Sverdlovsk         135.62  36 i PKIKP   PKiKP    21 28 39.0 -0.2
SVE                                 e                  21 31 14.5
SVE                                 ePPP      PPP      21 34 13.4
SVE                                 e                  21 49 07.1
SVE                                   pmax    pmax
      comp=Z,35nm,2.1s
SVE                                   MLR     MLR
      comp=Z,11µm,21.0s
SVE                                   MLR     MLR
      comp=E,5µm,22.0s
PET   Petropavlovsk      135.64 319 ePKHKP    PKPpre   21 28 27.5
PET                                 i                  21 28 38.5
PET                                 e                  21 31 21.0
PET                                 ePS       PS       21 41 30.0 -9.2
PET                                 eSS       SS       21 49 16.3 +3.7
PET                                   pmax    pmax
      comp=Z,900nm,12.6s
PET                                   pmax    pmax
      comp=Z,1µm,17.3s
PET                                   MLR     MLR
      comp=Z,4µm,18.0s
PET   Petropavlovsk      135.64 319   IAMs_20 IAMs_20  22 40 31.8
      comp=Z,4µm,20.0s
PEA0B Petropavlovsk-     136.18 319c iPKIKP   PKiKP    21 28 41.9 +1.5
PETK  Petropavlovsk-     136.18 319   PKhKP   PKPpre   21 28 31.7
      comp=Z,6.2nm,0.8s,baz=77,slow=6.4,SNR=3.7
PETK                                  PKP     PKiKP    21 28 40.0 -0.5
      comp=Z,11nm,0.8s,baz=80,slow=2.6,SNR=8.5
PETK  Petropavlovsk-     136.18 319   PKIKP   PKPdf    21 28 38.9 +0.1
PETK  Petropavlovsk-     136.18 319   PKPdf   PKPdf    21 28 38.9 +0.1
NRIK  Noril'sk           136.78  11   PKP     PKPdf    21 28 38.9 -0.5
      comp=Z,2.5nm,0.4s,baz=282,slow=2.4,SNR=7.6
GENI  Genyem             137.10 230   PKP     PKPdf    21 28 40.9 -0.8
MA2   Magadan            137.33 330   PKP     PKPdf    21 28 40.7 +0.1
      comp=Z,4.7nm,0.5s,baz=9.5,slow=12,SNR=3.7
MA2   Magadan            137.33 330⇓ePKIKP    PKPdf    21 28 38.0 -2.7
MA2   Magadan            137.33 330   IAMs_20 IAMs_20  22 37 25.7
      comp=Z,4µm,20.0s
SKR   Severo-Kuril's     137.75 316 i PKHKP   PKPpre   21 28 30.8
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SKR                                 eSS       SS       21 49 32.0 -5.7
SKR                                   pmax    pmax
      comp=Z,1µm,12.6s
SOEI  Soe                139.59 204   PKP     PKPdf    21 28 45.4 -1.0
MMRI  Maumere            141.33 202   PKP     PKPdf    21 28 48.5 -0.9
EDFI  Ende, Flores       141.40 201   PKP     PKPdf    21 28 44.6 -5.1
FAKI  Fak Fak            141.82 220   IAMs_20 IAMs_20  22 25 39.9
      comp=Z,7µm,20.0s
LBFI  Labuhan Bajo,      142.19 198   PKP     PKPdf    21 28 49.3 -1.7
BORK  Borovoye           142.24  38c iPKIKP   PKPdf    21 28 47.7 -2.1
BORK                                  MLR     MLR
      comp=Z,11µm,20.0s
BORK  Borovoye           142.24  38   PKPdf   PKPdf    21 28 47.0 -2.8
BVAR  Borovoye Array     142.29  38   PKhKP   PKPpre   21 28 45.9
      comp=Z,4.2nm,0.8s,baz=252,slow=4.1,SNR=7.7
MWPI  Manokwari, Pap     142.34 225   PKP     PKPdf    21 28 49.6 -1.6
PLAI  Plampang           142.39 195   PKP     PKPdf    21 28 49.6 -1.7
DBNI  Kabupaten Domp     142.58 196   PKP     PKPdf    21 28 50.0 -1.7
TWSI  Taliwang, Sumb     142.67 193   PKP     PKPdf    21 28 47.0 -4.8
IGBI  Denpasar           142.92 191   PKP     PKPdf    21 28 50.7 -1.5
YAK   Yakutsk            143.17 344   PKP     PKPbc    21 28 48.8 +0.8
      comp=Z,69nm,1.0s,baz=351,slow=1.4,SNR=18
YAK   Yakutsk            143.17 344 ePKIKP    PKPbc    21 28 48.1  0.0
YAK                                 e                  21 28 59.1
YAK                                 e                  21 31 58.8
YAK                                 eSS       SS       21 50 36.8 -3.0
YAK                                   pmax    pmax
      comp=Z,91nm,1.2s
YAK                                   pmax    pmax
      comp=N,15nm,1.3s
YAK                                   pmax    pmax
      comp=E,13nm,1.3s
YAK                                   pmax    pmax
      comp=Z,1µm,3.8s
YAK                                   pmax    pmax
      comp=N,375nm,4.0s
YAK                                   pmax    pmax
      comp=E,463nm,4.9s
YAK   Yakutsk            143.17 344   PKPdf   PKPbc    21 28 48.4 +0.3
YAK   Yakutsk            143.17 344   IAMs_20 IAMs_20  22 47 00.3
      comp=Z,4µm,21.0s
RTBI  Rangdo, Negare     143.30 190   PKP     PKPdf    21 28 51.9 -1.1
JAGI  Jajag, Banyuwa     143.41 189   PKP     PKPdf    21 28 51.9 -1.2
SRBI  Singaraja          143.62 191   PKP     PKPdf    21 28 52.7 -0.8
ABJI  Asem Bagus         144.06 189   PKP     PKPdf    21 28 53.6 -0.6
SWI   Sorong             144.06 221   PKP     PKPbc    21 28 52.3 +0.2
BBSI  Bau Bau            144.15 204   PKP     PKPbc    21 28 53.2 +0.8
BLJI  Banyuglugur        144.20 188   PKP     PKPbc    21 28 52.5  0.0
NLAI  Namlea             144.27 213   PKP     PKPbc    21 28 53.6 +0.8
SNJI  Sawahan-Nganju     144.36 185   PKP     PKPbc    21 28 53.9 +0.7
WOJI  Wonogiri, Jawa     144.36 184   PKP     PKPab    21 28 52.5 -0.2
SJI   Sawahan            144.40 185   PKP     PKPab    21 28 52.4 -0.6
CMJI  Cimerak            144.48 180   PKP     PKPab    21 28 52.6 -0.6
KUR   Kuril'sk           144.51 310 ePKIKP    PKPdf    21 28 54.7 +0.7
KUR                                 i                  21 29 00.9
KUR                                 e                  21 32 08.4
KUR                                 i SS      SS       21 51 02.5 +5.5
KUR                                 eSSS      SSS      21 56 19.6
KUR                                   pmax    pmax
      comp=Z,6µm,12.5s
KUR                                   pmax    pmax
      comp=Z,536nm,1.1s
BBJI  Bungbulang         144.79 178   IAMs_20 IAMs_20  22 29 37.5
      comp=Z,4µm,21.0s
BBJI  Bungbulang         144.79 178   PKP     PKPbc    21 28 54.5  0.0
CNJI  Cibinong           144.92 177   PKP     PKPab    21 28 53.7 -1.1
KPJI  Karang Pucung      144.93 180   PKP     PKPab    21 28 53.7 -1.1
MNGI  Mangalore          145.12 109 eP        PKPdf    21 28 57.7 +1.7
SMRI  Semarang           145.17 183   PKP     PKPbc    21 28 54.1 -1.6
SKJI  Sukabumi           145.20 176   PKP     PKPbc    21 28 54.2 -1.5
CTJI  Waduk Cacaban      145.25 181   PKP     PKPbc    21 28 54.3 -1.6
CHM   Chimkent           145.31  55 ePKIKP    PKPbc    21 28 55.3 -0.1
CHM                                 e                  21 32 15.7
CHM   Chimkent           145.31  55 ePKP      PKPbc    21 28 55.3 -0.1
CHM                                 ePP       PP       21 32 15.8 +0.3
CHM                                   LR      LR       22 38 08.0
      comp=Z,3µm,18.2s
BRLS  Borolday           145.33  54 ePKIKP    PKPbc    21 28 55.2 -0.2
BRLS                                e                  21 32 15.5
BRLS  Borolday           145.33  54 ePKP      PKPbc    21 28 55.2 -0.2
BRLS                                ePP       PP       21 32 15.6 +0.1
MKS   Makassar           145.42 199   PKP     PKPbc    21 28 54.6 -1.9
NKL   Nikolayevsk        145.47 326 i PKIKP   PKPab    21 28 56.1 +0.4
NKL                                 e                  21 32 24.1
NKL                                 eSS       SS       21 51 13.4 +6.4
NKL                                   MLR     MLR
      comp=N,10µm,19.0s
CGJI  Cibinong           145.53 175   PKP     PKPbc    21 28 54.7 -2.1
KAPI  Kappang            145.53 200   PKPbc   PKPab    21 28 57.8 +0.8
      comp=N,245nm,1.0s,baz=211,slow=2.7,SNR=35
KAPI  Kappang            145.53 200   PKP2    PKPdf    21 28 55.8 -1.0
KAPI                                  MLR     MLR
      comp=Z,9µm,22.0s
KAPI  Kappang            145.53 200           PKPdf    21 28 55.8 -1.0
KAPI  Kappang            145.53 200   PKP     PKPdf    21 28 54.8 -2.0
KAPI  Kappang            145.53 200   PKP     PKPab    21 28 57.3 +0.3
KDI   Kendari            145.54 205   PKP     PKPdf    21 28 54.8 -2.0
TYV   Tymovskoe          145.63 321 ePKP2     PKPab    21 28 56.3 -0.1
TYV                                   pmax    pmax
      comp=Z,130nm,1.2s
TYV                                   pmax    pmax
      comp=Z,5µm,4.1s
IUG   Iuzhnay            145.66  55 ePKP2     PKPdf    21 28 56.0 -0.3
IUG                                 e                  21 32 17.7
IUG   Iuzhnay            145.66  55 ePKP      PKPdf    21 28 56.0 -0.3
IUG                                 ePP       PP       21 32 17.8 +0.2
KBL   Kabul              145.66  69   PKIKP   PKPdf    21 28 54.9 -1.8
KBL   Kabul              145.66  69   PKPdf   PKPdf    21 28 54.9 -1.8
KKSI  Kolaka, Sulawe     145.70 203   PKP     PKPdf    21 28 55.1 -2.0
KKAR  Karatay Array      145.79  54   PKIKP   PKPdf    21 28 55.5 -0.9
KKAR  Karatay Array      145.79  54   PKPbc   PKPdf    21 28 55.5 -0.9
KOD   Kodaikanal         145.82 115 eP        PKPab    21 28 59.0 +0.5
SANI  Sanana             145.83 212   PKP     PKPdf    21 28 55.3 -2.0
BOM   Bombay             146.00  97 eP        PKPab    21 28 59.8 +1.0
TNG   Tangerang          146.03 176   PKP     PKPdf    21 28 55.6 -2.0
SBJI  Serang             146.05 176   PKP     PKPdf    21 28 56.8 -0.9
YUK   Yuzh-Kuril'sk      146.21 308c iPKP2    PKiKP    21 29 00.0 -1.2
YUK                                 e                  21 32 28.2
YUK                                 eSS       SS       21 51 19.1 +2.6
YUK                                 eSSS      SSS      21 56 44.2
YUK                                   pmax    pmax
      comp=Z,1.0nm,1.0s
BHV   Bhavnagar          146.39  92 eP        PKPdf    21 28 59.8 +1.8
DZA   Taraz              146.43  54 ePKIKP    PKPdf    21 28 57.2 -0.3
DZA   Taraz              146.43  54 ePKP      PKPdf    21 28 57.3 -0.3
KASI  Kota Agung         146.49 172   PKP     PKPdf    21 28 57.5 -0.9
PALK  Pallekele          146.50 123 ⇑PKP2     PKPbc    21 28 59.5 -0.4
PALK  Pallekele          146.50 123   PKP     PKPdf    21 28 57.5 -1.0
PALK  Pallekele          146.50 123 i P       PKPbc    21 28 59.9  0.0
      SNR=7.8
PALK  Pallekele          146.50 123   PKP     PKPab    21 29 00.6 -0.2
SPSI  Sidrap Palu        146.51 200   PKP     PKPdf    21 28 57.6 -0.9
KAD   Karad              146.57 101 eP        PKPab    21 29 01.0  0.0
BLSI  Bandar Lampung     146.72 174   PKP     PKPdf    21 28 57.9 -0.9
UGL   Uglegorsk          146.80 319 ePKP2     PKiKP    21 29 01.6 -0.7
UGL                                   pmax    pmax
      comp=Z,11µm,11.0s
SALM  Salem              147.18 113 eP        PKPbc    21 29 01.6 -0.1
YSS   Yuzhno-Sakhali     147.29 315 i PKP2    PKPbc    21 29 01.8 +0.7
YSS                                 e                  21 32 34.4
YSS                                 eSS       SS       21 51 28.3  0.0
YSS                                   pmax    pmax
      comp=Z,5µm,6.2s
YSS                                   pmax    pmax
      comp=Z,50nm,0.9s
YSS   Yuzhno-Sakhali     147.29 315   IAMs_20 IAMs_20  22 22 31.0
      comp=Z,7µm,21.0s
MDSI  Maura Dua          147.47 172   PKP     PKPdf    21 28 59.5 -0.6
TNTI  Ternate            147.57 217   PKP     PKPdf    21 28 59.8 -0.5
KURK  Kurchatov          147.86  37dePKIKP    PKPdf    21 29 00.8 +1.3
KURK                                  MLR     MLR
      comp=Z,9µm,24.0s
KURK  Kurchatov          147.86  37           PKPdf    21 29 00.7 +1.1
KURBB Kurchatov Arra     147.86  37   PKPbc   PKPbc    21 29 01.2 -1.3
      comp=Z,28nm,0.7s,baz=302,slow=2.9,SNR=52
MMSI  Mamuju             147.98 200   PKP     PKPdf    21 29 01.8 +0.8
LHSI  Lahat              148.03 170   PKP     PKPdf    21 29 00.4 -0.6
LUWI  Luwuk              148.15 208   IAMs_20 IAMs_20  22 32 50.4
      comp=Z,6µm,22.0s
LUWI  Luwuk              148.15 208   PKP     PKPdf    21 29 00.7 -0.5
BBKI  Banjar Baru        148.21 192   PKP     PKPdf    21 29 00.0 -1.3
EKS2  Erkin-Say          148.23  53   P       PKPdf    21 29 01.4 +0.8
      SNR=32
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JKA   Kamikawa-asahi     148.43 310   PKPbc   PKPdf    21 29 02.2 +1.5
ASAJ  Asahikawa          148.43 310   PKIKP   PKPdf    21 29 02.2 +1.5
UDPR  Udaipur            148.55  88 eP        PKPbc    21 29 03.8 -1.4
USP   Ospenovka          148.56  52   P       PKPdf    21 29 01.5 +0.5
      SNR=56
SGDS  Sogindy            148.59  51 ePKP      PKPdf    21 29 00.8 -0.3
SGDS                                ePP       PP       21 32 35.1 +0.4
ZALV  Zalesovo Beam      148.69  27   PKPbc   PKPbc    21 29 03.4 -1.2
      comp=Z,66nm,0.9s,baz=277,slow=2.5,SNR=52
ZALV  Zalesovo Beam      148.69  27   PKPdf   PKPdf    21 28 59.2 -1.6
APSI  Ampana             148.71 206   PKP     PKPdf    21 29 02.6 +0.5
AAK   Ala-Archa          148.74  53   P       PKPbc    21 29 04.9 -0.5
      SNR=39
AAK   Ala-Archa          148.74  53dePKIKP    PKPdf    21 29 02.9 +1.4
AAK                                   MLR     MLR
      comp=Z,7µm,22.0s
AAK   Ala-Archa          148.74  53   PKPbc   PKPdf    21 29 02.2 +0.7
AAK   Ala-Archa          148.74  53 i P       PKPdf    21 29 03.0 +1.5
      SNR=93
AAK   Ala-Archa          148.74  53   PKP     PKPdf    21 29 02.8 +1.4
CHMS  Chumysh            148.81  52   P       PKPdf    21 29 03.2 +1.8
      SNR=40
BKNR  BIKANER            148.83  81 eP        PKPbc    21 29 04.5 -1.3
GRNR  Gornyy             149.00 325⇓iPKP2     PKPbc    21 29 05.5  0.0
GRNR                                  pmax    pmax
      comp=Z,10.0nm,1.2s
KBK   Karagaybulak       149.06  53   P       PKPdf    21 29 03.5 +1.5
      SNR=28
LATR  Latur              149.06 101 eP        PKPbc    21 29 04.9 -1.8
PMBI  Palembang          149.08 172   PKP     PKPbc    21 29 04.9 -1.9
NIL   Nilore             149.16  71   PKIKP   PKPdf    21 29 02.8 +0.5
NIL                                   MLR     MLR
      comp=Z,10µm,20.0s
NIL   Nilore             149.16  71   PKPbc   PKPdf    21 29 02.8 +0.5
TKM2  Tokmak 2           149.43  52   P       PKPdf    21 29 02.8 +0.1
      SNR=30
AJM   Ajmer              149.75  85 eP        PKPbc    21 29 05.9 -2.3
AJM                                   IAmb    IAmb     21 29 13.1
      comp=Z,77nm,0.8s
BKB   Balikpapan         149.90 197   PKPbc   PKPbc    21 29 07.0 -1.8
ULHL  Ulahol             150.09  53   P       PKPdf    21 29 04.6 +0.9
      SNR=28
TNSS  Tian-Shan          150.33  51 ePKIKP    PKPdf    21 29 03.5 -0.8
TNSS  Tian-Shan          150.33  51 ePKP      PKPdf    21 29 03.6 -0.8
MDOK  Medeo              150.35  51 ePKIKP    PKPdf    21 29 03.5 -0.5
MDOK                                e                  21 32 45.3
MDOK  Medeo              150.35  51 ePKP      PKPdf    21 29 03.6 -0.5
MDOK                                ePP       PP       21 32 45.3 +0.3
MDOK                                  LR      LR       22 41 06.9
HYB   Hyderabad          150.39 104 ePKiKP    PKPbc    21 29 09.2 -0.7
HYB                                   IAMs_20 IAMs_20  21 29 19.4
      comp=Z,5µm,13.6s
KSH2  Kashi              150.40  59   PKPbc   PKPdf    21 29 05.4 +1.1
KSH2                                  PP      PP       21 32 46.1 +0.6
KSH2                                  SKKS             21 39 31.8
KSH2                                  L       L
      comp=Z,5µm,20.4s
KSH2                                  L       L
      comp=Z,8µm,23.0s
KSH2                                  L       L
      comp=Z,11µm,24.1s
JMU   Jammu              150.50  72 eP        PKPdf    21 29 06.9 +2.5
TDK   Taldyqorghan       150.54  47 ePKIKP    PKPdf    21 29 03.9 -0.2
TDK                                 e                  21 32 46.4
TDK   Taldyqorghan       150.54  47 ePKP      PKPdf    21 29 03.9 -0.2
TDK                                 ePP       PP       21 32 46.5 +0.7
TDK                                   LR      LR       22 41 19.0
      comp=Z,7µm,19.2s
ZEA   Zeya               150.82 337 i PKIKP   PKPdf    21 29 05.7 +1.5
ZEA                                 e                  21 32 50.7
ZEA                                   pmax    pmax
      comp=Z,40nm,1.7s
ZEA                                   pmax    pmax
      comp=E,100nm,4.3s
ZEA                                   pmax    pmax
      comp=N,300nm,6.2s
ZEA                                   pmax    pmax
      comp=Z,1µm,3.9s
TOLI2 Tolitoli           150.90 206   PKPbc   PKPdf    21 29 06.5 +0.9
TOLI2                                 IAMs_20 IAMs_20  22 37 56.1
      comp=Z,4µm,21.0s
THN   Thein Dam          151.28  73 eP        PKPdf    21 29 08.2 +2.5
SATY  Saty               151.32  50 ePKIKP    PKPdf    21 29 05.1 -0.4
SATY                                e                  21 32 50.8
SATY  Saty               151.32  50 ePKP      PKPdf    21 29 05.1 -0.4
SATY                                ePP       PP       21 32 50.9 +0.4
TLWR  Talawar            151.45  74 eP        PKPdf    21 29 08.4 +2.5
GSI   Gunungsitoli       151.47 156   PKPbc   PKPdf    21 29 08.0 +1.6
TSSA  Tissa              151.61  72 eP        PKPdf    21 29 08.6 +2.2
UZB   Uzynbulak          151.70  50 ePKIKP    PKPdf    21 29 05.6 -0.5
UZB   Uzynbulak          151.70  50 ePKP      PKPdf    21 29 05.7 -0.5
VJD   Vijayawada         151.76 108 eP        PKPdf    21 29 09.1 +2.4
GUNA  GUNA               151.77  89 eP        PKPdf    21 29 09.1 +2.5
BHK   Bhakra             151.80  75 eP        PKPdf    21 29 09.4 +3.0
BHK                                   IAMs_20 IAMs_20  21 33 08.6
      comp=Z,1µm,16.3s
JHJR  Jhajjar            151.84  81 eP        PKPdf    21 29 08.9 +2.3
MAKZ  Makanchi           151.86  41 ⇑PKIKP    PKPdf    21 29 07.7 +1.6
SHLS  Shalkode           151.99  49 ePKIKP    PKPdf    21 29 06.5  0.0
SHLS  Shalkode           151.99  49 ePKP      PKPdf    21 29 06.5  0.0
MK31  Makanchi Array     152.05  41dePKIKP    PKPdf    21 29 06.2 -0.2
MKAR  Makanchi Array     152.05  41   PKP     PKPdf    21 29 06.3 -0.1
      comp=Z,2.7nm,0.7s,baz=16,slow=1.0,SNR=18
MKAR                                  PKPbc   sPKPdf   21 29 12.4 -0.1
      comp=Z,2.7nm,0.7s,baz=325,slow=1.5,SNR=15
MKAR  Makanchi Array     152.05  41   PKIKP   PKPdf    21 29 05.3 -1.0
MKAR  Makanchi Array     152.05  41   PKPdf   PKPdf    21 29 05.3 -1.0
KKR   Kurukshetra        152.12  78 eP        PKPdf    21 29 08.7 +1.8
CGRH  CHANDIGARH         152.12  77 eP        PKPdf    21 29 09.6 +2.6
CGRH                                  IAMs_20 IAMs_20  21 33 11.5
      comp=Z,2µm,20.3s
GNR   GANAUR             152.22  80 eP        PKPdf    21 29 09.6 +2.5
NGP   Nagpur             152.29  97 eP        PKPdf    21 29 09.7 +2.3
KLR   Kul'dur            152.31 326   PKPbc   PKPbc    21 29 12.8 -0.6
      comp=Z,15nm,1.0s,baz=33,slow=1.7,SNR=11
KLR   Kul'dur            152.31 326⇑ePKIKP    PKPdf    21 29 05.4 -1.2
ALCI  Alchi Leh          152.40  69 eP        PKPdf    21 29 10.0 +2.3
ALCI                                  IAMs_20 IAMs_20  21 33 12.9
      comp=Z,3µm,18.8s
JMIU  JAMIA UNIVERSI     152.41  81 eP        PKPdf    21 29 09.7 +2.3
AGRA  Agra               152.81  84 eP        PKPdf    21 29 10.5 +2.5
AGRA                                  IAmb    IAmb     21 29 18.1
      comp=Z,3µm,0.2s
ASOR  Ausora             152.85  81 eP        PKPdf    21 29 10.4 +2.3
ASOR                                  IAMs_20 IAMs_20  21 33 15.2
      comp=Z,3µm,22.7s
JHNI  Jhansi             153.08  88 eP        PKPdf    21 29 10.4 +1.9
KLP   Kalpa              153.40  75 eP        PKPdf    21 29 11.6 +2.4
HEH   HeiHe              153.53 332   PKPbc   PKPdf    21 29 08.7 +0.4
HEH                                   PP      PP       21 33 06.0 +3.9
HEH                                   PPMZ
      comp=Z,3µm,12.1s
HEH                                   L       L
      comp=Z,2µm,18.2s
HEH                                   L       L
      comp=Z,6µm,18.4s
HEH                                   L       L
      comp=Z,10µm,18.7s
UTK   UTTARKASHI         153.56  77 eP        PKPdf    21 29 11.6 +2.4
MJAR  Matsushiro Arr     153.65 296   PKP     PKPdf    21 29 08.4 -0.6
      comp=Z,4.8nm,1.1s,baz=248,slow=2.0,SNR=8.9
MJAR                                  PKPbc   PKiKP    21 29 18.8 +1.9
      comp=Z,6.4nm,0.7s,baz=116,slow=1.9,SNR=8.9
MJAR  Matsushiro Arr     153.65 296   PKIKP   PKPdf    21 29 06.7 -2.3
MJAR  Matsushiro Arr     153.65 296           PKPdf    21 29 06.7 -2.3
MAJO  Matsushiro         153.65 296   PKP     PKPdf    21 29 10.1 +1.1
DAV   Davao City (W)     153.77 221   PKP     PKPdf    21 29 09.4 -0.4
      comp=Z,77nm,0.3s,baz=76,slow=6.1,SNR=2.1
DAV   Davao City (W)     153.77 221   IAMs_20 IAMs_20  22 36 02.5
      comp=Z,5µm,20.0s
DAV   Davao City (W)     153.77 221   P       PKPdf    21 29 10.0 +0.2
JOSI  Joshimath          154.51  77 eP        PKPdf    21 29 13.0 +2.3
BNDA  BANDA              154.60  89 eP        PKPdf    21 29 12.0 +1.3
BNDA                                  IAMs_20 IAMs_20  21 33 23.9
      comp=Z,2µm,19.6s
LGTI  Lohaghat           154.92  80 eP        PKPdf    21 29 13.2 +1.9
USRK  Ussuriysk Ar.      155.25 317   PKP     PKPdf    21 29 10.7 -0.2
      comp=Z,4.4nm,1.0s,baz=211,slow=2.2,SNR=5.6
USRK                                  PKPbc   pPKPbc   21 29 21.1 -3.4
      comp=Z,6.8nm,0.9s,baz=60,slow=4.6,SNR=5.9
USRK  Ussuriysk Ar.      155.25 317   PKIKP   PKPdf    21 29 10.2 -0.7
USRK  Ussuriysk Ar.      155.25 317           PKPdf    21 29 10.2 -0.7
IRK   Irkutsk            155.51   7 ePKIKP    PKPdf    21 29 09.0 -2.1
IRK                                 e                  21 33 13.4
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IRK				pmax	pmax		
	comp=Z,183nm,3.2s						
MOY	**Mondy**	**155.62**	**12**	*e*PKIKP	**PKPdf**	**21 29 13.3**	**+1.9**
MOY				pmax	pmax		
	comp=Z,182nm,3.1s						
CIT	**Chita**	**155.67**	**353**	*e*PKIKP	**PKPdf**	**21 29 10.8**	**-0.5**
CIT				*e*		21 29 37.4	
CIT				pmax	pmax		
	comp=Z,251nm,3.3s						
ALBI	**Allahabad**	**155.88**	**90**	*e*P	**PKPdf**	**21 29 14.5**	**+2.2**
ALBI				IAMs_20	IAMs_20	21 33 31.9	
	comp=Z,1μm,11.0s						
TLY	**Talaya**	**156.00**	**8**	PKP	**PKPdf**	**21 29 13.2**	**+1.5**
	comp=Z,18nm,1.1s,baz=155,slow=3.8,SNR=19						
TLY				PKPab	**PKPab**	**21 29 40.0**	**+1.1**
	comp=Z,6.9nm,0.8s,baz=157,slow=4.9,SNR=3.9						
TLY	**Talaya**	**156.00**	**8**	*c i*PKIKP	**PKPdf**	**21 29 13.9**	**+2.1**
TLY	**Talaya**	**156.00**	**8**		**PKPdf**	**21 29 11.8**	**+0.1**
BRCI	**Bahraich**	**156.07**	**85**	*e*P	**PKPdf**	**21 29 15.0**	**+2.4**
BRCI				IAMs_20	IAMs_20	21 33 34.7	
	comp=Z,1μm,19.1s						
MDJ	**Mudanjiang**	**156.41**	**320**	PKP	**PKPdf**	**21 29 13.6**	**+1.1**
MDJ				L	L		
	comp=Z,1μm,24.1s						
MDJ				L	L		
	comp=Z,6μm,18.7s						
MDJ				L	L		
	comp=Z,13μm,18.6s						
HILR	**Hailar Array B**	**156.80**	**341**	PKP	**PKPdf**	**21 29 12.4**	**-0.5**
	comp=Z,0.8nm,0.4s,baz=123,slow=5.5,SNR=12						
HILR				PKPab	**PKPab**	**21 29 43.5**	**+1.0**
	comp=Z,10nm,0.7s,baz=74,slow=6.3,SNR=8.0						
BNX	**BinXian**	**156.85**	**325**	⇓PKP	**PKPdf**	**21 29 13.4**	**+0.4**
BNX				pPKP	**pPKPdf**	**21 29 16.9**	**-0.7**
BNX				sPKP	**sPKPdf**	**21 29 18.2**	**-1.0**
BNX				SS	SS	21 53 13.8	+0.9
BNX				PPMZ			
	comp=Z,4μm,13.6s						
BNX				L	L		
	comp=Z,4μm,18.6s						
BNX				L	L		
	comp=Z,5μm,17.3s						
BNX				L	L		
	comp=Z,7μm,20.1s						
TBP	**Tagbilaran**	**156.87**	**221**	*e*P	**PKPdf**	**21 29 15.3**	**+1.3**
WMQ	**Urumqi**	**156.88**	**41**	PKP	**PKPdf**	**21 29 14.9**	**+1.7**
WMQ				PKPab	**pPKPab**	**21 29 46.0**	**-2.0**
WMQ				PP	**PP**	**21 33 22.1**	**+0.8**
WMQ				PPMZ			
	comp=Z,4μm,10.7s						
WMQ				L	L		
	comp=Z,6μm,19.9s						
WMQ				L	L		
	comp=Z,6μm,22.9s						
WMQ				L	L		
	comp=Z,5μm,23.5s						
ZAK	**Zakamensk**	**157.22**	**9**	*e*PKIKP	**PKPdf**	**21 29 14.8**	**+1.3**
ZAK				pmax	pmax		
	comp=Z,27nm,2.0s						
BWNR	**Bhubaneshwar**	**157.82**	**105**	*e*P	**PKPdf**	**21 29 17.5**	**+2.5**
BWNR				IAMs_20	IAMs_20	21 33 44.6	
	comp=Z,2μm,18.4s						
GAYA	**Gaya**	**158.79**	**93**	*e*P	**PKPdf**	**21 29 18.1**	**+2.0**
CN2	**Changchun**	**159.19**	**324**	PKP	**PKPdf**	**21 29 13.3**	**-2.6**
CN2				PP	**PP**	**21 33 34.0**	**+0.2**
CN2				PPMZ			
	comp=Z,2μm,16.0s						
CN2				L	L		
	comp=Z,620nm,20.0s						
CN2				L	L		
	comp=Z,4μm,20.0s						
CN2				L	L		
	comp=Z,4μm,20.0s						
JMUI	**Jamui**	**159.70**	**93**	*e*P	**PKPdf**	**21 29 18.2**	**+1.1**
SONM	**Songino Array**	**160.06**	**4**	PKP	**PKPdf**	**21 29 16.8**	**-0.2**
	comp=Z,5.5nm,0.9s,baz=206,slow=0.6,SNR=28						
SONM				PKPab	**PKPab**	**21 29 56.3**	**-0.4**
	comp=Z,10.0nm,1.0s,baz=327,slow=2.3,SNR=7.2						
SONM				PP	**PP**	**21 33 37.6**	**-0.4**
	comp=Z,11nm,1.2s,baz=339,slow=3.7,SNR=5.5						
SONM	**Songino Array**	**160.06**	**4**	PKIKP	**PKPdf**	**21 29 16.5**	**-0.5**
SONM	**Songino Array**	**160.06**	**4**		**PKPdf**	**21 29 16.5**	**-0.5**
ULN	**Ulaanbaatar**	**160.07**	**3**	⇑PKIKP	**PKPdf**	**21 29 17.9**	**+0.8**
CAL	**Calcutta**	**160.85**	**102**	*e*P	**PKPdf**	**21 29 21.0**	**+2.5**
CAL				IAMs_20	IAMs_20	21 34 00.8	
	comp=Z,3μm,17.0s						
KSRS	**Korea Array**	**161.24**	**305**	PKP	**PKPdf**	**21 29 19.0**	**+0.6**
	comp=Z,18nm,1.2s,baz=78,slow=0.5,SNR=21						
KSRS				PKPab	**PKPab**	**21 30 02.8**	**+0.6**
	comp=Z,10nm,1.1s,baz=54,slow=1.9,SNR=5.4						
SNY	**Shenyang**	**161.55**	**323**	PKP	**PKPdf**	**21 29 15.2**	**-3.4**
SNY				PP	**PP**	**21 33 53.7**	**+7.2**
SNY				PPMZ			
	comp=Z,3μm,16.1s						
SNY				L	L		
	comp=Z,4μm,21.6s						
SNY				L	L		
	comp=Z,3μm,18.0s						
SNY				L	L		
	comp=Z,7μm,22.5s						
LQP	**Lukban**	**161.74**	**224**	*e*P	**PKPdf**	**21 29 12.2**	**-7.6**
JPG	**JALPAIGURI**	**162.22**	**90**	*e*P	**PKPdf**	**21 29 22.5**	**+2.8**
COBR	**COOCHBEHAR**	**162.83**	**91**	*e*P	**PKPdf**	**21 29 23.0**	**+2.6**
XLT	**XiLinHaoTe**	**162.99**	**341**	*e*PKP	**PKPdf**	**21 29 21.6**	**+1.5**
XLT				PKPab	**PKPab**	**21 30 09.4**	**-0.2**
XLT				PP	**PP**	**21 33 56.0**	**+2.2**
XLT				SS	SS	21 54 22.7	+5.6
XLT				PPMZ			
	comp=Z,2μm,9.1s						
XLT				L	L		
	comp=Z,5μm,21.3s						
XLT				L	L		
	comp=Z,8μm,23.8s						
DHUB	**DHUBRI**	**163.26**	**92**	*e*P	**PKPdf**	**21 29 22.7**	**+1.9**
DL2	**Dalian**	**164.63**	**319**	PKP	**PKPdf**	**21 29 25.3**	**+3.7**
DL2				PKPab	**pPKPab**	**21 30 20.2**	**-1.2**
DL2				PP	**PP**	**21 34 09.5**	**+6.6**
DL2				SS	SS	21 54 40.2	+5.2
DL2				PPMZ			
	comp=Z,2μm,5.4s						
DL2				L	L		
	comp=Z,2μm,20.8s						
DL2				L	L		
	comp=Z,6μm,22.7s						
DL2				L	L		
	comp=Z,8μm,22.7s						
GUWA	**GUWAHATI**	**164.79**	**93**	*e*P	**PKPdf**	**21 29 23.4**	**+1.2**
AZL	**Aizawl**	**165.03**	**103**	*e*P	**PKPdf**	**21 29 24.8**	**+2.2**
AZL				IAMs_20	IAMs_20	21 34 24.2	
	comp=Z,2μm,18.7s						
TAWA	**Tawang**	**165.13**	**87**	*e*P	**PKPdf**	**21 29 24.7**	**+1.7**
GOMU	**GeErMu**	**165.68**	**51**	PKP	**PKPdf**	**21 29 24.5**	**+1.3**
GOMU				PPMZ			
	comp=Z,4μm,10.9s						
GOMU				L	L		
	comp=Z,6μm,19.5s						
GOMU				L	L		
	comp=Z,7μm,19.8s						
GOMU				L	L		
	comp=Z,11μm,19.9s						
GTA2	**Gaotai**	**166.32**	**30**	PKP	**PKPdf**	**21 29 24.5**	**+1.2**
GTA2				PKPab	**PKPab**	**21 30 25.9**	**+1.4**
GTA2				PP	**PP**	**21 34 12.5**	**+0.9**
GTA2				SKKS		21 41 00.5	
GTA2				PPMZ			
	comp=Z,4μm,7.6s						
GTA2				L	L		
	comp=Z,4μm,21.3s						
GTA2				L	L		
	comp=Z,10μm,21.9s						
GTA2				L	L		
	comp=Z,12μm,20.9s						
BJI2	**Beijing**	**166.45**	**335**	PKP	**PKPdf**	**21 29 24.4**	**+1.3**
BJI2				sPKP	**sPKPdf**	**21 29 27.5**	**-1.8**
BJI2				SS	SS	21 54 51.4	-1.2
BJI2				PPMZ			
	comp=Z,2μm,12.6s						
BJI2				L	L		
	comp=Z,6μm,20.6s						
BJI2				L	L		
	comp=Z,2μm,19.6s						
BJI2				L	L		
	comp=Z,3μm,19.6s						
IMP	**Imphal**	**166.46**	**100**	*e*P	**PKPdf**	**21 29 26.1**	**+2.3**
HHC	**Hu-ho-hao-te**	**166.91**	**350**	*e*PKP	**PKPdf**	**21 29 18.9**	**-4.7**
HHC				PKPab	**PKPab**	**21 30 27.5**	**+0.6**
HHC				L	L		
	comp=Z,8μm,19.1s						
HHC				L	L		
	comp=Z,5μm,18.3s						
HHC				L	L		
	comp=Z,11μm,19.9s						
CMAR	**Chiang Mai Arr**	**167.01**	**135**	PKP	**PKPdf**	**21 29 24.2**	**0.0**
	comp=Z,13nm,1.2s,baz=256,slow=1.8,SNR=28						
CMAR				PKPab	**PKPab**	**21 30 26.9**	**-1.0**
	comp=Z,25nm,1.0s,baz=230,slow=4.2,SNR=13						
CMAR				PP	**PP**	**21 34 14.7**	**-0.8**
	comp=Z,4.6nm,1.2s,baz=235,slow=2.6,SNR=3.2						
CMAR	**Chiang Mai Arr**	**167.01**	**135**	PKP2	**PKPab**	**21 30 25.0**	**-2.9**
CMAR						22 29 23.4	
CMAR	**Chiang Mai Arr**	**167.01**	**135**		**PKPdf**	**21 29 23.4**	**-0.9**
CMAR				PKPab	**PKPab**	**21 30 25.0**	**-2.9**
JORH	**JORHAT**	**167.14**	**92**	*e*P	**PKPdf**	**21 29 26.4**	**+2.3**
BTO2	**Baotou**	**167.19**	**356**	*e*PKP	**PKPdf**	**21 29 25.0**	**+1.1**
BTO2				PKPab	**pPKPab**	**21 30 30.6**	**-2.1**
BTO2				SKS	**SKSdf**	**21 36 22.0**	**-5.3**
BTO2				PPMZ			
	comp=Z,6μm,9.9s						
BTO2				L	L		
	comp=Z,11μm,18.1s						
BTO2				L	L		
	comp=Z,11μm,20.7s						
BTO2				L	L		
	comp=Z,25μm,21.4s						
CHTO	**Chiang Mai**	**167.28**	**134**	PKP	**PKPdf**	**21 29 26.1**	**+1.7**
SSE	**Sheshan**	**168.64**	**289**	PKP	**PKPdf**	**21 29 28.7**	**+3.7**
SSE				PPMZ			
	comp=Z,1μm,7.5s						
SSE				L	L		
	comp=Z,3μm,17.8s						
SSE				L	L		
	comp=Z,3μm,17.4s						
TIA	**Tai'an**	**169.07**	**321**	PKP	**PKPdf**	**21 29 25.7**	**+0.6**
TIA				PP	**PP**	**21 34 29.4**	**+3.7**
TIA				SKKS		21 41 14.0	
TIA				SS	**SS**	**21 55 23.7**	**+3.9**
TIA				L	L		
	comp=Z,7μm,22.2s						
TIA				L	L		
	comp=Z,8μm,19.2s						
TIA				L	L		
	comp=Z,16μm,19.6s						
HNS	**HongShan**	**169.28**	**333**	⇑PKP	**PKPdf**	**21 29 26.9**	**+1.7**
HNS				PKPab	**pPKPab**	**21 30 40.9**	**-1.0**
HNS				SS	SS	21 55 22.5	+1.4
HNS				PPMZ			
	comp=Z,3μm,11.6s						
HNS				L	L		
	comp=Z,3μm,20.2s						
HNS				L	L		
	comp=Z,8μm,23.3s						
HNS				L	L		
	comp=Z,17μm,22.6s						
TIY	**Taiyuan**	**169.75**	**343**	PKP	**PKPdf**	**21 29 25.2**	**-0.4**
TIY				PP	**PP**	**21 34 28.8**	**+0.2**
TIY				SS	SS	21 55 25.1	-0.5
TIY				PPMZ			
	comp=Z,3μm,16.5s						
TIY				L	L		
	comp=Z,8μm,21.3s						
TIY				L	L		
	comp=Z,8μm,19.9s						
TIY				L	L		
	comp=Z,11μm,21.3s						
NJ2	**Nanjing**	**170.26**	**297**	*e*PKP	**PKPdf**	**21 29 25.3**	**-0.6**
NJ2				PKPab	**PKPab**	**21 30 42.4**	**+0.3**
NJ2				SKKS		21 41 23.0	
NJ2				SS	**SS**	**21 55 31.6**	**-1.4**
NJ2				PPMZ			
	comp=Z,10μm,5.8s						
NJ2				L	L		
	comp=Z,23μm,17.6s						
TNCH	**TengChong**	**170.47**	**105**	PKP	**PKPdf**	**21 29 26.8**	**+0.3**
TNCH				PKPab	**pPKPab**	**21 30 46.3**	**-2.1**
TNCH				PP	**PP**	**21 34 36.8**	**+2.7**
TNCH				SKKS		21 41 25.2	
TNCH				SS	**SS**	**21 55 36.3**	**+0.2**
TNCH				PPMZ			
	comp=Z,7μm,8.2s						
TNCH				L	L		
	comp=Z,5μm,19.4s						
TNCH				L	L		
	comp=Z,3μm,19.8s						
TNCH				L	L		
	comp=Z,10μm,20.0s						
QZH2	**Quanzhou**	**170.60**	**254**	PKP	**PKPdf**	**21 29 29.4**	**+3.1**
QZH2				PP	**PP**	**21 34 41.9**	**+7.4**
QZH2				SS	SS	21 55 32.5	-4.5
QZH2				L	L		
	comp=Z,7μm,20.3s						
QZH2				L	L		
	comp=Z,8μm,18.9s						
LZH	**Lanzhou**	**170.92**	**25**	PKP	**PKPdf**	**21 29 28.5**	**+2.1**
LZH				PP	**PP**	**21 34 35.7**	**+0.9**
LZH				SKKS		21 41 19.1	
LZH				PPMZ			
	comp=Z,3μm,5.8s						
LZH				L	L		
	comp=Z,8μm,20.4s						
LZH				L	L		
	comp=Z,9μm,20.4s						
LZH				L	L		
	comp=Z,17μm,21.1s						
LZDM	**Lanzhou Array**	**170.97**	**27**	PKP	**PKPdf**	**21 29 27.2**	**+0.5**
	comp=Z,1.6nm,0.3s,baz=15,slow=6.0,SNR=1.8						
LZDM				PKPab	**PKPab**	**21 30 45.7**	**+0.4**
	comp=Z,0.8nm,0.3s,baz=328,slow=5.3,SNR=3.7						
QIZ	**Qiongzhong**	**171.06**	**187**	PKP	**PKPdf**	**21 29 26.0**	**-0.7**
QIZ				PP	**PP**	**21 34 34.5**	**-0.4**
QIZ				SS	SS	21 55 40.3	+2.3
QIZ				PPMZ			
	comp=Z,3μm,17.5s						
QIZ				L	L		
	comp=Z,6μm,19.0s						
QIZ				L	L		
	comp=Z,6μm,19.8s						
QIZ				L	L		
	comp=Z,10μm,19.7s						
LYN	**LuoYang**	**172.65**	**335**	PKP	**PKPdf**	**21 29 28.6**	**+1.6**
LYN				PKPab	**PKPab**	**21 30 54.1**	**+1.7**
LYN				PP	**PP**	**21 34 46.4**	**+3.3**
LYN				SKKS		21 41 30.3	
LYN				PPMZ			
	comp=Z,7μm,14.3s						
LYN				L	L		
	comp=Z,19μm,19.1s						
LYN				L	L		
	comp=Z,9μm,18.0s						
LYN				L	L		
	comp=Z,19μm,19.2s						
PZH	**PanZhiHua**	**173.68**	**102**	PKP	**PKPdf**	**21 29 27.1**	**-0.8**
PZH				PKPab	**PKPab**	**21 30 56.1**	**-1.6**
PZH				PP	**PP**	**21 34 52.7**	**+2.7**
PZH				SS	SS	21 56 07.6	0.0
PZH				PPMZ			
	comp=Z,7μm,12.9s						
PZH				L	L		
	comp=Z,5μm,21.6s						
PZH				L	L		
	comp=Z,5μm,21.6s						
PZH				L	L		
	comp=Z,10μm,22.8s						
XAN	**Xi'an**	**173.92**	**358**	PKP	**PKPdf**	**21 29 28.8**	**+1.2**
XAN				PKPab	**pPKPab**	**21 31 01.5**	**-1.0**
XAN				PP	**PP**	**21 34 50.4**	**+1.4**
XAN				SKKS		21 41 35.5	
XAN				SS	**SS**	**21 56 09.3**	**+3.3**
XAN				PPMZ			
	comp=Z,7μm,12.2s						
XAN				L	L		
	comp=Z,6μm,18.6s						
XAN				L	L		
	comp=Z,12μm,19.4s						
XAN				L	L		
	comp=Z,16μm,23.2s						
KMI2	**Kunming**	**174.02**	**116**	⇑PKP	**PKPdf**	**21 29 29.2**	**+1.0**
WHN	**Wuhan**	**174.39**	**299**	⇑PKP	**PKPdf**	**21 29 31.0**	**+3.2**
WHN				PP	**PP**	**21 34 58.2**	**+5.3**
WHN				SS	SS	21 56 15.0	+1.6
WHN				L	L		
	comp=Z,34μm,21.7s						
WHN				L	L		
	comp=Z,9μm,14.1s						
WHN				L	L		
	comp=Z,35μm,18.0s						
CD2	**Chengdu**	**174.81**	**54**	PKP	**PKPdf**	**21 29 30.1**	**+2.1**
CD2				sPKP	sPKPdf	21 29 37.0	+2.8
CD2				PKPab	**pPKPab**	**21 31 06.4**	**-0.9**
CD2				PP	**PP**	**21 34 55.5**	**+0.8**
CD2				SKKS		21 41 43.3	
CD2				SS	**SS**	**21 56 22.2**	**+5.1**
CD2				PPMZ			
	comp=Z,8μm,14.0s						
CD2				L	L		
	comp=Z,16μm,19.4s						
CD2				L	L		
	comp=Z,10μm,20.2s						
CD2				L	L		
	comp=Z,18μm,21.8s						
CNSH	**ChangSha**	**176.21**	**275**	PKP	**PKPdf**	**21 29 30.9**	**+2.5**
CNSH				PP	**PP**	**21 35 07.1**	**+5.0**
CNSH				SKKS		21 41 48.9	
CNSH				PPMZ			
	comp=Z,4μm,9.7s						
CNSH				L	L		
	comp=Z,6μm,17.0s						
CNSH				L	L		
	comp=Z,6μm,19.8s						
CNSH				L	L		
	comp=Z,9μm,18.5s						
GULI	**GuiLin**	**176.94**	**211**	PKP	**PKPdf**	**21 29 33.2**	**+4.6**
GULI				PP	**PP**	**21 35 02.2**	**-1.8**
GULI				L	L		
	comp=Z,6μm,19.8s						
GULI				L	L		
	comp=Z,5μm,19.4s						
GULI				L	L		
	comp=Z,12μm,22.2s						

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*IDC **01** 21:12:58.3±1.1, 2°.64N×127°.13E, h0^{km}, mb3.5/6, mbtmp3.5/6, Error ellipse: s-maj=65.4km s-min=20.3km az=74.0*

ISC 01 21:13:05.4±1.1**, 2°.6N**±0°.2×**127°.1E**±0°.5**, h53^{km}, n6,** σ**1^{s}.53**/6**,**
mb3.5/5**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**20.57**	**184**	P	**P**	**21 17 39.4**	**-0.5**
	1.4nm,0.8s,baz=14,slow=8.3,SNR=1.9						
	1.4nm,0.8s						
WRA	**Warramunga Arr**	**23.46**	**163**	P	**P**	**21 18 09.1**	**-1.3**
	0.4nm,0.4s,baz=342,slow=11,SNR=9.7						
	0.4nm,0.4s						
ASAR	**Alice Springs**	**26.89**	**166**	P	**P**	**21 18 43.8**	**+2.2**
	0.2nm,0.4s,baz=342,slow=11,SNR=1.5						
	0.2nm,0.4s						
MKAR	**Makanchi Array**	**58.71**	**326**	P	**P**	**21 22 57.9**	**+0.1**
	0.2nm,0.5s,baz=117,slow=8.0,SNR=5.0						
	0.2nm,0.5s						
KURBB	**Kurchatov Arra**	**62.91**	**328**	P	**P**	**21 23 25.9**	**-0.2**
	0.5nm,0.4s,baz=128,slow=6.4,SNR=5.5						
	0.5nm,0.4s						
ILAR	**Eielson Array**	**86.02**	**25**	P	**P**	**21 25 39.9**	**-0.1**
	0.3nm,0.6s,baz=263,slow=5.9,SNR=4.4						
	0.3nm,0.6s						

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*IDC **01** 21:27:41.4±1.9, 28°.01S×70°.91W, h0^{km}, mb3.8/3, mbtmp3.8/3, Error ellipse: s-maj=106.9km s-min=36.8km az=98.0*

*GUC **01** 21:27:43.2±0.7, 28°.02S×71°.48W, h17^{km}±4^{km}, ML3.6*

ISC 01 21:27:40.4±3.6**, 27°.97S**±0°.05×**71°.49W**±0°.08**, h2^{km}**±22^{km}**,**
n19, σ**0^{s}.89**/21**, 1D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AC04	**Llanos de Chal**	**0.43**	**122**	*e*P	**Pb**	**21 27 51.2**	**+0.4**
AC04				*e*S	**Sb**	**21 27 56.4**	**-1.3**
AC04				IAML		21 27 57.0	
	comp=E,20μm,0.1s						
GO03	**Copiapo**	**1.17**	**71**	*e*P	**Pn**	**21 28 03.7**	**-0.1**
GO03				*e*S	**Sn**	**21 28 20.9**	**+0.5**
GO03				IAML		21 28 24.5	
	comp=N,2μm,0.7s						
AC06	**Mina Casimiro**	**1.18**	**59**	*e*P	**Pn**	**21 28 04.1**	**+0.2**
AC06				*e*S	**Sn**	**21 28 21.9**	**+1.4**
LCO	**Las Campanas**	**1.24**	**146**	⇓*e*P	**Pn**	**21 28 06.2**	**+1.1**
LCO				*e*S	**Sb**	**21 28 20.8**	**-0.6**
AC05	**El Transito**	**1.37**	**129**	*e*P	**Pb**	**21 28 06.7**	**-0.2**
AC05				IAML		21 28 29.6	
	comp=E,793nm,0.5s						
AC01	**Pan de Azucar**	**1.98**	**24**	*e*P	**Pn**	**21 28 14.9**	**-0.1**
GO04	**Tololo Observa**	**2.27**	**165**	*e*P	**Pb**	**21 28 22.3**	**0.0**
CO01	**Juntas del Tor**	**2.34**	**149**	*e*P	**Pb**	**21 28 23.9**	**+0.5**
CO01				*e*S	**Sb**	**21 28 51.3**	**-1.6**
CO01				IAML		21 28 56.6	
	comp=N,668nm,0.4s						
AC02	**Maricunga**	**2.38**	**62**	*e*P	**Pb**	**21 28 24.2**	**-0.1**
AC02				*e*S	**Sb**	**21 28 54.9**	**+0.6**
AC02				IAML		21 29 00.1	
	comp=N,648nm,0.7s						
PB14	**IPOC Station P**	**3.47**	**17**	IAML		21 29 39.2	
	comp=N,159nm,0.9s						
H03N1	**Juan Fernandez**	**8.40**	**228**	T	T	21 38 24.6	
	baz=55						
H03N2	**Juan Fernandez**	**8.41**	**228**	T	T	21 38 25.3	
	baz=55						
H03N3	**Juan Fernandez**	**8.41**	**228**	T	T	21 38 22.0	
	baz=55						
SNAA	**Sanae**	**57.01**	**159**	P	**P**	**21 37 26.5**	**-0.8**
	comp=N,0.5nm,0.4s,baz=126,slow=19,SNR=1.7						
	comp=N,0.5nm,0.4s						
QSPA	**South Pole Qui**	**62.24**	**180**	P	**P**	**21 38 05.1**	**+1.6**
	comp=N,1.5nm,1.1s,baz=16,slow=3.4,SNR=2.6						
	comp=N,1.5nm,1.1s						
TORD	**Torodi Ar. Bea**	**81.73**	**70**	P	**P**	**21 40 00.3**	**-0.6**
	comp=N,0.6nm,0.7s,baz=255,slow=4.3,SNR=1.7						
	comp=N,0.6nm,0.7s						
KURBB	**Kurchatov Arra**	**147.96**	**37**	PKPbc	**PKPbc**	**21 47 26.6**	**-0.4**
	comp=N,0.2nm,0.6s,baz=298,slow=4.1,SNR=4.1						
ZALV	**Zalesovo Beam**	**148.77**	**27**	PKPbc	**PKiKP**	**21 47 29.9**	**-0.5**
	comp=N,0.6nm,0.5s,baz=322,slow=4.4,SNR=4.3						
MKAR	**Makanchi Array**	**152.15**	**41**	PKPbc	**PKiKP**	**21 47 37.1**	**-0.6**
	comp=N,0.5nm,0.7s,baz=330,slow=4.2,SNR=4.4						

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*IDC **01** 21:29:15.2±9.1, 2°.46N×128°.36E, h148^{km}±92^{km}, mb3.6/10, mbtmp4.1/10, Error ellipse: s-maj=52.3km s-min=16.4km az=76.0*

*NEIC **01** 21:29:18.5±1.2, 2°.48N±0°.10×128°.5E±0°.2, h177^{km}±8^{km}, mb4.4/17, Error ellipse: s-maj=25.3km s-min=8.4km az=61.0*

ISC 01 21:29:19.6±0.7**, 2°.52N**±0°.06×**128°.1E**±0°.2**, h200^{km}, n33,**
σ**2^{s}.17**/31**, mb4.2**/15**, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TNTI	**Ternate**	**1.90**	**204**	Pn	**Pn**	**21 29 55.8**	**-1.4**
CDOP	**Cateel, Davao**	**5.50**	**342**	*e*P	**Pn**	**21 30 38.6**	**-1.8**
CDOP				*i* S	**Sn**	**21 31 37.5**	**-6.7**
MTN	**Manton Dam**	**15.55**	**169**		**P**	**21 32 45.6**	**-3.0**
MTN				IAmb	IAmb	21 33 05.1	
	comp=Z,15nm,1.1s						
JAGI	**Jajag, Banyuwa**	**17.72**	**232**	P	**Pn**	**21 33 14.7**	**+0.3**
KNRA	**Kununurra**	**18.09**	**178**	P	**P**	**21 33 15.1**	**-1.3**
FITZ	**Fitzroy Crossi**	**20.64**	**187**	P	**P**	**21 33 42.1**	**-1.8**
	comp=Z,2.7nm,0.8s,baz=12,slow=9.3,SNR=1.1						
	comp=Z,2.7nm,0.8s						
FITZ	**Fitzroy Crossi**	**20.64**	**187**	P	**P**	**21 33 41.9**	**-1.9**
YHNB	**Yeheng**	**22.97**	**344**	P	**P**	**21 34 07.2**	**+0.4**
WB0	**Warramunga Arr**	**22.98**	**165**	P	**P**	**21 34 05.8**	**-1.1**
WB0				IAmb	IAmb	21 34 42.4	
	comp=Z,17nm,1.5s						
WRA	**Warramunga Arr**	**23.14**	**165**	P	**P**	**21 34 07.7**	**-0.6**
	comp=Z,5.0nm,0.6s,baz=337,slow=10,SNR=38						
	comp=Z,5.0nm,0.6s						
WRA	**Warramunga Arr**	**23.14**	**165**	P	**P**	**21 34 06.0**	**-2.3**
WR8	**Warramunga Arr**	**23.19**	**165**	P	**P**	**21 34 08.0**	**-0.8**
WR8				IAmb	IAmb	21 34 09.3	
	comp=Z,6.5nm,0.5s						
AS31	**Alice Springs**	**26.63**	**168**	P	**P**	**21 34 39.0**	**-0.8**
ASAR	**Alice Springs**	**26.63**	**168**	P	**P**	**21 34 39.5**	**-0.4**
	comp=Z,1.0nm,0.6s,baz=351,slow=7.6,SNR=9.5						
	comp=Z,1.0nm,0.6s						

ASAR	Alice Springs	26.63	168	P	P	21 34 39.0	-0.8
CHTO	Chiang Mai	32.85	302	P	P	21 35 37.9	+3.1
MJAR	Matsushiro Arr	35.11	14	P	P	21 35 53.8	-0.1
	comp=Z,0.8nm,0.4s,baz=188,slow=9.2,SNR=2.9						
	comp=Z,0.8nm,0.4s						
BBOO	Buckleboo	35.93	169	P	P	21 36 00.5	-0.5
STKA	Stephens Creek	36.52	161	P	P	21 36 05.8	-0.2
	comp=Z,2.8nm,0.4s,baz=334,slow=8.7,SNR=5.8						
	comp=Z,2.8nm,0.4s						
EVN	Everest	46.84	307	P	P	21 37 33.9	+3.4
EVN				IAmb	IAmb	21 37 45.6	
	comp=Z,19nm,1.4s						
SONM	Songino Array	48.89	341	P	P	21 37 47.7	+2.4
	comp=Z,0.6nm,0.5s,baz=158,slow=10,SNR=2.0						
	comp=Z,0.6nm,0.5s						
SONM	Songino Array	48.89	341	P	P	21 37 48.0	+2.7
SONM				IAmb	IAmb	21 38 12.6	
	comp=Z,11nm,1.4s						
PDGK	Podgornoye	59.24	320	P	P	21 39 02.2	+2.0
MKAR	Makanchi Array	59.35	325	P	P	21 39 03.2	+2.5
	comp=Z,1.2nm,0.5s,baz=113,slow=8.0,SNR=20						
	comp=Z,1.2nm,0.5s						
MKAR	Makanchi Array	59.35	325	P	P	21 39 02.6	+1.9
MAKZ	Makanchi	59.53	325	P	P	21 39 04.4	+2.4
MAKZ				IAmb	IAmb	21 39 29.2	
	comp=Z,7.5nm,1.3s						
KDJ	Kajisay	60.18	318	P	P	21 39 09.8	+3.2
KDJ				IAmb	IAmb	21 39 29.0	
	comp=Z,9.9nm,1.2s						
KURBB	Kurchatov Arra	63.51	327	P	P	21 39 30.4	+2.0
	comp=Z,1.4nm,0.5s,baz=127,slow=6.2,SNR=15						
	comp=Z,1.4nm,0.5s						
KURK	Kurchatov	63.51	327	P	P	21 39 30.3	+1.8
KURK				IAmb	IAmb	21 39 39.2	
	comp=Z,7.2nm,1.2s						
KKAR	Karatay Array	65.07	317	P	P	21 39 41.1	+2.3
BVAR	Borovoye Array	69.10	327	P	P	21 40 06.4	+2.5
	comp=Z,1.5nm,0.6s,baz=116,slow=6.6,SNR=2.8						
	comp=Z,1.5nm,0.6s						
QSPA	South Pole Qui	92.43	180	P	P	21 42 07.8	+0.4
	comp=Z,1.0nm,0.9s,baz=264,slow=9.3,SNR=2.0						
	comp=Z,1.0nm,0.9s						
QSPA	South Pole Qui	92.43	180	P	P	21 42 08.7	+1.2
QSPA				IAmb	IAmb	21 42 14.7	
	comp=Z,3.6nm,1.4s						

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*SOME **01** 21:32:44.8, 42.°55N×79.°67E, h20^{km}*

*NNC **01** 21:32:45.2±0.8, 42.°61N×79.°60E, h0^{km}, mb2.9, mpv3.1, Error ellipse: s-maj=4.9km s-min=3.1km az=148.0*

*KRNET **01** 21:32:45.2±0.1, 42.°58N×79.°59E, h17^{km}, mb3.0*

ISC 01 21:32:44.5±1.5**, 42.°57N**±0.°04×**79.°60E**±0.°04**, h14**^{km}±10^{km}**, n33, σ0^{s}92**/60**, 13C-1D, Lake Issyk-Kul region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SHLS	Shalkode	0.60	350	P	Pg	21 32 57.0	+0.7
	13nm,0.1s						
SHLS				S	Sb	21 33 05.9	+0.6
	167nm,0.2s						
SHLS	Shalkode	0.60	350	eP	Pg	21 32 57.0	+0.7
	13nm,0.1s						
SHLS				eS	Sb	21 33 05.9	+0.6
	167nm,0.2s						
UZB	Uzynbulak	0.72	324	P	Pg	21 32 58.7	+0.1
	12nm,0.1s						
UZB				S	Sb	21 33 08.9	+0.1
	61nm,0.2s						
UZB	Uzynbulak	0.72	324	eP	Pg	21 32 58.7	+0.1
	12nm,0.1s						
UZB				eS	Sb	21 33 08.9	+0.1
	61nm,0.2s						
PDGK	Podgornoye	0.77	354	⇓P	Pb	21 32 58.8	-0.9
	9.6nm,0.8s						
PDGK				⇑S	Sg	21 33 09.2	-0.4
	16nm,0.6s						
PRZ	Przheval'sk	0.89	265	⇑iP	Pb	21 33 02.3	+0.4
PRZ				⇑iS	Sb	21 33 13.9	+0.2
SATY	Saty	1.01	300	P	Pb	21 33 04.2	+0.4
	5.4nm,0.3s						
SATY				S	Sn	21 33 18.3	-0.1
	43nm,0.1s						
SATY	Saty	1.01	300	eP	Pb	21 33 04.2	+0.4
	5.4nm,0.3s						
SATY				eS	Sn	21 33 18.3	-0.1
	43nm,0.1s						
KTMS	Ketmen	1.04	32	P	Pb	21 33 04.4	0.0
	2.0nm,0.3s						
KTMS				S	Sn	21 33 19.0	-0.1
	22nm,0.2s						
KTMS	Ketmen	1.04	32	eP	Pb	21 33 04.4	0.0
	2.0nm,0.3s						
KTMS				eS	Sn	21 33 19.0	-0.1
	22nm,0.2s						
KPKS	Kokpek	1.13	323	P	Pb	21 33 05.8	0.0
	0.2nm,0.2s						
KPKS				S	Sn	21 33 21.0	-0.2
	30nm,0.3s						
KPKS	Kokpek	1.13	323	eP	Pb	21 33 05.8	0.0
	0.2nm,0.2s						
KPKS				eS	Sn	21 33 21.0	-0.2
	30nm,0.3s						
ANVS	Anan'yevo	1.45	279	⇑iP	Pg	21 33 12.4	+0.1
ANVS				⇑iS	Sg	21 33 31.2	+0.1
TARG	Taragay, Kyrgy	1.58	239	⇑eP	Pb	21 33 13.9	+0.2
TARG				⇑iS	Sg	21 33 36.0	+0.6
BLB	Baldybastay	1.74	332	P	Pb	21 33 16.9	+0.7
	14nm,0.1s						
BLB				S	Sg	21 33 40.0	-0.5
	21nm,0.3s						
DJR	Jarkent	1.77	4	P	Pb	21 33 17.4	+0.6
	8.1nm,0.2s						
DJR				S	Sg	21 33 40.9	-0.6
	12nm,0.4s						
DJR	Jarkent	1.77	4	eP	Pb	21 33 17.4	+0.6
	8.1nm,0.2s						
DJR				eS	Sg	21 33 40.9	-0.6
	12nm,0.4s						
KNOS	Konyrlen	1.82	350	P	Pb	21 33 18.2	+0.6
	9.9nm,0.2s						
KNOS				S	Sg	21 33 42.3	-0.8
	21nm,0.2s						
KDJ	Kajisay	1.85	257	⇑iP	Pb	21 33 19.2	+1.0
KDJ				⇑iS	Sg	21 33 43.2	-0.8
KOTS	Kotyrbulak	1.95	291	Pg	Pb	21 33 21.3	+1.4
	7.0nm,0.2s						
KOTS				Lg	Lg	21 33 47.5	
	37nm,0.5s						
KOTS	Kotyrbulak	1.95	291	eP	Pb	21 33 21.3	+1.4
	7.0nm,0.2s						
KOTS				eS	Sg	21 33 47.5	+0.3
	37nm,0.5s						
ARXS	Arharly	2.10	322	Pg	Pb	21 33 22.7	+0.4
	9.4nm,0.4s						
ARXS				Lg	Lg	21 33 50.8	
	17nm,0.5s						
ARXS	Arharly	2.10	322	eP	Pb	21 33 22.7	+0.4
	9.4nm,0.4s						
ARXS				eS	Sg	21 33 50.8	-1.1
	17nm,0.5s						
KTBS	Karatobe	2.43	299	Pg	Pb	21 33 28.4	+0.5
	0.7nm,0.1s						
KTBS				Lg	Lg	21 33 59.7	
	11nm,0.2s						
KTBS	Karatobe	2.43	299	eP	Pb	21 33 28.4	+0.5
	0.7nm,0.1s						
KTBS				eS	Sb	21 33 59.7	+2.0
	11nm,0.2s						
ULHL	Ulahol	2.51	264	⇑eP	Pb	21 33 28.5	-1.0
ULHL				⇑iS	Sb	21 33 59.6	-0.7
BOOM	Boomskoye usch	2.71	270	⇑eP	Pb	21 33 31.5	-1.3
BOOM				⇑iS	Sb	21 34 04.7	-1.3
KST	Kastek	2.72	281	Pg	Pb	21 33 34.5	+1.5
	2.0nm,0.6s						
KST				Lg	Lg	21 34 10.1	
	13nm,0.6s						
KST	Kastek	2.72	281	eP	Pb	21 33 34.5	+1.5
	2.0nm,0.6s						
KST				eS	Sg	21 34 10.1	-1.9
	13nm,0.6s						
KAPS	Kapalarasan	2.73	356	Pg	Pb	21 33 34.0	+1.0
	7.2nm,0.7s						
KAPS				Lg	Lg	21 34 09.3	
	17nm,0.2s						
KAPS	Kapalarasan	2.73	356	eP	Pb	21 33 34.0	+1.0
	7.2nm,0.7s						
KAPS				eS	Sg	21 34 09.3	-2.7
	17nm,0.2s						
DGS	Degeres	2.90	285	Pg	Pb	21 33 36.8	+0.9
	3.4nm,0.3s						
DGS				Lg	Lg	21 34 15.1	
	17nm,0.4s						
DGS	Degeres	2.90	285	eP	Pb	21 33 36.8	+0.9
	3.4nm,0.3s						
DGS				eS	Sg	21 34 15.1	-2.4
	17nm,0.4s						

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*SJA **01** 21:37:01.8±0.7, 27.°76S×71.°63W, h46^{km}, ML3.7, MW3.8*

*GUC **01** 21:37:01.4±0.9, 27.°99S×71.°44W, h24^{km}±5^{km}, ML3.2*

ISC 01 21:36:57.1±2.0**, 27.°98S**±0.°05×**71.°67W**±0.°08**, h9**^{km}±10^{km}**, n19, σ2^{s}47**/26**, 1D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	Llanos de Chal	0.57	113	⇓eP	Pg	21 37 09.0	+0.8
AC04				eS	Sg	21 37 14.1	-1.7
AC06	Mina Casimiro	1.32	62	eP	Pn	21 37 21.3	-0.5
AC06				eS	Sb	21 37 36.3	-2.8
AC06				IAML		21 37 43.3	
	comp=E,678nm,0.3s						
GO03	Copiapo	1.33	74	eP	Pn	21 37 21.2	-0.7
GO03				eS	Sb	21 37 36.3	-3.1
GO03				IAML		21 37 42.5	
	comp=N,1µm,0.5s						
LCO	Las Campanas	1.34	141	eP	Pn	21 37 23.1	+0.8
LCO				eS	Sb	21 37 38.4	-1.5
AC05	El Transito	1.50	125	eP	Pn	21 37 24.9	+0.6
AC05				eS	Sn	21 37 41.7	-2.5
AC05				IAML		21 37 44.8	
	comp=E,506nm,0.3s						
AC01	Pan de Azucar	2.06	28	eP	Pn	21 37 32.3	+0.4
GO04	Tololo Observa	2.32	161	eP	Pb	21 37 39.1	-0.1
CO01	Juntas del Tor	2.42	146	eP	Pb	21 37 41.5	+0.4
CO01				IAML		21 38 14.2	
	comp=N,279nm,0.3s						
AC02	Maricunga	2.53	64	eP	Pn	21 37 41.3	+2.5
AC02				IAML		21 38 53.0	
	comp=Z,363nm,0.3s						
AC02	Maricunga	2.53	64	eP	Pn	21 37 41.4	+2.5
AROD	Rodeo	2.91	139	eP	Pb	21 37 48.8	-0.6
ACDV	Cuesta del Vie	3.12	135	eP	Pg	21 37 57.6	+0.6
ACDV				eS	Sb	21 38 31.4	+0.1
ACDV				IAML		21 38 37.6	
	comp=Z,133nm,0.9s						
VCA	Vinchina	3.15	105	eP	Pb	21 37 52.5	-0.8
VCA				eS	Sb	21 38 28.6	-3.3
VCA				IAML		21 38 43.0	
	comp=Z,228nm,1.8s						
ACCO	Cerro Coronel	3.46	139	eP	Pb	21 37 58.1	-0.6
ACCO				IAML		21 38 55.7	
	comp=Z,115nm,0.4s						
TINO	Tinogasta	3.63	92	eP	Pn	21 37 57.8	+4.2
TINO				eS	Sg	21 38 56.8	+3.2
TINO				IAML		21 39 11.2	
	comp=Z,103nm,0.4s						
ACLC	CERRO LA CRUZ	4.39	110	eP	Pn	21 38 09.6	+5.5
ACLC				IAML		21 39 08.6	
	comp=Z,66nm,0.4s						
AVFE	Valle Fertil	4.55	127	eP	Pb	21 38 12.4	-4.8
AVFE				eS	Sb	21 39 05.5	-6.7
AVFE				IAML		21 39 20.1	
	comp=Z,70nm,0.4s						
CYA	Choya	5.20	96	eP	Pn	21 38 20.1	+4.9
CYA				eS	Sn	21 39 16.0	+0.7
CYA				IAML		21 39 25.6	
	comp=Z,42nm,1.1s						
AHML	Horco Molle	5.76	80	eP	Pn	21 38 24.9	+2.1

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*SJA **01** 21:45:06.5±1.3, 27.°96S×71.°34W, h10^{km}±10^{km}, ML3.5, MW3.4*

*GUC **01** 21:45:08.0±0.5, 28.°02S×71.°36W, h30^{km}±2^{km}, ML3.2*

ISC 01 21:45:06.8±2.1**, 27.°96S**±0.°04×**71.°40W**±0.°10**, h12**^{km}±10^{km}**, n21, σ1^{s}57**/31**, 1D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	Llanos de Chal	0.38	131	i P	Pg	21 45 14.7	+0.3
AC04				eS	Sg	21 45 19.5	0.0
AC04				IAML		21 45 20.4	
	comp=Z,3µm,0.5s						
AC04	Llanos de Chal	0.38	131	⇓eP	Pg	21 45 14.9	+0.4
AC04				eS	Sg	21 45 19.4	-0.1
GO03	Copiapo	1.09	71	i P	Pb	21 45 26.8	-0.9
GO03				eS	Sb	21 45 40.6	-1.3
GO03				IAML		21 45 43.6	
	comp=Z,1µm,0.8s						
GO03	Copiapo	1.09	71	eP	Pb	21 45 26.9	-0.8
GO03				eS	Sb	21 45 41.4	-0.5
GO03				IAML		21 45 43.7	
	comp=N,2µm,0.3s						
AC06	Mina Casimiro	1.10	58	eP	Pb	21 45 27.2	-0.6
AC06				eS	Sb	21 45 42.2	+0.1
AC06				IAML		21 45 46.0	
	comp=E,1µm,0.6s						
LCO	Las Campanas	1.22	150	i P	Pn	21 45 29.1	-0.8
LCO				IAML		21 45 47.2	
	comp=Z,3µm,0.4s						
LCO	Las Campanas	1.22	150	eP	Pn	21 45 28.3	-1.6
LCO				eS	Sb	21 45 43.6	-2.2
AC05	El Transito	1.32	132	i P	Pn	21 45 30.5	-0.7
AC05				IAML		21 45 50.9	
	comp=Z,288nm,0.6s						
AC05	El Transito	1.32	132	eP	Pn	21 45 30.3	-0.9
AC05				eS	Sb	21 45 46.2	-2.5
AC05				IAML		21 45 48.6	
	comp=E,654nm,0.4s						
AC01	Pan de Azucar	1.94	22	eP	Pn	21 45 38.9	-0.7
AC01				eS	Sn	21 46 04.4	+0.5
AC01				IAML		21 46 13.7	
	comp=E,301nm,0.5s						
GO04	Tololo Observa	2.27	167	i P	Pn	21 45 46.0	+1.6
GO04				IAML		21 46 21.1	
	comp=Z,442nm,0.8s						
GO04	Tololo Observa	2.27	167	eP	Pn	21 45 44.9	+0.5
GO04				eS	Sn	21 46 12.5	+0.1
AC02	Maricunga	2.31	62	i P	Pb	21 45 47.4	-1.3
AC02				IAML		21 46 20.6	
	comp=Z,332nm,0.6s						
AC02	Maricunga	2.31	62	eP	Pb	21 45 48.0	-0.6
AC02				eS	Sb	21 46 16.8	-0.5
CO01	Juntas del Tor	2.32	151	i P	Pn	21 45 46.6	+1.6
CO01				IAML		21 46 18.8	
	comp=Z,203nm,1.1s						
CO01	Juntas del Tor	2.32	151	eP	Pn	21 45 46.2	+1.2
CO01				IAML		21 46 18.1	
	comp=E,204nm,0.3s						
AROD	Rodeo	2.77	143	i P	Pn	21 45 54.2	+2.8
CO03	El Pedregal	2.94	168	i P	Pn	21 45 55.3	+1.9
CO03				IAML		21 46 40.4	
	comp=Z,117nm,1.1s						
TINO	Tinogasta	3.39	93	i P	Pn	21 46 02.2	+2.6
TINO				IAML		21 46 58.2	
	comp=Z,105nm,1.1s						
ACLC	CERRO LA CRUZ	4.17	112	i P	Pn	21 46 13.3	+2.9
ACLC				IAML		21 47 10.7	
	comp=Z,29nm,0.4s						
RTLS	Leoncito	4.24	155	i P	Pn	21 46 14.8	+3.3
RTLS				IAML		21 47 25.5	
	comp=Z,249nm,0.9s						

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*SJA **01** 21:56:13.1±0.7, 27.°93S×71.°41W, h15^{km}, ML3.5, MW3.6*

*GUC **01** 21:56:14.4±0.8, 28.°01S×71.°30W, h22^{km}±5^{km}, ML3.3*

ISC 01 21:56:12.9±1.6**, 27.°92S**±0.°03×**71.°36W**±0.°08**, h9**^{km}±10^{km}**, n32, σ2^{s}37**/40**, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	Llanos de Chal	0.38	139	eP	Pg	21 56 09.8	-11
AC04				IAML		21 56 27.6	
	comp=Z,4µm,0.7s						
AC04	Llanos de Chal	0.38	139	eP	Pg	21 56 21.0	+0.5
AC04				eS	Sg	21 56 25.4	-0.3
AC04				IAML		21 56 25.7	
	comp=E,12µm,0.1s						
GO03	Copiapo	1.05	72	eP	Pb	21 56 33.4	+0.1
GO03				IAML		21 56 49.8	
	comp=Z,2µm,0.2s						
GO03	Copiapo	1.05	72	eP	Pb	21 56 33.0	-0.3
GO03				eS	Sb	21 56 46.9	-0.3
GO03				IAML		21 56 52.4	
	comp=N,3µm,0.4s						
AC06	Mina Casimiro	1.05	58	eP	Pb	21 56 32.8	-0.5
AC06				IAML		21 56 53.6	
	comp=N,1µm,0.3s						
LCO	Las Campanas	1.24	152	eP	Pn	21 56 34.7	-1.9
LCO				eS	Sb	21 56 50.1	-2.7
AC05	El Transito	1.33	134	eP	Pn	21 56 37.0	-0.7
AC05				IAML		21 56 57.3	
	comp=Z,335nm,0.4s						
AC05	El Transito	1.33	134	eP	Pn	21 56 36.5	-1.3
AC05				eS	Sn	21 56 52.2	-3.4
AC05				IAML		21 56 55.4	
	comp=E,707nm,0.4s						
AC01	Pan de Azucar	1.89	21	eP	Pn	21 56 45.5	+0.1
AC01				eS	Sg	21 57 15.8	+2.1
AC01				IAML		21 57 21.9	
	comp=Z,251nm,1.0s						
AC01	Pan de Azucar	1.89	21	eP	Pn	21 56 45.4	+0.1
AC01				IAML		21 57 23.4	
	comp=E,332nm,0.2s						
AC02	Maricunga	2.26	62	eP	Pb	21 56 53.8	-0.4
AC02				IAML		21 57 27.5	
	comp=Z,452nm,0.3s						
AC02	Maricunga	2.26	62	i P	Pb	21 56 53.1	-1.1
GO04	Tololo Observa	2.30	168	eP	Pn	21 56 51.7	+0.4
GO04				IAML		21 57 28.3	
	comp=Z,330nm,0.2s						
GO04	Tololo Observa	2.30	168	eP	Pn	21 56 51.3	0.0
CO01	Juntas del Tor	2.34	152	eP	Pn	21 56 37.8	-14
CO01				IAML		21 57 36.5	
	comp=Z,183nm,1.1s						
CO01	Juntas del Tor	2.34	152	eP	Pn	21 56 52.2	+0.5
CO01				IAML		21 57 23.7	
	comp=N,458nm,0.2s						
AROD	Rodeo	2.79	144	eP	Pb	21 57 00.8	-2.3
VCA	Vinchina	2.90	107	eP	Pb	21 57 03.5	-1.4
VCA				IAML		21 57 49.8	
	comp=Z,267nm,0.4s						
CO03	El Pedregal	2.97	169	eP	Pn	21 57 01.4	+1.1
CO03				eS	Sn	21 57 32.9	-3.3
CO03				IAML		21 57 49.3	
	comp=Z,154nm,0.3s						
CO03	El Pedregal	2.97	169	eP	Pn	21 57 01.0	+0.7
ACDV	Cuesta del Vie	2.98	139	eP	Pb	21 57 07.2	+0.8
ACDV				eS	Sb	21 57 40.2	-2.8
ACDV				IAML		21 57 51.7	
	comp=Z,112nm,0.4s						
CO02	Combarbal	3.29	175	eP	Pn	21 57 07.0	+2.2
CO02				IAML		21 58 03.6	
	comp=Z,259nm,0.5s						
CO02	Combarbal	3.29	175	eP	Pn	21 57 06.5	+1.8
ACCO	Cerro Coronel	3.33	144	eP	Pb	21 57 08.8	-3.6
ACCO				IAML		21 58 06.2	
	comp=Z,113nm,1.1s						
TINO	Tinogasta	3.36	93	eP	Pn	21 57 08.7	+3.0
TINO				IAML		21 58 01.6	
	comp=Z,101nm,1.0s						
PB14	IPOC Station P	3.39	15	eP	Pn	21 57 07.1	+0.8
PB14				eS	Sg	21 57 58.8	-3.0
PB14				IAML		21 58 07.9	
	comp=Z,108nm,0.5s						
ACLC	CERRO LA CRUZ	4.16	112	eP	Pn	21 57 19.3	+2.5
ACLC				IAML		21 58 29.3	
	comp=Z,28nm,0.8s						
RTLL	Cerro Villicun	4.23	144	eP	Pn	21 57 21.2	+3.6
RTLL				eS	Sn	21 58 11.9	+4.7
RTLL				IAML		21 58 22.7	
	comp=Z,150nm,0.9s						
RTLS	Leoncito	4.27	156	eP	Pn	21 57 21.4	+3.1
CFA	Coronel Fontan	4.57	144	eP	Pn	21 57 25.0	+2.7
CFA				IAML		21 58 42.6	
	comp=Z,36nm,1.2s						
VA03	San Esteban	4.88	172	eP	Pn	21 57 30.1	+3.5
VA03				eS	Sb	21 58 43.0	+5.5
VA03				IAML		21 58 44.1	
	comp=Z,91nm,0.6s						
PB05	IPOC Station P	5.15	12	eP	Pn	21 57 29.9	-0.4
PB05				IAML		21 59 09.3	
	comp=Z,28nm,0.7s						

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*BGR **01** 21:57:16.0, 18.°79S×173.°85W, h33^{km}, Ms5.8*

*NEIC **01** 21:57:22.3±2.5, 18.°9S±0.°1×174.°65W±0.°08, h94^{km}±5^{km}, mb4.6/24, Error ellipse: s-maj=15.6km s-min=11.2km az=168.0*

*GFZ **01** 21:57:23.8±0.8, 19°S±6°×17°4W±°, h151^{km}±6^{km}, M4.6/13, mb4.6/13, Error ellipse: s-maj=18.2km s-min=9.0km az=130.3, confirmed*

*IDC **01** 21:57:32.4±2.2, 18.°99S×174.°87W, h181^{km}±18^{km}, mb3.9/13, mbtmp4.4/15, Error ellipse: s-maj=18.4km s-min=12.5km az=137.0*

ISC 01 21:57:28.7±0.4**, 19.°05S**±0.°08×**174.°73W**±0.°07**, h150**^{km}**, n163, σ1^{s}41**/161**, mb4.5**/34**, 9C-9D, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NIUE	Niue	4.54	91	Pn	Pn	21 58 28.7	-7.3
FUTU	Fugatoga	5.73	325	Pn	Pn	21 58 52.6	+0.8
FUTU	Fugatoga	5.73	325	P	Pn	21 58 51.7	-0.2
	comp=Z,81nm,0.7s						
AFI	Afiamalu	5.85	29	Pn	Pn	21 58 44.3	-9.2
AFI	Afiamalu	5.85	29	P	Pn	21 58 44.2	-9.2
	comp=Z,152nm,0.8s						
AFI				P		21 59 44.0	
MSVF	Nonsavu	6.98	280	P	Pn	21 59 12.4	+3.9
	comp=Z,18nm,0.8s,baz=116,slow=14,SNR=12						
MSVF	Nonsavu	6.98	280	Pn	Pn	21 59 12.6	+4.0
MSVF	Nonsavu	6.98	280	P	Pn	21 59 13.3	+4.7
	comp=Z,60nm,1.5s						
RAR	Rarotonga	14.21	101	P	Pn	22 00 44.9	+1.6
	comp=Z,29nm,0.8s,baz=67,slow=15,SNR=2.6						
RAR	Rarotonga	14.21	101	P	Pn	22 00 40.8	-2.5
DZM	Mont Dzumac	17.88	257	P	P	22 01 28.7	+1.9
	comp=Z,8.0nm,0.8s,baz=66,slow=20,SNR=5.7						
KOUNC	Koumac, New Ca	19.80	262	Pn	P	22 01 49.4	+1.8
KOUNC				IAmb	IAmb	22 01 52.9	
	comp=Z,47nm,1.4s						
URZ	Urewera	20.41	199	P	P	22 01 54.9	+0.9
	comp=Z,9.2nm,0.5s,baz=268,slow=2.8,SNR=13						
URZ				S	S	22 05 28.8	-5.5
	comp=Z,2.9nm,0.6s,baz=138,slow=18,SNR=1.3						
	comp=Z,9.2nm,0.5s						
URZ	Urewera	20.41	199	P	P	22 01 54.0	+0.1
	comp=Z,30nm,1.2s						
TOZ	Tahuroa Road	20.47	203	P	P	22 01 55.4	+0.8
TOZ				IAmb	IAmb	22 01 57.9	
	comp=Z,37nm,0.9s						
RTZ	Ruatahuna	20.78	199	P	P	22 01 58.6	+0.6
QRZ	Quartz Range	24.29	204	P	P	22 02 32.6	+0.5
LTZ	Lake Taylor	26.09	202	P	P	22 02 49.6	+1.2
EIDS	Eidsvold	32.21	253	P	P	22 03 42.4	-0.3
EIDS				IAmb	IAmb	22 04 25.4	
	comp=Z,18nm,1.4s						
CTAO	Charters Tower	36.72	262	P	P	22 04 21.1	-0.6
CTAO	Charters Tower	36.72	262	P	P	22 04 20.8	-0.9
	comp=Z,31nm,0.8s						
CMSA	Cobar Meteorol	37.68	243	P	P	22 04 29.1	-0.6
QLP	Quilpie	38.43	251	P	P	22 04 35.2	-0.8
	comp=Z,22nm,0.8s						
MTSU	Mount Surprise	38.77	265	P	P	22 04 37.8	-1.1
	comp=Z,6.1nm,0.7s						
STKA	Stephens Creek	41.19	243	P	P	22 04 58.2	-0.4
	comp=Z,3.9nm,0.8s,baz=54,slow=10,SNR=3.9						
	comp=Z,3.9nm,0.8s						
STKA	Stephens Creek	41.19	243	P	P	22 04 57.9	-0.8
BBOO	Buckleboo	45.94	243	P	P	22 05 35.4	-1.3
WR8	Warramunga Arr	47.71	260	P	P	22 05 48.7	-1.9
WR8				IAmb	IAmb	22 05 51.4	
	comp=Z,3.5nm,0.6s						
WB0	Warramunga Arr	47.84	260	P	P	22 05 49.5	-2.2
WB0				IAmb	IAmb	22 05 50.7	
	comp=Z,8.6nm,0.9s						
AS31	Alice Springs	47.85	255	P	P	22 05 50.8	-0.9
ASAR	Alice Springs	47.86	255	P	P	22 05 50.6	-1.1
	comp=Z,9.2nm,0.6s,baz=94,slow=8.4,SNR=105						
ASAR				PcP	PcP	22 07 18.0	-0.2
	comp=Z,1.3nm,0.8s,baz=98,slow=3.6,SNR=2.8						
ASAR				S	S	22 12 35.5	-2.2
	comp=Z,1.5nm,1.0s,baz=99,slow=14,SNR=7.8						
	comp=Z,9.2nm,0.6s						
ASAR	Alice Springs	47.86	255	P	P	22 05 50.0	-1.7
WRAB	Tennant Creek	47.86	260	P	P	22 05 49.9	-1.9

WRAB				IAmb	IAmb	22 05 50.8	
	comp=Z,9.1nm,0.9s						
WRAB	Tennant Creek	47.86	260	P	P	22 05 49.7	-2.1
	comp=Z,8.5nm,0.6s						
WRA	Warramunga Arr	47.87	260	P	P	22 05 50.0	-1.8
	comp=Z,4.7nm,0.7s,baz=97,slow=7.7,SNR=176						
WRA				PcP	PcP	22 07 17.8	-0.4
	comp=Z,0.9nm,0.8s,baz=97,slow=3.7,SNR=2.8						
	comp=Z,4.7nm,0.7s						
WRA	Warramunga Arr	47.87	260	P	P	22 05 49.2	-2.6
MTN	Manton Dam	52.26	268	P	P	22 06 23.7	-1.3
MTN				IAmb	IAmb	22 06 24.1	
	comp=Z,5.2nm,0.7s						
FORT	Forrest	52.69	245	P	P	22 06 26.6	-1.4
KNRA	Kununurra	53.85	264	P	P	22 06 34.9	-1.6
KNRA				IAmb	IAmb	22 06 36.2	
	comp=Z,5.0nm,0.6s						
FITZ	Fitzroy Crossi	56.28	261	P	P	22 06 53.0	-1.1
FITZ	Fitzroy Crossi	56.28	261	P	P	22 06 53.2	-0.8
	comp=Z,1.6nm,1.5s						
SANI	Sanana	60.37	279	P	P	22 07 20.9	-1.6
	comp=Z,8.8nm,1.2s						
JYT	Yasato	69.56	322	P	P	22 08 19.7	-1.7
	comp=Z,1.0nm,1.2s						
JGF	Kuroka	70.82	320	P	P	22 08 29.3	+0.2
MJAR	Matsushiro Arr	70.94	321	P	P	22 08 28.9	-0.9
	comp=Z,7.2nm,0.7s,baz=154,slow=6.0,SNR=19						
	comp=Z,7.2nm,0.7s						
MJAR	Matsushiro Arr	70.94	321	P	P	22 08 28.7	-1.1
MAJO	Matsushiro	70.94	321	P	P	22 08 28.7	-1.1
MAJO				IAmb	IAmb	22 08 29.4	
	comp=Z,10nm,0.8s						
MJB9	Matsu-Tunnel	70.95	321	P	P	22 08 29.6	-0.2
MJB9				IAmb	IAmb	22 08 30.3	
	comp=Z,10nm,0.8s						
QSPA	South Pole Qui	71.01	180	P	P	22 08 31.8	+1.9
	comp=Z,1.4nm,0.9s,baz=52,slow=12,SNR=5.8						
	comp=Z,1.4nm,0.9s						
QSPA	South Pole Qui	71.01	180	P	P	22 08 30.2	+0.2
QSPA				IAmb	IAmb	22 09 06.6	
	comp=Z,7.0nm,0.9s						
YULB	Yu-li	75.33	301	P	P	22 08 54.8	-1.1
	comp=Z,22nm,2.8s						
NACB	Ninganchiao	75.47	302	P	P	22 08 55.9	-0.7
	comp=Z,41nm,1.4s						
PETK	Petropavlovsk-	75.72	343	P	P	22 08 56.8	-0.6
	comp=Z,7.7nm,0.8s,baz=107,slow=8.0,SNR=10						
	comp=Z,7.7nm,0.8s						
PETK	Petropavlovsk-	75.72	343	P	P	22 08 56.5	-0.9
SSLB	Suanglung	75.80	302	P	P	22 08 57.1	-1.4
	comp=Z,21nm,2.1s						
TPUB	Ta-pu	75.83	301	P	P	22 08 57.2	-1.5
	comp=Z,40nm,0.8s						
BBJI	Bungbulang	75.94	267	P	P	22 08 56.3	-3.3
	comp=Z,17nm,1.4s						
NVAR	Mina Array Bea	77.88	42	P	P	22 09 10.6	+0.5
	comp=Z,0.4nm,0.3s,baz=254,slow=5.5,SNR=5.1						
	comp=Z,0.4nm,0.3s						
KSRS	Korea Array	77.90	317	P	P	22 09 10.9	+1.0
	comp=Z,2.9nm,0.9s,baz=125,slow=5.6,SNR=9.0						
	comp=Z,2.9nm,0.9s						
BNX	BinXian	83.07	323	⇓P	P	22 09 37.4	+0.1
BNX				pmax	pmax		
	comp=Z,9.0nm,0.8s						
TXAR	Lajitas Array	83.69	56	P	P	22 09 42.6	+1.5
	comp=Z,0.3nm,0.7s,baz=241,slow=4.9,SNR=2.9						
	comp=Z,0.3nm,0.7s						
MAW	Mawson	83.94	199	P	P	22 09 42.3	+0.8
	comp=Z,1.5nm,0.6s,baz=59,slow=5.9,SNR=2.4						
	comp=Z,1.5nm,0.6s						
MAW	Mawson	83.94	199	P	P	22 09 42.4	+0.8
H03S2	Juan Fernandez	84.25	124	T	T	23 42 40.0	
	baz=249,slow=75,SNR=124						
H03S1	Juan Fernandez	84.26	124	T	T	23 42 42.7	
	baz=249,slow=75,SNR=110						
H03S3	Juan Fernandez	84.26	124	T	T	23 42 39.6	
	baz=249,slow=75,SNR=96						
ILAR	Eielson Array	86.26	12	P	P	22 09 52.0	-1.0
	comp=Z,1.4nm,0.5s,baz=228,slow=6.2,SNR=22						
	comp=Z,1.4nm,0.5s						
L29M	L29M	86.77	16	P	P	22 09 55.1	-0.4
L29M				IAmb	IAmb	22 09 56.0	
	comp=Z,6.1nm,0.9s						
CMAR	Chiang Mai Arr	92.56	289	P	P	22 10 23.3	-0.3
	comp=Z,0.6nm,0.3s,baz=116,slow=2.5,SNR=12						
	comp=Z,0.6nm,0.3s						
CHTO	Chiang Mai	92.67	289	P	P	22 10 24.6	+0.5
	comp=Z,4.3nm,0.9s						
ZALV	Zalesovo Beam	111.29	321	PKiKP	PKiKP	22 15 42.5	-1.9
	comp=Z,0.8nm,0.6s,baz=161,slow=1.8,SNR=3.9						
MKAR	Makanchi Array	112.44	314	PKiKP	PKiKP	22 15 45.3	-1.6
	comp=Z,0.7nm,0.7s,baz=90,slow=0.6,SNR=7.0						
KURBB	Kurchatov Arra	115.07	318	PKP	PKiKP	22 15 50.7	-1.1
	comp=Z,0.7nm,0.6s,baz=91,slow=1.5,SNR=12						
BVAR	Borovoye Array	119.93	321	PKP	PKPdf	22 16 00.5	-0.6
	comp=Z,3.4nm,0.5s,baz=83,slow=4.6,SNR=12						
ARCES	ARCESS Array B	128.02	351	PKP	PKPdf	22 16 15.4	-0.7
	comp=Z,2.5nm,1.0s,baz=17,slow=2.5,SNR=7.4						
FINES	FINESS Array B	135.19	346	PKP	PKPdf	22 16 26.8	-3.1
	comp=Z,1.1nm,0.6s,baz=40,slow=3.2,SNR=5.7						
FINES	FINESS Array B	135.19	346	PKPdf	PKPdf	22 16 30.6	+0.8
HFS	Hagfors	138.52	354	PKhKP	PKPpre	22 16 28.3	
	comp=Z,3.4nm,1.0s,baz=54,slow=2.5,SNR=1.8						
AKASG	Malin Array Be	143.14	335	PKhKP	PKPpre	22 16 40.2	
	comp=Z,1.5nm,0.5s,baz=42,slow=4.2,SNR=15						
BSEG	Bad Segeberg	144.97	355	*e*PKPbc	PKPbc	22 16 47.6	+0.3
	baz=9.3,slow=2.7						
SORM	Soroca	145.47	332	⇑P	PKPdf	22 16 48.0	-0.8
GORT1	Trebel	145.81	354	*e*PKPbc	PKPdf	22 16 50.7	+1.5
	baz=9.3,slow=2.7						
RETH	Rethem/Aller,	146.23	356	*e*PKPbc	PKPdf	22 16 51.9	+2.0
	baz=9.3,slow=2.7						
FLTG	Flechtingen	146.46	353	*e*PKPbc	PKPdf	22 16 52.2	+1.8
	baz=9.3,slow=2.7						
ASSE	Asse, Remlinge	146.72	354	*e*PKPbc	PKPbc	22 16 53.5	+0.8
	baz=9.3,slow=2.7						
IBBN	Ibbenburen	146.76	357	*e*PKPbc	PKPbc	22 16 53.5	+0.7
	baz=9.3,slow=2.7						
CLZ	Clausthal	147.03	354	*e*PKPbc	PKPbc	22 16 54.5	+0.8
	baz=9.3,slow=2.7						
KOLS	Kolonicke sedl	147.19	339	*e*PKP	PKPbc	22 16 54.7	+0.5
BURAR	Bucovina Array	147.20	335	⇓P	PKPbc	22 16 55.0	+0.6
CLL	Collm	147.24	351	*e*PKPbc	PKPbc	22 16 54.7	+0.5
	baz=9.3,slow=2.7						
CLL	Collm	147.24	351	*i* PKPbc	PKPdf	22 16 53.8	+2.1
	comp=Z,14nm,1.1s						
BIZ	Bicaz	147.36	333	⇑P	PKPbc	22 16 55.2	+0.5
GTTG	Gottingen	147.37	355	*e*PKPbc	PKPbc	22 16 55.3	+0.7
	baz=9.3,slow=2.7						
OSTC	Ostas	147.38	347	*e*PKP	PKPbc	22 16 55.5	+0.8
CHVC	Chvalec	147.39	347	*e*PKP	PKPbc	22 16 55.1	+0.4
TLCR		147.42	328	⇓P	PKPdf	22 16 54.8	+2.6
NEUB	Neuenburg	147.50	352	*e*PKPbc	PKPbc	22 16 55.6	+0.7
	baz=9.3,slow=2.7						
BRG	Berggiesshubel	147.51	350	*e*PKPbc	PKPbc	22 16 55.7	+0.7
	baz=9.3,slow=2.7						
BRG	Berggiesshubel	147.51	350	*e*PKP	PKPbc	22 16 55.3	+0.3
BRG				Amp		22 16 56.1	
	comp=Z,4.4nm,0.8s						
BRG				pPKP	pPKP	22 17 19.0	
BRG				Amp		22 17 19.8	
	comp=Z,2.0nm,0.9s						
DPC	Dobruska-Polom	147.55	347	*e*PKP	PKPbc	22 16 55.5	+0.3
STEB	Steborice	147.61	345	*e*PKP	PKPdf	22 16 54.5	+2.1
BUG	Bochum--Univer	147.64	358	*e*PKPbc	PKPbc	22 16 55.6	+0.4
	baz=9.3,slow=2.7						
KRLC	Kraliky	147.71	346	*e*PKP	PKPbc	22 16 55.7	+0.1
MORC	Moravsky Berou	147.81	345	*e*PKP	PKPbc	22 16 55.8	-0.1
MORC	Moravsky Berou	147.81	345	⇑P	PKPbc	22 16 56.2	+0.3
KASTN	Kahler Asten	147.82	356	*e*PKPbc	PKPbc	22 16 56.4	+0.5
	baz=9.3,slow=2.7						
HSKC	Hora Svate Kat	147.85	350	*e*PKP	PKPbc	22 16 55.9	0.0
TPGR	Topolog	147.85	328	⇓P	PKPbc	22 16 56.0	-0.1
LANS	Liptovska Anna	147.87	342	*e*PKP	PKPbc	22 16 57.3	+1.2
VRI	Vrincioaia	147.91	331	⇑P	PKPdf	22 16 56.1	+3.0
BRTR	Keskin Array B	148.04	316	PKPbc	PKPdf	22 16 56.6	+3.0
	comp=Z,4.1nm,0.7s,baz=133,slow=3.4,SNR=26						
BRTR	Keskin Array B	148.04	316		PKPdf	22 16 56.4	+2.8
MOX	Moxa	148.08	352	*e*PKPbc	PKPbc	22 16 57.1	+0.6
	baz=9.3,slow=2.7						
MOX				*e*L	L	23 24 54.5	
	comp=Z,2μm,20.3s						
TURR	Turia	148.09	332	⇓P	PKPbc	22 16 56.9	+0.2
PLN	Plauen	148.16	352	*e*PKPbc	PKPbc	22 16 57.4	+0.7
	baz=9.3,slow=2.7						
PLN				*e*PKPab	PKiKP	22 16 59.9	+1.5
	baz=7.7,slow=4.2						
KIRS	Kirsehir-Merke	148.17	315	⇑P	PKPbc	22 16 57.1	-0.1
TANN	Tannenbergstha	148.19	351	*e*PKPbc	PKPbc	22 16 57.6	+0.7
	baz=9.3,slow=2.7						
HARR	Harsova	148.22	329	⇑P	PKPbc	22 16 57.1	+0.1
PRU	Pruhonice	148.26	349	*e*PKP	PKPbc	22 16 56.8	-0.2
VRAC	Vranov	148.47	346	*e*PKP	PKPbc	22 16 57.5	-0.1
VRAC	Vranov	148.47	346	⇓P	PKPdf	22 16 56.5	+2.6
MLR	Muntele Rosu	148.56	332	⇓P	PKPdf	22 16 56.9	+2.7
JAVC	Velka Javorina	148.62	344	*e*PKP	PKPbc	22 16 59.0	+1.0
VYHS	Vyhne	148.64	343	*e*PKP	PKPbc	22 16 57.9	-0.1
KRUC	Moravsky	148.75	346	*e*PKP	PKPbc	22 16 58.0	-0.3
ZVC	Zvikov	148.85	349	*e*PKP	PKPbc	22 16 58.8	+0.3
VOIR		149.00	332	⇑P	PKPbc	22 16 58.6	-0.5
GRF	Grafenberg Arr	149.06	352	*e*PKPbc	PKPbc	22 16 60.0	+0.9
	baz=9.3,slow=2.7						
GRF				*e*PKPab	PKiKP	22 17 03.0	+2.7
	baz=7.7,slow=4.2						
GRF				*e*L	L	23 28 43.6	
	comp=Z,1μm,20.6s						
MODS	Modra-Piesok	149.17	344	*e*PKP	PKPbc	22 17 00.6	+1.2
KHC	Kasperske Hory	149.26	349	*e*PKP	PKPbc	22 16 59.7	+0.1
CKRC	Cesky Krumlov	149.42	348	*e*PKP	PKPbc	22 17 00.0	0.0
WLF	Walferdange	149.45	359	*e*PKPbc	PKPbc	22 17 01.2	+1.2
	baz=9.3,slow=2.7						
GEC2	GERESS Array S	149.51	349	*e*PKPbc	PKPbc	22 17 00.9	+0.6
	baz=9.3,slow=2.7						
GERES	GERESS Array B	149.51	349	PKPbc	PKPbc	22 17 00.0	-0.3
	comp=Z,2.7nm,0.7s,baz=13,slow=1.8,SNR=27						
GERES	GERESS Array B	149.51	349	PKPbc	PKPbc	22 16 59.5	-0.8
MMAI	Mount Meron Ar	149.69	303	PKPbc	PKPbc	22 17 01.2	0.0
	comp=Z,7.9nm,0.6s,baz=52,slow=8.6,SNR=12						
CONA	Conrad Observa	149.94	346	*e*PKiKP	PKPbc	22 17 01.6	+0.3
	comp=Z,8.0nm,1.1s,SNR=5.1						
RONA	Rosalia, Austr	150.04	345	*i* PKiKP	PKPbc	22 17 01.9	+0.3
	comp=Z,5.2nm,0.7s						
STU	Stuttgart	150.19	355	*e*PKPbc	PKPbc	22 17 02.6	+0.8
	baz=9.3,slow=2.7						
MOA	Molln	150.36	348	*e*PKiKP	PKPbc	22 17 02.0	-0.3
	comp=Z,5.2nm,0.9s						
HERR	Herculane	150.55	335	⇑P	PKPbc	22 17 02.4	-0.4
FUR	Furstenfeldbru	150.55	352	*e*PKPbc	PKPbc	22 17 03.3	+0.6
	baz=9.3,slow=2.7						
FUR				*e*PKPab	PKPab	22 17 09.8	0.0
	baz=7.7,slow=4.2						
BIOA	Bad Ischl, Aus	150.63	348	*e*PKiKP	PKPbc	22 17 02.3	-0.6
	comp=Z,2.8nm,0.8s						
ARSA	Arzberg	150.65	346	*i* PKiKP	PKPbc	22 17 03.4	+0.4
	comp=Z,4.8nm,1.3s						
BFO	Black Forest	150.69	356	*e*PKPbc	PKPbc	22 17 03.6	+0.5
	baz=9.3,slow=2.7						
BFO				*e*PKPab	PKPab	22 17 10.1	-0.3
	baz=7.7,slow=4.2						
MORH	Mrgy, Hungar	150.75	341	⇓P	PKPbc	22 17 03.0	-0.2
KEPZ	Antalya-Kepez	150.87	313	⇑P	PKPdf	22 17 02.3	+4.2
SESA	Seetaler Alpe,	151.00	347	*i* PKiKP	PKPbc	22 17 03.5	-0.5
	comp=Z,21nm,0.7s,SNR=11						
LESA	Schwarzleotal	151.06	350	*i* PKiKP	PKPbc	22 17 03.9	-0.1
	comp=Z,5.9nm,1.2s						
UBR	Ueberruh	151.17	353	*e*PKPbc	PKPbc	22 17 04.7	+0.4
	baz=9.3,slow=2.7						
KBA	Koelnbreinsper	151.28	348	*i* PKiKP	PKPbc	22 17 04.1	-0.5
	comp=Z,4.1nm,0.7s						
RETA	Reutte	151.29	352	*e*PKiKP	PKPbc	22 17 04.2	-0.3
	comp=Z,6.5nm,1.3s						
SOKA	Soboth	151.30	346	*i* PKiKP	PKPbc	22 17 03.3	-1.3
	comp=Z,5.8nm,0.9s						
WATA	Walderalm	151.32	351	*i* PKiKP	PKPbc	22 17 04.1	-0.6
	comp=Z,9.0nm,1.1s						
MOTA	Moosalm	151.38	352	*e*PKiKP	PKPbc	22 17 04.5	-0.4
	comp=Z,9.6nm,1.0s,SNR=5.0						
WTTA	Wattenberg	151.38	351	*e*PKiKP	PKPbc	22 17 04.8	-0.1
	comp=Z,8.4nm,0.6s,SNR=6.8						
SQTA	Sankt Quirin	151.49	352	*i* PKiKP	PKPbc	22 17 04.9	-0.2
	comp=Z,7.0nm,0.9s,SNR=6.2						
DAVA	Damuels	151.59	353	*e*PKiKP	PKPbc	22 17 05.1	-0.3
	comp=Z,10nm,1.2s						
ABTA	Abfaltersbach	151.75	349	*i* PKiKP	PKPbc	22 17 05.0	-0.7
	comp=Z,11nm,0.9s						
FETA	Feichten	151.75	352	*e*PKiKP	PKPbc	22 17 05.8	+0.1
	comp=Z,6.6nm,0.9s						
TAVA	DENIZLI_Tavas	152.38	317	⇓P	PKPbc	22 17 07.2	-0.1
ESDC	Sonseca Array	157.96	19	PKPab	PKPab	22 17 41.7	+0.1
	comp=Z,0.7nm,1.0s,baz=332,slow=3.9,SNR=4.9						
ESDC	Sonseca Array	157.96	19		PKPab	22 17 42.0	+0.4

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*SJA **01** 21:59:48.7±0.8, 27°.95S×71°.48W, h23^{km}±10^{km}, ML3.7, MW3.6*

*GUC **01** 21:59:50.3±0.8, 28°.03S×71°.37W, h21^{km}±4^{km}, ML3.3*

ISC 01 21:59:49.3±2.0**, 27°.93S**±0°.04×**71°.43W**±0°.09**, h13**^{km}±12^{km}**, n16, σ1^{s}.92**/27**, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.42	131	*e*P	Pb	21 59 58.2	-0.4
AC06	Mina Casimiro	1.11	59	*e*P	Pg	22 00 11.0	+0.2
AC06				*e*S	Sn	22 00 27.1	+1.3
AC06				IAML		22 00 35.2	
	comp=E,756nm,0.2s						
GO03	Copiapo	1.11	73	*e*P	Pb	22 00 05.5	-4.9
GO03				*e*P	Pg	22 00 11.0	+0.2
GO03				*e*S	Sb	22 00 20.0	-4.8
GO03				IAML		22 00 32.3	
	comp=Z,2μm,0.8s						
GO03	Copiapo	1.11	73	*e*P	Pg	22 00 10.9	+0.2
GO03				*i* S	Sn	22 00 27.0	+1.1
GO03				IAML		22 00 32.5	
	comp=N,2μm,0.6s						
LCO	Las Campanas	1.26	149	*e*P	Pn	22 00 12.1	-0.7
LCO	Las Campanas	1.26	149	*e*P	Pn	22 00 12.4	-0.5
LCO				*i* S	Sb	22 00 28.9	-0.4
AC05	El Transito	1.36	132	*e*P	Pn	22 00 13.9	-0.3
AC05				*e*S	Sb	22 00 32.2	-0.1
AC05				IAML		22 00 33.1	
	comp=E,580nm,0.2s						
AC01	Pan de Azucar	1.92	23	*e*P	Pb	22 00 22.8	-1.5
AC01				*e*S	Sb	22 00 47.0	-1.2
GO04	Tololo Observa	2.30	166	*e*P	Pb	22 00 29.1	-1.8
GO04				*i* S	Sb	22 00 58.6	-0.9
GO04				IAML		22 01 03.9	
	comp=N,2μm,0.6s						
AC02	Maricunga	2.32	63	*e*P	Pb	22 00 30.9	-0.5
AC02				*e*S	Sg	22 01 05.5	+1.6
AC02				IAML		22 01 09.1	
	comp=Z,282nm,0.2s						
AC02	Maricunga	2.32	63	*e*P	Pb	22 00 31.0	-0.3
AC02				IAML		22 01 07.0	
	comp=N,679nm,0.1s						
CO01	Juntas del Tor	2.35	150	*e*P	Pb	22 00 30.0	-1.8
CO01				IAML		22 01 26.3	
	comp=Z,299nm,0.4s						
CO01	Juntas del Tor	2.35	150	*e*P	Pb	22 00 29.8	-2.0
CO01				*e*S	Sb	22 00 59.9	-0.9
CO01				IAML		22 01 08.5	
	comp=N,202nm,0.3s						
AROD	Rodeo	2.81	143	*e*P	Pb	22 00 38.3	-1.4
AROD				*e*S	Sn	22 01 09.5	+1.2
RTLL	Cerro Villicun	4.25	144	*e*P	Pn	22 00 57.3	+3.3
RTLL				*e*S	Sb	22 01 52.0	-3.4
RTLS	Leoncito	4.28	155	*e*P	Pn	22 00 58.1	+3.6
RTLS				IAML		22 02 05.8	
	comp=Z,72nm,0.3s						

GUC 01 22:00:17.0±0.7**, 27°.98S**×**71°.43W, h15**^{km}±32^{km}**, ML3.4, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.38	125	*e*P	Pg	22 00 24.3	-0.5
AC04				*i* S	Sg	22 00 28.9	-1.2
AC04				IAML		22 00 29.3	
	comp=N,12μm,0.2s						
AC04	Llanos de Chal	0.38	125	*e*S	Sg	22 00 29.0	-1.0
AC04	Llanos de Chal	0.38	125	IAML		22 00 29.2	
	comp=Z,5μm,0.2s						
GO03	Copiapo	1.12	70	*i* S	Sb	22 00 51.1	-1.6
GO03				IAML		22 00 55.3	
	comp=N,2μm,0.4s						
LCO	Las Campanas	1.21	148	*i* S	Sb	22 00 53.9	-1.4
LCO	Las Campanas	1.21	148	*e*S	Sb	22 00 55.0	-0.3
LCO	Las Campanas	1.21	148	IAML		22 00 56.1	
	comp=Z,2μm,0.3s						
CO01	Juntas del Tor	2.31	150	*e*P	Pn	22 00 56.1	+1.4
CO01				IAML		22 01 27.6	
	comp=N,377nm,0.2s						
RTLS	Leoncito	4.23	155	*e*S	Pn	22 01 20.0	-1.2

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*IPEC **01** 22:03:44.8±0.2, 51°.21N×19°.08E, h1^{km}, ML2.4/6, Error ellipse: s-maj=1.2km s-min=0.9km az=8.0*

*PRU **01** 22:03:46.3, 51°.21N×18°.92E, h0^{km}, Belchatow*

*VIE **01** 22:03:47.6±1.8, 51°.10N×18°.78E, h0^{km}, mb2.5/7, ml2.3/6, ms4.3/2, Error ellipse: s-maj=10.3km s-min=8.8km az=19.0 93 km SSW of Lodz Suspected Mining induced.*

ISC 01 22:03:47.9±1.3**, 51°.11N**±0°.06×**18°.94E**±0°.04**, h0**^{km}**, n33, σ1^{s}.55**/51**, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OJC	Ojcow	1.04	148	*e*Pg	Pg	22 04 05.6	-2.2
OJC				*e*Sg	Sg	22 04 21.6	+0.2
OKC	Ostrava-Krasne	1.37	202	*e*PG	Pg	22 04 12.5	-1.6
OKC				*e*SG	Sn	22 04 33.1	+0.1
	comp=Z,35nm,0.6s						
OKC				AML	AML		
STEB	Steborice	1.39	213	*e*PG	Pn	22 04 13.4	-1.1
STEB				*e*SG	Sb	22 04 33.2	+0.2
	comp=Z,76nm,0.6s						
STEB				AML	AML		
ANAC	Anensky vrch	1.44	225	*e*Pn	Pn	22 04 13.7	-1.5
	baz=43						
ANAC				*e*Sg	Sb	22 04 34.2	-0.2
	26nm,0.4s,baz=43						
ANAC				AML	AML		
MORC	Moravsky Berou	1.60	214	*e*Pn	Pn	22 04 15.8	-1.7
	baz=34						
MORC				*e*Sg	Sg	22 04 39.4	0.0
	18nm,0.6s,baz=34						
MORC				AML	AML		
KRLC	Kraliky	1.72	234	*e*SG	Sb	22 04 42.6	0.0
	comp=Z,26nm,0.4s						
KRLC				AML	AML		
LOSC	Losov	1.80	215	*e*Pn	Pn	22 04 18.5	-1.6
	baz=34						
LOSC				*e*Sg	Sg	22 04 45.3	-0.2
	31nm,0.6s,baz=34						
LOSC				AML	AML		
OSTC	Ostas	1.81	253	*e*PG	Pn	22 04 18.4	-2.0
OSTC				*e*SG	Sn	22 04 43.0	-1.1
	comp=Z,14nm,0.5s						
OSTC				AML	AML		
DPC	Dobruska-Polom	1.83	247	*e*PG	Pn	22 04 19.1	-1.5
DPC				*e*SG	Sn	22 04 43.6	-0.9
	comp=Z,12nm,0.6s						
DPC				AML	AML		
MAUC	Maruska	1.89	203	*e*SG	Sg	22 04 48.8	+0.4
NIE	Niedzica	1.90	152	*e*Pg	Pn	22 04 22.5	+0.9
NIE				*e*Sg	Sb	22 04 48.2	+0.5
LANS	Liptovska Anna	1.99	170	*e*PG	Pn	22 04 23.2	+0.4
LANS				*e*SG	Sg	22 04 51.3	-0.4
LANS				*e*LG	Lg	22 05 01.6	
VRAC	Vranov	2.35	221	*e*Pn	Pn	22 04 26.6	-1.1
	baz=39						
VRAC				*e*Sg	Sg	22 05 02.9	-0.4
	16nm,0.5s,baz=39						
VRAC				AML	AML		
KRUC	Moravsky	2.62	220	*e*Pn	Pn	22 04 30.2	-1.2
	baz=38						
KRUC				*e*Sg	Sg	22 05 11.2	-0.9
	17nm,0.8s,baz=38						
KRUC				AML	AML		
KRUC	Moravsky	2.62	220	*e*PN	Pn	22 04 30.3	-1.2
KRUC				*e*SG	Sg	22 05 11.3	-0.9
PVCC	Panska Ves	2.83	260	*e*SG	Sg	22 05 18.2	-0.7
	comp=Z,30nm,0.9s						
PVCC				AML	AML		
TREC	Trest	2.87	232	*e*SG	Sg	22 05 19.6	-0.3
MODS	Modra-Piesok	2.94	202	*e*PG	Pg	22 04 43.7	-0.5
KOLS	Kolonicke sedl	3.06	134	*e*PG	Pg	22 04 45.7	-0.7
BRG	Berggiesshubel	3.17	268	Pg	Pg	22 04 48.5	0.0
BRG				Sg	Sg	22 05 29.9	+0.4
BRG				Amp		22 05 37.5	
	comp=Z,5.8nm,0.5s						
CLL	Collm	3.74	275	*i* Pg	Pg	22 04 58.1	-1.4
CLL				*i* Sg	Sg	22 05 51.0	+3.0
CONA	Conrad Observa	3.76	213	*e*Pn	Pn	22 04 47.7	+0.5
	comp=Z,0.2nm,0.2s						
CONA				*e*Sn	Sn	22 05 33.6	+1.4
	comp=Z,2.2nm,0.4s						
CKRC	Cesky Krumlov	3.77	234	*e*SG	Sg	22 05 48.2	-0.6
KHC	Kasperske Hory	3.98	242	*e*PG	Pb	22 05 00.1	+1.3
KHC				*e*SG	Sg	22 05 53.6	-2.0
ARSA	Arzberg	4.46	211	Pn	Pn	22 04 58.8	+2.1
	comp=Z,0.4nm,0.2s						
ARSA				*e*Sg	Sg	22 06 12.6	+1.4
	comp=Z,4.5nm,0.7s						
MOA	Molln	4.46	225	*e*Sg	Sg	22 06 10.8	-0.4
	comp=Z,3.2nm,0.5s						
BIOA	Bad Ischl, Aus	4.87	227	Sg	Sg	22 06 28.5	+4.4
	comp=Z,7.0nm,0.6s						
KBA	Koelnbreinsper	5.46	225	Sg	Sg	22 06 43.8	+0.8
	comp=Z,0.9nm,0.4s						
LESA	Schwarzleotal	5.51	230	Sg	Sg	22 06 44.3	-0.6
	comp=Z,3.0nm,0.6s						
WATA	Walderalm	6.12	235	Sg	Sg	22 07 05.3	+0.8
	comp=Z,4.9nm,0.7s						
WTTA	Wattenberg	6.14	234	Sg	Sg	22 07 07.3	+2.3
	comp=Z,5.1nm,0.9s						
MOTA	Moosalm	6.37	237	*e*Sg	Sg	22 07 14.9	+2.7
	comp=Z,3.6nm,0.8s						
RETA	Reutte	6.46	239	Sg	Sg	22 07 20.1	+4.8
	comp=Z,1.6nm,0.5s						

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*SJA **01** 22:12:29.9±1.0, 27°.95S×71°.27W, h14^{km}±6^{km}, ML3.6, MW3.8*

*GUC **01** 22:12:31.0±0.7, 27°.99S×71°.33W, h26^{km}±3^{km}, ML3.4*

ISC 01 22:12:26.8±3.0**, 27°.92S**±0°.04×**71°.48W**±0°.09**, h4**^{km}±20^{km}**, n23, σ1^{s}.81**/30**, 1D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.46	128	*i* P	Pb	22 12 37.4	0.0
AC04				*e*S	Sg	22 12 42.0	+0.3
AC04				IAML		22 12 42.9	
	comp=Z,2μm,0.1s						
AC04	Llanos de Chal	0.46	128	⇓*i*P	Pb	22 12 37.5	0.0
AC04				*e*S	Sg	22 12 42.0	+0.3
AC04				IAML		22 12 42.1	
	comp=N,7μm,0.1s						
AC06	Mina Casimiro	1.15	61	*e*P	Pn	22 12 49.4	-0.2
AC06				*e*S	Sb	22 13 03.7	-0.8
AC06				IAML		22 13 07.5	
	comp=E,2μm,0.2s						
GO03	Copiapo	1.15	74	*e*P	Pb	22 12 49.2	-0.1
GO03				*e*S	Sb	22 13 02.9	-1.7
GO03				IAML		22 13 04.9	
	comp=Z,2μm,0.2s						
GO03	Copiapo	1.15	74	*e*P	Pb	22 12 49.2	-0.1
GO03				*e*S	Sb	22 13 03.1	-1.5
GO03				IAML		22 13 05.4	
	comp=N,2μm,0.3s						
LCO	Las Campanas	1.29	148	*e*P	Pn	22 12 51.7	0.0
LCO				IAML		22 13 10.7	
	comp=Z,2μm,0.5s						
LCO	Las Campanas	1.29	148	*i* P	Pn	22 12 51.6	-0.2
LCO				*e*S	Sb	22 13 06.8	-1.9
AC05	El Transito	1.40	131	*i* P	Pn	22 12 53.0	-0.2
AC05				IAML		22 13 11.2	
	comp=Z,477nm,0.7s						
AC05	El Transito	1.40	131	*e*P	Pn	22 12 53.0	-0.2
AC01	Pan de Azucar	1.94	24	*i* P	Pn	22 13 01.3	+0.9
GO04	Tololo Observa	2.32	165	*i* P	Pn	22 13 07.0	+1.1
GO04				*e*S	Sb	22 13 36.1	-2.4
AC02	Maricunga	2.36	63	*i* P	Pb	22 13 08.9	-1.1
AC02				IAML		22 13 40.9	
	comp=Z,772nm,0.2s						
AC02	Maricunga	2.36	63	*e*P	Pb	22 13 09.1	-1.0
AC02				*e*S	Sb	22 13 38.5	-1.2
CO01	Juntas del Tor	2.38	150	*i* P	Pn	22 13 06.9	0.0
CO01				IAML		22 13 40.7	
	comp=N,446nm,0.5s						
CO06	Fray Jorge	2.75	183	IAML		22 14 00.7	
	comp=E,149nm,0.6s						
AROD	Rodeo	2.85	142	*i* P	Pb	22 13 16.8	-1.5
VCA	Vinchina	3.00	106	*i* P	Pn	22 13 16.9	+1.6
VCA				IAML		22 14 08.7	
	comp=Z,228nm,0.5s						

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CO02  Combarbal          3.30 173 eP      Pb      22 13 24.3 -1.6
CO04  Los Peladeros      4.13 174 eP      Pn      22 13 34.5 +3.6
ACLC  CERRO LA CRUZ      4.25 112 i P     Pn      22 13 35.3 +2.8
ACLC                               IAML           22 14 32.4
      comp=Z,54nm,1.4s
RTLL  Cerro Villicun     4.29 143 i P     Pn      22 13 36.3 +3.4
RTLL                               IAML           22 14 49.6
      comp=Z,82nm,0.6s
CFA   Coronel Fontan     4.63 143 i P     Pn      22 13 41.4 +3.9
CFA                                IAML           22 14 51.1
      comp=Z,198nm,0.8s
CYA   Choya              5.04  97 i P     Pn      22 13 46.2 +3.1
CYA                                IAML           22 14 49.3
      comp=Z,33nm,0.5s
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*SOME **01** 22:41:57.7, 40°.97N×83°.47E, h15^{km}*
*NNC **01** 22:42:04.2±2.3, 41°.47N×83°.47E, h0^{km}, mb3.7, mpv3.3, Error ellipse: s-maj=16.8km s-min=11.4km az=158.0*
ISC 01 22:42:01.3±2.5**, 41°.2N**±0°.1×**83°.34E**±0°.08**, h10^{km}, n25, σ2^{s}66**/37**, 7C-7D, Southern Xinjiang**

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Code  Station Name       Δ°   AZ°   Phase ID          Time     Res
                                  Op      ISC      h  m  s    ISC
KTMS  Ketmen             3.19 317  Pg     Pb      22 42 58.5 +0.4
      3.6nm,0.3s
KTMS                               Lg     Lg      22 43 42.8
      18nm,0.2s
KTMS  Ketmen             3.19 317 eP      Pb      22 42 58.5 +0.4
      3.6nm,0.3s
KTMS                              eS      Sb      22 43 42.8 +5.8
      18nm,0.2s
SHLS  Shalkode           3.51 306  Pg     Pb      22 43 00.6 -3.0
      13nm,0.4s
SHLS                               Lg     Lg      22 43 46.0
      101nm,0.4s
SHLS  Shalkode           3.51 306 eP      Pb      22 43 00.6 -3.0
      13nm,0.4s
SHLS                              eS      Sb      22 43 46.0 -0.3
      101nm,0.4s
PDGK  Podgornoye         3.59 309 ⇑Pn     Pb      22 43 02.7 -2.2
      7.8nm,0.5s
PDGK                              ⇓Sn     Sn      22 43 43.2 +3.5
      14nm,0.5s
PDGK                              ⇓Lg     Lg      22 43 54.5
      40nm,0.6s
UZB   Uzynbulak          3.78 303  Pg     Pb      22 43 10.4 +2.2
      2.8nm,0.4s
UZB                                Lg     Lg      22 44 02.5
      26nm,0.4s
UZB   Uzynbulak          3.78 303 eP      Pb      22 43 10.3 +2.2
UZB                               eS      Sg      22 44 02.5 -0.1
DJR   Jarkent            4.11 322  Pg     Pg      22 43 17.8 -2.3
      9.9nm,0.4s
DJR                                Lg     Lg      22 44 15.5
      16nm,0.8s
DJR   Jarkent            4.11 322 eP      Pg      22 43 17.8 -2.3
      9.9nm,0.4s
DJR                               eS      Sg      22 44 15.5 +2.1
      16nm,0.8s
SATY  Saty               4.13 299  Pg     Pg      22 43 17.2 -3.3
      4.1nm,0.5s
SATY                               Lg     Lg      22 44 14.2
      27nm,0.5s
SATY  Saty               4.13 299 eP      Pg      22 43 17.2 -3.3
      4.1nm,0.5s
SATY                              eS      Sg      22 44 14.2 +0.2
      27nm,0.5s
KNOS  Konyrlen           4.43 318  Pg     Pb      22 43 21.1 +1.8
      6.5nm,0.6s
KNOS                               Lg     Lg      22 44 20.9
      22nm,0.5s
KURS  Kuram              4.49 303  Pg     Pb      22 43 22.8 +2.6
      4.4nm,0.6s
KURS                               Lg     Lg      22 44 24.0
      5.9nm,0.4s
KURS  Kuram              4.49 303 eP      Pb      22 43 22.8 +2.6
      4.4nm,0.6s
KURS                              eS      Sg      22 44 24.0 -1.3
      5.9nm,0.4s
KAPS  Kapalarasan        5.05 326  Pg     Pg      22 43 34.2 -3.8
      4.2nm,0.3s
KAPS                               Lg     Lg      22 44 43.3
      19nm,0.3s
KAPS  Kapalarasan        5.05 326 eP      Pg      22 43 34.2 -3.8
      4.2nm,0.3s
KAPS                              eS      Sg      22 44 43.3 -0.1
      19nm,0.3s
KOTS  Kotyrbulak         5.07 296  Pg     Pb      22 43 33.1 +2.9
      5.2nm,0.4s
KOTS                               Lg     Lg      22 44 42.6
      29nm,0.5s
KOTS  Kotyrbulak         5.07 296 eP      Pb      22 43 33.1 +2.9
      5.2nm,0.4s
KOTS                              eS      Sg      22 44 42.6 -1.5
      29nm,0.5s
MDOK  Medeo              5.09 295  Pg     Pb      22 43 33.4 +2.9
      3.5nm,0.3s
MDOK                               Lg     Lg      22 44 42.5
      13nm,0.5s
MDOK  Medeo              5.09 295 eP      Pb      22 43 33.4 +2.9
      3.5nm,0.3s
MDOK                              eS      Sg      22 44 42.5 -2.1
      13nm,0.5s
MK31  Makanchi Array     5.69 353 ⇓Pn     Pn      22 43 27.4 +1.5
      0.1nm,0.3s,baz=172,slow=13,SNR=8.0
MK31                               Pg     Pb      22 43 43.0 +2.3
      0.3nm,0.3s,baz=164,slow=15,SNR=3.8
MK31                              ⇑Sn     Sn      22 44 27.8 -3.5
      1.3nm,0.6s,baz=23,slow=32,SNR=4.8
MK31                              ⇓Lg     Lg      22 44 52.3
      4.8nm,0.6s,baz=169,slow=31,SNR=5.3
MAKZ  Makanchi           5.74 351 ⇑Pn     Pn      22 43 27.5 +0.9
      2.3nm,1.4s
MAKZ                              ⇑Pg     Pb      22 43 43.4 +1.9
      2.3nm,0.9s
MAKZ                              ⇑Sn     Sn      22 44 30.2 -2.3
      3.4nm,0.7s
MAKZ                              ⇓Lg     Lg      22 44 53.6
      14nm,1.4s
AAK   Ala-Archa          6.76 286 ⇑Pg     Pg      22 44 07.9 -2.9
      2.1nm,0.8s
AAK                               ⇑Lg     Lg      22 45 41.0
      2.6nm,0.7s
KURBB Kurchatov Arra    10.04 342 ⇓Lg     Lg      22 47 11.0
      8.4nm,0.7s
KURK  Kurchatov         10.11 343 ⇓Lg     Lg      22 47 12.8
      2.1nm,0.8s
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*GII **01** 22:47:01.0±0.0, 35°.276N±0°.002×27°.779E±0°.001, h0^{km}, Mws3.7, confirmed*
*IDC **01** 22:47:00.7±0.8, 35°.34N×27°.75E, h0^{km}, mb3.6/6, mbtmp3.5/14, ML3.5/5, Error ellipse: s-maj=13.8km s-min=9.5km az=16.0*
*ISK **01** 22:47:01.8, 35°.35N×27°.78E, h11^{km}, ML3.6/18*
*NIC **01** 22:47:01.7, 35°.26N×27°.95E, h8^{km}±2^{km}, Ml3.3/8*
*ATH **01** 22:47:03.3, 35°.43N×27°.77E, h10^{km}±4^{km}, ML3.6/9, Latitude uncertainty: 4 km; Longitude uncertainty: 3 km*
*THE **01** 22:47:04.5, 36°N±9°×2°8E±°, h4^{km}±12^{km}, M3.4/8, MLh3.4/8*
ISC 01 22:47:01.2±1.3**, 35°.31N**±0°.03×**27°.86E**±0°.03**, h6^{km}**±9^{km}**, n105, σ1^{s}12**/145**, mb3.3**/5**, Dodecanese Islands**

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Code  Station Name       Δ°   AZ°   Phase ID          Time     Res
                                  Op      ISC      h  m  s    ISC
KARP  Karpathos          0.62 292 P       Pg      22 47 12.1 -1.0
KARP                              AML     AML
KARP  Karpathos          0.62 292 Pg      Pg      22 47 12.8 -0.3
KARP                              Sg      Sg      22 47 20.7 -0.4
KARP  Karpathos          0.62 292 P       Pg      22 47 12.2 -1.0
KARP                              S       Sg      22 47 20.6 -0.5
KARP                              AML     AML
KARP  Karpathos          0.62 292 P       Pg      22 47 12.2 -1.0
KARP                              S       Sg      22 47 20.1 -1.0
KARP                              AML     AML
ARG   Arkhangelos        0.93  13 P       Pb      22 47 19.5 -0.2
ARG                               S       Sb      22 47 30.9 -1.4
ARG                               AML     AML
ARG   Arkhangelos        0.93  13 Pg      Pb      22 47 19.9 +0.2
ARG                               Sg      Sg      22 47 33.2 +2.1
ARG                               AML     AML
ARG   Arkhangelos        0.93  13 S       Sn      22 47 33.6 -0.9
ARG   Arkhangelos        0.93  13 P       Pb      22 47 19.4 -0.3
ARG                               S       Sb      22 47 30.2 -2.1
ARG                               AML     AML
RODB  Rodos              1.17  14 P       Pn      22 47 24.3 +0.1
RODB                              AML     AML
RDI1  Rhodes Town Ha     1.17  15 P       Pn      22 47 24.3 +0.1
RDI1                              S       Sb      22 47 38.8 -0.6
RDI1                              AML     AML
ZKR   Zakros             1.36 262 Pn      Pn      22 47 26.4 -0.4
ZKR                               Sn      Sn      22 47 44.4 -0.7
ZKR                               AML     AML
ZKR   Zakros             1.36 262 P       Pn      22 47 27.3 +0.5
ZKR                               S       Sg      22 47 47.8 +2.9
ZKR   Zakros             1.36 262 P       Pn      22 47 25.6 -1.1
ZKR                               S       Sb      22 47 45.3 +0.5
ZKR                               AML     AML
DAT   Datca              1.43 351 Pn      Pn      22 47 27.6 -0.3
DAT                               AML     AML
SIT2  Siteia             1.44 266 P       Pb      22 47 28.7 +0.3
TURN  Turunc             1.49  12 Pn      Pn      22 47 29.2 +0.6
TURN                              AML     AML
DALY  Dalyan (Mula)      1.63  23 Pn      Pn      22 47 30.9 +0.4
DALY                              AML     AML
AKAS  Kas                1.69  57 Pn      Pn      22 47 32.2 +0.7
AKAS                              AML     AML
AGNA  Agios Nikolaos     1.76 267 P       Pn      22 47 33.3 +1.1
AGNA                              AML     AML
BODT  Bodrum             1.80 346 P       Pn      22 47 31.7 -1.1
BODT                              S       Sn      22 47 54.8 -1.3
BODT                              AML     AML
BODT  Bodrum             1.80 346 Pn      Pn      22 47 32.7 -0.2
BODT                              AML     AML
NPS   Neapolis           1.84 269 P       Pn      22 47 34.0 +0.6
NPS                               S       Sn      22 47 56.7 -0.3
NPS                               AML     AML
NPS   Neapolis           1.84 269 P       Pn      22 47 33.6 +0.2
NPS                               AML     AML
YER   Yerkesik           1.85  11 P       Pn      22 47 34.1 +0.5
YER                               S       Sn      22 47 56.6 -0.8
YER                               AML     AML
YER   Yerkesik           1.85  11 Pn      Pn      22 47 34.1 +0.5
YER                               AML     AML
YKAV  Yalikavak-Bodr     1.87 346 Pn      Pn      22 47 33.9 +0.2
MLSB  Milas              1.98 358 Pn      Pn      22 47 35.9 +0.6
MLSB                              AML     AML
CAME  Cameli-Denizli     2.00  35 Pn      Pn      22 47 36.6 +0.8
CAME                              AML     AML
ELL   Elmali             2.19  49 Pn      Pn      22 47 39.8 +1.4
ELL                               AML     AML
ELL   Elmali             2.19  49 P       Pn      22 47 39.7 +1.3
ELL                               S       Sb      22 48 07.7 -1.2
ELL   Elmali             2.19  49 P       Pn      22 47 39.9 +1.6
THERA Ancient Thera,     2.20 299 P       Pn      22 47 37.2 -1.2
THERA                             S       Sn      22 48 04.1 -1.9
THERA                             AML     AML
THERA Ancient Thera,     2.20 299 P       Pn      22 47 37.0 -1.4
THERA                             AML     AML
THR8  Santorini-Mono     2.22 300 P       Pn      22 47 37.8 -0.8
THR6  Thira Island,      2.25 298 P       Pn      22 47 38.8 -0.2
THR2  Thira island,      2.27 301 P       Pn      22 47 38.1 -1.2
SNT5  Nea Kammeni, S     2.28 299 P       Pn      22 47 39.4 +0.1
SNT5                              AML     AML
CMBO  Columbo, Santo     2.30 301 P       Pn      22 47 38.9 -0.8
IDI   Anoyia             2.43 270 Pn      Pn      22 47 41.9 +0.4
      61nm,0.6s,baz=70,slow=13,SNR=53
IDI                               Sn      Sn      22 48 10.9 -0.7
      16nm,0.3s,baz=309,slow=9.7,SNR=6.2
IDI   Anoyia             2.43 270 Pn      Pn      22 47 41.8 +0.3
IDI                               AML     AML
IDI   Anoyia             2.43 270 P       Pn      22 47 40.7 -0.9
GCAM  G?zelcaml?         2.44 348 Pn      Pn      22 47 41.7 +0.2
GCAM                              AML     AML
APMY  Acipayam-Deniz     2.45  28 Pn      Pn      22 47 42.7 +0.9
APMY                              AML     AML
SIVA  Sivas              2.52 264 P       Pn      22 47 43.3 +0.6
SIVA                              AML     AML
AYDB  Zeytinkoy-Aydi     2.63   1 Pn      Pn      22 47 45.0 +0.7
AYDB                              AML     AML
NAZL  Nazilli-Aydin      2.67   7 Pn      Pn      22 47 45.7 +0.9
NAZL                              AML     AML
GVD   Gavdhos            3.13 262 Pn      Pn      22 47 51.7 +0.6
GVD                               AML     AML
IMMV  Iera Moni Meta     3.17 274 Pn      Pn      22 47 52.4 +0.7
IMMV                              AML     AML
AKMS  Akamas             3.68  93 P       Pn      22 47 58.6  0.0
AKMS                              S       Sn      22 48 41.3 -1.1
AKMS                              AML     AML     22 48 47.3
      0.2nm,0.3s
AKMS                              AML     AML     22 48 51.8
      0.2nm,0.4s
ALFC  Alefka             3.88  91 P       Pn      22 48 01.0 -0.5
ALFC                              S       Sn      22 48 49.1 +1.7
ALFC                              AML     AML     22 48 52.8
      0.3nm,0.4s
ALFC                              AML     AML     22 48 53.4
      0.3nm,0.3s
NATA  Nata               3.90  97 P       Pn      22 48 02.1 +0.3
NATA                              S       Sn      22 48 49.1 +1.2
NATA                              AML     AML     22 48 54.2
      0.7nm,0.5s
NATA                              AML     AML     22 48 56.3
      0.5nm,0.5s
TROD  Troodos            4.12  94 P       Pn      22 48 04.0 -0.9
TROD                              S       Sn      22 48 52.5 -1.0
TROD                              AML     AML     22 49 01.4
      0.2nm,0.5s
TROD                              AML     AML     22 49 03.2
      0.1nm,0.4s
XYLS  Xyliatos           4.26  93 P       Pn      22 48 06.3 -0.5
XYLS                              S       Sn      22 48 56.9 +0.1
XYLS                              AML     AML     22 49 09.6
      0.2nm,0.6s
XYLS                              AML     AML     22 49 10.2
      0.1nm,0.6s
ASGA  Asgata             4.45  95 P       Pn      22 48 08.8 -0.5
ASGA                              S       Sn      22 49 00.8 -0.6
ASGA                              AML     AML     22 49 05.5
      0.1nm,0.6s
ASGA                              AML     AML     22 49 07.5
      0.2nm,0.5s
CSS   Mathiatis          4.50  93 P       Pn      22 48 09.6 -0.3
CSS                               AML     AML
ATHAL Athalassa          4.54  91 P       Pn      22 48 13.5 +3.0
ATHAL                             S       Sn      22 49 03.2 -0.2
ATHAL                             AML     AML     22 49 27.2
      0.3nm,1.2s
ATHAL                             AML     AML     22 49 35.6
      0.2nm,0.8s
MVOU  Mavrovouni         4.74  92 P       Pn      22 48 12.6 -0.6
MVOU                              S       Sn      22 49 09.2 +0.7
MVOU                              AML     AML     22 49 14.0
      0.1nm,0.6s
MVOU                              AML     AML     22 49 20.0
      0.1nm,0.4s
BRTR  Keskin Array B     6.36  44 Pn      Pn      22 48 36.7 +1.0
      0.4nm,0.3s,baz=221,slow=16,SNR=12
BRTR                              Sn      Sn      22 49 49.5 +0.8
      0.4nm,0.3s,baz=217,slow=26,SNR=9.0
      1.2nm,0.5s
BRTR                              AML     AML
OFRI  `Ofer              6.50 112 P       Pn      22 48 36.6 -0.8
MMA0B Mount Meron ar     6.66 108 P       Pn      22 48 39.4 -0.3
MMAI  Mount Meron Ar     6.66 108 Pn      Pn      22 48 39.2 -0.5
      2.3nm,0.3s,baz=308,slow=14,SNR=18
MMAI                              Sn      Sn      22 49 53.1 -2.9
      4.0nm,0.3s,baz=294,slow=25,SNR=2.6
SLTI  Sal'it             6.72 115 P       Pn      22 48 39.7 -0.8
HWQ   Hawqa              6.73  97 eP      Pn      22 48 39.9 -0.8
ZAHL  Zahle              6.78 100 eP      Pn      22 48 41.4 +0.1
GEM   Giv'at Ha'Em       6.79 106 P       Pn      22 48 41.7 +0.2
GEM                               AML     AML
GEM   Giv'at Ha'Em       6.79 106 P       Pn      22 48 40.8 -0.6
GEM                               S       Sn      22 49 58.9 -0.2
SHBL  Chebaa             6.81 104 eP      Pn      22 48 40.6 -1.2
NATI  Neve Ativ          6.83 105 P       Pn      22 48 40.8 -1.1
NATI                              S       Sn      22 50 00.3 +0.3
RCY   Rachaya            6.84 103 eP      Pn      22 48 41.8 -0.4
BEIL  Beino              6.88  94 eP      Pn      22 48 41.8 -0.9
MMLI  Mount Malkishu     6.91 112 P       Pn      22 48 42.2 -0.9
MMLI                              S       Sn      22 50 01.5 -0.6
SALP  Salfit             6.91 116 P       Pn      22 48 42.9 -0.3
      0.1nm15nm,0.7s
SALP                              AML     AML
AMAZ  Amatzia            7.00 121 P       Pn      22 48 45.2 +0.9
      0.2nm22nm,0.4s
AMAZ                              AML     AML
AMAZ  Amatzia            7.00 121 P       Pn      22 48 42.9 -1.4
AMAZ                              S       Sn      22 50 03.6 -0.7
KZIT  Kziot              7.03 127 P       Pn      22 48 44.9 +0.2
      0.1nm26nm,0.8s
KZIT                              AML     AML
KZIT  Kziot              7.03 127 P       Pn      22 48 43.6 -1.1
KZIT                              S       Sn      22 50 04.1 -0.9
QRNJ  Al-Qirein          7.07 113 P       Pn      22 48 46.3 +1.0
      6.1nm20µm1µm,0.6s
QRNJ                              AML     AML
YITV  Yitav              7.14 116 P       Pn      22 48 45.5 -0.8
YITV                              S       Sn      22 50 07.3 -0.4
YTIR  Yattir             7.24 121 P       Pn      22 48 48.4 +0.7
      0.1nm35nm,0.7s
YTIR                              AML     AML
MZS   Mizpe Shalem       7.33 119 P       Pn      22 48 48.3 -0.4
MZS                               S       Sn      22 50 11.8 -0.4
MSBI  Mazada             7.44 120 P       Pn      22 48 51.2 +1.0
      0.0nm6.8nm,1.1s
MSBI                              AML     AML
MSBI  Mazada             7.44 120 P       Pn      22 48 49.5 -0.8
MSBI                              S       Sn      22 50 14.3 -0.6
RMNI  Mount Ramon        7.47 127 P       Pn      22 48 50.2 -0.6
RMNI                              S       Sn      22 50 15.3 -0.6
LISJ  El Lisan           7.56 120 P       Pn      22 48 53.6 +1.6
      0.1nm13nm,1.0s
LISJ                              AML     AML
GHAJ  Ghor Haditha       7.59 120 P       Pn      22 48 54.0 +1.6
      0.1nm25nm,0.6s
GHAJ                              AML     AML
GHAJ  Ghor Haditha       7.59 120 P       Pn      22 48 51.8 -0.6
GHAJ                              S       Sn      22 50 18.5 -0.2
PRNI  Paran              7.79 127 P       Pn      22 48 54.5 -0.6
      26nm,0.7s
HRFI  Mount Harif        8.02 129 P       Pn      22 48 57.8 -0.5
      8.4nm,0.5s
HRFI  Mount Harif        8.02 129 P       Pn      22 48 57.4 -0.9
HRFI                              S       Sn      22 50 28.3 -1.0
ASF   Jabal al Asfar     8.15 110 Pn      Pn      22 49 01.2 +1.0
      0.5nm,0.3s,baz=312,slow=2.8,SNR=6.9
ASF                               Sn      Sn      22 50 30.9 -1.8
      0.3nm,0.3s,baz=108,slow=18,SNR=2.1
      1.3nm,0.3s
ASF                               AML     AML
EIL   Elat               8.22 131 Pn      Pn      22 49 01.6 +0.6
      1.0nm,0.3s,baz=356,slow=5.1,SNR=10
EIL                               Sn      Sn      22 50 28.8 -5.4
      2.1nm,0.3s,baz=135,slow=22,SNR=7.4
      3.0nm,0.4s
EIL                               AML     AML
EIL   Elat               8.22 131 P       Pn      22 48 60.0 -1.1
EIL                               S       Sn      22 50 33.0 -1.2
MLR   Muntele Rosu      10.27 352 Pn      Pn      22 49 30.6 +1.4
      0.1nm,0.3s,baz=289,slow=5.6,SNR=4.9
      0.8nm,0.6s
MLR                               AML     AML
AKASG Malin Array Be    15.41   3 Pn      Pn      22 50 40.0 +0.9
      0.3nm,0.3s,baz=93,slow=5.7,SNR=1.4
      0.1nm,0.3s
AKASG                             AML     AML
CONA  Conrad Observa    15.45 328 i P     P       22 50 45.8 +1.5
      2.5nm,1.0s
KBA   Koelnbreinsper    16.02 322 epP     P       22 50 53.9 +3.1
      4.1nm,0.8s
LESA  Schwarzleotal     16.59 321 ePn     Pn      22 50 55.7 +1.3
      1.4nm,0.4s
GERES GERESS Array B    17.09 327 P       Pn      22 51 00.8 +0.1
      0.9nm,0.8s,baz=143,slow=11,SNR=6.9
FETA  Feichten          17.37 318 ePn     P       22 51 06.7 +1.0
      0.8nm,0.4s
ESDC  Sonseca Array     25.55 289 P       P       22 52 28.5 -2.3
      0.7nm,0.7s,baz=82,slow=9.8,SNR=8.4
      0.7nm,0.7s
FINES FINESS Array B    26.17 358 P       P       22 52 34.8 -1.4
      1.5nm,0.9s,baz=178,slow=11,SNR=4.4
      1.5nm,0.9s
TORD  Torodi Ar. Bea    32.32 233 P       P       22 53 31.2 -0.1
      1.3nm,0.7s,baz=32,slow=8.1,SNR=9.9
      1.3nm,0.7s
KURBB Kurchatov Arra    39.31  51 P       P       22 54 31.2 +0.4
      0.4nm,0.7s,baz=275,slow=9.1,SNR=4.2
      0.4nm,0.7s
MKAR  Makanchi Array    41.84  57 P       P       22 54 52.9 +0.9
      0.2nm,0.5s,baz=271,slow=8.6,SNR=6.5
      0.2nm,0.5s
ZALV  Zalesovo Beam     43.30  46 P       P       22 55 05.3 +1.6
      0.2nm,0.3s,baz=271,slow=11,SNR=1.8
      0.2nm,0.3s
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*SJA **01** 22:49:00.1±0.6, 27°.91S×71°.67W, h11^{km}±3^{km}, ML3.6, MW3.5*
*GUC **01** 22:49:04.2±0.8, 28°.06S×71°.32W, h34^{km}±2^{km}, ML3.4*
ISC 01 22:48:59.4±1.6**, 28°.00S**±0°.03×**71°.63W**±0°.06**, h15^{km}**±10^{km}**, n26, σ1^{s}29**/45**, Near coast of central Chile**

```
Code  Station Name       Δ°   AZ°   Phase ID          Time     Res
                                  Op      ISC      h  m  s    ISC
AC04  Llanos de Chal     0.53 113 eP      Pn      22 49 12.1 -0.4
AC04                               IAML           22 49 22.5
      comp=Z,1µm,0.3s
AC04  Llanos de Chal     0.53 113 eP      Pn      22 49 12.2 -0.4
AC04                              i S     Sg      22 49 17.3 +0.3
AC04                               IAML           22 49 17.5
      comp=E,23µm,0.2s
LCO   Las Campanas       1.30 141 eP      Pg      22 49 26.1 +1.7
LCO                                IAML           22 49 47.5
      comp=Z,2µm,0.4s
LCO   Las Campanas       1.30 141 eP      Pg      22 49 25.4 +1.0
LCO                               i S     Sb      22 49 41.0 +0.7
AC06  Mina Casimiro      1.30  61 eP      Pg      22 49 24.5 +0.1
AC06                              i S     Sb      22 49 40.8 +0.7
AC06                               IAML           22 49 44.8
      comp=E,1µm,0.2s
GO03  Copiapo            1.30  72 eP      Pg      22 49 24.9 +0.4
GO03                               IAML           22 49 45.8
      comp=Z,1µm,0.5s
GO03  Copiapo            1.30  72 eP      Pg      22 49 24.1 -0.3
GO03                              i S     Sn      22 49 39.3 -1.0
GO03                               IAML           22 49 44.3
      comp=N,2µm,0.3s
AC05  El Transito        1.46 125 eP      Pg      22 49 28.0 +0.6
AC05                              eS      Sg      22 49 47.2 +0.8
AC05                               IAML           22 49 48.6
      comp=Z,430nm,0.2s
AC05  El Transito        1.46 125 eP      Pg      22 49 27.8 +0.4
AC05                              i S     Sn      22 49 43.8 -0.4
AC05                               IAML           22 49 51.8
      comp=E,802nm,0.5s
AC01  Pan de Azucar      2.06  27 eP      Pb      22 49 35.9 -0.7
AC01                              eS      Sn      22 49 59.5 +0.4
AC01                               IAML           22 50 14.6
      comp=Z,200nm,0.7s
GO04  Tololo Observa     2.28 162 eP      Pg      22 49 41.8 -1.5
GO04                              eS      Sb      22 50 08.3 -0.3
GO04                               IAML           22 50 17.5
      comp=Z,667nm,0.7s
GO04  Tololo Observa     2.28 162 eP      Pb      22 49 41.3 +0.8
GO04                              i S     Sb      22 50 09.5 +0.8
CO01  Juntas del Tor     2.38 146 eP      Pb      22 49 43.3 +1.1
CO01                              eS      Sb      22 50 14.0 +2.4
CO01                               IAML           22 50 15.5
      comp=Z,308nm,0.3s
AC02  Maricunga          2.51  63 eP      Pb      22 49 44.6 +0.2
AC02                              eS      Sb      22 50 15.8 +0.5
AC02                               IAML           22 50 18.9
      comp=Z,402nm,0.4s
AC02  Maricunga          2.51  63 eP      Pb      22 49 43.8 -0.6
AC02                              i S     Sb      22 50 14.1 -1.3
CO06  Fray Jorge         2.66 180 eP      Pb      22 49 45.4 -1.5
CO06                              i S     Sn      22 50 15.6 +1.7
CO06                               IAML           22 50 41.5
      comp=E,206nm,0.3s
AROD  Rodeo              2.87 139 eP      Pb      22 49 51.7 +1.2
AROD                              eS      Sb      22 50 27.6 +2.0
CO03  El Pedregal        2.94 164 eP      Pb      22 49 51.0 -0.6
CO03                              eS      Sb      22 50 29.5 +2.0
CO03                               IAML           22 50 36.8
      comp=Z,207nm,0.5s
CO03  El Pedregal        2.94 164 eP      Pb      22 49 50.2 -1.5
CO03                              i S     Sb      22 50 25.8 -1.8
CO03                               IAML           22 50 43.6
      comp=E,302nm,0.2s
```

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ACDV	**Cuesta del Vie**	**3.08**	**135**	*e*P	**Pg**	**22 49 57.5**	**-1.0**
ACDV				*e*S	**Sg**	**22 50 36.8**	**-1.7**
ACDV				IAML		22 50 42.2	
	comp=Z,166nm,1.4s						
VCA	**Vinchina**	**3.10**	**104**	*e*P	Pn	22 49 36.0	-12
VCA				*e*S	**Sb**	**22 50 32.6**	**+0.4**
VCA				IAML		22 50 43.2	
	comp=Z,261nm,1.0s						
CO02	**Combarbal**	**3.24**	**170**	*e*P	**Pb**	**22 49 54.6**	**-2.1**
CO02				*e*S	**Sb**	**22 50 34.1**	**-1.9**
CO02				IAML		22 50 46.5	
	comp=Z,300nm,0.3s						
ACCO	**Cerro Coronel**	**3.42**	**140**	*e*P	**Pb**	**22 49 59.8**	**0.0**
ACCO				*e*S	**Sb**	**22 50 42.1**	**+0.8**
ACCO				IAML		22 50 52.8	
	comp=Z,149nm,0.6s						
PB14	**IPOC Station P**	**3.54**	**18**	*e*P	**Pn**	**22 49 56.1**	**+2.0**
PB14				IAML		22 51 11.2	
	comp=Z,61nm,0.5s						
TINO	**Tinogasta**	**3.59**	**92**	*e*P	**Pb**	**22 50 00.5**	**-2.2**
TINO				*e*S	**Sb**	**22 50 44.0**	**-2.1**
TINO				IAML		22 50 56.3	
	comp=Z,94nm,1.2s						
CYA	**Choya**	**5.16**	**96**	*e*P	Pn	22 50 21.8	+5.6
CYA				IAML		22 51 48.1	
	comp=Z,18nm,1.4s						

*IDC **01** 22:51:28.1±0.6, 21°.35S×174°.39W, h0^{km}, mb4.2/13, mbtmp4.2/16, ML3.9/3, Error ellipse: s-maj=22.3km s-min=16.7km az=158.0*

*NEIC **01** 22:51:28.5±1.6, 21°.2S±0°.1×173°.8W±0°.1, h10^{km}±1^{km}, mb4.6/9, Error ellipse: s-maj=24.1km s-min=21.7km az=135.0*

ISC 01 22:51:28.5±0.5**, 21°.4S**±0°.1×**173°.92W**±0°.08**, h10**^{km}**, n38, σ1**^{s}**.95**/39**, mb4.4**/16**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NIUE	**Niue**	**4.42**	**59**	Pn	**Pn**	**22 52 33.2**	**-2.5**
MSVF	**Nonsavu**	**8.42**	**295**	Pn	**Pn**	**22 53 33.5**	**+2.8**
	0.7nm,0.3s,baz=125,slow=17,SNR=9.5						
RAR	**Rarotonga**	**13.19**	**92**	Pn	**Pn**	**22 54 33.3**	**-2.7**
	6.6nm,0.3s,baz=156,slow=8.4,SNR=6.7						
RAR				Sn	Sn	22 56 50.7	-12
	0.6nm,0.3s,baz=30,slow=8.4,SNR=2.0						
	19nm,0.4s						
RAR				AML	AML		
DZM	**Mont Dzumac**	**18.25**	**264**	P	**Pn**	**22 55 38.8**	**-3.4**
	0.3nm,0.3s,baz=96,slow=16,SNR=3.7						
	9.1nm,0.9s						
DZM				AML	AML		
URZ	**Urewera**	**18.47**	**203**	P	**P**	**22 55 44.5**	**0.0**
	0.5nm,0.3s,baz=144,slow=4.7,SNR=2.1						
	4.8nm,0.6s						
URZ				AML	AML		
MRZ	**Mangatainoka R**	**21.14**	**203**	P	**P**	**22 56 14.9**	**+1.3**
MRZ				IAmb	IAmb	22 56 26.8	
	comp=Z,38nm,1.3s						
STKA	**Stephens Creek**	**40.85**	**246**	P	**P**	**22 59 09.1**	**-1.6**
	comp=Z,2.0nm,0.6s,baz=99,slow=4.7,SNR=1.9						
	comp=Z,2.0nm,0.6s						
ASAR	**Alice Springs**	**48.02**	**257**	P	**P**	**23 00 05.0**	**-3.2**
	comp=Z,3.7nm,0.9s,baz=92,slow=8.4,SNR=20						
ASAR				PcP	**PcP**	**23 01 37.0**	**+0.7**
	comp=Z,0.5nm,0.7s,baz=88,slow=4.0,SNR=1.8						
	comp=Z,3.7nm,0.9s						
ASAR	**Alice Springs**	**48.02**	**257**	P	**P**	**23 00 07.1**	**-1.2**
WB0	**Warramunga Arr**	**48.23**	**262**	P	**P**	**23 00 07.5**	**-2.4**
WB0				IAmb	IAmb	23 00 15.3	
	comp=Z,7.4nm,1.1s						
WRAB	**Tennant Creek**	**48.24**	**262**	P	P	23 00 05.4	-4.6
WRA	**Warramunga Arr**	**48.25**	**262**	P	**P**	**23 00 06.5**	**-3.5**
	comp=Z,2.8nm,0.9s,baz=98,slow=7.9,SNR=8.8						
WRA				PcP	**PcP**	**23 01 37.5**	**+0.4**
	comp=Z,0.4nm,0.7s,baz=96,slow=3.2,SNR=1.6						
	comp=Z,2.8nm,0.9s						
WRA	**Warramunga Arr**	**48.25**	**262**	P	P	23 00 05.9	-4.1
FITZ	**Fitzroy Crossi**	**56.68**	**262**	P	**P**	**23 01 09.1**	**-3.5**
	comp=Z,2.9nm,0.9s,baz=127,slow=9.0,SNR=2.6						
	comp=Z,2.9nm,0.9s						
FITZ	**Fitzroy Crossi**	**56.68**	**262**	P	**P**	**23 01 09.9**	**-2.7**
FITZ				IAmb	IAmb	23 01 11.5	
	comp=Z,2.8nm,1.4s						
QSPA	**South Pole Qui**	**68.64**	**180**	P	**P**	**23 02 34.1**	**+2.3**
	comp=Z,2.6nm,0.8s,baz=55,slow=0.8,SNR=9.4						
	comp=Z,2.6nm,0.8s						
QSPA	**South Pole Qui**	**68.64**	**180**	P	**P**	**23 02 34.6**	**+2.7**
QSPA				IAmb	IAmb	23 02 39.4	
	comp=Z,5.0nm,1.0s						
MJAR	**Matsushiro Arr**	**73.27**	**321**	P	**P**	**23 02 58.4**	**-1.8**
	comp=Z,4.5nm,1.0s,baz=159,slow=5.4,SNR=6.8						
	comp=Z,4.5nm,1.0s						
MAJO	**Matsushiro**	**73.27**	**321**	P	**P**	**23 02 58.5**	**-1.7**
MJB9	**Matsu-Tunnel**	**73.27**	**321**	P	**P**	**23 02 59.0**	**-1.2**
MJB9				IAmb	IAmb	23 03 21.1	
	comp=Z,12nm,1.2s						
PETK	**Petropavlovsk-**	**78.21**	**343**	P	**P**	**23 03 28.6**	**+0.6**
	comp=Z,3.3nm,0.9s,baz=162,slow=5.2,SNR=3.2						
	comp=Z,3.3nm,0.9s						
NVAR	**Mina Array Bea**	**79.14**	**41**	P	**P**	**23 03 36.8**	**+3.0**
	comp=Z,0.4nm,0.6s,baz=217,slow=8.6,SNR=4.6						
	comp=Z,0.4nm,0.6s						
KSRS	**Korea Array**	**80.14**	**317**	P	**P**	**23 03 39.1**	**+0.1**
	comp=Z,2.1nm,1.0s,baz=114,slow=6.0,SNR=5.2						
	comp=Z,2.1nm,1.0s						
MAW	**Mawson**	**81.95**	**199**	P	**P**	**23 03 49.8**	**+1.6**
	comp=Z,2.6nm,0.7s,baz=143,slow=5.6,SNR=4.4						
	comp=Z,2.6nm,0.7s						
MAW	**Mawson**	**81.95**	**199**	P	**P**	**23 03 49.5**	**+1.3**
TXAR	**Lajitas Array**	**84.39**	**56**	P	**P**	**23 04 04.2**	**+2.6**
	comp=Z,0.2nm,0.8s,baz=273,slow=5.9,SNR=2.1						
	comp=Z,0.2nm,0.8s						
ILAR	**Eielson Array**	**88.43**	**11**	P	**P**	**23 04 21.8**	**+1.3**
	comp=Z,0.6nm,0.8s,baz=213,slow=6.5,SNR=5.1						
	comp=Z,0.6nm,0.8s						
CMAR	**Chiang Mai Arr**	**94.02**	**288**	P	**P**	**23 04 48.0**	**+0.5**
	comp=Z,0.9nm,0.4s,baz=123,slow=2.8,SNR=14						
	comp=Z,0.9nm,0.4s						
BVAR	**Borovoye Array**	**122.24**	**320**	PKP	**PKPdf**	**23 10 22.1**	**-1.4**
	comp=Z,0.6nm,0.6s,baz=52,slow=2.4,SNR=4.4						
AKASG	**Malin Array Be**	**145.60**	**334**	PKPbc	**PKPab**	**23 11 06.8**	**-0.6**
	comp=Z,1.5nm,0.7s,baz=41,slow=4.3,SNR=12						
CLL	**Collm**	**149.70**	**351**	*i* PKPbc	**PKiKP**	**23 11 19.5**	**+0.1**
	comp=Z,5.0nm,1.3s						
CLL				*i* PKPab	**PKPab**	**23 11 23.5**	**0.0**
BRTR	**Keskin Array B**	**150.26**	**314**	PKPbc	**PKiKP**	**23 11 20.9**	**-0.3**
	comp=Z,1.1nm,0.8s,baz=170,slow=2.9,SNR=8.9						
BRTR	**Keskin Array B**	**150.26**	**314**		**PKiKP**	**23 11 20.7**	**-0.5**
MORC	**Moravsky Berou**	**150.29**	**345**	*e*PKP	**PKiKP**	**23 11 21.3**	**+0.5**
VRAC	**Vranov**	**150.95**	**346**	*e*PKP	**PKiKP**	**23 11 22.7**	**+0.6**
JAVC	**Velka Javorina**	**151.11**	**344**	*e*PKP	**PKiKP**	**23 11 24.3**	**+1.8**
KRUC	**Moravsky**	**151.23**	**346**	*e*PKP	**PKiKP**	**23 11 23.1**	**+0.4**
GERES	**GERESS Array B**	**151.98**	**349**	PKPbc	**PKiKP**	**23 11 25.1**	**+0.8**
	comp=Z,1.1nm,0.9s,baz=318,slow=3.8,SNR=6.7						

*IDC **01** 22:51:52.8±7.4, 7°.47S×126°.72E, h330^{km}±83^{km}, mb3.5/5, mbtmp4.2/8, Error ellipse: s-maj=82.7km s-min=25.7km az=52.0*

ISC 01 22:51:50.0±1.2**, 7°.4S**±0°.1×**126°.9E**±0°.2**, h300**^{km}**, n8, σ1**^{s}**.24**/10**, mb3.9**/5**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**10.74**	**187**	P	**Pn**	**22 54 17.3**	**0.0**
	2.6nm,0.3s,baz=22,slow=10,SNR=27						
FITZ				S	**S**	**22 56 17.1**	**-0.8**
	1.2nm,0.6s,baz=287,slow=15,SNR=1.7						
WRA	**Warramunga Arr**	**14.43**	**151**	P	**P**	**22 55 01.9**	**+1.0**
	1.7nm,0.4s,baz=329,slow=12,SNR=67						
WRA				S	**S**	**22 57 37.6**	**-1.8**
	1.0nm,1.0s,baz=335,slow=16,SNR=3.5						
ASAR	**Alice Springs**	**17.54**	**158**	P	**P**	**22 55 37.1**	**+2.2**
	8.4nm,0.3s,baz=332,slow=10,SNR=67						
STKA	**Stephens Creek**	**27.97**	**153**	P	**P**	**22 57 13.4**	**-0.1**
	2.6nm,0.6s,baz=308,slow=12,SNR=3.0						
	2.6nm,0.6s						
MKAR	**Makanchi Array**	**66.89**	**328**	P	**P**	**23 02 10.5**	**+0.1**
	0.3nm,0.6s,baz=127,slow=5.9,SNR=2.9						
	0.3nm,0.6s						
ZALV	**Zalesovo Beam**	**70.59**	**335**	P	**P**	**23 02 31.9**	**-1.0**
	0.9nm,0.4s,baz=126,slow=4.2,SNR=5.6						
	0.9nm,0.4s						
KURBB	**Kurchatov Arra**	**71.25**	**330**	P	**P**	**23 02 36.7**	**-0.2**
	1.6nm,0.3s,baz=132,slow=4.5,SNR=1.9						
	1.6nm,0.3s						
BVAR	**Borovoye Array**	**76.77**	**329**	P	**P**	**23 03 08.6**	**0.0**
	1.3nm,0.6s,baz=128,slow=8.7,SNR=8.0						
	1.3nm,0.6s						

*SJA **01** 22:56:08.2±0.7, 28°.00S×71°.28W, h30^{km}±2^{km}, ML3.6, MW3.8*

*GUC **01** 22:56:08.9±0.8, 28°.01S×71°.33W, h22^{km}±3^{km}, ML3.5*

ISC 01 22:56:07.2±1.7**, 27°.98S**±0°.03×**71°.43W**±0°.08**, h27**^{km}±14^{km}**, n19, σ2**^{s}**.15**/32**, 2C-3D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AC04	**Llanos de Chal**	**0.39**	**126**	*e*P	**Pn**	**22 56 16.0**	**-1.1**
AC04				*e*S	**Sn**	**22 56 20.8**	**-2.8**
AC04	**Llanos de Chal**	**0.39**	**126**	⇓*e*P	**Pn**	**22 56 16.0**	**-1.1**
AC04				*e*S	**Sn**	**22 56 20.7**	**-2.9**
AC04				IAML		22 56 23.8	
	comp=E,9µm,0.1s						
GO03	**Copiapo**	**1.12**	**70**	*e*P	**Pb**	**22 56 27.9**	**-0.2**
GO03				IAML		22 56 47.2	
	comp=Z,2µm,0.3s						
GO03	**Copiapo**	**1.12**	**70**	⇑*e*P	**Pb**	**22 56 27.9**	**-0.2**
GO03				*e*S	**Sb**	**22 56 41.9**	**-0.4**
GO03				IAML		22 56 46.6	
	comp=E,3µm,0.4s						
AC06	**Mina Casimiro**	**1.14**	**57**	*e*P	**Pb**	**22 56 27.7**	**-0.4**
AC06				*e*S	**Sb**	**22 56 42.4**	**-0.1**
LCO	**Las Campanas**	**1.21**	**148**	*e*P	**Pb**	**22 56 29.9**	**+0.2**
LCO				IAML		22 56 48.6	
	comp=Z,2µm,0.1s						
LCO	**Las Campanas**	**1.21**	**148**	⇓*e*P	**Pb**	**22 56 29.7**	**0.0**
LCO				*e*S	**Sb**	**22 56 45.5**	**+0.5**
AC05	**El Transito**	**1.33**	**130**	*e*P	**Pb**	**22 56 31.4**	**-0.1**
AC05				*e*S	**Sb**	**22 56 48.3**	**0.0**
AC05				IAML		22 56 48.9	
	comp=Z,798nm,0.5s						
AC05	**El Transito**	**1.33**	**130**	⇓*e*P	**Pb**	**22 56 31.4**	**-0.1**
AC05				*e*S	**Sb**	**22 56 47.5**	**-0.7**
AC05				IAML		22 56 49.0	
	comp=N,1µm,0.6s						
AC01	**Pan de Azucar**	**1.97**	**22**	*e*P	**Pn**	**22 56 39.5**	**+0.7**
AC01				*e*S	**Sn**	**22 57 02.5**	**-0.1**
AC01				IAML		22 57 13.0	
	comp=E,423nm,0.3s						
GO04	**Tololo Observa**	**2.26**	**166**	⇑*e*P	**Pb**	**22 56 45.7**	**-1.8**
GO04				*e*S	**Sb**	**22 57 13.6**	**-1.4**
CO01	**Juntas del Tor**	**2.31**	**150**	*e*P	**Pb**	**22 56 47.6**	**-0.7**
CO01				IAML		22 57 23.2	
	comp=Z,234nm,0.6s						
CO01	**Juntas del Tor**	**2.31**	**150**	*e*P	**Pb**	**22 56 47.7**	**-0.6**
CO01				*e*S	**Sb**	**22 57 15.3**	**-1.2**
CO01				IAML		22 57 20.1	
	comp=E,484nm,0.2s						
AC02	**Maricunga**	**2.34**	**61**	*e*P	**Pb**	**22 56 47.8**	**-1.1**
AC02				*e*S	**Sb**	**22 57 17.2**	**-0.4**
CO06	**Fray Jorge**	**2.69**	**184**	*e*P	**Pn**	**22 56 49.9**	**+1.1**
ACCO	**Cerro Coronel**	**3.32**	**142**	*e*P	**Pn**	**22 56 59.8**	**+2.1**
ACCO				*e*S	**Sb**	**22 57 51.9**	**+6.2**
ACCO				IAML		22 57 56.3	
	comp=Z,144nm,0.8s						
TINO	**Tinogasta**	**3.41**	**92**	*e*P	**Pb**	**22 57 02.9**	**-4.1**
TINO				*e*S	**Sb**	**22 57 53.6**	**+5.5**
TINO				IAML		22 57 58.2	
	comp=Z,155nm,0.9s						
CFA	**Coronel Fontan**	**4.56**	**143**	*e*P	**Pn**	**22 57 15.8**	**+1.4**
CFA				IAML		22 58 33.6	
	comp=Z,49nm,0.7s						
CYA	**Choya**	**4.99**	**97**	*e*P	Pn	22 57 24.6	+4.2
CYA				*e*S	**Sn**	**22 58 20.1**	**+2.9**
CYA				IAML		22 58 28.2	
	comp=Z,52nm,0.8s						

*NOU **01** 23:15:55.8, 36°.64S×177°.97E, h0^{km}, MLv4.3/10, Off E. Coast of N. Island, N.Z.*

*WEL **01** 23:16:03.5±0.6, 37°S±4°×17°7E±°, h5^{km}, M3.8/16, ML3.8/16, MLv3.8/16, Error ellipse: s-maj=5.1km s-min=3.2km az=29.4, confirmed*

ISC 01 23:16:02.6±1.4**, 36°.80S**±0°.04×**177°.10E**±0°.04**, h9**^{km}±13^{km}**, n32, σ0**^{s}**.98**/40**, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WSRZ	**White Island S**	**0.72**	**175**	P	**Pb**	**23 16 17.5**	**+0.1**
WSRZ				S	**Sb**	**23 16 28.4**	**+1.0**
WSRZ				AML	AML		
WSRZ				AML	AML		
WIZ	**White Island**	**0.73**	**174**	P	**Pg**	**23 16 16.8**	**0.0**
WIZ				S	**Sg**	**23 16 27.0**	**+0.7**
WIZ				AML	AML		
WIZ				AML	AML		
MYRZ	**Mayor Island**	**0.84**	**235**	P	**Pn**	**23 16 19.8**	**-0.8**
MYRZ				S	**Sb**	**23 16 30.4**	**-0.3**
MYRZ				AML	AML		
MYRZ				AML	AML		
WHRZ	**Whale Island**	**1.06**	**185**	P	**Pb**	**23 16 23.1**	**-0.1**
WHRZ				AML	AML		
WHRZ				AML	AML		
HAZ	**Te Kaha**	**1.10**	**150**	P	**Pn**	**23 16 23.4**	**-0.8**
HAZ				AML	AML		
HAZ				AML	AML		
OPRZ	**Ohinepanea**	**1.13**	**202**	P	**Pn**	**23 16 23.9**	**-0.7**
OPRZ				AML	AML		
OPRZ				AML	AML		
TGRZ	**Tauranga**	**1.15**	**215**	P	**Pn**	**23 16 24.5**	**-0.4**
TGRZ				AML	AML		
TGRZ				AML	AML		
MXZ	**Matakaoa Point**	**1.23**	**129**	P	Pn	23 16 14.2	-12
MXZ	**Matakaoa Point**	**1.23**	**129**	S	Sb	23 16 25.9	-16
MXZ	**Matakaoa Point**	**1.23**	**129**	P	**Pb**	**23 16 25.9**	**-0.2**
MXZ				S	**Sb**	**23 16 42.0**	**0.0**
MXZ				AML	AML		
MXZ				AML	AML		
MARZ	**Manawahe**	**1.23**	**196**	P	**Pn**	**23 16 25.6**	**-0.5**
MARZ				S	**Sb**	**23 16 41.4**	**-0.7**
MARZ				AML	AML		
MARZ				AML	AML		
RUGZ	**Raukumara Rang**	**1.25**	**159**	P	**Pn**	**23 16 26.1**	**-0.4**
RUGZ				S	**Sb**	**23 16 42.4**	**-0.4**
RUGZ				AML	AML		
RUGZ				AML	AML		
TMHS	**Thames High Sc**	**1.29**	**254**	S	**Sg**	**23 16 44.5**	**+0.4**
TACG	**Te Aroha Colle**	**1.35**	**236**	P	**Pg**	**23 16 28.5**	**0.0**
TACG				S	**Sg**	**23 16 46.1**	**+0.1**
KMRZ	**Kaimai**	**1.39**	**221**	P	**Pg**	**23 16 29.4**	**0.0**
KMRZ				S	**Sg**	**23 16 47.7**	**+0.2**
KMRZ				AML	AML		
KMRZ				AML	AML		
GRZ	**Great Barrier**	**1.43**	**292**	P	**Pg**	**23 16 29.6**	**-0.4**
GRZ				S	**Sg**	**23 16 49.2**	**+0.6**
GRZ				AML	AML		
GRZ				AML	AML		
URZ	**Urewera**	**1.46**	**180**	P	**Pn**	**23 16 28.6**	**-0.6**
URZ	**Urewera**	**1.46**	**180**	P	**Pn**	**23 16 29.0**	**-0.2**
URZ				AML	AML		
URZ				AML	AML		
WMGZ	**Waiomatatini S**	**1.46**	**135**	P	**Pb**	**23 16 30.4**	**+0.4**
WMGZ				AML	AML		
WMGZ				AML	AML		
TOZ	**Tahuroa Road**	**1.58**	**233**	P	**Pn**	**23 16 30.4**	**-0.3**
TOZ				S	**Sb**	**23 16 52.7**	**+0.7**
TOZ				AML	AML		
TOZ				AML	AML		
TLZ	**Tolley Road**	**1.97**	**219**	P	**Pn**	**23 16 37.0**	**+0.8**
TLZ				AML	AML		
TLZ				AML	AML		
KNZ	**Kokohu**	**2.27**	**169**	P	**Pb**	**23 16 42.0**	**-1.7**
KNZ				AML	AML		
KNZ				AML	AML		
WCZ	**Waipu Caves**	**2.38**	**290**	P	**Pb**	**23 16 43.2**	**-2.5**
WCZ				AML	AML		
WCZ				AML	AML		
BKZ	**Black Stump Fm**	**2.41**	**191**	P	**Pn**	**23 16 43.0**	**+0.7**
HIZ	**Hauiti**	**2.47**	**225**	P	**Pn**	**23 16 44.5**	**+1.4**
HIZ	**Hauiti**	**2.47**	**225**	P	**Pn**	**23 16 43.5**	**+0.4**
HIZ				AML	AML		
HIZ				AML	AML		
OUZ	**Omahuta**	**3.25**	**298**	P	**Pn**	**23 16 55.3**	**+1.6**
OUZ	**Omahuta**	**3.25**	**298**	P	**Pn**	**23 16 55.5**	**+1.8**
OUZ				AML	AML		
OUZ				AML	AML		
KHEZ	**Kahui Hut**	**3.48**	**223**	P	**Pn**	**23 16 59.9**	**+2.8**
BFZ	**Birch Farm**	**3.94**	**189**	P	**Pn**	**23 17 03.1**	**-0.1**
QRZ	**Quartz Range**	**5.38**	**220**	P	**Pn**	**23 17 24.5**	**+1.5**
KHZ	**Kahutara**	**6.25**	**205**	P	**Pn**	**23 17 35.0**	**+0.1**

*IDC **01** 23:17:09.1±0.6, 56°.07S×143°.79W, h0^{km}, mb4.6/10, mbtmp4.5/10, MS4.7/19, Error ellipse: s-maj=24.7km s-min=15.7km az=9.0*

*NEIC **01** 23:17:11.9±2.7, 56°.3S±0°.2×143°.9W±0°.2, h10^{km}±1^{km}, mb5.3/24, Mww5.3/11, Error ellipse: s-maj=29.1km s-min=18.6km az=12.0*

*GCMT **01** 23:17:12.9±0.2, 56°.24S±0°.01×143°.30W±0°.02, h19^{km}±1^{km}, MW5.4/122, Moment Tensor Solution. s35,c42; s122,c160; Duration: 1^{s}.2 Moment tensor: Scale 10^{17} Nm; M_{rr}-0.37±.06; $M_{\theta\theta}$1.20±.05; $M_{\phi\phi}$-0.83±.04; $M_{r\theta}$0.01±.10; $M_{\theta\phi}$1.00±.04; $M_{\phi r}$0.21±.10; Best double couple: $M_0$1.44600×10^{17} NP1:ϕ_s112.00000°, δ80.00000°, λ-7.00000°. NP2:ϕ_s203.00000°, δ84.00000°, λ-170.00000°. Principal axes: T 1.6130, Plg2.0000°, Azm338.0000°; N -0.3320, Plg78.0000°, Azm236.0000°; P -1.2800, Plg12.0000°, Azm68.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*GFZ **01** 23:17:12.1±0.3, 56°S±7°×14°4W±°, h10^{km}, M5.0/19, mb5.0/19, Mw5.3/16, confirmed*

ISC 01 23:17:11.2±0.5**, 56°.1S**±0°.1×**143°.79W**±0°.09**, h10**^{km}**, n113, σ1**^{s}**.26**/91**, mb5.1**/34**, MS4.8**/19**, 5C, Pacific-Antarctic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PLWZ	**Palliser**	**30.11**	**281**	P	**P**	**23 23 22.4**	**+1.6**
RPZ	**Rata Peaks**	**31.03**	**274**	LR	LR	23 33 01.2	
	comp=Z,400nm,20.2s,baz=99,slow=31						
QSPA	**South Pole Qui**	**34.04**	**180**	P	**P**	**23 23 56.1**	**+0.9**
	6.1nm,0.7s,baz=103,slow=2.8,SNR=26						
QSPA				LR	LR	23 35 46.3	
	comp=Z,1µm,19.0s,baz=18,slow=33						
	6.1nm,0.7s						
QSPA	**South Pole Qui**	**34.04**	**180**	P	**P**	**23 23 56.3**	**+1.1**
SMAI	**San Martin Ant**	**35.27**	**141**	P	**P**	**23 24 05.3**	**-0.2**
RAR	**Rarotonga**	**36.83**	**335**	LR	LR	23 36 03.6	
	comp=Z,1µm,20.5s,baz=261,slow=31						
PMSA	**Palmer Station**	**37.70**	**136**	P	**P**	**23 24 26.8**	**+0.6**
PMSA	**Palmer Station**	**37.70**	**136**	P	**P**	**23 24 26.8**	**+0.6**
	comp=Z,28nm,1.2s						
PPT	**Papeete**	**38.73**	**351**	LR	LR	23 36 18.6	
	comp=Z,803nm,18.0s,baz=226,slow=30						
BELA	**Belgrano 2**	**39.57**	**162**	P	**P**	**23 24 41.0**	**-0.8**
BELA				IAmb	IAmb	23 24 43.1	
	comp=Z,86nm,1.6s						
GO10	**Punta Arenas**	**40.41**	**117**	P	**P**	**23 24 51.0**	**+1.8**
GO10				IAmb	IAmb	23 24 55.2	
	comp=Z,121nm,1.2s						
ESPZ	**Base Esperanza**	**41.08**	**137**	P	**P**	**23 24 53.5**	**-0.9**
ESPZ				IAmb	IAmb	23 24 57.6	
	comp=Z,42nm,1.1s						
GO08	**Villa O'Higgin**	**42.42**	**111**	P	**P**	**23 25 04.5**	**-1.2**
	comp=Z,17nm,1.6s						
COYC	**Coyhaique**	**44.51**	**108**	P	**P**	**23 25 24.7**	**+2.1**
COYC				IAmb	IAmb	23 25 26.3	
	comp=Z,74nm,1.3s						
COYC	**Coyhaique**	**44.51**	**108**	P	**P**	**23 25 25.1**	**+2.5**
	comp=Z,42nm,1.3s						
GO07	**Milladeo Hill,**	**45.28**	**104**	P	**P**	**23 25 30.2**	**+1.5**
GO07				IAmb	IAmb	23 25 32.1	
	comp=Z,69nm,1.2s						
LL07	**Hotel Espejo d**	**45.58**	**104**	P	**P**	**23 25 33.1**	**+2.1**
CASY	**Casey**	**45.86**	**213**	P	**P**	**23 25 33.2**	**+0.3**
CASY	**Casey**	**45.86**	**213**	P	**P**	**23 25 34.6**	**+1.6**
	comp=Z,12nm,1.6s						
LL02	**Futaleuf**	**46.22**	**106**	P	**P**	**23 25 36.7**	**+0.6**
LL02				IAmb	IAmb	23 25 40.0	
	comp=Z,24nm,1.1s						
ORCD	**Orcadas**	**47.29**	**139**	P	**P**	**23 25 44.1**	**-0.1**
AFI	**Afiamalu**	**47.30**	**322**	LR	LR	23 40 56.8	
	comp=Z,605nm,21.7s,slow=30						
LL03	**Petrohue**	**47.32**	**103**	P	**P**	**23 25 46.3**	**+1.6**
MSVF	**Nonsavu**	**47.89**	**307**	LR	LR	23 41 21.3	
	comp=Z,1µm,21.9s,baz=324,slow=30						
PLCA	**Paso Flores**	**48.61**	**104**	P	**P**	**23 25 53.5**	**-1.4**
	comp=Z,22nm,1.1s,baz=215,slow=8.6,SNR=17						
	comp=Z,22nm,1.1s						
PLCA	**Paso Flores**	**48.61**	**104**	P	**P**	**23 25 55.8**	**+1.0**
PLCA				IAmb	IAmb	23 25 58.3	
	comp=Z,36nm,1.2s						
PLCA	**Paso Flores**	**48.61**	**104**	P	**P**	**23 25 56.1**	**+1.3**
	comp=Z,27nm,1.3s						
VNA3	**Neumayer Olymp**	**48.87**	**162**	⇑P	**P**	**23 25 55.0**	**-1.3**
	comp=Z,20nm,0.8s						
VNA3	**Neumayer Olymp**	**48.87**	**162**	P	**P**	**23 25 55.2**	**-1.2**
	comp=Z,41nm,1.0s						
GO06	**Curarrehue**	**48.91**	**102**	P	**P**	**23 25 57.6**	**+0.3**
GO06				IAmb	IAmb	23 26 00.8	
	comp=Z,23nm,1.1s						
GO06	**Curarrehue**	**48.91**	**102**	P	**P**	**23 25 57.4**	**+0.2**
	comp=Z,21nm,1.0s						
H03S2	**Juan Fernandez**	**48.92**	**91**	T	T	00 18 12.8	
	baz=220,slow=74,SNR=1263						
H03S1	**Juan Fernandez**	**48.92**	**91**	T	T	00 18 14.1	
	baz=220,slow=74,SNR=1966						
H03S3	**Juan Fernandez**	**48.93**	**91**	T	T	00 18 19.3	
	baz=220,slow=74,SNR=669						
H03N2	**Juan Fernandez**	**49.21**	**91**	T	T	00 18 28.7	
	baz=38,slow=74,SNR=2371						
H03N1	**Juan Fernandez**	**49.22**	**91**	T	T	00 18 28.4	
	baz=223,slow=74,SNR=639						
VNA2	**Neumayer--Watz**	**49.53**	**163**	⇑P	**P**	**23 26 00.4**	**-1.0**
	comp=Z,20nm,0.7s,baz=208,slow=7.4						
VNA2	**Neumayer--Watz**	**49.53**	**163**	P	**P**	**23 26 00.6**	**-0.8**
	comp=Z,42nm,1.0s						
SNAA	**Sanae**	**49.59**	**165**	⇑P	**P**	**23 26 00.9**	**-1.1**
	comp=Z,232nm,0.6s						
SNAA	**Sanae**	**49.59**	**165**	P	**P**	**23 26 01.0**	**-0.9**
	comp=Z,12nm,0.8s,baz=225,slow=5.4,SNR=19						
SNAA				LR	LR	23 46 56.3	
	comp=Z,865nm,18.4s,baz=149,slow=36						
	comp=Z,12nm,0.8s						
SNAA	**Sanae**	**49.59**	**165**	P	**P**	**23 26 00.8**	**-1.1**
SNAA	**Sanae**	**49.59**	**165**	P	**P**	**23 26 01.2**	**-0.8**
	comp=Z,20nm,1.0s						
VNA1	**Neumayer--Stat**	**49.62**	**162**	⇑P	**P**	**23 26 01.4**	**-0.6**
	comp=Z,52nm,1.0s						
TROLL	**Troll, Antarti**	**50.02**	**167**	⇑P	**P**	**23 26 05.0**	**-0.3**
	comp=Z,989nm,1.0s						
BI02	**San Fabin de**	**51.11**	**100**	P	**P**	**23 26 13.7**	**-0.2**
BI02	**San Fabin de**	**51.11**	**100**	P	**P**	**23 26 15.8**	**+1.9**
	comp=Z,24nm,1.1s						
ML02	**Panimavida**	**51.69**	**99**	P	**P**	**23 26 19.1**	**+0.9**
ML02	**Panimavida**	**51.69**	**99**	P	**P**	**23 26 18.1**	**0.0**
	comp=Z,69nm,0.9s						
MAW	**Mawson**	**55.01**	**192**	P	**P**	**23 26 41.0**	**-1.1**
	comp=Z,3.7nm,0.9s,baz=162,slow=7.8,SNR=4.9						
MAW				LR	LR	23 48 19.3	
	comp=Z,769nm,18.6s,baz=122,slow=34						
	comp=Z,3.7nm,0.9s						
MAW	**Mawson**	**55.01**	**192**	P	**P**	**23 26 44.5**	**+2.5**
	comp=Z,2.6nm,1.7s						
STKA	**Stephens Creek**	**55.82**	**263**	P	**P**	**23 26 49.8**	**+1.4**
	comp=Z,5.9nm,0.9s,baz=117,slow=6.2,SNR=4.7						
STKA				LR	LR	23 45 50.8	
	comp=Z,852nm,20.4s,baz=4.7,slow=31						
	comp=Z,5.9nm,0.9s						
QLP	**Quilpie**	**58.40**	**269**	P	**P**	**23 27 08.1**	**+1.3**
	comp=Z,20nm,1.4s						
PB14	**IPOC Station P**	**60.72**	**91**	P	**P**	**23 27 20.7**	**-2.5**
	comp=Z,31nm,0.8s						
SALTA		**63.31**	**94**	P	**P**	**23 27 40.4**	**-0.4**
	comp=Z,19nm,1.4s						
CPSB	**Cacapava Do Su**	**65.53**	**108**	P	**P**	**23 27 54.2**	**-0.4**
CPSB				IAmb	IAmb	23 27 57.1	
	comp=Z,31nm,1.1s						
CPSB	**Cacapava Do Su**	**65.53**	**108**	P	**P**	**23 27 55.6**	**+0.9**
	comp=Z,30nm,1.2s						
QIS	**Mount Isa**	**65.75**	**269**	P	**P**	**23 27 55.6**	**-0.6**
	comp=Z,9.0nm,2.0s						
ASAR	**Alice Springs**	**66.46**	**262**	P	**P**	**23 27 59.9**	**-0.9**
	comp=Z,3.4nm,0.7s,baz=138,slow=6.4,SNR=22						
ASAR				LR	LR	23 53 06.4	
	comp=Z,793nm,20.5s,baz=112,slow=32						
	comp=Z,3.4nm,0.7s						
ASAR	**Alice Springs**	**66.46**	**262**	P	**P**	**23 27 59.4**	**-1.4**

CPUP	Villa Florida	66.64	103	P	P	23 27 59.7	-2.1
	comp=Z,18nm,1.2s,baz=241,slow=7.7,SNR=8.2						
	comp=Z,18nm,1.2s						
CPUP	Villa Florida	66.64	103	P	P	23 28 02.6	+0.8
CPUP				IAmb	IAmb	23 28 04.4	
	comp=Z,27nm,1.2s						
CPUP	Villa Florida	66.64	103	P	P	23 28 03.4	+1.5
	comp=Z,19nm,1.3s						
NNA	Nana	67.32	77	LR	LR	23 50 37.7	
	comp=Z,836nm,19.1s,baz=247,slow=30						
H01W1	Cape Leeuwin H	67.94	240	T	T	00 43 07.6	
	baz=143,slow=76,SNR=440						
H01W2	Cape Leeuwin H	67.94	240	T	T	00 43 12.8	
	baz=143,slow=76,SNR=518						
H01W3	Cape Leeuwin H	67.95	240	T	T	00 43 08.8	
	baz=143,slow=76,SNR=473						
NWAO	Narrogin (SRO)	67.99	244	LR	LR	23 50 28.1	
	comp=Z,733nm,20.7s,baz=68,slow=29						
LPAZ	La Paz	68.65	87	P	P	23 28 15.2	-0.2
	comp=Z,8.4nm,1.1s,baz=190,slow=5.6,SNR=15						
	comp=Z,8.4nm,1.1s						
LPAZ	La Paz	68.65	87	P	P	23 28 16.0	+0.6
LPAZ				IAmb	IAmb	23 28 21.0	
	comp=Z,37nm,1.4s						
LPAZ	La Paz	68.65	87	P	P	23 28 17.4	+2.0
	comp=Z,18nm,1.5s						
WRA	Warramunga Arr	69.18	265	P	P	23 28 17.0	-1.0
	comp=Z,2.8nm,0.7s,baz=144,slow=5.7,SNR=29						
	comp=Z,2.8nm,0.7s						
WRA	Warramunga Arr	69.18	265	P	P	23 28 17.1	-0.8
WB0	Warramunga Arr	69.29	265	P	P	23 28 16.8	-1.9
WB0				IAmb	IAmb	23 28 35.2	
	comp=Z,42nm,1.9s						
FITZ	Fitzroy Crossi	75.49	259	LR	LR	23 59 13.6	
	comp=Z,717nm,19.0s,baz=146,slow=33						
FITZ	Fitzroy Crossi	75.49	259	P	P	23 28 55.5	0.0
FITZ	Fitzroy Crossi	75.49	259	P	P	23 28 56.6	+1.0
	comp=Z,2.4nm,2.4s						
JOHN	Johnston Islan	75.74	335	P	P	23 28 58.0	+1.2
	comp=Z,183nm,1.2s						
CLDB	Colider	79.95	94	P	P	23 29 20.1	-0.4
	comp=Z,9.0nm,1.6s						
CMIG	Matias Romero	83.68	46	LR	LR	23 59 55.4	
	comp=Z,881nm,20.6s,baz=335,slow=31						
KAPI	Kappang	89.47	262	LR	LR	00 08 00.5	
	comp=Z,387nm,19.9s,baz=158,slow=34						
TXAR	Lajitas Array	91.71	34	P	P	23 30 19.1	+0.6
	comp=Z,0.5nm,1.0s,baz=258,slow=2.9,SNR=2.9						
	comp=Z,0.5nm,1.0s						
MDP	Montagnes des	94.84	88	LR	LR	00 09 02.3	
	comp=Z,352nm,19.9s,baz=2.5,slow=33						
BOSA	Boshof	95.09	170	LR	LR	00 11 28.9	
	comp=Z,320nm,18.2s,baz=190,slow=34						
LBTB	Lobatse	98.69	170	LR	LR	00 12 01.4	
	comp=Z,369nm,19.9s,baz=178,slow=33						
YBH	Yreka Blue Hor	99.11	16	LR	LR	00 06 10.3	
	comp=Z,324nm,20.2s,baz=266,slow=30						
H10S3	ASCENSION HYDR	102.77	128	T	T	01 26 15.8	
	baz=13,slow=74,SNR=28						
H10S2	ASCENSION HYDR	102.78	128	T	T	01 26 13.3	
	baz=207,slow=74,SNR=30						
H10N3	ASCENSION HYDR	103.83	128	T	T	01 27 36.3	
	baz=206,slow=75,SNR=42						
H10N1	ASCENSION HYDR	103.84	128	T	T	01 27 35.7	
	baz=206,slow=75,SNR=62						
H10N2	ASCENSION HYDR	103.85	128	T	T	01 27 36.7	
	baz=206,slow=75,SNR=56						
ILAR	Eielson Array	120.59	358	PKP	PKPdf	23 36 01.4	-0.1
	comp=Z,0.6nm,0.8s,baz=339,slow=0.6,SNR=4.6						
ILAR	Eielson Array	120.59	358		PKPdf	23 36 01.0	-0.5
HYB	Hyderabad	129.92	237	*e*PKiKP	PKiKP	23 36 22.1	+0.4
HYB				*e*SKKSac	SKKSac	23 45 27.8	-1.7
RAYN	Ar Rayn	146.73	196	PKPdf	PKPdf	23 36 51.0	-0.4
WUS	Wushi	148.50	260	PKPdf	PKPdf	23 36 54.1	+0.2
KBL	Kabul	148.88	240	PKPdf	PKPdf	23 36 55.9	+1.0
ESDC	Sonseca Array	148.99	105	PKPbc	PKPbc	23 36 58.4	-0.3
	comp=Z,4.3nm,1.1s,baz=244,slow=2.1,SNR=9.9						
ESDC	Sonseca Array	148.99	105		PKPbc	23 36 58.8	+0.1
PDGK	Podgornoye	149.76	263	PKPbc	PKPbc	23 36 59.2	-1.4
MKAR	Makanchi Array	150.33	271	PKPbc	PKiKP	23 37 01.8	-0.7
	comp=Z,3.0nm,0.9s,baz=215,slow=1.5,SNR=22						
MKAR	Makanchi Array	150.33	271	PKPbc	PKPbc	23 36 59.8	-1.9
MAKZ	Makanchi	150.51	271	PKPbc	PKPbc	23 36 59.9	-2.3
ZALV	Zalesovo Beam	152.51	286	PKPbc	PKPbc	23 37 04.8	-1.7
	comp=Z,0.6nm,0.5s,baz=104,slow=4.7,SNR=4.0						
ZALV				PKPab	PKPab	23 37 15.6	-1.4
	comp=Z,1.7nm,0.5s,baz=122,slow=7.2,SNR=8.3						
ZALV	Zalesovo Beam	152.51	286	PKPbc	PKPbc	23 37 03.9	-2.6
KURBB	Kurchatov Arra	154.48	276	PKPbc	PKPbc	23 37 09.2	-1.6
	comp=Z,0.3nm,0.5s,baz=125,slow=2.6,SNR=2.3						
KURBB				PKPab	PKPab	23 37 23.7	-1.7
	comp=Z,0.8nm,0.8s,baz=117,slow=3.3,SNR=5.7						
BVAR	Borovoye Array	160.07	275	PKPab	PKPab	23 37 47.8	-1.8
	comp=Z,2.6nm,0.7s,baz=108,slow=3.3,SNR=16						
BRTR	Keskin Array B	163.51	173	PKP	PKPdf	23 37 13.4	-0.3
	comp=Z,0.4nm,0.8s,baz=174,slow=1.4,SNR=1.3						
BRTR				PKPab	PKPab	23 38 04.9	-0.1
	comp=Z,1.0nm,0.9s,baz=189,slow=7.4,SNR=4.2						
BRTR	Keskin Array B	163.51	173		PKPdf	23 37 11.3	-2.3
GERES	GERESS Array B	164.53	109	PKP	PKPdf	23 37 13.8	-0.4
	comp=Z,0.2nm,0.8s,baz=225,slow=1.2,SNR=1.3						
GERES				PKPab	PKPab	23 38 10.5	+1.2
	comp=Z,1.0nm,0.9s,baz=219,slow=1.7,SNR=4.7						
GERES	GERESS Array B	164.53	109		PKPdf	23 37 13.6	-0.6
CLL	Collm	165.47	100	*e*PKPab	PKPab	23 38 14.0	+0.7
AKASG	Malin Array Be	173.16	140	PKPab	PKPab	23 38 46.9	-0.4
	comp=Z,1.2nm,0.6s,baz=221,slow=4.1,SNR=10						
AKASG				PP	PP	23 42 40.0	+0.7
	comp=Z,0.1nm,0.3s,baz=226,slow=1.2,SNR=4.5						
AKASG	Malin Array Be	173.16	140		PKPab	23 38 45.5	-1.7

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*KRNET **01** 23:18:05.5±0.1, 42°.61N×78°.74E, h30^{km}, mb2.4*
*SOME **01** 23:18:05.8, 42°.63N×78°.70E, h15^{km}*
*NNC **01** 23:18:05.2±0.8, 42°.61N×78°.72E, h3^{km}±3^{km}, mb3.1, mpv2.7, Error ellipse: s-maj=5.6km s-min=3.0km az=165.0*
ISC 01 23:18:06.9±1.1, **42°.62N**±0°.03×**78°.66E**±0°.03, **h7**^{km}±8^{km}, **n30,** σ**1^{s}59**/57, **10C-2D, Lake Issyk-Kul region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PRZ	Przheval'sk	0.23	235	⇑*i*P	Pg	23 18 12.6	+1.0
PRZ				⇑*i*S	Sg	23 18 17.8	+3.0
SATY	Saty	0.48	337	P	Pg	23 18 15.8	-0.4
	12nm,0.1s						
SATY				S	Sg	23 18 22.8	+0.3
	50nm,0.1s						
SATY	Saty	0.48	337	*e*P	Pg	23 18 15.8	-0.4
	12nm,0.1s						
SATY				*e*S	Sg	23 18 22.8	+0.3
	50nm,0.1s						
UZB	Uzynbulak	0.59	27	P	Pg	23 18 17.0	-1.4
	1.2nm,0.1s						
UZB				S	Sg	23 18 25.0	-1.1
	26nm,0.1s						
UZB	Uzynbulak	0.59	27	*e*P	Pg	23 18 17.0	-1.4
	1.2nm,0.1s						
UZB				*e*S	Sg	23 18 25.0	-1.1
	26nm,0.1s						
ANVS	Anan'yevo	0.75	283	⇑*i*P	Pg	23 18 21.4	+0.1
ANVS				⇑*i*S	Sg	23 18 32.5	+1.4
SHLS	Shalkode	0.80	47	P	Pg	23 18 24.4	+2.1
	8.0nm,0.2s						
SHLS				S	Sn	23 18 37.8	+0.9
	13nm,0.2s						
SHLS	Shalkode	0.80	47	*e*P	Pg	23 18 24.4	+2.1
	8.0nm,0.2s						
SHLS				*e*S	Sn	23 18 37.8	+0.9
	13nm,0.2s						
KPKS	Kokpek	0.85	1	P	Pg	23 18 22.0	-1.2
	0.2nm,0.1s						
KPKS				S	Sg	23 18 33.6	-0.6
	10nm,0.2s						
KPKS	Kokpek	0.85	1	*e*P	Pg	23 18 22.0	-1.2
	0.2nm,0.1s						
KPKS				*e*S	Sg	23 18 33.6	-0.6
	10nm,0.2s						
TARG	Taragay, Kyrgy	1.09	216	⇑*e*P	Pg	23 18 26.0	-1.9
TARG				⇑*i*S	Sg	23 18 40.9	-1.1
KDJ	Kajisay	1.20	247	⇑*i*P	Pb	23 18 28.5	-1.5
KDJ				⇑*i*S	Sb	23 18 44.8	-1.0
KOTS	Kotyrbulak	1.29	299	P	Pn	23 18 30.7	-0.7
	0.6nm,0.1s						
KOTS				S	Sb	23 18 48.5	+0.1
	10nm,0.2s						
KOTS	Kotyrbulak	1.29	299	*e*P	Pn	23 18 30.7	-0.7
	0.6nm,0.1s						
KOTS				*e*S	Sb	23 18 48.5	+0.1
	10nm,0.2s						
TNSS	Tian-Shan	1.33	289	P	Pn	23 18 31.1	-1.1
	0.4nm,0.2s						
TNSS				S	Sb	23 18 49.1	-0.6
	1.5nm,0.2s						
TNSS	Tian-Shan	1.33	289	*e*P	Pn	23 18 31.1	-1.1
	0.4nm,0.2s						
TNSS				*e*S	Sb	23 18 49.1	-0.6
	1.5nm,0.2s						
BLB	Baldybastay	1.48	355	P	Pn	23 18 33.0	-1.0
	2.2nm,0.2s						
BLB				S	Sn	23 18 52.8	-1.0
	16nm,0.3s						
ARXS	Arharly	1.71	339	P	Pn	23 18 36.8	-0.2
	2.7nm,0.2s						
ARXS				S	Sn	23 18 59.4	+0.3
	7.4nm,0.2s						
ARXS	Arharly	1.71	339	*e*P	Pn	23 18 36.8	-0.2
	2.7nm,0.2s						
ARXS				*e*S	Sn	23 18 59.4	+0.3
	7.4nm,0.2s						
KNOS	Konyrlen	1.78	12	P	Pn	23 18 37.7	-0.5
	0.7nm,0.1s						
KNOS				S	Sn	23 19 01.0	-0.1
	5.6nm,0.1s						
ULHL	Ulahol	1.83	259	⇑*i*P	Pn	23 18 38.0	-0.9
ULHL				⇑*i*S	Sn	23 19 01.5	-0.8
DJR	Jarkent	1.90	25	P	Pn	23 18 39.3	-0.4
	1.8nm,0.1s						
DJR				S	Sn	23 19 03.7	-0.3
	5.5nm,0.2s						
DJR	Jarkent	1.90	25	*e*P	Pn	23 18 39.3	-0.4
	1.8nm,0.1s						
DJR				*e*S	Sn	23 19 03.7	-0.3
	5.5nm,0.2s						
BOOM	Boomskoye usch	2.01	267	⇓*e*P	Pn	23 18 40.5	-0.9
BOOM				⇓*e*S	Sn	23 19 06.1	-0.8
KST	Kastek	2.03	283	Pg	Pn	23 18 43.5	+2.0
	0.6nm,0.3s						
KST				Lg	Lg	23 19 10.4	
	6.3nm,0.3s						
KST	Kastek	2.03	283	*e*P	Pn	23 18 43.5	+2.0
	0.6nm,0.3s						
KST				*e*S	Sn	23 19 10.4	+3.3
	6.3nm,0.3s						
KRBS	Karabastau	2.44	297	Pg	Pn	23 18 49.3	+2.2
	0.3nm,0.3s						
KRBS				Lg	Lg	23 19 20.3	
	1.3nm,0.3s						
KRBS	Karabastau	2.44	297	*e*P	Pn	23 18 49.3	+2.2
	0.3nm,0.3s						
KRBS				*e*S	Sn	23 19 20.3	+3.2
	1.3nm,0.3s						
KAPS	Kapalarasan	2.71	10	Pg	Pn	23 18 54.2	+3.3
	1.2nm,0.2s						
KAPS				Lg	Lg	23 19 28.8	
	12nm,0.1s						
KAPS	Kapalarasan	2.71	10	*e*P	Pn	23 18 54.2	+3.3
	1.2nm,0.2s						
KAPS				*e*S	Sn	23 19 28.8	+4.8
	12nm,0.1s						

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*SJA **01** 23:22:33.9±0.7, 27°.76S×71°.70W, h9^{km}, ML3.9, MW3.7*
*GUC **01** 23:22:38.8±0.8, 27°.90S×71°.31W, h28^{km}±3^{km}, ML3.5*
*IDC **01** 23:22:44.5±4.9, 27°.46S×71°.34W, h48^{km}±39^{km}, mb3.7/2, mbtmp3.7/4, ML3.5/2, Error ellipse: s-maj=65.6km s-min=32.4km az=97.0*
ISC 01 23:22:35.2±1.7, **27°.75S**±0°.04×**71°.61W**±0°.06, **h1**^{km}±10^{km}, **n45,** σ**1^{s}99**/50, **2D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.65	134	*e*P	Pg	23 22 47.7	0.0
AC04				IAML		23 22 59.6	
	comp=Z,2μm,1.2s						
AC04	Llanos de Chal	0.65	134	⇓*i*P	Pg	23 22 47.7	0.0
AC04				*e*S	Sg	23 22 53.9	-2.3
AC06	Mina Casimiro	1.18	71	*e*P	Pn	23 22 57.8	-1.1
GO03	Copiapo	1.23	83	*e*P	Pn	23 22 58.3	-1.3
GO03				IAML		23 23 20.9	
	comp=Z,1μm,0.5s						
GO03	Copiapo	1.23	83	⇓*i*P	Pn	23 22 58.0	-1.6
GO03				*e*S	Sn	23 23 12.1	-4.8
GO03				IAML		23 23 20.3	
	comp=E,2μm,0.5s						
LCO	Las Campanas	1.49	148	*e*P	Pn	23 23 02.2	-1.1
LCO				IAML		23 23 25.3	
	comp=Z,2μm,1.0s						
LCO	Las Campanas	1.49	148	*i* P	Pn	23 23 01.8	-1.5
AC05	El Transito	1.60	133	*e*P	Pn	23 23 03.9	-0.8
AC05	El Transito	1.60	133	*e*P	Pn	23 23 03.5	-1.3
AC05				*e*S	Sn	23 23 21.4	-4.7
AC05				IAML		23 23 24.3	
	comp=E,1μm,0.2s						
AC01	Pan de Azucar	1.84	30	*e*P	Pn	23 23 08.7	+0.8
AC01				IAML		23 23 43.3	
	comp=Z,524nm,0.7s						
AC01	Pan de Azucar	1.84	30	*e*P	Pn	23 23 08.5	+0.6
AC01				IAML		23 23 41.0	
	comp=E,422nm,0.4s						
AC02	Maricunga	2.39	68	*e*P	Pn	23 23 17.9	+2.0
AC02				IAML		23 23 53.6	
	comp=Z,618nm,1.1s						
AC02	Maricunga	2.39	68	*i* P	Pn	23 23 17.9	+2.0
AC02				*e*S	Sn	23 23 48.0	+1.9
AC02				IAML		23 23 52.5	
	comp=N,975nm,0.4s						
GO04	Tololo Observa	2.51	164	*e*P	Pn	23 23 17.7	+0.2
GO04				IAML		23 23 56.6	
	comp=Z,993nm,0.9s						
GO04	Tololo Observa	2.51	164	*e*P	Pn	23 23 17.0	-0.4
GO04				*e*S	Sn	23 23 48.3	-0.6
CO01	Juntas del Tor	2.58	149	*e*P	Pn	23 23 19.6	+1.2
CO01				IAML		23 23 60.0	
	comp=Z,344nm,0.8s						
CO01	Juntas del Tor	2.58	149	*e*P	Pn	23 23 19.0	+0.6
CO01				IAML		23 23 55.0	
	comp=N,530nm,0.5s						
CO06	Fray Jorge	2.91	180	*e*P	Pn	23 23 21.2	-1.4
AROD	Rodeo	3.05	143	*e*P	Pn	23 23 27.6	+2.7
VCA	Vinchina	3.16	109	*e*P	Pn	23 23 09.7	-17
VCA				IAML		23 24 17.8	
	comp=Z,566nm,0.6s						
ACDV	Cuesta del Vie	3.25	138	*e*P	Pn	23 23 30.0	+2.5
ACDV				IAML		23 24 18.4	
	comp=Z,181nm,0.8s						
PB14	IPOC Station P	3.30	19	*e*P	Pn	23 23 28.9	+0.6
PB14				*e*S	Sg	23 24 22.8	+1.6
PB14				IAML		23 24 31.2	
	comp=Z,153nm,0.4s						
PB14	IPOC Station P	3.30	19	*e*P	Pn	23 23 28.4	+0.1
CO02	Combarbal	3.48	171	*e*P	Pn	23 23 30.1	-0.5
CO02				IAML		23 24 28.7	
	comp=Z,515nm,0.3s						
CO02	Combarbal	3.48	171	*e*P	Pn	23 23 29.9	-0.7
TINO	Tinogasta	3.59	96	*e*P	Pn	23 23 34.4	+2.3
TINO				IAML		23 24 31.2	
	comp=Z,268nm,1.3s						
ACCO	Cerro Coronel	3.59	142	*e*P	Pn	23 23 19.3	-13
ACCO				*e*S	Sn	23 24 20.2	+4.5
ACCO				IAML		23 24 31.2	
	comp=Z,278nm,0.7s						
CO04	Los Peladeros	4.31	173	*e*P	Pn	23 23 41.7	-0.4
ACLC	CERRO LA CRUZ	4.42	113	*e*P	Pn	23 23 45.9	+2.3
ACLC				IAML		23 25 02.3	
	comp=Z,64nm,0.8s						
RTLL	Cerro Villicun	4.49	143	*e*P	Pn	23 23 46.6	+2.2
RTLL				*e*S	Sn	23 24 39.2	+1.8
RTLL				IAML		23 25 03.8	
	comp=Z,106nm,0.8s						
CFA	Coronel Fontan	4.83	143	*e*P	Pn	23 23 51.0	+1.9
CFA				*e*S	Sn	23 24 48.1	+2.4
CFA				IAML		23 24 51.5	
	comp=Z,219nm,0.8s						
PB05	IPOC Station P	5.04	15	*e*P	Pn	23 23 39.8	-12
PB05				IAML		23 25 37.5	
	comp=Z,48nm,0.6s						
CYA	Choya	5.17	99	*e*P	Pn	23 23 55.8	+1.9
CYA				*e*S	Sn	23 24 50.9	-3.4
CYA				IAML		23 25 23.4	
	comp=Z,45nm,0.6s						
H03N1	Juan Fernandez	8.47	226	T	T	23 33 33.1	
	baz=207,slow=74,SNR=286						
H03N2	Juan Fernandez	8.48	226	T	T	23 33 37.1	
	baz=54,slow=74,SNR=328						
H03S3	Juan Fernandez	8.72	224	P	Pn	23 24 40.2	-2.0
	baz=22,slow=20,SNR=26						
H03S1	Juan Fernandez	8.73	224	P	Pn	23 24 39.8	-2.5
	baz=22,slow=20,SNR=17						
H03S2	Juan Fernandez	8.74	224	P	Pn	23 24 40.6	-1.9
	baz=22,slow=20,SNR=16						
LPAZ	La Paz	11.86	16	P	Pn	23 25 26.4	+0.3
	comp=Z,0.2nm,0.3s,baz=208,slow=4.4,SNR=3.5						
	comp=Z,0.7nm,0.5s						
LPAZ				AML	AML		
CPUP	Villa Florida	12.81	87	P	Pn	23 25 41.0	+2.6
	comp=Z,0.1nm,0.3s,baz=265,slow=12,SNR=1.5						
	comp=Z,0.6nm,0.6s						
CPUP				AML	AML		
QSPA	South Pole Qui	62.46	180	P	P	23 33 04.4	+4.4
	comp=Z,1.2nm,0.8s,baz=160,slow=3.5,SNR=5.2						
	comp=Z,1.2nm,0.8s						
TORD	Torodi Ar. Bea	81.76	71	P	P	23 34 56.5	+0.4
	comp=Z,1.1nm,0.8s,baz=225,slow=4.1,SNR=3.6						
	comp=Z,1.1nm,0.8s						
KURBB	Kurchatov Arra	147.85	37	PKPbc	PKiKP	23 42 22.4	-1.3
	comp=Z,0.6nm,0.7s,baz=302,slow=3.3,SNR=7.2						
ZALV	Zalesovo Beam	148.62	27	PKPbc	PKiKP	23 42 24.7	-0.5
	comp=Z,2.7nm,0.8s,baz=308,slow=3.3,SNR=10						
MKAR	Makanchi Array	152.05	40	PKPbc	PKiKP	23 42 33.2	+0.7
	comp=Z,0.5nm,0.7s,baz=310,slow=2.2,SNR=4.5						
MKAR				PKPab	PKPab	23 42 41.2	-0.4
	comp=Z,0.2nm,0.5s,baz=326,slow=2.3,SNR=2.5						

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*CATAC **01** 23:29:39.1±0.5, 13°N±3°×9°0W±°, h13^{km}±2^{km}, M3.4/18, MLv3.4/18, Error ellipse: s-maj=5.7km s-min=3.1km az=19.5, confirmed*
*SNET **01** 23:29:41.1±1.5, 13°.09N×89°.84W, h23^{km}, ML3.2, Presumed earthquake*
*GCG **01** 23:29:43.6±0.3, 13°.27N×89°.84W, h30^{km}±3^{km}, MD3.9, Presumed earthquake*
ISC 01 23:29:40.2±1.9, **13°.05N**±0°.08×**89°.86W**±0°.05, **h22**^{km}±10^{km}, **n41,** σ**0^{s}49**/75, **El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LALI	Alcalda de L	0.68	50	P	Pb	23 29 53.4	0.0
LALI				S	Sb	23 30 02.4	0.0
JAYA	Jayaque - finc	0.72	34	*i* P	Pb	23 29 54.4	+0.2
JAYA	Jayaque - finc	0.72	34	*e*P	Pb	23 29 54.4	+0.2
JAYA				*e*S	Sn	23 30 05.1	-0.7
JAYA	Jayaque - finc	0.72	34	P	Pb	23 29 54.1	-0.1
JAYA				S	Sb	23 30 04.5	+0.7
FAME	Alcaldia de Sa	0.80	349	P	Pb	23 29 55.0	-0.6
FAME				S	Sb	23 30 06.1	+0.1
CEVE	Cerro Verde	0.81	16	*e*P	Pb	23 29 56.0	+0.3
CEVE				*e*S	Sn	23 30 08.2	+0.3
CEVE	Cerro Verde	0.81	16	P	Pb	23 29 56.0	+0.3
CEVE				S	Sn	23 30 08.1	+0.1
SBLS	San Blas	0.82	16	*e*P	Pb	23 29 56.0	+0.1
SBLS				*e*P	Pn	23 29 56.1	-0.6
SBLS				*e*S	Sb	23 30 06.9	+0.3
SBLS				*e*S	Sn	23 30 07.7	-0.5
PMON	Piamonte	0.84	39	*e*P	Pb	23 29 56.3	0.0
PMON				*e*S	Sn	23 30 08.9	+0.2
PMON	Piamonte	0.84	39	P	Pb	23 29 56.0	-0.3
PMON				S	Sn	23 30 08.1	-0.6
NUBE	Las Nubes	0.85	5	*i* P	Pb	23 29 56.4	0.0
NUBE				*i* S	Sb	23 30 06.4	-1.1
NUBE	Las Nubes	0.85	5	*e*P	Pb	23 29 56.5	0.0
NUBE				*e*S	Sn	23 30 08.1	-0.8
NUBE	Las Nubes	0.85	5	P	Pb	23 29 56.2	-0.3
NUBE				S	Sb	23 30 07.9	+0.4
PANCS	Alcalda de	0.86	50	P	Pb	23 29 56.2	-0.5
PANCS				S	Sb	23 30 08.1	+0.3
RTR	El Retiro	0.87	14	*e*P	Pb	23 29 57.1	+0.3
CEDA	San Andres	0.87	31	P	Pb	23 29 56.8	0.0
CEDA				S	Sn	23 30 08.8	-0.5
BOQS	Boqueron	0.88	40	*e*P	Pb	23 29 57.1	0.0
BOQS				*e*S	Sb	23 30 08.4	-0.1
LOMA	Loma Larga	0.89	49	*e*P	Pb	23 29 57.1	-0.1
LOMA				*e*S	Sn	23 30 10.1	+0.2
LOMA	Loma Larga	0.89	49	P	Pb	23 29 56.8	-0.3
LOMA				S	Sn	23 30 09.9	-0.1
UEES	Universidad Ev	0.90	42	P	Pb	23 29 56.9	-0.2
UEES				S	Sn	23 30 09.5	-0.4
SLOZ	Alcaldia de Sa	0.97	4	P	Pb	23 29 58.3	-0.1
UNIC	Universidad Ca	0.97	18	P	Pb	23 29 58.2	-0.3
UNIC				S	Sn	23 30 11.8	-0.1
SJTE	Alcalda de S	1.00	56	*e*P	Pb	23 29 58.6	-0.3
SJTE				*e*S	Sb	23 30 11.3	-0.5
LFU	La Fuente	1.00	46	*e*P	Pb	23 29 59.1	+0.1
RBDL	Robledal	1.07	9	*e*P	Pn	23 29 60.0	-0.1
RBDL				*e*S	Sn	23 30 15.0	+0.7
COEG	Centro de Oper	1.11	59	*e*P	Pn	23 30 00.2	-0.3
COEG				*e*S	Sn	23 30 15.3	+0.1
COEG	Centro de Oper	1.11	59	P	Pn	23 29 59.8	-0.7
COEG				S	Sn	23 30 15.0	-0.1
PAVA	Las Pavas	1.11	54	*e*P	Pn	23 30 00.9	+0.2
PAVA				*e*S	Sn	23 30 17.3	+2.0
PAVA	Las Pavas	1.11	54	P	Pn	23 30 00.2	-0.4
PAVA				S	Sn	23 30 15.6	+0.3
TECO	Alcaldia de Te	1.16	65	P	Pn	23 30 00.5	-0.6
TECO				S	Sn	23 30 16.8	+0.5
SCLA	Alcaldia de Sa	1.28	59	S	Sb	23 30 20.2	+0.5
ALJI	Alcalda de J	1.28	78	P	Pn	23 30 02.0	-0.8
ALJI				S	Sb	23 30 19.9	0.0
PQSS	Presa 15 de Se	1.39	66	S	Sb	23 30 22.8	+0.1
P5NO	Presa 5 de nov	1.42	49	P	Pn	23 30 04.7	0.0
P5NO				S	Sb	23 30 23.8	+0.2
MTO3	Montecristo	1.42	20	*i* P	Pn	23 30 05.3	+0.3
MTO3	Montecristo	1.42	20	*e*P	Pn	23 30 05.3	+0.3
MTO3				*e*S	Sb	23 30 24.8	+0.7
MTO3	Montecristo	1.42	20	P	Pn	23 30 05.1	+0.1
MTO3				S	Sb	23 30 24.4	+0.3
PACA	Pacayal	1.55	74	S	Sn	23 30 27.1	+0.8
ESQI	Esquipulas	1.58	18	P	Pn	23 30 07.0	0.0
ESQI				S	Sb	23 30 28.6	+0.1
CNCH	Conchagua	1.99	83	P	Pn	23 30 12.3	-0.3
CNCH				S	Sn	23 30 38.0	+1.1
RTAL	Retalhuleu	2.31	310	S	Sn	23 30 45.6	+0.9

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*SJA **01** 23:32:03.9±0.6, 27°.88S×71°.66W, h9^{km}±4^{km}, ML4.2, MW4.0*
*IDC **01** 23:32:05.7±1.0, 28°.09S×71°.96W, h0^{km}, mb4.1/2, mbtmp4.0/4, ML3.5/2, Error ellipse: s-maj=35.0km s-min=19.1km az=67.0*
*NEIC **01** 23:32:06.5±2.3, 27°.95S±0°.02×71°.51W±0°.06, h10^{km}±1^{km}, mb4.4/2, Error ellipse: s-maj=9.7km s-min=2.9km az=286.0*
*GUC **01** 23:32:08.0±0.7, 28°.00S×71°.31W, h30^{km}±2^{km}, ML3.7*
ISC 01 23:32:05.3±1.5, **27°.98S**±0°.02×**71°.46W**±0°.05, **h6**^{km}±9^{km}, **n72,** σ**2^{s}01**/88, **mb4.3**/3, **3C-2D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.41	124	*e*P	Pn	23 32 16.4	-1.4
AC04	Llanos de Chal	0.41	124	⇑*e*P	Pn	23 32 16.4	-1.4
AC04				*e*S	Sb	23 32 21.3	-0.2
AC04				IAML		23 32 21.9	
	comp=E,33μm,0.4s						
AC04	Llanos de Chal	0.41	124		Pn	23 32 16.4	-1.4
AC04				Sg	Sb	23 32 21.4	-0.2
GO03	Copiapo	1.15	71	*e*P	Pg	23 32 28.4	+1.0
GO03	Copiapo	1.15	71	⇓*e*P	Pg	23 32 27.9	+0.5
GO03				*e*S	Sn	23 32 42.4	-1.7
GO03	Copiapo	1.15	71		Pn	23 32 27.6	-0.4
GO03				Sg	Sn	23 32 42.5	-1.7
AC06	Mina Casimiro	1.16	58	*e*P	Pb	23 32 27.8	0.0
AC06				*e*S	Sg	23 32 44.0	+1.5
AC06				IAML		23 32 48.4	
	comp=E,4μm,1.0s						
AC06	Mina Casimiro	1.16	58		Pn	23 32 27.5	-0.6
AC06				Sg	Sn	23 32 42.6	-1.7
LCO	Las Campanas	1.23	147	*e*P	Pg	23 32 30.4	+1.5
LCO				IAML		23 32 52.5	
	comp=Z,5μm,0.5s						
LCO	Las Campanas	1.23	147	*e*P	Pg	23 32 30.0	+1.1
LCO				*e*S	Sg	23 32 45.6	+0.7
LCO	Las Campanas	1.23	147		Pg	23 32 29.9	+0.9

LCO				Sg	Sg	23 32 45.3	+0.4
AC05	El Transito	1.35	130	eP	Pg	23 32 32.1	+0.9
AC05	El Transito	1.35	130	⇓eP	Pg	23 32 31.9	+0.7
AC05				eS	Sg	23 32 48.3	-0.5
AC05				IAML		23 32 50.3	
	comp=N,2µm,0.6s						
AC05	El Transito	1.35	130	Pn	Pg	23 32 31.8	+0.5
AC01	Pan de Azucar	1.98	23	eP	Pn	23 32 39.7	+0.3
AC01				eS	Sn	23 33 01.4	-3.0
AC01	Pan de Azucar	1.98	23	⇑eP	Pn	23 32 39.6	+0.3
AC01				eS	Sb	23 33 06.9	+0.3
AC01				IAML		23 33 16.5	
	comp=E,522nm,0.8s						
AC01	Pan de Azucar	1.98	23	Pn	Pn	23 32 39.3	0.0
GO04	Tololo Observa	2.27	165	eP	Pb	23 32 46.0	-0.8
GO04				eS	Sb	23 33 12.5	-2.7
GO04				IAML		23 33 20.9	
	comp=Z,2µm,0.4s						
GO04	Tololo Observa	2.27	165	⇑eP	Pb	23 32 45.5	-1.3
GO04				eS	Sb	23 33 15.3	+0.2
GO04	Tololo Observa	2.27	165	Pn	Pb	23 32 45.2	-1.5
CO01	Juntas del Tor	2.33	149	eP	Pb	23 32 47.6	-0.2
CO01				eS	Sb	23 33 16.7	-0.3
CO01				IAML		23 33 19.9	
	comp=Z,727nm,0.2s						
CO01	Juntas del Tor	2.33	149	eP	Pb	23 32 47.5	-0.3
CO01				eS	Sb	23 33 16.5	-0.5
CO01				IAML		23 33 21.0	
	comp=N,1µm,0.1s						
CO01	Juntas del Tor	2.33	149	Pn	Pb	23 32 46.9	-1.0
AC02	Maricunga	2.36	62	eP	Pb	23 32 48.4	-0.2
AC02				IAML		23 33 29.4	
	comp=Z,566nm,1.0s						
AC02	Maricunga	2.36	62	eP	Pb	23 32 47.8	-0.8
AC02				eS	Sb	23 33 18.1	-0.2
AC02				IAML		23 33 26.1	
	comp=E,1µm,0.6s						
AC02	Maricunga	2.36	62	Pn	Pb	23 32 47.1	-1.5
CO06	Fray Jorge	2.69	183	Pn	Pn	23 32 49.7	+0.5
AROD	Rodeo	2.79	142	eP	Pb	23 32 55.7	-0.1
AROD				eS	Sg	23 33 32.5	-2.6
CO03	El Pedregal	2.93	167	Pn	Pn	23 32 54.5	+1.9
VCA	Vinchina	2.97	106	eP	Pb	23 32 59.3	+0.6
VCA				eS	Sb	23 33 35.8	+0.5
VCA				IAML		23 33 46.8	
	comp=Z,587nm,0.4s						
CO02	Combarbal	3.24	173	eP	Pn	23 32 58.6	+1.8
CO02				eS	Sb	23 33 38.6	-4.5
CO02				IAML		23 33 53.6	
	comp=Z,1µm,0.5s						
CO02	Combarbal	3.24	173	Pn	Pn	23 32 58.1	+1.2
ACCO	Cerro Coronel	3.34	142	eP	Pb	23 33 03.7	-1.5
ACCO				eS	Sb	23 33 45.1	-1.1
ACCO				IAML		23 33 55.7	
	comp=Z,465nm,0.7s						
TINO	Tinogasta	3.44	92	eP	Pb	23 33 04.2	-2.6
TINO				eS	Sb	23 33 49.5	+0.6
TINO				IAML		23 33 59.2	
	comp=Z,270nm,1.1s						
PB14	IPOC Station P	3.47	16	eP	Pn	23 33 00.5	+0.3
PB14				eS	Sb	23 33 46.2	-3.7
PB14	IPOC Station P	3.47	16	Pn	Pn	23 32 58.9	-1.2
CO04	Los Peladeros	4.08	174	Pn	Pn	23 33 10.0	+1.5
ACLC	CERRO LA CRUZ	4.22	111	eP	Pb	23 33 14.7	-5.3
ACLC				eS	Sb	23 34 07.1	-4.1
ACLC				IAML		23 34 20.9	
	comp=Z,92nm,0.9s						
RTLL	Cerro Villicun	4.23	143	eP	Pb	23 33 15.4	-4.9
RTLL				eS	Sb	23 34 06.2	-5.5
RTLL				IAML		23 34 19.8	
	comp=Z,180nm,0.4s						
RTLS	Leoncito	4.25	154	eP	Pb	23 33 16.4	-4.3
RTLS				eS	Sb	23 34 06.1	-6.2
RTLS				IAML		23 34 26.0	
	comp=Z,686nm,0.4s						
ZON	Zonda	4.30	146	Pn	Pn	23 33 14.7	+3.3
CFA	Coronel Fontan	4.58	143	Pn	Pn	23 33 19.4	+4.3
	comp=Z,5.2nm,0.3s,baz=312,slow=12,SNR=29						
CFA				Sn	Sn	23 34 12.3	+3.7
	comp=Z,6.4nm,0.3s,baz=18,slow=8.6,SNR=3.8						
	comp=Z,9.6nm,0.3s						
CFA				AML	AML		
CFA	Coronel Fontan	4.58	143	eP	Pn	23 33 19.8	+4.7
CFA				eS	Sb	23 34 13.9	-7.5
CFA				IAML		23 34 27.2	
	comp=Z,166nm,0.4s						
VA03	San Esteban	4.84	171	eP	Pn	23 33 23.6	+4.9
VA03				eS	Sb	23 34 26.1	-2.9
VA03				IAML		23 34 42.5	
	comp=Z,242nm,1.1s						
VA03	San Esteban	4.84	171	Pn	Pn	23 33 20.0	+1.2
CYA	Choya	5.02	97	eP	Pn	23 33 26.3	+5.1
CYA				eS	Sn	23 34 24.2	+4.7
CYA				IAML		23 34 30.4	
	comp=Z,59nm,1.5s						
PEL	Peldehue	5.20	173	Pn	Pn	23 33 24.7	+1.0
MT02	Curacav	5.27	177	Pn	Pn	23 33 24.8	+0.1
PB06	IPOC Station P	5.52	18	Pn	Pn	23 33 27.1	-1.1
MT03	Universidad Ad	5.56	172	Pn	Pn	23 33 31.7	+2.9
MT09	Talagante	5.80	176	Pn	Pn	23 33 32.6	+0.6
MT01	Popeta	5.87	178	Pn	Pn	23 33 34.0	+1.1
PB03	IPOC Station P	6.10	15	Pn	Pn	23 33 35.6	-0.6
BO01	Tunca	6.41	177	Pn	Pn	23 33 41.3	+1.1
BO02	Sierra Bellavi	6.82	175	Pn	Pn	23 33 47.1	+1.1
GO05	Hualane	7.03	183	Pn	Pn	23 33 47.8	-0.9
H03N1	Juan Fernandez	8.41	228	T	T	23 42 37.1	
	baz=57,slow=26,SNR=141						
H03N2	Juan Fernandez	8.43	228	T	T	23 42 41.1	
	baz=57,slow=26,SNR=134						
H03N3	Juan Fernandez	8.43	228	T	T	23 42 28.8	
	baz=57,slow=26,SNR=1.9						
SIV	San Ignacio	15.32	41	Pn	P	23 35 47.2	+0.1
	baz=221,slow=11,SNR=7.0						
	comp=Z,1.6nm,0.8s						
BOAV	Boa Vista	31.98	21	P	P	23 38 31.5	-0.9
BOAV				IAmb	IAmb	23 38 40.8	
	comp=Z,6.1nm,1.4s						
SNAA	Sanae	57.00	159	P	P	23 41 53.0	+1.5
	comp=Z,1.4nm,0.6s,baz=298,slow=6.7,SNR=3.5						
	comp=Z,1.4nm,0.6s						
QSPA	South Pole Qui	62.24	180	P	P	23 42 29.1	+1.3
	comp=Z,2.6nm,1.1s,baz=150,slow=5.0,SNR=7.1						
	comp=Z,2.6nm,1.1s						
QSPA	South Pole Qui	62.24	180		P	23 42 29.0	+1.2
QSPA				IAmb	IAmb	23 42 30.4	
	comp=Z,3.1nm,1.0s						
H11S2	WAKE ISLAND Hy	126.14	273	T	T	02 10 11.8	
	baz=112,slow=75,SNR=4.5						
H11S1	WAKE ISLAND Hy	126.16	273	T	T	02 10 15.7	
	baz=112,slow=75,SNR=5.8						
H11S3	WAKE ISLAND Hy	126.16	273	T	T	02 10 13.9	
	baz=112,slow=75,SNR=5.4						
WRA	Warramunga Arr	126.22	210	PKP	PKiKP	23 51 10.4	+0.4
	comp=Z,0.6nm,0.8s,baz=158,slow=1.5,SNR=5.4						
KURBB	Kurchatov Arra	147.95	37	PKPbc	PKiKP	23 51 52.4	-0.7
	comp=Z,0.5nm,0.6s,baz=307,slow=3.0,SNR=7.7						
ZALV	Zalesovo Beam	148.76	27	PKPbc	PKiKP	23 51 54.6	-0.1
	comp=Z,1.8nm,0.8s,baz=318,slow=2.0,SNR=7.9						
MKAR	Makanchi Array	152.14	41	PKPbc	PKiKP	23 52 02.9	+0.9
	comp=Z,0.7nm,0.7s,baz=324,slow=1.7,SNR=6.4						
MKAR	Makanchi Array	152.14	41		PKiKP	23 52 02.5	+0.6

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*GFZ **01** 23:43:55.0±0.5, 21°S±6°×17°6W±°, h182km±5km, M4.6/22, mb4.6/22, Error ellipse: s-maj=12.0km s-min=5.9km az=173.4, confirmed*

*BGR **01** 23:43:57.2, 21°.42S×175°.78W, h222km*

*NEIC **01** 23:43:57.0±1.9, 20°.5S±0°.1×176°.05W±0°.01, h197km±5km, mb4.5/54, Error ellipse: s-maj=15.7km s-min=1.7km az=180.0*

*NOU **01** 23:43:57.8, 20°.20S×175°.76W, h230km, mb4.5/29, Tonga Islands*

*IDC **01** 23:43:59.2±1.8, 20°.46S×176°.18W, h222km±15km, mb3.9/14, mbtmp4.5/17, Error ellipse: s-maj=14.4km s-min=11.7km az=145.0*

ISC 01 23:43:57.4±0.3**, 20°.62S**±0°.05×**175°.94W**±0°.05**, h211**km**, n316,** σ1s.66/328**, mb4.4**/59**, 33C-23D, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LKBA	Tubou, Lakemba	3.60	311	P	Pn	23 44 54.4	-0.4
LKBA	Tubou, Lakemba	3.60	311	S	S	23 45 39.8	+0.3
NIUE	Niue	5.87	76	P	Pn	23 45 20.1	-3.2
NIUE	Niue	5.87	76		Pn	23 45 19.2	-4.0
NIUE	Niue	5.87	76	P	Pn	23 45 20.0	-3.2
NIUE				S	S	23 46 20.9	-10
NIUE				AML	AML		
NIUE	Niue	5.87	76	P	Pn	23 45 20.0	-3.2
	comp=Z,851nm,0.5s						
NIUE				P		23 46 21.9	
MSVF	Nonsavu	6.36	296	P	Pn	23 45 29.2	-0.4
	comp=Z,121nm,0.7s,baz=121,slow=13,SNR=82						
MSVF	Nonsavu	6.36	296	P	Pn	23 45 30.5	+0.8
MSVF	Nonsavu	6.36	296	Pn	Pn	23 45 29.6	0.0
MSVF	Nonsavu	6.36	296	P	Pn	23 45 31.1	+1.5
	comp=Z,217nm,0.8s						
AFI	Afiamalu	7.77	31	Pn	Pn	23 45 38.9	-9.0
AFI	Afiamalu	7.77	31	P	Pn	23 45 37.7	-10
AFI				S	S	23 46 57.5	-18
GLKZ	Green Lake	8.79	191	P	Pn	23 46 02.7	+1.9
GLKZ				S	S	23 47 35.8	-3.9
MARNC	Mare, Loyalty	14.99	264	P	P	23 47 20.4	+0.9
MARNC	Mare, Loyalty	14.99	264		Pn	23 47 18.8	-0.3
RAR	Rarotonga	15.12	95	P	P	23 47 24.2	+3.2
	comp=Z,34nm,0.9s,baz=119,slow=15,SNR=2.6						
RAR	Rarotonga	15.12	95	P	Pn	23 47 19.7	-1.0
RAR	Rarotonga	15.12	95		P	23 47 22.5	+1.4
RAR	Rarotonga	15.12	95	P	P	23 47 25.4	+4.4
YATNC	Mamie plateau,	16.06	262	P	Pn	23 47 34.7	+2.6
OUENC	Ouen Island, N	16.12	261	P	Pn	23 47 35.2	+2.4
OUENC	Ouen Island, N	16.12	261	P	Pn	23 47 34.6	+1.9
DZM	Mont Dzumac	16.47	262	P	Pn	23 47 39.1	+2.0
	baz=60,slow=16						
ONTNC	Ouen Toro	16.47	261	P	Pn	23 47 38.1	+1.2
NOUC	Port Laguerre	16.61	262	P	Pn	23 47 40.4	+1.8
SANVU	Saraoutou	16.83	285	P	Pn	23 47 42.5	+1.2
	comp=Z,131nm,0.9s						
MXZ	Matakaoa Point	17.61	195	P	Pn	23 47 52.7	+2.5
MXZ	Matakaoa Point	17.61	195	P	Pn	23 47 50.5	+0.3
MXZ	Matakaoa Point	17.61	195	P	Pn	23 47 52.2	+2.0
WMGZ	Waiomatatini S	17.82	195	P	Pn	23 47 55.3	+2.6
WIAZ	Waiheke Island	17.90	204	P	Pn	23 47 54.3	+0.7
HAZ	Te Kaha	17.92	196	P	Pn	23 47 54.5	+0.6
HAZ				S	S	23 51 01.3	-4.9
PKGZ	Pakihiroa	17.95	196	P	Pn	23 47 53.8	-0.4
PKGZ				S	S	23 50 58.7	-8.2
PUZ	Puketiti	18.10	195	P	Pn	23 47 56.3	+0.3
ETAZ	East Tamaki Re	18.12	204	P	Pn	23 48 02.8	+6.6
RUGZ	Raukumara Rang	18.15	196	P	Pn	23 47 56.6	-0.1
RUGZ				S	S	23 51 04.3	-6.6
MKAZ	Moumakai	18.16	203	P	Pn	23 47 57.4	+0.7
WTAZ	Waiatarua	18.24	205	P	Pn	23 48 04.6	+7.0
WTAZ				S	S	23 51 16.6	+4.1
TWGZ	Tauwhareparae	18.27	195	P	Pn	23 47 59.3	+1.2
TWGZ				S	S	23 51 09.1	-4.2
AWAZ	Awhitu Peninsu	18.32	205	P	Pn	23 48 05.3	+6.7
KOUNC	Koumac, New Ca	18.51	267	P	P	23 47 58.6	+0.4
MWZ	Matawai	18.53	196	P	Pn	23 48 00.7	-0.4
MWZ				S	S	23 51 13.0	-5.5
URZ	Urewera	18.58	197	P	P	23 47 58.9	+0.2
	comp=Z,13nm,0.3s,baz=254,slow=2.5,SNR=33						
URZ				S	S	23 51 12.7	-6.5
	comp=Z,6.6nm,0.5s,baz=199,slow=21,SNR=6.1						
URZ	Urewera	18.58	197	P	Pn	23 48 01.4	-0.2
URZ	Urewera	18.58	197	P	P	23 47 59.4	+0.7
URZ				S	S	23 51 14.1	-5.1
TOZ	Tahuroa Road	18.60	202	P	Pn	23 48 03.1	+1.3
RAGZ	Rawiri	18.71	196	P	Pn	23 48 02.2	-1.1
KNZ	Kokohu	19.15	195	P	Pn	23 48 07.8	-0.5
RAHZ	Arahi	19.20	197	P	Pn	23 48 07.7	-1.3
RAHZ				S	S	23 51 29.5	-2.1
NMHZ	Naumai	19.44	197	P	Pn	23 48 10.7	-1.2
NMHZ				S	S	23 51 34.6	-1.8
KWHZ	Kaweka Forest	19.86	198	P	P	23 48 13.6	+1.1
NGZ	Ngauruhoe	19.87	200	P	P	23 48 14.5	+1.7
WNVZ	Wahianoa	20.01	199	P	P	23 48 14.3	0.0
PKVZ	Pokaka	20.06	200	P	P	23 48 16.2	+1.6
BFZ	Birch Farm	21.08	197	P	P	23 48 28.8	+3.4
BFZ	Birch Farm	21.08	197		P	23 48 27.4	+2.0
BFZ	Birch Farm	21.08	197	P	P	23 48 26.5	+1.2
MRZ	Mangatainoka R	21.24	198	P	P	23 48 27.3	+0.2
QRZ	Quartz Range	22.41	203	P	P	23 48 40.8	+2.4
QRZ	Quartz Range	22.41	203	P	P	23 48 39.7	+1.3
THZ	Tophouse	23.09	202	P	P	23 48 45.6	+1.0
KHZ	Kahutara	23.47	200	P	P	23 48 50.5	+2.6
RPZ	Rata Peaks	25.46	202	P	P	23 49 09.2	+3.2
RPZ	Rata Peaks	25.46	202	P	P	23 49 08.8	+2.8
JCZ	Jackson Bay	26.62	205	P	P	23 49 18.7	+2.2
ODZ	Otahua Downs	26.76	201	P	P	23 49 20.3	+2.7
MLZ	Mavora Lakes	27.96	204	P	P	23 49 29.5	+1.1
MLZ				IAmb	IAmb	23 49 59.5	
	comp=Z,22nm,1.3s						
EIDS	Eidsvold	30.67	255	P	P	23 49 52.6	0.0
EIDS				IAmb	IAmb	23 50 10.3	
	comp=Z,13nm,1.1s						
EIDS	Eidsvold	30.67	255	P	P	23 49 52.7	+0.1
	comp=Z,12nm,1.3s						
CAN	Canberra	34.05	237	P	P	23 50 21.6	-0.2
	comp=Z,19nm,1.9s						
CTA	Charters Tower	35.40	264	P	P	23 50 33.1	-0.4
CTAO	Charters Tower	35.40	264	P	P	23 50 33.1	-0.4
CTAO	Charters Tower	35.40	264	P	P	23 50 32.9	-0.6
CTAO	Charters Tower	35.40	264	P	P	23 50 33.2	-0.2
	comp=Z,25nm,1.0s						
CMSA	Cobar Meteorol	35.97	244	P	P	23 50 40.7	+2.5
CMSA	Cobar Meteorol	35.97	244	P	P	23 50 38.0	-0.2
	comp=Z,11nm,2.4s						
MTSU	Mount Surprise	37.51	267	P	P	23 50 51.3	-0.1
	comp=Z,11nm,0.7s						
STKA	Stephens Creek	39.47	245	P	P	23 51 07.2	-0.3
	comp=Z,3.6nm,0.6s,baz=46,slow=9.1,SNR=5.2						
	comp=Z,3.6nm,0.6s						
STKA	Stephens Creek	39.47	245	P	P	23 51 07.5	0.0
	comp=Z,41nm,2.1s						
HTT	Hallett	41.88	243	P	P	23 51 28.5	+1.3
BBOO	Buckleboo	44.22	244	P	P	23 51 46.9	+1.0
BBOO	Buckleboo	44.22	244	P	P	23 51 44.7	-1.3
AS01	Alice Springs	46.32	257	P	P	23 52 02.0	-0.6
WR8	Warramunga Arr	46.34	262	P	P	23 52 01.3	-1.4
WR8				IAmb	IAmb	23 52 02.9	
	comp=Z,21nm,1.4s						
AS31	Alice Springs	46.37	257	P	P	23 52 02.3	-0.7
ASAR	Alice Springs	46.37	257	P	P	23 52 02.3	-0.7
	comp=Z,13nm,0.7s,baz=98,slow=8.3,SNR=108						
ASAR				PcP	PcP	23 53 34.5	0.0
	comp=Z,1.3nm,0.4s,baz=106,slow=4.0,SNR=6.2						
ASAR				ScP	ScP	23 57 08.8	+1.1
	comp=Z,0.9nm,0.7s,baz=102,slow=4.7,SNR=6.3						
	comp=Z,13nm,0.7s						
ASAR	Alice Springs	46.37	257	P	P	23 52 01.7	-1.3
WB0	Warramunga Arr	46.47	262	P	P	23 52 02.3	-1.5
WB0				IAmb	IAmb	23 52 03.3	
	comp=Z,11nm,0.7s						
WRAB	Tennant Creek	46.48	262	P	P	23 52 02.8	-1.1
WRAB	Tennant Creek	46.48	262	P	P	23 52 02.4	-1.5
WRAB				IAmb	IAmb	23 52 03.4	
	comp=Z,8.8nm,0.4s						
WRAB	Tennant Creek	46.48	262	P	P	23 52 02.8	-1.1
	comp=Z,11nm,2.0s						
WRA	Warramunga Arr	46.49	262	P	P	23 52 02.9	-1.0
	comp=Z,5.0nm,0.3s,baz=96,slow=7.6,SNR=307						
WRA				PcP	PcP	23 53 35.1	+0.2
	comp=Z,0.5nm,0.5s,baz=98,slow=2.8,SNR=1.8						
WRA				S	S	23 58 31.3	-4.9
	comp=Z,0.5nm,0.8s,baz=96,slow=14,SNR=2.5						
	comp=Z,5.0nm,0.3s						
WRA	Warramunga Arr	46.49	262	P	P	23 52 02.0	-2.0
FORT	Forrest	51.02	247	P	P	23 52 39.2	+1.1
FORT				IAmb	IAmb	23 53 10.6	
	comp=Z,13nm,1.0s						
MTN	Manton Dam	51.09	270	P	P	23 52 37.6	-1.3
MTN				IAmb	IAmb	23 52 38.3	
	comp=Z,10nm,0.9s						
KNRA	Kununurra	52.57	266	P	P	23 52 48.8	-1.0
KNRA				IAmb	IAmb	23 52 50.3	
	comp=Z,14nm,0.7s						
FAKI	Fak Fak	53.41	282	P	P	23 52 54.4	-1.6
FITZ	Fitzroy Crossi	54.92	262	P	P	23 53 06.5	-0.3
FITZ	Fitzroy Crossi	54.92	262	P	P	23 53 06.7	-0.1
	comp=Z,2.7nm,2.0s						
SANI	Sanana	59.50	280	P	P	23 53 38.5	-0.4
	comp=Z,29nm,1.1s						
MBWA	Marble Bar	59.71	257	P	P	23 53 40.6	+0.3
MBWA	Marble Bar	59.71	257	P	P	23 53 39.8	-0.4
MBWA				IAmb	IAmb	23 53 50.1	
	comp=Z,23nm,1.4s						
MBWA	Marble Bar	59.71	257	P	P	23 53 39.9	-0.4
	comp=Z,9.5nm,0.7s						
CASY	Casey	64.68	205	P	P	23 54 14.3	+1.9
CASY				IAmb	IAmb	23 54 15.2	
	comp=Z,5.8nm,0.9s						
CASY	Casey	64.68	205	P	P	23 54 14.2	+1.7
	comp=Z,7.8nm,1.1s						
TOLI2	Tolitoli	65.52	281	P	P	23 54 17.7	-1.0
QSPA	South Pole Qui	69.45	180	P	P	23 54 44.7	+2.1
	comp=Z,7.2nm,0.8s,baz=53,slow=1.3,SNR=31						
	comp=Z,7.2nm,0.8s						
QSPA	South Pole Qui	69.45	180	P	P	23 54 45.0	+2.3
QSPA				IAmb	IAmb	23 54 46.3	
	comp=Z,8.6nm,0.9s						
MJAR	Matsushiro Arr	71.46	322	P	P	23 54 53.7	-1.4
	comp=Z,1.4nm,0.5s,baz=138,slow=6.0,SNR=4.5						
	comp=Z,1.4nm,0.5s						
PMPB	Monarch Peak	76.88	43	P	P	23 55 26.9	+0.5
PMPB				IAmb	IAmb	23 56 03.2	
	comp=Z,13nm,1.4s						
PKD	Bear Valley Ra	76.88	43	P	P	23 55 27.4	+1.0
PETK	Petropavlovsk-	76.90	344	P	P	23 55 25.7	-0.4
	comp=Z,1.9nm,0.4s,baz=98,slow=7.9,SNR=2.2						
	comp=Z,1.9nm,0.4s						
KMRM	Mail Ridge	77.64	38	P	P	23 55 31.2	+0.6
ESJX	Sierra Juarez	77.68	49	P	P	23 55 32.1	+1.0
ESJX				IAmb	IAmb	23 55 33.3	
	comp=Z,7.8nm,1.1s						
O02D	Mt. Diablo Mer	78.15	39	P	P	23 55 34.7	+1.3
BELC	Belle Mtn. Jos	78.76	47	P	P	23 55 37.7	+0.7
WAKR	Walker	79.14	42	P	P	23 55 39.7	+0.8
WAKR				IAmb	IAmb	23 55 40.8	
	comp=Z,5.4nm,0.8s						
YBH	Yreka Blue Hor	79.19	38	P	P	23 55 39.5	+0.4
YBH				IAmb	IAmb	23 55 45.8	
	comp=Z,18nm,1.5s						
DSP	Deep Springs	79.39	43	P	P	23 55 41.0	+0.9
BEKR	Beckworth	79.40	40	P	P	23 55 40.8	+0.5
L04D	Klamath Falls	79.74	37	P	P	23 55 42.7	+0.6
NVAR	Mina Array Bea	79.80	42	P	P	23 55 43.3	+0.7
	comp=Z,3.0nm,0.7s,baz=223,slow=8.8,SNR=17						
	comp=Z,3.0nm,0.7s						
NVAR	Mina Array Bea	79.80	42	P	P	23 55 43.4	+0.8
TPNV	Topopah Spring	80.26	45	P	P	23 55 45.6	+0.6
KVN	Kaiserville	80.30	42	P	P	23 55 46.0	+0.8
MOD	Modoc Plateau	80.69	39	P	P	23 55 47.4	+0.2
MOD				IAmb	IAmb	23 55 48.6	
	comp=Z,5.0nm,0.8s						
NJ2	Nanjing	81.45	309	eP	P	23 55 51.1	-0.1
NJ2				pmax	pmax		
	comp=Z,24nm,0.5s						
TUC	Tucson	81.55	51	P	P	23 55 53.6	+1.8
	comp=Z,6.1nm,1.1s						
MAW	Mawson	82.09	199	P	P	23 55 55.9	+1.9
	comp=Z,3.7nm,0.6s,baz=157,slow=5.0,SNR=13						
	comp=Z,3.7nm,0.6s						
MAW	Mawson	82.09	199	P	P	23 55 55.1	+1.1
MAW	Mawson	82.09	199	P	P	23 55 55.8	+1.8
	comp=Z,1.1nm,1.1s						
X16A	Lo Mia Camp, P	82.16	49	P	P	23 55 56.3	+1.2
X16A				IAmb	IAmb	23 55 57.7	
	comp=Z,6.4nm,0.8s						
M16K	Timber Creek	82.50	8	P	P	23 55 56.5	+0.5
M16K				IAmb	IAmb	23 55 57.7	
	comp=Z,18nm,1.2s						
U15A	North Rim	82.63	47	P	P	23 55 59.4	+1.8
U15A				IAmb	IAmb	23 56 00.1	
	comp=Z,10nm,0.8s						
G08A	Pilot Rock	83.55	37	P	P	23 56 02.3	+0.4
G08A				IAmb	IAmb	23 56 03.4	
	comp=Z,5.8nm,0.9s						
DUG	Dugway, Tooele	84.31	43	P	P	23 56 06.3	+0.4
H03S2	Juan Fernandez	84.33	124	T	T	01 29 21.3	
	baz=248,slow=75,SNR=125						
H03S1	Juan Fernandez	84.34	124	T	T	01 29 15.0	
	baz=248,slow=75,SNR=157						
H03S3	Juan Fernandez	84.35	124	T	T	01 28 58.8	
	baz=248,slow=75,SNR=157						
COYC	Coyhaique	84.75	137	P	P	23 56 10.8	+2.9
	comp=Z,15nm,1.1s						
VHRN	Van Horn	85.14	55	P	P	23 56 11.4	+1.1
VHRN				IAmb	IAmb	23 56 12.5	
	comp=Z,6.6nm,0.8s						
HLID	Hailey	85.17	40	P	P	23 56 11.2	+1.0
	comp=Z,3.9nm,2.3s						
SRU	San Rafael Swe	85.23	45	P	P	23 56 11.0	+0.5
SRU				IAmb	IAmb	23 56 12.2	
	comp=Z,5.3nm,0.7s						
MNTX	Cornudas Mount	85.26	54	P	P	23 56 11.6	+0.9
	comp=Z,8.7nm,2.2s						
TXAR	Lajitas Array	85.51	57	P	P	23 56 13.2	+1.2
	comp=Z,3.1nm,0.9s,baz=216,slow=8.1,SNR=26						
	comp=Z,3.1nm,0.9s						
TXAR	Lajitas Array	85.51	57	P	P	23 56 13.0	+0.9
LL02	Futaleuf	85.87	135	P	P	23 56 15.7	+2.1
	comp=Z,12nm,1.2s						
ANMO	Albuquerque	85.98	50	P	P	23 56 15.4	+1.1
	comp=Z,3.7nm,1.5s						
PV21	Cone Mtn., Par	85.99	46	P	P	23 56 15.0	+0.6
ALPN	Alpine	85.99	56	P	P	23 56 15.6	+1.1
ALPN				IAmb	IAmb	23 56 16.0	
	comp=Z,4.9nm,0.7s						
ELIB	Princess Elisa	86.73	186	dP	P	23 56 18.7	+1.3
	comp=Z,6.2nm,0.8s						
BJI2	Beijing	87.33	315	P	P	23 56 22.8	+2.3
BJI2				pmax	pmax		
	comp=Z,4.0nm,2.1s						
TROLL	Troll, Antarti	87.61	180	⇑P	P	23 56 22.7	+1.2
	comp=Z,118nm,0.5s						
GO06	Curarrehue	87.63	132	P	P	23 56 24.1	+1.8
	comp=Z,6.9nm,0.9s						
BCAR	Beaver Creek A	87.64	15	P	P	23 56 20.8	-0.6
PDAR	Pinedale Array	87.74	42	P	P	23 56 22.4	-0.3
	comp=Z,0.2nm,0.4s,baz=270,slow=3.0,SNR=3.7						
	comp=Z,0.2nm,0.4s						
PLCA	Paso Flores	87.78	133	P	P	23 56 24.6	+1.7
	comp=Z,1.9nm,0.8s,baz=243,slow=13,SNR=4.2						
	comp=Z,1.9nm,0.8s						
SNAA	Sanae	87.83	178	P	P	23 56 23.4	+0.9
	comp=Z,0.7nm,0.4s,baz=292,slow=6.9,SNR=3.6						
	comp=Z,0.7nm,0.4s						
SNAA	Sanae	87.83	178	P	P	23 56 23.4	+0.9
SNAA				IAmb	IAmb	23 56 57.2	
	comp=Z,8.3nm,1.5s						
SNAA	Sanae	87.83	178	P	P	23 56 23.4	+0.9
VNA3	Neumayer Olymp	87.88	176	⇑P	P	23 56 23.9	+1.2
	comp=Z,4.7nm,0.7s						
VNA3	Neumayer Olymp	87.88	176	P	P	23 56 23.7	+1.0
	comp=Z,7.4nm,0.8s						
COLA	College	87.92	12	P	P	23 56 21.3	-1.4
	comp=Z,8.3nm,1.0s						
IMAR	Indian Mountai	87.96	9	P	P	23 56 22.2	-0.7
ILAR	Eielson Array	88.02	12	P	P	23 56 22.1	-1.1
	comp=Z,1.0nm,0.5s,baz=216,slow=5.5,SNR=11						
	comp=Z,1.0nm,0.5s						
ILAR	Eielson Array	88.02	12	P	P	23 56 22.8	-0.3
H22K	Ishtalitna Cre	88.24	10	P	P	23 56 23.4	-0.8
VNA2	Neumayer--Watz	88.35	176	P	P	23 56 26.6	+1.7
	comp=Z,5.8nm,0.6s,baz=192,slow=3.9						
VNA2	Neumayer--Watz	88.35	176	P	P	23 56 26.5	+1.6
	comp=Z,11nm,0.8s						
K29M	Barlow Dome	89.35	16	P	P	23 56 29.7	+0.1
K29M				IAmb	IAmb	23 56 30.9	
	comp=Z,4.5nm,0.9s						
H27K	Steamboat Moun	90.39	13	P	P	23 56 34.4	+0.1
H27K				IAmb	IAmb	23 56 36.0	
	comp=Z,4.5nm,0.9s						
H29M	Whitestone	91.09	14	P	P	23 56 37.5	0.0
H29M				IAmb	IAmb	23 56 38.3	
	comp=Z,5.5nm,0.8s						
CMAR	Chiang Mai Arr	91.97	289	P	P	23 56 43.1	+0.4
	comp=Z,0.8nm,0.3s,baz=105,slow=4.6,SNR=4.3						
	comp=Z,0.8nm,0.3s						
PZH	PanZhiHua	92.47	297	P	P	23 56 44.0	-1.0
G31M	Satah River	92.63	15	P	P	23 56 43.8	-0.7
LZH	Lanzhou	94.38	307	eP	P	23 57 00.8	+7.2
LZH				pP	pP	23 57 44.8	0.0
LZH				pmax	pmax		
	comp=Z,16nm,0.9s						
ECSD	EROS Data Cent	96.63	46	P	P	23 57 03.3	-0.2
ZALV	Zalesovo Beam	111.80	321	PKiKP	PKiKP	00 02 05.7	-1.1
	comp=Z,0.4nm,0.5s,baz=131,slow=4.4,SNR=2.4						
MKAR	Makanchi Array	112.68	313	PKiKP	PKiKP	00 02 07.4	-1.4
	comp=Z,0.5nm,0.4s,baz=176,slow=0.9,SNR=13						
MKAR	Makanchi Array	112.68	313		PKiKP	00 02 07.7	-1.1
KURK	Kurchatov	115.39	317		PKPdf	00 02 12.2	-1.6

KURBB	Kurchatov Arra	115.44	317	PKP	PKPdf	00 02 12.0	-1.9
	comp=Z,0.8nm,0.6s,baz=100,slow=1.8,SNR=9.6						
BVAR	Borovoye Array	120.41	320	PKP	PKPdf	00 02 22.7	-0.7
	comp=Z,1.5nm,0.5s,baz=252,slow=1.4,SNR=6.7						
GBN	Guysborough	121.43	49	PKPdf	PKPdf	00 02 25.1	-0.5
SPITS	Spitsbergen Ar	122.09	357	PKP	PKPdf	00 02 25.8	-0.2
	comp=Z,6.6nm,1.1s,baz=64,slow=3.8,SNR=6.1						
ARCES	ARCESS Array B	129.37	350	PKP	PKPdf	00 02 39.9	-0.2
	comp=Z,1.3nm,0.5s,baz=23,slow=1.9,SNR=13						
ARCES	ARCESS Array B	129.37	350	PKPdf	PKPdf	00 02 39.5	-0.6
FINES	FINESS Array B	136.41	345	PKhKP	PKPpre	00 02 46.9	
	comp=Z,0.8nm,0.7s,baz=41,slow=6.1,SNR=3.6						
FINES				PKP	PKiKP	00 02 54.4	-0.8
	comp=Z,1.4nm,0.8s,baz=58,slow=4.7,SNR=6.3						
NB2	NORSAR Subarra	139.31	355	PKP	PKPdf	00 02 51.4	-7.5
	comp=Z,0.2nm,0.5s,baz=16,slow=3.2						
NOA	NORSAR Array B	139.31	355	PKP	PKiKP	00 03 00.7	-0.6
	comp=Z,0.3nm,0.5s,baz=14,slow=2.5,SNR=1.3						
HFS	Hagfors	139.94	353	PKhKP	PKPpre	00 02 54.4	
	comp=Z,2.3nm,0.8s,baz=100,slow=1.7,SNR=7.4						
AKASG	Malin Array Be	144.03	333	PKhKP	PKPpre	00 03 04.7	
	comp=Z,2.1nm,0.4s,baz=42,slow=4.2,SNR=27						
AKBB	Malin Array Si	144.03	333	PKPdf	PKPab	00 03 05.2	-0.4
KIEV	Kiev	144.04	333	PKPdf	PKPab	00 03 04.7	-1.0
KIEV	Kiev	144.04	333	⇑P	PKPab	00 03 05.2	-0.4
PGBU	Glenifferbraes	144.28	8	*e*P	PKPab	00 03 05.7	-0.7
RNPP8	Varash	144.91	336	PKP	PKPbc	00 03 08.5	-0.3
EKA	Eskdalemuir Ar	144.92	7	PKP	PKPbc	00 03 08.0	-0.8
	comp=Z,4.5nm,0.7s,baz=346,slow=3.0,SNR=9.2						
RNPP5	Staryi Chortor	144.98	336	PKP	PKPbc	00 03 08.4	-0.6
LODK	Lodwar	145.05	245		PKPab	00 03 11.5	+0.8
LUBAR	Lubar, Ukraine	145.24	333	PKP	PKPdf	00 03 09.1	-0.6
EDMD	Edmundbyers	145.54	6	*e*P	PKPdf	00 03 09.8	-0.3
BAL3X	Bal3x, Balta	145.84	329	PKP	PKPbc	00 03 11.2	-0.6
SORM	Soroca	146.29	330	⇑P	PKPbc	00 03 12.5	-0.6
BSEG	Bad Segeberg	146.40	353	*e*PKPbc	PKPbc	00 03 13.5	+0.3
	baz=12,slow=2.5						
PURM	Purcari	146.66	327	⇑P	PKPbc	00 03 14.3	+0.1
PURM	Purcari	146.66	327	PKP	PKPbc	00 03 13.1	-1.1
KMPD	K-Podol'skiy	146.82	332	PKP	PKPdf	00 03 13.3	+0.8
FOEL	Foel Wylfa	147.31	8	*e*P	PKPbc	00 03 15.5	-0.4
KWP	Kalwaria Pacla	147.47	337	*e*PKP	PKPbc	00 03 16.5	+0.1
RETH	Rethem/Aller,	147.68	354	*e*PKPbc	PKPbc	00 03 17.0	+0.3
	baz=12,slow=2.5						
HLM1	Long Mynd	147.71	8	*e*P	PKPbc	00 03 15.6	-1.3
FLTG	Flechtingen	147.86	352	*e*PKPbc	PKPbc	00 03 17.2	0.0
	baz=12,slow=2.5						
OJC	Ojcow	147.94	341	*e*PKP	PKPbc	00 03 17.3	-0.3
VLDR	Vladesti	148.04	327	⇑P	PKPbc	00 03 17.7	-0.3
BURAR	Bucovina Array	148.09	332	⇓P	PKPbc	00 03 18.6	+0.4
TLCR		148.11	326	⇓P	PKPbc	00 03 18.3	+0.1
SCTR	Scanteiesti	148.20	327	⇓P	PKPbc	00 03 18.8	+0.4
BIZ	Bicaz	148.20	331	⇑P	PKiKP	00 03 19.1	-0.9
MCH1	Michaelchurch	148.20	8	*e*P	PKPbc	00 03 17.6	-0.6
GHRR		148.22	328	⇓P	PKiKP	00 03 19.5	-0.5
TATR	Tatarca	148.23	327	⇓P	PKPbc	00 03 19.0	+0.5
BRTR	Keskin Array B	148.33	314	PKPbc	PKPbc	00 03 18.9	-0.2
	comp=Z,2.7nm,0.7s,baz=142,slow=5.9,SNR=15						
BRTR	Keskin Array B	148.33	314		PKPbc	00 03 18.6	-0.5
KSP	Ksiaz	148.34	345	*e*PKP	PKPbc	00 03 19.0	+0.4
MONM	Monmouth	148.38	8	*e*P	PKPbc	00 03 17.5	-1.2
KIRS	Kirsehir-Merke	148.42	312	⇓P	PKPbc	00 03 19.6	+0.3
CLZ	Clausthal	148.45	353	*e*PKPbc	PKPbc	00 03 19.3	+0.4
	baz=12,slow=2.5						
CLZ				*e*pPKPbc	pPKPab	00 04 15.9	+1.2
CFR	Carcaliu	148.47	327	⇑P	PKPbc	00 03 18.7	-0.4
NIE	Niedzica	148.48	340	*e*PKP	PKiKP	00 03 19.8	-0.7
ONER	Baraj Valea Uz	148.51	330	⇓P	PKPbc	00 03 19.5	+0.3
TPGR	Topolog	148.54	326	⇓P	PKPbc	00 03 19.5	+0.2
CLL	Collm	148.58	349		PKPbc	00 03 18.9	-0.3
CLL	Collm	148.58	349	*e*PKPbc	PKPbc	00 03 19.4	+0.3
	baz=12,slow=2.5						
CLL	Collm	148.58	349	*i* PKPbc	PKPbc	00 03 19.2	0.0
	comp=Z,13nm,1.0s						
CLL				*i* PKPab	PKPab	00 03 22.6	-0.7
	comp=Z,5.0nm,1.0s						
CLL				*e*pPKPab	pPKPab	00 04 14.0	-1.1
OSTC	Ostas	148.62	345	⇑*e*PKP	PKiKP	00 03 20.2	-0.5
CHVC	Chvalec	148.63	345	⇑*e*PKP	PKPbc	00 03 19.8	+0.4
VRI	Vrincioaia	148.69	329	⇑P	PKPbc	00 03 19.6	-0.2
UPC	Upice	148.71	345	⇑*e*PKP	PKPbc	00 03 19.7	+0.1
DPC	Dobruska-Polom	148.78	345	⇑*e*PKP	PKPbc	00 03 20.0	+0.2
STEB	Steborice	148.79	343	⇑*e*PKP	PKPbc	00 03 19.7	-0.1
STEB				*e*PKPAB	PKPab	00 03 25.2	+1.0
GTTG	Gottingen	148.79	353	*e*PKPbc	PKPbc	00 03 20.1	+0.4
	baz=12,slow=2.5						
SAHR	Sahastru	148.82	329	⇑P	PKPbc	00 03 20.2	+0.1
BRG	Berggiesshubel	148.82	348	*e*PKPbc	PKPbc	00 03 20.2	+0.4
	baz=12,slow=2.5						
BRG	Berggiesshubel	148.82	348	⇓*i*PKP	PKPbc	00 03 20.2	+0.4
BRG				Amp		00 03 20.9	
	comp=Z,5.4nm,0.8s						
NEUB	Neuenburg	148.88	351	*e*PKPbc	PKPbc	00 03 20.3	+0.3
	baz=12,slow=2.5						
TURR	Turia	148.90	330	⇑P	PKiKP	00 03 21.1	-0.3
HARR	Harsova	148.91	326	⇑P	PKPbc	00 03 20.5	+0.2
KRLC	Kraliky	148.92	344	⇑*e*PKP	PKPbc	00 03 20.5	+0.3
MORC	Moravsky Berou	148.99	343	*e*PKP	PKPbc	00 03 20.2	-0.2
MORC	Moravsky Berou	148.99	343	⇓P	PKiKP	00 03 21.2	-0.4
PVCC	Panska Ves	149.02	347	⇑*e*PKP	PKPbc	00 03 20.7	+0.4
BUG	Bochum--Univer	149.14	356	*e*PKPbc	PKPbc	00 03 20.6	+0.1
	baz=12,slow=2.5						
HSKC	Hora Svate Kat	149.17	348	⇑*e*PKP	PKPbc	00 03 21.0	+0.2
DOPR	Dopca	149.26	330	⇑P	PKPbc	00 03 21.3	+0.2
MAUC	Maruska	149.28	342	⇑*e*PKP	PKiKP	00 03 21.8	-0.3
KASTN	Kahler Asten	149.29	355	*e*PKPbc	PKPbc	00 03 21.3	+0.3
	baz=12,slow=2.5						
MLR	Muntele Rosu	149.34	329	⇑P	PKPbc	00 03 21.7	+0.2
MLR	Muntele Rosu	149.34	329	⇓P	PKiKP	00 03 21.9	-0.6
MOX	Moxa	149.45	351	*e*PKPbc	PKPbc	00 03 21.7	+0.3
	baz=12,slow=2.5						
CJR	Cluj-Napoca	149.48	333	⇓P	PKPbc	00 03 21.7	0.0
PLN	Plauen	149.52	350	*e*PKPbc	PKiKP	00 03 22.0	-0.6
	baz=12,slow=2.5						
TANN	Tannenbergstha	149.53	349	*e*PKPbc	PKiKP	00 03 22.1	-0.6
	baz=12,slow=2.5						
PRU	Pruhonice	149.53	347	⇑*e*PKP	PKPbc	00 03 21.9	+0.3
MMAI	Mount Meron Ar	149.54	300	PKPbc	PKiKP	00 03 23.1	-0.1
	comp=Z,4.2nm,0.5s,baz=51,slow=12,SNR=8.3						
VRAC	Vranov	149.68	344	*e*PKP	PKPbc	00 03 22.0	0.0
VRAC	Vranov	149.68	344	⇑P	PKPbc	00 03 22.3	+0.3
JAVC	Velka Javorina	149.78	342	*e*PKP	PKiKP	00 03 23.5	+0.3
PSZ	Piszkesteto	149.91	339	⇓P	PKiKP	00 03 23.7	+0.1
KRUC	Moravsky	149.95	344	*e*PKP	PKPbc	00 03 22.5	-0.2
TREC	Trest	149.97	345	⇑*e*PKP	PKPbc	00 03 22.8	+0.1
MEM	Membach	150.03	358	*d*PKP	PKPbc	00 03 22.9	+0.1
	comp=Z,5.4nm,0.0s						
ARR	Arges	150.06	330	⇓P	PKiKP	00 03 24.1	+0.1
ZVC	Zvikov	150.13	347	⇑*e*PKP	PKiKP	00 03 23.4	-0.4
ZVC				*e*PKPAB	PKPab	00 03 30.2	+0.5
BMRD	Maredsous	150.38	359	*d*PKP	PKPbc	00 03 23.4	-0.2
LOT	Lotru	150.39	331	⇑P	PKPbc	00 03 23.2	-0.8
DEV	Deva	150.43	333	⇓P	PKiKP	00 03 24.4	-0.2
GRF	Grafenberg Arr	150.44	351	*e*PKPbc	PKiKP	00 03 24.4	-0.1
	baz=12,slow=2.5						
RCHB	Rochefort	150.51	358	*d*PKP	PKPbc	00 03 23.5	-0.5
KHC	Kasperske Hory	150.55	347	⇑*e*PKP	PKiKP	00 03 24.5	-0.3
KHC	Kasperske Hory	150.55	347	PKPbc	PKPbc	00 03 23.6	-0.5
CKRC	Cesky Krumlov	150.69	346	⇑*e*PKP	PKiKP	00 03 24.9	-0.1
GEC2	GERESS Array S	150.80	347	*e*PKPbc	PKiKP	00 03 25.0	-0.4
	baz=12,slow=2.5						
GERES	GERESS Array B	150.80	347	PKPbc	PKPbc	00 03 24.7	-0.1
	comp=Z,4.1nm,0.8s,baz=22,slow=1.4,SNR=35						
GZR	Gura Zlata	150.87	332	⇑P	PKPbc	00 03 24.7	-0.4
WINA	Alland / Wiene	150.91	343	*i* PKP	PKiKP	00 03 25.4	-0.1
	comp=Z,5.2nm,0.6s,SNR=4.5						
WLF	Walferdange	150.97	357		PKPdf	00 03 20.4	+1.3
WLF					PKiKP	00 03 26.1	+0.5
WLF					PKPab	00 03 34.1	+0.9
WLF	Walferdange	150.97	357	*d*PKP	PKiKP	00 03 25.8	+0.3
WLF	Walferdange	150.97	357	*e*PKPbc	PKiKP	00 03 25.9	+0.3
	baz=12,slow=2.5						
KEPZ	Antalya-Kepez	151.05	310	⇑P	PKPbc	00 03 24.4	-1.3
CONA	Conrad Observa	151.13	343	*i* PKP	PKiKP	00 03 25.8	-0.3
	comp=Z,3.7nm,0.6s,SNR=4.1						
BZS	Buzias	151.19	334	⇓P	PKPbc	00 03 25.4	-0.3
RONA	Rosalia, Austr	151.22	343	*e*PKP	PKPbc	00 03 25.8	+0.1
	comp=Z,6.9nm,0.5s						
PLVB	Pleven	151.53	328	⇓P	PKPbc	00 03 26.0	-0.5
STU	Stuttgart	151.61	353	*e*PKPbc	PKiKP	00 03 26.7	-0.2
	baz=12,slow=2.5						
MORH	Mrgy, Hungar	151.81	338	⇓P	PKPbc	00 03 26.8	-0.2
FUR	Furstenfeldbru	151.91	350	*e*PKPbc	PKiKP	00 03 27.4	-0.2
	baz=12,slow=2.5						
BFO	Black Forest	152.14	354	*e*PKPbc	PKiKP	00 03 27.9	-0.2
	baz=12,slow=2.5						
SESA	Seetaler Alpe,	152.22	344	*i* PKP	PKPbc	00 03 27.6	-0.7
	comp=Z,13nm,0.6s,SNR=4.5						
LESA	Schwarzleotal	152.36	347	*e*PKP	PKPbc	00 03 28.3	-0.1
	comp=Z,1.1nm,0.5s						
SOKA	Soboth	152.51	344	*e*PKP	PKPbc	00 03 27.8	-0.9
	comp=Z,2.8nm,0.8s						
KBA	Koelnbreinsper	152.55	346	*e*PKP	PKPbc	00 03 28.4	-0.5
	comp=Z,1.6nm,0.5s						
UBR	Ueberruh	152.56	351	*e*PKPbc	PKiKP	00 03 28.8	-0.2
	baz=12,slow=2.5						
RETA	Reutte	152.65	350	*e*PKP	PKPbc	00 03 28.7	-0.3
	comp=Z,1.7nm,0.6s						
WATA	Walderalm	152.66	349	*e*PKP	PKPbc	00 03 28.6	-0.5
	comp=Z,2.4nm,0.5s						
TAVA	DENIZLI_Tavas	152.67	313	⇑P	PKiKP	00 03 30.1	+0.5
WTTA	Wattenberg	152.72	349	*i* PKP	PKPbc	00 03 28.9	-0.4
	comp=Z,4.5nm,0.6s,SNR=5.5						
MOTA	Moosalm	152.73	350	*e*PKP	PKPbc	00 03 28.8	-0.5
	comp=Z,4.9nm,1.1s						
SQTA	Sankt Quirin	152.84	349	*e*PKP	PKPbc	00 03 29.2	-0.3
	comp=Z,3.0nm,0.7s						
MYKA	Terra Mystica	152.90	345	*e*PKP	PKPbc	00 03 28.9	-0.7
	comp=Z,1.2nm,0.4s						
DAVA	Damuels	152.98	351	*e*PKP	PKiKP	00 03 29.9	-0.1
	comp=Z,5.5nm,0.8s						
ABTA	Abfaltersbach	153.04	347	*e*PKP	PKPbc	00 03 29.2	-0.7
	comp=Z,4.4nm,0.6s						
FETA	Feichten	153.11	350	*e*PKP	PKPbc	00 03 30.1	-0.1
	comp=Z,1.5nm,0.6s						
ESDC	Sonseca Array	159.80	18	PKPab	PKPab	00 04 11.4	0.0
	comp=Z,1.3nm,0.9s,baz=331,slow=4.0,SNR=9.1						
ESDC	Sonseca Array	159.80	18		PKPab	00 04 11.1	-0.3
TORD	Torodi Ar. Bea	172.23	163	PKP	PKPdf	00 03 41.3	-0.5
	comp=Z,1.1nm,0.8s,baz=217,slow=0.2,SNR=3.9						
TORD				PKPab	PKPab	00 05 07.8	+1.3
	comp=Z,1.0nm,0.7s,baz=168,slow=4.0,SNR=4.3						

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*NEIC **02** 00:21:12.9±1.3, 56°.10S±0°.02×27°.7W±0°.2, h121^{km}±4^{km}, mb5.1/36, Error ellipse: s-maj=13.3km s-min=2.8km az=85.0*

*GFZ **02** 00:21:12.6±0.2, 56°S±4°×2°8W±°, h106^{km}, M4.9/30, mb4.9/30, confirmed*

*GCMT **02** 00:21:14.9±0.3, 56°.36S±0°.02×27°.69W±0°.05, h132^{km}±5^{km}, MW5.2/82, Moment Tensor Solution. s9,c10; s82,c104; Duration: 1^{s}0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$3.69±.32; M$_{\theta\theta}$-0.49±.45; M$_{\phi\phi}$-3.20±.47; M$_{r\theta}$-2.40±.26; M$_{\theta\phi}$7.21±.37; M$_{\phi r}$-2.92±.25; Best double couple: M$_0$8.82200×10^{16} NP1:ϕ_s282.00000°, δ61.00000°, λ27.00000°. NP2:ϕ_s178.00000°, δ67.00000°, λ148.00000°. Principal axes: T 8.4200, Plg38.0000°, Azm138.0000°; N 0.8020, Plg52.0000°, Azm325.0000°; P -9.2250, Plg3.0000°, Azm231.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*IDC **02** 00:21:15.2±1.1, 56°.09S×27°.81W, h142^{km}±8^{km}, mb4.4/11, mbtmp4.8/13, MS4.1/2 Error ellipse: s-maj=11.9km s-min=9.5km az=82.0*

ISC 02 00:21:11.5±0.5**, 56°.15S**±0°.05×**27°.70W**±0°.05**, h110**^{km}±3^{km}**, n193,** σ1^s**66**/236**, mb5.0**/46**, 12C-5D, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HOPE	Hope Point	5.37	287		Pn	00 22 30.3	+1.1
HOPE	Hope Point	5.37	287	P	Pn	00 22 30.9	+1.8
	comp=Z,350nm,1.1s						
ORCD	Orcadas	10.03	236	Pn	Pn	00 23 33.8	+1.6
ESPZ	Base Esperanza	16.32	232		P	00 24 55.9	+1.3
VNA1	Neumayer--Stat	16.81	157	⇑P	P	00 25 01.9	+1.8
	comp=Z,101nm,1.0s						
VNA1				⇑ScP	ScP	00 33 03.0	-1.8
	comp=Z,19nm,0.9s						
VNA3	Neumayer Olymp	16.99	160	⇑P	P	00 25 03.7	+1.5
	comp=Z,117nm,1.0s						
VNA3				⇓Sn	Sn	00 28 00.6	-10
	comp=E,2.2nm,0.2s						
VNA3				⇓S	S	00 28 29.4	+16
	comp=E,39nm,1.1s						
VNA3				⇑ScP	ScP	00 33 02.7	-2.5
	comp=Z,10nm,0.9s						
VNA3	Neumayer Olymp	16.99	160	P	P	00 25 03.6	+1.5
	comp=Z,193nm,1.0s						
VNA2	Neumayer--Watz	17.21	157	⇑P	Pn	00 25 06.1	+1.5
	comp=Z,54nm,0.4s,baz=314,slow=13						
VNA2				⇓Sn	Sn	00 28 10.0	-5.8
	comp=E,3.2nm,0.4s,baz=308,slow=15						
VNA2				⇑S	S	00 28 33.2	+15
	comp=E,50nm,1.0s,baz=316,slow=16						
VNA2				⇓ScP	ScP	00 33 03.4	-2.2
	comp=Z,13nm,0.9s,baz=319,slow=2.9						
VNA2	Neumayer--Watz	17.21	157	P	Pn	00 25 06.1	+1.5
	comp=Z,104nm,0.8s						
SNAA	Sanae	18.77	156	⇑P	P	00 25 23.2	+1.6
	comp=Z,2µm,0.4s						
SNAA				⇑ScP	ScP	00 33 06.5	-2.5
	comp=Z,140nm,1.0s						
SNAA	Sanae	18.77	156	P	P	00 25 23.3	+1.6
	comp=Z,150nm,0.9s,baz=306,slow=10.0,SNR=281						
SNAA				S	S	00 28 50.3	+1.2
	comp=Z,2.9nm,0.7s,baz=204,slow=23,SNR=3.1						
SNAA				ScP	ScP	00 33 06.1	-3.0
	comp=Z,6.4nm,0.9s,baz=20,slow=2.2,SNR=9.1						
SNAA	Sanae	18.77	156	P	P	00 25 22.4	+0.8
SNAA	Sanae	18.77	156	P	Pn	00 25 23.4	+0.1
	comp=Z,215nm,1.0s						
PMSA	Palmer Station	19.62	229	P	Pn	00 25 32.8	-0.4
	comp=Z,33nm,0.8s,baz=68,slow=8.0,SNR=27						
PMSA				S	S	00 29 04.5	-1.3
	comp=Z,3.4nm,0.9s,baz=19,slow=16,SNR=1.5						
PMSA				LR	LR	00 32 37.5	
	comp=Z,669nm,19.2s,baz=318,slow=35						
PMSA	Palmer Station	19.62	229	P	Pn	00 25 34.5	+1.3
	comp=Z,57nm,0.9s						
TROLL	Troll, Antarti	20.29	153	⇑P	P	00 25 39.4	+1.3
	comp=Z,7µm,0.7s						
TROLL				⇓Sn	S	00 29 21.3	+2.1
	comp=E,864nm,1.0s						
TROLL				⇑ScP	ScP	00 33 10.6	-2.0
	comp=Z,110nm,0.8s						
SMAI	San Martin Ant	21.50	220	P	P	00 25 52.8	+1.8
DSPA	Despedida	23.11	258	P	P	00 26 07.2	-0.3
MG02	Cerro Sombrero	24.10	260	P	P	00 26 16.1	-0.3
MG02	Cerro Sombrero	24.10	260	P	P	00 26 17.4	+1.0
	comp=Z,187nm,1.0s						
GO08	Villa O'Higgin	28.05	267	P	P	00 26 52.5	+0.5
GO08	Villa O'Higgin	28.05	267	P	P	00 26 52.2	+0.2
	comp=Z,14nm,0.7s						
COYC	Coyhaique	29.45	272	P	P	00 27 04.7	+0.2
	comp=Z,8.0nm,0.9s						
SYO	Syowa Base	31.69	141	⇑*e*P	P	00 27 24.6	+0.7
PLCA	Paso Flores	31.74	281	P	P	00 27 24.0	-0.8
	comp=Z,1.5nm,0.7s,baz=167,slow=5.3,SNR=3.0						
PLCA				ScP	ScP	00 33 42.2	-4.2
	comp=Z,3.1nm,0.9s,baz=181,slow=4.0,SNR=5.1						
PLCA				LR	LR	00 39 33.5	
	comp=Z,316nm,20.1s,baz=14,slow=35						
	comp=Z,1.5nm,0.7s						
QSPA	South Pole Qui	34.10	180	P	P	00 27 46.6	+1.4
	comp=Z,18nm,0.5s,baz=24,slow=3.6,SNR=184						
QSPA				S	S	00 33 03.8	+1.1
	comp=Z,1.8nm,0.9s,baz=232,slow=13,SNR=3.3						
QSPA				ScP	ScP	00 33 51.0	-3.3
	comp=Z,1.9nm,0.5s,baz=258,slow=0.5,SNR=12						
	comp=Z,18nm,0.5s						
QSPA	South Pole Qui	34.10	180	P	P	00 27 46.1	+0.9
QSPA				IAmb	IAmb	00 27 49.9	
	comp=Z,38nm,1.1s						
QSPA	South Pole Qui	34.10	180	P	P	00 27 47.2	+2.0
QSPA				x	x	00 28 14.4	
QSPA				pP	sP	00 28 19.4	-1.7
QSPA				PcP	PcP	00 30 18.1	-1.7
BO02	Sierra Bellavi	36.18	288	P	P	00 28 05.9	+2.6
	comp=Z,13nm,0.7s						
CPUP	Villa Florida	36.66	312	P	P	00 28 06.8	-0.5
	comp=Z,2.4nm,0.8s,baz=144,slow=7.6,SNR=5.4						
CPUP				PcP	PcP	00 30 27.6	-0.2
	comp=Z,2.1nm,0.6s,baz=98,slow=1.1,SNR=4.3						
CPUP				ScP	ScP	00 34 00.5	-3.5
	comp=Z,7.8nm,1.1s,baz=100,slow=4.2,SNR=6.3						
	comp=Z,2.4nm,0.8s						
CPUP	Villa Florida	36.66	312	P	P	00 28 06.9	-0.4
CPUP	Villa Florida	36.66	312	P	P	00 28 06.7	-0.6
	comp=Z,9.2nm,1.2s						
MAW	Mawson	40.24	144	P	P	00 28 35.8	-0.9
	comp=Z,7.1nm,1.3s						
MAW	Mawson	40.24	144	P	P	00 28 38.0	+1.3
	comp=Z,7.1nm,1.3s						
MAW	Mawson	40.24	144	P	P	00 28 38.0	+1.3
	comp=Z,18nm,0.7s,baz=238,slow=7.0,SNR=41						
MAW				PcP	PcP	00 30 39.6	+1.4
	comp=Z,9.3nm,0.9s,baz=240,slow=8.1,SNR=4.3						
MAW				ScP	ScP	00 34 13.9	-3.1
	comp=Z,11nm,1.0s,baz=231,slow=5.5,SNR=8.9						
	comp=Z,18nm,0.7s						
MAW	Mawson	40.24	144	P	P	00 28 37.3	+0.6
MAW	Mawson	40.24	144	P	P	00 28 38.2	+1.5
	comp=Z,7.1nm,1.3s						
AQDB	Aquidauana	41.28	318	P	P	00 28 45.4	-0.4
AC02	Maricunga	41.67	297	P	P	00 28 49.8	+0.2
	comp=Z,24nm,0.6s						
SALTA		42.51	302	P	P	00 28 59.6	+3.3
	comp=Z,5.9nm,1.8s						
AC01	Pan de Azucar	42.97	296	P	P	00 28 59.4	-0.1
	comp=Z,36nm,0.6s						
GRHM	Grahamstown, E	43.31	81	P	P	00 29 02.7	+0.5
PB06	IPOC Station P	45.34	300	P	P	00 29 18.3	-0.3
PB05	IPOC Station P	45.53	299	P	P	00 29 19.8	-0.2
	comp=Z,34nm,1.3s						
PB09	IPOC Station P	45.96	301	P	P	00 29 24.4	+1.0
PB09				IAmb	IAmb	00 29 56.4	
	comp=Z,74nm,1.4s						
PB03	IPOC Station P	45.99	300	P	P	00 29 23.1	-0.6
PB03				IAmb	IAmb	00 29 27.3	
	comp=Z,79nm,1.8s						
PB03	IPOC Station P	45.99	300	P	P	00 29 23.5	-0.2
	comp=Z,19nm,1.4s						
BOSA	Boshof	46.27	76	P	P	00 29 25.5	-0.3
	comp=Z,14nm,0.9s,baz=237,slow=7.7,SNR=10						
BOSA				PcP	PcP	00 30 59.6	+0.2
	comp=Z,4.8nm,0.8s,baz=231,slow=6.5,SNR=3.7						
	comp=Z,14nm,0.9s						
BOSA	Boshof	46.27	76	P	P	00 29 25.1	-0.7
BOSA				IAmb	IAmb	00 30 24.4	
	comp=Z,108nm,2.0s						
BOSA	Boshof	46.27	76	P	P	00 29 25.7	-0.1
PB07	IPOC Station P	46.33	300	P	P	00 29 26.9	+0.5
PB07				IAmb	IAmb	00 29 58.4	
	comp=Z,29nm,1.1s						
PB07	IPOC Station P	46.33	300	P	P	00 29 26.3	-0.1
	comp=Z,24nm,0.8s						
PB02	IPOC Station P	46.68	301	P	P	00 29 28.9	-0.1
PB02				IAmb	IAmb	00 30 01.2	
	comp=Z,37nm,1.1s						
PTLB	Pontes e Lacer	47.17	317	P	P	00 29 31.7	-1.0
PB08	IPOC Station P	47.33	302	P	P	00 29 35.2	+0.8
PB08				IAmb	IAmb	00 30 07.2	
	comp=Z,33nm,1.3s						
PB08	IPOC Station P	47.33	302	P	P	00 29 35.3	+0.8
	comp=Z,21nm,0.8s						
TA01	Diego Aracena	47.46	301	P	P	00 29 35.0	0.0
	comp=Z,34nm,1.0s						
CCD	Concordia, Ant	47.63	170	P	P	00 29 37.4	+1.3
CCD				pP	sP	00 30 09.0	-4.0
CCD				PcP	PcP	00 31 01.5	-2.4
GO01	Chusmiza	47.76	302	P	P	00 29 38.6	+0.8
GO01				IAmb	IAmb	00 29 39.5	
	comp=Z,22nm,0.9s						
GO01	Chusmiza	47.76	302	P	P	00 29 38.4	+0.5
	comp=Z,31nm,0.9s						
PB11	IPOC Station P	47.90	302	P	P	00 29 38.9	+0.4
PB11				IAmb	IAmb	00 30 11.3	
	comp=Z,63nm,1.3s						
PB11	IPOC Station P	47.90	302	P	P	00 29 40.2	+1.6
	comp=Z,25nm,1.0s						
PSGCX	Pisagua	48.26	302	P	P	00 29 41.1	-0.1
PSGCX				IAmb	IAmb	00 30 00.3	
	comp=Z,51nm,1.4s						
PB16	IPOC Station P	49.05	303	P	P	00 29 48.6	+0.7
LBTB	Lobatse	49.31	74	P	P	00 29 48.8	-0.5
LBTB				IAmb	IAmb	00 29 50.1	
	comp=Z,30nm,0.8s						
LBTB	Lobatse	49.31	74	P	P	00 29 49.3	+0.1
	comp=Z,49nm,0.9s						
TSUM	Tsumeb	49.98	61	P	P	00 29 54.3	-0.1
TSUM	Tsumeb	49.98	61	P	P	00 29 54.3	-0.1
	comp=Z,14nm,1.2s						
GRTLG	Ghanzi	49.99	67	P	P	00 29 54.7	+0.2
GRTLG				IAmb	IAmb	00 29 55.2	
	comp=Z,37nm,1.2s						
CLDB	Colider	50.19	323	P	P	00 29 56.0	+0.1
	comp=Z,6.6nm,1.1s						
LPAZ	La Paz	50.20	306	P	P	00 29 57.4	+0.8
	comp=Z,4.3nm,0.3s,baz=128,slow=3.9,SNR=45						
LPAZ				ScP	ScP	00 34 56.2	-3.4
	comp=Z,3.9nm,1.1s,baz=131,slow=2.4,SNR=5.5						
	comp=Z,4.3nm,0.3s						
LPAZ	La Paz	50.20	306	P	P	00 29 56.8	+0.1
LPAZ				IAmb	IAmb	00 30 28.5	
	comp=Z,17nm,0.8s						
LPAZ	La Paz	50.20	306	P	P	00 29 57.9	+1.2
	comp=Z,15nm,1.1s						
CASY	Casey	53.91	161	P	P	00 30 23.8	+1.0
CASY	Casey	53.91	161	P	P	00 30 24.6	+1.8
	comp=Z,50nm,1.1s						
CASY	Casey	53.91	161	P	P	00 30 24.5	+1.8
CASY				x	x	00 30 50.4	
CASY				pP	sP	00 30 55.8	-4.6
KSANE	Kasane	54.99	68	P	P	00 30 30.8	-0.5
KSANE				IAmb	IAmb	00 30 32.2	
	comp=Z,31nm,0.8s						
DRV	Dumont d'Urvil	57.16	174	P	P	00 30 46.6	+0.7
DRV				x	x	00 31 29.5	
LSZ	Lusaka	58.67	69	P	P	00 30 56.6	-0.8
LSZ				IAmb	IAmb	00 30 58.4	
	comp=Z,29nm,1.0s						
LSZ	Lusaka	58.67	69	P	P	00 30 57.5	+0.1
	comp=Z,35nm,1.1s						
LSZ	Lusaka	58.67	69	P	P	00 30 57.2	-0.2
LSZ				pP	sP	00 31 30.3	-4.8
BOAV	Boa Vista	64.19	323	P	P	00 31 33.0	-1.3
DBIC	Dimbokro	65.38	25	P	P	00 31 41.9	-0.2
	comp=Z,8.7nm,0.7s,baz=194,slow=9.3,SNR=8.2						
	comp=Z,8.7nm,0.7s						
DBIC	Dimbokro	65.38	25	P	P	00 31 41.4	-0.6
DBIC				IAmb	IAmb	00 32 46.3	
	comp=Z,39nm,1.5s						
DBIC	Dimbokro	65.38	25	P	P	00 31 41.8	-0.2
	comp=Z,19nm,1.2s						
DBIC	Dimbokro	65.38	25	P	P	00 31 41.7	-0.2
DBIC				pP	PcP	00 32 14.8	+1.6
ABPO	Ambohimpanom	66.04	89	P	P	00 31 46.7	+0.2
ABPO				IAmb	IAmb	00 31 50.0	
	comp=Z,20nm,1.1s						
ABPO	Ambohimpanom	66.04	89	P	P	00 31 48.7	+2.2
	comp=Z,18nm,1.1s						
EDA	Edea	67.25	42	P	P	00 31 53.6	-0.4
EDA				PcP	PcP	00 32 20.6	-0.4
EDA				pP	pwP	00 32 26.3	+3.2
OTAV	Otavalo	69.47	304	P	P	00 32 11.6	+3.2
	comp=Z,9.1nm,1.3s						
SACV	Santiago Islan	70.93	4	P	P	00 32 19.0	+2.4
MBAR	Mbarara	72.45	63	P	P	00 32 27.8	+1.7
MBAR	Mbarara	72.45	63	P	P	00 32 28.7	+2.7
	comp=Z,12nm,1.2s						
MBAR	Mbarara	72.45	63	P	P	00 32 28.7	+2.7
TORD	Torodi Ar. Bea	73.28	30	P	P	00 32 30.8	+0.2
	comp=Z,14nm,0.4s,baz=201,slow=6.8,SNR=166						
	comp=Z,14nm,0.4s						
TORD	Torodi Ar. Bea	73.28	30	P	P	00 32 30.0	-0.6
SDV	Santo Domingo	73.88	316	P	P	00 32 35.1	+0.7
	comp=Z,67nm,1.0s						
KIBK	Kibwezi	74.73	71	P	P	00 32 42.8	+3.5
	comp=Z,18nm,1.6s						
LTZ	Lake Taylor	80.00	195	P	P	00 33 08.8	+0.5
TAU	Tasmania Unive	81.22	176	P	P	00 33 14.7	0.0
NNZ	Nelson	81.37	196	P	P	00 33 16.0	+0.5
MRZ	Mangatainoka R	81.56	198	P	P	00 33 17.0	+0.5
TAM	Tamanrasset	83.52	31	P	P	00 33 28.8	+1.9
	comp=Z,9.5nm,1.2s						
TAM	Tamanrasset	83.52	31	P	P	00 33 28.7	+1.8
KLBR	Kellerberrin	87.78	151	P	P	00 33 49.1	+1.1
	comp=Z,93nm,1.1s						
KLBR	Kellerberrin	87.78	151	P	P	00 33 48.6	+0.7
	comp=Z,94nm,1.1s						
KLBR	Kellerberrin	87.78	151	P	P	00 33 48.4	+0.4
	comp=Z,94nm,1.1s						

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ATD    Arta Tunnel        88.96  68  P         P         00 33 57.1 +3.5
       comp=Z,12nm,1.4s
BBOO   Buckleboo          90.32 166  P         P         00 33 59.6 -0.2
       comp=Z,36nm,2.0s
BBOO   Buckleboo          90.32 166  P         P         00 33 59.6 -0.2
FORT   Forrest            90.98 159  P         P         00 34 03.6 +0.6
       comp=Z,11nm,1.1s
FORT   Forrest            90.98 159  P         P         00 34 03.5 +0.6
FORT                                 IAmb      IAmb      00 34 44.9
       comp=Z,22nm,1.2s
IFR    Ifrane             91.36  19  P         P         00 34 06.9 +2.4
       comp=Z,4.1nm,1.3s
TEIG   Tepich             91.53 305  P         P         00 34 05.9 +0.6
STKA   Stephens Creek     91.85 171  P         P         00 34 08.7 +1.8
       comp=Z,47nm,0.7s
STKA   Stephens Creek     91.85 171  P         P         00 34 07.3 +0.4
       comp=Z,1.3nm,0.3s,baz=176,slow=10,SNR=4.2
       comp=Z,1.3nm,0.3s
CMSA   Cobar Meteorol     92.48 174  P         P         00 34 11.1 +1.3
       comp=Z,7.1nm,2.3s
WRKA   Warakurna          96.60 158  P         P         00 34 29.5 +0.6
       comp=Z,4.5nm,1.4s
ESDC   Sonseca Array      97.56  18  P         P         00 34 32.6  0.0
       comp=Z,0.2nm,0.3s,baz=219,slow=1.1,SNR=2.1
       comp=Z,0.2nm,0.3s
AS09   Alice Springs      98.95 163  P         Pdif      00 34 39.9 +0.5
       comp=Z,9.4nm,1.1s
AS09   Alice Springs      98.95 163  P         Pdif      00 34 40.0 +0.6
       comp=Z,9.4nm,1.1s
ASAR   Alice Springs      98.98 163  P         Pdif      00 34 39.4 -0.2
       comp=Z,4.4nm,0.8s,baz=189,slow=4.1,SNR=26
ASAR                                 PP        PP        00 38 39.0 -2.8
       comp=Z,2.1nm,0.9s,baz=189,slow=6.5,SNR=6.3
       comp=Z,4.4nm,0.8s
ASAR   Alice Springs      98.98 163  P         Pdif      00 34 38.9 -0.6
AS17   Alice Springs      99.00 163  P         Pdif      00 34 40.2 +0.6
       comp=Z,8.8nm,1.1s
AS17   Alice Springs      99.00 163  P         Pdif      00 34 39.2 -0.4
       comp=Z,8.8nm,1.1s
WRA    Warramunga Arr    102.70 163  P         Pdif      00 34 55.7 -0.4
       comp=Z,1.1nm,0.9s,baz=196,slow=4.7,SNR=11
WRA                                  PP        PP        00 39 09.9 +0.1
       comp=Z,2.8nm,1.0s,baz=191,slow=6.3,SNR=7.5
WRA                                  PKKPbc    PKKPbc    00 50 53.6 +1.7
       comp=Z,0.6nm,0.3s,baz=358,slow=2.9,SNR=20
WRA    Warramunga Arr    102.70 163            Pdif      00 34 55.5 -0.6
WR8    Warramunga Arr    102.71 163  P         Pdif      00 34 56.4 +0.2
HYB    Hyderabad         113.33  93 ePKiKP     PKiKP     00 39 36.2 +0.1
HYB                                 eSKSac     SKSac     00 46 09.5 -1.5
HYB                                 eSKKSac    SKKSac    00 47 16.7 -2.7
AKASG  Malin Array Be    116.45  37  PKP       PKPdf     00 39 40.3 -0.7
       comp=Z,0.3nm,0.4s,baz=259,slow=0.9,SNR=1.8
AKASG  Malin Array Be    116.45  37  PKPdf     PKPdf     00 39 39.9 -1.0
PV10   Paradox Valley    116.50 300            PKPdf     00 39 41.2 -0.6
ULM    Lac du Bonnet     120.12 316  PKP       PKPdf     00 39 46.8 -1.3
       comp=Z,1.6nm,0.5s,baz=256,slow=4.2,SNR=1.8
ULM    Lac du Bonnet     120.12 316  PKPdf     PKPdf     00 39 46.0 -2.0
PDAR   Pinedale Array    120.16 303  PKP       PKPdf     00 39 47.4 -1.3
       comp=Z,0.4nm,0.4s,baz=108,slow=4.8,SNR=4.3
PDAR                                 SKP       SKPdf     00 43 09.9 -3.7
       comp=Z,0.4nm,0.4s,baz=134,slow=4.3,SNR=5.1
HFS    Hagfors           120.49  23  PKP       PKPdf     00 39 46.8 -1.7
       comp=Z,1.7nm,0.8s,baz=203,slow=10,SNR=1.3
NOA    NORSAR Array B    120.80  21  PKP       PKPdf     00 39 47.9 -1.2
       comp=Z,1.0nm,0.8s,baz=205,slow=2.0,SNR=3.4
NVAR   Mina Array Bea    121.17 293  PKP       PKPdf     00 39 50.6 -0.2
       comp=Z,1.2nm,0.7s,baz=194,slow=3.0,SNR=5.2
NVAR                                 SKP       SKPdf     00 43 11.2 -4.6
       comp=Z,0.1nm,0.5s,baz=199,slow=4.1,SNR=3.7
AFDM   Forest Hills D    122.94 292  PKPdf     PKPdf     00 39 53.9 -0.1
NIL    Nilore            123.08  78  PKPdf     PKPdf     00 39 53.7 -0.7
FINES  FINESS Array B    124.60  28  PKP       PKPdf     00 39 55.4 -0.9
       comp=Z,3.1nm,0.6s,baz=302,slow=2.9,SNR=22
FINES  FINESS Array B    124.60  28  PKPdf     PKPdf     00 39 55.1 -1.2
CMAR   Chiang Mai Arr    125.30 111  PKP       PKPdf     00 39 59.0  0.0
       comp=Z,6.0nm,0.8s,baz=236,slow=3.7,SNR=28
CMAR   Chiang Mai Arr    125.30 111  PKPdf     PKPdf     00 39 58.2 -0.8
EVN    Everest           126.29  93  PKPdf     PKPdf     00 40 01.0 -0.5
AKTO   Aktyubinsk        127.62  54  PKP       PKPdf     00 40 02.4  0.0
       comp=Z,5.4nm,0.9s,baz=225,slow=3.5,SNR=10
ABKAR  Akbulak array     127.66  56  PKPdf     PKPdf     00 40 01.4 -1.1
KSH2   Kashi             128.38  75  PKP       PKPdf     00 40 04.9 +0.4
KKAR   Karatay Array     128.52  68  PKPdf     PKPdf     00 40 03.5 -1.0
AAK    Ala-Archa         130.28  71  PKP       PKPdf     00 40 07.4 -0.6
       comp=Z,1.9nm,0.4s,baz=240,slow=5.5,SNR=5.4
AAK    Ala-Archa         130.28  71  PKPdf     PKPdf     00 40 07.2 -0.9
ARCES  ARCESS Array B    131.14  22  PKP       PKPdf     00 40 08.2 -0.4
       comp=Z,4.2nm,0.8s,baz=203,slow=2.0,SNR=12
ARCES                                SKP       SKPdf     00 43 29.0 -4.3
       comp=Z,1.3nm,0.7s,baz=197,slow=3.8,SNR=4.0
ARCES  ARCESS Array B    131.14  22  PKPdf     PKPdf     00 40 08.0 -0.6
ARTI   Arti              131.87  48  PKP       PKPdf     00 40 10.6 +0.2
       comp=Z,2.9nm,0.8s,baz=267,slow=1.7,SNR=7.7
ARTI   Arti              131.87  48  PKPdf     PKPdf     00 40 10.0 -0.3
PZH    PanZhiHua         133.35 108  PKP       PKPdf     00 40 14.2 -0.1
PDGK   Podgornoye        133.42  74  PKPdf     PKPdf     00 40 12.2 -1.7
BVAR   Borovoye Array    135.07  58  PKP       PKPdf     00 40 17.4 +0.9
       comp=Z,5.4nm,0.8s,baz=208,slow=2.9,SNR=10
YKA    Yellowknife Ar    136.05 318  PKP       PKPdf     00 40 17.3 -0.7
       comp=Z,3.6nm,0.7s,baz=137,slow=2.1,SNR=11
YKA                                  SKP       SKPbc     00 43 36.6 -2.8
       comp=Z,0.3nm,0.4s,baz=119,slow=1.5,SNR=6.0
MKAR   Makanchi Array    137.19  72  PKhKP     PKPpre    00 40 09.3
       comp=Z,0.4nm,0.6s,baz=236,slow=5.7,SNR=4.1
MKAR                                 PKP       PKPdf     00 40 19.6 -1.0
       comp=Z,1.7nm,0.8s,baz=279,slow=2.3,SNR=8.9
MKAR                                 SKPbc     SKPbc     00 43 39.1 -4.3
       comp=Z,0.4nm,0.5s,baz=266,slow=4.9,SNR=3.6
MKAR   Makanchi Array    137.19  72  PKPdf     PKPdf     00 40 18.9 -1.7
KURBB  Kurchatov Arra    137.60  65  PKhKP     PKPpre    00 40 11.1
       comp=Z,0.5nm,0.4s,baz=230,slow=3.1,SNR=6.6
KURBB                                PKP       PKPdf     00 40 19.3 -1.9
       comp=Z,2.3nm,0.8s,baz=237,slow=2.7,SNR=7.3
KURBB                                SKPbc     SKPbc     00 43 41.4 -3.1
       comp=Z,1.3nm,0.8s,baz=231,slow=3.3,SNR=7.2
KURK   Kurchatov         137.71  65  PKPdf     PKPdf     00 40 22.2 +0.8
CD2    Chengdu           137.91 106  PKP       PKPdf     00 40 22.5  0.0
WMQ    Urumqi            138.20  79  PKP       PKPdf     00 40 22.8 +0.1
GTA2   Gaotai            142.02  93  PKP       PKPdf     00 40 31.5 +1.7
ZAA0   Zalesovo Array    142.67  64  PKPpre    PKPpre    00 40 25.0
ZALV   Zalesovo Beam     142.67  64  PKhKP     PKPpre    00 40 25.9
       comp=Z,2.1nm,0.3s,baz=224,slow=4.1,SNR=13
ZALV                                 PP        PP        00 43 40.1 -0.5
       comp=Z,0.3nm,0.3s,baz=211,slow=8.0,SNR=4.4
ZALV                                 SKPbc     SKPbc     00 43 52.5 -5.3
       comp=Z,0.5nm,0.4s,baz=275,slow=3.7,SNR=3.6
ZALV   Zalesovo Beam     142.67  64  PKPpre    PKPpre    00 40 25.1
HYT    Haines Junctio    144.62 307  PKPdf     PKPab     00 40 32.5 -0.2
INK    Inuvik            145.70 321  PKPdf     PKPdf     00 40 35.2 +0.1
NJ2    Nanjing           146.53 122 eP         PKPbc     00 40 39.5 +0.2
NJ2                                  pmax      pmax
       comp=Z,64nm,0.9s
BCAR   Beaver Creek A    147.34 310            PKPbc     00 40 40.5 -0.2
BTO2   Baotou            148.50 101 ePKPbc     PKPbc     00 40 44.5 -0.1
BTO2                                 pmax      pmax
       comp=Z,140nm,0.9s
BTO2                                 pmax      pmax
       comp=Z,790nm,4.9s
HNS    HongShan          148.69 111 ⇑PKPbc     PKPbc     00 40 45.0  0.0
NRIK   Noril'sk          149.26  39  PKPbc     PKPbc     00 40 44.7 -0.7
       comp=Z,4.5nm,0.6s,baz=248,slow=5.0,SNR=7.3
NRIK   Noril'sk          149.26  39  PKPbc     PKPbc     00 40 45.2 -0.2
HHC    Hu-ho-hao-te      149.50 103 eP         PKPbc     00 40 46.7 -0.4
BMAR   Burnt Mountain    149.56 317  PKPbc     PKPbc     00 40 46.2 -0.2
C27K   Jago River        149.57 322  PKPbc     PKPbc     00 40 46.5 +0.2
ILAR   Eielson Array     149.97 312  PKP       PKPdf     00 40 39.8 -2.5
       comp=Z,1.5nm,0.9s,baz=68,slow=0.5,SNR=9.8
ILAR                                 PKPbc     PKPbc     00 40 47.0 -0.3
       comp=Z,32nm,0.8s,baz=128,slow=1.5,SNR=119
SONM   Songino Array     151.02  87  PKP       PKPdf     00 40 44.1 -0.6
       comp=Z,1.4nm,0.9s,baz=221,slow=2.2,SNR=6.5
SONM                                 PKPbc     PKPbc     00 40 50.1 -0.4
       comp=Z,18nm,0.4s,baz=220,slow=3.5,SNR=91
SONM   Songino Array     151.02  87            PKPdf     00 40 43.4 -1.2
SONM                                           PKPbc     00 40 50.0 -0.5
BJI2   Beijing           151.39 109  P         PKPbc     00 40 51.4  0.0
BJI2                                 pmax      pmax
       comp=Z,13nm,0.8s
ULN    Ulaanbaatar       151.40  88  PKPbc     PKPbc     00 40 50.1 -1.3
TLY    Talaya            151.48  78  PKPbc     PKPbc     00 40 51.3  0.0
       comp=Z,8.8nm,0.3s,baz=262,slow=3.9,SNR=12
TLY    Talaya            151.48  78  PKPbc     PKPbc     00 40 50.3 -1.0
IMAR   Indian Mountai    152.99 313  PKPbc     PKPbc     00 40 54.3 +0.1
XLT    XiLinHaoTe        154.03 103 ePKPbc     PKPbc     00 40 57.0 -0.3
KSRS   Korea Array       155.16 129  PKP       PKPdf     00 40 50.3 -0.5
       comp=Z,0.5nm,0.4s,baz=35,slow=41,SNR=1.5
KSRS                                 PKPab     PKPab     00 41 16.3 +0.2
       comp=Z,3.2nm,0.9s,baz=218,slow=4.1,SNR=6.7
MJAR   Matsushiro Arr    158.19 148  PKPab     PKPab     00 41 28.9 -0.3
       comp=Z,4.4nm,0.8s,baz=188,slow=5.3,SNR=7.9
CN2    Changchun         158.93 115 ePKP       PKPdf     00 40 59.0 +3.7
CN2                                 epPKP      sPKPdf    00 41 39.0 +2.5
CN2                                 ePP        PP        00 45 19.8 +6.0
HILR   Hailar Array B    159.41  95  PKPab     PKPab     00 41 34.5 +0.2
       comp=Z,4.4nm,0.6s,baz=142,slow=5.1,SNR=9.6
```

PRE 02 00:27:30.5±1.2**,27°.38S×29°.31E,h5km,ML1.8, Presumed earthquake,South Africa**

```
Code   Station Name        Δ°   AZ°    Phase ID              Time      Res
                                     Op        ISC        h  m  s     ISC
HOED   Hoedspruit, Li      3.30  27 eP         Pn        00 28 23.6 +0.7
HOED                                eS         Sn        00 29 02.8 +0.3
BOSA   Boshof              3.79 250 eP         Pn        00 28 30.2 +0.4
BOSA                                eS         Sn        00 29 15.1 +0.3
BOSA                                 IAML                00 29 26.6
       comp=Z,3.0nm,0.8s
LBTB   Lobatse             4.09 304 eP         Pn        00 28 33.3 -0.5
LBTB                                eS         Sn        00 29 21.7 -0.4
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*SJA **02** 00:45:07.3±0.7,27°.88S×71°.59W,h10km±4km,ML4.2, MW3.8*

*IDC **02** 00:45:08.8±0.9,27°.96S×71°.62W,h0km,mb3.6/4, mbtmp3.7/9,ML3.7/5,Error ellipse: s-maj=24.0km s-min=14.0km az=73.0*

*GUC **02** 00:45:11.8±0.8,27°.99S×71°.30W,h24km±4km,ML3.9*

ISC 02 00:45:08.3±2.1**,27°.94S**±0°.03×**71°.42W**±0°.05**,h2**km±13km**, n54,**σ**2s.49**/66**,mb3.7**/3**,1C-4D,Near coast of northern Chile**

```
Code   Station Name        Δ°   AZ°    Phase ID              Time      Res
                                     Op        ISC        h  m  s     ISC
AC04   Llanos de Chal      0.41 131 eP         Pb        00 45 18.6 +0.4
AC04   Llanos de Chal      0.41 131⇓iP         Pb        00 45 18.8 +0.6
AC04                                eS         Sg        00 45 23.3 +1.8
AC04                                 IAML                00 45 23.6
       comp=N,36μm,0.1s
GO03   Copiapo             1.10  72 eP         Pn        00 45 30.8 -0.1
GO03   Copiapo             1.10  72⇓iP         Pb        00 45 30.3 +0.2
GO03                                eS         Sb        00 45 43.8 -1.3
GO03                                 IAML                00 45 46.9
       comp=N,3μm,0.3s
AC06   Mina Casimiro       1.11  59 eP         Pb        00 45 30.2 +0.1
AC06                                eS         Sg        00 45 44.8 +0.8
LCO    Las Campanas        1.25 150⇓eP         Pn        00 45 32.5 -0.5
AC05   El Transito         1.35 132 eP         Pn        00 45 34.5 +0.2
AC05                                eS         Sb        00 45 51.0 -1.2
AC05                                 IAML                00 45 51.4
       comp=Z,2μm,0.4s
AC05   El Transito         1.35 132⇓iP         Pn        00 45 34.1 -0.3
AC05                                eS         Sb        00 45 50.1 -2.1
AC05                                 IAML                00 45 51.7
       comp=N,3μm,1.0s
AC01   Pan de Azucar       1.93  23 eP         Pn        00 45 42.5 +0.4
AC01                                eS         Sn        00 46 00.2 -6.7
AC01   Pan de Azucar       1.93  23 eP         Pn        00 45 42.6 +0.4
GO04   Tololo Observa      2.29 166 eP         Pn        00 45 48.8 +1.4
GO04                                eS         Sb        00 46 20.2 +0.7
GO04                                 IAML                00 46 24.7
       comp=Z,2μm,0.7s
GO04   Tololo Observa      2.29 166 eP         Pn        00 45 48.3 +0.9
GO04                                eS         Sn        00 46 17.7 +1.4
CO01   Juntas del Tor      2.34 151 eP         Pb        00 45 50.6 -0.8
CO01                                eS         Sb        00 46 20.5 -0.4
CO01                                 IAML                00 46 21.8
       comp=Z,1μm,0.7s
CO01   Juntas del Tor      2.34 151 eP         Pb        00 45 50.3 -1.1
CO06   Fray Jorge          2.73 184 eP         Pn        00 45 52.7 -0.5
CO06                                 IAML                00 46 48.7
       comp=N,911nm,0.5s
AROD   Rodeo               2.80 143 eP         Pb        00 45 58.5 -0.8
AROD                                eS         Sb        00 46 34.5 +0.3
VCA    Vinchina            2.94 106 eP         Pb        00 46 01.6 -0.1
VCA                                 eS         Sb        00 46 34.8 -3.4
VCA                                 eS         Sg        00 46 39.8 -3.2
VCA                                  IAML                00 46 52.4
       comp=Z,645nm,0.4s
VCA    Vinchina            2.94 106 eP         Pb        00 46 01.0 -0.6
CO02   Combarbal           3.28 174 eP         Pn        00 46 01.4 +0.6
CO02                                eS         Sn        00 46 34.8 -5.7
CO02                                 IAML                00 46 54.6
       comp=Z,1μm,0.5s
CO02   Combarbal           3.28 174 eP         Pn        00 46 01.2 +0.4
ACCO   Cerro Coronel       3.35 143 eP         Pb        00 46 06.5 -2.1
ACCO                                eS         Sb        00 46 46.8 -3.2
ACCO                                 IAML                00 46 52.7
       comp=Z,460nm,0.4s
TINO   Tinogasta           3.41  93 eP         Pb        00 46 06.0 -3.5
TINO                                eS         Sb        00 46 48.8 -2.7
TINO                                 IAML                00 46 56.3
       comp=Z,304nm,0.6s
PB14   IPOC Station P      3.42  16 eP         Pn        00 46 03.2 +0.2
PB14                                eS         Sb        00 46 52.2 +0.3
PB14   IPOC Station P      3.42  16⇑eP         Pn        00 46 02.8 -0.2
CO04   Los Peladeros       4.11 175 eP         Pn        00 46 13.2 +0.8
ACLC   CERRO LA CRUZ       4.20 112 eP         Pn        00 46 16.9 +3.3
ACLC                                eS         Sb        00 47 15.8 +1.6
ACLC                                 IAML                00 47 23.0
       comp=Z,118nm,1.4s
RTLL   Cerro Villicun      4.24 144 eP         Pn        00 46 18.2 +4.2
RTLL                                eS         Sb        00 47 09.8 -5.7
RTLL                                 IAML                00 47 24.1
       comp=Z,283nm,0.5s
ZON    Zonda               4.32 147 eP         Pn        00 46 19.0 +4.0
ZON                                 eS         Sb        00 47 11.8 -5.8
CFA    Coronel Fontan      4.58 144  Pn        Pn        00 46 22.0 +3.3
       comp=Z,9.2nm,0.3s,baz=328,slow=8.6,SNR=82
CFA                                  Sn        Sn        00 47 17.1 +4.5
       comp=Z,11nm,0.3s,baz=114,slow=20,SNR=7.6
       comp=Z,43nm,0.3s
CFA                                  AML       AML
CFA    Coronel Fontan      4.58 144 eP         Pn        00 46 22.4 +3.7
CFA                                 eS         Sb        00 47 20.2 -5.0
CFA                                  IAML                00 47 34.9
       comp=Z,173nm,0.9s
VA03   San Esteban         4.87 171 eP         Pn        00 46 24.9 +2.2
VA03                                eS         Sb        00 47 29.8 -3.8
VA03                                 IAML                00 47 49.9
       comp=Z,333nm,0.6s
VA03   San Esteban         4.87 171 eP         Pn        00 46 24.2 +1.5
PB05   IPOC Station P      5.18  13 eP         Pn        00 46 25.8 -1.2
SLA    San Lorenzo         6.20  60 eP         Pn        00 46 47.8 +6.8
TCA    Tanti               6.84 121 eP         Pn        00 46 50.4 +0.7
H03N1  Juan Fernandez      8.47 228  T         T         00 55 54.6
       baz=55,slow=74,SNR=1125
H03N2  Juan Fernandez      8.48 228  T         T         00 55 55.5
       baz=55,slow=74,SNR=1381
H03N3  Juan Fernandez      8.48 228  T         T         00 56 11.8
       baz=55,slow=74,SNR=87
LPAZ   La Paz             11.98  15  Pn        Pn        00 48 03.0 +2.2
       comp=Z,0.1nm,0.3s,baz=196,slow=12,SNR=3.9
       comp=Z,1.1nm,0.8s
LPAZ                                 AML       AML
CPUP   Villa Florida      12.65  86  Pn        Pn        00 48 11.9 +2.6
       comp=Z,0.2nm,0.3s,baz=286,slow=15,SNR=4.0
       comp=Z,1.5nm,0.7s
CPUP                                 AML       AML
PLCA   Paso Flores        12.79 177  Pn        Pn        00 48 09.7 -1.5
       comp=Z,0.1nm,0.3s,baz=341,slow=19,SNR=1.6
       comp=Z,0.4nm,0.4s
PLCA                                 AML       AML
SIV    San Ignacio        15.27  41  Pn        Pn        00 48 47.0 +2.0
       baz=220,slow=12,SNR=7.1
       comp=Z,1.0nm,0.6s
QSPA   South Pole Qui     62.28 180  P         P         00 55 31.6 -0.1
       comp=Z,0.8nm,0.7s,baz=147,slow=3.1,SNR=6.5
       comp=Z,0.8nm,0.7s
TXAR   Lajitas Array      64.77 329  P         P         00 55 50.1 +1.7
       comp=Z,0.2nm,0.6s,baz=148,slow=10,SNR=2.4
       comp=Z,0.2nm,0.6s
PDAR   Pinedale Array     78.63 332  P         P         00 57 13.3 +1.5
       comp=Z,0.5nm,0.7s,baz=160,slow=4.1,SNR=3.7
       comp=Z,0.5nm,0.7s
TORD   Torodi Ar. Bea     81.66  70  P         P         00 57 29.0 +0.5
       comp=Z,0.4nm,0.8s,baz=275,slow=3.9,SNR=5.4
       comp=Z,0.4nm,0.8s
H11S2  WAKE ISLAND Hy1   126.18 273  T         T         03 23 15.6
       baz=112,slow=75,SNR=11
H11S1  WAKE ISLAND Hy1   126.19 273  T         T         03 23 15.5
       baz=112,slow=75,SNR=14
H11S3  WAKE ISLAND Hy1   126.19 273  T         T         03 23 16.2
       baz=112,slow=75,SNR=15
H11N3  WAKE ISLAND Hy1   126.44 275  T         T         03 23 35.5
       baz=113
H11N1  WAKE ISLAND Hy1   126.45 275  T         T         03 23 44.0
       baz=113
H11N2  WAKE ISLAND Hy1   126.45 275  T         T         03 23 36.3
       baz=113
ZALV   Zalesovo Beam     148.71  27  PKPbc     PKiKP     01 04 57.2 -1.0
       comp=Z,0.4nm,0.3s,baz=328,slow=5.3,SNR=4.6
MKAR   Makanchi Array    152.08  41  PKPbc     PKPbc     01 05 04.8 -0.3
       comp=Z,0.6nm,0.7s,baz=273,slow=2.3,SNR=4.2
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*NIED **02** 00:48:43.6,23°.71N×126°.21E,h42km,MW4.2,Moment Tensor Solution. s2 Moment tensor: Scale 10^15Nm; Mrr0.92; Mθθ0.15; Mφφ-1.07; Mrθ-1.90; Mθφ-1.26; Mφr0.67; Fault plane solution: M0 2.45000×10^15 NP1:φs1.00000°, δ47.00000°,λ26.00000°. NP2:φs253.00000°,δ72.00000°, λ134.00000°.*

*JMA **02** 00:48:43.6±0.4,24°N±1°×12°6E±°,h42km,MV3.8/10, NEAR MIYAKOJIMA ISLAND*

*IDC **02** 00:48:44.9±1.2,23°.88N×125°.84E,h0km,mb4.0/8, mbtmp3.9/11,ML3.4/3,MS3.4/1,Error ellipse: s-maj=25.8km s-min=18.4km az=122.0*

*NEIC **02** 00:48:46.4±2.0,24°.0N±0°.1×126°.01E±0°.09,h10km±1km, mb4.4/13,Error ellipse: s-maj=19.5km s-min=12.2km az=156.0*

ISC 02 00:48:48.5±0.7**,23°.87N**±0°.06×**126°.02E**±0°.05**,h34km,n45,** σ**1s.52**/49**,mb4.2**/15**,Southeast of Ryukyu Islands**

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Code   Station Name        Δ°   AZ°    Phase ID              Time      Res
                                     Op        ISC        h  m  s     ISC
JOGS   Gusukube            1.04 328  P         Pn        00 49 05.6 -1.2
JMJ2   Miyako jima3        1.07 324  P         Pn        00 49 06.0 -1.1
JMJ2                                eS         Sb        00 49 22.7 +0.5
JIRJ   Irabujima           1.22 322  P         Pn        00 49 08.0 -1.2
JTJ    Tarama              1.42 303 eP         Pn        00 49 11.0 -1.0
JTJ                                 eS         Sb        00 49 31.0 -1.3
JIJ    Ishigaki jima       1.78 286 eP         Pn        00 49 16.2 -0.7
JKRS   Kuro-shima          1.87 282 eP         Pn        00 49 17.8 -0.3
HATJ   Hateruma jima       2.03 276 eP         Pn        00 49 19.5 -0.9
HATJ                                eS         Sn        00 49 43.9 -0.7
JKE    Kume jima 2         2.54  16 eP         Pn        00 49 25.6 -1.8
YOJ    Yonaguni jima       2.81 283  Pn        Pn        00 49 29.7 -1.4
JOW    Kunigami            3.58  34  Pn        Pn        00 49 40.4 -1.4
       7.9nm,0.3s,baz=114,slow=20,SNR=2.1
JOW                                  Sn        Sn        00 50 20.1 -2.8
       6.7nm,0.3s,baz=113,slow=27,SNR=1.7
       20nm,0.3s
JOW                                  AML       AML
JOW    Kunigami            3.58  34  Pn        Pn        00 49 40.1 -1.6
NACB   Ninganchiao         4.05 275  Pn        Pn        00 49 46.2 -2.0
YHNB   Yeheng              4.31 282  Pn        Pn        00 49 51.6 -0.2
YULB   Yu-li               4.36 265  Pn        Pn        00 49 50.2 -2.2
SSLB   Suanglung           4.64 270  Pn        Pn        00 49 54.8 -1.5
TPUB   Ta-pu               4.98 264  Pn        Pn        00 50 00.3 -0.6
TIRP   Brgy. Gulod. B     10.50 206 eP         Pn        00 51 16.5 -0.2
TIRP                                eS         Sn        00 53 08.1 -5.2
KSRS   Korea Array        13.63   6  Pn        Pn        00 51 58.2 -1.3
       0.4nm,0.3s,baz=175,slow=20,SNR=4.5
       0.7nm,0.4s
KSRS                                 AML       AML
MJAR   Matsushiro Arr     16.43  37  Pn        Pn        00 52 36.2 -0.3
       0.1nm,0.3s,baz=156,slow=21,SNR=2.1
       0.9nm,0.5s
MJAR                                 AML       AML
CMAR   Chiang Mai Arr     25.80 263  LR        LR        01 04 15.7
       comp=Z,80nm,20.7s,baz=335,slow=36
KRAI   Karang Ratu        27.13 175  P         PKiKP     01 05 28.2 +1.4
MKAR   Makanchi Array     41.67 314  P         P         00 56 34.1 +0.2
       0.8nm,0.5s,baz=100,slow=11,SNR=14
       0.8nm,0.5s
MAKZ   Makanchi           41.88 314  P         P         00 56 35.9 +0.3
ZALV   Zalesovo Beam      42.97 325  P         P         00 56 44.4 +0.2
       0.7nm,0.5s,baz=121,slow=11,SNR=4.5
       0.7nm,0.5s
WB0    Warramunga Arr     44.14 169  P         P         00 56 55.2 +1.2
KDJ    Kajisay            44.18 307  P         P         00 56 55.1 +0.7
KDJ                                  IAmb      IAmb      00 57 38.3
       comp=Z,2.3nm,0.8s
WRAB   Tennant Creek      44.29 169  P         P         00 56 58.2 +2.9
WRAB                                 IAmb      IAmb      00 57 06.1
       comp=Z,5.5nm,1.1s
WRA    Warramunga Arr     44.30 169  P         P         00 56 56.9 +1.6
       comp=Z,2.1nm,0.9s,baz=350,slow=8.6,SNR=7.0
       comp=Z,2.1nm,0.9s
WRA    Warramunga Arr     44.30 169  P         P         00 56 56.7 +1.4
WR8    Warramunga Arr     44.34 169  P         P         00 56 55.9 +0.3
WR8                                  IAmb      IAmb      00 57 29.0
       comp=Z,8.8nm,1.2s
KURK   Kurchatov          45.20 319  P         P         00 57 01.6 -0.6
KURBB  Kurchatov Arra     45.23 319  P         P         00 57 02.8 +0.4
       comp=Z,2.6nm,0.2s,baz=107,slow=8.4,SNR=4.4
       comp=Z,2.6nm,0.2s
BVAR   Borovoye Array     50.73 320  P         P         00 57 46.9 +2.0
       comp=Z,0.8nm,0.5s,baz=60,slow=8.7,SNR=3.1
       comp=Z,0.8nm,0.5s
AB31   Akbulak array      56.82 314  P         P         00 58 29.9 +0.3
AB31                                 IAmb      IAmb      00 58 31.8
       comp=Z,1.6nm,0.7s
ABKAR  Akbulak array      56.82 314  P         P         00 58 30.3 +0.8
E22K   Anaktuvuk Pass     65.17  24  P         P         00 59 27.3 +1.3
E24K   Your Creek         66.42  24  P         P         00 59 35.4 +1.4
E24K                                 IAmb      IAmb      01 00 00.5
       comp=Z,3.5nm,1.0s
F24K   Squaw Lake         66.70  25  P         P         00 59 34.9 -0.9
F24K                                 IAmb      IAmb      01 00 03.4
       comp=Z,4.2nm,1.0s
BMAR   Burnt Mountain     67.98  25  P         P         00 59 46.8 +2.9
F26K   Sheenjek River     68.10  24  P         P         00 59 44.0 -0.7
F26K                                 IAmb      IAmb      01 00 12.3
       comp=Z,5.2nm,1.1s
FIA1   FINESS Array S     73.92 330  P         P         01 00 20.8 +0.9
FINES  FINESS Array B     73.92 330  P         P         01 00 21.1 +1.2
       comp=Z,1.6nm,0.6s,baz=72,slow=6.2,SNR=10
       comp=Z,1.6nm,0.6s
FINES  FINESS Array B     73.92 330  P         P         01 00 20.7 +0.8
BRTR   Keskin Array B     76.89 308  P         P         01 00 38.5 +0.9
       comp=Z,0.6nm,0.8s,baz=90,slow=7.4,SNR=5.8
       comp=Z,0.6nm,0.8s
NOA    NORSAR Array B     80.52 333  P         P         01 00 57.7 +0.6
       comp=Z,0.4nm,0.6s,baz=66,slow=9.2,SNR=2.0
       comp=Z,0.4nm,0.6s
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*BJI **02** 00:58:04.1,14°.67S×167°.46E,h116km,mB5.3/6,mb4.8/29*

*IDC **02** 00:58:05.4±0.5,14°.88S×167°.32E,h120km±4km,mb4.3/18, mbtmp4.7/21,MS3.5/8,Error ellipse: s-maj=13.4km s-min=10.8km az=95.0*

*NEIC **02** 00:58:05.5±1.9,14°.90S±0°.08×167°.4E±0°.1,h117km±5km, mb4.9/54,Error ellipse: s-maj=15.8km s-min=11.4km az=81.0*

*NOU **02** 00:58:05.6,14°.85S×167°.13E,h96km,mb5.1/72,Vanuatu Islands*

*GFZ **02** 00:58:06.2±0.5,15°S±5°×16°7E±°,h116km±5km,M4.9/22, mb5.0/22*

ISC 02 00:58:05.5±0.4**,14°.88S**±0°.04×**167°.29E**±0°.05**,h119**km±3km**, h119km:pP-P,n366,**σ**1s.13**/380**,mb5.0**/92**,4C-2D,Vanuatu Islands**

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Code   Station Name        Δ°   AZ°    Phase ID              Time      Res
                                     Op        ISC        h  m  s     ISC
SANVU  Saraoutou           0.57 189  P         Pn        00 58 23.0 -0.8
SANVU  Saraoutou           0.57 189  S         Sn        00 58 35.7 -2.0
SANVU  Saraoutou           0.57 189            Pn        00 58 23.2 -0.6
SANVU                                Sn        Sn        00 58 36.0 -1.7
SANVU  Saraoutou           0.57 189  P         Pn        00 58 23.4 -0.5
KOUNC  Koumac, New Ca      6.33 206  P         Pn        00 59 36.5 +0.2
KOUNC  Koumac, New Ca      6.33 206  S         Sn        01 00 45.7 -1.6
KOUNC  Koumac, New Ca      6.33 206  Pn        Pn        00 59 36.6 +0.2
MARNC  Mare, Loyalty       6.61 174  Pn        Pn        00 59 37.6 -2.5
YATNC  Mamie plateau,      7.15 183  P         Pn        00 59 46.5 -1.0
DZM    Mont Dzumac         7.20 186  P         Pn        00 59 48.7 +0.4
       89nm,0.5s,baz=8.6,slow=12,SNR=54
DZM                                  S         Sn        01 01 08.2 -0.4
       100nm,0.6s,baz=312,slow=20,SNR=4.1
DZM                                  LR        LR        01 02 24.8
       comp=Z,357nm,19.7s,baz=198,slow=36
NOUC   Port Laguerre       7.25 187  P         Pn        00 59 50.0 +1.2
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NOUC	Port Laguerre	7.25	187	S	Sn	01 01 09.3	-0.3
ONTNC	Ouen Toro	7.43	186	P	Pn	00 59 53.0	+1.7
ONTNC	Ouen Toro	7.43	186	S	Sn	01 01 14.1	0.0
ONTNC	Ouen Toro	7.43	186	Pn	Pn	00 59 51.8	+0.5
OUENC	Ouen Island, N	7.51	183	P	Pn	00 59 53.8	+1.4
OUENC	Ouen Island, N	7.51	183	S	Sn	01 01 17.7	+1.7
OUENC	Ouen Island, N	7.51	183	Pn	Pn	00 59 52.6	+0.2
HNR	Honiara	8.99	306	P	Pn	01 00 13.1	+0.6
	325nm,0.8s,baz=39,slow=7.0,SNR=7.1						
HNR				S	Sn	01 01 52.9	+0.9
	286nm,0.6s,baz=126,slow=22,SNR=7.1						
HNR				LR	LR	01 03 37.1	
	comp=Z,240nm,19.0s,baz=218,slow=37						
HNR	Honiara	8.99	306	Pn	Pn	01 00 13.4	+1.0
MSVF	Nonsavu	10.71	107	P	Pn	01 00 36.2	+0.4
	17nm,1.0s,baz=182,slow=8.2,SNR=4.6						
MSVF				LR	LR	01 04 32.1	
	comp=Z,224nm,18.8s,baz=270,slow=36						
MSVF	Nonsavu	10.71	107	P	Pn	01 00 39.4	+3.6
MSVF	Nonsavu	10.71	107	Pn	Pn	01 00 39.3	+3.6
MSVF	Nonsavu	10.71	107	P	Pn	01 00 40.2	+4.4
	comp=Z,116nm,1.6s						
DGTI	Dogotuki	12.07	98	P	P	01 00 57.6	-3.9
TAVE	Taveuni	12.46	100	P	P	01 01 02.5	-3.2
TAVE	Taveuni	12.46	100	S	Sn	01 03 19.8	+3.8
LKBA	Tubou, Lakemba	13.73	106	P	P	01 01 18.7	-1.2
GD1S	Gladstone Soft	17.62	237	P	P	01 02 03.2	+0.3
AUNRC	North Rockhamp	17.93	239	P	Pn	01 02 07.3	0.0
AUNRC	North Rockhamp	17.93	239	S	S	01 05 26.7	+0.5
KRVT	Keravat (AS076	18.34	303	LR	LR	01 09 44.1	
	comp=Z,213nm,19.3s,baz=202,slow=38						
EIDS	Eidsvold	18.44	233	P	Pn	01 02 14.0	+0.6
	comp=Z,156nm,1.0s						
EIDS	Eidsvold	18.44	233	P	Pn	01 02 13.9	+0.6
	comp=Z,156nm,1.0s						
EIDS	Eidsvold	18.44	233	P	Pn	01 02 13.5	+0.1
EIDS	Eidsvold	18.44	233		Pn	01 02 13.4	+0.1
EIDS	Eidsvold	18.44	233	P	Pn	01 02 14.3	+0.9
	comp=Z,156nm,1.0s						
TW1H	Toowoomba 1 Ha	19.02	226	P	P	01 02 19.5	+1.2
AUTOO	Toowoomba Stat	19.03	226	P	P	01 02 19.4	+1.1
PMG	Port Moresby	20.41	283	P	P	01 02 34.1	+0.8
	comp=Z,51nm,0.8s,baz=96,slow=7.3,SNR=8.6						
	comp=Z,51nm,0.8s						
PMG	Port Moresby	20.41	283	P	P	01 02 33.5	+0.1
PMG	Port Moresby	20.41	283	P	P	01 02 34.0	+0.6
PMG	Port Moresby	20.41	283	P	P	01 02 34.4	+1.0
PMG	Port Moresby	20.41	283	P	P	01 02 33.9	+0.6
	comp=Z,56nm,0.8s						
PMG	Port Moresby	20.41	283	P	P	01 02 34.6	+1.3
	comp=Z,57nm,0.8s						
CTA	Charters Tower	20.72	253	P	P	01 02 37.8	+1.1
	comp=Z,49nm,1.2s						
CTA	Charters Tower	20.72	253	P	P	01 02 37.7	+1.1
	comp=Z,49nm,1.2s						
CTA	Charters Tower	20.72	253	P	P	01 02 37.5	+0.8
	comp=Z,76nm,0.8s,baz=73,slow=11,SNR=52						
	comp=Z,76nm,0.8s						
CTA	Charters Tower	20.72	253	P	P	01 02 37.8	+1.1
CTAO	Charters Tower	20.72	253	P	P	01 02 37.3	+0.7
CTAO	Charters Tower	20.72	253	P	P	01 02 37.5	+0.8
CTAO	Charters Tower	20.72	253	P	P	01 02 38.1	+1.5
	comp=Z,124nm,1.2s						
RMQ	Roma	20.80	233	P	Pn	01 02 41.8	+0.7
	comp=Z,44nm,1.1s						
OUZ	Omahuta	21.03	165	P	P	01 02 41.9	+2.1
	comp=Z,114nm,0.9s						
ARMA	Armidale	21.13	220	P	P	01 02 41.1	+0.1
	comp=Z,40nm,1.2s						
ARMA	Armidale	21.13	220	P	P	01 02 43.2	+2.1
	comp=Z,40nm,1.2s						
ARMA	Armidale	21.13	220	P	P	01 02 41.8	+0.8
ARMA	Armidale	21.13	220	P	P	01 02 42.6	+1.6
ARMA	Armidale	21.13	220	P	P	01 02 42.9	+1.9
	comp=Z,40nm,1.2s						
WCZ	Waipu Caves	21.90	165	P	P	01 02 51.0	+1.9
NIUE	Niue	22.18	104	P	P	01 02 53.7	+1.6
	comp=Z,244nm,1.9s						
MTSU	Mount Surprise	22.26	258	P	P	01 02 53.3	+0.3
	comp=Z,82nm,0.8s						
MTSU	Mount Surprise	22.26	258	P	P	01 02 53.7	+0.7
	comp=Z,82nm,0.8s						
MTSU	Mount Surprise	22.26	258	P	P	01 02 53.5	+0.5
MTSU	Mount Surprise	22.26	258	P	P	01 02 53.6	+0.6
	comp=Z,82nm,0.8s						
GRZ	Great Barrier	22.50	163	P	P	01 02 56.2	+1.1
AULRC	Lightning Ridg	22.96	228	P	P	01 03 01.7	+1.9
MGCD	Mangrove Creek	23.43	216	P	P	01 03 05.4	+1.4
	comp=Z,37nm,0.7s						
MANU	Manus Island	23.44	301	P	P	01 03 03.7	-0.6
TOZ	Tahuroa Road	23.90	164	P	P	01 03 08.7	+0.5
TOZ	Tahuroa Road	23.90	164	P	P	01 03 09.0	+0.8
WHRZ	Whale Island	24.44	161	P	P	01 03 15.1	+1.9
QLP	Quilpie	24.46	238	P	P	01 03 14.1	+0.6
	comp=Z,136nm,0.7s						
QLP	Quilpie	24.46	238	P	P	01 03 14.2	+0.8
	comp=Z,136nm,0.7s						
QLP	Quilpie	24.46	238	P	P	01 03 14.7	+1.2
QLP	Quilpie	24.46	238	P	P	01 03 14.4	+0.9
	comp=Z,136nm,0.7s						
TLZ	Tolley Road	24.47	164	P	P	01 03 14.2	+0.8
HIZ	Hauiti	24.47	166	P	P	01 03 15.4	+2.0
HAZ	Te Kaha	24.61	160	P	P	01 03 16.2	+1.6
MXZ	Matakaoa Point	24.62	159	P	P	01 03 15.1	+0.3
HRRZ	Handcock Road	24.73	163	P	P	01 03 17.9	+2.1
URZ	Urewera	24.86	161	P	P	01 03 17.8	+0.9
URZ	Urewera	24.86	161	P	P	01 03 17.2	+0.3
	comp=Z,129nm,0.8s						
MWZ	Matawai	25.05	161	P	P	01 03 18.8	0.0
PUZ	Puketiti	25.06	159	P	P	01 03 17.9	-0.9
TWGZ	Tauwhareparae	25.06	160	P	P	01 03 19.6	+0.8
KATZ	Kakaramea	25.12	164	P	P	01 03 21.0	+1.5
RTZ	Ruatahuna	25.14	162	P	P	01 03 18.8	-0.8
RTZ				IAmb	IAmb	01 03 25.5	
	comp=Z,56nm,0.7s						
TWVZ	Taurewa	25.14	165	P	P	01 03 20.5	+0.8
RAGZ	Rawiri	25.17	161	P	P	01 03 20.1	+0.3
MRHZ	Matea Rd	25.18	163	P	P	01 03 21.3	+1.3
KRVZ	Karewarewa	25.22	165	P	P	01 03 21.3	+0.9
WTVZ	West Tongariro	25.23	165	P	P	01 03 21.5	+1.1
NTVZ	North Tongarir	25.23	165	P	P	01 03 22.0	+1.5
TMVZ	Te Maari	25.25	165	P	P	01 03 21.1	+0.4
ETVZ	East Tongariro	25.27	165	P	P	01 03 22.1	+1.2
NGZ	Ngauruhoe	25.29	165	P	P	01 03 22.5	+1.5
OTVZ	Oturere	25.29	165	P	P	01 03 22.3	+1.3
SNVZ	South Ngauruho	25.30	165	P	P	01 03 22.5	+1.3
MTHZ	Maungataniwha	25.32	162	P	P	01 03 21.5	+0.3
PKVZ	Pokaka	25.33	165	P	P	01 03 22.8	+1.5
FWVZ	Far West T-bar	25.35	165	P	P	01 03 23.5	+1.8
WHVZ	Whangaehu Hut	25.38	165	P	P	01 03 23.0	+1.0
TUVZ	Tukino	25.39	165	P	P	01 03 23.8	+1.9
CNGZ	Carnagh Statio	25.41	160	P	P	01 03 21.6	-0.3
WNVZ	Wahianoa	25.43	165	P	P	01 03 23.8	+1.5
RAHZ	Arahi	25.45	162	P	P	01 03 22.5	+0.1
RIGZ	Rimuhau	25.47	161	P	P	01 03 22.6	+0.1
BKZ	Black Stump Fm	25.51	163	P	P	01 03 25.8	+2.9
NMHZ	Naumai	25.54	163	P	P	01 03 23.6	+0.4
MOVZ	Moawhango	25.54	165	P	P	01 03 23.3	+0.1
WHHZ	Waihua	25.65	162	P	P	01 03 24.2	+0.1
BHHZ	Black Hill Sta	25.70	164	P	P	01 03 24.8	+0.2
KNZ	Kokohu	25.73	161	P	P	01 03 24.8	0.0
KWHZ	Kaweka Forest	25.73	164	P	P	01 03 25.3	+0.4
ARHZ	Aropaoanui	25.75	162	P	P	01 03 25.1	+0.1
CMSA	Cobar Meteorol	25.79	226	P	P	01 03 25.9	+0.5
	comp=Z,35nm,1.2s						
CMSA	Cobar Meteorol	25.79	226	P	P	01 03 26.2	+0.8
	comp=Z,35nm,1.2s						
CMSA	Cobar Meteorol	25.79	226	P	P	01 03 26.8	+1.4
CMSA	Cobar Meteorol	25.79	226	P	P	01 03 26.5	+1.0
	comp=Z,35nm,1.2s						
MCHZ	McNeill Hill	25.83	163	P	P	01 03 26.0	+0.3
MHGZ	Mahia Peninsul	25.92	161	P	P	01 03 27.3	+0.8
KRHZ	Kereru	25.93	164	P	P	01 03 26.3	-0.3
PNHZ	Pukenui	26.13	164	P	P	01 03 26.1	-2.4
CKHZ	Cape Kidnapper	26.14	163	P	P	01 03 27.1	-1.4
KAHZ	Kahuranaki	26.21	163	P	P	01 03 29.1	-0.1
TSZ	Takapari Road	26.21	165	P	P	01 03 28.7	-0.5
WPHZ	Waipukurau	26.34	164	P	P	01 03 29.9	-0.5
DVHZ	Dannevirke	26.49	165	P	P	01 03 30.9	-0.8
PRWZ	Pori Road	26.68	165	P	P	01 03 34.7	+1.4
MRZ	Mangatainoka R	26.68	166	P	P	01 03 31.9	-1.5
MRZ				IAmb	IAmb	01 03 38.5	
	comp=Z,24nm,0.8s						
MRZ	Mangatainoka R	26.68	166	P	P	01 03 33.1	-0.4
OGWZ	Otaki Gorge	26.74	167	P	P	01 03 33.6	-0.3
BFZ	Birch Farm	26.87	165	P	P	01 03 33.2	-1.8
BFZ				IAmb	IAmb	01 04 03.0	
	comp=Z,89nm,1.3s						
BFZ	Birch Farm	26.87	165	P	P	01 03 33.9	-1.2
HOWZ	Holdsworth Sta	26.89	166	P	P	01 03 33.7	-1.6
QIS	Mount Isa	26.95	254	P	P	01 03 35.3	-0.8
	comp=Z,18nm,0.9s						
QIS	Mount Isa	26.95	254	P	P	01 03 36.1	0.0
	comp=Z,18nm,0.9s						
QIS	Mount Isa	26.95	254	P	P	01 03 35.9	-0.2
QIS	Mount Isa	26.95	254	P	P	01 03 33.4	-2.7
	comp=Z,18nm,0.9s						
THZ	Tophouse	27.23	171	P	P	01 03 38.9	+0.6
MSWZ	Moikau Station	27.33	167	P	P	01 03 38.3	-0.9
PAWZ	Paruwai Farm	27.34	167	P	P	01 03 37.9	-1.3
BSWZ	Blackbirch Sta	27.34	169	P	P	01 03 39.8	+0.5
TRWZ	Traveller	27.41	166	P	P	01 03 39.3	-0.6
INKA	Innaminka	27.77	238	P	P	01 03 43.8	+0.5
INKA				IAmb	IAmb	01 03 45.0	
	comp=Z,22nm,0.8s						
KHZ	Kahutara	27.97	170	P	P	01 03 44.4	-0.4
KHZ	Kahutara	27.97	170	P	P	01 03 44.7	-0.1
INZ	Inchbonnie	27.98	173	P	P	01 03 45.7	+0.8
LTZ	Lake Taylor	28.14	172	P	P	01 03 46.7	+0.3
GVZ	Greta Valley S	28.43	171	P	P	01 03 48.2	-0.7
FOZ	Fox Glacier	28.64	176	P	P	01 03 51.7	+1.0
OXZ	Oxford	28.64	173	IAmb	IAmb	01 03 51.6	
	comp=Z,39nm,0.7s						
OXZ	Oxford	28.64	173	P	P	01 03 50.7	-0.1
STKA	Stephens Creek	28.91	230	P	P	01 03 54.3	+0.9
	comp=Z,490nm,0.8s						
STKA	Stephens Creek	28.91	230	P	P	01 03 54.8	+1.4
	comp=Z,490nm,0.8s						
STKA	Stephens Creek	28.91	230	P	P	01 03 54.1	+0.7
	comp=Z,66nm,0.6s,baz=46,slow=7.8,SNR=88						
STKA				ScP	ScP	01 10 28.6	-1.8
	comp=Z,5.0nm,0.8s,baz=59,slow=5.9,SNR=4.2						
STKA	Stephens Creek	28.91	230	P	P	01 03 54.4	+1.0
STKA	Stephens Creek	28.91	230	P	P	01 03 54.6	+1.3
	comp=Z,490nm,0.8s						
RPZ	Rata Peaks	28.92	174	LR	LR	01 15 37.6	
	comp=Z,48nm,18.0s,baz=117,slow=36						
RPZ	Rata Peaks	28.92	174	P	P	01 03 53.0	-0.3
RPZ				IAmb	IAmb	01 03 55.0	
	comp=Z,32nm,1.0s						
MQZ	McQueen’s Vall	29.09	172	P	P	01 03 55.1	+0.3
JCZ	Jackson Bay	29.13	178	P	P	01 03 57.4	+2.2
LBZ	Lake Benmore	29.51	176	P	P	01 03 58.8	+0.2
TMZ	Timaru	29.58	175	P	P	01 03 58.5	-0.7
EAZ	Earnscleugh	30.30	177	P	P	01 04 05.2	-0.3
DCZ	Deep Cove	30.49	180	P	P	01 04 07.7	+0.6
DCZ				IAmb	IAmb	01 04 09.7	
	comp=Z,24nm,0.9s						
TUZ	Tuapeka	31.04	177	P	P	01 04 12.2	+0.3
WR0	Warramunga Arr	31.62	256	P	P	01 04 16.5	-1.0
HTT	Hallett	31.64	229	P	P	01 04 18.1	+0.7
	comp=Z,20nm,0.9s						
HTT	Hallett	31.64	229	P	P	01 04 18.5	+1.1
	comp=Z,20nm,0.9s						
HTT	Hallett	31.64	229	P	P	01 04 19.0	+1.5
WR9	Warramunga Arr	31.65	256	P	P	01 04 16.6	-1.1
WR8	Warramunga Arr	31.66	256	P	P	01 04 16.7	-1.1
WR8	Warramunga Arr	31.66	256	IAmb	IAmb	01 04 17.8	
	comp=Z,18nm,1.1s						
CORO	Coronation Par	31.72	210	P	P	01 04 19.6	+1.6
WB0	Warramunga Arr	31.75	256	IAmb	IAmb	01 04 17.9	
	comp=Z,36nm,1.2s						
WRAB	Tennant Creek	31.80	256	P	P	01 04 19.7	+0.7
WRAB	Tennant Creek	31.80	256	P	P	01 04 17.1	-1.9
WRAB				IAmb	IAmb	01 04 18.5	
	comp=Z,23nm,1.2s						
WRAB	Tennant Creek	31.80	256	P	P	01 04 17.3	-1.7
WRAB				pP	pP	01 04 42.3	-1.9
WRA	Warramunga Arr	31.81	256	P	P	01 04 17.9	-1.2
	comp=Z,13nm,0.9s,baz=86,slow=9.5,SNR=15						
WRA				ScP	ScP	01 10 39.8	-0.3
	comp=Z,2.3nm,0.8s,baz=88,slow=3.4,SNR=10.0						
	comp=Z,13nm,0.9s						
WRA	Warramunga Arr	31.81	256	P	P	01 04 16.5	-2.6
AS17	Alice Springs	32.56	249	P	P	01 04 24.7	-1.0
	comp=Z,46nm,0.9s						
AS17	Alice Springs	32.56	249	P	P	01 04 24.7	-1.0
	comp=Z,46nm,0.9s						
AUMAR	Marden Senior	32.56	227	P	P	01 04 26.5	+1.0
AS01	Alice Springs	32.60	249	P	P	01 04 27.0	+1.0
AS09	Alice Springs	32.61	249	P	P	01 04 25.2	-0.9
	comp=Z,65nm,0.9s						
AS15	Alice Springs	32.63	249	P	P	01 04 25.2	-1.0
	comp=Z,49nm,1.0s						
AS31	Alice Springs	32.64	249	P	P	01 04 25.4	-0.9
	comp=Z,16nm,0.7s						
AS31	Alice Springs	32.64	249	P	P	01 04 25.1	-1.3
AS31				IAmb	IAmb	01 04 26.6	
	comp=Z,11nm,0.8s						
ASAR	Alice Springs	32.64	249	P	P	01 04 25.2	-1.2
	comp=Z,30nm,0.7s,baz=80,slow=9.1,SNR=147						
ASAR				ScP	ScP	01 10 42.6	-0.4
	comp=Z,3.9nm,1.0s,baz=91,slow=3.0,SNR=13						
	comp=Z,30nm,0.7s						
ASAR	Alice Springs	32.64	249	P	P	01 04 25.0	-1.4
AUALC	St Philip’s Co	32.66	249	P	P	01 04 27.7	+1.1
BBOO	Buckleboo	33.51	232	P	P	01 04 34.7	+0.9
	comp=Z,66nm,0.9s						
BBOO	Buckleboo	33.51	232	P	P	01 04 34.5	+0.7
	comp=Z,66nm,0.9s						
BBOO	Buckleboo	33.51	232	P	P	01 04 34.6	+0.9
BBOO	Buckleboo	33.51	232	P	P	01 04 34.3	+0.6
BBOO	Buckleboo	33.51	232	P	P	01 04 31.7	-2.1
	comp=Z,66nm,0.9s						
MTN	Manton Dam	35.14	269	P	P	01 04 47.7	-0.3
	comp=Z,4.1nm,0.8s						
MTN	Manton Dam	35.14	269	P	P	01 04 47.4	-0.6
KNRA	Kununurra	37.14	264	P	P	01 05 04.2	-0.8
	comp=Z,28nm,1.0s						
KNRA	Kununurra	37.14	264	P	P	01 05 04.2	-0.8
	comp=Z,28nm,1.0s						
KNRA	Kununurra	37.14	264	P	P	01 05 03.7	-1.4
KNRA				IAmb	IAmb	01 05 05.0	
	comp=Z,26nm,1.0s						
WRKA	Warakurna	37.90	248	P	P	01 05 10.9	-0.5
	comp=Z,31nm,0.9s						
WRKA	Warakurna	37.90	248	P	P	01 05 10.9	-0.5
	comp=Z,31nm,0.9s						
SWI	Sorong	38.22	288	P	P	01 05 13.7	-0.4
	comp=Z,58nm,1.2s						
FORT	Forrest	39.24	239	P	P	01 05 22.8	+0.3
	comp=Z,57nm,0.7s						
FORT	Forrest	39.24	239	P	P	01 05 22.8	+0.3
	comp=Z,57nm,0.7s						
FORT	Forrest	39.24	239	P	P	01 05 22.2	-0.3
FITZ	Fitzroy Crossi	40.01	259	P	P	01 05 28.4	-0.6
	comp=Z,7.8nm,0.9s						
FITZ	Fitzroy Crossi	40.01	259	P	P	01 05 28.9	-0.1
	comp=Z,7.8nm,0.9s						
FITZ	Fitzroy Crossi	40.01	259	P	P	01 05 29.7	+0.7
FITZ	Fitzroy Crossi	40.01	259	P	P	01 05 27.9	-1.1
FITZ	Fitzroy Crossi	40.01	259	P	P	01 05 28.4	-0.6
	comp=Z,7.8nm,0.9s						
NLAI	Namlea	41.26	282	P	P	01 05 39.7	+0.4
	comp=Z,1µmcomp=Z,95nm,1.4s						
SOEI	Soe	42.29	272	P	P	01 05 48.9	+1.0
SOEI	Soe	42.29	272	P	P	01 05 47.1	-0.8
SOEI	Soe	42.29	272	P	P	01 05 47.7	-0.2
	comp=Z,61nm,1.3s						
SOEI	Soe	42.29	272	P	P	01 05 48.6	+0.7
	comp=Z,61nm,1.3s						
SANI	Sanana	42.70	283	P	P	01 05 51.6	+0.6
SANI	Sanana	42.70	283	P	P	01 05 50.2	-0.8
	comp=Z,620nmcomp=Z,51nm,0.9s						
SANI	Sanana	42.70	283	P	P	01 05 51.2	+0.2
	comp=Z,52nm,0.9s						
MMRI	Maumere	44.48	273	P	P	01 06 04.6	-0.7
	comp=Z,83nm,1.1s						
BBSI	Bau Bau	44.91	277	P	P	01 06 08.7	-0.1
	comp=Z,39nm,0.5s						
EDFI	Ende, Flores	44.99	272	P	P	01 06 08.5	-1.0
	comp=Z,66nm,1.0s						
MNI	Manado	45.02	287	P	P	01 06 09.2	-0.5
KDI	Kendari	45.29	279	P	P	01 06 11.7	-0.1
MBWA	Marble Bar	45.53	255	P	P	01 06 13.6	+0.1
	comp=Z,55nm,0.9s						
MBWA	Marble Bar	45.53	255	P	P	01 06 14.4	+0.9
MBWA	Marble Bar	45.53	255	P	P	01 06 13.7	+0.1
MBWA				IAmb	IAmb	01 06 14.3	
	comp=Z,38nm,0.8s						
MBWA	Marble Bar	45.53	255	P	P	01 06 13.6	+0.1
	comp=Z,55nm,0.9s						
MBWA	Marble Bar	45.53	255	P	P	01 06 13.2	-0.4
MBWA				pP	pP	01 06 39.5	-1.6
LUWI	Luwuk	46.06	283	P	P	01 06 18.9	+1.1
LUWI	Luwuk	46.06	283	P	P	01 06 17.5	-0.3
LUWI	Luwuk	46.06	283	P	P	01 06 17.4	-0.4
	comp=Z,3µmcomp=Z,50nm,1.1s						
LUWI	Luwuk	46.06	283	P	P	01 06 18.3	+0.5
	comp=Z,49nm,1.2s						
KKSI	Kolaka, Sulawe	46.16	279	P	P	01 06 18.7	+0.1
GTOI	Gorontalo	46.42	285	P	P	01 06 21.2	+0.6
	comp=Z,23nm,0.7s						
MEEK	Meekatharra	46.75	247	P	P	01 06 22.9	-0.2
	comp=Z,83nm,0.7s						
MEEK	Meekatharra	46.75	247	P	P	01 06 24.0	+0.9
MEEK	Meekatharra	46.75	247	P	P	01 06 21.0	-2.1
	comp=Z,82nm,0.7s						
APSI	Ampana	47.16	283	P	P	01 06 26.6	+0.2
	comp=Z,30nm,1.2s						
KAPI	Kappang	47.75	277	P	P	01 06 31.7	+0.8
KAPI	Kappang	47.75	277	P	P	01 06 30.5	-0.4
KAPI				IAmb	IAmb	01 06 32.4	
	comp=Z,41nm,1.1s						
KAPI	Kappang	47.75	277	P	P	01 06 31.4	+0.4
	comp=Z,25nm,1.2s						
KAPI	Kappang	47.75	277	P	P	01 06 31.3	+0.4
DBNI	Kabupaten Domp	48.30	272	P	P	01 06 34.5	-0.7
TOLI2	Tolitoli	48.67	285	P	P	01 06 39.9	+1.9
TOLI2	Tolitoli	48.67	285	P	P	01 06 37.1	-0.9
TOLI2				IAmb	IAmb	01 06 37.8	
	comp=Z,13nm,0.9s						
TOLI2	Tolitoli	48.67	285	P	P	01 06 37.3	-0.8
	comp=Z,19nm,1.5s						
PLAI	Plampang	48.75	271	P	P	01 06 37.5	-1.2
	comp=Z,59nm,1.1s						
PCI	Palu	48.87	282	P	P	01 06 39.9	+0.3
	comp=Z,66nm,0.9s						
MORW	Morawa	49.22	244	P	P	01 06 42.0	0.0
	comp=Z,47nm,0.9s						
MORW	Morawa	49.22	244	P	P	01 06 41.4	-0.7
TWSI	Taliwang, Sumb	49.63	271	P	P	01 06 45.6	+0.2
MYLDM	Lahad Datu	52.30	289	P	P	01 07 07.0	+1.7
MYLDM	Lahad Datu	52.30	289	P	P	01 07 06.5	+1.2
	comp=Z,28nm,1.2s						
KKM	Kota Kinabalu	54.73	289	P	P	01 07 23.9	+0.7
KKM	Kota Kinabalu	54.73	289	P	P	01 07 23.1	-0.1
	comp=Z,54nm,1.2s						
KKM	Kota Kinabalu	54.73	289	P	P	01 07 23.5	+0.3
DRV	Dumont d’Urvil	54.80	193	P	P	01 07 22.2	-0.5
DRV				x	x	01 07 42.9	
DRV				pP	pP	01 07 50.9	-0.2
UGM	Wanagama	55.96	270	P	P	01 07 31.6	-0.4
SBUM	Sibu	57.16	283	P	P	01 07 41.9	+1.5
SBUM	Sibu	57.16	283	P	P	01 07 40.8	+0.3
SBUM				IAmb	IAmb	01 07 42.1	
	comp=Z,13nm,1.0s						
SBUM	Sibu	57.16	283	P	P	01 07 40.5	+0.1
	comp=Z,13nm,1.0s						
SBUM	Sibu	57.16	283	P	P	01 07 41.0	+0.6
	comp=Z,13nm,1.0s						
JMN	Monobe	57.88	327	P	P	01 07 45.2	0.0
MJAR	Matsushiro Arr	58.05	333	P	P	01 07 45.4	-0.8
	comp=Z,3.1nm,0.7s,baz=172,slow=7.8,SNR=7.8						
MJAR				pP	pP	01 08 13.8	-0.6
	comp=Z,2.2nm,0.7s,baz=157,slow=8.3,SNR=2.8						
	comp=Z,3.1nm,0.7s						
MJAR	Matsushiro Arr	58.05	333	P	P	01 07 45.2	-1.0
MJAR				IAmb	IAmb	01 08 14.4	
	comp=Z,11nm,1.3s						
BBJI	Bungbulang	58.83	270	P	P	01 07 51.3	-0.9
BBJI				IAmb	IAmb	01 07 52.3	
	comp=Z,16nm,0.7s						
JHS	Saijyo	59.27	328	P	P	01 07 55.4	+0.7
JHS	Saijyo	59.27	328	P	P	01 07 55.2	+0.6
	comp=Z,1.0nm,0.9s						
SSLB	Suanglung	59.39	310	P	P	01 07 57.7	+1.9
VNDA	Vanda	62.71	181	LR	LR	01 32 25.7	
	comp=Z,88nm,21.5s,baz=226,slow=33						
SBA	Scott Base	62.99	180	P	P	01 08 19.8	+0.7
CASY	Casey	63.40	202	P	P	01 08 21.6	-0.4
CASY	Casey	63.40	202	P	P	01 08 21.8	-0.2
CASY				x	x	01 08 54.4	
KSRS	Korea Array	63.87	326	P	P	01 08 25.3	-0.2
	comp=Z,1.6nm,0.5s,baz=139,slow=6.5,SNR=5.9						
KSRS				pP	pP	01 08 54.3	+0.1
	comp=Z,0.8nm,0.4s,baz=143,slow=6.6,SNR=4.4						
	comp=Z,1.6nm,0.5s						
CCD	Concordia, Ant	64.76	191	P	P	01 08 31.1	-0.1
CCD				PcP	PcP	01 09 03.2	-0.7
NJ2	Nanjing	65.80	316	*e*P	P	01 08 40.5	+2.4
NJ2				pmax	pmax		
	comp=Z,38nm,0.6s						
USRK	Ussuriysk Ar.	67.03	333	P	P	01 08 45.9	+0.2
	comp=Z,2.9nm,0.7s,baz=97,slow=6.7,SNR=3.6						
USRK				pP	pP	01 09 15.2	+0.6
	comp=Z,4.3nm,0.7s,baz=112,slow=8.5,SNR=2.9						
	comp=Z,2.9nm,0.7s						
USRK	Ussuriysk Ar.	67.03	333	P	P	01 08 45.3	-0.4
PETK	Petropavlovsk-	68.21	354	P	P	01 08 53.2	+0.3
	comp=Z,6.9nm,0.8s,baz=141,slow=7.8,SNR=7.5						
PETK				pP	pP	01 09 22.2	+0.3
	comp=Z,1.9nm,0.8s,baz=334,slow=13,SNR=2.1						
	comp=Z,6.9nm,0.8s						
PETK	Petropavlovsk-	68.21	354	P	P	01 08 53.4	+0.5
IPM	Ipoh	68.39	281	P	P	01 08 56.7	+1.7
IPM	Ipoh	68.39	281	P	P	01 08 54.1	-0.8
IPM				IAmb	IAmb	01 08 56.0	
	comp=Z,17nm,0.9s						
MNSI	Mandailing Nat	68.71	277	P	P	01 08 56.1	-0.8
	comp=Z,34nm,0.9s						
CN2	Changchun	69.78	329	*e*P	P	01 09 05.5	+2.6
CN2				*e*pP	pP	01 09 34.5	+2.5
CN2				*e*S	S	01 18 04.3	+1.7
CN2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
CN2				pmax	pmax		
	comp=Z,200nm,4.0s						
RPSI	Rantau Prapat	69.87	279	P	P	01 09 03.6	-0.5
RPSI				IAmb	IAmb	01 09 04.3	
	comp=Z,13nm,0.9s						
RPSI	Rantau Prapat	69.87	279	P	P	01 09 01.9	-2.2
	comp=Z,15nm,1.0s						
PSI	Prapat	69.90	279	P	P	01 09 04.6	+0.2
PSI	Prapat	69.90	279	P	P	01 09 03.3	-1.1
	comp=Z,15nm,1.0s						
XAN	Xi'an	73.81	313	P	P	01 09 27.6	+0.4
XAN				pmax	pmax		
	comp=Z,24nm,0.8s						
BSI	Banda Aceh	74.14	280	P	P	01 09 30.2	+0.6
KMI2	Kunming	74.41	302	P	P	01 09 32.6	+1.5
KMI2				pmax	pmax		
	comp=Z,19nm,1.0s						
XLT	XiLinHaoTe	74.84	324	*e*P	P	01 09 33.4	+0.3
XLT				pmax	pmax		
	comp=Z,8.0nm,0.7s						
CMAR	Chiang Mai Arr	75.03	294	P	P	01 09 35.1	+0.6
	comp=Z,3.8nm,0.7s,baz=124,slow=4.3,SNR=23						
CMAR				pP	pP	01 10 05.5	+1.3
	comp=Z,1.0nm,0.3s,baz=113,slow=4.0,SNR=2.4						
	comp=Z,3.8nm,0.7s						
CMAR	Chiang Mai Arr	75.03	294	P	P	01 09 34.9	+0.3
QSPA	South Pole Qui	75.15	180	P	P	01 09 34.3	-0.3
	comp=Z,39nm,0.8s,baz=348,slow=1.0,SNR=169						
	comp=Z,39nm,0.8s						
QSPA	South Pole Qui	75.15	180	P	P	01 09 34.1	-0.5
QSPA				IAmb	IAmb	01 09 35.3	
	comp=Z,35nm,0.8s						
QSPA	South Pole Qui	75.15	180	P	P	01 09 34.4	-0.3
CHTO	Chiang Mai	75.16	294	P	P	01 09 36.3	+1.0
CHTO	Chiang Mai	75.16	294	P	P	01 09 35.7	+0.4
CHTO				IAmb	IAmb	01 09 37.0	
	comp=Z,26nm,1.5s						
CHTO	Chiang Mai	75.16	294	P	P	01 09 35.0	-0.3
CHTO	Chiang Mai	75.16	294	P	P	01 09 36.2	+0.8
	comp=Z,11nm,1.2s						
HHC	Hu-ho-hao-te	75.71	320	*e*P	P	01 09 41.7	+3.5
HHC				pmax	pmax		
	comp=Z,10.0nm,0.6s						
PZH	PanZhiHua	75.80	303	P	P	01 09 40.5	+1.5
CD2	Chengdu	76.12	308	*e*P	P	01 09 41.0	+0.4
BTO2	Baotou	76.72	319	*e*P	P	01 09 45.3	+1.4
BTO2				S	S	01 19 21.8	+0.5

BTO2				pmax	pmax		
	comp=Z,5.0nm,0.6s						
BTO2				pmax	pmax		
	comp=Z,550nm,5.0s						
BTO2				L	L		
	comp=Z,820nm,4.5s						
BTO2				L	L		
	comp=Z,350nm,4.2s						
BTO2				L	L		
	comp=Z,470nm,7.4s						
LZH	**Lanzhou**	**78.44**	**312**	eP	**P**	**01 09 51.8**	**-1.8**
LZH				pmax	pmax		
	comp=Z,15nm,0.9s						
M16K	**Timber Creek**	**80.29**	**16**	P	**P**	**01 10 04.1**	**+1.3**
K15K	**Wolf Creek Mou**	**80.73**	**14**	P	**P**	**01 10 05.8**	**+0.6**
K15K				IAmb	IAmb	01 10 40.5	
	comp=Z,23nm,1.1s						
MAW	**Mawson**	**81.75**	**202**	P	**P**	**01 10 10.3**	**-0.3**
	comp=Z,2.7nm,0.7s,baz=121,slow=6.7,SNR=7.3						
	comp=Z,2.7nm,0.7s						
MAW	**Mawson**	**81.75**	**202**	P	**P**	**01 10 10.2**	**-0.4**
ULN	**Ulaanbaatar**	**82.27**	**324**	P	**P**	**01 10 13.3**	**-0.5**
ULN	**Ulaanbaatar**	**82.27**	**324**	P	**P**	**01 10 14.0**	**+0.2**
	comp=Z,44nm,1.0s						
ULN	**Ulaanbaatar**	**82.27**	**324**	P	**P**	**01 10 14.3**	**+0.5**
	comp=Z,11nm,1.0s						
ULN	**Ulaanbaatar**	**82.27**	**324**	P	**P**	**01 10 14.0**	**+0.2**
ULN				pP	**pP**	**01 10 43.2**	**-0.6**
SONM	**Songino Array**	**82.63**	**324**	P	**P**	**01 10 15.5**	**-0.2**
	comp=Z,2.3nm,0.8s,baz=149,slow=6.9,SNR=10						
SONM				pP	**pP**	**01 10 45.5**	**-0.2**
	comp=Z,1.2nm,0.7s,baz=150,slow=6.2,SNR=2.8						
	comp=Z,2.3nm,0.8s						
SONM	**Songino Array**	**82.63**	**324**	P	**P**	**01 10 14.7**	**-1.0**
SONM				IAmb	IAmb	01 10 47.6	
	comp=Z,24nm,2.0s						
GTA2	**Gaotai**	**82.86**	**314**	eP	**P**	**01 10 17.7**	**+0.7**
GTA2				pP	pP	01 10 47.1	-0.1
GTA2				pmax	pmax		
	comp=Z,9.0nm,1.2s						
CAST	**Castle Rocks**	**84.13**	**17**	P	**P**	**01 10 21.6**	**-1.2**
I21K	**Tanana**	**85.53**	**16**	IAmb	IAmb	01 11 05.6	
	comp=Z,10nm,0.9s						
ILAR	**Eielson Array**	**86.66**	**18**	P	**P**	**01 10 34.0**	**-1.4**
	comp=Z,2.0nm,0.8s,baz=237,slow=5.6,SNR=21						
ILAR				pP	**pP**	**01 11 05.7**	**+0.5**
	comp=Z,2.8nm,0.8s,baz=237,slow=5.1,SNR=9.0						
	comp=Z,2.0nm,0.8s						
ILAR	**Eielson Array**	**86.66**	**18**	P	**P**	**01 10 35.0**	**-0.4**
PFO	**Pinyon Flats O**	**87.06**	**54**	LR	LR	01 41 39.9	
	comp=Z,36nm,21.9s,baz=229,slow=30						
DSP	**Deep Springs**	**87.22**	**50**	P	**P**	**01 10 38.3**	**-0.4**
G23K	**Bananza Creek**	**87.22**	**16**	P	**P**	**01 10 38.9**	**+0.8**
NVAR	**Mina Array Bea**	**87.35**	**49**	P	**P**	**01 10 38.8**	**-0.8**
	comp=Z,0.5nm,0.7s,baz=220,slow=6.3,SNR=4.4						
NVAR				pP	**pwP**	**01 11 11.2**	**-2.1**
	comp=Z,0.4nm,0.7s,baz=236,slow=8.3,SNR=2.2						
	comp=Z,0.5nm,0.7s						
EVN	**Everest**	**88.71**	**299**	P	**P**	**01 10 46.6**	**-0.2**
EVN				IAmb	IAmb	01 10 47.6	
	comp=Z,13nm,0.6s						
EVN	**Everest**	**88.71**	**299**	P	**P**	**01 10 47.0**	**+0.2**
	comp=Z,19nm,0.6s						
ELIB	**Princess Elisa**	**90.07**	**191**	dP	**P**	**01 10 51.0**	**-0.8**
	comp=Z,7.1nm,1.0s						
TROLL	**Troll, Antarti**	**92.72**	**185**	⇑P	**P**	**01 11 03.1**	**-0.9**
	comp=Z,1µm,0.6s						
WMQ	**Urumqi**	**92.85**	**315**	eP	**P**	**01 11 05.8**	**+0.8**
WMQ				pmax	pmax		
	comp=Z,9.0nm,0.7s						
SNAA	**Sanae**	**93.40**	**183**	⇑P	**P**	**01 11 05.8**	**-1.3**
	comp=Z,175nm,0.6s						
SNAA	**Sanae**	**93.40**	**183**	P	**P**	**01 11 05.5**	**-1.5**
	comp=Z,7.1nm,0.7s,baz=179,slow=5.1,SNR=22						
	comp=Z,7.1nm,0.7s						
SNAA	**Sanae**	**93.40**	**183**	P	**P**	**01 11 05.8**	**-1.3**
SNAA				IAmb	IAmb	01 11 06.7	
	comp=Z,8.2nm,0.8s						
SNAA	**Sanae**	**93.40**	**183**	P	**P**	**01 11 05.4**	**-1.7**
	comp=Z,12nm,1.0s						
VNA3	**Neumayer Olymp**	**94.07**	**181**	⇑P	**P**	**01 11 08.3**	**-1.7**
	comp=Z,24nm,0.7s						
VNA2	**Neumayer--Watz**	**94.33**	**182**	⇑P	**P**	**01 11 09.9**	**-1.4**
	comp=Z,19nm,0.6s,baz=173,slow=4.6						
VNA1	**Neumayer--Stat**	**94.63**	**181**	P	**P**	**01 11 11.4**	**-1.2**
	comp=Z,11nm,1.1s						
TXAR	**Lajitas Array**	**96.33**	**61**	P	**P**	**01 11 20.5**	**-0.8**
	comp=Z,0.2nm,0.7s,baz=326,slow=8.6,SNR=2.1						
TXAR				LR	LR	01 48 27.3	
	comp=Z,18nm,18.9s,baz=56,slow=31						
	comp=Z,0.2nm,0.7s						
TXAR	**Lajitas Array**	**96.33**	**61**	P	**P**	**01 11 21.2**	**0.0**
MKAR	**Makanchi Array**	**97.33**	**316**	P	**P**	**01 11 25.0**	**-0.3**
	comp=Z,2.0nm,0.7s,baz=86,slow=6.7,SNR=17						
MKAR				pP	**pP**	**01 11 55.8**	**-0.1**
	comp=Z,2.1nm,0.8s,baz=88,slow=6.3,SNR=6.4						
	comp=Z,2.0nm,0.7s						
MKAR	**Makanchi Array**	**97.33**	**316**	P	**P**	**01 11 24.6**	**-0.6**
ZALV	**Zalesovo Beam**	**97.52**	**324**	P	**P**	**01 11 24.7**	**-1.2**
	comp=Z,2.2nm,0.7s,baz=124,slow=6.1,SNR=9.7						
	comp=Z,2.2nm,0.7s						
ZALV	**Zalesovo Beam**	**97.52**	**324**	P	**P**	**01 11 25.2**	**-0.7**
SPITS	**Spitsbergen Ar**	**115.08**	**354**	PKP	**PKiKP**	**01 16 31.8**	**-0.1**
	comp=Z,4.3nm,0.8s,baz=51,slow=6.6,SNR=1.9						
ARCES	**ARCESS Array B**	**120.40**	**345**	PKP	**PKPdf**	**01 16 41.4**	**-0.9**
	comp=Z,1.1nm,0.3s,baz=78,slow=2.1,SNR=20						
ARCES	**ARCESS Array B**	**120.40**	**345**		**PKPdf**	**01 16 41.1**	**-1.1**
BOSA	**Boshof**	**123.28**	**220**	PKP	**PKPdf**	**01 16 49.3**	**0.0**
	comp=Z,3.9nm,0.9s,baz=358,slow=9.0,SNR=3.6						
FINES	**FINESS Array B**	**125.87**	**338**	PKP	**PKPdf**	**01 16 53.3**	**+0.4**
	comp=Z,0.9nm,0.8s,baz=117,slow=2.5,SNR=7.6						
FINES	**FINESS Array B**	**125.87**	**338**	PKPdf	**PKPdf**	**01 16 52.3**	**-0.6**
NOA	**NORSAR Array B**	**130.77**	**345**	PKP	**PKPdf**	**01 17 02.6**	**+0.2**
	comp=Z,1.0nm,1.0s,baz=31,slow=1.9,SNR=3.5						
AK01	**Malin Array Si**	**130.88**	**326**	PKP	**PKPdf**	**01 17 01.9**	**-0.9**
BRTR	**Keskin Array B**	**132.62**	**311**	PKP	**PKPdf**	**01 17 07.1**	**+0.4**
	comp=Z,0.3nm,0.6s,baz=120,slow=3.1,SNR=2.6						
BRTR				pPKP	**pPKPdf**	**01 17 40.0**	**+1.5**
	comp=Z,0.6nm,0.9s,baz=162,slow=1.4,SNR=3.6						
BRTR				SKPbc	**SKPbc**	**01 20 20.8**	**-2.3**
	comp=Z,1.3nm,1.0s,baz=96,slow=1.8,SNR=5.1						
MMAI	**Mount Meron Ar**	**132.91**	**301**	PKP	**PKPdf**	**01 17 07.4**	**0.0**
	comp=Z,0.6nm,0.3s,baz=81,slow=8.9,SNR=2.2						
GERES	**GERESS Array B**	**139.78**	**333**	PKhKP	PKPpre	01 17 13.4	
	comp=Z,0.2nm,0.5s,baz=64,slow=3.1,SNR=3.8						
GERES				SKPbc	**SKPbc**	**01 20 42.6**	**-2.0**
	comp=Z,0.2nm,0.7s,baz=53,slow=5.2,SNR=3.4						
BMRD	**Maredsous**	**141.93**	**342**	dPKiKP	**PKiKP**	**01 17 25.7**	**-0.5**
TUE	**Stuetta**	**143.49**	**334**		PKPbc	01 17 24.7	+0.7
SENIN	**Lac Senin/Sane**	**144.41**	**336**	PKPdf	PKPbc	01 17 27.1	+0.2
INTR	**Introdacqua**	**144.53**	**325**	PKPdf	**PKPab**	**01 17 26.6**	**-0.3**
TIP	**Timpagrande**	**144.57**	**319**	PKPdf	PKPbc	01 17 27.6	+0.2
KEST	**Kesra**	**151.34**	**320**	PKPbc	**PKPbc**	**01 17 45.8**	**0.0**
	comp=Z,1.6nm,0.5s,baz=48,slow=14,SNR=6.5						
ESDC	**Sonseca Array**	**154.13**	**344**	PKPbc	**PKiKP**	**01 17 52.0**	**+0.2**
	comp=Z,0.1nm,0.3s,baz=348,slow=4.2,SNR=2.3						
ESDC				PKPab	**PKPab**	**01 18 05.1**	**-0.6**
	comp=Z,1.3nm,0.9s,baz=8.9,slow=4.0,SNR=8.0						
TORD	**Torodi Ar. Bea**	**165.92**	**265**	PKP	**PKPdf**	**01 17 57.4**	**+0.1**
	comp=Z,0.9nm,1.0s,baz=28,slow=1.8,SNR=4.4						
TORD				PKPab	**PKPab**	**01 18 57.2**	**-0.6**
	comp=Z,1.3nm,0.9s,baz=101,slow=4.4,SNR=5.4						

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*IDC **02** 01:15:32.7±1.9, 14°.65N×61°.63W, h0^{km}, mb4.0/6, mbtmp4.0/6, Error ellipse: s-maj=82.0km s-min=26.1km az=118.0*

*TRN **02** 01:15:35.0, 15°.22N×61°.22W, h139^{km}, MD4.2, Near South-east of Dominica.*

*NEIC **02** 01:15:52.9±1.0, 15°.19N±0°.05×61°.29W±0°.06, h135^{km}±4^{km}, mb4.3/3, Error ellipse: s-maj=8.9km s-min=5.2km az=54.0*

ISC 02 01:15:52.8±0.7**, 15°.19N**±0°.03×**61°.29W**±0°.06**, h139**^{km}±5^{km}**, n64, σ0^s.81**/95**, mb3.6**/5**, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DSLB	**Salisbury**	**0.28**	**333**	eP	**Pn**	**01 16 12.0**	**0.0**
DSLB				eS	**Sn**	**01 16 26.5**	**0.0**
SVN	**Savane Anatole**	**0.37**	**161**		**Pn**	**01 16 11.9**	**-0.4**
SVN				Sn	**Sn**	**01 16 26.3**	**-0.8**
SVN	**Savane Anatole**	**0.37**	**161**	eP	**Pn**	**01 16 12.1**	**-0.2**
SVN				eS	**Sn**	**01 16 27.0**	**-0.1**
DWS	**Wesley**	**0.38**	**357**	eP	**Pn**	**01 16 12.2**	**0.0**
DWS				eS	**Sn**	**01 16 27.1**	**0.0**
CXM	**Morne La Croix**	**0.40**	**162**		**Pn**	**01 16 11.9**	**-0.7**
CXM				Sn	**Sn**	**01 16 26.6**	**-0.9**
FDFM	**Morne la Roset**	**0.47**	**164**		**Pn**	**01 16 12.3**	**-0.4**
FDFM				Sn	**Sn**	**01 16 26.9**	**-1.0**
ILAM	**Ilet Lapin Mar**	**0.58**	**136**		**Pn**	**01 16 12.3**	**-1.0**
ILAM				Sn	**Sn**	**01 16 27.2**	**-1.6**
ILAM	**Ilet Lapin Mar**	**0.58**	**136**	eP	**Pn**	**01 16 12.8**	**-0.4**
ILAM				eS	**Sn**	**01 16 27.6**	**-1.2**
BIM	**Bigot**	**0.70**	**162**		**Pn**	**01 16 13.7**	**-0.5**
BIM				Sn	**Sn**	**01 16 29.7**	**-0.7**
BIM	**Bigot**	**0.70**	**162**	eP	**Pn**	**01 16 13.9**	**-0.3**
BIM				eS	**Sn**	**01 16 30.3**	**-0.1**
TDBA	**Terre de Bas,**	**0.73**	**333**		**Pn**	**01 16 14.5**	**+0.2**
TDBA					**Sn**	**01 16 30.4**	**-0.4**
TBG	**Guadaloupe-3**	**0.74**	**333**	eP	**Pn**	**01 16 14.4**	**0.0**
TBG				eS	**Sn**	**01 16 30.6**	**-0.2**
MAGL	**Barre de l'ile**	**0.76**	**1**		**Pn**	**01 16 14.2**	**-0.3**
MPOM	**Morne Pois Mar**	**0.85**	**150**		**Pn**	**01 16 14.7**	**-0.6**
MMLZ	**Guadeloupe Bro**	**0.92**	**337**	eP	**Pn**	**01 16 16.0**	**+0.2**
MMLZ				eS	**Sn**	**01 16 33.5**	**+0.1**
CBE	**Ff, Capester**	**0.93**	**341**		**Pn**	**01 16 15.9**	**0.0**
CBE				Sn	**Sn**	**01 16 32.7**	**-0.8**
DSDZ	**La Diserade, G**	**1.14**	**11**	eP	**Pn**	**01 16 17.3**	**-0.4**
DSDZ				eS	**Sn**	**01 16 35.9**	**-0.9**
GDSD	**La Dsirade Is**	**1.14**	**11**		**Pn**	**01 16 17.0**	**-0.8**
GDSD				Sn	**Sn**	**01 16 35.5**	**-1.4**
DHSZ	**Broadband at M**	**1.17**	**337**	eP	**Pn**	**01 16 18.4**	**+0.4**
DHSZ				eS	**Sn**	**01 16 37.1**	**-0.3**
GDHS	**Morne Mazeau,**	**1.17**	**337**		**Pn**	**01 16 18.3**	**+0.1**
GDHS				Sn	**Sn**	**01 16 38.0**	**+0.5**
SLBI	**Saint Lucia, B**	**1.20**	**165**	eP	**Pn**	**01 16 17.7**	**-0.6**
SLBI				eS	**Sn**	**01 16 37.4**	**-0.6**
SLCP	**Castries, St.**	**1.21**	**166**	eP	**Pn**	**01 16 18.3**	**-0.2**
SLCP				eS	**Sn**	**01 16 37.8**	**-0.3**
ABD	**La Joyeuse, An**	**1.29**	**352**		**Pn**	**01 16 19.2**	**-0.1**
ABD				Sn	**Sn**	**01 16 38.1**	**-1.5**
SLAC	**Saint Lucia, A**	**1.34**	**163**	eP	**Pn**	**01 16 19.3**	**-0.5**
SLAC				eS	**Sn**	**01 16 40.2**	**-0.2**
MBWH	**Windy Hill**	**1.77**	**331**	eP	**Pn**	**01 16 24.5**	**0.0**
MBWH				eS	**Sn**	**01 16 47.8**	**-1.1**
ANWB	**Willy Bob**	**2.51**	**349**		**Pn**	**01 16 32.2**	**-1.3**
ANWB	**Willy Bob**	**2.51**	**349**	eP	**Pn**	**01 16 32.4**	**-1.0**
ANWB				eS	**Sn**	**01 17 03.0**	**-1.9**
SKI	**Saint Kitts**	**2.54**	**327**	eP	**Pn**	**01 16 34.5**	**+0.6**
SKI				eS	**Sn**	**01 17 05.4**	**-0.3**
BBGH	**Gun Hill**	**2.64**	**140**	Pn	**Pn**	**01 16 35.4**	**+0.3**
SEUS	**St. Eustatius**	**2.81**	**325**		**Pn**	**01 16 36.8**	**-0.4**
SEUS	**St. Eustatius**	**2.81**	**325**	eP	**Pn**	**01 16 37.0**	**-0.2**
GRSS	**Sisters**	**2.89**	**186**	eP	**Pn**	**01 16 37.6**	**-0.7**
GRHS	**Sauteurs**	**2.97**	**187**	eP	**Pn**	**01 16 38.7**	**-0.6**
GRHS				eS	**Sn**	**01 17 15.2**	**-0.1**
GRW	**Mount Saint Ca**	**3.03**	**187**	eP	**Pn**	**01 16 39.8**	**-0.5**
GRW				eS	**Sn**	**01 17 16.4**	**-0.5**
SABA	**Saba**	**3.06**	**322**		**Pn**	**01 16 40.5**	**+0.1**
SABA	**Saba**	**3.06**	**322**	eP	**Pn**	**01 16 40.6**	**+0.2**
SABA				eS	**Sn**	**01 17 15.3**	**-2.0**
GRGR	**Grenville**	**3.06**	**187**		**Pn**	**01 16 40.0**	**-0.5**
GRGR	**Grenville**	**3.06**	**187**	eP	**Pn**	**01 16 40.2**	**-0.3**
GRGR				eS	**Sn**	**01 17 16.9**	**-0.5**
SMRT	**St. Maarten**	**3.32**	**329**	Pn	**Pn**	**01 16 43.1**	**-0.8**
SMRT	**St. Maarten**	**3.32**	**329**	eP	**Pn**	**01 16 43.2**	**-0.7**
SMRT				eS	**Sn**	**01 17 21.8**	**-1.5**
DMDM	**Guralp CMG5TDE**	**4.47**	**183**	eP	**Pn**	**01 17 00.0**	**+1.0**
DMDM				eS	**Sn**	**01 17 49.4**	**-1.1**
PSKH	**Kent House, Po**	**4.49**	**183**	eP	**Pn**	**01 16 59.9**	**+0.7**
PSKH				eS	**Sn**	**01 17 49.6**	**-1.3**
TRN	**Trinidad (W)**	**4.52**	**181**	eP	**Pn**	**01 16 59.8**	**+0.2**
TRN				eS	**Sn**	**01 17 49.0**	**-2.6**
HUMP	**Col San Antoni**	**5.26**	**305**	Pn	**Pn**	**01 17 09.3**	**-0.2**
PDPR	**Patillas Dam,**	**5.34**	**302**	Pn	**Pn**	**01 17 10.0**	**-0.4**
SJG	**San Juan**	**5.49**	**303**		**Pn**	**01 17 12.4**	**0.0**
SJG	**San Juan**	**5.49**	**303**	eP	**Pn**	**01 17 12.5**	**0.0**
ECPR	**Experimental S**	**5.77**	**303**		**Pn**	**01 17 16.6**	**+0.3**
CELP	**Cerrillos**	**5.82**	**300**		**Pn**	**01 17 16.8**	**-0.3**
OBIP	**Obispado Ponce**	**5.83**	**300**	Pn	**Pn**	**01 17 16.4**	**-0.7**
AOPR	**Arecibo Observ**	**6.10**	**302**		**Pn**	**01 17 20.4**	**-0.3**
MLPR	**Magueyes Islan**	**6.17**	**297**	Pn	**Pn**	**01 17 20.9**	**-0.7**
AGPR	**Aguadilla, PR**	**6.46**	**301**	Pn	**Pn**	**01 17 25.8**	**+0.3**
SDDR	**Presa de Saban**	**10.28**	**293**	Pn	**Pn**	**01 18 17.3**	**+0.6**
BOAV	**Boa Vista**	**12.74**	**177**		Pn	01 18 45.2	-3.8
NMDO	**Nuevo Mundo**	**14.08**	**294**	Pn	**Pn**	**01 19 04.8**	**-1.4**
BBSR	**BB Station**	**17.38**	**350**	P	**P**	**01 19 46.9**	**+0.9**
BBSR				IAmb	IAmb	01 19 52.1	
	comp=Z,17nm,0.9s						
MACA	**Manacapuru-AM**	**18.24**	**178**	P	**P**	**01 19 55.7**	**+0.1**
MACA				IAmb	IAmb	01 19 57.2	
	comp=Z,17nm,0.6s						
LPAZ	**La Paz**	**32.00**	**192**	P	P	01 21 56.5	-10
	comp=Z,3.6nm,0.4s,baz=0.0,slow=8.1,SNR=31						
	comp=Z,3.6nm,0.4s						
ESDC	**Sonseca Array**	**55.40**	**52**	P	**P**	**01 25 14.4**	**+1.6**
	comp=Z,0.6nm,0.7s,baz=271,slow=7.3,SNR=6.9						
	comp=Z,0.6nm,0.7s						
TORD	**Torodi Ar. Bea**	**60.92**	**83**	P	**P**	**01 25 49.9**	**-1.6**
	comp=Z,0.8nm,0.6s,baz=286,slow=6.9,SNR=8.5						
	comp=Z,0.8nm,0.6s						
KEST	**Kesra**	**65.68**	**57**	P	**P**	**01 26 24.0**	**+1.4**
	comp=Z,3.1nm,0.8s,baz=310,slow=7.9,SNR=3.5						
	comp=Z,3.1nm,0.8s						
GERES	**GERESS Array B**	**68.86**	**43**	P	**P**	**01 26 42.0**	**-0.5**
	comp=Z,0.3nm,0.6s,baz=242,slow=5.4,SNR=2.2						
	comp=Z,0.3nm,0.6s						
FINES	**FINESS Array B**	**75.54**	**30**	P	**P**	**01 27 22.1**	**+0.4**
	comp=Z,0.8nm,0.7s,baz=250,slow=7.3,SNR=1.5						
	comp=Z,0.8nm,0.7s						

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*MDD **02** 01:31:32.1±0.2, 41°.81N×3°.76E, h0^{km}, mb_Lg3.6/48, Error ellipse: s-maj=1.7km s-min=1.4km az=152.0*

*IDC **02** 01:31:33.1±0.9, 41°.96N×3°.54E, h0^{km}, mb3.3/4, mbtmp3.4/9, ML3.5/5, Error ellipse: s-maj=17.7km s-min=9.9km az=148.0*

*LDG **02** 01:31:33.3±0.1, 41°.85N×3°.75E, h5^{km}, Ml3.8/38, Error ellipse: s-maj=1.7km s-min=1.1km az=140.0*

*SFS **02** 01:31:34.5, 41°.83N×3°.75E, h23^{km}, ML3.5/9, ML3.7/9, MLv3.7/6*

*PRU **02** 01:31:34.8, 42°.75N×2°.46E, h10^{km}*

*MRB **02** 01:31:35.4±0.2, 41°.89N×3°.60E, ML3.6/53, Error ellipse: s-maj=1.8km s-min=0.9km az=280.0*

ISC 02 01:31:32.1±0.6**, 41°.93N**±0°.02×**3°.68E**±0°.02**, h16**^{km}±3^{km}**, n175, σ2^s.16**/359**, mb3.4**/4**, 1C-12D, Spain**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CPAL	**Palau Saverder**	**0.54**	**315**	P	**Pn**	**01 31 45.6**	**+0.5**
CPAL				S	**Sb**	**01 31 53.4**	**+2.6**
	2µm,0.1s						
CPAL				AML	AML		
CCAS	**Cassa de la Se**	**0.58**	**266**	P	**Pb**	**01 31 45.4**	**+1.5**
CCAS				S	**Sb**	**01 31 53.0**	**+1.1**
	853nm,0.2s						
CCAS				AML	AML		
CGIR	**Ginora - Unive**	**0.64**	**275**	P	**Pb**	**01 31 46.6**	**+1.7**
CGIR				S	**Sb**	**01 31 54.9**	**+1.4**
	872nm,0.2s						
CGIR				AML	AML		
CGIS	**Girona - Santa**	**0.65**	**275**	P	**Pb**	**01 31 46.6**	**+1.7**
CGIS				S	**Sg**	**01 31 54.8**	**+1.5**
	3µm,0.2s						
CGIS				AML	AML		
BLAN	**Blanes**	**0.71**	**250**	P	**Pb**	**01 31 47.4**	**+1.3**
BLAN				S	**Sb**	**01 31 56.5**	**+1.0**
	676nm,0.3s						
BLAN				AML	AML		
EJON	**La Jonquera**	**0.79**	**311**	Pg	**Pn**	**01 31 49.9**	**+1.4**
EJON				Sg	**Sn**	**01 32 01.5**	**+1.5**
EJON	**La Jonquera**	**0.79**	**311**	Pg	**Pn**	**01 31 50.0**	**+1.4**
EJON				Sg	**Sn**	**01 32 01.3**	**+1.4**
EJON				IVmb_Lg		01 32 02.3	
SJAF	**Saint Jean de**	**0.81**	**313**	P	**Pn**	**01 31 50.3**	**+1.4**
SJAF				S	**Sb**	**01 32 01.3**	**+2.7**
	1µm,0.2s						
SJAF				AML	AML		
CBEU	**Beuda**	**0.82**	**294**	P	**Pn**	**01 31 50.2**	**+1.2**
CBEU				S	**Sb**	**01 32 00.9**	**+2.1**
CFON	**Fontmartina**	**0.95**	**260**	P	**Pb**	**01 31 51.6**	**+1.4**
CFON				S	**Sg**	**01 32 03.7**	**+0.8**
	2µm,0.2s						
CFON				AML	AML		
FILF	**Fillols**	**1.04**	**307**	P	**Pn**	**01 31 55.1**	**+3.0**
FILF				S	**Sn**	**01 32 09.7**	**+3.3**
	1µm,0.4s						
FILF				AML	AML		
CBRU	**Bruguera**	**1.17**	**288**	P	**Pg**	**01 31 55.7**	**+0.9**
CBRU				S	**Sb**	**01 32 10.5**	**+1.4**
	668nm,0.3s						
CBRU				AML	AML		
EXQUE	**Queralbs**	**1.21**	**291**	P	**Pb**	**01 31 55.9**	**+1.3**
EXQUE				S	**Sb**	**01 32 11.5**	**+1.5**
	1µm,0.3s						
EXQUE				AML	AML		
CORI	**Orista**	**1.22**	**273**	P	**Pb**	**01 31 55.8**	**+1.1**
CORI				S	**Sb**	**01 32 11.3**	**+1.0**
	544nm,0.2s						
CORI				AML	AML		
MTJR	**Montjuic**	**1.27**	**244**	S	**Sb**	**01 32 11.9**	**0.0**
	1µm,0.2s						
MTJR				AML	AML		
FBR	**Fabra**	**1.28**	**247**	S	**Sb**	**01 32 12.2**	**+0.3**
	847nm,0.2s						
FBR				AML	AML		
CLAF	**Gruissan**	**1.28**	**340**	ePn	**Pn**	**01 31 56.5**	**+1.2**
CLAF				eSn	**Sb**	**01 32 13.8**	**+1.8**
CLAF	**Gruissan**	**1.28**	**340**	S	**Sb**	**01 32 13.8**	**+1.8**
AVIN	**Avinyo**	**1.29**	**267**	P	**Pn**	**01 31 56.7**	**+1.4**
AVIN				S	**Sb**	**01 32 12.7**	**+0.5**
	2µm,0.1s						
AVIN				AML	AML		
ICJA	**ICTJA-CSIC, Ba**	**1.29**	**246**	P	**Pn**	**01 31 56.5**	**+1.0**
ICJA				S	**Sb**	**01 32 12.5**	**+0.1**
	1µm,0.2s						
ICJA				AML	AML		
VALC	**Valcebollere**	**1.30**	**291**	P	**Pb**	**01 31 57.3**	**+1.1**
VALC				S	**Sb**	**01 32 13.8**	**+1.0**
CLLI	**Llivia**	**1.38**	**294**	P	**Pb**	**01 31 58.7**	**+1.0**
CLLI				S	**Sn**	**01 32 15.8**	**+0.9**
	556nm,0.2s						
CLLI				AML	AML		
CARF	**Carcanieres**	**1.41**	**304**	P	**Pb**	**01 31 59.2**	**+1.1**
CARF				S	**Sn**	**01 32 17.1**	**+1.6**
	819nm,0.4s						
CARF				AML	AML		
CMON	**Montserrat**	**1.42**	**257**	S	**Sn**	**01 32 15.9**	**+0.2**
	184nm,0.3s						
CMON				AML	AML		
CGAR	**Garraf**	**1.47**	**245**	S	**Sn**	**01 32 16.9**	**0.0**
	407nm,0.5s						
CGAR				AML	AML		
FNEB	**Nbias**	**1.52**	**310**	P	**Pn**	**01 32 00.5**	**+1.9**
FNEB				S	**Sn**	**01 32 19.3**	**+1.3**
	625nm,0.7s						
FNEB				AML	AML		
EMIR	**Miracle**	**1.61**	**270**	P	**Pn**	**01 32 01.1**	**+1.1**
EMIR				S	**Sn**	**01 32 20.7**	**+0.4**
	347nm,0.2s						
EMIR				AML	AML		
EMIR	**Miracle**	**1.61**	**270**	Pn	**Pb**	**01 32 02.0**	**+0.6**
EMIR				Pg	**Pg**	**01 32 03.4**	**+0.3**
EMIR				Sn	**Sg**	**01 32 24.4**	**+0.3**
ARBS	**La Rabassa**	**1.67**	**289**	P	**Pn**	**01 32 02.8**	**+1.9**
ARBS				S	**Sn**	**01 32 22.5**	**+0.5**
	740nm,0.3s						
ARBS				AML	AML		
PAND	**Andorre**	**1.69**	**291**	P	**Pn**	**01 32 02.7**	**+1.6**
PAND				S	**Sn**	**01 32 23.0**	**+0.3**
	803nm,0.3s						
PAND				AML	AML		
EXSEU	**La Seu d''Urge**	**1.71**	**285**	S	**Sn**	**01 32 23.5**	**+0.8**
	824nm,0.7s						
EXSEU				AML	AML		
MTLF	**Montolieu**	**1.78**	**323**	ePn	**Pn**	**01 32 04.3**	**+2.2**
MTLF				ePg	**Pg**	**01 32 08.4**	**+2.2**
MTLF				eSg	**Sg**	**01 32 31.7**	**+2.4**
	324nm,0.3s						
MTLF				AML	AML		
CORG	**Organya**	**1.79**	**280**	P	**Pn**	**01 32 03.8**	**+1.5**
CORG				S	**Sn**	**01 32 25.1**	**+0.4**
	232nm,0.3s						
CORG				AML	AML		
GENF	**Genat**	**1.80**	**300**	P	**Pn**	**01 32 04.3**	**+1.8**
GENF				S	**Sn**	**01 32 26.3**	**+1.3**
CEST	**Esterri de Car**	**1.92**	**291**	P	**Pn**	**01 32 06.1**	**+1.8**
CEST				S	**Sn**	**01 32 28.8**	**+0.6**
	368nm,0.4s						
CEST				AML	AML		
CSOR	**Sort**	**1.95**	**284**	P	**Pn**	**01 32 06.3**	**+1.7**
CSOR				S	**Sn**	**01 32 29.2**	**+0.5**
	344nm,0.4s						
CSOR				AML	AML		
SALF	**Salau**	**2.03**	**295**	P	**Pn**	**01 32 07.3**	**+1.7**
SALF				S	**Sn**	**01 32 31.6**	**+0.9**
	204nm,0.3s						
SALF				AML	AML		
EPOB	**Poblet**	**2.04**	**254**	P	**Pn**	**01 32 07.0**	**+1.2**
EPOB				S	**Sn**	**01 32 30.4**	**-0.5**
	62nm,0.3s						
EPOB				AML	AML		
EPOB	**Poblet**	**2.04**	**254**	Pn	**Pn**	**01 32 07.0**	**+1.2**
EPOB				Sn	**Sn**	**01 32 31.5**	**+0.6**
EPOB				Sg	**Sg**	**01 32 37.5**	**-0.1**
EPOB				IVmb_Lg		01 32 40.9	
MAHO	**Mahon**	**2.08**	**168**	Pn	**Pn**	**01 32 05.7**	**-0.5**
MAHO				Sn	**Sn**	**01 32 27.6**	**-4.2**
LASF	**Ste Croix**	**2.15**	**3**	ePn	**Pn**	**01 32 09.5**	**+2.2**
LASF				eSn	**Sn**	**01 32 34.6**	**+1.0**
MLS	**Moulis**	**2.17**	**299**	P	**Pn**	**01 32 09.6**	**+2.0**
MLS				S	**Sn**	**01 32 35.2**	**+1.0**
	248nm,0.6s						
MLS				AML	AML		
CAVN	**Les Avellanes**	**2.19**	**270**	P	**Pn**	**01 32 09.3**	**+1.5**
CAVN				S	**Sn**	**01 32 34.4**	**-0.2**
	298nm,0.3s						
CAVN				AML	AML		
CTRE	**Tremp**	**2.20**	**281**	P	**Pn**	**01 32 09.7**	**+1.7**
CTRE				S	**Sn**	**01 32 35.2**	**+0.2**
	174nm,0.4s						
CTRE				AML	AML		
ETOS	**Mallorca**	**2.26**	**197**	Pn	**Pn**	**01 32 08.3**	**-0.5**
ETOS				Sn	**Sn**	**01 32 32.9**	**-3.4**
ETOS	**Mallorca**	**2.26**	**197**	Pn	**Pn**	**01 32 08.2**	**-0.5**
ETOS				Sn	**Sn**	**01 32 32.0**	**-4.3**
ETOS				IVmb_Lg		01 32 36.5	
CARA	**Val d'Aran**	**2.26**	**291**	P	**Pn**	**01 32 10.9**	**+1.9**
CARA				S	**Sn**	**01 32 36.6**	**0.0**
	394nm,0.3s						
CARA				AML	AML		
VIER	**Vielha - Casau**	**2.29**	**291**	S	**Sn**	**01 32 37.6**	**+0.5**
	339nm,0.3s						
VIER				AML	AML		
VAN2	**Vandellos 2**	**2.36**	**246**	P	**Pn**	**01 32 11.1**	**+0.9**
VAN2				S	**Sn**	**01 32 38.0**	**-0.8**
	122nm,0.2s						
VAN2				AML	AML		
SMRF	**Simiane la Rot**	**2.47**	**34**	ePn	**Pn**	**01 32 13.7**	**+2.0**
SMRF				eSn	**Sn**	**01 32 41.2**	**-0.3**
	54nm,0.3s						
SMRF				AML	AML		
CBUD	**Illa de Buda**	**2.48**	**241**	P	**Pn**	**01 32 12.7**	**+1.0**
CBUD				S	**Sn**	**01 32 40.7**	**-0.9**
	256nm,0.7s						
CBUD				AML	AML		
LMR	**La Mourre**	**2.51**	**55**	ePn	**Pn**	**01 32 13.9**	**+1.7**
LMR				eSn	**Sn**	**01 32 42.0**	**-0.5**
	186nm,0.2s						
LMR				AML	AML		
RESF	**Ens**	**2.63**	**291**	P	**Pn**	**01 32 15.6**	**+1.7**
RESF				S	**Sn**	**01 32 45.7**	**+0.1**
EBR	**Ebro Roquetas**	**2.65**	**246**	P	**Pn**	**01 32 15.0**	**+1.0**
EBR				S	**Sn**	**01 32 44.9**	**-0.8**
	177nm,0.4s						
EBR				AML	AML		
CFAR	**Far de la Bany**	**2.66**	**240**	P	**Pn**	**01 32 15.4**	**+1.2**
CFAR				S	**Sn**	**01 32 45.2**	**-0.9**
	271nm,0.7s						
CFAR				AML	AML		
ECHI	**Chisagues Biel**	**2.69**	**287**	P	**Pn**	**01 32 16.6**	**+1.8**
ECHI				S	**Sn**	**01 32 47.5**	**+0.4**
	125nm,0.3s						
ECHI				AML	AML		
ECHI	**Chisagues Biel**	**2.69**	**287**	⇑Pn	**Pn**	**01 32 18.2**	**+3.3**
ECHI				Pg	**Pb**	**01 32 22.0**	**+2.1**
ECHI				Sn	**Sn**	**01 32 51.9**	**+4.7**
ECHI				Sg	**Sg**	**01 32 58.8**	**+0.2**
ECHI				IVmb_Lg		01 33 02.5	
ERTA	**Horta de San J**	**2.70**	**250**	P	**Pn**	**01 32 16.4**	**+1.6**
ERTA				S	**Sn**	**01 32 46.7**	**-0.5**

	88nm,0.5s						
ERTA				AML	AML		
ERTA	**Horta de San J**	2.70	250	Pn	Pn	01 32 16.1	+1.2
ERTA				Pg	Pb	01 32 21.2	+1.2
ERTA				Sn	Sn	01 32 49.3	+2.1
ERTA				Sg	Sb	01 32 57.0	+4.0
ERTA				IVmb_Lg		01 33 05.5	
ALCN	**Alcanar**	2.78	241	S	Sn	01 32 48.0	-1.1
	48nm,0.3s						
ALCN				AML	AML		
CMAS	**Mas de Barbera**	2.81	246	P	Pn	01 32 17.1	+0.7
CMAS				S	Sn	01 32 49.5	-0.4
	34nm,0.2s						
CMAS				AML	AML		
VIEF	**Viey**	2.87	291	P	Pn	01 32 19.1	+1.9
VIEF				S	Sn	01 32 52.0	+0.5
	143nm,0.4s						
VIEF				AML	AML		
PYLO	**Lourdes**	3.00	294	P	Pn	01 32 20.8	+2.0
PYLO				S	Sn	01 32 54.6	+0.1
	80nm,0.3s						
PYLO				AML	AML		
VIVF	**Saint-Julien-l**	3.01	14	*e*Pn	Pn	01 32 21.8	+2.7
VIVF				*e*Sn	Sn	01 32 56.3	+1.4
	58nm,0.2s						
VIVF				AML	AML		
ECOL	**Islas Columbre**	3.05	229	S	Sn	01 32 54.5	-1.1
ESAC	**San Caprasio**	3.11	268	P	Pn	01 32 22.2	+1.7
ESAC				S	Sn	01 32 56.7	-0.7
ESAC	**San Caprasio**	3.11	268	Pn	Pn	01 32 22.7	+2.2
ESAC				Pg	Pb	01 32 28.1	+1.1
ESAC				Sn	Sn	01 33 01.1	+3.8
ESAC				Sg	Sg	01 33 10.4	-1.6
ESAC				IVmb_Lg		01 33 23.1	
CAF	**Calviac**	3.22	339	*e*Pn	Pn	01 32 23.6	+1.6
CAF				*e*Pg	Pg	01 32 35.1	+1.4
CAF				*e*Sn	Sn	01 33 01.3	+1.3
CAF				*e*Sg	Sg	01 33 18.5	+3.1
	136nm,0.3s						
CAF				AML	AML		
ETSF	**Etsaut**	3.29	289	*e*Pn	Pn	01 32 25.5	+2.5
ETSF				*e*Pg	Pg	01 32 34.9	-0.2
ETSF				*e*Sg	Sg	01 33 19.1	+1.4
	293nm,0.3s						
ETSF				AML	AML		
SBF	**Sospel**	3.37	54	*e*Pn	Pn	01 32 24.8	+0.8
SBF				*e*Sn	Sn	01 33 03.7	+0.1
	85nm,0.2s						
SBF				AML	AML		
ORIF	**Oris-en-Rattie**	3.39	27	*e*Pn	Pn	01 32 26.7	+2.3
ORIF				*e*Sn	Sn	01 33 03.9	-0.3
	37nm,0.4s						
ORIF				AML	AML		
EIBI	**Ibiza**	3.41	212	Pn	Pn	01 32 24.5	-0.1
EIBI				Sn	Sn	01 33 00.9	-3.6
EIBI	**Ibiza**	3.41	212	Pn	Pn	01 32 24.4	-0.1
EIBI				Sn	Sn	01 32 59.6	-4.9
EIBI				IVmb_Lg		01 33 03.8	
ATE	**Arette**	3.44	291	P	Pn	01 32 26.9	+1.9
ATE				S	Sn	01 33 05.5	+0.1
	139nm,0.4s						
ATE				AML	AML		
URDF	**Urds**	3.50	297	S	Sn	01 33 06.5	-0.2
	65nm,0.6s						
URDF				AML	AML		
EMOS	**Mosqueruela**	3.51	245	P	Pn	01 32 27.5	+1.4
EMOS				S	Sn	01 33 06.0	-1.3
	21nm,0.7s						
EMOS				AML	AML		
EMOS	**Mosqueruela**	3.51	245	Pn	Pn	01 32 27.1	+1.0
EMOS				Sn	Sn	01 33 08.1	+0.7
EMOS				Sg	Sg	01 33 27.5	+2.7
EMOS				IVmb_Lg		01 33 30.6	
MBDF	**Montbardon**	3.59	38	*e*Pn	Pn	01 32 30.4	+3.2
MBDF				*e*Pg	Pg	01 32 38.7	-2.2
MBDF				*e*Sn	Sn	01 33 08.9	-0.4
	22nm,0.3s						
MBDF				AML	AML		
LFF	**La Frestale**	3.69	326	*e*Pn	Pn	01 32 31.4	+3.0
LFF				*e*Pg	Pg	01 32 43.7	+0.9
LFF				*e*Sn	Sn	01 33 13.0	+1.4
LFF				*e*Sg	Sg	01 33 33.1	+2.4
	116nm,0.2s						
LFF				AML	AML		
RJF	**Les Rejaudoux**	3.72	336	*e*Pn	Pn	01 32 31.7	+2.8
RJF				*e*Pg	Pg	01 32 45.4	+2.0
RJF				*e*Sn	Sn	01 33 13.0	+0.7
RJF				*e*Sg	Sg	01 33 33.6	+2.0
	57nm,0.2s						
RJF				AML	AML		
SJPF	**Ste Jean**	3.82	290	*e*Pn	Pn	01 32 32.5	+2.3
SJPF				*e*Pg	Pg	01 32 45.2	0.0
SJPF				*e*Sg	Sg	01 33 35.5	+0.9
	150nm,0.4s						
SJPF				AML	AML		
OSSF	**Osses**	3.88	292	P	Pn	01 32 33.0	+1.9
OSSF				S	Sn	01 33 15.8	-0.6
	52nm,0.5s						
OSSF				AML	AML		
PGF	**Pioggiola**	3.99	79	*e*Pn	Pn	01 32 32.2	-0.5
PGF				*e*Sn	Sn	01 33 14.3	-4.9
	42nm,0.2s						
PGF				AML	AML		
EALK	**Alkurruntz**	4.04	290	Pn	Pn	01 32 35.7	+2.4
EALK				Sn	Sn	01 33 23.5	+3.1
EALK				Sg	Sb	01 33 38.5	+6.8
EALK				IVmb_Lg		01 33 48.9	
LPG	**La Plagne**	4.20	31	*e*P	Pn	01 32 40.0	+4.3
LPG				*e*Sn	Sn	01 33 25.1	+0.5
	11nm,0.2s						
LPG				AML	AML		
LPL	**La Plagne**	4.21	31	*e*P	Pn	01 32 40.3	+4.5
LPL				*e*Sn	Sn	01 33 24.1	-0.6
	21nm,0.5s						
LPL				AML	AML		
ECHE	**Chera**	4.24	238	Pn	Pn	01 32 36.9	+1.0
ECHE	**Chera**	4.24	238	Pn	Pn	01 32 37.0	+1.0
ECHE				Sn	Sn	01 33 24.0	-1.1
ECHE				IVmb_Lg		01 34 03.7	
EBEN2	**Beniarda presa**	4.40	224	Pn	Pn	01 32 38.7	+0.5
EBEN2				Pg	Pb	01 32 48.7	-0.3
EBEN2				Sn	Sn	01 33 25.4	-3.7
EBEN2				IVmb_Lg		01 33 35.5	
ETOR	**Torete**	4.46	257	Pn	Pn	01 32 41.5	+2.4
ETOR				Pg	Pb	01 32 51.1	+1.1
ETOR				Sn	Sn	01 33 31.6	+1.0
ETOR				Sg	Sg	01 33 53.3	-1.9
ETOR				IVmb_Lg		01 33 58.2	
TCF	**Toulx Ste Croi**	4.48	347	*e*Pn	Pn	01 32 42.0	+2.6
TCF				*e*Pg	Pg	01 32 59.0	+1.1
TCF				*e*Sn	Sn	01 33 32.6	+1.4
TCF				*e*Sg	Sg	01 33 55.6	-0.4
	38nm,0.4s						
TCF				AML	AML		
EVIV	**Cofrentes, Val**	4.52	236	Pn	Pn	01 32 40.6	+0.7
EVIV				Sn	Sn	01 33 29.8	-2.3
EVIV				IVmb_Lg		01 34 26.0	
BGF	**Bois d'Agland**	4.67	353	*e*Pn	Pn	01 32 44.6	+2.8
BGF				*e*Pg	Pg	01 33 02.0	+0.6
BGF				*e*Sn	Sn	01 33 36.8	+1.2
BGF				*e*Sg	Sg	01 34 02.5	+0.7
	79nm,0.4s						
BGF				AML	AML		
SMF	**Signal de Mont**	4.71	1	*e*Pn	Pn	01 32 44.3	+1.8
SMF				*e*Pg	Pg	01 33 01.2	-1.2
SMF				*e*Sn	Sn	01 33 37.0	+0.2
SMF				*e*Sg	Sg	01 34 04.5	+1.1
	7.3nm,0.1s						
SMF				AML	AML		
AVF	**Avril sur Loir**	4.87	357	*e*Pn	Pn	01 32 46.3	+1.8
AVF				*e*Pg	Pg	01 33 03.9	-1.3
AVF				*e*Sn	Sn	01 33 40.9	+0.4
AVF				*e*Sg	Sg	01 34 09.9	+1.7
	26nm,0.4s						
AVF				AML	AML		
CABF	**La Chapelle**	4.99	19	*e*Pn	Pn	01 32 48.4	+2.1
CABF				*e*Sn	Sn	01 33 43.6	-0.1
CABF				*e*Sg	Sg	01 34 12.6	+0.5
	13nm,0.4s						
CABF				AML	AML		
SSF	**Saint Saulge**	5.13	359	*e*Pn	Pn	01 32 51.0	+2.8
SSF				*e*Pg	Pg	01 33 09.1	-1.2
SSF				*e*Sn	Sn	01 33 46.1	-1.0
SSF				*e*Sg	Sg	01 34 18.5	+1.8
	25nm,0.5s						
SSF				AML	AML		
ETOB	**Tobarra**	5.17	232	Pn	Pn	01 32 49.3	+0.4
ETOB				Sn	Sn	01 33 44.6	-3.7
ETOB	**Tobarra**	5.17	232	Pn	Pn	01 32 49.3	+0.4
ETOB				Sn	Sn	01 33 46.1	-2.2
ETOB				IVmb_Lg		01 33 52.6	
YEBES	**Yebes (Guadala**	5.30	257	Pn	Pn	01 32 52.2	+1.7
YEBES				Sn	Sn	01 33 53.0	+1.7
YEBES				Sg	Sb	01 34 15.7	+8.0
YEBES				IVmb_Lg		01 34 27.1	
LOR	**Lormes**	5.34	1	*e*Pn	Pn	01 32 53.8	+2.7
LOR				*e*Pg	Pg	01 33 13.2	-1.1
LOR				*e*Sn	Sn	01 33 52.9	+0.7
LOR				*e*Sg	Sg	01 34 23.6	+0.2
	28nm,0.4s						
LOR				AML	AML		
VLC	**Villacollemand**	5.39	63	Pn	Pn	01 32 53.4	+1.5
VLC				Sn	Sn	01 33 50.0	-3.5
ELAN	**Lanestosa**	5.41	286	Pn	Pn	01 32 55.1	+3.0
ELAN				Sn	Sn	01 33 56.1	+2.0
ELAN				Sg	Sg	01 34 24.0	-1.8
ELAN				IVmb_Lg		01 34 44.3	
MFF	**Saint Martin d**	5.42	331	*e*Pn	Pn	01 32 52.4	+0.2
MFF	**Saint Martin d**	5.42	331	*e*Pn	Pn	01 32 54.6	+2.4
MFF				*e*Pg	Pg	01 33 14.6	-1.2
MFF				*e*Sn	Sn	01 33 53.7	-0.5
MFF				*e*Sn	Sb	01 33 54.2	-17
MFF				*e*Sg	Sg	01 34 25.6	-0.4
	30nm,0.3s						
MFF				*e*Sg	Sg	01 34 26.4	+0.4
MFF				AML	AML		
UCM	**Universidad Co**	5.48	255	Pn	Pn	01 32 55.5	+2.4
CART	**Cartagena**	5.64	221	Sn	Sn	01 33 55.7	-4.0
GUD	**Guadarrama**	6.04	260	Pn	Pn	01 33 02.5	+1.6
GUD				Sn	Sn	01 34 07.3	-2.4
GUD				IVmb_Lg		01 34 41.4	
ESDC	**Sonseca Array**	6.22	251	Pn	Pn	01 33 03.8	+0.5
	0.3nm,0.3s,baz=67,slow=14,SNR=16						
ESDC				Sn	Sn	01 34 10.9	-3.2
	0.2nm,0.3s,baz=63,slow=24,SNR=4.7						
ESDC				Lg	Lg	01 34 46.4	
	0.8nm,0.3s,baz=68,slow=29,SNR=6.7						
	0.7nm,0.3s						
ESDC				AML	AML		
HINF	**Hinteralfeld**	6.30	20	*e*Pn	Pn	01 33 05.8	+1.5
HINF				*e*Sn	Sn	01 34 15.1	-0.8
	6.0nm,0.2s						
HINF				AML	AML		
SFTF	**Sexfontaines**	6.35	8	*e*Pn	Pn	01 33 06.3	+1.4
SFTF				*e*Pg	Pg	01 33 31.2	-2.3
SFTF				*e*Sn	Sn	01 34 16.8	-0.2
SFTF				*e*Sg	Sg	01 34 53.0	-2.7
	20nm,0.5s						
SFTF				AML	AML		
HAU	**Haudompre**	6.36	16	*e*Pn	Pn	01 33 06.9	+1.8
HAU				*e*Sn	Sn	01 34 15.0	-2.4
HAU				*e*Sg	Sg	01 34 54.9	-1.2
PSIM	**Granatula de C**	6.47	244	Pn	Pn	01 33 07.7	+1.0
PSIM				Sn	Sn	01 34 19.6	-0.7
PAB	**San Pablo**	6.55	251	Pn	Pn	01 33 08.7	+0.9
PAB				Sn	Sn	01 34 19.3	-2.9
PAB				Sg	Sg	01 34 56.1	-6.1
PAB				IVmb_Lg		01 35 15.6	
DAVOX	**Davos/Dischmat**	6.57	40	Pn	Pn	01 33 11.8	+3.6
	1.6nm,0.3s,baz=237,slow=7.5,SNR=16						
DAVOX				Sn	Sn	01 34 25.4	+2.5
	0.3nm,0.3s,baz=334,slow=21,SNR=1.5						
	3.1nm,0.3s						
DAVOX				AML	AML		
MEZF	**Maizieres J'vi**	6.64	8	*e*Pn	Pn	01 33 11.2	+2.3
MEZF				*e*Pg	Pg	01 33 36.9	-2.3
MEZF				*e*Sn	Sn	01 34 22.4	-1.8
MEZF				*e*Sg	Sg	01 35 05.0	-0.1
	32nm,0.6s						
MEZF				AML	AML		
EARI	**Arriondas**	6.70	285	Pn	Pn	01 33 12.2	+2.3
EARI				Sn	Sn	01 34 24.6	-1.3
EARI				IVmb_Lg		01 35 21.9	
SAVF	**Savonnieres en**	6.76	8	*e*Pn	Pn	01 33 11.6	+1.0
SAVF				*e*Sn	Sn	01 34 26.2	-1.0
SAVF				*e*Sg	Sg	01 35 06.9	-2.0
PAGF	**Fort de Pagny**	6.78	12	*e*Pn	Pn	01 33 12.2	+1.4
PAGF	**Fort de Pagny**	6.78	12	*e*Pn	Pn	01 33 13.0	+2.2
PAGF				*e*Sn	Sn	01 34 26.7	-0.9
PAGF				*e*Sn	Sb	01 34 27.0	-23
PAGF				*e*Sg	Sg	01 35 09.0	-0.5
PAGF				*e*Sg	Sg	01 35 10.2	+0.7
	10nm,0.5s						
PAGF				AML	AML		
DAVA	**Damuels**	6.94	37	Pn	Pn	01 33 17.0	+3.7
	0.5nm,0.1s,SNR=4.7						
DAVA				*e*Sn	Sn	01 34 36.3	+4.4
	9.1nm,0.3s						
CDF	**Champ du Feu**	6.96	20	*e*Pn	Pn	01 33 14.0	+0.6
CDF				*e*Pg	Pg	01 33 42.7	-2.5
CDF				*e*Sn	Sn	01 34 30.3	-1.9
	6.5nm,0.3s						
CDF				*e*Sg	Sg	01 35 13.7	-1.6
CDF				AML	AML		
FETA	**Feichten**	7.16	42	Pn	Pn	01 33 21.3	+5.1
	0.6nm,0.2s,SNR=5.0						
FETA				*e*Sn	Sn	01 34 40.7	+3.4
	0.2nm,0.1s						
LDF	**La Druitiere**	7.18	339	*e*Pn	Pn	01 33 17.4	+1.0
LDF				*e*Pg	Pg	01 33 48.4	-1.1
LDF				*e*Sn	Sn	01 34 35.9	-1.6
LDF				*e*Sg	Sg	01 35 20.8	-1.6
	9.9nm,0.3s						
LDF				AML	AML		
GRR	**Gorron**	7.21	335	*e*Pn	Pn	01 33 19.2	+2.5
GRR				*e*Sn	Sn	01 34 34.2	-4.0
GRR				*e*Sg	Sg	01 35 21.5	-1.8
	11nm,0.4s						
GRR				AML	AML		
EJUZ	**Juzbado, Salam**	7.24	266	Pn	Pn	01 33 18.9	+1.8
CIBOR	**Castaar de Ib**	7.28	255	Pn	Pn	01 33 18.7	+0.9
FLN	**La Foliniere**	7.43	338	*e*Pn	Pn	01 33 21.9	+2.1
FLN				*e*Sn	Sn	01 34 42.8	-0.9
FLN				*e*Sg	Sg	01 35 26.7	-3.8
	12nm,0.5s						
FLN				AML	AML		
RETA	**Reutte**	7.50	40	*i* Pn	Pn	01 33 23.9	+3.2
	0.1nm,0.1s,SNR=12						
RETA				*e*Sn	Sn	01 34 47.7	+2.2
	1.4nm,0.4s						
SQTA	**Sankt Quirin**	7.54	43	Pn	Pn	01 33 26.2	+4.9
	3.0nm,0.1s,SNR=12						
SQTA				*e*Sn	Sn	01 34 48.4	+1.9
	1.3nm,0.2s						
MOTA	**Moosalm**	7.57	42	Pn	Pn	01 33 26.1	+4.3
	3.6nm,0.1s,SNR=9.7						
MOTA				*e*Sn	Sn	01 34 50.5	+3.3
	2.1nm,0.4s						
KEST	**Kesra**	7.60	143	Pn	Pn	01 33 26.2	+4.0
	0.2nm,0.3s,baz=150,slow=20,SNR=7.7						
KEST				Sn	Sn	01 34 41.2	-6.9
	0.3nm,0.3s,baz=324,slow=5.3,SNR=4.3						
	0.8nm,0.4s						
KEST				AML	AML		
EPLA	**Plasencia**	7.62	259	Pn	Pn	01 33 23.4	+1.0
EPLA				Sg		01 35 31.8	
QUIF	**Quistinic**	7.71	323	*e*Pn	Pn	01 33 25.4	+1.9
QUIF				*e*Pg		01 33 57.5	
QUIF				*e*Sn	Sn	01 34 48.6	-1.8
QUIF				*e*Sg		01 35 38.0	
	13nm,0.5s						
QUIF				AML	AML		
SGMF	**Saint Gilles**	7.71	327	*e*Pn	Pn	01 33 24.7	+1.1
SGMF				*e*Pg		01 33 56.5	
SGMF				*e*Sn	Sn	01 34 47.7	-2.8
SGMF				*e*Sg		01 35 38.5	
	16nm,0.5s						
SGMF				AML	AML		
ECAL	**Calabor**	7.77	274	Pn	Pn	01 33 26.4	+1.9
ECAL				IVmb_Lg		01 36 01.9	
PBRG	**Braganca**	7.78	273	*e*Pn	Pn	01 33 28.4	+3.7
WTTA	**Wattenberg**	7.78	44	Pn	Pn	01 33 29.6	+4.8
	1.5nm,0.1s,SNR=17						
WTTA				*e*Sn	Sn	01 34 56.0	+3.4
	1.7nm,0.2s						
WATA	**Walderalm**	7.80	43	Pn	Pn	01 33 30.0	+5.0
	2.0nm,0.2s,SNR=9.7						
WLF	**Walferdange**	7.92	12	*d*P	Pn	01 33 29.7	+3.2
ABTA	**Abfaltersbach**	7.95	50	*e*Pn	Pn	01 33 31.1	+4.1
	1.1nm,0.2s						
ROSF	**Rostrenen**	8.07	325	*e*Pn	Pn	01 33 30.3	+1.7
ROSF				*e*Pg		01 34 03.4	
ROSF				*e*Sn	Sn	01 34 58.0	-1.4
ROSF				*e*Sg		01 35 50.2	
	12nm,0.5s						
ROSF				AML	AML		
EPON	**Pontenova**	8.11	284	Pn	Pn	01 33 31.2	+2.0
EPON				IVmb_Lg		01 36 09.2	
BAIF	**Baives**	8.14	2	*e*Pn	Pn	01 33 30.4	+0.9
BAIF				*e*Sn	Sn	01 34 56.9	-4.1
BAIF				*e*Sg		01 35 50.6	
	7.8nm,0.7s						
BAIF				AML	AML		
DOU	**Dourbes**	8.19	4	*d*P	Pn	01 33 33.5	+3.3
	comp=Z,3.9nm,0.2s						
DOU				*d*S	Sn	01 35 00.6	-1.8
DOU	**Dourbes**	8.19	4	Pn	Pn	01 33 33.5	+3.3
DOU				Sn	Sn	01 35 00.1	-2.2
DOU				Sg		01 35 58.0	
GIVF	**Givet**	8.21	5	*e*Pn	Pn	01 33 33.1	+2.6
GIVF				*e*Sn	Sn	01 35 00.4	-2.4
GIVF				*e*Sg		01 35 52.6	
	comp=Z,5.3nm,0.4s						
GIVF				AML	AML		
RCHB	**Rochefort**	8.30	7	*d*P	Pn	01 33 35.1	+3.5
RCHB				*d*S	Sn	01 35 03.8	-1.1
BMRD	**Maredsous**	8.41	5	*d*P	Pn	01 33 36.3	+3.2
BMRD				*d*S	Sn	01 35 08.8	+1.2
BMRD				*d*SgSg	SnSn	01 35 21.2	+1.9
LESA	**Schwarzleotal**	8.44	46	*i* Pn	Pn	01 33 37.9	+4.3
	comp=Z,2.2nm,0.2s,SNR=9.9						
LESA				*e*Sn	Sn	01 35 12.1	+3.5
	comp=Z,2.1nm,0.6s						
BCLA	**Clavier**	8.56	7	*d*P	Pn	01 33 36.7	+1.4
BCLA				*d*S	Sn	01 35 10.2	-1.3
PVRL	**Vila Real**	8.57	269	*e*Pn	Pn	01 33 38.1	+2.7
MTE	**Manteigas**	8.61	263	*e*Pn	Pn	01 33 38.6	+2.6
POLO	**Lamas de Olo**	8.61	270	*e*Pn	Pn	01 33 39.1	+3.0
PCBR	**Castelo Branco**	8.71	260	*e*Pn	Pn	01 33 38.1	+0.7
PCAB	**Cabril**	8.75	272	*e*Pn	Pn	01 33 40.5	+2.6
EAGO	**Agolada(Pontev**	8.76	280	Pn	Pn	01 33 39.7	+1.6
EAGO				Sn	Sn	01 35 16.2	-0.3
ELOB	**Lobios**	8.76	274	Pn	Pn	01 33 40.2	+2.0
ELOB				Sn	Sn	01 35 09.8	-6.7
ELOB				IVmb_Lg		01 36 11.5	
PMRV	**Marv??o**	8.78	257	*e*Pn	Pn	01 33 40.0	+1.7
PVIS	**Viseu**	8.80	266	*e*Pn	Pn	01 33 40.6	+2.0
MEM	**Membach**	8.83	10	*d*P	Pn	01 33 40.5	+1.6
MEM				*d*S	Sn	01 35 19.8	+1.8
PGAV	**Gavieira, Arco**	8.91	274	*e*Pn	Pn	01 33 42.8	+2.6
PESTR	**Estremoz**	9.13	254	*e*Pn	Pn	01 33 43.7	+0.6
PARRA	**Arraiolos**	9.47	255	*e*Pn	Pn	01 33 50.3	+2.5
MOE	**Montemor**	9.81	254	*e*Pn	Pn	01 33 53.2	+0.7
GERES	**GERESS Array B**	9.87	42	Pn	Pn	01 33 55.1	+1.9
	comp=Z,0.2nm,0.3s,baz=235,slow=13,SNR=37						
GERES				Sn	Sn	01 35 42.5	-1.1
	comp=Z,0.2nm,0.3s,baz=245,slow=25,SNR=22						
	comp=Z,1.9nm,0.4s						
GERES				AML	AML		
KHC	**Kasperske Hory**	9.99	41	*e*PN	Pn	01 33 56.5	+1.5
KHC				*e*SN	Sn	01 35 45.3	-1.4
CKRC	**Cesky Krumlov**	10.16	44	*e*SN	Sn	01 35 49.3	-1.4
ZVC	**Zvikov**	10.50	41	*e*PN	Pn	01 34 04.0	+2.2
ZVC				*e*SN	Sn	01 35 56.3	-2.7
KRUC	**Moravsky**	11.41	47	*e*PN	Pn	01 34 16.5	+2.2
EKA	**Eskdalemuir Ar**	14.14	344	Pn	Pn	01 34 52.5	+0.9
	baz=160,slow=14						
EKA				Sn	Sn	01 37 21.6	-6.5
	baz=106,slow=15						
	comp=Z,0.2nm,0.4s						
BRTR	**Keskin Array B**	22.72	86	P	P	01 36 37.0	+3.6
	comp=Z,0.6nm,0.8s,baz=264,slow=8.5,SNR=3.7						
	comp=Z,0.6nm,0.8s						
FINES	**FINESS Array B**	23.74	27	P	P	01 36 45.1	+1.9
	comp=Z,1.0nm,0.8s,baz=240,slow=11,SNR=1.8						
	comp=Z,1.0nm,0.8s						
ZALV	**Zalesovo Beam**	52.77	47	P	P	01 40 51.9	+5.9
	comp=Z,0.5nm,0.4s,baz=282,slow=8.7,SNR=1.6						
	comp=Z,0.5nm,0.4s						
TXAR	**Lajitas Array**	82.52	303	P	P	01 43 58.2	+4.0
	comp=Z,0.1nm,0.3s,baz=32,slow=7.8,SNR=2.1						
	comp=Z,0.1nm,0.3s						

IDC ***02*** *01:52:24.3±0.8, 14.°89S×176.°91W, h0^{km}, mb4.2/7, mbtmp4.2/7, MS3.6/5, Error ellipse: s-maj=43.5km s-min=21.2km az=142.0*

NEIC ***02*** *01:52:26.2±0.7, 14.°9S±0.°1×176.°96W±0.°09, h10^{km}±1^{km}, mb4.7/26, Error ellipse: s-maj=22.1km s-min=12.2km az=204.0*

ISC 02 01:52:29.4±0.6**, 14.°9S**±0.°1×**177.°02W**±0.°09**, h35**^{km}**, n69,** σ0.^{s}**90**/69**, mb4.5**/18**, MS3.7**/3**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FUTU	**Fugatoga**	1.24	301		Pn	01 52 49.3	-1.0
FUTU				Sn	Sn	01 53 07.7	+2.0
MSVF	**Nonsavu**	5.49	239	LR	LR	01 55 45.8	
	comp=Z,283nm,22.0s,baz=36,slow=36						
OUENC	**Ouen Island, N**	16.99	242	Pn	Pn	01 56 24.3	-0.2
RAR	**Rarotonga**	17.54	113	LR	LR	02 02 32.3	
	comp=Z,224nm,18.8s,baz=282,slow=35						
HNR	**Honiara**	23.16	281	LR	LR	02 05 27.3	
	comp=Z,251nm,19.9s,baz=204,slow=34						
HNR	**Honiara**	23.16	281	P	P	01 57 31.2	-1.9
URZ	**Urewera**	23.80	192	LR	LR	02 05 18.2	
	comp=Z,330nm,19.7s,baz=28,slow=32						
WRA	**Warramunga Arr**	46.55	257	P	P	02 00 54.5	+0.5
	1.7nm,0.9s,baz=88,slow=8.3,SNR=6.8						
	1.7nm,0.9s						
WRA	**Warramunga Arr**	46.55	257	P	P	02 00 53.3	-0.8
ASAR	**Alice Springs**	46.93	251	P	P	02 00 57.9	+0.8
	2.1nm,0.7s,baz=85,slow=8.4,SNR=16						
	2.1nm,0.7s						
ASAR	**Alice Springs**	46.93	251	P	P	02 00 56.5	-0.5
FITZ	**Fitzroy Crossi**	54.88	258	P	P	02 01 56.9	0.0
CMB	**Columbia Colle**	74.78	43		P	02 04 05.4	-0.8
QSPA	**South Pole Qui**	75.09	180	P	P	02 04 08.7	+1.0
	5.0nm,1.1s,baz=23,slow=2.9,SNR=7.0						
	5.0nm,1.1s						
QSPA	**South Pole Qui**	75.09	180	P	P	02 04 08.1	+0.4
QSPA				IAmb	IAmb	02 04 09.4	
	comp=Z,14nm,1.3s						
MDPB	**Devils Postpil**	75.43	44	P	P	02 04 10.0	-0.2
MDPB				IAmb	IAmb	02 04 11.9	
	comp=Z,5.5nm,1.1s						
CWC	**Cottonwood Cre**	75.49	46	P	P	02 04 09.9	-0.6
CWC				IAmb	IAmb	02 04 11.5	
	comp=Z,5.3nm,1.2s						
BEKR	**Beckworth**	75.80	42		P	02 04 11.8	-0.4
BEKR				IAmb	IAmb	02 04 13.4	
	comp=Z,7.7nm,1.1s						
NVAR	**Mina Array Bea**	76.37	44	P	P	02 04 15.2	-0.3
	comp=Z,4.8nm,1.0s,baz=232,slow=9.1,SNR=24						
	comp=Z,4.8nm,1.0s						
NVAR	**Mina Array Bea**	76.37	44	P	P	02 04 15.3	-0.2
NV11	**Mina Array Sit**	76.47	44	P	P	02 04 15.8	-0.2
NV11				IAmb	IAmb	02 04 17.2	
	comp=Z,9.2nm,1.1s						
TUC	**Tucson**	78.84	52	P	P	02 04 28.9	-0.4
PSUT	**Pine Spring**	79.44	45	P	P	02 04 32.3	-0.3
J18K	**Innoko River**	79.73	9		P	02 04 34.2	+0.9
J18K				IAmb	IAmb	02 04 35.7	
	comp=Z,14nm,1.1s						
J20K	**Nowinta River**	80.81	10		P	02 04 39.9	+0.8
RND	**Reindeer**	81.10	12	P	P	02 04 41.1	+0.3
MCK	**McKinley**	81.38	12	P	P	02 04 42.3	+0.2
HLID	**Hailey**	81.53	41		P	02 04 43.4	-0.3
HLID				IAmb	IAmb	02 04 45.1	
	comp=Z,5.3nm,1.1s						
HVU	**Hansel Valley**	81.72	43	P	P	02 04 44.4	-0.3
HVU				IAmb	IAmb	02 04 45.8	
	comp=Z,7.5nm,1.3s						
BCAR	**Beaver Creek A**	82.45	15	P	P	02 04 48.2	+0.4
IMAR	**Indian Mountai**	82.55	9	P	P	02 04 48.9	+0.6
ILAR	**Eielson Array**	82.72	13	P	P	02 04 49.5	+0.3
	comp=Z,2.0nm,1.0s,baz=226,slow=6.4,SNR=15						
	comp=Z,2.0nm,1.0s						
ILAR	**Eielson Array**	82.72	13		P	02 04 49.2	+0.1

ANMO	Albuquerque	83.22	51	P	P	02 04 52.4	-0.3
ANMO				IAmb	IAmb	02 04 53.8	
	comp=Z,5.0nm,1.3s						
TXAR	Lajitas Array	83.29	57	P	P	02 04 52.5	-0.6
	comp=Z,0.3nm,0.3s,baz=204,slow=5.3,SNR=6.3						
TXAR				PKiKP	PKiKP	02 10 11.8	+0.6
	comp=Z,0.6nm,1.1s,baz=293,slow=0.8,SNR=3.6						
	comp=Z,0.3nm,0.3s						
FXWY	Fox Creek	83.73	42		P	02 04 54.8	-0.3
FXWY				IAmb	IAmb	02 04 57.4	
	comp=Z,6.1nm,1.2s						
DAWY	Dawson	83.89	16	P	P	02 04 55.7	+0.4
DAWY				IAmb	IAmb	02 04 57.1	
	comp=Z,8.2nm,1.1s						
LOHW	Long Hollow	83.99	42	P	P	02 04 56.0	-0.5
LOHW				IAmb	IAmb	02 04 57.7	
	comp=Z,8.7nm,1.4s						
YHL	Hebgen Lake	84.19	41		P	02 04 57.2	-0.3
PDAR	Pinedale Array	84.29	43	P	P	02 04 57.8	-0.3
	comp=Z,2.2nm,0.9s,baz=226,slow=3.9,SNR=7.3						
	comp=Z,2.2nm,0.9s						
PDAR	Pinedale Array	84.29	43		P	02 04 57.5	-0.6
BMAR	Burnt Mountain	85.50	12	P	P	02 05 04.2	+0.9
PMSA	Palmer Station	85.99	157	LR	LR	02 36 50.9	
	comp=Z,23nm,19.7s,baz=240,slow=31						
CLL	Collm	142.84	350	L	L	03 00 00.0	
CLL				AMS	AMS	03 16 00.0	
CLL				AMS	AMS	03 22 00.0	
BRTR	Keskin Array B	143.55	319	PKP	PKPdf	02 12 00.2	-0.8
	comp=Z,3.0nm,1.0s,baz=130,slow=2.3,SNR=17						
BRTR	Keskin Array B	143.55	319		PKPdf	02 11 59.5	-1.4
MDUB	Mudurnu	144.63	321	PKPdf	PKPdf	02 12 02.9	+0.1
KHC	Kasperske Hory	144.82	348	PKPdf	PKPdf	02 12 02.1	-0.7
GERES	GERESS Array B	145.06	348	PKPbc	PKPdf	02 12 03.1	-0.1
	comp=Z,1.1nm,0.9s,baz=354,slow=1.3,SNR=8.4						
GERES	GERESS Array B	145.06	348		PKPbc	02 12 02.0	-0.7
WINA	Alland / Wiene	145.20	345	*e*PKP	PKPdf	02 12 04.1	+0.7
	comp=Z,13nm,1.5s						
WINA				*e*SKP	SKPdf	02 15 35.9	+0.8
	comp=Z,6.8nm,1.7s						
CONA	Conrad Observa	145.42	345	*e*PKP	PKPab	02 12 05.0	+1.0
	comp=Z,15nm,1.5s						
CONA				*e*SKP	SKPdf	02 15 36.9	+1.3
	comp=Z,8.6nm,1.8s						
RONA	Rosalia, Austr	145.52	344	*e*PKP	PKPab	02 12 05.2	+0.8
	comp=Z,6.3nm,1.0s						
RONA				*e*SKP	SKPdf	02 15 35.7	0.0
	comp=Z,2.9nm,0.9s						
MOA	Molln	145.88	346	*e*PKP	PKPab	02 12 06.6	+0.9
	comp=Z,3.4nm,1.0s						
SESA	Seetaler Alpe,	146.50	346	*e*PKP	PKPab	02 12 08.2	-0.1
	comp=Z,22nm,1.3s						
LESA	Schwarzleotal	146.63	348	*e*PKP	PKPab	02 12 08.3	-0.3
	comp=Z,4.3nm,1.4s						
SOKA	Soboth	146.79	345	*e*PKP	PKPab	02 12 09.0	-0.3
	comp=Z,6.9nm,1.6s						
KBA	Koelnbreinsper	146.81	347	*e*PKP	PKPab	02 12 09.4	-0.1
	comp=Z,3.2nm,1.0s						
RETA	Reutte	146.91	350	*e*PKP	PKPab	02 12 09.4	-0.3
	comp=Z,8.0nm,1.3s						
WATA	Walderalm	146.92	349	*e*PKP	PKPbc	02 12 08.4	0.0
	comp=Z,3.7nm,1.0s						
WTTA	Wattenberg	146.98	349	*e*PKP	PKPbc	02 12 08.2	-0.5
	comp=Z,3.4nm,0.8s						
WTTA				*e*SKP	SKPdf	02 15 43.1	+4.8
	comp=Z,5.6nm,1.2s						
MOTA	Moosalm	147.00	350	*e*PKP	PKPbc	02 12 08.5	-0.2
	comp=Z,3.5nm,1.1s						
SQTA	Sankt Quirin	147.10	350	*e*PKP	PKPbc	02 12 09.0	+0.1
	comp=Z,5.1nm,1.0s						
MYKA	Terra Mystica	147.17	346	*e*PKP	PKPbc	02 12 08.1	-1.0
	comp=Z,1.5nm,0.5s						
DAVA	Damuels	147.25	351	*e*PKP	PKPab	02 12 10.1	-1.0
	comp=Z,7.7nm,1.4s						
ABTA	Abfaltersbach	147.31	348	*e*PKP	PKPbc	02 12 09.8	+0.3
	comp=Z,3.4nm,1.0s						
FETA	Feichten	147.37	350	*e*PKP	PKPbc	02 12 10.1	+0.4
	comp=Z,2.7nm,0.9s						
FUORN	Ofenpass-Fuorn	147.84	351	PKPbc	PKPbc	02 12 11.1	-0.1
TUE	Stuetta	148.12	352	PKPbc	PKPbc	02 12 11.6	-0.3

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*IDC **02** 01:55:54.4±0.9, 14°.80S×176°.92W, h0^{km}, mb4.0/8, mbtmp4.0/8, Error ellipse: s-maj=46.6km s-min=24.0km az=144.0*

ISC 02 01:55:59.8±0.9**, 14°.8S**±0°.3×**177°.0W**±0°.2**, h35**^{km}**, n9, σ0**^{s}**.67**/9**, mb3.9**/8**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	46.63	256	P	P	02 04 24.2	-0.9
	0.7nm,0.9s,baz=86,slow=8.0,SNR=3.7						
	0.7nm,0.9s						
ASAR	Alice Springs	47.03	251	P	P	02 04 29.2	+1.0
	0.9nm,0.7s,baz=81,slow=8.4,SNR=5.4						
	0.9nm,0.7s						
QSPA	South Pole Qui	75.25	180	P	P	02 07 38.9	0.0
	2.2nm,1.0s,baz=76,slow=1.8,SNR=3.7						
	2.2nm,1.0s						
NVAR	Mina Array Bea	76.23	44	P	P	02 07 45.2	+0.1
	1.2nm,0.9s,baz=229,slow=9.3,SNR=6.2						
	1.2nm,0.9s						
ILAR	Eielson Array	82.55	13	P	P	02 08 18.6	-0.1
	1.2nm,1.1s,baz=209,slow=4.8,SNR=5.8						
	1.2nm,1.1s						
TXAR	Lajitas Array	83.16	57	P	P	02 08 22.6	-0.1
	1.4nm,1.2s,baz=183,slow=2.3,SNR=4.5						
	1.4nm,1.2s						
PDAR	Pinedale Array	84.14	43	P	P	02 08 28.0	+0.3
	0.9nm,1.0s,baz=207,slow=4.8,SNR=4.1						
	0.9nm,1.0s						
SONM	Songino Array	92.11	319	P	P	02 09 06.0	+0.4
	1.0nm,0.3s,baz=90,slow=4.3,SNR=4.2						
	1.0nm,0.3s						
BRTR	Keskin Array B	143.47	319	PKP	PKPdf	02 15 30.4	-0.8
	1.2nm,1.0s,baz=48,slow=2.1,SNR=7.4						

NNC 02 01:59:45.5±4.2**, 37°.02N**×**71°.03E, h232**^{km}±38^{km}**, mb2.4, mpv3.5, 2C-6D, Error ellipse: s-maj=37.5km s-min=29.2km az=29.0, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KK31	Karatay Array	6.09	356	⇓P	Pn	02 01 13.2	-1.1
	3.2nm,0.3s,baz=175,slow=12,SNR=65						
KK31				⇓S	S	02 02 26.3	+1.2
	0.9nm,0.3s,baz=176,slow=19,SNR=4.9						
AAK	Ala-Archa	6.21	24	⇓P	Pn	02 01 15.6	-0.4
	1.4nm,0.6s						
AAK				⇓S	S	02 02 28.6	+0.5
	1.6nm,0.7s						
AB31	Akbulak array	14.64	330	⇑P	P	02 03 04.8	+2.6
	0.3nm,0.3s,baz=151,slow=12,SNR=23						
AB31				⇓S	S	02 05 40.8	-2.8
	0.9nm,0.6s,baz=150,slow=23,SNR=5.8						
AKTO	Aktyubinsk	16.34	329	⇓P	Pn	02 03 21.9	-0.3
	1.0nm,0.8s						
AKTO				⇑S	S	02 06 20.5	+0.4
	0.5nm,0.7s						

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*IDC **02** 02:09:44.2±1.0, 14°.16S×177°.59W, h0^{km}, mb3.7/6, mbtmp3.7/6, MS3.8/22, Error ellipse: s-maj=49.9km s-min=25.2km az=142.0*

*NEIC **02** 02:09:44.9±1.4, 14°.3S±0°.2×177°.20W±0°.02, h10^{km}±1^{km}, mb4.6/15, Error ellipse: s-maj=27.0km s-min=2.9km az=356.0*

ISC 02 02:09:48.7±0.7**, 14°.2S**±0°.2×**177°.35W**±0°.10**, h35**^{km}**, n50, σ1**^{s}**.18**/29**, mb4.4**/12**, MS3.9**/21**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FUTU	Fugatoga	0.75	265		Pn	02 10 02.5	-0.3
FUTU				Sg	Sn	02 10 13.7	+0.8
MSVF	Nonsavu	5.62	231	LR	LR	02 13 15.0	
	comp=Z,282nm,20.5s,baz=110,slow=38						
OUENC	Ouen Island, N	17.06	239		Pn	02 13 44.6	+0.1
OUENC				IAmb	IAmb	02 13 53.0	
	comp=Z,73nm,1.3s						
ONTNC	Ouen Toro	17.34	240	Pn	Pn	02 13 47.7	-0.3
ONTNC				IAmb	IAmb	02 14 11.6	
	comp=Z,38nm,1.2s						
HNR	Honiara	22.72	280	LR	LR	02 22 47.0	
	comp=Z,170nm,20.9s,baz=190,slow=35						
URZ	Urewera	24.42	191	LR	LR	02 22 47.6	
	comp=Z,443nm,21.7s,baz=36,slow=32						
PPT	Papeete	26.90	101	LR	LR	02 22 30.2	
	comp=Z,134nm,21.2s,baz=293,slow=28						
PPT2	Papeete2	26.91	101	*e*LR	LR	02 21 13.5	
	comp=Z,224nm,24.2s						
PPT2				*e*LR	LR	02 21 17.9	
	comp=Z,176nm,27.0s						
RPZ	Rata Peaks	31.01	196	LR	LR	02 27 34.0	
	comp=Z,50nm,20.1s,baz=122,slow=34						
WB0	Warramunga Arr	46.35	256	P	P	02 18 10.5	-1.3
WB0				IAmb	IAmb	02 18 15.0	
	comp=Z,5.8nm,1.1s						
WRA	Warramunga Arr	46.40	256	P	P	02 18 12.0	-0.2
	comp=Z,1.3nm,1.0s,baz=89,slow=8.1,SNR=4.5						
	comp=Z,1.3nm,1.0s						
WRA	Warramunga Arr	46.40	256	P	P	02 18 11.8	-0.4
GUMO	Guam	46.52	305	LR	LR	02 35 00.2	
	comp=Z,48nm,21.1s,baz=148,slow=33						
ASAR	Alice Springs	46.86	251	P	P	02 18 14.6	-1.2
	comp=Z,0.8nm,0.8s,baz=86,slow=8.4,SNR=7.3						
	comp=Z,0.8nm,0.8s						
FORT	Forrest	52.55	242	P	P	02 18 58.9	-0.1
FITZ	Fitzroy Crossi	54.71	258	P	P	02 19 14.2	-0.7
NWAO	Narrogin (SRO)	61.87	240		P	02 20 05.5	+0.8
SBA	Scott Base	64.12	184	P	P	02 20 18.7	-0.2
MJAR	Matsushiro Arr	65.63	322	LR	LR	02 43 07.4	
	comp=Z,61nm,20.5s,baz=180,slow=31						
SHEM	Shemya Is, Ala	67.10	354	LR	LR	02 44 07.3	
	comp=Z,84nm,20.7s,baz=249,slow=31						
JNU	Nakatsue	68.25	315	LR	LR	02 47 08.8	
	comp=Z,57nm,19.9s,baz=132,slow=33						
USRK	Ussuriysk Ar.	74.20	325	LR	LR	02 51 34.0	
	comp=Z,90nm,18.9s,baz=153,slow=34						
KDAK	Kodiak Island	74.62	13	LR	LR	02 47 08.0	
	comp=Z,72nm,20.2s,baz=202,slow=30						
YBH	Yreka Blue Hor	75.05	39	LR	LR	02 46 37.6	
	comp=Z,40nm,19.3s,baz=246,slow=30						
QSPA	South Pole Qui	75.79	180	P	P	02 21 32.3	+1.3
	comp=Z,5.0nm,1.1s,baz=82,slow=2.2,SNR=4.5						
	comp=Z,5.0nm,1.1s						
QSPA	South Pole Qui	75.79	180	P	P	02 21 30.3	-0.7
QSPA				IAmb	IAmb	02 21 40.5	
	comp=Z,8.1nm,1.2s						
NVAR	Mina Array Bea	76.09	44	P	P	02 21 34.5	+1.3
	comp=Z,0.5nm,0.8s,baz=217,slow=11,SNR=3.8						
	comp=Z,0.5nm,0.8s						
NVAR	Mina Array Bea	76.09	44	P	P	02 21 31.9	-1.3
TPH	Tonopah	76.64	45	P	P	02 21 34.0	-2.3
TPH				IAmb	IAmb	02 21 45.1	
	comp=Z,6.4nm,1.4s						
KLR	Kul'dur	77.51	329	LR	LR	02 50 29.6	
	comp=Z,92nm,21.1s,baz=172,slow=32						
PRN	Pahroc Range	77.81	46	P	P	02 21 40.7	-2.1
PRN				IAmb	IAmb	02 21 51.9	
	comp=Z,5.8nm,1.4s						
MA2	Magadan	77.96	344	LR	LR	02 51 13.1	
	comp=Z,57nm,20.6s,baz=116,slow=32						
K20K	Telida	79.43	10	P	P	02 21 50.5	-0.5
K20K				IAmb	IAmb	02 22 04.2	
	comp=Z,14nm,1.5s						
SEY	Seymchan	80.46	346	LR	LR	02 53 07.8	
	comp=Z,50nm,21.7s,baz=43,slow=32						
IMAR	Indian Mountai	81.92	10	P	P	02 22 03.8	-0.4
DLBC	Dease Lake	82.08	23	LR	LR	02 52 19.6	
	comp=Z,88nm,18.7s,baz=224,slow=31						
ILAR	Eielson Array	82.11	13	P	P	02 22 06.0	+0.8
	comp=Z,0.3nm,0.8s,baz=221,slow=5.4,SNR=7.2						
ILAR				LR	LR	02 50 30.7	
	comp=Z,46nm,21.6s,baz=236,slow=30						
	comp=Z,0.3nm,0.8s						
ILAR	Eielson Array	82.11	13	P	P	02 22 05.2	0.0
L29M	L29M	82.88	17	P	P	02 22 10.4	+1.0
L29M				IAmb	IAmb	02 22 22.0	
	comp=Z,8.9nm,1.2s						
TXAR	Lajitas Array	83.18	58	P	P	02 22 14.9	+3.1
	comp=Z,0.1nm,0.5s,baz=225,slow=3.4,SNR=3.4						
	comp=Z,0.1nm,0.5s						
TXAR	Lajitas Array	83.18	58	P	P	02 22 11.0	-0.8
G26K	Porcupine Rive	84.64	13		P	02 22 18.0	-0.2
G26K				IAmb	IAmb	02 22 33.6	
	comp=Z,10nm,1.1s						
BMAR	Burnt Mountain	84.88	12	P	P	02 22 21.2	+1.8
MAW	Mawson	87.64	199	LR	LR	02 59 06.0	
	comp=Z,74nm,20.4s,baz=94,slow=34						
CMAR	Chiang Mai Arr	88.63	289	LR	LR	02 58 35.5	
	comp=Z,34nm,20.8s,baz=180,slow=33						
YKA	Yellowknife Ar	90.59	24	LR	LR	02 56 36.2	
	comp=Z,73nm,19.3s,baz=294,slow=31						
SONM	Songino Array	91.46	319	LR	LR	03 00 45.2	
	comp=Z,38nm,18.7s,baz=120,slow=34						
TIXI	Tiksi	92.89	345	LR	LR	03 01 42.5	
	comp=Z,76nm,20.2s,baz=168,slow=34						
BRTR	Keskin Array B	142.81	319	PKP	PKPdf	02 29 18.8	-0.2
	comp=Z,0.7nm,0.8s,baz=27,slow=1.6,SNR=5.3						
GERES	GERESS Array B	144.31	347	PKP	PKPab	02 29 19.8	+0.6
	comp=Z,0.2nm,0.5s,baz=343,slow=3.1,SNR=3.6						

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*IDC **02** 02:23:44.9±1.2, 23°.95N×125°.87E, h0^{km}, mb3.9/6, mbtmp3.8/8, ML3.4/2, MS3.7/4, Error ellipse: s-maj=27.7km s-min=19.5km az=120.0*

*NIED **02** 02:23:48.4, 23°.97N×126°.00E, h74^{km}, MW4.0, Moment Tensor Solution. s2 Moment tensor: Scale 10^{15}Nm; M_{rr}0.92; $M_{\theta\theta}$-0.66; $M_{\phi\phi}$-0.25; $M_{r\theta}$0.11; $M_{\theta\phi}$-0.66; $M_{\phi r}$0.47; Fault plane solution: $M_0$1.15000×10^{15} NP1: ϕ_s253.00000°, δ39.00000°, λ121.00000°. NP2: ϕ_s35.00000°, δ58.00000°, λ67.00000°.*

*JMA **02** 02:23:48.4±0.2, 24°.0N±0°.7×126°.0E±0°.8, h74^{km}, MV3.6/10, NEAR MIYAKOJIMA ISLAND*

ISC 02 02:23:47.5±2.3**, 23°.96N**±0°.09×**126°.10E**±0°.06**, h23**^{km}±16^{km}**, n22, σ1**^{s}**.09**/25**, mb3.8**/6**, MS3.8**/4**, Southeast of Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JOGS	Gusukube	1.02	322	P	Pb	02 24 06.7	+0.2
JOGS				*e*S	Sn	02 24 20.5	+0.6
JMJ2	Miyako jima3	1.05	318	P	Pb	02 24 07.0	0.0
JMJ2				*e*S	Sn	02 24 20.5	-0.2
JIRJ	Irabujima	1.20	317	P	Pn	02 24 08.9	+0.1
JTJ	Tarama	1.44	299	P	Pn	02 24 11.9	-0.2
JTJ				*e*S	Sn	02 24 29.6	-0.8
JISG	Ishigakijimahi	1.75	291	P	Pn	02 24 15.8	-0.5
JIJ	Ishigaki jima	1.83	283	P	Pn	02 24 17.1	-0.4
JKRS	Kuro-shima	1.93	279	*e*P	Pn	02 24 18.9	0.0
JKRS				*e*S	Sn	02 24 41.0	-1.3
HATJ	Hateruma jima	2.10	273	P	Pn	02 24 20.6	-0.6
HATJ				*e*S	Sn	02 24 44.4	-2.2
IRIF	Iriomote-Funau	2.19	280	*e*P	Pn	02 24 22.0	-0.5
JKE	Kume jima 2	2.44	15	P	Pn	02 24 26.8	+0.9
JOW	Kunigami	3.48	34	Pn	Pn	02 24 39.1	-1.1
	4.4nm,0.3s,baz=213,slow=12,SNR=1.9						
JOW				Sn	Sn	02 25 17.8	-2.8
	10nm,0.3s,baz=100,slow=19,SNR=2.5						
	32nm,0.6s						
JOW				AML	AML		
KSRS	Korea Array	13.55	6	Pn	Pn	02 26 58.5	+0.3
	0.4nm,0.3s,baz=202,slow=13,SNR=2.7						
	0.7nm,0.7s						
KSRS				AML	AML		
CMAR	Chiang Mai Arr	25.88	263	LR	LR	02 40 46.7	
	comp=Z,57nm,18.0s,baz=195,slow=40						
MKAR	Makanchi Array	41.67	314	P	P	02 31 35.0	+0.8
	0.9nm,0.4s,baz=99,slow=9.8,SNR=14						
	0.9nm,0.4s						
ZALV	Zalesovo Beam	42.94	325	P	P	02 31 43.6	-0.8
	0.9nm,0.5s,baz=117,slow=8.5,SNR=3.9						
	0.9nm,0.5s						
WRA	Warramunga Arr	44.37	169	P	P	02 31 57.3	+1.1
	1.6nm,0.9s,baz=351,slow=8.7,SNR=5.0						
	1.6nm,0.9s						
KURBB	Kurchatov Arra	45.21	319	P	P	02 32 02.4	-0.3
	0.7nm,0.5s,baz=108,slow=8.4,SNR=5.9						
KURBB				PcP	PcP	02 33 44.2	+1.7
	0.3nm,0.7s,baz=124,slow=4.6,SNR=2.1						
	0.7nm,0.5s						
AAK	Ala-Archa	46.23	307	LR	LR	02 54 44.2	
	comp=Z,74nm,19.0s,baz=102,slow=40						
FINES	FINESS Array B	73.88	330	P	P	02 35 20.6	+0.3
	1.3nm,0.6s,baz=59,slow=5.4,SNR=12						
	1.3nm,0.6s						
BRTR	Keskin Array B	76.89	308	P	P	02 35 37.4	-0.8
	0.5nm,0.9s,baz=98,slow=5.0,SNR=3.6						
	0.5nm,0.9s						
MLR	Muntele Rosu	80.00	315	LR	LR	03 14 45.2	
	comp=Z,93nm,19.7s,baz=20,slow=38						
JMIC	Jan Mayen	80.16	346	LR	LR	03 15 00.4	
	comp=Z,62nm,19.7s,baz=65,slow=38						

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*DJA **02** 02:27:33.7±1.4, 9°S±7°×12°4E±1°3, h69^{km}±18^{km}, M3.4/7, MLv3.4/7*

*IDC **02** 02:27:42.3±5.3, 10°.04S×123°.86E, h213^{km}±61^{km}, mb3.1/1, mbtmp3.7/4, Error ellipse: s-maj=90.1km s-min=30.8km az=54.0*

ISC 02 02:27:28.9±1.3**, 8°.9S**±0°.1×**124°.7E**±0°.2**, h50**^{km}**, n7, σ2**^{s}**.08**/7**, Timor region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SOEI	Soe	0.98	207	P	Pn	02 27 49.4	+3.0
SOEI				AML	AML		
EDFI	Ende, Flores	2.99	272	P	Pn	02 28 12.2	-1.7
BSSI	Bau Bau, Buton	4.99	303	P	Pn	02 28 42.0	+0.7
FITZ	Fitzroy Crossi	9.21	174	P	Pn	02 29 37.8	-1.3
	4.8nm,0.2s,baz=342,slow=11,SNR=112						
FITZ				S	Sn	02 31 11.8	-10
	48nm,0.6s,baz=214,slow=7.3,SNR=23						
WRA	Warramunga Arr	14.41	141	P	Pn	02 30 51.4	+1.3
	0.2nm,0.3s,baz=309,slow=13,SNR=10						
WRA				S	Sn	02 33 20.8	-7.8
	6.0nm,0.6s,baz=313,slow=25,SNR=13						
ASAR	Alice Springs	17.14	150	P	Pn	02 31 24.0	-1.0
	1.2nm,0.6s,baz=324,slow=12,SNR=12						
ASAR				S	Sn	02 34 23.9	-11
	4.0nm,0.7s,baz=317,slow=21,SNR=10						
MKAR	Makanchi Array	67.06	330	P	P	02 38 16.2	-0.7
	0.6nm,0.8s,baz=125,slow=6.4,SNR=4.3						
	0.6nm,0.8s						

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*SJA **02** 02:37:48.0±0.6, 32°.30S×67°.53W, h135^{km}±4^{km}, ML4.2, MW4.1*

*GUC **02** 02:37:48.3±0.7, 32°.28S×67°.52W, h109^{km}±41^{km}, ML4.2*

*NEIC **02** 02:37:48.3±1.6, 32°.32S±0°.06×67°.6W±0°.1, h135^{km}±7^{km}, mb4.2/18, ML4.2(GUC), Error ellipse: s-maj=16.0km s-min=8.5km az=91.0*

*GFZ **02** 02:37:48.1±0.2, 32°S±2°×6°8W±°, h139^{km}, M4.4/16, mb4.4/16, confirmed*

*IDC **02** 02:37:48.5±0.5, 32°.32S×67°.78W, h138^{km}±6^{km}, mb3.8/7, mbtmp4.0/11, Error ellipse: s-maj=22.5km s-min=13.0km az=95.0*

ISC 02 02:37:48.2±0.6**, 32°.27S**±0°.04×**67°.59W**±0°.04**, h141**^{km}±5^{km}**, n170, σ1**^{s}**.67**/196**, mb4.1**/19**, 10C-3D, Mendoza Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CFA	Coronel Fontan	0.86	320	P	Pn	02 38 10.9	-0.1
	737nm,0.3s,baz=140,slow=9.2,SNR=5595						
CFA				S	Sn	02 38 28.0	-0.4
	566nm,0.3s,baz=270,slow=23,SNR=50						
SJA	San Juan	1.11	311	*e*P	Pn	02 38 13.8	+0.6
SJA				*e*S	Sn	02 38 34.0	+1.8
SJA				IAML		02 38 34.4	
	comp=Z,2μm,0.2s						
ZON	Zonda	1.17	307	*e*P	Pn	02 38 14.2	+0.4
ZON				*e*S	Sn	02 38 34.0	+0.7
ZON				IAML		02 38 35.2	
	comp=Z,2μm,0.4s						
ZON	Zonda	1.17	307		Pn	02 38 14.2	+0.4
ZON				Sn	Sn	02 38 32.4	-1.0
ZON	Zonda	1.17	307	P	Pn	02 38 14.3	+0.4
	comp=E,2μm,0.5s						
RTLL	Cerro Villicun	1.20	321	*e*P	Pn	02 38 14.6	+0.5
RTLL				*e*S	Sn	02 38 34.0	+0.2
RTLL				*e*S		02 38 34.2	
RTLL				IAML		02 38 36.6	
	comp=Z,3μm,0.3s						
ARCO	CERRO ARCO	1.27	243	*e*P	Pn	02 38 15.2	+0.3
ARCO				*e*S	Sn	02 38 34.0	-1.3
ARCO				IAML		02 38 36.1	
	comp=Z,1μm,0.3s						
AAGR	Agrelo	1.33	232	*e*P	Pn	02 38 15.9	+0.5
AAGR				*e*S	Sn	02 38 37.7	+1.5
RTLS	Leoncito	1.52	287	*e*P	Pn	02 38 04.7	-13
RTLS				*e*S	Sn	02 38 35.0	-5.2
RTLS				IAML		02 38 42.2	
	comp=Z,4μm,0.4s						
AUSP	Uspallata	1.52	271	*e*P	Pn	02 38 12.5	-5.2
MRA	San Martin	1.59	96	*e*P	Pn	02 38 17.4	-0.8
MRA				*e*S	Sn	02 38 40.1	-1.1
MRA				IAML		02 38 40.4	
	comp=Z,1μm,0.6s						
AVFE	Valle Fertil	1.60	4	*e*P	Pn	02 38 19.0	+0.6
AVFE				*e*S	Sn	02 38 41.8	+0.4
AVFE				IAML		02 38 42.8	
	comp=Z,847nm,0.4s						
ACCO	Cerro Coronel	2.10	323	*e*P	Pn	02 38 25.9	+1.6
ACCO				*e*S	Sn	02 38 54.6	+2.7
ACCO				IAML		02 38 55.1	
	comp=Z,2μm,0.7s						
MT08	Bocatoma Ro	2.36	239	⇑*e*P	Pn	02 38 28.2	+0.9
MT08				*e*S	Sn	02 38 58.6	+1.1
MT08	Bocatoma Ro	2.36	239		Pn	02 38 28.2	+0.9
MT08				Sn	Sn	02 38 56.6	-0.8
MT04	Ro Olivares	2.43	241	*e*P	Pn	02 38 28.8	+0.6
MT04				*e*S	Sn	02 39 00.5	+1.5
VA03	San Esteban	2.55	258	*e*P	Pn	02 38 30.5	+0.8
VA03				*e*S	Sn	02 38 58.5	-3.0
VA03				IAML		02 39 09.7	
	comp=Z,418nm,0.7s						
VA03	San Esteban	2.55	258	⇑*e*P	Pn	02 38 30.4	+0.8
VA03				*e*S	Sn	02 39 03.2	+1.7
VA03	San Esteban	2.55	258		Pn	02 38 30.4	+0.8
VA03				Sn	Sn	02 39 01.1	-0.4
VA03	San Esteban	2.55	258	P	Pn	02 38 30.6	+1.0
	comp=Z,208nm,0.7s						
AROD	Rodeo	2.64	322	*e*P	Pn	02 38 19.2	-12
AROD				*e*S	Sn	02 38 57.0	-7.0
MT10	Hacienda Santa	2.68	247	*e*P	Pn	02 38 32.0	+0.7
MT10				IAML		02 39 08.8	
	comp=N,874nm,0.6s						
LMEL	Las Melosas	2.70	234	⇑*e*P	Pn	02 38 32.5	+0.9
MT13	San Alfonso	2.70	236	*e*P	Pn	02 38 32.3	+0.8
MT13				IAML		02 39 14.9	
	comp=N,693nm,0.3s						
MT13	San Alfonso	2.70	236		Pn	02 38 31.9	+0.4
MT13				Sn	Sn	02 39 03.4	-1.6
TCA	Tanti	2.71	71	*e*P	Pn	02 38 31.5	-0.2
TCA				*e*S	Sn	02 38 50.0	-15
TCA				IAML		02 39 04.3	
	comp=Z,609nm,0.5s						
TCA	Tanti	2.71	71	⇑*i*P	Pn	02 38 31.8	+0.1
TCA				*e*S	Sn	02 39 03.3	-1.9
MT14	Cerro Cal¡n	2.73	245	*e*P	Pn	02 38 32.3	+0.5
MT14				IAML		02 39 12.6	
	comp=E,852nm,0.5s						
MT16	CCHEN	2.73	244		Pn	02 38 32.3	+0.4
MT16				Sn	Sn	02 39 03.2	-2.2
MT03	Universidad Ad	2.75	243	⇑*e*P	Pn	02 38 32.6	+0.6
MT03				IAML		02 39 12.2	
	comp=N,486nm,0.2s						
MT03	Universidad Ad	2.75	243		Pn	02 38 32.7	+0.6
MT03				Sn	Sn	02 39 06.3	+0.4
PEL	Peldehue	2.75	251	*e*P	Pn	02 38 33.0	+0.9
PEL				*e*S	Sn	02 39 00.5	-5.5
PEL				IAML		02 39 11.2	
	comp=Z,326nm,0.6s						
PEL	Peldehue	2.75	251	*e*P	Pn	02 38 32.3	+0.2
PEL				*e*S	Sn	02 39 06.5	+0.5
PEL				IAML		02 39 09.9	
	comp=E,466nm,0.3s						
PEL	Peldehue	2.75	251		Pn	02 38 32.2	+0.1
PEL				Sn	Sn	02 39 05.3	-0.7
PEL	Peldehue	2.75	251	P	Pn	02 38 32.5	+0.4
	comp=Z,241nm,0.7s						
MT15	Las Vizcachas	2.79	241	*e*P	Pn	02 38 33.2	+0.6
MT15				IAML		02 39 14.8	
	comp=N,672nm,0.3s						
CO04	Los Peladeros	2.88	274	*e*P	Pn	02 38 34.0	0.0
CO04	Los Peladeros	2.88	274		Pn	02 38 34.0	0.0
CO04	Los Peladeros	2.88	274	P	Pn	02 38 34.1	+0.2
	comp=Z,226nm,0.8s						
MT05	Renca	2.88	246	*e*P	Pn	02 38 34.0	+0.3
MT05	Renca	2.88	246		Pn	02 38 33.5	-0.2
ACLC	CERRO LA CRUZ	2.88	11	*e*P	Pn	02 38 34.5	+0.5

ACLC				*e*S	Sn	02 39 08.3	-0.9
ACLC				IAML		02 39 10.4	
	comp=Z,758nm,0.7s						
MT12	Pirque	2.89	239	⇑*e*P	Pn	02 38 34.4	+0.6
ROCH	El Roble	2.97	255	*e*P		02 38 34.9	
ROCH				*e*P	Pn	02 38 34.9	-0.2
ROCH				IAML		02 39 14.4	
	comp=N,426nm,0.3s						
BO04	La Punta	3.06	235		Pn	02 38 36.4	+0.4
CO02	Combarbal	3.09	289	*e*P	Pn	02 38 37.6	+1.0
CO02				*e*S	Sn	02 39 15.7	+1.8
CO02				IAML		02 39 16.7	
	comp=Z,826nm,0.6s						
CO02	Combarbal	3.09	289	*e*P	Pn	02 38 37.3	+0.7
CO02	Combarbal	3.09	289		Pn	02 38 37.5	+1.0
CO02	Combarbal	3.09	289	P	Pn	02 38 37.6	+1.0
CO01	Juntas del Tor	3.13	316	⇑*e*P	Pn	02 38 39.6	+2.5
CO01	Juntas del Tor	3.13	316		Pn	02 38 39.7	+2.5
CO01	Juntas del Tor	3.13	316	P	Pn	02 38 39.7	+2.5
MT02	Curacav	3.15	251	⇑*e*P	Pn	02 38 36.4	-0.7
MT02				IAML		02 39 18.0	
	comp=E,448nm,0.7s						
MT02	Curacav	3.15	251		Pn	02 38 36.7	-0.4
MT09	Talagante	3.23	241	*e*P	Pn	02 38 38.1	-0.2
MT09				*e*S	Sn	02 39 16.6	-0.5
MT09				IAML		02 39 21.4	
	comp=E,386nm,0.3s						
MT09	Talagante	3.23	241		Pn	02 38 37.9	-0.4
GO04	Tololo Observa	3.45	306	*e*S	Sn	02 39 24.0	+1.6
GO04				IAML		02 39 24.9	
	comp=Z,1µm,0.3s						
GO04	Tololo Observa	3.45	306	⇑*e*P	Pn	02 38 42.2	+0.9
GO04	Tololo Observa	3.45	306		Pn	02 38 42.1	+0.9
GO04	Tololo Observa	3.45	306	P	Pn	02 38 42.4	+1.1
MT01	Popeta	3.46	242	*e*P	Pn	02 38 40.2	-1.0
MT01				IAML		02 39 24.9	
	comp=N,227nm,0.2s						
MT01	Popeta	3.46	242		Pn	02 38 40.2	-1.0
VA01	Torpederas	3.51	256	*e*P	Pn	02 38 41.2	-0.5
VA01	Torpederas	3.51	256		Pn	02 38 40.9	-0.8
VA01	Torpederas	3.51	256	P	Pn	02 38 41.4	-0.3
	comp=Z,54nm,0.7s						
VCA	Vinchina	3.56	351	*e*P	Pn	02 38 44.2	+1.5
VCA				*e*S	Sn	02 39 24.9	+0.2
VCA				IAML		02 39 31.4	
	comp=Z,781nm,0.3s						
VCA	Vinchina	3.56	351	⇓*e*P	Pn	02 38 44.1	+1.5
VCA				*e*S	Sn	02 39 25.8	+1.1
BO01	Tunca	3.61	233		Pn	02 38 42.4	-0.7
BO01	Tunca	3.61	233	P	Pn	02 38 42.8	-0.4
	comp=Z,20nm,1.0s						
BO02	Sierra Bellavi	3.67	226		Pn	02 38 44.1	+0.2
BO02	Sierra Bellavi	3.67	226	P	Pn	02 38 44.6	+0.7
CO06	Fray Jorge	3.80	294	*e*P	Pn	02 38 44.9	-0.8
CO06	Fray Jorge	3.80	294		Pn	02 38 44.7	-0.9
CYA	Choya	4.11	23	*e*P	Pn	02 38 36.5	-13
CYA				*e*P		02 38 49.3	
CYA				*e*S	Sn	02 39 36.1	-1.5
CYA				IAML		02 39 37.2	
	comp=Z,359nm,0.5s						
CYA	Choya	4.11	23	⇓*e*P	Pn	02 38 49.1	-0.7
AC05	El Transito	4.13	325		Pn	02 38 51.7	+1.6
AC05	El Transito	4.13	325	P	Pn	02 38 51.9	+1.8
TINO	Tinogasta	4.19	0	*e*P	Pn	02 38 52.6	+1.8
TINO				*e*S	Sn	02 39 36.5	-3.0
TINO				IAML		02 39 46.9	
	comp=Z,447nm,1.1s						
LCO	Las Campanas	4.21	320	⇑*e*P	Pn	02 38 51.8	+0.5
LCO	Las Campanas	4.21	320		Pn	02 38 51.5	+0.3
BO03	Pichilemu	4.28	238	P	Pn	02 38 48.4	-3.5
GO05	Hualane	4.54	232	⇓*e*P	Pn	02 38 52.9	-2.4
GO05	Hualane	4.54	232		Pn	02 38 53.0	-2.4
GO05	Hualane	4.54	232	P	Pn	02 38 53.6	-1.7
ML02	Panimavida	4.72	221		Pn	02 38 56.6	-1.1
ML02	Panimavida	4.72	221	P	Pn	02 38 56.9	-0.8
AC04	Llanos de Chal	5.05	322		Pn	02 39 02.1	-0.1
GO03	Copiapo	5.19	333		Pn	02 39 04.4	+0.3
GO03	Copiapo	5.19	333	P	Pn	02 39 05.0	+0.9
	comp=Z,43nm,0.7s						
BI02	San Fabin de	5.34	214		Pn	02 39 05.2	-0.8
BI02	San Fabin de	5.34	214	P	Pn	02 39 05.4	-0.6
	comp=Z,23nm,0.4s						
AC06	Mina Casimiro	5.45	333	Pn	Pn	02 39 07.8	+0.3
AC02	Maricunga	5.58	346	*e*S	Sn	02 40 10.5	-2.6
AC02				IAML		02 40 19.9	
	comp=Z,93nm,0.6s						
AC02	Maricunga	5.58	346		Pn	02 39 11.0	+1.4
AC02	Maricunga	5.58	346	P	Pn	02 39 11.8	+2.1
	comp=Z,88nm,0.6s						
AHML	Horco Molle	5.80	20	*e*P	Pn	02 39 00.5	-12
AHML				*e*S	Sn	02 40 13.4	-4.5
AHML				IAML		02 40 56.9	
	comp=Z,69nm,0.5s						
BI05	Punta Hualpn	6.43	224	Pn	Pn	02 39 15.9	-4.6
AC01	Pan de Azucar	6.64	336		Pn	02 39 23.6	+0.2
SLA	San Lorenzo	7.74	14	*e*P	Pn	02 39 33.5	-4.8
GO06	Curarrehue	7.95	202		Pn	02 39 39.3	-1.7
GO06	Curarrehue	7.95	202	P	Pn	02 39 39.8	-1.2
	comp=Z,38nm,0.6s						
PB14	IPOC Station P	8.00	341		Pn	02 39 42.0	0.0
PB14	IPOC Station P	8.00	341	P	Pn	02 39 43.1	+1.1
	comp=Z,33nm,0.6s						
SALTA		8.09	8	P	Pn	02 39 45.3	+2.0
	comp=Z,5.0nm,0.5s						
LR03	Panguipulli	8.30	206		Pn	02 39 41.5	-4.1
PLCA	Paso Flores	8.78	195	P	Pn	02 39 50.8	-1.3
	comp=Z,4.6nm,0.7s,baz=351,slow=11,SNR=14						
PLCA				S	Sn	02 41 27.9	-1.6
	comp=Z,2.8nm,1.0s,baz=360,slow=19,SNR=1.1						
PLCA	Paso Flores	8.78	195		Pn	02 39 50.0	-2.1
PLCA	Paso Flores	8.78	195	P	Pn	02 39 50.8	-1.3
LR04	Corral	8.95	210	Pn	Pn	02 39 46.6	-7.5
PB05	IPOC Station P	9.66	345	Pn	Pn	02 40 02.5	-1.5
LL03	Petrohue	9.66	202		Pn	02 39 59.7	-4.0
LL03	Petrohue	9.66	202	P	Pn	02 40 00.0	-3.7
	comp=Z,163nm,0.5s						
PB06	IPOC Station P	9.68	349		Pn	02 40 02.9	-1.4
PB06	IPOC Station P	9.68	349	P	Pn	02 40 03.7	-0.6
	comp=Z,31nm,0.7s						
LL05	Los Muermos	10.27	206	Pn	Pn	02 40 06.4	-5.4
PB03	IPOC Station P	10.36	349		Pn	02 40 10.6	-2.7
PB03	IPOC Station P	10.36	349	P	Pn	02 40 11.3	-2.0
	comp=Z,18nm,0.7s						
PB07	IPOC Station P	10.69	348	P	Pn	02 40 15.2	-2.6
	comp=Z,17nm,1.3s						
CPUP	Villa Florida	10.73	59	P	Pn	02 40 20.7	+2.6
	comp=Z,0.9nm,0.6s,baz=220,slow=11,SNR=4.9						
CPUP				S	Sn	02 42 23.8	+7.3
	comp=Z,1.4nm,0.5s,baz=239,slow=19,SNR=0.8						
CPUP	Villa Florida	10.73	59	Pn	Pn	02 40 14.8	-3.2
PB02	IPOC Station P	11.09	349	P	Pn	02 40 21.0	-2.1
	comp=Z,21nm,0.7s						
GO07	Milladeo Hill,	11.85	202	Pn	Pn	02 40 25.2	-7.3
PB11	IPOC Station P	12.59	351	Pn	Pn	02 40 40.4	-2.2
GO01	Chusmiza	12.63	353		Pn	02 40 41.9	-1.5
COYC	Coyhaique	13.74	193		Pn	02 40 55.2	-1.7
PB16	IPOC Station P	13.98	352		Pn	02 41 00.6	-0.2
LPAZ	La Paz	15.91	358	P	Pn	02 41 26.4	+1.4
	comp=Z,1.7nm,0.3s,baz=181,slow=7.1,SNR=16						
LPAZ	La Paz	15.91	358	P	Pn	02 41 25.8	+0.8
GO08	Villa O'Higgin	16.61	192	Pn	Pn	02 41 30.5	-2.2
GO08				IAmb	IAmb	02 41 34.6	
	comp=Z,14nm,1.3s						
GO08	Villa O'Higgin	16.61	192	P	Pn	02 41 30.9	-1.7
	comp=Z,10nm,1.3s						
SIV	San Ignacio	17.25	22	P	P	02 41 41.3	+1.3
	comp=Z,1.4nm,0.7s,baz=184,slow=7.2,SNR=8.9						
MG02	Cerro Sombrero	20.54	183	P	P	02 42 13.9	-1.3
EFI	East Falkland	20.61	163	P	P	02 42 14.3	-1.7
EFI	East Falkland	20.61	163	P	P	02 42 15.3	-0.8
	comp=Z,53nm,1.0s						
GO10	Punta Arenas	21.03	186	P	P	02 42 19.3	-1.2
GO10	Punta Arenas	21.03	186	P	P	02 42 21.6	+1.0
	comp=Z,70nm,1.0s						
DSPA	Despedida	21.68	181	P	P	02 42 26.9	-0.6
CZSB	Cruzeiro do Su	24.87	348	P	P	02 42 58.4	+0.5
CZSB				IAmb	IAmb	02 43 02.4	
	comp=Z,11nm,0.9s						
SMAI	San Martin Ant	35.91	180	P	P	02 44 34.9	+0.6
SMAI				IAmb	IAmb	02 44 39.7	
	comp=Z,1.3nm,0.6s						
VNA3	Neumayer Olymp	49.59	159	P	P	02 46 24.7	+0.2
	comp=Z,9.5nm,0.6s						
VNA3	Neumayer Olymp	49.59	159	P	P	02 46 25.6	+1.1
	comp=Z,14nm,0.7s						
VNA2	Neumayer--Watz	50.20	158	P	P	02 46 30.0	+0.9
	comp=Z,7.2nm,0.6s,baz=284,slow=7.6						
SNAA	Sanae	51.81	159	P	P	02 46 41.3	+0.1
	comp=Z,88nm,0.5s						
SNAA	Sanae	51.81	159	P	P	02 46 41.7	+0.5
	comp=Z,3.2nm,0.5s,baz=286,slow=6.3,SNR=11						
	comp=Z,3.2nm,0.5s						
SNAA	Sanae	51.81	159	P	P	02 46 41.0	-0.1
SNAA				IAmb	IAmb	02 46 43.0	
	comp=Z,13nm,1.4s						
SNAA	Sanae	51.81	159	P	P	02 46 41.8	+0.7
TROLL	Troll, Antarti	53.52	159	P	P	02 46 54.4	+0.5
	comp=Z,238nm,0.7s						
TEIG	Tepich	55.83	336	P	P	02 47 11.0	+0.1
	comp=Z,12nm,2.1s						
QSPA	South Pole Qui	57.97	180	P	P	02 47 26.5	+0.8
	comp=Z,4.0nm,0.6s,baz=212,slow=0.3,SNR=42						
	comp=Z,4.0nm,0.6s						
QSPA	South Pole Qui	57.97	180	P	P	02 47 26.1	+0.5
QSPA				IAmb	IAmb	02 47 28.0	
	comp=Z,16nm,1.4s						
SAND	Sanderson	70.02	328	P	P	02 48 45.9	+1.3
SAND				IAmb	IAmb	02 48 46.5	
	comp=Z,1.8nm,0.6s						
TXAR	Lajitas Array	70.19	327	P	P	02 48 47.0	+1.2
	comp=Z,0.3nm,0.5s,baz=153,slow=8.8,SNR=6.8						
	comp=Z,0.3nm,0.5s						
TXAR	Lajitas Array	70.19	327	P	P	02 48 46.7	+1.0
TX31	Lajitas Ar. Si	70.19	327	P	P	02 48 46.0	+0.3
WVT	Waverly	70.63	343	P	P	02 48 48.4	+0.3
	comp=Z,6.3nm,1.0s						
CCM	Cathedral Cave	73.35	341	P	P	02 49 04.3	+0.1
	comp=Z,4.0nm,1.1s						
S39A	Bolivar	73.62	339	P	P	02 49 06.0	+0.1
S39A				IAmb	IAmb	02 49 07.2	
	comp=Z,3.6nm,1.1s						
MAW	Mawson	73.74	162	P	P	02 49 06.9	+0.7
	comp=Z,4.4nm,0.6s,baz=206,slow=6.3,SNR=14						
	comp=Z,4.4nm,0.6s						
MAW	Mawson	73.74	162	P	P	02 49 06.9	+0.7
MAW	Mawson	73.74	162	P	P	02 49 06.7	+0.5
	comp=Z,1.2nm,0.7s						
R40A	Maddies Statio	73.86	340	P	P	02 49 07.5	+0.2
R40A				IAmb	IAmb	02 49 08.4	
	comp=Z,2.4nm,0.7s						
BOSA	Boshof	77.52	116	P	P	02 49 30.1	+1.5
	comp=Z,3.7nm,0.9s,baz=248,slow=3.9,SNR=5.3						
	comp=Z,3.7nm,0.9s						
BOSA	Boshof	77.52	116	P	P	02 49 28.7	+0.1
BOSA				IAmb	IAmb	02 49 53.6	
	comp=Z,2.4nm,0.8s						
GRTLG	Ghanzi	77.94	108	P	P	02 49 31.1	0.0
GRTLG				IAmb	IAmb	02 49 59.5	
	comp=Z,10nm,1.2s						
SDCO	Great Sand Dun	78.11	330	P	P	02 49 32.1	+0.3
ISCO	Idaho Springs	79.90	331	P	P	02 49 43.2	+1.8
	comp=Z,2.2nm,1.9s						
TORD	Torodi Ar. Bea	80.10	68	P	P	02 49 43.8	+1.1
	comp=Z,0.9nm,0.8s,baz=247,slow=5.8,SNR=5.5						
	comp=Z,0.9nm,0.8s						
PDAR	Pinedale Array	84.01	330	P	P	02 50 02.2	-0.6
	comp=Z,0.2nm,0.6s,baz=123,slow=11,SNR=2.4						
	comp=Z,0.2nm,0.6s						
ZALV	Zalesovo Beam	150.73	34	PKPbc	PKPbc	02 57 24.1	+1.0
	comp=Z,1.2nm,0.4s,baz=318,slow=1.9,SNR=2.5						
HHC	Hu-ho-hao-te	171.41	4	*e*P	PKPdf	02 57 36.7	-3.0

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*BJI **02** 02:45:39.3, 17°.77N×145°.78E, h573^{km}, mB5.3/15, mb5.1/62*

*DJA **02** 02:45:40.3±0.8, 18°N±8°×14°5E±°, h538^{km}±8^{km}, M5.1/53, mB5.6/36, mb5.3/53, MLv5.0/1, Mw(mB)5.1/36, MwMwp5.5/1, Mwp5.7/1*

*GFZ **02** 02:45:40.6±0.5, 18°N±3°×14°6E±°, h560^{km}±7^{km}, M4.9/22, mb5.2/22*

*IDC **02** 02:45:41.4±0.6, 17°.72N×145°.65E, h580^{km}±6^{km}, mb4.2/32, mbtmp5.2/35, Error ellipse: s-maj=10.2km s-min=6.2km az=83.0*

*NEIC **02** 02:45:41.1±1.2, 17°.74N±0°.08×145°.61E±0°.10, h572^{km}±5^{km}, mb4.9/131, Error ellipse: s-maj=13.6km s-min=11.8km az=76.0*

ISC 02 02:45:40.6±0.4**, 17°.70N**±0°.04×**145°.59E**±0°.05**, h573**^{km}±4^{km}**, n447, σ1^{s}03**/498**, mb5.0**/157**, 2C-7D, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DPSS	Saipan	2.45	175		P	02 46 53.2	-1.4
DPSS				S	S	02 47 50.4	-4.3
GUMO	Guam	4.14	190	P	P	02 47 03.5	-1.7
	517nm,0.3s,baz=16,slow=0.9,SNR=18						
GUMO				S	S	02 48 11.0	-3.1
	328nm,0.4s,baz=0.7,slow=22,SNR=8.7						
GUMO	Guam	4.14	190	S	S	02 48 10.8	-3.4
GUMO	Guam	4.14	190	P	P	02 47 03.6	-1.7
GUMO	Guam	4.14	190		P	02 47 04.1	-1.2
GUMO				S	S	02 48 10.3	-3.8
GUMO	Guam	4.14	190	P	P	02 47 03.8	-1.5
JHJ2	Mitsune	16.20	342	P	P	02 49 01.1	+0.1
JHJ2	Mitsune	16.20	342	P	P	02 49 00.2	-0.7
JHJ	Hachijo jima 2	16.22	342	P	P	02 49 00.4	-0.7
	457nm,0.7s,baz=149,slow=12,SNR=30						
PATS	Pohnpei	16.45	129	P	P	02 49 03.9	+0.3
	comp=Z,212nm,1.6s						
PATS	Pohnpei	16.45	129	P	P	02 49 03.5	0.0
JSG	Sagara	18.15	340	P	P	02 49 18.3	-0.4
JSG	Sagara	18.15	340	P	P	02 49 19.8	+1.1
	comp=Z,530nm,1.1s						
JOW	Kunigami	18.40	303	P	P	02 49 21.2	+0.1
	comp=Z,158nm,0.8s,baz=131,slow=5.9,SNR=8.9						
JMN	Monobe	19.11	329	P	P	02 49 28.5	+1.0
JMN	Monobe	19.11	329	S	S	02 52 33.3	+1.8
JMN	Monobe	19.11	329		P	02 49 27.3	-0.2
JMN	Monobe	19.11	329	P	P	02 49 28.4	+0.9
	comp=Z,148nm,1.2s						
INU	Inuyama	19.16	338	P	P	02 49 28.6	+0.7
INU	Inuyama	19.16	338		P	02 49 27.9	0.0
INU	Inuyama	19.16	338	P	P	02 49 28.3	+0.4
	comp=Z,217nm,1.0s						
JGF	Kuroka	19.27	339	P	P	02 49 29.2	+0.3
JGF	Kuroka	19.27	339		P	02 49 28.9	0.0
JGF	Kuroka	19.27	339	P	P	02 49 29.4	+0.4
	comp=Z,497nm,0.9s						
MANU	Manus Island	19.70	175	P	P	02 49 33.3	+0.3
MJAR	Matsushiro Arr	19.87	342	P	P	02 49 33.8	-0.5
	comp=Z,42nm,0.6s,baz=167,slow=9.2,SNR=55						
MJAR				ScP	ScP	02 56 05.0	-2.0
	comp=Z,6.2nm,0.8s,baz=182,slow=2.5,SNR=11						
MJAR	Matsushiro Arr	19.87	342	P	P	02 49 33.4	-0.9
MAJO	Matsushiro	19.87	342	P	P	02 49 34.1	-0.2
MAJO	Matsushiro	19.87	342	P	P	02 49 33.7	-0.6
MAJO	Matsushiro	19.87	342	P	P	02 49 33.8	-0.5
	comp=Z,118nm,0.8s						
MJB9	Matsu-Tunnel	19.88	342		P	02 49 34.8	+0.4
JNU	Nakatsue	20.27	322	P	P	02 49 38.3	+0.3
	comp=Z,120nm,0.8s,baz=118,slow=3.7,SNR=46						
	comp=Z,120nm,0.8s						
RABL	Rabaul	22.70	163	P	P	02 50 00.2	+0.2
NACB	Ninganchiao	23.30	290	P	P	02 50 05.5	+0.3
NACB	Ninganchiao	23.30	290	P	P	02 50 05.0	-0.1
JTM	Tenmabayashi	23.34	351	P	P	02 50 05.6	+0.3
JTM	Tenmabayashi	23.34	351		P	02 50 05.4	+0.1
YHNB	Yeheng	23.59	291	P	P	02 50 08.4	+0.5
YHNB	Yeheng	23.59	291	P	P	02 50 09.3	+1.3
	comp=Z,126nm,0.8s						
SSLB	Suanglung	23.80	289	P	P	02 50 10.6	+0.9
SSLB	Suanglung	23.80	289	P	P	02 50 10.3	+0.6
ERM	Erimo	24.33	356	P	P	02 50 15.1	+1.1
ERM	Erimo	24.33	356	P	P	02 50 14.2	+0.2
JEM	Erimo	24.33	356	P	P	02 50 15.2	+1.2
FAKI	Fak Fak	24.34	214	P	P	02 50 14.7	+0.1
FAKI	Fak Fak	24.34	214	P	P	02 50 14.0	-0.6
FAKI	Fak Fak	24.34	214	P	P	02 50 15.0	+0.4
	comp=Z,1µmcomp=Z,105nm,0.7s						
FAKI	Fak Fak	24.34	214	P	P	02 50 15.0	+0.4
	comp=Z,105nm,0.7s						
TJN	Taejon	24.61	323		P	02 50 15.9	-0.7
KSRS	Korea Array	25.07	325	P	P	02 50 21.1	+0.4
	comp=Z,66nm,0.7s,baz=146,slow=9.2,SNR=184						
KSRS				ScP	ScP	02 56 19.9	-0.8
	comp=Z,6.0nm,0.9s,baz=132,slow=3.0,SNR=12						
	comp=Z,66nm,0.7s						
KSAR	Wonju Array Be	25.08	325	P	P	02 50 19.5	-1.3
KS19	Wonju Array Si	25.13	325	P	P	02 50 20.6	-0.7
MNI	Manado	26.01	234	P	P	02 50 30.1	+0.8
JKA	Kamikawa-asahi	26.46	355	P	P	02 50 33.5	+0.8
JKA	Kamikawa-asahi	26.46	355	P	P	02 50 34.2	+1.5
	comp=Z,96nm,1.2s						
MSAI	Masohi	26.59	220	P	P	02 50 35.7	+1.3
	comp=Z,4µmcomp=Z,118nm,0.7s						
KRAI	Karang Ratu	26.90	221	P	P	02 50 38.1	+1.0
	comp=Z,4µmcomp=Z,118nm,0.7s						
PMG	Port Moresby	26.98	177	P	P	02 50 38.0	+0.3
AAI	Ambon	27.31	221	P	P	02 50 41.3	+0.6
	comp=Z,3µmcomp=Z,280nm,0.8s						
SANI	Sanana	27.53	226	P	P	02 50 42.8	+0.2
SANI	Sanana	27.53	226	P	P	02 50 41.2	-1.4
SANI	Sanana	27.53	226	P	P	02 50 41.0	-1.7
	comp=Z,20nm,0.7s						
GTOI	Gorontalo	27.93	235	P	P	02 50 46.6	+0.5
	comp=Z,64nm,0.8s						
NJ2	Nanjing	28.05	306	*e*P	P	02 50 47.8	+0.9
NJ2				pmax	pmax		
	comp=Z,110nm,0.8s						
USA0B	Ussuriysk Arra	28.80	339	P	P	02 50 53.5	+0.3
USA0B				IAmb	IAmb	02 50 57.3	
	comp=Z,17nm,0.7s						
USRK	Ussuriysk Ar.	28.80	339	P	P	02 50 53.4	+0.2
	comp=Z,16nm,0.6s,baz=155,slow=9.3,SNR=22						
USRK				ScP	ScP	02 56 30.5	-1.4
	comp=Z,2.1nm,0.6s,baz=110,slow=2.8,SNR=4.5						
	comp=Z,16nm,0.6s						
LUWI	Luwuk	29.18	233	P	P	02 50 57.1	+0.1
LUWI	Luwuk	29.18	233	P	P	02 50 56.3	-0.6
LUWI	Luwuk	29.18	233	P	P	02 50 56.5	-0.5
LUWI	Luwuk	29.18	233	P	P	02 50 56.8	-0.2
	comp=Z,579nm,0.7s						
MYLDM	Lahad Datu	29.26	248	P	P	02 50 58.5	+0.8
MYLDM	Lahad Datu	29.26	248	P	P	02 50 58.9	+1.2
MYLDM	Lahad Datu	29.26	248	P	P	02 51 00.1	+2.4
	comp=Z,89nm,1.0s						
MYLDM	Lahad Datu	29.26	248	P	P	02 51 00.4	+2.7
	comp=Z,89nm,1.0s						
YSS	Yuzhno-Sakhali	29.27	356	P	P	02 50 57.1	-0.1
YSS				IAmb	IAmb	02 50 58.0	
	comp=Z,42nm,0.8s						
YSS	Yuzhno-Sakhali	29.27	356	P	P	02 50 57.6	+0.4
	comp=Z,75nm,0.8s						
TOLI2	Tolitoli	29.43	239	P	P	02 50 59.8	+0.7
TOLI2	Tolitoli	29.43	239	S	S	02 55 14.8	+1.0
TOLI2	Tolitoli	29.43	239	P	P	02 50 59.5	+0.4
TOLI2	Tolitoli	29.43	239	P	P	02 51 00.1	+1.0
	comp=Z,197nm,0.9s						
DL2	Dalian	29.70	320	P	P	02 51 02.4	+1.4
DL2				pmax	pmax		
	comp=Z,62nm,0.7s						
MDJ	Mudanjiang	30.01	337	P	P	02 51 04.8	+1.1
MDJ				pmax	pmax		
	comp=Z,54nm,1.1s						
MDJ	Mudanjiang	30.01	337	P	P	02 51 04.3	+0.6
MDJ				IAmb	IAmb	02 51 05.7	
	comp=Z,45nm,1.0s						
MPSI	Mapaga	30.59	238	P	P	02 51 09.6	+0.5
	comp=Z,1µmcomp=Z,89nm,0.9s						
KKM	Kota Kinabalu	30.93	252	P	P	02 51 12.7	+0.6
KKM	Kota Kinabalu	30.93	252	P	P	02 51 13.2	+1.1
	comp=Z,1µmcomp=Z,131nm,1.0s						
KKM	Kota Kinabalu	30.93	252	P	P	02 51 13.5	+1.4
	comp=Z,131nm,1.0s						
WHN	Wuhan	31.13	300	⇓P	P	02 51 15.3	+1.8
WHN				pmax	pmax		
	comp=Z,120nm,1.0s						
KDI	Kendari	31.25	229	P	P	02 51 15.9	+1.2
	comp=Z,3µmcomp=Z,167nm,1.1s						
PCI	Palu	31.38	237	P	P	02 51 16.9	+1.1
	comp=Z,6µmcomp=Z,138nm,1.0s						
BNX	BinXian	31.79	335	⇑P	P	02 51 19.8	+0.9
BNX				S	S	02 55 48.9	-0.4
BNX				pmax	pmax		
	comp=Z,140nm,0.9s						
KKSI	Kolaka, Sulawe	32.09	230	P	P	02 51 23.8	+1.9
	comp=Z,94nm,0.6s						
BBSI	Bau Bau	32.36	227	P	P	02 51 26.4	+2.3
	comp=Z,2µmcomp=Z,266nm,0.9s						
KDU	Kakadu	32.85	204	P	P	02 51 28.6	+0.4
	comp=Z,24nm,0.5s						
MMSI	Mamuju	33.20	235	P	P	02 51 32.4	+1.1
	comp=Z,1µmcomp=Z,88nm,1.0s						
DRS	Darwin Rock St	33.27	207	P	P	02 51 31.9	+0.2
SPSI	Sidrap Palu	33.35	232	P	P	02 51 33.0	+0.5
	comp=Z,6µmcomp=Z,169nm,0.6s						
KLR	Kul'dur	33.39	343	P	P	02 51 32.7	+0.3
	comp=Z,28nm,0.7s,baz=150,slow=5.9,SNR=78						
KLR				PcP	PcP	02 53 56.4	-0.3
	comp=Z,4.9nm,0.7s,baz=168,slow=5.4,SNR=2.7						
KLR				ScP	ScP	02 56 45.5	-1.8
	comp=Z,5.8nm,0.8s,baz=173,slow=2.5,SNR=7.6						
	comp=Z,28nm,0.7s						
HNS	HongShan	33.46	312	⇓P	P	02 51 34.3	+1.2
HNS				pmax	pmax		
	comp=Z,55nm,0.7s						
MTN	Manton Dam	33.53	206	P	P	02 51 34.9	+0.9
	comp=Z,168nm,0.7s						
MTN	Manton Dam	33.53	206	P	P	02 51 34.4	+0.4
BJI2	Beijing	33.78	317	P	P	02 51 36.5	+0.8
BJI2				pmax	pmax		
	comp=Z,23nm,0.5s						
BJT	Baijiatuau	33.78	317	P	P	02 51 36.1	+0.3
BJT				IAmb	IAmb	02 51 37.8	
	comp=Z,25nm,0.6s						
BJT	Baijiatuau	33.78	317	P	P	02 51 36.4	+0.7
LYN	LuoYang	33.95	306	P	P	02 51 38.5	+1.3
LYN				pmax	pmax		
	comp=Z,58nm,1.0s						
BKB	Balikpapan	33.96	239	P	P	02 51 37.6	0.0
KAPI	Kappang	34.05	231	P	P	02 51 39.5	+1.1
KAPI	Kappang	34.05	231	P	P	02 51 38.9	+0.5
KAPI	Kappang	34.05	231	P	P	02 51 39.3	+0.9
	comp=Z,79nm,0.8s						
KAPI	Kappang	34.05	231	P	P	02 51 39.7	+1.3
	comp=Z,151nm,0.8s						
KAPI	Kappang	34.05	231	P	P	02 51 39.5	+1.1
KAPI				ScP	ScP	02 56 51.6	+1.3
BSSI	Bau Bau, Buton	34.28	228	P	P	02 51 41.4	+1.1
	comp=Z,3µmcomp=Z,283nm,1.0s						
SOEI	Soe	34.46	219	P	P	02 51 40.8	-1.1
SOEI	Soe	34.46	219	P	P	02 51 41.3	-0.6
	comp=Z,109nm,0.8s						
SOEI	Soe	34.46	219	P	P	02 51 40.9	-1.1
	comp=Z,109nm,0.8s						
ENH	Enshi	35.13	298	P	P	02 51 46.7	-0.5
ENH				IAmb	IAmb	02 51 49.2	
	comp=Z,22nm,0.9s						
TIY	Taiyuan	35.22	311	P	P	02 51 49.2	+1.3
TIY				pmax	pmax		
	comp=Z,83nm,0.8s						
EDFI	Ende, Flores	35.33	224	P	P	02 51 48.9	-0.2
	comp=Z,48nm,0.6s						
HEH	HeiHe	35.60	340	*e*P	P	02 51 51.1	+0.4
HEH				pmax	pmax		
	comp=Z,110nm,1.2s						
MTSU	Mount Surprise	35.63	182	P	P	02 51 52.6	+1.1
	comp=Z,42nm,0.6s						
MTSU	Mount Surprise	35.63	182	P	P	02 51 53.0	+1.5
	comp=Z,42nm,0.6s						
XLT	XiLinHaoTe	36.05	323	*e*P	P	02 51 55.5	+0.8
XLT				pmax	pmax		
	comp=Z,58nm,1.0s						
SBUM	Sibu	36.08	249	P	P	02 51 54.8	-0.4
SBUM	Sibu	36.08	249	S	S	02 56 55.9	+1.2
SBUM	Sibu	36.08	249	P	P	02 51 56.4	+1.2
SBUM	Sibu	36.08	249	P	P	02 51 56.9	+1.7
	comp=Z,182nm,0.9s						
LBFI	Labuhan Bajo,	36.35	226	P	P	02 51 57.0	-0.4
XAN	Xi'an	36.55	304	P	P	02 51 59.8	+0.9
XAN				pmax	pmax		
	comp=Z,38nm,0.6s						
XAN	Xi'an	36.55	304	P	P	02 51 59.4	+0.5
XAN				ScP	ScP	02 56 58.5	-0.8
PEA0B	Petropavlovsk-	36.59	12	P	P	02 51 59.1	+0.3
PETK	Petropavlovsk-	36.59	12	P	P	02 51 58.6	-0.2
	comp=Z,10nm,0.7s,baz=145,slow=6.3,SNR=16						
PETK				ScP	ScP	02 56 56.9	-2.1
	comp=Z,3.4nm,0.7s,baz=126,slow=2.0,SNR=3.7						
	comp=Z,10nm,0.7s						
PETK	Petropavlovsk-	36.59	12	P	P	02 51 59.0	+0.2
PET	Petropavlovsk	36.71	13	P	P	02 52 00.1	+0.3
PET				IAmb	IAmb	02 52 01.7	
	comp=Z,48nm,1.3s						

PET	Petropavlovsk	36.71	13	P	P	02 51 59.9	+0.1
	comp=Z,29nm,1.0s						
PET	Petropavlovsk	36.71	13	P	P	02 52 01.0	+1.3
	comp=Z,31nm,1.0s						
KNRA	Kununurra	37.08	208	P	P	02 52 04.3	+1.0
	comp=Z,35nm,0.8s						
KNRA	Kununurra	37.08	208	P	P	02 52 03.4	+0.1
KNRA				IAmb	IAmb	02 52 04.7	
	comp=Z,27nm,0.6s						
HHC	Hu-ho-hao-te	37.23	315	*e*P	P	02 52 05.5	+1.1
HHC				pmax	pmax		
	comp=Z,40nm,0.7s						
DBNI	Kabupaten Domp	37.47	228	P	P	02 52 08.5	+1.9
CTA	Charters Tower	37.56	179	P	P	02 52 08.3	+1.1
CTA	Charters Tower	37.56	179	P	P	02 52 07.6	+0.4
CTAO	Charters Tower	37.56	179	P	P	02 52 08.0	+0.8
CTAO	Charters Tower	37.56	179	P	P	02 52 07.7	+0.4
CTAO				IAmb	IAmb	02 52 09.3	
	comp=Z,16nm,0.7s						
HIA	Hailar	37.79	332	P	P	02 52 09.0	+0.3
HIA	Hailar	37.79	332	P	P	02 52 09.5	+0.7
HILR	Hailar Array B	38.00	333	P	P	02 52 11.3	+0.9
	comp=Z,31nm,0.5s,baz=131,slow=9.1,SNR=56						
HILR				PcP	PcP	02 54 10.5	-0.2
	comp=Z,2.8nm,0.5s,baz=94,slow=4.8,SNR=1.4						
HILR				ScP	ScP	02 57 03.4	-1.1
	comp=Z,9.5nm,0.9s,baz=132,slow=8.9,SNR=9.5						
	comp=Z,31nm,0.5s						
PLAI	Plampang	38.07	228	P	P	02 52 11.5	0.0
PLAI	Plampang	38.07	228	P	P	02 52 11.3	-0.2
PLAI	Plampang	38.07	228	P	P	02 52 10.5	-1.0
	comp=Z,185nm,0.8s						
QIS	Mount Isa	38.47	189	P	P	02 52 15.4	+0.8
	comp=Z,44nm,0.8s						
QIS	Mount Isa	38.47	189	P	P	02 52 15.6	+1.0
QIS	Mount Isa	38.47	189	P	P	02 52 15.4	+0.8
	comp=Z,44nm,0.8s						
WB0	Warramunga Arr	38.82	197	P	P	02 52 17.9	+0.4
WRAB	Tennant Creek	38.99	197	P	P	02 52 19.3	+0.4
WRAB	Tennant Creek	38.99	197	P	P	02 52 19.2	+0.4
WRAB	Tennant Creek	38.99	197	P	P	02 52 19.5	+0.7
	comp=Z,125nm,0.7s						
WRAB	Tennant Creek	38.99	197	P	P	02 52 19.4	+0.6
WRAB				PcP	PcP	02 54 15.4	+1.0
WRAB				ScP	ScP	02 57 08.6	-0.1
WRA	Warramunga Arr	39.00	197	P	P	02 52 19.6	+0.7
	comp=Z,39nm,0.4s,baz=21,slow=8.4,SNR=253						
WRA				PcP	PcP	02 54 14.9	+0.5
	comp=Z,7.3nm,0.5s,baz=18,slow=3.4,SNR=7.2						
WRA				ScP	ScP	02 57 08.5	-0.3
	comp=Z,12nm,0.8s,baz=17,slow=4.1,SNR=26						
WRA				S	S	02 57 38.5	+0.8
	comp=Z,5.3nm,0.9s,baz=17,slow=14,SNR=4.8						
	comp=Z,39nm,0.4s						
WRA	Warramunga Arr	39.00	197	P	P	02 52 18.0	-1.0
WRA					ScP	02 57 08.2	-0.6
SANVU	Saraoutou	39.23	146	P	P	02 52 21.9	+1.2
SANVU	Saraoutou	39.23	146	P	P	02 52 20.5	-0.3
SANVU				IAmb	IAmb	02 52 22.0	
	comp=Z,84nm,1.2s						
SLVN	Son La	39.37	282	P	P	02 52 22.4	+0.4
JAGI	Jajag, Banyuwa	40.50	233	P	P	02 52 29.3	-1.7
JAGI				IAmb	IAmb	02 52 31.3	
	comp=Z,55nm,0.8s						
JAGI	Jajag, Banyuwa	40.50	233	P	P	02 52 29.9	-1.1
	comp=Z,77nm,1.0s						
FITZ	Fitzroy Crossi	40.62	210	P	P	02 52 33.0	+1.1
	comp=Z,26nm,0.8s						
FITZ	Fitzroy Crossi	40.62	210	P	P	02 52 32.1	+0.2
FITZ	Fitzroy Crossi	40.62	210	P	P	02 52 32.7	+0.8
FITZ				IAmb	IAmb	02 52 33.6	
	comp=Z,16nm,0.6s						
FITZ	Fitzroy Crossi	40.62	210	P	P	02 52 33.0	+1.1
	comp=Z,26nm,0.8s						
LZH	Lanzhou	41.12	305	*e*P	P	02 52 37.8	+1.9
LZH				pmax	pmax		
	comp=Z,53nm,1.0s						
LZDM	Lanzhou Array	41.20	305	P	P	02 52 38.1	+1.4
	comp=Z,10nm,0.3s,baz=134,slow=6.4,SNR=17						
LZDM				PcP	pwP	02 54 20.4	-1.0
	comp=Z,6.6nm,0.3s,baz=45,slow=57,SNR=4.0						
	comp=Z,10nm,0.3s						
PZH	PanZhiHua	41.39	290	P	P	02 52 40.0	+1.9
SMY	Shemya	41.47	26	P	P	02 52 39.2	+1.1
MA2	Magadan	41.99	4	P	P	02 52 42.7	+0.7
	comp=Z,66nm,0.8s,baz=180,slow=7.2,SNR=26						
	comp=Z,66nm,0.8s						
MA2	Magadan	41.99	4	P	P	02 52 42.8	+0.7
MA2	Magadan	41.99	4	P	P	02 52 42.0	-0.1
MA2	Magadan	41.99	4	P	P	02 52 42.4	+0.3
	comp=Z,108nm,1.1s						
MA2	Magadan	41.99	4	P	P	02 52 42.9	+0.8
	comp=Z,98nm,1.1s						
MA2	Magadan	41.99	4	P	P	02 52 42.6	+0.5
MA2				ScP	ScP	02 57 17.7	-2.2
KOUNC	Koumac, New Ca	42.21	153	P	P	02 52 44.6	+0.3
KOUNC				IAmb	IAmb	02 53 15.5	
	comp=Z,80nm,1.6s						
AS15	Alice Springs	42.63	196	P	P	02 52 48.4	+0.7
	comp=Z,54nm,0.5s						
AS17	Alice Springs	42.64	196	P	P	02 52 48.4	+0.7
	comp=Z,62nm,0.7s						
AS01	Alice Springs	42.65	196	P	P	02 52 47.8	0.0
AS31	Alice Springs	42.66	196	P	P	02 52 48.5	+0.6
	comp=Z,28nm,0.6s						
AS31	Alice Springs	42.66	196	P	P	02 52 48.1	+0.2
AS31				IAmb	IAmb	02 52 50.2	
	comp=Z,24nm,0.5s						
ASAR	Alice Springs	42.67	196	P	P	02 52 48.2	+0.3
	comp=Z,44nm,0.7s,baz=19,slow=7.9,SNR=382						
ASAR				PcP	PcP	02 54 26.6	+0.1
	comp=Z,4.8nm,0.7s,baz=18,slow=4.2,SNR=5.4						
ASAR				ScP	ScP	02 57 22.9	-0.4
	comp=Z,8.0nm,0.7s,baz=20,slow=4.2,SNR=17						
ASAR				S	S	02 58 30.4	-0.1
	comp=Z,4.0nm,0.8s,baz=22,slow=20,SNR=12						
	comp=Z,44nm,0.7s						
ASAR	Alice Springs	42.67	196	P	P	02 52 48.1	+0.2
ASAR					ScP	02 57 23.1	-0.3
AS09	Alice Springs	42.69	196	P	P	02 52 48.7	+0.6
	comp=Z,71nm,0.7s						
AMKA	Amchitka	42.91	31	P	P	02 52 49.9	+0.5
AMKA				IAmb	IAmb	02 52 51.2	
	comp=Z,51nm,0.8s						
UGM	Wanagama	42.98	237	P	P	02 52 50.4	-0.1
EIDS	Eidsvold	43.14	173	P	P	02 52 45.6	-5.9
	comp=Z,16nm,1.1s						
EIDS	Eidsvold	43.14	173	P	P	02 52 51.5	0.0
EIDS	Eidsvold	43.14	173	P	P	02 52 51.3	-0.3
ULN	Ulaanbaatar	43.49	322	P	P	02 52 54.7	+0.5
ULN				IAmb	IAmb	02 52 57.2	
	comp=Z,47nm,1.2s						
ULN	Ulaanbaatar	43.49	322	P	P	02 52 55.3	+1.1
ULN				ScP	ScP	02 57 25.2	-1.3
SONM	Songino Array	43.86	322	P	P	02 52 58.1	+1.1
	comp=Z,23nm,0.8s,baz=131,slow=9.7,SNR=68						
SONM				ScP	ScP	02 57 26.5	-1.6
	comp=Z,4.4nm,0.8s,baz=127,slow=3.7,SNR=11						
	comp=Z,23nm,0.8s						
SONM	Songino Array	43.86	322	P	P	02 52 57.2	+0.2
SONM				IAmb	IAmb	02 53 00.7	
	comp=Z,24nm,0.7s						
SONM					ScP	02 57 26.1	-2.0
MYKOM	Kota Tinggi	43.91	254	P	P	02 52 58.5	+0.7
MYKOM				IAmb	IAmb	02 53 00.1	
	comp=Z,34nm,0.6s						
QLP	Quilpie	44.03	182	P	P	02 52 58.5	0.0
	comp=Z,77nm,0.8s						
QLP	Quilpie	44.03	182	P	P	02 52 58.5	0.0
QLP	Quilpie	44.03	182	P	P	02 52 58.4	0.0
	comp=Z,77nm,0.8s						
CHTO	Chiang Mai	44.21	279	P	P	02 52 59.9	-0.1
CM31	Chiang Mai Arr	44.25	278	P	P	02 53 01.2	+0.9
CM31				IAmb	IAmb	02 53 03.3	
	comp=Z,51nm,0.9s						
CMAR	Chiang Mai Arr	44.25	278	P	P	02 53 01.2	+0.9
	comp=Z,33nm,0.9s,baz=73,slow=6.2,SNR=143						
	comp=Z,33nm,0.9s						
CMAR	Chiang Mai Arr	44.25	278	P	P	02 53 01.4	+1.1
NOUC	Port Laguerre	44.45	152	P	P	02 53 02.3	+0.6
KIWB	Kanaga Island	44.96	32	P	P	02 53 05.5	+0.3
OUENC	Ouen Island, N	44.97	152	P	P	02 53 05.7	0.0
OUENC	Ouen Island, N	44.97	152	P	P	02 53 06.0	+0.4
OUENC				IAmb	IAmb	02 53 19.6	
	comp=Z,66nm,1.5s						
BBJI	Bungbulang	45.04	239	P	P	02 53 05.4	-1.1
BBJI	Bungbulang	45.04	239	P	P	02 53 04.7	-1.8
BBJI				IAmb	IAmb	02 53 05.7	
	comp=Z,31nm,0.8s						
GTA2	Gaotai	45.14	308	P	P	02 53 08.4	+1.4
GTA2				ScP	ScP	02 57 32.4	-1.1
GTA2				S	S	02 59 05.1	-0.3
GTA2				pmax	pmax		
	comp=Z,9.0nm,1.2s						
ADK	Adak	45.22	32	P	P	02 53 07.5	+0.3
ADK	Adak	45.22	32	P	P	02 53 07.9	+0.7
INKA	Innaminka	45.41	186	P	P	02 53 08.6	-0.4
INKA				IAmb	IAmb	02 53 09.9	
	comp=Z,18nm,0.8s						
SEY	Seymchan	45.44	4	P	P	02 53 08.9	+0.3
	comp=Z,31nm,0.6s,baz=179,slow=7.4,SNR=65						
SEY				ScP	ScP	02 57 31.5	-2.5
	comp=Z,5.4nm,0.7s,baz=187,slow=6.5,SNR=4.8						
	comp=Z,31nm,0.6s						
IPM	Ipoh	45.52	259	P	P	02 53 10.6	+0.5
IPM				IAmb	IAmb	02 53 12.9	
	comp=Z,67nm,0.9s						
KULM	Kulim	45.60	260	P	P	02 53 11.7	+1.0
KULM				IAmb	IAmb	02 53 13.8	
	comp=Z,71nm,1.0s						
YAK	Yakutsk	45.68	350	P	P	02 53 10.5	0.0
	comp=Z,95nm,0.5s,baz=121,slow=0.5,SNR=17						
	comp=Z,95nm,0.5s						
YAK	Yakutsk	45.68	350	P	P	02 53 09.8	-0.7
WRKA	Warakurna	45.70	202	P	P	02 53 11.9	+0.7
	comp=Z,42nm,1.0s						
MBWA	Marble Bar	46.19	214	P	P	02 53 15.6	+0.6
	comp=Z,67nm,0.8s						
MBWA	Marble Bar	46.19	214	P	P	02 53 15.1	+0.1
MBWA	Marble Bar	46.19	214	P	P	02 53 14.7	-0.3
MBWA				IAmb	IAmb	02 53 16.2	
	comp=Z,56nm,0.9s						
MBWA	Marble Bar	46.19	214	P	P	02 53 15.3	+0.4
MBWA				ScP	ScP	02 57 37.9	0.0
ATKA	Atka Island	46.68	33	P	P	02 53 18.4	+0.2
ATKA	Atka Island	46.68	33	P	P	02 53 18.2	0.0
TLY	Talaya	47.32	326	P	P	02 53 23.9	+0.7
TLY				IAmb	IAmb	02 53 25.2	
	comp=Z,35nm,1.0s						
TLY	Talaya	47.32	326	P	P	02 53 24.3	+1.2
TLY				PcP	PcP	02 54 45.6	+3.1
MSVF	Nonsavu	47.54	136	P	P	02 53 25.0	-0.3
MSVF	Nonsavu	47.54	136	P	P	02 53 26.5	+1.2
MSVF				IAmb	IAmb	02 54 58.6	
	comp=Z,60nm,1.8s						
RPSI	Rantau Prapat	48.12	257	P	P	02 53 30.2	+0.6
RPSI				IAmb	IAmb	02 53 32.0	
	comp=Z,47nm,1.1s						
ARMA	Armidale	48.19	173	P	P	02 53 30.0	+0.1
GOMU	GeErMu	48.30	303	P	P	02 53 31.5	+0.4
GOMU				pmax	pmax		
	comp=Z,7.0nm,0.5s						
CMSA	Cobar Meteorol	48.95	180	P	P	02 53 36.4	+0.9
	comp=Z,15nm,0.8s						
CMSA	Cobar Meteorol	48.95	180	P	P	02 53 36.1	+0.6
LHMI	Lhok Sumawe	49.10	261	P	P	02 53 37.8	+0.8
CLES	Cleveland East	49.26	34	P	P	02 53 37.3	-0.2
STKA	Stephens Creek	49.44	184	P	P	02 53 39.6	+0.5
	comp=Z,169nm,1.1s						
STKA	Stephens Creek	49.44	184	P	P	02 53 38.8	-0.3
	comp=Z,26nm,0.6s,baz=2.3,slow=7.7,SNR=30						
	comp=Z,26nm,0.6s						
STKA	Stephens Creek	49.44	184	P	P	02 53 39.2	+0.2
GSI	Gunungsitoli	49.88	256	P	P	02 53 43.5	+0.8
GSI	Gunungsitoli	49.88	256	P	P	02 53 42.9	+0.2
SHL	Shillong	50.26	289	P	P	02 53 45.5	+0.1
GIRL	Giralia	50.48	219	P	P	02 53 47.8	+1.0
LSA	Lhasa	50.85	294	P	P	02 53 51.0	+1.0
LSA				IAmb	IAmb	02 53 53.6	
	comp=Z,21nm,0.7s						
BBOO	Buckleboo	51.04	190	P	P	02 53 50.6	-0.1
BBOO	Buckleboo	51.04	190	P	P	02 53 50.6	-0.1
BBOO				IAmb	IAmb	02 53 51.7	
	comp=Z,26nm,0.8s						
FORT	Forrest	51.06	199	P	P	02 53 51.3	+0.4
	comp=Z,37nm,0.9s						
FORT	Forrest	51.06	199	P	P	02 53 51.3	+0.4
FORT				IAmb	IAmb	02 53 52.2	
	comp=Z,24nm,0.7s						
HTT	Hallett	51.24	187	P	P	02 53 52.7	+0.5
SPIA	Saint Paul Isl	51.26	29	P	P	02 53 53.0	+1.1
MEEK	Meekatharra	51.27	211	P	P	02 53 52.5	0.0
	comp=Z,75nm,1.6s						
MEEK	Meekatharra	51.27	211	P	P	02 53 52.5	0.0
UNV	Unalaska Valle	51.54	34	P	P	02 53 54.1	+0.1
UNV	Unalaska Valle	51.54	34	P	P	02 53 53.8	-0.2
UNV				IAmb	IAmb	02 53 55.2	
	comp=Z,49nm,0.8s						
BILL	Bilibino	52.02	10	P	P	02 53 56.8	-0.4
BILL				IAmb	IAmb	02 53 58.6	
	comp=Z,52nm,0.7s						
BILL	Bilibino	52.02	10	P	P	02 53 57.7	+0.5
AKUT	Akutan	52.05	34	P	P	02 53 57.9	+0.2
CAN	Canberra	52.83	176	P	P	02 54 05.0	+1.4
	comp=Z,26nm,3.0s						
CAN	Canberra	52.83	176	P	P	02 54 04.8	+1.2
CAN	Canberra	52.83	176	P	P	02 54 04.4	+0.8
CAN	Canberra	52.83	176	P	P	02 54 04.7	+1.2
CAN				ScP	ScP	02 58 08.2	+2.0
KMBL	Kambalda	53.83	205	P	P	02 54 10.5	-0.2
	comp=Z,21nm,0.9s						
ARPS	Mount Arapiles	54.29	184	P	P	02 54 14.6	+0.9
	comp=Z,16nm,1.0s						
MORW	Morawa	54.55	212	P	P	02 54 16.0	+0.3
	comp=Z,87nm,0.9s						
MORW	Morawa	54.55	212	P	P	02 54 15.7	-0.1
MORW	Morawa	54.55	212	P	P	02 54 15.7	-0.1
MORW				IAmb	IAmb	02 54 16.6	
	comp=Z,58nm,0.7s						
EVN	Everest	54.68	292	P	P	02 54 17.9	+0.3
TIXI	Tiksi	54.85	354	P	P	02 54 17.0	-0.2
TIXI				IAmb	IAmb	02 54 18.9	
	comp=Z,18nm,0.5s						
WMQ	Urumqi	54.88	311	*e*P	P	02 54 20.0	+2.0
WMQ				PcP	PcP	02 55 12.1	+0.8
WMQ				S	S	03 01 19.2	+2.4
WMQ				pmax	pmax		
	comp=Z,31nm,0.7s						
WMQ				pmax	pmax		
	comp=Z,210nm,5.1s						
TOO	Toolangi	54.97	180	P	P	02 54 19.3	+0.8
SDPT	Sand Point	55.35	34	P	P	02 54 21.1	+0.2
SDPT	Sand Point	55.35	34	P	P	02 54 20.7	-0.2
BLDU	Ballidu	55.49	210	P	P	02 54 22.6	+0.3
	comp=Z,69nm,0.6s						
BLDU	Ballidu	55.49	210	P	P	02 54 22.3	0.0
CNBA	Chernabura Isl	55.65	35	P	P	02 54 22.7	-0.3
CNBA				IAmb	IAmb	02 55 17.9	
	comp=Z,158nm,1.8s						
CHNA	Chernabura Isl	55.66	35	P	P	02 54 23.0	0.0
KLBR	Kellerberrin	55.81	209	P	P	02 54 24.6	+0.1
	comp=Z,194nm,0.8s						
KLBR	Kellerberrin	55.81	209	P	P	02 54 24.3	-0.2
KNHH	Kane Nui o Ham	55.95	78	P	P	02 54 26.4	+0.5
M13K	Dall Lake	55.97	28	P	P	02 54 25.2	+0.2
M13K				IAmb	IAmb	02 54 27.4	
	comp=Z,53nm,0.8s						
MUN	Mundaring	56.86	210	P	P	02 54 31.9	+0.3
NWAO	Narrogin (SRO)	57.17	208	P	P	02 54 34.1	+0.3
NWAO	Narrogin (SRO)	57.17	208		P	02 54 33.9	+0.2
ZSN	Zaisan	57.43	315	*e*P	P	02 54 36.6	+1.2
GLAD	Gladstone	58.42	178	P	P	02 54 42.4	+0.4
ZAA0	Zalesovo Array	58.74	323	P	P	02 54 44.1	0.0
ZALV	Zalesovo Beam	58.74	323	P	P	02 54 44.3	+0.2
	comp=Z,19nm,0.5s,baz=114,slow=6.1,SNR=81						
ZALV				PcP	PcP	02 55 26.6	+0.4
	comp=Z,3.1nm,0.7s,baz=113,slow=4.1,SNR=4.5						
ZALV				ScP	ScP	02 58 30.5	-1.5
	comp=Z,2.1nm,0.6s,baz=114,slow=3.6,SNR=3.2						
	comp=Z,19nm,0.5s						
ZALV	Zalesovo Beam	58.74	323	P	P	02 54 44.1	+0.1
MKAR	Makanchi Array	59.08	314	P	P	02 54 47.9	+1.4
	comp=Z,34nm,0.5s,baz=90,slow=10,SNR=150						
MKAR				ScP	ScP	02 58 32.3	-1.4
	comp=Z,6.3nm,0.8s,baz=89,slow=6.2,SNR=10						
MKAR				S	S	03 02 11.5	+1.3
	comp=Z,1.0nm,0.8s,baz=94,slow=18,SNR=5.4						
	comp=Z,34nm,0.5s						
MKAR	Makanchi Array	59.08	314	P	P	02 54 47.3	+0.8
MKAR					ScP	02 58 32.0	-1.7
SII	Sitkinak Islan	59.09	34	P	P	02 54 46.9	+0.5
SII	Sitkinak Islan	59.09	34	P	P	02 54 47.1	+0.7
MAKZ	Makanchi	59.29	314	P	P	02 54 48.7	+0.8
MAKZ				IAmb	IAmb	02 54 50.0	
	comp=Z,76nm,0.6s						
MAKZ	Makanchi	59.29	314	P	P	02 54 49.1	+1.1
OHAK	Old Harbor	59.74	33	P	P	02 54 51.3	+0.7
KDAK	Kodiak Island	60.25	33	P	P	02 54 54.3	+0.3
KDAK				IAmb	IAmb	02 55 22.8	
	comp=Z,180nm,1.9s						
PDGK	Podgornoye	60.76	310	P	P	02 54 58.5	+0.7
SHLS	Shalkode	60.77	310	⇓*i*P	P	02 54 57.0	-0.9
WUS	Wushi	60.88	308	P	P	02 54 59.1	+0.4
UZB	Uzynbulak	61.09	310	⇓*i*P	P	02 55 01.1	+1.0
KPKS	Kokpek	61.35	310	*e*P	P	02 55 02.7	+1.0
CNPM	China Poot	61.37	31	P	P	02 55 01.4	0.0
PRZ	Przheval'sk	61.53	309	P	P	02 55 04.6	+1.6
PRZ				IAmb	IAmb	02 55 05.9	
	comp=Z,67nm,0.7s						
TDK	Taldyqorghan	61.62	312	*e*P	P	02 55 04.5	+1.2
	comp=Z,38nm,0.7s						
KURK	Kurchatov	61.94	318	P	P	02 55 05.8	+0.5
KURK				IAmb	IAmb	02 55 06.6	
	comp=Z,82nm,0.9s						
KURK	Kurchatov	61.94	318	P	P	02 55 05.8	+0.5
KURK				PcP	PcP	02 55 38.7	-0.6
KURBB	Kurchatov Arra	61.99	318	P	P	02 55 06.0	+0.5
	comp=Z,108nm,0.7s,baz=98,slow=6.7,SNR=942						
KURBB				S	S	03 02 45.9	-0.2
	comp=Z,4.1nm,1.1s,baz=101,slow=10,SNR=5.9						
	comp=Z,108nm,0.7s						
CAST	Castle Rocks	62.03	27	P	P	02 55 06.1	+0.5
CAST				IAmb	IAmb	02 55 07.1	
	comp=Z,32nm,0.8s						
IMAR	Indian Mountai	62.17	24	P	P	02 55 06.8	+0.3
SEW	Seward	62.38	31	P	P	02 55 08.0	+0.2
SEW				IAmb	IAmb	02 55 08.9	
	comp=Z,41nm,0.7s						
KDJ	Kajisay	62.42	309	P	P	02 55 09.6	+0.8
RC01	Rabbit Creek A	62.47	30	P	P	02 55 08.4	-0.1
RC01				IAmb	IAmb	02 55 09.2	
	comp=Z,55nm,0.5s						
NRIK	Noril'sk	62.51	340	P	P	02 55 08.8	+0.2
	comp=Z,12nm,0.4s,baz=111,slow=8.0,SNR=15						
	comp=Z,12nm,0.4s						
NRIK	Noril'sk	62.51	340	P	P	02 55 08.7	+0.2
NRIK				IAmb	IAmb	02 55 09.2	
	comp=Z,23nm,0.7s						
MDOK	Medeo	62.54	310	*e*P	P	02 55 10.5	+1.0
B20K	Meade River	62.55	19	P	P	02 55 09.5	+0.8
B20K				IAmb	IAmb	02 55 10.6	
	comp=Z,67nm,0.7s						
TNSS	Tian-Shan	62.61	310	*e*P	P	02 55 10.9	+0.7
AAA	Alma-Ata	62.64	310	*e*P	P	02 55 11.2	+1.2
	comp=Z,61nm,1.2s						
PMR	Palmer	62.87	29	P	P	02 55 11.3	+0.3
URZ	Urewera	63.04	152	P	P	02 55 12.9	+0.5
KUU	Kurty	63.07	311	*e*P	P	02 55 13.7	+1.0
NRN	Naryn	63.31	308	P	P	02 55 15.1	+0.4
BWN	Browne	63.36	26	P	P	02 55 14.3	+0.2
BWN				IAmb	IAmb	02 55 15.4	
	comp=Z,72nm,1.1s						
QRZ	Quartz Range	63.38	157	P	P	02 55 15.1	+0.6
MCK	McKinley	63.47	27	P	P	02 55 14.9	0.0
BKZ	Black Stump Fm	63.53	154	P	P	02 55 16.7	+1.1
TKM2	Tokmak 2	63.60	310	P	P	02 55 17.4	+1.1
	SNR=25						
KSH2	Kashi	63.69	305	P	P	02 55 17.9	+1.0
KSH2				pmax	pmax		
	comp=Z,16nm,0.8s						
H23K	Yukon River	63.77	25	P	P	02 55 17.1	+0.4
COLD	Coldfoot	63.91	23	P	P	02 55 18.5	+0.9
COLD				IAmb	IAmb	02 55 19.6	
	comp=Z,26nm,0.8s						
WRH	Wood River Hil	64.01	26	P	P	02 55 17.6	-0.7
WRH				IAmb	IAmb	02 55 18.6	
	comp=Z,36nm,1.2s						
NNZ	Nelson	64.03	157	P	P	02 55 18.4	-0.3
KBK	Karagaybulak	64.08	309	P	P	02 55 20.5	+1.2
	SNR=8.1						
COLA	College	64.21	26	P	P	02 55 20.3	+0.8
COLA	College	64.21	26	P	P	02 55 19.2	-0.3
COLA				IAmb	IAmb	02 55 21.8	
	comp=Z,14nm,0.5s						
COLA	College	64.21	26	P	P	02 55 19.1	-0.3
EYAK	Cordova Ski Ar	64.27	31	P	P	02 55 21.0	+1.0
SGDS	Sogindy	64.31	310	*e*P	P	02 55 21.1	+0.5
THZ	Tophouse	64.33	158	P	P	02 55 21.2	+0.5
THZ				IAmb	IAmb	02 56 48.1	
	comp=Z,111nm,1.6s						
TCW	Tory Channel	64.37	156	P	P	02 55 20.5	-0.3
USP	Ospenovka	64.40	310	P	P	02 55 22.2	+0.9
	SNR=13						
UCH	Uchtor	64.41	309	P	P	02 55 23.5	+1.7
	SNR=16						
AAK	Ala-Archa	64.41	309	P	P	02 55 21.5	+0.1
ILAR	Eielson Array	64.59	26	P	P	02 55 20.8	-1.1
	comp=Z,16nm,0.4s,baz=250,slow=5.9,SNR=622						
ILAR				pP	pP	02 57 16.9	+2.7
	comp=Z,3.1nm,0.8s,baz=261,slow=5.9,SNR=3.6						
	comp=Z,16nm,0.4s						
ILAR	Eielson Array	64.59	26	P	P	02 55 20.9	-1.0
BFZ	Birch Farm	64.70	155	P	P	02 55 23.2	+0.3
EKS2	Erkin-Say	64.94	309	P	P	02 55 25.9	+1.1
	SNR=5.7						
KHZ	Kahutara	65.13	158	P	P	02 55 25.6	0.0
VRDI	Verde Repeater	65.49	30	P	P	02 55 28.2	+0.3
VRDI				IAmb	IAmb	02 55 28.7	
	comp=Z,21nm,0.5s						
ARSB	Arslanbob	65.58	308	P	P	02 55 29.1	+0.3
ARSB				IAmb	IAmb	02 55 30.7	
	comp=Z,22nm,0.7s						
SCRK	Sand Creek	65.67	27	P	P	02 55 28.9	+0.1
SCRK				IAmb	IAmb	02 55 30.0	
	comp=Z,38nm,1.2s						
NIL	Nilore	65.92	299	P	P	02 55 31.9	+0.9
NIL				IAmb	IAmb	02 55 33.5	
	comp=Z,38nm,0.7s						
BMAR	Burnt Mountain	66.07	23	P	P	02 55 32.4	+1.2
BCAR	Beaver Creek A	66.51	28	P	P	02 55 34.5	+0.5
DZA	Taraz	66.73	310	*e*P	P	02 55 36.7	+1.0
BVAR	Borovoye Array	67.17	321	P	P	02 55 38.7	+0.5
	comp=Z,53nm,0.6s,baz=95,slow=7.8,SNR=179						
BVAR				S	S	03 03 47.1	-1.0
	comp=Z,2.3nm,0.9s,baz=91,slow=9.0,SNR=6.1						
	comp=Z,53nm,0.6s						
BORK	Borovoye	67.22	321	P	P	02 55 38.9	+0.4
BORK				IAmb	IAmb	02 55 39.9	
	comp=Z,42nm,0.7s						
KKAR	Karatay Array	67.32	310	P	P	02 55 40.3	+1.0
PNL	Peninsula	67.33	32	P	P	02 55 40.2	+1.1
DAWY	Dawson	67.69	27	P	P	02 55 41.6	+0.5
DAWY				IAmb	IAmb	02 55 42.5	
	comp=Z,14nm,0.7s						
IUG	Iuzhnay	67.74	309	⇓*i*P	P	02 55 43.0	+1.0
	comp=Z,10.0nm,0.5s						
BRLS	Borolday	67.82	310	*e*P	P	02 55 43.8	+1.4
CHM	Chimkent	68.04	309	*e*P	P	02 55 44.8	+1.0
KBL	Kabul	69.29	301	P	P	02 55 51.6	-0.1
INK	Inuvik	70.33	23	P	P	02 55 56.8	0.0
INK				IAmb	IAmb	02 55 58.0	
	comp=Z,26nm,0.9s						
A36M	Sachs Harbour	73.05	19	P	P	02 56 12.8	+0.2
A36M				IAmb	IAmb	02 56 14.3	
	comp=Z,65nm,0.8s						
C36M	Paulatuk	73.71	22	P	P	02 56 16.2	-0.2
C36M				IAmb	IAmb	02 56 17.3	
	comp=Z,34nm,0.9s						
ARTI	Arti	73.92	325	P	P	02 56 17.8	0.0
ARTI				IAmb	IAmb	02 56 18.9	
	comp=Z,41nm,0.9s						
ARTI	Arti	73.92	325	P	P	02 56 18.0	+0.2
AB31	Akbulak array	74.00	317	P	P	02 56 18.3	-0.1
AB31				IAmb	IAmb	02 56 19.3	
	comp=Z,16nm,0.7s						
ABKAR	Akbulak array	74.00	317	P	P	02 56 18.3	-0.1
HRA	Herat	74.86	302	P	P	02 56 23.2	-0.6
B04A	Port Angeles	77.65	43	P	P	02 56 38.6	0.0
BUCK	Buck Mountain	78.88	47	P	P	02 56 46.3	+0.9
BUCK				IAmb	IAmb	02 56 47.7	
	comp=Z,27nm,0.9s						
STD	Studebaker Rid	78.92	45	P	P	02 56 46.2	+0.6
YKA	Yellowknife Ar	78.92	28	P	P	02 56 45.2	+0.1
	comp=Z,19nm,0.7s,baz=288,slow=5.1,SNR=47						

YKA				pP	pP	02 58 46.5	+2.0
	comp=Z,2.2nm,1.0s,baz=284,slow=5.9,SNR=2.0						
	comp=Z,19nm,0.7s						
YKA	Yellowknife Ar	78.92	28	P	P	02 56 44.7	-0.4
ALE	Alert	79.11	4	P	P	02 56 46.6	+0.8
KHMM	Horse Mountain	79.14	51	P	P	02 56 48.1	+1.1
KHMM				IAmb	IAmb	02 56 49.3	
	comp=Z,30nm,1.0s						
YBH	Yreka Blue Hor	79.68	50	P	P	02 56 50.4	+0.7
SPA0	Spitsbergen Ar	80.13	351	eP	P	02 56 51.2	0.0
SPITS	Spitsbergen Ar	80.13	351	P	P	02 56 50.5	-0.7
	comp=Z,4.8nm,0.5s,baz=82,slow=6.2,SNR=12						
SPITS				S	S	03 06 08.9	0.0
	comp=Z,3.9nm,0.9s,baz=351,slow=10,SNR=17						
	comp=Z,4.8nm,0.5s						
KBS	Kingsbay	80.25	352	eP	P	02 56 52.3	+0.4
HAWA	Hanford	80.68	44	P	P	02 56 54.4	-0.3
NEW	Newport	81.72	42	P	P	02 56 60.0	-0.1
VADS	Vadso	81.96	342	eP	P	02 57 00.3	-0.4
BMO	Blue Mountains	82.62	45	P	P	02 57 04.9	+0.2
HAMF	Hammerfest	83.29	343	eP	P	02 57 06.4	-0.9
ARA0	ARCESS Array S	83.41	342	eP	P	02 57 07.7	-0.3
ARCES	ARCESS Array B	83.41	342	P	P	02 57 07.8	-0.3
	comp=Z,9.6nm,0.5s,baz=76,slow=7.5,SNR=58						
	comp=Z,9.6nm,0.5s						
ARCES	ARCESS Array B	83.41	342	P	P	02 57 07.6	-0.4
PLID	Pearl Lake	83.43	45	P	P	02 57 08.2	-0.7
JTMT	Jette	83.70	42	P	P	02 57 10.3	+0.3
TULEG	Thule	83.72	8	P	P	02 57 09.3	-0.1
NVAR	Mina Array Bea	83.84	52	P	P	02 57 11.8	+0.7
	comp=Z,14nm,0.7s,baz=265,slow=6.1,SNR=91						
NVAR				pP	pP	02 59 13.2	+0.6
	comp=Z,1.5nm,0.7s,baz=264,slow=6.7,SNR=5.0						
	comp=Z,14nm,0.7s						
DRV	Dumont d'Urvil	84.22	182	P	P	02 57 12.1	+0.3
KTK1	Kautokeino	84.37	342	eP	P	02 57 11.9	-0.8
JETT	Jettan, Norway	84.84	343	eP	P	02 57 14.5	-0.6
HLID	Hailey	85.00	46	P	P	02 57 16.4	-0.2
TRO	Tromso	85.19	344	eP	P	02 57 16.1	-0.6
BCYI	Bear Canyon	85.43	45	P	P	02 57 18.8	+0.1
CCCA	Chr Cany lake	85.45	54	P	P	02 57 18.5	-0.2
PFO	Pinyon Flats O	86.77	56	P	P	02 57 25.1	-0.1
KBZ	Khabaz	86.77	315	P	P	02 57 24.2	-0.5
	comp=Z,6.5nm,0.8s,baz=53,slow=5.1,SNR=13						
	comp=Z,6.5nm,0.8s						
PSUT	Pine Spring	87.11	51	P	P	02 57 27.0	+0.3
PSUT				IAmb	IAmb	02 57 28.4	
	comp=Z,14nm,0.8s						
STEI	Steigen	87.33	343	eP	P	02 57 25.8	-1.1
HWUT	Hardware Ranch	87.66	47	P	P	02 57 29.3	+0.1
FIA1	FINESS Array S	87.74	335	P	P	02 57 27.4	-1.4
FINES	FINESS Array B	87.74	335	P	P	02 57 27.4	-1.4
	comp=Z,4.2nm,0.4s,baz=64,slow=4.6,SNR=92						
FINES				PP	PP	03 01 01.7	-3.0
	comp=Z,3.1nm,0.8s,baz=36,slow=7.1,SNR=5.4						
	comp=Z,4.2nm,0.4s						
RLMT	Red Lodge	87.88	43	P	P	02 57 30.4	+0.2
RLMT				IAmb	IAmb	02 57 32.9	
	comp=Z,6.5nm,0.6s						
PD31	Pinedale Array	88.60	45	P	P	02 57 33.0	-0.6
PDAR	Pinedale Array	88.60	45	P	P	02 57 33.5	-0.2
	comp=Z,0.8nm,0.5s,baz=176,slow=0.9,SNR=15						
	comp=Z,0.8nm,0.5s						
PDAR	Pinedale Array	88.60	45	P	P	02 57 33.1	-0.6
RAUS	Rausandaksla	88.71	342	eP	P	02 57 32.9	-0.5
LEIR	Leirfjorden	89.21	343	eP	P	02 57 34.4	-1.2
NSS	Namsos	90.68	342	eP	P	02 57 40.8	-1.6
AKASG	Malin Array Be	92.06	325	PP	PP	03 01 31.8	-6.9
	comp=Z,1.2nm,0.7s,baz=49,slow=7.4,SNR=5.8						
AKBB	Malin Array Si	92.06	325	P	P	02 57 50.4	+1.3
AK09	Malin Array Si	92.07	325	P	P	02 57 50.3	+1.1
KIEV	Kiev	92.07	325	P	P	02 57 50.4	+1.2
	comp=Z,8.7nm,0.9s						
HFS	Hagfors	93.27	338	P	P	02 57 53.5	-1.0
	comp=Z,2.0nm,0.4s,baz=52,slow=2.4,SNR=13						
	comp=Z,2.0nm,0.4s						
NB201	NORSAR Array S	93.43	340	P	P	02 57 53.8	-1.4
NB2	NORSAR Subarra	93.47	340	P	P	02 57 54.0	-1.4
	comp=Z,1.3nm,0.6s,baz=44,slow=4.8						
NB2	NORSAR Subarra	93.47	340	P	P	02 57 54.0	-1.4
NOA	NORSAR Array B	93.47	340	P	P	02 57 54.1	-1.4
	comp=Z,1.4nm,0.6s,baz=46,slow=4.5,SNR=9.7						
	comp=Z,1.4nm,0.6s						
BRTR	Keskin Array B	94.73	314	P	P	02 58 01.0	-0.8
	comp=Z,0.5nm,0.6s,baz=73,slow=1.7,SNR=5.8						
BRTR				PP	PP	03 01 59.0	-0.8
	comp=Z,0.8nm,0.8s,baz=57,slow=5.3,SNR=4.3						
	comp=Z,0.5nm,0.6s						
BRTR	Keskin Array B	94.73	314	P	P	02 58 00.4	-1.3
BURAR	Bucovina Array	95.94	324	P	P	02 58 06.3	-0.7
TXAR	Lajitas Array	98.49	56	P	Pdif	02 58 18.2	-0.5
	comp=Z,0.1nm,0.5s,baz=305,slow=3.4,SNR=6.1						
TXAR				PKKP	PKKPbc	03 14 46.6	+0.3
	comp=Z,0.5nm,0.7s,baz=77,slow=1.4,SNR=6.7						
	comp=Z,0.1nm,0.5s						
CLL	Collm	99.77	332	ePP	PP	03 02 33.0	-3.9
GERES	GERESS Array B	101.16	330	P	Pdif	02 58 29.1	-1.1
	comp=Z,0.2nm,0.5s,baz=52,slow=8.8,SNR=3.5						
GERES				PP	PP	03 02 46.2	-1.2
	comp=Z,0.8nm,0.9s,baz=34,slow=5.6,SNR=4.6						
ESDC	Sonseca Array	116.24	334	PP	PP	03 04 31.0	-3.9
	comp=Z,2.5nm,1.0s,baz=14,slow=6.4,SNR=6.2						
TROLL	Troll, Antarti	121.60	193	⇑PKPdf	PKPdf	03 03 29.4	+0.2
	comp=Z,105nm,0.4s						
SNAA	Sanae	122.93	191	PKPdf	PKPdf	03 03 31.5	-0.2
	comp=Z,61nm,0.5s						
SNAA	Sanae	122.93	191	PKP	PKPdf	03 03 31.7	0.0
	comp=Z,2.2nm,0.5s,baz=129,slow=3.1,SNR=7.8						
SNAA				PP	PP	03 05 17.9	-2.3
	comp=Z,3.1nm,1.0s,baz=118,slow=7.5,SNR=3.7						
SNAA	Sanae	122.93	191		PKPdf	03 03 31.3	-0.4
VNA2	Neumayer--Watz	124.37	190	⇓PKPdf	PKPdf	03 03 34.6	+0.3
	comp=Z,9.5nm,0.6s,baz=130,slow=1.5						
VNA3	Neumayer Olymp	124.47	189	⇓PKPdf	PKPdf	03 03 34.7	+0.1
	comp=Z,3.5nm,0.5s						
TORD	Torodi Ar. Bea	132.99	308	PKP	PKPdf	03 03 52.0	-0.3
	comp=Z,0.5nm,0.4s,baz=32,slow=1.9,SNR=12						
TORD				PP	PP	03 06 25.2	-0.9
	comp=Z,7.1nm,0.6s,baz=43,slow=3.1,SNR=39						
DBIC	Dimbokro	142.07	307	PKhKP	PKPpre	03 04 06.0	
	comp=Z,5.9nm,0.4s,baz=61,slow=3.9,SNR=29						
HOPE	Hope Point	143.45	178	PKPbc	PKPab	03 04 08.8	0.0
BO02	Sierra Bellavi	143.45	125		PKPbc	03 04 10.4	+0.7
CFA	Coronel Fontan	146.44	121	PKPbc	PKPbc	03 04 18.8	+0.2
	comp=Z,1.8nm,0.3s,baz=258,slow=4.3,SNR=12						
LPAZ	La Paz	147.75	93	PKP	PKPdf	03 04 19.5	+0.1
	comp=Z,4.3nm,0.4s,baz=301,slow=2.3,SNR=19						
LPAZ				PKPbc	PKiKP	03 04 24.0	-0.6
	comp=Z,1.7nm,0.5s,baz=17,slow=4.4,SNR=6.6						
LPAZ	La Paz	147.75	93	PKPbc	PKPdf	03 04 19.9	+0.4
SIV	San Ignacio	154.44	90	PKPab	PKPab	03 04 54.6	-0.5
	comp=Z,0.7nm,0.5s,baz=256,slow=4.2,SNR=4.6						

IDC ***02*** *03:00:19.3±1.0, 51°.46N×179°.85W, h0^{km}, mb3.8/13, mbtmp3.8/15, ML4.4/2, Error ellipse: s-maj=26.7km s-min=18.6km az=178.0*

NEIC ***02*** *03:00:22.5±1.5, 51°.29N±0°.07×179°.89W±0°.04, h19^{km}±4^{km}, mb4.0/17, ML3.9/14, ML3.7(AEIC), Error ellipse: s-maj=9.6km s-min=3.3km az=186.0*

AEIC ***02*** *03:00:22.4±1.4, 51°.32N±0°.05×179°.87W±0°.02, h12^{km}±3^{km}, Error ellipse: s-maj=7.9km s-min=2.3km az=180.0*

ISC 02 03:00:22.0±1.4**, 51°.31N**±0°.07×**179°.90W**±0°.02**, h17**^{km}±8^{km}**, n100, σ1^s.00**/102**, mb3.7**/17**, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AMKA	Amchitka	0.51	279		Pb	03 00 32.8	+0.3
AMKA				IAML		03 00 40.8	
	comp=N,10µm,0.3s						
AMKA	Amchitka	0.51	279		Sb	03 00 40.2	+0.8
CESW	Semis' Southwe	0.69	331		Pb	03 00 35.9	+0.4
CERB	Semis' Cerberu	0.69	335		Pb	03 00 36.2	+0.6
CERB					Sb	03 00 45.3	+0.4
CEPE	Semis' Perret	0.72	337		Pb	03 00 36.4	+0.4
GAKI	Gareloi-Kavalg	0.72	69		Pg	03 00 36.0	-0.2
GAKI					Sg	03 00 45.9	+0.1
CETU	Semis' Tuman	0.76	330		Pn	03 00 37.3	-0.6
GASW	Gareloi Southw	0.81	53		Pb	03 00 37.5	0.0
GASW					Sb	03 00 48.8	+0.7
GALAA	Gareloi Lava P	0.84	57		Pg	03 00 38.4	+0.1
GALAA					Sb	03 00 48.9	-0.2
GANO	Gareloi North	0.85	52		Pb	03 00 38.2	-0.2
GANO					Pg	03 00 38.4	-0.3
GANO					Sb	03 00 50.0	+0.5
GAEA	Gareloi East	0.86	56		Pb	03 00 38.5	0.0
GANE	Gareloi Northe	0.87	53		Pb	03 00 38.4	-0.1
LSSE	Little Sitkin	1.15	304		Pg	03 00 43.6	-0.5
LSPA	Little Sitkin	1.16	305		Pg	03 00 43.9	-0.5
LSPA					Sg	03 00 59.2	-0.2
LSNW	Little Sitkin	1.19	305		Pb	03 00 44.1	0.0
TACS	Tanaga Cape Sa	1.23	62		Pn	03 00 44.7	+0.3
TACS					Sn	03 01 01.4	+0.8
TANO	Tanaga North	1.27	60		Pn	03 00 45.1	+0.3
TANO					Sn	03 01 02.3	+0.9
TASE	Tanaga Southea	1.28	65		Pn	03 00 45.3	+0.3
TASE					Sn	03 01 02.5	+0.7
TAFL	Tanaga Flats	1.33	69		Pn	03 00 45.8	+0.2
TAPA	Tanaga Point A	1.40	68		Pn	03 00 46.9	+0.2
KIMD	Kanaga Island	1.72	74		Pn	03 00 51.7	+0.6
KICM	Kanaga Island	1.79	69		Pn	03 00 52.9	+0.9
KIKV	Kanaga Island	1.79	70		Pn	03 00 52.6	+0.5
KIWB	Kanaga Island	1.80	71		Pn	03 00 52.8	+0.6
KIWB				IAML		03 01 24.0	
	comp=E,1µm,0.5s						
ADK	Adak	2.09	73	P	Pn	03 00 56.3	+0.2
ADK	Adak	2.09	73		Pn	03 00 56.3	+0.2
ADK				IAML		03 01 25.6	
	comp=E,742nm,0.3s						
ADK				IAML		03 01 28.7	
	comp=E,653nm,0.5s						
ETKA	Kagalaska Isla	2.25	74		Pn	03 00 58.8	+0.5
GSMY	Great Sitkin M	2.50	71		Pn	03 01 02.3	+0.5
GSTR	Great Sitkin T	2.52	70		Pn	03 01 02.9	+0.9
ATKA	Atka Island	3.66	74	P	Pn	03 01 18.5	+0.9
ATKA	Atka Island	3.66	74		Pn	03 01 18.6	+1.0
ATKA				IAML		03 02 03.8	
	comp=N,192nm,1.0s						
ATKA				IAML		03 02 14.2	
	comp=E,168nm,1.2s						
KOWE	Korovin West	3.66	71		Pn	03 01 18.3	+0.5
KOKL	Mount Kliuchef	3.68	72		Pn	03 01 18.5	+0.4
KOKL					Pb	03 01 18.7	-7.8
SHEM	Shemya Is, Ala	3.97	293	Pn	Pn	03 01 23.0	+1.0
	comp=E,48nm,0.3s,baz=77,slow=1.3,SNR=22						
SHEM				Sn	Sn	03 02 10.6	+2.5
	comp=E,4.9nm,0.3s,baz=106,slow=21,SNR=1.2						
	comp=E,93nm,0.3s						
SHEM				AML	AML		
SHEM	Shemya Is, Ala	3.97	293	Pn	Pn	03 01 22.8	+0.8
SMY	Shemya	3.97	293	Pn	Pn	03 01 23.0	+1.0
SMY				IAML		03 02 16.5	
	comp=E,188nm,1.1s						
SMY				IAML		03 02 19.4	
	comp=N,142nm,0.7s						
SPIA	Saint Paul Isl	8.15	40	P	Pn	03 02 22.0	+2.7
SPIA	Saint Paul Isl	8.15	40	Pn	Pn	03 02 20.3	+0.9
UNV	Unalaska Valle	8.54	67	P	Pn	03 02 26.9	+2.2
UNV	Unalaska Valle	8.54	67	Pn	Pn	03 02 25.7	+1.0
LVA	Lava Point	8.88	66	Pn	Pn	03 02 31.1	+1.7
SDPT	Sand Point	12.29	63	P	Pn	03 03 16.7	+0.8
SDPT	Sand Point	12.29	63	Pn	Pn	03 03 15.9	0.0
CNBA	Chernabura Isl	12.70	66	Pn	Pn	03 03 20.9	-0.6
N14K	Kuskokwak Cree	13.39	43	Pn	Pn	03 03 30.8	-0.1
CHGN	Chignik	13.62	60	Pn	Pn	03 03 34.4	+0.3
O15K	Ungalikthiuk R	13.86	48	Pn	Pn	03 03 39.3	+2.0
N15K	Kwethluk River	14.20	44	Pn	Pn	03 03 41.8	-0.3
O16K	Kokwok River B	14.84	48	Pn	Pn	03 03 52.2	+1.6
M16K	Timber Creek	15.12	42	Pn	Pn	03 03 54.1	-0.3
M16K				IAmb	IAmb	03 04 13.8	
	comp=Z,19nm,1.4s						
M17K	Holitna River	15.95	42	Pn	Pn	03 04 06.4	+1.2
M17K				IAmb	IAmb	03 04 37.0	
	comp=Z,13nm,1.2s						
OHAK	Old Harbor	16.57	59	P	Pn	03 04 10.3	-2.9
KDAK	Kodiak Island	17.04	57	Pn	Pn	03 04 16.6	-2.5
	comp=Z,0.7nm,0.3s,baz=142,slow=1.4,SNR=28						
	comp=Z,2.3nm,0.3s						
KDAK				AML	AML		
KDAK	Kodiak Island	17.04	57		Pn	03 04 18.1	-1.0
ILSW	Iliamna Southw	17.31	50	P	P	03 04 24.0	+0.1
CNPM	China Poot	18.11	52	P	Pn	03 04 32.6	+0.2
CNPM				IAmb	IAmb	03 05 08.2	
	comp=Z,27nm,1.2s						
SKT	Skwentna	18.73	44	P	Pn	03 04 41.2	+1.1
SKT				IAmb	IAmb	03 04 48.0	
	comp=Z,8.9nm,1.1s						
SLKM	Skilak Lake	18.86	49	P	P	03 04 41.1	+0.2
SLKM				IAmb	IAmb	03 05 15.9	
	comp=Z,13nm,1.2s						
CAST	Castle Rocks	19.09	40	P	Pn	03 04 45.0	+0.7
F20K	Avaraart Lake	19.84	28	P	Pn	03 04 52.8	-0.3
G21K	Allakaket	20.19	31	P	Pn	03 04 57.1	-0.3
G21K				IAmb	IAmb	03 05 10.7	
	comp=Z,8.2nm,1.4s						
RND	Reindeer	20.41	42	P	P	03 04 58.9	+1.0
RND				IAmb	IAmb	03 05 43.0	
	comp=Z,7.3nm,1.3s						
F21K	Alatna River	20.63	29	P	P	03 05 01.2	+1.1
ILAR	Eielson Array	21.73	39	P	P	03 05 09.6	-2.4
	comp=Z,0.2nm,0.4s,baz=232,slow=8.6,SNR=6.3						
ILAR	Eielson Array	21.73	39	P	P	03 05 10.3	-1.7
H11N2	WAKE ISLAND Hy	33.18	203	T	T	03 42 13.4	
	baz=18,slow=76,SNR=60						
H11N3	WAKE ISLAND Hy	33.19	203	T	T	03 42 14.1	
	baz=18,slow=76,SNR=69						
H11N1	WAKE ISLAND Hy	33.20	203	T	T	03 42 14.8	
	baz=18,slow=76,SNR=48						
H11S1	WAKE ISLAND Hy	34.41	203	T	T	03 43 50.1	
	baz=18,slow=76,SNR=56						
H11S2	WAKE ISLAND Hy	34.42	203	T	T	03 43 50.8	
	baz=18,slow=76,SNR=47						
H11S3	WAKE ISLAND Hy	34.42	203	T	T	03 43 51.2	
	baz=18,slow=76,SNR=36						
PDAR	Pinedale Array	46.99	72	P	P	03 08 52.5	+0.4
	comp=Z,1.9nm,0.6s,baz=304,slow=3.7,SNR=28						
	comp=Z,1.9nm,0.6s						
PDAR	Pinedale Array	46.99	72	P	P	03 08 52.2	+0.1
SPITS	Spitsbergen Ar	50.40	356	P	P	03 09 16.8	-0.8
	comp=Z,7.4nm,1.0s,baz=51,slow=6.6,SNR=2.3						
	comp=Z,7.4nm,1.0s						
ARCES	ARCESS Array B	58.04	350	P	P	03 10 12.2	-1.1
	comp=Z,0.3nm,0.4s,baz=15,slow=7.3,SNR=4.2						
	comp=Z,0.3nm,0.4s						
ARCES	ARCESS Array B	58.04	350	P	P	03 10 13.3	0.0
KURK	Kurchatov	58.57	313	P	P	03 10 17.4	+0.1
KURK				IAmb	IAmb	03 10 25.9	
	comp=Z,1.1nm,0.6s						
KURBB	Kurchatov Arra	58.68	313	P	P	03 10 18.8	+0.8
	comp=Z,0.2nm,0.4s,baz=47,slow=6.3,SNR=2.6						
	comp=Z,0.2nm,0.4s						
WMQ	Urumqi	58.80	302	eP	P	03 10 21.4	+2.3
WMQ				pP	pwP	03 10 30.1	+5.9
WMQ				pmax	pmax		
	comp=Z,16nm,0.9s						
TXAR	Lajitas Array	59.34	80	P	P	03 10 23.6	+0.5
	comp=Z,0.2nm,0.5s,baz=287,slow=4.6,SNR=4.9						
	comp=Z,0.2nm,0.5s						
TXAR	Lajitas Array	59.34	80	P	P	03 10 23.2	+0.2
MK31	Makanchi Array	59.54	308	P	P	03 10 22.8	-1.3
MK31				IAmb	IAmb	03 10 44.5	
	comp=Z,2.1nm,1.4s						
MKAR	Makanchi Array	59.54	308	P	P	03 10 23.4	-0.7
	comp=Z,0.3nm,0.5s,baz=64,slow=6.1,SNR=4.1						
	comp=Z,0.3nm,0.5s						
FINES	FINESS Array B	65.70	347	P	P	03 11 03.2	-1.7
	comp=Z,1.1nm,0.8s,baz=15,slow=7.9,SNR=4.5						
	comp=Z,1.1nm,0.8s						
FINES	FINESS Array B	65.70	347	P	P	03 11 03.5	-1.4
ABKAR	Akbulak array	67.58	322	P	P	03 11 18.2	+1.1
NB201	NORSAR Array S	67.64	354	P	P	03 11 17.2	-0.1
NOA	NORSAR Array B	67.65	354	P	P	03 11 16.4	-1.0
	comp=Z,0.4nm,0.7s,baz=13,slow=6.7,SNR=1.3						
	comp=Z,0.4nm,0.7s						
HFS	Hagfors	68.38	353	P	P	03 11 21.4	-0.5
	comp=Z,2.8nm,1.0s,baz=10,slow=8.9,SNR=2.0						
	comp=Z,2.8nm,1.0s						
AKASG	Malin Array Be	75.40	341	P	P	03 12 03.0	-1.3
	comp=Z,0.4nm,0.3s,baz=20,slow=6.1,SNR=3.9						
	comp=Z,0.4nm,0.3s						
GERES	GERESS Array B	79.55	351	P	P	03 12 26.4	-1.2
	comp=Z,0.2nm,0.4s,baz=337,slow=9.9,SNR=1.7						
	comp=Z,0.2nm,0.4s						
GERES	GERESS Array B	79.55	351	P	P	03 12 27.1	-0.5
WRA	Warramunga Arr	81.49	223	P	P	03 12 37.5	-0.6
	comp=Z,0.4nm,0.8s,baz=24,slow=5.4,SNR=1.8						
	comp=Z,0.4nm,0.8s						
WRA	Warramunga Arr	81.49	223	P	P	03 12 37.0	-1.1
ASAR	Alice Springs	84.97	222	P	P	03 12 57.0	+1.0
	comp=Z,0.2nm,0.5s,baz=19,slow=5.9,SNR=1.5						
	comp=Z,0.2nm,0.5s						
ASAR	Alice Springs	84.97	222	P	P	03 12 56.7	+0.6
H03N2	Juan Fernandez	121.79	105	T	T	05 32 21.6	
	baz=313,slow=76,SNR=4.9						
H03N1	Juan Fernandez	121.80	105	T	T	05 32 24.7	
	baz=309,slow=76,SNR=4.1						
BOSA	Boshof	150.51	311	PKPbc	PKPbc	03 20 12.5	0.0
	comp=Z,0.9nm,0.3s,baz=206,slow=1.7,SNR=3.9						
BOSA	Boshof	150.51	311	PKPdf	PKPdf	03 20 07.4	+0.2

SJA ***02*** *03:04:23.0±1.9, 27°.82S×71°.79W, h9^{km}, ML4.9, MW4.5*

VAO ***02*** *03:04:25.8±1.7, 28°.00S×71°.44W, h17^{km}±10^{km}, mb4.9, Presumed earthquake*

IDC ***02*** *03:04:25.4±0.5, 27°.81S×71°.32W, h0^{km}, mb4.6/13, mbtmp4.5/17, ML4.3/4, MS4.1/35, Error ellipse: s-maj=17.9km s-min=11.5km az=73.0*

GFZ ***02*** *03:04:27.5, 27°.81S×71°.45W, h29^{km}, Mw4.9/44, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}2.00; $M_{\theta\theta}$0.15; $M_{\phi\phi}$-2.14; $M_{r\theta}$0.46; $M_{\theta\phi}$-0.43; $M_{\phi r}$-1.89; Fault plane solution: $M_0$2.87768×10^{16} NP1: ϕ_s174.10879°, δ66.90487°, λ75.81101°. NP2: ϕ_s26.91301°, δ26.90066°, λ119.89089°. Principal axes: T 2.8582, Plg65.2251°, Azm59.6767°; N 0.0386, Plg13.0309°, Azm179.7727°; P -2.8968, Plg20.6846°, Azm274.7856°;*

NEIC ***02*** *03:04:27.1±1.4, 27°.88S±0°.03×71°.45W±0°.05, h15^{km}±3^{km}, mb4.9/102, Mwr4.8/45, Mwr4.8(GUC) Error ellipse: s-maj=6.4km s-min=4.9km az=95.0, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}0.89; $M_{\theta\theta}$0.10; $M_{\phi\phi}$-0.99; $M_{r\theta}$0.10; $M_{\theta\phi}$-0.08; $M_{\phi r}$-1.47; Fault plane solution: $M_0$1.76000×10^{16} NP1: ϕ_s12.46000°, δ16.80000°, λ104.70000°. NP2: ϕ_s177.13000°, δ73.77000°, λ85.62000°. Principal axes: T 1.7095, Plg61.0000°, Azm81.0000°; N 0.0891, Plg4.0000°, Azm178.0000°; P -1.7986, Plg29.0000°, Azm271.0000°;*

NEIC ***02*** *03:04:28.2, 27°.91S×71°.38W, h16^{km}*

GUC ***02*** *03:04:28.4±0.8, 27°.95S×71°.43W, h26^{km}±3^{km}, ML4.9*

GFZ ***02*** *03:04:30.4±0.1, 28°S±1°×7°1W±°, h29^{km}, M4.8/37, mb4.9/37, confirmed*

GCMT ***02*** *03:04:34.1±0.4, 27°.95S±0°.02×71°.68W±0°.03, h32^{km}±1^{km}, MW5.1/74, Moment Tensor Solution. s38,c43; s74,c96; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}4.50±.26; $M_{\theta\theta}$-0.54±.14; $M_{\phi\phi}$-3.97±.17; $M_{r\theta}$0.35±.17; $M_{\theta\phi}$0.45±.07; $M_{\phi r}$-3.06±.18; Best double couple: $M_0$5.26000×10^{16} NP1: ϕ_s352.00000°, δ27.00000°, λ89.00000°. NP2: ϕ_s173.00000°, δ63.00000°, λ90.00000°. Principal axes: T 5.4960, Plg72.0000°, Azm84.0000°; N -0.4790, Plg0.0000°, Azm353.0000°; P -5.0250, Plg18.0000°, Azm263.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 02 03:04:28.6±0.7**, 27°.91S**±0°.02×**71°.41W**±0°.04**, h26**^{km}±4^{km}**, n328, σ1^s.72**/315**, mb4.9**/67**, MS4.1**/31**, 14C-6D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.42	135	i P	Pb	03 04 36.6	-1.0
AC04				i S	Sb	03 04 42.6	-1.1
AC04				IAML		03 04 43.1	
	comp=Z,21µm,0.2s						
AC04	Llanos de Chal	0.42	135	⇓iP	Pb	03 04 36.6	-1.0
AC04				i S	Sb	03 04 41.9	-1.7
AC04				IAML		03 04 43.1	
	comp=E,144µm,0.2s						
AC04	Llanos de Chal	0.42	135	Pg	Pb	03 04 36.5	-1.1
AC04				Sg	Sb	03 04 42.2	-1.5
AC04	Llanos de Chal	0.42	135	P	Pb	03 04 36.6	-1.0
AC06	Mina Casimiro	1.08	60	⇓iP	Pn	03 04 47.7	-0.4
AC06				i S	Sn	03 05 02.1	-0.2
AC06				IAML		03 05 09.1	
	comp=E,36µm,0.6s						
AC06	Mina Casimiro	1.08	60	Pn	Pn	03 04 47.7	-0.4
AC06				Sn	Sn	03 05 01.6	-0.7
GO03	Copiapo	1.09	74	i P	Pn	03 04 48.3	+0.1
GO03				IAML		03 05 11.4	
	comp=Z,21µm,0.5s						
GO03	Copiapo	1.09	74	⇓iP	Pn	03 04 48.0	-0.2
GO03				i S	Sn	03 05 02.7	+0.3
GO03				IAML		03 05 09.8	
	comp=N,34µm,0.8s						
GO03	Copiapo	1.09	74		Pn	03 04 47.8	-0.4
GO03	Copiapo	1.09	74	P	Pn	03 04 48.1	-0.1
LCO	Las Campanas	1.27	151	i P	Pn	03 04 50.6	-0.2
LCO				i S	Sb	03 05 08.0	0.0
LCO				IAML		03 05 11.6	
	comp=Z,15µm,0.8s						
LCO	Las Campanas	1.27	151	⇓iP	Pn	03 04 50.3	-0.5
LCO				i S	Sn	03 05 06.1	-1.0
LCO	Las Campanas	1.27	151		Pn	03 04 50.2	-0.7
AC05	El Transito	1.36	133	i P	Pb	03 04 52.8	-0.8
AC05				i S	Sb	03 05 10.4	-0.2
AC05				IAML		03 05 24.4	
	comp=Z,5µm,0.8s						
AC05	El Transito	1.36	133	⇓iP	Pn	03 04 52.3	+0.2
AC05				i S	Sn	03 05 09.3	-0.1
AC05	El Transito	1.36	133		Pn	03 04 51.7	-0.4
AC05	El Transito	1.36	133	P	Pb	03 04 52.4	-1.1
AC01	Pan de Azucar	1.90	23	i P	Pn	03 04 58.7	-0.6
AC01				i S	Sb	03 05 26.4	+0.6
AC01				IAML		03 05 33.0	
	comp=Z,7µm,0.5s						
AC01	Pan de Azucar	1.90	23	⇑iP	Pn	03 04 58.6	-0.6
AC01				i S	Sb	03 05 25.6	-0.1
AC01				IAML		03 05 38.5	
	comp=E,13µm,0.6s						
AC01	Pan de Azucar	1.90	23		Pn	03 04 58.3	-0.9
AC01	Pan de Azucar	1.90	23	P	Pn	03 04 58.8	-0.6
AC02	Maricunga	2.29	63	i P	Pb	03 05 07.8	-1.8
AC02				i S	Sb	03 05 39.4	+1.8
AC02				IAML		03 05 44.1	
	comp=Z,10µm,0.8s						
AC02	Maricunga	2.29	63	⇑iP	Pn	03 05 07.6	+2.4
AC02				i S	Sb	03 05 37.2	-0.4
AC02				IAML		03 05 44.4	
	comp=E,16µm,0.5s						
AC02	Maricunga	2.29	63		Pn	03 05 05.9	+0.8
AC02	Maricunga	2.29	63	P	Pb	03 05 07.7	-1.8
GO04	Tololo Observa	2.32	167	i P	Pn	03 05 05.7	+0.4
GO04				i S	Sb	03 05 40.3	+2.1
GO04				IAML		03 05 43.6	
	comp=Z,6µm,0.3s						
GO04	Tololo Observa	2.32	167	⇑iP	Pn	03 05 05.5	+0.1
GO04				i S	Sb	03 05 35.0	-3.2
GO04				IAML		03 05 48.2	
	comp=N,21µm,0.3s						
GO04	Tololo Observa	2.32	167		Pn	03 05 04.6	-0.7
GO04	Tololo Observa	2.32	167	P	Pn	03 05 05.7	+0.4
CO01	Juntas del Tor	2.36	151	i P	Pb	03 05 07.8	-2.9
CO01				i S	Sb	03 05 37.7	-1.8
CO01				IAML		03 05 40.6	
	comp=Z,4µm,1.2s						
CO01	Juntas del Tor	2.36	151	⇑iP	Pn	03 05 07.5	+1.6
CO01				i S	Sb	03 05 36.8	-2.7
CO01				IAML		03 05 43.0	
	comp=N,8µm,0.4s						
CO01	Juntas del Tor	2.36	151		Pn	03 05 07.3	+1.4
CO01	Juntas del Tor	2.36	151	P	Pn	03 05 07.6	+1.7
CO06	Fray Jorge	2.77	184	⇑iP	Pn	03 05 09.7	-1.5
CO06	Fray Jorge	2.77	184		Pn	03 05 09.6	-1.6
AROD	Rodeo	2.82	143	i P	Pb	03 05 15.8	-2.6
AROD				i S	Sb	03 05 52.8	+0.2
VCA	Vinchina	2.94	107	i P	Pb	03 05 18.7	-1.7
VCA				i S	Sb	03 06 00.3	+4.3
VCA				IAML		03 06 06.4	
	comp=Z,6µm,1.2s						
VCA	Vinchina	2.94	107	⇑eP	Pb	03 05 18.8	-1.7
ACDV	Cuesta del Vie	3.02	139	i P	Pb	03 05 18.6	-3.1
ACDV				i S	Sb	03 05 59.6	+1.3
ACDV				IAML		03 06 08.2	
	comp=Z,2µm,1.5s						
CO02	Combarbal	3.31	174	i P	Pn	03 05 18.5	-0.2
CO02				i S	Sb	03 06 05.7	-0.7
CO02				IAML		03 06 17.1	
	comp=Z,3µm,0.4s						
CO02	Combarbal	3.31	174	⇓iP	Pn	03 05 18.3	-0.4
CO02				i S	Sn	03 05 57.0	-0.2

CO02	Combarbal	3.31	174		Pn	03 05 18.1	-0.6
CO02	Combarbal	3.31	174	P	Pn	03 05 18.7	0.0
ACCO	Cerro Coronel	3.37	143	i P	Pb	03 05 23.8	-4.0
ACCO				i S	Sb	03 06 09.9	+1.5
ACCO				IAML		03 06 19.2	
	comp=Z,2µm,0.9s						
PB14	IPOC Station P	3.39	16	i P	Pn	03 05 18.7	-1.4
PB14				i S	Sn	03 06 02.8	+3.2
PB14				IAML		03 06 32.9	
	comp=Z,2µm,0.6s						
PB14	IPOC Station P	3.39	16	⇑iP	Pn	03 05 18.5	-1.6
PB14				IAML		03 06 22.9	
	comp=E,2µm,0.6s						
PB14	IPOC Station P	3.39	16		Pn	03 05 18.4	-1.6
PB14	IPOC Station P	3.39	16	P	Pn	03 05 18.7	-1.4
TINO	Tinogasta	3.40	94	i P	Pn	03 05 23.4	+3.4
TINO				i S	Sb	03 06 09.4	+0.2
TINO				IAML		03 06 20.3	
	comp=Z,3µm,1.8s						
CO04	Los Peladeros	4.14	175		Pn	03 05 29.8	-0.5
CO04	Los Peladeros	4.14	175	P	Pn	03 05 30.6	+0.3
ACLC	CERRO LA CRUZ	4.20	112	i P	Pn	03 05 34.3	+3.2
ACLC				IAML		03 06 34.5	
	comp=Z,1µm,0.7s						
RTLL	Cerro Villicun	4.26	144	i P	Pn	03 05 34.9	+3.0
RTLL				IAML		03 06 56.4	
	comp=Z,1µm,1.4s						
RTLS	Leoncito	4.29	155	i P	Pn	03 05 36.3	+3.8
RTLS				i S	Sb	03 06 33.5	-1.5
RTLS				IAML		03 06 48.6	
	comp=Z,6µm,0.8s						
ZON	Zonda	4.33	147	i P	Pn	03 05 35.9	+3.1
ZON				IAML		03 06 51.0	
	comp=Z,787nm,3.8s						
ZON	Zonda	4.33	147	P	Pn	03 05 36.9	+4.1
CFA	Coronel Fontan	4.60	144	Pn	Pn	03 05 38.6	+2.1
	comp=Z,25nm,0.3s,baz=311,slow=10,SNR=270						
CFA				Sn	Sn	03 06 35.0	+5.8
	comp=Z,39nm,0.3s,baz=58,slow=23,SNR=8.1						
CFA				LR	LR	03 07 49.5	
	comp=Z,1µm,19.7s,baz=256,slow=44						
	comp=Z,54nm,0.4s						
CFA				AML	AML		
CFA	Coronel Fontan	4.60	144	i P	Pn	03 05 39.3	+2.7
CFA				i S	Sb	03 06 37.3	-6.4
CFA				IAML		03 06 53.6	
	comp=Z,516nm,1.2s						
VA03	San Esteban	4.90	171	i P	Pn	03 05 41.2	+0.6
VA03				i S	Sn	03 06 42.6	+6.1
VA03				IAML		03 07 09.7	
	comp=Z,2µm,1.2s						
VA03	San Esteban	4.90	171	eP	Pn	03 05 41.2	+0.6
VA03	San Esteban	4.90	171		Pn	03 05 40.5	-0.1
VA03	San Esteban	4.90	171	P	Pn	03 05 42.9	+2.3
	comp=Z,356nm,0.8s						
CYA	Choya	4.98	97	i P	Pn	03 05 44.4	+2.7
CYA				i S	Sb	03 06 48.9	-5.7
CYA				IAML		03 06 51.6	
	comp=Z,1µm,0.9s						
CYA	Choya	4.98	97	⇑eP	Pn	03 05 44.1	+2.4
VA01	Torpederas	5.10	182		Pn	03 05 41.4	-1.9
VA01	Torpederas	5.10	182	P	Pn	03 05 47.0	+3.7
	comp=Z,213nm,0.9s						
PB05	IPOC Station P	5.15	13	i P	Pn	03 05 41.4	-2.7
PB05				IAML		03 07 22.5	
	comp=Z,831nm,0.5s						
PB05	IPOC Station P	5.15	13		Pn	03 05 42.1	-2.0
PB05	IPOC Station P	5.15	13	P	Pn	03 05 42.2	-2.0
	comp=Z,274nm,0.7s						
PEL	Peldehue	5.26	173		Pn	03 05 45.0	-0.5
PEL	Peldehue	5.26	173	P	Pn	03 05 48.0	+2.5
	comp=Z,189nm,1.0s						
MT02	Curacav	5.34	178		Pn	03 05 45.2	-1.4
PB06	IPOC Station P	5.44	18		Pn	03 05 46.5	-1.6
PB06	IPOC Station P	5.44	18	P	Pn	03 05 47.0	-1.2
	comp=Z,273nm,0.9s						
MT05	Renca	5.50	174		Pn	03 05 48.6	-0.3
MT16	CCHEN	5.56	172		Pn	03 05 49.5	-0.1
MT03	Universidad Ad	5.62	172		Pn	03 05 50.0	-0.6
MT08	Bocatoma Ro	5.65	168		Pn	03 05 51.4	+0.3
AF01	San Pedro de A	5.73	31		Pn	03 05 51.1	-1.2
MT09	Talagante	5.86	177		Pn	03 05 53.2	-0.7
MT13	San Alfonso	5.90	171		Pn	03 05 54.7	+0.3
MT01	Popeta	5.94	179		Pn	03 05 53.1	-1.8
PB03	IPOC Station P	6.02	15		Pn	03 05 53.6	-2.5
PB03	IPOC Station P	6.02	15	P	Pn	03 05 54.1	-2.1
	comp=Z,156nm,0.7s						
BO04	La Punta	6.10	174		Pn	03 05 56.5	-0.6
PB07	IPOC Station P	6.31	13		Pn	03 05 57.5	-2.6
PB07	IPOC Station P	6.31	13	P	Pn	03 05 57.9	-2.2
	comp=Z,188nm,0.7s						
PB09	IPOC Station P	6.39	18		Pn	03 06 00.2	-1.0
PB09	IPOC Station P	6.39	18	P	Pn	03 06 00.1	-1.2
	comp=Z,244nm,1.0s						
BO01	Tunca	6.47	178	P	Pn	03 06 06.5	+4.3
	comp=Z,128nm,0.7s						
BO03	Pichilemu	6.59	184	P	Pn	03 06 06.9	+3.2
	comp=Z,65nm,0.7s						
PB02	IPOC Station P	6.70	12	P	Pn	03 06 03.3	-2.1
	comp=Z,192nm,0.6s						
TCA	Tanti	6.85	122	⇑eP	Pn	03 06 08.1	+0.7
BO02	Sierra Bellavi	6.89	176	P	Pn	03 06 09.5	+1.6
	comp=Z,99nm,0.9s						
GO05	Hualane	7.10	183	P	Pn	03 06 10.0	-0.8
	comp=Z,80nm,0.7s						
ML02	Panimavida	7.83	180	P	Pn	03 06 25.5	+4.7
	comp=Z,108nm,1.0s						
PB08	IPOC Station P	8.00	15	P	Pn	03 06 20.5	-3.0
	comp=Z,44nm,0.9s						
H03N1	Juan Fernandez	8.49	228	Pn	Pn	03 06 26.5	-3.2
	baz=211,slow=79						
H03N1				T	T	03 15 26.6	
	baz=207,slow=74,SNR=3820						
H03N2	Juan Fernandez	8.51	228	Pn	Pn	03 06 26.5	-3.3
	baz=211,slow=79						
H03N2				T	T	03 15 26.9	
	baz=54,slow=74,SNR=4214						
BI02	San Fabin de	8.73	179	P	Pn	03 06 34.8	+1.5
	comp=Z,70nm,1.0s						
H03S3	Juan Fernandez	8.74	226	Pn	Pn	03 06 28.7	-4.2
	baz=66,slow=25						
H03S1	Juan Fernandez	8.74	226	Pn	Pn	03 06 28.3	-4.7
	baz=66,slow=25						
H03S2	Juan Fernandez	8.75	226	Pn	Pn	03 06 28.6	-4.6
	baz=66,slow=25						
PB16	IPOC Station P	9.69	11	P	Pn	03 06 47.2	+0.4
	comp=Z,24nm,1.1s						
PB18	Visviri	10.42	10		Pn	03 06 55.3	-1.6
PB18	Visviri	10.42	10	P	Pn	03 06 57.4	+0.5
	comp=Z,43nm,0.9s						
LPAZ	La Paz	11.95	15	Pn	Pn	03 07 16.5	-1.4
	comp=Z,0.9nm,0.3s,baz=189,slow=6.5,SNR=11						
LPAZ				LR	LR	03 12 21.7	
	comp=Z,1µm,18.9s,baz=188,slow=40						
	comp=Z,2.2nm,0.4s						
LPAZ				AML	AML		
LPAZ	La Paz	11.95	15		Pn	03 07 15.7	-2.2
LPAZ	La Paz	11.95	15	eP	Pn	03 07 16.3	-1.6
LPAZ	La Paz	11.95	15	P	Pn	03 07 17.1	-0.8
	comp=Z,13nm,0.8s						
PSAL	Palomas, Salto	12.43	108	eP	Pn	03 07 21.8	-2.0
CPUP	Villa Florida	12.64	86	Pn	Pn	03 07 26.7	0.0
	comp=Z,0.4nm,0.3s,baz=251,slow=13,SNR=8.7						
CPUP				Sn	Sn	03 09 46.9	+0.3
	comp=Z,0.5nm,0.3s,baz=181,slow=17,SNR=1.0						
CPUP				LR	LR	03 12 38.3	
	comp=Z,941nm,21.6s,baz=270,slow=39						
	comp=Z,1.6nm,0.5s						
CPUP				AML	AML		
CPUP	Villa Florida	12.64	86	P	Pn	03 07 29.4	+2.6
	comp=Z,19nm,0.8s						
PLCA	Paso Flores	12.81	177	Pn	Pn	03 07 31.8	+2.7
	comp=Z,0.2nm,0.3s,baz=338,slow=9.3,SNR=6.7						
PLCA				LR	LR	03 12 23.7	
	comp=Z,2µm,19.2s,baz=350,slow=37						
ANCO	Parque Anchore	13.15	122	eP	Pn	03 07 30.6	-3.0
MURT	Porto Murtinho	13.99	67	eP	Pn	03 07 44.7	-0.4
SJPY	San Joaquin	14.01	82	eP	Pn	03 07 44.7	-0.8
COIM	Forte Coimbra	14.77	60	eP	Pn	03 07 55.7	-0.1
SIV	San Ignacio	15.24	41	Pn	Pn	03 07 56.1	-6.0
	comp=Z,0.1nm,0.3s,baz=234,slow=11,SNR=9.4						
	comp=Z,1.9nm,0.4s						
SIV				AML	AML		
BDQN	Bodoquena, MS	15.29	64	eP	Pn	03 08 02.1	-0.7
CPSB	Cacapava Do Su	15.90	103	Pn	Pn	03 08 09.7	-0.8
CPSB	Cacapava Do Su	15.90	103	eP	Pn	03 08 08.2	-2.3
CPSB	Cacapava Do Su	15.90	103	P	Pn	03 08 10.9	+0.3
	comp=Z,43nm,0.8s						
AQDB	Aquidauana	16.12	66	Pn	Pn	03 08 13.0	-0.5
AQDB	Aquidauana	16.12	66	eP	Pn	03 08 12.9	-0.5
AQDB	Aquidauana	16.12	66	P	P	03 08 17.2	+0.6
	comp=Z,18nm,1.0s						
PTLB	Pontes e Lacer	16.83	45		Pn	03 08 19.4	-3.0
PTLB	Pontes e Lacer	16.83	45	eP	Pn	03 08 21.5	-1.0
PTGB	Pitanga	17.63	84	eP	Pn	03 08 31.9	-0.7
COYC	Coyhaique	17.64	182		Pn	03 08 31.7	-0.7
COYC	Coyhaique	17.64	182	P	P	03 08 33.5	+0.4
	comp=Z,18nm,1.2s						
TRCB	Terra Rica	17.71	78	eP	Pn	03 08 32.6	-0.9
TRCB	Terra Rica	17.71	78	P	P	03 08 36.2	+2.0
	comp=Z,60nm,0.4s						
VILB	Vilhena	18.19	37	Pn	Pn	03 08 36.4	-3.0
VILB	Vilhena	18.19	37	eP	Pn	03 08 38.4	-1.0
PP1B	Ponte de Pedra	18.35	60	eP	P	03 08 40.1	-1.1
SALV	Santo Antonio	18.83	54	eP	P	03 08 45.6	-0.8
LDASE	Londrina, Braz	18.83	81	eP	P	03 08 45.7	-0.8
C2SB	Chapadao do Su	19.31	66	eP	P	03 08 51.0	-0.8
C2SB	Chapadao do Su	19.31	66	P	Pn	03 08 53.9	+1.0
	comp=Z,133nm,1.0s						
CZSB	Cruzeiro do Su	20.11	356	P	P	03 09 00.3	-0.2
CZSB				IAmb	IAmb	03 09 16.4	
	comp=Z,109nm,1.2s						
CZSB	Cruzeiro do Su	20.11	356	eP	P	03 08 59.7	-0.7
FRTB	Fartura	20.21	82	eP	P	03 09 00.8	-0.8
FRTB	Fartura	20.21	82	P	Pn	03 09 02.8	-0.8
	comp=Z,140nm,1.0s						
GO08	Villa O'Higgin	20.55	182	P	P	03 09 05.2	+0.2
GO08	Villa O'Higgin	20.55	182	P	Pn	03 09 06.9	-0.4
	comp=Z,19nm,1.1s						
ATAH	Atahualpa	21.69	341	LR	LR	03 16 53.1	
	comp=Z,283nm,18.0s,baz=163,slow=35						
ARAG	Araguaiana, MT	21.84	60	eP	P	03 09 17.8	-1.4
BB19B	Bebedouro	21.89	77	eP	P	03 09 18.9	-0.9
SPB	Sao Paulo	22.01	84	P	P	03 09 20.0	-0.9
SPB				IAmb	IAmb	03 09 23.1	
	comp=Z,44nm,1.1s						
CLDB	Colider	22.41	44	eP	P	03 09 22.1	-3.2
CLDB	Colider	22.41	44	P	P	03 09 23.1	-2.2
	comp=Z,32nm,1.4s						
VAO	Valinhos	22.59	83	P	P	03 09 27.0	-0.3
VAO	Valinhos	22.59	83	eP	P	03 09 26.3	-1.0
IPMB	Ipameri, GO	23.50	70	eP	P	03 09 35.4	-1.2
CANS	Sao Roque de M	24.03	77	eP	P	03 09 41.0	-0.7
SNDB	Serra Nova Dou	24.61	54	eP	P	03 09 46.0	-0.9
PMNB	Patos De Minas	24.73	73	eP	P	03 09 47.1	-0.9
PMNB	Patos De Minas	24.73	73	P	P	03 09 47.6	-0.5
	comp=Z,35nm,0.9s						
BDFB	Brasilia	24.87	65	P	P	03 09 48.9	-0.5
	comp=Z,16nm,0.8s,baz=234,slow=10,SNR=22						
BDFB				LR	LR	03 20 54.8	
	comp=Z,2µm,18.9s,baz=247,slow=40						
	comp=Z,16nm,0.8s						
BDFB	Brasilia	24.87	65	P	P	03 09 49.1	-0.3
BDFB				IAmb	IAmb	03 09 50.7	
	comp=Z,23nm,0.9s						
BSCB	Bom Sucesso	25.17	80	eP	P	03 09 50.7	-1.4
BSCB	Bom Sucesso	25.17	80	P	P	03 09 52.5	+0.5
	comp=Z,38nm,2.2s						
EFI	East Falkland	25.78	161	P	P	03 09 57.5	+0.5
MACA	Manacapuru-AM	26.65	24	P	P	03 10 05.2	-0.1
MACA				IAmb	IAmb	03 10 17.5	
	comp=Z,29nm,0.7s						
ITTB	Itaituba	27.77	35	eP	P	03 10 14.8	-0.6
JANB	Januaria	28.20	69	eP	P	03 10 18.3	-1.0
OTAV	Otavalo	28.79	345	eP	P	03 10 24.4	-0.6
SJMB	Sao Joao De Ma	29.17	78	eP	P	03 10 27.4	-0.5
SDBA	SAO DESIDERIO	29.18	63	eP	P	03 10 27.2	-0.9
SMTB	Santa Maria do	29.39	54	eP	P	03 10 28.0	-1.8
BSFB	Barra de Sao F	29.41	79	eP	P	03 10 27.6	-2.4
BSFB	Barra de Sao F	29.41	79	P	P	03 10 30.6	+0.6
	comp=Z,43nm,0.9s						
BOAV	Boa Vista	31.90	21		P	03 10 52.0	0.0
BOAV	Boa Vista	31.90	21	eP	P	03 10 51.1	-0.9
ROSC	El Rosal	32.68	355	P	P	03 10 59.4	+0.2
	comp=Z,2.7nm,0.3s,baz=179,slow=17,SNR=4.5						
ROSC				LR	LR	03 25 33.6	
	comp=Z,320nm,18.1s,baz=232,slow=39						
	comp=Z,2.7nm,0.3s						
ROSC	El Rosal	32.68	355	IAmb	IAmb	03 11 15.6	
	comp=Z,19nm,1.2s						
SDV	Santo Domingo	36.58	1	LR	LR	03 28 56.1	
	comp=Z,181nm,18.4s,baz=297,slow=40						
NBPS	Pedro II - PI	36.88	56	eP	P	03 11 34.3	-1.0
NBMA	Muriti-CE	37.02	63	eP	P	03 11 35.6	-0.8
PMSA	Palmer Station	37.18	175	LR	LR	03 26 59.6	
	comp=Z,446nm,18.6s,baz=352,slow=36						
ORCD	Orcadas	37.44	159		P	03 11 39.1	-0.2
MDP	Montagnes des	37.48	32	LR	LR	03 27 26.9	
	comp=Z,332nm,19.8s,baz=205,slow=37						
NBMO	Morrinhos-CE	38.64	56	eP	P	03 11 49.5	-0.5
JTS	Las Juntas de	40.17	339	LR	LR	03 25 54.8	
	comp=Z,92nm,18.7s,baz=154,slow=32						
CELP	Cerrillos	45.95	6	P	P	03 12 48.0	-1.4
PDPR	Patillas Dam,	45.95	7	P	P	03 12 48.1	-1.3
PDPR				IAmb	IAmb	03 12 49.6	
	comp=Z,16nm,0.9s						
CMIG	Matias Romero	50.18	330	LR	LR	03 29 31.2	
	comp=Z,124nm,21.7s,baz=178,slow=30						
TEIG	Tepich	50.55	339	P	P	03 13 26.9	+2.0
	comp=Z,27nm,1.1s						
VNA3	Neumayer Olymp	54.82	160	⇑P	P	03 13 56.7	+0.7
	comp=Z,9.9nm,0.8s						
VNA3	Neumayer Olymp	54.82	160	P	P	03 13 57.3	+1.3
	comp=Z,26nm,1.3s						
VNA1	Neumayer--Stat	55.10	159	⇑P	P	03 13 59.5	+1.6
	comp=Z,15nm,0.9s						
VNA2	Neumayer--Watz	55.45	159	⇑P	P	03 14 01.5	+1.0
	comp=Z,8.4nm,0.5s,baz=286,slow=7.9						
VNA2	Neumayer--Watz	55.45	159	P	P	03 14 01.8	+1.4
	comp=Z,19nm,1.1s						
VNA2				pP	sP	03 14 13.1	+2.3
SNAA	Sanae	57.05	159	⇑P	P	03 14 12.5	+0.5
	comp=Z,367nm,0.9s						
SNAA	Sanae	57.05	159	P	P	03 14 12.2	+0.3
	comp=Z,22nm,1.0s,baz=280,slow=5.6,SNR=33						
SNAA				LR	LR	03 36 50.8	
	comp=Z,160nm,21.4s,baz=300,slow=34						
	comp=Z,22nm,1.0s						
SNAA	Sanae	57.05	159		P	03 14 11.9	-0.1
SNAA				PcP	PcP	03 15 04.7	-2.0
SNAA	Sanae	57.05	159	P	P	03 14 12.8	+0.8
	comp=Z,29nm,1.1s						
TROLL	Troll, Antarti	58.76	160	⇑P	P	03 14 24.7	+0.6
	comp=Z,682nm,0.9s						
QSPA	South Pole Qui	62.31	180	P	P	03 14 49.1	+0.7
	comp=Z,17nm,1.1s,baz=145,slow=3.6,SNR=24						
QSPA				LR	LR	03 42 02.9	
	comp=Z,113nm,19.6s,baz=176,slow=36						
	comp=Z,17nm,1.1s						
QSPA	South Pole Qui	62.31	180	P	P	03 14 48.8	+0.4
KMSC	Kings Mountain	63.41	351	P	P	03 14 55.2	-0.5
KMSC				IAmb	IAmb	03 14 57.7	
	comp=Z,7.5nm,1.0s						
X51A	Calhoun	63.42	348	IAmb	IAmb	03 14 57.8	
	comp=Z,14nm,1.0s						
X48A	Hartselle	63.76	346	P	P	03 14 58.3	+0.2
X48A				IAmb	IAmb	03 14 59.9	
	comp=Z,7.0nm,0.9s						
LPIG	La Paz	63.87	320	LR	LR	03 37 07.2	
	comp=Z,95nm,20.3s,baz=161,slow=31						
W50A	Signal Mountai	64.13	347	P	P	03 15 00.7	+0.2
W50A				IAmb	IAmb	03 15 13.6	
	comp=Z,10nm,1.0s						
CPCT	Cooper Cave	64.22	348	IAmb	IAmb	03 15 03.0	
	comp=Z,8.8nm,1.0s						
SWET	Sewanee	64.26	347	IAmb	IAmb	03 15 14.4	
	comp=Z,11nm,0.9s						
TKL	Tuckaleechee C	64.29	349	IAmb	IAmb	03 15 12.6	
	comp=Z,8.0nm,0.9s						
BRDY	Brady	64.47	334	IAmb	IAmb	03 15 17.6	
	comp=Z,22nm,1.9s						
SAND	Sanderson	64.59	331	IAmb	IAmb	03 15 19.3	
	comp=Z,8.4nm,1.1s						
TXAR	Lajitas Array	64.75	329	P	P	03 15 05.6	+0.8
	comp=Z,0.9nm,0.9s,baz=142,slow=8.2,SNR=6.4						
	comp=Z,0.9nm,0.9s						
TXAR	Lajitas Array	64.75	329	P	P	03 15 04.0	-0.9
U54A	Nelsons Funny	64.83	351	IAmb	IAmb	03 15 06.9	
	comp=Z,10nm,1.0s						
OZNA	Ozona	65.01	332	IAmb	IAmb	03 15 09.4	
	comp=Z,13nm,1.2s						
WVT	Waverly	65.55	345	P	P	03 15 09.5	-0.2
WVT				IAmb	IAmb	03 15 11.1	
	comp=Z,5.8nm,0.8s						
WVT	Waverly	65.55	345	P	P	03 15 10.6	+0.9
	comp=Z,8.7nm,1.3s						
MIAR	Mount Ida	65.56	340	IAmb	IAmb	03 15 24.3	
	comp=Z,8.0nm,1.1s						
MIAR	Mount Ida	65.56	340	P	P	03 15 11.8	+2.0
	comp=Z,7.7nm,1.1s						
R58B	Mineral	65.80	354	IAmb	IAmb	03 15 33.1	
	comp=Z,14nm,1.1s						
T47A	Sharon Grove	66.22	346	IAmb	IAmb	03 15 27.5	
	comp=Z,11nm,0.9s						
LCAR	Lake Charles	66.30	343		P	03 15 14.7	+0.1
LCAR				IAmb	IAmb	03 15 27.9	
	comp=Z,9.7nm,0.9s						
ODSA	Odessa	66.65	331	IAmb	IAmb	03 15 33.8	
	comp=Z,12nm,0.8s						
APMT	Aspermont	66.72	334	IAmb	IAmb	03 15 34.2	
	comp=Z,12nm,1.3s						
PBMO	Poplar Bluff	66.78	343	IAmb	IAmb	03 15 31.0	
	comp=Z,12nm,0.9s						
HHAR	Hobbs	67.28	340	IAmb	IAmb	03 15 34.6	
	comp=Z,8.6nm,1.1s						
S44A	Carbondale	67.37	345	IAmb	IAmb	03 15 35.1	
	comp=Z,13nm,0.9s						
CCM	Cathedral Cave	68.20	343	P	P	03 15 26.8	+0.3
CCM				IAmb	IAmb	03 15 28.8	
	comp=Z,16nm,1.1s						
CCM	Cathedral Cave	68.20	343	P	P	03 15 28.3	+1.8
	comp=Z,18nm,1.9s						
MSTX	Muleshoe	68.34	332	IAmb	IAmb	03 15 44.3	
	comp=Z,9.6nm,1.0s						
OK048	Pawnee Station	68.35	338	P	P	03 15 27.2	-0.4
OK048				IAmb	IAmb	03 15 41.8	
	comp=Z,9.4nm,0.7s						
S39A	Bolivar	68.41	341	P	P	03 15 27.6	-0.4
S39A				IAmb	IAmb	03 15 44.2	
	comp=Z,13nm,1.1s						
R40A	Maddies Statio	68.69	342		P	03 15 29.3	-0.3
P43A	Skaggs, Pawnee	69.29	345	P	P	03 15 32.6	-0.7
P40A	Paris	69.80	343		P	03 15 35.9	-0.5
ANMO	Albuquerque	70.75	330	LR	LR	03 43 28.9	
	comp=Z,199nm,18.2s,baz=170,slow=33						
ANMO	Albuquerque	70.75	330	P	P	03 15 44.9	+2.2
	comp=Z,3.9nm,1.9s						
L40A	Anamosa	71.98	345	P	P	03 15 49.5	-0.2
SADO	Sadowa	72.67	354	LR	LR	03 51 05.9	
	comp=Z,60nm,19.2s,baz=189,slow=39						
DBIC	Dimbokro	72.78	73	P	P	03 15 55.8	+0.7
	comp=Z,31nm,0.9s,baz=229,slow=5.9,SNR=23						
DBIC				LR	LR	03 46 50.7	
	comp=Z,126nm,19.9s,baz=246,slow=35						
	comp=Z,31nm,0.9s						
DBIC	Dimbokro	72.78	73		P	03 15 55.0	-0.1
DBIC	Dimbokro	72.78	73	P	P	03 15 56.5	+1.4
	comp=Z,48nm,1.1s						
G62A	West of Eustis	72.78	1	P	P	03 15 54.4	0.0
G62A				IAmb	IAmb	03 15 57.7	
	comp=Z,17nm,1.0s						
F64A	Sherman	73.47	2	P	P	03 15 55.8	-2.6
F64A				IAmb	IAmb	03 16 02.0	
	comp=Z,8.7nm,0.9s						
TRQ	Mont Tremblant	73.83	358	P	P	03 15 60.0	-0.7
TRQ				IAmb	IAmb	03 16 03.4	
	comp=Z,10nm,1.0s						
PV13	Radium Mtn., P	74.47	330	P	P	03 16 04.2	-0.6
PV18	Skein Mesa, Pa	74.58	330	P	P	03 16 05.3	-0.2
PV18				IAmb	IAmb	03 17 50.5	
	comp=Z,12nm,1.2s						
PFO	Pinyon Flats O	74.62	322	LR	LR	03 43 49.4	
	comp=Z,81nm,18.1s,baz=196,slow=32						
D62A	Allapoint, All	74.67	2	P	P	03 16 04.8	-0.6
ECSD	EROS Data Cent	74.95	341		P	03 16 08.3	+1.2
ECSD				IAmb	IAmb	03 16 21.0	
	comp=Z,8.9nm,1.0s						
ECSD	EROS Data Cent	74.95	341	P	P	03 16 08.4	+1.2
	comp=Z,11nm,1.3s						
KNB	Kanab	75.39	327		P	03 16 10.1	0.0
O20A	White River Ci	75.87	332	P	P	03 16 12.7	-0.1
O20A				IAmb	IAmb	03 16 30.4	
	comp=Z,11nm,1.2s						
P18A	Preston Nutter	76.31	330	IAmb	IAmb	03 16 40.1	
	comp=Z,12nm,1.2s						
TPNV	Topopah Spring	77.05	325	P	P	03 16 18.3	-1.2
SUR	Sutherland	77.34	120	LR	LR	03 46 54.8	
	comp=Z,226nm,18.9s,baz=282,slow=33						
DUG	Dugway, Tooele	77.93	329	P	P	03 16 27.4	+3.1
	comp=Z,5.5nm,2.4s						
HWUT	Hardware Ranch	78.50	330		P	03 16 28.0	+0.5
HWUT	Hardware Ranch	78.50	330	P	P	03 16 30.0	+2.5
	comp=Z,7.2nm,1.0s						
PDAR	Pinedale Array	78.61	332	P	P	03 16 30.6	+2.5
	comp=Z,0.5nm,0.3s,baz=141,slow=3.9,SNR=5.0						
PDAR				LR	LR	03 47 25.1	
	comp=Z,39nm,21.5s,baz=163,slow=33						
	comp=Z,0.5nm,0.3s						
PDAR	Pinedale Array	78.61	332	P	P	03 16 27.4	-0.7
SPUT	South Promonto	78.66	330	P	P	03 16 28.0	-0.4
MAW	Mawson	78.86	164	P	P	03 16 30.3	+1.3
	comp=Z,6.4nm,1.0s,baz=286,slow=7.8,SNR=7.0						
	comp=Z,6.4nm,1.0s						
HVU	Hansel Valley	79.18	330		P	03 16 32.4	+1.2
NVAR	Mina Array Bea	79.23	324	P	P	03 16 34.5	+2.8
	comp=Z,0.4nm,0.7s,baz=158,slow=5.2,SNR=3.2						
	comp=Z,0.4nm,0.7s						
AHID	Auburn Hatcher	79.25	331	P	P	03 16 33.8	+2.2
	comp=Z,9.2nm,1.2s						
ELK	Elko	79.49	328		P	03 16 33.9	+0.9
TSUM	Tsumeb	80.39	107	LR	LR	03 47 40.5	
	comp=Z,258nm,20.7s,baz=240,slow=32						
RLMT	Red Lodge	80.45	334		P	03 16 38.2	+0.2
RLMT				IAmb	IAmb	03 16 54.5	
	comp=Z,29nm,1.8s						
YNE	Yellowstone No	80.65	333	P	P	03 16 39.7	+0.5
ULM	Lac du Bonnet	80.78	344	P	P	03 16 40.7	+1.3
	comp=Z,8.1nm,1.0s,baz=234,slow=1.9,SNR=4.1						
ULM				LR	LR	03 55 52.8	
	comp=Z,33nm,18.6s,baz=178,slow=38						
	comp=Z,8.1nm,1.0s						
ULM	Lac du Bonnet	80.78	344	IAmb	IAmb	03 16 53.5	
	comp=Z,11nm,1.1s						
YHH	Holmes Hill	80.80	333		P	03 16 40.2	+0.2
HLID	Hailey	81.33	330	P	P	03 16 45.3	+2.6
	comp=Z,8.9nm,1.2s						
HLID				pP	pwP	03 16 55.9	+2.0
BCYI	Bear Canyon	81.48	331	P	P	03 16 43.9	+0.3
TORD	Torodi Ar. Bea	81.64	70	P	P	03 16 44.9	+0.1
	comp=Z,16nm,1.0s,baz=254,slow=4.8,SNR=45						
	comp=Z,16nm,1.0s						
TORD	Torodi Ar. Bea	81.64	70	P	P	03 16 44.7	-0.1
TORD				IAmb	IAmb	03 16 46.8	
	comp=Z,20nm,1.1s						
MCMT	McKenzie Canyo	81.66	332	P	P	03 16 44.8	+0.2
ORV	Oroville	81.74	323	IAmb	IAmb	03 17 00.5	
	comp=Z,12nm,1.3s						
BOSA	Boshof	82.44	118	P	P	03 16 49.0	-0.1
	comp=Z,11nm,0.8s,baz=230,slow=5.1,SNR=11						
BOSA				LR	LR	03 49 07.7	
	comp=Z,227nm,19.8s,baz=212,slow=32						
	comp=Z,11nm,0.8s						
BOSA	Boshof	82.44	118	P	P	03 16 48.5	-0.7
SCHQ	Schefferville	82.49	3	LR	LR	03 53 00.1	
	comp=Z,35nm,21.3s,baz=136,slow=35						
PLID	Pearl Lake	83.23	330		P	03 16 52.3	-0.4
YBH	Yreka Blue Hor	83.95	324	LR	LR	03 51 19.9	
	comp=Z,49nm,18.2s,baz=146,slow=34						
LBTB	Lobatse	84.39	115	LR	LR	03 53 32.1	
	comp=Z,208nm,18.1s,baz=207,slow=35						
PINE	Pine Mountain	84.55	326		P	03 16 59.7	+0.2
PINE				IAmb	IAmb	03 17 15.1	
	comp=Z,9.5nm,1.0s						
TIO	Tiouine	84.63	51	P	P	03 17 02.7	+2.6
	comp=Z,46nm,1.1s						
CASY	Casey	86.10	181		P	03 17 07.2	+0.4
CASY				IAmb	IAmb	03 17 09.6	
	comp=Z,15nm,1.1s						
CASY	Casey	86.10	181	P	P	03 17 09.1	+2.3
	comp=Z,15nm,1.0s						
NEW	Newport	86.19	331	LR	LR	03 53 05.0	
	comp=Z,79nm,18.6s,baz=148,slow=34						
MD01	Midelt array s	87.49	51		P	03 17 14.0	-0.2
MD31	MD31	87.49	51		P	03 17 14.9	+0.7
MD31				IAmb	IAmb	03 17 17.6	
	comp=Z,10nm,1.3s						
MDT	Midelt	87.57	51	LR	LR	03 56 31.5	
	comp=Z,132nm,19.0s,baz=230,slow=36						

MATP	Matopo	88.93	112	LR	LR	03 53 37.3	
	comp=Z,282nm,20.4s,baz=228,slow=33						
TAM	Tamanrasset	89.69	64	P	P	03 17 25.5	+0.6
LSZ	Lusaka	91.17	108	LR	LR	03 54 55.7	
	comp=Z,230nm,18.8s,baz=228,slow=33						
ESDC	Sonseca Array	91.95	45	P	P	03 17 34.6	-0.2
	comp=Z,0.7nm,0.9s,baz=230,slow=3.2,SNR=4.5						
ESDC				LR	LR	03 57 40.3	
	comp=Z,116nm,19.1s,baz=230,slow=35						
	comp=Z,0.7nm,0.9s						
ESDC	Sonseca Array	91.95	45	P	P	03 17 33.3	-1.5
SFJD	Kangerlussuaq	95.91	8	LR	LR	04 01 44.1	
	comp=Z,24nm,19.1s,baz=215,slow=36						
DLBC	Dease Lake	98.83	333	LR	LR	04 00 48.6	
	comp=Z,53nm,19.0s,baz=224,slow=34						
KEST	Kesra	98.92	54	LR	LR	04 03 36.6	
	comp=Z,313nm,21.5s,baz=252,slow=36						
CLL	Collm	107.96	41	L	L	04 00 00.0	
CLL				AMS	AMS	04 08 00.0	
BRTR	Keskin Array B	118.27	58	PKP	PKiKP	03 23 14.3	+0.7
	comp=Z,0.2nm,0.4s,baz=242,slow=3.1,SNR=3.5						
BRTR	Keskin Array B	118.27	58		PKPdf	03 23 12.6	-1.1
ASAR	Alice Springs	123.21	208	PKP	PKiKP	03 23 23.9	0.0
	comp=Z,1.8nm,0.8s,baz=159,slow=2.3,SNR=13						
ASAR	Alice Springs	123.21	208		PKPdf	03 23 23.4	-0.2
H11S2	WAKE ISLAND Hy	126.19	273	T	T	05 42 40.4	
	baz=112,slow=75,SNR=19						
H11S1	WAKE ISLAND Hy	126.20	273	T	T	05 42 43.9	
	baz=112,slow=75,SNR=19						
H11S3	WAKE ISLAND Hy	126.20	273	T	T	05 42 37.8	
	baz=112,slow=75,SNR=18						
WRA	Warramunga Arr	126.30	210	PKP	PKiKP	03 23 30.4	+0.3
	comp=Z,4.0nm,0.8s,baz=155,slow=1.7,SNR=32						
WRA	Warramunga Arr	126.30	210		PKiKP	03 23 29.8	-0.2
H11N3	WAKE ISLAND Hy	126.44	275	T	T	05 43 05.4	
	baz=113,slow=74						
H11N1	WAKE ISLAND Hy	126.46	275	T	T	05 43 05.6	
	baz=113						
H11N2	WAKE ISLAND Hy	126.46	275	T	T	05 42 58.8	
	baz=113,slow=74						
KURK	Kurchatov	147.86	37		PKPbc	03 24 09.6	-1.3
KURBB	Kurchatov Arra	147.87	37	PKPbc	PKPbc	03 24 10.2	-0.7
	comp=Z,6.6nm,0.9s,baz=302,slow=3.2,SNR=25						
KURBB				PP	PP	03 27 40.1	+1.8
	comp=Z,0.6nm,0.8s,baz=294,slow=7.1,SNR=4.4						
ZALV	Zalesovo Beam	148.68	27	PKPbc	PKiKP	03 24 14.3	-0.1
	comp=Z,23nm,0.8s,baz=325,slow=2.5,SNR=44						
ZALV	Zalesovo Beam	148.68	27		PKPbc	03 24 13.3	+0.4
KSH2	Kashi	150.43	59	PKPbc	PKiKP	03 24 19.8	+1.1
MKAR	Makanchi Array	152.06	41	PKPbc	PKiKP	03 24 22.4	+0.7
	comp=Z,5.6nm,0.7s,baz=321,slow=2.2,SNR=42						
MKAR	Makanchi Array	152.06	41		PKiKP	03 24 22.0	+0.3
SONM	Songino Array	160.03	4	PKP	PKPdf	03 24 25.8	+0.4
	comp=Z,0.7nm,0.8s,baz=341,slow=3.6,SNR=4.6						
SONM				PKPab	PKPab	03 25 05.0	0.0
	comp=Z,0.9nm,0.9s,baz=325,slow=2.3,SNR=4.0						
SONM				PP	PP	03 28 48.3	+2.0
	comp=Z,0.6nm,0.8s,baz=350,slow=7.5,SNR=4.3						
GTA2	Gaotai	166.32	30	PKP	PKPdf	03 24 33.9	+2.3
GTA2				PKPab	PKPab	03 25 34.3	+1.4
HHC	Hu-ho-hao-te	166.86	350	*e*P	PKPdf	03 24 29.0	-3.0
CMAR	Chiang Mai Arr	167.08	135	PKP	PKPdf	03 24 33.6	+1.0
	comp=Z,0.8nm,0.3s,baz=185,slow=1.0,SNR=4.7						
CMAR				PKPab	PKPab	03 25 36.6	0.0
	comp=Z,0.7nm,0.3s,baz=227,slow=2.6,SNR=5.3						
CMAR	Chiang Mai Arr	167.08	135		PKPdf	03 24 32.1	-0.5
CMAR					PKPab	03 25 35.9	-0.8
NJ2	Nanjing	170.19	297	*e*P	PKPdf	03 24 35.0	+0.7
NJ2				pmax	pmax		
	comp=Z,68nm,0.7s						
PZH	PanZhiHua	173.74	101	PKP	PKPdf	03 24 34.2	-2.1

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*NEIC **02** 03:27:03.1±0.5, 18.°37S±0.°06×168.°92E±0.°08, h106^{km}±7^{km}, mb4.3/13, Error ellipse: s-maj=14.2km s-min=2.7km az=130.0*

*IDC **02** 03:27:03.8±4.9, 18.°60S×168.°95E, h119^{km}±41^{km}, mb3.6/5, mbtmp4.0/6, Error ellipse: s-maj=46.7km s-min=34.6km az=155.0*

*NOU **02** 03:27:05.2, 18.°45S×168.°59E, h94^{km}, MLv4.8/23, Vanuatu Islands*

ISC 02 03:27:02.5±0.8**, 18.°45S**±0.°04×**168.°9E**±0.°1**, h100**^{km}**, n41, σ1.^{s}21**/44**, mb4.1**/11**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTV	Rentapao	0.78	327	P	Pn	03 27 23.2	+2.6
RTV	Rentapao	0.78	327	S	Sn	03 27 36.7	+2.5
MARNC	Mare, Loyalty	3.12	195	P	Pn	03 27 50.6	+0.7
MARNC	Mare, Loyalty	3.12	195		Pn	03 27 50.9	+1.1
SANVU	Saraoutou	3.38	332	P	Pn	03 27 53.5	+0.1
SANVU	Saraoutou	3.38	332	S	Sn	03 28 32.7	+0.1
SANVU	Saraoutou	3.38	332		Pn	03 27 53.4	+0.1
YATNC	Mamie plateau,	4.05	207	P	Pn	03 28 02.6	+0.3
YATNC	Mamie plateau,	4.05	207	S	Sn	03 28 47.8	-0.9
DZM	Mont Dzumac	4.27	212	P	Pn	03 28 07.0	+1.6
	127nm,0.3s,baz=71,slow=8.1,SNR=581						
DZM				S	Sn	03 28 53.6	-0.6
	77nm,0.4s,baz=41,slow=16,SNR=3.8						
NOUC	Port Laguerre	4.36	213	P	Pn	03 28 08.4	+1.8
NOUC	Port Laguerre	4.36	213	S	Sn	03 28 56.6	+0.3
OUENC	Ouen Island, N	4.39	205	P	Pn	03 28 09.0	+2.1
OUENC	Ouen Island, N	4.39	205	S	Sn	03 28 57.6	+0.7
OUENC	Ouen Island, N	4.39	205		Pn	03 28 09.3	+2.4
ONTNC	Ouen Toro	4.46	210	P	Pn	03 28 10.3	+2.4
ONTNC	Ouen Toro	4.46	210	S	Sn	03 28 59.0	+0.3
ONTNC	Ouen Toro	4.46	210		Pn	03 28 09.9	+2.0
KOUNC	Koumac, New Ca	4.80	243	P	Pn	03 28 12.4	-0.1
KOUNC	Koumac, New Ca	4.80	243		Pn	03 28 13.4	+0.9
STKA	Stephens Creek	27.98	236	P	P	03 32 43.9	0.0
	1.3nm,0.5s,baz=69,slow=8.6,SNR=3.8						
	1.3nm,0.5s						
WR8	Warramunga Arr	32.46	262	P	P	03 33 23.4	-0.2
WR8				IAmb	IAmb	03 33 53.9	
	comp=Z,9.5nm,1.5s						
WB0	Warramunga Arr	32.57	262	P	P	03 33 24.1	-0.4
WB0				IAmb	IAmb	03 33 59.8	
	comp=Z,9.2nm,1.4s						
WRA	Warramunga Arr	32.61	262	P	P	03 33 24.5	-0.4
	comp=Z,0.6nm,0.7s,baz=94,slow=8.3,SNR=5.4						
WRA				pP	pP	03 33 48.0	+1.0
	comp=Z,0.6nm,0.8s,baz=101,slow=8.2,SNR=3.0						
	comp=Z,0.6nm,0.7s						
WRA	Warramunga Arr	32.61	262	P	P	03 33 24.3	-0.6
BBOO	Buckleboo	32.71	238	P	P	03 33 24.2	-1.3
AS31	Alice Springs	32.99	255	P	P	03 33 28.0	-0.2
ASAR	Alice Springs	32.99	255	P	P	03 33 27.9	-0.3
	comp=Z,1.8nm,0.6s,baz=87,slow=8.7,SNR=19						
ASAR				pP	pP	03 33 52.0	+1.8
	comp=Z,2.5nm,0.6s,baz=84,slow=9.0,SNR=9.1						
	comp=Z,1.8nm,0.6s						
ASAR	Alice Springs	32.99	255	P	P	03 33 27.6	-0.5
FITZ	Fitzroy Crossi	40.98	263	P	P	03 34 35.7	-0.1
FITZ				IAmb	IAmb	03 35 06.1	
	comp=Z,3.3nm,1.4s						
BBJI	Bungbulang	60.41	272	P	P	03 37 01.1	-0.9
CASY	Casey	60.71	203	P	P	03 37 03.4	+0.3
CASY				IAmb	IAmb	03 37 44.5	
	comp=Z,7.0nm,1.4s						
QSPA	South Pole Qui	71.60	180	P	P	03 38 13.4	+0.5
O14K	Tigyukauivet M	81.19	15	P	P	03 39 06.2	-0.6
BELA	Belgrano 2	82.92	175	P	P	03 39 15.7	0.0
BELA				IAmb	IAmb	03 39 20.6	
	comp=Z,4.2nm,1.5s						
J18K	Innoko River	85.94	15	P	P	03 39 30.6	-0.3
J18K				IAmb	IAmb	03 40 08.7	
	comp=Z,7.5nm,1.4s						
ILAR	Eielson Array	89.58	17	P	P	03 39 47.0	-1.3
	comp=Z,0.2nm,0.6s,baz=234,slow=4.3,SNR=2.0						
	comp=Z,0.2nm,0.6s						
SNAA	Sanae	89.94	183	P	P	03 39 48.9	-1.3
	comp=Z,1.1nm,0.6s,baz=164,slow=11,SNR=3.6						
	comp=Z,1.1nm,0.6s						
SNAA	Sanae	89.94	183	P	P	03 39 48.7	-1.4
SNAA				IAmb	IAmb	03 39 54.4	
	comp=Z,1.1nm,0.7s						
ARCES	ARCESS Array B	124.22	345	PKP	PKPdf	03 45 48.2	-0.6
	comp=Z,1.2nm,0.7s,baz=29,slow=2.8,SNR=6.8						
TUE	Stuetta	147.34	333	PKPab	PKPbc	03 46 35.8	+1.0

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*IDC **02** 03:52:19.2±1.8, 64.°75S×179.°12E, h0^{km}, mb3.9/3, mbtmp3.9/3, MS3.9/24, Error ellipse: s-maj=83.5km s-min=28.9km az=63.0*

*GCMT **02** 03:52:23.0±0.4, 65.°01S±0.°04×179.°0E±0.°1, h22^{km}±1^{km}, MW4.9/69, Moment Tensor Solution. s19,c19; s69,c85; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-3.01±.26; $M_{\theta\theta}$2.08±.16; $M_{\phi\phi}$0.93±.15; $M_{r\theta}$-0.58±.26; $M_{\theta\phi}$0.54±.08; $M_{\phi r}$-0.10±.29; Best double couple: $M_0$2.71600×10^{16} NP1:ϕ_s247.00000°, δ39.00000°, λ-93.00000°. NP2: ϕ_s70.00000°, δ51.00000°, λ-88.00000°. Principal axes: T 2.3580, Plg6.0000°, Azm159.0000°; N 0.7220, Plg2.0000°, Azm249.0000°; P -3.0750, Plg84.0000°, Azm355.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Surface-wave location Triangular moment-rate function*

ISC 02 03:52:19.8±1.7**, 64.°7S**±0.°3×**179.°5E**±0.°5**, h10**^{km}**, n38, σ1.^{s}14**/7**, mb4.1**/3**, MS3.9**/24**, Balleny Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RPZ	Rata Peaks	21.53	343	LR	LR	04 04 06.7	
	comp=Z,133nm,19.4s,baz=228,slow=33						
QSPA	South Pole Qui	25.41	180	P	P	03 57 48.0	+0.8
	6.3nm,1.1s,baz=31,slow=3.6,SNR=8.7						
QSPA				LR	LR	04 06 28.6	
	comp=Z,339nm,19.6s,baz=42,slow=34						
	6.3nm,1.1s						
URZ	Urewera	26.49	356	LR	LR	04 07 14.8	
	comp=Z,342nm,19.0s,baz=148,slow=34						
STKA	Stephens Creek	40.24	306	LR	LR	04 14 33.2	
	comp=Z,108nm,18.2s,baz=198,slow=33						
MAW	Mawson	40.53	212	LR	LR	04 16 24.7	
	comp=Z,376nm,18.8s,baz=118,slow=36						
PMSA	Palmer Station	42.82	146	LR	LR	04 14 53.6	
	comp=Z,113nm,20.1s,baz=209,slow=32						
DZM	Mont Dzumac	43.45	342	LR	LR	04 16 36.3	
	comp=Z,250nm,18.8s,baz=199,slow=34						
SNAA	Sanae	43.91	179	LR	LR	04 18 10.8	
	comp=Z,272nm,18.3s,baz=156,slow=35						
RAR	Rarotonga	45.57	28	LR	LR	04 15 34.7	
	comp=Z,190nm,18.4s,baz=202,slow=30						
MSVF	Nonsavu	46.91	358	LR	LR	04 17 49.5	
	comp=Z,46nm,21.3s,baz=191,slow=33						
H01W1	Cape Leeuwin H	48.57	275	T	T	04 53 14.4	
	baz=149,slow=75,SNR=12						
H01W2	Cape Leeuwin H	48.57	275	T	T	04 53 14.7	
	baz=149,slow=75,SNR=12						
H01W3	Cape Leeuwin H	48.58	275	T	T	04 53 15.7	
	baz=149,slow=75,SNR=11						
NWAO	Narrogin (SRO)	48.93	279	LR	LR	04 16 36.5	
	comp=Z,227nm,19.8s,baz=334,slow=30						
CTA	Charters Tower	49.72	318	LR	LR	04 18 40.3	
	comp=Z,84nm,20.4s,baz=220,slow=32						
ASAR	Alice Springs	50.47	302	P	P	04 01 18.2	+0.6
	0.4nm,0.6s,baz=158,slow=7.3,SNR=4.6						
ASAR				LR	LR	04 21 01.7	
	comp=Z,62nm,18.2s,baz=109,slow=34						
	0.4nm,0.6s						
PPT	Papeete	51.49	39	LR	LR	04 19 40.1	
	comp=Z,47nm,19.2s,baz=117,slow=32						
WRA	Warramunga Arr	53.73	304	P	P	04 01 42.0	+0.2
	2.3nm,1.1s,baz=157,slow=6.4,SNR=5.3						
	2.3nm,1.1s						
HNR	Honiara	56.84	337	LR	LR	04 22 42.9	
	comp=Z,180nm,20.5s,baz=256,slow=32						
PLCA	Paso Flores	61.63	126	LR	LR	04 22 53.4	
	comp=Z,64nm,21.4s,baz=216,slow=30						
H03S2	Juan Fernandez	64.64	116	T	T	05 13 54.1	
	baz=206,slow=74,SNR=17						
H03S1	Juan Fernandez	64.64	116	T	T	05 13 55.5	
	baz=206,slow=74,SNR=18						
H03S3	Juan Fernandez	64.65	116	T	T	05 14 00.6	
	baz=206,slow=74,SNR=15						
CPUP	Villa Florida	79.23	130	LR	LR	04 36 35.7	
	comp=Z,31nm,18.5s,baz=236,slow=34						
SUR	Sutherland	81.83	198	LR	LR	04 38 06.0	
	comp=Z,80nm,19.1s,baz=147,slow=34						
LPAZ	La Paz	84.59	117	LR	LR	04 33 50.1	
	comp=Z,49nm,18.6s,baz=213,slow=29						
BOSA	Boshof	84.86	203	LR	LR	04 38 49.0	
	comp=Z,60nm,21.7s,baz=207,slow=33						
LBTB	Lobatse	88.32	204	LR	LR	04 44 43.4	
	comp=Z,44nm,18.6s,baz=168,slow=36						
H08S2	Diego Garcia H	90.30	251	T	T	05 45 39.5	
	baz=155						
H08S1	Diego Carcia H	90.30	251	T	T	05 45 34.8	
	baz=155						
H08S3	Diego Garcia H	90.31	251	T	T	05 45 40.9	
	baz=155						
MATP	Matopo	92.26	207	LR	LR	04 43 05.3	
	comp=Z,58nm,20.2s,baz=172,slow=33						
TSUM	Tsumeb	95.23	197	LR	LR	04 46 09.8	
	comp=Z,88nm,19.3s,baz=179,slow=34						
LSZ	Lusaka	97.33	208	LR	LR	04 46 08.1	
	comp=Z,50nm,20.2s,baz=181,slow=33						
ILAR	Eielson Array	131.47	18	PKP	PKiKP	04 11 32.6	+1.0
	1.1nm,1.1s,baz=234,slow=2.9,SNR=5.8						
KBZ	Khabaz	148.03	250	PKPbc	PKiKP	04 12 04.4	-1.6
	3.0nm,1.0s,baz=160,slow=2.3,SNR=8.6						
BRTR	Keskin Array B	148.12	235	PKPbc	PKPbc	04 12 04.2	-0.7
	4.0nm,1.1s,baz=163,slow=4.8,SNR=19						
ESDC	Sonseca Array	154.88	174	PKPbc	PKiKP	04 12 20.1	-0.4
	0.3nm,0.4s,baz=172,slow=3.6,SNR=2.2						

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*UCR **02** 04:04:38.5±0.7, 8.°28N×83.°01W, h15^{km}±8^{km}, MW3.8, Presumed earthquake*

*UPA **02** 04:04:38.7±1.7, 8.°32N×82.°96W, h3^{km}±2^{km}, MW3.2, Fault plane solution: NP1:ϕ_s119.20000°, δ46.92000°, λ69.25000°., Presumed earthquake*

ISC 02 04:04:39.3±0.8**, 8.°32N**±0.°03×**82.°97W**±0.°02**, h15**^{km}±6^{km}**, n45, σ1.^{s}02**/74**, 2C-6D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTPM	Petroterminale	0.14	142	*e*P	Pg	04 04 42.8	-0.4
PTPM				*e*S	Sg	04 04 45.4	-0.3
PTPA	Petro Terminal	0.15	140	*e*P	Pg	04 04 42.6	-0.6
PTPA				*e*S	Sg	04 04 46.8	+0.9
LIMO3	Limones	0.24	154	*e*P	Pg	04 04 44.2	-0.4
LIMO3				*e*S	Sg	04 04 48.4	+0.3
LMNES	Limones	0.24	153	*e*P	Pg	04 04 44.2	-0.4
LMNES	Limones	0.24	153	⇑*i*P	Pg	04 04 44.3	-0.4
LMNES				*e*S	Sg	04 04 48.5	+0.3
NELY	Ciudad Neily	0.33	4	*e*P	Pg	04 04 45.8	-0.4
NELY	Ciudad Neily	0.33	4	⇓*i*P	Pg	04 04 45.9	-0.3
NELY				*e*S	Sb	04 04 52.1	0.0
FITO	Golfito	0.35	329	*e*P	Pg	04 04 45.3	-1.3
PIRO	Carate, Puerto	0.37	283	*e*P	Pg	04 04 45.8	-1.1
PIRO	Carate, Puerto	0.37	283	*e*P	Pg	04 04 45.9	-1.0
VITO	San Vito	0.50	0	⇑*e*P	Pg	04 04 49.3	0.0
VITO				*e*S	Sb	04 04 58.3	+1.3
DVD	David	0.53	77	⇓*i*P	Pg	04 04 49.4	-0.4
DVD				*e*S	Sb	04 04 58.5	+0.8
SCLRA	Santa Clara, W	0.54	20	*e*P	Pg	04 04 50.1	0.0
SCLRA	Santa Clara, W	0.54	20	*e*P	Pb	04 04 50.2	-0.5
SCLRA				*e*S	Sb	04 04 59.9	+1.6
BRU2	Volcan	0.55	30	*e*P	Pg	04 04 50.0	-0.2
BRU2	Volcan	0.55	30	⇓*i*P	Pg	04 04 50.1	-0.1
BRU2				*e*S	Sb	04 04 59.5	+1.0
CLLRA	Cordillera,	0.55	40	*e*P	Pg	04 04 50.2	0.0
CLLRA	Cordillera,	0.55	40	⇓*i*P	Pg	04 04 50.3	0.0
CLLRA				*e*S	Sn	04 05 02.2	+0.4
LOMA3	Las Lomas, Chi	0.58	79	*e*P	Pg	04 04 50.3	-0.6
LOMA3				*e*S	Sb	04 04 59.5	+0.2
PTAR3	Potrerillos Ar	0.60	52	*e*P	Pg	04 04 51.0	-0.2
PTAR3				*e*S	Sb	04 05 01.2	+1.3
CHIR3	Chiriqui UPA,	0.64	83	*e*P	Pg	04 04 51.1	-0.8
CHIR3				*e*S	Sb	04 05 01.6	+0.7
BQTLY	Boquete Panama	0.67	49	*e*P	Pg	04 04 51.7	-0.7
BQTLY	Boquete Panama	0.67	49	⇓*i*P	Pg	04 04 51.8	-0.6
BQTLY				*e*S	Sb	04 05 02.4	+0.5
BQSF3	Alto Boquete,	0.68	52	*e*P	Pg	04 04 51.9	-0.7
BQSF3				*e*S	Sb	04 05 02.8	+0.6
LNBQ3	Los Naranjos,	0.70	48	*e*P	Pg	04 04 52.2	-0.9
LNBQ3				*e*S	Sb	04 05 03.9	+1.0
EDP2	Potrero Grande	0.72	344	*e*P	Pg	04 04 52.6	-0.8
RBALA	Bur	0.98	55	*e*P	Pg	04 04 56.8	-1.5
RBALA	Bur	0.98	55	*e*P	Pg	04 04 56.9	-1.4
RBALA				*e*S	Sg	04 05 11.0	-0.2
CHGR2	Aguacate	1.02	53	*e*P	Pg	04 04 57.4	-1.7
CHGR2				*e*S	Sg	04 05 11.9	-0.6
SAJE	San Jernim	1.15	333	*e*P	Pg	04 04 59.1	-2.4
CNI2	El Empalme, Bo	1.20	24	*e*P	Pn	04 05 00.5	-1.1
CNI2				*e*S	Sg	04 05 18.0	-0.3
PDCAN	Manzana , Fuen	1.26	91	*e*P	Pn	04 05 00.3	-2.1
KKNTU	Kakintº	1.26	66	*e*P	Pn	04 05 00.8	-1.6
KKNTU	Kakintº	1.26	66	⇓*i*P	Pn	04 05 00.9	-1.6
KKNTU				*e*S	Sb	04 05 18.3	-0.6
CEUA	Cerro Uatsi, L	1.29	1	*e*P	Pb	04 05 03.6	+0.1
LCR2	La Lucha 2	1.75	324	*e*P	Pn	04 05 09.7	+0.4
LCR2				*e*S	Sg	04 05 34.8	-0.8
GMAL	Guarumal, Vera	1.81	108	*e*P	Pn	04 05 08.5	-1.4
GMAL				*e*S	Sn	04 05 33.3	+0.6
RSUS3	Rio de Jesus,	1.82	100	*e*P	Pn	04 05 08.8	-1.3
RSUS3				*e*S	Sb	04 05 34.6	-0.4
SAFE3	Santa Fe, Vera	1.88	84	*e*P	Pn	04 05 11.1	+0.1
SAFE3				*e*S	Sb	04 05 36.2	-0.6
STIA3	Santiago, Vera	1.99	96	*e*P	Pn	04 05 12.8	+0.3
STIA3				*e*S	Sn	04 05 38.2	+1.1
VBV1	V. Barva	2.10	328	*e*P	Pn	04 05 14.6	+0.3
JTS	Las Juntas de	2.77	315	*e*P	Pn	04 05 23.7	+0.5
JTS				*e*S	Sn	04 05 57.3	+0.8
CMARA	Lajas Hojancha	2.95	305	*e*P	Pn	04 05 26.1	+0.3
CMARA				*e*S	Sn	04 06 02.4	+1.4
ZANG	Zanguenga, Cho	3.13	78	*e*P	Pn	04 05 30.8	+2.5
ZANG				*e*S	Sn	04 06 04.6	-0.8
BCIP	Isla Barro Col	3.21	75	*e*P	Pn	04 05 29.6	+0.3
BCIP				*e*S	Sn	04 06 10.5	+3.2

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*LDG **02** 04:19:00.2±0.1, 42.°86N×1.°47W, h2^{km}, Md2.6/2, Ml2.5/19, Error ellipse: s-maj=2.3km s-min=1.9km az=162.0*

*INMG **02** 04:19:00.0±1.3, 42.°82N×1.°51W, h2^{km}±3^{km}, ML2.1, Error ellipse: s-maj=2.3km s-min=2.3km az=108.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Pireneus (ESP)*

*MDD **02** 04:19:00.7±0.2, 42.°84N×1.°51W, h0^{km}, mb_Lg2.4/26, Error ellipse: s-maj=2.2km s-min=1.3km az=0.0*

ISC 02 04:18:58.9±0.9**, 42.°88N**±0.°03×**1.°47W**±0.°02**, h10**^{km}±7^{km}**, n46, σ1.^{s}47**/81**, 1C, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EARA	Aranguren	0.13	217	⇑Pg	Pg	04 19 01.2	-0.8
EARA				Sg	Sg	04 19 02.7	-1.5
SJPF	Ste Jean	0.30	37	*e*Pg	Pg	04 19 05.9	+1.0
SJPF				*e*Sg	Sg	04 19 10.0	+1.0
	270nm,0.3s						
EALK	Alkurruntz	0.34	356	Pg	Pg	04 19 06.6	+0.8
EALK				Sg	Sg	04 19 13.0	+2.6
EALK				IVmb_Lg		04 19 14.4	
ETSF	Etsaut	0.67	88	*e*Pg	Pg	04 19 11.9	0.0
ETSF				*e*Sg	Sg	04 19 21.8	+1.1
	44nm,0.4s						
ECHI	Chisagues Biel	1.25	99	Pg	Pn	04 19 22.9	+0.4
ECHI				Sg	Sg	04 19 40.6	+1.6
ECHI				IVmb_Lg		04 19 44.7	
ESAC	San Caprasio	1.37	147	Sg	Sn	04 19 43.4	+0.9
ELAN	Lanestosa	1.48	285	Pg	Pn	04 19 27.1	+1.5
ELAN				Sg	Sn	04 19 46.8	+1.7
ELAN				IVmb_Lg		04 19 51.4	
ETOR	Torete	2.10	192	Pn	Pn	04 19 34.9	+0.7
ETOR				Sn	Sn	04 20 01.5	+1.0
ETOR				IVmb_Lg		04 20 06.7	
EPOB	Poblet	2.43	128	Pn	Pn	04 19 38.6	-0.2
EPOB				Sn	Sn	04 20 10.8	+2.2
EPOB				IVmb_Lg		04 20 25.3	
LFF	La Frestale	2.61	37	*e*Pn	Pn	04 19 42.5	+1.4
LFF				*e*Sn	Sn	04 20 13.1	+0.3
	3.8nm,0.2s						
LFF				AML	AML		
MTLF	Montolieu	2.74	79	*e*Pn	Pn	04 19 44.8	+1.9
MTLF				*e*P	Pb	04 19 46.7	-1.3
EARI	Arriondas	2.77	280	Pn	Pn	04 19 45.7	+2.3
EARI				Sn	Sn	04 20 17.3	+0.4
EARI				IVmb_Lg		04 20 19.8	
GUD	Guadarrama	3.00	223	Pn	Pn	04 19 47.0	+0.4
GUD				Sn	Sn	04 20 23.2	+0.5
GUD				IVmb_Lg		04 20 35.1	
RJF	Les Rejaudoux	3.24	41	*e*Pn	Pn	04 19 49.7	-0.1
RJF				*e*Sn	Sn	04 20 27.2	-1.3
	4.1nm,0.2s						
RJF				AML	AML		
CAF	Calviac	3.27	50	*e*Pn	Pn	04 19 49.6	-0.7
CAF				*e*Sn	Sn	04 20 28.6	-0.7
	4.1nm,0.2s						
CAF				AML	AML		
MFF	Saint Martin d	3.84	14	*e*Pn	Pn	04 19 58.3	+0.2
MFF				*e*Sn	Sn	04 20 43.4	+0.2
	1.6nm,0.2s						
MFF				AML	AML		
PAB	San Pablo	3.97	214	Pn	Pn	04 20 00.2	+0.2
PAB				Sn	Sn	04 20 44.8	-1.8
PAB				IVmb_Lg		04 21 04.4	
ECAL	Calabor	4.01	258	Pn	Pn	04 20 00.5	+0.1
ECAL				Sn	Sn	04 20 45.2	-2.3
PBRG	Braganca	4.05	256	*e*Pn	Pn	04 20 01.0	+0.1
PBRG				*e*Sn	Sn	04 20 48.0	-0.4
LASF	Ste Croix	4.06	71	*e*Pn	Pn	04 20 02.5	+1.4
LASF				*e*Sn	Sn	04 20 47.8	-0.8
	7.3nm,0.7s						
LASF				AML	AML		
TCF	Toulx Ste Croi	4.31	36	*e*Pn	Pn	04 20 03.7	-0.8
TCF				*e*Sn	Sn	04 20 52.7	-2.0
	2.6nm,0.3s						
TCF				AML	AML		
CIBOR	Castaar de Ib	4.40	224	Pn	Pn	04 20 05.9	+0.1
CIBOR				Sn	Sn	04 20 55.5	-1.6
BGF	Bois d'Agland	4.80	38	*e*Pn	Pn	04 20 11.1	-0.1
BGF				*e*Sn	Sn	04 21 06.5	-0.3
	9.7nm,0.4s						
BGF				AML	AML		
VIVF	Saint-Julien-l	4.86	64	*e*Pn	Pn	04 20 13.4	+1.3
VIVF				*e*Sn	Sn	04 21 06.4	-2.1
	2.2nm,0.4s						
VIVF				AML	AML		
PVRL	Vila Real	4.92	253	*e*Sn	Sn	04 21 08.8	-1.0
POLO	Lamas de Olo	4.94	254	*e*Pn	Pn	04 20 13.4	+0.2
POLO				*e*Sn	Sn	04 21 09.3	-1.1
PCAB	Cabril	5.00	259	*e*Pn	Pn	04 20 13.9	-0.1
PGAV	Gavieira, Arco	5.11	262	*e*Pn	Pn	04 20 15.9	+0.3
QUIF	Quistinic	5.18	347	*e*Pn	Pn	04 20 17.2	+0.8
QUIF				*e*Sn	Sn	04 21 13.6	-2.5
	0.7nm,0.2s						
QUIF				AML	AML		
MTE	Manteigas	5.18	243	*e*Pn	Pn	04 20 16.9	+0.4
AVF	Avril sur Loir	5.20	40	*e*Pn	Pn	04 20 16.8	+0.1
AVF				*e*Sn	Sn	04 21 14.1	-2.7
	0.8nm,0.3s						
AVF				AML	AML		
SMRF	Simiane la Rot	5.25	76	*e*Pn	Pn	04 20 19.2	+1.8
HYF	Humbligny	5.27	32	*e*Pn	Pn	04 20 18.6	+0.9
HYF				*e*Sn	Sn	04 21 17.6	-0.8
	32nm,0.7s						
HYF				AML	AML		
SMF	Signal de Mont	5.34	43	*e*Pn	Pn	04 20 19.3	+0.7
SMF				*e*Sn	Sn	04 21 18.1	-2.0
	0.8nm,0.3s						
SMF				AML	AML		
SGMF	Saint Gilles	5.43	352	*e*Pn	Pn	04 20 20.6	+0.7
SSF	Saint Saulge	5.47	38	*e*Pn	Pn	04 20 20.9	+0.4
SSF				*e*Sn	Sn	04 21 23.3	-0.2
	1.5nm,0.3s						
SSF				AML	AML		
GRR	Gorron	5.53	4	*e*Pn	Pn	04 20 21.8	+0.6
GRR				*e*Sn	Sn	04 21 22.5	-2.3
	1.7nm,0.3s						
GRR				AML	AML		
ROSF	Rostrenen	5.60	348	*e*Pn	Pn	04 20 22.5	+0.3
ROSF				*e*Sn	Sn	04 21 24.0	-2.6
	0.7nm,0.2s						
ROSF				AML	AML		
PMRV	Marv??o	5.64	234	*e*Pn	Pn	04 20 22.7	-0.1
ORIF	Oris-en-Rattie	5.69	66	*e*P	Pn	04 20 27.6	+4.1
ORIF				*e*Sn	Sn	04 21 27.2	-1.7
	0.6nm,0.3s						
ORIF				AML	AML		
LOR	Lormes	5.79	39	*e*Pn	Pn	04 20 25.3	+0.5
LOR				*e*Sn	Sn	04 21 26.3	-4.9
	1.0nm,0.3s						
LOR				AML	AML		
LDF	La Druitiere	5.79	9	*e*Pn	Pn	04 20 25.2	+0.3
LDF				*e*Sn	Sn	04 21 28.8	-2.5
	0.7nm,0.3s						
LDF				AML	AML		
FLN	La Foliniere	5.93	6	*e*Pn	Pn	04 20 26.8	+0.1

FLN				*e*Sn	**Sn**	**04 21 31.9**	**-2.7**
	1.4nm,0.3s						
FLN				AML	AML		
PSARD	**Sardoal**	**6.01**	**239**	*e*Pn	**Pn**	**04 20 28.0**	**+0.1**
PESTR	**Estremoz**	**6.13**	**231**	*e*Pn	**Pn**	**04 20 29.4**	**-0.1**
LPL	**La Plagne**	**6.46**	**63**	*e*Pn	**Pn**	**04 20 34.7**	**+0.5**

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*CATAC **02** 04:23:43.9±0.5, 11°N±2°×8°7W±°, h16^{km}±4^{km}, M3.3/35, MLv3.3/35, Error ellipse: s-maj=4.3km s-min=2.7km az=26.5, confirmed*

*UCR **02** 04:23:43.2±0.6, 11°.05N×86°.84W, h0^{km}±79^{km}, MW3.5, Presumed earthquake*

ISC 02 04:23:42.2±1.6, **11°.05N**±0°.04×**86°.99W**±0°.04, **h8**^{km}±10^{km}, **n67**, σ**0^s.91**/93, **8C-2D, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NADN	**Granada**	**1.17**	**54**	P	**Pg**	**04 24 04.6**	**0.0**
NADN				S	**Sn**	**04 24 20.6**	**-0.5**
NADN	**Granada**	**1.17**	**54**	*e*P	**Pg**	**04 24 04.4**	**-0.3**
COPN	**Copaltepe**	**1.19**	**19**	⇑P	**Pg**	**04 24 05.4**	**+0.4**
COPN	**Copaltepe**	**1.19**	**19**	*e*P	**Pg**	**04 24 05.3**	**+0.3**
SABN	**Sabanita**	**1.21**	**42**	⇓P	**Pg**	**04 24 05.7**	**+0.2**
NANN	**Nandasmo**	**1.23**	**44**	⇑P	**Pn**	**04 24 06.8**	**+1.1**
MASN	**Masaya**	**1.24**	**42**	P	**Pb**	**04 24 05.9**	**-0.1**
MASN				S	**Sn**	**04 24 22.4**	**-0.5**
SAPS	**Ciudad Sandino**	**1.25**	**27**	⇑P	**Pb**	**04 24 06.2**	**+0.1**
SAPS				S	**Sg**	**04 24 22.6**	**+0.2**
MAS3	**Al N del Volca**	**1.25**	**40**	P	**Pb**	**04 24 06.0**	**-0.1**
MAS3				S	**Sn**	**04 24 22.9**	**-0.4**
TISN	**Laguna Tiscapa**	**1.29**	**33**	⇑P	**Pn**	**04 24 07.0**	**+0.3**
AMTN	**Mateare**	**1.30**	**25**	P	**Pn**	**04 24 07.0**	**+0.3**
ALLN	**Telcor Managua**	**1.30**	**33**	P	**Pn**	**04 24 07.0**	**+0.2**
MGAN	**Managua**	**1.31**	**34**	P	**Pn**	**04 24 07.3**	**+0.5**
MGAN				S	**Sg**	**04 24 24.2**	**-0.1**
APQ2	**Apoyeque**	**1.31**	**30**	P	**Pn**	**04 24 06.5**	**-0.3**
APQ2				S	**Sb**	**04 24 23.3**	**-0.9**
APYN	**Apoyeque**	**1.33**	**28**	⇑P	**Pn**	**04 24 07.0**	**-0.1**
APYN				S	**Sb**	**04 24 24.8**	**+0.1**
LCRUZ	**La Cruz**	**1.34**	**89**	*e*P	**Pn**	**04 24 07.1**	**-0.1**
WILN	**Americas 2**	**1.35**	**36**	P	**Pn**	**04 24 07.6**	**+0.2**
WILN				S	**Sg**	**04 24 25.5**	**-0.3**
JAPN	**Al SSO del Vol**	**1.37**	**70**	P	**Pn**	**04 24 08.1**	**+0.4**
JAPN				S	**Sn**	**04 24 26.3**	**+0.2**
JAPN	**Al SSO del Vol**	**1.37**	**70**	*e*P	**Pn**	**04 24 06.5**	**-1.1**
LEVN	**Ruinas Leon Vi**	**1.39**	**15**	⇓P	**Pn**	**04 24 08.4**	**+0.4**
LEVN				S	**Sb**	**04 24 26.3**	**-0.1**
MORN	**Al O del Volca**	**1.41**	**69**	P	**Pn**	**04 24 08.4**	**+0.2**
MORN				S	**Sg**	**04 24 27.4**	**0.0**
OMEN	**Al SSO del Vol**	**1.42**	**71**	P	**Pn**	**04 24 08.3**	**0.0**
OMEN				S	**Sg**	**04 24 27.8**	**0.0**
MOMN	**Momotombo**	**1.42**	**18**	P	**Pn**	**04 24 08.6**	**+0.2**
MOMN				S	**Sb**	**04 24 26.9**	**-0.3**
CARN	**Rivas**	**1.45**	**85**	⇑P	**Pn**	**04 24 09.0**	**+0.3**
CARN				S	**Sg**	**04 24 28.7**	**-0.1**
CARN	**Rivas**	**1.45**	**85**	*e*P	**Pn**	**04 24 08.6**	**-0.1**
MOM2	**El Cardon**	**1.46**	**20**	⇑P	**Pn**	**04 24 09.1**	**+0.2**
MOM2				S	**Sn**	**04 24 28.5**	**+0.1**
ALIBA	**Liberia Airpor**	**1.49**	**108**	*e*P	**Pn**	**04 24 09.5**	**+0.2**
PLRN	**Geotermica Pol**	**1.54**	**8**	P	**Pn**	**04 24 10.2**	**+0.2**
PLRN				S	**Sn**	**04 24 30.4**	**+0.2**
ILCN	**San Idelfonso**	**1.54**	**11**	P	**Pn**	**04 24 09.9**	**-0.1**
ILCN				S	**Sn**	**04 24 30.3**	**0.0**
VRLE	**La Escondida,**	**1.62**	**99**	*e*P	**Pn**	**04 24 11.2**	**0.0**
CRIN	**San Cristobal**	**1.64**	**358**	P	**Pn**	**04 24 11.9**	**+0.5**
GPS2	**Hotel Rincn d**	**1.64**	**100**	*e*P	**Pn**	**04 24 11.1**	**-0.3**
JUD3	**Juan Diaz 3**	**1.68**	**122**	*e*P	**Pn**	**04 24 11.2**	**-0.7**
MESS	**Mesas**	**1.79**	**100**	*e*P	**Pb**	**04 24 14.9**	**-0.4**
CUI	**Cuipilapa**	**1.84**	**102**	*e*P	**Pn**	**04 24 14.5**	**+0.3**
CMARA	**Lajas Hojancha**	**1.85**	**123**	P	**Pn**	**04 24 15.6**	**+1.2**
CMARA	**Lajas Hojancha**	**1.85**	**123**	*e*P	**Pn**	**04 24 14.5**	**+0.1**
VMAR	**Armenia, Volca**	**1.86**	**97**	*e*P	**Pn**	**04 24 14.9**	**+0.5**
BOAB	**BOACO BROADBAN**	**1.90**	**43**	P	**Pn**	**04 24 15.2**	**+0.2**
BOAB				S	**Sb**	**04 24 40.2**	**-0.9**
UPAL	**Upala**	**1.95**	**94**	P	**Pn**	**04 24 16.5**	**+0.9**
UPAL				S	**Sb**	**04 24 42.0**	**-0.5**
CSGN	**Cosiguina Volc**	**1.99**	**344**	P	**Pn**	**04 24 16.8**	**+0.6**
CSGN				S	**Sn**	**04 24 42.2**	**+0.7**
ACON	**Acoyapa**	**2.00**	**63**	*e*P	**Pb**	**04 24 18.6**	**-0.3**
TENO	**El Achiote**	**2.01**	**100**	*e*P	**Pn**	**04 24 16.8**	**+0.3**
QUEB	**Quebradon, Cot**	**2.10**	**102**	*e*P	**Pn**	**04 24 19.3**	**+1.5**
MATN	**Matagalpa**	**2.14**	**29**	⇑P	**Pn**	**04 24 18.4**	**0.0**
MATN				S	**Sn**	**04 24 46.0**	**+0.9**
JTS	**Las Juntas de**	**2.14**	**110**	P	**Pn**	**04 24 19.3**	**+1.0**
JTS	**Las Juntas de**	**2.14**	**110**	*e*P	**Pn**	**04 24 18.9**	**+0.6**
ARE1	**Arenal 1**	**2.31**	**105**	*e*P	**Pn**	**04 24 21.4**	**+0.7**
VARE2	**V. Arenal**	**2.31**	**105**	*e*P	**Pb**	**04 24 23.9**	**-0.3**
CEDE	**Laguna Cedeo**	**2.32**	**104**	*e*P	**Pn**	**04 24 21.7**	**+0.9**
CNCH	**Conchagua**	**2.36**	**340**	P	**Pn**	**04 24 21.7**	**+0.3**
CNCH				S	**Sn**	**04 24 51.3**	**+0.7**
RCFN	**Al S de San Ju**	**2.58**	**17**	P	**Pn**	**04 24 25.0**	**+0.5**
RCPN	**Sur Rio San Ju**	**2.61**	**20**	P	**Pn**	**04 24 25.9**	**+1.1**
RCVN	**Varillal2**	**2.63**	**17**	P	**Pn**	**04 24 26.0**	**+0.9**
PACA	**Pacayal**	**2.73**	**332**	P	**Pn**	**04 24 27.1**	**+0.6**
PACA				S	**Sn**	**04 25 00.4**	**+0.5**
VBV1	**V. Barva**	**2.99**	**108**	*e*P	**Pb**	**04 24 34.0**	**-2.0**
TGUH	**Tegucigalpa,Un**	**3.00**	**355**	P	**Pn**	**04 24 31.3**	**+1.1**
TGUH				S	**Sn**	**04 25 06.6**	**+0.1**
ACOS	**Acosta**	**3.05**	**114**	*e*P	**Pn**	**04 24 33.1**	**+2.2**
SCLA	**Alcaldia de Sa**	**3.13**	**327**	P	**Pn**	**04 24 32.5**	**+0.5**
SCLA				S	**Sn**	**04 25 09.3**	**-0.3**
ABE2	**San Pablo**	**3.19**	**115**	*e*P	**Pn**	**04 24 34.9**	**+2.0**
LCR2	**La Lucha 2**	**3.21**	**114**	P	**Pn**	**04 24 34.3**	**+1.1**
LCR2	**La Lucha 2**	**3.21**	**114**	*e*P	**Pn**	**04 24 35.2**	**+2.0**
VICA	**Volcano Irazu**	**3.27**	**109**	*e*P	**Pn**	**04 24 37.0**	**+2.8**
PIEC	**Cerro El Cedra**	**3.31**	**115**	*e*P	**Pn**	**04 24 36.2**	**+1.6**
ABRB	**Las Abras (San**	**3.38**	**108**	*e*P	**Pn**	**04 24 38.9**	**+3.3**
NUBE	**Las Nubes**	**3.93**	**316**	P	**Pn**	**04 24 43.6**	**+0.6**
NUBE				S	**Sn**	**04 25 26.2**	**-3.2**
FAME	**Alcaldia de Sa**	**4.05**	**314**	P	**Pn**	**04 24 45.0**	**+0.5**

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*SOME **02** 04:27:26.8, 40°.00N×70°.45E, h10^{km}*

*KRNET **02** 04:27:27.3±0.1, 39°.98N×70°.35E, h16^{km}, mb3.3*

*ISU **02** 04:27:27, 39°.90N×70°.29E, h9^{km}*

*NNC **02** 04:27:28.8±2.7, 40°.04N×70°.35E, h0^{km}, mb4.0, mpv3.6, Error ellipse: s-maj=19.5km s-min=10.9km az=23.0*

ISC 02 04:27:29.0±1.4, **39°.96N**±0°.04×**70°.43E**±0°.03, **h4**^{km}±10^{km}, **n36**, σ**1^s.05**/65, **22C-17D, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BTK	**Batken**	**0.32**	**71**	⇓*i*P	**Pg**	**04 27 34.6**	**-0.5**
BTK				⇓*i*S	**Sg**	**04 27 39.8**	**+0.5**
FRG	**Fergana**	**1.12**	**68**	P	**Pb**	**04 27 50.7**	**-0.2**
FRG				S	**Sn**	**04 28 08.1**	**+0.8**
DRK	**Karamyk**	**1.16**	**114**	⇑*e*P	**Pb**	**04 27 50.4**	**-1.3**
DRK				⇑*e*S	**Sg**	**04 28 07.3**	**+1.1**
KSNS	**Kasansay**	**1.46**	**34**	P	**Pn**	**04 27 55.0**	**-1.2**
KSNS				S	**Sg**	**04 28 16.6**	**+0.7**
NZBK	**Nazarbek**	**1.61**	**322**	P	**Pn**	**04 27 58.8**	**+0.6**
NZBK				S	**Sg**	**04 28 21.9**	**+1.1**
CHMG	**Chimgan**	**1.62**	**349**	P	**Pn**	**04 27 56.9**	**-1.6**
CHMG				S	**Sb**	**04 28 20.4**	**-0.1**
TRKS	**Terek-Say**	**1.66**	**19**	⇓*i*P	**Pn**	**04 27 56.9**	**-2.1**
TRKS				⇓*i*S	**Sn**	**04 28 18.9**	**-2.0**
TSTA	**Tashata**	**1.69**	**68**	P	**Pn**	**04 27 59.6**	**+0.4**
TSTA				S	**Sg**	**04 28 24.3**	**+1.2**
TVKS	**Tavaksay**	**1.72**	**340**	P	**Pn**	**04 27 58.9**	**-0.9**
TVKS				S	**Sn**	**04 28 22.6**	**+0.4**
CHRV	**Charvak**	**1.72**	**348**	P	**Pn**	**04 27 58.2**	**-1.6**
CHRV				S	**Sn**	**04 28 22.1**	**-0.1**
OHH	**Osh**	**1.89**	**72**	⇓*i*P	**Pn**	**04 28 02.5**	**+0.4**
OHH				⇓*i*S	**Sb**	**04 28 28.3**	**+0.2**
PSK	**Pskem**	**1.97**	**359**	P	**Pn**	**04 28 03.2**	**0.0**
PSK				S	**Sb**	**04 28 30.7**	**+0.3**
ARK	**Arkit**	**2.18**	**32**	⇑*i*P	**Pn**	**04 28 06.0**	**-0.1**
ARK				⇑*i*S	**Sb**	**04 28 34.6**	**-1.8**
IUG	**Iuzhnay**	**2.21**	**352**	Pg	**Pn**	**04 28 08.1**	**+1.6**
	289nm,0.2s						
IUG				Lg	Lg	04 28 37.1	
	421nm,0.2s						
IUG	**Iuzhnay**	**2.21**	**352**	*e*P	**Pn**	**04 28 08.1**	**+1.6**
	289nm,0.2s						
IUG				*e*S	**Sb**	**04 28 37.1**	**-0.2**
	421nm,0.2s						
SFK	**Sufi-Kurgan**	**2.36**	**88**	⇓*i*P	**Pn**	**04 28 09.4**	**+0.7**
SFK				⇓*i*S	**Sb**	**04 28 40.1**	**-1.7**
ARSB	**Arslanbob**	**2.38**	**54**	⇑*i*P	**Pn**	**04 28 08.9**	**+0.1**
ARSB				⇑*i*S	**Sb**	**04 28 39.8**	**-2.3**
SALK	**Salom-Alik**	**2.75**	**69**	⇑*i*P	**Pn**	**04 28 14.0**	**0.0**
SALK				⇑*i*S	**Sn**	**04 28 49.1**	**+1.4**
AGL	**Agalyk**	**2.77**	**262**	P	**Pn**	**04 28 14.4**	**+0.2**
BRLS	**Borolday**	**3.10**	**352**	Pg	**Pn**	**04 28 19.7**	**+1.0**
	10nm,0.4s						
BRLS				Lg	Lg	04 28 57.5	
	23nm,0.2s						
BRLS	**Borolday**	**3.10**	**352**	*e*P	**Pn**	**04 28 19.7**	**+1.0**
	10nm,0.4s						
BRLS				*e*S	**Sn**	**04 28 57.5**	**+1.3**
	23nm,0.2s						
KK31	**Karatay Array**	**3.15**	**1**	⇑Pg	**Pb**	**04 28 24.0**	**-1.4**
	3.1nm,0.3s,baz=164,slow=9.9,SNR=50						
KK31				⇓Lg	Lg	04 29 06.7	
	12nm,0.4s,baz=167,slow=21,SNR=18						
MRKS	**Merke**	**3.49**	**36**	Pg	**Pb**	**04 28 30.9**	**-0.4**
	7.2nm,0.3s						
MRKS				Lg	Lg	04 29 17.0	
	38nm,0.3s						
MRKS	**Merke**	**3.49**	**36**	*e*P	**Pb**	**04 28 30.9**	**-0.4**
	7.2nm,0.3s						
MRKS				*e*S	**Sb**	**04 29 17.0**	**+2.9**
	38nm,0.3s						
EKS2	**Erkin-Say**	**3.70**	**42**	⇓*i*P	**Pn**	**04 28 27.2**	**+0.2**
EKS2				⇓*i*S	**Sn**	**04 29 11.1**	**+0.1**
ZRB	**Zarabog**	**3.72**	**241**	S	**Sn**	**04 29 11.7**	**+0.1**
UCH	**Uchtor**	**3.83**	**52**	⇓*i*P	**Pn**	**04 28 29.5**	**+0.4**
UCH				⇓*i*S	**Sn**	**04 29 15.2**	**+0.4**
AAK	**Ala-Archa**	**4.07**	**47**	⇑Pn	**Pn**	**04 28 32.8**	**+0.7**
	0.9nm,0.5s						
AAK				⇑Sn	**Sn**	**04 29 22.8**	**+2.6**
	0.7nm,0.3s						
AAK				⇑Lg	Lg	04 29 39.9	
	7.1nm,0.7s						
AAK	**Ala-Archa**	**4.07**	**47**	⇓*i*P	**Pn**	**04 28 32.6**	**+0.5**
AAK				⇓*i*S	**Sn**	**04 29 20.3**	**+0.1**
KBK	**Karagaybulak**	**4.34**	**50**	⇑*i*P	**Pn**	**04 28 36.5**	**+0.6**
KBK				⇑*i*S	**Sn**	**04 29 27.0**	**0.0**
CHMS	**Chumysh**	**4.45**	**45**	⇑*e*P	**Pn**	**04 28 37.6**	**+0.4**
CHMS				⇑*i*S	**Sn**	**04 29 29.3**	**-0.1**
NRN	**Naryn**	**4.48**	**69**	⇑*i*P	**Pn**	**04 28 38.4**	**+0.4**
NRN				⇑*i*S	**Sn**	**04 29 30.2**	**-0.5**
USP	**Ospenovka**	**4.50**	**41**	⇓*i*P	**Pn**	**04 28 38.4**	**+0.5**
USP				⇓*i*S	**Sn**	**04 29 30.5**	**-0.2**
SGDS	**Sogindy**	**4.70**	**41**	Pg	**Pb**	**04 28 52.2**	**+0.3**
	2.4nm,0.2s						
SGDS				Lg	Lg	04 29 53.3	
	5.2nm,0.3s						
BOOM	**Boomskoye usch**	**4.87**	**57**	⇑*i*P	**Pn**	**04 28 43.9**	**+0.8**
BOOM				⇑*e*S	**Sn**	**04 29 39.8**	**-0.1**
TKM2	**Tokmak 2**	**4.88**	**51**	⇑*i*P	**Pn**	**04 28 43.9**	**+0.5**
TKM2				⇑*i*S	**Sn**	**04 29 40.0**	**-0.4**

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*IDC **02** 04:31:41.0±1.6, 56°.05N×34°.66W, h0^{km}, mb3.7/7, mbtmp3.8/10, ML3.3/3, MS3.4/26, Error ellipse: s-maj=46.3km s-min=20.3km az=177.0*

*NEIC **02** 04:31:43.6±1.8, 56°.2N±0°.1×34°.5W±0°.2, h10^{km}±2^{km}, mb4.3/9, Error ellipse: s-maj=24.5km s-min=16.6km az=171.0*

ISC 02 04:31:43.0±0.8, **56°.2N**±0°.2×**34°.56W**±0°.08, **h10**^{km}, **n47**, σ**1^s.22**/26, **mb4.0**/12, **MS3.4**/22, **Reykjanes Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BORG	**Borgarnes**	**10.78**	**32**	Pn	**Pn**	**04 34 20.2**	**+3.1**
	0.6nm,0.3s,baz=215,slow=17,SNR=4.2						
BORG				LR	LR	04 37 15.7	
	comp=Z,691nm,18.6s,baz=247,slow=31						
	36nm,1.2s						
BORG				AML	AML		
BORG	**Borgarnes**	**10.78**	**32**	Pn	**Pn**	**04 34 17.3**	**+0.1**
SFJD	**Kangerlussuaq**	**13.23**	**332**	LR	LR	04 38 56.7	
	comp=Z,58nm,19.5s,baz=180,slow=33						
ILULI	**Ilulissat**	**15.05**	**337**	Pn	**Pn**	**04 35 13.7**	**-1.6**
ESK	**Eskdalemuir**	**17.60**	**80**	Pn	**Pn**	**04 35 45.9**	**-2.1**
EKA	**Eskdalemuir Ar**	**17.62**	**80**	P	**P**	**04 35 49.6**	**+0.3**
	baz=285,slow=11						
EKA				LR	LR	04 41 21.7	
	comp=Z,179nm,18.4s,baz=235,slow=33						
	2.2nm,0.7s						
SCHQ	**Schefferville**	**18.25**	**279**	P	**Pn**	**04 35 55.2**	**-0.8**
	0.1nm,0.3s,baz=80,slow=5.9,SNR=4.9						
SCHQ				LR	LR	04 41 36.5	
	comp=Z,125nm,19.5s,baz=96,slow=33						
	2.5nm,0.8s						
SCHQ				AML	AML		
SCHQ	**Schefferville**	**18.25**	**279**	P	**Pn**	**04 35 55.7**	**-0.3**
FRB	**Frobisher Bay**	**18.43**	**308**	LR	LR	04 41 27.1	
	comp=Z,71nm,19.9s,baz=300,slow=32						
BATG	**Bathurst New B**	**21.28**	**259**	P	**P**	**04 36 31.5**	**+2.2**
BATG				IAmb	IAmb	04 36 39.3	
	comp=Z,14nm,1.2s						
LMN	**Caledonia Moun**	**21.48**	**254**	P	**P**	**04 36 32.2**	**+0.8**
LMN				IAmb	IAmb	04 37 06.7	
	comp=Z,22nm,1.4s						
HAL	**Halifax**	**21.63**	**250**	P	**P**	**04 36 35.5**	**+2.5**
HAL				IAmb	IAmb	04 36 39.2	
	comp=Z,13nm,1.0s						
F64A	**Sherman**	**23.39**	**258**	P	**P**	**04 36 50.1**	**-1.5**
F64A				IAmb	IAmb	04 37 09.7	
	comp=Z,20nm,1.5s						
NOA	**NORSAR Array B**	**23.93**	**59**	LR	LR	04 44 40.2	
	comp=Z,66nm,20.6s,baz=275,slow=32						
HFS	**Hagfors**	**25.31**	**61**	LR	LR	04 45 20.1	
	comp=Z,72nm,19.1s,baz=276,slow=32						
ESDC	**Sonseca Array**	**26.01**	**116**	LR	LR	04 45 20.6	
	comp=Z,46nm,19.9s,baz=316,slow=32						
CLL	**Collm**	**28.09**	**80**	*e*SS	SS	04 43 48.0	-29
CLL				L	L	04 45 00.0	
CLL				AMS	AMS	04 47 00.0	
	comp=N,100nm,17.6s						
CLL				AMS	AMS	04 47 00.0	
	comp=E,100nm,22.9s						
CLL				AMS	AMS	04 47 00.0	
	comp=Z,100nm,20.4s						
DAVOX	**Davos/Dischmat**	**28.76**	**90**	LR	LR	04 48 53.7	
	comp=Z,161nm,18.2s,baz=266,slow=36						
ARCES	**ARCESS Array B**	**29.06**	**39**	LR	LR	04 46 59.8	
	comp=Z,78nm,19.2s,baz=220,slow=32						
SADO	**Sadowa**	**30.05**	**267**	LR	LR	04 48 55.6	
	comp=Z,118nm,18.6s,baz=70,slow=34						
FINES	**FINESS Array B**	**30.82**	**55**	LR	LR	04 48 18.7	
	comp=Z,58nm,21.3s,baz=286,slow=32						
VRAC	**Vranov**	**31.09**	**81**	LR	LR	04 50 22.8	
	comp=Z,106nm,18.1s,baz=298,slow=36						
ULM	**Lac du Bonnet**	**36.11**	**287**	LR	LR	04 52 04.0	
	comp=Z,52nm,19.8s,baz=59,slow=34						
AKASG	**Malin Array Be**	**37.17**	**71**	P	**P**	**04 38 53.7**	**0.0**
	comp=Z,0.5nm,0.6s,baz=317,slow=8.6,SNR=4.1						
AKASG				LR	LR	04 54 21.8	
	comp=Z,40nm,20.0s,baz=350,slow=36						
	comp=Z,0.5nm,0.6s						
VAE	**Valguarnera**	**37.40**	**99**	LR	LR	04 52 02.1	
	comp=Z,55nm,20.0s,baz=302,slow=33						
MLR	**Muntele Rosu**	**38.47**	**80**	LR	LR	04 54 52.0	
	comp=Z,108nm,19.5s,baz=360,slow=36						
TKL	**Tuckaleechee C**	**38.87**	**259**	LR	LR	04 54 13.1	
	comp=Z,79nm,20.7s,baz=27,slow=35						
I30M	**Mount Dempster**	**45.30**	**325**	P	**P**	**04 40 00.7**	**+0.3**
BRTR	**Keskin Array B**	**46.54**	**81**	P	**P**	**04 40 10.7**	**+0.1**
	comp=Z,0.5nm,0.6s,baz=306,slow=6.7,SNR=3.9						
BRTR				LR	LR	04 59 35.1	
	comp=Z,23nm,19.6s,baz=326,slow=36						
	comp=Z,0.5nm,0.6s						
BRTR	**Keskin Array B**	**46.54**	**81**	P	**P**	**04 40 10.2**	**-0.3**
PDAR	**Pinedale Array**	**48.13**	**287**	P	**P**	**04 40 23.1**	**0.0**
	comp=Z,0.6nm,1.0s,baz=53,slow=6.2,SNR=3.5						
PDAR				LR	LR	04 58 35.8	
	comp=Z,50nm,20.5s,baz=72,slow=34						
	comp=Z,0.6nm,1.0s						
PDAR	**Pinedale Array**	**48.13**	**287**	P	**P**	**04 40 22.7**	**-0.4**
NEW	**Newport**	**48.31**	**297**	LR	LR	04 58 50.8	
	comp=Z,98nm,19.6s,baz=120,slow=34						
KVAR	**Kislovodsk Arr**	**48.51**	**70**	LR	LR	05 02 38.0	
	comp=Z,34nm,19.2s,baz=280,slow=38						
KBZ	**Khabaz**	**48.77**	**70**	LR	LR	05 00 33.0	
	comp=Z,44nm,20.3s,baz=3.5,slow=35						
ILAR	**Eielson Array**	**48.87**	**328**	P	**P**	**04 40 27.5**	**-0.6**
	comp=Z,0.8nm,0.9s,baz=36,slow=6.5,SNR=7.8						
	comp=Z,0.8nm,0.9s						
ILAR	**Eielson Array**	**48.87**	**328**	P	**P**	**04 40 28.3**	**+0.2**
GNI	**Garni**	**52.27**	**72**	LR	LR	05 03 46.7	
	comp=Z,26nm,18.6s,baz=357,slow=37						
BVAR	**Borovoye Array**	**55.01**	**45**	P	**P**	**04 41 15.2**	**+1.2**
	comp=Z,0.8nm,0.5s,baz=306,slow=5.3,SNR=4.2						
	comp=Z,0.8nm,0.5s						
YBH	**Yreka Blue Hor**	**55.73**	**295**	LR	LR	05 03 38.9	
	comp=Z,44nm,18.7s,baz=136,slow=34						
NVAR	**Mina Array Bea**	**55.88**	**289**	LR	LR	05 03 37.0	
	comp=Z,59nm,20.2s,baz=280,slow=34						
KURK	**Kurchatov**	**60.01**	**42**	P	**P**	**04 41 49.6**	**+0.4**
KURK				IAmb	IAmb	04 41 53.9	
	comp=Z,1.1nm,0.7s						
KURBB	**Kurchatov Arra**	**60.05**	**43**	P	**P**	**04 41 49.0**	**-0.6**
	comp=Z,0.5nm,0.4s,baz=323,slow=7.3,SNR=4.4						
	comp=Z,0.5nm,0.4s						
MKAR	**Makanchi Array**	**64.62**	**43**	P	**P**	**04 42 20.3**	**+0.1**
	comp=Z,0.4nm,0.5s,baz=310,slow=5.8,SNR=5.2						
	comp=Z,0.4nm,0.5s						
MKAR	**Makanchi Array**	**64.62**	**43**	P	**P**	**04 42 20.8**	**+0.5**
ASAR	**Alice Springs**	**146.45**	**19**	PKPbc	**PKPbc**	**04 51 23.8**	**-0.2**
	comp=Z,0.6nm,0.8s,baz=334,slow=2.4,SNR=2.1						
ASAR	**Alice Springs**	**146.45**	**19**		**PKPdf**	**04 51 21.9**	**-0.7**

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*SJA **02** 04:36:28.1±1.3, 28°.00S×71°.53W, h20^{km}, ML3.2, MW3.6*

*GUC **02** 04:36:31.3±0.8, 28°.04S×71°.45W, h15^{km}±29^{km}, ML3.0*

ISC 02 04:36:28.2±2.1, **27°.97S**±0°.03×**71°.51W**±0°.07, **h17**^{km}±12^{km}, **n26**, σ**2^s.55**/36, **Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	**Llanos de Chal**	**0.46**	**121**	*e*P	**Pb**	**04 36 38.7**	**+0.9**
AC04	**Llanos de Chal**	**0.46**	**121**	*e*P	**Pb**	**04 36 38.7**	**+0.9**
AC04				*e*S	**Sg**	**04 36 43.4**	**-0.4**
AC04				IAML		04 36 43.9	
	comp=E,4µm,0.1s						
GO03	**Copiapo**	**1.19**	**72**	*e*P	**Pn**	**04 36 51.5**	**+1.3**
GO03				*e*S	**Sg**	**04 37 08.4**	**+1.5**
GO03				IAML		04 37 08.4	
	comp=Z,595nm,0.5s						
GO03	**Copiapo**	**1.19**	**72**	*e*P	**Pn**	**04 36 51.1**	**+0.9**
GO03				IAML		04 37 11.7	
	comp=N,965nm,0.6s						
LCO	**Las Campanas**	**1.26**	**146**	*e*P	**Pb**	**04 36 52.6**	**+0.8**
LCO				IAML		04 37 12.1	
	comp=Z,571nm,0.5s						
LCO	**Las Campanas**	**1.26**	**146**	*e*P	**Pn**	**04 36 52.1**	**+0.8**
AC05	**El Transito**	**1.39**	**129**	*e*P	**Pb**	**04 36 54.4**	**+0.5**
AC05				*e*S	**Sb**	**04 37 12.3**	**+0.8**
AC05	**El Transito**	**1.39**	**129**	*e*P	**Pb**	**04 36 54.2**	**+0.3**
AC05				IAML		04 37 15.6	
	comp=N,222nm,0.7s						
AC01	**Pan de Azucar**	**1.99**	**24**	*e*P	**Pn**	**04 37 02.7**	**+1.7**
AC01				IAML		04 37 39.5	
	comp=Z,82nm,0.3s						
AC01	**Pan de Azucar**	**1.99**	**24**	*e*P	**Pn**	**04 37 02.7**	**+1.7**
AC01				IAML		04 37 38.3	
	comp=N,155nm,0.5s						
GO04	**Tololo Observa**	**2.29**	**164**	*e*P	**Pb**	**04 37 08.1**	**-1.1**
GO04				*e*S	**Sn**	**04 37 33.5**	**+0.2**
GO04				IAML		04 37 43.7	
	comp=Z,186nm,0.6s						
GO04	**Tololo Observa**	**2.29**	**164**	*e*P	**Pn**	**04 37 07.8**	**+2.5**
CO01	**Juntas del Tor**	**2.36**	**148**	*e*P	**Pb**	**04 37 09.8**	**-0.6**
CO01				IAML		04 37 45.8	
	comp=Z,126nm,0.9s						
CO01	**Juntas del Tor**	**2.36**	**148**	*e*P	**Pb**	**04 37 09.8**	**-0.6**
CO01				IAML		04 37 42.9	
	comp=N,122nm,0.6s						
AC02	**Maricunga**	**2.40**	**63**	*e*P	**Pb**	**04 37 11.1**	**-0.1**
AC02				*e*S	**Sn**	**04 37 36.5**	**0.0**
AC02				IAML		04 37 44.4	
	comp=Z,214nm,0.5s						
AC02	**Maricunga**	**2.40**	**63**	*e*P	**Pb**	**04 37 12.5**	**+1.2**
AROD	**Rodeo**	**2.83**	**141**	*e*P	**Pb**	**04 37 18.0**	**-0.5**
AROD				*e*S	**Sn**	**04 37 49.5**	**+2.7**
CO02	**Combarbal**	**3.26**	**172**	*e*P	**Pn**	**04 37 20.9**	**+2.3**
CO02				*e*S	**Sn**	**04 37 54.5**	**-2.5**
CO02				IAML		04 38 18.5	
	comp=Z,132nm,0.5s						
CO02	**Combarbal**	**3.26**	**172**	*e*P	**Pn**	**04 37 19.7**	**+1.1**
TINO	**Tinogasta**	**3.49**	**92**	*e*P	**Pn**	**04 37 26.0**	**+4.2**
TINO				*e*S	**Sg**	**04 38 18.4**	**-2.0**
TINO				IAML		04 38 22.6	
	comp=Z,36nm,0.7s						
ACLC	**CERRO LA CRUZ**	**4.26**	**111**	*e*P	Pn	04 37 37.4	+4.9
ACLC				*e*S	**Sb**	**04 38 28.5**	**-5.6**
ACLC				IAML		04 38 38.3	
	comp=Z,17nm,0.6s						
RTLS	**Leoncito**	**4.28**	**154**	*e*P	**Pn**	**04 37 36.4**	**+3.6**
RTLS				*e*S	**Sn**	**04 38 25.5**	**+3.0**
CFA	**Coronel Fontan**	**4.61**	**143**	*e*P	Pn	04 37 43.0	+5.8
CFA				*e*S	**Sb**	**04 38 39.0**	**-4.9**
CFA				IAML		04 38 54.5	
	comp=Z,15nm,0.6s						
VA01	**Torpederas**	**5.04**	**181**	*e*P	Pn	04 37 33.2	-10
VA01				IAML		04 39 08.6	
	comp=Z,14nm,0.6s						
CYA	**Choya**	**5.06**	**97**	*e*P	**Pn**	**04 37 47.8**	**+4.4**
CYA				*e*S	**Sb**	**04 38 50.5**	**-6.4**
CYA				IAML		04 39 12.3	
	comp=Z,14nm,0.7s						
PB05	**IPOC Station P**	**5.23**	**13**	*e*P	**Pn**	**04 37 47.3**	**+1.5**
PB05				*e*S	**Sn**	**04 38 44.7**	**-1.0**
PB05				IAML		04 39 24.5	
	comp=Z,20nm,2.4s						

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*SJA **02** 04:43:54.1±0.7, 27°.96S×71°.69W, h15^{km}, ML3.6, MW3.6*

*GUC **02** 04:43:59.1±0.8, 28°.05S×71°.38W, h29^{km}±4^{km}, ML3.1*

ISC 02 04:43:53.6±2.0, **28°.00S**±0°.03×**71°.60W**±0°.07, **h1**^{km}±13^{km}, **n27**, σ**1^s.82**/43, **Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	**Llanos de Chal**	**0.51**	**114**	*e*P	**Pb**	**04 44 05.7**	**+0.3**
AC04				*e*P	**Pb**	**04 44 05.7**	**+0.3**
AC04	**Llanos de Chal**	**0.51**	**114**	*e*P	**Pb**	**04 44 05.8**	**+0.3**
AC04				*e*S	**Sb**	**04 44 10.4**	**-2.9**
AC04				IAML		04 44 10.8	
	comp=N,5µm,0.2s						
GO03	**Copiapo**	**1.28**	**72**	*e*P	**Pg**	**04 44 18.9**	**+0.8**
GO03				*e*S	**Sn**	**04 44 38.4**	**+1.9**
GO03				IAML		04 44 40.1	
	comp=Z,580nm,0.6s						
GO03	**Copiapo**	**1.28**	**72**	*e*P	**Pb**	**04 44 18.6**	**+0.1**
GO03				IAML		04 44 38.9	
	comp=E,966nm,0.2s						
AC06	**Mina Casimiro**	**1.28**	**60**	*e*P	**Pb**	**04 44 18.4**	**-0.1**
AC06				IAML		04 44 40.1	
	comp=N,520nm,0.3s						
LCO	**Las Campanas**	**1.28**	**142**	*e*P	**Pb**	**04 44 19.1**	**+0.4**
LCO				*e*S	**Sn**	**04 44 35.6**	**-1.3**
LCO				IAML		04 44 39.0	
	comp=Z,1µm,0.2s						
LCO	**Las Campanas**	**1.28**	**142**	*e*P	**Pb**	**04 44 19.1**	**+0.4**
AC05	**El Transito**	**1.44**	**126**	*e*P	**Pb**	**04 44 21.3**	**0.0**
AC05				*e*S	**Sg**	**04 44 39.1**	**-0.7**
AC05	**El Transito**	**1.44**	**126**	*e*P	**Pb**	**04 44 21.2**	**0.0**
AC01	**Pan de Azucar**	**2.05**	**26**	*e*P	**Pn**	**04 44 30.3**	**+1.1**
AC01	**Pan de Azucar**	**2.05**	**26**	IAML		04 45 06.1	
	comp=N,154nm,0.4s						
GO04	**Tololo Observa**	**2.28**	**162**	*e*P	**Pn**	**04 44 34.9**	**+2.3**
GO04				*e*S	**Sb**	**04 45 05.7**	**+1.2**
GO04				IAML		04 45 11.7	
	comp=Z,522nm,0.3s						
GO04	**Tololo Observa**	**2.28**	**162**	*e*P	**Pn**	**04 44 34.9**	**+2.3**
CO01	**Juntas del Tor**	**2.37**	**147**	*e*P	**Pb**	**04 44 36.6**	**-0.7**
CO01				*e*S	**Sb**	**04 45 06.6**	**-0.6**
CO01				IAML		04 45 08.0	
	comp=Z,279nm,0.3s						
CO01	**Juntas del Tor**	**2.37**	**147**	*e*P	**Pb**	**04 44 36.6**	**-0.7**
CO01				*e*S	**Sb**	**04 45 04.3**	**-2.9**
CO01				IAML		04 45 08.7	
	comp=E,302nm,0.4s						
AC02	**Maricunga**	**2.49**	**63**	*e*P	**Pb**	**04 44 38.5**	**-0.8**
AC02				*e*S	**Sb**	**04 45 11.2**	**+0.5**
AC02				IAML		04 45 12.2	
	comp=Z,308nm,0.9s						
AC02	**Maricunga**	**2.49**	**63**	*e*P	**Pb**	**04 44 39.1**	**-0.3**
CO06	**Fray Jorge**	**2.67**	**181**	*e*P	**Pn**	**04 44 38.7**	**+1.0**
CO06				IAML		04 45 29.0	
	comp=E,133nm,0.2s						
AROD	**Rodeo**	**2.85**	**140**	*e*P	**Pb**	**04 44 44.8**	**-0.7**
AROD				*e*S	**Sg**	**04 45 23.2**	**-2.1**
CO02	**Combarbal**	**3.24**	**171**	*e*P	**Pn**	**04 44 47.7**	**+2.0**
CO02				*e*S	**Sn**	**04 45 26.3**	**+1.4**

CO02				IAML		04 45 39.8	
	comp=Z,305nm,0.9s						
CO02	**Combarbal**	**3.24**	**171**	*i* P	**Pn**	**04 44 47.3**	**+1.6**
ACCO	**Cerro Coronel**	**3.40**	**140**	*e*P	**Pb**	**04 44 53.0**	**-1.9**
ACCO				*e*P	Pn	04 44 53.2	+5.1
ACCO				*e*S	**Sb**	**04 45 35.3**	**-1.6**
ACCO				IAML		04 45 43.3	
	comp=Z,87nm,0.5s						
TINO	**Tinogasta**	**3.57**	**92**	*e*P	**Pn**	**04 44 53.2**	**+3.0**
TINO				*e*S	**Sb**	**04 45 41.3**	**-0.1**
TINO				IAML		04 45 51.2	
	comp=Z,83nm,1.0s						
ACLC	**CERRO LA CRUZ**	**4.33**	**110**	*e*P	**Pn**	**04 45 04.3**	**+3.6**
ACLC				*e*S	**Sb**	**04 45 58.3**	**-5.0**
VA03	**San Esteban**	**4.83**	**169**	*e*P	**Pn**	**04 45 10.8**	**+3.2**
VA03				*e*S	**Sb**	**04 46 17.3**	**-0.6**
MT02	**Curacav**	**5.26**	**176**	*e*P	**Pn**	**04 45 15.3**	**+1.9**
MT02				*e*S	**Sn**	**04 46 14.2**	**-0.5**
PB05	**IPOC Station P**	**5.28**	**14**	*e*P	**Pn**	**04 45 13.8**	**+0.1**
PB05				*e*S	**Sn**	**04 46 12.8**	**-2.5**

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*SJA **02** 04:46:23.1±0.7, 27°.74S×71°.90W, h8^{km}, ML4.0, MW3.7*
*IDC **02** 04:46:26.4±1.1, 27°.66S×71°.65W, h0^{km}, mb4.1/5, mbtmp3.9/9, ML3.8/4, MS4.2/3, Error ellipse: s-maj=26.3km s-min=15.4km az=84.0*
*NEIC **02** 04:46:28.6±1.2, 27°.85S±0°.02×71°.50W±0°.06, h10^{km}±1^{km}, mb4.3/5, Error ellipse: s-maj=8.6km s-min=3.8km az=269.0*
*GUC **02** 04:46:30.2±0.8, 27°.91S×71°.48W, h26^{km}±5^{km}, ML3.5*
ISC 02 04:46:26.8±1.5, **27°.80S**±0°.03×**71°.58W**±0°.05, **h6**^{km}±9^{km}, **n67**, σ**1^{s}.81**/79, **mb4.2**/5, **MS4.3**/3, **4D**, **Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	**Llanos de Chal**	**0.60**	**132**	⇓*i*P	**Pg**	**04 46 39.3**	**+0.9**
AC04				*i* S	**Sg**	**04 46 45.4**	**-0.9**
AC04				IAML		04 46 47.5	
	comp=N,6µm,0.2s						
AC04	**Llanos de Chal**	**0.60**	**132**	Pg	**Pg**	**04 46 39.3**	**+0.9**
AC04					**Sg**	**04 46 45.5**	**-0.8**
AC06	**Mina Casimiro**	**1.17**	**68**	⇓*i*P	**Pg**	**04 46 49.9**	**+0.6**
AC06				*i* S	**Sn**	**04 47 04.8**	**-1.4**
AC06				IAML		04 47 07.6	
	comp=N,2µm,0.4s						
AC06	**Mina Casimiro**	**1.17**	**68**	Pn	**Pg**	**04 46 49.9**	**+0.6**
AC06				Sg	**Sn**	**04 47 04.7**	**-1.4**
GO03	**Copiapo**	**1.21**	**81**	*e*P	**Pg**	**04 46 50.9**	**+0.9**
GO03				*e*S	**Sg**	**04 47 07.2**	**+1.5**
GO03				IAML		04 47 10.1	
	comp=Z,2µm,0.5s						
GO03	**Copiapo**	**1.21**	**81**	⇓*i*P	**Pb**	**04 46 50.3**	**+0.1**
GO03				IAML		04 47 12.7	
	comp=E,3µm,0.7s						
GO03	**Copiapo**	**1.21**	**81**		**Pb**	**04 46 50.2**	**+0.1**
LCO	**Las Campanas**	**1.44**	**148**	*e*P	**Pn**	**04 46 53.8**	**+0.1**
LCO				*e*S	**Sb**	**04 47 13.3**	**+0.4**
LCO				IAML		04 47 19.3	
	comp=Z,2µm,0.3s						
LCO	**Las Campanas**	**1.44**	**148**	⇓*i*P	**Pn**	**04 46 53.1**	**-0.6**
LCO				*i* S	**Sn**	**04 47 09.5**	**-3.6**
LCO	**Las Campanas**	**1.44**	**148**	Pn	**Pn**	**04 46 53.3**	**-0.4**
AC05	**El Transito**	**1.55**	**132**	*e*P	**Pn**	**04 46 54.6**	**-0.6**
AC05				*i* S	**Sn**	**04 47 13.8**	**-1.8**
AC05				IAML		04 47 16.9	
	comp=E,1µm,0.5s						
AC05	**El Transito**	**1.55**	**132**	Pn	**Pn**	**04 46 55.2**	**+0.1**
AC01	**Pan de Azucar**	**1.86**	**28**	*i* P	**Pn**	**04 46 59.7**	**+0.4**
AC01				*i* S	**Sg**	**04 47 29.5**	**+2.8**
AC01				IAML		04 47 35.3	
	comp=E,607nm,0.5s						
AC01	**Pan de Azucar**	**1.86**	**28**	Pn	**Pn**	**04 46 59.4**	**+0.1**
AC02	**Maricunga**	**2.38**	**67**	*e*P	**Pb**	**04 47 09.7**	**-0.8**
AC02				*e*S	**Sn**	**04 47 37.0**	**+0.3**
AC02				IAML		04 47 49.6	
	comp=Z,839nm,0.4s						
AC02	**Maricunga**	**2.38**	**67**	*i* P	**Pb**	**04 47 09.6**	**-0.9**
AC02	**Maricunga**	**2.38**	**67**	Pn	**Pn**	**04 47 08.0**	**+1.1**
GO04	**Tololo Observa**	**2.46**	**164**	*i* P	**Pn**	**04 47 08.3**	**+0.5**
GO04				*i* S	**Sn**	**04 47 38.5**	**+0.1**
GO04	**Tololo Observa**	**2.46**	**164**	Pn	**Pn**	**04 47 08.3**	**+0.5**
CO01	**Juntas del Tor**	**2.53**	**149**	*e*P	**Pn**	**04 47 10.6**	**+1.7**
CO01				*e*S	**Sb**	**04 47 44.4**	**0.0**
CO01				IAML		04 47 46.1	
	comp=Z,546nm,0.4s						
CO01	**Juntas del Tor**	**2.53**	**149**	*i* P	**Pn**	**04 47 10.5**	**+1.7**
CO01				*i* S	**Sn**	**04 47 40.0**	**-0.2**
CO01				IAML		04 47 47.6	
	comp=N,576nm,0.4s						
CO01	**Juntas del Tor**	**2.53**	**149**	Pn	**Pn**	**04 47 10.5**	**+1.7**
CO06	**Fray Jorge**	**2.87**	**181**	*e*P	**Pn**	**04 47 12.2**	**-1.0**
CO06				IAML		04 48 14.3	
	comp=N,173nm,0.4s						
AROD	**Rodeo**	**3.00**	**142**	*e*P	**Pb**	**04 47 18.8**	**-2.0**
AROD				*e*S	**Sb**	**04 47 58.2**	**+0.3**
CO03	**El Pedregal**	**3.13**	**166**	Pn	**Pn**	**04 47 17.1**	**+0.3**
PB14	**IPOC Station P**	**3.33**	**19**	*e*P	**Pn**	**04 47 19.9**	**+0.1**
PB14				*e*S	**Sg**	**04 48 12.5**	**-1.4**
PB14				IAML		04 48 25.6	
	comp=Z,294nm,0.6s						
PB14	**IPOC Station P**	**3.33**	**19**		**Pn**	**04 47 20.0**	**+0.2**
CO02	**Combarbal**	**3.43**	**172**	*i* P	**Pn**	**04 47 20.8**	**-0.2**
CO02	**Combarbal**	**3.43**	**172**	Pn	**Pn**	**04 47 21.0**	**0.0**
TINO	**Tinogasta**	**3.56**	**95**	*e*P	**Pn**	**04 47 25.8**	**+3.0**
TINO				*e*S	**Sb**	**04 48 16.5**	**+2.6**
TINO				IAML		04 48 21.9	
	comp=Z,259nm,0.4s						
CO04	**Los Peladeros**	**4.26**	**173**	Pn	**Pn**	**04 47 32.8**	**+0.2**
ACLC	**CERRO LA CRUZ**	**4.38**	**113**	*e*P	**Pn**	**04 47 33.0**	**-1.1**
ACLC				*e*P	Pb	04 47 37.3	-7.1
ACLC				*e*S	**Sb**	**04 48 33.0**	**-4.6**
ACLC				IAML		04 48 37.7	
	comp=Z,121nm,1.6s						
RTLL	**Cerro Villicun**	**4.44**	**143**	*e*P	**Pn**	**04 47 37.5**	**+2.7**
RTLL				*e*S	**Sn**	**04 48 32.0**	**+5.1**
RTLL				IAML		04 48 46.7	
	comp=Z,121nm,0.4s						
CFA	**Coronel Fontan**	**4.78**	**143**	Pn	**Pn**	**04 47 42.1**	**+2.6**
	comp=Z,6.4nm,0.3s,baz=330,slow=7.0,SNR=8.0						
CFA				Sn	**Sn**	**04 48 41.4**	**+6.1**
	comp=Z,7.4nm,0.3s,baz=160,slow=10,SNR=5.5						
	comp=Z,8.3nm,0.3s						
CFA				AML	AML		
PB05	**IPOC Station P**	**5.08**	**15**	*e*P	**Pn**	**04 47 43.4**	**-0.2**
PB05				IAML		04 49 25.0	
	comp=Z,75nm,1.5s						
CYA	**Choya**	**5.14**	**99**	*e*P	**Pn**	**04 47 47.9**	**+3.5**
CYA				*e*S	**Sb**	**04 48 52.5**	**-6.9**
CYA				IAML		04 48 58.0	
	comp=Z,85nm,0.6s						
PB06	**IPOC Station P**	**5.38**	**20**	*e*P	**Pn**	**04 47 48.1**	**+0.2**
PB06				IAML		04 49 33.6	
	comp=Z,107nm,1.4s						
MT08	**Bocatoma Ro**	**5.79**	**167**	Pn	**Pn**	**04 47 52.6**	**-0.9**
H03N1	**Juan Fernandez**	**8.46**	**227**	T	T	04 57 34.7	
	baz=59,slow=74						
H03N2	**Juan Fernandez**	**8.47**	**227**	T	T	04 57 27.6	
	baz=59,slow=74						
LPAZ	**La Paz**	**11.89**	**16**	Pn	**Pn**	**04 49 16.7**	**-0.9**
	comp=Z,0.4nm,0.3s,baz=192,slow=7.0,SNR=13						
LPAZ				LR	LR	04 53 46.1	
	comp=Z,43nm,21.2s,baz=216,slow=37						
	comp=Z,1.4nm,0.4s						
LPAZ				AML	AML		
LPAZ	**La Paz**	**11.89**	**16**		**Pn**	**04 49 17.4**	**-0.1**
CPUP	**Villa Florida**	**12.79**	**87**	Pn	**Pn**	**04 49 28.6**	**-0.6**
	comp=Z,0.1nm,0.3s,baz=201,slow=20,SNR=1.5						
CPUP				LR	LR	04 54 18.4	
	comp=Z,18nm,18.4s,baz=252,slow=37						
	comp=Z,0.9nm,0.7s						
CPUP				AML	AML		
CPUP	**Villa Florida**	**12.79**	**87**		**Pn**	**04 49 28.1**	**-1.1**
SIV	**San Ignacio**	**15.26**	**42**	Pn	**Pn**	**04 50 00.6**	**-2.4**
	baz=216,slow=8.8,SNR=15						
	comp=Z,0.3nm,0.3s						
BDFB	**Brasilia**	**24.96**	**66**	P	**P**	**04 51 51.0**	**-0.4**
	comp=Z,2.0nm,0.6s,baz=198,slow=5.0,SNR=3.8						
	comp=Z,2.0nm,0.6s						
BDFB	**Brasilia**	**24.96**	**66**	P	**P**	**04 51 50.8**	**-0.6**
BDFB				IAmb	IAmb	04 51 52.6	
	comp=Z,5.3nm,1.0s						
CMIG	**Matias Romero**	**50.01**	**330**	LR	LR	05 12 14.8	
	comp=Z,907nm,21.1s,baz=134,slow=31						
SNAA	**Sanae**	**57.20**	**159**	P	**P**	**04 56 15.1**	**+0.7**
	comp=Z,0.6nm,0.3s,baz=252,slow=16,SNR=1.9						
	comp=Z,0.6nm,0.3s						
SNAA	**Sanae**	**57.20**	**159**	P	**P**	**04 56 14.9**	**+0.5**
QSPA	**South Pole Qui**	**62.42**	**180**	P	**P**	**04 56 51.5**	**+0.9**
	comp=Z,1.8nm,1.1s,baz=207,slow=8.3,SNR=2.6						
	comp=Z,1.8nm,1.1s						
QSPA	**South Pole Qui**	**62.42**	**180**	P	**P**	**04 56 51.2**	**+0.7**
QSPA				IAmb	IAmb	04 57 01.0	
	comp=Z,2.0nm,1.0s						
DBIC	**Dimbokro**	**72.89**	**73**	P	**P**	**04 57 57.9**	**+0.6**
	comp=Z,1.8nm,0.5s,baz=282,slow=10,SNR=1.6						
	comp=Z,1.8nm,0.5s						
DBIC	**Dimbokro**	**72.89**	**73**	P	**P**	**04 57 57.0**	**-0.3**
PDAR	**Pinedale Array**	**78.44**	**332**	LR	LR	05 31 12.5	
	comp=Z,31nm,21.6s,baz=113,slow=34						
TORD	**Torodi Ar. Bea**	**81.75**	**71**	P	**P**	**04 58 47.0**	**+0.1**
	comp=Z,0.7nm,0.5s,baz=271,slow=4.0,SNR=10.0						
	comp=Z,0.7nm,0.5s						
TORD	**Torodi Ar. Bea**	**81.75**	**71**	P	**P**	**04 58 47.1**	**+0.1**
TORD				IAmb	IAmb	04 59 22.7	
	comp=Z,3.1nm,0.7s						
DLBC	**Dease Lake**	**98.67**	**333**	LR	LR	05 44 46.2	
	comp=Z,100nm,19.4s,baz=88,slow=36						
H11S2	**WAKE ISLAND Hy**	**126.03**	**273**	T	T	07 24 43.9	
	baz=112						
H11S1	**WAKE ISLAND Hy**	**126.04**	**273**	T	T	07 24 48.6	
	baz=112						
H11S3	**WAKE ISLAND Hy**	**126.05**	**273**	T	T	07 24 47.7	
	baz=112						
WRA	**Warramunga Arr**	**126.32**	**211**	PKP	**PKiKP**	**05 05 31.6**	**-0.1**
	comp=Z,0.5nm,0.8s,baz=138,slow=2.0,SNR=0.8						
KURBB	**Kurchatov Arra**	**147.87**	**37**	PKPbc	**PKPbc**	**05 06 12.6**	**0.0**
	comp=Z,0.1nm,0.4s,baz=305,slow=3.3,SNR=4.2						
ZALV	**Zalesovo Beam**	**148.65**	**27**	PKPbc	**PKiKP**	**05 06 15.0**	**-1.0**
	comp=Z,2.6nm,0.5s,baz=289,slow=4.4,SNR=8.3						
ZALV	**Zalesovo Beam**	**148.65**	**27**	PKPdf	**PKPdf**	**05 06 11.2**	**+0.4**
MKAR	**Makanchi Array**	**152.07**	**40**	PKPbc	**PKiKP**	**05 06 24.4**	**+1.0**
	comp=Z,0.3nm,0.5s,baz=291,slow=2.3,SNR=4.3						
MKAR	**Makanchi Array**	**152.07**	**40**		**PKiKP**	**05 06 24.2**	**+0.8**

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*SJA **02** 04:49:52.8±0.8, 27°.89S×71°.57W, h10^{km}±3^{km}, ML4.0, MW3.7*
*IDC **02** 04:49:53.3±2.4, 27°.78S×71°.57W, h0^{km}, mb3.7/1, mbtmp3.7/5, ML3.8/4, MS4.4/2, Error ellipse: s-maj=45.8km s-min=17.0km az=76.0*
*NEIC **02** 04:49:55.8±1.9, 27°.94S±0°.03×71°.39W±0°.06, h18^{km}±5^{km}, mb4.4/4, ML3.8(GUC), Error ellipse: s-maj=7.5km s-min=4.9km az=84.0*
*GUC **02** 04:49:57.1±0.7, 28°.00S×71°.33W, h31^{km}±5^{km}, ML3.8*
ISC 02 04:49:53.4±1.7, **27°.90S**±0°.02×**71°.43W**±0°.05, **h8**^{km}±11^{km}, **n64**, σ**2^{s}.13**/80, **3C-4D**, **Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	**Llanos de Chal**	**0.43**	**135**	*e*P	**Pb**	**04 50 03.9**	**+0.6**
AC04	**Llanos de Chal**	**0.43**	**135**	⇓*i*P	**Pb**	**04 50 04.1**	**+0.8**
AC04				*i* S	**Sg**	**04 50 08.6**	**+1.0**
AC04				IAML		04 50 09.0	
	comp=N,26µm,0.1s						
AC04	**Llanos de Chal**	**0.43**	**135**		**Pb**	**04 50 04.0**	**+0.7**
AC04					**Sg**	**04 50 08.3**	**+0.7**
AC06	**Mina Casimiro**	**1.09**	**61**	⇓*i*P	**Pn**	**04 50 15.8**	**+0.8**
AC06				*i* S	**Sn**	**04 50 29.9**	**-0.4**
AC06				IAML		04 50 34.9	
	comp=E,2µm,0.2s						
AC06	**Mina Casimiro**	**1.09**	**61**	Pn	**Pn**	**04 50 15.6**	**+0.6**
GO03	**Copiapo**	**1.10**	**74**	*e*P	**Pn**	**04 50 16.2**	**+1.1**
GO03				*e*S	**Sn**	**04 50 31.7**	**+1.2**
GO03				IAML		04 50 34.7	
	comp=Z,2µm,0.3s						
GO03	**Copiapo**	**1.10**	**74**	⇓*i*P	**Pn**	**04 50 15.8**	**+0.7**
GO03				*i* S	**Sn**	**04 50 29.7**	**-0.8**
GO03				IAML		04 50 35.4	
	comp=N,5µm,0.5s						
GO03	**Copiapo**	**1.10**	**74**		**Pn**	**04 50 16.0**	**+0.9**
LCO	**Las Campanas**	**1.28**	**150**	*e*P	**Pn**	**04 50 18.2**	**+0.4**
LCO				*e*P	**Pb**	**04 50 18.3**	**+0.5**
LCO				*e*S	**Sb**	**04 50 34.5**	**-0.1**
LCO				IAML		04 50 35.8	
	comp=Z,8µm,0.2s						
LCO	**Las Campanas**	**1.28**	**150**	⇑*i*P	**Pn**	**04 50 17.8**	**0.0**
LCO				*i* S	**Sb**	**04 50 33.9**	**-0.7**
LCO				IAML		04 50 38.0	
	comp=Z,21µm,0.4s						
LCO	**Las Campanas**	**1.28**	**150**	Pn	**Pn**	**04 50 18.5**	**+0.7**
AC05	**El Transito**	**1.38**	**133**	*e*P	**Pb**	**04 50 19.8**	**+0.3**
AC05				*e*S	**Sb**	**04 50 35.4**	**-1.9**
AC05				*e*S	**Sn**	**04 50 36.2**	**-1.3**
AC05				*e*S	**Sn**	**04 50 36.3**	**-1.3**
AC05	**El Transito**	**1.38**	**133**	⇓*i*P	**Pn**	**04 50 19.6**	**+0.5**
AC05				*i* S	**Sb**	**04 50 35.1**	**-2.2**
AC05				IAML		04 50 39.8	
	comp=E,2µm,0.1s						
AC05	**El Transito**	**1.38**	**133**	Pn	**Pn**	**04 50 19.5**	**+0.5**
AC01	**Pan de Azucar**	**1.89**	**23**	*e*P	**Pb**	**04 50 28.0**	**-0.2**
AC01				*e*S	**Sb**	**04 50 52.2**	**+0.2**
AC01	**Pan de Azucar**	**1.89**	**23**	⇑*i*P	**Pb**	**04 50 28.1**	**-0.2**
AC01				IAML		04 51 01.6	
	comp=E,530nm,0.3s						
AC01	**Pan de Azucar**	**1.89**	**23**		**Pb**	**04 50 28.0**	**-0.2**
AC02	**Maricunga**	**2.30**	**63**	*e*P	**Pb**	**04 50 36.2**	**+0.8**
AC02				*e*S	**Sg**	**04 51 07.5**	**+0.1**
AC02				IAML		04 51 10.9	
	comp=Z,622nm,0.2s						
AC02	**Maricunga**	**2.30**	**63**	IAML		04 51 11.1	
	comp=E,2µm,0.6s						
AC02	**Maricunga**	**2.30**	**63**		**Pb**	**04 50 35.5**	**+0.1**
GO04	**Tololo Observa**	**2.33**	**167**	*e*P	**Pn**	**04 50 34.0**	**+1.8**
GO04				*e*S	**Sb**	**04 51 06.2**	**+1.4**
GO04				IAML		04 51 08.5	
	comp=Z,1µm,0.6s						
GO04	**Tololo Observa**	**2.33**	**167**	⇑*i*P	**Pn**	**04 50 33.7**	**+1.5**
GO04				*e*S	**Sn**	**04 51 01.5**	**+0.3**
GO04	**Tololo Observa**	**2.33**	**167**	Pn	**Pn**	**04 50 33.6**	**+1.3**
CO01	**Juntas del Tor**	**2.38**	**151**	*e*P	**Pn**	**04 50 35.4**	**+2.5**
CO01				*e*S	**Sb**	**04 51 05.1**	**-1.0**
CO01				IAML		04 51 06.4	
	comp=Z,1µm,0.4s						
CO01	**Juntas del Tor**	**2.38**	**151**	Pn	**Pn**	**04 50 34.8**	**+1.9**
CO06	**Fray Jorge**	**2.77**	**184**	IAML		04 51 33.4	
	comp=E,414nm,0.2s						
CO06	**Fray Jorge**	**2.77**	**184**		**Pn**	**04 50 37.9**	**-0.2**
AROD	**Rodeo**	**2.83**	**143**	*e*P	**Pb**	**04 50 43.7**	**-0.7**
AROD				*e*S	**Sb**	**04 51 20.1**	**+0.7**
VCA	**Vinchina**	**2.96**	**107**	*e*P	**Pn**	**04 50 43.0**	**+2.2**
VCA				*e*S	**Sb**	**04 51 22.2**	**-0.6**
VCA				IAML		04 51 30.1	
	comp=Z,394nm,0.7s						
CO03	**El Pedregal**	**3.00**	**168**	Pn	**Pn**	**04 50 42.6**	**+1.3**
ACDV	**Cuesta del Vie**	**3.03**	**139**	*e*P	Pn	04 50 34.0	-7.8
ACDV				*e*P	**Pb**	**04 50 46.9**	**-0.8**
ACDV				*e*S	**Sb**	**04 51 22.2**	**-2.8**
ACDV				IAML		04 51 27.8	
	comp=Z,197nm,0.4s						
ACDV				*e*S	**Sg**	**04 51 28.0**	**-2.8**
CO02	**Combarbal**	**3.31**	**174**	*e*P	**Pn**	**04 50 46.9**	**+1.2**
CO02				*e*S	**Sn**	**04 51 18.2**	**-7.1**
CO02				IAML		04 51 39.3	
	comp=Z,686nm,0.8s						
CO02	**Combarbal**	**3.31**	**174**	Pn	**Pn**	**04 50 46.3**	**+0.6**
PB14	**IPOC Station P**	**3.39**	**16**	*e*P	**Pn**	**04 50 49.4**	**+2.5**
PB14				*e*S	**Sg**	**04 51 41.2**	**-1.0**
PB14				IAML		04 51 47.9	
	comp=Z,202nm,0.6s						
PB14	**IPOC Station P**	**3.39**	**16**	Pn	**Pn**	**04 50 48.0**	**+1.2**
TINO	**Tinogasta**	**3.41**	**94**	*e*P	**Pb**	**04 50 51.2**	**-2.9**
TINO				*e*S	**Sb**	**04 51 34.7**	**-1.2**
TINO				IAML		04 51 46.7	
	comp=Z,198nm,0.7s						
ACLC	**CERRO LA CRUZ**	**4.21**	**112**	*e*P	**Pn**	**04 51 02.3**	**+4.2**
ACLC				*e*S	**Sb**	**04 51 54.2**	**-4.8**
ACLC				IAML		04 51 59.0	
	comp=Z,92nm,0.6s						
RTLL	**Cerro Villicun**	**4.28**	**144**	*e*P	**Pn**	**04 51 03.4**	**+4.5**
RTLL				*e*S	**Sn**	**04 51 50.7**	**+1.8**
RTLL				IAML		04 52 13.5	
	comp=Z,146nm,0.4s						
RTLS	**Leoncito**	**4.30**	**155**	*e*P	Pn	04 51 04.3	+4.9
RTLS				*e*S	**Sn**	**04 51 55.7**	**+5.7**
RTLS				IAML		04 52 14.7	
	comp=Z,399nm,0.5s						
CFA	**Coronel Fontan**	**4.62**	**144**	Pn	**Pn**	**04 51 07.4**	**+3.9**
	comp=Z,6.8nm,0.3s,baz=324,slow=9.7,SNR=29						
CFA				Sn	**Sn**	**04 52 01.0**	**+3.7**
	comp=Z,7.7nm,0.3s,baz=100,slow=21,SNR=6.6						
	comp=Z,25nm,0.2s						
CFA				AML	AML		
CFA	**Coronel Fontan**	**4.62**	**144**	*e*P	**Pn**	**04 51 07.9**	**+4.4**
CFA				*e*S	**Sb**	**04 52 05.2**	**-5.3**
CFA				IAML		04 52 16.1	
	comp=Z,138nm,0.4s						
H03N1	**Juan Fernandez**	**8.49**	**228**	T	T	05 00 46.3	
	baz=207,slow=74,SNR=124						
H03N2	**Juan Fernandez**	**8.50**	**228**	T	T	05 00 50.6	
	baz=55,slow=74,SNR=92						
LPAZ	**La Paz**	**11.95**	**15**	Pn	**Pn**	**04 52 45.3**	**+0.6**
	comp=Z,0.2nm,0.3s,baz=191,slow=5.4,SNR=6.4						
	comp=Z,0.6nm,0.4s						
LPAZ				AML	AML		
LPAZ	**La Paz**	**11.95**	**15**		**Pn**	**04 52 45.8**	**+1.1**
CPUP	**Villa Florida**	**12.65**	**86**	Pn	**Pn**	**04 52 57.0**	**+3.3**
	comp=Z,0.2nm,0.3s,baz=212,slow=16,SNR=1.8						
	comp=Z,1.5nm,0.7s						
CPUP				AML	AML		
CPUP	**Villa Florida**	**12.65**	**86**		**Pn**	**04 52 53.9**	**+0.2**
SIV	**San Ignacio**	**15.24**	**41**	Pn	**Pn**	**04 53 25.4**	**-3.6**
	baz=217,slow=13,SNR=1.8						
	comp=Z,0.5nm,0.4s						
VAO	**Valinhos**	**22.60**	**83**	P	**P**	**04 54 54.9**	**+0.2**
BOAV	**Boa Vista**	**31.89**	**21**	P	**P**	**04 56 18.0**	**-1.4**
SJG	**San Juan**	**46.02**	**7**	LR	LR	05 19 43.9	
	comp=Z,440nm,19.1s,baz=258,slow=39						
SNAA	**Sanae**	**57.06**	**159**	P	**P**	**04 59 39.4**	**-0.2**
SNAA				IAmb	IAmb	04 59 51.2	
	comp=Z,6.0nm,1.5s						
QSPA	**South Pole Qui**	**62.32**	**180**	P	**P**	**05 00 16.0**	**0.0**
QSPA				IAmb	IAmb	05 00 23.6	
	comp=Z,4.1nm,1.5s						
ANMO	**Albuquerque**	**70.74**	**330**	LR	LR	05 28 06.1	
	comp=Z,211nm,19.5s,baz=120,slow=32						
TORD	**Torodi Ar. Bea**	**81.65**	**70**	P	**P**	**05 02 13.9**	**+1.3**
	comp=Z,0.5nm,0.7s,baz=236,slow=4.7,SNR=2.5						
	comp=Z,0.5nm,0.7s						
TORD	**Torodi Ar. Bea**	**81.65**	**70**	P	**P**	**05 02 11.7**	**-0.8**
H11S2	**WAKE ISLAND Hy**	**126.17**	**273**	T	T	07 28 07.1	
	baz=112,slow=75,SNR=12						
H11S1	**WAKE ISLAND Hy**	**126.18**	**273**	T	T	07 28 06.1	
	baz=112,slow=75,SNR=8.0						
H11S3	**WAKE ISLAND Hy**	**126.19**	**273**	T	T	07 28 07.8	
	baz=112,slow=75,SNR=9.4						
H11N3	**WAKE ISLAND Hy**	**126.43**	**275**	T	T	07 28 24.7	
	baz=112						
H11N1	**WAKE ISLAND Hy**	**126.44**	**275**	T	T	07 28 26.0	
	baz=112						
H11N2	**WAKE ISLAND Hy**	**126.44**	**275**	T	T	07 28 27.1	
	baz=112						
MKAR	**Makanchi Array**	**152.06**	**40**	PKPbc	**PKiKP**	**05 09 50.5**	**+1.0**
	comp=Z,0.4nm,0.7s,baz=315,slow=0.8,SNR=3.3						
MKAR	**Makanchi Array**	**152.06**	**40**		**PKPbc**	**05 09 48.7**	**-0.4**

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*IDC **02** 04:54:08.2±6.2, 64°.76S×179°.35E, h0^{km}, mb3.9/3, mbtmp3.9/3, MS3.9/21, Error ellipse: s-maj=263.7km s-min=29.9km az=64.0*
*GCMT **02** 04:54:11.2±0.4, 65°.20S±0°.04×178°.4E±0°.1, h23^{km}±1^{km}, MW4.9/67, Moment Tensor Solution. s23,c23; s67,c81; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-3.40±.26; M$_{\theta\theta}$1.61±.15; M$_{\phi\phi}$1.79±.17; M$_{r\theta}$-1.66±.23; M$_{\theta\phi}$0.43±.11; M$_{\phi r}$0.62±.29; Best double couple: M$_0$3.11900×10^{16} NP1:φ$_s$220.00000°, δ36.00000°, λ-115.00000°. NP2: φ$_s$71.00000°, δ57.00000°, λ-72.00000°. Principal axes: T 2.2500, Plg11.0000°, Azm148.0000°; N 1.7390, Plg15.0000°, Azm241.0000°; P -3.9890, Plg72.0000°, Azm23.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
*NEIC **02** 04:54:14.2±0.5, 65°.2S±0°.1×176°.0E±0°.4, h10^{km}±1^{km}, mb4.7/13 Error ellipse: s-maj=27.3km s-min=19.3km az=81.0*
ISC 02 04:54:14.1±1.0, **65°.17S**±0°.10×**176°.1E**±0°.3, **h10**^{km}, **n47**, σ**1^{s}.13**/22, **mb4.5**/8, **MS3.9**/21, **Balleny Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SBA	**Scott Base**	**13.06**	**189**	Pn	**Pn**	**04 57 19.3**	**0.0**
MLZ	**Mavora Lakes**	**20.33**	**344**	P	**P**	**04 58 49.9**	**-0.3**
MLZ				IAmb	IAmb	04 59 26.9	
	comp=Z,46nm,1.4s						
MQZ	**McQueen's Vall**	**21.59**	**353**	P	**P**	**04 59 03.2**	**-0.5**
MQZ				IAmb	IAmb	04 59 10.3	
	comp=Z,67nm,1.5s						
RPZ	**Rata Peaks**	**21.68**	**350**	LR	LR	05 05 24.9	
	comp=Z,123nm,21.8s,baz=174,slow=31						
GVZ	**Greta Valley S**	**22.31**	**354**	P	**P**	**04 59 11.0**	**-0.6**
GVZ				IAmb	IAmb	04 59 28.9	
	comp=Z,127nm,1.4s						
SNZO	**South Karori**	**23.91**	**357**	P	**P**	**04 59 27.4**	**-0.4**
BFZ	**Birch Farm**	**24.53**	**0**	P	**P**	**04 59 33.0**	**-0.5**
QSPA	**South Pole Qui**	**24.92**	**180**	P	**P**	**04 59 36.3**	**-0.8**
	comp=Z,6.4nm,1.1s,baz=33,slow=3.2,SNR=7.2						
QSPA				LR	LR	05 07 57.7	
	comp=Z,350nm,20.6s,baz=38,slow=33						
	comp=Z,6.4nm,1.1s						
QSPA	**South Pole Qui**	**24.92**	**180**	P	**P**	**04 59 38.1**	**+1.0**
QSPA				IAmb	IAmb	04 59 39.8	
	comp=Z,14nm,1.2s						
CASY	**Casey**	**25.90**	**238**	P	**P**	**04 59 44.6**	**-1.1**
URZ	**Urewera**	**26.95**	**2**	LR	LR	05 09 04.5	
	comp=Z,296nm,19.4s,baz=161,slow=34						
MXZ	**Matakaoa Point**	**27.67**	**4**	P	**P**	**05 00 02.4**	**+0.5**
BELA	**Belgrano 2**	**35.98**	**169**	P	**P**	**05 01 13.7**	**-0.7**
BELA				IAmb	IAmb	05 01 47.9	
	comp=Z,6.0nm,1.4s						
MAW	**Mawson**	**39.34**	**214**	LR	LR	05 18 13.9	
	comp=Z,367nm,18.7s,baz=121,slow=36						
STKA	**Stephens Creek**	**39.43**	**311**	LR	LR	05 17 12.7	
	comp=Z,151nm,18.8s,baz=205,slow=34						
PMSA	**Palmer Station**	**43.20**	**147**	LR	LR	05 17 24.2	
	comp=Z,77nm,18.9s,baz=216,slow=33						
DZM	**Mont Dzumac**	**43.55**	**347**	LR	LR	05 17 25.4	
	comp=Z,270nm,20.3s,baz=208,slow=32						
RAR	**Rarotonga**	**46.70**	**32**	LR	LR	05 16 45.0	
	comp=Z,91nm,19.8s,baz=262,slow=30						
H01W1	**Cape Leeuwin H**	**47.21**	**279**	T	T	05 55 02.7	
	baz=149,slow=75,SNR=16						
H01W2	**Cape Leeuwin H**	**47.21**	**279**	T	T	05 55 02.9	
	baz=149,slow=75,SNR=20						
H01W3	**Cape Leeuwin H**	**47.23**	**279**	T	T	05 55 03.9	
	baz=149,slow=75,SNR=17						
MSVF	**Nonsavu**	**47.41**	**2**	LR	LR	05 20 21.7	
	comp=Z,88nm,18.0s,baz=170,slow=34						
NWAO	**Narrogin (SRO)**	**47.63**	**283**	LR	LR	05 18 28.4	
	comp=Z,224nm,21.8s,baz=143,slow=30						
CTA	**Charters Tower**	**49.18**	**322**	LR	LR	05 19 58.6	
	comp=Z,67nm,21.1s,baz=197,slow=31						
CTAO	**Charters Tower**	**49.18**	**322**	P	**P**	**05 03 01.4**	**-0.7**
CTAO				IAmb	IAmb	05 03 28.1	
	comp=Z,10nm,0.8s						
ASAR	**Alice Springs**	**49.57**	**306**	P	**P**	**05 03 07.7**	**+2.6**
	comp=Z,0.8nm,0.8s,baz=147,slow=6.5,SNR=4.6						
ASAR				LR	LR	05 22 55.7	
	comp=Z,66nm,19.1s,baz=96,slow=34						
	comp=Z,0.8nm,0.8s						
ASAR	**Alice Springs**	**49.57**	**306**	P	**P**	**05 03 05.0**	**-0.1**
WRA	**Warramunga Arr**	**52.87**	**308**	P	**P**	**05 03 31.7**	**+1.8**
	comp=Z,1.8nm,1.1s,baz=157,slow=7.1,SNR=5.4						
	comp=Z,1.8nm,1.1s						
WRA	**Warramunga Arr**	**52.87**	**308**	P	**P**	**05 03 30.2**	**+0.4**
WB0	**Warramunga Arr**	**53.02**	**308**	P	**P**	**05 03 30.5**	**-0.5**
WB0				IAmb	IAmb	05 03 34.8	
	comp=Z,13nm,1.4s						
HNR	**Honiara**	**56.79**	**341**	LR	LR	05 24 42.3	
	comp=Z,161nm,19.9s,baz=270,slow=32						
FITZ	**Fitzroy Crossi**	**57.62**	**300**	LR	LR	05 24 41.3	
	comp=Z,116nm,20.8s,baz=352,slow=31						
FITZ	**Fitzroy Crossi**	**57.62**	**300**	P	**P**	**05 04 03.3**	**-0.8**
PLCA	**Paso Flores**	**62.47**	**128**	LR	LR	05 24 42.3	
	comp=Z,39nm,20.4s,baz=227,slow=30						
KRVT	**Keravat (AS076**	**63.12**	**333**	LR	LR	05 27 58.0	
	comp=Z,67nm,20.5s,baz=279,slow=32						
H03S2	**Juan Fernandez**	**65.69**	**118**	T	T	06 15 47.1	
	baz=205,slow=74,SNR=24						
H03S1	**Juan Fernandez**	**65.69**	**118**	T	T	06 15 48.3	
	baz=205,slow=74,SNR=25						

H03S3	Juan Fernandez	65.70	118	T	T	06 15 45.6	
	baz=205,slow=74,SNR=16						
SUR	Sutherland	80.88	201	LR	LR	05 38 37.2	
	comp=Z,82nm,21.1s,baz=168,slow=33						
BOSA	Boshof	83.83	205	LR	LR	05 44 25.4	
	comp=Z,56nm,18.2s,baz=206,slow=36						
ATAH	Atahualpa	90.00	107	LR	LR	05 37 57.6	
	comp=Z,135nm,19.7s,baz=218,slow=30						
TSUM	Tsumeb	94.31	200	LR	LR	05 47 59.5	
	comp=Z,83nm,19.1s,baz=196,slow=34						
LSZ	Lusaka	96.20	211	LR	LR	05 47 47.4	
	comp=Z,44nm,20.5s,baz=206,slow=33						
KBZ	Khabaz	146.52	253	PKPbc	PKPdf	05 13 53.5	+0.5
	comp=Z,3.6nm,1.0s,baz=143,slow=4.0,SNR=8.1						
BRTR	Keskin Array B	146.65	239	PKPbc	PKPdf	05 13 54.3	+0.7
	comp=Z,6.1nm,1.2s,baz=158,slow=4.2,SNR=17						
BRTR	Keskin Array B	146.65	239		PKPdf	05 13 52.4	-1.2
CLL	Collm	163.60	220	*e*PKPab	PKPab	05 15 10.0	+2.4

TAP ***02*** *05:00:36.1, 24°.47N×122°.33E, h62^{km}, ML3.8, C*
JMA ***02*** *05:00:36.1±0.2, 24°N±1°×122°.4E±0°.4, h58^{km}±2^{km}, MV3.1/13, TAIWAN REGION*
ISC 02 05:00:36.5±1.2**, 24°.45N**±0°.03×**122°.39E**±0°.02**, h57**^{km}±6^{km}**, n126,** σ1§**13**/216**, 1D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EOS2	EOS2	0.14	259	*i* P	Pn	05 00 45.4	+0.2
EOS2				S	Sn	05 00 52.8	+1.4
EOS3	EOS3	0.17	201	*i* P	Pn	05 00 45.9	+0.6
EOS3				S	Sn	05 00 53.4	+1.8
EOS4	EOS4	0.33	191	*e*P	Pn	05 00 46.5	+0.3
EOS4				S	Sn	05 00 54.2	+1.2
ESAO	Su ao	0.51	285	*e*P	Pn	05 00 47.9	-0.5
ESAO				S	Sn	05 00 56.7	-0.2
JYNG	Yonagunijimaku	0.51	89	P	Pn	05 00 48.4	0.0
JYNG				S	Sn	05 00 56.8	-0.1
EWUT	Wuta	0.55	270	*i* P	Pn	05 00 48.2	-0.6
EWUT				*e*S	Sn	05 00 57.1	-0.7
YOJ	Yonaguni jima	0.57	88	P	Pn	05 00 49.3	+0.2
YOJ	Yonaguni jima	0.57	88	S	Sn	05 00 57.6	-0.5
YOJ	Yonaguni jima	0.57	88	*i* P	Pn	05 00 49.2	+0.2
YOJ				S	Sn	05 00 58.3	+0.2
YOJ	Yonaguni jima	0.57	88	P	Pn	05 00 49.0	-0.1
YOJ				*e*S	Sn	05 00 58.1	0.0
EAHA	Aohua	0.60	259	P	Pn	05 00 49.0	-0.4
EAHA				S	Sn	05 00 59.1	+0.4
EHP	Heping Village	0.60	257	*e*P	Pn	05 00 49.4	0.0
EHP				S	Sn	05 00 59.1	+0.2
NDS	Dongshan	0.64	287	*i* P	Pn	05 00 49.1	-0.7
NDS				*e*S	Sn	05 00 59.1	-0.4
NTC	Toucheng	0.65	309	*e*P	Pn	05 00 49.4	-0.5
NTC				S	Sn	05 00 59.0	-0.7
ILA	Ilan	0.66	299	*e*P	Pn	05 00 49.9	-0.2
ILA				*e*S	Sn	05 00 59.2	-0.8
TWB1	Santiao Chiao	0.67	327	*i* P	Pn	05 00 49.4	-0.8
TWB1				S	Sn	05 00 58.7	-1.4
TWE	Neicheng	0.71	293	*i* P	Pn	05 00 50.2	-0.5
TWE				*i* S	Sn	05 01 00.0	-1.0
TIPB	Shuangxi	0.73	316	*i* P	Pn	05 00 50.2	-0.8
TIPB				S	Sn	05 01 00.4	-1.2
ETL	Fush Village	0.75	248	*e*P	Pn	05 00 50.8	-0.5
ETL				*e*S	Sn	05 01 01.1	-1.0
NACB	Ninganchiao	0.77	249	P	Pn	05 00 50.4	-1.1
NACB	Ninganchiao	0.77	249	S	Sn	05 00 59.9	-2.5
NACB	Ninganchiao	0.77	249	*i* P	Pn	05 00 50.8	-0.7
NACB				S	Sn	05 01 01.6	-0.8
LATG	Datong	0.79	277	*i* P	Pn	05 00 51.7	-0.1
LATG				*i* S	Sn	05 01 03.0	0.0
FUSB	Fushanzhiwuyua	0.79	293	*e*P	Pn	05 00 51.6	-0.2
FUSB				S	Sn	05 01 02.1	-0.9
SXI1	Grass Mountain	0.79	324	P	Pn	05 00 51.2	-0.6
SXI1				S	Sn	05 01 01.6	-1.5
TWD	Chiawan	0.81	243	*i* P	Pn	05 00 51.1	-0.9
TWD				*i* S	Sn	05 01 02.2	-1.0
NDT	Datong Townshi	0.81	281	P	Pn	05 00 52.2	+0.2
NDT				S	Sn	05 01 03.9	+0.6
WFSB	Wu-fen Shan	0.83	319	*i* P	Pn	05 00 51.8	-0.5
WFSB				*i* S	Sn	05 01 02.6	-1.2
HWA	Hwalien	0.85	237	*e*P	Pn	05 00 52.2	-0.3
HWA				*e*S	Sn	05 01 03.9	-0.4
ETLH	Xiulin Townshi	0.86	254	*i* P	Pn	05 00 52.0	-0.7
ETLH				*i* S	Sn	05 01 03.9	-0.7
NWLT	Wulai	0.87	292	P	Pn	05 00 52.7	-0.1
NWLT				*e*S	Sn	05 01 03.6	-1.1
TNOU	National Taiwa	0.89	322	*e*P	Pn	05 00 52.2	-0.8
TNOU				S	Sn	05 01 04.2	-1.1
TWA	Mucha	0.90	306	⇓*i*P	Pn	05 00 52.7	-0.5
TWA				*i* S	Sn	05 01 04.3	-1.2
NNSB	Datong	0.91	269	*e*P	Pn	05 00 53.1	-0.3
NNSB				*e*S	Sn	05 01 05.5	-0.4
TEYL	Yanliau Villag	0.92	231	*e*P	Pn	05 00 51.4	-2.1
TEYL				*e*S	Sn	05 01 05.4	-0.5
NNS	Nan Shan	0.92	270	*i* P	Pn	05 00 53.3	-0.3
NNS				*i* S	Sn	05 01 05.3	-0.8
NHDH	Xindian Distri	0.94	303	*e*P	Pn	05 00 53.5	-0.2
NHDH				*e*S	Sn	05 01 05.7	-0.5
ETM	Tongmen	0.95	240	*e*P	Pn	05 00 52.8	-0.9
ETM				*e*S	Sn	05 01 05.0	-1.5
YHNB	Yeheng	0.95	284	P	Pn	05 00 53.9	+0.1
YHNB	Yeheng	0.95	284	S	Sn	05 01 06.1	-0.5
YHNB	Yeheng	0.95	284	*i* P	Pn	05 00 54.0	+0.2
YHNB				S	Sn	05 01 06.4	-0.1
NSK	Sanguang	0.96	284	*i* P	Pn	05 00 54.1	0.0
NSK				S	Sn	05 01 06.5	-0.4
TATO	Taipei	0.97	303	P	Pn	05 00 53.6	-0.5
TATO	Taipei	0.97	303	S	Sn	05 01 06.7	-0.3
TAP	Taipei	0.99	307	*e*P	Pn	05 00 52.8	-1.6
TAP				*e*S	Sn	05 01 06.7	-0.8
SHUL	Shoufeng	1.00	229	*e*P	Pn	05 00 53.9	-0.6
SHUL				S	Sn	05 01 07.0	-0.7
YM01	YM01	1.02	313	*e*P	Pn	05 00 54.1	-0.6
YM01				*e*S	Sn	05 01 07.0	-1.2
YM08	YM08	1.03	316	*e*P	Pn	05 00 54.0	-1.0
YM08				*i* S	Sn	05 01 07.1	-1.5
ZUZH	Zhuzihu	1.04	313	*i* P	Pn	05 00 54.3	-0.8
ZUZH				*i* S	Sn	05 01 07.4	-1.4
FUSS	Fushou	1.06	259	*e*P	Pn	05 00 55.3	-0.2
FUSS				*e*S	Sn	05 01 09.4	-0.1
TEGC	Jichi Village	1.07	227	*e*S	Sn	05 01 08.2	-1.0
WHF	Hehuan Shan	1.07	254	*i* P	Pn	05 00 55.3	-0.4
WHF				S	Sn	05 01 08.9	-1.0
ESL	Shilin	1.07	234	*e*P	Pn	05 00 54.5	-0.9
ESL				S	Sn	05 01 08.0	-1.5
ANP	Anpu	1.08	313	*e*P	Pn	05 00 54.7	-0.8
TWS1	Kuangyinshan	1.09	307	*i* P	Pn	05 00 55.4	-0.3
TWS1				*i* S	Sn	05 01 08.7	-1.2
NTST	Danshui	1.11	310	*e*S	Sn	05 01 09.7	-0.6
TWT	Tachien	1.12	260	*e*P	Pn	05 00 57.0	+0.7
TWT				S	Sn	05 01 10.5	-0.4
TDCB	Techi	1.14	260	P	Pn	05 00 56.7	+0.3
TDCB				*i* S	Sn	05 01 09.8	-1.3
KSHI	Guanxi Townshi	1.15	287	*e*P	Pn	05 00 57.1	+0.7
KSHI				*i* S	Sn	05 01 12.5	+1.2
WARBT	Fenglin Townsh	1.17	232	*e*P	Pn	05 00 55.8	-0.9
WARBT				*e*S	Sn	05 01 09.7	-2.0
NFF	Wufeng Townshi	1.17	279	*i* P	Pn	05 00 56.7	-0.1
NFF				S	Sn	05 01 11.7	-0.1
OWD	Renai	1.21	246	*e*P	Pn	05 00 56.9	-0.5
OWD				S	Sn	05 01 11.7	-1.2
NCUH	Zhongli	1.21	296	*e*P	Pn	05 00 57.6	+0.3
NCUH				*e*S	Sn	05 01 12.9	+0.3
IRIF	Iriomote-Funau	1.23	95	*e*P	Pn	05 00 57.4	-0.2
IRIF				S	Sn	05 01 13.2	0.0
WUSB	Renai	1.24	249	*e*P	Pn	05 00 57.7	-0.1
WUSB				*e*S	Sn	05 01 13.4	-0.3
LIOB	Emei	1.26	279	*i* P	Pn	05 00 58.6	+0.6
LIOB				*i* S	Sn	05 01 14.4	+0.4
NSTT	Nanjuang	1.27	279	P	Pn	05 00 58.7	+0.6
NSTT				*i* S	Sn	05 01 14.2	0.0
HGSD	Ruisui	1.29	223	*e*P	Pn	05 00 58.0	-0.4
HGSD				*e*S	Sn	05 01 14.1	-0.6
SBCB	Hsinchu	1.32	285	*e*S	Sn	05 01 15.8	+0.5
HSN	Hsinchu	1.34	286	*e*S	Sn	05 01 15.0	-0.8
EHYH	Wanrong	1.34	225	*e*P	Pn	05 00 59.5	+0.4
EHYH				*i* S	Sn	05 01 14.4	-1.5
EHY	Hungye	1.35	226	*e*P	Pn	05 00 58.9	-0.3
EHY				*e*S	Sn	05 01 14.2	-1.9
HATJ	Hateruma jima	1.35	106	*e*P	Pn	05 00 59.3	+0.2
WCS	Beigang Elemen	1.40	254	*e*P	Pn	05 01 00.5	+0.6
ECBN	Changbin	1.41	217	*e*S	Sn	05 01 15.9	-1.7
YULB	Yu-li	1.45	224	P	Pn	05 01 00.5	0.0
YULB	Yu-li	1.45	224	*e*P	Pn	05 01 00.2	-0.3
YULB				S	Sn	05 01 16.4	-2.1
SSLB	Suanglung	1.46	244	P	Pn	05 01 00.7	0.0
SSLB	Suanglung	1.46	244	*e*P	Pn	05 01 00.6	-0.1
SSLB				S	Sn	05 01 17.8	-1.1
EYUL	Yuli	1.47	222	*e*P	Pn	05 01 00.7	-0.1
EYUL				*i* S	Sn	05 01 18.6	-0.3
SMLT	Sun Moon Lake	1.47	248	P	Pn	05 01 01.1	+0.2
SMLT				*i* S	Sn	05 01 18.6	-0.5
TWQ1	Liyutan	1.47	266	P	Pn	05 01 02.8	+1.9
TWQ1				S	Sn	05 01 20.3	+1.3
TWF1	Yuli	1.48	223	*e*P	Pn	05 01 00.1	-0.8
TWF1				*e*S	Sn	05 01 17.2	-1.9
JKRS	Kuro-shima	1.50	98	P	Pn	05 01 01.6	+0.5
JKRS				S	Sn	05 01 20.1	+0.6
CHKH	Chenggong	1.54	216	*e*P	Pn	05 01 00.7	-1.0
CHKH				*e*S	Sn	05 01 18.2	-2.5
TCU	Taichung	1.59	260	S	Sn	05 01 23.2	+1.4
WHYT	Xinyi Township	1.59	242	*e*P	Pn	05 01 03.0	+0.6
WHYT				*i* S	Sn	05 01 21.6	-0.3
WDJ	Dajia District	1.59	267	*e*S	Sn	05 01 22.5	+0.5
FULB	Fuli	1.59	219	*e*P	Pn	05 01 03.3	+0.8
JIJ	Ishigaki jima	1.60	93	P	Pn	05 01 02.2	-0.4
JIJ				S	Sn	05 01 21.6	-0.7
YUS	Yu-Shan	1.62	234	*e*P	Pn	05 01 04.3	+1.1
YUS				*e*S	Sn	05 01 22.2	-1.1
CHKT	Chengkung	1.64	215	P	Pn	05 01 01.7	-1.3
CHKT				*e*S	Sn	05 01 19.5	-3.4
WJS	Zhushan	1.64	248	*e*P	Pn	05 01 04.7	+1.6
WNT	Mingjian	1.65	250	*e*P	Pn	05 01 03.6	+0.3
WNT				*e*S	Sn	05 01 25.4	+2.0
EHD	Haiduan	1.68	220	*e*P	Pn	05 01 03.9	+0.2
WCHH	Zhanghua	1.71	258	*e*S	Sn	05 01 25.9	+1.1
ECS	Chishang	1.72	219	*e*P	Pn	05 01 04.3	+0.1
ECS				*e*S	Sn	05 01 25.1	+0.1
WCH1	Changhua City	1.72	258	*e*S	Sn	05 01 26.6	+1.6
ALS	Alishan	1.72	237	*e*P	Pn	05 01 05.7	+1.2
ALS				*e*S	Sn	05 01 25.9	+0.5
JISG	Ishigakijimahi	1.76	85	P	Pn	05 01 04.6	-0.1
JISG				*e*S	Sn	05 01 25.8	-0.2
EDH	Donghe	1.77	214	*e*P	Pn	05 01 03.6	-1.3
EDH				*e*S	Sn	05 01 23.4	-2.8
ELDTW	Lidau	1.77	225	*e*P	Pn	05 01 05.3	+0.3
ELDTW				*e*S	Sn	05 01 24.2	-2.2
CHN5	Tsauling	1.78	242	*e*P	Pn	05 01 06.5	+1.5
CHN5				*e*S	Sn	05 01 27.5	+1.0
WDLH	Douliu	1.85	246	*e*P	Pn	05 01 08.1	+2.1
WDLH				*i* S	Sn	05 01 29.4	+1.2
WRL	Guolierlin Hig	1.91	254	*e*S	Sn	05 01 29.6	-0.1
LONT	Longtian	1.92	217	*i* P	Pn	05 01 06.5	-0.3
LONT				S	Sn	05 01 27.9	-2.0
RLNB	Erlin	1.93	254	*e*S	Sn	05 01 31.2	+1.0
STYH	Taoyuan	1.95	230	*e*P	Pn	05 01 08.2	+1.0
STYH				S	Sn	05 01 30.7	+0.1
LDUT	Ludao	1.96	206	*e*P	Pn	05 01 05.4	-1.9
LDUT				*i* S	Sn	05 01 27.1	-3.6
TPUB	Ta-pu	1.97	235	P	Pn	05 01 09.4	+1.8
TPUB	Ta-pu	1.97	235	*e*P	Pn	05 01 08.9	+1.3
TPUB				S	Sn	05 01 32.8	+1.6
WTK	Tuku	1.98	248	*e*P	Pn	05 01 09.2	+1.6
WTP	Ta-pu	2.02	234	*e*P	Pn	05 01 09.7	+1.5
WTP				*e*S	Sn	05 01 35.0	+2.6
TWGBT	Beinan	2.02	217	*e*P	Pn	05 01 07.1	-1.1
TWGBT				*e*S	Sn	05 01 29.8	-2.5
TWG	Pinlang	2.02	217	*e*P	Pn	05 01 07.2	-1.1
TWG				*e*S	Sn	05 01 29.3	-3.0
CHY	Chiayi	2.03	243	*e*S	Sn	05 01 34.9	+2.4
TWK	Hsinying	2.10	236	*e*S	Sn	05 01 35.9	+1.5
CHN1	Nanshi	2.12	234	*e*S	Sn	05 01 36.5	+1.8
JTJ	Tarama	2.12	84	P	Pn	05 01 10.2	+0.7
SGST	Jiashian	2.14	231	*e*P	Pn	05 01 10.7	+0.8
SGST				*e*S	Sn	05 01 36.2	+0.9
WSL	Shuilin Townsh	2.18	245	*e*S	Sn	05 01 38.1	+1.9
ICHU	Yijhu	2.21	241	*e*P	Pn	05 01 12.7	+1.8
ICHU				*i* S	Sn	05 01 38.5	+1.5
CHN8	Yiju	2.27	242	*e*S	Sn	05 01 40.3	+1.8
SSD	Sandimen	2.34	224	*e*P	Pn	05 01 14.7	+2.1
SSD				*e*S	Sn	05 01 41.2	+1.1
MASBT	Mashibuluo	2.43	222	*e*P	Pn	05 01 16.0	+2.1
MASBT				*i* S	Sn	05 01 43.9	+1.4
JIRJ	Irabujima	2.58	81	*e*P	Pn	05 01 16.6	+0.6

IDC ***02*** *05:04:17.2±0.6, 11°.42N×86°.59W, h0^{km}, mb4.4/13, mbtmp4.4/15, ML3.4/3, MS4.0/28, Error ellipse: s-maj=24.9km s-min=9.8km az=44.0*
CATAC ***02*** *05:04:20.2±0.3, 11°N±1°×87°.0W±0°.8, h11^{km}±1^{km}, M4.8/73, mb5.0/5, mB5.3/2, MLv4.7/73, Mw(mB)4.7/2, Error ellipse: s-maj=2.3km s-min=1.5km az=25.1, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}7.74; $M_{\theta\theta}$-2.69; $M_{\phi\phi}$-5.04; $M_{r\theta}$1.51; $M_{\theta\phi}$2.09; $M_{\phi r}$4.40; Fault plane solution: $M_0$8.49957×10^{15} NP1:ϕ_s138.61788°, δ34.18279°, λ62.11862°. NP2:ϕ_s351.21830°, δ60.22364°, λ107.62007°. Principal axes: T 9.4571, Plg69.4089°, Azm298.7069°; N -2.4558, Plg15.2326°, Azm162.2550°; P -7.0013, Plg13.5205°, Azm68.5008°; confirmed*
GCMT ***02*** *05:04:21.8±0.5, 10°.92N±0°.03×87°.27W±0°.03, h17^{km}±1^{km}, MW4.9/68, Moment Tensor Solution. s20,c22; s68,c90; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}1.64±.15; $M_{\theta\theta}$-0.59±.08; $M_{\phi\phi}$-1.05±.10; $M_{r\theta}$0.81±.20; $M_{\theta\phi}$0.56±.05; $M_{\phi r}$-1.94±.30; Best double couple: $M_0$2.60100×10^{16} NP1:ϕ_s321.00000°, δ18.00000°, λ77.00000°. NP2: ϕ_s155.00000°, δ72.00000°, λ94.00000°. Principal axes: T 2.7230, Plg63.0000°, Azm72.0000°; N -0.2420, Plg4.0000°, Azm333.0000°; P -2.4800, Plg27.0000°, Azm241.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
NEIC ***02*** *05:04:21.8±2.3, 11°.15N±0°.06×86°.90W±0°.06, h23^{km}±4^{km}, mb4.8/445 Error ellipse: s-maj=10.7km s-min=7.0km az=46.0*
PTWC ***02*** *05:04:22, 11°.20N×86°.90W, h21^{km}, Mwp4.7/4*
RSNC ***02*** *05:04:22.9±1.2, 11°N±3°×8°7W±°, h18^{km}±9^{km}, M4.7, mB5.2, mb4.7, ML3.9, Mw(mB)4.6*
GFZ ***02*** *05:04:25.5±0.5, 11°N±5°×8°7W±°, h59^{km}±4^{km}, M4.7/19, mb4.8/19*
ISC 02 05:04:18.7±1.1**, 11°.06N**±0°.02×**86°.97W**±0°.03**, h12**^{km}±6^{km}**, n507,** σ1§**62**/384**, mb4.8**/200**, MS4.1**/27**, 1D, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NADN	Granada	1.15	53	P	Pn	05 04 41.7	+1.1
NADN				S	Sn	05 04 56.6	+0.5
COPN	Copaltepe	1.17	18	P	Pg	05 04 41.8	+0.5
SABN	Sabanita	1.19	41	P	Pb	05 04 41.0	-0.2
NANN	Nandasmo	1.21	43	P	Pg	05 04 42.3	+0.4
NANN				S	Sn	05 04 58.5	+0.8
MASN	Masaya	1.22	41	P	Pg	05 04 42.6	+0.3
MASN				S	Sn	05 04 59.4	+1.3
MAS3	Al N del Volca	1.23	39	P	Pg	05 04 42.5	0.0
MAS3				S	Sn	05 04 59.7	+1.2
SAPS	Ciudad Sandino	1.23	27	P	Pg	05 04 42.7	+0.2
SAPS				S	Sn	05 05 00.2	+1.8
ABCN	Banco Central	1.24	31	P	Pg	05 04 42.9	+0.3
ABCN				S	Sn	05 04 59.5	+1.1
TISN	Laguna Tiscapa	1.27	32	P	Pg	05 04 43.0	-0.3
AMTN	Mateare	1.28	24	P	Pg	05 04 43.4	0.0
AMTN				S	Sg	05 05 00.6	+0.5
ALLN	Telcor Managua	1.28	32	P	Pg	05 04 43.4	-0.1
ALLN				S	Sn	05 04 59.7	+0.1
MGAN	Managua	1.29	33		Pg	05 04 43.2	-0.4
MGAN	Managua	1.29	33	P	Pg	05 04 43.2	-0.4
MGAN				S	Sg	05 05 01.5	+1.1
MGAN	Managua	1.29	33	P	Pg	05 04 43.1	-0.4
MGAN				S	Sg	05 05 00.3	-0.1
MGAN	Managua	1.29	33	P	Pg	05 04 43.3	-0.4
APQ2	Apoyeque	1.29	29	P	Pg	05 04 43.3	-0.4
APQ2				S	Sb	05 04 59.7	+0.1
APYN	Apoyeque	1.31	27	P	Pg	05 04 43.7	-0.4
APYN				S	Sg	05 05 01.4	+0.2
AERN	Aeropuerto Man	1.33	36	P	Pg	05 04 44.1	-0.3
AERN				S	Sg	05 05 02.3	+0.5
WILN	Americas 2	1.33	35	P	Pg	05 04 44.3	-0.1
WILN				S	Sg	05 05 03.1	+1.3
JAPN	Al SSO del Vol	1.35	70	P	Pg	05 04 45.2	+0.6
JAPN				S	Sg	05 05 02.6	+0.3
LEVN	Ruinas Leon Vi	1.38	14	P	Pg	05 04 44.7	-0.5
LEVN				S	Sg	05 05 03.6	+0.4
MORN	Al O del Volca	1.38	69	P	Pb	05 04 44.7	+0.2
MORN				S	Sg	05 05 03.6	+0.3
OMEN	Al SSO del Vol	1.39	71	P	Pb	05 04 44.7	+0.1
MOMN	Momotombo	1.40	17	P	Pn	05 04 44.4	+0.2
MOMN				S	Sb	05 05 03.2	+0.4
CARN	Rivas	1.43	85		Pb	05 04 45.2	-0.1
CARN	Rivas	1.43	85	P	Pb	05 04 45.1	-0.1
CARN				S	Sg	05 05 04.8	+0.1
MOM2	El Cardon	1.45	19	P	Pb	05 04 45.5	-0.2
MOM2				S	Sg	05 05 05.2	-0.3
CNGN	Cerro Negro	1.46	10	P	Pb	05 04 45.6	-0.2
CNGN				S	Sg	05 05 05.5	-0.2
TEL3	Telica 3	1.51	5	P	Pn	05 04 46.0	+0.4
PLRN	Geotermica Pol	1.53	7	P	Pb	05 04 46.5	-0.5
PLRN				S	Sb	05 05 06.4	0.0
ILCN	San Idelfonso	1.53	10	P	Pn	05 04 46.3	+0.4
ILCN				S	Sn	05 05 06.0	+0.2
CRIN	San Cristobal	1.63	357		Pn	05 04 47.7	+0.3
CRIN	San Cristobal	1.63	357	P	Pn	05 04 48.0	+0.6
CRIN	San Cristobal	1.63	357	P	Pn	05 04 47.9	+0.6
CRIN				S	Sb	05 05 08.9	-0.5
CRIN	San Cristobal	1.63	357	P	Pb	05 04 48.4	-0.5
CRIN				S	Sn	05 05 08.7	+0.4
CRIN	San Cristobal	1.63	357	P	Pn	05 04 47.9	+0.5
JUD3	Juan Diaz 3	1.66	122		Pn	05 04 47.6	-0.2
CMARA	Lajas Hojancha	1.84	124	P	Pb	05 04 52.3	0.0
CMARA				S	Sb	05 05 16.1	+0.7
AESN	El Sauce Leon	1.86	13	P	Pn	05 04 50.9	+0.4
AESN				S	Sb	05 05 15.4	-0.6
BOAB	BOACO BROADBAN	1.88	43		Pn	05 04 50.8	+0.2
BOAB	BOACO BROADBAN	1.88	43	P	Pn	05 04 50.9	+0.2
BOAB	BOACO BROADBAN	1.88	43	P	Pn	05 04 50.5	-0.2
BOAB				S	Sb	05 05 17.1	+0.7
BOAB	BOACO BROADBAN	1.88	43	P	Pn	05 04 51.0	+0.4
UPAL	Upala	1.93	95	P	Pn	05 04 52.3	+1.0
UPAL				S	Sb	05 05 18.0	+0.2
ACON	Acoyapa	1.98	63	P	Pn	05 04 52.8	+0.8
ACON				S	Sb	05 05 19.5	+0.2
CSGN	Cosiguina Volc	1.99	343	P	Pn	05 04 52.7	+0.4
CSGN				S	Sb	05 05 19.0	-0.8
MATN	Matagalpa	2.12	29	P	Pn	05 04 54.7	+0.6
MATN				S	Sb	05 05 22.1	-1.4
JTS	Las Juntas de	2.12	111	Pn	Pn	05 04 53.3	-0.8
	16nm,0.3s,baz=320,slow=19,SNR=29						
JTS				Sn	Sn	05 05 15.3	-5.1
	47nm,0.3s,baz=132,slow=18,SNR=6.8						
JTS	Las Juntas de	2.12	111		Pn	05 04 55.1	+1.0
JTS	Las Juntas de	2.12	111	P	Pn	05 04 55.1	+1.0
JTS	Las Juntas de	2.12	111	P	Pn	05 04 54.8	+0.7
JTS				S	Sb	05 05 23.6	+0.1
JTS	Las Juntas de	2.12	111	P	Pn	05 04 55.6	+1.5
JTS				S	Sb	05 05 24.1	+0.5
JTS	Las Juntas de	2.12	111	P	Pb	05 04 55.9	-1.3
LCND	La Caada	2.41	338	P	Pn	05 04 58.4	+0.4
RCFN	Al S de San Ju	2.56	17	P	Pn	05 05 01.4	+1.1
RCFN				S	Sn	05 05 33.1	+1.6
RCPN	Sur Rio San Ju	2.59	19	P	Pn	05 05 02.2	+1.5
QUEU	Ciudad Quesada	2.60	106	*e*P	Pb	05 05 06.0	+0.7
OCON	Estacion meteo	2.60	11	P	Pn	05 05 02.2	+1.5
RCVN	Varillal2	2.62	17	P	Pn	05 05 02.3	+1.3
RCVN				S	Sn	05 05 33.9	+1.1
OROT	Orotina	2.66	115	*e*P	Pb	05 05 06.0	-0.3
ZARE	Zarcero	2.68	109	*e*P	Pb	05 05 08.3	+1.5
VPL1	V. Platanar	2.68	107	*e*P	Pg	05 05 09.3	-0.9
PALD	Palmares	2.68	112	*e*P	Pg	05 05 08.6	-1.7
RANC	El Ranchito	2.69	331	P	Pn	05 05 02.7	+0.7
RANC				S	Sn	05 05 36.0	+1.5
TRB2	Turrubares	2.73	114	*e*P	Pn	05 05 04.8	+2.4
PACA	Pacayal	2.74	331	P	Pn	05 05 03.1	+0.5
PACA				S	Sn	05 05 36.9	+1.3
ALJI	Alcalda de J	2.74	325	P	Pn	05 05 02.9	+0.4
ATEO	Atenas	2.76	113	*e*P	Pb	05 05 06.6	-1.5
TCS1	Tacares	2.81	111	P	Pn	05 05 06.1	+2.5
POAS	San Pedro de P	2.85	110	*e*P	Pn	05 05 06.3	+2.1
SANTA	Santa Ana	2.96	112	*e*P	Pn	05 05 08.6	+3.0
VBV1	V. Barva	2.97	108	*e*P	Pb	05 05 10.5	-1.4
HEME	Heredia, Merce	2.98	111	*e*P	Pb	05 05 10.7	-1.2
PQSS	Presa 15 de Se	2.98	329	P	Pn	05 05 07.1	+1.2
TGUH	Tegucigalpa,Un	2.99	354		Pn	05 05 07.2	+1.1
TGUH	Tegucigalpa,Un	2.99	354	P	Pn	05 05 07.2	+1.1
TGUH	Tegucigalpa,Un	2.99	354	P	Pn	05 05 07.3	+1.1
TGUH				S	Sn	05 05 42.3	+0.3
TGUH	Tegucigalpa,Un	2.99	354	P	Pn	05 05 07.5	+1.4
TGUH				S	Sn	05 05 43.4	+1.4
TGUH	Tegucigalpa,Un	2.99	354	P	Pn	05 05 07.3	+1.1
HDC	Heredia	3.00	110		Pb	05 05 09.4	-2.8
HDC	Heredia	3.00	110	P	Pb	05 05 10.3	-1.9
HDC	Heredia	3.00	110	*e*P	Pb	05 05 10.3	-1.9
HDC	Heredia	3.00	110	*e*P	Pn	05 05 08.8	+2.6
HDC	Heredia	3.00	110	P	Pb	05 05 10.3	-1.9
ACOS	Acosta	3.03	114	*e*P	Pn	05 05 09.4	+2.7
TECO	Alcaldia de Te	3.03	324	P	Pn	05 05 07.0	+0.4
TECO				S	Sn	05 05 43.1	+0.2
MEXI	Barrio Mexico	3.04	111	*e*P	Pb	05 05 10.8	-2.2
LUJA	Lujan	3.06	111	*e*P	Pn	05 05 10.2	+3.1
LUPE	Guadalupe	3.07	111	*e*P	Pb	05 05 10.5	-3.0
SJS	Escuela Geolog	3.08	111	*e*P	Pb	05 05 10.7	-2.8
SJS3	Mercedes San J	3.08	111	*e*P	Pb	05 05 10.7	-2.8
PICV	PH. Pirrs	3.08	117	*e*P	Pn	05 05 09.6	+2.4
AMPA	Desamparados	3.08	112	*e*P	Pn	05 05 09.4	+2.0
CORON	Coronado	3.11	110	*e*P	Pb	05 05 11.8	-2.4
SCLA	Alcaldia de Sa	3.14	327	P	Pn	05 05 09.1	+1.0
SCLA				S	Sn	05 05 45.9	+0.4
TRIO	Tres Rios	3.14	111	*e*P	Pn	05 05 11.2	+2.9
COEG	Centro de Oper	3.16	324	P	Pn	05 05 08.7	+0.4
COEG				S	Sn	05 05 47.8	+1.8
ABE2	San Pablo	3.17	115	*e*P	Pn	05 05 11.0	+2.3
LCR2	La Lucha 2	3.20	114		Pn	05 05 11.3	+2.3
LCR2	La Lucha 2	3.20	114	P	Pn	05 05 11.7	+2.7
LCR2	La Lucha 2	3.20	114	*e*P	Pn	05 05 11.3	+2.3
SVQ2	Quepos	3.20	120	*e*P	Pb	05 05 13.0	-2.5
QUEP	Quepos	3.20	120	P	Pn	05 05 11.0	+2.1
PITB	Pirrs, San	3.21	115	*e*P	Pn	05 05 11.3	+2.1
RAZU	San Marcos de	3.21	115	*e*P	Pn	05 05 11.5	+2.3
TAGO	Cartago	3.22	111	*e*P	Pb	05 05 12.8	-3.2
PILE	Guapiles	3.24	105	*e*P	Pb	05 05 14.3	-1.8
VICA	Volcano Irazu	3.25	109	*e*P	Pn	05 05 12.6	+2.6
PAVA	Las Pavas	3.26	324	P	Pn	05 05 11.2	+1.4
PAVA				S	Sn	05 05 51.2	+2.5
BLUN	Bluefields	3.27	73	P	Pn	05 05 10.9	+1.1
BLUN	Bluefields	3.27	73	P	Pn	05 05 10.7	+0.9
BLUN				S	Sn	05 05 52.2	+3.5
REPA	Paraso	3.29	112	*e*P	Pn	05 05 13.4	+3.2
PIEC	Cerro El Cedra	3.29	115	*e*P	Pn	05 05 12.5	+2.1
RAFA	San Farael, Vo	3.29	109		Pn	05 05 13.3	+2.9
RAFA	San Farael, Vo	3.29	109	*e*P	Pb	05 05 14.3	-3.0
PCAYA	Pacayas	3.31	110	*e*P	Pn	05 05 14.0	+3.4
CVTQ	Turrialba Volc	3.32	108	*e*P	Pb	05 05 14.8	-3.0
CVTR	Volcan Turrial	3.32	108	*e*P	Pb	05 05 14.8	-3.0
VTR0	Volcan Turrial	3.32	108	*e*P	Pn	05 05 14.3	+3.4
LALI	Alcalda de L	3.33	317	P	Pn	05 05 13.6	+2.9
LALI				S	Sn	05 05 52.3	+2.1
LOMA	Loma Larga	3.35	320	P	Pn	05 05 11.2	+0.1
LOMA				S	Sn	05 05 52.4	+1.6
VTCV	VTCV, Calle Va	3.36	108	*e*P	Pb	05 05 15.2	-3.3
ABRB	Las Abras (San	3.36	108	*e*P	Pb	05 05 15.2	-3.3
VINA	Juan Vinas	3.37	110	*e*P	Pn	05 05 14.6	+3.2
P5NO	Presa 5 de nov	3.39	329	P	Pn	05 05 12.0	+0.5
P5NO				S	Sn	05 05 53.1	+1.4
SIUN	Universidad Ur	3.40	39		Pn	05 05 13.5	+1.8
SIUN	Universidad Ur	3.40	39	P	Pn	05 05 13.2	+1.5
SIUN				S	Sn	05 05 54.3	+2.3
VERB	Verbena	3.41	109	*e*P	Pb	05 05 15.9	-3.3
UEES	Universidad Ev	3.45	320	P	Pn	05 05 13.6	+1.2
UEES				S	Sn	05 05 55.7	+2.5
LCOCO	El Coco	3.49	106	*e*P	Pb	05 05 18.9	-1.6
PMON	Piamonte	3.49	319	P	Pn	05 05 13.8	+0.8
PMON				S	Sn	05 05 56.4	+2.0
JAYA	Jayaque - finc	3.54	317	P	Pn	05 05 14.6	+1.0
JAYA				S	Sn	05 05 56.4	+0.8
CEDA	San Andres	3.61	319	P	Pn	05 05 15.8	+1.2
CEDA				S	Sn	05 05 59.4	+2.2
LLGN	La Laguna	3.64	328	P	Pn	05 05 16.1	+1.1

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LLGN                                 S     Sn    05 05 58.9 +1.0
ZEDO   Perez Zeledon    3.65 117 eP    Pn    05 05 18.9 +3.8
CEVE   Cerro Verde      3.78 317 P     Pn    05 05 17.8 +0.7
CEVE                             S     Sn    05 06 04.4 +2.7
SAJE   San Jernim       3.81 116 eP    Pn    05 05 20.0 +2.6
EDPE   Pejibaye, P      3.84 119 eP    Pn    05 05 20.0 +2.2
UNIC   Universidad Ca   3.84 319 P     Pn    05 05 17.9 +0.1
UNIC                             S     Sn    05 06 03.2 +0.2
NUBE   Las Nubes        3.94 316 P     Pn    05 05 19.9 +0.7
NUBE                             S     Sn    05 06 07.5 +2.0
SLOZ   Alcaldia de Sa   4.03 317 P     Pn    05 05 21.8 +1.5
BURE   Buenos Aires     4.04 117 eP    Pn    05 05 23.1 +2.7
PANP   Palmar Norte     4.04 121 eP    Pn    05 05 22.8 +2.4
MTO3   Montecristo      4.06 325       Pn    05 05 21.3 +0.5
MTO3   Montecristo      4.06 325 P     Pn    05 05 21.8 +0.9
MTO3   Montecristo      4.06 325 P     Pn    05 05 22.2 +1.4
MTO3                             S     Sn    05 06 09.9 +1.5
FAME   Alcaldia de Sa   4.06 313 P     Pn    05 05 21.2 +0.4
FAME                             S     Sn    05 06 09.5 +1.2
SARH   Santa Rosa de    4.08 335 P     Pn    05 05 23.0 +1.9
ESQI   Esquipulas       4.18 327       Pn    05 05 23.8 +1.4
ESQI   Esquipulas       4.18 327 P     Pn    05 05 24.5 +2.0
PIRO   Carate, Puerto   4.45 126       Pn    05 05 28.3 +2.3
PIRO   Carate, Puerto   4.45 126 P     Pn    05 05 28.1 +2.1
BILN   Bilwi Airport    4.60  49 Pn    Pn    05 05 29.1 +1.0
NELY   Ciudad Neily     4.63 121 eP    Pn    05 05 30.9 +2.3
CDITO  Canoas           4.73 121 P     Pn    05 05 33.5 +3.6
CDITO                            S     Sn    05 06 27.3 +2.5
BRU2   Volcan           4.78 118       Pn    05 05 31.8 +1.1
BRU2   Volcan           4.78 118 P     Pn    05 05 33.5 +2.8
BRU2   Volcan           4.78 118 P     Pn    05 05 33.1 +2.4
BRU2                             S     Sn    05 06 30.0 +3.8
BRU2   Volcan           4.78 118 eP    Pn    05 05 33.0 +2.3
BRU2   Volcan           4.78 118 P     Pn    05 05 33.5 +2.8
CLLRA  Cordillera,      4.87 118 eP    Pn    05 05 33.9 +2.0
BQTLY  Boquete Panama   5.00 117 eP    Pn    05 05 35.6 +1.9
APG    El Apazote       5.19 319 Pn    Pn    05 05 38.3 +1.8
       0.2nm,0.3s,baz=170,slow=11,SNR=14
APG                              AML   AML
RBALA  Bur              5.21 114 eP    Pn    05 05 38.8 +2.2
RTAL   Retalhuleu       5.75 307       Pn    05 05 46.4 +2.4
RTAL   Retalhuleu       5.75 307 P     Pn    05 05 44.9 +0.9
PRVC   Isla de Provid   5.94  67 P     Pn    05 05 47.5 +0.9
PRVC   Isla de Provid   5.94  67 P     Pn    05 05 48.3 +1.7
       2µm97nm,1.5s
PRVC                             AML   AML
HUEH   Huehuetenango    6.12 314       Pn    05 05 50.9 +1.7
HUEH   Huehuetenango    6.12 314 P     Pn    05 05 49.8 +0.6
PATR   El Naranjo       6.52 309 P     Pn    05 05 56.8 +2.0
PNME   Penonome         7.03 111 P     Pb    05 06 15.0 -5.8
TGIG                    8.24 314 P     Pn    05 06 20.6 +2.3
TEIG   Tepich           9.20 352       Pn    05 06 31.1 -0.2
TEIG   Tepich           9.20 352 P     Pn    05 06 35.7 +4.4
       comp=Z,39nm,1.0s
CMIG   Matias Romero    9.74 309 Pn    Pn    05 06 40.9 +2.2
       comp=Z,2.3nm,0.3s,baz=117,slow=9.8,SNR=58
       comp=Z,30nm,0.8s
CMIG                             AML   AML
SOR    Soroa           12.26  17 P     Pn    05 07 19.1 +5.8
       comp=Z,50nm,1.1s
TLIG   Tlapa           12.96 301       Pn    05 07 25.6 +2.6
POPC   Popayan, Colom  13.26 129 P     P     05 07 33.2 -3.9
       comp=Z,13nm,1.3s
OTAV   Otavalo         13.68 141 eP    P     05 07 39.5 -2.5
ROSC   El Rosal        13.96 115 Pn    P     05 07 44.2 -0.8
       comp=Z,0.8nm,0.3s,baz=124,slow=5.4,SNR=16
ROSC                             LR    LR    05 12 46.0
       comp=Z,310nm,21.8s,baz=260,slow=37
ROSC   El Rosal        13.96 115       Pn    05 07 37.6 +0.7
UNM    Universidad Na  14.36 306       Pn    05 07 45.3 +3.0
UNM    Universidad Na  14.36 306 P     P     05 07 46.6 -2.7
       comp=Z,200nm,0.9s
SLOR   San Lorenzo -   14.43 144 Pn    Pn    05 07 46.4 +3.1
PAMC   Pamplona, Colo  14.56 103 P     P     05 07 49.8 -2.0
       comp=Z,19nm,0.9s
MACC   Macarena, Meta  15.75 123 P     P     05 08 08.0 +3.5
       comp=Z,43nm,0.9s
MOIG   Morelia         16.16 304       P     05 08 09.1 -0.2
MOIG                             IAmb  IAmb  05 08 11.6
       comp=Z,89nm,0.8s
SDV    Santo Domingo   16.23  96 Pn    Pn    05 08 04.5 -2.5
       comp=Z,1.8nm,0.3s,baz=267,slow=5.4,SNR=17
SDV                              LR    LR    05 15 38.3
       comp=Z,384nm,18.7s,baz=272,slow=43
       comp=Z,3.2nm,0.3s
SDV                              AML   AML
SDV    Santo Domingo   16.23  96 Pn    Pn    05 08 07.6 +0.6
SDV    Santo Domingo   16.23  96 P     P     05 08 11.8 +1.7
SDV    Santo Domingo   16.23  96 P     P     05 08 11.3 +1.2
       comp=Z,223nm,1.2s
656A   Willston        18.68  12 P     Pn    05 08 37.5 +0.4
ZAIG   Zacatecas       18.91 310       Pn    05 08 40.6 +0.3
ZAIG   Zacatecas       18.91 310 P     Pn    05 08 43.4 +3.1
       comp=Z,17nm,1.0s
553A   Crawfordville   19.18   7 P     Pn    05 08 43.0 -0.2
553A                             IAmb  IAmb  05 08 50.9
       comp=Z,95nm,0.9s
HBVL   Hebbronville    19.36 327 P     Pn    05 08 45.7 +0.3
HBVL                             IAmb  IAmb  05 08 46.7
       comp=Z,89nm,0.9s
ATAH   Atahualpa       19.99 154 LR    LR    05 15 41.0
       comp=Z,522nm,20.0s,baz=335,slow=34
BRAL   Brewton         20.01 360 P     Pn    05 08 52.4 -0.7
456A   Hilliard        20.10  12 P     P     05 08 53.0 +0.7
456A                             IAmb  IAmb  05 09 04.5
       comp=Z,48nm,1.0s
352A   Blakely         20.41   5 P     P     05 08 56.0 +0.3
352A                             IAmb  IAmb  05 08 58.4
       comp=Z,86nm,1.1s
441A   DeRidder        20.43 344 P     P     05 08 55.8 -0.1
TIGA   Tifton          20.52   8 P     P     05 08 57.5 +0.6
HKT    Hockley         20.53 338       P     05 08 58.0 +1.1
HKT                              IAmb  IAmb  05 09 09.6
       comp=Z,54nm,1.2s
HKT    Hockley         20.53 338 P     Pn    05 08 58.3 -0.8
       comp=Z,40nm,1.4s
833A   Chaparral WMA,  20.75 328 P     P     05 08 59.0 -0.4
833A                             IAmb  IAmb  05 09 03.7
       comp=Z,41nm,1.0s
250A   Grady           20.83   2       P     05 09 01.1 +0.8
250A                             IAmb  IAmb  05 09 02.4
       comp=Z,86nm,1.3s
OBIP   Obispado Ponce  20.88  68 P     P     05 09 01.9 +0.9
VBMS   Vicksburg       21.31 352 P     P     05 09 06.3 +0.9
SJG    San Juan        21.32  68 P     P     05 09 01.3 -4.4
       comp=Z,7.6nm,0.3s,baz=313,slow=18,SNR=7.5
       comp=Z,7.6nm,0.3s
146A   Union           21.56 355 P     P     05 09 07.8 -0.3
152A   Waverly Hall    21.61   5 P     P     05 09 09.2 +0.6
NATX   Nacogdoches     21.79 342 IAmb  IAmb  05 09 14.6
       comp=Z,54nm,0.9s
LRAL   Lakeview Retre  21.87 360 IAmb  IAmb  05 09 13.0
       comp=Z,26nm,0.8s
143A   Socs Landing,   21.92 350 P     P     05 09 12.7 +0.7
143A                             IAmb  IAmb  05 09 26.8
       comp=Z,61nm,1.3s
Z47A   Carrollton      22.06 358 IAmb  IAmb  05 09 25.2
       comp=Z,33nm,0.9s
GOGA   Godfrey         22.48   8 IAmb  IAmb  05 09 20.2
       comp=Z,50nm,0.8s
GOGA   Godfrey         22.48   8 P     P     05 09 18.6 +0.6
       comp=Z,75nm,0.8s
Y49A   Blount Mountai  22.70   1 IAmb  IAmb  05 09 21.3
       comp=Z,26nm,0.6s
JCT    Junction City   22.71 330 P     P     05 09 20.6 +0.1
Z41A   Richland Creek  22.73 347 P     P     05 09 20.4 -0.2
Z41A                             IAmb  IAmb  05 09 22.4
       comp=Z,31nm,0.8s
Y45A   Yeager Farm, C  22.82 354       P     05 09 20.9 -0.8
Y45A                             IAmb  IAmb  05 09 23.6
       comp=Z,61nm,1.1s
Y52A   Lilburn         22.85   6 IAmb  IAmb  05 09 23.7
       comp=Z,33nm,0.9s
WHTX   Lake Whitney,   22.97 337 IAmb  IAmb  05 09 46.6
       comp=Z,39nm,1.0s
BRDY   Brady           23.00 333 IAmb  IAmb  05 09 27.2
       comp=Z,30nm,0.9s
CCAR   Cane Creek      23.17 350 P     P     05 09 24.7 -0.6
CCAR                             IAmb  IAmb  05 09 49.4
       comp=Z,31nm,0.9s
WLAR   White Oak Lake  23.21 347       P     05 09 25.5 -0.1
WLAR                             IAmb  IAmb  05 09 36.5
       comp=Z,39nm,1.0s
FW13   Cleburne        23.28 337 IAmb  IAmb  05 09 37.1
       comp=Z,59nm,1.3s
X48A   Hartselle       23.28 360 IAmb  IAmb  05 09 26.9
       comp=Z,101nm,1.9s
Z38A   Mt. Pleasant    23.29 343       P     05 09 25.7 -0.7
CZSB   Cruzeiro do Su  23.45 142 P     P     05 09 31.3 +3.1
CZSB                             IAmb  IAmb  05 09 36.8
       comp=Z,49nm,1.2s
CZSB   Cruzeiro do Su  23.45 142 eP    P     05 09 30.0 +1.8
HODGE  Hodges          23.46  10 IAmb  IAmb  05 09 29.2
       comp=Z,18nm,0.8s
Y57A   Sumter          23.63  14 IAmb  IAmb  05 09 30.8
       comp=Z,20nm,1.0s
HPIG                   23.65 314 P     P     05 09 33.9 +3.5
       comp=Z,21nm,1.0s
JSC    Jenkinsville    23.70  12 P     P     05 09 30.6 +0.2
JSC                              IAmb  IAmb  05 09 31.6
       comp=Z,30nm,0.9s
Y58A   Scranton        23.70  15 P     P     05 09 30.6 +0.1
Y58A                             IAmb  IAmb  05 09 31.8
       comp=Z,33nm,0.6s
OZNA   Ozona           23.73 329 IAmb  IAmb  05 09 53.9
       comp=Z,18nm,0.9s
X40A   Basin Creek Fa  23.93 348 IAmb  IAmb  05 09 32.7
       comp=Z,30nm,1.4s
TX31   Lajitas Ar. Si  23.95 322 IAmb  IAmb  05 09 35.0
       comp=Z,17nm,0.8s
TXAR   Lajitas Array   23.95 322 P     P     05 09 33.6 +0.6
       comp=Z,16nm,0.8s,baz=137,slow=9.4,SNR=103
TXAR                             PcP   PcP   05 13 17.8 +2.3
       comp=Z,4.7nm,0.9s,baz=134,slow=3.6,SNR=9.1
TXAR                             ScP   ScP   05 16 56.1 +2.2
       comp=Z,1.6nm,1.0s,baz=130,slow=5.1,SNR=6.1
       comp=Z,16nm,0.8s
PLPT   Palo Pinto      24.04 336 IAmb  IAmb  05 09 37.0
       comp=Z,30nm,0.8s
SWET   Sewanee         24.07   2 IAmb  IAmb  05 09 34.9
       comp=Z,36nm,0.8s
W50A   Signal Mountai  24.08   3 IAmb  IAmb  05 09 35.6
       comp=Z,44nm,0.8s
W52A   Murphy          24.08   6 IAmb  IAmb  05 09 35.1
       comp=Z,25nm,0.7s
Z35A   Perchaven, San  24.09 339 IAmb  IAmb  05 09 35.3
       comp=Z,29nm,0.7s
BG3    Lake Jocassee   24.11   8 IAmb  IAmb  05 09 36.5
       comp=Z,38nm,0.8s
UALR   University of   24.11 349 IAmb  IAmb  05 09 34.3
       comp=Z,37nm,1.1s
PAULI  Pauline         24.11  10 IAmb  IAmb  05 09 35.4
       comp=Z,24nm,0.8s
MIAR   Mount Ida       24.14 347 IAmb  IAmb  05 09 36.0
       comp=Z,26nm,0.8s
MIAR   Mount Ida       24.14 347 P     P     05 09 33.5 -1.2
       comp=Z,33nm,0.8s
BIRD   Birdtown, Kers  24.22  13 P     P     05 09 34.7 -0.6
BIRD                             IAmb  IAmb  05 09 36.9
       comp=Z,31nm,1.3s
CPCT   Cooper Cave     24.38   5       P     05 09 36.4 -0.5
X58A   Rowland         24.40  15 IAmb  IAmb  05 09 37.8
       comp=Z,24nm,0.9s
ABTX   Abilene, Hawle  24.43 333 IAmb  IAmb  05 09 40.2
       comp=Z,20nm,0.8s
KMSC   Kings Mountain  24.52  11 IAmb  IAmb  05 09 38.9
       comp=Z,25nm,0.8s
SGCY   Sterling City   24.53 330 IAmb  IAmb  05 09 41.1
       comp=Z,19nm,0.9s
V48A   Smith Brothers  24.57   0 IAmb  IAmb  05 09 40.9
       comp=Z,25nm,0.8s
WHAR   Wooly Hollow    24.60 350       P     05 09 37.1 -1.8
WHAR                             IAmb  IAmb  05 09 39.7
       comp=Z,19nm,0.9s
TKL    Tuckaleechee C  24.66   6 IAmb  IAmb  05 09 41.6
       comp=Z,33nm,0.8s
V53A   Saluda          24.79   8 IAmb  IAmb  05 09 43.1
       comp=Z,31nm,0.8s
TMB01  Midkiff         24.82 328 IAmb  IAmb  05 09 41.7
       comp=Z,17nm,0.9s
CLTN   Cedars of Leba  24.93   1 IAmb  IAmb  05 09 43.5
       comp=Z,26nm,0.8s
WVT    Waverly         24.97 358 P     P     05 09 39.8 -2.3
WVT    Waverly         24.97 358 P     P     05 09 40.4 -1.8
       comp=Z,10nm,0.9s
FCAR   Ozark Folk Cen  25.16 350 IAmb  IAmb  05 09 43.7
       comp=Z,16nm,0.9s
LCAR   Lake Charles    25.19 352 IAmb  IAmb  05 09 43.4
       comp=Z,24nm,1.1s
V55A   Taylorsville    25.23  11 IAmb  IAmb  05 09 47.7
       comp=Z,24nm,1.0s
APMT   Aspermont       25.23 333 IAmb  IAmb  05 10 12.9
       comp=Z,15nm,0.8s
U49A   Red Boiling Sp  25.36   2 IAmb  IAmb  05 09 48.0
       comp=Z,30nm,1.0s
TZTN   Tazewell        25.56   6 IAmb  IAmb  05 09 50.6
       comp=Z,19nm,0.8s
TZTN   Tazewell        25.56   6 P     P     05 09 47.1 -0.4
       comp=Z,26nm,1.1s
W35A   Tecumseh        25.62 341 IAmb  IAmb  05 09 50.4
       comp=Z,26nm,0.9s
V58A   Windy Hill, Pi  25.63  15 IAmb  IAmb  05 09 49.2
       comp=Z,37nm,0.9s
U54A   Nelsons Funny   25.77  10 IAmb  IAmb  05 09 53.2
       comp=Z,40nm,1.0s
PBMO   Poplar Bluff    25.80 354 IAmb  IAmb  05 09 50.9
       comp=Z,16nm,0.8s
T47A   Sharon Grove    25.82 360 IAmb  IAmb  05 09 51.7
       comp=Z,29nm,0.9s
U56A   King            25.87  12 IAmb  IAmb  05 09 54.4
       comp=Z,23nm,0.8s
DKNS   Dickens         25.88 333 IAmb  IAmb  05 10 04.1
       comp=Z,16nm,0.9s
WMOK   Wichita Mounta  25.91 337 IAmb  IAmb  05 09 53.6
       comp=Z,35nm,0.9s
WMOK   Wichita Mounta  25.91 337 P     P     05 09 50.9 +0.1
       comp=Z,41nm,0.9s
TUL3   Leonard         26.00 343 IAmb  IAmb  05 09 59.6
       comp=Z,26nm,0.8s
T42A   Van Buren       26.12 352 IAmb  IAmb  05 09 51.8
       comp=Z,25nm,1.1s
DEOK   Depew           26.14 342 IAmb  IAmb  05 09 52.7
       comp=Z,25nm,0.8s
U38A   Gravette        26.14 346 IAmb  IAmb  05 09 59.2
       comp=Z,16nm,1.0s
OK029  Liberty Lake    26.40 341 IAmb  IAmb  05 09 57.8
       comp=Z,29nm,0.8s
S44A   Carbondale      26.60 356 IAmb  IAmb  05 09 56.5
       comp=Z,21nm,0.9s
S51A   Beattyville     26.64   6 IAmb  IAmb  05 09 57.5
       comp=Z,20nm,1.0s
BLA    Blacksburg      26.70  12 IAmb  IAmb  05 09 58.8
       comp=Z,32nm,1.1s
SMWD   Samnorwood      26.81 335 IAmb  IAmb  05 10 03.8
       comp=Z,22nm,0.8s
WCI    Wyandotte Cave  27.06   1 P     P     05 09 59.9 -1.2
WCI                              IAmb  IAmb  05 10 00.7
       comp=Z,20nm,0.9s
WCI    Wyandotte Cave  27.06   1 P     P     05 09 59.9 -1.2
       comp=Z,24nm,1.2s
S39A   Bolivar         27.12 349 IAmb  IAmb  05 10 01.5
       comp=Z,25nm,0.8s
CCM    Cathedral Cave  27.15 353 P     P     05 09 59.6 -2.3
CCM                              IAmb  IAmb  05 10 01.7
       comp=Z,23nm,0.9s
T59A   Double "B" Far  27.16  17 IAmb  IAmb  05 10 02.5
       comp=Z,21nm,1.1s
R49A   Shelbyville     27.16   3 IAmb  IAmb  05 10 01.9
       comp=Z,56nm,1.5s
BLOK   Blackwell       27.21 342 IAmb  IAmb  05 10 22.4
       comp=Z,47nm,1.4s
R50A   Paris           27.21   5 IAmb  IAmb  05 10 02.6
       comp=Z,28nm,1.2s
CROK   Carrier         27.22 340 IAmb  IAmb  05 10 02.9
       comp=Z,20nm,0.9s
AMTX   Amarillo        27.24 333 IAmb  IAmb  05 10 18.9
       comp=Z,19nm,0.8s
OK038  West end E0370  27.45 339 IAmb  IAmb  05 10 08.1
       comp=Z,23nm,0.8s
R40A   Maddies Statio  27.53 351       P     05 10 03.1 -2.2
KAN01  Argonia South   27.74 341 IAmb  IAmb  05 10 10.6
       comp=Z,18nm,0.7s
Q44A   Meyer Farm, Va  27.79 357 IAmb  IAmb  05 10 06.9
       comp=Z,25nm,0.8s
R55A   Marlinton       27.79  12 IAmb  IAmb  05 10 08.7
       comp=Z,29nm,0.9s
KAN08  Anthony NE Sta  27.87 341 IAmb  IAmb  05 10 11.9
       comp=Z,15nm,0.7s
BLO    Bloomington     28.00   1 IAmb  IAmb  05 10 09.0
       comp=Z,45nm,1.4s
R58B   Mineral         28.00  15 IAmb  IAmb  05 10 10.3
       comp=Z,16nm,1.1s
P51A   Williamsport    28.52   6 IAmb  IAmb  05 10 14.0
       comp=Z,23nm,1.0s
121A   Cookes Peak, D  28.70 321 IAmb  IAmb  05 10 40.6
       comp=Z,14nm,0.8s
P40A   Paris           28.71 352 IAmb  IAmb  05 10 14.9
       comp=Z,25nm,1.6s
RTBA   Rita Blanca     29.01 333 IAmb  IAmb  05 10 32.8
       comp=Z,12nm,1.0s
P38A   Dawn            29.04 350 IAmb  IAmb  05 10 18.3
       comp=Z,25nm,1.0s
O48B   Farmland        29.12   3 IAmb  IAmb  05 10 18.7
       comp=Z,32nm,1.1s
MCWV   Mont Chateau    29.18  11 IAmb  IAmb  05 10 20.3
       comp=Z,22nm,0.8s
R32A   Long Quarter,   29.20 341 IAmb  IAmb  05 10 21.5
       comp=Z,16nm,0.8s
Y22A   Socorro         29.21 324 IAmb  IAmb  05 10 42.0
       comp=Z,33nm,1.6s
KSU1   Kansas State U  29.22 345 IAmb  IAmb  05 10 20.5
       comp=Z,24nm,0.8s
O54A   Avella          29.59  10 IAmb  IAmb  05 10 23.5
       comp=Z,20nm,0.8s
SDMD   Soldier’s Deli  29.64  16 IAmb  IAmb  05 10 24.7
       comp=Z,16nm,0.9s
ALQ    Albuquerque     29.66 326 IAmb  IAmb  05 10 42.4
       comp=Z,4.8nm,0.9s
ANMO   Albuquerque     29.67 326 P     P     05 10 25.7 +1.1
ANMO   Albuquerque     29.67 326 P     P     05 10 25.7 +1.1
       comp=Z,5.9nm,1.1s
MACA   Manacapuru-AM   29.73 117       P     05 10 25.6 +0.5
MACA   Manacapuru-AM   29.73 117 eP    P     05 10 26.3 +1.2
N51A   Ashland         30.02   7 IAmb  IAmb  05 10 27.4
       comp=Z,22nm,0.9s
MVL    Millersville    30.32  16 IAmb  IAmb  05 10 31.6
       comp=Z,22nm,0.9s
L40A   Anamosa         31.11 354 IAmb  IAmb  05 10 36.5
       comp=Z,25nm,1.0s
S22A   4UR Ranch, Cre  32.00 329 IAmb  IAmb  05 10 58.6
       comp=Z,7.3nm,1.0s
MVCO   Mesa Verde      32.45 327 IAmb  IAmb  05 11 03.7
       comp=Z,7.0nm,0.8s
MVCO   Mesa Verde      32.45 327 P     P     05 10 50.1 +0.9
       comp=Z,10.0nm,1.0s
BINY   Binghamton      32.47  15 P     P     05 10 49.0 -0.1
       comp=Z,53nm,0.9s
WUAZ   Wupatki         32.91 322 IAmb  IAmb  05 11 12.2
       comp=Z,9.1nm,1.0s
LPAZ   La Paz          32.95 145 P     P     05 10 55.6 +1.4
       comp=Z,2.8nm,1.1s,baz=359,slow=6.0,SNR=4.3
LPAZ                             LR    LR    05 24 41.5
       comp=Z,209nm,18.2s,baz=314,slow=37
       comp=Z,2.8nm,1.1s
PV15   Paradox Valley  33.29 328 IAmb  IAmb  05 11 10.3
       comp=Z,7.8nm,0.9s
PV02   Paradox Valley  33.32 328 IAmb  IAmb  05 11 10.4
       comp=Z,18nm,1.0s
PV13   Radium Mtn., P  33.33 328 IAmb  IAmb  05 11 10.3
       comp=Z,12nm,0.8s
PV03   Paradox Valley  33.41 328 IAmb  IAmb  05 10 59.4
       comp=Z,11nm,0.8s
PV05   Paradox Valley  33.42 327 IAmb  IAmb  05 11 13.6
       comp=Z,11nm,0.8s
PV07   Paradox Valley  33.45 328 IAmb  IAmb  05 11 11.5
       comp=Z,11nm,1.1s
PV16   Nyswonger Mesa  33.49 328 IAmb  IAmb  05 10 59.6
       comp=Z,9.9nm,0.8s
PV17   East Wray Mesa  33.49 328 IAmb  IAmb  05 11 11.3
       comp=Z,14nm,0.6s
PV20   West Nyswonger  33.54 328 IAmb  IAmb  05 10 59.9
       comp=Z,18nm,0.8s
PV04   Paradox Valley  33.55 328 IAmb  IAmb  05 11 11.8
       comp=Z,15nm,1.0s
PV22   Blue Mesa, Par  33.59 328 IAmb  IAmb  05 11 13.1
       comp=Z,33nm,1.8s
ECSD   EROS Data Cent  33.61 347 P     P     05 10 57.0 -2.0
       comp=Z,25nm,0.8s
L61B   Northampton     33.67  19 IAmb  IAmb  05 10 59.5
       comp=Z,16nm,0.8s
ESJX   Sierra Juarez   33.89 312 IAmb  IAmb  05 11 05.5
       comp=Z,14nm,1.1s
J59A   Piesco          34.05  16 IAmb  IAmb  05 11 03.8
       comp=Z,14nm,0.9s
HMU    Henry Mountain  34.21 325 IAmb  IAmb  05 11 13.8
       comp=Z,15nm,1.0s
SADO   Sadowa          34.26  10 LR    LR    05 25 45.7
       comp=Z,124nm,18.8s,baz=214,slow=38
HAYD   Hayden          34.38 332 IAmb  IAmb  05 11 09.0
       comp=Z,7.0nm,0.9s
BC3    Big Chuckawall  34.43 315 IAmb  IAmb  05 11 09.9
       comp=Z,8.7nm,0.9s
MDP    Montagnes des   34.48  97 LR    LR    05 25 58.5
       comp=Z,125nm,19.3s,baz=280,slow=38
J61A   Chester         34.52  19 IAmb  IAmb  05 11 07.9
       comp=Z,18nm,1.0s
O20A   White River Ci  34.54 331 IAmb  IAmb  05 11 10.7
       comp=Z,19nm,0.9s
CFNY   Clifton-Fine,   34.55  15 IAmb  IAmb  05 11 07.3
       comp=Z,14nm,0.8s
ITTB   Itaituba        34.66 115 eP    P     05 11 08.1 -0.3
KNB    Kanab           34.78 322 IAmb  IAmb  05 11 22.5
       comp=Z,9.9nm,1.1s
SRU    San Rafael Swe  34.93 327 IAmb  IAmb  05 11 25.4
       comp=Z,15nm,0.9s
BELC   Belle Mtn. Jos  35.00 315 IAmb  IAmb  05 11 23.2
       comp=Z,9.2nm,1.2s
PMD    Palm Desert     35.07 315 IAmb  IAmb  05 11 15.3
       comp=Z,8.2nm,1.0s
LONY   Lake Ozonia     35.10  15 P     P     05 11 09.9 -2.0
PFO    Pinyon Flats O  35.11 314 LR    LR    05 26 25.3
       comp=Z,256nm,21.2s,baz=129,slow=38
Q16A   Castle Valley   35.14 326 IAmb  IAmb  05 11 16.8
       comp=Z,16nm,1.4s
P18A   Preston Nutter  35.16 328 IAmb  IAmb  05 11 24.6
       comp=Z,12nm,1.0s
WBO    Williamsburg    35.28  14 IAmb  IAmb  05 11 12.8
       comp=Z,18nm,0.9s
P17A   Butcher Ranch,  35.31 327 IAmb  IAmb  05 11 16.7
       comp=Z,19nm,0.9s
SZCU   Shurtz Canyon   35.32 323 IAmb  IAmb  05 11 19.0
       comp=Z,8.0nm,0.9s
TMUT   Trail Mountain  35.43 327 IAmb  IAmb  05 11 30.1
       comp=Z,9.3nm,0.9s
FLET   Fletcher        35.65  17 IAmb  IAmb  05 11 16.1
       comp=Z,12nm,0.9s
VILB   Vilhena         35.71 131       P     05 11 16.7 -0.7
VILB                             IAmb  IAmb  05 11 22.3
       comp=Z,11nm,0.9s
VILB   Vilhena         35.71 131 eP    P     05 11 18.9 +1.4
I63A   Otisfield       35.79  20 IAmb  IAmb  05 11 18.3
       comp=Z,14nm,0.8s
RSSD   Black Hills     36.09 339       P     05 11 20.9 +0.3
RSSD   Black Hills     36.09 339 P     P     05 11 21.0 +0.3
       comp=Z,5.2nm,0.8s
BSUT   Blindstream Ca  36.10 329 IAmb  IAmb  05 11 24.9
       comp=Z,11nm,1.0s
MPU    Maple Canyon    36.18 327 IAmb  IAmb  05 11 34.8
       comp=Z,10nm,1.0s
TRQ    Mont Tremblant  36.60  14 IAmb  IAmb  05 11 24.2
       comp=Z,16nm,1.1s
G62A   West of Eustis  36.84  19 IAmb  IAmb  05 11 27.1
       comp=Z,16nm,0.7s
DUG    Dugway, Tooele  36.94 326 P     P     05 11 29.1 +1.2
       comp=Z,6.1nm,1.0s
PDAR   Pinedale Array  37.21 332 P     P     05 11 29.4 -0.8
       comp=Z,3.3nm,0.7s,baz=130,slow=9.8,SNR=35
PDAR                             PP    PP    05 12 51.5 -3.6
       comp=Z,0.9nm,0.6s,baz=129,slow=10.0,SNR=3.5
PDAR                             PcP   PcP   05 13 50.6 +0.5
       comp=Z,1.4nm,1.0s,baz=155,slow=5.3,SNR=3.1
PDAR                             ScP   ScP   05 17 38.2 +1.0
       comp=Z,0.9nm,0.9s,baz=160,slow=4.7,SNR=5.8
       comp=Z,3.3nm,0.7s
PDAR   Pinedale Array  37.21 332       P     05 11 29.4 -0.9
E28A   Huff            37.27 344 IAmb  IAmb  05 11 30.5
       comp=Z,22nm,0.9s
PKME   Peaks-Kenny Pk  37.30  21 IAmb  IAmb  05 11 30.9
       comp=Z,20nm,0.9s
HWUT   Hardware Ranch  37.30 329 IAmb  IAmb  05 11 33.2
       comp=Z,18nm,0.8s
SPUT   South Promonto  37.54 328 IAmb  IAmb  05 11 35.6
       comp=Z,8.6nm,0.9s
VLDQ   Val d'Or        37.79  10 IAmb  IAmb  05 11 34.3
       comp=Z,29nm,1.4s
AGMN   Agassiz Nation  37.86 350 IAmb  IAmb  05 11 34.2
       comp=Z,26nm,1.1s
AGMN   Agassiz Nation  37.86 350 P     P     05 11 33.6 -1.8
       comp=Z,24nm,1.6s
G65A   Princeton       37.87  22 IAmb  IAmb  05 11 35.8
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	comp=Z,14nm,0.8s						
CLDB	Colider	37.88	124	*e*P	P	05 11 35.9	0.0
CLDB	Colider	37.88	124	P	P	05 11 35.6	-0.4
	comp=Z,11nm,0.9s						
AHID	Auburn Hatcher	37.94	331	P	P	05 11 36.0	-0.4
AHID				IAmb	IAmb	05 11 40.1	
	comp=Z,10nm,0.9s						
AHID	Auburn Hatcher	37.94	331	P	P	05 11 36.5	+0.1
	comp=Z,11nm,0.8s						
PTLB	Pontes e Lacer	38.12	133		P	05 11 38.3	+0.4
PTLB	Pontes e Lacer	38.12	133	*e*P	P	05 11 38.4	+0.4
F64A	Sherman	38.15	21	IAmb	IAmb	05 11 38.3	
	comp=Z,13nm,1.0s						
TPH	Tonopah	38.16	320	P	P	05 11 39.8	+1.5
DSP	Deep Springs	38.23	318		P	05 11 40.7	+2.1
SNOW	Snow King Moun	38.31	332	IAmb	IAmb	05 11 41.8	
	comp=Z,17nm,0.8s						
ELK	Elko	38.66	325	LR	LR	05 31 50.8	
	comp=Z,195nm,18.1s,baz=96,slow=43						
EPLO	Experimental L	38.90	353	IAmb	IAmb	05 11 42.8	
	comp=Z,28nm,1.0s						
LMQ	La Malbaie	38.98	18	IAmb	IAmb	05 11 44.0	
	comp=Z,15nm,1.2s						
HAL	Halifax	39.03	27	IAmb	IAmb	05 11 47.3	
	comp=Z,17nm,1.2s						
NVAR	Mina Array Bea	39.06	320	P	P	05 11 46.5	+0.7
	comp=Z,5.1nm,0.8s,baz=134,slow=7.2,SNR=30						
NVAR				PcP	PcP	05 13 56.9	+1.0
	comp=Z,4.8nm,0.9s,baz=135,slow=4.3,SNR=10						
NVAR				LR	LR	05 31 30.4	
	comp=Z,187nm,19.6s,baz=133,slow=42						
	comp=Z,5.1nm,0.8s						
NVAR	Mina Array Bea	39.06	320	P	P	05 11 47.2	+1.3
RYN	Ryan	39.31	320	IAmb	IAmb	05 12 04.3	
	comp=Z,26nm,1.0s						
LMN	Caledonia Moun	39.49	24	IAmb	IAmb	05 11 48.8	
	comp=Z,23nm,0.8s						
ULM	Lac du Bonnet	39.76	351	P	P	05 11 48.8	-2.5
	comp=Z,18nm,0.9s,baz=171,slow=9.5,SNR=12						
	comp=Z,18nm,0.9s						
ULM	Lac du Bonnet	39.76	351	IAmb	IAmb	05 11 50.0	
	comp=Z,29nm,1.1s						
YERR	Yerington	39.98	320	P	P	05 11 54.6	+1.1
HLID	Hailey	40.17	329	P	P	05 11 55.2	+0.2
	comp=Z,6.3nm,0.8s						
BATG	Bathurst New B	40.18	22		P	05 11 54.1	-0.7
BATG				IAmb	IAmb	05 11 55.2	
	comp=Z,17nm,1.0s						
CMB	Columbia Colle	40.19	318		P	05 11 56.2	+1.1
PNTR	Pine Nut	40.26	320	P	P	05 11 57.6	+1.6
SALV	Santo Antonio	40.94	130	*e*P	P	05 12 02.6	+1.1
BEKR	Beckworth	41.19	320		P	05 12 04.3	+0.7
WVOR	Wild Horse Val	41.70	324	P	P	05 12 07.6	0.0
COIM	Forte Coimbra	42.10	137	*e*P	P	05 12 11.6	+0.7
SNDB	Serra Nova Dou	42.18	122	*e*P	P	05 12 11.4	-0.3
BDQN	Bodoquena, MS	43.17	136	*e*P	P	05 12 19.8	+0.2
MURT	Porto Murtinho	43.45	138	*e*P	P	05 12 22.4	+0.5
ARAG	Araguaiana, MT	43.80	127	*e*P	P	05 12 24.6	-0.3
SMTB	Santa Maria do	43.89	115	*e*P	P	05 12 25.2	-0.4
AQDB	Aquidauana	43.91	135		P	05 12 26.3	+0.7
AQDB				IAmb	IAmb	05 12 30.1	
	comp=Z,10nm,1.0s						
AQDB	Aquidauana	43.91	135	*e*P	P	05 12 26.5	+0.9
E09A	Wood Farm, Sta	44.12	329	IAmb	IAmb	05 12 40.7	
	comp=Z,20nm,1.7s						
D08A	Wollman Farm,	44.88	329	IAmb	IAmb	05 12 34.7	
	comp=Z,8.1nm,0.9s						
WAH2	Wahluke Slope	45.01	328	IAmb	IAmb	05 12 37.8	
	comp=Z,16nm,1.3s						
E07A	Sunnyside	45.02	328	IAmb	IAmb	05 12 36.6	
	comp=Z,15nm,1.0s						
DRLN	Deer Lake	45.25	27		P	05 12 34.3	-1.7
MXC	Moxie City	45.27	328	IAmb	IAmb	05 12 51.3	
	comp=Z,16nm,1.0s						
SCHQ	Schefferville	46.47	16	P	P	05 12 42.6	-2.9
	comp=Z,15nm,1.0s,baz=226,slow=6.5,SNR=8.1						
	comp=Z,15nm,1.0s						
SCHQ	Schefferville	46.47	16	IAmb	IAmb	05 12 43.7	
	comp=Z,17nm,1.0s						
SJPY	San Joaquin	46.80	140	*e*P	P	05 12 47.8	-0.7
BDFB	Brasilia	46.81	124	P	P	05 12 47.8	-1.0
	comp=Z,5.5nm,0.6s,baz=288,slow=9.8,SNR=11						
	comp=Z,5.5nm,0.6s						
BDFB	Brasilia	46.81	124		P	05 12 48.1	-0.7
CPUP	Villa Florida	47.03	143	P	P	05 12 50.7	+0.5
	comp=Z,2.8nm,0.9s,baz=346,slow=16,SNR=4.9						
CPUP				LR	LR	05 33 57.3	
	comp=Z,72nm,18.0s,baz=323,slow=38						
	comp=Z,2.8nm,0.9s						
CPUP	Villa Florida	47.03	143	IAmb	IAmb	05 12 54.5	
	comp=Z,10nm,1.2s						
EDM	Edmonton	47.07	339	IAmb	IAmb	05 12 50.1	
	comp=Z,11nm,0.8s						
MT08	Bocatoma Ro	47.11	161	IAmb	IAmb	05 12 57.9	
	comp=Z,15nm,1.1s						
SDBA	SAO DESIDERIO	47.84	118	*e*P	P	05 12 56.0	-0.8
IPMB	Ipameri, GO	47.93	127	*e*P	P	05 12 57.8	+0.4
BO02	Sierra Bellavi	48.12	162	P	P	05 12 59.4	+0.8
BO02				IAmb	IAmb	05 13 22.6	
	comp=Z,13nm,1.2s						
JANB	Januaria	49.59	121	*e*P	P	05 13 08.9	-1.4
PSAL	Palomas, Salto	50.50	147	*e*P	P	05 13 16.6	-0.2
DIAM	Diamantina, MG	51.73	124	*e*P	P	05 13 26.2	-0.3
PLCA	Paso Flores	53.72	165	P	P	05 13 41.9	+1.1
	comp=Z,3.9nm,0.8s,baz=312,slow=7.0,SNR=8.8						
	comp=Z,3.9nm,0.8s						
PLCA	Paso Flores	53.72	165	IAmb	IAmb	05 13 55.3	
	comp=Z,6.5nm,1.0s						
YKA	Yellowknife Ar	55.07	345	P	P	05 13 47.9	-2.3
	comp=Z,2.1nm,0.7s,baz=138,slow=8.3,SNR=5.9						
	comp=Z,2.1nm,0.7s						
M29M	Somme Creek	63.06	336	IAmb	IAmb	05 14 47.9	
	comp=Z,8.3nm,1.1s						
RES	Resolute Bay	63.76	358	LR	LR	05 43 12.2	
	comp=Z,33nm,21.4s,baz=342,slow=37						
I30M	Mount Dempster	63.77	339	IAmb	IAmb	05 14 57.7	
	comp=Z,7.7nm,1.1s						
BCAR	Beaver Creek A	64.70	336		P	05 14 55.5	-1.1
L27K	Beaver Creek,	64.72	336	IAmb	IAmb	05 14 58.2	
	comp=Z,6.7nm,1.1s						
F30M	Barrier River	64.93	341		P	05 14 57.8	-0.1
F30M				IAmb	IAmb	05 15 07.5	
	comp=Z,15nm,1.2s						
H27K	Steamboat Moun	66.11	339	IAmb	IAmb	05 15 13.2	
	comp=Z,16nm,1.4s						
F28M	Old Crow	66.24	340	IAmb	IAmb	05 15 11.3	
	comp=Z,9.3nm,1.2s						
I26K	Coal Creek Min	66.27	338	IAmb	IAmb	05 15 14.3	
	comp=Z,5.5nm,0.9s						
HDA	Harding Lake	67.36	336	IAmb	IAmb	05 15 14.4	
	comp=Z,13nm,1.4s						
IL31		67.47	336	IAmb	IAmb	05 15 22.6	
	comp=Z,6.7nm,1.2s						
ILAR	Eielson Array	67.47	336	P	P	05 15 13.2	-1.1
	comp=Z,2.9nm,1.1s,baz=132,slow=4.0,SNR=14						
ILAR				PP	PP	05 17 42.3	-0.6
	comp=Z,0.7nm,0.9s,baz=114,slow=6.6,SNR=4.2						
ILAR				LR	LR	05 51 41.3	
	comp=Z,129nm,18.0s,baz=86,slow=42						
	comp=Z,2.9nm,1.1s						
ILAR	Eielson Array	67.47	336		P	05 15 13.8	-0.5
BMAR	Burnt Mountain	67.74	339	P	P	05 15 15.1	-0.8
MCK	McKinley	67.92	335	IAmb	IAmb	05 15 26.2	
	comp=Z,11nm,1.1s						
PPT	Papeete	68.06	246	LR	LR	05 38 38.0	
	comp=Z,127nm,18.5s,baz=143,slow=30						
TRF	Thorofare Moun	68.39	334	IAmb	IAmb	05 15 21.4	
	comp=Z,12nm,1.3s						
I23K	Minto, Yukon-K	68.59	336	IAmb	IAmb	05 15 22.7	
	comp=Z,18nm,1.6s						
MLY	Manley	69.10	336	IAmb	IAmb	05 15 31.7	
	comp=Z,4.9nm,1.0s						
D25K	Kavik River	69.17	341	IAmb	IAmb	05 15 28.1	
	comp=Z,8.0nm,0.9s						
BORG	Borgarnes	69.77	25	LR	LR	05 45 19.4	
	comp=Z,110nm,19.6s,baz=269,slow=36						
G21K	Allakaket	70.65	337	IAmb	IAmb	05 15 42.2	
	comp=Z,11nm,1.1s						
F21K	Alatna River	70.86	338	IAmb	IAmb	05 15 44.4	
	comp=Z,18nm,1.4s						
M14K	Bethel	73.09	330		P	05 15 47.9	-0.7
EKA	Eskdalemuir Ar	77.47	36	LR	LR	05 46 22.3	
	comp=Z,66nm,19.2s,baz=214,slow=33						
ESDC	Sonseca Array	77.67	52	P	P	05 16 11.9	-3.6
	comp=Z,0.7nm,0.7s,baz=268,slow=4.4,SNR=4.7						
ESDC				LR	LR	05 47 45.7	
	comp=Z,122nm,18.9s,baz=275,slow=34						
	comp=Z,0.7nm,0.7s						
ESDC	Sonseca Array	77.67	52	IAmb	IAmb	05 16 21.0	
	comp=Z,20nm,1.6s						
MDT	Midelt	77.72	59	LR	LR	05 47 41.4	
	comp=Z,156nm,19.3s,baz=268,slow=34						
SPITS	Spitsbergen Ar	81.96	12	LR	LR	05 54 47.4	
	comp=Z,168nm,19.1s,baz=288,slow=37						
BMRD	Maredsous	82.69	40	*d*P	P	05 16 43.4	+1.1
NOA	NORSAR Array B	84.35	29	LR	LR	05 51 17.8	
	comp=Z,74nm,20.9s,baz=270,slow=34						
HFS	Hagfors	85.75	30	LR	LR	05 52 17.4	
	comp=Z,89nm,18.3s,baz=288,slow=34						
SHEM	Shemya Is, Ala	86.64	323	LR	LR	05 56 07.2	
	comp=Z,48nm,20.1s,baz=270,slow=36						
DAVOX	Davos/Dischmat	86.67	43	LR	LR	05 53 40.1	
	comp=Z,79nm,18.5s,baz=260,slow=34						
ARCES	ARCESS Array B	87.34	19	LR	LR	05 53 44.1	
	comp=Z,48nm,21.3s,baz=273,slow=34						
CLL	Collm	87.61	38	L	L	05 45 00.0	
CLL				AMS	AMS	05 54 00.0	
	comp=Z,100nm,19.6s						
VRAC	Vranov	90.38	40	LR	LR	05 54 49.3	
	comp=Z,133nm,19.6s,baz=282,slow=34						
FINES	FINESS Array B	91.00	26	LR	LR	05 55 08.7	
	comp=Z,83nm,21.1s,baz=280,slow=34						
VAE	Valguarnera	92.21	51	LR	LR	05 56 50.6	
	comp=Z,139nm,18.7s,baz=336,slow=34						
AKASG	Malin Array Be	97.38	35	LR	LR	05 59 13.3	
	comp=Z,114nm,20.5s,baz=314,slow=34						
MLR	Muntele Rosu	97.66	41	LR	LR	06 01 16.2	
	comp=Z,61nm,18.4s,baz=260,slow=35						
KURK	Kurchatov	117.21	10		PKPdf	05 23 03.8	-0.2
KURBB	Kurchatov Arra	117.29	10	PKP	PKPdf	05 23 03.8	-0.4
	comp=Z,0.2nm,0.4s,baz=325,slow=1.5,SNR=5.7						
SONM	Songino Array	120.17	350	PKP	PKPdf	05 23 09.1	-0.9
	comp=Z,0.6nm,0.5s,baz=0.2,slow=3.1,SNR=4.5						
MKAR	Makanchi Array	121.61	9	PKP	PKPdf	05 23 12.0	-0.7
	comp=Z,0.3nm,0.6s,baz=347,slow=4.4,SNR=2.7						
KSRS	Korea Array	121.69	328	PKP	PKPdf	05 23 12.9	0.0
	comp=Z,3.5nm,0.8s,baz=12,slow=2.5,SNR=11						
WMQ	Urumqi	125.17	5	*e*PKP	PKPdf	05 23 18.3	-1.3
WMQ				LR	LR		
	comp=Z,64nm,24.0s						
HHC	Hu-ho-hao-te	125.58	343	*e*P	PKPdf	05 23 19.0	-1.6
GTA2	Gaotai	129.32	353	PKP	PKiKP	05 23 28.5	0.0
GTA2				sPKP	sPKPdf	05 23 35.6	+2.8
NJ2	Nanjing	130.52	331	*e*P	PKiKP	05 23 32.6	+1.7
NJ2				pmax	pmax		
	comp=Z,35nm,0.7s						
LZH	Lanzhou	132.01	348	*e*PKP	PKiKP	05 23 36.1	+2.1
LZH				sPKP	sPKPdf	05 23 48.2	+10
ASAR	Alice Springs	139.17	247	PKhKP	PKPpre	05 23 43.9	
	comp=Z,0.5nm,0.3s,baz=225,slow=40,SNR=3.3						
WRA	Warramunga Arr	139.32	252	PKP	PKPdf	05 23 46.6	-0.2
	comp=Z,2.5nm,0.9s,baz=93,slow=2.5,SNR=7.4						
WRA	Warramunga Arr	139.32	252		PKPdf	05 23 45.9	-0.9
PZH	PanZhiHua	141.71	347	PKP	PKPdf	05 23 51.3	+0.1
CMAR	Chiang Mai Arr	150.09	349	PKP	PKPdf	05 24 05.0	-0.4
	comp=Z,1.3nm,0.4s,baz=30,slow=1.8,SNR=2.3						
CMAR				PKPbc	PKPbc	05 24 10.6	+0.2
	comp=Z,4.8nm,0.5s,baz=8.4,slow=2.5,SNR=34						

INMG ***02*** *05:09:32.3±1.2, 42°.83N×1°.49W, h1^{km}, Error ellipse: s-maj=2.1km s-min=1.8km az=81.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Pireneus (ESP)*

MDD ***02*** *05:09:32.2±0.2, 42°.82N×1°.47W, h0^{km}, mb_Lg2.5/42, Error ellipse: s-maj=1.7km s-min=1.0km az=178.0*

LDG ***02*** *05:09:32.0±0.1, 42°.85N×1°.47W, h2^{km}, Md3.1/2, Ml2.8/15, Error ellipse: s-maj=2.1km s-min=1.9km az=125.0*

ISC 02 05:09:30.5±1.0, **42°.93N**±0°.02×**1°.49W**±0°.02, **h7**^{km}±8^{km}, **n37, σ1^{s}.53**/73, **2C, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EARA	Aranguren	0.17	204	⇑Pg	Pg	05 09 33.3	-0.6
EARA				Sg	Sg	05 09 35.2	-1.1
EARA				IVmb_Lg		05 09 35.8	
SJPF	Ste Jean	0.27	46	*e*Pg	Pb	05 09 38.0	+0.3
SJPF				*e*Sg	Sg	05 09 40.9	+1.5
	309nm,0.3s						
EALK	Alkurruntz	0.29	357	⇑Pg	Pb	05 09 38.8	+0.7
EALK				Sg	Sb	05 09 45.2	+1.9
EALK				IVmb_Lg		05 09 49.2	
ETSF	Etsaut	0.68	92	*e*Pg	Pg	05 09 44.2	+0.6
ETSF				*e*Sg	Sb	05 09 54.0	-0.4
	45nm,0.3s						
ECHI	Chisagues Biel	1.27	101	Pg	Pn	05 09 54.7	0.0
ECHI				Sg	Sn	05 10 13.0	+1.0
ECHI				IVmb_Lg		05 10 16.3	
ESAC	San Caprasio	1.42	148	Pg	Pn	05 09 56.1	-0.7
ESAC				Sg	Sb	05 10 15.3	-0.3
ESAC				IVmb_Lg		05 10 18.6	
ELAN	Lanestosa	1.46	283	Pg	Pg	05 09 59.4	+0.9
ELAN				Sg	Sg	05 10 19.9	+2.5
ELAN				IVmb_Lg		05 10 24.9	
ETOR	Torete	2.15	192	Pn	Pn	05 10 07.0	+0.2
ETOR				Pg	Pb	05 10 09.8	+0.1
ETOR				Sn	Sn	05 10 32.7	-1.1
ETOR				Sg	Sb	05 10 37.6	+1.0
ETOR				IVmb_Lg		05 10 38.9	
EMIR	Miracle	2.45	113	Pg	Pb	05 10 15.4	+0.5
EMIR				Sn	Sn	05 10 41.1	-0.1
EMIR				Sg	Sg	05 10 49.0	-0.1
EMIR				IVmb_Lg		05 10 57.6	
E0901	Celadas (Terue	2.46	174	Pg	Pb	05 10 15.4	+0.3
E0901				Sn	Sn	05 10 39.6	-1.9
E0901				Sg	Sb	05 10 46.6	+1.0
E0901				IVmb_Lg		05 10 57.8	
LFF	La Frestale	2.58	38	*e*Pn	Pb	05 10 15.4	-1.6
EMOS	Mosqueruela	2.67	163	Pn	Pn	05 10 14.2	+0.1
EMOS				Pg	Pb	05 10 19.8	+1.1
EMOS				Sg	Sb	05 10 52.7	+0.9
EMOS				IVmb_Lg		05 11 04.5	
MTLF	Montolieu	2.74	80	*e*Pn	Pn	05 10 16.9	+2.0
MTLF				*e*P	Pb	05 10 18.9	-1.0
MTLF				*e*Sn	Sn	05 10 49.9	+1.6
	17nm,0.4s						
MTLF				AML	AML		
EARI	Arriondas	2.75	279	Pn	Pn	05 10 16.6	+1.5
EARI				Sn	Sn	05 10 48.9	+0.3
EARI				IVmb_Lg		05 10 57.2	
RJF	Les Rejaudoux	3.21	41	*e*Pn	Pn	05 10 21.9	+0.5
RJF				*e*P	Pb	05 10 23.7	-4.2
RJF				*e*Sn	Sn	05 10 59.1	-0.8
	4.4nm,0.2s						
RJF				AML	AML		
CAF	Calviac	3.25	51	*e*Pn	Pn	05 10 22.3	+0.4
CAF				*e*P	Pb	05 10 24.5	-4.1
MFF	Saint Martin d	3.80	14	*e*Pn	Pn	05 10 31.9	+2.5
MFF				*e*Sn	Sn	05 11 13.7	-0.6
	2.6nm,0.2s						
MFF				AML	AML		
ECAL	Calabor	4.01	258	Pn	Pn	05 10 32.5	+0.1
ECAL				Sn	Sn	05 11 17.0	-2.6
ECAL				Sg	Sg	05 11 38.4	-0.8
ECAL				IVmb_Lg		05 11 52.3	
PBRG	Braganca	4.05	256	*e*Pn	Pn	05 10 33.5	+0.6
PBRG				*e*Sn	Sn	05 11 20.0	-0.6
LASF	Ste Croix	4.05	72	*e*Pn	Pn	05 10 33.1	+0.1
LASF				*e*P	Pb	05 10 36.1	-6.1
LASF				*e*Sn	Sn	05 11 20.4	-0.3
	10nm,0.6s						
LASF				AML	AML		
BGF	Bois d'Agland	4.76	39	*e*Pn	Pn	05 10 43.1	+0.4
BGF				*e*Sn	Sn	05 11 38.6	+0.4
	12nm,0.3s						
BGF				AML	AML		
VIVF	Saint-Julien-l	4.85	64	*e*Pn	Pn	05 10 44.6	+0.7
VIVF				*e*P	Pb	05 10 46.8	-9.0
VIVF				*e*Sn	Sn	05 11 39.0	-1.3
	9.1nm,0.6s						
VIVF				AML	AML		
PVRL	Vila Real	4.92	253	*e*Sg	Sg	05 12 06.7	-1.7
POLO	Lamas de Olo	4.94	254	*e*Pn	Pn	05 10 45.5	+0.3
POLO				*e*Sg	Sg	05 12 08.1	-1.0
PCAB	Cabril	5.00	258	*e*Pn	Pn	05 10 47.5	+1.6
QUIF	Quistinic	5.13	347	*e*Pn	Pn	05 10 49.3	+1.6
QUIF				*e*Sn	Sn	05 11 45.7	-1.4
	3.7nm,0.4s						
QUIF				AML	AML		
AVF	Avril sur Loir	5.17	40	*e*Pn	Pn	05 10 48.5	+0.2
AVF				*e*Sn	Sn	05 11 45.4	-2.8
	0.5nm,0.3s						
AVF				AML	AML		
MTE	Manteigas	5.19	243	*e*Pn	Pn	05 10 49.1	+0.5
SMRF	Simiane la Rot	5.25	76	*e*P	Pn	05 10 53.1	+3.7
SMF	Signal de Mont	5.31	44	*e*Pn	Pn	05 10 49.6	-0.6
SMF				*e*Sn	Sn	05 11 50.5	-1.1
	1.2nm,0.3s						
SMF				AML	AML		
SGMF	Saint Gilles	5.38	352	*e*Sn	Sn	05 11 50.4	-2.9
	0.1nm,0.1s						
SGMF				AML	AML		
SSF	Saint Saulge	5.44	39	*e*Pn	Pn	05 10 51.2	-0.8
SSF				*e*Sn	Sn	05 11 54.3	-0.5
	2.0nm,0.3s						
SSF				AML	AML		
GRR	Gorron	5.48	4	*e*Sn	Sn	05 11 54.5	-1.2
	4.1nm,0.4s						
GRR				AML	AML		
ROSF	Rostrenen	5.55	348	*e*Pn	Pn	05 10 55.0	+1.5
ROSF				*e*Sn	Sn	05 11 55.8	-1.8
	0.8nm,0.2s						
ROSF				AML	AML		
PMRV	Marv??o	5.66	234	*e*Pn	Pn	05 10 55.0	-0.1
ORIF	Oris-en-Rattie	5.68	67	*e*P	Pn	05 10 59.6	+4.2
LOR	Lormes	5.76	39	*e*Pn	Pn	05 10 56.2	-0.2
	23nm,1.4s						
LOR				*e*Sn	Sn	05 12 01.0	-1.6
	1.3nm,0.3s						
LOR				AML	AML		
LOR				AML	AML		

CATAC 02 05:22:38.1±0.4, **11°N**±2°×**8°7W**±°, **h10**^{km}±2^{km}, **M3.7**/39, **MLv3.7**/39, **12C-1D, Error ellipse: s-maj=4.1km s-min=2.8km az=27.2, confirmed, Off coast of Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NADN	Granada	1.31	49	P	Pn	05 23 01.6	-0.9
NADN				S	Sb	05 23 19.5	-0.2
COPN	Copaltepe	1.36	19	P	Pn	05 23 02.5	-0.6
SABN	Sabanita	1.37	39	⇓P	Pn	05 23 03.1	-0.3
NANN	Nandasmo	1.38	41	⇑P	Pb	05 23 03.8	-0.2
NANN				S	Sb	05 23 21.6	-0.2
MASN	Masaya	1.40	39	P	Pn	05 23 03.1	-0.6
MASN				S	Sn	05 23 22.4	+0.1
MAS3	Al N del Volca	1.41	37	P	Pn	05 23 03.2	-0.7
MAS3				S	Sn	05 23 22.3	-0.4
SAPS	Ciudad Sandino	1.42	26	⇑P	Pn	05 23 03.3	-0.7
SAPS				S	Sn	05 23 22.7	-0.1
TISN	Laguna Tiscapa	1.46	31	⇑P	Pn	05 23 04.1	-0.5
ALLN	Telcor Managua	1.47	31	P	Pn	05 23 04.5	-0.2
MGAN	Managua	1.47	32	P	Pn	05 23 04.2	-0.5
MGAN				S	Sn	05 23 23.8	-0.4
APQ2	Apoyeque	1.48	28	P	Pn	05 23 03.9	-0.9
APQ2				S	Sn	05 23 23.5	-0.8
APYN	Apoyeque	1.50	27	⇑P	Pn	05 23 04.1	-1.0
APYN				S	Sn	05 23 24.9	+0.1
MORN	Al O del Volca	1.52	64	P	Pn	05 23 04.9	-0.4
MORN				S	Sb	05 23 25.6	-0.1
WILN	Americas 2	1.52	34	P	Pn	05 23 04.8	-0.5
WILN				S	Sn	05 23 25.2	0.0
OMEN	Al SSO del Vol	1.52	66	⇑P	Pn	05 23 05.3	-0.1
OMEN				S	Sn	05 23 25.3	0.0
CARN	Rivas	1.52	79	⇑P	Pb	05 23 06.3	-0.2
CARN				S	Sb	05 23 25.7	-0.2
LEVN	Ruinas Leon Vi	1.56	16	⇑P	Pn	05 23 05.3	-0.6
LEVN				S	Sn	05 23 26.3	0.0
MOMN	Momotombo	1.59	18	P	Pn	05 23 05.5	-0.9
MOM2	El Cardon	1.63	20	⇑P	Pn	05 23 06.2	-0.8
MOM2				S	Sn	05 23 27.9	-0.2
PLRN	Geotermica Pol	1.71	9	P	Pn	05 23 07.6	-0.4
PLRN				S	Sn	05 23 30.4	+0.6
ILCN	San Idelfonso	1.71	11	P	Pn	05 23 06.7	-1.3
ILCN				S	Sb	05 23 30.8	-0.5
CRIN	San Cristobal	1.80	360	⇑P	Pn	05 23 08.9	-0.5
CRIN				S	Sn	05 23 32.8	+0.5
CMARA	Lajas Hojancha	1.81	118	P	Pn	05 23 09.4	-0.1
CMARA				S	Sn	05 23 32.5	-0.1
UPAL	Upala	2.00	90	P	Pn	05 23 11.9	0.0
UPAL				S	Sn	05 23 37.7	+0.7
BOAB	BOACO BROADBAN	2.06	41	⇑P	Pn	05 23 12.0	-0.8
BOAB				S	Sn	05 23 39.3	+0.8
ACON	Acoyapa	2.12	60	P	Pn	05 23 13.8	+0.1
ACON				S	Sn	05 23 41.3	+1.1
CSGN	Cosiguina Volc	2.13	346	P	Pn	05 23 13.8	-0.1
CSGN				S	Sn	05 23 41.5	+0.9
MATN	Matagalpa	2.31	28	⇑P	Pn	05 23 15.5	-0.8
LCND	La Caada	2.54	341	P	Pn	05 23 19.1	-0.3
RCFN	Al S de San Ju	2.75	17	P	Pn	05 23 21.9	-0.5
RCFN				S	Sn	05 23 56.7	+0.8
OCON	Estacion meteo	2.78	11	P	Pn	05 23 22.7	-0.1
OCON				S	Sn	05 23 57.1	+0.6
RCPN	Sur Rio San Ju	2.78	19	P	Pn	05 23 22.8	0.0
RCPN				S	Sn	05 23 57.4	+0.8
RCVN	Varillal2	2.81	17	⇑P	Pn	05 23 23.1	-0.1
PACA	Pacayal	2.85	334	P	Pn	05 23 23.5	-0.4
TECO	Alcaldia de Te	3.13	327	P	Pn	05 23 27.4	-0.2
TGUH	Tegucigalpa,Un	3.16	356	P	Pn	05 23 28.3	+0.3
COEG	Centro de Oper	3.25	327	P	Pn	05 23 29.6	+0.3
COEG				S	Sn	05 24 09.4	+1.2
PAVA	Las Pavas	3.36	327	P	Pn	05 23 30.8	-0.1
BLUN	Bluefields	3.39	71	P	Pn	05 23 30.8	-0.4
NUBE	Las Nubes	4.01	319	P	Pn	05 23 40.0	+0.2
MTO3	Montecristo	4.16	327	P	Pn	05 23 41.7	-0.2

IDC 02 05:27:20.6±2.1, **18°.75S**×**176°.14W, h0**^{km}, **mb3.8**/3, **mbtmp3.8**/3, **Error ellipse: s-maj=60.2km s-min=46.6km az=10.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	46.60	260	P	P	05 35 50.8	-0.1
	0.5nm,0.3s,baz=98,slow=7.5,SNR=16						
	0.5nm,0.3s						
ASAR	Alice Springs	46.64	255	P	P	05 35 51.0	-0.1
	0.9nm,0.6s,baz=87,slow=8.3,SNR=10						
	0.9nm,0.6s						
QSPA	South Pole Qui	71.31	180	P	P	05 38 42.1	+0.1
	0.7nm,0.8s,baz=13,slow=1.6,SNR=1.7						
	0.7nm,0.8s						
GERES	GERESS Array B	148.94	347	PKPbc	PKPbc	05 47 09.9	-0.6
	0.3nm,0.4s,baz=48,slow=1.5,SNR=3.8						

SJA ***02*** *05:33:35.7±0.7, 27°.95S×71°.92W, h13^{km}, ML3.6, MW3.6*

GUC ***02*** *05:33:41.2±0.8, 28°.06S×71°.56W, h16^{km}±5^{km}, ML2.9*

ISC 02 05:33:37.9±1.7, **28°.03S**±0°.03×**71°.70W**±0°.06, **h7**^{km}±11^{km}, **n26, σ1^{s}.64**/51, **2C-5D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.58	108	*e*P	Pg	05 33 49.2	0.0
AC04	Llanos de Chal	0.58	108	⇓*i*P	Pg	05 33 50.0	+0.8
AC04				*i* S	Sg	05 33 55.5	-1.3
AC04				IAML		05 33 56.6	
	comp=N,4μm,0.1s						
LCO	Las Campanas	1.32	138	*e*P	Pn	05 34 03.1	0.0
LCO				*e*S	Sb	05 34 19.8	-0.6
LCO				IAML		05 34 24.0	
	comp=Z,1μm,0.4s						
LCO	Las Campanas	1.32	138	*i* P	Pn	05 34 02.7	-0.3
LCO				*i* S	Sb	05 34 18.4	-2.0
AC06	Mina Casimiro	1.37	61	⇓*i*P	Pn	05 34 02.7	-0.8
AC06				*i* S	Sb	05 34 20.7	-1.0
AC06				IAML		05 34 27.8	
	comp=E,335nm,0.8s						
GO03	Copiapo	1.37	72	*e*P	Pn	05 34 03.2	-0.4
GO03				*e*S	Sg	05 34 25.8	+3.7
GO03				IAML		05 34 32.4	
	comp=Z,334nm,0.9s						
GO03	Copiapo	1.37	72	⇓*i*P	Pn	05 34 03.1	-0.5
GO03				*i* S	Sb	05 34 20.5	-1.2
GO03				IAML		05 34 27.3	
	comp=E,408nm,0.5s						
AC05	El Transito	1.49	123	*e*P	Pn	05 34 05.8	+0.4
AC05				*e*S	Sn	05 34 11.6	-14
AC05				IAML		05 34 26.4	
	comp=Z,409nm,0.7s						
AC05	El Transito	1.49	123	⇓*i*P	Pn	05 34 05.4	+0.1
AC05				*i* S	Sn	05 34 23.0	-2.2

AC05				IAML		05 34 27.4	
	comp=E,534nm,0.6s						
AC01	**Pan de Azucar**	**2.12**	**28**	*e*P	**Pn**	**05 34 13.7**	**-0.1**
AC01				*e*S	**Sb**	**05 34 43.1**	**-0.1**
AC01	**Pan de Azucar**	**2.12**	**28**	⇑*i*P	**Pn**	**05 34 13.6**	**-0.3**
AC01				*i* S	**Sb**	**05 34 44.4**	**+1.2**
AC01				IAML		05 34 52.3	
	comp=N,127nm,0.7s						
GO04	**Tololo Observa**	**2.28**	**160**	*e*P	**Pn**	**05 34 17.7**	**+1.4**
GO04				*e*S	**Sg**	**05 34 50.3**	**-0.9**
GO04				IAML		05 34 53.8	
	comp=Z,491nm,0.8s						
GO04	**Tololo Observa**	**2.28**	**160**	*i* P	**Pn**	**05 34 17.5**	**+1.2**
GO04				*i* S	**Sb**	**05 34 48.0**	**-0.1**
CO01	**Juntas del Tor**	**2.40**	**144**	*e*P	**Pb**	**05 34 20.5**	**-1.2**
CO01				*e*S	**Sn**	**05 34 49.2**	**+1.5**
CO01				*e*S	**Sb**	**05 34 50.1**	**-1.5**
CO01				IAML		05 34 52.3	
	comp=Z,348nm,0.5s						
CO01	**Juntas del Tor**	**2.40**	**144**	*e*P	**Pb**	**05 34 20.5**	**-1.2**
CO01				*e*S	**Sn**	**05 34 49.0**	**+1.3**
AC02	**Maricunga**	**2.58**	**63**	*e*P	**Pn**	**05 34 22.7**	**+2.1**
AC02				*e*S	**Sn**	**05 34 52.6**	**+0.1**
AC02				*e*S	**Sb**	**05 34 55.8**	**-1.1**
AC02				IAML		05 35 04.5	
	comp=Z,176nm,1.0s						
AC02	**Maricunga**	**2.58**	**63**	⇑*i*P	**Pn**	**05 34 22.6**	**+2.0**
AC02				*i* S	**Sb**	**05 34 55.2**	**-1.8**
CO06	**Fray Jorge**	**2.64**	**179**	⇓*i*P	**Pn**	**05 34 21.3**	**+0.4**
AROD	**Rodeo**	**2.89**	**138**	*e*P	**Pb**	**05 34 28.9**	**-1.2**
AROD				*e*S	**Sb**	**05 35 06.5**	**+0.8**
VCA	**Vinchina**	**3.16**	**104**	*e*P	**Pn**	**05 34 28.6**	**+0.3**
VCA				*e*S	**Sb**	**05 35 12.6**	**-0.8**
VCA				IAML		05 35 24.5	
	comp=Z,99nm,0.6s						
CO02	**Combarbal**	**3.22**	**169**	*e*P	**Pn**	**05 34 30.2**	**+1.1**
CO02				*e*S	**Sb**	**05 35 13.6**	**-1.5**
CO02				IAML		05 35 24.9	
	comp=Z,208nm,0.7s						
ACCO	**Cerro Coronel**	**3.44**	**139**	*e*P	**Pn**	**05 34 33.1**	**+0.8**
ACCO				*e*S	**Sb**	**05 35 20.6**	**-0.9**
ACCO				IAML		05 35 33.2	
	comp=Z,86nm,0.7s						
PB14	**IPOC Station P**	**3.58**	**19**	*e*P	**Pn**	**05 34 33.7**	**-0.5**
PB14				*e*S	**Sn**	**05 35 16.7**	**-0.3**
PB14				IAML		05 35 44.9	
	comp=Z,50nm,1.0s						
CFA	**Coronel Fontan**	**4.67**	**141**	*e*P	**Pn**	**05 34 52.6**	**+3.7**
CFA				*e*S	**Sn**	**05 35 48.4**	**+5.0**
CFA				*e*S	**Sb**	**05 35 52.6**	**-4.0**
CFA				IAML		05 36 06.1	
	comp=Z,32nm,0.7s						
VA03	**San Esteban**	**4.82**	**168**	*e*P	**Pn**	**05 34 53.4**	**+2.3**
VA03				IAML		05 36 17.5	
	comp=Z,47nm,0.7s						
MT02	**Curacav**	**5.24**	**175**	*e*P	**Pn**	**05 34 57.4**	**+0.7**
MT02				*e*S	**Sn**	**05 35 56.2**	**-1.1**
MT02				IAML		05 36 26.5	
	comp=Z,28nm,0.7s						

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*SJA **02** 05:38:51.6±1.9, 18°.23S×66°.96W, h250^{km}, ML3.3, MW3.5*
*SCB **02** 05:38:51.0±0.8, 18°.32S×67°.08W, h274^{km}±11^{km}, ML3.1/2, Error ellipse: s-maj=5.1km s-min=3.0km az=2.0*
ISC 02 05:38:51.5±1.4**, 18°.30S**±0°.06×**67°.10W**±0°.08**, h266**^{km}**, n22,** σ**1^{s}.34**/33**, Central Bolivia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SOEO	**Opoqueri**	**0.79**	**251**	P	**Pn**	**05 39 28.5**	**+0.7**
BBOJ	**La Paz, Jacaqu**	**1.68**	**322**	P	**Pn**	**05 39 34.5**	**+1.1**
SOEJ	**Jacaque**	**1.68**	**322**	P	**Pn**	**05 39 35.0**	**+1.6**
AOEA	**Aiquile**	**1.78**	**86**	P	**Pn**	**05 39 34.3**	**+0.5**
AOEA	**Aiquile**	**1.78**	**86**	P	**Pn**	**05 39 34.4**	**+0.6**
BBOD	**La Paz, Gloria**	**2.19**	**319**	P	**Pn**	**05 39 38.6**	**+1.0**
LPAZ	**La Paz**	**2.23**	**334**	P	**Pn**	**05 39 38.4**	**+0.3**
PB16	**IPOC Station P**	**2.29**	**269**	*e*P	**Pn**	**05 39 40.4**	**+1.8**
PB16	**IPOC Station P**	**2.29**	**269**	P	**Pn**	**05 39 39.7**	**+1.2**
BBOB	**La Paz, Bander**	**2.36**	**335**	P	**Pn**	**05 39 39.7**	**+0.5**
PB11	**IPOC Station P**	**2.82**	**239**	*e*P	**Pn**	**05 39 45.1**	**+1.9**
PB11				*e*S	**S**	**05 40 24.5**	**+0.1**
PB11	**IPOC Station P**	**2.82**	**239**	P	**Pn**	**05 39 44.3**	**+1.0**
PB11				S	**S**	**05 40 23.9**	**-0.5**
PB11				IAML		05 40 26.7	
	23nm,0.3s						
PB12	**IPOC Station P**	**3.08**	**264**	*e*P	**Pn**	**05 39 45.9**	**0.0**
PB12				*e*S	**S**	**05 40 27.9**	**-1.3**
PSGCX	**Pisagua**	**3.14**	**245**	*e*P	**Pn**	**05 39 47.1**	**+0.5**
PSGCX				*e*S	**S**	**05 40 28.7**	**-1.6**
PSGCX				IAML		05 41 07.5	
	comp=Z,28nm,1.6s						
PB02	**IPOC Station P**	**3.99**	**221**	*e*P	**Pn**	**05 39 57.4**	**+1.3**
PB02				*e*S	**S**	**05 40 46.5**	**-1.0**
PB02				IAML		05 40 49.8	
	comp=Z,25nm,0.3s						
PB02	**IPOC Station P**	**3.99**	**221**	P	**Pn**	**05 39 57.0**	**+1.0**
PB02				S	**S**	**05 40 46.5**	**-1.0**
PB02				IAML		05 40 47.7	
	comp=Z,25nm,0.2s						
PB09	**IPOC Station P**	**4.02**	**210**	*e*P	**Pn**	**05 39 58.6**	**+2.2**
PB09				*e*S	**S**	**05 40 48.8**	**+0.7**
PB09				IAML		05 40 49.5	
	comp=Z,22nm,2.5s						
PB07	**IPOC Station P**	**4.30**	**217**	*e*P	**Pn**	**05 40 00.9**	**+1.2**
PB07				*e*S	**S**	**05 40 52.1**	**-1.9**
PB07				IAML		05 41 16.4	
	comp=Z,21nm,2.0s						
PB03	**IPOC Station P**	**4.48**	**213**	*e*P	**Pn**	**05 40 03.1**	**+1.2**
PB03				*e*S	**S**	**05 40 56.2**	**-1.8**
PB03				IAML		05 41 04.5	
	comp=Z,10nm,1.3s						
PB06	**IPOC Station P**	**4.96**	**207**	*e*P	**Pn**	**05 40 08.9**	**+1.5**
PB06				*e*S	**S**	**05 41 07.0**	**-1.2**
PB06				IAML		05 41 23.4	
	comp=Z,15nm,2.2s						
PB06	**IPOC Station P**	**4.96**	**207**	P	**Pn**	**05 40 08.3**	**+0.9**
PB05	**IPOC Station P**	**5.38**	**212**	*e*P	**Pn**	**05 40 13.1**	**+0.6**
PB05				*e*S	**S**	**05 41 14.3**	**-3.1**
PB05				IAML		05 41 27.2	
	comp=Z,11nm,1.6s						

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*IDC **02** 05:42:00.5±2.1, 64°.79S×179°.14E, h0^{km}, mb3.9/3, mbtmp3.9/3, MS3.9/24, Error ellipse: s-maj=86.5km s-min=29.4km az=64.0*
ISC 02 05:42:01.1±2.0**, 64°.7S**±0°.3×**179°.6E**±0°.5**, h10**^{km}**, n36,** σ**0^{s}.66**/7**, mb4.0**/3**, MS3.9**/24**, Balleny Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RPZ	**Rata Peaks**	**21.57**	**343**	LR	LR	05 53 27.2	
	comp=Z,97nm,20.8s,baz=208,slow=32						
QSPA	**South Pole Qui**	**25.39**	**180**	P	**P**	**05 47 28.7**	**+0.4**
	5.2nm,1.1s,baz=46,slow=12,SNR=5.2						
QSPA				LR	LR	05 56 10.0	
	comp=Z,296nm,18.9s,baz=58,slow=34 5.2nm,1.1s						
URZ	**Urewera**	**26.51**	**356**	LR	LR	05 56 55.7	
	comp=Z,258nm,18.6s,baz=142,slow=34						
MAW	**Mawson**	**40.54**	**212**	LR	LR	06 06 06.4	
	comp=Z,269nm,19.6s,baz=143,slow=36						
PMSA	**Palmer Station**	**42.77**	**146**	LR	LR	06 04 25.0	
	comp=Z,96nm,20.2s,baz=252,slow=31						
DZM	**Mont Dzumac**	**43.48**	**342**	LR	LR	06 05 27.5	
	comp=Z,195nm,19.5s,baz=200,slow=32						
SNAA	**Sanae**	**43.89**	**179**	LR	LR	06 07 43.1	
	comp=Z,240nm,19.0s,baz=170,slow=35						
RAR	**Rarotonga**	**45.57**	**27**	LR	LR	06 05 54.8	
	comp=Z,233nm,18.1s,baz=278,slow=31						
MSVF	**Nonsavu**	**46.94**	**358**	LR	LR	06 07 32.0	
	comp=Z,86nm,18.9s,baz=209,slow=33						
H01W1	**Cape Leeuwin H**	**48.62**	**275**	T	T	06 42 56.9	
	baz=149,slow=76,SNR=19						
H01W2	**Cape Leeuwin H**	**48.62**	**275**	T	T	06 42 57.0	
	baz=149,slow=76,SNR=19						
H01W3	**Cape Leeuwin H**	**48.63**	**275**	T	T	06 43 00.4	
	baz=149,slow=76,SNR=21						
NWAO	**Narrogin (SRO)**	**48.99**	**279**	LR	LR	06 06 59.6	
	comp=Z,132nm,18.4s,baz=346,slow=31						
CTA	**Charters Tower**	**49.77**	**317**	LR	LR	06 07 29.2	
	comp=Z,105nm,21.7s,baz=216,slow=31						
ASAR	**Alice Springs**	**50.53**	**302**	P	**P**	**05 51 00.2**	**+0.9**
	0.6nm,0.6s,baz=158,slow=7.7,SNR=7.9 0.6nm,0.6s						
WRA	**Warramunga Arr**	**53.78**	**304**	P	**P**	**05 51 23.1**	**-0.5**
	1.0nm,0.7s,baz=157,slow=6.5,SNR=8.5 1.0nm,0.7s						
HNR	**Honiara**	**56.88**	**337**	LR	LR	06 12 14.1	
	comp=Z,126nm,20.6s,baz=266,slow=32						
PLCA	**Paso Flores**	**61.58**	**126**	LR	LR	06 14 44.3	
	comp=Z,57nm,18.5s,baz=185,slow=32						
H03S2	**Juan Fernandez**	**64.58**	**115**	T	T	07 03 37.0	
	baz=205,slow=74,SNR=23						
H03S1	**Juan Fernandez**	**64.58**	**115**	T	T	07 03 38.3	
	baz=205,slow=74,SNR=25						
H03S3	**Juan Fernandez**	**64.60**	**115**	T	T	07 03 38.0	
	baz=205,slow=74,SNR=21						
KAPI	**Kappang**	**72.93**	**296**	LR	LR	06 24 43.8	
	comp=Z,116nm,18.1s,baz=195,slow=35						
CPUP	**Villa Florida**	**79.18**	**130**	LR	LR	06 26 45.4	
	comp=Z,34nm,18.0s,baz=189,slow=34						
SUR	**Sutherland**	**81.82**	**198**	LR	LR	06 27 37.8	
	comp=Z,77nm,19.2s,baz=142,slow=34						
DAV	**Davao City (W)**	**81.94**	**306**	LR	LR	06 31 34.7	
	comp=Z,53nm,18.1s,baz=160,slow=36						
GUMO	**Guam**	**82.37**	**326**	LR	LR	06 23 19.6	
	comp=Z,33nm,21.1s,baz=152,slow=30						
BOSA	**Boshof**	**84.86**	**202**	LR	LR	06 28 41.8	
	comp=Z,38nm,21.1s,baz=208,slow=33						
LBTB	**Lobatse**	**88.32**	**203**	LR	LR	06 33 11.9	
	comp=Z,36nm,18.1s,baz=176,slow=35						
ATAH	**Atahualpa**	**88.71**	**104**	LR	LR	06 25 50.0	
	comp=Z,68nm,20.1s,baz=230,slow=30						
MATP	**Matopo**	**92.27**	**207**	LR	LR	06 32 55.7	
	comp=Z,66nm,19.1s,baz=125,slow=33						
TSUM	**Tsumeb**	**95.23**	**197**	LR	LR	06 35 41.4	
	comp=Z,66nm,19.4s,baz=153,slow=34						
LSZ	**Lusaka**	**97.34**	**208**	LR	LR	06 35 59.2	
	comp=Z,32nm,20.2s,baz=196,slow=33						
ILAR	**Eielson Array**	**131.47**	**18**	PKP	**PKiKP**	**06 01 13.1**	**+0.2**
	0.5nm,0.9s,baz=204,slow=2.0,SNR=5.4						
KBZ	**Khabaz**	**148.07**	**250**	PKPbc	**PKPbc**	**06 01 45.4**	**-0.3**
	2.3nm,0.8s,baz=87,slow=3.8,SNR=7.0						
BRTR	**Keskin Array B**	**148.15**	**235**	PKPbc	**PKPbc**	**06 01 46.1**	**-0.2**
	3.5nm,1.1s,baz=138,slow=3.7,SNR=16						
AKASG	**Malin Array Be**	**159.13**	**242**	PKPab	**PKPab**	**06 02 34.4**	**-0.7**
	0.1nm,0.2s,baz=168,slow=4.7,SNR=5.1						

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*ASRS **02** 05:47:14.0±1.7, 53°.69N×90°.12E, h0^{km}, M2.7(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*
*IDC **02** 05:47:24.4±3.8, 53°.60N×89°.42E, h0^{km}, mbtmp3.2/4, ML2.6/4, Error ellipse: s-maj=36.7km s-min=21.8km az=65.0*
*NNC **02** 05:47:24.1±7.1, 53°.46N×89°.61E, h0^{km}, mb3.3, mpv3.0, Error ellipse: s-maj=56.8km s-min=42.6km az=74.0, Suspected Mining explosion.*
ISC 02 05:47:25.2±4.1**, 53°.6N**±0°.1×**89°.5E**±0°.2**, h0**^{km}**, n10,** σ**1^{s}.28**/14**, 10C-4D, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	**2.79**	**280**	I	I	06 05 50.0	
	0.1nm,0.9s,baz=91,slow=326,SNR=7.8						
ZAA0	**Zalesovo Array**	**2.79**	**280**	⇑Pn	**Pn**	**05 48 11.0**	**-0.1**
	2.5nm,0.5s						
ZAA0				⇑Lg	Lg	05 48 52.4	
	7.5nm,0.8s						
ZALV	**Zalesovo Beam**	**2.79**	**280**	Pn	**Pn**	**05 48 11.1**	**0.0**
	1.8nm,0.3s,baz=92,slow=14,SNR=25						
ZALV				Lg	Lg	05 48 50.9	
	2.2nm,0.3s,baz=91,slow=26,SNR=7.6 6.6nm,0.4s						
ZALV				AML	AML		
KURK	**Kurchatov**	**7.26**	**251**	⇓Pn	**Pn**	**05 49 10.9**	**-1.5**
	0.2nm,0.4s						
KURK				⇑Sn	**Sn**	**05 50 35.4**	**-0.1**
	0.5nm,0.7s						
KURK				⇓Lg	Lg	05 51 17.9	
	1.5nm,0.7s						
KURBB	**Kurchatov Arra**	**7.36**	**251**	Pn	**Pn**	**05 49 13.3**	**-0.4**
	0.1nm,0.3s,baz=65,slow=14,SNR=8.2 1.3nm,0.5s						
KURBB				AML	AML		
KURBB	**Kurchatov Arra**	**7.36**	**251**	⇑Pn	**Pn**	**05 49 12.6**	**-1.2**
	2.2nm,0.6s						
KURBB				⇑Sn	**Sn**	**05 50 39.3**	**+1.5**
	1.5nm,0.5s						
KURBB				⇑Lg	Lg	05 51 19.5	
	3.5nm,0.7s						
MK31	**Makanchi Array**	**8.19**	**217**	⇑Pn	**Pn**	**05 49 27.6**	**+2.4**
	0.2nm,0.6s,baz=46,slow=11,SNR=4.1						
MK31				⇓Sn	**Sn**	**05 50 59.3**	**+1.0**
	0.4nm,0.7s						
MK31				⇓Lg	Lg	05 51 40.8	
	0.4nm,0.7s,baz=44,slow=32						
MKAR	**Makanchi Array**	**8.19**	**217**	Pn	**Pn**	**05 49 24.9**	**-0.3**
	0.1nm,0.3s,baz=34,slow=14,SNR=6.6						
MKAR				Sn	**Sn**	**05 50 58.6**	**+0.2**
	0.2nm,0.3s,baz=26,slow=27,SNR=3.5 0.2nm,0.3s						
MKAR				AML	AML		
MAKZ	**Makanchi**	**8.29**	**218**	⇑Pn	**Pn**	**05 49 27.9**	**+1.3**
	0.5nm,0.6s						
MAKZ				⇑Sn	**Sn**	**05 50 59.1**	**-1.8**
	0.9nm,0.6s						
MAKZ				⇑Lg	Lg	05 51 45.5	
	1.2nm,1.1s						
BVAR	**Borovoye Array**	**11.44**	**275**	Pn	**Pn**	**05 50 09.6**	**-0.1**
	0.1nm,0.3s,baz=77,slow=12,SNR=1.8 0.5nm,0.4s						
BVAR				AML	AML		

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*IDC **02** 05:52:12.4±0.6, 18°.10N×119°.38E, h0^{km}, mb4.1/19, mbtmp4.1/20, ML4.6/1, MS3.4/6, Error ellipse: s-maj=25.2km s-min=14.6km az=69.0*
*NEIC **02** 05:52:14.7±2.0, 18°.16N±0°.07×119°.27E±0°.08, h10^{km}±1^{km}, mb4.5/28, Error ellipse: s-maj=17.4km s-min=3.1km az=223.0*
*MAN **02** 05:52:15.0, 18°.25N×119°.26E, h33^{km}, MS3.6*
ISC 02 05:52:17.2±0.5**, 18°.19N**±0°.05×**119°.28E**±0°.07**, h31**^{km}**, n65,** σ**1^{s}.20**/55**, mb4.4**/34**, MS3.6**/4**, 1C-3D, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SZP	**Santa**	**1.29**	**119**		**Pn**	**05 52 37.8**	**-1.4**
PACPP	**Pamplona Cagay**	**1.99**	**82**	*e*P	**Pn**	**05 52 47.6**	**-1.2**
PACPP				*i* S	**Sn**	**05 53 12.0**	**-0.6**
CICP	**Calayan Island**	**2.34**	**63**	*i* P	**Pn**	**05 52 52.2**	**-1.5**
CICP				*i* S	**Sn**	**05 53 18.9**	**-2.5**
CVP	**Callao Caves**	**2.47**	**101**	*e*P	**Pn**	**05 52 55.5**	**+0.1**
CVP				*e*S	Sn	05 53 10.9	-14
CAAP	**Casiguran, Aur**	**3.29**	**126**	*i* P	**Pn**	**05 53 06.7**	**0.0**
CAAP				*e*S	**Sn**	**05 53 45.5**	**+0.7**
PCPS	**Palayan City**	**3.91**	**154**	*e*P	Pn	05 53 04.6	-11
PCPS				*e*S	Sn	05 53 42.5	-18
TIRP	**Brgy. Gulod. B**	**4.25**	**154**	*e*P	**Pn**	**05 53 18.8**	**-1.1**
TIRP				*e*S	**Sn**	**05 54 08.2**	**-0.2**
LQP	**Lukban**	**4.60**	**152**	*e*P	**Pn**	**05 53 24.1**	**-0.8**
TPUB	**Ta-pu**	**5.24**	**14**	Pn	**Pn**	**05 53 32.7**	**-0.8**
YULB	**Yu-li**	**5.51**	**20**	Pn	**Pn**	**05 53 37.4**	**+0.2**
SSLB	**Suanglung**	**5.78**	**15**	Pn	**Pn**	**05 53 37.9**	**-3.1**
HKPS	**Hong Kong Po S**	**6.31**	**311**		**Pn**	**05 53 45.7**	**-2.4**
DAV	**Davao City (W)**	**12.64**	**150**	LR	LR	06 00 37.7	
	comp=Z,116nm,19.1s,baz=356,slow=40						
SLVN	**Son La**	**14.81**	**285**	Pn	**Pn**	**05 55 42.0**	**-2.6**
CMAR	**Chiang Mai Arr**	**19.31**	**274**	P	**P**	**05 56 40.1**	**+0.2**
	0.8nm,0.3s,baz=85,slow=9.6,SNR=5.4						
CMAR				LR	LR	06 03 48.4	
	comp=Z,45nm,18.7s,baz=105,slow=36 0.6nm,0.3s						
CMAR				AML	AML		
KSRS	**Korea Array**	**20.64**	**20**	P	**P**	**05 56 54.1**	**-0.1**
	4.2nm,0.6s,baz=203,slow=11,SNR=14 4.2nm,0.6s						
GUMO	**Guam**	**25.02**	**97**	LR	LR	06 05 25.4	
	comp=Z,41nm,19.3s,baz=177,slow=32						
USRK	**Ussuriysk Ar.**	**28.05**	**20**	P	**P**	**05 58 05.8**	**+0.1**
	1.0nm,0.6s,baz=211,slow=8.1,SNR=1.4 1.0nm,0.6s						
SONM	**Songino Array**	**31.39**	**343**	P	**P**	**05 58 36.3**	**+0.9**
	0.8nm,0.8s,baz=156,slow=11,SNR=2.7 0.8nm,0.8s						
KLR	**Kul'dur**	**32.56**	**15**	P	**P**	**05 58 47.0**	**+1.4**
	3.8nm,0.9s,baz=199,slow=7.0,SNR=6.0 3.8nm,0.9s						
TLY	**Talaya**	**35.63**	**343**	LR	LR	06 14 33.5	
	comp=Z,77nm,18.1s,baz=20,slow=38						
FITZ	**Fitzroy Crossi**	**36.60**	**170**	P	**P**	**05 59 21.0**	**+0.2**
WB0	**Warramunga Arr**	**40.53**	**158**	P	**P**	**05 59 52.2**	**-1.6**
WB0				IAmb	IAmb	06 00 10.8	
	comp=Z,15nm,1.5s						
WRAB	**Tennant Creek**	**40.67**	**158**	P	**P**	**05 59 53.3**	**-1.6**
WRA	**Warramunga Arr**	**40.68**	**158**	P	**P**	**05 59 53.5**	**-1.5**
	comp=Z,0.9nm,0.5s,baz=342,slow=9.0,SNR=13						
WRA				PcP	**PcP**	**06 01 56.3**	**-0.2**
	comp=Z,1.0nm,0.6s,baz=343,slow=3.1,SNR=5.4 comp=Z,0.9nm,0.5s						
WRA	**Warramunga Arr**	**40.68**	**158**	IAmb	IAmb	05 59 55.8	
	comp=Z,0.1nm,0.8s						
WB2	**Warramunga Arr**	**40.68**	**158**	P	**P**	**05 59 53.5**	**-1.5**
WB2				IAmb	IAmb	06 00 03.6	
	comp=Z,13nm,1.2s						
WR8	**Warramunga Arr**	**40.75**	**158**	P	**P**	**05 59 55.3**	**-0.3**
WR8				IAmb	IAmb	06 00 04.9	
	comp=Z,16nm,1.4s						
WR0	**Warramunga Arr**	**40.76**	**158**	P	**P**	**05 59 54.4**	**-1.3**
MK31	**Makanchi Array**	**41.65**	**322**	⇓Pg	**P**	**06 00 05.4**	**+2.5**
	comp=Z,0.8nm,0.8s,baz=85,slow=13,SNR=7.8						
MK31				⇓Lg	Lg	06 01 30.0	
	comp=Z,0.9nm,0.7s,baz=83,slow=26,SNR=5.5						
MKAR	**Makanchi Array**	**41.65**	**322**	P	**P**	**06 00 04.4**	**+1.6**
	comp=Z,0.8nm,0.8s,baz=119,slow=9.9,SNR=7.2						
MKAR				PcP	**PcP**	**06 01 59.8**	**+0.5**
	comp=Z,0.9nm,0.7s,baz=131,slow=1.1,SNR=5.1 comp=Z,0.8nm,0.8s						
MAKZ	**Makanchi**	**41.85**	**321**	⇓Pg	**P**	**06 00 04.8**	**+0.4**
	comp=Z,0.4nm,0.6s						
MAKZ				⇑Lg	Lg	06 01 37.6	
	comp=Z,1.9nm,1.2s						
AS31	**Alice Springs**	**43.98**	**161**	P	**P**	**06 00 21.0**	**-0.9**
ASAR	**Alice Springs**	**43.98**	**161**	P	**P**	**06 00 21.3**	**-0.6**
	comp=Z,1.4nm,0.5s,baz=339,slow=6.6,SNR=18						
ASAR				PcP	**PcP**	**06 02 06.7**	**-0.7**
	comp=Z,0.4nm,0.4s,baz=340,slow=3.7,SNR=2.8 comp=Z,1.4nm,0.5s						
KURK	**Kurchatov**	**45.73**	**325**		**P**	**06 00 36.3**	**+0.8**
KURK				IAmb	IAmb	06 00 48.2	
	comp=Z,4.5nm,0.8s						
KURBB	**Kurchatov Arra**	**45.74**	**325**	P	**P**	**06 00 37.2**	**+1.7**
	comp=Z,3.3nm,0.8s,baz=123,slow=8.1,SNR=22 comp=Z,3.3nm,0.8s						
CTA	**Charters Tower**	**46.34**	**144**	LR	LR	06 23 50.0	
	comp=Z,77nm,18.2s,baz=66,slow=41						
BVAR	**Borovoye Array**	**51.33**	**324**	P	**P**	**06 01 19.8**	**+1.2**
	comp=Z,0.8nm,0.4s,baz=126,slow=7.5,SNR=4.7 comp=Z,0.8nm,0.4s						
BBOO	**Buckleboo**	**53.19**	**162**	P	**P**	**06 01 31.9**	**-0.7**
EIDS	**Eidsvold**	**53.22**	**143**	P	**P**	**06 01 33.7**	**+0.7**
NRIK	**Noril'sk**	**54.76**	**347**	P	**P**	**06 01 44.2**	**+0.6**
	comp=Z,11nm,0.7s,baz=124,slow=6.2,SNR=10 comp=Z,11nm,0.7s						
NRIK	**Noril'sk**	**54.76**	**347**		**P**	**06 01 44.5**	**+1.0**
AB31	**Akbulak array**	**56.49**	**317**		**P**	**06 01 56.9**	**+0.6**
AB31				IAmb	IAmb	06 01 58.8	
	comp=Z,2.6nm,0.7s						
AKTO	**Aktyubinsk**	**57.94**	**319**	P	**P**	**06 02 07.7**	**+1.2**
	comp=Z,1.5nm,0.4s,baz=117,slow=7.1,SNR=6.7 comp=Z,1.5nm,0.4s						
ARTI	**Arti**	**59.00**	**325**	P	**P**	**06 02 14.4**	**+0.5**
	comp=Z,2.0nm,0.4s,baz=129,slow=6.9,SNR=4.5 comp=Z,2.0nm,0.4s						
ARTI	**Arti**	**59.00**	**325**	IAmb	IAmb	06 02 15.5	
	comp=Z,14nm,1.2s						
H22K	**Ishtalitna Cre**	**73.30**	**25**	IAmb	IAmb	06 03 48.3	
	comp=Z,5.7nm,1.2s						
MLY	**Manley**	**73.67**	**26**	P	**P**	**06 03 49.4**	**+1.7**
MLY				IAmb	IAmb	06 03 50.2	
	comp=Z,4.2nm,0.9s						
H23K	**Yukon River**	**74.06**	**25**	IAmb	IAmb	06 03 52.8	
	comp=Z,6.5nm,0.9s						
ARCES	**ARCESS Array B**	**74.43**	**339**	P	**P**	**06 03 52.4**	**+0.4**
	comp=Z,2.4nm,0.8s,baz=76,slow=6.2,SNR=4.1 comp=Z,2.4nm,0.8s						
ARCES	**ARCESS Array B**	**74.43**	**339**	IAmb	IAmb	06 04 02.0	
	comp=Z,15nm,1.4s						
NEA2	**Nenana**	**74.45**	**27**	IAmb	IAmb	06 03 54.5	
	comp=Z,3.5nm,0.6s						
RND	**Reindeer**	**74.74**	**28**	IAmb	IAmb	06 03 55.2	
	comp=Z,6.5nm,0.8s						
ILAR	**Eielson Array**	**75.34**	**26**	P	**P**	**06 03 56.8**	**-0.5**
	comp=Z,0.7nm,0.7s,baz=278,slow=6.3,SNR=9.2 comp=Z,0.7nm,0.7s						
FINES	**FINESS Array B**	**75.72**	**330**	P	**P**	**06 03 59.6**	**0.0**
	comp=Z,1.0nm,0.5s,baz=71,slow=6.4,SNR=6.9 comp=Z,1.0nm,0.5s						
AKASG	**Malin Array Be**	**76.18**	**319**	P	**P**	**06 04 02.0**	**-0.4**
	comp=Z,0.8nm,0.6s,baz=66,slow=5.3,SNR=2.0 comp=Z,0.8nm,0.6s						
I26K	**Coal Creek Min**	**76.76**	**25**	IAmb	IAmb	06 04 07.0	
	comp=Z,3.9nm,0.8s						
M26K	**Nabesna, AK**	**77.58**	**28**	IAmb	IAmb	06 04 12.2	
	comp=Z,4.4nm,0.8s						
I30M	**Mount Dempster**	**79.51**	**25**	IAmb	IAmb	06 04 22.1	
	comp=Z,3.3nm,0.8s						
M29M	**Somme Creek**	**79.58**	**28**	IAmb	IAmb	06 04 24.1	
	comp=Z,5.2nm,0.8s						
NOA	**NORSAR Array B**	**82.67**	**332**	P	**P**	**06 04 37.4**	**-0.2**
	comp=Z,0.8nm,0.8s,baz=64,slow=4.8,SNR=3.3 comp=Z,0.8nm,0.8s						
GERES	**GERESS Array B**	**86.31**	**320**	P	**P**	**06 04 56.7**	**+0.3**
	comp=Z,0.3nm,0.4s,baz=51,slow=5.5,SNR=5.0 comp=Z,0.3nm,0.4s						
BBB	**Bella Bella**	**88.88**	**35**	LR	LR	06 44 08.1	
	comp=Z,31nm,20.1s,baz=185,slow=35						
YKA	**Yellowknife Ar**	**89.16**	**22**	P	**P**	**06 05 09.8**	**+0.2**
	comp=Z,1.7nm,0.6s,baz=317,slow=4.4,SNR=7.3 comp=Z,1.7nm,0.6s						
TXAR	**Lajitas Array**	**117.15**	**42**	PKP	**PKiKP**	**06 11 00.2**	**+0.1**
	comp=Z,0.2nm,0.6s,baz=347,slow=3.1,SNR=2.4						

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*IDC **02** 06:00:33.5±0.9, 62°.24S×57°.74W, h0^{km}, mb4.0/6, mbtmp4.0/6, MS3.6/2, Error ellipse: s-maj=53.9km s-min=20.6km az=71.0*
*NEIC **02** 06:00:34.9±2.1, 62°.41S±0°.06×58°.4W±0°.1, h10^{km}±1^{km}, mb4.3/9, Error ellipse: s-maj=13.7km s-min=5.1km az=48.0*
ISC 02 06:00:35.1±0.6**, 62°.39S**±0°.07×**58°.22W**±0°.10**, h10**^{km}**, n36,** σ**1^{s}.10**/27**, mb4.1**/7**, 4C, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ESPZ	**Base Esperanza**	**1.16**	**152**	Pn	**Pb**	**06 00 55.3**	**-1.9**
PMSA	**Palmer Station**	**3.54**	**225**		**Pn**	**06 01 28.9**	**-1.1**
ORCD	**Orcadas**	**6.65**	**82**		**Pn**	**06 02 12.9**	**+0.2**
SMAI	**San Martin Ant**	**6.86**	**209**	Pn	**Pn**	**06 02 16.2**	**+0.6**
EFI	**East Falkland**	**10.74**	**1**	Pn	**Pn**	**06 03 08.3**	**-0.5**
MG02	**Cerro Sombrero**	**11.28**	**324**	Pn	**Pn**	**06 03 15.4**	**-0.7**
BELA	**Belgrano 2**	**17.24**	**163**	P	**Pn**	**06 04 35.7**	**+0.2**
VNA3	**Neumayer Olymp**	**20.44**	**136**	⇑P	**P**	**06 05 13.0**	**+0.8**
	comp=Z,7.6nm,0.7s						
VNA1	**Neumayer--Stat**	**20.91**	**134**	P	Pn	06 05 18.9	-0.8
	comp=Z,14nm,1.0s						
VNA2	**Neumayer--Watz**	**21.19**	**135**	⇑P	**P**	**06 05 21.5**	**+1.2**
	comp=Z,8.7nm,0.9s,baz=269,slow=9.6						
SNAA	**Sanae**	**22.61**	**137**	⇑P	**P**	**06 05 36.1**	**+0.6**
	comp=Z,200nm,1.0s						
SNAA	**Sanae**	**22.61**	**137**	P	**P**	**06 05 36.2**	**+0.6**
	comp=Z,8.5nm,0.9s,baz=262,slow=8.7,SNR=15 comp=Z,8.5nm,0.9s						
SNAA	**Sanae**	**22.61**	**137**	P	**P**	**06 05 35.6**	**0.0**
SNAA				IAmb	IAmb	06 05 38.9	
	comp=Z,11nm,0.9s						
PLCA	**Paso Flores**	**22.92**	**335**	P	**P**	**06 05 39.1**	**0.0**
	comp=Z,5.7nm,1.1s,baz=149,slow=7.5,SNR=5.4 comp=Z,5.7nm,1.1s						
PLCA	**Paso Flores**	**22.92**	**335**	P	**P**	**06 05 39.1**	**0.0**
PLCA				IAmb	IAmb	06 05 42.2	
	comp=Z,11nm,1.2s						
GO06	**Curarrehue**	**24.21**	**334**	P	**P**	**06 05 52.8**	**+1.0**
GO06				IAmb	IAmb	06 05 54.2	
	comp=Z,13nm,1.1s						
TROLL	**Troll, Antarti**	**24.25**	**139**	⇑P	**P**	**06 05 52.8**	**+0.9**
	comp=Z,300nm,1.0s						
QSPA	**South Pole Qui**	**27.84**	**180**	P	**P**	**06 06 25.4**	**+1.0**
	comp=Z,1.2nm,0.7s,baz=179,slow=1.7,SNR=9.9 comp=Z,1.2nm,0.7s						
QSPA	**South Pole Qui**	**27.84**	**180**	IAmb	IAmb	06 06 33.4	
	comp=Z,6.8nm,1.1s						
GO05	**Hualane**	**28.73**	**336**	P	**P**	**06 06 33.4**	**+1.0**
MT09	**Talagante**	**29.76**	**338**	P	**P**	**06 06 43.4**	**+1.7**
MAW	**Mawson**	**43.52**	**152**	LR	LR	06 26 37.7	
	comp=Z,69nm,19.2s,baz=238,slow=36						

LPAZ	**La Paz**	**46.57**	**347**	P	**P**	**06 09 03.1**	**-0.5**
	comp=Z,0.4nm,0.4s,baz=74,slow=7.6,SNR=5.7						
	comp=Z,0.4nm,0.4s						
LPAZ	**La Paz**	**46.57**	**347**	IAmb	IAmb	06 09 11.6	
	comp=Z,1.9nm,0.8s						
H10N3	**ASCENSION HYDR**	**63.03**	**50**	T	T	07 19 25.3	
	baz=201,slow=74,SNR=4.4						
H10N1	**ASCENSION HYDR**	**63.03**	**50**	T	T	07 19 26.6	
	baz=201,slow=74,SNR=6.0						
H10N2	**ASCENSION HYDR**	**63.04**	**50**	T	T	07 19 26.0	
	baz=201,slow=74,SNR=5.3						
MDP	**Montagnes des**	**67.43**	**6**	LR	LR	06 43 03.2	
	comp=Z,32nm,18.6s,baz=161,slow=38						
ASAR	**Alice Springs**	**93.70**	**191**	P	**P**	**06 13 53.9**	**+2.1**
	comp=Z,0.3nm,0.5s,baz=181,slow=5.4,SNR=2.2						
	comp=Z,0.3nm,0.5s						
WRA	**Warramunga Arr**	**97.35**	**192**	P	Pdif	06 14 08.3	-0.2
	comp=Z,0.8nm,1.1s,baz=188,slow=3.4,SNR=2.4						
	comp=Z,0.8nm,1.1s						
ILAR	**Eielson Array**	**142.64**	**315**	PKP	**PKPdf**	**06 20 06.2**	**-0.4**
	comp=Z,0.3nm,0.9s,baz=186,slow=1.1,SNR=3.0						
ARCES	**ARCESS Array B**	**144.13**	**37**	PKP	**PKPab**	**06 20 06.8**	**-0.1**
	comp=Z,1.3nm,0.7s,baz=248,slow=1.0,SNR=3.7						
BVAR	**Borovoye Array**	**151.74**	**85**	PKPbc	**PKPbc**	**06 20 28.2**	**-0.2**
	comp=Z,1.4nm,0.6s,baz=259,slow=1.5,SNR=4.7						
MKAR	**Makanchi Array**	**152.87**	**107**	PKPbc	**PKPbc**	**06 20 29.7**	**-1.6**
	comp=Z,0.5nm,0.7s,baz=198,slow=1.9,SNR=4.8						
KURBB	**Kurchatov Arra**	**153.93**	**97**	PKPbc	**PKPbc**	**06 20 31.8**	**-1.6**
	comp=Z,0.3nm,0.6s,baz=226,slow=2.2,SNR=4.7						
KURK	**Kurchatov**	**154.04**	**97**		**PKPbc**	**06 20 31.8**	**-1.8**

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*SJA **02** 06:11:04.2±0.6, 27°.88S×71°.80W, h11^{km}, ML3.5, MW3.3*
*GUC **02** 06:11:10.9±0.6, 28°.06S×71°.41W, h21^{km}±3^{km}, ML3.2*
ISC 02 06:11:08.9±1.2**, 27°.92S**±0°.03×**71°.43W**±0°.06**, h10**^{km}**, n25, σ2^{s}.59**/42**, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	**Llanos de Chal**	**0.43**	**132**	*e*P	**Pb**	**06 11 17.8**	**-0.8**
AC04				*e*S	**Sg**	**06 11 22.1**	**-0.9**
AC04				IAML		06 11 22.3	
	comp=N,7µm,0.2s						
AC06	**Mina Casimiro**	**1.11**	**60**	*e*P	**Pn**	**06 11 31.1**	**+0.6**
AC06				*e*S	**Sn**	**06 11 47.0**	**+1.2**
AC06				IAML		06 11 51.3	
	comp=E,507nm,0.3s						
GO03	**Copiapo**	**1.11**	**74**	*e*P	**Pn**	**06 11 30.7**	**+0.1**
GO03				IAML		06 11 50.5	
	comp=E,1µm,0.3s						
LCO	**Las Campanas**	**1.27**	**150**	*e*P	**Pn**	**06 11 31.2**	**-1.8**
LCO				IAML		06 11 52.8	
	comp=Z,531nm,0.5s						
LCO	**Las Campanas**	**1.27**	**150**	*e*P	**Pn**	**06 11 30.9**	**-2.0**
AC05	**El Transito**	**1.37**	**132**	*e*P	**Pn**	**06 11 33.0**	**-1.3**
AC01	**Pan de Azucar**	**1.91**	**23**	*i*P	**Pb**	**06 11 42.9**	**-1.0**
AC02	**Maricunga**	**2.31**	**63**	*e*P	**Pb**	**06 11 50.8**	**-0.2**
AC02				*e*S	**Sg**	**06 12 21.3**	**-2.0**
AC02				IAML		06 12 23.8	
	comp=N,338nm,0.3s						
GO04	**Tololo Observa**	**2.32**	**166**	*e*P	**Pn**	**06 11 46.8**	**-0.6**
GO04				*e*S	**Sb**	**06 12 18.2**	**-1.5**
GO04				IAML		06 12 20.1	
	comp=Z,248nm,0.3s						
GO04	**Tololo Observa**	**2.32**	**166**	*e*P	**Pn**	**06 11 46.9**	**-0.5**
CO01	**Juntas del Tor**	**2.37**	**151**	*e*P	**Pn**	**06 11 48.6**	**+0.6**
CO01				*e*S	**Sn**	**06 12 17.3**	**0.0**
CO01				IAML		06 12 18.7	
	comp=Z,133nm,0.2s						
CO01	**Juntas del Tor**	**2.37**	**151**	*e*P	**Pn**	**06 11 48.6**	**+0.6**
CO01				IAML		06 12 20.0	
	comp=E,152nm,0.1s						
AROD	**Rodeo**	**2.83**	**143**	*e*P	**Pb**	**06 11 56.8**	**-2.9**
AROD				*e*S	**Sb**	**06 12 33.0**	**-1.5**
VCA	**Vinchina**	**2.96**	**107**	*e*P	**Pb**	**06 12 00.2**	**-1.6**
VCA				*e*S	**Sg**	**06 12 45.9**	**+1.8**
VCA				IAML		06 12 50.6	
	comp=Z,112nm,0.2s						
ACDV	**Cuesta del Vie**	**3.03**	**139**	*e*P	**Pb**	**06 12 00.0**	**-3.0**
ACDV				*e*P	**Pn**	**06 12 00.2**	**+3.2**
ACDV				*e*S	**Sb**	**06 12 38.5**	**-1.6**
ACDV				IAML		06 12 45.6	
	comp=Z,81nm,0.9s						
CO02	**Combarbal**	**3.30**	**174**	*e*P	**Pn**	**06 12 00.0**	**-0.8**
CO02				*e*P	Pb	06 12 00.1	-7.5
CO02				IAML		06 12 52.9	
	comp=Z,157nm,0.3s						
CO02	**Combarbal**	**3.30**	**174**	*i*P	**Pn**	**06 11 59.4**	**-1.4**
TINO	**Tinogasta**	**3.42**	**93**	*e*P	**Pn**	**06 12 00.0**	**-2.4**
TINO				*e*P	Pb	06 12 04.1	-5.6
TINO				IAML		06 13 00.4	
	comp=Z,39nm,0.6s						
ACLC	**CERRO LA CRUZ**	**4.21**	**112**	*e*P	**Pn**	**06 12 15.6**	**+2.2**
ACLC				*e*S	**Sn**	**06 13 06.5**	**+3.7**
ACLC				*e*S	**Sb**	**06 13 10.0**	**-4.3**
ACLC				IAML		06 13 13.5	
	comp=Z,33nm,0.4s						
RTLL	**Cerro Villicun**	**4.27**	**144**	*e*P	**Pn**	**06 12 16.8**	**+2.8**
RTLL				*e*S	**Sn**	**06 13 06.5**	**+2.6**
RTLL				IAML		06 13 22.1	
	comp=Z,36nm,0.3s						
RTLS	**Leoncito**	**4.29**	**155**	*e*P	**Pn**	**06 12 17.6**	**+3.0**
RTLS				*e*S	**Sb**	**06 13 11.0**	**-5.7**
RTLS				IAML		06 13 25.1	
	comp=Z,122nm,1.0s						
VA03	**San Esteban**	**4.89**	**171**	*e*P	**Pn**	**06 12 23.8**	**+1.1**
VA03				*e*S	**Sb**	**06 13 38.5**	**+4.8**
VA03				IAML		06 13 40.7	
	comp=Z,40nm,1.1s						
CYA	**Choya**	**5.00**	**97**	*e*P	**Pn**	**06 12 26.2**	**+2.2**
CYA				*e*S	**Sn**	**06 13 28.1**	**+6.2**
CYA				IAML		06 13 32.0	
	comp=Z,28nm,0.8s						
PB05	**IPOC Station P**	**5.16**	**13**	*e*P	**Pn**	**06 12 26.4**	**0.0**
PB05				*e*S	**Sn**	**06 13 25.5**	**-0.5**
PB05				IAML		06 14 01.7	
	comp=Z,24nm,2.8s						
MT02	**Curacav**	**5.33**	**177**	*e*P	**Pn**	**06 12 28.9**	**+0.3**
MT02				*e*S	**Sn**	**06 13 36.0**	**+5.9**
MT02				IAML		06 13 55.0	
	comp=Z,20nm,0.8s						

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*IDC **02** 06:40:01.0±1.6, 16°.73S×179°.09W, h578^{km}±17^{km}, mb3.0/7, mbtmp3.9/9, Error ellipse: s-maj=40.1km s-min=17.9km az=149.0*
ISC 02 06:40:02.1±0.8**, 16°.6S**±0°.2×**179°.3W**±0°.2**, h600**^{km}**, n11, σ1^{s}.55**/13**, mb3.3**/7**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**2.75**	**245**	P	**P**	**06 41 18.2**	**-1.7**
	60nm,0.7s,baz=124,slow=6.1,SNR=25						
DZM	**Mont Dzumac**	**14.48**	**246**	P	**P**	**06 43 04.5**	**-1.2**
	4.6nm,0.6s,baz=95,slow=18,SNR=6.0						
WRA	**Warramunga Arr**	**44.02**	**258**	P	**P**	**06 47 20.3**	**+2.1**
	0.4nm,0.4s,baz=97,slow=6.9,SNR=19						
WRA				PcP	**PcP**	**06 48 50.3**	**0.0**
	0.1nm,0.5s,baz=94,slow=3.4,SNR=1.6						
	0.4nm,0.4s						
ASAR	**Alice Springs**	**44.31**	**253**	P	**P**	**06 47 21.9**	**+1.4**
	4.3nm,0.6s,baz=89,slow=9.0,SNR=60						
ASAR				PcP	**PcP**	**06 48 51.0**	**-0.3**
	0.3nm,0.5s,baz=102,slow=3.8,SNR=2.3						
	4.3nm,0.6s						
QSPA	**South Pole Qui**	**73.44**	**180**	P	**P**	**06 50 35.8**	**+1.5**
	2.6nm,1.2s,baz=353,slow=1.8,SNR=2.6						
	2.6nm,1.2s						
NVAR	**Mina Array Bea**	**79.11**	**44**	P	**P**	**06 51 06.1**	**+0.2**
	0.3nm,0.6s,baz=257,slow=5.2,SNR=1.0						
	0.3nm,0.6s						
ILAR	**Eielson Array**	**84.82**	**13**	P	**P**	**06 51 36.0**	**+2.1**
	0.5nm,0.5s,baz=225,slow=4.6,SNR=8.1						
	0.5nm,0.5s						
TXAR	**Lajitas Array**	**86.05**	**58**	P	**P**	**06 51 39.2**	**-1.5**
	0.3nm,0.6s,baz=183,slow=2.4,SNR=4.0						
	0.3nm,0.6s						
PDAR	**Pinedale Array**	**87.02**	**44**	P	**P**	**06 51 45.0**	**-0.2**
	0.4nm,0.6s,baz=297,slow=5.4,SNR=4.5						
	0.4nm,0.6s						
BRTR	**Keskin Array B**	**143.24**	**315**	PKP	**PKiKP**	**06 58 30.8**	**-2.1**
	0.5nm,0.5s,baz=90,slow=2.9,SNR=2.7						
GERES	**GERESS Array B**	**146.13**	**344**	PKPbc	**PKPab**	**06 58 38.3**	**-0.2**
	1.1nm,0.7s,baz=2.9,slow=2.7,SNR=6.0						

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*ROM **02** 06:43:30.4±0.1, 42°.927N±0°.005×13°.716E±0°.007, h23^{km}±1^{km}, ML2.6/108, Error ellipse: s-maj=0.7km s-min=0.2km az=55.0*
ISC 02 06:43:30.9±0.9**, 42°.93N**±0°.02×**13°.69E**±0°.02**, h19**^{km}±2^{km}**, n84, σ0^{s}.77**/121**, 2C-11D, Central Italy**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OFFI	**Offida**	**0.01**	**344**	⇑P	**Pg**	**06 43 33.8**	**-0.3**
OFFI				S	**Sg**	**06 43 38.3**	**+1.9**
OFFI				AML	AML		
	comp=E,21850µm,0.5s						
OFFI				AML	AML		
	comp=N,15900µm,0.5s						
MNTT	**Montottone**	**0.15**	**333**	⇑P	**Pg**	**06 43 35.3**	**0.0**
MNTT				S	**Sg**	**06 43 39.9**	**+1.5**
MNTT				AML	AML		
	comp=E,15800µm,0.6s						
MNTT				AML	AML		
	comp=N,16350µm,0.2s						
MNTT				AML	AML		
	comp=N,16300µm,0.2s						
MF5	**Montefalcone A**	**0.18**	**290**	⇓P	**Pg**	**06 43 35.8**	**+0.2**
MF5				S	**Sg**	**06 43 40.4**	**+1.5**
MF5				AML	AML		
	comp=N,7135µm,0.2s						
MF5				AML	AML		
	comp=E,6360µm,0.7s						
MF5				AML	AML		
	comp=N,7130µm,0.2s						
MF5				AML	AML		
	comp=E,6360µm,1.3s						
TRTR	**Tortoreto Alta**	**0.20**	**126**	P	**Pb**	**06 43 35.9**	**+0.4**
TRTR				S	**Sg**	**06 43 40.6**	**+1.3**
TRTR				AML	AML		
	comp=N,3375µm,0.4s						
TRTR				AML	AML		
	comp=E,3170µm,0.3s						
TRTR				AML	AML		
	comp=N,3375µm,1.6s						
MNTP	**Montappone**	**0.27**	**323**	P	**Pb**	**06 43 36.8**	**-0.2**
MNTP				S	**Sg**	**06 43 42.4**	**+1.4**
MNTP				AML	AML		
	comp=E,4080µm,0.3s						
MNTP				AML	AML		
	comp=N,2375µm,1.2s						
MNTP				AML	AML		
	comp=N,2375µm,1.1s						
MNTP				AML	AML		
	comp=N,2375µm,0.9s						
MMO1	**Montemonaco**	**0.27**	**264**	⇓P	**Pb**	**06 43 36.8**	**-0.3**
MMO1				S	**Sg**	**06 43 42.2**	**+1.0**
SAP2	**Sant’Angelo in**	**0.27**	**309**	P	**Pb**	**06 43 37.0**	**-0.1**
SAP2				S	**Sg**	**06 43 42.8**	**+1.6**
SAP2				AML	AML		
	comp=N,12100µm,0.8s						
SAP2				AML	AML		
	comp=E,4520µm,0.2s						
CADA	**Capodarco di F**	**0.27**	**11**	P	**Pb**	**06 43 36.5**	**-0.6**
MTRA	**Matera**	**0.27**	**232**	⇓P	**Pb**	**06 43 36.8**	**-0.4**
MTRA				S	**Sg**	**06 43 42.0**	**+0.8**
MTRA				AML	AML		
	comp=N,1715µm,0.7s						
MTRA				AML	AML		
	comp=N,1775µm,0.7s						
MTRA				AML	AML		
	comp=N,1715µm,0.7s						
MTRA				AML	AML		
	comp=E,1765µm,0.2s						
MTRA				AML	AML		
	comp=E,1815µm,0.2s						
GUMA	**Gualdo di Mace**	**0.29**	**298**	⇓P	**Pg**	**06 43 37.3**	**0.0**
GUMA				S	**Sg**	**06 43 43.2**	**+1.4**
GUMA				AML	AML		
	comp=N,3795µm,1.4s						
GUMA				AML	AML		
	comp=E,4750µm,0.3s						
GUMA				AML	AML		
	comp=N,3795µm,0.6s						
TERO	**Teramo**	**0.31**	**192**	P	**Pg**	**06 43 37.2**	**-0.4**
TERO				S	**Sg**	**06 43 43.0**	**+0.8**
TERO				AML	AML		
	comp=N,1140µm,0.6s						
TERO				AML	AML		
	comp=N,1140µm,0.5s						
TERO				AML	AML		
	comp=E,1470µm,0.3s						
TERO				AML	AML		
	comp=N,1000µm,1.3s						
TERO				AML	AML		
	comp=N,1000µm,0.7s						
TERO				AML	AML		
	comp=N,1145µm,0.6s						
TERO				AML	AML		
	comp=E,1550µm,0.2s						
MC2	**Monte Cornacci**	**0.37**	**268**	⇓P	**Pg**	**06 43 38.5**	**-0.2**
MC2				S	**Sb**	**06 43 45.5**	**+1.0**
CIMA	**Civitanova Mar**	**0.38**	**358**	P	**Pb**	**06 43 39.5**	**+0.4**
CSP1	**Cessapalombo**	**0.39**	**295**	⇓P	**Pg**	**06 43 38.7**	**-0.4**
CSP1				S	**Sb**	**06 43 45.7**	**+0.6**
CSP1				AML	AML		
	comp=E,1235µm,1.0s						
CSP1				AML	AML		
	comp=N,596µm,1.5s						
CSP1				AML	AML		
	comp=N,596µm,0.5s						
CSP1				AML	AML		
	comp=E,1235µm,1.0s						
SMA1	**SAN MARTINO**	**0.39**	**221**	⇓P	**Pg**	**06 43 38.6**	**-0.5**
SMA1				S	**Sb**	**06 43 45.4**	**+0.2**
SMA1				AML	AML		
	comp=E,872µm,0.2s						
SMA1				AML	AML		
	comp=N,887µm,0.9s						
SMA1				AML	AML		
	comp=N,887µm,1.1s						
SMA1				AML	AML		
	comp=E,872µm,0.2s						
PF6	**Pievefavera**	**0.43**	**302**	⇓P	**Pg**	**06 43 39.0**	**-0.7**
PF6				S	**Sb**	**06 43 46.5**	**+0.5**
NRCA	**Norcia**	**0.43**	**258**	P	**Pg**	**06 43 39.3**	**-0.5**
NRCA				S	**Sb**	**06 43 47.2**	**+1.0**
NRCA				AML	AML		
	comp=E,1790µm,0.2s						
NRCA				AML	AML		
	comp=N,2350µm,0.1s						
NRCA				AML	AML		
	comp=N,2195µm,0.1s						
NRCA				AML	AML		
	comp=E,1575µm,0.2s						
NRCA				AML	AML		
	comp=N,2200µm,0.1s						
CAMP	**Campotosto**	**0.44**	**208**	P	**Pg**	**06 43 39.3**	**-0.7**
CAMP				S	**Sb**	**06 43 46.6**	**+0.1**
CAMP				AML	AML		
	comp=E,286µm,0.7s						
CAMP				AML	AML		
	comp=N,346µm,0.4s						
CAMP				AML	AML		
	comp=N,346µm,1.6s						
CAMP				AML	AML		
	comp=E,286µm,1.3s						
FDMO	**Fiordimonte**	**0.46**	**284**	⇓P	**Pg**	**06 43 39.6**	**-0.5**
FDMO				S	**Sb**	**06 43 47.6**	**+0.8**
FDMO				AML	AML		
	comp=N,848µm,0.2s						
FDMO				AML	AML		
	comp=E,1775µm,0.2s						
FEMA	**Monte Fema**	**0.47**	**275**	P	**Pg**	**06 43 40.0**	**-0.5**
FEMA				S	**Sb**	**06 43 48.4**	**+1.0**
TRE1	**Treia**	**0.47**	**325**	P	**Pb**	**06 43 39.9**	**-0.7**
TRE1				S	**Sb**	**06 43 48.2**	**+0.9**
MDAR	**Monte D'Aria**	**0.48**	**304**	P	**Pb**	**06 43 40.0**	**-0.8**
MDAR				S	**Sb**	**06 43 48.1**	**+0.5**
SSM1	**San Severino M**	**0.48**	**309**	P	**Pb**	**06 43 40.1**	**-0.7**
SSM1				S	**Sb**	**06 43 48.5**	**+1.0**
GIGS	**Gran Sasso**	**0.48**	**191**	P	**Pb**	**06 43 39.6**	**-1.2**
GIGS				S	**Sg**	**06 43 47.5**	**+0.2**
VCEL	**Villa Celiera**	**0.54**	**168**	P	**Pb**	**06 43 41.7**	**-0.1**
VCEL				AML	AML		
	comp=E,330µm,1.2s						
VCEL				AML	AML		
	comp=E,330µm,1.2s						
VCEL				AML	AML		
	comp=N,400µm,1.6s						
VCEL				AML	AML		
	comp=N,400µm,0.4s						
VCEL				AML	AML		
	comp=E,330µm,0.8s						
RM33	**Pellescritta (**	**0.54**	**220**	P	**Pb**	**06 43 41.1**	**-0.7**
RM33				AML	AML		
	comp=E,532µm,1.0s						
RM33				AML	AML		
	comp=E,531µm,1.0s						
RM33				AML	AML		
	comp=N,443µm,0.3s						
RM33				AML	AML		
	comp=E,546µm,0.3s						
RM33				AML	AML		
	comp=E,546µm,1.7s						
RM33				AML	AML		
	comp=N,436µm,0.3s						
MML1	**Montelago di S**	**0.56**	**290**	⇓P	**Pb**	**06 43 41.4**	**-0.7**
MML1				S	**Sg**	**06 43 50.7**	**+1.1**
CING	**Cingoli**	**0.58**	**321**	P	**Pb**	**06 43 41.5**	**-0.8**
CING				S	**Sg**	**06 43 51.5**	**+1.3**
LNSS	**Leonessa**	**0.58**	**236**	P	**Pb**	**06 43 41.8**	**-0.6**
LNSS				S	**Sg**	**06 43 51.5**	**+1.3**
LNSS				AML	AML		
	comp=N,1100µm,0.5s						
LNSS				AML	AML		
	comp=N,1100µm,0.5s						
LNSS				AML	AML		
	comp=N,1128µm,0.5s						
LNSS				AML	AML		
	comp=E,758µm,0.5s						
LNSS				AML	AML		
	comp=E,706µm,0.5s						
CESI	**CESI - Serrava**	**0.58**	**278**	P	**Pb**	**06 43 41.9**	**-0.5**
CESI				S	**Sn**	**06 43 52.1**	**-1.2**
CESI				AML	AML		
	comp=N,600µm,0.2s						
CESI				AML	AML		
	comp=E,544µm,0.9s						
SEF1	**Sefro**	**0.59**	**292**	P	**Pb**	**06 43 41.9**	**-0.6**
SEF1				S	**Sg**	**06 43 51.5**	**+1.1**
EL6	**Elcito**	**0.59**	**313**	P	**Pb**	**06 43 41.7**	**-0.8**
EL6				S	**Sg**	**06 43 51.6**	**+1.0**
EL6				AML	AML		
	comp=E,932µm,0.2s						
EL6				AML	AML		
	comp=N,1010µm,0.1s						
EL6				AML	AML		
	comp=E,933µm,0.2s						
AOI	**Ancona**	**0.63**	**354**	P	**Pb**	**06 43 42.6**	**-0.6**
AOI				AML	AML		
	comp=E,400µm,0.3s						
AOI				AML	AML		
	comp=N,576µm,0.4s						
GAVE	**Gavelli**	**0.63**	**248**	P	**Pb**	**06 43 42.8**	**-0.5**
GAVE				AML	AML		
	comp=E,745µm,0.3s						
GAVE				AML	AML		
	comp=E,806µm,0.3s						
GAVE				AML	AML		
	comp=N,734µm,0.3s						
GAVE				AML	AML		
	comp=E,806µm,1.7s						
GAVE				AML	AML		
	comp=N,734µm,1.7s						
GAVE				AML	AML		
	comp=E,745µm,1.7s						
GAVE				AML	AML		
	comp=N,306µm,1.0s						
SNTG	**Esanatoglia**	**0.64**	**301**	⇓P	**Pb**	**06 43 42.6**	**-0.8**
SNTG				S	**Sg**	**06 43 52.9**	**+0.8**
SNTG				AML	AML		
	comp=E,346µm,0.1s						
SNTG				AML	AML		
	comp=N,507µm,0.7s						
SNTG				AML	AML		
	comp=N,414µm,0.7s						
SNTG				AML	AML		
	comp=E,365µm,0.1s						
FAGN	**Fagnano**	**0.67**	**187**	P	**Pg**	**06 43 44.3**	**+0.3**
FAGN				AML	AML		
	comp=E,728µm,0.4s						
FAGN				AML	AML		
	comp=N,632µm,0.6s						
FAGN				AML	AML		
	comp=E,728µm,1.6s						
FAGN				AML	AML		
	comp=N,632µm,1.4s						
T0110	**Collepietro**	**0.70**	**175**	P	**Pb**	**06 43 44.1**	**-0.4**
T0110				AML	AML		
	comp=E,352µm,0.4s						
T0110				AML	AML		
	comp=N,402µm,0.5s						
ARRO	**Arrone**	**0.76**	**243**	P	**Pg**	**06 43 46.2**	**+0.4**
ASSB	**Assisi San Ben**	**0.77**	**279**	P	**Pb**	**06 43 44.8**	**-0.8**
ASSB				AML	AML		
	comp=N,344µm,0.3s						
ASSB				AML	AML		
	comp=E,354µm,0.2s						
FIAM	**Fiamignano**	**0.78**	**213**	P	**Pn**	**06 43 46.8**	**-0.2**
ARVD	**Arcevia**	**0.79**	**317**	P	**Pb**	**06 43 45.6**	**-0.5**
ARVD				AML	AML		
	comp=E,260µm,0.5s						
ARVD				AML	AML		
	comp=N,239µm,0.4s						
ARVD				AML	AML		
	comp=E,260µm,1.5s						
ARVD				AML	AML		
	comp=N,239µm,1.6s						
ATCC	**AVT- Casa Cast**	**0.81**	**289**	AML	AML		
	comp=E,370µm,1.1s						
ATCC				AML	AML		
	comp=N,396µm,1.4s						
ATCC				AML	AML		
	comp=N,396µm,0.6s						
MOMA	**Monte Martano**	**0.83**	**262**	P	**Pb**	**06 43 46.1**	**-0.6**
MOMA				AML	AML		
	comp=E,268µm,0.7s						
MOMA				AML	AML		
	comp=N,218µm,1.1s						
MOMA				AML	AML		
	comp=E,235µm,0.2s						
MOMA				AML	AML		
	comp=N,222µm,0.2s						
SSFR	**Montelago di S**	**0.84**	**308**	P	**Pb**	**06 43 46.1**	**-0.7**
SSFR				AML	AML		
	comp=E,1085µm,0.2s						
SSFR				AML	AML		
	comp=E,1104µm,0.2s						
SSFR				AML	AML		
	comp=N,733µm,0.2s						
SSFR				AML	AML		
	comp=N,1126µm,0.2s						
SSFR				AML	AML		
	comp=E,1104µm,1.8s						
SSFR				AML	AML		
	comp=E,1085µm,1.8s						
SENI	**Senigallia**	**0.85**	**337**	P	**Pb**	**06 43 47.2**	**+0.3**
COR1	**Corinaldo**	**0.87**	**325**	P	**Pb**	**06 43 47.4**	**+0.1**
COR1				AML	AML		
	comp=E,294µm,0.9s						
COR1				AML	AML		
	comp=E,1516µm,0.9s						
COR1				AML	AML		
	comp=N,1445µm,1.5s						
COR1				AML	AML		
	comp=N,747µm,0.5s						
COR1				AML	AML		
	comp=E,294µm,0.9s						
COR1				AML	AML		
	comp=N,1445µm,0.5s						
COR1				AML	AML		
	comp=E,1516µm,1.1s						
MURB	**Monte Urbino**	**0.92**	**292**	P	**Pb**	**06 43 47.8**	**-0.5**
MURB				AML	AML		
	comp=E,1420µm,0.2s						
MURB				AML	AML		
	comp=N,670µm,0.7s						
MURB				AML	AML		
	comp=E,1260µm,0.2s						
MURB				AML	AML		
	comp=N,858µm,0.7s						
FRON	**Frontone**	**0.92**	**310**	P	**Pb**	**06 43 47.5**	**-0.7**
FRON				AML	AML		
	comp=E,260µm,0.2s						
FRON				AML	AML		
	comp=N,352µm,0.4s						
FRON				AML	AML		

	comp=N,352µm,1.6s						
INTR	**Introdacqua**	0.93	170	P	**Pb**	**06 43 48.7**	**+0.3**
INTR				AML	AML		
	comp=N,259µm,0.3s						
INTR				AML	AML		
	comp=E,198µm,0.7s						
INTR				AML	AML		
	comp=N,259µm,1.7s						
ATFO	**Monte Foce - G**	0.93	299	P	**Pb**	**06 43 47.7**	**-0.8**
ATFO				AML	AML		
	comp=E,257µm,0.5s						
ATFO				AML	AML		
	comp=N,388µm,0.4s						
ATFO				AML	AML		
	comp=E,257µm,1.5s						
PTQR	**Pietraquaria**	0.93	193	P	**Pg**	**06 43 49.5**	**+0.6**
LPEL	**Lama dei Pelig**	0.95	157	P	**Pg**	**06 43 49.4**	**+0.1**
MPAG	**Monte Paganucc**	0.98	316	P	**Pb**	**06 43 48.5**	**-0.8**
MPAG				AML	AML		
	comp=N,285µm,0.9s						
MPAG				AML	AML		
	comp=E,246µm,1.1s						
MPAG				AML	AML		
	comp=N,285µm,1.1s						
CRTC	**Cartoceto**	1.03	325	P	**Pg**	**06 43 51.0**	**+0.3**
ATVO	**AVT- Monte Val**	1.04	296	P	**Pb**	**06 43 49.8**	**-0.6**
ATVO				AML	AML		
	comp=E,132µm,0.2s						
ATVO				AML	AML		
	comp=N,155µm,1.0s						
ATVO				AML	AML		
	comp=N,155µm,1.0s						
VVLD	**Villa Vallelon**	1.06	183	P	**Pg**	**06 43 51.9**	**+0.5**
NARO	**Abbazia di Nar**	1.06	311	P	**Pb**	**06 43 50.0**	**-0.6**
NARO				AML	AML		
	comp=E,186µm,0.6s						
NARO				AML	AML		
	comp=N,104µm,1.0s						
NARO				AML	AML		
	comp=N,104µm,1.0s						
ATPI	**Pietralunga -**	1.08	300	P	**Pb**	**06 43 50.2**	**-0.8**
ATPI				AML	AML		
	comp=E,328µm,0.5s						
ATPI				AML	AML		
	comp=N,237µm,0.6s						
MGAB	**Montegabbione**	1.16	270	P	**Pg**	**06 43 53.7**	**+0.4**
MGAB				AML	AML		
	comp=N,110µm,0.5s						
MGAB				AML	AML		
	comp=E,124µm,0.4s						
BADI	**Badiali**	1.21	299	P	**Pn**	**06 43 52.8**	**+0.1**
BADI				AML	AML		
	comp=E,130µm,1.5s						
BADI				AML	AML		
	comp=E,130µm,0.5s						
BADI				AML	AML		
	comp=N,148µm,0.5s						
POFI	**Posta Fibreno**	1.21	179	P	**Pb**	**06 43 53.7**	**+0.5**
PARC	**Parchiule**	1.28	305	P	**Pn**	**06 43 54.1**	**+0.3**
PARC				AML	AML		
	comp=E,134µm,0.8s						
PARC				AML	AML		
	comp=N,76µm,1.1s						
PARC				AML	AML		
	comp=N,76µm,0.9s						
CAFI	**Castiglion Fio**	1.32	288	P	**Pb**	**06 43 55.9**	**+0.8**
CAFI				AML	AML		
	comp=E,38µm,0.2s						
CAFI				AML	AML		
	comp=N,35µm,1.5s						
CPGN	**Carpegna, Ital**	1.33	312	P	**Pb**	**06 43 55.8**	**+0.6**
CPGN				AML	AML		
	comp=E,177µm,0.4s						
CPGN				AML	AML		
	comp=N,265µm,0.6s						
CRE	**Caprese Michel**	1.45	299	P	**Pb**	**06 43 57.4**	**+0.2**
CRE				AML	AML		
	comp=E,58µm,0.5s						
CRE				AML	AML		
	comp=N,53µm,0.3s						
DUGI	**Dugi Otok**	1.46	43	*e*Pg	**Pn**	**06 43 55.0**	**-1.2**
DUGI				Sg	**Sn**	**06 44 12.8**	**-2.0**
ZIRJ	**Zirje**	1.60	62	*i* Pn	**Pn**	**06 43 57.2**	**-0.9**
ZIRJ				Sg	**Sn**	**06 44 17.1**	**-1.3**
ASQU	**Asqua**	1.64	303	P	**Pb**	**06 44 00.6**	**+0.1**
ASQU				AML	AML		
	comp=E,36µm,0.7s						
ASQU				AML	AML		
	comp=N,38µm,0.6s						
ASQU				AML	AML		
	comp=N,38µm,1.4s						
ASQU				AML	AML		
	comp=E,36µm,1.3s						
VIRC	**Vir**	1.69	36	*i* Pn	**Pn**	**06 43 58.4**	**-0.9**
VIRC				Sn	**Sn**	**06 44 19.4**	**-1.0**
MORI	**Morici**	1.75	57	*e*Pn	**Pn**	**06 43 59.8**	**-0.3**
MORI				Sn	**Sn**	**06 44 21.0**	**-0.9**
NVLJ	**Novalja**	1.85	27	*e*Pn	**Pn**	**06 44 00.7**	**-0.9**
NVLJ				Sn	**Sn**	**06 44 23.9**	**-0.5**
HVAR	**Hvar**	2.04	82	*e*Pn	**Pn**	**06 44 03.4**	**-0.7**
HVAR				Sn	**Sn**	**06 44 28.6**	**-0.5**
UDBI	**Udbina**	2.20	43	*i* Pn	**Pn**	**06 44 06.6**	**+0.2**
UDBI				Sn	**Sn**	**06 44 33.3**	**+0.1**
KIJV	**Kijevo**	2.25	60	*i* Pn	**Pn**	**06 44 07.2**	**+0.1**
KIJV				Sn	**Sn**	**06 44 33.1**	**-1.4**
LSTV	**Lastovo**	2.36	93	*e*Pn	**Pn**	**06 44 07.7**	**-0.9**
MAKA	**Makarska**	2.47	80	*e*Pn	**Pn**	**06 44 09.9**	**-0.2**
MAKA				Sn	**Sn**	**06 44 39.4**	**-0.2**
RICI	**Ricice**	2.58	76	*e*Pn	**Pn**	**06 44 11.7**	**0.0**
RICI				Sn	**Sn**	**06 44 42.1**	**-0.4**
DOSS	**Dosso del Somm**	3.46	330	P	**Pn**	**06 44 23.8**	**-0.1**
VARA	**Varagna**	3.52	326	P	**Pn**	**06 44 24.5**	**-0.3**
PANI	**Panarotta**	3.55	332	P	**Pn**	**06 44 25.1**	**-0.1**
LUSI	**Trento, Gardas**	3.61	328	P	**Pn**	**06 44 25.5**	**-0.4**
LUSI				AML	AML		
	comp=N,39µm,1.0s						
LUSI				AML	AML		
	comp=E,21µm,0.9s						
LUSI				AML	AML		
	comp=N,39µm,1.0s						
RONC	**Roncone**	3.76	325	P	**Pn**	**06 44 27.9**	**-0.2**
RONC				AML	AML		
	comp=E,428µm,0.4s						
RONC				AML	AML		
	comp=N,321µm,1.6s						
RONC				AML	AML		
	comp=E,428µm,1.6s						
KOSI	**Kohlern**	3.90	336	P	**Pn**	**06 44 30.1**	**+0.2**
MOSI	**Grossmontoni**	4.31	330	AML	AML		
	comp=N,538µm,0.1s						
MOSI				AML	AML		
	comp=E,442µm,0.2s						

KRSC 02 06:57:23.1±0.9**,51°.25N**×**158°.36E,h46**^{km}±13^{km}**,Ml3.6, Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KDTR	**Khodutka, Kamc**	0.59	343	*e*P	Pn	06 57 36.2	+1.1
KDTR				*e*S	Sn	06 57 44.4	+0.6
PAU	**Pauzhetka**	0.99	283	*e*P	Pn	06 57 42.3	+1.8
PAU				*e*S	Sn	06 57 54.7	+1.3
ASAK	**Asacha**	1.17	346	*e*P	Pn	06 57 44.8	+1.7
RUS	**Russkaya**	1.19	5	*e*P	Pn	06 57 44.3	+1.0
MTVR	**Mutnovka**	1.24	355	*e*P	Pn	06 57 45.8	+1.7
MTVR				*e*S	Sn	06 58 01.1	+1.3
GRL	**Gorelyy**	1.32	352	*e*P	Pn	06 57 47.2	+2.0
GRL				*e*S	Sn	06 58 03.6	+2.0
MIPR	**Malaya Ipel'ka**	1.43	317	*e*P	Pn	06 57 48.8	+2.3
SKR	**Severo-Kuril's**	1.52	249	*e*P	Pn	06 57 49.6	+1.8
SKR				*e*S	Sn	06 58 07.4	+1.0
KRMR	**Karymshinskiy**	1.59	355	*e*P	Pn	06 57 51.2	+2.5
KRMR				*e*S	Sn	06 58 10.6	+2.6
PET	**Petropavlovsk**	1.79	6	*e*P	Pn	06 57 53.6	+2.2
PET				*e*S	Sn	06 58 14.6	+1.7
DALK	**Dalny**	1.80	8	*e*P	Pn	06 57 53.5	+1.9
DALK				*e*S	Sn	06 58 15.1	+1.8
AVH	**Avacha**	2.03	6	*e*P	Pn	06 57 58.4	+3.5
SMAR	**Somma**	2.04	8	*e*P	Pn	06 57 57.5	+2.5
KOK	**Koryaka**	2.06	5	*e*P	Pn	06 57 58.4	+3.2
SDLR	**Sedlovina**	2.06	9	*e*P	Pn	06 57 56.9	+1.6
KRER	**Koryakskii**	2.07	7	*e*P	Pn	06 57 58.3	+2.7
SPN	**Mys Shipunski**	2.12	28	*e*P	Pn	06 57 57.5	+1.6
KRX	**Arik**	2.12	5	*e*P	Pn	06 57 58.9	+2.7
GNL	**Ganaly**	2.46	354	*e*P	Pn	06 58 03.4	+2.6
KBTR	**Krutoberegovo**	5.63	26	*e*P	Pn	06 58 47.8	+3.7

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*IDC **02** 07:03:06.8±2.0, 64°.73S×179°.35E, h0^{km}, mb3.9/4, mbtmp3.9/4, MS3.8/23, Error ellipse: s-maj=85.9km s-min=25.1km az=65.0*

ISC 02 07:03:08.1±2.0**,64°.7S**±0°.3×**179°.4E**±0°.5**,h10**^{km}**,n34,**σ**0**^{s}**79**/8**,mb3.9**/4**,MS3.9**/23**,Balleny Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RPZ	**Rata Peaks**	21.55	343	LR	LR	07 14 23.2	
	comp=Z,92nm,21.5s,baz=167,slow=31						
QSPA	**South Pole Qui**	25.38	180	P	**P**	**07 08 35.4**	**+0.2**
	7.9nm,1.1s,baz=32,slow=9.2,SNR=8.4						
QSPA				LR	LR	07 16 56.2	
	comp=Z,291nm,21.0s,baz=40,slow=33						
	7.9nm,1.1s						
URZ	**Urewera**	26.52	356	LR	LR	07 18 03.0	
	comp=Z,258nm,18.6s,baz=196,slow=34						
STKA	**Stephens Creek**	40.23	306	LR	LR	07 25 07.1	
	comp=Z,104nm,20.4s,baz=210,slow=33						
MAW	**Mawson**	40.48	212	LR	LR	07 27 12.8	
	comp=Z,266nm,19.1s,baz=119,slow=36						
PMSA	**Palmer Station**	42.82	146	LR	LR	07 26 12.0	
	comp=Z,96nm,19.0s,baz=194,slow=32						
SNAA	**Sanae**	43.88	179	P	**P**	**07 11 14.5**	**+0.5**
	1.3nm,0.8s,baz=180,slow=8.1,SNR=2.2						
SNAA				LR	LR	07 29 08.3	
	comp=Z,178nm,18.2s,baz=128,slow=36						
	1.3nm,0.8s						
RAR	**Rarotonga**	45.62	28	LR	LR	07 25 43.8	
	comp=Z,114nm,19.7s,baz=182,slow=30						
MSVF	**Nonsavu**	46.94	358	LR	LR	07 28 26.9	
	comp=Z,136nm,18.5s,baz=138,slow=32						
H01W1	**Cape Leeuwin H**	48.53	275	T	T	08 04 01.5	
	baz=149,slow=76,SNR=12						
H01W2	**Cape Leeuwin H**	48.53	275	T	T	08 04 01.8	
	baz=149,slow=76,SNR=14						
H01W3	**Cape Leeuwin H**	48.54	275	T	T	08 04 02.7	
	baz=149,slow=76,SNR=13						
NWAO	**Narrogin (SRO)**	48.90	279	LR	LR	07 27 26.5	
	comp=Z,162nm,21.5s,baz=266,slow=30						
ASAR	**Alice Springs**	50.45	302	P	**P**	**07 12 06.5**	**+0.7**
	0.6nm,0.7s,baz=155,slow=7.5,SNR=6.6						
ASAR				LR	LR	07 29 28.9	
	comp=Z,83nm,21.5s,baz=111,slow=31						
	0.6nm,0.7s						
PPT	**Papeete**	51.54	39	LR	LR	07 30 37.6	
	comp=Z,72nm,18.2s,baz=253,slow=32						
WRA	**Warramunga Arr**	53.71	304	P	**P**	**07 12 30.2**	**+0.2**
	1.6nm,1.0s,baz=154,slow=7.2,SNR=6.8						
	1.6nm,1.0s						
HNR	**Honiara**	56.85	337	LR	LR	07 33 31.3	
	comp=Z,128nm,20.5s,baz=274,slow=32						
FITZ	**Fitzroy Crossi**	58.63	296	LR	LR	07 35 26.3	
	comp=Z,117nm,18.7s,baz=4.5,slow=33						
PLCA	**Paso Flores**	61.65	126	LR	LR	07 34 01.4	
	comp=Z,39nm,18.6s,baz=190,slow=30						
H03S2	**Juan Fernandez**	64.66	116	T	T	08 24 42.2	
	baz=219,slow=74						
H03S1	**Juan Fernandez**	64.66	116	T	T	08 24 44.6	
	baz=219,slow=74						
H03S3	**Juan Fernandez**	64.68	116	T	T	08 24 44.7	
	baz=219,slow=74						
SUR	**Sutherland**	81.78	198	LR	LR	07 47 14.6	
	comp=Z,83nm,21.7s,baz=156,slow=32						
DAV	**Davao City (W)**	81.87	306	LR	LR	07 52 11.3	
	comp=Z,37nm,18.8s,baz=152,slow=36						
LPAZ	**La Paz**	84.62	117	LR	LR	07 44 50.4	
	comp=Z,24nm,21.7s,baz=193,slow=30						
BOSA	**Boshof**	84.81	203	LR	LR	07 53 24.1	
	comp=Z,60nm,18.3s,baz=208,slow=36						
LBTB	**Lobatse**	88.28	204	LR	LR	07 55 21.6	
	comp=Z,41nm,18.1s,baz=166,slow=36						
ATAH	**Atahualpa**	88.79	104	LR	LR	07 47 17.2	
	comp=Z,81nm,19.1s,baz=229,slow=30						
TSUM	**Tsumeb**	95.19	197	LR	LR	07 56 27.5	
	comp=Z,75nm,20.7s,baz=152,slow=34						
LSZ	**Lusaka**	97.29	208	LR	LR	07 57 07.7	
	comp=Z,49nm,19.3s,baz=172,slow=33						
ILAR	**Eielson Array**	131.51	19	PKP	**PKPdf**	**07 22 19.0**	**0.0**
	1.0nm,1.1s,baz=225,slow=2.3,SNR=5.6						
KBZ	**Khabaz**	147.98	250	PKPbc	**PKPbc**	**07 22 52.5**	**+0.1**
	3.5nm,0.8s,baz=180,slow=2.0,SNR=9.6						
BRTR	**Keskin Array B**	148.06	235	PKPbc	**PKPbc**	**07 22 52.2**	**-0.9**
	5.4nm,1.1s,baz=160,slow=4.6,SNR=16						
AKASG	**Malin Array Be**	159.04	242	PKPab	**PKPab**	**07 23 40.4**	**-1.2**
	0.1nm,0.3s,baz=164,slow=4.4,SNR=1.4						

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*IDC **02** 07:06:05.7±2.3, 11°.12N×86°.46W, h0^{km}, mb3.6/5, mbtmp3.6/5, MS3.4/1, Error ellipse: s-maj=69.5km s-min=51.7km az=52.0*

*UCR **02** 07:06:08.4±0.5, 10°.97N×86°.97W, h0^{km}±51^{km}, MW4.0, Presumed earthquake*

*NEIC **02** 07:06:10.9±0.9, 11°.13N±0°.04×86°.91W±0°.07, h10^{km}±2^{km}, mb4.2/11, Error ellipse: s-maj=11.4km s-min=5.9km az=255.0*

*SNET **02** 07:06:12.2±1.3, 11°.21N×86°.89W, h28^{km}, ML3.8, Presumed earthquake*

*CATAC **02** 07:06:12.3±0.6, 11°N±3°×8°7W±°, h19^{km}±5^{km}, M3.9/31, MLv3.9/31, Error ellipse: s-maj=6.7km s-min=3.3km az=41.8, confirmed*

ISC 02 07:06:09.5±1.5**,11°.07N**±0°.04×**86°.96W**±0°.04**,h14**^{km}±9^{km}**, n113,**σ**1**^{s}**41**/133**,mb4.1**/12**,13C,Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NADN	**Granada**	1.13	53	P	**Pn**	**07 06 31.8**	**+0.8**
NADN				S	**Sb**	**07 06 45.3**	**-0.2**
NADN	**Granada**	1.13	53	*e*P	**Pn**	**07 06 31.8**	**+0.8**
COPN	**Copaltepe**	1.16	18	⇑P	**Pn**	**07 06 32.2**	**+0.8**
COPN	**Copaltepe**	1.16	18	*e*P	**Pn**	**07 06 32.1**	**+0.8**
SABN	**Sabanita**	1.18	42	⇑P	**Pn**	**07 06 32.6**	**+1.0**
NANN	**Nandasmo**	1.19	44	⇑P	**Pn**	**07 06 33.7**	**+1.9**
NANN				S	**Sn**	**07 06 47.2**	**-0.6**
MAS3	**Al N del Volca**	1.22	39	P	**Pn**	**07 06 32.9**	**+0.7**
MAS3				S	**Sg**	**07 06 47.7**	**-1.2**
ABCN	**Banco Central**	1.22	31	P	**Pn**	**07 06 33.4**	**+1.2**
TISN	**Laguna Tiscapa**	1.26	32	⇑P	**Pg**	**07 06 33.7**	**-0.1**
ALLN	**Telcor Managua**	1.27	32	P	**Pg**	**07 06 33.9**	**-0.1**
ALLN				S	**Sn**	**07 06 50.0**	**+0.3**
AMTN	**Mateare**	1.27	24	P	**Pg**	**07 06 33.7**	**-0.3**
MGAN	**Managua**	1.27	33		**Pg**	**07 06 33.9**	**-0.2**
MGAN	**Managua**	1.27	33	⇑P	**Pg**	**07 06 34.0**	**-0.1**
MGAN				S	**Sb**	**07 06 48.3**	**-1.3**
APQ2	**Apoyeque**	1.28	29	P	**Pn**	**07 06 33.7**	**+0.7**
APYN	**Apoyeque**	1.30	27	⇑P	**Pb**	**07 06 34.1**	**+0.4**
APYN				S	**Sn**	**07 06 50.8**	**+0.3**
LCRUZ	**La Cruz**	1.30	90	*e*P	**Pn**	**07 06 33.8**	**+0.5**
WILN	**Americas 2**	1.32	35	⇑P	**Pb**	**07 06 34.4**	**+0.3**
JAPN	**Al SSO del Vol**	1.33	70	P	**Pg**	**07 06 35.2**	**0.0**
JAPN	**Al SSO del Vol**	1.33	70	*e*P	**Pg**	**07 06 35.3**	**0.0**
LEVN	**Ruinas Leon Vi**	1.36	14	⇑P	**Pb**	**07 06 35.2**	**+0.3**
LEVN				S	**Sb**	**07 06 51.9**	**-0.3**
MORN	**Al O del Volca**	1.37	70	P	**Pb**	**07 06 35.3**	**+0.3**
MORN				S	**Sb**	**07 06 51.6**	**-0.7**
OMEN	**Al SSO del Vol**	1.38	71	P	**Pn**	**07 06 34.8**	**+0.5**
MOMN	**Momotombo**	1.39	17	P	**Pn**	**07 06 35.4**	**+0.9**
MOMN				S	**Sb**	**07 06 52.8**	**-0.2**
CARN	**Rivas**	1.41	85		**Pn**	**07 06 35.9**	**+1.0**
CARN	**Rivas**	1.41	85	⇑P	**Pn**	**07 06 35.8**	**+1.0**
CARN				S	**Sn**	**07 06 54.0**	**+0.7**
CARN	**Rivas**	1.41	85	*e*P	**Pn**	**07 06 35.7**	**+0.9**
MOM2	**El Cardon**	1.43	19	⇑P	**Pn**	**07 06 36.0**	**+0.9**
ALIBA	**Liberia Airpor**	1.47	109	*e*P	**Pn**	**07 06 36.5**	**+0.9**
PLRN	**Geotermica Pol**	1.51	7	P	**Pn**	**07 06 36.9**	**+0.7**
PLRN				S	**Sn**	**07 06 56.3**	**+0.5**
ILCN	**San Idelfonso**	1.52	10	P	**Pn**	**07 06 36.6**	**+0.4**
ILCN				S	**Sb**	**07 06 56.8**	**+0.2**
HERN	**Volcan Telica**	1.53	5	Pn	**Pn**	**07 06 37.6**	**+1.0**
ERIA	**Liberia**	1.55	106	*e*P	**Pn**	**07 06 37.6**	**+0.8**
SACU	**Santa Cruz**	1.57	121	*e*P	**Pn**	**07 06 36.8**	**-0.2**
VRLE	**La Escondida,**	1.59	100	*e*P	**Pn**	**07 06 38.0**	**+0.7**
GPS2	**Hotel Rincn d**	1.61	101	*e*P	**Pn**	**07 06 38.4**	**+0.7**
CRIN	**San Cristobal**	1.62	357		**Pn**	**07 06 38.6**	**+0.9**
CRIN	**San Cristobal**	1.62	357	P	**Pn**	**07 06 38.7**	**+0.9**
CRIN				S	**Sn**	**07 06 59.3**	**+0.8**
JUD3	**Juan Diaz 3**	1.66	123		**Pn**	**07 06 38.2**	**-0.1**
JUD3	**Juan Diaz 3**	1.66	123	*e*P	**Pn**	**07 06 38.0**	**-0.3**
MESS	**Mesas**	1.76	101	*e*P	**Pn**	**07 06 41.2**	**+1.5**
CLARA	**Aguas Claras**	1.77	99	*e*P	**Pn**	**07 06 41.4**	**+1.5**
HORNC	**Hornillas**	1.78	101	*e*P	**Pn**	**07 06 40.9**	**+0.9**
CUI	**Cuipilapa**	1.81	103	*e*P	**Pn**	**07 06 41.2**	**+0.9**
VMAR	**Armenia, Volca**	1.83	98	*e*P	**Pn**	**07 06 41.8**	**+1.2**
CMARA	**Lajas Hojancha**	1.84	125	*e*P	**Pn**	**07 06 40.1**	**-0.6**
BOAB	**BOACO BROADBAN**	1.86	43		**Pn**	**07 06 41.6**	**+0.6**
BOAB	**BOACO BROADBAN**	1.86	43	⇑P	**Pn**	**07 06 41.6**	**+0.6**
UPAL	**Upala**	1.92	95	P	**Pn**	**07 06 42.8**	**+1.0**
UPAL				S	**Sb**	**07 07 07.7**	**-0.4**
UPAL	**Upala**	1.92	95	*e*P	**Pn**	**07 06 42.7**	**+1.0**
ACON	**Acoyapa**	1.96	63	P	**Pn**	**07 06 42.7**	**+0.3**
TIMP	**Tierras Morena**	1.97	104	*e*P	**Pn**	**07 06 43.6**	**+1.0**
TENO	**El Achiote**	1.98	100	*e*P	**Pn**	**07 06 43.6**	**+0.9**
CSGN	**Cosiguina Volc**	1.98	343	P	**Pn**	**07 06 43.5**	**+0.8**
CSGN				S	**Sn**	**07 07 09.3**	**+1.8**
QUEB	**Quebradon, Cot**	2.08	102	*e*P	**Pn**	**07 06 45.3**	**+1.3**
MATN	**Matagalpa**	2.10	29	⇑P	**Pn**	**07 06 45.2**	**+0.7**
MATN				S	**Sn**	**07 07 11.2**	**+0.7**
JUNT	**Juntas**	2.12	112	*e*P	**Pn**	**07 06 46.0**	**+1.4**
JTS	**Las Juntas de**	2.12	111		**Pn**	**07 06 45.5**	**+0.9**
JTS	**Las Juntas de**	2.12	111	*e*P	**Pn**	**07 06 46.0**	**+1.4**
LCHIL	**Los Chiles**	2.20	91	*e*P	**Pn**	**07 06 46.3**	**+0.6**
MTEVE	**Monteverde**	2.22	109	*e*P	**Pn**	**07 06 47.3**	**+1.1**
VARE2	**V. Arenal**	2.28	105	*e*P	**Pn**	**07 06 48.2**	**+1.3**
CEDE	**Laguna Cedeo**	2.29	105	*e*P	**Pn**	**07 06 48.2**	**+1.2**
CNCH	**Conchagua**	2.35	339	*e*P	**Pn**	**07 06 48.4**	**+0.6**
INTP	**Intipuca**	2.37	333	*e*P	**Pn**	**07 06 48.7**	**+0.7**
INTP				*e*S	**Sn**	**07 07 15.3**	**-1.5**
LAFE	**Finca La Fe, P**	2.38	122	*e*P	**Pn**	**07 06 48.3**	**+0.2**
LCND	**La Caada**	2.40	338	*e*P	**Pn**	**07 06 49.2**	**+0.7**
VPL1	**V. Platanar**	2.67	107	*e*P	**Pg**	**07 07 00.5**	**-0.3**
PACA	**Pacayal**	2.73	331	*e*P	**Pn**	**07 06 53.7**	**+0.6**
ALJI	**Alcalda de J**	2.74	325	*e*S	**Sn**	**07 07 24.8**	**-1.2**
PURI	**Puriscal**	2.87	115	*e*P	**Pn**	**07 06 58.0**	**+2.9**
VBV1	**V. Barva**	2.97	108	*e*P	**Pb**	**07 07 00.8**	**-1.6**
TGUH	**Tegucigalpa,Un**	2.98	354		**Pn**	**07 06 58.1**	**+1.5**
TGUH	**Tegucigalpa,Un**	2.98	354	⇑P	**Pn**	**07 06 57.9**	**+1.4**
TGUH				S	**Sn**	**07 07 32.9**	**+0.6**
HDC	**Heredia**	2.99	111	Pn	**Pn**	**07 06 58.4**	**+1.7**
HDC	**Heredia**	2.99	111	*e*P	**Pn**	**07 07 00.2**	**+3.5**
ACOS	**Acosta**	3.03	115	*e*P	**Pn**	**07 06 59.9**	**+2.7**
PICV	**PH. Pirrs**	3.08	118	*e*P	**Pn**	**07 07 00.6**	**+2.8**
AMPA	**Desamparados**	3.08	112	*e*P	**Pn**	**07 07 01.0**	**+3.1**
COEG	**Centro de Oper**	3.15	324	*e*P	**Pn**	**07 06 59.6**	**+0.7**
COEG				*e*S	**Sn**	**07 07 35.3**	**-1.1**
ABE2	**San Pablo**	3.16	115	*e*P	**Pn**	**07 07 01.4**	**+2.2**
LCR2	**La Lucha 2**	3.19	114		**Pn**	**07 07 02.0**	**+2.5**
LCR2	**La Lucha 2**	3.19	114	*e*P	**Pn**	**07 07 02.0**	**+2.5**
PITB	**Pirrs, San**	3.21	116	*e*P	**Pn**	**07 07 01.7**	**+2.0**
VICA	**Volcano Irazu**	3.25	109	*e*P	**Pn**	**07 07 04.2**	**+3.7**
REPA	**Paraso**	3.28	112	*e*P	**Pn**	**07 07 04.1**	**+3.4**
PIEC	**Cerro El Cedra**	3.29	116	*e*P	**Pn**	**07 07 03.3**	**+2.4**
CVTQ	**Turrialba Volc**	3.31	108	*e*P	**Pn**	**07 07 04.4**	**+3.1**
CVTR	**Volcan Turrial**	3.31	108	*e*P	**Pn**	**07 07 04.5**	**+3.1**
ABRB	**Las Abras (San**	3.36	108	*e*P	**Pn**	**07 07 05.8**	**+3.9**
CEVE	**Cerro Verde**	3.78	317	*e*P	**Pn**	**07 07 09.1**	**+1.5**
EDPE	**Pejibaye, P**	3.84	119	*e*P	**Pn**	**07 07 10.8**	**+2.6**
MTO3	**Montecristo**	4.05	325		**Pn**	**07 07 12.6**	**+1.2**
PIRO	**Carate, Puerto**	4.45	126		**Pn**	**07 07 18.9**	**+2.3**
BRU2	**Volcan**	4.78	118		**Pn**	**07 07 22.7**	**+1.4**
TLIG	**Tlapa**	12.96	301		**Pn**	**07 09 15.8**	**+2.2**
GOGA	**Godfrey**	22.46	8	P	**P**	**07 11 08.4**	**+0.1**
GOGA				lAmb	lAmb	07 11 11.8	
	comp=Z,5.4nm,0.8s						
Y49A	**Blount Mountai**	22.68	1	P	**P**	**07 11 11.4**	**+0.6**
Y49A				lAmb	lAmb	07 11 42.1	
	comp=Z,9.1nm,1.3s						
TXAR	**Lajitas Array**	23.94	322	P	**P**	**07 11 24.4**	**+0.9**
	comp=Z,1.3nm,0.8s,baz=132,slow=7.3,SNR=14						
TXAR				PcP	**PcP**	**07 15 07.1**	**+1.1**
	comp=Z,0.5nm,0.8s,baz=117,slow=2.9,SNR=5.2						
	comp=Z,1.3nm,0.8s						
TXAR	**Lajitas Array**	23.94	322	P	**P**	**07 11 24.8**	**+1.3**
TX31	**Lajitas Ar. Si**	23.94	322		**P**	**07 11 24.7**	**+1.2**
W50A	**Signal Mountai**	24.07	3	P	**P**	**07 11 23.8**	**-0.7**
W50A				lAmb	lAmb	07 11 26.2	
	comp=Z,5.0nm,0.9s						
MIAR	**Mount Ida**	24.13	347		**P**	**07 11 25.0**	**-0.1**
CPCT	**Cooper Cave**	24.37	5		**P**	**07 11 27.5**	**+0.3**
CPCT				lAmb	lAmb	07 11 29.9	
	comp=Z,4.8nm,0.7s						
TKL	**Tuckaleechee C**	24.65	6	P	**P**	**07 11 30.7**	**+0.9**
TKL				lAmb	lAmb	07 11 39.8	
	comp=Z,8.1nm,1.2s						
V58A	**Windy Hill, Pi**	25.62	15	P	**P**	**07 11 38.8**	**+0.3**
V58A				lAmb	lAmb	07 11 40.1	
	comp=Z,4.3nm,0.8s						
PV18	**Skein Mesa, Pa**	33.44	328		**P**	**07 12 48.4**	**0.0**
PV19	**Morning Glory**	33.52	328	P	**P**	**07 12 49.8**	**+0.8**
PV19				lAmb	lAmb	07 13 03.2	
	comp=Z,3.4nm,0.8s						
PDAR	**Pinedale Array**	37.21	332	P	**P**	**07 13 20.6**	**-0.1**
	comp=Z,0.4nm,0.6s,baz=140,slow=8.2,SNR=4.7						
	comp=Z,0.4nm,0.6s						
SCHQ	**Schefferville**	46.46	16	P	**P**	**07 14 33.1**	**-2.8**
	comp=Z,1.8nm,0.6s,baz=225,slow=10.0,SNR=1.3						
SCHQ				LR	LR	07 33 50.7	
	comp=Z,38nm,18.4s,baz=295,slow=36						
	comp=Z,1.8nm,0.6s						
YKA	**Yellowknife Ar**	55.06	345	P	**P**	**07 15 40.2**	**-0.5**
	comp=Z,0.3nm,0.6s,baz=147,slow=7.8,SNR=1.5						
	comp=Z,0.3nm,0.6s						
ILAR	**Eielson Array**	67.47	336	P	**P**	**07 17 03.0**	**-1.7**
	comp=Z,0.1nm,0.6s,baz=120,slow=6.7,SNR=1.4						
	comp=Z,0.1nm,0.6s						
WRA	**Warramunga Arr**	139.33	252	PKP	**PKPdf**	**07 25 34.5**	**-2.8**
	comp=Z,0.2nm,0.7s,baz=101,slow=3.3,SNR=1.4						
CMAR	**Chiang Mai Arr**	150.09	349	PKPbc	**PKPdf**	**07 25 57.4**	**+1.5**
	comp=Z,0.8nm,0.3s,baz=20,slow=3.2,SNR=4.6						

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*UCR **02** 07:22:45.8±0.6, 11°.00N×86°.91W, h11^{km}±13^{km}, MW3.7, Presumed earthquake*

*SNET **02** 07:22:46.8±1.2, 11°.21N×86°.91W, h18^{km}, ML3.5, Presumed earthquake*

*CATAC **02** 07:22:46.2±0.7, 11°N±4°×8°7W±°, h26^{km}±9^{km}, M3.5/22, MLv3.5/22, Error ellipse: s-maj=9.8km s-min=4.8km az=46.8, confirmed*

ISC 02 07:22:44.9±1.7**,11°.05N**±0°.04×**86°.98W**±0°.04**,h13**^{km}±11^{km}**, n65,**σ**0**^{s}**86**/84**,9C,Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NADN	**Granada**	1.16	53	⇑P	**Pb**	**07 23 07.2**	**+0.3**
NADN				S	**Sg**	**07 23 23.0**	**+0.6**
NADN	**Granada**	1.16	53	*e*P	**Pb**	**07 23 07.1**	**+0.3**
COPN	**Copaltepe**	1.18	19	⇑P	**Pn**	**07 23 07.4**	**+0.2**
COPN	**Copaltepe**	1.18	19	*e*P	**Pn**	**07 23 07.3**	**0.0**
SABN	**Sabanita**	1.21	42	P	**Pn**	**07 23 06.5**	**-1.0**
NANN	**Nandasmo**	1.22	44	⇑P	**Pg**	**07 23 08.8**	**+0.4**
MAS3	**Al N del Volca**	1.25	39	P	**Pn**	**07 23 07.9**	**-0.2**
MAS3				S	**Sn**	**07 23 24.7**	**-0.1**
TISN	**Laguna Tiscapa**	1.29	33	P	**Pn**	**07 23 08.8**	**+0.1**
MGAN	**Managua**	1.30	34	P	**Pn**	**07 23 09.1**	**+0.3**
MGAN				S	**Sn**	**07 23 26.3**	**+0.1**
APQ2	**Apoyeque**	1.31	29	P	**Pn**	**07 23 08.7**	**-0.2**
APQ2				S	**Sb**	**07 23 25.5**	**-0.5**
APYN	**Apoyeque**	1.33	28	⇑P	**Pn**	**07 23 09.3**	**+0.1**
APYN				S	**Sb**	**07 23 27.5**	**+0.8**
LCRUZ	**La Cruz**	1.33	89	*e*P	**Pn**	**07 23 09.0**	**-0.2**
LCRUZ				*e*S	**Sg**	**07 23 27.3**	**-0.5**
WILN	**Americas 2**	1.35	35	P	**Pn**	**07 23 09.5**	**0.0**
WILN				S	**Sb**	**07 23 27.6**	**+0.3**
JAPN	**Al SSO del Vol**	1.36	70	P	**Pb**	**07 23 10.2**	**-0.1**
JAPN	**Al SSO del Vol**	1.36	70	*e*P	**Pb**	**07 23 10.2**	**-0.1**
LEVN	**Ruinas Leon Vi**	1.39	15	⇑P	**Pn**	**07 23 10.3**	**+0.3**
LEVN				S	**Sn**	**07 23 28.2**	**0.0**
MORN	**Al O del Volca**	1.40	69	P	**Pn**	**07 23 10.3**	**+0.1**
OMEN	**Al SSO del Vol**	1.41	71	P	**Pn**	**07 23 09.9**	**-0.4**
MOMN	**Momotombo**	1.42	18	P	**Pn**	**07 23 10.4**	**0.0**
MOMN				S	**Sn**	**07 23 28.9**	**0.0**
CARN	**Rivas**	1.44	85	⇑P	**Pn**	**07 23 10.9**	**+0.2**
CARN				S	**Sg**	**07 23 30.0**	**-1.4**
CARN	**Rivas**	1.44	85	*e*P	**Pn**	**07 23 10.9**	**+0.2**
MOM2	**El Cardon**	1.46	20	⇑P	**Pn**	**07 23 11.1**	**+0.1**
MOM2				S	**Sn**	**07 23 30.1**	**+0.1**
ALIBA	**Liberia Airpor**	1.48	108	*e*P	**Pn**	**07 23 11.6**	**+0.3**
ALIBA				*e*S	**Sb**	**07 23 31.0**	**-0.2**
PLRN	**Geotermica Pol**	1.54	8	P	**Pn**	**07 23 12.0**	**-0.1**
PLRN				S	**Sn**	**07 23 31.8**	**-0.1**
ILCN	**San Idelfonso**	1.54	10	P	**Pn**	**07 23 11.8**	**-0.3**

ILCN				S	Sn	07 23 31.9	-0.1
SACU	Santa Cruz	1.58	120	eP	Pn	07 23 12.1	-0.6
VRLE	La Escondida,	1.61	99	eP	Pn	07 23 12.7	-0.5
VORI	VORI	1.62	98	eP	Pn	07 23 13.7	+0.3
JUD3	Juan Diaz 3	1.67	122	eP	Pn	07 23 13.2	-0.8
MESS	Mesas	1.79	100	eP	Pn	07 23 16.2	+0.6
CLARA	Aguas Claras	1.80	98	eP	Pn	07 23 15.8	+0.1
CUI	Cuipilapa	1.83	102	eP	Pn	07 23 16.4	+0.2
CMARA	Lajas Hojancha	1.85	124	eP	Pn	07 23 16.1	-0.2
VMAR	Armenia, Volca	1.85	97	eP	Pn	07 23 17.0	+0.5
BOAB	BOACO BROADBAN	1.89	43	⇑P	Pn	07 23 16.8	-0.2
CANAL	Canalete	1.91	96	eP	Pn	07 23 17.4	+0.3
UPAL	Upala	1.94	94	P	Pn	07 23 17.9	+0.3
UPAL				S	Sb	07 23 42.7	-1.6
UPAL	Upala	1.94	94	eP	Pn	07 23 17.9	+0.3
TIMP	Tierras Morena	1.99	103	eP	Pn	07 23 18.9	+0.5
CSGN	Cosiguina Volc	1.99	344	P	Pn	07 23 18.8	+0.3
CSGN				S	Sn	07 23 42.7	-0.6
ACON	Acoyapa	1.99	63	eP	Pn	07 23 18.0	-0.4
TENO	El Achiote	2.00	100	eP	Pn	07 23 18.9	+0.4
QUEB	Quebradon, Cot	2.10	102	eP	Pn	07 23 20.9	+1.1
MATN	Matagalpa	2.13	29	⇑P	Pn	07 23 20.4	0.0
MATN				S	Sn	07 23 46.8	0.0
JTS	Las Juntas de	2.13	111	eP	Pn	07 23 20.8	+0.5
MTEVE	Monteverde	2.24	109	eP	Pn	07 23 22.3	+0.4
ARE1	Arenal 1	2.30	105	eP	Pn	07 23 23.5	+0.8
VARE2	V. Arenal	2.30	105	eP	Pb	07 23 26.3	-0.1
CEDE	Laguna Cedeo	2.31	104	eP	Pn	07 23 23.5	+0.7
CNCH	Conchagua	2.36	339	eP	Pn	07 23 23.6	+0.1
LCND	La Caada	2.41	339	eP	Pn	07 23 23.6	-0.5
LCND				eS	Sn	07 23 53.8	+0.2
PACA	Pacayal	2.73	332	eP	Pn	07 23 28.7	0.0
ALJI	Alcalda de J	2.74	326	eS	Sn	07 24 01.5	-0.2
PURI	Puriscal	2.89	114	eP	Pb	07 23 33.6	-2.9
VBV1	V. Barva	2.99	108	eP	Pn	07 23 31.1	-1.2
ACOS	Acosta	3.04	114	eP	Pn	07 23 35.1	+2.2
COEG	Centro de Oper	3.15	324	eP	Pn	07 23 34.5	+0.2
COEG				eS	Sn	07 24 11.5	-0.4
CVIMO	Finca Echandi	3.16	109	eP	Pb	07 23 42.6	+1.5
LCR2	La Lucha 2	3.21	114	eP	Pn	07 23 37.4	+2.2
SJTE	Alcalda de S	3.22	322	eP	Pn	07 23 35.6	+0.2
PITB	Pirrs, San	3.22	115	eP	Pn	07 23 37.0	+1.6
RAZU	San Marcos de	3.23	115	eP	Pn	07 23 38.1	+2.6
VICA	Volcano Irazu	3.26	109	eP	Pn	07 23 39.4	+3.2
PIEC	Cerro El Cedra	3.30	115	eP	Pn	07 23 38.4	+1.8
LOMA	Loma Larga	3.35	321	eS	Sn	07 24 16.8	-0.1

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*IDC **02** 07:22:46.5±1.7, 10°.13S×119°.08E, h0^{km}, mb3.8/1, mbtmp3.5/5, ML3.4/4, Error ellipse: s-maj=46.1km s-min=13.7km az=69.0*

*DJA **02** 07:22:52.1±0.6, 10°S±6°×11°9E±°, h10^{km}, M3.6/7, mB4.7/1, mb4.1/3, MLv3.3/7, Mw(mB)3.9/1*

ISC 02 07:22:49.2±1.1**, 10°.15S**±0°.07×**119°.14E**±0°.06**, h10**^{km}**, n16,** σ**2^{s}15**/16**, Sumba region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WBSI	Waikabubak, Su	0.56	26	P	Pg	07 23 01.3	+1.1
WBSI				AML	AML		
WSI	Waingapu	1.24	67	P	Pb	07 23 11.7	-1.0
BASI	Baing, Sumba	1.42	93	P	Pg	07 23 18.8	+2.4
BASI				AML	AML		
LBFI	Labuhan Bajo,	1.82	24	P	Pn	07 23 22.3	+1.7
DBNI	Kabupaten Domp	1.83	333	P	Pn	07 23 22.6	+1.8
DBNI				AML	AML		
PLAI	Plampang	1.88	314	P	Pn	07 23 23.2	+1.7
PLAI				AML	AML		
TWSI	Taliwang, Sumb	2.63	302	P	Pn	07 23 34.1	+2.2
EDFI	Ende, Flores	2.88	61	P	Pn	07 23 34.8	-0.5
BSSI	Bau Bau, Buton	4.20	19	P	Pn	07 23 55.3	+1.9
SOEI	Soe	5.07	86	P	Pn	07 24 08.8	+3.4
	17nm,1.2s						
KAPI	Kappang	5.14	7	Pn	Pn	07 24 07.9	+1.6
	2.6nm,0.3s,baz=193,slow=18,SNR=7.1						
KAPI				Sn	Sn	07 25 04.6	-1.2
	2.4nm,0.3s,baz=120,slow=20,SNR=1.8						
	14nm,0.6s						
KAPI				AML	AML		
KAPI	Kappang	5.14	7	P	Pn	07 24 09.4	+3.1
	11nm,0.8s						
FITZ	Fitzroy Crossi	10.10	142	Pn	Pn	07 25 12.0	-2.5
	0.3nm,0.3s,baz=328,slow=13,SNR=14						
FITZ				Sn	Sn	07 26 56.0	-12
	0.5nm,0.3s,baz=330,slow=16,SNR=7.7						
	2.5nm,0.8s						
FITZ				AML	AML		
WRA	Warramunga Arr	17.60	125	P	Pn	07 26 52.3	-2.5
	0.1nm,0.3s,baz=294,slow=14,SNR=6.6						
WRA				S	Sn	07 29 56.4	-15
	0.4nm,0.6s,baz=305,slow=26,SNR=2.4						
	0.4nm,0.7s						
WRA				AML	AML		
ASAR	Alice Springs	19.47	135	P	P	07 27 15.7	-0.7
	0.1nm,0.3s,baz=314,slow=11,SNR=6.6						
ASAR				S	Sn	07 30 44.0	-12
	0.5nm,0.9s,baz=307,slow=22,SNR=2.3						
	0.5nm,0.6s						
ASAR				AML	AML		
MKAR	Makanchi Array	65.54	333	P	P	07 33 31.2	-1.8
	0.6nm,0.6s,baz=147,slow=7.3,SNR=7.3						
	0.6nm,0.6s						

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*MOS **02** 07:26:39.7±1.0, 52°.22N×157°.45E, h145^{km}, mb4.6/15, Error ellipse: s-maj=12.3km s-min=4.5km az=70.2*

*KRSC **02** 07:26:40.0±0.8, 52°.17N×157°.69E, h138^{km}±6^{km}, Ml4.2*

*IDC **02** 07:26:41.9±0.8, 52°.37N×157°.35E, h142^{km}±6^{km}, mb3.9/10, mbtmp4.4/12, Error ellipse: s-maj=25.8km s-min=13.3km az=142.0*

*NEIC **02** 07:26:42.1±1.0, 52°.3N±0°.1×157°.5E±0°.2, h143^{km}±6^{km}, mb4.3/87, Error ellipse: s-maj=17.0km s-min=11.2km az=144.0*

ISC 02 07:26:40.5±0.6**, 52°.19N**±0°.04×**157°.62E**±0°.04**, h137**^{km}±5^{km}**, n206,** σ**1^{s}11**/208**, mb4.3**/59**, 1D, Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ASAK	Asacha	0.26	42	PN	Pn	07 27 00.1	+0.7
ASAK	Asacha	0.26	42	eP	Pn	07 27 00.2	+0.7
MTVR	Mutnovka	0.45	50	PN	Pn	07 27 00.5	+0.2
MTVR	Mutnovka	0.45	50	eP	Pn	07 27 00.5	+0.2
GRL	Gorelyy	0.46	38	PN	Pn	07 27 01.1	+0.8
GRL	Gorelyy	0.46	38	eP	Pn	07 27 01.1	+0.8
KDTR	Khodutka, Kamc	0.48	143	PN	Pn	07 27 00.2	0.0
KDTR				S	Sn	07 27 14.7	-0.4
KDTR	Khodutka, Kamc	0.48	143	iP	Pn	07 27 00.3	0.0
KDTR				eS	Sn	07 27 14.8	-0.4
MIPR	Malaya Ipel'ka	0.54	279	PN	Pn	07 27 01.0	+0.4
MIPR	Malaya Ipel'ka	0.54	279	eP	Pn	07 27 01.0	+0.4
RUS	Russkaya	0.60	66	PN	Pn	07 27 01.1	+0.2
RUS	Russkaya	0.60	66	eP	Pn	07 27 01.2	+0.2
KRMR	Karymshinskiy	0.71	26	PN	Pn	07 27 02.1	+0.5
KRMR				S	Sn	07 27 18.8	+1.0
KRMR	Karymshinskiy	0.71	26	iP	Pn	07 27 02.2	+0.5
KRMR				eS	Sn	07 27 18.9	+1.0
APC	Apacha	0.79	339	PN	Pn	07 27 02.6	+0.4
APC				S	Sn	07 27 19.1	+0.3
APC	Apacha	0.79	339	iP	Pn	07 27 02.6	+0.4
APC				eS	Sn	07 27 19.1	+0.3
PAU	Pauzhetka	0.88	215	PN	Pn	07 27 03.7	+0.7
PAU				S	Sn	07 27 21.4	+1.3
PAU	Pauzhetka	0.88	215	iP	Pn	07 27 03.8	+0.7
PAU				eS	Sn	07 27 21.5	+1.3
PEA0B	Petropavlovsk-	0.92	3	PN	Pn	07 27 04.1	+0.7
PEA0B	Petropavlovsk-	0.92	3	Pn	Pn	07 27 04.1	+0.7
PETK	Petropavlovsk-	0.92	3	P	Pn	07 27 04.0	+0.6
	170nm,0.5s,baz=166,slow=7.8,SNR=232						
PETK				S	Sn	07 27 21.9	+1.0
	130nm,0.9s,baz=274,slow=20,SNR=7.1						
PET	Petropavlovsk	1.04	37	⇓iPN	Pn	07 27 04.8	+0.4
PET				eS	Sn	07 27 23.0	+0.3
PET				pmax	pmax		
	comp=Z,208nm,0.5s						
PET				smax	smax		
	comp=E,521nm,0.5s						
PET				smax	smax		
	comp=N,682nm,0.6s						
PET	Petropavlovsk	1.04	37	Pn	Pn	07 27 04.6	+0.2
PET	Petropavlovsk	1.04	37	eP	Pn	07 27 04.6	+0.2
PET				eS	Sn	07 27 22.9	+0.3
INSR	Institute	1.06	34	PN	Pn	07 27 05.1	+0.5
INSR	Institute	1.06	34	eP	Pn	07 27 05.2	+0.5
DALK	Dalny	1.09	39	PN	Pn	07 27 05.3	+0.5
DALK				S	Sn	07 27 23.9	+0.5
DALK	Dalny	1.09	39	eP	Pn	07 27 05.4	+0.5
DALK				eS	Sn	07 27 24.0	+0.5
UGLR	Uglovaya	1.25	35	PN	Pn	07 27 07.7	+1.1
UGLR	Uglovaya	1.25	35	eP	Pn	07 27 07.8	+1.1
KOK	Koryaka	1.26	29	PN	Pn	07 27 07.9	+1.2
KOK	Koryaka	1.26	29	eP	Pn	07 27 07.9	+1.2
AVH	Avacha	1.27	32	PN	Pn	07 27 08.1	+1.3
AVH	Avacha	1.27	32	eP	Pn	07 27 08.1	+1.3
SMAR	Somma	1.29	33	PN	Pn	07 27 08.1	+1.0
SMAR	Somma	1.29	33	eP	Pn	07 27 08.1	+1.0
KRER	Koryakskii	1.31	31	PN	Pn	07 27 08.1	+0.8
KRER	Koryakskii	1.31	31	eP	Pn	07 27 08.1	+0.8
KRX	Arik	1.33	28	PN	Pn	07 27 08.1	+0.8
KRX	Arik	1.33	28	eP	Pn	07 27 08.2	+0.8
SDLR	Sedlovina	1.33	35	PN	Pn	07 27 08.3	+0.9
SDLR	Sedlovina	1.33	35	eP	Pn	07 27 08.3	+0.9
NLC	Nalytchevo	1.44	46	PN	Pn	07 27 07.8	-0.5
NLC	Nalytchevo	1.44	46	eP	Pn	07 27 07.9	-0.5
GNL	Ganaly	1.52	7	PN	Pn	07 27 09.7	+0.3
GNL	Ganaly	1.52	7	eP	Pn	07 27 09.7	+0.3
SPN	Mys Shipunski	1.72	57	PN	Pn	07 27 12.5	+0.9
SPN				S	Sn	07 27 34.6	-0.7
SPN	Mys Shipunski	1.72	57	eP	Pn	07 27 12.5	+0.9
SPN				eS	Sn	07 27 34.6	-0.7
SKR	Severo-Kuril's	1.78	212	ePN	Pn	07 27 13.2	+1.0
SKR				eS	Sn	07 27 37.4	+0.9
SKR				pmax	pmax		
	comp=Z,534nm,0.7s						
SKR				smax	smax		
	comp=E,2μm,0.9s						
SKR				smax	smax		
	comp=N,2μm,0.5s						
SKR	Severo-Kuril's	1.78	212	eP	Pn	07 27 13.0	+0.8
SKR				eS	Sn	07 27 37.7	+1.2
KII	Karymskiy	2.15	30	PN	Pn	07 27 18.4	+1.7
KII	Karymskiy	2.15	30	eP	Pn	07 27 18.4	+1.7
MKZ	Mys Kozlova	3.42	44	PN	Pn	07 27 32.5	-0.1
MKZ	Mys Kozlova	3.42	44	eP	Pn	07 27 32.5	-0.1
TUMD	Tumrok D	3.44	28	PN	Pn	07 27 34.6	+1.6
TUMD				S	Sn	07 28 15.8	+2.1
TUMD	Tumrok D	3.44	28	eP	Pn	07 27 34.6	+1.6
TUMD				eS	Sn	07 28 15.9	+2.1
TUMR	Tumrok	3.44	25	PN	Pn	07 27 34.7	+1.6
TUMR	Tumrok	3.44	25	eP	Pn	07 27 34.7	+1.6
ESO	Esso	3.79	9	PN	Pn	07 27 38.6	+1.0
ESO	Esso	3.79	9	eP	Pn	07 27 38.7	+1.0
KMNR	Kamenistaya	3.89	22	PN	Pn	07 27 40.9	+1.9
KMNR	Kamenistaya	3.89	22	eP	Pn	07 27 41.0	+1.9
BZMR	Bezymyannaya	4.11	23	PN	Pn	07 27 43.6	+1.6
BZMR	Bezymyannaya	4.11	23	eP	Pn	07 27 43.6	+1.6
BZWR	Bezymyannyi-We	4.14	23	PN	Pn	07 27 44.0	+1.7
BZWR	Bezymyannyi-We	4.14	23	eP	Pn	07 27 44.1	+1.7
BZGR	Bezymyannyi-Gr	4.17	25	PN	Pn	07 27 44.5	+1.9
BZGR	Bezymyannyi-Gr	4.17	25	eP	Pn	07 27 44.6	+1.9
ZLN	Zelenaya	4.27	25	PN	Pn	07 27 46.1	+2.2
ZLN	Zelenaya	4.27	25	eP	Pn	07 27 46.2	+2.2
SRDR	Sredinnyy	4.31	16	PN	Pn	07 27 46.0	+1.5
SRDR	Sredinnyy	4.31	16	eP	Pn	07 27 46.1	+1.5
CIRR	Tsirk	4.34	24	PN	Pn	07 27 46.6	+1.6
CIRR	Tsirk	4.34	24	eP	Pn	07 27 46.6	+1.6
KBTR	Krutoberegovo	5.05	35	PN	Pn	07 27 54.0	-0.2
KBTR	Krutoberegovo	5.05	35	eP	Pn	07 27 54.1	-0.2
BKI	Bering	5.81	55	PN	Pn	07 28 03.8	-0.5
BKI	Bering	5.81	55	eP	Pn	07 28 03.9	-0.5
MA2	Magadan	8.34	335	iPN	Pn	07 28 36.0	-2.3
SHEM	Shemya Is, Ala	10.08	80	P	Pn	07 29 05.7	+4.2
	comp=N,19nm,0.5s,baz=290,slow=10,SNR=2.0						
SHEM				S	Sn	07 30 48.6	-4.2
	comp=N,32nm,0.5s,baz=164,slow=16,SNR=11						
SHEM	Shemya Is, Ala	10.08	80	Pn	Pn	07 29 04.1	+2.6
SMY	Shemya	10.08	80	PN	Pn	07 29 02.5	+1.0
SMY	Shemya	10.08	80	Pn	Pn	07 29 02.5	+1.0
AMKA	Amchitka	13.44	85	Pn	P	07 29 48.0	-2.1
ERM	Erimo	14.14	230	P	Pn	07 29 53.7	-0.8
ERM	Erimo	14.14	230	Pn	Pn	07 29 53.7	-0.8
ADK	Adak	15.79	81	P	P	07 30 17.3	+1.2
ADK				pmax	pmax		
	comp=Z,88nm,1.3s						
ADK	Adak	15.79	81		P	07 30 17.3	+1.2
KLR	Kul'dur	16.62	270	P	P	07 30 26.1	+0.9
	comp=Z,3.3nm,0.7s,baz=80,slow=12,SNR=8.5						
KLR	Kul'dur	16.62	270	iP	P	07 30 24.4	-0.9
KLR				pmax	pmax		
	comp=Z,5.0nm,0.9s						
YAK	Yakutsk	17.94	314	eP	P	07 30 38.1	-1.5
YAK				eS	S	07 33 55.2	-3.0
YAK				pmax	pmax		
	comp=Z,14nm,0.8s						
YAK				pmax	pmax		
	comp=E,4.0nm,1.1s						
YAK				pmax	pmax		
	comp=N,2.0nm,0.9s						
YAK				smax	smax		
	comp=N,106nm,4.3s						
YAK				smax	smax		
	comp=E,82nm,4.1s						
SPIA	Saint Paul Isl	19.12	62	P	Pn	07 30 54.2	-0.6
MJAR	Matsushiro Arr	20.81	229	P	P	07 31 11.9	+1.0
	comp=E,52nm,0.5s,baz=23,slow=12,SNR=8.7						
	comp=E,52nm,0.5s						
MJAR	Matsushiro Arr	20.81	229	IAmb	IAmb	07 31 15.1	
	comp=Z,1.8nm,0.6s						
AKUT	Akutan	21.88	70	P	P	07 31 22.9	+0.8
J14K	Nanvaranak Lak	23.02	48	P	P	07 31 34.1	+1.0
J14K				IAmb	IAmb	07 31 35.3	
	comp=Z,8.6nm,0.7s						
TIXI	Tiksi	23.30	337	iP	P	07 31 34.1	-1.5
M14K	Bethel	23.56	53	P	P	07 31 38.9	+0.8
M14K				IAmb	IAmb	07 31 41.2	
	comp=Z,13nm,1.0s						
O14K	Tigyukauivet M	23.88	57	P	P	07 31 41.7	+0.6
HIA	Hailar	23.97	278	iP	P	07 31 40.7	-1.3
HIA				pmax	pmax		
	comp=Z,4.0nm,1.0s						
N15K	Kwethluk River	24.47	54	P	P	07 31 47.5	+1.1
N15K				IAmb	IAmb	07 31 48.2	
	comp=Z,10nm,0.8s						
L16K	Owhat River	24.81	51	P	P	07 31 50.0	+0.6
M16K	Timber Creek	25.04	52	P	P	07 31 52.2	+0.7
M16K				IAmb	IAmb	07 32 19.0	
	comp=Z,14nm,1.3s						
H18K	Honhosa River	25.67	43	P	P	07 31 57.5	+0.3
H18K				IAmb	IAmb	07 32 14.6	
	comp=Z,8.6nm,1.2s						
G18K	Tagagawik	25.68	41	P	P	07 31 57.5	+0.3
M17K	Holitna River	25.78	51		P	07 31 59.2	+1.0
M17K				IAmb	IAmb	07 31 59.7	
	comp=Z,11nm,0.8s						
J18K	Innoko River	26.19	47	P	P	07 32 00.9	-1.0
N18K	Kilae Creek	26.54	53	P	P	07 32 06.0	+0.9
G21K	Allakaket	27.84	40	P	P	07 32 16.8	+0.3
PPLA	Purkeypile	28.23	48	P	P	07 32 20.8	+0.5
PPLA				IAmb	IAmb	07 32 23.5	
	comp=Z,13nm,1.4s						
CAST	Castle Rocks	28.27	47	P	P	07 32 21.1	+0.7
STLK	Strandline Lak	28.46	51	P	P	07 32 22.0	-0.2
STLK				IAmb	IAmb	07 32 24.1	
	comp=Z,4.3nm,0.6s						
H22K	Ishtalitna Cre	28.64	42	P	P	07 32 23.9	+0.2
I23K	Minto, Yukon-K	29.46	43	P	P	07 32 31.3	+0.4
I23K				IAmb	IAmb	07 32 32.3	
	comp=Z,8.7nm,1.4s						
NEA2	Nenana	29.59	44	P	P	07 32 32.2	+0.2
RND	Reindeer	29.72	47	P	P	07 32 33.1	-0.3
RND				pmax	pmax		
	comp=Z,4.0nm,0.9s						
RND	Reindeer	29.72	47	P	P	07 32 33.1	-0.3
RND				IAmb	IAmb	07 32 34.3	
	comp=Z,4.3nm,0.9s						
GHO	Glory Hole Cre	29.82	50	P	P	07 32 34.7	+0.4
GHO				IAmb	IAmb	07 32 37.9	
	comp=Z,9.9nm,1.3s						
E24K	Your Creek	29.93	37	P	P	07 32 35.5	+0.4
E24K				IAmb	IAmb	07 32 36.2	
	comp=Z,4.0nm,0.6s						
H24K	Noodor Dome	30.08	42	P	P	07 32 37.0	+0.5
SML	Sawmill	30.10	50	P	P	07 32 37.2	+0.5
SML				pmax	pmax		
	comp=Z,13nm,0.9s						
SML	Sawmill	30.10	50	P	P	07 32 37.2	+0.5
COLA	College	30.10	44	iP	P	07 32 37.3	+0.8
COLA				pmax	pmax		
	comp=Z,5.0nm,1.0s						
CCB	Clear Creek Bu	30.13	44	P	P	07 32 37.3	+0.5
G24K	Hadweenzic Riv	30.25	40	P	P	07 32 38.9	+0.9
HDA	Harding Lake	30.51	45	P	P	07 32 40.2	0.0
HDA				IAmb	IAmb	07 32 41.1	
	comp=Z,4.0nm,0.7s						
IL31		30.52	44		P	07 32 40.6	+0.4
IL31				IAmb	IAmb	07 32 41.5	
	comp=Z,5.0nm,0.7s						
ILAR	Eielson Array	30.52	44	P	P	07 32 40.0	-0.2
	comp=Z,3.7nm,0.7s,baz=264,slow=7.9,SNR=59						
	comp=Z,3.7nm,0.7s						
ILAR	Eielson Array	30.52	44	P	P	07 32 40.7	+0.4
SCM	Sheep Creek Mo	30.57	50	P	P	07 32 41.2	+0.4
SCM				pmax	pmax		
	comp=Z,13nm,1.1s						
SCM	Sheep Creek Mo	30.57	50	P	P	07 32 41.2	+0.4
D25K	Kavik River	30.80	35	P	P	07 32 43.0	+0.2
PRP	Porcupine Dome	31.06	43	P	P	07 32 45.9	+0.7
FYU	Fort Yukon	31.15	41	P	P	07 32 47.0	+1.3
FYU				IAmb	IAmb	07 32 47.7	
	comp=Z,6.2nm,0.7s						
J25K	Salcha River,	31.18	44		P	07 32 45.1	-1.1
BMAR	Burnt Mountain	31.39	39	P	P	07 32 48.4	+0.4
G26K	Porcupine Rive	31.71	40		P	07 32 51.7	+1.0
G26K				IAmb	IAmb	07 32 57.4	
	comp=Z,3.9nm,0.6s						
SCRK	Sand Creek	31.84	45		P	07 32 51.6	-0.3
SCRK				IAmb	IAmb	07 32 52.7	
	comp=Z,5.3nm,0.9s						
H27K	Steamboat Moun	32.65	41		P	07 33 00.0	+1.0
H27K				IAmb	IAmb	07 33 00.7	
	comp=Z,3.0nm,0.7s						
D27M	Malcolm River	32.72	35	P	P	07 33 00.1	+0.5
D27M				IAmb	IAmb	07 33 32.7	
	comp=Z,6.5nm,1.2s						
L27K	Beaver Creek,	32.92	47		P	07 33 01.8	+0.4
BCAR	Beaver Creek A	32.94	47		P	07 33 02.1	+0.5
M27K	Edge Creek, AK	33.02	48	P	P	07 33 03.8	+1.5
M27K				IAmb	IAmb	07 33 04.6	
	comp=Z,9.7nm,1.2s						
H11N2	WAKE ISLAND Hy	33.20	164	T	T	08 07 28.7	
	baz=351,slow=74						
H11N3	WAKE ISLAND Hy	33.21	164	T	T	08 07 30.0	
	baz=351,slow=74						
H11N1	WAKE ISLAND Hy	33.22	164	T	T	08 07 36.0	
	baz=351						
BARN	Barnard Glacie	33.38	50	P	P	07 33 06.0	+0.5
I28M	Miner Creek	33.39	42	P	P	07 33 05.8	+0.3
DAWY	Dawson	33.83	45	P	P	07 33 09.0	-0.2
H29M	Whitestone	33.93	41	P	P	07 33 10.7	+0.7
H29M				IAmb	IAmb	07 33 11.9	
	comp=Z,4.8nm,0.8s						
G29M	Pine Creek	33.98	40	P	P	07 33 11.3	+0.8
G29M				IAmb	IAmb	07 33 13.4	
	comp=Z,8.3nm,1.2s						
H11S1	WAKE ISLAND Hy	34.36	165	T	T	08 08 58.7	
	baz=350,slow=76						
H11S3	WAKE ISLAND Hy	34.37	165	T	T	08 08 56.3	
	baz=350,slow=76						
H11S2	WAKE ISLAND Hy	34.38	165	T	T	08 08 54.0	
	baz=350,slow=76						
L29M	L29M	34.56	46		P	07 33 16.7	+1.1
L29M				IAmb	IAmb	07 33 18.0	
	comp=Z,6.5nm,0.9s						
I30M	Mount Dempster	34.90	42		P	07 33 18.9	+0.4
I30M				IAmb	IAmb	07 33 19.9	
	comp=Z,4.6nm,0.8s						
INK	Inuvik	35.50	37	P	P	07 33 24.3	+0.9
INK				pmax	pmax		
	comp=Z,8.0nm,1.4s						
INK	Inuvik	35.50	37	P	P	07 33 24.3	+0.9
INK				IAmb	IAmb	07 33 25.0	
	comp=Z,8.1nm,1.4s						
C36M	Paulatuk	38.64	34	P	P	07 33 50.5	+0.6
YKA	Yellowknife Ar	44.84	41	P	P	07 34 40.6	+0.3
	comp=Z,2.4nm,0.7s,baz=306,slow=7.4,SNR=5.1						
	comp=Z,2.4nm,0.7s						
YKA	Yellowknife Ar	44.84	41	eP	P	07 34 40.9	+0.5
YKA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
MKAR	Makanchi Array	47.18	295	iP	P	07 34 57.7	-1.2
MKAR				pmax	pmax		
	comp=Z,5.0nm,0.8s						
B08A	Colville Reser	50.44	59	IAmb	IAmb	07 35 25.7	
	comp=Z,4.1nm,0.9s						
EDM	Edmonton	50.51	51	P	P	07 35 25.0	+0.8
EDM				pmax	pmax		
	comp=Z,9.0nm,0.8s						
EDM	Edmonton	50.51	51		P	07 35 25.0	+0.8
O03E	Paynes Creek	54.22	68		P	07 35 52.9	+1.1
MSO	Missoula	54.24	58	IAmb	IAmb	07 35 55.1	
	comp=Z,6.8nm,1.4s						
PLID	Pearl Lake	54.28	61	IAmb	IAmb	07 35 54.5	
	comp=Z,3.4nm,0.8s						
BEKR	Beckworth	55.33	68	IAmb	IAmb	07 36 02.4	
	comp=Z,4.2nm,1.0s						
PAHR	Pah Rah Range	55.99	67	IAmb	IAmb	07 36 07.2	
	comp=Z,7.8nm,1.5s						
BOZ	Bozeman (W)	56.26	58	IAmb	IAmb	07 36 08.7	
	comp=Z,3.4nm,0.9s						
WAKR	Walker	56.77	69	IAmb	IAmb	07 36 12.9	
	comp=Z,3.0nm,0.5s						
NVAR	Mina Array Bea	57.47	68	P	P	07 36 17.2	+2.0
	comp=Z,2.9nm,0.7s,baz=300,slow=7.0,SNR=17						
	comp=Z,2.9nm,0.7s						
FXWY	Fox Creek	57.90	59	IAmb	IAmb	07 36 21.2	
	comp=Z,3.1nm,0.8s						
PDAR	Pinedale Array	59.28	59	P	P	07 36 29.2	+1.6
	comp=Z,5.1nm,0.7s,baz=316,slow=2.2,SNR=69						
	comp=Z,5.1nm,0.7s						
PDAR	Pinedale Array	59.28	59		P	07 36 28.8	+1.1
DUG	Dugway, Tooele	59.33	63	IAmb	IAmb	07 36 30.8	
	comp=Z,2.9nm,0.9s						
TPNV	Topopah Spring	59.67	68	P	P	07 36 30.8	+0.4
TPNV				pmax	pmax		
	comp=Z,3.0nm,1.0s						
TPNV	Topopah Spring	59.67	68	P	P	07 36 30.8	+0.4
TPNV				IAmb	IAmb	07 36 32.9	
	comp=Z,3.4nm,0.9s						
CLC	China Lake	59.70	70	P	P	07 36 31.7	+1.3
CLC				pmax	pmax		
	comp=Z,3.0nm,0.8s						
CLC	China Lake	59.70	70	P	P	07 36 31.7	+1.3
CLC				IAmb	IAmb	07 36 32.4	
	comp=Z,2.6nm,0.8s						
NLU	North Lily Min	59.90	63		P	07 36 32.4	+0.5
NLU				IAmb	IAmb	07 36 34.7	
	comp=Z,3.5nm,1.0s						
GWY	Greenwater Val	59.97	69		P	07 36 33.9	+1.5
GWY				IAmb	IAmb	07 36 34.7	
	comp=Z,2.9nm,0.8s						
MPU	Maple Canyon	60.10	62	P	P	07 36 34.7	+1.5
MPU				IAmb	IAmb	07 36 35.9	
	comp=Z,3.7nm,1.0s						
BELG	Belogornoye	60.41	319	P	P	07 36 34.8	-0.1
	comp=Z,18nm,1.1s,baz=135,slow=5.7,SNR=3.7						
	comp=Z,18nm,1.1s						
BELG	Belogornoye	60.41	319	iP	P	07 36 34.5	-0.4
BELG				pmax	pmax		
	comp=Z,4.0nm,1.1s						
TMUT	Trail Mountain	60.84	63	P	P	07 36 40.1	+1.6
TMUT				IAmb	IAmb	07 36 41.9	
	comp=Z,4.2nm,0.9s						
RSSD	Black Hills	61.16	54	P	P	07 36 40.9	+0.5
RSSD				pmax	pmax		
	comp=Z,10.0nm,0.7s						
RSSD	Black Hills	61.16	54		P	07 36 40.9	+0.5
OBN	Obninsk	62.45	326	eP	P	07 36 46.8	-1.7
OBN				pmax	pmax		
	comp=Z,3.0nm,0.8s						
PV18	Skein Mesa, Pa	62.84	62		P	07 36 52.9	+1.2
PV01	Paradox Valley	63.11	62	P	P	07 36 54.7	+1.2
ISCO	Idaho Springs	63.48	59	IAmb	IAmb	07 36 58.8	
	comp=Z,3.6nm,0.9s						
S22A	4UR Ranch, Cre	64.33	61	P	P	07 37 03.7	+2.1
ECSD	EROS Data Cent	65.06	50	P	P	07 37 06.6	+0.7
ECSD				IAmb	IAmb	07 37 07.2	
	comp=Z,4.4nm,0.8s						
AKBB	Malin Array Si	68.59	328	iP	P	07 37 27.0	-1.0
AKBB				pmax	pmax		
	comp=Z,2.0nm,1.0s						
KIV	Kislovodsk	69.04	315	eP	P	07 37 30.9	-0.2

KIV				pmax	pmax		
	comp=Z,5.0nm,1.0s						
EKA	**Eskdalemuir Ar**	**71.66**	**349**	P	**P**	**07 37 45.6**	**-1.1**
	comp=Z,0.3nm,0.4s,baz=7.1,slow=6.3,SNR=1.5						
	comp=Z,0.3nm,0.4s						
TXAR	**Lajitas Array**	**72.38**	**65**	P	**P**	**07 37 53.0**	**+1.5**
	comp=Z,3.1nm,0.6s,baz=300,slow=4.6,SNR=34						
	comp=Z,3.1nm,0.6s						
TXAR	**Lajitas Array**	**72.38**	**65**		**P**	**07 37 52.8**	**+1.2**
WRA	**Warramunga Arr**	**74.65**	**203**	P	**P**	**07 38 05.2**	**+0.6**
	comp=Z,0.4nm,0.6s,baz=20,slow=6.2,SNR=4.6						
	comp=Z,0.4nm,0.6s						
WRA	**Warramunga Arr**	**74.65**	**203**	*e*P	**P**	**07 38 04.4**	**-0.2**
ASAR	**Alice Springs**	**78.33**	**202**	P	**P**	**07 38 26.8**	**+1.5**
	comp=Z,0.4nm,0.4s,baz=17,slow=5.1,SNR=8.6						
	comp=Z,0.4nm,0.4s						
H03N2	**Juan Fernandez**	**135.72**	**88**	T	T	10 16 54.1	
	baz=309						
H03N1	**Juan Fernandez**	**135.74**	**88**	T	T	10 16 37.0	
	baz=313						
PLCA	**Paso Flores**	**145.51**	**90**	PKPbc	**PKPab**	**07 46 02.2**	**-0.4**
	comp=Z,0.7nm,0.8s,baz=304,slow=3.6,SNR=3.2						

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*WEL **02** 07:28:13.7±0.6, 37°S±4°×17°7E±°, h5^{km}, M4.0/28, ML4.0/28, MLv4.0/28, Error ellipse: s-maj=6.4km s-min=3.0km az=31.5, confirmed*

*IDC **02** 07:28:14.6±1.2, 36°.86S×177°.07E, h0^{km}, mb4.2/6, mbtmp4.1/7, ML3.1/1, MS3.4/6, Error ellipse: s-maj=31.8km s-min=17.4km az=68.0*

*NOU **02** 07:28:14.1, 36°.84S×177°.13E, h6^{km}, MLv4.4/15, Off E. Coast of N. Island, N.Z.*

*NEIC **02** 07:28:16.5±1.6, 36°.98S±0°.07×177°.14E±0°.08, h10^{km}±1^{km}, mb4.5/7, Error ellipse: s-maj=13.7km s-min=8.7km az=30.0*

ISC 02 07:28:13.7±1.6**, 36°.79S**±0°.05×**177°.14E**±0°.03**, h1**^{km}±10^{km}**, n172,** σ**1^{s}22**/171**, mb4.5**/12**, MS3.5**/5**, 2D, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WSRZ	**White Island S**	**0.72**	**178**	P	**Pg**	**07 28 28.0**	**+0.4**
WSRZ				AML	AML		
WSRZ				AML	AML		
WIZ	**White Island**	**0.73**	**177**	P	**Pb**	**07 28 28.7**	**-0.6**
WIZ				S	**Sg**	**07 28 37.7**	**+0.5**
WIZ				AML	AML		
WIZ				AML	AML		
MYRZ	**Mayor Island**	**0.87**	**236**	P	**Pg**	**07 28 30.6**	**+0.3**
MYRZ				S	**Sg**	**07 28 42.2**	**+0.6**
MYRZ				AML	AML		
MYRZ				AML	AML		
WHRZ	**Whale Island**	**1.07**	**187**	P	**Pb**	**07 28 34.7**	**-0.3**
WHRZ				AML	AML		
WHRZ				AML	AML		
HAZ	**Te Kaha**	**1.09**	**152**	P	**Pg**	**07 28 33.7**	**-0.9**
HAZ				S	**Sg**	**07 28 48.7**	**0.0**
HAZ				AML	AML		
HAZ				AML	AML		
TGRZ	**Tauranga**	**1.17**	**217**	P	**Pg**	**07 28 35.0**	**-1.1**
TGRZ				AML	AML		
TGRZ				AML	AML		
MXZ	**Matakaoa Point**	**1.21**	**130**	P	**Pg**	**07 28 36.0**	**-0.8**
MXZ	**Matakaoa Point**	**1.21**	**130**	S	**Sg**	**07 28 52.6**	**+0.1**
MXZ	**Matakaoa Point**	**1.21**	**130**		**Pg**	**07 28 36.3**	**-0.5**
MXZ	**Matakaoa Point**	**1.21**	**130**	P	**Pg**	**07 28 36.1**	**-0.7**
MXZ				AML	AML		
MXZ				AML	AML		
MARZ	**Manawahe**	**1.25**	**197**	P	**Pg**	**07 28 36.3**	**-1.3**
MARZ				AML	AML		
MARZ				AML	AML		
RUGZ	**Raukumara Rang**	**1.25**	**160**	P	**Pg**	**07 28 36.5**	**-1.1**
RUGZ				AML	AML		
RUGZ				AML	AML		
PKGZ	**Pakihiroa**	**1.31**	**145**	P	**Pn**	**07 28 37.9**	**-1.2**
PKGZ				AML	AML		
PKGZ				AML	AML		
EDRZ	**Edgecumbe**	**1.35**	**194**	P	**Pn**	**07 28 38.2**	**-1.5**
EDRZ				AML	AML		
EDRZ				AML	AML		
LIRZ	**Lichensteins R**	**1.35**	**206**	P	**Pn**	**07 28 39.4**	**-0.3**
LIRZ				AML	AML		
LIRZ				AML	AML		
KARZ	**Kaharoa**	**1.42**	**210**	P	**Pn**	**07 28 39.1**	**-1.5**
KARZ				AML	AML		
KARZ				AML	AML		
KMRZ	**Kaimai**	**1.42**	**222**	P	**Pn**	**07 28 39.7**	**-1.0**
KMRZ				AML	AML		
KMRZ				AML	AML		
WMGZ	**Waiomatatini S**	**1.44**	**136**	P	**Pb**	**07 28 41.2**	**-0.1**
WMGZ				AML	AML		
WMGZ				AML	AML		
MKRZ	**Makatiti**	**1.45**	**202**	P	**Pg**	**07 28 42.6**	**+1.2**
GRZ	**Great Barrier**	**1.46**	**291**	P	**Pn**	**07 28 37.5**	**-3.7**
GRZ				AML	AML		
GRZ				AML	AML		
URZ	**Urewera**	**1.46**	**181**	Pn	**Pn**	**07 28 39.4**	**-1.8**
	34nm,0.3s,baz=358,slow=10,SNR=61						
URZ				Sn	**Sb**	**07 28 58.3**	**-2.5**
	120nm,0.3s,baz=19,slow=18,SNR=9.5						
URZ				LR	LR	07 29 06.8	
	comp=Z,205nm,19.7s,baz=324,slow=37						
URZ	**Urewera**	**1.46**	**181**	P	**Pn**	**07 28 39.8**	**-1.5**
URZ	**Urewera**	**1.46**	**181**	P	**Pn**	**07 28 39.4**	**-1.8**
URZ				AML	AML		
URZ				AML	AML		
NGRZ	**Ngongotaha**	**1.51**	**210**	P	**Pn**	**07 28 41.0**	**-1.0**
NGRZ				AML	AML		
NGRZ				AML	AML		
TARZ	**Mount Tarawera**	**1.52**	**199**	P	**Pn**	**07 28 41.6**	**-0.6**
TARZ				AML	AML		
TARZ				AML	AML		
TWGZ	**Tauwhareparae**	**1.54**	**154**	P	**Pg**	**07 28 43.2**	**+0.1**
TWGZ				AML	AML		
TWGZ				AML	AML		
PUZ	**Puketiti**	**1.56**	**145**	P	**Pb**	**07 28 43.2**	**-0.1**
PUZ				S	**Sg**	**07 29 05.5**	**+1.8**
PUZ				AML	AML		
PUZ				AML	AML		
MWZ	**Matawai**	**1.57**	**169**	P	**Pn**	**07 28 40.9**	**-1.9**
MWZ				S	**Sg**	**07 29 05.1**	**+1.0**
MWZ				AML	AML		
MWZ				AML	AML		
UTU	**Utuhina**	**1.57**	**208**	P	**Pg**	**07 28 46.1**	**+2.3**
HLRZ	**Highlands Stat**	**1.58**	**203**	P	**Pn**	**07 28 41.5**	**-1.5**
HLRZ				AML	AML		
HLRZ				AML	AML		
TOZ	**Tahuroa Road**	**1.61**	**234**		**Pn**	**07 28 41.4**	**-1.8**
TOZ	**Tahuroa Road**	**1.61**	**234**	P	**Pn**	**07 28 41.2**	**-2.0**
TOZ				AML	AML		
TOZ				AML	AML		
WIAZ	**Waiheke Island**	**1.61**	**269**	P	**Pn**	**07 28 41.9**	**-1.3**
WIAZ				AML	AML		
WIAZ				AML	AML		
MKAZ	**Moumakai**	**1.61**	**258**	P	**Pn**	**07 28 41.6**	**-1.7**
MKAZ				S	**Sn**	**07 29 01.8**	**-3.0**
MKAZ				AML	AML		
MKAZ				AML	AML		
RRRZ	**Republican Roa**	**1.62**	**198**	P	**Pn**	**07 28 42.2**	**-1.2**
RRRZ				AML	AML		
RRRZ				AML	AML		
HSRZ	**Hossack Road**	**1.67**	**205**	P	**Pn**	**07 28 43.7**	**-0.5**
MUGZ	**Murupara**	**1.71**	**190**	P	**Pn**	**07 28 42.9**	**-1.7**
MUGZ				AML	AML		
MUGZ				AML	AML		
RAGZ	**Rawiri**	**1.71**	**173**	P	**Pn**	**07 28 43.9**	**-0.8**
RAGZ				AML	AML		
RAGZ				AML	AML		
HRRZ	**Handcock Road**	**1.73**	**203**	P	**Pn**	**07 28 44.1**	**-0.9**
TKGZ	**Te Karaka**	**1.74**	**161**	P	**Pn**	**07 28 45.1**	**+0.1**
TKGZ				AML	AML		
TKGZ				AML	AML		
GRRZ	**Galatos Road**	**1.76**	**207**	P	**Pn**	**07 28 44.6**	**-0.8**
ETAZ	**East Tamaki Re**	**1.78**	**264**	P	**Pn**	**07 28 45.0**	**-0.6**
ETAZ				AML	AML		
ETAZ				AML	AML		
MBAZ	**Motutapu North**	**1.80**	**270**	P	**Pn**	**07 28 44.8**	**-1.1**
MBAZ				S	**Sn**	**07 29 06.0**	**-3.3**
MBAZ				AML	AML		
MBAZ				AML	AML		
RTZ	**Ruatahuna**	**1.82**	**184**		**Pn**	**07 28 44.8**	**-1.4**
RTZ	**Ruatahuna**	**1.82**	**184**	P	**Pn**	**07 28 44.9**	**-1.4**
RTZ				AML	AML		
RTZ				AML	AML		
ABAZ	**Army Bay**	**1.86**	**275**	P	**Pn**	**07 28 46.6**	**-0.2**
ABAZ				S	**Sb**	**07 29 12.3**	**-0.1**
ALRZ	**Allen Road**	**1.88**	**199**	P	**Pg**	**07 28 52.7**	**+3.0**
CNGZ	**Carnagh Statio**	**1.89**	**154**	P	**Pb**	**07 28 49.0**	**0.0**
EPAZ	**Eden Park BICE**	**1.92**	**267**	P	**Pn**	**07 28 48.4**	**+0.8**
HBAZ	**Herne Bay Bore**	**1.93**	**268**	P	**Pn**	**07 28 48.0**	**+0.3**
RIGZ	**Rimuhau**	**1.97**	**166**	P	**Pb**	**07 28 49.5**	**-0.9**
KUTZ	**Kaahu Road**	**1.99**	**211**	P	**Pn**	**07 28 47.5**	**-1.0**
TLZ	**Tolley Road**	**1.99**	**219**	P	**Pn**	**07 28 47.3**	**-1.3**
AWAZ	**Awhitu Peninsu**	**2.02**	**262**	P	**Pn**	**07 28 48.4**	**-0.5**
RVAZ	**Riverhead Bore**	**2.06**	**270**	P	**Pn**	**07 28 49.4**	**0.0**
WTAZ	**Waiatarua**	**2.06**	**265**	P	**Pn**	**07 28 49.2**	**-0.3**
MTHZ	**Maungataniwha**	**2.07**	**186**	P	**Pn**	**07 28 48.2**	**-1.4**
MTHZ				AML	AML		
MTHZ				AML	AML		
RAHZ	**Arahi**	**2.12**	**181**	P	**Pn**	**07 28 50.3**	**-0.1**
PRGZ	**Paritu Road**	**2.21**	**165**	P	**Pb**	**07 28 54.5**	**+0.1**
WATZ	**Wairara**	**2.21**	**210**	P	**Pn**	**07 28 50.6**	**-1.0**
KNZ	**Kokohu**	**2.27**	**169**	P	**Pb**	**07 28 54.5**	**-0.8**
WHHZ	**Waihua**	**2.28**	**178**	P	**Pn**	**07 28 53.5**	**+1.0**
NMHZ	**Naumai**	**2.31**	**186**	P	**Pn**	**07 28 53.6**	**+0.5**
RATZ	**Rangitukua**	**2.34**	**207**	P	**Pb**	**07 28 56.6**	**0.0**
RITZ	**Rihia Road**	**2.40**	**205**	P	**Pb**	**07 28 57.5**	**-0.2**
WCZ	**Waipu Caves**	**2.41**	**290**	P	**Pn**	**07 28 53.8**	**-0.4**
WCZ				AML	AML		
WCZ				AML	AML		
BKZ	**Black Stump Fm**	**2.42**	**192**	P	**Pn**	**07 28 53.8**	**-0.7**
MHGZ	**Mahia Peninsul**	**2.43**	**166**	P	**Pn**	**07 28 55.2**	**+0.6**
KATZ	**Kakaramea**	**2.46**	**207**	P	**Pb**	**07 28 56.7**	**-2.1**
ARHZ	**Aropaoanui**	**2.47**	**183**	P	**Pn**	**07 28 56.2**	**+1.1**
HIZ	**Hauiti**	**2.50**	**226**	P	**Pn**	**07 28 54.5**	**-0.9**
HIZ	**Hauiti**	**2.50**	**226**		**Pn**	**07 28 54.9**	**-0.5**
HIZ	**Hauiti**	**2.50**	**226**	P	**Pn**	**07 28 54.5**	**-0.9**
NTVZ	**North Tongarir**	**2.58**	**206**	P	**Pb**	**07 29 01.4**	**+0.7**
TMVZ	**Te Maari**	**2.58**	**206**	P	**Pb**	**07 29 00.3**	**-0.5**
WTVZ	**West Tongariro**	**2.62**	**207**	P	**Pg**	**07 29 02.8**	**-1.1**
OTVZ	**Oturere**	**2.64**	**206**	P	**Pb**	**07 29 00.8**	**-1.0**
TWVZ	**Taurewa**	**2.64**	**210**	P	**Pn**	**07 28 57.0**	**-0.6**
SNVZ	**South Ngauruho**	**2.67**	**206**	P	**Pb**	**07 29 00.9**	**-1.4**
MCHZ	**McNeill Hill**	**2.67**	**187**	P	**Pn**	**07 28 58.9**	**+1.0**
NGZ	**Ngauruhoe**	**2.67**	**207**	P	**Pb**	**07 29 01.6**	**-0.8**
KWHZ	**Kaweka Forest**	**2.69**	**192**	P	**Pn**	**07 28 59.9**	**+1.7**
COVZ	**Chateau Observ**	**2.71**	**207**	P	**Pb**	**07 29 03.2**	**+0.1**
TUVZ	**Tukino**	**2.73**	**205**	P	**Pb**	**07 29 02.7**	**-0.7**
FWVZ	**Far West T-bar**	**2.76**	**207**	P	**Pb**	**07 29 02.8**	**-1.1**
MAVZ	**Matarangi**	**2.77**	**206**	P	**Pb**	**07 29 03.5**	**-0.6**
WHVZ	**Whangaehu Hut**	**2.77**	**206**	P	**Pb**	**07 29 02.3**	**-1.9**
TRVZ	**Turoa**	**2.80**	**206**	P	**Pn**	**07 29 01.9**	**+2.0**
WNVZ	**Wahianoa**	**2.81**	**205**	P	**Pn**	**07 29 00.4**	**+0.5**
BHHZ	**Black Hill Sta**	**2.82**	**197**	P	**Pn**	**07 29 00.1**	**+0.1**
MOVZ	**Moawhango**	**2.83**	**202**	P	**Pn**	**07 29 00.1**	**0.0**
KRHZ	**Kereru**	**2.91**	**192**	P	**Pn**	**07 29 02.2**	**+1.0**
VRZ	**Vera Road**	**2.99**	**218**	P	**Pn**	**07 29 01.9**	**-0.4**
PNHZ	**Pukenui**	**3.20**	**193**	P	**Pn**	**07 29 05.4**	**+0.2**
OUZ	**Omahuta**	**3.27**	**298**	P	**Pn**	**07 29 06.1**	**0.0**
OUZ	**Omahuta**	**3.27**	**298**	P	**Pn**	**07 29 06.1**	**0.0**
OUZ				AML	AML		
OUZ				AML	AML		
TSZ	**Takapari Road**	**3.39**	**195**	P	**Pn**	**07 29 08.1**	**+0.3**
WAZ	**Wanganui**	**3.41**	**209**	P	**Pn**	**07 29 11.0**	**+3.0**
NEZ	**North Egmont**	**3.45**	**223**	P	**Pn**	**07 29 09.7**	**+1.1**
PKE	**Pukeiti**	**3.46**	**225**	P	**Pn**	**07 29 09.2**	**+0.5**
PREZ	**Palmer Road**	**3.46**	**222**	P	**Pn**	**07 29 10.1**	**+1.2**
KHEZ	**Kahui Hut**	**3.51**	**224**	P	**Pn**	**07 29 09.9**	**+0.4**
KHEZ	**Kahui Hut**	**3.51**	**224**	P	**Pn**	**07 29 10.2**	**+0.8**
DVHZ	**Dannevirke**	**3.58**	**192**	P	**Pn**	**07 29 12.7**	**+2.2**
BFZ	**Birch Farm**	**3.94**	**190**	P	**Pn**	**07 29 15.1**	**-0.3**
BFZ	**Birch Farm**	**3.94**	**190**	P	Pg	07 30 01.8	+33
BFZ	**Birch Farm**	**3.94**	**190**	Pn	**Pn**	**07 29 14.8**	**-0.6**
BFZ	**Birch Farm**	**3.94**	**190**	P	**Pn**	**07 29 15.2**	**-0.3**
MRZ	**Mangatainoka R**	**4.05**	**197**		**Pn**	**07 29 16.1**	**-0.7**
MRZ	**Mangatainoka R**	**4.05**	**197**	P	**Pn**	**07 29 15.9**	**-1.0**
HOWZ	**Holdsworth Sta**	**4.29**	**197**	P	**Pn**	**07 29 18.9**	**-1.2**
OGWZ	**Otaki Gorge**	**4.30**	**200**	P	**Pn**	**07 29 19.7**	**-0.6**
KIW	**Kapiti Island**	**4.42**	**203**	P	**Pn**	**07 29 21.7**	**-0.3**
CAW	**Cannon Point**	**4.60**	**200**	P	**Pn**	**07 29 23.6**	**-0.8**
DUWZ	**D'Urville Isla**	**4.73**	**211**	P	**Pn**	**07 29 29.7**	**+3.5**
MSWZ	**Moikau Station**	**4.84**	**197**	Pn	**Pn**	**07 29 25.7**	**-2.1**
MSWZ	**Moikau Station**	**4.84**	**197**	P	**Pn**	**07 29 26.1**	**-1.6**
SNZO	**South Karori**	**4.89**	**202**	P	**Pn**	**07 29 27.1**	**-1.3**
SNZO	**South Karori**	**4.89**	**202**	P	Pg	07 30 24.9	+37
TCW	**Tory Channel**	**4.94**	**206**		**Pn**	**07 29 27.8**	**-1.3**
TCW	**Tory Channel**	**4.94**	**206**	P	**Pn**	**07 29 30.6**	**+1.5**
TUWZ	**Tuamarina**	**5.25**	**207**		**Pn**	**07 29 33.5**	**+0.2**
TUWZ	**Tuamarina**	**5.25**	**207**	P	**Pn**	**07 29 34.3**	**+1.0**
NNZ	**Nelson**	**5.30**	**212**		**Pn**	**07 29 33.7**	**-0.2**
NNZ	**Nelson**	**5.30**	**212**	P	**Pn**	**07 29 35.3**	**+1.3**
TKNZ	**Takaka Hill**	**5.34**	**216**		**Pn**	**07 29 34.8**	**+0.2**
TKNZ	**Takaka Hill**	**5.34**	**216**	P	**Pn**	**07 29 36.2**	**+1.6**
QRZ	**Quartz Range**	**5.40**	**220**	P	**Pn**	**07 29 34.6**	**-0.8**
QRZ	**Quartz Range**	**5.40**	**220**	P	Pg	07 30 37.9	+41
QRZ	**Quartz Range**	**5.40**	**220**	P	**Pn**	**07 29 35.0**	**-0.4**
BSWZ	**Blackbirch Sta**	**5.53**	**206**	P	Pn	07 29 42.1	+4.9
MRNZ	**Matariki Terra**	**5.72**	**215**		**Pn**	**07 29 40.1**	**+0.2**
MRNZ	**Matariki Terra**	**5.72**	**215**	P	**Pn**	**07 29 40.3**	**+0.5**
THZ	**Tophouse**	**5.95**	**212**		**Pn**	**07 29 42.6**	**-0.4**
THZ	**Tophouse**	**5.95**	**212**	P	**Pn**	**07 29 43.0**	**0.0**
KHZ	**Kahutara**	**6.26**	**205**	P	**Pn**	**07 29 46.2**	**-1.0**
KHZ	**Kahutara**	**6.26**	**205**	P	Pg	07 30 59.1	+45
KHZ	**Kahutara**	**6.26**	**205**	P	**Pn**	**07 29 45.2**	**-2.0**
DSZ	**Denniston Nort**	**6.45**	**218**	P	**Pn**	**07 29 50.3**	**+0.5**
GVZ	**Greta Valley S**	**6.93**	**206**		**Pn**	**07 29 54.8**	**-1.6**
GVZ	**Greta Valley S**	**6.93**	**206**	P	**Pn**	**07 29 58.6**	**+2.3**
LTZ	**Lake Taylor**	**7.06**	**211**		**Pn**	**07 29 58.0**	**-0.2**
LTZ	**Lake Taylor**	**7.06**	**211**	P	**Pn**	**07 29 58.3**	**+0.1**
INZ	**Inchbonnie**	**7.37**	**215**	P	**Pn**	**07 30 02.9**	**+0.5**
OXZ	**Oxford**	**7.61**	**209**		**Pn**	**07 30 05.5**	**-0.1**
OXZ	**Oxford**	**7.61**	**209**	P	**Pn**	**07 30 04.9**	**-0.7**
MQZ	**McQueen's Vall**	**7.71**	**205**	Pn	**Pn**	**07 30 03.5**	**-3.5**
RPZ	**Rata Peaks**	**8.33**	**212**	Pn	**Pn**	**07 30 14.6**	**-1.0**
	0.2nm,0.3s,baz=27,slow=9.0,SNR=6.2						
RPZ				LR	LR	07 34 17.9	
	comp=Z,63nm,19.3s,baz=84,slow=44						
	2.0nm,0.6s						
RPZ				AML	AML		
CTZ	**Chatham Island**	**8.41**	**147**	Pn	**Pn**	**07 30 16.2**	**-0.5**
STKA	**Stephens Creek**	**29.65**	**269**	LR	LR	07 45 05.5	
	comp=Z,81nm,20.0s,baz=40,slow=34						
HNR	**Honiara**	**31.38**	**326**	LR	LR	07 46 39.3	
	comp=Z,46nm,19.1s,baz=270,slow=35						
CTA	**Charters Tower**	**31.67**	**293**	LR	LR	07 47 13.9	
	comp=Z,94nm,18.8s,baz=214,slow=36						
ASAR	**Alice Springs**	**39.26**	**277**	P	**P**	**07 35 44.9**	**+0.8**
	2.0nm,0.8s,baz=120,slow=8.3,SNR=18						
ASAR				LR	LR	07 52 33.3	
	comp=Z,85nm,19.2s,baz=46,slow=37						
	2.0nm,0.8s						
WRA	**Warramunga Arr**	**40.86**	**282**	P	**P**	**07 35 57.9**	**+0.6**
	0.6nm,0.6s,baz=122,slow=7.6,SNR=12						
	0.6nm,0.6s						
WRA	**Warramunga Arr**	**40.86**	**282**	IAmb	IAmb	07 36 04.1	
	comp=Z,0.3nm,1.2s						
FORT	**Forrest**	**40.87**	**264**	P	**P**	**07 35 58.0**	**+0.6**
FORT				IAmb	IAmb	07 36 13.2	
	comp=Z,11nm,1.0s						
WB0	**Warramunga Arr**	**40.92**	**283**	P	**P**	**07 35 58.6**	**+0.8**
WB0				IAmb	IAmb	07 36 21.1	
	comp=Z,13nm,1.5s						
FITZ	**Fitzroy Crossi**	**48.74**	**278**	LR	LR	07 59 32.0	
	comp=Z,108nm,18.8s,baz=3.5,slow=38						
FITZ	**Fitzroy Crossi**	**48.74**	**278**	P	**P**	**07 37 00.6**	**+0.4**
FITZ				IAmb	IAmb	07 37 07.3	
	comp=Z,3.1nm,1.4s						
QSPA	**South Pole Qui**	**53.33**	**180**	P	**P**	**07 37 35.6**	**+1.4**
	comp=Z,6.5nm,0.7s,baz=39,slow=1.7,SNR=44						
	comp=Z,6.5nm,0.7s						
QSPA	**South Pole Qui**	**53.33**	**180**	P	**P**	**07 37 35.4**	**+1.1**
QSPA				IAmb	IAmb	07 37 36.9	
	comp=Z,8.8nm,0.8s						
BELA	**Belgrano 2**	**63.99**	**173**	P	**P**	**07 38 48.0**	**-0.2**
TROLL	**Troll, Antarti**	**71.43**	**182**	P	**P**	**07 39 34.9**	**-0.5**
	comp=Z,151nm,0.9s						
SNAA	**Sanae**	**71.84**	**180**	P	**P**	**07 39 37.3**	**-0.4**
	comp=Z,72nm,1.1s						
SNAA	**Sanae**	**71.84**	**180**	P	**P**	**07 39 36.9**	**-0.8**
	comp=Z,2.4nm,0.8s,baz=190,slow=4.8,SNR=4.4						
	comp=Z,2.4nm,0.8s						
SNAA	**Sanae**	**71.84**	**180**	P	**P**	**07 39 36.5**	**-1.2**
SNAA				IAmb	IAmb	07 39 38.4	
	comp=Z,6.8nm,1.2s						
VNA3	**Neumayer Olymp**	**72.16**	**178**	⇓P	**P**	**07 39 39.2**	**-0.4**
	comp=Z,5.5nm,0.7s						
VNA2	**Neumayer--Watz**	**72.54**	**178**	P	**P**	**07 39 41.7**	**-0.1**
	comp=Z,6.3nm,0.7s,baz=167,slow=5.4						
VNA1	**Neumayer--Stat**	**72.79**	**178**	⇓P	**P**	**07 39 43.2**	**-0.1**
	comp=Z,4.5nm,0.7s						
PLCA	**Paso Flores**	**81.02**	**135**	P	**P**	**07 40 32.1**	**+1.7**
	comp=Z,0.8nm,0.7s,baz=251,slow=5.8,SNR=3.7						
	comp=Z,0.8nm,0.7s						
CMAR	**Chiang Mai Arr**	**91.82**	**292**	P	**P**	**07 41 24.4**	**+0.7**
	comp=Z,0.8nm,0.3s,baz=132,slow=4.0,SNR=6.0						
	comp=Z,0.8nm,0.3s						
FINES	**FINESS Array B**	**149.38**	**333**	PKPbc	**PKPbc**	**07 48 03.9**	**+0.4**
	comp=Z,0.7nm,0.7s,baz=63,slow=3.7,SNR=1.0						

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*IDC **02** 07:43:41.2±0.8, 61°.98N×126°.27W, h0^{km}, mb3.3/5, mbtmp3.6/11, ML3.7/6, MS2.9/8, Error ellipse: s-maj=9.7km s-min=9.1km az=124.0*

*PGC **02** 07:43:42.5±0.1, 61°.92N×126°.21W, h5^{km}, ML3.9/21, 106km east of Tungsten, Nt Nw Territories - Nunavut, Canada*

ISC 02 07:43:41.8±0.6**, 62°.00N**±0°.03×**126°.23W**±0°.03**, h10**^{km}**, n98,** σ**2^{s}35**/126**, mb3.2**/3**, MS3.1**/4**, Northwest Territories**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NAHA	**Nahanni Butte**	**1.67**	**124**	Pn	**Pn**	**07 44 11.2**	**+0.1**
NAHA				Sn	**Sn**	**07 44 31.6**	**-0.9**
KOTAN	**Kotaneelee Air**	**2.15**	**150**	Pn	**Pn**	**07 44 17.9**	**+0.1**
KOTAN				Sn	**Sn**	**07 44 43.4**	**-1.1**
WTLY	**Watson Lake, Y**	**2.27**	**215**	Pn	**Pn**	**07 44 19.8**	**+0.4**
WTLY				Sn	**Sn**	**07 44 48.4**	**+1.0**
MMPY	**Sheldon Lake,**	**2.43**	**287**	Pn	**Pn**	**07 44 22.8**	**+1.2**
LIRD	**Liard River Hi**	**2.60**	**179**	Pn	**Pn**	**07 44 23.9**	**0.0**
NBC1	**NorthernBC 1**	**2.63**	**152**	Pn	**Pn**	**07 44 24.3**	**0.0**
N32M	**Quiet Lake**	**3.39**	**258**	Pn	**Pn**	**07 44 35.5**	**+0.7**
N32M				Sg	**Sb**	**07 45 26.6**	**+3.5**
R33M	**Jennings River**	**3.50**	**224**	Pn	**Pn**	**07 44 36.4**	**0.0**
R33M				Sg	**Sb**	**07 45 29.8**	**+3.3**
FNSB	**Fort Nelson**	**3.64**	**150**	Pn	**Pn**	**07 44 37.3**	**-0.9**
P33M	**Teslin, Yukon**	**3.67**	**244**	Pn	**Pn**	**07 44 39.0**	**+0.4**
P33M				Sg	**Sb**	**07 45 34.2**	**+2.9**
M31M	**Drury Creek, Y**	**3.84**	**277**	Pn	**Pn**	**07 44 41.7**	**+0.7**
M31M				Sg	**Sg**	**07 45 41.7**	**-3.4**
DLBC	**Dease Lake**	**4.05**	**210**	Pn	**Pn**	**07 44 44.1**	**+0.2**
	1.7nm,0.3s,baz=54,slow=8.7,SNR=32						
DLBC				Pg	**Pb**	**07 44 54.4**	**+1.2**
	3.6nm,0.3s,baz=22,slow=14,SNR=8.3						
DLBC				Sn	**Sn**	**07 45 31.1**	**-0.2**
	3.8nm,0.3s,baz=38,slow=18,SNR=4.7						
DLBC				Lg	Lg	07 45 45.0	
	17nm,0.3s,baz=94,slow=20,SNR=5.7						
	7.0nm,0.3s						
DLBC				AML	AML		
DLBC	**Dease Lake**	**4.05**	**210**	Pn	**Pn**	**07 44 43.9**	**+0.1**
DLBC				Sg	**Sb**	**07 45 45.5**	**+3.4**
Q32M	**Nakina River**	**4.27**	**227**	Pn	**Pn**	**07 44 47.0**	**0.0**
Q32M				Sg	**Sb**	**07 45 52.8**	**+4.1**
WHY	**Whitehorse**	**4.38**	**256**	Pn	**Pn**	**07 44 48.9**	**+0.4**
WHY				Sg	**Sg**	**07 45 57.9**	**-4.5**
P32M	**Atlin**	**4.39**	**240**	Pn	**Pn**	**07 44 48.8**	**+0.2**
N31M	**Braeburn, Yuko**	**4.57**	**268**	Pn	**Pn**	**07 44 51.8**	**+0.8**
S34M	**Telegraph Cree**	**4.78**	**213**	Pn	**Pn**	**07 44 53.3**	**-0.6**
S34M				Sg	**Sb**	**07 46 08.1**	**+4.8**
NBC5	**NorthernBC 5**	**4.84**	**157**	Pn	**Pn**	**07 44 53.4**	**-1.3**
N30M	**Aishikik Lake**	**5.19**	**269**	Pn	**Pn**	**07 45 00.5**	**+0.9**
N30M				Sn	**Sn**	**07 46 00.6**	**+1.1**
H31M	**Peel River**	**5.24**	**320**	Pn	**Pn**	**07 45 01.7**	**+1.6**
H31M				Sn	**Sn**	**07 46 04.2**	**+3.7**
J30M	**Hart River**	**5.24**	**304**	Pn	**Pn**	**07 45 01.8**	**+1.6**
T35M	**Bob Quinn**	**5.44**	**204**	Pn	**Pn**	**07 45 03.2**	**+0.4**
YKAW3	**Yellowknife Wh**	**5.45**	**79**	Pn	**Pn**	**07 45 03.7**	**+0.7**
YKAW3				Sn	**Sn**	**07 46 03.5**	**-2.2**
YKA	**Yellowknife Ar**	**5.46**	**80**	Pn	**Pn**	**07 45 03.1**	**+0.1**
	1.4nm,0.3s,baz=270,slow=13,SNR=49						
YKA				Pg	**Pb**	**07 45 19.5**	**+2.4**
	2.1nm,0.3s,baz=270,slow=17,SNR=3.9						
YKA				Sn	**Sn**	**07 46 04.6**	**-1.1**
	2.9nm,0.3s,baz=261,slow=23,SNR=5.4						
YKA				Lg	Lg	07 46 30.4	
	6.0nm,0.3s,baz=268,slow=29,SNR=3.4						
YKA				LR	LR	07 47 32.0	
	comp=Z,75nm,20.7s,baz=316,slow=42						
	7.6nm,0.6s						
YKA				AML	AML		
K29M	**Barlow Dome**	**5.48**	**295**	Pn	**Pn**	**07 45 04.5**	**+0.9**
K29M				Sg	**Sb**	**07 46 29.4**	**+6.1**
BESE	**Bessie Mountai**	**5.49**	**235**	Pn	**Pn**	**07 45 04.4**	**+0.7**
BESE				Sg	**Sb**	**07 46 29.4**	**+5.8**
YKAW1	**Yellowknife Wh**	**5.51**	**80**	Pn	**Pn**	**07 45 04.7**	**+0.9**
YKAW1				Sg	**Sb**	**07 46 29.4**	**+5.4**
P30M	**Million Dollar**	**5.54**	**255**	Pn	**Pn**	**07 45 05.1**	**+0.8**
HYT	**Haines Junctio**	**5.54**	**263**	Pn	**Pn**	**07 45 05.3**	**+0.9**
I30M	**Mount Dempster**	**5.56**	**310**	Pn	**Pn**	**07 45 06.1**	**+1.4**
PLBC	**Pleasant Camp**	**5.59**	**247**	Pn	**Pn**	**07 45 05.3**	**+0.4**
L29M	**L29M**	**5.62**	**287**	Pn	**Pn**	**07 45 06.0**	**+0.7**
L29M				Sg	**Sg**	**07 46 35.8**	**-6.2**
YUK5	**Granite Creek**	**5.63**	**266**	Pn	**Pn**	**07 45 06.2**	**+0.6**
M29M	**Somme Creek**	**5.74**	**280**	Pn	**Pn**	**07 45 07.7**	**+0.6**
M29M				Sn	**Sn**	**07 46 13.9**	**+0.9**
M29M				Sg	**Sb**	**07 46 39.0**	**+8.2**
NBC8	**Simpson Ranch**	**5.79**	**159**	Pn	**Pn**	**07 45 05.7**	**-1.9**
YUK6	**Outpost Mounta**	**5.91**	**265**	Pn	**Pn**	**07 45 10.3**	**+0.7**
YUK7	**Dusty Glacier**	**5.93**	**261**	Pn	**Pn**	**07 45 10.7**	**+0.8**
R31K	**City Hall, Gus**	**5.95**	**237**	Sg	**Sg**	**07 46 46.8**	**-5.9**
YUK4	**Talbot Arm**	**5.95**	**269**	Pn	**Pn**	**07 45 10.0**	**-0.1**
G31M	**Satah River**	**6.04**	**328**	Pn	**Pn**	**07 45 11.6**	**+0.5**
G31M				Sn	**Sn**	**07 46 19.3**	**-0.8**
BRWY	**Burwash Landin**	**6.13**	**270**	Pn	**Pn**	**07 45 13.2**	**+0.8**
O29M	**Mount Kennedy**	**6.22**	**260**	Sg	**Sg**	**07 46 56.1**	**-5.1**
DAWY	**Dawson**	**6.34**	**295**	Pn	**Pn**	**07 45 16.2**	**+1.0**
F31M	**Tsiigehtchic**	**6.34**	**333**	Sn	**Sn**	**07 46 27.2**	**-0.2**
EPYK	**Eagle Plains**	**6.34**	**318**	Pn	**Pn**	**07 45 17.1**	**+1.8**
I29M	**Ogilvie Camp,**	**6.34**	**307**	Pn	**Pn**	**07 45 16.6**	**+1.4**
YUK8	**Steele Glacier**	**6.49**	**270**	Pn	**Pn**	**07 45 18.4**	**+0.8**
YUK8				Sg	**Sg**	**07 47 03.8**	**-6.3**
G30M	**tAoh Zraii Nji**	**6.60**	**324**	Pn	**Pn**	**07 45 19.5**	**+0.7**
YUK3	**Moose Creek**	**6.73**	**274**	Pn	**Pn**	**07 45 22.0**	**+1.2**
O28M	**Mount Upton**	**6.82**	**266**	Pn	**Pn**	**07 45 23.2**	**+1.1**
BVCY	**Beaver Creek**	**6.86**	**280**	Pn	**Pn**	**07 45 23.5**	**+1.1**
YUK2	**White River**	**6.91**	**275**	Pn	**Pn**	**07 45 24.3**	**+1.2**
YUK2				Sg	**Sg**	**07 47 15.3**	**-8.1**
F30M	**Barrier River**	**6.95**	**328**	Pn	**Pn**	**07 45 24.2**	**+0.7**
F30M				Sn	**Sn**	**07 46 41.9**	**-0.6**
INK	**Inuvik**	**7.03**	**337**	Pn	**Pn**	**07 45 25.3**	**+0.6**
	3.7nm,0.3s,baz=164,slow=18,SNR=51						
INK				Sn	**Sn**	**07 46 42.3**	**-2.3**
	2.7nm,0.3s,baz=143,slow=20,SNR=3.1						
INK				Lg	Lg	07 47 21.0	
	1.3nm,0.3s,baz=236,slow=33,SNR=1.7						
INK				LR	LR	07 48 27.4	
	comp=Z,56nm,21.3s,baz=73,slow=41						
	9.5nm,0.4s						
INK				AML	AML		
INK	**Inuvik**	**7.03**	**337**	Pn	**Pn**	**07 45 25.2**	**+0.6**
INK				Sn	**Sn**	**07 46 42.9**	**-1.6**
G29M	**Pine Creek**	**7.08**	**319**	Pn	**Pn**	**07 45 27.1**	**+1.6**
WTMTA	**White Mountain**	**7.29**	**147**	Sn	**Sn**	**07 46 48.0**	**-3.0**
L27K	**Beaver Creek,**	**7.29**	**285**	Pn	**Pn**	**07 45 29.8**	**+1.5**
L27K				Sg	Sg	07 47 27.0	-8.7
C36M	**Paulatuk**	**7.43**	**6**	Pn	**Pn**	**07 45 32.7**	**+2.5**
C36M				Sn	**Sn**	**07 46 52.4**	**-2.0**
KUKN	**Kugluktuk,NWT**	**7.51**	**34**	Pn	**Pn**	**07 45 32.4**	**+1.2**
KUKN				Sn	**Sn**	**07 46 52.8**	**-3.5**
GRNC	**Granite Creek**	**7.57**	**267**	Pn	**Pn**	**07 45 34.6**	**+2.3**
FSJB	**Fort St James**	**7.63**	**171**	Pn	**Pn**	**07 45 33.2**	**+0.2**
BALM	**Baldy**	**7.77**	**270**	Pn	**Pn**	**07 45 37.3**	**+2.4**
PTPK	**Patty Peak**	**7.79**	**271**	Pn	**Pn**	**07 45 37.3**	**+2.0**
KIAG	**Kiagna River**	**7.80**	**269**	Pn	**Pn**	**07 45 37.2**	**+1.8**
H27K	**Steamboat Moun**	**7.92**	**309**	Pn	**Pn**	**07 45 37.7**	**+0.8**
MCARA	**McCarthy VSAT**	**8.01**	**273**	Pn	**Pn**	**07 45 39.0**	**+0.8**
E29M	**Blow River**	**8.06**	**328**	Pn	**Pn**	**07 45 39.2**	**+0.4**
F28M	**Old Crow**	**8.09**	**320**	Pn	**Pn**	**07 45 39.8**	**+0.6**
BDMTA	**Bald Mountain**	**8.16**	**149**	Pn	**Pn**	**07 45 38.6**	**-1.7**
BDMTA				Sn	**Sn**	**07 47 08.7**	**-3.8**
G27K	**Doyon Strip**	**8.22**	**313**	Pn	**Pn**	**07 45 42.1**	**+1.1**
STPRA	**Salt Prairie L**	**8.33**	**135**	Pn	**Pn**	**07 45 41.4**	**-1.1**
E28M	**Babbage River**	**8.64**	**326**	Pn	**Pn**	**07 45 47.6**	**+0.9**
SWHSA	**Sweathouse Loo**	**8.67**	**141**	Sn	**Sn**	**07 47 21.2**	**-3.8**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
E27K	Coleen River	8.95	320	Pn	Pn	07 45 51.6	+0.6
G26K	Porcupine Rive	9.04	311	Pn	Pn	07 45 53.0	+0.9
D27M	Malcolm River	9.46	326	Pn	Pn	07 45 58.5	+0.6
F26K	Sheenjek River	9.50	315	Pn	Pn	07 45 59.6	+1.0
ILAR	Eielson Array	9.66	296	Pn	Pn	07 46 00.8	0.0
	0.2nm,0.3s,baz=104,slow=12,SNR=8.2						
ILAR				Lg	Lg	07 48 40.4	
	0.2nm,0.3s,baz=88,slow=25,SNR=5.0						
	0.4nm,0.3s						
ILAR				AML	AML		
BBB	Bella Bella	9.89	187	LR	LR	07 49 14.5	
	comp=Z,61nm,20.7s,baz=50,slow=34						
F25K	Christian Rive	9.97	313	Pn	Pn	07 46 05.6	+0.7
E25K	Arctic Village	10.18	315	P	Pn	07 46 08.7	+0.9
C27K	Jago River	10.44	325	P	Pn	07 46 12.1	+0.8
C26K	Camden Bay	10.95	324	P	Pn	07 46 19.2	+0.9
D25K	Kavik River	11.03	320	P	Pn	07 46 20.4	+0.9
KDAK	Kodiak Island	13.83	264	LR	LR	07 51 53.3	
	comp=Z,38nm,21.4s,baz=109,slow=36						
NEW	Newport	14.69	155	Pn	Pn	07 47 06.9	-2.7
	0.1nm,0.3s,baz=300,slow=18,SNR=2.2						
	0.6nm,0.5s						
NEW				AML	AML		
RES	Resolute Bay	16.85	28	Pn	Pn	07 47 35.9	-1.5
	1.0nm,0.3s,baz=241,slow=10,SNR=4.5						
	4.2nm,0.6s						
RES				AML	AML		
ULM	Lac du Bonnet	20.38	111	P	P	07 48 19.6	+1.2
	4.0nm,0.8s,baz=324,slow=16,SNR=3.2						
ULM				LR	LR	07 56 08.9	
	comp=Z,40nm,18.0s,baz=120,slow=37						
	4.0nm,0.8s						
YBH	Yreka Blue Hor	20.41	172	P	P	07 48 19.1	+0.2
	0.4nm,0.4s,baz=71,slow=12,SNR=2.1						
	0.4nm,0.4s						
PDAR	Pinedale Array	21.66	145	P	P	07 48 33.1	+0.7
	0.5nm,0.9s,baz=358,slow=8.9,SNR=3.8						
	0.5nm,0.9s						
NVAR	Mina Array Bea	24.10	165	P	P	07 48 59.3	+1.7
	1.1nm,0.8s,baz=351,slow=7.9,SNR=10.0						
	1.1nm,0.8s						
FRB	Frobisher Bay	25.59	60	LR	LR	08 00 01.9	
	comp=Z,36nm,18.4s,baz=100,slow=38						
SHEM	Shemya Is, Ala	32.35	281	LR	LR	08 04 02.7	
	comp=Z,48nm,19.6s,baz=172,slow=38						
TXAR	Lajitas Array	35.88	145	P	P	07 50 42.7	+0.9
	0.3nm,0.8s,baz=11,slow=7.0,SNR=3.8						
	0.3nm,0.8s						
MA2	Magadan	37.99	305	LR	LR	08 06 14.4	
	comp=Z,37nm,20.1s,baz=192,slow=36						
QSPA	South Pole Qui	151.84	180	PKPbc	PKiKP	08 03 36.6	+1.2
	1.2nm,0.9s,baz=160,slow=7.1,SNR=2.6						

SDD ***02*** *07:52:59.3±1.4, 19°.63N×70°.41W, h32^{km}±9^{km}, MD2.7, ML2.2, MW2.8, Presumed earthquake*

OSPL ***02*** *07:53:01.2±1.9, 19°.71N×70°.29W, h0^{km}±19^{km}, ML1.9, Presumed earthquake*

ISC 02 07:53:00.9±1.5**, 19°.68N**±0°.04×**70°.33W**±0°.08**, h25**^{km}**, n15, σ1**^{s}**66**/25**, 12C-5D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SODR	Sosua Marina B	0.24	288	⇑ePg	Pb	07 53 05.8	-1.3
SODR				⇓eSg	Sb	07 53 10.8	-0.6
SODR				IAML		07 53 22.6	
	comp=N,320nm,0.9s						
SC01	Santiago de lo	0.45	236	i P	Pb	07 53 09.4	-0.8
SC01				eS	Sb	07 53 16.6	0.0
SC01				IAML		07 53 21.3	
	comp=Z,29nm,0.3s						
SC01	Santiago de lo	0.45	236	⇑ePg	Pb	07 53 09.2	-1.1
SC01				IAML		07 53 18.3	
	comp=N,41nm,0.2s						
LUDR	Luperon	0.62	290	⇓ePg	Pb	07 53 12.6	-0.6
MADR	Mao Valverde	0.74	261	⇑ePg	Pb	07 53 13.6	-1.4
MADR				IAML		07 53 33.7	
	comp=N,140nm,0.6s						
LOPP1	Punta Rusia, P	0.84	282	i P	Pb	07 53 16.1	-0.6
LOPP1				eS	Sn	07 53 28.6	0.0
LOPP1				IAML		07 53 30.5	
	comp=Z,42nm,0.3s						
ABDR	Alto Bandera	0.91	198	⇑ePg	Pb	07 53 17.6	-0.5
ABDR				⇑eSg	Sn	07 53 30.9	+0.1
ABDR				IAML		07 53 31.5	
	comp=N,87nm,1.1s						
REDR	Restauracion	1.13	243	⇑ePg	Pb	07 53 23.6	+2.0
REDR				⇓eSg	Sb	07 53 42.2	+6.3
REDR				IAML		07 53 43.7	
	comp=N,150nm,0.1s						
SDDR	Presa de Saban	1.14	233	eS	Sb	07 53 37.3	+1.0
SDDR	Presa de Saban	1.14	233	⇓ePg	Pn	07 53 19.6	-1.7
SDDR				⇓eSg	Sb	07 53 36.1	-0.2
SDDR				IAML		07 53 38.7	
	comp=N,28nm,1.9s						
MCDR	Montecristi	1.27	280	⇑ePg	Pn	07 53 21.8	-1.2
MCDR				⇑eSg	Sb	07 53 40.2	+0.3
MCDR				IAML		07 54 23.0	
	comp=N,70nm,1.2s						
BANI	BANI	1.28	181	⇑ePg	Pn	07 53 23.2	0.0
BANI				⇑eSg	Sn	07 53 39.7	+0.1
BANI				IAML		07 53 44.4	
	comp=N,57nm,0.2s						
NEDR	Neiba UASD	1.57	221	⇑ePg	Pb	07 53 28.3	-1.0
NEDR				⇑eSg	Sb	07 53 48.2	-0.5
NEDR				IAML		07 53 57.8	
	comp=N,14nm,0.5s						
LODU1	El Espartillar	1.71	220	i P	Pb	07 53 32.1	+0.5
LODU1				IAML		07 53 59.0	
	comp=Z,38nm,1.4s						
GRTK	Grand Turk	1.97	338	i P	Pn	07 53 33.1	+0.4
GRTK				eS	Sn	07 53 58.2	+1.6

IDC ***02*** *07:53:29.9±1.9, 6°.09S×152°.44E, h0^{km}, mb3.6/3, mbtmp3.8/4, ML1.9/1, Error ellipse: s-maj=111.2km s-min=24.1km az=132.0*

ISC 02 07:53:35.5±1.7**, 6°.1S**±0°.1×**152°.3E**±0°.3**, h38**^{km}**, n6, σ1**^{s}**16**/6**, mb3.6**/3**, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRVT	Keravat (AS076	1.81	351	Sn	Sn	07 54 26.1	+0.2
	111nm,0.3s,baz=195,slow=20,SNR=1.4						
PMG	Port Moresby	6.08	237	Pn	Pn	07 55 02.2	-0.6
	1.9nm,0.3s,baz=55,slow=12,SNR=4.0						
	18nm,0.7s						
PMG				AML	AML		
WRA	Warramunga Arr	22.24	230	P	P	07 58 29.5	+0.3
	1.0nm,0.6s,baz=56,slow=10,SNR=8.8						
	1.0nm,0.6s						
ASAR	Alice Springs	24.88	224	P	P	07 58 55.5	+0.6
	1.4nm,0.6s,baz=60,slow=8.7,SNR=16						
	1.4nm,0.6s						
ILAR	Eielson Array	83.54	22	P	P	08 05 58.4	-0.9
	0.4nm,0.7s,baz=249,slow=5.5,SNR=6.6						
	0.4nm,0.7s						
TORD	Torodi Ar. Bea	150.23	286	PKPbc	PKiKP	08 13 25.9	+1.5
	0.3nm,0.6s,baz=89,slow=3.7,SNR=1.3						

IDC ***02*** *07:55:05.0±3.5, 53°.64N×88°.01E, h0^{km}, mbtmp3.3/2, ML2.8/2, Error ellipse: s-maj=29.4km s-min=18.1km az=74.0*

ASRS 02 07:55:05.0±1.0**, 53°.55N**×**87°.87E, h0**^{km}**, M2.6**(MOS)**, The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	ZALESOVO INFRA	1.86	284	I	I	08 07 20.0	
	baz=99,slow=329,SNR=9.6						
ZALV	Zalesovo Beam	1.86	284	Pn	Pb	07 55 39.1	-0.7
	1.2nm,0.3s,baz=99,slow=15,SNR=14						
ZALV				Lg	Lg	07 56 05.7	
	2.5nm,0.3s,baz=97,slow=25,SNR=13						
KURBB	Kurchatov Arra	6.46	247	Pn	Pn	07 56 43.8	+2.5
	0.1nm,0.3s,baz=62,slow=14,SNR=1.5						
KURBB				Sn	Sn	07 58 00.1	+4.4
	0.1nm,0.3s,baz=62,slow=24,SNR=1.4						
	1.5nm,0.2s						
KURBB				AML	AML		
MKAR	Makanchi Array	7.65	210	Pn	Pn	07 57 00.3	+2.6
	0.2nm,0.3s,baz=29,slow=13,SNR=6.3						
MKAR				Sn	Sn	07 58 27.3	+2.2
	0.1nm,0.3s,baz=27,slow=29,SNR=2.4						
MKAR				Lg	Lg	07 59 07.4	
	baz=28,slow=32,SNR=2.2						
	0.3nm,0.3s						
MKAR				AML	AML		

TEH 02 07:57:53.3, 35°.16N×53°.74E, h17^{km}±18^{km}**, ML3.8, Presumed earthquake, Northern and central Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IANJ	Anjilo	0.34	24	Pg	Pg	07 58 00.6	0.0
IANJ				Sg	Sg	07 58 05.6	0.0
ILAS	Lasjerd	0.68	290	Pg	Pb	07 58 07.5	+0.6
ISHM	Shahmirzad	0.75	331	Pg	Pg	07 58 07.7	-0.3
IFIR	Firoozkooh	0.94	301	Pg	Pb	07 58 11.5	+0.1
IALA	Alasht	1.20	321	Pg	Pb	07 58 16.0	+0.2
IGLO	Ghaloghah	1.35	3	Pg	Pb	07 58 18.7	+0.4
IGLO				Sg	Sg	07 58 39.2	+2.3
IDMV	Damavand	1.46	287	Pg	Pb	07 58 20.7	+0.4
ISFB	Sefidab	1.48	238	Pg	Pb	07 58 20.4	+0.1
IPRN	Peran	1.58	314	Pg	Pb	07 58 22.9	+0.7
IVRN	Varamin	1.66	265	Pg	Pb	07 58 22.8	-0.7
KRSH	Karshahi	1.78	229	Pg	Pb	07 58 24.9	-0.7
ANAR	Anarak	1.96	180	Pn	Pb	07 58 27.7	-0.9
TEH	Tehran	2.01	287	Pn	Pb	07 58 28.5	-1.1
IHSB	Hasanabad	2.04	279	Pn	Pn	07 58 28.4	+1.4
MZPU	Pul - Mazandar	2.18	307	Pn	Pn	07 58 30.7	+1.6
QAMS	Qamsar	2.40	235	Pn	Pn	07 58 34.0	+1.9
IZEF	Zefreh	2.54	208	Pn	Pn	07 58 36.0	+1.9
IKLH	Kolahrood	2.56	225	Pn	Pn	07 58 36.0	+1.7
TNSJ	Nastanj	2.65	116	Pn	Pn	07 58 36.9	+1.6
TSHB	Tabas_ShorAb	2.68	122	Pn	Pn	07 58 37.8	+1.9
TAPT	Tabas- Tapeh t	2.82	95	Pn	Pn	07 58 38.9	+1.2
ICHK	Chekchek	2.96	169	Pn	Pn	07 58 42.0	+2.3
MRVT	Maraveh tapeh	3.13	36	Pn	Pn	07 58 43.8	+1.8
TKDS	Koohdasht(Taba	3.19	118	Pn	Pn	07 58 44.9	+2.0
TPRV	Parvadeh(Tabas	3.23	130	Pn	Pn	07 58 45.5	+2.1
SBZV	Sabzevar	3.38	68	Pn	Pn	07 58 46.9	+1.4
TAFT	Taft - Yazd	3.44	174	Pn	Pn	07 58 48.6	+2.2
IBAF	Bafgh	3.87	156	Pn	Pn	07 58 54.6	+2.4
ISFR	Sfrayin	3.93	60	Pn	Pn	07 58 55.1	+1.9
IAKL	Akhelmad	4.32	69	Pn	Pn	07 59 00.1	+1.6
IPAY	Payeh	4.46	72	Pn	Pn	07 59 02.1	+1.7
IMOG	Moghan	4.66	77	Pn	Pn	07 59 05.0	+1.9
IKRD	Kardeh	4.95	69	Pn	Pn	07 59 08.8	+1.6
TBJM	Torbat-e-JAM	5.39	87	Pn	Pn	07 59 15.1	+1.9
JRKH	Jarkhoshk	5.44	80	Pn	Pn	07 59 16.2	+2.5
SHRT	Shahrakht	5.62	104	Pn	Pn	07 59 18.1	+1.9

NEIC ***02*** *07:58:17.2±1.4, 20°.7S±0°.2×177°.9W±0°.2, h499^{km}±8^{km}, mb4.2/11, Error ellipse: s-maj=29.5km s-min=13.4km az=142.0*

IDC ***02*** *07:58:19.0±2.4, 20°.66S×178°.11W, h516^{km}±25^{km}, mb3.2/9, mbtmp4.1/11, Error ellipse: s-maj=38.4km s-min=17.5km az=147.0*

ISC 02 07:58:20.5±0.8**, 20°.5S**±0°.2×**178°.2W**±0°.1**, h534**^{km}**, n25, σ0**^{s}**84**/24**, mb4.1**/17**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	Nonsavu	4.48	308	P	P	07 59 43.4	-1.8
	8.4nm,0.3s,baz=132,slow=16,SNR=11						
AFI	Afiamalu	9.03	44	P	P	08 00 20.7	-7.7
DZM	Mont Dzumac	14.36	261	P	P	08 01 23.3	-0.4
	2.8nm,0.6s,baz=74,slow=17,SNR=1.5						
EIDS	Eidsvold	28.62	255	P	P	08 03 34.5	+0.5
EIDS				IAmb	IAmb	08 04 05.2	
	comp=Z,11nm,1.2s						
CTA	Charters Tower	33.26	264	P	P	08 04 15.0	+1.1
	comp=Z,3.7nm,0.7s,baz=121,slow=9.9,SNR=2.6						
	comp=Z,3.7nm,0.7s						
STKA	Stephens Creek	37.57	244	P	P	08 04 49.9	+0.3
	comp=Z,4.3nm,0.7s,baz=90,slow=11,SNR=5.0						
	comp=Z,4.3nm,0.7s						
BBOO	Buckleboo	42.33	244	P	P	08 05 27.2	-0.5
WR8	Warramunga Arr	44.22	262	P	P	08 05 42.8	+0.1
WR8				IAmb	IAmb	08 05 44.2	
	comp=Z,6.0nm,0.8s						
AS31	Alice Springs	44.29	257	P	P	08 05 43.5	+0.4
AS31				IAmb	IAmb	08 05 44.8	
	comp=Z,7.4nm,1.2s						
ASAR	Alice Springs	44.29	257	P	P	08 05 43.6	+0.5
	comp=Z,8.8nm,0.5s,baz=98,slow=7.9,SNR=140						
	comp=Z,8.8nm,0.5s						
ASAR	Alice Springs	44.29	257	P	P	08 05 43.0	-0.2
WB0	Warramunga Arr	44.35	262	P	P	08 05 43.8	+0.1
WRAB	Tennant Creek	44.37	262	P	P	08 05 43.7	0.0
WRAB				IAmb	IAmb	08 05 44.3	
	comp=Z,6.7nm,0.8s						
WRA	Warramunga Arr	44.37	262	P	P	08 05 43.8	0.0
	comp=Z,1µm,1.0s,baz=99,slow=7.9,SNR=1.0						
FORT	Forrest	49.07	247	P	P	08 06 19.3	+0.2
FORT				IAmb	IAmb	08 06 43.6	
	comp=Z,11nm,1.0s						
KNRA	Kununurra	50.43	266	P	P	08 06 30.4	+1.1
KNRA				IAmb	IAmb	08 06 30.7	
	comp=Z,4.5nm,0.7s						
FITZ	Fitzroy Crossi	52.80	262	P	P	08 06 47.8	+1.4
MBWA	Marble Bar	57.63	257	P	P	08 07 19.3	-0.7
MBWA				IAmb	IAmb	08 07 21.2	
	comp=Z,11nm,0.8s						
QSPA	South Pole Qui	69.53	180	P	P	08 08 34.4	-1.1
	comp=Z,0.8nm,1.0s,baz=56,slow=7.3,SNR=1.2						
	comp=Z,0.8nm,1.0s						
NVAR	Mina Array Bea	81.21	43	P	P	08 09 41.7	+0.8
	comp=Z,0.5nm,0.8s,baz=226,slow=10,SNR=4.6						
	comp=Z,0.5nm,0.8s						
TXAR	Lajitas Array	87.27	57	P	P	08 10 11.3	+0.6
	comp=Z,0.4nm,0.7s,baz=214,slow=6.9,SNR=5.1						
	comp=Z,0.4nm,0.7s						
ILAR	Eielson Array	88.40	13	P	P	08 10 15.3	+0.2
	comp=Z,0.1nm,0.4s,baz=213,slow=7.6,SNR=1.6						
	comp=Z,0.1nm,0.4s						
PDAR	Pinedale Array	89.14	43	P	P	08 10 19.4	0.0
	comp=Z,0.4nm,0.7s,baz=248,slow=3.1,SNR=4.1						
	comp=Z,0.4nm,0.7s						
CMAR	Chiang Mai Arr	89.92	290	P	P	08 10 24.0	+0.7
	comp=Z,1.1nm,0.3s,baz=107,slow=5.7,SNR=1.7						
	comp=Z,1.1nm,0.3s						
AKASG	Malin Array Be	142.94	331	PKP	PKPdf	08 16 51.5	-1.7
	comp=Z,0.4nm,0.3s,baz=45,slow=4.5,SNR=10						

IDC ***02*** *08:00:14.7±3.6, 53°.53N×87°.54E, h0^{km}, mbtmp2.9/2, ML2.6/2, Error ellipse: s-maj=31.0km s-min=16.5km az=75.0*

ASRS 02 08:00:10.0±1.3**, 53°.56N**×**87°.67E, h0**^{km}**, M2.7**(MOS)**, The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	ZALESOVO INFRA	1.74	284	I	I	08 11 50.0	
	baz=102,slow=328,SNR=3.8						
ZALV	Zalesovo Beam	1.74	284	Pg	Pg	08 00 45.1	+1.9
	1.5nm,0.3s,baz=107,slow=16,SNR=15						
ZALV				Lg	Lg	08 01 08.6	
	2.2nm,0.3s,baz=108,slow=27,SNR=8.6						
KURBB	Kurchatov Arra	6.35	246	Pn	Pn	08 01 49.1	+4.3
	0.1nm,0.3s,baz=64,slow=14,SNR=1.7						
	0.5nm,0.4s						
KURBB				AML	AML		
MKAR	Makanchi Array	7.60	209	Pn	Pn	08 02 07.0	+5.0
	0.2nm,0.3s,baz=29,slow=13,SNR=8.3						
MKAR				Lg	Lg	08 04 11.2	
	baz=26,slow=33,SNR=2.2						
	0.3nm,0.3s						
MKAR				AML	AML		

SNET ***02*** *08:04:23.7±1.1, 13°.03N×89°.16W, h45^{km}, ML3.7, Presumed earthquake*

CATAC ***02*** *08:04:23.8±0.5, 13°N±3°×8°9W±°, h29^{km}±2^{km}, M3.9/18, MLv3.9/18, Error ellipse: s-maj=6.8km s-min=3.6km az=21.2, confirmed*

ISC 02 08:04:24.3±1.7**, 13°.04N**±0°.08×**89°.16W**±0°.04**, h47**^{km}±13^{km}**, n53, σ0**^{s}**54**/96**, El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LALI	Alcalda de L	0.47	340	i P	Pn	08 04 34.9	-0.2
LALI				eS	Sn	08 04 43.1	+0.3
LALI	Alcalda de L	0.47	340	P	Pn	08 04 35.0	-0.2
LALI				S	Sn	08 04 43.1	+0.3
PANCS	Alcalda de	0.57	358	P	Pn	08 04 35.7	-0.7
PANCS				S	Sn	08 04 44.5	-0.5
LFRS	El Faro	0.59	9	i P	Pn	08 04 36.1	-0.6
SJTE	Alcalda de S	0.59	14	i P	Pn	08 04 35.9	-0.7
SJTE				eS	Sn	08 04 45.4	0.0
LOMA	Loma Larga	0.60	359	i P	Pn	08 04 36.4	-0.4
LOMA				eS	Sn	08 04 46.1	+0.4
LOMA	Loma Larga	0.60	359	P	Pn	08 04 36.4	-0.4
LOMA				S	Sn	08 04 46.1	+0.4
TECO	Alcaldia de Te	0.61	37	eP	Pn	08 04 36.1	-0.8
TECO				eS	Sn	08 04 45.8	-0.1
TECO	Alcaldia de Te	0.61	37	P	Pn	08 04 36.0	-0.8
TECO				S	Sn	08 04 45.8	-0.1
COEG	Centro de Oper	0.64	25	eP	Pn	08 04 36.5	-0.8
COEG				eS	Sn	08 04 46.5	0.0
COEG	Centro de Oper	0.64	25	P	Pn	08 04 36.5	-0.8
COEG				S	Sn	08 04 46.4	0.0
ALJI	Alcalda de J	0.64	63	eP	Pn	08 04 36.9	-0.2
ALJI				eS	Sn	08 04 47.5	+1.1
ALJI	Alcalda de J	0.64	63	P	Pn	08 04 36.9	-0.2
ALJI				S	Sn	08 04 47.3	+0.9
MAGS	Ministerio de	0.65	349	eP	Pn	08 04 37.1	-0.4
JAYA	Jayaque - finc	0.67	335	eP	Pn	08 04 37.4	-0.4
JAYA				eS	Sn	08 04 47.8	+0.3
JAYA	Jayaque - finc	0.67	335	P	Pn	08 04 37.3	-0.4
JAYA				S	Sn	08 04 48.0	+0.5
UEES	Universidad Ev	0.68	353	eP	Pn	08 04 37.4	-0.4
UEES				eS	Sn	08 04 48.8	+1.3
UEES	Universidad Ev	0.68	353	P	Pn	08 04 37.4	-0.4
UEES				S	Sn	08 04 48.3	+0.9
PMON	Piamonte	0.68	347	eP	Pn	08 04 37.5	-0.4
PMON				eS	Sn	08 04 48.4	+0.7
PMON	Piamonte	0.68	347	P	Pn	08 04 37.5	-0.4
PMON				S	Sn	08 04 48.2	+0.6
BOQS	Boqueron	0.70	350	eP	Pn	08 04 38.0	-0.2
BOQS				eS	Sn	08 04 48.6	+0.4
PAVA	Las Pavas	0.70	18	i P	Pn	08 04 37.6	-0.5
PAVA				eS	Sn	08 04 48.5	+0.5
PAVA	Las Pavas	0.70	18	P	Pn	08 04 37.7	-0.5
PAVA				S	Sn	08 04 48.5	+0.5
LFU	La Fuente	0.70	3	i P	Pn	08 04 37.9	-0.2
LFU				eS	Sn	08 04 48.6	+0.5
TECA	Tecapa	0.78	55	eP	Pn	08 04 38.7	-0.5
CEDA	San Andres	0.79	343	eP	Pn	08 04 39.0	-0.3
CEDA				eS	Sn	08 04 50.8	+0.7
CEDA	San Andres	0.79	343	P	Pn	08 04 39.0	-0.3
CEDA				S	Sn	08 04 50.8	+0.7
CEVE	Cerro Verde	0.90	330	eP	Pn	08 04 40.9	-0.1
CEVE	Cerro Verde	0.90	330	P	Pn	08 04 40.9	-0.1
CEVE				S	Sn	08 04 53.9	+0.8
SBLS	San Blas	0.91	330	eP	Pn	08 04 40.8	-0.3
SBLS				eS	Sn	08 04 54.2	+0.9
PACA	Pacayal	0.92	62	eP	Pn	08 04 40.6	-0.3
PACA				eS	Sn	08 04 54.5	+1.3
PACA	Pacayal	0.92	62	P	Pn	08 04 40.8	-0.2
PACA				S	Sn	08 04 54.1	+0.9
LCY	Lacayo	0.92	66	eP	Pn	08 04 41.0	-0.1
RANC	El Ranchito	0.93	65	eP	Pn	08 04 41.1	-0.1
RANC				eS	Sn	08 04 55.1	+1.5
RANC	El Ranchito	0.93	65	P	Pn	08 04 41.3	+0.1
RANC				S	Sn	08 04 54.3	+0.8
SNJE	San Jose	0.93	332	eP	Pn	08 04 41.0	-0.3
VSM	San Miguel	0.94	66	eP	Pn	08 04 41.5	+0.1
UNIC	Universidad Ca	1.01	338	eP	Pn	08 04 42.1	-0.1
UNIC				eS	Sn	08 04 56.2	+0.8
UNIC	Universidad Ca	1.01	338	P	Pn	08 04 41.9	-0.3
UNIC				S	Sn	08 04 56.1	+0.7
P5NO	Presa 5 de nov	1.01	22	eP	Pn	08 04 41.7	-0.5
P5NO				eS	Sn	08 04 55.4	0.0
P5NO	Presa 5 de nov	1.01	22	P	Pn	08 04 41.7	-0.5
P5NO				S	Sn	08 04 55.3	-0.1
NUBE	Las Nubes	1.05	325	eP	Pn	08 04 42.5	-0.3
NUBE				eS	Sn	08 04 56.7	+0.3
NUBE	Las Nubes	1.05	325	P	Pn	08 04 42.5	-0.3
NUBE				S	Sn	08 04 56.7	+0.3
INTP	Intipuca	1.08	82	eP	Pn	08 04 42.5	-0.6
INTP				eS	Sn	08 04 56.8	-0.3
SLOZ	Alcaldia de Sa	1.15	328	eP	Pn	08 04 43.9	-0.2
FAME	Alcaldia de Sa	1.15	314	P	Pn	08 04 43.5	-0.6
FAME				S	Sn	08 04 58.2	-0.6
LCND	La Caada	1.26	78	eP	Pn	08 04 45.0	-0.5
LCND				eP		08 04 45.2	
LCND	La Caada	1.26	78	P	Pn	08 04 45.4	-0.2
CNCH	Conchagua	1.31	80	eP	Pn	08 04 45.7	-0.6
CNCH				eS	Sn	08 05 02.4	-0.4
MTO3	Montecristo	1.36	352	eP	Pn	08 04 46.7	-0.5
MTO3				eS	Sn	08 05 04.1	-0.1
MTO3	Montecristo	1.36	352	P	Pn	08 04 46.6	-0.5
MTO3				S	Sn	08 05 04.0	-0.3
ESQI	Esquipulas	1.52	353	P	Pn	08 04 49.1	-0.1
ESQI				S	Sn	08 05 08.3	+0.4
SARH	Santa Rosa de	1.77	13	P	Pn	08 04 52.6	+0.1
SARH				S	Sn	08 05 14.1	+0.2

IDC ***02*** *08:15:05.9±3.9, 53°.63N×87°.85E, h0^{km}, mbtmp2.6/2, ML2.2/2, Error ellipse: s-maj=32.9km s-min=18.6km az=72.0*

ASRS 02 08:15:02.0±1.1**, 53°.62N**×**87°.88E, h0**^{km}**, M2.3**(MOS)**, The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	ZALESOVO INFRA	1.85	282	I	I	08 27 20.0	
	baz=99,slow=328,SNR=1.8						
ZALV	Zalesovo Beam	1.85	282	Pg	Pg	08 15 38.9	+1.5
	0.5nm,0.3s,baz=101,slow=16,SNR=5.5						
ZALV				Lg	Lg	08 16 05.9	
	0.9nm,0.3s,baz=99,slow=27,SNR=8.3						
KURBB	Kurchatov Arra	6.49	246	Pn	Pn	08 16 43.5	+4.8
	0.1nm,0.3s,baz=59,slow=14,SNR=1.6						
	0.4nm,0.3s						
KURBB				AML	AML		
MKAR	Makanchi Array	7.71	210	Pn	Pn	08 17 00.7	+5.2
	baz=24,slow=12,SNR=1.8						
MKAR				Lg	Lg	08 19 06.6	
	baz=20,slow=31,SNR=1.5						
	0.1nm,0.3s						

IDC ***02*** *08:24:02.1±2.0, 64°.52S×179°.36E, h0^{km}, mb3.6/1, mbtmp3.6/1, MS3.8/18, Error ellipse: s-maj=67.8km s-min=27.9km az=81.0*

ISC 02 08:24:02.6±2.0**, 65°.4S**±0°.2×**178°.7E**±0°.5**, h10**^{km}**, n31, σ1**^{s}**10**/7**, MS3.9**/18**, Balleny Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VNDA	Vanda	13.18	196	Pn	P	08 27 19.2	-0.4
	baz=30,slow=17						
RPZ	Rata Peaks	22.17	345	LR	LR	08 36 51.2	
	comp=Z,80nm,18.1s,baz=208,slow=36						
QSPA	South Pole Qui	24.66	180	LR	LR	08 37 50.8	
	comp=Z,266nm,20.8s,baz=44,slow=32						
URZ	Urewera	27.22	357	LR	LR	08 38 28.1	
	comp=Z,231nm,20.4s,baz=162,slow=33						
MAW	Mawson	39.73	213	LR	LR	08 48 16.1	
	comp=Z,222nm,18.0s,baz=129,slow=36						
STKA	Stephens Creek	40.44	308	LR	LR	08 44 21.8	
	comp=Z,48nm,19.0s,baz=184,slow=30						
PMSA	Palmer Station	42.38	146	LR	LR	08 46 25.1	
	comp=Z,85nm,20.6s,baz=218,slow=31						
SNAA	Sanae	43.16	179	LR	LR	08 49 53.6	
	comp=Z,164nm,18.5s,baz=70,slow=35						
H01W1	Cape Leeuwin H	48.32	276	T	T	09 24 57.3	
	baz=149,slow=76,SNR=15						
H01W2	Cape Leeuwin H	48.33	276	T	T	09 24 57.6	
	baz=149,slow=76,SNR=18						
H01W3	Cape Leeuwin H	48.34	276	T	T	09 24 58.5	
	baz=149,slow=76,SNR=14						
NWAO	Narrogin (SRO)	48.75	281	LR	LR	08 48 19.5	
	comp=Z,161nm,20.0s,baz=325,slow=30						
CTA	Charters Tower	50.07	319	LR	LR	08 51 02.0	
	comp=Z,105nm,18.1s,baz=222,slow=33						
ASAR	Alice Springs	50.61	303	P	P	08 33 01.1	-0.3
	0.6nm,0.6s,baz=153,slow=7.3,SNR=10						
	0.6nm,0.6s						
WRA	Warramunga Arr	53.90	305	P	P	08 33 25.5	-0.3
	32nm,0.4s,baz=155,slow=7.2,SNR=1.3						

PLCA	Paso Flores	61.45	126	LR	LR	08 55 25.7	
	comp=Z,37nm,18.4s,baz=198,slow=30						
H03S2	Juan Fernandez	64.60	116	T	T	09 45 40.2	
	baz=206,slow=74,SNR=22						
H03S1	Juan Fernandez	64.60	116	T	T	09 45 37.2	
	baz=206,slow=74,SNR=22						
H03S3	Juan Fernandez	64.61	116	T	T	09 45 41.2	
	baz=206,slow=74,SNR=21						
CFA	Coronel Fontan	70.49	124	LR	LR	08 58 50.5	
	comp=Z,60nm,20.3s,baz=298,slow=30						
KAPI	Kappang	72.92	297	LR	LR	09 06 14.5	
	comp=Z,106nm,18.1s,baz=164,slow=35						
SUR	Sutherland	81.01	199	LR	LR	09 09 38.2	
	comp=Z,73nm,19.3s,baz=148,slow=33						
LPAZ	La Paz	84.53	117	LR	LR	09 05 11.3	
	comp=Z,36nm,20.6s,baz=217,slow=29						
LBTB	Lobatse	87.51	204	LR	LR	09 16 44.2	
	comp=Z,39nm,18.2s,baz=162,slow=36						
ATAH	Atahualpa	88.88	105	LR	LR	09 07 51.1	
	comp=Z,76nm,20.4s,baz=235,slow=30						
MATP	Matopo	91.45	208	LR	LR	09 14 06.0	
	comp=Z,51nm,21.4s,baz=156,slow=32						
TSUM	Tsumeb	94.42	198	LR	LR	09 17 34.2	
	comp=Z,65nm,20.0s,baz=186,slow=34						
ILAR	Eielson Array	132.28	19	PKP	PKiKP	08 43 15.9	-0.1
	1.0nm,1.1s,baz=220,slow=4.4,SNR=5.0						
BRTR	Keskin Array B	147.43	235	PKPbc	PKPab	08 43 47.3	-0.5
	3.0nm,1.0s,baz=153,slow=3.4,SNR=16						
KBZ	Khabaz	147.47	250	PKPbc	PKiKP	08 43 47.4	-0.3
	3.7nm,0.9s,baz=164,slow=4.5,SNR=8.1						
AKASG	Malin Array Be	158.46	242	PKPab	PKPab	08 44 35.6	+2.1
	0.1nm,0.3s,baz=162,slow=3.7,SNR=8.2						

NDI 02 08:39:47.9±0.6**,23°.53N**×**70°.18E,h30**^{km}**,ML4.2,MW4.0, Presumed earthquake,Southern India**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BHUJ	Bhuj	0.56	241	*e*P	Pn	08 39 59.7	-0.1
BHUJ				*e*S	Sb	08 40 07.3	+0.3
BHUJ				IAML		08 40 07.7	
	comp=E,5µm,0.2s						
BHUJ				IAML		08 40 07.8	
	comp=N,10µm,0.3s						
POO	Poona	6.04	145	*e*S	Sn	08 42 18.4	-5.0
POO				IAML		08 42 19.6	
	comp=E,513nm,0.1s						
POO				IAML		08 42 19.7	
	comp=N,516nm,0.1s						
BHPL	Bhopal	6.66	91	*e*S	Sn	08 42 32.9	-5.8
BHPL				IAML		08 42 35.3	
	comp=N,438nm,0.1s						
BHPL				IAML		08 42 35.3	
	comp=E,428nm,0.1s						

ASIES ***02*** *08:44:39.5,22°.76N×121°.20E,h34*^{km}*,Mw4.1,Fault plane solution: NP1:*ϕ_s*304.00000°,*δ*31.00000°,*λ*95.00000°. NP2:*ϕ_s*119.00000°,*δ*59.00000°,*λ*87.00000°.*

NIED ***02*** *08:44:39.5,22°.86N×121°.25E,h31*^{km}*,MW4.2,Moment Tensor Solution. s2 Moment tensor: Scale 10*^{15}*Nm;* M_{rr}*-0.22;* $M_{\theta\theta}$*-0.24;* $M_{\phi\phi}$*0.46;* $M_{r\theta}$*1.87;* $M_{\theta\phi}$*0.50;* $M_{\phi r}$*-1.07; Fault plane solution:* M_0*2.16000×10*^{15} *NP1:* ϕ_s*257.00000°,*δ*3.00000°,*λ*47.00000°. NP2:*ϕ_s*121.00000°,*δ*88.00000°,*λ*92.00000°.*

NEIC ***02*** *08:44:39.8±1.6,22°.78N±0°.07×121°.31E±0°.06,h31*^{km}*±5*^{km}*, mb4.3/20 Error ellipse: s-maj=10.5km s-min=7.2km az=167.0*

TAP ***02*** *08:44:39.7,22°.76N×121°.21E,h32*^{km}*,ML4.7,B*

JMA ***02*** *08:44:39.5±0.1,22°.9N±0°.7×12°1E±°,h31*^{km}*±2*^{km}*, MV4.6/20,TAIWAN REGION*

IDC ***02*** *08:44:42.6±3.3,22°.74N×121°.44E,h67*^{km}*±30*^{km}*,mb3.8/17, mbtmp4.1/19,ML3.7/2,MS3.4/13,Error ellipse: s-maj=21.5km s-min=13.6km az=60.0*

ISC 02 08:44:39.3±0.7**,22°.76N**±0°.01×**121°.28E**±0°.02**,h31**^{km}±4^{km}**, n247,**σ**1**^{s}**18**/365**,mb4.3**/26**,MS3.4**/11**,22C-16D,Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TTN	Taitung	0.12	270	⇑*i*P	Pb	08 44 45.9	+1.0
TTN				*e*S	Sb	08 44 50.8	+2.1
TWGBT	Beinan	0.19	289	P	Pb	08 44 45.3	-0.3
TWGBT	Beinan	0.19	289	S	Sn	08 44 49.2	-1.1
TWGBT	Beinan	0.19	289	⇑*i*P	Pb	08 44 45.5	-0.1
TWGBT				*i* S	Sn	08 44 49.5	-0.8
LDUT	Ludao	0.20	114	*i* P	Pn	08 44 46.8	+0.6
LDUT				S	Sn	08 44 51.9	+1.5
TWG	Pinlang	0.20	289		Pb	08 44 45.4	-0.2
TWG				Sg	Sn	08 44 49.0	-1.5
TWG	Pinlang	0.20	289	⇑*i*P	Pb	08 44 45.5	-0.2
TWG				*i* S	Sn	08 44 49.4	-1.1
LONT	Longtian	0.20	318	⇑*i*P	Pb	08 44 45.7	0.0
LONT				*e*S	Sn	08 44 50.3	-0.3
EDH	Donghe	0.22	7	⇓*i*P	Pb	08 44 46.5	+0.6
EDH				*i* S	Sn	08 44 51.9	+0.9
ECL	Taimali	0.34	242	⇑*i*P	Pb	08 44 46.6	-0.7
ECL				*i* S	Sb	08 44 51.6	-1.2
ECS	Chishang	0.34	351	⇓*i*P	Pb	08 44 47.9	+0.4
ECS				S	Sn	08 44 54.0	-0.1
CHKT	Chengkung	0.35	14	⇓*i*P	Pb	08 44 48.2	+0.6
CHKT				*i* S	Sn	08 44 54.5	+0.1
EHD	Haiduan	0.40	351	⇓*i*P	Pb	08 44 47.9	-0.4
EHD				*e*S	Sb	08 44 53.3	-1.1
FULB	Fuli	0.44	2	⇓*e*P	Pb	08 44 49.2	+0.2
FULB				*e*S	Sn	08 44 57.0	+0.5
CHKH	Chenggong	0.45	14	⇓*i*P	Pb	08 44 49.3	+0.3
CHKH				S	Sn	08 44 56.7	0.0
ELDTW	Lidau	0.49	331	⇓*i*P	Pb	08 44 49.1	-0.7
ELDTW				*e*S	Sb	08 44 55.5	-1.5
TAW	Tawu	0.53	222	*e*P	Pb	08 44 49.6	-0.7
TAW				*i* S	Sb	08 44 56.7	-1.1
EAST	Anshuo	0.54	227	⇑P	Pb	08 44 49.7	-0.8
EAST				S	Sb	08 44 56.9	-1.2
ECBN	Changbin	0.58	16	⇓*i*P	Pb	08 44 51.4	+0.2
ECBN				S	Sb	08 44 59.9	+0.7
TSMG	Majia	0.58	265	⇑*i*P	Pb	08 44 50.7	-0.5
TSMG				*i* S	Sb	08 44 57.7	-1.6
EYUL	Yuli	0.59	4	*e*P	Pb	08 44 50.8	-0.5
SSD	Sandimen	0.59	269	⇑*i*P	Pb	08 44 50.8	-0.6
SSD				S	Sb	08 44 57.7	-1.9
TWF1	Yuli	0.59	2	⇓*i*P	Pb	08 44 50.4	-1.0
TWF1				*e*S	Sb	08 44 58.1	-1.5
MASBT	Mashibuluo	0.61	257	⇑*i*P	Pb	08 44 51.2	-0.4
MASBT				*i* S	Sb	08 44 58.8	-1.2
STYH	Taoyuan	0.62	312	⇑*i*P	Pb	08 44 51.6	-0.1
STYH				*i* S	Sb	08 44 60.0	-0.2
SLGT	Liugui	0.63	292	⇑*i*P	Pb	08 44 51.8	-0.1
SLGT				S	Sb	08 44 59.8	-0.7
YULB	Yu-li	0.64	2	P	Pb	08 44 50.6	-1.5
YULB	Yu-li	0.64	2		Pb	08 44 50.8	-1.2
YULB	Yu-li	0.64	2	⇓*e*P	Pb	08 44 50.9	-1.2
YULB				*e*S	Sb	08 44 58.6	-2.2
SLIU	Shizi	0.69	220	⇓P	Pn	08 44 51.8	-1.2
SLIU				S	Sb	08 45 00.4	-1.9
SSPT	Xinbi	0.71	248	⇑*i*P	Pb	08 44 53.5	+0.3
SSPT				*e*S	Sn	08 45 03.7	+0.7
SCZT	Fangliau	0.71	238	⇑*i*P	Pn	08 44 52.9	-0.4
SCZT				S	Sb	08 45 02.0	-0.9
SGST	Jiashian	0.72	297	⇑*i*P	Pn	08 44 52.8	-0.6
SGST				*i* S	Sn	08 45 03.0	-0.4
SGLT	Jiouru	0.72	268	⇑*i*P	Pb	08 44 54.3	+0.8
SGLT				*e*S	Sn	08 45 06.0	+2.5
SCST	Cishan	0.73	280	⇑P	Pb	08 44 54.3	+0.7
EHYH	Wanrong	0.74	5	⇓*i*P	Pn	08 44 52.4	-1.2
EHYH				*e*S	Sb	08 45 01.9	-1.7
HGSD	Ruisui	0.75	11	⇓*e*P	Pn	08 44 53.7	-0.1
EHY	Hungye	0.75	3	*e*P	Pn	08 44 52.5	-1.3
LAY	Lan-yu	0.76	160	*e*P	Pn	08 44 54.1	+0.2
LAY				*e*S	Sb	08 45 05.2	+1.1
WTP	Ta-pu	0.78	309	⇑*i*P	Pb	08 44 54.8	+0.3
WTP				*i* S	Sb	08 45 06.0	+1.2
TWM1	Shoushan	0.79	275	⇑*i*P	Pb	08 44 55.9	+1.3
TWM1				*e*S	Sb	08 45 08.2	+3.2
LYUB	Lan-yu	0.80	159	*e*P	Pn	08 44 52.9	-1.6
LYUB				*e*S	Sn	08 45 02.6	-2.8
TPUB	Ta-pu	0.81	313	P	Pb	08 44 55.2	+0.2
TPUB	Ta-pu	0.81	313	S	Sb	08 45 07.1	+1.6
TPUB	Ta-pu	0.81	313		Pb	08 44 55.1	+0.2
TPUB	Ta-pu	0.81	313	⇑*i*P	Pb	08 44 55.1	+0.2
TPUB				*i* S	Sb	08 45 07.1	+1.6
CHN1	Nanshi	0.81	302	⇑*i*P	Pb	08 44 55.6	+0.6
CHN1				*e*S	Sb	08 45 06.9	+1.3
SMST	Manzhou Townsh	0.84	209	*e*P	Pn	08 44 54.3	-0.6
SMST				*e*S	Sn	08 45 04.9	-1.3
ALS	Alishan	0.87	330	⇓*i*P	Pb	08 44 56.1	-0.1
ALS				S	Sb	08 45 07.8	+0.3
SNJT	Kaohsiung City	0.87	270	*e*P	Pb	08 44 58.3	+2.4
SNJT				*e*S	Sb	08 45 11.8	+4.6
TWK	Hsinying	0.89	305	*i* P	Pb	08 44 56.5	+0.2
TWK				S	Sb	08 45 09.0	+1.2
HEN	Hengchun	0.90	214	P	Pb	08 44 57.8	+1.4
HEN				*e*S	Sn	08 45 07.7	0.0
CHN3	Shinhua	0.90	291	*e*P	Pb	08 44 58.0	+1.6
CHN3				*i* S	Sb	08 45 12.7	+4.7
KAU	Kaohsiung	0.91	258	*e*P	Pb	08 44 58.9	+2.2
TWKBT	Hengchun	0.92	208	*e*P	Pn	08 44 55.6	-0.4
TWKBT				*e*S	Sn	08 45 07.8	-0.4
TWK1	Hengchun	0.92	208	*e*P	Pn	08 44 55.6	-0.5
TWK1				*i* S	Sn	08 45 07.8	-0.4
TSEB	Hengchuen, Pin	0.92	202	*e*P	Pn	08 44 56.0	-0.1
TSEB				*i* S	Sb	08 45 08.8	+0.2
WCKO	Fanlu	0.92	318	P	Pb	08 44 57.6	+0.8
WCKO				S	Sb	08 45 10.4	+1.7
WLCH	Liuqiu	0.92	244	*e*P	Pb	08 44 59.2	+2.4
TWP	Hsiaoliuchiu	0.94	244	P	Pb	08 44 59.3	+2.3
TWP				*e*S	Sb	08 45 14.3	+5.2
WSSB	Gushan	0.94	263	*e*P	Pb	08 44 58.4	+1.3
WSSB				*e*S	Sb	08 45 12.9	+3.5
WARBT	Fenglin Townsh	0.96	6	*e*P	Pn	08 44 55.2	-1.6
TEGC	Jichi Village	0.98	14	*e*P	Pn	08 44 57.5	+0.5
TEGC				*i* S	Sb	08 45 10.9	+0.5
SSHA	Shanhua	0.99	293	*e*S	Sb	08 45 14.2	+3.7
CHN5	Tsauling	1.00	327	*i* P	Pb	08 44 58.5	+0.3
CHN5				*e*S	Sb	08 45 12.3	+1.1
TAI1	Yung-k'ang	1.01	287	*e*S	Sb	08 45 13.9	+2.8
WHYT	Xinyi Township	1.01	338	P	Pb	08 44 58.7	+0.3
WHYT				*e*S	Sb	08 45 12.4	+1.0
SHUL	Shoufeng	1.06	14	P	Pn	08 44 57.7	-0.4
SHUL				*e*S	Sn	08 45 12.4	+0.6
ESL	Shilin	1.06	8	*e*P	Pn	08 44 56.9	-1.3
ESL				S	Sn	08 45 09.5	-2.4
SSLB	Suanglung	1.07	344	P	Pn	08 44 58.6	+0.4
SSLB	Suanglung	1.07	344	S	Sb	08 45 12.8	-0.2
SSLB	Suanglung	1.07	344		Pn	08 44 58.7	+0.4
SSLB	Suanglung	1.07	344	⇓*i*P	Pn	08 44 58.9	+0.6
SSLB				*e*S	Sn	08 45 12.5	+0.4
CHY	Chiayi	1.08	314	*e*P	Pb	08 44 59.6	+0.2
CHY				S	Sb	08 45 15.5	+2.3
ICHU	Yijhu	1.10	304	*e*P	Pb	08 44 59.4	-0.4
ICHU				*e*S	Sb	08 45 14.8	+1.0
CHN8	Yiju	1.14	301	*e*P	Pb	08 45 00.6	+0.1
CHN8				*i* S	Sb	08 45 16.2	+1.2
TEYL	Yanliau Villag	1.15	15	*e*P	Pb	08 45 00.3	-0.3
TEYL				S	Sb	08 45 16.3	+1.1
WDLH	Douliu	1.15	324	⇑P	Pb	08 45 01.0	+0.4
WDLH				*i* S	Sb	08 45 16.9	+1.6
TSCK	Chigu Township	1.16	290	*i* P	Pb	08 45 00.7	-0.2
TSCK				*i* S	Sb	08 45 15.7	0.0
WDL	Douliou City	1.17	325	P	Pb	08 45 01.6	+0.5
WDL				*e*S	Sb	08 45 17.9	+2.1
SMLT	Sun Moon Lake	1.18	343	*e*P	Pb	08 45 01.2	0.0
SMLT				S	Sb	08 45 17.0	+0.9
WJS	Zhushan	1.18	335	*e*P	Pb	08 45 01.6	+0.5
OWD	Renai	1.20	356	*i* P	Pn	08 45 00.1	0.0
TYC	Yuchr	1.21	342	*i* P	Pb	08 45 01.9	+0.2
TYC				*e*S	Sb	08 45 18.6	+1.8
ETM	Tongmen	1.22	9	*e*P	Pn	08 44 59.3	-1.0
WSL	Shuilin Townsh	1.23	309	P	Pb	08 45 01.5	-0.5
WSL				*e*S	Sb	08 45 17.5	0.0
WTK	Tuku	1.24	319	*i* P	Pb	08 45 01.6	-0.5
WTK				*i* S	Sb	08 45 18.2	+0.5
WNT	Mingjian	1.24	334	*i* P	Pb	08 45 02.9	+0.6
WNT				*i* S	Sb	08 45 19.7	+1.8
HWA	Hwalien	1.25	14	*e*P	Pn	08 45 00.8	0.0
HWA				*e*S	Sb	08 45 18.1	-0.1
LXIB	Xiulin Townshi	1.27	6	⇓*i*P	Pn	08 45 00.1	-1.0
LXIB				*e*S	Sn	08 45 15.2	-1.9
WSF	Szhu	1.31	312	*e*P	Pb	08 45 02.6	-0.7
WSF				*i* S	Sb	08 45 19.4	-0.4
WCS	Beigang Elemen	1.34	346	*i* P	Pb	08 45 03.8	0.0
WCS				*e*S	Sb	08 45 20.9	+0.3
TWD	Chiawan	1.35	13	*e*P	Pn	08 45 01.4	-0.7
TWD				*e*S	Sn	08 45 17.6	-1.3
WHF	Hehuan Shan	1.38	360	*i* P	Pn	08 45 02.6	-0.3
WHF				*e*S	Sn	08 45 20.4	0.0
WRL	Guolierlin Hig	1.41	324	*i* P	Pb	08 45 04.1	-1.0
WRL				*i* S	Sb	08 45 22.2	-0.4
RLNB	Erlin	1.41	324	*e*P	Pb	08 45 04.4	-0.6
RLNB				S	Sb	08 45 22.8	+0.1
ETL	Fush Village	1.43	13	*e*P	Pn	08 45 03.7	+0.4
NACB	Ninganchiao	1.44	12	P	Pn	08 45 02.9	-0.4
NACB	Ninganchiao	1.44	12	S	Sn	08 45 20.3	-0.9
NACB	Ninganchiao	1.44	12		Pn	08 45 02.0	-1.3
NACB	Ninganchiao	1.44	12	*e*P	Pn	08 45 02.2	-1.1
ETLH	Xiulin Townshi	1.46	7	*e*P	Pn	08 45 02.8	-0.8
WCH1	Changhua City	1.47	333	*e*S	Sb	08 45 26.5	+2.1
WCHH	Zhanghua	1.47	334	*e*P	Pb	08 45 05.6	-0.5
WCHH				S	Sb	08 45 26.1	+1.6
FUSS	Fushou	1.49	359	P	Pn	08 45 04.6	+0.5
FUSS				*e*S	Sn	08 45 22.8	+0.1
TCU	Taichung	1.49	338	*e*P	Pb	08 45 06.0	-0.5
TCU				*e*S	Sb	08 45 25.0	0.0
TDCB	Techi	1.50	356	*e*P	Pn	08 45 04.9	+0.7
TWT	Tachien	1.50	357	*e*P	Pn	08 45 05.3	+1.1
TWT				*e*S	Sn	08 45 23.0	+0.2
WHP	Taichung City	1.55	349	*e*P	Pb	08 45 07.3	-0.1
WHP				S	Sb	08 45 27.7	+1.1
WDGT	Dungji	1.57	289	*i* P	Pn	08 45 04.9	-0.2
WDGT				*i* S	Sn	08 45 23.1	-1.3
EAHA	Aohua	1.62	15	*e*P	Pn	08 45 06.2	+0.3
EOS4	EOS4	1.66	35	P	Pn	08 45 06.8	+0.8
EOS4				*e*S	Sn	08 45 26.4	+0.3
NNSB	Datong	1.67	3	*e*P	Pn	08 45 06.9	+0.3
NNSB				*e*S	Sn	08 45 25.6	-1.4
NNS	Nan Shan	1.68	3	*e*P	Pn	08 45 07.4	+0.6
NNS				*e*S	Sn	08 45 26.8	-0.5
WDJ	Dajia District	1.69	340	*e*S	Sb	08 45 31.4	+0.7
PHUB	P'eng-hu	1.74	296	P	Pn	08 45 07.7	+0.3
PHUB				S	Sn	08 45 27.3	-1.2
EWUT	Wuta	1.75	15	*e*P	Pn	08 45 08.1	+0.6
EWUT				*e*S	Sn	08 45 30.5	+1.8
VCHM	Qimei	1.76	285	*i* P	Pn	08 45 07.4	-0.2
VCHM				S	Sn	08 45 28.9	-0.2
PNG	Penghu	1.78	297	P	Pn	08 45 08.2	+0.3
PNG				S	Sn	08 45 28.8	-0.7
LATG	Datong	1.79	7	*e*P	Pn	08 45 08.0	-0.2
LATG				*e*S	Sb	08 45 32.9	-0.7
EOS3	EOS3	1.80	32	P	Pn	08 45 09.3	+1.2
EOS3				S	Sn	08 45 30.7	+0.9
NDT	Datong Townshi	1.85	7	*e*P	Pn	08 45 09.6	+0.7
NFF	Wufeng Townshi	1.87	356	*e*P	Pb	08 45 11.5	-1.5
NFF				*e*S	Sb	08 45 34.8	-1.2
EOS2	EOS2	1.88	28	*e*P	Pn	08 45 10.8	+1.7
NSTT	Nanjuang	1.89	352	*e*P	Pb	08 45 11.7	-1.5
NSTT				*e*S	Sn	08 45 34.3	+2.1
ESAO	Su ao	1.89	16	*e*P	Pn	08 45 11.0	+1.5
LIOB	Emei	1.90	353	*e*P	Pn	08 45 11.2	+1.6
LIOB				*e*S	Sb	08 45 35.4	-1.3
YHNB	Yeheng	1.91	3	P	Pn	08 45 10.9	+1.1
YHNB	Yeheng	1.91	3	S	Sn	08 45 33.4	+0.5
YHNB	Yeheng	1.91	3		Pn	08 45 10.2	+0.4
YHNB	Yeheng	1.91	3	P	Pn	08 45 10.9	+1.1
YHNB				*i* S	Sn	08 45 33.0	+0.2
NDS	Dongshan	1.91	12	*e*P	Pn	08 45 09.6	-0.2
NDS				*e*S	Sn	08 45 32.5	-0.4
NSK	Sanguang	1.91	2	P	Pn	08 45 11.1	+1.2
NSK				S	Sn	08 45 33.3	+0.4
TWE	Neicheng	1.99	10	*e*P	Pn	08 45 12.3	+1.4
KSHI	Guanxi Townshi	2.02	357	*e*P	Pb	08 45 14.1	-1.2
KSHI				*e*S	Sb	08 45 40.5	+0.5
FUSB	Fushanzhiwuyua	2.02	8	*e*P	Pn	08 45 11.9	+0.6
FUSB				*e*S	Sn	08 45 35.4	-0.1
NWLT	Wulai	2.02	6	P	Pn	08 45 12.1	+0.7
NWLT				S	Sn	08 45 35.8	+0.1
HSN	Hsinchu	2.06	352	*e*P	Pb	08 45 14.7	-1.3
HSN				*e*S	Sb	08 45 39.0	-2.2
EGS		2.17	16	*e*P	Pn	08 45 12.9	-0.4
NCUH	Zhongli	2.21	358	*e*P	Pb	08 45 18.0	-0.6
NCUH				*e*S	Sn	08 45 42.9	+2.8
NHDH	Xindian Distri	2.21	6	*e*P	Pn	08 45 15.4	+1.5
NHDH				*e*S	Sn	08 45 41.9	+1.8
TATO	Taipei	2.22	5		Pn	08 45 14.9	+0.9
TWA	Mucha	2.23	7	*e*P	Pn	08 45 15.6	+1.4
TWA				*e*S	Sn	08 45 41.2	+0.5
TIPB	Shuangxi	2.26	13	*e*P	Pn	08 45 15.2	+0.6
TIPB				*e*S	Sn	08 45 42.0	+0.5
JYNG	Yonagunijimaku	2.28	42	P	Pn	08 45 16.1	+1.3
JYNG				*e*S	Sn	08 45 43.3	+1.4
TAP	Taipei	2.28	5	*e*S	Sn	08 45 43.1	+1.1
YOJ	Yonaguni jima	2.33	43	P	Pn	08 45 17.2	+1.7
YOJ	Yonaguni jima	2.33	43	S	Sn	08 45 44.8	+1.7
YOJ	Yonaguni jima	2.33	43		Pn	08 45 16.9	+1.4
YOJ	Yonaguni jima	2.33	43	*e*P	Pn	08 45 17.2	+1.7
YOJ				*i* S	Sn	08 45 44.7	+1.6
YOJ	Yonaguni jima	2.33	43	P	Pn	08 45 16.6	+1.1
YOJ				S	Sn	08 45 44.6	+1.6
TWB1	Santiao Chiao	2.34	16	*e*P	Pn	08 45 17.7	+2.1
TWB1				*e*S	Sn	08 45 45.1	+1.8
TWS1	Kuangyinshan	2.34	3	*e*P	Pn	08 45 17.8	+2.2
WFSB	Wu-fen Shan	2.35	11	*e*P	Pn	08 45 16.5	+0.7
WFSB				*e*S	Sn	08 45 44.7	+1.1
SXI1	Grass Mountain	2.39	13	P	Pn	08 45 17.4	+0.9
SXI1				S	Sn	08 45 45.3	+0.5
YM01	YM01	2.40	6	*e*P	Pn	08 45 17.5	+1.0
YM01				*e*S	Sn	08 45 44.2	-0.6
NTST	Danshui	2.40	4	*e*S	Sn	08 45 46.3	+1.3
ZUZH	Zhuzihu	2.41	6	*e*P	Pn	08 45 17.0	+0.4
ZUZH				*e*S	Sn	08 45 44.1	-1.0
YM08	YM08	2.44	7	*e*P	Pn	08 45 16.9	-0.1
HATJ	Hateruma jima	2.66	60	P	Pn	08 45 21.1	+1.0
HATJ				*e*S	Sn	08 45 51.6	+0.3
IRIF	Iriomote-Funau	2.75	55	P	Pn	08 45 22.4	+1.2
IRIF				*e*S	Sn	08 45 54.3	+0.9
VWUC	VWUC	2.78	323	*i* P	Pn	08 45 22.2	+0.5
VWUC				*i* S	Sn	08 45 53.4	-1.0
JKRS	Kuro-shima	2.91	59	P	Pn	08 45 24.8	+1.3
JKRS				*e*S	Sn	08 45 58.5	+1.0
PTMZ	Houxiangcun	3.01	320	*i* P	Pn	08 45 25.3	+0.4
PTMZ				S	Sn	08 45 58.3	-1.6
JIJ	Ishigaki jima	3.08	58	P	Pn	08 45 26.5	+0.7
JIJ				*e*S	Sn	08 46 01.5	-0.2
KNM	Kinmen	3.09	303	*i* P	Pn	08 45 27.8	+1.8
KNM				S	Sn	08 46 02.8	+1.0
KNMB	Chin-men Tao	3.15	303		Pn	08 45 27.0	+0.2
KNMB	Chin-men Tao	3.15	303	*i* P	Pn	08 45 27.1	+0.3
KNMB				*i* S	Sn	08 46 01.8	-1.5
QZH2	Quanzhou	3.28	312	⇑*i*Pn	Pn	08 45 28.7	+0.1
QZH2				Sn	Sn	08 46 04.8	-1.8
QZH2				smax	smax		
	comp=N,190nm,0.9s						
QZH2				smax	smax		
	comp=E,280nm,0.8s						
QZH2				LR	LR		
	comp=N,2µm,4.7s						
QZH2				LR	LR		
	comp=E,910nm,6.4s						
QZH2				LR	LR		
	comp=Z,1µm,5.0s						
JISG	Ishigakijimahi	3.33	56	P	Pn	08 45 29.8	+0.5
JISG				*e*S	Sn	08 46 07.5	-0.2
ZPLA	Ao Xicun	3.44	291	*i* P	Pn	08 45 31.4	+0.5
ZPLA				S	Sn	08 46 09.2	-1.4
MATB	Ma-tsu	3.59	341	P	Pn	08 45 33.2	+0.3
JTJ	Tarama	3.66	58	P	Pn	08 45 34.7	+0.9
JTJ				*e*S	Sn	08 46 16.6	+0.7
DSXP	Dongshan	3.67	286	*e*P	Pn	08 45 34.5	+0.6
DSXP				S	Sn	08 46 14.2	-1.9
AXDP	Jialang	3.70	306	*i* P	Pn	08 45 34.6	+0.2
AXDP				*e*S	Sn	08 46 15.5	-1.6
MHZQ	Yeshan	3.91	329	P	Pn	08 45 37.4	+0.1
MHZQ				S	Sn	08 46 20.9	-1.2
LYJJ	Jianjiangzhen	4.02	340	P	Pn	08 45 39.6	+0.8
LYJJ				*e*S	Sn	08 46 23.9	-1.0
JIRJ	Irabujima	4.14	59	*e*P	Pn	08 45 41.2	+0.8
JIRJ				*e*S	Sn	08 46 28.1	+0.2
JMJ2	Miyako jima3	4.21	61	*e*P	Pn	08 45 42.5	+1.2
JMJ2				*e*S	Sn	08 46 29.4	0.0
JIKM	Ikemajima	4.23	59	*e*P	Pn	08 45 43.2	+1.6
XPSS	Dashiqiu	4.27	347	*e*P	Pn	08 45 43.1	+0.9
JOGS	Gusukube	4.28	61	*e*P	Pn	08 45 43.8	+1.4
JOGS				*e*S	Sn	08 46 31.4	+0.1
SXFK	Yanhouchang	4.91	318	*e*P	Pn	08 45 50.9	-0.1
SXFK				*e*S	Sn	08 46 45.0	-1.8
JKE	Kume jima 2	6.15	54	*e*P	Pn	08 46 06.7	-1.3
HKPS	Hong Kong Po S	6.61	267		Pn	08 46 15.5	+1.1
JOW	Kunigami	7.54	56	P	Pn	08 46 27.1	-0.1
	comp=Z,3.1nm,0.3s,baz=186,slow=18,SNR=1.1						
	comp=Z,18nm,0.4s						
JOW				AML	AML		
JNU	Nakatsue	13.36	37	LR	LR	08 52 37.6	
	comp=Z,126nm,19.8s,baz=214,slow=36						
KSRS	Korea Array	15.73	20	P	Pn	08 48 20.1	+1.5
	comp=Z,0.2nm,0.3s,baz=201,slow=12,SNR=5.0						
KSRS				LR	LR	08 55 48.3	
	comp=Z,105nm,18.0s,baz=195,slow=42						
	comp=Z,0.8nm,0.4s						
KSRS				AML	AML		
SLVN	Son La	16.17	268		P	08 48 27.8	+0.4
MJAR	Matsushiro Arr	20.09	43	P	P	08 49 11.3	+0.9
	comp=Z,4.0nm,0.8s,baz=233,slow=8.2,SNR=13						
MJAR				LR	LR	08 57 05.8	
	comp=Z,76nm,20.1s,baz=234,slow=37						
	comp=Z,4.0nm,0.8s						
MJAR	Matsushiro Arr	20.09	43		Pn	08 49 13.2	+0.8
LZDM	Lanzhou Array	20.15	315	P	Pn	08 49 13.0	-0.4
	comp=Z,5.7nm,0.6s,baz=138,slow=16,SNR=5.0						
	comp=Z,5.7nm,0.6s						
CMAR	Chiang Mai Arr	21.33	263	P	P	08 49 25.2	+1.3
	comp=Z,1.9nm,0.3s,baz=64,slow=8.4,SNR=5.9						
CMAR				LR	LR	08 59 09.2	
	comp=Z,80nm,19.5s,baz=75,slow=40						
	comp=Z,1.9nm,0.3s						
GUMO	Guam	24.17	108	LR	LR	08 58 35.4	
	comp=Z,26nm,20.1s,baz=206,slow=35						
ASAJ	Asahikawa	27.61	34	LR	LR	09 00 56.2	
	comp=Z,43nm,20.7s,baz=220,slow=35						
KLR	Kul'dur	27.69	15	LR	LR	09 02 35.2	
	comp=Z,145nm,19.3s,baz=188,slow=39						
SONM	Songino Array	27.72	338	P	P	08 50 24.9	-0.1
	comp=Z,1.2nm,0.5s,baz=155,slow=10,SNR=4.9						
SONM				LR	LR	09 02 50.6	
	comp=Z,97nm,18.4s,baz=111,slow=39						
	comp=Z,1.2nm,0.5s						
TLY	Talaya	31.93	339	LR	LR	09 04 34.6	
	comp=Z,67nm,19.3s,baz=142,slow=37						
MKAR	Makanchi Array	39.43	317	P	P	08 52 07.8	+1.3
	comp=Z,3.4nm,0.8s,baz=112,slow=9.7,SNR=29						
MKAR				PcP	PcP	08 54 13.2	-1.0
	comp=Z,1.0nm,0.8s,baz=108,slow=4.0,SNR=5.5						
	comp=Z,3.4nm,0.8s						
MKAR	Makanchi Array	39.43	317		P	08 52 07.1	+0.6
MAKZ	Makanchi	39.63	317		P	08 52 09.1	+0.9
MAKZ				IAmb	IAmb	08 52 10.3	
	comp=Z,4.6nm,0.8s						
YAK	Yakutsk	39.67	6	LR	LR	09 09 47.0	
	comp=Z,59nm,19.7s,baz=182,slow=38						
ZAA0	Zalesovo Array	41.49	328	P	P	08 52 22.9	-0.5
ZAA0				IAmb	IAmb	08 52 24.2	
	comp=Z,4.4nm,0.9s						
ZALV	Zalesovo Beam	41.49	328	P	P	08 52 23.2	-0.2
	comp=Z,2.6nm,0.3s,baz=122,slow=7.7,SNR=9.1						
ZALV				PcP	PcP	08 54 19.2	-1.4
	comp=Z,1.8nm,0.6s,baz=107,slow=6.5,SNR=4.5						
	comp=Z,2.6nm,0.3s						
ZALV	Zalesovo Beam	41.49	328	P	P	08 52 23.7	+0.3
KSH2	Kashi	42.01	304	P	P	08 52 30.1	+2.0
MA2	Magadan	42.27	22	LR	LR	09 11 22.1	
	comp=Z,61nm,18.4s,baz=214,slow=38						
H11N1	WAKE ISLAND Hy	42.50	85	T	T	09 37 46.9	
	baz=282,slow=75,SNR=172						
H11N2	WAKE ISLAND Hy	42.50	85	T	T	09 37 47.0	
	baz=282,slow=75,SNR=306						
H11N3	WAKE ISLAND Hy	42.52	85	T	T	09 37 48.2	
	baz=282,slow=75,SNR=214						
H11S3	WAKE ISLAND Hy	42.59	87	T	T	09 37 55.6	
	baz=284,slow=75,SNR=349						
H11S1	WAKE ISLAND Hy	42.60	87	T	T	09 37 55.6	
	baz=284,slow=75,SNR=300						
H11S2	WAKE ISLAND Hy	42.61	87	T	T	09 37 56.8	
	baz=284,slow=75,SNR=285						
KURK	Kurchatov	43.24	321	P	P	08 52 38.1	+0.5
KURK	Kurchatov	43.24	321		PcP	08 54 25.3	-1.2

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KURBB Kurchatov Arra    43.26 321  P      P        08 52 38.2 +0.4
      comp=Z,2.2nm,0.8s,baz=115,slow=7.3,SNR=16
KURBB                              PcP    PcP      08 54 25.3 -1.3
      comp=Z,0.6nm,0.5s,baz=109,slow=3.1,SNR=4.9
      comp=Z,2.2nm,0.8s
WB0   Warramunga Arr    44.16 162  P      P        08 52 44.3 -1.1
WB0                                IAmb   IAmb     08 53 27.7
      comp=Z,4.9nm,1.2s
WRAB  Tennant Creek     44.31 162  P      P        08 52 46.2 -0.4
WRAB                               IAmb   IAmb     08 52 47.8
      comp=Z,10.0nm,1.4s
WRA   Warramunga Arr    44.31 162  P      P        08 52 45.1 -1.5
      comp=Z,94nm,0.8s,baz=343,slow=8.0,SNR=2.1
WR8   Warramunga Arr    44.37 162  P      P        08 52 44.7 -2.4
WR8                                IAmb   IAmb     08 52 55.9
      comp=Z,7.7nm,1.3s
AS31  Alice Springs     47.75 164  P      P        08 53 13.7  0.0
ASAR  Alice Springs     47.75 164  P      P        08 53 12.5 -1.2
      comp=Z,0.3nm,0.4s,baz=343,slow=6.8,SNR=12
ASAR                               PcP    PcP      08 54 41.3 -1.3
      comp=Z,0.3nm,0.6s,baz=333,slow=3.3,SNR=1.7
      comp=Z,0.3nm,0.4s
BVAR  Borovoye Array    48.83 321  P      P        08 53 22.4 +0.7
      comp=Z,1.4nm,0.5s,baz=102,slow=8.5,SNR=7.0
      comp=Z,1.4nm,0.5s
AB31  Akbulak array     54.50 315  P      P        08 54 05.2 +1.1
AB31                               IAmb   IAmb     08 54 05.4
      comp=Z,1.9nm,0.8s
ABKAR Akbulak array     54.50 315  P      P        08 54 05.1 +1.0
ARTI  Arti              56.39 324         P        08 54 17.4 -0.2
STKA  Stephens Creek    57.70 160  P      P        08 54 26.3 -0.8
      comp=Z,2.9nm,0.9s,baz=330,slow=6.5,SNR=4.2
      comp=Z,2.9nm,0.9s
KBZ   Khabaz            66.44 309  P      P        08 55 25.5 -0.2
      comp=Z,1.7nm,0.7s,baz=83,slow=2.7,SNR=3.8
      comp=Z,1.7nm,0.7s
E21K  Killik River      67.14  24  P      P        08 55 30.5 +0.7
J20K  Nowinta River     67.42  28  P      P        08 55 32.1 +0.5
J20K                               IAmb   IAmb     08 55 33.6
      comp=Z,3.0nm,0.9s
CAST  Castle Rocks      68.42  29  P      P        08 55 38.3 +0.3
CAST                               IAmb   IAmb     08 56 18.9
      comp=Z,4.9nm,1.5s
KDAK  Kodiak Island     69.02  35  P      P        08 55 41.5 -0.3
F24K  Squaw Lake        69.52  24  P      P        08 55 45.2 +0.4
F24K                               IAmb   IAmb     08 56 13.6
      comp=Z,2.9nm,1.0s
F25K  Christian Rive    70.36  24  P      P        08 55 50.9 +1.0
F25K                               IAmb   IAmb     08 55 53.7
      comp=Z,4.7nm,1.4s
ILAR  Eielson Array     70.44  27  P      P        08 55 48.4 -2.0
      comp=Z,0.3nm,0.6s,baz=289,slow=6.3,SNR=7.2
      comp=Z,0.3nm,0.6s
BMAR  Burnt Mountain    70.79  24  P      P        08 55 53.0 +0.4
G26K  Porcupine Rive    71.20  24  P      P        08 55 55.6 +0.7
FINES FINESS Array B    72.72 330  P      P        08 56 03.9 -0.3
      comp=Z,2.8nm,0.8s,baz=46,slow=5.5,SNR=6.8
      comp=Z,2.8nm,0.8s
FINES FINESS Array B    72.72 330  P      P        08 56 04.2 +0.1
BRTR  Keskin Array B    74.09 307  P      P        08 56 12.9 +0.1
      comp=Z,0.6nm,0.6s,baz=105,slow=5.1,SNR=2.6
      comp=Z,0.6nm,0.6s
HFS   Hagfors           78.85 331  P      P        08 56 38.5 -0.7
      comp=Z,2.9nm,0.8s,baz=45,slow=0.8,SNR=3.7
      comp=Z,2.9nm,0.8s
NB2   NORSAR Subarra    79.52 332  P      P        08 56 41.9 -1.0
      comp=Z,0.7nm,0.5s,baz=64,slow=5.1
NOA   NORSAR Array B    79.52 332  P      P        08 56 41.9 -1.0
      comp=Z,1.7nm,0.7s,baz=61,slow=5.5,SNR=6.0
NOA                                LR     LR       09 35 17.8
      comp=Z,30nm,18.6s,baz=235,slow=38
      comp=Z,1.7nm,0.7s
GERES GERESS Array B    84.00 321  P      P        08 57 06.4 -0.5
      comp=Z,0.2nm,0.3s,baz=42,slow=6.3,SNR=2.1
      comp=Z,0.2nm,0.3s
EKA   Eskdalemuir Ar    89.00 332  LR     LR       09 40 34.3
      comp=Z,32nm,18.5s,baz=198,slow=38
GO04  Tololo Observa   166.91 127  eP     PKPab    09 05 46.0 -0.2
AC02  Maricunga        169.71 115  eP     PKPab    09 05 51.1 -8.0
AC02                               IAML            09 06 25.9
      comp=N,35nm,0.2s
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*IDC **02** 08:54:44.0±3.5, 53°.56N×87°.68E, h0^{km}, mbtmp2.7/2, ML2.4/2, Error ellipse: s-maj=27.4km s-min=20.3km az=64.0*

ASRS 02 08:54:42.0±1.0**, 53°.56N×87°.68E, h0^{km}, M2.7**(MOS)**, The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Southwestern Siberia**

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Code  Station Name        Δ°  AZ°    Phase ID         Time      Res
                                   Op     ISC       h  m  s    ISC
I46RU ZALESOVO INFRA   1.74 284    I      I         09 06 40.0
      baz=101,slow=324,SNR=5.3
ZALV  Zalesovo Beam    1.74 284    Pg     Pg        08 55 15.8 +0.4
      0.7nm,0.3s,baz=102,slow=16,SNR=8.9
ZALV                               Lg     Lg        08 55 40.0
      2.2nm,0.3s,baz=104,slow=22,SNR=8.5
KURBB Kurchatov Arra   6.36 246    Pn     Pn        08 56 19.9 +3.0
      baz=64,slow=14,SNR=3.4
KURBB                              Lg     Lg        08 58 05.3
      baz=60,slow=30,SNR=6.4
      0.3nm,0.5s
MKAR  Makanchi Array   7.60 209    Pn     Pn        08 56 37.3 +3.3
      0.1nm,0.3s,baz=28,slow=13,SNR=4.1
      0.3nm,0.5s
MKAR                               AML    AML
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*SOME **02** 08:57:45.7, 49°.83N×82°.08E*

*ASRS **02** 08:57:47.0±1.9, 49°.66N×81°.68E, h0^{km}, M2.3(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

*IDC **02** 08:57:50.0±1.2, 49°.71N×81°.65E, h0^{km}, mbtmp2.4/3, ML1.9/3, Error ellipse: s-maj=14.6km s-min=9.4km az=77.0*

*NNC **02** 08:57:51.2±1.3, 49°.62N×81°.96E, h19^{km}±15^{km}, mb3.0, mpv2.6, Error ellipse: s-maj=12.0km s-min=9.2km az=123.0, Suspected Mining explosion.*

ISC 02 08:57:43.9±1.3**, 49°.88N**±0°.05×**82°.21E**±0°.07**, h0^{km}, n8, σ0^{s}.49**/12**, 4C-3D, Eastern Kazakhstan**

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Code  Station Name        Δ°  AZ°    Phase ID         Time      Res
                                   Op     ISC       h  m  s    ISC
KURK  Kurchatov        2.45 291  ⇑Pn     Pb        08 58 29.4 +0.6
      3.7nm,0.8s
KURK                             ⇑Sn     Sb        08 58 59.4 -0.1
      6.2nm,0.9s
KURBB Kurchatov Arra   2.48 289   Pn     Pb        08 58 29.4 +0.1
      0.2nm,0.3s,baz=112,slow=19,SNR=29
KURBB                             Sn     Sn        08 58 56.4  0.0
      0.3nm,0.3s,baz=111,slow=31,SNR=9.2
KURBB                             Lg     Lg        08 59 00.5
      0.4nm,0.3s,baz=114,slow=30,SNR=16
      1.9nm,0.4s
KURBB                             AML    AML
KURBB Kurchatov Arra   2.48 289  ⇑Pn     Pb        08 58 29.9 +0.6
      10nm,0.8s
KURBB                            ⇓Sn     Sb        08 58 59.4 -0.9
      28nm,0.7s
MAKZ  Makanchi         3.08 183  ⇓Pg     Pg        08 58 42.6 -0.4
      0.8nm,0.5s
MAKZ                             ⇓Lg     Lg        08 59 20.1
      4.4nm,0.9s
MK31  Makanchi Array   3.09 179  ⇑Pg     Pg        08 58 43.0 -0.2
      0.3nm,0.4s,baz=357,slow=16,SNR=10
MK31                              Lg     Lg        08 59 22.7
      2.3nm,0.6s,baz=356,slow=26,SNR=14
MKAR  Makanchi Array   3.09 179   Pn     Pb        08 58 40.3 +0.5
      0.5nm,0.3s,baz=353,slow=15,SNR=14
MKAR                              Pg     Pg        08 58 43.4 +0.2
      0.5nm,0.3s,baz=353,slow=15,SNR=11
MKAR                              Sn     Sb        08 59 17.7 -0.4
      0.1nm,0.3s,baz=355,slow=16,SNR=1.8
MKAR                              Lg     Lg        08 59 20.5
      0.8nm,0.3s,baz=355,slow=26,SNR=21
      0.8nm,0.4s
MKAR                              AML    AML
I46RU ZALESOVO INFRA   4.38  21   I      I         09 29 40.0
      baz=207,slow=316,SNR=2.4
ZALV  Zalesovo Beam    4.38  21   Pn     Pb        08 59 01.9 +0.2
      0.1nm,0.3s,baz=211,slow=16,SNR=1.3
ZALV                              Lg     Lg        09 00 19.3
      0.4nm,0.3s,baz=204,slow=35,SNR=8.1
      0.4nm,0.3s
ZALV                              AML    AML
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*ASRS **02** 09:00:23.0±1.8, 49°.70N×81°.63E, h0^{km}, M2.5(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

*IDC **02** 09:00:27.6±1.2, 49°.75N×81°.59E, h0^{km}, mbtmp2.5/3, ML2.0/3, Error ellipse: s-maj=14.7km s-min=9.8km az=76.0*

*NNC **02** 09:00:28.3±2.6, 49°.91N×81°.96E, h0^{km}, mb2.9, mpv2.5, Error ellipse: s-maj=34.6km s-min=9.6km az=46.0, Suspected Mining explosion.*

ISC 02 09:00:22.4±1.2**, 49°.85N**±0°.05×**82°.17E**±0°.07**, h0^{km}, n8, σ0^{s}.82**/12**, 6C-2D, Eastern Kazakhstan**

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Code  Station Name        Δ°  AZ°    Phase ID         Time      Res
                                   Op     ISC       h  m  s    ISC
KURK  Kurchatov        2.44 292  ⇓Pn     Pb        09 01 07.1 +0.1
      2.5nm,0.8s
KURK                             ⇑Sn     Sb        09 01 37.0 -0.5
      6.0nm,0.7s
KURBB Kurchatov Arra   2.46 290   Pn     Pn        09 01 05.3 +1.6
      0.4nm,0.3s,baz=111,slow=18,SNR=12
KURBB                             Sn     Sn        09 01 33.9 -0.6
      0.3nm,0.3s,baz=116,slow=32,SNR=3.4
KURBB                             Lg     Lg        09 01 36.5
      0.7nm,0.3s,baz=109,slow=32,SNR=6.2
      1.9nm,0.3s
KURBB                             AML    AML
KURBB Kurchatov Arra   2.46 290  ⇑Pn     Pb        09 01 07.3 -0.2
      6.0nm,0.7s
KURBB                            ⇑Sn     Sb        09 01 37.8 -0.5
      11nm,0.4s
MAKZ  Makanchi         3.04 182  ⇑Pn     Pg        09 01 19.4 -1.3
      0.6nm,0.3s
MAKZ                             ⇓Lg     Lg        09 02 03.8
      6.4nm,0.9s
MK31  Makanchi Array   3.06 178  ⇑Pn     Pg        09 01 20.4 -0.5
      0.4nm,0.5s,baz=356,slow=16,SNR=6.2
MK31                             ⇑Lg     Lg        09 02 03.6
      0.9nm,0.4s,baz=360,slow=28,SNR=6.6
MKAR  Makanchi Array   3.06 178   Pn     Pb        09 01 18.1 +0.5
      0.6nm,0.3s,baz=355,slow=15,SNR=6.7
MKAR                              Pg     Pg        09 01 21.0 +0.1
      0.6nm,0.3s,baz=354,slow=15,SNR=6.4
MKAR                              Sn     Sb        09 01 54.9 -0.6
      0.8nm,0.3s,baz=353,slow=25,SNR=4.1
MKAR                              Lg     Lg        09 02 01.9
      1.3nm,0.3s,baz=355,slow=29,SNR=7.2
      0.9nm,0.3s
MKAR                              AML    AML
I46RU ZALESOVO INFRA   4.42  21   I      I         09 32 00.0
      baz=207,slow=313,SNR=4.6
ZALV  Zalesovo Beam    4.42  21   Pn     Pb        09 01 40.7 -0.2
      0.1nm,0.3s,baz=212,slow=13,SNR=1.1
ZALV                              Lg     Lg        09 02 55.3
      0.3nm,0.3s,baz=204,slow=31,SNR=6.8
      0.5nm,0.3s
ZALV                              AML    AML
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*IDC **02** 09:03:03.4±0.7, 14°.96S×176°.73W, h0^{km}, mb4.4/8, mbtmp4.4/9, ML3.4/1, Error ellipse: s-maj=34.2km s-min=19.2km az=140.0*

*GFZ **02** 09:03:05.6±0.4, 15°S±12°×17°7W±°, h10^{km}, M4.5/10, mb4.5/10, confirmed*

*NEIC **02** 09:03:06.3±1.3, 14°.6S±0°.1×177°.03W±0°.07, h10^{km}±1^{km}, mb4.8/37, Error ellipse: s-maj=20.7km s-min=9.8km az=203.0*

*GCMT **02** 09:03:10.3±0.3, 14°.89S±0°.02×176°.47W±0°.02, h12^{km}, MW4.9/116, Moment Tensor Solution. s44,c53; s116,c169; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-2.88±.06; $M_{\theta\theta}$2.33±.07; $M_{\phi\phi}$0.54±.06; $M_{r\theta}$-0.24±.21; $M_{\theta\phi}$0.86±.06; $M_{\phi r}$-0.38±.24; Best double couple: $M_0$2.81400×10^{16} NP1:ϕ_s253.00000°,δ41.00000°, λ-83.00000°. NP2:ϕ_s63.00000°,δ49.00000°,λ-96.00000°. Principal axes: T 2.7010, Plg4.0000°, Azm158.0000°; N 0.2190, Plg5.0000°, Azm67.0000°; P -2.9270, Plg84.0000°, Azm285.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 02 09:03:05.7±0.5**, 14°.71S**±0°.09×**176°.97W**±0°.07**, h10^{km}, n113, σ0^{s}.99**/99**, mb4.7**/39**, 1D, Fiji Islands region**

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Code  Station Name        Δ°  AZ°    Phase ID         Time      Res
                                   Op     ISC       h  m  s    ISC
FUTU  Fugatoga          1.18 289          Pn       09 03 28.1 -0.2
FUTU                               Sn     Sg       09 03 41.4 -2.4
FUTU  Fugatoga          1.18 289   P      Pn       09 03 29.1 +0.8
MSVF  Nonsavu           5.65 237   Pn     Pn       09 04 32.8 +2.9
      0.8nm,0.3s,baz=88,slow=15,SNR=3.8
DZM   Mont Dzumac      17.35 243   P      P        09 07 10.4 +0.8
      0.1nm,0.3s,baz=8.3,slow=6.0,SNR=3.8
      4.2nm,0.9s
DZM                                AML    AML
PPT2  Papeete2         26.46 100  eLR     LR       09 15 08.4
      553nm,26.5s
PPT2                              eLR     LR       09 15 15.8
      394nm,27.2s
H11S2 WAKE ISLAND Hy   36.70 333   T      T        09 49 29.4
      baz=153
H11S3 WAKE ISLAND Hy   36.71 333   T      T        09 49 29.3
      baz=153
H11S1 WAKE ISLAND Hy   36.72 333   T      T        09 49 30.2
      baz=153
H11N3 WAKE ISLAND Hy   37.71 335   T      T        09 50 55.9
      baz=157
H11N1 WAKE ISLAND Hy   37.71 335   T      T        09 50 45.1
      baz=157
H11N2 WAKE ISLAND Hy   37.72 335   T      T        09 50 49.9
      baz=157
CMSA  Cobar Meteorol   37.98 237   P      P        09 10 22.6 -1.3
TOO   Toolangi         40.28 228   P      P        09 10 43.4 +0.2
WR8   Warramunga Arr   46.50 256   P      P        09 11 33.3 -0.3
WR8                                IAmb   IAmb     09 11 35.2
      comp=Z,7.8nm,1.1s
WRAB  Tennant Creek    46.64 256   P      P        09 11 35.3 +0.6
WRAB                               IAmb   IAmb     09 11 47.4
      comp=Z,14nm,1.4s
WRAB  Tennant Creek    46.64 256   P      P        09 11 35.0 +0.3
      comp=Z,7.7nm,1.7s
WRA   Warramunga Arr   46.65 256   P      P        09 11 35.1 +0.3
      comp=Z,52nm,0.6s,baz=92,slow=7.7,SNR=1.6
WRA   Warramunga Arr   46.65 256   P      P        09 11 34.0 -0.8
AS31  Alice Springs    47.05 251          P        09 11 38.0  0.0
ASAR  Alice Springs    47.05 251   P      P        09 11 37.9 -0.1
      comp=Z,6.6nm,0.7s,baz=84,slow=8.2,SNR=80
ASAR                               PcP    PcP      09 13 09.4 -0.6
      comp=Z,0.9nm,0.9s,baz=100,slow=4.9,SNR=2.9
      comp=Z,6.6nm,0.7s
DPSS  Saipan           47.34 307   P      P        09 11 39.1 -1.0
KNRA  Kununurra        52.26 261   P      P        09 12 17.9 +0.2
FITZ  Fitzroy Crossi   54.98 258   P      P        09 12 38.1 +0.6
FITZ  Fitzroy Crossi   54.98 258   P      P        09 12 39.7 +2.1
      comp=Z,2.7nm,1.9s
SOEI  Soe              57.51 268   P      P        09 12 55.6 -0.3
PETK  Petropavlovsk-   70.97 344   P      P        09 14 23.9 +0.6
      comp=Z,2.0nm,0.7s,baz=132,slow=2.1,SNR=2.1
      comp=Z,2.0nm,0.7s
QSPA  South Pole Qui   75.33 180   P      P        09 14 47.2 -2.0
      comp=Z,7.0nm,1.0s,baz=11,slow=2.5,SNR=12
      comp=Z,7.0nm,1.0s
QSPA  South Pole Qui   75.33 180   P      P        09 14 47.7 -1.5
NVAR  Mina Array Bea   76.17  44   P      P        09 14 54.2 -0.3
      comp=Z,7.7nm,1.0s,baz=230,slow=9.2,SNR=37
      comp=Z,7.7nm,1.0s
TPH   Tonopah          76.71  44   P      P        09 14 57.0 -0.5
TPH                                IAmb   IAmb     09 14 58.4
      comp=Z,17nm,1.2s
WVOR  Wild Horse Val   78.08  40   P      P        09 15 04.7 -0.3
      comp=Z,6.9nm,1.2s
STD   Studebaker Rid   78.11  35   P      P        09 15 06.0 +0.9
STD                                IAmb   IAmb     09 15 06.4
      comp=Z,12nm,1.1s
GNW   Green Mountain   78.57  34          P        09 15 07.5 +0.1
GNW                                IAmb   IAmb     09 15 08.4
      comp=Z,9.1nm,1.2s
TUC   Tucson           78.66  52   P      P        09 15 08.9 +0.5
      comp=Z,8.6nm,2.2s
PSUT  Pine Spring      79.24  45          P        09 15 10.9 -0.8
ELK   Elko             79.39  43          P        09 15 11.5 -0.9
J18K  Innoko River     79.49   9   P      P        09 15 12.7 +0.5
J18K                               IAmb   IAmb     09 15 14.5
      comp=Z,11nm,0.9s
J19K  Poorman          80.16   9   P      P        09 15 16.1 +0.3
J19K                               IAmb   IAmb     09 15 18.4
      comp=Z,14nm,1.4s
J20K  Nowinta River    80.57  10          P        09 15 18.5 +0.6
J20K                               IAmb   IAmb     09 15 20.1
      comp=Z,21nm,1.4s
BARN  Barnard Glacie   80.58  17   P      P        09 15 18.6 +0.3
BARN                               IAmb   IAmb     09 15 42.5
      comp=Z,14nm,1.2s
DUG   Dugway, Tooele   80.74  44          P        09 15 19.0 -0.6
DUG   Dugway, Tooele   80.74  44   P      P        09 15 19.6  0.0
      comp=Z,6.0nm,1.2s
121A  Cookes Peak, D   81.06  53          P        09 15 21.4 -0.2
HLID  Hailey           81.32  41          P        09 15 22.5 -0.2
HLID                               IAmb   IAmb     09 15 23.8
      comp=Z,8.2nm,1.1s
HLID  Hailey           81.32  41   P      P        09 15 22.9 +0.2
      comp=Z,10.0nm,1.7s
M27K  Edge Creek, AK   81.60  16   P      P        09 15 23.9 +0.3
SRU   San Rafael Swe   81.82  46   P      P        09 15 25.1 -0.3
SRU                                IAmb   IAmb     09 15 26.0
      comp=Z,8.8nm,1.3s
G19K  Purcell Mounta   81.97   8          P        09 15 26.3 +0.9
G19K                               IAmb   IAmb     09 15 28.6
      comp=Z,15nm,1.4s
TCUT  Toone Canyon     82.11  44   P      P        09 15 26.4 -0.6
NEW   Newport          82.12  36   P      P        09 15 25.3 -1.3
      comp=Z,4.8nm,2.9s
HWUT  Hardware Ranch   82.23  43   P      P        09 15 26.2 -1.4
      comp=Z,5.3nm,1.2s
IMAR  Indian Mountai   82.31   9   P      P        09 15 27.5 +0.4
COLA  College          82.37  12   P      P        09 15 27.8 +0.4
COLA  College          82.37  12   P      P        09 15 27.9 +0.4
      comp=Z,13nm,1.3s
ILAR  Eielson Array    82.48  13   P      P        09 15 27.7 -0.3
      comp=Z,2.5nm,1.0s,baz=223,slow=6.3,SNR=19
      comp=Z,2.5nm,1.0s
ILAR  Eielson Array    82.48  13          P        09 15 27.9 -0.2
MNTX  Cornudas Mount   82.61  55   P      P        09 15 29.3 -0.2
      comp=Z,4.3nm,1.2s
MCMT  McKenzie Canyo   82.92  40   P      P        09 15 30.8 -0.4
F20K  Avaraart Lake    83.01   8          P        09 15 31.5 +0.8
F20K                               IAmb   IAmb     09 15 33.0
      comp=Z,11nm,1.2s
ANMO  Albuquerque      83.03  51   P      P        09 15 31.3 -0.5
ANMO                               IAmb   IAmb     09 15 33.1
      comp=Z,6.3nm,1.2s
ANMO  Albuquerque      83.03  51   P      P        09 15 31.4 -0.5
      comp=Z,5.2nm,1.2s
AHID  Auburn Hatcher   83.07  43   P      P        09 15 32.0 +0.1
      comp=Z,7.6nm,2.1s
TXAR  Lajitas Array    83.12  57   P      P        09 15 31.8 -0.5
      comp=Z,3.3nm,1.2s,baz=254,slow=4.7,SNR=15
      comp=Z,3.3nm,1.2s
TXAR  Lajitas Array    83.12  57          P        09 15 32.3  0.0
LDM   Libby Dam        83.25  36          P        09 15 32.2 -0.3
LDM                                IAmb   IAmb     09 15 33.2
      comp=Z,12nm,1.1s
I26K  Coal Creek Min   83.75  14   P      P        09 15 35.3 +0.6
PD31  Pinedale Array   84.09  43   P      P        09 15 36.3 -0.9
PD31                               IAmb   IAmb     09 15 37.4
      comp=Z,5.8nm,1.1s
PDAR  Pinedale Array   84.09  43   P      P        09 15 36.5 -0.7
      comp=Z,2.9nm,0.9s,baz=216,slow=3.2,SNR=23
      comp=Z,2.9nm,0.9s
E22K  Anaktuvuk Pass   84.60   9   P      P        09 15 40.0 +1.1
HHC   Hu-ho-hao-te     86.05 314  eP      P        09 15 46.0 -0.9
HHC                                pmax   pmax
      comp=Z,10.0nm,0.5s
HHC                                pmax   pmax
      comp=Z,200nm,5.6s
H03S2 Juan Fernandez   88.45 124   T      T        10 53 21.3
      baz=250
H03S1 Juan Fernandez   88.46 124   T      T        10 53 22.6
      baz=250
H03S3 Juan Fernandez   88.46 124   T      T        10 53 23.2
      baz=250
PZH   PanZhiHua        88.89 298   P      P        09 16 03.6 +2.7
PZH                                pmax   pmax
      comp=Z,20nm,1.0s
LZH   Lanzhou          90.05 307  eP      P        09 16 08.7 +2.5
LZH                                sP     pwP      09 16 16.3 +5.1
LZH                                pmax   pmax
      comp=Z,24nm,0.9s
SONM  Songino Array    92.05 319   P      P        09 16 16.7 +1.5
      comp=Z,0.9nm,0.7s,baz=119,slow=5.1,SNR=2.4
      comp=Z,0.9nm,0.7s
SONM  Songino Array    92.05 319   P      P        09 16 14.9 -0.3
ELIB  Princess Elisa   92.48 186  dP      P        09 16 13.6 -3.2
      comp=Z,3.6nm,0.9s
TROLL Troll, Antarti   93.49 180   P      P        09 16 19.0 -2.5
      comp=Z,62nm,0.8s
VNA3  Neumayer Olymp   93.82 176   P      P        09 16 21.6 -1.3
      comp=Z,3.5nm,0.9s
VNA2  Neumayer--Watz   94.28 177   P      P        09 16 24.9 -0.1
      comp=Z,3.4nm,0.6s
EKA   Eskdalemuir Ar  139.18   5   PKP    PKPdf    09 22 33.1 +0.3
      comp=Z,1.7nm,0.8s,baz=348,slow=3.0,SNR=2.0
CLL   Collm           142.62 350   L      L        10 10 00.0
CLL                                AMS    AMS      10 25 00.0
      comp=Z,100nm,24.9s
STEB  Steborice       142.87 344  ePKP    PKiKP    09 22 42.3 -0.4
MAUC  Maruska         143.37 344  ePKP    PKiKP    09 22 44.3 +0.5
BRTR  Keskin Array B  143.41 319   PKP    PKPbc    09 22 39.0 +0.9
      comp=Z,7.2nm,0.9s,baz=113,slow=1.9,SNR=35
MLR   Muntele Rosu    143.73 332   PKP    PKPbc    09 22 39.8 +1.0
      comp=Z,2.8nm,0.7s,baz=345,slow=8.0,SNR=6.0
ZVC   Zvikov          144.18 348  ePKP    PKPbc    09 22 40.4 +0.5
MODS  Modra-Piesok    144.43 344  ePKP    PKPdf    09 22 42.1 -0.3
ASF   Jabal al Asfar  144.59 305   PKP    PKPbc    09 22 42.6 +0.7
      comp=Z,1.0nm,0.5s,baz=97,slow=3.4,SNR=4.1
KHC   Kasperske Hory  144.59 348  ePKP    PKPbc    09 22 42.1 +0.8
GERES GERESS Array B  144.84 348   PKPbc  PKPab    09 22 42.4 +0.3
      comp=Z,1.6nm,0.7s,baz=29,slow=3.0,SNR=13
WINA  Alland / Wiene  144.99 345  ePKP    PKPdf    09 22 43.9 +0.5
      comp=Z,12nm,1.1s
CONA  Conrad Observa  145.21 345  ePKP    PKPdf    09 22 44.1 +0.3
      comp=Z,17nm,1.4s
RONA  Rosalia, Austr  145.31 344  ePKP    PKPbc    09 22 44.0 +0.3
      comp=Z,16nm,1.4s
MMAI  Mount Meron Ar  145.43 308   PKPbc  PKPdf    09 22 45.3 +0.7
      comp=Z,1.6nm,0.3s,baz=34,slow=10,SNR=1.8
MOA   Molln           145.66 347  ePKP    PKPdf    09 22 44.0 -0.5
      comp=Z,15nm,1.7s
BIOA  Bad Ischl, Aus  145.95 347  ePKP    PKPdf    09 22 44.8 -0.2
      comp=Z,2.0nm,0.4s
SESA  Seetaler Alpe,  146.29 346  ePKP    PKPbc    09 22 47.2 +0.3
      comp=Z,19nm,0.8s
LESA  Schwarzleotal   146.41 348  ePKP    PKPab    09 22 48.0  0.0
      comp=Z,5.7nm,0.9s
SOKA  Soboth          146.58 345  ePKP    PKPdf    09 22 47.4 +1.2
      comp=Z,11nm,1.3s
KBA   Koelnbreinsper  146.60 347  ePKP    PKPbc    09 22 47.7 -0.1
      comp=Z,3.7nm,0.8s
RETA  Reutte          146.69 350  ePKP    PKPbc    09 22 48.4 +0.4
      comp=Z,7.0nm,0.8s
WATA  Walderalm       146.70 349  ePKP    PKPbc    09 22 48.0 -0.1
      comp=Z,6.2nm,1.1s
WTTA  Wattenberg      146.76 349  ePKP    PKPbc    09 22 48.4 +0.1
      comp=Z,5.8nm,0.7s
MOTA  Moosalm         146.77 350  ePKP    PKPbc    09 22 48.4 +0.1
      comp=Z,8.9nm,1.4s
SQTA  Sankt Quirin    146.87 350  ePKP    PKPbc    09 22 48.5 -0.1
      comp=Z,5.7nm,1.1s
MYKA  Terra Mystica   146.96 347  ePKP    PKPdf    09 22 48.1 +1.3
      comp=Z,6.3nm,0.9s
DAVA  Damuels         147.02 351  ePKP    PKPbc    09 22 49.2 +0.2
      comp=Z,10nm,1.2s
ABTA  Abfaltersbach   147.09 348  ePKP    PKPbc    09 22 49.1 -0.1
      comp=Z,4.6nm,0.7s
FETA  Feichten        147.15 350  ePKP    PKPdf    09 22 48.4 +1.2
      comp=Z,3.2nm,0.8s
DAVOX Davos/Dischmat  147.51 351   PKPbc  PKPbc    09 22 51.0 +0.5
      comp=Z,6.1nm,0.7s,baz=343,slow=6.1,SNR=8.4
TORD  Torodi Ar. Bea  177.98 140   PKP    PKPdf    09 23 14.9 -2.6
      comp=Z,1.5nm,1.1s,baz=172,slow=4.1,SNR=5.0
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*IDC **02** 09:07:13.1±1.6, 42°.14N×143°.17E, h0^{km}, mb3.8/8, mbtmp3.8/10, ML2.6/2, Error ellipse: s-maj=37.7km s-min=23.0km az=87.0*

*NIED **02** 09:07:23.1, 41°.99N×142°.52E, h64^{km}, MW3.8, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}4.40; $M_{\theta\theta}$-0.96; $M_{\phi\phi}$-3.44; $M_{r\theta}$2.44; $M_{\theta\phi}$-0.92; $M_{\phi r}$4.21; Fault plane solution: $M_0$6.34000×10^{14} NP1: ϕ_s193.00000°,δ20.00000°,λ77.00000°. NP2:ϕ_s27.00000°, δ70.00000°,λ95.00000°.*

*NEIC **02** 09:07:23.4±1.4, 41°94N±0°07×142°8E±0°1, h78km±6km, mb4.6/16 Error ellipse: s-maj=14.5km s-min=7.0km az=122.0*
*JMA **02** 09:07:23.1±0.2, 42°0N±0°4×142°5E±0°8, h64km±1km, MV3.5/36, S OFF URAKAWA*
JMA Felt I J1 at S OFF URAKAWA .
ISC 02 09:07:22.8±0.7**, 41°99N**±0°04×**142°54E**±0°04**, h66**km±6km**, n59, σ1^{s}38**/68**, mb4.2**/16**, 13D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JNBK	Urakawa-nobuka	0.33	29	*i* P	Pn	09 07 33.8	0.0
JNBK				S	Sn	09 07 42.0	+0.3
JSHD	Hidakashinhida	0.42	353	⇓*i*P	Pn	09 07 34.8	+0.3
JSHD				⇓S	Sn	09 07 44.2	+1.2
ERM	Erimo	0.46	87		Pn	09 07 35.4	+0.6
ERM				Sn	Sn	09 07 44.1	+0.5
JEM	Erimo	0.46	87	*i* P	Pn	09 07 35.4	+0.6
JEM				S	Sn	09 07 43.8	+0.1
JIAM	Iburiatsuma	0.78	324	⇓*i*P	Pn	09 07 39.2	+0.9
JBT2	Biratori 2	0.80	351	⇓*i*P	Pn	09 07 38.7	+0.1
JBT2				⇓S	Sn	09 07 49.8	-0.4
JCH	Churui	0.87	44	*i* P	Pn	09 07 40.0	+0.5
JCH				S	Sn	09 07 52.8	+1.0
JKB	Kayabe	1.13	265	⇓*i*P	Pn	09 07 42.6	-0.1
JKB				⇓S	Sn	09 07 57.0	-0.5
JEW	Eniwo	1.17	317	⇓*i*P	Pn	09 07 43.6	+0.3
JEW				⇓*e*S	Sn	09 07 58.2	-0.4
JFR	Furan	1.17	2	P	Pn	09 07 44.0	+0.7
JNB	Noboribetsu	1.21	294	*i* P	Pn	09 07 43.3	-0.5
JNB				S	Sn	09 07 58.9	-0.6
JOT	Ohata	1.27	242	⇓*i*P	Pn	09 07 44.6	0.0
JOT				⇓S	Sn	09 08 00.4	-0.5
JOB	Onbets	1.32	46	P	Pn	09 07 46.9	+1.7
JOB				S	Sn	09 08 04.4	+2.3
JISS	Ishikarishitsu	1.53	328	⇓P	Pn	09 07 48.5	+0.5
JISS				⇓S	Sn	09 08 07.7	+0.8
JAB	Ashibetsu	1.53	351	P	Pn	09 07 49.0	+1.0
JAB				S	Sn	09 08 09.8	+2.8
JAR	Ashorobuto	1.59	34	*i* P	Pn	09 07 49.9	+1.1
JTM	Tenmabayashi	1.64	223		Pn	09 07 50.4	+1.0
JTM				Sn	Sn	09 08 11.4	+1.9
JKA	Kamikawa-asahi	2.12	1		Pn	09 07 56.8	+0.8
JKA				Sn	Sn	09 08 23.8	+2.5
MJAR	Matsushiro Arr	6.39	213	Pn	Pn	09 08 57.2	+2.8
	baz=29,slow=11,SNR=1.9 0.8nm,0.6s						
USRK	Ussuriysk Ar.	8.03	289	Pn	Pn	09 09 18.5	+1.8
	0.2nm,0.3s,baz=95,slow=15,SNR=2.0 2.0nm,0.7s						
USRK				AML	AML		
USRK	Ussuriysk Ar.	8.03	289		Pn	09 09 19.4	+2.8
JSG	Sagara	8.06	206	Pn	Pn	09 09 18.9	+1.7
PEA0B	Petropavlovsk-	15.08	37	Pn	Pn	09 10 48.6	-3.2
PEA0B				IAmb	IAmb	09 11 12.2	
	comp=Z,51nm,1.3s						
PETK	Petropavlovsk-	15.08	37	Pn	Pn	09 10 49.6	-2.2
SONM	Songino Array	26.08	295	P	P	09 12 51.5	+1.2
	comp=Z,0.8nm,0.5s,baz=94,slow=7.5,SNR=3.0 comp=Z,0.8nm,0.5s						
SONM	Songino Array	26.08	295	P	P	09 12 51.0	+0.7
H11N2	WAKE ISLAND Hy	30.30	130	T	T	09 44 56.1	
	baz=324,slow=75,SNR=70						
H11N1	WAKE ISLAND Hy	30.31	130	T	T	09 45 10.1	
	baz=324,slow=75,SNR=61						
H11N3	WAKE ISLAND Hy	30.32	130	T	T	09 45 08.3	
	baz=324,slow=75,SNR=49						
H11S1	WAKE ISLAND Hy	31.16	131	T	T	09 46 13.8	
	baz=325,slow=76,SNR=47						
H11S3	WAKE ISLAND Hy	31.16	131	T	T	09 46 14.1	
	baz=325,slow=76,SNR=68						
H11S2	WAKE ISLAND Hy	31.18	131	T	T	09 46 12.7	
	baz=325,slow=76,SNR=62						
L14K	Kuka Creek	37.70	40	P	P	09 14 28.2	-3.2
L14K				IAmb	IAmb	09 14 34.1	
	comp=Z,9.8nm,1.1s						
J16K	Anvik River	38.85	37	P	P	09 14 37.8	-3.3
ZALV	Zalesovo Beam	39.38	308	P	P	09 14 46.7	+1.0
	comp=Z,1.2nm,0.6s,baz=60,slow=5.8,SNR=5.1 comp=Z,1.2nm,0.6s						
ZALV	Zalesovo Beam	39.38	308	P	P	09 14 46.0	+0.4
G18K	Tagagawik	39.98	33	P	P	09 14 47.3	-3.2
G18K				IAmb	IAmb	09 15 24.9	
	comp=Z,7.7nm,1.2s						
MKAR	Makanchi Array	42.40	298	P	P	09 15 11.1	+0.5
	comp=Z,0.8nm,0.7s,baz=94,slow=8.2,SNR=6.8 comp=Z,0.8nm,0.7s						
MKAR	Makanchi Array	42.40	298	P	P	09 15 10.8	+0.2
MYLDM	Lahad Datu	42.45	217	P	P	09 15 11.6	+0.3
MYLDM				IAmb	IAmb	09 15 44.7	
	comp=Z,9.7nm,0.9s						
MAKZ	Makanchi	42.60	298	P	P	09 15 12.6	+0.3
E22K	Anaktuvuk Pass	42.85	30	P	P	09 15 13.1	-0.9
KURK	Kurchatov	43.71	304	P	P	09 15 21.1	0.0
KURK				IAmb	IAmb	09 16 03.5	
	comp=Z,3.9nm,0.3s						
KURBB	Kurchatov Arra	43.79	304	P	P	09 15 22.1	+0.4
	comp=Z,1.3nm,0.6s,baz=76,slow=8.8,SNR=11 comp=Z,1.3nm,0.6s						
GHO	Glory Hole Cre	44.27	39		P	09 15 23.8	-1.7
GHO				IAmb	IAmb	09 15 40.9	
	comp=Z,7.2nm,0.6s						
BOOM	Boomskoye usch	48.12	294	P	P	09 15 57.9	+1.7
ARSB	Arslanbob	50.61	294	P	P	09 16 16.5	+1.4
ARSB				IAmb	IAmb	09 16 17.2	
	comp=Z,4.0nm,0.8s						
KKAR	Karatay Array	51.52	297	P	P	09 16 22.4	+0.7
AB31	Akbulak array	55.49	308	P	P	09 16 51.0	+0.3
ABKAR	Akbulak array	55.49	308	P	P	09 16 51.4	+0.7
WR8	Warramunga Arr	62.08	189	P	P	09 17 35.4	-1.2
WR8				IAmb	IAmb	09 17 37.7	
	comp=Z,5.5nm,1.1s						
WRA	Warramunga Arr	62.09	189	P	P	09 17 36.7	0.0
	comp=Z,38nm,0.4s,baz=7.1,slow=6.6,SNR=1.6						
WRA	Warramunga Arr	62.09	189	P	P	09 17 36.1	-0.6
FIA1	FINESS Array S	64.85	332	P	P	09 17 54.0	-0.4
FINES	FINESS Array B	64.85	332	P	P	09 17 54.4	0.0
	comp=Z,0.9nm,0.5s,baz=46,slow=5.5,SNR=5.2 comp=Z,0.9nm,0.5s						
FINES	FINESS Array B	64.85	332	P	P	09 17 54.6	+0.2
NOA	NORSAR Array B	69.96	337	P	P	09 18 26.9	+0.2
	comp=Z,0.7nm,0.6s,baz=50,slow=5.4,SNR=3.5 comp=Z,0.7nm,0.6s						
AKASG	Malin Array Be	70.92	322	P	P	09 18 33.0	+0.2
	comp=Z,0.5nm,0.4s,baz=46,slow=6.5,SNR=4.4 comp=Z,0.5nm,0.4s						
BRTR	Keskin Array B	76.23	311	P	P	09 19 05.1	+0.9
	comp=Z,0.4nm,0.5s,baz=77,slow=3.1,SNR=2.5 comp=Z,0.4nm,0.5s						

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*IDC **02** 09:10:12.0±0.8, 15°06S×176°50W, h0km, mb4.0/7, mbtmp4.0/7, MS3.8/5, Error ellipse: s-maj=43.3km s-min=22.3km az=143.0*
*GCMT **02** 09:10:23.0±0.2, 14°91S±0°01×176°45W±0°02, h12km, MW5.0/125, Moment Tensor Solution. s37,c45; s125,c182; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-3.41±.06; $M_{\theta\theta}$2.90±.07; $M_{\phi\phi}$0.50±.06; $M_{r\theta}$0.10±.23; $M_{\theta\phi}$1.15±.05; $M_{\phi r}$0.07±.27; Best double couple: $M_0$3.38900×10^{16} NP1:ϕ_s68.00000°, δ44.00000°, λ-89.00000°. NP2:ϕ_s248.00000°, δ46.00000°, λ-91.00000°. Principal axes: T 3.3650, Plg1.0000°, Azm338.0000°; N 0.0450, Plg0.0000°, Azm248.0000°; P -3.4120, Plg89.0000°, Azm136.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Surface-wave location Triangular moment-rate function*
ISC 02 09:10:14.7±0.9**, 15°0S**±0°3×**176°6W**±0°2**, h17**km**, n25, σ0^{s}75**/10**, mb4.2**/8**, MS3.8**/5**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HNR	Honiara	23.61	281	LR	LR	09 23 22.3	
	comp=Z,306nm,20.0s,baz=200,slow=33						
URZ	Urewera	23.81	192	LR	LR	09 23 10.6	
	comp=Z,794nm,19.9s,baz=44,slow=33						
PPT	Papeete	26.02	99	LR	LR	09 23 25.4	
	comp=Z,88nm,21.4s,baz=236,slow=31						
PPT2	Papeete2	26.02	99	*e*LR	LR	09 22 20.1	
	618nm,26.5s						
PPT2				*e*LR	LR	09 22 27.2	
	432nm,27.0s						
CTA	Charters Tower	35.76	256	LR	LR	09 28 59.6	
	comp=Z,165nm,19.6s,baz=62,slow=32						
H11S2	WAKE ISLAND Hy	37.16	333	T	T	09 56 40.9	
	baz=148						
H11S3	WAKE ISLAND Hy	37.17	333	T	T	09 56 50.1	
	baz=148,slow=74						
H11S1	WAKE ISLAND Hy	37.18	333	T	T	09 56 50.5	
	baz=148,slow=74						
H11N3	WAKE ISLAND Hy	38.16	334	T	T	09 58 03.4	
	baz=153,slow=76,SNR=4.0						
H11N1	WAKE ISLAND Hy	38.17	334	T	T	09 57 55.3	
	baz=153,slow=76,SNR=12						
H11N2	WAKE ISLAND Hy	38.18	334	T	T	09 58 00.3	
	baz=153,slow=76,SNR=6.1						
WRA	Warramunga Arr	46.96	257	P	P	09 18 46.1	+1.0
	58nm,0.5s,baz=91,slow=8.4,SNR=1.8						
ASAR	Alice Springs	47.33	252	P	P	09 18 48.3	+0.3
	2.1nm,0.7s,baz=84,slow=8.5,SNR=21 2.1nm,0.7s						
GUMO	Guam	47.59	305	LR	LR	09 36 27.5	
	comp=Z,79nm,19.5s,baz=110,slow=33						
QSPA	South Pole Qui	75.01	180	P	P	09 21 54.8	-0.3
	2.3nm,1.0s,baz=17,slow=3.5,SNR=5.8 2.3nm,1.0s						
NVAR	Mina Array Bea	76.13	43	P	P	09 22 02.1	0.0
	2.0nm,0.9s,baz=230,slow=7.7,SNR=12 2.0nm,0.9s						
ILAR	Eielson Array	82.70	12	P	P	09 22 37.5	+0.4
	0.6nm,0.9s,baz=221,slow=7.7,SNR=5.8 0.6nm,0.9s						
TXAR	Lajitas Array	82.96	57	P	P	09 22 39.8	+0.5
	0.5nm,0.9s,baz=287,slow=7.2,SNR=3.9 0.5nm,0.9s						
PDAR	Pinedale Array	84.05	43	P	P	09 22 45.1	+0.3
	1.2nm,0.9s,baz=207,slow=1.7,SNR=8.2 1.2nm,0.9s						
H03S2	Juan Fernandez	87.94	124	T	T	11 00 30.3	
	baz=251,slow=75,SNR=5.4						
H03S1	Juan Fernandez	87.95	124	T	T	11 00 32.4	
	baz=251,slow=75,SNR=5.7						
H03S3	Juan Fernandez	87.96	124	T	T	11 00 24.6	
	baz=251,slow=75,SNR=5.9						
SONM	Songino Array	92.55	319	P	P	09 23 24.4	-0.9
	0.4nm,0.5s,baz=129,slow=3.9,SNR=2.4 0.4nm,0.5s						
BRTR	Keskin Array B	143.91	319	PKP	PKPdf	09 29 48.6	-1.1
	2.3nm,0.9s,baz=107,slow=1.5,SNR=11						
GERES	GERESS Array B	145.24	348	PKPbc	PKPbc	09 29 50.9	-0.3
	0.2nm,0.3s,baz=25,slow=2.7,SNR=3.5						

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*SKO **02** 09:23:21.0, 40°72N×22°96E, h23km, ML2.9*
*SOF **02** 09:23:22.6, 40°82N±0°01×22°91E±0°01, h6km±2km, MD3.0/6*
*ATH **02** 09:23:22.2, 40°80N×22°90E, h10km, ML2.4/12, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
ISC 02 09:23:22.4±0.9**, 40°79N**±0°02×**22°91E**±0°02**, h12**km±7km**, n28, σ0^{s}59**/46**, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
THE	Thessaloniki	0.16	165	P	Pg	09 23 26.0	-0.2
THE				S	Sg	09 23 28.6	-0.1
THE				AML	AML		
HORT	Hortiatis	0.24	143	P	Pg	09 23 27.5	0.0
HORT				S	Sg	09 23 31.1	+0.2
SOH	Sokhos	0.34	84	P	Pg	09 23 29.4	+0.1
SOH				S	Sg	09 23 34.4	+0.5
SOH				AML	AML		
GRG	Griva	0.42	294	P	Pg	09 23 30.4	-0.4
GRG				S	Sg	09 23 36.6	+0.1
PLG	Polygyros	0.58	135	P	Pg	09 23 33.0	-0.7
VAY	Valandovo	0.59	334	*i* Pg	Pg	09 23 33.8	-0.2
VAY				*i* Sg	Sb	09 23 42.5	-0.6
VAY				*e*Lg	Lg	09 23 42.6	
	comp=E,509nm,0.3s						
VAY				*e*Lg	Lg	09 23 42.7	
	comp=N,397nm,0.4s						
SRS	Serrai	0.61	57	P	Pg	09 23 33.8	-0.6
SRS				S	Sg	09 23 42.2	-0.3
LIT	Litokhoron	0.76	205	P	Pg	09 23 36.8	-0.4
LIT				S	Sg	09 23 47.3	+0.2
LIT				AML	AML		
NVR	Nevrokopi	0.91	52	P	Pg	09 23 39.4	-0.7
NVR				S	Sb	09 23 52.0	-0.3
NVR				AML	AML		
OUR	Ouranopolis	0.93	119	P	Pg	09 23 39.9	-0.5
OUR				S	Sb	09 23 53.1	+0.2
OUR				AML	AML		
MMB	Musomishta	0.99	40	*i* Pg	Pg	09 23 41.0	-0.5
MMB				Sg	Sb	09 23 54.9	+0.4
KZN	Kozani	0.99	241	P	Pg	09 23 40.7	-0.9
KKB	Krupnik	1.06	9	*i* Pg	Pg	09 23 42.2	-0.8
KKB				Sg	Sb	09 23 56.5	-0.2
KAVA	Kavala	1.23	80	P	Pb	09 23 45.6	0.0
KAVA				S	Sg	09 24 01.8	-0.4
THS1	Thassos, Thass	1.27	92	P	Pg	09 23 46.6	-0.2
THS1				AML	AML		
THAS	Thassos island	1.39	97	P	Pn	09 23 48.0	+0.4
THAS				AML	AML		
THL	Klokotos Trika	1.40	210	P	Pn	09 23 48.1	+0.3
THL				AML	AML		
XOR	Xorichti	1.44	171	P	Pn	09 23 48.6	+0.3
XOR				AML	AML		
KPRO	Kipourio	1.45	235	P	Pg	09 23 49.7	-0.5
KPRO				AML	AML		
NEO	Neokhori	1.50	171	P	Pn	09 23 49.2	+0.1
NEO				S	Sn	09 24 09.3	+0.6
NEO				AML	AML		
RZN	Rozhen	1.65	56	*e*P	Pn	09 23 51.8	+0.4
RZN				S	Sg	09 24 15.2	-0.3
PLNA	Plana	1.73	13	*i* P	Pg	09 23 54.7	-1.0
PLNA				S	Sg	09 24 19.1	+1.0
AOS2	Alonissos-2	1.79	156	P	Pn	09 23 53.6	+0.5
AOS2				AML	AML		
VTS	Vitosha	1.84	7	*i* P	Pb	09 23 55.7	-0.5
VTS				S	Sb	09 24 18.8	-0.5
PGB	Panagyurishte	1.97	28	Sg	Sg	09 24 26.0	+0.3
KDZ	Kurdzhali	2.02	65	*e*P	Pg	09 23 59.9	-1.2
KDZ				S	Sg	09 24 26.8	-0.4
BLSH	Balsha	2.08	7	*i* P	Pg	09 24 01.9	-0.5
BLSH				S	Sg	09 24 30.2	+0.7
MPEP	Malo Peshtene	2.64	13	*e*P	Pn	09 24 06.7	+1.9

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*IDC **02** 09:25:34.2±3.4, 53°59N×87°67E, h0km, mbtmp2.9/2, ML2.7/2, Error ellipse: s-maj=26.2km s-min=16.5km az=71.0*
ASRS 02 09:25:31.0±1.0**, 53°54N**×**87°68E, h0**km**, M2.7**(MOS)**, The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	1.75	285	I	I	09 37 23.1	
	baz=101,slow=326,SNR=5.5						
ZALV	Zalesovo Beam	1.75	285	Pg	Pg	09 26 05.5	+1.0
	1.2nm,0.3s,baz=100,slow=13,SNR=11						
ZALV				Lg	Lg	09 26 30.9	
	5.4nm,0.3s,baz=105,slow=22,SNR=14						
KURBB	Kurchatov Arra	6.35	246	Pn	Pn	09 27 10.8	+5.0
	0.1nm,0.3s,baz=59,slow=13,SNR=2.5						
KURBB				Lg	Lg	09 28 53.8	
	baz=64,slow=30,SNR=4.8 0.3nm,0.3s						
KURBB				AML	AML		
MKAR	Makanchi Array	7.59	209	Pn	Pn	09 27 26.8	+4.0
	0.3nm,0.3s,baz=29,slow=14,SNR=10						
MKAR				Sn	Sn	09 28 53.1	+3.7
	0.1nm,0.3s,baz=25,slow=24,SNR=2.7						
MKAR				Lg	Lg	09 29 34.1	
	baz=23,slow=27,SNR=2.8 0.4nm,0.4s						
MKAR				AML	AML		

IDC 02 09:26:53.5±2.7**, 14°41S**×**177°01W, h0**km**, mb3.6**/4**, mbtmp3.6**/4**, MS3.7**/2**, Error ellipse: s-maj=171.9km s-min=32.9km az=147.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HNR	Honiara	23.07	280	LR	LR	09 39 36.8	
	comp=Z,130nm,19.9s,baz=201,slow=33						
ASAR	Alice Springs	47.12	251	P	P	09 35 27.8	0.0
	1.0nm,1.0s,baz=88,slow=8.9,SNR=5.2 1.0nm,1.0s						
VNDA	Vanda	64.03	185	LR	LR	10 01 26.5	
	comp=Z,104nm,20.1s,baz=200,slow=32						
NVAR	Mina Array Bea	75.98	44	P	P	09 38 43.1	+0.3
	0.8nm,0.8s,baz=226,slow=9.2,SNR=5.6 0.8nm,0.8s						
ILAR	Eielson Array	82.19	13	P	P	09 39 15.9	-0.1
	0.6nm,1.1s,baz=201,slow=4.3,SNR=4.9 0.6nm,1.1s						
PDAR	Pinedale Array	83.89	43	P	P	09 39 25.5	-0.1
	0.3nm,0.7s,baz=260,slow=6.8,SNR=3.1 0.3nm,0.7s						
BRTR	Keskin Array B	143.16	319	PKP	PKPdf	09 46 29.1	-1.1
	1.5nm,1.0s,baz=46,slow=4.2,SNR=5.9						

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*NNC **02** 09:32:11.0±6.9, 54°84N×91°09E, h16km±33km, mb3.4, mpv3.1, Error ellipse: s-maj=71.7km s-min=44.3km az=2.0, Suspected Mining explosion.*
*IDC **02** 09:32:18.5±3.4, 53°61N×90°87E, h0km, mbtmp3.1/3, ML2.7/3, Error ellipse: s-maj=26.8km s-min=22.9km az=73.0*
ASRS 02 09:32:13.0±1.9**, 53°75N**×**91°08E, h0**km**, M2.7**(MOS)**, 9C-3D, The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	3.71	276	I	I	09 56 00.0	
	baz=90,slow=327,SNR=3.7						
ZAA0	Zalesovo Array	3.71	276	⇑Pg	Pb	09 33 19.5	+0.1
	2.5nm,0.6s						
ZAA0				⇓Lg	Lg	09 34 10.6	
	5.8nm,0.8s						
ZALV	Zalesovo Beam	3.71	276	Pn	Pb	09 33 18.0	-1.5
	1.0nm,0.3s,baz=91,slow=15,SNR=8.4						
ZALV				Lg	Lg	09 34 11.4	
	0.8nm,0.3s,baz=94,slow=23,SNR=5.3 1.9nm,0.3s						
ZALV				AML	AML		
KURK	Kurchatov	8.23	253	⇑Pn	Pn	09 34 13.9	+0.3
	0.3nm,0.9s						
KURK				⇓Sn	Sn	09 35 50.5	+3.3
	0.7nm,0.6s						
KURK				⇑Lg	Lg	09 36 45.2	
	1.0nm,0.8s						
KURBB	Kurchatov Arra	8.32	253	Pn	Pn	09 34 18.0	+3.2
	0.1nm,0.3s,baz=65,slow=15,SNR=5.9						
KURBB				Sn	Sn	09 35 51.6	+2.2
	baz=66,slow=26,SNR=5.5						
KURBB				Lg	Lg	09 36 37.0	
	baz=63,slow=34,SNR=3.2 0.5nm,0.4s						
KURBB				AML	AML		
KURBB	Kurchatov Arra	8.32	253	⇑Pn	Pn	09 34 16.6	+1.8
	1.4nm,0.6s						
KURBB				⇑Sn	Sn	09 35 55.1	+5.6
	3.6nm,0.8s						
KURBB				⇑Lg	Lg	09 36 49.2	
	6.3nm,0.8s						
MK31	Makanchi Array	8.95	222	⇑Pn	Pn	09 34 32.4	+8.9
	0.2nm,0.5s,baz=44,slow=13,SNR=6.9						
MK31				⇑Sn	Sn	09 36 25.5	+21
	0.2nm,0.5s,baz=34,slow=30						
MKAR	Makanchi Array	8.95	222	Pn	Pn	09 34 28.2	+4.8
	0.2nm,0.3s,baz=31,slow=13,SNR=8.8						
MKAR				Sn	Sn	09 36 06.6	+1.7
	0.1nm,0.3s,baz=40,slow=25,SNR=2.5						
MKAR				Lg	Lg	09 36 53.6	
	0.1nm,0.3s,baz=38,slow=31,SNR=2.2 0.6nm,0.5s						
MKAR				AML	AML		
MAKZ	Makanchi	9.06	224	⇑Pn	Pn	09 34 32.6	+7.6
	1.5nm,0.8s						
MAKZ				⇓Sn	Sn	09 36 21.5	+14
	0.5nm,0.4s						

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*SJA **02** 09:38:06.0±0.7, 27°82S×71°74W, h6km±3km, ML5.0, MW4.8*
*IDC **02** 09:38:09.9±0.5, 27°92S×71°07W, h0km, mb4.4/13, mbtmp4.4/17, ML4.2/4, MS4.0/15, Error ellipse: s-maj=15.8km s-min=12.5km az=87.0*
*NEIC **02** 09:38:12, 27°96S×71°40W, h23km*
*NEIC **02** 09:38:12.9±1.7, 27°94S±0°04×71°33W±0°07, h26km±5km, mb4.6/18, Mwr4.4/47, Mwr4.6(GUC), Error ellipse: s-maj=8.4km s-min=5.2km az=89.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}2.97; $M_{\theta\theta}$0.75; $M_{\phi\phi}$-3.73; $M_{r\theta}$0.98; $M_{\theta\phi}$0.56; $M_{\phi r}$-4.60; Fault plane solution: $M_0$5.84000×10^{15} NP1:ϕ_s168.45000°, δ72.19000°, λ86.46000°. NP2:ϕ_s359.90000°, δ18.15000°, λ100.89000°. Principal axes: T 5.3975, Plg63.0000°, Azm73.0000°; N 0.7991, Plg3.0000°, Azm170.0000°; P -6.1966, Plg27.0000°, Azm261.0000°;*
*VAO **02** 09:38:12.1±1.6, 27°82S×71°15W, h17km±10km, mb4.8, Presumed earthquake*
*GFZ **02** 09:38:12.9±0.2, 28°S±2°×7°1W±°, h22km, M4.8/30, mb4.9/30, confirmed*
*GUC **02** 09:38:13.6±0.7, 28°00S×71°31W, h26km±3km, ML4.6*
ISC 02 09:38:10.0±0.8**, 27°99S**±0°02×**71°40W**±0°03**, h10**km±5km**, n230, σ1^{s}94**/241**, mb4.7**/29**, MS4.1**/13**, 9C-2D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.36	127	*e*P	Pn	09 38 20.1	-1.2
AC04				IAML		09 38 26.5	
	comp=Z,51μm,0.3s						
AC04	Llanos de Chal	0.36	127	*e*P	Pn	09 38 20.2	-1.1
AC04				*e*S	Sb	09 38 24.5	+0.3
AC04				IAML		09 38 25.4	
	comp=E,137μm,0.2s						
AC04	Llanos de Chal	0.36	127		Pn	09 38 20.1	-1.2
AC04				Sg	Sb	09 38 24.6	+0.4
AC04	Llanos de Chal	0.36	127	P	Pn	09 38 20.1	-1.2
GO03	Copiapo	1.11	70	*e*P	Pg	09 38 31.9	+0.6
GO03				*e*S	Sg	09 38 47.2	+1.6
GO03				IAML		09 38 48.8	
	comp=Z,16μm,0.3s						
GO03	Copiapo	1.11	70	*e*P	Pg	09 38 31.8	+0.6
GO03				IAML		09 38 50.3	
	comp=N,39μm,0.4s						
GO03	Copiapo	1.11	70		Pg	09 38 32.0	+0.8
GO03	Copiapo	1.11	70	P	Pg	09 38 31.9	+0.6
AC06	Mina Casimiro	1.12	56	*e*P	Pg	09 38 31.7	+0.2
AC06	Mina Casimiro	1.12	56	Pn	Pg	09 38 31.8	+0.2
AC06				Sn	Sb	09 38 45.3	-0.8
LCO	Las Campanas	1.19	149	*e*P	Pg	09 38 34.0	+1.1
LCO				*e*S	Sn	09 38 50.3	+0.9
LCO				IAML		09 38 53.6	
	comp=Z,35μm,0.3s						
LCO	Las Campanas	1.19	149	*e*P	Pg	09 38 33.8	+0.9
LCO				*e*S	Sb	09 38 48.8	+0.4
LCO	Las Campanas	1.19	149		Pg	09 38 34.0	+1.1
AC05	El Transito	1.30	131	*e*P	Pg	09 38 35.6	+0.5
AC05				*e*S	Sb	09 38 51.5	-0.1
AC05				*e*S	Sn	09 38 51.6	-0.3
AC05				IAML		09 38 52.7	
	comp=Z,9μm,0.5s						
AC05	El Transito	1.30	131	*e*P	Pg	09 38 35.5	+0.4
AC05				*e*S	Sb	09 38 51.3	-0.3
AC05				IAML		09 38 52.8	
	comp=N,20μm,0.4s						
AC05	El Transito	1.30	131		Pg	09 38 35.6	+0.5
AC05	El Transito	1.30	131	P	Pg	09 38 35.6	+0.5
AC01	Pan de Azucar	1.97	22	*e*P	Pb	09 38 44.1	-1.8
AC01				*e*S	Sn	09 39 08.2	+0.1
AC01	Pan de Azucar	1.97	22	*e*P	Pb	09 38 44.2	-1.8
AC01	Pan de Azucar	1.97	22		Pb	09 38 44.0	-1.8
AC01	Pan de Azucar	1.97	22	P	Pb	09 38 44.3	-1.6
GO04	Tololo Observa	2.24	167	*e*P	Pb	09 38 49.8	-0.9
GO04				*e*S	Sg	09 39 21.9	-0.1
GO04				IAML		09 39 24.7	
	comp=Z,12μm,0.8s						
GO04	Tololo Observa	2.24	167	*e*P	Pb	09 38 49.8	-0.9
GO04	Tololo Observa	2.24	167		Pb	09 38 49.6	-1.1
GO04	Tololo Observa	2.24	167	P	Pb	09 38 49.8	-0.9
CO01	Juntas del Tor	2.29	150	*e*P	Pb	09 38 51.5	-0.1
CO01				*e*S	Sb	09 39 21.0	+1.0
CO01				IAML		09 39 24.6	

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       comp=Z,6µm,0.4s
CO01   Juntas del Tor    2.29 150  eP      Pb      09 38 51.6  0.0
CO01                               eS      Sb      09 39 19.7 -0.4
CO01                                IAML           09 39 23.8
       comp=E,8µm,0.5s
CO01   Juntas del Tor    2.29 150   P      Pb      09 38 51.4 -0.1
AC02   Maricunga         2.32  61  eP      Pb      09 38 51.9 -0.3
AC02                               eS      Sb      09 39 23.4 +2.1
AC02                                IAML           09 39 24.1
       comp=Z,8µm,1.0s
AC02   Maricunga         2.32  61⇑eP      Pb      09 38 51.8 -0.5
AC02   Maricunga         2.32  61   P      Pb      09 38 51.9 -0.3
CO06   Fray Jorge        2.69 184⇓eP      Pn      09 38 54.2 +0.9
CO06   Fray Jorge        2.69 184          Pn      09 38 54.1 +0.9
AROD   Rodeo             2.75 143  eP      Pb      09 38 59.4 -0.1
AROD                               eS      Sg      09 39 36.9 -1.5
VCA    Vinchina          2.91 106  eP      Pb      09 39 02.1  0.0
VCA                                eS      Sg      09 39 44.3 +0.6
VCA                                 IAML           09 39 48.6
       comp=Z,5µm,0.4s
VCA    Vinchina          2.91 106⇑eP      Pb      09 39 02.2  0.0
ACDV   Cuesta del Vie    2.95 138  eP      Pb      09 39 02.5 -0.4
ACDV                               eS      Sg      09 39 43.8 -1.1
ACDV                                IAML           09 39 45.2
       comp=Z,3µm,0.4s
CO02   Combarbal         3.23 174  eP      Pn      09 39 02.6 +1.8
CO02                               eS      Sg      09 39 51.9 -1.7
CO02                                IAML           09 39 55.7
       comp=Z,8µm,0.6s
CO02   Combarbal         3.23 174⇓eP      Pn      09 39 02.4 +1.6
CO02   Combarbal         3.23 174          Pn      09 39 02.8 +2.0
CO02   Combarbal         3.23 174   P      Pn      09 39 02.9 +2.1
ACCO   Cerro Coronel     3.30 142  eP      Pb      09 39 07.4 -1.4
ACCO                               eS      Sb      09 39 53.2 +4.1
ACCO                                IAML           09 39 59.8
       comp=Z,2µm,1.0s
TINO   Tinogasta         3.39  92  eP      Pb      09 39 06.9 -3.3
TINO                               eS      Sg      09 39 57.4 -1.4
TINO                                IAML           09 40 00.4
       comp=Z,2µm,1.0s
PB14   IPOC Station P    3.46  15  eP      Pn      09 39 04.2 -0.1
PB14                               eS      Sg      09 40 02.4 +1.0
PB14   IPOC Station P    3.46  15⇑eP      Pn      09 39 04.1 -0.1
PB14   IPOC Station P    3.46  15          Pn      09 39 04.2 -0.1
PB14   IPOC Station P    3.46  15   P      Pn      09 39 04.3 +0.1
CO04   Los Peladeros     4.06 175   P      Pn      09 39 14.8 +2.4
ACLC   CERRO LA CRUZ     4.16 111  eP      Pn      09 39 17.9 +4.1
ACLC                               eS      Sb      09 40 14.3 +0.4
ACLC                                IAML           09 40 15.2
       comp=Z,856nm,1.3s
RTLL   Cerro Villicun    4.19 143  eP      Pn      09 39 18.5 +4.5
RTLL                               eS      Sb      09 40 10.9 -3.7
RTLL                                IAML           09 40 29.5
       comp=Z,2µm,0.7s
RTLS   Leoncito          4.22 155  eP      Pb      09 39 20.2 -4.2
RTLS                               eS      Sg      09 40 23.1 -2.3
RTLS                                IAML           09 40 28.1
       comp=Z,8µm,0.6s
ZON    Zonda             4.26 147  eP      Pb      09 39 19.6 -5.5
ZON                                eS      Sb      09 40 13.3 -3.3
ZON                                 IAML           09 40 40.4
       comp=Z,822nm,0.7s
CFA    Coronel Fontan    4.53 143   Pn     Pn      09 39 22.8 +4.1
       comp=Z,31nm,0.3s,baz=322,slow=12,SNR=295
CFA                                 Pg     Pb      09 39 26.8 -2.9
       comp=Z,149nm,0.3s,baz=335,slow=12,SNR=63
CFA                                 Sn     Sn      09 40 15.9 +4.3
       comp=Z,59nm,0.3s,baz=101,slow=19,SNR=6.0
CFA                                 Lg     Lg      09 40 26.0
       comp=Z,140nm,0.3s,baz=241,slow=22,SNR=15
CFA    Coronel Fontan    4.53 143  eP      Pn      09 39 23.1 +4.4
CFA                                eS      Sb      09 40 19.3 -5.1
CFA                                 IAML           09 40 29.8
       comp=Z,1µm,0.5s
VA03   San Esteban       4.82 171  eP      Pn      09 39 25.4 +2.7
VA03                               eS      Sb      09 40 36.4 +3.7
VA03                                IAML           09 40 44.7
       comp=Z,2µm,0.6s
VA03   San Esteban       4.82 171  eP      Pn      09 39 25.0 +2.4
VA03   San Esteban       4.82 171          Pn      09 39 25.2 +2.6
VA03   San Esteban       4.82 171   P      Pn      09 39 25.7 +3.0
CYA    Choya             4.96  97  eP      Pn      09 39 27.9 +3.3
CYA                                eS      Sb      09 40 30.8 -5.9
CYA                                 IAML           09 40 32.4
       comp=Z,964nm,0.9s
CYA    Choya             4.96  97⇑eP      Pn      09 39 27.6 +3.0
VA01   Torpederas        5.02 182          Pn      09 39 25.8 +0.4
VA01   Torpederas        5.02 182   P      Pn      09 39 29.1 +3.8
       comp=Z,226nm,0.5s
PEL    Peldehue          5.18 173   P      Pn      09 39 29.9 +2.4
       comp=Z,298nm,0.8s
PB05   IPOC Station P    5.23  12  eP      Pn      09 39 27.6 -0.8
PB05                                IAML           09 41 09.9
       comp=Z,638nm,0.8s
PB05   IPOC Station P    5.23  12          Pn      09 39 27.4 -0.9
PB05   IPOC Station P    5.23  12   P      Pn      09 39 27.5 -0.8
       comp=Z,172nm,0.6s
PB06   IPOC Station P    5.51  18          Pn      09 39 31.9 -0.4
PB06   IPOC Station P    5.51  18   P      Pn      09 39 32.2 -0.1
       comp=Z,197nm,0.8s
MT09   Talagante         5.78 177          Pn      09 39 37.0 +1.0
AF01   San Pedro de A    5.80  31          Pn      09 39 37.7 +1.4
MT01   Popeta            5.86 179          Pn      09 39 37.2 +0.3
BO04   La Punta          6.02 174          Pn      09 39 40.2 +1.1
PB03   IPOC Station P    6.10  15   P      Pn      09 39 40.9 +0.5
       comp=Z,87nm,0.5s
SLA    San Lorenzo       6.21  60  eP      Pn      09 39 45.9 +4.0
PB07   IPOC Station P    6.38  13          Pn      09 39 43.2 -1.0
PB07   IPOC Station P    6.38  13   P      Pn      09 39 43.3 -0.9
       comp=Z,111nm,0.7s
PB09   IPOC Station P    6.47  18          Pn      09 39 46.8 +1.4
PB09   IPOC Station P    6.47  18   P      Pn      09 39 47.9 +2.4
       comp=Z,122nm,1.1s
BO03   Pichilemu         6.51 184   P      Pn      09 39 45.4 -0.3
       comp=Z,59nm,0.4s
PB02   IPOC Station P    6.78  12          Pn      09 39 48.8 -0.9
PB02   IPOC Station P    6.78  12   P      Pn      09 39 50.3 +0.6
       comp=Z,119nm,0.5s
TCA    Tanti             6.80 121⇑eP      Pn      09 39 51.6 +1.7
BO02   Sierra Bellavi    6.80 176          Pn      09 39 50.5 +0.6
BO02   Sierra Bellavi    6.80 176   P      Pn      09 39 51.0 +1.1
       comp=Z,129nm,0.6s
GO05   Hualane           7.02 184          Pn      09 39 52.4 -0.5
GO05   Hualane           7.02 184   P      Pn      09 39 52.3 -0.5
       comp=Z,92nm,0.4s
PB08   IPOC Station P    8.08  15          Pn      09 40 06.9 -0.8
PB08   IPOC Station P    8.08  15   P      Pn      09 40 06.6 -1.1
       comp=Z,46nm,0.8s
PB11   IPOC Station P    8.34  11   Pn     Pn      09 40 08.9 -2.3
PSGCX  Pisagua           8.43   8          Pn      09 40 10.5 -1.9
PSGCX  Pisagua           8.43   8   P      Pn      09 40 10.5 -1.9
       comp=Z,34nm,0.8s
H03N1  Juan Fernandez    8.44 228   Pn     Pn      09 40 11.5 -0.6
       baz=53,slow=74
H03N2  Juan Fernandez    8.46 228   Pn     Pn      09 40 11.5 -0.8
       baz=209,slow=74
VA04   Juan Fernndez     8.52 227          Pn      09 40 12.4 -0.9
VA04   Juan Fernndez     8.52 227   P      Pn      09 40 12.0 -1.3
GO01   Chusmiza          8.52  14          Pn      09 40 13.6 -0.3
GO01   Chusmiza          8.52  14   P      Pn      09 40 15.1 +1.1
       comp=Z,34nm,0.5s
BI02   San Fabin de      8.65 179          Pn      09 40 15.9 +0.6
BI02   San Fabin de      8.65 179   P      Pn      09 40 16.0 +0.7
       comp=Z,64nm,0.7s
H03S3  Juan Fernandez    8.69 226   Pn     Pn      09 40 13.8 -1.6
       baz=34,slow=20
H03S3                               Sn     Sn      09 41 47.1 -6.2
H03S1  Juan Fernandez    8.69 226   Pn     Pn      09 40 13.6 -1.9
       baz=34,slow=20
H03S1                               Sn     Sn      09 41 46.8 -6.7
H03S2  Juan Fernandez    8.70 226   Pn     Pn      09 40 13.9 -1.8
       baz=34,slow=20
H03S2                               Sn     Sn      09 41 47.2 -6.5
PB12   IPOC Station P    9.38   6          Pn      09 40 23.6 -1.8
PB16   IPOC Station P    9.76  11          Pn      09 40 29.9 -1.1
GO06   Curarrehue       11.57 180          Pn      09 40 56.5 +1.2
GO06   Curarrehue       11.57 180   P      Pn      09 40 54.9 -0.3
       comp=Z,12nm,1.3s
LPAZ   La Paz           12.03  15   Pn     Pn      09 41 02.3 +0.2
       comp=Z,1.5nm,0.3s,baz=213,slow=6.7,SNR=35
LPAZ                                LR     LR      09 46 08.3
       comp=Z,355nm,18.0s,baz=192,slow=40
       comp=Z,3.9nm,0.4s
LPAZ                                AML    AML
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LPAZ   La Paz           12.03  15          Pn      09 41 01.9 -0.2
LPAZ   La Paz           12.03  15  eP      Pn      09 41 01.2 -0.9
LPAZ   La Paz           12.03  15   P      Pn      09 41 02.3 +0.2
       comp=Z,11nm,0.7s
PSAL   Palomas, Salto   12.40 108  eP      Pn      09 41 06.7 +0.1
PSAL                               eS      Sn      09 43 24.3 -0.6
CPUP   Villa Florida    12.64  86   Pn     Pn      09 41 08.1 -1.8
       comp=Z,1.0nm,0.3s,baz=252,slow=12,SNR=20
CPUP                                Sn     Sn      09 43 23.0 -7.7
       comp=Z,0.9nm,0.3s,baz=275,slow=18,SNR=2.5
CPUP                                Lg     Lg      09 44 34.0
       comp=Z,0.6nm,0.3s,baz=165,slow=20,SNR=2.4
       comp=Z,2.1nm,0.4s
CPUP                                AML    AML
CPUP   Villa Florida    12.64  86          Pn      09 41 09.8 -0.1
CPUP   Villa Florida    12.64  86   P      Pn      09 41 12.3 +2.5
       comp=Z,22nm,0.8s
PLCA   Paso Flores      12.73 177   Pn     Pn      09 41 11.9 +0.8
       comp=Z,0.1nm,0.3s,baz=17,slow=16,SNR=1.6
PLCA                                Lg     Lg      09 44 49.9
       comp=Z,0.2nm,0.3s,baz=266,slow=23,SNR=1.2
PLCA                                LR     LR      09 46 16.7
       comp=Z,508nm,20.0s,baz=350,slow=38
       comp=Z,1.1nm,0.9s
PLCA                                AML    AML
ANCO   Parque Anchore   13.10 122  eP      Pn      09 41 16.1  0.0
MURT   Porto Murtinho   14.01  66  eP      Pn      09 41 25.4 -3.2
SJPY   San Joaquin      14.02  81  eP      Pn      09 41 26.0 -2.8
SIV    San Ignacio      15.29  41   Pn     Pn      09 41 40.4 -5.7
       comp=Z,0.2nm,0.3s,baz=238,slow=11,SNR=25
SIV                                 Sn     Sn      09 44 34.3 -1.4
       baz=234,slow=17,SNR=1.2
       comp=Z,4.3nm,0.3s
SIV                                 AML    AML
CPSB   Cacapava Do Su   15.87 103          Pn      09 41 53.5  0.0
CPSB                                IAmb   IAmb    09 42 07.4
       comp=Z,26nm,1.0s
CPSB   Cacapava Do Su   15.87 103  eP      Pn      09 41 51.8 -1.7
CPSB                               eS      Sn      09 44 45.9 -3.7
CPSB   Cacapava Do Su   15.87 103   P      Pn      09 41 54.9 +1.4
       comp=Z,35nm,1.3s
AQDB   Aquidauana       16.15  66  eP      Pn      09 41 53.5 -3.6
AQDB   Aquidauana       16.15  66   P      P       09 41 59.4 -0.9
       comp=Z,12nm,2.4s
PTLB   Pontes e Lacer   16.88  45          Pn      09 42 04.3 -2.1
PTLB   Pontes e Lacer   16.88  45  eP      Pn      09 42 04.5 -2.0
COYC   Coyhaique        17.56 182   P      P       09 42 15.4 -0.5
TRCB   Terra Rica       17.72  77   P      Pn      09 42 16.5 -0.5
VILB   Vilhena          18.25  37   P      Pn      09 42 21.3 -2.2
VILB                                IAmb   IAmb    09 42 39.2
       comp=Z,23nm,0.8s
VILB   Vilhena          18.25  37  eP      Pn      09 42 22.4 -1.1
LDASE  Londrina, Braz   18.84  81  eP      P       09 42 27.9 -2.3
SALV   Santo Antonio    18.87  54  eP      P       09 42 29.2 -1.2
C2SB   Chapadao do Su   19.33  66   P      Pn      09 42 37.5 +0.9
       comp=Z,82nm,0.5s
CZSB   Cruzeiro do Su   20.19 356   P      Pn      09 42 44.5 -2.3
CZSB                                IAmb   IAmb    09 42 50.3
       comp=Z,30nm,1.0s
CZSB   Cruzeiro do Su   20.19 356  eP      Pn      09 42 43.9 -2.9
FRTB   Fartura          20.21  82  eP      P       09 42 44.3 -0.9
FRTB   Fartura          20.21  82   P      Pn      09 42 46.4 -0.7
       comp=Z,115nm,1.3s
ATAH   Atahualpa        21.77 341   P      P       09 43 03.7 +1.3
       comp=Z,2.2nm,0.6s,baz=72,slow=13,SNR=2.0
       comp=Z,2.2nm,0.6s
ARAG   Araguaiana, MT   21.87  60  eP      P       09 43 02.3 -0.8
BB19B  Bebedouro        21.90  77  eP      P       09 43 02.5 -1.0
SPB    Sao Paulo        22.01  84   P      P       09 43 03.1 -1.4
SPB                                 IAmb   IAmb    09 43 18.1
       comp=Z,26nm,0.8s
RCLB   Rio Claro- Sao   22.28  81  eP      P       09 43 05.8 -1.7
CLDB   Colider          22.46  44  eP      P       09 43 08.2 -1.2
CLDB   Colider          22.46  44   P      P       09 43 09.1 -0.3
       comp=Z,20nm,1.5s
VAO    Valinhos         22.59  83   P      P       09 43 10.4 -0.5
VAO    Valinhos         22.59  83  eP      P       09 43 10.1 -0.8
IPMB   Ipameri, GO      23.52  70  eP      P       09 43 16.8 -3.7
CANS   Sao Roque de M   24.04  77  eP      P       09 43 25.0 -0.6
SNDB   Serra Nova Dou   24.65  54  eP      P       09 43 28.6 -2.4
PMNB   Patos De Minas   24.75  73   P      P       09 43 31.1 -0.8
       comp=Z,38nm,0.7s
BDFB   Brasilia         24.89  65   P      P       09 43 31.2 -2.1
       comp=Z,5.8nm,0.5s,baz=211,slow=8.3,SNR=8.1
BDFB                                LR     LR      09 54 46.7
       comp=Z,722nm,18.3s,baz=264,slow=40
       comp=Z,5.8nm,0.5s
BDFB   Brasilia         24.89  65   P      P       09 43 31.3 -2.1
BDFB                                IAmb   IAmb    09 43 35.1
       comp=Z,22nm,1.2s
BSCB   Bom Sucesso      25.18  80  eP      P       09 43 34.4 -1.5
MACA   Manacapuru-AM    26.72  24   P      P       09 43 49.3 -0.4
MACA                                IAmb   IAmb    09 43 51.0
       comp=Z,13nm,0.6s
MACA   Manacapuru-AM    26.72  24  eP      P       09 43 48.2 -1.5
ITTB   Itaituba         27.83  35  eP      P       09 43 58.3 -1.4
JANB   Januaria         28.22  69  eP      P       09 44 01.7 -1.5
BSFB   Barra de Sao F   29.42  79   P      P       09 44 13.6 -0.2
       comp=Z,26nm,2.4s
SMTB   Santa Maria do   29.43  54  eP      P       09 44 12.8 -1.1
BOAV   Boa Vista        31.97  21   P      P       09 44 36.1 -0.2
ROSC   El Rosal         32.76 355   LR     LR      09 59 12.0
       comp=Z,93nm,18.4s,baz=233,slow=39
NBTA   Tacaratu-PE      36.57  66  eP      P       09 45 15.3 -1.0
NBMA   Muriti-CE        37.05  63  eP      P       09 45 19.5 -0.9
PMSA   Palmer Station   37.09 175   LR     LR      10 00 23.5
       comp=Z,205nm,19.4s,baz=304,slow=36
MDP    Montagnes des    37.55  32   LR     LR      10 01 12.8
       comp=Z,160nm,19.9s,baz=202,slow=37
BELA   Belgrano 2       52.70 171   P      P       09 47 25.6 +1.4
VNA3   Neumayer Olymp   54.75 160  ⇑P      P       09 47 40.6 +1.3
       comp=Z,6.5nm,0.8s
VNA3   Neumayer Olymp   54.75 160   P      P       09 47 40.9 +1.6
       comp=Z,13nm,0.9s
VNA1   Neumayer--Stat   55.02 159   P      P       09 47 43.6 +2.4
       comp=Z,6.0nm,1.2s
VNA2   Neumayer--Watz   55.37 159  ⇑P      P       09 47 45.1 +1.3
       comp=Z,9.0nm,0.5s,baz=286,slow=7.6
VNA2   Neumayer--Watz   55.37 159   P      P       09 47 45.3 +1.5
       comp=Z,22nm,0.9s
SNAA   Sanae            56.97 159  ⇑P      P       09 47 56.4 +1.1
       comp=Z,160nm,0.6s
SNAA   Sanae            56.97 159   P      P       09 47 56.2 +1.0
       comp=Z,8.3nm,0.8s,baz=281,slow=5.9,SNR=24
       comp=Z,8.3nm,0.8s
SNAA   Sanae            56.97 159   P      P       09 47 55.5 +0.2
SNAA                                IAmb   IAmb    09 47 57.6
       comp=Z,13nm,1.0s
SNAA   Sanae            56.97 159   P      P       09 47 56.7 +1.4
       comp=Z,15nm,1.1s
TROLL  Troll, Antarti   58.68 160  ⇑P      P       09 48 08.8 +1.4
       comp=Z,488nm,0.9s
QSPA   South Pole Qui   62.23 180   P      P       09 48 33.7 +2.0
       comp=Z,6.9nm,0.9s,baz=163,slow=1.1,SNR=26
       comp=Z,6.9nm,0.9s
QSPA   South Pole Qui   62.23 180   P      P       09 48 33.4 +1.7
QSPA                                IAmb   IAmb    09 48 46.2
       comp=Z,11nm,1.1s
SWET   Sewanee          64.34 347   P      P       09 48 46.3 +0.5
TXAR   Lajitas Array    64.82 329   P      P       09 48 52.0 +2.8
       comp=Z,1.1nm,0.7s,baz=154,slow=8.8,SNR=13
       comp=Z,1.1nm,0.7s
WVT    Waverly          65.63 345   P      P       09 48 55.5 +1.4
MIAR   Mount Ida        65.64 340   P      P       09 48 54.4 +0.1
       comp=Z,5.3nm,1.1s
HHAR   Hobbs            67.36 340          P       09 49 04.3 -0.9
HHAR                                IAmb   IAmb    09 49 19.5
       comp=Z,3.8nm,0.9s
MNTX   Cornudas Mount   67.61 329          P       09 49 06.0 -0.9
MNTX                                IAmb   IAmb    09 49 09.5
       comp=Z,2.1nm,0.7s
MNTX   Cornudas Mount   67.61 329   P      P       09 49 08.9 +1.9
       comp=Z,3.6nm,1.1s
MNTX                                pP     pwP     09 49 14.9 +1.9
HDIL   Hopedale         70.19 346   P      P       09 49 21.9 -0.8
ANMO   Albuquerque      70.82 330   LR     LR      10 17 00.1
       comp=Z,49nm,18.3s,baz=207,slow=33
DBIC   Dimbokro         72.80  73   P      P       09 49 39.9 +0.8
       comp=Z,20nm,0.9s,baz=224,slow=6.2,SNR=11
       comp=Z,20nm,0.9s
DBIC   Dimbokro         72.80  73          P       09 49 39.4 +0.3
DBIC   Dimbokro         72.80  73   P      P       09 49 40.1 +1.0
       comp=Z,29nm,1.6s
ISCO   Idaho Springs    74.59 333   P      P       09 49 52.3 +2.9
ECSD   EROS Data Cent   75.03 341   P      P       09 49 53.7 +2.2
       comp=Z,6.9nm,0.9s
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RSSD   Black Hills      77.73 337   P      P       09 50 09.9 +2.8
HWUT   Hardware Ranch   78.58 330   P      P       09 50 15.0 +3.1
       comp=Z,6.6nm,0.7s
HWUT                                pP     PcP     09 50 20.9  0.0
PDAR   Pinedale Array   78.68 332   P      P       09 50 14.4 +1.9
       comp=Z,0.8nm,0.5s,baz=123,slow=7.8,SNR=11
       comp=Z,0.8nm,0.5s
MAW    Mawson           78.78 164   P      P       09 50 13.8 +1.3
       comp=Z,3.3nm,1.0s,baz=159,slow=4.2,SNR=4.5
MAW                                 LR     LR      10 27 20.9
       comp=Z,79nm,18.1s,baz=198,slow=38
       comp=Z,3.3nm,1.0s
RAR    Rarotonga        78.97 252   LR     LR      10 17 43.4
       comp=Z,128nm,18.6s,baz=106,slow=30
NVAR   Mina Array Bea   79.30 324   P      P       09 50 18.9 +2.9
       comp=Z,0.9nm,0.8s,baz=160,slow=6.1,SNR=5.1
       comp=Z,0.9nm,0.8s
TSUM   Tsumeb           80.36 107   LR     LR      10 21 01.6
       comp=Z,104nm,20.6s,baz=151,slow=32
TSUM   Tsumeb           80.36 107   P      P       09 50 23.5 +1.3
TSUM                                pP     PcP     09 50 32.6 +3.3
ULM    Lac du Bonnet    80.86 344   P      P       09 50 25.4 +1.6
       comp=Z,3.9nm,0.8s,baz=181,slow=8.7,SNR=4.5
       comp=Z,3.9nm,0.8s
HLID   Hailey           81.40 330   P      P       09 50 30.7 +3.6
       comp=Z,3.4nm,1.1s
TORD   Torodi Ar. Bea   81.66  70   P      P       09 50 29.4 +0.6
       comp=Z,7.9nm,0.9s,baz=273,slow=4.3,SNR=40
       comp=Z,7.9nm,0.9s
BOSA   Boshof           82.40 118   P      P       09 50 33.4 +0.5
       comp=Z,6.0nm,0.5s,baz=253,slow=3.2,SNR=23
       comp=Z,6.0nm,0.5s
BOSA   Boshof           82.40 118   P      P       09 50 33.3 +0.5
LBTB   Lobatse          84.34 115   P      P       09 50 43.3 +0.4
       comp=Z,26nm,1.8s
TIO    Tiouine          84.68  51   P      P       09 50 46.7 +2.4
       comp=Z,30nm,1.2s
CASY   Casey            86.02 181   P      P       09 50 52.7 +2.3
       comp=Z,7.7nm,0.9s
MDT    Midelt           87.61  51   LR     LR      10 29 39.4
       comp=Z,76nm,20.1s,baz=257,slow=35
URZ    Urewera          88.12 227   LR     LR      10 25 02.7
       comp=Z,58nm,18.1s,baz=100,slow=32
LSZ    Lusaka           91.14 108   LR     LR      10 28 16.4
       comp=Z,104nm,18.4s,baz=178,slow=33
ESDC   Sonseca Array    92.00  45   P      P       09 51 20.3 +1.2
       comp=Z,0.8nm,0.8s,baz=266,slow=5.6,SNR=4.9
       comp=Z,0.8nm,0.8s
AFI    Afiamalu         92.47 253   LR     LR      10 24 14.6
       comp=Z,80nm,18.2s,baz=109,slow=30
KEST   Kesra            98.96  54   LR     LR      10 37 40.8
       comp=Z,214nm,20.6s,baz=271,slow=36
BRTR   Keskin Array B  118.30  58   PKP    PKiKP   09 56 57.4 -0.4
       comp=Z,0.3nm,0.5s,baz=242,slow=3.1,SNR=2.2
ASAR   Alice Springs   123.14 208   PKP    PKiKP   09 57 08.3 +0.6
       comp=Z,0.8nm,0.4s,baz=127,slow=1.7,SNR=15
H11S2  WAKE ISLAND Hy  126.20 273   T      T       12 16 24.0
       baz=112,slow=75,SNR=31
H11S1  WAKE ISLAND Hy  126.21 273   T      T       12 16 25.7
       baz=112,slow=75,SNR=36
H11S3  WAKE ISLAND Hy  126.22 273   T      T       12 16 25.6
       baz=112,slow=75,SNR=39
WRA    Warramunga Arr  126.24 210   PKP    PKiKP   09 57 14.7 +0.8
       comp=Z,52nm,0.7s,baz=146,slow=1.9,SNR=1.3
H11N3  WAKE ISLAND Hy  126.46 275   T      T       12 16 36.1
       baz=113,slow=75,SNR=9.3
H11N1  WAKE ISLAND Hy  126.47 275   T      T       12 16 46.3
       baz=113,slow=75,SNR=5.5
H11N2  WAKE ISLAND Hy  126.47 275   T      T       12 16 41.2
       baz=113,slow=75,SNR=12
KURBB  Kurchatov Arra  147.93  37   PKPbc  PKiKP   09 57 54.7 -2.3
       comp=Z,4.7nm,0.9s,baz=306,slow=3.2,SNR=11
ZALV   Zalesovo Beam   148.75  27   PKP    PKPbc   09 57 54.1 -3.1
       comp=Z,0.9nm,0.4s,baz=250,slow=4.3,SNR=2.9
ZALV                                PKPbc  pPKPbc  09 57 58.4 -1.6
       comp=Z,12nm,0.8s,baz=299,slow=2.1,SNR=18
KSH2   Kashi           150.46  59   PKPbc  PKiKP   09 58 03.9 +1.0
MKAR   Makanchi Array  152.11  41   PKPbc  PKiKP   09 58 06.8 +0.9
       comp=Z,4.8nm,0.7s,baz=304,slow=2.4,SNR=9.8
HHC    Hu-ho-hao-te    166.94 350  eP      PKPdf   09 58 12.4 -3.7
NJ2    Nanjing         170.23 297  eP      PKPdf   09 58 18.2 -0.2
NJ2                                 pmax   pmax
       comp=Z,25nm,0.6s
PZH    PanZhiHua       173.72 102   PKP    PKPdf   09 58 17.6 -2.7
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WEL ***02*** *09:45:58.4±0.6, 37˚S±4˚×17˚7E±˚, h5km, M4.1/24, ML4.0/24, MLv4.1/24, Error ellipse: s-maj=6.5km s-min=2.8km az=35.9, confirmed*

NOU ***02*** *09:45:59.6, 36.˚88S×177.˚12E, h20km, MLv4.3/11, Off E. Coast of N. Island, N.Z.*

NEIC ***02*** *09:45:59.3±1.9, 36.˚95S±0.˚08×177.˚11E±0.˚06, h10km±1km, mb4.4/4, Error ellipse: s-maj=14.4km s-min=7.5km az=358.0*

IDC ***02*** *09:46:02.1±1.1, 37.˚15S×176.˚54E, h0km, mb4.2/4, mbtmp4.1/5, ML2.9/1, MS3.7/13, Error ellipse: s-maj=25.6km s-min=18.3km az=64.0*

ISC 02 09:45:58.2±1.4**, 36.˚86S**±0.˚04×**177.˚09E**±0.˚03**, h1**km±9km**, n172,** σ1.˚39/172**, mb4.3**/6**, MS3.8**/11**, Off east coast of North Island**

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Code   Station Name      Δ°   AZ°   Phase ID          Time      Res
                                    Op     ISC      h  m  s    ISC
WSRZ   White Island S    0.67 174   P      Pn      09 46 13.8 -0.9
WSRZ                                S      Sb      09 46 21.3 -1.1
WSRZ                                T      T       09 46 52.1
WSRZ                                AML    AML
WSRZ                                AML    AML
WIZ    White Island      0.67 173   P      Pb      09 46 13.1 +0.3
WIZ                                 S      Sb      09 46 22.6  0.0
WIZ                                 AML    AML
WIZ                                 AML    AML
MYRZ   Mayor Island      0.80 238   P      Pb      09 46 14.7 -0.2
MYRZ                                AML    AML
MYRZ                                AML    AML
WHRZ   Whale Island      1.00 185   P      Pn      09 46 19.2 -0.2
WHRZ                                AML    AML
WHRZ                                AML    AML
HAZ    Te Kaha           1.05 149   P      Pg      09 46 18.0 -0.4
HAZ                                 S      Sg      09 46 33.0 +0.9
HAZ                                 AML    AML
HAZ                                 AML    AML
TGRZ   Tauranga          1.09 217   P      Pg      09 46 19.2  0.0
TGRZ                                AML    AML
TGRZ                                AML    AML
MARZ   Manawahe          1.18 196   P      Pg      09 46 20.5 -0.2
MARZ                                AML    AML
MARZ                                AML    AML
MXZ    Matakaoa Point    1.20 126   P      Pg      09 46 20.6 -0.6
MXZ    Matakaoa Point    1.20 126   S      Sg      09 46 36.5 -0.2
MXZ    Matakaoa Point    1.20 126          Pg      09 46 20.4 -0.8
MXZ                                 Sg     Sg      09 46 35.8 -1.0
MXZ    Matakaoa Point    1.20 126   P      Pg      09 46 20.5 -0.6
MXZ                                 S      Sg      09 46 36.2 -0.5
MXZ                                 AML    AML
MXZ                                 AML    AML
RUGZ   Raukumara Rang    1.20 157   P      Pg      09 46 20.9 -0.3
RUGZ                                AML    AML
RUGZ                                AML    AML
LIRZ   Lichensteins R    1.28 206   P      Pg      09 46 22.5 -0.2
LIRZ                                AML    AML
LIRZ                                AML    AML
EDRZ   Edgecumbe         1.28 192   P      Pg      09 46 22.6 -0.1
EDRZ                                AML    AML
EDRZ                                AML    AML
PKGZ   Pakihiroa         1.28 142   P      Pn      09 46 22.1 -1.2
PKGZ                                AML    AML
PKGZ                                AML    AML
KARZ   Kaharoa           1.34 210   P      Pn      09 46 23.3 -0.8
KARZ                                AML    AML
KARZ                                AML    AML
KMRZ   Kaimai            1.35 222   P      Pn      09 46 23.1 -1.1
KMRZ                                AML    AML
KMRZ                                AML    AML
MKRZ   Makatiti          1.37 201   P      Pg      09 46 26.5 +2.0
URZ    Urewera           1.40 179   Pn     Pn      09 46 24.0 -0.9
       21nm,0.3s,baz=342,slow=1.8,SNR=105
URZ                                 Sn     Sb      09 46 41.5 -2.1
       76nm,0.3s,baz=292,slow=11,SNR=8.6
URZ    Urewera           1.40 179   P      Pn      09 46 23.5 -1.4
URZ    Urewera           1.40 179   P      Pn      09 46 23.7 -1.2
URZ                                 AML    AML
URZ                                 AML    AML
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WMGZ	Waiomatatini S	1.43	133	P	Pb	09 46 25.5	-0.1
WMGZ				AML	AML		
WMGZ				AML	AML		
NGRZ	Ngongotaha	1.44	210	P	Pn	09 46 24.6	-0.9
NGRZ				AML	AML		
NGRZ				AML	AML		
GRZ	Great Barrier	1.45	294	P	Pb	09 46 25.3	-0.6
GRZ				S	Sb	09 46 44.1	-0.7
GRZ				AML	AML		
GRZ				AML	AML		
TARZ	Mount Tarawera	1.45	198	P	Pb	09 46 25.8	-0.3
TARZ				AML	AML		
TARZ				AML	AML		
TWGZ	Tauwhareparae	1.50	152	P	Pg	09 46 27.0	+0.2
TWGZ				AML	AML		
TWGZ				AML	AML		
UTU	Utuhina	1.50	208	P	Pn	09 46 24.9	-1.4
UTU				AML	AML		
UTU				AML	AML		
HLRZ	Highlands Stat	1.51	203	P	Pg	09 46 29.3	+2.2
MWZ	Matawai	1.52	167	P	Pn	09 46 25.3	-1.3
MWZ				AML	AML		
MWZ				AML	AML		
PUZ	Puketiti	1.53	143	P	Pb	09 46 27.5	+0.1
PUZ				AML	AML		
PUZ				AML	AML		
TOZ	Tahuroa Road	1.54	235		Pn	09 46 25.4	-1.4
TOZ				Sn	Sn	09 46 45.0	-2.4
TOZ	Tahuroa Road	1.54	235	P	Pn	09 46 25.5	-1.3
TOZ				AML	AML		
TOZ				AML	AML		
RRRZ	Republican Roa	1.55	197	P	Pn	09 46 26.4	-0.6
RRRZ				AML	AML		
RRRZ				AML	AML		
MKAZ	Moumakai	1.56	260	P	Pn	09 46 25.9	-1.3
MKAZ				S	Sb	09 46 47.8	-0.4
MKAZ				AML	AML		
MKAZ				AML	AML		
WIAZ	Waiheke Island	1.57	272	P	Pn	09 46 26.0	-1.2
WIAZ				S	Sn	09 46 47.0	-1.2
WIAZ				AML	AML		
WIAZ				AML	AML		
HSRZ	Hossack Road	1.60	205	P	Pn	09 46 27.8	+0.1
HSRZ				AML	AML		
HSRZ				AML	AML		
MUGZ	Murupara	1.64	189	P	Pn	09 46 27.3	-0.8
RAGZ	Rawiri	1.66	171	P	Pn	09 46 28.5	0.0
HRRZ	Handcock Road	1.66	202	P	Pn	09 46 28.4	-0.1
GRRZ	Galatos Road	1.68	207	P	Pn	09 46 28.7	-0.1
TKGZ	Te Karaka	1.69	159	P	Pn	09 46 29.3	+0.4
ETAZ	East Tamaki Re	1.74	266	P	Pn	09 46 28.8	-0.7
RTZ	Ruatahuna	1.76	183		Pn	09 46 28.9	-1.1
RTZ	Ruatahuna	1.76	183	P	Pn	09 46 29.4	-0.5
RTZ				S	Sn	09 46 51.9	-1.1
MBAZ	Motutapu North	1.76	272	P	Pn	09 46 28.9	-0.9
ALRZ	Allen Road	1.80	199	P	Pg	09 46 36.7	+4.0
ABAZ	Army Bay	1.83	277	P	Pn	09 46 30.9	+0.1
ABAZ				AML	AML		
ABAZ				AML	AML		
CNGZ	Carnagh Statio	1.85	152	P	Pb	09 46 33.1	+0.3
EPAZ	Eden Park BICE	1.88	269	P	Pb	09 46 32.2	-1.1
HBAZ	Herne Bay Bore	1.89	269	P	Pn	09 46 32.1	+0.4
KUTZ	Kaahu Road	1.92	211	P	Pn	09 46 31.6	-0.4
TLZ	Tolley Road	1.92	219	P	Pn	09 46 31.3	-0.8
RIGZ	Rimuhau	1.92	164	P	Pb	09 46 33.5	-0.5
AWAZ	Awhitu Peninsu	1.97	263	P	Pn	09 46 32.3	-0.4
AWAZ				AML	AML		
AWAZ				AML	AML		
MTHZ	Maungataniwha	2.00	186	P	Pn	09 46 33.3	+0.1
RVAZ	Riverhead Bore	2.02	272	P	Pn	09 46 33.1	-0.3
WTAZ	Waiatarua	2.02	267	P	Pn	09 46 33.1	-0.3
RAHZ	Arahi	2.06	180	P	Pn	09 46 34.4	+0.4
WATZ	Wairara	2.14	210	P	Pb	09 46 36.3	-1.5
PRGZ	Paritu Road	2.16	163	P	Pg	09 46 40.2	+0.7
KNZ	Kokohu	2.21	168	P	Pg	09 46 43.8	+3.3
WHHZ	Waihua	2.22	177	P	Pg	09 46 43.4	+2.7
NMHZ	Naumai	2.25	186	P	Pb	09 46 39.7	+0.1
RATZ	Rangitukua	2.26	207	P	Pg	09 46 42.2	+0.7
RITZ	Rihia Road	2.33	204	P	Pb	09 46 41.8	+0.8
BKZ	Black Stump Fm	2.35	191	P	Pn	09 46 37.4	-0.7
MHGZ	Mahia Peninsul	2.38	165	P	Pg	09 46 44.2	+0.4
KATZ	Kakaramea	2.39	207	P	Pb	09 46 42.0	0.0
WCZ	Waipu Caves	2.40	292	P	Pn	09 46 37.9	-0.7
WCZ				AML	AML		
WCZ				AML	AML		
ARHZ	Aropaoanui	2.40	182	P	Pn	09 46 39.5	+0.8
HIZ	Hauiti	2.42	226	P	Pn	09 46 38.4	-0.6
HIZ	Hauiti	2.42	226	S	Sn	09 47 08.1	-1.2
HIZ	Hauiti	2.42	226		Pn	09 46 37.9	-1.1
HIZ	Hauiti	2.42	226	P	Pn	09 46 38.8	-0.2
NTVZ	North Tongarir	2.50	206	P	Pb	09 46 44.0	0.0
TMVZ	Te Maari	2.51	205	P	Pg	09 46 45.5	-0.7
OTVZ	Oturere	2.56	206	P	Pg	09 46 47.0	-0.3
TWVZ	Taurewa	2.57	210	P	Pn	09 46 41.1	+0.1
SNVZ	South Ngauruho	2.59	206	P	Pn	09 46 42.7	+1.3
NGZ	Ngauruhoe	2.60	206	P	Pb	09 46 46.2	+0.5
MCHZ	McNeill Hill	2.60	187	P	Pb	09 46 43.8	-1.8
KWHZ	Kaweka Forest	2.62	191	P	Pb	09 46 44.7	-1.2
COVZ	Chateau Observ	2.64	207	P	Pn	09 46 43.2	+1.2
FWVZ	Far West T-bar	2.69	206	P	Pb	09 46 47.1	-0.1
MAVZ	Matarangi	2.69	206	P	Pb	09 46 48.1	+0.7
WHVZ	Whangaehu Hut	2.70	206	P	Pb	09 46 46.4	-1.0
TRVZ	Turoa	2.73	206	P	Pb	09 46 46.1	-1.8
WNVZ	Wahianoa	2.73	205	P	Pn	09 46 44.7	+1.3
BHHZ	Black Hill Sta	2.75	197	P	Pn	09 46 44.2	+0.7
MOVZ	Moawhango	2.76	202	P	Pn	09 46 44.4	+0.7
KRHZ	Kereru	2.84	191	P	Pn	09 46 46.4	+1.7
VRZ	Vera Road	2.92	218	P	Pn	09 46 46.3	+0.6
KAHZ	Kahuranaki	2.94	183	P	Pn	09 46 47.5	+1.5
PNHZ	Pukenui	3.13	193	P	Pn	09 46 49.7	+0.9
OUZ	Omahuta	3.27	299	P	Pn	09 46 50.2	-0.3
OUZ	Omahuta	3.27	299	P	Pn	09 46 50.3	-0.3
OUZ				AML	AML		
OUZ				AML	AML		
TSZ	Takapari Road	3.32	195	P	Pn	09 46 52.2	+0.9
WAZ	Wanganui	3.33	209	P	Pb	09 46 54.9	-3.2
LREZ	Lake Rotokare	3.35	218	P	Pn	09 46 53.7	+2.0
PKE	Pukeiti	3.38	225	P	Pn	09 46 53.3	+1.1
KHEZ	Kahui Hut	3.44	224	P	Pn	09 46 55.5	+2.6
NBEZ	Newall Road No	3.50	226	P	Pn	09 46 54.8	+1.1
DVHZ	Dannevirke	3.51	192	P	Pn	09 46 54.4	+0.4
BFZ	Birch Farm	3.88	190	P	Pn	09 46 57.8	-1.1
BFZ	Birch Farm	3.88	190	Pn	Pn	09 46 57.3	-1.6
BFZ	Birch Farm	3.88	190	P	Pn	09 46 58.6	-0.4
MRZ	Mangatainoka R	3.98	197	Pn	Pn	09 46 59.2	-1.1
MRZ	Mangatainoka R	3.98	197	P	Pn	09 47 00.2	-0.1
HOWZ	Holdsworth Sta	4.22	196	P	Pn	09 47 03.2	-0.5
OGWZ	Otaki Gorge	4.23	200	P	Pn	09 47 03.9	+0.1
KIW	Kapiti Island	4.35	202	P	Pn	09 47 05.8	+0.4
CAW	Cannon Point	4.53	200	P	Pn	09 47 07.9	0.0
DUWZ	D'Urville Isla	4.65	211	P	Pn	09 47 13.7	+4.1
PAWZ	Paruwai Farm	4.70	195	P	Pn	09 47 09.1	-1.2
MSWZ	Moikau Station	4.77	197	Pn	Pn	09 47 08.8	-2.4
MSWZ	Moikau Station	4.77	197	P	Pn	09 47 09.5	-1.7
SNZO	South Karori	4.82	202	P	Pn	09 47 10.8	-1.1
SNZO	South Karori	4.82	202	Pn	Pn	09 47 09.9	-1.9
TCW	Tory Channel	4.87	206	Pn	Pn	09 47 10.8	-1.7
PLWZ	Palliser	4.92	196	Pn	Pn	09 47 11.9	-1.4
TUWZ	Tuamarina	5.18	207	Pn	Pn	09 47 16.8	0.0
TUWZ	Tuamarina	5.18	207	P	Pn	09 47 18.4	+1.6
NNZ	Nelson	5.22	212	Pn	Pn	09 47 17.8	+0.3
NNZ	Nelson	5.22	212	P	Pn	09 47 19.6	+2.1
TKNZ	Takaka Hill	5.27	216	Pn	Pn	09 47 17.8	-0.3
TKNZ	Takaka Hill	5.27	216	P	Pn	09 47 19.9	+1.9
QRZ	Quartz Range	5.33	221	P	Pn	09 47 18.3	-0.6
QRZ	Quartz Range	5.33	221	Pn	Pn	09 47 16.6	-2.2
QRZ	Quartz Range	5.33	221	P	Pn	09 47 19.4	+0.5
BSWZ	Blackbirch Sta	5.46	206	P	Pn	09 47 25.4	+4.8
MRNZ	Matariki Terra	5.65	215	Pn	Pn	09 47 23.0	-0.3
MRNZ	Matariki Terra	5.65	215	P	Pn	09 47 25.9	+2.6
THZ	Tophouse	5.88	212	Pn	Pn	09 47 25.7	-0.8
THZ	Tophouse	5.88	212	P	Pn	09 47 27.0	+0.5
KHZ	Kahutara	6.19	205	P	Pn	09 47 29.5	-1.2
KHZ	Kahutara	6.19	205	Pn	Pn	09 47 28.4	-2.3
KHZ	Kahutara	6.19	205	P	Pn	09 47 29.3	-1.4
DSZ	Denniston Nort	6.37	218	Pn	Pn	09 47 31.7	-1.6
DSZ	Denniston Nort	6.37	218	P	Pn	09 47 34.5	+1.2
GVZ	Greta Valley S	6.85	206	Pn	Pn	09 47 37.5	-2.3
GVZ	Greta Valley S	6.85	206	P	Pn	09 47 39.3	-0.5
LTZ	Lake Taylor	6.98	211	Pn	Pn	09 47 40.2	-1.4
LTZ	Lake Taylor	6.98	211	P	Pn	09 47 43.6	+1.9
INZ	Inchbonnie	7.29	215	P	Pn	09 47 47.1	+1.2
OXZ	Oxford	7.53	209	P	Pn	09 47 49.6	+0.4
MQZ	McQueen's Vall	7.63	205	P	Pn	09 47 48.4	-2.1
RPZ	Rata Peaks	8.26	212	Pn	Pn	09 47 56.6	-2.5
	0.2nm,0.3s,baz=47,slow=19,SNR=4.9						
RPZ				Sn	Sn	09 49 25.8	-7.3
	baz=357,slow=19						
RPZ				LR	LR	09 51 38.7	
	comp=Z,122nm,20.4s,baz=38,slow=43						
	1.3nm,0.7s						
RPZ				AML	AML		
RPZ	Rata Peaks	8.26	212	P	Pn	09 47 59.6	+0.5
CTZ	Chatham Island	8.38	147	P	Pn	09 48 02.1	+1.3
TMZ	Timaru	8.82	210	P	Pn	09 48 05.3	-1.6
DZM	Mont Dzumac	17.39	325	LR	LR	09 55 28.2	
	comp=Z,426nm,18.5s,baz=196,slow=33						
RAR	Rarotonga	25.44	59	P	P	09 51 36.6	+9.0
	16nm,0.6s,baz=180,slow=8.1,SNR=2.1						
	16nm,0.6s						
STKA	Stephens Creek	29.61	269	LR	LR	10 03 58.3	
	comp=Z,119nm,18.6s,baz=47,slow=37						
CTA	Charters Tower	31.66	293	LR	LR	10 04 38.7	
	comp=Z,204nm,18.3s,baz=78,slow=36						
ASAR	Alice Springs	39.23	277	P	P	09 53 28.6	+0.2
	0.6nm,0.7s,baz=120,slow=8.0,SNR=7.8						
ASAR				LR	LR	10 08 04.1	
	comp=Z,122nm,21.2s,baz=84,slow=34						
	0.6nm,0.7s						
ASAR	Alice Springs	39.23	277	P	P	09 53 28.2	-0.1
WRA	Warramunga Arr	40.84	282	P	P	09 53 41.8	+0.2
	39nm,0.5s,baz=122,slow=7.8,SNR=0.8						
WRA				LR	LR	10 11 11.5	
	comp=Z,242nm,18.1s,baz=272,slow=37						
WRA	Warramunga Arr	40.84	282	P	P	09 53 42.4	+0.7
WB0	Warramunga Arr	40.89	283	P	P	09 53 43.1	+1.0
WB0				IAmb	IAmb	09 53 47.9	
	comp=Z,5.3nm,1.1s						
FITZ	Fitzroy Crossi	48.71	278	LR	LR	10 14 26.9	
	comp=Z,141nm,19.6s,baz=352,slow=35						
FITZ	Fitzroy Crossi	48.71	278	P	P	09 54 45.3	+0.8
QSPA	South Pole Qui	53.27	180	P	P	09 55 19.7	+1.4
	comp=Z,3.2nm,0.7s,baz=347,slow=8.9,SNR=14						
	comp=Z,3.2nm,0.7s						
QSPA	South Pole Qui	53.27	180	P	P	09 55 18.6	+0.2
QSPA				IAmb	IAmb	09 55 21.6	
	comp=Z,6.7nm,1.0s						
GUMO	Guam	58.64	323	LR	LR	10 17 41.9	
	comp=Z,19nm,20.4s,baz=125,slow=32						
KAPI	Kappang	61.11	287	LR	LR	10 24 23.4	
	comp=Z,104nm,18.4s,baz=190,slow=38						
DAV	Davao City (W)	65.01	301	LR	LR	10 27 39.2	
	comp=Z,29nm,18.1s,baz=128,slow=38						
SNAA	Sanae	71.77	180	P	P	09 57 23.8	+2.0
	comp=Z,0.6nm,0.4s,baz=198,slow=6.4,SNR=1.8						
	comp=Z,0.6nm,0.4s						
PLCA	Paso Flores	81.01	135	LR	LR	10 27 42.5	
	comp=Z,19nm,18.1s,baz=206,slow=31						
ATAH	Atahualpa	97.23	104	LR	LR	10 35 48.3	
	comp=Z,36nm,20.2s,baz=209,slow=31						
CPUP	Villa Florida	98.94	132	LR	LR	10 37 45.0	
	comp=Z,61nm,18.7s,baz=234,slow=31						
FINES	FINESS Array B	149.42	333	PKPbc	PKPab	10 05 52.4	-0.6
	comp=Z,2.7nm,0.9s,baz=46,slow=4.0,SNR=2.6						
TORD	Torodi Ar. Bea	156.03	191	PKPab	PKPab	10 06 25.2	+3.3
	comp=Z,0.3nm,0.5s,baz=199,slow=4.0,SNR=2.4						

IDC 02 09:47:18.0±473.0,**47°.60N**×**48°.34E**,**h0**^{km},**Error ellipse: s-maj=300.0km s-min=127.8km az=168.0**,**Western Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I43RU	DUBNA INFRASON	11.39	327	I	I	11 02 50.0	
	baz=141,slow=319,SNR=2.4						
I26DE	FREYUNG INFRAS	22.99	286	I	I	12 07 50.0	
	baz=79,slow=334,SNR=2.0						
I46RU	ZALESOVO INFRA	23.73	61	I	I	12 11 10.0	
	baz=274,slow=310,SNR=4.8						

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*NOU **02** 09:50:45.0, 40°.45S×176°.78E, h40^{km}, MLv3.4/12, North Island, New Zealand*

WEL 02 09:50:47.1±0.4,**40°S**±2°×**17°7E**±°,**h12**^{km}±2^{km},**M3.3**/29, **ML3.3**/22,**MLv3.3**/29,**Error ellipse: s-maj=3.6km s-min=2.2km az=133.1**,**confirmed**,**North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PGFS	Porangahau Fir	0.02	102	P	Pg	09 50 49.4	+0.1
PGFS				S	Sg	09 50 51.8	+1.1
PRHZ	Porangahau	0.05	50	P	Pg	09 50 49.7	+0.2
PRHZ				S	Sg	09 50 52.5	+1.4
PRHZ				AML	AML		
PRHZ				AML	AML		
ANWZ	Angora Road	0.18	208	P	Pg	09 50 51.7	+0.6
ANWZ				S	Sg	09 50 56.4	+2.4
ANWZ				AML	AML		
ANWZ				AML	AML		
WBFS	Weber Fire Sta	0.23	244	P	Pg	09 50 52.5	+0.4
WBFS				S	Sg	09 50 57.2	+1.8
WPHZ	Waipukurau	0.26	335	P	Pb	09 50 53.1	-0.5
WPHZ				AML	AML		
WPHZ				AML	AML		
DVHZ	Dannevirke	0.32	270	P	Pg	09 50 54.1	+0.5
DVHZ				AML	AML		
DVHZ				AML	AML		
PXZ	Pawanui	0.34	39	P	Pb	09 50 54.6	-0.5
PXZ				S	Sb	09 51 00.9	+0.5
PXZ				AML	AML		
PXZ				AML	AML		
PWZ	Pawanui	0.34	38	P	Pg	09 50 54.4	+0.5
PWZ				S	Sb	09 51 01.9	+1.5
WPWS	Waipawa Distri	0.35	360	P	Pg	09 50 54.5	+0.3
WPWS				S	Sb	09 51 00.9	+0.1
DVHS	Dannevirke Hig	0.38	284	P	Pg	09 50 55.2	+0.5
DVHS				S	Sb	09 51 02.4	+0.7
BFZ	Birch Farm	0.46	214	P	Pg	09 50 56.4	+0.2
BFZ	Birch Farm	0.46	214	S	Sb	09 51 05.3	+1.3
BFZ	Birch Farm	0.46	214	P	Pb	09 50 56.7	-0.5
BFZ				S	Sb	09 51 05.1	+1.1
BFZ				AML	AML		
BFZ				AML	AML		
BFZ	Birch Farm	0.46	214	P	P	09 50 56.9	0.0
	comp=Z,575nm,0.5s						
PNHZ	Pukenui	0.48	322	P	Pg	09 50 57.1	+0.4
PNHZ				S	Sb	09 51 05.2	+0.5
PNHZ				AML	AML		
PNHZ				AML	AML		
PRWZ	Pori Road	0.54	241	P	Pb	09 50 58.4	+0.1
PRWZ				S	Sn	09 51 07.8	-1.7
PRWZ				AML	AML		
PRWZ				AML	AML		
TSZ	Takapari Road	0.54	296	P	Pg	09 50 57.8	+0.3
TSZ				S	Sb	09 51 06.5	+0.4
TSZ				AML	AML		
TSZ				AML	AML		
WDPS	Woodville Poli	0.55	266	P	Pb	09 50 58.4	-0.2
WDPS				S	Sb	09 51 07.7	+1.3
KAHZ	Kahuranaki	0.55	24	P	Pb	09 50 58.8	+0.2
KAHZ				S	Sn	09 51 08.7	-1.2
KAHZ				AML	AML		
KAHZ				AML	AML		
WAKS	Wakarara Rangi	0.58	334	P	Pb	09 50 59.2	-0.1
WAKS				S	Sn	09 51 09.6	-1.1
TRMS	Tiraumea	0.59	230	P	Pb	09 50 58.9	-0.4
TRMS				S	Sb	09 51 08.9	+1.3
POWZ	Post Office Ro	0.63	261	P	Pb	09 50 59.9	-0.2
POWZ				AML	AML		
POWZ				AML	AML		
KRHZ	Kereru	0.68	346	P	Pb	09 51 00.6	-0.2
KRHZ				AML	AML		
KRHZ				AML	AML		
CPWZ	Castlepoint	0.68	205	P	Pg	09 51 00.4	+0.1
CPWZ				AML	AML		
CPWZ				AML	AML		
TIWZ	Tintock	0.72	228	P	Pg	09 51 00.9	0.0
TIWZ				AML	AML		
TIWZ				AML	AML		
CKHZ	Cape Kidnapper	0.74	31	P	Pg	09 51 01.4	0.0
CKHZ				AML	AML		
CKHZ				AML	AML		
MRZ	Mangatainoka R	0.85	244	P	Pg	09 51 02.8	-0.7
MRZ				AML	AML		
MRZ				AML	AML		
MCHZ	McNeill Hill	0.86	6	P	Pg	09 51 03.7	+0.1
MCHZ				AML	AML		
MCHZ				AML	AML		
KWHZ	Kaweka Forest	0.88	352	P	Pg	09 51 04.0	-0.2
KWHZ				AML	AML		
KWHZ				AML	AML		
BHHZ	Black Hill Sta	0.90	333	P	Pg	09 51 04.1	-0.4
BHHZ				AML	AML		
BHHZ				AML	AML		
TMWZ	Te Maipa	0.96	213	P	Pg	09 51 03.7	-2.0
TMWZ				AML	AML		
OHWZ	Ohakea	0.98	275	P	Pn	09 51 06.4	-0.1
OHWZ				AML	AML		
OHWZ				AML	AML		
HOWZ	Holdsworth Sta	1.01	233	P	Pb	09 51 04.7	-1.8
HOWZ				AML	AML		
ARHZ	Aropaoanui	1.08	17	P	Pb	09 51 06.6	-1.0
ARHZ				AML	AML		
MOVZ	Moawhango	1.10	324	P	Pb	09 51 07.5	-0.5
MOVZ				AML	AML		
MOVZ				AML	AML		
BKZ	Black Stump Fm	1.13	356	P	Pb	09 51 07.0	-1.6
BKZ	Black Stump Fm	1.13	356	S	Sb	09 51 23.2	-0.1
MTW	Mount Morrison	1.19	223	P	Pn	09 51 06.5	-3.0
MTW				AML	AML		
OGWZ	Otaki Gorge	1.20	244	P	Pn	09 51 07.5	-2.1
OGWZ				AML	AML		
NMHZ	Naumai	1.21	8	P	Pn	09 51 08.6	-1.2
NMHZ				AML	AML		
WNVZ	Wahianoa	1.23	322	P	Pn	09 51 09.9	-0.4
WNVZ				AML	AML		
WNVZ				AML	AML		
MTVZ	Mangateitei	1.25	316	P	Pn	09 51 10.3	-0.1
MTVZ				AML	AML		
MTVZ				AML	AML		
WHVZ	Whangaehu Hut	1.27	323	P	Pn	09 51 10.5	-0.4
WHVZ				AML	AML		
WHVZ				AML	AML		
TRVZ	Turoa	1.28	321	P	Pn	09 51 10.6	-0.4
TRVZ				AML	AML		
TRVZ				AML	AML		
TRWZ	Traveller	1.29	212	P	Pn	09 51 07.7	-3.3
TRWZ				AML	AML		
FWVZ	Far West T-bar	1.31	322	P	Pn	09 51 10.9	-0.5
FWVZ				AML	AML		
FWVZ				AML	AML		
SNVZ	South Ngauruho	1.33	326	P	Pn	09 51 11.3	-0.3
SNVZ				AML	AML		
SNVZ				AML	AML		
OTVZ	Oturere	1.34	328	P	Pn	09 51 11.6	0.0
OTVZ				AML	AML		
OTVZ				AML	AML		
PAWZ	Paruwai Farm	1.39	219	P	Pn	09 51 09.2	-3.2
PAWZ				AML	AML		
KIW	Kapiti Island	1.40	246	P	Pn	09 51 10.3	-2.0
KIW				AML	AML		
CAW	Cannon Point	1.41	235	P	Pn	09 51 09.9	-2.6
CAW				AML	AML		
MSWZ	Moikau Station	1.51	222	P	Pn	09 51 10.5	-3.4
MSWZ				AML	AML		
PLWZ	Palliser	1.62	218	P	Pn	09 51 11.8	-3.7
SNZO	South Karori	1.75	234	P	Pn	09 51 14.1	-3.1
SNZO	South Karori	1.75	234	S	Sn	09 51 35.5	-3.9
URZ	Urewera	2.08	11	P	Pn	09 51 19.3	-2.4
URZ	Urewera	2.08	11	S	Sn	09 51 45.5	-1.9
HIZ	Hauiti	2.23	323	P	Pn	09 51 22.1	-1.7
KHZ	Kahutara	3.12	226	P	Pn	09 51 31.2	-4.8
KHZ	Kahutara	3.12	226	S	Sn	09 52 08.2	-5.0
QRZ	Quartz Range	3.13	259	P	Pn	09 51 33.9	-2.4

IDC 02 09:52:16.7±2.9,**15°.71S**×**176°.31W**,**h0**^{km},**mb3.6**/4, **mbtmp3.6**/4,**Error ellipse: s-maj=190.1km s-min=33.1km az=148.0**,**Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	Alice Springs	47.35	252	P	P	10 00 52.8	0.0
	0.5nm,0.8s,baz=88,slow=8.3,SNR=5.1						
	0.5nm,0.8s						
NVAR	Mina Array Bea	76.45	43	P	P	10 04 08.7	-0.1
	0.8nm,0.9s,baz=265,slow=4.6,SNR=6.1						
	0.8nm,0.9s						
ILAR	Eielson Array	83.31	12	P	P	10 04 44.8	-0.2
	0.5nm,0.9s,baz=204,slow=4.0,SNR=3.1						
	0.5nm,0.9s						
PDAR	Pinedale Array	84.38	43	P	P	10 04 51.9	+0.6
	0.4nm,0.9s,baz=278,slow=5.9,SNR=2.2						
	0.4nm,0.9s						
BRTR	Keskin Array B	144.57	318	PKP	PKPbc	10 11 54.5	+0.1
	1.2nm,1.0s,baz=93,slow=7.2,SNR=5.1						

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*IDC **02** 09:55:12.2±3.9, 53°.50N×87°.69E, h0^{km}, mbtmp2.9/2, ML2.3/2, Error ellipse: s-maj=35.3km s-min=20.2km az=65.0*

ASRS 02 09:55:11.0±0.9,**53°.54N**×**87°.67E**,**h0**^{km},**M2.7**(MOS),**The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.**,**Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	1.74	285	I	I	10 07 05.0	
	baz=102,slow=326,SNR=4.8						
ZALV	Zalesovo Beam	1.74	285	Pg	Pg	09 55 44.2	-0.1
	1.4nm,0.3s,baz=104,slow=16,SNR=13						
ZALV				Lg	Lg	09 56 09.0	
	2.1nm,0.3s,baz=107,slow=27,SNR=10.0						
KURBB	Kurchatov Arra	6.35	246	Pn	Pn	09 56 48.0	+2.3
	baz=62,slow=14,SNR=1.5						
	0.2nm,0.3s						
MKAR	Makanchi Array	7.58	209	Pn	Pn	09 57 04.8	+2.1
	0.1nm,0.3s,baz=32,slow=14,SNR=1.7						
	1.7nm,0.9s						
MKAR				AML	AML		

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*MOS **02** 10:35:41.8±0.8, 43°.09N×145°.82E, h52^{km}, mb5.1/70, Error ellipse: s-maj=5.7km s-min=3.8km az=110.0*

MOS Felt (III) at Goryachiy Plyazh, Lagunnoye, Yuzhno-Kuril'sk; (II) at Malokuril'skoye.

*NIED **02** 10:35:42.8, 43°.04N×145°.78E, h44^{km}, MW4.7, Moment Tensor Solution. s3 Moment tensor: Scale 10^{16}Nm; M_{rr}0.95; $M_{\theta\theta}$-0.23; $M_{\phi\phi}$-0.72; $M_{r\theta}$0.83; $M_{\theta\phi}$-0.51; $M_{\phi r}$0.19; Fault plane solution: $M_0$1.30000×10^{16} NP1: ϕ_s191.00000°, δ33.00000°, λ49.00000°. NP2: ϕ_s57.00000°, δ66.00000°, λ113.00000°.*

*JMA **02** 10:35:42.8±0.1, 43°.0N±0°.3×145°.8E±0°.6, h44^{km}±1^{km}, MD4.8/40, MW4.7/40, OFF NEMURO PENINSULA*

JMA Felt III J1 at OFF NEMURO PENINSULA .

*BJI **02** 10:35:42.6, 43°.03N×145°.85E, h69^{km}, mB5.3/10, mb5.0/56, Ms4.5/10, Ms7 4.2/13*

*IDC **02** 10:35:43.3±2.0, 43°.16N×145°.79E, h49^{km}±18^{km}, mb4.6/31, mbtmp4.8/38, ML3.8/5, MS3.8/63, Error ellipse: s-maj=13.6km s-min=11.3km az=147.0*

*BGR **02** 10:35:43.8, 42°.88N×145°.56E, h65^{km}±3^{km}, mb4.8*

*SKHL **02** 10:35:43.0±0.0, 43°.10N×145°.90E, h65^{km}±8^{km}, mb6.1/7*

SKHL Felt (III) at Yushno-Kuril\`sk, Lagunnoe, Goryachy Plyash, (II) at Malokuril\`skoe.

*GFZ **02** 10:35:44.9±0.2, 43°N±4°×14°6E±°, h62^{km}, M5.1/75, mb5.0/75, confirmed*

*NEIC **02** 10:35:44.4±1.1, 43°.14N±0°.06×145°.8E±0°.1, h56^{km}±7^{km}, mb5.0/92, Error ellipse: s-maj=13.5km s-min=8.4km az=113.0*

*GCMT **02** 10:35:46.4±0.5, 42°.99N±0°.03×145°.83E±0°.04, h47^{km}±1^{km}, MW4.8/66, Moment Tensor Solution. s29,c36; s66,c89; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}1.63±.17; $M_{\theta\theta}$-0.52±.11; $M_{\phi\phi}$-1.12±.10; $M_{r\theta}$0.81±.08; $M_{\theta\phi}$-1.02±.06; $M_{\phi r}$0.05±.07; Best double couple: $M_0$1.94400×10^{16} NP1: ϕ_s198.00000°, δ40.00000°, λ59.00000°. NP2: ϕ_s56.00000°, δ56.00000°, λ113.00000°. Principal axes: T 1.9280, Plg69.0000°, Azm16.0000°; N 0.0260, Plg19.0000°, Azm222.0000°; P -1.9610, Plg9.0000°,* *Azm129.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 02 10:35:43.7±0.4, **43°.10N**±0°.04×**145°.83E**±0°.04, **h54**^{km}±2^{km}, **h54**^{km}**:pP-P, n759,** σ**1ˢ.08**/788, **mb4.9**/275, **MS3.9**/70, **53C-26D, Hokkaido region**

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Code  Station Name      Δ°    AZ°   Phase ID          Time       Res
                                    Op     ISC        h  m  s    ISC
NEM2  Nemuro 2          0.27 346⇓iP     Pn         10 35 51.5  -1.5
NEM2                               A      A          10 35 51.5
      comp=N,145nm,1.2s,comp=E,229nm,0.8s
NEM2                              ⇓S      Sn         10 35 57.6  -2.1
NMR   Nemuro--Hokkai    0.28 344⇓iPN    Pn         10 35 51.5  -1.5
NMR                               i S     Sn         10 35 57.5  -2.2
NMR   Nemuro--Hokkai    0.28 344  i P     Pn         10 35 51.5  -1.5
NMR                                AMB    AMB        10 35 52.0
      comp=E,40µm,0.3s
NMR                               i S     Sn         10 35 57.5  -2.2
NMR                                A      A          10 35 58.3
      comp=E,57µm,0.3s
NMR                                A      A          10 35 58.3
      comp=E,88µm,0.3s
JKHN  Kushirohamanak    0.49 268⇓iP     Pn         10 35 53.5  -1.6
JKHN                               A      A          10 35 53.5
      comp=N,337nm,1.6s,comp=E,170nm,1.2s
JAK   Akkeshi           0.84 263⇓iP     Pn         10 35 57.7  -1.7
JAK                                A      A          10 35 57.7
      comp=N,87nm,1.0s,comp=E,115nm,0.3s
JAK                               ⇓S      Sn         10 36 08.8  -2.0
JNSB  Nemuroshibetsu    0.90 318  i P     Pn         10 35 59.2  -1.0
JNSB                               A      A          10 35 59.2
      comp=N,74nm,0.6s,comp=E,61nm,0.8s
JNSB                               S      Sn         10 36 11.3  -1.0
YUK   Yuzh-Kuril'sk     0.93   1d iPN    Pn         10 35 59.6  -1.0
YUK                               i S     Sn         10 36 11.3  -1.8
YUK                                pmax   pmax
      comp=Z,18µm,0.3s
YUK                                pmax   pmax
      comp=N,3µm,0.2s
YUK                                pmax   pmax
      comp=E,1µm,0.2s
YUK                                smax   smax
      comp=N,16µm,0.2s
YUK                                smax   smax
      comp=E,61µm,0.3s
YUK   Yuzh-Kuril'sk     0.93   1  i P     Pn         10 35 59.9  -0.7
YUK                                AMB    AMB        10 36 00.8
      comp=E,18µm,0.3s
YUK                               i S     Sn         10 36 11.8  -1.3
YUK                                A      A          10 36 14.3
      comp=E,16µm,0.3s
YUK                                A      A          10 36 14.3
      comp=E,61µm,0.3s
JNK   Nakash            0.94 301⇓iP     Pn         10 35 59.4  -1.4
JNK                               ⇓S      Sn         10 36 11.4  -2.0
JRA   Rausu             0.98 329⇓iP     Pn         10 36 00.5  -0.8
JRA                                A      A          10 36 00.5
      comp=N,30nm,0.9s,comp=E,25nm,1.2s
JRA                               ⇓S      Sn         10 36 12.7  -1.5
SHO   Shikotan          1.06  43  eP      Pn         10 36 16.6  +14
SHO                               eS      Sn         10 36 29.9  +14
SHO                                A      A          10 36 33.8
      comp=E,11µm,0.3s
SHO                                A      A          10 36 33.8
      comp=E,13µm,0.3s
RUSJ  Misakicho         1.09 337⇓iPN    Pn         10 36 02.5  -0.2
RUSJ                              i S     Sn         10 36 16.3  -0.4
JOB   Onbets            1.48 263   A      A          10 36 07.0
      comp=N,23nm,1.6s,comp=E,18nm,0.8s
JAR   Ashorobuto        1.52 278   A      A          10 36 07.8
      comp=N,35nm,1.0s,comp=E,31nm,0.5s
JTKR  Abashiri--Toko    1.65 302   A      A          10 36 10.1
      comp=N,4.0nm,2.5s,comp=E,5.0nm,0.5s
JCH   Churui            1.88 256   A      A          10 36 12.7
      comp=N,20nm,1.2s,comp=E,18nm,0.8s
JMP   Maruseppu         2.01 298   A      A          10 36 15.3
      comp=N,6.0nm,1.5s,comp=E,5.0nm,1.2s
JTHR  Tokachihiroo      2.04 247   A      A          10 36 14.8
      comp=N,12nm,1.9s,comp=E,19nm,0.8s
JEM   Erimo             2.25 242   A      A          10 36 17.9
      comp=N,12nm,5.0s,comp=E,13nm,2.4s
ERM   Erimo             2.25 242  i PN    Pn         10 36 19.2  +0.7
ERM   Erimo             2.25 242          Pn         10 36 18.7  +0.1
ERM   Erimo             2.25 242   P      Pn         10 36 19.8  +1.2
JFR   Furan             2.37 273   A      A          10 36 20.0
      comp=N,15nm,0.6s,comp=E,12nm,0.6s
JNBK  Urakawa-nobuka    2.41 251   A      A          10 36 20.2
      comp=N,19nm,0.6s,comp=E,29nm,0.5s
JKA   Kamikawa-asahi    2.56 294          Pn         10 36 23.0  +0.4
JKA   Kamikawa-asahi    2.56 294  eP      Pn         10 36 23.0  +0.4
JKA   Kamikawa-asahi    2.56 294   P      Pn         10 36 23.6  +1.0
ASAJ  Asahikawa         2.56 294   LR     LR         10 37 39.4
      comp=E,3µm,18.5s,baz=74,slow=46
ASAJ  Asahikawa         2.56 294   PN     Pn         10 36 23.0  +0.3
JBT2  Biratori 2        2.57 264   A      A          10 36 22.6
      comp=N,5.0nm,4.1s,comp=E,6.0nm,5.2s
JSHD  Hidakashinhida    2.57 256   A      A          10 36 22.5
      comp=N,26nm,1.4s,comp=E,28nm,0.9s
KUR   Kuril'sk          2.58  34d iPN    Pn         10 36 23.6  +0.6
KUR                               eS      Sn         10 36 54.2  +1.0
KUR                                pmax   pmax
      comp=Z,736nm,0.6s
KUR                                pmax   pmax
      comp=E,242nm,0.4s
KUR                                pmax   pmax
      comp=N,177nm,0.2s
KUR                                smax   smax
      comp=E,3µm,0.5s
KUR                                smax   smax
      comp=N,645nm,0.6s
KUR   Kuril'sk          2.58  34  i P     Pn         10 36 23.6  +0.6
KUR                                AMB    AMB        10 36 32.8
      comp=N,740nm,0.3s
KUR                               eS      Sn         10 36 54.2  +1.0
KUR                                A      A          10 36 56.8
      comp=N,650nm,0.4s
KUR                                A      A          10 36 56.8
      comp=N,3µm,0.4s
JAB   Ashibetsu         2.66 280   A      A          10 36 24.2
      comp=N,7.0nm,1.6s,comp=E,6.0nm,3.0s
REI   Reidovoe          2.67  35  eP      Pn         10 36 25.1  +0.9
REI                               eS      Sn         10 36 55.0  -0.4
JIAM  Iburiatsuma       2.92 262   A      A          10 36 27.5
      comp=N,29nm,0.4s,comp=E,16nm,0.6s
JISS  Ishikarishitsu    3.23 275   A      A          10 36 32.1
      comp=N,13nm,0.6s,comp=E,13nm,0.4s
JAHD  Aomorihigashid    3.81 243   A      A          10 36 39.9
      comp=N,10.0nm,0.5s,comp=E,11nm,0.9s
JOT   Ohata             3.94 246   A      A          10 36 41.9
      comp=N,3.0nm,2.4s,comp=E,3.0nm,1.9s
JTM   Tenmabayashi      4.24 239          Pn         10 36 45.2  -0.5
JTM   Tenmabayashi      4.24 239   P      Pn         10 36 46.2  +0.5
YSS   Yuzhno-Sakhali    4.42 332κePN    Pn         10 36 48.7  +0.5
YSS                               eS      Sn         10 37 37.9  -0.5
YSS                                pmax   pmax
      comp=Z,200nm,4.5s
YSS                                pmax   pmax
      comp=E,200nm,3.3s
YSS                                pmax   pmax
      comp=Z,100nm,0.6s
YSS                                smax   smax
      comp=N,230nm,0.7s
YSS                                smax   smax
      comp=E,160nm,0.7s
YSS                                smax   smax
      comp=N,500nm,5.5s
YSS                                MLR    MLR
      comp=Z,2µm,15.0s
YSS                                MLR    MLR
      comp=N,1µm,13.0s
YSS                                MLR    MLR
      comp=E,600nm,16.0s
YSS   Yuzhno-Sakhali    4.42 332          Pn         10 36 48.3  +0.1
YSS   Yuzhno-Sakhali    4.42 332  eP      Pn         10 36 48.7  +0.5
YSS                               eS      Sn         10 37 37.9  -0.5
YSS   Yuzhno-Sakhali    4.42 332   P      Pn         10 36 48.9  +0.7
TYV   Tymovskoe         8.06 346  ePN     Pn         10 37 40.1  +2.1
TYV                                pmax   pmax
      comp=Z,100nm,2.5s
TYV                                pmax   pmax
      comp=Z,33nm,0.7s
TYV   Tymovskoe         8.06 346  eP      Pn         10 37 40.1  +2.1
TYV                               eS      Sn         10 39 06.5  -1.1
MJAR  Matsushiro Arr    8.79 224   P      Pn         10 37 47.2  -0.9
      comp=Z,0.5nm,0.3s,baz=37,slow=13,SNR=23
MJAR                               LR     LR         10 41 21.1
      comp=Z,424nm,20.8s,baz=43,slow=38
      comp=Z,54nm,0.5s
MJAR                               AML    AML
MAJO  Matsushiro        8.79 224  i PN    Pn         10 37 48.6  +0.5
MAJO  Matsushiro        8.79 224   P      Pn         10 37 48.1   0.0
      comp=Z,68nm,0.7s
JGF   Kuroka            9.95 224          Pn         10 38 04.6  +0.5
JGF   Kuroka            9.95 224   P      Pn         10 38 04.9  +0.8
      comp=Z,38nm,0.6s
GRNR  Gornyy           10.00 323⇑iPN    Pn         10 38 07.0  +2.4
GRNR                               pmax   pmax
      comp=Z,30nm,0.7s
GRNR                               MLR    MLR
      comp=N,270nm,16.0s
GRNR                               MLR    MLR
      comp=Z,400nm,16.0s
GRNR  Gornyy           10.00 323  eP      Pn         10 38 07.0  +2.4
USA0B Ussuriysk Arra   10.10 281  i PN    Pn         10 38 07.5  +1.6
USRK  Ussuriysk Ar.    10.10 281   P      Pn         10 38 06.8  +0.9
      comp=Z,1.8nm,0.3s,baz=86,slow=14,SNR=30
USRK                               LR     LR         10 42 00.1
      comp=Z,412nm,20.2s,baz=99,slow=38
      comp=Z,12nm,0.7s
USRK                               AML    AML
USRK  Ussuriysk Ar.    10.10 281   PN     Pn         10 38 07.0  +1.1
USRK  Ussuriysk Ar.    10.10 281          Pn         10 38 07.0  +1.1
VLA   Vladivostok      10.20 275  i PN    Pn         10 38 08.0  +0.7
VLA   Vladivostok      10.20 275  eP      Pn         10 38 08.1  +0.7
INU   Inuyama          10.32 224          Pn         10 38 09.0  -0.1
INU   Inuyama          10.32 224   P      Pn         10 38 11.0  +2.0
      comp=Z,56nm,0.7s
SKR   Severo-Kuril’s   10.34  39dePN    Pn         10 38 09.4  +0.3
SKR   Severo-Kuril’s   10.34  39  eP      Pn         10 38 09.4  +0.3
SKR                                AMB    AMB        10 38 17.4
      comp=Z,150nm,0.5s
SKR                               eS      Sn         10 39 59.7  -3.7
SKR                                A      A          10 40 05.3
      comp=Z,50nm,0.4s
SKR                                A      A          10 40 05.3
      comp=Z,40nm,0.4s
OKH   Okha             10.63 351  eP      Pn         10 38 13.5  +0.4
OKH                                AMB    AMB        10 38 15.7
      comp=Z,110nm,0.7s
OKH                               eS      Sn         10 40 07.1  -3.4
PSTR  Posyet           11.04 273  i PN    Pn         10 38 20.4  +1.6
PSTR  Posyet           11.04 273  eP      Pn         10 38 18.1  -0.7
JHJ   Hachijo jima 2   11.04 207   P      Pn         10 38 14.4  -4.5
      comp=Z,60nm,0.3s,baz=19,slow=18,SNR=6.5
JHJ                                S      Sn         10 40 08.2   -13
      comp=Z,199nm,0.3s,baz=111,slow=23,SNR=11
KLR   Kul'dur          11.52 307   P      Pn         10 38 26.3  +1.0
      comp=Z,0.6nm,0.3s,baz=116,slow=15,SNR=34
KLR                                LR     LR         10 43 15.0
      comp=Z,507nm,19.9s,baz=120,slow=39
      comp=Z,7.3nm,0.7s
KLR                                AML    AML
KLR   Kul'dur          11.52 307ceePN   Pn         10 38 27.0  +1.7
KLR                                pmax   pmax
      comp=Z,24nm,1.7s
KLR                                MLR    MLR
      comp=Z,424nm,16.0s
KLR   Kul'dur          11.52 307  eP      Pn         10 38 26.7  +1.4
MDJ   Mudanjiang       11.82 283   P      Pn         10 38 30.3  +0.8
MDJ                                pmax   pmax
      comp=Z,20nm,1.7s
MDJ   Mudanjiang       11.82 283          Pn         10 38 29.7  +0.2
MDJ   Mudanjiang       11.82 283   P      Pn         10 38 31.2  +1.7
      comp=Z,37nm,1.0s
PEA0B Petropavlovsk-   12.75  34ceePN   Pn         10 38 40.3  -1.8
PEA0B Petropavlovsk-   12.75  34          Pn         10 38 39.8  -2.3
PETK  Petropavlovsk-   12.75  34   P      Pn         10 38 41.0  -1.1
      comp=Z,2.5nm,0.3s,baz=181,slow=6.4,SNR=9.5
PETK                               LR     LR         10 44 26.7
      comp=Z,179nm,19.0s,baz=210,slow=41
      comp=Z,8.0nm,0.7s
PETK                               AML    AML
PETK  Petropavlovsk-   12.75  34          Pn         10 38 41.0  -1.1
PET   Petropavlovsk    13.10  36  ePN     Pn         10 38 46.8  +0.1
PET                                pmax   pmax
      comp=Z,15nm,0.8s
PET                                MLR    MLR
      comp=Z,300nm,13.0s
PET                                MLR    MLR
      comp=Z,400nm,13.0s
PET   Petropavlovsk    13.10  36   Pn     Pn         10 38 45.5  -1.2
PET   Petropavlovsk    13.10  36  eP      Pn         10 38 45.7  -1.0
PET                               eS      Sn         10 41 04.7  -5.9
BNX   BinXian          13.43 288 ⇓P      Pn         10 38 51.4   0.0
BNX                                pmax   pmax
      comp=Z,16nm,1.1s
HEH   HeiHe            14.50 306  eP      P          10 39 08.4  -2.6
HEH                                pmax   pmax
      comp=Z,11nm,1.3s
KSRS  Korea Array      14.78 254   P      Pn         10 39 08.4  -1.0
      comp=Z,0.4nm,0.3s,baz=66,slow=13,SNR=5.9
KSRS                               LR     LR         10 45 26.6
      comp=Z,131nm,18.1s,baz=60,slow=39
      comp=Z,2.2nm,0.7s
KSRS                               AML    AML
KSAR  Wonju Array Be   14.81 254   P      Pn         10 39 10.0  +0.2
KSAR  Wonju Array Be   14.81 254   Pn     Pn         10 39 10.0  +0.2
CN2   Changchun        14.82 280  eP      Pn         10 39 10.9  +1.0
CN2                                pmax   pmax
      comp=Z,10.0nm,0.6s
JNU   Nakatsue         15.40 235   LR     LR         10 44 42.6
      comp=Z,332nm,18.0s,baz=51,slow=35
ZEA   Zeya             16.24 317  eP      P          10 39 29.5  -0.7
ZEA                                pmax   pmax
      comp=N,10.0nm,0.9s
ZEA                                pmax   pmax
      comp=Z,10.0nm,0.7s
ZEA   Zeya             16.24 317  eP      Pn         10 39 27.5  -0.5
MA2   Magadan          16.77   9   P      Pn         10 39 33.4  -1.2
      comp=Z,14nm,0.9s,baz=194,slow=9.5,SNR=8.7
MA2                                LR     LR         10 45 27.6
      comp=Z,184nm,21.6s,baz=196,slow=35
MA2   Magadan          16.77   9  i P     P          10 39 35.5  -0.6
MA2                                pmax   pmax
      comp=Z,15nm,0.9s
MA2   Magadan          16.77   9          Pn         10 39 33.9  -0.8
DL2   Dalian           18.72 265   P      P          10 39 57.4  -0.3
DL2                                pmax   pmax
      comp=Z,53nm,0.7s
HIA   Hailar           19.03 298   P      P          10 40 00.6  -0.5
HIA                                pmax   pmax
      comp=Z,9.0nm,0.8s
HIA   Hailar           19.03 298   P      P          10 40 00.6  -0.5
HIA   Hailar           19.03 298   P      P          10 40 00.3  -0.7
      comp=Z,16nm,1.1s
HILR  Hailar Array B   19.07 299   P      P          10 40 00.7  -0.9
      comp=Z,4.2nm,0.3s,baz=101,slow=11,SNR=12
SEY   Seymchan         20.23   9   P      P          10 40 12.1  -1.9
      comp=Z,6.1nm,0.5s,baz=195,slow=9.4,SNR=9.3
      comp=Z,6.1nm,0.5s
SEY   Seymchan         20.23   9ceP     P          10 40 12.3  -1.7
SEY                                pmax   pmax
      comp=Z,20nm,1.3s
SHEM  Shemya Is, Ala   21.13  53   LR     LR         10 48 46.3
      comp=Z,38nm,20.4s,baz=264,slow=37
YAK   Yakutsk          21.23 339   P      P          10 40 23.3  -1.4
      comp=Z,11nm,0.3s,baz=111,slow=3.7,SNR=5.8
YAK                                LR     LR         10 48 47.6
      comp=Z,211nm,21.6s,baz=143,slow=37
      comp=Z,11nm,0.3s
YAK   Yakutsk          21.23 339  eP      P          10 40 25.2  +0.5
YAK                               e                  10 40 46.9
YAK                               eS      S          10 44 18.3  +0.8
YAK                               e                  10 44 28.8
YAK                               e*SS    sS         10 44 40.9  +3.6
YAK                               eSS     SnSn       10 44 47.0  +4.3
YAK                               e                  10 51 43.3
YAK                                pmax   pmax
      comp=Z,25nm,0.9s
YAK                                pmax   pmax
      comp=N,8.0nm,1.0s
YAK                                pmax   pmax
      comp=E,4.0nm,1.2s
YAK                                pmax   pmax
      comp=Z,48nm,1.3s
YAK                                pmax   pmax
      comp=E,42nm,1.6s
YAK                                pmax   pmax
      comp=N,16nm,1.4s
YAK                                smax   smax
      comp=N,157nm,3.7s
YAK                                smax   smax
      comp=E,74nm,3.3s
YAK   Yakutsk          21.23 339  eP      P          10 40 25.2  +0.5
JOW   Kunigami         21.62 227   LR     LR         10 48 12.6
      comp=E,80nm,18.7s,baz=230,slow=35
BJI2  Beijing          22.35 272   P      P          10 40 35.3  -1.7
BJI2                               pmax   pmax
      comp=E,11nm,0.9s
BJT   Baijiatuau       22.36 272   P      P          10 40 35.3  -1.7
BJT                                pmax   pmax
      comp=Z,18nm,1.0s
BJT   Baijiatuau       22.36 272   P      P          10 40 35.3  -1.7
BJT   Baijiatuau       22.36 272   P      P          10 40 35.4  -1.6
      comp=Z,14nm,0.5s
TIA   Tai'an           23.07 262   P      P          10 40 43.2  -1.4
TIA                                pmax   pmax
      comp=Z,36nm,1.0s
NJ2   Nanjing          23.96 252  eP      P          10 40 53.5  +0.7
NJ2                                pmax   pmax
      comp=Z,71nm,0.7s
HNS   HongShan         24.34 267 ⇓P      P          10 40 56.9  +0.6
HNS                                pmax   pmax
      comp=Z,19nm,1.1s
HHC   Hu-ho-hao-te     25.47 277  eP      P          10 41 06.8  +0.1
HHC                                pmax   pmax
      comp=Z,18nm,0.6s
HHC                                pmax   pmax
      comp=Z,100nm,4.6s
BTO2  Baotou           26.73 277  eP      P          10 41 17.9  -0.2
BTO2                               pP     pP         10 41 29.1  -2.6
BTO2                               PP     PnPn       10 42 04.2  +2.8
BTO2                               S      S          10 45 49.7  -0.2
BTO2                               pmax   pmax
      comp=Z,34nm,0.6s
BTO2                               pmax   pmax
      comp=Z,430nm,5.6s
BTO2                               L      L
      comp=Z,680nm,6.2s
BTO2                               L      L
      comp=Z,440nm,5.7s
BTO2                               L      L
      comp=Z,440nm,6.4s
LYN   LuoYang          27.22 263   P      P          10 41 23.3  +1.0
LYN                                S      S          10 46 00.1  +2.7
LYN                                pmax   pmax
      comp=Z,29nm,0.9s
BILL  Bilibino         27.25  17  i P     P          10 41 23.8  +1.5
BILL                               pmax   pmax
      comp=Z,5.0nm,1.4s
BILL                               MLR    MLR
      comp=Z,228nm,19.0s
BILL  Bilibino         27.25  17  eP      P          10 41 23.8  +1.5
ULN   Ulaanbaatar      27.40 294ceP     P          10 41 24.2  +0.2
ULN                                pmax   pmax
      comp=Z,12nm,1.0s
ULN   Ulaanbaatar      27.40 294   P      P          10 41 24.1  +0.1
ULN   Ulaanbaatar      27.40 294   P      P          10 41 22.5  -1.5
      comp=Z,47nm,1.1s
ULN   Ulaanbaatar      27.40 294  eP      P          10 41 24.2  +0.2
ULN   Ulaanbaatar      27.40 294   P      P          10 41 24.5  +0.4
      comp=Z,12nm,1.1s
SONM  Songino Array    27.84 294   P      P          10 41 28.1  +0.1
      comp=Z,12nm,0.6s,baz=85,slow=8.4,SNR=55
SONM                               LR     LR         10 53 31.0
      comp=Z,380nm,19.6s,baz=90,slow=38
      comp=Z,12nm,0.6s
SONM  Songino Array    27.84 294   P      P          10 41 27.8  -0.1
WHN   Wuhan            27.97 254   P      P          10 41 29.7  +0.6
H11N2 WAKE ISLAND Hy   29.27 136   T      T          11 12 33.5
      baz=328,slow=76,SNR=5593
H11N1 WAKE ISLAND Hy   29.28 136   T      T          11 12 35.5
      baz=328,slow=76,SNR=5500
H11N3 WAKE ISLAND Hy   29.29 136   T      T          11 12 34.8
      baz=328,slow=76,SNR=6319
GUMO  Guam             29.42 182   LR     LR         10 52 29.0
      comp=Z,88nm,20.4s,baz=41,slow=34
TLY   Talaya           29.46 302   LR     LR         10 54 33.4
      comp=Z,248nm,19.7s,baz=90,slow=38
ZAK   Zakamensk        29.72 299  eP      P          10 41 44.5  -0.1
ZAK                                pmax   pmax
      comp=Z,7.0nm,1.2s
TIK   Tiksi            29.79 349  eP      P          10 41 44.4  -0.4
TIXI  Tiksi            29.81 349   LR     LR         10 54 25.9
      comp=Z,177nm,20.9s,baz=183,slow=38
TIXI  Tiksi            29.81 349   P      P          10 41 44.4  -0.6
TIXI                               pmax   pmax
      comp=Z,39nm,1.4s
TIXI  Tiksi            29.81 349   P      P          10 41 44.4  -0.6
TIXI                               IAmb   IAmb       10 42 15.5
      comp=Z,39nm,1.4s
XAN   Xi'an            30.04 265   P      P          10 41 47.2  -0.3
XAN                                pmax   pmax
      comp=Z,27nm,0.8s
H11S1 WAKE ISLAND Hy   30.20 138   T      T          11 13 47.0
      baz=329,slow=76
H11S3 WAKE ISLAND Hy   30.21 138   T      T          11 13 45.1
      baz=329,slow=76,SNR=8695
H11S2 WAKE ISLAND Hy   30.22 138   T      T          11 13 48.3
      baz=329,slow=76,SNR=7728
LZH   Lanzhou          32.83 272  eP      P          10 42 12.1  -0.1
LZH                                pP     pP         10 42 24.1  -1.9
LZH                                pmax   pmax
      comp=Z,22nm,1.0s
LZDM  Lanzhou Array    33.00 272   P      P          10 42 14.0  +0.1
      comp=Z,1.6nm,0.3s,baz=95,slow=8.9,SNR=4.0
      comp=Z,1.6nm,0.3s
K13K  Kusilvak Mount   34.43  40   P      P          10 42 26.8  +1.2
K13K                               IAmb   IAmb       10 42 27.6
      comp=Z,38nm,1.2s
GTA2  Gaotai           34.47 280  eP      P          10 42 26.5  +0.2
GTA2                               pmax   pmax
      comp=Z,6.0nm,1.1s
J14K  Nanvaranak Lak   35.08  38   P      P          10 42 31.4  +0.3
J14K                               IAmb   IAmb       10 42 32.6
      comp=Z,22nm,0.8s
L14K  Kuka Creek       35.27  41          P          10 42 33.6  +0.8
L14K                               IAmb   IAmb       10 42 35.2
      comp=Z,45nm,1.5s
C16K  Lisburne Hills   35.76  29   P      P          10 42 36.4  -0.6
O14K  Tigyukauivet M   35.80  44   P      P          10 42 38.1  +0.8
G16K  Koyuk River      36.11  34   P      P          10 42 40.5  +0.5
G16K                               IAmb   IAmb       10 42 41.6
      comp=Z,31nm,1.4s
N15K  Kwethluk River   36.44  43          P          10 42 43.6  +0.7
O15K  Ungalikthiuk R   36.53  45          P          10 42 44.0  +0.3
O15K                               IAmb   IAmb       10 42 45.5
      comp=Z,18nm,0.8s
L16K  Owhat River      36.84  40          P          10 42 47.0  +0.7
L16K                               IAmb   IAmb       10 43 00.8
      comp=Z,15nm,1.0s
E18K  Tukpahlearik C   37.25  31   P      P          10 42 49.9  +0.3
E18K                               IAmb   IAmb       10 42 51.8
      comp=Z,8.0nm,0.7s
C18K  Utukok River     37.34  29   P      P          10 42 49.9  -0.6
C18K                               IAmb   IAmb       10 42 51.0
      comp=Z,21nm,0.8s
D20K  Etivluk River    38.98  29   P      P          10 43 03.6  -0.7
D20K                               IAmb   IAmb       10 43 05.2
      comp=Z,19nm,0.7s
PZH   PanZhiHua        39.32 260   P      P          10 43 07.9  +0.2
NRIK  Noril'sk         39.35 332   P      P          10 43 07.3  +0.1
      comp=Z,4.7nm,0.4s,baz=102,slow=2.3,SNR=4.2
NRIK                               PcP    PcP        10 45 15.0  +0.4
      comp=Z,6.6nm,0.5s,baz=95,slow=6.1,SNR=4.5
NRIK                               LR     LR         11 00 10.8
      comp=Z,80nm,20.4s,baz=104,slow=37
      comp=Z,4.7nm,0.4s
GOMU  GeErMu           39.37 278   P      P          10 43 08.0  -0.3
GOMU                               pmax   pmax
      comp=Z,32nm,0.8s
KMI2  Kunming          39.42 257   P      P          10 43 09.3  +0.7
KMI2                               pmax   pmax
      comp=Z,24nm,0.8s
IMAR  Indian Mountai   39.72  34   P      P          10 43 11.0  +0.7
DAV   Davao City (W)   40.07 212   LR     LR         10 57 30.7
      comp=Z,100nm,20.9s,baz=75,slow=33
KDAK  Kodiak Island    40.39  47   P      P          10 43 15.7  -0.3
KDAK                               pmax   pmax
      comp=Z,35nm,0.8s
KDAK  Kodiak Island    40.39  47          P          10 43 15.7  -0.3
KDAK                               IAmb   IAmb       10 43 16.7
      comp=Z,35nm,0.8s
KDAK  Kodiak Island    40.39  47   P      P          10 43 15.7  -0.3
ZAA0  Zalesovo Array   40.62 307          P          10 43 18.9  +0.9
ZALV  Zalesovo Beam    40.62 307   P      P          10 43 17.8  -0.2
      comp=Z,2.6nm,0.5s,baz=94,slow=9.1,SNR=11
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ZALV                                PcP      PcP      10 45 19.2 +0.3
      comp=Z,17nm,0.5s,baz=88,slow=3.4,SNR=30
ZALV                                LR       LR       11 01 27.3
      comp=Z,182nm,18.7s,baz=85,slow=38
      comp=Z,2.6nm,0.5s
ZALV  Zalesovo Beam      40.62 307  P        P        10 43 18.6 +0.6
H22K  Ishtalitna Cre     40.68  34           P        10 43 19.5 +1.2
H22K                                IAmb     IAmb     10 43 20.5
      comp=Z,28nm,1.0s
SLVN  Son La             41.04 252  P        P        10 43 22.1 +0.3
TRF   Thorofare Moun     41.14  38  P        P        10 43 22.5 +0.2
D23K  Nanushuk River     41.15  29  P        P        10 43 22.5 +0.3
D23K                                IAmb     IAmb     10 44 13.1
      comp=Z,42nm,1.9s
G23K  Bananza Creek      41.26  33           P        10 43 23.4 +0.2
G23K                                IAmb     IAmb     10 43 24.6
      comp=Z,29nm,0.8s
WMQ   Urumqi             41.44 292 eP        P        10 43 24.7 -0.2
WMQ                                 pP       pP       10 43 40.6 +1.5
WMQ                                 pmax     pmax
      comp=Z,14nm,0.7s
WMQ                                 L        L
      comp=Z,160nm,18.1s
GHO   Glory Hole Cre     41.86  40           P        10 43 27.8 -0.3
GHO                                 IAmb     IAmb     10 43 29.4
      comp=Z,17nm,0.8s
H24K  Noodor Dome        42.12  34           P        10 43 31.5 +1.3
H24K                                IAmb     IAmb     10 43 32.5
      comp=Z,36nm,1.0s
COLA  College            42.16  36c iP       P        10 43 31.0 +0.6
COLA                                pmax     pmax
      comp=Z,31nm,0.9s
COLA  College            42.16  36  P        P        10 43 30.8 +0.4
COLA                                IAmb     IAmb     10 43 32.9
      comp=Z,37nm,0.8s
COLA  College            42.16  36  P        P        10 43 31.2 +0.9
      comp=Z,47nm,0.9s
COLA  College            42.16  36  P        P        10 43 31.0 +0.6
COLA                                PcP      PcP      10 45 23.4 -0.3
ZSN   Zaisan             42.16 298 eP        P        10 43 30.6 -0.1
ZSN                                 pmax     pmax
      comp=Z,13nm,1.2s
ZSN   Zaisan             42.16 298 eP        P        10 43 30.6 -0.1
      comp=Z,13nm,1.2s
ILAR  Eielson Array      42.58  36  P        P        10 43 34.2 +0.4
      comp=Z,7.5nm,0.6s,baz=252,slow=4.6,SNR=142
      comp=Z,7.5nm,0.6s
ILAR  Eielson Array      42.58  36           P        10 43 33.7 -0.1
SCM   Sheep Creek Mo     42.61  40  P        P        10 43 34.2  0.0
SCM                                 pmax     pmax
      comp=Z,18nm,1.0s
SCM   Sheep Creek Mo     42.61  40  P        P        10 43 34.2  0.0
SCM                                 IAmb     IAmb     10 43 52.6
      comp=Z,18nm,1.0s
BMAR  Burnt Mountain     43.39  32  P        P        10 43 40.9 +0.4
MK31  Makanchi Array     44.03 298ceP        P        10 43 45.7 -0.2
MKAR  Makanchi Array     44.03 298  P        P        10 43 45.6 -0.3
      comp=Z,18nm,0.7s,baz=79,slow=8.9,SNR=81
MKAR                                PcP      PP       10 45 29.2 +0.2
      comp=Z,1.8nm,0.4s,baz=36,slow=1.5,SNR=5.4
MKAR                                LR       LR       11 03 21.9
      comp=Z,226nm,18.0s,baz=76,slow=38
      comp=Z,18nm,0.7s
MAKZ  Makanchi           44.23 298  P        P        10 43 47.0 -0.4
MAKZ                                pmax     pmax
      comp=Z,21nm,0.8s
MAKZ  Makanchi           44.23 298  P        P        10 43 47.0 -0.4
MAKZ                                IAmb     IAmb     10 43 48.2
      comp=Z,21nm,0.8s
MAKZ  Makanchi           44.23 298  P        P        10 43 47.2 -0.2
      comp=Z,30nm,0.8s
MAKZ  Makanchi           44.23 298  P        P        10 43 47.1 -0.2
MAKZ                                PcP      PcP      10 45 30.8 -0.3
E27K  Coleen River       44.48  31  P        P        10 43 49.9 +0.8
VRDI  Verde Repeater     44.53  41           P        10 43 50.1 +0.3
VRDI                                IAmb     IAmb     10 43 51.2
      comp=Z,10nm,0.6s
BCAR  Beaver Creek A     45.00  38  P        P        10 43 54.8 +1.4
KURK  Kurchatov          45.09 304ceP        P        10 43 53.7 -0.5
KURK                                pmax     pmax
      comp=Z,14nm,0.6s
KURK  Kurchatov          45.09 304           P        10 43 53.8 -0.5
KURK                                IAmb     IAmb     10 43 54.5
      comp=Z,17nm,0.6s
KURK  Kurchatov          45.09 304 eP        P        10 43 53.7 -0.5
KURK  Kurchatov          45.09 304  P        P        10 43 53.6 -0.6
      comp=Z,27nm,0.8s
KURK  Kurchatov          45.09 304  P        P        10 43 53.6 -0.6
KURK                                PcP      PcP      10 45 34.2 +0.2
KURBB Kurchatov Arra     45.18 304  P        P        10 43 54.4 -0.4
      comp=Z,15nm,0.6s,baz=70,slow=8.8,SNR=118
KURBB                               PcP      PcP      10 45 34.3  0.0
      comp=Z,7.0nm,0.6s,baz=79,slow=3.3,SNR=7.8
      comp=Z,15nm,0.6s
KURBB Kurchatov Arra     45.18 304  P        P        10 43 54.2 -0.6
LSA   Lhasa              45.25 271  P        P        10 43 56.8 +0.5
DAWY  Dawson             45.89  36  P        P        10 44 01.0 +0.7
CHTO  Chiang Mai         46.18 253  P        P        10 44 02.9 -0.2
CHTO                                pmax     pmax
      comp=Z,8.0nm,0.7s
CHTO  Chiang Mai         46.18 253           P        10 44 02.9 -0.2
CHTO                                IAmb     IAmb     10 44 18.2
      comp=Z,7.6nm,0.7s
CHTO  Chiang Mai         46.18 253  P        P        10 44 03.0 -0.2
      comp=Z,12nm,0.8s
CHTO  Chiang Mai         46.18 253  P        P        10 44 03.7 +0.5
      comp=Z,11nm,0.8s
CHTO  Chiang Mai         46.18 253  P        P        10 44 03.4 +0.3
CMAR  Chiang Mai Arr     46.42 253  P        P        10 44 05.0 -0.1
      comp=Z,1.8nm,0.3s,baz=42,slow=7.3,SNR=12
CMAR                                LR       LR       11 03 53.6
      comp=Z,89nm,19.7s,baz=205,slow=36
      comp=Z,1.8nm,0.3s
CMAR  Chiang Mai Arr     46.42 253ceP        P        10 44 05.6 +0.6
CMAR                                pmax     pmax
      comp=Z,2.0nm,0.3s
PDGK  Podgornoye         47.16 294  P        P        10 44 09.6 -1.1
TDK   Taldyqorghan       47.21 297 eP        P        10 44 10.8 -0.1
TDK                                 pmax     pmax
      comp=Z,13nm,0.5s
TDK   Taldyqorghan       47.21 297 eP        P        10 44 10.8 -0.1
      comp=Z,13nm,0.5s
SHLS  Shalkode           47.24 294 eP        P        10 44 08.7 -2.6
SHLS  Shalkode           47.24 294 eP        P        10 44 08.8 -2.6
INK   Inuvik             47.44  30  LR       LR       11 05 41.5
      comp=Z,95nm,19.4s,baz=260,slow=38
INK   Inuvik             47.44  30  P        P        10 44 13.1 +0.7
INK   Inuvik             47.44  30  P        P        10 44 13.0 +0.7
      comp=Z,22nm,0.7s
HYT   Haines Junctio     47.44  40           P        10 44 14.1 +1.4
UZB   Uzynbulak          47.54 294c iP       P        10 44 13.3 -0.4
UZB                                 pmax     pmax
      comp=Z,5.0nm,0.7s
UZB   Uzynbulak          47.54 294⇑iP        P        10 44 13.3 -0.4
      comp=Z,5.3nm,0.7s
KPKS  Kokpek             47.64 295 eP        P        10 44 14.2 -0.1
KPKS  Kokpek             47.64 295 eP        P        10 44 14.2 -0.1
H31M  Peel River         47.65  33           P        10 44 14.6 +0.5
SATY  Saty               47.99 294c iP       P        10 44 16.8 -0.3
SATY                                pmax     pmax
      comp=Z,5.0nm,0.6s
SATY  Saty               47.99 294⇑iP        P        10 44 16.9 -0.2
      comp=Z,5.5nm,0.6s
WUS   Wushi              48.23 292  P        P        10 44 19.4 +0.3
      comp=Z,38nm,0.7s
WUS   Wushi              48.23 292  P        P        10 44 18.9 -0.1
MDOK  Medeo              48.85 295 eP        P        10 44 23.5 -0.3
MDOK  Medeo              48.85 295 eP        P        10 44 23.6 -0.3
AAA   Alma-Ata           48.92 295 eP        P        10 44 24.1 -0.1
AAA   Alma-Ata           48.92 295 eP        P        10 44 24.1 -0.1
AAA   Alma-Ata           48.92 295 eP        P        10 44 24.1 -0.1
TARG  Taragay, Kyrgy     48.96 293  P        P        10 44 25.2 +0.3
      comp=Z,11nm,1.0s
TNSS  Tian-Shan          48.97 295 eP        P        10 44 24.4 -0.6
TNSS  Tian-Shan          48.97 295 eP        P        10 44 24.5 -0.6
BVAR  Borovoye Array     49.17 309  P        P        10 44 25.7 -0.2
      comp=Z,6.8nm,0.4s,baz=76,slow=8.1,SNR=32
BVAR                                PcP      PcP      10 45 48.7 +0.3
      comp=Z,6.9nm,0.5s,baz=73,slow=2.9,SNR=8.4
      comp=Z,6.8nm,0.4s
BORK  Borovoye           49.20 309d iP       P        10 44 26.3 +0.2
BORK                                pmax     pmax
      comp=Z,3.0nm,0.7s
KDJ   Kajisay            49.20 294  P        P        10 44 26.7 +0.2
      comp=Z,20nm,1.0s
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EVN   Everest            49.38 272  P        P        10 44 28.9 +0.4
EVN                                 IAmb     IAmb     10 44 29.6
      comp=Z,13nm,0.6s
EVN   Everest            49.38 272  P        P        10 44 28.9 +0.4
      comp=Z,20nm,0.6s
N32M  Quiet Lake         49.42  39  P        P        10 44 28.6 +0.8
N32M                                IAmb     IAmb     10 44 40.1
      comp=Z,7.2nm,0.8s
ULHL  Ulahol             49.78 294  P        P        10 44 31.1 +0.1
      SNR=7.2
P33M  Teslin, Yukon      49.84  40           P        10 44 31.3 +0.3
P33M                                IAmb     IAmb     10 44 33.6
      comp=Z,24nm,1.2s
BOOM  Boomskoye usch     49.87 295  P        P        10 44 31.8 +0.1
BOOM                                pmax     pmax
      comp=Z,31nm,0.7s
BOOM  Boomskoye usch     49.87 295  P        P        10 44 31.8 +0.1
BOOM  Boomskoye usch     49.87 295  P        P        10 44 32.2 +0.5
      comp=Z,46nm,0.9s
TKM2  Tokmak 2           49.91 295  P        P        10 44 32.4 +0.4
      SNR=21
ASAI  AK-SAY(Kyrgyzs     50.18 293  P        P        10 44 34.4 +0.2
      comp=Z,13nm,0.8s
SGDS  Sogindy            50.32 296 eP        P        10 44 34.7 -0.2
      comp=Z,6.4nm,0.8s
KBK   Karagaybulak       50.46 295  P        P        10 44 36.4 +0.3
      SNR=10
USP   Ospenovka          50.49 296  P        P        10 44 36.2 +0.1
      SNR=9.8
AAK   Ala-Archa          50.77 296  LR       LR       11 07 37.5
      comp=Z,105nm,20.4s,baz=57,slow=38
AAK   Ala-Archa          50.77 296ceP        P        10 44 38.3 -0.1
AAK                                 pmax     pmax
      comp=Z,24nm,2.5s
AAK   Ala-Archa          50.77 296           P        10 44 37.6 -0.7
AAK                                 IAmb     IAmb     10 44 38.7
      comp=Z,7.7nm,0.6s
AAK   Ala-Archa          50.77 296  P        P        10 44 38.0 -0.4
AAK   Ala-Archa          50.77 296 eP        P        10 44 38.3 -0.1
AAK   Ala-Archa          50.77 296  P        P        10 44 38.5 +0.1
      comp=Z,12nm,0.6s
AAK   Ala-Archa          50.77 296  P        P        10 44 38.3 -0.1
AAK                                 PcP      PcP      10 45 55.1 +0.4
EKS2  Erkin-Say          51.23 296  P        P        10 44 41.9 +0.1
      SNR=8.9
KSH2  Kashi              51.65 291  P        P        10 44 45.2 +0.2
KSH2                                pP       pP       10 44 58.8 -0.8
KSH2                                pmax     pmax
      comp=Z,12nm,0.8s
ARSB  Arslanbob          52.37 295  P        P        10 44 50.6 +0.3
ARSB                                pmax     pmax
      comp=Z,62nm,1.2s
ARSB  Arslanbob          52.37 295  P        P        10 44 50.6 +0.3
DZA   Taraz              52.73 297 eP        P        10 44 52.7 -0.1
DZA                                 pmax     pmax
      comp=Z,17nm,0.9s
DZA   Taraz              52.73 297 eP        P        10 44 52.7 -0.1
      comp=Z,16nm,0.9s
ARK   Arkit              52.82 296  P        P        10 44 54.2 +0.6
      comp=Z,18nm,0.8s
KK31  Karatay Array      53.16 298  P        P        10 44 55.7 -0.3
KK31                                pmax     pmax
      comp=Z,12nm,0.7s
KK31  Karatay Array      53.16 298           P        10 44 55.7 -0.3
KK31                                IAmb     IAmb     10 44 56.5
      comp=Z,12nm,0.7s
KKAR  Karatay Array      53.16 298  P        P        10 44 55.8 -0.2
KKAR  Karatay Array      53.16 298           P        10 44 55.8 -0.2
BRLS  Borolday           53.64 298 eP        P        10 45 00.7 +1.2
BRLS  Borolday           53.64 298 eP        P        10 45 00.7 +1.2
HNR   Honiara            53.85 163  LR       LR       11 05 08.5
      comp=Z,96nm,21.8s,baz=74,slow=33
IUG   Iuzhnay            53.93 297 eP        P        10 45 01.5 -0.2
IUG                                 pmax     pmax
      comp=Z,12nm,1.3s
IUG   Iuzhnay            53.93 297 eP        P        10 45 01.6 -0.2
      comp=Z,12nm,1.3s
ARTI  Arti               54.27 317  LR       LR       11 11 16.0
      comp=Z,97nm,18.7s,baz=58,slow=39
ARTI  Arti               54.27 317c iP       P        10 45 03.6 -0.2
ARTI                                *PP      pP       10 45 18.8 +0.4
ARTI                                                  10 46 05.0
ARTI                                                  10 47 04.6
ARTI                                S        S        10 52 37.7 +0.6
ARTI                                SS       SKiKP    10 56 13.9 +4.7
ARTI                                pmax     pmax
      comp=Z,7.0nm,0.5s
ARTI  Arti               54.27 317           P        10 45 03.1 -0.8
ARTI  Arti               54.27 317  P        P        10 45 03.0 -0.8
ARTI                                PcP      PcP      10 46 07.1 -0.3
BTK   Batken             54.42 294  P        P        10 45 04.9 -0.4
      comp=Z,9.2nm,0.4s
SPITS Spitsbergen Ar     55.23 349  P        P        10 45 09.5 -1.0
      comp=Z,3.6nm,0.6s,baz=64,slow=9.4,SNR=13
SPITS                               PcP      PcP      10 46 11.0 +0.2
      comp=Z,2.9nm,0.5s,baz=110,slow=7.3,SNR=6.0
SPITS                               LR       LR       11 10 38.3
      comp=Z,63nm,19.2s,baz=64,slow=38
SPITS                               PKP2bc            11 15 30.9
      comp=Z,0.9nm,0.4s,baz=165,slow=6.0,SNR=4.6
      comp=Z,3.6nm,0.6s
BBB   Bella Bella        55.42  48  LR       LR       11 06 17.6
      comp=Z,21nm,21.6s,baz=230,slow=33
RES   Resolute Bay       55.86  16  LR       LR       11 09 52.8
      comp=Z,50nm,21.9s,baz=5.5,slow=37
RES   Resolute Bay       55.86  16  P        P        10 45 14.7 -0.3
RES                                 pmax     pmax
      comp=Z,74nm,0.6s
RES   Resolute Bay       55.86  16  P        P        10 45 14.7 -0.3
RES   Resolute Bay       55.86  16  P        P        10 45 14.3 -0.7
      comp=Z,114nm,0.7s
NIL   Nilore             56.05 286  P        P        10 45 17.6 +0.5
NIL                                 pmax     pmax
      comp=Z,29nm,0.7s
NIL   Nilore             56.05 286           P        10 45 17.6 +0.5
NIL   Nilore             56.05 286  P        P        10 45 17.6 +0.5
      comp=Z,49nm,0.7s
AB31  Akbulak array      56.72 309 i P       P        10 45 21.3 -0.2
AB31  Akbulak array      56.72 309           P        10 45 21.7 +0.2
AB31                                IAmb     IAmb     10 45 22.2
      comp=Z,17nm,0.7s
ABKAR Akbulak array      56.72 309           P        10 45 21.6  0.0
COEN  Coen               56.83 183  P        P        10 45 20.6 -2.0
      comp=Z,21nm,1.1s
YKAW3 Yellowknife Wh     56.83  33  P        P        10 45 22.3 +0.2
YKAW3                               IAmb     IAmb     10 45 23.5
      comp=Z,11nm,0.8s
YKA   Yellowknife Ar     56.87  33  P        P        10 45 22.6 +0.2
      comp=Z,8.2nm,0.8s,baz=301,slow=7.0,SNR=14
      comp=Z,8.2nm,0.8s
AKTO  Aktyubinsk         57.23 311  LR       LR       11 11 52.3
      comp=Z,130nm,19.6s,baz=92,slow=38
AKTO  Aktyubinsk         57.23 311  P        P        10 45 24.7 -0.4
KIRV  Kirov              57.51 322  LR       LR       11 12 53.5
      comp=Z,173nm,18.6s,baz=48,slow=39
LVZ   Lovozero           57.99 335  P        P        10 45 30.1 -0.1
LVZ   Lovozero           57.99 335  P        P        10 45 29.5 -0.7
VADS  Vadso             58.12 339 eP        P        10 45 30.2 -0.8
KBL   Kabul              58.50 290  P        P        10 45 34.0 -0.6
KBL                                 pmax     pmax
      comp=Z,22nm,0.7s
KBL   Kabul              58.50 290           P        10 45 34.0 -0.6
KBL   Kabul              58.50 290  P        P        10 45 33.4 -1.1
      comp=Z,30nm,0.8s
TULEG Thule              58.62   9  P        P        10 45 34.0 -0.4
TULEG Thule              58.62   9 i P       P        10 45 33.3 -1.1
KEV   Kevo               58.98 339  P        P        10 45 36.5 -0.5
KEV                                 PcP      PcP      10 46 25.7 +0.1
NEEM  North Greenlan     59.27   4 i P       P        10 45 38.4 -0.9
NEEM                                IAmb     IAmb     10 45 39.3
      comp=Z,18nm,0.8s
ARA0  ARCESS Array S     59.52 339 eP        P        10 45 40.3 -0.5
ARCES ARCESS Array B     59.52 339  P        P        10 45 40.0 -0.8
      comp=Z,4.0nm,0.5s,baz=38,slow=7.7,SNR=46
ARCES                               LR       LR       11 16 35.7
      comp=Z,74nm,18.6s,baz=71,slow=41
      comp=Z,4.0nm,0.5s
ARCES ARCESS Array B     59.52 339  P        P        10 45 40.0 -0.8
KLMR  Klimovskoe         60.46 327 eP        P        10 45 44.3 -3.0
KLMR                                pmax     pmax
      comp=Z,13nm,1.2s
KLMR                                MLR      MLR
      comp=Z,231nm,15.0s
KTK1  Kautokeino         60.46 340 eP        P        10 45 46.4 -0.9
JETT  Jettan, Norway     60.77 341 eP        P        10 45 49.2 -0.2
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TRO   Tromso             61.06 341 eP        P        10 45 51.0 -0.3
KULLO Kullorsuaq         61.59   7 i P       P        10 45 53.7 -1.1
KULLO                               IAmb     IAmb     10 45 54.4
      comp=Z,31nm,0.6s
BELG  Belogornoye        61.71 316  P        P        10 45 55.8 -0.1
      comp=Z,37nm,0.8s,baz=80,slow=1.7,SNR=12
BELG                                LR       LR       11 15 35.9
      comp=Z,123nm,18.7s,baz=98,slow=39
      comp=Z,37nm,0.8s
BELG  Belogornoye        61.71 316d iP       P        10 45 54.5 -1.4
BELG                                pmax     pmax
      comp=Z,7.0nm,0.9s
STD   Studebaker Rid     61.78  52  P        P        10 45 57.5 +0.8
HYB   Hyderabad          61.79 268 eP        P        10 45 55.8 -1.2
HYB                                epP       pP       10 46 12.3 +0.4
HYB                                ePcP      PcP      10 46 38.0 +0.3
HYB                                eS        S        10 54 15.6 -0.8
HYB                                eScS      ScS      10 55 44.4  0.0
OUL   Oulu               62.49 336  P        P        10 46 00.2 -0.7
      comp=Z,26nm,0.8s
CTA   Charters Tower     62.88 180  LR       LR       11 12 14.7
      comp=Z,47nm,19.5s,baz=273,slow=35
HRA   Herat              63.23 293           P        10 46 06.4 -0.2
HRA                                 IAmb     IAmb     10 46 07.7
      comp=Z,17nm,0.7s
STEI  Steigen            63.24 341 eP        P        10 46 04.8 -1.1
UPNV  Upernavik          63.40   7 i P       P        10 46 06.2 -0.7
UPNV                                IAmb     IAmb     10 46 06.5
      comp=Z,34nm,0.7s
NEW   Newport            63.48  48  LR       LR       11 11 20.7
      comp=Z,38nm,21.9s,baz=296,slow=34
NEW   Newport            63.48  48  P        P        10 46 04.8 -3.1
NEW   Newport            63.48  48  P        P        10 46 08.2 +0.3
      comp=Z,6.9nm,1.3s
WRA   Warramunga Arr     63.62 192  P        P        10 46 08.2 -0.7
      comp=Z,38nm,0.5s,baz=9.0,slow=6.5,SNR=1.6
FITZ  Fitzroy Crossi     63.67 201  LR       LR       11 15 51.1
      comp=Z,57nm,18.6s,baz=358,slow=38
PINE  Pine Mountain      63.92  54  P        P        10 46 11.7 +0.7
PINE                                IAmb     IAmb     10 46 13.5
      comp=Z,8.8nm,0.8s
L04D  Klamath Falls      64.02  56  P        P        10 46 12.5 +0.9
L04D                                IAmb     IAmb     10 46 13.8
      comp=Z,20nm,0.9s
YBH   Yreka Blue Hor     64.05  56  P        P        10 46 11.8  0.0
YBH                                 pmax     pmax
      comp=Z,7.0nm,0.9s
YBH   Yreka Blue Hor     64.05  56           P        10 46 11.8  0.0
SUMG  Summit             64.58   1  P        P        10 46 15.5 +0.3
SUMG                                pmax     pmax
      comp=Z,38nm,0.6s
SUMG  Summit             64.58   1           P        10 46 15.5 +0.3
VAGH  Vaagaholmen        64.66 341 eP        P        10 46 14.3 -0.9
RAUS  Rausandaksla       64.71 341 eP        P        10 46 14.6 -1.0
MOR8  Moi Rana           64.82 340 eP        P        10 46 14.3 -2.1
FINES FINESS Array B     65.01 333  P        P        10 46 16.9 -0.7
      comp=Z,21nm,0.6s,baz=41,slow=7.9,SNR=52
FINES                               LR       LR       11 17 07.5
      comp=Z,98nm,20.4s,baz=40,slow=38
      comp=Z,21nm,0.6s
FINES FINESS Array B     65.01 333ceP        P        10 46 16.8 -0.8
FINES                               pmax     pmax
      comp=Z,21nm,0.6s
FINES FINESS Array B     65.01 333  P        P        10 46 17.1 -0.5
STOK  Stokkvaagen        65.04 341 eP        P        10 46 16.3 -1.4
LEIR  Leirfjorden        65.19 341 eP        P        10 46 17.7 -1.0
OBN   Obninsk            65.26 323⇓eP        P        10 46 18.5 -0.8
OBN                                e                  10 48 43.3
OBN                                eS        S        10 54 53.7 -4.7
OBN                                eSS       SS       10 59 16.8 +5.8
OBN                                 pmax     pmax
      comp=Z,68nm,2.5s
OBN                                 MLR      MLR
      comp=Z,100nm,17.0s
OBN   Obninsk            65.26 323  P        P        10 46 18.4 -0.8
      comp=Z,37nm,0.5s
OBN   Obninsk            65.26 323 eP        P        10 46 18.5 -0.8
VRH   Novokhopyorsk      65.36 318 eP        P        10 46 19.4 -0.6
VRH                                 pmax     pmax
      comp=Z,24nm,1.0s
BMO   Blue Mountains     65.40  51  P        P        10 46 21.4 +0.9
SAATT Saattut            65.70   6 i P       P        10 46 21.6 -0.2
SAATT                               IAmb     IAmb     10 46 22.4
      comp=Z,79nm,0.7s
LPSR  Galich'ya Gora     65.81 320 eP        P        10 46 22.7 -0.2
LPSR                                pmax     pmax
      comp=Z,23nm,0.9s
PLID  Pearl Lake         65.99  50           P        10 46 24.4 -0.2
PLID                                IAmb     IAmb     10 46 26.1
      comp=Z,15nm,1.4s
ORV   Oroville           66.08  58  P        P        10 46 24.9  0.0
ORV                                 pmax     pmax
      comp=Z,6.0nm,0.7s
ORV   Oroville           66.08  58           P        10 46 24.9  0.0
ORV                                 IAmb     IAmb     10 46 25.7
      comp=Z,6.1nm,0.7s
VORR  Voronezh           66.28 319 eP        P        10 46 26.4 +0.5
VORR                                pmax     pmax
      comp=Z,22nm,1.0s
SAQQ  Saqqaq             66.45   7 i P       P        10 46 26.2 -0.5
SAQQ                                IAmb     IAmb     10 46 26.8
      comp=Z,29nm,0.8s
VSR   Storozhevoye       66.59 319 eP        P        10 46 27.7 -0.2
VSR                                 pmax     pmax
      comp=Z,20nm,0.8s
VORD  Divnogorie         66.69 319 eP        P        10 46 26.2 -2.4
VORD                                pmax     pmax
      comp=Z,20nm,0.9s
FFC   Flin Flon          66.79  36  P        P        10 46 29.3 +0.1
FFC                                 pmax     pmax
      comp=Z,10.0nm,1.0s
FFC   Flin Flon          66.79  36  P        P        10 46 29.3 +0.1
FFC                                 IAmb     IAmb     10 46 30.4
      comp=Z,10nm,1.0s
FFC   Flin Flon          66.79  36  P        P        10 46 29.5 +0.3
VSU   Vasula             66.92 330ceP        P        10 46 29.1 -0.8
VSU                                 pmax     pmax
      comp=Z,13nm,0.7s
ILULI Ilulissat          67.30   6 i P       P        10 46 31.6 -0.5
ILULI                               IAmb     IAmb     10 46 32.2
      comp=Z,36nm,0.9s
ASAR  Alice Springs      67.34 192  P        P        10 46 33.3 +0.4
      comp=Z,1.4nm,0.7s,baz=9.9,slow=5.5,SNR=16
ASAR                                PKP2bc   P'P'bc   11 14 59.8 +4.6
      comp=Z,0.4nm,0.8s,baz=183,slow=1.9,SNR=2.0
ASAR                                LR       LR       11 15 59.7
      comp=Z,62nm,19.3s,baz=316,slow=36
      comp=Z,1.4nm,0.7s
MSVF  Nonsavu            67.39 147  LR       LR       11 11 02.8
      comp=Z,106nm,21.8s,baz=340,slow=31
PNTR  Pine Nut           67.53  57  P        P        10 46 35.4 +0.9
PNTR                                IAmb     IAmb     10 46 36.5
      comp=Z,12nm,0.8s
MTSE  Matsula            67.78 331  P        P        10 46 35.0 -0.3
      comp=Z,214nm,0.8s
HLID  Hailey             67.83  51           P        10 46 36.3 +0.1
HLID  Hailey             67.83  51  P        P        10 46 36.4 +0.1
      comp=Z,5.3nm,2.8s
BOZ   Bozeman (W)        68.09  48  P        P        10 46 38.2 +0.5
BOZ                                 pmax     pmax
      comp=Z,8.0nm,0.6s
BOZ   Bozeman (W)        68.09  48  P        P        10 46 38.2 +0.5
BOZ                                 IAmb     IAmb     10 46 39.4
      comp=Z,7.5nm,0.6s
AKT   Akhty              68.18 307 eP        P        10 46 37.6 -0.7
AKT                                e                  10 47 04.1
AKT                                ePPP      PPP      10 50 47.6
AKT                                 pmax     pmax
      comp=Z,18nm,0.5s
AKT                                 MLR      MLR
      comp=Z,246nm,21.0s
GOF   Gofitskoye         68.57 312ceP        P        10 46 40.7 +0.2
NVAR  Mina Array Bea     68.74  57  P        P        10 46 43.0 +1.1
      comp=Z,9.6nm,0.7s,baz=293,slow=6.7,SNR=115
      comp=Z,9.6nm,0.7s
AFI   Afiamalu           68.74 135  LR       LR       11 08 35.4
      comp=Z,36nm,22.0s,baz=2.5,slow=29
SOEG  Soedalen           69.00 359 i P       P        10 46 42.7 -0.1
MNK   Minsk              69.34 327 i P       P        10 46 45.5 +0.4
MNK                                i *PP     pP       10 47 01.9 +1.7
MNK                                i                  10 47 08.4
MNK                                i                  10 49 19.3
MNK                                i PPP     PPP      10 51 00.6
MNK                                i S       S        10 55 48.4 +1.0
MNK                                i *SS     sS       10 56 16.7 +3.9
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MNK                               i SS     SS      11 00 17.4 +3.4
MNK                                 pmax   pmax
       comp=Z,39nm,0.7s
MNK                                 pmax   pmax
       comp=E,22nm,0.7s
MNK                                 pmax   pmax
       comp=N,18nm,0.6s
MNK                                 MLR    MLR
       comp=E,617nm,23.0s
MNK                                 MLR    MLR
       comp=Z,172nm,22.0s
MNK                                 MLR    MLR
       comp=N,348nm,21.0s
MNK    Minsk             69.34 327 i P     P       10 46 45.6 +0.4
       comp=E,22nm,0.7s
MNK                               i P      P       10 46 45.6 +0.4
       comp=N,18nm,0.6s
MNK                               i P      P       10 46 45.6 +0.4
       comp=Z,39nm,0.7s,baz=44
MNK                               i pP     pP      10 47 01.9 +1.7
MNK                               i PP     PP      10 49 19.3 +1.0
MNK                               i PPP    PPP     10 51 00.6
MNK                               i S      S       10 55 48.5 +1.0
MNK                               i sS     sS      10 56 16.7 +3.9
MNK                               i SS     SS      11 00 17.5 +3.4
MNK                               i SSS    SSS     11 03 35.2
MNK                               i LRM    MLR     11 18 58.8
       comp=E,617nm,22.7s
MNK                               i LRM    MLR     11 19 24.1
       comp=Z,172nm,22.1s
MNK                               i LRM    MLR     11 21 15.6
       comp=N,348nm,20.6s
KIV    Kislovodsk        69.47 311 eP      P       10 46 46.9 +0.6
KIV                                 pmax   pmax
       comp=Z,61nm,1.0s
KIV                                 MLR    MLR
       comp=Z,62nm,17.0s
KIV    Kislovodsk        69.47 311  P      P       10 46 46.5 +0.2
KIV    Kislovodsk        69.47 311 i P     P       10 46 47.1 +0.9
       SNR=5.2
KIV    Kislovodsk        69.47 311  P      P       10 46 47.1 +0.9
       comp=Z,774nmcomp=Z,76nm,0.7s
KIV    Kislovodsk        69.47 311 eP      P       10 46 46.9 +0.6
KIV    Kislovodsk        69.47 311  P      P       10 46 47.3 +1.0
       comp=Z,98nm,0.7s
KIV    Kislovodsk        69.47 311  P      P       10 46 47.2 +0.9
MOL    Molde             69.50 341 eP      P       10 46 45.7 -0.3
KBZ    Khabaz            69.50 311  P      P       10 46 46.9 +0.6
       comp=Z,21nm,0.6s,baz=68,slow=4.4,SNR=54
KBZ                                 LR     LR      11 18 36.1
       comp=Z,70nm,21.4s,baz=34,slow=37
       comp=Z,21nm,0.6s
KBZ    Khabaz            69.50 311ceP      P       10 46 46.8 +0.5
KBZ                                 pmax   pmax
       comp=Z,18nm,0.9s
KBZ    Khabaz            69.50 311 eP      P       10 46 46.8 +0.5
ERBR   Yeremizino-Bor    69.51 314 eP      P       10 46 46.3 -0.1
ERBR                               e*PP    pP      10 47 00.3 -1.2
ERBR                               eS      S       10 55 45.7 -4.1
ERBR                                pmax   pmax
       comp=Z,54nm,0.7s
SFJD   Kangerlussuaq     69.51   7  LR     LR      11 17 45.8
       comp=Z,53nm,20.9s,baz=5.0,slow=36
SFJD   Kangerlussuaq     69.51   7  P      P       10 46 45.5 -0.5
SFJD                                pmax   pmax
       comp=Z,17nm,0.7s
SFJD   Kangerlussuaq     69.51   7  P      P       10 46 45.5 -0.5
SFJD                                IAmb   IAmb    10 46 46.4
       comp=Z,17nm,0.7s
SFJD   Kangerlussuaq     69.51   7 i P     P       10 46 45.9  0.0
SFJD                                IAmb   IAmb    10 46 46.2
       comp=Z,19nm,0.8s
SFJD   Kangerlussuaq     69.51   7  P      P       10 46 45.7 -0.2
DOMB   Dombas            69.57 340 eP      P       10 46 46.0 -0.5
DSP    Deep Springs      69.61  58         P       10 46 47.7 +0.7
DSP                                 IAmb   IAmb    10 46 49.5
       comp=Z,14nm,1.0s
SHA1   Shidzhatmaz       69.63 311ceP      P       10 46 47.9 +0.5
NC405  NORSAR Array S    69.66 338  P      P       10 46 46.5 -0.5
NB201  NORSAR Array S    69.82 338  P      P       10 46 47.8 -0.3
NB2    NORSAR Subarra    69.85 338  P      P       10 46 47.5 -0.8
       comp=Z,16nm,0.5s,baz=33,slow=6.5
NB2    NORSAR Subarra    69.85 338  P      P       10 46 47.5 -0.8
NOA    NORSAR Array B    69.85 338  P      P       10 46 47.7 -0.5
       comp=Z,23nm,0.7s,baz=34,slow=6.1,SNR=80
NOA                                 LR     LR      11 21 39.0
       comp=Z,100nm,20.8s,baz=25,slow=40
       comp=Z,23nm,0.7s
HFS    Hagfors           69.91 337  P      P       10 46 47.9 -0.6
       comp=Z,36nm,0.5s,baz=21,slow=4.9,SNR=99
HFS                                 LR     LR      11 22 19.7
       comp=Z,80nm,18.7s,baz=44,slow=40
       comp=Z,36nm,0.5s
NC602  NORSAR Array S    70.02 338 eP      P       10 46 48.3 -0.9
NORES  NORESS Array B    70.02 338  P      P       10 46 48.5 -0.7
NORES                               pmax   pmax
       comp=Z,1.0nm,0.3s
FRB    Frobisher Bay     70.06  15  LR     LR      11 20 53.4
       comp=Z,50nm,19.1s,baz=3.0,slow=39
LABN   Labinsk           70.09 313 eP      P       10 46 48.1 -1.8
LABN                               e*PP    pP      10 47 04.0 -1.1
LABN                               eS      S       10 55 53.1 -3.5
LABN                                pmax   pmax
       comp=Z,34nm,0.8s
NAO01  NORSAR Array S    70.11 338  P      P       10 46 49.2 -0.5
       comp=Z,16nm,0.8s
PABE   Paberze           70.12 329  P      P       10 46 49.2 -0.7
       comp=Z,73nm,0.8s
GRAC   Grapevine Rang    70.21  58  P      P       10 46 51.9 +1.0
HWUT   Hardware Ranch    70.70  51  P      P       10 46 55.0 +1.1
       comp=Z,7.3nm,1.3s
MPMC   Manual Prospec    70.73  58         P       10 46 54.5 +0.2
GNI    Garni             70.77 307  LR     LR      11 21 30.0
       comp=Z,80nm,18.3s,baz=109,slow=39
DUG    Dugway, Tooele    70.90  53  P      P       10 46 56.4 +1.2
DUG    Dugway, Tooele    70.90  53  P      P       10 46 56.4 +1.2
       comp=Z,10nm,1.0s
SKAR   Skarslia          70.92 339 eP      P       10 46 54.9 +0.1
HYA    Hoyanger          71.04 341 eP      P       10 46 54.9 -0.5
EPOS   Posof             71.05 309  P      P       10 46 57.1 +1.1
       comp=Z,10nm,0.8s
PDAR   Pinedale Array    71.06  49  P      P       10 46 56.5 +0.3
       comp=Z,3.9nm,0.5s,baz=256,slow=1.2,SNR=76
       comp=Z,3.9nm,0.5s
PDAR   Pinedale Array    71.06  49  P      P       10 46 56.2  0.0
TCUT   Toone Canyon      71.11  51  P      P       10 46 56.9 +0.3
PSUT   Pine Spring       71.36  55  P      P       10 46 58.2 +0.1
PRN    Pahroc Range      71.37  56  P      P       10 46 58.8 +0.8
SUE    Sulen             71.47 341 eP      P       10 46 57.2 -0.8
NLU    North Lily Min    71.48  52  P      P       10 46 59.5 +0.7
AK03   Malin Array Si    71.51 323  P      P       10 46 57.6 -0.8
AKASG  Malin Array Be    71.53 323  P      P       10 46 58.0 -0.5
       comp=Z,38nm,0.7s,baz=42,slow=6.0,SNR=94
AKASG                               LR     LR      11 21 03.3
       comp=Z,117nm,20.1s,baz=54,slow=38
       comp=Z,38nm,0.7s
AKASG  Malin Array Be    71.53 323  P      P       10 46 58.2 -0.3
AKASG                               pmax   pmax
       comp=Z,9.0nm,1.0s
AKASG  Malin Array Be    71.53 323  P      P       10 46 58.2 -0.3
AKBB   Malin Array Si    71.53 323ceP      P       10 46 57.9 -0.7
AKBB                                pmax   pmax
       comp=Z,26nm,0.8s
AKBB   Malin Array Si    71.53 323  P      P       10 46 57.8 -0.7
AKBB   Malin Array Si    71.53 323  P      P       10 46 57.7 -0.8
AK04   Malin Array Si    71.53 323  P      P       10 46 57.7 -0.9
KIEV   Kiev              71.54 323  P      P       10 46 57.9 -0.7
KIEV                                pmax   pmax
       comp=Z,31nm,0.7s
KIEV   Kiev              71.54 323  P      P       10 46 57.9 -0.7
KIEV   Kiev              71.54 323 i P     P       10 46 58.1 -0.4
       SNR=15
KIEV   Kiev              71.54 323  P      P       10 46 57.7 -0.9
       comp=Z,2µmcomp=Z,178nm,0.7s
KIEV   Kiev              71.54 323  P      P       10 46 58.2 -0.4
       comp=Z,45nm,0.7s
KIEV   Kiev              71.54 323  P      P       10 46 57.9 -0.7
STRU   Stroemstad        71.54 337 i P     P       10 46 58.2 -0.2
SUW    Suwalki           71.55 328  P      P       10 46 58.4 -0.2
SUW    Suwalki           71.55 328  P      P       10 46 58.4 -0.2
ANGG   Ammassalik, Gr    71.58   2 i P     P       10 46 57.9 -0.7
ANGG                                IAmb   IAmb    10 46 58.5
       comp=Z,28nm,0.6s
ISOG   Isortoq, Green    71.62   2 i P     P       10 46 58.5 -0.3
ISOG                                IAmb   IAmb    10 46 59.3
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       comp=Z,36nm,0.7s
ANN    Anapa             71.72 315 eP      P       10 46 59.2 -0.6
ANN                                e*PP    pP      10 47 14.0 -1.0
ANN                                eS      S       10 56 11.3 -4.2
ANN                                 pmax   pmax
       comp=Z,34nm,0.3s
ANN    Anapa             71.72 315 eP      P       10 46 59.2 -0.6
ODD1   Odda              72.02 340 eP      P       10 47 01.8 +0.4
BORG   Borgarnes         72.02 354  LR     LR      11 19 44.6
       comp=Z,34nm,18.3s,baz=345,slow=37
BORG   Borgarnes         72.02 354  P      P       10 47 02.9 +1.7
BLEU   Blekinge          72.37 333 i P     P       10 47 02.5 -0.9
RNPP9  Sopachiv          72.43 325  P      P       10 47 03.7 -0.2
BANOM  Banah             72.46 289  P      P       10 47 04.8 +0.3
SHME   Shamm             72.48 289  P      P       10 47 04.6 -0.1
RNPP8  Varash            72.50 325  P      P       10 47 03.9 -0.4
RNPP5  Staryi Chortor    72.57 325  P      P       10 47 04.5 -0.2
ULM    Lac du Bonnet     72.59  36  P      P       10 47 04.2 -0.7
       comp=Z,3.7nm,0.8s,baz=266,slow=4.6,SNR=3.7
ULM                                 LR     LR      11 20 26.3
       comp=Z,43nm,19.7s,baz=48,slow=37
       comp=Z,3.7nm,0.8s
LUBAR  Lubar, Ukraine    72.74 323  P      P       10 47 05.1 -0.7
FABU   Falkenberg        72.78 335 i P     P       10 47 05.2 -0.7
MSFE   Esma-Masafi       72.91 289  P      P       10 47 07.4 +0.1
PFO    Pinyon Flats O    72.95  60  LR     LR      11 12 13.5
       comp=Z,46nm,21.8s,baz=261,slow=30
PFO    Pinyon Flats O    72.95  60ceP      P       10 47 08.7 +1.2
PFO    Pinyon Flats O    72.95  60  P      P       10 47 08.0 +0.5
KMY    Karmoy            72.97 340 eP      P       10 47 07.6 +0.6
HAKT   HAKKARI           73.08 306  P      P       10 47 09.3 +1.0
       comp=Z,36nm,0.6s
RSSD   Black Hills       73.09  45  P      P       10 47 07.5 -0.8
RSSD                                pmax   pmax
       comp=Z,6.0nm,0.8s
RSSD   Black Hills       73.09  45  P      P       10 47 07.5 -0.8
RSSD   Black Hills       73.09  45  P      P       10 47 08.5 +0.1
       comp=Z,8.6nm,0.8s
UOSS   Minazif           73.15 288  P      P       10 47 07.9 -0.8
UOSS                                IAmb   IAmb    10 47 09.1
       comp=Z,16nm,0.6s
UOSS   Minazif           73.15 288 i P     P       10 47 08.4 -0.2
       SNR=8.1
UOSS   Minazif           73.15 288  P      P       10 47 08.5 -0.1
       comp=Z,25nm,0.7s
SNART  Snartemo          73.23 339 i P     P       10 47 08.7 +0.2
HATD   Hatta, Dubai      73.27 288 i P     P       10 47 09.5 +0.1
       SNR=7.9
KOPT   Kop Dagi          73.30 309  P      P       10 47 09.4 -0.2
BAL3X  Bal3x, Balta      73.36 321  P      P       10 47 09.4 -0.1
ASHO   Ashiyiah          73.42 288  P      P       10 47 10.1 -0.2
SOHO   SOHO              73.44 288  P      P       10 47 10.2 -0.1
NAZ    Nazwa, Dubai      73.50 289  P      P       10 47 10.3 -0.4
BSD    Bornholm Skovb    73.64 333 i P     P       10 47 10.9 -0.1
BSD                                 IAmb   IAmb    10 47 11.1
       comp=Z,34nm,0.7s
NE56   Odesa             73.67 319  P      P       10 47 09.9 -1.4
FAQ    Al Faqa, Dubai    73.70 289  P      P       10 47 11.5 -0.4
GOET   G??ttrup          73.79 337 i P     P       10 47 12.4 +0.6
GOET                                IAmb   IAmb    10 47 12.5
       comp=Z,32nm,0.7s
SORM   Soroca            73.79 322  P      P       10 47 11.5 -0.5
SORM   Soroca            73.79 322 ⇑P      P       10 47 11.5 -0.5
SORM   Soroca            73.79 322  P      P       10 47 11.3 -0.7
       comp=Z,725nmcomp=Z,36nm,1.1s
KELT   Kelkit            73.91 310  P      P       10 47 14.1 +1.0
       comp=Z,47nm,1.0s
ASUD   Al Ashush, Dub    73.96 289  P      P       10 47 13.5 +0.1
ALNE   Al Ain            74.03 288 i P     P       10 47 13.9  0.0
       SNR=6.8
BEL    Belsk             74.16 328 eP      P       10 47 14.4 +0.4
KMPD   K-Podol'skiy      74.32 323  P      P       10 47 14.0 -1.1
STKA   Stephens Creek    74.72 184  LR     LR      11 22 50.5
       comp=Z,43nm,18.2s,baz=21,slow=38
KWP    Kalwaria Pacla    75.11 326 eP      P       10 47 20.2 +0.5
KWP    Kalwaria Pacla    75.11 326  P      P       10 47 20.2 +0.5
       comp=Z,67nm,1.2s
ARPR   Arapgir-MALATY    75.15 310  P      P       10 47 21.8 +1.4
       comp=Z,28nm,1.1s
ISCO   Idaho Springs     75.25  49  P      P       10 47 22.0 +0.9
ISCO   Idaho Springs     75.25  49  P      P       10 47 22.1 +1.0
       comp=Z,3.5nm,1.1s
IVI    Ivigtut           75.42   7  P      P       10 47 20.8 -0.4
BURAR  Bucovina Array    75.58 323  P      P       10 47 22.6 +0.1
BURAR  Bucovina Array    75.58 323 ⇑P      P       10 47 22.7 +0.1
BIZ    Bicaz             75.70 322 ⇓P      P       10 47 23.8 +0.7
TLCR                     75.75 319  P      P       10 47 23.6 +0.3
TLCR                     75.75 319 ⇑P      P       10 47 23.7 +0.3
TESR   Tescani           75.77 322 ⇑P      P       10 47 23.8 +0.3
TESR   Tescani           75.77 322  P      P       10 47 23.5  0.0
       comp=Z,613nmcomp=Z,34nm,1.0s
TESR   Tescani           75.77 322  P      P       10 47 23.7 +0.2
       comp=Z,35nm,0.9s
OJC    Ojcow             75.81 328 eP      P       10 47 24.2 +0.5
OJC    Ojcow             75.81 328  P      P       10 47 24.3 +0.5
OJC    Ojcow             75.81 328  P      P       10 47 23.9 +0.2
       comp=Z,49nm,1.0s
OJC    Ojcow             75.81 328  P      P       10 47 24.2 +0.5
       comp=Z,49nm,1.0s
KOLS   Kolonicke sedl    75.83 325 eP      P       10 47 24.8 +1.0
KOLS                                pmax   pmax
       comp=Z,13nm,0.8s
KOLS   Kolonicke sedl    75.83 325 eP      P       10 47 24.8 +1.0
KOLS   Kolonicke sedl    75.83 325  P      P       10 47 25.0 +1.2
       comp=Z,12nm,0.6s
STHS   Stebnicka Huta    75.87 326 eP      P       10 47 24.7 +0.6
STHS                                pmax   pmax
       comp=Z,11nm,0.7s
STHS   Stebnicka Huta    75.87 326 eP      P       10 47 24.7 +0.6
CFR    Carcaliu          76.08 320  P      P       10 47 25.3 +0.1
CFR    Carcaliu          76.08 320 ⇑P      P       10 47 25.3 +0.1
BSEG   Bad Segeberg      76.11 335  P      P       10 47 25.6 +0.4
BSEG   Bad Segeberg      76.11 335 eP      P       10 47 25.8 +0.6
       comp=Z,9.6nm,0.8s,baz=32,slow=5.5
BSEG   Bad Segeberg      76.11 335  P      P       10 47 25.6 +0.4
       comp=Z,14nm,0.8s
TPGR   Topolog           76.18 319 ⇓P      P       10 47 26.1 +0.2
VRI    Vrincioaia        76.22 321  P      P       10 47 26.1  0.0
VRI    Vrincioaia        76.22 321 ⇑P      P       10 47 26.2  0.0
VRI    Vrincioaia        76.22 321  P      P       10 47 26.5 +0.4
       comp=Z,6.1nm,0.8s
NIE    Niedzica          76.25 327 eP      P       10 47 27.0 +0.8
ILGA   Ilgaz             76.30 314  P      P       10 47 27.1 +0.2
ILGA                                IAmb   IAmb    10 47 29.1
       comp=Z,15nm,0.9s
TRPA   Tarpa             76.34 325  P      P       10 47 27.5 +0.8
       comp=Z,52nm,0.9s
SAHR   Sahastru          76.35 321 ⇑P      P       10 47 26.4 -0.5
TURR   Turia             76.41 322 ⇑P      P       10 47 28.1 +0.9
OZUR                     76.48 322 ⇑P      P       10 47 28.5 +0.9
TIRR   Tirgusor          76.48 319  P      P       10 47 27.4 -0.1
TIRR   Tirgusor          76.48 319 ⇑P      P       10 47 27.5 -0.1
GORT1  Trebel            76.59 334 eP      P       10 47 28.7 +0.8
       comp=Z,14nm,1.1s,baz=32,slow=5.5
KSP    Ksiaz             76.65 330 eP      P       10 47 28.7 +0.3
SDCO   Great Sand Dun    76.75  50  P      P       10 47 29.6  0.0
LANS   Liptovska Anna    76.80 327 eP      P       10 47 30.5 +1.2
LANS                                pmax   pmax
       comp=Z,10.0nm,0.8s
LANS   Liptovska Anna    76.80 327 eP      P       10 47 30.5 +1.2
STEB   Steborice         76.83 328 eP      P       10 47 29.8 +0.4
MLR    Muntele Rosu      76.86 321  LR     LR      11 24 23.1
       comp=Z,97nm,19.6s,baz=4.5,slow=38
MLR    Muntele Rosu      76.86 321  P      P       10 47 30.6 +0.7
       comp=Z,11nm,1.3s
OSTC   Ostas             76.91 330  AMS    AMS     11 24 00.0
       comp=Z,200nm,19.0s
CHVC   Chvalec           76.94 330 eP      P       10 47 30.5 +0.4
CHVC   Chvalec           76.94 330 eP      P       10 47 30.5 +0.4
UPC    Upice             77.02 330  P      P       10 47 31.1 +0.6
UPC    Upice             77.02 330  AMS    AMS     11 24 10.0
       comp=Z,200nm,15.1s
UPC    Upice             77.02 330  P      P       10 47 31.1 +0.6
       comp=Z,13nm,1.0s
DPC    Dobruska-Polom    77.04 330 eP      P       10 47 31.5 +0.8
DPC                                 MLR    MLR
       comp=Z,200nm,22.1s
DPC    Dobruska-Polom    77.04 330 eP      P       10 47 31.5 +0.8
DPC                                 AMS    AMS     11 23 50.0
       comp=Z,200nm,22.1s
DPC    Dobruska-Polom    77.04 330  P      P       10 47 31.5 +0.8
       comp=Z,10nm,1.2s
MORC   Moravsky Berou    77.04 329  P      P       10 47 30.8 +0.1
MORC   Moravsky Berou    77.04 329 eP      P       10 47 30.8 +0.1
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MORC   Moravsky Berou    77.04 329 ⇑P      P       10 47 30.9 +0.1
MORC   Moravsky Berou    77.04 329  P      P       10 47 31.4 +0.6
       comp=Z,21nm,1.2s
MORC                                pP     pP      10 47 48.5 +2.5
ECSD   EROS Data Cent    77.09  41  P      P       10 47 30.9 -0.2
       comp=Z,9.7nm,2.2s
KRLC   Kraliky           77.09 329  P      P       10 47 31.5 +0.6
       comp=Z,15nm,1.1s
KPL    Plockton          77.11 345 eP      P       10 47 30.6 -0.2
KPL                                 IAmb   IAmb    10 47 31.8
       comp=Z,19nm,0.6s
FLTG   Flechtingen       77.17 333 eP      P       10 47 31.2 -0.1
       comp=Z,15nm,0.8s,baz=32,slow=5.5
FLTG                               epP     pP      10 47 48.9 +2.2
       baz=33,slow=5.5
FLTG   Flechtingen       77.17 333  P      P       10 47 31.1 -0.2
       comp=Z,23nm,0.9s
MARR   Marisel-Cluj      77.22 324 ⇓P      P       10 47 32.4 +0.6
BR131  Keskin Array S    77.29 313  P      P       10 47 32.1 -0.3
BR131                               pmax   pmax
       comp=Z,5.0nm,0.7s
BR131  Keskin Array S    77.29 313  P      P       10 47 32.1 -0.3
BRTR   Keskin Array B    77.29 313  P      P       10 47 32.6 +0.2
       comp=Z,3.2nm,0.7s,baz=92,slow=3.3,SNR=23
BRTR                                LR     LR      11 27 40.3
       comp=Z,46nm,18.0s,baz=42,slow=40
       comp=Z,3.2nm,0.7s
BRTR   Keskin Array B    77.29 313ceP      P       10 47 32.5 +0.2
BRTR                                pmax   pmax
       comp=Z,4.0nm,0.7s
DRGR                     77.31 324  P      P       10 47 32.6 +0.3
       comp=Z,5.5nm,1.0s
VOIR                     77.31 322  P      P       10 47 32.9 +0.6
VOIR                     77.31 322 ⇑P      P       10 47 33.0 +0.6
VOIR                     77.31 322  P      P       10 47 33.0 +0.6
       comp=Z,13nm,1.0s
ANDN   Andirin           77.33 310  P      P       10 47 34.0 +1.4
       comp=Z,66nm,1.0s
TUC    Tucson            77.37  58  P      P       10 47 33.0 +0.1
TUC                                 pmax   pmax
       comp=Z,4.0nm,1.0s
TUC    Tucson            77.37  58  P      P       10 47 33.6 +0.7
       comp=Z,4.4nm,1.2s
TUC    Tucson            77.37  58  P      P       10 47 34.0 +1.1
RETH   Rethem/Aller,     77.43 335 eP      P       10 47 33.2 +0.5
       comp=Z,9.0nm,0.7s,baz=32,slow=5.5
RETH                               epP     pP      10 47 50.7 +2.7
       baz=33,slow=5.5
RETH   Rethem/Aller,     77.43 335  P      P       10 47 33.0 +0.3
       comp=Z,23nm,1.0s
CLL    Collm             77.44 332⇑iP      P       10 47 32.4 -0.4
CLL                               i *PP    pP      10 47 50.1 +1.9
CLL                                 pmax   pmax
       comp=Z,24nm,1.0s
CLL    Collm             77.44 332 eP      P       10 47 32.8  0.0
       comp=Z,17nm,0.7s,baz=32,slow=5.5
CLL                                epP     pP      10 47 50.3 +2.2
       baz=33,slow=5.5
CLL    Collm             77.44 332  P      P       10 47 32.7 -0.1
CLL    Collm             77.44 332⇑iP      P       10 47 32.4 -0.4
       comp=Z,24nm,1.0s
CLL                               i PcP    PcP     10 47 44.2 +1.1
CLL                               i pP     pP      10 47 50.1 +1.9
       comp=Z,17nm,1.0s
CLL                                 L      L       11 24 00.0
       comp=Z,100nm,20.0s
BRG    Berggiesshubel    77.47 331 eP      P       10 47 33.2 +0.2
       comp=Z,4.8nm,0.9s,baz=32,slow=5.5
BRG    Berggiesshubel    77.47 331 eP      P       10 47 33.2 +0.2
BRG                                 Amp            10 47 33.6
       comp=Z,4.8nm,0.9s
BRG                                 pP     pP      10 47 49.1 +0.8
BRG                                 Amp            10 47 52.8
       comp=Z,3.5nm,0.8s
ASSE   Asse, Remlinge    77.53 334 eP      P       10 47 33.5 +0.3
       comp=Z,7.3nm,0.9s,baz=32,slow=5.5
ASSE                               epP     pP      10 47 51.3 +2.7
       baz=33,slow=5.5
PVCC   Panska Ves        77.53 331  P      P       10 47 33.8 +0.4
ARR    Arges             77.56 322  P      P       10 47 35.0 +1.3
       comp=Z,19nm,1.4s
KIRS   Kirsehir-Merke    77.56 312 ⇓P      P       10 47 34.3 +0.5
VYHS   Vyhne             77.57 327 eP      P       10 47 34.2 +0.5
VYHS                                pmax   pmax
       comp=Z,18nm,1.5s
VYHS   Vyhne             77.57 327 eP      P       10 47 34.2 +0.5
PSZ    Piszkesteto       77.60 326  P      P       10 47 33.5 -0.4
       comp=Z,16nm,1.0s
JAVC   Velka Javorina    77.74 328 eP      P       10 47 35.8 +1.2
JAVC   Velka Javorina    77.74 328  P      P       10 47 36.2 +1.6
       comp=Z,20nm,1.5s
JAVC                                pP     sP      10 47 53.5 -2.5
VRAC   Vranov            77.79 329  LR     LR      11 24 34.2
       comp=Z,133nm,21.4s,baz=40,slow=38
VRAC   Vranov            77.79 329  P      P       10 47 35.5 +0.7
VRAC   Vranov            77.79 329 eP      P       10 47 35.4 +0.7
VRAC   Vranov            77.79 329 ⇑P      P       10 47 35.6 +0.7
VRAC   Vranov            77.79 329  P      P       10 47 35.6 +0.8
       comp=Z,4.4nm,1.1s
VRAC                                pP     pP      10 47 52.7 +2.5
CLZ    Clausthal         77.87 334 eP      P       10 47 35.9 +0.6
       comp=Z,12nm,0.7s,baz=32,slow=5.5
CLZ                                epP     pP      10 47 53.5 +2.9
       baz=33,slow=5.5
CLZ    Clausthal         77.87 334  P      P       10 47 35.7 +0.5
       comp=Z,20nm,1.2s
HSKC   Hora Svate Kat    77.87 331  P      P       10 47 35.9 +0.6
       comp=Z,11nm,1.3s
NEUB   Neuenburg         77.94 332 eP      P       10 47 35.8 +0.1
       comp=Z,15nm,0.8s,baz=32,slow=5.5
NEUB                               epP     pP      10 47 53.4 +2.5
       baz=33,slow=5.5
PRU    Pruhonice         77.99 330 eP      P       10 47 36.2 +0.3
PRU                                 pmax   pmax
       comp=Z,6.0nm,0.7s
PRU                                 MLR    MLR
       comp=Z,200nm,20.9s
PRU    Pruhonice         77.99 330 eP      P       10 47 36.2 +0.3
       comp=Z,6.1nm,0.7s
PRU                                 AMS    AMS     11 24 10.0
       comp=Z,200nm,20.9s
PRU    Pruhonice         77.99 330  P      P       10 47 36.4 +0.5
       comp=Z,13nm,1.0s
KRUC   Moravsky          78.06 329 eP      P       10 47 36.7 +0.3
KRUC   Moravsky          78.06 329  P      P       10 47 37.0 +0.6
       comp=Z,17nm,0.9s
SMOL   Smolenice         78.11 328 eP      P       10 47 37.8 +1.2
SMOL                                pmax   pmax
       comp=Z,4.0nm,0.6s
TASM   ASL Pad, Albuq    78.16  53  P      P       10 47 37.9 +0.5
ANMO   Albuquerque       78.16  53ceP      P       10 47 38.3 +0.9
ANMO                                pmax   pmax
       comp=Z,5.0nm,1.7s
ANMO   Albuquerque       78.16  53  P      P       10 47 38.1 +0.7
       comp=Z,3.2nm,2.3s
ANMO   Albuquerque       78.16  53  P      P       10 47 38.5 +1.1
ANMO                                x      x       10 47 53.1
GTTG   Gottingen         78.25 334 eP      P       10 47 37.9 +0.5
       comp=Z,12nm,0.9s,baz=32,slow=5.5
GTTG                               epP     pP      10 47 55.5 +2.8
       baz=33,slow=5.5
MODS   Modra-Piesok      78.28 328 eP      P       10 47 38.4 +0.8
MODS                                pmax   pmax
       comp=Z,33nm,1.2s
MODS   Modra-Piesok      78.28 328 eP      P       10 47 38.4 +0.8
MODS   Modra-Piesok      78.28 328  P      P       10 47 38.6 +1.0
       comp=Z,20nm,1.2s
IBBN   Ibbenburen        78.30 335 eP      P       10 47 37.9 +0.3
       comp=Z,17nm,0.7s,baz=32,slow=5.5
IBBN                               epP     sP      10 47 56.4 -2.6
       baz=33,slow=5.5
PGBU   Glenifferbraes    78.30 343 eP      P       10 47 38.0 +0.5
PGBU                                IAmb   IAmb    10 47 38.8
       comp=Z,58nm,0.6s
SRO    Srobarova         78.33 327 eP      P       10 47 38.6 +0.8
SRO                                 pmax   pmax
       comp=Z,15nm,0.7s
SRO    Srobarova         78.33 327 eP      P       10 47 38.6 +0.8
GZR    Gura Zlata        78.37 323  P      P       10 47 37.9 -0.3
GZR    Gura Zlata        78.37 323 ⇑P      P       10 47 37.9 -0.3
TANN   Tannenbergstha    78.37 332 eP      P       10 47 38.1  0.0
       comp=Z,3.8nm,1.0s,baz=32,slow=5.5
PLN    Plauen            78.42 332 eP      P       10 47 38.5 +0.2
       comp=Z,1.8nm,1.0s,baz=32,slow=5.5
EKA    Eskdalemuir Ar    78.46 343  P      P       10 47 38.5 +0.2
       comp=Z,13nm,0.5s,baz=26,slow=4.8,SNR=59
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EKA				LR	LR	11 28 22.8	
	comp=Z,48nm,18.5s,baz=13,slow=40						
	comp=Z,13nm,0.5s						
MOX	Moxa	78.47	332	*e*P	P	10 47 38.8	+0.2
	comp=Z,4.2nm,0.7s,baz=32,slow=5.5						
MOX				*e*pP	pP	10 47 56.4	+2.5
	baz=33,slow=5.5						
MOX	Moxa	78.47	332	P	P	10 47 38.6	0.0
	comp=Z,6.1nm,1.1s						
ESK	Eskdalemuir	78.48	343	*ce*P	P	10 47 39.3	+0.8
ESK	Eskdalemuir	78.48	343	*e*P	P	10 47 38.7	+0.2
ESK				IAmb	IAmb	10 47 39.5	
	comp=Z,21nm,0.6s						
ESK	Eskdalemuir	78.48	343	P	P	10 47 38.8	+0.2
SCHQ	Schefferville	78.54	19	P	P	10 47 39.0	+0.1
	comp=Z,7.8nm,0.7s,baz=354,slow=6.3,SNR=19						
SCHQ				LR	LR	11 27 21.4	
	comp=Z,71nm,18.2s,baz=306,slow=40						
	comp=Z,7.8nm,0.7s						
KLYT	Kilyos	78.56	317	P	P	10 47 39.6	+0.4
	comp=Z,16nm,1.4s						
ZVC	Zvikov	78.57	330	AMS	AMS	11 24 50.0	
	comp=Z,200nm,22.2s						
EDMD	Edmundbyers	78.65	342	*e*P	P	10 47 39.4	-0.1
EDMD				IAmb	IAmb	10 47 40.5	
	comp=Z,11nm,0.7s						
BZS	Buzias	78.70	324	P	P	10 47 39.8	-0.2
	comp=Z,9.5nm,1.0s						
WINA	Alland / Wiene	78.97	328	*e*P	P	10 47 42.1	+0.8
	comp=Z,10.0nm,0.7s						
CKRC	Cesky Krumlov	79.04	330	AMS	AMS	11 25 00.0	
	comp=Z,100nm,17.3s						
KASTN	Kahler Asten	79.05	334	*e*P	P	10 47 42.0	+0.3
	comp=Z,5.3nm,0.8s,baz=32,slow=5.5						
KASTN				*e*pP	pP	10 47 59.8	+2.6
	baz=33,slow=5.5						
KHC	Kasperske Hory	79.05	330	*ce*P	P	10 47 42.4	+0.5
KHC				pmax	pmax		
	comp=Z,9.0nm,0.8s						
KHC	Kasperske Hory	79.05	330	*e*P	P	10 47 42.0	+0.2
	comp=Z,4.7nm,0.5s						
KHC				*e*pP	pP	10 47 59.0	+1.7
KHC				AMS	AMS	11 25 40.0	
	comp=Z,200nm,21.4s						
KHC	Kasperske Hory	79.05	330	P	P	10 47 42.1	+0.2
KHC				IAmb	IAmb	10 47 43.1	
	comp=Z,15nm,1.1s						
KHC	Kasperske Hory	79.05	330	P	P	10 47 41.8	-0.1
	comp=Z,15nm,1.0s						
KHC				pP	pP	10 47 58.9	+1.7
	comp=Z,15nm,1.0s						
KHC	Kasperske Hory	79.05	330	P	P	10 47 42.4	+0.5
	comp=Z,15nm,1.0s						
KHC				pP	pP	10 47 58.9	+1.6
MPLH	Magyarpolny	79.16	327	P	P	10 47 42.8	+0.4
	comp=Z,46nm,1.2s						
MPLH				pP	pP	10 48 00.0	+2.2
	comp=Z,46nm,1.2s						
MPLH	Magyarpolny	79.16	327	P	P	10 47 43.3	+0.9
	comp=Z,18nm,1.2s						
CONA	Conrad Observa	79.19	328	*e*P	P	10 47 43.4	+0.6
	comp=Z,5.9nm,0.7s						
BUG	Bochum--Univer	79.20	335	*e*P	P	10 47 42.6	+0.1
	comp=Z,14nm,0.9s,baz=32,slow=5.5						
BUG				*e*pP	pP	10 48 00.3	+2.4
	baz=33,slow=5.5						
RONA	Rosalia, Austr	79.21	328	*e*P	P	10 47 43.5	+0.7
	comp=Z,8.1nm,0.7s						
GEC2	GERESS Array S	79.25	330	*e*P	P	10 47 43.1	+0.1
	comp=Z,2.6nm,0.7s,baz=32,slow=5.5						
GEC2				*e*pP	pP	10 48 00.8	+2.4
	baz=33,slow=5.5						
GEC2	GERESS Array S	79.25	330	P	P	10 47 43.0	0.0
	comp=Z,5.9nm,1.0s						
GERES	GERESS Array B	79.25	330	P	P	10 47 42.9	-0.1
	comp=Z,1.4nm,0.5s,baz=22,slow=4.3,SNR=13						
	comp=Z,1.4nm,0.5s						
MDVR	Moldovita	79.31	323	⇑P	P	10 47 43.1	-0.3
GRA3	Grafenberg Arr	79.32	332	P	P	10 47 43.8	+0.6
	comp=Z,18nm,1.1s						
GRF	Grafenberg Arr	79.41	332	*e*P	P	10 47 44.5	+0.7
	comp=Z,11nm,0.7s,baz=32,slow=5.5						
GRF				*e*pP	pP	10 48 02.1	+3.0
	baz=33,slow=5.5						
MORH	Mrgy, Hungar	79.48	326	⇑P	P	10 47 44.0	-0.1
MORH	Mrgy, Hungar	79.48	326	P	P	10 47 43.5	-0.7
	comp=Z,6.6nm,1.4s						
MORH				pP	pP	10 48 01.8	+2.3
	comp=Z,6.6nm,1.4s						
MORH	Mrgy, Hungar	79.48	326	P	P	10 47 43.8	-0.3
	comp=Z,7.3nm,1.4s						
MOA	Molln	79.86	329	*e*P	P	10 47 46.6	+0.3
	comp=Z,2.5nm,0.6s						
BOVS	Bovan	80.22	322	⇑P	P	10 47 48.1	-0.2
BIOA	Bad Ischl, Aus	80.23	329	*e*P	P	10 47 48.6	+0.4
	comp=Z,3.9nm,0.5s						
SESA	Seetaler Alpe,	80.36	329	*e*P	P	10 47 49.5	+0.3
	comp=Z,16nm,0.6s						
BALY	Balya	80.41	316	P	P	10 47 49.6	+0.2
	comp=Z,61nm,0.9s						
KEPZ	Antalya-Kepez	80.44	312	⇑P	P	10 47 49.6	0.0
SOKA	Soboth	80.55	328	*e*P	P	10 47 50.1	+0.1
	comp=Z,7.4nm,0.6s						
PERS	Pernice	80.55	328	*i* P	P	10 47 49.9	-0.1
FOEL	Foel Wylfa	80.73	342	*e*P	P	10 47 51.2	+0.4
FOEL				IAmb	IAmb	10 47 52.1	
	comp=Z,32nm,0.6s						
LESA	Schwarzleotal	80.81	330	*i* P	P	10 47 51.8	+0.4
	comp=Z,5.2nm,0.6s,SNR=6.4						
KBA	Koelnbreinsper	80.85	329	*i* P	P	10 47 52.1	+0.3
	comp=Z,7.8nm,0.7s,SNR=9.1						
KBA	Koelnbreinsper	80.85	329	P	P	10 47 52.6	+0.8
	comp=Z,16nm,0.9s						
OBKA	Obir	80.87	328	*e*P	P	10 47 51.8	0.0
	comp=Z,4.9nm,0.6s						
CSS	Mathiatis	80.90	310	P	P	10 47 52.3	+0.3
	comp=Z,17nm,0.8s						
BMRD	Maredsous	80.96	336	*d*P	P	10 47 52.0	0.0
	comp=Z,8.9nm,1.0s						
GCIS	Gornji Cirnik	80.98	327	*i* P	P	10 47 51.9	-0.3
EZN	Ezine	80.99	317	P	P	10 47 52.8	+0.4
	comp=Z,14nm,1.1s						
MNTX	Cornudas Mount	81.08	55	P	P	10 47 54.1	+1.0
	comp=Z,13nm,0.9s						
MMAI	Mount Meron Ar	81.11	307	P	P	10 47 53.4	+0.1
	comp=Z,22nm,0.6s,baz=41,slow=4.6,SNR=15						
MMAI				LR	LR	11 29 03.8	
	comp=Z,65nm,18.6s,baz=62,slow=40						
	comp=Z,22nm,0.6s						
MYKA	Terra Mystica	81.12	329	*e*P	P	10 47 52.2	-0.8
	comp=Z,3.3nm,0.7s						
ACOM	Acomizza, Ital	81.23	329	P	P	10 47 53.3	-0.6
	comp=Z,19nm,0.8s						
WATA	Walderalm	81.29	330	*e*P	P	10 47 54.1	0.0
	comp=Z,5.0nm,0.5s						
WTTA	Wattenberg	81.33	330	*e*P	P	10 47 54.5	+0.2
	comp=Z,11nm,1.0s						
WTTA	Wattenberg	81.33	330	P	P	10 47 54.1	-0.2
BAIF	Baives	81.34	336	*e*P	P	10 47 55.8	+1.7
BAIF				pmax	pmax		
	comp=Z,3.0nm,0.7s						
RAYN	Ar Rayn	81.39	294	P	P	10 47 55.1	+0.2
RAYN	Ar Rayn	81.39	294	P	P	10 47 55.0	+0.1
RAYN	Ar Rayn	81.39	294	P	P	10 47 55.1	+0.2
	comp=Z,14nm,1.2s						
RAYN	Ar Rayn	81.39	294	P	P	10 47 54.9	+0.1
BOJS	Bojanci	81.43	327	*i* P	P	10 47 54.3	-0.3
ABTA	Abfaltersbach	81.44	330	*e*P	P	10 47 53.4	-1.4
	comp=Z,3.3nm,0.5s						
MOTA	Moosalm	81.45	331	*i* P	P	10 47 54.9	-0.1
	comp=Z,18nm,1.2s,SNR=5.4						
RETA	Reutte	81.45	331	*e*P	P	10 47 54.7	-0.1
	comp=Z,8.8nm,1.1s						
SQTA	Sankt Quirin	81.52	331	*e*P	P	10 47 55.4	+0.1
	comp=Z,7.7nm,0.8s						
MMLI	Mount Malkishu	81.52	307	P	P	10 47 56.8	+1.4
	comp=Z,30nm,1.1s						
BFO	Black Forest	81.56	333	*ce*P	P	10 47 55.9	+0.6
BFO	Black Forest	81.56	333	*e*P	P	10 47 55.4	0.0
	comp=Z,5.5nm,1.1s,baz=32,slow=5.5						
BFO				*e*pP	pP	10 48 13.1	+2.3
	baz=33,slow=5.5						
CDF	Champ du Feu	81.84	334	*e*P	P	10 47 56.1	-0.8
CDF				pmax	pmax		
	comp=Z,7.0nm,1.0s						
AYDN	Tasoluk	81.85	315	P	P	10 47 58.1	+1.0
	comp=Z,108nm,0.9s						
FETA	Feichten	81.86	331	*e*P	P	10 47 56.8	-0.3
	comp=Z,6.5nm,0.9s						
DAVA	Damuels	81.93	331	*e*P	P	10 47 57.1	-0.4
	comp=Z,5.8nm,0.6s						
DAVA	Damuels	81.93	331	P	P	10 47 57.3	-0.2
	comp=Z,16nm,0.7s						
ECH	Echery	82.05	334	P	P	10 47 57.7	-0.2
ECH	Echery	82.05	334	P	P	10 47 57.6	-0.2
PDG	Podgorica	82.27	323	⇑P	P	10 47 59.2	0.0
PDG	Podgorica	82.27	323	P	P	10 47 59.1	0.0
	comp=Z,40nm,1.1s						
PHP	Peshkopia	82.33	322	P	P	10 47 59.4	-0.1
	comp=Z,22nm,0.9s						
PHP				pP	pP	10 48 16.4	+1.4
DAVOX	Davos/Dischmat	82.37	331	LR	LR	11 27 56.0	
	comp=Z,105nm,18.9s,baz=68,slow=38						
FUORN	Ofenpass-Fuorn	82.37	331	P	P	10 48 00.2	+0.3
	comp=Z,15nm,0.7s						
HAU	Haudompre	82.50	334	*e*P	P	10 47 59.7	-0.5
HAU				pmax	pmax		
	comp=Z,4.0nm,0.7s						
HINF	Hinteralfeld	82.50	334	*e*P	P	10 47 59.4	-0.9
HINF				pmax	pmax		
	comp=Z,2.0nm,0.6s						
WMOK	Wichita Mounta	82.67	49	P	P	10 48 01.8	+0.4
TUE	Stuetta	82.82	331	P	P	10 48 02.0	-0.2
	comp=Z,26nm,0.9s						
TUE				pP	pP	10 48 18.1	+0.4
	comp=Z,26nm,0.9s						
TUE	Stuetta	82.82	331	P	P	10 48 01.5	-0.7
	comp=Z,6.3nm,0.9s						
FNO	Franklin	83.03	47	P	P	10 48 03.4	+0.2
FNO				IAmb	IAmb	10 48 04.6	
	comp=Z,14nm,0.8s						
LPIG	La Paz	83.33	63	LR	LR	11 22 21.1	
	comp=Z,30nm,18.8s,baz=212,slow=34						
HRFI	Mount Harif	83.47	305	P	P	10 48 06.2	+0.6
	comp=Z,20nm,1.1s						
SADO	Sadowa	83.75	30	LR	LR	11 27 04.7	
	comp=Z,31nm,18.7s,baz=238,slow=37						
EIL	Elat	83.79	305	P	P	10 48 08.0	+0.7
	comp=Z,26nm,0.9s						
TXAR	Lajitas Array	83.81	55	P	P	10 48 08.1	+0.6
	comp=Z,5.4nm,0.7s,baz=298,slow=3.7,SNR=79						
	comp=Z,5.4nm,0.7s						
KARP	Karpathos	83.83	314	P	P	10 48 07.0	-0.3
	comp=Z,39nm,0.8s						
LOR	Lormes	83.93	335	*e*P	P	10 48 06.8	-0.9
LOR				pmax	pmax		
	comp=Z,11nm,1.1s						
LOR	Lormes	83.93	335	P	P	10 48 07.5	-0.2
	comp=Z,8.7nm,1.1s						
CCM	Cathedral Cave	84.05	42	P	P	10 48 08.4	0.0
SSF	Saint Saulge	84.23	335	*e*P	P	10 48 08.3	-0.8
SSF				pmax	pmax		
	comp=Z,3.0nm,0.6s						
GRR	Gorron	84.29	338	*e*P	P	10 48 09.5	+0.1
GRR				pmax	pmax		
	comp=Z,14nm,1.2s						
HPIG		84.30	58	P	P	10 48 09.7	-0.4
	comp=Z,11nm,1.3s						
SMF	Signal de Mont	84.50	335	*e*P	P	10 48 09.8	-0.7
SMF				pmax	pmax		
	comp=Z,9.0nm,0.8s						
AVF	Avril sur Loir	84.52	335	*e*P	P	10 48 10.0	-0.6
AVF				pmax	pmax		
	comp=Z,7.0nm,0.8s						
PPT	Papeete	84.52	120	LR	LR	11 16 21.6	
	comp=Z,78nm,21.8s,baz=17,slow=29						
TAOE	Nuku Hiva Isla	84.54	107	P	P	10 48 11.8	+0.6
LPL	La Plagne	84.55	332	*e*P	P	10 48 10.7	-0.4
LPL				pmax	pmax		
	comp=Z,3.0nm,0.4s						
LPG	La Plagne	84.56	332	*e*P	P	10 48 10.9	-0.3
LPG				pmax	pmax		
	comp=Z,4.0nm,0.6s						
ZKR	Zakros	84.65	314	P	P	10 48 11.6	+0.1
	comp=Z,62nm,0.8s						
AQU	L'Aquila	84.79	327	P	P	10 48 12.7	+0.6
	comp=Z,10nm,1.2s						
BGF	Bois d'Agland	84.88	335	*e*P	P	10 48 12.9	+0.5
BGF				pmax	pmax		
	comp=Z,5.0nm,0.7s						
ROSF	Rostrenen	84.96	340	*e*P	P	10 48 12.8	0.0
ROSF				pmax	pmax		
	comp=Z,27nm,1.0s						
ITM	Ithomi	85.22	318	P	P	10 48 13.6	-0.7
QUIF	Quistinic	85.33	340	*e*P	P	10 48 14.3	-0.3
QUIF				pmax	pmax		
	comp=Z,10.0nm,1.1s						
ORIF	Oris-en-Rattie	85.36	333	*e*P	P	10 48 14.7	-0.3
ORIF				pmax	pmax		
	comp=Z,11nm,1.1s						
MIAR	Mount Ida	85.60	45	P	P	10 48 16.8	+0.6
	comp=Z,19nm,1.1s						
MFF	Saint Martin d	85.72	337	*e*P	P	10 48 16.4	-0.2
MFF				pmax	pmax		
	comp=Z,74nm,1.1s						
TIP	Timpagrande	86.01	323	P	P	10 48 18.2	-0.1
	comp=Z,14nm,1.1s						
RJF	Les Rejaudoux	86.41	336	*e*P	P	10 48 19.9	-0.2
RJF				pmax	pmax		
	comp=Z,70nm,1.3s						
Q51A	Peebles	86.90	36	P	P	10 48 22.7	+0.1
Q51A				IAmb	IAmb	10 48 23.2	
	comp=Z,8.6nm,0.7s						
LFF	La Frestale	86.98	336	*e*P	P	10 48 23.0	+0.2
LFF				pmax	pmax		
	comp=Z,121nm,1.4s						
WVT	Waverly	87.23	41	P	P	10 48 24.7	+0.5
WVT				pmax	pmax		
	comp=Z,6.0nm,0.6s						
WVT	Waverly	87.23	41	P	P	10 48 24.5	+0.3
	comp=Z,11nm,0.7s						
WVT	Waverly	87.23	41	P	P	10 48 24.4	+0.3
SSPA	Standing Stone	87.77	32	P	P	10 48 27.2	+0.5
SNZO	South Karori	87.97	159	P	P	10 48 31.0	+3.8
VAE	Valguarnera	88.45	323	LR	LR	11 31 34.6	
	comp=Z,103nm,18.4s,baz=136,slow=38						
ETSF	Etsaut	89.22	336	*e*P	P	10 48 34.0	+0.4
ETSF				pmax	pmax		
	comp=Z,12nm,0.6s						
TKL	Tuckaleechee C	89.51	38	LR	LR	11 28 29.1	
	comp=Z,42nm,21.8s,baz=320,slow=35						
KEST	Kesra	92.08	326	LR	LR	11 34 41.7	
	comp=Z,77nm,18.7s,baz=8.5,slow=38						
ESDC	Sonseca Array	93.19	337	P	P	10 48 51.5	-0.6
	comp=Z,1.4nm,0.6s,baz=14,slow=4.1,SNR=11						
	comp=Z,1.4nm,0.6s						
MDT	Midelt	99.74	335	LR	LR	11 40 16.2	
	comp=Z,50nm,18.1s,baz=50,slow=39						
TORD	Torodi Ar. Bea	115.11	321	PKP	PKiKP	10 54 18.2	-0.9
	comp=Z,0.6nm,0.5s,baz=12,slow=1.7,SNR=9.8						
QSPA	South Pole Qui	132.84	180	PKP	PKiKP	10 54 52.1	-0.6
	comp=Z,2.0nm,0.5s,baz=256,slow=0.6,SNR=35						
LPAZ	La Paz	140.64	58	PKP	PKPdf	10 55 08.9	+0.8
	comp=Z,1.3nm,0.8s,baz=0.0,slow=0.0,SNR=4.4						
TROLL	Troll, Antarti	146.06	199	⇑PKPbc	PKPab	10 55 16.9	-0.2
	comp=Z,621nm,0.7s						
SNAA	Sanae	147.55	198	⇑PKPbc	PKPbc	10 55 20.6	0.0
	comp=Z,86nm,0.7s						
SNAA	Sanae	147.55	198	PKPbc	PKPbc	10 55 19.8	-0.7
	comp=Z,5.0nm,0.9s,baz=153,slow=0.7,SNR=11						
VNA2	Neumayer--Watz	149.09	197	⇑PKPbc	PKPbc	10 55 24.9	+0.4
	comp=Z,20nm,0.6s,baz=121,slow=2.3						
VNA3	Neumayer Olymp	149.30	195	⇑PKPbc	PKPbc	10 55 25.3	+0.3
	comp=Z,7.5nm,0.7s						
VNA1	Neumayer--Stat	149.49	197	⇑PKPbc	PKiKP	10 55 26.1	-0.4
	comp=Z,5.3nm,0.6s						
BDFB	Brasilia	150.18	28	PKPbc	PKPbc	10 55 28.6	-0.3
	comp=Z,1.2nm,0.4s,baz=148,slow=5.8,SNR=3.7						
PLCA	Paso Flores	152.96	98	PKPbc	PKiKP	10 55 34.9	+0.1
	comp=Z,2.8nm,0.6s,baz=258,slow=4.1,SNR=8.8						

IDC ***02*** *10:59:45.6±1.0, 9°.36S×124°.79E, h0^{km}, mb3.8/4, mbtmp3.8/7, ML3.9/3, Error ellipse: s-maj=44.8km s-min=13.3km az=67.0*

DJA ***02*** *10:59:48.9±1.1, 10°S±5°×12°5E±°, h12^{km}±7^{km}, M3.4/6, MLv3.4/6*

ISC 02 10:59:46.4±1.2**, 9°.6S**±0°.1×**125°.34E**±0°.08**, h10^{km}, n8, σ2^{s}.81**/11**, mb3.8**/4**, Timor region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SOEI	Soe	1.07	264	P	Pg	11 00 06.8	-0.2
SOEI				S	Sb	11 00 21.0	-0.2
SOEI				AML	AML		
FITZ	Fitzroy Crossi	8.42	178	Pn	Pn	11 01 51.4	+2.8
	0.9nm,0.3s,baz=352,slow=13,SNR=43						
FITZ				Sn	Sn	11 03 20.7	-3.0
	1.2nm,0.3s,baz=140,slow=11,SNR=10						
	2.1nm,0.3s						
FITZ				AML	AML		
WRA	Warramunga Arr	13.43	141	Pn	Pn	11 03 00.0	+2.7
	0.7nm,0.3s,baz=318,slow=15,SNR=37						
WRA				Sn	Sn	11 05 23.8	-3.0
	0.4nm,0.3s,baz=316,slow=24,SNR=7.0						
	2.8nm,0.6s						
WRA				AML	AML		
ASAR	Alice Springs	16.17	151	Pn	Pn	11 03 36.2	+2.2
	0.4nm,0.3s,baz=319,slow=11,SNR=29						
ASAR				Sn	Sn	11 06 29.9	-3.7
	0.1nm,0.3s,baz=320,slow=21,SNR=6.2						
	0.9nm,0.5s						
ASAR				AML	AML		
MKAR	Makanchi Array	68.02	330	P	P	11 10 44.4	-1.7
	0.5nm,0.6s,baz=130,slow=7.1,SNR=6.0						
	0.5nm,0.6s						
ZALV	Zalesovo Beam	72.00	336	P	P	11 11 06.9	-3.4
	1.2nm,0.8s,baz=138,slow=5.0,SNR=2.6						
	1.2nm,0.8s						
KURBB	Kurchatov Arra	72.44	331	P	P	11 11 10.8	-2.1
	0.5nm,0.7s,baz=141,slow=5.4,SNR=6.7						
	0.5nm,0.7s						
QSPA	South Pole Qui	80.36	180	P	P	11 11 59.7	+1.9
	0.8nm,1.1s,baz=320,slow=7.7,SNR=1.3						
	0.8nm,1.1s						

IDC ***02*** *11:31:24.2±17.0, 32°.17N×48°.09E, h0^{km}, mb3.7/5, mbtmp3.7/5, Error ellipse: s-maj=336.2km s-min=51.2km az=13.0*

TEH ***02*** *11:31:32.4, 32°.42N×48°.45E, h20^{km}±74^{km}, ML3.4, Presumed earthquake*

ISC 02 11:31:31.4±0.9**, 32°.43N**±0°.06×**48°.42E**±0°.06**, h17^{km}, n25, σ2^{s}.18**/25**, mb3.5**/5**, Western Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AMIS	Naft Sefid	1.06	136	Pg	Pb	11 31 51.8	+0.4
AHWZ	Ahwaz	1.11	170	Pg	Pg	11 31 53.8	+0.8
JHBN	Jahan bin	1.91	95	Pn	Pn	11 32 05.3	+1.8
IBZA	Bozab	2.09	347	Pn	Pn	11 32 08.5	+2.6
ZNGN	Zangian	2.09	98	Pn	Pn	11 32 08.4	+2.4
IPIR	Pirpir	2.10	82	Pn	Pn	11 32 07.7	+1.6
ILBA	Ilam Banvizeh	2.21	303	Pn	Pn	11 32 09.1	+1.7
SNQR	Sonqor, Kerman	2.51	345	Pn	Pn	11 32 14.6	+2.9
IKLH	Kolahrood	2.80	71	Pn	Pn	11 32 17.7	+2.0
QAMS	Qamsar	2.82	62	Pn	Pn	11 32 18.1	+2.2
KLNJ	Kolanjah	3.05	117	Pn	Pn	11 32 21.0	+1.8
HGHA	Hamedan- Ghaye	3.07	7	Pn	Pn	11 32 21.6	+2.2
SNJK	Sanadaj _Korde	3.19	340	Pn	Pn	11 32 24.0	+2.9
QABG	Abgarm-Qazvin	3.41	16	Pn	Pn	11 32 26.6	+2.6
ISFB	Sefidab	3.73	58	Pn	Pn	11 32 30.0	+1.7
IVRN	Varamin	3.76	46	Pn	Pn	11 32 30.9	+2.1
IDMV	Damavand	4.34	43	Pn	Pn	11 32 38.8	+1.8
MZPU	Pul - Mazandar	4.77	32	Pn	Pn	11 32 45.2	+2.4
ILAS	Lasjerd	4.79	51	Pn	Pn	11 32 44.5	+1.5
IFIR	Firoozkooh	4.82	47	Pn	Pn	11 32 45.4	+2.0
BVAR	Borovoye Array	25.96	31	P	P	11 37 02.6	-0.3
	0.4nm,0.3s,baz=232,slow=11,SNR=2.2						
	0.4nm,0.3s						
KURBB	Kurchatov Arra	28.67	42	P	P	11 37 25.4	-1.8
	0.2nm,0.3s,baz=244,slow=9.3,SNR=2.4						
	0.2nm,0.3s						
MKAR	Makanchi Array	29.52	51	P	P	11 37 34.4	-0.5
	0.5nm,0.6s,baz=256,slow=7.9,SNR=5.5						
	0.5nm,0.6s						
FINES	FINESS Array B	32.45	340	P	P	11 37 57.1	-3.3
	2.5nm,0.9s,baz=138,slow=8.2,SNR=2.2						
	2.5nm,0.9s						
ZALV	Zalesovo Beam	33.61	39	P	P	11 38 08.1	-2.6
	0.3nm,0.3s,baz=232,slow=7.1,SNR=1.9						
	0.3nm,0.3s						

IDC ***02*** *11:32:47.9±1.8, 64°.69S×179°.07E, h0^{km}, mb4.0/3, mbtmp4.0/3, MS3.7/15, Error ellipse: s-maj=83.0km s-min=28.8km az=63.0*

NEIC ***02*** *11:32:49.8±1.0, 64°.6S±0°.1×179°.1E±0°.2, h10^{km}±1^{km}, mb4.9/18, Error ellipse: s-maj=17.6km s-min=12.2km az=354.0*

ISC 02 11:32:49.5±0.7**, 64°.59S**±0°.10×**179°.0E**±0°.2**, h10^{km}, n55, σ0^{s}.61**/36**, mb4.7**/11**, MS3.6**/15**, Balleny Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SBA	Scott Base	13.84	191	Pn	Pn	11 36 05.2	0.0
LBZ	Lake Benmore	20.84	342	P	P	11 37 30.9	-0.1
LBZ				IAmb	IAmb	11 37 43.7	
	comp=Z,27nm,1.4s						
RPZ	Rata Peaks	21.39	344	LR	LR	11 44 34.1	
	comp=Z,68nm,18.9s,baz=251,slow=33						
RPZ	Rata Peaks	21.39	344	P	P	11 37 37.0	+0.1
RPZ				IAmb	IAmb	11 37 42.7	
	comp=Z,52nm,1.5s						
THZ	Tophouse	23.13	348	P	P	11 37 55.8	+0.2
THZ				IAmb	IAmb	11 38 17.7	
	comp=Z,38nm,1.5s						
BFZ	Birch Farm	24.00	355	P	P	11 38 04.0	+0.1
BFZ				IAmb	IAmb	11 38 05.1	
	comp=Z,91nm,1.2s						
QSPA	South Pole Qui	25.50	180	P	P	11 38 17.2	-0.5
	comp=Z,6.4nm,1.1s,baz=36,slow=8.6,SNR=8.5						
QSPA				LR	LR	11 46 36.9	
	comp=Z,198nm,21.1s,baz=40,slow=33						
	comp=Z,6.4nm,1.1s						
QSPA	South Pole Qui	25.50	180	P	P	11 38 17.2	-0.5
QSPA				IAmb	IAmb	11 38 19.4	
	comp=Z,18nm,1.4s						
URZ	Urewera	26.39	357	LR	LR	11 47 13.7	
	comp=Z,141nm,20.8s,baz=168,slow=33						
MGBR	Mount Gambier	35.13	301	P	P	11 39 43.6	+0.8
MGBR				IAmb	IAmb	11 39 54.6	
	comp=Z,77nm,1.4s						
SMAI	San Martin Ant	39.57	147	P	P	11 40 20.0	0.0
STKA	Stephens Creek	40.02	307	LR	LR	11 53 26.9	
	comp=Z,77nm,20.3s,baz=204,slow=31						
MAW	Mawson	40.49	212	LR	LR	11 56 53.1	
	comp=Z,178nm,18.1s,baz=124,slow=36						
PMSA	Palmer Station	43.01	146	LR	LR	11 55 40.7	
	comp=Z,73nm,18.5s,baz=142,slow=32						
ONTNC	Ouen Toro	43.07	343	P	P	11 40 49.4	+0.2
ONTNC				IAmb	IAmb	11 41 02.6	
	comp=Z,93nm,1.5s						
EIDS	Eidsvold	43.16	322	P	P	11 40 49.7	-0.3
EIDS				IAmb	IAmb	11 41 14.3	
	comp=Z,12nm,1.3s						
SNAA	Sanae	44.00	179	LR	LR	11 58 20.3	
	comp=Z,132nm,19.1s,baz=104,slow=35						
INKA	Innaminka	44.10	308	P	P	11 40 58.2	+0.7
KOUNC	Koumac, New Ca	45.09	340	P	P	11 41 05.5	0.0
KOUNC				IAmb	IAmb	11 41 30.6	
	comp=Z,24nm,1.0s						
H01W1	Cape Leeuwin H	48.35	275	T	T	12 33 42.9	
	baz=149,slow=76,SNR=13						
H01W2	Cape Leeuwin H	48.35	275	T	T	12 33 43.1	
	baz=149,slow=76,SNR=10						
H01W3	Cape Leeuwin H	48.36	275	T	T	12 33 44.1	
	baz=149,slow=76,SNR=9.7						
NWAO	Narrogin (SRO)	48.71	280	P	P	11 41 33.3	-0.5
CTA	Charters Tower	49.52	318	LR	LR	12 01 19.1	
	comp=Z,54nm,18.0s,baz=218,slow=34						
SANVU	Saraoutou	49.75	345	P	P	11 41 41.6	-0.1
ASAR	Alice Springs	50.25	302	P	P	11 41 46.5	+1.0
	comp=Z,1.1nm,1.0s,baz=160,slow=7.2,SNR=5.9						
ASAR				LR	LR	12 00 45.3	
	comp=Z,55nm,18.8s,baz=324,slow=33						
	comp=Z,1.1nm,1.0s						
ASAR	Alice Springs	50.25	302	P	P	11 41 45.9	+0.4
AS31	Alice Springs	50.25	302	P	P	11 41 45.6	0.0
WRA	Warramunga Arr	53.51	305	P	P	11 42 10.2	+0.4
	comp=Z,2.4nm,1.1s,baz=159,slow=6.2,SNR=5.1						
	comp=Z,2.4nm,1.1s						
WRA	Warramunga Arr	53.51	305	P	P	11 42 10.4	+0.5
EFI	East Falkland	55.97	141	P	P	11 42 28.2	+1.0
COEN	Coen	56.22	317	P	P	11 42 28.5	-1.1
COEN				IAmb	IAmb	11 42 45.2	
	comp=Z,12nm,1.5s						
HNR	Honiara	56.68	337	LR	LR	12 03 21.5	

	comp=Z,89nm,20.3s,baz=280,slow=32						
H03S2	Juan Fernandez	64.87	116	T	T	12 54 28.8	
	baz=206,slow=74,SNR=9.8						
H03S1	Juan Fernandez	64.87	116	T	T	12 54 30.0	
	baz=206,slow=74,SNR=10						
H03S3	Juan Fernandez	64.88	116	T	T	12 54 26.1	
	baz=206,slow=74,SNR=12						
DAV	Davao City (W)	81.66	306	LR	LR	12 22 04.6	
	comp=Z,41nm,18.1s,baz=162,slow=36						
SUR	Sutherland	81.84	199	LR	LR	12 18 24.7	
	comp=Z,56nm,19.6s,baz=156,slow=34						
VOI	Vohitsoka	86.24	224	P	P	11 45 32.1	+0.9
LBTB	Lobatse	88.32	204	LR	LR	12 21 53.7	
	comp=Z,25nm,19.9s,baz=168,slow=33						
MATP	Matopo	92.24	208	LR	LR	12 23 41.7	
	comp=Z,52nm,20.0s,baz=206,slow=33						
LSZ	Lusaka	97.31	208	LR	LR	12 26 13.7	
	comp=Z,45nm,19.9s,baz=173,slow=33						
TORD	Torodi Ar. Bea	128.59	183	PKP	PKPdf	11 51 55.0	-1.4
	comp=Z,0.3nm,0.4s,baz=177,slow=2.9,SNR=1.5						
ILAR	Eielson Array	131.45	19	PKP	PKiKP	11 52 01.0	-0.2
	comp=Z,1.0nm,1.0s,baz=249,slow=2.5,SNR=6.5						
ILAR	Eielson Array	131.45	19		PKiKP	11 52 01.2	-0.1
KBZ	Khabaz	147.85	251	PKPbc	PKPbc	11 52 33.0	-0.5
	comp=Z,3.7nm,1.0s,baz=117,slow=4.5,SNR=7.5						
NRIK	Noril'sk	147.91	318	PKPbc	PKiKP	11 52 35.0	+0.3
BR131	Keskin Array S	147.99	236	PKPdf	PKPdf	11 52 32.1	+1.0
BRTR	Keskin Array B	147.99	236	PKPbc	PKPbc	11 52 33.4	-0.9
	comp=Z,4.6nm,1.1s,baz=178,slow=3.6,SNR=16						
BRTR	Keskin Array B	147.99	236		PKPbc	11 52 33.5	-0.7
KIV	Kislovodsk	148.13	251	PKPbc	PKPbc	11 52 34.5	+0.2
MD01	Midelt array s	148.17	174	PKPbc	PKPbc	11 52 34.2	-0.7
MANT	Manisa	148.61	228	PKPbc	PKPbc	11 52 35.7	-0.3
ILGA	Ilgaz	149.13	237	PKPbc	PKPbc	11 52 36.7	-0.5
BORA	Eskisehir	149.24	232	PKPbc	PKPbc	11 52 37.0	-0.4

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*IDC **02** 11:54:29.3±3.5, 13°.17N×124°.70E, h0^{km}, mb3.6/4, mbtmp3.6/4, MS3.4/3, Error ellipse: s-maj=317.3km s-min=22.3km az=65.0*

*MAN **02** 11:54:32.0, 13°.01N×124°.21E, h16^{km}, MS3.7*

ISC 02 11:54:29.4±2.6**, 13°.12N**±0°.06×**124°.42E**±0°.08**, h1**^{km}±16^{km}**, n26, σ1^{s}.59**/25**, mb3.6**/4**, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MMPH	Masbate	1.09	226	eP	Pb	11 54 50.1	-1.0
MMPH				eS	Sg	11 55 01.9	-2.5
MECP	Medelin, Cebu	2.00	193	eP	Pb	11 55 05.7	-1.0
MECP				eS	Sb	11 55 32.0	-0.1
PLP	Palo	2.02	164	eP	Pb	11 55 06.0	-1.0
PLP				eS	Sb	11 55 32.8	+0.1
GQP	Guinayangan	2.07	292	eP	Pn	11 55 05.3	-0.1
GQP				i S	Sg	11 55 38.0	+1.9
BOAC	Boac	2.53	278	eP	Pb	11 55 16.4	+0.6
BOAC				eS	Sn	11 55 42.5	-0.7
LLP	Lapu-Lapu	2.82	189	eP	Pn	11 55 16.3	+0.5
LLP				eS	Sg	11 56 03.5	+3.3
LQP	Lukban	2.97	290	eP	Pn	11 55 16.9	-1.1
TIRP	Brgy. Gulod. B	3.35	292	eP	Pn	11 55 24.6	+1.7
TIRP				eS	Sb	11 56 09.4	-1.5
TBP	Tagbilaran	3.45	189	eP	Pn	11 55 25.6	+1.1
SCPH	Surigao	3.48	162	eP	Pb	11 55 28.6	-3.3
PCPS	Palayan City	3.60	295	eP	Pb	11 55 32.7	-1.2
CAAP	Casiguran, Aur	3.84	323	eP	Pn	11 55 29.4	-0.4
BIPH	Bislig	5.26	159	eP	Pn	11 55 51.9	+2.6
BIPH				eS	Sn	11 56 50.4	-0.3
DAV	Davao City (W)	6.12	169	LR	LR	11 59 08.4	
	comp=Z,109nm,18.1s,baz=65,slow=46						
WRA	Warramunga Arr	34.28	163	P	P	12 01 17.3	-0.1
	0.4nm,0.8s,baz=344,slow=8.1,SNR=2.2						
	0.4nm,0.8s						
ASAR	Alice Springs	37.72	166	P	P	12 01 46.5	-0.4
	0.3nm,0.7s,baz=346,slow=7.5,SNR=7.9						
	0.3nm,0.7s						
H11S3	WAKE ISLAND Hy	40.95	77	T	T	12 46 02.5	
	baz=269,slow=75,SNR=53						
H11S1	WAKE ISLAND Hy	40.96	77	T	T	12 46 09.5	
	baz=269,slow=75,SNR=26						
H11S2	WAKE ISLAND Hy	40.97	77	T	T	12 46 08.3	
	baz=269,slow=75,SNR=41						
H11N1	WAKE ISLAND Hy	41.18	75	T	T	12 46 15.2	
	baz=267,slow=75,SNR=143						
H11N2	WAKE ISLAND Hy	41.19	75	T	T	12 46 22.3	
	baz=267,slow=75,SNR=101						
H11N3	WAKE ISLAND Hy	41.20	75	T	T	12 46 16.6	
	baz=267,slow=75,SNR=129						
MKAR	Makanchi Array	48.68	322	P	P	12 03 16.2	+0.9
	0.9nm,0.7s,baz=116,slow=8.2,SNR=8.3						
	0.9nm,0.7s						
AAK	Ala-Archa	52.05	314	LR	LR	12 29 14.3	
	comp=Z,73nm,18.9s,baz=224,slow=40						
KURBB	Kurchatov Arra	52.71	325	P	P	12 03 46.5	+0.8
	0.7nm,0.3s,baz=118,slow=8.4,SNR=6.8						
	0.7nm,0.3s						
RES	Resolute Bay	89.02	10	LR	LR	12 51 57.4	
	comp=Z,20nm,18.0s,baz=14,slow=39						

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*SJA **02** 12:03:19.1±0.7, 27°.73S×71°.73W, h12^{km}, ML4.3, MW4.0*

*IDC **02** 12:03:22.5±0.8, 27°.71S×71°.33W, h0^{km}, mb4.1/5, mbtmp4.1/8, ML4.1/3, MS3.2/4, Error ellipse: s-maj=25.9km s-min=14.8km az=73.0*

*NEIC **02** 12:03:23.7±1.6, 27°.78S±0°.03×71°.38W±0°.06, h18^{km}±4^{km}, mb4.5/5, Mwr3.9/30, ML3.8(GUC), Error ellipse: s-maj=7.3km s-min=3.8km az=96.0, Moment Tensor Solution. Moment tensor: Scale 10^{14}Nm; M$_{rr}$6.50; M$_{\theta\theta}$0.88; M$_{\phi\phi}$-7.37; M$_{r\theta}$3.62; M$_{\theta\phi}$-0.86; M$_{\phi r}$-4.00; Fault plane solution: M$_0$8.86000×10^{14} NP1:φ$_s$160.74000°, δ63.92000°, λ64.25000°. NP2:φ$_s$28.38000°, δ36.00000°, λ131.58000°. Principal axes: T 9.2226, Plg62.0000°, Azm30.0000°; N -0.7789, Plg23.0000°, Azm173.0000°; P -8.4437, Plg15.0000°, Azm269.0000°;*

*NEIC **02** 12:03:24.2, 27°.78S×71°.40W, h24^{km}*

*GUC **02** 12:03:25.7±0.5, 27°.88S×71°.35W, h26^{km}±2^{km}, ML3.8*

ISC 02 12:03:21.2±1.4**, 27°.77S**±0°.02×**71°.42W**±0°.05**, h1**^{km}±9^{km}**, n100, σ1^{s}.62**/111**, mb4.4**/4**, MS4.3**/4**, 2C, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	Llanos de Chal	0.53	145	eP	Pg	12 03 33.3	+2.0
AC04	Llanos de Chal	0.53	145	eP	Pb	12 03 33.7	+0.4
AC04				eS	Sg	12 03 39.3	+1.1
AC04				IAML		12 03 39.6	
	comp=E,40µm,0.2s						
AC04	Llanos de Chal	0.53	145		Pb	12 03 33.7	+0.4
AC04				Sg	Sg	12 03 39.0	+0.8
AC06	Mina Casimiro	1.03	67	eP	Pn	12 03 42.9	+0.1
AC06				IAML		12 04 01.8	
	comp=E,4µm,0.2s						
AC06	Mina Casimiro	1.03	67		Pn	12 03 42.8	+0.1
AC06					Sn	12 03 56.5	-1.3
GO03	Copiapo	1.06	81	eP	Pn	12 03 43.3	0.0
GO03				eP	Pn	12 03 43.3	0.0
GO03				IAML		12 04 03.0	
	comp=Z,2µm,0.6s						
GO03	Copiapo	1.06	81	eP	Pn	12 03 43.2	0.0
GO03				IAML		12 04 01.5	
	comp=E,4µm,0.2s						
GO03	Copiapo	1.06	81		Pn	12 03 43.3	0.0
LCO	Las Campanas	1.39	153	eP	Pn	12 03 48.1	+0.2
LCO				eS	Sb	12 04 06.2	-0.2
LCO				IAML		12 04 07.0	
	comp=Z,10µm,0.2s						
LCO	Las Campanas	1.39	153	eP	Pn	12 03 47.9	0.0
LCO				eS	Sb	12 04 04.2	-2.2
LCO	Las Campanas	1.39	153		Pn	12 03 48.1	+0.2
LCO				Sn	Sb	12 04 05.6	-0.8
AC05	El Transito	1.47	137	eP	Pn	12 03 49.3	+0.5
AC05				eS	Sb	12 04 08.8	+0.3
AC05	El Transito	1.47	137	eP	Pn	12 03 49.1	+0.2
AC05	El Transito	1.47	137		Pn	12 03 49.2	+0.3
AC01	Pan de Azucar	1.77	25	eP	Pb	12 03 54.7	+0.3
AC01				eS	Sg	12 04 18.1	-0.1
AC01	Pan de Azucar	1.77	25	eP	Pb	12 03 54.8	+0.3
AC01				IAML		12 04 28.1	
	comp=E,1µm,0.2s						
AC01	Pan de Azucar	1.77	25		Pb	12 03 54.7	+0.3
AC02	Maricunga	2.24	66	eP	Pb	12 04 03.3	+0.6
AC02				eS	Sg	12 04 36.0	+2.8
AC02				IAML		12 04 37.5	
	comp=Z,1µm,0.7s						
AC02	Maricunga	2.24	66	eP	Pb	12 04 03.3	+0.6
AC02				eS	Sb	12 04 32.0	+0.9
GO04	Tololo Observa	2.45	167	eP	Pn	12 04 03.8	+1.2
GO04				eS	Sb	12 04 39.4	+2.3
GO04				IAML		12 04 41.7	
	comp=Z,2µm,1.1s						
GO04	Tololo Observa	2.45	167	eP	Pn	12 04 03.8	+1.2
GO04	Tololo Observa	2.45	167		Pn	12 04 04.1	+1.5
CO01	Juntas del Tor	2.49	152	eP	Pn	12 04 04.8	+1.8
CO01				eS	Sb	12 04 36.0	-2.0
CO01				IAML		12 04 39.0	
	comp=Z,746nm,0.2s						
CO01	Juntas del Tor	2.49	152	eP	Pn	12 04 05.1	+2.1
CO01				eS	Sn	12 04 34.7	+0.6
CO01				IAML		12 04 41.1	
	comp=N,818nm,0.4s						
CO06	Fray Jorge	2.90	184	IAML		12 04 59.5	
	comp=N,386nm,0.3s						
CO06	Fray Jorge	2.90	184		Pn	12 04 08.2	-0.2
AROD	Rodeo	2.93	145	eP	Pb	12 04 13.1	-1.4
AROD				eS	Sb	12 04 53.0	+2.0
VCA	Vinchina	2.99	110	eP	Pb	12 04 15.8	+0.4
VCA				eS	Sg	12 04 55.1	-2.3
VCA				IAML		12 05 04.3	
	comp=Z,977nm,0.5s						
ACDV	Cuesta del Vie	3.13	140	eP	Pn	12 03 59.8	-12
ACDV				eS	Sb	12 04 55.6	-0.7
ACDV				eS	Sg	12 04 59.1	-2.6
ACDV				IAML		12 05 04.4	
	comp=Z,383nm,0.4s						
PB14	IPOC Station P	3.26	16	eP	Pn	12 04 15.0	+1.3
PB14				eS	Sb	12 05 00.1	-0.3
PB14				IAML		12 05 15.5	
	comp=Z,390nm,0.5s						
PB14	IPOC Station P	3.26	16	IAML		12 04 59.1	
	comp=E,116nm,0.3s						
PB14	IPOC Station P	3.26	16		Pn	12 04 14.6	+0.9
TINO	Tinogasta	3.42	96	eP	Pb	12 04 19.3	-3.3
TINO				eS	Sb	12 05 04.1	-0.6
TINO				IAML		12 05 13.6	
	comp=Z,326nm,0.5s						
CO02	Combarbal	3.44	174	eP	Pn	12 04 16.6	+0.6
CO02				eS	Sn	12 04 48.1	-9.4
CO02				eS	Sb	12 04 55.6	-10
CO02				IAML		12 05 11.7	
	comp=Z,1µm,0.5s						
CO02	Combarbal	3.44	174		Pn	12 04 16.1	+0.1
ACLC	CERRO LA CRUZ	4.26	114	eP	Pn	12 04 31.1	+3.7
ACLC				eS	Sb	12 05 26.2	-2.7
ACLC				IAML		12 05 29.8	
	comp=Z,268nm,0.6s						
CO04	Los Peladeros	4.28	175		Pn	12 04 28.7	+1.1
RTLL	Cerro Villicun	4.38	145	eP	Pn	12 04 32.5	+3.7
RTLL				IAML		12 05 52.6	
	comp=Z,213nm,0.4s						
RTLS	Leoncito	4.42	156	eP	Pn	12 04 34.1	+4.5
RTLS				eS	Sb	12 05 30.1	-3.5
RTLS				IAML		12 05 44.8	
	comp=Z,1µm,0.6s						
CFA	Coronel Fontan	4.72	145	Pn	Pn	12 04 37.5	+4.0
	comp=Z,9.6nm,0.3s,baz=338,slow=12,SNR=49						
CFA				Sn	Sn	12 05 30.8	+1.9
	comp=Z,4.4nm,0.3s,baz=85,slow=20,SNR=3.6						
	comp=Z,29nm,0.3s						
CFA				AML	AML		
PB05	IPOC Station P	5.02	13	eP	Pn	12 04 38.5	+0.8
PB05				eS	Sg	12 05 59.1	-3.4
PB05				IAML		12 06 18.6	
	comp=Z,117nm,1.5s						
PB05	IPOC Station P	5.02	13		Pn	12 04 37.8	+0.1
VA03	San Esteban	5.03	172		Pn	12 04 38.6	+0.8
PB06	IPOC Station P	5.31	19	eP	Pn	12 04 44.2	+2.4
PB06				eS	Sb	12 06 01.6	+2.3
PB06				IAML		12 06 27.9	
	comp=Z,166nm,0.7s						
PB06	IPOC Station P	5.31	19		Pn	12 04 43.1	+1.3
MT02	Curacav	5.48	178		Pn	12 04 43.9	0.0
PB03	IPOC Station P	5.89	15	Pn	Pn	12 04 50.7	+0.9
MT09	Talagante	6.00	177		Pn	12 04 51.5	+0.3
MT01	Popeta	6.08	179		Pn	12 04 51.7	-0.4
BO01	Tunca	6.61	178		Pn	12 05 00.1	+0.7
BO02	Sierra Bellavi	7.02	176		Pn	12 05 05.8	+0.6
GO05	Hualane	7.23	183		Pn	12 05 06.2	-1.8
PB08	IPOC Station P	7.87	16	Pn	Pn	12 05 18.2	+1.0
PSGCX	Pisagua	8.22	9	Pn	Pn	12 05 20.6	-1.1
GO01	Chusmiza	8.32	15	Pn	Pn	12 05 23.1	-0.3
H03N1	Juan Fernandez	8.58	227	Pn	Pn	12 05 24.7	-1.5
	baz=90,slow=74						
H03N1				T	T	12 14 25.8	
	baz=208,slow=74,SNR=4732						
H03N2	Juan Fernandez	8.59	227	Pn	Pn	12 05 24.7	-1.7
	baz=172,slow=74						
H03N2				T	T	12 14 26.1	
	baz=54,slow=74,SNR=3886						
H03S3	Juan Fernandez	8.83	225	Pn	Pn	12 05 27.7	-1.9
	baz=358,slow=22						
H03S3				T	T	12 14 40.1	
	baz=67,slow=76,SNR=8.2						
H03S1	Juan Fernandez	8.84	225	Pn	Pn	12 05 27.3	-2.5
	baz=358,slow=22						
H03S1				T	T	12 14 37.2	
	baz=67,slow=76,SNR=12						
H03S2	Juan Fernandez	8.84	225	Pn	Pn	12 05 27.7	-2.1
	baz=358,slow=22						
H03S2				T	T	12 14 37.4	
	baz=67,slow=76,SNR=11						
BI02	San Fabin de	8.87	179	Pn	Pn	12 05 29.8	-0.7
PB12	IPOC Station P	9.17	6	Pn	Pn	12 05 34.5	-0.2
PB16	IPOC Station P	9.55	11	Pn	Pn	12 05 41.1	+0.7
LPAZ	La Paz	11.82	16	Pn	Pn	12 06 12.7	+1.1
	comp=Z,0.7nm,0.3s,baz=199,slow=5.1,SNR=12						
	comp=Z,1.5nm,0.3s						
LPAZ				AML	AML		
LPAZ	La Paz	11.82	16		Pn	12 06 11.1	-0.5
CPUP	Villa Florida	12.64	87	Pn	Pn	12 06 21.4	-0.7
	comp=Z,0.1nm,0.3s,baz=219,slow=14,SNR=2.2						
CPUP				LR	LR	12 12 07.8	
	comp=Z,18nm,19.8s,baz=245,slow=42						
	comp=Z,1.0nm,0.6s						
CPUP				AML	AML		
CPUP	Villa Florida	12.64	87	Pn	Pn	12 06 22.0	-0.1
PLCA	Paso Flores	12.95	177	LR	LR	12 12 10.2	
	comp=Z,61nm,19.2s,baz=9.5,slow=41						
PLCA	Paso Flores	12.95	177	Pn	Pn	12 06 24.5	-1.9
SIV	San Ignacio	15.14	41	Pn	Pn	12 06 50.6	-5.7
	comp=Z,0.1nm,0.3s,baz=247,slow=11,SNR=6.4						
NNA	Nana	16.50	341	Pn	Pn	12 07 12.8	-1.3
NNA				IAmb	IAmb	12 07 39.2	
	comp=Z,83nm,1.4s						
VILB	Vilhena	18.09	38	Pn	Pn	12 07 31.4	-2.5
BDFB	Brasilia	24.82	66	LR	LR	12 20 04.6	
	comp=Z,146nm,18.8s,baz=228,slow=40						
SNAA	Sanae	57.18	159	⇑P	P	12 13 09.7	+0.3
	comp=Z,42nm,0.7s						
SNAA	Sanae	57.18	159	P	P	12 13 09.7	+0.3
	comp=Z,1.3nm,0.6s,baz=89,slow=11,SNR=5.0						
	comp=Z,1.3nm,0.6s						
SNAA	Sanae	57.18	159	P	P	12 13 09.2	-0.2
SNAA				IAmb	IAmb	12 13 28.5	
	comp=Z,3.5nm,1.1s						
TROLL	Troll, Antarti	58.89	160	⇑P	P	12 13 21.9	+0.5
	comp=Z,51nm,0.5s						
QSPA	South Pole Qui	62.45	180	P	P	12 13 47.0	+1.3
	comp=Z,3.0nm,1.1s,baz=164,slow=1.9,SNR=4.4						
	comp=Z,3.0nm,1.1s						
QSPA	South Pole Qui	62.45	180	P	P	12 13 46.4	+0.6
QSPA				IAmb	IAmb	12 13 57.9	
	comp=Z,4.8nm,1.2s						
TXAR	Lajitas Array	64.63	329	P	P	12 14 03.3	+2.8
	comp=Z,0.2nm,0.6s,baz=122,slow=2.9,SNR=3.4						
	comp=Z,0.2nm,0.6s						
DBIC	Dimbokro	72.74	73	P	P	12 14 52.1	+0.6
	comp=Z,4.6nm,0.5s,baz=244,slow=4.5,SNR=5.4						
	comp=Z,4.6nm,0.5s						
DBIC	Dimbokro	72.74	73	P	P	12 14 52.0	+0.6
TORD	Torodi Ar. Bea	81.61	70	P	P	12 15 41.8	+0.5
	comp=Z,2.1nm,0.9s,baz=259,slow=4.5,SNR=7.4						
	comp=Z,2.1nm,0.9s						
TORD	Torodi Ar. Bea	81.61	70	P	P	12 15 40.0	-1.3
MDT	Midelt	87.49	51	LR	LR	12 54 49.1	
	comp=Z,35nm,18.6s,baz=46,slow=35						
URZ	Urewera	88.25	227	LR	LR	12 46 33.2	
	comp=Z,377nm,19.9s,baz=27,slow=29						
AFI	Afiamalu	92.52	253	LR	LR	12 47 14.3	
	comp=Z,374nm,21.0s,slow=28						
ASAR	Alice Springs	123.33	208	PKP	PKiKP	12 22 20.9	+0.1
	comp=Z,0.2nm,0.6s,baz=148,slow=1.7,SNR=1.6						
H11S2	WAKE ISLAND Hy	126.17	273	T	T	14 41 38.6	
	baz=112,slow=74,SNR=12						
H11S1	WAKE ISLAND Hy	126.18	273	T	T	14 41 37.0	
	baz=112,slow=74,SNR=12						
H11S3	WAKE ISLAND Hy	126.19	273	T	T	14 41 39.3	
	baz=112,slow=74,SNR=15						
WRA	Warramunga Arr	126.42	211	PKP	PKiKP	12 22 27.4	+0.3
	comp=Z,0.4nm,0.9s,baz=144,slow=1.9,SNR=6.2						
H11N3	WAKE ISLAND Hy	126.42	275	T	T	14 42 01.5	
	baz=115						
H11N1	WAKE ISLAND Hy	126.44	275	T	T	14 42 03.2	
	baz=115						
H11N2	WAKE ISLAND Hy	126.44	275	T	T	14 41 59.7	
	baz=115						
KURBB	Kurchatov Arra	147.76	37	PKPbc	PKiKP	12 23 08.7	-0.7
	comp=Z,1.1nm,0.2s,baz=290,slow=2.8,SNR=5.9						
ZALV	Zalesovo Beam	148.56	27	PKPbc	PKiKP	12 23 11.0	+0.1
	comp=Z,2.4nm,0.7s,baz=299,slow=3.1,SNR=9.5						
ZALV	Zalesovo Beam	148.56	27		PKiKP	12 23 10.9	0.0
MKAR	Makanchi Array	151.96	40	PKPbc	PKiKP	12 23 19.1	+0.9
	comp=Z,1.4nm,0.7s,baz=345,slow=1.7,SNR=11						
MKAR	Makanchi Array	151.96	40		PKiKP	12 23 18.8	+0.6

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*IDC **02** 12:14:13.5±2.0, 32°.39N×48°.44E, h0^{km}, mb3.8/10, mbtmp3.8/12, ML3.5/2, MS3.2/5, Error ellipse: s-maj=41.3km s-min=15.3km az=168.0*

*TEH **02** 12:14:17.0, 32°.42N×48°.40E, h19^{km}±27^{km}, ML3.7, Presumed earthquake*

ISC 02 12:14:16.7±0.7**, 32°.40N**±0°.05×**48°.33E**±0°.05**, h17**^{km}**, n39, σ1^{s}.63**/37**, mb3.9**/9**, MS3.0**/4**, Western Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AMIS	Naft Sefid	1.09	132	Pg	Pb	12 14 36.9	-0.3
AMIS				Sg	Sb	12 14 52.4	+1.3
AHWZ	Ahwaz	1.10	166	Pg	Pb	12 14 38.2	+1.0
JHBN	Jahan bin	1.98	94	Pn	Pn	12 14 50.8	+1.0
IBZA	Bozab	2.10	349	Pn	Pn	12 14 53.0	+1.7
ZNGN	Zangian	2.16	97	Pn	Pn	12 14 53.2	+1.0
ILBA	Ilam Banvizeh	2.16	305	Pn	Pn	12 14 54.0	+2.0
IPIR	Pirpir	2.18	82	Pn	Pn	12 14 53.4	+0.9
SNQR	Sonqor, Kerman	2.52	347	Pn	Pn	12 14 59.1	+1.9
IBRJ	Brojen	2.53	100	Pn	Pn	12 14 58.4	+1.1
IDHR	Dehrash	2.81	325	Pn	Pn	12 15 02.7	+1.6
IKLH	Kolahrood	2.88	71	Pn	Pn	12 15 03.2	+1.1
QAMS	Qamsar	2.90	62	Pn	Pn	12 15 03.9	+1.6
KLNJ	Kolanjah	3.11	116	Pn	Pn	12 15 06.3	+1.0
HGHA	Hamedan- Ghaye	3.11	8	Pn	Pn	12 15 07.0	+1.8
SNJK	Sanadaj _Korde	3.20	341	Pn	Pn	12 15 08.9	+2.5
QABG	Abgarm-Qazvin	3.46	17	Pn	Pn	12 15 12.1	+2.1
ISFB	Sefidab	3.81	58	Pn	Pn	12 15 15.5	+0.8
IVRN	Varamin	3.84	47	Pn	Pn	12 15 16.4	+1.4
IGZV	Ghazvin	4.27	21	Pn	Pn	12 15 22.7	+1.5
IDMV	Damavand	4.42	43	Pn	Pn	12 15 23.8	+0.6
DSBU	Dashti - Bushe	4.75	147	Pn	Pn	12 15 29.8	+2.1
MZPU	Pul - Mazandar	4.84	33	Pn	Pn	12 15 30.5	+1.6
IFIR	Firoozkooh	4.89	47	Pn	Pn	12 15 30.8	+1.0
GNI	Garni	8.26	340	LR	LR	12 20 09.4	
	comp=Z,66nm,21.1s,baz=177,slow=43						
ASF	Jabal al Asfar	9.68	272	Pn	Pn	12 16 37.1	+1.8
	0.9nm,0.3s,baz=112,slow=17,SNR=3.5						
ASF				Sn	Sn	12 18 18.8	-4.9
	0.5nm,0.3s,baz=95,slow=16,SNR=1.3						
ASF				Lg	Lg	12 19 30.2	
	0.2nm,0.3s,baz=300,slow=22,SNR=2.6						
	1.5nm,0.3s						
ASF				AML	AML		
EIL	Elat	11.79	260	Lg	Lg	12 20 41.8	
	0.5nm,0.3s,baz=339,slow=16,SNR=4.6						
BRTR	Keskin Array B	13.94	306	Pn	Pn	12 17 35.8	+2.2
	0.1nm,0.3s,baz=125,slow=11,SNR=5.0						
	1.6nm,1.1s						
BRTR				AML	AML		
AKASG	Malin Array Be	23.09	328	P	P	12 19 21.1	-0.4
	0.1nm,0.2s,baz=149,slow=8.3,SNR=4.8						
	0.1nm,0.2s						
BVAR	Borovoye Array	26.03	31	P	P	12 19 48.0	-0.8
	1.2nm,0.7s,baz=220,slow=8.7,SNR=4.3						
	1.2nm,0.7s						
KURBB	Kurchatov Arra	28.74	42	P	P	12 20 11.8	-1.3
	1.1nm,0.2s,baz=242,slow=9.2,SNR=2.5						
	1.1nm,0.2s						
MKAR	Makanchi Array	29.59	51	P	P	12 20 20.5	-0.3
	0.7nm,0.7s,baz=247,slow=9.7,SNR=6.7						
MKAR				LR	LR	12 32 23.9	
	comp=Z,32nm,20.1s,baz=136,slow=37						
	0.7nm,0.7s						
FINES	FINESS Array B	32.45	340	P	P	12 20 45.8	+0.1
	1.3nm,0.9s,baz=140,slow=8.2,SNR=1.1						
FINES				LR	LR	12 36 21.6	
	comp=Z,31nm,19.4s,baz=34,slow=41						
	1.3nm,0.9s						
DAVOX	Davos/Dischmat	32.58	307	LR	LR	12 37 44.1	
	comp=Z,27nm,18.4s,baz=76,slow=43						
ZALV	Zalesovo Beam	33.68	39	P	P	12 20 55.7	-0.9
	0.6nm,0.3s,baz=270,slow=7.4,SNR=4.6						
	0.6nm,0.3s						
HFS	Hagfors	35.90	331	P	P	12 21 15.3	-0.3
	2.5nm,0.6s,baz=120,slow=5.8,SNR=2.9						
	2.5nm,0.6s						
ARCES	ARCESS Array B	39.34	348	P	P	12 21 43.1	-1.5
	1.0nm,0.6s,baz=143,slow=8.3,SNR=4.8						
	1.0nm,0.6s						
TORD	Torodi Ar. Bea	46.66	257	P	P	12 22 43.6	-1.0
	0.3nm,0.4s,baz=56,slow=9.0,SNR=2.5						
	0.3nm,0.4s						
SPITS	Spitsbergen Ar	47.95	352	P	P	12 22 53.3	-0.5
	1.1nm,0.4s,baz=139,slow=9.6,SNR=10						
	1.1nm,0.4s						
MATP	Matopo	55.85	203	LR	LR	12 50 41.8	
	comp=Z,87nm,19.2s,baz=238,slow=39						

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*SJA **02** 12:23:58.3±0.7, 27°.92S×71°.60W, h5^{km}±4^{km}, ML3.6, MW3.4*

*GUC **02** 12:24:04.5±0.6, 28°.05S×71°.27W, h30^{km}±2^{km}, ML3.5*

ISC 02 12:24:00.2±1.4**, 28°.02S**±0°.02×**71°.41W**±0°.06**, h15**^{km}±10^{km}**, n27, σ1^{s}.65**/46**, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	Llanos de Chal	0.35	121	eP	Pn	12 24 09.9	-0.8
AC04	Llanos de Chal	0.35	121	i P	Pn	12 24 10.3	-0.5
AC04				eS	Sb	12 24 14.3	+0.7
AC04				IAML		12 24 14.8	
	comp=E,53µm,0.1s						
GO03	Copiapo	1.13	68	eP	Pg	12 24 22.6	+0.7
GO03				eS	Sg	12 24 37.5	+0.8
GO03				IAML		12 24 39.2	
	comp=Z,1µm,0.5s						
GO03	Copiapo	1.13	68	eP	Pg	12 24 22.3	+0.3
GO03				IAML		12 24 39.6	
	comp=N,945nm,0.4s						
AC06	Mina Casimiro	1.15	55	eP	Pg	12 24 22.9	+0.6
LCO	Las Campanas	1.17	148	eP	Pg	12 24 24.1	+1.3
LCO				eS	Sn	12 24 38.6	+0.5
LCO				IAML		12 24 41.1	
	comp=Z,3µm,0.5s						
LCO	Las Campanas	1.17	148	eP	Pg	12 24 23.7	+0.9
LCO				eS	Sb	12 24 38.0	+0.6
LCO				IAML		12 24 39.7	
	comp=Z,7µm,0.5s						
AC05	El Transito	1.29	129	eP	Pg	12 24 25.5	+0.4
AC05				eS	Sn	12 24 41.2	+0.3
AC05				IAML		12 24 47.2	
	comp=Z,473nm,0.7s						
AC05	El Transito	1.29	129	eP	Pg	12 24 25.3	+0.3
AC05				eS	Sn	12 24 40.2	-0.7
AC05				IAML		12 24 44.7	
	comp=N,1µm,0.8s						
AC01	Pan de Azucar	2.00	21	eP	Pb	12 24 35.0	-1.4
AC01				eS	Sb	12 25 00.3	-0.8
GO04	Tololo Observa	2.21	166	eP	Pb	12 24 40.1	+0.2
GO04				eS	Sg	12 25 12.2	+1.0
GO04				IAML		12 25 15.5	
	comp=Z,766nm,0.9s						
GO04	Tololo Observa	2.21	166	eP	Pb	12 24 40.0	0.0
GO04				eS	Sb	12 25 07.6	+0.3
CO01	Juntas del Tor	2.27	150	eP	Pb	12 24 41.6	+0.7
CO01				eS	Sn	12 25 04.3	-0.8
CO01				IAML		12 25 11.2	

	comp=Z,263nm,0.2s						
CO01	Juntas del Tor	2.27	150	eP	Pb	12 24 41.2	+0.3
CO01				eS	Sb	12 25 08.9	0.0
CO01				IAML		12 25 12.7	
	comp=E,339nm,0.1s						
AC02	Maricunga	2.35	60	eP	Pb	12 24 42.1	-0.4
AC02				eS	Sg	12 25 14.2	-1.7
AC02				IAML		12 25 14.3	
	comp=Z,156nm,0.5s						
AC02	Maricunga	2.35	60	eP	Pb	12 24 42.3	-0.2
AC02				IAML		12 25 15.0	
	comp=N,383nm,0.2s						
AROD	Rodeo	2.73	142	eP	Pb	12 24 49.0	+0.1
AROD				eS	Sb	12 25 26.0	+3.7
ACDV	Cuesta del Vie	2.94	137	eP	Pb	12 24 52.6	+0.3
ACDV				eS	Sg	12 25 33.0	-1.5
ACDV				IAML		12 25 39.1	
	comp=Z,139nm,0.4s						
ACCO	Cerro Coronel	3.28	142	eP	Pb	12 24 56.3	-1.9
ACCO				eS	Sb	12 25 38.3	+0.2
ACCO				IAML		12 25 48.3	
	comp=Z,197nm,0.9s						
TINO	Tinogasta	3.40	92	eP	Pb	12 24 57.7	-2.5
TINO				eS	Sb	12 25 45.6	+4.2
TINO				IAML		12 25 45.9	
	comp=Z,95nm,0.5s						
PB14	IPOC Station P	3.50	15	eP	Pn	12 24 55.8	+1.4
PB14				eS	Sb	12 25 46.3	+1.7
PB14				IAML		12 25 55.6	
	comp=Z,57nm,1.0s						
ACLC	CERRO LA CRUZ	4.16	111	eP	Pn	12 25 08.1	+4.8
ACLC				eS	Sb	12 26 01.9	-1.5
ACLC				IAML		12 26 02.6	
	comp=Z,39nm,0.4s						
RTLL	Cerro Villicun	4.17	143	eP	Pb	12 25 09.6	-3.7
RTLL				eS	Sb	12 26 01.3	-2.2
RTLL				IAML		12 26 12.0	
	comp=Z,98nm,0.5s						
RTLS	Leoncito	4.19	154	eP	Pb	12 25 10.0	-3.8
RTLS				eS	Sb	12 26 05.8	+1.5
RTLS				IAML		12 26 18.4	
	comp=Z,282nm,1.2s						
CFA	Coronel Fontan	4.51	143	eP	Pn	12 25 13.6	+5.5
CFA				IAML		12 26 22.6	
	comp=Z,57nm,0.4s						
CYA	Choya	4.97	96	eP	Pn	12 25 19.4	+5.0
CYA				eS	Sn	12 26 14.8	+3.2
CYA				IAML		12 26 19.7	
	comp=Z,35nm,0.7s						
PB05	IPOC Station P	5.26	12	eP	Pn	12 25 18.6	+0.2
PB05				eS	Sn	12 26 17.4	-1.6
PB05				IAML		12 26 52.0	
	comp=Z,41nm,2.0s						

*NOU **02** 12:26:32.5, 19°.65S×175°.41W, h244^{km}, mb4.4/16, Tonga Islands*

*NEIC **02** 12:26:33.3±1.5, 19°.5S±0°.2×175°.60W±0°.06, h224^{km}±12^{km}, mb4.3/11, Error ellipse: s-maj=22.7km s-min=5.9km az=192.0*

*IDC **02** 12:26:42.4±2.8, 19°.72S×176°.25W, h286^{km}±27^{km}, mb3.2/5, mbtmp4.0/8, Error ellipse: s-maj=34.4km s-min=19.9km az=168.0*

ISC 02 12:26:32.3±0.6**, 19°.6S**±0°.1×**175°.55W**±0°.07**, h223**^{km}**, n38, σ1ˢ.51**/37**, mb4.0**/10**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LKBA	Tubou, Lakemba	3.39	293	P	Pn	12 27 29.8	+2.1
NIUE	Niue	5.33	85	P	Pn	12 27 52.9	+1.4
NIUE	Niue	5.33	85	S	S	12 28 52.2	-1.9
NIUE	Niue	5.33	85		Pn	12 27 53.0	+1.5
MSVF	Nonsavu	6.35	286	P	Pn	12 28 07.4	+2.8
	2.1nm,0.5s,baz=338,slow=20,SNR=1.8						
AFI	Afiamalu	6.72	33	P	Pn	12 28 09.1	-0.3
AFI	Afiamalu	6.72	33	Pn	Pn	12 28 08.8	-0.5
RAR	Rarotonga	14.87	99	P	P	12 30 07.9	+15
	21nm,0.6s,baz=218,slow=17,SNR=4.5						
MARNC	Mare, Loyalty	15.50	260	P	Pn	12 30 00.2	+0.5
MARNC	Mare, Loyalty	15.50	260		Pn	12 29 59.8	+0.1
YATNC	Mamie plateau,	16.60	259	P	Pn	12 30 12.0	-0.8
OUENC	Ouen Island, N	16.68	257	Pn	Pn	12 30 14.3	+0.6
DZM	Mont Dzumac	17.01	259	P	Pn	12 30 16.9	-0.9
	19nm,0.6s,baz=81,slow=19,SNR=19						
MXZ	Matakaoa Point	18.67	195	P	P	12 30 34.2	+0.4
URZ	Urewera	19.64	197	P	P	12 30 41.8	-2.4
TOZ	Tahuroa Road	19.66	202	P	P	12 30 43.4	-1.1
TOZ				IAmb	IAmb	12 30 59.2	
	comp=Z,28nm,1.3s						
BKZ	Black Stump Fm	20.66	198	P	P	12 30 52.3	-2.9
KHZ	Kahutara	24.54	200	P	P	12 31 30.5	-1.0
EIDS	Eidsvold	31.31	253	P	P	12 32 31.5	-0.4
EIDS				IAmb	IAmb	12 32 50.5	
	comp=Z,14nm,1.4s						
CTAO	Charters Tower	35.88	263	P	P	12 33 10.5	-0.9
CTAO	Charters Tower	35.88	263	P	P	12 33 11.0	-0.4
CTAO				IAmb	IAmb	12 33 12.0	
	comp=Z,7.5nm,0.6s						
INKA	Innaminka	40.67	250	P	P	12 33 51.7	+0.5
WR8	Warramunga Arr	46.86	261	P	P	12 34 39.1	-1.4
WR8				IAmb	IAmb	12 34 45.9	
	comp=Z,14nm,1.4s						
ASAR	Alice Springs	46.97	256	P	P	12 34 40.2	-1.1
	comp=Z,2.8nm,0.6s,baz=98,slow=8.3,SNR=30						
ASAR				PcP	PcP	12 36 10.7	+0.6
	comp=Z,0.3nm,0.5s,baz=108,slow=4.3,SNR=1.8						
	comp=Z,2.8nm,0.6s						
WRAB	Tennant Creek	47.01	261	P	P	12 34 39.7	-2.0
WRA	Warramunga Arr	47.01	261	P	P	12 34 40.1	-1.6
	comp=Z,1.0nm,0.5s,baz=97,slow=7.2,SNR=72						
WRA				S	S	12 40 59.0	-17
	comp=Z,0.9nm,0.9s,baz=94,slow=7.6,SNR=4.9						
	comp=Z,1.0nm,0.5s						
WRA	Warramunga Arr	47.01	261	P	P	12 34 40.3	-1.4
GUMO	Guam	51.06	307	P	P	12 35 11.1	-1.2
MTN	Manton Dam	51.47	269	P	P	12 35 15.0	-0.5
MTN				IAmb	IAmb	12 35 26.8	
	comp=Z,12nm,1.4s						
KNRA	Kununurra	53.03	265	P	P	12 35 26.5	-0.4
KNRA				IAmb	IAmb	12 35 29.3	
	comp=Z,9.3nm,1.4s						
FAKI	Fak Fak	53.57	281	P	P	12 35 30.2	-0.7
FITZ	Fitzroy Crossi	55.44	261	P	P	12 35 44.2	0.0
LUWI	Luwuk	63.06	279	P	P	12 36 34.8	-1.6
QSPA	South Pole Qui	70.45	180	P	P	12 37 24.2	+1.8
	comp=Z,0.9nm,0.8s,baz=45,slow=4.3,SNR=2.5						
	comp=Z,0.9nm,0.8s						
QSPA	South Pole Qui	70.45	180	P	P	12 37 24.2	+1.8
QSPA				IAmb	IAmb	12 37 57.6	
	comp=Z,6.4nm,1.5s						
TXAR	Lajitas Array	84.64	56	P	P	12 38 46.7	+5.4
	comp=Z,0.2nm,0.5s,baz=237,slow=5.9,SNR=1.7						
	comp=Z,0.2nm,0.5s						
ILAR	Eielson Array	86.96	12	P	P	12 38 55.1	+3.4
	comp=Z,0.2nm,0.6s,baz=206,slow=4.2,SNR=4.7						
	comp=Z,0.2nm,0.6s						
BRTR	Keskin Array B	147.90	315	PKPbc	PKPab	12 45 53.9	-0.9
	comp=Z,0.8nm,0.4s,baz=86,slow=2.7,SNR=4.7						

*NEIC **02** 12:41:01.7±1.1, 17°.6S±0°.2×178°.3W±0°.1, h588^{km}±15^{km}, mb4.1/11, Error ellipse: s-maj=31.5km s-min=8.5km az=150.0*

*IDC **02** 12:41:04.0±1.8, 17°.87S×178°.59W, h591^{km}±19^{km}, mb3.2/8, mbtmp4.1/10, Error ellipse: s-maj=27.9km s-min=21.1km az=171.0*

ISC 02 12:41:02.5±0.8**, 17°.7S**±0°.2×**178°.4W**±0°.1**, h600**^{km}**, n23, σ1ˢ.09**/24**, mb4.0**/13**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	Nonsavu	3.43	268	P	P	12 42 23.4	-0.9
	14nm,0.7s,baz=168,slow=9.3,SNR=14						
AFI	Afiamalu	7.34	60	P	P	12 42 53.2	-2.6
DZM	Mont Dzumac	14.96	250	P	P	12 44 10.9	+0.4
	4.9nm,0.6s,baz=76,slow=17,SNR=2.4						
URZ	Urewera	20.91	190	P	P	12 45 04.2	-0.1
	8.1nm,0.9s,baz=315,slow=5.7,SNR=1.8						
	8.1nm,0.9s						
CTAO	Charters Tower	33.55	260	P	P	12 46 53.6	-0.9
TOO	Toolangi	37.38	231	P	P	12 47 25.6	-0.3
TOO				IAmb	IAmb	12 47 32.0	
	comp=Z,4.2nm,1.2s						
STKA	Stephens Creek	38.80	241	P	P	12 47 37.4	-0.1
	comp=Z,2.6nm,0.4s,baz=69,slow=8.6,SNR=4.4						
	comp=Z,2.6nm,0.4s						
INKA	Innaminka	38.90	248	P	P	12 47 38.9	+0.6
INKA				IAmb	IAmb	12 47 39.7	
	comp=Z,2.1nm,0.8s						
BBOO	Buckleboo	43.58	241	P	P	12 48 14.8	-0.3
WR8	Warramunga Arr	44.58	259	P	P	12 48 22.6	-0.4
WR8				IAmb	IAmb	12 48 46.2	
	comp=Z,15nm,1.5s						
WRA	Warramunga Arr	44.73	259	P	P	12 48 23.6	-0.6
	comp=Z,1.5nm,0.3s,baz=91,slow=7.9,SNR=142						
WRA				PcP	PcP	12 49 53.9	+0.6
	comp=Z,0.2nm,0.3s,baz=96,slow=3.0,SNR=1.6						
	comp=Z,1.5nm,0.3s						
WRA	Warramunga Arr	44.73	259	P	P	12 48 23.3	-0.9
AS31	Alice Springs	44.91	254	P	P	12 48 25.5	0.0
AS31				IAmb	IAmb	12 48 26.4	
	comp=Z,5.2nm,0.5s						
ASAR	Alice Springs	44.91	254	P	P	12 48 25.5	0.0
	comp=Z,16nm,0.6s,baz=89,slow=8.5,SNR=229						
ASAR				PcP	PcP	12 49 55.3	+1.5
	comp=Z,0.4nm,0.4s,baz=98,slow=4.1,SNR=4.4						
	comp=Z,16nm,0.6s						
ASAR	Alice Springs	44.91	254	P	P	12 48 25.2	-0.4
KNRA	Kununurra	50.57	264	P	P	12 49 07.9	+0.2
KNRA				IAmb	IAmb	12 49 12.5	
	comp=Z,7.6nm,1.3s						
FITZ	Fitzroy Crossi	53.13	260	P	P	12 49 26.3	+0.4
	comp=Z,1.0nm,0.3s,baz=112,slow=5.6,SNR=13						
	comp=Z,1.0nm,0.3s						
FITZ	Fitzroy Crossi	53.13	260	P	P	12 49 26.6	+0.7
MBWA	Marble Bar	58.19	256	P	P	12 50 00.7	-0.1
MBWA				IAmb	IAmb	12 50 39.2	
	comp=Z,20nm,1.2s						
QSPA	South Pole Qui	72.40	180	P	P	12 51 29.1	+0.3
	comp=Z,1.0nm,0.8s,baz=17,slow=0.9,SNR=5.4						
	comp=Z,1.0nm,0.8s						
QSPA	South Pole Qui	72.40	180	P	P	12 51 29.3	+0.5
QSPA				IAmb	IAmb	12 51 30.2	
	comp=Z,5.7nm,1.4s						
TXAR	Lajitas Array	85.81	58	P	P	12 52 44.8	+4.8
	comp=Z,0.2nm,0.6s,baz=248,slow=5.2,SNR=2.6						
	comp=Z,0.2nm,0.6s						
PDAR	Pinedale Array	87.13	43	P	P	12 52 49.4	+3.3
	comp=Z,0.2nm,0.5s,baz=239,slow=5.0,SNR=2.0						
	comp=Z,0.2nm,0.5s						

*IDC **02** 12:45:04.3±1.0, 15°.91S×173°.75W, h0^{km}, mb3.9/6, mbtmp3.9/6, MS3.4/2, Error ellipse: s-maj=43.0km s-min=22.2km az=153.0*

ISC 02 12:45:17.0±1.0**, 15°.9S**±0°.3×**173°.9W**±0°.2**, h100**^{km}**, n15, σ0ˢ.97**/7**, mb3.8**/7**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	Nonsavu	7.94	255	LR	LR	12 49 43.4	
	comp=Z,338nm,20.5s,baz=54,slow=35						
HNR	Honiara	26.30	281	P	P	12 50 44.7	+1.2
	111nm,0.5s,baz=146,slow=7.3,SNR=7.3						
RPZ	Rata Peaks	30.57	202	LR	LR	13 04 12.9	
	comp=Z,58nm,18.8s,baz=12,slow=38						
H11S2	WAKE ISLAND Hy	39.13	330	T	T	13 33 24.5	
	baz=150,slow=76,SNR=73						
H11S3	WAKE ISLAND Hy	39.14	330	T	T	13 33 24.9	
	baz=150,slow=76,SNR=60						
H11S1	WAKE ISLAND Hy	39.15	330	T	T	13 33 26.7	
	baz=150,slow=76,SNR=51						
H11N3	WAKE ISLAND Hy	40.09	331	T	T	13 34 44.7	
	baz=150,slow=76,SNR=45						
H11N1	WAKE ISLAND Hy	40.09	331	T	T	13 34 43.8	
	baz=150,slow=76,SNR=72						
H11N2	WAKE ISLAND Hy	40.11	331	T	T	13 34 46.1	
	baz=150,slow=76,SNR=48						
WRA	Warramunga Arr	49.28	257	P	P	12 53 55.5	-0.5
	1.7nm,1.0s,baz=90,slow=5.9,SNR=6.5						
	1.7nm,1.0s						
ASAR	Alice Springs	49.52	252	P	P	12 53 57.5	-0.4
	3.8nm,0.8s,baz=86,slow=6.2,SNR=17						
	3.8nm,0.8s						
QSPA	South Pole Qui	74.17	180	P	P	12 56 42.6	0.0
	1.4nm,1.0s,baz=36,slow=6.2,SNR=2.3						
	1.4nm,1.0s						
NVAR	Mina Array Bea	75.00	42	P	P	12 56 48.2	+0.4
	0.9nm,1.0s,baz=255,slow=6.4,SNR=6.6						
	0.9nm,1.0s						
TXAR	Lajitas Array	81.27	56	P	P	12 57 23.1	+0.6
	0.7nm,1.1s,baz=301,slow=7.6,SNR=4.1						
	0.7nm,1.1s						
ILAR	Eielson Array	83.00	11	P	P	12 57 29.5	-1.2
	1.3nm,1.1s,baz=207,slow=5.8,SNR=7.5						
	1.3nm,1.1s						

*IDC **02** 12:56:25.0±0.9, 35°.71N×95°.60E, h0^{km}, mb3.6/5, mbtmp3.6/10, ML3.2/5, MS3.0/4, Error ellipse: s-maj=31.6km s-min=16.3km az=61.0*

ISC 02 12:56:29.8±0.9**, 35°.8N**±0°.1×**95°.5E**±0°.2**, h35**^{km}**, n12, σ0ˢ.85**/10**, mb3.7**/5**, Qinghai**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	14.53	31	Pn	Pn	12 59 52.6	-0.3
	0.3nm,0.3s,baz=214,slow=12,SNR=6.7						
	1.1nm,0.6s						
SONM				AML	AML		
MKAR	Makanchi Array	14.78	322	Pn	Pn	12 59 54.9	-1.4
	0.4nm,0.3s,baz=132,slow=14,SNR=37						
MKAR				LR	LR	13 05 35.7	
	comp=Z,41nm,19.9s,baz=150,slow=37						
	5.5nm,0.8s						
MKAR				AML	AML		
CMAR	Chiang Mai Arr	17.52	169	P	Pn	13 00 31.4	-0.1
	baz=356,slow=11,SNR=6.6						
CMAR				LR	LR	13 08 27.3	
	comp=Z,22nm,18.2s,baz=190,slow=41						
	0.5nm,0.4s						
KURBB	Kurchatov Arra	19.23	326	P	Pn	13 00 51.8	-0.2
	baz=133,slow=12,SNR=14						
	1.6nm,0.8s						
ZALV	Zalesovo Beam	19.63	341	P	Pn	13 00 56.6	-0.1
	0.1nm,0.3s,baz=173,slow=10.0,SNR=2.6						
	0.4nm,0.3s						
ZALV				AML	AML		
BVAR	Borovoye Array	24.67	322	P	P	13 01 48.2	+1.1
	0.7nm,0.6s,baz=136,slow=9.4,SNR=3.7						
	0.7nm,0.6s						
KSRS	Korea Array	26.04	77	LR	LR	13 14 07.9	
	comp=Z,26nm,20.9s,baz=240,slow=41						
BRTR	Keskin Array B	48.19	294	P	P	13 05 07.5	+0.5
	0.5nm,0.5s,baz=94,slow=6.1,SNR=2.6						
	0.5nm,0.5s						
JMIC	Jan Mayen	60.95	339	LR	LR	13 39 01.6	
	comp=Z,38nm,18.3s,baz=222,slow=42						
WRA	Warramunga Arr	66.53	140	P	P	13 07 15.3	-1.0
	0.5nm,0.8s,baz=316,slow=7.7,SNR=6.0						
	0.5nm,0.8s						
ILAR	Eielson Array	68.65	24	P	P	13 07 29.8	+0.7
	0.2nm,0.7s,baz=310,slow=5.5,SNR=2.7						
	0.2nm,0.7s						
ASAR	Alice Springs	69.41	142	P	P	13 07 34.5	+0.2
	0.6nm,0.5s,baz=328,slow=6.5,SNR=14						
	0.6nm,0.5s						

KRSC 02 13:09:28.6±1.5**, 54°.11N**×**169°.67E, h49**^{km}±23^{km}**, Ml3.6, Komandorsky Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BKI	Bering	2.41	298	eP	Pn	13 10 08.1	+2.6
BKI				eS	Sn	13 10 36.8	+3.1
MKZ	Mys Kozlova	4.67	279	eP	Pn	13 10 40.8	+4.4
BZGR	Bezymyannyi-Gr	5.48	293	eP	Pn	13 10 51.5	+3.9
AVH	Avacha	6.55	267	eP	Pn	13 11 07.3	+5.0
KRX	Arik	6.58	268	eP	Pn	13 11 07.4	+4.6
KOK	Koryaka	6.61	267	eP	Pn	13 11 07.9	+4.9
RUS	Russkaya	6.90	260	eP	Pn	13 11 11.0	+4.0
KDTR	Khodutka, Kamc	7.37	256	eP	Pn	13 11 18.1	+4.7

HEL 02 13:23:12.7±0.1**, 63°.96N**×**28°.19E, h0**^{km}**, ML1.1, Suspected explosion, Finland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NIF	Nilsia	0.60	197	PG	Pg	13 23 23.1	-1.0
	baz=16						
NIF				SG	Sg	13 23 31.0	-0.8
NIF				smax	smax	13 23 31.6	
	comp=Z,1.3nm,0.2s						
RMF	Romuvaara	0.81	71	PG	Pg	13 23 27.4	-0.7
	baz=255						
RMF				smax	smax	13 23 37.9	
	comp=Z,1.1nm,0.2s						
RMF				SG	Sg	13 23 38.0	-0.6
OUL	Oulu	1.50	320	PN	Pn	13 23 40.3	-0.6
SUF	Sumiainen	1.55	217	PG	Pn	13 23 40.7	-0.7
SUF				smax	smax	13 23 59.1	
	comp=Z,0.5nm,0.2s						
SUF				SN	Sg	13 24 02.5	+0.2
OUF	Merijarvi	1.57	287	PG	Pn	13 23 40.9	-0.8
OUF				smax	smax	13 23 59.6	
	comp=Z,1.0nm,0.2s						
OUF				SN	Sb	13 24 02.8	0.0
OBF4	Vikkela, Lumij	1.59	304	PN	Pn	13 23 42.3	+0.2
OBF4				smax	smax	13 24 00.4	
	comp=Z,0.7nm,0.2s						
KU1	Kurvinen	1.72	19	PG	Pn	13 23 43.5	-0.3
KU1				SG	Sn	13 24 06.0	-0.4
JOF	Joensuu	1.75	125	PG	Pn	13 23 44.0	-0.3
JOF				SG	Sn	13 24 06.6	-0.6
OBF0	Syolatti, Pyha	1.81	289	PG	Pn	13 23 45.5	+0.5
OBF0				smax	smax	13 24 06.6	
	comp=Z,1.2nm,0.2s						
MSF	Maaselka	1.99	10	PG	Pn	13 23 48.4	+0.7
KAF	Kangasniemi	2.04	206	PG	Pn	13 23 49.4	+1.1
KAF				smax	smax	13 24 13.3	
	comp=Z,1.7nm,0.2s						
KAF				SG	Sb	13 24 15.7	-0.8
OBF8	Ulkokalla	2.11	282	PG	Pn	13 23 50.2	+1.0
	baz=103						
OBF8				smax	smax	13 24 15.4	
	comp=Z,0.6nm,0.2s						
RANF	Ranua	2.15	345	PG	Pn	13 23 51.0	+1.3
	baz=162						
KEF	Keuruu	2.35	222	smax	smax	13 24 22.1	
	comp=Z,0.8nm,0.2s						
KEF				SG	Sb	13 24 24.5	-0.8
VAF	Ylistaro	2.64	252	smax	smax	13 24 30.4	
	comp=Z,0.7nm,0.2s						
VAF				SG	Sb	13 24 33.3	-0.4
FIA0	FINESS Array S	2.71	202	PG	Pn	13 23 59.2	+1.8
FIA0				smax	smax	13 24 32.5	
	comp=Z,0.4nm,0.2s						
VRF	Varrio	3.85	8	PN	Pn	13 24 12.9	-0.2
LVZ	Lovozero	4.76	31	SB	Sb	13 25 33.4	-1.3

*BER **02** 13:23:43.0±2.5, 67°.37N×22°.52E, h0^{km}, ML0.8, Suspected explosion*

HEL 02 13:23:41.1±0.1**, 67°.36N**×**22°.60E, h0**^{km}**, ML1.1, Explosion, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KLF	Kolari	0.55	103	PG	Pg	13 23 50.9	-0.6
KLF				SG	Sg	13 23 57.8	-0.7
KLF				smax	smax	13 23 58.8	
	comp=Z,3.1nm,0.2s						
LANU	Lannavaara	0.72	342	PG	Pg	13 23 54.2	-0.8
LANU				SG	Sg	13 24 04.9	+0.5
ERTU	Ertsjaerv	0.83	191	PG	Pg	13 23 56.1	-0.9
ERTU				SB	Sg	13 24 07.3	-0.4
HEF	Hetta	1.12	20	eP	Pg	13 24 01.3	-1.3
HEF				eS	Sg	13 24 17.2	+0.1
HEF	Hetta	1.12	20	PG	Pg	13 24 01.5	-1.1
	baz=202						
HEF				smax	smax	13 24 15.3	
	comp=Z,2.3nm,0.2s						
HEF				SB	Sg	13 24 17.2	0.0
TOF	Tornio	1.46	151	SN	Sg	13 24 26.5	-1.4
TOF				smax	smax	13 24 31.7	
	comp=Z,0.8nm,0.2s						
TOF	Tornio	1.46	151	PG	Pn	13 24 07.5	-1.2
TOF				smax	smax	13 24 25.2	
	comp=Z,1.1nm,0.2s						
TOF				SG	Sg	13 24 26.5	-1.4
KALU	Kalix	1.54	168	PG	Pn	13 24 08.8	-0.9
KALU				SN	Sn	13 24 30.0	-0.4
RNF	Rovaniemi	1.54	118	PG	Pn	13 24 08.8	-1.0
RNF				SN	Sn	13 24 29.1	-1.3
SALU	Saltoluokta	1.58	273	eP	Pn	13 24 09.4	-1.0
SALU				eS	Sn	13 24 30.3	-1.2
KTK1	Kautokeino	1.67	8	eP	Pn	13 24 10.6	-1.0
KTK1				eS	Sn	13 24 32.8	-1.0
KTK1				IAML		13 24 38.2	
	comp=Z,1.9nm,0.8s						
KTK1	Kautokeino	1.67	8	PG	Pn	13 24 10.9	-0.7
KTK1				SN	Sn	13 24 33.1	-0.7
RANF	Ranua	2.15	127	SG	Sb	13 24 47.3	-0.6
RAJF	Raja-Jooseppi	2.43	60	PN	Pn	13 24 23.7	+1.7
RAJF	Raja-Jooseppi	2.43	60	PG	Pn	13 24 23.7	+1.7
RAJF				SG	Sb	13 24 56.2	+0.1
ARA0	ARCESS Array S	2.43	25	eP	Pn	13 24 23.2	+1.2
ARA0				eS	Sn	13 24 52.9	+0.5
ARA0				IAML		13 25 04.6	
	comp=Z,0.9nm,0.3s						
ARA0	ARCESS Array S	2.43	25	PB	Pn	13 24 22.6	+0.6
ARA0				SG	Sb	13 24 54.8	-1.4
OUL	Oulu	2.65	148	SG	Sb	13 25 02.4	+0.1
KEV	Kevo	2.90	32	SG	Sb	13 25 08.3	-1.2

*IDC **02** 13:31:28.8±2.0, 19°.69S×177°.74W, h557^{km}±19^{km}, mb3.1/7, mbtmp4.0/8, Error ellipse: s-maj=35.5km s-min=16.4km az=153.0*

*NEIC **02** 13:31:28.0±1.4, 19°.8S±0°.1×177°.7W±0°.1, h545^{km}±7^{km}, mb4.2/19, Error ellipse: s-maj=24.7km s-min=11.0km az=139.0*

ISC 02 13:31:28.2±1.4**, 19°.8S**±0°.1×**177°.7W**±0°.1**, h552**^{km}±13^{km}**, n46, σ0ˢ.62**/50**, mb4.1**/17**, 1D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	Nonsavu	4.50	296	P	P	13 32 55.0	+0.8
	31nm,0.5s,baz=153,slow=6.8,SNR=62						
FUTU	Fugatoga	5.44	356	P	P	13 33 01.6	-0.5
MARNC	Mare, Loyalty	13.47	260	P	P	13 34 21.6	-0.3
SANVU	Saraoutou	15.02	284	P	P	13 34 36.6	-1.3
EIDS	Eidsvold	29.32	253	P	P	13 36 46.4	-0.3
CTAO	Charters Tower	33.85	263	P	P	13 37 26.0	+0.6
CTAO				IAmb	IAmb	13 37 32.5	
	comp=Z,18nm,1.4s						
BBOO	Buckleboo	43.13	243	P	P	13 38 40.8	+0.4
WB0	Warramunga Arr	44.96	262	P	P	13 38 54.5	-0.3
WB0				IAmb	IAmb	13 39 20.8	
	comp=Z,12nm,1.4s						
AS31	Alice Springs	44.96	256	P	P	13 38 54.8	0.0
ASAR	Alice Springs	44.96	256	P	P	13 38 54.8	0.0
	comp=Z,4.1nm,0.8s,baz=98,slow=8.2,SNR=47						
ASAR				PcP	PcP	13 40 24.2	0.0
	comp=Z,0.4nm,0.4s,baz=111,slow=4.1,SNR=8.3						
ASAR				S	S	13 44 53.4	0.0
	comp=Z,0.3nm,0.8s,baz=87,slow=15,SNR=2.3						
	comp=Z,4.1nm,0.8s						
ASAR	Alice Springs	44.96	256	P	P	13 38 54.6	-0.2
ASAR					PcP	13 40 23.9	-0.3
WRA	Warramunga Arr	44.98	261	P	P	13 38 54.5	-0.4
	comp=Z,0.9nm,0.5s,baz=96,slow=7.7,SNR=62						
WRA				PcP	PcP	13 40 24.0	-0.4
	comp=Z,0.4nm,0.8s,baz=96,slow=3.4,SNR=2.8						
	comp=Z,0.9nm,0.5s						
WRA	Warramunga Arr	44.98	261	P	P	13 38 54.6	-0.4
WRA					PcP	13 40 23.5	-0.8
FORT	Forrest	49.84	246	P	P	13 39 30.5	-0.7
FORT				IAmb	IAmb	13 39 30.9	
	comp=Z,16nm,1.1s						
KNRA	Kununurra	50.99	266	P	P	13 39 39.3	-0.4
KNRA				IAmb	IAmb	13 40 14.1	
	comp=Z,6.6nm,1.4s						
KNRA				PcP	PcP	13 40 46.0	-0.2
FITZ	Fitzroy Crossi	53.41	262	P	P	13 39 57.0	0.0
QSPA	South Pole Qui	70.30	180	P	P	13 41 46.7	+0.5
	comp=Z,0.7nm,0.9s,baz=222,slow=9.5,SNR=2.0						
	comp=Z,0.7nm,0.9s						
QSPA	South Pole Qui	70.30	180	P	P	13 41 46.2	0.0
QSPA				IAmb	IAmb	13 42 01.5	
	comp=Z,6.7nm,1.5s						
JMN	Monobe	70.42	319	P	P	13 41 47.4	+0.1

JKA	Kamikawa-asahi	73.22	331	P	P	13 42 04.1	+0.8
JKA				IAmb	IAmb	13 42 06.1	
	comp=Z,20nm,1.4s						
TXAR	Lajitas Array	86.42	57	P	P	13 43 13.8	+1.0
	comp=Z,0.3nm,0.7s,baz=205,slow=5.5,SNR=4.3						
	comp=Z,0.3nm,0.7s						
TXAR	Lajitas Array	86.42	57	P	P	13 43 12.9	0.0
ELIB	Princess Elisa	87.40	186	*d*P	P	13 43 16.6	-0.2
ILAR	Eielson Array	87.54	13	P	P	13 43 15.9	-1.2
	comp=Z,0.4nm,0.6s,baz=226,slow=5.4,SNR=12						
	comp=Z,0.4nm,0.6s						
ILAR	Eielson Array	87.54	13	P	P	13 43 17.2	+0.1
M29M	Somme Creek	87.61	17	P	P	13 43 18.8	+1.1
M29M				IAmb	IAmb	13 43 36.1	
	comp=Z,5.2nm,1.4s						
PD31	Pinedale Array	88.24	43	P	P	13 43 21.0	-0.3
PDAR	Pinedale Array	88.24	43	P	P	13 43 20.8	-0.4
	comp=Z,0.6nm,0.3s,baz=235,slow=5.9,SNR=2.8						
	comp=Z,0.6nm,0.3s						
PDAR	Pinedale Array	88.24	43	P	P	13 43 21.0	-0.3
DAWY	Dawson	88.68	16	P	P	13 43 23.1	+0.6
DAWY				IAmb	IAmb	13 44 06.7	
	comp=Z,4.0nm,1.4s						
K29M	Barlow Dome	88.99	17	P	P	13 43 24.8	+0.7
K29M				IAmb	IAmb	13 43 34.0	
	comp=Z,6.0nm,1.5s						
I28M	Miner Creek	89.67	15	P	P	13 43 27.6	+0.4
I28M				IAmb	IAmb	13 43 49.1	
	comp=Z,3.9nm,1.4s						
F24K	Squaw Lake	89.77	11	P	P	13 43 28.1	+0.6
F24K				IAmb	IAmb	13 43 52.1	
	comp=Z,7.8nm,1.4s						
CMAR	Chiang Mai Arr	90.13	289	P	P	13 43 31.4	+1.1
	comp=Z,0.5nm,0.3s,baz=116,slow=2.7,SNR=4.1						
	comp=Z,0.5nm,0.3s						
FURI	Furi	143.22	258	PKPdf	PKPbc	13 49 59.8	+0.3
RGN	Rugen	144.27	349	PKPbc	PKPbc	13 50 01.1	+0.1
BZK	Bozkurt	145.24	317	PKPdf	PKPdf	13 50 04.0	+0.7
BUR08	Bucovina Ar. S	146.54	331	PKPdf	PKPdf	13 50 05.2	-0.4
BR131	Keskin Array S	146.55	313	PKPdf	PKPdf	13 50 04.9	-1.0
BRTR	Keskin Array B	146.55	313	PKPbc	PKPbc	13 50 08.2	-0.3
	comp=Z,0.7nm,0.5s,baz=117,slow=2.3,SNR=4.4						
BRTR	Keskin Array B	146.55	313	PKPdf	PKPdf	13 50 05.0	-0.9
BURAR	Bucovina Array	146.56	331	PKPdf	PKPdf	13 50 05.5	-0.1
MLR	Muntele Rosu	147.75	328	PKPdf	PKPdf	13 50 06.2	-1.4
GEC2	GERESS Array S	149.57	345	PKPdf	PKPdf	13 50 10.0	-0.4
GERES	GERESS Array B	149.57	345	PKPbc	PKPbc	13 50 15.2	-0.5
	comp=Z,0.9nm,0.6s,baz=22,slow=1.4,SNR=8.8						
GERES	GERESS Array B	149.57	345	PKPdf	PKPdf	13 50 09.9	-0.5

IDC **02** *13:38:13.6±0.7, 27°.90S×71°.12W, h0km, mb4.3/8, mbtmp4.1/13, ML3.9/5, MS3.5/12, Error ellipse: s-maj=20.2km s-min=12.5km az=79.0*

SJA **02** *13:38:14.1±0.7, 27°.92S×71°.43W, h12km±2km, ML4.5, MW4.2*

VAO **02** *13:38:17.9±3.4, 27°.94S×71°.12W, h32km±18km, mb4.7, Presumed earthquake*

NEIC **02** *13:38:18.4±1.4, 27°.99S±0°.03×71°.20W±0°.06, h29km±1km, mb4.7/32, ML4.1(GUC), Error ellipse: s-maj=7.2km s-min=3.8km az=95.0*

GFZ **02** *13:38:18.8±0.2, 28°S±2°×7°1W±°, h31km, M4.6/19, mb4.7/19, confirmed*

GUC **02** *13:38:18.0±0.8, 28°.06S×71°.06W, h35km±3km, ML4.1*

ISC 02 13:38:16.0±0.6, **27°.95S**±0°.02×**71°.12W**±0°.04, **h16km**±1km, **n187**, σ**1s.76**/200, **mb4.6**/28, **MS3.6**/8, **6C-3D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.26	172	*e*P	Pb	13 38 22.9	+0.6
AC04				*e*S	Sb	13 38 29.7	+3.1
AC04				IAML		13 38 30.6	
	comp=Z,51μm,0.1s						
AC04	Llanos de Chal	0.26	172	⇑*i*P	Pn	13 38 25.0	-0.2
AC04				*e*S	Sb	13 38 29.5	+3.0
AC04	Llanos de Chal	0.26	172		Pn	13 38 25.1	-0.2
AC04				Sg	Sb	13 38 29.7	+3.1
AC04	Llanos de Chal	0.26	172	P	Pn	13 38 24.9	-0.2
GO03	Copiapo	0.86	66	*e*P	Pn	13 38 35.3	+1.8
GO03				*e*S	Sn	13 38 47.7	+1.9
GO03				IAML		13 38 50.6	
	comp=Z,10μm,0.4s						
GO03	Copiapo	0.86	66	⇓*i*P	Pn	13 38 35.1	+1.7
GO03				*e*S	Sn	13 38 47.0	+1.2
GO03				IAML		13 38 50.4	
	comp=N,13μm,0.2s						
GO03	Copiapo	0.86	66		Pn	13 38 35.2	+1.7
GO03					Sn	13 38 47.5	+1.7
GO03	Copiapo	0.86	66	P	Pn	13 38 35.3	+1.8
AC06	Mina Casimiro	0.90	49	⇓*i*P	Pn	13 38 35.8	+1.8
AC06				*e*S	Sn	13 38 48.3	+1.7
AC06				IAML		13 38 51.8	
	comp=N,8μm,0.3s						
AC06	Mina Casimiro	0.90	49	Pn	Pn	13 38 35.8	+1.8
AC06				Sn	Sn	13 38 48.5	+1.8
LCO	Las Campanas	1.12	161	*e*P	Pg	13 38 19.2	-19
LCO				*e*P	Pn	13 38 37.9	+0.6
LCO				*e*S	Sg	13 38 52.1	-0.4
LCO				IAML		13 38 53.2	
	comp=Z,10μm,0.4s						
LCO	Las Campanas	1.12	161	*e*P	Pn	13 38 37.8	+0.5
LCO				*e*S	Sg	13 38 51.5	-0.9
LCO	Las Campanas	1.12	161	Pn	Pn	13 38 37.8	+0.5
LCO				Sn	Sg	13 38 52.0	-0.4
AC05	El Transito	1.15	140	*e*P	Pn	13 38 38.7	+1.0
AC05	El Transito	1.15	140	*e*P	Pn	13 38 38.5	+0.9
AC05				*e*S	Sg	13 38 52.7	-0.7
AC05	El Transito	1.15	140	Pn	Pn	13 38 38.5	+0.9
AC05	El Transito	1.15	140	P	Pn	13 38 38.7	+1.0
AC01	Pan de Azucar	1.85	15	*e*P	Pb	13 38 48.8	-0.8
AC01				*e*S	Sg	13 39 19.2	+3.5
AC01				IAML		13 39 23.0	
	comp=Z,2μm,0.5s						
AC01	Pan de Azucar	1.85	15	*e*P	Pb	13 38 48.7	-0.8
AC01	Pan de Azucar	1.85	15		Pb	13 38 48.8	-0.8
AC01	Pan de Azucar	1.85	15	P	Pb	13 38 49.0	-0.6
AC02	Maricunga	2.09	58	*e*P	Pn	13 38 50.1	-0.7
AC02				*e*P	Pg	13 38 54.9	-1.3
AC02				*e*S	Sg	13 39 25.3	+2.0
AC02				IAML		13 39 27.2	
	comp=Z,2μm,0.4s						
AC02	Maricunga	2.09	58	*i* P	Pg	13 38 54.8	-1.4
AC02				IAML		13 39 25.6	
	comp=N,5μm,0.5s						
AC02	Maricunga	2.09	58		Pg	13 38 54.9	-1.3
AC02	Maricunga	2.09	58	P	Pg	13 38 55.0	-1.3
CO01	Juntas del Tor	2.21	156	*e*P	Pb	13 38 54.9	-0.9
CO01				*e*S	Sn	13 39 22.0	+2.6
CO01				IAML		13 39 34.7	
	comp=N,2μm,0.6s						
CO01	Juntas del Tor	2.21	156	Pn	Pn	13 38 52.0	-0.3
CO01	Juntas del Tor	2.21	156	P	Pn	13 38 52.1	-0.1
GO04	Tololo Observa	2.23	173	*e*P	Pn	13 38 54.4	+1.8
GO04	Tololo Observa	2.23	173	Pn	Pn	13 38 54.4	+1.8
GO04	Tololo Observa	2.23	173	P	Pb	13 38 54.8	-1.4
AROD	Rodeo	2.64	147	*e*P	Pb	13 39 02.7	-0.4
AROD				*e*S	Sb	13 39 37.9	+2.6
VCA	Vinchina	2.68	108	*e*P	Pb	13 39 04.3	+0.5
CO06	Fray Jorge	2.75	189	*e*P	Pn	13 38 59.1	-0.4
CO06	Fray Jorge	2.75	189	Pn	Pn	13 38 58.9	-0.7
ACDV	Cuesta del Vie	2.82	142	*e*P	Pb	13 39 05.8	-0.4
ACDV				*e*S	Sg	13 39 45.1	-1.6
ACDV				IAML		13 39 52.5	
	comp=Z,965nm,1.2s						
CO03	El Pedregal	2.90	173	Pn	Pn	13 39 02.4	+0.7
ACCO	Cerro Coronel	3.18	146	*e*P	Pb	13 39 10.8	-1.6
ACCO				*e*S	Sb	13 39 50.1	-1.0
ACCO				IAML		13 40 06.9	
	comp=Z,672nm,0.8s						
CO02	Combarbal	3.24	178	*e*P	Pn	13 39 07.3	+0.9
CO02	Combarbal	3.24	178	Pn	Pn	13 39 06.7	+0.3
PB14	IPOC Station P	3.37	11	*e*P	Pn	13 39 08.9	+0.5
PB14	IPOC Station P	3.37	11		Pn	13 39 09.0	+0.7
PB14	IPOC Station P	3.37	11	P	Pn	13 39 09.3	+1.0
ACLC	CERRO LA CRUZ	3.94	113	*e*P	Pn	13 39 07.8	-8.2
RTLL	Cerro Villicun	4.08	146	*e*P	Pn	13 39 16.6	-1.2
RTLL				*e*P	Pb	13 39 22.2	-5.3
RTLL				*e*S	Sn	13 40 11.1	+5.9
RTLL				IAML		13 40 29.4	
	comp=Z,524nm,0.8s						
CO04	Los Peladeros	4.08	178	*e*P	Pn	13 39 19.0	+0.9
CO04	Los Peladeros	4.08	178		Pn	13 39 17.5	-0.5
CO04	Los Peladeros	4.08	178	P	Pn	13 39 21.8	+3.7
RTLS	Leoncito	4.15	158	*e*P	Pn	13 39 23.4	+4.4
RTLS				*e*S	Sb	13 40 16.6	-2.3
RTLS				IAML		13 40 35.0	
	comp=Z,2μm,0.7s						
ZON	Zonda	4.16	150	*e*P	Pn	13 39 23.2	+4.2
ZON				*e*S	Sn	13 40 09.6	+2.2
ZON				IAML		13 40 35.0	
	comp=Z,239nm,1.0s						
ZON	Zonda	4.16	150		Pn	13 39 21.2	+2.3
ZON	Zonda	4.16	150	P	Pn	13 39 23.0	+4.1
CFA	Coronel Fontan	4.42	146	Pn	Pn	13 39 25.8	+3.3
	comp=Z,22nm,0.3s,baz=343,slow=9.7,SNR=79						
CFA				Sn	Sn	13 40 17.6	+4.0
	comp=Z,17nm,0.3s,baz=235,slow=20,SNR=6.5						
CFA				LR	LR	13 41 37.1	
	comp=Z,74nm,19.4s,baz=300,slow=46						
	comp=Z,49nm,0.3s						
CFA				AML	AML		
CFA	Coronel Fontan	4.42	146	*e*P	Pn	13 39 26.5	+4.0
CFA				*e*S	Sb	13 40 22.1	-4.3
CFA				IAML		13 40 39.7	
	comp=Z,284nm,0.8s						
CYA	Choya	4.72	97	*e*P	Pn	13 39 30.5	+3.9
CYA				*e*S	Sb	13 40 30.6	-4.3
CYA				IAML		13 40 31.9	
	comp=Z,316nm,0.7s						
CYA	Choya	4.72	97	⇑*e*P	Pn	13 39 30.0	+3.5
VA03	San Esteban	4.82	174	*e*P	Pn	13 39 30.9	+2.8
VA03				*e*S	Sb	13 40 35.1	-3.0
VA03				IAML		13 40 47.9	
	comp=Z,727nm,0.8s						
VA03	San Esteban	4.82	174	*e*P	Pn	13 39 29.6	+1.5
VA03	San Esteban	4.82	174	Pn	Pn	13 39 29.0	+0.9
VA03	San Esteban	4.82	174	P	Pn	13 39 32.2	+4.1
VA01	Torpederas	5.08	185	Pn	Pn	13 39 30.5	-0.9
PB05	IPOC Station P	5.14	9	*e*P	Pn	13 39 32.4	-0.1
PB05				*e*S	Sb	13 40 51.6	+4.3
PB05	IPOC Station P	5.14	9	⇑*e*P	Pn	13 39 32.1	-0.4
PB05	IPOC Station P	5.14	9	Pn	Pn	13 39 31.7	-0.8
PB05	IPOC Station P	5.14	9	P	Pn	13 39 32.2	-0.3
	comp=Z,186nm,0.6s						
PEL	Peldehue	5.19	176		Pn	13 39 34.1	+1.1
PEL	Peldehue	5.19	176	P	Pn	13 39 37.0	+3.9
	comp=Z,85nm,0.8s						
AHML	Horco Molle	5.27	79	⇑*e*P	Pn	13 39 33.6	-0.6
MT02	Curacav	5.29	180	*e*P	Pn	13 39 34.9	+0.5
MT02				*e*S	Sn	13 40 40.1	+5.0
MT02				IAML		13 41 03.3	
	comp=Z,334nm,1.1s						
MT02	Curacav	5.29	180		Pn	13 39 35.0	+0.5
SLA	San Lorenzo	5.97	59	⇓*e*P	Pb	13 39 51.9	-8.0
PB03	IPOC Station P	6.00	12	P	Pn	13 39 44.2	-0.2
	comp=Z,74nm,0.8s						
BO03	Pichilemu	6.57	186	P	Pn	13 39 49.7	-2.2
	comp=Z,48nm,0.7s						
TCA	Tanti	6.60	122	*e*P	Pn	13 39 53.7	+1.2
PB02	IPOC Station P	6.69	10	P	Pn	13 39 52.8	-1.0
	comp=Z,80nm,0.6s						
BO02	Sierra Bellavi	6.83	178	P	Pn	13 39 58.4	+2.8
	comp=Z,64nm,0.7s						
GO05	Hualane	7.07	185	P	Pn	13 39 56.8	-2.2
	comp=Z,35nm,0.5s						
H03N1	Juan Fernandez	8.66	229	Pn	Pn	13 40 17.9	-2.5
H03N1				T	T	13 48 54.7	
	baz=55,slow=74,SNR=738						
H03N2	Juan Fernandez	8.67	229	Pn	Pn	13 40 18.2	-2.3
H03N2				T	T	13 48 54.6	
	baz=207,slow=74,SNR=3286						
H03S3	Juan Fernandez	8.89	227	Pn	Pn	13 40 20.5	-3.1
	baz=231,slow=72						
H03S3				Sn	Sn	13 41 52.8	-11
	baz=337,slow=74						
H03S1	Juan Fernandez	8.90	227	Pn	Pn	13 40 19.5	-4.2
	baz=231,slow=72						
H03S1				Sn	Sn	13 41 52.3	-11
	baz=203,slow=74						
H03S2	Juan Fernandez	8.91	227	Pn	Pn	13 40 20.0	-3.9
	baz=231,slow=72						
H03S2				Sn	Sn	13 41 51.9	-12
LPAZ	La Paz	11.93	14	Pn	Pn	13 41 06.2	+0.1
	comp=Z,0.5nm,0.3s,baz=185,slow=5.2,SNR=7.6						
LPAZ				LR	LR	13 46 13.5	
	comp=Z,162nm,19.6s,baz=179,slow=40						
	comp=Z,1.4nm,0.4s						
LPAZ				AML	AML		
LPAZ	La Paz	11.93	14	*e*P	Pn	13 41 05.6	-0.5
LPAZ	La Paz	11.93	14	P	Pn	13 41 05.9	-0.2
	comp=Z,6.0nm,0.6s						
CPUP	Villa Florida	12.38	86	Pn	Pn	13 41 11.2	-0.6
	comp=Z,0.1nm,0.3s,baz=249,slow=14,SNR=3.7						
CPUP				Lg	Lg	13 44 27.4	
	comp=Z,0.2nm,0.3s,baz=159,slow=20,SNR=1.7						
CPUP				LR	LR	13 46 27.0	
	comp=Z,276nm,19.9s,baz=242,slow=40						
	comp=Z,1.2nm,0.4s						
CPUP				AML	AML		
PLCA	Paso Flores	12.76	178	Pn	Pn	13 41 14.9	-1.9
	comp=Z,0.1nm,0.3s,baz=15,slow=20,SNR=1.8						
PLCA				Lg	Lg	13 44 44.3	
	comp=Z,0.1nm,0.3s,baz=44,slow=16,SNR=3.2						
PLCA				LR	LR	13 46 32.0	
	comp=Z,197nm,19.5s,baz=354,slow=39						
	comp=Z,0.5nm,0.4s						
PLCA				AML	AML		
SIV	San Ignacio	15.10	40	Pn	Pn	13 41 45.7	-3.1
	comp=Z,0.1nm,0.3s,baz=217,slow=11,SNR=11						
	comp=Z,1.1nm,0.4s						
SIV				AML	AML		
AQDB	Aquidauana	15.90	65	*e*P	Pn	13 41 59.4	+0.2
PTLB	Pontes e Lacer	16.68	44		P	13 42 12.8	+1.3
TRCB	Terra Rica	17.47	77	*e*P	Pn	13 42 19.6	+0.5
VILB	Vilhena	18.07	37	P	P	13 42 27.8	+0.9
LDASE	Londrina, Braz	18.59	80	*e*P	P	13 42 32.8	+0.2
SALV	Santo Antonio	18.64	53	*e*P	P	13 42 33.0	-0.2
FRTB	Fartura	19.96	82	P	Pn	13 42 48.8	-0.6
CZSB	Cruzeiro do Su	20.17	355	*e*P	P	13 42 49.6	-0.2
ARAG	Araguaiana, MT	21.63	60	*e*P	P	13 43 04.3	-1.4
BB19B	Bebedouro	21.65	77	*e*P	P	13 43 06.1	+0.2
SPB	Sao Paulo	21.76	84	P	P	13 43 08.5	+1.5
SPB				IAmb	IAmb	13 43 23.5	
	comp=Z,32nm,1.0s						
RCLB	Rio Claro- Sao	22.03	81	*e*P	P	13 43 09.9	-0.1
CLDB	Colider	22.26	43	*e*P	P	13 43 12.3	-0.2
CLDB	Colider	22.26	43	P	P	13 43 12.6	+0.2
	comp=Z,12nm,0.8s						
VAO	Valinhos	22.34	83	P	P	13 43 13.3	-0.1
VAO	Valinhos	22.34	83	*e*P	P	13 43 11.5	-1.8
IPMB	Ipameri, GO	23.27	70	*e*P	P	13 43 22.9	-0.2
PMNB	Patos De Minas	24.50	73	*e*P	P	13 43 34.6	-0.3
PMNB	Patos De Minas	24.50	73	P	P	13 43 35.8	+1.0
	comp=Z,28nm,0.8s						
BDFB	Brasilia	24.65	65	P	P	13 43 35.5	-0.7
	comp=Z,2.5nm,0.4s,baz=327,slow=5.9,SNR=4.5						
BDFB				LR	LR	13 54 37.4	
	comp=Z,228nm,20.3s,baz=231,slow=40						
	comp=Z,2.5nm,0.4s						
BDFB	Brasilia	24.65	65	P	P	13 43 35.7	-0.6
NPGB	Novo Progresso	25.59	39	*e*P	P	13 43 44.5	-0.2
MACA	Manacapuru-AM	26.59	24	P	P	13 43 54.2	+0.6
MACA				IAmb	IAmb	13 43 55.1	
	comp=Z,19nm,0.9s						
ITTB	Itaituba	27.65	35	*e*P	P	13 44 03.0	-0.2
BOAV	Boa Vista	31.85	20	P	P	13 44 41.1	+0.7
BOAV				IAmb	IAmb	13 44 41.9	
	comp=Z,6.0nm,0.8s						
BOAV	Boa Vista	31.85	20	*e*P	P	13 44 39.9	-0.5
NBMA	Muriti-CE	36.81	62	*e*P	P	13 45 23.0	-0.5
PMSA	Palmer Station	37.11	175	LR	LR	14 00 49.5	
	comp=Z,85nm,18.1s,baz=1.0,slow=36						
MDP	Montagnes des	37.38	31	LR	LR	14 01 30.3	
	comp=Z,87nm,20.8s,baz=140,slow=37						
RGM0	Gandoca	38.94	342	P	P	13 45 40.9	-0.4
JUD3	Juan Diaz 3	40.38	338	P	P	13 45 53.4	0.0
BILN	Bilwi Airport	43.41	343	P	P	13 46 18.3	+0.3
OBIP	Obispado Ponce	45.93	6	P	P	13 46 37.6	-0.5
SJG	San Juan	46.04	7	LR	LR	14 06 35.8	
	comp=Z,31nm,18.9s,baz=118,slow=37						
TEIG	Tepich	50.69	339	P	P	13 47 16.5	+1.6
	comp=Z,24nm,2.1s						
VNA3	Neumayer Olymp	54.69	160	P	P	13 47 43.7	-0.3
	comp=Z,3.4nm,0.7s						
VNA3	Neumayer Olymp	54.69	160	P	P	13 47 44.3	+0.3
	comp=Z,8.4nm,0.8s						
VNA2	Neumayer--Watz	55.31	159	P	P	13 47 48.1	-0.3
	comp=Z,6.5nm,0.6s,baz=283,slow=9.8						
SNAA	Sanae	56.91	159	⇑P	P	13 47 59.9	-0.1
	comp=Z,133nm,0.9s						
SNAA	Sanae	56.91	159	P	P	13 47 59.7	-0.2
	comp=Z,5.0nm,0.8s,baz=286,slow=6.0,SNR=13						
	comp=Z,5.0nm,0.8s						
SNAA	Sanae	56.91	159	P	P	13 47 59.8	-0.1
SNAA				IAmb	IAmb	13 48 00.8	
	comp=Z,7.9nm,1.0s						
SNAA	Sanae	56.91	159	P	P	13 47 59.9	-0.1
	comp=Z,7.8nm,1.1s						
TROLL	Troll, Antarti	58.63	160	⇑P	P	13 48 12.0	-0.1
	comp=Z,231nm,0.8s						
QSPA	South Pole Qui	62.27	180	P	P	13 48 36.9	-0.1
	comp=Z,2.9nm,0.8s,baz=271,slow=1.7,SNR=3.5						
	comp=Z,2.9nm,0.8s						
QSPA	South Pole Qui	62.27	180	P	P	13 48 37.6	+0.5
QSPA				IAmb	IAmb	13 48 38.2	
	comp=Z,4.5nm,0.9s						
QSPA	South Pole Qui	62.27	180	P	P	13 48 37.5	+0.5
	comp=Z,11nm,2.2s						
U54A	Nelsons Funny	64.92	350	P	P	13 48 55.5	+0.8
U54A				IAmb	IAmb	13 49 18.8	
	comp=Z,9.1nm,1.1s						
TXAR	Lajitas Array	64.92	329	P	P	13 48 55.7	+0.8
	comp=Z,0.5nm,0.8s,baz=154,slow=8.2,SNR=6.2						
	comp=Z,0.5nm,0.8s						
TXAR	Lajitas Array	64.92	329	P	P	13 48 54.4	-0.5
TX31	Lajitas Ar. Si	64.92	329	P	P	13 48 54.2	-0.8
TX31				IAmb	IAmb	13 49 06.7	
	comp=Z,5.2nm,1.2s						
WVT	Waverly	65.66	345	P	P	13 48 59.6	+0.3
	comp=Z,5.0nm,1.1s						
PBMO	Poplar Bluff	66.90	343	P	P	13 49 08.1	+0.7
PBMO				IAmb	IAmb	13 49 18.0	
	comp=Z,6.8nm,0.7s						
MNTX	Cornudas Mount	67.70	329	P	P	13 49 13.3	+0.7
	comp=Z,3.4nm,0.9s						
MNTX				pP	sP	13 49 22.1	+2.2
CCM	Cathedral Cave	68.31	343	P	P	13 49 17.3	+1.1
	comp=Z,9.2nm,1.1s						
CCM				pP	sP	13 49 26.1	+2.7
S39A	Bolivar	68.54	341	IAmb	IAmb	13 49 28.8	
	comp=Z,8.1nm,1.0s						
R40A	Maddies Statio	68.81	342		P	13 49 20.0	+0.7
DBIC	Dimbokro	72.54	72	P	P	13 49 42.6	0.0
	comp=Z,6.2nm,0.8s,baz=209,slow=9.4,SNR=6.2						
DBIC				LR	LR	14 18 49.4	
	comp=Z,38nm,21.1s,baz=177,slow=34						
	comp=Z,6.2nm,0.8s						
DBIC	Dimbokro	72.54	72	P	P	13 49 42.1	-0.6
DBIC				IAmb	IAmb	13 50 07.0	
	comp=Z,15nm,1.2s						
DBIC	Dimbokro	72.54	72	P	P	13 49 42.3	-0.4
	comp=Z,11nm,0.8s						
SDCO	Great Sand Dun	72.87	332	P	P	13 49 44.0	-0.5
ECSD	EROS Data Cent	75.07	341	P	P	13 49 57.1	+0.3
	comp=Z,7.1nm,2.2s						
ECSD				pP	PcP	13 50 06.8	-3.6
HWUT	Hardware Ranch	78.67	330	IAmb	IAmb	13 50 29.2	
	comp=Z,4.2nm,0.8s						
HWUT	Hardware Ranch	78.67	330	P	P	13 50 19.1	+1.7
	comp=Z,5.9nm,1.0s						
HWUT				pP	PcP	13 50 28.5	+2.2
MAW	Mawson	78.74	164	LR	LR	14 26 04.9	
	comp=Z,53nm,18.1s,baz=256,slow=36						
PDAR	Pinedale Array	78.77	332	P	P	13 50 19.4	+1.4
	comp=Z,0.3nm,0.3s,baz=172,slow=2.8,SNR=5.2						
	comp=Z,0.3nm,0.3s						
PDAR	Pinedale Array	78.77	332	P	P	13 50 18.7	+0.7
HVU	Hansel Valley	79.35	330		P	13 50 20.6	-0.5
TSUM	Tsumeb	80.13	106	P	P	13 50 25.4	-0.5
	comp=Z,9.8nm,1.1s						
TORD	Torodi Ar. Bea	81.41	70	P	P	13 50 32.9	+0.2
	comp=Z,3.1nm,0.8s,baz=256,slow=4.5,SNR=13						
	comp=Z,3.1nm,0.8s						
TORD	Torodi Ar. Bea	81.41	70	P	P	13 50 32.6	0.0
HLID	Hailey	81.50	330	pP	pP	13 50 44.0	+6.0
	comp=Z,4.8nm,1.4s						
MCMT	McKenzie Canyo	81.82	331	P	P	13 50 33.5	-0.9
BOSA	Boshof	82.19	118	P	P	13 50 36.6	-0.2
	comp=Z,3.5nm,0.8s,baz=243,slow=4.5,SNR=3.3						
BOSA				LR	LR	14 24 49.3	
	comp=Z,19nm,19.0s,baz=206,slow=34						
	comp=Z,3.5nm,0.8s						
BOSA	Boshof	82.19	118	P	P	13 50 36.0	-0.8
BOSA				IAmb	IAmb	13 50 55.5	
	comp=Z,11nm,1.1s						
PLID	Pearl Lake	83.40	330	P	P	13 50 42.9	+0.3
LBTB	Lobatse	84.13	115	P	P	13 50 46.8	-0.1
LBTB				IAmb	IAmb	13 51 09.2	
	comp=Z,9.2nm,1.3s						
LBTB	Lobatse	84.13	115	P	P	13 50 46.1	-0.8
JCC	Jacoby Creek,	84.19	323	P	P	13 50 46.3	-0.1
CASY	Casey	86.06	181	P	P	13 50 56.7	+1.1
CASY				IAmb	IAmb	13 50 57.2	
	comp=Z,4.3nm,0.9s						
CASY	Casey	86.06	181	P	P	13 50 56.5	+0.9
	comp=Z,5.6nm,2.1s						
MDT	Midelt	87.39	51	LR	LR	14 29 17.6	
	comp=Z,40nm,20.0s,baz=274,slow=35						
MRZ	Mangatainoka R	87.92	224	P	P	13 51 04.3	-0.9
ASAR	Alice Springs	123.29	208	PKP	PKPdf	13 57 11.8	-1.1
	comp=Z,0.4nm,0.9s,baz=151,slow=2.1,SNR=6.0						
WRA	Warramunga Arr	126.40	210	PKP	PKPdf	13 57 18.1	-0.8
	comp=Z,1.0nm,0.7s,baz=155,slow=2.0,SNR=11						
H11S2	WAKE ISLAND Hy	126.45	273	T	T	16 16 22.1	
	baz=112,slow=75,SNR=34						
H11S1	WAKE ISLAND Hy	126.46	273	T	T	16 16 22.7	
	baz=112,slow=75,SNR=49						
H11S3	WAKE ISLAND Hy	126.46	273	T	T	16 16 23.2	
	baz=112,slow=75,SNR=39						
H11N3	WAKE ISLAND Hy	126.70	275	T	T	16 16 47.7	
	baz=113,slow=74						
H11N1	WAKE ISLAND Hy	126.72	275	T	T	16 17 04.5	
	baz=113						
H11N2	WAKE ISLAND Hy	126.72	275	T	T	16 17 08.9	
	baz=113,slow=74						
BVAR	Borovoye Array	142.17	38	PKP	PKPdf	13 57 47.7	+0.5
	comp=Z,0.4nm,0.5s,baz=18,slow=5.0,SNR=1.7						
UGM	Wanagama	144.31	183	PKPdf	PKPab	13 57 50.5	+0.4
BBJI	Bungbulang	144.78	178	PKPdf	PKPab	13 57 51.7	-0.2
KKAR	Karatay Array	145.63	54	PKPdf	PKPdf	13 57 54.1	+0.6
KURK	Kurchatov	147.74	37	PKPdf	PKPdf	13 57 57.1	+0.3
KURBB	Kurchatov Arra	147.75	37	PKPbc	PKPdf	13 57 58.1	+1.3
	comp=Z,2.2nm,0.7s,baz=302,slow=3.5,SNR=20						
ZALV	Zalesovo Beam	148.60	28	PKPbc	PKPbc	13 58 02.6	+0.8
	comp=Z,6.7nm,0.8s,baz=300,slow=3.0,SNR=26						
ZALV	Zalesovo Beam	148.60	28		PKPbc	13 58 01.8	0.0
MKAR	Makanchi Array	151.92	41	PKPbc	PKPbc	13 58 10.2	+0.1
	comp=Z,2.7nm,0.7s,baz=326,slow=2.2,SNR=26						

AZER 02 13:47:22.1, 41°.45N×48°.20E, h6km, ml0.2, Eastern Caucasus

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
QSAR	Qusar	0.08	34	P	Pg	13 47 25.2	+1.2
QSAR				S	Sg	13 47 27.4	+2.1
QUBA	Quba, Azerbaij	0.24	113	P	Pg	13 47 30.1	+3.3
QUBA				S	Sg	13 47 35.8	+5.9
XNQ	Khinaliq	0.28	190	P	Pb	13 47 30.8	+1.1
XNQ				S	Sb	13 47 36.8	+2.1

DRS 02 13:47:25.9, 42°.40N×47°.05E, h15km, Eastern Caucasus

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GNBR	Gunib	0.06	263	*i* Pg	Pg	13 47 28.8	-0.1
	1μm,0.4s						
GNBR				*e*Sg	Sg	13 47 30.8	0.0
	6μm,0.2s						
ARKR	Arakani	0.21	349	*e*Pg	Pb	13 47 31.8	+0.3
	87nm,0.2s						
ARKR				*e*Sg	Sb	13 47 36.1	+0.9
	1μm,0.2s						
KMKR	Kumukh	0.27	172	*e*Pg	Pb	13 47 33.6	+1.0
	328nm,0.1s						
KMKR				*e*Sg	Sb	13 47 38.8	+1.8
	851nm,0.3s						
XNZR	Khunzakh	0.29	300	*e*Pg	Pb	13 47 33.6	+0.6
	231nm,0.3s						
XNZR				*e*Sg	Sb	13 47 38.7	+1.1

	88nm,0.4s						
UNCR	Uncukul	0.37	330	ePg	Pb	13 47 35.1	+0.9
	108nm,0.2s						
UNCR				eSg	Sn	13 47 41.8	-1.9
	153nm,0.4s						
BUJR	Buynaksk	0.43	6	ePg	Pb	13 47 36.3	+1.1
	97nm,0.3s						
BUJR				eSg	Sn	13 47 43.9	-1.4
	243nm,0.7s						
KRNR	Karanay	0.44	347	ePg	Pb	13 47 36.5	+1.0
	22nm,0.7s						
KRNR				eSg	Sn	13 47 44.2	-1.4
	60nm,0.3s						
SGKR	Sergokala	0.46	82	ePg	Pn	13 47 37.4	-0.6
	22nm,0.1s						
SGKR				eSg	Sn	13 47 46.2	+0.3
	207nm,0.3s						
URKR	Urkarakh	0.49	118	ePg	Pn	13 47 38.0	-0.6
	82nm,0.1s						
URKR				eSg	Sn	13 47 47.1	+0.2
	113nm,0.3s						
BTLR	Botlikh	0.67	294	ePg	Pb	13 47 39.7	+0.4
	20nm,0.3s						
BTLR				eSg	Sb	13 47 49.6	+1.2
	36nm,0.3s						
AKT	Akhty	1.05	151	ePg	Pg	13 47 47.3	+1.1
	36nm,0.2s						
AKT				eSg	Sn	13 48 02.6	+2.0
	65nm,0.3s						

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*SJA **02** 14:25:55.3±0.7, 27°.46S×71°.93W, h10^{km}, ML3.8, MW3.5*
*GUC **02** 14:26:00.5±0.6, 27°.64S×71°.53W, h31^{km}±3^{km}, ML3.5*
ISC 02 14:25:58.9±1.6**, 27°.54S**±0°.03×**71°.60W**±0°.06**, h7**^{km}±10^{km}**,**
n30, σ2^{s}.14/57**, 3C-3D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	Llanos de Chal	0.81	145	eP	Pg	14 26 15.1	+0.6
AC04				eS	Sg	14 26 25.0	0.0
AC04				IAML		14 26 26.6	
	comp=Z,3µm,0.4s						
AC04	Llanos de Chal	0.81	145	⇓eP	Pg	14 26 15.0	+0.6
AC04				eS	Sg	14 26 24.7	-0.3
AC04				IAML		14 26 26.7	
	comp=E,9µm,0.4s						
AC06	Mina Casimiro	1.12	81	⇓eP	Pg	14 26 20.5	+0.1
AC06				eS	Sg	14 26 35.6	+0.6
AC06				IAML		14 26 38.9	
	comp=N,1µm,0.5s						
GO03	Copiapo	1.22	93	eP	Pn	14 26 22.1	-0.3
GO03				eS	Sg	14 26 38.9	+0.9
GO03				IAML		14 26 40.1	
	comp=Z,980nm,0.5s						
GO03	Copiapo	1.22	93	⇓eP	Pn	14 26 22.1	-0.3
GO03				eS	Sg	14 26 38.6	+0.6
GO03				IAML		14 26 46.3	
	comp=E,1µm,0.3s						
AC01	Pan de Azucar	1.65	33	⇑eP	Pn	14 26 28.5	+0.1
LCO	Las Campanas	1.67	152	eP	Pb	14 26 29.8	-0.3
LCO				eS	Sn	14 26 50.4	-0.2
LCO				IAML		14 26 53.8	
	comp=Z,1µm,0.6s						
LCO	Las Campanas	1.67	152	⇑eP	Pn	14 26 29.4	+0.6
LCO				eS	Sn	14 26 50.0	-0.7
AC05	El Transito	1.74	138	eP	Pn	14 26 29.8	0.0
AC05				eP	Pb	14 26 31.1	-0.3
AC05				eS	Sn	14 26 47.4	-5.0
AC05	El Transito	1.74	138	eP	Pn	14 26 29.6	-0.2
AC05				eS	Sn	14 26 52.0	-0.3
AC05				IAML		14 26 58.5	
	comp=N,727nm,0.5s						
AC02	Maricunga	2.31	73	eP	Pb	14 26 40.2	-1.0
AC02				eS	Sg	14 27 13.0	-0.3
AC02				IAML		14 27 14.9	
	comp=Z,503nm,0.3s						
AC02	Maricunga	2.31	73	⇑eP	Pb	14 26 40.1	-1.2
AC02				eS	Sb	14 27 10.9	+0.6
AC02				IAML		14 27 15.5	
	comp=E,800nm,0.4s						
GO04	Tololo Observa	2.72	165	eP	Pn	14 26 38.9	-4.4
GO04				eP	Pn	14 26 44.2	+1.0
GO04				eS	Sn	14 27 18.4	+1.9
GO04				eS	Sb	14 27 20.4	-1.3
GO04				IAML		14 27 34.6	
	comp=Z,310nm,0.8s						
GO04	Tololo Observa	2.72	165	eP	Pn	14 26 44.2	+1.0
GO04				eS	Sn	14 27 17.6	+1.1
CO01	Juntas del Tor	2.77	152	eS	Sn	14 27 18.4	+0.7
CO01				IAML		14 27 29.1	
	comp=E,266nm,0.3s						
PB14	IPOC Station P	3.10	21	eP	Pn	14 26 48.4	-0.1
PB14				eS	Sg	14 27 40.9	+2.5
CO06	Fray Jorge	3.12	181	iP	Pn	14 26 48.1	-0.5
AROD	Rodeo	3.21	145	eP	Pn	14 26 48.4	-1.8
AROD				eP	Pb	14 26 53.2	-3.4
AROD				eS	Sb	14 27 35.3	-0.8
VCA	Vinchina	3.23	112	eP	Pn	14 26 49.9	-0.3
VCA				eP	Pb	14 26 55.6	-1.0
VCA				eS	Sn	14 27 18.6	-10
VCA				IAML		14 27 52.3	
	comp=Z,172nm,0.8s						
ACDV	Cuesta del Vie	3.41	141	eP	Pb	14 26 57.7	-2.1
ACDV				eS	Sg	14 27 49.9	+1.5
TINO	Tinogasta	3.61	99	eP	Pn	14 26 52.9	-2.5
TINO				eP	Pb	14 26 58.9	-4.3
TINO				IAML		14 28 09.8	
	comp=Z,72nm,0.8s						
CO02	Combarbal	3.69	172	eP	Pn	14 26 57.1	+0.6
CO02				eS	Sg	14 27 58.0	+0.6
CO02				IAML		14 27 58.6	
	comp=Z,202nm,0.4s						
CO02	Combarbal	3.69	172	iP	Pn	14 26 56.9	+0.4
ACCO	Cerro Coronel	3.76	144	eP	Pn	14 27 02.0	+4.3
ACCO				eS	Sb	14 27 52.9	+1.0
ACCO				IAML		14 28 00.9	
	comp=Z,103nm,0.8s						
ACLC	CERRO LA CRUZ	4.50	116	eP	Pn	14 27 11.1	+3.4
ACLC				eS	Sb	14 28 15.7	+2.6
CO04	Los Peladeros	4.52	173	eP	Pn	14 27 09.7	+1.6
RTLS	Leoncito	4.69	155	eP	Pn	14 27 14.7	+4.2
RTLS				eS	Sb	14 28 13.9	-4.7
PB05	IPOC Station P	4.84	16	eP	Pn	14 27 11.8	-0.5
CFA	Coronel Fontan	5.00	145	eP	Pn	14 27 18.1	+3.7
CFA				eP	Pb	14 27 18.4	-8.4
CFA				eS	Sn	14 28 18.4	+5.8
PB06	IPOC Station P	5.15	21	eP	Pn	14 27 16.8	+0.1

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*SOME **02** 14:28:34.6, 39°.12N×76°.13E, h5^{km}*
*IDC **02** 14:28:35.4±1.1, 39°.00N×75°.90E, h0^{km}, mb3.6/6, mbtmp3.5/10, ML2.9/4, Error ellipse: s-maj=22.8km s-min=15.0km az=82.0*
*NNC **02** 14:28:38.0±1.4, 39°.23N×76°.08E, h0^{km}, mb4.1, mpv3.6, Error ellipse: s-maj=10.3km s-min=6.6km az=157.0*
*KRNET **02** 14:28:38.9±0.1, 39°.04N×75°.83E, mb3.8*
*NEIC **02** 14:28:42.5±1.4, 39°.30N±0°.07×75°.87E±0°.08, h10^{km}±1^{km}, mb4.1/12, Error ellipse: s-maj=11.7km s-min=9.9km az=156.0*
ISC 02 14:28:40.2±0.6**, 39°.25N**±0°.03×**75°.97E**±0°.03**, h10**^{km}**, n93,**
σ2^{s}.20/117**, mb3.8**/8**, 22C-14D, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SFK	Sufi-Kurgan	2.05	293	⇑eP	Pb	14 29 16.8	-0.9
SFK				⇑eS	Sg	14 29 44.4	-1.7
NRN	Naryn	2.18	1		Pb	14 29 19.1	-0.9
SALK	Salom-Alik	2.32	315	⇑eP	Pb	14 29 21.5	-0.7
SALK				⇑eS	Sg	14 29 52.6	-2.1
OHH	Osh	2.76	299	⇓eP	Pb	14 29 26.9	-2.8
OHH				⇓eS	Sb	14 30 01.9	-1.6
TARG	Taragay, Kyrgy	2.85	29		Pb	14 29 28.4	-3.0
KDJ	Kajisay	3.02	17	⇑eP	Pb	14 29 33.6	-0.6
KDJ				⇑eS	Sg	14 30 13.3	-4.0
KDJ	Kajisay	3.02	17		Pb	14 29 30.4	-3.9
ARSB	Arslanbob	3.08	313	⇑eP	Pb	14 29 32.2	-3.0
ARSB				⇑eS	Sb	14 30 10.8	-2.1
ARSB	Arslanbob	3.08	313	Pn	Pn	14 29 29.9	+0.8
WUS	Wushi	3.16	51		Pb	14 29 33.7	-2.9
DRK	Karamyk	3.24	275	⇑eP	Pn	14 29 32.2	+0.8
DRK				⇑eS	Sn	14 30 11.2	+1.1
DRK	Karamyk	3.24	275	Pn	Pn	14 29 32.9	+1.6
BOOM	Boomskoye usch	3.24	360	⇑eP	Pb	14 29 36.2	-1.7
BOOM				⇑eS	Sb	14 30 17.6	+0.1
BOOM	Boomskoye usch	3.24	360		Pb	14 29 34.0	-3.9
AAK	Ala-Archa	3.56	342	Pn	Pn	14 29 36.7	+1.0
	4.3nm,0.3s,baz=139,slow=8.1,SNR=11						
AAK				Sn	Sb	14 30 25.5	-1.3
	5.2nm,0.3s,baz=325,slow=20,SNR=4.2						
	7.8nm,0.3s						
AAK				AML	AML		
AAK	Ala-Archa	3.56	342	⇓Pg	Pb	14 29 43.7	+0.2
	15nm,0.6s						
AAK				⇓Lg	Lg	14 30 32.6	
	39nm,1.0s						
AAK	Ala-Archa	3.56	342		Pn	14 29 38.4	+2.6
FRU1	Bishkek	3.70	345	⇑eP	Pb	14 29 42.2	-3.5
FRU1				⇑eS	Sb	14 30 28.7	-1.9
FRU1	Bishkek	3.70	345	Pn	Pn	14 29 39.2	+1.8
PRZ	Przheval'sk	3.72	29	⇓eP	Pb	14 29 43.3	-2.8
PRZ				⇓eS	Sb	14 30 30.5	-0.9
PRZ	Przheval'sk	3.72	29	Pn	Pn	14 29 40.8	+2.8
ANVS	Anan'yevo	3.76	19	⇓eP	Pb	14 29 43.7	-3.1
ANVS				⇓eS	Sb	14 30 30.9	-1.5
KST	Kastek	3.79	360	Pg	Pb	14 29 48.1	+0.8
	4.7nm,0.2s						
KST				Lg	Lg	14 30 41.1	
	30nm,0.5s						
KST	Kastek	3.79	360	eP	Pb	14 29 46.4	-0.9
	3.3nm,0.5s						
KST				eS	Sg	14 30 38.1	-3.9
	30nm,0.5s						
TNSS	Tian-Shan	3.86	11	Pg	Pb	14 29 46.9	-1.7
	4.1nm,0.4s						
TNSS				Lg	Lg	14 30 39.1	
	10nm,1.0s						
TNSS	Tian-Shan	3.86	11	eP	Pb	14 29 46.9	-1.7
	4.1nm,0.4s						
TNSS				eS	Sg	14 30 39.1	-5.0
	10nm,1.0s						
ARK	Arkit	3.97	311	⇑eP	Pn	14 29 44.4	+3.1
ARK				⇑eS	Sb	14 30 32.3	-6.2
DGS	Degeres	3.99	358	Pg	Pb	14 29 50.1	-0.6
	8.5nm,0.6s						
DGS				Lg	Lg	14 30 45.1	
	17nm,0.6s						
DGS	Degeres	3.99	358	eP	Pb	14 29 50.1	-0.6
	8.5nm,0.6s						
DGS				eS	Sg	14 30 44.6	-3.8
	17nm,0.6s						
MDOK	Medeo	4.00	11	Pg	Pb	14 29 50.0	-0.8
	6.2nm,0.4s						
MDOK				Lg	Lg	14 30 44.8	
	54nm,0.8s						
MDOK	Medeo	4.00	11	eP	Pb	14 29 50.2	-0.5
	7.5nm,0.5s						
MDOK				eS	Sg	14 30 44.7	-3.8
	56nm,0.7s						
KNDC	Almaty	4.04	10	⇑Pg	Pb	14 29 52.8	+1.3
	20nm,0.4s						
KNDC				⇓Lg	Lg	14 30 47.6	
	146nm,0.8s						
BTK	Batken	4.05	283	⇑eP	Pn	14 29 43.7	+1.3
BTK				⇑eS	Sn	14 30 31.2	+1.2
BTK	Batken	4.05	283	Pn	Pn	14 29 44.9	+2.5
KOTS	Kotyrbulak	4.07	12	Pg	Pb	14 29 52.0	-0.1
	8.3nm,0.4s						
KOTS				Lg	Lg	14 30 48.1	
	43nm,0.6s						
KOTS	Kotyrbulak	4.07	12	eP	Pb	14 29 52.0	-0.1
	8.3nm,0.4s						
KOTS				eS	Sg	14 30 48.1	-2.9
	43nm,0.6s						
SATY	Saty	4.23	25	Pg	Pb	14 29 55.3	+0.6
	19nm,0.4s						
SATY				Lg	Lg	14 30 53.3	
	18nm,0.4s						
SATY	Saty	4.23	25	eP	Pb	14 29 54.9	+0.1
	16nm,0.5s						
SATY				eS	Sg	14 30 52.8	-3.2
	28nm,0.5s						
SGDS	Sogindy	4.32	347	Pg	Pb	14 29 56.7	+0.4
	10nm,0.4s						
SGDS				Lg	Lg	14 30 55.9	
	13nm,0.6s						
TRKS	Terek-Say	4.33	303	⇓eP	Pn	14 29 48.0	+1.7
TRKS				⇓eS	Sn	14 30 38.4	+1.5
KRBS	Karabastau	4.45	357	Pg	Pb	14 29 59.8	+1.3
	3.2nm,0.3s						
KRBS				Lg	Lg	14 31 01.3	
	2.1nm,0.7s						
KRBS	Karabastau	4.45	357	eP	Pb	14 29 59.4	+0.9
	8.4nm,0.5s						
KRBS				eS	Sg	14 31 00.7	-2.3
	15nm,0.6s						
KTBS	Karatobe	4.49	7	Pg	Pb	14 29 59.3	+0.1
	0.1nm,0.1s						
KTBS				Lg	Lg	14 31 00.8	
	27nm,0.6s						
KTBS	Karatobe	4.49	7	eP	Pb	14 29 59.3	+0.1
	0.1nm,0.1s						
KTBS				eS	Sg	14 31 00.8	-3.6
	27nm,0.6s						
KURS	Kuram	4.55	21	Pg	Pb	14 30 00.4	+0.3
	7.3nm,0.4s						
KURS				Lg	Lg	14 31 02.8	
	16nm,0.8s						
KURS	Kuram	4.55	21	eP	Pb	14 30 00.4	+0.3
	7.3nm,0.4s						
KURS				eS	Sg	14 31 02.8	-3.5
	16nm,0.8s						
KPKS	Kokpek	4.68	25	Pg	Pb	14 30 02.7	+0.2
	0.1nm,0.1s						
KPKS				Lg	Lg	14 31 06.4	
	23nm,0.6s						
KPKS	Kokpek	4.68	25	eP	Pb	14 30 02.7	+0.2
	0.1nm,0.1s						
KPKS				eS	Sg	14 31 06.4	-4.1
	23nm,0.6s						
PDGK	Podgornoye	4.86	32	⇑Pg	Pb	14 30 07.8	+2.2
	8.9nm,0.6s						
PDGK				⇓Lg	Lg	14 31 12.5	
	42nm,1.0s						
PDGK	Podgornoye	4.86	32		Pn	14 29 54.1	+0.6
ARXS	Arharly	5.15	15	Pg	Pb	14 30 11.3	+0.9
ARXS				Lg	Lg	14 31 20.9	
ARXS	Arharly	5.15	15	eP	Pb	14 30 11.7	+1.3
	3.2nm,0.6s						
ARXS				eS	Sg	14 31 21.7	-3.9
	16nm,0.7s						
BLB	Baldybastay	5.20	20	Pg	Pb	14 30 13.2	+1.9
	11nm,0.5s						
BLB				Lg	Lg	14 31 23.9	
	12nm,0.4s						
KK31	Karatay Array	5.63	315	⇑Pn	Pn	14 30 03.3	-0.7
	1.6nm,0.3s,baz=120,slow=14,SNR=21						
KK31				⇑Pg	Pg	14 30 22.5	-5.6
	2.1nm,0.5s,baz=133,slow=16,SNR=6.1						
KK31				⇓Sn	Sn	14 31 12.4	+3.6
	3.3nm,0.5s						
KK31				⇓Lg	Lg	14 31 38.4	
	4.3nm,0.5s,baz=126,slow=27						
KK31	Karatay Array	5.63	315		Pn	14 30 04.1	+0.1
KKAR	Karatay Array	5.63	315		Pn	14 30 04.2	+0.2
NIL	Nilore	6.00	202		Pn	14 30 11.5	+2.4
THN	Thein Dam	6.80	181	eP	Pn	14 30 19.3	-0.7
THN				eS	Sn	14 31 34.2	-3.3
THN				IAML		14 31 34.6	
	comp=E,147nm,0.1s						
THN				IAML		14 31 35.1	
	comp=N,149nm,0.1s						
DHRM	DHARAMSHALA	6.99	178	eP	Pn	14 30 22.1	-0.7
DHRM				eS	Sn	14 31 37.8	-4.7
DHRM				IAML		14 31 49.5	
	comp=E,150nm,0.8s						
DHRM				IAML		14 31 56.0	
	comp=N,149nm,0.4s						
KBL	Kabul	7.27	232	Pn	Pn	14 30 28.1	+1.5
SMLA	Simla	8.16	173	eS	Sn	14 32 06.4	-4.6
SMLA				IAML		14 32 17.9	
	comp=E,114nm,0.4s						
SMLA				IAML		14 32 18.0	
	comp=N,113nm,0.4s						
MAKZ	Makanchi	8.74	28	Pn	Pn	14 30 47.0	+0.3
MK31	Makanchi Array	8.85	29	Pn	Pn	14 30 49.3	+1.2
MKAR	Makanchi Array	8.85	29	Pn	Pn	14 30 49.7	+1.5
	comp=N,0.1nm,0.3s,baz=212,slow=12,SNR=3.0						
MKAR				Lg	Lg	14 33 18.1	
	comp=N,0.1nm,0.3s,baz=213,slow=29,SNR=2.4						
	comp=N,0.2nm,0.5s						
MKAR				AML	AML		
MKAR	Makanchi Array	8.85	29	Pn	Pn	14 30 48.7	+0.6
KURBB	Kurchatov Arra	11.52	8	Lg	Lg	14 34 42.0	
	baz=194,slow=27						
BVAR	Borovoye Array	14.30	346	Pn	Pn	14 32 00.9	-1.8
	baz=156,slow=14,SNR=2.5						
BVAR				Lg	Lg	14 36 06.1	
	baz=152,slow=38						
	comp=N,0.7nm,0.7s						
BORK	Borovoye	14.34	346	Pn	Pn	14 32 03.8	+0.6
AB31	Akbulak array	15.20	316	Pn	Pn	14 32 16.1	+1.3
ABKAR	Akbulak array	15.20	316	Pn	Pn	14 32 16.0	+1.2
LSA	Lhasa	15.71	123	Pn	Pn	14 32 24.8	+2.7
LSA				IAmb	IAmb	14 32 55.1	
	comp=Z,3.7nm,0.5s						
ZAA0	Zalesovo Array	15.89	19	Pn	Pn	14 32 24.0	+0.2
ZALV	Zalesovo Beam	15.89	19	Pn	Pn	14 32 24.4	+0.5
	comp=Z,0.2nm,0.3s,baz=217,slow=16,SNR=5.6						
	comp=Z,0.3nm,0.3s						
ZALV				AML	AML		
ZALV	Zalesovo Beam	15.89	19	Pn	Pn	14 32 25.0	+1.2
GAYA	Gaya	16.39	149	eP	Pn	14 32 30.8	+0.4
GAYA				eS	Sn	14 35 18.7	-14
ARTI	Arti	20.71	332	P	Pn	14 33 21.1	-1.7
FINES	FINESS Array B	37.53	323	P	P	14 35 52.3	-1.7
	comp=Z,0.7nm,0.6s,baz=120,slow=11,SNR=4.9						
	comp=Z,0.7nm,0.6s						
FINES	FINESS Array B	37.53	323	P	P	14 35 55.6	+1.6
ARCES	ARCESS Array B	40.20	335	P	P	14 36 16.7	+0.3
	comp=Z,1.5nm,1.0s,baz=109,slow=7.7,SNR=1.7						
	comp=Z,1.5nm,1.0s						
ARCES	ARCESS Array B	40.20	335	P	P	14 36 17.4	+1.0
ARCES				IAmb	IAmb	14 36 47.0	
	comp=Z,3.8nm,1.3s						
KS19	Wonju Array Si	40.27	76	P	P	14 36 19.1	+1.8
KS19				IAmb	IAmb	14 36 53.6	
	comp=Z,3.9nm,0.8s						
YULB	Yu-li	41.38	99	P	P	14 36 29.6	+2.9
USA0B	Ussuriysk Arra	41.42	64	P	P	14 36 29.5	+2.8
USA0B				IAmb	IAmb	14 36 48.7	
	comp=Z,12nm,1.4s						
USRK	Ussuriysk Ar.	41.42	64	P	P	14 36 29.4	+2.7
NC602	NORSAR Array S	44.48	321	P	P	14 36 52.2	+1.0
GEC2	GERESS Array S	44.62	304	P	P	14 36 54.3	+1.6
GEC2				IAmb	IAmb	14 37 28.2	
	comp=Z,1.4nm,1.0s						
GERES	GERESS Array B	44.62	304	P	P	14 36 50.8	-1.9
	comp=Z,0.5nm,0.6s,baz=74,slow=7.4,SNR=3.8						
	comp=Z,0.5nm,0.6s						
GERES	GERESS Array B	44.62	304	P	P	14 36 53.9	+1.2
NBO00	NORSAR Array S	44.84	321	P	P	14 36 54.2	0.0
TORD	Torodi Ar. Bea	69.67	271	P	P	14 39 45.1	-5.2
	comp=Z,0.2nm,0.4s,baz=53,slow=5.7,SNR=2.0						
	comp=Z,0.2nm,0.4s						
RIDG	Independent Ri	72.37	18	P	P	14 40 07.7	+1.7
RIDG				IAmb	IAmb	14 40 13.2	
	comp=Z,5.8nm,1.3s						
WRA	Warramunga Arr	80.25	126	P	P	14 40 48.2	-3.0
	comp=Z,0.7nm,1.1s,baz=316,slow=3.6,SNR=4.9						
	comp=Z,0.7nm,1.1s						
ASAR	Alice Springs	82.74	128	P	P	14 41 00.0	-4.4
	comp=Z,0.4nm,0.9s,baz=319,slow=4.7,SNR=5.1						
	comp=Z,0.4nm,0.9s						

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*SJA **02** 14:38:37.4±0.7, 27°.77S×72°.25W, h30^{km}, ML3.9, MW4.3*
*NEIC **02** 14:38:40.7±1.6, 27°.84S±0°.03×71°.71W±0°.04, h10^{km}±1^{km}, mb4.3/15, Mwr3.9/21, ML3.7(GUC), Error ellipse: s-maj=6.6km s-min=5.6km az=104.0, Moment Tensor Solution. Moment tensor: Scale 10^{14}Nm; M$_{rr}$6.80; M$_{\theta\theta}$1.14; M$_{\phi\phi}$-7.94; M$_{r\theta}$1.68; M$_{\theta\phi}$-1.63; M$_{\phi r}$-4.11; Fault plane solution: M$_{0}$8.81000×10^{14} NP1:ϕ_s28.63000°, δ34.64000°, λ120.79000°. NP2:ϕ_s172.72000°, δ60.77000°, λ70.53000°. Principal axes: T 8.4417, Plg68.0000°, Azm44.0000°; N 0.6976, Plg17.0000°, Azm183.0000°; P -9.1393, Plg14.0000°, Azm277.0000°;*
*NEIC **02** 14:38:40.7, 27°.84S×71°.71W, h10^{km}*
*IDC **02** 14:38:41.1±1.1, 27°.76S×71°.71W, h0^{km}, mb4.2/2, mbtmp3.9/6, ML3.8/4, MS2.7/1, Error ellipse: s-maj=28.0km s-min=16.7km az=72.0*
*GUC **02** 14:38:42.5±0.8, 27°.95S×71°.58W, h34^{km}±4^{km}, ML3.7*
ISC 02 14:38:39.2±1.5**, 27°.82S**±0°.03×**71°.75W**±0°.05**, h4**^{km}±9^{km}**,**
n94, σ1^{s}.66/117**, mb4.3**/6**, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	Llanos de Chal	0.71	123	eP	Pg	14 38 54.0	+1.2
AC04				eS	Sg	14 39 02.8	+0.7
AC04				IAML		14 39 04.4	
	comp=Z,2µm,0.5s						
AC04	Llanos de Chal	0.71	123	eP	Pg	14 38 53.8	+0.9
AC04				eS	Sg	14 39 01.7	-0.4
AC04				IAML		14 39 05.2	
	comp=E,5µm,0.3s						
AC04	Llanos de Chal	0.71	123		Pg	14 38 53.8	+0.9
AC04				Sg	Sg	14 39 02.0	-0.1
AC06	Mina Casimiro	1.32	70	eP	Pg	14 39 04.9	+0.3
AC06	Mina Casimiro	1.32	70		Pg	14 39 04.9	+0.3
AC06				Sn	Sn	14 39 21.6	-1.1
GO03	Copiapo	1.36	81	eP	Pg	14 39 05.7	+0.3
GO03				IAML		14 39 30.8	
	comp=E,2µm,0.5s						
GO03	Copiapo	1.36	81		Pg	14 39 05.7	+0.3
LCO	Las Campanas	1.50	142	eP	Pn	14 39 07.2	0.0
LCO				eS	Sn	14 39 25.6	-1.8
LCO	Las Campanas	1.50	142	Pn	Pn	14 39 07.4	+0.2
LCO				Sn	Sn	14 39 26.5	-0.8
AC05	El Transito	1.65	128	iP	Pn	14 39 09.5	+0.5
AC05				eS	Sn	14 39 28.7	-2.0
AC05				IAML		14 39 37.1	
	comp=N,1µm,0.5s						
AC05	El Transito	1.65	128		Pn	14 39 09.8	+0.7
AC05				Sn	Sn	14 39 28.9	-1.8
AC01	Pan de Azucar	1.96	32	eP	Pb	14 39 14.2	-1.4
AC01				eS	Sg	14 39 42.4	+0.2
AC01				IAML		14 39 53.4	
	comp=Z,416nm,0.8s						
AC01	Pan de Azucar	1.96	32	eP	Pb	14 39 14.1	-1.4
AC01	Pan de Azucar	1.96	32		Pb	14 39 14.1	-1.4
GO04	Tololo Observa	2.48	161	eP	Pn	14 39 15.9	-4.8
GO04				eP	Pn	14 39 21.6	+1.0
GO04				eS	Sn	14 39 45.9	-5.7
GO04				IAML		14 40 00.3	
	comp=Z,1µm,0.8s						
GO04	Tololo Observa	2.48	161	eP	Pn	14 39 21.4	+0.7
GO04	Tololo Observa	2.48	161		Pn	14 39 21.7	+1.0
GO04				Sn	Sn	14 39 49.9	-1.7
AC02	Maricunga	2.53	68	eP	Pb	14 39 24.5	-1.0
AC02				eS	Sb	14 39 54.4	-2.8
AC02				IAML		14 40 05.3	
	comp=Z,549nm,0.7s						
AC02	Maricunga	2.53	68	eP	Pb	14 39 24.4	-1.2
AC02				IAML		14 40 05.9	
	comp=E,948nm,0.3s						
AC02	Maricunga	2.53	68	Pn	Pb	14 39 24.4	-1.2
CO01	Juntas del Tor	2.59	146	eP	Pn	14 39 24.6	+2.4
CO01				eS	Sn	14 39 55.5	+1.2
CO01				IAML		14 40 06.2	
	comp=Z,555nm,0.5s						
CO01	Juntas del Tor	2.59	146	eP	Pn	14 39 24.3	+2.2
CO01				eS	Sn	14 39 54.2	0.0
CO01				IAML		14 40 02.3	
	comp=N,833nm,0.6s						
CO01	Juntas del Tor	2.59	146		Pn	14 39 24.4	+2.2
CO06	Fray Jorge	2.84	178	eP	Pn	14 39 25.1	-0.3
CO06	Fray Jorge	2.84	178		Pn	14 39 25.4	+0.1
CO06				Sn	Sn	14 39 57.4	-2.7
AROD	Rodeo	3.07	140	eP	Pn	14 39 32.6	+3.8
AROD				eS	Sb	14 40 12.7	+0.1
CO03	El Pedregal	3.15	163		Pn	14 39 30.7	+1.1
ACDV	Cuesta del Vie	3.28	136	eP	Pb	14 39 36.0	-2.2
ACDV				eS	Sb	14 40 15.9	-2.7
ACDV				IAML		14 40 31.9	
	comp=Z,210nm,0.5s						
PB14	IPOC Station P	3.41	21	eP	Pn	14 39 33.8	+0.4
PB14				eS	Sn	14 40 14.9	+0.5
PB14				IAML		14 40 43.4	
	comp=Z,163nm,0.7s						
PB14	IPOC Station P	3.41	21		Pn	14 39 34.0	+0.5
CO02	Combarbal	3.43	169	eP	Pn	14 39 34.3	+0.7
CO02				eS	Sn	14 40 13.6	-1.2

CO02				IAML		14 40 33.7	
	comp=Z,417nm,1.1s						
CO02	Combarbal	3.43	169	*e*P	Pn	14 39 34.0	+0.4
CO02	Combarbal	3.43	169		Pn	14 39 34.3	+0.7
TINO	Tinogasta	3.71	95	*e*P	Pb	14 39 42.9	-2.5
TINO				IAML		14 40 55.8	
	comp=Z,110nm,0.9s						
CO04	Los Peladeros	4.26	171	*e*P	Pn	14 39 46.2	+1.1
CO04	Los Peladeros	4.26	171		Pn	14 39 46.1	+1.0
RTLS	Leoncito	4.50	152	*e*P	Pn	14 39 52.9	+4.5
RTLS				*e*S	Sn	14 40 47.4	+6.0
RTLS				*e*S	Sb	14 40 52.9	-0.8
ACLC	CERRO LA CRUZ	4.51	112	*e*P	Pn	14 39 52.1	+3.6
ACLC				*e*S	Sb	14 40 48.9	-5.0
ACLC				IAML		14 40 56.8	
	comp=Z,91nm,1.0s						
ZON	Zonda	4.57	145	Pn	Pn	14 39 49.2	0.0
CFA	Coronel Fontan	4.85	142	Pn	Pn	14 39 56.2	+3.1
	comp=Z,4.0nm,0.3s,baz=315,slow=12,SNR=20						
CFA				Sn	Sn	14 40 51.2	+1.5
	comp=Z,3.8nm,0.3s,baz=55,slow=16,SNR=6.8						
	comp=Z,8.7nm,0.3s						
CFA				AML	AML		
CFA	Coronel Fontan	4.85	142	*e*P	Pn	14 39 56.6	+3.6
VA03	San Esteban	5.03	168	Pn	Pn	14 39 56.3	+0.7
PB05	IPOC Station P	5.14	16	*e*P	Pn	14 39 57.3	+0.2
PB05	IPOC Station P	5.14	16		Pn	14 39 57.0	-0.1
VA01	Torpederas	5.18	179	Pn	Pn	14 39 57.1	-0.5
PEL	Peldehue	5.38	170	Pn	Pn	14 39 58.3	-2.0
MT02	Curacav	5.44	175	Pn	Pn	14 40 02.5	+1.3
PB06	IPOC Station P	5.46	22	Pn	Pn	14 40 01.9	+0.3
MT05	Renca	5.62	171	Pn	Pn	14 40 04.7	+1.1
MT16	CCHEN	5.69	170	Pn	Pn	14 40 04.1	-0.5
MT03	Universidad Ad	5.75	170	Pn	Pn	14 40 05.1	-0.4
MT08	Bocatoma Ro	5.80	165	Pn	Pn	14 40 07.1	+0.8
AF01	San Pedro de A	5.83	34	Pn	Pn	14 40 06.7	0.0
MT09	Talagante	5.97	174	Pn	Pn	14 40 08.5	0.0
PB03	IPOC Station P	6.03	18		Pn	14 40 09.2	-0.2
MT13	San Alfonso	6.04	168	Pn	Pn	14 40 10.2	+0.9
MT01	Popeta	6.04	176	Pn	Pn	14 40 09.7	+0.4
BO04	La Punta	6.22	171	Pn	Pn	14 40 13.2	+1.2
PB07	IPOC Station P	6.30	16		Pn	14 40 13.0	-0.1
PB09	IPOC Station P	6.42	21	Pn	Pn	14 40 15.6	+0.8
BO01	Tunca	6.57	175	Pn	Pn	14 40 18.4	+1.7
PB02	IPOC Station P	6.69	15		Pn	14 40 18.4	0.0
H03S3	Juan Fernandez	8.58	224	Pn	Pn	14 40 42.4	-1.6
	baz=228,slow=71						
H03S1	Juan Fernandez	8.59	224	Pn	Pn	14 40 42.3	-1.7
	baz=228,slow=71						
H03S2	Juan Fernandez	8.60	224	Pn	Pn	14 40 42.4	-1.8
	baz=228,slow=71						
LPAZ	La Paz	11.96	17	Pn	Pn	14 41 31.6	+0.5
	comp=Z,0.3nm,0.3s,baz=207,slow=14,SNR=4.5						
	comp=Z,1.0nm,0.5s						
LPAZ				AML	AML		
LPAZ	La Paz	11.96	17		Pn	14 41 32.3	+1.2
CPUP	Villa Florida	12.94	87	Pn	Pn	14 41 46.0	+2.1
	comp=Z,0.1nm,0.3s,baz=181,slow=18,SNR=1.8						
CPUP				LR	LR	14 46 20.7	
	comp=Z,40nm,21.8s,baz=263,slow=36						
	comp=Z,1.6nm,0.9s						
CPUP				AML	AML		
CPUP	Villa Florida	12.94	87		Pn	14 41 46.0	+2.1
GO07	Milladeo Hill,	15.34	185	Pn	Pn	14 42 17.4	+1.0
SIV	San Ignacio	15.38	42	Pn	Pn	14 42 16.5	-0.7
	baz=221,slow=11,SNR=16						
	comp=Z,0.3nm,0.3s						
CPSB	Cacapava Do Su	16.21	104	Pn	Pn	14 42 27.8	-0.1
CPSB				IAmb	IAmb	14 42 41.9	
	comp=Z,15nm,1.2s						
TRCB	Terra Rica	17.99	78	Pn	Pn	14 42 47.8	-2.5
TRCB				IAmb	IAmb	14 43 03.3	
	comp=Z,18nm,0.5s						
VILB	Vilhena	18.31	38		Pn	14 42 53.3	-1.0
HOPE	Hope Point	36.86	146	P	P	14 45 47.9	-0.5
SMAI	San Martin Ant	40.43	177	P	P	14 46 18.9	+0.7
TLIG	Tlapa	52.06	327	P	P	14 47 49.8	-0.7
TLIG				IAmb	IAmb	14 48 05.8	
	comp=Z,3.2nm,0.8s						
SNAA	Sanae	57.23	159	P	P	14 48 27.4	+0.1
SNAA				IAmb	IAmb	14 48 37.7	
	comp=Z,2.3nm,1.0s						
ZAIG	Zacatecas	58.44	326	P	P	14 48 36.6	-0.1
ZAIG				IAmb	IAmb	14 48 51.4	
	comp=Z,2.2nm,0.7s						
QSPA	South Pole Qui	62.39	180	P	P	14 49 02.5	-0.5
QSPA				IAmb	IAmb	14 49 14.5	
	comp=Z,1.8nm,0.9s						
SLBS	Sierra La Lagu	63.09	321	P	P	14 49 07.8	-0.3
OZNA	Ozona	64.80	332	P	P	14 49 18.7	-0.4
OZNA				IAmb	IAmb	14 49 23.1	
	comp=Z,2.9nm,0.9s						
RLO	Rose Lookout	67.32	340	P	P	14 49 35.1	-0.1
DBIC	Dimbokro	73.04	73	P	P	14 50 11.6	+0.7
	comp=Z,3.0nm,0.7s,baz=237,slow=6.9,SNR=3.1						
	comp=Z,3.0nm,0.7s						
DBIC	Dimbokro	73.04	73	P	P	14 50 10.5	-0.3
DBIC				IAmb	IAmb	14 50 13.0	
	comp=Z,5.8nm,0.9s						
TORD	Torodi Ar. Bea	81.90	71	P	P	14 51 02.0	+1.7
	comp=Z,1.2nm,0.9s,baz=271,slow=4.0,SNR=5.1						
	comp=Z,1.2nm,0.9s						
TORD	Torodi Ar. Bea	81.90	71	P	P	14 51 00.8	+0.5
ASAR	Alice Springs	123.14	208	PKP	PKiKP	14 57 39.4	+1.3
	comp=Z,0.3nm,0.7s,baz=137,slow=2.1,SNR=1.5						
WRA	Warramunga Arr	126.22	211	PKP	PKiKP	14 57 45.7	+1.5
	comp=Z,0.2nm,0.6s,baz=147,slow=1.9,SNR=5.2						
BBJI	Bungbulang	144.92	179	PKPdf	PKPab	14 58 17.5	-0.1
KURK	Kurchatov	147.98	36	PKPdf	PKPdf	14 58 22.2	-0.3
KURBB	Kurchatov Arra	147.98	37	PKPbc	PKPab	14 58 28.6	+0.4
	comp=Z,0.4nm,0.5s,baz=303,slow=3.8,SNR=8.3						
ZALV	Zalesovo Beam	148.74	27	PKPbc	PKPab	14 58 30.4	-0.7
	comp=Z,3.4nm,0.7s,baz=308,slow=2.5,SNR=12						
MKAR	Makanchi Array	152.19	40	PKPbc	PKiKP	14 58 38.5	+2.2
	comp=Z,0.5nm,0.5s,baz=302,slow=2.1,SNR=6.0						

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*IDC **02** 15:00:09.9±0.8, 14°.98S×176°.71W, $h0^{km}$, mb4.0/7, mbtmp4.0/10, ML3.8/3, MS4.1/40, Error ellipse: s-maj=36.7km s-min=16.4km az=152.0*

*NEIC **02** 15:00:10.0±1.9, 14°.8S±0°.2×176°.78W±0°.07, $h10^{km}\pm1^{km}$, mb4.6/18, Error ellipse: s-maj=26.8km s-min=10.8km az=182.0*

*GCMT **02** 15:00:17.0±0.2, 14°.93S±0°.01×176°.55W±0°.02, $h12^{km}$, MW5.0/125, Moment Tensor Solution. s55,c70; s125,c205; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-3.56±.06; $M_{\theta\theta}$3.31±.06; $M_{\phi\phi}$0.25±.05; $M_{r\theta}$0.01±.20; $M_{\theta\phi}$0.91±.05; $M_{\phi r}$-0.01±.25; Best double couple: $M_0$3.56100×10^{16} NP1:ϕ_s74.00000°,δ45.00000°, λ-90.00000°. NP2:ϕ_s255.00000°,δ45.00000°, λ-90.00000°. Principal axes: T 3.5630, Plg0.0000°, Azm345.0000°; N 0.0040, Plg0.0000°, Azm75.0000°; P -3.5600, Plg90.0000°, Azm234.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 02 15:00:11.2±0.5, **14°.8S**±0°.1×**176°.73W**±0°.07, **$h17^{km}$, n87, $\sigma 1^{s}.19$**/44, **mb4.4**/16, **MS4.2**/40, **1D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FUTU	Fugatoga	1.43	290	Pn	Pn	15 00 34.4	-1.9
AFI	Afiamalu	4.88	80	Pn	Pn	15 01 21.4	-2.6
	1.1nm,0.3s,baz=114,slow=17,SNR=0.9						
	14nm,0.6s						
AFI				AML	AML		
AFI	Afiamalu	4.88	80	Pn	Pn	15 01 23.0	-1.0
MSVF	Nonsavu	5.80	239	Pn	Pn	15 01 37.7	+1.2
	0.5nm,0.3s,baz=92,slow=15,SNR=4.2						
	6.4nm,0.7s						
MSVF				AML	AML		
MSVF	Nonsavu	5.80	239	Pn	Pn	15 01 36.9	+0.4
OUENC	Ouen Island, N	17.30	242		P	15 04 12.3	-1.1
RAR	Rarotonga	17.34	114	LR	LR	15 09 06.1	
	comp=Z,714nm,21.4s,baz=288,slow=31						
DZM	Mont Dzumac	17.51	243	Pn	P	15 04 16.4	+0.5
	0.1nm,0.3s,baz=56,slow=12,SNR=4.1						
	7.5nm,1.0s						
DZM				AML	AML		
ONTNC	Ouen Toro	17.59	242		P	15 04 16.4	-0.2
ONTNC				IAmb	IAmb	15 04 34.5	
	comp=Z,83nm,1.3s						
KOUNC	Koumac, New Ca	18.96	250	P	P	15 04 30.2	-1.5
KOUNC				IAmb	IAmb	15 04 45.7	
	comp=Z,72nm,1.4s						
HNR	Honiara	23.41	281	LR	LR	15 13 04.7	
	comp=Z,927nm,20.4s,baz=204,slow=33						
URZ	Urewera	23.99	192	LR	LR	15 13 03.5	
	comp=Z,1µm,20.1s,baz=33,slow=32						
PPT	Papeete	26.22	100	LR	LR	15 13 07.2	
	comp=Z,170nm,22.0s,baz=304,slow=30						
H11S2	WAKE ISLAND Hy	36.89	333	T	T	15 46 38.7	
	baz=153,slow=76,SNR=4.9						
H11S3	WAKE ISLAND Hy	36.90	333	T	T	15 46 41.7	
	baz=153,slow=76,SNR=9.5						
H11S1	WAKE ISLAND Hy	36.91	333	T	T	15 46 40.1	
	baz=153,slow=76,SNR=10						
H11N3	WAKE ISLAND Hy	37.89	334	T	T	15 47 55.8	
	baz=157						
H11N1	WAKE ISLAND Hy	37.89	334	T	T	15 47 54.3	
	baz=157						
H11N2	WAKE ISLAND Hy	37.91	334	T	T	15 47 57.8	
	baz=157						
WB0	Warramunga Arr	46.80	257	P	P	15 08 39.5	-0.9
WB0				IAmb	IAmb	15 08 50.1	
	comp=Z,8.0nm,1.2s						
WRA	Warramunga Arr	46.85	256	P	P	15 08 41.9	+1.2
	comp=Z,1.2nm,0.9s,baz=88,slow=7.6,SNR=8.8						
	comp=Z,1.2nm,0.9s						
WRA	Warramunga Arr	46.85	256	P	P	15 08 40.5	-0.2
AS31	Alice Springs	47.24	251	P	P	15 08 42.9	-0.9
ASAR	Alice Springs	47.24	251	P	P	15 08 45.0	+1.2
	comp=Z,2.9nm,0.7s,baz=86,slow=8.5,SNR=51						
	comp=Z,2.9nm,0.7s						
ASAR	Alice Springs	47.24	251	P	P	15 08 42.5	-1.3
GUMO	Guam	47.33	305	LR	LR	15 25 41.5	
	comp=Z,134nm,20.1s,baz=88,slow=32						
FITZ	Fitzroy Crossi	55.18	258	P	P	15 09 43.1	-0.3
DAV	Davao City (W)	61.18	287	LR	LR	15 35 14.5	
	comp=Z,181nm,19.9s,baz=86,slow=34						
VNDA	Vanda	63.66	185	LR	LR	15 33 39.9	
	comp=Z,92nm,21.7s,baz=3.5,slow=32						
MJAR	Matsushiro Arr	66.44	322	LR	LR	15 34 11.8	
	comp=Z,126nm,21.8s,baz=142,slow=31						
JOW	Kunigami	67.55	308	LR	LR	15 34 59.5	
	comp=Z,192nm,20.7s,baz=196,slow=31						
SHEM	Shemya Is, Ala	67.72	354	LR	LR	15 34 57.5	
	comp=Z,280nm,21.0s,baz=120,slow=31						
JNU	Nakatsue	69.06	315	LR	LR	15 36 26.3	
	comp=Z,139nm,18.8s,baz=114,slow=31						
PETK	Petropavlovsk-	71.12	344	LR	LR	15 37 19.6	
	comp=Z,233nm,21.5s,baz=158,slow=31						
KSRS	Korea Array	73.50	317	LR	LR	15 40 54.0	
	comp=Z,107nm,19.6s,baz=125,slow=33						
CMB	Columbia Colle	74.48	43	P	P	15 11 48.1	-0.7
CMB				IAmb	IAmb	15 12 01.0	
	comp=Z,6.7nm,1.4s						
ORV	Oroville	74.61	41	P	P	15 11 48.9	-0.7
PFO	Pinyon Flats O	74.91	49	LR	LR	15 39 02.1	
	comp=Z,99nm,19.1s,baz=229,slow=31						
USRK	Ussuriysk Ar.	75.00	324	LR	LR	15 39 14.3	
	comp=Z,304nm,20.9s,baz=172,slow=31						
KDAK	Kodiak Island	75.02	13	LR	LR	15 37 38.7	
	comp=Z,221nm,21.8s,baz=211,slow=30						
YBH	Yreka Blue Hor	75.11	39	LR	LR	15 37 19.8	
	comp=Z,129nm,20.6s,baz=240,slow=30						
MDPB	Devils Postpil	75.14	44	P	P	15 11 51.5	-1.4
MDPB				IAmb	IAmb	15 11 58.8	
	comp=Z,4.2nm,1.2s						
QSPA	South Pole Qui	75.24	180	P	P	15 11 53.1	+0.2
	comp=Z,3.1nm,0.9s,baz=323,slow=0.6,SNR=11						
QSPA				LR	LR	15 40 21.8	
	comp=Z,144nm,20.9s,baz=36,slow=32						
	comp=Z,3.1nm,0.9s						
QSPA	South Pole Qui	75.24	180	P	P	15 11 52.2	-0.7
QSPA				IAmb	IAmb	15 12 04.3	
	comp=Z,12nm,1.2s						
LPIG	La Paz	75.50	60	LR	LR	15 38 07.9	
	comp=Z,62nm,18.1s,baz=225,slow=30						
PNTR	Pine Nut	75.58	42	P	P	15 11 54.5	-1.0
PNTR				IAmb	IAmb	15 12 09.3	
	comp=Z,8.2nm,1.1s						
NVAR	Mina Array Bea	76.08	44	P	P	15 12 01.1	+2.8
	comp=Z,1.7nm,1.0s,baz=229,slow=9.0,SNR=6.8						
NVAR				LR	LR	15 37 11.5	
	comp=Z,84nm,20.6s,baz=238,slow=29						
	comp=Z,1.7nm,1.0s						
GMN	Gold Mountain	76.20	45	P	P	15 11 59.9	+0.8
GMN				IAmb	IAmb	15 12 12.5	
	comp=Z,5.3nm,1.5s						
KVN	Kaiserville	76.54	43	P	P	15 11 59.8	-1.0
KVN				IAmb	IAmb	15 12 14.3	
	comp=Z,3.0nm,1.3s						
NJ2	Nanjing	77.25	308	*e*P	P	15 12 05.6	+0.9
NJ2				pmax	pmax		
	comp=Z,16nm,0.6s						
BBB	Bella Bella	78.83	28	LR	LR	15 40 07.9	
	comp=Z,142nm,19.1s,baz=229,slow=30						
ELK	Elko	79.30	43	LR	LR	15 39 55.7	
	comp=Z,60nm,19.6s,baz=255,slow=30						
J18K	Innoko River	79.55	9	P	P	15 12 16.5	-0.3
SEY	Seymchan	81.14	346	LR	LR	15 42 43.7	
	comp=Z,165nm,20.2s,baz=150,slow=31						
M27K	Edge Creek, AK	81.63	16	P	P	15 12 27.8	-0.3
WRH	Wood River Hil	82.01	12	P	P	15 12 29.4	-0.4
NEW	Newport	82.06	36	LR	LR	15 41 23.8	
	comp=Z,85nm,20.3s,baz=225,slow=30						
DLBC	Dease Lake	82.36	23	LR	LR	15 43 29.1	
	comp=Z,245nm,18.6s,baz=222,slow=32						
IMAR	Indian Mountai	82.37	9	P	P	15 12 32.7	+1.0
ILAR	Eielson Array	82.52	12	P	P	15 12 35.1	+2.6
	comp=Z,1.3nm,1.0s,baz=231,slow=5.6,SNR=9.6						
ILAR				LR	LR	15 41 59.3	
	comp=Z,132nm,21.5s,baz=244,slow=30						
	comp=Z,1.3nm,1.0s						
ILAR	Eielson Array	82.52	12	P	P	15 12 32.4	-0.2
ANMO	Albuquerque	82.91	51	LR	LR	15 40 52.9	
	comp=Z,85nm,20.5s,baz=242,slow=29						
TXAR	Lajitas Array	82.98	57	P	P	15 12 38.0	+2.2
	comp=Z,0.3nm,0.9s,baz=237,slow=4.3,SNR=3.5						
TXAR				LR	LR	15 45 33.6	
	comp=Z,50nm,18.4s,baz=228,slow=33						
	comp=Z,0.3nm,0.9s						
PDAR	Pinedale Array	84.00	43	P	P	15 12 42.9	+1.9
	comp=Z,0.3nm,0.3s,baz=294,slow=3.6,SNR=4.4						
PDAR				LR	LR	15 42 33.0	
	comp=Z,32nm,20.2s,baz=258,slow=30						
	comp=Z,0.3nm,0.3s						
PDAR	Pinedale Array	84.00	43	P	P	15 12 39.8	-1.2
PMSA	Palmer Station	86.01	157	LR	LR	15 42 16.4	
	comp=Z,72nm,19.9s,baz=287,slow=29						
HHC	Hu-ho-hao-te	86.28	314	*e*P	P	15 12 52.2	-0.1
HHC				pmax	pmax		
	comp=Z,9.0nm,0.5s						
HHC				pmax	pmax		
	comp=Z,94nm,4.4s						
MAW	Mawson	87.31	199	LR	LR	15 49 43.6	
	comp=Z,176nm,20.0s,baz=118,slow=34						
YAK	Yakutsk	87.32	338	LR	LR	15 46 26.0	
	comp=Z,121nm,21.8s,baz=118,slow=32						
INK	Inuvik	88.48	15	LR	LR	15 46 55.4	
	comp=Z,89nm,19.4s,baz=232,slow=32						
PZH	PanZhiHua	89.14	298	P	P	15 13 07.1	+0.7
CMAR	Chiang Mai Arr	89.37	289	LR	LR	15 48 32.4	
	comp=Z,88nm,21.6s,baz=100,slow=32						
YKA	Yellowknife Ar	90.85	24	LR	LR	15 47 06.6	
	comp=Z,226nm,20.2s,baz=267,slow=31						
SONM	Songino Array	92.27	319	LR	LR	15 50 09.7	
	comp=Z,123nm,21.9s,baz=98,slow=32						
ELIB	Princess Elisa	92.41	186	*d*P	P	15 13 20.6	-0.2
	comp=Z,2.7nm,1.4s						
SNAA	Sanae	93.64	178	LR	LR	15 53 00.5	
	comp=Z,91nm,19.4s,baz=120,slow=34						
TLY	Talaya	95.17	322	LR	LR	15 53 30.9	
	comp=Z,191nm,19.5s,baz=208,slow=34						
ULM	Lac du Bonnet	95.51	40	LR	LR	15 49 35.3	
	comp=Z,95nm,21.0s,baz=220,slow=31						
ATAH	Atahualpa	96.19	99	LR	LR	15 47 09.5	
	comp=Z,100nm,21.4s,baz=241,slow=29						
CLL	Collm	142.75	350	L	L	16 08 00.0	
CLL				AMS	AMS	16 24 00.0	
	comp=N,100nm,23.2s						
CLL				AMS	AMS	16 24 00.0	
	comp=Z,100nm,25.1s						
BR131	Keskin Array S	143.63	319	PKPdf	PKPdf	15 19 44.8	-0.9
BRTR	Keskin Array B	143.63	319	PKP	PKPdf	15 19 45.5	-0.2
	comp=Z,1.4nm,0.9s,baz=79,slow=1.9,SNR=5.6						
BRTR	Keskin Array B	143.63	319	PKPdf	PKPbc	15 19 43.9	+0.8
MDUB	Mudurnu	144.69	322	PKPdf	PKPab	15 19 45.7	-0.5
GERES	GERESS Array B	144.98	348	PKPbc	PKPdf	15 19 47.2	-0.4
	comp=Z,0.2nm,0.4s,baz=15,slow=5.5,SNR=4.7						
GERES	GERESS Array B	144.98	348	PKPdf	PKPab	15 19 47.0	+0.1
FUORN	Ofenpass-Fuorn	147.74	351	PKPbc	PKPdf	15 19 53.5	+0.9

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*IDC **02** 15:12:06.0±0.8, 15°.04S×176°.76W, $h0^{km}$, mb4.1/8, mbtmp4.1/9, ML3.5/1, MS3.9/27, Error ellipse: s-maj=35.9km s-min=15.5km az=158.0*

*NEIC **02** 15:12:05.5±1.5, 14°.73S±0°.10×176°.66W±0°.07, $h10^{km}\pm1^{km}$, mb4.3/7, Error ellipse: s-maj=16.7km s-min=10.6km az=165.0*

*GCMT **02** 15:12:13.5±0.2, 14°.90S±0°.01×176°.54W±0°.02, $h14^{km}$, MW4.9/111, Moment Tensor Solution. s33,c42; s111,c156; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-3.10±.17; $M_{\theta\theta}$2.82±.12; $M_{\phi\phi}$0.28±.08; $M_{r\theta}$0.12±.19; $M_{\theta\phi}$0.97±.06; $M_{\phi r}$-0.07±.22; Best double couple: $M_0$3.12700×10^{16} NP1:ϕ_s69.00000°,δ44.00000°, λ-93.00000°. NP2:ϕ_s253.00000°,δ46.00000°, λ-87.00000°. Principal axes: T 3.1480, Plg1.0000°, Azm341.0000°; N -0.0430, Plg2.0000°, Azm71.0000°; P -3.1050, Plg88.0000°, Azm227.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 02 15:12:06.7±0.7, **14°.9S**±0°.2×**176°.66W**±0°.06, **$h17^{km}$, n50, $\sigma 2^{s}.13$**/28, **mb4.2**/11, **MS4.0**/24, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FUTU	Fugatoga	1.53	292	Pn	Pn	15 12 31.2	-2.1
AFI	Afiamalu	4.83	79	Pn	Pn	15 13 17.5	-1.2
	1.7nm,0.3s,baz=63,slow=20,SNR=4.3						
AFI				Sn	Sn	15 14 10.2	-4.2
	3.7nm,0.3s,baz=289,slow=23,SNR=2.0						
AFI				LR	LR	15 14 43.9	
	comp=Z,374nm,18.1s,baz=200,slow=32						
	25nm,0.7s						
AFI				AML	AML		
AFI	Afiamalu	4.83	79	Pn	Pn	15 13 17.4	-1.4
RAR	Rarotonga	17.24	114	LR	LR	15 21 10.7	
	comp=Z,303nm,19.0s,baz=281,slow=32						
OUENC	Ouen Island, N	17.33	242		Pn	15 16 05.0	-2.9
OUENC				IAmb	IAmb	15 16 24.2	
	comp=Z,63nm,1.3s						
DZM	Mont Dzumac	17.54	243	LR	LR	15 22 17.8	
	comp=Z,179nm,20.0s,baz=150,slow=35						
HNR	Honiara	23.50	281	LR	LR	15 25 01.8	
	comp=Z,642nm,20.9s,baz=204,slow=33						
URZ	Urewera	23.92	192	LR	LR	15 26 17.1	
	comp=Z,660nm,18.1s,baz=32,slow=36						
PPT	Papeete	26.13	100	LR	LR	15 26 36.6	
	comp=Z,72nm,19.0s,baz=298,slow=33						
KRVT	Keravat (AS076	32.57	286	LR	LR	15 30 23.6	
	comp=Z,130nm,18.4s,baz=135,slow=34						
PMG	Port Moresby	35.76	275	LR	LR	15 32 25.5	
	comp=Z,212nm,19.4s,baz=88,slow=34						
WRA	Warramunga Arr	46.90	257	P	P	15 20 37.4	+0.7
	comp=Z,1.7nm,1.1s,baz=90,slow=6.8,SNR=5.0						
	comp=Z,1.7nm,1.1s						
WRA	Warramunga Arr	46.90	257	P	P	15 20 36.4	-0.2
AS31	Alice Springs	47.28	251	P	P	15 20 38.4	-1.3
AS31				IAmb	IAmb	15 20 47.8	
	comp=Z,1.1nm,0.7s						
ASAR	Alice Springs	47.28	251	P	P	15 20 40.2	+0.6
	comp=Z,1.7nm,0.7s,baz=85,slow=8.6,SNR=36						
	comp=Z,1.7nm,0.7s						
ASAR	Alice Springs	47.28	251	P	P	15 20 39.0	-0.6
MJAR	Matsushiro Arr	66.55	322	LR	LR	15 46 41.0	
	comp=Z,115nm,21.7s,baz=138,slow=31						
JOW	Kunigami	67.66	308	LR	LR	15 47 53.4	
	comp=Z,150nm,20.0s,baz=215,slow=32						
SHEM	Shemya Is, Ala	67.81	354	LR	LR	15 49 10.2	
	comp=Z,193nm,19.1s,baz=120,slow=33						
JNU	Nakatsue	69.18	315	LR	LR	15 46 54.8	
	comp=Z,119nm,21.4s,baz=104,slow=30						
PETK	Petropavlovsk-	71.23	344	LR	LR	15 48 23.2	
	comp=Z,157nm,21.8s,baz=161,slow=30						
KSRS	Korea Array	73.61	317	LR	LR	15 53 19.5	
	comp=Z,75nm,19.1s,baz=120,slow=34						
PFO	Pinyon Flats O	74.91	49	LR	LR	15 47 41.7	
	comp=Z,66nm,19.7s,baz=228,slow=28						
USRK	Ussuriysk Ar.	75.11	324	LR	LR	15 50 37.9	
	comp=Z,241nm,21.9s,baz=175,slow=31						
YBH	Yreka Blue Hor	75.13	39	LR	LR	15 49 04.1	
	comp=Z,97nm,20.3s,baz=246,slow=30						
QSPA	South Pole Qui	75.15	180	P	P	15 23 49.6	+1.6
	comp=Z,3.8nm,1.0s,baz=27,slow=0.7,SNR=7.7						
	comp=Z,3.8nm,1.0s						
QSPA	South Pole Qui	75.15	180	P	P	15 23 48.8	+0.9
QSPA				IAmb	IAmb	15 23 57.6	
	comp=Z,12nm,1.3s						
NVAR	Mina Array Bea	76.09	44	P	P	15 23 57.9	+4.0
	comp=Z,2.4nm,0.9s,baz=230,slow=9.5,SNR=8.1						
NVAR				LR	LR	15 48 40.7	
	comp=Z,52nm,21.2s,baz=231,slow=29						
	comp=Z,2.4nm,0.9s						
NVAR	Mina Array Bea	76.09	44	P	P	15 23 52.1	-1.8
BBB	Bella Bella	78.88	28	LR	LR	15 51 44.4	
	comp=Z,99nm,19.1s,baz=228,slow=30						
ELK	Elko	79.31	43	P	P	15 24 15.4	+3.6
	comp=Z,4.0nm,1.3s,baz=272,slow=4.9,SNR=4.4						
ELK				LR	LR	15 50 40.3	
	comp=Z,52nm,21.1s,baz=252,slow=29						
	comp=Z,4.0nm,1.3s						
ELK	Elko	79.31	43	P	P	15 24 10.5	-1.4
ELK				IAmb	IAmb	15 24 16.9	
	comp=Z,1.8nm,0.9s						
HLID	Hailey	81.26	41	P	P	15 24 19.3	-2.9
HLID				IAmb	IAmb	15 24 28.6	
	comp=Z,3.8nm,1.2s						
NEW	Newport	82.09	36	LR	LR	15 57 10.9	
	comp=Z,63nm,18.0s,baz=218,slow=33						
BCAR	Beaver Creek A	82.30	15	P	P	15 24 26.2	-0.9
DLBC	Dease Lake	82.41	23	LR	LR	15 53 44.9	
	comp=Z,189nm,19.4s,baz=215,slow=30						
ILAR	Eielson Array	82.59	12	P	P	15 24 32.0	+3.5
	comp=Z,1.3nm,1.0s,baz=232,slow=6.8,SNR=8.0						
	comp=Z,1.3nm,1.0s						
ILAR	Eielson Array	82.59	12	P	P	15 24 28.6	+0.1
ANMO	Albuquerque	82.91	51	LR	LR	15 56 33.8	
	comp=Z,51nm,18.8s,baz=255,slow=32						
TXAR	Lajitas Array	82.96	57	P	P	15 24 34.7	+3.3
	comp=Z,0.7nm,1.0s,baz=212,slow=6.0,SNR=2.8						
TXAR				LR	LR	15 54 12.6	
	comp=Z,48nm,18.5s,baz=226,slow=30						
	comp=Z,0.7nm,1.0s						
L29M	L29M	83.31	17	P	P	15 24 31.6	-0.7
PDAR	Pinedale Array	84.01	43	P	P	15 24 38.9	+2.2
	comp=Z,0.8nm,0.9s,baz=208,slow=5.0,SNR=5.7						
PDAR				LR	LR	15 54 39.6	
	comp=Z,24nm,20.5s,baz=274,slow=30						
	comp=Z,0.8nm,0.9s						
PDAR	Pinedale Array	84.01	43	P	P	15 24 35.6	-1.1
PMSA	Palmer Station	85.91	157	LR	LR	15 56 39.3	
	comp=Z,48nm,19.6s,baz=294,slow=31						
HHC	Hu-ho-hao-te	86.39	314	*e*P	P	15 24 49.1	+0.7
HHC				pmax	pmax		
	comp=Z,11nm,0.6s						
HHC				pmax	pmax		
	comp=Z,180nm,4.6s						
PLCA	Paso Flores	92.17	133	LR	LR	15 58 41.8	
	comp=Z,80nm,20.2s,baz=332,slow=30						
BRTR	Keskin Array B	143.74	319	PKP	PKPdf	15 31 42.0	+0.6
	comp=Z,1.5nm,0.8s,baz=132,slow=1.8,SNR=8.1						
BRTR	Keskin Array B	143.74	319	PKPdf	PKPbc	15 31 39.8	+0.8
GERES	GERESS Array B	145.08	348	PKPbc	PKPab	15 31 43.0	+0.1
	comp=Z,0.5nm,0.3s,baz=1.9,slow=4.0,SNR=6.4						
GERES	GERESS Array B	145.08	348	PKPdf	PKPbc	15 31 42.4	-0.4

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*IDC **02** 15:20:29.0±1.3, 62°.12S×57°.75W, $h0^{km}$, mb4.0/4, mbtmp4.0/4, MS3.6/2, Error ellipse: s-maj=69.9km s-min=24.4km az=66.0*

*NEIC **02** 15:20:30.6±1.6, 62°.29S±0°.09×58°.4W±0°.1, $h10^{km}\pm2^{km}$, mb4.3/8, Error ellipse: s-maj=16.1km s-min=4.6km az=26.0*

ISC 02 15:20:31.4±0.8, **62°.4S**±0°.1×**58°.3W**±0°.1, **$h10^{km}$, n28, $\sigma 1^{s}.74$**/22, **mb4.0**/6, **2D, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ESPZ	Base Esperanza	1.16	151	Pn	Pn	15 20 51.5	-2.1
PMSA	Palmer Station	3.52	225	Pn	Pn	15 21 25.2	-0.8
ORCD	Orcadas	6.67	82	Pn	Pn	15 22 07.4	-1.9
BELA	Belgrano 2	17.23	163	Pn	Pn	15 24 30.1	-1.6

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VNA3  Neumayer Olymp   20.45 136 ⇓P     P      15 25 10.2 +1.6
      comp=Z,9.2nm,0.8s
VNA1  Neumayer--Stat   20.92 134  P     P      15 25 15.3 +1.6
      comp=Z,18nm,1.0s
VNA2  Neumayer--Watz   21.20 135  P     P      15 25 18.1 +1.4
      comp=Z,5.5nm,0.6s,baz=256,slow=10
SNAA  Sanae            22.62 137 ⇓P     P      15 25 33.3 +1.3
      comp=Z,229nm,1.0s
SNAA  Sanae            22.62 137  P     P      15 25 32.9 +0.9
      comp=Z,8.6nm,0.9s,baz=257,slow=8.6,SNR=17
SNAA                              LR    LR     15 32 45.8
      comp=Z,84nm,21.4s,baz=289,slow=32
      comp=Z,8.6nm,0.9s
SNAA  Sanae            22.62 137        P      15 25 33.2 +1.3
SNAA                              IAmb  IAmb   15 25 35.6
      comp=Z,12nm,0.9s
PLCA  Paso Flores      22.92 335  P     P      15 25 34.5 -0.9
      comp=Z,3.7nm,1.0s,baz=177,slow=13,SNR=5.0
      comp=Z,3.7nm,1.0s
PLCA  Paso Flores      22.92 335  P     P      15 25 34.1 -1.2
PLCA                              IAmb  IAmb   15 25 37.9
      comp=Z,8.6nm,1.2s
GO06  Curarrehue       24.21 334  P     P      15 25 47.0 -1.1
GO06                              IAmb  IAmb   15 25 50.6
      comp=Z,13nm,0.9s
TROLL Troll, Antarti   24.26 139  P     P      15 25 49.5 +1.2
      comp=Z,271nm,1.0s
QSPA  South Pole Qui   27.83 180  P     P      15 26 22.1 +1.5
      comp=Z,1.3nm,0.8s,baz=164,slow=1.7,SNR=6.3
      comp=Z,1.3nm,0.8s
QSPA  South Pole Qui   27.83 180  P     P      15 26 21.0 +0.4
QSPA                              IAmb  IAmb   15 26 30.2
      comp=Z,4.7nm,1.0s
CO01  Juntas del Tor   33.33 341  P     P      15 27 08.8 -0.7
PB06  IPOC Station P   40.41 344  P     P      15 28 10.1 +0.4
MAW   Mawson           43.53 152  P     P      15 28 34.8 +0.4
      comp=Z,2.1nm,1.0s,baz=225,slow=11,SNR=5.3
      comp=Z,2.1nm,1.0s
MAW   Mawson           43.53 152  P     P      15 28 34.6 +0.2
H10N3 ASCENSION HYDR63.05   50    T     T      16 39 24.2
      baz=201,slow=75,SNR=12
H10N1 ASCENSION HYDR63.05   50    T     T      16 39 24.5
      baz=201,slow=75,SNR=15
H10N2 ASCENSION HYDR63.07   50    T     T      16 39 25.5
      baz=201,slow=75,SNR=20
LPIG  La Paz           95.60 314  LR    LR     16 08 19.9
      comp=Z,62nm,18.8s,baz=227,slow=30
ARCES ARCESS Array B 144.15  37   PKhKP PKPpre 15 40 00.1
      comp=Z,2.1nm,0.7s,baz=242,slow=1.9,SNR=6.2
KKAR  Karatay Array  144.70  99   PKPdf PKPab  15 40 05.5 -0.6
MKAR  Makanchi Array 152.88 107   PKPbc PKPbc  15 40 25.4 -2.2
      comp=Z,0.4nm,0.5s,baz=215,slow=2.3,SNR=5.3
KURBB Kurchatov Arra 153.95  97   PKPbc PKPdf  15 40 26.7 +5.0
      comp=Z,0.4nm,0.9s,baz=242,slow=2.7,SNR=2.9
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*NIED **02** 15:21:34.7,26°.59N×142°.18E,h40^{km},MW4.6,Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M$_{rr}$3.85; M$_{\theta\theta}$-1.29; M$_{\phi\phi}$-2.56; M$_{r\theta}$-1.09; M$_{\theta\phi}$5.78; M$_{\phi r}$5.21; Fault plane solution: M$_0$8.37000×10^{15} NP1: ϕ_s101.00000°,δ38.00000°,λ29.00000°. NP2: ϕ_s348.00000°,δ72.00000°,λ125.00000°.*

*JMA **02** 15:21:34.7±0.1,26°.6N±0°.2×142°.2E±0°.4,h40^{km},MD5.2/22, MV4.8/22,NEAR CHICHIJIMA ISLAND*

JMA Felt IV J1 at NEAR CHICHIJIMA ISLAND .

*IDC **02** 15:21:35.4±1.9,26°.50N×141°.80E,h40^{km}±14^{km},mb4.1/26, mbtmp4.3/30,ML3.8/4,MS3.9/4,Error ellipse: s-maj=16.5km s-min=11.5km az=85.0*

*NEIC **02** 15:21:37.9±1.5,26°.56N±0°.08×141°.8E±0°.1,h56^{km}±4^{km}, mb4.7/104,Error ellipse: s-maj=16.5km s-min=12.2km az=95.0*

ISC 02 15:21:35.1±0.4,**26°.55N**±0°.05×**141°.93E**±0°.07,**h40^{km},n193, σ1^{s}26**/172,**mb4.7**/82,**MS4.1**/5,**1D,Bonin Islands region**

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Code  Station Name      Δ°  AZ°   Phase ID        Time     Res
                                  Op    ISC     h  m  s    ISC
JHH2  Haha-jima-NKT2   0.24  70   P     Pn     15 21 40.1 -2.7
JHH2                              A     A      15 21 40.1
      comp=N,1μm,0.3s,comp=E,1μm,0.5s
JHH2                              S     Sn     15 21 43.8 -4.2
CBIJ  Chichi jima      0.59  23   P     Pn     15 21 44.8 -2.3
CBIJ                              A     A      15 21 44.8
      comp=N,260nm,0.5s,comp=E,332nm,0.4s
CBIJ                              S     Sn     15 21 52.0 -3.6
JHJ2  Mitsune          6.79 345   Pn    Pn     15 23 13.2 +1.0
JHJ   Hachijo jima 2   6.80 345   Pn    Pn     15 23 12.0 -0.5
      comp=E,8.9nm,0.3s,baz=289,slow=22,SNR=6.2
      comp=E,88nm,0.6s
JHJ                               AML   AML
BSO3  Boso 3           8.31 352   P     Pn     15 23 31.7 -1.2
BSO4  Boso 4           8.52 351   P     Pn     15 23 35.9  0.0
JHU2  Hanno            9.53 347  eP     Pn     15 23 49.2 -0.6
JHU2                              S     Sn     15 25 34.3 -1.4
INU   Inuyama          9.73 336   Pn    Pn     15 23 56.9 +4.3
JYT   Yasato           9.76 352   P     Pn     15 23 51.8 -1.1
JGF   Kuroka           9.83 338   Pn    Pn     15 23 56.8 +2.8
JAG   Ashikaga        10.07 349   P     Pn     15 23 54.8 -2.4
JAG                              eS     Sn     15 25 45.9 -2.9
MJAR  Matsushiro Arr  10.45 343   Pn    Pn     15 24 01.8 -0.7
      comp=E,0.3nm,0.3s,baz=161,slow=12,SNR=16
      comp=E,1.5nm,0.4s
MJAR                              AML   AML
MJAR  Matsushiro Arr  10.45 343   Pn    Pn     15 24 03.5 +1.1
MAJO  Matsushiro      10.45 343   Pn    Pn     15 24 02.7 +0.2
MJB9  Matsu-Tunnel    10.46 343   Pn    Pn     15 24 04.5 +2.0
JTM   Tenmabayashi    14.22 357   Pn    Pn     15 24 51.0 -2.8
ERM   Erimo           15.46   3   Pn    Pn     15 25 08.9 -1.3
ERM                               IAmb  IAmb   15 25 18.0
      comp=Z,54nm,1.0s
KSRS  Korea Array     16.08 316   Pn    P      15 25 19.4 -1.8
      comp=Z,0.3nm,0.3s,baz=126,slow=11,SNR=6.9
      comp=Z,1.4nm,0.6s
KSRS                              AML   AML
JKA   Kamikawa-asahi  17.54   2   Pn    Pn     15 25 36.0 -0.5
YULB  Yu-li           18.96 265   P     Pn     15 25 54.9 +0.8
USRK  Ussuriysk Ar.   19.36 338   P     Pn     15 25 57.7 -0.9
      comp=Z,0.5nm,0.3s,baz=160,slow=9.8,SNR=14
      comp=Z,4.7nm,0.7s
USRK                              AML   AML
USRK  Ussuriysk Ar.   19.36 338   P     Pn     15 25 59.3 +0.7
USA0B Ussuriysk Arra  19.36 338   P     Pn     15 25 58.4 -0.2
YSS   Yuzhno-Sakhali  20.38   2   P     Pn     15 26 09.8 -0.8
MDJ   Mudanjiang      20.59 334   P     P      15 26 11.2 +0.6
MDJ                               pmax  pmax
      comp=Z,8.0nm,1.4s
NJ2   Nanjing         20.84 291  eP     Pn     15 26 14.6 -1.5
NJ2                               pmax  pmax
      comp=Z,42nm,0.6s
BNX   BinXian         22.39 333 ⇓P     P      15 26 28.4 -1.6
BNX                               pmax  pmax
      comp=Z,10.0nm,0.8s
H11N2 WAKE ISLAND Hy 23.92 101    T     T      15 51 17.0
      baz=292,slow=75,SNR=88
H11N1 WAKE ISLAND Hy 23.92 101    T     T      15 51 18.6
      baz=292,slow=75,SNR=75
H11N3 WAKE ISLAND Hy 23.93 101    T     T      15 51 18.1
      baz=292,slow=75,SNR=26
H11S3 WAKE ISLAND Hy 24.21 104    T     T      15 51 40.5
      baz=294,slow=75,SNR=28
H11S1 WAKE ISLAND Hy 24.21 104    T     T      15 51 39.6
      baz=294,slow=75,SNR=43
H11S2 WAKE ISLAND Hy 24.22 104    T     T      15 51 41.9
      baz=294,slow=75,SNR=42
HEH   HeiHe           26.16 339  eP     P      15 27 05.9 +0.3
HEH                               pmax  pmax
      comp=Z,21nm,0.8s
HILR  Hailar Array B  28.65 329   P     P      15 27 28.4 +0.4
      comp=Z,2.4nm,0.4s,baz=128,slow=9.0,SNR=4.1
      comp=Z,2.4nm,0.4s
HHC   Hu-ho-hao-te    28.84 307  eP     P      15 27 31.7 +1.9
HHC                               pmax  pmax
      comp=Z,10.0nm,0.5s
HHC                               pmax  pmax
      comp=Z,89nm,5.8s
PETK  Petropavlovsk-  29.03  20   P     P      15 27 33.0 +1.7
      comp=Z,2.2nm,0.8s,baz=210,slow=8.0,SNR=1.7
      comp=Z,2.2nm,0.8s
PETK  Petropavlovsk-  29.03  20   P     P      15 27 33.6 +2.4
PET   Petropavlovsk   29.25  21   P     P      15 27 35.0 +1.9
PET                               IAmb  IAmb   15 28 17.1
      comp=Z,21nm,1.2s
KRVT  Keravat (AS076  32.20 161   LR    LR     15 39 03.7
      comp=Z,89nm,21.3s,baz=16,slow=33
TOLI2 Tolitoli        32.45 222   P     P      15 28 02.6 +0.8
TOLI2                             IAmb  IAmb   15 28 05.6
      comp=Z,12nm,1.2s
LUWI  Luwuk           33.07 217   P     P      15 28 07.6 +0.4
LUWI                              IAmb  IAmb   15 28 34.4
      comp=Z,17nm,0.8s
LZH   Lanzhou         33.72 296  eP     P      15 28 12.9  0.0
LZH                               pP    pwP    15 28 33.3 +5.7
LZH                               pmax  pmax
      comp=Z,22nm,1.0s
SONM  Songino Array   34.95 317   P     P      15 28 23.7 +0.3
      comp=Z,0.9nm,0.4s,baz=125,slow=7.6,SNR=6.7
SONM                              PcP   PcP    15 30 56.3 +1.1
      comp=Z,0.7nm,0.4s,baz=137,slow=3.9,SNR=6.0
      comp=Z,0.9nm,0.4s
SONM  Songino Array   34.95 317   P     P      15 28 23.4  0.0
PZH   PanZhiHua       35.85 279   P     P      15 28 31.1 -0.3
YAK   Yakutsk         36.41 350   P     P      15 28 34.6 -0.9
GTA2  Gaotai          37.31 301  eP     P      15 28 43.7  0.0
GTA2                              pmax  pmax
      comp=Z,3.0nm,0.8s
GTA2                              LR    LR
      comp=N,140nm,13.6s
GTA2                              LR    LR
      comp=E,210nm,21.3s
GTA2                              LR    LR
      comp=Z,320nm,20.9s
AMKA  Amchitka        37.57  39   P     P      15 28 47.4 +1.9
KIWB  Kanaga Island   39.78  39   P     P      15 29 05.1 +1.0
CHTO  Chiang Mai      40.25 268   P     P      15 29 09.4 +1.0
CMAR  Chiang Mai Arr  40.37 268   P     P      15 29 09.8 +0.4
      comp=Z,1.7nm,0.5s,baz=60,slow=8.7,SNR=13
      comp=Z,1.7nm,0.5s
CMAR  Chiang Mai Arr  40.37 268   P     P      15 29 08.8 -0.6
MTN   Manton Dam      40.54 196   P     P      15 29 09.8 -0.8
MORE  Moreh           42.90 278   P     P      15 29 29.1 -0.9
KNRA  Kununurra       43.88 198   P     P      15 29 37.5 -0.4
WB0   Warramunga Arr  46.62 190   P     P      15 29 59.1 -0.4
WR8   Warramunga Arr  46.79 190   P     P      15 30 00.5 -0.4
WRAB  Tennant Creek   46.79 190   P     P      15 30 00.7 -0.2
WRA   Warramunga Arr  46.80 190   P     P      15 30 00.9 -0.1
      comp=Z,30nm,0.6s,baz=11,slow=8.7,SNR=208
WRA                               S     S      15 36 45.3 -3.3
      comp=Z,3.3nm,0.9s,baz=8.7,slow=14,SNR=11
WRA   Warramunga Arr  46.80 190   P     P      15 30 00.2 -0.8
AKUT  Akutan          47.02  40   P     P      15 30 03.7 +1.4
FITZ  Fitzroy Crossi  47.12 201   P     P      15 30 03.9 +0.5
EVN   Everest         48.66 285   P     P      15 30 16.2  0.0
EVN                               IAmb  IAmb   15 30 31.5
      comp=Z,10nm,1.5s
ZALV  Zalesovo Beam   49.75 319   P     P      15 30 23.6 +0.2
      comp=Z,0.8nm,0.4s,baz=110,slow=11,SNR=5.4
ZALV                              PcP   PcP    15 31 43.8 -0.1
      comp=Z,1.1nm,0.3s,baz=125,slow=3.3,SNR=6.2
ZALV                              ScP   ScP    15 35 37.8 +1.4
      comp=Z,0.8nm,0.6s,baz=108,slow=4.8,SNR=4.2
      comp=Z,0.8nm,0.4s
ZALV  Zalesovo Beam   49.75 319   P     P      15 30 23.0 -0.3
AS31  Alice Springs   50.52 190   P     P      15 30 29.1 -0.4
ASAR  Alice Springs   50.52 190   P     P      15 30 29.2 -0.3
      comp=Z,1.8nm,0.5s,baz=14,slow=8.2,SNR=100
ASAR                              S     S      15 37 39.9 -1.1
      comp=Z,1.0nm,1.0s,baz=20,slow=15,SNR=5.6
      comp=Z,1.8nm,0.5s
MKAR  Makanchi Array  50.65 310   P     P      15 30 29.6 -0.8
      comp=Z,0.6nm,0.6s,baz=84,slow=9.8,SNR=14
MKAR                              PcP   PcP    15 31 48.3 +0.9
      comp=Z,0.5nm,0.4s,baz=92,slow=4.3,SNR=8.4
MKAR                              ScP   ScP    15 35 40.5 +0.1
      comp=Z,0.9nm,0.5s,baz=76,slow=4.9,SNR=9.8
      comp=Z,0.6nm,0.6s
MKAR  Makanchi Array  50.65 310   P     P      15 30 29.0 -1.4
N15K  Kwethluk River  51.50  33   P     P      15 30 37.7 +1.1
K17K  Iditarod        52.96  30   P     P      15 30 48.5 +1.2
K17K                              IAmb  IAmb   15 30 59.1
      comp=Z,11nm,0.9s
N17K  Nushagak Hills  52.99  33   P     P      15 30 48.8 +1.2
N17K                              IAmb  IAmb   15 31 06.6
      comp=Z,13nm,1.4s
M17K  Holitna River   53.05  32   P     P      15 30 49.5 +1.5
M17K                              IAmb  IAmb   15 31 00.2
      comp=Z,12nm,1.1s
KURK  Kurchatov       53.20 315   P     P      15 30 47.4 -1.9
KURBB Kurchatov Arra  53.26 315   P     P      15 30 48.0 -1.7
      comp=Z,1.7nm,0.4s,baz=91,slow=7.1,SNR=22
      comp=Z,1.7nm,0.4s
C18K  Utukok River    53.63  22   P     P      15 30 53.6 +1.3
C18K                              IAmb  IAmb   15 31 01.1
      comp=Z,20nm,1.5s
INKA  Innaminka       53.99 181   P     P      15 30 55.1 -0.1
C19K  Lookout Ridge   54.34  22   P     P      15 30 59.1 +1.7
D19K  Kuna River      54.65  23   P     P      15 31 01.1 +1.5
D19K                              IAmb  IAmb   15 31 10.8
      comp=Z,9.2nm,0.8s
K20K  Telida          54.98  30   P     P      15 31 04.0 +2.0
K20K                              IAmb  IAmb   15 31 13.7
      comp=Z,7.2nm,0.7s
J20K  Nowinta River   55.10  29   P     P      15 31 04.6 +1.7
J20K                              IAmb  IAmb   15 31 14.1
      comp=Z,5.5nm,0.7s
D20K  Etivluk River   55.24  23   P     P      15 31 05.6 +1.7
G21K  Allakaket       55.84  26   P     P      15 31 09.2 +1.0
G21K                              IAmb  IAmb   15 31 19.7
      comp=Z,7.5nm,0.9s
CAST  Castle Rocks    55.87  30   P     P      15 31 09.9 +1.4
F21K  Alatna River    56.00  25   P     P      15 31 10.7 +1.4
E21K  Killik River    56.10  24   P     P      15 31 11.5 +1.5
E21K                              IAmb  IAmb   15 31 21.3
      comp=Z,9.6nm,0.8s
I21K  Tanana          56.20  28   P     P      15 31 12.3 +1.5
I21K                              IAmb  IAmb   15 31 25.4
      comp=Z,7.8nm,1.2s
H22K  Ishtalitna Cre  56.57  27   P     P      15 31 14.8 +1.4
G23K  Bananza Creek   57.24  26   P     P      15 31 19.8 +1.6
NEA2  Nenana          57.35  29   IAmb  IAmb   15 31 31.4
      comp=Z,4.0nm,0.6s
H24K  Noodor Dome     57.99  27   IAmb  IAmb   15 31 34.6
      comp=Z,4.1nm,0.8s
E24K  Your Creek      58.04  25   P     P      15 31 25.2 +1.4
E24K                              IAmb  IAmb   15 31 35.6
      comp=Z,6.7nm,0.9s
STKA  Stephens Creek  58.10 180   P     P      15 31 23.3 -1.2
      comp=Z,5.5nm,0.7s,baz=0.8,slow=6.0,SNR=13
      comp=Z,5.5nm,0.7s
F24K  Squaw Lake      58.19  25   P     P      15 31 26.5 +1.7
F24K                              IAmb  IAmb   15 31 36.6
      comp=Z,6.8nm,0.8s
G24K  Hadweenzic Riv  58.25  26   P     P      15 31 26.6 +1.4
G24K                              IAmb  IAmb   15 31 37.2
      comp=Z,8.2nm,0.9s
BVAR  Borovoye Array  58.29 318   P     P      15 31 24.8 -0.9
      comp=Z,4.2nm,0.5s,baz=92,slow=7.8,SNR=14
      comp=Z,4.2nm,0.5s
IL31                  58.30  28   IAmb  IAmb   15 31 35.5
      comp=Z,5.8nm,0.8s
ILAR  Eielson Array   58.30  28   P     P      15 31 25.6  0.0
      comp=Z,1.5nm,0.8s,baz=262,slow=5.4,SNR=12
      comp=Z,1.5nm,0.8s
ILAR  Eielson Array   58.30  28   P     P      15 31 25.7 +0.1
BORK  Borovoye        58.33 318   P     P      15 31 24.3 -1.7
BORK                              IAmb  IAmb   15 31 26.8
      comp=Z,3.2nm,0.7s
FORT  Forrest         58.53 194   P     P      15 31 27.2 -0.3
D25K  Kavik River     58.97  23   P     P      15 31 31.8 +1.5
D25K                              IAmb  IAmb   15 31 41.7
      comp=Z,5.4nm,0.8s
F25K  Christian Rive  59.05  25   IAmb  IAmb   15 31 43.0
      comp=Z,7.4nm,1.0s
E25K  Arctic Village  59.13  25   IAmb  IAmb   15 31 43.0
      comp=Z,8.3nm,0.8s
KKAR  Karatay Array   59.22 306   P     P      15 31 31.8 -0.6
BBOO  Buckleboo       59.30 186   P     P      15 31 32.9 +0.1
BMAR  Burnt Mountain  59.44  25   P     P      15 31 35.8 +2.2
SCRK  Sand Creek      59.51  29   P     P      15 31 34.2 +0.1
GLB   Gilahina Butte  59.56  32   P     P      15 31 35.4 +1.0
GLB                               IAmb  IAmb   15 32 03.3
      comp=Z,7.7nm,1.3s
F26K  Sheenjek River  59.63  25   IAmb  IAmb   15 31 46.5
      comp=Z,5.8nm,0.7s
G26K  Porcupine Rive  59.72  26   P     P      15 31 37.1 +1.7
G26K                              IAmb  IAmb   15 31 50.0
      comp=Z,3.9nm,0.8s
C27K  Jago River      59.93  23   IAmb  IAmb   15 31 49.9
      comp=Z,6.5nm,0.9s
AFI   Afiamalu        60.34 126   LR    LR     15 55 37.7
      comp=Z,51nm,18.2s,baz=277,slow=34
BCAR  Beaver Creek A  60.49  31   P     P      15 31 41.7 +0.8
D27M  Malcolm River   60.88  23   IAmb  IAmb   15 31 54.5
      comp=Z,4.2nm,0.8s
I28M  Miner Creek     61.26  28   IAmb  IAmb   15 31 57.1
      comp=Z,5.9nm,0.8s
I29M  Ogilvie Camp,   61.94  28   IAmb  IAmb   15 32 01.7
      comp=Z,6.5nm,1.1s
G29M  Pine Creek      61.99  26   P     P      15 31 52.3 +1.4
M29M  Somme Creek     62.05  31   IAmb  IAmb   15 32 03.1
      comp=Z,6.4nm,0.8s
L29M  L29M            62.16  30   IAmb  IAmb   15 32 03.6
      comp=Z,6.5nm,0.8s
K29M  Barlow Dome     62.37  30   IAmb  IAmb   15 32 05.2
      comp=Z,6.4nm,0.8s
I30M  Mount Dempster  62.76  28   P     P      15 31 57.4 +1.2
I30M                              IAmb  IAmb   15 32 06.8
      comp=Z,4.5nm,0.8s
F30M  Barrier River   62.82  25   P     P      15 31 58.0 +1.6
J30M  Hart River      62.83  29   P     P      15 31 57.6 +0.9
G31M  Satah River     63.47  26   P     P      15 32 01.4 +0.8
G31M                              IAmb  IAmb   15 32 11.2
      comp=Z,8.4nm,0.8s
H31M  Peel River      63.55  27   IAmb  IAmb   15 32 12.3
      comp=Z,8.3nm,0.9s
AB31  Akbulak array   65.31 314   P     P      15 32 11.6 -1.4
ABKAR Akbulak array   65.31 314   P     P      15 32 11.6 -1.4
SPA0  Spitsbergen Ar  70.88 350  eP     P      15 32 49.8 +2.3
SPB2  Spitsbergen Ar  70.88 350   P     P      15 32 49.1 +1.6
SPITS Spitsbergen Ar  70.88 350   P     P      15 32 47.4 -0.1
      comp=Z,2.1nm,0.4s,baz=88,slow=7.6,SNR=8.3
      comp=Z,2.1nm,0.4s
VADS  Vadso           72.53 341  eP     P      15 32 57.8 +0.3
YKA   Yellowknife Ar  72.73  28   P     P      15 32 58.7 -0.1
      comp=Z,1.0nm,0.5s,baz=297,slow=6.5,SNR=2.6
      comp=Z,1.0nm,0.5s
KEV   Kevo            73.42 341   P     P      15 33 03.3 +0.6
ARA0  ARCESS Array S  73.98 341  eP     P      15 33 06.3 +0.3
ARCES ARCESS Array B  73.98 341   P     P      15 33 06.7 +0.7
      comp=Z,3.3nm,0.6s,baz=69,slow=8.9,SNR=24
ARCES                             LR    LR     16 10 18.6
      comp=Z,203nm,19.3s,baz=30,slow=40
      comp=Z,3.3nm,0.6s
ARCES ARCESS Array B  73.98 341   P     P      15 33 06.6 +0.5
ARCES                             IAmb  IAmb   15 33 07.5
      comp=Z,10nm,1.0s
KTK1  Kautokeino      74.94 341  eP     P      15 33 11.5 -0.2
TRO   Tromso          75.78 342  eP     P      15 33 16.9 +0.5
NEW   Newport         77.46  42   P     P      15 33 26.7 +0.3
      comp=Z,1.4nm,0.6s,baz=292,slow=6.2,SNR=3.7
      comp=Z,1.4nm,0.6s
STEI  Steigen         77.91 342  eP     P      15 33 29.0 +0.6
KBZ   Khabaz          78.21 313   P     P      15 33 30.1 -0.5
      comp=Z,2.0nm,0.6s,baz=102,slow=6.6,SNR=5.0
      comp=Z,2.0nm,0.6s
FAUS  Fauske          78.27 342  eP     P      15 33 30.8 +0.4
FINES FINESS Array B  78.33 334   P     P      15 33 31.3 +0.4
      comp=Z,10nm,0.3s,baz=69,slow=5.0,SNR=187
      comp=Z,10nm,0.3s
FINES FINESS Array B  78.33 334   P     P      15 33 31.1 +0.2
VAGH  Vaagaholmen     79.30 342  eP     P      15 33 36.8 +0.7
MOR8  Moi Rana        79.35 341  eP     P      15 33 35.7 -0.7
STOK  Stokkvaagen     79.65 341  eP     P      15 33 37.8 -0.2
LEIR  Leirfjorden     79.78 341  eP     P      15 33 39.1 +0.3
NVAR  Mina Array Bea  81.04  52   P     P      15 33 48.1 +1.8
      comp=Z,1.2nm,0.7s,baz=290,slow=4.7,SNR=7.4
      comp=Z,1.2nm,0.7s
NVAR  Mina Array Bea  81.04  52   P     P      15 33 48.0 +1.6
GMN   Gold Mountain   82.28  52   P     P      15 33 53.9 +0.9
AKASG Malin Array Be  82.92 324   P     P      15 33 55.4 -0.3
      comp=Z,0.8nm,0.4s,baz=42,slow=7.0,SNR=7.2
      comp=Z,0.8nm,0.4s
AKBB  Malin Array Si  82.92 324   P     P      15 33 54.8 -0.9
AKBB                              IAmb  IAmb   15 33 57.4
      comp=Z,7.3nm,1.2s
TPNV  Topopah Spring  83.16  52   P     P      15 33 57.6 +0.1
GWY   Greenwater Val  83.22  53   P     P      15 33 57.9 +0.1
NC405 NORSAR Array S  83.81 338   P     P      15 33 59.7 -0.4
NC405                             IAmb  IAmb   15 34 12.7
      comp=Z,8.8nm,0.7s
HFS   Hagfors         83.83 337   P     P      15 33 59.9 -0.3
      comp=Z,4.1nm,0.3s,baz=354,slow=1.5,SNR=46
      comp=Z,4.1nm,0.3s
NC204 NORSAR Array S  84.00 339   P     P      15 34 00.5 -0.6
NC204                             IAmb  IAmb   15 34 03.2
      comp=Z,16nm,1.2s
NB2   NORSAR Subarra  84.03 338   P     P      15 34 00.7 -0.6
      comp=Z,1.5nm,0.5s,baz=52,slow=4.6
NB2   NORSAR Subarra  84.03 338   P     P      15 34 00.7 -0.6
NOA   NORSAR Array B  84.03 338   P     P      15 34 01.1 -0.2
      comp=Z,1.6nm,0.4s,baz=46,slow=4.9,SNR=12
      comp=Z,1.6nm,0.4s
MOL   Molde           84.03 341  eP     P      15 34 02.3 +1.1
NC602 NORSAR Array S  84.14 338  eP     P      15 34 00.5 -1.3
PDAR  Pinedale Array  84.76  45   P     P      15 34 05.6  0.0
      comp=Z,1.4nm,0.3s,baz=278,slow=4.0,SNR=5.8
      comp=Z,1.4nm,0.3s
RAYN  Ar Rayn         85.16 294   P     P      15 34 06.1 -1.5
RAYN                              IAmb  IAmb   15 34 09.8
      comp=Z,9.9nm,1.0s
P18A  Preston Nutter  85.95  47   IAmb  IAmb   15 34 14.7
      comp=Z,2.5nm,0.7s
SRU   San Rafael Swe  86.03  48   IAmb  IAmb   15 34 14.4
      comp=Z,3.4nm,0.8s
U15A  North Rim       86.19  51   P     P      15 34 14.7 +1.8
U15A                              IAmb  IAmb   15 34 16.0
      comp=Z,3.9nm,1.0s
BRTR  Keskin Array B  86.20 313   P     P      15 34 12.6 -0.2
      comp=Z,0.4nm,0.4s,baz=270,slow=19,SNR=2.6
      comp=Z,0.4nm,0.4s
BRTR  Keskin Array B  86.20 313   P     P      15 34 11.9 -0.8
SFJD  Kangerlussuaq   86.26   5   P     P      15 34 13.0 +0.7
HMU   Henry Mountain  86.49  49   IAmb  IAmb   15 34 16.3
      comp=Z,3.6nm,0.8s
Y14A  Wickenburg      86.94  54   IAmb  IAmb   15 34 19.2
      comp=Z,6.5nm,1.0s
PV21  Cone Mtn., Par  87.35  48   IAmb  IAmb   15 34 21.2
      comp=Z,3.3nm,0.7s
PV10  Paradox Valley  87.41  48   IAmb  IAmb   15 34 22.6
      comp=Z,7.7nm,0.9s
PV19  Morning Glory   87.48  48   P     P      15 34 19.2 +0.1
PV19                              IAmb  IAmb   15 34 21.4
      comp=Z,6.8nm,0.9s
VRAC  Vranov          90.17 328   LR    LR     16 19 14.1
      comp=Z,78nm,18.2s,baz=28,slow=38
GERES GERESS Array B  91.85 329   P     P      15 34 38.1 -1.1
      comp=Z,0.5nm,0.3s,baz=23,slow=7.2,SNR=5.4
      comp=Z,0.5nm,0.3s
EKA   Eskdalemuir Ar  93.14 341   P     P      15 34 46.3 +1.5
      comp=Z,0.8nm,0.5s,baz=38,slow=3.6,SNR=3.5
      comp=Z,0.8nm,0.5s
MNTX  Cornudas Mount  93.56  52   P     P      15 34 49.1 +1.8
MNTX                              IAmb  IAmb   15 34 50.4
      comp=Z,1.8nm,0.7s
TXAR  Lajitas Array   96.11  53   P     P      15 35 00.9 +1.7
      comp=Z,0.7nm,0.7s,baz=306,slow=3.0,SNR=9.9
      comp=Z,0.7nm,0.7s
TXAR  Lajitas Array   96.11  53   P     P      15 35 01.6 +2.5
QSPA  South Pole Qui 116.33 180   PKP   PKPdf  15 40 13.2 -0.5
      comp=Z,0.9nm,0.7s,baz=296,slow=1.2,SNR=6.0
QSPA  South Pole Qui 116.33 180   PKPdf PKPdf  15 40 12.9 -0.8
TORD  Torodi Ar. Bea 124.76 311   PKP   PKiKP  15 40 32.1 +0.4
      comp=Z,0.2nm,0.4s,baz=220,slow=3.2,SNR=2.1
TORD  Torodi Ar. Bea 124.76 311   PKPdf PKPdf  15 40 30.4 -1.0
PLCA  Paso Flores    149.68 126   PKPbc PKPbc  15 41 21.4 +0.7
      comp=Z,4.1nm,0.8s,baz=348,slow=2.1,SNR=7.8
LPAZ  La Paz         150.28  76   PKPbc PKiKP  15 41 24.4 +0.2
      comp=Z,2.3nm,0.7s,baz=5.9,slow=5.5,SNR=6.5
LPAZ  La Paz         150.28  76   PKPbc PKPbc  15 41 22.2 -1.3
BO02  Sierra Bellavi 150.79 114   PKPbc PKPbc  15 41 24.1 +0.5
AC05  El Transito    151.44 102   PKPbc PKPbc  15 41 25.8 +0.5
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*SJA **02** 15:32:47.9±0.7,27°.77S×71°.95W,h10^{km}±4^{km},ML3.5, MW3.4*

*GUC **02** 15:32:53.6±0.8,27°.93S×71°.55W,h36^{km}±4^{km},ML3.0*

ISC 02 15:32:52.7±1.5,**27°.89S**±0°.03×**71°.63W**±0°.07,**h20^{km}**±6^{km}, **n19,σ1^{s}93**/33,**Near coast of northern Chile**

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Code  Station Name      Δ°  AZ°   Phase ID        Time     Res
                                  Op    ISC     h  m  s    ISC
AC04  Llanos de Chal   0.58 123  eS     Sb     15 33 04.9 -7.3
AC04                              IAML         15 33 13.6
      comp=Z,2μm,0.6s
AC04  Llanos de Chal   0.58 123  eP     Pg     15 33 05.2 +0.7
AC04                             i S    Sg     15 33 12.4 +0.1
AC04                              IAML         15 33 15.4
      comp=E,3μm,0.5s
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AC06	Mina Casimiro	1.25	65	*e*P	Pb	15 33 15.5	-0.1
AC06				*i* S	Sb	15 33 31.2	-0.1
AC06				IAML		15 33 35.4	
	comp=E,552nm,0.3s						
GO03	Copiapo	1.27	77	*e*P	Pb	15 33 16.3	+0.3
GO03				*e*S	Sg	15 33 34.0	0.0
GO03				IAML		15 33 40.5	
	comp=Z,500nm,0.5s						
GO03	Copiapo	1.27	77	*e*P	Pb	15 33 16.1	0.0
GO03				*i* S	Sg	15 33 33.2	-0.8
GO03				IAML		15 33 40.6	
	comp=N,860nm,0.3s						
LCO	Las Campanas	1.39	144	*e*P	Pg	15 33 19.2	-0.4
LCO				IAML		15 33 37.9	
	comp=Z,676nm,0.7s						
LCO				*e*S	Sg	15 33 37.9	+0.1
LCO	Las Campanas	1.39	144	*e*P	Pg	15 33 19.0	-0.6
LCO				*i* S	Sg	15 33 36.9	-1.0
AC05	El Transito	1.52	129	*e*P	Pg	15 33 21.6	-0.6
AC05				*e*S	Sg	15 33 41.9	-0.2
AC05				IAML		15 33 44.1	
	comp=Z,246nm,0.6s						
AC05	El Transito	1.52	129	*e*P	Pb	15 33 21.1	+0.7
AC05				*i* S	Sb	15 33 39.9	+0.5
AC05				IAML		15 33 47.7	
	comp=E,349nm,0.7s						
AC01	Pan de Azucar	1.96	28	*e*P	Pn	15 33 24.4	-0.4
AC01				*e*S	Sb	15 33 50.9	-0.9
AC01				IAML		15 34 06.8	
	comp=Z,196nm,0.5s						
AC01	Pan de Azucar	1.96	28	IAML		15 33 59.2	
	comp=E,258nm,0.5s						
GO04	Tololo Observa	2.39	162	*e*P	Pb	15 33 33.6	-1.7
GO04				*e*S	Sg	15 34 09.4	-0.4
GO04				IAML		15 34 12.3	
	comp=Z,254nm,1.1s						
GO04	Tololo Observa	2.39	162	*e*P	Pn	15 33 33.1	+2.0
GO04				*i* S	Sb	15 34 03.0	-1.4
AC02	Maricunga	2.46	65	*e*P	Pb	15 33 34.9	-1.7
AC02				*e*S	Sg	15 34 09.8	-2.1
AC02				IAML		15 34 14.9	
	comp=Z,210nm,0.3s						
AC02	Maricunga	2.46	65	*e*P	Pb	15 33 34.8	-1.7
AC02				*i* S	Sb	15 34 06.7	+0.1
CO06	Fray Jorge	2.78	180	*e*P	Pn	15 33 38.0	+1.9
CO06				IAML		15 34 39.9	
	comp=N,57nm,0.5s						
CO02	Combarbal	3.35	171	*e*P	Pn	15 33 45.0	+0.9
CO02				*e*S	Sb	15 34 28.4	-3.5
CO02				IAML		15 34 46.2	
	comp=Z,136nm,0.4s						
PB14	IPOC Station P	3.43	19	*e*P	Pn	15 33 44.6	-0.7
PB14				*e*S	Sb	15 34 37.9	+3.6
PB14				IAML		15 34 50.5	
	comp=Z,76nm,0.5s						
PB05	IPOC Station P	5.17	15	*e*P	Pn	15 34 08.1	-1.1

IDC 02 15:33:28.1±1.8**, 2°.56S×138°.88E, h0^{km}, mb3.4**/3**, mbtmp3.5**/4**, ML3.6**/1**, MS3.6**/1**, Error ellipse: s-maj=111.2km s-min=28.7km az=111.0, Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	17.84	194	P	Pn	15 37 37.3	-0.6
	0.2nm,0.3s,baz=15,slow=13,SNR=7.2						
	0.6nm,0.4s						
WRA				AML	AML		
FITZ	Fitzroy Crossi	20.17	219	P	P	15 38 04.5	+0.2
	1.6nm,0.8s,baz=58,slow=13,SNR=1.9						
	1.6nm,0.8s						
ASAR	Alice Springs	21.53	193	P	P	15 38 19.4	+0.4
	0.6nm,0.5s,baz=16,slow=11,SNR=15						
	0.6nm,0.5s						
CMAR	Chiang Mai Arr	44.51	300	LR	LR	16 00 17.8	
	comp=Z,78nm,21.7s,baz=100,slow=36						
ILAR	Eielson Array	85.63	24	P	P	15 46 08.2	-0.1
	0.2nm,0.6s,baz=260,slow=4.4,SNR=4.2						
	0.2nm,0.6s						

IDC 02 15:38:39.8±1.1**, 16°.70S×176°.03W, h0^{km}, mb3.7**/3**, mbtmp3.8**/4**, ML3.7**/1**, MS3.4**/6**, Error ellipse: s-maj=54.0km s-min=18.0km az=145.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	4.95	57	Pn	Pn	15 39 53.3	-2.3
	3.3nm,0.3s,baz=222,slow=5.5,SNR=5.5						
AFI				Sn	Sn	15 40 44.3	-9.4
	1.5nm,0.3s,baz=91,slow=22,SNR=1.1						
	17nm,0.6s						
AFI				AML	AML		
RAR	Rarotonga	16.02	109	LR	LR	15 47 45.9	
	comp=Z,126nm,18.5s,baz=291,slow=34						
HNR	Honiara	24.47	284	LR	LR	15 51 37.1	
	comp=Z,89nm,20.5s,baz=166,slow=32						
ASAR	Alice Springs	47.31	253	P	P	15 47 16.6	+1.0
	0.4nm,0.9s,baz=84,slow=9.1,SNR=5.4						
	0.4nm,0.9s						
SHEM	Shemya Is, Ala	69.67	354	LR	LR	16 13 58.6	
	comp=Z,34nm,19.8s,baz=245,slow=30						
QSPA	South Pole Qui	73.35	180	P	P	15 50 13.1	-0.2
	1.7nm,0.8s,baz=176,slow=11,SNR=4.8						
	1.7nm,0.8s						
NVAR	Mina Array Bea	76.99	43	P	P	15 50 33.5	-1.3
	0.3nm,0.4s,baz=231,slow=7.1,SNR=3.8						
	0.3nm,0.4s						
MA2	Magadan	80.66	344	LR	LR	16 21 04.7	
	comp=Z,23nm,19.9s,baz=177,slow=32						
YAK	Yakutsk	89.32	337	LR	LR	16 24 33.3	
	comp=Z,20nm,21.4s,baz=190,slow=31						
TIXI	Tiksi	95.58	345	LR	LR	16 28 04.9	
	comp=Z,25nm,21.6s,baz=174,slow=31						
BRTR	Keskin Array B	145.49	318	PKPbc	PKPbc	15 58 18.9	-1.5
	0.8nm,1.0s,baz=48,slow=2.1,SNR=4.3						

SCB 02 15:41:04.5±1.1**, 17°.61S×69°.02W, h144^{km}**±15^{km}**, ML2.5**/2**, Error ellipse: s-maj=21.9km s-min=4.9km az=1.0, Peru-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PB16	IPOC Station P	0.86	213	P	Pn	15 41 29.0	+0.7
PB16	IPOC Station P	0.86	213	P	Pn	15 41 26.0	-2.3
SOEJ	Jacaque	1.01	52	P	Pn	15 41 30.5	+1.1
SOEJ	Jacaque	1.01	52	P	Pn	15 41 31.0	+1.6
BBOD	La Paz, Gloria	1.04	23	P	Pn	15 41 30.3	+0.6
BBOD	La Paz, Gloria	1.04	23	P	Pn	15 41 29.3	-0.4
LPAZ	La Paz	1.56	33	P	Pn	15 41 35.3	+0.3
LPAZ				S	Sn	15 41 58.6	+0.5
LPAZ	La Paz	1.56	33	P	Pn	15 41 34.9	-0.1
LPAZ				S	Sn	15 41 58.8	+0.7
LPAZ				IAML		15 42 01.6	
	7.0nm,0.5s						
BBOB	La Paz, Bander	1.68	30	P	Pn	15 41 36.9	+0.7
BBOB	La Paz, Bander	1.68	30	P	Pn	15 41 36.8	+0.6
GO01	Chusmiza	2.06	185	P	Pn	15 41 41.8	+1.3
PB11	IPOC Station P	2.23	196	P	Pn	15 41 43.1	+0.9
PB11				S	Sn	15 42 11.8	+0.6
PB11				IAML		15 42 14.4	
	8.3nm,0.3s						
PB08	IPOC Station P	2.53	183	P	Pn	15 41 47.2	+1.2
PB02	IPOC Station P	3.79	193	P	Pn	15 42 02.4	+0.5
PB02				S	Sn	15 42 45.1	-1.4
PB02				IAML		15 42 50.1	
	13nm,0.2s						

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*IDC **02** 15:43:52.0±1.4, 40°.33N×15°.80E, h0^{km}, mb3.6/7, mbtmp3.7/9, ML3.6/2, Error ellipse: s-maj=28.0km s-min=24.1km az=118.0*

*ROM **02** 15:44:17.9±0.2, 40°.72N±0°.01×15°.09E±0°.02, h327^{km}±1^{km}, ML3.0/60, Error ellipse: s-maj=1.6km s-min=1.0km az=64.0*

ISC 02 15:44:20.4±1.0**, 40°.74N**±0°.05×**15°.22E**±0°.07**, h317^{km}**±7^{km}**, n101, σ0^{s}.82**/113**, mb3.3**/5**, 21D, Southern Italy**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNR3	Senerchia	0.02	273	P	Pn	15 45 00.9	+0.4
MCRV	Calabrutti - M	0.06	322	P	Pn	15 45 00.2	-0.3
COL3	Colliano	0.10	119	P	Pn	15 45 00.6	+0.1
NSC3	Nusco	0.13	327	P	Pn	15 45 00.1	-0.3
VDS3	Muro Lucano (V	0.16	88	P	Pn	15 45 00.5	-0.1
LIO3	Lioni	0.16	350	P	Pn	15 45 00.1	-0.3
PST3	Postiglione	0.17	174	P	Pn	15 45 00.4	-0.2
SGO	Sicignano	0.19	159	P	Pn	15 45 00.5	-0.1
SNAL	S. Angelo Dei	0.19	358	⇓P	Pn	15 45 00.5	0.0
SNAL				AML	AML		
	comp=E,119µm,1.6s						
SNAL				AML	AML		
	comp=N,112µm,1.2s						
SNAL				AML	AML		
	comp=N,84µm,0.5s						
SNAL				AML	AML		
	comp=E,84µm,0.5s						
SNAL				AML	AML		
	comp=N,86µm,0.8s						
SNAL				AML	AML		
	comp=N,86µm,1.2s						
MRLC	Muro Lucano	0.21	84	⇓P	Pn	15 45 00.6	+0.2
MRLC				AML	AML		
	comp=E,92µm,0.4s						
MRLC				AML	AML		
	comp=N,99µm,0.4s						
RSF3	Rocca San Feli	0.23	352	P	Pn	15 45 00.3	-0.2
CDRU	Civita di Ruta	0.25	165	P	Pn	15 45 00.5	-0.2
RDM3	Ruvo Del Monte	0.28	60	P	Pn	15 45 01.1	+0.6
CAFE	Carife	0.29	3	⇓P	Pn	15 45 00.9	+0.3
CAFE				AML	AML		
	comp=E,103µm,0.8s						
CAFE				AML	AML		
	comp=N,59µm,0.3s						
CAFE				AML	AML		
	comp=N,59µm,1.6s						
CAFE				AML	AML		
	comp=E,120µm,0.8s						
CAFE				AML	AML		
	comp=N,59µm,0.4s						
SRN3	Sant'Arsenio	0.31	144	⇓P	Pn	15 45 00.8	0.0
VULT	Monte Vulture	0.37	54	P	Pn	15 45 00.6	-0.1
STN3	Satriano di Lu	0.39	122	P	Pn	15 45 01.5	+0.7
SGTA	Sant Agata di	0.41	16	P	Pn	15 45 00.9	+0.1
SGTA				AML	AML		
	comp=E,164µm,0.4s						
SGTA				AML	AML		
	comp=N,150µm,0.3s						
CMPR	Campora	0.42	171	AML	AML		
	comp=N,52µm,1.5s						
CMPR				AML	AML		
	comp=E,41µm,0.4s						
CMPR				AML	AML		
	comp=N,52µm,0.5s						
SLCN	Sala Consilina	0.47	137	P	Pn	15 45 01.0	0.0
PGN3	Pignola, Italy	0.47	110	P	Pn	15 45 01.0	+0.1
PAOL	Paolisi	0.57	301	P	Pn	15 45 00.8	-0.3
PALZ	Palazzo San Ge	0.60	69	P	Pn	15 45 01.5	+0.3
PALZ				S	S	15 45 33.5	-0.2
PALZ				AML	AML		
	comp=E,177µm,1.3s						
PALZ				AML	AML		
	comp=N,182µm,1.0s						
PALZ				AML	AML		
	comp=E,177µm,0.7s						
VTIR	Vesuvio Tirone	0.61	277	P	Pn	15 45 01.3	+0.1
VITU	Vitulano (BN)	0.63	315	P	Pn	15 45 00.7	-0.6
VITU				AML	AML		
	comp=E,106µm,0.3s						
VITU				AML	AML		
	comp=N,110µm,0.3s						
MOCO	Biccari - m.te	0.64	356	⇓P	Pn	15 45 01.5	+0.2
BULG	Bulgheria - Ca	0.67	169	⇓P	Pn	15 45 01.3	-0.2
BULG				AML	AML		
	comp=N,110µm,0.3s						
BULG				AML	AML		
	comp=E,84µm,0.4s						
SIRI	Monte Sirino -	0.74	138	P	Pn	15 45 01.6	-0.2
SIRI				S	S	15 45 35.5	+0.7
SIRI				AML	AML		
	comp=E,83µm,0.3s						
SIRI				AML	AML		
	comp=N,122µm,1.0s						
GATE	Gambatesa	0.81	343	P	Pn	15 45 02.2	+0.4
CUC	Castrocucco	0.87	148	⇓P	Pn	15 45 01.8	-0.4
CUC				S	S	15 45 33.4	-2.1
CUC				AML	AML		
	comp=N,42µm,1.1s						
CUC				AML	AML		
	comp=E,41µm,0.4s						
CUC				AML	AML		
	comp=N,42µm,0.9s						
SGG	Gregorio Mates	0.91	316	P	Pn	15 45 01.9	-0.3
PIGN	Pignataro Magg	0.91	301	P	Pn	15 45 01.8	-0.3
BSSO	Busso	0.94	330	P	Pn	15 45 02.5	+0.2
BSSO				S	S	15 45 36.0	+0.1
BSSO				AML	AML		
	comp=E,84µm,0.3s						
BSSO				AML	AML		
	comp=N,102µm,1.4s						
BSSO				AML	AML		
	comp=N,102µm,0.6s						
MIGL	Miglionico	0.94	98	P	Pn	15 45 02.9	+0.6
CIGN	Sant'Elia a Pi	0.95	346	⇓P	Pn	15 45 02.0	-0.3
CIGN				AML	AML		
	comp=E,46µm,0.7s						
CIGN				AML	AML		
	comp=E,46µm,0.7s						
CIGN				AML	AML		
	comp=N,43µm,0.5s						
CIGN				AML	AML		
	comp=E,46µm,1.3s						
OT05	Madonna di Cri	0.97	17	P	Pn	15 45 02.1	-0.3
OT05				S	S	15 45 34.2	-1.7
OT05				AML	AML		
	comp=E,97µm,1.4s						
OT05				AML	AML		
	comp=N,82µm,1.6s						
OT05				AML	AML		
	comp=N,82µm,1.6s						
OT05				AML	AML		
	comp=E,97µm,1.4s						
OT05				AML	AML		
	comp=N,82µm,0.4s						
MELA	Melanico ??? S	0.97	356	⇓P	Pn	15 45 02.1	-0.3
OT06	Rignano Gargan	0.99	17	⇓P	Pn	15 45 02.3	-0.2
OT06				S	S	15 45 34.4	-1.7
VAGA	Valle Agricola	1.01	313	P	Pn	15 45 02.3	-0.3
VAGA				AML	AML		
	comp=E,43µm,0.9s						
VAGA				AML	AML		
	comp=N,86µm,0.4s						
OT04	Stignano (FG)	1.02	15	P	Pn	15 45 02.5	-0.1
OT03	San Marco in L	1.03	18	P	Pn	15 45 02.6	-0.1
MMN	Mormanno	1.03	145	P	Pn	15 45 02.6	-0.1
MSC	Monte Massico	1.05	296	P	Pn	15 45 02.5	-0.2
APRC	Apricena	1.05	13	⇓P	Pn	15 45 02.6	-0.2
AMUR	Altamura	1.07	80	⇓P	Pn	15 45 03.7	+0.9
AMUR				S	S	15 45 36.8	0.0
AMUR				AML	AML		
	comp=E,71µm,1.6s						
AMUR				AML	AML		
	comp=N,86µm,1.2s						
AMUR				AML	AML		
	comp=E,71µm,0.4s						
SGRT	San Giovanni R	1.09	21	⇓P	Pn	15 45 03.1	+0.1
SGRT				S	S	15 45 35.3	-1.8
SGRT				AML	AML		
	comp=E,156µm,0.7s						
SGRT				AML	AML		
	comp=N,118µm,1.1s						
LRNO	Larino	1.09	348	P	Pn	15 45 02.8	-0.1
GRIS	Grisolia	1.11	154	⇓P	Pn	15 45 02.5	-0.7
MSAG	Monte S. Angel	1.11	28	⇓P	Pn	15 45 03.4	+0.3
MSAG				S	S	15 45 35.8	-1.4
MSAG				AML	AML		
	comp=E,59µm,0.9s						
MSAG				AML	AML		
	comp=N,132µm,0.2s						
MSAG				AML	AML		
	comp=N,132µm,1.8s						
MSAG				AML	AML		
	comp=E,59µm,1.1s						
MATE	Matera	1.13	94	P	Pn	15 45 03.9	+0.8
TRIV	Trivento	1.15	334	P	Pn	15 45 03.1	-0.2
TRIV				AML	AML		
	comp=N,75µm,1.2s						
TRIV				AML	AML		
	comp=N,46µm,0.5s						
TRIV				AML	AML		
	comp=N,75µm,1.2s						
TRIV				AML	AML		
	comp=E,45µm,1.2s						
TRIV				AML	AML		
	comp=E,59µm,0.7s						
TRIV				AML	AML		
	comp=E,45µm,0.8s						
TRIV				AML	AML		
	comp=N,75µm,0.8s						
MIDA	Miranda	1.16	322	⇓P	Pn	15 45 03.4	0.0
MIDA				AML	AML		
	comp=E,111µm,0.4s						
MIDA				AML	AML		
	comp=N,148µm,0.9s						
MIDA				AML	AML		
	comp=N,148µm,1.1s						
GLNS	Guglionesi	1.20	349	P	Pn	15 45 03.5	+0.1
SALB	San Lorenzo Be	1.22	134	P	Pn	15 45 03.8	-0.1
SALB				S	S	15 45 38.8	+0.4
CERA	Filignano	1.25	314	P	Pn	15 45 03.2	-0.6
CERA				AML	AML		
	comp=E,59µm,0.4s						
CERA				AML	AML		
	comp=N,66µm,0.7s						
CERA				AML	AML		
	comp=N,66µm,1.3s						
RNI2	Rionero Sannit	1.26	321	P	Pn	15 45 04.3	+0.4
CET2	Cetraro	1.33	155	P	Pn	15 45 04.2	-0.1
CET2				S	S	15 45 38.3	-1.1
OT13	Castello Viest	1.35	32	P	Pn	15 45 04.9	+0.6
TDS	Terranova Siba	1.38	141	P	Pn	15 45 05.2	+0.7
TDS				S	S	15 45 39.4	-0.4
NOCI	Noci	1.40	87	P	Pn	15 45 05.6	+0.9
NOCI				S	S	15 45 40.0	0.0
TREM	Isole Tremiti	1.41	9	P	Pn	15 45 04.8	+0.3
TREM				AML	AML		
	comp=E,249µm,0.8s						
TREM				AML	AML		
	comp=N,426µm,1.0s						
TREM				AML	AML		
	comp=N,426µm,1.3s						
TREM				AML	AML		
	comp=N,426µm,0.7s						
TREM				AML	AML		
	comp=E,249µm,1.2s						
MASS	Massafra	1.47	93	⇓P	Pn	15 45 06.1	+1.1
MASS				S	S	15 45 40.9	+0.3
POFI	Posta Fibreno	1.50	311	⇓P	Pn	15 45 04.9	-0.3
POFI				AML	AML		
	comp=N,29µm,0.4s						
POFI				AML	AML		
	comp=E,38µm,1.3s						
TAR1	Taranto	1.59	97	P	Pn	15 45 07.1	+1.4
TAR1				AML	AML		
	comp=N,58µm,1.4s						
TAR1				AML	AML		
	comp=E,62µm,1.1s						
TAR1				AML	AML		
	comp=N,58µm,1.4s						
TAR1				AML	AML		
	comp=N,58µm,0.6s						
TAR1				AML	AML		
	comp=E,62µm,0.9s						
INTR	Introdacqua	1.61	323	⇓P	Pn	15 45 05.9	-0.1
INTR				AML	AML		
	comp=N,83µm,0.8s						
INTR				AML	AML		
	comp=E,50µm,0.7s						
INTR				AML	AML		
	comp=N,83µm,1.2s						
INTR				AML	AML		
	comp=E,50µm,1.3s						
VVLD	Villa Vallelon	1.65	314	P	Pn	15 45 05.9	-0.3
CELI	Celico	1.66	143	P	Pn	15 45 07.2	+0.7
CELI				S	S	15 45 43.2	0.0
CAR1	CAROLEI	1.67	152	P	Pn	15 45 06.3	-0.1
CAR1				S	S	15 45 42.4	-0.8
GIUL	Giuliano Di Ro	1.70	300	P	Pn	15 45 05.8	-0.7
GUAR	Guarcino	1.79	307	P	Pn	15 45 06.6	-0.5
T0110	Collepietro	1.84	325	P	Pn	15 45 07.4	-0.1
T0110				AML	AML		
	comp=E,69µm,0.6s						
T0110				AML	AML		
	comp=E,69µm,1.4s						
T0110				AML	AML		
	comp=N,79µm,0.5s						
TIP	Timpagrande	1.95	142	⇓P	Pn	15 45 08.5	+0.1
TIP				S	S	15 45 45.8	-1.0
TIP				AML	AML		
	comp=E,59µm,1.5s						
TIP				AML	AML		
	comp=N,53µm,0.8s						
TIP				AML	AML		
	comp=E,59µm,0.5s						
FAGN	Fagnano	1.96	322	P	Pn	15 45 08.3	0.0
FAGN				AML	AML		
	comp=E,128µm,0.3s						
FAGN				AML	AML		
	comp=N,123µm,0.3s						
LADO	San Nicola del	1.98	136	AML	AML		
	comp=N,112µm,0.8s						
LADO				AML	AML		
	comp=E,128µm,0.5s						
SERS	Sersale	2.04	146	P	Pn	15 45 09.0	-0.1
SERS				S	S	15 45 46.6	-1.5
SERS				AML	AML		
	comp=N,116µm,1.6s						
SERS				AML	AML		
	comp=N,116µm,0.4s						
SERS				AML	AML		
	comp=E,93µm,0.3s						
SELL	Sellia	2.06	148	⇓P	Pn	15 45 09.2	-0.1
SELL				S	S	15 45 47.0	-1.3
GRI	Girifalco	2.12	154	P	Pn	15 45 09.7	0.0
GRI				S	S	15 45 48.4	-0.7
JOPP	Joppolo	2.19	166	P	Pn	15 45 09.4	-0.8
JOPP				S	S	15 45 48.0	-2.1
JOPP				AML	AML		
	comp=E,97µm,1.2s						
JOPP				AML	AML		
	comp=N,114µm,0.6s						
TERO	Teramo	2.24	328	P	Pn	15 45 10.5	0.0
SMA1	SAN MARTINO	2.36	324	P	Pn	15 45 11.8	+0.3
SMA1				S	S	15 45 50.9	-1.6
SMA1				AML	AML		
	comp=E,74µm,0.5s						
SMA1				AML	AML		
	comp=E,74µm,1.5s						
SMA1				AML	AML		
	comp=N,91µm,1.5s						
PLAC	Placanica	2.47	157	AML	AML		
	comp=N,162µm,0.6s						
PLAC				AML	AML		
	comp=E,166µm,1.2s						
PLAC				AML	AML		
	comp=E,166µm,0.8s						
CEL	Celeste	2.53	168	AML	AML		
	comp=E,70µm,0.6s						
CEL				AML	AML		
	comp=E,70µm,1.4s						
CEL				AML	AML		
	comp=N,55µm,0.3s						
CEL				AML	AML		
	comp=N,55µm,1.7s						
MMO1	Montemonaco	2.58	327	P	Pn	15 45 13.3	-0.1
MF5	Montefalcone A	2.61	330	P	Pn	15 45 13.7	0.0
MF5				S	S	15 45 54.8	-1.5
MC2	Monte Cornacci	2.65	326	P	Pn	15 45 14.3	0.0
SOI	Samo	2.74	166	AML	AML		
	comp=N,35µm,1.4s						
SOI				AML	AML		
	comp=E,52µm,0.7s						
SOI				AML	AML		
	comp=N,35µm,0.6s						
SOI				AML	AML		
	comp=E,52µm,1.3s						
STON	Ston	2.83	40	AML	AML		
	comp=N,15µm,1.5s						
STON				AML	AML		
	comp=E,19µm,1.4s						
STON				AML	AML		
	comp=E,19µm,0.6s						
MOMA	Monte Martano	2.86	317	P	Pn	15 45 16.0	0.0
MOMA				S	S	15 45 58.7	-1.9

EL6	**Elcito**	**3.03**	**329**	P	**Pn**	**15 45 17.1**	**-0.5**
NARO	**Abbazia di Nar**	**3.48**	**327**	P	**Pn**	**15 45 22.1**	**+0.2**
ARCI	**Arcidosso**	**3.51**	**308**	AML	AML		
	comp=E,538µm,0.7s						
ARCI				AML	AML		
	comp=N,417µm,1.0s						
VAY	**Valandovo**	**5.59**	**82**	*i* P	**Pn**	**15 45 41.3**	**-4.0**
BRTR	**Keskin Array B**	**14.11**	**88**	Pn	P	15 47 09.2	-18
	comp=N,0.6nm,0.3s,baz=285,slow=15,SNR=15						
	comp=N,2.0nm,0.4s						
BRTR				AML	AML		
HFS	**Hagfors**	**19.45**	**358**	P	**P**	**15 48 24.6**	**+0.5**
	comp=N,0.3nm,0.3s,baz=182,slow=11,SNR=6.5						
	comp=N,1.9nm,0.5s						
HFS				AML	AML		
NOA	**NORSAR Array B**	**20.48**	**354**	P	**P**	**15 48 36.5**	**+1.8**
	comp=N,0.4nm,0.6s,baz=168,slow=9.1,SNR=1.3						
	comp=N,0.4nm,0.6s						
FINES	**FINESS Array B**	**21.77**	**14**	P	**P**	**15 48 48.4**	**+1.8**
	comp=N,2.0nm,0.3s,baz=188,slow=9.5,SNR=24						
	comp=N,2.0nm,0.3s						
TORD	**Torodi Ar. Bea**	**29.93**	**207**	P	**P**	**15 50 00.6**	**+0.7**
	comp=N,0.3nm,0.3s,baz=18,slow=9.1,SNR=5.1						
	comp=N,0.3nm,0.3s						
KURBB	**Kurchatov Arra**	**44.07**	**55**	P	P	15 52 00.5	+3.0
	comp=N,0.2nm,0.5s,baz=296,slow=10,SNR=4.8						
	comp=N,0.2nm,0.5s						
ZALV	**Zalesovo Beam**	**47.09**	**49**	P	P	15 52 24.4	+3.5
	comp=N,0.5nm,0.3s,baz=301,slow=8.7,SNR=3.7						
	comp=N,0.5nm,0.3s						
MKAR	**Makanchi Array**	**47.49**	**59**	P	P	15 52 27.8	+3.6
	comp=N,0.7nm,0.4s,baz=284,slow=6.5,SNR=17						
	comp=N,0.7nm,0.4s						
SONM	**Songino Array**	**61.98**	**50**	P	P	15 54 11.2	+3.9
	comp=N,0.6nm,0.5s,baz=285,slow=8.9,SNR=2.5						
	comp=N,0.6nm,0.5s						

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*DJA **02** 15:59:46.0±0.4,8°S±3°×12°4E±°,h179km±5km,M4.0/13, mB5.1/2,mb4.0/6,MLv4.0/13,Mw(mB)4.5/2*

*IDC **02** 15:59:56.9±5.2,8°.34S×124°.04E,h260km±55km,mb2.7/1, mbtmp3.6/3,Error ellipse: s-maj=175.9km s-min=17.5km az=59.0*

ISC 02 15:59:50.0±1.4,**8°.5S**±0°.2×**123°.8E**±0°.1,**h200**km**,n11,** σ**1s.62**/10**,Flores region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SOEI	**Soe**	**1.35**	**158**	P	**Pn**	**16 00 20.5**	**-2.0**
SOEI				AML	AML		
MMRI	**Maumere**	**1.51**	**264**	P	**Pn**	**16 00 20.9**	**-2.9**
MMRI				AML	AML		
BBSI	**Bau Bau**	**3.21**	**338**	P	Pn	16 00 35.8	-6.3
WSI	**Waingapu**	**3.61**	**251**	P	**Pn**	**16 00 46.1**	**-0.9**
KDI	**Kendari**	**4.64**	**346**	P	Pn	16 00 49.6	-10
KDI				AML	AML		
DBNI	**Kabupaten Domp**	**5.39**	**269**	P	**Pn**	**16 01 09.1**	**-0.3**
	0.1nm10nm,1.2s						
DBNI				AML	AML		
PLAI	**Plampang**	**5.93**	**266**	P	**Pn**	**16 01 15.5**	**-0.8**
	0.2nm37nm,1.0s						
PLAI				AML	AML		
TWSI	**Taliwang, Sumb**	**6.81**	**267**	P	**Pn**	**16 01 27.1**	**-0.6**
TWSI				AML	AML		
WRA	**Warramunga Arr**	**15.31**	**139**	P	**Pn**	**16 03 17.2**	**+1.1**
	0.6nm,0.5s,baz=318,slow=12,SNR=30						
WRA				S	S	16 05 55.6	-11
	1.0nm,0.9s,baz=320,slow=24,SNR=5.2						
ASAR	**Alice Springs**	**17.95**	**148**	P	**Pn**	**16 03 48.9**	**+1.4**
	1.4nm,0.5s,baz=328,slow=12,SNR=35						
ASAR				S	**S**	**16 07 01.4**	**+0.4**
	0.9nm,0.8s,baz=324,slow=22,SNR=5.8						
MKAR	**Makanchi Array**	**66.25**	**330**	P	**P**	**16 10 17.4**	**+0.8**
	0.2nm,0.5s,baz=138,slow=8.1,SNR=2.5						
	0.2nm,0.5s						

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*IDC **02** 16:02:34.3±1.2,48°.58S×105°.85E,h0km,mb4.1/5, mbtmp4.1/5,MS3.7/9,Error ellipse: s-maj=53.3km s-min=21.1km az=114.0*

*NEIC **02** 16:02:36.1±0.8,48°.7S±0°.2×106°.0E±0°.3,h10km±2km, mb4.3/8,Error ellipse: s-maj=40.7km s-min=9.3km az=317.0*

ISC 02 16:02:35.8±1.0,**48°.7S**±0°.1×**106°.0E**±0°.3,**h10**km**,n26,** σ**0s.38**/16**,mb4.2**/8**,MS3.7**/9**,Southeast Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H01W2	**Cape Leeuwin H**	**15.00**	**27**	T	T	16 21 29.9	
	baz=203,slow=74,SNR=430						
H01W1	**Cape Leeuwin H**	**15.01**	**27**	T	T	16 21 27.8	
	baz=203,slow=74,SNR=632						
H01W3	**Cape Leeuwin H**	**15.02**	**27**	T	T	16 21 25.4	
	baz=203,slow=74,SNR=390						
CASY	**Casey**	**17.84**	**174**	P	**Pn**	**16 06 43.1**	**-0.6**
MORW	**Morawa**	**21.02**	**25**	P	**P**	**16 07 19.7**	**+0.3**
MORW				IAmb	IAmb	16 07 23.4	
	comp=Z,16nm,1.2s						
STKA	**Stephens Creek**	**31.55**	**71**	LR	LR	16 19 19.4	
	comp=Z,194nm,20.7s,baz=204,slow=32						
ASAR	**Alice Springs**	**33.26**	**51**	P	**P**	**16 09 13.7**	**+0.4**
	comp=Z,2.2nm,0.7s,baz=212,slow=8.2,SNR=16						
ASAR				LR	LR	16 20 12.4	
	comp=Z,112nm,21.9s,baz=229,slow=32						
	comp=Z,2.2nm,0.7s						
ASAR	**Alice Springs**	**33.26**	**51**	P	**P**	**16 09 13.3**	**+0.1**
AS31	**Alice Springs**	**33.26**	**51**	P	**P**	**16 09 12.7**	**-0.6**
FITZ	**Fitzroy Crossi**	**34.39**	**34**	LR	LR	16 21 14.3	
	comp=Z,116nm,19.2s,baz=1.5,slow=33						
VNDA	**Vanda**	**35.75**	**162**	LR	LR	16 23 13.6	
	comp=Z,117nm,18.9s,baz=316,slow=35						
WRA	**Warramunga Arr**	**36.59**	**48**	P	**P**	**16 09 42.1**	**+0.2**
	comp=Z,1.9nm,0.7s,baz=211,slow=8.2,SNR=7.4						
	comp=Z,1.9nm,0.7s						
WRAB	**Tennant Creek**	**36.60**	**48**	P	**P**	**16 09 42.5**	**+0.4**
WRAB				IAmb	IAmb	16 09 47.1	
	comp=Z,7.2nm,1.2s						
WR8	**Warramunga Arr**	**36.65**	**49**	P	**P**	**16 09 42.6**	**+0.1**
WB0	**Warramunga Arr**	**36.76**	**48**	P	**P**	**16 09 43.0**	**-0.4**
WB0				IAmb	IAmb	16 10 08.4	
	comp=Z,8.2nm,1.3s						
QSPA	**South Pole Qui**	**41.48**	**180**	P	**P**	**16 10 23.1**	**+0.4**
	comp=Z,2.5nm,0.7s,baz=298,slow=0.4,SNR=15						
QSPA				LR	LR	16 26 26.8	
	comp=Z,122nm,19.3s,baz=282,slow=34						
	comp=Z,2.5nm,0.7s						
QSPA	**South Pole Qui**	**41.48**	**180**	P	**P**	**16 10 22.5**	**-0.1**
QSPA				IAmb	IAmb	16 10 28.5	
	comp=Z,9.6nm,1.4s						
CTA	**Charters Tower**	**43.00**	**63**	LR	LR	16 27 53.0	
	comp=Z,127nm,18.6s,baz=230,slow=35						
SNAA	**Sanae**	**50.04**	**203**	P	**P**	**16 11 30.3**	**+0.3**
	comp=Z,2.1nm,0.8s,baz=97,slow=7.8,SNR=4.4						
	comp=Z,2.1nm,0.8s						
SNAA	**Sanae**	**50.04**	**203**	P	**P**	**16 11 30.3**	**+0.3**
HNR	**Honiara**	**59.53**	**68**	LR	LR	16 35 59.5	
	comp=Z,63nm,20.4s,baz=300,slow=34						
BOSA	**Boshof**	**63.24**	**256**	LR	LR	16 34 51.8	
	comp=Z,42nm,18.2s,baz=48,slow=31						
CMAR	**Chiang Mai Arr**	**67.10**	**353**	P	**P**	**16 13 28.9**	**-0.4**
	comp=Z,0.7nm,0.6s,baz=186,slow=6.8,SNR=4.3						
	comp=Z,0.7nm,0.6s						
MBAR	**Mbarara**	**79.84**	**281**	LR	LR	16 42 00.9	
	comp=Z,62nm,21.6s,baz=102,slow=30						
TXAR	**Lajitas Array**	**150.21**	**119**	PKPbc	**PKPbc**	**16 22 27.1**	**+0.2**
	comp=Z,0.7nm,0.9s,baz=200,slow=5.9,SNR=6.2						
TXAR	**Lajitas Array**	**150.21**	**119**		**PKPbc**	**16 22 26.8**	**-0.1**

IDC 02 16:06:55.0±457.0**,54°.05N**×**42°.39E,h0**km**,Error ellipse: s-maj=172.1km s-min=84.4km az=133.0,Baltic States-Belarus-Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I43RU	**DUBNA INFRASON**	**3.98**	**314**	I	I	16 32 30.0	
	baz=130,slow=317,SNR=1.5						
I31KZ	**AKTYUBINSK INF**	**10.27**	**104**	I	I	17 11 10.0	
	baz=297,slow=307,SNR=1.4						
I26DE	**FREYUNG INFRAS**	**18.54**	**265**	I	I	18 01 00.0	
	baz=62,slow=332,SNR=2.1						

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*SJA **02** 16:14:36.3±0.8,30°.27S×71°.56W,h8km±4km,ML3.7, MW3.3*

*GUC **02** 16:14:38.1±0.7,30°.32S×71°.39W,h50km±3km,ML3.7*

ISC 02 16:14:36.2±1.6,**30°.28S**±0°.03×**71°.56W**±0°.05,**h0**km±11km, **n29,** σ**1s.59**/54**,Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CO06	**Fray Jorge**	**0.40**	**189**	*e*P	**Pn**	**16 14 48.9**	**-0.4**
CO06				*i* S	**Sb**	**16 14 56.2**	**+3.3**
CO06				IAML		16 14 57.7	
	comp=E,6µm,0.5s						
GO04	**Tololo Observa**	**0.67**	**81**	*e*P	Pg	16 14 29.9	-19
GO04				*e*S	**Sb**	**16 15 01.7**	**+1.0**
GO04				IAML		16 15 01.7	
	comp=Z,5µm,0.2s						
GO04	**Tololo Observa**	**0.67**	**81**	*e*P	**Pb**	**16 14 51.4**	**+0.6**
GO04				*i* S	**Sb**	**16 15 01.2**	**+0.5**
CO03	**El Pedregal**	**0.94**	**127**	*e*P	**Pg**	**16 14 55.0**	**+0.9**
CO03				*e*S	**Sb**	**16 15 07.5**	**-0.9**
CO03	**El Pedregal**	**0.94**	**127**	*e*P	**Pg**	**16 14 54.5**	**+0.4**
CO03				*i* S	**Sg**	**16 15 06.6**	**+0.3**
CO02	**Combarbal**	**1.04**	**153**	*e*P	**Pg**	**16 14 56.9**	**+0.8**
CO02				IAML		16 15 13.6	
	comp=Z,2µm,0.3s						
CO02	**Combarbal**	**1.04**	**153**	*e*P	**Pg**	**16 14 56.9**	**+0.8**
CO02				*i* S	**Sg**	**16 15 10.3**	**+0.6**
CO02				IAML		16 15 12.1	
	comp=E,9µm,0.3s						
CO01	**Juntas del Tor**	**1.30**	**77**	*e*P	**Pg**	**16 15 01.5**	**+0.4**
CO01				*e*P	**Pg**	**16 15 01.7**	**+0.5**
CO01				IAML		16 15 17.7	
	comp=Z,1µm,0.5s						
CO01				*e*S	**Sg**	**16 15 17.8**	**-0.3**
CO01	**Juntas del Tor**	**1.30**	**77**	*e*P	**Pg**	**16 15 01.7**	**+0.5**
CO01				*i* S	**Sg**	**16 15 17.1**	**-1.0**
CO01				IAML		16 15 18.4	
	comp=E,1µm,0.3s						
LCO	**Las Campanas**	**1.47**	**31**	*e*P	**Pn**	**16 15 04.1**	**0.0**
LCO				*i* S	**Sb**	**16 15 22.7**	**-1.0**
AROD	**Rodeo**	**1.81**	**87**	*e*P	**Pb**	**16 15 10.3**	**0.0**
AROD				*e*S	**Sb**	**16 15 32.7**	**-1.0**
AC05	**El Transito**	**1.82**	**38**	*e*P	**Pb**	**16 15 10.3**	**-0.1**
AC05				IAML		16 15 36.9	
	comp=Z,519nm,0.3s						
AC05	**El Transito**	**1.82**	**38**	*e*P	**Pn**	**16 15 09.0**	**+0.2**
AC05				*i* S	**Sn**	**16 15 32.3**	**-0.4**
AC05				IAML		16 15 35.5	
	comp=N,1µm,0.5s						
CO04	**Los Peladeros**	**1.83**	**164**	*e*P	**Pn**	**16 15 08.8**	**-0.4**
CO04				*i* S	**Sn**	**16 15 32.1**	**-1.1**
CO04				IAML		16 15 35.2	
	comp=E,2µm,0.3s						
AC04	**Llanos de Chal**	**2.11**	**12**	*e*P	**Pn**	**16 15 13.2**	**+0.5**
AC04				*i* S	**Sn**	**16 15 39.8**	**+0.2**
ACDV	**Cuesta del Vie**	**2.11**	**88**	*e*P	**Pb**	**16 15 14.9**	**-0.5**
ACDV				*e*S	**Sg**	**16 15 43.2**	**-0.9**
ACDV				IAML		16 15 43.8	
	comp=Z,264nm,0.4s						
ACCO	**Cerro Coronel**	**2.18**	**99**	*e*P	**Pb**	**16 15 16.2**	**-0.4**
ACCO				*e*S	**Sg**	**16 15 46.6**	**+0.5**
ACCO				IAML		16 15 46.6	
	comp=Z,226nm,0.8s						
RTLS	**Leoncito**	**2.46**	**129**	*e*P	**Pn**	**16 15 19.7**	**+1.8**
RTLS				*e*S	**Sb**	**16 15 53.5**	**+1.0**
RTLS				IAML		16 16 01.2	
	comp=Z,687nm,0.7s						
VA03	**San Esteban**	**2.63**	**161**	*e*P	**Pn**	**16 15 20.7**	**+0.8**
VA03				*e*S	**Sb**	**16 15 55.4**	**-1.6**
VA03				IAML		16 16 02.1	
	comp=Z,306nm,0.7s						
RTLL	**Cerro Villicun**	**2.85**	**112**	*e*P	**Pn**	**16 15 24.7**	**+1.7**
RTLL				*e*S	**Sn**	**16 15 54.9**	**-3.2**
RTLL				IAML		16 16 16.2	
	comp=Z,224nm,0.8s						
GO03	**Copiapo**	**2.91**	**24**	*e*P	**Pn**	**16 15 24.4**	**+0.6**
GO03				*i* S	**Sn**	**16 15 59.0**	**-0.6**
CFA	**Coronel Fontan**	**3.15**	**116**	*e*P	**Pn**	**16 15 28.6**	**+1.6**
CFA				IAML		16 16 14.3	
	comp=Z,119nm,0.3s						
MT05	**Renca**	**3.19**	**168**	*e*P	**Pn**	**16 15 29.9**	**+2.3**
MT05				*e*S	**Sn**	**16 16 07.4**	**+1.1**
MT05				IAML		16 16 23.9	
	comp=Z,249nm,0.9s						
MT03	**Universidad Ad**	**3.33**	**165**	*e*P	**Pn**	**16 15 31.5**	**+1.9**
MT03				*e*P	**Pb**	**16 15 32.7**	**-3.5**
MT03				*e*S	**Sn**	**16 16 12.9**	**+3.0**
MT03				IAML		16 16 28.8	
	comp=Z,216nm,0.8s						
MT08	**Bocatoma Ro**	**3.42**	**158**	*e*P	**Pn**	**16 15 34.1**	**+3.1**
MT08				*e*S	**Sb**	**16 16 16.9**	**-3.1**
MT08				IAML		16 16 22.6	
	comp=Z,170nm,0.6s						
MT01	**Popeta**	**3.59**	**176**	*e*P	**Pn**	**16 15 33.9**	**+0.9**
MT01				*e*S	**Sn**	**16 16 16.9**	**+0.8**
MT01				IAML		16 16 23.6	
	comp=Z,158nm,0.6s						
MT13	**San Alfonso**	**3.62**	**163**	*e*P	**Pn**	**16 15 36.2**	**+2.6**
MT13				*e*S	**Sn**	**16 16 18.7**	**+1.5**
MT13				IAML		16 16 28.4	
	comp=Z,143nm,0.5s						
AAGR	**Agrelo**	**3.64**	**141**	*e*P	Pn	16 15 23.8	-10
AAGR				*e*P	**Pb**	**16 15 37.3**	**-4.2**
AAGR				*e*S	**Sb**	**16 16 24.9**	**-1.4**
AAGR				IAML		16 16 30.5	
	comp=Z,176nm,0.6s						
BO01	**Tunca**	**4.12**	**175**	*e*P	Pn	16 15 23.8	-17
BO01				IAML		16 16 40.9	
	comp=Z,57nm,0.5s						

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*PAS **02** 16:18:31.7±1.1,36°.038N±0°.010×117°.77W±0°.01, h2km±1km,Error ellipse: s-maj=1.5km s-min=1.4km az=222.0*

*NEIC **02** 16:18:31.2±1.1,36°.034N±0°.004×117°.77W±0°.01, h4km±2km,ML3.3/156,Mwr3.5/4(PAS),Error ellipse: s-maj=1.5km s-min=0.5km az=90.0*

ISC 02 16:18:31.6±0.9,**36°.04N**±0°.01×**117°.77W**±0°.02,**h5**km±6km, **n85,** σ**0s.89**/110**,California-Nevada border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WCSM	**Coso Springs S**	**0.01**	**176**		**Pg**	**16 18 32.4**	**-0.3**
WCSM					**Sg**	**16 18 32.8**	**-0.5**
WVPM	**Volcano Peak E**	**0.10**	**204**		**Pg**	**16 18 33.7**	**0.0**
WVPM					**Sg**	**16 18 35.3**	**+0.2**
WRVM	**Rose V. Centra**	**0.10**	**253**		**Pg**	**16 18 33.8**	**0.0**
WRVM					**Sg**	**16 18 35.4**	**+0.1**
MFS	**McCloud Flat S**	**0.11**	**318**		**Pg**	**16 18 34.0**	**+0.1**
MFS					**Sg**	**16 18 36.0**	**+0.6**
RCWM	**Renegade Canyo**	**0.13**	**132**		**Pg**	**16 18 34.6**	**+0.3**
WNMM	**Nine Mile Cany**	**0.22**	**210**		**Pg**	**16 18 36.1**	**+0.2**
WNMM					**Sg**	**16 18 39.6**	**+0.7**
MPMC	**Manual Prospec**	**0.23**	**85**	Pg	**Pg**	**16 18 36.3**	**+0.3**
MPMC				Sg	**Sg**	**16 18 39.5**	**+0.4**
MPMC				IAML		16 18 41.0	
	comp=E,5µm,0.4s						
MPMC				IAML		16 18 41.4	
	comp=N,6µm,0.5s						
TOW	**Tower One**	**0.23**	**179**		**Pg**	**16 18 36.7**	**+0.7**
TOW					**Sg**	**16 18 41.1**	**+2.1**
CLC	**China Lake**	**0.26**	**148**	Pg	**Pg**	**16 18 36.8**	**+0.2**
CLC				Sg	**Sg**	**16 18 40.5**	**+0.4**
CLC				IAML		16 18 42.2	
	comp=N,4µm,0.5s						
DAC	**Darwin (Calif)**	**0.28**	**31**		**Pg**	**16 18 37.0**	**0.0**
DAC					**Sg**	**16 18 41.2**	**+0.5**
SRTC	**Snort**	**0.35**	**177**		**Pg**	**16 18 38.9**	**+0.6**
GPO	**China Lake**	**0.40**	**167**		**Pg**	**16 18 39.6**	**+0.3**
GPO					**Sg**	**16 18 45.7**	**+1.2**
CWC	**Cottonwood Cre**	**0.47**	**328**	Pg	**Pg**	**16 18 40.7**	**-0.1**
CWC				Sg	**Sg**	**16 18 47.0**	**+0.1**
CWC				IAML		16 18 50.3	
	comp=E,2µm,0.2s						
CWC				IAML		16 18 53.0	
	comp=N,2µm,0.2s						
CGO	**Cerro Gordo**	**0.51**	**357**		**Pg**	**16 18 41.4**	**-0.1**
CGO					**Sg**	**16 18 48.8**	**+0.6**
WORM	**Onyx Ranch**	**0.52**	**229**		**Pg**	**16 18 41.3**	**-0.1**
WORM					**Sg**	**16 18 48.4**	**+0.2**
LRMC	**Laurel Mtn Rad**	**0.56**	**173**	Pg	**Pg**	**16 18 42.4**	**0.0**
LRMC				Sg	**Sg**	**16 18 50.1**	**+0.4**
LRMC				IAML		16 18 51.0	
	comp=E,4µm,0.5s						
LRMC				IAML		16 18 51.4	
	comp=N,3µm,0.2s						
WHFM	**Hanning Flat**	**0.58**	**234**		**Pg**	**16 18 42.7**	**0.0**
WHFM					**Sg**	**16 18 50.6**	**+0.3**
WBSM	**Bird Springs**	**0.58**	**211**		**Sg**	**16 18 51.0**	**+0.6**
CCCA	**Chr Cany lake**	**0.61**	**147**	Pg	**Pg**	**16 18 43.7**	**+0.4**
CCCA				Sg	**Sb**	**16 18 52.6**	**-1.1**
ISA	**Isabella, Lake**	**0.69**	**237**	Pg	**Pg**	**16 18 44.7**	**0.0**
ISA				Sg	**Sg**	**16 18 53.9**	**+0.3**
WASM	**Alta Sierra Ca**	**0.71**	**245**		**Pg**	**16 18 45.1**	**-0.1**
WASM					**Sg**	**16 18 54.8**	**+0.4**
QSM	**Queen of Sheba**	**0.73**	**95**	Pg	**Pg**	**16 18 45.6**	**-0.1**
QSM				Sg	**Sg**	**16 18 55.2**	**0.0**
QSM				IAML		16 19 00.1	
	comp=N,3µm,0.3s						
QSM				IAML		16 19 00.2	
	comp=E,3µm,0.5s						
DTP	**Desert Tortois**	**0.77**	**185**		**Pg**	**16 18 46.1**	**-0.2**
SPG2	**Springville 2**	**0.82**	**282**		**Pg**	**16 18 46.8**	**-0.6**
SPG2					**Sg**	**16 18 57.4**	**-0.7**
FURC	**Furnace Creek,**	**0.85**	**59**	Pg	**Pb**	**16 18 48.4**	**-0.4**
FURC				Sg	**Sg**	**16 18 59.2**	**+0.4**
FURC				IAML		16 19 00.7	
	comp=N,2µm,0.5s						
GWY	**Greenwater Val**	**0.90**	**80**	Pg	**Pg**	**16 18 49.0**	**+0.1**
GWY				Sg	**Sg**	**16 19 00.1**	**-0.5**
CCAC	**Calif City Air**	**0.91**	**193**		**Pg**	**16 18 48.7**	**-0.3**
CCAC					**Sg**	**16 19 01.1**	**+0.4**
GRAC	**Grapevine Rang**	**1.01**	**19**	Pg	**Pg**	**16 18 50.9**	**-0.1**
GRAC				Sg	**Sg**	**16 19 04.3**	**+0.3**
GRAC				IAML		16 19 09.8	
	comp=N,904nm,0.6s						
GRAC				IAML		16 19 11.4	
	comp=E,839nm,0.7s						
GSC	**Goldstone, Bar**	**1.07**	**133**	Pg	**Pg**	**16 18 51.7**	**-0.4**
GSC				Sg	**Sg**	**16 19 06.3**	**+0.2**
GSC				IAML		16 19 09.6	
	comp=E,1µm,0.6s						
GSC				IAML		16 19 11.9	
	comp=N,760nm,0.6s						
TIN	**Tinemaha, Big**	**1.08**	**340**	Pg	**Pg**	**16 18 52.1**	**-0.2**
VES	**Vestal, Richgr**	**1.09**	**260**	Pg	**Pg**	**16 18 51.9**	**-0.5**
WCT	**Wildcat Mounta**	**1.19**	**50**	Pg	**Pg**	**16 18 53.9**	**-0.5**
WCT				IAML		16 19 13.4	
	comp=E,415nm,0.7s						
TPO	**Tropico Hills**	**1.22**	**198**	Pg	**Pg**	**16 18 54.0**	**-0.9**
TPO				Sg	**Sg**	**16 19 10.2**	**-0.5**
TPO				IAML		16 19 11.2	
	comp=E,971nm,0.4s						
TPO				IAML		16 19 13.5	
	comp=N,815nm,0.6s						
SHOC	**Shoshone, Teco**	**1.22**	**96**	Pg	**Pg**	**16 18 54.3**	**-0.6**
GMN	**Gold Mountain**	**1.32**	**18**	Pg	**Pg**	**16 18 56.3**	**-0.7**
DSP	**Deep Springs**	**1.34**	**353**	Pg	**Pn**	**16 18 56.4**	**-0.6**
DSP				Sg	**Sg**	**16 19 14.0**	**-0.7**
OSI	**Osito Audit: C**	**1.62**	**209**		**Pb**	**16 19 01.5**	**-0.5**
OSI				IAML		16 19 28.7	
	comp=E,388nm,0.6s						
OSI				IAML		16 19 32.6	
	comp=N,253nm,0.7s						
CRGC	**Crocker Grade**	**1.78**	**244**		**Pb**	**16 19 04.5**	**-0.3**
KCC	**Kaiser Creek**	**1.79**	**316**		**Pb**	**16 19 04.4**	**-0.5**
BFSC	**Mount Baldy Ra**	**1.80**	**177**	Pn	**Pn**	**16 19 03.5**	**+0.2**
BFSC				IAML		16 19 30.2	
	comp=N,240nm,0.3s						
BFSC				IAML		16 19 33.3	
	comp=E,266nm,0.5s						
MWC	**Mount Wilson**	**1.82**	**188**	Pn	**Pn**	**16 19 03.8**	**0.0**
MWC				IAML		16 19 33.3	
	comp=E,444nm,0.5s						
MTPC	**Mountain Pass**	**1.88**	**106**	Pn	**Pn**	**16 19 03.6**	**-1.0**
MTPC				IAML		16 19 33.9	
	comp=N,178nm,0.8s						
MTPC				IAML		16 19 35.3	
	comp=E,196nm,0.4s						
PASC	**Pasadena Art C**	**1.89**	**191**	Pn	**Pn**	**16 19 05.1**	**+0.5**
PASC				IAML		16 19 36.2	
	comp=E,163nm,0.5s						
MDPB	**Devils Postpil**	**1.91**	**327**	Pn	**Pb**	**16 19 06.2**	**-0.8**
MDPB				IAML		16 19 34.1	
	comp=N,342nm,0.6s						
MDPB				IAML		16 19 37.5	
	comp=E,286nm,0.6s						
SMMC	**Simmler**	**1.95**	**249**		**Pb**	**16 19 07.1**	**-0.6**
TPH	**Tonopah**	**2.08**	**12**	Pn	**Pn**	**16 19 08.0**	**+0.6**
TPH				IAML		16 19 43.8	
	comp=N,138nm,0.9s						
PKD	**Bear Valley Ra**	**2.25**	**268**	Pn	**Pn**	**16 19 10.2**	**+0.7**
PKD				IAML		16 19 44.7	
	comp=N,211nm,0.5s						
PKD				IAML		16 20 02.6	
	comp=E,198nm,1.4s						
LHV	**Little Huntoon**	**2.29**	**345**	Pn	**Pn**	**16 19 10.6**	**+0.6**
LHV				IAML		16 19 59.3	
	comp=E,165nm,1.0s						
LHV				IAML		16 20 02.4	
	comp=N,107nm,1.4s						
DANC	**Danby, Needles**	**2.40**	**125**	IAML		16 19 55.6	
	comp=N,201nm,0.4s						
DANC				IAML		16 19 59.8	
	comp=E,234nm,0.6s						
ELS	**Elsinore Mount**	**2.40**	**173**	Pn	**Pn**	**16 19 11.4**	**-0.2**
ELS				IAML		16 19 49.0	
	comp=E,132nm,0.5s						
ELS				IAML		16 19 53.9	
	comp=N,106nm,0.7s						
NV11	**Mina Array Sit**	**2.41**	**353**		**Pn**	**16 19 13.3**	**+1.5**
NVAR	**Mina Array Bea**	**2.42**	**350**	Pn	**Pn**	**16 19 11.7**	**-0.4**
POB	**Polly Butte**	**2.45**	**163**		**Pn**	**16 19 12.6**	**+0.3**
BELC	**Belle Mtn. Jos**	**2.50**	**144**	IAML		16 19 55.6	
	comp=E,117nm,0.7s						
BELC				IAML		16 19 59.7	
	comp=N,141nm,0.7s						
PRN	**Pahroc Range**	**2.58**	**57**	Pn	**Pn**	**16 19 14.4**	**+0.3**
PRN				IAML		16 19 57.2	
	comp=N,207nm,0.5s						
PRN				IAML		16 20 02.4	
	comp=E,252nm,1.0s						
DNR	**Dunn Ranch,Anz**	**2.64**	**159**	Pn	**Pn**	**16 19 15.5**	**+0.6**
PMD	**Palm Desert**	**2.64**	**154**	Pn	**Pn**	**16 19 14.2**	**-0.7**
PFO	**Pinyon Flats O**	**2.65**	**156**	Pn	**Pn**	**16 19 14.7**	**-0.4**
PFO				IAML		16 20 01.5	
	comp=E,95nm,0.9s						
BBGB	**Big Mountain B**	**2.70**	**283**	Pn	**Pn**	**16 19 17.3**	**+1.6**
HULI	**Fort Hunter Li**	**2.81**	**271**	Pn	**Pn**	**16 19 18.3**	**+1.1**
HULI				IAML		16 19 56.3	
	comp=N,153nm,0.7s						
HULI				IAML		16 19 59.6	
	comp=E,145nm,0.9s						
IRM	**Iron Mountain**	**2.85**	**130**	Pn	**Pn**	**16 19 16.4**	**-1.4**
IRM				IAML		16 20 05.2	
	comp=E,64nm,0.5s						
CMB	**Columbia Colle**	**2.89**	**314**	Pn	**Pn**	**16 19 20.7**	**+2.3**
CMB				IAML		16 20 04.5	
	comp=E,103nm,0.6s						
CMB				IAML		16 20 04.5	
	comp=N,120nm,0.6s						
BC3	**Big Chuckawall**	**3.04**	**141**	Pn	**Pn**	**16 19 19.4**	**-1.1**
BC3				IAML		16 20 17.3	
	comp=E,58nm,0.7s						
BC3				IAML		16 20 21.4	
	comp=N,55nm,0.8s						
SAO	**San Andreas Ge**	**3.06**	**285**	Pn	**Pn**	**16 19 21.2**	**+0.6**
DPP	**Dos Picos Cty**	**3.11**	**167**	Pn	**Pn**	**16 19 21.0**	**-0.3**
DPP				IAML		16 20 11.6	
	comp=E,68nm,0.4s						
W13A	**Hualapai Mount**	**3.30**	**105**	Pn	**Pn**	**16 19 23.5**	**-0.7**
W13A				IAML		16 20 22.5	
	comp=N,59nm,0.9s						
BAR	**Barrett**	**3.47**	**165**	Pn	**Pn**	**16 19 26.3**	**0.0**
BAR				IAML		16 20 20.3	
	comp=E,87nm,0.6s						
BAR				IAML		16 20 21.2	
	comp=N,71nm,0.4s						
YUH	**Yuha Desert**	**3.71**	**155**	Pn	**Pn**	**16 19 31.3**	**+1.8**
MPK	**Martis Peak**	**3.71**	**332**	Pn	**Pn**	**16 19 31.6**	**+1.7**
MPK				IAML		16 20 31.7	
	comp=E,65nm,0.9s						
MPK				IAML		16 20 37.9	
	comp=N,87nm,0.8s						
LCMT	**Little Creek M**	**3.77**	**74**	Pn	**Pn**	**16 19 31.1**	**+0.6**
CBX	**Cerro Bola**	**3.83**	**166**	Pn	**Pn**	**16 19 32.0**	**+0.7**
CCUT	**Cedar City**	**3.84**	**66**	Pn	**Pn**	**16 19 32.6**	**+0.9**
PSUT	**Pine Spring**	**3.99**	**50**	Pn	**Pn**	**16 19 34.1**	**+0.4**
PSUT				IAML		16 20 41.3	
	comp=E,45nm,0.6s						

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PSUT                               IAML          16 20 46.5
      comp=N,43nm,1.0s
ESJX  Sierra Juarez     4.30 159   Pn     Pn     16 19 37.5 -0.3
ESJX                               IAML          16 20 48.2
      comp=E,27nm,0.6s
BMN   Battle Mountai    4.41   5   Pn     Pn     16 19 40.6 +1.3
Y14A  Wickenburg        4.44 117   Pn     Pn     16 19 38.2 -1.4
Y14A                               IAML          16 20 56.6
      comp=E,28nm,0.6s
Y14A                               IAML          16 20 56.6
      comp=N,38nm,0.9s
U15A  North Rim         4.44  83   Pn     Pn     16 19 40.9 +1.0
U15A                               IAML          16 21 04.9
      comp=N,24nm,1.6s
U15A                               IAML          16 21 05.8
      comp=E,20nm,1.1s
SUTB  Sutter Butte      4.51 316   Pn     Pn     16 19 43.3 +2.8
PKCU  Pink Cliffs       4.60  71   Pn     Pn     16 19 44.0 +1.9
PKCU                               IAML          16 21 07.7
      comp=E,35nm,2.2s
PKCU                               IAML          16 21 15.8
      comp=N,30nm,2.2s
113A  Mohawk Valley,    4.64 133   Pn     Pn     16 19 45.0 +2.6
ELK   Elko              5.10  22   Pn     Pn     16 19 49.3 +0.4
WUAZ  Wupatki           5.22  94   Pn     Pn     16 19 52.0 +1.4
WUAZ                               IAML          16 21 20.8
      comp=N,32nm,1.9s
WUAZ                               IAML          16 21 20.8
      comp=N,33nm,1.2s
X16A  Lo Mia Camp, P    5.42 105   Pn     Pn     16 19 53.0 -0.3
SRU   San Rafael Swe    6.52  60   Pn     Pn     16 20 11.0 +2.7
PV04  Paradox Valley    7.45  69   Pn     Pn     16 20 23.7 +2.6
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SJA ***02*** *16:21:36.3±0.8, 27°.81S×71°.81W, h13^{km}±3^{km}, ML4.3, MW4.3*

IDC ***02*** *16:21:38.2±0.9, 27°.76S×71°.77W, h0^{km}, mb4.3/5, mbtmp4.1/8, ML3.8/3, MS3.5/5, Error ellipse: s-maj=24.4km s-min=15.8km az=79.0*

NEIC ***02*** *16:21:39.1±1.8, 27°.84S±0°.05×71°.61W±0°.05, h11^{km}±3^{km}, mb4.4/2, Mwr4.2/41, ML3.9(GUC), Error ellipse: s-maj=7.3km s-min=6.0km az=130.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M$_{rr}$1.54; M$_{\theta\theta}$0.11; M$_{\phi\phi}$-1.65; M$_{r\theta}$0.68; M$_{\theta\phi}$-0.83; M$_{\phi r}$-2.03; Fault plane solution: M$_0$2.80000×10^{15} NP1:φ$_s$47.45000°, δ29.02000°, λ140.93000°. NP2:φ$_s$172.82000°, δ72.20000°, λ66.70000°. Principal axes: T 2.8708, Plg57.0000°, Azm52.0000°; N -0.1581, Plg22.0000°, Azm180.0000°; P -2.7127, Plg24.0000°, Azm281.0000°;*

NEIC ***02*** *16:21:39.1, 27°.84S×71°.60W, h13^{km}*

GUC ***02*** *16:21:41.5±0.8, 27°.96S×71°.53W, h26^{km}±4^{km}, ML4.0*

ISC 02 16:21:37.1±1.5**, 27°.92S**±0°.02×**71°.65W**±0°.05**, h3**^{km}±9^{km}**, n96,** σ**2^{s}06**/112**, mb4.4**/5**, 1C-2D, Near coast of northern Chile**

```
Code  Station Name      Δ°   AZ°    Phase ID         Time      Res
                                   Op     ISC      h  m  s    ISC
AC04  Llanos de Chal    0.58 119   eS     Sg     16 21 50.7 -5.1
AC04                               eP     Pb     16 21 50.9 +0.9
AC04  Llanos de Chal    0.58 119⇓ iP     Sg     16 21 50.8 -5.1
AC04                               eS     Sg     16 21 55.8 -0.1
AC04  Llanos de Chal    0.58 119          Sg     16 21 50.7 -5.1
AC04                               Sg     Sg     16 21 55.7 -0.1
AC06  Mina Casimiro     1.28  64   eP     Pg     16 22 02.4 +0.7
AC06                               IAML          16 22 22.9
      comp=N,4µm,0.5s
AC06  Mina Casimiro     1.28  64          Pg     16 22 02.2 +0.6
AC06                               Sg     Sb     16 22 17.4 -1.2
GO03  Copiapo           1.29  76   eP     Pg     16 22 03.0 +1.0
GO03                               eS     Sb     16 22 07.4  -12
GO03                               IAML          16 22 28.1
      comp=Z,4µm,0.5s
GO03  Copiapo           1.29  76⇓ iP     Pg     16 22 02.6 +0.7
GO03                               IAML          16 22 25.2
      comp=N,4µm,0.4s
GO03  Copiapo           1.29  76          Pg     16 22 02.3 +0.3
LCO   Las Campanas      1.37 143   eP     Pg     16 22 04.3 +0.9
LCO                                eS     Sb     16 22 21.1 -0.4
LCO   Las Campanas      1.37 143   Pn     Pg     16 22 04.3 +0.9
AC05  El Transito       1.52 127   eP     Pg     16 22 06.6 +0.4
AC05                               eS     Sn     16 22 24.9 -0.7
AC05                               IAML          16 22 30.3
      comp=N,5µm,0.6s
AC05  El Transito       1.52 127   Pn     Pb     16 22 05.9 -0.1
AC01  Pan de Azucar     2.00  28   eP     Pb     16 22 12.5 -1.6
AC01                               eS     Sb     16 22 38.0 -1.4
AC01  Pan de Azucar     2.00  28   eP     Pb     16 22 12.6 -1.6
AC01                               eS     Sg     16 22 45.3 +3.9
AC01  Pan de Azucar     2.00  28   Pn     Pn     16 22 11.7 -0.1
GO04  Tololo Observa    2.36 162   eP     Pb     16 22 19.5 -1.0
GO04                               eS     Sn     16 22 47.0 +0.3
GO04                               eS     Sg     16 22 54.8 +1.7
GO04                               IAML          16 22 55.6
      comp=Z,3µm,0.8s
GO04  Tololo Observa    2.36 162   eP     Pb     16 22 19.4 -1.1
GO04  Tololo Observa    2.36 162   Pn     Pb     16 22 18.9 -1.6
CO01  Juntas del Tor    2.46 147   eP     Pb     16 22 21.7 -0.4
CO01                               eS     Sb     16 22 52.1 -0.8
CO01                               IAML          16 22 57.9
      comp=Z,911nm,0.8s
CO01  Juntas del Tor    2.46 147   eP     Pb     16 22 21.8 -0.4
CO01                               IAML          16 22 57.0
      comp=N,2µm,0.5s
CO01  Juntas del Tor    2.46 147   Pn     Pb     16 22 21.2 -0.9
AC02  Maricunga         2.49  65   eP     Pb     16 22 22.0 -0.8
AC02                               eS     Sb     16 22 53.2 -0.8
AC02                               IAML          16 23 01.5
      comp=Z,1µm,0.5s
AC02  Maricunga         2.49  65   eP     Pb     16 22 21.9 -0.8
AC02                               eS     Sb     16 22 52.2 -1.8
AC02                               IAML          16 22 59.5
      comp=N,3µm,0.2s
CO06  Fray Jorge        2.74 180   eP     Pn     16 22 23.3 +1.3
CO06                               IAML          16 23 13.8
      comp=E,499nm,0.5s
CO06  Fray Jorge        2.74 180   Pn     Pn     16 22 23.4 +1.3
AROD  Rodeo             2.94 140   eP     Pb     16 22 30.0 -0.3
AROD                               eS     Sg     16 23 09.9 -1.7
CO03  El Pedregal       3.02 164   eP     Pn     16 22 28.5 +2.5
CO03                               eS     Sg     16 23 18.7 +4.4
CO03                               IAML          16 23 26.4
      comp=Z,673nm,1.4s
CO03  El Pedregal       3.02 164   eP     Pn     16 22 28.2 +2.2
CO03                               IAML          16 23 19.6
      comp=E,952nm,0.7s
CO03  El Pedregal       3.02 164   Pn     Pn     16 22 28.1 +2.1
VCA   Vinchina          3.14 106   eP     Pb     16 22 33.5 -0.2
VCA                                eS     Sb     16 23 12.0 -0.5
VCA                                IAML          16 23 20.3
      comp=Z,843nm,1.3s
VCA   Vinchina          3.14 106   eP     Pb     16 22 33.3 -0.5
ACDV  Cuesta del Vie    3.15 136   eP     Pb     16 22 33.5 -0.4
ACDV                               eS     Sb     16 23 12.0 -0.7
ACDV                               IAML          16 23 25.4
      comp=Z,510nm,1.0s
CO02  Combarbal         3.32 170   eP     Pn     16 22 32.1 +2.0
CO02                               eS     Sn     16 23 10.8 +0.7
CO02                               IAML          16 23 29.1
      comp=Z,824nm,0.5s
CO02  Combarbal         3.32 170⇑ eP     Pn     16 22 32.0 +1.9
CO02  Combarbal         3.32 170   Pn     Pn     16 22 31.7 +1.7
PB14  IPOC Station P    3.47  19   eP     Pn     16 22 32.6 +0.4
PB14                               eS     Sn     16 23 12.6 -1.4
PB14                               IAML          16 23 36.7
      comp=Z,376nm,2.0s
PB14  IPOC Station P    3.47  19   Pn     Pn     16 22 32.2  0.0
ACCO  Cerro Coronel     3.49 140   eP     Pb     16 22 37.9 -1.8
ACCO                               eP     Pn     16 22 38.0 +5.5
ACCO                               eS     Sb     16 23 21.5 -1.0
ACCO                               IAML          16 23 33.4
      comp=Z,553nm,0.5s
TINO  Tinogasta         3.61  93   eP     Pb     16 22 37.7 -4.0
TINO                               eP     Pn     16 22 37.9 +3.9
TINO                               eP     Pg     16 22 38.0 -8.3
TINO                               eS     Sb     16 23 27.0 +1.1
TINO                               IAML          16 23 37.0
      comp=Z,436nm,1.1s
CO04  Los Peladeros     4.15 172   eP     Pn     16 22 43.8 +2.2
CO04  Los Peladeros     4.15 172   Pn     Pn     16 22 43.2 +1.6
RTLS  Leoncito          4.37 153   eP     Pb     16 22 50.2 -4.5
RTLS                               eS     Sb     16 23 47.0 -1.0
RTLS                               IAML          16 23 56.9
      comp=Z,991nm,1.1s
RTLL  Cerro Villicun    4.38 142   eP     Pb     16 22 50.0 -4.7
RTLL                               eS     Sb     16 23 46.5 -1.4
RTLL                               IAML          16 24 14.7
      comp=Z,256nm,0.7s
ACLC  CERRO LA CRUZ     4.39 111   eP     Pn     16 22 49.0 +4.2
ACLC                               eS     Sn     16 23 42.0 +5.4
ACLC                               IAML          16 23 50.7
      comp=Z,169nm,0.5s
ZON   Zonda             4.44 145   Pn     Pn     16 22 48.8 +3.4
CFA   Coronel Fontan    4.72 142   Pn     Pn     16 22 53.8 +4.5
      comp=Z,3.7nm,0.3s,baz=331,slow=10.0,SNR=51
CFA                                Sn     Sb     16 23 51.3 -6.5
      comp=Z,8.2nm,0.3s,baz=79,slow=16,SNR=6.4
      comp=Z,14nm,0.3s
CFA                                AML    AML
CFA   Coronel Fontan    4.72 142   eP     Pn     16 22 54.0 +4.7
CFA                                eS     Sb     16 23 54.5 -3.2
CFA                                IAML          16 24 06.0
      comp=Z,187nm,0.6s
VA03  San Esteban       4.92 169   eP     Pn     16 22 54.8 +2.8
VA03                               IAML          16 24 18.4
      comp=Z,342nm,0.7s
VA03  San Esteban       4.92 169   eP     Pn     16 22 54.4 +2.3
VA03  San Esteban       4.92 169   Pn     Pn     16 22 54.8 +2.8
PB05  IPOC Station P    5.21  15   Pn     Pn     16 22 55.2 -0.9
PEL   Peldehue          5.27 171   Pn     Pn     16 22 59.1 +2.2
MT02  Curacav           5.34 175   Pn     Pn     16 22 58.9 +1.2
PB06  IPOC Station P    5.52  20   Pn     Pn     16 23 00.0 -0.4
MT16  CCHEN             5.57 170   Pn     Pn     16 23 04.7 +3.7
MT09  Talagante         5.86 175   Pn     Pn     16 23 06.6 +1.5
MT13  San Alfonso       5.92 169   Pn     Pn     16 23 08.6 +2.7
MT01  Popeta            5.93 177   Pn     Pn     16 23 07.6 +1.7
PB03  IPOC Station P    6.09  17   Pn     Pn     16 23 06.4 -1.8
SLA   San Lorenzo       6.37  61   eP     Pb     16 23 22.1 -6.6
PB07  IPOC Station P    6.37  15   Pn     Pn     16 23 10.8 -1.2
PB02  IPOC Station P    6.76  14   Pn     Pn     16 23 16.1 -1.3
BO02  Sierra Bellavi    6.89 174   Pn     Pn     16 23 20.2 +1.1
TCA   Tanti             7.02 121   eP     Pn     16 23 22.6 +1.7
PB11  IPOC Station P    8.32  13   Pn     Pn     16 23 37.0 -1.9
H03N1 Juan Fernandez    8.33 227   T      T      16 32 23.5
      baz=207,slow=74,SNR=96
H03N2 Juan Fernandez    8.34 227   T      T      16 32 23.0
      baz=55,slow=74,SNR=106
PSGCX Pisagua           8.40  10   Pn     Pn     16 23 36.8 -3.2
BI02  San Fabin de      8.72 178   Pn     Pn     16 23 45.0 +0.7
PB12  IPOC Station P    9.34   8   Pn     Pn     16 23 51.4 -1.4
PB16  IPOC Station P    9.74  12   Pn     Pn     16 23 57.8 -0.9
LPAZ  La Paz           12.03  16   Pn     Pn     16 24 30.4 +0.4
      comp=Z,0.2nm,0.3s,baz=184,slow=7.7,SNR=4.6
LPAZ                               LR     LR     16 29 12.0
      comp=Z,96nm,20.7s,baz=200,slow=38
      comp=Z,0.9nm,0.4s
LPAZ                               AML    AML
LPAZ  La Paz           12.03  16   Pn     Pn     16 24 29.9 -0.1
PLCA  Paso Flores      12.81 176   LR     LR     16 29 53.9
      comp=Z,229nm,18.5s,baz=350,slow=38
CPUP  Villa Florida    12.85  86   Pn     Pn     16 24 43.4 +2.6
      comp=Z,0.1nm,0.3s,baz=141,slow=6.6,SNR=1.5
CPUP                               LR     LR     16 30 38.4
      comp=Z,81nm,21.0s,baz=248,slow=42
      comp=Z,0.6nm,0.4s
CPUP                               AML    AML
BDFB  Brasilia         25.06  66   P      P      16 27 04.5 +1.4
      comp=Z,1.0nm,0.3s,baz=184,slow=7.5,SNR=3.1
BDFB                               LR     LR     16 38 20.3
      comp=Z,393nm,18.2s,baz=229,slow=40
      comp=Z,1.0nm,0.3s
MDP   Montagnes des    37.60  32   LR     LR     16 44 41.1
      comp=Z,92nm,18.6s,baz=118,slow=37
VNA3  Neumayer Olymp   54.88 160   P      P      16 31 10.6 +2.1
      comp=Z,2.6nm,0.8s
SNAA  Sanae            57.11 159   P      P      16 31 26.6 +2.1
      comp=Z,28nm,0.4s
SNAA  Sanae            57.11 159   P      P      16 31 26.2 +1.7
      comp=Z,3.4nm,0.9s,baz=288,slow=6.2,SNR=7.0
      comp=Z,3.4nm,0.9s
SNAA  Sanae            57.11 159   P      P      16 31 26.5 +2.0
SNAA                               IAmb   IAmb   16 31 38.0
      comp=Z,3.8nm,1.0s
TROLL Troll, Antarti   58.82 160   P      P      16 31 38.7 +2.1
      comp=Z,121nm,0.7s
QSPA  South Pole Qui   62.30 180   P      P      16 32 02.7 +2.2
      comp=Z,3.2nm,1.0s,baz=159,slow=0.6,SNR=12
      comp=Z,3.2nm,1.0s
QSPA  South Pole Qui   62.30 180   P      P      16 32 02.9 +2.5
QSPA                               IAmb   IAmb   16 32 04.0
      comp=Z,3.5nm,0.9s
DBIC  Dimbokro         72.98  73   P      P      16 33 10.0 +1.4
      comp=Z,3.2nm,0.5s,baz=286,slow=7.3,SNR=3.7
      comp=Z,3.2nm,0.5s
TORD  Torodi Ar. Bea   81.85  71   P      P      16 33 58.7 +0.5
      comp=Z,2.3nm,0.9s,baz=258,slow=4.5,SNR=9.0
      comp=Z,2.3nm,0.9s
ASAR  Alice Springs   123.10 208   PKP    PKiKP  16 40 37.3 +1.3
      comp=Z,0.9nm,1.2s,baz=116,slow=1.6,SNR=1.9
WRA   Warramunga Arr  126.18 211   PKP    PKiKP  16 40 44.0 +1.8
      comp=Z,0.5nm,0.6s,baz=157,slow=1.7,SNR=6.8
KURK  Kurchatov       148.00  37          PKPbc  16 41 23.5 -0.2
KURBB Kurchatov Arra  148.00  37   PKPbc  PKiKP  16 41 23.8 -1.7
      comp=Z,1.1nm,0.7s,baz=302,slow=3.6,SNR=9.1
ZALV  Zalesovo Beam   148.79  27   PKPbc  PKPab  16 41 28.4 -1.0
      comp=Z,5.2nm,0.8s,baz=304,slow=3.4,SNR=23
ZALV  Zalesovo Beam   148.79  27          PKPab  16 41 27.6 -1.7
KSH2  Kashi           150.62  59   PKPbc  PKPab  16 41 33.8 -3.8
MKAR  Makanchi Array  152.20  40   PKPbc  PKiKP  16 41 35.6 +1.2
      comp=Z,1.3nm,0.8s,baz=339,slow=2.0,SNR=15
MKAR  Makanchi Array  152.20  40   PKPbc  PKiKP  16 41 34.5 +0.1
HHC   Hu-ho-hao-te    166.84 349   eP     PKPdf  16 41 39.4 -5.0
```

IDC ***02*** *16:26:17.1±3.6, 23°.20S×176°.99W, h129^{km}±33^{km}, mb3.7/6, mbtmp4.2/8, Error ellipse: s-maj=34.3km s-min=20.7km az=136.0*

NEIC ***02*** *16:26:19.3±1.8, 23°.3S±0°.2×176°.9W±0°.2, h147^{km}±12^{km}, mb4.2/14, Error ellipse: s-maj=28.4km s-min=13.1km az=220.0*

ISC 02 16:26:20.3±0.7**, 23°.2S**±0°.1×**176°.9W**±0°.1**, h167**^{km}**, n29,** σ**0^{s}91**/28**, mb4.1**/13**, South of Fiji Islands**

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Code  Station Name      Δ°   AZ°    Phase ID         Time      Res
                                   Op     ISC      h  m  s    ISC
NIUE  Niue              7.70  59   Pn     Pn     16 28 10.1 +0.4
AFI   Afiamalu         10.44  29   P      Pn     16 28 44.6 -1.4
      31nm,0.4s,baz=228,slow=4.9,SNR=13
AFI                                S      Sn     16 30 33.9 -8.1
      8.8nm,0.3s,baz=259,slow=23,SNR=1.7
AFI   Afiamalu         10.44  29   Pn     Pn     16 28 45.6 -0.3
URZ   Urewera          15.86 197   P      Pn     16 29 53.4 -1.0
      3.7nm,0.5s,baz=66,slow=17,SNR=1.3
URZ                                S      S      16 32 35.3  -16
      8.5nm,0.7s,baz=274,slow=23,SNR=7.8
EIDS  Eidsvold         29.23 259   P      P      16 32 06.8 +0.2
EIDS                               IAmb   IAmb   16 32 19.4
      comp=Z,6.4nm,1.1s
CTAO  Charters Tower   34.33 268   P      P      16 32 52.4 +1.2
CTAO                               IAmb   IAmb   16 32 53.6
      comp=Z,4.5nm,0.6s
PMG   Port Moresby     36.99 286   P      P      16 33 15.4 +1.5
STKA  Stephens Creek   37.62 247   P      P      16 33 18.6 -0.4
      comp=Z,2.0nm,0.6s,baz=96,slow=9.0,SNR=5.5
      comp=Z,2.0nm,0.6s
BBOO  Buckleboo        42.33 246   P      P      16 33 56.3 -1.5
AS31  Alice Springs    44.95 259   P      P      16 34 18.4 -0.6
ASAR  Alice Springs    44.95 259   P      P      16 34 18.6 -0.4
      comp=Z,0.9nm,0.3s,baz=96,slow=7.4,SNR=42
ASAR                               PcP    PcP    16 35 58.8 +1.3
      comp=Z,0.2nm,0.5s,baz=110,slow=4.5,SNR=4.5
      comp=Z,0.9nm,0.3s
WR8   Warramunga Arr   45.14 264   P      P      16 34 19.6 -0.9
WR8                                IAmb   IAmb   16 34 21.3
      comp=Z,4.6nm,0.7s
WB0   Warramunga Arr   45.28 265   P      P      16 34 20.8 -0.8
WRAB  Tennant Creek    45.29 264   P      P      16 34 21.0 -0.6
WRAB                               IAmb   IAmb   16 34 22.2
      comp=Z,3.0nm,0.6s
WRA   Warramunga Arr   45.29 264   P      P      16 34 21.2 -0.5
      comp=Z,2.4nm,0.4s,baz=94,slow=8.4,SNR=149
WRA                                PcP    PcP    16 36 00.2 +1.5
      comp=Z,0.5nm,0.3s,baz=95,slow=3.9,SNR=12
      comp=Z,2.4nm,0.4s
WRA   Warramunga Arr   45.29 264   P      P      16 34 20.7 -1.0
MTN   Manton Dam       50.25 272   P      P      16 34 59.3 -0.5
MTN                                IAmb   IAmb   16 35 09.6
      comp=Z,3.1nm,1.1s
KNRA  Kununurra        51.54 268   P      P      16 35 09.7 +0.2
KNRA                               IAmb   IAmb   16 35 14.6
      comp=Z,4.4nm,1.1s
FITZ  Fitzroy Crossi   53.72 264   P      P      16 35 25.7 +0.2
      comp=Z,3.3nm,0.7s,baz=122,slow=6.9,SNR=14
      comp=Z,3.3nm,0.7s
FITZ  Fitzroy Crossi   53.72 264   P      P      16 35 25.3 -0.2
CASY  Casey            61.98 206   P      P      16 36 21.4 -0.8
CASY                               IAmb   IAmb   16 36 36.1
      comp=Z,3.0nm,1.1s
QSPA  South Pole Qui   66.88 180   P      P      16 36 54.9 +0.7
      comp=Z,0.8nm,0.7s,baz=79,slow=15,SNR=2.2
      comp=Z,0.8nm,0.7s
QSPA  South Pole Qui   66.88 180   P      P      16 36 55.5 +1.2
QSPA                               IAmb   IAmb   16 36 56.4
      comp=Z,2.5nm,1.1s
H03S2 Juan Fernandez   83.64 124   T      T      18 11 08.1
      baz=246,slow=74,SNR=13
H03S1 Juan Fernandez   83.65 124   T      T      18 11 09.2
      baz=246,slow=74,SNR=12
H03S3 Juan Fernandez   83.66 124   T      T      18 10 54.1
      baz=246,slow=74,SNR=15
ILAR  Eielson Array    90.71  12   P      P      16 39 02.9 -0.7
      comp=Z,0.2nm,0.6s,baz=204,slow=2.0,SNR=2.0
      comp=Z,0.2nm,0.6s
AKASG Malin Array Be  145.85 330   PKPbc  PKPab  16 45 40.9 +0.5
      comp=Z,1.9nm,0.4s,baz=43,slow=4.3,SNR=25
BRTR  Keskin Array B  149.37 310   PKPbc  PKiKP  16 45 50.6 -0.3
      comp=Z,0.4nm,0.5s,baz=94,slow=4.5,SNR=3.1
```

IDC ***02*** *16:33:04.9±3.5, 9°.05S×115°.99E, h0^{km}, mb3.2/3, mbtmp3.3/3, Error ellipse: s-maj=244.6km s-min=27.5km az=49.0*

DJA ***02*** *16:33:10.9±0.2, 8°S±2°×11°8E±°, h10^{km}, M3.8/18, MLv3.8/18*

ISC 02 16:33:10.3±0.9**, 7°.91S**±0°.05×**117°.49E**±0°.04**, h10**^{km}**, n21,** σ**0^{s}84**/23**, Bali Sea**

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Code  Station Name      Δ°   AZ°    Phase ID         Time      Res
                                   Op     ISC      h  m  s    ISC
PLAI  Plampang          0.96 163   P      Pg     16 33 28.9 +0.2
PLAI                               S      Sb     16 33 42.6 +0.9
PLAI                               AML    AML
DBNI  Kabupaten Domp    1.00 126   P      Pb     16 33 30.2 +0.4
DBNI                               S      Sn     16 33 44.8 +0.2
DBNI                               AML    AML
TWSI  Taliwang, Sumb    1.02 216   P      Pg     16 33 28.9 -1.1
TWSI                               S      Sg     16 33 43.2 -0.1
TWSI                               AML    AML
KHKI  Kahang-Kahang     1.92 256   P      Pn     16 33 44.1 +1.1
SRBI  Singaraja         2.27 265   P      Pb     16 33 51.1 -0.2
DNP   Denpasar          2.38 251   P      Pn     16 33 50.2 +0.8
DNP                                AML    AML
LBFI  Labuhan Bajo,     2.44 104   P      Pn     16 33 49.5 -0.7
IGBI  Denpasar          2.49 249   P      Pn     16 33 51.7 +0.8
IGBI                               AML    AML
RTBI  Rangdo, Negare    2.58 258   P      Pn     16 33 53.4 +1.2
RTBI                               AML    AML
WSI   Waingapu          3.28 122   P      Pn     16 34 01.6 -0.1
MKS   Makassar          3.32  36   P      Pn     16 34 02.7 +0.4
MKS                                AML    AML
JAGI  Jajag, Banyuwa    3.35 260   P      Pn     16 34 01.4 -1.4
JAGI                               AML    AML
BSSI  Bau Bau, Buton    3.45  60   P      Pn     16 34 04.1 -0.1
KMMI  Kalianget         3.60 283   P      Pn     16 34 07.7 +1.6
KMMI                               AML    AML
KAPI  Kappang           3.65  38   P      Pn     16 34 07.4 +0.6
KAPI                               AML    AML
EDFI  Ende, Flores      4.24 102   P      Pn     16 34 15.4 +0.4
SPSI  Sidrap Palu       4.53  30   P      Pn     16 34 19.5 +0.6
FITZ  Fitzroy Crossi   12.86 143   Sn     Sn     16 38 26.3  -10
      0.1nm,0.3s,baz=158,slow=22,SNR=1.5
WRA   Warramunga Arr   20.23 128   P      P      16 37 46.6 +0.8
      0.6nm,0.8s,baz=306,slow=11,SNR=4.6
      0.6nm,0.8s
ASAR  Alice Springs    22.21 137   P      P      16 38 06.7 -0.4
      0.4nm,0.7s,baz=307,slow=8.8,SNR=9.6
      0.4nm,0.7s
MKAR  Makanchi Array   62.82 334   P      P      16 43 35.1 -1.1
      0.5nm,0.7s,baz=133,slow=6.8,SNR=4.2
      0.5nm,0.7s
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SJA ***02*** *16:41:00.4±0.7, 27°.84S×71°.79W, h5^{km}±3^{km}, ML4.5, MW4.1*

GFZ ***02*** *16:41:02.6±0.2, 28°S±2°×7°2W±°, h10^{km}, M4.5/20, mb4.8/20*

IDC ***02*** *16:41:03.4±0.6, 27°.79S×71°.50W, h0^{km}, mb4.4/10, mbtmp4.3/15, ML4.0/5, MS3.6/13, Error ellipse: s-maj=19.0km s-min=11.9km az=80.0*

NEIC ***02*** *16:41:04.7±2.1, 27°.91S±0°.04×71°.56W±0°.05, h10^{km}±1^{km}, mb4.8/34, Mwr4.4/45, ML4.0(GUC), Error ellipse: s-maj=7.7km s-min=5.3km az=130.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M$_{rr}$2.89; M$_{\theta\theta}$0.78; M$_{\phi\phi}$-3.67; M$_{r\theta}$0.54; M$_{\theta\phi}$-0.12; M$_{\phi r}$-2.66; Fault plane solution: M$_0$4.31000×10^{15} NP1:φ$_s$171.74000°, δ65.19000°, λ80.01000°. NP2:φ$_s$14.51000°, δ26.63000°, λ110.57000°. Principal axes: T 3.9301, Plg68.0000°, Azm62.0000°; N 0.6845, Plg9.0000°, Azm176.0000°; P -4.6147, Plg20.0000°, Azm269.0000°;*

NEIC ***02*** *16:41:04.5, 27°.92S×71°.58W, h10^{km}*

GUC ***02*** *16:41:06.1±0.6, 27°.97S×71°.51W, h21^{km}±3^{km}, ML4.0*

ISC 02 16:41:02.9±0.4**, 27°.87S**±0°.02×**71°.67W**±0°.04**, h10**^{km}**, n195,** σ**1^{s}79**/212**, mb4.7**/25**, MS3.8**/10**, 10C-4D, Near coast of northern Chile**

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Code  Station Name      Δ°   AZ°    Phase ID         Time      Res
                                   Op     ISC      h  m  s    ISC
AC04  Llanos de Chal    0.63 123   eP     Pb     16 41 15.2 -0.7
AC04  Llanos de Chal    0.63 123⇓ eP     Pb     16 41 15.2 -0.7
AC04                               eS     Sg     16 41 21.6 -1.7
AC04                               IAML          16 41 25.9
      comp=E,13µm,0.2s
AC04  Llanos de Chal    0.63 123          Pb     16 41 15.1 -0.9
AC04                               Sg     Sg     16 41 21.5 -1.8
AC04  Llanos de Chal    0.63 123   P      Pb     16 41 15.3 -0.7
AC06  Mina Casimiro     1.27  67⇓ eP     Pg     16 41 26.8 -0.6
AC06                               eS     Sn     16 41 43.0 -0.9
AC06                               IAML          16 41 48.0
      comp=N,3µm,0.5s
AC06  Mina Casimiro     1.27  67   Pn     Pg     16 41 27.0 -0.4
AC06                                      Sn     16 41 43.5 -0.5
GO03  Copiapo           1.30  78   eP     Pg     16 41 27.2 -0.7
GO03                               eS     Sg     16 41 47.5 +2.6
GO03                               IAML          16 41 52.2
      comp=Z,5µm,0.7s
GO03  Copiapo           1.30  78⇓ eP     Pg     16 41 27.1 -0.9
GO03                               eS     Sb     16 41 43.0 -1.3
GO03                               IAML          16 41 51.0
      comp=N,5µm,0.3s
GO03  Copiapo           1.30  78   Pn     Pg     16 41 27.1 -0.9
GO03  Copiapo           1.30  78   P      Pg     16 41 27.2 -0.7
LCO   Las Campanas      1.43 143   eP     Pn     16 41 28.3 -0.8
LCO                                eS     Sn     16 41 45.5 -2.6
LCO   Las Campanas      1.43 143          Pb     16 41 28.8 -1.0
AC05  El Transito       1.57 128   eP     Pb     16 41 31.1 -1.0
AC05                               IAML          16 41 56.0
      comp=Z,3µm,0.5s
AC05  El Transito       1.57 128⇓ eP     Pb     16 41 31.0 -1.0
AC05                               eS     Sn     16 41 49.9 -1.4
AC05                               IAML          16 41 51.9
      comp=N,5µm,0.6s
AC05  El Transito       1.57 128          Pb     16 41 31.0 -1.0
AC05  El Transito       1.57 128   P      Pb     16 41 31.1 -1.0
AC01  Pan de Azucar     1.96  29   eP     Pb     16 41 36.9 -1.8
AC01                               eS     Sg     16 42 04.1 -1.8
AC01  Pan de Azucar     1.96  29⇑ eP     Pb     16 41 36.9 -1.8
AC01                               eS     Sn     16 42 00.3 -0.6
AC01  Pan de Azucar     1.96  29          Pb     16 41 36.8 -1.9
AC01  Pan de Azucar     1.96  29   P      Pb     16 41 37.0 -1.7
GO04  Tololo Observa    2.42 162⇑ eP     Pn     16 41 43.4 +0.6
GO04                               eS     Sn     16 42 11.9 -0.7
GO04  Tololo Observa    2.42 162          Pn     16 41 43.4 +0.6
GO04  Tololo Observa    2.42 162   P      Pn     16 41 43.6 +0.8
AC02  Maricunga         2.48  66   eP     Pb     16 41 46.3 -1.6
AC02                               eS     Sn     16 42 14.6 +0.1
AC02                               IAML          16 42 25.0
      comp=Z,3µm,0.9s
AC02  Maricunga         2.48  66⇑ eP     Pb     16 41 46.3 -1.6
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AC02				eS	Sb	16 42 18.5	-0.3
AC02	Maricunga	2.48	66		Pb	16 41 46.1	-1.8
AC02	Maricunga	2.48	66	P	Pn	16 41 44.8	+0.9
CO01	Juntas del Tor	2.52	147	eP	Pb	16 41 46.0	-2.3
CO01				eS	Sn	16 42 16.0	+1.0
CO01				IAML		16 42 22.4	
	comp=Z,2μm,0.8s						
CO01	Juntas del Tor	2.52	147	⇑eP	Pb	16 41 45.7	-2.7
CO01				eS	Sn	16 42 15.3	+0.3
CO01				IAML		16 42 23.7	
	comp=E,3μm,0.3s						
CO01	Juntas del Tor	2.52	147		Pb	16 41 45.6	-2.7
CO01	Juntas del Tor	2.52	147	P	Pb	16 41 45.9	-2.5
CO06	Fray Jorge	2.80	179	eP	Pn	16 41 47.5	-0.2
CO06	Fray Jorge	2.80	179		Pn	16 41 47.3	-0.4
AROD	Rodeo	2.99	140	eP	Pb	16 41 54.2	-2.3
AROD				eS	Sb	16 42 32.5	-0.7
CO03	El Pedregal	3.08	164	eP	Pn	16 41 52.4	+0.7
CO03				eS	Sn	16 42 27.1	-1.7
CO03	El Pedregal	3.08	164		Pn	16 41 52.1	+0.4
CO03	El Pedregal	3.08	164	P	Pn	16 41 52.7	+1.0
VCA	Vinchina	3.18	107	eP	Pb	16 41 57.6	-1.9
VCA				eS	Sb	16 42 37.1	-1.3
VCA				IAML		16 42 50.5	
	comp=Z,2μm,0.7s						
VCA	Vinchina	3.18	107	eP	Pb	16 41 57.5	-2.1
ACDV	Cuesta del Vie	3.20	136	eP	Pb	16 41 57.8	-2.2
ACDV				eS	Sb	16 42 36.6	-2.6
ACDV				IAML		16 42 50.3	
	comp=Z,794nm,0.6s						
CO02	Combarbal	3.38	170	⇑eP	Pn	16 41 56.0	+0.2
CO02	Combarbal	3.38	170		Pn	16 41 55.9	0.0
CO02	Combarbal	3.38	170	P	Pn	16 41 56.5	+0.7
PB14	IPOC Station P	3.42	20	eP	Pn	16 41 57.0	+0.3
PB14				eS	Sn	16 42 37.1	-0.3
PB14				eS	Sg	16 42 49.6	-3.3
PB14				IAML		16 43 01.6	
	comp=Z,689nm,2.2s						
PB14	IPOC Station P	3.42	20	⇑eP	Pn	16 41 56.7	+0.1
PB14	IPOC Station P	3.42	20		Pn	16 41 56.6	0.0
PB14	IPOC Station P	3.42	20	P	Pn	16 41 56.9	+0.3
ACCO	Cerro Coronel	3.54	141	eP	Pb	16 42 02.2	-3.6
ACCO				eS	Sb	16 42 46.6	-2.4
ACCO				IAML		16 43 01.7	
	comp=Z,853nm,0.6s						
TINO	Tinogasta	3.63	94	eP	Pn	16 42 02.0	+2.7
TINO				eS	Sg	16 42 54.6	-5.0
TINO				IAML		16 43 00.9	
	comp=Z,747nm,1.0s						
CO04	Los Peladeros	4.21	172		Pn	16 42 07.4	+0.1
CO04	Los Peladeros	4.21	172	P	Pn	16 42 08.4	+1.0
ACLC	CERRO LA CRUZ	4.43	112	eP	Pn	16 42 13.4	+3.0
ACLC				eS	Sn	16 43 06.1	+4.1
ACLC				IAML		16 43 29.7	
	comp=Z,325nm,1.2s						
RTLS	Leoncito	4.43	153	eP	Pn	16 42 14.6	+4.2
RTLS				eS	Sn	16 43 04.1	+1.9
RTLS				IAML		16 43 37.0	
	comp=Z,2μm,0.9s						
RTLL	Cerro Villicun	4.43	142	eP	Pn	16 42 13.9	+3.6
RTLL				eS	Sn	16 43 06.6	+4.6
RTLL				IAML		16 43 21.4	
	comp=Z,438nm,0.9s						
ZON	Zonda	4.50	145	P	Pn	16 42 14.9	+3.8
CFA	Coronel Fontan	4.77	142	Pn	Pn	16 42 17.4	+2.5
	comp=Z,11nm,0.3s,baz=333,slow=11,SNR=74						
CFA				Sn	Sn	16 43 14.5	+4.1
	comp=Z,13nm,0.3s,baz=66,slow=10,SNR=6.7						
CFA				LR	LR	16 43 34.5	
	comp=Z,107nm,20.5s,baz=202,slow=32						
	comp=Z,25nm,0.4s						
CFA				AML	AML		
CFA	Coronel Fontan	4.77	142	eP	Pn	16 42 17.9	+2.9
CFA				eS	Sn	16 43 11.6	+1.2
CFA				IAML		16 43 31.9	
	comp=Z,319nm,0.6s						
VA03	San Esteban	4.98	169	eP	Pn	16 42 19.7	+2.0
VA03				eS	Sb	16 43 27.6	-2.5
VA03	San Esteban	4.98	169	eP	Pn	16 42 19.0	+1.2
VA03	San Esteban	4.98	169		Pn	16 42 18.2	+0.5
VA03	San Esteban	4.98	169	P	Pn	16 42 19.0	+1.2
	comp=Z,230nm,0.6s						
VA01	Torpederas	5.14	180	P	Pn	16 42 23.4	+3.5
	comp=Z,145nm,0.7s						
PB05	IPOC Station P	5.17	15	eP	Pn	16 42 20.2	-0.3
PB05				eS	Sn	16 43 20.1	-0.1
PB05	IPOC Station P	5.17	15		Pn	16 42 19.7	-0.7
PB05	IPOC Station P	5.17	15	P	Pn	16 42 20.1	-0.4
	comp=Z,190nm,0.7s						
CYA	Choya	5.21	98	⇑eP	Pn	16 42 23.8	+2.8
PEL	Peldehue	5.33	171	Pn	Pn	16 42 23.8	+1.2
PEL	Peldehue	5.33	171	P	Pn	16 42 25.1	+2.5
	comp=Z,92nm,0.7s						
MT02	Curacav	5.39	175	Pn	Pn	16 42 23.6	+0.2
PB06	IPOC Station P	5.48	21		Pn	16 42 24.5	-0.3
PB06	IPOC Station P	5.48	21	P	Pn	16 42 24.9	+0.1
	comp=Z,152nm,0.7s						
MT03	Universidad Ad	5.70	170	Pn	Pn	16 42 27.4	-0.3
MT13	San Alfonso	5.98	169	Pn	Pn	16 42 32.4	+0.9
SALTA		6.01	54	P	Pn	16 42 32.3	-0.1
	comp=Z,37nm,0.9s						
PB03	IPOC Station P	6.05	17		Pn	16 42 31.6	-1.0
PB03	IPOC Station P	6.05	17	P	Pn	16 42 32.2	-0.4
	comp=Z,71nm,0.6s						
PB07	IPOC Station P	6.33	15	P	Pn	16 42 36.1	-0.3
	comp=Z,104nm,0.6s						
SLA	San Lorenzo	6.36	62	eP	Pn	16 42 43.5	+6.6
PB09	IPOC Station P	6.43	21		Pn	16 42 37.9	0.0
PB09	IPOC Station P	6.43	21	P	Pn	16 42 38.7	+0.8
	comp=Z,64nm,0.7s						
BO01	Tunca	6.52	176	P	Pn	16 42 40.9	+1.9
	comp=Z,45nm,0.6s						
BO03	Pichilemu	6.61	182	P	Pn	16 42 38.7	-1.5
	comp=Z,32nm,0.8s						
PB02	IPOC Station P	6.71	14	Pn	Pn	16 42 40.2	-1.5
PB02	IPOC Station P	6.71	14	P	Pn	16 42 41.3	-0.4
	comp=Z,126nm,0.7s						
BO02	Sierra Bellavi	6.95	174	P	Pn	16 42 45.2	+0.4
	comp=Z,56nm,0.6s						
TCA	Tanti	7.06	121	eP	Pn	16 42 46.8	+0.3
GO05	Hualane	7.12	182	Pn	Pn	16 42 46.4	-0.8
GO05	Hualane	7.12	182	P	Pn	16 42 45.6	-1.6
TA01	Diego Aracena	7.39	11	P	Pn	16 42 48.6	-2.3
	comp=Z,37nm,0.8s						
PB08	IPOC Station P	8.03	17	Pn	Pn	16 42 59.0	-0.9
PB11	IPOC Station P	8.28	13	Pn	Pn	16 43 01.1	-2.1
PB11	IPOC Station P	8.28	13	P	Pn	16 42 58.8	-4.4
	comp=Z,46nm,1.0s						
H03N1	Juan Fernandez	8.35	227	T	T	16 51 41.6	
	baz=205,slow=26,SNR=930						
PSGCX	Pisagua	8.35	10	P	Pn	16 43 02.1	-2.1
	comp=Z,35nm,0.8s						
H03N2	Juan Fernandez	8.36	227	T	T	16 51 50.8	
	baz=56,slow=26,SNR=1107						
VA04	Juan Fernndez	8.43	225	Pn	Pn	16 43 03.4	-1.7
VA04	Juan Fernndez	8.43	225	P	Pn	16 43 03.1	-2.0
	comp=Z,134nm,0.8s						
GO01	Chusmiza	8.47	16	P	Pn	16 43 04.3	-1.8
	comp=Z,18nm,0.6s						
BI02	San Fabin de	8.78	178	P	Pn	16 43 09.7	-0.3
	comp=Z,31nm,0.9s						
BI05	Punta Hualpn	8.95	188	Pn	Pn	16 43 09.7	-2.5
PB12	IPOC Station P	9.29	8	P	Pn	16 43 15.3	-1.8
	comp=Z,22nm,0.7s						
PB16	IPOC Station P	9.69	12	P	Pn	16 43 21.2	-1.8
	comp=Z,13nm,0.8s						
LPAZ	La Paz	11.98	17	Pn	Pn	16 43 54.3	0.0
	comp=Z,0.7nm,0.3s,baz=194,slow=6.8,SNR=18						
LPAZ				LR	LR	16 49 27.0	
	comp=Z,171nm,19.3s,baz=200,slow=42						
	comp=Z,3.3nm,0.5s						
LPAZ				AML	AML		
LPAZ	La Paz	11.98	17		Pn	16 43 54.2	-0.2
LPAZ	La Paz	11.98	17	P	Pn	16 43 54.0	-0.4
	comp=Z,8.4nm,0.7s						
PLCA	Paso Flores	12.87	176	Pn	Pn	16 44 07.7	+1.7
	comp=Z,0.2nm,0.3s,baz=319,slow=14,SNR=3.4						
PLCA				LR	LR	16 49 09.4	
	comp=Z,380nm,18.3s,baz=352,slow=38						
	comp=Z,0.6nm,0.5s						
PLCA				AML	AML		
CPUP	Villa Florida	12.87	86	Pn	Pn	16 44 05.2	-0.7
	comp=Z,0.1nm,0.3s,baz=261,slow=13,SNR=3.4						
CPUP				LR	LR	16 49 18.9	
	comp=Z,206nm,21.3s,baz=252,slow=39						
	comp=Z,1.7nm,0.7s						
CPUP				AML	AML		
CPUP	Villa Florida	12.87	86	Pn	Pn	16 44 07.1	+1.2
CPUP	Villa Florida	12.87	86	P	Pn	16 44 06.5	+0.6
	comp=Z,7.0nm,1.5s						
SIV	San Ignacio	15.36	42	Pn	Pn	16 44 37.4	-2.5
	baz=212,slow=9.8,SNR=5.9						
	comp=Z,1.1nm,0.3s						
PTLB	Pontes e Lacer	16.96	46	P	P	16 45 02.5	+0.2
VILB	Vilhena	18.30	38	Pn	P	16 45 16.2	-1.0
CZSB	Cruzeiro do Su	20.05	357	P	Pn	16 45 37.5	-0.6
CZSB				IAmb	IAmb	16 45 45.0	
	comp=Z,29nm,0.7s						
ATAH	Atahualpa	21.58	342	LR	LR	16 52 43.1	
	comp=Z,53nm,19.5s,baz=161,slow=32						
CLDB	Colider	22.54	45	P	P	16 46 03.3	+0.1
	comp=Z,9.8nm,1.5s						
VAO	Valinhos	22.82	83	P	P	16 46 05.7	-0.4
BDFB	Brasilia	25.06	66	P	P	16 46 27.6	-0.1
	comp=Z,6.6nm,0.7s,baz=239,slow=11,SNR=5.8						
BDFB				LR	LR	16 57 44.5	
	comp=Z,521nm,19.1s,baz=239,slow=40						
	comp=Z,6.6nm,0.7s						
BDFB	Brasilia	25.06	66	P	P	16 46 27.9	+0.2
BOAV	Boa Vista	31.94	21	P	P	16 47 30.2	+1.1
MDP	Montagnes des	37.57	32	LR	LR	17 04 35.5	
	comp=Z,84nm,18.4s,baz=74,slow=38						
CELP	Cerrillos	45.94	7	P	P	16 49 27.1	+1.1
CMIG	Matias Romero	50.03	331	LR	LR	17 05 55.0	
	comp=Z,37nm,20.2s,baz=216,slow=30						
BELA	Belgrano 2	52.85	171	P	P	16 50 14.8	-3.4
BELA				IAmb	IAmb	16 50 23.2	
	comp=Z,11nm,1.4s						
VNA3	Neumayer Olymp	54.94	160	⇑P	P	16 50 34.9	+1.3
	comp=Z,4.0nm,0.6s						
VNA3	Neumayer Olymp	54.94	160	P	P	16 50 35.5	+1.9
	comp=Z,12nm,1.1s						
VNA1	Neumayer--Stat	55.22	159	P	P	16 50 38.0	+2.4
	comp=Z,5.7nm,1.0s						
VNA2	Neumayer--Watz	55.57	159	P	P	16 50 39.5	+1.4
	comp=Z,3.5nm,0.5s,baz=284,slow=8.2						
SNAA	Sanae	57.16	159	⇑P	P	16 50 50.7	+1.1
	comp=Z,123nm,0.8s						
SNAA	Sanae	57.16	159	P	P	16 50 50.3	+0.7
	comp=Z,4.5nm,0.7s,baz=278,slow=6.0,SNR=13						
SNAA				LR	LR	17 15 42.6	
	comp=Z,46nm,18.1s,baz=292,slow=36						
	comp=Z,4.5nm,0.7s						
SNAA	Sanae	57.16	159	P	P	16 50 49.6	0.0
SNAA				IAmb	IAmb	16 50 51.8	
	comp=Z,7.3nm,0.9s						
SNAA	Sanae	57.16	159	P	P	16 50 50.7	+1.1
	comp=Z,8.8nm,0.9s						
TROLL	Troll, Antarti	58.88	160	⇑P	P	16 51 03.0	+1.4
	comp=Z,230nm,0.7s						
QSPA	South Pole Qui	62.35	180	P	P	16 51 27.5	+2.1
	comp=Z,3.4nm,0.6s,baz=174,slow=0.9,SNR=31						
	comp=Z,3.4nm,0.6s						
QSPA	South Pole Qui	62.35	180	P	P	16 51 27.9	+2.5
QSPA				IAmb	IAmb	16 51 40.1	
	comp=Z,6.6nm,0.8s						
X48A	Hartselle	63.67	346	P	P	16 51 35.9	+1.6
X48A				IAmb	IAmb	16 51 38.2	
	comp=Z,6.3nm,1.1s						
W52A	Murphy	63.68	349	P	P	16 51 35.7	+1.2
W52A				IAmb	IAmb	16 51 37.9	
	comp=Z,7.8nm,1.1s						
W50A	Signal Mountai	64.04	348	P	P	16 51 37.9	+1.1
W50A				IAmb	IAmb	16 51 49.2	
	comp=Z,6.0nm,0.8s						
SWET	Sewanee	64.17	347	P	P	16 51 38.5	+0.8
SWET				IAmb	IAmb	16 51 42.6	
	comp=Z,4.6nm,0.8s						
TKL	Tuckaleechee C	64.21	349	P	P	16 51 39.6	+1.8
TKL				IAmb	IAmb	16 51 41.5	
	comp=Z,4.5nm,0.8s						
BRDY	Brady	64.34	334	P	P	16 51 40.3	+1.5
SAND	Sanderson	64.45	331	P	P	16 51 40.7	+1.1
SAND				IAmb	IAmb	16 51 44.9	
	comp=Z,6.2nm,1.3s						
TXAR	Lajitas Array	64.60	329	P	P	16 51 43.9	+3.2
	comp=Z,0.4nm,0.7s,baz=154,slow=8.6,SNR=5.6						
	comp=Z,0.4nm,0.7s						
TXAR	Lajitas Array	64.60	329	P	P	16 51 43.2	+2.6
WVT	Waverly	65.45	346	P	P	16 51 47.6	+1.7
WVT				IAmb	IAmb	16 52 05.8	
	comp=Z,8.6nm,1.2s						
T47A	Sharon Grove	66.12	347	P	P	16 51 52.0	+1.8
LCAR	Lake Charles	66.19	343	P	P	16 51 52.6	+1.9
PBMO	Poplar Bluff	66.68	344	P	P	16 51 55.4	+1.6
PBMO				IAmb	IAmb	16 52 16.3	
	comp=Z,6.5nm,0.8s						
128A	Castleberry Fa	66.91	332	P	P	16 51 54.7	-0.8
128A				IAmb	IAmb	16 52 15.6	
	comp=Z,5.3nm,0.8s						
MNTX	Cornudas Mount	67.38	329	P	P	16 52 00.8	+2.4
FVM	French Village	67.82	344	P	P	16 52 03.3	+2.2
CCM	Cathedral Cave	68.09	343	P	P	16 52 05.5	+2.7
CCM				IAmb	IAmb	16 52 22.1	
	comp=Z,7.0nm,0.9s						
S39A	Bolivar	68.30	342	P	P	16 52 06.6	+2.5
S39A				IAmb	IAmb	16 52 08.6	
	comp=Z,5.0nm,0.9s						
R40A	Maddies Statio	68.58	343	P	P	16 52 08.1	+2.3
P40A	Paris	69.69	343	P	P	16 52 14.8	+2.2
DBIC	Dimbokro	72.99	73	P	P	16 52 34.5	+1.4
	comp=Z,12nm,0.8s,baz=192,slow=3.0,SNR=9.2						
DBIC				LR	LR	17 24 20.4	
	comp=Z,30nm,18.0s,baz=152,slow=36						
	comp=Z,12nm,0.8s						
DBIC	Dimbokro	72.99	73	P	P	16 52 33.5	+0.3
PDAR	Pinedale Array	78.47	333	P	P	16 53 07.5	+3.3
	comp=Z,0.5nm,0.6s,baz=116,slow=5.9,SNR=5.0						
	comp=Z,0.5nm,0.6s						
PDAR	Pinedale Array	78.47	333	P	P	16 53 06.4	+2.2
MAW	Mawson	78.96	164	P	P	16 53 08.1	+1.7
	comp=Z,3.4nm,0.9s,baz=179,slow=4.5,SNR=6.3						
	comp=Z,3.4nm,0.9s						
MAW	Mawson	78.96	164	P	P	16 53 07.5	+1.1
TSUM	Tsumeb	80.62	107	LR	LR	17 27 00.2	
	comp=Z,80nm,18.6s,baz=232,slow=34						
YHH	Holmes Hill	80.66	333	P	P	16 53 19.5	+3.3
ULM	Lac du Bonnet	80.68	345	P	P	16 53 17.8	+2.0
	comp=Z,6.9nm,1.0s,baz=165,slow=3.2,SNR=3.3						
	comp=Z,6.9nm,1.0s						
ULM	Lac du Bonnet	80.68	345	IAmb	IAmb	16 53 20.3	
	comp=Z,8.9nm,1.1s						
TORD	Torodi Ar. Bea	81.85	71	P	P	16 53 24.0	+1.2
	comp=Z,4.8nm,0.9s,baz=267,slow=4.1,SNR=20						
	comp=Z,4.8nm,0.9s						
TORD	Torodi Ar. Bea	81.85	71	P	P	16 53 23.8	+1.0
BOSA	Boshof	82.67	118	P	P	16 53 27.7	+0.5
	comp=Z,4.6nm,1.0s,baz=270,slow=7.1,SNR=4.0						
	comp=Z,4.6nm,1.0s						
BOSA	Boshof	82.67	118	P	P	16 53 27.6	+0.4
LBTB	Lobatse	84.61	115	LR	LR	17 29 43.1	
	comp=Z,55nm,20.0s,baz=212,slow=35						
LSZ	Lusaka	91.41	108	LR	LR	17 31 36.4	
	comp=Z,82nm,19.1s,baz=190,slow=33						
H01W2	Cape Leeuwin H	117.33	185	T	T	19 07 38.4	
	baz=179,slow=74,SNR=20						
H01W1	Cape Leeuwin H	117.34	185	T	T	19 07 35.6	
	baz=179,slow=74,SNR=32						
H01W3	Cape Leeuwin H	117.35	185	T	T	19 07 36.6	
	baz=179,slow=74,SNR=26						
ASAR	Alice Springs	123.14	208	PKP	PKiKP	17 00 01.9	+1.2
	comp=Z,0.8nm,0.8s,baz=133,slow=1.7,SNR=11						
ASAR	Alice Springs	123.14	208		PKiKP	17 00 01.7	+1.0
AS31	Alice Springs	123.14	208	PKPdf	PKiKP	17 00 01.2	+0.5
WRA	Warramunga Arr	126.22	211	PKP	PKiKP	17 00 08.3	+1.4
	comp=Z,1.2nm,0.7s,baz=156,slow=1.9,SNR=14						
WRA	Warramunga Arr	126.22	211	PKPdf	PKiKP	17 00 08.2	+1.3
WRAB	Tennant Creek	126.22	211	PKPdf	PKiKP	17 00 07.1	+0.3
WB0	Warramunga Arr	126.35	211	PKPdf	PKiKP	17 00 07.5	+0.4
KK31	Karatay Array	145.98	53		PKiKP	17 00 44.0	-2.3
KKAR	Karatay Array	145.98	53	PKPdf	PKiKP	17 00 43.8	-2.4
KURK	Kurchatov	147.97	36		PKiKP	17 00 48.8	-1.2
KURBB	Kurchatov Arra	147.97	37	PKPbc	PKiKP	17 00 48.2	-1.8
	comp=Z,1.4nm,0.5s,baz=300,slow=3.0,SNR=14						
ARSB	Arslanbob	148.19	56	PKPbc	PKiKP	17 00 49.6	-1.4
ZAA0	Zalesovo Array	148.75	27	PKPdf	PKPbc	17 00 47.6	-2.5
ZALV	Zalesovo Beam	148.75	27	PKP	PKPbc	17 00 48.7	-1.4
	comp=Z,12nm,0.9s,baz=132,slow=2.2,SNR=18						
ZALV				PKPbc	PKPab	17 00 52.3	-1.5
	comp=Z,12nm,0.8s,baz=298,slow=3.1,SNR=29						
ZALV	Zalesovo Beam	148.75	27	PKPdf	PKPdf	17 00 47.1	+0.8
ZALV					PKPab	17 00 52.6	-1.2
AAK	Ala-Archa	148.92	53	PKPbc	PKPab	17 00 53.8	-1.4
NRN	Naryn	150.35	54	PKPbc	PKPab	17 00 57.5	-3.7
KSH2	Kashi	150.61	59	PKPbc	PKPab	17 00 58.3	-3.9
MKAR	Makanchi Array	152.18	40	PKPbc	PKiKP	17 01 00.7	+1.7
	comp=Z,3.0nm,0.8s,baz=339,slow=1.4,SNR=21						
MKAR	Makanchi Array	152.18	40	PKPbc	PKiKP	17 00 59.8	+0.9
WMQ	Urumqi	157.00	41	ePKP	PKPdf	17 00 58.1	-0.7
WMQ				LR	LR		
	comp=Z,110nm,24.3s						
HHC	Hu-ho-hao-te	166.78	349	eP	PKPdf	17 01 05.0	-3.9

IDC 02 16:49:30.4±1.4, 31°.57N×93°.43E, h0^{km}, mb3.3/3, mbtmp3.3/5, ML2.5/1, Error ellipse: s-maj=50.6km s-min=25.5km az=57.0, Xizang

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
MKAR	Makanchi Array	17.45	334	P	P	16 53 36.7	+0.2
	baz=142,slow=12,SNR=2.4						
	0.1nm,0.5s						
SONM	Songino Array	19.02	28	P	P	16 53 53.8	0.0
	0.6nm,0.6s,baz=210,slow=13,SNR=2.6						
KURBB	Kurchatov Arra	22.02	334	P	P	16 54 25.6	-0.6
	0.6nm,0.8s,baz=142,slow=10,SNR=4.9						
	0.6nm,0.8s						
BRTR	Keskin Array B	48.48	297	P	P	16 58 14.8	-0.2
	0.4nm,0.7s,baz=82,slow=10,SNR=1.9						
	0.4nm,0.7s						
ASAR	Alice Springs	67.21	140	P	P	17 00 26.6	+0.1
	0.3nm,0.6s,baz=325,slow=6.6,SNR=7.7						
	0.3nm,0.6s						

*IDC **02** 16:50:55.9±2.2, 32°.68N×48°.68E, h0^{km}, mb3.8/7, mbtmp3.7/8, ML3.0/1, MS3.0/1, Error ellipse: s-maj=49.0km s-min=22.2km az=169.0*

*TEH **02** 16:50:56.7, 32°.43N×48°.43E, h15^{km}±47^{km}, ML3.8, Presumed earthquake*

ISC 02 16:50:55.1±0.9, 32°.38N±0°.06×48°.17E±0°.08, h15^{km}, n32, σ1^{s}28/30, mb3.7/6, Western Iran

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
AHWZ	Ahwaz	1.12	159	Pg	Pg	16 51 18.1	+1.5
AMIS	Naft Sefid	1.19	126	Pg	Pn	16 51 16.1	-1.0
ILBA	Ilam Banvizeh	2.06	308	Pn	Pg	16 51 33.8	-0.9
IBZA	Bozab	2.10	353	Pn	Pb	16 51 33.0	-0.1
JHBN	Jahan bin	2.12	93	Pn	Pn	16 51 30.7	+0.5
IPIR	Pirpir	2.32	82	Pn	Pn	16 51 33.4	+0.4
IGHG	Ghaleghazi	2.36	326	Pn	Pb	16 51 38.4	+0.9
SNQR	Sonqor, Kerman	2.52	350	Pn	Pb	16 51 39.6	-0.5
IBRJ	Brojen	2.66	99	Pn	Pn	16 51 37.8	+0.1
IDHR	Dehrash	2.75	328	Pn	Pb	16 51 43.6	-0.6
IKLH	Kolahrood	3.02	71	Pn	Pn	16 51 43.3	+0.7
QAMS	Qamsar	3.03	63	Pn	Pn	16 51 43.8	+1.1
HGHA	Hamedan- Ghaye	3.15	10	Pn	Pn	16 51 47.0	+2.5
SNJK	Sanadaj _Korde	3.18	344	Pn	Pb	16 51 48.8	-2.6
KLNJ	Kolanjah	3.22	114	Pn	Pn	16 51 46.8	+1.3
QABG	Abgarm-Qazvin	3.52	19	Pn	Pn	16 51 51.6	+2.1
ISFB	Sefidab	3.94	59	Pn	Pn	16 51 55.4	+0.4
IVRN	Varamin	3.95	48	Pn	Pn	16 51 56.5	+1.2
IGZV	Ghazvin	4.34	22	Pn	Pn	16 52 01.9	+1.1
MZPU	Pul - Mazandar	4.93	34	Pn	Pn	16 52 10.3	+1.5
ILAS	Lasjerd	4.99	52	Pn	Pn	16 52 10.1	+0.5
IFIR	Firoozkooh	5.01	48	Pn	Pn	16 52 10.6	+0.6
IPRN	Peran	5.17	41	Pn	Pn	16 52 12.8	+0.8
KVAR	Kislovodsk Arr	12.33	341	LR	LR	16 58 22.9	
	comp=Z,66nm,20.0s,baz=50,slow=37						
BRTR	Keskin Array B	13.85	306	Pn	P	16 54 18.9	-0.3
	0.1nm,0.3s,baz=108,slow=17,SNR=3.7						
	0.4nm,0.6s						
BRTR				AML	AML		
BVAR	Borovoye Array	26.12	31	P	P	16 56 27.4	-0.9
	0.9nm,0.7s,baz=220,slow=14,SNR=6.0						
	0.9nm,0.7s						
KURBB	Kurchatov Arra	28.85	42	P	P	16 56 50.3	-2.5
	0.6nm,0.5s,baz=245,slow=9.3,SNR=4.3						
	0.6nm,0.5s						
MKAR	Makanchi Array	29.71	51	P	P	16 56 59.4	-1.2
	1.2nm,0.8s,baz=244,slow=8.7,SNR=10						
	1.2nm,0.8s						
FINES	FINESS Array B	32.42	340	P	P	16 57 25.3	+1.1
	2.1nm,0.9s,baz=188,slow=8.0,SNR=1.5						
	2.1nm,0.9s						
ZALV	Zalesovo Beam	33.78	39	P	P	16 57 35.6	-0.5
	1.0nm,0.5s,baz=253,slow=10,SNR=5.5						
	1.0nm,0.5s						
ARCES	ARCESS Array B	39.33	348	P	P	16 58 24.1	+0.8
	1.3nm,0.9s,baz=146,slow=7.5,SNR=2.0						
	1.3nm,0.9s						
TORD	Torodi Ar. Bea	46.52	257	P	P	16 59 28.9	+6.7
	0.3nm,0.7s,baz=68,slow=6.3,SNR=1.8						
	0.3nm,0.7s						

*KRNET **02** 16:56:40.8±0.1, 41°.04N×73°.96E, h21^{km}, mb3.4*

*NNC **02** 16:56:42.6±0.7, 41°.06N×74°.07E, h0^{km}, mb3.9, mpv3.4, Error ellipse: s-maj=4.8km s-min=3.0km az=177.0*

*SOME **02** 16:56:42.7, 41°.08N×74°.10E, h10^{km}*

*KNET **02** 16:56:45.0±0.6, 41°.24N×74°.12E, h8^{km}±3^{km}, ml2.7, Error ellipse: s-maj=4.1km s-min=3.0km az=40.0*

ISC 02 16:56:41.7±0.9, 41°.00N±0°.02×73°.84E±0°.02, h16^{km}±7^{km}, n74, σ1^{s}29/125, 33C-37D, Kyrgyzstan

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
SALK	Salom-Alik	0.11	186	⇑iP	Pb	16 56 45.6	-0.1
SALK				⇑iS	Sg	16 56 48.7	+0.9
ARSB	Arslanbob	0.72	297	⇓iP	Pb	16 56 56.0	0.0
ARSB				⇓eS	Sb	16 57 06.7	+0.9
OHH	Osh	0.93	240	⇓iP	Pn	16 57 00.1	-0.1
OHH				⇓iS	Sn	16 57 13.9	+0.7
SFK	Sufi-Kurgan	1.01	195	⇑iP	Pg	16 57 00.9	-0.5
SFK				⇑iS	Sn	16 57 15.6	0.0
UCH	Uchtor	1.33	22	⇓P	Pn	16 57 05.1	-1.0
	24nm,0.2s,SNR=60						
UCH				⇑S	Sb	16 57 20.8	-2.8
	94nm,0.5s						
UCH	Uchtor	1.33	22	⇓eP	Pn	16 57 04.2	-1.9
UCH				⇓eS	Sb	16 57 21.0	-2.6
ARK	Arkit	1.62	300	⇑eP	Pb	16 57 11.5	+0.2
ARK				⇑eS	Sg	16 57 33.7	-0.2
EKS2	Erkin-Say	1.66	359	⇓P	Pb	16 57 12.1	0.0
	11nm,0.2s,SNR=26						
EKS2				⇑S	Sb	16 57 33.3	+0.5
	6.9nm,0.2s						
EKS2	Erkin-Say	1.66	359	⇑eP	Pn	16 57 10.4	0.0
EKS2				⇑iS	Sn	16 57 32.0	+0.5
NRN	Naryn	1.69	74	⇑eP	Pn	16 57 09.4	-1.5
NRN				⇑iS	Sn	16 57 30.1	-2.3
AAK	Ala-Archa	1.71	16	⇓P	Pn	16 57 12.2	+1.1
	18nm,0.2s,SNR=8.9						
AAK				⇓S	Sn	16 57 32.7	-0.1
	27nm,0.3s						
AAK	Ala-Archa	1.71	16	⇑P	Pn	16 57 12.2	+1.1
	9.1nm,0.6s						
AAK				⇓S	Sb	16 57 34.5	+0.3
	16nm,0.7s						
AAK	Ala-Archa	1.71	16	⇓iP	Pn	16 57 10.9	-0.2
AAK				⇓iS	Sn	16 57 32.6	-0.1
MRKS	Merke	1.81	346	P	Pg	16 57 15.3	-1.0
	59nm,0.2s						
MRKS				S	Sg	16 57 38.9	-1.0
	60nm,0.3s						
MRKS	Merke	1.81	346	eP	Pg	16 57 15.3	-1.0
	59nm,0.2s						
MRKS				eS	Sg	16 57 38.9	-1.0
	60nm,0.3s						
KBK	Karagaybulak	1.85	26	⇓P	Pb	16 57 14.6	-0.7
	21nm,0.2s,SNR=21						
KBK				⇑S	Sn	16 57 37.1	+0.9
	62nm,0.2s						
KBK	Karagaybulak	1.85	26	⇓iP	Pn	16 57 12.8	-0.2
KBK				⇓iS	Sn	16 57 36.1	-0.2
FRU1	Bishkek	1.91	18	⇓eP	Pn	16 57 13.8	+0.2
FRU1				⇓eS	Sn	16 57 37.4	0.0
TRKS	Terek-Say	2.10	286	⇑iP	Pb	16 57 18.1	-1.4
TRKS				⇑iS	Sb	16 57 45.2	-0.3
CHMS	Chumysh	2.11	19	⇓P	Pb	16 57 19.3	-0.4
	46nm,0.3s,SNR=25						
CHMS				⇑S	Sb	16 57 46.0	+0.3

	22nm,0.4s						
CHMS	Chumysh	2.11	19	⇑eP	Pn	16 57 16.5	0.0
CHMS				⇑eS	Sn	16 57 42.4	0.0
BOOM	Boomskoye usch	2.17	46	⇓eP	Pn	16 57 17.0	-0.4
BOOM				⇓eS	Sn	16 57 43.2	-0.8
DRK	Karamyk	2.17	226	⇓iP	Pb	16 57 20.0	-0.9
DRK				⇓eS	Sb	16 57 48.4	+0.7
ULHL	Ulahol	2.19	55	⇑P	Pn	16 57 19.5	+1.8
	19nm,0.1s,SNR=87						
ULHL				⇑S	Sn	16 57 46.3	+1.6
	59nm,0.2s						
ULHL	Ulahol	2.19	55	⇓iP	Pn	16 57 17.2	-0.5
ULHL				⇓iS	Sn	16 57 43.7	-1.0
USP	Ospenovka	2.32	12	⇑P	Pb	16 57 22.8	-0.4
	46nm,0.3s,SNR=43						
USP				⇑S	Sb	16 57 52.0	+0.3
	28nm,0.4s						
USP	Ospenovka	2.32	12	⇓iP	Pn	16 57 19.6	+0.3
USP				⇓eS	Sn	16 57 47.7	+0.1
TKM2	Tokmak 2	2.33	34	⇓P	Pb	16 57 22.6	-0.9
	16nm,0.2s,SNR=20						
TKM2				⇓S	Sb	16 57 51.1	-1.0
	82nm,0.4s						
TKM2	Tokmak 2	2.33	34	⇓eP	Pn	16 57 19.4	-0.2
TKM2				⇓eS	Sn	16 57 47.4	-0.6
BTK	Batken	2.48	249	⇑eP	Pb	16 57 24.1	-1.9
BTK				⇑iS	Sb	16 57 55.8	-0.6
SGDS	Sogindy	2.52	13	Pg	Pb	16 57 26.2	-0.5
	16nm,0.3s						
SGDS				Lg	Lg	16 57 57.8	
	16nm,0.3s						
KST	Kastek	2.59	37	Pg	Pb	16 57 27.8	0.0
	3.9nm,0.3s						
KST				Lg	Lg	16 58 00.5	
	90nm,0.5s						
KST	Kastek	2.59	37	eP	Pb	16 57 27.8	0.0
	3.9nm,0.3s						
KST				eS	Sb	16 58 00.5	+1.1
	90nm,0.5s						
DGS	Degeres	2.67	32	Pg	Pb	16 57 29.2	+0.1
	28nm,0.5s						
DGS				Lg	Lg	16 58 03.1	
	74nm,0.5s						
DGS	Degeres	2.67	32	eP	Pb	16 57 29.2	+0.1
	28nm,0.5s						
DGS				eS	Sb	16 58 03.1	+1.5
	74nm,0.5s						
KDJ	Kajisay	2.75	65	⇑iP	Pn	16 57 25.0	-0.4
KDJ				⇑iS	Sn	16 57 57.4	-1.0
IZV	Izvestkoviy	2.90	45	Pg	Pb	16 57 33.2	0.0
	7.1nm,0.4s						
IZV				Lg	Lg	16 58 09.3	
	86nm,0.4s						
IZV	Izvestkoviy	2.90	45	eP	Pb	16 57 33.2	0.0
IZV				eS	Sb	16 58 09.3	+0.7
KRBS	Karabastau	3.02	26	Pg	Pb	16 57 34.9	-0.3
	12nm,0.4s						
KRBS				Lg	Lg	16 58 12.7	
	24nm,0.5s						
KRBS	Karabastau	3.02	26	eP	Pb	16 57 34.9	-0.3
	12nm,0.4s						
KRBS				eS	Sb	16 58 12.7	+0.8
	24nm,0.5s						
TARG	Taragay, Kyrgy	3.08	75	⇑eP	Pn	16 57 29.7	-0.3
TARG				⇑eS	Sn	16 58 05.2	-1.5
IUG	Iuzhnay	3.08	293	Pg	Pg	16 57 41.4	+0.8
IUG				Lg	Lg	16 58 23.4	
IUG	Iuzhnay	3.08	293	eP	Pg	16 57 41.6	+0.9
	17nm,0.3s						
IUG				eS	Sg	16 58 23.4	+2.8
	196nm,0.5s						
TNSS	Tian-Shan	3.09	48	Pg	Pb	16 57 36.1	-0.4
	2.1nm,0.2s						
TNSS				Lg	Lg	16 58 14.8	
	15nm,0.6s						
TNSS	Tian-Shan	3.09	48	eP	Pb	16 57 36.1	-0.4
	2.1nm,0.2s						
TNSS				eS	Sb	16 58 14.8	+0.7
	15nm,0.6s						
KNDC	Almaty	3.22	45	⇑Pg	Pb	16 57 39.4	+1.0
	21nm,0.6s						
KNDC				⇓Lg	Lg	16 58 20.6	
	106nm,0.6s						
MDOK	Medeo	3.23	47	Pg	Pb	16 57 38.7	0.0
	8.0nm,0.4s						
MDOK				Lg	Lg	16 58 19.1	
	58nm,0.8s						
MDOK	Medeo	3.23	47	eP	Pb	16 57 38.7	0.0
	8.0nm,0.4s						
MDOK				eS	Sb	16 58 19.1	+1.3
	58nm,0.8s						
KK31	Karatay Array	3.25	311	⇓Pg	Pg	16 57 41.9	-2.0
	2.2nm,0.6s,baz=127,slow=17,SNR=7.5						
KK31				⇓Lg	Lg	16 58 27.7	
	7.5nm,0.3s,baz=128,slow=28,SNR=12						
KOTS	Kotyrbulak	3.31	46	Pg	Pb	16 57 40.3	+0.2
	13nm,0.3s						
KOTS				Lg	Lg	16 58 22.0	
	85nm,0.5s						
KOTS	Kotyrbulak	3.31	46	eP	Pb	16 57 40.3	+0.2
	13nm,0.3s						
KOTS				eS	Sb	16 58 22.0	+1.8
	85nm,0.5s						
ANVS	Anan'yevo	3.37	57	⇑iP	Pn	16 57 33.6	-0.3
ANVS				⇑iS	Sn	16 58 12.1	-1.6
KTBS	Karatobe	3.44	37	Pg	Pb	16 57 41.6	-0.6
	0.3nm,0.1s						
KTBS				Lg	Lg	16 58 24.0	
	54nm,0.4s						
KTBS	Karatobe	3.44	37	eP	Pb	16 57 41.6	-0.6
	0.3nm,0.1s						
KTBS				eS	Sb	16 58 24.0	+0.2
	54nm,0.4s						
KUU	Kurty	3.44	32	Pg	Pb	16 57 42.9	+0.7
	1.9nm,0.1s						
KUU				Lg	Lg	16 58 26.0	
	36nm,0.3s						
KUU	Kurty	3.44	32	eP	Pb	16 57 42.9	+0.7
	1.9nm,0.1s						
KUU				eS	Sb	16 58 26.1	+2.3
	36nm,0.3s						
BRLS	Borolday	3.61	306	Pg	Pg	16 57 50.6	-0.2
	2.3nm,0.4s						
BRLS				Lg	Lg	16 58 39.6	
	26nm,0.4s						
BRLS	Borolday	3.61	306	eP	Pg	16 57 50.6	-0.2
	2.3nm,0.4s						
BRLS				eS	Sg	16 58 39.6	+2.1
	26nm,0.4s						
PRZ	Przheval'sk	3.72	65	⇓iP	Pn	16 57 38.6	-0.1
PRZ				⇓iS	Sn	16 58 20.6	-1.8
SATY	Saty	3.98	57	Pg	Pb	16 57 51.5	-0.1
	8.0nm,0.3s						
SATY				Lg	Lg	16 58 40.9	
	24nm,0.2s						
SATY	Saty	3.98	57	eP	Pb	16 57 51.5	-0.1
	8.0nm,0.3s						
SATY				eS	Sb	16 58 40.9	+1.4
	24nm,0.2s						
KURS	Kuram	4.07	51	Pg	Pb	16 57 54.2	+1.2
	2.6nm,0.4s						
KURS				Lg	Lg	16 58 45.5	
	11nm,0.8s						
KURS	Kuram	4.07	51	eP	Pb	16 57 54.2	+1.2
	2.6nm,0.4s						
KURS				eS	Sb	16 58 45.5	+3.6
	11nm,0.8s						
KPKS	Kokpek	4.36	54	Pg	Pb	16 57 58.6	+0.5
	0.2nm,0.1s						
KPKS				Lg	Lg	16 58 52.9	
	8.5nm,0.5s						
KPKS	Kokpek	4.36	54	eP	Pb	16 57 58.6	+0.5
	0.2nm,0.1s						
KPKS				eS	Sb	16 58 52.9	+2.4
	8.5nm,0.5s						
UZB	Uzynbulak	4.42	59	Pg	Pb	16 57 59.8	+0.8
	3.4nm,0.3s						
UZB				Lg	Lg	16 58 55.2	
	14nm,0.3s						
UZB	Uzynbulak	4.42	59	eP	Pb	16 57 59.8	+0.8
UZB				eS	Sb	16 58 55.2	+3.1
BLB	Baldybastay	4.62	46	Pg	Pb	16 58 03.8	+1.4
BLB				Lg	Lg	16 59 02.2	
SHLS	Shalkode	4.71	61	Pg	Pg	16 58 09.8	-2.1
	6.8nm,0.3s						
SHLS				Lg	Lg	16 59 12.3	
	17nm,0.5s						
SHLS	Shalkode	4.71	61	eP	Pg	16 58 09.8	-2.1
	6.8nm,0.3s						
SHLS				eS	Sg	16 59 12.3	-0.6
	17nm,0.5s						
PDGK	Podgornoye	4.80	59	⇓Pg	Pb	16 58 06.6	+1.0
	5.2nm,0.8s						
PDGK				⇑Lg	Lg	16 59 11.3	
	14nm,0.8s						
KNOS	Konyrlen	5.18	48	Pg	Pb	16 58 14.3	+2.3
	1.1nm,0.2s						
KNOS				Lg	Lg	16 59 20.1	
	3.7nm,0.5s						
DJR	Jarkent	5.51	51	Pg	Pb	16 58 20.0	+2.4
	1.3nm,0.2s						
DJR				Lg	Lg	16 59 29.6	
	3.4nm,0.5s						
DJR	Jarkent	5.51	51	eP	Pb	16 58 20.0	+2.4
	1.3nm,0.2s						
DJR				eS	Sb	16 59 29.6	+6.1
	3.4nm,0.5s						

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*SJA **02** 17:04:11.0±0.6,27.°83S×71.°92W,h11^{km},ML4.1,MW3.9*
*GUC **02** 17:04:17.4±0.9,28.°02S×71.°38W,h27^{km}±4^{km},ML3.5*
ISC 02 17:04:14.1±1.6,**28.°01S**±0.°02×**71.°61W**±0.°05,**h14**^{km}±10^{km},
n33,σ2.^{s}**11**/56,**2D,Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	Llanos de Chal	0.51	113	eP	Pb	17 04 25.9	+1.0
AC04	Llanos de Chal	0.51	113	⇓iP	Pb	17 04 25.8	+1.0
AC04				eS	Sg	17 04 30.9	-0.2
LCO	Las Campanas	1.28	142	eP	Pb	17 04 39.3	+1.1
LCO				IAML		17 05 03.4	
	comp=Z,2µm,0.5s						
LCO	Las Campanas	1.28	142	eP	Pb	17 04 39.1	+0.9
GO03	Copiapo	1.28	72	eP	Pn	17 04 33.0	-4.7
GO03				eP	Pg	17 04 38.7	-0.1
GO03				eS	Sg	17 04 59.0	+3.4
GO03	Copiapo	1.28	72	⇓iP	Pb	17 04 38.3	+0.2
GO03				IAML		17 05 04.0	
	comp=N,1µm,0.7s						
AC06	Mina Casimiro	1.28	60	eP	Pb	17 04 38.2	+0.1
AC06				eS	Sb	17 04 54.3	-0.2
AC05	El Transito	1.44	125	eP	Pb	17 04 41.8	+1.0
AC05				eS	Sb	17 05 01.4	+2.4
AC05				IAML		17 05 02.5	
	comp=Z,1µm,0.7s						
AC05	El Transito	1.44	125	eP	Pb	17 04 41.5	+0.7
AC05				eS	Sn	17 04 59.3	+0.6
AC05				IAML		17 05 03.1	
	comp=E,1µm,0.5s						
AC01	Pan de Azucar	2.06	26	eP	Pb	17 04 49.0	-2.2
AC01				eS	Sn	17 05 14.0	+0.2
AC01	Pan de Azucar	2.06	26	eP	Pb	17 04 49.1	-2.2
AC01				IAML		17 05 29.7	
	comp=N,323nm,0.7s						
GO04	Tololo Observa	2.27	162	eP	Pn	17 04 49.0	-2.5
GO04				eP	Pb	17 04 54.5	-0.6
GO04				eS	Sg	17 05 27.7	+0.5
GO04				IAML		17 05 30.1	
	comp=Z,1µm,1.1s						
GO04	Tololo Observa	2.27	162	eP	Pb	17 04 54.4	-0.7
GO04				eS	Sb	17 05 24.6	+1.5
CO01	Juntas del Tor	2.37	146	eP	Pb	17 04 56.7	-0.1
CO01				eS	Sb	17 05 27.6	+1.6
CO01				IAML		17 05 30.1	
	comp=Z,809nm,0.5s						
CO01	Juntas del Tor	2.37	146	eP	Pb	17 04 56.7	-0.1
CO01				IAML		17 05 30.0	
	comp=N,760nm,0.6s						
AC02	Maricunga	2.49	63	eP	Pb	17 04 58.0	-1.0
AC02				eS	Sb	17 05 32.4	+2.7
AC02				IAML		17 05 40.6	
	comp=Z,374nm,0.6s						
AC02	Maricunga	2.49	63	eP	Pb	17 04 57.9	-1.1
AC02				IAML		17 05 35.7	
	comp=N,715nm,0.3s						
CO06	Fray Jorge	2.66	181	eP	Pn	17 04 58.3	+1.7
CO06				IAML		17 05 48.2	
	comp=E,272nm,0.8s						
AROD	Rodeo	2.85	140	eP	Pb	17 05 05.1	+0.1
AROD				eS	Sb	17 05 43.9	+4.1
CO03	El Pedregal	2.94	164	eP	Pn	17 05 03.8	+3.4
CO03				eS	Sn	17 05 33.0	-2.5
CO03				IAML		17 05 52.2	
	comp=Z,616nm,1.1s						
ACDV	Cuesta del Vie	3.06	135	eP	Pb	17 05 08.5	0.0
ACDV				eS	Sb	17 05 48.5	+2.6
ACDV				IAML		17 06 06.7	
	comp=Z,198nm,1.7s						
VCA	Vinchina	3.08	104	eP	Pn	17 05 04.5	+1.9
VCA				eS	Sb	17 05 49.5	+3.1
VCA				IAML		17 06 04.3	
	comp=Z,359nm,0.6s						
CO02	Combarbal	3.23	171	eP	Pn	17 05 07.2	+2.7
CO02				eS	Sn	17 05 43.5	+0.6
CO02				IAML		17 06 05.4	
	comp=Z,971nm,0.6s						
ACCO	Cerro Coronel	3.40	140	eP	Pb	17 05 13.1	-1.2
ACCO				eS	Sb	17 05 56.5	+0.9
ACCO				IAML		17 06 10.5	
	comp=Z,289nm,0.8s						
PB14	IPOC Station P	3.54	18	eP	Pn	17 05 09.4	+0.5
PB14				eS	Sn	17 05 50.6	-0.1
PB14				eS	Sb	17 05 59.5	-0.1
TINO	Tinogasta	3.57	92	eP	Pn	17 05 13.4	+4.2
TINO				eS	Sb	17 05 59.5	-0.9
TINO				eS	Sg	17 06 04.5	-4.3
TINO				IAML		17 06 11.3	
	comp=Z,193nm,0.8s						
RTLS	Leoncito	4.28	153	eP	Pb	17 05 25.6	-3.7
RTLS				eS	Sb	17 06 21.0	0.0
RTLS				IAML		17 06 33.9	
	comp=Z,745nm,0.8s						
RTLL	Cerro Villicun	4.29	141	eP	Pn	17 05 24.8	+5.8
RTLL				eS	Sb	17 06 18.0	-3.0
RTLL				IAML		17 06 33.0	
	comp=Z,197nm,0.9s						
ACLC	CERRO LA CRUZ	4.33	110	eP	Pn	17 05 25.0	+5.3
ACLC				eS	Sb	17 06 20.5	-1.7
ACLC				IAML		17 06 26.8	
	comp=Z,97nm,0.5s						
CFA	Coronel Fontan	4.63	142	eP	Pn	17 05 29.0	+5.3
CFA				eS	Sb	17 06 26.5	-4.3
CFA				eS	Sn	17 06 29.0	+12
CFA				IAML		17 06 40.6	
	comp=Z,131nm,0.6s						
CYA	Choya	5.14	96	eS	Sb	17 06 40.9	-4.6
CYA				IAML		17 06 44.5	
	comp=Z,84nm,0.6s						
MT02	Curacav	5.25	176	eP	Pn	17 05 34.9	+2.6
PB05	IPOC Station P	5.29	14	eP	Pn	17 05 33.1	+0.3
PB05				eS	Sn	17 06 33.6	0.0
PB05				IAML		17 07 12.7	
	comp=Z,49nm,0.8s						

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*IDC **02** 17:04:58.4±0.6,32.°19S×179.°41W,h0^{km},mb4.5/13,*
mbtmp4.4/15,ML3.8/2,MS4.2/36,Error ellipse:
s-maj=21.8km s-min=16.7km az=87.0
*NEIC **02** 17:05:02.3±1.9,32.°32S±0.°08×179.°4W±0.°1,h19^{km}±3^{km},*
mb5.0/32,Mww5.1/14,Error ellipse: s-maj=18.6km
s-min=10.5km az=108.0
*GFZ **02** 17:05:02.6±0.3,32°S±4°×18°0W±°,h29^{km},M5.3/31,*
mb5.1/31
*GCMT **02** 17:05:02.8±0.2,32.°39S±0.°01×179.°54W±0.°01,h12^{km},*
MW5.1/128,Moment Tensor Solution. s71,c101;
s128,c208; Duration: 0 Moment tensor: Scale 10^{16}Nm;
M_{rr}-2.64±.10; $M_{\theta\theta}$-0.86±.10; $M_{\phi\phi}$3.50±.09; $M_{r\theta}$-0.64±.27;
$M_{\theta\phi}$4.32±.07; $M_{\phi r}$0.60±.23; Best double couple:
$M_0$5.10600×10^{16} NP1:ϕ_s72.00000°,δ67.00000°,
λ-23.00000°. NP2:ϕ_s171.00000°,δ69.00000°,
λ-156.00000°. Principal axes: T 6.1630, Plg1.0000°,
Azm302.0000°; N -2.1130, Plg58.0000°, Azm210.0000°;
P -4.0490, Plg32.0000°, Azm32.0000°; nsta1 refers to
body waves, cutoff=40s. nsta2 refers to surface waves,
cutoff=50s. Triangular moment-rate function
ISC 02 17:05:03.7±0.4,**32.°25S**±0.°07×**179.°53W**±0.°08,**h35**^{km},
n181,σ1.^{s}**40**/147,**mb5.0**/63,**MS4.3**/35,**2C-1D,South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	Raoul Island	3.29	25	Pn	Pn	17 05 53.4	+0.7
MXZ	Matakaoa Point	5.59	198	Pn	Pn	17 06 23.1	-1.2
OUZ	Omahuta	6.45	241	P	Pn	17 06 37.8	+1.7
	comp=Z,106nm,0.9s						
URZ	Urewera	6.60	204	Pn	Pn	17 06 38.6	+0.4
	comp=Z,4.9nm,0.3s,baz=51,slow=3.4,SNR=24						
	comp=Z,45nm,0.6s						
URZ				AML	AML		
URZ	Urewera	6.60	204	P	Pn	17 06 38.8	+0.6
	comp=Z,216nm,1.0s						
TOZ	Tahuroa Road	6.82	215		Pn	17 06 42.4	+1.1
RTZ	Ruatahuna	6.96	203		Pn	17 06 41.4	-1.9
HIZ	Hauiti	7.75	215		Pn	17 06 54.3	+0.3
HIZ	Hauiti	7.75	215	P	Pn	17 06 57.6	+3.6
	comp=Z,184nm,1.1s						
BFZ	Birch Farm	9.08	201	Pn	Pn	17 07 09.3	-2.8
BFZ	Birch Farm	9.08	201	P	Pn	17 07 14.6	+2.5
	comp=Z,93nm,1.2s						
MRZ	Mangatainoka R	9.27	204	Pn	Pn	17 07 09.9	-4.9
TUWZ	Tuamarina	10.55	208	Pn	Pn	17 07 26.6	-5.7
TKNZ	Takaka Hill	10.64	212	Pn	Pn	17 07 35.6	+2.0
THZ	Tophouse	11.25	210		Pn	17 07 46.1	+4.1
NFK	Norfolk Island	11.26	283	P	Pn	17 07 40.9	-1.1
	comp=Z,46nm,0.9s						
KHZ	Kahutara	11.55	207	P	Pn	17 07 47.1	+1.1
	comp=Z,35nm,2.7s						
RPZ	Rata Peaks	13.63	210	Pn	Pn	17 08 12.4	-2.1
	comp=Z,0.2nm,0.3s,baz=0.6,slow=3.8,SNR=5.5						
RPZ				LR	LR	17 13 28.9	
	comp=Z,315nm,20.2s,baz=40,slow=37						
	comp=Z,1.4nm,0.5s						
RPZ				AML	AML		
MSVF	Nonsavu	14.62	351	Pn	P	17 08 31.9	-2.1
	comp=Z,0.7nm,0.3s,baz=156,slow=13,SNR=11						
MSVF				LR	LR	17 12 49.9	
	comp=Z,2µm,20.6s,baz=180,slow=32						
MSVF	Nonsavu	14.62	351		P	17 08 31.3	-2.7
DZM	Mont Dzumac	16.06	306	LR	LR	17 13 51.5	
	comp=Z,4µm,18.2s,baz=190,slow=33						
AFI	Afiamalu	19.58	23	LR	LR	17 16 20.7	
	comp=Z,270nm,18.1s,baz=194,slow=35						
RAR	Rarotonga	20.75	63	LR	LR	17 17 03.5	
	comp=Z,402nm,19.2s,baz=232,slow=35						
CAN	Canberra	26.28	255	P	P	17 10 36.0	+0.1
	comp=Z,12nm,1.4s						
EIDS	Eidsvold	26.59	277		P	17 10 32.6	-6.2
EIDS				IAmb	IAmb	17 10 52.2	
	comp=Z,59nm,1.4s						
EIDS	Eidsvold	26.59	277	P	P	17 10 37.5	-1.2
	comp=Z,34nm,1.3s						
CMSA	Cobar Meteorol	29.46	262	P	P	17 11 04.5	+0.1
	comp=Z,16nm,0.8s						
HNR	Honiara	29.61	316	LR	LR	17 22 05.2	
	comp=Z,401nm,18.1s,baz=242,slow=35						
HNR	Honiara	29.61	316	P	P	17 11 04.8	-0.9
	comp=Z,145nm,1.2s						
PPT	Papeete	30.72	69	LR	LR	17 22 01.0	
	comp=Z,322nm,19.1s,baz=254,slow=33						
QLP	Quilpie	31.96	271	P	P	17 11 25.8	-0.6
	comp=Z,30nm,1.7s						
STKA	Stephens Creek	32.83	260	P	P	17 11 35.8	+1.8
	comp=Z,5.4nm,1.1s,baz=106,slow=13,SNR=4.2						
STKA				LR	LR	17 23 51.9	
	comp=Z,671nm,18.2s,baz=92,slow=34						
	comp=Z,5.4nm,1.1s						
STKA	Stephens Creek	32.83	260	P	P	17 11 32.8	-1.2
	comp=Z,64nm,2.2s						
CTA	Charters Tower	32.87	283	LR	LR	17 23 21.6	
	comp=Z,584nm,18.6s,baz=112,slow=34						
CTAO	Charters Tower	32.87	283	P	P	17 11 33.8	-0.6
	comp=Z,19nm,1.1s						
INKA	Innaminka	34.56	267		P	17 11 50.5	+1.4
INKA				IAmb	IAmb	17 12 00.0	
	comp=Z,17nm,1.1s						
PMG	Port Moresby	38.28	299	LR	LR	17 26 00.4	
	comp=Z,629nm,18.7s,baz=128,slow=33						
KRVT	Keravat (AS076	38.50	310	LR	LR	17 25 52.9	
	comp=Z,302nm,21.4s,baz=152,slow=32						
AS31	Alice Springs	41.74	270		P	17 12 50.6	+0.9
ASAR	Alice Springs	41.75	270	P	P	17 12 50.6	+0.9
	comp=Z,12nm,0.6s,baz=109,slow=7.8,SNR=233						
ASAR				LR	LR	17 29 42.8	
	comp=Z,405nm,18.5s,baz=121,slow=36						
	comp=Z,12nm,0.6s						
ASAR	Alice Springs	41.75	270		P	17 12 50.1	+0.4
WR8	Warramunga Arr	42.76	275		P	17 12 58.5	+0.5
WR8				IAmb	IAmb	17 13 02.9	
	comp=Z,34nm,1.1s						
WRAB	Tennant Creek	42.90	275	P	P	17 12 59.1	0.0
WRAB				IAmb	IAmb	17 13 04.0	
	comp=Z,54nm,1.3s						
WRAB	Tennant Creek	42.90	275	P	P	17 12 58.7	-0.4
	comp=Z,33nm,1.5s						
WRA	Warramunga Arr	42.91	275	P	P	17 12 59.9	+0.7
	comp=Z,11nm,0.5s,baz=114,slow=8.1,SNR=175						
	comp=Z,11nm,0.5s						
WRA	Warramunga Arr	42.91	275		P	17 12 59.1	0.0
WB0	Warramunga Arr	42.94	275		P	17 13 00.2	+0.8
MANU	Manus Island	43.27	307	P	P	17 13 02.9	+0.9
FORT	Forrest	44.34	257		P	17 13 09.3	-1.2
FORT				IAmb	IAmb	17 13 26.1	
	comp=Z,28nm,0.8s						
SBA	Scott Base	46.10	184	P	P	17 13 24.2	+0.3
	comp=Z,24nm,1.4s						
VNDA	Vanda	46.13	186	P	P	17 13 23.6	-0.6
	comp=Z,1.0nm,0.8s,baz=359,slow=9.2,SNR=4.4						
VNDA				LR	LR	17 30 13.1	
	comp=Z,198nm,18.4s,baz=34,slow=33						
	comp=Z,1.0nm,0.8s						
GENI	Genyem	47.98	300	P	P	17 13 40.5	+1.2
	comp=Z,4µmcomp=Z,62nm,1.1s						
GENI	Genyem	47.98	300	P	P	17 13 38.9	-0.4
	comp=Z,60nm,1.7s						
MTN	Manton Dam	49.02	281		P	17 13 47.5	+0.2
MTN				IAmb	IAmb	17 13 57.7	
	comp=Z,39nm,1.9s						
FITZ	Fitzroy Crossi	51.08	272	LR	LR	17 35 09.6	
	comp=Z,760nm,19.1s,baz=117,slow=35						
FITZ	Fitzroy Crossi	51.08	272		P	17 14 02.4	-0.5
FITZ	Fitzroy Crossi	51.08	272	P	P	17 14 01.7	-1.3
	comp=Z,7.9nm,0.9s						
FITZ				pP	pP	17 14 11.7	-0.9
SAUI	Saumlaki	51.54	287	P	P	17 14 08.7	+2.3
BAKI	Biak	51.93	297	P	P	17 14 11.7	+2.4
	comp=Z,97nm,1.5s						
MEEK	Meekatharra	53.52	259	P	P	17 14 20.6	-0.5
	comp=Z,29nm,0.9s						
MEEK				pP	pP	17 14 28.6	-2.0
MWPI	Manokwari, Pap	53.66	296	P	P	17 14 25.2	+3.0
BLDU	Ballidu	53.70	254	P	P	17 14 21.3	-1.0
	comp=Z,32nm,2.6s						
FAKI	Fak Fak	53.79	293	P	P	17 14 25.6	+2.5
	comp=Z,30nm,1.5s						
FAKI	Fak Fak	53.79	293	P	P	17 14 22.5	-0.6
	comp=Z,27nm,1.0s						
MBWA	Marble Bar	54.75	266	P	P	17 14 28.9	-1.1
	comp=Z,17nm,0.5s						
SWI	Sorong	55.84	294	P	P	17 14 39.0	+1.1
SWI	Sorong	55.84	294	P	P	17 14 38.3	+0.4
KHLU	Kahalu`u	56.30	27	P	P	17 14 40.3	-0.8
	comp=Z,114nm,2.1s						
SOEI	Soe	56.36	280	P	P	17 14 43.6	+1.9
SOEI	Soe	56.36	280	P	P	17 14 42.4	+0.7
	comp=Z,37nm,0.8s						
SOEI	Soe	56.36	280	P	P	17 14 42.5	+0.7
	comp=Z,36nm,0.9s						
NLAI	Namlea	57.69	289	P	P	17 14 50.8	-0.2
	comp=Z,22nm,1.3s						
QSPA	South Pole Qui	57.87	180	P	P	17 14 52.5	+0.7
	comp=Z,17nm,0.9s,baz=49,slow=0.6,SNR=24						
QSPA				LR	LR	17 35 16.7	
	comp=Z,301nm,21.1s,baz=44,slow=31						
	comp=Z,17nm,0.9s						
QSPA	South Pole Qui	57.87	180		P	17 14 52.1	+0.3
QSPA	South Pole Qui	57.87	180	P	P	17 14 52.1	+0.3
	comp=Z,49nm,1.2s						
EDFI	Ende, Flores	59.04	280	P	P	17 15 00.9	+0.2
SANI	Sanana	59.28	289	P	P	17 15 02.5	+0.3
	comp=Z,21nm,1.3s						
SANI	Sanana	59.28	289	P	P	17 15 00.0	-2.1
	comp=Z,25nm,1.3s						
WSI	Waingapu	59.73	278	P	P	17 15 05.2	0.0
TNTI	Ternate	59.90	292	P	P	17 15 05.6	-0.7
	comp=Z,9.4nm,0.8s						

BBSI	Bau Bau	60.09	283	P	P	17 15 07.9	+0.2
RPN	Rapa Nui	60.22	105	LR	LR	17 34 06.0	
	comp=Z,306nm,21.8s,baz=220,slow=29						
LBFI	Labuhan Bajo,	60.69	279	P	P	17 15 11.7	-0.2
LBFI	Labuhan Bajo,	60.69	279	P	P	17 15 11.0	-0.8
	comp=Z,47nm,1.5s						
KKSI	Kolaka, Sulawe	61.58	284	P	P	17 15 18.0	+0.1
DBNI	Kabupaten Domp	62.00	278	P	P	17 15 20.3	-0.4
	comp=Z,25nm,3.0s						
PLAI	Plampang	62.28	277	P	P	17 15 22.0	-0.6
	comp=Z,47nm,2.0s						
MNI	Manado	62.30	291	P	P	17 15 22.3	-0.4
	comp=Z,50nm,0.9s						
LUWI	Luwuk	62.46	288	P	P	17 15 24.3	+0.5
	comp=Z,24nm,1.2s						
LUWI	Luwuk	62.46	288	P	P	17 15 21.2	-2.6
	comp=Z,31nm,1.1s						
TOLI2	Tolitoli	65.33	288	P	P	17 15 42.8	+0.1
	comp=Z,7.6nm,0.8s						
JAGI	Jajag, Banyuwa	65.52	275	P	P	17 15 42.7	-1.2
	comp=Z,35nm,2.0s						
BELA	Belgrano 2	68.13	172		P	17 15 58.3	-1.3
BELA				IAmb	IAmb	17 16 07.8	
	comp=Z,22nm,1.5s						
SMAI	San Martin Ant	68.21	158	P	P	17 16 00.5	+0.4
MYLDM	Lahad Datu	69.58	290	P	P	17 16 08.6	-0.9
	comp=Z,7.9nm,1.5s						
MAW	Mawson	70.12	201	P	P	17 16 12.8	+0.8
	comp=Z,2.1nm,1.0s,baz=332,slow=20,SNR=4.7						
MAW				LR	LR	17 45 30.3	
	comp=Z,251nm,19.4s,baz=112,slow=35						
	comp=Z,2.1nm,1.0s						
MAW	Mawson	70.12	201	IAmb	IAmb	17 16 19.2	
	comp=Z,2.1nm,1.4s						
MAW	Mawson	70.12	201	P	P	17 16 12.3	+0.3
	comp=Z,1.2nm,1.7s						
CMJI	Cimerak	70.69	273	P	P	17 16 17.5	+1.1
	comp=Z,169nm,1.6s						
PMSA	Palmer Station	71.12	156	LR	LR	17 44 49.0	
	comp=Z,219nm,18.1s,baz=245,slow=34						
KKM	Kota Kinabalu	71.91	290	P	P	17 16 25.7	+1.9
	comp=Z,12nm,1.5s						
SBUM	Sibu	73.07	284	P	P	17 16 29.9	-0.7
	comp=Z,5.2nm,1.4s						
ELIB	Princess Elisa	74.86	187	*d*P	P	17 16 39.1	-1.3
	comp=Z,4.4nm,0.9s						
TROLL	Troll, Antarti	76.02	181	P	P	17 16 46.6	-0.4
	comp=Z,1μm,0.9s						
SNAA	Sanae	76.34	179	P	P	17 16 50.7	+1.9
	comp=Z,457nm,1.1s						
SNAA	Sanae	76.34	179	P	P	17 16 49.7	+1.0
	comp=Z,13nm,1.0s,baz=159,slow=4.5,SNR=20						
	comp=Z,13nm,1.0s						
SNAA	Sanae	76.34	179		P	17 16 47.9	-0.9
SNAA	Sanae	76.34	179	P	P	17 16 50.0	+1.2
	comp=Z,33nm,1.2s						
VNA3	Neumayer Olymp	76.55	177	⇑P	P	17 16 49.2	-0.7
	comp=Z,30nm,0.8s						
VNA3	Neumayer Olymp	76.55	177	P	P	17 16 49.8	-0.1
	comp=Z,45nm,0.8s						
VNA2	Neumayer--Watz	76.97	177	⇑P	P	17 16 53.1	+0.8
	comp=Z,29nm,1.0s,baz=173,slow=5.0						
VNA2	Neumayer--Watz	76.97	177	P	P	17 16 53.2	+1.0
	comp=Z,59nm,1.1s						
VNA1	Neumayer--Stat	77.20	177	P	P	17 16 54.1	+0.6
	comp=Z,49nm,1.1s						
H03S2	Juan Fernandez	80.53	124	T	T	18 45 29.5	
	baz=236,slow=74,SNR=88						
H03S1	Juan Fernandez	80.54	124	T	T	18 45 30.7	
	baz=236,slow=74,SNR=95						
H03S3	Juan Fernandez	80.55	124	T	T	18 45 29.6	
	baz=236,slow=74,SNR=123						
PLCA	Paso Flores	82.20	134	P	P	17 17 22.4	+1.1
	comp=Z,3.4nm,0.8s,baz=198,slow=6.7,SNR=7.4						
PLCA				LR	LR	17 47 54.9	
	comp=Z,92nm,18.7s,baz=234,slow=31						
	comp=Z,3.4nm,0.8s						
PLCA	Paso Flores	82.20	134	P	P	17 17 20.6	-0.8
PLCA				IAmb	IAmb	17 17 31.4	
	comp=Z,7.1nm,0.9s						
BI02	San Fabin de	84.13	130	P	P	17 17 32.5	+1.1
KSRS	Korea Array	84.92	321	P	P	17 17 35.6	+0.6
	comp=Z,1.6nm,1.0s,baz=144,slow=8.2,SNR=1.9						
	comp=Z,1.6nm,1.0s						
BO02	Sierra Bellavi	85.56	129	P	P	17 17 39.2	+0.7
BO02				IAmb	IAmb	17 17 43.8	
	comp=Z,6.3nm,0.8s						
MT01	Popeta	85.79	128	IAmb	IAmb	17 17 49.6	
	comp=Z,10nm,0.8s						
NJ2	Nanjing	86.47	312	*e*P	P	17 17 45.6	+2.8
NJ2				pmax	pmax		
	comp=Z,32nm,0.6s						
LPIG	La Paz	86.61	59	LR	LR	17 49 36.7	
	comp=Z,134nm,18.2s,baz=234,slow=31						
PETK	Petropavlovsk-	87.28	346	P	P	17 17 47.6	+1.4
	comp=Z,7.6nm,1.1s,baz=186,slow=12,SNR=4.4						
	comp=Z,7.6nm,1.1s						
USRK	Ussuriysk Ar.	87.99	327	P	P	17 17 51.4	+1.6
	comp=Z,1.6nm,0.7s,baz=182,slow=7.1,SNR=6.7						
	comp=Z,1.6nm,0.7s						
USRK	Ussuriysk Ar.	87.99	327		P	17 17 50.2	+0.4
PFO	Pinyon Flats O	88.41	48	LR	LR	17 52 14.0	
	comp=Z,88nm,18.3s,baz=216,slow=32						
LRMC	Laurel Mtn Rad	88.88	46	IAmb	IAmb	17 17 57.2	
	comp=Z,4.0nm,0.7s						
BELC	Belle Mtn. Jos	88.96	48	IAmb	IAmb	17 18 06.9	
	comp=Z,6.8nm,1.0s						
BC3	Big Chuckawall	89.08	49		P	17 17 54.7	-0.7
O02D	Mt. Diablo Mer	89.15	40		P	17 17 57.7	+2.2
O02D				IAmb	IAmb	17 17 59.3	
	comp=Z,15nm,1.4s						
CLC	China Lake	89.16	46	IAmb	IAmb	17 19 51.2	
	comp=Z,4.1nm,0.5s						
IRM	Iron Mountain	89.60	48	IAmb	IAmb	17 18 30.8	
	comp=Z,10nm,1.3s						
WAKR	Walker	89.87	43		P	17 18 00.1	+1.0
WAKR				IAmb	IAmb	17 18 02.2	
	comp=Z,8.3nm,1.4s						
YBH	Yreka Blue Hor	90.29	39	LR	LR	17 50 14.2	
	comp=Z,57nm,21.1s,baz=217,slow=30						
NVAR	Mina Array Bea	90.48	44	P	P	17 18 02.2	+0.3
	comp=Z,1.3nm,0.8s,baz=215,slow=5.8,SNR=4.9						
NVAR				LR	LR	17 49 37.7	
	comp=Z,118nm,22.0s,baz=239,slow=30						
	comp=Z,1.3nm,0.8s						
KVN	Kaiserville	91.01	43	P	P	17 18 05.7	+1.3
PINE	Pine Mountain	92.66	38		P	17 18 13.6	+1.6
ELK	Elko	93.78	43	LR	LR	17 51 29.7	
	comp=Z,108nm,21.3s,baz=234,slow=30						
NNA	Nana	94.16	107	LR	LR	17 50 47.1	
	comp=Z,203nm,21.2s,baz=210,slow=29						
TXAR	Lajitas Array	94.48	58	P	P	17 18 20.7	+0.2
	comp=Z,0.7nm,1.0s,baz=180,slow=7.0,SNR=5.1						
TXAR				LR	LR	17 54 06.0	
	comp=Z,91nm,19.2s,baz=232,slow=31						
	comp=Z,0.7nm,1.0s						
CMIG	Matias Romero	94.56	73	LR	LR	17 52 31.8	
	comp=Z,63nm,19.2s,baz=198,slow=30						
MA2	Magadan	94.73	345	LR	LR	17 56 00.7	
	comp=Z,153nm,21.0s,baz=172,slow=32						
PZH	PanZhiHua	95.01	298	P	P	17 18 23.9	+0.9
BBB	Bella Bella	95.34	29	LR	LR	17 54 22.1	
	comp=Z,50nm,20.3s,baz=220,slow=31						
ATAH	Atahualpa	95.56	102	LR	LR	17 52 32.0	
	comp=Z,74nm,19.8s,baz=234,slow=30						
ANMO	Albuquerque	95.75	52	LR	LR	17 56 19.8	
	comp=Z,85nm,18.5s,baz=232,slow=32						
HHC	Hu-ho-hao-te	96.58	315	*e*P	P	17 18 31.6	+1.7
APG	El Apazote	97.08	77	LR	LR	17 55 32.4	
	comp=Z,6.2nm,18.6s,baz=328,slow=31						
NEW	Newport	97.63	37	LR	LR	17 58 12.0	
	comp=Z,107nm,18.4s,baz=184,slow=33						
PDAR	Pinedale Array	98.37	44	LR	LR	17 54 31.4	
	comp=Z,71nm,21.9s,baz=232,slow=30						
LPAZ	La Paz	98.56	115	LR	LR	17 54 58.1	
	comp=Z,47nm,21.2s,baz=241,slow=30						
LZH	Lanzhou	98.78	307	*e*P	P	17 18 38.4	-1.6
LZH				pmax	pmax		
	comp=Z,16nm,1.1s						
JTS	Las Juntas de	99.25	84	LR	LR	17 53 48.3	
	comp=Z,81nm,21.4s,baz=239,slow=30						
CPUP	Villa Florida	99.84	130	LR	LR	17 55 29.8	
	comp=Z,137nm,21.3s,baz=244,slow=30						
HYB	Hyderabad	108.97	279	*e*PKiKP	PKiKP	17 23 30.2	+0.1
HYB				*e*SKSac	SKSac	17 30 04.5	+1.5
HYB				*e*SKKSac	SKKSac	17 30 59.0	+0.1
WMQ	Urumqi	113.33	308	*e*PKP	PKiKP	17 23 38.2	+0.6
WMQ				LR	LR		
	comp=Z,110nm,24.9s						
MKAR	Makanchi Array	117.95	310	PKP	PKPdf	17 23 44.6	-1.7
	comp=Z,0.3nm,0.7s,baz=50,slow=4.1,SNR=4.1						
KURK	Kurchatov	121.37	313		PKPdf	17 23 51.0	-1.7
KURBB	Kurchatov Arra	121.40	313	PKP	PKPdf	17 23 51.0	-1.8
	comp=Z,0.4nm,0.3s,baz=99,slow=2.3,SNR=4.1						
BVAR	Borovoye Array	126.80	315	PKP	PKPdf	17 24 01.4	-1.7
	comp=Z,1.0nm,0.6s,baz=147,slow=3.5,SNR=5.6						
ARCES	ARCESS Array B	140.09	347	PKP	PKPdf	17 24 27.6	+0.1
	comp=Z,1.3nm,0.9s,baz=141,slow=1.9,SNR=1.5						
FINES	FINESS Array B	146.40	338	PKPbc	PKPbc	17 24 39.7	-0.4
	comp=Z,6.0nm,0.7s,baz=93,slow=4.0,SNR=15						
FINES	FINESS Array B	146.40	338		PKPdf	17 24 39.2	+0.4
KOPT	Kop Dagi	146.97	295	PKPdf	PKPdf	17 24 37.9	-3.0
ARPR	Arapgir-MALATY	148.66	293	PKPdf	PKPdf	17 24 45.0	+1.4
NB2	NORSAR Subarra	150.35	349	PKP	PKPbc	17 24 49.8	-0.8
	comp=Z,5.1nm,0.9s,baz=18,slow=4.3						
NOA	NORSAR Array B	150.35	349	PKPbc	PKPbc	17 24 50.2	-0.4
	comp=Z,1.2nm,0.7s,baz=15,slow=4.1,SNR=5.2						
HFS	Hagfors	150.76	346	PKPbc	PKPbc	17 24 51.1	-0.4
	comp=Z,2.6nm,0.6s,baz=294,slow=1.4,SNR=5.6						
AKASG	Malin Array Be	151.91	319	PKPbc	PKPbc	17 24 53.8	-0.7
	comp=Z,2.1nm,0.6s,baz=58,slow=2.7,SNR=11						
BRTR	Keskin Array B	152.26	295	PKPbc	PKPbc	17 24 55.3	-0.6
	comp=Z,1.1nm,0.7s,baz=130,slow=3.1,SNR=6.7						
MORC	Moravsky Berou	158.35	329	*e*PKP	PKPab	17 25 32.1	+0.7
VYHS	Vyhne	158.66	325	*e*PKP	PKPab	17 25 34.3	+1.6
CLL	Collm	158.84	338	*i* PKPab	PKPab	17 25 33.4	+0.1
	comp=Z,5.0nm,0.8s						
CLL				*e*SSS	SSS	17 55 48.0	
CLL				LH		18 10 00.0	
CLL				L	L	18 30 00.0	
CLL				AMS	AMS	19 01 00.0	
	comp=Z,100nm,20.6s						
JAVC	Velka Javorina	158.96	327	*e*PKP	PKPab	17 25 35.9	+1.9
VRAC	Vranov	159.11	329	*e*PKP	PKPab	17 25 35.6	+1.0
KRUC	Moravsky	159.38	329	*e*PKP	PKPab	17 25 36.1	+0.3
GERES	GERESS Array B	160.66	333	PKPab	PKPab	17 25 41.8	+0.3
	comp=Z,0.4nm,0.3s,baz=270,slow=0.7,SNR=5.7						
TORD	Torodi Ar. Bea	160.96	184	PKPab	PKPab	17 25 42.8	-0.5
	comp=Z,2.5nm,0.8s,baz=171,slow=3.8,SNR=11						
TORD	Torodi Ar. Bea	160.96	184		PKPab	17 25 41.8	-1.6

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*IDC **02** 17:18:49.9±3.3, 4.°19S×143.°20E, h135^{km}±34^{km}, mb3.5/9, mbtmp4.0/11, MS4.0/1, Error ellipse: s-maj=29.7km s-min=18.5km az=89.0*

*NEIC **02** 17:18:50.3±1.2, 4.°25S±0.°09×143.°02E±0.°10, h124^{km}±2^{km}, mb4.1/18, Error ellipse: s-maj=13.8km s-min=12.7km az=81.0*

ISC 02 17:18:48.4±0.6**, 4.°23S**±0.°07×**142.°96E**±0.°08**, h115**^{km}**, n37, σ1.^{s}23**/36**, mb3.8**/14**, New Guinea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MANU	Manus Island	4.91	64		Pn	17 20 01.6	+1.5
PMG	Port Moresby	6.62	141	P	Pn	17 20 24.2	+0.9
	10nm,0.8s,baz=191,slow=23,SNR=1.7						
PMG				S	Sn	17 21 36.6	-0.8
	13nm,0.9s,baz=12,slow=20,SNR=1.3						
FAKI	Fak Fak	10.77	277	Pn	Pn	17 21 21.5	+2.1
MTN	Manton Dam	14.48	233	Pn	Pn	17 22 05.5	-2.6
WB0	Warramunga Arr	17.56	208		P	17 22 45.7	+0.3
WB0				IAmb	IAmb	17 22 48.7	
	comp=Z,10nm,0.6s						
WR8	Warramunga Arr	17.67	207		P	17 22 47.1	+0.4
WR8				IAmb	IAmb	17 22 49.5	
	comp=Z,13nm,0.7s						
WRAB	Tennant Creek	17.72	208	P	P	17 22 47.4	+0.1
WRAB				IAmb	IAmb	17 22 51.5	
	comp=Z,10nm,0.7s						
WRA	Warramunga Arr	17.73	208	P	P	17 22 47.7	+0.3
	comp=Z,7.4nm,0.7s,baz=25,slow=12,SNR=66						
WRA	Warramunga Arr	17.73	208		P	17 22 46.0	-1.5
KNRA	Kununurra	18.01	230	P	P	17 22 51.3	+0.9
KNRA				IAmb	IAmb	17 22 56.3	
	comp=Z,4.8nm,0.8s						
SOEI	Soe	19.34	253	P	P	17 23 06.4	+1.3
AS31	Alice Springs	21.21	203		P	17 23 26.0	+0.9
AS31				IAmb	IAmb	17 23 32.7	
	comp=Z,1.9nm,0.6s						
ASAR	Alice Springs	21.21	203	P	P	17 23 26.1	+0.9
	comp=Z,1.2nm,0.7s,baz=32,slow=13,SNR=35						
	comp=Z,1.2nm,0.7s						
ASAR	Alice Springs	21.21	203	P	P	17 23 25.7	+0.6
FITZ	Fitzroy Crossi	21.84	230	P	P	17 23 33.7	+1.8
EIDS	Eidsvold	22.42	160	P	P	17 23 39.4	+1.6
EIDS				IAmb	IAmb	17 23 40.7	
	comp=Z,10nm,1.1s						
TOLI2	Tolitoli	22.78	283	P	P	17 23 39.6	-1.9
TOLI2				IAmb	IAmb	17 23 42.6	
	comp=Z,8.5nm,1.1s						
INKA	Innaminka	23.48	185	P	P	17 23 48.9	+1.0
INKA				IAmb	IAmb	17 23 49.9	
	comp=Z,5.7nm,1.1s						
STKA	Stephens Creek	27.53	183	P	P	17 24 24.5	+0.1
	comp=Z,1.3nm,0.7s,baz=333,slow=12,SNR=3.0						
	comp=Z,1.3nm,0.7s						
FORT	Forrest	29.91	206	P	P	17 24 45.9	+0.4
JWT	Wachi	39.94	350	P	P	17 26 11.2	-0.3
MAJO	Matsushiro	40.80	354	P	P	17 26 19.4	+0.8
MAJO				IAmb	IAmb	17 26 50.8	
	comp=Z,6.0nm,0.9s						
CMAR	Chiang Mai Arr	48.87	299	P	P	17 27 23.4	+0.6
	comp=Z,0.6nm,0.5s,baz=121,slow=7.0,SNR=6.1						
	comp=Z,0.6nm,0.5s						
USRK	Ussuriysk Ar.	49.21	350	P	P	17 27 24.7	-0.2
	comp=Z,1.9nm,0.5s,baz=164,slow=6.4,SNR=6.6						
	comp=Z,1.9nm,0.5s						
PETK	Petropavlovsk-	58.46	10	LR	LR	17 50 17.2	
	comp=Z,130nm,21.9s,baz=163,slow=32						
MKAR	Makanchi Array	73.59	321	P	P	17 30 09.2	0.0
	comp=Z,0.5nm,0.7s,baz=111,slow=6.6,SNR=5.9						
	comp=Z,0.5nm,0.7s						
MKAR	Makanchi Array	73.59	321	P	P	17 30 09.0	-0.2
MAKZ	Makanchi	73.79	321	P	P	17 30 10.0	-0.4
MAW	Mawson	82.33	202	P	P	17 30 57.5	+0.4
	comp=Z,0.6nm,0.5s,baz=83,slow=11,SNR=1.7						
	comp=Z,0.6nm,0.5s						
MAW	Mawson	82.33	202	P	P	17 30 57.7	+0.7
E19K	Redstone River	82.77	20	P	P	17 30 59.6	+0.3
BVAR	Borovoye Array	82.99	325	P	P	17 31 00.8	+0.1
	comp=Z,1.7nm,0.7s,baz=104,slow=4.7,SNR=6.1						
	comp=Z,1.7nm,0.7s						
ILAR	Eielson Array	85.47	24	P	P	17 31 09.9	-3.1
	comp=Z,0.5nm,0.7s,baz=266,slow=4.1,SNR=4.5						
	comp=Z,0.5nm,0.7s						
QSPA	South Pole Qui	85.73	180	P	P	17 31 14.4	-0.1
	comp=Z,1.4nm,0.8s,baz=315,slow=1.4,SNR=2.8						
	comp=Z,1.4nm,0.8s						
QSPA	South Pole Qui	85.73	180	IAmb	IAmb	17 31 51.0	
	comp=Z,4.2nm,1.2s						
LPAZ	La Paz	143.11	124	PKP	PKPdf	17 38 08.4	-2.3
	comp=Z,1.1nm,0.4s,baz=310,slow=1.2,SNR=4.5						
DBIC	Dimbokro	147.87	276	PKPbc	PKPbc	17 38 20.4	-0.9
	comp=Z,1.9nm,0.6s,baz=146,slow=3.6,SNR=1.3						

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*IDC **02** 17:19:18.8±6.7, 32.°47N×48.°47E, h0^{km}, mb3.9/7, mbtmp3.8/9, ML3.2/2, MS2.9/7, Error ellipse: s-maj=129.7km s-min=23.8km az=5.0*

*NEIC **02** 17:19:19.7±2.1, 32.°32N±0.°02×48.°4E±0.°2, h10^{km}±2^{km}, mb4.1/14, Error ellipse: s-maj=23.0km s-min=3.3km az=83.0*

*THR **02** 17:19:19.9±0.0, 32.°42N×48.°38E, h10^{km}±6^{km}, ML4.1, Presumed earthquake*

*TEH **02** 17:19:21.3, 32.°37N×48.°40E, h20^{km}±95^{km}, ML4.0, Presumed earthquake*

ISC 02 17:19:20.6±0.6**, 32.°37N**±0.°05×**48.°41E**±0.°04**, h17**^{km}**, n70, σ1.^{s}54**/60**, mb3.9**/14**, MS3.1**/4**, Western Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GTMR	Gotvand	0.60	81	*e*Pg	Pg	17 19 31.3	-1.2
GTMR				IAML		17 19 45.1	
	comp=Z,7μm,1.0s						
AMIS	Naft Sefid	1.03	133	Pg	Pn	17 19 40.5	+0.3
AHWZ	Ahwaz	1.06	169	Pg	Pg	17 19 42.0	+0.9
KHMZ	Khomeyn	1.88	43	*e*Pn	Pb	17 19 54.5	-0.1
KHMZ				IAML		17 20 26.6	
	comp=Z,770nm,1.0s						
JHBN	Jahan bin	1.92	94	Pn	Pb	17 19 54.8	-0.4
IPIR	Pirpir	2.12	81	Pn	Pb	17 19 58.0	-0.7
IBZA	Bozab	2.14	348	Pn	Pn	17 19 57.2	+1.4
ILBA	Ilam Banvizeh	2.23	305	*e*Pn	Pn	17 19 58.1	+1.2
ILBA				IAML		17 20 40.7	
	comp=Z,130nm,1.0s						
ILBA	Ilam Banvizeh	2.23	305	Pn	Pn	17 19 58.0	+1.2
IBRJ	Brojen	2.46	100	Pn	Pn	17 20 02.1	+1.9
IGHG	Ghaleghazi	2.49	322	Pn	Pn	17 20 02.2	+1.7
ASAO	Ashtian	2.56	31	*e*Pn	Pn	17 20 03.7	+2.2
ASAO				IAML		17 20 49.5	
	comp=Z,430nm,1.0s						
SNQR	Sonqor, Kerman	2.56	345	Pn	Pn	17 20 04.0	+2.4
IKLH	Kolahrood	2.83	70	Pn	Pn	17 20 07.6	+2.4
QAMS	Qamsar	2.85	61	Pn	Pn	17 20 07.9	+2.4
SNGE	Sanandaj	2.85	342	*e*Pn	Pn	17 20 07.2	+1.7
SNGE				IAML		17 21 04.4	
	comp=Z,150nm,1.0s						
IDHR	Dehrash	2.87	324	Pn	Pn	17 20 07.9	+2.2
KLNJ	Kolanjah	3.03	116	*e*Pn	Pn	17 20 10.0	+1.9
KLNJ				IAML		17 21 12.0	
	comp=Z,430nm,1.0s						
KLNJ	Kolanjah	3.03	116	Pn	Pn	17 20 09.6	+1.5
HGHA	Hamedan- Ghaye	3.13	7	Pn	Pn	17 20 11.5	+2.2
SNJK	Sanadaj _Korde	3.24	340	Pn	Pn	17 20 13.0	+2.1
QABG	Abgarm-Qazvin	3.47	16	Pn	Pn	17 20 16.7	+2.7
NASN	Na'in	3.74	82	*e*Pn	Pn	17 20 20.1	+2.3
NASN				IAML		17 21 25.5	
	comp=Z,140nm,1.0s						
IVRN	Varamin	3.81	46	Pn	Pn	17 20 20.5	+2.0
CHTH	Charan	4.18	32	*e*Pn	Pn	17 20 25.1	+1.3
CHTH				IAML		17 22 23.7	
	comp=Z,5.2nm,1.0s						
IGZV	Ghazvin	4.27	20	Pn	Pn	17 20 26.2	+1.2
ZNJK	Zanjan	4.29	3	*e*Pn	Pn	17 20 26.8	+1.5
ZNJK				IAML		17 21 50.5	
	comp=Z,23nm,1.0s						
IDMV	Damavand	4.39	42	Pn	Pn	17 20 28.5	+1.8
DAMV	Damavand	4.39	41	*e*Pn	Pn	17 20 28.4	+1.7
DAMV				IAML		17 21 43.3	
	comp=Z,120nm,1.0s						
SRSL	SARDASHT	4.55	328	*e*Pn	Pn	17 20 30.7	+1.8
SRSL				IAML		17 22 08.5	
	comp=Z,37nm,1.0s						
MZPU	Pul - Mazandar	4.82	32	Pn	Pn	17 20 35.0	+2.3
IFIR	Firoozkooh	4.86	47	Pn	Pn	17 20 34.3	+1.2
YZKH	Yazd	5.23	88	*e*Pn	Pn	17 20 40.1	+2.0
YZKH				IAML		17 22 24.1	
	comp=Z,52nm,1.0s						
GNI	Garni	8.31	340	LR	LR	17 25 13.0	
	comp=Z,61nm,20.6s,baz=166,slow=43						
RAYN	Ar Rayn	9.18	197		Pn	17 21 31.8	-0.6
ASF	Jabal al Asfar	9.75	272	LR	LR	17 26 44.2	
	comp=Z,69nm,18.4s,baz=204,slow=46						
MMAI	Mount Meron Ar	10.98	277	LR	LR	17 27 17.1	
	comp=Z,42nm,20.1s,baz=46,slow=43						
BRTR	Keskin Array B	14.01	306	Pn	Pn	17 22 42.3	+3.9
	comp=Z,0.1nm,0.3s,baz=128,slow=9.3,SNR=5.8						
BRTR				LR	LR	17 28 42.3	
	comp=Z,22nm,21.4s,baz=128,slow=40						
	comp=Z,0.2nm,0.4s						
BRTR				AML	AML		
BRTR	Keskin Array B	14.01	306	P	P	17 22 43.1	-3.2
MANT	Manisa	17.28	296	Pn	Pn	17 23 20.0	-1.2
KBL	Kabul	17.35	77		Pn	17 23 22.8	+0.6
AB31	Akbulak array	18.95	24		P	17 23 40.0	-0.7
ABKAR	Akbulak array	18.95	24	P	P	17 23 40.2	-0.5
AKTO	Aktyubinsk	19.40	19	P	Pn	17 23 46.8	-0.1
	comp=Z,0.1nm,0.3s,baz=213,slow=12,SNR=4.6						
	comp=Z,3.1nm,1.0s						
AKTO				AML	AML		
DRK	Karamyk	20.19	63	P	P	17 23 53.8	-0.9
KK31	Karatay Array	20.44	52	P	Pn	17 23 59.0	-0.2
KK31				IAmb	IAmb	17 24 00.9	
	comp=Z,10nm,1.1s						
KKAR	Karatay Array	20.44	52	P	Pn	17 23 58.5	-0.7
NIL	Nilore	20.86	80		P	17 24 01.8	0.0
NIL				IAmb	IAmb	17 24 04.4	
	comp=Z,8.3nm,0.8s						
MLR	Muntele Rosu	21.75	314	LR	LR	17 32 55.9	
	comp=Z,28nm,18.7s,baz=192,slow=38						
MLR	Muntele Rosu	21.75	314	P	P	17 24 12.0	+0.7
MLR				IAmb	IAmb	17 24 37.0	
	comp=Z,13nm,1.5s						
KSH2	Kashi	23.00	65	P	P	17 24 24.2	-0.5
KSH2				pP	pP	17 24 29.7	0.0
KSH2				pmax	pmax		
	comp=Z,8.0nm,1.0s						
AAK	Ala-Archa	23.01	56	LR	LR	17 34 59.9	
	comp=Z,86nm,19.3s,baz=252,slow=41						
NRN	Naryn	23.76	60		P	17 24 32.2	-0.3
BOOM	Boomskoye usch	23.99	57		P	17 24 35.3	+0.8
BOOM				IAmb	IAmb	17 24 38.1	
	comp=Z,8.3nm,1.1s						
KDJ	Kajisay	24.79	59		P	17 24 42.4	+0.7
KDJ				IAmb	IAmb	17 24 44.0	
	comp=Z,2.9nm,1.0s						
ARTI	Arti	24.99	13	P	P	17 24 43.3	+0.1
TARG	Taragay, Kyrgy	25.15	60		P	17 24 45.0	-0.2
TARG				IAmb	IAmb	17 24 49.5	
	comp=Z,5.0nm,0.9s						
BVAR	Borovoye Array	26.02	31	P	P	17 24 51.6	-1.0
	comp=Z,1.6nm,0.9s,baz=218,slow=9.4,SNR=4.3						
	comp=Z,1.6nm,0.9s						
KURBB	Kurchatov Arra	28.72	42	P	P	17 25 17.1	+0.3
	comp=Z,0.8nm,0.6s,baz=245,slow=9.6,SNR=5.3						
	comp=Z,0.8nm,0.6s						
KURK	Kurchatov	28.81	42		P	17 25 16.9	-0.6
KURK				IAmb	IAmb	17 25 19.3	
	comp=Z,2.0nm,0.8s						
MKAR	Makanchi Array	29.56	51	P	P	17 25 25.0	+0.6
	comp=Z,1.3nm,0.8s,baz=246,slow=8.6,SNR=9.4						
	comp=Z,1.3nm,0.8s						
MKAR	Makanchi Array	29.56	51	P	P	17 25 24.5	+0.2
BRG	Berggiesshubel	31.32	316	*e*PKPab	P	17 25 34.6	-5.2
BRG				Amp		17 25 36.3	
	comp=Z,4.1nm,1.0s						
BRG				pPKPab	pP	17 25 44.6	-0.5
BRG				Amp		17 25 45.8	
	comp=Z,3.2nm,1.0s						
FINES	FINESS Array B	32.50	340	P	P	17 25 49.3	-0.7
	comp=Z,0.9nm,0.7s,baz=146,slow=7.7,SNR=0.4						
	comp=Z,0.9nm,0.7s						
ZAA0	Zalesovo Array	33.66	39	P	P	17 26 00.2	0.0
ZAA0				IAmb	IAmb	17 26 01.1	
	comp=Z,3.5nm,1.1s						
ZALV	Zalesovo Beam	33.66	39	P	P	17 26 00.2	-0.1
	comp=Z,0.6nm,0.3s,baz=265,slow=7.4,SNR=7.5						
	comp=Z,0.6nm,0.3s						
HFS	Hagfors	35.96	331	P	P	17 26 19.4	-0.7
	comp=Z,0.7nm,0.4s,baz=144,slow=12,SNR=1.6						
	comp=Z,0.7nm,0.4s						
NOA	NORSAR Array B	37.48	331	LR	LR	17 43 25.1	
	comp=Z,20nm,19.5s,baz=345,slow=39						
SPITS	Spitsbergen Ar	47.98	352	P	P	17 27 57.2	-0.8
	comp=Z,0.7nm,0.4s,baz=145,slow=10,SNR=8.5						
	comp=Z,0.7nm,0.4s						
NWAO	Narrogin (SRO)	91.79	128	LR	LR	18 10 20.3	
	comp=Z,283nm,19.1s,baz=336,slow=33						

IDC 02 17:31:54.2±82.0**, 41.°65N**×**23.°68E, h0**^{km}**, mb3.9**/2**, mbtmp3.8**/3**, ML2.9**/1**, 2D, Error ellipse: s-maj=1477.0km s-min=148.0km az=52.0, Greece-Bulgaria border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VRI	Vrincioaia	4.76	27	⇓P	Pg	17 33 26.2	+0.9
CFR	Carcaliu	4.79	41	⇓P	Pg	17 33 27.0	+1.0
FINES	FINESS Array B	19.88	3	Pn	Pn	17 36 28.6	+0.4
	0.1nm,0.3s,baz=184,slow=11,SNR=4.3						
	1.4nm,0.8s						
FINES				AML	AML		
MKAR	Makanchi Array	41.48	62	P	P	17 39 42.8	0.0
	0.6nm,0.4s,baz=274,slow=7.4,SNR=16						
	0.6nm,0.4s						
ZALV	Zalesovo Beam	41.60	51	P	P	17 39 43.2	-0.4
	1.0nm,0.3s,baz=275,slow=7.2,SNR=6.6						
	1.0nm,0.3s						

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*KRSC **02** 17:43:40.0±1.3, 58.°99N×158.°58E, h20^{km}±9^{km}, Ml3.8*

*NERS **02** 17:43:52.9, 59.°04N×158.°09E, h33^{km}*

ISC 02 17:43:41.0±0.8**, 58.°97N**±0.°05×**158.°67E**±0.°04**, h10**^{km}**, n15, σ2.^{s}66**/22**, Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALN	Palana	0.68	79	*e*P	Pg	17 43 54.2	+0.1

PALN				*e*S	Sg	17 44 03.0	0.0
TIGL	**Tigil**	**1.21**	**180**	*e*P	**Pn**	**17 44 02.4**	**-1.5**
TIGL				*e*S	**Sb**	**17 44 19.3**	**-0.2**
OSSR	**Ossora**	**2.28**	**81**	*e*P	**Pn**	**17 44 19.5**	**+0.9**
OSSR				*e*S	**Sn**	**17 44 48.2**	**+1.5**
SRDR	**Sredinnyy**	**2.72**	**168**	*e*P	**Pn**	**17 44 25.1**	**+0.4**
KOZ	**Kozyrevsk**	**2.99**	**167**	*e*P	**Pn**	**17 44 29.6**	**+1.2**
ESO	**Esso**	**3.05**	**180**	*e*P	**Pn**	**17 44 29.7**	**+0.4**
BZGR	**Bezymyannyi-Gr**	**3.23**	**159**	*e*P	**Pn**	**17 44 33.5**	**+1.8**
KMNR	**Kamenistaya**	**3.33**	**165**	*e*P	**Pn**	**17 44 35.6**	**+2.5**
TUMR	**Tumrok**	**3.78**	**167**	*e*P	**Pn**	**17 44 41.2**	**+1.8**
TLAR	**Talaya**	**3.82**	**307**	*e*P	**Pb**	**17 44 45.9**	**-2.5**
TLAR				*e*Pg	Pg	17 44 58.5	+4.4
TLAR				Pgmax		17 45 04.1	
	10.0nm,0.4s						
TLAR				*e*S	**Sb**	**17 45 31.0**	**-3.7**
TLAR				*e*Sg	**Sg**	**17 45 47.5**	**+4.0**
TLAR				Sgmax		17 46 07.0	
	70nm,0.6s						
GADL	**Gadlja**	**3.83**	**284**	*e*P	Pg	17 45 02.1	+7.8
GADL				*e*Sg	**Sg**	**17 45 45.8**	**+1.9**
GADL				Sgmax		17 46 00.1	
	150nm,0.6s						
MA2	**Magadan**	**4.10**	**282**	*e*P	**Pb**	**17 44 50.9**	**-2.3**
MA2				*e*Pg	Pg	17 45 04.7	+5.3
MA2				Pgmax		17 45 07.6	
	10.0nm,0.6s						
MA2				*e*Sg	**Sg**	**17 45 54.9**	**+2.4**
MA2				Sgmax		17 46 13.2	
	30nm,0.6s						
MGD	**Magadan 1**	**4.19**	**288**	*e*Sg	**Sg**	**17 45 56.3**	**+1.0**
MGD				Sgmax		17 46 13.8	
	30nm,0.6s						
SEY	**Seymchan**	**5.02**	**325**	*e*P	**Pb**	**17 45 04.5**	**-4.3**
SEY				*e*Pg	Pg	17 45 22.4	+5.4
SEY				Pgmax		17 45 28.9	
SEY				*e*Sg	**Sg**	**17 46 27.3**	**+5.4**
SEY				Sgmax		17 46 38.7	
	10.0nm,0.4s						
SUUS	**Susuman**	**6.39**	**311**	*e*Sg	**Sg**	**17 47 09.9**	**+4.0**
SUUS				Sgmax		17 47 22.2	
	20nm,0.9s						

DJA 02 17:45:28.3±0.8, 1°N±3°×12°2E±°, h11km±7km, M4.5/26, mB5.4/7, mb4.5/13, MLv4.3/26, Mw(mB)4.8/7, MwMwp4.7/1, Mwp5.1/1, Minahassa Peninsula, Sulawesi

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APSI	**Ampana**	**2.21**	**183**	P	Pn	17 46 06.1	+1.2
LUWI	**Luwuk**	**2.54**	**157**	P	Pn	17 46 11.0	+1.5
LUWI				AML	AML		
PCI	**Palu**	**2.94**	**221**	P	Pn	17 46 14.3	-0.7
MNI	**Manado**	**3.06**	**87**	P	Pn	17 46 16.8	+0.1
MNI				AML	AML		
TARAI	**Tarakan**	**4.66**	**296**	P	Pn	17 46 38.2	-0.5
TARAI				AML	AML		
MMSI	**Mamuju**	**4.90**	**216**	P	Pn	17 46 42.2	+0.2
MMSI				AML	AML		
MYLDM	**Lahad Datu**	**5.05**	**320**	P	Pn	17 46 43.8	-0.2
MYLDM				AML	AML		
KDI	**Kendari**	**5.30**	**171**	P	Pn	17 46 47.7	+0.2
	0.7nm24nm,0.8s						
KDI				AML	AML		
SANI	**Sanana**	**5.37**	**128**	P	Pn	17 46 48.9	+0.5
	1.6nm3μm108nm,0.5s						
SANI				AML	AML		
TNTI	**Ternate**	**5.61**	**95**	P	Pn	17 46 51.8	0.0
	0.5nm2μm48nm,1.2s						
TNTI				AML	AML		
KAPI	**Kappang**	**6.60**	**198**	P	Pn	17 47 01.7	-3.7
BBSI	**Bau Bau**	**6.80**	**173**	P	Pn	17 47 08.8	+0.7
BSSI	**Bau Bau, Buton**	**7.51**	**190**	P	Pn	17 47 17.8	-0.1
BBKI	**Banjar Baru**	**8.40**	**236**	P	Pn	17 47 30.3	+0.2
MMRI	**Maumere**	**9.89**	**177**	P	Pn	17 47 50.3	-0.2
LBFI	**Labuhan Bajo,**	**9.91**	**191**	P	Pn	17 47 51.4	+0.6

BJI ***02*** *17:46:02.7, 3°.48S×130°.83E, h35km, mB5.2/12, mb5.1/68, Ms4.8/8, Ms7 4.5/9*

IDC ***02*** *17:46:03.7±0.4, 3°.03S×130°.47E, h0km, mb4.9/25, mbtmp4.9/29, ML4.2/3, MS4.0/29, Error ellipse: s-maj=15.6km s-min=9.8km az=80.0*

MOS ***02*** *17:46:03.7±0.9, 2°.99S×130°.48E, h10km, mb5.3/45, Error ellipse: s-maj=9.5km s-min=5.0km az=116.7*

NEIC ***02*** *17:46:05.7±1.4, 3°.06S±0°.04×130°.41E±0°.05, h10km±1km, mb5.2/169, Mww4.5/11, Error ellipse: s-maj=9.3km s-min=5.5km az=107.0*

GCMT ***02*** *17:46:06.7±0.4, 2°.68S±0°.03×130°.64E±0°.03, h32km±1km, MW4.9/57, Moment Tensor Solution. s39,c46; s57,c80; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}1.95±.17; $M_{\theta\theta}$-1.84±.11; $M_{\phi\phi}$-0.10±.12; $M_{r\theta}$-1.08±.13; $M_{\theta\phi}$0.81±.08; $M_{\phi r}$1.64±.21; Best double couple: $M_0$2.84400×10^{16} NP1:ϕ_s91.00000°, δ29.00000°, λ51.00000°. NP2: ϕ_s314.00000°, δ68.00000°, λ109.00000°. Principal axes: T 2.9270, Plg62.0000°, Azm254.0000°; N -0.1630, Plg18.0000°, Azm126.0000°; P -2.7620, Plg20.0000°, Azm30.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

DJA ***02*** *17:46:07.0±0.1, 3°S±1°×13°1E±°, h10km, M5.1/112, mB5.6/49, mb5.3/112, MLv5.2/31, Mw5.2/15, Mw(mB)5.0/49, MwMwp4.5/1, Mwp4.9/1*

GFZ ***02*** *17:46:09.0±0.1, 3°S±2°×13°0E±°, h31km, M5.1/53, mb5.1/53, Mw4.7/24*

ISC 02 17:46:06.7±0.7, 3°.02S±0°.03×130°.56E±0°.03, h17km±4km, n608, σ1ˢ.44/538, mb5.2/205, MS4.0/32, 8C-12D, Seram

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BNDI	**Bandanaira**	**1.63**	**204**	P	**Pg**	**17 46 37.4**	**-0.7**
BNDI	**Bandanaira**	**1.63**	**204**	S	**Sg**	**17 46 59.2**	**-0.1**
BNDI	**Bandanaira**	**1.63**	**204**	P	**Pb**	**17 46 36.4**	**+0.1**
BNDI				AML	AML		
BNDI	**Bandanaira**	**1.63**	**204**	P	**Pn**	**17 46 34.8**	**+0.2**
FAKI	**Fak Fak**	**1.69**	**87**	P	**Pb**	**17 46 37.4**	**+0.1**
FAKI	**Fak Fak**	**1.69**	**87**	S	**Sg**	**17 47 00.8**	**-0.4**
FAKI	**Fak Fak**	**1.69**	**87**		**Pb**	**17 46 37.3**	**+0.1**
FAKI	**Fak Fak**	**1.69**	**87**	P	**Pb**	**17 46 36.8**	**-0.5**
FAKI	**Fak Fak**	**1.69**	**87**	P	**Pb**	**17 46 37.6**	**+0.3**
SWI	**Sorong**	**2.25**	**18**	P	**Pn**	**17 46 42.4**	**-0.8**
SWI	**Sorong**	**2.25**	**18**	P	**Pn**	**17 46 42.9**	**-0.3**
NLAI	**Namlea**	**3.46**	**266**	P	**Pn**	**17 47 00.5**	**+0.7**
NLAI				AML	AML		
NLAI	**Namlea**	**3.46**	**266**	P	**Pn**	**17 47 00.8**	**+1.0**
MWPI	**Manokwari, Pap**	**4.05**	**59**	P	**Pn**	**17 47 10.8**	**+2.9**
MWPI				AML	AML		
SANI	**Sanana**	**4.67**	**282**	P	**Pn**	**17 47 16.1**	**-0.3**
SANI	**Sanana**	**4.67**	**282**	P	**Pn**	**17 47 14.6**	**-1.8**
SANI				AML	AML		
SANI	**Sanana**	**4.67**	**282**	P	**Pn**	**17 47 14.3**	**-2.1**
TNTI	**Ternate**	**4.94**	**320**	P	**Pn**	**17 47 20.6**	**+0.5**
TNTI	**Ternate**	**4.94**	**320**	S	**Sn**	**17 48 16.3**	**-0.6**
TNTI	**Ternate**	**4.94**	**320**		**Pn**	**17 47 18.9**	**-1.2**
TNTI	**Ternate**	**4.94**	**320**	P	**Pn**	**17 47 19.9**	**-0.2**
TNTI	**Ternate**	**4.94**	**320**	P	**Pn**	**17 47 19.9**	**-0.2**
SAUI	**Saumlaki**	**4.99**	**172**	Pn	**Pn**	**17 47 20.2**	**-0.5**
SAUI	**Saumlaki**	**4.99**	**172**	P	**Pn**	**17 47 25.2**	**+4.5**
SAUI				AML	AML		
BAKI	**Biak**	**5.83**	**72**	P	**Pn**	**17 47 34.9**	**+2.5**
MNI	**Manado**	**7.24**	**308**	P	**Pn**	**17 47 49.6**	**-2.1**
	0.6nm192nm,0.9s						
MNI				AML	AML		
KDI	**Kendari**	**7.98**	**263**	P	**Pn**	**17 48 02.6**	**+0.6**
	0.7nm2μm223nm,0.8s						
KDI				AML	AML		
LUWI	**Luwuk**	**8.03**	**284**	Pn	**Pn**	**17 48 00.4**	**-2.2**
LUWI	**Luwuk**	**8.03**	**284**	P	**Pn**	**17 48 01.5**	**-1.1**
	2μm251nm,0.8s						
BBSI	**Bau Bau**	**8.34**	**253**	P	**Pn**	**17 48 09.3**	**+2.5**
KKSI	**Kolaka, Sulawe**	**8.97**	**262**	P	**Pn**	**17 48 16.3**	**+0.8**
APSI	**Ampana**	**9.15**	**283**	P	**Pn**	**17 48 17.1**	**-0.9**
SOEI	**Soe**	**9.16**	**223**	P	**Pn**	**17 48 20.6**	**+2.4**
SOEI	**Soe**	**9.16**	**223**	P	**Pn**	**17 48 20.6**	**+2.4**
	3μm268nm,1.1s						
SOEI	**Soe**	**9.16**	**223**	P	**Pn**	**17 48 19.3**	**+1.1**
	comp=Z,269nm,1.1s						
DRS	**Darwin Rock St**	**9.36**	**178**	P	**Pn**	**17 48 23.2**	**+2.4**
DRS	**Darwin Rock St**	**9.36**	**178**	S	**Sn**	**17 50 09.1**	**+3.4**
GENI	**Genyem**	**9.60**	**88**	P	**Pn**	**17 48 27.7**	**+3.5**
GENI	**Genyem**	**9.60**	**88**	P	**Pn**	**17 48 27.3**	**+3.1**
GENI	**Genyem**	**9.60**	**88**	P	**Pn**	**17 48 27.2**	**+2.9**
	comp=Z,483nm,1.0s						
MTN	**Manton Dam**	**9.78**	**177**	P	**Pn**	**17 48 25.1**	**-1.4**
	comp=Z,47nm,0.5s						
MTN	**Manton Dam**	**9.78**	**177**	P	**Pn**	**17 48 25.4**	**-1.2**
	comp=Z,47nm,0.5s						
MTN	**Manton Dam**	**9.78**	**177**		**Pn**	**17 48 25.2**	**-1.3**
KDU	**Kakadu**	**9.79**	**169**	P	**Pn**	**17 48 24.8**	**-1.9**
	comp=Z,25nm,0.9s						
KDU	**Kakadu**	**9.79**	**169**	P	**Pn**	**17 48 24.8**	**-1.9**
	comp=Z,25nm,0.9s						
MMRI	**Maumere**	**9.98**	**236**	P	**Pn**	**17 48 32.5**	**+3.1**
MMRI	**Maumere**	**9.98**	**236**	P	**Pn**	**17 48 32.0**	**+2.6**
	comp=Z,2μmcomp=Z,178nm,1.0s						
MMRI	**Maumere**	**9.98**	**236**	P	**Pn**	**17 48 29.3**	**-0.1**
	comp=Z,179nm,1.0s						
TOLI2	**Tolitoli**	**10.60**	**293**		**Pn**	**17 48 35.7**	**-2.2**
PCI	**Palu**	**10.92**	**281**	P	**Pn**	**17 48 44.7**	**+2.4**
	comp=Z,2μmcomp=Z,159nm,1.1s						
KAPI	**Kappang**	**10.96**	**259**	Pn	**Pn**	**17 48 43.6**	**+0.7**
	comp=Z,2.7nm,0.3s,baz=114,slow=6.6,SNR=13						
KAPI				LR	LR	17 53 59.4	
	comp=Z,2μm,19.3s,baz=76,slow=44						
	comp=Z,35nm,0.6s						
KAPI				AML	AML		
KAPI	**Kappang**	**10.96**	**259**	P	**Pn**	**17 48 45.1**	**+2.2**
KAPI	**Kappang**	**10.96**	**259**	P	**Pn**	**17 48 45.4**	**+2.5**
KAPI				S	**Sn**	**17 50 52.6**	**+7.4**
KAPI	**Kappang**	**10.96**	**259**	P	**Pn**	**17 48 43.1**	**+0.2**
	comp=Z,44nm,0.8s						
KAPI	**Kappang**	**10.96**	**259**	P	**Pn**	**17 48 42.5**	**-0.4**
	comp=Z,83nm,0.8s						
MKS	**Makassar**	**11.28**	**258**	P	**Pn**	**17 48 48.5**	**+1.4**
	comp=Z,2μmcomp=Z,215nm,0.9s						
MMSI	**Mamuju**	**11.64**	**271**	P	**Pn**	**17 48 53.2**	**+1.0**
LBFI	**Labuhan Bajo,**	**11.92**	**242**	P	Pn	17 49 01.1	+5.1
WSI	**Waingapu**	**12.15**	**237**	P	**Pn**	**17 49 01.9**	**+2.8**
	comp=Z,4μmcomp=Z,314nm,1.0s						
KNRA	**Kununurra**	**12.70**	**188**	P	**Pn**	**17 49 03.2**	**-3.5**
KNRA	**Kununurra**	**12.70**	**188**	P	**Pn**	**17 49 02.8**	**-3.8**
	comp=Z,27nm,0.7s						
KNRA	**Kununurra**	**12.70**	**188**		**Pn**	**17 49 02.9**	**-3.8**
DBNI	**Kabupaten Domp**	**13.35**	**245**	P	**Pn**	**17 49 17.0**	**+1.5**
	comp=Z,172nm,0.8s						
BKB	**Balikpapan**	**13.77**	**277**	P	**Pn**	**17 49 22.7**	**+1.5**
BKB	**Balikpapan**	**13.77**	**277**	P	P	17 49 39.4	+10
BKB	**Balikpapan**	**13.77**	**277**	P	**Pn**	**17 49 21.5**	**+0.3**
	comp=Z,84nm,0.8s						
PLAI	**Plampang**	**13.96**	**245**	P	**Pn**	**17 49 24.8**	**+1.0**
PLAI	**Plampang**	**13.96**	**245**	P	**Pn**	**17 49 25.2**	**+1.4**
	comp=Z,183nm,0.8s						
PLAI	**Plampang**	**13.96**	**245**	P	**Pn**	**17 49 22.3**	**-1.6**
	comp=Z,187nm,0.7s						
MYLDM	**Lahad Datu**	**14.54**	**304**	P	**Pn**	**17 49 33.2**	**+1.4**
MYLDM	**Lahad Datu**	**14.54**	**304**	Pn	**Pn**	**17 49 31.0**	**-0.8**
MYLDM	**Lahad Datu**	**14.54**	**304**	P	**Pn**	**17 49 33.0**	**+1.2**
	comp=Z,87nm,1.0s						
MYLDM	**Lahad Datu**	**14.54**	**304**	P	**Pn**	**17 49 30.8**	**-1.0**
	comp=Z,94nm,0.9s						
TWSI	**Taliwang, Sumb**	**14.74**	**247**	P	**Pn**	**17 49 36.5**	**+2.0**
	comp=Z,98nm,1.3s						
BBKI	**Banjar Baru**	**15.70**	**268**	P	**P**	**17 49 50.0**	**-1.2**
	comp=Z,7μmcomp=Z,287nm,1.1s						
FITZ	**Fitzroy Crossi**	**15.74**	**198**	P	**Pn**	**17 49 45.6**	**-2.1**
	comp=Z,12nm,0.9s						
FITZ	**Fitzroy Crossi**	**15.74**	**198**	P	**Pn**	**17 49 43.8**	**-3.9**
	comp=Z,12nm,0.9s						
FITZ	**Fitzroy Crossi**	**15.74**	**198**	Pn	**Pn**	**17 49 42.9**	**-4.8**
	comp=Z,0.8nm,0.3s,baz=18,slow=9.9,SNR=18						
FITZ				Sn	Sn	17 52 30.9	-11
	comp=Z,0.6nm,0.3s,baz=161,slow=8.7,SNR=3.8						
FITZ				LR	LR	17 57 18.1	
	comp=Z,590nm,18.5s,baz=26,slow=43						
	comp=Z,6.5nm,0.6s						
FITZ				AML	AML		
FITZ	**Fitzroy Crossi**	**15.74**	**198**	P	**Pn**	**17 49 49.4**	**+1.7**
FITZ	**Fitzroy Crossi**	**15.74**	**198**		**Pn**	**17 49 42.6**	**-5.1**
KHKI	**Kahang-Kahang**	**15.79**	**250**	P	**P**	**17 49 50.5**	**-1.7**
	comp=Z,124nm,1.2s						
PKKI	**Palangkaraya**	**16.59**	**272**	P	**Pn**	**17 49 59.8**	**+1.2**
MANU	**Manus Island**	**16.82**	**87**		**P**	**17 50 03.1**	**-0.5**
KKM	**Kota Kinabalu**	**16.92**	**302**	P	**Pn**	**17 50 02.7**	**-0.2**
KKM	**Kota Kinabalu**	**16.92**	**302**	P	**Pn**	**17 50 00.4**	**-2.5**
KKM	**Kota Kinabalu**	**16.92**	**302**	P	**Pn**	**17 50 02.5**	**-0.4**
KKM	**Kota Kinabalu**	**16.92**	**302**	P	**Pn**	**17 50 01.8**	**-1.2**
	comp=Z,47nm,1.4s						
ABJI	**Asem Bagus**	**16.93**	**253**	P	**P**	**17 50 06.5**	**+1.7**
	comp=Z,192nm,1.1s						
WB0	**Warramunga Arr**	**17.06**	**168**	P	**Pn**	**17 50 02.0**	**-2.6**
JAGI	**Jajag, Banyuwa**	**17.20**	**251**	P	**P**	**17 50 08.0**	**+0.2**
JAGI	**Jajag, Banyuwa**	**17.20**	**251**		**Pn**	**17 50 03.8**	**-2.5**
JAGI	**Jajag, Banyuwa**	**17.20**	**251**	P	**P**	**17 50 07.4**	**-0.4**
	comp=Z,106nm,1.1s						
JAGI	**Jajag, Banyuwa**	**17.20**	**251**	P	**Pn**	**17 50 05.2**	**-1.0**
	comp=Z,88nm,0.7s						
WRAB	**Tennant Creek**	**17.21**	**168**	P	**P**	**17 50 08.3**	**+0.4**
WRAB	**Tennant Creek**	**17.21**	**168**	P	**Pn**	**17 50 06.5**	**+0.1**
WRAB	**Tennant Creek**	**17.21**	**168**		**Pn**	**17 50 02.9**	**-3.6**
WRAB	**Tennant Creek**	**17.21**	**168**	P	**Pn**	**17 50 06.6**	**+0.1**
	comp=Z,62nm,0.8s						
WRA	**Warramunga Arr**	**17.22**	**168**	Pn	**Pn**	**17 50 01.1**	**-5.4**
	comp=Z,0.6nm,0.3s,baz=354,slow=12,SNR=28						
WRA				Sn	Sn	17 53 05.3	-13
	comp=Z,1.1nm,0.3s,baz=339,slow=19,SNR=5.9						
	comp=Z,2.7nm,0.7s						
WRA				AML	AML		
WRA	**Warramunga Arr**	**17.22**	**168**	P	**Pn**	**17 50 03.9**	**-2.6**
WRA				pmax	pmax		
	comp=Z,5.0nm,1.5s						
WRA	**Warramunga Arr**	**17.22**	**168**		**Pn**	**17 50 04.0**	**-2.6**
WR8	**Warramunga Arr**	**17.27**	**167**		**Pn**	**17 50 04.4**	**-2.8**
BLJI	**Banyuglugur**	**17.53**	**254**	P	**P**	**17 50 11.2**	**-0.2**
PMG	**Port Moresby**	**17.67**	**112**	P	**P**	**17 50 13.6**	**+0.6**
	comp=Z,69nm,0.9s,baz=278,slow=14,SNR=11						
PMG				LR	LR	17 58 41.9	
	comp=Z,356nm,18.5s,baz=310,slow=43						
PMG	**Port Moresby**	**17.67**	**112**	P	**P**	**17 50 14.6**	**+1.6**
PMG	**Port Moresby**	**17.67**	**112***c*	*i*P	**P**	**17 50 13.9**	**+0.9**
PMG				pmax	pmax		
	comp=Z,150nm,1.2s						
PMG	**Port Moresby**	**17.67**	**112**		**P**	**17 50 12.8**	**-0.3**
PMG				IAmb	IAmb	17 50 21.2	
	comp=Z,183nm,1.2s						
PMG	**Port Moresby**	**17.67**	**112**	P	**P**	**17 50 15.0**	**+2.0**
	comp=Z,2μmcomp=Z,138nm,1.2s						
PMG	**Port Moresby**	**17.67**	**112**	P	**P**	**17 50 14.7**	**+1.6**
	comp=Z,141nm,1.2s						
SBUM	**Sibu**	**19.12**	**286**	P	**Pn**	**17 50 30.3**	**+0.4**
SBUM	**Sibu**	**19.12**	**286**		**P**	**17 50 27.6**	**-1.4**
SBUM	**Sibu**	**19.12**	**286**	P	**Pn**	**17 50 30.3**	**+0.4**
SBUM	**Sibu**	**19.12**	**286**	P	**P**	**17 50 28.2**	**-0.8**
	comp=Z,37nm,0.8s						
SNJI	**Sawahan-Nganju**	**19.30**	**255**	P	**Pn**	**17 50 34.9**	**+2.6**
	comp=Z,77nm,0.8s						
STKI	**Sintang**	**19.32**	**279**	P	**Pn**	**17 50 34.2**	**+1.9**
QIS	**Mount Isa**	**19.53**	**154**	P	**Pn**	**17 50 34.2**	**-0.6**
	comp=Z,57nm,0.8s						
QIS	**Mount Isa**	**19.53**	**154**	P	**Pn**	**17 50 34.4**	**-0.5**
	comp=Z,58nm,0.8s						
QIS	**Mount Isa**	**19.53**	**154**	P	**Pn**	**17 50 34.5**	**-0.3**
QIS	**Mount Isa**	**19.53**	**154**	P	**P**	**17 50 33.3**	**-0.2**
	comp=Z,58nm,0.8s						
MTSU	**Mount Surprise**	**20.18**	**139**	P	Pn	17 50 42.8	+0.3
	comp=Z,56nm,0.9s						
MTSU	**Mount Surprise**	**20.18**	**139**	P	Pn	17 50 43.0	+0.4
	comp=Z,56nm,0.9s						
MTSU	**Mount Surprise**	**20.18**	**139**	P	Pn	17 50 42.9	+0.3
MTSU	**Mount Surprise**	**20.18**	**139**	P	**P**	**17 50 41.2**	**+0.6**
	comp=Z,56nm,0.9s						
SMRI	**Semarang**	**20.43**	**258**	P	**P**	**17 50 44.1**	**+0.7**
SMRI	**Semarang**	**20.43**	**258**	P	**P**	**17 50 40.8**	**-2.6**
SMRI	**Semarang**	**20.43**	**258**	P	**P**	**17 50 43.2**	**-0.2**
	comp=Z,212nm,0.8s						
SMRI	**Semarang**	**20.43**	**258**	P	**P**	**17 50 43.2**	**-0.2**
	comp=Z,213nm,0.8s						
UGM	**Wanagama**	**20.52**	**255**	P	Pn	17 50 45.5	-1.1
	comp=Z,262nm,2.0s						
AS15	**Alice Springs**	**20.75**	**171**	P	**P**	**17 50 47.0**	**+0.3**
	comp=Z,223nm,1.0s						
AS15	**Alice Springs**	**20.75**	**171**	P	**P**	**17 50 47.1**	**+0.3**
	comp=Z,223nm,1.0s						
AS31	**Alice Springs**	**20.78**	**171**	P	**P**	**17 50 47.2**	**+0.2**
	comp=Z,74nm,0.8s						
AS31	**Alice Springs**	**20.78**	**171**	P	**P**	**17 50 46.2**	**-0.8**
ASAR	**Alice Springs**	**20.78**	**171**	P	**P**	**17 50 46.7**	**-0.4**
	comp=Z,140nm,0.7s,baz=349,slow=10.0,SNR=783						
ASAR				S	**S**	**17 54 31.5**	**-7.0**
	comp=Z,64nm,1.2s,baz=354,slow=24,SNR=12						
	comp=Z,140nm,0.7s						
ASAR	**Alice Springs**	**20.78**	**171**	P	**P**	**17 50 46.0**	**-1.1**
AS01	**Alice Springs**	**20.78**	**171**	P	**P**	**17 50 46.3**	**-0.8**
	comp=Z,235nm,0.9s						
AS01	**Alice Springs**	**20.78**	**171**	P	**P**	**17 50 46.9**	**-0.2**
	comp=Z,235nm,0.9s						
AS01	**Alice Springs**	**20.78**	**171**	P	Pn	17 50 49.3	-0.3
AS17	**Alice Springs**	**20.79**	**171**	P	**P**	**17 50 47.2**	**+0.1**
	comp=Z,270nm,0.8s						
AUALC	**St Philip's Co**	**20.80**	**171**	P	**P**	**17 50 47.7**	**+0.4**
AS09	**Alice Springs**	**20.82**	**171**	P	**P**	**17 50 47.7**	**+0.2**
	comp=Z,240nm,1.1s						
MBWA	**Marble Bar**	**20.89**	**209**	P	**P**	**17 50 46.0**	**-2.2**
	comp=Z,35nm,1.1s						
MBWA	**Marble Bar**	**20.89**	**209**	P	**P**	**17 50 46.1**	**-2.0**
	comp=Z,35nm,1.1s						
MBWA	**Marble Bar**	**20.89**	**209**	P	Pn	17 50 50.0	-0.7
MBWA	**Marble Bar**	**20.89**	**209**	P	**P**	**17 50 45.6**	**-2.6**
MBWA	**Marble Bar**	**20.89**	**209**	P	**P**	**17 50 44.9**	**-3.3**
MBWA	**Marble Bar**	**20.89**	**209**	P	**P**	**17 50 46.6**	**-1.6**
	comp=Z,35nm,1.1s						
KRVT	**Keravat (AS076**	**21.46**	**94**	P	**P**	**17 50 55.5**	**+1.1**
	comp=Z,143nm,0.3s,baz=232,slow=16,SNR=4.6						
KRVT				LR	LR	17 59 34.2	
	comp=Z,417nm,20.3s,baz=264,slow=38						
	comp=Z,143nm,0.3s						
RABL	**Rabaul**	**21.59**	**94**	P	**P**	**17 50 56.8**	**+0.9**
CTJI	**Waduk Cacaban**	**21.66**	**259**	P	**P**	**17 50 55.2**	**-1.4**
	comp=Z,99nm,1.2s						
GUMO	**Guam**	**21.77**	**40**	P	**P**	**17 50 57.9**	**+0.2**
	comp=Z,101nm,1.0s,baz=189,slow=5.5,SNR=4.0						
	comp=Z,101nm,1.0s						
GUMO	**Guam**	**21.77**	**40**	IAmb	IAmb	17 50 60.0	
	comp=Z,216nm,1.1s						
WRKA	**Warakurna**	**22.00**	**185**	P	**P**	**17 50 58.8**	**-1.3**
	comp=Z,29nm,0.8s						
WRKA	**Warakurna**	**22.00**	**185**	P	**P**	**17 50 58.9**	**-1.3**
	comp=Z,29nm,0.8s						
CTA	**Charters Tower**	**22.85**	**139**	P	**P**	**17 51 11.3**	**+2.0**
	comp=Z,17nm,1.0s						
CTA	**Charters Tower**	**22.85**	**139**	P	**P**	**17 51 09.7**	**+0.3**
	comp=Z,16nm,1.2s,baz=320,slow=11,SNR=6.7						
CTA				LR	LR	18 01 16.7	
	comp=Z,348nm,21.8s,baz=309,slow=40						
	comp=Z,16nm,1.2s						
CTAO	**Charters Tower**	**22.85**	**139**	P	**P**	**17 51 12.0**	**+2.7**
CTAO	**Charters Tower**	**22.85**	**139**	P	**P**	**17 51 08.9**	**-0.4**
CTAO				pmax	pmax		
	comp=Z,32nm,0.9s						
CTAO	**Charters Tower**	**22.85**	**139**	P	**P**	**17 51 08.9**	**-0.4**
CTAO	**Charters Tower**	**22.85**	**139**	P	**P**	**17 51 11.3**	**+2.0**
	comp=Z,43nm,1.0s						
TPI	**Tanjungpandan**	**22.88**	**270**	P	**P**	**17 51 11.3**	**+1.6**
	comp=Z,1μmcomp=Z,116nm,1.0s						
BBJI	**Bungbulang**	**23.23**	**258**	P	**P**	**17 51 11.7**	**-1.7**
BBJI	**Bungbulang**	**23.23**	**258**	P	**P**	**17 51 08.6**	**-4.8**
BBJI				IAmb	IAmb	17 51 13.6	
	comp=Z,74nm,0.7s						
BBJI	**Bungbulang**	**23.23**	**258**	P	**P**	**17 51 10.6**	**-2.8**
	comp=Z,107nm,0.7s						
CNJI	**Cibinong**	**23.72**	**259**	P	**P**	**17 51 15.5**	**-2.5**
	comp=Z,143nm,1.2s						
CBJI	**Citeko**	**23.87**	**261**	P	**P**	**17 51 19.0**	**-0.5**
	comp=Z,95nm,0.8s						
PPBI	**Pangkal Pinang**	**24.41**	**271**	P	**P**	**17 51 26.7**	**+2.1**
CGJI	**Cibinong**	**25.03**	**261**	P	**P**	**17 51 29.3**	**-0.9**
	comp=Z,102nm,1.1s						
MEEK	**Meekatharra**	**26.13**	**205**	P	**P**	**17 51 39.0**	**-1.1**
	comp=Z,36nm,1.6s						
MEEK	**Meekatharra**	**26.13**	**205**	P	**P**	**17 51 38.5**	**-1.5**
	comp=Z,36nm,1.6s						
INKA	**Innaminka**	**26.44**	**159**	P	**P**	**17 51 42.6**	**-0.1**
QLP	**Quilpie**	**26.85**	**152**	P	**P**	**17 51 47.0**	**+0.5**
	comp=Z,51nm,0.9s						
QLP	**Quilpie**	**26.85**	**152**	P	**P**	**17 51 47.2**	**+0.8**
	comp=Z,51nm,0.9s						
QLP	**Quilpie**	**26.85**	**152**	P	**P**	**17 51 48.2**	**+1.7**
QLP	**Quilpie**	**26.85**	**152**	P	**P**	**17 51 47.3**	**+0.8**
	comp=Z,51nm,0.9s						
JMBI	**JAMBI**	**26.93**	**272**	P	**P**	**17 51 50.9**	**+3.5**
MYKOM	**Kota Tinggi**	**27.13**	**280**	P	**P**	**17 51 50.0**	**+0.9**
MYKOM	**Kota Tinggi**	**27.13**	**280**	P	**P**	**17 51 48.2**	**-0.9**
MYKOM				IAmb	IAmb	17 51 59.0	
	comp=Z,51nm,0.9s						
MYKOM	**Kota Tinggi**	**27.13**	**280**	P	**P**	**17 51 50.1**	**+0.9**
	comp=Z,769nmcomp=Z,72nm,1.1s						
MYKOM	**Kota Tinggi**	**27.13**	**280**	P	**P**	**17 51 49.7**	**+0.6**
	comp=Z,72nm,1.1s						
BTDF	**Bukit Timah Da**	**27.13**	**279**	P	**P**	**17 51 49.9**	**+0.7**
BTDF	**Bukit Timah Da**	**27.13**	**279**	P	**P**	**17 51 50.6**	**+1.4**
	comp=Z,764nmcomp=Z,105nm,0.9s						
FORT	**Forrest**	**27.71**	**185**	P	**P**	**17 51 52.8**	**-1.4**
FORT	**Forrest**	**27.71**	**185**	P	**P**	**17 51 51.6**	**-2.6**
SSLB	**Suanglung**	**28.24**	**341**	P	**P**	**17 51 58.4**	**-0.6**
SSLB	**Suanglung**	**28.24**	**341**	P	**P**	**17 51 57.0**	**-2.0**
SSLB				IAmb	IAmb	17 52 03.9	
	comp=Z,33nm,1.0s						
SSLB	**Suanglung**	**28.24**	**341**	P	**P**	**17 51 57.3**	**-1.7**
	comp=Z,34nm,1.0s						
MORW	**Morawa**	**29.36**	**207**	P	**P**	**17 52 07.9**	**-1.0**
	comp=Z,34nm,2.6s						
MORW	**Morawa**	**29.36**	**207**	P	**P**	**17 52 07.2**	**-1.6**
	comp=Z,34nm,2.6s						
KMBL	**Kambalda**	**29.36**	**195**	P	**P**	**17 52 07.6**	**-1.3**
	comp=Z,19nm,0.8s						
BKNI	**Bangkinang**	**29.70**	**276**	P	**P**	**17 52 13.3**	**+1.2**
BKNI	**Bangkinang**	**29.70**	**276**	P	**P**	**17 52 13.7**	**+1.6**
BKNI	**Bangkinang**	**29.70**	**276**	P	**P**	**17 52 12.6**	**+0.5**
	comp=Z,211nm,0.9s						
BKNI				pP	**sP**	**17 52 21.2**	**+1.7**
EIDS	**Eidsvold**	**29.73**	**140**	P	P	17 52 17.8	+5.6
	comp=Z,18nm,1.4s						
EIDS	**Eidsvold**	**29.73**	**140**	P	**P**	**17 52 14.2**	**+2.0**
EIDS	**Eidsvold**	**29.73**	**140**	P	**P**	**17 52 13.1**	**+0.9**
EIDS	**Eidsvold**	**29.73**	**140**	P	**P**	**17 52 13.0**	**+0.8**
	comp=Z,19nm,1.6s						
HNR	**Honiara**	**29.88**	**104**	LR	LR	18 06 21.5	
	comp=Z,214nm,20.6s,baz=357,slow=41						
QIZ	**Qiongzhong**	**29.93**	**318**	P	**P**	**17 52 13.7**	**-0.3**
QIZ				S	**S**	**17 57 11.9**	**+1.0**
QIZ				pmax	pmax		
	comp=Z,12nm,0.9s						
QIZ				pmax	pmax		
	comp=Z,210nm,4.6s						
QIZ				L	L		
	comp=Z,170nm,12.0s						
QIZ				L	L		
	comp=Z,120nm,9.4s						
QIZ				L	L		
	comp=Z,170nm,8.4s						
BBOO	**Buckleboo**	**30.08**	**171**	P	**P**	**17 52 15.2**	**0.0**
	comp=Z,24nm,0.8s						
BBOO	**Buckleboo**	**30.08**	**171**	P	**P**	**17 52 15.3**	**+0.1**
	comp=Z,24nm,0.8s						
PDSI	**Padang**	**30.15**	**273**	P	**P**	**17 52 16.0**	**-0.1**
	comp=Z,61nm,1.3s						
PPI	**Padang Panjang**	**30.25**	**274**	P	**P**	**17 52 16.9**	**-0.1**
BLDU	**Ballidu**	**30.41**	**204**	P	**P**	**17 52 16.7**	**-1.5**
	comp=Z,20nm,1.8s						
BLDU	**Ballidu**	**30.41**	**204**	P	**P**	**17 52 16.5**	**-1.7**
	comp=Z,20nm,1.8s						
IPM	**Ipoh**	**30.44**	**284**	P	**P**	**17 52 19.3**	**+0.6**
IPM	**Ipoh**	**30.44**	**284**		**P**	**17 52 18.0**	**-0.7**
IPM	**Ipoh**	**30.44**	**284**	P	**P**	**17 52 19.9**	**+1.2**
	comp=Z,53nm,1.1s						
IPM	**Ipoh**	**30.44**	**284**	P	**P**	**17 52 18.2**	**-0.5**
	comp=Z,54nm,1.1s						
STKA	**Stephens Creek**	**30.53**	**161**	P	**P**	**17 52 19.9**	**+0.7**
	comp=Z,86nm,1.4s						
STKA	**Stephens Creek**	**30.53**	**161**	P	**P**	**17 52 19.6**	**+0.4**
	comp=Z,86nm,1.4s						
STKA	**Stephens Creek**	**30.53**	**161**	P	**P**	**17 52 19.6**	**+0.4**
	comp=Z,7.8nm,0.7s,baz=343,slow=7.6,SNR=11						
STKA				LR	LR	18 05 22.0	
	comp=Z,562nm,21.8s,baz=338,slow=38						
	comp=Z,7.8nm,0.7s						
STKA	**Stephens Creek**	**30.53**	**161**	P	**P**	**17 52 21.7**	**+2.6**
STKA	**Stephens Creek**	**30.53**	**161**	*i*P	**P**	**17 52 21.8**	**+2.6**
STKA	**Stephens Creek**	**30.53**	**161**	P	**P**	**17 52 18.7**	**-0.4**
	comp=Z,86nm,1.4s						
KLBR	**Kellerberrin**	**30.88**	**202**	P	**P**	**17 52 20.9**	**-1.4**

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                  comp=Z,81nm,0.8s
KLBR  Kellerberrin      30.88 202  P      P       17 52 21.0  -1.4
                  comp=Z,81nm,0.8s
KLBR  Kellerberrin      30.88 202  P      P       17 52 23.4  +1.1
KULM  Kulim             31.00 285  P      P       17 52 24.7  +1.1
KULM  Kulim             31.00 285  P      P       17 52 22.8  -0.8
KULM                               IAmb   IAmb    17 52 30.1
                  comp=Z,33nm,0.9s
KULM  Kulim             31.00 285  P      P       17 52 25.7  +2.1
                  comp=Z,40nm,1.1s
KULM  Kulim             31.00 285  P      P       17 52 22.8  -0.8
                  comp=Z,40nm,1.1s
AULRC Lightning Ridg    31.04 150  P      P       17 52 25.9  +2.2
MNSI  Mandailing Nat    31.20 276  P      P       17 52 26.1  +0.7
                  comp=Z,37nm,0.9s
HTT   Hallett           31.25 166  P      P       17 52 29.4  +3.8
HTT   Hallett           31.25 166  P      P       17 52 30.8  +5.2
CMSA  Cobar Meteorol    31.75 155  P      P       17 52 30.5  +0.6
                  comp=Z,23nm,1.2s
CMSA  Cobar Meteorol    31.75 155  P      P       17 52 30.7  +0.7
                  comp=Z,23nm,1.2s
CMSA  Cobar Meteorol    31.75 155  P      P       17 52 31.4  +1.4
CMSA  Cobar Meteorol    31.75 155  P      P       17 52 29.2  -0.8
                  comp=Z,23nm,1.2s
MUN   Mundaring         31.81 204  P      P       17 52 29.6  -0.9
                  comp=Z,28nm,1.8s
MUN   Mundaring         31.81 204  P      P       17 52 29.7  -0.8
                  comp=Z,40nm,1.9s
MUN   Mundaring         31.81 204  P      P       17 52 29.6  -0.9
MTKN  Mount Kenneth     31.95 204  P      P       17 52 32.6  +0.9
                  comp=Z,159nm,0.9s
RPSI  Rantau Prapat     32.13 280  P      P       17 52 32.7  -0.9
                  comp=Z,47nm,1.0s
PSI   Prapat            32.15 280  P      P       17 52 33.0  -0.8
PSI   Prapat            32.15 280  P      P       17 52 32.8  -1.1
PSI   Prapat            32.15 280  P      P       17 52 33.1  -0.8
                  comp=Z,47nm,1.0s
NWAO  Narrogin (SRO)    32.27 201  P      P       17 52 32.7  -1.8
                  comp=Z,46nm,2.2s
NWAO  Narrogin (SRO)    32.27 201  P      P       17 52 33.2  -1.3
NWAO  Narrogin (SRO)    32.27 201  P      P       17 52 32.8  -1.8
                  comp=Z,8.1nm,0.4s,baz=45,slow=7.0,SNR=11
                  comp=Z,8.1nm,0.4s
NWAO  Narrogin (SRO)    32.27 201  P      P       17 52 32.3  -2.2
GSI   Gunungsitoli      33.25 277  P      P       17 52 44.2  +0.8
GSI   Gunungsitoli      33.25 277  P      P       17 52 41.1  -2.3
GSI   Gunungsitoli      33.25 277  P      P       17 52 42.9  -0.5
                  comp=Z,64nm,0.9s
GSI   Gunungsitoli      33.25 277  P      P       17 52 42.3  -1.1
                  comp=Z,64nm,0.9s
KCSI  Kotacane, Aceh    33.41 281  P      P       17 52 45.8  +1.0
                  comp=Z,33nm,1.7s
AUDCS Dubbo College     33.65 152  P      P       17 52 48.4  +1.8
ARMA  Armidale          33.76 146  P      P       17 52 50.5  +2.8
ARMA  Armidale          33.76 146  P      P       17 52 50.5  +2.8
                  comp=Z,23nm,0.9s
ARMA  Armidale          33.76 146  P      P       17 52 50.3  +2.5
ARMA  Armidale          33.76 146  P      P       17 52 48.3  +0.5
ARMA                               IAmb   IAmb    17 53 00.0
                  comp=Z,18nm,0.8s
ARMA  Armidale          33.76 146  P      P       17 52 49.0  +1.3
                  comp=Z,23nm,0.9s
RKGY  Rocky Gully       33.88 200  P      P       17 52 47.8  -0.7
                  comp=Z,31nm,1.1s
AUPHS Peel High Scho    33.88 148  P      P       17 52 50.7  +2.0
ARPS  Mount Arapiles    35.16 164  P      P       17 52 59.7  +0.1
                  comp=Z,13nm,1.8s
ARPS  Mount Arapiles    35.16 164  P      P       17 53 00.9  +1.3
                  comp=Z,13nm,1.8s
CNSH  ChangSha          35.36 332  P      P       17 52 55.3  -6.1
CNSH                               pmax   pmax
                  comp=Z,30nm,2.8s
SLVN  Son La            35.60 314  P      P       17 53 04.4  +0.7
SLVN  Son La            35.60 314  IAmb   IAmb    17 53 11.0
                  comp=Z,58nm,1.4s
SLVN  Son La            35.60 314  P      P       17 53 02.1  -1.5
                  comp=Z,33nm,1.6s
MGCD  Mangrove Creek    35.66 150  P      P       17 53 10.0  +6.0
MGCD  Mangrove Creek    35.66 150  P      P       17 53 10.1  +6.1
                  comp=Z,58nm,1.5s
JNU   Nakatsue          35.95   0  LR     LR      18 09 04.7
                  comp=Z,313nm,18.3s,baz=215,slow=38
CAN   Canberra          36.41 154  P      P       17 53 11.7  +1.3
                  comp=Z,23nm,0.9s
CAN   Canberra          36.41 154  P      P       17 53 12.1  +1.6
                  comp=Z,23nm,0.9s
CAN   Canberra          36.41 154  P      P       17 53 12.2  +1.8
CAN   Canberra          36.41 154  P      P       17 53 11.5  +1.1
CAN                                pmax   pmax
                  comp=Z,18nm,0.9s
CAN   Canberra          36.41 154  P      P       17 53 11.5  +1.1
CNB   Canberra Magne    36.56 154  P      P       17 53 11.2  -0.6
                  comp=Z,0.4nm,1.0s
NJ2   Nanjing           36.61 343 eP      P       17 53 14.6  +2.5
NJ2                                pmax   pmax
                  comp=Z,21nm,0.6s
WHN   Wuhan             36.79 336 ⇑P      P       17 53 14.2  +0.6
WHN                                pmax   pmax
                  comp=Z,110nm,0.9s
GYA   Guiyang           37.32 323 ⇑P      P       17 53 18.4   0.0
GYA                                pmax   pmax
                  comp=Z,35nm,1.0s
CM31  Chiang Mai Arr    37.75 306  P      P       17 53 23.2  +1.2
                  SNR=24
CM31  Chiang Mai Arr    37.75 306  IAmb   IAmb    17 53 29.1
                  comp=Z,82nm,1.4s
CMAR  Chiang Mai Arr    37.75 306  P      P       17 53 21.5  -0.5
                  comp=Z,9.7nm,1.0s,baz=129,slow=6.7,SNR=58
CMAR                               PcP    PcP     17 55 40.6  +1.7
                  comp=Z,3.3nm,0.9s,baz=165,slow=2.5,SNR=7.1
CMAR                               ScP    ScP     17 59 27.6  +1.7
                  comp=Z,1.5nm,1.1s,baz=155,slow=2.2,SNR=7.0
                  comp=Z,9.7nm,1.0s
CMAR  Chiang Mai Arr    37.75 306 i P     P       17 53 22.7  +0.7
CMAR                               pmax   pmax
                  comp=Z,8.0nm,0.9s
CMAR  Chiang Mai Arr    37.75 306  P      P       17 53 21.7  -0.3
CMAR                                      PcP     17 55 40.0  +1.1
CMAR                                      ScP     17 59 26.9  +1.0
CHTO  Chiang Mai        37.93 306  P      P       17 53 24.5  +1.0
CHTO  Chiang Mai        37.93 306  P      P       17 53 23.5   0.0
CHTO  Chiang Mai        37.93 306  P      P       17 53 23.0  -0.5
CHTO                               pmax   pmax
                  comp=Z,80nm,1.4s
CHTO  Chiang Mai        37.93 306  P      P       17 53 23.0  -0.5
CHTO                               IAmb   IAmb    17 53 29.7
                  comp=Z,80nm,1.4s
CHTO  Chiang Mai        37.93 306  P      P       17 53 23.8  +0.3
CHTO  Chiang Mai        37.93 306  P      P       17 53 24.3  +0.8
                  comp=Z,34nm,1.1s
ENH   Enshi             38.75 330  P      P       17 53 29.6  -0.7
ENH   Enshi             38.75 330  P      P       17 53 28.8  -1.5
KMI2  Kunming           38.89 318 ⇓P      P       17 53 32.4  +0.7
KMI2                               pmax   pmax
                  comp=Z,44nm,1.4s
KMI2                               pmax   pmax
                  comp=Z,230nm,4.1s
MJAR  Matsushiro Arr    40.00  10  P      P       17 53 38.6  -2.0
                  comp=Z,9.6nm,0.8s,baz=186,slow=9.0,SNR=32
MJAR                               PcP    PcP     17 55 46.0  +0.3
                  comp=Z,3.0nm,1.0s,baz=149,slow=2.8,SNR=4.5
MJAR                               LR     LR      18 09 26.5
                  comp=Z,189nm,20.7s,baz=192,slow=35
                  comp=Z,9.6nm,0.8s
MJAR  Matsushiro Arr    40.00  10  P      P       17 53 39.3  -1.3
MJAR                                      PcP     17 55 46.7  +1.1
MAJO  Matsushiro        40.00  10  P      P       17 53 41.1  +0.5
MAJO  Matsushiro        40.00  10  P      P       17 53 38.2  -2.4
MAJO                               pmax   pmax
                  comp=Z,19nm,0.8s
MAJO  Matsushiro        40.00  10  P      P       17 53 38.2  -2.4
MAJO  Matsushiro        40.00  10  P      P       17 53 39.1  -1.5
                  comp=Z,28nm,0.8s
MJB9  Matsu-Tunnel      40.00  10  P      P       17 53 39.6  -1.0
KSAR  Wonju Array Be    40.33 357  P      P       17 53 43.4  +0.1
KSAR  Wonju Array Be    40.33 357  P      P       17 53 43.4  +0.1
KSRS  Korea Array       40.34 357  P      P       17 53 43.5  +0.1
                  comp=Z,7.9nm,0.7s,baz=174,slow=9.2,SNR=18
KSRS                               LR     LR      18 12 16.9
                  comp=Z,84nm,18.0s,baz=175,slow=39
                  comp=Z,7.9nm,0.7s
KS19  Wonju Array Si    40.39 357  P      P       17 53 43.4  -0.4
KS19                               IAmb   IAmb    17 53 46.2
                  comp=Z,69nm,1.4s
PZH   PanZhiHua         40.46 318  P      P       17 53 49.7  +4.9
PZH                                pmax   pmax
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                  comp=Z,30nm,1.2s
LYN   LuoYang           41.06 337  P      P       17 53 49.3  -0.1
LYN                                pP     pP      17 53 54.7  +0.1
LYN                                pmax   pmax
                  comp=Z,43nm,0.8s
TNCH  TengChong         41.76 314 ⇑P      P       17 53 55.8  +0.3
TNCH                               S      S       18 00 16.0  +3.5
TNCH                               pmax   pmax
                  comp=Z,31nm,0.4s
TNCH                               pmax   pmax
                  comp=Z,210nm,3.9s
TNCH                               L      L
                  comp=Z,230nm,4.1s
TNCH                               L      L
                  comp=Z,380nm,5.0s
TNCH                               L      L
                  comp=Z,170nm,4.9s
XAN   Xi'an             42.13 333  P      P       17 53 57.2  -1.0
XAN                                pmax   pmax
                  comp=Z,49nm,0.9s
HNS   HongShan          42.83 341 ⇓P      P       17 54 02.8  -1.0
HNS                                pmax   pmax
                  comp=Z,26nm,0.8s
TIY   Taiyuan           43.88 339  P      P       17 54 12.1  -0.3
TIY                                pmax   pmax
                  comp=Z,59nm,0.7s
MORE  Moreh             44.46 310  P      P       17 54 15.6  -1.6
MORE                               IAmb   IAmb    17 54 23.3
                  comp=Z,32nm,1.2s
BJI2  Beijing           44.82 344  P      P       17 54 19.0  -0.8
BJI2                               pmax   pmax
                  comp=Z,14nm,1.0s
BJT   Baijiatuau        44.82 344  P      P       17 54 19.9  +0.1
BJT   Baijiatuau        44.82 344  P      P       17 54 18.7  -1.1
BJT                                pmax   pmax
                  comp=Z,20nm,0.9s
BJT   Baijiatuau        44.82 344  P      P       17 54 18.7  -1.1
BJT                                IAmb   IAmb    17 54 20.0
                  comp=Z,20nm,0.9s
LZDM  Lanzhou Array     46.20 329  P      P       17 54 30.6  -0.6
                  comp=Z,2.7nm,0.4s,baz=136,slow=12,SNR=5.7
LZDM                               LR     LR      18 15 43.1
                  comp=Z,82nm,18.9s,baz=200,slow=38
                  comp=Z,2.7nm,0.4s
LZH   Lanzhou           46.22 330 eP      P       17 54 31.9  +0.7
LZH                                pP     pP      17 54 36.7  +0.3
LZH                                pmax   pmax
                  comp=Z,53nm,1.0s
LZH                                L      L
                  comp=Z,250nm,18.4s
LZH                                L      L
                  comp=Z,420nm,19.6s
CN2   Changchun         46.84 355 eP      P       17 54 34.7  -0.9
CN2                               eS      S       18 01 25.0  -0.4
CN2                                pmax   pmax
                  comp=Z,10.0nm,0.7s
CN2                                pmax   pmax
                  comp=Z,200nm,4.0s
CN2                                L      L
                  comp=Z,400nm,11.0s
CN2                                L      L
                  comp=Z,400nm,11.0s
CN2                                L      L
                  comp=Z,500nm,12.0s
HHC   Hu-ho-hao-te      46.98 340 eP      P       17 54 37.1  +0.1
HHC                                pmax   pmax
                  comp=Z,18nm,0.7s
HHC                                pmax   pmax
                  comp=Z,150nm,5.4s
USA0B Ussuriysk Arra    47.02   1  P      P       17 54 37.0  -0.1
USA0B                              pmax   pmax
                  comp=Z,25nm,0.9s
USA0B Ussuriysk Arra    47.02   1         P       17 54 37.0  -0.1
USA0B                              IAmb   IAmb    17 54 38.2
                  comp=Z,25nm,0.9s
USRK  Ussuriysk Ar.     47.02   1  P      P       17 54 37.0   0.0
                  comp=Z,16nm,0.7s,baz=187,slow=7.1,SNR=36
USRK                               LR     LR      18 15 36.4
                  comp=Z,146nm,18.6s,baz=177,slow=38
                  comp=Z,16nm,0.7s
USRK  Ussuriysk Ar.     47.02   1  P      P       17 54 36.7  -0.4
MDJ   Mudanjiang        47.43 359  P      P       17 54 40.6  +0.3
MDJ                                S      S       18 01 32.2  -1.6
MDJ                                pmax   pmax
                  comp=Z,29nm,1.0s
MDJ                                L      L
                  comp=Z,410nm,4.6s
MDJ                                L      L
                  comp=Z,310nm,5.4s
MDJ   Mudanjiang        47.43 359  P      P       17 54 40.7  +0.4
MDJ   Mudanjiang        47.43 359  IAmb   IAmb    17 54 41.4
                  comp=Z,21nm,0.9s
XLT   XiLinHaoTe        48.49 346 eP      P       17 54 47.7  -0.9
XLT                                pP     pP      17 54 53.6  -0.3
XLT                                pmax   pmax
                  comp=Z,20nm,1.1s
BNX   BinXian           48.63 357 ⇑P      P       17 54 48.9  -0.6
BNX                                pmax   pmax
                  comp=Z,16nm,0.9s
MSVF  Nonsavu           48.78 111  LR     LR      18 15 54.2
                  comp=Z,208nm,18.3s,baz=217,slow=37
LSA   Lhasa             49.80 314  P      P       17 54 59.0  -0.3
LSA                                pmax   pmax
                  comp=Z,13nm,1.0s
LSA   Lhasa             49.80 314  P      P       17 54 59.0  -0.3
PALK  Pallekele         50.80 282  LR     LR      18 18 33.6
                  comp=Z,179nm,19.4s,baz=102,slow=38
GTA2  Gaotai            50.90 329  P      P       17 55 06.9  -0.2
GTA2                               pmax   pmax
                  comp=Z,29nm,1.1s
GTA2                               L      L
                  comp=Z,170nm,18.1s
GTA2                               L      L
                  comp=Z,110nm,17.8s
GTA2                               L      L
                  comp=Z,190nm,20.0s
YSS   Yuzhno-Sakhali    50.91  11 eP      P       17 55 06.9  +0.1
YSS                               e               17 56 24.5
YSS                                pmax   pmax
                  comp=Z,10.0nm,0.9s
YSS   Yuzhno-Sakhali    50.91  11  P      P       17 55 06.7  -0.2
GOMU  GeErMu            51.33 323  P      P       17 55 11.0  +0.3
GOMU                               pmax   pmax
                  comp=Z,2.0nm,0.6s
EVN   Everest           52.14 309  IAmb   IAmb    17 55 33.5
                  comp=Z,34nm,0.9s
EVN   Everest           52.14 309  P      P       17 55 16.9  -0.3
                  comp=Z,41nm,1.0s
JCZ   Jackson Bay       53.01 146  P      P       17 55 24.6  +1.9
HEH   HeiHe             53.13 357 eP      P       17 55 22.8  -0.5
HEH                                pmax   pmax
                  comp=Z,31nm,1.1s
HILR  Hailar Array B    53.20 351  P      P       17 55 24.4  +0.5
                  comp=Z,12nm,0.8s,baz=163,slow=11,SNR=11
                  comp=Z,12nm,0.8s
TUWZ  Tuamarina         54.53 141  P      P       17 55 32.8  -1.0
TYV   Tymovskoe         54.67   9 eP      P       17 55 49.4   +15
TYV                                pmax   pmax
                  comp=Z,10.0nm,1.1s
TYV                                pmax   pmax
                  comp=Z,100nm,4.3s
ULN   Ulaanbaatar       54.70 341  P      P       17 55 35.3  +0.2
ULN   Ulaanbaatar       54.70 341  P      P       17 55 34.4  -0.6
ULN                                pmax   pmax
                  comp=Z,41nm,1.0s
ULN   Ulaanbaatar       54.70 341  P      P       17 55 34.4  -0.6
ULN   Ulaanbaatar       54.70 341  P      P       17 55 35.2  +0.2
ULN   Ulaanbaatar       54.70 341  P      P       17 55 35.5  +0.4
                  comp=Z,41nm,1.0s
SONM  Songino Array     54.89 340  P      P       17 55 36.7  +0.3
                  comp=Z,18nm,1.0s,baz=160,slow=8.0,SNR=53
SONM                               LR     LR      18 20 03.5
                  comp=Z,112nm,21.8s,baz=151,slow=37
                  comp=Z,18nm,1.0s
SONM  Songino Array     54.89 340  P      P       17 55 36.0  -0.4
SONM                               IAmb   IAmb    17 55 45.2
                  comp=Z,24nm,1.1s
ZEA   Zeya              56.62 358 eP      P       17 55 48.0  -0.6
ZEA                               e               17 55 55.0
ZEA                                pmax   pmax
                  comp=N,10.0nm,0.9s
ZEA                                pmax   pmax
                  comp=Z,20nm,1.1s
CIT   Chita             56.70 348 eP      P       17 55 50.4  +1.1
CIT                               e               17 55 55.4
CIT                               e               17 56 51.8
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CIT                               e               17 57 53.0
CIT                                pmax   pmax
                  comp=Z,61nm,2.4s
AFI   Afiamalu          57.91 104  LR     LR      18 19 27.8
                  comp=Z,78nm,21.8s,baz=307,slow=35
ZAK   Zakamensk         58.13 340 eP      P       17 55 59.2  -0.2
ZAK                                pmax   pmax
                  comp=Z,11nm,1.0s
MOY   Mondy             60.00 339 eP      P       17 56 12.9  +0.5
MOY                                pmax   pmax
                  comp=Z,36nm,2.0s
PEA0B Petropavlovsk-    60.39  18ceP      P       17 56 16.4  +1.5
PETK  Petropavlovsk-    60.39  18  P      P       17 56 15.4  +0.5
                  comp=Z,18nm,0.8s,baz=200,slow=5.0,SNR=12
PETK                               PcP    PcP     17 56 59.9  +0.2
                  comp=Z,10nm,0.8s,baz=204,slow=3.3,SNR=4.1
PETK                               LR     LR      18 20 20.4
                  comp=Z,57nm,21.5s,baz=198,slow=34
                  comp=Z,18nm,0.8s
WMQ   Urumqi            60.42 326 eP      P       17 56 15.7  +0.4
WMQ                                pP     pP      17 56 20.4  -0.3
WMQ                                pmax   pmax
                  comp=Z,23nm,1.1s
WMQ                                L      L
                  comp=Z,76nm,19.5s
PET   Petropavlovsk     60.63  19 i P     P       17 56 18.1  +1.6
PET                                pmax   pmax
                  comp=Z,12nm,1.0s
DRV   Dumont d'Urvil    63.87 176  P      P       17 56 38.3  +0.3
WUS   Wushi             64.13 319  IAmb   IAmb    17 56 47.1
                  comp=Z,17nm,1.1s
ZSN   Zaisan            64.22 327 eP      P       17 56 40.5  -0.2
ZSN                                pmax   pmax
                  comp=Z,6.0nm,1.1s
ZSN   Zaisan            64.22 327 eP      P       17 56 40.5  -0.2
                  comp=Z,5.9nm,1.1s
MA2   Magadan           64.41  11  LR     LR      18 23 31.0
                  comp=Z,84nm,19.9s,baz=198,slow=35
CASY  Casey             64.70 189  P      P       17 56 43.2  -0.2
CASY                               IAmb   IAmb    17 56 48.9
                  comp=Z,24nm,1.2s
CASY  Casey             64.70 189  P      P       17 56 43.5  +0.1
                  comp=Z,16nm,1.2s
YAK   Yakutsk           64.88 360d iP     P       17 56 44.7  +0.1
YAK                               e               17 57 18.0
YAK                               e               17 59 07.2
YAK                               eS      S       18 05 26.3  +1.4
YAK                               e               18 06 42.3
YAK                               eSS     SS      18 09 39.1  +2.3
YAK                                pmax   pmax
                  comp=Z,97nm,0.8s
YAK                                pmax   pmax
                  comp=E,5.0nm,0.9s
YAK                                pmax   pmax
                  comp=N,16nm,1.0s
YAK                                pmax   pmax
                  comp=Z,67nm,4.6s
YAK                                pmax   pmax
                  comp=E,39nm,3.4s
YAK                                pmax   pmax
                  comp=N,58nm,3.2s
YAK                                smax   smax
                  comp=N,98nm,3.9s
YAK                                smax   smax
                  comp=E,21nm,1.8s
YAK   Yakutsk           64.88 360  P      P       17 56 44.9  +0.3
                  comp=Z,140nm,0.8s
SHLS  Shalkode          64.96 321 eP      P       17 56 43.7  -2.0
SHLS                               pmax   pmax
                  comp=Z,14nm,1.2s
SHLS  Shalkode          64.96 321 eP      P       17 56 43.8  -2.0
                  comp=Z,14nm,1.2s
NIL   Nilore            65.10 309  P      P       17 56 45.9  -0.9
NIL   Nilore            65.10 309  P      P       17 56 46.2  -0.6
NIL                                pmax   pmax
                  comp=Z,22nm,1.2s
NIL   Nilore            65.10 309  P      P       17 56 46.1  -0.6
NIL                                IAmb   IAmb    17 56 53.1
                  comp=Z,22nm,1.2s
NIL   Nilore            65.10 309  P      P       17 56 46.3  -0.4
                  comp=Z,17nm,1.2s
UZB   Uzynbulak         65.23 321d iP     P       17 56 47.1  -0.4
UZB                                pmax   pmax
                  comp=Z,7.0nm,0.8s
UZB   Uzynbulak         65.23 321⇓iP      P       17 56 47.1  -0.4
                  comp=Z,7.2nm,0.8s
MK31  Makanchi Array    65.25 326deP      P       17 56 47.1  -0.3
MKAR  Makanchi Array    65.25 326  P      P       17 56 47.2  -0.2
                  comp=Z,14nm,0.6s,baz=118,slow=8.0,SNR=178
                  comp=Z,14nm,0.6s
MKAR  Makanchi Array    65.25 326  P      P       17 56 46.5  -0.9
PRZ   Przheval'sk       65.30 320  P      P       17 56 48.3  +0.2
PRZ   Przheval'sk       65.30 320  P      P       17 56 48.2  +0.2
                  comp=Z,27nm,1.1s
TARG  Taragay, Kyrgy    65.31 319  IAmb   IAmb    17 56 59.7
                  comp=Z,13nm,1.0s
TARG  Taragay, Kyrgy    65.31 319  P      P       17 56 49.2  +0.8
                  comp=Z,16nm,1.2s
MAKZ  Makanchi          65.44 326  P      P       17 56 47.4  -1.2
MAKZ                               pmax   pmax
                  comp=Z,29nm,1.1s
MAKZ  Makanchi          65.44 326  P      P       17 56 47.4  -1.2
MAKZ  Makanchi          65.44 326  P      P       17 56 48.5  -0.2
                  comp=Z,25nm,0.9s
SATY  Saty              65.58 321d iP     P       17 56 49.4  -0.4
SATY                               pmax   pmax
                  comp=Z,15nm,1.0s
SATY  Saty              65.58 321⇓iP      P       17 56 49.4  -0.4
                  comp=Z,15nm,1.0s
KPKS  Kokpek            65.61 321 eP      P       17 56 49.4  -0.5
KPKS  Kokpek            65.61 321 eP      P       17 56 49.5  -0.5
KSH2  Kashi             65.63 316  P      P       17 56 50.0  -0.2
KSH2                               pmax   pmax
                  comp=Z,12nm,1.0s
ASAI  AK-SAY(Kyrgyzs    65.78 318  P      P       17 56 51.4  +0.1
                  comp=Z,14nm,1.4s
KDJ   Kajisay           65.91 319  P      P       17 56 52.4  +0.4
KDJ   Kajisay           65.91 319  IAmb   IAmb    17 56 53.6
                  comp=Z,18nm,1.0s
KDJ   Kajisay           65.91 319  P      P       17 56 52.4  +0.4
                  comp=Z,18nm,0.9s
MDOK  Medeo             66.50 320 eP      P       17 56 55.2  -0.5
MDOK  Medeo             66.50 320 eP      P       17 56 55.2  -0.5
TNSS  Tian-Shan         66.50 320 eP      P       17 56 55.2  -0.8
TNSS  Tian-Shan         66.50 320 eP      P       17 56 55.2  -0.8
SHEM  Shemya Is, Ala    66.50  27  LR     LR      18 21 54.4
                  comp=Z,74nm,21.1s,baz=243,slow=32
TDK   Taldyqorghan      66.56 322 eP      P       17 56 55.7  -0.2
TDK                                pmax   pmax
                  comp=Z,10.0nm,0.8s
TDK   Taldyqorghan      66.56 322 eP      P       17 56 55.8  -0.2
                  comp=Z,9.8nm,0.8s
ULHL  Ulahol            66.58 319  P      P       17 56 56.6  +0.2
                  SNR=5.8
BOOM  Boomskoye usch    66.89 319  P      P       17 56 58.8  +0.5
BOOM  Boomskoye usch    66.89 319  IAmb   IAmb    17 56 59.8
                  comp=Z,13nm,0.9s
BOOM  Boomskoye usch    66.89 319  P      P       17 56 58.8  +0.5
                  comp=Z,17nm,1.0s
TKM2  Tokmak 2          67.32 319  P      P       17 57 00.9  -0.1
                  SNR=17
UCH   Uchtor            67.72 318  P      P       17 57 04.7  +0.8
                  SNR=19
SEY   Seymchan          67.82  11deP      P       17 57 04.4  +0.9
SEY                                pmax   pmax
                  comp=Z,51nm,0.9s
FRU1  Bishkek           67.90 319  P      P       17 57 03.8  -0.7
FRU1                               pmax   pmax
                  comp=Z,18nm,0.4s
FRU1  Bishkek           67.90 319  P      P       17 57 03.8  -0.7
AAK   Ala-Archa         67.91 319  P      P       17 57 04.8   0.0
AAK   Ala-Archa         67.91 319  P      P       17 57 03.6  -1.1
AAK                                pmax   pmax
                  comp=Z,30nm,1.4s
AAK   Ala-Archa         67.91 319  P      P       17 57 03.6  -1.1
AAK                                IAmb   IAmb    17 57 15.7
                  comp=Z,30nm,1.4s
AAK   Ala-Archa         67.91 319  P      P       17 57 05.0  +0.3
                  comp=Z,18nm,1.3s
OHH   Osh               68.16 316  P      P       17 57 05.0  -1.2
OHH   Osh               68.16 316  P      P       17 57 05.0  -1.2
                  comp=Z,22nm,1.4s
SGDS  Sogindy           68.19 319 eP      P       17 57 05.8  -0.5
                  comp=Z,5.8nm,1.1s
USP   Ospenovka         68.19 319  P      P       17 57 06.0  -0.4
                  SNR=40
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ZALV  Zalesovo Beam     68.30 333   P       P         17 57 05.7 -0.9
            comp=Z,16nm,0.9s,baz=114,slow=5.4,SNR=54
            comp=Z,16nm,0.9s
ZALV  Zalesovo Beam     68.30 333 i P       P         17 57 05.6 -1.1
ZALV                                pmax    pmax
            comp=Z,16nm,0.9s
ZALV  Zalesovo Beam     68.30 333   P       P         17 57 05.1 -1.6
EKS2  Erkin-Say         68.40 318   P       P         17 57 08.1 +0.4
            SNR=23
DRK   Karamyk           68.43 315   P       P         17 57 08.5 +0.3
DRK   Karamyk           68.43 315   P       P         17 57 08.5 +0.3
            comp=Z,25nm,1.3s
KBL   Kabul             68.68 309   P       P         17 57 08.8 -1.0
KBL   Kabul             68.68 309   P       P         17 57 08.3 -1.4
KBL                                 pmax    pmax
            comp=Z,34nm,1.5s
KBL   Kabul             68.68 309   P       P         17 57 08.3 -1.4
KBL                                 IAmb    IAmb      17 57 15.3
            comp=Z,34nm,1.5s
KBL   Kabul             68.68 309   P       P         17 57 09.3 -0.4
            comp=Z,9.8nm,0.8s
ARK   Arkit             69.25 317   P       P         17 57 13.3 +0.3
ARK   Arkit             69.25 317   P       P         17 57 13.3 +0.3
            comp=Z,28nm,1.2s
BTK   Batken            69.35 315   P       P         17 57 13.8 +0.1
BTK   Batken            69.35 315   IAmb    IAmb      17 57 20.9
            comp=Z,22nm,1.1s
BTK   Batken            69.35 315   P       P         17 57 13.8 +0.1
            comp=Z,20nm,1.2s
KURBB Kurchatov Arra    69.45 328   P       P         17 57 14.2 +0.2
            comp=Z,36nm,0.9s,baz=124,slow=5.8,SNR=106
            comp=Z,36nm,0.9s
KURK  Kurchatov         69.45 328   P       P         17 57 13.9  0.0
KURK  Kurchatov         69.45 328   P       P         17 57 14.2 +0.3
KURK  Kurchatov         69.45 328   P       P         17 57 13.2 -0.7
KURK  Kurchatov         69.45 328   P       P         17 57 13.9  0.0
            comp=Z,69nm,0.9s
TRKS  Terek-Say         69.70 316   P       P         17 57 16.0 +0.1
DZA   Taraz             70.12 318 e P       P         17 57 18.0 -0.3
DZA                                 pmax    pmax
            comp=Z,13nm,1.4s
DZA   Taraz             70.12 318 e P       P         17 57 18.1 -0.3
            comp=Z,13nm,1.4s
IUG   Iuzhnay           70.71 317 e P       P         17 57 21.5 -0.5
IUG                                 pmax    pmax
            comp=Z,13nm,0.8s
IUG   Iuzhnay           70.71 317 e P       P         17 57 21.6 -0.5
            comp=Z,13nm,0.8s
KK31  Karatay Array     70.76 318   IAmb    IAmb      17 57 28.4
            comp=Z,29nm,1.2s
KKAR  Karatay Array     70.76 318   P       P         17 57 21.4 -0.8
KKAR  Karatay Array     70.76 318   P       P         17 57 21.4 -0.8
CHM   Chimkent          71.07 317 e P       P         17 57 23.7 -0.3
CHM                                 pmax    pmax
            comp=Z,4.0nm,0.6s
CHM   Chimkent          71.07 317 e P       P         17 57 23.8 -0.3
            comp=Z,4.5nm,0.6s
BRLS  Borolday          71.19 317d i P      P         17 57 24.4 -0.3
BRLS                                 pmax   pmax
            comp=Z,9.0nm,1.1s
BRLS  Borolday          71.19 317⇓ i P      P         17 57 24.5 -0.3
            comp=Z,9.2nm,1.1s
JLN   Jalan Bani Buh    73.77 294   P       P         17 57 38.7 -1.8
WBK   Wadi Bani Khal    74.25 294   P       P         17 57 42.1 -1.3
TIXI  Tiksi             74.54 359   LR      LR        18 30 45.9
            comp=Z,155nm,19.7s,baz=186,slow=36
WSAR  Wadi Sarin        74.67 295   P       P         17 57 46.6 +0.8
MHTO  MHTO              74.90 293   P       P         17 57 47.0 -0.1
JMDO  Jabal Madar       75.00 294   P       P         17 57 48.4 +0.6
BVAR  Borovoye Array    75.03 327   P       P         17 57 47.0 -0.2
            comp=Z,17nm,0.9s,baz=129,slow=6.3,SNR=64
            comp=Z,17nm,0.9s
BORK  Borovoye          75.08 327   P       P         17 57 47.0 -0.5
BORK                                pmax    pmax
            comp=Z,39nm,1.2s
BORK  Borovoye          75.08 327   P       P         17 57 47.0 -0.5
BORK                                IAmb    IAmb      17 57 54.6
            comp=Z,39nm,1.1s
BILL  Bilibino          75.14  13 i P       P         17 57 48.1 +0.6
BILL                                pmax    pmax
            comp=Z,6.0nm,0.9s
SMDO  Samad             75.17 295   P       P         17 57 48.4 -0.4
BIDO  Bidbid            75.17 295   P       P         17 57 48.7  0.0
            SNR=8.9
BSY   Bisya             75.89 294   P       P         17 57 53.2 +0.3
HOQ   Hoqain            75.92 295   P       P         17 57 53.3 +0.3
VNDA  Vanda             76.31 173   P       P         17 57 53.6 -0.5
            comp=Z,2.9nm,0.8s,baz=311,slow=5.7,SNR=12
VNDA                                LR      LR        18 32 45.3
            comp=Z,102nm,18.6s,baz=352,slow=37
            comp=Z,2.9nm,0.8s
ARQ   Araqi             76.60 295   P       P         17 57 56.6 -0.2
            SNR=5.2
SOHO  SOHO              76.72 296   P       P         17 57 56.6 -0.9
UNV   Unalaska Valle    76.87  33   IAmb    IAmb      17 58 08.8
            comp=Z,28nm,1.0s
UOSS  Minazif           77.14 296   P       P         17 57 58.9 -1.0
            comp=Z,12nm,1.2s
ASHO  Ashiyiah          77.23 296   P       P         17 58 01.0 +0.5
            SNR=5.6
MASF  Masafi            77.25 297   P       P         17 58 01.2 +0.6
SHME  Shamm             77.38 297   P       P         17 58 01.7 +0.5
ALNE  Al Ain            77.41 295   P       P         17 58 01.0 -0.4
            SNR=5.3
NAZ   Nazwa, Dubai      77.64 296   P       P         17 58 02.9 +0.3
FAQ   Al Faqa, Dubai    77.66 296   P       P         17 58 02.3 -0.4
UMZA  Um Al Zommool     77.74 294   P       P         17 58 02.7 -0.6
ASUD  Al Ashush, Dub    77.88 296   P       P         17 58 04.2 +0.2
MAW   Mawson            78.84 201   P       P         17 58 09.1 +0.7
            comp=Z,3.5nm,1.2s
MAW   Mawson            78.84 201   P       P         17 58 08.0 -0.4
            comp=Z,15nm,1.1s,baz=88,slow=6.2,SNR=18
            comp=Z,15nm,1.1s
MAW   Mawson            78.84 201   P       P         17 58 07.9 -0.4
MAW   Mawson            78.84 201   P       P         17 58 09.6 +1.2
            comp=Z,3.5nm,1.2s
MZR   Muzera            79.32 294   P       P         17 58 12.0  0.0
PPT2  Papeete2          79.43 107 e LR      LR        18 23 05.6
            comp=Z,119nm,21.5s
AB31  Akbulak array     79.77 321   IAmb    IAmb      17 58 20.1
            comp=Z,27nm,1.1s
ABKAR Akbulak array     79.77 321   P       P         17 58 12.9 -1.0
K13K  Kusilvak Mount    81.08  26   IAmb    IAmb      17 58 28.9
            comp=Z,38nm,1.2s
SVE   Sverdlovsk        81.68 329 e P       P         17 58 23.4 -0.5
SVE                                 pmax    pmax
            comp=Z,39nm,1.4s
L14K  Kuka Creek        81.71  27   IAmb    IAmb      17 58 32.0
            comp=Z,26nm,0.9s
M14K  Bethel            81.82  27   IAmb    IAmb      17 58 26.7
            comp=Z,24nm,0.8s
N15K  Kwethluk River    82.48  28   IAmb    IAmb      17 58 30.1
            comp=Z,21nm,1.0s
ARTI  Arti              82.73 328c i P      P         17 58 29.2 -0.3
ARTI                                                  18 01 34.7
ARTI                                S       S         18 08 44.5 -2.0
ARTI                                pmax    pmax
            comp=Z,7.0nm,0.8s
ARTI  Arti              82.73 328   P       P         17 58 28.6 -0.9
ARTI                                IAmb    IAmb      17 58 34.9
            comp=Z,11nm,0.9s
VOI   Vohitsoka         83.10 248   P       P         17 58 31.7 -0.7
VOI   Vohitsoka         83.10 248   P       P         17 58 31.3 -1.0
O16K  Kokwok River B    83.26  29   IAmb    IAmb      17 58 40.4
            comp=Z,25nm,1.2s
L16K  Owhat River       83.28  27   IAmb    IAmb      17 58 40.0
            comp=Z,19nm,0.9s
M16K  Timber Creek      83.29  28   IAmb    IAmb      17 58 39.8
            comp=Z,19nm,0.9s
N17K  Nushagak Hills    83.97  28   IAmb    IAmb      17 58 43.5
            comp=Z,13nm,0.9s
M17K  Holitna River     84.11  27   IAmb    IAmb      17 58 45.8
            comp=Z,17nm,0.9s
ACHA  Angle Creek He    84.24  31   IAmb    IAmb      17 58 40.6
            comp=Z,8.8nm,0.8s
H18K  Honhosa River     84.87  24   IAmb    IAmb      17 58 47.9
            comp=Z,22nm,1.1s
OHAK  Old Harbor        85.06  32   P       P         17 58 42.0 +0.7
KDAK  Kodiak Island     85.56  32   LR      LR        18 34 25.3
            comp=Z,45nm,19.9s,baz=235,slow=34
KDAK  Kodiak Island     85.56  32 i P       P         17 58 44.4 +0.6
KDAK                                pmax    pmax
            comp=Z,17nm,0.9s
KDAK  Kodiak Island     85.56  32   P       P         17 58 43.5 -0.2
KDAK                                IAmb    IAmb      17 58 52.0
            comp=Z,13nm,0.8s
J19K  Poorman           85.66  25   IAmb    IAmb      17 58 52.1
            comp=Z,27nm,1.2s
G19K  Purcell Mounta    85.68  23   IAmb    IAmb      17 58 53.0
            comp=Z,12nm,1.0s
E19K  Redstone River    86.02  22   IAmb    IAmb      17 58 53.2
            comp=Z,12nm,0.9s
D19K  Kuna River        86.03  20   IAmb    IAmb      17 58 53.1
            comp=Z,17nm,1.1s
J20K  Nowinta River     86.33  25   IAmb    IAmb      17 58 58.0
            comp=Z,12nm,1.1s
AKT   Akhty             86.61 312 e P       P         17 58 49.9 +0.3
AKT                                 pmax    pmax
            comp=Z,30nm,1.0s
D20K  Etivluk River     86.62  20   IAmb    IAmb      17 58 56.0
            comp=Z,22nm,1.0s
RAYN  Ar Rayn           86.66 294   P       P         17 58 49.9 -0.2
RAYN  Ar Rayn           86.66 294   P       P         17 58 49.2 -0.9
RAYN                                pmax    pmax
            comp=Z,27nm,0.9s
RAYN  Ar Rayn           86.66 294   P       P         17 58 49.2 -0.9
RAYN  Ar Rayn           86.66 294   P       P         17 58 50.5 +0.4
            comp=Z,38nm,1.1s
STLK  Strandline Lak    86.74  28   IAmb    IAmb      17 58 56.5
            comp=Z,20nm,1.3s
PPLA  Purkeypile        86.88  27   IAmb    IAmb      17 59 11.3
            comp=Z,25nm,1.3s
QSPA  South Pole Qui    86.93 180   P       P         17 58 50.0 -0.6
            comp=Z,4.9nm,0.8s,baz=308,slow=1.6,SNR=16
QSPA                                LR      LR        18 37 52.7
            comp=Z,140nm,20.3s,baz=348,slow=36
            comp=Z,4.9nm,0.8s
QSPA  South Pole Qui    86.93 180   P       P         17 58 49.3 -1.3
QSPA                                IAmb    IAmb      17 59 02.8
            comp=Z,11nm,0.8s
QSPA  South Pole Qui    86.93 180   P       P         17 58 50.2 -0.4
            comp=Z,20nm,1.4s
MAK   Makhachkala       86.96 313 e P       P         17 58 46.5 -4.5
MAK                               e PPP     PPP       18 04 05.2
MAK                               e                   18 09 09.5
MAK                               e SS      SS        18 15 07.5 -4.4
MAK                                 pmax    pmax
            comp=Z,149nm,1.2s
SEKA  Sheki             86.98 311   P       P         17 58 52.5 +1.2
SKT   Skwentna          86.98  28   IAmb    IAmb      17 58 57.0
            comp=Z,17nm,1.0s
CAST  Castle Rocks      87.04  26   IAmb    IAmb      17 58 59.6
            comp=Z,9.9nm,1.0s
G21K  Allakaket         87.17  23   IAmb    IAmb      17 58 59.9
            comp=Z,14nm,1.3s
E21K  Killik River      87.48  21   IAmb    IAmb      17 59 00.5
            comp=Z,10nm,1.1s
GANJ  Ganja             87.58 311   P       P         17 58 55.4 +1.2
TRF   Thorofare Moun    87.84  26   IAmb    IAmb      17 59 02.5
            comp=Z,19nm,1.3s
KIRV  Kirov             87.94 329ce P       P         17 58 55.1 -0.3
MLY   Manley            87.95  25   IAmb    IAmb      17 58 58.6
            comp=Z,8.8nm,0.9s
PMR   Palmer            88.03  28   P       P         17 58 57.0 +1.3
BELG  Belogornoye       88.06 323 i P       P         17 58 56.0 -0.1
BELG                                pmax    pmax
            comp=Z,6.0nm,1.0s
NAX   Nakhchivan        88.06 309   P       P         17 58 58.2 +1.6
ATD   Arta Tunnel       88.36 282   S       SKSac     18 09 26.9 -0.5
RND   Reindeer          88.47  26   IAmb    IAmb      17 59 03.9
            comp=Z,12nm,0.9s
GNI   Garni             88.73 310   P       P         17 58 59.2 -0.6
            comp=Z,15nm,1.2s
D23K  Nanushuk River    88.77  21   IAmb    IAmb      17 59 07.3
            comp=Z,20nm,1.1s
E23K  Chandalar         88.98  22   IAmb    IAmb      17 59 07.6
            comp=Z,17nm,0.9s
DHY   Denali Highway    89.07  27   IAmb    IAmb      17 59 09.3
            comp=Z,17nm,1.3s
CCB   Clear Creek Bu    89.12  25   IAmb    IAmb      17 59 07.7
            comp=Z,15nm,1.1s
H24K  Noodor Dome       89.28  24   IAmb    IAmb      17 59 09.2
            comp=Z,17nm,1.1s
ILAR  Eielson Array     89.53  25   P       P         17 59 01.2 -1.6
            comp=Z,1.9nm,0.8s,baz=258,slow=4.1,SNR=16
ILAR                                LR      LR        18 33 27.6
            comp=Z,55nm,20.4s,baz=274,slow=32
            comp=Z,1.9nm,0.8s
ILAR  Eielson Array     89.53  25   P       P         17 59 00.4 -2.4
F24K  Squaw Lake        89.53  22   IAmb    IAmb      17 59 10.2
            comp=Z,12nm,1.1s
DIV   Divide            89.56  29   IAmb    IAmb      17 59 05.2
            comp=Z,11nm,0.8s
G24K  Hadweenzic Riv    89.57  23   IAmb    IAmb      17 59 10.2
            comp=Z,13nm,0.9s
K24K  Donnelly Dome     89.88  26   IAmb    IAmb      17 59 12.1
            comp=Z,21nm,1.0s
RIDG  Independent Ri    90.29  26   IAmb    IAmb      17 59 14.1
            comp=Z,8.8nm,0.9s
EPOS  Posof             90.36 311   P       P         17 59 06.2 -1.2
            comp=Z,7.9nm,1.1s
KBZ   Khabaz            90.38 314   P       P         17 59 06.8 -0.3
            comp=Z,2.0nm,0.9s,baz=131,slow=3.8,SNR=4.2
            comp=Z,2.0nm,0.9s
KBZ   Khabaz            90.38 314 i P       P         17 59 06.8 -0.3
KBZ                                 pmax    pmax
            comp=Z,4.0nm,1.1s
FYU   Fort Yukon        90.44  23   IAmb    IAmb      17 59 14.5
            comp=Z,20nm,1.1s
NEUR  Neytrino          90.49 313 i P       P         17 59 07.3 -0.7
NEUR                                pmax    pmax
            comp=Z,3.0nm,1.2s
GLB   Gilahina Butte    90.53  29   IAmb    IAmb      17 59 15.7
            comp=Z,10nm,1.0s
KIV   Kislovodsk        90.54 314 e P       P         17 59 09.0 +0.9
KIV                                 pmax    pmax
            comp=Z,3.0nm,1.0s
MENT  Mentasta          90.71  27   P       P         17 59 08.6 +0.2
BMAR  Burnt Mountain    90.79  23   P       P         17 59 08.9 +0.2
L26K  Log Cabin Wild    90.89  27   IAmb    IAmb      17 59 16.9
            comp=Z,14nm,1.3s
M26K  Nabesna, AK       91.00  28   IAmb    IAmb      17 59 16.9
            comp=Z,13nm,1.3s
L27K  Beaver Creek,     91.58  27   IAmb    IAmb      17 59 20.5
            comp=Z,15nm,1.1s
BCAR  Beaver Creek A    91.60  27   P       P         17 59 12.6 +0.1
E27K  Coleen River      91.98  22   IAmb    IAmb      17 59 21.3
            comp=Z,14nm,1.1s
LABN  Labinsk           91.98 314 e P       P         17 59 13.0 -1.7
LABN                                pmax    pmax
            comp=N,8.0nm,0.6s
ERBR  Yeremizino-Bor    92.19 315 e P       P         17 59 12.9 -2.7
ERBR                              e *PP     PcP       17 59 17.9 +1.5
ERBR                                pmax    pmax
            comp=Z,14nm,0.6s
ELIB  Princess Elisa    92.43 197 d P       P         17 59 17.1 +0.8
            comp=Z,8.7nm,1.0s
F28M  Old Crow          92.61  23   IAmb    IAmb      17 59 18.2
            comp=Z,8.3nm,0.9s
SOC   Sochi             92.67 313 e P       P         17 59 17.7 -0.2
SOC                               e                   18 03 03.3
SOC                               e PPP     PPP       18 04 56.5
SOC                               e S       SKSac     18 09 51.1 +0.1
SOC                               e SS      SS        18 16 39.0 +4.3
SOC                               e SSS     SSS       18 20 09.7
SOC                                 pmax    pmax
            comp=Z,3.0nm,0.5s
SOC                                 MLR     MLR
            comp=Z,64nm,17.0s
E28M  Babbage River     92.75  22   IAmb    IAmb      17 59 24.8
            comp=Z,14nm,1.1s
KLMR  Klimovskoe        93.13 331 e P       P         17 59 19.6 +0.1
KLMR                              e                   18 03 01.1
KLMR                                pmax    pmax
            comp=Z,16nm,1.3s
E29M  Blow River        93.36  22   IAmb    IAmb      17 59 27.1
            comp=Z,11nm,1.3s
ARPR  Arapgir-MALATY    93.61 309   IAmb    IAmb      17 59 32.5
            comp=Z,12nm,1.2s
ARPR  Arapgir-MALATY    93.61 309   P       P         17 59 21.6 -0.9
            comp=Z,7.6nm,1.1s
I30M  Mount Dempster    94.01  25   P       P         17 59 23.6 -0.2
I30M                                IAmb    IAmb      17 59 30.6
            comp=Z,9.8nm,1.2s
G30M  tAoh Zraii Nji    94.02  23   IAmb    IAmb      17 59 24.5
            comp=Z,12nm,1.1s
F30M  Barrier River     94.17  23   IAmb    IAmb      17 59 30.9
            comp=Z,14nm,1.0s
ANN   Anapa             94.33 315 e P       P         17 59 27.3 +1.8
ANN                                 pmax    pmax
            comp=Z,9.0nm,1.0s
OBN   Obninsk           94.75 325 e P       P         17 59 27.0 -0.1
OBN                                 pmax    pmax
            comp=Z,8.0nm,1.0s
INK   Inuvik            94.98  22   P       P         17 59 27.7 -0.2
INK   Inuvik            94.98  22   IAmb    IAmb      17 59 34.6
            comp=Z,17nm,1.3s
INK   Inuvik            94.98  22   P       P         17 59 27.7 -0.2
            comp=Z,11nm,1.2s
BRTR  Keskin Array B    97.25 309   P       P         17 59 38.4 -0.7
            comp=Z,0.3nm,0.3s,baz=108,slow=4.0,SNR=6.4
            comp=Z,0.3nm,0.3s
DLBC  Dease Lake        97.49  32   LR      LR        18 39 11.4
            comp=Z,28nm,19.8s,baz=234,slow=33
SPITS Spitsbergen Ar    97.79 349   LR      LR        18 45 44.2
            comp=Z,57nm,21.9s,baz=41,slow=37
ARCES ARCESS Array B    98.06 340   P       P         17 59 40.9 -1.0
            comp=Z,5.5nm,0.9s,baz=83,slow=4.0,SNR=9.2
            comp=Z,5.5nm,0.9s
ARCES ARCESS Array B    98.06 340   P       P         17 59 40.7 -1.2
TROLL Troll, Antarti    98.13 194   P       P         17 59 42.1 -0.3
            comp=Z,115nm,0.8s
BELA  Belgrano 2        98.80 183   P       P         17 59 43.5 -1.6
BBB   Bella Bella       99.32  38   LR      LR        18 37 32.7
            comp=Z,58nm,21.0s,baz=210,slow=31
AKBB  Malin Array Si    99.51 321 i P       Pdif      17 59 48.9 +0.1
AKBB                                pmax    pmax
            comp=Z,1.0nm,0.9s
AK06  Malin Array Si    99.54 321   P       Pdif      17 59 48.7 -0.2
AK14  Malin Array Si    99.59 321   P       Pdif      17 59 48.9 -0.2
AK18  Malin Array Si    99.61 321   P       Pdif      17 59 49.0 -0.2
SNAA  Sanae             99.64 193   LR      LR        18 45 57.0
            comp=Z,195nm,18.2s,baz=116,slow=36
SNAA  Sanae             99.64 193 i P       Pdif      17 59 50.4 +1.4
SNAA                                pmax    pmax
            comp=Z,3.0nm,1.2s
MBAR  Mbarara           99.78 269   LR      LR        18 42 51.2
            comp=Z,80nm,21.1s,baz=114,slow=34
RNPP9 Sopachiv         101.49 322   P       Pdif      17 59 57.8 +0.3
TESR  Tescani          101.75 317   P       Pdif      17 59 58.3 -0.6
MNTX  Cornudas Mount   120.27  55           PKiKP     18 04 58.1 +0.4
TXAR  Lajitas Array    122.36  57   PKP     PKPdf     18 05 00.4 -1.3
            comp=Z,0.2nm,0.3s,baz=325,slow=2.0,SNR=3.7
TXAR                                PKKPbc  PKKPab    18 14 56.4 -1.0
            comp=Z,0.5nm,0.8s,baz=123,slow=4.6,SNR=4.1
ESDC  Sonseca Array    125.01 318   PKP     PKPdf     18 05 05.8 -0.7
            comp=Z,2.0nm,1.2s,baz=359,slow=2.2,SNR=5.8
ESDC                                PP      PP        18 06 57.7 +2.9
            comp=Z,1.3nm,1.1s,baz=51,slow=6.3,SNR=4.5
ESDC  Sonseca Array    125.01 318           PKiKP     18 05 07.7 +0.9
S39A  Bolivar          127.07  44           PKPdf     18 05 10.4 -0.1
MIAR  Mount Ida        128.40  47   PKIKP   PKiKP     18 05 15.2 +1.5
TORD  Torodi Ar. Bea   128.48 284   PKP     PKPdf     18 05 13.1 -0.6
            comp=Z,3.1nm,1.1s,baz=89,slow=0.7,SNR=5.4
TORD  Torodi Ar. Bea   128.48 284           PKiKP     18 05 14.7 +0.3
WHAR  Wooly Hollow     128.98  46           PKPdf     18 05 13.1 -1.1
PLCA  Paso Flores      132.37 158   PKP     PKiKP     18 05 22.0 +0.4
            comp=Z,3.1nm,0.9s,baz=207,slow=8.8,SNR=4.2
PLCA  Paso Flores      132.37 158   PKIKP   PKiKP     18 05 22.0 +0.4
LRAL  Lakeview Retre   133.90  45           PKPdf     18 05 23.1 -0.4
CPUP  Villa Florida    149.84 166   PKPbc   PKPbc     18 05 56.2 -0.5
            comp=Z,4.6nm,0.7s,baz=209,slow=6.2,SNR=6.8
CPUP  Villa Florida    149.84 166           PKiKP     18 05 57.2 -0.4
LPAZ  La Paz           153.37 137   PKPbc   PKPbc     18 06 05.7 -0.2
            comp=Z,5.6nm,0.9s,baz=40,slow=2.9,SNR=11
LPAZ  La Paz           153.37 137   PKIKP   PKPdf     18 05 59.6 +1.3
LPAZ  La Paz           153.37 137           PKPdf     18 05 59.6 +1.3
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WEL 02 17:49:06.9±0.8**, 33°S**±15°×**17°9W**±3°5**, h142**^{km}±30^{km}**,**
M4.1/6**, mB4.6**/5**, ML4.1**/8**, MLv4.2**/6**, Mw(mB)3.8**/5**, Error ellipse: s-maj=49.0km s-min=4.3km az=112.5, confirmed, South of Kermadec Islands**

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Code  Station Name       Δ°   AZ°   Phase ID          Time      Res
                                    Op      ISC       h  m  s   ISC
GLKZ  Green Lake         4.10  17   P       Pn        17 50 07.9 -0.3
GLKZ                                S       Sn        17 50 55.6 -0.2
MXZ   Matakaoa Point     4.77 203   P       Pn        17 50 15.8 -1.3
MXZ                                 AML     AML
WMGZ  Waiomatatini S     4.97 201   P       Pn        17 50 21.0 +1.2
WMGZ                                AML     AML
WMGZ                                AML     AML
PKGZ  Pakihiroa          5.12 204   P       Pn        17 50 21.8  0.0
PKGZ                                S       Sn        17 51 20.6 +0.4
PKGZ                                AML     AML
PKGZ                                AML     AML
HAZ   Te Kaha            5.13 207   P       Pn        17 50 23.4 +1.5
HAZ                                 S       Sn        17 51 22.2 +1.9
HAZ                                 AML     AML
PUZ   Puketiti           5.25 201   P       Pn        17 50 23.1 -0.4
PUZ                                 S       Sn        17 51 22.1 -1.2
PUZ                                 AML     AML
RUGZ  Raukumara Rang     5.36 206   P       Pn        17 50 26.3 +1.4
RUGZ                                AML     AML
RUGZ                                AML     AML
TWGZ  Tauwhareparae      5.44 203   P       Pn        17 50 27.5 +1.4
TWGZ                                S       Sn        17 51 28.0 +0.2
TWGZ                                AML     AML
TWGZ                                AML     AML
CNGZ  Carnagh Statio     5.65 200   P       Pn        17 50 28.1 -0.7
CNGZ                                AML     AML
CNGZ                                AML     AML
MWZ   Matawai            5.74 206   P       Pn        17 50 30.5 +0.5
MWZ                                 AML     AML
URZ   Urewera            5.83 209   P       Pn        17 50 32.3 +1.2
URZ                                 S       Sn        17 51 37.8 +0.7
URZ                                 AML     AML
URZ                                 AML     AML
RIGZ  Rimuhau            5.99 202   P       Pn        17 50 32.4 -1.0
RAHZ  Arahi              6.41 206   P       Pn        17 50 40.1 +1.1
RAHZ                                S       Sn        17 51 51.9 +0.9
RAHZ                                AML     AML
MTHZ  Maungataniwha      6.45 208   P       Pn        17 50 40.2 +0.7
MTHZ                                S       Sn        17 51 52.7 +0.8
MTHZ                                AML     AML
MCHZ  McNeill Hill       7.02 206   P       Pn        17 50 47.5 +0.4
KWHZ  Kaweka Forest      7.11 208   P       Pn        17 50 47.8 -0.6
BHHZ  Black Hill Sta     7.30 209   P       Pn        17 50 50.4 -0.6
BHHZ                                S       Sn        17 52 12.5 -0.2
PNHZ  Pukenui            7.62 207   P       Pn        17 50 53.9 -1.2
PNHZ                                S       Sn        17 52 17.2 -2.9
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*SJA **02** 17:59:37.7±0.7, 27°85S×71°30W, h27^{km}±2^{km}, ML3.6, MW3.8*

*GUC **02** 17:59:40.2±0.8, 27°90S×71°11W, h30^{km}±2^{km}, ML3.6*

ISC 02 17:59:39.1±1.6**, 27°81S**±0°03×**71°12W**±0°05**, h13**^{km}±11^{km}**,**
n27, σ2^{s}09/50**, 1C-3D, Near coast of northern Chile**

```
Code  Station Name       Δ°   AZ°   Phase ID          Time      Res
                                    Op      ISC       h  m  s   ISC
AC04  Llanos de Chal     0.39 174 e P       Pb        17 59 47.9  0.0
AC04                              e S       Sb        17 59 53.4 -0.4
AC04                                IAML              17 59 53.4
            comp=Z,4µm,0.2s
AC04  Llanos de Chal     0.39 174⇓ i P      Pb        17 59 48.0  0.0
AC04                              e S       Sg        17 59 53.2 +0.9
AC04                                IAML              17 59 53.8
            comp=E,30µm,0.2s
GO03  Copiapo            0.82  75⇓ i P      Pn        17 59 55.9 -0.4
GO03                              e S       Sn        18 00 07.1 -1.2
GO03                                IAML              18 00 10.7
            comp=N,3µm,0.2s
AC06  Mina Casimiro      0.82  56⇓ i P      Pn        17 59 56.1 -0.3
AC06                              e S       Sn        18 00 07.8 -0.6
AC06                                IAML              18 00 11.2
            comp=E,2µm,0.2s
LCO   Las Campanas       1.25 163 e P       Pn        18 00 00.9 -1.6
AC05  El Transito        1.26 144⇑ i P      Pn        18 00 01.3 -1.2
AC05                              e S       Sb        18 00 16.4 -2.7
AC05                                IAML              18 00 19.0
            comp=N,830nm,0.2s
AC01  Pan de Azucar      1.72  16 e P       Pb        18 00 09.2 -1.4
AC01                              e S       Sg        18 00 39.5 +4.9
AC01                                IAML              18 00 40.9
            comp=Z,331nm,0.4s
AC01  Pan de Azucar      1.72  16 e P       Pb        18 00 09.3 -1.4
AC01                              e S       Sb        18 00 31.5 -0.7
AC02  Maricunga          2.02  62 e P       Pb        18 00 16.0  0.0
AC02                              e S       Sg        18 00 42.9 -1.4
AC02                                IAML              18 00 44.5
            comp=Z,336nm,0.2s
AC02  Maricunga          2.02  62 e P       Pb        18 00 15.6 -0.4
AC02                              e S       Sb        18 00 41.8 +0.5
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AC02				IAML		18 00 46.2	
	comp=E,830nm,0.4s						
CO01	Juntas del Tor	2.34	158	eP	Pn	18 00 17.4	0.0
CO01				eS	Sn	18 00 46.9	+0.8
CO01				IAML		18 00 56.2	
	comp=Z,384nm,0.8s						
CO01	Juntas del Tor	2.34	158	eP	Pn	18 00 17.6	+0.2
CO01				eS	Sn	18 00 46.0	-0.1
CO01				IAML		18 00 48.8	
	comp=N,323nm,0.3s						
GO04	Tololo Observa	2.37	173	eP	Pn	18 00 17.1	-0.7
GO04				eS	Sn	18 00 47.8	+0.9
GO04				IAML		18 00 50.1	
	comp=Z,684nm,0.4s						
GO04	Tololo Observa	2.37	173	eP	Pn	18 00 17.1	-0.7
GO04				eS	Sn	18 00 46.6	-0.3
VCA	Vinchina	2.73	110	eP	Pb	18 00 26.6	-1.3
AROD	Rodeo	2.75	149	eP	Pn	18 00 24.9	+1.7
AROD				eS	Sb	18 01 03.3	+1.1
CO06	Fray Jorge	2.88	189	eP	Pn	18 00 22.2	-2.5
CO06				eS	Sn	18 00 58.8	-0.5
CO06				IAML		18 01 08.9	
	comp=E,298nm,0.4s						
CO03	El Pedregal	3.04	173	eP	Pn	18 00 26.5	-0.4
CO03				eS	Sb	18 01 07.8	-2.3
CO03				IAML		18 01 12.4	
	comp=Z,285nm,0.5s						
CO03	El Pedregal	3.04	173	eP	Pn	18 00 26.4	-0.6
CO03				eS	Sn	18 01 02.3	-0.9
CO03				IAML		18 01 15.1	
	comp=N,434nm,0.3s						
TINO	Tinogasta	3.15	95	eP	Pn	18 00 30.5	+2.0
TINO				eS	Sg	18 01 18.6	-1.8
TINO				IAML		18 01 25.4	
	comp=Z,91nm,0.8s						
PB14	IPOC Station P	3.24	12	eP	Pn	18 00 29.5	-0.4
ACCO	Cerro Coronel	3.30	147	eP	Pn	18 00 32.7	+2.0
ACCO				eS	Sb	18 01 18.8	+1.0
ACCO				IAML		18 01 24.4	
	comp=Z,113nm,0.6s						
CO02	Combarbal	3.38	178	eP	Pn	18 00 30.0	-1.6
CO02				eS	Sn	18 01 12.3	+0.6
RTLL	Cerro Villicun	4.19	147	eP	Pn	18 00 44.2	+1.4
RTLS	Leoncito	4.28	159	eP	Pn	18 00 46.0	+1.8
RTLS				eS	Sn	18 01 39.8	+5.7
RTLS				IAML		18 01 58.1	
	comp=Z,241nm,0.9s						
CFA	Coronel Fontan	4.53	147	eP	Pn	18 00 48.8	+1.3
CFA				eS	Sb	18 01 47.9	-5.3
CFA				IAML		18 02 02.6	
	comp=Z,37nm,1.1s						
VA03	San Esteban	4.96	174	eP	Pn	18 00 53.9	+0.5
VA03				eS	Sn	18 01 57.8	+7.2

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*IDC **02** 18:03:24.0±2.5, 28°.25N×56°.71E, h0^{km}, mb3.9/10, mbtmp3.9/10, Error ellipse: s-maj=51.5km s-min=23.0km az=157.0*

*NEIC **02** 18:03:26.4±1.2, 28°.25N±0°.10×56°.73E±0°.05, h10^{km}±2^{km}, mb4.3/3, Error ellipse: s-maj=16.6km s-min=7.1km az=167.0*

*DSN **02** 18:03:28.0±1.2, 28°.24N×56°.60E, h10^{km}, ML3.6/14, Error ellipse: s-maj=17.7km s-min=9.2km az=79.0*

*TEH **02** 18:03:27.4, 28°.26N×56°.94E, h18^{km}±32^{km}, ML3.8, Presumed earthquake*

*OMAN **02** 18:03:31.2±0.1, 27°.97N×56°.90E, h10^{km}, mb3.4/6, ml3.7/20, Error ellipse: s-maj=1.3km s-min=1.1km az=225.0*

ISC 02 18:03:26.2±1.7, **28°.26N**±0°.04×**56°.85E**±0°.05, **h15**^{km}±12^{km}, **n75**, σ**1^s.79**/95, **mb4.0**/11, **Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KHNJ	Kahnooj	0.81	112	Pg	Pg	18 03 41.8	-0.3
IBND	Bandar-abas	0.85	199	Pg	Pn	18 03 44.8	+1.1
GENO	Geno	1.05	215	Pg	Pn	18 03 48.1	+1.6
NGRK	Negar Kerman	1.39	356	Pg	Pb	18 03 52.8	+0.7
KBAM	BAM	1.66	58	Pg	Pn	18 03 56.0	+1.1
CHMN	Cheshme madani	1.71	20	Pg	Pn	18 03 57.7	+1.9
KHGB	Koh Gabri	2.13	351	Pn	Pb	18 04 04.5	-0.3
KRM1	Kerman Provinc	2.27	9	Pn	Pb	18 04 06.6	-0.5
SHME	Shamm	2.29	196	P	Pn	18 04 05.4	+1.9
	SNR=19						
SHME	Shamm	2.29	196	eP	Pn	18 04 05.1	+1.6
	SNR=19						
SHME				S	Sb	18 04 34.5	-0.9
BANOM	Banah	2.38	192	P	Pn	18 04 06.8	+2.0
BANOM				S	Sn	18 04 32.5	-1.2
BANOM	Banah	2.38	192	eP	Pn	18 04 06.6	+1.8
	SNR=21						
BANOM				S	Sn	18 04 34.7	+1.0
JASK	Jask - Hormozg	2.55	159	Pn	Pn	18 04 08.9	+1.9
UMQ	Umm Al-Quwin	2.92	202	P	Pn	18 04 14.1	+1.9
MASF	Masafi	2.94	192	P	Pn	18 04 15.0	+2.5
	SNR=16						
MASF				S	Sn	18 04 47.3	-0.4
MSFE	Esma-Masafi	2.95	192	eP	Pn	18 04 14.7	+2.0
	SNR=16						
MDH	Madha	2.99	190	P	Pn	18 04 16.4	+3.2
MDH				S	Sn	18 04 50.7	+2.0
MDH	Madha	2.99	190	P	Pn	18 04 15.3	+2.2
UOSS	Minazif	3.35	190	P	Pn	18 04 21.2	+3.0
UOSS				S	Sn	18 04 58.9	+1.3
UOSS	Minazif	3.35	190	Pn	Pn	18 04 18.4	+0.3
UOSS	Minazif	3.35	190	P	Pn	18 04 19.4	+1.3
NAZ	Nazwa, Dubai	3.43	198	P	Pn	18 04 22.0	+2.8
	SNR=9.1						
NAZ				S	Sn	18 05 00.3	+0.8
NAZ	Nazwa, Dubai	3.43	198	i P	Pn	18 04 21.1	+1.9
	SNR=9.1						
HATD	Hatta, Dubai	3.48	191	P	Pn	18 04 23.4	+3.5
HATD				S	Sn	18 05 00.8	-0.1
HATD	Hatta, Dubai	3.48	191	P	Pn	18 04 20.9	+1.0
IBAF	Bafgh	3.50	342	Pn	Pn	18 04 23.6	+3.3
ASHO	Ashiyiah	3.63	191	P	Pn	18 04 24.0	+2.0
	SNR=13						
ASHO				S	Sn	18 05 05.7	+1.0
ASHO	Ashiyiah	3.63	191	i P	Pn	18 04 23.0	+1.0
	SNR=13						
FAQ	Al Faqa, Dubai	3.68	198	P	Pn	18 04 25.1	+2.5
	SNR=33						
FAQ				S	Sn	18 05 06.9	+1.2
FAQ	Al Faqa, Dubai	3.68	198	i P	Pn	18 04 24.5	+1.9
	SNR=33						
IMEH	Mehriz	3.68	329	Pn	Pn	18 04 26.3	+3.4
ASUD	Al Ashush, Dub	3.87	201	P	Pn	18 04 28.2	+3.0
	SNR=103						
ASUD				S	Sn	18 05 12.4	+2.0
ASUD	Al Ashush, Dub	3.87	201	i P	Pn	18 04 27.8	+2.6
	SNR=103						
AJN	Ajban	4.04	205	P	Pn	18 04 30.5	+2.9
	SNR=9.9						
AJN	Ajban	4.04	205	i P	Pn	18 04 29.4	+1.8
	SNR=9.9						
SOHO	SOHO	4.12	184	P	Pn	18 04 31.3	+2.7
TAFT	Taft - Yazd	4.16	327	Pn	Pn	18 04 33.1	+3.6
ALNE	Al Ain	4.30	194	S	Sn	18 05 22.1	+1.0
ALNE	Al Ain	4.30	194	P	Pn	18 04 32.4	+1.2
HOQ	Hoqain	4.67	175	P	Pn	18 04 38.2	+1.9
HOQ				S	Sn	18 05 29.6	-0.8
NGCH	Negor - Chabah	4.79	126	Pn	Pn	18 04 40.0	+2.1
BIDO	Bidbid	4.86	166	P	Pn	18 04 39.3	+0.5
BIDO				S	Sn	18 05 33.5	-1.3
ARQ	Araqi	4.91	184	P	Pn	18 04 42.0	+2.4
	SNR=8.8						
MZWR	Madinat Zayed	5.22	212	P	Pn	18 04 46.1	+2.3
MZWR				S	Sn	18 05 43.5	-0.1
WSAR	Wadi Sarin	5.25	162	P	Pn	18 04 45.9	+1.7
	SNR=26						
WSAR				S	Sn	18 05 43.8	-0.7
SMDO	Samad	5.29	168	P	Pn	18 04 46.4	+1.5
SMDO				S	Sn	18 05 45.0	-0.6
KLNJ	Kolanjah	5.34	302	Pn	Pn	18 04 48.6	+2.9
BSY	Bisya	5.50	177	P	Pn	18 04 50.1	+2.4
BSY				S	Sn	18 05 52.7	+2.0
UMZA	Um Al Zommool	5.73	196	P	Pn	18 04 51.6	+0.8
UMZA				S	Sn	18 05 55.5	-0.8
WBK	Wadi Bani Khal	5.94	161	P	Pn	18 04 55.9	+2.2
	SNR=29						
WBK				S	Sn	18 06 01.4	-0.3
JMDO	Jabal Madar	5.97	169	P	Pn	18 04 57.8	+3.7
JMDO				S	Sn	18 06 03.8	+1.5
MZR	Muzera	6.05	211	P	Pn	18 04 56.1	+0.8
MZR				S	Sn	18 06 04.5	+0.1
JLN	Jalan Bani Buh	6.51	159	P	Pn	18 05 02.4	+0.9
MHTO	MHTO	7.31	172	P	Pn	18 05 14.6	+2.1
WHFO	Wadi Hawf	10.67	196	P	Pn	18 05 59.5	+0.8
RAYN	Ar Rayn	11.25	248	P	Pn	18 06 11.1	+4.4
RAYN	Ar Rayn	11.25	248		Pn	18 06 04.1	-2.5
RAYN	Ar Rayn	11.25	248	i P	Pn	18 06 04.7	-1.9
	SNR=5.9						
ABKAR	Akbulak array	21.10	6	P	P	18 08 11.6	+1.5
AKTO	Aktyubinsk	22.16	2	P	P	18 08 21.4	-0.2
	1.8nm,0.7s,baz=173,slow=11,SNR=6.1						
	1.8nm,0.7s						
BR131	Keskin Array S	22.32	307	P	P	18 08 23.1	-0.4
BR131				IAmb	IAmb	18 08 26.4	
	comp=Z,3.0nm,0.9s						
BRTR	Keskin Array B	22.32	307	P	P	18 08 21.2	-2.3
	comp=Z,1.3nm,0.8s,baz=122,slow=13,SNR=9.6						
	comp=Z,1.3nm,0.8s						
BRTR	Keskin Array B	22.32	307		P	18 08 22.1	-1.4
MDUB	Mudurnu	24.34	307	P	P	18 08 43.1	-0.5
MDUB				IAmb	IAmb	18 08 45.7	
	comp=Z,9.8nm,1.0s						
BVAR	Borovoye Array	26.70	18	P	P	18 09 05.6	+0.9
	comp=Z,1.1nm,0.5s,baz=208,slow=8.1,SNR=8.2						
	comp=Z,1.1nm,0.5s						
MKAR	Makanchi Array	27.18	40	P	P	18 09 09.3	+0.1
	comp=Z,0.3nm,0.5s,baz=224,slow=8.5,SNR=4.9						
	comp=Z,0.3nm,0.5s						
MKAR	Makanchi Array	27.18	40	P	P	18 09 08.6	-0.6
ZALV	Zalesovo Beam	32.81	31	P	P	18 09 59.6	+0.7
	comp=Z,0.9nm,0.4s,baz=250,slow=9.4,SNR=6.2						
	comp=Z,0.9nm,0.4s						
ZALV	Zalesovo Beam	32.81	31	P	P	18 09 59.5	+0.5
GERES	GERESS Array B	38.86	314	P	P	18 10 50.6	-0.3
	comp=Z,0.5nm,0.3s,baz=92,slow=5.6,SNR=2.8						
	comp=Z,0.5nm,0.3s						
FINES	FINESS Array B	38.99	337	P	P	18 10 52.0	+0.3
	comp=Z,2.6nm,0.5s,baz=136,slow=9.4,SNR=23						
	comp=Z,2.6nm,0.5s						
HFS	Hagfors	43.13	330	P	P	18 11 24.8	-1.0
	comp=Z,1.0nm,0.4s,baz=132,slow=8.7,SNR=7.0						
	comp=Z,1.0nm,0.4s						
ARCES	ARCESS Array B	45.10	345	P	P	18 11 42.3	+0.7
ARCES				IAmb	IAmb	18 12 14.1	
	comp=Z,14nm,1.4s						
EKA	Eskdalemuir Ar	50.32	320	P	P	18 12 21.8	-0.4
	comp=Z,1.2nm,0.7s,baz=98,slow=7.5,SNR=5.0						
	comp=Z,1.2nm,0.7s						
TORD	Torodi Ar. Bea	53.32	266	P	P	18 12 44.3	-0.9
	comp=Z,1.2nm,0.6s,baz=58,slow=7.8,SNR=7.2						
	comp=Z,1.2nm,0.6s						

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*GCG **02** 18:10:18.6±1.1, 14°.46N×92°.84W, h11^{km}±12^{km}, MD4.4, Presumed earthquake*

*MEX **02** 18:10:18.1±0.6, 14°.30N×93°.02W, h10^{km}, MD4.1, Presumed earthquake*

ISC 02 18:10:14.3±2.4, **14°.29N**±0°.10×**93°.04W**±0°.06, **h8**^{km}±13^{km}, **n15**, σ**1^s.45**/21, **Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THIG		0.97	51	eS	Sg	18 10 46.8	+1.2
PATR	El Naranjo	1.13	44	eP	Pg	18 10 35.9	-0.2
PATR				eS	Sg	18 10 50.0	-0.8
CHUJ	Union Juarez	1.20	48	eP	Pb	18 10 37.0	-0.5
CHUJ				eS	Sb	18 10 52.5	-0.8
PAVE	Pavencul	1.22	43	eP	Pb	18 10 37.5	-0.4
PAVE				eS	Sb	18 10 52.2	-1.7
RTAL	Retalhuleu	1.32	80	eP	Pn	18 10 39.1	0.0
RTAL				eS	Sb	18 10 56.2	-0.4
STG5	El Palmar, Qui	1.64	86	i P	Pn	18 10 40.8	-2.8
STG8	El Palmar, Qui	1.64	84	i P	Pn	18 10 41.0	-2.7
FG16	Alotenango, Sa	2.45	90	i P	Pn	18 10 51.2	-3.7
TGIG		2.47	358	eP	Pn	18 10 55.8	+0.8
TGIG				eS	Sn	18 11 25.6	+0.2
TGIG		2.47	358	i P	Pn	18 10 56.7	+1.7
TGIG				i S	Sn	18 11 25.8	+0.4
APG	El Apazote	2.59	74	i P	Pn	18 10 58.5	+1.7
UXUV	UXUV	3.19	341	eP	Pn	18 11 06.0	+1.2
UXUV				eS	Sn	18 11 46.0	+3.0
CMIG	Matias Romero	3.30	328	eP	Pn	18 11 07.4	+1.1
CMIG				eS	Sn	18 11 44.6	-1.2
PEIG	Puerto Escondi	4.31	294	eP	Pn	18 11 21.3	+1.1
PEIG				eS	Sn	18 12 05.7	-5.1
NEUV	Arroyo Zacate	4.31	322	eP	Pn	18 11 20.4	+0.2
NEUV				eS	Sn	18 12 07.8	-3.0

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*IDC **02** 18:10:45.2±2.6, 3°.01S×130°.39E, h0^{km}, mb3.4/2, mbtmp3.4/3, ML3.1/1, Error ellipse: s-maj=154.9km s-min=30.2km az=71.0*

*DJA **02** 18:10:47.7±0.2, 3°S±2°×13°1E±°, h10^{km}, M3.7/15, mb4.5/2, MLv3.4/15*

ISC 02 18:10:48.6±1.0, **3°.01S**±0°.08×**130°.48E**±0°.07, **h24**^{km}, **n9**, σ**0^s.63**/9, **Seram**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BNDI	Bandanaira	1.61	201	P	Pb	18 11 17.0	-0.6
BNDI				AML	AML		
FAKI	Fak Fak	1.77	87	P	Pn	18 11 18.3	+0.5
FAKI				AML	AML		
SWI	Sorong	2.27	20	P	Pn	18 11 25.0	+0.4
SWI				AML	AML		
NLAI	Namlea	3.38	266	P	Pn	18 11 41.0	+1.1
NLAI				AML	AML		
LBMI	Labuha	3.79	308	P	Pn	18 11 45.6	0.0
TNTI	Ternate	4.88	320	P	Pn	18 12 00.4	-0.1
TNTI				AML	AML		
WRA	Warramunga Arr	17.25	168	P	Pn	18 14 47.5	-0.5
	0.1nm,0.3s,baz=348,slow=11,SNR=2.3						
	0.4nm,0.8s						
WRA				AML	AML		
ASAR	Alice Springs	20.80	171	P	P	18 15 28.6	+0.3
	1.3nm,0.6s,baz=348,slow=10,SNR=30						
	1.3nm,0.6s						
MKAR	Makanchi Array	65.19	326	P	P	18 21 28.1	+0.1
	0.2nm,0.6s,baz=114,slow=6.5,SNR=3.1						
	0.2nm,0.6s						

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*IDC **02** 18:11:31.6±1.4, 28°.13N×56°.79E, h0^{km}, mb3.6/10, mbtmp3.6/10, Error ellipse: s-maj=30.3km s-min=23.9km az=166.0*

*TEH **02** 18:11:35.6, 28°.24N×56°.96E, h22^{km}±26^{km}, ML3.7, Presumed earthquake*

*DSN **02** 18:11:36.2±1.8, 28°.32N×56°.46E, h20^{km}, ML3.4/14, Error ellipse: s-maj=23.0km s-min=11.9km az=55.0*

*OMAN **02** 18:11:38.6±0.7, 27°.97N×57°.02E, h10^{km}, mb3.4/7, ml3.6/18, Error ellipse: s-maj=5.4km s-min=5.0km az=171.0*

ISC 02 18:11:36.6±1.8, **28°.22N**±0°.04×**56°.98E**±0°.05, **h30**^{km}±14^{km}, **n64**, σ**1^s.22**/86, **mb3.5**/9, **Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KHNJ	Kahnooj	0.70	113	Pg	Pb	18 11 49.6	-0.8
IBND	Bandar-abas	0.86	207	Pg	Pn	18 11 52.6	-0.1
GENO	Geno	1.09	221	Pg	Pn	18 11 56.2	+0.3
NGRK	Negar Kerman	1.43	351	Pg	Pn	18 12 01.3	+0.5
KBAM	BAM	1.58	55	Pg	Pn	18 12 03.7	+1.1
CHMN	Cheshme madani	1.70	17	Pg	Pn	18 12 05.7	+1.1
KHGB	Koh Gabri	2.19	349	Pn	Pn	18 12 12.2	+1.0
KRM1	Kerman Provinc	2.29	6	Pn	Pn	18 12 14.1	+1.6
SHME	Shamm	2.29	199	P	Pn	18 12 13.2	+0.9
	SNR=19						
SHME				S	Sn	18 12 40.5	+0.9
SHME	Shamm	2.29	199	eP	Pn	18 12 12.9	+0.5
	SNR=19						
SHME				S	Sn	18 12 40.8	+1.3
BANOM	Banah	2.37	195	P	Pn	18 12 14.4	+1.0
BANOM				S	Sn	18 12 42.4	+0.9
BANOM	Banah	2.37	195	eP	Pn	18 12 13.6	+0.1
	SNR=16						
JASK	Jask - Hormozg	2.48	161	Pn	Pn	18 12 16.4	+1.5
MASF	Masafi	2.94	195	P	Pn	18 12 22.5	+1.3
	SNR=19						
MASF				S	Sn	18 12 55.8	+0.3
UMQ	Umm Al-Quwin	2.94	204	P	Pn	18 12 23.2	+2.0
MSFE	Esma-Masafi	2.95	195	eP	Pn	18 12 22.5	+1.1
	SNR=19						
MDH	Madha	2.98	192	P	Pn	18 12 22.1	+0.3
MDH				S	Sn	18 12 56.4	0.0
MDH	Madha	2.98	192	P	Pn	18 12 22.2	+0.4
UOSS	Minazif	3.34	192	P	Pn	18 12 27.7	+0.9
UOSS				S	Sn	18 13 06.4	+1.0
UOSS	Minazif	3.34	192	P	Pn	18 12 26.4	-0.4
NAZ	Nazwa, Dubai	3.43	200	P	Pn	18 12 30.0	+1.9
	SNR=28						
NAZ				S	Sn	18 13 10.2	+2.5
NAZ	Nazwa, Dubai	3.43	200	i P	Pn	18 12 29.3	+1.3
	SNR=28						
HATD	Hatta, Dubai	3.47	193	P	Pn	18 12 29.8	+1.3
HATD				S	Sn	18 13 10.8	+2.2
HATD	Hatta, Dubai	3.47	193	P	Pn	18 12 30.7	+2.1
IBAF	Bafgh	3.57	340	Pn	Pn	18 12 31.6	+1.5
ASHO	Ashiyiah	3.62	193	P	Pn	18 12 32.0	+1.3
	SNR=26						
ASHO				S	Sn	18 13 13.5	+1.0
ASHO	Ashiyiah	3.62	193	i P	Pn	18 12 31.7	+1.0
	SNR=26						
FAQ	Al Faqa, Dubai	3.68	200	P	Pn	18 12 33.0	+1.5
	SNR=55						
FAQ				S	Sn	18 13 14.5	+0.7
FAQ	Al Faqa, Dubai	3.68	200	i P	Pn	18 12 32.8	+1.3
	SNR=55						
IMEH	Mehriz	3.77	327	Pn	Pn	18 12 34.1	+1.2
ASUD	Al Ashush, Dub	3.88	203	P	Pn	18 12 36.0	+1.9
	SNR=120						
ASUD				S	Sn	18 13 19.6	+0.9
ASUD	Al Ashush, Dub	3.88	203	i P	Pn	18 12 35.9	+1.7
	SNR=120						
AJN	Ajban	4.06	207	P	Pn	18 12 38.3	+1.6
	SNR=14						
AJN				S	Sn	18 13 24.2	+1.0
AJN	Ajban	4.06	207	i P	Pn	18 12 37.8	+1.1
	SNR=14						
CHBR	Chabahar	4.08	129	Pn	Pn	18 12 38.7	+1.7
ALNE	Al Ain	4.29	195	S	Sn	18 13 30.0	+0.9
ALNE	Al Ain	4.29	195	P	Pn	18 12 40.8	+0.8
DOBD	Dorbid, Yazd	4.32	331	Pn	Pn	18 12 41.3	+0.9
HOQ	Hoqain	4.63	176	P	Pn	18 12 45.4	+0.8
HOQ				S	Sn	18 13 36.7	-0.7
BIDO	Bidbid	4.80	167	P	Pn	18 12 47.3	+0.5
BIDO				S	Sn	18 13 41.2	-0.2
ARQ	Araqi	4.88	185	P	Pn	18 12 49.1	+1.1
	SNR=14						
WSAR	Wadi Sarin	5.18	163	P	Pn	18 12 53.4	+1.2
	SNR=11						
WSAR				S	Sn	18 13 50.6	-0.3
MZWR	Madinat Zayed	5.25	213	P	Pn	18 12 54.5	+1.5
MZWR				S	Sn	18 13 52.4	-0.1
KLNJ	Kolanjah	5.45	302	Pn	Pn	18 12 57.0	+0.9
BSY	Bisya	5.46	178	P	Pn	18 12 57.3	+1.4
BSY				S	Sn	18 14 00.2	+2.4
GHWR	Ruwais	5.62	222	P	Pn	18 13 01.7	+3.6
UMZA	Um Al Zommool	5.73	197	P	Pn	18 13 01.1	+1.5
UMZA				S	Sn	18 14 04.9	+0.5
WBK	Wadi Bani Khal	5.87	162	P	Pn	18 13 02.4	+0.8
	SNR=34						
WBK				S	Sn	18 14 08.0	0.0
JMDO	Jabal Madar	5.92	170	P	Pn	18 13 03.6	+1.4
JMDO				S	Sn	18 14 09.8	+0.8
MZR	Muzera	6.08	212	P	Pn	18 13 04.7	+0.2
MZR				S	Sn	18 14 13.4	+0.2
JLN	Jalan Bani Buh	6.43	159	P	Pn	18 13 10.4	+1.0
JLN				S	Sn	18 14 22.0	+0.2
	SNR=7.6						
MHTO	MHTO	7.26	173	P	Pn	18 13 22.1	+1.4
MHTO				S	Sn	18 14 41.6	-0.5
WHFO	Wadi Hawf	10.67	197	P	Pn	18 14 07.8	+0.2
RAYN	Ar Rayn	11.34	248	P	Pn	18 14 11.1	-5.6
AKTO	Aktyubinsk	22.20	2	P	P	18 16 30.8	+0.5
	0.6nm,0.4s,baz=178,slow=8.9,SNR=2.3						
	0.6nm,0.4s						
BRTR	Keskin Array B	22.43	307	P	P	18 16 32.4	-0.7
	0.8nm,0.7s,baz=118,slow=10,SNR=6.9						
	0.8nm,0.7s						
BVAR	Borovoye Array	26.69	18	P	P	18 17 13.6	+0.7
	0.5nm,0.6s,baz=175,slow=8.1,SNR=3.1						
	0.5nm,0.6s						
MKAR	Makanchi Array	27.14	40	P	P	18 17 18.4	+1.4
	0.1nm,0.4s,baz=221,slow=8.6,SNR=4.9						
	0.1nm,0.4s						
ZALV	Zalesovo Beam	32.78	31	P	P	18 18 07.3	+0.5
	0.5nm,0.3s,baz=249,slow=7.6,SNR=2.9						
	0.5nm,0.3s						
FINES	FINESS Array B	39.07	337	P	P	18 19 00.1	-0.5
	0.4nm,0.4s,baz=126,slow=7.1,SNR=7.2						
	0.4nm,0.4s						
HFS	Hagfors	43.22	330	P	P	18 19 33.8	-0.9
	2.1nm,0.7s,baz=131,slow=15,SNR=2.6						
	2.1nm,0.7s						
EKA	Eskdalemuir Ar	50.42	320	P	P	18 20 29.4	-1.7
	0.2nm,0.3s,baz=99,slow=8.0,SNR=3.4						
	0.2nm,0.3s						
TORD	Torodi Ar. Bea	53.43	266	P	P	18 20 52.2	-1.8
	1.2nm,0.5s,baz=64,slow=7.1,SNR=10						
	1.2nm,0.5s						
ASAR	Alice Springs	90.27	117	P	P	18 24 35.2	+0.4
	0.2nm,0.5s,baz=313,slow=4.9,SNR=7.1						
	0.2nm,0.5s						

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*KRSC **02** 18:15:36.6±1.7, 58°.82N×158°.84E, h21^{km}±11^{km}, Ml3.7*

*NERS **02** 18:15:43.4, 58°.99N×158°.32E, h17^{km}*

ISC 02 18:15:36.5±0.9, **58°.84N**±0°.03×**158°.76E**±0°.03, **h10**^{km}, **n15**, σ**1^s.87**/23, **Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALN	Palana	0.67	67	eP	Pg	18 15 48.6	-0.8
PALN				eS	Sg	18 15 58.0	-0.3
TIGL	Tigil	1.08	183	eP	Pg	18 15 57.0	-0.1
TIGL				eS	Sg	18 16 10.8	-0.3
OSSR	Ossora	2.26	78	eP	Pb	18 16 15.4	-1.9
SRDR	Sredinnyy	2.58	168	eP	Pn	18 16 17.8	-0.5
KOZ	Kozyrevsk	2.85	167	eP	Pn	18 16 23.3	+1.3
ESO	Esso	2.92	181	eP	Pn	18 16 23.4	+0.5
ESO				eS	Sn	18 16 59.0	+1.0
BZGR	Bezymyannyi-Gr	3.09	159	eP	Pn	18 16 26.9	+1.6
KMNR	Kamenistaya	3.19	165	eP	Pn	18 16 29.6	+2.9
TUMR	Tumrok	3.64	167	eP	Pn	18 16 36.0	+3.0
GADL	Gadlja	3.91	285	eS	Sn	18 17 03.7	-19
GADL				eSg	Sg	18 17 41.1	-0.9
GADL				Sgmax		18 18 00.2	
	120nm,0.6s						
TLAR	Talaya	3.94	308	eP	Pn	18 16 39.7	+2.7
TLAR				ePg	Pg	18 16 50.2	-1.7
TLAR				Pgmax		18 16 54.9	
	10.0nm,0.7s						
TLAR				eSg	Sg	18 17 40.6	-2.3
TLAR				Sgmax		18 18 06.6	
	70nm,0.6s						
MA2	Magadan	4.18	284	eP	Pb	18 16 46.0	-4.0
MA2				ePg	Pg	18 16 56.5	+0.1
MA2				Pgmax		18 17 00.2	
	10.0nm,0.6s						
MA2				eSg	Sg	18 17 49.0	-1.5
MA2				Sgmax		18 18 01.8	
	20nm,0.7s						
MGD	Magadan 1	4.28	290	eSg	Sg	18 17 50.2	-3.5
MGD				Sgmax		18 18 11.3	
	30nm,0.4s						
SEY	Seymchan	5.16	326	eP	Pn	18 16 56.9	+3.3
SEY				ePg	Pg	18 17 15.9	+0.8
SEY				eSg	Sg	18 18 21.2	-0.7
SEY				Sgmax		18 18 28.7	
	10.0nm,0.6s						
SUUS	Susuman	6.52	312	eSg	Sg	18 19 05.6	+0.2
SUUS				Sgmax		18 19 20.5	
	20nm,0.9s						

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*KRNET **02** 18:16:33.8±0.1, 43°.18N×77°.13E, h25^{km}, mb2.7*

*NNC **02** 18:16:34.2±0.4, 43°.21N×77°.15E, h11^{km}±2^{km}, mb2.7, mpv3.1, Error ellipse: s-maj=5.6km s-min=3.1km az=170.0*

*SOME **02** 18:16:34.0, 43°.18N×77°.12E, h20^{km}*

ISC 02 18:16:34.6±0.8, **43°.19N**±0°.02×**77°.10E**±0°.02, **h17**^{km}±4^{km}, **n45**, σ**1^s.21**/86, **16C-6D**, **Lake Issyk-Kul region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC

MDOK	Medeo 744nm,0.1s	0.05	235	Pg	Pg	18 16 37.9	0.0
MDOK	277nm,0.1s			Lg	Lg	18 16 40.7	
MDOK	Medeo 744nm,0.1s	0.05	235	eP	Pg	18 16 37.9	0.0
MDOK	277nm,0.1s			eS	Sg	18 16 40.7	+0.6
KNDC	Almaty 67nm,0.2s	0.10	285	⇑P	Pg	18 16 38.6	+0.4
KNDC	305nm,0.4s			⇓S	Sg	18 16 41.9	+1.3
AAA	Alma-Ata 429nm,0.1s	0.14	278	P	Pg	18 16 39.2	+0.6
AAA	30nm,0.1s			S	Sg	18 16 42.8	+1.5
AAA	Alma-Ata 429nm,0.1s	0.14	278	eP	Pg	18 16 39.2	+0.6
AAA	30nm,0.1s			eS	Sg	18 16 42.8	+1.5
TNSS	Tian-Shan 69nm,0.1s	0.19	216	P	Pb	18 16 39.4	-0.6
TNSS	40nm,0.1s			S	Sb	18 16 43.0	-0.5
TNSS	Tian-Shan 69nm,0.1s	0.19	216	eP	Pb	18 16 39.4	-0.6
TNSS	40nm,0.1s			eS	Sb	18 16 43.0	-0.5
IZV	Izvestkoviy 19nm,0.1s	0.39	247	P	Pg	18 16 42.5	-0.2
IZV	75nm,0.1s			S	Sg	18 16 48.6	+0.4
IZV	Izvestkoviy 19nm,0.1s	0.39	247	eP	Pg	18 16 42.5	-0.2
IZV	75nm,0.1s			eS	Sg	18 16 48.6	+0.4
ANVS	Anan'yevo	0.58	134	⇓iP	Pb	18 16 44.7	-1.8
ANVS				⇓iS	Sb	18 16 52.5	-2.1
KTBS	Karatobe 16nm,0.1s	0.60	330	P	Pb	18 16 45.2	-1.6
KTBS	62nm,0.1s			S	Sb	18 16 53.3	-1.8
KTBS	Karatobe 16nm,0.1s	0.60	330	eP	Pb	18 16 45.2	-1.6
KTBS	62nm,0.1s			eS	Sb	18 16 53.3	-1.8
KURS	Kuram 2.8nm,0.1s	0.83	69	P	Pb	18 16 49.5	-1.3
KURS	2.6nm,0.1s			S	Sb	18 17 00.4	-1.4
KURS	Kuram 2.8nm,0.1s	0.83	69	eP	Pb	18 16 49.5	-1.3
KURS	2.6nm,0.1s			eS	Sb	18 17 00.4	-1.4
KST	Kastek 1.0nm,0.1s	0.85	260	P	Pb	18 16 50.3	-0.7
KST	11nm,0.1s			S	Sb	18 17 02.1	0.0
KST	Kastek 1.0nm,0.1s	0.85	260	eP	Pb	18 16 50.3	-0.7
KST	11nm,0.1s			eS	Sb	18 17 02.1	0.0
KUU	Kurty 3.9nm,0.1s	0.89	322	P	Pb	18 16 51.1	-0.6
KUU	36nm,0.1s			S	Sb	18 17 03.4	0.0
KUU	Kurty 3.9nm,0.1s	0.89	322	eP	Pb	18 16 51.1	-0.6
KUU	36nm,0.1s			eS	Sb	18 17 03.4	0.0
DGS	Degeres 3.3nm,0.1s	0.97	274	P	Pb	18 16 52.6	-0.5
DGS	28nm,0.2s			S	Sb	18 17 05.9	+0.2
DGS	Degeres 3.3nm,0.1s	0.97	274	eP	Pb	18 16 52.6	-0.5
DGS	28nm,0.2s			eS	Sb	18 17 05.9	+0.2
KDJ	Kajisay	1.06	177	⇑iP	Pb	18 16 53.6	-1.1
KDJ				⇑iS	Sb	18 17 07.7	-0.6
BOOM	Boomskoye usch	1.10	231	⇑iP	Pn	18 16 54.3	-1.2
BOOM				⇑iS	Sb	18 17 09.4	-0.2
TKM2	Tokmak 2	1.13	257	⇑iP	Pn	18 16 55.1	-0.9
TKM2				⇑iS	Sb	18 17 11.0	+0.5
ULHL	Ulahol	1.14	214	⇑iP	Pn	18 16 54.8	-1.2
ULHL				⇑iS	Sb	18 17 10.1	-0.4
ARXS	Arharly 2.9nm,0.1s	1.15	27	P	Pn	18 16 55.4	-0.7
ARXS	17nm,0.1s			S	Sb	18 17 10.6	-0.2
ARXS	Arharly 2.9nm,0.1s	1.15	27	eP	Pn	18 16 55.4	-0.7
ARXS	17nm,0.1s			eS	Sb	18 17 10.6	-0.2
KRBS	Karabastau 3.9nm,0.1s	1.16	296	P	Pn	18 16 55.5	-0.6
KRBS	28nm,0.1s			S	Sb	18 17 10.8	-0.1
KRBS	Karabastau	1.16	296	eP	Pn	18 16 55.5	-0.6
KRBS				eS	Sb	18 17 10.9	-0.1
KRBS	Karabastau 3.9nm,0.1s	1.16	296	eP	Pn	18 16 55.5	-0.6
KRBS	28nm,0.1s			eS	Sb	18 17 10.8	-0.1
KPKS	Kokpek 0.1nm,0.1s	1.19	76	P	Pn	18 16 55.5	-1.1
KPKS	18nm,0.2s			S	Sb	18 17 10.8	-1.2
KPKS	Kokpek 0.1nm,0.1s	1.19	76	eP	Pn	18 16 55.5	-1.1
KPKS	18nm,0.2s			eS	Sb	18 17 10.8	-1.2
BLB	Baldybastay 8.4nm,0.1s	1.35	47	P	Pn	18 16 58.3	-0.5
BLB	22nm,0.1s			S	Sn	18 17 15.8	-0.8
UZB	Uzynbulak 3.4nm,0.1s	1.41	91	P	Pn	18 16 59.2	-0.5
UZB	10nm,0.1s			S	Sn	18 17 17.0	-1.0
UZB	Uzynbulak 3.4nm,0.1s	1.41	91	eP	Pn	18 16 59.2	-0.5
UZB	10nm,0.1s			eS	Sn	18 17 17.0	-1.0
TARG	Taragay, Kyrgy	1.55	160	⇓iP	Pn	18 17 01.9	0.0
TARG				⇓iS	Sb	18 17 22.1	-0.6
SHLS	Shalkode 3.0nm,0.2s	1.73	90	Pg	Pg	18 17 10.6	+2.7
SHLS	11nm,0.3s			Lg	Lg	18 17 36.6	
SHLS	Shalkode 3.0nm,0.2s	1.73	90	eP	Pg	18 17 10.6	+2.7
SHLS	11nm,0.3s			eS	Sg	18 17 36.6	+6.3
CHMS	Chumysh	1.73	264	⇑iP	Pn	18 17 05.1	+1.1
CHMS				⇑iS	Sb	18 17 28.1	+0.6
PDGK	Podgornoye 2.4nm,0.6s	1.75	85	⇑Pn	Pn	18 17 03.5	-0.9
PDGK	3.5nm,0.4s			⇑Sn	Sb	18 17 27.9	-0.3
SGDS	Sogindy 1.2nm,0.1s	1.82	279	P	Pb	18 17 07.7	+0.1
SGDS	7.4nm,0.1s			S	Sb	18 17 31.7	+1.6
KNOS	Konyrlen 1.1nm,0.1s	1.91	51	P	Pb	18 17 08.0	-1.1
KNOS	6.5nm,0.2s			S	Sb	18 17 32.6	-0.1
AAK	Ala-Archa 0.3nm,0.4s	1.99	255	⇓Pn	Pn	18 17 08.4	+0.7
AAK	1.4nm,0.8s			⇑Sn	Sb	18 17 36.4	+1.2
DJR	Jarkent 0.8nm,0.1s	2.26	59	Pg	Pb	18 17 14.0	-1.0
DJR	2.8nm,0.3s			Lg	Lg	18 17 42.8	
DJR	Jarkent 0.8nm,0.1s	2.26	59	eP	Pb	18 17 14.0	-1.0
DJR	2.8nm,0.3s			eS	Sb	18 17 42.8	+0.1
KK31	Karatay Array 0.4nm,0.6s,baz=86,slow=12	4.82	271	⇑Pg	Pb	18 17 57.4	-1.2
KK31	0.5nm,0.5s,baz=85,slow=32,SNR=4.1			⇑Lg	Lg	18 19 06.5	

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*NEIC **02** 18:25:48.7±0.9, 60°.05N±0°.04×153°.35W±0°.08, h139^{km}±4^{km}, ML3.5/158, ML3.3(AEIC), Error ellipse: s-maj=6.4km s-min=5.8km az=200.0*

*AEIC **02** 18:25:50.0±1.0, 60°.03N±0°.04×153°.34W±0°.07, h133^{km}±5^{km}, Error ellipse: s-maj=7.4km s-min=0.8km az=221.0*

ISC 02 18:25:48.1±0.9**, 59°.99N**±0°.04×**153°.30W**±0°.04**, h142**^{km}±6^{km}**, n196, σ0^{s}.83**/171**, Southern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ILSW	Iliamna Southw	0.08	93		Pn	18 26 07.0	-0.4
ILSW	Iliamna Southw	0.08	93		Sn	18 26 21.0	-1.0
ILSW	Iliamna Southw comp=N,400nm,0.9s	0.08	93	IAML		18 26 21.5	
ILSW	comp=E,390nm,0.5s			IAML		18 26 23.4	
ILS	Iliamna Low So	0.12	104		Pn	18 26 07.2	-0.2
ILS					Sn	18 26 21.6	-0.4
IVE	Iliamna Volcan	0.15	78		Pn	18 26 07.3	-0.1
IVE					Sn	18 26 21.6	-0.6
P19K	Oil Pt	0.34	174		Pn	18 26 08.3	+0.4
P19K					Sn	18 26 22.9	+0.1
O20K	Slope Mountain	0.35	74		Pn	18 26 08.3	+0.4
O20K					Sn	18 26 22.9	-0.2
RDSO	Redoubt South	0.55	31		Pn	18 26 08.8	-0.2
O19K	Port Alsworth	0.55	293		Pn	18 26 08.4	-0.3
O19K					Sn	18 26 23.1	-1.4
NCT	North Crescent	0.60	18		Pn	18 26 09.2	0.0
NCT					Sn	18 26 24.4	-1.0
AUF	Augustine Flow	0.61	188		Pn	18 26 09.6	+0.4
AUF					Sn	18 26 25.1	+0.1
AU22	Augustine Moun	0.62	183		Sn	18 26 25.2	0.0
AGU	Augustine-Summ	0.63	186		Pn	18 26 10.0	+0.5
RDT	Redoubt	0.74	37		Pn	18 26 10.2	+0.1
HOM	Homer	0.90	111		Sn	18 26 29.2	+0.3
HOM	Homer	0.90	111		Pn	18 26 12.0	+0.7
HOM	Homer comp=E,3μm,0.5s	0.90	111	IAML		18 26 30.5	
HOM	comp=N,4μm,0.3s			IAML		18 26 31.7	
N19K	Bonanza Creek	1.01	325		Pn	18 26 12.1	-0.3
N19K	comp=E,401nm,0.6s			IAML		18 26 29.5	
N19K	comp=N,314nm,0.6s			IAML		18 26 29.9	
Q19K	Cape Douglas,	1.08	189		Pn	18 26 13.3	+0.5
Q19K	comp=E,527nm,0.9s			IAML		18 26 36.1	
Q19K	comp=N,713nm,0.9s			IAML		18 26 37.3	
CNPM	China Poot	1.14	113		Sn	18 26 32.3	-0.4
CNPM	China Poot	1.14	113		Pn	18 26 14.1	+0.7
CNPM	China Poot comp=E,2μm,0.4s	1.14	113	IAML		18 26 33.3	
CNPM	comp=N,3μm,0.6s			IAML		18 26 33.6	
P18K	Big Mountain,	1.15	239		Pn	18 26 13.4	-0.1
BRLK	Bradley Lake	1.24	99		Pn	18 26 15.0	+0.6
CKL	Chakachamna La	1.30	21		Pn	18 26 15.3	+0.3
BRSE	Bradley Lake S	1.32	100		Sn	18 26 35.6	-0.1
CAPN	Captain Cook N	1.32	53		Pn	18 26 17.2	+2.0
SPWE	Spurr West	1.34	16		Pn	18 26 16.0	+0.5
N18K	Kilae Creek	1.46	299		Sn	18 26 37.0	-1.5
N18K	Kilae Creek	1.46	299		Pn	18 26 16.4	-0.3
N18K	Kilae Creek comp=N,97nm,0.9s	1.46	299	IAML		18 26 37.5	
N18K	comp=E,46nm,0.9s			IAML		18 26 46.1	
Q18K	Katmai Hardscr	1.60	214		Pn	18 26 18.8	+0.5
SLKM	Skilak Lake	1.62	70		Sn	18 26 40.4	-1.2
SLKM	Skilak Lake	1.62	70		Pn	18 26 18.6	+0.1
SLKM	comp=E,764nm,0.4s			IAML		18 26 43.2	
KAHG	Katmai Hook Gl	1.63	204		Pn	18 26 19.4	+0.9
STLK	Strandline Lak	1.68	25		Pn	18 26 19.5	+0.4
STLK	comp=E,93nm,0.7s			IAML		18 26 45.3	
STLK	comp=N,123nm,0.4s			IAML		18 26 47.1	
P17K	Kvichak River	1.78	245		Pn	18 26 21.0	+0.9
P17K	comp=N,316nm,0.8s			IAML		18 26 46.4	
P17K	comp=E,333nm,0.8s			IAML		18 26 47.4	
O22K	Cooper Landing	1.85	73		Pn	18 26 21.4	+0.4
M20K	Styx River	1.90	2		Pn	18 26 22.1	+0.4
KAKN	Katmai Knife C	1.92	209		Pn	18 26 22.6	+0.7
O17K	Koliganek Bris	1.92	265		Pn	18 26 22.5	+0.7
O17K					Sn	18 26 47.2	-0.4
SEW	Seward	1.94	85		Pn	18 26 22.0	+0.1
SEW	comp=N,266nm,0.7s			IAML		18 26 51.5	
SEW	comp=E,218nm,0.3s			IAML		18 26 53.9	
SUA	Susitna One	1.94	39		Pn	18 26 22.6	+0.5
SUA	Susitna One comp=E,455nm,0.4s	1.94	39	IAML		18 26 49.2	
SUA	comp=N,521nm,0.4s			IAML		18 26 51.0	
M18K	Stony River	1.95	322		Pn	18 26 21.7	-0.4
M18K					Sn	18 26 46.6	-1.7
N17K	Nushagak Hills	2.01	287		Sn	18 26 48.5	-0.9
N17K	Nushagak Hills	2.01	287		Pn	18 26 23.2	+0.4
N17K	Nushagak Hills comp=N,37nm,0.8s	2.01	287	IAML		18 26 49.2	
N17K	comp=E,31nm,0.9s			IAML		18 26 49.9	
ACHA	Angle Creek He	2.07	211		Pn	18 26 24.3	+0.7
RC01	Rabbit Creek A	2.08	56		Sn	18 26 49.8	-1.1
RC01	Rabbit Creek A	2.08	56		Pn	18 26 23.6	0.0
MGLS	Mageik Landsli	2.09	208		Pn	18 26 24.9	+1.0
SKT	Skwentna	2.18	23		Pn	18 26 25.1	+0.2
SKT	comp=N,119nm,0.4s			IAML		18 26 55.0	
SKT	comp=E,158nm,0.4s			IAML		18 26 55.0	
Q17K	Contact Creek	2.18	219		Pn	18 26 25.7	+0.6
KDAK	Kodiak Island	2.24	170		Sn	18 26 53.5	-0.9
KDAK	Kodiak Island	2.24	170		Pn	18 26 25.1	-0.6
KDAK	comp=E,277nm,0.3s			IAML		18 26 55.2	
KDAK	comp=E,319nm,0.2s			IAML		18 26 55.2	
KJL	Kejulik	2.27	212		Pn	18 26 27.3	+1.2
L19K	White Mountain	2.33	342		Pn	18 26 26.4	-0.3
O16K	Kokwok River B	2.45	263		Pn	18 26 28.9	+0.7
M17K	Holitna River	2.48	307		Pn	18 26 28.5	0.0
M17K	comp=N,56nm,0.8s			IAML		18 27 20.5	
M17K	comp=E,46nm,0.8s			IAML		18 27 25.3	
P16K	Nushagak River	2.58	250		Pn	18 26 31.2	+1.5
P16K	Nushagak River comp=E,77nm,1.2s	2.58	250	IAML		18 27 04.4	
P16K	comp=N,70nm,0.9s			IAML		18 27 05.0	
PMR	Palmer	2.60	50	P	Pn	18 26 31.4	+1.4
PMR	Palmer comp=N,170nm,0.2s	2.60	50	IAML		18 27 02.3	
PMR	comp=E,127nm,0.3s			IAML		18 27 03.6	
PWL	Port Wells comp=E,318nm,0.2s	2.61	68	IAML		18 27 02.3	
PWL	comp=N,338nm,0.2s			IAML		18 27 02.8	
PLK2	Peulik 2	2.73	216		Pn	18 26 33.1	+1.4
N16K	Nishlik Lake	2.77	283		Pn	18 26 33.2	+1.0
OHAK	Old Harbor	2.77	180	P	Pn	18 26 31.3	-0.9
OHAK	Old Harbor	2.77	180	S	Sn	18 27 04.8	-1.4
OHAK	Old Harbor	2.77	180		Pn	18 26 31.5	-0.7
OHAK	comp=N,55nm,0.4s			IAML		18 27 06.2	
OHAK	comp=E,42nm,0.5s			IAML		18 27 14.1	
GHO	Glory Hole Cre	2.79	48		Pn	18 26 31.7	-0.8
GHO	comp=N,251nm,0.3s			IAML		18 27 05.6	
GHO	comp=E,269nm,0.4s			IAML		18 27 06.9	
CUT	Chulitna	2.83	30		Pn	18 26 33.3	+0.3
R17L	Mt. Peulik Vol	2.85	215		Pn	18 26 34.5	+1.3
P23K	Montague Islan	2.96	87		Pn	18 26 35.7	+1.0
PPLA	Purkeypile	2.97	10		Pn	18 26 35.5	+0.7
PPLA	Purkeypile comp=N,49nm,1.1s	2.97	10	IAML		18 27 13.3	
PPLA	comp=E,76nm,0.6s			IAML		18 27 13.9	
SML	Sawmill	3.04	51		Pn	18 26 34.8	-0.8
SML	Sawmill comp=N,125nm,0.5s	3.04	51	IAML		18 27 11.3	
SML	comp=E,100nm,0.5s			IAML		18 27 20.6	
GLI	Glacier Island	3.20	71		Pn	18 26 36.4	-1.3
GLI	Glacier Island comp=N,159nm,0.2s	3.20	71	IAML		18 27 17.7	
GLI	comp=E,168nm,0.4s			IAML		18 27 17.9	
M23K	Glacier View	3.27	54		Pn	18 26 38.0	-0.6
R16K	Pilot Point	3.29	224		Pn	18 26 40.3	+1.4
R16K	Pilot Point comp=E,180nm,1.1s	3.29	224	IAML		18 27 39.5	
R16K	comp=N,181nm,1.1s			IAML		18 27 41.0	
K20K	Telida	3.40	354		Pn	18 26 40.5	+0.3
N15K	Kwethluk River	3.41	276		Pn	18 26 41.9	+1.5
O15K	Ungalikthiuk R	3.42	259		Pn	18 26 41.8	+1.4
HIN	Hinchinbrook I	3.42	80		Pn	18 26 40.0	-0.5
HIN	Hinchinbrook I comp=N,194nm,0.4s	3.42	80	IAML		18 27 21.0	
SCM	Sheep Creek Mo comp=N,140nm,0.5s	3.46	55	IAML		18 27 22.4	
SCM	comp=E,143nm,0.9s			IAML		18 27 23.1	
SII	Sitkinak Islan	3.47	188	P	Pn	18 26 40.4	-0.8
SII	Sitkinak Islan	3.47	188	S	Sn	18 27 20.8	-1.5
SII	Sitkinak Islan	3.47	188		Pn	18 26 40.5	-0.8
SII	comp=N,121nm,0.7s			IAML		18 27 28.6	
SII	comp=E,124nm,0.7s			IAML		18 27 28.7	
FID	Port Fidalgo	3.47	74		Pn	18 26 39.9	-1.3
FID	Port Fidalgo comp=E,196nm,0.2s	3.47	74	IAML		18 27 21.2	
L16K	Owhat River	3.48	302		Pn	18 26 41.5	+0.2
K17K	Iditarod	3.65	321		Pn	18 26 43.4	0.0
KTH	Kantishna Hill comp=N,61nm,0.5s	3.75	17	IAML		18 27 28.6	
KTH	comp=E,51nm,0.6s			IAML		18 27 29.8	
TRF	Thorofare Moun	3.76	21		Pn	18 26 45.0	-0.1
TRF	comp=E,103nm,0.5s			IAML		18 27 30.4	
TRF	comp=N,100nm,0.5s			IAML		18 27 30.9	
EYAK	Cordova Ski Ar	3.80	78	P	Pn	18 26 46.2	+0.7
EYAK	Cordova Ski Ar	3.80	78		Pn	18 26 45.5	0.0
EYAK	Cordova Ski Ar comp=N,81nm,0.6s	3.80	78	IAML		18 27 32.1	
EYAK	comp=E,51nm,0.4s			IAML		18 27 33.4	
J18K	Innoko River	3.85	337		Pn	18 26 45.9	-0.2
DIV	Divide	3.89	70		Pn	18 26 46.1	-0.5
DIV	Divide comp=N,143nm,0.5s	3.89	70	IAML		18 27 34.1	
DIV	comp=E,63nm,0.3s			IAML		18 27 34.8	
CHUM	Lake Minchumin	3.94	6		Pn	18 26 47.6	+0.5
RND	Reindeer comp=E,62nm,0.3s	4.03	30	IAML		18 27 34.7	
RND	comp=N,51nm,0.5s			IAML		18 27 36.0	
J19K	Poorman	4.17	346		Pn	18 26 50.1	-0.2
DHY	Denali Highway comp=N,108nm,0.5s	4.20	40	IAML		18 27 40.8	
J20K	Nowinta River	4.22	355		Pn	18 26 51.1	+0.2
MCK	McKinley	4.29	27		Pn	18 26 51.9	0.0
MCK	McKinley comp=E,45nm,0.5s	4.29	27	IAML		18 27 41.8	
MCK	comp=N,55nm,0.5s			IAML		18 27 42.8	
GOAT	Goat Mountain	4.31	78		Pn	18 26 51.9	-0.4
L15K	Ungalak Mounta	4.35	296		Pn	18 26 53.7	+1.1
CHIR	Chirikof Islan	4.36	198	P	Pn	18 26 52.0	-0.8
CHIR	Chirikof Islan	4.36	198		Pn	18 26 52.0	-0.8
CHIR	Chirikof Islan comp=N,84nm,0.9s	4.36	198	IAML		18 27 42.5	
CHIR	comp=E,58nm,1.2s			IAML		18 28 10.7	
BPBCA	Veniaminof	4.36	221		Pn	18 26 54.0	+1.1
M14K	Bethel	4.37	284		Pn	18 26 54.0	+1.2
BMRM	Bremner River	4.42	73		Pn	18 26 53.2	-0.3
BMRM	comp=N,82nm,0.5s			IAML		18 27 44.1	
BMRM	comp=E,82nm,0.4s			IAML		18 27 45.5	
KAIM	Kayak Island	4.47	87		Pn	18 26 55.0	+0.8
N25K	Chitina, Valde	4.56	65		Pn	18 26 55.6	0.0
BWN	Browne	4.57	22		Pn	18 26 56.5	+0.9
BWN	Browne comp=E,54nm,0.5s	4.57	22	IAML		18 27 54.9	
BWN	comp=N,56nm,0.8s			IAML		18 28 15.2	
CHGN	Chignik	4.58	218		Pn	18 26 56.1	+0.4
CHGN	comp=N,78nm,0.1s			IAML		18 27 50.7	
J16K	Anvik River	4.80	317		Pn	18 26 58.7	+0.1
I20K	Naaghedeneel comp=N,29nm,1.0s	4.86	354	IAML		18 27 56.8	
I20K	comp=E,38nm,1.1s			IAML		18 28 09.1	
GLB	Gilahina Butte	4.88	69		Pn	18 26 59.6	-0.2
GLB	Gilahina Butte comp=N,40nm,0.4s	4.88	69	IAML		18 27 55.9	
GLB	comp=E,48nm,0.4s			IAML		18 27 56.6	
VRDI	Verde Repeater	5.01	71		Pn	18 27 01.4	-0.2
VRDI	Verde Repeater comp=E,40nm,0.4s	5.01	71	IAML		18 28 00.2	
NEA2	Nenana comp=N,13nm,0.5s	5.03	21	IAML		18 27 56.2	
NEA2	comp=E,16nm,0.5s			IAML		18 28 02.0	
CRQM	Cirque	5.10	77		Pn	18 27 02.7	-0.1
WRH	Wood River Hil comp=N,14nm,0.7s	5.12	26	IAML		18 28 02.5	
WRH	comp=E,22nm,0.4s			IAML		18 28 05.3	
MLY	Manley	5.20	12		Pn	18 27 03.3	-0.6
MLY	comp=E,7.3nm,1.0s			IAML		18 28 19.8	
K24K	Donnelly Dome	5.22	40		Pn	18 27 05.1	+0.8
MCARA	McCarthy VSAT	5.24	70		Pn	18 27 04.9	+0.4
I21K	Tanana comp=E,8.3nm,1.1s	5.25	6	IAML		18 28 41.0	
I21K	comp=N,7.1nm,0.8s			IAML		18 28 44.9	
TGL	Tana Glacier	5.25	77		Pn	18 27 05.2	+0.4
TGL	Tana Glacier comp=E,49nm,0.6s	5.25	77	IAML		18 28 06.3	
CCB	Clear Creek Bu comp=E,29nm,0.4s	5.33	26	IAML		18 28 06.5	
CCB	comp=N,18nm,0.4s			IAML		18 28 06.6	
BARK	Barkley Ridge	5.41	81		Pn	18 27 07.4	+0.6
PTPK	Patty Peak	5.48	73		Pn	18 27 08.2	+0.4
I23K	Minto, Yukon-K	5.49	18		Pn	18 27 07.7	-0.1
KIAG	Kiagna River	5.50	75		Pn	18 27 08.6	+0.5
BALM	Baldy	5.52	74		Pn	18 27 08.5	+0.2
COLA	College	5.52	25	P	Pn	18 27 07.9	-0.2
COLA	College	5.52	25		Pn	18 27 07.7	-0.4
H20K	Anotleneega Mo	5.57	353		Pn	18 27 09.1	+0.2
ILAR	Eielson Array	5.65	29		Pn	18 27 09.2	-0.7
H18K	Honhosa River	5.69	338		Pn	18 27 10.3	-0.1
H21K	Melozitna Rive	5.70	2		Pn	18 27 10.4	-0.1
YAH	Yahtse	5.78	81		Pn	18 27 12.8	+0.9
POKR	Poker Plat Res	5.82	25		Pn	18 27 11.8	-0.3
J25K	Salcha River,	5.93	35		Pn	18 27 13.2	-0.6
H22K	Ishtalitna Cre	5.99	8		Pn	18 27 14.4	-0.1
IMAR	Indian Mountai	6.02	358		Pn	18 27 15.1	+0.2
SDPT	Sand Point	6.04	223	P	Pn	18 27 15.8	+0.7
SDPT	Sand Point	6.04	223		Pn	18 27 15.1	+0.1
H23K	Yukon River	6.11	15		Pn	18 27 15.6	-0.4
PS06	TAPS Pump Stn6	6.11	14		Pn	18 27 16.4	+0.4
CHNA	Chernabura Isl	6.18	216	P	Pn	18 27 17.2	+0.1
BC01	Beaver Creek A	6.29	56		Pn	18 27 18.9	+0.4
YUK2	White River	6.34	68		Pn	18 27 20.2	+0.9
G18K	Tagagawik	6.41	340		Pn	18 27 20.3	+0.2
G19K	Purcell Mounta	6.41	346		Pn	18 27 20.2	+0.1
K27K	Chicken	6.66	48		Pn	18 27 23.7	+0.3

PNL	Peninsula	7.02	87	P	Pn	18 27 30.4	+2.2
PNL	Peninsula	7.02	87		Pn	18 27 29.6	+1.4
I26K	Coal Creek Min	7.09	37		Pn	18 27 28.5	-0.6
H25L	Birch Creek	7.15	25		Pn	18 27 29.8	-0.1
F19K	Shaleruckik Mo	7.16	346		Pn	18 27 30.2	+0.2
F20K	Avaraart Lake	7.17	352		Pn	18 27 30.6	+0.5
F21K	Alatna River	7.26	359		Pn	18 27 32.1	+0.6
O29M	Mount Kennedy	7.36	81		Pn	18 27 34.7	+1.8
COLD	Coldfoot	7.40	9		Pn	18 27 33.6	+0.4
F22K	John River	7.57	3		Pn	18 27 36.5	+1.0
M29M	Somme Creek	7.57	65		Pn	18 27 37.0	+1.2
E19K	Redstone River	7.70	349		Pn	18 27 37.9	+0.7
P29M	Windy Craggy	7.86	86		Pn	18 27 41.8	+2.3
G26K	Porcupine Rive	8.17	27		Pn	18 27 42.8	-0.8
I28M	Miner Creek	8.22	43		Pn	18 27 44.0	-0.3
H27K	Steamboat Moun	8.22	35		Pn	18 27 43.1	-1.1
E23K	Chandalar	8.26	10		Pn	18 27 44.8	-0.1
F25K	Christian Rive	8.35	21		Pn	18 27 45.4	-0.6
BM03	Burnt Mountain	8.39	24		Pn	18 27 45.7	-0.9
E20K	Nigu River	8.40	353		Pn	18 27 47.8	+1.2
BMAR	Burnt Mountain	8.40	24		Pn	18 27 46.0	-0.8
BM01	Burnt Mountain	8.43	24		Pn	18 27 45.7	-1.4
G27K	Doyon Strip	8.60	32		Pn	18 27 48.0	-1.4
F26K	Sheenjek River	8.72	24		Pn	18 27 50.0	-0.9
TOLK	Toolik Lake Re	8.84	9		Pn	18 27 53.4	+0.9
D23K	Nanushuk River	9.09	6		Pn	18 27 56.8	+1.0
SIT	Sitka	9.85	100	P	Pn	18 28 11.1	+5.1
JIS	Juneau Island	9.87	92	P	Pn	18 28 11.4	+5.1
CRAG	Craig	11.68	104	P	P	18 28 36.3	-1.4
ADK	Adak	15.34	248	P	P	18 29 21.2	+2.9

SJA ***02*** *18:34:30.6±0.6, 28°.04S×71°.86W, h11^{km}, ML3.5, MW3.2*
GUC ***02*** *18:34:34.1±0.8, 28°.12S×71°.52W, h27^{km}±4^{km}, ML2.9*
ISC 02 18:34:31.5±2.2, **28°.05S**±0°.03×**71°.65W**±0°.07, **h6**^{km}±14^{km}, **n23**, σ**1^{s}.52**/37, **Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.53	107	*e*P	Pb	18 34 43.9	+0.6
AC04				*i* S	Sg	18 34 49.6	+0.8
AC04				IAML		18 34 49.8	
	comp=N,5µm,0.1s						
LCO	Las Campanas	1.27	139	*e*P	Pn	18 34 56.4	+0.2
LCO				*e*S	Sb	18 35 12.2	-0.6
LCO				IAML		18 35 18.5	
	comp=Z,735nm,0.2s						
LCO	Las Campanas	1.27	139	*e*P	Pn	18 34 55.9	-0.2
LCO				*i* S	Sb	18 35 11.8	-1.1
GO03	Copiapo	1.34	70	*e*P	Pn	18 34 57.5	+0.7
GO03				*i* S	Sn	18 35 15.0	0.0
GO03				IAML		18 35 21.8	
	comp=N,891nm,0.5s						
AC06	Mina Casimiro	1.34	59	*e*P	Pn	18 34 57.6	+0.7
AC06				*i* S	Sb	18 35 15.8	+1.1
AC06				IAML		18 35 21.7	
	comp=N,437nm,0.6s						
AC05	El Transito	1.45	123	*e*P	Pb	18 34 59.4	+0.5
AC05				*e*S	Sb	18 35 18.1	+0.5
AC05	El Transito	1.45	123	*e*P	Pn	18 34 58.8	+0.4
AC05				*i* S	Sn	18 35 16.6	-1.1
AC05				IAML		18 35 20.5	
	comp=E,419nm,0.2s						
AC01	Pan de Azucar	2.12	27	*e*P	Pn	18 35 08.3	+0.8
AC01				*e*S	Sn	18 35 35.7	+1.6
AC01	Pan de Azucar	2.12	27	*e*P	Pn	18 35 08.2	+0.7
AC01				*i* S	Sn	18 35 32.7	-1.5
AC01				IAML		18 35 49.6	
	comp=E,94nm,0.5s						
GO04	Tololo Observa	2.24	161	*e*P	Pb	18 35 11.4	-1.2
GO04				*e*S	Sn	18 35 38.2	+0.6
GO04				IAML		18 35 48.4	
	comp=Z,302nm,0.8s						
GO04	Tololo Observa	2.24	161	*e*P	Pn	18 35 11.1	+1.6
GO04				*i* S	Sn	18 35 37.8	+0.2
AC02	Maricunga	2.55	62	*e*P	Pb	18 35 17.0	-1.0
AC02				*e*S	Sg	18 35 53.0	-0.5
AC02	Maricunga	2.55	62	*e*P	Pb	18 35 16.9	-1.1
AC02				*i* S	Sb	18 35 49.5	-0.3
AROD	Rodeo	2.84	138	*e*P	Pb	18 35 23.4	+0.5
AROD				*e*S	Sn	18 35 54.7	+2.2
CO03	El Pedregal	2.90	163	*e*P	Pn	18 35 20.6	+2.2
CO03				*e*S	Sn	18 35 50.2	-3.5
VCA	Vinchina	3.11	103	*e*P	Pb	18 35 28.0	+0.6
VCA				*e*S	Sb	18 36 05.2	-0.5
CO02	Combarbal	3.19	170	*e*P	Pn	18 35 24.2	+1.8
CO02				*e*S	Sg	18 36 14.8	+0.7
PB14	IPOC Station P	3.59	18	*e*P	Pn	18 35 16.2	-12
TINO	Tinogasta	3.61	91	*e*P	Pb	18 35 33.0	-2.9
RTLS	Leoncito	4.26	152	*e*P	Pb	18 35 42.8	-4.2
ACLC	CERRO LA CRUZ	4.35	109	*e*P	Pn	18 35 42.9	+4.5
CFA	Coronel Fontan	4.62	141	*e*P	Pn	18 35 47.1	+5.2
MT02	Curacav	5.21	175	*e*P	Pn	18 35 52.1	+2.1

UPA ***02*** *18:49:29.8±1.8, 7°.15N×82°.66W, h0^{km}±5^{km}, MW4.6, Presumed earthquake*
RSNC ***02*** *18:49:30.9±0.0, 7°N±8°×8°2W±°, h-1^{km}±8^{km}, M4.5, mB5.0, mb4.7, ML3.9, MLv4.9, Mw(mB)4.3*
UCR ***02*** *18:49:32.9±0.8, 7°.25N×82°.44W, h26^{km}±8^{km}, MW5.0, MB4.6(NEIC), Presumed earthquake*
IDC ***02*** *18:49:33.8±0.7, 7°.53N×82°.28W, h0^{km}, mb4.3/12, mbtmp4.3/16, ML3.1/5, MS3.6/26, Error ellipse: s-maj=26.6km s-min=11.4km az=36.0*
CATAC ***02*** *18:49:36.5±0.8, 8°N±4°×8°3W±°, h4^{km}±4^{km}, M4.9/19, mb5.1/1, mB5.1/1, MLv4.8/19, Mw(mB)4.4/1, Error ellipse: s-maj=9.5km s-min=3.2km az=7.9, confirmed*
GFZ ***02*** *18:49:37.1±0.2, 8°N±3°×8°2W±°, h10^{km}, M4.7/30, mb4.7/30*
NEIC ***02*** *18:49:39.2±1.6, 7°.72N±0°.03×82°.42W±0°.07, h23^{km}±6^{km}, mb4.6/156, Error ellipse: s-maj=10.2km s-min=4.1km az=81.0*
ISC 02 18:49:36.6±0.5, **7°.42N**±0°.04×**82°.36W**±0°.03, **h20**^{km}±4^{km}, **n315**, σ**1^{s}.94**/294, **mb4.6**/108, **MS3.6**/22, **8C-4D, South of Panama**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LIMO3	Limones	0.84	324	*e*P	Pb	18 49 49.0	-3.6
LIMO3				*e*S	Sn	18 50 04.3	-0.8
PTPA	Petro Terminal	0.93	327	*e*P	Pb	18 49 51.8	-2.2
PTPA				*e*S	Sn	18 50 06.0	-1.2
PTPM	Petroterminale	0.94	327	*e*P	Pb	18 49 51.9	-2.3
PTPM				*e*S	Sn	18 50 07.5	+0.1
CHIR3	Chiriqui UPA,	0.97	2	*e*P	Pb	18 49 51.0	-3.7
CHIR3				*e*S	Sn	18 50 13.2	+5.0
LOMA3	Las Lomas, Chi	1.01	358	*e*P	Pb	18 49 53.9	-1.5
LOMA3				*e*S	Sn	18 50 11.8	+2.7
DVD	David	1.01	355	*e*P	Pb	18 49 53.4	-2.2
DVD				*e*S	Sn	18 50 11.7	+2.3
GUAL3	Gualaca, Chiri	1.11	3	*e*P	Pn	18 49 55.5	-1.5
CDITO	Canoas	1.25	336	⇑P	Pn	18 49 56.5	-2.5
CDITO				S	Sn	18 50 11.9	-3.4
PTAR3	Potrerillos Ar	1.27	354	*e*P	Pn	18 49 57.4	-1.9
PTAR3				*e*S	Sb	18 50 19.8	+3.8
BQSF3	Alto Boquete,	1.32	357	*e*P	Pn	18 49 58.9	-1.1
BQSF3				*e*S	Sb	18 50 20.8	+3.6
BQTLY	Boquete Panama	1.33	356	*e*P	Pn	18 49 57.7	-2.5
CLLRA	Cordillera,	1.34	349	*e*P	Pn	18 49 58.0	-2.4
NELY	Ciudad Neily	1.35	335	*e*P	Pn	18 49 57.9	-2.5
NELY				*e*S	Sn	18 50 15.8	-2.0
LNBQ3	Los Naranjos,	1.36	357	*e*P	Pn	18 49 58.6	-2.1
LNBQ3				*e*S	Sb	18 50 21.0	+2.4
PIRO	Carate, Puerto	1.38	315	Pn	Pn	18 49 58.0	-2.7
PIRO	Carate, Puerto	1.38	315	⇓P	Pn	18 49 58.3	-2.4
PIRO	Carate, Puerto	1.38	315	*e*P	Pn	18 49 58.0	-2.7
PIRO	Carate, Puerto	1.38	315	*e*P	Pn	18 49 56.9	-3.8
PIRO				*e*S	Sn	18 50 15.1	-3.2
BRU2	Volcan	1.41	346		Pn	18 49 58.9	-2.3
BRU2	Volcan	1.41	346	⇑P	Pn	18 49 59.0	-2.3
BRU2				S	Sn	18 50 15.4	-3.9
BRU2	Volcan	1.41	346	*e*P	Pn	18 49 58.9	-2.3
BRU2				*e*S	Sb	18 50 19.4	-0.4
BRU2	Volcan	1.41	346	P	Pn	18 49 59.1	-2.2
BRU2	Volcan	1.41	346	⇑*i*P	Pn	18 49 58.9	-2.3
BRU2				*e*S	Sb	18 50 23.2	+3.4
MLIR3	Monte Lirio, C	1.44	341	*e*P	Pn	18 49 59.9	-1.8
CACAO	El Cacao, Vera	1.49	93	P	Pn	18 49 59.9	-2.3
CACAO				S	Sn	18 50 19.0	-2.0
CACAO				AML	AML		
CACAO				AML	AML		
CACAO	El Cacao, Vera	1.49	93	⇑*i*P	Pn	18 49 60.0	-2.2
CACAO				*e*S	Sb	18 50 25.4	+3.4
CHGR2	Aguacate	1.52	8	*e*P	Pn	18 50 01.2	-1.5
CHGR2				*e*S	Sb	18 50 26.0	+2.8
STIA3	Santiago, Vera	1.53	64	*e*P	Pn	18 50 01.7	-1.1
STIA3				*e*S	Sb	18 50 29.3	+6.0
ALCO	Alturas Coton,	1.59	343	*e*P	Pn	18 50 01.4	-2.4
SAFE3	Santa Fe, Vera	1.67	49	⇑*i*P	Pn	18 50 03.3	-1.5
SAFE3				*e*S	Sb	18 50 31.2	+3.8
CALO3	Calobre, Verag	1.75	59	*e*P	Pn	18 50 06.8	+1.0
CALO3				*e*S	Sb	18 50 34.2	+4.6
PESE3	Pese, Herrera	1.80	74	*e*P	Pn	18 50 05.4	-1.0
PESE3				*e*S	Sb	18 50 35.0	+4.0
TOSI3	Tonosi	1.90	90	*e*P	Pn	18 50 07.9	0.0
TOSI3				*e*S	Sb	18 50 35.8	+1.9
CNI2	El Empalme, Bo	2.00	357	*e*P	Pn	18 50 08.8	-0.4
CNI2				*e*S	Sb	18 50 38.0	+1.3
DRK0	Durika	2.03	334	*e*P	Pn	18 49 54.8	-15
DRK0				*e*S	Sn	18 50 21.4	-13
AZU	Azuero	2.10	80	P	Pn	18 50 09.2	-1.4
AZU				S	Sn	18 50 37.6	+1.5
AZU				AML	AML		
AZU				AML	AML		
AZU	Azuero	2.10	80	*e*P	Pn	18 50 09.0	-1.6
AZU	Azuero	2.10	80	*e*P	Pn	18 50 10.5	-0.1
AZU				*e*S	Sb	18 50 41.6	+1.9
OCHAL	Ojochal	2.10	323	P	Pn	18 50 09.3	-1.3
OCHAL				S	Sn	18 50 35.2	-1.0
ACHO3	Achotines, Los	2.17	90	⇓*i*P	Pn	18 50 10.2	-1.3
ACHO3				*e*S	Sb	18 50 42.2	+0.6
RGM0	Gandoca	2.17	353		Pn	18 50 09.4	-2.2
RGM0	Gandoca	2.17	353	S	Sn	18 50 37.9	0.0
RGM0	Gandoca	2.17	353	*e*P	Pn	18 50 11.6	0.0
RGM0				*e*S	Sb	18 50 40.7	-1.0
RGM0	Gandoca	2.17	353	⇑*i*P	Pn	18 50 12.2	+0.6
RGM0				*e*S	Sb	18 50 41.4	-0.3
CEUA	Cerro Uatsi, L	2.26	345	*e*P	Pn	18 50 13.6	+0.7
PNME	Penonome	2.27	62	P	Pn	18 50 12.6	-0.5
PNME				S	Sb	18 50 44.5	-0.2
PNME				AML	AML		
PNME				AML	AML		
PNME	Penonome	2.27	62	⇑*i*P	Pn	18 50 12.6	-0.5
PNME				*e*S	Sb	18 50 47.8	+3.1
PEDA3	Pedasi	2.32	87	*e*P	Pn	18 50 12.1	-1.5
PEDA3				*e*S	Sb	18 50 46.0	+0.1
BUS1	Rivas	2.53	327	*e*P	Pn	18 50 15.5	-1.5
QUEP	Quepos	2.68	318	P	Pn	18 50 17.0	-1.6
LCR2	La Lucha 2	2.82	325		Pn	18 50 19.2	-1.6
LCR2	La Lucha 2	2.82	325	P	Pn	18 50 19.9	-0.9
LCR2	La Lucha 2	2.82	325	*e*P	Pn	18 50 19.5	-1.4
LCR2	La Lucha 2	2.82	325	*e*P	Pn	18 50 18.2	-2.6
ZANG	Zanguenga, Cho	2.90	58	⇓*i*P	Pn	18 50 21.4	-0.3
ZANG				*e*S	Sb	18 51 01.1	-1.6
LCOCO	El Coco	2.90	336	*e*P	Pn	18 50 21.7	0.0
RAFA	San Farael, Vo	2.90	330		Pn	18 50 20.7	-1.3
CVTQ	Turrialba Volc	2.92	332	*e*P	Pn	18 50 21.5	-0.8
VICA	Volcano Irazu	2.94	330	*e*P	Pn	18 50 21.4	-1.3
CHOR3	La Chorrera	2.96	60	*e*P	Pn	18 50 23.6	+1.2
CHOR3				*e*S	Sb	18 51 04.0	-0.4
BCIP	Isla Barro Col	3.04	55	P	Pn	18 50 22.7	-0.8
BCIP				S	Sb	18 51 05.4	-1.3
BCIP				AML	AML		
BCIP				AML	AML		
BCIP	Isla Barro Col	3.04	55	⇑P	Pn	18 50 22.8	-0.8
BCIP				S	Sb	18 51 03.8	-2.9
BCIP	Isla Barro Col	3.04	55	*e*P	Pn	18 50 22.2	-1.4
BCIP	Isla Barro Col	3.04	55	P	Pn	18 50 23.0	-0.6
BCIP	Isla Barro Col	3.04	55	*e*P	Pn	18 50 24.9	+1.3
BCIP				*e*S	Sb	18 51 05.2	-1.5
MLIR	Monte Lirio	3.07	54	*e*P	Pn	18 50 25.4	+1.5
MLIR				*e*S	Sb	18 51 06.4	-1.2
ARRA3	Arraijan, Pana	3.08	60	*e*P	Pn	18 50 24.5	+0.3
ARRA3				*e*S	Sb	18 51 05.9	-2.1
HDC	Heredia	3.10	326		Pn	18 50 23.7	-0.8
HDC	Heredia	3.10	326	*e*P	Pn	18 50 23.8	-0.7
HDC	Heredia	3.10	326	P	Pn	18 50 24.2	-0.3
GAMB1	Gamboa	3.12	57	*e*P	Pn	18 50 25.3	+0.6
FRIJ	El Hiral	3.16	55	*e*P	Pn	18 50 26.6	+1.3
FRIJ				*e*S	Sb	18 51 10.0	-0.2
FLAM	Flamenco Islan	3.16	62	*e*P	Pn	18 50 26.1	+0.9
FLAM				*e*S	Sb	18 51 09.2	-1.1
UPA	Univ. de Panam	3.20	61	P	Pn	18 50 25.4	-0.3
UPA				S	Sb	18 51 12.8	+1.5
UPA				AML	AML		
UPA				AML	AML		
UPA	Univ. de Panam	3.20	61	*e*P	Pn	18 50 26.8	+1.0
UPA				*e*S	Sb	18 51 09.2	-2.1
TRB2	Turrubares	3.23	320	P	Pn	18 50 25.3	-0.9
TCS1	Tacares	3.24	324	P	Pn	18 50 26.7	+0.3
LAFE	Finca La Fe, P	3.46	313	*e*P	Pn	18 50 29.0	-0.4
CHPO	Chepo, Panama	3.65	61	*e*P	Pn	18 50 34.1	+2.1
CHPO				*e*S	Sb	18 51 20.9	-3.5
JTS	Las Juntas de	3.84	318	Pn	Pn	18 50 33.3	-1.2
	9.4nm,0.3s,baz=128,slow=8.0,SNR=18						
JTS				Sn	Sn	18 51 16.7	-2.4
	18nm,0.3s,baz=213,slow=21,SNR=4.4						
	34nm,0.4s						
JTS				AML	AML		
JTS	Las Juntas de	3.84	318		Pn	18 50 32.5	-2.0
JTS	Las Juntas de	3.84	318	P	Pn	18 50 33.8	-0.8
JTS				S	Sb	18 51 31.4	+1.7
JTS	Las Juntas de	3.84	318	P	Pn	18 50 33.2	-1.4
JTS	Las Juntas de	3.84	318	P	Pn	18 50 34.1	-0.5
JTS	Las Juntas de	3.84	318	*e*P	Pn	18 50 30.5	-4.1
COVE	Coope Vega, Sa	3.85	329	P	Pn	18 50 34.7	0.0
CNTA3	Canitas, Panam	3.87	62	*e*P	Pn	18 50 36.4	+1.4
CNTA3				*e*S	Sb	18 51 25.7	-5.0
CMARA	Lajas Hojancha	3.98	311	P	Pn	18 50 35.7	-0.9
CMARA				S	Sn	18 51 20.4	-2.4
CMARA	Lajas Hojancha	3.98	311	*e*P	Pn	18 50 31.6	-5.1
JUD3	Juan Diaz 3	4.16	311		Pn	18 50 37.9	-1.2
TOTI	Torti	4.28	69	*e*P	Pn	18 50 42.1	+1.5
TOTI				*e*S	Sb	18 51 36.6	-5.9
PTAC	Punta Ardita,	4.52	93	P	Pn	18 50 41.3	-2.7
PTAC				S	Sn	18 51 29.9	-6.1
PTAC				AML	AML		
PTAC				AML	AML		
PTAC	Punta Ardita,	4.52	93	*e*P	Pn	18 50 43.5	-0.5
PTAC				*e*S	Sn	18 51 39.7	+3.7
BLUN	Bluefields	4.77	343	P	Pn	18 50 46.9	-0.4
	0.3nm7µm73nm,0.7s						
BLUN				AML	AML		
BLUN				AML	AML		
BLUN	Bluefields	4.77	343	P	Pn	18 50 46.4	-0.9
SOLC	Bahia Solano	5.05	103	P	Pn	18 50 49.3	-2.0
SOLC				S	Sn	18 51 43.5	-5.7
SOLC				AML	AML		
SOLC				AML	AML		
PIZC	Pizarro, Choco	5.54	116	P	Pn	18 50 59.6	+1.7
	78nm,0.6s						
PIZC				S	Sn	18 51 58.9	-2.1
	78nm,0.6s						
PIZC				AML	AML		
APAC	Apartado, Choc	5.75	85	P	Pn	18 51 05.2	+4.4
	2µm209nm,0.8s						
APAC				AML	AML		
BOAB	BOACO BROADBAN	5.97	327		Pn	18 51 01.4	-2.4
BOAB	BOACO BROADBAN	5.97	327	P	Pn	18 51 03.7	-0.1
	comp=Z,235nm,1.0s						
PRVC	Isla de Provid	6.00	9	P	Pn	18 51 03.2	-1.1
	comp=Z,1µmcomp=Z,123nm,1.0s						
PRVC	Isla de Provid	6.00	9	P	Pn	18 51 03.7	-0.6
PRVC				S	Sn	18 52 13.0	+0.5
PRVC	Isla de Provid	6.00	9	*e*P	Pn	18 51 04.1	-0.2
LCBC	Los crdobas,	6.10	76	P	Pn	18 51 06.7	+1.0
	comp=Z,181nm,0.7s						
LCBC				S	Sb	18 52 25.4	-9.5
	comp=Z,181nm,0.7s						
LCBC				AML	AML		
DBBC	Dabeiba	6.11	93	P	Pn	18 51 05.1	-0.8
DBBC				S	Sn	18 52 13.7	-1.7
CBOC	Ciudad Bolivar	6.49	103	P	Pn	18 51 09.7	-1.5
	comp=Z,379nmcomp=Z,40nm,0.9s						
CBOC				S	Sn	18 52 24.4	-0.4
	comp=Z,379nmcomp=Z,40nm,0.9s						
CNGN	Cerro Negro	6.62	320	P	Pn	18 51 12.4	-0.4
	comp=Z,432nm,1.0s						
UREC	San Jos de Ur	6.77	87	P	Pn	18 51 19.2	+4.2
	comp=Z,537nmcomp=Z,57nm,0.8s						
UREC	San Jos de Ur	6.77	87	*e*P	Pn	18 51 14.9	0.0
HELC	Santa Helena	6.89	100	P	Pn	18 51 15.1	-1.8
	comp=Z,573nmcomp=Z,52nm,0.8s						
HELC				S	Sn	18 52 33.8	-1.1
	comp=Z,573nmcomp=Z,52nm,0.8s						
HELC	Santa Helena	6.89	100	*e*P	Pn	18 51 16.7	-0.2
CRIN	San Cristobal	6.99	319	P	Pn	18 51 17.8	-0.2
	comp=Z,135nm,0.9s						
GUY2C	Guyana, Caldas	7.29	107	P	Pn	18 51 22.5	+0.1
	comp=Z,386nmcomp=Z,31nm,0.6s						
POPC	Popayan, Colom	7.45	130	P	Pn	18 51 26.3	+1.8
SJCC	San Jacinto, C	7.51	70	P	Pn	18 51 27.2	+2.1
	comp=Z,3µmcomp=Z,71nm,0.7s						
SJCC				S	Sn	18 52 55.4	+5.6
	comp=Z,3µmcomp=Z,71nm,0.7s						
NORC	Norcasia	7.67	103	P	Pn	18 51 28.6	+1.3
	comp=Z,284nmcomp=Z,22nm,0.7s						
NORC				S	Sn	18 52 54.5	+0.9
	comp=Z,284nmcomp=Z,22nm,0.7s						
ORTC	Ortega, Tolima	7.89	116	P	Pn	18 51 32.1	+1.8
	comp=Z,38nm,1.0s						
PTBC	PUERTO BERRIO,	7.89	96	P	Pn	18 51 31.3	+1.0
	comp=Z,30nm,0.8s						
PTBC				S	Sn	18 53 02.9	+3.8
	comp=Z,30nm,0.8s						
OTAV	Otavalo	8.13	151	P	Pn	18 51 39.3	+5.3
	comp=Z,6.0nm,1.3s						
TGUH	Tegucigalpa,Un	8.17	324	P	Pn	18 51 34.4	+0.1
	comp=Z,36nm,1.0s						
PRAC	Prado	8.30	116	P	Pn	18 51 37.3	+1.4
PRAC				S	Sn	18 53 07.1	-2.0
ROSC	El Rosal	8.39	107	Pn	Pn	18 51 39.2	+1.6
	comp=Z,1.1nm,0.3s,baz=19,slow=23,SNR=5.5						
ROSC				LR	LR	18 54 20.2	
	comp=Z,541nm,19.5s,baz=301,slow=34						
	comp=Z,6.6nm,0.4s						
ROSC				AML	AML		
ROSC	El Rosal	8.39	107		Pn	18 51 41.6	+4.1
SLOR	San Lorenzo -	8.96	154	Pn	Pn	18 51 51.2	+5.8
MTO3	Montecristo	9.77	316	Pn	Pn	18 51 56.1	-0.1
APG	El Apazote	10.95	314	Pn	Pn	18 52 14.8	+2.3
	baz=156,slow=8.7,SNR=5.4						
PAYG	Puerto Ayora	11.28	225	P	Pn	18 52 20.4	+3.7
	comp=Z,72nm,1.4s						
SDV	Santo Domingo	11.70	82	Pn	Pn	18 52 23.4	+0.7
	comp=Z,1.2nm,0.3s,baz=284,slow=7.6,SNR=4.2						
SDV				LR	LR	18 58 10.7	
	comp=Z,427nm,18.1s,baz=262,slow=44						
	comp=Z,3.3nm,0.4s						
SDV				AML	AML		
SDV	Santo Domingo	11.70	82		Pn	18 52 24.3	+1.6
SDV	Santo Domingo	11.70	82	P	Pn	18 52 24.6	+1.9
	comp=Z,187nm,1.3s						
ATAH	Atahualpa	14.99	165	LR	LR	18 58 19.6	
	comp=Z,408nm,18.8s,baz=331,slow=35						
CMIG	Matias Romero	15.55	309	Pn	P	18 53 16.9	-2.2
	comp=Z,0.4nm,0.3s,baz=102,slow=8.7,SNR=9.5						
	comp=Z,3.4nm,0.6s						
CMIG				AML	AML		
SDDR	Presa de Saban	15.74	42		Pn	18 53 17.0	-0.4
SDDR				IAmb	IAmb	18 53 38.3	
	comp=Z,34nm,0.8s						
SDDR	Presa de Saban	15.74	42	P	Pn	18 53 18.2	+0.8
	comp=Z,51nm,0.9s						
AOPR	Arecibo Observ	18.67	53		P	18 53 53.1	-0.5
AOPR				IAmb	IAmb	18 53 55.5	
	comp=Z,32nm,0.7s						
ECPR	Experimental S	18.97	54	P	Pn	18 53 57.1	-0.5
ECPR				IAmb	IAmb	18 53 59.5	
	comp=Z,32nm,0.9s						
SJG	San Juan	19.03	55	LR	LR	19 00 50.6	
	comp=Z,144nm,20.3s,baz=238,slow=36						
HUMP	Col San Antoni	19.29	55	P	P	18 53 59.8	-0.5
HUMP				IAmb	IAmb	18 54 02.8	
	comp=Z,24nm,1.0s						
GRGR	Grenville	20.93	75	P	P	18 54 19.0	+0.7
	comp=Z,74nm,1.1s						
SABA	Saba	21.21	60	P	P	18 54 22.1	+0.8
	comp=Z,86nm,1.1s						
GDHS	Morne Mazeau,	21.97	65	P	P	18 54 30.1	+0.6
	comp=Z,75nm,1.2s						
BIM	Bigot	22.04	70	P	P	18 54 32.6	+2.4
	comp=Z,101nm,1.0s						
MPOM	Morne Pois Mar	22.22	70	P	P	18 54 33.0	+0.9
MPOM	Morne Pois Mar	22.22	70	P	P	18 54 34.1	+2.0
	comp=Z,137nm,1.6s						
BOAV	Boa Vista	22.31	102	P	P	18 54 32.8	-0.3
BOAV				IAmb	IAmb	18 54 36.0	
	comp=Z,15nm,1.0s						
MACA	Manacapuru-AM	24.05	115	P	P	18 54 49.6	-1.1
MACA				IAmb	IAmb	18 55 06.7	
	comp=Z,32nm,1.1s						
HKT	Hockley	25.74	332	P	P	18 55 07.7	+1.8
	comp=Z,13nm,1.4s						
GOGA	Godfrey	25.89	358	P	P	18 55 07.6	+0.4
	comp=Z,9.2nm,0.9s						
Y52A	Lilburn	26.36	357	P	P	18 55 09.1	-2.5
JSC	Jenkinsville	26.75	2	P	P	18 55 09.4	-5.5
LPAZ	La Paz	27.44	149	P	P	18 55 23.5	+1.5
	comp=Z,2.7nm,1.0s,baz=335,slow=9.2,SNR=5.7						
LPAZ				LR	LR	19 07 26.1	
	comp=Z,101nm,18.1s,baz=321,slow=39						
	comp=Z,2.7nm,1.0s						
LPAZ	La Paz	27.44	149	P	P	18 55 23.5	+1.5
LPAZ	La Paz	27.44	149	P	P	18 55 23.6	+1.5
	comp=Z,3.4nm,1.1s						
TKL	Tuckaleechee C	28.14	358	LR	LR	19 06 59.8	
	comp=Z,150nm,18.2s,baz=184,slow=37						
V48A	Smith Brothers	28.48	352	P	P	18 55 28.0	-2.5
V48A				IAmb	IAmb	18 55 30.9	
	comp=Z,5.5nm,0.7s						
PB16	IPOC Station P	28.56	154	P	P	18 55 34.7	+2.7
	comp=Z,8.6nm,1.8s						
UALR	University of	28.73	343	P	P	18 55 29.9	-2.8
UALR				IAmb	IAmb	18 55 33.1	
	comp=Z,6.5nm,0.7s						
MIAR	Mount Ida	28.91	341	P	P	18 55 33.0	-1.3
	comp=Z,6.7nm,2.1s						
WVT	Waverly	29.01	351	P	P	18 55 34.4	-0.8
	comp=Z,6.3nm,0.8s						
SAND	Sanderson	29.11	323	P	P	18 55 35.5	-0.7
WHAR	Wooly Hollow	29.20	343	P	P	18 55 35.6	-1.3
WHAR				IAmb	IAmb	18 55 36.7	
	comp=Z,8.1nm,0.9s						
TXAR	Lajitas Array	29.62	320	P	P	18 55 42.0	+1.1
	comp=Z,0.6nm,0.8s,baz=131,slow=9.0,SNR=7.3						
TXAR				PcP	PcP	18 58 45.7	+0.3
	comp=Z,0.8nm,0.8s,baz=141,slow=4.8,SNR=6.4						
	comp=Z,0.6nm,0.8s						
MDP	Montagnes des	29.62	93	LR	LR	19 08 02.3	
	comp=Z,139nm,18.5s,baz=170,slow=38						
LCAR	Lake Charles	29.63	345	P	P	18 55 39.1	-1.5
LCAR				IAmb	IAmb	18 55 40.4	
	comp=Z,9.3nm,0.8s						
FCAR	Ozark Folk Cen	29.71	344	IAmb	IAmb	18 55 40.9	
	comp=Z,6.9nm,0.9s						
PB11	IPOC Station P	29.76	155	P	P	18 55 46.4	+4.1
	comp=Z,18nm,1.2s						
GO01	Chusmiza	29.88	154	P	P	18 55 46.4	+2.8
	comp=Z,9.5nm,1.3s						
CCM	Cathedral Cave	31.54	347	P	P	18 55 55.9	-1.7
	comp=Z,10nm,1.0s						
MNTX	Cornudas Mount	32.32	321		P	18 56 03.7	-0.8
MNTX	Cornudas Mount	32.32	321	P	P	18 56 05.2	+0.7
	comp=Z,4.0nm,1.7s						
BINY	Binghamton	35.09	8	P	P	18 56 29.4	+0.9
	comp=Z,6.5nm,1.2s						
ALQ	Albuquerque	35.23	324		P	18 56 30.5	+0.5
ALQ	Albuquerque	35.23	324		P	18 56 30.5	+0.5
ANMO	Albuquerque	35.23	324		P	18 56 29.2	-0.8
ANMO	Albuquerque	35.23	324	P	P	18 56 31.2	+1.1
	comp=Z,3.7nm,1.1s						
TASM	ASL Pad, Albuq	35.23	324	P	P	18 56 29.4	-0.6
SDCO	Great Sand Dun	36.76	329		P	18 56 42.6	-0.6
X18A	Snowflake	37.06	321	P	P	18 56 46.1	+0.5
SADO	Sadowa	37.31	4	LR	LR	19 11 42.2	
	comp=Z,84nm,20.7s,baz=163,slow=36						
MVCO	Mesa Verde	38.00	325	IAmb	IAmb	18 56 56.1	
	comp=Z,9.4nm,1.1s						
MVCO	Mesa Verde	38.00	325	P	P	18 56 54.9	+1.3
	comp=Z,8.7nm,1.2s						
PV02	Paradox Valley	38.84	326	IAmb	IAmb	18 57 03.9	
	comp=Z,16nm,1.1s						
PV13	Radium Mtn., P	38.85	326	IAmb	IAmb	18 57 03.8	
	comp=Z,9.8nm,1.0s						
PV05	Paradox Valley	38.95	326	IAmb	IAmb	18 57 03.2	
	comp=Z,8.4nm,1.1s						

PV12	**Saucer Basin,**	**38.95**	**326**	IAmb	IAmb	18 57 03.7	
	comp=Z,12nm,1.0s						
PV07	**Paradox Valley**	**38.95**	**326**	IAmb	IAmb	18 57 04.8	
	comp=Z,11nm,1.4s						
PV18	**Skein Mesa, Pa**	**38.96**	**326**	IAmb	IAmb	18 57 03.5	
	comp=Z,16nm,1.0s						
PV11	**David Mesa, Pa**	**38.98**	**326**	IAmb	IAmb	18 57 04.8	
	comp=Z,17nm,1.3s						
PV16	**Nyswonger Mesa**	**39.01**	**326**	IAmb	IAmb	18 57 03.9	
	comp=Z,9.4nm,1.1s						
PV19	**Morning Glory**	**39.05**	**326**	IAmb	IAmb	18 57 04.0	
	comp=Z,13nm,1.2s						
PV20	**West Nyswonger**	**39.06**	**326**	IAmb	IAmb	18 57 04.8	
	comp=Z,11nm,1.1s						
PV04	**Paradox Valley**	**39.06**	**326**	IAmb	IAmb	18 57 04.7	
	comp=Z,11nm,1.3s						
PV10	**Paradox Valley**	**39.12**	**326**	IAmb	IAmb	18 57 04.9	
	comp=Z,12nm,1.1s						
H03N2	**Juan Fernandez**	**40.76**	**176**	T	T	19 40 42.1	
	baz=356,slow=77,SNR=9.2						
H03N1	**Juan Fernandez**	**40.77**	**176**	T	T	19 40 42.6	
	baz=356,slow=77,SNR=14						
BELC	**Belle Mtn. Jos**	**40.77**	**315**	P	**P**	**18 57 16.6**	**-0.1**
P17A	**Butcher Ranch,**	**40.84**	**326**	IAmb	IAmb	18 57 20.1	
	comp=Z,11nm,1.4s						
BDFB	**Brasilia**	**41.02**	**124**	LR	LR	19 15 10.0	
	comp=Z,146nm,18.0s,baz=222,slow=38						
LMN	**Caledonia Moun**	**41.18**	**19**	P	**P**	**18 57 19.5**	**-0.2**
LMN				IAmb	IAmb	18 57 21.2	
	comp=Z,20nm,1.0s						
TCUT	**Toone Canyon**	**42.35**	**327**	IAmb	IAmb	18 57 30.1	
	comp=Z,20nm,1.2s						
GWY	**Greenwater Val**	**42.43**	**317**	IAmb	IAmb	18 57 37.9	
	comp=Z,10nm,1.2s						
QSM	**Queen of Sheba**	**42.44**	**317**	IAmb	IAmb	18 57 34.5	
	comp=Z,10nm,1.1s						
CCCA	**Chr Cany lake**	**42.54**	**316**	IAmb	IAmb	18 57 35.8	
	comp=Z,23nm,1.1s						
PDAR	**Pinedale Array**	**42.58**	**330**	P	**P**	**18 57 30.6**	**-0.9**
	comp=Z,0.5nm,0.4s,baz=122,slow=7.7,SNR=3.7						
PDAR				PcP	**PcP**	**18 59 24.1**	**+0.4**
	comp=Z,1.5nm,0.8s,baz=120,slow=5.3,SNR=6.8						
	comp=Z,0.5nm,0.4s						
FURC	**Furnace Creek,**	**42.72**	**318**	IAmb	IAmb	18 57 36.4	
	comp=Z,21nm,1.2s						
HWUT	**Hardware Ranch**	**42.77**	**327**	P	**P**	**18 57 33.9**	**+0.8**
	comp=Z,6.5nm,1.1s						
EPLO	**Experimental L**	**43.18**	**349**	IAmb	IAmb	18 57 35.7	
	comp=Z,9.2nm,0.8s						
GRAC	**Grapevine Rang**	**43.35**	**318**	IAmb	IAmb	18 57 41.7	
	comp=Z,23nm,1.2s						
TPH	**Tonopah**	**43.86**	**319**	IAmb	IAmb	18 57 45.8	
	comp=Z,19nm,1.3s						
DSP	**Deep Springs**	**43.96**	**318**	IAmb	IAmb	18 57 46.8	
	comp=Z,8.9nm,1.0s						
ULM	**Lac du Bonnet**	**44.16**	**348**	P	**P**	**18 57 41.5**	**-2.3**
	comp=Z,10.0nm,0.8s,baz=155,slow=8.6,SNR=8.7						
ULM				PcP	**PcP**	**18 59 28.5**	**0.0**
	comp=Z,2.7nm,0.8s,baz=252,slow=3.2,SNR=3.2						
	comp=Z,10.0nm,0.8s						
ULM	**Lac du Bonnet**	**44.16**	**348**	P	**P**	**18 57 41.4**	**-2.5**
ULM				IAmb	IAmb	18 57 42.3	
	comp=Z,12nm,0.9s						
ELK	**Elko**	**44.26**	**324**	P	**P**	**18 57 45.0**	**-0.1**
NV11	**Mina Array Sit**	**44.67**	**319**	IAmb	IAmb	18 57 51.8	
	comp=Z,11nm,1.1s						
NVAR	**Mina Array Bea**	**44.77**	**319**	P	**P**	**18 57 49.7**	**+0.5**
	comp=Z,6.6nm,1.0s,baz=135,slow=7.5,SNR=21						
NVAR				PcP	**PcP**	**18 59 31.3**	**+0.1**
	comp=Z,0.8nm,0.7s,baz=78,slow=3.7,SNR=3.4						
NVAR				LR	LR	19 18 59.9	
	comp=Z,75nm,18.6s,baz=162,slow=40						
	comp=Z,6.6nm,1.0s						
NVAR	**Mina Array Bea**	**44.77**	**319**	P	**P**	**18 57 50.3**	**+1.1**
LHV	**Little Huntoon**	**44.80**	**319**	IAmb	IAmb	18 57 53.1	
	comp=Z,15nm,1.1s						
BMN	**Battle Mountai**	**45.25**	**322**	P	**P**	**18 57 54.3**	**+1.3**
HLID	**Hailey**	**45.65**	**327**	P	**P**	**18 57 57.4**	**+1.4**
	comp=Z,3.6nm,1.0s						
YERR	**Yerington**	**45.68**	**319**	IAmb	IAmb	18 57 59.6	
	comp=Z,11nm,1.1s						
DRLN	**Deer Lake**	**46.65**	**22**	P	**P**	**18 58 03.1**	**-0.5**
BEKR	**Beckworth**	**46.89**	**320**	IAmb	IAmb	18 58 09.3	
	comp=Z,6.8nm,1.0s						
WVOR	**Wild Horse Val**	**47.30**	**323**	P	**P**	**18 58 10.4**	**+1.4**
	comp=Z,17nm,1.3s						
O02D	**Mt. Diablo Mer**	**48.64**	**319**	P	**P**	**18 58 18.6**	**-0.7**
O02D				IAmb	IAmb	18 58 20.8	
	comp=Z,6.3nm,0.9s						
PLCA	**Paso Flores**	**49.13**	**168**	P	**P**	**18 58 23.7**	**+0.7**
	comp=Z,1.7nm,0.8s,baz=302,slow=7.4,SNR=4.3						
	comp=Z,1.7nm,0.8s						
KHMM	**Horse Mountain**	**49.61**	**319**	P	**P**	**18 58 26.2**	**-0.7**
WIFE	**Three Sisters-**	**50.14**	**323**	IAmb	IAmb	18 58 33.4	
	comp=Z,7.1nm,0.9s						
FRB	**Frobisher Bay**	**57.10**	**7**	LR	LR	19 27 11.3	
	comp=Z,49nm,18.3s,baz=178,slow=40						
BBB	**Bella Bella**	**58.19**	**329**	LR	LR	19 29 57.4	
	comp=Z,45nm,19.0s,baz=148,slow=42						
YKA	**Yellowknife Ar**	**59.80**	**343**	P	**P**	**18 59 39.7**	**-0.5**
	comp=Z,4.8nm,0.8s,baz=136,slow=7.8,SNR=9.5						
	comp=Z,4.8nm,0.8s						
DLBC	**Dease Lake**	**62.59**	**334**	LR	LR	19 32 06.0	
	comp=Z,44nm,20.4s,baz=158,slow=41						
SFJD	**Kangerlussuaq**	**63.29**	**13**	LR	LR	19 27 45.7	
	comp=Z,47nm,20.3s,baz=213,slow=36						
MMPY	**Sheldon Lake,**	**65.47**	**337**	IAmb	IAmb	19 00 20.1	
	comp=Z,6.2nm,1.0s						
RES	**Resolute Bay**	**67.61**	**356**	LR	LR	19 29 47.1	
	comp=Z,60nm,19.1s,baz=298,slow=36						
J30M	**Hart River**	**68.44**	**338**	IAmb	IAmb	19 00 39.2	
	comp=Z,5.2nm,1.1s						
EPYK	**Eagle Plains**	**69.49**	**340**	IAmb	IAmb	19 00 45.2	
	comp=Z,8.0nm,1.1s						
INK	**Inuvik**	**69.50**	**342**	P	**P**	**19 00 43.5**	**+0.1**
INK				IAmb	IAmb	19 00 45.0	
	comp=Z,8.7nm,1.1s						
BCAR	**Beaver Creek A**	**69.88**	**335**	P	**P**	**19 00 46.5**	**+0.6**
L27K	**Beaver Creek,**	**69.90**	**335**	P	**P**	**19 00 46.6**	**+0.6**
H29M	**Whitestone**	**70.00**	**339**	IAmb	IAmb	19 00 49.2	
	comp=Z,5.5nm,1.0s						
I28M	**Miner Creek**	**70.20**	**338**	IAmb	IAmb	19 00 51.5	
	comp=Z,7.7nm,1.3s						
SUMG	**Summit**	**70.27**	**13**	P	**P**	**19 00 46.7**	**-1.8**
SUMG	**Summit**	**70.27**	**13**	*i* P	**P**	**19 00 47.6**	**-1.0**
SUMG	**Summit**	**70.27**	**13**	P	**P**	**19 00 46.9**	**-1.7**
	comp=Z,24nm,1.9s						
L26K	**Log Cabin Wild**	**70.52**	**335**	IAmb	IAmb	19 00 51.9	
	comp=Z,3.5nm,0.9s						
E29M	**Blow River**	**70.91**	**341**	IAmb	IAmb	19 00 53.7	
	comp=Z,7.5nm,1.2s						
H27K	**Steamboat Moun**	**71.14**	**338**	P	**P**	**19 00 53.1**	**-0.4**
H27K				IAmb	IAmb	19 00 56.3	
	comp=Z,4.0nm,1.1s						
SCRK	**Sand Creek**	**71.16**	**336**	IAmb	IAmb	19 00 55.8	
	comp=Z,4.2nm,0.8s						
F28M	**Old Crow**	**71.18**	**340**	IAmb	IAmb	19 00 56.8	
	comp=Z,3.7nm,0.8s						
BORG	**Borgarnes**	**71.22**	**23**	LR	LR	19 31 48.9	
	comp=Z,29nm,18.8s,baz=317,slow=36						
I26K	**Coal Creek Min**	**71.36**	**337**	IAmb	IAmb	19 00 56.7	
	comp=Z,8.8nm,1.4s						
E28M	**Babbage River**	**71.54**	**341**	IAmb	IAmb	19 00 56.9	
	comp=Z,4.0nm,0.9s						
NEEM	**North Greenlan**	**71.91**	**7**	*i* P	**P**	**19 00 57.5**	**-0.8**
E27K	**Coleen River**	**72.03**	**340**	IAmb	IAmb	19 01 00.5	
	comp=Z,6.5nm,1.1s						
G26K	**Porcupine Rive**	**72.26**	**339**	IAmb	IAmb	19 01 01.6	
	comp=Z,3.9nm,0.9s						
IL31		**72.62**	**336**	IAmb	IAmb	19 01 03.8	
	comp=Z,5.2nm,0.8s						
ILAR	**Eielson Array**	**72.62**	**336**	P	**P**	**19 01 02.2**	**-0.2**
	comp=Z,3.7nm,0.8s,baz=111,slow=4.4,SNR=34						
ILAR				LR	LR	19 36 53.2	
	comp=Z,22nm,20.0s,baz=86,slow=39						
	comp=Z,3.7nm,0.8s						
ILAR	**Eielson Array**	**72.62**	**336**	P	**P**	**19 01 01.8**	**-0.6**
F26K	**Sheenjek River**	**72.69**	**339**	IAmb	IAmb	19 01 04.7	
	comp=Z,4.5nm,0.9s						
BMAR	**Burnt Mountain**	**72.74**	**339**	P	**P**	**19 01 03.1**	**0.0**
F25K	**Christian Rive**	**73.18**	**339**	IAmb	IAmb	19 01 08.0	
	comp=Z,5.2nm,0.9s						
E25K	**Arctic Village**	**73.35**	**340**	IAmb	IAmb	19 01 09.2	
	comp=Z,4.0nm,0.8s						
H24K	**Noodor Dome**	**73.38**	**337**	IAmb	IAmb	19 01 08.8	
	comp=Z,4.8nm,0.9s						
NEA2	**Nenana**	**73.45**	**336**	IAmb	IAmb	19 01 08.7	
	comp=Z,4.9nm,1.0s						
I23K	**Minto, Yukon-K**	**73.74**	**336**	IAmb	IAmb	19 01 10.3	
	comp=Z,5.9nm,0.9s						
D25K	**Kavik River**	**74.08**	**341**	IAmb	IAmb	19 01 12.7	
	comp=Z,8.1nm,0.9s						
MLY	**Manley**	**74.26**	**336**	IAmb	IAmb	19 01 13.6	
	comp=Z,6.1nm,0.9s						
G23K	**Bananza Creek**	**74.48**	**338**	IAmb	IAmb	19 01 15.7	
	comp=Z,6.0nm,0.9s						
E23K	**Chandalar**	**74.75**	**339**	IAmb	IAmb	19 01 16.6	
	comp=Z,9.8nm,1.2s						
I21K	**Tanana**	**74.81**	**336**	IAmb	IAmb	19 01 16.6	
	comp=Z,6.2nm,1.1s						
IMAR	**Indian Mountai**	**75.72**	**336**	P	**P**	**19 01 19.9**	**-0.6**
G21K	**Allakaket**	**75.76**	**337**	IAmb	IAmb	19 01 22.8	
	comp=Z,9.6nm,1.1s						
F21K	**Alatna River**	**75.93**	**338**	IAmb	IAmb	19 01 24.0	
	comp=Z,7.5nm,0.9s						
ESDC	**Sonseca Array**	**76.38**	**51**	P	**P**	**19 01 25.3**	**+0.4**
	comp=Z,4.1nm,0.8s,baz=273,slow=5.6,SNR=29						
ESDC				LR	LR	19 28 00.6	
	comp=Z,41nm,21.4s,baz=274,slow=30						
	comp=Z,4.1nm,0.8s						
ESDC	**Sonseca Array**	**76.38**	**51**	P	**P**	**19 01 25.2**	**+0.4**
ESBB	**Sonseca Array**	**76.38**	**51**	P	**P**	**19 01 25.2**	**+0.3**
ESBB				IAmb	IAmb	19 01 26.2	
	comp=Z,4.6nm,0.8s						
DBIC	**Dimbokro**	**76.82**	**85**	P	**P**	**19 01 28.2**	**+0.5**
	comp=Z,7.1nm,1.0s,baz=317,slow=6.0,SNR=3.3						
	comp=Z,7.1nm,1.0s						
G18K	**Tagagawik**	**77.67**	**336**	IAmb	IAmb	19 01 34.1	
	comp=Z,7.3nm,1.1s						
EKA	**Eskdalemuir Ar**	**77.79**	**35**	LR	LR	19 29 42.5	
	comp=Z,26nm,21.7s,baz=187,slow=31						
CLF	**Chambon-Foret**	**80.94**	**43**	P	**P**	**19 01 50.2**	**+0.6**
	comp=Z,22nm,1.3s						
TORD	**Torodi Ar. Bea**	**82.58**	**78**	P	**P**	**19 01 59.2**	**+0.2**
	comp=Z,2.2nm,0.9s,baz=261,slow=3.9,SNR=9.2						
	comp=Z,2.2nm,0.9s						
TORD	**Torodi Ar. Bea**	**82.58**	**78**	P	**P**	**19 01 58.4**	**-0.6**
ORIF	**Oris-en-Rattie**	**83.57**	**46**	P	**P**	**19 02 05.2**	**+1.5**
	comp=Z,10nm,1.0s						
GIMEL	**St. Georges /**	**83.73**	**44**	P	**P**	**19 02 04.3**	**-0.1**
	comp=Z,11nm,1.9s						
ECH	**Echery**	**84.20**	**42**	IAmb	IAmb	19 02 07.3	
	comp=Z,4.2nm,1.0s						
SPITS	**Spitsbergen Ar**	**84.58**	**12**	LR	LR	19 40 54.2	
	comp=Z,42nm,20.7s,baz=289,slow=36						
TAM	**Tamanrasset**	**85.22**	**68**	P	**P**	**19 02 14.2**	**+1.6**
	comp=Z,10nm,1.1s						
NOA	**NORSAR Array B**	**85.30**	**29**	LR	LR	19 37 24.0	
	comp=Z,18nm,19.9s,baz=285,slow=34						
TUE	**Stuetta**	**85.85**	**44**	P	**P**	**19 02 16.0**	**+0.7**
TUE	**Stuetta**	**85.85**	**44**	P	**P**	**19 02 16.1**	**+0.8**
	comp=Z,8.0nm,1.2s						
DAVA	**Damuels**	**86.12**	**43**	P	**P**	**19 02 17.5**	**+0.9**
	comp=Z,13nm,2.2s						
DAVOX	**Davos/Dischmat**	**86.18**	**43**	LR	LR	19 33 28.6	
	comp=Z,21nm,21.2s,baz=262,slow=31						
HFS	**Hagfors**	**86.63**	**30**	LR	LR	19 39 04.4	
	comp=Z,26nm,18.6s,baz=285,slow=34						
CLL	**Collm**	**87.61**	**39**	*i* P	**P**	**19 02 23.7**	**+0.2**
	comp=Z,4.0nm,1.1s						
CGRP	**Cima Grappa**	**87.62**	**44**	P	**P**	**19 02 24.0**	**+0.1**
	comp=Z,12nm,1.2s						
KHC	**Kasperske Hory**	**88.32**	**41**	IAmb	IAmb	19 02 28.0	
	comp=Z,3.1nm,1.0s						
GERES	**GERESS Array B**	**88.44**	**41**	P	**P**	**19 02 28.1**	**+0.4**
	comp=Z,1.3nm,0.7s,baz=266,slow=3.5,SNR=9.1						
	comp=Z,1.3nm,0.7s						
VRAC	**Vranov**	**90.23**	**40**	LR	LR	19 36 06.6	
	comp=Z,43nm,21.5s,baz=280,slow=31						
FINES	**FINESS Array B**	**92.19**	**27**	LR	LR	19 40 27.2	
	comp=Z,17nm,20.8s,baz=285,slow=33						
MLR	**Muntele Rosu**	**97.35**	**42**	LR	LR	19 44 55.1	
	comp=Z,17nm,18.4s,baz=4.0,slow=34						
KURBB	**Kurchatov Arra**	**119.87**	**14**	PKP	**PKPdf**	**19 08 24.8**	**-0.8**
	comp=Z,0.7nm,0.8s,baz=347,slow=2.8,SNR=6.8						
MKAR	**Makanchi Array**	**124.32**	**13**	PKP	**PKPdf**	**19 08 33.9**	**-0.5**
	comp=Z,0.5nm,0.8s,baz=0.0,slow=2.5,SNR=5.3						
SONM	**Songino Array**	**124.44**	**353**	PKP	**PKPdf**	**19 08 34.3**	**-0.4**
	comp=Z,1.2nm,0.7s,baz=296,slow=1.5,SNR=7.8						
KSH2	**Kashi**	**129.35**	**22**	PKP	**PKiKP**	**19 08 45.6**	**+0.5**
HHC	**Hu-ho-hao-te**	**130.29**	**346**	*e*P	**PKPdf**	**19 08 45.3**	**-0.8**
NJ2	**Nanjing**	**135.84**	**334**	*e*P	**PKPdf**	**19 08 57.0**	**+0.4**
NJ2				pmax	pmax		
	comp=Z,25nm,0.5s						
ASAR	**Alice Springs**	**141.66**	**241**	PKhKP	PKPpre	19 09 01.4	
	comp=Z,1.1nm,0.7s,baz=106,slow=3.7,SNR=4.2						
ASAR				PKP	**PKPdf**	**19 09 07.9**	**+0.4**
	comp=Z,1.3nm,0.8s,baz=107,slow=2.5,SNR=11						
WRA	**Warramunga Arr**	**142.33**	**247**	PKhKP	PKPpre	19 09 04.4	
	comp=Z,0.8nm,0.8s,baz=102,slow=3.2,SNR=5.4						
WRA				PKP	**PKPdf**	**19 09 09.1**	**+0.3**
	comp=Z,0.7nm,0.8s,baz=98,slow=2.8,SNR=2.8						
GYA	**Guiyang**	**145.20**	**346**	⇓P	**PKPdf**	**19 09 13.7**	**-0.1**
GYA				pmax	pmax		
	comp=Z,33nm,1.0s						
PZH	**PanZhiHua**	**146.05**	**353**	PKPbc	**PKPbc**	**19 09 15.8**	**-0.2**
KMI2	**Kunming**	**147.25**	**351**	PKPbc	**PKPdf**	**19 09 13.5**	**-4.0**
H01W1	**Cape Leeuwin H**	**148.72**	**207**	T	T	21 56 19.3	
	baz=144,slow=76,SNR=113						
H01W2	**Cape Leeuwin H**	**148.73**	**207**	T	T	21 56 19.6	
	baz=144,slow=76,SNR=94						
H01W3	**Cape Leeuwin H**	**148.74**	**207**	T	T	21 56 20.5	
	baz=144,slow=76,SNR=102						
CMAR	**Chiang Mai Arr**	**154.25**	**357**	PKP	**PKPdf**	**19 09 28.2**	**+0.1**
	comp=Z,0.5nm,0.4s,baz=298,slow=2.5,SNR=8.1						
CMAR				PKPbc	**pPKPdf**	**19 09 36.3**	**+1.8**
	comp=Z,2.4nm,0.8s,baz=335,slow=2.6,SNR=19						

*KRSC **02** 18:55:37.4±2.0, 58°.93N×158°.49E, h21^{km}±13^{km}, Ml4.1*
*NERS **02** 18:55:39.7, 58°.64N×158°.48E, h5^{km}*
ISC 02 18:55:38.5±0.9**, 58°.88N**±0°.04×**158°.63E**±0°.03**, h10**^{km}**, n14,**
σ**1^{s}.62**/21**, Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALN	**Palana**	**0.72**	**73**	*e*P	**Pg**	**18 55 52.3**	**-0.1**
PALN				*e*S	**Sg**	**18 56 01.6**	**-0.3**
TIGL	**Tigil**	**1.12**	**179**	*e*P	**Pg**	**18 56 00.3**	**+0.3**
TIGL				*e*S	**Sg**	**18 56 15.4**	**+0.8**
OSSR	**Ossora**	**2.32**	**79**	*e*P	**Pn**	**18 56 18.0**	**+1.3**
OSSR				*e*S	**Sb**	**18 56 48.5**	**-0.5**
SRDR	**Sredinnyy**	**2.64**	**167**	*e*P	**Pn**	**18 56 21.7**	**+0.6**
KOZ	**Kozyrevsk**	**2.91**	**166**	*e*P	**Pn**	**18 56 25.8**	**+1.0**
ESO	**Esso**	**2.96**	**179**	*e*P	**Pn**	**18 56 26.6**	**+1.0**
ESO				*e*S	**Sn**	**18 57 02.0**	**+0.8**
BZGR	**Bezymyannyi-Gr**	**3.15**	**158**	*e*P	**Pn**	**18 56 29.9**	**+1.7**
KMNR	**Kamenistaya**	**3.25**	**164**	*e*P	**Pn**	**18 56 31.2**	**+1.6**
GADL	**Gadlja**	**3.83**	**285**	*e*Pg	**Pg**	**18 56 50.8**	**-1.1**
GADL				*e*Sg	**Sg**	**18 57 41.9**	**+0.4**
GADL				Sgmax		18 58 16.4	
	260nm,0.9s						
TLAR	**Talaya**	**3.86**	**308**	*e*P	**Pb**	**18 56 42.7**	**-3.9**
TLAR				*e*Pg	**Pg**	**18 56 53.5**	**+1.2**
TLAR				Pgmax		18 57 04.6	
	30nm,0.4s						
TLAR				*e*Sg	**Sg**	**18 57 45.0**	**+2.8**
TLAR				Sgmax		18 58 02.3	
	100nm,0.7s						
MA2	**Magadan**	**4.10**	**283**	*e*Pg	**Pg**	**18 56 55.5**	**-1.4**
MA2				Pgmax		18 57 03.2	
	10.0nm,0.6s						
MA2				*e*Sg	**Sg**	**18 57 50.6**	**+0.6**
MA2				Sgmax		18 58 07.9	
	50nm,1.0s						
MGD	**Magadan 1**	**4.20**	**290**	*e*Sg	**Sg**	**18 57 55.3**	**+2.2**
MGD				Sgmax		18 58 07.5	
	40nm,0.6s						
SEY	**Seymchan**	**5.08**	**326**	*e*P	Pb	18 57 00.1	-7.2
SEY				*e*Pg	**Pg**	**18 57 17.4**	**+1.7**
SEY				Pgmax		18 57 23.7	
	10.0nm,0.6s						
SEY				*e*Sg	Sg	18 58 27.0	+5.6
SEY				Sgmax		18 58 44.4	
	20nm,0.9s						
SUUS	**Susuman**	**6.43**	**312**	*e*P	Pg	18 57 46.4	+4.8
SUUS				*e*Sg	Sg	18 59 11.4	+6.6
SUUS				Sgmax		18 59 23.5	
	40nm,1.0s						

*SJA **02** 19:06:43.9±0.6, 27°.93S×71°.94W, h35^{km}, ML3.3, MW3.5*
ISC 02 19:06:37.9±2.1**, 27°.96S**±0°.05×**71°.75W**±0°.09**, h9**^{km}±12^{km}**,**
n12, σ**1^{s}.92**/22**, 1D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	**Llanos de Chal**	**0.65**	**113**	⇓*i*P	**Pn**	**19 06 54.0**	**+0.7**
AC04				*e*S	**Sg**	**19 06 58.7**	**-0.3**
AC04				IAML		19 06 59.5	
	comp=E,564nm,0.3s						
GO03	**Copiapo**	**1.39**	**75**	*e*P	**Pg**	**19 07 06.8**	**+2.1**
GO03				*e*S	**Sg**	**19 07 23.5**	**+0.7**
GO03				IAML		19 07 29.0	
	comp=N,156nm,0.4s						
LCO	**Las Campanas**	**1.40**	**139**	*i* P	**Pg**	**19 07 07.2**	**+2.4**
LCO				*e*S	**Sb**	**19 07 21.9**	**-0.7**
AC05	**El Transito**	**1.57**	**124**	*e*P	**Pg**	**19 07 09.4**	**+1.4**
AC05				*e*S	**Sn**	**19 07 26.4**	**-0.3**
AC05				IAML		19 07 30.5	
	comp=E,172nm,0.7s						
AC01	**Pan de Azucar**	**2.08**	**30**	*e*P	**Pg**	**19 07 17.9**	**+0.2**
AC01				IAML		19 07 54.1	
	comp=E,36nm,0.3s						
GO04	**Tololo Observa**	**2.36**	**160**	*e*P	**Pg**	**19 07 22.6**	**-0.6**
AC02	**Maricunga**	**2.59**	**65**	*e*P	**Pg**	**19 07 28.2**	**+0.7**
AC02				*e*S	**Sg**	**19 08 01.3**	**+0.2**
VCA	**Vinchina**	**3.22**	**105**	*e*P	**Pg**	**19 07 39.9**	**+0.2**
VCA				*e*S	**Sg**	**19 08 19.5**	**-2.0**
ACCO	**Cerro Coronel**	**3.52**	**139**	*e*P	**Pb**	**19 07 42.2**	**+1.6**
ACCO				*e*S	**Sb**	**19 08 24.5**	**+0.9**
TINO	**Tinogasta**	**3.70**	**93**	*e*P	**Pb**	**19 07 43.1**	**-0.5**
TINO				*e*S	**Sb**	**19 08 29.0**	**+0.4**
ACLC	**CERRO LA CRUZ**	**4.46**	**110**	*e*P	**Pb**	**19 07 53.6**	**-3.0**
ACLC				*e*S	**Sb**	**19 08 48.1**	**-2.5**
AVFE	**Valle Fertil**	**4.62**	**127**	*e*P	**Pb**	**19 07 54.9**	**-4.3**
AVFE				*e*S	**Sn**	**19 08 45.0**	**+3.2**
AVFE				IAML		19 08 57.0	
	comp=Z,21nm,0.7s						

*IDC **02** 19:27:40.6±1.1, 14°.73S×177°.76W, h0^{km}, mb3.8/5,*
mbtmp3.8/6, ML4.7/1, MS3.4/3, Error ellipse: s-maj=57.9km
s-min=23.3km az=151.0
ISC 02 19:27:42.8±1.1**, 14°.7S**±0°.3×**177°.8W**±0°.2**, h13**^{km}**, n14,**
σ**0^{s}.95**/6**, mb4.0**/5**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**5.05**	**232**	Pn	**Pn**	**19 28 59.1**	**+0.8**
	1.0nm,0.3s,baz=52,slow=20,SNR=4.1						
MSVF				LR	LR	19 30 53.6	
	comp=Z,208nm,21.1s,baz=41,slow=38						
	9.5nm,0.9s						
MSVF				AML	AML		
AFI	**Afiamalu**	**5.84**	**83**	LR	LR	19 30 48.1	
	comp=Z,123nm,21.7s,baz=96,slow=32						
H11S2	**WAKE ISLAND Hy**	**36.35**	**335**	T	T	20 13 05.4	
	baz=154,slow=76,SNR=17						
H11S3	**WAKE ISLAND Hy**	**36.36**	**335**	T	T	20 13 08.2	
	baz=154,slow=76,SNR=13						
H11S1	**WAKE ISLAND Hy**	**36.36**	**335**	T	T	20 13 12.1	
	baz=154,slow=76,SNR=19						
H11N3	**WAKE ISLAND Hy**	**37.37**	**336**	T	T	20 14 22.2	
	baz=157						
H11N1	**WAKE ISLAND Hy**	**37.37**	**336**	T	T	20 14 22.1	
	baz=157,slow=74,SNR=7.7						
H11N2	**WAKE ISLAND Hy**	**37.38**	**336**	T	T	20 14 24.1	
	baz=157,slow=74,SNR=4.8						
WRA	**Warramunga Arr**	**45.92**	**256**	P	**P**	**19 36 04.8**	**-0.9**
	0.3nm,0.3s,baz=93,slow=7.4,SNR=20						
	0.3nm,0.3s						
ASAR	**Alice Springs**	**46.35**	**251**	P	**P**	**19 36 08.8**	**-0.2**
	1.6nm,0.8s,baz=83,slow=8.5,SNR=14						
	1.6nm,0.8s						
JHJ	**Hachijo jima 2**	**62.47**	**320**	LR	LR	19 59 48.3	
	comp=Z,185nm,19.8s,baz=108,slow=31						
QSPA	**South Pole Qui**	**75.36**	**180**	P	**P**	**19 39 25.2**	**-0.7**
	0.5nm,0.7s,baz=73,slow=10,SNR=1.4						
	0.5nm,0.7s						
TXAR	**Lajitas Array**	**83.75**	**58**	P	**P**	**19 40 13.0**	**+0.8**
	1.2nm,1.0s,baz=240,slow=5.6,SNR=6.6						
	1.2nm,1.0s						
PDAR	**Pinedale Array**	**84.59**	**43**	P	**P**	**19 40 16.1**	**-0.2**
	0.9nm,0.8s,baz=230,slow=3.9,SNR=5.8						
	0.9nm,0.8s						

*IDC **02** 19:44:48.2±2.2, 3°.65S×128°.51E, h0^{km}, mb3.5/2,*
mbtmp3.4/3, ML3.0/1, Error ellipse: s-maj=143.7km
s-min=29.1km az=68.0
*DJA **02** 19:44:48.1±0.4, 3°S±3°×13°0E±°, h10^{km}±3^{km}, M3.2/12,*
MLv3.2/12
ISC 02 19:44:47.3±1.1**, 3°.02S**±0°.07×**130°.47E**±0°.07**, h10**^{km}**, n9,**
σ**0^{s}.69**/9**, Seram**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BNDI	**Bandanaira**	**1.59**	**201**	P	**Pn**	**19 45 15.9**	**+0.3**
BNDI				AML	AML		
FAKI	**Fak Fak**	**1.78**	**87**	P	**Pn**	**19 45 18.2**	**0.0**
FAKI				AML	AML		
SWI	**Sorong**	**2.29**	**20**	P	**Pn**	**19 45 25.9**	**+0.8**
NLAI	**Namlea**	**3.37**	**266**	P	**Pn**	**19 45 40.2**	**+0.2**
NLAI				AML	AML		
LBMI	**Labuha**	**3.80**	**309**	P	**Pn**	**19 45 46.4**	**+0.5**
MWPI	**Manokwari, Pap**	**4.13**	**60**	P	**Pn**	**19 45 50.7**	**+0.2**
WRA	**Warramunga Arr**	**17.24**	**168**	P	**Pn**	**19 48 48.8**	**+0.5**
	0.1nm,0.3s,baz=340,slow=12,SNR=5.2						
	0.2nm,0.6s						
WRA				AML	AML		
ASAR	**Alice Springs**	**20.79**	**171**	P	**P**	**19 49 29.2**	**+0.4**
	1.2nm,0.8s,baz=349,slow=10,SNR=13						
	1.2nm,0.8s						
MKAR	**Makanchi Array**	**65.20**	**326**	P	**P**	**19 55 27.7**	**-1.2**
	1.1nm,1.1s,baz=125,slow=7.6,SNR=4.1						
	1.1nm,1.1s						

*WEL **02** 19:44:59.9±0.6, 37°S±4°×17°7E±°, h5^{km}, M4.5/22,*
ML4.4/22, MLv4.5/22, Error ellipse: s-maj=5.7km
s-min=2.9km az=24.6, confirmed
*IDC **02** 19:44:59.5±1.0, 36°.78S×177°.19E, h0^{km}, mb4.3/9,*
mbtmp4.3/10, ML3.2/1, MS3.8/17, Error ellipse:
s-maj=27.3km s-min=15.9km az=70.0
*NOU **02** 19:44:59.7, 36°.82S×177°.15E, h7^{km}, MLv4.6/10, Off E.*
Coast of N. Island, N.Z.
*WEL **02** 19:45:00.1, 36°.83S×177°.11E, ML4.4, Mw4.5, Moment*
Tensor Solution. Moment tensor: Scale 10^{15}Nm;
M$_{rr}$2.35; M$_{\theta\theta}$-0.14; M$_{\phi\phi}$6.56; M$_{r\theta}$-1.56; M$_{\theta\phi}$4.03; M$_{\phi r}$4.00;
Fault plane solution: M$_0$7.68000×10^{15} NP1:
ϕ_s162.00000°, δ86.00000°, λ-140.00000°. NP2:
ϕ_s69.00000°, δ51.00000°, λ-5.00000°. Principal axes: T
6.8493, Plg24.0000°, Azm288.0000°; N -0.1157,
Plg50.0000°, Azm166.0000°; P -6.7336, Plg30.0000°,
Azm33.0000°; Stations used: BKZ GRZ HAZ HIZ KNZ
MKAZ MWZ MXZ OTVZ PUZ RATZ RTZ OBLIQUE
FAULTING
*NEIC **02** 19:45:02.1±1.8, 37°.0S±0°.1×177°.06E±0°.06, h10^{km}±1^{km},*
mb4.4/11 Error ellipse: s-maj=18.0km s-min=7.4km
az=6.0
*GCMT **02** 19:45:06.1±0.5, 36°.90S±0°.02×177°.16E±0°.03, h21^{km}±1^{km},*
MW4.8/77, Moment Tensor Solution. s11,c11; s77,c90;
Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-0.97±.17;
M$_{\theta\theta}$-0.48±.09; M$_{\phi\phi}$1.45±.13; M$_{r\theta}$0.39±.16; M$_{\theta\phi}$1.35±.07;
M$_{\phi r}$-0.07±.18; Best double couple: M$_0$1.80700×10^{16}
NP1:ϕ_s348.00000°, δ63.00000°, λ-153.00000°. NP2:
ϕ_s245.00000°, δ66.00000°, λ-30.00000°. Principal axes:
T 2.1490, Plg2.0000°, Azm297.0000°; N -0.6860,
Plg52.0000°, Azm30.0000°; P -1.4640, Plg38.0000°,
Azm206.0000°; nsta1 refers to body waves, cutoff=40s.
nsta2 refers to surface waves, cutoff=50s. Triangular
moment-rate function
ISC 02 19:44:59.6±1.5**, 36°.81S**±0°.05×**177°.16E**±0°.03**, h3**^{km}±9^{km}**,**
n202, σ**1^{s}.10**/195**, mb4.4**/14**, MS3.7**/16**, 1D, Off east coast**
of North Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WSRZ	**White Island S**	**0.71**	**179**	P	**Pb**	**19 45 14.9**	**+0.4**
WSRZ				AML	AML		
WSRZ				AML	AML		
WIZ	**White Island**	**0.71**	**178**	P	**Pb**	**19 45 14.3**	**-0.4**
WIZ				S	**Sb**	**19 45 23.9**	**-1.0**
WIZ				AML	AML		

WIZ				AML	AML		
MYRZ	**Mayor Island**	**0.87**	**237**	P	**Pg**	**19 45 16.4**	**+0.1**
MYRZ				S	**Sg**	**19 45 27.9**	**+0.4**
MYRZ				AML	AML		
MYRZ				AML	AML		
WHRZ	**Whale Island**	**1.05**	**188**	P	**Pb**	**19 45 20.3**	**-0.2**
WHRZ				AML	AML		
WHRZ				AML	AML		
HAZ	**Te Kaha**	**1.07**	**152**	P	**Pg**	**19 45 19.3**	**-0.8**
HAZ				AML	AML		
HAZ				AML	AML		
TGRZ	**Tauranga**	**1.16**	**218**	P	**Pg**	**19 45 20.6**	**-1.3**
TGRZ				AML	AML		
TGRZ				AML	AML		
MXZ	**Matakaoa Point**	**1.19**	**130**	P	**Pg**	**19 45 21.7**	**-0.7**
MXZ	**Matakaoa Point**	**1.19**	**130**	S	**Sb**	**19 45 38.1**	**-0.4**
MXZ	**Matakaoa Point**	**1.19**	**130**		**Pg**	**19 45 21.3**	**-1.0**
MXZ	**Matakaoa Point**	**1.19**	**130**	P	**Pg**	**19 45 21.6**	**-0.7**
MXZ				S	**Sg**	**19 45 37.8**	**0.0**
MXZ				AML	AML		
MXZ				AML	AML		
RUGZ	**Raukumara Rang**	**1.23**	**160**	P	**Pg**	**19 45 22.2**	**-0.9**
RUGZ				AML	AML		
RUGZ				AML	AML		
MARZ	**Manawahe**	**1.23**	**198**	P	**Pg**	**19 45 20.6**	**-2.6**
MARZ				AML	AML		
MARZ				AML	AML		
PKGZ	**Pakihiroa**	**1.28**	**145**	P	**Pn**	**19 45 23.8**	**-0.6**
PKGZ				AML	AML		
PKGZ				AML	AML		
EDRZ	**Edgecumbe**	**1.33**	**194**	P	**Pg**	**19 45 25.5**	**+0.3**
EDRZ				AML	AML		
EDRZ				AML	AML		
LIRZ	**Lichensteins R**	**1.34**	**207**	P	**Pn**	**19 45 25.0**	**-0.2**
LIRZ				AML	AML		
LIRZ				AML	AML		
KARZ	**Kaharoa**	**1.41**	**211**	P	**Pn**	**19 45 25.7**	**-0.5**
KARZ				AML	AML		
KARZ				AML	AML		
KMRZ	**Kaimai**	**1.42**	**223**	P	**Pn**	**19 45 25.6**	**-0.7**
KMRZ				S	**Sb**	**19 45 44.1**	**-1.0**
KMRZ				AML	AML		
KMRZ				AML	AML		
WMGZ	**Waiomatatini S**	**1.42**	**135**	P	**Pb**	**19 45 26.8**	**0.0**
WMGZ				S	**Sg**	**19 45 46.6**	**+1.3**
WMGZ				AML	AML		
WMGZ				AML	AML		
MKRZ	**Makatiti**	**1.43**	**202**	P	**Pn**	**19 45 24.2**	**-2.4**
URZ	**Urewera**	**1.45**	**181**	Pn	**Pn**	**19 45 25.4**	**-1.2**
	48nm,0.3s,baz=317,slow=4.2,SNR=83						
URZ				Sn	**Sg**	**19 45 47.4**	**+1.3**
	258nm,0.3s,baz=278,slow=6.1,SNR=10						
URZ	**Urewera**	**1.45**	**181**	P	**Pn**	**19 45 25.0**	**-1.7**
URZ	**Urewera**	**1.45**	**181**	P	**Pn**	**19 45 25.0**	**-1.7**
URZ				AML	AML		
URZ				AML	AML		
GRZ	**Great Barrier**	**1.48**	**292**	P	**Pn**	**19 45 26.5**	**-0.6**
GRZ				S	**Sn**	**19 45 44.6**	**-2.3**
NGRZ	**Ngongotaha**	**1.50**	**211**	P	**Pg**	**19 45 29.2**	**+0.8**
TARZ	**Mount Tarawera**	**1.51**	**200**	P	**Pb**	**19 45 28.0**	**-0.3**
TARZ				AML	AML		
TARZ				AML	AML		
TWGZ	**Tauwhareparae**	**1.51**	**155**	P	**Pg**	**19 45 28.7**	**+0.1**
TWGZ				AML	AML		
TWGZ				AML	AML		
PUZ	**Puketiti**	**1.53**	**145**	P	**Pg**	**19 45 29.2**	**+0.2**
PUZ				AML	AML		
PUZ				AML	AML		
MWZ	**Matawai**	**1.55**	**169**	P	**Pn**	**19 45 26.6**	**-1.6**
MWZ				AML	AML		
MWZ				AML	AML		
UTU	**Utuhina**	**1.56**	**209**	P	**Pg**	**19 45 30.3**	**+0.7**
UTU				AML	AML		
UTU				AML	AML		
HLRZ	**Highlands Stat**	**1.57**	**204**	P	**Pg**	**19 45 30.5**	**+0.7**
TOZ	**Tahuroa Road**	**1.61**	**235**	Pn	**Pn**	**19 45 26.9**	**-2.0**
TOZ	**Tahuroa Road**	**1.61**	**235**	P	**Pn**	**19 45 27.2**	**-1.7**
TOZ				S	**Sn**	**19 45 47.8**	**-2.3**
WIAZ	**Waiheke Island**	**1.62**	**270**	P	**Pn**	**19 45 27.8**	**-1.3**
WIAZ				S	**Sn**	**19 45 49.7**	**-0.8**
WIAZ				AML	AML		
WIAZ				AML	AML		
MKAZ	**Moumakai**	**1.62**	**259**	P	**Pn**	**19 45 27.6**	**-1.5**
MKAZ				S	**Sn**	**19 45 49.7**	**-0.8**
MKAZ				AML	AML		
MKAZ				AML	AML		
HSRZ	**Hossack Road**	**1.66**	**206**	P	**Pn**	**19 45 29.4**	**-0.3**
HSRZ				AML	AML		
HSRZ				AML	AML		
MUGZ	**Murupara**	**1.69**	**190**	P	**Pn**	**19 45 28.4**	**-1.6**
RAGZ	**Rawiri**	**1.69**	**173**	P	**Pn**	**19 45 29.4**	**-0.8**
TKGZ	**Te Karaka**	**1.72**	**162**	P	**Pb**	**19 45 30.9**	**-0.8**
HRRZ	**Handcock Road**	**1.72**	**203**	P	**Pn**	**19 45 29.9**	**-0.6**
GRRZ	**Galatos Road**	**1.75**	**208**	P	**Pn**	**19 45 30.0**	**-0.9**
ETAZ	**East Tamaki Re**	**1.79**	**265**	P	**Pn**	**19 45 30.6**	**-0.8**
RTZ	**Ruatahuna**	**1.81**	**184**	Pn	**Pn**	**19 45 30.3**	**-1.4**
RTZ	**Ruatahuna**	**1.81**	**184**	P	**Pn**	**19 45 30.8**	**-0.9**
MBAZ	**Motutapu North**	**1.81**	**271**	P	**Pn**	**19 45 30.9**	**-0.8**
MBAZ				AML	AML		
MBAZ				AML	AML		
KBAZ	**Karaka Road Bo**	**1.84**	**260**	P	**Pg**	**19 45 35.1**	**+0.3**
ALRZ	**Allen Road**	**1.86**	**200**	P	**Pg**	**19 45 38.6**	**+3.2**
CNGZ	**Carnagh Statio**	**1.87**	**154**	P	**Pb**	**19 45 34.1**	**-0.2**
ABAZ	**Army Bay**	**1.88**	**276**	P	**Pn**	**19 45 32.5**	**-0.1**
ABAZ				AML	AML		
ABAZ				AML	AML		
EPAZ	**Eden Park BICE**	**1.94**	**267**	P	**Pb**	**19 45 34.7**	**-0.8**
HBAZ	**Herne Bay Bore**	**1.95**	**268**	P	**Pn**	**19 45 33.8**	**+0.3**
RIGZ	**Rimuhau**	**1.95**	**166**	P	**Pb**	**19 45 35.1**	**-0.7**
KUTZ	**Kaahu Road**	**1.98**	**212**	P	**Pn**	**19 45 33.2**	**-0.9**
TLZ	**Tolley Road**	**1.99**	**220**	P	**Pn**	**19 45 32.8**	**-1.4**
AWAZ	**Awhitu Peninsu**	**2.03**	**262**	P	**Pn**	**19 45 34.1**	**-0.6**
MTHZ	**Maungataniwha**	**2.05**	**187**	P	**Pn**	**19 45 34.8**	**-0.2**
RVAZ	**Riverhead Bore**	**2.07**	**270**	P	**Pn**	**19 45 34.7**	**-0.5**
WTAZ	**Waiatarua**	**2.08**	**266**	P	**Pn**	**19 45 34.9**	**-0.4**
RAHZ	**Arahi**	**2.10**	**182**	P	**Pn**	**19 45 35.7**	**0.0**
PRGZ	**Paritu Road**	**2.19**	**165**	P	**Pg**	**19 45 41.8**	**+0.3**
WATZ	**Wairara**	**2.20**	**210**	P	**Pg**	**19 45 43.1**	**+1.3**
KNZ	**Kokohu**	**2.25**	**170**	P	**Pn**	**19 45 38.7**	**+1.0**
WHHZ	**Waihua**	**2.26**	**178**	P	**Pb**	**19 45 39.9**	**-1.2**
NMHZ	**Naumai**	**2.30**	**187**	P	**Pb**	**19 45 40.7**	**-1.1**
RATZ	**Rangitukua**	**2.33**	**208**	P	**Pb**	**19 45 42.9**	**+0.6**
RITZ	**Rihia Road**	**2.39**	**205**	P	**Pb**	**19 45 43.4**	**0.0**
BKZ	**Black Stump Fm**	**2.41**	**192**	P	**Pn**	**19 45 39.9**	**-0.1**
WCZ	**Waipu Caves**	**2.43**	**290**	P	**Pn**	**19 45 39.5**	**-0.7**
WCZ				AML	AML		
WCZ				AML	AML		
ARHZ	**Aropaoanui**	**2.45**	**183**	P	**Pn**	**19 45 42.1**	**+1.6**
HIZ	**Hauiti**	**2.49**	**226**	P	**Pn**	**19 45 40.1**	**-1.0**
HIZ	**Hauiti**	**2.49**	**226**		**Pn**	**19 45 40.2**	**-0.9**
HIZ	**Hauiti**	**2.49**	**226**	P	**Pn**	**19 45 40.2**	**-0.9**
TMVZ	**Te Maari**	**2.57**	**206**	P	**Pb**	**19 45 45.6**	**-0.9**
KRVZ	**Karewarewa**	**2.58**	**207**	P	**Pb**	**19 45 45.6**	**-0.9**
ETVZ	**East Tongariro**	**2.59**	**206**	P	**Pb**	**19 45 47.4**	**+0.7**
WTVZ	**West Tongariro**	**2.61**	**208**	P	**Pg**	**19 45 48.9**	**-0.8**
OTVZ	**Oturere**	**2.63**	**206**	P	**Pn**	**19 45 44.0**	**+0.9**
TWVZ	**Taurewa**	**2.63**	**211**	P	**Pn**	**19 45 42.5**	**-0.6**
MCHZ	**McNeill Hill**	**2.65**	**188**	P	**Pn**	**19 45 45.0**	**+1.7**
SNVZ	**South Ngauruho**	**2.66**	**206**	P	**Pn**	**19 45 44.2**	**+0.7**
NGZ	**Ngauruhoe**	**2.66**	**207**	P	**Pg**	**19 45 49.3**	**-1.3**
KWHZ	**Kaweka Forest**	**2.67**	**192**	P	**Pn**	**19 45 45.4**	**+1.9**
COVZ	**Chateau Observ**	**2.70**	**208**	P	**Pb**	**19 45 48.9**	**+0.2**
FWVZ	**Far West T-bar**	**2.75**	**207**	P	**Pb**	**19 45 48.3**	**-1.2**
MAVZ	**Matarangi**	**2.76**	**207**	P	**Pn**	**19 45 46.6**	**+1.6**
WHVZ	**Whangaehu Hut**	**2.76**	**206**	P	**Pb**	**19 45 47.4**	**-2.4**
TRVZ	**Turoa**	**2.79**	**207**	P	**Pb**	**19 45 49.1**	**-1.1**
WNVZ	**Wahianoa**	**2.80**	**206**	P	**Pn**	**19 45 46.2**	**+0.8**
BHHZ	**Black Hill Sta**	**2.81**	**198**	P	**Pn**	**19 45 45.7**	**+0.2**
MOVZ	**Moawhango**	**2.82**	**203**	P	**Pn**	**19 45 46.6**	**+1.0**
MTVZ	**Mangateitei**	**2.89**	**207**	P	**Pb**	**19 45 50.8**	**-1.1**
KRHZ	**Kereru**	**2.90**	**192**	P	**Pn**	**19 45 47.7**	**+1.1**
KAHZ	**Kahuranaki**	**2.99**	**184**	P	**Pn**	**19 45 48.8**	**+0.9**
VRZ	**Vera Road**	**2.99**	**219**	P	**Pn**	**19 45 48.0**	**+0.1**
PNHZ	**Pukenui**	**3.19**	**193**	P	**Pn**	**19 45 51.1**	**+0.4**
OUZ	**Omahuta**	**3.29**	**298**	P	**Pn**	**19 45 51.6**	**-0.5**
OUZ	**Omahuta**	**3.29**	**298**	P	**Pn**	**19 45 51.9**	**-0.1**
OUZ				AML	AML		
OUZ				AML	AML		
DREZ	**Durham Road**	**3.33**	**224**	P	**Pn**	**19 45 53.3**	**+0.8**
TSZ	**Takapari Road**	**3.38**	**196**	P	**Pn**	**19 45 53.8**	**+0.6**
WAZ	**Wanganui**	**3.40**	**210**	P	**Pb**	**19 45 57.8**	**-2.6**
LREZ	**Lake Rotokare**	**3.42**	**219**	P	**Pn**	**19 45 55.4**	**+1.6**
PKE	**Pukeiti**	**3.45**	**226**	P	**Pn**	**19 45 54.9**	**+0.6**
KHEZ	**Kahui Hut**	**3.51**	**224**	P	**Pn**	**19 45 55.7**	**+0.6**
KHEZ	**Kahui Hut**	**3.51**	**224**	P	**Pn**	**19 45 57.1**	**+2.0**
DVHZ	**Dannevirke**	**3.57**	**192**	P	**Pn**	**19 45 55.4**	**-0.4**
NBEZ	**Newall Road No**	**3.57**	**226**	P	**Pn**	**19 45 57.2**	**+1.3**
BFZ	**Birch Farm**	**3.93**	**190**	P	**Pn**	**19 46 00.3**	**-0.5**
BFZ	**Birch Farm**	**3.93**	**190**	Pn	**Pn**	**19 46 01.1**	**+0.3**
BFZ	**Birch Farm**	**3.93**	**190**	P	**Pn**	**19 45 59.5**	**-1.3**
MRZ	**Mangatainoka R**	**4.04**	**197**		**Pn**	**19 46 01.4**	**-0.9**
MRZ	**Mangatainoka R**	**4.04**	**197**	P	**Pn**	**19 46 01.9**	**-0.4**
HOWZ	**Holdsworth Sta**	**4.28**	**197**	P	**Pn**	**19 46 04.5**	**-1.1**
OGWZ	**Otaki Gorge**	**4.29**	**201**	P	**Pn**	**19 46 05.4**	**-0.3**
KIW	**Kapiti Island**	**4.41**	**203**	P	**Pn**	**19 46 07.0**	**-0.4**
MTW	**Mount Morrison**	**4.53**	**196**	P	**Pn**	**19 46 08.5**	**-0.5**
DUWZ	**D’Urville Isla**	**4.72**	**211**	P	**Pn**	**19 46 13.4**	**+1.7**
TRWZ	**Traveller**	**4.72**	**194**	P	**Pn**	**19 46 10.8**	**-0.8**
PAWZ	**Paruwai Farm**	**4.76**	**196**	P	**Pn**	**19 46 11.1**	**-1.1**
MSWZ	**Moikau Station**	**4.83**	**197**	Pn	**Pn**	**19 46 12.3**	**-0.9**
MSWZ	**Moikau Station**	**4.83**	**197**	P	**Pn**	**19 46 11.8**	**-1.4**
SNZO	**South Karori**	**4.88**	**202**	P	**Pn**	**19 46 12.2**	**-1.6**
SNZO	**South Karori**	**4.88**	**202**		**Pn**	**19 46 12.4**	**-1.5**
BHW	**Baring Head**	**4.92**	**200**	Pn	**Pn**	**19 46 12.9**	**-1.5**
TCW	**Tory Channel**	**4.93**	**206**		**Pn**	**19 46 14.5**	**-0.1**
TCW	**Tory Channel**	**4.93**	**206**	P	**Pn**	**19 46 14.5**	**-0.1**
PLWZ	**Palliser**	**4.98**	**197**		**Pn**	**19 46 13.5**	**-1.8**
PLWZ	**Palliser**	**4.98**	**197**	P	**Pn**	**19 46 13.4**	**-1.8**
TUWZ	**Tuamarina**	**5.25**	**207**		**Pn**	**19 46 18.8**	**-0.1**
TUWZ	**Tuamarina**	**5.25**	**207**	P	**Pn**	**19 46 19.7**	**+0.8**
NNZ	**Nelson**	**5.29**	**213**		**Pn**	**19 46 20.3**	**+0.8**
NNZ	**Nelson**	**5.29**	**213**	P	**Pn**	**19 46 21.6**	**+2.1**
TKNZ	**Takaka Hill**	**5.34**	**217**		**Pn**	**19 46 20.7**	**+0.6**
TKNZ	**Takaka Hill**	**5.34**	**217**	P	**Pn**	**19 46 21.1**	**+1.0**
QRZ	**Quartz Range**	**5.40**	**221**	P	**Pn**	**19 46 20.7**	**-0.3**
QRZ	**Quartz Range**	**5.40**	**221**		**Pn**	**19 46 22.6**	**+1.7**
QRZ	**Quartz Range**	**5.40**	**221**	P	**Pn**	**19 46 20.7**	**-0.3**
BSWZ	**Blackbirch Sta**	**5.52**	**206**		**Pn**	**19 46 22.1**	**-0.5**
MRNZ	**Matariki Terra**	**5.72**	**215**		**Pn**	**19 46 25.0**	**-0.4**
MRNZ	**Matariki Terra**	**5.72**	**215**	P	**Pn**	**19 46 26.5**	**+1.1**
THZ	**Tophouse**	**5.94**	**212**		**Pn**	**19 46 28.3**	**-0.2**
THZ	**Tophouse**	**5.94**	**212**	P	**Pn**	**19 46 28.8**	**+0.3**
KHZ	**Kahutara**	**6.25**	**205**		**Pn**	**19 46 32.7**	**0.0**
KHZ	**Kahutara**	**6.25**	**205**	P	**Pn**	**19 46 31.3**	**-1.4**
DSZ	**Denniston Nort**	**6.44**	**218**	P	**Pn**	**19 46 38.2**	**+2.9**
GVZ	**Greta Valley S**	**6.92**	**206**	Pn	**Pn**	**19 46 41.7**	**-0.2**
GVZ	**Greta Valley S**	**6.92**	**206**	P	**Pn**	**19 46 41.1**	**-0.7**
LTZ	**Lake Taylor**	**7.05**	**211**	P	**Pn**	**19 46 45.4**	**+1.8**
INZ	**Inchbonnie**	**7.36**	**215**		**Pn**	**19 46 47.5**	**-0.4**
INZ	**Inchbonnie**	**7.36**	**215**	P	**Pn**	**19 46 48.7**	**+0.8**
OXZ	**Oxford**	**7.60**	**210**		**Pn**	**19 46 51.5**	**+0.3**
OXZ	**Oxford**	**7.60**	**210**	P	**Pn**	**19 46 51.7**	**+0.5**
MQZ	**McQueen’s Vall**	**7.70**	**205**	Pn	**Pn**	**19 46 49.9**	**-2.6**
RPZ	**Rata Peaks**	**8.32**	**212**	Pn	**Pn**	**19 46 59.8**	**-1.4**
	0.3nm,0.3s,baz=314,slow=2.7,SNR=7.6						
	1.8nm,0.5s						
RPZ				AML	AML		
RPZ	**Rata Peaks**	**8.32**	**212**		**Pn**	**19 47 00.3**	**-0.9**
CTZ	**Chatham Island**	**8.39**	**147**	Pn	**Pn**	**19 47 02.1**	**+0.1**
CTZ	**Chatham Island**	**8.39**	**147**	P	**Pn**	**19 47 02.9**	**+0.9**
LBZ	**Lake Benmore**	**9.23**	**213**	Pn	**Pn**	**19 47 15.1**	**+1.5**
ODZ	**Otahua Downs**	**9.58**	**209**	Pn	**Pn**	**19 47 16.8**	**-1.6**
MSVF	**Nonsavu**	**19.02**	**3**	LR	LR	19 54 45.5	
	comp=Z,270nm,18.8s,baz=196,slow=31						
STKA	**Stephens Creek**	**29.66**	**269**	P	**P**	**19 51 07.9**	**+1.4**
	5.7nm,1.0s,baz=87,slow=12,SNR=3.4						
STKA				LR	LR	20 02 57.8	
	comp=Z,320nm,18.8s,baz=76,slow=36						
	5.7nm,1.0s						
HNR	**Honiara**	**31.40**	**326**	LR	LR	20 01 58.5	
	comp=Z,134nm,21.5s,baz=246,slow=32						
PMG	**Port Moresby**	**38.49**	**308**	LR	LR	20 07 51.5	
	comp=Z,171nm,18.4s,baz=133,slow=36						
AS31	**Alice Springs**	**39.28**	**277**	P	**P**	**19 52 28.6**	**-1.2**
ASAR	**Alice Springs**	**39.28**	**277**	P	**P**	**19 52 30.6**	**+0.9**
	4.1nm,1.0s,baz=119,slow=7.0,SNR=14						
	4.1nm,1.0s						
ASAR	**Alice Springs**	**39.28**	**277**	P	**P**	**19 52 30.2**	**+0.4**
KRVT	**Keravat (AS076**	**39.73**	**319**	LR	LR	20 07 06.9	
	comp=Z,81nm,19.2s,baz=172,slow=33						
WR8	**Warramunga Arr**	**40.75**	**282**	P	**P**	**19 52 40.2**	**-1.7**
WR8				IAmb	IAmb	19 52 47.9	
	comp=Z,17nm,1.3s						
WRA	**Warramunga Arr**	**40.88**	**282**	P	**P**	**19 52 43.3**	**+0.3**
	comp=Z,1.8nm,1.0s,baz=125,slow=7.9,SNR=7.8						
	comp=Z,1.8nm,1.0s						
WRA	**Warramunga Arr**	**40.88**	**282**	IAmb	IAmb	19 52 49.0	
	comp=Z,0.3nm,1.0s						
FORT	**Forrest**	**40.88**	**264**	P	**P**	**19 52 43.5**	**+0.5**
FORT				IAmb	IAmb	19 52 51.5	
	comp=Z,9.4nm,0.8s						
CASY	**Casey**	**47.59**	**210**	P	**P**	**19 53 35.7**	**-0.5**
CASY				IAmb	IAmb	19 54 00.2	
	comp=Z,2.6nm,0.8s						
NWAO	**Narrogin (SRO)**	**48.62**	**256**	LR	LR	20 12 19.4	
	comp=Z,114nm,21.1s,baz=301,slow=34						
FITZ	**Fitzroy Crossi**	**48.76**	**278**	P	**P**	**19 53 46.7**	**+0.8**
	comp=Z,7.6nm,1.0s,baz=158,slow=10,SNR=7.2						
	comp=Z,7.6nm,1.0s						
FITZ	**Fitzroy Crossi**	**48.76**	**278**	P	**P**	**19 53 46.5**	**+0.6**
FITZ				IAmb	IAmb	19 53 48.2	
	comp=Z,2.4nm,1.1s						
MORW	**Morawa**	**51.12**	**260**	P	**P**	**19 54 03.4**	**-0.3**
QSPA	**South Pole Qui**	**53.31**	**180**	P	**P**	**19 54 21.3**	**+1.6**
	comp=Z,5.4nm,0.8s,baz=8.5,slow=1.9,SNR=43						
	comp=Z,5.4nm,0.8s						
QSPA	**South Pole Qui**	**53.31**	**180**	P	**P**	**19 54 20.8**	**+1.1**
QSPA				IAmb	IAmb	19 54 22.1	
	comp=Z,7.6nm,0.8s						
H11S2	**WAKE ISLAND Hy**	**55.88**	**348**	T	T	20 54 55.5	
	baz=171,slow=76,SNR=10						
H11S3	**WAKE ISLAND Hy**	**55.89**	**348**	T	T	20 54 56.2	
	baz=171,slow=76,SNR=8.0						
H11S1	**WAKE ISLAND Hy**	**55.90**	**348**	T	T	20 54 59.8	
	baz=171,slow=76,SNR=9.3						
GUMO	**Guam**	**58.64**	**323**	LR	LR	20 18 56.3	
	comp=Z,28nm,18.6s,baz=142,slow=35						
BELA	**Belgrano 2**	**63.97**	**173**	P	**P**	**19 55 33.6**	**0.0**
BELA				IAmb	IAmb	19 55 41.2	
	comp=Z,4.0nm,0.9s						
MAW	**Mawson**	**64.88**	**203**	P	**P**	**19 55 39.7**	**+0.1**
	comp=Z,5.0nm,1.1s,baz=140,slow=9.7,SNR=4.5						
MAW				LR	LR	20 23 51.9	
	comp=Z,218nm,18.0s,baz=118,slow=36						
	comp=Z,5.0nm,1.1s						
MAW	**Mawson**	**64.88**	**203**	P	**P**	**19 55 39.7**	**+0.1**
MAW				IAmb	IAmb	19 55 45.3	
	comp=Z,1.4nm,1.2s						
DAV	**Davao City (W)**	**65.04**	**301**	LR	LR	20 25 05.3	
	comp=Z,35nm,20.0s,baz=148,slow=37						
PMSA	**Palmer Station**	**68.08**	**156**	LR	LR	20 21 44.7	
	comp=Z,69nm,18.9s,baz=245,slow=32						
TROLL	**Troll, Antarti**	**71.41**	**182**	P	**P**	**19 56 20.4**	**-0.4**
	comp=Z,102nm,0.6s						
SNAA	**Sanae**	**71.82**	**180**	P	**P**	**19 56 23.1**	**0.0**
	comp=Z,2.3nm,0.9s,baz=249,slow=4.6,SNR=4.4						
	comp=Z,2.3nm,0.9s						
SNAA	**Sanae**	**71.82**	**180**	P	**P**	**19 56 22.6**	**-0.5**
VNA3	**Neumayer Olymp**	**72.14**	**178**	⇓P	**P**	**19 56 24.6**	**-0.4**
	comp=Z,4.5nm,0.7s						
PLCA	**Paso Flores**	**81.00**	**135**	P	**P**	**19 57 17.4**	**+1.6**
	comp=Z,1.1nm,0.5s,baz=232,slow=11,SNR=3.0						
PLCA				LR	LR	20 27 49.7	
	comp=Z,32nm,18.0s,baz=224,slow=32						
	comp=Z,1.1nm,0.5s						
KSRS	**Korea Array**	**86.80**	**323**	LR	LR	20 35 47.7	
	comp=Z,13nm,18.2s,baz=120,slow=35						
SHEM	**Shemya Is, Ala**	**89.21**	**358**	LR	LR	20 33 49.7	
	comp=Z,27nm,18.5s,baz=272,slow=33						
CMAR	**Chiang Mai Arr**	**91.84**	**292**	P	**P**	**19 58 11.2**	**+1.9**
	comp=Z,1.7nm,0.9s,baz=141,slow=3.6,SNR=12						
CMAR				LR	LR	20 40 13.0	
	comp=Z,30nm,21.9s,baz=150,slow=36						
	comp=Z,1.7nm,0.9s						
CMAR	**Chiang Mai Arr**	**91.84**	**292**	P	**P**	**19 58 10.1**	**+0.7**
MA2	**Magadan**	**98.49**	**347**	LR	LR	20 37 21.0	
	comp=Z,18nm,20.5s,baz=158,slow=32						
CPUP	**Villa Florida**	**98.93**	**132**	LR	LR	20 37 43.9	
	comp=Z,154nm,18.7s,baz=210,slow=32						
PALK	**Pallekele**	**99.47**	**272**	LR	LR	20 42 17.5	
	comp=Z,72nm,18.5s,baz=126,slow=35						
MKAR	**Makanchi Array**	**118.70**	**309**	PKP	**PKPdf**	**20 03 47.5**	**-1.2**
	comp=Z,0.4nm,1.1s,baz=49,slow=4.0,SNR=3.6						
KBZ	**Khabaz**	**144.78**	**296**	PKP	**PKPdf**	**20 04 37.5**	**0.0**
	comp=Z,0.7nm,0.4s,baz=180,slow=5.1,SNR=4.9						
FINES	**FINESS Array B**	**149.40**	**333**	PKPbc	**PKPbc**	**20 04 49.0**	**-0.1**
	comp=Z,4.7nm,1.0s,baz=165,slow=7.9,SNR=5.7						
BRTR	**Keskin Array B**	**151.33**	**287**	PKPbc	**PKPbc**	**20 04 53.8**	**-0.9**
	comp=Z,0.4nm,0.6s,baz=160,slow=3.9,SNR=3.8						
TORD	**Torodi Ar. Bea**	**156.09**	**191**	PKPab	**PKPab**	**20 05 22.1**	**-1.0**
	comp=Z,0.6nm,0.5s,baz=174,slow=3.5,SNR=6.0						

WEL 02 19:46:19.5±0.6**, 37°S**±4°×**17°7E**±°**,** $h5^{km}$**, M4.3**/14**,**
ML4.2/14**, MLv4.3**/14**, Error ellipse: s-maj=5.6km**
s-min=3.4km az=32.5, confirmed, Off east coast of
North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
WSRZ	**White Island S**	**0.68**	**172**	P	Pb	19 46 34.3	+0.5
WSRZ				S	Sb	19 46 44.2	+0.6
WSRZ				AML	AML		
WSRZ				AML	AML		
WIZ	**White Island**	**0.69**	**172**	P	Pb	19 46 33.9	-0.1
WIZ				S	Sb	19 46 42.7	-1.0
WIZ				AML	AML		
WIZ				AML	AML		
MYRZ	**Mayor Island**	**0.79**	**236**	P	Pg	19 46 34.7	+0.1
MYRZ				AML	AML		
MYRZ				AML	AML		
WHRZ	**Whale Island**	**1.01**	**184**	P	Pn	19 46 40.6	+0.2
WHRZ				AML	AML		
WHRZ				AML	AML		
HAZ	**Te Kaha**	**1.07**	**148**	P	Pb	19 46 40.5	0.0
HAZ				S	Sg	19 46 54.5	+0.4
HAZ				AML	AML		
HAZ				AML	AML		
TGRZ	**Tauranga**	**1.09**	**216**	P	Pg	19 46 40.1	-0.3
TGRZ				S	Sg	19 46 54.1	-0.4
TGRZ				AML	AML		
TGRZ				AML	AML		
MARZ	**Manawahe**	**1.18**	**195**	P	Pg	19 46 40.9	-1.2
MARZ				AML	AML		
MARZ				AML	AML		
RUGZ	**Raukumara Rang**	**1.22**	**157**	P	Pg	19 46 42.2	-0.7
RUGZ				S	Sg	19 46 57.8	-1.0
RUGZ				AML	AML		
RUGZ				AML	AML		
MXZ	**Matakaoa Point**	**1.22**	**126**	P	Pg	19 46 41.2	-1.8
MXZ				S	Sg	19 46 56.9	-1.9
MXZ				AML	AML		
MXZ				AML	AML		
LIRZ	**Lichensteins R**	**1.28**	**205**	P	Pg	19 46 41.9	-2.1
LIRZ				AML	AML		
LIRZ				AML	AML		
EDRZ	**Edgecumbe**	**1.28**	**192**	P	Pg	19 46 42.6	-1.5
EDRZ				AML	AML		
EDRZ				AML	AML		
PKGZ	**Pakihiroa**	**1.30**	**142**	P	Pb	19 46 44.9	+0.4
PKGZ				S	Sg	19 47 00.3	-1.1
PKGZ				AML	AML		
PKGZ				AML	AML		
KMRZ	**Kaimai**	**1.34**	**222**	P	Pn	19 46 44.4	-0.5
KMRZ				S	Sg	19 47 02.4	-0.3
KMRZ				AML	AML		
KMRZ				AML	AML		
KARZ	**Kaharoa**	**1.34**	**209**	P	Pn	19 46 44.4	-0.5
KARZ				AML	AML		
KARZ				AML	AML		
URZ	**Urewera**	**1.41**	**179**	P	Pn	19 46 43.9	-1.9
URZ				S	Sb	19 47 03.7	-0.9
URZ				AML	AML		
URZ				AML	AML		
GRZ	**Great Barrier**	**1.42**	**294**	P	Pn	19 46 45.6	-0.4
GRZ				AML	AML		
GRZ				AML	AML		
WMGZ	**Waiomatatini S**	**1.45**	**132**	P	Pg	19 46 48.1	+0.8
WMGZ				S	Sb	19 47 05.6	-0.2
WMGZ				AML	AML		
WMGZ				AML	AML		
TARZ	**Mount Tarawera**	**1.46**	**198**	P	Pg	19 46 48.0	+0.6
ETAZ	**East Tamaki Re**	**1.72**	**266**	P	Pn	19 46 49.9	-0.2
ETAZ				AML	AML		
ETAZ				AML	AML		
WCZ	**Waipu Caves**	**2.37**	**292**	P	Pn	19 46 58.3	-0.8
OTVZ	**Oturere**	**2.56**	**205**	P	Pb	19 47 06.6	+0.5
MOVZ	**Moawhango**	**2.76**	**202**	P	Pb	19 47 07.1	-2.2
OUZ	**Omahuta**	**3.25**	**299**	P	Pn	19 47 10.8	-0.3
TKNZ	**Takaka Hill**	**5.26**	**216**	P	Pn	19 47 39.9	+1.1

IDC 02 19:56:45.2±1.9**, 7°.03S**×**127°.57E,** $h0^{km}$**, mb3.4**/1**,**
mbtmp3.2/4**, ML3.2**/3**, Error ellipse: s-maj=60.1km**
s-min=20.9km az=69.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**11.16**	**190**	Pn	Pn	19 59 21.6	-4.6
	0.2nm,0.3s,baz=21,slow=9.1,SNR=11						
	0.4nm,0.3s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**14.42**	**154**	Pn	Pn	20 00 04.2	-6.7
	0.1nm,0.3s,baz=327,slow=13,SNR=8.0						
WRA				Sn	Sn	20 02 35.4	-16
	0.2nm,0.3s,baz=331,slow=22,SNR=6.1						
	0.3nm,0.7s						
WRA				AML	AML		
ASAR	**Alice Springs**	**17.63**	**160**	Pn	Pn	20 00 46.5	-5.9
	0.1nm,0.3s,baz=335,slow=10.0,SNR=5.7						
ASAR				Sn	Sn	20 03 56.0	-14
	0.1nm,0.3s,baz=320,slow=17,SNR=5.1						
	0.2nm,0.6s						
ASAR				AML	AML		
MKAR	**Makanchi Array**	**66.95**	**328**	P	P	20 07 39.5	-0.1
	0.2nm,0.6s,baz=122,slow=6.8,SNR=3.6						
	0.2nm,0.6s						

*RSNC **02** 20:46:10.6±0.6, 6°N±4°×8°0W±°,* $h0^{km}$*, M4.2, mB4.5, mb4.2,*
ML2.5, Mw(mB)3.7
*UPA **02** 20:46:13.2±1.3, 6°.24N×79°.96W,* $h18^{km}\pm15^{km}$*, MW3.6,*
Presumed earthquake
ISC 02 20:46:08.7±2.4**, 6°.16N**±0°.07×**80°.00W**±0°.07**,** $h4^{km}\pm15^{km}$**,**
n23, σ**1°.52**/33**, 6C-3D, South of Panama**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
ACHO3	**Achotines, Los**	**1.26**	**352**	⇑*i*P	Pg	20 46 32.7	-0.2
ACHO3				*e*S	**Sg**	**20 46 49.6**	**+0.4**
PEDA3	**Pedasi**	**1.36**	**359**	⇓*i*P	Pn	20 46 34.0	-0.6
PEDA3				*e*S	**Sg**	**20 46 50.9**	**-1.5**
CACAO	**El Cacao, Vera**	**1.46**	**324**	P	Pn	20 46 36.0	+0.1
CACAO	**El Cacao, Vera**	**1.46**	**324**	⇑*i*P	**Pn**	**20 46 36.2**	**+0.3**
CACAO				*e*S	**Sg**	**20 46 53.8**	**-1.8**
AZU	**Azuero**	**1.64**	**350**	P	Pn	20 46 38.7	+0.2
AZU				S	**Sn**	**20 46 59.3**	**-0.8**
AZU	**Azuero**	**1.64**	**350**	⇑*i*P	**Pn**	**20 46 38.9**	**+0.4**
AZU				*e*S	**Sn**	**20 46 59.3**	**-0.8**
CHIT3	**Chitre**	**1.83**	**347**	⇑*i*P	**Pn**	**20 46 41.8**	**+0.7**
CHIT3				*e*S	**Sn**	**20 47 04.1**	**-0.6**
STIA3	**Santiago, Vera**	**2.15**	**333**	⇓*i*P	**Pn**	**20 46 47.3**	**+1.8**
CALO3	**Calobre, Verag**	**2.30**	**339**	*e*P	**Pn**	**20 46 49.5**	**+1.9**
PNME	**Penonome**	**2.33**	**352**	*e*P	**Pn**	**20 46 49.6**	**+1.7**
PTAC	**Punta Ardita,**	**2.38**	**66**	*e*P	**Pn**	**20 46 50.2**	**+1.5**
PTAC				*e*S	**Sn**	**20 47 17.3**	**-1.1**
ZANG	**Zanguenga, Cho**	**2.78**	**3**	⇓*i*P	**Pn**	**20 46 56.1**	**+2.0**
ZANG				*e*S	**Sn**	**20 47 28.0**	**-0.2**
UPA	**Univ. de Panam**	**2.84**	**9**	P	**Pn**	**20 46 56.1**	**+1.2**
UPA				S	**Sn**	**20 47 29.0**	**-0.6**
UPA	**Univ. de Panam**	**2.84**	**9**	⇑*i*P	**Pn**	**20 46 56.2**	**+1.3**
UPA				*e*S	**Sn**	**20 47 28.9**	**-0.7**
GAMB1	**Gamboa**	**2.95**	**5**	*e*P	**Pn**	**20 46 58.0**	**+1.5**
BCIP	**Isla Barro Col**	**2.99**	**3**	P	**Pn**	**20 46 58.2**	**+1.2**
BCIP				S	**Sn**	**20 47 32.8**	**-0.6**
BCIP	**Isla Barro Col**	**2.99**	**3**	⇑*i*P	**Pn**	**20 46 58.3**	**+1.2**
BCIP				*e*S	**Sn**	**20 47 32.1**	**-1.3**
MLIR	**Monte Lirio**	**3.06**	**3**	*e*P	**Pn**	**20 46 59.2**	**+1.2**
MLIR				*e*S	**Sn**	**20 47 33.4**	**-1.8**
BRU2	**Volcan**	**3.74**	**315**	*e*P	**Pn**	**20 47 10.1**	**+2.6**
GUY2C	**Guyana, Caldas**	**4.70**	**101**	P	Pn	20 47 20.3	-0.7
ORTC	**Ortega, Tolima**	**5.23**	**115**	P	**Pn**	**20 47 29.6**	**+1.7**
	510nm28nm,0.6s						
ORTC				S	**Sn**	**20 48 26.7**	**-2.1**
	510nm28nm,0.6s						
ORTC				AML	AML		

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
PTBC	**PUERTO BERRIO,**	5.52	86	P	Pn	20 47 34.0	+2.2
	12nm,0.5s						
PTBC				AML	AML		
PRAC	**Prado**	5.64	115	P	Pn	20 47 34.4	+0.9
PRAC				S	Sn	20 48 36.4	-2.5

IDC ***02*** *20:52:24.0±3.6, 7.°85N×81.°74W, h0^{km}, mb3.9/1, mbtmp3.9/1, MS3.2/1, Error ellipse: s-maj=988.6km s-min=84.5km az=144.0*

UPA ***02*** *20:52:27.6±2.9, 6.°15N×79.°81W, h20^{km}±17^{km}, MW3.8, Presumed earthquake*

RSNC ***02*** *20:52:28.9±0.0, 6°N±2°×8°0W±°, h28^{km}±6^{km}, M4.2, mB5.2, mb4.7, ML3.0, Mw(mB)4.5*

ISC 02 20:52:27.0±2.6**, 6.°10N**±0.°04×**79.°91W**±0.°04**, h23**^{km}±21^{km}**, n59,** σ**1^{s}93**/91**, 5C-2D, South of Panama**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACHO3	**Achotines, Los**	1.33	349	⇑iP	Pn	20 52 48.2	-2.1
ACHO3				eS	Sn	20 53 04.7	-2.6
TOSI3	**Tonosi**	1.40	338	⇓iP	Pn	20 52 49.7	-1.6
PEDA3	**Pedasi**	1.42	355	eP	Pn	20 52 49.5	-2.0
CACAO	**El Cacao, Vera**	1.56	323	P	Pn	20 52 51.6	-1.7
CACAO				S	Sn	20 53 11.0	-1.8
CACAO	**El Cacao, Vera**	1.56	323	⇑iP	Pn	20 52 51.8	-1.5
CACAO				eS	Sb	20 53 14.1	-0.4
AZU	**Azuero**	1.72	348	P	Pn	20 52 54.2	-1.4
AZU				S	Sn	20 53 15.1	-1.8
AZU	**Azuero**	1.72	348	⇑iP	Pn	20 52 54.3	-1.3
AZU				eS	Sn	20 53 14.8	-2.1
CHIT3	**Chitre**	1.91	345	eP	Pn	20 52 57.4	-0.9
STIA3	**Santiago, Vera**	2.25	332	eP	Pn	20 53 02.7	-0.2
PTAC	**Punta Ardita,**	2.33	63	P	Pn	20 53 02.6	-1.4
PTAC				S	Sn	20 53 27.7	-4.3
PTAC	**Punta Ardita,**	2.33	63	eP	Pn	20 53 02.4	-1.6
PTAC				eS	Sn	20 53 28.3	-3.8
CALO3	**Calobre, Verag**	2.39	337	eP	Pn	20 53 04.8	-0.1
PNME	**Penonome**	2.41	350	P	Pn	20 53 05.5	+0.4
PNME				S	Sn	20 53 33.6	-0.3
SOLC	**Bahia Solano**	2.49	87	P	Pn	20 53 04.5	-1.7
SOLC				S	Sn	20 53 29.2	-6.7
SAFE3	**Santa Fe, Vera**	2.67	334	eP	Pn	20 53 09.3	+0.6
PIZC	**Pizarro, Choco**	2.78	114	P	Pn	20 53 08.9	-1.3
PIZC				S	Sn	20 53 41.3	-1.7
FLAM	**Flamenco Islan**	2.82	8	⇓iP	Pn	20 53 10.9	+0.2
FLAM				eS	Sn	20 53 42.2	-1.9
ZANG	**Zanguenga, Cho**	2.84	1	eP	Pn	20 53 11.4	+0.4
ZANG				eS	Sn	20 53 44.3	-0.2
ARRA3	**Arraijan, Pana**	2.86	5	eP	Pn	20 53 11.7	+0.4
ARRA3				eS	Sn	20 53 43.2	-1.8
UPA	**Univ. de Panam**	2.89	7	P	Pn	20 53 11.7	0.0
UPA				S	Sn	20 53 44.3	-1.4
UPA	**Univ. de Panam**	2.89	7	eP	Pn	20 53 11.9	+0.2
GAMB1	**Gamboa**	3.01	4	eP	Pn	20 53 13.2	-0.2
GAMB1				eS	Sn	20 53 49.7	+1.1
BCIP	**Isla Barro Col**	3.05	1	P	Pn	20 53 13.7	-0.2
BCIP				S	Sn	20 53 48.3	-1.4
BCIP	**Isla Barro Col**	3.05	1	⇑iP	Pn	20 53 13.8	-0.1
BCIP				eS	Sn	20 53 46.4	-3.3
FRIJ	**El Hiral**	3.11	3	eP	Pn	20 53 14.7	0.0
FRIJ				eS	Sn	20 53 51.0	-0.1
MLIR	**Monte Lirio**	3.12	1	eP	Pn	20 53 16.2	+1.3
MLIR				eS	Sn	20 53 52.1	+0.6
CHPO	**Chepo, Panama**	3.15	14	eP	Pn	20 53 16.1	+0.8
LNBQ3	**Los Naranjos,**	3.67	317	eP	Pn	20 53 24.9	+2.4
APAC	**Apartado, Choc**	3.76	61	P	Pn	20 53 26.2	+2.5
APAC				S	Sn	20 54 07.1	-0.2
DBBC	**Dabeiba**	3.79	76	P	Pn	20 53 24.3	+0.1
DBBC				S	Sn	20 54 06.3	-1.8
BRU2	**Volcan**	3.84	314	⇑iP	Pn	20 53 25.4	+0.5
BRU2				eS	Sn	20 54 10.8	+1.2
CBOC	**Ciudad Bolivar**	3.88	93	P	Pn	20 53 24.5	-1.1
CBOC				S	Sn	20 54 04.0	-6.6
HELC	**Santa Helena**	4.36	89	P	Pn	20 53 32.9	+0.7
HELC				S	Sn	20 54 19.1	-3.5
HELC	**Santa Helena**	4.36	89	eP	Pn	20 53 33.0	+0.7
HELC				eS	Sn	20 54 18.6	-4.0
GUY2C	**Guyana, Caldas**	4.61	101	P	Pn	20 53 36.0	+0.2
GUY2C				S	Sn	20 54 29.1	+0.3
UREC	**San Jos de Ur**	4.65	69	P	Pn	20 53 37.3	+1.4
UREC				S	Sn	20 54 25.9	-3.3
POPC	**Popayan, Colom**	4.79	137	P	Pn	20 53 37.4	-0.6
BBAC	**Balboa, Cauca**	4.84	147	P	Pn	20 53 38.6	-0.2
NORC	**Norcasia**	5.04	96	P	Pn	20 53 42.4	+1.0
NORC				S	Sn	20 54 35.6	-3.5
ORTC	**Ortega, Tolima**	5.13	115	P	Pn	20 53 44.4	+1.8
	2μm58nm,0.5s						
ORTC				S	Sn	20 54 41.2	0.0
	2μm58nm,0.5s						
ORTC				AML	AML		
PTBC	**PUERTO BERRIO,**	5.44	85	P	Pn	20 53 49.4	+2.6
PTBC				S	Sn	20 54 47.3	-1.5
PRAC	**Prado**	5.54	115	P	Pn	20 53 49.8	+1.6
	1μm44nm,0.4s						
PRAC				S	Sn	20 54 51.1	-0.2
	1μm44nm,0.4s						
PRAC				AML	AML		
BETC	**Betania**	5.60	127	P	Pn	20 53 52.0	+2.9
SPBC	**San Pablo de B**	5.83	94	P	Pn	20 53 54.5	+2.3
SPBC				S	Sn	20 54 56.8	-1.6
GARC	**Garzon, Huila**	5.88	131	P	Pn	20 53 55.0	+2.0
GARC				S	Sn	20 54 59.8	0.0
GARC				AML	AML		
OTAV	**Otavalo**	6.00	166	P	Pn	20 53 57.2	+2.3
	5.6nm,0.7s						
OTAV				AML	AML		
SJCC	**San Jacinto, C**	6.01	51	P	Pn	20 53 57.1	+2.3
SJCC				S	Sn	20 55 00.9	-2.1
CVER	**Cruz Verde, Cu**	6.02	105	P	Pn	20 53 58.1	+2.9
URMC	**La Uribe, Meta**	6.20	117	P	Pn	20 53 58.8	+1.5
	1μm136nm,0.8s						
URMC				S	Sn	20 55 04.8	-2.8
	1μm136nm,0.8s						
URMC				AML	AML		
CHIC	**Chingaza**	6.32	103	P	Pn	20 54 01.7	+2.4
BARC	**Barichara**	6.71	85	P	Pn	20 54 07.3	+2.9
RUSC	**La Rusia**	6.79	91	P	Pn	20 54 08.2	+2.4
MACC	**Macarena, Meta**	7.21	123	P	Pn	20 54 12.8	+1.6
	45nm,0.5s						
PRVC	**Isla de Provid**	7.37	349	P	Pn	20 54 13.7	+0.4
GUVC	**San Jose del G**	8.07	116	P	Pn	20 54 23.7	+0.7
ATAH	**Atahualpa**	13.23	173	LR	LR	21 00 53.9	
	comp=Z,88nm,18.0s,baz=355,slow=33						
ESDC	**Sonseca Array**	75.32	51	P	P	21 04 11.3	+2.5
	0.9nm,0.8s,baz=272,slow=5.6,SNR=6.0						
	0.9nm,0.8s						
ASAR	**Alice Springs**	143.10	238	PKP	PKPbc	21 11 58.2	+1.2
	0.5nm,0.7s,baz=116,slow=3.0,SNR=5.4						
WRA	**Warramunga Arr**	144.01	244	PKP	PKPdf	21 12 01.3	-0.5
	2.5nm,0.8s,baz=103,slow=3.3,SNR=17						

SJA ***02*** *21:04:12.5±1.3, 27.°97S×71.°41W, h14^{km}±10^{km}, ML3.5, MW3.4*

GUC ***02*** *21:04:15.9±0.9, 28.°04S×71.°24W, h23^{km}±2^{km}, ML3.1*

ISC 02 21:04:12.1±1.8**, 27.°99S**±0.°03×**71.°37W**±0.°06**, h7**^{km}±13^{km}**, n32,** σ**1^{s}56**/42**, 4D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	**Llanos de Chal**	0.34	130	eP	Pn	21 04 21.9	-1.6
AC04				eS	Sb	21 04 26.1	-0.1
AC04				IAML		21 04 26.5	
	comp=Z,8μm,0.1s						
AC04	**Llanos de Chal**	0.34	130	⇓iP	Pn	21 04 22.0	-1.6
AC04				eS	Sb	21 04 25.9	-0.3
AC04				eS	Sb	21 04 26.1	-0.1
GO03	**Copiapo**	1.08	69	eP	Pn	21 04 34.1	+0.3
GO03				eS	Sn	21 04 49.3	+0.2
GO03				IAML		21 04 51.4	
	comp=Z,1μm,0.8s						
GO03	**Copiapo**	1.08	69	⇓iP	Pn	21 04 33.9	+0.1
GO03				eS	Sb	21 04 47.0	-0.6
GO03				IAML		21 04 52.1	
	comp=E,955nm,0.3s						
AC06	**Mina Casimiro**	1.10	55	eP	Pn	21 04 34.2	+0.2
AC06				eS	Sn	21 04 48.6	-0.8
AC06				IAML		21 04 52.8	
	comp=E,751nm,0.3s						
LCO	**Las Campanas**	1.18	150	eP	Pg	21 04 35.7	+1.0
LCO				eS	Sn	21 04 52.4	+0.7
LCO				IAML		21 04 53.6	
	comp=Z,2μm,0.4s						
LCO	**Las Campanas**	1.18	150	⇓iP	Pg	21 04 35.5	+0.7
LCO				eS	Sb	21 04 50.1	-0.5
AC05	**El Transito**	1.28	131	eP	Pg	21 04 37.3	+0.5
AC05				IAML		21 04 53.0	
	comp=Z,236nm,0.6s						
AC05	**El Transito**	1.28	131	⇓iP	Pg	21 04 37.0	+0.3
AC05				eS	Sb	21 04 52.0	-1.5
AC05				IAML		21 04 53.2	
	comp=N,528nm,0.5s						
AC01	**Pan de Azucar**	1.96	21	eP	Pb	21 04 46.9	-1.3
AC01	**Pan de Azucar**	1.96	21	eP	Pb	21 04 46.9	-1.3
GO04	**Tololo Observa**	2.23	167	eP	Pb	21 04 51.8	-1.2
GO04	**Tololo Observa**	2.23	167	eP	Pb	21 04 51.7	-1.3
GO04				eS	Sn	21 05 18.6	+0.8
CO01	**Juntas del Tor**	2.27	151	eP	Pb	21 04 53.4	-0.3
CO01				eS	Sb	21 05 20.8	-1.4
CO01				IAML		21 05 24.9	
	comp=E,265nm,0.3s						
AC02	**Maricunga**	2.30	61	eP	Pb	21 04 54.3	0.0
AC02	**Maricunga**	2.30	61	eP	Pb	21 04 54.2	0.0
AC02				eS	Sb	21 05 23.3	+0.2
AC02				IAML		21 05 25.5	
	comp=N,428nm,0.4s						
CO06	**Fray Jorge**	2.69	185	eP	Pn	21 04 56.2	+0.4
AROD	**Rodeo**	2.73	143	eP	Pb	21 05 00.8	-0.8
VCA	**Vinchina**	2.89	106	eP	Pb	21 05 04.3	+0.2
CO03	**El Pedregal**	2.90	168	eP	Pb	21 05 00.9	-3.4
CO03	**El Pedregal**	2.90	168	eP	Pn	21 05 00.8	+1.9
CO02	**Combarbal**	3.22	174	eP	Pn	21 05 04.4	+1.2
CO02	**Combarbal**	3.22	174	eP	Pn	21 05 04.5	+1.2
ACCO	**Cerro Coronel**	3.28	143	eP	Pb	21 05 08.7	-2.2
TINO	**Tinogasta**	3.36	92	eP	Pb	21 05 08.2	-4.0
PB14	**IPOC Station P**	3.46	15	eP	Pn	21 05 07.9	+1.1
ACLC	**CERRO LA CRUZ**	4.14	111	eP	Pn	21 05 19.9	+3.9
RTLL	**Cerro Villicun**	4.17	144	eP	Pn	21 05 20.0	+3.7
CFA	**Coronel Fontan**	4.52	144	eP	Pn	21 05 25.2	+4.1
CYA	**Choya**	4.93	97	eP	Pn	21 05 30.8	+4.0
PB05	**IPOC Station P**	5.22	12	eP	Pn	21 05 30.3	-0.5
MT02	**Curacav**	5.26	178	eP	Pn	21 05 32.7	+1.5

INMG ***02*** *21:08:45.3±1.6, 42.°82N×1.°50W, h0^{km}±4^{km}, ML2.5, Error ellipse: s-maj=2.7km s-min=2.4km az=52.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Pireneus (ESP)*

MDD ***02*** *21:08:45.4±0.1, 42.°81N×1.°47W, h0^{km}, mb_Lg2.8/46, Error ellipse: s-maj=1.6km s-min=1.1km az=3.0*

LDG ***02*** *21:08:47.2±0.2, 43.°02N×1.°43W, h2^{km}, Md2.8/2, Ml2.9/24, Error ellipse: s-maj=4.1km s-min=2.2km az=43.0*

ISC 02 21:08:43.8±0.8**, 42.°91N**±0.°02×**1.°47W**±0.°02**, h14**^{km}±6^{km}**, n64,** σ**2^{s}09**/129**, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EARA	**Aranguren**	0.15	211	Pg	Pg	21 08 46.5	-1.1
EARA				Sg	Sg	21 08 48.2	-2.0
EARA				IVmb_Lg		21 08 48.5	
SJPF	**Ste Jean**	0.28	41	ePg	Pg	21 08 50.9	+1.3
SJPF				eSg	Sg	21 08 53.3	-0.2
	376nm,0.3s						
EALK	**Alkurruntz**	0.32	355	Pg	Pg	21 08 52.0	+1.6
EALK				Sg	Sb	21 08 58.5	+2.2
EALK				IVmb_Lg		21 09 01.5	
ETSF	**Etsaut**	0.67	90	ePg	Pg	21 08 57.5	+0.6
ETSF				eSg	Sb	21 09 06.5	0.0
	48nm,0.2s						
ECHI	**Chisagues Biel**	1.25	101	Pg	Pg	21 09 08.0	+0.2
ECHI				Sg	Sn	21 09 24.9	+1.1
ECHI				IVmb_Lg		21 09 29.3	
ESAC	**San Caprasio**	1.40	148	Pg	Pb	21 09 09.9	+0.2
ESAC				Sg	Sg	21 09 28.0	-0.8
ESAC				IVmb_Lg		21 09 29.8	
ELAN	**Lanestosa**	1.48	283	Pn	Pb	21 09 12.1	+1.1
ELAN				Sn	Sb	21 09 31.9	+2.3
ELAN				IVmb_Lg		21 09 35.6	
ALT03	**Santillana del**	2.00	285	Pn	Pb	21 09 20.4	+0.6
ALT03				Sg	Sb	21 09 47.1	+2.5
ETOR	**Torete**	2.13	192	Pn	Pn	21 09 20.3	+1.3
ETOR				Pg	Pb	21 09 22.7	+0.5
ETOR				Sg	Sb	21 09 48.9	+0.4
ETOR				IVmb_Lg		21 09 56.6	
ERTA	**Horta de San J**	2.37	145	Pn	Pn	21 09 22.6	+0.4
ERTA				Sg	Sg	21 09 58.3	-1.6
ERTA				IVmb_Lg		21 10 03.7	
EPOB	**Poblet**	2.45	128	Pn	Pn	21 09 23.7	+0.2
EPOB				Sn	Sn	21 09 54.7	+1.5
EPOB				Sg	Sg	21 10 00.7	-1.8
EPOB				IVmb_Lg		21 10 07.6	
LFF	**La Frestale**	2.59	37	ePn	Pn	21 09 27.2	+2.0
LFF				eSn	Sn	21 09 56.6	+0.1
	15nm,0.3s						
LFF				AML	AML		
EMOS	**Mosqueruela**	2.65	163	Pn	Pn	21 09 27.4	+1.2
EMOS				Sn	Sn	21 09 59.5	+1.2
EMOS				Sg	Sg	21 10 06.9	-1.9
EMOS				IVmb_Lg		21 10 14.9	
MTLF	**Montolieu**	2.74	80	ePn	Pn	21 09 30.1	+2.8
MTLF				eP	Pb	21 09 32.3	-0.2
MTLF				eSn	Sn	21 10 00.7	+0.5
	12nm,0.3s						
MTLF				AML	AML		
RJF	**Les Rejaudoux**	3.22	41	ePn	Pn	21 09 34.4	+0.4
RJF				eSn	Sn	21 10 11.2	-1.0
	13nm,0.3s						
RJF				AML	AML		
CAF	**Calviac**	3.26	50	ePn	Pn	21 09 35.9	+1.4
CLAF	**Gruissan**	3.35	85	ePn	Pn	21 09 38.2	+2.5
MFF	**Saint Martin d**	3.81	14	ePn	Pn	21 09 43.4	+1.3
MFF				ePg	Pg	21 09 55.6	-1.2
MFF				eSn	Sn	21 10 24.5	-2.3
	3.8nm,0.2s						
MFF				AML	AML		
PAB	**San Pablo**	4.00	214	Pn	Pn	21 09 44.4	-0.3
PAB				Sn	Sn	21 10 32.9	+1.5
PAB				Sg	Sb	21 10 44.6	+2.4
PAB				IVmb_Lg		21 10 51.6	
ECAL	**Calabor**	4.01	258	Pn	Pn	21 09 45.2	+0.2
ECAL				Sn	Sn	21 10 31.2	-0.7
ECAL				Sg	Sb	21 10 48.6	+5.8
ECAL				IVmb_Lg		21 10 57.6	
LASF	**Ste Croix**	4.05	71	ePn	Pn	21 09 46.9	+1.5
LASF				eP	Pb	21 09 49.4	-5.5
LASF				eSn	Sn	21 10 32.1	-0.5
	9.6nm,0.4s						
LASF				AML	AML		
PBRG	**Braganca**	4.06	256	ePn	Pn	21 09 46.3	+0.8
PBRG				eSn	Sn	21 10 33.5	+0.7
PBRG				eSg	Sg	21 10 52.9	-1.2
PBRG				i IAML		21 10 57.5	
PBRG				i IAML		21 10 58.2	
EPON	**Pontenova**	4.18	278	Pn	Pn	21 09 49.2	+2.1
EPON				Sn	Sn	21 10 37.2	+1.4
EPON				Sg	Sb	21 10 53.4	+6.0
EPON				IVmb_Lg		21 10 58.7	
ETOB	**Tobarra**	4.26	181	Pn	Pn	21 09 49.6	+1.4
ETOB				Sn	Sn	21 10 37.7	-0.1
ETOB				IVmb_Lg		21 11 04.1	
TCF	**Toulx Ste Croi**	4.28	37	ePn	Pn	21 09 49.2	+0.6
TCF				eSn	Sn	21 10 36.9	-1.5
	7.2nm,0.3s						
TCF				AML	AML		
EIBI	**Ibiza**	4.42	150	Pn	Pn	21 09 49.4	-1.1
EIBI				Sn	Sn	21 10 38.2	-3.5
EIBI				IVmb_Lg		21 10 39.7	
EPLA	**Plasencia**	4.48	232	Pn	Pn	21 09 51.2	0.0
EPLA				Sn	Sn	21 10 41.6	-1.6
BGF	**Bois d'Agland**	4.77	39	ePn	Pn	21 09 55.7	+0.4
BGF				eSn	Sn	21 10 48.9	-1.5
	15nm,0.3s						
BGF				AML	AML		
VIVF	**Saint-Julien-l**	4.85	64	ePn	Pn	21 09 58.0	+1.6
VIVF				eSn	Sn	21 10 51.0	-1.4
	4.7nm,0.3s						
VIVF				AML	AML		
EAGO	**Agolada(Pontev**	4.87	271	Pn	Pn	21 09 58.2	+1.6
EAGO				Sn	Sn	21 10 51.3	-1.4
EAGO				IVmb_Lg		21 10 56.8	
PVRL	**Vila Real**	4.92	253	eSn	Sn	21 10 54.4	+0.2
POLO	**Lamas de Olo**	4.94	254	ePn	Pn	21 09 58.7	+1.0
POLO				eSn	Sn	21 10 54.5	-0.2
POLO				eSg	Sg	21 11 18.0	-4.5
POLO				i IAML		21 11 19.2	
POLO				i IAML		21 11 23.1	
POLO				i IAML		21 11 24.7	
ELOB	**Lobios**	4.99	260	Pn	Pn	21 09 58.6	+0.2
ELOB				Sn	Sn	21 10 54.8	-1.1
ELOB				IVmb_Lg		21 11 46.6	
PCAB	**Cabril**	5.01	258	ePn	Pn	21 09 59.0	+0.5
PCAB				eSg	Sg	21 11 20.9	-3.5
EZAR	**Zarzadilla de**	5.03	182	Pn	Pn	21 10 00.5	+1.6
EZAR				IVmb_Lg		21 10 21.4	
EZAR				Sn	Sn	21 10 58.1	+1.2
PGAV	**Gavieira, Arco**	5.12	262	ePn	Pn	21 10 00.8	+0.7
PGAV				eSg	Sg	21 11 27.7	-0.4
QUIF	**Quistinic**	5.15	347	ePn	Pn	21 10 02.3	+1.9
QUIF				eSn	Sn	21 10 57.0	-2.7
	3.0nm,0.2s						
QUIF				AML	AML		
AVF	**Avril sur Loir**	5.18	40	ePn	Pn	21 10 01.3	+0.4
AVF				eSn	Sn	21 10 58.9	-1.5
	1.7nm,0.2s						
AVF				AML	AML		
MTE	**Manteigas**	5.19	243	eSg	Sg	21 11 27.8	-2.6
EQES	**Quesada**	5.24	194	Pn	Pn	21 10 03.0	+1.1
EQES				IVmb_Lg		21 10 23.2	
EQES				Sn	Sn	21 11 03.4	+1.3
SMRF	**Simiane la Rot**	5.24	76	ePn	Pn	21 10 04.3	+2.5
SMRF				eSn	Sn	21 11 00.3	-1.7
	1.0nm,0.3s						
SMRF				AML	AML		
HYF	**Humbligny**	5.24	32	ePn	Pn	21 10 03.8	+2.0
HYF				eSn	Sn	21 10 59.1	-2.9
	28nm,0.3s						
HYF				AML	AML		
PVIS	**Viseu**	5.28	248	ePn	Pn	21 10 04.2	+1.9
PVIS				eSn	Sn	21 11 02.8	-0.1
PVIS				eSg	Sg	21 11 27.3	-5.8
EADA	**Adamuz**	5.29	208	Pn	Pn	21 10 02.6	+0.2
EADA				Sn	Sn	21 11 05.6	+2.3
EADA				IVmb_Lg		21 11 39.9	
SMF	**Signal de Mont**	5.32	43	ePn	Pn	21 10 03.6	+0.8
SMF				eSn	Sn	21 11 02.0	-1.8
	1.8nm,0.3s						
SMF				AML	AML		
SGMF	**Saint Gilles**	5.40	352	ePn	Pn	21 10 05.2	+1.3
SGMF				eSn	Sn	21 11 02.6	-3.3
	2.3nm,0.3s						
SGMF				AML	AML		
SSF	**Saint Saulge**	5.45	39	ePn	Pn	21 10 05.5	+0.9
SSF				eSn	Sn	21 11 04.9	-2.2
	3.4nm,0.3s						
SSF				AML	AML		
GRR	**Gorron**	5.50	4	ePn	Pn	21 10 06.7	+1.4
GRR				eSn	Sn	21 11 05.3	-3.0
	4.6nm,0.3s						
GRR				AML	AML		
ROSF	**Rostrenen**	5.58	348	ePn	Pn	21 10 07.3	+1.0
ROSF				eSn	Sn	21 11 06.6	-3.6
	3.8nm,0.2s						
ROSF				AML	AML		
PMRV	**Marv??o**	5.66	234	ePn	Pn	21 10 07.9	+0.5
PMRV				eSn	Sn	21 11 11.1	-1.2
PMRV				i IAML		21 11 16.3	
ORIF	**Oris-en-Rattie**	5.68	67	ePn	Pn	21 10 10.5	+2.7
ORIF				eP	Pb	21 10 13.2	-9.5
ORIF				eSn	Sn	21 11 10.7	-2.2
	3.3nm,0.5s						
ORIF				AML	AML		
LDF	**La Druitiere**	5.77	9	ePn	Pn	21 10 11.8	+2.9
LDF				eSn	Sn	21 11 11.9	-3.0
	1.5nm,0.3s						
LDF				AML	AML		
LOR	**Lormes**	5.77	39	ePn	Pn	21 10 10.2	+1.2
LOR				eSn	Sn	21 11 12.3	-2.6
	2.3nm,0.3s						
LOR				AML	AML		
LMR	**La Mourre**	5.86	83	ePn	Pn	21 10 13.4	+3.2
LMR				eSn	Sn	21 11 16.0	-1.1
	1.0nm,0.3s						
LMR				AML	AML		
FLN	**La Foliniere**	5.90	6	ePn	Pn	21 10 13.2	+2.5
FLN				eSn	Sn	21 11 13.8	-4.3
	1.5nm,0.2s						
FLN				AML	AML		
PSARD	**Sardoal**	6.03	239	ePn	Pn	21 10 13.2	+0.6
PSARD				eSn	Sn	21 11 19.9	-1.4
PSARD				eSg	Sg	21 11 55.1	-2.0
EBER	**Berja**	6.10	191	Pn	Pn	21 10 16.1	+2.4
PBAR	**Barrancos**	6.35	224	eSg	Sg	21 12 04.5	-2.9
PMTG	**Montargil**	6.39	235	ePn	Pn	21 10 19.8	+2.3
PARRA	**Arraiolos**	6.44	233	ePn	Pn	21 10 18.3	+0.1
LPL	**La Plagne**	6.45	63	eP	Pn	21 10 23.9	+5.4
PAGF	**Fort de Pagny**	7.56	39	ePn	Pn	21 10 34.0	+0.4
BAIF	**Baives**	8.16	27	ePn	Pn	21 10 42.3	+0.6
BAIF				eSn	Sn	21 12 08.1	-5.5
	0.8nm,0.2s						
BAIF				AML	AML		
GIVF	**Givet**	8.40	29	ePn	Pn	21 10 44.3	-0.8
GIVF				eSn	Sn	21 12 13.4	-6.3
	2.3nm,0.3s						
GIVF				AML	AML		

UCR ***02*** *21:07:43.6±2.3, 0.°16N×75.°34W, h15^{km}±328^{km}, MW4.9, Presumed earthquake*

IDC ***02*** *21:09:21.7±0.4, 6.°11N×79.°87W, h0^{km}, mb4.6/22, mbtmp4.6/29, ML3.9/6, MS4.2/53, Error ellipse: s-maj=14.9km s-min=9.3km az=50.0*

NEIC ***02*** *21:09:23.4±1.4, 6.°11N±0.°06×79.°92W±0.°07, h10^{km}±1^{km}, mb5.2/164, Mww5.3/61, Error ellipse: s-maj=12.1km s-min=9.3km az=245.0*

UPA ***02*** *21:09:23.9±1.0, 6.°23N×79.°88W, h11^{km}±7^{km}, MW5.1, Fault plane solution: NP1:ϕ_s302.67000°, δ84.92000°, λ19.37000°., Presumed earthquake*

GFZ ***02*** *21:09:24.9, 6.°16N×79.°88W, h12^{km}, Mw5.2/68, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}-6.92; $M_{\theta\theta}$7.14; $M_{\phi\phi}$-0.22; $M_{r\theta}$0.34; $M_{\theta\phi}$2.05; $M_{\phi r}$2.02; Fault plane solution: $M_0$7.60755×10^{16} NP1:ϕ_s90.46516°, δ43.76704°, λ-67.42243°. NP2:ϕ_s240.53291°, δ50.30399°, λ-110.19128°. Principal axes: T 7.7225, Plg3.3826°, Azm344.6845°; N -0.2354, Plg15.4013°, Azm253.7515°; P -7.4871, Plg74.2135°, Azm86.7522°;*

GFZ ***02*** *21:09:24.9±0.1, 6°N±2°×8°0W±°, h10^{km}, M5.1/103, mb5.0/103 Error ellipse: s-maj=5.6km s-min=3.5km az=69.3, confirmed*

RSNC ***02*** *21:09:24.3±0.0, 6°N±2°×8°0W±°, h30^{km}±7^{km}, M5.0, mb5.5, mB5.7, ML3.9, Mw(mB)5.2, MwMwp5.0, Mwp5.3*

GCMT ***02*** *21:09:26.4±0.1, 6.°12N±0.°01×79.°88W±0.°01, h12^{km}, MW5.2/146, Moment Tensor Solution. s89,c147; s146,c264; Duration: 1^{s}0 Moment tensor: Scale 10^{17} Nm; M_{rr}-0.66±.01; $M_{\theta\theta}$0.83±.01; $M_{\phi\phi}$-0.17±.01; $M_{r\theta}$0.06±.03; $M_{\theta\phi}$0.27±.01; $M_{\phi r}$0.35±.03; Best double couple: $M_0$0.87800×10^{17} NP1:ϕ_s101.00000°, δ47.00000°, λ-50.00000°. NP2:ϕ_s231.00000°, δ56.00000°, λ-124.00000°. Principal axes: T 0.9130, Plg5.0000°, Azm344.0000°; N -0.0690, Plg28.0000°, Azm251.0000°; P -0.8440, Plg62.0000°, Azm84.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

CATAC ***02*** *21:09:26.1±0.7, 6°N±2°×8°0W±°, h29^{km}±6^{km}, M5.2/24, mb5.5/12, mB5.7/11, MLv5.2/24, Mw(mB)5.2/11, MwMwp5.0/4, Mwp5.3/4 Error ellipse: s-maj=4.5km s-min=2.8km az=26.1, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}-6.82; $M_{\theta\theta}$6.40; $M_{\phi\phi}$0.42; $M_{r\theta}$2.75; $M_{\theta\phi}$1.44; $M_{\phi r}$6.57; Fault plane solution: $M_0$9.82803×10^{16} NP1:ϕ_s94.24238°, δ31.41080°, λ-45.26229°. NP2:ϕ_s224.98078°, δ68.27165°, λ-113.25908°. Principal axes: T 8.2862, Plg19.9809°, Azm332.2651°; N 2.5721, Plg21.5204°, Azm234.0220°; P -10.8583, Plg59.9121°, Azm101.1336°; confirmed*

BGR ***02*** *21:09:28.4, 6.°72N×79.°92W, h23^{km}, mb5.0, Ms4.4*

ISC 02 21:09:24.0±0.8**, 6.°12N**±0.°03×**79.°87W**±0.°03**, h16**^{km}±4^{km}**,**

h16^{km}:pP-P,n702,σ1^{s}59/740,mb5.0/207,MS4.4/65,
31C-12D,South of Panama

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ACHO3	**Achotines, Los**	1.32	347	⇑*i*P	Pn	21 09 44.6	-3.2
ACHO3				*e*S	Sn	21 10 02.3	-2.8
TOSI3	**Tonosi**	1.40	336	⇑*i*P	Pn	21 09 45.8	-3.1
TOSI3				*e*S	Sn	21 10 04.5	-2.5
PEDA3	**Pedasi**	1.41	354	⇑*i*P	Pn	21 09 45.7	-3.3
PEDA3				*e*S	Sn	21 10 02.7	-4.5
CACAO	**El Cacao, Vera**	1.56	321	P	Pn	21 09 48.0	-3.1
CACAO				S	Sn	21 10 06.9	-4.2
CACAO	**El Cacao, Vera**	1.56	321	⇑*i*P	Pn	21 09 48.0	-3.1
CACAO				*e*S	Sn	21 10 08.7	-2.4
AZU	**Azuero**	1.71	346	P	Pn	21 09 50.6	-2.5
AZU				S	Sn	21 10 11.6	-3.0
AZU	**Azuero**	1.71	346	⇑*i*P	Pn	21 09 50.7	-2.5
AZU				*e*S	Sn	21 10 11.8	-2.8
CHIT3	**Chitre**	1.90	343	⇑*i*P	Pn	21 09 53.6	-2.2
CHIT3				*e*S	Sn	21 10 14.3	-5.2
PESE3	**Pese, Herrera**	1.92	337	⇑*i*P	Pn	21 09 53.9	-2.2
PESE3				*e*S	Sn	21 10 17.1	-2.8
STIA3	**Santiago, Vera**	2.25	331	⇑*i*P	Pn	21 09 58.9	-1.7
STIA3				*e*S	Sn	21 10 25.9	-2.2
PTAC	**Punta Ardita,**	2.29	63	P	Pn	21 09 59.0	-2.1
PTAC				S	Sn	21 10 24.6	-4.4
PTAC	**Punta Ardita,**	2.29	63	*e*P	Pn	21 09 59.9	-1.2
PTAC				*e*S	Sn	21 10 28.2	-0.8
CALO3	**Calobre, Verag**	2.39	336	⇑*i*P	Pn	21 10 01.0	-1.5
CALO3				*e*S	Sn	21 10 29.8	-1.7
PNME	**Penonome**	2.39	349	P	Pn	21 10 01.1	-1.5
PNME				S	Sn	21 10 29.7	-1.9
PNME	**Penonome**	2.39	349	⇑*i*P	Pn	21 10 01.1	-1.5
PNME				*e*S	Sn	21 10 30.4	-1.2
SOLC	**Bahia Solano**	2.45	87	P	Pn	21 10 01.5	-1.9
SOLC				S	Sn	21 10 26.1	-6.9
SAFE3	**Santa Fe, Vera**	2.66	333	⇑*i*P	Pn	21 10 05.1	-1.2
SAFE3				*e*S	Sn	21 10 39.4	+1.1
PIZC	**Pizarro, Choco**	2.75	115	P	Pn	21 10 04.7	-2.8
PIZC				S	Sn	21 10 37.7	-2.7
FLAM	**Flamenco Islan**	2.79	7	⇑*i*P	Pn	21 10 07.1	-1.0
FLAM				*e*S	Sn	21 10 38.2	-3.3
PDCAN	**Manzana , Fuen**	2.82	320	*e*P	Pn	21 10 06.8	-1.6
PDCAN				*e*S	Sn	21 10 41.3	-0.8
ZANG	**Zanguenga, Cho**	2.82	0	⇑*i*P	Pn	21 10 07.6	-0.8
ZANG				*e*S	Sn	21 10 39.4	-2.7
ARRA3	**Arraijan, Pana**	2.83	4	⇑*i*P	Pn	21 10 07.8	-0.9
ARRA3				*e*S	Sn	21 10 40.7	-1.8
UPA	**Univ. de Panam**	2.86	7	P	Pn	21 10 08.0	-1.0
UPA				S	Sn	21 10 40.6	-2.5
UPA	**Univ. de Panam**	2.86	7	⇑*i*P	Pn	21 10 08.0	-1.0
GAMB1	**Gamboa**	2.98	3	*e*P	Pn	21 10 09.4	-1.3
GAMB1				*e*S	Sn	21 10 44.7	-1.5
BCIP	**Isla Barro Col**	3.02	1		Pn	21 10 10.2	-1.0
BCIP	**Isla Barro Col**	3.02	1	P	Pn	21 10 10.1	-1.2
BCIP				S	Sn	21 10 44.3	-2.9
BCIP	**Isla Barro Col**	3.02	1	⇑P	Pn	21 10 10.2	-1.0
BCIP				S	Sn	21 10 45.6	-1.6
BCIP	**Isla Barro Col**	3.02	1	P	Pn	21 10 10.3	-1.0
BCIP	**Isla Barro Col**	3.02	1	⇑*i*P	Pn	21 10 10.2	-1.1
FRIJ	**El Hiral**	3.08	3	⇑*i*P	Pn	21 10 10.6	-1.4
FRIJ				*e*S	Sn	21 10 45.5	-3.1
MLIR	**Monte Lirio**	3.10	0	⇑*i*P	Pn	21 10 11.1	-1.2
MLIR	**Monte Lirio**	3.10	0	*e*S	Sn	21 10 46.2	-2.9
CHPO	**Chepo, Panama**	3.12	14	*e*P	Pn	21 10 12.1	-0.5
TOTI	**Torti**	3.19	29	*e*P	Pn	21 10 12.0	-1.5
TOTI				*e*S	Sn	21 10 49.7	-1.6
CNTA3	**Canitas, Panam**	3.23	17	*e*P	Pn	21 10 13.3	-0.8
CNTA3				⇓*i*P	Pb	21 10 13.6	-7.4
CNTA3				*e*S	Sn	21 10 49.8	-2.5
KKNTU	**Kakintº**	3.31	325	*e*P	Pn	21 10 14.1	-1.2
KKNTU				*e*S	Sn	21 10 55.0	+0.6
CHIR3	**Chiriqui UPA,**	3.33	313	⇑*i*P	Pn	21 10 14.5	-0.9
CHIR3				*e*S	Sn	21 10 52.4	-2.3
LOMA3	**Las Lomas, Chi**	3.39	313	⇑*i*P	Pn	21 10 15.5	-0.8
LOMA3				*e*S	Sn	21 10 54.0	-2.3
BGUAL	**Bijagual, Pana**	3.41	314	⇑*i*P	Pn	21 10 15.7	-0.8
DVD	**David**	3.44	312	⇑*e*P	Pn	21 10 15.9	-1.1
DVD				*e*S	Sn	21 10 56.9	-0.6
RBALA	**Bur**	3.55	321	⇑*i*P	Pn	21 10 18.1	-0.5
LMNES	**Limones**	3.56	304	*e*P	Pn	21 10 17.0	-1.6
LIMO3	**Limones**	3.56	304	*e*P	Pn	21 10 18.2	-0.5
LIMO3				*e*S	Sn	21 10 57.8	-2.7
PTPM	**Petroterminale**	3.63	305	⇓*i*P	Pn	21 10 19.4	-0.2
PTPM				*e*S	Sn	21 10 59.8	-2.4
BQSF3	**Alto Boquete,**	3.64	316	*e*P	Pn	21 10 18.3	-1.6
PTAR3	**Potrerillos Ar**	3.65	315	*e*P	Pn	21 10 18.9	-1.1
PTAR3				*e*S	Sn	21 11 04.0	+1.3
BQTLY	**Boquete Panama**	3.67	316	*e*P	Pn	21 10 19.4	-0.9
LNBQ3	**Los Naranjos,**	3.68	316	*e*P	Pn	21 10 19.8	-0.6
LNBQ3				*e*S	Sn	21 11 01.5	-2.0
APAC	**Apartado, Choc**	3.71	61	P	Pn	21 10 21.8	+1.0
APAC				S	Sn	21 11 05.3	+1.1
DBBC	**Dabeiba**	3.74	76	P	Pn	21 10 21.4	+0.1
DBBC				S	Sn	21 11 00.7	-4.4
CLLRA	**Cordillera,**	3.77	314	*i* P	Pn	21 10 20.6	-1.1
CBOC	**Ciudad Bolivar**	3.85	94	P	Pn	21 10 20.6	-2.1
CBOC				S	Sn	21 11 00.9	-6.8
CDITO	**Canoas**	3.85	309	P	Pn	21 10 22.1	-0.5
CDITO				S	Sn	21 11 07.5	-0.1
BRU2	**Volcan**	3.86	314		Pn	21 10 21.6	-1.3
BRU2	**Volcan**	3.86	314	⇑P	Pn	21 10 21.7	-1.1
BRU2				S	Sn	21 11 06.6	-1.3
BRU2	**Volcan**	3.86	314	P	Pn	21 10 21.8	-1.1
BRU2	**Volcan**	3.86	314	⇑*i*P	Pn	21 10 21.6	-1.3
BRU2				*e*S	Sn	21 11 07.0	-1.0
NELY	**Ciudad Neily**	3.95	310	*e*P	Pn	21 10 22.3	-1.7
MLIR3	**Monte Lirio, C**	3.95	312	*e*P	Pn	21 10 24.9	+0.8
VITO	**San Vito**	4.08	311	*e*P	Pn	21 10 26.2	+0.3
PIRO	**Carate, Puerto**	4.12	304		Pn	21 10 24.6	-1.8
PIRO	**Carate, Puerto**	4.12	304	P	Pn	21 10 25.3	-1.1
PIRO				S	Sn	21 11 13.2	-1.0
PIRO	**Carate, Puerto**	4.12	304	*e*P	Pn	21 10 24.6	-1.8
PIRO				*e*S	Sn	21 11 10.4	-3.8
HELC	**Santa Helena**	4.32	89	P	Pn	21 10 28.9	-0.5
HELC				S	Sn	21 11 15.2	-4.4
HELC	**Santa Helena**	4.32	89	⇓*i*P	Pn	21 10 29.4	0.0
HELC				*e*S	Sn	21 11 19.7	0.0
RGM0	**Gandoca**	4.38	322		Pn	21 10 27.9	-2.1
RGM0	**Gandoca**	4.38	322	P	Pn	21 10 29.9	-0.1
LCBC	**Los crdobas,**	4.41	52	P	Pn	21 10 32.2	+1.9
LCBC				S	Sn	21 11 20.9	-0.5
GUY2C	**Guyana, Caldas**	4.57	101	P	Pn	21 10 31.5	-1.5
GUY2C				S	Sn	21 11 24.7	-1.4
DRK0	**Durika**	4.57	313	⇑*i*P	Pn	21 10 18.4	-14
DRK0				*e*S	Sn	21 11 09.4	-16
UREC	**San Jos de Ur**	4.60	69	P	Pn	21 10 33.6	+0.6
UREC				S	Sn	21 11 25.0	-1.2
UREC	**San Jos de Ur**	4.60	69	⇓*i*P	Pn	21 10 33.8	+0.8
UREC				*e*S	Sn	21 11 26.3	+0.1
POPC	**Popayan, Colom**	4.78	138	P	Pn	21 10 33.8	-1.8
POPC				S	Sn	21 11 29.3	-1.5
BBAC	**Balboa, Cauca**	4.84	147	P	Pn	21 10 34.2	-2.3
NORC	**Norcasia**	5.01	96	P	Pn	21 10 38.6	0.0
	6μm381nm,0.5s						
NORC				S	Sn	21 11 31.7	-4.5
	6μm381nm,0.5s						
NORC				AML	AML		
ORTC	**Ortega, Tolima**	5.10	115	P	Pn	21 10 40.2	+0.3
ORTC				S	Sn	21 11 37.1	-1.5
CRUC	**La Cruz**	5.38	147	P	Pn	21 10 46.2	+2.2
CRUC				S	Sn	21 11 40.7	-5.2
CRUC				AML	AML		
PTBC	**PUERTO BERRIO,**	5.40	85	P	Pn	21 10 45.0	+1.1
	15μm2μm,0.8s						
PTBC				S	Sn	21 11 44.7	-1.1
	15μm2μm,0.8s						
PTBC				AML	AML		
LCR2	**La Lucha 2**	5.45	312		Pn	21 10 43.8	-1.0
LCR2	**La Lucha 2**	5.45	312	P	Pn	21 10 44.6	-0.3
LCR2				S	Sn	21 11 46.2	-1.1
LCR2	**La Lucha 2**	5.45	312	⇑*i*P	Pn	21 10 43.9	-1.0
RAFA	**San Farael, Vo**	5.46	315		Pn	21 10 44.5	-0.5
PRAC	**Prado**	5.51	115	P	Pn	21 10 46.0	+0.5
	6μm10μm592nm,0.8s						
PRAC				S	Sn	21 11 48.5	-0.2
	6μm10μm592nm,0.8s						
PRAC				AML	AML		
PRAC	**Prado**	5.51	115	⇑P	Pn	21 10 46.1	+0.6
PRAC				S	Sn	21 11 50.1	+1.4
BETC	**Betania**	5.58	128	P	Pn	21 10 48.5	+2.0
BETC				S	Sn	21 11 51.1	+0.6
CVIMO	**Finca Echandi**	5.59	314	*e*P	Pn	21 10 49.3	+2.5
ROSC	**El Rosal**	5.67	103	Pn	Pn	21 10 50.1	+2.1
	9.1nm,0.3s,baz=288,slow=3.2,SNR=23						
ROSC				LR	LR	21 12 45.8	
	comp=Z,2μm,18.3s,baz=297,slow=36						
	70nm,0.5s						
ROSC				AML	AML		
ROSC	**El Rosal**	5.67	103		Pn	21 10 49.2	+1.2
ROSC	**El Rosal**	5.67	103	P	Pn	21 10 50.3	+2.3
	4μm3μm249nm,0.7s						
ROSC				AML	AML		
HDC	**Heredia**	5.70	313		Pn	21 10 47.7	-0.6
HDC	**Heredia**	5.70	313	*e*P	Pn	21 10 48.9	+0.7
HDC	**Heredia**	5.70	313	P	Pn	21 10 49.6	+1.4
	comp=Z,668nm,0.8s						
TULM	**Tulcn-Chalpat**	5.76	159	P	Pn	21 10 51.6	+2.3
TULM	**Tulcn-Chalpat**	5.76	159	P	Pn	21 10 51.8	+2.5
SPBC	**San Pablo de B**	5.79	94	P	Pn	21 10 50.9	+1.5
	comp=Z,4μmcomp=Z,4μmcomp=Z,261nm,0.5s						
SPBC				AML	AML		
GARC	**Garzon, Huila**	5.86	132	P	Pn	21 10 51.6	+1.1
	comp=Z,12μmcomp=Z,434nm,0.6s						
GARC				S	Sn	21 11 55.7	-1.8
	comp=Z,12μmcomp=Z,434nm,0.6s						
GARC				AML	AML		
TCS1	**Tacares**	5.87	312	P	Pn	21 10 51.0	+0.6
TRB2	**Turrubares**	5.89	310	P	Pn	21 10 51.4	+0.6
PAC1	**Pacto, Paraso**	5.92	169	P	Pn	21 10 51.9	+0.7
CUSE	**Cuicocha Este**	5.96	166	P	Pn	21 10 51.9	-0.2
CUSE				AML	AML		
SJCC	**San Jacinto, C**	5.97	51	P	Pn	21 10 52.7	+0.8
SJCC				S	Sn	21 11 55.1	-4.9
SJCC	**San Jacinto, C**	5.97	51	P	Pn	21 10 52.5	+0.6
SJCC				S	Sn	21 11 58.6	-1.4
SJCC	**San Jacinto, C**	5.97	51	*e*P	Pn	21 10 51.7	-0.2
CVER	**Cruz Verde, Cu**	5.99	105	P	Pn	21 10 54.1	+1.6
	comp=Z,3μmcomp=Z,212nm,0.7s						
CVER				AML	AML		
OTAV	**Otavalo**	6.01	166		Pn	21 10 51.2	-1.6
OTAV	**Otavalo**	6.01	166	P	Pn	21 10 50.2	-2.6
OTAV	**Otavalo**	6.01	166	P	Pn	21 10 53.4	+0.6
OTAV	**Otavalo**	6.01	166	*e*P	Pn	21 10 50.8	-2.0
OTAV	**Otavalo**	6.01	166	P	Pn	21 10 52.6	-0.2
	comp=Z,64nm,0.8s						
IMBA	**Imbabura, San**	6.04	164	P	Pn	21 10 55.1	+1.9
VPL3	**V. Platanar**	6.08	314	*e*P	Pn	21 10 53.3	0.0
BRJC	**Barrancabermej**	6.14	82	P	Pn	21 10 55.3	+1.1
BRJC				AML	AML		
URMC	**La Uribe, Meta**	6.17	117	P	Pn	21 10 54.7	0.0
CHIC	**Chingaza**	6.29	103	P	Pn	21 10 58.3	+1.7
	comp=Z,4μmcomp=Z,3μmcomp=Z,328nm,0.7s						
GGPC	**Guagua Pichinc**	6.39	168	P	Pn	21 10 59.9	+1.8
VACR	**Volcan Arenal**	6.43	313	*e*P	Pn	21 10 59.1	+1.0
ARE1	**Arenal 1**	6.45	312	*e*P	Pn	21 10 59.6	+1.2
VARE2	**V. Arenal**	6.45	312	*e*P	Pn	21 10 59.7	+1.2
CEDE	**Laguna Cedeo**	6.46	313	*e*P	Pn	21 10 58.5	0.0
VILC	**Villavicencio,**	6.47	108	P	Pn	21 11 00.6	+1.8
JTS	**Las Juntas de**	6.52	310	Pn	Pn	21 11 00.0	+0.7
	comp=Z,67nm,0.5s,baz=134,slow=13,SNR=31						
JTS				Sn	Sn	21 12 12.8	-0.6
	comp=Z,4.6nm,0.3s,baz=72,slow=20,SNR=1.0						
JTS				LR	LR	21 13 40.7	
	comp=Z,6μm,18.2s,baz=135,slow=40						
JTS	**Las Juntas de**	6.52	310		Pn	21 10 58.7	-0.6
JTS	**Las Juntas de**	6.52	310	P	Pn	21 10 59.4	+0.1
JTS	**Las Juntas de**	6.52	310	⇑P	Pn	21 10 59.5	+0.2
JTS				S	Sn	21 12 12.8	-0.6
JTS	**Las Juntas de**	6.52	310	*e*P	Pn	21 10 58.9	-0.4
JTS	**Las Juntas de**	6.52	310	P	Pn	21 11 00.4	+1.1
	comp=Z,262nm,1.4s						
JTS	**Las Juntas de**	6.52	310	⇑*i*P	Pn	21 10 59.1	-0.2
JTS				*e*S	Sn	21 12 09.8	-3.6
BARC	**Barichara**	6.66	86	P	Pn	21 11 02.5	+0.9
CMARA	**Lajas Hojancha**	6.72	306	P	Pn	21 11 01.1	-1.2
CMARA				S	Sn	21 12 17.1	-1.5
CMARA	**Lajas Hojancha**	6.72	306	*e*P	Pn	21 11 01.7	-0.5
RUSC	**La Rusia**	6.75	92	P	Pn	21 11 03.9	+0.9
RUSC	**La Rusia**	6.75	92	⇓P	Pn	21 11 03.9	+0.9
TENO	**El Achiote**	6.80	312	*e*P	Pn	21 11 04.3	+1.0
OCAC	**Ocana**	6.83	72	P	Pn	21 11 04.4	+0.6
CUI	**Cuipilapa**	6.91	311	*e*P	Pn	21 11 05.5	+0.7
SLOR	**San Lorenzo -**	6.94	169		Pn	21 11 05.6	0.0
HORNC	**Hornillas**	6.96	311	*e*P	Pn	21 11 06.1	+0.7
VMAR	**Armenia, Volca**	6.97	312	*e*P	Pn	21 11 06.4	+0.8
BLUN	**Bluefields**	7.00	327	P	Pn	21 11 04.6	-1.4
MACC	**Macarena, Meta**	7.19	123	P	Pn	21 11 08.6	0.0
PAMC	**Pamplona, Colo**	7.22	80	P	Pn	21 11 10.7	+1.2
PRVC	**Isla de Provid**	7.36	349	P	Pn	21 11 07.3	-3.6
PRVC	**Isla de Provid**	7.36	349	*e*P	Pn	21 11 07.2	-3.7
PRVC	**Isla de Provid**	7.36	349	*e*P	Pn	21 11 09.8	-1.0
SMRC	**Santa Marta, M**	7.50	48	P	Pn	21 11 14.6	+1.8
CARN	**Rivas**	7.52	312	Pn	Pn	21 11 13.2	+0.1
PTLC	**Puerto Leguiza**	7.78	139	P	Pn	21 11 20.7	+4.0
GUVC	**San Jose del G**	8.05	116	P	Pn	21 11 20.7	+0.3
BOAB	**BOACO BROADBAN**	8.50	318		Pn	21 11 25.4	-1.1
BOAB	**BOACO BROADBAN**	8.50	318	P	Pn	21 11 26.4	-0.1
	comp=Z,182nm,1.3s						
BILN	**Bilwi Airport**	8.60	337	Pn	Pn	21 11 28.1	+0.1
MGAN	**Managua**	8.69	314	Pn	Pn	21 11 28.4	-0.8
URIC	**Uribia, Colomb**	9.55	54	P	Pn	21 11 40.7	-0.3
SDV	**Santo Domingo**	9.56	73	Pn	Pn	21 11 42.7	+1.4
	comp=Z,9.1nm,0.3s,baz=259,slow=12,SNR=33						
SDV				Sn	Sn	21 13 28.9	+0.2
	comp=Z,3.6nm,0.3s,baz=288,slow=20,SNR=1.4						
	comp=Z,98nm,0.7s						
SDV				AML	AML		
SDV	**Santo Domingo**	9.56	73		Pn	21 11 42.0	+0.6
SDV	**Santo Domingo**	9.56	73	P	Pn	21 11 41.9	+0.6
SDV	**Santo Domingo**	9.56	73	P	Pn	21 11 42.2	+0.9
	comp=Z,1μm,0.8s						
TGUH	**Tegucigalpa,Un**	10.73	318	Pn	Pn	21 11 56.7	-0.6
MTO3	**Montecristo**	12.44	312		Pn	21 12 19.8	-0.9
ESQI	**Esquipulas**	12.53	313	Pn	Pn	21 12 20.7	-1.2
ATAH	**Atahualpa**	13.25	174	Pn	Pn	21 12 33.4	+1.4
	comp=Z,1.1nm,0.3s,baz=347,slow=13,SNR=13						
ATAH				LR	LR	21 17 43.2	
	comp=Z,2μm,19.8s,baz=345,slow=38						
	comp=Z,40nm,0.9s						
ATAH				AML	AML		
APG	**El Apazote**	13.64	311	Pn	Pn	21 12 37.5	+0.3
	baz=139,slow=11,SNR=10.0						
APG				LR	LR	21 17 40.5	
	comp=Z,118nm,20.8s,baz=298,slow=36						
CHIV	**Chivirico**	14.18	13	Pn	Pn	21 12 43.9	-0.3
SGC2	**Sao Gabriel da**	14.30	115	*e*P	Pn	21 12 43.3	-2.7
RTAL	**Retalhuleu**	14.31	307	Pn	Pn	21 12 45.6	-0.6
GTBY	**Guantanamo Bay**	14.48	18	Pn	Pn	21 12 48.1	-0.4
NMDO	**Nuevo Mundo**	15.12	18		Pn	21 12 55.1	-1.9
SDDR	**Presa de Saban**	15.27	32		Pn	21 12 57.0	-2.2
SDDR				IAmb	IAmb	21 13 05.7	
	comp=Z,249nm,1.6s						
SDDR	**Presa de Saban**	15.27	32	P	Pn	21 12 59.2	0.0
SDDR	**Presa de Saban**	15.27	32	P	Pn	21 12 59.8	+0.6
	comp=Z,97nm,1.4s						
BANI	**BANI**	15.32	36		Pn	21 12 58.8	-1.1
CZSB	**Cruzeiro do Su**	15.51	152		Pn	21 12 59.8	-2.4
CZSB				IAmb	IAmb	21 13 09.9	
	comp=Z,107nm,1.0s						
CZSB	**Cruzeiro do Su**	15.51	152	*e*P	Pn	21 13 00.2	-2.0
SC01	**Santiago de lo**	15.94	33	Pn	Pn	21 13 08.6	+0.8
SC01				IAmb	IAmb	21 13 15.8	
	comp=Z,206nm,1.4s						
TEIG	**Tepich**	16.22	331	Pn	Pn	21 13 11.3	-0.1
	baz=218,slow=19,SNR=3.2						
TEIG	**Tepich**	16.22	331	Pn	Pn	21 13 09.5	-1.9
CAIB	**Caibarien**	16.28	1		Pn	21 13 12.2	+0.1
SOR	**Soroa**	16.85	350	Pn	Pn	21 13 19.6	+0.2
CRPR	**Cabo Rojo, PR**	17.17	45	Pn	Pn	21 13 23.6	+0.2
PRSN	**Puerto Rico Se**	17.28	45		Pn	21 13 23.8	-1.0
PRSN				IAmb	IAmb	21 13 32.0	
	comp=Z,211nm,1.4s						
OBIP	**Obispado Ponce**	17.55	46		Pn	21 13 28.6	+0.5
AOPR	**Arecibo Observ**	17.64	45		Pn	21 13 28.9	-0.5
AOPR				IAmb	IAmb	21 13 37.5	
	comp=Z,452nm,1.8s						
ECPR	**Experimental S**	17.91	46	P	Pn	21 13 31.9	-0.6
ECPR				IAmb	IAmb	21 13 38.8	
	comp=Z,269nm,1.6s						
SJG	**San Juan**	17.93	47	P	Pn	21 13 31.9	-0.9
	comp=Z,1.0nm,0.3s,baz=232,slow=13,SNR=7.2						
SJG				LR	LR	21 20 32.6	
	comp=Z,1μm,21.9s,baz=230,slow=37						
	comp=Z,5.9nm,0.2s						
SJG				AML	AML		
SJG	**San Juan**	17.93	47	P	Pn	21 13 32.1	-0.7
TEFE	**Tefe**	17.97	122	*e*P	Pn	21 13 33.3	-0.1
HUMP	**Col San Antoni**	18.16	48	P	Pn	21 13 34.7	-1.0
NNA	**Nana**	18.24	170	P	P	21 13 37.5	+0.7
	comp=Z,1.0nm,0.3s,baz=356,slow=12,SNR=9.4						
NNA				LR	LR	21 21 34.6	
	comp=Z,516nm,19.6s,baz=334,slow=40						
	comp=Z,45nm,0.8s						
NNA				AML	AML		
NNA	**Nana**	18.24	170		Pn	21 13 33.6	-3.1
NNA	**Nana**	18.24	170	P	P	21 13 38.3	+1.4
	comp=Z,93nm,1.0s						
CMIG	**Matias Romero**	18.29	308	P	Pn	21 13 36.7	-0.6
	comp=Z,0.5nm,0.3s,baz=122,slow=11,SNR=15						
	comp=Z,6.0nm,0.7s						
CMIG				AML	AML		
GRGR	**Grenville**	18.94	70	P	Pn	21 13 45.2	-0.1
GRGR	**Grenville**	18.94	70	P	Pn	21 13 46.3	+1.0
	comp=Z,423nm,1.0s						
BOAV	**Boa Vista**	19.64	100	P	P	21 13 51.1	-1.2
BOAV				IAmb	IAmb	21 13 55.9	
	comp=Z,118nm,1.2s						
BOAV	**Boa Vista**	19.64	100	*e*P	P	21 13 52.2	-0.1
SMRT	**St. Maarten**	20.23	53	P	P	21 13 56.9	-1.8
SMRT				IAmb	IAmb	21 14 08.2	
	comp=Z,248nm,1.5s						
SMRT	**St. Maarten**	20.23	53	P	Pn	21 14 01.2	+0.6
	comp=Z,100nm,1.3s						
BIM	**Bigot**	20.27	64	P	P	21 13 58.7	-0.5
BIM				IAmb	IAmb	21 14 08.9	
	comp=Z,129nm,1.0s						
BIM	**Bigot**	20.27	64	P	Pn	21 14 00.7	-0.4
	comp=Z,126nm,1.1s						
FDFM	**Morne la Roset**	20.28	64	P	P	21 13 57.3	-1.9
FDFM				IAmb	IAmb	21 14 04.6	
	comp=Z,155nm,1.3s						
MPOM	**Morne Pois Mar**	20.44	65	P	P	21 14 00.6	-0.3
MPOM				IAmb	IAmb	21 14 12.4	
	comp=Z,84nm,0.9s						
MPOM	**Morne Pois Mar**	20.44	65	P	Pn	21 14 02.9	-0.1
	comp=Z,98nm,1.0s						
CBE	**Ff, Capester**	20.45	60	P	P	21 14 00.8	-0.3
CBE	**Ff, Capester**	20.45	60	P	Pn	21 14 03.8	+0.6
	comp=Z,191nm,1.4s						
GDSD	**La Dsirade Is**	21.02	60	P	P	21 14 07.9	+0.7
MACA	**Manacapuru-AM**	21.26	115	P	P	21 14 09.8	-0.1
MACA				IAmb	IAmb	21 14 14.9	
	comp=Z,115nm,1.1s						
MACA	**Manacapuru-AM**	21.26	115	*e*P	P	21 14 09.5	-0.3
TLIG	**Tlapa**	21.52	304	P	P	21 14 12.2	-0.4
TLIG				IAmb	IAmb	21 14 19.8	
	comp=Z,156nm,1.4s						
DWPF	**Disney Wildern**	21.92	356	P	P	21 14 15.6	-1.1
DWPF	**Disney Wildern**	21.92	356	P	P	21 14 17.7	+1.0
	comp=Z,173nm,2.3s						
656A	**Willston**	23.26	354	P	P	21 14 30.0	-0.9
MOIG	**Morelia**	24.72	305		P	21 14 45.4	+0.3
451A	**Vernon**	24.98	348	P	P	21 14 46.4	-0.7
LPAZ	**La Paz**	25.11	153	P	P	21 14 49.2	+0.2
	comp=Z,13nm,0.9s,baz=325,slow=12,SNR=22						
LPAZ				LR	LR	21 26 05.9	
	comp=Z,897nm,19.2s,baz=298,slow=40						
	comp=Z,13nm,0.9s						
LPAZ	**La Paz**	25.11	153	P	P	21 14 48.6	-0.5
LPAZ	**La Paz**	25.11	153	*e*P	P	21 14 49.0	-0.1
LPAZ	**La Paz**	25.11	153	P	P	21 14 51.0	+1.9
	comp=Z,28nm,2.0s						
TIGA	**Tifton**	25.43	353	P	P	21 14 50.5	-0.6
ITTB	**Itaituba**	26.26	113	*e*P	P	21 14 57.6	-1.2
PB12	**IPOC Station P**	26.32	159	P	P	21 14 59.5	+0.1
PB12				IAmb	IAmb	21 15 21.6	
	comp=Z,47nm,1.0s						
PB12	**IPOC Station P**	26.32	159	P	P	21 15 01.6	+2.2
	comp=Z,38nm,0.9s						
PB16	**IPOC Station P**	26.36	157	P	P	21 15 01.0	+0.7
PB16	**IPOC Station P**	26.36	157	P	P	21 15 03.2	+2.9
	comp=Z,86nm,1.3s						
RGRS	**Roger Stewart**	26.65	359	P	P	21 15 03.0	+0.8
MDP	**Montagnes des**	27.12	91	LR	LR	21 26 01.0	
	comp=Z,286nm,22.0s,baz=298,slow=37						
VILB	**Vilhena**	27.22	134	P	P	21 15 07.4	-0.1
VILB	**Vilhena**	27.22	134	*e*P	P	21 15 08.4	+0.9
PSGCX	**Pisagua**	27.30	160	P	P	21 15 08.9	+0.7
PSGCX				IAmb	IAmb	21 15 15.8	
	comp=Z,39nm,0.9s						
GOGA	**Godfrey**	27.36	353	P	P	21 15 08.1	-0.4
GOGA				IAmb	IAmb	21 15 18.5	
	comp=Z,40nm,1.1s						
GOGA	**Godfrey**	27.36	353	P	P	21 15 10.6	+2.1
	comp=Z,41nm,1.6s						
ZAIG	**Zacatecas**	27.44	309		P	21 15 08.7	-1.0
ZAIG	**Zacatecas**	27.44	309	P	P	21 15 13.0	+3.3
	comp=Z,21nm,2.0s						
HBVL	**Hebbronville**	27.46	321	P	P	21 15 08.1	-1.4
HBVL				IAmb	IAmb	21 15 17.5	
	comp=Z,84nm,1.5s						
LRAL	**Lakeview Retre**	27.59	347	P	P	21 15 10.7	+0.1
LRAL				IAmb	IAmb	21 15 15.5	
	comp=Z,52nm,1.4s						
PB11	**IPOC Station P**	27.61	159	P	P	21 15 10.7	-0.4
PB11				IAmb	IAmb	21 15 36.9	
	comp=Z,40nm,0.9s						
PB11	**IPOC Station P**	27.61	159	P	P	21 15 13.3	+2.2
	comp=Z,51nm,1.0s						
GO01	**Chusmiza**	27.70	158	P	P	21 15 11.9	-0.3
GO01				IAmb	IAmb	21 15 19.0	
	comp=Z,114nm,1.8s						
GO01	**Chusmiza**	27.70	158	P	P	21 15 15.1	+2.9
	comp=Z,34nm,1.5s						
NPGB	**Novo Progresso**	27.74	118	*e*P	P	21 15 12.0	-0.1
Y52A	**Lilburn**	27.88	353	P	P	21 15 13.1	-0.1
Y52A				IAmb	IAmb	21 15 19.3	
	comp=Z,33nm,0.9s						
HKT	**Hockley**	28.07	330	P	P	21 15 14.4	-0.5
HKT	**Hockley**	28.07	330	P	P	21 15 15.7	+0.8
	comp=Z,59nm,1.8s						
PB08	**IPOC Station P**	28.15	158	P	P	21 15 15.2	-0.9
PB08				IAmb	IAmb	21 15 26.2	
	comp=Z,89nm,1.6s						
PB08	**IPOC Station P**	28.15	158	P	P	21 15 17.9	+1.7
	comp=Z,41nm,1.7s						
TA01	**Diego Aracena**	28.18	160	P	P	21 15 15.3	-0.7
TA01				IAmb	IAmb	21 15 18.7	
	comp=Z,45nm,1.1s						
BIRD	**Birdtown, Kers**	28.39	359	P	P	21 15 18.0	+0.3
MLDN	**Muldoon**	28.58	327	P	P	21 15 18.7	-0.8
CLDB	**Colider**	29.32	125	*e*P	P	21 15 25.5	-0.6
CLDB	**Colider**	29.32	125	P	P	21 15 25.6	-0.6
	comp=Z,23nm,0.9s						
SWET	**Sewanee**	29.49	350	P	P	21 15 26.8	-0.7
SWET				IAmb	IAmb	21 15 31.1	
	comp=Z,77nm,1.7s						
TKL	**Tuckaleechee C**	29.61	354	LR	LR	21 27 09.4	
	comp=Z,884nm,20.7s,baz=156,slow=36						
TKL	**Tuckaleechee C**	29.61	354	P	P	21 15 28.9	+0.2
TKL				IAmb	IAmb	21 15 33.8	
	comp=Z,69nm,1.6s						
HNDO	**Hondo**	29.62	324	P	P	21 15 28.2	-0.6
PB09	**IPOC Station P**	29.64	160	P	P	21 15 28.5	-0.6
PB09				IAmb	IAmb	21 15 32.4	
	comp=Z,33nm,1.1s						
PTLB	**Pontes e Lacer**	29.69	136	P	P	21 15 29.0	-0.4
PTLB	**Pontes e Lacer**	29.69	136	*e*P	P	21 15 29.2	-0.2
CLTN	**Cedars of Leba**	30.41	350	P	P	21 15 35.5	-0.1
CLTN				IAmb	IAmb	21 15 39.4	
	comp=Z,56nm,1.9s						
TZTN	**Tazewell**	30.47	354	P	P	21 15 36.6	+0.5
TZTN	**Tazewell**	30.47	354	P	P	21 15 38.1	+2.0
	comp=Z,34nm,1.6s						
JCT	**Junction City**	30.63	325	P	P	21 15 36.8	-0.9
WVT	**Waverly**	30.75	347	P	P	21 15 37.5	-1.0
WVT				IAmb	IAmb	21 15 41.3	
	comp=Z,74nm,1.9s						
WVT	**Waverly**	30.75	347	P	P	21 15 38.8	+0.2
	comp=Z,20nm,1.7s						
BLA	**Blacksburg**	30.95	359	P	P	21 15 40.6	+0.1
MIAR	**Mount Ida**	30.99	338	P	P	21 15 41.4	+0.5
	comp=Z,17nm,2.2s						
WHAR	**Wooly Hollow**	31.20	340	P	P	21 15 42.0	-0.7
LCAR	**Lake Charles**	31.55	342	P	P	21 15 45.0	-0.7
SAND	**Sanderson**	31.64	321	P	P	21 15 45.8	-0.9
PARMO	**Parma**	31.72	345	P	P	21 15 47.1	0.0

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LOOK  Love County      32.04 332  P      P      21 15 49.5 -0.6
HPIG                   32.11 313  P      P      21 15 50.2 -0.8
HPIG                   32.11 313  P      P      21 15 53.9 +2.8
      comp=Z,16nm,2.5s
TXAR  Lajitas Array    32.21 319  P      P      21 15 51.8 +0.1
      comp=Z,2.6nm,0.9s,baz=130,slow=6.5,SNR=21
TXAR                              PcP    PcP    21 18 40.9 +0.6
      comp=Z,1.1nm,0.6s,baz=127,slow=4.0,SNR=8.6
TXAR                              LR     LR     21 31 27.0
      comp=Z,256nm,20.2s,baz=114,slow=41
      comp=Z,2.6nm,0.9s
TXAR  Lajitas Array    32.21 319  P      P      21 15 51.1 -0.7
SALV  Santo Antonio    32.43 133 eP      P      21 15 53.9 +0.2
WCI   Wyandotte Cave   32.49 351  P      P      21 15 53.8 -0.1
WCI   Wyandotte Cave   32.49 351  P      P      21 15 54.9 +1.0
      comp=Z,42nm,1.9s
SALTA                  32.92 157  P      P      21 16 02.0 +3.5
      comp=Z,7.0nm,1.5s
WMOK  Wichita Mounta   33.40 331  P      P      21 16 00.8 -1.2
WMOK                              IAmb   IAmb   21 16 05.4
      comp=Z,51nm,1.6s
WMOK  Wichita Mounta   33.40 331  P      P      21 16 01.5 -0.5
      comp=Z,21nm,2.7s
CCM   Cathedral Cave   33.43 344  P      P      21 16 01.1 -1.0
CCM                               IAmb   IAmb   21 16 04.5
      comp=Z,31nm,0.9s
CCM   Cathedral Cave   33.43 344  P      P      21 16 01.8 -0.4
      comp=Z,43nm,0.9s
SNDB  Serra Nova Dou   33.63 122 eP      P      21 16 04.5 +0.3
COIM  Forte Coimbra    33.78 140 eP      P      21 16 05.1 -0.3
MVL   Millersville     33.88   5  P      P      21 16 07.0 +1.1
PP1B  Ponte de Pedra   34.13 134 eP      P      21 16 09.0 +0.5
AC02  Maricunga        34.38 163  P      P      21 16 14.5 +3.4
      comp=Z,21nm,1.0s
BDQN  Bodoquena, MS    34.84 140 eP      P      21 16 15.1 +0.6
MNTX  Cornudas Mount   34.88 320  P      P      21 16 14.7 -0.2
MNTX                              IAmb   IAmb   21 16 19.5
      comp=Z,57nm,1.4s
MNTX  Cornudas Mount   34.88 320  P      P      21 16 15.8 +0.9
      comp=Z,33nm,1.2s
MURT  Porto Murtinho   35.20 142 eP      P      21 16 16.8 -0.8
ARAG  Araguaiana, MT   35.25 128 eP      P      21 16 16.8 -1.4
HDIL  Hopedale         35.31 348  P      P      21 16 18.0 -0.4
HDIL                              IAmb   IAmb   21 16 35.8
      comp=Z,18nm,0.8s
SMTB  Santa Maria do   35.46 115 eP      P      21 16 19.9 -0.1
AQDB  Aquidauana       35.54 139  P      P      21 16 19.9 -0.7
AQDB                              IAmb   IAmb   21 16 24.1
      comp=Z,40nm,1.5s
AQDB  Aquidauana       35.54 139 eP      P      21 16 20.5 -0.1
AQDB  Aquidauana       35.54 139  P      P      21 16 20.7 +0.1
      comp=Z,23nm,1.3s
AC05  El Transito      35.96 166  P      P      21 16 24.2 -0.1
AC05                              IAmb   IAmb   21 16 35.6
      comp=Z,24nm,0.6s
AC05  El Transito      35.96 166  P      P      21 16 27.1 +2.8
      comp=Z,40nm,0.7s
LCO   Las Campanas     36.03 166  P      P      21 16 24.9 -0.1
LCO                               IAmb   IAmb   21 16 33.4
      comp=Z,58nm,1.2s
BINY  Binghamton       36.09   5  P      P      21 16 29.0 +3.9
      comp=Z,60nm,2.0s
KSU1  Kansas State U   36.15 338  P      P      21 16 24.6 -1.1
121A  Cookes Peak, D   36.97 319  P      P      21 16 32.2 -0.8
121A                              IAmb   IAmb   21 16 39.5
      comp=Z,66nm,1.3s
ANMO  Albuquerque      37.73 323  LR     LR     21 35 46.8
      comp=Z,339nm,20.0s,baz=128,slow=42
ANMO  Albuquerque      37.73 323  P      P      21 16 39.5 +0.1
ANMO  Albuquerque      37.73 323  P      P      21 16 41.0 +1.5
      comp=Z,30nm,2.1s
CO03  El Pedregal      37.79 167  P      P      21 16 42.3 +2.5
      comp=Z,19nm,1.0s
CO02  Combarbal        38.07 168  P      P      21 16 42.3 +0.1
CO02                              IAmb   IAmb   21 16 45.2
      comp=Z,51nm,0.9s
CO02  Combarbal        38.07 168  P      P      21 16 44.8 +2.6
      comp=Z,65nm,0.9s
T25A  Trinidad         38.14 327  P      P      21 16 42.4 -0.5
T25A                              IAmb   IAmb   21 16 48.5
      comp=Z,72nm,1.2s
BDFB  Brasilia         38.25 125  P      P      21 16 44.3 +0.4
      comp=Z,6.7nm,0.8s,baz=299,slow=13,SNR=7.2
BDFB                              LR     LR     21 33 11.8
      comp=Z,1μm,18.4s,baz=300,slow=37
      comp=Z,6.7nm,0.8s
BDFB  Brasilia         38.25 125  P      P      21 16 43.7 -0.2
SADO  Sadowa           38.50   1  LR     LR     21 32 09.9
      comp=Z,510nm,21.6s,baz=180,slow=36
SJPY  San Joaquin      38.62 144 eP      P      21 16 45.2 -1.6
LONY  Lake Ozonia      38.62   6  P      P      21 16 47.5 +0.9
LONY                              IAmb   IAmb   21 16 52.0
      comp=Z,51nm,1.4s
TUC   Tucson           38.85 316  P      P      21 16 49.0 +0.2
TUC   Tucson           38.85 316  P      P      21 16 52.0 +3.2
      comp=Z,26nm,1.6s
CO04  Los Peladeros    38.89 168  P      P      21 16 49.3  0.0
CO04                              IAmb   IAmb   21 16 52.6
      comp=Z,46nm,1.1s
CO04  Los Peladeros    38.89 168  P      P      21 16 51.5 +2.2
      comp=Z,40nm,1.2s
ZON   Zonda            38.95 165  P      P      21 16 49.5  0.0
ZON   Zonda            38.95 165  P      P      21 16 52.1 +2.6
      comp=E,16nm,1.3s
CPUP  Villa Florida    38.97 147  P      P      21 16 49.4 -0.2
      comp=E,2.7nm,0.9s,baz=334,slow=15,SNR=3.4
CPUP                              LR     LR     21 34 24.3
      comp=E,448nm,20.1s,baz=324,slow=39
      comp=E,2.7nm,0.9s
CPUP  Villa Florida    38.97 147 eP      P      21 16 49.2 -0.4
SDBA  SAO DESIDERIO    39.33 118 eP      P      21 16 52.6 -0.4
IPMB  Ipameri, GO      39.37 128 eP      P      21 16 52.7 -0.5
VA03  San Esteban      39.67 168  P      P      21 16 55.6 +0.1
VA03  San Esteban      39.67 168  P      P      21 16 57.6 +2.0
      comp=Z,34nm,1.0s
TRQ   Mont Tremblant   40.21   6  P      P      21 17 00.5 +0.6
ECSD  EROS Data Cent   40.25 341  P      P      21 16 59.3 -0.9
ECSD  EROS Data Cent   40.25 341  P      P      21 16 59.7 -0.5
      comp=Z,24nm,1.7s
MT03  Universidad Ad   40.39 168  P      P      21 17 00.2 -1.3
MT03                              IAmb   IAmb   21 17 05.2
      comp=Z,64nm,1.3s
MT08  Bocatoma Ro      40.45 167  P      P      21 17 02.1 -0.1
MT08                              IAmb   IAmb   21 17 13.8
      comp=Z,31nm,0.9s
MVCO  Mesa Verde       40.48 324  P      P      21 17 04.8 +2.3
      comp=Z,37nm,2.4s
MT09  Talagante        40.56 169  P      P      21 17 02.3 -0.7
LDASE Londrina, Braz   40.61 137 eP      P      21 17 01.8 -1.6
MT13  San Alfonso      40.67 168  P      P      21 17 03.9  0.0
MT13                              IAmb   IAmb   21 17 08.1
      comp=Z,36nm,1.1s
ISCO  Idaho Springs    40.75 329  P      P      21 17 04.4 -0.3
ISCO                              IAmb   IAmb   21 17 10.2
      comp=Z,110nm,2.0s
ISCO  Idaho Springs    40.75 329  P      P      21 17 06.9 +2.2
      comp=Z,22nm,2.2s
BO04  La Punta         40.84 168  P      P      21 17 03.9 -1.3
BO04                              IAmb   IAmb   21 17 14.5
      comp=Z,92nm,2.0s
BO01  Tunca            41.14 169  P      P      21 17 07.1 -0.4
BO01  Tunca            41.14 169  P      P      21 17 09.2 +1.6
      comp=Z,21nm,0.9s
WUAZ  Wupatki          41.16 320  P      P      21 17 07.8 -0.2
WUAZ                              IAmb   IAmb   21 17 14.4
      comp=Z,44nm,1.1s
BO02  Sierra Bellavi   41.59 169  P      P      21 17 11.1 -0.2
BO02  Sierra Bellavi   41.59 169  P      P      21 17 13.3 +2.0
      comp=Z,22nm,1.1s
MC01  Montes Claros    42.15 123 eP      P      21 17 16.2  0.0
DIAM  Diamantina, MG   43.17 125 eP      P      21 17 22.9 -1.7
BI02  San Fabin de     43.32 170  P      P      21 17 25.7 +0.3
BI02  San Fabin de     43.32 170  P      P      21 17 26.7 +1.4
      comp=Z,16nm,1.3s
RSSD  Black Hills      43.37 335  P      P      21 17 25.9 -0.1
RSSD                              IAmb   IAmb   21 17 31.1
      comp=Z,70nm,1.4s
RSSD  Black Hills      43.37 335  P      P      21 17 27.3 +1.4
      comp=Z,45nm,2.1s
BELC  Belle Mtn. Jos   43.43 315  P      P      21 17 26.2 -0.3
PFO   Pinyon Flats O   43.56 314  LR     LR     21 36 40.2
      comp=Z,410nm,21.2s,baz=132,slow=38
RPN   Rapa Nui         43.65 219  LR     LR     21 31 07.0
      comp=Z,479nm,19.6s,baz=58,slow=30
AGMN  Agassiz Nation   44.18 345  P      P      21 17 31.4 -0.7
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AGMN                              IAmb   IAmb   21 17 35.1
      comp=Z,34nm,1.3s
AGMN  Agassiz Nation   44.18 345  P      P      21 17 31.6 -0.6
      comp=Z,25nm,2.0s
PD31  Pinedale Array   44.94 329  P      P      21 17 38.1 -0.5
PD31                              IAmb   IAmb   21 17 43.4
      comp=Z,38nm,1.6s
PDAR  Pinedale Array   44.94 329  P      P      21 17 38.6  0.0
      comp=Z,1.9nm,0.5s,baz=136,slow=8.1,SNR=11
PDAR                              PcP    PcP    21 19 20.7 +0.8
      comp=Z,0.8nm,0.6s,baz=94,slow=4.0,SNR=1.9
PDAR                              LR     LR     21 38 54.2
      comp=Z,116nm,21.8s,baz=125,slow=39
      comp=Z,1.9nm,0.5s
PDAR  Pinedale Array   44.94 329  P      P      21 17 37.8 -0.8
DUG   Dugway, Tooele   44.98 324  P      P      21 17 41.5 +2.6
      comp=Z,19nm,1.1s
TPNV  Topopah Spring   45.19 318  P      P      21 17 40.1 -0.5
HWUT  Hardware Ranch   45.20 326  P      P      21 17 40.2 -0.4
HWUT                              IAmb   IAmb   21 17 49.9
      comp=Z,26nm,1.2s
HWUT  Hardware Ranch   45.20 326  P      P      21 17 41.7 +1.0
      comp=Z,17nm,1.6s
NBIT  Itapeh - BA      45.21 118 eP      P      21 17 41.3 +0.5
SJMB  Sao Joao De Ma   45.42 124 eP      P      21 17 41.6 -0.8
AHID  Auburn Hatcher   45.75 328  P      P      21 17 46.8 +1.8
      comp=Z,17nm,1.4s
BSFB  Barra de Sao F   45.76 124 eP      P      21 17 44.9 -0.2
BSFB  Barra de Sao F   45.76 124  P      P      21 17 45.1  0.0
      comp=Z,35nm,1.1s
ULM   Lac du Bonnet    45.98 346  P      P      21 17 45.4 -1.1
      comp=Z,16nm,0.6s,baz=156,slow=9.9,SNR=31
ULM                               LR     LR     21 39 05.6
      comp=Z,483nm,18.6s,baz=133,slow=39
      comp=Z,16nm,0.6s
GO06  Curarrehue       46.13 171  P      P      21 17 47.0 -0.9
GO06  Curarrehue       46.13 171  P      P      21 17 49.1 +1.2
      comp=Z,12nm,1.0s
LR04  Corral           46.16 173  P      P      21 17 46.4 -1.4
RIB01 Linhares ES      46.37 124 eP      P      21 17 49.1 -0.8
RLMT  Red Lodge        46.52 331  P      P      21 17 50.7 -0.3
ELK   Elko             46.77 323  LR     LR     21 41 04.7
      comp=Z,516nm,19.1s,baz=124,slow=41
ELK   Elko             46.77 323  P      P      21 17 52.0 -1.0
NVAR  Mina Array Bea   47.36 318  P      P      21 17 59.8 +2.0
      comp=Z,3.3nm,0.8s,baz=116,slow=6.2,SNR=14
NVAR                              LR     LR     21 41 19.1
      comp=Z,305nm,18.7s,baz=130,slow=41
      comp=Z,3.3nm,0.8s
NVAR  Mina Array Bea   47.36 318  P      P      21 17 57.6 -0.1
PLCA  Paso Flores      47.41 170  P      P      21 17 58.1 +0.3
      comp=Z,14nm,1.0s,baz=343,slow=11,SNR=18
PLCA                              LR     LR     21 35 00.9
      comp=Z,181nm,20.7s,baz=5.5,slow=32
      comp=Z,14nm,1.0s
PLCA  Paso Flores      47.41 170  P      P      21 17 57.4 -0.3
PLCA                              IAmb   IAmb   21 18 07.3
      comp=Z,33nm,1.1s
PLCA  Paso Flores      47.41 170 eP      P      21 17 59.5 +1.8
PLCA  Paso Flores      47.41 170  P      P      21 17 59.3 +1.6
      comp=Z,40nm,1.2s
BMN   Battle Mountai   47.79 321  P      P      21 18 00.5 -0.4
HLID  Hailey           48.08 326  P      P      21 18 03.4 +0.3
HLID                              IAmb   IAmb   21 18 09.6
      comp=Z,18nm,0.9s
HLID  Hailey           48.08 326  P      P      21 18 04.6 +1.5
      comp=Z,24nm,0.9s
MFID  Camas Ranch      48.77 325  P      P      21 18 08.7 +0.3
MFID                              IAmb   IAmb   21 18 14.9
      comp=Z,26nm,1.0s
LL02  Futaleuf         49.62 172  P      P      21 18 14.4 -0.3
LL02                              IAmb   IAmb   21 18 16.5
      comp=Z,20nm,0.9s
LL02  Futaleuf         49.62 172  P      P      21 18 15.4 +0.8
      comp=Z,26nm,1.0s
SCHQ  Schefferville    49.69  10  P      P      21 18 15.5 +0.4
      comp=Z,13nm,0.9s,baz=184,slow=10,SNR=6.4
SCHQ                              LR     LR     21 38 03.9
      comp=Z,253nm,21.8s,baz=204,slow=35
      comp=Z,13nm,0.9s
WVOR  Wild Horse Val   49.82 323  P      P      21 18 16.4 -0.1
WVOR                              IAmb   IAmb   21 18 23.5
      comp=Z,39nm,1.1s
WVOR  Wild Horse Val   49.82 323  P      P      21 18 17.9 +1.5
      comp=Z,33nm,1.1s
ORV   Oroville         50.07 318  P      P      21 18 18.3  0.0
ORV                               IAmb   IAmb   21 18 38.7
      comp=Z,22nm,1.2s
G08A  Pilot Rock       51.70 325  P      P      21 18 30.8 +0.2
G08A                              IAmb   IAmb   21 18 35.7
      comp=Z,27nm,1.4s
YBH   Yreka Blue Hor   51.98 320  LR     LR     21 43 59.5
      comp=Z,326nm,20.6s,baz=150,slow=40
NEW   Newport          52.58 329  LR     LR     21 44 41.8
      comp=Z,183nm,18.5s,baz=142,slow=40
NEW   Newport          52.58 329  P      P      21 18 36.5 -0.4
NEW   Newport          52.58 329  P      P      21 18 38.3 +1.3
      comp=Z,7.6nm,1.8s
EDM   Edmonton         54.31 336  P      P      21 18 50.5 +0.9
EDM                               IAmb   IAmb   21 18 54.7
      comp=Z,29nm,1.2s
FRB   Frobisher Bay    58.10   6  LR     LR     21 44 05.9
      comp=Z,507nm,21.6s,baz=202,slow=36
BBB   Bella Bella      60.58 328  LR     LR     21 48 05.1
      comp=Z,164nm,20.9s,baz=128,slow=38
DSPA  Despedida        60.64 172  P      P      21 19 35.4 +1.3
YKA   Yellowknife Ar   61.76 343  P      P      21 19 41.6 +0.1
      comp=Z,3.4nm,0.8s,baz=140,slow=5.7,SNR=7.3
YKA                               LR     LR     21 48 32.5
      comp=Z,228nm,18.4s,baz=124,slow=38
      comp=Z,3.4nm,0.8s
PMOZ  Porto Moniz, M   63.80  56  P      P      21 19 55.8 -0.2
SFJD  Kangerlussuaq    64.00  12  LR     LR     21 48 52.4
      comp=Z,284nm,18.9s,baz=222,slow=37
DLBC  Dease Lake       64.84 334  LR     LR     21 50 15.6
      comp=Z,286nm,19.7s,baz=89,slow=38
ILULI Ilulissat        65.79  11  P      P      21 20 09.3 +1.3
RES   Resolute Bay     69.06 356  LR     LR     21 50 43.4
      comp=Z,308nm,21.6s,baz=172,slow=36
HOPE  Hope Point       70.25 155  P      P      21 20 37.0 +0.8
L29M  L29M             70.60 336  P      P      21 20 39.1 +0.7
L29M                              IAmb   IAmb   21 20 52.7
      comp=Z,16nm,1.0s
SUMG  Summit           70.99  12  P      P      21 20 40.7 -0.3
PTEO  Sao Teotonio     71.36  53 eP      P      21 20 45.2 +1.7
MORF  Marmelete        71.38  53 eP      P      21 20 44.6 +0.9
MORF                              IAmb   IAmb   21 20 46.9
      comp=Z,27nm,1.2s
MORF  Marmelete        71.38  53 eP      P      21 20 44.4 +0.8
MORF                             i IAmb  IAmb   21 20 50.1
      comp=Z,63nm,1.6s
BORG  Borgarnes        71.44  23  LR     LR     21 49 05.7
      comp=Z,222nm,21.5s,baz=262,slow=33
INK   Inuvik           71.49 342  LR     LR     21 53 10.4
      comp=Z,492nm,21.8s,baz=103,slow=37
INK   Inuvik           71.49 342  P      P      21 20 43.7 +0.1
INK                               IAmb   IAmb   21 20 57.7
      comp=Z,22nm,1.1s
INK   Inuvik           71.49 342  P      P      21 20 45.1 +1.5
      comp=Z,19nm,1.3s
EPYK  Eagle Plains     71.57 339  P      P      21 20 45.4 +1.2
EPYK                              IAmb   IAmb   21 21 04.0
      comp=Z,30nm,1.4s
PLOUS Minas do Lousa   71.65  52 eP      P      21 20 46.9 +1.7
PLOUS                            i IAmb  IAmb   21 20 48.4
      comp=Z,31nm,1.3s
PMSA  Palmer Station   71.68 173  LR     LR     21 48 11.5
      comp=Z,124nm,21.9s,baz=342,slow=32
MOE   Montemor         71.76  52 eP      P      21 20 46.5 +0.7
MOE                              i IAmb  IAmb   21 20 47.7
      comp=Z,37nm,1.5s
MESJ  Messejana        71.79  52  P      P      21 20 45.8 -0.2
PCAS  Casmilo, Conde   71.84  50 eP      P      21 20 47.7 +1.4
PCAS                             i IAmb  IAmb   21 20 49.8
      comp=Z,73nm,1.6s
PTO   Porto            71.90  49 eP      P      21 20 47.8 +1.2
PTO                              i IAmb  IAmb   21 20 51.7
      comp=Z,49nm,1.6s
PCVE  Castro Verde     71.91  53 eP      P      21 20 48.2 +1.5
PCVE                             i IAmb  IAmb   21 20 52.2
      comp=Z,35nm,1.8s
PMTG  Montargil        71.93  51 eP      P      21 20 51.0 +4.2
PMTG                             i IAmb  IAmb   21 21 05.6
      comp=Z,27nm,1.4s
PBDV  Barranco-do-Ve   71.95  53 eP      P      21 20 48.2 +1.2
AVE   Averroes         72.01  57  P      P      21 20 47.7 +0.2
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PSARD Sardoal          72.04  50 eP      P      21 20 48.2 +0.6
PSARD                            i IAmb  IAmb   21 20 52.2
      comp=Z,32nm,1.5s
PARRA Arraiolos        72.04  51 eP      P      21 20 50.9 +3.4
BCAR  Beaver Creek A   72.09 335  P      P      21 20 48.7 +1.3
GLB   Gilahina Butte   72.37 333  P      P      21 20 50.1 +0.9
GLB                               IAmb   IAmb   21 21 03.8
      comp=Z,29nm,1.4s
PVIS  Viseu            72.38  49 eP      P      21 20 50.4 +0.7
POLO  Lamas de Olo     72.54  49 eP      P      21 20 51.8 +1.1
POLO                             i IAmb  IAmb   21 20 59.2
      comp=Z,22nm,1.2s
PVRL  Vila Real        72.58  49 eP      P      21 20 53.5 +2.6
PVRL                             i IAmb  IAmb   21 20 55.7
      comp=Z,36nm,1.5s
PCBR  Castelo Branco   72.59  50 eP      P      21 20 50.6 -0.2
PCBR                             i IAmb  IAmb   21 20 56.6
      comp=Z,23nm,1.4s
MTE   Manteigas        72.61  50 eP      P      21 20 55.8 +4.8
MTE                              i IAmb  IAmb   21 20 59.4
      comp=Z,32nm,1.4s
PMRV  Marv??o          72.61  51 eP      P      21 20 53.0 +2.0
PMRV                             i IAmb  IAmb   21 20 56.3
      comp=Z,22nm,1.8s
PPT2  Papeete2         72.71 250 eLR     LR     21 42 59.6
      comp=Z,150nm,27.0s
PPT2                             eLR     LR     21 43 13.2
      comp=Z,149nm,29.2s
PBAR  Barrancos        72.75  52 eP      P      21 20 52.9 +1.1
PBAR                             i IAmb  IAmb   21 20 57.8
      comp=Z,20nm,1.5s
PBRG  Braganca         73.38  48 eP      P      21 20 56.3 +0.8
PBRG                             i IAmb  IAmb   21 21 03.8
      comp=Z,24nm,1.2s
ECAL  Calabor          73.39  48  P      P      21 20 56.8 +1.1
      comp=Z,34nm,1.4s
IFR   Ifrane           73.93  57  P      P      21 21 00.7 +1.6
      comp=Z,4.5nm,0.9s
MD01  Midelt array s   74.20  58  P      P      21 20 59.9 -0.8
MD31  MD31             74.20  58  P      P      21 21 00.4 -0.2
MDT   Midelt           74.33  58  LR     LR     21 50 27.0
      comp=Z,44nm,19.8s,baz=242,slow=33
DBIC  Dimbokro         74.48  85  P      P      21 21 02.4  0.0
      comp=Z,4.2nm,0.9s,baz=270,slow=5.8,SNR=3.3
      comp=Z,4.2nm,0.9s
PRP   Porcupine Dome   74.51 337  P      P      21 21 01.0 -0.8
SMAI  San Martin Ant   74.63 175  P      P      21 21 02.4 +0.3
EMAL  Malaga-Limoner   74.70  54  P      P      21 21 05.0 +1.8
      comp=Z,8.7nm,1.1s
HDA   Harding Lake     74.72 336  P      P      21 21 02.8  0.0
FYU   Fort Yukon       74.76 338  P      P      21 21 03.1 +0.1
IL31                   74.80 336  P      P      21 21 02.9 -0.4
IL31                              IAmb   IAmb   21 21 12.5
      comp=Z,22nm,1.4s
ILAR  Eielson Array    74.80 336  P      P      21 21 03.6 +0.3
      comp=Z,2.8nm,0.9s,baz=108,slow=3.8,SNR=20
ILAR                              PP     PP     21 23 49.1 -1.5
      comp=Z,3.0nm,1.2s,baz=104,slow=7.3,SNR=6.1
ILAR                              LR     LR     21 56 47.3
      comp=Z,206nm,20.1s,baz=100,slow=38
      comp=Z,2.8nm,0.9s
ILAR  Eielson Array    74.80 336  P      P      21 21 02.2 -1.1
BMAR  Burnt Mountain   74.83 339  P      P      21 21 03.6 +0.1
PAB   San Pablo        74.97  51  P      P      21 21 02.9 -2.0
PAB                               IAmb   IAmb   21 21 13.7
      comp=Z,17nm,1.1s
PAB   San Pablo        74.97  51  P      P      21 21 06.1 +1.2
      comp=Z,16nm,1.1s
COLA  College          75.23 336  P      P      21 21 06.7 +1.0
      comp=Z,7.7nm,1.2s
ESDC  Sonseca Array    75.27  51  P      P      21 21 07.8 +1.1
      comp=Z,9.9nm,0.9s,baz=261,slow=5.3,SNR=36
ESDC                              LR     LR     21 50 24.2
      comp=Z,104nm,20.7s,baz=268,slow=33
      comp=Z,9.9nm,0.9s
ESDC  Sonseca Array    75.27  51  P      P      21 21 06.7 +0.1
ESBB  Sonseca Array    75.27  51  P      P      21 21 06.8 +0.2
ESBB                              IAmb   IAmb   21 21 15.6
      comp=Z,16nm,0.9s
MCK   McKinley         75.35 335  P      P      21 21 06.6 +0.1
MCK                               IAmb   IAmb   21 21 25.2
      comp=Z,54nm,1.8s
KDAK  Kodiak Island    75.66 328  LR     LR     21 57 21.3
      comp=Z,170nm,19.3s,baz=95,slow=38
TRF   Thorofare Moun   75.85 334  P      P      21 21 09.6  0.0
UCM   Universidad Co   75.87  50  P      P      21 21 12.0 +2.0
      comp=Z,22nm,1.0s
MLY   Manley           76.45 336  P      P      21 21 12.7 -0.2
EKA   Eskdalemuir Ar   77.44  35  P      P      21 21 18.9 +0.5
      comp=Z,5.8nm,0.9s,baz=259,slow=5.2,SNR=7.0
EKA                               LR     LR     21 48 58.8
      comp=Z,208nm,21.3s,baz=206,slow=31
      comp=Z,5.8nm,0.9s
IMAR  Indian Mountai   77.90 336  P      P      21 21 20.9  0.0
ATE   Arette           77.94  47  P      P      21 21 23.4 +1.8
JMIC  Jan Mayen        78.22  18  LR     LR     21 51 20.0
      comp=Z,78nm,21.5s,baz=236,slow=32
MFF   Saint Martin d   78.52  44  P      P      21 21 25.9 +1.2
      comp=Z,3.1nm,1.5s
CEST  Esterri de Car   79.36  48  P      P      21 21 29.4 -0.1
CEST                              IAmb   IAmb   21 21 39.0
      comp=Z,18nm,1.0s
MTLF  Montolieu        80.08  47  P      P      21 21 34.4 +1.1
      comp=Z,15nm,0.9s
CLF   Chambon-Foret    80.22  42  P      P      21 21 35.3 +1.4
      comp=Z,22nm,1.0s
TORD  Torodi Ar. Bea   80.44  78  P      P      21 21 35.8  0.0
      comp=Z,2.7nm,0.6s,baz=278,slow=5.3,SNR=20
      comp=Z,2.7nm,0.6s
TORD  Torodi Ar. Bea   80.44  78  P      P      21 21 35.0 -0.7
TORD                              IAmb   IAmb   21 21 37.5
      comp=Z,24nm,1.5s
EJON  La Jonquera      80.56  48  P      P      21 21 36.5 +0.6
      comp=Z,35nm,1.6s
LOR   Lormes           81.28  43  P      P      21 21 40.2 +0.6
      comp=Z,7.1nm,1.8s
SSB   Saint Sauveur    81.76  45  P      P      21 21 43.5 +1.2
      comp=Z,7.3nm,1.8s
DOU   Dourbes          81.79  40 dP      P      21 21 43.0 +0.7
      comp=Z,5.0nm,1.2s
BCLA  Clavier          82.25  40 dP      P      21 21 49.0 +4.4
ORIF  Oris-en-Rattie   82.71  46  P      P      21 21 49.1 +1.7
      comp=Z,24nm,0.9s
WLF   Walferdange      82.80  41  P      P      21 21 47.3 -0.3
WLF   Walferdange      82.80  41 dP      P      21 21 48.7 +1.2
      comp=Z,8.5nm,1.1s
WLF   Walferdange      82.80  41 eP      P      21 21 49.3 +1.7
      comp=Z,58nm,1.7s,baz=275,slow=5.0
WLF   Walferdange      82.80  41  P      P      21 21 49.5 +1.9
      comp=Z,16nm,1.0s
RAR   Rarotonga        82.84 248  LR     LR     21 51 20.9
      comp=Z,248nm,18.5s,baz=73,slow=30
GIMEL St. Georges /    82.94  44  P      P      21 21 49.9 +1.4
      comp=Z,12nm,1.0s
WTSB  Winterswijk      83.17  38  P      P      21 21 50.6 +1.3
      comp=Z,20nm,1.1s
TAM   Tamanrasset      83.42  68  P      P      21 21 52.0 +0.5
TAM   Tamanrasset      83.42  68  P      P      21 21 53.7 +2.1
      comp=Z,18nm,0.9s
BUG   Bochum--Univer   83.47  39 eP      P      21 21 52.3 +1.4
      comp=Z,12nm,1.2s,baz=275,slow=5.0
ECH   Echery           83.50  42  P      P      21 21 51.0 -0.2
ECH                               IAmb   IAmb   21 21 53.5
      comp=Z,33nm,1.7s
ECH   Echery           83.50  42  P      P      21 21 52.2 +1.0
      comp=Z,10nm,1.8s
ISO   Isola            83.57  46  P      P      21 21 53.5 +1.7
      comp=Z,6.6nm,1.2s
BOURR Bourrignon       83.58  43  P      P      21 21 52.0 +0.2
      comp=Z,17nm,1.4s
IBBN  Ibbenburen       83.75  38 eP      P      21 21 53.7 +1.3
      comp=Z,32nm,1.8s,baz=275,slow=5.0
IBBN  Ibbenburen       83.75  38  P      P      21 21 53.8 +1.5
      comp=Z,14nm,1.2s
KASTN Kahler Asten     84.20  39 eP      P      21 21 55.9 +1.1
      comp=Z,17nm,1.6s,baz=275,slow=5.0
BNALP Bannalp          84.41  44  P      P      21 21 58.0 +1.9
RETH  Rethem/Aller,    84.71  38 eP      P      21 21 59.1 +1.9
      comp=Z,38nm,1.7s,baz=275,slow=5.0
RETH  Rethem/Aller,    84.71  38  P      P      21 21 58.8 +1.6
      comp=Z,15nm,1.8s
STU   Stuttgart        84.83  42 eP      P      21 21 59.5 +1.5
      comp=Z,26nm,0.6s,baz=275,slow=5.0
TUE   Stuetta          85.07  44  P      P      21 21 59.3 -0.2
TUE                               IAmb   IAmb   21 22 12.0
      comp=Z,10nm,1.1s
TUE   Stuetta          85.07  44  P      P      21 22 00.8 +1.3
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       comp=Z,35nm,0.8s
TUE    Stuetta          85.07  44  P       P       21 22 01.0 +1.5
       comp=Z,8.8nm,0.8s
BSEG   Bad Segeberg     85.21  36  eP      P       21 22 01.1 +1.4
       comp=Z,16nm,1.7s,baz=275,slow=5.0
NB2    NORSAR Subarra   85.22  29  P       P       21 22 00.6 +0.9
       comp=Z,5.4nm,1.1s,baz=274,slow=5.1
NOA    NORSAR Array B   85.22  29  P       P       21 22 00.4 +0.6
       comp=Z,4.0nm,1.0s,baz=272,slow=4.8,SNR=6.0
NOA                                LR      LR      21 55 23.4
       comp=Z,75nm,21.9s,baz=265,slow=32
       comp=Z,4.0nm,1.0s
DAVA   Damuels          85.38  43  eP      P       21 22 02.0 +1.0
       comp=Z,3.5nm,0.6s,SNR=8.2
DAVA   Damuels          85.38  43  P       P       21 22 02.5 +1.5
       comp=Z,26nm,1.1s
CLZ    Clausthal        85.39  38  eP      P       21 22 02.4 +1.6
       comp=Z,14nm,1.2s,baz=275,slow=5.0
CLZ    Clausthal        85.39  38  P       P       21 22 02.3 +1.6
       comp=Z,11nm,1.2s
DAVOX  Davos/Dischmat   85.42  44  LR      LR      22 00 16.2
       comp=Z,61nm,18.1s,baz=265,slow=36
UBR    Ueberruh         85.51  43  eP      P       21 22 03.0 +1.5
       comp=Z,6.9nm,0.9s,baz=275,slow=5.0
UBR    Ueberruh         85.51  43  P       P       21 22 02.2 +0.7
       comp=Z,13nm,2.4s
ASSE   Asse, Remlinge   85.55  38  eP      P       21 22 03.3 +1.9
       comp=Z,26nm,1.5s,baz=275,slow=5.0
VSL    Villasalto       85.57  51  P       P       21 22 02.0 +0.1
VSL                                IAmb    IAmb    21 22 10.9
       comp=Z,20nm,0.8s
VSL    Villasalto       85.57  51  P       P       21 22 03.8 +1.8
       comp=Z,29nm,1.2s
FUORN  Ofenpass-Fuorn   85.69  44  P       P       21 22 02.5  -0.1
FUORN                              IAmb    IAmb    21 22 12.2
       comp=Z,21nm,1.2s
FUORN  Ofenpass-Fuorn   85.69  44  P       P       21 22 03.9 +1.2
       comp=Z,16nm,1.2s
KEST   Kesra            85.83  55  P       P       21 22 03.7 +0.3
       comp=Z,6.4nm,0.8s,baz=272,slow=4.1,SNR=8.8
KEST                               LR      LR      21 59 07.1
       comp=Z,50nm,18.4s,baz=319,slow=35
       comp=Z,6.4nm,0.8s
KEST   Kesra            85.83  55  P       P       21 22 03.1  -0.2
KEST                               IAmb    IAmb    21 22 13.8
       comp=Z,11nm,0.9s
FLTG   Flechtingen      85.88  38  eP      P       21 22 04.2 +1.1
       comp=Z,23nm,1.6s,baz=275,slow=5.0
RETA   Reutte           85.96  43  eP      P       21 22 04.8 +1.0
       comp=Z,1.1nm,0.6s
FETA   Feichten         85.98  43  eP      P       21 22 05.1 +1.1
       comp=Z,2.4nm,0.6s
GRA1   Grafenberg Arr   86.09  41  P       P       21 22 04.2  -0.1
GRA1                               IAmb    IAmb    21 22 06.9
       comp=Z,50nm,1.9s
GRF    Grafenberg Arr   86.09  41  eP      P       21 22 05.8 +1.5
       comp=Z,43nm,1.8s,baz=275,slow=5.0
GRF                                epP     pwP     21 22 12.7 +0.1
       baz=276,slow=4.6
GRF                                eL      L       21 54 17.4
       comp=Z,159nm,21.4s
WIMM   Wimmelburg       86.11  39  P       P       21 22 05.7 +1.5
       comp=Z,29nm,1.8s
GRA3   Grafenberg Arr   86.14  41  P       P       21 22 06.1 +1.6
       comp=Z,15nm,0.8s
GRA2   Grafenberg Arr   86.18  41  P       P       21 22 06.1 +1.4
       comp=Z,16nm,1.1s
MOTA   Moosalm          86.21  43  i P     P       21 22 05.9 +0.9
       comp=Z,0.6nm,0.4s
FUR    Furstenfeldbru   86.25  42  eP      P       21 22 06.6 +1.5
       comp=Z,10nm,0.6s,baz=275,slow=5.0
MOX    Moxa             86.26  40  eP      P       21 22 06.5 +1.5
       comp=Z,8.3nm,1.4s,baz=275,slow=5.0
MOX                                epP     pwP     21 22 13.1  -0.3
       baz=276,slow=4.6
MOX                                eS      S       21 32 46.3 +6.5
MOX                                eL      L       21 59 34.8
       comp=Z,170nm,19.4s
MOX    Moxa             86.26  40  P       P       21 22 06.8 +1.7
       comp=Z,5.8nm,1.1s
SQTA   Sankt Quirin     86.29  43  eP      P       21 22 06.5 +1.1
       comp=Z,1.6nm,0.3s
NEUB   Neuenburg        86.31  39  eP      P       21 22 07.0 +1.7
       comp=Z,52nm,2.1s,baz=275,slow=5.0
GRB4   Grafenberg Arr   86.33  41  P       P       21 22 06.8 +1.4
       comp=Z,12nm,1.0s
ZCCA   Zocca            86.37  46  P       P       21 22 05.8  0.0
GRB2   Grafenberg Arr   86.41  41  P       P       21 22 07.3 +1.5
       comp=Z,11nm,1.0s
HFS    Hagfors          86.52  30  P       P       21 22 06.5 +0.4
       comp=Z,2.3nm,0.6s,baz=269,slow=7.2,SNR=2.7
HFS                                LR      LR      21 54 33.1
       comp=Z,157nm,21.1s,baz=281,slow=31
       comp=Z,2.3nm,0.6s
WATA   Walderalm        86.53  43  ePcP    PcP     21 22 08.5  -0.5
       comp=Z,2.7nm,0.7s
WTTA   Wattenberg       86.57  43  eP      P       21 22 07.9 +1.0
       comp=Z,3.2nm,0.8s
WTTA   Wattenberg       86.57  43  P       P       21 22 08.0 +1.0
       comp=Z,13nm,1.3s
PLN    Plauen           86.62  40  eP      P       21 22 08.3 +1.5
       comp=Z,3.4nm,1.0s,baz=275,slow=5.0
PLN                                epP     pwP     21 22 15.1  -0.1
       baz=276,slow=4.6
CGRP   Cima Grappa      86.82  44  P       P       21 22 09.0 +0.9
       comp=Z,36nm,0.9s
TANN   Tannenbergstha   86.82  40  eP      P       21 22 09.5 +1.6
       comp=Z,5.2nm,0.9s,baz=275,slow=5.0
TANN                               epP     pwP     21 22 16.1  -0.2
       baz=276,slow=4.6
TANN   Tannenbergstha   86.82  40  P       P       21 22 09.4 +1.5
       comp=Z,18nm,1.0s
NKC    Novy Kostel      86.83  40  eS      S       21 32 45.3  0.0
NKC                                AMS     AMS     21 53 30.0
       comp=Z,300nm,25.1s
NKC    Novy Kostel      86.83  40  P       P       21 22 09.9 +2.0
       comp=Z,12nm,1.3s
CLL    Collm            87.07  39  P       P       21 22 09.2 +0.3
CLL                                IAmb    IAmb    21 22 11.4
       comp=Z,16nm,1.4s
CLL    Collm            87.07  39  eP      P       21 22 10.4 +1.4
       comp=Z,19nm,1.5s,baz=275,slow=5.0
CLL    Collm            87.07  39  P       P       21 22 10.0 +1.0
       comp=Z,218nmcomp=Z,8.9nm,1.4s
CLL    Collm            87.07  39  P       P       21 22 10.6 +1.7
       comp=Z,8.9nm,1.4s
CLL    Collm            87.07  39  i P     P       21 22 10.4 +1.4
       comp=Z,33nm,1.8s
CLL                                eS      S       21 32 46.0  -1.5
CLL                                eSS     SS      21 38 31.0 +0.6
CLL                                LQ      LQ      21 44 00.0
CLL                                L       L       21 50 00.0
CLL                                AMS     AMS     21 54 00.0
       comp=N,100nm,22.8s
CLL                                AMS     AMS     21 54 00.0
       comp=E,200nm,23.9s
CLL                                AMS     AMS     21 54 00.0
       comp=Z,200nm,23.7s
CLL                                AMS     AMS     21 58 00.0
       comp=Z,200nm,19.3s
ABTA   Abfaltersbach    87.22  43  eP      P       21 22 11.0 +1.0
       comp=Z,5.4nm,0.7s,SNR=6.5
LESA   Schwarzleotal    87.26  43  i P     P       21 22 11.2 +1.1
       comp=Z,5.6nm,0.5s,SNR=11
RJOB   Jochberg         87.31  42  P       P       21 22 12.0 +1.7
       comp=Z,5.3nm,1.2s
HSKC   Hora Svate Kat   87.41  40  AMS     AMS     21 54 20.0
       comp=Z,300nm,22.9s
HSKC   Hora Svate Kat   87.41  40  P       P       21 22 12.1 +1.4
       comp=Z,8.5nm,1.1s
BELA   Belgrano 2       87.45 171  P       P       21 22 09.9  -0.4
BELA                               IAmb    IAmb    21 22 11.3
       comp=Z,7.5nm,0.8s
FUSE   Fusea            87.59  44  P       P       21 22 12.6 +0.9
       comp=Z,15nm,0.9s
KHC    Kasperske Hory   87.67  41  eP      P       21 22 13.2 +1.2
KHC                                ex      x       21 22 19.9
KHC                                eS      S       21 32 46.9  -6.7
KHC                                AMS     AMS     21 53 00.0
       comp=Z,300nm,29.2s
KHC    Kasperske Hory   87.67  41  P       P       21 22 12.7 +0.7
       comp=Z,9.3nm,1.1s
KHC    Kasperske Hory   87.67  41  P       P       21 22 13.2 +1.2
       comp=Z,9.3nm,1.1s
BRG    Berggiesshubel   87.70  39  eP      P       21 22 13.7 +1.7
       comp=Z,4.6nm,1.0s,baz=275,slow=5.0
BRG    Berggiesshubel   87.70  39  P       P       21 22 13.5 +1.4
       comp=Z,5.8nm,1.3s
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BRG    Berggiesshubel   87.70  39  eP      P       21 22 13.7 +1.6
BRG                                 Amp            21 22 17.6
       comp=Z,4.8nm,1.0s
BRG    Berggiesshubel   87.70  39  S       S       21 33 00.0 +6.3
KBA    Koelnbreinsper   87.75  43  i PcP   PcP     21 22 14.0  -0.5
       comp=Z,7.0nm,0.8s,SNR=6.7
KBA    Koelnbreinsper   87.75  43  P       P       21 22 13.7 +1.1
       comp=Z,22nm,1.1s
GEC2   GERESS Array S   87.79  41  eP      P       21 22 14.0 +1.3
       comp=Z,9.9nm,1.2s,baz=275,slow=5.0
GEC2                               epP     pwP     21 22 20.5  -0.5
       baz=276,slow=4.6
GEC2   GERESS Array S   87.79  41  P       P       21 22 13.8 +1.1
       comp=Z,6.5nm,1.0s
GERES  GERESS Array B   87.79  41  P       P       21 22 12.7 +0.1
       comp=Z,3.1nm,0.8s,baz=268,slow=2.9,SNR=16
       comp=Z,3.1nm,0.8s
GERES  GERESS Array B   87.79  41  P       P       21 22 12.6  -0.1
MYKA   Terra Mystica    88.01  43  eP      P       21 22 14.7 +1.0
       comp=Z,2.1nm,0.5s
ZVC    Zvikov           88.04  41  eP      P       21 22 15.1 +1.4
ZVC                                AMS     AMS     21 53 30.0
       comp=Z,300nm,23.9s
DRE    Drenchia         88.06  44  P       P       21 22 15.0 +1.0
       comp=Z,9.9nm,0.9s
PVCC   Panska Ves       88.14  40  AMS     AMS     21 54 40.0
       comp=Z,300nm,18.7s
PVCC   Panska Ves       88.14  40  P       P       21 22 16.2 +2.0
       comp=Z,11nm,1.0s
CKRC   Cesky Krumlov    88.19  41  AMS     AMS     21 52 50.0
       comp=Z,200nm,24.7s
PRU    Pruhonice        88.19  40  eP      P       21 22 16.3 +1.9
PRU                                ex      x       21 22 23.2
PRU                                eS      S       21 32 56.2  -2.2
PRU                                AMS     AMS     21 54 30.0
       comp=Z,300nm,19.8s
PRU    Pruhonice        88.19  40  P       P       21 22 16.3 +1.9
       comp=Z,5.9nm,1.5s
MOA    Molln            88.28  42  eP      P       21 22 16.0 +1.1
       comp=Z,0.4nm,0.3s
MOA    Molln            88.28  42  P       P       21 22 16.2 +1.3
       comp=Z,7.3nm,1.1s
SESA   Seetaler Alpe,   88.58  43  eP      P       21 22 17.2 +0.6
       comp=Z,3.7nm,0.6s
TREC   Trest            88.89  41  AMS     AMS     21 53 50.0
       comp=Z,300nm,23.1s
TREC   Trest            88.89  41  P       P       21 22 19.2 +1.4
       comp=Z,5.1nm,1.0s
SOKA   Soboth           88.95  43  ePcP    PcP     21 22 20.9 +1.2
       comp=Z,1.0nm,0.5s
UPC    Upice            89.06  39  AMS     AMS     21 56 00.0
       comp=Z,200nm,21.8s
UPC    Upice            89.06  39  P       P       21 22 20.2 +1.7
       comp=Z,7.7nm,1.0s
CHVC   Chvalec          89.07  39  eP      P       21 22 20.4 +1.8
OSTC   Ostas            89.18  39  eP      P       21 22 21.0 +1.9
OSTC                               ex      x       21 22 27.8
OSTC                               AMS     AMS     21 55 10.0
       comp=Z,300nm,23.5s
KSP    Ksiaz            89.18  39  eP      P       21 22 21.0 +1.9
KSP    Ksiaz            89.18  39  P       P       21 22 20.3 +1.2
DPC    Dobruska-Polom   89.28  40  eP      P       21 22 21.1 +1.5
DPC                                eS      S       21 33 08.8 +0.1
DPC                                AMS     AMS     21 55 30.0
       comp=Z,200nm,19.5s
DPC    Dobruska-Polom   89.28  40  P       P       21 22 21.2 +1.6
       comp=Z,9.3nm,1.0s
DPC    Dobruska-Polom   89.28  40  P       P       21 22 21.4 +1.8
       comp=Z,9.3nm,1.0s
CONA   Conrad Observa   89.33  42  ePcP    PcP     21 22 21.2  -0.1
       comp=Z,1.0nm,0.4s
WINA   Alland / Wiene   89.45  42  ePcP    PcP     21 22 22.1 +0.3
       comp=Z,0.4nm,0.3s
VNA3   Neumayer Olymp   89.50 162  ⇓P      P       21 22 20.5 +0.4
       comp=Z,5.8nm,0.8s
VNA3   Neumayer Olymp   89.50 162  P       P       21 22 21.0 +0.9
       comp=Z,14nm,1.2s
KRUC   Moravsky         89.52  41  eP      P       21 22 22.0 +1.3
KRUC   Moravsky         89.52  41  P       P       21 22 22.5 +1.8
       comp=Z,6.1nm,1.0s
VRAC   Vranov           89.61  41  LR      LR      21 57 21.4
       comp=Z,104nm,20.7s,baz=280,slow=32
VRAC   Vranov           89.61  41  eP      P       21 22 22.8 +1.6
VRAC   Vranov           89.61  41  P       P       21 22 22.8 +1.6
       comp=Z,1.4nm,1.0s
KRLC   Kraliky          89.61  40  eP      P       21 22 22.7 +1.5
KRLC                               AMS     AMS     21 55 40.0
       comp=Z,200nm,19.8s
KRLC   Kraliky          89.61  40  P       P       21 22 23.1 +1.9
       comp=Z,5.1nm,1.3s
ARCES  ARCESS Array B   89.63  20  P       P       21 22 20.2  -0.6
       comp=Z,1.0nm,0.7s,baz=289,slow=2.8,SNR=3.9
ARCES                              LR      LR      21 56 42.2
       comp=Z,148nm,21.1s,baz=291,slow=32
       comp=Z,1.0nm,0.7s
ARCES  ARCESS Array B   89.63  20  P       P       21 22 20.2  -0.6
ARCES                              IAmb    IAmb    21 24 36.1
       comp=Z,34nm,1.8s
RONA   Rosalia, Austr   89.66  42  ePcP    PcP     21 22 22.8  0.0
       comp=Z,1.0nm,0.5s
VAE    Valguarnera      89.71  52  LR      LR      21 59 22.7
       comp=Z,101nm,18.7s,baz=306,slow=34
VNA1   Neumayer--Stat   89.73 162  P       P       21 22 21.7 +0.6
       comp=Z,5.4nm,0.8s
VNA2   Neumayer--Watz   90.09 162  ⇓P      P       21 22 23.7 +0.9
       comp=Z,5.9nm,0.6s,baz=299,slow=4.5
MORC   Moravsky Berou   90.14  40  P       P       21 22 23.6  -0.1
MORC   Moravsky Berou   90.14  40  eP      P       21 22 25.4 +1.7
MORC   Moravsky Berou   90.14  40  P       P       21 22 25.1 +1.4
       comp=Z,5.9nm,1.1s
MODS   Modra-Piesok     90.20  41  eP      P       21 22 25.7 +1.8
MODS   Modra-Piesok     90.20  41  P       P       21 22 25.3 +1.3
       comp=Z,8.5nm,2.4s
JAVC   Velka Javorina   90.38  41  eP      P       21 22 26.3 +1.5
JAVC   Velka Javorina   90.38  41  P       P       21 22 28.0 +3.2
       comp=Z,9.3nm,1.3s
OKC    Ostrava-Krasne   90.52  40  AMS     AMS     21 56 30.0
       comp=Z,300nm,26.0s
MORH   Mrgy, Hungar     91.49  43  P       P       21 22 30.8 +0.9
       comp=Z,3.3nm,1.6s
MORH   Mrgy, Hungar     91.49  43  P       P       21 22 30.7 +0.9
       comp=Z,3.7nm,1.6s
OJC    Ojcow            91.50  39  eP      P       21 22 31.7 +1.9
OJC    Ojcow            91.50  39  P       P       21 22 29.7  -0.2
OJC    Ojcow            91.50  39  P       P       21 22 31.4 +1.5
       comp=Z,7.3nm,1.0s
OJC    Ojcow            91.50  39  P       P       21 22 31.9 +2.0
       comp=Z,7.3nm,1.0s
SNAA   Sanae            91.71 162  ⇓P      P       21 22 30.9 +0.4
       comp=Z,71nm,0.6s
SNAA   Sanae            91.71 162  P       P       21 22 30.6 +0.2
       comp=Z,4.6nm,0.8s,baz=260,slow=5.8,SNR=9.5
SNAA                               PP      PP      21 26 09.5 +0.4
       comp=Z,1.1nm,0.7s,baz=320,slow=1.9,SNR=3.2
SNAA                               LR      LR      22 04 14.5
       comp=Z,102nm,19.3s,baz=294,slow=36
       comp=Z,4.6nm,0.8s
SNAA   Sanae            91.71 162  P       P       21 22 30.0  -0.4
SNAA                               IAmb    IAmb    21 22 32.2
       comp=Z,15nm,1.4s
SNAA   Sanae            91.71 162  P       P       21 22 30.5 +0.1
       comp=Z,7.5nm,2.6s
ABAH   Abaujker         92.81  41  P       P       21 22 37.8 +1.8
       comp=Z,6.1nm,1.2s
TROLL  Troll, Antarti   93.43 162  ⇓P      P       21 22 39.1 +0.7
       comp=Z,440nm,0.6s
PHP    Peshkopia        93.62  48  P       P       21 22 42.4 +2.4
       comp=Z,8.0nm,1.0s
BZS    Buzias           93.64  44  P       P       21 22 41.4 +1.5
       comp=Z,3.1nm,1.5s
SHEM   Shemya Is, Ala   94.75 324  LR      LR      22 08 11.9
       comp=Z,50nm,19.0s,baz=75,slow=37
RNPP8  Varash           94.97  37  P       P       21 22 46.3 +0.5
RNPP5  Staryi Chortor   95.01  37  P       P       21 22 47.2 +1.2
GRG    Griva            95.22  48  P       P       21 22 48.3 +1.0
       comp=Z,28nm,0.8s
VOIR                    96.03  43  P       P       21 22 54.1 +3.1
       comp=Z,4.0nm,1.2s
KMPD   K-Podol'skiy     96.12  40  P       P       21 22 51.3 +0.2
QSPA   South Pole Qui   96.13 180  P       P       21 22 51.5 +0.6
       comp=Z,7.2nm,1.1s,baz=142,slow=2.2,SNR=14
QSPA                               LR      LR      22 00 05.7
       comp=Z,162nm,20.8s,baz=175,slow=32
       comp=Z,7.2nm,1.1s
QSPA   South Pole Qui   96.13 180  P       P       21 22 50.4  -0.6
QSPA                               IAmb    IAmb    21 23 08.6
       comp=Z,11nm,1.1s
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QSPA   South Pole Qui   96.13 180  P       P       21 22 52.3 +1.4
       comp=Z,11nm,1.2s
MI29   MI29, Kamyanyy   96.44  38  P       P       21 22 53.4 +0.8
       comp=Z,56nm,0.9s
MI30   MI30,Zelenitsa   96.55  37  P       P       21 22 52.4  -0.6
       comp=Z,17nm,1.6s
MLR    Muntele Rosu     96.62  43  LR      LR      22 07 58.2
       comp=Z,56nm,18.0s,baz=331,slow=36
MLR    Muntele Rosu     96.62  43  P       P       21 22 53.7  0.0
MLR                                IAmb    IAmb    21 23 03.1
       comp=Z,7.5nm,1.0s
MLR    Muntele Rosu     96.62  43  P       P       21 22 54.6 +0.9
MLR    Muntele Rosu     96.62  43  P       P       21 22 55.3 +1.6
       comp=Z,7.9nm,1.2s
AK21   Malin Array Si   97.05  37  P       P       21 22 55.2  -0.1
AKASG  Malin Array Be   97.19  37  PP      PP      21 26 52.6 +0.7
       comp=Z,0.1nm,0.3s,baz=291,slow=6.8,SNR=4.2
AKASG                              LR      LR      22 05 19.4
       comp=Z,116nm,19.0s,baz=254,slow=34
AKBB   Malin Array Si   97.19  37  P       Pdif    21 22 56.2 +0.2
AK02   Malin Array Si   97.19  37  P       P       21 22 55.3  -0.6
TSUM   Tsumeb           99.01 108  LR      LR      22 07 57.3
       comp=Z,127nm,18.4s,baz=300,slow=36
BRTR   Keskin Array B  103.80  47  Pdiff   Pdif    21 23 27.6 +1.7
       comp=Z,0.3nm,0.7s,baz=276,slow=3.9,SNR=2.6
ZALV   Zalesovo Beam   118.78  10  PKP     PKPdf   21 28 11.2  -0.4
       comp=Z,0.4nm,0.4s,baz=333,slow=1.6,SNR=2.4
KURBB  Kurchatov Arra  120.48  16  PKP     PKiKP   21 28 15.1 +0.1
       comp=Z,0.6nm,0.6s,baz=329,slow=2.2,SNR=6.7
MJAR   Matsushiro Arr  124.58 323  PKP     PKPdf   21 28 22.8  -0.5
       comp=Z,1.5nm,0.8s,baz=64,slow=5.5,SNR=1.7
MKAR   Makanchi Array  124.99  15  PKP     PKPdf   21 28 23.3  -0.5
       comp=Z,0.5nm,0.6s,baz=338,slow=2.5,SNR=6.1
MKAR   Makanchi Array  124.99  15          PKPdf   21 28 23.1  -0.7
CN2    Changchun       125.29 338  ePKP    PKiKP   21 28 25.1 +0.3
SONM   Songino Array   125.99 355  PKP     PKPdf   21 28 25.9  0.0
       comp=Z,1.2nm,0.6s,baz=7.2,slow=0.8,SNR=8.3
SONM   Songino Array   125.99 355          PKPdf   21 28 24.8  -1.0
KDJ    Kajisay         127.61  21          PKPdf   21 28 28.6  -0.6
PRZ    Przheval'sk     127.73  20  PKPdf   PKPdf   21 28 28.7  -0.7
WMQ    Urumqi          129.03  12  ePKP    PKiKP   21 28 32.7 +0.3
WMQ                                L       L
       comp=Z,140nm,22.9s
KSRS   Korea Array     129.49 331  PKP     PKPdf   21 28 32.6  0.0
       comp=Z,4.3nm,1.1s,baz=46,slow=0.5,SNR=4.9
KSH2   Kashi           129.54  25  PKP     PKiKP   21 28 33.8 +0.2
HHC    Hu-ho-hao-te    132.09 348  eP      PKPdf   21 28 32.3  -5.3
BTO2   Baotou          132.51 350  ePKP    PKPdf   21 28 33.3  -5.1
STKA   Stephens Creek  133.60 231  PKP     PKPdf   21 28 39.9  -0.7
       comp=Z,2.8nm,0.8s,baz=108,slow=3.2,SNR=4.3
GTA2   Gaotai          134.62   0  PKP     PKiKP   21 28 44.1 +0.2
GTA2                               L       L
       comp=Z,200nm,20.3s
GTA2                               L       L
       comp=Z,170nm,19.0s
GTA2                               L       L
       comp=Z,250nm,22.5s
LZH    Lanzhou         137.87 356  ePKP    PKPdf   21 28 42.1  -6.5
NJ2    Nanjing         138.05 336  ePKP    PKPdf   21 28 48.0  -0.8
ENH    Enshi           142.72 347  PKPdf   PKPdf   21 28 56.2  -1.2
CD2    Chengdu         143.01 355  PKP     PKPbc   21 28 56.0 +1.4
AS17   Alice Springs   143.07 238  P       PKPbc   21 28 55.0 +0.1
AS09   Alice Springs   143.10 238  P       PKPbc   21 28 55.1 +0.1
ASAR   Alice Springs   143.14 238  PKhKP   PKPpre  21 28 54.3
       comp=Z,4.9nm,0.7s,baz=110,slow=3.1,SNR=35
AS15   Alice Springs   143.15 238  P       PKPbc   21 28 55.0  -0.2
EVN    Everest         143.76  20          PKPbc   21 28 57.7 +0.1
WR0    Warramunga Arr  143.87 244  PKPdf   PKPbc   21 28 57.0  -0.3
WRA    Warramunga Arr  144.05 244  PKP     PKPbc   21 28 58.0 +0.1
       comp=Z,32nm,0.9s,baz=106,slow=3.6,SNR=193
WRA    Warramunga Arr  144.05 244          PKPab   21 28 57.1  -0.3
WB0    Warramunga Arr  144.06 245          PKPab   21 28 57.5 +0.1
WRKA   Warakurna       147.12 232  P       PKPbc   21 29 07.6 +0.4
KDU    Kakadu          147.46 256  P       PKPbc   21 29 08.7 +0.4
SHL    Shillong        147.50  14          PKPdf   21 29 06.2 +0.3
PZH    PanZhiHua       147.53 357  PKPbc   PKPdf   21 29 06.4 +0.5
HYB    Hyderabad       148.35  42  ePKiKP  PKiKP   21 29 11.7  -0.7
HYB                                eSKKSac SKKSac  21 39 29.5  -1.4
MTN    Manton Dam      148.72 255  P       PKPdf   21 29 02.3  -5.6
MTN    Manton Dam      148.72 255          PKPdf   21 29 04.8  -3.1
KMI2   Kunming         148.81 355  PKPbc   PKPdf   21 29 09.1 +0.9
KMI2                               L       L
       comp=Z,280nm,24.8s
TNCH   TengChong       149.00   3  PKPbc   PKPdf   21 29 08.4  0.0
TNCH                               sPKP    sPKPdf  21 29 12.7  -1.7
TNCH                               PKPab   pPKPbc  21 29 16.8  0.0
TNCH                               PP      PP      21 32 41.5 +0.1
KLBR   Kellerberrin    149.76 211  P       PKPbc   21 29 14.1 +0.2
MUN    Mundaring       150.21 208  P       PKPdf   21 29 12.3 +2.4
KNRA   Kununurra       150.36 249  P       PKiKP   21 29 16.3  -0.2
QIZ    Qiongzhong      153.24 339  PKPbc   PKPdf   21 29 12.7  -2.1
QIZ                                PP      PP      21 33 05.6  -0.2
QIZ                                SS      SS      21 52 41.4 +2.8
QIZ                                L       L
       comp=Z,140nm,16.2s
QIZ                                L       L
       comp=Z,140nm,14.7s
QIZ                                L       L
       comp=Z,130nm,18.1s
CMAR   Chiang Mai Arr  155.55   3  PKP     PKPdf   21 29 18.1 +0.1
       comp=Z,1.5nm,0.8s,baz=349,slow=0.7,SNR=12
CMAR                               PKPab   PKPab   21 29 45.2 +1.6
       comp=Z,1.2nm,0.3s,baz=350,slow=2.5,SNR=6.7
```

IDC ***02*** *21:28:44.3±1.3, 6°.12S×152°.56E, h0km, mb3.9/7, mbtmp3.9/8, ML2.3/1, MS4.0/2, Error ellipse: s-maj=33.0km s-min=14.6km az=114.0*

ISC 02 21:28:50.7±1.4, **6°.0S**±0°.1×**152°.4E**±0°.2, **h38**km, **n12,** σ**0s.71**/12, **mb3.9**/7, **New Britain region**

```
Code   Station Name       Δ°  AZ°  Phase ID           Time      Res
                                   Op      ISC      h  m  s    ISC
KRVT   Keravat (AS076    1.75 348  Pn      Pn      21 29 18.0  -0.5
       183nm,0.3s,baz=169,slow=5.2,SNR=11
KRVT                               Sn      Sn      21 29 39.7 +0.1
       514nm,0.3s,baz=233,slow=20,SNR=26
KRVT                               LR      LR      21 30 14.9
       comp=Z,124nm,19.6s,baz=142,slow=48
PMG    Port Moresby      6.17 237  Pn      Pn      21 30 19.2  0.0
       3.8nm,0.3s,baz=61,slow=10,SNR=5.6
PMG                                Sn      Sn      21 31 28.4  -0.1
       2.5nm,0.3s,baz=90,slow=20,SNR=2.3
       15nm,0.5s
PMG                                AML     AML
WRA    Warramunga Arr   22.33 230  P       P       21 33 44.8  -0.6
       2.1nm,1.0s,baz=54,slow=10,SNR=4.7
       2.1nm,1.0s
ASAR   Alice Springs    24.97 224  P       P       21 34 10.7  -0.2
       1.7nm,0.7s,baz=49,slow=10.0,SNR=20
       1.7nm,0.7s
SONM   Songino Array    67.14 328  P       P       21 39 42.4 +1.7
       0.3nm,0.6s,baz=145,slow=6.6,SNR=2.0
       0.3nm,0.6s
ZALV   Zalesovo Beam    81.94 327  P       P       21 41 05.9  -0.5
       0.6nm,0.4s,baz=110,slow=6.3,SNR=4.4
       0.6nm,0.4s
ILAR   Eielson Array    83.45  22  P       P       21 41 14.0  0.0
       1.0nm,0.8s,baz=256,slow=5.9,SNR=9.9
       1.0nm,0.8s
MAW    Mawson           84.28 203  LR      LR      22 13 50.2
       comp=Z,140nm,21.6s,baz=245,slow=32
KURBB  Kurchatov Arra   84.51 322  P       P       21 41 18.9  -0.7
       0.7nm,0.7s,baz=111,slow=2.8,SNR=7.4
       0.7nm,0.7s
AAK    Ala-Archa        85.21 314  LR      LR      22 18 42.5
       comp=Z,64nm,21.8s,baz=346,slow=35
BVAR   Borovoye Array   89.97 323  P       P       21 41 45.5  -0.6
       1.3nm,0.7s,baz=91,slow=7.2,SNR=5.5
       1.3nm,0.7s
TORD   Torodi Ar. Bea  150.27 286  PKPbc   PKPbc   21 48 38.8  0.0
       1.7nm,0.8s,baz=85,slow=2.5,SNR=8.0
```

IDC ***02*** *21:33:09.8±0.8, 38°.21N×0°.07W, h0km, mb3.7/9, mbtmp3.8/14, ML3.5/5, Error ellipse: s-maj=15.7km s-min=11.4km az=9.0*

MDD ***02*** *21:33:10.9±0.3, 37°.95N×0°.02W, h10km, mb_Lg3.6/55, Error ellipse: s-maj=3.4km s-min=1.5km az=142.0*

SFS ***02*** *21:33:10.4, 38°.10N×0°.08W, h3km, mb4.0/10, ML4.1/24, ML4.0/24, MLv4.0/24*

INMG ***02*** *21:33:11.5±2.0, 37°.99N×0°.06W, h20km±3km, ML3.3, Error ellipse: s-maj=4.3km s-min=2.4km az=136.0, #DIST_RANGE: REGIONAL #IPMA_REGION: SE*

Alicante (ESP)

CNRM ***02*** *21:33:18.0, 37.°84N×0.°68W, h57km, ML3.0*

ISC 02 21:33:11.5±1.2**, 37.°99N**±0.°03×**0.°09W**±0.°03**, h24km**±10km**,**
n130, σ**1.ˢ89**/229**, mb3.9**/7**, Spain**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ETRV	Los Montesinos	0.53	273	Pg	Pb	21 33 22.3	+0.2
ETRV				Sg	Sn	21 33 30.5	-1.2
ETRV				IVmb_Lg		21 33 32.3	
EBEN2	Beniarda presa	0.69	354	Pg	Pb	21 33 24.4	-0.5
EBEN2				Sg	Sb	21 33 33.6	-0.4
EBEN2				IVmb_Lg		21 33 35.8	
AFON	Font Roja	0.76	333	Pg	Pb	21 33 25.9	-0.2
AFON				Sg	Sb	21 33 36.2	+0.2
AFON				IVmb_Lg		21 33 38.2	
CART	Cartagena	0.82	241	Pg	Pb	21 33 27.4	+0.3
CART				Sg	Sn	21 33 39.4	+0.4
CART	Cartagena	0.82	241	P	Pn	21 33 27.6	0.0
CART				S	Sb	21 33 36.4	-1.3
EMUR	La Murta	0.92	261	Pg	Pb	21 33 28.8	0.0
EMUR				Sg	Sn	21 33 42.0	+0.6
EMUR	La Murta	0.92	261	Pg	Pb	21 33 28.8	0.0
EMUR				Sg	Sn	21 33 42.8	+1.4
EMUR				IVmb_Lg		21 33 48.9	
EZAR	Zarzadilla de	1.27	265	Pg	Pn	21 33 33.5	-0.3
EZAR				Sg	Sb	21 33 52.0	+1.3
EZAR				IVmb_Lg		21 33 56.3	
TLOR	Lorca, Murcia	1.31	256	Pg	Pn	21 33 34.3	+0.1
TLOR				Sg	Sb	21 33 53.0	+1.3
TLOR	Lorca, Murcia	1.31	256	Pn	Pn	21 33 34.6	+0.3
ETOB	Tobarra	1.32	300	Pg	Pb	21 33 35.0	-0.6
ETOB				Sg	Sn	21 33 51.0	-0.3
ETOB	Tobarra	1.32	300	Pn	Pb	21 33 35.0	-0.6
ETOB				Sg	Sb	21 33 54.5	+2.4
ETOB				IVmb_Lg		21 34 00.4	
ELOR	Lorca, Murcia	1.35	255	Pn	Pb	21 33 35.7	-0.5
ELOR				Sn	Sb	21 33 53.6	+0.5
ELOR				IVmb_Lg		21 34 02.5	
EVIV	Cofrentes, Val	1.50	328	Pn	Pn	21 33 36.9	-0.1
EVIV				Pg	Pb	21 33 40.4	+1.7
EVIV				Sn	Sb	21 33 58.3	+0.9
EVIV				IVmb_Lg		21 34 06.2	
EIBI	Ibiza	1.53	47	Pn	Pn	21 33 36.8	-0.4
EIBI				Sn	Sn	21 33 54.0	-2.5
EIBI	Ibiza	1.53	47	Pn	Pn	21 33 36.7	-0.6
EIBI				Sn	Sn	21 33 53.8	-2.6
EIBI				IVmb_Lg		21 33 55.9	
ECHE	Chera	1.74	337	Pn	Pn	21 33 39.8	-0.4
ECHE				Sn	Sn	21 34 00.4	-1.2
ECHE	Chera	1.74	337	Pn	Pn	21 33 40.0	-0.1
ECHE				Pg	Pb	21 33 44.2	+1.5
ECHE				Sn	Sn	21 34 00.6	-1.0
ECHE				IVmb_Lg		21 34 12.7	
ENIJ	Nijar	1.96	239	Pn	Pn	21 33 43.7	+0.4
ENIJ				Sn	Sb	21 34 09.6	-1.0
ENIJ	Nijar	1.96	239	Pn	Pn	21 33 43.9	+0.6
ENIJ				Sn	Sn	21 34 06.2	-1.0
ENIJ				IVmb_Lg		21 34 21.9	
ECOL	Islas Columbre	2.00	17	Pn	Pn	21 33 42.5	-1.2
ECOL				Sn	Sn	21 34 05.1	-2.8
EQES	Quesada	2.36	266	Pn	Pn	21 33 50.2	+1.4
EQES				Sn	Sb	21 34 19.9	-2.2
EQES				IVmb_Lg		21 34 37.1	
EMOS	Mosqueruela	2.39	353	Pn	Pn	21 33 49.1	-0.1
EMOS				Pg	Pb	21 33 56.4	+2.5
EMOS				Sn	Sn	21 34 17.0	-0.8
EMOS				IVmb_Lg		21 34 27.1	
EBER	Berja	2.48	245	Pn	Pn	21 33 51.4	+0.9
EBER				Sn	Sn	21 34 18.4	-1.7
EBER	Berja	2.48	245	Pn	Pn	21 33 51.5	+0.9
EBER				Sn	Sn	21 34 18.9	-1.2
EBER				IVmb_Lg		21 34 26.0	
E0901	Celadas (Terue	2.61	342	Pn	Pn	21 33 53.6	+1.3
E0901				Pg	Pb	21 34 00.1	+2.5
E0901				Sn	Sn	21 34 25.5	+2.2
E0901				IVmb_Lg		21 34 41.7	
EQUE	Quentar	2.77	255	Pn	Pn	21 33 56.8	+2.3
EQUE				Sn	Sn	21 34 29.4	+2.2
EQUE				IVmb_Lg		21 34 35.8	
EQTA	Presa de Quent	2.77	255	Pn	Pn	21 33 56.2	+1.8
EQTA				Sn	Sn	21 34 29.8	+2.6
ETOS	Mallorca	2.88	51	Pn	Pn	21 33 56.0	+0.1
ETOS				Sn	Sn	21 34 27.5	-2.3
ETOS	Mallorca	2.88	51	Pn	Pn	21 33 56.0	+0.1
ETOS				Sn	Sn	21 34 27.3	-2.5
ETOS				IVmb_Lg		21 34 30.1	
ERTA	Horta de San J	2.98	6	Pn	Pn	21 33 57.0	-0.3
ERTA				Sn	Sn	21 34 30.1	-2.1
ERTA				IVmb_Lg		21 34 30.5	
PSIM	Granatula de C	2.99	287	Pn	Pn	21 33 57.6	+0.1
PSIM				Sn	Sn	21 34 32.0	-0.6
ELGU	Los Guajares,	3.03	249	Pn	Pn	21 33 58.9	+1.0
ELGU				Sn	Sn	21 34 35.5	+2.0
ELGU	Los Guajares,	3.03	249	Pn	Pn	21 33 59.5	+1.6
ELGU				Sn	Sn	21 34 33.0	-0.5
ELGU				IVmb_Lg		21 34 44.1	
ETOR	Torete	3.21	332	Pn	Pn	21 34 03.5	+3.0
ETOR				Pg	Pb	21 34 11.6	+3.8
ETOR				IVmb_Lg		21 34 57.5	
EGOR	Sierra Gorda,	3.31	256	Pn	Pn	21 34 03.9	+2.0
EGOR				Sn	Sn	21 34 44.0	+3.4
EGOR	Sierra Gorda,	3.31	256	Pn	Pn	21 34 04.5	+2.6
EGOR				Sn	Sn	21 34 42.1	+1.6
EGOR				IVmb_Lg		21 34 58.1	
UCM	Universidad Co	3.37	314	Pn	Pn	21 34 02.5	-0.1
UCM				Sn	Sn	21 34 40.9	-1.0
ESDC	Sonseca Array	3.46	300	Pn	Pn	21 34 03.8	0.0
	3.2nm,0.3s,baz=116,slow=14,SNR=317						
ESDC				Lg	Lg	21 34 57.0	
	11nm,0.3s,baz=117,slow=30,SNR=6.5						
	15nm,0.3s						
ESDC				AML	AML		
ESDC	Sonseca Array	3.46	300	Pn	Pn	21 34 03.9	0.0
ESDC				IVmb_Lg		21 35 06.5	
EPOB	Poblet	3.48	15	Pn	Pn	21 34 03.5	-0.6
EPOB				Sn	Sn	21 34 41.3	-3.3
EPOB				IVmb_Lg		21 34 43.8	
EADA	Adamuz	3.54	274	Pn	Pn	21 34 04.6	-0.4
EADA				Sn	Sn	21 34 43.3	-2.9
EADA	Adamuz	3.54	274	Pn	Pn	21 34 04.6	-0.4
EADA				Sn	Sn	21 34 45.4	-0.7
EADA				IVmb_Lg		21 35 11.2	
EMAL	Malaga-Limoner	3.67	252	Pn	Pn	21 34 07.7	+1.1
EMAL				Sn	Sn	21 34 52.0	+2.9
PAB	San Pablo	3.67	296	Pn	Pn	21 34 06.9	+0.1
PAB				IVmb_Lg		21 35 16.7	
TAF	Taforalt	3.68	211	P	Pn	21 34 08.8	+1.8
TAF				S	Sn	21 34 46.1	-3.6
MAHO	Mahon	3.90	59	Pn	Pn	21 34 08.9	-0.9
MAHO				Sn	Sn	21 34 52.6	-2.2
EMIJ	Mijas	3.99	251	Pn	Pn	21 34 11.5	+0.3
EMIJ				Sn	Sn	21 34 57.6	+0.3
EMIR	Miracle	4.11	17	Pn	Pn	21 34 12.9	0.0
EMIR				Sn	Sn	21 34 59.3	-0.9
GUD	Guadarrama	4.11	311	Pn	Pn	21 34 13.2	+0.2
GUD				IVmb_Lg		21 35 28.5	
PALE	Palemas	4.15	229	P	Pn	21 34 13.1	-0.3
PALE				S	Sn	21 34 55.6	-5.6
JBK	JBK	4.16	209	P	Pn	21 34 15.7	+2.1
JBK				S	Sn	21 35 01.2	-0.5
ECAB	El Cabril	4.21	273	Pn	Pn	21 34 13.4	-0.7
ECAB				Sn	Sn	21 34 59.9	-2.6
ECAB	El Cabril	4.21	273	Pn	Pn	21 34 13.7	-0.4
ECAB				Sn	Sn	21 35 02.1	-0.4
ECAB				IVmb_Lg		21 35 35.3	
CIBOR	Castaar de Ib	4.48	293	Pn	Pn	21 34 17.8	0.0
CIBOR				Sn	Sn	21 35 07.7	-1.4
AKLM	AKL	4.62	222	P	Pn	21 34 19.5	-0.4
AKLM				S	Sn	21 35 07.8	-5.0
ECHI	Chisagues Biel	4.67	3	Pn	Pn	21 34 21.1	+0.5
ESPR	Espera	4.72	258	Pn	Pn	21 34 22.4	+1.3
ESPR				Sn	Sn	21 35 15.5	+0.4
SMIR	Smir Dam	4.83	243	P	Pn	21 34 21.0	-1.6
SMIR				S	Sn	21 35 12.7	-5.0
EJON	La Jonquera	5.00	26	Pn	Pn	21 34 24.1	-0.9
EJON				Sn	Sn	21 35 18.9	-3.2
EJON	La Jonquera	5.00	26	Pn	Pn	21 34 24.8	-0.2
EJON				Sn	Sn	21 35 17.9	-4.2
EPLA	Plasencia	5.10	296	Pn	Pn	21 34 26.3	-0.1
EMIN	Mina Concepcio	5.21	270	Pn	Pn	21 34 27.2	-0.6
EALK	Alkurruntz	5.33	349	Pn	Pn	21 34 31.1	+1.5
EALK				Sn	Sn	21 35 29.4	-0.9
PBAR	Barrancos	5.48	274	Pn	Pn	21 34 31.1	-0.5
PBAR				Sn	Sn	21 35 29.6	-4.3
PBAR	Barrancos	5.48	274	ePn	Pn	21 34 31.2	-0.5
PBAR				eSn	Sn	21 35 32.3	-1.6
PBAR				i IAML		21 36 16.7	
PBAR				i IAML		21 36 25.0	
PBAR				i IAML		21 36 26.6	
EBAD	Badajoz	5.49	280	Pn	Pn	21 34 30.7	-1.0
EBAD				Sn	Sn	21 35 30.1	-4.0
EBAD	Badajoz	5.49	280	Pn	Pn	21 34 30.9	-0.8
EBAD				Sn	Sn	21 35 32.7	-1.4
EBAD				IVmb_Lg		21 36 15.9	
ELAN	Lanestosa	5.82	335	Pn	Pn	21 34 37.4	+1.1
EGRO	El Granado	5.87	268	Pn	Pn	21 34 35.8	-1.2
EGRO				Sn	Sn	21 35 40.2	-3.3
EGRO	El Granado	5.87	268	Pn	Pn	21 34 36.4	-0.5
EGRO				Sn	Sn	21 35 40.9	-2.6
EGRO				IVmb_Lg		21 36 37.1	
PMRV	Marv??o	5.88	286	ePn	Pn	21 34 37.7	+0.5
PMRV				eSg	Sb	21 36 14.3	+11
PMRV				i IAML		21 36 34.6	
PMRV				i IAML		21 36 38.2	
PMRV				i IAML		21 36 38.2	
FIGM	Figuig	5.92	190	P	Pn	21 34 40.1	+2.3
FIGM				S	Sn	21 35 47.2	+2.3
PESTR	Estremoz	5.95	281	Pn	Pn	21 34 37.7	-0.4
PESTR				Sn	Sn	21 35 41.6	-3.9
PESTR	Estremoz	5.95	281	ePn	Pn	21 34 38.3	+0.3
PESTR				i IAML		21 36 29.9	
PESTR				i IAML		21 36 30.4	
PCBR	Castelo Branco	6.05	290	ePn	Pn	21 34 39.5	+0.2
PCBR				eSn	Sn	21 35 45.5	-2.3
IFR	Ifrane	6.06	224	Pn	Pn	21 34 39.7	0.0
IFR				Sn	Sn	21 35 48.6	+0.3
PVAQ	Vaqueiros	6.07	267	ePn	Pn	21 34 39.1	-0.6
PVAQ				eSn	Sn	21 35 46.5	-1.9
PVAQ				i IAML		21 35 47.3	
PVAQ				i IAML		21 36 36.3	
PVAQ				i IAML		21 36 42.6	
PVAQ	Vaqueiros	6.07	267	P	Pn	21 34 38.5	-1.2
PVAQ				S	Sn	21 35 42.4	-6.1
PBEJ	Beja	6.14	273	eSn	Sn	21 35 48.5	-1.5
PBEJ				i IAML		21 36 43.3	
PBEJ				i IAML		21 36 51.0	
PBEJ				i IAML		21 36 51.0	
EVO	Evora	6.25	277	Pn	Pn	21 34 41.7	-0.5
EVO				Sn	Sn	21 35 50.2	-2.7
EVO	Evora	6.25	277	eSn	Sn	21 35 50.9	-2.1
EVO				i IAML		21 36 38.9	
EVO				i IAML		21 36 40.1	
EVO				i IAML		21 36 50.5	
MTE	Manteigas	6.27	295	ePn	Pn	21 34 42.9	+0.4
PBDV	Barranco-do-Ve	6.27	266	Pn	Pn	21 34 41.3	-1.1
PBDV				Sn	Sn	21 35 50.6	-2.7
PBDV	Barranco-do-Ve	6.27	266	ePn	Pn	21 34 41.9	-0.6
PBDV				eSn	Sn	21 35 51.3	-2.0
PBDV				i IAML		21 35 52.0	
PBDV				i IAML		21 35 55.3	
PBDV				i IAML		21 36 49.2	
PARRA	Arraiolos	6.29	280	ePn	Pn	21 34 42.4	-0.3
PARRA				eSn	Sn	21 35 52.0	-1.9
PARRA				i IAML		21 36 35.4	
PARRA				i IAML		21 36 38.1	
PARRA				i IAML		21 36 50.9	
PCVE	Castro Verde	6.30	269	Pn	Pn	21 34 40.6	-2.2
PCVE				Sn	Sn	21 35 54.0	-0.1
PCVE	Castro Verde	6.30	269	ePn	Pn	21 34 42.6	-0.2
PCVE				i IAML		21 36 44.8	
PCVE				i IAML		21 36 47.2	
PCVE				i IAML		21 36 52.4	
MDT	Midelt	6.34	217	Pn	Pn	21 34 45.9	+2.3
	0.8nm,0.3s,baz=32,slow=14,SNR=9.0						
	2.1nm,0.3s						
MDT				AML	AML		
MDT	Midelt	6.34	217	P	Pn	21 34 43.6	0.0
MDT				S	Sn	21 35 52.7	-2.6
PBRG	Braganca	6.37	309	ePn	Pn	21 34 44.4	+0.5
PBRG				i IAML		21 36 41.1	
PBRG				i IAML		21 36 41.4	
PBRG				i IAML		21 36 42.7	
PBRG				erx	rx	21 37 07.4	
MD31	MD31	6.37	218	P	Pn	21 34 44.8	+0.8
MD31				S	Sn	21 35 52.2	-3.8
MESJ	Messejana	6.43	271	ePn	Pn	21 34 44.3	-0.3
MESJ				eSn	Sn	21 35 55.5	-1.6
MESJ				i IAML		21 36 42.2	
MESJ				i IAML		21 36 50.0	
MESJ				i IAML		21 37 15.0	
ECAL	Calabor	6.45	310	Pn	Pn	21 34 45.0	+0.1
ECAL				Sn	Sn	21 35 54.6	-3.2
ECAL	Calabor	6.45	310	Pn	Pn	21 34 45.1	+0.1
ECAL				Sn	Sn	21 35 56.4	-1.4
ECAL				IVmb_Lg		21 36 55.4	
PMTG	Montargil	6.47	282	ePn	Pn	21 34 45.6	+0.5
PMTG				eSn	Sn	21 35 55.0	-3.1
PMTG				eSg	Sb	21 36 32.7	+13
PMTG				i IAML		21 36 46.7	
PMTG				i IAML		21 36 46.8	
PMTG				i IAML		21 36 53.1	
PSARD	Sardoal	6.50	287	ePn	Pn	21 34 46.0	+0.3
MOE	Montemor	6.52	277	eSn	Sn	21 35 57.0	-2.4
MOE				i IAML		21 36 47.6	
MOE				i IAML		21 36 49.8	
MOE				i IAML		21 36 57.0	
EARI	Arriondas	6.58	325	Pn	Pn	21 34 48.1	+1.4
EARI				Sn	Sn	21 35 58.3	-2.6
PLOUS	Minas do Lousa	6.58	273	eSn	Sn	21 35 58.3	-2.5
PVIS	Viseu	6.63	297	ePn	Pn	21 34 47.3	-0.1
PVIS				eSn	Sn	21 35 59.5	-2.7
PVRL	Vila Real	6.74	302	ePn	Pn	21 34 49.1	+0.2
PVRL				eSn	Sn	21 36 03.4	-1.4
MORF	Marmelete	6.83	267	ePn	Pn	21 34 49.8	-0.3
MORF				eSn	Sn	21 36 04.8	-2.2
MORF				i IAML		21 36 07.6	
MORF				i IAML		21 36 07.7	
MORF				i IAML		21 36 13.1	
POLO	Lamas de Olo	6.83	302	ePn	Pn	21 34 50.2	0.0
POLO				eSn	Sn	21 36 05.5	-1.7
POLO				eSg	Sb	21 36 43.4	+13
POLO				i IAML		21 36 53.5	
POLO				i IAML		21 36 55.5	
POLO				i IAML		21 37 02.3	
PCAS	Casmilo, Conde	6.86	290	ePn	Pn	21 34 50.9	+0.4
PCAS				eSn	Sn	21 36 05.6	-2.2
PCAS				i IAML		21 36 54.6	
PCAS				i IAML		21 36 59.9	
PCAS				i IAML		21 37 01.4	
PFVI	Vila Bisbo	6.99	266	Pn	Pn	21 34 51.0	-1.3
PFVI				Sn	Sn	21 36 06.5	-4.6
PFVI	Vila Bisbo	6.99	266	ePn	Pn	21 34 52.1	-0.2
PFVI				eSn	Sn	21 36 08.2	-2.8
PFVI				i IAML		21 36 22.5	
PFVI				i IAML		21 36 37.0	
PFVI	Vila Bisbo	6.99	266	P	Pn	21 34 51.6	-0.7
PFVI				S	Sn	21 36 05.1	-6.0
PCAB	Cabril	7.14	304	ePn	Pn	21 34 54.7	+0.3
ELOB	Lobios	7.24	305	Pn	Pn	21 34 55.9	+0.1
ELOB				Sn	Sn	21 36 13.7	-3.7
ELOB				IVmb_Lg		21 37 10.9	
PMAFR	Mafra	7.27	280	Pn	Pn	21 34 55.6	-0.6
PMAFR				Sn	Sn	21 36 14.3	-3.7
PMAFR	Mafra	7.27	280	ePn	Pn	21 34 56.5	+0.3
PGAV	Gavieira, Arco	7.43	305	ePn	Pn	21 34 58.6	+0.2
PGAV				eSn	Sn	21 36 19.8	-2.1
PGAV				i IAML		21 37 12.6	
PGAV				i IAML		21 37 12.7	
PGAV				i IAML		21 37 20.1	
GOLM	Goulmima	7.43	214	P	Pn	21 34 59.1	+0.6
GOLM				S	Sn	21 36 20.0	-2.2
EPON	Pontenova	7.56	317	Pn	Pn	21 34 59.6	-0.5
EPON				Sn	Sn	21 36 20.9	-4.2
EAGO	Agolada(Pontev	7.76	311	Pn	Pn	21 35 03.0	0.0
EAGO				IVmb_Lg		21 37 33.8	
KEST	Kesra	7.89	104	Pn	Pn	21 35 07.4	+2.6
	1.0nm,0.3s,baz=288,slow=9.9,SNR=36						
KEST				Sn	Sn	21 36 35.6	+2.2
	baz=312,slow=15						
	6.7nm,0.7s						
KEST				AML	AML		
EMAZ	Mazaricos	8.38	309	Pn	Pn	21 35 11.3	-0.1
EMAZ				IVmb_Lg		21 37 49.9	
OUZM	OUZ	8.95	220	P	Pn	21 35 21.5	+2.1
OUZM				S	Sn	21 36 57.9	-1.7
GERES	GERESS Array B	14.74	38	Pn	Pn	21 36 35.3	-3.1
	baz=227,slow=12,SNR=4.8						
	0.4nm,0.2s						
EKA	Eskdalemuir Ar	17.47	354	P	Pn	21 37 13.7	+0.4
	baz=176,slow=15						
	1.3nm,0.6s						
MLR	Muntele Rosu	20.76	61	P	P	21 37 49.4	-1.2
	1.1nm,0.7s,baz=270,slow=19,SNR=4.8						
	1.1nm,0.7s						
HFS	Hagfors	23.83	17	P	P	21 38 20.4	-2.0
	4.8nm,1.1s,baz=205,slow=5.9,SNR=2.0						
	4.8nm,1.1s						
AKASG	Malin Array Be	24.34	49	P	P	21 38 26.1	-1.0
	0.4nm,0.5s,baz=251,slow=10,SNR=1.9						
	0.4nm,0.5s						
TORD	Torodi Ar. Bea	24.79	176	P	P	21 38 34.3	+2.7
	1.0nm,0.8s,baz=358,slow=12,SNR=4.5						
	1.0nm,0.8s						
FINES	FINESS Array B	28.56	26	P	P	21 39 06.0	+0.9
	1.8nm,0.9s,baz=218,slow=8.8,SNR=3.4						
	1.8nm,0.9s						
KURBB	Kurchatov Arra	55.12	50	P	P	21 42 42.4	+0.9
	0.7nm,0.7s,baz=293,slow=8.3,SNR=4.4						
	0.7nm,0.7s						
ZALV	Zalesovo Beam	57.60	44	P	P	21 43 00.3	+1.2
	0.4nm,0.3s,baz=290,slow=7.3,SNR=2.4						
	0.4nm,0.3s						
MKAR	Makanchi Array	58.85	53	P	P	21 43 09.9	+1.9
	1.1nm,0.6s,baz=290,slow=5.7,SNR=14						
	1.1nm,0.6s						
PDAR	Pinedale Array	77.24	315	P	P	21 45 05.6	+1.8
	0.6nm,0.3s,baz=75,slow=6.9,SNR=2.9						
	0.6nm,0.3s						

IDC ***02*** *21:38:56.6±1.7, 23.°77S×179.°72W, h516km±16km, mb3.6/9, mbtmp4.4/12, Error ellipse: s-maj=22.3km s-min=15.9km az=138.0*

NEIC ***02*** *21:38:56.7±1.6, 23.°72S±0.°10×179.°6W±0.°1, h523km±9km, mb4.3/29, Error ellipse: s-maj=18.1km s-min=13.4km az=110.0*

ISC 02 21:38:55.5±0.4**, 23.°69S**±0.°06×**179.°76W**±0.°07**, h500km,**
n76, σ**1.ˢ55**/81**, mb4.2**/24**, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RIZ	Raoul Island	5.77	164	P	P	21 40 33.2	+3.7
RIZ				AML	AML		
RAO	Raoul Island	5.78	164	P	P	21 40 33.0	+3.4
GLKZ	Green Lake	5.79	164	P	P	21 40 33.7	+4.1
GLKZ				S	S	21 41 49.4	+2.7
GLKZ				AML	AML		
MSVF	Nonsavu	6.27	341	P	P	21 40 38.5	+3.8
	6.1nm,0.4s,baz=127,slow=20,SNR=7.7						
MSVF	Nonsavu	6.27	341	P	P	21 40 37.9	+3.2
NIUE	Niue	10.25	65	P	P	21 41 15.4	-0.2
NIUE	Niue	10.25	65	S	S	21 43 12.3	+1.4
MARNC	Mare, Loyalty	11.49	279	P	P	21 41 30.4	+1.6
AFI	Afiamalu	12.32	39	P	P	21 41 35.6	-2.1
	37nm,0.5s,baz=180,slow=9.1,SNR=6.1						
AFI	Afiamalu	12.32	39	P	P	21 41 35.2	-2.5
DZM	Mont Dzumac	12.82	275	P	P	21 41 45.3	+2.4
	5.4nm,0.6s,baz=99,slow=19,SNR=1.8						
OUZ	Omahuta	12.86	205	P	P	21 41 45.9	+2.9
MXZ	Matakaoa Point	13.92	186	P	P	21 41 56.1	+1.9
MXZ	Matakaoa Point	13.92	186	P	P	21 41 57.9	+3.7
MKAZ	Moumakai	14.06	197	P	P	21 41 56.6	+0.9
HAZ	Te Kaha	14.17	188	P	P	21 41 58.5	+1.6
HAZ				S	S	21 44 25.9	-0.5
PUZ	Puketiti	14.43	186	S	S	21 44 28.8	-2.6
URZ	Urewera	14.76	190	P	P	21 42 02.4	-0.7
	16nm,0.6s,baz=21,slow=3.7,SNR=7.0						
URZ				S	S	21 44 35.4	-2.3
	8.5nm,0.6s,baz=49,slow=19,SNR=6.7						
URZ	Urewera	14.76	190	P	P	21 42 04.3	+1.2
URZ				S	S	21 44 35.1	-2.7
TWVZ	Taurewa	15.86	194	P	P	21 42 14.2	-0.5
OTVZ	Oturere	15.90	193	P	P	21 42 16.3	+1.1
SNVZ	South Ngauruho	15.93	193	P	P	21 42 16.1	+0.6
KWHZ	Kaweka Forest	16.01	191	P	P	21 42 15.4	-0.8
FWVZ	Far West T-bar	16.02	193	P	P	21 42 17.4	+0.9
WHVZ	Whangaehu Hut	16.03	193	P	P	21 42 16.9	+0.3
WNVZ	Wahianoa	16.07	193	P	P	21 42 16.7	-0.2
MOVZ	Moawhango	16.12	193	P	P	21 42 17.4	+0.1
BHHZ	Black Hill Sta	16.14	192	P	P	21 42 15.9	-1.7
BFZ	Birch Farm	17.27	190	P	P	21 42 28.3	-0.7
TCW	Tory Channel	18.17	195	P	P	21 42 36.5	-0.8
LTZ	Lake Taylor	20.15	197	P	P	21 42 54.9	-0.5
ARMA	Armidale	26.30	249	P	P	21 43 51.2	+0.5
ARMA				IAmb	IAmb	21 43 53.2	
	comp=Z,6.3nm,0.7s						
EIDS	Eidsvold	26.55	260	P	P	21 43 53.6	+0.8
CAN	Canberra	29.43	240	P	P	21 44 18.1	+0.1
CAN				IAmb	IAmb	21 44 20.0	
	comp=Z,19nm,1.0s						
CTAO	Charters Tower	31.69	270		P	21 44 38.4	+0.7
TOO	Toolangi	32.74	237	P	P	21 44 46.4	-0.1
TOO				IAmb	IAmb	21 45 23.2	
	comp=Z,11nm,1.5s						
TAU	Tasmania Unive	33.23	227	P	P	21 44 50.2	-0.2
STKA	Stephens Creek	35.00	248	P	P	21 45 05.7	+0.2
	comp=Z,4.0nm,0.6s,baz=84,slow=9.7,SNR=13						
	comp=Z,4.0nm,0.6s						
INKA	Innaminka	35.70	255	P	P	21 45 12.0	+0.6
BBOO	Buckleboo	39.72	247	P	P	21 45 43.4	-0.9
AS31	Alice Springs	42.28	260		P	21 46 04.6	-0.2
AS31				IAmb	IAmb	21 46 05.8	
	comp=Z,4.5nm,0.4s						
ASAR	Alice Springs	42.28	260	P	P	21 46 04.7	-0.1
	comp=Z,8.9nm,0.5s,baz=100,slow=7.9,SNR=103						
ASAR				ScP	ScP	21 50 48.7	-1.4
	comp=Z,1.0nm,0.9s,baz=88,slow=3.5,SNR=4.3						
	comp=Z,8.9nm,0.5s						
WB0	Warramunga Arr	42.63	266		P	21 46 07.0	-0.6
WRA	Warramunga Arr	42.64	266	P	P	21 46 07.0	-0.7
	comp=Z,15nm,0.5s,baz=103,slow=8.0,SNR=923						
WRA				ScP	ScP	21 50 50.5	-1.1
	comp=Z,0.5nm,0.8s,baz=95,slow=3.7,SNR=3.1						
	comp=Z,15nm,0.5s						
WRA	Warramunga Arr	42.64	266	P	P	21 46 06.0	-1.7
FORT	Forrest	46.59	249	P	P	21 46 37.0	-1.0
MTN	Manton Dam	47.66	274	P	P	21 46 45.2	-1.0
MTN				IAmb	IAmb	21 46 59.3	
	comp=Z,13nm,1.5s						
KNRA	Kununurra	48.91	270	P	P	21 46 55.3	-0.2
KNRA				IAmb	IAmb	21 46 55.8	
	comp=Z,5.2nm,0.8s						
FITZ	Fitzroy Crossi	51.06	265		P	21 47 11.4	+0.1
MBWA	Marble Bar	55.62	260	P	P	21 47 42.5	-1.4
MBWA				IAmb	IAmb	21 47 43.8	
	comp=Z,10nm,0.9s						
MORW	Morawa	57.15	250	P	P	21 47 53.6	-0.8
MORW				IAmb	IAmb	21 48 28.3	
	comp=Z,30nm,1.4s						
CASY	Casey	60.39	206	P	P	21 48 14.1	-1.4
TOLI2	Tolitoli	62.74	284		P	21 48 30.1	-1.6
TOLI2				IAmb	IAmb	21 48 32.9	
	comp=Z,7.5nm,0.6s						
QSPA	South Pole Qui	66.39	180	P	P	21 48 53.8	-0.4
	comp=Z,0.6nm,0.6s,baz=45,slow=0.9,SNR=6.0						
	comp=Z,0.6nm,0.6s						
QSPA	South Pole Qui	66.39	180	P	P	21 48 54.0	-0.1
KKM	Kota Kinabalu	69.05	287	P	P	21 49 10.7	-0.6
KKM				IAmb	IAmb	21 49 33.9	
	comp=Z,6.0nm,0.9s						
PETK	Petropavlovsk-	78.95	346	P	P	21 50 06.6	+0.1
	comp=Z,5.9nm,1.0s,baz=156,slow=5.1,SNR=2.2						
	comp=Z,5.9nm,1.0s						
PETK	Petropavlovsk-	78.95	346	P	P	21 50 06.0	-0.5
O02D	Mt. Diablo Mer	82.76	40	P	P	21 50 26.8	+0.1
N15K	Kwethluk River	85.09	10	P	P	21 50 37.7	0.0
N15K				IAmb	IAmb	21 51 16.3	
	comp=Z,24nm,1.4s						
SLKM	Skilak Lake	87.28	14	P	P	21 50 47.4	-0.7
SLKM				IAmb	IAmb	21 51 23.0	
	comp=Z,11nm,1.2s						
L18K	Granite Mounta	87.58	11	P	P	21 50 48.6	-0.8
L18K				IAmb	IAmb	21 51 09.4	
	comp=Z,8.6nm,1.4s						

L19K	White Mountain	87.87	11	P	P	21 50 50.5	-0.4
L19K				IAmb	IAmb	21 50 53.1	
	comp=Z,5.7nm,1.4s						
SUA	Susitna One	88.03	13	P	P	21 50 50.8	-0.9
SUA				IAmb	IAmb	21 51 03.5	
	comp=Z,12nm,1.2s						
G08A	Pilot Rock	88.13	38		P	21 50 51.7	-0.9
CMAR	Chiang Mai Arr	89.66	290	P	P	21 51 01.0	+0.8
	comp=Z,1.0nm,0.9s,baz=124,slow=4.6,SNR=5.1						
	comp=Z,1.0nm,0.9s						
CMAR	Chiang Mai Arr	89.66	290	P	P	21 50 59.8	-0.3
TXAR	Lajitas Array	90.14	58	P	P	21 51 02.7	+0.4
	comp=Z,1.3nm,0.7s,baz=248,slow=4.3,SNR=16						
	comp=Z,1.3nm,0.7s						
ILAR	Eielson Array	91.78	13	P	P	21 51 06.7	-2.2
	comp=Z,0.3nm,0.8s,baz=210,slow=5.9,SNR=2.3						
	comp=Z,0.3nm,0.8s						
PDAR	Pinedale Array	92.39	44	P	P	21 51 11.5	-1.0
	comp=Z,1.4nm,0.3s,baz=256,slow=4.1,SNR=3.1						
	comp=Z,1.4nm,0.3s						
ARCES	ARCESS Array B	131.73	348	PKP	PKPdf	21 57 09.5	-1.0
	comp=Z,1.5nm,0.8s,baz=41,slow=2.3,SNR=5.4						
HFS	Hagfors	142.39	349	PKhKP	PKPpre	21 57 25.3	
	comp=Z,1.4nm,0.3s,baz=11,slow=1.5,SNR=15						
AKASG	Malin Array Be	144.91	328	PKPbc	PKPdf	21 57 33.8	-1.3
	comp=Z,0.6nm,0.4s,baz=45,slow=2.8,SNR=4.2						
BRTR	Keskin Array B	147.63	308	PKPbc	PKPbc	21 57 43.8	+0.1
	comp=Z,0.3nm,0.5s,baz=72,slow=4.7,SNR=2.6						
EKA	Eskdalemuir Ar	148.30	4	PKPbc	PKPdf	21 57 42.3	+1.7
	comp=Z,0.4nm,0.4s,baz=346,slow=2.6,SNR=3.8						
CLL	Collm	150.72	344	*i* PKPbc	PKPbc	21 57 49.6	-1.0

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*TIF **02** 22:08:32.2, 38°.74N×41°.98E, h4km±1km*
*ISK **02** 22:08:32.3, 38°.73N×41°.97E, h5km, ML3.8/18*
*AFAD **02** 22:08:32.8, 38°.76N×42°.00E, h7km±3km, MW3.7*
*IDC **02** 22:08:33.5±1.6, 38°.70N×41°.93E, h0km, mb3.7/1, mbtmp3.3/5, ML3.0/3, Error ellipse: s-maj=29.7km s-min=15.5km az=133.0*

ISC 02 22:08:33.0±1.2**, 38°.74N**±0°.02×**41°.98E**±0°.02**, h0**km±10km**, n57, σ1s.13**/76**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GURO	Guroymak-BITLI	0.20	168	Pg	Pg	22 08 36.9	+0.1
GURO				Sg	Sg	22 08 40.2	+0.8
GURO				AML	AML		
BLIS	Bitlis-Merkez	0.35	162	P	Pg	22 08 39.9	+0.2
BLIS				S	Sg	22 08 44.3	+0.2
MUSM	Mu-Merkez	0.37	267	P	Pg	22 08 40.1	0.0
MUSM				S	Sg	22 08 44.9	+0.1
VRTB	Varto-Mus	0.58	316	Pg	Pg	22 08 44.8	+0.6
VRTB				AML	AML		
VRTB	Varto-Mus	0.58	316	P	Pb	22 08 45.1	-1.1
VRTB				S	Sg	22 08 52.4	+0.6
ADCV	BITLIS_Adilcev	0.59	84	P	Pb	22 08 45.1	-1.2
MLAZ	Malazgirt-MUS	0.59	48	Pg	Pb	22 08 45.5	-1.0
MLAZ				Sg	Sb	22 08 55.5	0.0
MLAZ				AML	AML		
SRTM	Siirt_Merkez	0.75	183	P	Pb	22 08 48.0	-1.1
SRTM				S	Sb	22 08 58.8	-1.2
SLHN	Bingol, Solhan	0.78	286	P	Pg	22 08 47.7	-0.2
SLHN				S	Sb	22 09 00.6	-0.1
SVAN	Silvan-Diyarba	0.85	226	Pg	Pb	22 08 49.7	-1.0
SVAN				Sg	Sb	22 09 02.3	-0.4
SVAN				AML	AML		
SVAN	Silvan-Diyarba	0.85	226	P	Pb	22 08 50.3	-0.4
SVAN				S	Sb	22 09 02.1	-0.6
AKDM	Akdamar-Van	0.89	118	Pg	Pg	22 08 49.8	-0.2
AKDM				AML	AML		
DORK	Agr/Tutak/Do	0.90	44	P	Pg	22 08 50.0	-0.2
DORK				S	Sg	22 09 01.9	+0.1
PERV	Siirt/Pervari-	0.91	151	P	Pb	22 08 51.2	-0.6
PERV				S	Sb	22 09 04.5	0.0
KARO	Karliova-Bingo	0.92	308	Pg	Pg	22 08 50.7	0.0
KARO				Sg	Sb	22 09 04.8	0.0
KARO				AML	AML		
GEVA	Gevas	0.95	117	P	Pg	22 08 51.1	-0.1
GEVA				S	Sb	22 09 04.1	-1.5
BTMN	Batman	1.02	213	P	Pb	22 08 53.1	-0.4
BTMN				S	Sg	22 09 06.0	+0.3
BNGB	Bingl	1.04	284	Pg	Pg	22 08 51.9	-1.2
BNGB				AML	AML		
ERCV	ERCIS-VAN	1.09	75	Pn	Pb	22 08 54.6	-0.4
ERCV				AML	AML		
TVAN	Van	1.14	100	P	Pb	22 08 54.8	-0.9
AGRB	Hanur-Agry	1.14	43	Pn	Pb	22 08 55.1	-0.7
AGRB				AML	AML		
ECAT	Cat-ERZURUM	1.16	318	P	Pg	22 08 55.0	-0.3
ECAT				S	Sg	22 09 10.2	-0.2
ETEKE	Tekederesi - E	1.24	328	P	Pg	22 08 56.7	-0.1
ETEKE				S	Sn	22 09 13.9	-1.4
KOPR	Koprukoy-ERZUR	1.25	356	Pn	Pn	22 08 57.3	-0.6
KOPR				AML	AML		
ATA5	Erzurum, Merke	1.29	334	Pn	Pb	22 08 58.2	-0.1
SIRN	Sırnak	1.29	165	P	Pb	22 08 57.9	-0.4
SIRN				S	Sn	22 09 15.0	-1.5
YEDI	Yedisu-Bingol	1.31	302	Pn	Pb	22 08 58.2	-0.5
YEDI				AML	AML		
MIDY	Mardin/Midyat-	1.41	199	P	Pb	22 08 59.6	-0.7
MIDY				S	Sn	22 09 18.7	-0.7
CLDR	Caldiran	1.56	75	Pn	Pb	22 09 02.3	-0.7
CLDR	Caldiran	1.56	75	P	Pb	22 09 02.4	-0.5
OZAP	Van, Ozalp-Mer	1.58	92	P	Pg	22 09 03.4	+0.1
DYBB	Diyarbakir	1.65	242	Pn	Pb	22 09 03.2	-1.1
DYBB				Sn	Sg	22 09 26.3	+0.3
DYBB				AML	AML		
SENK	Senkaya-Erzuru	1.84	9	Pn	Pb	22 09 06.9	-0.8
SENK				AML	AML		
ERZN	Erzincan	1.95	296	Pn	Pb	22 09 07.9	-1.6
CUKT	Cukurca	1.97	139	Pn	Pb	22 09 08.1	-1.8
CUKT				AML	AML		
KARS	Kars	2.06	24	Pn	Pb	22 09 09.8	-1.7
KARS				AML	AML		
ESIJ	Sivrice-Elazig	2.11	263	Pn	Pn	22 09 10.2	+0.5
ESIJ				AML	AML		
SVRC	Sivrice-ELAZID	2.13	261	Pn	Pn	22 09 10.5	+0.5
SVRC				AML	AML		
TASB	TASBURUN-IGDIR	2.14	54	Pn	Pb	22 09 10.9	-1.9
ESGZ	Sivrice-Elazig	2.31	263	Pn	Pn	22 09 13.1	+0.6
MDYL	Doganyol-Malat	2.35	260	Pn	Pn	22 09 13.7	+0.8
GNI	Garni	2.56	56	Pn	Pn	22 09 16.9	+1.0
GNI				AML	AML		
BGD	Bogdanovka	2.81	26	P	Pn	22 09 21.0	+1.6
BATM	Batumi	2.87	356	P	Pn	22 09 21.0	+1.0
AKH	Akhalkalaki	2.91	23	P	Pn	22 09 22.0	+1.3
TRLG	Trialeti	3.23	30	P	Pb	22 09 29.4	-2.0
TBLG	Delisi	3.66	34	P	Pn	22 09 33.1	+2.3
DGRG	David-gareji	3.75	43	P	Pn	22 09 34.3	+2.1
DDFL	Dedoflistskaro	4.17	48	P	Pn	22 09 38.8	+0.9
VSHL	Vashlovani	4.21	52	P	Pn	22 09 42.1	+3.7
CHRG	Chargali	4.23	31	P	Pn	22 09 40.8	+2.0
SHTL	Shatili	4.59	31	P	Pn	22 09 45.6	+1.7
KBZ	Khabaz	5.03	8	Pn	Pn	22 09 52.2	+2.5
	0.2nm,0.3s,baz=184,slow=14,SNR=3.6						
	1.7nm,0.9s						
KBZ				AML	AML		
BRTR	Keskin Array B	6.55	281	Pn	Pn	22 10 12.5	+1.8
	0.1nm,0.3s,baz=94,slow=15,SNR=5.1						
	0.4nm,0.6s						
BRTR				AML	AML		
MMAI	Mount Meron Ar	7.82	225	Pn	Pn	22 10 29.5	+1.4
	1.4nm,0.4s,baz=46,slow=12,SNR=1.3						
MMAI				Lg	Lg	22 12 44.7	
	3.5nm,0.3s,baz=26,slow=37,SNR=3.9						
AKASG	Malin Array Be	14.98	327	Pn	Pn	22 12 05.9	+0.1
	0.4nm,0.3s,baz=133,slow=13,SNR=1.5						
	0.2nm,0.2s						
AKASG				AML	AML		
MKAR	Makanchi Array	30.39	61	P	P	22 14 47.8	+1.0
	0.7nm,0.8s,baz=278,slow=7.1,SNR=6.8						
	0.7nm,0.8s						

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*UPA **02** 22:30:58.2±1.4, 7°.43N×81°.13W, h0km±2km, MW3.8, Fault plane solution: NP1:φs198.70000°, δ81.20000°, λ154.00000°., Presumed earthquake*
*CATAC **02** 22:30:59.3±0.7, 7°N±5°×8°1W±°, h118km±10km, M3.9/12, mb4.1/1, MLv3.7/12, Error ellipse: s-maj=11.6km s-min=4.2km az=173.8, confirmed*
*UCR **02** 22:31:46.2±0.7, 9°.41N×83°.54W, h33km±6km, MW3.5, Presumed earthquake*

ISC 02 22:30:58.5±1.2**, 7°.40N**±0°.04×**81°.13W**±0°.02**, h10**km±9km**, n47, σ1s.08**/82**, 4C-7D, Panama**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CACAO	El Cacao, Vera	0.27	102	⇑*i*P	Pg	22 31 04.5	+0.5
CACAO				*e*S	Sb	22 31 09.8	-0.3
GMAL	Guarumal, Vera	0.38	344	⇑*i*P	Pg	22 31 06.7	+0.8
GMAL				*e*S	Sb	22 31 13.2	0.0
RSUS3	Rio de Jesus,	0.58	357	⇑*i*P	Pg	22 31 09.6	-0.1
RSUS3				*e*S	Sg	22 31 18.4	+1.1
TOSI3	Tonosi	0.68	89	*i* P	Pg	22 31 11.1	-0.5
TOSI3				*e*S	Sb	22 31 22.3	+0.4
STIA3	Santiago, Vera	0.71	12	⇓*i*P	Pg	22 31 11.9	-0.3
STIA3				*e*S	Sb	22 31 22.9	+0.1
PESE3	Pese, Herrera	0.72	45	⇓*i*P	Pg	22 31 11.9	-0.4
PESE3				*e*S	Sg	22 31 22.3	+0.6
CHIT3	Chitre	0.89	52	⇓*i*P	Pg	22 31 14.7	-1.0
CHIT3				*e*S	Sn	22 31 30.8	+0.6
AZU	Azuero	0.93	65	⇓*i*P	Pb	22 31 15.4	-1.3
AZU				*e*S	Sn	22 31 30.8	-0.3
ACHO3	Achotines, Los	0.95	89	*e*P	Pb	22 31 17.0	-0.1
ACHO3				*e*S	Sn	22 31 31.5	0.0
CALO3	Calobre, Verag	0.96	17	⇓*i*P	Pb	22 31 16.0	-1.3
CALO3				*e*S	Sn	22 31 32.0	+0.2
PEDA3	Pedasi	1.10	83	⇑*i*P	Pb	22 31 17.8	-1.8
PEDA3				*e*S	Sn	22 31 35.5	+0.2
SAFE3	Santa Fe, Vera	1.11	2	*e*P	Pb	22 31 18.6	-1.2
SAFE3				*e*S	Sn	22 31 36.2	+0.6
PNME	Penonome	1.34	36	*e*P	Pn	22 31 22.3	-1.0
PNME				*e*S	Sb	22 31 40.3	-0.6
CHIR3	Chiriqui UPA,	1.55	310	⇓*i*P	Pn	22 31 25.4	-0.7
LOMA3	Las Lomas, Chi	1.62	309	*e*P	Pn	22 31 26.6	-0.6
DVD	David	1.67	308	*e*P	Pn	22 31 27.3	-0.5
DVD				*e*S	Sn	22 31 49.7	+0.4
RBALA	Bur	1.79	325	*i* P	Pn	22 31 29.4	0.0
RBALA				*e*S	Sb	22 31 54.0	+0.1
CHGR2	Aguacate	1.83	327	*e*P	Pn	22 31 30.2	+0.2
BQSF3	Alto Boquete,	1.86	316	*e*P	Pn	22 31 30.4	-0.1
BQSF3				*e*S	Sn	22 31 55.1	+0.9
PTAR3	Potrerillos Ar	1.87	314	*e*P	Pn	22 31 30.5	-0.2
LNBQ3	Los Naranjos,	1.90	317	*e*P	Pn	22 31 30.3	-0.8
LNBQ3				*e*S	Sn	22 31 55.8	+0.6
PTPM	Petroterminale	1.91	295	*e*P	Pn	22 31 30.6	-0.6
PTPM				*e*S	Sn	22 31 55.2	-0.1
ZANG	Zanguenga, Cho	1.99	39	*e*P	Pn	22 31 32.4	+0.1
ZANG				*e*S	Sn	22 31 57.3	+0.1
CLLRA	Cordillera,	1.99	312	*i* P	Pn	22 31 32.8	+0.5
BRU2	Volcan	2.08	312	P	Pn	22 31 33.9	+0.3
BRU2				S	Sb	22 32 02.6	+0.2
BRU2	Volcan	2.08	312	⇓*i*P	Pn	22 31 34.4	+0.7
BRU2				*e*S	Sn	22 32 00.9	+1.2
CDITO	Canoas	2.08	304	P	Pb	22 31 36.4	-0.1
CDITO				S	Sb	22 32 03.3	+0.9
BCIP	Isla Barro Col	2.17	36	P	Pn	22 31 35.9	+1.1
BCIP				S	Sb	22 32 04.9	0.0
BCIP	Isla Barro Col	2.17	36	*e*P	Pn	22 31 35.7	+1.0
BCIP				*e*S	Sn	22 32 02.2	+0.5
SCLRA	Santa Clara, W	2.17	311	*i* P	Pn	22 31 35.1	+0.3
FLAM	Flamenco Islan	2.18	46	*e*P	Pn	22 31 35.1	+0.3
FLAM				*e*S	Sn	22 32 02.9	+1.0
MLIR3	Monte Lirio, C	2.18	310	*e*P	Pn	22 31 34.4	-0.5
GAMB1	Gamboa	2.21	39	*e*P	Pn	22 31 36.0	+0.8
GAMB1				*e*S	Sn	22 32 03.5	+0.8
MLIR	Monte Lirio	2.22	34	*e*P	Pn	22 31 35.8	+0.4
MLIR				*e*S	Sn	22 32 03.8	+0.8
UPA	Univ. de Panam	2.23	45	*e*P	Pn	22 31 36.3	+0.8
UPA				*e*S	Sn	22 32 04.2	+1.1
FRIJ	El Hiral	2.28	37	*e*P	Pn	22 31 37.0	+0.8
FRIJ				*e*S	Sn	22 32 04.3	-0.1
PIRO	Carate, Puerto	2.41	295	P	Pn	22 31 38.9	+1.0
PIRO				S	Sn	22 32 09.6	+2.1
RGM0	Gandoca	2.62	326	P	Pb	22 31 44.0	-1.6
RGM0				S	Sb	22 32 16.9	-1.0
CHPO	Chepo, Panama	2.66	48	*e*P	Pn	22 31 42.5	+1.0
CHPO				*e*S	Sn	22 32 15.1	+1.4
PIEC	Cerro El Cedra	3.56	308	*e*P	Pn	22 31 55.9	+1.7
PIEC				*e*S	Pg	22 32 04.0	-2.9
ABRB	Las Abras (San	3.64	315	*e*P	Pb	22 32 00.4	-2.7
ABRB				*e*S	Pg	22 32 08.4	+0.1
LCR2	La Lucha 2	3.68	309	P	Pn	22 31 57.7	+2.1
LCR2	La Lucha 2	3.68	309	*e*P	Pn	22 31 57.0	+1.3
LCR2	La Lucha 2	3.68	309	*e*P	Pn	22 31 56.0	+0.3
CVTR	Volcan Turrial	3.68	315	*e*P	Pn	22 31 59.6	+3.7
VBV1	V. Barva	3.99	313	*e*P	Pn	22 32 03.1	+3.0
PRVC	Isla de Provid	5.94	358	P	Pn	22 32 28.0	+1.4
PRVC				S	Sn	22 33 35.4	+0.5

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*NOU **02** 22:37:22.7, 16°.11S×173°.35W, h0km, mb5.1/11, Tonga Islands*
*BGR **02** 22:38:21.6, 25°.04S×178°.21W, h33km*
*IDC **02** 22:39:24.8±1.4, 23°.22S×179°.72W, h543km±14km, mb3.6/20, mbtmp4.5/23, Error ellipse: s-maj=14.8km s-min=10.6km az=122.0*
*NEIC **02** 22:39:24.7±1.8, 23°.37S±0°.08×179°.61W±0°.09, h543km±6km, mb4.4/46, Error ellipse: s-maj=14.4km s-min=8.4km az=46.0*

ISC 02 22:39:23.7±0.3**, 23°.31S**±0°.05×**179°.78W**±0°.06**, h532**km**, n239, σ1s.48**/264**, mb4.3**/47**, 23C-11D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	Nonsavu	5.91	340	P	P	22 41 03.4	+2.5
	6.2nm,0.4s,baz=107,slow=1.4,SNR=8.8						
MSVF	Nonsavu	5.91	340	P	P	22 41 03.6	+2.8
RAO	Raoul Island	6.15	165	P	P	22 41 01.3	-1.4
GLKZ	Green Lake	6.16	165	P	P	22 41 05.9	+3.1
GLKZ				S	S	22 42 25.2	+1.3
GLKZ				AML	AML		
NIUE	Niue	10.11	67	P	P	22 41 44.2	+1.5
NIUE	Niue	10.11	67	P	P	22 41 42.9	+0.2
NIUE				S	S	22 43 43.8	+6.9
MARNC	Mare, Loyalty	11.42	277	P	P	22 41 59.0	+2.8
AFI	Afiamalu	12.04	40	P	P	22 42 01.2	-1.7
	28nm,0.5s,baz=218,slow=12,SNR=4.4						
AFI				S	S	22 44 07.9	-5.9
	8.0nm,0.5s,baz=216,slow=14,SNR=1.0						
AFI	Afiamalu	12.04	40	P	P	22 42 00.7	-2.2
DZM	Mont Dzumac	12.77	273	P	P	22 42 13.1	+2.6
	6.9nm,0.6s,baz=94,slow=19,SNR=8.9						
OUZ	Omahuta	13.19	204	P	P	22 42 22.2	+7.7
	52nm,1.8s						
OUZ	Omahuta	13.19	204	P	P	22 42 17.8	+3.3
WCZ	Waipu Caves	13.57	201	P	P	22 42 22.2	+3.8
MKAZ	Moumakai	14.42	196	P	P	22 42 29.4	+2.1
TOZ	Tahuroa Road	14.93	195	P	P	22 42 33.5	+1.0
URZ	Urewera	15.13	189	P	P	22 42 33.2	-1.5
	6.8nm,0.4s,baz=325,slow=16,SNR=7.3						
URZ				S	S	22 45 07.4	-4.6
	9.3nm,0.6s,baz=2.3,slow=16,SNR=5.7						
URZ	Urewera	15.13	189	P	P	22 42 34.6	-0.1
	28nm,1.9s						
URZ	Urewera	15.13	189	P	P	22 42 33.0	-1.7
URZ				S	S	22 45 06.9	-5.1
MWZ	Matawai	15.15	188	P	P	22 42 33.1	-1.8
TLZ	Tolley Road	15.49	194	P	P	22 42 40.1	+1.6
RTZ	Ruatahuna	15.50	190	P	P	22 42 38.2	-0.4
BKZ	Black Stump Fm	16.12	190	P	P	22 42 44.0	-0.8
	26nm,1.6s						
OTVZ	Oturere	16.27	193	P	P	22 42 46.1	-0.3
OTVZ				S	S	22 45 30.1	-2.1
SNVZ	South Ngauruho	16.30	193	P	P	22 42 47.0	+0.3
KWHZ	Kaweka Forest	16.38	190	P	P	22 42 46.4	-1.0
KWHZ				S	S	22 45 30.1	-3.8
VRZ	Vera Road	16.43	195	P	P	22 42 51.1	+3.3
VRZ				S	S	22 45 38.3	+3.7
WNVZ	Wahianoa	16.44	193	P	P	22 42 47.0	-1.1
WNVZ				S	S	22 45 32.1	-3.0
BHHZ	Black Hill Sta	16.51	191	P	P	22 42 46.1	-2.5
BHHZ				S	S	22 45 33.3	-2.7
KRHZ	Kereru	16.61	190	P	P	22 42 48.1	-1.4
PNHZ	Pukenui	16.90	191	P	P	22 42 50.8	-1.4
PNHZ				S	S	22 45 37.0	-5.5
DVHZ	Dannevirke	17.28	190	P	P	22 42 55.1	-0.6
DVHZ				S	S	22 45 46.6	-2.1
MRZ	Mangatainoka R	17.73	192	P	P	22 42 58.7	-1.2
MRZ				S	S	22 45 51.9	-4.1
TCW	Tory Channel	18.53	194	P	P	22 43 06.8	-0.4
SNZO	South Karori	18.53	193	P	P	22 43 08.4	+1.3
	87nm,1.5s						
QRZ	Quartz Range	18.62	199	P	P	22 43 10.2	+2.2
	65nm,0.8s						
QRZ	Quartz Range	18.62	199	P	P	22 43 09.9	+1.9
NNZ	Nelson	18.75	196	P	P	22 43 09.7	+0.6
NNZ				S	S	22 46 10.7	-1.8
THZ	Tophouse	19.39	197	P	P	22 43 15.7	+0.7
DSZ	Denniston Nort	19.68	199	P	P	22 43 17.4	-0.2
KHZ	Kahutara	19.85	195	P	P	22 43 20.3	+1.2
	47nm,1.1s						
KHZ	Kahutara	19.85	195	P	P	22 43 19.3	+0.2
KHZ				S	S	22 46 25.2	-4.9
RPZ	Rata Peaks	21.71	198	P	P	22 43 37.1	+1.2
	3.5nm,0.5s,baz=38,slow=12,SNR=5.8						
	3.5nm,0.5s						
FOZ	Fox Glacier	21.92	201	P	P	22 43 37.0	-0.8
JCZ	Jackson Bay	22.74	202	P	P	22 43 46.8	+1.5
	26nm,1.4s						
ARMA	Armidale	26.42	248	P	P	22 44 20.0	+1.9
ARMA				IAmb	IAmb	22 44 23.9	
	comp=Z,8.1nm,0.8s						
EIDS	Eidsvold	26.60	260	P	P	22 44 20.9	+1.3
EIDS				IAmb	IAmb	22 44 21.9	
	comp=Z,10nm,1.1s						
MGCD	Mangrove Creek	27.39	242	P	P	22 44 28.4	+1.9
	comp=Z,25nm,0.8s						
CAN	Canberra	29.61	239	P	P	22 44 48.4	+2.5
	comp=Z,56nm,1.0s						
CAN	Canberra	29.61	239	P	P	22 44 47.3	+1.4
CTA	Charters Tower	31.68	269	P	P	22 45 05.0	+1.2
	comp=Z,18nm,0.4s,baz=95,slow=12,SNR=30						
	comp=Z,18nm,0.4s						
CTAO	Charters Tower	31.68	269	P	P	22 45 05.2	+1.4
TOO	Toolangi	32.94	236	P	P	22 45 15.0	+0.7
TOO				IAmb	IAmb	22 45 16.6	
	comp=Z,6.7nm,1.1s						
TAU	Tasmania Unive	33.48	226	P	P	22 45 19.8	+1.1
STKA	Stephens Creek	35.13	247	P	P	22 45 33.8	+1.1
	comp=Z,8.2nm,0.6s,baz=85,slow=10,SNR=18						
	comp=Z,8.2nm,0.6s						
INKA	Innaminka	35.79	254	P	P	22 45 39.6	+1.4
INKA				IAmb	IAmb	22 45 40.6	
	comp=Z,3.5nm,0.8s						
BBOO	Buckleboo	39.86	246	P	P	22 46 11.2	-0.2
AS31	Alice Springs	42.33	260	P	P	22 46 31.4	+0.2
ASAR	Alice Springs	42.33	260	P	P	22 46 31.6	+0.4
	comp=Z,7.3nm,0.8s,baz=101,slow=7.8,SNR=50						
ASAR				S	S	22 52 11.3	-2.6
	comp=Z,1.3nm,0.6s,baz=98,slow=14,SNR=9.6						
	comp=Z,7.3nm,0.8s						
ASAR	Alice Springs	42.33	260	P	P	22 46 31.0	-0.2
WB0	Warramunga Arr	42.64	266	P	P	22 46 33.5	-0.1
WB0				IAmb	IAmb	22 46 34.4	
	comp=Z,7.6nm,0.8s						
WRA	Warramunga Arr	42.65	265	P	P	22 46 33.6	-0.1
	comp=Z,5.5nm,0.7s,baz=102,slow=8.1,SNR=45						
WRA				ScP	ScP	22 51 13.2	-0.7
	comp=Z,0.9nm,1.0s,baz=97,slow=3.8,SNR=3.5						
WRA				S	S	22 52 13.6	-4.9
	comp=Z,0.8nm,0.6s,baz=96,slow=11,SNR=9.4						
	comp=Z,5.5nm,0.7s						
WRA	Warramunga Arr	42.65	265	P	P	22 46 33.4	-0.4
FORT	Forrest	46.70	249	P	P	22 47 04.5	-0.2
FORT				IAmb	IAmb	22 47 05.7	
	comp=Z,11nm,0.7s						
NWAO	Narrogin (SRO)	55.66	245	P	P	22 48 10.2	+0.5
	comp=Z,8.1nm,1.0s,baz=95,slow=12,SNR=0.9						
	comp=Z,8.1nm,1.0s						
MORW	Morawa	57.26	250	P	P	22 48 20.6	-0.2
MORW				IAmb	IAmb	22 48 30.6	
	comp=Z,36nm,1.4s						
CASY	Casey	60.72	206	P	P	22 48 43.2	-0.1
TOLI2	Tolitoli	62.62	284	P	P	22 48 57.8	+1.2
TOLI2				IAmb	IAmb	22 48 58.4	
	comp=Z,5.8nm,0.6s						
QSPA	South Pole Qui	66.77	180	P	P	22 49 23.5	+1.4
	comp=Z,2.6nm,0.6s,baz=18,slow=2.9,SNR=22						
	comp=Z,2.6nm,0.6s						
QSPA	South Pole Qui	66.77	180	P	P	22 49 23.1	+1.0
KKM	Kota Kinabalu	68.92	287	P	P	22 49 35.8	-0.3
KKM				IAmb	IAmb	22 49 38.4	
	comp=Z,6.7nm,0.9s						
MJAR	Matsushiro Arr	71.53	325	P	P	22 49 49.9	-1.0
	comp=Z,2.5nm,0.9s,baz=168,slow=5.3,SNR=5.6						
	comp=Z,2.5nm,0.9s						
JNU	Nakatsue	73.22	318	P	P	22 50 00.9	+0.1
	comp=Z,22nm,1.1s,baz=124,slow=11,SNR=2.2						
	comp=Z,22nm,1.1s						
AMKA	Amchitka	74.37	359	P	P	22 50 06.4	-0.3
AMKA				IAmb	IAmb	22 50 07.3	
	comp=Z,13nm,0.7s						
KIWB	Kanaga Island	74.88	2	P	P	22 50 09.6	-0.1
KIWB				IAmb	IAmb	22 50 18.1	
	comp=Z,27nm,1.0s						
ADK	Adak	74.92	2	P	P	22 50 09.4	-0.4
SMAI	San Martin Ant	76.58	159	P	P	22 50 19.2	+0.2
UNV	Unalaska Valle	77.69	8	P	P	22 50 24.3	-0.7
UNV				IAmb	IAmb	22 50 24.9	
	comp=Z,34nm,1.3s						
MAW	Mawson	78.37	200	P	P	22 50 28.3	-0.3
	comp=Z,1.3nm,0.5s,baz=139,slow=11,SNR=6.3						
	comp=Z,1.3nm,0.5s						
MAW	Mawson	78.37	200	P	P	22 50 29.0	+0.3
PEA0B	Petropavlovsk-	78.58	346	P	P	22 50 30.0	+0.1
PETK	Petropavlovsk-	78.58	346	P	P	22 50 29.1	-0.8
	comp=Z,5.0nm,0.6s,baz=162,slow=5.6,SNR=11						
	comp=Z,5.0nm,0.6s						
PETK	Petropavlovsk-	78.58	346	P	P	22 50 30.1	+0.2
USRK	Ussuriysk Ar.	80.38	327	P	P	22 50 39.0	-0.5
	comp=Z,2.1nm,0.6s,baz=151,slow=3.3,SNR=5.5						
	comp=Z,2.1nm,0.6s						
USRK	Ussuriysk Ar.	80.38	327	P	P	22 50 39.7	+0.1
SII	Sitkinak Islan	82.45	14	P	P	22 50 49.6	-0.3
O02D	Mt. Diablo Mer	82.48	40	P	P	22 50 49.7	-0.9
O02D				IAmb	IAmb	22 50 53.5	
	comp=Z,10nm,1.2s						
KRMB	Red Mountain	82.68	39	P	P	22 50 51.3	-0.4
CLC	China Lake	83.14	46	P	P	22 50 54.2	+0.2
M02C	Callahan	83.21	39	P	P	22 50 54.4	+0.1
J01E	Myrtle Point	83.72	38	P	P	22 50 57.2	+0.6
KLR	Kul'dur	84.12	330	P	P	22 50 58.6	+0.2
	comp=Z,1.5nm,0.7s,baz=150,slow=14,SNR=3.8						
	comp=Z,1.5nm,0.7s						
NVAR	Mina Array Bea	84.19	44	P	P	22 50 58.8	-0.6
	comp=Z,0.6nm,0.6s,baz=254,slow=5.8,SNR=4.7						
	comp=Z,0.6nm,0.6s						
NVAR	Mina Array Bea	84.19	44	P	P	22 50 59.2	-0.1
N14K	Kuskokwak Cree	84.25	9	P	P	22 50 59.1	+0.3
N14K				IAmb	IAmb	22 51 06.3	
	comp=Z,16nm,1.0s						
P17K	Kvichak River	84.43	12	P	P	22 50 59.6	-0.1
SNAA	Sanae	85.25	179	P	P	22 51 03.3	-0.5
	comp=Z,0.8nm,0.4s,baz=196,slow=11,SNR=5.3						
	comp=Z,0.8nm,0.4s						
SNAA	Sanae	85.25	179	P	P	22 51 03.0	-0.8
ILSW	Iliamna Southw	85.81	13	P	P	22 51 06.1	-0.4
ILSW				IAmb	IAmb	22 51 07.0	
	comp=Z,8.2nm,0.8s						
M17K	Holitna River	86.32	11	P	P	22 51 08.8	0.0
M17K				IAmb	IAmb	22 51 32.5	
	comp=Z,12nm,1.4s						
L18K	Granite Mounta	87.22	11	P	P	22 51 13.2	+0.2
L18K				IAmb	IAmb	22 51 33.0	
	comp=Z,8.4nm,1.5s						
J17K	VABM Dome	87.95	9	P	P	22 51 16.5	+0.1
J17K				IAmb	IAmb	22 51 34.9	
	comp=Z,6.5nm,1.2s						
MTPU	Mount Pierson	87.99	47		P	22 51 17.8	+0.2
J18K	Innoko River	88.38	10	P	P	22 51 18.3	-0.1
J18K				IAmb	IAmb	22 51 19.1	
	comp=Z,2.9nm,0.7s						
SEY	Seymchan	88.74	348	P	P	22 51 20.5	+0.5
	comp=Z,3.0nm,0.5s,baz=164,slow=7.4,SNR=7.2						
	comp=Z,3.0nm,0.5s						
J19K	Poorman	89.05	10	P	P	22 51 21.6	0.0
J19K				IAmb	IAmb	22 51 22.4	
	comp=Z,6.7nm,1.2s						
CMAR	Chiang Mai Arr	89.51	290	P	P	22 51 26.2	+1.5
	comp=Z,1.4nm,0.3s,baz=111,slow=4.8,SNR=9.8						
	comp=Z,1.4nm,0.3s						
CMAR	Chiang Mai Arr	89.51	290	P	P	22 51 25.3	+0.5
CHTO	Chiang Mai	89.66	291	P	P	22 51 25.6	+0.2
CHTO				IAmb	IAmb	22 51 27.6	
	comp=Z,4.4nm,0.8s						
TXAR	Lajitas Array	89.95	58	P	P	22 51 27.8	+1.1

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         comp=Z,1.0nm,0.7s,baz=247,slow=4.3,SNR=16
         comp=Z,1.0nm,0.7s
TXAR  Lajitas Array      89.95  58  P        P        22 51 26.9 +0.3
BSUT  Blindstream Ca     90.22  45  P        P        22 51 27.5 -0.5
BSUT                                IAmb     IAmb     22 51 29.9
         comp=Z,4.5nm,0.8s
Q32M  Nakina River       90.85  22  P        P        22 51 30.5 +0.3
Q32M                                IAmb     IAmb     22 52 01.5
         comp=Z,12nm,1.4s
WRH   Wood River Hil     90.90  13  P        P        22 51 29.5 -0.5
WRH                                 IAmb     IAmb     22 51 30.4
         comp=Z,12nm,1.4s
IMAR  Indian Mountai     91.20  10  P        P        22 51 31.0 -0.4
ILAR  Eielson Array      91.42  13  P        P        22 51 31.8 -0.6
         comp=Z,0.3nm,0.5s,baz=208,slow=5.4,SNR=6.4
         comp=Z,0.3nm,0.5s
PDAR  Pinedale Array     92.13  44  P        P        22 51 36.4 -0.2
         comp=Z,0.7nm,0.6s,baz=250,slow=5.1,SNR=7.0
         comp=Z,0.7nm,0.6s
PDAR  Pinedale Array     92.13  44  P        P        22 51 36.6  0.0
SONM  Songino Array      96.79 319  PP       PP       22 56 01.0 -0.8
         comp=Z,0.2nm,0.3s,baz=139,slow=9.0,SNR=3.7
ZALV  Zalesovo Beam     111.62 321  PKiKP    PKiKP    22 56 55.4 -2.0
         comp=Z,0.4nm,0.4s,baz=135,slow=0.4,SNR=2.7
MKAR  Makanchi Array    111.90 313  PKiKP    PKiKP    22 56 56.0 -2.2
         comp=Z,0.6nm,0.6s,baz=157,slow=1.6,SNR=9.6
MKAR  Makanchi Array    111.90 313  PKiKP    PKiKP    22 56 56.4 -1.8
KURBB Kurchatov Arra    114.96 317  PKP      PKPdf    22 57 02.0 -1.9
         comp=Z,0.7nm,0.5s,baz=87,slow=1.7,SNR=9.2
BVAR  Borovoye Array    120.13 319  PKP      PKPdf    22 57 12.7 -1.1
         comp=Z,1.8nm,0.5s,baz=73,slow=1.6,SNR=9.9
SPITS Spitsbergen Ar    124.55 356  PKP      PKPdf    22 57 21.3 -0.3
         comp=Z,3.7nm,0.7s,baz=37,slow=5.8,SNR=5.2
ARCES ARCESS Array B    131.35 348  PKP      PKPdf    22 57 33.6 -1.2
         comp=Z,1.6nm,0.5s,baz=51,slow=2.3,SNR=15
ARCES ARCESS Array B    131.35 348           PKPdf    22 57 33.9 -0.9
FINES FINESS Array B    137.95 342  PKhKP    PKPpre   22 57 36.1
         comp=Z,0.8nm,0.4s,baz=9.5,slow=0.2,SNR=7.4
FINES                               PKP      PKPdf    22 57 46.1 -1.2
         comp=Z,1.9nm,0.7s,baz=64,slow=3.2,SNR=6.3
NB2   NORSAR Subarra    141.53 351  PKP      PKPdf    22 57 48.4 -5.4
         comp=Z,1.1nm,0.5s,baz=20,slow=3.7
NOA   NORSAR Array B    141.53 351  PKhKP    PKPpre   22 57 48.5
         comp=Z,2.1nm,0.7s,baz=16,slow=3.2,SNR=10
HFS   Hagfors           142.01 349  PKhKP    PKPpre   22 57 49.9
         comp=Z,9.4nm,0.3s,baz=28,slow=3.4,SNR=98
PABE  Paberze           143.35 337           PKPab    22 57 55.4 +0.1
STRU  Stroemstad        143.47 350  i P      PKPab    22 57 55.0 -0.6
ARPR  Arapgir-MALATY    144.09 305  PKPbc    PKPdf    22 57 59.1 -0.1
TJOU  Tjoern            144.35 350  i P      PKPbc    22 57 58.0 -0.6
HOMB  Homborsund        144.57 352  i P      PKPdf    22 57 58.9 -0.2
AKASG Malin Array Be    144.58 328  PKP      PKPdf    22 57 58.2 -1.2
         comp=Z,7.6nm,0.5s,baz=45,slow=4.3,SNR=30
KIEV  Kiev              144.60 328           PKPdf    22 57 58.1 -1.3
KIEV  Kiev              144.60 328 ⇑P        PKPdf    22 57 58.6 -0.9
SNART Snartemo          144.65 354  i P      PKPbc    22 57 59.6 +0.1
ONAU  Onsala            144.91 349  i P      PKPdf    22 57 59.6 -0.1
BLEU  Blekinge          145.11 345  i P      PKPdf    22 57 59.7 -0.4
FABU  Falkenberg        145.13 348  i P      PKPdf    22 58 00.1  0.0
DEL   Delary            145.40 347  i P      PKPbc    22 58 02.1 +0.3
GAZ   Gaziantep         145.41 302           PKPbc    22 58 02.7 +0.1
BNN   Bunyan            146.03 306           PKPbc    22 58 03.9 -0.5
LUNU  Lund              146.26 346  i P      PKPbc    22 58 03.6 -0.7
BZK   Bozkurt           146.30 312 ⇓P        PKPbc    22 58 05.0 +0.1
BSD   Bornholm Skovb    146.41 345  i P      PKPbc    22 58 04.0 -0.7
SORM  Soroca            146.64 325 ⇑P        PKPbc    22 58 04.8 -0.8
ILGA  Ilgaz             146.85 310           PKPbc    22 58 06.1 -0.7
KIRS  Kirsehir-Merke    147.37 307 ⇑P        PKPbc    22 58 07.3 -0.6
BR131 Keskin Array S    147.38 308           PKPdf    22 58 06.2 +1.5
BRTR  Keskin Array B    147.38 308  PKPbc    PKPbc    22 58 07.5 -0.6
         comp=Z,1.8nm,0.6s,baz=86,slow=4.1,SNR=14
BRTR  Keskin Array B    147.38 308           PKPdf    22 58 06.0 +1.3
BRTR                                         PKPab    22 58 10.8 -1.0
MMAI  Mount Meron Ar    147.64 295  PKPbc    PKPbc    22 58 09.3 +0.5
         comp=Z,5.7nm,0.4s,baz=76,slow=6.1,SNR=20
EKA   Eskdalemuir Ar    147.92   4  PKPbc    PKPbc    22 58 07.8 -0.9
         comp=Z,1.6nm,0.4s,baz=357,slow=2.4,SNR=16
TLCR                    148.11 320 ⇑P        PKPbc    22 58 09.7 +0.2
GHRR                    148.41 323 ⇑P        PKPbc    22 58 10.7 +0.5
BSEG  Bad Segeberg      148.49 349  ePKPbc   PKPbc    22 58 10.4 +0.3
         baz=20,slow=2.2
BSEG                                ePKPab   PKPab    22 58 15.9 +0.4
         baz=20,slow=4.4
CFR   Carcaliu          148.51 321 ⇑P        PKPbc    22 58 10.1 -0.4
TPGR  Topolog           148.52 320 ⇓P        PKPbc    22 58 10.2 -0.4
BIZ   Bicaz             148.58 325 ⇓P        PKPbc    22 58 11.1 +0.5
BURAR Bucovina Array    148.59 327 ⇑P        PKPbc    22 58 11.1 +0.3
HLG   Helgoland         148.63 351  ePKPbc   PKiKP    22 58 11.1 -0.5
         baz=20,slow=2.2
TIRR  Tirgusor          148.75 319 ⇓P        PKPbc    22 58 11.5 +0.4
ONER  Baraj Valea Uz    148.80 324 ⇑P        PKPbc    22 58 11.3  0.0
HARR  Harsova           148.91 320 ⇑P        PKPbc    22 58 11.2 -0.3
VRI   Vrincioaia        148.91 323 ⇑P        PKPdf    22 58 09.1 +2.3
TLBR  Topalu            148.92 320 ⇑P        PKPbc    22 58 11.5  0.0
CSS   Mathiatis         148.97 299           PKPbc    22 58 10.5 -1.5
KOLS  Kolonicke sedl    149.06 331  ePKP     PKiKP    22 58 12.3 -0.4
STHS  Stebnicka Huta    149.14 333  ePKP     PKPbc    22 58 11.8 -0.2
TURR  Turia             149.18 324 ⇑P        PKPbc    22 58 10.1 -2.1
COVR  Voineasa-Covas    149.21 323 ⇑P        PKPbc    22 58 12.1 -0.2
MLR   Muntele Rosu      149.57 323 ⇑P        PKPbc    22 58 11.9 -1.4
DOPR  Dopca             149.58 324 ⇑P        PKiKP    22 58 13.6 -0.2
RETH  Rethem/Aller,     149.80 349  ePKPbc   PKPbc    22 58 13.6 +0.3
         baz=20,slow=2.2
FLTG  Flechtingen       149.82 347  ePKPbc   PKPbc    22 58 13.4  0.0
         baz=20,slow=2.2
FLTG                                ePKPab   PKPab    22 58 21.3 +0.1
         baz=20,slow=4.4
MDB   Medias            150.00 325 ⇑P        PKPbc    22 58 14.1  0.0
CJR   Cluj-Napoca       150.02 327 ⇑P        PKPbc    22 58 14.0 -0.2
LANS  Liptovska Anna    150.07 334  ePKP     PKiKP    22 58 15.3 +0.5
STEB  Steborice         150.08 337  ePKP     PKPbc    22 58 14.1  0.0
STEB                                ex       x        22 58 22.8
OSTC  Ostas             150.08 339  ePKP     PKiKP    22 58 14.5 -0.3
VOIR                    150.10 324 ⇓P        PKPbc    22 58 12.2 -2.3
CHVC  Chvalec           150.11 340  ePKP     PKPbc    22 58 14.4 +0.2
ASSE  Asse, Remlinge    150.13 347  ePKPbc   PKPbc    22 58 14.3 +0.3
         baz=20,slow=2.2
UPC   Upice             150.19 340  ePKP     PKPbc    22 58 14.4  0.0
DPC   Dobruska-Polom    150.23 339  ePKP     PKPbc    22 58 14.5  0.0
MARR  Marisel-Cluj      150.28 327 ⇓P        PKPbc    22 58 14.6 -0.3
MORC  Moravsky Berou    150.29 337  ePKP     PKPbc    22 58 14.5 -0.2
MORC  Moravsky Berou    150.29 337 ⇓P        PKiKP    22 58 15.0 -0.2
KRLC  Kraliky           150.31 338  ePKP     PKPbc    22 58 14.7  0.0
CLL   Collm             150.35 344           PKPbc    22 58 13.9 -0.8
CLL   Collm             150.35 344  ePKPbc   PKPbc    22 58 14.9 +0.2
         baz=20,slow=2.2
CLL                                 ePKPab   PKPab    22 58 23.8 +0.3
         baz=20,slow=4.4
CLL   Collm             150.35 344⇓iPKPbc    PKPbc    22 58 14.6 -0.1
         comp=Z,14nm,0.8s
CLL                                 i PKPab  PKPab    22 58 23.4  0.0
         comp=Z,8.0nm,1.0s
ARR   Arges             150.37 324 ⇑P        PKiKP    22 58 15.7 +0.1
CLZ   Clausthal         150.46 347  ePKPbc   PKiKP    22 58 15.5 -0.1
         baz=20,slow=2.2
IBBN  Ibbenburen        150.48 351  ePKPbc   PKPbc    22 58 15.1 +0.1
         baz=20,slow=2.2
IBBN                                ePKPab   PKPab    22 58 24.3 +0.4
         baz=20,slow=4.4
BRG   Berggiesshubel    150.49 342  ePKPbc   PKiKP    22 58 15.3 -0.2
         baz=20,slow=2.2
BRG                                 ePKPab   PKPab    22 58 24.6 +0.5
         baz=20,slow=4.4
BRG   Berggiesshubel    150.49 342  i P      PKPbc    22 58 15.1 +0.1
BRG                                   Amp             22 58 15.7
         comp=Z,8.4nm,0.6s
BRG   Berggiesshubel    150.49 342    P      PKPab    22 58 24.6 +0.6
BRG                                   Amp             22 58 25.0
         comp=Z,3.7nm,0.8s
MAUC  Maruska           150.53 336  ePKP     PKiKP    22 58 15.8 +0.1
PVCC  Panska Ves        150.62 341  ePKP     PKiKP    22 58 15.7 -0.1
HUMR  Humele            150.70 322 ⇑P        PKPbc    22 58 14.8 -0.9
NEUB  Neuenburg         150.75 345  ePKPbc   PKPbc    22 58 15.8 +0.2
         baz=20,slow=2.2
NEUB                                ePKPab   PKPab    22 58 25.2 +0.1
         baz=20,slow=4.4
LOT   Lotru             150.78 325 ⇑P        PKPbc    22 58 16.1 +0.1
VYHS  Vyhne             150.85 334  ePKP     PKPbc    22 58 16.0  0.0
JAVC  Velka Javorina    151.01 336  ePKP     PKiKP    22 58 16.7 -0.1
VRAC  Vranov            151.02 338  ePKP     PKPbc    22 58 16.0 -0.4
KRUC  Moravsky          151.30 338  ePKP     PKPbc    22 58 16.5 -0.5
MOX   Moxa              151.31 345  ePKPbc   PKPbc    22 58 17.0  0.0
         baz=20,slow=2.2
MOX                                 ePKPab   PKPab    22 58 27.9 +0.4
         baz=20,slow=4.4
TANN  Tannenbergstha    151.31 344  ePKPbc   PKPbc    22 58 17.1 +0.1
         baz=20,slow=2.2
PLN   Plauen            151.32 344  ePKPbc   PKPbc    22 58 17.1 +0.2
         baz=20,slow=2.2
PLN                                 ePKPab   PKPab    22 58 27.9 +0.3
         baz=20,slow=4.4
GZR   Gura Zlata        151.33 326 ⇑P        PKPbc    22 58 15.1 -2.2
KASTN Kahler Asten      151.44 349  ePKPbc   PKPbc    22 58 17.3  0.0
         baz=20,slow=2.2
MODS  Modra-Piesok      151.55 336  ePKP     PKiKP    22 58 18.1 +0.2
MODS                                e                 22 58 29.6
PLVB  Pleven            151.60 321 ⇓P        PKPbc    22 58 17.2 -0.6
TAVA  DENIZLI_Tavas     151.64 306 ⇓P        PKPbc    22 58 17.9 -0.3
BZS   Buzias            151.77 327 ⇑P        PKPbc    22 58 17.6 -0.6
HERR  Herculane         151.87 325 ⇑P        PKPbc    22 58 17.7 -0.7
KHC   Kasperske Hory    152.16 341  ePKP     PKPbc    22 58 18.6 -0.3
KHC                                 ex       x        22 58 31.7
GEC2  GERESS Array S    152.37 341  ePKPbc   PKPbc    22 58 19.2 -0.3
         baz=20,slow=2.2
GERES GERESS Array B    152.37 341   PKPbc   PKPbc    22 58 18.9 -0.6
         comp=Z,1.0nm,0.5s,baz=13,slow=1.3,SNR=9.9
GERES                                PKPab   PKPab    22 58 31.9 -0.3
         comp=Z,0.4nm,0.4s,baz=46,slow=3.9,SNR=4.1
GERES GERESS Array B    152.37 341           PKPbc    22 58 18.1 -1.4
CONA  Conrad Observa    152.45 337  ePKP     PKiKP    22 58 19.8 -0.1
         comp=Z,3.0nm,1.2s
CONA                                ePKP     PKPab    22 58 33.5 +1.0
         comp=Z,2.7nm,0.6s
RONA  Rosalia, Austr    152.48 336  ePKP     PKPbc    22 58 19.7  0.0
         comp=Z,3.1nm,0.8s
RONA                                ePKP     PKPab    22 58 33.5 +0.9
         comp=Z,3.7nm,0.7s
MORH  Mrgy, Hungar      152.72 331 ⇓P        PKPbc    22 58 19.8 -0.4
SESA  Seetaler Alpe,    153.60 338  ePKP     PKiKP    22 58 23.2 +0.8
         comp=Z,3.3nm,0.5s
SESA                                ePKP     PKPab    22 58 38.0 +0.4
         comp=Z,8.9nm,0.6s
FUR   Furstenfeldbru    153.68 343  ePKPbc   PKPbc    22 58 21.9 -0.3
         baz=20,slow=2.2
FUR                                 ePKPab   PKPab    22 58 38.7 +1.0
         baz=20,slow=4.4
SOKA  Soboth            153.81 336  ePKP     PKPab    22 58 38.5 +0.1
         comp=Z,3.4nm,1.1s
WATA  Walderalm         154.36 342  ePKP     PKPab    22 58 41.0 +0.3
         comp=Z,2.1nm,0.5s
WTTA  Wattenberg        154.40 342  ePKP     PKPab    22 58 41.6 +0.6
         comp=Z,3.1nm,0.5s
RETA  Reutte            154.44 343  ePKP     PKPab    22 58 41.5 +0.5
         comp=Z,3.3nm,0.6s
MOTA  Moosalm           154.48 343  ePKP     PKPab    22 58 41.5 +0.3
         comp=Z,4.7nm,1.3s
SQTA  Sankt Quirin      154.56 342  ePKP     PKPab    22 58 42.2 +0.6
         comp=Z,1.8nm,0.7s
DAVA  Damuels           154.85 344  ePKP     PKPab    22 58 43.2 +0.3
         comp=Z,3.2nm,0.6s
FETA  Feichten          154.88 343  ePKP     PKPab    22 58 43.3 +0.3
         comp=Z,1.9nm,0.7s
ESDC  Sonseca Array     163.31  11  PKPab    PKPab    22 59 19.7 -0.1
         comp=Z,0.4nm,0.9s,baz=355,slow=5.0,SNR=5.0
TORD  Torodi Ar. Bea    169.79 188  PKPab    PKPab    22 59 48.7 -0.1
         comp=Z,0.8nm,0.8s,baz=173,slow=5.6,SNR=2.9
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*IDC **02** 23:10:46.0±0.8, 15.°03S×76.°01W, h0^{km}, mb3.8/6, mbtmp3.8/11, ML3.8/5, MS3.5/7, Error ellipse: s-maj=24.0km s-min=10.1km az=66.0*

*NEIC **02** 23:10:47.3±1.3, 15.°00S±0.°07×76.°1W±0.°1, h10^{km}±1^{km}, mb4.2/10, Error ellipse: s-maj=21.7km s-min=10.7km az=248.0*

ISC 02 23:10:49.5±0.6, **14.°99S**±0.°06×**76.°1W**±0.°1, **h29**^{km}, **n55**, σ1^{s}**23**/45, **mb4.1**/6, **MS3.4**/6, **Near coast of Peru**

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Code  Station Name        Δ°   AZ°   Phase ID          Time       Res
                                     Op       ISC      h  m  s    ISC
NNA   Nana               3.08 346   Pn       Pn       23 11 35.9 -0.4
         11nm,0.3s,baz=140,slow=12,SNR=12
NNA                                 Pg       Pb       23 11 43.0 -0.7
         67nm,0.3s,baz=147,slow=12,SNR=26
NNA                                 Sn       Sn       23 12 08.2 -4.0
         45nm,0.3s,baz=257,slow=18,SNR=5.7
NNA                                 Lg       Lg       23 12 24.7
         83nm,0.3s,baz=230,slow=24,SNR=7.4
         24nm,0.3s
NNA                                 AML      AML
NNA   Nana               3.08 346            Pn       23 11 34.4 -1.9
NNA                                 Sn       Sn       23 12 11.2 -1.0
PB12  IPOC Station P     6.57 124            Pn       23 12 23.1 -1.3
PB18  Visviri            6.83 113   Pn       Pn       23 12 27.9 -0.5
PB16  IPOC Station P     7.11 119            Pn       23 12 32.7 +0.5
PSGCX Pisagua            7.29 130            Pn       23 12 34.2 -0.1
PB11  IPOC Station P     7.74 129            Pn       23 12 40.5  0.0
LPAZ  La Paz             7.75 101   Pn       Pn       23 12 41.2 +0.1
         0.9nm,0.3s,baz=286,slow=7.0,SNR=20
         0.7nm,0.3s
LPAZ                                AML      AML
TA01  Diego Aracena      7.88 136            Pn       23 12 41.9 -0.4
CZSB  Cruzeiro do Su     7.93  25   Pn       Pn       23 12 42.4 -0.6
GO01  Chusmiza           8.04 126            Pn       23 12 45.3 +0.3
ATAH  Atahualpa          8.13 343   Pn       Pn       23 12 47.6 +1.5
         1.8nm,0.3s,baz=159,slow=11,SNR=9.5
ATAH                                Sn       Sn       23 14 19.6 +2.3
         1.6nm,0.3s,baz=53,slow=5.1,SNR=1.4
         3.9nm,0.8s
ATAH                                AML      AML
PB08  IPOC Station P     8.35 129            Pn       23 12 49.5 +0.5
PB02  IPOC Station P     8.60 138            Pn       23 12 51.8 -0.5
PB07  IPOC Station P     8.90 140            Pn       23 12 55.2 -1.2
PB03  IPOC Station P     9.23 140            Pn       23 13 00.8 -0.1
PB09  IPOC Station P     9.37 137   Pn       Pn       23 13 02.5 -0.3
PB05  IPOC Station P     9.59 146   Pn       Pn       23 13 03.8 -2.0
PB06  IPOC Station P     9.83 142   Pn       Pn       23 13 08.1 -1.1
PB14  IPOC Station P    10.97 152   Pn       Pn       23 13 23.0 -1.9
SLOR  San Lorenzo -     14.37 350            Pn       23 14 12.3 +0.7
SIV   San Ignacio       14.49  96   Pn       Pn       23 14 11.0 -1.8
         baz=269,slow=13,SNR=8.4
         1.5nm,0.8s
OTAV  Otavalo           15.31 351            Pn       23 14 24.2  0.0
OTAV                                IAmb     IAmb     23 15 04.5
         comp=Z,6.8nm,0.9s
PTLB  Pontes e Lacer    16.35  94            P        23 14 39.2 -0.5
ZON   Zonda             17.81 159   P        Pn       23 14 53.5 -1.9
ZON                                 IAmb     IAmb     23 15 02.5
         comp=Z,16nm,0.6s
CFA   Coronel Fontan    18.02 158   P        Pn       23 14 56.3 -1.7
         comp=Z,0.7nm,0.3s,baz=240,slow=24,SNR=7.9
         comp=Z,1.9nm,0.4s
CFA                                 AML      AML
H03N1 Juan Fernandez    18.55 187   T        T        23 34 18.7
         baz=253,slow=74,SNR=489
H03N2 Juan Fernandez    18.55 188   T        T        23 34 16.5
         baz=8.9,slow=74,SNR=412
MACA  Manacapuru-AM     19.18  54   P        P        23 15 11.0 -0.1
MACA                                IAmb     IAmb     23 15 32.7
         comp=Z,11nm,0.9s
ROSC  El Rosal          19.78   5   LR       LR       23 24 33.3
         comp=Z,218nm,21.5s,baz=246,slow=42
GO05  Hualane           20.28 170   P        P        23 15 22.9 -0.1
BI02  San Fabin de      22.00 170   P        P        23 15 39.8 -1.8
BI02                                IAmb     IAmb     23 15 45.1
         comp=Z,8.8nm,1.0s
BOAV  Boa Vista         23.13  43   P        P        23 15 53.2 -0.4
SDV   Santo Domingo     24.32  13   LR       LR       23 26 34.7
         comp=Z,92nm,19.9s,baz=231,slow=39
PLCA  Paso Flores       26.10 170   P        P        23 16 21.0 +0.1
         comp=Z,2.7nm,0.9s,baz=355,slow=11,SNR=4.3
PLCA                                LR       LR       23 25 06.2
         comp=Z,32nm,18.7s,baz=339,slow=33
         comp=Z,2.7nm,0.9s
PLCA  Paso Flores       26.10 170   P        P        23 16 21.1 +0.3
PLCA                                IAmb     IAmb     23 16 54.8
         comp=Z,13nm,1.5s
BDFB  Brasilia          27.06  95   LR       LR       23 28 17.4
         comp=Z,100nm,19.1s,baz=173,slow=39
MDP   Montagnes des     30.62  51   LR       LR       23 29 59.7
         comp=Z,249nm,18.4s,baz=210,slow=38
SJG   San Juan          34.31  17   LR       LR       23 33 05.9
         comp=Z,91nm,19.3s,baz=248,slow=39
TXAR  Lajitas Array     51.50 329   P        P        23 19 52.9 +0.1
         comp=Z,0.2nm,0.5s,baz=156,slow=7.8,SNR=4.7
         comp=Z,0.2nm,0.5s
SCHQ  Schefferville     69.99   6   LR       LR       23 56 29.2
         comp=Z,22nm,18.1s,baz=106,slow=39
SNAA  Sanae             70.61 161   P        P        23 22 02.9 +1.0
         comp=Z,1.1nm,0.6s,baz=297,slow=8.4,SNR=4.0
         comp=Z,1.1nm,0.6s
SNAA  Sanae             70.61 161   P        P        23 22 02.0 +0.1
SNAA                                IAmb     IAmb     23 22 22.8
         comp=Z,2.4nm,0.9s
QSPA  South Pole Qui    75.16 180   P        P        23 22 30.0 +0.8
         comp=Z,1.8nm,0.7s,baz=154,slow=1.6,SNR=7.6
         comp=Z,1.8nm,0.7s
QSPA  South Pole Qui    75.16 180   P        P        23 22 29.9 +0.8
TORD  Torodi Ar. Bea    81.87  74   P        P        23 23 07.8 +1.0
         comp=Z,0.9nm,1.0s,baz=242,slow=5.2,SNR=3.8
         comp=Z,0.9nm,1.0s
ESDC  Sonseca Array     86.23  47   P        P        23 23 30.6 +2.0
         comp=Z,0.3nm,1.0s,baz=311,slow=3.5,SNR=2.5
         comp=Z,0.3nm,1.0s
H11N3 WAKE ISLAND Hy119.99 284      T        T        01 40 46.7
         baz=96,slow=74,SNR=26
H11N2 WAKE ISLAND Hy120.00 284      T        T        01 40 47.8
         baz=96,slow=74,SNR=51
H11N1 WAKE ISLAND Hy120.01 284      T        T        01 40 46.7
         baz=96,slow=74,SNR=15
H11S2 WAKE ISLAND Hy120.04 283      T        T        01 40 49.3
         baz=97,slow=75,SNR=7.5
H11S1 WAKE ISLAND Hy120.05 283      T        T        01 40 49.7
         baz=97,slow=75,SNR=13
H11S3 WAKE ISLAND Hy120.06 283      T        T        01 40 53.2
         baz=97,slow=75,SNR=15
ZALV  Zalesovo Beam    138.34  17   PKP      PKiKP    23 30 14.3 +0.3
         comp=Z,0.4nm,0.5s,baz=333,slow=0.6,SNR=3.9
SONM  Songino Array    147.19 357   PKPbc    PKPbc    23 30 30.5 +0.3
         comp=Z,0.3nm,0.6s,baz=5.7,slow=1.4,SNR=3.8
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*DJA **02** 23:16:33.9±0.3, 9°S±3°×11°0E±°, h10^{km}, M4.2/35, MLv4.2/35*

ISC 02 23:16:36.1±1.8, **9.°2S**±0.°1×**110.°04E**±0.°07, **h35**^{km}, **n23**, σ1^{s}**46**/25, **South of Jawa**

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Code  Station Name        Δ°   AZ°   Phase ID          Time       Res
                                     Op       ISC      h  m  s    ISC
UGM   Wanagama           1.33  21   P        Pn       23 16 56.8 -1.4
UGM   Wanagama           1.33  21   P        Pn       23 16 56.8 -1.4
UGM                                 S        Sn       23 17 14.2 -0.5
UGM                                 AML      AML
YOGI  Yogyakarta         1.36  11   P        Pn       23 16 57.5 -1.1
YOGI                                S        Sn       23 17 14.9 -0.5
YOGI                                AML      AML
PCJI  Pacitan            1.48  50   P        Pn       23 16 58.6 -1.6
PCJI                                AML      AML
WOJI  Wonogiri, Jawa     1.58  34   P        Pn       23 17 00.0 -1.6
WOJI                                AML      AML
CMJI  Cimerak            2.08 311   P        Pn       23 17 06.1 -2.4
CMJI                                AML      AML
KPJI  Karang Pucung      2.12 329   P        Pn       23 17 08.6 -0.4
SMRI  Semarang           2.13  11   P        Pn       23 17 10.6 +1.4
SMRI  Semarang           2.13  11   S        Sn       23 17 38.6 +4.1
SMRI  Semarang           2.13  11   P        Pn       23 17 10.3 +1.1
SMRI                                AML      AML
SNJI  Sawahan-Nganju     2.18  51   P        Pn       23 17 10.6 +0.5
SNJI                                AML      AML
SJI   Sawahan            2.22  51   P        Pn       23 17 10.0 -0.5
CTJI  Waduk Cacaban      2.30 338   P        Pn       23 17 12.5 +1.0
CTJI                                AML      AML
BBJI  Bungbulang         2.90 305   P        Pn       23 17 17.8 -2.1
BBJI  Bungbulang         2.90 305   P        Pn       23 17 19.5 -0.4
CNJI  Cibinong           3.42 302   P        Pn       23 17 26.6 -0.3
CNJI                                AML      AML
BLJI  Banyuglugur        3.79  68   P        Pn       23 17 32.8 +0.8
BLJI                                AML      AML
SKJI  Sukabumi           4.06 302   P        Pn       23 17 35.3 -0.4
JAGI  Jajag, Banyuwa     4.12  81   P        Pn       23 17 36.5 -0.1
JAGI  Jajag, Banyuwa     4.12  81   P        Pn       23 17 37.8 +1.2
PLAI  Plampang           7.65  88   P        Pn       23 18 24.8 -0.3
MNAI  Manna              8.50 304   P        Pn       23 18 35.5 -1.2
FAKI  Fak Fak           22.93  76   P        P        23 21 36.3 -1.1
```

IDC 02 23:19:13.5±1.5, **6.°43S**×**129.°38E**, **h0**^{km}, **mb3.7**/2, **mbtmp3.7**/5, **ML3.6**/3, **MS4.4**/2, **Error ellipse: s-maj=49.4km s-min=16.9km az=84.0**, **Banda Sea**

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Code  Station Name        Δ°   AZ°   Phase ID          Time       Res
                                     Op       ISC      h  m  s    ISC
FITZ  Fitzroy Crossi    12.16 197   Pn       Pn       23 22 04.8 -3.3
         0.1nm,0.3s,baz=25,slow=13,SNR=7.5
FITZ                                Sn       Sn       23 24 08.3  -16
         0.5nm,0.3s,baz=90,slow=23,SNR=6.4
         1.3nm,0.6s
FITZ                                AML      AML
WRA   Warramunga Arr    14.27 161   Pn       Pn       23 22 30.6 -6.4
         0.2nm,0.3s,baz=339,slow=13,SNR=6.6
WRA                                 Sn       Sn       23 24 55.0  -21
         0.4nm,0.3s,baz=335,slow=22,SNR=7.2
         0.6nm,0.6s
WRA                                 AML      AML
ASAR  Alice Springs     17.68 166   P        Pn       23 23 19.5 -1.9
         0.7nm,0.3s,baz=347,slow=11,SNR=24
         2.8nm,0.7s
ASAR                                AML      AML
PMG   Port Moresby      17.85 101   LR       LR       23 30 55.3
         comp=Z,2µm,19.9s,baz=318,slow=39
HNR   Honiara           30.41  98   LR       LR       23 38 44.8
         comp=Z,474nm,19.6s,baz=7.0,slow=38
MKAR  Makanchi Array    67.42 327   P        P        23 30 11.1 +0.2
         0.7nm,0.4s,baz=129,slow=6.6,SNR=10
         0.7nm,0.4s
KURBB Kurchatov Arra    71.71 329   P        P        23 30 36.8 -0.5
         0.2nm,0.4s,baz=124,slow=5.0,SNR=2.7
         0.2nm,0.4s
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*BJI **02** 23:25:31.0, 5.°65S×140.°95E, h10^{km}, mB5.3/21, mb5.1/65, Ms4.7/13, Ms7 4.4/15*

*IDC **02** 23:25:35.1±0.4, 5.°23S×140.°47E, h0^{km}, mb4.7/25, mbtmp4.7/31, ML4.7/4, MS4.3/40, Error ellipse: s-maj=16.9km s-min=9.8km az=73.0*

*MOS **02** 23:25:35.6±0.8, 5.°32S×140.°40E, h13^{km}, mb5.5/50, Error ellipse: s-maj=8.7km s-min=4.7km az=115.6*

*NEIC **02** 23:25:37.3±1.9, 5.°42S±0.°07×140.°35E±0.°06, h10^{km}±1^{km}, mb5.3/115, Mww4.9/10, Error ellipse: s-maj=12.0km s-min=10.6km az=189.0*

*GFZ **02** 23:25:40.0±0.2, 5°S±2°×14°0E±°, h10^{km}, M5.1/37, mb5.2/37*

*DJA **02** 23:25:40.3±0.8, 5°S±2°×14°0E±°, h22^{km}±6^{km}, M5.3/81, mb5.3/81, mB5.7/55, MLv5.9/10, Mw(mB)5.2/55, MwMwp4.9/4, Mwp5.2/4*

*GCMT **02** 23:25:41.3±0.2, 5.°30S±0.°01×140.°47E±0.°01, h24^{km}, MW5.0/111, Moment Tensor Solution. s92,c118; s111,c151; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}4.64±.12; $M_{\theta\theta}$-2.38±.08; $M_{\phi\phi}$-2.26±.09; $M_{r\theta}$-0.31±.11; $M_{\theta\phi}$2.39±.06; $M_{\phi r}$-0.26±.12; Best double couple: $M_0$4.69300×10^{16} NP1:ϕ_s139.00000°,δ45.00000°, λ97.00000°. NP2:ϕ_s309.00000°,δ45.00000°,λ83.00000°. Principal axes: T 4.6750, Plg85.0000°, Azm137.0000°; N 0.0360, Plg5.0000°, Azm314.0000°; P -4.7110, Plg0.0000°, Azm44.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 02 23:25:37.0±0.2, **5.°36S**±0.°03×**140.°50E**±0.°03, **h10**^{km}, **n564**, σ1^{s}**64**/507, **mb5.2**/156, **MS4.4**/43, **26C-4D**, **Irian Jaya**

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Code  Station Name        Δ°   AZ°   Phase ID          Time       Res
                                     Op       ISC      h  m  s    ISC
GENI  Genyem             2.77 353   P        Pn       23 26 24.0 +2.5
GENI                                S        Sn       23 26 59.6 +4.6
GENI                                AML      AML
GENI  Genyem             2.77 353   P        Pn       23 26 23.6 +2.1
MMPI  Merauke            3.09 182   P        Pn       23 26 29.4 +3.6
BAKI  Biak               6.03 313   P        Pn       23 27 07.7 +1.3
         2.8nm5µm645nm,1.0s
BAKI                                AML      AML
MANU  Manus Island       7.60  65            Pn       23 27 31.1 +3.1
PMG   Port Moresby       7.73 122   Pn       Pn       23 27 31.9 +2.3
         19nm,0.3s,baz=337,slow=7.9,SNR=11
PMG                                 Sn       Sn       23 28 51.4 -5.9
         3.7nm,0.3s,baz=288,slow=9.7,SNR=4.1
PMG   Port Moresby       7.73 122  i P       Pn       23 27 31.3 +1.6
PMG   Port Moresby       7.73 122            Pn       23 27 32.1 +2.4
PMG   Port Moresby       7.73 122   P        Pn       23 27 29.3 -0.4
         178nm,1.3s
PMG   Port Moresby       7.73 122   P        Pn       23 27 39.3  +10
         comp=Z,159nm,1.0s
MWPI  Manokwari, Pap     7.81 304   P        Pn       23 27 29.4 -1.4
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	comp=Z,2.0nmcomp=Z,4µmcomp=Z,260nm,0.6s						
MWPI				AML	AML		
FAKI	Fak Fak	8.58	286		Pn	23 27 41.1	-0.2
FAKI	Fak Fak	8.58	286	P	Pn	23 27 41.5	+0.1
	comp=Z,3µmcomp=Z,2µmcomp=Z,222nm,1.3s						
FAKI	Fak Fak	8.58	286	P	Pn	23 27 42.9	+1.6
	comp=Z,220nm,1.2s						
SAUI	Saumlaki	9.50	254	Pn	Pn	23 27 52.9	-1.1
SAUI	Saumlaki	9.50	254	P	Pn	23 27 57.2	+3.2
SWI	Sorong	10.25	296	P	Pn	23 28 04.1	-0.2
BNDI	Bandanaira	10.59	274	P	Pn	23 28 11.9	+3.0
KDU	Kakadu	10.76	227	P	Pn	23 28 10.5	-0.7
	comp=Z,72nm,0.5s						
KDU				S	Sn	23 30 11.4	-0.4
RABL	Rabaul	11.68	85	Pn	Pn	23 28 24.7	+0.8
MSAI	Masohi	11.71	279	P	Pn	23 28 24.9	+0.6
	comp=Z,8µmcomp=Z,153nm,0.7s						
MTN	Manton Dam	11.86	231	P	Pn	23 28 26.5	+0.2
MTN				S	Sn	23 30 37.6	-1.3
MTN	Manton Dam	11.86	231		Pn	23 28 25.2	-1.2
MTSU	Mount Surprise	13.23	164	P	Pn	23 28 47.3	+2.2
	comp=Z,33nm,0.9s						
MTSU	Mount Surprise	13.23	164	P	Pn	23 28 47.2	+2.2
	comp=Z,33nm,0.9s						
MTSU	Mount Surprise	13.23	164	P	P	23 28 53.7	-1.3
	comp=Z,21nm,0.6s						
NLAI	Namlea	13.53	278	P	Pn	23 28 50.7	+1.6
	comp=Z,69nm,0.8s						
LBMI	Labuha	13.80	289	P	Pn	23 28 54.6	+1.7
TNTI	Ternate	14.46	295	Pn	Pn	23 29 01.1	-0.9
TNTI	Ternate	14.46	295	P	Pn	23 29 02.7	+0.8
	comp=Z,73nm,1.1s						
SANI	Sanana	14.85	282	P	Pn	23 29 05.5	-1.7
	comp=Z,113nm,0.9s						
SANI	Sanana	14.85	282	P	Pn	23 29 08.8	+1.6
	comp=Z,114nm,0.9s						
QIS	Mount Isa	15.13	183	P	Pn	23 29 09.4	-1.5
QIS	Mount Isa	15.13	183	P	Pn	23 29 09.1	-1.9
	comp=Z,86nm,0.6s						
QIS	Mount Isa	15.13	183	P	Pn	23 29 14.7	+3.8
	comp=Z,126nm,1.2s						
KNRA	Kununurra	15.42	227	P	Pn	23 29 11.9	-2.9
KNRA	Kununurra	15.42	227	P	Pn	23 29 11.6	-3.2
	comp=Z,82nm,1.2s						
KNRA	Kununurra	15.42	227		Pn	23 29 10.8	-4.0
WB0	Warramunga Arr	15.50	202		Pn	23 29 13.0	-2.8
WRAB	Tennant Creek	15.67	202	ceP	Pn	23 29 16.3	-1.8
WRAB				pmax	pmax		
	comp=Z,60nm,1.5s						
WRAB	Tennant Creek	15.67	202	P	Pn	23 29 21.6	+3.6
	comp=Z,160nm,0.5s						
CTA	Charters Tower	15.67	160	P	Pn	23 29 21.2	+3.1
CTA	Charters Tower	15.67	160	Pn	Pn	23 29 19.4	+1.3
	comp=Z,1.6nm,0.3s,baz=338,slow=11,SNR=21						
CTA				Sn	Sn	23 32 11.4	-0.4
	comp=Z,0.5nm,0.3s,baz=16,slow=19,SNR=1.3						
CTA				Lg	Lg	23 33 52.9	
	comp=Z,1.2nm,0.3s,baz=228,slow=18,SNR=6.9						
CTA				LR	LR	23 36 09.4	
	comp=Z,2µm,19.5s,baz=338,slow=40						
	comp=Z,6.7nm,1.1s						
CTA				AML	AML		
CTAO	Charters Tower	15.67	160	P	Pn	23 29 17.9	-0.2
CTAO				pmax	pmax		
	comp=Z,183nm,1.8s						
CTAO	Charters Tower	15.67	160		Pn	23 29 17.9	-0.2
CTAO	Charters Tower	15.67	160	P	P	23 29 25.3	+3.1
	comp=Z,79nm,1.0s						
WRA	Warramunga Arr	15.68	202	Pn	Pn	23 29 15.9	-2.3
	comp=Z,2.5nm,0.3s,baz=16,slow=13,SNR=40						
WRA				Sn	Sn	23 32 00.7	-11
	baz=17,slow=22						
WRA				Lg	Lg	23 33 47.5	
	comp=Z,5.5nm,0.3s,baz=28,slow=30,SNR=6.0						
	comp=Z,9.0nm,0.8s						
WRA				AML	AML		
WRA	Warramunga Arr	15.68	202	eP	Pn	23 29 17.8	-0.4
WRA				pmax	pmax		
	comp=Z,3.0nm,0.3s						
WRA	Warramunga Arr	15.68	202		Pn	23 29 16.5	-1.7
SOEI	Soe	16.67	254		Pn	23 29 29.3	-1.7
SOEI	Soe	16.67	254	P	Pn	23 29 33.9	+2.9
SOEI	Soe	16.67	254	P	Pn	23 29 35.2	+4.1
	comp=Z,588nm,0.9s						
MNI	Manado	17.04	293	P	Pn	23 29 36.5	+0.9
	comp=Z,257nm,1.0s						
BBSI	Bau Bau	17.85	269	P	Pn	23 29 48.7	+3.0
	comp=Z,2µmcomp=Z,157nm,1.2s						
KDI	Kendari	17.88	274	P	Pn	23 29 48.2	+2.2
	comp=Z,1µmcomp=Z,72nm,1.2s						
LUWI	Luwuk	18.21	283		Pn	23 29 47.1	-3.0
LUWI	Luwuk	18.21	283	P	Pn	23 29 52.1	+2.0
	comp=Z,4µmcomp=Z,145nm,1.3s						
LUWI	Luwuk	18.21	283	P	Pn	23 29 53.2	+3.1
	comp=Z,155nm,0.9s						
MMRI	Maumere	18.41	259	P	P	23 29 50.0	-2.6
MMRI	Maumere	18.41	259	P	P	23 29 53.6	+1.0
	comp=Z,3µmcomp=Z,137nm,1.1s						
MMRI	Maumere	18.41	259	P	P	23 29 54.9	+2.3
	comp=Z,134nm,1.2s						
GTOI	Gorontalo	18.45	288	P	P	23 29 55.4	+2.4
	comp=Z,2µmcomp=Z,132nm,0.8s						
EDFI	Ende, Flores	18.97	259	P	P	23 29 59.7	+0.9
AS06	Alice Springs	19.24	198	P	P	23 30 03.4	+1.8
	comp=Z,85nm,0.8s						
AS15	Alice Springs	19.24	199	P	P	23 30 03.6	+1.9
	comp=Z,115nm,0.8s						
AS17	Alice Springs	19.25	198	P	P	23 30 04.2	+2.5
	comp=Z,89nm,0.8s						
FITZ	Fitzroy Crossi	19.26	228	P	P	23 30 01.0	-0.8
	comp=Z,14nm,0.9s						
FITZ	Fitzroy Crossi	19.26	228	P	P	23 30 01.2	-0.7
	comp=Z,14nm,0.9s						
FITZ	Fitzroy Crossi	19.26	228	P	P	23 30 01.1	-0.7
	comp=Z,1.6nm,0.3s,baz=55,slow=12,SNR=18						
FITZ				S	Sn	23 33 23.6	-15
	comp=Z,45nm,0.4s,baz=112,slow=16,SNR=6.1						
FITZ				Lg	Lg	23 35 46.5	
	baz=36,slow=19						
FITZ				LR	LR	23 37 47.2	
	comp=Z,2µm,19.1s,baz=49,slow=38						
	comp=Z,5.5nm,0.5s						
FITZ				AML	AML		
FITZ	Fitzroy Crossi	19.26	228		P	23 29 59.5	-2.4
FITZ	Fitzroy Crossi	19.26	228	P	P	23 30 05.2	+3.4
	comp=Z,14nm,0.9s						
AS31	Alice Springs	19.27	199	P	P	23 30 04.3	+2.3
	comp=Z,36nm,0.5s						
AS31	Alice Springs	19.27	199	P	P	23 30 04.4	+2.3
	comp=Z,36nm,0.5s						
AS31	Alice Springs	19.27	199		P	23 30 01.6	-0.4
ASAR	Alice Springs	19.28	199	P	P	23 30 02.8	+0.7
	comp=Z,2.9nm,0.3s,baz=27,slow=9.3,SNR=58						
ASAR				S	Sn	23 33 30.7	-8.6
	comp=Z,7.4nm,0.7s,baz=17,slow=25,SNR=1.8						
ASAR				Lg	Lg	23 35 50.5	
	baz=13,slow=30						
ASAR				LR	LR	23 38 11.5	
	comp=Z,2µm,20.6s,baz=18,slow=39						
	comp=Z,11nm,0.7s						
ASAR				AML	AML		
ASAR	Alice Springs	19.28	199	P	P	23 30 01.7	-0.3
AS09	Alice Springs	19.30	198	P	P	23 30 04.3	+2.1
	comp=Z,96nm,0.6s						
GUMO	Guam	19.32	13	LR	LR	23 37 06.2	
	comp=Z,878nm,18.2s,baz=200,slow=36						
GUMO	Guam	19.32	13	P	P	23 30 02.4	-0.1
GUMO				pmax	pmax		
	comp=Z,311nm,1.4s						
GUMO	Guam	19.32	13	P	P	23 30 02.4	-0.1
GUMO				IAmb	IAmb	23 30 11.4	
	comp=Z,311nm,1.4s						
GUMO	Guam	19.32	13	P	Pn	23 30 09.0	+5.5
	comp=Z,195nm,1.5s						
APSI	Ampana	19.33	283	P	P	23 30 01.6	-1.1
DAV	Davao City (W)	19.35	310	LR	LR	23 37 27.3	
	comp=Z,326nm,20.9s,baz=61,slow=37						
DAV	Davao City (W)	19.35	310	P	P	23 30 01.9	-1.0
DAV				IAmb	IAmb	23 30 06.4	
	comp=Z,157nm,0.5s						
HNR	Honiara	19.70	103	P	P	23 30 08.4	+1.7
	comp=Z,108nm,0.5s,baz=338,slow=5.4,SNR=4.7						
HNR	Honiara	19.70	103	P	P	23 30 08.7	+2.0
HNR				pmax	pmax		
	comp=Z,210nm,0.7s						
HNR	Honiara	19.70	103	P	P	23 30 08.7	+2.0
HNR				IAmb	IAmb	23 30 21.0	
	comp=Z,210nm,0.7s						
HNR	Honiara	19.70	103	P	Pn	23 30 11.2	+3.0
	comp=Z,522nm,0.9s						
BSSI	Bau Bau, Buton	19.92	267	P	P	23 30 12.3	+3.1
	comp=Z,3µmcomp=Z,202nm,1.0s						
WSI	Waingapu	20.48	257	P	P	23 30 17.2	+2.0
KAPI	Kappang	20.67	270	P	P	23 30 18.3	+1.1
	comp=Z,5.1nm,0.3s,baz=80,slow=11,SNR=6.9						
KAPI				LR	LR	23 40 03.5	
	comp=Z,649nm,20.6s,baz=90,slow=42						
	comp=Z,5.1nm,0.3s						
KAPI	Kappang	20.67	270	P	P	23 30 19.3	+2.0
KAPI				S	S	23 34 08.3	0.0
KAPI	Kappang	20.67	270	P	P	23 30 16.4	-0.8
KAPI				IAmb	IAmb	23 30 30.2	
	comp=Z,110nm,1.2s						
KAPI	Kappang	20.67	270	P	P	23 30 19.5	+2.3
LBFI	Labuhan Bajo,	20.69	260	P	P	23 30 19.3	+1.8
TOLI2	Tolitoli	20.72	288		P	23 30 16.3	-1.5
TOLI2				IAmb	IAmb	23 30 29.3	
	comp=Z,307nm,1.4s						
TOLI2	Tolitoli	20.72	288	P	P	23 30 17.5	-0.3
	comp=Z,145nm,1.1s						
MKS	Makassar	20.94	269	P	P	23 30 20.0	-0.2
	comp=Z,3µmcomp=Z,188nm,1.4s						
PCI	Palu	21.10	281	P	P	23 30 23.4	+1.5
	comp=Z,3µmcomp=Z,280nm,1.1s						
SCPH	Surigao	21.21	315	eP	P	23 30 21.5	-1.6
QLP	Quilpie	21.40	171	P	P	23 30 27.1	+2.1
	comp=Z,213nm,1.2s,comp=Z,0.0nm						
QLP	Quilpie	21.40	171	P	P	23 30 26.8	+1.8
	comp=Z,213nm,1.2s,comp=Z,0.0nm						
QLP	Quilpie	21.40	171	P	P	23 30 26.6	+1.6
	comp=Z,212nm,1.2s						
PATS	Pohnpei	21.52	56	P	P	23 30 34.1	+7.7
PATS	Pohnpei	21.52	56	P	P	23 30 34.9	+8.6
	comp=Z,332nm,1.3s						
PATS	Pohnpei	21.52	56	P	P	23 30 27.6	+1.2
MMSI	Mamuju	21.70	276	P	P	23 30 27.8	-0.6
	comp=Z,1µmcomp=Z,77nm,0.9s						
DCPH	Dipolog City	22.01	309	eP	P	23 30 33.6	+2.0
DBNI	Kabupaten Domp	22.24	261	P	P	23 30 34.6	+0.4
	comp=Z,34nm,0.6s						
INKA	Innaminka	22.26	179		P	23 30 33.9	-0.3
INKA				IAmb	IAmb	23 30 47.0	
	comp=Z,102nm,1.2s						
TBP	Tagbilaran	22.33	312	eP	P	23 30 36.1	+1.0
EIDS	Eidsvold	22.33	154	P	P	23 30 36.2	+1.2
	comp=Z,38nm,0.7s						
EIDS	Eidsvold	22.33	154	P	P	23 30 36.9	+1.8
	comp=Z,38nm,0.7s						
EIDS	Eidsvold	22.33	154	P	P	23 30 34.8	-0.3
EIDS	Eidsvold	22.33	154	P	P	23 30 36.7	+1.7
	comp=Z,38nm,0.7s						
PLP	Palo	22.54	317	eP	P	23 30 36.8	-0.6
WRKA	Warakurna	22.80	210	P	P	23 30 40.6	+0.5
	comp=Z,106nm,0.6s						
WRKA	Warakurna	22.80	210	P	P	23 30 40.3	+0.2
	comp=Z,106nm,0.6s						
PLAI	Plampang	22.81	260	P	P	23 30 37.2	-3.0
	comp=Z,2µmcomp=Z,67nm,0.9s						
PLAI	Plampang	22.81	260	P	P	23 30 39.4	-0.8
	comp=Z,69nm,0.9s						
TWSI	Taliwang, Sumb	23.67	261	P	P	23 30 51.7	+2.7
	comp=Z,90nm,1.1s						
TARAI	Tarakan	24.48	290	P	P	23 30 57.3	+0.7
KHKI	Kahang-Kahang	24.89	262	P	P	23 31 00.3	0.0
	comp=Z,106nm,1.2s						
SRBI	Singaraja	25.25	262	P	P	23 31 02.5	-1.1
	comp=Z,67nm,1.2s						
DNP	Denpasar	25.31	261	P	P	23 31 05.7	+1.6
IGBI	Denpasar	25.39	261	P	P	23 31 06.1	+1.3
	comp=Z,245nm,1.1s						
MBWA	Marble Bar	25.54	230	P	P	23 31 12.5	+6.4
MBWA	Marble Bar	25.54	230	P	P	23 31 07.8	+1.7
	comp=Z,47nm,1.1s						
MBWA	Marble Bar	25.54	230	P	P	23 31 09.3	+3.2
MBWA				S	S	23 35 37.9	+4.0
MBWA	Marble Bar	25.54	230	P	P	23 31 04.4	-1.7
MBWA				IAmb	IAmb	23 31 34.8	
	comp=Z,53nm,1.1s						
MBWA	Marble Bar	25.54	230	P	P	23 31 11.7	+5.6
	comp=Z,46nm,1.1s						
RTBI	Rangdo, Negare	25.55	262	P	P	23 31 07.3	+1.0
	comp=Z,106nm,1.4s						
ABJI	Asem Bagus	26.20	263	P	P	23 31 13.2	+1.0
	comp=Z,52nm,1.0s						
GQP	Guinayangan	26.22	317	eP	P	23 31 11.9	-0.4
JAGI	Jajag, Banyuwa	26.33	262	P	P	23 31 11.5	-1.9
JAGI				IAmb	IAmb	23 31 19.5	
	comp=Z,102nm,1.2s						
JAGI	Jajag, Banyuwa	26.33	262	P	P	23 31 13.1	-0.3
	comp=Z,84nm,0.9s						
PPR	Puerto Princes	26.39	305	i P	P	23 31 13.8	-0.1
STKA	Stephens Creek	26.40	178	P	P	23 31 17.8	+4.1
STKA	Stephens Creek	26.40	178	P	P	23 31 16.3	+2.5
	comp=Z,14nm,1.1s,baz=354,slow=9.6,SNR=9.3						
STKA				LR	LR	23 43 17.6	
	comp=Z,1µm,21.3s,baz=349,slow=40						
	comp=Z,14nm,1.1s						
STKA	Stephens Creek	26.40	178	i P	P	23 31 13.7	-0.1
STKA	Stephens Creek	26.40	178	P	P	23 31 19.0	+5.3
	comp=Z,130nm,1.0s						
CMSA	Cobar Meteorol	26.49	170	P	P	23 31 22.4	+7.8
CMSA	Cobar Meteorol	26.49	170	P	P	23 31 20.0	+5.4
	comp=Z,22nm,1.0s						
CMSA	Cobar Meteorol	26.49	170	P	P	23 31 19.6	+5.0
	comp=Z,22nm,1.0s						
KKM	Kota Kinabalu	26.76	295		P	23 31 15.1	-2.3
KKM				IAmb	IAmb	23 31 27.7	
	comp=Z,44nm,0.9s						
KKM	Kota Kinabalu	26.76	295	P	P	23 31 17.2	-0.2
	comp=Z,579nmcomp=Z,57nm,1.1s						
KKM	Kota Kinabalu	26.76	295	P	P	23 31 17.1	-0.3
	comp=Z,56nm,1.1s						
BLJI	Banyuglugur	26.83	263	P	P	23 31 18.8	+0.9
	comp=Z,42nm,0.8s						
ARMA	Armidale	27.04	158	P	P	23 31 19.5	-0.2
TIRP	Brgy. Gulod. B	27.38	316	eP	P	23 31 20.7	-2.0
BBOO	Buckleboo	27.62	188	P	P	23 31 36.1	+11
BBOO	Buckleboo	27.62	188	P	P	23 31 36.1	+11
	comp=Z,58nm,1.2s						
BBOO	Buckleboo	27.62	188	P	P	23 31 24.2	-0.5
BBOO				IAmb	IAmb	23 32 07.3	
	comp=Z,44nm,1.0s						
FORT	Forrest	27.86	203	P	P	23 31 31.7	+4.8
FORT	Forrest	27.86	203	P	P	23 31 30.2	+3.3
	comp=Z,35nm,0.9s						
FORT	Forrest	27.86	203	P	P	23 31 26.0	-0.9
HTT	Hallett	27.96	183	P	P	23 31 33.0	+5.1
	comp=Z,6.2nm,1.9s						
CAAP	Casiguran, Aur	28.16	320	eP	P	23 31 27.6	-2.1
MEEK	Meekatharra	29.73	222	P	P	23 31 49.3	+5.6
MEEK	Meekatharra	29.73	222	P	P	23 31 50.2	+6.5
	comp=Z,32nm,1.9s						
DZM	Mont Dzumac	30.09	126	LR	LR	23 44 01.1	
	comp=Z,901nm,21.4s,baz=287,slow=37						
KMBL	Kambalda	31.21	212	P	P	23 32 04.4	+7.7
	comp=Z,13nm,1.5s						
MORW	Morawa	33.04	222	P	P	23 32 19.0	+6.2
MORW	Morawa	33.04	222	P	P	23 32 17.3	+4.5
	comp=Z,37nm,1.3s						
MORW	Morawa	33.04	222	P	P	23 32 11.6	-1.1
MORW				IAmb	IAmb	23 32 22.8	
	comp=Z,53nm,1.2s						
MORW	Morawa	33.04	222	P	P	23 32 16.6	+3.9
	comp=Z,37nm,1.3s						
BLDU	Ballidu	33.65	219	P	P	23 32 24.4	+6.4
	comp=Z,30nm,1.3s						
KLBR	Kellerberrin	33.70	216	P	P	23 32 20.7	+2.3
	comp=Z,34nm,0.9s						
JOW	Kunigami	34.12	340	LR	LR	23 43 42.8	
	comp=Z,600nm,21.6s,baz=166,slow=32						
YULB	Yu-li	34.18	327	P	P	23 32 22.1	-0.7
TPUB	Ta-pu	34.47	326	P	P	23 32 25.5	+0.2
TPUB				IAmb	IAmb	23 32 53.2	
	comp=Z,85nm,1.6s						
NACB	Ninganchiao	34.66	329	P	P	23 32 27.4	+0.5
NACB				IAmb	IAmb	23 32 34.6	
	comp=Z,46nm,1.0s						
NACB	Ninganchiao	34.66	329	P	P	23 32 32.1	+5.2
	comp=Z,49nm,1.0s						
SSLB	Suanglung	34.69	327	P	P	23 32 26.9	-0.3
SSLB				IAmb	IAmb	23 32 36.4	
	comp=Z,42nm,1.3s						
NWAO	Narrogin (SRO)	34.96	215	LR	LR	23 47 33.9	
	comp=Z,964nm,20.0s,baz=54,slow=38						
NWAO	Narrogin (SRO)	34.96	215	P	P	23 32 29.1	-0.3
NWAO				pmax	pmax		
	comp=Z,83nm,1.4s						
NWAO	Narrogin (SRO)	34.96	215	P	P	23 32 29.1	-0.3
NWAO				IAmb	IAmb	23 33 16.7	
	comp=Z,82nm,1.4s						
YHNB	Yeheng	35.18	329	P	P	23 32 31.2	-0.3
DLV	Lat	36.18	299	P	P	23 32 38.3	-2.0
KNMB	Chin-men Tao	36.64	325	P	P	23 32 42.6	-1.3
MYKOM	Kota Tinggi	37.29	280	P	P	23 32 46.9	-2.7
MYKOM	Kota Tinggi	37.29	280	P	P	23 32 48.1	-1.6
	comp=Z,19nm,0.5s						
JHJ	Hachijo jima 2	38.28	359	LR	LR	23 45 39.7	
	comp=Z,1µm,18.9s,baz=66,slow=32						
MSVF	Nonsavu	38.70	112	LR	LR	23 48 28.6	
	comp=Z,452nm,18.6s,baz=219,slow=35						
MSVF	Nonsavu	38.70	112	P	P	23 33 01.8	+0.3
MSVF				pmax	pmax		
	comp=Z,67nm,1.5s						
MSVF	Nonsavu	38.70	112	P	P	23 33 01.8	+0.3
MSVF				IAmb	IAmb	23 33 18.4	
	comp=Z,67nm,1.5s						
QIZ	Qiongzhong	38.72	310	P	P	23 33 01.5	-0.1
QIZ				S	S	23 39 00.2	+1.3
JNU	Nakatsue	39.35	347	LR	LR	23 48 06.2	
	comp=Z,466nm,18.2s,baz=152,slow=34						
JMN	Monobe	39.38	351	P	P	23 33 07.6	+0.6
JMN				IAmb	IAmb	23 33 14.1	
	comp=Z,139nm,1.3s						
BKNI	Bangkinang	39.81	277	P	P	23 33 08.5	-2.3
BKNI				IAmb	IAmb	23 33 34.0	
	comp=Z,89nm,1.0s						
IPM	Ipoh	40.62	283	P	P	23 33 15.9	-1.6
IPM	Ipoh	40.62	283	P	P	23 33 17.1	-0.4
	comp=Z,23nm,1.1s						
JGF	Kuroka	40.85	356	P	P	23 33 19.7	+0.5
JGF				IAmb	IAmb	23 33 28.5	
	comp=Z,46nm,1.2s						
KULM	Kulim	41.18	284	P	P	23 33 19.3	-2.8
MJAR	Matsushiro Arr	41.74	357	P	P	23 33 25.4	-1.0
	comp=Z,1.3nm,0.4s,baz=175,slow=9.3,SNR=8.4						
MJAR				PcP	PcP	23 35 21.3	-1.5
	comp=Z,3.9nm,0.9s,baz=198,slow=3.4,SNR=4.5						
	comp=Z,1.3nm,0.4s						
MJAR	Matsushiro Arr	41.74	357	P	P	23 33 27.4	+1.0
MJAR				pmax	pmax		
	comp=Z,10.0nm,1.1s						
MJAR	Matsushiro Arr	41.74	357	P	P	23 33 27.4	+1.0
MAJO	Matsushiro	41.74	357	P	P	23 33 31.2	+4.8
	comp=Z,34nm,1.6s						
MJB9	Matsu-Tunnel	41.74	357	P	P	23 33 27.4	+0.9
RPSI	Rantau Prapat	42.29	280	P	P	23 33 28.5	-2.8
RPSI				IAmb	IAmb	23 33 52.3	
	comp=Z,41nm,0.8s						
RPSI	Rantau Prapat	42.29	280	P	P	23 33 29.7	-1.6
	comp=Z,64nm,1.1s						
PSI	Prapat	42.31	280	P	P	23 33 28.5	-3.1
PSI				pmax	pmax		
	comp=Z,41nm,0.8s						
NJ2	Nanjing	42.54	332	eP	P	23 33 36.0	+3.1
NJ2				pmax	pmax		
	comp=Z,25nm,0.8s						
CNSH	ChangSha	42.65	323	P	P	23 33 34.6	+0.7
CNSH				pmax	pmax		
	comp=Z,26nm,1.2s						
TJN	Taejon	43.31	344	P	P	23 33 39.6	+0.5
TJN				pmax	pmax		
	comp=Z,1µm,1.7s						
TJN	Taejon	43.31	344	P	P	23 33 39.6	+0.5
GSI	Gunungsitoli	43.38	278	P	P	23 33 38.1	-2.1
WHN	Wuhan	43.60	327	P	P	23 33 42.6	+1.0
WHN				sP	sP	23 33 49.5	+3.5
KSAR	Wonju Array Be	44.18	346	P	P	23 33 45.9	-0.2
KSAR	Wonju Array Be	44.18	346	P	P	23 33 45.9	-0.2
KSRS	Korea Array	44.18	346	P	P	23 33 45.4	-0.8
	comp=Z,1.7nm,0.5s,baz=188,slow=8.2,SNR=4.3						
KSRS				PcP	PP	23 35 28.1	-1.1
	comp=Z,6.7nm,1.0s,baz=172,slow=2.5,SNR=5.4						
KSRS				LR	LR	23 50 38.3	
	comp=Z,366nm,20.1s,baz=165,slow=34						
	comp=Z,1.7nm,0.5s						
KSRS	Korea Array	44.18	346	eP	P	23 33 46.7	+0.6
SLVN	Son La	44.63	308	P	P	23 33 48.6	-1.4
SLVN	Son La	44.63	308	P	P	23 33 49.4	-0.7
	comp=Z,14nm,1.6s						
QRZ	Quartz Range	45.49	146	P	P	23 33 57.4	+0.9
TKNZ	Takaka Hill	45.87	146	P	P	23 33 59.6	0.0
JTM	Tenmabayashi	45.93	1	P	P	23 34 00.8	+0.8
MRNZ	Matariki Terra	46.00	146	P	P	23 34 01.4	+0.8
DCZ	Deep Cove	46.20	154	P	P	23 34 02.3	+0.3
ENH	Enshi	46.24	322	P	P	23 34 02.3	-0.4
URZ	Urewera	46.65	140	LR	LR	23 53 03.2	
	comp=Z,541nm,20.7s,baz=311,slow=35						
RPZ	Rata Peaks	46.71	150	LR	LR	23 54 36.7	
	comp=Z,102nm,18.4s,baz=268,slow=37						
CM31	Chiang Mai Arr	47.31	301	P	P	23 34 11.0	-0.2
	SNR=29						
CM31	Chiang Mai Arr	47.31	301	P	P	23 34 10.6	-0.7
CMAR	Chiang Mai Arr	47.31	301	P	P	23 34 10.8	-0.5
	comp=Z,19nm,0.9s,baz=115,slow=7.9,SNR=108						
CMAR				LR	LR	23 53 28.9	
	comp=Z,96nm,21.9s,baz=115,slow=35						
	comp=Z,19nm,0.9s						
CMAR	Chiang Mai Arr	47.31	301	ceP	P	23 34 10.6	-0.7
CMAR				pmax	pmax		
	comp=Z,20nm,0.9s						
CMAR	Chiang Mai Arr	47.31	301	P	P	23 34 10.2	-1.0
DL2	Dalian	47.39	340	eP	P	23 34 07.6	-3.8
DL2				pmax	pmax		
	comp=Z,32nm,0.8s						
CHTO	Chiang Mai	47.47	301	P	P	23 34 10.8	-1.7
CHTO	Chiang Mai	47.47	301	P	P	23 34 11.4	-1.0
CHTO				pmax	pmax		
	comp=Z,44nm,0.9s						
CHTO	Chiang Mai	47.47	301		P	23 34 11.4	-1.0
CHTO				IAmb	IAmb	23 34 18.7	
	comp=Z,44nm,0.9s						
CHTO	Chiang Mai	47.47	301	P	P	23 34 11.6	-0.9
	comp=Z,56nm,1.0s						
KMI2	Kunming	47.60	311	P	P	23 34 13.4	-0.3
KMI2				sP	pP	23 34 19.8	+2.9
KMI2				pmax	pmax		
	comp=Z,13nm,1.2s						
KMI2				L	L		
	comp=Z,300nm,27.7s						
LYN	LuoYang	47.70	328	P	P	23 34 13.7	-0.3
LYN				sP	pP	23 34 20.7	+3.5
LYN				pmax	pmax		
	comp=Z,74nm,1.0s						
LYN				pmax	pmax		
	comp=Z,330nm,3.8s						
HNS	HongShan	48.87	333	⇓P	P	23 34 22.7	-0.2
HNS				pmax	pmax		
	comp=Z,28nm,1.1s						
HNS				L	L		
	comp=Z,260nm,15.9s						
HNS				L	L		
	comp=Z,370nm,15.9s						
HNS				L	L		
	comp=Z,370nm,21.4s						
PZH	PanZhiHua	49.11	312	P	P	23 34 26.6	+1.4
XAN	Xi'an	49.26	325	P	P	23 34 25.2	-0.9
XAN				pP	pP	23 34 30.8	+1.5
XAN				pmax	pmax		
	comp=Z,50nm,1.2s						
JKA	Kamikawa-asahi	49.29	2	P	P	23 34 27.2	+1.2
JKA				IAmb	IAmb	23 34 34.1	
	comp=Z,25nm,0.9s						
JKA	Kamikawa-asahi	49.29	2	P	P	23 34 32.5	+6.5
	comp=Z,31nm,1.0s						
ASAJ	Asahikawa	49.29	2	LR	LR	23 52 54.1	
	comp=Z,190nm,21.8s,baz=169,slow=33						
ASAJ	Asahikawa	49.29	2	P	P	23 34 27.2	+1.2
ASAJ				pmax	pmax		
	comp=Z,25nm,0.9s						
USA0B	Ussuriysk Arra	49.93	352	P	P	23 34 30.9	0.0
USA0B				pmax	pmax		
	comp=Z,28nm,1.1s						
USA0B	Ussuriysk Arra	49.93	352	P	P	23 34 30.9	0.0
USA0B				IAmb	IAmb	23 34 38.5	
	comp=Z,28nm,1.1s						
USRK	Ussuriysk Ar.	49.93	352	P	P	23 34 30.8	-0.1
	comp=Z,7.8nm,0.9s,baz=174,slow=5.9,SNR=10						

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USRK                              LR      LR      23 52 33.5
      comp=Z,549nm,20.8s,baz=164,slow=32
      comp=Z,7.8nm,0.9s
USRK  Ussuriysk Ar.     49.93 352         P       23 34 30.4 -0.5
BJI2  Beijing           50.41 336 P       P       23 34 33.3 -1.4
BJI2                              L       L
      comp=Z,360nm,17.9s
BJI2                              L       L
      comp=Z,170nm,17.9s
BJI2                              L       L
      comp=Z,250nm,18.5s
BJT   Baijiatuau        50.41 336 P       P       23 34 33.5 -1.2
BJT                               pmax    pmax
      comp=Z,73nm,1.9s
BJT   Baijiatuau        50.41 336 P       P       23 34 33.5 -1.2
BJT                               IAmb    IAmb    23 34 41.6
      comp=Z,73nm,1.9s
MDJ   Mudanjiang        50.71 350 P       P       23 34 36.6 -0.2
MDJ                               pmax    pmax
      comp=Z,16nm,1.2s
MDJ                               L       L
      comp=Z,460nm,4.7s
MDJ                               L       L
      comp=Z,430nm,5.3s
MDJ                               L       L
      comp=Z,550nm,9.7s
MDJ   Mudanjiang        50.71 350 P       P       23 34 36.0 -0.8
MDJ                               IAmb    IAmb    23 34 44.2
      comp=Z,35nm,1.1s
TNCH  TengChong         50.77 308 P       P       23 34 37.2 -0.7
TNCH                              pP      pP      23 34 41.9 +0.8
TNCH                              sP      sP      23 34 43.9 +1.5
TNCH                              pmax    pmax
      comp=Z,160nm,3.7s
CN2   Changchun         50.79 346 eP      P       23 34 40.4 +2.9
CN2                               esP     sP      23 34 47.0 +5.1
CN2                               eS      S       23 41 55.7 +2.4
CN2                               pmax    pmax
      comp=Z,10.0nm,0.6s
CN2                               pmax    pmax
      comp=Z,100nm,4.0s
CN2                               L       L
      comp=Z,200nm,14.0s
CN2                               L       L
      comp=Z,200nm,14.0s
CN2                               L       L
      comp=Z,300nm,15.0s
YSS   Yuzhno-Sakhali    52.13   2 eP      P       23 34 46.7 -0.7
YSS                               e*SP    pP      23 34 50.9 +0.2
YSS                               e               23 36 43.4
YSS                               eS      S       23 42 07.6 -4.0
YSS                               eSS     SS      23 45 51.9 +2.7
YSS                               pmax    pmax
      comp=Z,20nm,0.7s
YSS   Yuzhno-Sakhali    52.13   2 P       P       23 34 46.6 -0.8
YSS                               IAmb    IAmb    23 34 54.1
      comp=Z,27nm,0.8s
YSS   Yuzhno-Sakhali    52.13   2 P       P       23 34 47.2 -0.1
      comp=Z,31nm,0.8s
BNX   BinXian           52.20 348 ⇓P      P       23 34 47.8 -0.2
BNX                               pmax    pmax
      comp=Z,56nm,1.0s
HHC   Hu-ho-hao-te      53.09 333 eP      P       23 34 55.0 +0.2
HHC                               pmax    pmax
      comp=Z,18nm,0.5s
HHC                               pmax    pmax
      comp=Z,140nm,4.3s
HHC                               L       L
      comp=Z,180nm,16.0s
HHC                               L       L
      comp=Z,280nm,16.0s
HHC                               L       L
      comp=Z,280nm,15.3s
LZH   Lanzhou           53.66 323 eP      P       23 35 00.0 +0.8
LZH                               sP      sP      23 35 06.8 +3.2
LZH                               pmax    pmax
      comp=Z,91nm,1.1s
LZH                               pmax    pmax
      comp=Z,320nm,4.5s
LZDM  Lanzhou Array     53.66 323 P       P       23 34 59.5 +0.1
      comp=Z,1.4nm,0.3s,baz=123,slow=10,SNR=7.4
LZDM                              LR      LR      23 58 16.4
      comp=Z,79nm,19.9s,baz=270,slow=37
      comp=Z,1.4nm,0.3s
MORE  Moreh             53.76 305 P       P       23 34 57.5 -2.4
BTO2  Baotou            53.80 331 eP      P       23 34 59.3 -0.7
BTO2                              sP      pP      23 35 05.8 +2.5
BTO2                              PP      PP      23 37 00.1 -1.1
BTO2                              S       S       23 42 34.8 -0.1
BTO2                              pmax    pmax
      comp=Z,26nm,0.9s
BTO2                              pmax    pmax
      comp=Z,430nm,8.6s
BTO2                              L       L
      comp=Z,540nm,4.8s
BTO2                              L       L
      comp=Z,310nm,4.3s
BTO2                              L       L
      comp=Z,340nm,9.0s
KLR   Kul'dur           54.90 353 LR      LR      23 54 59.7
      comp=Z,339nm,21.8s,baz=176,slow=32
KLR   Kul'dur           54.90 353ceP      P       23 35 07.6 -0.1
KLR                               pmax    pmax
      comp=Z,61nm,1.7s
BRDH  Bariadhala        55.29 302 LR      LR      00 01 14.6
      comp=Z,133nm,18.6s,baz=150,slow=39
TYV   Tymovskoe         56.03   2 eP      P       23 35 16.0 +0.2
TYV                               pmax    pmax
      comp=Z,300nm,5.1s
TYV                               pmax    pmax
      comp=Z,18nm,1.4s
SHL   Shillong          56.31 305 P       P       23 35 17.9 -0.6
      SNR=11
SHL   Shillong          56.31 305 P       P       23 35 17.0 -1.6
SHL                               pmax    pmax
      comp=Z,46nm,1.1s
SHL   Shillong          56.31 305         P       23 35 17.0 -1.6
SHL                               IAmb    IAmb    23 35 24.9
      comp=Z,46nm,1.1s
HEH   HeiHe             56.54 350 eP      P       23 35 18.7 -0.8
HEH                               pmax    pmax
      comp=Z,32nm,1.4s
HIA   Hailar            57.34 344 P       P       23 35 24.5 -0.7
HIA                               pmax    pmax
      comp=Z,12nm,1.0s
HIA   Hailar            57.34 344 P       P       23 35 24.4 -0.7
HILR  Hailar Array B    57.59 344 P       P       23 35 26.1 -1.0
      comp=Z,9.8nm,0.9s,baz=132,slow=8.6,SNR=6.2
      comp=Z,9.8nm,0.9s
GTA2  Gaotai            58.33 324 P       P       23 35 32.9 +0.3
GTA2                              pP      pP      23 35 38.6 +2.8
GTA2                              pmax    pmax
      comp=Z,24nm,1.3s
LSA   Lhasa             58.76 309 P       P       23 35 34.5 -1.7
LSA                               pmax    pmax
      comp=Z,14nm,0.9s
LSA   Lhasa             58.76 309 P       P       23 35 34.5 -1.7
LSA                               IAmb    IAmb    23 35 51.2
      comp=Z,14nm,0.9s
GOMU  GeErMu            59.47 318 P       P       23 35 40.4 -0.4
GOMU                              pP      pP      23 35 44.5 +0.4
GOMU                              sP      sP      23 35 47.7 +2.4
GOMU                              pmax    pmax
      comp=Z,15nm,1.1s
ZEA   Zeya              59.93 351 eP      P       23 35 42.8 -0.3
ZEA                               pmax    pmax
      comp=N,30nm,0.9s
ZEA                               pmax    pmax
      comp=Z,40nm,1.1s
PETK  Petropavlovsk-    60.04  12 P       P       23 35 43.3 -0.6
      comp=Z,12nm,1.1s,baz=203,slow=6.8,SNR=4.9
PETK                              LR      LR      23 58 02.8
      comp=Z,188nm,21.8s,baz=199,slow=32
      comp=Z,12nm,1.1s
PETK  Petropavlovsk-    60.04  12 P       P       23 35 43.6 -0.4
PETK  Petropavlovsk-    60.04  12 P       P       23 35 43.6 -0.4
PET   Petropavlovsk     60.16  13 i P     P       23 35 45.1 +0.4
PET                               pmax    pmax
      comp=Z,11nm,1.2s
ULN   Ulaanbaatar       60.61 335 P       P       23 35 47.5 -0.6
ULN   Ulaanbaatar       60.61 335ceP      P       23 35 46.4 -1.7
ULN                               pmax    pmax
      comp=Z,11nm,1.0s
ULN   Ulaanbaatar       60.61 335         P       23 35 47.5 -0.6
ULN   Ulaanbaatar       60.61 335 P       P       23 35 47.9 -0.3
      comp=Z,17nm,1.8s
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SONM  Songino Array     60.87 334 P       P       23 35 49.3 -0.6
      comp=Z,2.1nm,0.8s,baz=152,slow=6.9,SNR=17
SONM                              LR      LR      00 02 42.1
      comp=Z,354nm,19.1s,baz=134,slow=37
      comp=Z,2.1nm,0.8s
SONM  Songino Array     60.87 334 eP      P       23 35 50.1 +0.2
SONM  Songino Array     60.87 334         P       23 35 49.4 -0.4
SONM                              IAmb    IAmb    23 36 00.7
      comp=Z,26nm,1.7s
PALK  Pallekele         60.97 281 LR      LR      00 04 17.9
      comp=Z,109nm,20.9s,baz=108,slow=38
PALK  Pallekele         60.97 281 P       P       23 35 50.0 -1.1
PALK  Pallekele         60.97 281ceP      P       23 35 48.0 -3.1
PALK                              pmax    pmax
      comp=Z,24nm,1.1s
EVN   Everest           61.42 306         P       23 35 53.4 -1.3
EVN   Everest           61.42 306 P       P       23 35 54.4 -0.3
      comp=Z,40nm,1.1s
CIT   Chita             61.61 341 eP      P       23 35 53.8 -0.9
CIT                               e               23 36 02.2
CIT                               e               23 36 34.2
CIT                               pmax    pmax
      comp=Z,91nm,1.6s
ZAK   Zakamensk         64.13 335 eP      P       23 36 11.0 -0.6
ZAK                               pmax    pmax
      comp=Z,26nm,1.3s
CASY  Casey             64.29 193         P       23 36 12.0 -0.3
CASY                              IAmb    IAmb    23 36 35.4
      comp=Z,62nm,1.9s
CASY  Casey             64.29 193 P       P       23 36 13.0 +0.7
      comp=Z,12nm,1.1s
SHEM  Shemya Is, Ala    64.49  22 LR      LR      23 59 55.2
      comp=Z,239nm,20.7s,baz=217,slow=32
SHEM  Shemya Is, Ala    64.49  22 P       P       23 36 15.0 +1.3
MA2   Magadan           65.25   6 P       P       23 36 18.0 -0.6
      comp=Z,7.0nm,0.5s,baz=180,slow=4.0,SNR=4.9
MA2                               LR      LR      00 00 28.4
      comp=Z,110nm,21.9s,baz=180,slow=32
      comp=Z,7.0nm,0.5s
MA2   Magadan           65.25   6ceP      P       23 36 19.3 +0.7
MA2                               pmax    pmax
      comp=Z,19nm,1.0s
MA2   Magadan           65.25   6         P       23 36 18.9 +0.3
MA2   Magadan           65.25   6 P       P       23 36 18.6  0.0
      comp=Z,34nm,1.0s
MA2   Magadan           65.25   6 P       P       23 36 18.8 +0.3
      comp=Z,30nm,1.0s
MOY   Mondy             66.06 334 eP      P       23 36 24.1  0.0
MOY                               pmax    pmax
      comp=Z,51nm,2.0s
KIWB  Kanaga Island     67.44  27 P       P       23 36 32.6 -0.2
YAK   Yakutsk           67.72 355 LR      LR      00 02 40.3
      comp=Z,214nm,21.6s,baz=167,slow=33
YAK   Yakutsk           67.72 355ceP      P       23 36 33.9 -0.4
YAK                               pmax    pmax
      comp=Z,40nm,1.0s
YAK   Yakutsk           67.72 355 P       P       23 36 33.8 -0.4
WMQ   Urumqi            68.18 322 ⇑P      P       23 36 38.1 +0.3
WMQ                               pP      pP      23 36 43.5 +2.4
WMQ                               pmax    pmax
      comp=Z,34nm,1.5s
WMQ                               pmax    pmax
      comp=Z,180nm,3.8s
WMQ                               L       L
      comp=Z,77nm,24.3s
SEY   Seymchan          68.70   6 P       P       23 36 40.2 -0.3
      comp=Z,9.6nm,1.0s,baz=180,slow=8.1,SNR=7.0
      comp=Z,9.6nm,1.0s
SEY   Seymchan          68.70   6ceP      P       23 36 39.6 -0.9
SEY                               pmax    pmax
      comp=Z,17nm,1.0s
PPT2  Papeete2          69.27 107 eLR     LR      23 57 45.2
      comp=Z,129nm,20.8s
PPT2                              eLR     LR      23 57 46.0
      comp=Z,156nm,22.8s
ZSN   Zaisan            71.74 324 eP      P       23 36 59.6 +0.1
ZSN                               pmax    pmax
      comp=Z,11nm,1.1s
ZSN   Zaisan            71.74 324 eP      P       23 36 59.6 +0.1
      comp=Z,11nm,1.1s
WUS   Wushi             72.54 316 P       P       23 37 04.1 -0.5
WUS                               IAmb    IAmb    23 37 12.4
      comp=Z,67nm,1.4s
MK31  Makanchi Array    72.97 322 i P     P       23 37 06.5 -0.3
MK31                              pmax    pmax
      comp=Z,34nm,1.0s
MKAR  Makanchi Array    72.97 322 P       P       23 37 06.8  0.0
      comp=Z,33nm,0.9s,baz=118,slow=7.3,SNR=184
MKAR                              LR      LR      00 10 56.6
      comp=Z,102nm,20.0s,baz=92,slow=37
      comp=Z,33nm,0.9s
VNDA  Vanda             73.00 175 P       P       23 37 07.3 +0.8
      comp=Z,1.2nm,0.8s,baz=330,slow=5.0,SNR=3.9
VNDA                              LR      LR      00 08 56.0
      comp=Z,685nm,18.6s,baz=352,slow=36
      comp=Z,1.2nm,0.8s
VNDA  Vanda             73.00 175 P       P       23 37 06.8 +0.3
MAKZ  Makanchi          73.16 322 P       P       23 37 08.2 +0.2
MAKZ                              pmax    pmax
      comp=Z,61nm,1.0s
MAKZ  Makanchi          73.16 322         P       23 37 08.2 +0.2
SHLS  Shalkode          73.17 318c iP     P       23 37 06.4 -1.9
SHLS                              pmax    pmax
      comp=Z,30nm,1.4s
SHLS  Shalkode          73.17 318⇑iP      P       23 37 06.4 -1.8
      comp=Z,30nm,1.4s
PDGK  Podgornoye        73.22 318 P       P       23 37 07.9 -0.6
PDGK  Podgornoye        73.22 318 P       P       23 37 07.9 -0.6
UZB   Uzynbulak         73.46 318 eP      P       23 37 09.9 -0.1
UZB                               pmax    pmax
      comp=Z,26nm,1.0s
UZB   Uzynbulak         73.46 318 eP      P       23 37 09.9 -0.1
      comp=Z,26nm,1.0s
PRZ   Przheval'sk       73.61 317 P       P       23 37 10.8 -0.1
PRZ                               pmax    pmax
      comp=Z,98nm,1.2s
PRZ   Przheval'sk       73.61 317         P       23 37 10.8 -0.1
TARG  Taragay, Kyrgy    73.72 316 P       P       23 37 11.5 -0.4
TARG                              pmax    pmax
      comp=Z,40nm,1.2s
TARG  Taragay, Kyrgy    73.72 316         P       23 37 11.5 -0.4
TARG                              IAmb    IAmb    23 37 31.4
      comp=Z,40nm,1.2s
TARG  Taragay, Kyrgy    73.72 316 P       P       23 37 12.3 +0.4
      comp=Z,31nm,1.3s
KPKS  Kokpek            73.81 318 eP      P       23 37 11.7 -0.3
KPKS  Kokpek            73.81 318 eP      P       23 37 11.8 -0.3
SATY  Saty              73.84 318c iP     P       23 37 12.0 -0.2
SATY                              pmax    pmax
      comp=Z,33nm,1.1s
SATY  Saty              73.84 318⇑iP      P       23 37 12.0 -0.2
      comp=Z,33nm,1.1s
KDJ   Kajisay           74.31 316 P       P       23 37 14.8 -0.2
KDJ                               pmax    pmax
      comp=Z,29nm,1.0s
KDJ   Kajisay           74.31 316         P       23 37 14.8 -0.2
KDJ                               IAmb    IAmb    23 37 22.9
      comp=Z,28nm,1.0s
ASAI  AK-SAY(Kyrgyzs    74.31 315 P       P       23 37 15.4 +0.1
      comp=Z,19nm,1.8s
NIL   Nilore            74.34 307 P       P       23 37 15.0 -0.2
NIL   Nilore            74.34 307 P       P       23 37 14.6 -0.6
NIL                               pmax    pmax
      comp=Z,83nm,1.0s
NIL   Nilore            74.34 307         P       23 37 14.6 -0.6
NIL   Nilore            74.34 307 P       P       23 37 15.0 -0.2
      comp=Z,98nm,1.1s
KSH2  Kashi             74.36 313 P       P       23 37 15.3  0.0
KSH2                              pP      pP      23 37 20.5 +1.8
KSH2                              PcP     PcP     23 37 29.5 -0.6
KSH2                              pmax    pmax
      comp=Z,22nm,1.1s
TDK   Taldyqorghan      74.62 319c iP     P       23 37 16.7 +0.1
TDK                               pmax    pmax
      comp=Z,26nm,1.2s
TDK   Taldyqorghan      74.62 319⇑iP      P       23 37 16.7 +0.1
      comp=Z,26nm,1.2s
MDOK  Medeo             74.79 317 eP      P       23 37 17.6 -0.2
MDOK  Medeo             74.79 317 eP      P       23 37 17.6 -0.2
TNSS  Tian-Shan         74.81 317 eP      P       23 37 17.8 -0.4
TNSS  Tian-Shan         74.81 317 eP      P       23 37 17.8 -0.4
NRN   Naryn             74.86 315 P       P       23 37 17.6 -0.9
NRN                               pmax    pmax
      comp=Z,22nm,1.0s
NRN   Naryn             74.86 315         P       23 37 17.6 -0.9
NRN                               IAmb    IAmb    23 37 25.9
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      comp=Z,22nm,1.0s
AAA   Alma-Ata          74.90 317 eP      P       23 37 18.2 -0.1
AAA                               pmax    pmax
      comp=Z,25nm,0.9s
AAA   Alma-Ata          74.90 317 eP      P       23 37 18.3 -0.1
      comp=Z,25nm,0.9s
ZAA0  Zalesovo Array    75.11 330         P       23 37 17.4 -1.8
ZALV  Zalesovo Beam     75.11 330 P       P       23 37 17.8 -1.4
      comp=Z,7.4nm,0.9s,baz=106,slow=4.9,SNR=26
ZALV                              LR      LR      00 11 09.4
      comp=Z,126nm,19.6s,baz=106,slow=36
      comp=Z,7.4nm,0.9s
ZALV  Zalesovo Beam     75.11 330 i P     P       23 37 17.7 -1.5
ZALV                              pmax    pmax
      comp=Z,8.0nm,1.0s
ZALV  Zalesovo Beam     75.11 330         P       23 37 17.5 -1.6
BOOM  Boomskoye usch    75.29 316 P       P       23 37 20.0 -0.7
BOOM                              pmax    pmax
      comp=Z,28nm,1.0s
BOOM  Boomskoye usch    75.29 316 P       P       23 37 19.9 -0.7
BOOM                              IAmb    IAmb    23 37 22.1
      comp=Z,28nm,1.0s
BILL  Bilibino          75.45  10 i P     P       23 37 20.7 -0.1
BILL                              pmax    pmax
      comp=Z,9.0nm,1.3s
KUU   Kurty             75.55 318 eP      P       23 37 22.0 +0.1
KUU   Kurty             75.55 318 eP      P       23 37 22.0 +0.1
TKM2  Tokmak 2          75.69 317 P       P       23 37 22.9 -0.1
      SNR=18
UCH   Uchtor            76.19 316 P       P       23 37 26.5 +0.4
      SNR=25
CHMS  Chumysh           76.29 316 P       P       23 37 26.4 +0.2
      SNR=9.3
FRU1  Bishkek           76.31 316 P       P       23 37 25.0 -1.4
FRU1                              pmax    pmax
      comp=Z,14nm,1.0s
FRU1  Bishkek           76.31 316 P       P       23 37 25.0 -1.4
AAK   Ala-Archa         76.34 316 P       P       23 37 26.3 -0.4
      comp=Z,5.5nm,0.8s,baz=113,slow=5.0,SNR=5.5
      comp=Z,5.5nm,0.8s
AAK   Ala-Archa         76.34 316 P       P       23 37 27.3 +0.6
      SNR=7.6
AAK   Ala-Archa         76.34 316ceP      P       23 37 25.2 -1.5
AAK                               pmax    pmax
      comp=Z,23nm,1.3s
AAK   Ala-Archa         76.34 316 P       P       23 37 25.8 -0.9
AAK                               IAmb    IAmb    23 37 28.0
      comp=Z,26nm,1.3s
AAK   Ala-Archa         76.34 316 P       P       23 37 26.9 +0.2
      comp=Z,17nm,1.2s
SGDS  Sogindy           76.54 317⇑iP      P       23 37 27.3 -0.3
USP   Ospenovka         76.56 317 P       P       23 37 27.6 -0.2
      SNR=39
EKS2  Erkin-Say         76.85 316 P       P       23 37 29.6 +0.1
      SNR=17
KURK  Kurchatov         76.90 325ceP      P       23 37 28.9 -0.5
KURK                              pmax    pmax
      comp=Z,48nm,1.3s
KURK  Kurchatov         76.90 325         P       23 37 28.6 -0.8
KURK                              IAmb    IAmb    23 37 30.1
      comp=Z,39nm,1.2s
KURK  Kurchatov         76.90 325 P       P       23 37 29.0 -0.4
      comp=Z,33nm,1.6s
KURBB Kurchatov Arra    76.91 325 P       P       23 37 28.8 -0.7
      comp=Z,19nm,1.1s,baz=116,slow=5.0,SNR=77
KURBB                             PP      PP      23 40 21.4 -1.3
      comp=Z,1.6nm,0.8s,baz=130,slow=7.1,SNR=4.2
      comp=Z,19nm,1.1s
ARSB  Arslanbob         76.96 314 P       P       23 37 29.4 -0.8
ARSB                              pmax    pmax
      comp=Z,59nm,1.1s
ARSB  Arslanbob         76.96 314         P       23 37 29.4 -0.8
ARSB                              IAmb    IAmb    23 37 37.8
      comp=Z,59nm,1.1s
DRK   Karamyk           77.22 312 P       P       23 37 31.3 -0.6
DRK                               pmax    pmax
      comp=Z,45nm,0.3s
DRK   Karamyk           77.22 312         P       23 37 31.3 -0.6
TIXI  Tiksi             77.24 356 LR      LR      00 09 07.8
      comp=Z,112nm,21.6s,baz=181,slow=34
SDPT  Sand Point        77.50  30 P       P       23 37 32.7  0.0
KBL   Kabul             77.94 307 P       P       23 37 34.7 -1.2
      SNR=12
KBL   Kabul             77.94 307 P       P       23 37 34.4 -1.5
KBL                               pmax    pmax
      comp=Z,25nm,1.0s
KBL   Kabul             77.94 307         P       23 37 34.4 -1.6
KBL                               IAmb    IAmb    23 37 42.2
      comp=Z,25nm,1.0s
BTK   Batken            78.12 313 P       P       23 37 35.7 -1.0
BTK                               pmax    pmax
      comp=Z,39nm,1.3s
BTK   Batken            78.12 313 P       P       23 37 35.7 -1.0
BTK                               IAmb    IAmb    23 37 44.1
      comp=Z,39nm,1.3s
DZA   Taraz             78.62 316 eP      P       23 37 39.0 -0.3
DZA                               pmax    pmax
      comp=Z,10.0nm,0.8s
DZA   Taraz             78.62 316 eP      P       23 37 39.1 -0.3
      comp=Z,10nm,0.8s
O14K  Tigyukauivet M    79.07  26         P       23 37 41.5 +0.2
K13K  Kusilvak Mount    79.08  23 P       P       23 37 41.7 +0.4
K13K                              IAmb    IAmb    23 37 54.3
      comp=Z,24nm,0.9s
KK31  Karatay Array     79.26 316 P       P       23 37 41.4 -1.4
KK31                              pmax    pmax
      comp=Z,42nm,1.5s
KK31  Karatay Array     79.26 316         P       23 37 41.4 -1.4
KK31                              IAmb    IAmb    23 37 50.0
      comp=Z,42nm,1.4s
KKAR  Karatay Array     79.26 316 P       P       23 37 41.7 -1.1
KKAR  Karatay Array     79.26 316         P       23 37 41.7 -1.1
IUG   Iuzhnay           79.31 314c iP     P       23 37 43.0 -0.2
IUG                               pmax    pmax
      comp=Z,18nm,0.9s
IUG   Iuzhnay           79.31 314⇑iP      P       23 37 43.0 -0.2
      comp=Z,18nm,0.9s
CHM   Chimkent          79.67 315 eP      P       23 37 44.9 -0.1
CHM                               pmax    pmax
      comp=Z,20nm,1.1s
CHM   Chimkent          79.67 315 eP      P       23 37 45.0 -0.1
      comp=Z,20nm,1.1s
BRLS  Borolday          79.71 315 eP      P       23 37 45.0 -0.2
BRLS                              pmax    pmax
      comp=Z,16nm,1.1s
BRLS  Borolday          79.71 315 eP      P       23 37 45.1 -0.2
      comp=Z,16nm,1.1s
MAW   Mawson            80.36 202 P       P       23 37 49.4 +1.2
      comp=Z,3.2nm,1.4s
MAW   Mawson            80.36 202 P       P       23 37 48.8 +0.6
      comp=Z,14nm,1.1s,baz=67,slow=6.0,SNR=19
MAW                               LR      LR      00 11 06.8
      comp=Z,353nm,18.4s,baz=76,slow=34
      comp=Z,14nm,1.1s
MAW   Mawson            80.36 202         P       23 37 48.3 +0.1
OHAK  Old Harbor        81.92  30         P       23 37 56.4 -0.2
OHAK                              IAmb    IAmb    23 38 09.1
      comp=Z,30nm,1.0s
BVAR  Borovoye Array    82.50 325 P       P       23 37 59.0 -0.8
      comp=Z,12nm,0.8s,baz=98,slow=6.2,SNR=34
      comp=Z,12nm,0.8s
BORK  Borovoye          82.54 325 i P     P       23 37 59.6 -0.4
BORK                              pmax    pmax
      comp=Z,19nm,1.0s
BORK  Borovoye          82.54 325         P       23 37 59.2 -0.8
BORK                              IAmb    IAmb    23 38 15.0
      comp=Z,16nm,0.8s
HRA   Herat             83.37 305         P       23 38 03.8 -1.2
HRA                               IAmb    IAmb    23 38 11.7
      comp=Z,26nm,1.4s
CNPM  China Poot        83.80  28         P       23 38 07.0 +0.5
CNPM                              IAmb    IAmb    23 38 19.1
      comp=Z,26nm,0.8s
C18K  Utukok River      83.96  18 P       P       23 38 07.7 +0.5
C18K                              IAmb    IAmb    23 38 17.1
      comp=Z,14nm,0.9s
QSPA  South Pole Qui    84.60 180 P       P       23 38 10.3 -0.3
      comp=Z,3.6nm,0.9s,baz=333,slow=2.6,SNR=7.8
QSPA                              LR      LR      00 15 39.9
      comp=Z,385nm,18.8s,baz=358,slow=36
      comp=Z,3.6nm,0.9s
QSPA  South Pole Qui    84.60 180 P       P       23 38 09.9 -0.7
QSPA                              IAmb    IAmb    23 38 19.0
      comp=Z,21nm,1.1s
PPLA  Purkeypile        84.64  25 P       P       23 38 10.2 -0.6
CAST  Castle Rocks      84.89  25 P       P       23 38 11.1 -0.8
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CAST				IAmb	IAmb	23 38 25.9	
	comp=Z,18nm,0.8s						
MHTO	MHTO	84.96	292	P	P	23 38 12.0	-1.1
MHTO				S	SKSac	23 48 32.5	-5.8
JMDO	Jabal Madar	85.02	293	P	P	23 38 13.2	-0.3
M22K	Willow	85.11	27	P	P	23 38 11.8	-1.2
BIDO	Bidbid	85.16	294	P	P	23 38 13.8	-0.3
	SNR=11						
SMDO	Samad	85.16	294	P	P	23 38 13.5	-0.7
IMAR	Indian Mountai	85.26	22	P	P	23 38 12.9	-0.8
BSY	Bisya	85.90	293	P	P	23 38 16.5	-1.3
HOQ	Hoqain	85.91	294	P	P	23 38 18.0	+0.1
	SNR=12						
MLY	Manley	86.04	23		P	23 38 16.9	-0.7
SCM	Sheep Creek Mo	86.39	27	P	P	23 38 18.6	-0.9
SCM				pmax	pmax		
	comp=Z,43nm,1.0s						
SCM	Sheep Creek Mo	86.39	27	P	P	23 38 18.6	-0.9
ARQ	Araqi	86.59	294	P	P	23 38 21.0	-0.2
	SNR=5.3						
SOHO	SOHO	86.68	294	P	P	23 38 20.7	-0.9
UOSS	Minazif	87.08	295	P	P	23 38 22.6	-1.0
UOSS	Minazif	87.08	295	P	P	23 38 22.1	-1.5
UOSS				IAmb	IAmb	23 38 32.7	
	comp=Z,20nm,1.3s						
COLA	College	87.14	24	iP	P	23 38 21.7	-1.2
COLA				pmax	pmax		
	comp=Z,10.0nm,1.0s						
MASF	Masafi	87.18	296	P	P	23 38 22.9	-1.2
ASHO	Ashiyiah	87.18	295	P	P	23 38 22.7	-1.4
SHME	Shamm	87.28	296	P	P	23 38 24.0	-0.4
ILAR	Eielson Array	87.50	24	P	P	23 38 22.6	-2.1
	comp=Z,11nm,1.0s,baz=259,slow=4.8,SNR=50						
	comp=Z,11nm,1.0s						
UMZA	Um Al Zommool	87.76	293	P	P	23 38 25.0	-1.8
ASUD	Al Ashush, Dub	87.83	295	P	P	23 38 25.3	-1.8
AB31	Akbulak array	87.89	320	iP	P	23 38 24.7	-2.2
AB31				pmax	pmax		
	comp=Z,12nm,1.1s						
AB31	Akbulak array	87.89	320		P	23 38 24.9	-1.9
AB31				IAmb	IAmb	23 38 33.9	
	comp=Z,11nm,0.9s						
ABKAR	Akbulak array	87.89	320		P	23 38 24.8	-2.1
RBK	Rabkut	88.07	288	P	P	23 38 27.5	-1.1
TGL	Tana Glacier	88.17	29	P	P	23 38 27.7	-0.5
WHFO	Wadi Hawf	88.53	288	P	P	23 38 29.9	-0.7
FYU	Fort Yukon	88.69	23	P	P	23 38 30.0	-0.3
SVE	Sverdlovsk	88.92	327	eP	P	23 38 30.1	-1.5
SVE				pmax	pmax		
	comp=Z,27nm,1.4s						
BMAR	Burnt Mountain	89.18	22		P	23 38 32.4	-0.3
BCAR	Beaver Creek A	89.21	26		P	23 38 32.4	-0.5
AKTO	Aktyubinsk	89.32	321	P	P	23 38 31.8	-1.9
	comp=Z,4.8nm,0.9s,baz=81,slow=3.3,SNR=11						
	comp=Z,4.8nm,0.9s						
MZR	Muzera	89.33	293	P	P	23 38 33.8	-0.5
ARTI	Arti	90.07	327	P	P	23 38 34.7	-2.3
	comp=Z,12nm,0.9s,baz=127,slow=1.6,SNR=16						
ARTI				LR	LR	00 21 16.1	
	comp=Z,129nm,20.2s,baz=86,slow=37						
	comp=Z,12nm,0.9s						
ARTI	Arti	90.07	327	c iP	P	23 38 34.8	-2.2
ARTI						23 42 06.2	
ARTI				S	SKSac	23 49 04.7	-3.3
ARTI				pmax	pmax		
	comp=Z,28nm,1.2s						
ARTI	Arti	90.07	327		P	23 38 34.7	-2.3
ARTI				IAmb	IAmb	23 38 36.1	
	comp=Z,36nm,1.3s						
DAWY	Dawson	90.47	26	P	P	23 38 38.2	-0.6
DAWY				IAmb	IAmb	23 38 46.9	
	comp=Z,36nm,1.1s						
HYT	Haines Junctio	90.75	29		P	23 38 39.6	-0.6
HYT				IAmb	IAmb	23 38 50.0	
	comp=Z,14nm,1.0s						
ELIB	Princess Elisa	93.06	196	dP	P	23 38 51.6	+0.7
	comp=Z,12nm,1.1s						
DLBC	Dease Lake	94.25	32	LR	LR	00 16 11.7	
	comp=Z,136nm,19.7s,baz=228,slow=32						
BBB	Bella Bella	95.05	38	LR	LR	00 16 54.9	
	comp=Z,162nm,19.2s,baz=238,slow=32						
KIRV	Kirov	95.10	328	P	P	23 38 57.9	-2.3
	comp=Z,3.9nm,0.8s,baz=112,slow=7.9,SNR=4.7						
	comp=Z,3.9nm,0.8s						
KIRV	Kirov	95.10	328	ceP	P	23 38 58.8	-1.4
MAK	Makhachkala	95.81	313	eP	P	23 38 57.8	-6.0
MAK				e		23 42 52.5	
MAK				ePPP	PPP	23 44 55.3	
MAK				e		23 49 30.6	
MAK				eSS	SS	23 56 45.3	-6.4
MAK				eSSS	SSS	00 00 35.5	
MAK				pmax	pmax		
	comp=Z,107nm,1.3s						
BELG	Belogornoye	95.97	322	P	P	23 39 01.7	-2.5
	comp=Z,28nm,0.9s,baz=58,slow=3.8,SNR=7.5						
BELG	Belogornoye	95.97	322	iP	P	23 39 02.6	-1.6
BELG				pmax	pmax		
	comp=Z,6.0nm,1.0s						
RAYN	Ar Rayn	96.69	293	P	P	23 39 06.3	-2.0
RAYN				pmax	pmax		
	comp=Z,11nm,1.4s						
RAYN	Ar Rayn	96.69	293		P	23 39 06.2	-2.1
RAYN				IAmb	IAmb	23 39 14.5	
	comp=Z,11nm,1.4s						
NVL	N'lazarevskaya	96.81	195	eP	P	23 39 14.0	+6.2
NVL				pmax	pmax		
	comp=Z,7.0nm,0.9s						
BELA	Belgrano 2	96.83	181	P	P	23 39 07.0	-0.8
BELA				IAmb	IAmb	23 39 15.1	
	comp=Z,9.9nm,1.1s						
GNI	Garni	97.83	310	P	P	23 39 11.9	-1.3
TROLL	Troll, Antarti	98.14	192	P	P	23 39 14.0	0.0
	comp=Z,411nm,0.9s						
O02D	Mt. Diablo Mer	98.56	50		P	23 39 16.0	-0.4
O02D				IAmb	IAmb	23 39 24.4	
	comp=Z,11nm,1.1s						
YBH	Yreka Blue Hor	98.61	49	LR	LR	00 17 45.5	
	comp=Z,173nm,19.2s,baz=307,slow=32						
KBZ	Khabaz	99.17	313	LR	LR	00 30 00.6	
	comp=Z,36nm,20.1s,baz=59,slow=39						
KBZ	Khabaz	99.17	313	iP	Pdif	23 39 16.9	-2.0
KBZ				pmax	pmax		
	comp=Z,2.0nm,1.1s						
KIV	Kislovodsk	99.32	314	eP	Pdif	23 39 18.2	-1.6
KIV				pmax	pmax		
	comp=Z,4.0nm,1.1s						
SHA1	Shidzhatmaz	99.35	313	ceP	Pdif	23 39 19.1	-1.0
SNAA	Sanae	99.47	191	⇑P	Pdif	23 39 19.6	-0.2
	comp=Z,125nm,1.1s						
SNAA	Sanae	99.47	191	P	Pdif	23 39 19.3	-0.6
	comp=Z,3.7nm,0.9s,baz=116,slow=5.4,SNR=5.5						
SNAA				LR	LR	00 24 58.9	
	comp=Z,218nm,18.5s,baz=115,slow=36						
	comp=Z,3.7nm,0.9s						
SNAA	Sanae	99.47	191	ceP	Pdif	23 39 20.4	+0.6
SNAA				pmax	pmax		
	comp=Z,11nm,1.4s						
SNAA	Sanae	99.47	191		Pdif	23 39 18.3	-1.6
SNAA				IAmb	IAmb	23 39 29.0	
	comp=Z,8.5nm,1.1s						
VRH	Novokhopyorsk	99.66	321	eP	Pdif	23 39 18.6	-2.3
VRH				pmax	pmax		
	comp=Z,12nm,1.0s						
KLMR	Klimovskoe	100.01	331	eP	Pdif	23 39 18.1	-4.1
KLMR				e		23 43 22.3	
KLMR				pmax	pmax		
	comp=Z,12nm,1.3s						
VORR	Voronezh	101.19	322	P	Pdif	23 39 26.2	-1.5
VORR				pmax	pmax		
	comp=Z,11nm,0.9s						
VSR	Storozhevoye	101.26	321	eP	Pdif	23 39 25.9	-2.1
VSR				pmax	pmax		
	comp=Z,8.0nm,1.2s						
LPSR	Galich'ya Gora	101.27	322	eP	Pdif	23 39 26.1	-1.9
LPSR				pmax	pmax		
	comp=Z,7.0nm,1.0s						
APA	Apatity	101.42	338	eP	Pdif	23 39 29.7	+1.3
APA				e		23 43 37.3	
APA				eS	Sdif	23 51 03.0	-5.4
APA				ePS	PS	23 52 40.1	-1.2
APA				MLR	MLR		
	comp=Z,241nm,19.4s						
MOS	Moscow	101.66	326	eP	Pdif	23 39 27.3	-2.4
MOS				e		23 43 39.1	
OBN	Obninsk	102.34	325	⇓eP	Pdif	23 39 31.1	-1.6
OBN				e		23 43 43.6	
OBN				pmax	pmax		
	comp=Z,9.0nm,1.5s						
ARCES	ARCESS Array B	103.58	341	Pdiff	Pdif	23 39 35.8	-2.2
	comp=Z,6.6nm,1.0s,baz=44,slow=4.0,SNR=8.1						
ARCES	ARCESS Array B	103.58	341	P	Pdif	23 39 37.0	-1.0
ARCES	ARCESS Array B	103.58	341		Pdif	23 39 37.0	-1.0
MNK	Minsk	107.38	326	iP	Pdif	23 39 54.4	-0.7
MNK				i		23 44 21.7	
MNK				iPPP	PPP	23 46 37.2	
MNK				i		23 51 15.4	
MNK				iPS	PS	23 53 43.6	-0.5
MNK				iSS	SS	23 59 31.8	+0.5
MNK				pmax	pmax		
	comp=E,12nm,1.2s						
MNK				pmax	pmax		
	comp=N,9.0nm,1.2s						
MNK				pmax	pmax		
	comp=Z,10.0nm,0.7s						
MNK	Minsk	107.38	326	iP	Pdif	23 39 54.5	-0.7
	comp=E,12nm,1.2s						
MNK				iP	Pdif	23 39 54.5	-0.7
	comp=N,9.0nm,1.2s						
MNK				iP	Pdif	23 39 54.5	-0.7
	comp=Z,10.0nm,0.7s,baz=74						
MNK				iPP	PP	23 44 21.7	-0.7
MNK				iPPP	PPP	23 46 37.3	
MNK				iSKS	SKSdf	23 51 15.5	-0.3
MNK				iPS	PS	23 53 43.6	-0.5
MNK				iSS	SS	23 59 31.9	+0.5
MNK				iSSS	SSS	00 03 33.5	
MNK				iLQ	LQ	00 21 13.1	
ANMO	Albuquerque	111.91	55	c iPKIKP	PKiKP	23 44 11.5	-1.7
ANMO				pmax	pmax		
	comp=Z,5.0nm,2.5s						
MORC	Moravsky Berou	114.95	323	ePKIKP	PKiKP	23 44 18.4	0.0
TXAR	Lajitas Array	115.09	60	PKP	PKPdf	23 44 17.6	-1.7
	comp=Z,0.6nm,1.0s,baz=298,slow=4.5,SNR=4.0						
JAVC	Velka Javorina	115.23	322	ePKIKP	PKiKP	23 44 19.4	+0.5
VRAC	Vranov	115.70	323	ePKIKP	PKiKP	23 44 18.9	-0.9
KRUC	Moravsky	115.92	323	ePKIKP	PKiKP	23 44 20.1	-0.1
WINA	Alland / Wiene	116.50	322	iPKiKP	PKPdf	23 44 21.9	+0.5
	comp=Z,3.7nm,1.2s						
RONA	Rosalia, Austr	116.52	321	iPKP	PKPdf	23 44 21.7	+0.2
	comp=Z,3.8nm,1.1s						
CONA	Conrad Observa	116.70	322	iPKP	PKPdf	23 44 21.9	+0.1
	comp=Z,3.2nm,1.1s						
CLL	Collm	116.92	326	e(PKiKP)	PKPdf	23 44 25.0	+3.0
CLL				LH		00 21 00.0	
CLL				LV		00 26 00.0	
CLL				AMS	AMS	00 37 00.0	
	comp=N,200nm,21.1s						
CLL				AMS	AMS	00 37 00.0	
	comp=Z,200nm,21.1s						
GERES	GERESS Array B	117.63	323	PKP	PKPdf	23 44 21.7	-1.9
	comp=Z,0.4nm,0.3s,baz=116,slow=3.1,SNR=5.0						
GERES	GERESS Array B	117.63	323	PKIKP	PKPdf	23 44 22.2	-1.4
GERES	GERESS Array B	117.63	323		PKPdf	23 44 22.2	-1.4
SOKA	Soboth	117.72	321	ePKP	PKPdf	23 44 23.8	-0.1
	comp=Z,3.5nm,1.2s						
KBA	Koelnbreinsper	118.61	322	ePKP	PKPdf	23 44 25.1	-0.5
	comp=Z,3.7nm,1.1s						
BRDY	Brady	118.73	57		PKPdf	23 44 25.5	-0.7
LESA	Schwarzleotal	118.86	322	ePKP	PKPdf	23 44 25.5	-0.5
	comp=Z,3.2nm,1.1s						
TIP	Timpagrande	119.23	312		PKPdf	23 44 25.9	-1.1
ABTA	Abfaltersbach	119.26	322	ePKP	PKPdf	23 44 25.7	-1.1
	comp=Z,6.3nm,1.1s						
STAL	STALIGIAL	119.35	321		PKPdf	23 44 25.8	-1.2
WTTA	Wattenberg	119.57	322	iPKP	PKPdf	23 44 26.4	-1.2
	comp=Z,12nm,1.2s						
WATA	Walderalm	119.57	323	iPKP	PKPdf	23 44 27.3	-0.2
	comp=Z,6.9nm,1.3s						
SQTA	Sankt Quirin	119.85	323	ePKP	PKPdf	23 44 28.1	+0.1
	comp=Z,5.9nm,1.1s						
MOTA	Moosalm	119.86	323	ePKP	PKPdf	23 44 27.7	-0.3
	comp=Z,6.1nm,1.2s						
FETA	Feichten	120.23	323	ePKiKP	PKPdf	23 44 29.0	+0.3
	comp=Z,4.3nm,1.0s						
DAVA	Damuels	120.62	323	ePKiKP	PKPdf	23 44 29.8	+0.3
	comp=Z,3.6nm,0.8s						
FUORN	Ofenpass-Fuorn	120.70	322		PKPdf	23 44 28.4	-1.4
P38A	Dawn	120.71	47		PKPdf	23 44 28.0	-1.7
U38A	Gravette	121.11	50		PKPdf	23 44 29.3	-1.3
TUE	Stuetta	121.33	322		PKPdf	23 44 29.9	-1.0
S39A	Bolivar	121.52	49		PKPdf	23 44 30.0	-1.3
EKA	Eskdalemuir Ar	122.31	336	PKP	PKPdf	23 44 30.9	-1.4
	comp=Z,1.5nm,0.7s,baz=46,slow=3.1,SNR=2.0						
CCM	Cathedral Cave	122.93	48	PKIKP	PKPdf	23 44 32.7	-1.3
CCM	Cathedral Cave	122.93	48		PKPdf	23 44 32.7	-1.3
LCAR	Lake Charles	123.70	50		PKPdf	23 44 33.2	-2.3
SSB	Saint Sauveur	124.83	323	PKIKP	PKPdf	23 44 36.3	-1.2
SSB	Saint Sauveur	124.83	323		PKPdf	23 44 36.3	-1.2
KEST	Kesra	125.95	311	PKP	PKPdf	23 44 38.8	-1.2
	comp=Z,5.7nm,1.1s,baz=186,slow=3.5,SNR=4.2						
PLCA	Paso Flores	126.01	151	PKP	PKPdf	23 44 40.4	+0.4
	comp=Z,2.4nm,1.0s,baz=139,slow=3.8,SNR=3.0						
PLCA	Paso Flores	126.01	151	ePKIKP	PKPdf	23 44 40.9	+0.9
GO06	Curarrehue	126.43	149	PKPdf	PKPdf	23 44 38.8	-2.1
TKL	Tuckaleechee C	129.38	47	PKP	PKPdf	23 44 45.3	-1.2
	comp=Z,3.7nm,0.9s,baz=334,slow=5.2,SNR=5.1						
Y52A	Lilburn	129.93	50		PKPdf	23 44 45.2	-2.3
NCB	Newcomb	130.93	33	PKPdf	PKPdf	23 44 48.5	-0.7
ESDC	Sonseca Array	133.19	322	PKP	PKPdf	23 44 53.1	-0.5
	comp=Z,0.5nm,1.0s,baz=14,slow=3.8,SNR=3.5						
TORD	Torodi Ar. Bea	138.66	284	PKhKP	PKPpre	23 44 53.8	
	comp=Z,0.6nm,0.9s,baz=46,slow=4.2,SNR=2.9						
TORD				PKP	PKPdf	23 45 02.3	-2.1
	comp=Z,0.6nm,0.6s,baz=62,slow=2.6,SNR=6.9						
CPUP	Villa Florida	144.06	152	PKP	PKPab	23 45 13.0	+1.8
	comp=Z,2.2nm,0.7s,baz=236,slow=6.3,SNR=3.9						
CPUP	Villa Florida	144.06	152	PKIKP	PKPab	23 45 13.0	+1.8
CPUP	Villa Florida	144.06	152		PKPab	23 45 11.5	+0.3
CZSB	Cruzeiro do Su	144.41	111		PKPab	23 45 13.0	+0.2
LPAZ	La Paz	144.43	128	PKP	PKPab	23 45 14.4	+0.8
	comp=Z,8.5nm,1.0s,baz=228,slow=1.2,SNR=19						
LPAZ	La Paz	144.43	128		PKPab	23 45 13.8	+0.2
ROSC	El Rosal	145.32	89	PKPbc	PKPbc	23 45 16.0	-0.6
	comp=Z,9.0nm,0.5s,baz=277,slow=2.9,SNR=7.7						
ROSC	El Rosal	145.32	89	PKIKP	PKPbc	23 45 16.0	-0.6
ROSC	El Rosal	145.32	89		PKPbc	23 45 15.0	-1.5
DBIC	Dimbokro	145.53	274	PKPbc	PKPdf	23 45 16.4	-0.3
	comp=Z,47nm,1.1s,baz=108,slow=4.6,SNR=12						
DBIC	Dimbokro	145.53	274		PKPdf	23 45 14.5	-2.1
SDDR	Presa de Saban	146.19	64	PKPdf	PKPdf	23 45 16.7	-1.0
SC01	Santiago de lo	146.54	63	PKPbc	PKPdf	23 45 19.0	+0.8
SDV	Santo Domingo	148.92	82	PKPdf	PKPdf	23 45 20.3	-2.2
SDV				PKPbc	pPKPdf	23 45 25.6	-0.4
TRCB	Terra Rica	149.21	156		PKPdf	23 45 20.6	-2.0
CELP	Cerrillos	150.69	62		PKPdf	23 45 28.0	+3.1
SJG	San Juan	151.05	62	PKIKP	PKPdf	23 45 28.6	+3.1
SJG	San Juan	151.05	62		PKPdf	23 45 28.6	+3.1
HUMP	Col San Antoni	151.30	62		PKPdf	23 45 30.8	+4.9
PTLB	Pontes e Lacer	151.61	137	PKPbc	PKPdf	23 45 31.7	+5.3
BDFB	Brasilia	157.49	158	PKP	PKPdf	23 45 34.4	-0.4
	comp=Z,1.5nm,0.5s,baz=190,slow=6.1,SNR=2.1						
BDFB				PKPab	PKPab	23 46 06.9	+0.8
	comp=Z,3.6nm,0.7s,baz=132,slow=4.5,SNR=3.5						
BOAV	Boa Vista	158.82	97	PKPdf	PKPdf	23 45 34.9	-1.5

*KRSC **02** 23:37:35.0±1.3, 48°.40N×156°.27E, h42^{km}±36^{km}, Ml4.1*
*IDC **02** 23:37:40.6±5.2, 49°.00N×155°.44E, h40^{km}±37^{km}, mb3.7/13, mbtmp3.9/15, ML3.0/2, MS3.6/4, Error ellipse: s-maj=41.6km s-min=21.7km az=146.0*
ISC 02 23:37:40.6±1.4, **48°.9N**±0°.2×**155°.0E**±0°.2, **h35**^{km}, **n29**, σ**1^{s}.49**/24, **mb4.0**/13, **MS4.1**/3, **Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KDTR	Khodutka, Kamc	3.48	33	eP	Pn	23 38 32.2	0.0
KDTR				eS	Sn	23 39 14.8	+2.7
MTVR	Mutnovka	4.08	28	eP	Pn	23 38 41.8	+1.2
RUS	Russkaya	4.15	31	eP	Pn	23 38 41.2	-0.2
RUS				eS	Sn	23 39 30.6	+2.0
PETK	Petropavlovsk-	4.51	21	P	Pn	23 38 45.5	-0.8
	1.4nm,0.3s,baz=182,slow=11,SNR=12						
PETK				S	Sn	23 39 33.2	-4.2
	4.2nm,0.6s,baz=209,slow=13,SNR=1.3						
PETK				LR	LR	23 40 58.2	
	comp=Z,77nm,19.1s,baz=184,slow=45						
	2.8nm,0.4s						
PETK				AML	AML		
KRX	Arik	4.98	26	eP	Pn	23 38 54.6	+1.6
SPN	Mys Shipunski	5.23	35	eP	Pn	23 38 56.5	+0.3
SPN				eS	Sn	23 39 56.2	+1.1
KLR	Kul'dur	15.24	280	P	P	23 41 17.8	+0.3
	0.2nm,0.3s,baz=66,slow=10.0,SNR=2.8						
	1.3nm,0.7s						
KLR				AML	AML		
H11N2	WAKE ISLAND Hy	30.66	158	T	T	00 15 44.9	
	baz=340,slow=74						
H11N1	WAKE ISLAND Hy	30.68	158	T	T	00 15 46.0	
	baz=340						
H11N3	WAKE ISLAND Hy	30.68	158	T	T	00 16 03.1	
	baz=340,slow=74						
H11S1	WAKE ISLAND Hy	31.79	159	T	T	00 17 12.2	
	baz=345,slow=76						
H11S3	WAKE ISLAND Hy	31.80	159	T	T	00 17 05.6	
	baz=345,slow=76						
H11S2	WAKE ISLAND Hy	31.81	159	T	T	00 17 09.0	
	baz=345,slow=76						
MKAR	Makanchi Array	47.10	296	P	P	23 46 09.2	+0.3
	1.1nm,0.7s,baz=68,slow=9.1,SNR=9.4						
	1.1nm,0.7s						
KURBB	Kurchatov Arra	47.34	303	P	P	23 46 11.3	+0.7
	0.5nm,0.6s,baz=67,slow=8.1,SNR=7.8						
	0.5nm,0.6s						
CMAR	Chiang Mai Arr	54.13	256	P	P	23 47 02.7	+0.5
	1.3nm,0.3s,baz=25,slow=8.4,SNR=4.9						
	1.3nm,0.3s						
ARCES	ARCESS Array B	56.21	341	P	P	23 47 15.2	-1.3
	1.8nm,1.0s,baz=30,slow=7.2,SNR=4.2						
	1.8nm,1.0s						
FINES	FINESS Array B	62.60	335	P	P	23 48 00.2	-0.4
	1.3nm,0.7s,baz=38,slow=9.6,SNR=4.6						
	1.3nm,0.7s						
NOA	NORSAR Array B	66.56	342	P	P	23 48 26.9	+0.2
	0.7nm,0.8s,baz=27,slow=6.6,SNR=1.5						
	0.7nm,0.8s						
HFS	Hagfors	66.85	340	P	P	23 48 28.9	+0.5
	3.9nm,0.9s,baz=46,slow=8.5,SNR=2.6						
	3.9nm,0.9s						
AKASG	Malin Array Be	70.43	327	P	P	23 48 51.0	+0.2
	0.7nm,0.5s,baz=32,slow=6.5,SNR=5.6						
	0.7nm,0.5s						
EKA	Eskdalemuir Ar	74.50	347	P	P	23 49 14.0	-1.0
	0.5nm,0.4s,baz=16,slow=5.4,SNR=4.9						
	0.5nm,0.4s						
TXAR	Lajitas Array	75.32	62	P	P	23 49 17.9	-2.4
	0.4nm,0.8s,baz=302,slow=5.4,SNR=4.2						
	0.4nm,0.8s						
GERES	GERESS Array B	77.04	335	P	P	23 49 29.9	+0.2
	0.3nm,0.3s,baz=39,slow=9.5,SNR=2.8						
	0.3nm,0.3s						
BRTR	Keskin Array B	77.66	318	P	P	23 49 34.0	+0.6
	0.9nm,0.9s,baz=60,slow=8.5,SNR=7.0						
	0.9nm,0.9s						
ASF	Jabal al Asfar	82.25	311	LR	LR	00 30 31.2	
	comp=Z,39nm,20.6s,baz=26,slow=38						
MMAI	Mount Meron Ar	82.31	313	P	P	23 49 59.9	+1.3
	1.1nm,0.5s,baz=26,slow=6.9,SNR=4.1						
	1.1nm,0.5s						
EIL	Elat	85.26	311	LR	LR	00 33 49.4	
	comp=Z,79nm,18.3s,baz=90,slow=39						
CMIG	Matias Romero	89.83	64	LR	LR	00 29 39.5	
	comp=Z,76nm,21.4s,baz=275,slow=35						

*IDC **03** 00:08:15.5±1.2, 23°.87S×179°.97W, h506^{km}±12^{km}, mb3.6/14, mbtmp4.4/16, Error ellipse: s-maj=16.0km s-min=12.3km az=106.0*
*NOU **03** 00:08:16.7, 23°.95S×179°.79W, h538^{km}, mb4.3/22, South of Fiji Islands*
*NEIC **03** 00:08:16.1±1.1, 24°.0S±0°.1×179°.96W±0°.09, h508^{km}±6^{km}, mb4.3/57, Error ellipse: s-maj=15.2km s-min=11.6km az=175.0*
ISC 03 00:08:16.3±0.3, **23°.96S**±0°.05×**179°.98W**±0°.06, **h518**^{km}, **n176**, σ**1^{s}.17**/195, **mb4.3**/42, **12C-3D**, **South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RIZ	Raoul Island	5.58	161	P	P	00 09 49.8	+0.5
RIZ				AML	AML		
RAO	Raoul Island	5.59	161	P	P	00 09 49.7	+0.2
GLKZ	Green Lake	5.59	161	P	P	00 09 50.2	+0.7
GLKZ				S	S	00 11 03.9	-1.8
GLKZ				AML	AML		
MSVF	Nonsavu	6.46	343	P	P	00 09 57.4	-0.6
	16nm,0.6s,baz=168,slow=9.8,SNR=15						
MSVF	Nonsavu	6.46	343	P	P	00 09 58.9	+0.9
MSVF	Nonsavu	6.46	343		P	00 09 56.8	-1.2
DGTI	Dogotuki	7.62	358	P	P	00 10 10.3	+0.8
NIUE	Niue	10.54	64	P	P	00 10 37.3	-2.3
NIUE				S	S	00 12 37.7	+0.3
MARNC	Mare, Loyalty	11.34	280	P	P	00 10 46.6	-1.3
OUZ	Omahuta	12.53	205	P	P	00 10 58.2	-2.1
DZM	Mont Dzumac	12.64	276	P	P	00 11 04.6	+2.9
	15nm,0.9s,baz=92,slow=16,SNR=3.4						
MXZ	Matakaoa Point	13.64	186	P	P	00 11 07.7	-4.1
MXZ				S	S	00 13 35.2	-1.3
HAZ	Te Kaha	13.89	187	P	P	00 11 16.1	+1.7
HAZ				S	S	00 13 40.1	-1.1
TOZ	Tahuroa Road	14.26	195	P	P	00 11 19.4	+1.1
TWGZ	Tauwhareparae	14.28	187	P	P	00 11 20.3	+1.8
TWGZ				S	S	00 13 50.9	+2.0
URZ	Urewera	14.47	189	P	P	00 11 20.2	-0.3
	6.8nm,0.3s,baz=228,slow=0.7,SNR=8.3						
URZ				S	S	00 13 51.1	-1.4
	14nm,0.6s,baz=59,slow=20,SNR=7.7						
URZ	Urewera	14.47	189	P	P	00 11 20.5	0.0
URZ	Urewera	14.47	189	S	S	00 13 52.9	+0.4
URZ	Urewera	14.47	189	P	P	00 11 20.4	-0.1
URZ				S	S	00 13 50.9	-1.6
MWZ	Matawai	14.49	188	P	P	00 11 22.4	+1.6
MWZ				S	S	00 13 49.4	-3.5
SANVU	Saraoutou	14.73	303	P	P	00 11 22.3	-1.3
HIZ	Hauiti	15.16	196	S	S	00 14 05.9	+0.3
HIZ	Hauiti	15.16	196	P	P	00 11 31.2	+3.5
OTVZ	Oturere	15.60	193	P	P	00 11 33.5	+0.9
SNVZ	South Ngauruho	15.63	193	P	P	00 11 33.6	+0.8
WNVZ	Wahianoa	15.78	193	P	P	00 11 33.8	-0.5
WNVZ				S	S	00 14 16.3	-0.8
BHHZ	Black Hill Sta	15.84	191	P	P	00 11 33.6	-1.3
BHHZ				S	S	00 14 15.5	-2.7
PXZ	Pawanui	16.25	189	P	P	00 11 37.6	-1.3
PXZ				S	S	00 14 21.5	-3.6
BFZ	Birch Farm	16.98	190	P	P	00 11 46.2	+0.1
BFZ	Birch Farm	16.98	190	S	S	00 14 36.9	-0.7
QRZ	Quartz Range	17.96	199	P	P	00 11 55.9	+0.7
QRZ	Quartz Range	17.96	199	S	S	00 14 54.0	+0.4
QRZ	Quartz Range	17.96	199	P	P	00 11 55.0	-0.2
KHZ	Kahutara	19.18	195	P	P	00 12 06.7	+0.4
GVZ	Greta Valley S	19.82	195	P	P	00 12 11.8	-0.3
LHI	Lord Howe Isla	20.00	243	P	P	00 12 14.5	+0.5
RPZ	Rata Peaks	21.04	198	P	P	00 12 24.8	+1.6
	1.2nm,0.5s,baz=93,slow=14,SNR=2.4						
	1.2nm,0.5s						
RPZ	Rata Peaks	21.04	198	P	P	00 12 23.4	+0.2
RPZ				IAmb	IAmb	00 12 25.2	
	comp=Z,13nm,0.9s						
JCZ	Jackson Bay	22.08	202	P	P	00 12 33.2	+0.5
TATA	Tatamba Isabel	24.78	305	P	P	00 12 58.9	+1.9
ARMA	Armidale	26.02	249	P	P	00 13 08.6	+0.7
ARMA	Armidale	26.02	249	P	P	00 13 07.8	-0.1
ARMA				IAmb	IAmb	00 13 10.9	
	comp=Z,8.2nm,0.7s						
EIDS	Eidsvold	26.32	261	P	P	00 13 11.8	+1.3
EIDS	Eidsvold	26.32	261		P	00 13 11.0	+0.6
CAN	Canberra	29.13	240	P	P	00 13 35.6	+0.5
CMSA	Cobar Meteorol	31.21	248	P	P	00 13 54.0	+1.0
CTAO	Charters Tower	31.50	270	P	P	00 13 56.7	+1.1
CTAO	Charters Tower	31.50	270		P	00 13 56.5	+0.9
TOO	Toolangi	32.43	237	P	P	00 14 03.5	+0.1
MTSU	Mount Surprise	33.76	273	P	P	00 14 16.0	+1.1
PMG	Port Moresby	34.53	289	P	P	00 14 21.1	-0.3
STKA	Stephens Creek	34.72	248	P	P	00 14 23.3	+0.6
	comp=Z,3.1nm,0.5s,baz=94,slow=9.3,SNR=9.0						
	comp=Z,3.1nm,0.5s						
STKA	Stephens Creek	34.72	248	P	P	00 14 23.7	+1.0
INKA	Innaminka	35.45	255	P	P	00 14 29.6	+0.7
HTT	Hallett	37.07	246	P	P	00 14 42.9	+0.6
QIS	Mount Isa	37.47	267	P	P	00 14 46.3	+0.6
BBOO	Buckleboo	39.44	247	P	P	00 15 01.6	+0.1
BBOO	Buckleboo	39.44	247	P	P	00 15 01.2	-0.3
AS31	Alice Springs	42.04	261		P	00 15 22.5	0.0
AS31				IAmb	IAmb	00 15 24.0	
	comp=Z,4.0nm,0.7s						

ASAR	Alice Springs	42.04	261	P	P	00 15 22.4	0.0
	comp=Z,13nm,0.7s,baz=99,slow=7.3,SNR=79						
ASAR				ScP	ScP	00 20 08.6	+2.0
	comp=Z,4.9nm,0.8s,baz=111,slow=4.1,SNR=23						
ASAR				S	S	00 21 02.3	-1.8
	comp=Z,0.6nm,0.8s,baz=95,slow=15,SNR=1.1						
	comp=Z,13nm,0.7s						
ASAR	Alice Springs	42.04	261	P	P	00 15 22.0	-0.4
ASAR					ScP	00 20 08.9	+2.4
WRAB	Tennant Creek	42.41	266	P	P	00 15 20.2	-5.2
WB0	Warramunga Arr	42.41	266		P	00 15 25.0	-0.4
WRA	Warramunga Arr	42.42	266	P	P	00 15 24.9	-0.6
	comp=Z,26nm,0.6s,baz=103,slow=8.4,SNR=156						
WRA				ScP	ScP	00 20 11.3	+3.2
	comp=Z,3.8nm,0.9s,baz=103,slow=4.1,SNR=12						
WRA				S	S	00 21 04.0	-5.6
	comp=Z,1.0nm,0.8s,baz=96,slow=14,SNR=2.6						
	comp=Z,26nm,0.6s						
WRA	Warramunga Arr	42.42	266	P	P	00 15 24.1	-1.3
WRA					ScP	00 20 10.7	+2.6
FORT	Forrest	46.31	250	P	P	00 15 55.0	-0.3
MTN	Manton Dam	47.48	274	P	P	00 16 03.3	-1.0
KNRA	Kununurra	48.71	270		P	00 16 13.6	+0.1
KNRA				IAmb	IAmb	00 16 14.6	
	comp=Z,11nm,0.8s						
FAKI	Fak Fak	50.62	287	P	P	00 16 27.2	-0.5
FITZ	Fitzroy Crossi	50.84	266		P	00 16 29.4	+0.1
VNDA	Vanda	54.32	185	P	P	00 16 55.1	+1.9
	comp=Z,0.6nm,0.7s,baz=356,slow=6.6,SNR=4.3						
	comp=Z,0.6nm,0.7s						
VNDA	Vanda	54.32	185	P	P	00 16 53.9	+0.7
NWAO	Narrogin (SRO)	55.23	246	P	P	00 16 59.7	-0.6
MBWA	Marble Bar	55.38	260	P	P	00 17 00.9	-0.7
MBWA				IAmb	IAmb	00 17 02.7	
	comp=Z,11nm,0.9s						
MORW	Morawa	56.87	250	P	P	00 17 11.7	-0.1
MORW				IAmb	IAmb	00 17 33.9	
	comp=Z,35nm,1.4s						
CASY	Casey	60.07	206	P	P	00 17 32.5	-0.2
TOLI2	Tolitoli	62.61	285		P	00 17 49.9	-0.3
TOLI2				IAmb	IAmb	00 17 51.9	
	comp=Z,10nm,0.6s						
QSPA	South Pole Qui	66.13	180	P	P	00 18 13.1	+1.3
	comp=Z,7.5nm,0.6s,baz=342,slow=0.9,SNR=59						
	comp=Z,7.5nm,0.6s						
QSPA	South Pole Qui	66.13	180	P	P	00 18 12.8	+1.1
QSPA				IAmb	IAmb	00 18 14.2	
	comp=Z,9.4nm,0.8s						
MJAR	Matsushiro Arr	71.95	326	P	P	00 18 46.8	-0.4
	comp=Z,1.6nm,0.5s,baz=156,slow=6.1,SNR=2.3						
	comp=Z,1.6nm,0.5s						
ADK	Adak	75.57	2	P	P	00 19 06.7	-0.5
SMAI	San Martin Ant	76.05	159	P	P	00 19 10.9	+1.1
BELA	Belgrano 2	76.38	173	P	P	00 19 11.5	0.0
BELA				IAmb	IAmb	00 19 12.7	
	comp=Z,7.8nm,0.7s						
MAW	Mawson	77.70	200	P	P	00 19 19.2	+0.4
	comp=Z,2.3nm,0.6s,baz=145,slow=6.5,SNR=10						
	comp=Z,2.3nm,0.6s						
MAW	Mawson	77.70	200	P	P	00 19 19.5	+0.7
ESPZ	Base Esperanza	82.16	158	P	P	00 19 42.8	+0.5
ESPZ				IAmb	IAmb	00 20 21.5	
	comp=Z,17nm,1.3s						
SLBS	Sierra La Lagu	82.81	60	P	P	00 19 46.7	+0.3
SLBS				IAmb	IAmb	00 19 49.2	
	comp=Z,8.6nm,1.1s						
ELIB	Princess Elisa	83.01	187	*d*P	P	00 19 47.0	+0.3
ELIB				*d*pP	pP	00 21 37.1	-1.3
ELIB				*d*sP	sP	00 22 27.9	-3.2
KHBM	Hayfork Bally	83.14	40	P	P	00 19 48.1	+0.2
CMB	Columbia Colle	83.23	43		P	00 19 48.2	0.0
CMB				IAmb	IAmb	00 19 49.7	
	comp=Z,5.3nm,0.9s						
KRMB	Red Mountain	83.29	39	P	P	00 19 49.4	+0.8
KRMB				IAmb	IAmb	00 20 24.9	
	comp=Z,21nm,1.4s						
AFDM	Forest Hills D	83.42	42		P	00 19 49.4	+0.3
AFDM				IAmb	IAmb	00 19 50.7	
	comp=Z,6.8nm,1.1s						
KSXB	Camp Six Broad	83.51	39	P	P	00 19 50.2	+0.7
KSXB				IAmb	IAmb	00 20 18.2	
	comp=Z,22nm,1.5s						
CLC	China Lake	83.72	46	P	P	00 19 51.0	+0.4
CLC				IAmb	IAmb	00 19 52.4	
	comp=Z,4.8nm,0.8s						
O03E	Paynes Creek	83.75	41		P	00 19 50.8	0.0
O03E				IAmb	IAmb	00 19 52.9	
	comp=Z,8.7nm,1.1s						
CWC	Cottonwood Cre	83.76	46	P	P	00 19 51.4	+0.3
M02C	Callahan	83.82	39	P	P	00 19 52.0	+0.9
M02C				IAmb	IAmb	00 19 53.6	
	comp=Z,6.0nm,0.8s						
WAKR	Walker	84.11	43	P	P	00 19 52.9	+0.2
WAKR				IAmb	IAmb	00 19 54.8	
	comp=Z,6.3nm,1.0s						
TROLL	Troll, Antarti	84.28	181	P	P	00 19 53.1	+0.1
	comp=Z,264nm,0.3s						
SNAA	Sanae	84.61	179	P	P	00 19 54.2	-0.4
	comp=Z,47nm,0.5s						
SNAA	Sanae	84.61	179	P	P	00 19 53.7	-0.8
	comp=Z,1.4nm,0.5s,baz=195,slow=11,SNR=6.5						
	comp=Z,1.4nm,0.5s						
SNAA	Sanae	84.61	179	P	P	00 19 54.3	-0.2
HSIG		84.73	55	P	P	00 19 56.2	+0.4
HSIG				IAmb	IAmb	00 19 57.6	
	comp=Z,7.5nm,0.8s						
NVAR	Mina Array Bea	84.78	44	P	P	00 19 56.3	+0.3
	comp=Z,1.8nm,0.8s,baz=228,slow=7.4,SNR=6.9						
	comp=Z,1.8nm,0.8s						
WCT	Wildcat Mounta	84.92	46	P	P	00 19 57.3	+0.7
VNA2	Neumayer--Watz	85.23	178	P	P	00 19 57.7	+0.2
	comp=Z,4.6nm,0.6s,baz=183,slow=3.3						
KVN	Kaiserville	85.27	44	P	P	00 19 58.4	0.0
LL02	Futaleuf	86.15	136	P	P	00 20 02.8	+0.4
LL02				IAmb	IAmb	00 20 04.8	
	comp=Z,7.3nm,0.7s						
PINE	Pine Mountain	86.42	38		P	00 20 04.6	+0.8
PINE				IAmb	IAmb	00 20 05.6	
	comp=Z,4.3nm,0.7s						
TUC	Tucson	86.54	52		P	00 20 05.0	+0.6
TUC				IAmb	IAmb	00 20 07.2	
	comp=Z,6.2nm,0.8s						
J08A	Circle Bar Ran	87.59	40		P	00 20 09.7	+0.5
J08A				IAmb	IAmb	00 20 11.6	
	comp=Z,7.3nm,1.0s						
U15A	North Rim	87.63	48		P	00 20 10.3	+0.6
U15A				IAmb	IAmb	00 20 11.9	
	comp=Z,4.8nm,0.8s						
ORCD	Orcadas	88.14	160	P	P	00 20 12.1	+0.8
MFID	Camas Ranch	89.19	41		P	00 20 17.0	+0.3
MFID				IAmb	IAmb	00 20 18.3	
	comp=Z,6.0nm,1.0s						
CMAR	Chiang Mai Arr	89.56	290	P	P	00 20 19.7	+0.9
	comp=Z,0.8nm,0.3s,baz=151,slow=3.5,SNR=6.0						
	comp=Z,0.8nm,0.3s						
CMAR	Chiang Mai Arr	89.56	290	P	P	00 20 20.2	+1.4
HVU	Hansel Valley	90.17	44	P	P	00 20 20.7	-0.6
HVU				IAmb	IAmb	00 20 22.9	
	comp=Z,3.8nm,0.7s						
MNTX	Cornudas Mount	90.23	55		P	00 20 21.4	-0.2
MNTX				IAmb	IAmb	00 20 23.1	
	comp=Z,2.0nm,0.8s						
TXAR	Lajitas Array	90.44	58	P	P	00 20 23.8	+1.0
	comp=Z,2.7nm,0.7s,baz=213,slow=6.5,SNR=49						
	comp=Z,2.7nm,0.7s						
TXAR	Lajitas Array	90.44	58	P	P	00 20 23.4	+0.6
HHC	Hu-ho-hao-te	90.47	315	*e*P	P	00 20 25.4	+2.8
HHC				pmax	pmax		
	comp=Z,12nm,0.7s						
BCAR	Beaver Creek A	91.84	16	P	P	00 20 27.4	-0.9
ILAR	Eielson Array	92.08	14	P	P	00 20 28.5	-0.9
	comp=Z,0.3nm,0.6s,baz=200,slow=4.2,SNR=2.2						
	comp=Z,0.3nm,0.6s						
PDAR	Pinedale Array	92.72	44	P	P	00 20 32.9	-0.3
	comp=Z,1.0nm,0.7s,baz=200,slow=3.2,SNR=10.0						
	comp=Z,1.0nm,0.7s						
ZALV	Zalesovo Beam	112.01	321	PKiKP	PKiKP	00 25 51.5	-0.6
	comp=Z,0.4nm,0.3s,baz=90,slow=4.3,SNR=2.1						
MKAR	Makanchi Array	112.21	313	PKiKP	PKiKP	00 25 52.0	-0.8
	comp=Z,0.4nm,0.6s,baz=76,slow=0.6,SNR=5.2						
MKAR	Makanchi Array	112.21	313	PKiKP	PKiKP	00 25 51.6	-1.1
KURBB	Kurchatov Arra	115.30	316	PKP	PKPdf	00 25 57.4	-1.2
	comp=Z,0.5nm,0.5s,baz=117,slow=2.1,SNR=5.5						
BVAR	Borovoye Array	120.50	319	PKP	PKPdf	00 26 07.4	-1.1
	comp=Z,1.5nm,0.6s,baz=97,slow=2.1,SNR=4.0						
POGA	Pongola	120.53	213	PKPdf	PKPdf	00 26 09.0	-0.4
PKME	Peaks-Kenny Pk	120.94	50	PKPdf	PKPdf	00 26 08.8	-0.8
BOSA	Boshof	122.36	206	PKP	PKPdf	00 26 12.7	-0.4
	comp=Z,1.4nm,0.7s,baz=158,slow=5.4,SNR=1.0						
ARCES	ARCESS Array B	131.95	348	PKP	PKPdf	00 26 29.1	-0.8
	comp=Z,1.3nm,0.5s,baz=25,slow=1.2,SNR=13						
ARCES	ARCESS Array B	131.95	348		PKPdf	00 26 29.3	-0.5
FINES	FINESS Array B	138.51	341	PKhKP	PKPpre	00 26 33.0	
	comp=Z,2.2nm,0.9s,baz=63,slow=0.6,SNR=3.8						
FINES				PKP	PKPdf	00 26 43.5	+1.2
	comp=Z,0.4nm,0.3s,baz=10,slow=1.6,SNR=6.2						
FINES				SKPbc	SKPbc	00 29 28.4	+0.4
	comp=Z,3.2nm,0.7s,baz=83,slow=2.3,SNR=8.3						
FINES	FINESS Array B	138.51	341		PKPdf	00 26 43.4	+1.1
NOA	NORSAR Array B	142.14	351	PKP	PKPdf	00 26 49.0	+0.1
	comp=Z,0.9nm,0.8s,baz=354,slow=1.9,SNR=4.0						
HFS	Hagfors	142.61	349	PKhKP	PKPpre	00 26 45.6	
	comp=Z,2.9nm,0.4s,baz=17,slow=1.5,SNR=20						
AK03	Malin Array Si	145.01	327	PKP	PKPdf	00 26 54.2	+0.1
AKASG	Malin Array Be	145.03	327	PKP	PKPdf	00 26 53.5	-0.6
	comp=Z,0.9nm,0.4s,baz=43,slow=4.2,SNR=8.7						
AKASG				SKPbc	SKPbc	00 29 45.6	+1.0
	comp=Z,2.4nm,0.6s,baz=47,slow=2.9,SNR=15						
AKBB	Malin Array Si	145.03	327	PKP	PKPdf	00 26 53.7	-0.4
KIEV	Kiev	145.04	327	PKP	PKPdf	00 26 53.9	-0.3
AK04	Malin Array Si	145.04	327	PKP	PKPdf	00 26 54.3	+0.1
RNPP9	Sopachiv	146.13	331	PKP	PKPdf	00 26 54.9	-1.1
RNPP2	Kostyukhnivka	146.19	331	PKP	PKPdf	00 26 55.7	-0.4
LUBAR	Lubar, Ukraine	146.25	327	PKP	PKPdf	00 26 57.8	+1.5
BRTR	Keskin Array B	147.63	307	PKPbc	PKPbc	00 27 02.6	0.0
	comp=Z,0.6nm,0.7s,baz=130,slow=6.0,SNR=3.9						
BRTR	Keskin Array B	147.63	307		PKPdf	00 26 58.6	-0.5
MMAI	Mount Meron Ar	147.74	294	PKPbc	PKPbc	00 27 04.0	+1.0
	comp=Z,3.0nm,0.5s,baz=60,slow=7.3,SNR=10						
KMPD	K-Podol'skiy	147.78	326	PKP	PKPdf	00 26 58.7	-0.1
EKA	Eskdalemuir Ar	148.57	3	PKPbc	PKPbc	00 27 03.4	-0.9
	comp=Z,2.0nm,0.6s,baz=350,slow=3.0,SNR=9.0						
BUR08	Bucovina Ar. S	149.02	326		PKPbc	00 27 06.3	+0.6
BURAR	Bucovina Array	149.03	326	PKPbc	PKPbc	00 27 06.7	+0.9
KOLS	Kolonicke sedl	149.53	330	*e*PKP	PKiKP	00 27 08.2	+0.6
MLR	Muntele Rosu	149.97	322	PKP	PKPdf	00 27 01.3	-1.3
OKC	Ostrava-Krasne	150.54	336	⇑*e*PKP	PKPbc	00 27 10.1	+1.0
LANS	Liptovska Anna	150.57	334	*e*PKP	PKiKP	00 27 10.9	+1.1
STEB	Steborice	150.60	336	⇑*e*PKP	PKPbc	00 27 09.2	-0.1
OSTC	Ostas	150.62	339	⇑*e*PKP	PKPbc	00 27 09.3	-0.1
CHVC	Chvalec	150.64	339	⇑*e*PKP	PKPbc	00 27 09.7	+0.3
UPC	Upice	150.73	339	⇑*e*PKP	PKPbc	00 27 09.7	+0.1
DPC	Dobruska-Polom	150.76	338	⇑*e*PKP	PKPbc	00 27 09.8	+0.1
KRLC	Kraliky	150.83	338	⇑*e*PKP	PKPbc	00 27 09.5	-0.4
CLL	Collm	150.91	343		PKPbc	00 27 09.5	-0.4
CLL	Collm	150.91	343	⇑*i*PKPbc	PKPbc	00 27 10.1	+0.1
	comp=Z,8.0nm,0.9s						
MAUC	Maruska	151.04	336	⇑*e*PKP	PKPbc	00 27 10.9	+0.5
PVCC	Panska Ves	151.17	341	⇑*e*PKP	PKPbc	00 27 10.8	+0.2
VYHS	Vyhne	151.35	333	*e*PKP	PKPbc	00 27 11.6	+0.5
ELL	Elmali	151.36	303	PKPbc	PKPbc	00 27 11.9	+0.2
MODS	Modra-Piesok	152.06	335	*e*PKP	PKPbc	00 27 13.5	+0.8
ZVC	Zvikov	152.24	340	⇑*e*PKP	PKPdf	00 27 08.8	+3.0
KHC	Kasperske Hory	152.70	340	⇑*e*PKP	PKPbc	00 27 13.6	-0.5
KHC	Kasperske Hory	152.70	340	PKPbc	PKPbc	00 27 13.6	-0.5
GERES	GERESS Array B	152.92	340	PKPbc	PKPbc	00 27 14.5	-0.1
	comp=Z,0.5nm,0.4s,baz=20,slow=4.3,SNR=4.9						
ESDC	Sonseca Array	163.97	11	PKPab	PKPab	00 28 15.4	-1.1
	comp=Z,0.2nm,0.7s,baz=324,slow=9.4,SNR=4.4						
TORD	Torodi Ar. Bea	169.13	189	PKP	PKPdf	00 27 23.3	-1.4
	comp=Z,0.2nm,0.6s,baz=22,slow=1.0,SNR=3.4						
TORD				PKPab	PKPab	00 28 39.2	-0.6
	comp=Z,0.8nm,0.5s,baz=161,slow=4.3,SNR=5.2						

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*BER **03** 00:13:26.9±2.2, 73°.11N×6°.29E, h10^{km}, Mw4.2, ML2.6(NAO), Confirmed Earthquake*

*NAO **03** 00:13:27.0±0.4, 73°.08N×6°.77E, h10^{km}, ML2.6*

ISC 03 00:13:25.1±2.1**, 73°.1N**±0°.1×**6°.3E**±0°.2**, h10^{km}, n40, σ0^{s}.99**/38**, Greenland Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BJO1	Bjornoya	3.84	62	Pn	Pn	00 14 23.5	-0.6
BJO1	Bjornoya	3.84	62	*e*P	Pn	00 14 23.6	-0.6
BEAR	Bear Island, N	3.84	62	Pn	Pn	00 14 23.7	-0.4
	baz=251,slow=18						
TRO	Tromso	5.32	124	Pn	Pn	00 14 44.2	-0.2
TRO	Tromso	5.32	124	*e*P	Pn	00 14 43.8	-0.6
TRO				IAML		00 14 45.4	
	comp=Z,5.4nm,0.4s						
LOF	Lofoten	5.52	151	Pn	Pn	00 14 46.3	-0.8
LOF	Lofoten	5.52	151	*e*P	Pn	00 14 46.2	-0.9
LOF				IAML		00 14 48.0	
	comp=Z,5.3nm,0.5s						
SPA0	Spitsbergen Ar	5.70	21	Pn	Pn	00 14 49.9	+0.2
	baz=205,slow=16						
SPA0	Spitsbergen Ar	5.70	21	Pn	Pn	00 14 49.9	+0.2
JETT	Jettan, Norway	5.74	121	Pn	Pn	00 14 51.0	+0.8
JETT	Jettan, Norway	5.74	121	Pn	Pn	00 14 51.0	+0.8
HAMF	Hammerfest	5.94	106	Pn	Pn	00 14 52.1	-0.9
HAMF	Hammerfest	5.94	106	*e*P	Pn	00 14 52.5	-0.5
STEI	Steigen	5.96	146	Pn	Pn	00 14 53.1	-0.2
STEI	Steigen	5.96	146	*e*P	Pn	00 14 52.5	-0.7
STEI				IAML		00 14 53.8	
	comp=Z,2.9nm,0.3s						
FAUS	Fauske	6.47	148	Pn	Pn	00 14 59.9	-0.3
FAUS				Sn	Sn	00 16 06.3	-7.7
FAUS	Fauske	6.47	148	*e*P	Pn	00 14 59.9	-0.3
VAGH	Vaagaholmen	6.80	156	P	Pn	00 15 04.6	-0.2
VAGH	Vaagaholmen	6.80	156	*e*P	Pn	00 15 04.5	-0.2
VAGH				IAML		00 15 05.8	
	comp=Z,10.0nm,0.6s						
VAGH				*e*S	Sn	00 16 08.0	-14
KTK1	Kautokeino	6.84	118	*e*P	Pn	00 15 05.5	+0.2
KONS	Konsvik	7.01	157	*e*P	Pn	00 15 06.6	-0.9
KONS				IAML		00 15 08.5	
	comp=Z,4.3nm,0.7s						
KONS				*e*S	Sn	00 16 16.3	-11
SALU	Saltoluokta	7.04	138	*e*P	Pn	00 15 07.7	-0.4
ARA0	ARCESS Array S	7.10	110	Pn	Pn	00 15 09.8	+1.0
	baz=317,slow=12						
ARA0	ARCESS Array S	7.10	110	Pn	Pn	00 15 09.8	+1.0
STOK	Stokkvaagen	7.16	158	Pn	Pn	00 15 08.5	-1.1
STOK	Stokkvaagen	7.16	158	*e*P	Pn	00 15 08.6	-1.1
STOK				IAML		00 15 10.8	
	comp=Z,5.1nm,0.7s						
RAUS	Rausandaksla	7.18	154	*e*P	Pn	00 15 09.7	-0.2
RAUS				IAML		00 15 11.5	
	comp=Z,3.1nm,0.5s						
LANU	Lannavaara	7.25	126	*e*P	Pn	00 15 10.3	-0.6
KEV	Kevo	7.38	107	*e*P	Pn	00 15 12.0	-0.6
LEIR	Leirfjorden	7.38	158	Pn	Pn	00 15 12.3	-0.4
LEIR				Sn	Sn	00 16 30.0	-6.3
LEIR	Leirfjorden	7.38	158	*e*P	Pn	00 15 11.7	-0.9
LEIR				IAML		00 15 14.7	
	comp=Z,3.5nm,0.5s						
DAG	Danmarks Havn	7.43	311	*e*S	Sn	00 16 23.0	-15
MOR8	Moi Rana	7.48	154	Pn	Pn	00 15 13.0	-1.2
MOR8	Moi Rana	7.48	154	*e*P	Pn	00 15 12.3	-1.8
VADS	Vadso	7.84	101	Pn	Pn	00 15 19.0	0.0
VADS	Vadso	7.84	101	*e*P	Pn	00 15 19.0	0.0
NSS	Namsos	8.82	164	*e*P	Pn	00 15 31.4	-0.9
LILU	Lilltraesk	9.15	142	*e*P	Pn	00 15 33.8	-3.1
AKN	Aaknes	10.95	178	P	Pn	00 16 04.4	+2.9
AKN	Aaknes	10.95	178	P	Pn	00 16 04.4	+2.9

BER 03 00:29:13.1±3.6**, 73°.00N**×**7°.09E, h30^{km}**±71^{km}**, Mw3.8, Confirmed Earthquake, Norwegian Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BEA1	Bear Island, N	3.67	60	*e*P	Pn	00 30 05.7	-2.0
BJO1	Bjornoya	3.67	60	*e*P	Pn	00 30 05.5	-2.2
TRO	Tromso	5.08	126	*e*P	Pn	00 30 26.1	-1.0
TRO				IAML		00 30 27.5	
	comp=Z,2.7nm,0.4s						
TRO				*e*S	Sn	00 31 15.7	-9.0
LOF	Lofoten	5.34	153	IAML		00 30 28.5	
	comp=Z,4.6nm,0.8s						
LOF				*e*P	Pn	00 30 28.6	-2.0
JETT	Jettan, Norway	5.50	122	*e*P	Pn	00 30 31.8	-1.0
SPA0	Spitsbergen Ar	5.69	20	*e*P	Pn	00 30 31.8	-3.7
SPA0				IAML		00 30 35.9	
	comp=Z,2.0nm,0.7s						
SPA0				*e*S	Sn	00 31 38.8	-0.8
HAMF	Hammerfest	5.70	106	*e*P	Pn	00 30 34.1	-1.4
STEI	Steigen	5.77	148	*e*P	Pn	00 30 34.9	-1.6
STEI				IAML		00 30 42.3	
	comp=Z,1.6nm,0.7s						
VAGH	Vaagaholmen	6.64	158	*e*P	Pn	00 30 45.4	-3.1
VAGH				IAML		00 30 47.4	
	comp=Z,3.8nm,0.6s						
STOK	Stokkvaagen	7.00	160	*e*P	Pn	00 30 50.1	-3.3
STOK				IAML		00 30 58.6	
	comp=Z,2.3nm,0.7s						
RAUS	Rausandaksla	7.01	157	*e*P	Pn	00 30 51.7	-1.9
LANU	Lannavaara	7.02	128	*e*P	Pn	00 30 52.6	-1.0
KEV	Kevo	7.13	107	*e*P	Pn	00 30 53.9	-1.3
HEF	Hetta	7.14	122	*e*P	Pn	00 30 55.6	+0.2
LEIR	Leirfjorden	7.23	160	*e*P	Pn	00 30 53.9	-2.6
LEIR				*e*S	Sn	00 32 06.4	-11
VADS	Vadso	7.60	101	*e*P	Pn	00 31 01.0	-0.6

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*NEIC **03** 00:49:41.5±1.2, 0°.1N±0°.1×126°.96E±0°.06, h118^{km}±8^{km}, mb4.2/5, Error ellipse: s-maj=14.6km s-min=8.0km az=187.0*

*DJA **03** 00:49:42.8±0.3, 0°N±3°×12°7E±°, h92^{km}±6^{km}, M4.4/27, mb4.5/12, mB5.3/4, MLv4.2/27, Mw(mB)4.8/4*

*IDC **03** 00:49:51.9±9.0, 0°.31S×126°.62E, h227^{km}±92^{km}, mb3.3/6, mbtmp3.8/7, MS3.3/1, Error ellipse: s-maj=80.1km s-min=18.4km az=50.0*

ISC 03 00:49:40.3±0.7**, 0°.10N**±0°.06×**126°.92E**±0°.06**, h100^{km}, n28, σ2^{s}.14**/31**, mb3.9**/9**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TNTI	Ternate	0.80	34		Pn	00 50 01.1	+2.5
TNTI				Sn	Sn	00 50 15.2	+2.8
TNTI	Ternate	0.80	34	P	Pn	00 50 01.4	+2.7
TNTI				S	Sn	00 50 16.1	+3.7
SANI	Sanana	2.33	204	P	Pn	00 50 18.4	+1.2
SANI				AML	AML		
MNI	Manado	2.47	303	P	Pn	00 50 21.4	+2.4
MNI				AML	AML		
NLAI	Namlea	3.32	177	P	Pn	00 50 32.2	+1.8
NLAI				AML	AML		
KRAI	Karang Ratu	3.70	157	P	Pn	00 50 37.8	+2.3
KRAI				AML	AML		
MSAI	Masohi	3.97	150	P	Pn	00 50 41.5	+2.4
MSAI				AML	AML		
AAI	Ambon	3.97	161	P	Pn	00 50 40.2	+1.0
LUWI	Luwuk	4.30	255		Pn	00 50 45.3	+1.7
LUWI				Sn	Sn	00 51 32.7	0.0
LUWI	Luwuk	4.30	255	P	Pn	00 50 45.3	+1.7
LUWI				AML	AML		
SWI	Sorong	4.44	102	P	Pn	00 50 48.4	+2.9
SWI				AML	AML		
APSI	Ampana	5.37	259	P	Pn	00 50 59.9	+1.9
KDI	Kendari	5.89	227	P	Pn	00 51 06.9	+1.7
KDI				AML	AML		
TOLI2	Tolitoli	6.22	279		Pn	00 51 11.2	+1.6
KAPI	Kappang	8.78	235	P	Pn	00 51 49.0	+4.6
	7.9nm,0.4s,baz=67,slow=13,SNR=6.9						
KAPI				S	Sn	00 53 23.6	+1.8
	11nm,0.6s,baz=156,slow=20,SNR=1.7						
WB0	Warramunga Arr	21.06	160	P	P	00 54 15.8	-0.7
WB0				IAmb	IAmb	00 54 20.4	
	comp=Z,5.7nm,1.1s						
WRA	Warramunga Arr	21.21	160	P	P	00 54 16.5	-1.6
	comp=Z,0.6nm,0.5s,baz=336,slow=10,SNR=4.9						
	comp=Z,0.6nm,0.5s						
WRA	Warramunga Arr	21.21	160	P	P	00 54 17.0	-1.1
PMG	Port Moresby	22.25	116	LR	LR	01 05 12.0	
	comp=Z,68nm,18.2s,baz=254,slow=41						
ASAR	Alice Springs	24.58	164	P	P	00 54 50.0	-1.2
	comp=Z,0.3nm,0.4s,baz=346,slow=11,SNR=1.9						
	comp=Z,0.3nm,0.4s						
EVN	Everest	47.36	309	P	P	00 58 04.9	-0.3
EVN				IAmb	IAmb	00 58 07.2	
	comp=Z,4.2nm,0.7s						
MKAR	Makanchi Array	60.64	326	P	P	00 59 40.4	-0.4
	comp=Z,0.5nm,0.4s,baz=114,slow=8.0,SNR=8.7						
	comp=Z,0.5nm,0.4s						
MKAR	Makanchi Array	60.64	326	P	P	00 59 39.6	-1.2
BTK	Batken	64.58	315	P	P	01 00 06.5	-0.8
BTK				IAmb	IAmb	01 00 12.1	
	comp=Z,2.6nm,0.5s						
KURBB	Kurchatov Arra	64.89	328	P	P	01 00 07.9	-1.0
	comp=Z,1.1nm,0.5s,baz=127,slow=6.1,SNR=8.1						
	comp=Z,1.1nm,0.5s						
BVAR	Borovoye Array	70.46	328	P	P	01 00 43.5	-0.4
	comp=Z,0.4nm,0.6s,baz=123,slow=7.7,SNR=2.1						
	comp=Z,0.4nm,0.6s						
ARCES	ARCESS Array B	93.90	340	P	P	01 02 43.8	-2.4
	comp=Z,1.8nm,1.0s,baz=74,slow=4.6,SNR=4.7						
	comp=Z,1.8nm,1.0s						
ARCES	ARCESS Array B	93.90	340	P	P	01 02 43.3	-3.0

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*IDC **03** 01:04:15.9±2.4, 2°.57S×131°.72E, h0^{km}, mb3.6/2, mbtmp3.6/4, ML3.4/2, Error ellipse: s-maj=97.7km s-min=25.5km az=80.0*

*DJA **03** 01:04:20.8±0.2, 3°S±3°×13°1E±°, h10^{km}, M4.1/12, mb5.1/1, MLv3.7/12*

ISC 03 01:04:20.3±1.0**, 2°.95S**±0°.07×**130°.53E**±0°.06**, h10^{km}, n13, σ0^{s}.78**/14**, Seram**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSAI	Masohi	1.64	256	P	Pb	01 04 50.8	+0.1
MSAI				AML	AML		
BNDI	Bandanaira	1.68	202	P	Pn	01 04 50.5	+0.7
BNDI				AML	AML		
FAKI	Fak Fak	1.72	89	P	Pn	01 04 51.0	+0.6
FAKI				AML	AML		
KRAI	Karang Ratu	2.16	260	P	Pn	01 04 57.4	+1.0
KRAI				AML	AML		
SWI	Sorong	2.20	19	P	Pn	01 04 57.4	+0.4
AAI	Ambon	2.44	253	P	Pn	01 04 59.9	-0.4
NLAI	Namlea	3.43	265	P	Pn	01 05 14.3	+0.4
NLAI				AML	AML		
SANI	Sanana	4.62	281	P	Pn	01 05 30.4	+0.1
SANI				AML	AML		
BAKI	Biak	5.84	73	P	Pn	01 05 47.4	+0.3
FITZ	Fitzroy Crossi	15.79	197	Pn	Pn	01 08 04.4	+1.4
	0.1nm,0.3s,baz=25,slow=13,SNR=1.5						
FITZ				Sn	Sn	01 10 58.0	-0.2
	0.1nm,0.3s,baz=340,slow=19,SNR=0.9						
	1.8nm,0.9s						
FITZ				AML	AML		
WRA	Warramunga Arr	17.29	168	P	Pn	01 08 21.2	-0.9
	0.1nm,0.3s,baz=349,slow=11,SNR=4.9						
WRA				S	Sn	01 11 22.4	-12
	0.2nm,0.6s,baz=333,slow=24,SNR=1.4						
	0.9nm,0.9s						
WRA				AML	AML		
ASAR	Alice Springs	20.85	171	P	P	01 09 01.3	-1.2
	4.0nm,0.8s,baz=350,slow=10.0,SNR=28						
	4.0nm,0.8s						
MKAR	Makanchi Array	65.17	326	P	P	01 15 01.6	-0.2
	0.2nm,0.5s,baz=117,slow=7.0,SNR=5.5						
	0.2nm,0.5s						

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*NOU **03** 01:04:53.3, 36°.84S×177°.10E, h0^{km}, MLv3.9/7, Off E. Coast of N. Island, N.Z.*

*WEL **03** 01:04:53.9±0.5, 37°S±3°×17°7E±°, h5^{km}, M3.9/25, ML3.8/25, MLv3.9/25, Error ellipse: s-maj=5.1km s-min=2.5km az=34.1, confirmed*

ISC 03 01:04:53.3±1.4**, 36°.80S**±0°.04×**177°.16E**±0°.03**, h14^{km}**±10^{km}**, n90, σ1^{s}.24**/104**, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WSRZ	White Island S	0.72	179	P	Pn	01 05 09.1	0.0
WSRZ				S	Sb	01 05 17.4	0.0
WSRZ				AML	AML		
WSRZ				AML	AML		
WIZ	White Island	0.73	178	P	Pb	01 05 08.4	+0.6
WIZ				S	Sg	01 05 17.2	+0.1
WIZ				AML	AML		
WIZ				AML	AML		
MYRZ	Mayor Island	0.88	236	P	Pg	01 05 09.9	-0.4
MYRZ				AML	AML		
MYRZ				AML	AML		
WHRZ	Whale Island	1.07	188	P	Pb	01 05 12.5	-1.0
WHRZ				AML	AML		
WHRZ				AML	AML		

HAZ	Te Kaha	1.08	153	P	Pb	01 05 13.2	-0.5
HAZ				S	Sn	01 05 29.4	+0.7
HAZ				AML	AML		
HAZ				AML	AML		
TGRZ	Tauranga	1.17	217	P	Pn	01 05 14.3	-1.0
TGRZ				AML	AML		
TGRZ				AML	AML		
MXZ	Matakaoa Point	1.19	130	P	Pn	01 05 15.7	+0.2
MXZ	Matakaoa Point	1.19	130	S	Sn	01 05 31.9	+0.4
MXZ	Matakaoa Point	1.19	130	P	Pn	01 05 15.5	0.0
MXZ				S	Sb	01 05 31.4	+0.4
MXZ				AML	AML		
MXZ				AML	AML		
RUGZ	Raukumara Rang	1.24	161	P	Pn	01 05 16.1	-0.2
RUGZ				S	Sb	01 05 30.1	-2.3
RUGZ				AML	AML		
RUGZ				AML	AML		
MARZ	Manawahe	1.25	198	P	Pn	01 05 15.6	-0.8
MARZ				S	Sb	01 05 32.4	-0.2
MARZ				AML	AML		
MARZ				AML	AML		
PKGZ	Pakihiroa	1.30	146	P	Pn	01 05 17.3	+0.3
PKGZ				AML	AML		
PKGZ				AML	AML		
EDRZ	Edgecumbe	1.35	194	P	Pn	01 05 16.2	-1.6
EDRZ				AML	AML		
EDRZ				AML	AML		
LIRZ	Lichensteins R	1.35	207	P	Pg	01 05 18.9	-0.5
LIRZ				AML	AML		
LIRZ				AML	AML		
KARZ	Kaharoa	1.42	211	P	Pb	01 05 19.7	+0.1
KARZ				AML	AML		
KARZ				AML	AML		
KMRZ	Kaimai	1.43	222	P	Pn	01 05 18.5	-0.3
KMRZ				S	Sn	01 05 37.2	-0.2
KMRZ				AML	AML		
KMRZ				AML	AML		
WMGZ	Waiomatatini S	1.43	136	P	Pg	01 05 20.7	-0.1
WMGZ				AML	AML		
WMGZ				AML	AML		
URZ	Urewera	1.46	181	P	Pn	01 05 18.8	-0.4
URZ	Urewera	1.46	181	P	Pn	01 05 18.8	-0.4
URZ				AML	AML		
URZ				AML	AML		
GRZ	Great Barrier	1.48	291	P	Pn	01 05 19.5	+0.1
GRZ				S	Sb	01 05 39.4	+0.4
GRZ				AML	AML		
GRZ				AML	AML		
NGRZ	Ngongotaha	1.52	210	P	Pg	01 05 22.4	0.0
TWGZ	Tauwhareparae	1.52	155	P	Pg	01 05 22.8	+0.2
TWGZ				AML	AML		
TWGZ				AML	AML		
TARZ	Mount Tarawera	1.53	200	P	Pg	01 05 22.7	0.0
PUZ	Puketiti	1.54	146	P	Pg	01 05 22.9	-0.1
PUZ				AML	AML		
PUZ				AML	AML		
MWZ	Matawai	1.56	169	P	Pn	01 05 20.5	-0.1
MWZ				AML	AML		
MWZ				AML	AML		
UTU	Utuhina	1.58	209	P	Pg	01 05 26.6	+3.0
HLRZ	Highlands Stat	1.59	204	P	Pb	01 05 22.0	-0.5
HLRZ				AML	AML		
HLRZ				AML	AML		
TOZ	Tahuroa Road	1.62	234	P	Pn	01 05 20.8	-0.6
TOZ				S	Sn	01 05 41.3	-0.8
TOZ				AML	AML		
TOZ				AML	AML		
RRRZ	Republican Roa	1.62	198	P	Pn	01 05 21.0	-0.5
RRRZ				AML	AML		
RRRZ				AML	AML		
WIAZ	Waiheke Island	1.63	270	P	Pn	01 05 21.4	-0.1
WIAZ				S	Sb	01 05 43.0	-0.4
WIAZ				AML	AML		
WIAZ				AML	AML		
MKAZ	Moumakai	1.63	259	P	Pn	01 05 21.6	0.0
MKAZ				S	Sb	01 05 42.7	-0.8
MKAZ				AML	AML		
MKAZ				AML	AML		
HSRZ	Hossack Road	1.68	205	P	Pn	01 05 22.3	+0.1
HSRZ				AML	AML		
HSRZ				AML	AML		
RAGZ	Rawiri	1.71	173	P	Pg	01 05 27.3	+1.2
TKGZ	Te Karaka	1.73	162	P	Pb	01 05 24.2	-0.6
TKGZ				AML	AML		
TKGZ				AML	AML		
GRRZ	Galatos Road	1.76	208	P	Pn	01 05 23.6	+0.3
GRRZ				AML	AML		
GRRZ				AML	AML		
ETAZ	East Tamaki Re	1.80	264	P	Pb	01 05 24.8	-1.1
MBAZ	Motutapu North	1.82	270	P	Pn	01 05 24.8	+0.7
MBAZ				AML	AML		
MBAZ				AML	AML		
RTZ	Ruatahuna	1.82	184	P	Pn	01 05 24.3	+0.1
RTZ				S	Sn	01 05 45.4	-1.8
CNGZ	Carnagh Statio	1.88	154	P	Pg	01 05 28.8	-0.5
EPAZ	Eden Park BICE	1.94	267	P	Pb	01 05 28.5	+0.1
EPAZ				S	Sb	01 05 52.1	-0.3
HBAZ	Herne Bay Bore	1.95	268	P	Pb	01 05 28.2	-0.3
RIGZ	Rimuhau	1.96	166	P	Pb	01 05 29.0	+0.1
KUTZ	Kaahu Road	2.00	212	P	Pn	01 05 26.5	-0.1
TLZ	Tolley Road	2.00	220	P	Pn	01 05 26.5	-0.2
AWAZ	Awhitu Peninsu	2.03	262	P	Pn	01 05 28.2	+1.1
MTHZ	Maungataniwha	2.07	187	P	Pn	01 05 28.2	+0.6
RVAZ	Riverhead Bore	2.07	270	P	Pg	01 05 32.1	-0.9
RVAZ				S	Sn	01 05 53.2	0.0
WTAZ	Waiatarua	2.08	265	P	Pb	01 05 29.2	-1.6
RAHZ	Arahi	2.12	182	P	Pb	01 05 30.2	-1.3
NMHZ	Naumai	2.31	187	P	Pb	01 05 34.8	-0.1
RITZ	Rihia Road	2.41	205	P	Pb	01 05 36.9	+0.5
BKZ	Black Stump Fm	2.42	192	P	Pn	01 05 34.1	+1.6
WCZ	Waipu Caves	2.43	290	P	Pn	01 05 33.1	+0.6
WCZ				AML	AML		
WCZ				AML	AML		
HIZ	Hauiti	2.50	226	P	Pn	01 05 33.9	+0.3
HIZ	Hauiti	2.50	226	P	Pn	01 05 33.9	+0.3
TMVZ	Te Maari	2.58	206	P	Pb	01 05 40.4	+0.9
OTVZ	Oturere	2.64	206	P	Pn	01 05 37.3	+1.7
TWVZ	Taurewa	2.65	210	P	Pn	01 05 36.1	+0.5
MCHZ	McNeill Hill	2.67	188	P	Pb	01 05 38.9	-2.0
SNVZ	South Ngauruho	2.67	206	P	Pn	01 05 37.9	+1.9
NGZ	Ngauruhoe	2.67	207	P	Pn	01 05 38.1	+2.1
NGZ				AML	AML		
NGZ				AML	AML		
KWHZ	Kaweka Forest	2.69	192	P	Pb	01 05 39.0	-2.1
FWVZ	Far West T-bar	2.76	207	P	Pb	01 05 41.7	-0.8
MAVZ	Matarangi	2.77	207	P	Pb	01 05 42.7	-0.1
WHVZ	Whangaehu Hut	2.77	206	P	Pb	01 05 41.6	-1.2
TRVZ	Turoa	2.80	206	P	Pb	01 05 41.9	-1.3
WNVZ	Wahianoa	2.81	206	P	Pn	01 05 39.9	+2.0
BHHZ	Black Hill Sta	2.82	197	P	Pn	01 05 39.4	+1.4
MOVZ	Moawhango	2.83	203	P	Pn	01 05 39.5	+1.4
KRHZ	Kereru	2.91	192	P	Pn	01 05 41.3	+2.2
VRZ	Vera Road	3.00	219	P	Pn	01 05 41.5	+1.1
PNHZ	Pukenui	3.20	193	P	Pn	01 05 44.8	+1.5
OUZ	Omahuta	3.29	298	P	Pn	01 05 45.7	+1.4
OUZ	Omahuta	3.29	298	P	Pn	01 05 45.8	+1.4
OUZ				AML	AML		
OUZ				AML	AML		
TSZ	Takapari Road	3.39	196	P	Pn	01 05 47.3	+1.5
PKE	Pukeiti	3.46	225	P	Pn	01 05 48.9	+2.1
NBEZ	Newall Road No	3.58	225	P	Pb	01 05 55.7	-0.7
BFZ	Birch Farm	3.94	190	P	Pn	01 05 55.3	+1.9
MRZ	Mangatainoka R	4.05	197	P	Pn	01 05 55.3	+0.5
HOWZ	Holdsworth Sta	4.29	197	P	Pn	01 05 58.2	+0.1
OGWZ	Otaki Gorge	4.30	201	P	Pn	01 05 59.0	+0.7
KIW	Kapiti Island	4.42	203	P	Pn	01 06 00.8	+0.9
DUWZ	D'Urville Isla	4.73	211	P	Pn	01 06 06.0	+1.8
MSWZ	Moikau Station	4.85	197	P	Pn	01 06 05.3	-0.5
TCW	Tory Channel	4.95	206	P	Pn	01 06 09.2	+2.1
NNZ	Nelson	5.30	213	P	Pn	01 06 16.0	+3.9
TKNZ	Takaka Hill	5.35	216	P	Pn	01 06 16.7	+4.0
QRZ	Quartz Range	5.41	221	P	Pn	01 06 14.2	+0.7
QRZ	Quartz Range	5.41	221	P	Pn	01 06 14.1	+0.7
MRNZ	Matariki Terra	5.73	215	P	Pn	01 06 22.1	+4.2

*NEIC **03** 01:25:39.0±1.0, 20°.8S±0°.1×178°.2W±0°.1, h532^{km}±8^{km}, mb4.2/12, Error ellipse: s-maj=20.7km s-min=19.9km az=216.0*

*IDC **03** 01:25:41.9±2.4, 20°.88S×178°.40W, h557^{km}±22^{km}, mb3.3/6, mbtmp4.2/8, Error ellipse: s-maj=36.2km s-min=22.7km az=145.0*

ISC 03 01:25:39.9±0.7, 20°.6S±0°.2×178°.2W±0°.1, h550^{km}, n36, σ1^{s}.18/36, mb4.2/11, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	4.54	309	P	P	01 27 08.5	+2.3
	11nm,0.5s,baz=260,slow=23,SNR=9.3						
MSVF	Nonsavu	4.54	309	P	P	01 27 05.6	-0.6
AFI	Afiamalu	9.10	44	S	S	01 29 32.0	-2.6
	27nm,0.5s,baz=353,slow=11,SNR=5.5						
MARNC	Mare, Loyalty	12.85	264	P	P	01 28 26.0	-1.3
DZM	Mont Dzumac	14.35	262	P	P	01 28 44.2	+1.3
	4.4nm,0.6s,baz=36,slow=20,SNR=1.4						
EIDS	Eidsvold	28.60	255	P	P	01 30 51.7	-0.7
EIDS				IAmb	IAmb	01 31 04.2	
	comp=Z,10nm,1.2s						
CTAO	Charters Tower	33.26	265	P	P	01 31 32.2	-0.1
STKA	Stephens Creek	37.53	244	P	P	01 32 07.0	-0.6
	comp=Z,2.2nm,0.3s,baz=92,slow=9.3,SNR=4.8						
	comp=Z,2.2nm,0.3s						
BBOO	Buckleboo	42.29	244	P	P	01 32 45.2	-0.6
WR8	Warramunga Arr	44.21	262	P	P	01 33 00.2	-0.7
WR8				IAmb	IAmb	01 33 01.3	
	comp=Z,13nm,1.4s						
AS31	Alice Springs	44.27	257	P	P	01 33 01.2	-0.1
ASAR	Alice Springs	44.27	257	P	P	01 33 01.1	-0.2
	comp=Z,3.6nm,0.5s,baz=97,slow=7.8,SNR=49						
ASAR				PcP	PcP	01 34 33.7	0.0
	comp=Z,0.7nm,0.6s,baz=111,slow=4.3,SNR=4.4						
	comp=Z,3.6nm,0.5s						
WB0	Warramunga Arr	44.34	262	P	P	01 33 01.3	-0.5
WB0				IAmb	IAmb	01 33 02.0	
	comp=Z,4.2nm,0.6s						
WRA	Warramunga Arr	44.36	262	P	P	01 33 01.6	-0.4
	comp=Z,1.3nm,0.3s,baz=96,slow=8.0,SNR=42						
	comp=Z,1.3nm,0.3s						
WRA	Warramunga Arr	44.36	262	P	P	01 33 00.9	-1.1
KNRA	Kununurra	50.43	266	P	P	01 33 46.8	-0.7
KNRA				IAmb	IAmb	01 33 48.0	
	comp=Z,5.9nm,1.1s						
FITZ	Fitzroy Crossi	52.79	263	P	P	01 34 04.1	-0.5
MBWA	Marble Bar	57.61	257	P	P	01 34 37.6	-0.5
MBWA				IAmb	IAmb	01 34 52.6	
	comp=Z,24nm,1.3s						
MORW	Morawa	59.57	248	P	P	01 34 50.6	-0.6
QSPA	South Pole Qui	69.44	180	P	P	01 35 53.2	+0.2
	comp=Z,0.6nm,0.7s,baz=311,slow=5.9,SNR=1.5						
	comp=Z,0.6nm,0.7s						
QSPA	South Pole Qui	69.44	180	P	P	01 35 52.9	-0.1
QSPA				IAmb	IAmb	01 36 18.2	
	comp=Z,5.9nm,1.4s						
TXAR	Lajitas Array	87.31	57	P	P	01 37 32.5	+3.6
	comp=Z,0.5nm,1.1s,baz=259,slow=3.2,SNR=2.6						
	comp=Z,0.5nm,1.1s						
TXAR	Lajitas Array	87.31	57	P	P	01 37 29.3	+0.4
CMAR	Chiang Mai Arr	89.95	290	P	P	01 37 44.0	+2.7
	comp=Z,2.0nm,0.3s,baz=158,slow=3.2,SNR=6.2						
	comp=Z,2.0nm,0.3s						
CMAR	Chiang Mai Arr	89.95	290	P	P	01 37 41.9	+0.6
BVAR	Borovoye Array	119.03	320	PKP	PKiKP	01 43 26.5	+0.3
	comp=Z,0.6nm,0.3s,baz=90,slow=1.4,SNR=2.4						
HFS	Hagfors	139.63	351	PKhKP	PKPpre	01 43 57.8	
	comp=Z,0.6nm,0.5s,baz=111,slow=8.1,SNR=0.8						
AKASG	Malin Array Be	143.02	331	PKP	PKPdf	01 44 09.9	-1.3
	comp=Z,2.2nm,0.4s,baz=44,slow=4.2,SNR=29						
AKASG	Malin Array Be	143.02	331		PKPdf	01 44 10.1	-1.1
BR131	Keskin Array S	146.76	312		PKPdf	01 44 18.7	+0.5
BRTR	Keskin Array B	146.76	312	PKPbc	PKiKP	01 44 21.8	-1.1
	comp=Z,0.7nm,0.6s,baz=137,slow=5.1,SNR=7.0						
BUR08	Bucovina Ar. S	147.05	330	PKPbc	PKiKP	01 44 23.0	-0.2
MMAI	Mount Meron Ar	147.69	299	PKPbc	PKiKP	01 44 24.8	-0.1
	comp=Z,1.1nm,0.4s,baz=45,slow=8.3,SNR=4.7						
CLL	Collm	148.14	347	*i* PKPbc	PKiKP	01 44 25.4	+0.3
	comp=Z,4.0nm,0.9s						
GERES	GERESS Array B	150.26	344	PKPbc	PKiKP	01 44 30.2	+0.4
	comp=Z,0.5nm,0.3s,baz=28,slow=3.2,SNR=4.6						
GERES	GERESS Array B	150.26	344		PKPdf	01 44 23.5	+0.1

*IDC **03** 01:32:21.9±0.9, 10°.81N×125°.80E, h0^{km}, mb4.0/11, mbtmp4.0/11, MS2.8/1, Error ellipse: s-maj=48.7km s-min=16.9km az=65.0*

*NEIC **03** 01:32:31.9±1.2, 10°.80N±0°.09×125°.7E±0°.1, h71^{km}±7^{km}, mb4.6/16, Error ellipse: s-maj=21.0km s-min=9.5km az=59.0*

*MAN **03** 01:32:32.0, 10°.78N×125°.67E, h28^{km}, MS3.6*

ISC 03 01:32:31.1±1.0, 10°.80N±0°.05×125°.76E±0°.06, h70^{km}±9^{km}, n56, σ1^{s}.38/59, mb4.3/19, Leyte

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLP	Palo	0.84	296	*e*P	Pn	01 32 47.4	-0.4
PLP				*e*S	Sn	01 32 59.8	-0.2
SCPH	Surigao	1.04	195	*i* P	Pn	01 32 50.0	-0.2
SCPH				*i* S	Sn	01 32 53.2	-11
GLSP	General Luna,	1.07	160	*i* P	Pn	01 32 50.1	-0.4
GLSP				*i* S	Sn	01 33 05.8	+0.8
MECP	Medelin, Cebu	1.79	282	*e*P	Pn	01 33 01.6	+1.6
MECP				*e*S	Sn	01 33 23.6	+1.8
LLP	Lapu-Lapu	1.82	255	*e*P	Pn	01 33 01.1	+0.6
LLP				*i* S	Sn	01 33 23.5	+0.8
CGP	Cagayan de Oro	2.55	204	*e*P	Pn	01 33 11.1	+0.8
CGP				*e*S	Sn	01 33 41.1	+0.8
BIPH	Bislig	2.67	167	*e*P	Pn	01 33 17.0	+5.2
BIPH				*e*S	Sn	01 33 41.3	-1.7
LSIP	Lazi, Siquijor	2.67	232	*i* P	Pn	01 33 12.8	+0.9
LSIP				*i* S	Sn	01 33 37.0	-6.1
SNPH	Sibulan	2.87	240	*e*P	Pn	01 33 16.2	+1.5
SNPH				*e*S	Sn	01 33 47.9	-0.3
BUKP	Musuan	2.98	193	*e*P	Pn	01 33 19.0	+2.9
BUKP				*e*S	Sn	01 33 55.1	+4.3
CDOP	Cateel, Davao	3.07	167	*i* P	Pn	01 33 18.0	+0.6
CDOP				*i* S	Sn	01 33 51.9	-1.0
DCPH	Dipolog City	3.23	227	*e*P	Pn	01 33 19.8	+0.3
DCPH				*i* S	Sn	01 33 56.1	-0.8
DAV	Davao City (W)	3.71	183	LR	LR	01 34 57.1	
	comp=Z,116nm,19.5s,baz=332,slow=42						
TIRP	Brgy. Gulod. B	5.67	309	*e*P	Pn	01 33 54.5	+1.7
SZP	Santa	8.45	323	Pn	Pn	01 34 31.0	+0.1
UGM	Wanagama	23.98	220	P	P	01 37 39.4	0.0
KNRA	Kununurra	26.47	173	P	P	01 38 01.9	0.0
CMAR	Chiang Mai Arr	27.01	289	P	P	01 38 07.2	+0.4
	1.1nm,0.3s,baz=106,slow=8.4,SNR=4.4						
	1.1nm,0.3s						
CMAR	Chiang Mai Arr	27.01	289	P	P	01 38 06.8	-0.1
FITZ	Fitzroy Crossi	28.71	180	P	P	01 38 22.1	+0.1
WB0	Warramunga Arr	31.54	164	P	P	01 38 46.0	-1.0
WB0				IAmb	IAmb	01 39 01.6	
	comp=Z,6.5nm,1.2s						
WRA	Warramunga Arr	31.69	164	P	P	01 38 46.7	-1.6
	comp=Z,0.6nm,0.7s,baz=346,slow=9.0,SNR=5.0						
	comp=Z,0.6nm,0.7s						
WRA	Warramunga Arr	31.69	164	P	P	01 38 46.4	-1.9
WR8	Warramunga Arr	31.75	164	P	P	01 38 47.7	-1.1
WR8				IAmb	IAmb	01 39 28.3	
	comp=Z,8.9nm,1.2s						
ASAR	Alice Springs	35.17	167	P	P	01 39 17.9	-0.6
	comp=Z,0.7nm,0.3s,baz=346,slow=7.1,SNR=10						
	comp=Z,0.7nm,0.3s						
ASAR	Alice Springs	35.17	167	P	P	01 39 18.5	0.0
H11S3	WAKE ISLAND Hy	40.26	74	T	T	02 22 55.1	
	baz=264,slow=75,SNR=9.3						
H11S1	WAKE ISLAND Hy	40.27	74	T	T	02 22 56.1	
	baz=264,slow=75,SNR=11						
H11S2	WAKE ISLAND Hy	40.28	74	T	T	02 22 57.4	
	baz=264,slow=75,SNR=14						
H11N1	WAKE ISLAND Hy	40.58	72	T	T	02 23 30.4	
	baz=265,slow=75,SNR=21						
H11N2	WAKE ISLAND Hy	40.58	72	T	T	02 23 32.7	
	baz=265,slow=75,SNR=18						
H11N3	WAKE ISLAND Hy	40.59	72	T	T	02 23 35.7	
	baz=265,slow=75,SNR=21						
FORT	Forrest	41.40	177	P	P	01 40 11.3	+0.6
FORT				IAmb	IAmb	01 40 25.4	
	comp=Z,23nm,1.4s						
BBOO	Buckleboo	44.46	168	P	P	01 40 35.8	+0.3
BBOO				IAmb	IAmb	01 40 51.5	
	comp=Z,34nm,1.2s						
STKA	Stephens Creek	45.06	161	P	P	01 40 40.3	+0.1
	comp=Z,1.4nm,0.4s,baz=315,slow=5.7,SNR=3.1						
	comp=Z,1.4nm,0.4s						
ARMA	Armidale	47.94	149	P	P	01 41 02.0	-1.0
ARMA				IAmb	IAmb	01 41 44.5	
	comp=Z,15nm,1.2s						
PEA0B	Petropavlovsk-	49.37	25	P	P	01 41 14.8	+1.3
PETK	Petropavlovsk-	49.37	25	P	P	01 41 13.2	-0.3
MKAR	Makanchi Array	51.30	323	P	P	01 41 29.1	+0.9
	comp=Z,4.0nm,0.7s,baz=124,slow=8.2,SNR=38						
	comp=Z,4.0nm,0.7s						
MKAR	Makanchi Array	51.30	323	P	P	01 41 28.5	+0.3
MAKZ	Makanchi	51.50	323	P	P	01 41 29.8	+0.1
MAKZ				IAmb	IAmb	01 41 31.2	
	comp=Z,4.4nm,1.0s						
KDJ	Kajisay	52.56	315	P	P	01 41 37.7	-0.1
KDJ				IAmb	IAmb	01 41 58.8	
	comp=Z,3.5nm,0.9s						
ZALV	Zalesovo Beam	53.92	331	P	P	01 41 47.1	-0.3
	comp=Z,0.6nm,0.4s,baz=265,slow=39,SNR=2.6						
	comp=Z,0.6nm,0.4s						
ZALV	Zalesovo Beam	53.92	331	P	P	01 41 47.3	-0.1
KURK	Kurchatov	55.35	325	P	P	01 41 57.6	-0.1
KURK				IAmb	IAmb	01 41 59.1	
	comp=Z,8.2nm,1.2s						
KURBB	Kurchatov Arra	55.35	325	P	P	01 41 57.2	-0.6
	comp=Z,4.5nm,0.2s,baz=123,slow=6.6,SNR=4.4						
	comp=Z,4.5nm,0.2s						
TAU	Tasmania Unive	56.97	161	P	P	01 42 09.8	+0.4
BVAR	Borovoye Array	60.95	325	P	P	01 42 36.0	-0.8
	comp=Z,1.0nm,0.7s,baz=108,slow=9.5,SNR=3.6						
	comp=Z,1.0nm,0.7s						
AB31	Akbulak array	66.15	319	P	P	01 43 10.5	-0.7
ABKAR	Akbulak array	66.15	319	P	P	01 43 09.9	-1.3
ILAR	Eielson Array	79.19	26	P	P	01 44 29.3	+1.0
	comp=Z,0.2nm,0.7s,baz=272,slow=7.5,SNR=2.9						
	comp=Z,0.2nm,0.7s						
ILAR	Eielson Array	79.19	26	P	P	01 44 29.0	+0.7
BRTR	Keskin Array B	84.81	309	P	P	01 44 57.5	-0.9
	comp=Z,0.4nm,0.8s,baz=116,slow=3.4,SNR=3.6						
	comp=Z,0.4nm,0.8s						
BRTR	Keskin Array B	84.81	309	P	P	01 44 57.8	-0.7
FINES	FINESS Array B	85.19	332	P	P	01 44 59.0	-0.7
	comp=Z,0.7nm,0.4s,baz=76,slow=4.9,SNR=9.3						
	comp=Z,0.7nm,0.4s						
FINES	FINESS Array B	85.19	332	P	P	01 44 59.6	-0.1

TRN 03 01:43:06.9, 15°.74N×60°.71W, h29^{km}, MD3.6, North-east of Dominica., Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DWS	Wesley	0.60	254	*e*P	Pn	01 43 19.6	+0.1
DWS				*e*S	Sn	01 43 30.0	+1.7
DSDZ	La Diserade, G	0.67	329	*e*P	Pn	01 43 21.0	+0.7
DSDZ				*e*S	Sn	01 43 30.9	+1.1
DSLB	Salisbury	0.75	246	*e*P	Pn	01 43 22.4	+0.9
DSLB				*e*S	Sn	01 43 33.8	+1.9
TBG	Guadaloupe-3	0.91	277	*e*P	Pb	01 43 24.7	+0.6
TBG				*e*S	Sn	01 43 37.3	+1.4
MMLZ	Guadeloupe Bro	0.97	288	*e*P	Pb	01 43 26.3	+1.1
MMLZ				*e*S	Sb	01 43 39.2	+1.6
SVN	Savane Anatole	1.00	206	*e*P	Pb	01 43 26.4	+0.8
SVN				*e*S	Sb	01 43 40.1	+1.7
DHSZ	Broadband at M	1.15	298	*e*P	Pb	01 43 28.2	+0.2
DHSZ				*e*S	Sb	01 43 43.7	+1.1
BIM	Bigot	1.26	196	*e*P	Pn	01 43 28.4	-0.3
BIM				*e*S	Sb	01 43 46.6	+0.6
SLBI	Saint Lucia, B	1.73	189	*e*P	Pn	01 43 35.3	+0.3
SLBI				*e*S	Sn	01 43 57.3	+1.3

*IDC **03** 01:54:53.7±0.8, 13°.11S×66°.73E, h0^{km}, mb3.9/13, mbtmp3.9/13, MS3.6/15, Error ellipse: s-maj=28.6km s-min=19.7km az=71.0*

*NEIC **03** 01:54:55.4±1.4, 13°.22S±0°.10×66°.7E±0°.1, h10^{km}±1^{km}, mb4.6/17, Error ellipse: s-maj=20.6km s-min=15.8km az=288.0*

ISC 03 01:54:54.6±0.5, 13°.21S±0°.08×66°.7E±0°.1, h10^{km}, n59, σ0^{s}.84/37, mb4.2/16, MS3.6/15, Mid-Indian Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ROCAM	Rodrigues Isla	7.26	206	Pn	Pn	01 56 39.6	-1.2
H08S1	Diego Carcia H	7.91	46	T	T	02 05 06.4	
	baz=225,slow=75,SNR=82						
H08S2	Diego Garcia H	7.92	46	T	T	02 05 09.6	
	baz=225,slow=75,SNR=164						
H08S3	Diego Garcia H	7.93	46	T	T	02 05 11.4	
	baz=225,slow=75,SNR=1153						
VOI	Vohitsoka	20.86	243	P	P	01 59 37.9	+0.9
VOI				IAmb	IAmb	01 59 44.4	
	comp=Z,48nm,1.4s						
PALK	Pallekele	24.64	35	LR	LR	02 07 54.5	
	comp=Z,161nm,19.1s,baz=222,slow=32						
H04N2	CROZET ISLANDS	35.18	198	T	T	02 38 59.2	
	baz=27,slow=75,SNR=21						
H04N1	CROZET ISLANDS	35.19	198	T	T	02 39 00.6	
	baz=27,slow=75,SNR=23						
H04N3	CROZET ISLANDS	35.20	198	T	T	02 38 59.4	
	baz=27,slow=75,SNR=20						
PAF	Port-aux-Franc	36.15	176	P	P	02 01 56.8	-0.1
MATP	Matopo	37.22	254	LR	LR	02 15 08.1	
	comp=Z,76nm,19.6s,baz=38,slow=33						
LSZ	Lusaka	37.38	262	LR	LR	02 15 38.4	
	comp=Z,95nm,18.3s,baz=140,slow=33						
MBAR	Mbarara	37.78	286	LR	LR	02 14 52.2	
	comp=Z,36nm,18.5s,baz=128,slow=32						
LBTB	Lobatse	40.44	247	LR	LR	02 16 50.2	
	comp=Z,109nm,20.1s,baz=77,slow=32						
MAKGR	Makgori	41.28	246	P	P	02 02 39.8	-0.8
MAKGR				IAmb	IAmb	02 03 23.7	
	comp=Z,13nm,1.5s						
BOSA	Boshof	41.43	242	LR	LR	02 17 14.4	
	comp=Z,130nm,19.6s,baz=67,slow=32						
RAYN	Ar Rayn	42.00	330	P	P	02 02 45.9	-0.5
BRDH	Bariadhala	43.23	35	LR	LR	02 19 47.2	
	comp=Z,91nm,20.1s,baz=192,slow=35						
CMAR	Chiang Mai Arr	44.72	46	P	P	02 03 08.6	+0.2
	comp=Z,0.6nm,0.3s,baz=214,slow=4.6,SNR=1.6						
CMAR				LR	LR	02 19 19.9	
	comp=Z,48nm,19.9s,baz=220,slow=33						
	comp=Z,0.6nm,0.3s						
CMAR	Chiang Mai Arr	44.72	46	P	P	02 03 06.7	-1.7
GIRL	Giralia	46.00	109	P	P	02 03 17.1	-1.5
SUR	Sutherland	46.02	238	LR	LR	02 20 25.9	
	comp=Z,87nm,18.3s,baz=114,slow=33						
TSUM	Tsumeb	47.44	256	LR	LR	02 21 37.8	
	comp=Z,51nm,19.4s,baz=148,slow=34						
H01W3	Cape Leeuwin H	47.85	125	T	T	02 54 46.7	
	baz=285,slow=75,SNR=11						
H01W2	Cape Leeuwin H	47.85	125	T	T	02 54 45.4	
	baz=285,slow=75,SNR=11						
H01W1	Cape Leeuwin H	47.86	125	T	T	02 54 52.8	
	baz=285,slow=75,SNR=13						
NWAO	Narrogin (SRO)	49.93	122	P	P	02 03 48.9	0.0
EIL	Elat	52.51	325	LR	LR	02 24 20.4	
	comp=Z,36nm,18.3s,baz=90,slow=34						
MAW	Mawson	54.40	182	LR	LR	02 22 15.0	
	comp=Z,72nm,19.8s,baz=7.0,slow=30						
AAK	Ala-Archa	56.03	7	LR	LR	02 27 35.7	
	comp=Z,46nm,18.5s,baz=172,slow=35						
BRTR	Keskin Array B	61.01	331	P	P	02 05 08.8	+0.3
	comp=Z,0.5nm,0.9s,baz=152,slow=11,SNR=4.7						
	comp=Z,0.5nm,0.9s						
BRTR	Keskin Array B	61.01	331	P	P	02 05 08.0	-0.6
MKAR	Makanchi Array	61.35	12	P	P	02 05 10.5	-0.1
	comp=Z,0.8nm,0.8s,baz=212,slow=6.6,SNR=5.8						
MKAR				LR	LR	02 29 20.4	
	comp=Z,37nm,18.3s,baz=164,slow=34						
	comp=Z,0.8nm,0.8s						
AB31	Akbulak array	62.48	355	P	P	02 05 18.6	+0.5
ASAR	Alice Springs	64.09	110	P	P	02 05 30.1	+0.7
	comp=Z,0.9nm,0.9s,baz=257,slow=5.5,SNR=6.1						
	comp=Z,0.9nm,0.9s						
ASAR	Alice Springs	64.09	110	P	P	02 05 29.8	+0.3
KURBB	Kurchatov Arra	64.40	8	P	P	02 05 30.1	-0.7
	comp=Z,0.7nm,0.2s,baz=179,slow=6.5,SNR=1.4						
	comp=Z,0.7nm,0.2s						
KURK	Kurchatov	64.50	8	P	P	02 05 32.0	+0.6
KURK				IAmb	IAmb	02 05 37.5	
	comp=Z,1.6nm,0.6s						
WRA	Warramunga Arr	64.79	106	P	P	02 05 34.9	+0.8
	comp=Z,1.4nm,0.8s,baz=274,slow=5.8,SNR=8.5						
	comp=Z,1.4nm,0.8s						
WRA	Warramunga Arr	64.79	106	P	P	02 05 34.8	+0.7
WB0	Warramunga Arr	64.86	106	P	P	02 05 35.0	+0.5
WB0				IAmb	IAmb	02 05 35.5	
	comp=Z,11nm,1.4s						

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
WR8	Warramunga Arr	64.94	106	P	P	02 05 36.2	+1.2
BVAR	Borovoye Array	66.04	2	P	P	02 05 41.9	+0.5
	comp=Z,0.4nm,0.5s,baz=234,slow=39,SNR=1.7						
	comp=Z,0.4nm,0.5s						
ZALV	Zalesovo Beam	68.66	11	P	P	02 05 57.3	-0.7
	comp=Z,1.5nm,0.8s,baz=206,slow=9.9,SNR=5.3						
	comp=Z,1.5nm,0.8s						
ZALV	Zalesovo Beam	68.66	11	P	P	02 05 57.7	-0.2
SONM	Songino Array	70.29	27	P	P	02 06 09.5	+1.1
	comp=Z,0.5nm,0.4s,baz=216,slow=7.1,SNR=2.5						
	comp=Z,0.5nm,0.4s						
SONM	Songino Array	70.29	27	P	P	02 06 09.0	+0.6
SNAA	Sanae	71.15	198	P	P	02 06 14.4	+1.1
	comp=Z,1.1nm,0.8s,baz=72,slow=6.4,SNR=3.6						
	comp=Z,1.1nm,0.8s						
SNAA	Sanae	71.15	198	P	P	02 06 14.0	+0.8
SNAA				IAmb	IAmb	02 06 22.5	
	comp=Z,3.4nm,1.1s						
AKASG	Malin Array Be	71.58	336	P	P	02 06 15.3	-0.7
	comp=Z,1.0nm,0.7s,baz=151,slow=5.6,SNR=4.7						
	comp=Z,1.0nm,0.7s						
AKASG	Malin Array Be	71.58	336	P	P	02 06 16.0	+0.1
AKASG				IAmb	IAmb	02 06 37.9	
	comp=Z,3.8nm,1.4s						
KSRS	Korea Array	76.36	46	LR	LR	02 42 03.4	
	comp=Z,28nm,18.4s,baz=95,slow=37						
QSPA	South Pole Qui	76.86	180	P	P	02 06 48.4	+1.6
	comp=Z,1.8nm,1.0s,baz=284,slow=1.4,SNR=3.8						
	comp=Z,1.8nm,1.0s						
QSPA	South Pole Qui	76.86	180	P	P	02 06 47.7	+0.9
QSPA				IAmb	IAmb	02 06 55.7	
	comp=Z,12nm,1.4s						
ESDC	Sonseca Array	84.02	313	P	P	02 07 26.4	+0.8
	comp=Z,0.8nm,1.0s,baz=119,slow=4.7,SNR=4.4						
	comp=Z,0.8nm,1.0s						
ESDC	Sonseca Array	84.02	313	P	P	02 07 25.1	-0.6
ESDC				IAmb	IAmb	02 07 27.7	
	comp=Z,8.9nm,1.4s						
PDAR	Pinedale Array	150.38	354	PKPbc	PKPbc	02 14 47.3	+0.3
	comp=Z,1.0nm,0.3s,baz=329,slow=2.8,SNR=5.7						
PDAR	Pinedale Array	150.38	354	PKPdf	PKPdf	02 14 40.4	-1.3
TXAR	Lajitas Array	161.65	332	PKPab	PKPab	02 15 42.2	+0.7
	comp=Z,0.5nm,0.9s,baz=57,slow=4.6,SNR=3.9						

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*JSN **03** 02:06:58.1±0.5, 18°.15N×76°.58W, h7^{km}±4^{km}, MD2.6, Confirmed Earthquake*

*SSNC **03** 02:07:00.6±0.9, 18°.32N×76°.48W, h12^{km}±9^{km}, MD3.0, ML1.9, Presumed earthquake*

ISC 03 02:06:53.6±1.2**, 18°.28N**±0°.06×**76°.44W**±0°.07**, h11**^{km}±11^{km}**, n11, σ0^{s}75**/21**, 5C-3D, Jamaica region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GWJ	Greenwich	0.34	234	⇑iP	Pg	02 07 01.5	+0.9
GWJ				⇑iP		02 07 01.6	
GWJ				iS	Sg	02 07 04.2	-1.0
HOJ	Hope	0.40	228	iP	Pb	02 07 02.6	-0.2
HOJ				⇓iP	Pb	02 07 02.6	-0.2
STH	Stony Hill	0.41	241	⇑iP	Pg	02 07 02.6	+0.9
STH				⇑iP	Pg	02 07 02.7	+0.9
STH				⇑iS	Sg	02 07 06.4	-0.7
STH				⇓iS	Sg	02 07 06.4	-0.7
PCJ	Portland Cotta	0.87	232	iP	Pb	02 07 10.5	-0.3
CVJ	Coleyville	1.05	267	⇓iP	Pn	02 07 14.8	+0.4
CVJ				iS	Sb	02 07 26.5	-1.1
MARVS	Santiago de Cu	1.79	16	eP	Pg	02 07 28.5	+0.6
MARVS				IAML		02 07 52.3	
	comp=E,7.8nm,0.2s						
MARVS				IAML		02 07 52.3	
	comp=N,9.7nm,0.4s						
LMGC	Las Mercedes	1.85	343	eP	Pb	02 07 27.4	-0.2
LMGC				eS	Sn	02 07 49.7	+0.9
LMGC				IAML		02 07 50.7	
	comp=N,21nm,0.1s						
LMGC				IAML		02 07 50.9	
	comp=E,11nm,0.1s						
GTBY	Guantanamo Bay	2.06	37	eP	Pg	02 07 33.1	-0.1
GTBY				eS	Sb	02 07 56.0	-0.8
GTBY				eSg	Sg	02 07 59.7	-0.3
GTBY				IAML		02 08 00.7	
	comp=E,3.4nm,0.3s						
GTBY				IAML		02 08 00.9	
	comp=E,4.7nm,0.2s						
YAR	Yar	2.08	2	eP	Pb	02 07 31.9	+0.5
YAR				eS	Sb	02 07 56.4	-0.9
QMBU	Quimbuelo	2.45	39	eP	Pb	02 07 38.1	+0.4
QMBU				IAML		02 08 08.9	
	comp=N,9.1nm,0.4s						
QMBU				IAML		02 08 09.6	
	comp=E,6.5nm,0.3s						
HLGC	Holguin	2.62	8	eP	Pb	02 07 40.1	-0.6

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*SJA **03** 02:13:12.4±0.7, 28°.72S×68°.67W, h116^{km}±3^{km}, ML4.1, MW4.1*

*NEIC **03** 02:13:12.8±1.8, 28°.74S±0°.05×68°.58W±0°.03, h107^{km}±5^{km}, mb4.5/11, Mwr4.1/24, ML4.0(GUC), Error ellipse: s-maj=7.8km s-min=2.6km az=200.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}-1.72; $M_{\theta\theta}$0.25; $M_{\phi\phi}$1.47; $M_{r\theta}$-0.04; $M_{\theta\phi}$-0.77; $M_{\phi r}$-0.32; Fault plane solution: $M_0$1.82000×10^{15} NP1:ϕ_s340.36000°, δ49.69000°, λ-81.79000°. NP2:ϕ_s147.79000°, δ41.00000°, λ-99.55000°. Principal axes: T 1.8681, Plg4.0000°, Azm65.0000°; N -0.1056, Plg6.0000°, Azm155.0000°; P -1.7625, Plg82.0000°, Azm300.0000°;*

*GUC **03** 02:13:13.6±2.6, 28°.69S×68°.92W, h134^{km}±20^{km}, ML4.0*

*NEIC **03** 02:13:13.3, 28°.77S×68°.65W, h103^{km}*

*IDC **03** 02:13:14.3±0.5, 28°.74S×68°.57W, h107^{km}±4^{km}, mb3.9/11, mbtmp4.2/15, MS3.3/2, Error ellipse: s-maj=17.0km s-min=9.3km az=86.0*

ISC 03 02:13:12.9±0.5**, 28°.70S**±0°.03×**68°.68W**±0°.03**, h107**^{km}±4^{km}**, h107^{km}:pP-P, n125, σ1^{s}50**/170**, mb4.3**/11**, 12C-2D, La Rioja Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VCA	Vinchina	0.42	95	eP	Pn	02 13 30.3	+1.2
VCA				eS	Sn	02 13 43.0	+1.7
VCA				AMP		02 13 43.1	
	comp=Z,1974µm,0.3s						
VCA	Vinchina	0.42	95	⇓iP	Pn	02 13 30.3	+1.2
VCA				eS	Sn	02 13 42.6	+1.3
TINO	Tinogasta	1.17	57	eP	Pn	02 13 36.8	+1.0
TINO				eS	Sn	02 13 56.2	+3.0
TINO				IAML		02 13 56.6	
	comp=Z,2µm,0.4s						
AC05	El Transito	1.41	264	eP	Pn	02 13 40.2	+1.7
AC05				eS	Sn	02 14 00.9	+2.9
AC05				IAML		02 14 01.5	
	comp=Z,2µm,0.6s						
AC05	El Transito	1.41	264	⇑iP	Pn	02 13 40.1	+1.6
AC05				iS	Sn	02 13 59.9	+1.9
AC05				IAML		02 14 00.9	
	comp=N,5µm,0.7s						
AC05	El Transito	1.41	264		Pn	02 13 40.2	+1.7
AC05				Sn	Sn	02 13 59.3	+1.3
ACDV	Cuesta del Vie	1.51	195	eP	Pn	02 13 41.6	+1.7
ACDV				IAML		02 14 04.3	
	comp=Z,850nm,1.0s						
AROD	Rodeo	1.62	205	eP	Pn	02 13 42.8	+1.5
AROD				eS	Sn	02 14 05.6	+2.7
ACLC	CERRO LA CRUZ	1.68	116	eP	Pn	02 13 42.7	+0.8
ACLC				eP		02 13 42.8	
ACLC				eS	Sn	02 14 05.2	+1.3
ACLC				IAML		02 14 05.8	
	comp=Z,2µm,0.3s						
GO03	Copiapo	1.76	308	eP	Pn	02 13 43.9	+1.1
GO03				eS	Sn	02 14 07.0	+1.4
GO03				IAML		02 14 10.1	
	comp=Z,753nm,0.3s						
GO03	Copiapo	1.76	308	iP	Pn	02 13 43.8	+0.9
GO03				iS	Sn	02 14 06.2	+0.6
GO03				IAML		02 14 10.4	
	comp=N,1µm,0.1s						
GO03	Copiapo	1.76	308		Pn	02 13 43.8	+0.9
CO01	Juntas del Tor	1.77	224	eP	Pn	02 13 45.1	+1.9
CO01				eS	Sn	02 14 04.9	-1.3
CO01				IAML		02 14 09.9	
	comp=Z,772nm,0.7s						
CO01	Juntas del Tor	1.77	224	⇑iP	Pn	02 13 45.1	+1.9
CO01				iS	Sn	02 14 09.1	+3.0
CO01				IAML		02 14 10.3	
	comp=E,1µm,0.6s						
CO01	Juntas del Tor	1.77	224		Pn	02 13 44.9	+1.8
CO01				Sn	Sn	02 14 06.7	+0.5
LCO	Las Campanas	1.80	260	eP	Pn	02 13 44.5	+1.0
LCO				eS	Sn	02 14 08.7	+2.0
LCO				IAML		02 14 09.6	
	comp=Z,3µm,0.2s						
LCO	Las Campanas	1.80	260	⇑iP	Pn	02 13 44.2	+0.7
LCO				iS	Sn	02 14 07.8	+1.0
LCO	Las Campanas	1.80	260		Pn	02 13 44.5	+1.0
AC02	Maricunga	1.90	348	eP	Pn	02 13 47.9	+2.9
AC02				eS	Sn	02 14 08.4	-1.0
AC02	Maricunga	1.90	348	⇑eP	Pn	02 13 47.6	+2.6
AC02	Maricunga	1.90	348		Pn	02 13 47.6	+2.6
ACCO	Cerro Coronel	1.91	190	eP	Pn	02 13 46.3	+1.3
ACCO				eS	Sn	02 14 11.1	+1.7
ACCO				IAML		02 14 12.0	
	comp=Z,1µm,0.3s						
AC06	Mina Casimiro	2.00	312	iP	Pn	02 13 46.4	+0.6
AC06				iS	Sn	02 14 10.3	-0.5
AC06				IAML		02 14 12.1	
	comp=N,622nm,0.2s						
AC06	Mina Casimiro	2.00	312		Pn	02 13 46.4	+0.6
AC04	Llanos de Chal	2.17	283	eP	Pn	02 13 48.3	+0.4
AC04				eS	Sn	02 14 14.6	-0.1
AC04	Llanos de Chal	2.17	283	⇑eP	Pn	02 13 48.0	+0.1
AC04	Llanos de Chal	2.17	283		Pn	02 13 48.0	+0.1
GO04	Tololo Observa	2.36	231	eP	Pn	02 13 51.2	+0.6
GO04				eS	Sn	02 14 22.5	+3.0
GO04				IAML		02 14 25.5	
	comp=Z,1µm,0.6s						
GO04	Tololo Observa	2.36	231	⇑iP	Pn	02 13 51.1	+0.5
GO04				iS	Sn	02 14 20.4	+0.8
GO04	Tololo Observa	2.36	231		Pn	02 13 51.1	+0.5
CYA	Choya	2.54	85	eP	Pn	02 13 54.0	+1.1
CYA				eS	Sn	02 14 24.0	+0.5
CYA				IAML		02 14 24.9	
	comp=Z,711nm,0.7s						
CYA	Choya	2.54	85	⇑eP	Pn	02 13 54.0	+1.1
CYA				eS	Sn	02 14 23.2	-0.4
RTLL	Cerro Villicun	2.63	176	eP	Pn	02 13 54.9	+0.9
RTLL				eS	Sn	02 14 24.4	-1.1
RTLL				IAML		02 14 27.1	
	comp=Z,1µm,0.4s						
CO03	El Pedregal	2.75	219	eP	Pn	02 13 56.4	+0.7
CO03				eS	Sn	02 14 31.7	+3.1
CO03				IAML		02 14 39.4	
	comp=Z,412nm,0.7s						
CO03	El Pedregal	2.75	219	⇑iP	Pn	02 13 56.3	+0.7
CO03				iS	Sn	02 14 29.8	+1.2
CO03				IAML		02 14 37.3	
	comp=E,736nm,0.3s						
CO03	El Pedregal	2.75	219		Pn	02 13 56.3	+0.7
ZON	Zonda	2.83	180	eP	Pn	02 13 57.3	+0.6
ZON				eS	Sn	02 14 30.6	+0.2
ZON	Zonda	2.83	180		Pn	02 13 57.2	+0.5
CFA	Coronel Fontan	2.92	173	P	Pn	02 13 58.5	+0.7
	comp=E,30nm,0.3s,baz=353,slow=12,SNR=426						
CFA				S	Sn	02 14 31.8	-0.6
	comp=E,43nm,0.3s,baz=338,slow=12,SNR=4.9						
CFA	Coronel Fontan	2.92	173	eP	Pn	02 13 58.5	+0.7
CFA				eS	Sn	02 14 32.7	+0.3
CFA				IAML		02 14 34.0	
	comp=Z,496nm,0.8s						
AC01	Pan de Azucar	3.06	326	eP	Pn	02 14 00.8	+1.2
AC01				eS	Sn	02 14 26.4	-9.4
AC01	Pan de Azucar	3.06	326	eP	Pn	02 14 00.0	+0.4
AC01	Pan de Azucar	3.06	326		Pn	02 14 00.4	+0.7
RTLS	Leoncito	3.13	190	eP	Pn	02 14 02.0	+1.1
RTLS				eS	Sn	02 14 38.8	+0.9
RTLS				IAML		02 14 43.6	
	comp=Z,869nm,0.4s						
CO02	Combarbal	3.21	218	eP	Pn	02 14 01.7	0.0
CO02				eS	Sn	02 14 37.9	-1.4
CO02				IAML		02 14 49.5	
	comp=Z,390nm,0.5s						
CO02	Combarbal	3.21	218	⇑iP	Pn	02 14 01.4	-0.3
CO02				iS	Sn	02 14 38.8	-0.5
CO02	Combarbal	3.21	218		Pn	02 14 01.3	-0.3
CO06	Fray Jorge	3.24	232	⇑iP	Pn	02 14 00.6	-1.4
CO06	Fray Jorge	3.24	232		Pn	02 14 00.6	-1.4
AHML	Horco Molle	3.53	58	⇑eP	Pn	02 14 01.3	-4.6
ACAN	Cantantal	3.79	160	eP	Pn	02 14 10.3	+0.9
ACAN				IAML		02 14 56.0	
	comp=Z,927nm,0.3s						
CO04	Los Peladeros	3.88	210	⇑iP	Pn	02 14 10.0	-0.8
CO04	Los Peladeros	3.88	210		Pn	02 14 09.9	-0.8
ARCO	CERRO ARCO	4.13	183	eP	Pn	02 14 15.1	+1.0
ARCO				IAML		02 15 06.2	
	comp=Z,162nm,0.8s						
PB14	IPOC Station P	4.34	339		Pn	02 14 18.4	+1.3
VA03	San Esteban	4.36	201	eP	Pn	02 14 17.4	+0.3
VA03				eS	Sn	02 15 10.6	+3.7
VA03				IAML		02 15 38.6	
	comp=Z,226nm,1.9s						
VA03	San Esteban	4.36	201		Pn	02 14 16.9	-0.1
PEL	Peldehue	4.75	201		Pn	02 14 21.6	-0.8
MT08	Bocatoma Ro	4.87	193	eP	Pn	02 14 25.7	+1.6
MT08	Bocatoma Ro	4.87	193		Pn	02 14 23.9	-0.2
MT16	CCHEN	4.97	198		Pn	02 14 24.8	-0.5
MT05	Renca	5.00	200		Pn	02 14 24.6	-1.1
VA01	Torpederas	5.01	210		Pn	02 14 23.3	-2.4
MT02	Curacav	5.01	204		Pn	02 14 23.9	-2.0
MT03	Universidad Ad	5.03	198		Pn	02 14 25.5	-0.6
MT13	San Alfonso	5.21	195		Pn	02 14 28.1	-0.5
MT09	Talagante	5.43	201		Pn	02 14 29.3	-2.4
BO04	La Punta	5.52	197		Pn	02 14 31.2	-1.6
MT01	Popeta	5.60	202		Pn	02 14 31.1	-2.6
AF01	San Pedro de A	5.74	5	Pn	Pn	02 14 35.2	-0.8
PB05	IPOC Station P	5.98	346	Pn	Pn	02 14 39.5	+0.4
BO01	Tunca	6.03	199		Pn	02 14 36.9	-2.7
BO02	Sierra Bellavi	6.33	196		Pn	02 14 41.4	-2.4
PB03	IPOC Station P	6.70	351		Pn	02 14 48.7	-0.2
GO05	Hualane	6.87	203	Pn	Pn	02 14 47.0	-4.1
PB09	IPOC Station P	6.89	356		Pn	02 14 46.2	-5.3
PB02	IPOC Station P	7.43	351		Pn	02 14 56.9	-1.9
BI02	San Fabin de	8.23	195		Pn	02 15 07.1	-2.5
CPUP	Villa Florida	10.35	79	P	Pn	02 15 37.1	-1.1
	comp=Z,2.8nm,0.4s,baz=248,slow=13,SNR=14						
CPUP				S	Sn	02 17 33.6	+1.2
	comp=Z,4.3nm,0.6s,baz=226,slow=16,SNR=1.4						
CPUP	Villa Florida	10.35	79		Pn	02 15 36.0	-2.3
LPAZ	La Paz	12.37	2	P	Pn	02 16 06.1	+0.2
	comp=Z,1.3nm,0.7s,baz=154,slow=5.3,SNR=7.3						
LPAZ				LR	LR	02 22 14.6	
	comp=Z,18nm,21.4s,baz=232,slow=44						
LPAZ	La Paz	12.37	2		Pn	02 16 06.2	+0.4
CPSB	Cacapava Do Su	13.38	101	Pn	Pn	02 16 17.0	-1.4
SIV	San Ignacio	14.47	31	P	Pn	02 16 32.6	-0.1
	comp=Z,1.0nm,0.7s,baz=206,slow=6.0,SNR=4.4						
GO08	Villa O’Higgin	19.96	188	P	Pn	02 17 37.3	-1.8
GO08				IAmb	IAmb	02 18 13.3	
	comp=Z,35nm,1.4s						
CZSB	Cruzeiro do Su	21.20	349	P	P	02 17 50.3	+0.2
CZSB				IAmb	IAmb	02 17 57.7	
	comp=Z,20nm,0.8s						
BDFB	Brasilia	23.09	60	P	P	02 18 09.2	-0.4
	comp=Z,1.4nm,0.5s,baz=262,slow=12,SNR=1.7						
	comp=Z,1.4nm,0.5s						
BDFB	Brasilia	23.09	60	P	P	02 18 07.6	-2.0
SNAA	Sanae	55.46	159	⇓P	P	02 22 36.7	+0.6
	comp=Z,57nm,0.6s						
SNAA	Sanae	55.46	159	P	P	02 22 37.3	+1.2
	comp=Z,4.3nm,0.9s,baz=278,slow=7.4,SNR=7.6						
	comp=Z,4.3nm,0.9s						
SNAA	Sanae	55.46	159	P	P	02 22 33.5	-2.6
SNAA				IAmb	IAmb	02 22 38.1	
	comp=Z,5.9nm,1.1s						
TROLL	Troll, Antarti	57.18	160	P	P	02 22 49.4	+1.1
	comp=Z,102nm,0.5s						
QSPA	South Pole Qui	61.52	180	P	P	02 23 19.9	+1.6
	comp=Z,1.7nm,0.6s,baz=144,slow=0.9,SNR=11						
QSPA				pP	pP	02 23 46.9	+1.6
	comp=Z,1.9nm,0.7s,baz=187,slow=2.6,SNR=4.6						
	comp=Z,1.7nm,0.6s						
QSPA	South Pole Qui	61.52	180	P	P	02 23 19.0	+0.7
QSPA					pP	02 23 42.7	-2.6
QSPA				IAmb	IAmb	02 24 01.2	
	comp=Z,3.9nm,1.1s						
LPIG	La Paz	66.04	318	LR	LR	02 46 03.6	
	comp=Z,210nm,19.8s,baz=101,slow=30						
TXAR	Lajitas Array	66.70	327	P	P	02 23 54.6	+2.1
	comp=Z,0.8nm,0.7s,baz=154,slow=8.5,SNR=10						
TXAR				pP	PcP	02 24 22.0	+1.2
	comp=Z,0.3nm,0.7s,baz=155,slow=5.6,SNR=1.8						
	comp=Z,0.8nm,0.7s						
TXAR	Lajitas Array	66.70	327	P	P	02 23 54.0	+1.5
DBIC	Dimbokro	70.74	71	P	P	02 24 19.3	+1.4
	comp=Z,5.2nm,0.6s,baz=245,slow=7.1,SNR=5.2						
	comp=Z,5.2nm,0.6s						
DBIC	Dimbokro	70.74	71	P	P	02 24 15.9	-2.0
DBIC				IAmb	IAmb	02 24 20.2	
	comp=Z,6.2nm,0.7s						
MAW	Mawson	77.41	163	P	P	02 24 56.9	+1.2
	comp=Z,1.8nm,0.8s,baz=244,slow=14,SNR=4.4						
	comp=Z,1.8nm,0.8s						
MAW	Mawson	77.41	163	P	P	02 24 56.0	+0.3
TORD	Torodi Ar. Bea	79.66	69	P	P	02 25 10.4	+1.4
	comp=Z,5.5nm,0.7s,baz=265,slow=4.7,SNR=31						
TORD				pP	pP	02 25 36.6	-0.6
	comp=Z,0.7nm,0.7s,baz=197,slow=3.0,SNR=1.3						
	comp=Z,5.5nm,0.7s						
TORD	Torodi Ar. Bea	79.66	69	P	P	02 25 08.1	-0.9
TORD					pP	02 25 34.5	-2.6
BOSA	Boshof	79.94	117	P	P	02 25 11.5	+0.9
	comp=Z,3.2nm,0.9s,baz=250,slow=4.4,SNR=5.1						
	comp=Z,3.2nm,0.9s						
BOSA	Boshof	79.94	117	P	P	02 25 11.2	+0.6
BOSA				IAmb	IAmb	02 25 25.0	
	comp=Z,15nm,1.4s						
PDAR	Pinedale Array	80.45	331	P	P	02 25 14.8	+1.8
	comp=Z,1.1nm,0.7s,baz=124,slow=8.1,SNR=11						
PDAR				pP	pP	02 25 41.3	-0.6
	comp=Z,0.1nm,0.3s,baz=33,slow=4.0,SNR=1.6						
	comp=Z,1.1nm,0.7s						
PDAR	Pinedale Array	80.45	331	P	P	02 25 12.5	-0.5
PDAR					pP	02 25 40.1	-1.8
ULM	Lac du Bonnet	82.22	343	P	P	02 25 22.8	+1.0
	comp=Z,1.2nm,0.5s,baz=98,slow=12,SNR=4.1						
	comp=Z,1.2nm,0.5s						
ULM	Lac du Bonnet	82.22	343	P	P	02 25 22.7	+0.9
ULM				IAmb	IAmb	02 25 34.5	
	comp=Z,7.9nm,1.5s						
SCHQ	Schefferville	83.20	1	P	P	02 25 27.9	+1.1
	comp=Z,7.3nm,1.1s,baz=174,slow=8.5,SNR=3.3						
	comp=Z,7.3nm,1.1s						
SCHQ	Schefferville	83.20	1	P	P	02 25 27.2	+0.5
ASAR	Alice Springs	123.57	205	PKP	PKiKP	02 31 58.8	+0.1
	comp=Z,0.7nm,0.4s,baz=131,slow=2.0,SNR=7.5						
ASAR				pPKP	pPKPdf	02 32 28.5	-0.1
	comp=Z,0.6nm,0.5s,baz=140,slow=1.8,SNR=3.3						
WRA	Warramunga Arr	126.77	207	PKP	PKiKP	02 32 05.2	+0.2
	comp=Z,1.5nm,0.5s,baz=158,slow=1.8,SNR=24						
WRA				pPKP	pPKPdf	02 32 34.9	+0.1
	comp=Z,1.1nm,0.6s,baz=157,slow=1.7,SNR=5.5						
WRA	Warramunga Arr	126.77	207		PKPdf	02 32 03.8	-0.8
YAK	Yakutsk	144.53	345	PKP	PKPdf	02 32 35.8	-0.1
	comp=Z,13nm,0.4s,baz=36,slow=6.8,SNR=4.2						
YAK	Yakutsk	144.53	345		PKPdf	02 32 35.7	-0.3
KURBB	Kurchatov Arra	147.00	39	PKPbc	PKPbc	02 32 42.9	+0.1
	comp=Z,5.0nm,0.7s,baz=302,slow=3.3,SNR=44						
KURBB				pPKPbc	pPKPab	02 33 12.3	-1.5
	comp=Z,0.2nm,0.5s,baz=296,slow=3.2,SNR=2.4						
KURK	Kurchatov	147.01	39		PKPdf	02 32 41.0	+0.5
ZALV	Zalesovo Beam	148.22	30	PKP	PKPbc	02 32 44.6	-1.4
	comp=Z,1.3nm,0.4s,baz=308,slow=5.3,SNR=25						
ZALV				PKPbc	PKiKP	02 32 47.5	0.0
	comp=Z,7.8nm,0.4s,baz=316,slow=6.2,SNR=36						
ZALV				pPKPbc	pPKPbc	02 33 16.0	+0.2
	comp=Z,1.6nm,0.5s,baz=302,slow=3.3,SNR=2.9						
ZALV	Zalesovo Beam	148.22	30		PKPdf	02 32 43.9	+1.4
KSH2	Kashi	148.74	61	PKPbc	PKiKP	02 32 50.1	+0.8
MKAR	Makanchi Array	151.03	44	PKPbc	PKiKP	02 32 54.5	+0.8
	comp=Z,7.1nm,0.7s,baz=306,slow=2.0,SNR=58						
MKAR				PKPab	PKPab	02 33 02.4	+1.4
	comp=Z,3.3nm,1.1s,baz=289,slow=3.7,SNR=4.8						
MKAR				pPKPbc	pPKPbc	02 33 23.7	+0.7
	comp=Z,1.3nm,0.5s,baz=302,slow=1.9,SNR=4.5						
HHC	Hu-ho-hao-te	167.88	359	eP	PKPdf	02 33 06.5	-0.2
PZH	PanZhiHua	171.23	102	PKP	PKPdf	02 33 05.1	-4.1
NJ2	Nanjing	172.69	299	eP	PKPdf	02 33 07.2	-2.3
NJ2				pmax	pmax		
	comp=Z,30nm,0.6s						

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*NEIC **03** 02:32:03.1±2.0, 30°.29S±0°.09×179°.4W±0°.2, h317^{km}±5^{km}, mb4.2/13, Error ellipse: s-maj=20.2km s-min=12.8km az=95.0*

*IDC **03** 02:32:05.0±2.0, 30°.16S×179°.52W, h335^{km}±17^{km}, mb3.8/15, mbtmp4.5/17, Error ellipse: s-maj=16.1km s-min=11.2km az=70.0*

ISC 03 02:32:02.9±0.7**, 30°.34S**±0°.05×**179°.53W**±0°.08**, h319**^{km}±6^{km}**, n197, σ1^{s}42**/226**, mb4.2**/26**, 17C-10D, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GLKZ	Green Lake	1.77	53	P	Pn	02 32 49.7	-0.1
GLKZ				S	S	02 33 24.3	-2.8
GLKZ				AML	AML		
GRZ	Great Barrier	7.23	214	P	Pn	02 33 52.8	+5.5
MXZ	Matakaoa Point	7.43	193	P	Pn	02 33 47.8	-1.8
MXZ				S	S	02 35 15.8	-0.4
OUZ	Omahuta	7.56	228	P	Pn	02 33 56.8	+5.5
OUZ				AML	AML		
WCZ	Waipu Caves	7.58	221	P	Pn	02 33 58.3	+6.7
WMGZ	Waiomatatini S	7.65	192	P	Pn	02 33 54.4	+2.0
WMGZ				S	S	02 35 21.5	+0.3
WMGZ				AML	AML		
WMGZ				AML	AML		
HAZ	Te Kaha	7.73	196	P	Pn	02 33 53.9	+0.6
HAZ				S	S	02 35 22.8	-0.1
HAZ				AML	AML		
HAZ				AML	AML		
PKGZ	Pakihiroa	7.76	194	P	Pn	02 33 55.4	+1.6
PKGZ				S	S	02 35 21.0	-2.8
PKGZ				AML	AML		
PKGZ				AML	AML		
WIAZ	Waiheke Island	7.82	213	P	Pn	02 34 00.8	+6.3
PUZ	Puketiti	7.93	193	P	Pn	02 33 56.9	+1.2
PUZ				S	S	02 35 24.3	-3.1
PUZ				AML	AML		
PUZ				AML	AML		
RUGZ	Raukumara Rang	7.95	196	P	Pn	02 33 55.1	-1.1
RUGZ				AML	AML		
MKAZ	Moumakai	8.06	212	P	P	02 34 03.8	+1.9
TWGZ	Tauwhareparae	8.09	194	P	P	02 34 01.0	-1.1
TWGZ				S	S	02 35 30.5	-0.4
TWGZ				AML	AML		
TWGZ				AML	AML		
CNGZ	Carnagh Statio	8.34	192	P	Pn	02 34 00.1	-0.5
MWZ	Matawai	8.34	196	P	Pn	02 33 59.6	-1.1
MWZ				S	S	02 35 34.0	-2.5
TKGZ	Te Karaka	8.37	194	P	Pn	02 33 59.2	-1.7
TKGZ				S	S	02 35 35.0	-2.0
URZ	Urewera	8.37	198	P	P	02 34 03.4	-1.9
	30nm,0.3s,baz=330,slow=20,SNR=52						
URZ				S	S	02 35 34.2	-3.0
	129nm,0.6s,baz=192,slow=24,SNR=16						
URZ	Urewera	8.37	198	P	Pn	02 34 00.0	-1.0
URZ				S	S	02 35 37.4	+0.2
RAGZ	Rawiri	8.52	196	P	P	02 34 06.7	-0.5
RAGZ				AML	AML		
RAGZ				AML	AML		
RIGZ	Rimuhau	8.64	194	P	Pn	02 34 05.4	+1.0
RIGZ				S	S	02 35 40.4	-2.8
RIGZ				AML	AML		
RIGZ				AML	AML		
MUGZ	Murupara	8.67	200	P	Pn	02 34 06.7	+2.0
MUGZ				AML	AML		
MUGZ				AML	AML		
RTZ	Ruatahuna	8.74	198		P	02 34 08.4	-1.3
RTZ	Ruatahuna	8.74	198	P	Pn	02 34 07.1	+1.5
RTZ				AML	AML		
RTZ				AML	AML		
PRGZ	Paritu Road	8.82	193	P	P	02 34 10.2	-0.4
PRGZ				AML	AML		
ALRZ	Allen Road	8.88	201	P	P	02 34 10.4	-0.8
TLZ	Tolley Road	8.95	206	P	P	02 34 12.3	+0.3
TLZ				AML	AML		
KNZ	Kokohu	8.96	194	P	P	02 34 10.5	-1.6
KNZ				AML	AML		
KUTZ	Kaahu Road	8.99	204	P	P	02 34 13.1	+0.7
RAHZ	Arahi	9.00	197	P	Pn	02 34 10.3	+1.6
RAHZ				AML	AML		

RAHZ				AML	AML		
MTHZ	**Maungataniwha**	**9.00**	**198**	P	**Pn**	**02 34 09.6**	**+0.8**
MTHZ				AML	AML		
MTHZ				AML	AML		
MHGZ	**Mahia Peninsul**	**9.04**	**193**	P	**Pn**	**02 34 10.2**	**+1.0**
MHGZ				AML	AML		
WHHZ	**Waihua**	**9.11**	**196**	P	**P**	**02 34 12.6**	**-1.1**
WHHZ				AML	AML		
WATZ	**Wairara**	**9.21**	**204**	P	**P**	**02 34 15.7**	**+0.8**
NMHZ	**Naumai**	**9.24**	**198**	P	**Pn**	**02 34 12.0**	**+0.3**
NMHZ				S	**S**	**02 35 57.1**	**+0.3**
ARHZ	**Aropaoanui**	**9.35**	**197**	P	**Pn**	**02 34 14.3**	**+1.3**
ARHZ				S	**S**	**02 35 55.9**	**-3.1**
HIZ	**Hauiti**	**9.38**	**208**	P	**P**	**02 34 18.8**	**+2.1**
BKZ	**Black Stump Fm**	**9.39**	**199**	S	**S**	**02 36 00.6**	**+0.5**
TMVZ	**Te Maari**	**9.59**	**203**	P	**Pn**	**02 34 17.6**	**+1.6**
MCHZ	**McNeill Hill**	**9.60**	**198**	P	**P**	**02 34 18.7**	**-0.4**
TWVZ	**Taurewa**	**9.64**	**204**	P	**Pn**	**02 34 17.7**	**+1.1**
KWHZ	**Kaweka Forest**	**9.65**	**199**	P	**Pn**	**02 34 16.3**	**-0.3**
SNVZ	**South Ngauruho**	**9.68**	**203**	P	**Pn**	**02 34 15.6**	**-1.4**
NGZ	**Ngauruhoe**	**9.68**	**203**	P	**P**	**02 34 19.4**	**-0.8**
CKHZ	**Cape Kidnapper**	**9.70**	**196**	P	**Pn**	**02 34 18.8**	**+1.6**
CKHZ				S	**S**	**02 36 04.6**	**-2.4**
FWVZ	**Far West T-bar**	**9.77**	**203**	P	**Pn**	**02 34 15.0**	**-3.2**
FWVZ				S	**S**	**02 36 10.4**	**+1.6**
MAVZ	**Matarangi**	**9.78**	**203**	P	**Pn**	**02 34 19.0**	**+0.6**
MAVZ				S	**S**	**02 36 10.4**	**+1.3**
TRVZ	**Turoa**	**9.81**	**203**	P	**Pn**	**02 34 20.0**	**+1.3**
TRVZ				S	**S**	**02 36 10.9**	**+1.2**
BHHZ	**Black Hill Sta**	**9.82**	**200**	P	**Pn**	**02 34 17.7**	**-0.9**
BHHZ				S	**S**	**02 36 04.5**	**-5.2**
MOVZ	**Moawhango**	**9.84**	**202**	P	**Pn**	**02 34 19.6**	**+0.7**
KRHZ	**Kereru**	**9.87**	**199**	P	**Pn**	**02 34 16.9**	**-2.4**
KAHZ	**Kahuranaki**	**9.88**	**196**	P	**Pn**	**02 34 20.0**	**+0.5**
KAHZ				S	**S**	**02 36 09.4**	**-1.7**
PXZ	**Pawanui**	**10.11**	**196**	P	**Pn**	**02 34 21.3**	**-0.8**
PXZ				S	**S**	**02 36 10.3**	**-5.8**
PNHZ	**Pukenui**	**10.17**	**199**	P	**Pn**	**02 34 21.2**	**-1.8**
WPHZ	**Waipukurau**	**10.25**	**198**	P	**Pn**	**02 34 24.9**	**+1.1**
PRHZ	**Porangahau**	**10.39**	**196**	P	**Pn**	**02 34 25.5**	**0.0**
PRHZ				S	**S**	**02 36 18.5**	**-3.9**
DVHZ	**Dannevirke**	**10.54**	**198**	P	**Pn**	**02 34 27.0**	**-0.3**
POWZ	**Post Office Ro**	**10.74**	**200**	P	**Pn**	**02 34 30.2**	**+0.5**
POWZ				S	**S**	**02 36 26.7**	**-3.5**
MRZ	**Mangatainoka R**	**11.04**	**200**	P	**Pn**	**02 34 32.9**	**-0.5**
TCW	**Tory Channel**	**11.95**	**203**	P	**Pn**	**02 34 43.4**	**-1.0**
TKNZ	**Takaka Hill**	**12.29**	**208**	P	**Pn**	**02 34 45.9**	**-2.6**
MSVF	**Nonsavu**	**12.74**	**350**	P	**Pn**	**02 34 54.0**	**-0.3**
	20nm,0.7s,baz=157,slow=13,SNR=8.2						
MSVF	**Nonsavu**	**12.74**	**350**		**Pn**	**02 34 54.4**	**+0.2**
KHZ	**Kahutara**	**13.28**	**203**	P	**P**	**02 34 56.9**	**-3.0**
DZM	**Mont Dzumac**	**15.03**	**300**	P	**Pn**	**02 35 23.4**	**+2.1**
	13nm,0.5s,baz=169,slow=14,SNR=18						
RPZ	**Rata Peaks**	**15.31**	**207**	S	**S**	**02 38 01.8**	**-5.8**
	1.1nm,0.3s,baz=351,slow=22,SNR=2.2						
CTA	**Charters Tower**	**32.48**	**280**	P	**P**	**02 38 05.2**	**+0.6**
	3.0nm,0.5s,baz=101,slow=9.2,SNR=6.7						
	3.0nm,0.5s						
STKA	**Stephens Creek**	**33.20**	**257**	P	**P**	**02 38 12.2**	**+1.5**
	2.7nm,0.4s,baz=98,slow=11,SNR=6.2						
	2.7nm,0.4s						
KRVT	**Keravat (AS076**	**37.29**	**308**	P	**P**	**02 38 45.4**	**-0.1**
	211nm,0.4s,baz=66,slow=3.4,SNR=4.2						
ASAR	**Alice Springs**	**41.79**	**268**	P	**P**	**02 39 22.7**	**+0.4**
	1.8nm,0.4s,baz=104,slow=6.4,SNR=24						
ASAR				ScP	**ScP**	**02 44 29.1**	**-2.0**
	1.7nm,0.8s,baz=105,slow=4.3,SNR=5.6						
	1.8nm,0.4s						
ASAR	**Alice Springs**	**41.79**	**268**	P	**P**	**02 39 22.1**	**-0.2**
WR8	**Warramunga Arr**	**42.63**	**273**	P	**P**	**02 39 29.2**	**+0.2**
WR8				IAmb	IAmb	02 39 31.1	
	comp=Z,9.3nm,0.9s						
WRA	**Warramunga Arr**	**42.77**	**273**	P	**P**	**02 39 30.7**	**+0.5**
	comp=Z,6.9nm,0.5s,baz=111,slow=7.8,SNR=78						
WRA				PcP	**PcP**	**02 41 15.0**	**-0.1**
	comp=Z,1.4nm,0.7s,baz=127,slow=4.5,SNR=1.6						
WRA				ScP	**ScP**	**02 44 32.8**	**-2.3**
	comp=Z,0.9nm,0.8s,baz=108,slow=4.2,SNR=3.6						
WRA				S	**S**	**02 45 26.1**	**-3.6**
	comp=Z,0.9nm,0.8s,baz=110,slow=14,SNR=4.9						
	comp=Z,6.9nm,0.5s						
WRA	**Warramunga Arr**	**42.77**	**273**	P	**P**	**02 39 29.9**	**-0.2**
WRA					**PcP**	**02 41 15.1**	**0.0**
WRA					**ScP**	**02 44 34.8**	**-0.3**
WB0	**Warramunga Arr**	**42.79**	**273**		**P**	**02 39 30.7**	**+0.4**
WB0				IAmb	IAmb	02 39 32.7	
	comp=Z,16nm,1.1s						
VNDA	**Vanda**	**48.03**	**185**	P	**P**	**02 40 12.2**	**+2.0**
	comp=Z,0.2nm,0.5s,baz=346,slow=17,SNR=1.1						
VNDA				PcP	**PcP**	**02 41 33.9**	**+1.3**
	comp=Z,1.2nm,0.8s,baz=354,slow=5.2,SNR=5.7						
VNDA	**Vanda**	**48.03**	**185**	P	**P**	**02 40 11.8**	**+1.6**
VNDA					**PcP**	**02 41 33.8**	**+1.3**
QSPA	**South Pole Qui**	**59.77**	**180**	P	**P**	**02 41 37.3**	**+2.5**
	comp=Z,16nm,0.6s,baz=331,slow=0.5,SNR=113						
QSPA				PcP	**PcP**	**02 42 19.1**	**+1.2**
	comp=Z,3.0nm,0.6s,baz=98,slow=3.3,SNR=2.0						
	comp=Z,16nm,0.6s						
QSPA	**South Pole Qui**	**59.77**	**180**	P	**P**	**02 41 36.8**	**+2.0**
QSPA					**PcP**	**02 42 18.8**	**+0.9**
MAW	**Mawson**	**71.90**	**201**	P	**P**	**02 42 52.8**	**+1.4**
	comp=Z,1.0nm,0.5s,baz=140,slow=19,SNR=2.5						
	comp=Z,1.0nm,0.5s						
MAW	**Mawson**	**71.90**	**201**	P	**P**	**02 42 51.5**	**+0.2**
MJAR	**Matsushiro Arr**	**77.44**	**326**	P	**P**	**02 43 22.5**	**-0.9**
	comp=Z,1.4nm,0.5s,baz=164,slow=5.3,SNR=4.4						
	comp=Z,1.4nm,0.5s						
MJAR	**Matsushiro Arr**	**77.44**	**326**	P	**P**	**02 43 22.9**	**-0.5**
MJAR				IAmb	IAmb	02 43 23.4	
	comp=Z,6.5nm,1.1s						
TROLL	**Troll, Antarti**	**77.92**	**181**	⇓P	**P**	**02 43 27.0**	**+1.3**
	comp=Z,685nm,0.5s						
SNAA	**Sanae**	**78.25**	**179**	⇓P	**P**	**02 43 28.4**	**+1.0**
	comp=Z,124nm,0.6s						
SNAA	**Sanae**	**78.25**	**179**	P	**P**	**02 43 28.4**	**+1.0**
	comp=Z,4.1nm,0.6s,baz=194,slow=5.9,SNR=14						
	comp=Z,4.1nm,0.6s						
SNAA	**Sanae**	**78.25**	**179**	P	**P**	**02 43 28.5**	**+1.0**
SNAA				IAmb	IAmb	02 43 29.4	
	comp=Z,9.1nm,1.0s						
VNA3	**Neumayer Olymp**	**78.45**	**177**	⇓P	**P**	**02 43 29.4**	**+0.9**
	comp=Z,26nm,0.5s						
VNA2	**Neumayer--Watz**	**78.87**	**177**	⇓P	**P**	**02 43 31.9**	**+1.2**
	comp=Z,28nm,0.6s,baz=172,slow=4.8						
VNA1	**Neumayer--Stat**	**79.11**	**177**	P	**P**	**02 43 33.1**	**+1.2**
	comp=Z,15nm,0.6s						
KSRS	**Korea Array**	**83.45**	**321**	P	**P**	**02 43 55.8**	**+0.8**
	comp=Z,3.1nm,0.9s,baz=159,slow=4.7,SNR=4.6						
	comp=Z,3.1nm,0.9s						
PLCA	**Paso Flores**	**83.51**	**134**	P	**P**	**02 43 56.5**	**+0.8**
	comp=Z,1.7nm,0.8s,baz=251,slow=5.6,SNR=3.0						
	comp=Z,1.7nm,0.8s						
PETK	**Petropavlovsk-**	**85.43**	**346**	P	**P**	**02 44 03.9**	**-0.6**
	comp=Z,12nm,0.7s,baz=109,slow=8.0,SNR=10						
	comp=Z,12nm,0.7s						
PETK	**Petropavlovsk-**	**85.43**	**346**	P	**P**	**02 44 04.2**	**-0.3**
USRK	**Ussuriysk Ar.**	**86.39**	**327**	P	**P**	**02 44 09.9**	**+0.5**
	comp=Z,3.2nm,0.8s,baz=134,slow=4.2,SNR=3.5						
	comp=Z,3.2nm,0.8s						
USRK	**Ussuriysk Ar.**	**86.39**	**327**	P	**P**	**02 44 09.1**	**-0.3**
O02D	**Mt. Diablo Mer**	**87.69**	**40**	P	**P**	**02 44 15.1**	**-0.8**
IRM	**Iron Mountain**	**88.34**	**48**	P	**P**	**02 44 18.1**	**-0.9**
IRM				IAmb	IAmb	02 44 20.5	
	comp=Z,3.0nm,0.9s						
NVAR	**Mina Array Bea**	**89.10**	**44**	P	**P**	**02 44 23.0**	**+0.3**
	comp=Z,1.7nm,1.0s,baz=228,slow=8.2,SNR=8.1						
	comp=Z,1.7nm,1.0s						
KVN	**Kaiserville**	**89.62**	**43**	P	**P**	**02 44 25.0**	**-0.1**
KVN				IAmb	IAmb	02 44 26.1	
	comp=Z,2.0nm,1.4s						
BNX	**BinXian**	**89.71**	**326**	⇓P	**P**	**02 44 25.3**	**+0.3**
BNX				pmax	pmax		
	comp=Z,17nm,0.9s						
PINE	**Pine Mountain**	**91.17**	**38**	P	**P**	**02 44 32.6**	**+0.5**
PINE				IAmb	IAmb	02 44 34.1	
	comp=Z,9.6nm,1.3s						
PDAR	**Pinedale Array**	**97.01**	**44**	P	**P**	**02 44 58.8**	**-0.1**
	comp=Z,0.2nm,0.5s,baz=226,slow=3.4,SNR=2.0						
	comp=Z,0.2nm,0.5s						
PDAR	**Pinedale Array**	**97.01**	**44**	P	**P**	**02 44 58.6**	**-0.2**
ILAR	**Eielson Array**	**98.17**	**14**	P	**P**	**02 45 03.9**	**+0.6**
	comp=Z,0.2nm,0.5s,baz=216,slow=5.9,SNR=5.7						
	comp=Z,0.2nm,0.5s						
ILAR	**Eielson Array**	**98.17**	**14**	P	Pdif	02 45 02.6	-0.6
MKAR	**Makanchi Array**	**116.72**	**310**	PKP	**PKPdf**	**02 50 08.1**	**-1.1**
	comp=Z,0.8nm,0.4s,baz=90,slow=2.9,SNR=14						
BOSA	**Boshof**	**116.78**	**204**	PKP	**PKiKP**	**02 50 10.3**	**+0.1**
	comp=Z,3.7nm,1.0s,baz=232,slow=3.7,SNR=5.7						
ZALV	**Zalesovo Beam**	**117.11**	**319**	PKP	**PKPdf**	**02 50 08.3**	**-1.3**
	comp=Z,0.5nm,0.4s,baz=72,slow=0.5,SNR=2.4						
KURK	**Kurchatov**	**120.05**	**314**		**PKPdf**	**02 50 14.5**	**-0.9**
KURBB	**Kurchatov Arra**	**120.09**	**314**	PKP	**PKPdf**	**02 50 14.4**	**-1.0**
	comp=Z,4.5nm,0.7s,baz=107,slow=1.9,SNR=45						
ARSB	**Arslanbob**	**121.75**	**302**		**PKPdf**	**02 50 19.3**	**0.0**
BVAR	**Borovoye Array**	**125.44**	**316**	PKP	**PKPdf**	**02 50 25.3**	**-0.4**
	comp=Z,6.0nm,0.7s,baz=84,slow=2.8,SNR=21						
BORK	**Borovoye**	**125.48**	**316**		**PKPdf**	**02 50 25.6**	**-0.2**
SPITS	**Spitsbergen Ar**	**131.55**	**356**	PKP	**PKPdf**	**02 50 36.2**	**-0.5**
	comp=Z,3.9nm,0.7s,baz=73,slow=5.6,SNR=5.6						
ARTI	**Arti**	**132.30**	**320**		**PKiKP**	**02 50 39.3**	**-0.5**
ARCES	**ARCESS Array B**	**138.24**	**347**	PKhKP	PKPpre	02 50 39.8	
	comp=Z,0.7nm,0.3s,baz=64,slow=2.2,SNR=26						
ARCES				PKP	**PKPdf**	**02 50 48.3**	**-1.0**
	comp=Z,2.5nm,0.5s,baz=70,slow=1.7,SNR=12						
OZAP	**Van, Ozalp-Mer**	**143.46**	**295**	⇑P	**PKPdf**	**02 51 00.1**	**+0.1**
KBZ	**Khabaz**	**143.97**	**304**	PKP	PKPbc	02 50 59.1	-0.1
	comp=Z,6.7nm,0.7s,baz=180,slow=2.7,SNR=20						
FINES	**FINESS Array B**	**144.62**	**339**	PKP	PKPbc	02 50 59.8	-0.8
	comp=Z,29nm,0.4s,baz=51,slow=4.3,SNR=405						
HOMI	**Horasan**	**145.04**	**298**	⇑P	**PKPab**	**02 51 03.7**	**+0.4**
NB2	**NORSAR Subarra**	**148.47**	**350**	PKP	**PKPbc**	**02 51 10.9**	**-0.6**
	comp=Z,3.4nm,0.4s,baz=16,slow=2.6						
NOA	**NORSAR Array B**	**148.47**	**350**	PKPbc	**PKPbc**	**02 51 10.6**	**-0.9**
	comp=Z,6.5nm,0.6s,baz=16,slow=4.2,SNR=28						
HFS	**Hagfors**	**148.91**	**347**	PKPbc	**PKPbc**	**02 51 11.4**	**-1.1**
	comp=Z,5.5nm,0.3s,baz=58,slow=3.7,SNR=97						
MMAI	**Mount Meron Ar**	**150.23**	**284**	PKPbc	**PKiKP**	**02 51 17.9**	**+0.6**
	comp=Z,9.1nm,0.4s,baz=49,slow=6.7,SNR=22						
STRU	**Stroemstad**	**150.39**	**349**	*i* P	**PKPbc**	**02 51 15.6**	**-0.5**
AKASG	**Malin Array Be**	**150.44**	**322**	PKPbc	**PKPbc**	**02 51 16.0**	**-0.5**
	comp=Z,14nm,0.6s,baz=53,slow=2.4,SNR=7.7						
AKASG				PKPab	**PKPab**	**02 51 23.5**	**-0.8**
	comp=Z,1.1nm,0.4s,baz=47,slow=4.5,SNR=9.9						
KIEV	**Kiev**	**150.45**	**322**	⇓P	**PKPbc**	**02 51 16.0**	**-0.5**
BZK	**Bozkurt**	**150.72**	**303**	⇓P	**PKiKP**	**02 51 17.7**	**-0.2**
ILGA	**Ilgaz**	**151.12**	**301**		**PKiKP**	**02 51 19.3**	**+0.1**
SUW	**Suwalki**	**151.21**	**332**	*e*PKP	**PKPbc**	**02 51 18.3**	**+0.2**
TJOU	**Tjoern**	**151.26**	**348**	*i* P	**PKPbc**	**02 51 17.4**	**-0.7**
KIRS	**Kirsehir-Merke**	**151.27**	**297**	⇓P	**PKPbc**	**02 51 18.6**	**-0.3**
BRTR	**Keskin Array B**	**151.40**	**298**	PKPbc	**PKPbc**	**02 51 18.9**	**-0.5**
	comp=Z,3.4nm,0.5s,baz=142,slow=4.6,SNR=36						
BRTR				PKPab	**PKPab**	**02 51 28.1**	**-0.8**
	comp=Z,1.2nm,0.7s,baz=96,slow=5.0,SNR=5.6						
HOMB	**Homborsund**	**151.53**	**351**	*i* P	**PKPbc**	**02 51 18.6**	**-0.1**
SNART	**Snartemo**	**151.62**	**353**	*i* P	**PKPbc**	**02 51 19.1**	**+0.1**
ONAU	**Onsala**	**151.80**	**347**	*i* P	**PKPbc**	**02 51 18.6**	**-0.7**
BLEU	**Blekinge**	**151.88**	**342**	*i* P	**PKPbc**	**02 51 18.7**	**-0.9**
FABU	**Falkenberg**	**152.00**	**346**	*i* P	**PKPbc**	**02 51 19.0**	**-0.8**
CSS	**Mathiatis**	**152.02**	**288**		**PKiKP**	**02 51 20.9**	**-0.1**
OVD	**Ostervraa, Den**	**152.19**	**349**	*i* P	**PKPbc**	**02 51 20.2**	**0.0**
DEL	**Delary**	**152.22**	**344**	*i* P	**PKPbc**	**02 51 19.9**	**-0.4**
SORM	**Soroca**	**152.25**	**318**	⇑P	**PKPbc**	**02 51 20.0**	**-0.7**
LUNU	**Lund**	**153.09**	**344**	*i* P	**PKPbc**	**02 51 21.9**	**-0.4**
BSD	**Bornholm Skovb**	**153.17**	**341**	*i* P	**PKPbc**	**02 51 22.2**	**-0.3**
TLCR		**153.30**	**312**	⇑P	**PKPab**	**02 51 37.0**	**+0.5**
KEPZ	**Antalya-Kepez**	**153.33**	**293**	⇑P	**PKPbc**	**02 51 22.4**	**-1.2**
VLDR	**Vladesti**	**153.49**	**313**	⇑P	**PKPab**	**02 51 38.2**	**+0.8**
TPGR	**Topolog**	**153.69**	**311**	⇑P	**PKPab**	**02 51 39.0**	**+0.8**
BIZ	**Bicaz**	**154.17**	**317**	⇓P	**PKiKP**	**02 51 26.3**	**+1.3**
VRI	**Vrincioaia**	**154.32**	**314**	⇑P	**PKPab**	**02 51 42.2**	**+1.2**
BURAR	**Bucovina Array**	**154.33**	**319**		**PKPab**	**02 51 41.3**	**+0.3**
BURAR	**Bucovina Array**	**154.33**	**319**	⇑P	**PKPab**	**02 51 41.4**	**+0.4**
PLOR	**Plostina**	**154.38**	**315**	⇑P	**PKPab**	**02 51 42.0**	**+0.8**
SAHR	**Sahastru**	**154.42**	**314**	⇑P	**PKPab**	**02 51 42.4**	**+1.0**
KWP	**Kalwaria Pacla**	**154.44**	**325**	*e*PKP	**PKPab**	**02 51 41.1**	**-0.2**
TURR	**Turia**	**154.67**	**315**	⇑P	**PKPab**	**02 51 43.4**	**+1.0**
EKA	**Eskdalemuir Ar**	**154.88**	**5**	PKPbc	**PKPbc**	**02 51 25.1**	**-1.1**
	comp=Z,3.4nm,1.0s,baz=311,slow=1.5,SNR=2.7						
EKA				PKPab	**PKPab**	**02 51 41.5**	**-1.3**
	comp=Z,0.5nm,0.4s,baz=333,slow=2.9,SNR=3.6						
DOPR	**Dopca**	**155.09**	**316**	⇑P	**PKPab**	**02 51 45.1**	**+0.9**
OJC	**Ojcow**	**155.40**	**329**	*e*PKP	**PKPab**	**02 51 45.6**	**+0.3**
TAVA	**DENIZLI_Tavas**	**155.40**	**294**	⇑P	PKPdf	02 51 27.9	+9.3
NIE	**Niedzica**	**155.74**	**327**	*e*PKP	**PKPab**	**02 51 47.5**	**+0.6**
ARR	**Arges**	**155.85**	**315**	⇑P	**PKPab**	**02 51 47.4**	**-0.2**
DBIC	**Dimbokro**	**155.93**	**167**	PKPbc	PKPdf	02 51 29.8	+10
	comp=Z,3.8nm,0.7s,baz=151,slow=7.4,SNR=2.1						
DBIC				PKPab	**PKPab**	**02 51 49.1**	**+0.7**
	comp=Z,1.8nm,0.7s,baz=279,slow=4.2,SNR=3.8						
MARR	**Marisel-Cluj**	**156.04**	**319**	⇓P	**PKPab**	**02 51 48.7**	**+0.3**
KSP	**Ksiaz**	**156.35**	**334**	*e*PKP	**PKPab**	**02 51 49.6**	**+0.2**
VLAD	**Vladila**	**156.66**	**312**	⇑P	**PKPab**	**02 51 44.7**	**-6.3**
MORC	**Moravsky Berou**	**156.70**	**331**	*e*PKP	**PKPab**	**02 51 50.5**	**-0.5**
UPC	**Upice**	**156.72**	**334**	*e*PKPAB	**PKPab**	**02 51 51.1**	**+0.1**
DPC	**Dobruska-Polom**	**156.73**	**334**	*e*PKPAB	**PKPab**	**02 51 51.5**	**+0.4**
KRLC	**Kraliky**	**156.77**	**333**	*e*PKPAB	**PKPab**	**02 51 51.0**	**-0.3**
CLL	**Collm**	**157.07**	**340**		**PKPab**	**02 51 52.5**	**0.0**
CLL	**Collm**	**157.07**	**340**	⇑*i*PKPab	**PKPab**	**02 51 52.1**	**-0.3**
	comp=Z,8.0nm,0.6s						
BRG	**Berggiesshubel**	**157.15**	**338**	*e*P	**PKPab**	**02 51 52.8**	**0.0**
BRG				Amp		02 51 53.4	
	comp=Z,5.5nm,0.8s						
JAVC	**Velka Javorina**	**157.34**	**330**	*e*PKP	**PKPab**	**02 51 54.8**	**+1.0**
KRUC	**Moravsky**	**157.72**	**332**	*e*PKP	**PKPab**	**02 51 55.0**	**-0.4**
KHC	**Kasperske Hory**	**158.75**	**336**	*e*PKPAB	**PKPab**	**02 51 59.3**	**-0.6**
RONA	**Rosalia, Austr**	**158.81**	**329**	*i* PKP	**PKPab**	**02 52 00.6**	**+0.4**
	comp=Z,7.7nm,1.4s						
CONA	**Conrad Observa**	**158.83**	**330**	*i* PKP	**PKPab**	**02 52 00.1**	**-0.3**
	comp=Z,4.5nm,1.0s						
GERES	**GERESS Array B**	**158.95**	**335**	PKPab	**PKPab**	**02 52 00.3**	**-0.5**
	comp=Z,2.2nm,0.7s,baz=35,slow=4.9,SNR=13						
ARSA	**Arzberg**	**159.50**	**330**	*e*PKP	**PKPab**	**02 52 02.7**	**-0.5**
	comp=Z,1.6nm,0.7s						
MOA	**Molln**	**159.55**	**333**	*e*PKP	**PKPab**	**02 52 03.5**	**+0.1**
	comp=Z,2.5nm,0.9s						
BIOA	**Bad Ischl, Aus**	**159.93**	**333**	*e*PKP	**PKPab**	**02 52 04.6**	**-0.4**
	comp=Z,3.8nm,0.7s						
SOKA	**Soboth**	**160.15**	**329**	*i* PKP	**PKPab**	**02 52 05.7**	**-0.4**
	comp=Z,3.8nm,1.3s						
OBKA	**Obir**	**160.49**	**330**	*e*PKP	**PKPab**	**02 52 07.6**	**0.0**
	comp=Z,2.1nm,0.6s						
LESA	**Schwarzleotal**	**160.51**	**335**	*e*PKP	**PKPab**	**02 52 08.1**	**+0.4**
	comp=Z,1.4nm,0.6s						
KBA	**Koelnbreinsper**	**160.54**	**333**	*e*PKP	**PKPab**	**02 52 07.5**	**-0.4**
	comp=Z,2.8nm,1.0s						
MYKA	**Terra Mystica**	**160.78**	**331**	*e*PKP	**PKPab**	**02 52 08.1**	**-0.8**
	comp=Z,4.1nm,0.9s						
WATA	**Walderalm**	**160.98**	**336**	*e*PKP	**PKPab**	**02 52 09.6**	**-0.2**
	comp=Z,0.9nm,0.4s						
WTTA	**Wattenberg**	**161.02**	**336**	*e*PKP	**PKPab**	**02 52 09.7**	**-0.3**
	comp=Z,3.0nm,0.6s						
RETA	**Reutte**	**161.12**	**338**	*i* PKP	**PKPab**	**02 52 10.3**	**0.0**
	comp=Z,11nm,1.1s,SNR=4.9						
MOTA	**Moosalm**	**161.14**	**337**	*i* PKP	**PKPab**	**02 52 10.2**	**-0.3**
	comp=Z,5.5nm,0.9s,SNR=4.4						
ABTA	**Abfaltersbach**	**161.14**	**334**	*i* PKP	**PKPab**	**02 52 09.6**	**-0.9**
	comp=Z,6.3nm,1.2s						
SQTA	**Sankt Quirin**	**161.21**	**337**	*i* PKP	**PKPab**	**02 52 10.7**	**-0.1**
	comp=Z,5.0nm,0.6s						
FETA	**Feichten**	**161.54**	**337**	*i* PKP	**PKPab**	**02 52 11.9**	**-0.4**
	comp=Z,3.6nm,0.8s						
DAVA	**Damuels**	**161.58**	**339**	*i* PKP	**PKPab**	**02 52 12.1**	**-0.3**
	comp=Z,5.5nm,0.6s,SNR=5.2						
TORD	**Torodi Ar. Bea**	**162.85**	**184**	PKP	**PKPdf**	**02 51 27.1**	**-0.6**
	comp=Z,1.1nm,0.9s,baz=222,slow=0.2,SNR=5.5						
TORD				PKPab	**PKPab**	**02 52 18.9**	**+0.5**
	comp=Z,4.5nm,0.6s,baz=176,slow=4.0,SNR=31						
ESDC	**Sonseca Array**	**170.00**	**20**	PKP	**PKPdf**	**02 51 32.6**	**0.0**
	comp=Z,1.2nm,1.1s,baz=298,slow=3.5,SNR=4.8						

BJI ***03*** *02:33:57.9, 14°.71S×168°.57E, h10^{km}, mB5.4/4, mb5.0/28*

IDC ***03*** *02:33:59.8±0.5, 14°.47S×168°.02E, h0^{km}, mb4.5/26, mbtmp4.5/29, ML4.9/2, MS3.7/33, Error ellipse: s-maj=13.3km s-min=11.8km az=104.0*

NEIC ***03*** *02:34:02.3±1.2, 14°.59S±0°.06×167°.96E±0°.03, h10^{km}±1^{km}, mb5.0/115, Error ellipse: s-maj=11.5km s-min=2.9km az=25.0*

GCMT ***03*** *02:34:05.3±0.3, 14°.50S±0°.04×167°.95E±0°.02, h20^{km}±1^{km}, MW4.8/81, Moment Tensor Solution. s23,c24; s81,c100; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}2.13±.14; $M_{\theta\theta}$-0.20±.08; $M_{\phi\phi}$-1.93±.10; $M_{r\theta}$-0.03±.21; $M_{\theta\phi}$0.11±.06; $M_{\phi r}$-0.17±.17; Best double couple: $M_0$2.04100×10^{16} NP1:ϕ_s355.00000°,δ43.00000°,λ89.00000°. NP2: ϕ_s177.00000°,δ47.00000°,λ91.00000°. Principal axes: T 2.1380, Plg87.0000°, Azm107.0000°; N -0.1880, Plg1.0000°, Azm356.0000°; P -1.9440, Plg2.0000°, Azm266.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 03 02:34:04.5±0.4**, 14°.60S**±0°.06×**168°.02E**±0°.06**, h30^{km}, n222, σ1^{s}.05**/198**, mb4.9**/86**, MS3.7**/30**, 2C-2D, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SANVU	**Saraoutou**	**1.15**	**223**		**Pn**	**02 34 22.2**	**-2.3**
MARNC	**Mare, Loyalty**	**6.85**	**180**	Pn	**Pn**	**02 35 42.2**	**-0.7**
KOUNC	**Koumac, New Ca**	**6.91**	**210**		**Pn**	**02 35 43.7**	**0.0**
DZM	**Mont Dzumac**	**7.58**	**191**	Pn	**Pn**	**02 35 53.4**	**+0.3**
	10nm,0.3s,baz=2.5,slow=6.3,SNR=33						
DZM				Sn	**Sn**	**02 37 18.3**	**+0.2**
	4.4nm,0.3s,baz=45,slow=23,SNR=4.3						
DZM				LR	LR	02 37 50.1	
	comp=Z,98nm,19.6s,baz=227,slow=30						
	23nm,0.3s						
DZM				AML	AML		
ONTNC	**Ouen Toro**	**7.81**	**191**		**Pn**	**02 35 55.0**	**-1.0**
OUENC	**Ouen Island, N**	**7.86**	**188**	Pn	**Pn**	**02 35 58.0**	**+1.2**
HNR	**Honiara**	**9.41**	**302**	Pn	**Pn**	**02 36 16.5**	**-1.6**
	150nm,0.6s,baz=315,slow=4.1,SNR=1.5						
HNR	**Honiara**	**9.41**	**302**		**Pn**	**02 36 17.2**	**-1.0**
MSVF	**Nonsavu**	**10.13**	**109**	Pn	**Pn**	**02 36 28.4**	**+0.4**
	0.4nm,0.3s,baz=71,slow=22,SNR=1.4						
MSVF				LR	LR	02 39 34.9	
	comp=Z,1µm,18.7s,baz=317,slow=33						
	6.2nm,0.7s						
MSVF				AML	AML		
MSVF	**Nonsavu**	**10.13**	**109**		**Pn**	**02 36 27.9**	**-0.1**
AFI	**Afiamalu**	**19.60**	**91**	LR	LR	02 44 21.6	
	comp=Z,204nm,20.4s,baz=250,slow=32						
PMG	**Port Moresby**	**21.04**	**282**	P	**P**	**02 38 47.1**	**+1.0**
	4.9nm,0.4s,baz=187,slow=8.1,SNR=1.6						
PMG				LR	LR	02 46 13.1	
	comp=Z,381nm,18.8s,baz=66,slow=35						
	4.9nm,0.4s						
PMG	**Port Moresby**	**21.04**	**282**	P	**P**	**02 38 46.2**	**+0.1**
CTA	**Charters Tower**	**21.47**	**252**	P	**P**	**02 38 51.8**	**+1.1**
	16nm,0.9s,baz=73,slow=10,SNR=7.5						
CTA				LR	LR	02 46 00.1	
	comp=Z,502nm,19.9s,baz=50,slow=34						
	16nm,0.9s						
CTAO	**Charters Tower**	**21.47**	**252**	P	**P**	**02 38 50.1**	**-0.6**
ARMA	**Armidale**	**21.80**	**221**		**P**	**02 38 55.7**	**+1.5**
URZ	**Urewera**	**24.91**	**163**	P	**P**	**02 39 26.0**	**+1.3**
	25nm,0.9s,baz=359,slow=3.0,SNR=3.8						
	25nm,0.9s						
INKA	**Innaminka**	**28.52**	**238**	P	**P**	**02 39 56.9**	**-0.5**
STKA	**Stephens Creek**	**29.63**	**230**	P	**P**	**02 40 09.4**	**+2.1**
	14nm,0.6s,baz=40,slow=7.6,SNR=13						
STKA				LR	LR	02 50 50.2	
	comp=Z,176nm,21.1s,baz=41,slow=34						
	14nm,0.6s						
RAR	**Rarotonga**	**31.31**	**107**	LR	LR	02 50 17.8	
	comp=Z,156nm,21.9s,baz=285,slow=31						
WRA	**Warramunga Arr**	**32.56**	**256**	P	**P**	**02 40 32.7**	**-0.6**
	3.4nm,0.9s,baz=86,slow=8.7,SNR=8.8						
	3.4nm,0.9s						
WRA	**Warramunga Arr**	**32.56**	**256**	P	**P**	**02 40 31.6**	**-1.7**
H11S2	**WAKE ISLAND Hy**	**32.91**	**358**	T	T	03 15 16.6	
	baz=171,slow=76,SNR=4.2						
H11S3	**WAKE ISLAND Hy**	**32.91**	**358**	T	T	03 15 13.4	
	baz=171,slow=76,SNR=4.4						
H11S1	**WAKE ISLAND Hy**	**32.92**	**358**	T	T	03 15 20.4	
	baz=171,slow=76,SNR=3.1						
AS31	**Alice Springs**	**33.39**	**249**		**P**	**02 40 40.6**	**0.0**
ASAR	**Alice Springs**	**33.39**	**249**	P	**P**	**02 40 40.4**	**-0.2**
	8.3nm,0.9s,baz=78,slow=9.0,SNR=30						
ASAR				LR	LR	02 53 27.0	
	comp=Z,408nm,19.2s,baz=98,slow=35						
	8.3nm,0.9s						
ASAR	**Alice Springs**	**33.39**	**249**		**P**	**02 40 39.0**	**-1.7**
H11N1	**WAKE ISLAND Hy**	**34.11**	**358**	T	T	03 16 49.8	
	baz=172						
H11N3	**WAKE ISLAND Hy**	**34.12**	**358**	T	T	03 16 54.5	
	baz=172						
H11N2	**WAKE ISLAND Hy**	**34.13**	**358**	T	T	03 16 54.6	
	baz=172						
GUMO	**Guam**	**36.18**	**320**	LR	LR	02 56 45.7	
	comp=Z,30nm,19.1s,baz=150,slow=38						
KNRA	**Kununurra**	**37.87**	**263**	P	**P**	**02 41 18.5**	**-0.6**
FITZ	**Fitzroy Crossi**	**40.75**	**259**	P	**P**	**02 41 43.0**	**-0.1**
	9.9nm,0.9s,baz=108,slow=6.0,SNR=7.2						
FITZ				LR	LR	02 57 03.2	
	comp=Z,360nm,21.4s,baz=52,slow=34						
	9.9nm,0.9s						
FITZ	**Fitzroy Crossi**	**40.75**	**259**		**P**	**02 41 42.5**	**-0.6**
PPT2	**Papeete2**	**40.80**	**100**	*e*S	**S**	**02 47 49.5**	**-3.4**
	79nm,23.0s						
PPT2				*e*LR	LR	02 52 53.3	
	287nm,31.0s						
PPT2				*e*LR	LR	02 53 00.7	
	432nm,26.5s						
PPT	**Papeete**	**40.80**	**100**	LR	LR	02 54 02.9	
	comp=Z,270nm,19.9s,baz=24,slow=30						
DAV	**Davao City (W)**	**47.27**	**294**	LR	LR	03 02 03.0	
	comp=Z,33nm,18.1s,baz=142,slow=36						
KAPI	**Kappang**	**48.41**	**276**	P	**P**	**02 42 43.1**	**-1.3**
	6.3nm,0.6s,baz=236,slow=6.1,SNR=3.6						
KAPI				LR	LR	03 01 36.3	
	comp=Z,89nm,21.2s,baz=110,slow=34						
	6.3nm,0.6s						
KAPI	**Kappang**	**48.41**	**276**	P	**P**	**02 42 44.5**	**+0.1**
NWAO	**Narrogin (SRO)**	**49.44**	**239**	LR	LR	03 03 56.4	
	comp=Z,275nm,18.3s,baz=54,slow=36						
TAOE	**Nuku Hiva Isla**	**50.99**	**90**	*e*LR	LR	02 57 32.3	
	312nm,28.9s						
MJAR	**Matsushiro Arr**	**58.13**	**332**	P	**P**	**02 43 54.8**	**-0.6**
	2.8nm,0.6s,baz=161,slow=5.9,SNR=5.1						
MJAR				LR	LR	03 09 50.5	
	comp=Z,16nm,18.1s,baz=156,slow=37						
	2.8nm,0.6s						
MJAR	**Matsushiro Arr**	**58.13**	**332**	P	**P**	**02 43 54.9**	**-0.4**
TPUB	**Ta-pu**	**59.73**	**308**	P	**P**	**02 44 06.8**	**0.0**
YHNB	**Yeheng**	**59.95**	**310**	P	**P**	**02 44 08.9**	**+0.5**
VNDA	**Vanda**	**63.01**	**182**	P	**P**	**02 44 28.4**	**+0.3**
	0.8nm,0.8s,baz=300,slow=7.8,SNR=2.5						
	0.8nm,0.8s						
VNDA	**Vanda**	**63.01**	**182**	P	**P**	**02 44 28.9**	**+0.8**
VNDA				IAmb	IAmb	02 46 09.1	
	comp=Z,16nm,1.8s						
CASY	**Casey**	**63.92**	**202**		**P**	**02 44 34.9**	**+0.6**
CASY				IAmb	IAmb	02 44 37.2	
	comp=Z,22nm,1.8s						
KSRS	**Korea Array**	**64.04**	**325**	P	**P**	**02 44 34.1**	**-1.3**
	comp=Z,2.7nm,0.8s,baz=134,slow=7.2,SNR=5.1						
	comp=Z,2.7nm,0.8s						
NJ2	**Nanjing**	**66.09**	**315**	*e*P	**P**	**02 44 50.7**	**+1.8**
NJ2				pmax	pmax		
	comp=Z,19nm,0.5s						
USRK	**Ussuriysk Ar.**	**67.10**	**333**	P	**P**	**02 44 55.2**	**+0.1**
	comp=Z,6.1nm,1.0s,baz=124,slow=12,SNR=4.6						
	comp=Z,6.1nm,1.0s						
USRK	**Ussuriysk Ar.**	**67.10**	**333**	P	**P**	**02 44 55.3**	**+0.2**
SHEM	**Shemya Is, Ala**	**67.25**	**4**	LR	LR	03 09 59.1	
	comp=Z,24nm,19.1s,baz=222,slow=32						
PETK	**Petropavlovsk-**	**68.01**	**353**	LR	LR	03 12 25.6	
	comp=Z,23nm,18.9s,baz=179,slow=34						
DL2	**Dalian**	**68.63**	**323**	*e*P	P	02 45 14.9	+10
DL2				pmax	pmax		
	comp=Z,18nm,0.7s						
CN2	**Changchun**	**69.91**	**329**	P	**P**	**02 45 16.2**	**+3.5**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
BNX	**BinXian**	**70.37**	**331**	⇓P	**P**	**02 45 15.6**	**+0.2**
BNX				pmax	pmax		
	comp=Z,10.0nm,0.9s						
KLR	**Kul'dur**	**71.18**	**336**	LR	LR	03 12 28.0	
	comp=Z,29nm,21.6s,baz=190,slow=32						
LYN	**LuoYang**	**71.90**	**314**	P	**P**	**02 45 27.8**	**+2.8**
LYN				pmax	pmax		
	comp=Z,23nm,1.0s						
XAN	**Xi'an**	**74.14**	**312**	P	**P**	**02 45 42.2**	**+3.9**
XAN				pmax	pmax		
	comp=Z,12nm,1.1s						
KMI2	**Kunming**	**74.86**	**301**	P	**P**	**02 45 44.0**	**+1.1**
KMI2				pP	pP	02 45 47.0	-4.8
KMI2				pmax	pmax		
	comp=Z,10.0nm,1.0s						
MA2	**Magadan**	**75.23**	**351**	LR	LR	03 14 11.8	
	comp=Z,21nm,21.0s,baz=107,slow=32						
QSPA	**South Pole Qui**	**75.43**	**180**	P	**P**	**02 45 45.6**	**+0.2**
	comp=Z,5.0nm,0.9s,baz=15,slow=1.8,SNR=9.8						
	comp=Z,5.0nm,0.9s						
QSPA	**South Pole Qui**	**75.43**	**180**	P	**P**	**02 45 45.6**	**+0.2**

CMAR	**Chiang Mai Arr**	**75.56**	**294**	P	**P**	**02 45 45.4**	**-1.4**
	comp=Z,3.2nm,0.8s,baz=120,slow=4.3,SNR=15						
CMAR				LR	LR	03 20 07.1	
	comp=Z,15nm,18.7s,baz=95,slow=37						
	comp=Z,3.2nm,0.8s						
CMAR	**Chiang Mai Arr**	**75.56**	**294**		**P**	**02 45 47.3**	**+0.5**
HHC	**Hu-ho-hao-te**	**75.95**	**319**	*e*P	**P**	**02 45 50.4**	**+1.7**
HHC				pmax	pmax		
	comp=Z,10.0nm,0.7s						
PZH	**PanZhiHua**	**76.24**	**302**	P	**P**	**02 45 50.9**	**+0.2**
CD2	**Chengdu**	**76.50**	**307**	*e*P	**P**	**02 45 53.0**	**+1.0**
BTO2	**Baotou**	**76.97**	**319**	*e*P	**P**	**02 45 56.5**	**+2.0**
BTO2				S	**S**	**02 55 47.0**	**+6.0**
BTO2				pmax	pmax		
	comp=Z,17nm,0.8s						
BTO2				pmax	pmax		
	comp=Z,460nm,3.6s						
ACHA	**Angle Creek He**	**78.54**	**19**	P	**P**	**02 46 02.9**	**+0.1**
ACHA				IAmb	IAmb	02 46 04.8	
	comp=Z,9.1nm,0.8s						
LZH	**Lanzhou**	**78.77**	**312**	*e*P	**P**	**02 46 02.0**	**-2.7**
LZH				sP	PcP	02 46 07.6	-5.8
LZH				pmax	pmax		
	comp=Z,18nm,1.0s						
N15K	**Kwethluk River**	**78.81**	**16**	P	**P**	**02 46 05.1**	**+1.0**
KDAK	**Kodiak Island**	**79.09**	**20**	LR	LR	03 18 15.6	
	comp=Z,25nm,18.1s,baz=192,slow=34						
M16K	**Timber Creek**	**79.83**	**16**		**P**	**02 46 11.0**	**+1.3**
K15K	**Wolf Creek Mou**	**80.29**	**14**		**P**	**02 46 13.2**	**+1.0**
K15K				IAmb	IAmb	02 46 14.0	
	comp=Z,15nm,0.8s						
ILSW	**Iliamna Southw**	**80.64**	**19**	P	**P**	**02 46 14.8**	**+0.5**
ILSW				IAmb	IAmb	02 46 15.2	
	comp=Z,13nm,1.0s						
SLKM	**Skilak Lake**	**81.97**	**19**	P	**P**	**02 46 22.0**	**+0.8**
MAW	**Mawson**	**82.28**	**202**	P	**P**	**02 46 23.4**	**+0.7**
	comp=Z,2.1nm,0.9s,baz=96,slow=9.1,SNR=3.8						
	comp=Z,2.1nm,0.9s						
MAW	**Mawson**	**82.28**	**202**	P	**P**	**02 46 23.4**	**+0.7**
SONM	**Songino Array**	**82.82**	**323**	P	**P**	**02 46 26.7**	**+0.6**
	comp=Z,2.9nm,1.0s,baz=141,slow=6.8,SNR=11						
	comp=Z,2.9nm,1.0s						
PWL	**Port Wells**	**82.85**	**20**	P	**P**	**02 46 27.3**	**+1.6**
PMR	**Palmer**	**83.14**	**19**		**P**	**02 46 27.7**	**+0.5**
GTA2	**Gaotai**	**83.17**	**314**	P	**P**	**02 46 28.7**	**+0.7**
GTA2				pmax	pmax		
	comp=Z,8.0nm,1.0s						
KMRM	**Mail Ridge**	**83.50**	**46**		**P**	**02 46 30.6**	**+1.0**
GDXM	**Geysers**	**83.55**	**47**	P	**P**	**02 46 32.0**	**+2.1**
GDXM				IAmb	IAmb	02 46 32.8	
	comp=Z,10nm,1.2s						
CAST	**Castle Rocks**	**83.66**	**17**	P	**P**	**02 46 29.8**	**-0.1**
J20K	**Nowinta River**	**83.70**	**16**		**P**	**02 46 30.3**	**+0.3**
J20K				IAmb	IAmb	02 46 31.8	
	comp=Z,25nm,1.9s						
MHC	**Mount Hamilton**	**83.78**	**49**	P	**P**	**02 46 32.4**	**+1.2**
MHC				IAmb	IAmb	02 46 33.8	
	comp=Z,11nm,0.9s						
BBGB	**Big Mountain B**	**83.93**	**50**	P	**P**	**02 46 34.1**	**+2.1**
KHBM	**Hayfork Bally**	**84.02**	**45**	P	**P**	**02 46 33.6**	**+1.2**
KHBM				IAmb	IAmb	02 46 34.5	
	comp=Z,6.6nm,1.0s						
PKD	**Bear Valley Ra**	**84.05**	**51**		**P**	**02 46 33.6**	**+1.1**
PKD				IAmb	IAmb	02 46 34.5	
	comp=Z,12nm,1.1s						
O02D	**Mt. Diablo Mer**	**84.12**	**46**		**P**	**02 46 33.6**	**+0.8**
O02D				IAmb	IAmb	02 46 35.3	
	comp=Z,11nm,0.9s						
SHL	**Shillong**	**84.14**	**298**		**P**	**02 46 33.4**	**+0.1**
M02C	**Callahan**	**84.58**	**45**	P	**P**	**02 46 35.6**	**+0.5**
M02C				IAmb	IAmb	02 46 38.2	
	comp=Z,14nm,1.4s						
RND	**Reindeer**	**84.59**	**18**	P	**P**	**02 46 34.9**	**+0.3**
ORV	**Oroville**	**84.77**	**47**		**P**	**02 46 36.7**	**+0.7**
ORV				IAmb	IAmb	02 46 37.7	
	comp=Z,7.1nm,1.1s						
DHY	**Denali Highway**	**84.79**	**19**		**P**	**02 46 36.4**	**+0.6**
DHY				IAmb	IAmb	02 46 39.0	
	comp=Z,7.3nm,1.1s						
MCK	**McKinley**	**84.81**	**18**	P	**P**	**02 46 35.9**	**+0.2**
YBH	**Yreka Blue Hor**	**84.82**	**45**	P	**P**	**02 46 37.1**	**+0.8**
	comp=Z,6.8nm,1.1s,baz=299,slow=1.3,SNR=11						
YBH				LR	LR	03 15 05.6	
	comp=Z,43nm,20.6s,baz=220,slow=29						
	comp=Z,6.8nm,1.1s						
YBH	**Yreka Blue Hor**	**84.82**	**45**		**P**	**02 46 36.6**	**+0.2**
YBH				IAmb	IAmb	02 46 39.2	
	comp=Z,10nm,1.1s						
O03E	**Paynes Creek**	**84.85**	**46**		**P**	**02 46 36.8**	**+0.2**
AFDM	**Forest Hills D**	**84.90**	**48**		**P**	**02 46 37.3**	**+0.5**
AFDM				IAmb	IAmb	02 46 38.4	
	comp=Z,8.1nm,0.9s						
CMB	**Columbia Colle**	**84.97**	**49**		**P**	**02 46 37.1**	**-0.1**
CMB				IAmb	IAmb	02 46 38.7	
	comp=Z,6.0nm,0.9s						
M03C	**McCloud**	**85.03**	**45**	P	**P**	**02 46 37.9**	**+0.5**
I21K	**Tanana**	**85.07**	**16**	P	**P**	**02 46 37.6**	**+0.7**
I21K				IAmb	IAmb	02 46 39.2	
	comp=Z,13nm,1.1s						
IMAR	**Indian Mountai**	**85.25**	**15**	P	**P**	**02 46 38.5**	**+0.7**
MLY	**Manley**	**85.28**	**16**		**P**	**02 46 38.5**	**+0.5**
MLY				IAmb	IAmb	02 46 39.6	
	comp=Z,12nm,1.5s						
L04D	**Klamath Falls**	**85.29**	**44**	P	**P**	**02 46 39.1**	**+0.3**
L04D				IAmb	IAmb	02 46 40.6	
	comp=Z,10nm,0.9s						
TPO	**Tropico Hills**	**85.41**	**52**	P	**P**	**02 46 40.1**	**+0.7**
NEA2	**Nenana**	**85.42**	**17**	P	**P**	**02 46 38.0**	**-0.7**
NEA2				IAmb	IAmb	02 46 40.0	
	comp=Z,25nm,1.8s						
BEKR	**Beckworth**	**85.70**	**47**		**P**	**02 46 41.1**	**+0.2**
BEKR				IAmb	IAmb	02 46 42.6	
	comp=Z,6.5nm,0.9s						
MDPB	**Devils Postpil**	**85.78**	**50**	P	**P**	**02 46 41.6**	**+0.2**
MDPB				IAmb	IAmb	02 46 43.3	
	comp=Z,10nm,0.9s						
H22K	**Ishtalitna Cre**	**85.78**	**16**		**P**	**02 46 41.6**	**+1.1**
H22K				IAmb	IAmb	02 46 43.0	
	comp=Z,19nm,1.8s						
WAKR	**Walker**	**85.84**	**49**	P	**P**	**02 46 42.0**	**+0.3**
WAKR				IAmb	IAmb	02 46 43.9	
	comp=Z,13nm,1.0s						
HDA	**Harding Lake**	**85.90**	**18**	P	**P**	**02 46 41.6**	**+0.5**
LRMC	**Laurel Mtn Rad**	**86.04**	**52**	P	**P**	**02 46 43.5**	**+0.9**
CWC	**Cottonwood Cre**	**86.08**	**51**	P	**P**	**02 46 42.9**	**0.0**
YERR	**Yerington**	**86.16**	**48**	P	**P**	**02 46 43.6**	**+0.3**
IL31		**86.18**	**18**		**P**	**02 46 42.5**	**+0.1**
ILAR	**Eielson Array**	**86.18**	**18**	P	**P**	**02 46 41.2**	**-1.3**
	comp=Z,2.3nm,0.7s,baz=235,slow=4.4,SNR=24						
ILAR				LR	LR	03 21 21.9	
	comp=Z,37nm,19.1s,baz=242,slow=33						
	comp=Z,2.3nm,0.7s						
ILAR	**Eielson Array**	**86.18**	**18**	P	**P**	**02 46 42.9**	**+0.4**
CLC	**China Lake**	**86.22**	**52**	P	**P**	**02 46 44.0**	**+0.5**
CLC				IAmb	IAmb	02 46 45.5	
	comp=Z,14nm,1.2s						
BORC	**Borrego Spring**	**86.25**	**54**	P	**P**	**02 46 44.5**	**+1.0**
BORC				IAmb	IAmb	02 46 45.5	
	comp=Z,13nm,1.1s						
BBB	**Bella Bella**	**86.27**	**34**	LR	LR	03 20 19.6	
	comp=Z,38nm,19.7s,baz=234,slow=32						
CCCA	**Chr Cany lake**	**86.30**	**52**	P	**P**	**02 46 44.4**	**+0.6**
PFO	**Pinyon Flats O**	**86.33**	**54**	P	**P**	**02 46 43.5**	**-0.6**
	comp=Z,4.9nm,1.0s,baz=28,slow=3.5,SNR=4.4						
PFO				LR	LR	03 18 28.2	
	comp=Z,84nm,18.9s,baz=260,slow=31						
	comp=Z,4.9nm,1.0s						
PFO	**Pinyon Flats O**	**86.33**	**54**	P	**P**	**02 46 44.0**	**-0.1**
PFO				IAmb	IAmb	02 47 40.4	
	comp=Z,23nm,1.9s						
MPMC	**Manual Prospec**	**86.39**	**51**	P	**P**	**02 46 45.2**	**+0.8**
PMD	**Palm Desert**	**86.41**	**54**	P	**P**	**02 46 44.8**	**+0.4**
LHV	**Little Huntoon**	**86.43**	**49**	P	**P**	**02 46 44.9**	**+0.6**
LHV				IAmb	IAmb	02 46 51.4	
	comp=Z,8.4nm,0.7s						
YUH	**Yuha Desert**	**86.43**	**55**	P	**P**	**02 46 45.3**	**+0.9**
YUH				IAmb	IAmb	02 46 46.5	
	comp=Z,10nm,1.2s						
K05A	**Summer Lake**	**86.45**	**44**	P	**P**	**02 46 45.3**	**+0.7**
K05A				IAmb	IAmb	02 46 47.1	
	comp=Z,13nm,1.2s						
DSP	**Deep Springs**	**86.50**	**50**		**P**	**02 46 45.2**	**+0.6**
DSP				IAmb	IAmb	02 46 46.9	
	comp=Z,11nm,0.9s						
J25K	**Salcha River,**	**86.52**	**18**	P	**P**	**02 46 44.2**	**-0.1**
MOD	**Modoc Plateau**	**86.53**	**45**		**P**	**02 46 45.7**	**+0.8**
NVAR	**Mina Array Bea**	**86.64**	**49**	P	**P**	**02 46 46.3**	**+0.6**
	comp=Z,3.5nm,0.7s,baz=229,slow=8.7,SNR=12						
NVAR				LR	LR	03 19 49.7	
	comp=Z,58nm,18.8s,baz=262,slow=32						
	comp=Z,3.5nm,0.7s						
NVAR	**Mina Array Bea**	**86.64**	**49**	P	**P**	**02 46 45.5**	**-0.2**
NV11	**Mina Array Sit**	**86.75**	**49**	P	**P**	**02 46 46.7**	**+0.6**
NV11				IAmb	IAmb	02 46 48.0	
	comp=Z,8.1nm,1.0s						
BELC	**Belle Mtn. Jos**	**86.83**	**54**	P	**P**	**02 46 47.5**	**+0.9**
BELC				IAmb	IAmb	02 46 48.6	
	comp=Z,12nm,0.9s						
QSM	**Queen of Sheba**	**86.83**	**52**		**P**	**02 46 47.0**	**+0.6**
QSM				IAmb	IAmb	02 46 48.1	
	comp=Z,7.0nm,1.1s						
PINE	**Pine Mountain**	**86.85**	**43**	P	**P**	**02 46 48.0**	**+1.5**
FURC	**Furnace Creek,**	**87.01**	**51**	P	**P**	**02 46 48.5**	**+1.4**
STD	**Studebaker Rid**	**87.01**	**41**	P	**P**	**02 46 48.1**	**+1.0**
KVN	**Kaiserville**	**87.01**	**49**		**P**	**02 46 47.9**	**+0.5**
BC3	**Big Chuckawall**	**87.14**	**54**		**P**	**02 46 48.9**	**+0.9**
BC3				IAmb	IAmb	02 46 50.4	
	comp=Z,8.1nm,1.1s						
WCT	**Wildcat Mounta**	**87.30**	**51**	P	**P**	**02 46 49.3**	**+0.5**
WCT				IAmb	IAmb	02 46 50.7	
	comp=Z,6.8nm,1.0s						
IRM	**Iron Mountain**	**87.55**	**54**	P	**P**	**02 46 51.1**	**+1.2**
IRM				IAmb	IAmb	02 46 52.2	
	comp=Z,13nm,1.2s						
TPNV	**Topopah Spring**	**87.64**	**51**		**P**	**02 46 50.9**	**+0.4**
TPNV				IAmb	IAmb	02 46 51.8	
	comp=Z,12nm,1.4s						
MTPC	**Mountain Pass**	**87.67**	**53**	P	**P**	**02 46 51.1**	**+0.4**
MTPC				IAmb	IAmb	02 46 52.7	
	comp=Z,7.0nm,0.9s						
WVOR	**Wild Horse Val**	**87.88**	**45**	P	**P**	**02 46 51.7**	**+0.3**
BLYC	**Blythe**	**87.90**	**54**		**P**	**02 46 52.2**	**+0.6**
BLYC				IAmb	IAmb	02 46 54.0	
	comp=Z,11nm,1.1s						
DLBC	**Dease Lake**	**88.49**	**28**	LR	LR	03 22 24.3	
	comp=Z,29nm,18.6s,baz=220,slow=33						
PRN	**Pahroc Range**	**88.69**	**51**	P	**P**	**02 46 55.9**	**+0.5**
PRN				IAmb	IAmb	02 46 57.8	
	comp=Z,10nm,1.0s						
G08A	**Pilot Rock**	**88.73**	**42**		**P**	**02 46 55.6**	**+0.3**
G08A				IAmb	IAmb	02 46 59.4	
	comp=Z,7.2nm,1.2s						
E08A	**Dider Farm, El**	**89.12**	**41**	P	**P**	**02 46 57.6**	**+0.6**
E08A				IAmb	IAmb	02 46 59.7	
	comp=Z,9.2nm,1.1s						
EVN	**Everest**	**89.18**	**299**		**P**	**02 46 57.5**	**-1.0**
PALK	**Pallekele**	**89.22**	**278**	LR	LR	03 28 24.2	
	comp=Z,44nm,18.2s,baz=118,slow=37						
BMO	**Blue Mountains**	**89.66**	**43**	P	**P**	**02 46 59.9**	**+0.1**
ELK	**Elko**	**89.67**	**48**	P	**P**	**02 47 00.4**	**+0.4**
	comp=Z,1.9nm,0.9s,baz=121,slow=1.1,SNR=6.3						
ELK				LR	LR	03 18 00.9	
	comp=Z,46nm,21.6s,baz=282,slow=30						
	comp=Z,1.9nm,0.9s						
ELK	**Elko**	**89.67**	**48**	P	**P**	**02 46 59.7**	**-0.3**
LCMT	**Little Creek M**	**89.93**	**52**	P	**P**	**02 47 01.5**	**+0.2**
LCMT				IAmb	IAmb	02 47 04.2	
	comp=Z,18nm,1.4s						
PSUT	**Pine Spring**	**89.95**	**50**	P	**P**	**02 47 01.7**	**+0.3**
PSUT				IAmb	IAmb	02 47 04.2	
	comp=Z,18nm,2.0s						
CCUT	**Cedar City**	**90.01**	**51**		**P**	**02 47 02.0**	**+0.3**
F10A	**Beach Ranch, E**	**90.11**	**42**		**P**	**02 47 01.7**	**-0.1**
F10A				IAmb	IAmb	02 47 03.3	
	comp=Z,15nm,1.4s						
SZCU	**Shurtz Canyon**	**90.23**	**51**	P	**P**	**02 47 03.3**	**+0.5**
SZCU				IAmb	IAmb	02 47 05.3	
	comp=Z,9.7nm,1.4s						
KNB	**Kanab**	**90.25**	**52**		**P**	**02 47 03.2**	**+0.4**
TUC	**Tucson**	**90.45**	**57**		**P**	**02 47 04.2**	**+0.5**
ELIB	**Princess Elisa**	**90.47**	**190**	*d*P	**P**	**02 47 02.7**	**-0.4**
	comp=Z,2.0nm,1.1s						
X16A	**Lo Mia Camp, P**	**90.54**	**55**		**P**	**02 47 03.8**	**-0.4**
X16A				IAmb	IAmb	02 47 06.8	
	comp=Z,6.8nm,1.0s						
PLID	**Pearl Lake**	**90.61**	**43**		**P**	**02 47 04.3**	**0.0**
WUAZ	**Wupatki**	**90.92**	**54**		**P**	**02 47 06.0**	**+0.2**
NEW	**Newport**	**91.00**	**40**	LR	LR	03 22 49.5	
	comp=Z,31nm,18.1s,baz=292,slow=32						
DUG	**Dugway, Tooele**	**91.24**	**49**	P	**P**	**02 47 07.5**	**+0.3**
X18A	**Snowflake**	**91.75**	**55**	P	**P**	**02 47 09.5**	**-0.3**
HVU	**Hansel Valley**	**91.76**	**47**	P	**P**	**02 47 09.7**	**0.0**
HVU				IAmb	IAmb	02 47 11.7	
	comp=Z,14nm,1.6s						
INK	**Inuvik**	**92.53**	**18**	LR	LR	03 23 54.1	
	comp=Z,29nm,18.9s,baz=224,slow=32						
TROLL	**Troll, Antarti**	**93.05**	**184**	⇑P	**P**	**02 47 14.4**	**-0.7**
	comp=Z,228nm,0.7s						
WMQ	**Urumqi**	**93.15**	**314**	*e*P	**P**	**02 47 16.6**	**+0.7**
WMQ				pP	pP	02 47 22.7	-2.3
WMQ				pmax	pmax		
	comp=Z,9.0nm,0.7s						
PV12	**Saucer Basin,**	**93.68**	**52**	P	**P**	**02 47 18.2**	**-0.5**
SNAA	**Sanae**	**93.72**	**183**	P	**P**	**02 47 17.8**	**-0.3**
	comp=Z,34nm,0.7s						
SNAA	**Sanae**	**93.72**	**183**	P	**P**	**02 47 17.6**	**-0.5**
	comp=Z,1.8nm,0.9s,baz=66,slow=3.7,SNR=2.6						
	comp=Z,1.8nm,0.9s						
SNAA	**Sanae**	**93.72**	**183**	P	**P**	**02 47 16.9**	**-1.1**
HYB	**Hyderabad**	**93.77**	**287**	*e*PP	**PP**	**02 51 03.5**	**-1.6**
HYB				*e*PKiKP	**PKiKP**	**02 52 04.6**	**0.0**
HYB				*e*SKKSac	S	02 58 12.7	-15
PDAR	**Pinedale Array**	**94.33**	**47**	P	**P**	**02 47 21.3**	**-0.2**
	comp=Z,0.2nm,0.6s,baz=248,slow=4.2,SNR=1.6						
PDAR				LR	LR	03 26 35.2	
	comp=Z,24nm,18.5s,baz=220,slow=34						
	comp=Z,0.2nm,0.6s						
PDAR	**Pinedale Array**	**94.33**	**47**	P	**P**	**02 47 20.6**	**-0.9**
VNA3	**Neumayer Olymp**	**94.36**	**181**	⇑P	**P**	**02 47 20.5**	**-0.4**
	comp=Z,3.5nm,0.8s						
TXAR	**Lajitas Array**	**95.58**	**61**	P	**P**	**02 47 26.4**	**-1.0**
	comp=Z,0.3nm,0.7s,baz=259,slow=6.9,SNR=3.4						
	comp=Z,0.3nm,0.7s						
TXAR	**Lajitas Array**	**95.58**	**61**	P	**P**	**02 47 26.0**	**-1.5**
YKA	**Yellowknife Ar**	**97.10**	**27**	LR	LR	03 28 48.2	
	comp=Z,16nm,18.0s,baz=324,slow=34						
MKAR	**Makanchi Array**	**97.61**	**316**	P	Pdif	02 47 36.4	+0.2
	comp=Z,4.4nm,0.9s,baz=100,slow=6.3,SNR=28						
	comp=Z,4.4nm,0.9s						
MKAR	**Makanchi Array**	**97.61**	**316**		**P**	**02 47 35.5**	**-0.6**
ZALV	**Zalesovo Beam**	**97.71**	**324**	P	**P**	**02 47 35.4**	**-1.0**
	comp=Z,0.3nm,0.3s,baz=95,slow=5.1,SNR=4.0						
	comp=Z,0.3nm,0.3s						
ZALV	**Zalesovo Beam**	**97.71**	**324**	P	**P**	**02 47 34.5**	**-1.9**
MAKZ	**Makanchi**	**97.82**	**316**		Pdif	02 47 37.4	+0.3
KURBB	**Kurchatov Arra**	**100.81**	**320**	P	**Pdif**	**02 47 49.4**	**-0.8**
	comp=Z,0.1nm,0.5s,baz=96,slow=6.6,SNR=1.6						
ARCES	**ARCESS Array B**	**120.31**	**346**	PKP	**PKPdf**	**02 52 51.8**	**-0.4**
	comp=Z,1.5nm,0.7s,baz=347,slow=3.7,SNR=2.0						
AKBB	**Malin Array Si**	**131.03**	**326**	PKP	**PKPdf**	**02 53 13.3**	**+0.1**
AK01	**Malin Array Si**	**131.04**	**326**	PKP	**PKiKP**	**02 53 13.4**	**-0.7**
KIEV	**Kiev**	**131.04**	**326**	PKP	**PKiKP**	**02 53 13.4**	**-0.7**
AK10	**Malin Array Si**	**131.07**	**326**	PKP	**PKPdf**	**02 53 13.3**	**+0.1**
AK18	**Malin Array Si**	**131.10**	**326**	PKP	**PKPdf**	**02 53 13.1**	**-0.2**
AK07	**Malin Array Si**	**131.12**	**326**	PKP	**PKPdf**	**02 53 13.5**	**+0.2**
AK17	**Malin Array Si**	**131.13**	**326**	PKP	**PKPdf**	**02 53 13.5**	**+0.1**
BZK	**Bozkurt**	**131.95**	**314**	PKP	**PKPdf**	**02 53 15.2**	**0.0**
LUBAR	**Lubar, Ukraine**	**132.24**	**326**	PKP	**PKiKP**	**02 53 16.1**	**-0.5**
BAL3X	**Bal3x, Balta**	**132.25**	**323**	PKP	**PKPdf**	**02 53 15.5**	**-0.1**
RNPP1	**Kostyukhnivka**	**132.46**	**329**	PKP	**PKPdf**	**02 53 15.7**	**-0.2**
BRTR	**Keskin Array B**	**132.97**	**311**	PKP	**PKPdf**	**02 53 17.1**	**-0.3**
	comp=Z,1.1nm,0.9s,baz=146,slow=2.7,SNR=4.0						
BRTR	**Keskin Array B**	**132.97**	**311**		**PKPdf**	**02 53 16.1**	**-1.3**
BR104	**Keskin Array S**	**132.97**	**311**	PKP	**PKPdf**	**02 53 17.2**	**-0.2**
BR106	**Keskin Array S**	**132.98**	**311**	PKP	**PKPdf**	**02 53 16.9**	**-0.5**
BR105	**Keskin Array S**	**132.99**	**311**	PKP	**PKPdf**	**02 53 17.2**	**-0.2**
KMPD	**K-Podol'skiy**	**133.70**	**325**	PKP	**PKPdf**	**02 53 18.4**	**+0.1**
CLL	**Collm**	**138.23**	**337**	*e*PKiKP	**PKiKP**	**02 53 30.0**	**+1.3**
INTR	**Introdacqua**	**144.69**	**326**		PKPbc	02 53 37.4	-0.1
TIP	**Timpagrande**	**144.82**	**320**		**PKPdf**	**02 53 38.1**	**-0.8**
KEST	**Kesra**	**151.56**	**322**	PKPbc	**PKiKP**	**02 53 56.8**	**+0.1**
	comp=Z,6.8nm,0.9s,baz=348,slow=3.0,SNR=7.6						
KEST	**Kesra**	**151.56**	**322**		**PKPbc**	**02 53 56.0**	**-0.3**
ESDC	**Sonseca Array**	**154.04**	**346**	PKPbc	**PKPbc**	**02 54 00.7**	**-0.9**
	comp=Z,0.8nm,1.0s,baz=26,slow=4.4,SNR=3.8						
TORD	**Torodi Ar. Bea**	**166.64**	**265**	PKP	**PKPdf**	**02 54 08.2**	**+0.2**
	comp=Z,1.6nm,1.0s,baz=103,slow=0.7,SNR=4.0						
TORD				PKPab	**PKPab**	**02 55 10.8**	**+0.2**
	comp=Z,1.7nm,0.9s,baz=86,slow=4.4,SNR=5.5						

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*IDC **03** 02:45:20.3±5.4,24°.06N×110°.01W,h0km,mb3.7/1, mbtmp3.3/4,ML3.5/2,MS3.2/3,Error ellipse: s-maj=89.5km s-min=15.8km az=169.0*

*NEIC **03** 02:45:22.9±1.4,24°.18N±0°.05×110°.1W±0°.1,h10km±2km, mb3.4/1,ML3.3/8,Error ellipse: s-maj=17.8km s-min=5.8km az=251.0*

*MEX **03** 02:45:23.4±0.5,24°.14N×110°.12W,h8km±19km,MD4.1, Presumed earthquake*

ISC 03 02:45:22.0±1.6,**24°.20N**±0°.07×**110°.06W**±0°.06,**h7**km±15km, **n24,**σ1s.**57**/27,**1C,Baja California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPIG	**La Paz**	**0.24**	**246**	Pg	**Pg**	**02 45 26.1**	**-0.8**
	5µm,0.3s,baz=52,slow=6.3,SNR=1172						
LPIG				Lg	Lg	02 45 29.1	
	5µm,0.3s,baz=336,slow=22,SNR=53						
LPIG	**La Paz**	**0.24**	**246**	⇑*e*P	**Pg**	**02 45 26.4**	**-0.4**
	baz=78,slow=4.0						
LPIG				*i* S	**Sg**	**02 45 29.6**	**-0.5**
SLBS	**Sierra La Lagu**	**0.53**	**168**	*e*P	**Pg**	**02 45 32.4**	**+0.2**
SLBS				*e*S	**Sg**	**02 45 39.4**	**+0.3**
SLBS	**Sierra La Lagu**	**0.53**	**168**	Pg	**Pg**	**02 45 32.5**	**+0.3**
SLBS				Sg	**Sb**	**02 45 39.7**	**-1.8**
SLBS				IAML		02 45 43.4	
	3µm,0.7s						
SLBS				IAML		02 45 49.0	
	2µm,0.8s						
TSIG	**Topolobambo**	**1.67**	**34**	*e*P	**Pn**	**02 45 50.4**	**-1.3**
TSIG				*i* S	**Sn**	**02 46 09.0**	**-4.3**
SRIG	**Santa Rosalia**	**3.67**	**328**	*e*P	Pn	02 46 14.5	-4.7
SRIG	**Santa Rosalia**	**3.67**	**328**	Pn	**Pn**	**02 46 17.8**	**-1.4**
PDIG	**Papasquiaro**	**4.33**	**78**	*e*P	**Pn**	**02 46 27.4**	**-1.0**
PDIG				*e*S	**Sn**	**02 47 18.7**	**-0.5**
HPIG		**4.81**	**55**	Pn	**Pn**	**02 46 36.6**	**+1.6**
HPIG				IAML		02 48 01.2	
	comp=N,18nm,0.5s						
HPIG				IAML		02 48 02.8	
	comp=E,14nm,0.6s						
HSIG		**4.86**	**351**	Pn	**Pn**	**02 46 36.9**	**+1.4**
TX31	**Lajitas Ar. Si**	**7.67**	**47**	Pn	**Pn**	**02 47 14.0**	**-0.2**
TXAR	**Lajitas Array**	**7.67**	**47**	Pn	**Pn**	**02 47 14.2**	**+0.1**
	baz=223,slow=14,SNR=3.9						
TXAR				Sn	**Sn**	**02 48 38.3**	**-3.0**
	comp=E,0.1nm,0.3s,baz=3.2,slow=16,SNR=4.1						
TXAR				LR	LR	02 50 16.9	
	comp=E,54nm,21.6s,baz=214,slow=38						
	comp=E,0.2nm,0.4s						
TXAR	**Lajitas Array**	**7.67**	**47**	Pn	**Pn**	**02 47 13.7**	**-0.5**
VHRN	**Van Horn**	**7.96**	**33**	Pn	**Pn**	**02 47 19.5**	**+1.3**
SFX	**San Felipe**	**8.02**	**329**	Pn	**Pn**	**02 47 19.6**	**+0.7**
ALPN	**Alpine**	**8.39**	**42**	Pn	**Pn**	**02 47 24.9**	**+0.8**
MNTX	**Cornudas Mount**	**8.54**	**28**	Pn	**Pn**	**02 47 26.1**	**0.0**
VTX	**Valle De La Tr**	**8.77**	**326**	Pn	**Pn**	**02 47 29.9**	**+0.6**
NVAR	**Mina Array Bea**	**15.82**	**336**	Pn	**Pn**	**02 49 08.2**	**+2.7**
	comp=E,0.8nm,0.8s,baz=156,slow=9.9,SNR=4.2						
O20A	**White River Ci**	**15.96**	**5**	Pn	**Pn**	**02 49 07.3**	**+0.1**
O20A				IAmb	IAmb	02 49 27.7	
	comp=Z,3.9nm,1.3s						
PDAR	**Pinedale Array**	**18.52**	**1**	P	**P**	**02 49 40.7**	**+1.5**
	baz=165,slow=12,SNR=6.0						
	comp=Z,0.6nm,0.7s						
TKL	**Tuckaleechee C**	**25.40**	**57**	LR	LR	03 00 24.8	
	comp=Z,31nm,20.0s,baz=318,slow=36						
ILAR	**Eielson Array**	**47.03**	**339**	P	**P**	**02 53 55.2**	**+1.5**
	comp=Z,1.0nm,0.9s,baz=145,slow=7.6,SNR=12						
	comp=Z,1.0nm,0.9s						
RAR	**Rarotonga**	**66.15**	**231**	LR	LR	03 18 12.5	
	comp=Z,76nm,20.5s,baz=60,slow=30						

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*IDC **03** 03:04:43.8±0.9,39°.53N×142°.69E,h0km,mb3.8/14, mbtmp3.9/18,ML3.7/4,MS3.3/1,Error ellipse: s-maj=21.1km s-min=12.4km az=96.0*

*NEIC **03** 03:04:50.5±1.9,39°.40N±0°.06×142°.4E±0°.1,h35km±2km, mb4.2/8,Error ellipse: s-maj=14.0km s-min=9.8km az=99.0*

*NIED **03** 03:04:52.8,39°.41N×142°.13E,h50km,MW3.9,Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}0.88; $M_{\theta\theta}$5.44; $M_{\phi\phi}$-6.32; $M_{r\theta}$-0.55; $M_{\theta\phi}$7.31; $M_{\phi r}$-0.73; Fault plane solution: $M_0$9.43000×10^{14} NP1: ϕ_s290.00000°,δ84.00000°,λ2.00000°. NP2:ϕ_s199.00000°, δ88.00000°,λ174.00000°.*

*JMA **03** 03:04:52.8±0.1,39°.4N±0°.2×142°.1E±0°.2,h50km,MD3.9/40, MV4.2/40,E OFF IWATE PREF*

JMA Felt II J1 at E OFF IWATE PREF .

ISC 03 03:04:51.7±1.1,**39°.37N**±0°.04×**142°.27E**±0°.08,**h52**km±8km, **n71,**σ1s.**41**/73,**mb4.0**/18,**14D,Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MIYJ	**Miyakonagasawa**	**0.41**	**301**	⇓*i*P	**Pn**	**03 05 01.8**	**-0.2**
MIYJ				A	A	03 05 01.8	
	comp=N,21nm,0.5s,comp=E,13nm,0.4s						
MIYJ				⇓S	**Sn**	**03 05 08.3**	**-1.1**
OFUJ	**Ofunato**	**0.55**	**239**	⇓P	**Pn**	**03 05 04.0**	**+0.4**
OFUJ				A	A	03 05 04.0	
	comp=N,15nm,0.5s,comp=E,16nm,1.0s						
OFUJ				⇓S	**Sn**	**03 05 11.8**	**-0.5**
JTH	**Tanohata**	**0.65**	**331**	P	**Pn**	**03 05 04.8**	**-0.1**
JTH				A	A	03 05 04.8	
	comp=N,11nm,1.1s,comp=E,8.0nm,0.6s						
JOM	**Ohasama**	**0.77**	**278**	⇓P	**Pn**	**03 05 06.1**	**-0.3**
JOM				A	A	03 05 06.1	
	comp=N,44nm,0.2s,comp=E,92nm,0.3s						
JOM				⇓S	**Sn**	**03 05 15.8**	**-1.2**
JKMT	**Kesennumamotoy**	**0.83**	**229**	⇓P	**Pn**	**03 05 07.6**	**+0.5**
JKMT				A	A	03 05 07.6	
	comp=N,5.0nm,0.6s,comp=E,8.0nm,0.6s						
JKMT				⇓*e*S	**Sn**	**03 05 18.0**	**-0.5**
JMK	**Ichinoseki**	**0.92**	**244**	⇓P	**Pn**	**03 05 08.4**	**+0.1**
JMK				A	A	03 05 08.4	
	comp=N,22nm,0.2s,comp=E,7.0nm,4.4s						
JMK				⇓S	**Sn**	**03 05 19.9**	**-0.6**
JKZ	**Kuzumaki**	**0.95**	**311**	P	**Pn**	**03 05 08.8**	**-0.1**
JKZ				A	A	03 05 08.8	
	comp=N,14nm,0.6s,comp=E,12nm,0.5s						
JKZ				S	**Sn**	**03 05 20.3**	**-1.2**
JIO	**Ouri**	**1.16**	**219**	⇓P	**Pn**	**03 05 12.2**	**+0.6**
JIO				⇓S	**Sn**	**03 05 26.2**	**-0.1**
JANG	**Nango**	**1.16**	**330**	P	**Pn**	**03 05 11.3**	**-0.3**
JANG				A	A	03 05 11.3	
	comp=N,5.0nm,0.2s,comp=E,6.0nm,0.2s						
JANG				*e*S	**Sn**	**03 05 24.8**	**-1.7**
JRG	**Rokugo**	**1.27**	**272**	⇓P	**Pn**	**03 05 12.9**	**-0.1**
JRG				A	A	03 05 12.9	
	comp=N,13nm,0.2s,comp=E,14nm,0.4s						
JRG				⇓S	**Sn**	**03 05 27.2**	**-1.9**
JAH	**Hinai**	**1.50**	**304**	P	**Pn**	**03 05 16.1**	**-0.2**
JAH				S	**Sn**	**03 05 33.8**	**-1.0**
JTM	**Tenmabayashi**	**1.69**	**327**	P	**Pn**	**03 05 18.8**	**0.0**
JTM	**Tenmabayashi**	**1.69**	**327**		**Pn**	**03 05 18.4**	**-0.4**
ERM	**Erimo**	**2.73**	**14**	P	Pn	03 05 36.3	+3.3
ERM	**Erimo**	**2.73**	**14**	S	**Sn**	**03 06 08.1**	**+3.3**
ERM	**Erimo**	**2.73**	**14**	Pn	**Pn**	**03 05 33.0**	**0.0**
JEM	**Erimo**	**2.73**	**14**	P	Pn	03 05 37.2	+4.2
JEM	**Erimo**	**2.73**	**14**	S	**Sn**	**03 06 08.0**	**+3.2**
MJAR	**Matsushiro Arr**	**4.27**	**230**	Pn	**Pn**	**03 05 57.1**	**+2.9**
	comp=E,1.3nm,0.3s,baz=37,slow=11,SNR=96						
MJAR				Sn	Sn	03 06 51.8	+9.1
	comp=E,0.6nm,0.3s,baz=42,slow=20,SNR=4.6						
	comp=E,36nm,0.6s						
MJAR				AML	AML		
MJAR	**Matsushiro Arr**	**4.27**	**230**		**Pn**	**03 05 54.2**	**+0.1**
MAJO	**Matsushiro**	**4.27**	**230**	P	**Pn**	**03 05 56.8**	**+2.6**
MAJO	**Matsushiro**	**4.27**	**230**	Pn	**Pn**	**03 05 53.1**	**-1.1**
MJB9	**Matsu-Tunnel**	**4.27**	**230**		**Pn**	**03 05 53.6**	**-0.6**
JKA	**Kamikawa-asahi**	**4.75**	**3**	Pn	**Pn**	**03 05 59.0**	**-1.8**
JGF	**Kuroka**	**5.42**	**228**	P	**Pn**	**03 06 13.8**	**+3.9**
JGF	**Kuroka**	**5.42**	**228**		**Pn**	**03 06 11.4**	**+1.5**
INU	**Inuyama**	**5.79**	**228**	P	**Pn**	**03 06 19.0**	**+4.0**
INU	**Inuyama**	**5.79**	**228**		**Pn**	**03 06 15.3**	**+0.3**
JHJ2	**Mitsune**	**6.55**	**198**	Pn	**Pn**	**03 06 24.8**	**-0.5**
JHJ	**Hachijo jima 2**	**6.55**	**199**	Pn	**Pn**	**03 06 25.6**	**+0.3**
	comp=E,11nm,0.3s,baz=284,slow=21,SNR=11						
JHJ				Sn	**Sn**	**03 07 35.0**	**-3.7**
	comp=E,28nm,0.3s,baz=228,slow=22,SNR=5.9						
	comp=E,79nm,0.2s						
JHJ				AML	AML		

JHS	Saijyo	8.51	242	P	Pn	03 06 54.5	+2.3
JMN	Monobe	8.79	233	Pn	Pn	03 06 56.7	+0.6
USRK	Ussuriysk Ar.	9.07	305	Pn	Pn	03 07 00.6	+0.7
	comp=E,0.6nm,0.3s,baz=115,slow=14,SNR=19						
	comp=E,12nm,0.7s						
USRK				AML	AML		
USRK	Ussuriysk Ar.	9.07	305		Pn	03 07 00.3	+0.5
KSRS	Korea Array	11.42	265	Pn	Pn	03 07 34.9	+2.9
	comp=E,0.6nm,0.3s,baz=72,slow=14,SNR=5.0						
	comp=E,2.6nm,0.6s						
KSRS				AML	AML		
SONM	Songino Array	27.12	300	P	P	03 10 30.2	+0.4
	comp=E,0.4nm,0.4s,baz=94,slow=4.3,SNR=1.6						
	comp=E,0.4nm,0.4s						
SONM	Songino Array	27.12	300	P	P	03 10 29.8	0.0
H11N2	WAKE ISLAND Hy	28.86	126	T	T	03 41 17.4	
	baz=317,slow=75,SNR=1479						
H11N1	WAKE ISLAND Hy	28.87	126	T	T	03 41 16.4	
	baz=317,slow=75,SNR=1235						
H11N3	WAKE ISLAND Hy	28.87	126	T	T	03 41 17.1	
	baz=317,slow=75,SNR=1529						
H11S1	WAKE ISLAND Hy	29.65	128	T	T	03 42 26.0	
	baz=318,slow=76,SNR=104						
H11S3	WAKE ISLAND Hy	29.65	128	T	T	03 42 26.6	
	baz=318,slow=76,SNR=153						
H11S2	WAKE ISLAND Hy	29.67	128	T	T	03 42 22.8	
	baz=318,slow=76,SNR=137						
ZALV	Zalesovo Beam	40.88	310	P	P	03 12 28.1	-0.3
	comp=E,1.5nm,0.4s,baz=93,slow=8.5,SNR=5.1						
	comp=E,1.5nm,0.4s						
ZALV	Zalesovo Beam	40.88	310	P	P	03 12 27.5	-0.8
CMAR	Chiang Mai Arr	42.77	254	P	P	03 12 45.0	+0.8
	comp=E,1.1nm,0.4s,baz=104,slow=13,SNR=9.4						
	comp=E,1.1nm,0.4s						
CMAR	Chiang Mai Arr	42.77	254	P	P	03 12 45.6	+1.4
MKAR	Makanchi Array	43.49	300	P	P	03 12 49.8	0.0
	comp=E,0.8nm,0.7s,baz=83,slow=9.9,SNR=8.5						
	comp=E,0.8nm,0.7s						
KURK	Kurchatov	45.06	306	P	P	03 13 02.5	+0.3
KURK				IAmb	IAmb	03 13 09.8	
	comp=Z,2.5nm,0.7s						
KURBB	Kurchatov Arra	45.13	306	P	P	03 13 02.7	0.0
	comp=Z,1.3nm,0.5s,baz=81,slow=8.5,SNR=5.3						
	comp=Z,1.3nm,0.5s						
ILAR	Eielson Array	47.17	34	P	P	03 13 16.6	-2.0
	comp=Z,0.3nm,0.8s,baz=273,slow=7.7,SNR=4.8						
	comp=Z,0.3nm,0.8s						
ILAR	Eielson Array	47.17	34	P	P	03 13 17.2	-1.3
BVAR	Borovoye Array	49.53	311	P	P	03 13 37.9	+1.0
	comp=Z,0.6nm,0.4s,baz=54,slow=7.3,SNR=2.2						
	comp=Z,0.6nm,0.4s						
AB31	Akbulak array	56.97	309	P	P	03 14 31.6	0.0
AB31				IAmb	IAmb	03 14 45.2	
	comp=Z,1.5nm,0.8s						
ABKAR	Akbulak array	56.97	309	P	P	03 14 31.2	-0.4
AKTO	Aktyubinsk	57.64	311	LR	LR	03 43 30.2	
	comp=Z,26nm,18.4s,baz=124,slow=40						
FITZ	Fitzroy Crossi	59.24	198	P	P	03 14 49.8	+2.2
FITZ				IAmb	IAmb	03 14 53.0	
	comp=Z,1.1nm,1.2s						
WB0	Warramunga Arr	59.28	189	P	P	03 14 48.5	+0.5
SANVU	Saraoutou	59.29	152	P	P	03 14 48.1	+0.1
WR8	Warramunga Arr	59.46	188	P	P	03 14 49.5	+0.4
WR8				IAmb	IAmb	03 14 51.7	
	comp=Z,6.8nm,1.2s						
WRA	Warramunga Arr	59.46	189	P	P	03 14 49.5	+0.4
	comp=Z,0.9nm,0.6s,baz=6.3,slow=7.1,SNR=9.2						
	comp=Z,0.9nm,0.6s						
ASAR	Alice Springs	63.19	189	P	P	03 15 13.4	-0.9
	comp=Z,0.2nm,0.6s,baz=2.4,slow=7.2,SNR=5.4						
	comp=Z,0.2nm,0.6s						
ASAR	Alice Springs	63.19	189	P	P	03 15 14.3	0.0
FINES	FINESS Array B	67.07	332	P	P	03 15 39.0	0.0
	comp=Z,2.0nm,0.9s,baz=24,slow=15,SNR=4.4						
	comp=Z,2.0nm,0.9s						
FINES	FINESS Array B	67.07	332	P	P	03 15 39.3	+0.2
HFS	Hagfors	72.24	336	P	P	03 16 10.7	-0.3
	comp=Z,1.6nm,0.8s,baz=36,slow=5.4,SNR=1.8						
	comp=Z,1.6nm,0.8s						
NOA	NORSAR Array B	72.30	337	P	P	03 16 09.7	-1.6
	comp=Z,2.0nm,1.1s,baz=24,slow=6.1,SNR=1.4						
	comp=Z,2.0nm,1.1s						
AKASG	Malin Array Be	72.87	322	P	P	03 16 15.0	+0.1
	comp=Z,0.2nm,0.3s,baz=45,slow=6.1,SNR=2.3						
	comp=Z,0.2nm,0.3s						
LCMT	Little Creek M	77.09	53	P	P	03 16 39.0	-0.7
BRTR	Keskin Array B	77.81	312	P	P	03 16 44.1	+0.5
	comp=Z,0.2nm,0.6s,baz=58,slow=5.4,SNR=2.2						
	comp=Z,0.2nm,0.6s						
BRTR	Keskin Array B	77.81	312	P	P	03 16 43.1	-0.5

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*UPA **03** 03:23:35.9±0.9, 8.°10N×76.°97W, h14^{km}±4^{km}, MW4.7, Fault plane solution: NP1:ϕ_s68.50000°, δ45.90000°, λ-73.40000°., Presumed earthquake*

*GFZ **03** 03:23:38.6±0.4, 8°N±5°×7°7W±°, h45^{km}, M4.8/18, mb4.7/18, confirmed*

*NEIC **03** 03:23:38.8±1.3, 8.°21N±0.°07×76.°94W±0.°06, h43^{km}±4^{km}, mb4.5/129, Error ellipse: s-maj=10.9km s-min=8.8km az=197.0*

*CATAC **03** 03:23:38.3±0.1, 8°N±1°×7°7W±°, h44^{km}, M5.0/21, mb5.2/18, mB5.4/11, MLv5.0/21, Mw(mB)4.9/11, Error ellipse: s-maj=3.0km s-min=1.9km az=28.8, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}1.28; $M_{\theta\theta}$6.45; $M_{\phi\phi}$-7.73; $M_{r\theta}$1.83; $M_{\theta\phi}$3.36; $M_{\phi r}$1.60; Fault plane solution: $M_0$8.29062×10^{15} NP1: ϕ_s123.42903°, δ72.31606°, λ8.14066°. NP2:ϕ_s30.94096°, δ82.24644°, λ162.14743°. Principal axes: T 7.9060, Plg18.0708°, Azm346.0118°; N 0.7220, Plg70.5868°, Azm188.2130°; P -8.6280, Plg6.8573°, Azm78.2606°; confirmed*

*RSNC **03** 03:23:39.0±0.0, 8.°05N×76.°94W, h49^{km}±2^{km}, M4.7, mB5.3, mb5.2, ML4.0, Mw(mB)4.7*

*IDC **03** 03:23:39.0±2.1, 8.°19N×77.°02W, h53^{km}±23^{km}, mb3.8/13, mbtmp4.1/16, ML3.8/4, MS3.4/4, Error ellipse: s-maj=26.5km s-min=12.6km az=37.0*

ISC 03 03:23:38.0±0.7, **8.°20N**±0.°03×**76.°94W**±0.°03, **h45**^{km}±8^{km}, **n289**, σ**1.^{s}36**/336, **mb4.5**/71, **8C-7D, Near north coast of Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APAC	Apartado, Choc	0.46	130	P	Pn	03 23 48.4	-0.1
APAC				S	Sn	03 23 57.3	+1.4
LCBC	Los crdobas,	0.86	41	P	Pn	03 23 55.4	+1.6
LCBC				S	Sn	03 24 09.2	+3.9
PTAC	Punta Ardita,	1.35	220	P	Pn	03 23 57.9	-2.5
PTAC				S	Sn	03 24 12.1	-5.2
PTAC	Punta Ardita,	1.35	220	⇓iP	Pn	03 23 58.0	-2.5
PTAC				eS	Sn	03 24 14.4	-2.9
DBBC	Dabeiba	1.38	148	P	Pn	03 23 59.8	-1.1
DBBC				S	Sn	03 24 18.0	0.0
UREC	San Jos de Ur	1.46	108	P	Pn	03 24 01.6	-0.3
UREC				S	Sn	03 24 18.7	-1.2
UREC	San Jos de Ur	1.46	108	⇓iP	Pn	03 24 01.6	-0.3
UREC				eS	Sn	03 24 19.5	-0.5
TOTI	Torti	1.54	298	⇑iP	Pn	03 24 02.5	-0.5
TOTI				eS	Sn	03 24 21.6	-0.3
SOLC	Bahia Solano	2.01	193	P	Pn	03 24 08.4	-1.1
SOLC				S	Sn	03 24 31.7	-1.8
CNTA3	Canitas, Panam	2.18	298	⇑iP	Pn	03 24 11.6	-0.3
CNTA3				eS	Sn	03 24 38.4	+0.8
MEDEC	Medelln, Ant	2.33	145	P	Pn	03 24 13.6	-0.5
MEDEC				S	Sn	03 24 41.1	-0.5
CHPO	Chepo, Panama	2.36	294	eP	Pn	03 24 14.3	+0.1
CHPO				eS	Sn	03 24 43.8	+1.8
SJCC	San Jacinto, C	2.42	46	P	Pn	03 24 15.2	0.0
SJCC				S	Sn	03 24 44.0	+0.4
SJCC	San Jacinto, C	2.42	46	P	Pn	03 24 15.5	+0.3
SJCC				S	Sn	03 24 42.6	-1.0
SJCC	San Jacinto, C	2.42	46	eP	Pn	03 24 15.3	+0.2
SJCC				eS	Sn	03 24 46.8	+3.2
CBOC	Ciudad Bolivar	2.49	158	P	Pn	03 24 16.4	+0.1
CBOC				S	Sn	03 24 46.1	+0.5
FLAM	Flamenco Islan	2.67	286	eP	Pn	03 24 17.9	-0.7
FLAM				eS	Sn	03 24 49.8	+0.2
UPA	Univ. de Panam	2.68	287	P	Pn	03 24 17.9	-0.8
UPA				S	Sn	03 24 48.9	-1.1
UPA	Univ. de Panam	2.68	287	⇑iP	Pn	03 24 17.9	-0.8
UPA				eS	Sn	03 24 50.9	+0.9
ARRA3	Arraijan, Pana	2.80	286	eP	Pn	03 24 19.6	-0.7
ARRA3				eS	Sn	03 24 52.5	-0.2
GAMB1	Gamboa	2.89	289	eP	Pn	03 24 20.8	-0.8
FRIJ	El Hiral	2.94	290	⇓iP	Pn	03 24 21.7	-0.5
PTBC	PUERTO BERRIO,	2.96	124	P	Pn	03 24 21.8	-0.8
PTBC				S	Sn	03 24 53.8	-3.1
ZANG	Zanguenga, Cho	2.99	285	eP	Pn	03 24 22.5	-0.5
ZANG				eS	Sn	03 24 60.0	+2.3
BCIP	Isla Barro Col	3.02	289		Pn	03 24 22.5	-0.8
BCIP	Isla Barro Col	3.02	289	P	Pn	03 24 22.6	-0.8
BCIP				S	Sn	03 24 57.0	-1.4
BCIP	Isla Barro Col	3.02	289	P	Pn	03 24 22.9	-0.6
BCIP				S	Sn	03 24 58.9	+0.5
BCIP	Isla Barro Col	3.02	289	P	Pn	03 24 23.0	-0.4
BCIP	Isla Barro Col	3.02	289	⇑iP	Pn	03 24 22.8	-0.6
BCIP				eS	Sn	03 24 58.1	-0.3
PIZC	Pizarro, Choco	3.24	187	P	Pn	03 24 24.4	-2.0
PIZC				S	Sn	03 25 00.5	-3.2
ACHO3	Achotines, Los	3.30	257	eP	Pn	03 24 26.7	-0.5
NORC	Norcasia	3.33	142	P	Pn	03 24 27.9	+0.3
NORC				S	Sn	03 25 05.6	-0.4
AZU	Azuero	3.33	263	P	Pn	03 24 26.6	-1.0
AZU				S	Sn	03 25 02.8	-3.1
AZU	Azuero	3.33	263	⇓iP	Pn	03 24 26.9	-0.7
AZU				eS	Sn	03 25 04.9	-1.0
GUY2C	Guyana, Caldas	3.34	152	P	Pn	03 24 28.6	+0.4
GUY2C				S	Sn	03 25 07.3	+0.4
PNME	Penonome	3.37	275	P	Pn	03 24 27.5	-0.6
PNME				S	Sn	03 25 05.8	-1.1
PNME	Penonome	3.37	275	eP	Pn	03 24 27.6	-0.6
PNME				eS	Sn	03 25 06.4	-0.5
BRJC	Barrancabermej	3.39	111	P	Pn	03 24 28.9	+0.4
BRJC				S	Sn	03 25 06.5	-1.0
CHIT3	Chitre	3.46	266	i P	Pn	03 24 28.4	-0.9
CHIT3				eS	Sn	03 25 08.0	-1.0
TOSI3	Tonosi	3.56	257	eP	Pn	03 24 30.1	-0.7
TOSI3				eS	Sn	03 25 11.2	-0.4
OCAC	Ocana	3.58	89	P	Pn	03 24 31.5	+0.3
OCAC				S	Sn	03 25 12.1	-0.3
PESE3	Pese, Herrera	3.65	266	eP	Pn	03 24 30.5	-1.5
SPBC	San Pablo de B	3.81	131	P	Pn	03 24 33.6	-0.7
SPBC				S	Sn	03 25 16.4	-1.5
ARMEC	Armenia, Quind	3.83	161	P	Pn	03 24 36.3	+1.6
ARMEC				S	Sn	03 25 19.0	+0.3
CALO3	Calobre, Verag	3.87	272	eP	Pn	03 24 34.4	-0.6
CACAO	El Cacao, Vera	3.98	258	P	Pn	03 24 35.5	-1.0
CACAO				S	Sn	03 25 18.3	-3.7
CACAO	El Cacao, Vera	3.98	258	eP	Pn	03 24 35.6	-0.9
CACAO				eS	Sn	03 25 20.1	-1.8
STIA3	Santiago, Vera	4.00	269	eP	Pn	03 24 36.0	-0.8
STIA3				eS	Sn	03 25 21.5	-0.9
BARC	Barichara	4.05	113	P	Pn	03 24 38.0	+0.3
BARC				S	Sn	03 25 23.2	-0.9
RSUS3	Rio de Jesus,	4.19	267	eP	Pn	03 24 38.5	-0.9
ROSC	El Rosal	4.23	142	P	Pn	03 24 42.2	+1.9
	43nm,0.3s,baz=306,slow=6.7,SNR=56						
ROSC				S	Sn	03 25 32.1	+3.4
	276nm,0.5s,baz=55,slow=21,SNR=8.9						
ROSC				LR	LR	03 26 43.1	
	comp=Z,830nm,21.8s,baz=345,slow=43						
	107nm,0.4s						
ROSC				AML	AML		
ROSC	El Rosal	4.23	142		Pn	03 24 41.9	+1.6
ROSC	El Rosal	4.23	142	P	Pn	03 24 42.1	+1.8
ROSC				S	Sn	03 25 26.6	-2.1
GMAL	Guarumal, Vera	4.28	264	P	Pn	03 24 40.9	+0.3
GMAL				S	Sn	03 25 27.6	-1.7
GMAL	Guarumal, Vera	4.28	264	eP	Pn	03 24 40.5	-0.2
GMAL				eS	Sn	03 25 27.6	-1.7
PAMC	Pamplona, Colo	4.29	101	P	Pn	03 24 42.2	+1.0
PAMC				S	Sn	03 25 30.0	-0.2
RUSC	La Rusia	4.46	121	P	Pn	03 24 43.0	-0.5
RUSC	La Rusia	4.46	121	P	Pn	03 24 43.1	-0.5
RUSC				S	Sn	03 25 34.8	+0.4
BOG	Bogota	4.56	141	P	Pn	03 24 43.6	-1.2
ORTC	Ortega, Tolima	4.58	158	P	Pn	03 24 46.9	+2.0
CVER	Cruz Verde, Cu	4.63	142	P	Pn	03 24 47.6	+1.7
CHIC	Chingaza	4.77	138	P	Pn	03 24 48.5	+0.8
PRAC	Prado	4.90	155	P	Pn	03 24 51.1	+1.9
PRAC	Prado	4.90	155	P	Pn	03 24 51.3	+2.1
PRAC				S	Sn	03 25 47.8	+3.1
VILC	Villavicencio,	5.18	141	P	Pn	03 24 54.7	+1.5
LOMA3	Las Lomas, Chi	5.40	273	eP	Pn	03 24 54.9	-1.2
DVD	David	5.46	273	eP	Pn	03 24 55.2	-1.7
BQSF3	Alto Boquete,	5.46	276	eP	Pn	03 24 55.7	-1.4
LNBQ3	Los Naranjos,	5.48	277	eP	Pn	03 24 57.5	+0.2
PTAR3	Potrerillos Ar	5.52	276	eP	Pn	03 24 56.9	-0.9
PTAR3				eS	Sn	03 25 58.9	-1.3
URMC	La Uribe, Meta	5.54	152	P	Pn	03 24 59.0	+1.0
	1µm179nm,0.8s						
URMC				AML	AML		
POPC	Popayan, Colom	5.63	177	P	Pn	03 24 59.5	+0.1
	2µm152nm,0.9s						
POPC				AML	AML		
BETC	Betania	5.68	165	P	Pn	03 25 02.3	+2.3
BRU2	Volcan	5.72	276		Pn	03 25 01.4	+0.8
BRU2	Volcan	5.72	276	P	Pn	03 25 01.6	+1.0
BRU2				S	Sn	03 26 05.3	+0.1
BRU2	Volcan	5.72	276	P	Pn	03 25 01.7	+1.0
	comp=Z,162nm,0.8s						
BRU2	Volcan	5.72	276	eP	Pn	03 24 59.3	-1.3
BRU2				eS	Sn	03 26 03.4	-1.7
RGM0	Gandoca	5.77	284	P	Pn	03 25 01.7	+0.6
RGM0				S	Sn	03 26 06.1	0.0
PTPM	Petroterminale	5.88	270	eP	Pn	03 25 01.4	-1.3
CDITO	Canoas	5.88	274	P	Pn	03 25 03.6	+0.8
CDITO				S	Sn	03 26 10.4	+1.5
URIC	Uribia, Colomb	5.99	54	P	Pn	03 25 03.6	-0.5
	comp=Z,2µmcomp=Z,164nm,0.9s						
URIC				AML	AML		
URI	Uribia	5.99	54	P	Pn	03 25 03.7	-0.4
URI				S	Sn	03 26 10.3	-1.1
GARC	Garzon, Huila	6.14	166	P	Pn	03 25 07.4	+0.9
GARC				AML	AML		
BBAC	Balboa, Cauca	6.14	183	P	Pn	03 25 06.6	+0.1
	comp=Z,1µmcomp=Z,98nm,0.7s						
BBAC				AML	AML		
SDV	Santo Domingo	6.27	83	P	Pn	03 25 09.1	+0.8
	comp=Z,77nm,0.3s,baz=259,slow=7.8,SNR=125						
SDV				S	Sn	03 26 17.8	-1.0
	comp=Z,169nm,0.3s,baz=81,slow=23,SNR=8.0						
SDV				LR	LR	03 28 23.7	
	comp=Z,172nm,21.6s,baz=256,slow=45						
SDV				AML	AML		
SDV	Santo Domingo	6.27	83		Pn	03 25 08.5	+0.3
SDV	Santo Domingo	6.27	83	P	Pn	03 25 08.8	+0.6
	comp=Z,27µmcomp=Z,3µm,0.7s						
SDV	Santo Domingo	6.27	83	P	Pn	03 25 09.0	+0.8
	comp=Z,3µm,0.7s						
CRUC	La Cruz	6.59	180	P	Pn	03 25 13.0	+0.3
PRVC	Isla de Provid	6.74	320	P	Pn	03 25 11.6	-2.8
	comp=Z,30nm,0.5s						
PRVC	Isla de Provid	6.74	320	P	Pn	03 25 13.5	-0.9
PRVC				S	Sn	03 26 28.8	-1.1
PRVC	Isla de Provid	6.74	320	eP	Pn	03 25 13.5	-0.9
PRVC				eS	Sn	03 26 29.9	+0.1
MACC	Macarena, Meta	6.75	153	P	Pn	03 25 14.6	-0.1
	comp=Z,935nmcomp=Z,80nm,0.7s						
RAFA	San Farael, Vo	7.01	285		Pn	03 25 18.2	-0.2
LCR2	La Lucha 2	7.15	283		Pn	03 25 20.9	+0.6
LCR2	La Lucha 2	7.15	283	P	Pn	03 25 20.9	+0.6
LCR2				S	Sn	03 26 40.2	-0.1
CMBC	Cumbal	7.26	187	P	Pn	03 25 22.8	+0.7
HDC	Heredia	7.31	285		Pn	03 25 24.0	+1.5
HDC	Heredia	7.31	285	P	Pn	03 25 23.6	+1.2
	comp=Z,94nm,0.6s						
TULM	Tulcn-Chalpat	7.48	187	P	Pn	03 25 26.1	+1.0
	comp=Z,2µmcomp=Z,308nm,1.0s						
TULM	Tulcn-Chalpat	7.48	187	P	Pn	03 25 26.5	+1.4
TULM				S	Sn	03 26 51.2	+2.3
TCS1	Tacares	7.50	285	P	Pn	03 25 26.7	+1.7
TRB2	Turrubares	7.61	284	P	Pn	03 25 27.9	+1.4
TRB2				S	Sn	03 26 51.7	+0.2
BLUN	Bluefields	7.72	300	P	Pn	03 25 26.3	-1.6
	comp=Z,25nm,0.5s						
BLUN	Bluefields	7.72	300	P	Pn	03 25 28.0	+0.1
BLUN				S	Sn	03 26 52.8	-1.3
COVE	Coope Vega, Sa	7.78	289	P	Pn	03 25 28.4	-0.3
COVE				S	Sn	03 26 55.6	+0.1
IMBA	Imbabura, San	7.97	189	P	Pn	03 25 33.3	+1.5
IMBA				S	Sn	03 27 03.5	+2.6
CUSE	Cuicocha Este	7.97	191	P	Pn	03 25 32.1	+0.3
OTAV	Otavalo	8.05	191		Pn	03 25 33.4	+0.5
OTAV	Otavalo	8.05	191	P	Pn	03 25 33.1	+0.2
	comp=Z,1µmcomp=Z,95nm,0.6s						
OTAV	Otavalo	8.05	191	P	Pn	03 25 33.4	+0.5
OTAV	Otavalo	8.05	191	P	Pn	03 25 33.4	+0.5
	comp=Z,98nm,0.6s						
PAC1	Pacto, Paraso	8.09	193	P	Pn	03 25 32.7	-0.5
JTS	Las Juntas de	8.18	285	P	Pn	03 25 35.2	+0.9
	comp=Z,1.5nm,0.3s,baz=91,slow=9.9,SNR=11						
JTS				S	Sn	03 27 08.2	+2.7
	comp=Z,16nm,0.8s,baz=253,slow=15,SNR=2.2						
JTS				LR	LR	03 28 51.4	
	comp=Z,535nm,20.1s,baz=114,slow=39						
	comp=Z,8.5nm,0.6s						
JTS				AML	AML		
JTS	Las Juntas de	8.18	285	P	Pn	03 25 34.5	+0.2
JTS	Las Juntas de	8.18	285	P	Pn	03 25 35.1	+0.9
JTS				S	Sn	03 27 05.7	+0.2
JTS	Las Juntas de	8.18	285	P	Pn	03 25 35.5	+1.3
	comp=Z,32nm,0.9s						
PTLC	Puerto Leguiza	8.26	165	P	Pn	03 25 40.6	+5.3
PULU	Pululahua	8.27	191	P	Pn	03 25 36.9	+1.1
PULU				S	Sn	03 27 10.9	+2.7
UPAL	Upala	8.40	289	P	Pn	03 25 36.8	-0.4
UPAL				S	Sn	03 27 11.0	+0.2
GGPC	Guagua Pichinc	8.48	191	P	Pn	03 25 40.4	+1.4
GGPC				S	Sn	03 27 16.4	+2.7
ANTS	Antisana-Sarah	8.72	188	P	Pn	03 25 44.2	+1.9
ANTS				S	Sn	03 27 21.9	+2.3
ACON	Acoyapa	8.93	295	P	Pn	03 25 44.7	+0.2
ACON				S	Sn	03 27 23.7	-0.2
SLOR	San Lorenzo -	9.00	190		Pn	03 25 48.0	+2.0
SLOR	San Lorenzo -	9.00	190	P	Pn	03 25 48.3	+2.3
SLOR				S	Sn	03 27 28.4	+2.1
SIUN	Universidad Ur	9.45	306		Pn	03 25 51.3	-0.3
PCJ	Portland Cotta	9.49	359	⇑iP	Pn	03 25 53.6	+1.5
BOAB	BOACO BROADBAN	9.57	297		Pn	03 25 53.6	+0.3
BOAB	BOACO BROADBAN	9.57	297	P	Pn	03 25 52.9	-0.4
BOAB				S	Sn	03 27 39.4	-0.1
BOAB	BOACO BROADBAN	9.57	297	P	Pn	03 25 53.0	-0.3
	comp=Z,90nm,1.5s						
HOJ	Hope	9.75	1	i P	Pn	03 25 57.4	+1.7
HOJ				⇓iP		03 25 57.7	
GWJ	Greenwich	9.82	1	⇓iP	Pn	03 25 58.2	+1.4
GWJ				⇓iP		03 25 58.2	
STH	Stony Hill	9.82	1	⇑iP	Pn	03 25 58.4	+1.7
STH				⇑iP	Pn	03 25 58.4	+1.7
CVJ	Coleyville	9.98	357	i P	Pn	03 26 00.2	+1.1
CVJ				i S	Sn	03 27 44.8	-5.1
CNGN	Cerro Negro	10.51	295	P	Pn	03 26 06.0	-0.2
	comp=Z,253nm,1.0s						
CHIV	Chivirico	11.72	2	eP	Pn	03 26 23.2	+0.5
MARVS	Santiago de Cu	11.78	5	eP	Pn	03 26 24.5	+1.1
FSCY	Frank Sound, G	11.79	340	eP	Pn	03 26 21.8	-1.8
CBCY	The Bluff, Cay	11.79	347	eP	Pn	03 26 23.0	-0.7
GTBY	Guantanamo Bay	11.79	8	P	Pn	03 26 25.4	+1.7
GTBY	Guantanamo Bay	11.79	8	⇑iP	Pn	03 26 25.9	+2.3
GTBY	Guantanamo Bay	11.79	8	eP	Pn	03 26 25.8	+2.1
GTBY	Guantanamo Bay	11.79	8	P	Pn	03 26 25.2	+1.6
	comp=Z,112nm,0.9s						
LMGC	Las Mercedes	11.80	360	eP	Pn	03 26 24.1	+0.4
LCCY	Blossom Villag	11.80	345	eP	Pn	03 26 22.8	-1.0
SDDR	Presa de Saban	12.04	27		Pn	03 26 28.2	+1.1
SDDR	Presa de Saban	12.04	27	i P	Pn	03 26 29.7	+2.5
SDDR	Presa de Saban	12.04	27	P	Pn	03 26 29.9	+2.8
	comp=Z,61nm,0.7s						
QMBU	Quimbuelo	12.11	10	eP	Pn	03 26 30.0	+2.0
YAR	Yar	12.11	3	eP	Pn	03 26 29.0	+0.9
MASC	Masc	12.19	12	eP	Pn	03 26 30.9	+1.8
MASC	Masc	12.19	12	P	Pn	03 26 31.3	+2.2
	comp=Z,124nm,1.0s						
NMDO	Nuevo Mundo	12.43	9		Pn	03 26 33.6	+1.2
NMDO	Nuevo Mundo	12.43	9	eP	Pn	03 26 34.3	+1.9
MOAC	Moa	12.54	9	eP	Pn	03 26 36.0	+2.2
HLGC	Holguin	12.65	4	eP	Pn	03 26 36.9	+1.5
CELP	Cerrillos	14.07	45		Pn	03 26 51.0	-3.7
AOPR	Arecibo Observ	14.13	43		Pn	03 26 51.9	-3.8
ECPR	Experimental S	14.38	45		Pn	03 26 55.6	-3.4
SJG	San Juan	14.39	46	P	Pn	03 26 54.9	-4.2
	comp=Z,19nm,0.3s,baz=221,slow=14,SNR=21						
SJG				S	Sn	03 29 23.7	-14
	comp=Z,26nm,0.6s,baz=49,slow=21,SNR=9.3						
SJG	San Juan	14.39	46		Pn	03 26 55.0	-4.1
SJG	San Juan	14.39	46	P	Pn	03 26 54.9	-4.2
	comp=Z,37nm,0.5s						
APG	El Apazote	14.87	298	LR	LR	03 33 13.8	
	comp=Z,11nm,20.2s,baz=114,slow=39						
ATAH	Atahualpa	15.30	185	P	Pn	03 27 11.6	+0.1
	comp=Z,0.4nm,0.3s,baz=32,slow=9.0,SNR=4.7						
	comp=Z,5.8nm,0.6s						
ATAH				AML	AML		
TEIG	Tepich	16.23	319	P	Pn	03 27 22.1	-0.9
	baz=13,slow=24,SNR=2.4						
TEIG	Tepich	16.23	319	Pn	Pn	03 27 20.6	-2.3
TEIG				IAmb	IAmb	03 27 48.3	
	comp=Z,50nm,1.5s						
CZSB	Cruzeiro do Su	16.38	165	P	Pn	03 27 25.0	+0.1
GDHS	Morne Mazeau,	16.85	60	P	Pn	03 27 29.4	-1.5
CBE	Ff, Capester	16.90	61	P	P	03 27 33.5	+0.5
BOAV	Boa Vista	17.32	109		Pn	03 27 34.1	-2.7
GDSD	La Dsirade Is	17.47	61		P	03 27 40.7	+1.4
MACA	Manacapuru-AM	19.75	124		P	03 28 03.3	-1.1
MACA				IAmb	IAmb	03 28 04.0	
	comp=Z,18nm,0.7s						
NNA	Nana	20.05	180	P	P	03 28 06.2	-1.5
	comp=Z,13nm,0.7s,baz=265,slow=5.9,SNR=3.6						
	comp=Z,13nm,0.7s						
NNA	Nana	20.05	180	P	P	03 28 06.8	-0.9
X40A	Basin Creek Fa	29.97	333	P	P	03 29 43.1	+0.8
MIAR	Mount Ida	30.36	332	P	P	03 29 45.7	0.0
	comp=Z,3.3nm,0.8s						
BRDY	Brady	30.84	321		P	03 29 50.8	+0.8
FCAR	Ozark Folk Cen	30.86	335	P	P	03 29 50.2	+0.2
T42A	Van Buren	31.45	338	P	P	03 29 55.6	+0.4
PLPT	Palo Pinto	31.50	324	P	P	03 29 56.2	+0.4
PLPT				IAmb	IAmb	03 29 57.2	
	comp=Z,6.0nm,0.9s						
HHAR	Hobbs	31.97	333		P	03 30 00.5	+0.6
HHAR				IAmb	IAmb	03 30 00.8	
	comp=Z,4.8nm,0.8s						
U38A	Gravette	32.30	333		P	03 30 03.4	+0.7
U38A				IAmb	IAmb	03 30 03.8	
	comp=Z,5.2nm,1.0s						
CCM	Cathedral Cave	32.42	339	P	P	03 30 03.5	-0.2
CCM				IAmb	IAmb	03 30 23.4	
	comp=Z,6.4nm,0.7s						
CCM	Cathedral Cave	32.42	339	P	P	03 30 04.0	+0.3
	comp=Z,9.6nm,0.8s						
W35A	Tecumseh	32.46	329	P	P	03 30 03.9	-0.3
W35A				IAmb	IAmb	03 30 05.6	
	comp=Z,8.8nm,1.0s						
TUL3	Leonard	32.52	331	P	P	03 30 04.7	0.0
TUL3				IAmb	IAmb	03 30 05.5	
	comp=Z,9.8nm,0.8s						
X34A	Smith Ranch, M	32.55	327		P	03 30 05.7	+0.7
X34A				IAmb	IAmb	03 30 06.9	
	comp=Z,10nm,0.9s						
TX31	Lajitas Ar. Si	32.75	313		P	03 30 07.1	+0.2
TXAR	Lajitas Array	32.75	313	P	P	03 30 06.9	0.0
	comp=Z,1.3nm,0.9s,baz=135,slow=6.3,SNR=12						
	comp=Z,1.3nm,0.9s						
TXAR	Lajitas Array	32.75	313	P	P	03 30 06.2	-0.6
FNO	Franklin	32.81	328	P	P	03 30 07.2	0.0
S39A	Bolivar	32.90	336		P	03 30 07.7	-0.3
S39A				IAmb	IAmb	03 30 08.8	
	comp=Z,4.8nm,0.9s						
OK052	Battle Ridge R	33.08	330	P	P	03 30 09.4	-0.2
OK052				IAmb	IAmb	03 30 10.5	
	comp=Z,14nm,1.1s						
WMOK	Wichita Mounta	33.17	326	P	P	03 30 10.1	-0.3
WMOK				IAmb	IAmb	03 30 11.5	
	comp=Z,6.2nm,1.1s						
WMOK	Wichita Mounta	33.17	326	P	P	03 30 10.1	-0.3
	comp=Z,5.4nm,1.9s						
SN07	Snyder 07	33.24	322	P	P	03 30 11.2	+0.1
OK029	Liberty Lake	33.26	329	P	P	03 30 10.7	-0.4
OK048	Pawnee Station	33.48	330	P	P	03 30 13.1	0.0
OK051	E0350 and S346	33.50	330	P	P	03 30 13.2	0.0
T35A	Sooner Cattle	33.67	331		P	03 30 14.7	-0.1
BLOK	Blackwell	33.89	330	P	P	03 30 16.7	+0.1
CROK	Carrier	34.08	329	P	P	03 30 17.8	-0.5
SMWD	Samnorwood	34.26	325		P	03 30 19.6	-0.3
SMWD				IAmb	IAmb	03 30 20.9	
	comp=Z,8.7nm,1.0s						

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ELIS  Ellis County      34.50 327         P       03 30 22.0  0.0
MSTX  Muleshoe          34.99 321  P      P       03 30 26.0 -0.3
MSTX                               IAmb   IAmb    03 30 27.8
      comp=Z,13nm,1.3s
KSU1  Kansas State U    35.48 333  P      P       03 30 30.2 -0.1
SADO  Sadowa            36.48 357  LR     LR      03 46 06.6
      comp=Z,34nm,18.3s,baz=202,slow=37
RTBA  Rita Blanca       36.63 324         P       03 30 40.0 -0.4
RTBA                               IAmb   IAmb    03 30 41.8
      comp=Z,11nm,0.9s
ALQ   Albuquerque       37.96 319         P       03 30 52.3 +0.5
ALQ                                IAmb   IAmb    03 30 53.8
      comp=Z,11nm,1.5s
ALQ   Albuquerque       37.96 319         P       03 30 52.2 +0.4
ALQ                                IAmb   IAmb    03 30 53.7
      comp=Z,11nm,1.5s
ANMO  Albuquerque       37.96 319         P       03 30 52.0 +0.3
ANMO  Albuquerque       37.96 319  P      P       03 30 52.6 +0.9
      comp=Z,6.5nm,1.4s
TASM  ASL Pad, Albuq    37.96 319  P      P       03 30 52.3 +0.5
TASM  ASL Pad, Albuq    37.96 319  P      P       03 30 52.3 +0.5
KSCO  Kaye Shedlock'    38.39 327  P      P       03 30 54.8 -0.4
SDCO  Great Sand Dun    39.14 323         P       03 31 01.8 +0.1
SDCO                               IAmb   IAmb    03 31 04.4
      comp=Z,7.1nm,0.9s
S22A  4UR Ranch, Cre    39.94 322         P       03 31 08.7 +0.3
S22A                               IAmb   IAmb    03 31 11.1
      comp=Z,6.7nm,1.0s
ISCO  Idaho Springs     40.59 325         P       03 31 14.2 +0.4
ISCO                               IAmb   IAmb    03 31 16.2
      comp=Z,10nm,1.4s
ISCO  Idaho Springs     40.59 325  P      P       03 31 15.2 +1.4
      comp=Z,5.0nm,1.1s
PV01  Paradox Valley    41.26 321  P      P       03 31 19.3 +0.1
PV01                               IAmb   IAmb    03 31 21.9
      comp=Z,7.7nm,1.0s
PV15  Paradox Valley    41.33 321  P      P       03 31 20.3 +0.5
PV15                               IAmb   IAmb    03 31 23.1
      comp=Z,15nm,0.9s
PV02  Paradox Valley    41.41 321  P      P       03 31 21.2 +0.8
PV13  Radium Mtn., P    41.43 321  P      P       03 31 21.4 +0.8
PV13                               IAmb   IAmb    03 31 23.6
      comp=Z,13nm,0.9s
PV07  Paradox Valley    41.49 321  P      P       03 31 21.9 +0.8
PV07                               IAmb   IAmb    03 31 23.7
      comp=Z,12nm,1.1s
PV03  Paradox Valley    41.50 321  P      P       03 31 21.2  0.0
PV03                               IAmb   IAmb    03 31 23.5
      comp=Z,9.3nm,1.2s
PV12  Saucer Basin,     41.51 321  IAmb   IAmb    03 31 23.8
      comp=Z,21nm,1.2s
PV18  Skein Mesa, Pa    41.54 321  IAmb   IAmb    03 31 23.7
      comp=Z,19nm,1.1s
PV05  Paradox Valley    41.55 321  P      P       03 31 20.6 -1.0
PV05                               IAmb   IAmb    03 31 23.5
      comp=Z,16nm,1.2s
PV16  Nyswonger Mesa    41.58 321  IAmb   IAmb    03 31 24.2
      comp=Z,9.9nm,1.3s
WUAZ  Wupatki           41.59 316  P      P       03 31 21.6 -0.2
PV19  Morning Glory     41.62 321  IAmb   IAmb    03 31 24.4
      comp=Z,12nm,1.2s
PV10  Paradox Valley    41.70 321  IAmb   IAmb    03 31 24.6
      comp=Z,15nm,1.2s
HMU   Henry Mountain    42.51 319  IAmb   IAmb    03 31 31.9
      comp=Z,20nm,1.3s
RSSD  Black Hills       42.87 331  P      P       03 31 32.2  0.0
      comp=Z,5.6nm,1.4s
PDAR  Pinedale Array    44.78 326  P      P       03 31 48.1 +0.5
      comp=Z,3.3nm,0.8s,baz=126,slow=9.1,SNR=26
      comp=Z,3.3nm,0.8s
PDAR  Pinedale Array    44.78 326         P       03 31 47.3 -0.4
ULM   Lac du Bonnet     44.79 343  P      P       03 31 46.6 -0.7
      comp=Z,2.4nm,0.9s,baz=140,slow=12,SNR=2.3
      comp=Z,2.4nm,0.9s
ULM   Lac du Bonnet     44.79 343  P      P       03 31 47.5 +0.3
ULM                                IAmb   IAmb    03 32 03.1
      comp=Z,11nm,1.2s
TCUT  Toone Canyon      44.81 323  IAmb   IAmb    03 31 50.0
      comp=Z,13nm,0.9s
DUG   Dugway, Tooele    45.13 321  P      P       03 31 51.9 +1.5
      comp=Z,6.5nm,2.1s
HWUT  Hardware Ranch    45.20 323  P      P       03 31 51.5 +0.5
      comp=Z,6.8nm,2.1s
AHID  Auburn Hatcher    45.65 325  P      P       03 31 54.5  0.0
      comp=Z,4.7nm,0.4s
FXWY  Fox Creek         46.16 326  IAmb   IAmb    03 32 00.1
      comp=Z,4.3nm,0.9s
RLMT  Red Lodge         46.19 328  IAmb   IAmb    03 32 00.2
      comp=Z,9.9nm,1.4s
YHL   Hebgen Lake       47.03 327  IAmb   IAmb    03 32 08.1
      comp=Z,10nm,1.1s
SCHQ  Schefferville     47.20   8  P      P       03 32 05.4 -0.9
      comp=Z,3.5nm,0.7s,baz=241,slow=11,SNR=2.7
      comp=Z,3.5nm,0.7s
SCHQ  Schefferville     47.20   8  P      P       03 32 06.7 +0.5
SCHQ                               IAmb   IAmb    03 32 38.4
      comp=Z,12nm,1.2s
BOZ   Bozeman (W)       47.75 327  IAmb   IAmb    03 32 12.6
      comp=Z,5.8nm,0.9s
NVAR  Mina Array Bea    47.84 316  P      P       03 32 11.0 -0.7
      comp=Z,0.1nm,0.3s,baz=116,slow=6.8,SNR=5.3
      comp=Z,0.1nm,0.3s
NVAR  Mina Array Bea    47.84 316  P      P       03 32 11.6 -0.1
HLID  Hailey            48.06 324  P      P       03 32 14.2 +0.9
      comp=Z,3.2nm,0.9s
DLMT  Dillon            48.12 326  IAmb   IAmb    03 32 15.8
      comp=Z,5.3nm,0.9s
MFID  Camas Ranch       48.82 323  IAmb   IAmb    03 32 20.7
      comp=Z,5.1nm,0.9s
PLID  Pearl Lake        49.87 324  IAmb   IAmb    03 32 28.1
      comp=Z,5.4nm,1.2s
WVOR  Wild Horse Val    50.03 320  P      P       03 32 29.0 +0.7
WVOR                               IAmb   IAmb    03 32 29.8
      comp=Z,7.4nm,1.1s
WVOR  Wild Horse Val    50.03 320  P      P       03 32 28.4 +0.1
      comp=Z,7.9nm,1.3s
E09A  Wood Farm, Sta    51.92 325  IAmb   IAmb    03 32 43.4
      comp=Z,6.0nm,1.2s
EPH   Ephrata           53.21 325  IAmb   IAmb    03 32 53.5
      comp=Z,7.0nm,1.0s
YKA   Yellowknife Ar    60.71 341  P      P       03 33 44.5  0.0
      comp=Z,4.3nm,0.9s,baz=132,slow=7.4,SNR=10
      comp=Z,4.3nm,0.9s
YKA   Yellowknife Ar    60.71 341  P      P       03 33 46.6 +2.0
K29M  Barlow Dome       69.97 336  IAmb   IAmb    03 34 46.5
      comp=Z,4.4nm,0.9s
I30M  Mount Dempster    70.09 337  IAmb   IAmb    03 34 47.1
      comp=Z,7.1nm,1.1s
INK   Inuvik            70.48 341  P      P       03 34 48.0 +0.5
      comp=Z,6.5nm,2.3s
F30M  Barrier River     70.91 340         P       03 34 51.0 +0.8
F30M                               IAmb   IAmb    03 34 51.7
      comp=Z,8.8nm,1.1s
BCAR  Beaver Creek A    71.47 334         P       03 34 54.0 +0.2
L27K  Beaver Creek,     71.49 334  IAmb   IAmb    03 34 56.0
      comp=Z,5.1nm,0.9s
ESDC  Sonseca Array     71.71  51  P      P       03 34 56.6 +0.9
      comp=Z,1.3nm,1.0s,baz=278,slow=6.1,SNR=7.8
      comp=Z,1.3nm,1.0s
ESDC  Sonseca Array     71.71  51  P      P       03 34 56.3 +0.6
E29M  Blow River        71.97 340         P       03 34 56.9 +0.3
I27K  Kandik River      72.26 337  P      P       03 34 58.7 +0.2
I27K                               IAmb   IAmb    03 35 00.1
      comp=Z,6.8nm,1.2s
SCRK  Sand Creek        72.70 335         P       03 35 01.6 +0.4
SCRK                               IAmb   IAmb    03 35 03.9
      comp=Z,5.7nm,1.2s
RIDG  Independent Ri    72.99 334  IAmb   IAmb    03 35 04.9
      comp=Z,11nm,1.0s
J25K  Salcha River,     73.46 335  IAmb   IAmb    03 35 07.1
      comp=Z,3.4nm,0.8s
HDA   Harding Lake      74.06 335  IAmb   IAmb    03 35 10.2
      comp=Z,6.8nm,0.9s
ILAR  Eielson Array     74.13 335  P      P       03 35 09.1 -0.3
      comp=Z,1.5nm,0.8s,baz=108,slow=4.1,SNR=15
      comp=Z,1.5nm,0.8s
ILAR  Eielson Array     74.13 335  P      P       03 35 09.3 -0.2
RND   Reindeer          74.64 334  IAmb   IAmb    03 35 14.4
      comp=Z,9.4nm,1.0s
NEA2  Nenana            75.00 335  IAmb   IAmb    03 35 15.6
      comp=Z,4.8nm,1.0s
CAST  Castle Rocks      76.07 333  IAmb   IAmb    03 35 21.6
      comp=Z,5.7nm,1.2s
J20K  Nowinta River     77.09 334         P       03 35 26.4  0.0
TORD  Torodi Ar. Bea    77.17  78  P      P       03 35 28.1 +0.3
      comp=Z,1.2nm,0.5s,baz=286,slow=6.0,SNR=17
      comp=Z,1.2nm,0.5s
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NOA   NORSAR Array B    81.99  29  P      P       03 35 54.4 +1.2
      comp=Z,0.7nm,0.8s,baz=274,slow=5.3,SNR=2.3
      comp=Z,0.7nm,0.8s
GERES GERESS Array B    84.31  42  P      P       03 36 06.7 +1.2
      comp=Z,0.3nm,0.2s,baz=240,slow=1.9,SNR=3.5
      comp=Z,0.3nm,0.2s
GERES GERESS Array B    84.31  42  P      P       03 36 05.0 -0.5
ARCES ARCESS Array B    86.70  20  P      P       03 36 17.4 +0.6
      comp=Z,0.8nm,0.7s,baz=294,slow=4.4,SNR=3.6
      comp=Z,0.8nm,0.7s
ARCES ARCESS Array B    86.70  20  P      P       03 36 17.2 +0.5
HHC   Hu-ho-hao-te     130.57 352  eP     PKiKP   03 42 45.4  0.0
NJ2   Nanjing          137.23 340  eP     PKPdf   03 42 56.4 -0.7
NJ2                                pmax   pmax
      comp=Z,21nm,0.6s
PZH   PanZhiHua        145.48   2  PKPbc  PKPab   03 43 12.5 +0.1
PZH                                PKPbc  sPKPdf  03 44 05.9 +35
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VAO ***03*** *03:23:51.9±0.5, 28°.04S×71°.80W, h10^{km}, mb5.0, Presumed earthquake*

NEIC ***03*** *03:23:54.9±1.6, 27°.96S±0°.04×71°.50W±0°.05, h10^{km}±3^{km}, mb5.0/144, Mwr4.6/39, Mwr4.6(GUC), Error ellipse: s-maj=6.9km s-min=5.3km az=111.0, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M$_{rr}$0.63; M$_{\theta\theta}$0.10; M$_{\phi\phi}$-0.73; M$_{r\theta}$0.25; M$_{\theta\phi}$-0.03; M$_{\phi r}$-0.70; Fault plane solution: M$_0$1.01000×10^{16} NP1:φ$_s$20.19000°, δ24.28000°, λ121.78000°. NP2:φ$_s$165.99000°, δ69.54000°, λ76.64000°. Principal axes: T 0.9954, Plg63.0000°, Azm55.0000°; N 0.0361, Plg13.0000°, Azm171.0000°; P -1.0315, Plg23.0000°, Azm266.0000°;*

IDC ***03*** *03:23:54.3±0.5, 27°.80S×71°.34W, h0^{km}, mb4.5/18, mbtmp4.5/23, ML4.6/5, MS4.0/11 Error ellipse: s-maj=15.9km s-min=9.4km az=78.0*

SJA ***03*** *03:23:56.0±1.1, 27°.98S×71°.43W, h15^{km}±3^{km}, ML5.0, MW4.7*

NEIC ***03*** *03:23:56.3, 27°.95S×71°.42W, h15^{km}*

GUC ***03*** *03:23:57.5±0.8, 28°.01S×71°.44W, h27^{km}±3^{km}, ML4.7*

GFZ ***03*** *03:23:58.2±0.2, 28°S±2°×7°1W±°, h24^{km}, M4.9/28, mb5.0/28, confirmed*

ISC 03 03:23:57.0±0.5, **27°.97S**±0°.02×**71°.49W**±0°.04, **h23**^{km}±3^{km}, **h23**^{km}**:pP-P, n313,** σ1^{s}**63**/312, **mb4.9**/87, **MS4.0**/8, **12C-5D, Near coast of northern Chile**

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Code  Station Name        Δ°  AZ°   Phase ID          Time     Res
                                   Op     ISC      h  m  s    ISC
AC04  Llanos de Chal     0.44 123  eP     Pb      03 24 05.0 -1.1
AC04                               eS     Sb      03 24 10.4 -1.9
AC04  Llanos de Chal     0.44 123⇓ iP     Pb      03 24 05.2 -1.0
AC04                               i S    Sb      03 24 10.7 -1.6
AC04                                IAML          03 24 11.2
      comp=E,182µm,0.2s
AC04  Llanos de Chal     0.44 123   Pg    Pb      03 24 05.1 -1.1
AC04                                Sg    Sb      03 24 09.6 -2.8
AC04  Llanos de Chal     0.44 123   P     Pb      03 24 05.0 -1.1
AC04                                S     Sb      03 24 10.4 -1.9
GO03  Copiapo            1.17  72  eP     Pb      03 24 17.4 -1.2
GO03                               eS     Sb      03 24 33.4 -0.1
GO03                                IAML          03 24 44.4
      comp=Z,12µm,0.7s
GO03  Copiapo            1.17  72⇓ iP     Pb      03 24 17.4 -1.2
GO03                                IAML          03 24 39.4
      comp=N,21µm,0.5s
GO03  Copiapo            1.17  72         Pb      03 24 17.5 -1.2
AC06  Mina Casimiro      1.18  59⇓ iP     Pn      03 24 17.2 -0.8
AC06                               i S    Sb      03 24 32.9 -0.6
AC06                                IAML          03 24 38.2
      comp=N,14µm,0.3s
AC06  Mina Casimiro      1.18  59         Pn      03 24 17.2 -0.8
LCO   Las Campanas       1.25 146  eP     Pn      03 24 18.6 -0.7
LCO                                eS     Sb      03 24 36.2 +0.3
LCO   Las Campanas       1.25 146⇓ iP     Pn      03 24 18.6 -0.7
LCO                                i S    Sn      03 24 33.8 -1.8
LCO   Las Campanas       1.25 146   Pn    Pn      03 24 18.6 -0.7
LCO                                       Sb      03 24 35.5 -0.5
AC05  El Transito        1.38 129  eP     Pb      03 24 20.9 -1.3
AC05                                IAML          03 24 43.1
      comp=Z,10µm,0.5s
AC05  El Transito        1.38 129⇓ iP     Pb      03 24 20.8 -1.3
AC05                               i S    Sn      03 24 37.2 -1.3
AC05                                IAML          03 24 49.9
      comp=N,20µm,0.5s
AC05  El Transito        1.38 129         Pb      03 24 20.9 -1.3
AC01  Pan de Azucar      1.98  24  eP     Pn      03 24 28.2 -0.8
AC01                               eS     Sb      03 24 57.0 +0.4
AC01                                IAML          03 25 05.3
      comp=Z,6µm,0.5s
AC01  Pan de Azucar      1.98  24⇑ eP     Pn      03 24 28.4 -0.7
AC01                                IAML          03 25 06.5
      comp=E,8µm,0.5s
AC01  Pan de Azucar      1.98  24   Pn    Pn      03 24 28.3 -0.8
GO04  Tololo Observa     2.28 165  eP     Pn      03 24 33.9 +0.5
GO04                                IAML          03 25 15.1
      comp=Z,18µm,0.6s
GO04  Tololo Observa     2.28 165⇑ iP     Pn      03 24 33.8 +0.3
GO04                               i S    Sn      03 25 02.8 +1.8
GO04  Tololo Observa     2.28 165   Pn    Pn      03 24 33.8 +0.3
CO01  Juntas del Tor     2.35 149  eP     Pn      03 24 36.2 +1.8
CO01                               eS     Sb      03 25 05.9 -1.6
CO01                                IAML          03 25 09.5
      comp=Z,9µm,0.6s
CO01  Juntas del Tor     2.35 149⇑ iP     Pn      03 24 35.8 +1.4
CO01                               i S    Sb      03 25 05.0 -2.5
CO01                                IAML          03 25 11.7
      comp=N,12µm,0.4s
AC02  Maricunga          2.38  62  eP     Pb      03 24 36.9 -2.6
AC02                               eS     Sb      03 25 06.9 -1.7
AC02                                IAML          03 25 15.7
      comp=Z,7µm,0.3s
AC02  Maricunga          2.38  62⇑ iP     Pb      03 24 37.1 -2.4
AC02                               i S    Sb      03 25 06.9 -1.7
AC02                                IAML          03 25 13.9
      comp=N,16µm,0.6s
CO06  Fray Jorge         2.70 183  eP     Pn      03 24 38.1 -1.0
CO06                                IAML          03 25 35.2
      comp=E,4µm,0.1s
AROD  Rodeo              2.82 142  eP     Pb      03 24 44.3 -2.5
AROD                               eS     Sb      03 25 18.2 -2.8
CO03  El Pedregal        2.95 166  eP     Pn      03 24 43.0 +0.4
CO03                               eS     Sn      03 25 20.7 +3.5
CO03                                IAML          03 25 36.6
      comp=Z,5µm,0.8s
CO03  El Pedregal        2.95 166  eP     Pn      03 24 42.9 +0.4
CO03                                IAML          03 25 42.9
      comp=E,7µm,0.3s
CO03  El Pedregal        2.95 166   Pn    Pn      03 24 42.9 +0.4
VCA   Vinchina           3.00 106  eP     Pb      03 24 47.6 -2.1
VCA                                eS     Sb      03 25 22.4 -3.6
VCA                                 IAML          03 25 35.7
      comp=Z,5µm,0.9s
VCA                                 IAML          03 25 40.1
      comp=Z,4µm,0.5s
VCA   Vinchina           3.00 106⇑ eP     Pb      03 24 47.6 -2.1
ACDV  Cuesta del Vie     3.02 137  eP     Pb      03 24 47.2 -3.0
ACDV                                IAML          03 25 36.0
      comp=Z,4µm,0.4s
CO02  Combarbal          3.25 173  eP     Pn      03 24 46.5 -0.2
CO02  Combarbal          3.25 173  eP     Pn      03 24 46.5 -0.2
CO02  Combarbal          3.25 173   Pn    Pn      03 24 46.3 -0.4
ACCO  Cerro Coronel      3.36 142  eP     Pb      03 24 52.1 -4.0
ACCO                               eS     Sb      03 25 31.8 -5.0
ACCO                                IAML          03 25 49.6
      comp=Z,5µm,0.6s
PB14  IPOC Station P     3.47  17  eP     Pn      03 24 47.9 -1.9
PB14                                IAML          03 25 52.7
      comp=Z,3µm,0.6s
PB14  IPOC Station P     3.47  17⇑ eP     Pn      03 24 48.2 -1.6
TINO  Tinogasta          3.47  93  eP     Pn      03 24 52.2 +2.5
TINO                               eS     Sn      03 25 32.4 +2.3
TINO                                IAML          03 25 49.9
      comp=Z,3µm,0.5s
CO04  Los Peladeros      4.09 174   Pn    Pn      03 24 58.5 +0.2
ACLC  CERRO LA CRUZ      4.24 111  eP     Pn      03 25 03.2 +2.8
ACLC                                IAML          03 26 05.6
      comp=Z,811nm,0.5s
RTLL  Cerro Villicun     4.26 143  eP     Pn      03 25 03.3 +2.8
RTLL                               eS     Sn      03 25 53.1 +3.7
RTLL                                IAML          03 26 14.7
      comp=Z,3µm,0.6s
RTLL                                IAML          03 26 15.1
      comp=Z,3µm,0.5s
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RTLS  Leoncito           4.27 154  eP     Pn      03 25 04.3 +3.5
RTLS                               eS     Sb      03 25 57.3 -5.5
RTLS                                IAML          03 26 21.6
      comp=Z,8µm,0.6s
ZON   Zonda              4.33 146  eP     Pn      03 25 04.4 +3.0
ZON                                eS     Sn      03 25 54.8 +3.7
ZON                                 IAML          03 26 21.2
      comp=Z,2µm,1.0s
ZON                                 IAML          03 26 22.0
      comp=Z,1µm,0.8s
CFA   Coronel Fontan     4.60 143   Pn    Pn      03 25 07.8 +2.7
      comp=Z,43nm,0.3s,baz=320,slow=14,SNR=195
CFA                                 Sn    Sn      03 26 03.1 +5.2
      comp=Z,113nm,0.3s,baz=296,slow=22,SNR=6.6
CFA                                 Lg    Lg      03 26 11.3
      comp=Z,202nm,0.3s,baz=238,slow=20,SNR=13
      comp=Z,237nm,0.3s
CFA                                 AML   AML
CFA   Coronel Fontan     4.60 143  eP     Pn      03 25 07.9 +2.7
CFA                                eS     Sn      03 26 01.7 +3.8
CFA                                 IAML          03 26 19.3
      comp=Z,1µm,0.3s
VA03  San Esteban        4.85 171  eP     Pn      03 25 09.2 +0.5
VA03                               eS     Sn      03 26 07.8 +3.6
VA03  San Esteban        4.85 171  eP     Pn      03 25 09.2 +0.5
VA03  San Esteban        4.85 171   Pn    Pn      03 25 09.0 +0.4
CYA   Choya              5.04  97  eP     Pn      03 25 13.2 +2.0
CYA                                 IAML          03 26 20.8
      comp=Z,828nm,0.7s
CYA   Choya              5.04  97⇑ eP     Pn      03 25 13.2 +2.0
VA01  Torpederas         5.04 182   Pn    Pn      03 25 10.7 -0.4
PEL   Peldehue           5.21 173   Pn    Pn      03 25 13.3 -0.2
PB05  IPOC Station P     5.22  13   Pn    Pn      03 25 11.3 -2.5
MT02  Curacav            5.29 177   Pn    Pn      03 25 13.3 -1.2
MT05  Renca              5.45 173   Pn    Pn      03 25 16.1 -0.7
MT16  CCHEN              5.51 172   Pn    Pn      03 25 18.1 +0.5
PB06  IPOC Station P     5.52  19   Pn    Pn      03 25 15.5 -2.4
MT03  Universidad Ad     5.58 172   Pn    Pn      03 25 19.5 +0.9
AHML  Horco Molle        5.60  79  eP     Pn      03 25 16.6 -2.3
AF01  San Pedro de A     5.82  32   Pn    Pn      03 25 22.4 +0.2
PB07  IPOC Station P     6.38  14   P     Pn      03 25 27.5 -2.2
      comp=Z,225nm,0.7s
PB09  IPOC Station P     6.47  19   P     Pn      03 25 30.1 -0.9
      comp=Z,167nm,0.5s
BO03  Pichilemu          6.52 183   P     Pn      03 25 31.0 -0.5
      comp=Z,146nm,0.8s
PB02  IPOC Station P     6.77  13   P     Pn      03 25 32.7 -2.4
      comp=Z,187nm,0.6s
TCA   Tanti              6.88 121⇑ eP     Pn      03 25 36.9 +0.4
TA01  Diego Aracena      7.46   9   P     Pn      03 25 42.1 -2.4
      comp=Z,66nm,0.7s
ML02  Panimavida         7.77 180   P     Pn      03 25 50.0 +1.3
      comp=Z,133nm,0.4s
PB11  IPOC Station P     8.34  12   P     Pn      03 25 56.5 -0.1
      comp=Z,60nm,0.6s
H03N1 Juan Fernandez     8.40 228   Pn    Pn      03 25 53.6 -3.5
      baz=254,slow=76
H03N1                               T     T       03 34 49.9
      baz=206,slow=74,SNR=9607
H03N2 Juan Fernandez     8.41 228   Pn    Pn      03 25 53.5 -3.7
      baz=254,slow=76
H03N2                               T     T       03 34 50.3
      baz=55,slow=74,SNR=9045
H03N3 Juan Fernandez     8.42 228   Pn    Pn      03 25 53.3 -4.0
      baz=254,slow=76
PSGCX Pisagua            8.42   9   P     Pn      03 25 54.0 -3.8
      comp=Z,67nm,0.6s
VA04  Juan Fernndez      8.47 226   Pn    Pn      03 25 54.5 -3.8
GO01  Chusmiza           8.52  15   P     Pn      03 25 56.1 -3.3
      comp=Z,66nm,0.7s
H03S3 Juan Fernandez     8.64 226   Pn    Pn      03 25 56.1 -4.3
      baz=99,slow=77
H03S3                               Sn    Sn      03 27 28.2 -8.8
      baz=326,slow=75
H03S1 Juan Fernandez     8.65 226   Pn    Pn      03 25 55.5 -5.0
      baz=99,slow=77
H03S1                               Sn    Sn      03 27 28.0 -9.2
      baz=326,slow=75
H03S2 Juan Fernandez     8.66 226   Pn    Pn      03 25 56.2 -4.5
      baz=99,slow=77
H03S2                               Sn    Sn      03 27 28.3 -9.2
      baz=326,slow=75
BI02  San Fabin de       8.68 179   P     Pn      03 26 01.7 +0.6
      comp=Z,82nm,0.6s
PB12  IPOC Station P     9.37   7   P     Pn      03 26 08.2 -2.6
      comp=Z,42nm,0.5s
PB16  IPOC Station P     9.76  11   P     Pn      03 26 15.3 -1.2
      comp=Z,44nm,0.5s
PB18  Visviri           10.49  11   Pn    Pn      03 26 25.6 -0.9
GO06  Curarrehue        11.59 180   Pn    Pn      03 26 39.5 -1.6
LPAZ  La Paz            12.03  16   Pn    Pn      03 26 46.1 -1.6
      comp=Z,4.1nm,0.3s,baz=202,slow=5.6,SNR=67
LPAZ                                Sn    Sn      03 29 02.5 +1.1
      comp=Z,0.1nm,0.3s,baz=192,slow=14,SNR=1.9
LPAZ                                LR    LR      03 31 52.9
      comp=Z,752nm,18.4s,baz=186,slow=40
      comp=Z,10nm,0.4s
LPAZ                                AML   AML
LPAZ  La Paz            12.03  16   Pn    Pn      03 26 45.9 -1.7
LPAZ  La Paz            12.03  16  eP     Pn      03 26 45.7 -1.9
LPAZ  La Paz            12.03  16   P     Pn      03 26 46.4 -1.3
      comp=Z,13nm,0.7s
PSAL  Palomas, Salto    12.48 108  eP     Pn      03 26 52.8 -0.4
PSAL                               epP    P       03 26 56.9 -7.9
CPUP  Villa Florida     12.72  86   Pn    Pn      03 26 55.3 -1.1
      comp=Z,1.1nm,0.3s,baz=255,slow=12,SNR=15
CPUP                                Lg    Lg      03 30 27.6
      comp=Z,1.1nm,0.3s,baz=153,slow=18,SNR=2.0
CPUP                                LR    LR      03 32 45.5
      comp=Z,556nm,20.5s,baz=254,slow=42
      comp=Z,2.5nm,0.4s
CPUP                                AML   AML
CPUP  Villa Florida     12.72  86   Pn    Pn      03 26 55.0 -1.4
PLCA  Paso Flores       12.76 177   Pn    Pn      03 26 59.0 +1.9
      comp=Z,0.3nm,0.3s,baz=348,slow=14,SNR=5.4
PLCA                                Lg    Lg      03 30 33.3
      comp=Z,0.2nm,0.3s,baz=298,slow=13,SNR=1.8
PLCA                                LR    LR      03 32 08.9
      comp=Z,1µm,18.6s,baz=350,slow=38
      comp=Z,0.8nm,0.4s
PLCA                                AML   AML
ANCO  Parque Anchore    13.18 122  eP     Pn      03 27 02.2 -0.4
ANCO                               eS     Sn      03 29 31.0 +2.6
MURT  Porto Murtinho    14.08  67  eP     Pn      03 27 15.5 +0.5
SJPY  San Joaquin       14.09  81  eP     Pn      03 27 15.3  0.0
COIM  Forte Coimbra     14.86  60  eP     Pn      03 27 25.6 -0.2
SIV   San Ignacio       15.33  41   Pn    Pn      03 27 25.1 -6.9
      comp=Z,0.1nm,0.3s,baz=240,slow=8.4,SNR=21
      comp=Z,5.2nm,0.6s
SIV                                 AML   AML
CPSB  Cacapava Do Su    15.95 103   Pn    Pn      03 27 38.8 -1.1
CPSB  Cacapava Do Su    15.95 103  eP     Pn      03 27 38.8 -1.1
AQDB  Aquidauana        16.21  66   P     P       03 27 44.4 -1.9
AQDB  Aquidauana        16.21  66  eP     Pn      03 27 43.8 +0.4
NNA   Nana              16.67 341   Pn    Pn      03 27 50.2 +1.0
      comp=Z,0.5nm,0.3s,baz=328,slow=6.3,SNR=1.4
NNA   Nana              16.67 341   Pn    Pn      03 27 47.6 -1.6
NNA                                 IAmb  IAmb    03 28 20.3
      comp=Z,125nm,1.5s
PTLB  Pontes e Lacer    16.92  45   Pn    Pn      03 27 50.4 -2.0
PTLB  Pontes e Lacer    16.92  45  eP     Pn      03 27 51.4 -0.9
COYC  Coyhaique         17.58 181   P     P       03 28 01.2 -0.1
COYC  Coyhaique         17.58 181   P     P       03 28 01.4 +0.1
      comp=Z,22nm,1.0s
PTGB  Pitanga           17.71  84  eP     P       03 28 03.4 +0.4
TRCB  Terra Rica        17.79  77  eP     P       03 28 04.6 +0.7
CNLB  Canela            18.17  99  eP     Pn      03 28 06.3 -1.5
VILB  Vilhena           18.28  37         Pn      03 28 07.6 -1.6
VILB  Vilhena           18.28  37  eP     P       03 28 08.8 -0.5
PP1B  Ponte de Pedra    18.45  60  eP     P       03 28 08.7 -2.4
LDASE Londrina, Braz    18.91  81  eP     P       03 28 15.1 -1.2
SALV  Santo Antonio     18.92  54  eP     P       03 28 15.2 -1.0
C2SB  Chapadao do Su    19.40  66  eP     Pn      03 28 21.4 -1.3
CZSB  Cruzeiro do Su    20.16 357   P     P       03 28 29.4 -0.4
CZSB                                IAmb  IAmb    03 28 36.9
      comp=Z,56nm,0.9s
CZSB  Cruzeiro do Su    20.16 357  eP     P       03 28 26.4 -3.4
FRTB  Fartura           20.29  82  eP     P       03 28 29.9 -1.3
ATAH  Atahualpa         21.73 341   P     P       03 28 46.4 -0.7
      comp=Z,4.1nm,0.9s,baz=109,slow=16,SNR=1.7
ATAH                                LR    LR      03 35 37.0
      comp=Z,190nm,19.9s,baz=162,slow=32
      comp=Z,4.1nm,0.9s
ARAG  Araguaiana, MT    21.93  60  eP     P       03 28 47.5 -1.4
BB19B Bebedouro         21.97  77  eP     P       03 28 48.5 -0.9
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SPB	**Sao Paulo**	22.09	84	P	P	03 28 49.1	-1.4
SPB				IAmb	IAmb	03 28 54.0	
	comp=Z,85nm,1.5s						
CLDB	**Colider**	22.50	44	*e*P	P	03 28 53.5	-1.5
CLDB	**Colider**	22.50	44	P	P	03 28 54.1	-0.9
	comp=Z,25nm,1.0s						
VAO	**Valinhos**	22.67	83	P	P	03 28 55.6	-1.3
VAO	**Valinhos**	22.67	83	*e*P	P	03 28 56.1	-0.8
IPMB	**Ipameri, GO**	23.59	70	*e*P	P	03 29 04.0	-2.1
CANS	**Sao Roque de M**	24.11	77	*e*P	P	03 29 10.4	-0.9
SNDB	**Serra Nova Dou**	24.70	54	*e*P	P	03 29 15.3	-1.3
PMNB	**Patos De Minas**	24.82	73	*e*P	P	03 29 16.9	-0.8
PMNB	**Patos De Minas**	24.82	73	P	P	03 29 16.9	-0.8
	comp=Z,46nm,0.8s						
BDFB	**Brasilia**	24.95	65	P	P	03 29 18.1	-0.9
	comp=Z,20nm,0.6s,baz=240,slow=7.9,SNR=26						
BDFB				LR	LR	03 40 25.0	
	comp=Z,1µm,19.5s,baz=240,slow=40						
	comp=Z,20nm,0.6s						
BDFB	**Brasilia**	24.95	65	P	P	03 29 17.5	-1.4
BDFB				IAmb	IAmb	03 29 19.8	
	comp=Z,24nm,0.7s						
TEFE	**Tefe**	25.18	16	*e*P	P	03 29 19.8	-1.0
DSPA	**Despedida**	26.07	176		P	03 29 28.3	-0.3
MACA	**Manacapuru-AM**	26.73	25	P	P	03 29 34.5	-0.4
MACA	**Manacapuru-AM**	26.73	25	*e*P	P	03 29 33.5	-1.4
DIAM	**Diamantina, MG**	27.28	75	*e*P	P	03 29 40.2	+0.2
ITTB	**Itaituba**	27.85	35	*e*P	P	03 29 44.4	-0.6
JANB	**Januaria**	28.28	69	*e*P	P	03 29 48.5	-0.3
SMTB	**Santa Maria do**	29.48	54	*e*P	P	03 29 59.8	+0.3
BSFB	**Barra de Sao F**	29.49	79	*e*P	P	03 29 59.1	-0.5
BSFB	**Barra de Sao F**	29.49	79	P	P	03 29 58.5	-1.0
	comp=Z,41nm,0.9s						
BOAV	**Boa Vista**	31.98	21	P	P	03 30 21.0	-0.5
BOAV				IAmb	IAmb	03 30 41.3	
	comp=Z,10nm,0.7s						
NBIT	**Itapeh - BA**	32.42	73	*e*P	P	03 30 25.7	+0.3
ROSC	**El Rosal**	32.73	355	LR	LR	03 45 14.0	
	comp=Z,188nm,18.1s,baz=153,slow=39						
NBPN	**Ponto Novo - B**	33.93	66	*e*P	P	03 30 38.2	-0.3
NBTA	**Tacaratu-PE**	36.63	66	*e*P	P	03 31 01.7	-0.2
SDV	**Santo Domingo**	36.64	1	P	P	03 31 00.8	-1.2
	comp=Z,6.9nm,0.3s,baz=49,slow=7.7,SNR=1.6						
SDV				LR	LR	03 46 47.6	
	comp=Z,73nm,18.4s,baz=256,slow=38						
	comp=Z,6.9nm,0.3s						
NBPS	**Pedro II - PI**	36.97	56	*e*P	P	03 31 04.3	-0.5
NBMA	**Muriti-CE**	37.11	63	*e*P	P	03 31 05.3	-0.6
PMSA	**Palmer Station**	37.12	175	LR	LR	03 46 06.8	
	comp=Z,285nm,19.4s,baz=2.0,slow=36						
PMSA	**Palmer Station**	37.12	175	P	P	03 31 04.5	-0.9
ORCD	**Orcadas**	37.41	159	P	P	03 31 07.7	-0.2
MDP	**Montagnes des**	37.57	32	LR	LR	03 48 17.4	
	comp=Z,262nm,18.2s,baz=206,slow=39						
JTS	**Las Juntas de**	40.20	339	P	P	03 31 32.3	+0.5
	comp=Z,1.3nm,0.6s,baz=328,slow=21,SNR=1.2						
	comp=Z,1.3nm,0.6s						
JTS	**Las Juntas de**	40.20	339	P	P	03 31 31.0	-0.8
NBPV	**Pedro Velho**	40.43	65	*e*P	P	03 31 33.4	-0.4
CRPR	**Cabo Rojo, PR**	45.90	6	P	P	03 32 17.4	-0.4
OBIP	**Obispado Ponce**	45.98	6	P	P	03 32 18.1	-0.4
CELP	**Cerrillos**	46.01	6	P	P	03 32 17.9	-0.9
PDPR	**Patillas Dam,**	46.02	7	P	P	03 32 17.6	-1.1
PDPR				IAmb	IAmb	03 32 20.4	
	comp=Z,13nm,0.8s						
SJG	**San Juan**	46.09	7	P	P	03 32 18.6	-0.7
	comp=Z,22nm,0.9s,baz=230,slow=2.5,SNR=5.7						
SJG				LR	LR	03 53 45.3	
	comp=Z,57nm,18.6s,baz=252,slow=39						
	comp=Z,22nm,0.9s						
SJG	**San Juan**	46.09	7	P	P	03 32 18.0	-1.3
SJG				IAmb	IAmb	03 32 19.9	
	comp=Z,23nm,0.9s						
AOPR	**Arecibo Observ**	46.27	6	P	P	03 32 20.8	0.0
CMIG	**Matias Romero**	50.20	330	P	P	03 32 51.9	+0.8
	comp=Z,1.8nm,0.9s,baz=135,slow=10,SNR=2.3						
	comp=Z,1.8nm,0.9s						
TEIG	**Tepich**	50.59	339	P	P	03 32 55.3	+1.3
VNA3	**Neumayer Olymp**	54.79	160	⇑P	P	03 33 25.1	+0.6
	comp=Z,13nm,0.7s						
VNA3	**Neumayer Olymp**	54.79	160	P	P	03 33 25.8	+1.2
	comp=Z,24nm,0.9s						
VNA1	**Neumayer--Stat**	55.07	159	P	P	03 33 27.6	+1.1
	comp=Z,17nm,0.9s						
VNA2	**Neumayer--Watz**	55.42	159	⇑P	P	03 33 29.5	+0.4
	comp=Z,14nm,0.5s,baz=289,slow=8.5						
VNA2	**Neumayer--Watz**	55.42	159	P	P	03 33 29.9	+0.8
	comp=Z,27nm,0.7s						
SNAA	**Sanae**	57.02	159	⇑P	P	03 33 41.0	+0.4
	comp=Z,337nm,0.7s						
SNAA	**Sanae**	57.02	159	P	P	03 33 41.3	+0.7
	comp=Z,17nm,0.8s,baz=281,slow=5.9,SNR=43						
	comp=Z,17nm,0.8s						
SNAA	**Sanae**	57.02	159	P	P	03 33 41.2	+0.7
SNAA	**Sanae**	57.02	159	P	P	03 33 41.4	+0.7
	comp=Z,27nm,1.0s						
TROLL	**Troll, Antarti**	58.73	160	⇑P	P	03 33 53.3	+0.7
	comp=Z,814nm,0.9s						
154A	**Montrose**	61.25	349		P	03 34 09.5	-0.7
152A	**Waverly Hall**	61.60	347	P	P	03 34 11.5	-1.1
QSPA	**South Pole Qui**	62.25	180	P	P	03 34 18.1	+1.3
	comp=Z,15nm,0.9s,baz=157,slow=1.5,SNR=59						
	comp=Z,15nm,0.9s						
QSPA	**South Pole Qui**	62.25	180	P	P	03 34 17.6	+0.8
QSPA				IAmb	IAmb	03 34 19.1	
	comp=Z,12nm,0.8s						
JSC	**Jenkinsville**	62.60	351	P	P	03 34 18.0	-1.2
X58A	**Rowland**	62.62	353	P	P	03 34 20.1	+0.7
143A	**Socs Landing,**	63.23	341	P	P	03 34 24.7	+1.2
W57A	**Gilead**	63.29	352		P	03 34 22.6	-1.1
W57A				IAmb	IAmb	03 34 25.7	
	comp=Z,9.0nm,0.9s						
KMSC	**Kings Mountain**	63.45	351	P	P	03 34 23.9	-1.0
KMSC				IAmb	IAmb	03 34 26.8	
	comp=Z,6.7nm,0.9s						
X51A	**Calhoun**	63.47	348	P	P	03 34 24.5	-0.5
X51A				IAmb	IAmb	03 34 27.8	
	comp=Z,13nm,0.8s						
FPAL	**Fort Paine**	63.59	347	P	P	03 34 24.3	-1.5
X48A	**Hartselle**	63.80	346		P	03 34 26.8	-0.4
X48A				IAmb	IAmb	03 34 42.6	
	comp=Z,8.3nm,0.9s						
W52A	**Murphy**	63.81	349	P	P	03 34 26.5	-0.8
W52A				IAmb	IAmb	03 34 38.9	
	comp=Z,6.9nm,0.8s						
V58A	**Windy Hill, Pi**	63.82	353	P	P	03 34 26.1	-1.2
V55A	**Taylorsville**	64.14	351		P	03 34 28.4	-0.9
V55A				IAmb	IAmb	03 34 31.5	
	comp=Z,9.7nm,1.0s						
W50A	**Signal Mountai**	64.17	347	P	P	03 34 29.1	-0.5
W50A				IAmb	IAmb	03 34 31.1	
	comp=Z,8.0nm,0.7s						
V53A	**Saluda**	64.19	350	P	P	03 34 29.1	-0.7
CPCT	**Cooper Cave**	64.26	348		P	03 34 29.3	-0.9
CPCT				IAmb	IAmb	03 34 33.0	
	comp=Z,9.3nm,1.0s						
SWET	**Sewanee**	64.31	347		P	03 34 30.1	-0.4
SWET				IAmb	IAmb	03 34 41.8	
	comp=Z,12nm,0.8s						
TKL	**Tuckaleechee C**	64.33	349		P	03 34 29.9	-0.8
TKL				IAmb	IAmb	03 34 32.3	
	comp=Z,13nm,1.1s						
BRDY	**Brady**	64.50	334		P	03 34 30.6	-1.2
BRDY				IAmb	IAmb	03 34 44.3	
	comp=Z,5.8nm,0.8s						
TXAR	**Lajitas Array**	64.76	329	P	P	03 34 35.9	+2.2
	comp=Z,0.6nm,0.7s,baz=151,slow=9.3,SNR=7.5						
	comp=Z,0.6nm,0.7s						
TXAR	**Lajitas Array**	64.76	329	P	P	03 34 32.3	-1.4
TX31	**Lajitas Ar. Si**	64.76	329		P	03 34 32.7	-1.0
T59A	**Double "B" Far**	64.84	355	IAmb	IAmb	03 34 36.4	
	comp=Z,12nm,1.0s						
U54A	**Nelsons Funny**	64.88	351	P	P	03 34 33.4	-0.9
V48A	**Smith Brothers**	64.99	346	P	P	03 34 34.2	-0.8
V48A				IAmb	IAmb	03 34 46.4	
	comp=Z,14nm,1.3s						
OZNA	**Ozona**	65.03	332		P	03 34 34.2	-1.2
OZNA				IAmb	IAmb	03 34 54.8	
	comp=Z,11nm,1.1s						
CLTN	**Cedars of Leba**	65.23	347	P	P	03 34 35.9	-0.7
U49A	**Red Boiling Sp**	65.53	347	P	P	03 34 37.6	-0.8
WVT	**Waverly**	65.59	346	P	P	03 34 38.5	-0.3
WVT				IAmb	IAmb	03 34 49.9	
	comp=Z,7.4nm,0.9s						
WVT	**Waverly**	65.59	346	P	P	03 34 39.4	+0.6
	comp=Z,9.3nm,0.9s						
WVT				pP	sP	03 34 48.6	+1.0
MIAR	**Mount Ida**	65.59	340		P	03 34 37.8	-1.1
MIAR	**Mount Ida**	65.59	340	P	P	03 34 40.9	+2.0
	comp=Z,7.2nm,1.1s						
MIAR				pP	pwP	03 34 50.9	+1.3
PLPT	**Palo Pinto**	65.60	335	P	P	03 34 38.4	-0.6
S57A	**Dark Hollow, R**	65.75	354	IAmb	IAmb	03 34 59.3	
	comp=Z,13nm,1.3s						
R58B	**Mineral**	65.86	354	P	P	03 34 39.6	-0.9
R58B				IAmb	IAmb	03 34 43.3	
	comp=Z,14nm,1.0s						
WHAR	**Wooly Hollow**	65.91	341		P	03 34 39.9	-1.1
WHAR				IAmb	IAmb	03 34 52.9	
	comp=Z,6.3nm,0.9s						
MNHN	**Monahans**	66.08	331		P	03 34 40.4	-1.8
MNHN				IAmb	IAmb	03 34 59.2	
	comp=Z,8.4nm,0.8s						
T47A	**Sharon Grove**	66.26	346		P	03 34 41.0	-2.1
T47A				IAmb	IAmb	03 34 45.8	
	comp=Z,13nm,0.9s						
LCAR	**Lake Charles**	66.33	343		P	03 34 42.8	-0.8
LCAR				IAmb	IAmb	03 34 55.3	
	comp=Z,10nm,0.8s						
FCAR	**Ozark Folk Cen**	66.43	342	P	P	03 34 43.1	-1.1
FCAR				IAmb	IAmb	03 34 56.0	
	comp=Z,8.8nm,1.2s						
PARMO	**Parma**	66.54	344	P	P	03 34 43.5	-1.4
VHRN	**Van Horn**	66.59	329		P	03 34 44.2	-1.4
VHRN				IAmb	IAmb	03 34 57.7	
	comp=Z,11nm,1.5s						
ODSA	**Odessa**	66.66	332		P	03 34 45.1	-0.9
APMT	**Aspermont**	66.74	334	IAmb	IAmb	03 34 59.0	
	comp=Z,11nm,0.8s						
SN07	**Snyder 07**	66.83	333	IAmb	IAmb	03 34 59.2	
	comp=Z,7.8nm,0.7s						
R50A	**Paris**	66.99	349	P	P	03 34 47.7	-0.1
128A	**Castleberry Fa**	67.07	332	P	P	03 34 47.8	-0.7
T42A	**Van Buren**	67.23	343	P	P	03 34 48.6	-0.6
T42A				IAmb	IAmb	03 35 04.8	
	comp=Z,8.2nm,1.2s						
HHAR	**Hobbs**	67.31	340	IAmb	IAmb	03 35 01.9	
	comp=Z,8.3nm,1.0s						
MNTX	**Cornudas Mount**	67.55	329	P	P	03 34 54.2	+2.7
	comp=Z,4.9nm,1.4s						
MNTX				pP	sP	03 35 01.7	+1.3
Q51A	**Peebles**	67.56	350	IAmb	IAmb	03 34 53.9	
	comp=Z,6.8nm,0.8s						
OK052	**Battle Ridge R**	67.94	338	IAmb	IAmb	03 35 09.8	
	comp=Z,11nm,0.7s						
P51A	**Williamsport**	67.96	350	IAmb	IAmb	03 34 56.2	
	comp=Z,9.6nm,0.9s						
OK029	**Liberty Lake**	67.98	337	IAmb	IAmb	03 35 10.1	
	comp=Z,10nm,0.7s						
CCM	**Cathedral Cave**	68.23	343	P	P	03 34 56.5	+0.8
CCM				IAmb	IAmb	03 35 07.5	
	comp=Z,14nm,0.9s						
CCM	**Cathedral Cave**	68.23	343	P	P	03 34 57.1	+1.5
	comp=Z,16nm,0.9s						
CCM				pP	sP	03 35 05.3	+0.9
MSTX	**Muleshoe**	68.36	332	IAmb	IAmb	03 35 09.5	
	comp=Z,17nm,1.0s						
SMWD	**Samnorwood**	68.36	335	IAmb	IAmb	03 35 08.9	
	comp=Z,15nm,1.2s						
OK048	**Pawnee Station**	68.38	338	IAmb	IAmb	03 35 12.8	
	comp=Z,14nm,0.8s						
OK051	**E0350 and S346**	68.42	338	IAmb	IAmb	03 35 13.1	
	comp=Z,13nm,0.9s						
S39A	**Bolivar**	68.45	342	IAmb	IAmb	03 35 09.1	
	comp=Z,11nm,0.8s						
ACSO	**Alum Creek Sta**	68.69	351	IAmb	IAmb	03 35 00.1	
	comp=Z,15nm,1.0s						
N49A	**Columbus Grove**	69.54	350	IAmb	IAmb	03 35 05.4	
	comp=Z,16nm,0.9s						
BINY	**Binghamton**	69.94	356	P	P	03 35 07.5	+1.4
	comp=Z,21nm,2.1s						
L61B	**Northampton**	70.07	359	IAmb	IAmb	03 35 09.8	
	comp=Z,20nm,1.0s						
VNDA	**Vanda**	70.10	191	P	P	03 35 08.7	+1.9
	comp=Z,1.7nm,0.9s,baz=88,slow=1.8,SNR=4.7						
	comp=Z,1.7nm,0.9s						
P38A	**Dawn**	70.31	342	IAmb	IAmb	03 35 20.3	
	comp=Z,8.7nm,0.8s						
ANMO	**Albuquerque**	70.76	330	P	P	03 35 14.1	+2.5
	comp=Z,4.0nm,1.2s						
N38A	**Joes South For**	71.33	343	IAmb	IAmb	03 35 26.0	
	comp=Z,12nm,0.7s						
WBO	**Williamsburg**	72.70	357	IAmb	IAmb	03 35 24.7	
	comp=Z,11nm,0.8s						
G62A	**West of Eustis**	72.84	1	P	P	03 35 24.2	+0.7
G62A				IAmb	IAmb	03 35 26.8	
	comp=Z,15nm,1.0s						
DBIC	**Dimbokro**	72.86	73	P	P	03 35 24.6	+0.1
	comp=Z,21nm,0.5s,baz=236,slow=5.7,SNR=33						
	comp=Z,21nm,0.5s						
DBIC	**Dimbokro**	72.86	73	P	P	03 35 24.3	-0.1
DBIC	**Dimbokro**	72.86	73	P	P	03 35 25.3	+0.9
	comp=Z,47nm,1.0s						
BUKO	**Buck Lake**	73.41	354	IAmb	IAmb	03 35 30.2	
	comp=Z,16nm,1.0s						
TRQ	**Mont Tremblant**	73.89	358	IAmb	IAmb	03 35 32.1	
	comp=Z,10nm,1.0s						
PV13	**Radium Mtn., P**	74.49	330	P	P	03 35 34.1	+0.4
D62A	**Allapoint, All**	74.73	2	P	P	03 35 34.4	-0.2
D62A				IAmb	IAmb	03 35 38.8	
	comp=Z,16nm,1.1s						
ECSD	**EROS Data Cent**	74.98	341	IAmb	IAmb	03 35 48.3	
	comp=Z,11nm,0.9s						
ECSD	**EROS Data Cent**	74.98	341	P	P	03 35 37.8	+1.6
	comp=Z,15nm,0.9s						
ECSD				pP	sP	03 35 46.5	+1.3
DUG	**Dugway, Tooele**	77.94	329	P	P	03 35 56.5	+3.3
	comp=Z,9.0nm,1.1s						
HWUT	**Hardware Ranch**	78.52	330	P	P	03 35 58.8	+2.3
	comp=Z,8.0nm,1.3s						
PDAR	**Pinedale Array**	78.63	332	P	P	03 35 58.6	+1.6
	comp=Z,1.4nm,0.8s,baz=121,slow=8.9,SNR=11						
	comp=Z,1.4nm,0.8s						
PDAR	**Pinedale Array**	78.63	332	P	P	03 35 55.8	-1.2
MAW	**Mawson**	78.82	164	P	P	03 35 58.8	+1.3
	comp=Z,6.5nm,0.9s,baz=235,slow=8.1,SNR=11						
	comp=Z,6.5nm,0.9s						
MAW	**Mawson**	78.82	164	P	P	03 35 57.9	+0.3
MAW	**Mawson**	78.82	164	P	P	03 35 59.1	+1.5
	comp=Z,1.6nm,1.0s						
NVAR	**Mina Array Bea**	79.24	324	P	P	03 36 01.6	+1.1
	comp=Z,0.8nm,0.9s,baz=104,slow=8.3,SNR=2.7						
	comp=Z,0.8nm,0.9s						
NVAR	**Mina Array Bea**	79.24	324	P	P	03 35 60.0	-0.5
ULM	**Lac du Bonnet**	80.82	344	P	P	03 36 08.2	-0.3
	comp=Z,7.3nm,1.0s,baz=154,slow=5.2,SNR=5.5						
	comp=Z,7.3nm,1.0s						
ULM	**Lac du Bonnet**	80.82	344	IAmb	IAmb	03 36 20.2	
	comp=Z,18nm,1.3s						
HLID	**Hailey**	81.34	330	P	P	03 36 14.6	+2.9
	comp=Z,5.1nm,1.4s						
TORD	**Torodi Ar. Bea**	81.73	70	P	P	03 36 14.6	+0.5
	comp=Z,13nm,0.9s,baz=255,slow=4.2,SNR=38						
	comp=Z,13nm,0.9s						
TORD	**Torodi Ar. Bea**	81.73	70	P	P	03 36 14.0	-0.2
BOSA	**Boshof**	82.48	118	P	P	03 36 18.2	+0.1
	comp=Z,9.3nm,0.5s,baz=262,slow=3.4,SNR=35						
	comp=Z,9.3nm,0.5s						
BOSA	**Boshof**	82.48	118	P	P	03 36 17.7	-0.4
GRTLG	**Ghanzi**	82.53	110	P	P	03 36 18.4	-0.1
GRTLG				IAmb	IAmb	03 36 20.0	
	comp=Z,14nm,1.1s						
LBTB	**Lobatse**	84.42	115	P	P	03 36 27.9	-0.2
TIO	**Tiouine**	84.73	51	P	P	03 36 31.4	+2.0
	comp=Z,45nm,0.9s						
LDM	**Libby Dam**	85.60	332	IAmb	IAmb	03 36 46.2	
	comp=Z,14nm,1.5s						
CASY	**Casey**	86.04	181	P	P	03 36 36.6	+1.3
CASY				IAmb	IAmb	03 36 38.1	
	comp=Z,10nm,0.9s						
CASY	**Casey**	86.04	181	P	P	03 36 37.6	+2.2
	comp=Z,15nm,1.3s						
RTC	**Rabat Centre**	86.83	49	P	P	03 36 39.6	0.0
	comp=Z,273nm,0.8s						
MD31	**MD31**	87.59	51		P	03 36 42.2	-1.2
MD31				IAmb	IAmb	03 36 46.6	
	comp=Z,6.5nm,1.1s						
LSZ	**Lusaka**	91.22	108	LR	LR	04 14 23.5	
	comp=Z,162nm,18.0s,baz=214,slow=33						
ESDC	**Sonseca Array**	92.05	46	P	P	03 37 04.7	+0.5
	comp=Z,0.7nm,0.9s,baz=260,slow=4.9,SNR=4.3						
	comp=Z,0.7nm,0.9s						
ESDC	**Sonseca Array**	92.05	46	P	P	03 37 03.8	-0.3
CLL	**Collm**	108.05	41	L	L	04 20 00.0	
AKASG	**Malin Array Be**	117.68	45	PKP	PKiKP	03 42 40.7	-0.1
	comp=Z,0.2nm,0.4s,baz=269,slow=2.5,SNR=4.5						
BRTR	**Keskin Array B**	118.36	58	PKP	PKiKP	03 42 43.4	+0.6
	comp=Z,0.8nm,0.8s,baz=172,slow=3.3,SNR=6.5						
ASAR	**Alice Springs**	123.12	208	PKP	PKiKP	03 42 52.9	+0.3
	comp=Z,2.2nm,0.9s,baz=148,slow=2.2,SNR=13						
ASAR	**Alice Springs**	123.12	208		PKPdf	03 42 51.8	-0.5
KBZ	**Khabaz**	125.88	55	PKP	PKiKP	03 42 57.5	+0.4
	comp=Z,2.1nm,0.9s,baz=238,slow=3.0,SNR=5.7						
H11S2	**WAKE ISLAND Hy**	126.12	273	T	T	06 02 17.7	
	baz=112,slow=75,SNR=20						
H11S1	**WAKE ISLAND Hy**	126.13	273	T	T	06 02 08.9	
	baz=112,slow=75,SNR=18						
H11S3	**WAKE ISLAND Hy**	126.14	273	T	T	06 02 13.3	
	baz=112,slow=75,SNR=16						
WRA	**Warramunga Arr**	126.22	211	PKP	PKiKP	03 42 59.2	+0.4
	comp=Z,4.2nm,0.8s,baz=156,slow=1.8,SNR=36						
WRA	**Warramunga Arr**	126.22	211		PKiKP	03 42 58.6	-0.1
H11N3	**WAKE ISLAND Hy**	126.38	275	T	T	06 02 25.8	
	baz=113,slow=75,SNR=7.1						
H11N1	**WAKE ISLAND Hy**	126.39	275	T	T	06 02 26.1	
	baz=113,slow=75,SNR=4.5						
H11N2	**WAKE ISLAND Hy**	126.39	275	T	T	06 02 27.5	
	baz=113,slow=75,SNR=8.3						
BVAR	**Borovoye Array**	142.38	38	PKP	PKPdf	03 43 28.1	+0.7
	comp=Z,1.4nm,0.6s,baz=297,slow=4.5,SNR=4.6						
KURBB	**Kurchatov Arra**	147.96	37	PKPbc	PKPbc	03 43 39.0	-1.0
	comp=Z,8.3nm,0.8s,baz=304,slow=3.0,SNR=40						
ZALV	**Zalesovo Beam**	148.76	27	PKP	PKPdf	03 43 38.5	+0.3
	comp=Z,29nm,0.8s,baz=304,slow=3.2,SNR=34						
ZALV				PKPbc	PKiKP	03 43 43.4	-0.1
	comp=Z,8.5nm,0.6s,baz=298,slow=4.1,SNR=6.7						
ZALV	**Zalesovo Beam**	148.76	27		PKPdf	03 43 37.9	-0.3
KSH2	**Kashi**	150.52	59	PKPbc	PKiKP	03 43 48.9	+1.1
MKAR	**Makanchi Array**	152.15	41	PKP	PKPdf	03 43 44.9	+1.1
	comp=Z,0.8nm,0.8s,baz=328,slow=1.9,SNR=5.9						
MKAR				PKPbc	pPKPdf	03 43 51.4	+0.6
	comp=Z,8.1nm,0.7s,baz=320,slow=2.1,SNR=57						
MKAR	**Makanchi Array**	152.15	41		PKPdf	03 43 43.4	-0.4
SONM	**Songino Array**	160.09	4	PKP	PKPdf	03 43 54.9	+0.6
	comp=Z,0.4nm,0.4s,baz=48,slow=2.1,SNR=2.3						
SONM				PKPab	PKPab	03 44 34.1	-0.1
	comp=Z,0.8nm,0.3s,baz=0.0,slow=0.4,SNR=6.0						
SONM	**Songino Array**	160.09	4		PKPdf	03 43 54.0	-0.2
SONM					PKPab	03 44 34.1	-0.1
GTA2	**Gaotai**	166.41	30	PKP	PKPdf	03 44 02.8	+2.2
GTA2				PKPab	PKPab	03 45 04.0	+1.9
HHC	**Hu-ho-hao-te**	166.90	350	*e*P	PKPdf	03 43 56.9	-4.0
NJ2	**Nanjing**	170.15	297	*e*P	PKPdf	03 44 04.3	+1.2
NJ2				pmax	pmax		
	comp=Z,24nm,0.6s						

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*WEL **03** 03:36:20.6±1.0, 41˚S±5˚×17˚3E±˚, h120^{km}±7^{km}, M2.9/11, MLv2.9/11, Error ellipse: s-maj=9.1km s-min=5.5km az=109.0, confirmed*

*NOU **03** 03:36:27.3, 41˚.47S×172˚.38E, h0^{km}, MLv3.6/9, South Island, New Zealand*

ISC 03 03:36:13.6±1.8**, 40˚.72S**±0˚.05×**173˚.38E**±0˚.06**,**
h176^{km}±10^{km}**, n33,** σ**2^{s}61**/39**, Cook Strait**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DUWZ	**D'Urville Isla**	0.42	101	P	Pn	03 36 39.4	+1.8
DUWZ				S	Sn	03 36 54.2	-1.9
DUWZ				AML	AML		
TKNZ	**Takaka Hill**	0.45	225	P	Pn	03 36 39.2	+1.5
TKNZ				S	Sn	03 36 53.9	-2.5
TKNZ				AML	AML		
NNZ	**Nelson**	0.50	180	P	Pn	03 36 39.6	+1.8
NNZ				S	Sn	03 36 55.1	-1.6
NNZ				AML	AML		
NLMS	**Nelson Nelmac**	0.55	188	S	Sn	03 36 55.7	-1.4
NCBS	**Nelson Council**	0.55	187	S	Sn	03 36 55.7	-1.4
NELH	**Nelson Hospita**	0.57	188	P	Pn	03 36 40.7	+2.5
KHLK	**Kaihoka Lakes**	0.60	285	P	Pn	03 36 39.7	+1.3
HAVS	**Havelock**	0.63	151	P	Pn	03 36 40.7	+2.3
QRZ	**Quartz Range**	0.65	260	P	Pn	03 36 39.9	+1.3
QRZ	**Quartz Range**	0.65	260	P	Pn	03 36 40.2	+1.6
QRZ				S	Sn	03 36 55.5	-2.4
QRZ				AML	AML		
BTWS	**Nelson Brightw**	0.69	196	S	Sn	03 36 57.0	-1.4
QCCS	**Picton Queen C**	0.74	139	P	Pn	03 36 41.2	+2.1
BWRS	**Waikakaho Road**	0.82	151	P	Pn	03 36 42.0	+2.4
MRNZ	**Matariki Terra**	0.82	214	P	Pn	03 36 42.2	+2.6
MRNZ				AML	AML		
TUWZ	**Tuamarina**	0.83	149	P	Pn	03 36 42.7	+3.0
WVFS	**Wairau Valley**	0.90	181	P	Pn	03 36 43.0	+2.8
BSWZ	**Blackbirch Sta**	1.06	159	P	Pn	03 36 44.1	+2.7
BSWZ				AML	AML		
THZ	**Tophouse**	1.10	199	P	Pn	03 36 44.2	+2.5
THZ				AML	AML		
KIW	**Kapiti Island**	1.17	97	P	Pn	03 36 44.7	+2.4
KIW				AML	AML		
WEL	**Wellington**	1.19	119	P	Pn	03 36 44.9	+2.5
WEL				AML	AML		
CAW	**Cannon Point**	1.34	107	P	Pn	03 36 46.2	+2.5
CAW				AML	AML		
OGWZ	**Otaki Gorge**	1.36	95	P	Pn	03 36 46.6	+2.7
OGWZ				AML	AML		
LREZ	**Lake Rotokare**	1.48	32	P	Pn	03 36 47.6	+2.5
LREZ				AML	AML		
PREZ	**Palmer Road**	1.50	24	P	Pn	03 36 47.7	+2.4
PREZ				S	Sn	03 37 09.6	-0.1
PREZ				AML	AML		
KHEZ	**Kahui Hut**	1.51	19	P	Sn	03 37 08.6	-1.3
KHEZ	**Kahui Hut**	1.51	19	P	Pn	03 36 47.7	+2.3
KHEZ				S	Sn	03 37 08.7	-1.3
KHZ	**Kahutara**	1.70	176	P	Pn	03 36 50.1	+3.0
KHZ	**Kahutara**	1.70	176	S	Sn	03 37 08.7	-4.5
BFZ	**Birch Farm**	2.18	90	P	Sn	03 37 16.4	-6.0
HIZ	**Hauiti**	2.48	28	P	Sn	03 37 24.1	-4.6
RPZ	**Rata Peaks**	3.45	209	P	Pn	03 37 08.6	+1.0
ODZ	**Otahua Downs**	4.76	204	P	Pn	03 37 26.8	+2.5
JCZ	**Jackson Bay**	4.77	224	P	Pn	03 37 25.7	+1.1

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*IDC **03** 03:43:47.5±12.0, 12˚.13S×167˚.33E, h108^{km}±111^{km}, mb3.6/6, mbtmp3.9/6, MS3.7/1, Error ellipse: s-maj=44.5km s-min=25.4km az=94.0*

*NEIC **03** 03:44:03.9±1.7, 12˚.3S±0˚.1×167˚.2E±0˚.2, h256^{km}±4^{km}, mb4.1/13, Error ellipse: s-maj=25.8km s-min=16.1km az=111.0*

ISC 03 03:44:03.3±0.7**, 12˚.3S**±0˚.1×**167˚.1E**±0˚.2**, h250**^{km}**, n34,**
σ**0^{s}99**/33**, mb4.0**/13**, Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SANVU	**Saraoutou**	3.17	179	Pn	Pn	03 44 58.2	+0.5
MARNC	**Mare, Loyalty**	9.21	175	Pn	Pn	03 46 10.6	-1.3
EIDS	**Eidsvold**	19.99	227	P	P	03 48 18.0	+0.7
ARMA	**Armidale**	23.08	216	P	P	03 48 47.4	0.0
ARMA				IAmb	IAmb	03 49 16.2	
	comp=Z,11nm,1.2s						
WR8	**Warramunga Arr**	32.22	252	P	P	03 50 07.9	-0.7
WR8				IAmb	IAmb	03 50 19.0	
	comp=Z,5.5nm,1.3s						
WB0	**Warramunga Arr**	32.30	252	P	P	03 50 08.3	-1.0
WB0				IAmb	IAmb	03 50 15.0	
	comp=Z,10nm,1.5s						
WB2	**Warramunga Arr**	32.36	252	P	P	03 50 09.1	-0.7
WRA	**Warramunga Arr**	32.37	252	P	P	03 50 08.9	-1.0
	comp=Z,0.4nm,0.4s,baz=84,slow=9.0,SNR=7.1						
	comp=Z,0.4nm,0.4s						
WRA	**Warramunga Arr**	32.37	252	P	P	03 50 08.8	-1.2
RAR	**Rarotonga**	32.87	110	LR	LR	04 01 31.3	
	comp=Z,127nm,20.1s,baz=71,slow=32						
ASAR	**Alice Springs**	33.49	246	P	P	03 50 18.9	-0.7
	comp=Z,1.0nm,0.8s,baz=72,slow=9.7,SNR=8.1						
	comp=Z,1.0nm,0.8s						
ASAR	**Alice Springs**	33.49	246	P	P	03 50 18.6	-1.0
FITZ	**Fitzroy Crossi**	40.40	256	P	P	03 51 17.6	+0.1
SHEM	**Shemya Is, Ala**	65.00	5	P	P	03 54 13.9	-2.6
	comp=Z,32nm,0.8s,baz=216,slow=9.8,SNR=1.8						
SHEM	**Shemya Is, Ala**	65.00	5	P	P	03 54 14.1	-2.3
VNDA	**Vanda**	65.31	181	P	P	03 54 18.5	+0.3
	comp=Z,0.6nm,0.8s,baz=69,slow=5.3,SNR=1.8						
	comp=Z,0.6nm,0.8s						
VNDA	**Vanda**	65.31	181	P	P	03 54 18.6	+0.3
CASY	**Casey**	65.75	202	P	P	03 54 20.9	-0.3

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CASY                                IAmb    IAmb      03 54 46.2
           comp=Z,5.2nm,1.4s
QSPA  South Pole Qui   77.75 180    P       P         03 55 33.1 +0.5
           comp=Z,1.4nm,0.9s,baz=339,slow=1.4,SNR=6.3
           comp=Z,1.4nm,0.9s
QSPA  South Pole Qui   77.75 180    P       P         03 55 32.9 +0.3
QSPA                                IAmb    IAmb      03 55 44.0
           comp=Z,6.7nm,1.5s
G21K  Allakaket        83.71  15    P       P         03 56 04.8 +1.0
G21K                                IAmb    IAmb      03 56 22.3
           comp=Z,3.5nm,1.4s
RIDG  Independent Ri   84.15  19    P       P         03 56 07.4 +1.3
RIDG                                IAmb    IAmb      03 56 19.1
           comp=Z,5.5nm,1.1s
ILAR  Eielson Array    84.23  18    P       P         03 56 06.5  0.0
           comp=Z,1.8nm,0.6s,baz=244,slow=5.1,SNR=25
           comp=Z,1.8nm,0.6s
ILAR  Eielson Array    84.23  18    P       P         03 56 05.6 -0.9
MKAR  Makanchi Array   95.33 317    P       P         03 56 59.5 +0.4
           comp=Z,0.7nm,0.7s,baz=90,slow=7.3,SNR=6.1
           comp=Z,0.7nm,0.7s
MKAR  Makanchi Array   95.33 317    P       P         03 57 00.6 +1.4
PB03  IPOC Station P  114.63 121    eP      Pdif      03 58 25.6 -0.3
PB03                                IAML              03 58 50.7
           comp=E,24nm,0.1s
ARCES ARCESS Array B  117.84 346    PKP     PKPdf     04 02 19.9 +0.5
           comp=E,0.4nm,0.3s,baz=76,slow=2.1,SNR=8.9
ARCES ARCESS Array B  117.84 346            PKPdf     04 02 20.1 +0.7
FINES FINESS Array B  123.39 339    PKP     PKPdf     04 02 30.8 +0.6
           comp=E,1.3nm,0.8s,baz=124,slow=17,SNR=1.4
FINES FINESS Array B  123.39 339            PKiKP     04 02 31.1 +0.6
KEST  Kesra           149.19 323    PKPbc   PKiKP     04 03 24.2 +0.3
           comp=E,1.3nm,0.6s,baz=143,slow=18,SNR=1.9
KEST  Kesra           149.19 323            PKPbc     04 03 23.7 +0.9
ESDC  Sonseca Array   151.58 345    PKPbc   PKPbc     04 03 28.8 +0.5
           comp=E,0.4nm,0.8s,baz=336,slow=4.5,SNR=4.1
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*AFAD **03** 03:45:40.4, 35°.31N×27°.78E, h16^{km}±2^{km}, ML2.6*
*ISK **03** 03:45:40.9, 35°.30N×27°.79E, h10^{km}, ML2.9/12*
*ATH **03** 03:45:41.4, 35°.28N×27°.82E, h9^{km}±2^{km}, ML2.8/6, Latitude uncertainty: 2 km; Longitude uncertainty: 1 km*
*THE **03** 03:45:43.1, 35°N±6°×2°8E±°, h4^{km}±14^{km}, M2.8/11, MLh2.8/11*
ISC 03 03:45:41.3±1.4**, 35°.30N**±0°.05×**27°.80E**±0°.03**, h11**^{km}±10^{km}**, n51, σ0^{s}.80**/73**, Dodecanese Islands**

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Code  Station Name      Δ°   AZ°    Phase ID            Time     Res
                                    Op      ISC       h  m  s    ISC
KARP  Karpathos         0.58 295    P       Pg        03 45 52.4 -0.1
KARP                                S       Sg        03 46 00.2 +0.1
KARP                                AML     AML
KARP  Karpathos         0.58 295    Pg      Pg        03 45 52.6 +0.1
KARP                                Sg      Sb        03 46 00.9 -0.8
KARP  Karpathos         0.58 295    P       Pg        03 45 52.7 +0.2
KARP                                S       Sb        03 46 01.0 -0.7
KARP                                AML     AML
ARG   Arkhangelos       0.95  16    P       Pb        03 46 00.1 +0.3
ARG                                 S       Sn        03 46 13.3 -0.9
ARG                                 AML     AML
ARG   Arkhangelos       0.95  16    Pg      Pb        03 45 59.8  0.0
ARG                                 Sg      Sn        03 46 13.5 -0.7
ARG                                 AML     AML
ARG   Arkhangelos       0.95  16    P       Pb        03 46 00.1 +0.3
ARG                                 S       Sb        03 46 12.5 +0.1
ARG                                 AML     AML
ZKR   Zakros            1.31 262    P       Pb        03 46 06.1 +0.2
ZKR   Zakros            1.31 262    Pn      Pb        03 46 05.9  0.0
ZKR                                 AML     AML
ZKR   Zakros            1.31 262    P       Pb        03 46 05.9  0.0
ZKR                                 S       Sg        03 46 23.4  0.0
ZKR                                 AML     AML
STIA  Sitia Lasithi     1.40 266    P       Pb        03 46 07.5  0.0
STIA                                S       Sn        03 46 25.8 +0.5
YAZI  Mula-Dat§a-       1.41 349    P       Pb        03 46 07.3 -0.2
YAZI                                S       Sg        03 46 25.8 -0.7
YAZI                                IAML              03 46 30.0
           comp=N,58nm,0.4s
YAZI                                IAML              03 46 35.0
           comp=E,55nm,0.4s
DAT   Datca             1.44 353    Pn      Pb        03 46 07.8 -0.4
DAT                                 AML     AML
TURN  Turunc            1.51  14    Pn      Pn        03 46 08.9 +0.5
TURN                                AML     AML
TURN  Turunc            1.51  14    P       Pn        03 46 08.5 +0.1
TURN                                S       Sb        03 46 28.6 -0.1
TURN                                IAML              03 46 35.0
           comp=E,115nm,0.4s
TURN                                IAML              03 46 37.0
           comp=N,107nm,0.4s
IZZE  Mula-Seydike      1.62  45    P       Pn        03 46 10.2 +0.3
IZZE                                S       Sn        03 46 31.3 +0.5
IZZE                                IAML              03 46 33.0
           comp=E,98nm,0.4s
IZZE                                IAML              03 46 37.0
           comp=N,147nm,0.4s
DALY  Dalyan (Mula)     1.66  24    Pn      Pn        03 46 11.0 +0.6
DALY                                AML     AML
DALY  Dalyan (Mula)     1.66  24    P       Pb        03 46 11.3 -0.7
DALY                                S       Sg        03 46 35.9 +1.1
DALY                                IAML              03 46 50.0
           comp=E,69nm,0.6s
DALY                                IAML              03 46 52.0
           comp=N,78nm,0.6s
AKAS  Kas               1.74  57    Pn      Pn        03 46 11.9 +0.3
AKAS                                AML     AML
BDRM  Kayabasi          1.78 351    P       Pn        03 46 13.0 +0.9
BDRM                                S       Sn        03 46 34.8  0.0
BDRM                                IAML              03 46 46.0
           comp=E,50nm,0.8s
BDRM                                IAML              03 46 49.0
           comp=N,79nm,0.4s
NPS   Neapolis          1.79 269    P       Pb        03 46 14.2  0.0
NPS                                 S       Sb        03 46 37.6 +1.1
NPS                                 AML     AML
NPS   Neapolis          1.79 269    P       Pn        03 46 12.3 +0.2
NPS                                 S       Sb        03 46 36.0 -0.6
NPS                                 AML     AML
SABU  Mula-Dalaman      1.79  32    P       Pn        03 46 12.9 +0.7
SABU                                IAML              03 46 52.0
           comp=E,67nm,0.8s
SABU                                IAML              03 46 53.0
           comp=N,68nm,0.8s
BODT  Bodrum            1.80 347    Pn      Pn        03 46 12.9 +0.5
BODT                                AML     AML
YER   Yerkesik          1.87  12    P       Pb        03 46 15.5 -0.1
YER                                 AML     AML
YER   Yerkesik          1.87  12    Pn      Pn        03 46 14.0 +0.6
YER                                 AML     AML
MLSB  Milas             1.99 359    Pn      Pn        03 46 15.6 +0.6
MLSB                                AML     AML
MULA  Mugla, Merkez-    2.00  12    P       Pb        03 46 17.4 -0.3
MULA                                S       Sg        03 46 46.4 +0.9
MULA                                IAML              03 46 51.0
           comp=E,69nm,0.5s
MULA                                IAML              03 46 54.0
           comp=N,44nm,0.6s
CAME  Cameli-Denizli    2.04  36    Pn      Pn        03 46 16.5 +0.7
CAME                                AML     AML
THERA Ancient Thera,    2.17 300    P       Pn        03 46 17.8 +0.4
THERA                               AML     AML
THERA Ancient Thera,    2.17 300    P       Pn        03 46 17.9 +0.4
THERA                               AML     AML
THR6  Thira Island,     2.22 299    P       Pn        03 46 19.5 +1.4
THR2  Thira island,     2.23 301    P       Pn        03 46 18.8 +0.5
THR3  Thira Island,     2.24 300    P       Pn        03 46 18.8 +0.4
SNT5  Nea Kammeni, S    2.24 300    P       Pn        03 46 19.4 +1.1
SNT5                                AML     AML
CMBO  Columbo, Santo    2.27 302    P       Pn        03 46 19.1 +0.4
CMBO                                S       Sn        03 46 46.7  0.0
CMBO                                AML     AML
CMBO  Columbo, Santo    2.27 302    P       Pn        03 46 19.2 +0.5
TAVA  DENIZLI_Tavas     2.34  22    P       Pn        03 46 20.6 +0.7
TAVA                                S       Sb        03 46 51.6 -0.9
TAVA                                IAML              03 47 01.0
           comp=N,44nm,0.6s
TAVA                                IAML              03 47 04.0
           comp=E,42nm,0.7s
AYDN  Tasoluk           2.36   2    P       Pn        03 46 20.7 +0.7
AYDN                                S       Sn        03 46 49.9 +0.9
AYDN                                IAML              03 46 58.0
           comp=E,39nm,0.4s
AYDN                                IAML              03 46 59.0
           comp=N,32nm,0.4s
IDI   Anoyia            2.38 271    P       Pn        03 46 21.5 +1.2
IDI                                 AML     AML
IDI   Anoyia            2.38 271    Pn      Pb        03 46 22.5 -1.7
IDI                                 AML     AML
IDI   Anoyia            2.38 271    P       Pn        03 46 21.1 +0.8
IDI                                 AML     AML
GCAM  G?zelcaml?        2.44 349    Pn      Pn        03 46 22.0 +0.9
GCAM                                AML     AML
SIVA  Sivas             2.46 264    P       Pb        03 46 23.7 -2.0
SIVA                                AML     AML
ESEN  Aydn-Nazilli      2.53  10    P       Pn        03 46 23.9 +1.6
ESEN                                S       Sb        03 46 55.6 -2.3
ESEN                                IAML              03 47 04.0
           comp=N,19nm,0.5s
ESEN                                IAML              03 47 05.0
           comp=E,30nm,0.7s
IZMR  zmir-demi         2.83   2    P       Pn        03 46 26.5  0.0
IZMR                                S       Sb        03 47 04.4 -2.2
IZMR                                IAML              03 47 22.0
           comp=E,15nm,0.6s
IZMR                                IAML              03 47 23.0
           comp=N,16nm,0.6s
DGB   zmir              2.84 345    P       Pn        03 46 26.9 +0.2
CHOS  Chios island      3.38 336    P       Pn        03 46 34.7 +0.5
CHOS                                S       Sn        03 47 15.9 +1.6
CHOS                                AML     AML
CHOS  Chios island      3.38 336    P       Pn        03 46 34.6 +0.5
AKMS  Akamas            3.73  93    P       Pn        03 46 39.0 +0.2
KTHA  Kythira Island    3.97 285    P       Pn        03 46 42.7 +0.6
VLI   Veliai            4.19 291    P       Pn        03 46 45.5 +0.4
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*AEIC **03** 03:47:28.9±1.5, 51°.21N±0°.04×178°.45W±0°.04, h23^{km}±5^{km}, Error ellipse: s-maj=5.8km s-min=3.7km az=178.0*
*NEIC **03** 03:47:29.0±1.5, 51°.18N±0°.03×178°.49W±0°.04, h35^{km}±2^{km}, mb3.8/16, ML4.0/12, ML3.6(AEIC), Error ellipse: s-maj=5.6km s-min=3.0km az=216.0*
*IDC **03** 03:47:31.8±3.4, 51°.44N×178°.70W, h67^{km}±28^{km}, mb3.3/12, mbtmp3.6/13, ML3.9/1, MS2.8/1, Error ellipse: s-maj=33.1km s-min=16.2km az=179.0*
ISC 03 03:47:28.6±1.4**, 51°.20N**±0°.09×**178°.51W**±0°.03**, h43**^{km}±11^{km}**, n85, σ1^{s}.02**/99**, mb3.8**/16**, Andreanof Islands**

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Code  Station Name      Δ°   AZ°    Phase ID            Time     Res
                                    Op      ISC       h  m  s    ISC
GAKI  Gareloi-Kavalg    0.41 332            Pn        03 47 38.1 -0.2
GAKI                                        Sn        03 47 44.7 -0.4
GALAA Gareloi Lava P    0.59 344            Pn        03 47 41.3 +0.7
GALAA                                       Sn        03 47 50.5 +1.3
GAEA  Gareloi East      0.61 346            Pn        03 47 41.4 +0.5
GAEA                                        Sn        03 47 50.7 +1.1
GASW  Gareloi Southw    0.62 340            Pn        03 47 41.4 +0.3
GASW                                        Sn        03 47 50.8 +0.8
GANE  Gareloi Northe    0.65 345            Pn        03 47 41.8 +0.4
GANE                                        Sn        03 47 51.6 +1.0
GANO  Gareloi North     0.65 344            Pn        03 47 41.7 +0.3
GANO                                        Sn        03 47 51.8 +1.1
TAFL  Tanaga Flats      0.68  34            Pn        03 47 41.8  0.0
TAFL                                        Sn        03 47 51.6 +0.3
TASE  Tanaga Southea    0.70  25            Pn        03 47 42.4 +0.2
TACS  Tanaga Cape Sa    0.71  19            Pn        03 47 42.6 +0.3
TACS                                        Sn        03 47 53.0 +0.9
TAPA  Tanaga Point A    0.76  35            Pn        03 47 43.0 +0.1
TAPA                                        Sn        03 47 53.5 +0.3
TANO  Tanaga North      0.76  18            Pn        03 47 43.3 +0.4
TAFP  Tanaga Falls P    0.78  25            Pn        03 47 43.2 +0.1
TAFP                                        Sn        03 47 54.0 +0.3
KIMD  Kanaga Island     0.98  54            Pn        03 47 45.8  0.0
KIMD                                        Sn        03 47 58.2 -0.3
KIWB  Kanaga Island     1.07  52            Pn        03 47 47.2 +0.1
KIWB                                Sn      Sn        03 48 00.1 -0.8
KIWB                                IAML              03 48 05.7
           comp=N,3μm,0.3s
KIWB                                IAML              03 48 07.7
           comp=E,4μm,0.5s
KIKV  Kanaga Island     1.08  50            Pn        03 47 47.5 +0.3
KIKV                                        Sn        03 48 01.3 +0.3
KICM  Kanaga Island     1.09  48            Pn        03 47 47.9 +0.5
KICM                                        Sn        03 48 02.4 +1.0
KIRH  Kanaga Island     1.13  51            Pn        03 47 48.3 +0.4
KIRH                                        Sn        03 48 03.0 +0.7
ADK   Adak              1.33  58            Pn        03 47 50.6 -0.1
ADK                                 Sn      Sn        03 48 07.0 -0.2
ADK                                 IAML              03 48 10.4
           comp=E,5μm,0.3s
CERB  Semis' Cerberu    1.38 303            Pn        03 47 52.7 +1.5
CERB                                        Sn        03 48 09.0 +0.7
CEPE  Semis' Perret     1.38 305            Pn        03 47 52.7 +1.3
AMKA  Amchitka          1.39 278            Pn        03 47 51.0 -0.4
AMKA                                Sn      Sn        03 48 08.0 -0.5
AMKA                                IAML              03 48 12.6
           comp=N,1μm,0.5s
CESW  Semis' Southwe    1.40 301            Pn        03 47 52.7 +1.2
ADAG  Mount Adagdak     1.43  56            Pn        03 47 52.9 +0.9
CETU  Semis' Tuman      1.47 303            Pn        03 47 53.9 +1.4
ETKA  Kagalaska Isla    1.47  62            Pn        03 47 52.7 +0.1
ETKA                                        Sn        03 48 10.6 -0.1
GSTD  Great Sitkin T    1.71  59            Pn        03 47 56.9 +1.0
GSSP  Great Sitkin S    1.71  57            Pn        03 47 57.0 +1.2
GSMY  Great Sitkin M    1.75  60            Pn        03 47 57.4 +1.0
GSMY                                        Sn        03 48 19.2 +1.7
GSTR  Great Sitkin T    1.77  59            Pn        03 47 58.1 +1.3
GSIG  Igitkin Island    1.80  63            Pn        03 47 57.6 +0.6
GSIG                                        Sn        03 48 20.4 +1.8
LSSE  Little Sitkin     1.97 293            Pn        03 48 01.0 +1.6
LSPA  Little Sitkin     1.97 294            Pn        03 48 01.2 +1.7
LSNW  Little Sitkin     2.01 294            Pn        03 48 01.4 +1.4
ATKA  Atka Island       2.87  68            Pn        03 48 12.1 +0.4
ATKA  Atka Island       2.87  68            Sn        03 48 45.5 +0.6
ATKA  Atka Island       2.87  68    IAML              03 48 53.2
           comp=N,485nm,1.2s
ATKA                                IAML              03 48 55.6
           comp=E,348nm,0.5s
KOWE  Korovin West      2.89  64            Pn        03 48 13.8 +1.7
KOKL  Mount Kliuchef    2.91  65            Pn        03 48 14.3 +2.0
KOFP  Korovin Flat P    2.95  67            Pn        03 48 14.8 +1.9
SHEM  Shemya Is, Ala    4.82 291    P       Pn        03 48 39.3 +0.8
           comp=E,5.1nm,0.3s,baz=105,slow=16,SNR=5.9
SHEM                                S       Sn        03 49 32.8 -0.2
           comp=E,14nm,0.4s,baz=117,slow=19,SNR=1.7
SHEM                                LR      LR        03 50 33.5
           comp=E,96nm,19.9s,baz=125,slow=39
           comp=E,35nm,0.9s
SHEM                                AML     AML
KDAK  Kodiak Island    16.37  56    P       Pn        03 51 13.1 -1.9
           comp=E,3.0nm,0.4s,baz=200,slow=0.9,SNR=30
KDAK                                S       Sn        03 54 13.6 -1.8
           comp=E,2.7nm,0.7s,baz=16,slow=14,SNR=1.2
KDAK  Kodiak Island    16.37  56    IAmb    IAmb      03 51 20.9
           comp=Z,29nm,1.3s
L19K  White Mountain   16.91  40    P       P         03 51 22.9 -0.3
M19K  Big River Lodg   16.96  42    P       P         03 51 23.5 -0.4
CAST  Castle Rocks     18.62  39    P       Pn        03 51 42.6 -0.2
KTH   Kantishna Hill   19.15  39    P       Pn        03 51 48.4 -0.7
IMAR  Indian Mountai   19.44  31    P       Pn        03 51 51.4 -1.1
H21K  Melozitna Rive   19.56  32    P       Pn        03 51 53.5 -0.4
H21K                                IAmb    IAmb      03 51 58.0
           comp=Z,4.3nm,1.1s
G21K  Allakaket        19.84  30            Pn        03 51 56.0 -1.3
G21K                                IAmb    IAmb      03 51 58.0
           comp=Z,5.3nm,0.8s
MLY   Manley           19.94  35    P       Pn        03 51 57.1 -1.4
F21K  Alatna River     20.30  28    P       Pn        03 52 01.1 -1.6
F21K                                IAmb    IAmb      03 52 03.8
           comp=Z,2.6nm,0.8s
DHY   Denali Highway   20.41  42            P         03 52 02.1 +0.3
DHY                                 IAmb    IAmb      03 52 03.3
           comp=Z,4.0nm,0.6s
ILAR  Eielson Array    21.27  38    P       P         03 52 09.2 -1.7
           comp=Z,0.5nm,0.7s,baz=243,slow=9.5,SNR=10
           comp=Z,0.5nm,0.7s
ILAR  Eielson Array    21.27  38    P       P         03 52 11.9 +1.0
D23K  Nanushuk River   22.23  26    P       P         03 52 21.3 +0.2
F24K  Squaw Lake       22.23  31    P       P         03 52 21.7 +0.5
F24K                                IAmb    IAmb      03 52 24.2
           comp=Z,3.1nm,0.9s
E24K  Your Creek       22.34  30    P       P         03 52 23.0 +0.6
E24K                                IAmb    IAmb      03 52 53.3
           comp=Z,2.8nm,1.1s
G26K  Porcupine Rive   23.35  34    P       P         03 52 33.4 +0.8
G26K                                IAmb    IAmb      03 52 36.6
           comp=Z,2.8nm,0.7s
H11N2 WAKE ISLAND Hy   33.44 206    T       T         04 29 50.3
           baz=18,slow=76,SNR=25
H11N3 WAKE ISLAND Hy   33.45 205    T       T         04 29 54.2
           baz=18,slow=76,SNR=18
H11N1 WAKE ISLAND Hy   33.46 206    T       T         04 29 49.7
           baz=18,slow=76,SNR=6.8
H11S1 WAKE ISLAND Hy   34.66 205    T       T         04 31 29.8
           baz=17,slow=76,SNR=22
H11S2 WAKE ISLAND Hy   34.68 205    T       T         04 31 16.2
           baz=17,slow=76,SNR=9.9
H11S3 WAKE ISLAND Hy   34.68 205    T       T         04 31 33.0
           baz=17,slow=76,SNR=8.5
YKA   Yellowknife Ar   35.23  46    P       P         03 54 18.3  0.0
           comp=Z,0.7nm,0.8s,baz=281,slow=8.3,SNR=3.9
           comp=Z,0.7nm,0.8s
YKA   Yellowknife Ar   35.23  46    P       P         03 54 18.9 +0.6
PDAR  Pinedale Array   46.19  72    P       P         03 55 50.6 +1.5
           comp=Z,1.1nm,0.5s,baz=321,slow=2.8,SNR=25
           comp=Z,1.1nm,0.5s
ARCES ARCESS Array B   58.30 350    P       P         03 57 17.4 -1.0
           comp=Z,1.5nm,0.9s,baz=32,slow=7.1,SNR=5.8
           comp=Z,1.5nm,0.9s
TXAR  Lajitas Array    58.50  81    P       P         03 57 22.7 +2.3
           comp=Z,0.6nm,0.5s,baz=318,slow=6.6,SNR=2.4
           comp=Z,0.6nm,0.5s
TXAR  Lajitas Array    58.50  81    P       P         03 57 22.2 +1.8
KURK  Kurchatov        59.28 314    P       P         03 57 27.4 +2.1
KURK                                IAmb    IAmb      03 57 46.9
           comp=Z,0.9nm,0.7s
KURBB Kurchatov Arra   59.38 314    P       P         03 57 25.7 -0.3
           comp=Z,0.3nm,0.6s,baz=43,slow=6.7,SNR=2.4
           comp=Z,0.3nm,0.6s
MKAR  Makanchi Array   60.29 309    P       P         03 57 30.5 -1.9
           comp=Z,0.1nm,0.4s,baz=66,slow=4.9,SNR=1.9
           comp=Z,0.1nm,0.4s
MKAR  Makanchi Array   60.29 309    P       P         03 57 32.8 +0.4
BVAR  Borovoye Array   61.15 320    P       P         03 57 36.2 -1.9
           comp=Z,0.4nm,0.3s,baz=48,slow=4.7,SNR=2.0
           comp=Z,0.4nm,0.3s
FINES FINESS Array B   66.00 347    P       P         03 58 08.9 -1.1
           comp=Z,1.2nm,0.9s,baz=111,slow=8.5,SNR=1.2
           comp=Z,1.2nm,0.9s
FINES FINESS Array B   66.00 347    P       P         03 58 09.7 -0.3
JSC   Jenkinsville     68.28  62    P       P         03 58 24.8  0.0
AKASG Malin Array Be   75.78 342    P       P         03 59 08.5 -1.0
           comp=Z,0.1nm,0.3s,baz=17,slow=6.8,SNR=1.9
           comp=Z,0.1nm,0.3s
WRA   Warramunga Arr   82.01 224    P       P         03 59 43.4 -0.5
           comp=Z,0.1nm,0.5s,baz=25,slow=5.4,SNR=1.5
           comp=Z,0.1nm,0.5s
BRTR  Keskin Array B   85.19 336    P       P         04 00 00.2 -0.1
           comp=Z,0.6nm,0.7s,baz=34,slow=9.0,SNR=4.6
           comp=Z,0.6nm,0.7s
BRTR  Keskin Array B   85.19 336    P       P         03 59 59.3 -1.0
QSPA  South Pole Qui  140.95 180    PKP     PKiKP     04 06 54.1 -1.0
           comp=Z,1.0nm,0.8s,baz=318,slow=18,SNR=1.9
QSPA  South Pole Qui  140.95 180            PKiKP     04 06 54.4 -0.7
BOSA  Boshof          151.23 313    PKPbc   PKiKP     04 07 17.3 -0.2
           comp=Z,3.7nm,1.1s,baz=206,slow=15,SNR=1.5
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*IDC **03** 03:47:33.6±1.7, 20°.34S×168°.89E, h0^{km}, mb3.7/3, mbtmp3.7/4, ML3.1/1, Error ellipse: s-maj=47.2km s-min=24.3km az=141.0*
*NOU **03** 03:47:36.5, 21°.30S×169°.04E, h0^{km}, MLv4.0/13, Southeast of Loyalty Islands*
ISC 03 03:47:33.2±1.6**, 21°.3S**±0°.2×**169°.3E**±0°.1**, h10**^{km}**, n15, σ1^{s}.42**/15**, mb3.9**/3**, Southeast of Loyalty Islands**

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Code  Station Name      Δ°   AZ°    Phase ID            Time     Res
                                    Op      ISC       h  m  s    ISC
MARNC Mare, Loyalty     1.19 263    P       Pb        03 47 56.3 +0.5
MARNC Mare, Loyalty     1.19 263    S       Sb        03 48 09.3 -1.9
YATNC Mamie plateau,    2.35 252    P       Pn        03 48 12.4 +0.6
YATNC Mamie plateau,    2.35 252    S       Sn        03 48 39.7 -1.0
OUENC Ouen Island, N    2.52 244    P       Pn        03 48 15.8 +1.6
DZM   Mont Dzumac       2.75 254    Pn      Pn        03 48 18.9 +1.5
           3.0nm,0.3s,baz=47,slow=19,SNR=34
DZM                                 Sn      Sn        03 48 50.3 -0.5
           30nm,0.3s,baz=108,slow=23,SNR=14
           27nm,0.6s
DZM                                 AML     AML
ONTNC Ouen Toro         2.81 249    P       Pn        03 48 20.1 +1.9
ONTNC Ouen Toro         2.81 249    S       Sn        03 48 52.0 -0.1
NOUC  Port Laguerre     2.88 254    P       Pn        03 48 20.9 +1.7
KOUNC Koumac, New Ca    4.75 279    P       Pn        03 48 46.8 +2.0
WRA   Warramunga Arr   32.70 266    P       P         03 54 05.8 -0.3
           0.6nm,0.9s,baz=103,slow=8.0,SNR=2.2
           0.6nm,0.9s
ASAR  Alice Springs    32.73 259    P       P         03 54 06.7 +0.4
           1.2nm,0.7s,baz=84,slow=9.4,SNR=9.8
           1.2nm,0.7s
QSPA  South Pole Qui   68.72 180    P       P         03 58 45.5 +8.5
           0.6nm,0.8s,baz=30,slow=5.1,SNR=1.6
           0.6nm,0.8s
EKA   Eskdalemuir Ar  145.59 352    PKP     PKPdf     04 07 10.1 -1.3
           1.4nm,0.6s,baz=6.4,slow=2.5,SNR=4.0
GERES GERESS Array B  146.35 330    PKPbc   PKPdf     04 07 12.0 -1.1
           0.4nm,0.6s,baz=34,slow=3.9,SNR=2.5
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*IDC **03** 03:51:02.0±0.5, 41°.30S×88°.68W, h0^{km}, mb4.3/14, mbtmp4.3/16, ML3.9/2, MS4.3/29, Error ellipse: s-maj=17.7km s-min=16.6km az=95.0*
*GFZ **03** 03:51:01.0, 41°.17S×89°.24W, h10^{km}, Mw5.1/55, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}-0.81; $M_{\theta\theta}$0.55; $M_{\phi\phi}$0.26; $M_{r\theta}$0.32; $M_{\theta\phi}$-5.25; $M_{\phi r}$0.50; Fault plane solution: $M_0$5.32864×10^{16} NP1: ϕ_s178.92968°, δ85.10046°, λ-6.45392°. NP2: ϕ_s269.48323°, δ83.56976°, λ-175.06936°. Principal axes: T 5.6569, Plg1.0771°, Azm224.2816°; N -0.7322, Plg81.9033°, Azm321.8760°; P -4.9247, Plg8.0238°, Azm134.1298°;*
*GFZ **03** 03:51:01.0±0.4, 41°S±5°×8°9W±°, h10^{km}, M4.5/13, mb4.5/13, confirmed*
*GCMT **03** 03:51:05.3±0.2, 41°.43S±0°.01×88°.72W±0°.01, h13^{km}±1^{km}, MW5.2/141, Moment Tensor Solution. s84,c113; s141,c253; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.78±.13; $M_{\theta\theta}$1.08±.12; $M_{\phi\phi}$-0.30±.12; $M_{r\theta}$0.66±.26; $M_{\theta\phi}$-6.88±.12; $M_{\phi r}$-1.56±.29; Best double couple: $M_0$7.10200×10^{16} NP1: ϕ_s87.00000°, δ77.00000°, λ178.00000°. NP2: ϕ_s177.00000°, δ88.00000°, λ13.00000°. Principal axes: T 7.5870, Plg10.0000°, Azm43.0000°; N -0.9740, Plg77.0000°, Azm188.0000°; P -6.6160, Plg7.0000°, Azm311.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
*NEIC **03** 03:51:05.3±1.4, 41°.13S±0°.09×88°.51W±0°.08, h10^{km}±1^{km}, mb4.7/157 Error ellipse: s-maj=15.4km s-min=9.6km az=175.0*
ISC 03 03:51:04.0±0.4**, 41°.23S**±0°.07×**88°.62W**±0°.08**, h10**^{km}**, n216, σ1^{s}.33**/148**, mb4.7**/89**, MS4.3**/28**, 2D, West Chile Rise**

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Code  Station Name      Δ°   AZ°    Phase ID            Time     Res
                                    Op      ISC       h  m  s    ISC
H03S2 Juan Fernandez   10.66  49    T       T         04 04 53.7
           baz=222,slow=73,SNR=3590
H03S1 Juan Fernandez   10.66  49    T       T         04 04 51.5
           baz=222,slow=73,SNR=1447
H03S3 Juan Fernandez   10.67  49    T       T         04 04 55.2
           baz=222,slow=73,SNR=5713
VA04  Juan Fernndez    10.85  49    Pn      Pn        03 53 38.7 -0.7
H03N2 Juan Fernandez   10.95  48    T       T         04 05 13.6
           baz=38,slow=74,SNR=3484
H03N1 Juan Fernandez   10.96  48    T       T         04 05 12.6
           baz=224,slow=74,SNR=1107
LR03  Panguipulli      12.50  88    Pn      Pn        03 54 02.1 +0.2
LL02  Futaleuf         12.59 105            Pn        03 54 04.1 +1.0
LL02  Futaleuf         12.59 105    P       Pn        03 54 07.2 +4.1
           comp=Z,22nm,2.0s
COYC  Coyhaique        12.78 115    Pn      Pn        03 54 07.6 +1.9
COYC  Coyhaique        12.78 115    P       Pn        03 54 08.1 +2.4
           comp=Z,26nm,2.3s
GO08  Villa O'Higgin   13.48 128    Pn      Pn        03 54 16.3 +1.1
PLCA  Paso Flores      13.66  94    Pn      Pn        03 54 14.6 -3.3
           comp=Z,0.2nm,0.3s,baz=297,slow=13,SNR=1.6
PLCA                                LR      LR        03 57 35.2
           comp=Z,593nm,18.8s,baz=260,slow=29
           comp=Z,0.5nm,0.4s
PLCA                                AML     AML
PLCA  Paso Flores      13.66  94            Pn        03 54 16.9 -1.0
PLCA  Paso Flores      13.66  94    P       Pn        03 54 22.0 +4.2
           comp=Z,16nm,2.5s
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BI02  San Fabin de      14.24  77  Pn     Pn      03 54 25.6  -0.2
BI02  San Fabin de      14.24  77  P      Pn      03 54 29.0  +3.2
      comp=Z,11nm,1.1s
BO01  Tunca             15.44  69         Pn      03 54 40.5  -1.3
BO01  Tunca             15.44  69  P      Pn      03 54 43.3  +1.5
BO02  Sierra Bellavi    15.45  71  P      Pn      03 54 43.1  +1.1
      comp=Z,20nm,1.2s
MT09  Talagante         15.83  68  Pn     Pn      03 54 46.3  -0.7
MT09                               IAmb   IAmb    03 54 53.0
      comp=Z,55nm,1.2s
MT03  Universidad Ad    16.32  68  Pn     Pn      03 54 53.8  +0.5
MT16  CCHEN             16.35  67  Pn     Pn      03 54 53.9  +0.3
PEL   Peldehue          16.39  66  P      Pn      03 54 55.9  +1.7
      comp=Z,37nm,1.8s
MT08  Bocatoma Ro       16.69  68  Pn     Pn      03 54 57.1  -1.1
VA03  San Esteban       16.70  65 eP      Pn      03 54 56.6  -1.6
VA03  San Esteban       16.70  65         Pn      03 54 57.5  -0.7
VA03  San Esteban       16.70  65  P      Pn      03 54 59.0  +0.8
      comp=Z,46nm,1.6s
GO10  Punta Arenas      16.82 141         P       03 55 00.6  -1.1
CO02  Combarbal         17.36  60  P      P       03 55 08.7  +0.9
      comp=Z,46nm,2.0s
AUSP  Uspallata         17.82  66 eP      P       03 55 13.6  +0.6
RTLS  Leoncito          18.13  65 eP      P       03 55 17.9  +1.4
DSPA  Despedida         18.63 140  P      Pn      03 55 22.4  +0.6
ZON   Zonda             18.70  65 eP      P       03 55 22.9  +0.4
ZON   Zonda             18.70  65         P       03 55 20.0  -2.5
CFA   Coronel Fontan    18.97  66  P      P       03 55 25.2  -0.3
      comp=Z,0.1nm,0.3s,baz=245,slow=11,SNR=15
CFA                                LR     LR      04 01 19.6
      comp=Z,633nm,19.7s,baz=200,slow=32
      comp=Z,3.5nm,0.7s
CFA                                AML    AML
ACAN  Cantantal         19.32  69 eP      P       03 55 29.1  -0.3
AVFE  Valle Fertil      20.07  65 eP      P       03 55 37.0  -0.6
VCA   Vinchina          20.80  60 eP      P       03 55 47.2  +1.6
ACLC  CERRO LA CRUZ     21.18  63 eP      P       03 55 50.4  +0.7
RPN   Rapa Nui          22.10 303  P      P       03 55 57.6  -1.8
      comp=Z,40nm,0.8s,baz=300,slow=4.5,SNR=1.5
      comp=Z,40nm,0.8s
RPN   Rapa Nui          22.10 303  P      P       03 55 58.0  -1.4
CYA   Choya             22.58  63 eP      P       03 56 04.0  -0.6
SALTA                   25.16  54  P      P       03 56 31.3  +1.3
      comp=Z,12nm,2.5s
PMSA  Palmer Station    27.48 157  LR     LR      04 04 38.4
      comp=Z,630nm,19.6s,baz=316,slow=30
PB16  IPOC Station P    28.09  41  P      P       03 56 55.5  -1.0
      comp=Z,8.7nm,0.7s
CPUP  Villa Florida     29.76  70  P      P       03 57 09.2  -1.5
      comp=Z,1.3nm,0.7s,baz=201,slow=4.2,SNR=3.7
CPUP                               LR     LR      04 08 17.7
      comp=Z,691nm,19.1s,baz=242,slow=35
      comp=Z,1.3nm,0.7s
LPAZ  La Paz            30.51  41  P      P       03 57 18.7  +0.6
      comp=Z,2.9nm,0.8s,baz=154,slow=7.1,SNR=6.0
LPAZ                               LR     LR      04 07 18.2
      comp=Z,554nm,19.0s,baz=194,slow=32
      comp=Z,2.9nm,0.8s
LPAZ  La Paz            30.51  41         P       03 57 18.1   0.0
LPAZ  La Paz            30.51  41  P      P       03 57 18.9  +0.8
      comp=Z,5.4nm,0.6s
NNA   Nana              30.91  23  LR     LR      04 06 25.2
      comp=Z,521nm,20.1s,baz=200,slow=30
ATAH  Atahualpa         35.15  18  LR     LR      04 08 49.3
      comp=Z,1µm,21.0s,baz=208,slow=30
TRCB  Terra Rica        35.30  70  P      P       03 57 58.4  -0.8
      comp=Z,33nm,1.4s
PTLB  Pontes e Lacer    36.20  53         P       03 58 07.0  +0.1
VILB  Vilhena           37.54  50  P      P       03 58 17.9  -0.5
VILB                               IAmb   IAmb    03 58 19.0
      comp=Z,12nm,1.0s
CLDB  Colider           41.78  53  P      P       03 58 52.7  -1.0
      comp=Z,5.0nm,1.3s
OTAV  Otavalo           42.30  15  P      P       03 58 58.7  +0.3
OTAV                               IAmb   IAmb    03 59 14.7
      comp=Z,19nm,1.4s
BDFB  Brasilia          43.31  66  P      P       03 59 05.2  -1.0
      comp=Z,2.8nm,0.7s,baz=220,slow=11,SNR=4.6
BDFB                               LR     LR      04 16 43.6
      comp=Z,705nm,19.1s,baz=237,slow=36
      comp=Z,2.8nm,0.7s
BDFB  Brasilia          43.31  66  P      P       03 59 05.7  -0.6
ROSC  El Rosal          47.68  19  P      P       03 59 41.9  +0.8
      comp=Z,3.1nm,0.4s,baz=75,slow=12,SNR=4.2
ROSC                               LR     LR      04 16 55.6
      comp=Z,874nm,22.0s,baz=192,slow=32
      comp=Z,3.1nm,0.4s
ROSC  El Rosal          47.68  19  P      P       03 59 40.1  -1.0
VNA3  Neumayer Olymp    48.08 155  P      P       03 59 41.4  -1.8
      comp=Z,11nm,1.0s
VNA2  Neumayer--Watz    48.86 154  P      P       03 59 49.7  +0.5
      comp=Z,20nm,0.7s
QSPA  South Pole Qui    49.00 180  P      P       03 59 48.3  -2.3
      comp=Z,2.1nm,1.0s,baz=127,slow=3.4,SNR=7.8
      comp=Z,2.1nm,1.0s
QSPA  South Pole Qui    49.00 180  P      P       03 59 52.1  +1.5
QSPA                               IAmb   IAmb    04 00 31.6
      comp=Z,8.9nm,1.2s
SNAA  Sanae             50.18 156  P      P       03 59 59.3   0.0
      comp=Z,0.7nm,0.5s,baz=233,slow=11,SNR=2.3
      comp=Z,0.7nm,0.5s
SNAA  Sanae             50.18 156  P      P       03 59 59.8  +0.5
SNAA                               IAmb   IAmb    04 00 40.6
      comp=Z,7.7nm,1.2s
SNAA  Sanae             50.18 156  P      P       03 59 56.8  -2.5
      comp=Z,6.2nm,1.1s
BOAV  Boa Vista         50.39  38  P      P       04 00 00.8  -0.7
JTS   Las Juntas de     51.38   5  LR     LR      04 16 51.4
      comp=Z,362nm,20.2s,baz=185,slow=30
TROLL Troll, Antarti    51.73 157  P      P       04 00 09.0  -2.0
      comp=Z,9.2nm,0.2s
SDV   Santo Domingo     52.55  23  LR     LR      04 20 21.4
      comp=Z,544nm,21.5s,baz=229,slow=33
VNDA  Vanda             54.12 195  P      P       04 00 27.5  -1.0
      comp=Z,3.0nm,1.0s,baz=114,slow=8.6,SNR=6.6
VNDA                               LR     LR      04 18 28.6
      comp=Z,329nm,22.0s,baz=118,slow=30
      comp=Z,3.0nm,1.0s
VNDA  Vanda             54.12 195  P      P       04 00 30.4  +1.9
VNDA                               IAmb   IAmb    04 00 49.7
      comp=Z,13nm,1.5s
TAOE  Nuku Hiva Isla    55.66 290  P      P       04 00 32.9  -7.7
MDP   Montagnes des     56.63  44  LR     LR      04 23 04.1
      comp=Z,457nm,20.9s,baz=202,slow=34
PPT   Papeete           56.89 275  LR     LR      04 20 09.9
      comp=Z,127nm,19.5s,baz=136,slow=31
ELIB  Princess Elisa    57.59 160 dP      P       04 00 56.2  +2.5
ELIB                              dPcP    PcP     04 01 46.6  -0.2
RAR   Rarotonga         62.39 265  LR     LR      04 22 17.9
      comp=Z,129nm,19.2s,baz=116,slow=30
SJG   San Juan          62.61  24  LR     LR      04 27 22.4
      comp=Z,266nm,18.5s,baz=216,slow=35
ZAIG  Zacatecas         64.98 346  P      P       04 01 45.2  +0.9
ZAIG                               IAmb   IAmb    04 01 57.5
      comp=Z,8.8nm,1.3s
URZ   Urewera           68.86 237  LR     LR      04 24 07.0
      comp=Z,371nm,21.8s,baz=148,slow=29
RPZ   Rata Peaks        69.26 230  LR     LR      04 24 17.9
      comp=Z,169nm,21.9s,baz=80,slow=29
MAW   Mawson            69.36 169  P      P       04 02 10.7  -0.6
      comp=Z,0.8nm,0.2s,baz=256,slow=2.0,SNR=1.7
MAW                                LR     LR      04 29 18.9
      comp=Z,176nm,21.9s,baz=204,slow=33
      comp=Z,0.8nm,0.2s
MAW   Mawson            69.36 169  P      P       04 02 12.7  +1.4
HPIG                    69.64 344  P      P       04 02 14.5  +0.8
HNDO  Hondo             71.09 350         P       04 02 23.3  +1.0
TX31  Lajitas Ar. Si    71.58 346         P       04 02 25.6  +0.3
TX31                               IAmb   IAmb    04 02 37.9
      comp=Z,6.2nm,1.0s
TXAR  Lajitas Array     71.58 346  P      P       04 02 25.6  +0.2
      comp=Z,2.5nm,0.8s,baz=173,slow=6.7,SNR=24
      comp=Z,2.5nm,0.8s
TXAR  Lajitas Array     71.58 346         P       04 02 25.2  -0.1
SAND  Sanderson         71.92 348         P       04 02 28.8  +1.4
SAND                               IAmb   IAmb    04 02 39.4
      comp=Z,5.5nm,1.0s
JCT   Junction City     72.10 350  P      P       04 02 28.3   0.0
ALPN  Alpine            72.59 346         P       04 02 32.3  +0.9
OZNA  Ozona             72.72 349         P       04 02 32.4  +0.3
BRDY  Brady             72.79 351         P       04 02 32.8  +0.3
TPB01 Permian Basin     73.17 346  IAmb   IAmb    04 02 46.5
      comp=Z,6.3nm,1.0s
MNHN  Monahans          73.38 347         P       04 02 36.3  +0.3
MNHN                               IAmb   IAmb    04 02 48.1
      comp=Z,7.5nm,1.0s
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TMB01 Midkiff           73.60 348  IAmb   IAmb    04 02 48.7
      comp=Z,7.0nm,1.2s
152A  Waverly Hall      73.62   3  IAmb   IAmb    04 02 46.3
      comp=Z,8.2nm,0.9s
SGCY  Sterling City     73.69 349  IAmb   IAmb    04 02 49.6
      comp=Z,9.1nm,0.9s
LRAL  Lakeview Retre    73.92   1         P       04 02 39.3  +0.3
LRAL                               IAmb   IAmb    04 02 57.0
      comp=Z,10nm,1.2s
ABTX  Abilene, Hawle    74.19 350         P       04 02 40.9  +0.2
ABTX                               IAmb   IAmb    04 02 53.0
      comp=Z,8.2nm,0.9s
GOGA  Godfrey           74.43   4  IAmb   IAmb    04 02 50.9
      comp=Z,7.0nm,0.8s
128A  Castleberry Fa    74.59 348  IAmb   IAmb    04 02 55.4
      comp=Z,7.8nm,1.1s
APMT  Aspermont         74.94 350         P       04 02 45.0   0.0
APMT                               IAmb   IAmb    04 02 57.0
      comp=Z,8.6nm,0.8s
HODGE Hodges            75.32   5  IAmb   IAmb    04 02 59.4
      comp=Z,13nm,1.2s
X48A  Hartselle         75.33   1         P       04 02 46.9  -0.2
X48A                               IAmb   IAmb    04 03 04.8
      comp=Z,9.6nm,1.1s
DKNS  Dickens           75.39 349  IAmb   IAmb    04 02 58.1
      comp=Z,5.6nm,1.0s
MIAR  Mount Ida         75.55 356  P      P       04 02 44.8  -3.6
      comp=Z,6.0nm,1.1s
PAULI Pauline           75.94   6  P      P       04 02 50.8  +0.1
PAULI                              IAmb   IAmb    04 03 03.3
      comp=Z,9.2nm,1.0s
MSTX  Muleshoe          75.96 348         P       04 02 51.8  +0.9
TUC   Tucson            75.98 341  P      P       04 02 52.2  +1.1
SWET  Sewanee           76.12   2  IAmb   IAmb    04 03 00.5
      comp=Z,11nm,1.1s
WMOK  Wichita Mounta    76.17 351  P      P       04 02 51.8  -0.3
WHAR  Wooly Hollow      76.22 357         P       04 02 51.5  -0.8
CPCT  Cooper Cave       76.40   3         P       04 02 53.8  +0.5
V48A  Smith Brothers    76.62   2  P      P       04 02 53.6  -0.9
V48A                               IAmb   IAmb    04 03 11.9
      comp=Z,7.2nm,1.1s
TKL   Tuckaleechee C    76.65   4  LR     LR      04 32 19.8
      comp=Z,121nm,19.3s,baz=119,slow=32
V53A  Saluda            76.71   5  IAmb   IAmb    04 03 07.0
      comp=Z,6.2nm,0.9s
FCAR  Ozark Folk Cen    76.82 357  IAmb   IAmb    04 03 20.4
      comp=Z,8.1nm,1.3s
OK052 Battle Ridge R    77.22 353  IAmb   IAmb    04 03 16.1
      comp=Z,8.6nm,0.9s
HHAR  Hobbs             77.29 356  IAmb   IAmb    04 03 09.8
      comp=Z,4.8nm,1.0s
U49A  Red Boiling Sp    77.41   2  P      P       04 02 59.0  +0.1
U38A  Gravette          77.48 355         P       04 02 58.8  -0.5
U38A                               IAmb   IAmb    04 03 07.7
      comp=Z,5.0nm,0.8s
ALQ   Albuquerque       77.56 345  P      P       04 03 00.6  +0.6
ALQ   Albuquerque       77.56 345  P      P       04 03 01.0  +1.0
ALQ                                IAmb   IAmb    04 03 12.6
      comp=Z,4.2nm,1.0s
ANMO  Albuquerque       77.56 345  P      P       04 03 01.0  +1.0
TASM  ASL Pad, Albuq    77.56 345  IAmb   IAmb    04 03 10.2
      comp=Z,3.9nm,1.0s
T42A  Van Buren         77.92 358  IAmb   IAmb    04 03 18.6
      comp=Z,6.5nm,1.1s
T35A  Sooner Cattle     78.11 354  IAmb   IAmb    04 03 15.1
      comp=Z,6.8nm,0.8s
X16A  Lo Mia Camp, P    78.15 341  IAmb   IAmb    04 03 18.1
      comp=Z,6.7nm,1.3s
S51A  Beattyville       78.63   4         P       04 03 07.9  +2.3
S39A  Bolivar           78.66 356  P      P       04 03 06.1  +0.2
S39A                               IAmb   IAmb    04 03 14.6
      comp=Z,5.1nm,0.8s
CCM   Cathedral Cave    78.95 358  P      P       04 03 07.2  -0.2
R50A  Paris             79.23   3  IAmb   IAmb    04 03 26.7
      comp=Z,11nm,1.1s
BLO   Bloomington       80.05   2  P      P       04 03 16.7  +3.3
U15A  North Rim         80.28 341         P       04 03 16.7  +1.6
U15A                               IAmb   IAmb    04 03 24.8
      comp=Z,6.0nm,1.0s
KSU1  Kansas State U    80.28 354  IAmb   IAmb    04 03 33.1
      comp=Z,17nm,1.2s
S22A  4UR Ranch, Cre    80.35 345  IAmb   IAmb    04 03 41.8
      comp=Z,9.6nm,1.3s
P40A  Paris             80.44 357  IAmb   IAmb    04 03 18.5
      comp=Z,14nm,1.4s
KNB   Kanab             80.97 341         P       04 03 19.7  +1.1
KNB                                IAmb   IAmb    04 03 28.8
      comp=Z,7.3nm,1.1s
MSVF  Nonsavu           80.97 254  LR     LR      04 36 25.2
      comp=Z,92nm,18.4s,baz=185,slow=34
PV01  Paradox Valley    81.07 344  P      P       04 03 19.7  +0.5
PV13  Radium Mtn., P    81.14 344  IAmb   IAmb    04 03 45.5
      comp=Z,6.2nm,1.1s
PV02  Paradox Valley    81.17 344  P      P       04 03 20.9  +1.2
PV02                               IAmb   IAmb    04 03 45.7
      comp=Z,12nm,1.1s
PV18  Skein Mesa, Pa    81.24 344         P       04 03 21.2  +1.1
PV18                               IAmb   IAmb    04 03 29.8
      comp=Z,7.0nm,0.9s
PV12  Saucer Basin,     81.29 344  IAmb   IAmb    04 03 46.3
      comp=Z,12nm,1.1s
PV19  Morning Glory     81.32 344  P      P       04 03 21.2  +0.6
PV19                               IAmb   IAmb    04 03 36.5
      comp=Z,8.6nm,1.0s
HMU   Henry Mountain    81.35 342  IAmb   IAmb    04 03 37.8
      comp=Z,12nm,1.2s
PV10  Paradox Valley    81.40 344  P      P       04 03 22.1  +1.1
PV10                               IAmb   IAmb    04 03 36.5
      comp=Z,12nm,1.1s
PV23  Carpenter Ridg    81.46 344  IAmb   IAmb    04 03 38.3
      comp=Z,8.8nm,0.9s
SZCU  Shurtz Canyon     81.58 341  IAmb   IAmb    04 03 32.2
      comp=Z,5.8nm,1.0s
CCUT  Cedar City        81.61 340         P       04 03 23.4  +1.3
CCUT                               IAmb   IAmb    04 03 32.5
      comp=Z,6.5nm,1.0s
Q16A  Castle Valley     82.38 342  P      P       04 03 27.6  +1.5
Q16A                               IAmb   IAmb    04 03 36.1
      comp=Z,7.5nm,1.0s
PSUT  Pine Spring       82.66 340  IAmb   IAmb    04 03 39.2
      comp=Z,5.5nm,1.0s
DSP   Deep Springs      82.71 337  IAmb   IAmb    04 03 37.6
      comp=Z,7.0nm,1.1s
TMUT  Trail Mountain    82.75 343  IAmb   IAmb    04 03 47.1
      comp=Z,9.9nm,1.2s
P17A  Butcher Ranch,    82.81 343  IAmb   IAmb    04 03 44.0
      comp=Z,5.1nm,1.0s
TPH   Tonopah           83.14 338  IAmb   IAmb    04 03 39.9
      comp=Z,6.2nm,1.0s
MPU   Maple Canyon      83.53 342  IAmb   IAmb    04 03 58.7
      comp=Z,7.3nm,1.0s
NV11  Mina Array Sit    83.75 337  IAmb   IAmb    04 03 52.4
      comp=Z,5.2nm,1.1s
NVAR  Mina Array Bea    83.79 337  P      P       04 03 32.8  -0.6
      comp=Z,1.7nm,0.8s,baz=166,slow=6.2,SNR=14
      comp=Z,1.7nm,0.8s
NVAR  Mina Array Bea    83.79 337  P      P       04 03 34.8  +1.4
BSUT  Blindstream Ca    83.84 343  IAmb   IAmb    04 03 50.5
      comp=Z,7.0nm,1.3s
DUG   Dugway, Tooele    83.98 342         P       04 03 36.4  +2.2
CMB   Columbia Colle    84.06 335         P       04 03 36.2  +1.7
CMB                                IAmb   IAmb    04 03 53.0
      comp=Z,7.8nm,1.2s
WAKR  Walker            84.20 336  IAmb   IAmb    04 03 48.9
      comp=Z,5.5nm,1.0s
YERR  Yerington         84.58 336  IAmb   IAmb    04 03 47.3
      comp=Z,3.2nm,0.9s
BGU   Big Grassy Mou    84.72 342  IAmb   IAmb    04 04 03.3
      comp=Z,4.8nm,1.3s
PNTR  Pine Nut          84.78 336  P      P       04 03 39.1  +0.6
PNTR                               IAmb   IAmb    04 03 48.1
      comp=Z,6.1nm,0.9s
ECSD  EROS Data Cent    84.89 354         P       04 03 39.1  +0.5
SPUT  South Promonto    84.95 342  P      P       04 03 40.4  +1.2
AFDM  Forest Hills D    85.08 335  IAmb   IAmb    04 04 05.0
      comp=Z,6.0nm,1.2s
HVU   Hansel Valley     85.48 342  IAmb   IAmb    04 04 00.0
      comp=Z,5.4nm,1.0s
BW06  Boulder Array     85.73 345  IAmb   IAmb    04 04 08.6
      comp=Z,6.6nm,1.3s
PD31  Pinedale Array    85.73 345  IAmb   IAmb    04 04 08.6
      comp=Z,5.8nm,1.2s
PDAR  Pinedale Array    85.73 345  P      P       04 03 43.4  +0.3
      comp=Z,1.2nm,0.8s,baz=145,slow=5.4,SNR=11
      comp=Z,1.2nm,0.8s
PDAR  Pinedale Array    85.73 345         P       04 03 44.5  +1.4
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BEKR  Beckworth         85.73 336  IAmb   IAmb    04 03 52.7
      comp=Z,5.3nm,1.4s
ORV   Oroville          85.80 335  IAmb   IAmb    04 03 50.2
      comp=Z,6.2nm,1.4s
FXWY  Fox Creek         86.86 344  IAmb   IAmb    04 03 57.6
      comp=Z,4.5nm,1.1s
BOSA  Boshof            87.45 126  P      P       04 03 52.0   0.0
      comp=Z,4.0nm,0.9s,baz=198,slow=5.7,SNR=4.0
BOSA                               LR     LR      04 37 26.4
      comp=Z,120nm,18.4s,baz=196,slow=32
      comp=Z,4.0nm,0.9s
BOSA  Boshof            87.45 126  P      P       04 03 52.4  +0.3
HLID  Hailey            87.55 342  IAmb   IAmb    04 04 01.7
      comp=Z,5.2nm,1.0s
YBH   Yreka Blue Hor    88.16 335  LR     LR      04 35 29.8
      comp=Z,92nm,20.7s,baz=130,slow=30
TSUM  Tsumeb            89.09 115  LR     LR      04 37 57.6
      comp=Z,88nm,20.4s,baz=218,slow=32
DBIC  Dimbokro          89.68  81  P      P       04 04 02.7  +0.2
      comp=Z,8.4nm,1.2s,baz=159,slow=16,SNR=1.8
DBIC                               LR     LR      04 43 11.5
      comp=Z,75nm,18.0s,baz=248,slow=35
      comp=Z,8.4nm,1.2s
DBIC  Dimbokro          89.68  81  P      P       04 04 02.1  -0.3
LBTB  Lobatse           90.26 124  LR     LR      04 38 11.3
      comp=Z,148nm,18.4s,baz=221,slow=31
LBTB  Lobatse           90.26 124  P      P       04 04 05.8  +0.5
G08A  Pilot Rock        90.32 339  IAmb   IAmb    04 04 14.7
      comp=Z,5.9nm,1.0s
STKA  Stephens Creek    93.76 221  LR     LR      04 39 45.0
      comp=Z,256nm,18.0s,baz=191,slow=31
LSZ   Lusaka            99.00 119  LR     LR      04 44 18.5
      comp=Z,138nm,19.0s,baz=192,slow=32
HNR   Honiara           99.50 249  LR     LR      04 43 34.6
      comp=Z,32nm,18.3s,baz=204,slow=32
K20K  Telida           116.41 333  PKPdf  PKiKP   04 09 49.3  +2.4
D23K  Nanushuk River   119.00 339  PKPdf  PKiKP   04 09 54.4  +2.8
GERES GERESS Array B   126.81  54  PKP    PKPdf   04 10 06.1  -1.3
      comp=Z,0.5nm,0.2s,baz=316,slow=2.7,SNR=4.5
GERES GERESS Array B   126.81  54         PKPdf   04 10 06.4  -1.0
CLL   Collm            127.34  51 ePKPdf  PKiKP   04 10 12.0  +3.4
CLL                                L      L       04 53 00.0
CLL                                AMS    AMS     05 04 00.0
      comp=Z,100nm,19.5s
NOA   NORSAR Array B   129.51  38  PKP    PKPdf   04 10 11.8  -0.2
      comp=Z,0.7nm,0.9s,baz=256,slow=2.1,SNR=1.5
BRTR  Keskin Array B   136.75  72  PKP    PKPdf   04 10 26.7  +0.2
      comp=Z,0.2nm,0.6s,baz=236,slow=2.6,SNR=1.4
BRTR  Keskin Array B   136.75  72         PKPdf   04 10 27.1  +0.6
MJAR  Matsushiro Arr   143.60 278  PKP    PKPdf   04 10 37.7  -1.1
      comp=Z,0.9nm,0.3s,baz=132,slow=2.6,SNR=1.4
MJAR  Matsushiro Arr   143.60 278         PKPdf   04 10 38.1  -0.7
KBZ   Khabaz           144.56  69  PKP    PKPbc   04 10 39.4  +0.5
      comp=Z,2.5nm,0.8s,baz=291,slow=3.1,SNR=7.4
USRK  Ussuriysk Ar.    150.23 289  PKP    PKPdf   04 10 48.7  -0.9
      comp=Z,3.3nm,0.8s,baz=147,slow=4.5,SNR=4.1
USRK                               PKPbc  PKPbc   04 10 54.6  -0.1
      comp=Z,3.5nm,0.8s,baz=167,slow=2.7,SNR=4.8
KSRS  Korea Array      151.62 274  PKP    PKPdf   04 10 50.4  -1.6
      comp=Z,0.9nm,0.7s,baz=108,slow=2.5,SNR=1.6
KSRS                               PKPbc  PKPbc   04 10 57.9  -0.4
      comp=Z,1.7nm,0.8s,baz=124,slow=3.6,SNR=2.8
CMAR  Chiang Mai Arr   156.39 198  PKP    PKPdf   04 10 57.8  -1.6
      comp=Z,0.8nm,0.3s,baz=141,slow=1.4,SNR=1.3
CMAR  Chiang Mai Arr   156.39 198         PKPdf   04 10 58.2  -1.1
BVAR  Borovoye Array   161.56  43  PKP    PKPdf   04 11 03.9  -0.5
      comp=Z,0.6nm,0.4s,baz=28,slow=10,SNR=1.2
BVAR                               PKPab  PKPab   04 11 48.8  -0.3
      comp=Z,0.5nm,0.4s,baz=328,slow=5.1,SNR=1.9
ZALV  Zalesovo Beam    166.54  17  PKP    PKPdf   04 11 09.1  +0.3
      comp=Z,0.4nm,0.4s,baz=20,slow=4.7,SNR=1.8
KURK  Kurchatov        167.03  39         PKPdf   04 11 09.6  +0.3
KURBB Kurchatov Arra   167.05  39  PKP    PKPdf   04 11 08.7  -0.6
      comp=Z,0.3nm,0.8s,baz=353,slow=2.1,SNR=1.8
SONM  Songino Array    167.43 307  PKPab  PKPab   04 12 15.7  +0.3
      comp=Z,0.7nm,0.8s,baz=64,slow=3.4,SNR=2.3
SONM  Songino Array    167.43 307         PKPab   04 12 15.5  +0.1
MKAR  Makanchi Array   171.41  47  PKPab  PKPab   04 12 32.1  -0.7
      comp=Z,1.4nm,0.9s,baz=318,slow=3.9,SNR=5.0
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*SJA **03** 03:52:17.1±0.6, 21.°16S×68.°95W, h128^{km}±3^{km}, ML3.5, MW3.6*

*GUC **03** 03:52:18.8±0.7, 21.°17S×68.°87W, h117^{km}±5^{km}, ML3.5*

ISC 03 03:52:18.5±1.4, **21.°17S**±0.°03×**68.°99W**±0.°06, **h125**^{km}±10^{km}, **n30**, σ**0.^{s}63**/52, **Chile-Bolivia border region**

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Code  Station Name       Δ°   AZ°    Phase ID          Time      Res
                                    Op     ISC       h  m  s     ISC
PB09  IPOC Station P     0.67 201  eP     Pn      03 52 38.1  -0.3
PB09                               eS     Sn      03 52 53.8  +0.4
PB09                                IAML          03 52 54.3
      comp=Z,855nm,0.4s
PB09  IPOC Station P     0.67 201  eP     Pn      03 52 38.0  -0.3
PB09                               eS     Sn      03 52 52.6  -0.7
PB09                                IAML          03 52 54.4
      comp=E,878nm,0.4s
PB02  IPOC Station P     0.86 260  eP     Pn      03 52 39.9  +0.1
PB02                               eS     Sn      03 52 56.2  +0.3
PB02                                IAML          03 52 56.8
      comp=Z,3µm,0.3s
PB02  IPOC Station P     0.86 260  eP     Pn      03 52 40.1  +0.3
PB02                               eS     Sn      03 52 56.1  +0.2
PB02                                IAML          03 52 57.2
      comp=E,3µm,0.2s
PB07  IPOC Station P     1.00 236  eP     Pn      03 52 41.1  -0.1
PB07                               eS     Sn      03 52 58.9  +0.5
PB07                                IAML          03 52 59.6
      comp=Z,806nm,0.2s
PB07  IPOC Station P     1.00 236  eP     Pn      03 52 41.3  +0.1
PB07                               eS     Sn      03 52 58.2  -0.2
PB07                                IAML          03 52 59.7
      comp=E,1µm,0.2s
PB08  IPOC Station P     1.04 351  eP     Pn      03 52 41.3  -0.5
PB08                               eS     Sn      03 52 59.0  -0.4
PB08                                IAML          03 53 00.2
      comp=Z,485nm,0.2s
PB08  IPOC Station P     1.04 351  eP     Pn      03 52 41.3  -0.5
PB08                                IAML          03 52 59.7
      comp=N,1µm,0.2s
PB03  IPOC Station P     1.13 219  eP     Pn      03 52 42.4   0.0
PB03                               eS     Sn      03 53 00.7  +0.2
PB03                                IAML          03 53 03.6
      comp=Z,828nm,0.2s
PB03  IPOC Station P     1.13 219  eP     Pn      03 52 42.4   0.0
PB03                                IAML          03 53 01.3
      comp=E,787nm,0.2s
TA01  Diego Aracena      1.27 298  eP     Pn      03 52 43.7   0.0
TA01                               eS     Sn      03 53 03.6  +0.8
TA01                                IAML          03 53 05.5
      comp=Z,468nm,0.2s
TA01  Diego Aracena      1.27 298  eP     Pn      03 52 43.7   0.0
TA01                               eS     Sn      03 53 03.1  +0.3
TA01                                IAML          03 53 04.4
      comp=N,1µm,0.3s
TA02  Huaiquique         1.40 310  eP     Pn      03 52 44.9  -0.2
TA02                               eS     Sn      03 53 07.3  +2.0
TA02                                IAML          03 53 11.2
      comp=Z,466nm,0.1s
GO01  Chusmiza           1.51 353  eP     Pn      03 52 46.4  -0.5
GO01                               eS     Sn      03 53 08.3  -0.1
GO01                                IAML          03 53 10.1
      comp=Z,515nm,0.4s
GO01  Chusmiza           1.51 353  eP     Pn      03 52 46.2  -0.7
GO01                               eS     Sn      03 53 07.5  -0.9
GO01                                IAML          03 53 10.6
      comp=N,1µm,0.1s
PB11  IPOC Station P     1.54 336  eP     Pn      03 52 46.4  -0.6
PB11                               eS     Sn      03 53 08.3  -0.1
PB11                                IAML          03 53 10.2
      comp=Z,629nm,0.2s
PB11  IPOC Station P     1.54 336  eP     Pn      03 52 46.3  -0.6
PB11                                IAML          03 53 09.6
      comp=E,1µm,0.2s
PB06  IPOC Station P     1.62 199  eP     Pn      03 52 47.9  +0.1
PB06                               eS     Sn      03 53 11.3  +1.1
PB06                                IAML          03 53 16.4
      comp=Z,270nm,0.3s
PB06  IPOC Station P     1.62 199  eP     Pn      03 52 48.0  +0.1
PB06                                IAML          03 53 12.3
      comp=N,358nm,0.2s
PSGCX Pisagua            1.89 326  eP     Pn      03 52 50.4  -0.7
PSGCX                              eS     Sn      03 53 16.2  +0.3
PSGCX                               IAML          03 53 16.8
      comp=Z,222nm,0.2s
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PSGCX	Pisagua	1.89	326	eP	Pn	03 52 50.2	-0.9
AF01	San Pedro de A	1.92	157	eP	Pn	03 52 52.0	+0.4
AF01				eS	Sn	03 53 16.3	-0.5
AF01				IAML		03 53 32.4	
	comp=Z,237nm,0.4s						
PB05	IPOC Station P	2.02	214	eP	Pn	03 52 52.6	0.0
PB05				eS	Sn	03 53 19.0	+0.3
PB05				IAML		03 53 20.9	
	comp=Z,141nm,0.7s						
PB05	IPOC Station P	2.02	214	eP	Pn	03 52 52.5	0.0
PB05				eS	Sn	03 53 18.2	-0.5
PB12	IPOC Station P	2.84	333	eP	Pn	03 53 01.7	-1.3
PB12				eS	Sn	03 53 36.6	-0.6
PB12				IAML		03 53 46.1	
	comp=Z,132nm,0.3s						
PB16	IPOC Station P	2.86	350	eP	Pn	03 53 03.9	+0.1
PB16				eS	Sn	03 53 39.8	+1.3
PB16				IAML		03 53 42.6	
	comp=Z,73nm,0.3s						
PB16	IPOC Station P	2.86	350	eP	Pn	03 53 04.3	+0.5
PB16				IAML		03 53 42.6	
	comp=E,67nm,0.5s						
PB14	IPOC Station P	3.68	201	eP	Pn	03 53 13.3	-0.9
PB14				eS	Sn	03 53 56.4	-0.9
PB14				IAML		03 54 03.0	
	comp=Z,43nm,0.5s						
HJA	Humahuaca	3.88	122	eP	Pn	03 53 17.2	+0.2
LPAZ	La Paz	4.92	10	eP	Pn	03 53 32.0	+0.9

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*IDC **03** 04:03:53.4±1.5, 1°.14N×126°.35E, h0^{km}, mb4.0/5, mbtmp4.0/6, ML3.5/1, Error ellipse: s-maj=116.4km s-min=19.5km az=68.0*
*DJA **03** 04:03:57.9±0.5, 1°N±3°×12°7E±°, h14^{km}±5^{km}, M3.9/18, mB5.1/1, mb3.9/5, MLv3.9/18, Mw(mB)4.4/1*
*NEIC **03** 04:03:57.9±1.7, 1°.4N±0°.1×126°.77E±0°.08, h35^{km}±2^{km}, mb4.1/12, Error ellipse: s-maj=21.0km s-min=8.0km az=215.0*
ISC 03 04:03:58.1±0.7, **1°.35N**±0°.05×**126°.75E**±0°.05, **h35^{km}, n32, σ1^{s}21**/35, **mb4.1**/10, **Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TNTI	Ternate	0.84	133		Pn	04 04 14.6	+1.0
TNTI				Sn	Sn	04 04 26.0	+1.3
TNTI	Ternate	0.84	133	P	Pn	04 04 14.5	+1.0
TNTI				S	Sn	04 04 26.4	+1.7
TNTI				AML	AML		
GAMI	Galela, Maluku	1.15	65	P	Pn	04 04 19.3	+1.6
MNI	Manado	1.91	273	P	Pn	04 04 28.4	+0.3
MNI				AML	AML		
SANI	Sanana	3.46	193	P	Pn	04 04 50.5	+1.0
GTOI	Gorontalo	3.80	259	P	Pn	04 04 57.4	+3.2
GTOI				AML	AML		
NLAI	Namlea	4.57	176	P	Pn	04 05 05.6	+0.8
NLAI				AML	AML		
DDMP	Don Marcelino,	4.83	348	eP	Pn	04 05 10.3	+1.9
DDMP				eS	Sn	04 06 04.2	+0.9
KRAI	Karang Ratu	4.92	160	P	Pn	04 05 10.4	+0.8
APSI	Ampana	5.57	246	P	Pn	04 05 19.2	+0.7
TOLI2	Tolitoli	5.97	268	Pn	Pn	04 05 25.1	+1.1
MMRI	Maumere	10.89	204	Pn	Pn	04 06 31.8	+0.2
KNRA	Kununurra	17.03	173	Pn	Pn	04 07 53.6	-0.1
FITZ	Fitzroy Crossi	19.36	183	P	P	04 08 19.4	-1.3
	0.1nm,0.3s,baz=7.9,slow=9.4,SNR=1.7						
	1.5nm,0.6s						
FITZ				AML	AML		
FITZ	Fitzroy Crossi	19.36	183	P	P	04 08 20.5	-0.3
WB0	Warramunga Arr	22.29	161	P	P	04 08 51.5	-1.0
WB0				IAmb	IAmb	04 08 53.4	
	comp=Z,8.2nm,0.7s						
WRAB	Tennant Creek	22.43	161	P	P	04 08 53.1	-0.9
WRAB				IAmb	IAmb	04 08 54.6	
	comp=Z,7.3nm,0.6s						
WRA	Warramunga Arr	22.43	161	P	P	04 08 52.4	-1.7
	comp=Z,6.4nm,0.5s,baz=337,slow=10,SNR=61						
	comp=Z,6.4nm,0.5s						
WRA	Warramunga Arr	22.43	161	P	P	04 08 52.0	-2.1
WR8	Warramunga Arr	22.50	161	P	P	04 08 53.7	-1.1
AS31	Alice Springs	25.82	165	P	P	04 09 26.2	-0.1
AS31				IAmb	IAmb	04 09 29.9	
	comp=Z,1.9nm,0.6s						
ASAR	Alice Springs	25.82	165	P	P	04 09 26.4	+0.1
	comp=Z,3.9nm,0.6s,baz=345,slow=11,SNR=29						
	comp=Z,3.9nm,0.6s						
IPM	Ipoh	25.87	277	P	P	04 09 26.9	0.0
MKAR	Makanchi Array	59.52	326	P	P	04 13 58.4	+0.5
	comp=Z,0.4nm,0.3s,baz=136,slow=6.7,SNR=5.6						
	comp=Z,0.4nm,0.3s						
MKAR	Makanchi Array	59.52	326	P	P	04 13 57.9	-0.1
KURBB	Kurchatov Arra	63.75	328	P	P	04 14 26.8	+0.5
	comp=Z,0.5nm,0.3s,baz=127,slow=6.3,SNR=5.8						
	comp=Z,0.5nm,0.3s						
KURK	Kurchatov	63.75	328	P	P	04 14 27.5	+1.2
KURK				IAmb	IAmb	04 14 45.0	
	comp=Z,2.1nm,1.0s						
AB31	Akbulak array	74.00	321	P	P	04 15 29.0	-1.1
AB31				IAmb	IAmb	04 15 29.5	
	comp=Z,2.4nm,1.4s						
ABKAR	Akbulak array	74.00	321	P	P	04 15 28.9	-1.2
SPIA	Saint Paul Isl	74.53	30	P	P	04 15 31.8	-1.2
VNDA	Vanda	81.08	173	P	P	04 16 08.6	-0.5
	comp=Z,0.6nm,0.8s,baz=334,slow=4.7,SNR=1.9						
	comp=Z,0.6nm,0.8s						
VNDA	Vanda	81.08	173	P	P	04 16 08.6	-0.5
VNDA				IAmb	IAmb	04 16 36.7	
	comp=Z,3.4nm,1.4s						

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*IDC **03** 04:15:56.9±0.7, 68°.01N×18°.60W, h0^{km}, mb3.9/12, mbtmp3.9/17, ML2.7/5, MS3.9/6, Error ellipse: s-maj=15.0km s-min=13.5km az=139.0*
*NEIC **03** 04:15:58.5±1.8, 67°.99N±0°.05×18°.6W±0°.2, h10^{km}±1^{km}, mb4.3/14, Error ellipse: s-maj=13.5km s-min=3.3km az=227.0*
*DNK **03** 04:16:09.5±0.4, 69°.61N×17°.88W, h0^{km}±8^{km}, Presumed earthquake*
ISC 03 04:15:58.0±0.5, **68°.03N**±0°.05×**18°.70W**±0°.06, **h10^{km}, n54, σ1^{s}21**/47, **mb4.1**/19, **MS3.9**/8, **Iceland region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SCO	Scoresbysund	2.73	336	Pn	Pn	04 16 41.9	+0.2
SCO	Scoresbysund	2.73	336	i P	Pn	04 16 39.0	-2.7
BORG	Borgarnes	3.46	199	Pn	Pn	04 16 50.7	-1.1
	6.2nm,0.3s,baz=357,slow=5.8,SNR=16						
BORG				Sn	Sn	04 17 31.8	-0.9
	2.6nm,0.3s,baz=74,slow=23,SNR=6.2						
	25nm,0.4s						
BORG				AML	AML		
BORG	Borgarnes	3.46	199		Pn	04 16 50.8	-1.0
SOEG	Soedalen	4.75	278	i P	Pg	04 17 25.8	-3.0
DBG	Daneborg	6.33	356	i P	Pn	04 17 21.8	-9.4
SUMG	Summit	8.05	313	Pn	Pn	04 17 55.3	+0.1
SUMG	Summit	8.05	313	i P	Pn	04 17 56.0	+0.9
NOA	NORSAR Array B	14.51	104	Pn	Pn	04 19 21.8	-1.3
	baz=319,slow=14,SNR=1.4						
	0.7nm,0.9s						
ARCES	ARCESS Array B	15.81	64	Pn	Pn	04 19 39.9	-0.4
	baz=290,slow=13,SNR=4.7						
	14nm,1.3s						
ARCES	ARCESS Array B	15.81	64		Pn	04 19 38.4	-1.9
HFS	Hagfors	16.03	104	Pn	Pn	04 19 44.0	+0.9
	0.1nm,0.3s,baz=282,slow=7.3,SNR=5.9						
	5.9nm,1.1s						
HFS				AML	AML		
FIA1	FINESS Array S	19.80	88	P	Pn	04 20 29.1	-0.5
FINES	FINESS Array B	19.80	88	P	Pn	04 20 28.5	-1.1
	0.2nm,0.3s,baz=321,slow=10,SNR=8.0						
	6.2nm,1.0s						
FINES				AML	AML		
FINES	FINESS Array B	19.80	88	P	Pn	04 20 28.9	-0.8
CLL	Collm	22.75	121	i P	P	04 21 00.9	+1.0
	comp=Z,15nm,1.6s						
CLL				i x	x	04 21 06.8	
CLL				L	L	04 26 00.0	
CLL				AMS	AMS	04 28 00.0	
	comp=N,100nm,24.7s						
CLL				AMS	AMS	04 28 00.0	
	comp=Z,100nm,20.3s						
GERES	GERESS Array B	25.12	123	P	P	04 21 23.4	+0.7
	comp=Z,1.1nm,0.7s,baz=327,slow=9.5,SNR=7.4						
	comp=Z,1.1nm,0.7s						
GERES	GERESS Array B	25.12	123	P	P	04 21 22.5	-0.3
MORC	Moravsky Berou	25.55	117		P	04 21 27.5	+0.9
MORC				IAmb	IAmb	04 21 30.9	
	comp=Z,8.2nm,1.4s						
MORC	Moravsky Berou	25.55	117	eP	P	04 21 28.8	+2.2
DAVOX	Davos/Dischmat	25.82	131	P	P	04 21 28.6	-0.7
	comp=Z,0.5nm,0.3s,baz=344,slow=5.8,SNR=5.0						
	comp=Z,0.5nm,0.3s						
AKASG	Malin Array Be	28.91	102	P	P	04 21 56.6	0.0
	comp=Z,0.8nm,0.7s,baz=328,slow=9.4,SNR=4.6						
	comp=Z,0.8nm,0.7s						
AKASG	Malin Array Be	28.91	102	P	P	04 21 56.8	+0.2
ESDC	Sonseca Array	29.54	157	P	P	04 22 01.3	-1.1
	comp=Z,1.2nm,1.1s,baz=342,slow=7.8,SNR=4.9						
	comp=Z,1.2nm,1.1s						
ESDC	Sonseca Array	29.54	157	P	P	04 22 01.8	-0.6
ESDC				IAmb	IAmb	04 22 06.8	
	comp=Z,9.6nm,1.4s						
ARTI	Arti	35.24	70	LR	LR	04 36 08.1	
	comp=Z,221nm,20.7s,baz=306,slow=34						
MD01	Midelt array s	36.12	160		P	04 23 00.4	+0.4
MD31	MD31	36.12	160		P	04 23 00.1	+0.2
G31M	Satah River	38.05	325		P	04 23 15.8	-0.1
H31M	Peel River	39.01	324		P	04 23 26.5	+2.5
H31M				IAmb	IAmb	04 23 27.3	
	comp=Z,11nm,1.3s						
I30M	Mount Dempster	39.96	324	P	P	04 23 33.5	+1.5
J30M	Hart River	40.50	324	P	P	04 23 37.6	+1.0
J30M				IAmb	IAmb	04 23 44.2	
	comp=Z,6.2nm,1.2s						
K29M	Barlow Dome	41.40	324		P	04 23 45.4	+1.5
K29M				IAmb	IAmb	04 23 49.2	
	comp=Z,4.8nm,1.1s						
F20K	Avaraart Lake	41.90	336	P	P	04 23 48.6	+0.8
F20K				IAmb	IAmb	04 23 51.8	
	comp=Z,5.1nm,1.2s						
BVAR	Borovoye Array	42.10	64	P	P	04 23 49.9	+0.2
	comp=Z,0.5nm,0.3s,baz=100,slow=18,SNR=4.5						
	comp=Z,0.5nm,0.3s						
ILAR	Eielson Array	42.49	330	P	P	04 23 52.7	+0.1
	comp=Z,1.2nm,1.1s,baz=4.4,slow=6.7,SNR=8.7						
	comp=Z,1.2nm,1.1s						
ILAR	Eielson Array	42.49	330	P	P	04 23 54.8	+2.1
DLBC	Dease Lake	44.28	315	LR	LR	04 43 52.2	
	comp=Z,161nm,18.2s,baz=50,slow=38						
ZALV	Zalesovo Beam	45.95	53	LR	LR	04 48 42.7	
	comp=Z,52nm,18.1s,baz=345,slow=43						
KURK	Kurchatov	46.79	60	P	P	04 24 27.5	+0.4
KURK				IAmb	IAmb	04 24 29.0	
	comp=Z,4.2nm,1.2s						
KURBB	Kurchatov Arra	46.84	60	P	P	04 24 27.4	-0.1
	comp=Z,2.6nm,1.2s,baz=1.0,slow=5.7,SNR=6.9						
	comp=Z,2.6nm,1.2s						
MKAR	Makanchi Array	51.40	60	P	P	04 25 02.9	+0.4
	comp=Z,3.5nm,1.2s,baz=4.2,slow=5.0,SNR=8.0						
	comp=Z,3.5nm,1.2s						
MKAR	Makanchi Array	51.40	60		P	04 25 03.4	+0.9
PDAR	Pinedale Array	51.49	290	P	P	04 25 04.0	+0.5
	comp=Z,1.2nm,0.9s,baz=65,slow=8.4,SNR=8.0						
	comp=Z,1.2nm,0.9s						
PDAR	Pinedale Array	51.49	290	P	P	04 25 03.9	+0.5
TXAR	Lajitas Array	61.29	277	P	P	04 26 15.5	+2.2
	comp=Z,0.4nm,0.9s,baz=40,slow=6.6,SNR=4.7						
	comp=Z,0.4nm,0.9s						
TXAR	Lajitas Array	61.29	277	P	P	04 26 15.0	+1.7
APG	El Apazote	69.38	259	LR	LR	04 58 02.1	
	comp=Z,4.8nm,18.6s,baz=240,slow=36						
MJAR	Matsushiro Arr	74.31	19	P	P	04 27 35.8	+0.7
	comp=Z,0.8nm,0.3s,baz=345,slow=9.1,SNR=4.3						
	comp=Z,0.8nm,0.3s						
MJAR	Matsushiro Arr	74.31	19	P	P	04 27 35.3	+0.2
MJAR				IAmb	IAmb	04 27 38.5	
	comp=Z,3.2nm,1.1s						
CMAR	Chiang Mai Arr	82.77	58	P	P	04 28 22.2	+0.2
	comp=Z,1.1nm,0.3s,baz=322,slow=5.9,SNR=7.5						
	comp=Z,1.1nm,0.3s						
PALK	Pallekele	86.82	79	LR	LR	05 12 30.2	
	comp=Z,100nm,18.1s,baz=194,slow=39						
TSUM	Tsumeb	90.93	146	LR	LR	05 10 25.5	
	comp=Z,47nm,19.8s,baz=334,slow=36						
LBTB	Lobatse	98.35	140	LR	LR	05 18 30.2	
	comp=Z,33nm,18.7s,baz=213,slow=38						

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*IDC **03** 04:17:44.5±4.1, 68°.44N×19°.70W, h0^{km}, mb3.7/3, mbtmp3.8/5, ML3.5/2, MS3.9/5, Error ellipse: s-maj=84.6km s-min=24.6km az=124.0*
*REY **03** 04:17:47.0, 68°.13N×17°.84W, h10^{km}*
ISC 03 04:17:49.4±1.6, **67°.92N**±0°.09×**18°.2W**±0°.1, **h10^{km}, n32, σ1^{s}23**/29, **MS3.8**/5, **Iceland region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IGRI	Grimsey	1.39	177	P	Pn	04 18 13.1	-1.7
IGRI				S	Sg	04 18 33.5	-0.5
ILEI	Leirhofn	1.66	155	P	Pn	04 18 17.0	-1.6
IHED	Heoinshofoi	1.88	169	P	Pn	04 18 20.1	-1.5
IHLA	Hella	1.99	182	P	Pn	04 18 22.2	-0.8
IGIL	Gilhagi	1.99	158	P	Pn	04 18 21.5	-1.6
IGRA	Granastaoir	2.03	173	P	Pn	04 18 22.4	-1.2
IDIM	Dimmadalss	2.03	165	P	Pn	04 18 22.2	-1.5
ISKI	Skildingahlsh	2.11	167	P	Pn	04 18 23.5	-1.3
IGHA	Grjothals	2.17	163	P	Pn	04 18 24.5	-1.2
IGHA				S	Sn	04 18 53.1	+0.5
IKVO	Krokottuvotn	2.28	166	P	Pn	04 18 26.1	-1.0
IREN	Reynihlio	2.34	167	P	Pn	04 18 26.9	-1.0
IGRS	Grimsstaoir	2.44	159	P	Pn	04 18 28.6	-0.7
IMEL	Melhnausar	2.44	165	P	Pn	04 18 28.5	-0.8
ISVA	Svartarkot	2.62	171	P	Pn	04 18 31.4	-0.4
IASK	Askja	2.95	167	P	Pn	04 18 36.3	-0.1
IMKO	Mokollar	3.05	165	P	Pn	04 18 37.3	-0.4
THOR	Thorvaldshraun	3.06	168	P	Pn	04 18 37.9	0.0
IADA	Aoalbol	3.10	159	P	Pn	04 18 38.0	-0.4
IDYN	Dyngjuhals	3.16	173	P	Pn	04 18 39.7	+0.4
IKRE	Kreppuhraun	3.24	166	P	Pn	04 18 40.4	+0.1
IKIS	Kista	3.27	175	P	Pn	04 18 41.8	+1.0
IVSH	V-Sauoahnukur	3.28	161	P	Pn	04 18 40.7	-0.2
BORG	Borgarnes	3.42	203	Pn	Pn	04 18 42.5	-0.3
	10nm,0.3s,baz=345,slow=6.5,SNR=2.2						
	33nm,0.5s						
BORG				AML	AML		
ARCES	ARCESS Array B	15.69	64	Pn	Pn	04 21 31.6	+1.4
	0.1nm,0.3s,baz=283,slow=12,SNR=4.0						
	2.1nm,0.9s						
ARCES				AML	AML		
FINES	FINESS Array B	19.62	88	P	Pn	04 22 20.3	+1.3
	4.6nm,0.8s,baz=312,slow=10,SNR=9.3						
	4.6nm,0.8s						
GERES	GERESS Array B	24.91	124	P	P	04 23 15.1	+2.8
	0.8nm,0.4s,baz=317,slow=8.3,SNR=7.0						
	0.8nm,0.4s						
MLR	Muntele Rosu	31.92	112	LR	LR	04 37 10.4	
	comp=Z,302nm,18.3s,baz=354,slow=36						
INK	Inuvik	36.93	326	LR	LR	04 41 31.0	
	comp=Z,113nm,18.4s,baz=48,slow=39						
BRTR	Keskin Array B	39.70	108	LR	LR	04 43 15.3	
	comp=Z,126nm,19.7s,baz=296,slow=38						
KURBB	Kurchatov Arra	46.74	60	P	P	04 26 15.8	-2.3
	0.4nm,0.6s,baz=328,slow=7.2,SNR=1.4						
	0.4nm,0.6s						
PDAR	Pinedale Array	51.70	290	LR	LR	04 49 34.2	
	comp=Z,132nm,18.1s,baz=48,slow=37						
CMIG	Matias Romero	69.28	264	LR	LR	05 01 19.3	
	comp=Z,45nm,18.8s,baz=64,slow=38						

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*IDC **03** 04:18:33.9±0.6, 68°.06N×19°.06W, h0^{km}, mb3.8/20, mbtmp3.9/25, ML3.3/5, MS3.6/4, Error ellipse: s-maj=13.1km s-min=12.9km az=45.0*
*NEIC **03** 04:18:35±0.6, 68°.02N±0°.06×19°.1W±0°.2, h10^{km}±1^{km}, mb4.3/8, Error ellipse: s-maj=16.3km s-min=6.9km az=298.0*
ISC 03 04:18:35.0±0.5, **68°.02N**±0°.06×**19°.04W**±0°.07, **h10^{km}, n49, σ0^{s}77**/50, **mb3.9**/24, **Iceland region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BORG	Borgarnes	3.41	197	Pn	Pn	04 19 27.5	-0.6
	2.4nm,0.3s,baz=74,slow=10,SNR=1.4						
BORG				Sn	Sn	04 20 08.9	+0.3
	1.2nm,0.3s,baz=248,slow=18,SNR=1.2						
BORG				LR	LR	04 20 34.5	
	comp=Z,310nm,18.2s,baz=340,slow=35						
	23nm,0.3s						
BORG				AML	AML		
BORG	Borgarnes	3.41	197		Pn	04 19 27.9	-0.3
BORG					Sn	04 20 09.2	+0.6
SPITS	Spitsbergen Ar	14.12	29	Pn	Pn	04 21 55.3	+0.5
	baz=222,slow=14						
	40nm,1.2s						
ARCES	ARCESS Array B	15.93	64	Pn	Pn	04 22 17.6	-1.3
	0.1nm,0.3s,baz=276,slow=12,SNR=5.1						
ARCES				LR	LR	04 27 01.1	
	comp=Z,225nm,19.7s,baz=275,slow=32						
	6.8nm,1.2s						
ARCES				AML	AML		
ARCES	ARCESS Array B	15.93	64	Pn	Pn	04 22 19.3	+0.5
DSB	Dublin	16.01	151	Pn	Pn	04 22 19.8	-0.2
HFS	Hagfors	16.15	103	Pn	Pn	04 22 22.8	+1.1
	0.1nm,0.3s,baz=286,slow=10,SNR=4.4						
	5.7nm,0.9s						
HFS				AML	AML		
FINES	FINESS Array B	19.93	87	P	P	04 23 06.3	-0.2
	0.4nm,0.3s,baz=311,slow=11,SNR=10						
FINES				LR	LR	04 29 59.2	
	comp=Z,413nm,19.8s,baz=278,slow=34						
	10nm,0.9s						
FINES				AML	AML		
FINES	FINESS Array B	19.93	87	P	P	04 23 06.9	+0.4
CLL	Collm	22.85	121	i P	P	04 23 37.4	-0.6
	comp=Z,16nm,1.6s						
CLL				i x	x	04 23 44.2	
CLL				L	L	04 29 00.0	
CLL				AMS	AMS	04 31 00.0	
	comp=N,100nm,23.6s						
CLL				AMS	AMS	04 31 00.0	
	comp=Z,200nm,18.7s						
GERES	GERESS Array B	25.22	123	P	P	04 24 01.7	+1.1
	comp=Z,0.4nm,0.2s,baz=317,slow=9.2,SNR=5.8						
	comp=Z,0.4nm,0.2s						
GERES	GERESS Array B	25.22	123	P	P	04 24 00.6	-0.1
VRAC	Vranov	25.75	119	P	P	04 24 06.5	+1.1
	comp=Z,1.4nm,0.5s,baz=341,slow=8.9,SNR=3.5						
	comp=Z,1.4nm,0.5s						
DAVOX	Davos/Dischmat	25.91	130	P	P	04 24 08.6	+1.5
	comp=Z,0.7nm,0.3s,baz=334,slow=5.9,SNR=4.2						
	comp=Z,0.7nm,0.3s						
AKASG	Malin Array Be	29.03	102	P	P	04 24 33.4	-1.4
	comp=Z,0.4nm,0.5s,baz=323,slow=9.0,SNR=4.6						
	comp=Z,0.4nm,0.5s						
ESDC	Sonseca Array	29.58	156	P	P	04 24 41.9	+2.1
	comp=Z,1.4nm,1.1s,baz=351,slow=8.9,SNR=5.5						
	comp=Z,1.4nm,1.1s						
ESDC	Sonseca Array	29.58	156	P	P	04 24 39.6	-0.2
MD01	Midelt array s	36.15	159	P	P	04 25 37.0	-0.4
YKA	Yellowknife Ar	36.53	309	P	P	04 25 40.2	+0.2
	comp=Z,0.5nm,0.8s,baz=39,slow=7.3,SNR=1.7						
	comp=Z,0.5nm,0.8s						
YKA	Yellowknife Ar	36.53	309	P	P	04 25 39.8	-0.3
KBZ	Khabaz	39.96	95	P	P	04 26 09.1	+0.1
	comp=Z,3.0nm,1.0s,baz=330,slow=5.5,SNR=4.9						
	comp=Z,3.0nm,1.0s						
BRTR	Keskin Array B	40.03	108	P	P	04 26 09.8	-0.1
	comp=Z,0.3nm,0.3s,baz=285,slow=5.7,SNR=2.7						
	comp=Z,0.3nm,0.3s						
BRTR	Keskin Array B	40.03	108	P	P	04 26 08.0	-1.9
J30M	Hart River	40.44	324	P	P	04 26 13.1	+0.1
J30M				IAmb	IAmb	04 26 18.5	
	comp=Z,9.0nm,1.4s						
F20K	Avaraart Lake	41.86	336	P	P	04 26 24.9	+0.4
F20K				IAmb	IAmb	04 26 42.7	
	comp=Z,10nm,1.4s						
BVAR	Borovoye Array	42.22	64	P	P	04 26 27.2	-0.5
	comp=Z,0.6nm,0.4s,baz=339,slow=6.8,SNR=2.0						
	comp=Z,0.6nm,0.4s						
ILAR	Eielson Array	42.44	330	P	P	04 26 29.0	-0.2
	comp=Z,1.4nm,1.2s,baz=16,slow=7.7,SNR=5.6						
	comp=Z,1.4nm,1.2s						
ILAR	Eielson Array	42.44	330	P	P	04 26 29.0	-0.2
BCAR	Beaver Creek A	42.94	326	P	P	04 26 34.2	+0.8
ZALV	Zalesovo Beam	46.06	53	P	P	04 26 59.6	+1.2
	comp=Z,0.6nm,0.3s,baz=342,slow=7.9,SNR=2.1						
	comp=Z,0.6nm,0.3s						
ZALV	Zalesovo Beam	46.06	53	P	P	04 26 58.5	+0.2
KURK	Kurchatov	46.91	60	P	P	04 27 05.2	+0.2
KURK				IAmb	IAmb	04 27 09.7	
	comp=Z,2.9nm,1.0s						
KURBB	Kurchatov Arra	46.96	60	P	P	04 27 05.9	+0.5
	comp=Z,1.9nm,1.0s,baz=327,slow=7.2,SNR=7.0						
	comp=Z,1.9nm,1.0s						
PDAR	Pinedale Array	51.37	290	P	P	04 27 40.8	+1.2
	comp=Z,0.4nm,0.6s,baz=35,slow=5.4,SNR=5.5						
	comp=Z,0.4nm,0.6s						
PDAR	Pinedale Array	51.37	290	P	P	04 27 39.1	-0.5
MAKZ	Makanchi	51.40	60		P	04 27 39.6	+0.1
MAKZ				IAmb	IAmb	04 27 41.1	
	comp=Z,5.2nm,1.2s						
MKAR	Makanchi Array	51.52	59	P	P	04 27 40.7	+0.3
	comp=Z,3.3nm,1.1s,baz=318,slow=4.9,SNR=9.9						
	comp=Z,3.3nm,1.1s						
TORD	Torodi Ar. Bea	56.47	156	P	P	04 28 17.3	+0.5
	comp=Z,1.5nm,1.1s,baz=349,slow=6.6,SNR=4.0						
	comp=Z,1.5nm,1.1s						
SONM	Songino Array	57.49	41	P	P	04 28 23.8	0.0
	comp=Z,0.2nm,0.4s,baz=331,slow=5.6,SNR=1.5						
	comp=Z,0.2nm,0.4s						
SONM	Songino Array	57.49	41	P	P	04 28 23.8	0.0
NVAR	Mina Array Bea	58.27	294	P	P	04 28 30.2	+0.6
	comp=Z,0.4nm,1.0s,baz=355,slow=4.2,SNR=1.9						
	comp=Z,0.4nm,1.0s						
NVAR	Mina Array Bea	58.27	294	P	P	04 28 29.1	-0.5
SHEM	Shemya Is, Ala	59.17	351	LR	LR	04 52 20.9	
	comp=Z,65nm,21.6s,baz=152,slow=34						
TXAR	Lajitas Array	61.16	277	P	P	04 28 48.5	-1.0
	comp=Z,0.3nm,0.9s,baz=48,slow=5.6,SNR=4.7						
	comp=Z,0.3nm,0.9s						
TXAR	Lajitas Array	61.16	277	P	P	04 28 48.9	-0.5
MJAR	Matsushiro Arr	74.36	19	P	P	04 30 12.2	-0.3
	comp=Z,1.0nm,0.3s,baz=347,slow=4.9,SNR=4.1						
	comp=Z,1.0nm,0.3s						
MJAR	Matsushiro Arr	74.36	19	P	P	04 30 12.5	+0.1
CMAR	Chiang Mai Arr	82.89	58	P	P	04 31 00.2	+0.6
	comp=Z,0.7nm,0.3s,baz=323,slow=5.4,SNR=7.5						
	comp=Z,0.7nm,0.3s						
CMAR	Chiang Mai Arr	82.89	58	P	P	04 30 59.0	-0.6

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*AFAD **03** 04:18:57.8, 35°.26N×27°.69E, h26^{km}±3^{km}, MW3.8*
*ISK **03** 04:18:58.3, 35°.26N×27°.81E, h9^{km}, ML3.7/17*
*THE **03** 04:19:01.7, 35°N±6°×2°8E±°, h9^{km}±16^{km}, M3.4/22, MLh3.4/22*
*ATH **03** 04:19:01.8, 35°.47N×27°.69E, h9^{km}±3^{km}, ML3.5/6, Latitude uncertainty: 3 km; Longitude uncertainty: 2 km*
*IDC **03** 04:19:02.2±1.2, 35°.30N×27°.83E, h44^{km}±15^{km}, mb3.6/7, mbtmp3.7/15, ML3.2/6, MS3.7/3, Error ellipse: s-maj=19.6km s-min=9.0km az=2.0*
ISC 03 04:18:58.4±1.2, **35°.29N**±0°.04×**27°.87E**±0°.03, **h12^{km}**±8^{km}, **n98, σ1^{s}28**/120, **mb3.7**/6, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KARP	Karpathos	0.63	294	P	Pg	04 19 10.1	-0.7
KARP				S	Sg	04 19 18.0	-1.1
KARP				AML	AML		
KARP	Karpathos	0.63	294	Pg	Pg	04 19 10.4	-0.3
KARP				Sg	Sg	04 19 19.1	0.0
KARP				AML	AML		
KARP	Karpathos	0.63	294	P	Pg	04 19 10.4	-0.3
KARP				S	Sg	04 19 16.9	-2.2
KARP				AML	AML		
ARG	Arkhangelos	0.95	13	P	Pb	04 19 17.5	+0.6
ARG				S	Sn	04 19 31.4	+0.3
ARG				AML	AML		
ARG	Arkhangelos	0.95	13	Pg	Pb	04 19 17.8	+0.9
ARG				Sg	Sn	04 19 32.1	+1.0
ARG				AML	AML		
ARG	Arkhangelos	0.95	13	P	Pb	04 19 17.7	+0.9
ARG				S	Sb	04 19 28.9	-0.6
ARG				AML	AML		
RDI1	Rhodes Town Ha	1.20	14	P	Pn	04 19 22.7	+1.7
ZKR	Zakros	1.36	263	P	Pn	04 19 23.7	+0.5
ZKR	Zakros	1.36	263	Pn	Pn	04 19 23.2	-0.1
ZKR				AML	AML		
ZKR	Zakros	1.36	263	P	Pn	04 19 23.8	+0.5
ZKR				S	Sb	04 19 42.2	+1.0
ZKR				AML	AML		
YAZI	Mula-Dat§a-	1.43	347	P	Pn	04 19 24.6	+0.4
YAZI				S	Sn	04 19 44.0	+1.0
SIT2	Siteia	1.44	267	P	Pb	04 19 26.6	+1.4
DAT	Datca	1.46	351	Pn	Pn	04 19 25.4	+0.7

DAT				AML	AML		
DATC	**Datca-Mugla**	**1.48**	**354**	Pn	**Pb**	**04 19 26.1**	**+0.2**
DATC				Sn	**Sg**	**04 19 47.1**	**+1.1**
TURN	**Turunc**	**1.52**	**12**	Pn	**Pb**	**04 19 26.9**	**+0.4**
TURN				Sn	**Sg**	**04 19 47.6**	**+0.4**
TURN				AML	AML		
TURN	**Turunc**	**1.52**	**12**	P	**Pg**	**04 19 27.3**	**-0.3**
TURN				S	**Sg**	**04 19 47.7**	**+0.4**
IZZE	**Mula-Seydike**	**1.59**	**43**	P	**Pn**	**04 19 27.8**	**+1.3**
IZZE				S	**Sg**	**04 19 49.4**	**-0.3**
DALY	**Dalyan (Mula)**	**1.66**	**22**	Pn	**Pb**	**04 19 28.9**	**+0.1**
DALY	**Dalyan (Mula)**	**1.66**	**22**	P	**Pg**	**04 19 30.2**	**0.0**
DALY				S	**Sg**	**04 19 52.1**	**+0.4**
AKAS	**Kas**	**1.70**	**56**	Pn	**Pn**	**04 19 29.8**	**+1.8**
AKAS				AML	AML		
AGNA	**Agios Nikolaos**	**1.76**	**267**	P	**Pn**	**04 19 31.2**	**+2.5**
SABU	**Mula-Dalaman**	**1.77**	**30**	P	**Pb**	**04 19 30.8**	**-0.1**
SABU				S	**Sg**	**04 19 56.7**	**+1.2**
BDRM	**Kayabasi**	**1.81**	**349**	P	**Pn**	**04 19 29.9**	**+0.5**
BDRM				S	**Sn**	**04 19 52.0**	**-0.3**
BODT	**Bodrum**	**1.83**	**346**	P	**Pn**	**04 19 29.7**	**0.0**
BODT				S	**Sn**	**04 19 52.3**	**-0.5**
BODT				AML	AML		
BODT	**Bodrum**	**1.83**	**346**	Pn	**Pn**	**04 19 30.1**	**+0.4**
BODT				AML	AML		
NPS	**Neapolis**	**1.84**	**270**	P	**Pn**	**04 19 32.0**	**+2.1**
NPS				AML	AML		
NPS	**Neapolis**	**1.84**	**270**	P	**Pn**	**04 19 32.3**	**+2.4**
NPS				AML	AML		
YER	**Yerkesik**	**1.88**	**10**	P	**Pn**	**04 19 31.3**	**+0.9**
YER				S	**Sg**	**04 19 56.7**	**-2.0**
YER				AML	AML		
YER	**Yerkesik**	**1.88**	**10**	Pn	**Pn**	**04 19 31.9**	**+1.5**
YER				AML	AML		
MLSB	**Milas**	**2.01**	**358**	Pn	**Pn**	**04 19 33.2**	**+1.0**
MLSB				AML	AML		
CAME	**Cameli-Denizli**	**2.02**	**35**	Pn	**Pn**	**04 19 34.4**	**+1.9**
CAME				AML	AML		
KNIK	**Mula-Seydike**	**2.08**	**41**	P	**Pn**	**04 19 35.1**	**+1.8**
CAEL	**Denizli, Camel**	**2.18**	**32**	P	**Pb**	**04 19 37.5**	**-0.4**
ELL	**Elmali**	**2.21**	**48**	Pn	**Pn**	**04 19 37.2**	**+2.2**
THERA	**Ancient Thera,**	**2.22**	**300**	P	**Pn**	**04 19 35.4**	**+0.3**
THERA				AML	AML		
THERA	**Ancient Thera,**	**2.22**	**300**	P	**Pn**	**04 19 35.8**	**+0.7**
DDIM	**Aydin, Didim**	**2.22**	**347**	P	**Pn**	**04 19 35.9**	**+0.8**
THR8	**Santorini-Mono**	**2.24**	**301**	P	**Pn**	**04 19 36.2**	**+0.9**
THR6	**Thira Island,**	**2.27**	**299**	P	**Pn**	**04 19 37.0**	**+1.2**
THR3	**Thira Island,**	**2.29**	**300**	P	**Pn**	**04 19 36.4**	**+0.4**
THR3	**Thira Island,**	**2.29**	**300**	P	**Pn**	**04 19 36.7**	**+0.7**
SNT5	**Nea Kammeni, S**	**2.30**	**300**	P	**Pn**	**04 19 36.9**	**+0.8**
SNT5				AML	AML		
SNT5	**Nea Kammeni, S**	**2.30**	**300**	P	**Pn**	**04 19 37.0**	**+0.9**
CMBO	**Columbo, Santo**	**2.32**	**301**	P	**Pn**	**04 19 36.9**	**+0.5**
CMBO				S	**Sn**	**04 20 04.5**	**-0.5**
CMBO				AML	AML		
CMBO	**Columbo, Santo**	**2.32**	**301**	P	**Pn**	**04 19 37.1**	**+0.7**
THR5	**Thira Island,**	**2.34**	**300**	P	**Pn**	**04 19 37.4**	**+0.7**
SAP3	**Santorini-Thir**	**2.35**	**300**	P	**Pn**	**04 19 37.4**	**+0.6**
AYDN	**Tasoluk**	**2.37**	**0**	P	**Pn**	**04 19 38.2**	**+1.0**
AYDN				S	**Sb**	**04 20 09.4**	**-0.9**
IDI	**Anoyia**	**2.44**	**271**	P	**Pn**	**04 19 39.7**	**+1.6**
	18nm,0.3s,baz=71,slow=16,SNR=27						
IDI				S	**Sn**	**04 20 08.2**	**+0.4**
	94nm,0.5s,baz=328,slow=11,SNR=8.8						
IDI	**Anoyia**	**2.44**	**271**	P	**Pn**	**04 19 39.4**	**+1.4**
IDI				AML	AML		
IDI	**Anoyia**	**2.44**	**271**	Pn	**Pn**	**04 19 39.3**	**+1.2**
IDI				AML	AML		
IDI	**Anoyia**	**2.44**	**271**	P	**Pn**	**04 19 40.1**	**+2.0**
GCAM	**G?zelcaml?**	**2.46**	**348**	Pn	**Pn**	**04 19 39.6**	**+1.2**
GCAM				AML	AML		
GCAM	**G?zelcaml?**	**2.46**	**348**	P	**Pn**	**04 19 39.5**	**+1.2**
APMY	**Acipayam-Deniz**	**2.47**	**28**	Pn	**Pn**	**04 19 40.3**	**+1.7**
APMY				AML	AML		
DNIZ	**Denizli-Tavas-**	**2.52**	**22**	P	**Pn**	**04 19 41.8**	**+2.5**
SIVA	**Sivas**	**2.52**	**265**	P	**Pn**	**04 19 41.3**	**+2.2**
SIVA				AML	AML		
SIVA	**Sivas**	**2.52**	**265**	P	**Pn**	**04 19 41.7**	**+2.6**
ESEN	**Aydn-Nazilli**	**2.54**	**9**	P	**Pn**	**04 19 41.8**	**+2.4**
ESEN				S	**Sb**	**04 20 15.9**	**+0.8**
AYDB	**Zeytinkoy-Aydi**	**2.66**	**0**	Pn	**Pn**	**04 19 42.2**	**+1.0**
AYDB				AML	AML		
NAZL	**Nazilli-Aydin**	**2.69**	**7**	Pn	**Pn**	**04 19 43.3**	**+1.7**
NAZL				AML	AML		
IZMR	**zmir-demi**	**2.84**	**1**	P	**Pn**	**04 19 44.3**	**+0.7**
IZMR				S	**Sn**	**04 20 20.3**	**+2.5**
SULTU	**Buldan**	**2.85**	**14**	P	**Pb**	**04 19 48.9**	**-0.5**
DGB	**zmir**	**2.87**	**344**	P	**Pn**	**04 19 43.4**	**-0.6**
VAM	**Vamos**	**3.00**	**273**	P	**Pn**	**04 19 46.9**	**+1.1**
VAM				AML	AML		
GVD	**Gavdhos**	**3.13**	**263**	Pn	**Pn**	**04 19 49.2**	**+1.6**
GVD				AML	AML		
MHLO	**Agia Marina, M**	**3.14**	**297**	P	**Pn**	**04 19 50.4**	**+2.7**
MHLO				AML	AML		
GVDS	**Gavdos**	**3.15**	**263**	P	**Pn**	**04 19 49.8**	**+1.9**
GVDS				AML	AML		
IMMV	**Iera Moni Meta**	**3.18**	**274**	P	**Pn**	**04 19 50.4**	**+2.1**
IMMV				AML	AML		
IMMV	**Iera Moni Meta**	**3.18**	**274**	Pn	**Pn**	**04 19 49.8**	**+1.5**
IMMV				AML	AML		
CHOS	**Chios island**	**3.42**	**335**	P	**Pn**	**04 19 51.9**	**+0.2**
KNDR	**Palaiochora Ch**	**3.47**	**270**	P	**Pn**	**04 19 53.6**	**+1.3**
KNDR				AML	AML		
ANKY	**Antikythira Is**	**3.77**	**280**	P	**Pn**	**04 19 56.9**	**+0.6**
KARY	**Karystos**	**3.89**	**316**	P	**Pn**	**04 19 58.6**	**+0.6**
KARY				AML	AML		
KTHA	**Kythira Island**	**4.03**	**285**	P	**Pn**	**04 20 00.3**	**+0.4**
KTHA				AML	AML		
DION	**Dionisos Attik**	**4.21**	**313**	P	**Pn**	**04 20 03.6**	**+1.1**
DION				AML	AML		
VLI	**Veliai**	**4.24**	**291**	P	**Pn**	**04 20 03.2**	**+0.3**
VLI				AML	AML		
KYMI	**Kymi, Euboea I**	**4.50**	**319**	P	**Pn**	**04 20 07.4**	**+0.9**
KYMI				AML	AML		
AOS	**Alonnisos**	**5.01**	**322**	P	**Pn**	**04 20 14.3**	**+0.8**
AOS				AML	AML		
LIA	**Limnos Island**	**5.07**	**336**	P	**Pn**	**04 20 15.1**	**+0.9**
GUR	**Goura**	**5.17**	**302**	P	**Pn**	**04 20 17.1**	**+1.3**
BRTR	**Keskin Array B**	**6.38**	**44**	P	**Pn**	**04 20 34.4**	**+2.1**
	0.2nm,0.3s,baz=216,slow=14,SNR=7.9						
BRTR				S	**Sn**	**04 21 43.1**	**-2.0**
	1.3nm,0.6s,baz=216,slow=27,SNR=6.0						
	1.0nm,0.6s						
BRTR				AML	AML		
MMAI	**Mount Meron Ar**	**6.65**	**108**	P	**Pn**	**04 20 37.3**	**+1.4**
	2.1nm,0.3s,baz=298,slow=14,SNR=4.1						
MMAI				S	**Sn**	**04 21 52.3**	**+0.6**
	2.3nm,0.3s,baz=284,slow=31,SNR=2.1						
ASF	**Jabal al Asfar**	**8.14**	**110**	P	**Pn**	**04 20 57.8**	**+1.3**
	0.3nm,0.3s,baz=219,slow=15,SNR=3.2						
	1.3nm,0.4s						
ASF				AML	AML		
EIL	**Elat**	**8.20**	**131**	P	**Pn**	**04 20 57.3**	**+0.2**
	1.3nm,0.3s,baz=149,slow=10,SNR=4.9						
EIL				S	**Sn**	**04 22 25.7**	**-4.0**
	8.2nm,0.6s,baz=64,slow=15,SNR=4.7						
	2.8nm,0.3s						
EIL				AML	AML		
MLR	**Muntele Rosu**	**10.30**	**352**	LR	LR	04 26 17.3	
	comp=Z,110nm,18.6s,baz=117,slow=42						
KEST	**Kesra**	**15.09**	**277**	P	**Pn**	**04 22 32.0**	**+0.5**
	0.1nm,0.3s,baz=56,slow=18,SNR=1.6						
	2.4nm,0.8s						
KEST				AML	AML		
GERES	**GERESS Array B**	**17.11**	**327**	P	**Pn**	**04 22 57.7**	**+0.3**
	baz=140,slow=13,SNR=4.2						
	0.4nm,0.3s						
DAVOX	**Davos/Dischmat**	**17.73**	**316**	P	**Pn**	**04 23 04.8**	**-0.4**
	0.1nm,0.3s,baz=154,slow=12,SNR=3.9						
	0.6nm,0.3s						
DAVOX				AML	AML		
ESDC	**Sonseca Array**	**25.56**	**289**	P	**P**	**04 24 25.1**	**-2.2**
	0.8nm,0.6s,baz=80,slow=9.5,SNR=13						
	0.8nm,0.6s						
FINES	**FINESS Array B**	**26.20**	**358**	P	**P**	**04 24 31.2**	**-1.5**
	3.8nm,1.0s,baz=181,slow=9.7,SNR=2.2						
	3.8nm,1.0s						
HFS	**Hagfors**	**26.51**	**344**	P	**P**	**04 24 34.8**	**-0.7**
	1.7nm,0.7s,baz=150,slow=9.9,SNR=2.0						
	1.7nm,0.7s						
TORD	**Torodi Ar. Bea**	**32.31**	**234**	P	**P**	**04 25 27.3**	**-0.1**
	1.5nm,0.5s,baz=34,slow=8.0,SNR=23						
	1.5nm,0.5s						
KURBB	**Kurchatov Arra**	**39.32**	**51**	P	**P**	**04 26 28.2**	**+1.0**
	0.3nm,0.5s,baz=273,slow=8.7,SNR=2.5						
	0.3nm,0.5s						
DBIC	**Dimbokro**	**41.41**	**234**	P	**P**	**04 26 44.3**	**-0.6**
	3.9nm,0.9s,baz=110,slow=14,SNR=2.1						
	3.9nm,0.9s						
MKAR	**Makanchi Array**	**41.85**	**57**	P	**P**	**04 26 48.9**	**+0.6**
	0.2nm,0.4s,baz=269,slow=9.7,SNR=3.7						
	0.2nm,0.4s						
SFJD	**Kangerlussuaq**	**53.63**	**331**	LR	LR	04 53 43.3	
	comp=Z,95nm,18.6s,baz=202,slow=39						
KLR	**Kul'dur**	**72.21**	**42**	LR	LR	05 09 28.8	
	comp=Z,110nm,19.1s,baz=92,slow=42						

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*SJA **03** 04:23:11.2±0.8, 27°.85S×71°.57W, h10^{km}±4^{km}, ML3.7, MW3.3*

*GUC **03** 04:23:16.5±0.7, 27°.95S×71°.29W, h26^{km}±3^{km}, ML3.6*

ISC 03 04:23:14.0±1.6, 27°.88S±0°.03×71°.42W±0°.07, h9^{km}±10^{km}, n29, σ2ˢ.03/46, 1C, Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	**Llanos de Chal**	**0.44**	**136**	*e*P	**Pg**	**04 23 22.9**	**+0.2**
AC04	**Llanos de Chal**	**0.44**	**136**	*e*P	**Pg**	**04 23 23.3**	**+0.7**
AC04				*e*S	**Sg**	**04 23 27.9**	**-0.6**
AC04				IAML		04 23 28.3	
	comp=E,31µm,0.1s						
AC06	**Mina Casimiro**	**1.08**	**61**	*e*P	**Pb**	**04 23 33.7**	**-1.2**
AC06				IAML		04 23 52.2	
	comp=E,1µm,0.2s						
GO03	**Copiapo**	**1.09**	**75**	*e*P	**Pb**	**04 23 34.1**	**-1.0**
GO03				*e*S	**Sn**	**04 23 51.4**	**+0.6**
GO03				IAML		04 23 51.5	
	comp=Z,1µm,0.4s						
GO03	**Copiapo**	**1.09**	**75**	*e*P	**Pb**	**04 23 33.9**	**-1.2**
LCO	**Las Campanas**	**1.29**	**151**	*e*P	**Pn**	**04 23 37.4**	**-1.1**
LCO				*e*S	**Sb**	**04 23 53.3**	**-2.1**
LCO				*e*S	**Sn**	**04 23 53.7**	**-2.3**
LCO				IAML		04 23 54.8	
	comp=Z,3µm,0.2s						
LCO	**Las Campanas**	**1.29**	**151**	*e*P	**Pn**	**04 23 37.0**	**-1.4**
LCO				*e*S	**Sb**	**04 23 52.5**	**-2.9**
AC05	**El Transito**	**1.39**	**133**	*e*P	**Pn**	**04 23 38.8**	**-0.9**
AC05				*e*S	**Sn**	**04 23 58.1**	**-0.1**
AC05	**El Transito**	**1.39**	**133**	*e*P	**Pn**	**04 23 38.6**	**-1.0**
AC01	**Pan de Azucar**	**1.88**	**23**	*e*P	**Pn**	**04 23 46.2**	**-0.1**
AC01				*e*S	**Sn**	**04 24 08.5**	**-1.6**
AC01	**Pan de Azucar**	**1.88**	**23**⇑	*e*P	**Pn**	**04 23 46.1**	**-0.1**
AC02	**Maricunga**	**2.29**	**63**	*e*P	**Pn**	**04 23 54.1**	**+1.7**
AC02				*e*S	**Sn**	**04 24 23.2**	**+2.2**
AC02				IAML		04 24 26.6	
	comp=Z,461nm,0.5s						
AC02	**Maricunga**	**2.29**	**63**	*e*P	**Pn**	**04 23 54.2**	**+1.7**
AC02				IAML		04 24 27.5	
	comp=N,742nm,0.2s						
GO04	**Tololo Observa**	**2.34**	**167**	*e*P	**Pn**	**04 23 53.3**	**+0.3**
GO04				*e*S	**Sb**	**04 24 24.0**	**-1.7**
GO04				IAML		04 24 31.9	
	comp=Z,580nm,0.3s						
GO04	**Tololo Observa**	**2.34**	**167**	*e*P	**Pn**	**04 23 53.2**	**+0.3**
GO04				IAML		04 24 29.2	
	comp=N,1µm,0.4s						
CO01	**Juntas del Tor**	**2.39**	**151**	*e*P	**Pn**	**04 23 54.8**	**+1.2**
CO01				*e*S	**Sn**	**04 24 24.1**	**+1.0**
CO01				IAML		04 24 28.2	
	comp=Z,176nm,0.1s						
CO01	**Juntas del Tor**	**2.39**	**151**	*e*P	**Pn**	**04 23 54.7**	**+1.2**
CO01				*e*S	**Sn**	**04 24 23.3**	**+0.2**
AROD	**Rodeo**	**2.84**	**144**	*e*P	**Pn**	**04 24 02.7**	**+2.8**
AROD				*e*S	**Sb**	**04 24 38.8**	**-1.4**
VCA	**Vinchina**	**2.96**	**107**	*e*P	**Pn**	**04 24 03.5**	**+2.2**
VCA				*e*S	**Sb**	**04 24 42.5**	**-0.9**
VCA				IAML		04 24 52.2	
	comp=Z,238nm,0.6s						
ACDV	**Cuesta del Vie**	**3.04**	**139**	*e*P	**Pn**	**04 24 05.6**	**+3.1**
ACDV				*e*S	**Sg**	**04 24 54.0**	**+2.2**
CO02	**Combarbal**	**3.33**	**174**	*e*P	**Pn**	**04 24 06.2**	**-0.1**
CO02				*e*S	**Sg**	**04 25 01.5**	**+0.6**
CO02				IAML		04 25 04.0	
	comp=Z,211nm,0.3s						
PB14	**IPOC Station P**	**3.37**	**16**	*e*P	**Pn**	**04 24 06.9**	**-0.2**
PB14				*e*S	**Sb**	**04 24 56.5**	**+1.1**
PB14				IAML		04 25 06.4	
	comp=Z,91nm,0.4s						
PB14	**IPOC Station P**	**3.37**	**16**	IAML		04 25 07.1	
	comp=N,55nm,0.5s						
TINO	**Tinogasta**	**3.41**	**94**	*e*P	**Pn**	**04 24 09.2**	**+1.7**
TINO				IAML		04 25 01.9	
	comp=Z,90nm,0.4s						
ACLC	**CERRO LA CRUZ**	**4.22**	**112**	*e*P	**Pn**	**04 24 15.0**	**-3.6**
ACLC				*e*P	Pb	04 24 20.8	-7.7
ACLC				*e*S	**Sb**	**04 25 16.2**	**-3.4**
ACLC				IAML		04 25 20.0	
	comp=Z,42nm,0.5s						
RTLL	**Cerro Villicun**	**4.29**	**144**	*e*P	**Pn**	**04 24 22.4**	**+3.0**
RTLL				*e*S	**Sn**	**04 25 13.5**	**+3.9**
RTLL				IAML		04 25 33.1	
	comp=Z,81nm,0.8s						
RTLS	**Leoncito**	**4.32**	**155**	*e*P	**Pn**	**04 24 23.7**	**+3.6**
RTLS				*e*S	**Sn**	**04 25 15.0**	**+4.3**
RTLS				IAML		04 25 32.6	
	comp=Z,136nm,0.4s						
CFA	**Coronel Fontan**	**4.63**	**144**	*e*P	Pn	04 24 16.7	-7.5
CFA				*e*S	**Sb**	**04 25 28.2**	**-3.0**
CFA				IAML		04 25 36.7	
	comp=Z,45nm,0.3s						
PB05	**IPOC Station P**	**5.13**	**13**	*e*P	Pn	04 24 15.0	-16
PB05				*e*P	Pb	04 24 15.3	-29

IDC 03 04:27:30.9±9.2, 28°.71N×80°.08E, h0^{km}, mb3.5/3, mbtmp3.4/4, ML3.4/1, MS3.8/4, Error ellipse: s-maj=367.3km s-min=31.5km az=72.0, Nepal-India border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	**Makanchi Array**	**18.13**	**5**	P	Pn	04 31 43.1	-1.1
	0.1nm,0.3s,baz=192,slow=13,SNR=5.0						
	0.3nm,0.7s						
MKAR				AML	AML		
KURBB	**Kurchatov Arra**	**21.91**	**357**	P	P	04 32 25.1	-0.5
	0.5nm,0.3s,baz=179,slow=10,SNR=4.2						
	0.5nm,0.3s						
ZALV	**Zalesovo Beam**	**25.45**	**7**	P	P	04 33 01.5	+1.1
	0.8nm,0.5s,baz=183,slow=13,SNR=2.2						
	0.8nm,0.5s						
ASAJ	**Asahikawa**	**51.43**	**55**	LR	LR	04 59 57.2	
	comp=Z,90nm,18.4s,baz=129,slow=38						
VRAC	**Vranov**	**51.83**	**312**	LR	LR	05 02 23.6	
	comp=Z,69nm,20.7s,baz=236,slow=40						
HFS	**Hagfors**	**53.85**	**325**	LR	LR	05 01 25.4	
	comp=Z,97nm,18.5s,baz=246,slow=38						
SPITS	**Spitsbergen Ar**	**56.78**	**347**	LR	LR	05 06 52.2	
	comp=Z,102nm,18.3s,baz=292,slow=42						
WRA	**Warramunga Arr**	**71.30**	**126**	P	P	04 38 52.5	-0.1
	0.8nm,1.2s,baz=315,slow=6.2,SNR=2.6						
	0.8nm,1.2s						

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*WEL **03** 04:37:34.9±0.7, 40°S±4°×17°9E±°, h33^{km}, M3.0/18, ML3.0/18, MLv3.0/18, Error ellipse: s-maj=6.3km s-min=4.9km az=108.9, confirmed*

*NOU **03** 04:37:36.5, 39°.81S×178°.19E, h74^{km}, MLv3.6/13, Off E. Coast of N. Island, N.Z.*

ISC 03 04:37:32.8±1.3, 39°.86S±0°.04×178°.60E±0°.05, h53^{km}±31^{km}, n83, σ1ˢ.62/91, Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MHGZ	**Mahia Peninsul**	**0.89**	**322**	P	**Pn**	**04 37 49.1**	**0.0**
MHGZ				S	**Sn**	**04 38 00.2**	**-0.9**
MHGZ				AML	AML		
MHGZ				AML	AML		
PRGZ	**Paritu Road**	**1.09**	**329**	P	**Pn**	**04 37 51.8**	**0.0**
PRGZ				AML	AML		
PRGZ				AML	AML		
KNZ	**Kokohu**	**1.10**	**319**	P	**Pn**	**04 37 52.0**	**+0.1**
KNZ				S	**Sn**	**04 38 04.5**	**-1.6**
KNZ				AML	AML		
KNZ				AML	AML		
CKHZ	**Cape Kidnapper**	**1.19**	**279**	P	**Pn**	**04 37 54.7**	**+1.6**
CKHZ				S	**Sn**	**04 38 08.7**	**+0.3**
CKHZ				AML	AML		
WHHZ	**Waihua**	**1.32**	**306**	P	**Pn**	**04 37 55.5**	**+0.7**
WHHZ				AML	AML		
WHHZ				AML	AML		
RIGZ	**Rimuhau**	**1.32**	**330**	P	**Pn**	**04 37 55.7**	**+0.7**
RIGZ				S	**Sn**	**04 38 10.7**	**-0.9**
RIGZ				AML	AML		
RIGZ				AML	AML		
KAHZ	**Kahuranaki**	**1.33**	**272**	P	**Pn**	**04 37 57.1**	**+2.0**
KAHZ				AML	AML		
KAHZ				AML	AML		
PWZ	**Pawanui**	**1.35**	**262**	S	**Sn**	**04 38 12.6**	**+0.5**
PXZ	**Pawanui**	**1.35**	**262**	P	**Pn**	**04 37 56.3**	**+1.0**
PXZ				S	**Sn**	**04 38 12.4**	**+0.3**
PXZ				AML	AML		
ARHZ	**Aropaoanui**	**1.38**	**295**	P	**Pn**	**04 37 57.5**	**+1.9**
ARHZ				S	**Sn**	**04 38 12.8**	**-0.1**
ARHZ				AML	AML		
ARHZ				AML	AML		
RAHZ	**Arahi**	**1.51**	**308**	P	**Pn**	**04 37 58.4**	**+0.9**
RAHZ				AML	AML		
RAHZ				AML	AML		
MCHZ	**McNeill Hill**	**1.53**	**285**	P	**Pn**	**04 37 59.9**	**+2.1**
MCHZ				S	**Sn**	**04 38 17.7**	**+1.2**
MCHZ				AML	AML		
MCHZ				AML	AML		
TKGZ	**Te Karaka**	**1.53**	**337**	P	**Pn**	**04 37 58.2**	**+0.4**
TKGZ				S	**Sn**	**04 38 14.7**	**-1.9**
TKGZ				AML	AML		
TKGZ				AML	AML		
PRHZ	**Porangahau**	**1.56**	**254**	P	**Pn**	**04 37 58.9**	**+0.7**
PRHZ				AML	AML		
PRHZ				AML	AML		
NMHZ	**Naumai**	**1.58**	**298**	P	**Pn**	**04 38 00.3**	**+1.7**
NMHZ				AML	AML		
NMHZ				AML	AML		
WPHZ	**Waipukurau**	**1.67**	**262**	P	**Pn**	**04 38 01.1**	**+1.3**
WPHZ				AML	AML		
WPHZ				AML	AML		
MTHZ	**Maungataniwha**	**1.69**	**306**	P	**Pn**	**04 38 00.9**	**+0.8**
MTHZ				AML	AML		
MTHZ				AML	AML		
KRHZ	**Kereru**	**1.73**	**276**	P	**Pn**	**04 38 02.3**	**+1.7**
KRHZ				AML	AML		
KRHZ				AML	AML		
ANWZ	**Angora Road**	**1.74**	**249**	P	**Pn**	**04 38 01.3**	**+0.7**
ANWZ				AML	AML		
ANWZ				AML	AML		
MWZ	**Matawai**	**1.74**	**331**	P	**Pn**	**04 38 01.2**	**+0.5**
MWZ				AML	AML		
MWZ				AML	AML		
KWHZ	**Kaweka Forest**	**1.74**	**284**	P	**Pn**	**04 38 02.4**	**+1.7**
KWHZ				AML	AML		
KWHZ				AML	AML		
RTZ	**Ruatahuna**	**1.77**	**314**	P	**Pn**	**04 38 02.4**	**+1.3**
RTZ				AML	AML		
RTZ				AML	AML		
BKZ	**Black Stump Fm**	**1.77**	**292**	P	**Pn**	**04 38 02.5**	**+1.4**
BKZ	**Black Stump Fm**	**1.77**	**292**	S	**Sn**	**04 38 21.0**	**-1.6**
PNHZ	**Pukenui**	**1.85**	**268**	P	**Pn**	**04 38 02.9**	**+0.8**
DVHZ	**Dannevirke**	**1.92**	**256**	P	**Pn**	**04 38 03.8**	**+0.7**
URZ	**Urewera**	**1.98**	**324**	P	**Pn**	**04 38 04.4**	**+0.6**
URZ	**Urewera**	**1.98**	**324**	S	**Sn**	**04 38 26.0**	**-1.4**
URZ	**Urewera**	**1.98**	**324**	P	**Pn**	**04 38 04.6**	**+0.8**
BFZ	**Birch Farm**	**1.98**	**245**	P	**Pn**	**04 38 03.9**	**0.0**
BFZ	**Birch Farm**	**1.98**	**245**	S	**Sn**	**04 38 26.2**	**-1.4**
BFZ	**Birch Farm**	**1.98**	**245**	P	**Pn**	**04 38 04.2**	**+0.3**
BHHZ	**Black Hill Sta**	**1.99**	**280**	P	**Pn**	**04 38 05.8**	**+1.6**
RUGZ	**Raukumara Rang**	**2.02**	**339**	P	**Pn**	**04 38 04.7**	**+0.1**
PKGZ	**Pakihiroa**	**2.03**	**348**	P	**Pn**	**04 38 04.7**	**+0.1**
TSZ	**Takapari Road**	**2.04**	**264**	P	**Pn**	**04 38 05.8**	**+1.0**
WMGZ	**Waiomatatini S**	**2.04**	**356**	P	**Pn**	**04 38 05.3**	**+0.5**
WMGZ				AML	AML		
WMGZ				AML	AML		
PRWZ	**Pori Road**	**2.13**	**250**	P	**Pn**	**04 38 06.9**	**+0.9**
HAZ	**Te Kaha**	**2.19**	**343**	P	**Pn**	**04 38 07.2**	**+0.4**
POWZ	**Post Office Ro**	**2.24**	**255**	P	**Pn**	**04 38 09.1**	**+1.7**
MOVZ	**Moawhango**	**2.25**	**281**	P	**Pn**	**04 38 10.0**	**+2.4**
TIWZ	**Tintock**	**2.27**	**245**	P	**Pn**	**04 38 09.2**	**+1.3**
ETVZ	**East Tongariro**	**2.35**	**287**	P	**Pn**	**04 38 11.6**	**+2.5**
TUVZ	**Tukino**	**2.35**	**284**	P	**Pn**	**04 38 11.9**	**+2.7**
TMVZ	**Te Maari**	**2.36**	**287**	P	**Pn**	**04 38 11.8**	**+2.5**
OTVZ	**Oturere**	**2.38**	**286**	P	**Pn**	**04 38 11.8**	**+2.4**
WNVZ	**Wahianoa**	**2.38**	**282**	P	**Pn**	**04 38 12.0**	**+2.4**
SNVZ	**South Ngauruho**	**2.39**	**285**	P	**Pn**	**04 38 12.1**	**+2.5**
WHVZ	**Whangaehu Hut**	**2.40**	**283**	P	**Pn**	**04 38 12.2**	**+2.3**
NGZ	**Ngauruhoe**	**2.42**	**285**	P	**Pn**	**04 38 12.5**	**+2.4**
MAVZ	**Matarangi**	**2.42**	**283**	P	**Pn**	**04 38 12.5**	**+2.2**
TRVZ	**Turoa**	**2.43**	**282**	P	**Pn**	**04 38 12.5**	**+2.3**
FWVZ	**Far West T-bar**	**2.43**	**283**	P	**Pn**	**04 38 12.6**	**+2.2**
WTVZ	**West Tongariro**	**2.45**	**287**	P	**Pn**	**04 38 13.0**	**+2.6**
MRZ	**Mangatainoka R**	**2.45**	**250**	P	**Pn**	**04 38 10.5**	**+0.2**
COVZ	**Chateau Observ**	**2.46**	**285**	P	**Pn**	**04 38 12.8**	**+2.3**
TWVZ	**Taurewa**	**2.57**	**287**	P	**Pn**	**04 38 13.9**	**+1.8**
HOWZ	**Holdsworth Sta**	**2.58**	**245**	P	**Pn**	**04 38 12.0**	**0.0**
MTW	**Mount Morrison**	**2.70**	**240**	P	**Pn**	**04 38 16.7**	**+3.0**
MTW				AML	AML		
MTW				AML	AML		
WAZ	**Wanganui**	**2.79**	**271**	P	**Pn**	**04 38 18.4**	**+3.4**
OGWZ	**Otaki Gorge**	**2.79**	**249**	P	**Pn**	**04 38 15.3**	**+0.3**
CAW	**Cannon Point**	**2.97**	**244**	P	**Pn**	**04 38 17.6**	**+0.2**
MSWZ	**Moikau Station**	**2.99**	**238**	P	**Pn**	**04 38 17.0**	**-0.7**
KIW	**Kapiti Island**	**2.99**	**249**	P	**Pn**	**04 38 18.2**	**+0.5**
SNZO	**South Karori**	**3.30**	**243**	P	**Pn**	**04 38 23.6**	**+1.6**
SNZO	**South Karori**	**3.30**	**243**	S	**Sn**	**04 38 58.0**	**-2.0**
PREZ	**Palmer Road**	**3.47**	**277**	P	**Pn**	**04 38 28.1**	**+3.7**
PKE	**Pukeiti**	**3.63**	**279**	P	**Pn**	**04 38 29.7**	**+3.2**
TUWZ	**Tuamarina**	**3.88**	**245**	P	**Pn**	**04 38 29.8**	**0.0**
BSWZ	**Blackbirch Sta**	**4.04**	**241**	P	**Pn**	**04 38 31.2**	**-0.9**
TKNZ	**Takaka Hill**	**4.46**	**253**	P	**Pn**	**04 38 38.7**	**+0.7**
KHZ	**Kahutara**	**4.60**	**235**	P	**Pn**	**04 38 39.6**	**-0.1**
KHZ	**Kahutara**	**4.60**	**235**	S	**Sn**	**04 39 29.4**	**-2.4**
KHZ	**Kahutara**	**4.60**	**235**	P	**Pn**	**04 38 39.0**	**-0.7**
MRNZ	**Matariki Terra**	**4.71**	**249**	P	**Pn**	**04 38 42.2**	**+1.0**
QRZ	**Quartz Range**	**4.74**	**256**	P	**Pn**	**04 38 42.3**	**+0.6**
QRZ	**Quartz Range**	**4.74**	**256**	S	**Sn**	**04 39 32.9**	**-2.5**
QRZ	**Quartz Range**	**4.74**	**256**	P	**Pn**	**04 38 41.7**	**0.0**
CTZ	**Chatham Island**	**5.27**	**139**	P	Pn	04 38 56.3	+7.4
CTZ	**Chatham Island**	**5.27**	**139**	P	**Pn**	**04 38 52.6**	**+3.6**
CTZ				S	**Sn**	**04 39 47.2**	**-1.1**
CTZ				AML	AML		
CTZ				AML	AML		
DSZ	**Denniston Nort**	**5.49**	**248**	P	**Pn**	**04 38 51.2**	**-0.9**
LTZ	**Lake Taylor**	**5.59**	**236**	P	**Pn**	**04 38 53.0**	**-0.4**
MQZ	**McQueen's Vall**	**5.88**	**227**	P	**Pn**	**04 38 56.4**	**-0.8**

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*TAP **03** 04:53:02.9, 24°.10N×122°.99E, h38^{km}, ML3.1, D*

*JMA **03** 04:53:03.0±0.1, 24°N±2°×122°.9E±0°.6, h55^{km}±2^{km}, MV1.6/10, NW OFF ISHIGAKIJIMA IS*

ISC 03 04:53:02.9±1.1, 24°.01N±0°.05×122°.99E±0°.03, h28^{km}±11^{km}, n44, σ1ˢ.07/75, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JYNG	**Yonagunijimaku**	**0.44**	**355**	*e*P	**Pb**	**04 53 12.0**	**-0.3**
JYNG				*e*S	**Sb**	**04 53 18.4**	**-0.2**
YOJ	**Yonaguni jima**	**0.45**	**3**	P	**Pb**	**04 53 12.2**	**-0.2**
YOJ				S	**Sb**	**04 53 18.7**	**-0.2**
YOJ	**Yonaguni jima**	**0.45**	**3**	*e*P	**Pb**	**04 53 12.2**	**-0.2**
YOJ				*e*S	**Sb**	**04 53 18.6**	**-0.3**
EOS4	**EOS4**	**0.62**	**280**	*e*P	**Pn**	**04 53 16.7**	**+1.1**
EOS3	**EOS3**	**0.67**	**294**	P	**Pb**	**04 53 17.0**	**+1.0**
EOS3				S	**Sn**	**04 53 27.8**	**+1.8**
HATJ	**Hateruma jima**	**0.75**	**86**	*e*P	**Pb**	**04 53 18.4**	**+1.0**
IRIF	**Iriomote-Funau**	**0.75**	**65**	*e*P	**Pb**	**04 53 17.2**	**-0.2**
IRIF				*e*S	**Sb**	**04 53 28.0**	**+0.7**
EOS2	**EOS2**	**0.80**	**301**	*e*P	**Pb**	**04 53 18.7**	**+0.5**
EOS2				*e*S	**Sn**	**04 53 31.4**	**+2.1**
JKRS	**Kuro-shima**	**0.96**	**76**	*e*P	**Pn**	**04 53 21.1**	**+0.5**
JIJ	**Ishigaki jima**	**1.11**	**71**	*e*P	**Pn**	**04 53 22.2**	**-0.5**
NACB	**Ninganchiao**	**1.28**	**277**	P	**Pn**	**04 53 24.4**	**-0.7**
NACB				S	**Sn**	**04 53 40.1**	**-1.2**
NDS	**Dongshan**	**1.31**	**298**	*e*S	**Sn**	**04 53 42.3**	**+0.2**
SHUL	**Shoufeng**	**1.32**	**261**	P	**Pn**	**04 53 24.9**	**-0.7**
SHUL				*e*S	**Sn**	**04 53 42.2**	**-0.1**
ETLH	**Xiulin Townshi**	**1.39**	**278**	P	**Pn**	**04 53 25.9**	**-0.7**
ETLH				S	**Sn**	**04 53 42.4**	**-1.7**

TIPB	Shuangxi	1.43	312	P	Pn	04 53 26.2	-0.9
TIPB				S	Sn	04 53 42.9	-2.0
LATG	Datong	1.43	292	P	Pn	04 53 28.2	+1.0
LATG				S	Sn	04 53 44.5	-0.7
LXIB	Xiulin Townshi	1.44	271	eP	Pn	04 53 26.8	-0.5
LXIB				S	Sn	04 53 43.8	-1.7
FUSB	Fushanzhiwuyua	1.48	300	eP	Pn	04 53 28.0	+0.2
FUSB				eS	Sn	04 53 46.6	+0.3
WARBT	Fenglin Townsh	1.50	259	P	Pn	04 53 26.8	-1.2
WARBT				S	Sn	04 53 45.3	-1.3
HGSD	Ruisui	1.52	250	eP	Pn	04 53 27.5	-0.8
HGSD				S	Sn	04 53 45.3	-2.0
NWLT	Wulai	1.55	300	eP	Pn	04 53 29.0	+0.2
NWLT				eS	Sn	04 53 47.9	-0.2
WHF	Hehuan Shan	1.58	275	eP	Pn	04 53 29.1	-0.4
EHYH	Wanrong	1.59	251	P	Pn	04 53 28.8	-0.5
EHYH				S	Sn	04 53 48.8	-0.2
EHY	Hungye	1.61	252	P	Pn	04 53 29.0	-0.5
EHY				S	Sn	04 53 49.1	-0.3
YHNB	Yeheng	1.61	294	iP	Pn	04 53 29.5	-0.1
YHNB				S	Sn	04 53 48.6	-0.9
FUSS	Fushou	1.61	279	eP	Pn	04 53 29.5	-0.3
FUSS				S	Sn	04 53 48.7	-1.0
OWD	Renai	1.66	268	P	Pn	04 53 30.0	-0.4
OWD				eS	Sn	04 53 49.6	-1.2
YULB	Yu-li	1.67	249	iP	Pn	04 53 30.0	-0.4
YULB				S	Sn	04 53 50.3	-0.6
TWT	Tachien	1.67	279	eP	Pn	04 53 30.3	-0.2
CHKH	Chenggong	1.67	241	eS	Sn	04 53 48.9	-2.1
TWF1	Yuli	1.68	247	P	Pn	04 53 30.3	-0.3
TWF1				S	Sn	04 53 49.9	-1.4
TDCB	Techi	1.69	279	eP	Pn	04 53 30.6	-0.1
WUSB	Renai	1.71	270	P	Pn	04 53 31.1	+0.1
WUSB				S	Sn	04 53 51.8	-0.3
FULB	Fuli	1.75	243	eS	Sn	04 53 51.6	-1.3
NFF	Wufeng Townshi	1.81	290	eS	Sn	04 53 54.3	-0.2
EDH	Donghe	1.86	237	P	Pn	04 53 31.9	-1.1
EDH				S	Sn	04 53 53.2	-2.3
SSLB	Suanglung	1.88	264	eP	Pn	04 53 31.8	-1.4
SSLB				eS	Sn	04 53 55.3	-0.7
SMLT	Sun Moon Lake	1.92	267	eP	Pn	04 53 34.3	+0.4
SMLT				eS	Sn	04 53 56.3	-0.8
WHYT	Xinyi Township	1.98	261	eP	Pn	04 53 35.2	+0.6
ALS	Alishan	2.06	256	eP	Pn	04 53 36.6	+0.6
ALS				eS	Sn	04 54 00.9	-0.1
CHN5	Tsauling	2.16	259	eS	Sn	04 54 04.1	+1.1
TPUB	Ta-pu	2.28	252	eP	Pn	04 53 40.1	+1.4
TPUB				eS	Sn	04 54 08.2	+2.3
WTP	Ta-pu	2.31	251	eP	Pn	04 53 41.0	+1.8
WTP				eS	Sn	04 54 07.1	+0.4
TWK	Hsinying	2.41	253	eP	Pn	04 53 42.7	+2.1
TWK				eS	Sn	04 54 11.6	+2.4

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*UCR **03** 05:05:17.7±0.7, 8°.33N×83°.00W, h7^{km}±2^{km}, MW3.5, Presumed earthquake*

*UPA **03** 05:05:17.9±1.4, 8°.33N×82°.95W, h10^{km}±3^{km}, MW3.3, Fault plane solution: NP1:ϕ_s105.00000°, δ64.00000°, λ38.00000°., Presumed earthquake*

ISC 03 05:05:17.6±0.9**, 8°.32N**±0°.03×**82°.98W**±0°.02**, h17**^{km}±6^{km}**,**
n75, σ0^{s}75/94**, 2C-7D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTPM	Petroterminale	0.15	138	⇑iP	Pg	05 05 21.9	+0.2
PTPM				eS	Sg	05 05 24.6	0.0
PTPA	Petro Terminal	0.16	137	eP	Pb	05 05 21.9	-0.2
PTPA				eS	Sg	05 05 26.2	+1.4
NELY	Ciudad Neily	0.33	6	eP	Pg	05 05 24.6	0.0
NELY				eS	Sb	05 05 30.7	+0.6
NELY	Ciudad Neily	0.33	6	⇓iP	Pg	05 05 24.6	0.0
NELY				eS	Sb	05 05 30.9	+0.8
FITO	Golfito	0.35	331	eP	Pg	05 05 23.9	-1.0
FITO				eS	Sg	05 05 29.0	-0.9
PIRO	Carate, Puerto	0.36	284	eP	Pg	05 05 24.5	-0.7
PIRO	Carate, Puerto	0.36	284	eP	Pg	05 05 24.8	-0.3
JIME	Puerto Jimenez	0.40	303	eP	Pg	05 05 25.8	-0.1
MLIR3	Monte Lirio, C	0.50	18	⇓iP	Pb	05 05 28.2	+0.2
MLIR3				eS	Sb	05 05 35.1	+0.1
VITO	San Vito	0.50	1	eP	Pg	05 05 27.8	+0.2
VITO	San Vito	0.50	1	eP	Pg	05 05 27.9	+0.2
VITO				eS	Sb	05 05 36.5	+1.6
DVD	David	0.54	77	eP	Pg	05 05 28.5	+0.1
DVD				eS	Sb	05 05 36.0	+0.1
SCLRA	Santa Clara, W	0.55	21	eP	Pb	05 05 28.9	+0.1
SCLRA	Santa Clara, W	0.55	21	⇓eP	Pb	05 05 29.0	+0.1
BRU2	Volcan	0.55	31	eP	Pg	05 05 28.8	+0.2
BRU2	Volcan	0.55	31	⇓iP	Pg	05 05 28.9	+0.2
BRU2				eS	Sb	05 05 36.9	+0.3
CLLRA	Cordillera,	0.56	41	eP	Pb	05 05 29.1	+0.1
CLLRA	Cordillera,	0.56	41	iP	Pb	05 05 29.1	+0.1
CLLRA				eS	Sn	05 05 38.3	-1.5
LOMA3	Las Lomas, Chi	0.59	79	eP	Pg	05 05 29.4	0.0
LOMA3				eS	Sb	05 05 38.3	+0.7
PTAR3	Potrerillos Ar	0.61	52	eP	Pb	05 05 30.1	+0.3
CHIR3	Chiriqui UPA,	0.65	83	eP	Pg	05 05 30.6	+0.2
BGUAL	Bijagual, Pana	0.67	73	⇓iP	Pb	05 05 30.6	-0.2
BGUAL				eS	Sg	05 05 40.0	+0.3
BQTLY	Boquete Panama	0.68	50	eP	Pb	05 05 30.6	-0.3
BQTLY	Boquete Panama	0.68	50	⇓iP	Pb	05 05 30.7	-0.3
BQSF3	Alto Boquete,	0.69	52	iP	Pb	05 05 30.8	-0.3
BQSF3				eS	Sg	05 05 40.0	-0.3
LNBQ3	Los Naranjos,	0.71	49	eP	Pb	05 05 31.1	-0.5
LNBQ3				eS	Sg	05 05 41.4	+0.2
EDP2	Potrero Grande	0.72	344	eP	Pb	05 05 31.4	-0.3
PANP	Palmar Norte	0.79	324	eP	Pb	05 05 32.0	-0.9
BURE	Buenos Aires	0.92	338	eP	Pb	05 05 34.4	-0.7
RBALA	Bur	0.99	56	eP	Pb	05 05 35.8	-0.5
RBALA	Bur	0.99	56	eP	Pb	05 05 35.8	-0.5
RBALA				eS	Sb	05 05 49.5	+0.4
EDPE	Pejibaye, P	1.02	325	eP	Pb	05 05 35.6	-1.2
CHGR2	Aguacate	1.03	53	eP	Pb	05 05 36.4	-0.6
SAJE	San Jernim	1.15	333	eP	Pn	05 05 37.8	-1.2
CNI2	El Empalme, Bo	1.21	25	⇑iP	Pn	05 05 39.4	-0.3
CNI2				eS	Sb	05 05 54.6	-0.7
PDCAN	Manzana , Fuen	1.27	91	eP	Pn	05 05 39.5	-1.1
PDCAN	Manzana , Fuen	1.27	91	eP	Pn	05 05 40.4	-0.2
KKNTU	Kakintº	1.27	66	eP	Pn	05 05 39.7	-0.9
KKNTU	Kakintº	1.27	66	⇓iP	Pn	05 05 39.9	-0.7
KKNTU				eS	Sb	05 05 57.1	0.0
CEUA	Cerro Uatsi, L	1.30	2	eP	Pg	05 05 42.4	-0.3
BRIBI	Bribri	1.30	7	eP	Pb	05 05 42.1	+0.4
QUEP	Quepos	1.61	314	eP	Pn	05 05 46.0	+0.8
PIEC	Cerro El Cedra	1.62	323	eP	Pn	05 05 46.2	+0.7
ABE2	San Pablo	1.74	323	eP	Pn	05 05 47.9	+0.7
LCR2	La Lucha 2	1.74	325	eP	Pn	05 05 47.9	+0.7
LCR2	La Lucha 2	1.74	325	eP	Pn	05 05 48.1	+0.9
VINA	Juan Vinas	1.74	334	eP	Pn	05 05 48.3	+1.2
PICV	PH. Pirrs	1.77	317	eP	Pn	05 05 48.1	+0.7
PCAYA	Pacayas	1.79	333	eP	Pn	05 05 49.1	+1.3
RITA	Parrita	1.79	312	eP	Pb	05 05 49.4	-0.5
VTCV	VTCV, Calle Va	1.81	336	eP	Pb	05 05 49.6	-0.8
GMAL	Guarumal, Vera	1.82	108	eP	Pn	05 05 47.7	-0.4
GMAL	Guarumal, Vera	1.82	108	eP	Pn	05 05 47.7	-0.4
RAFA	San Farael, Vo	1.82	333	eP	Pn	05 05 49.7	+1.3
ABRB	Las Abras (San	1.83	337	eP	Pb	05 05 50.0	-0.7
LCOCO	El Coco	1.84	342	eP	Pn	05 05 49.4	+1.0
CVTQ	Turrialba Volc	1.85	335	eP	Pb	05 05 50.3	-0.8
VTR0	Volcan Turrial	1.85	336	eP	Pb	05 05 50.4	-0.9
CVTR	Volcan Turrial	1.86	336	eP	Pb	05 05 50.7	-0.6
VICA	Volcano Irazu	1.86	333	eP	Pn	05 05 50.4	+1.3
ACOS	Acosta	1.88	322	eP	Pn	05 05 50.0	+1.0
RVLA	Villa Bonita	1.88	341	eP	Pb	05 05 51.0	-0.4
LUJA	Lujan	1.93	326	eP	Pb	05 05 51.6	-0.8
SJS	Escuela Geolog	1.93	327	eP	Pn	05 05 51.2	+1.5
CVIMO	Finca Echandi	1.94	331	eP	Pg	05 05 55.7	+0.7
DOMI	Santo Domingo	1.98	327	eP	Pb	05 05 52.6	-0.7
SANTA	Santa Ana	2.00	324	eP	Pn	05 05 52.2	+1.6
HDC	Heredia	2.01	326	eP	Pb	05 05 52.6	-1.2
HEME	Heredia, Merce	2.02	326	eP	Pb	05 05 53.1	-0.8
PILE	Guapiles	2.05	337	eP	Pb	05 05 54.0	-0.3
VBV1	V. Barva	2.10	328	eP	Pn	05 05 53.5	+1.3
TCS1	Tacares	2.15	323	eP	Pn	05 05 53.9	+1.2
ATEO	Atenas	2.15	320	eP	Pn	05 05 54.2	+1.4
CACAO	El Cacao, Vera	2.31	115	eP	Pn	05 05 55.2	+0.3
CACAO				eS	Sn	05 06 23.0	+0.1
JTS	Las Juntas de	2.76	315	eP	Pn	05 06 02.0	+0.9
JTS				eS	Sn	05 06 34.4	+0.3

WEL 03 05:19:39.0±0.6**, 37°S**±4°×**17°7E**±°**, h5**^{km}**, M3.5**/18**,**
ML3.4/18**, MLv3.5**/18**, Error ellipse: s-maj=5.9km s-min=3.3km az=42.3, confirmed, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WSRZ	White Island S	0.73	177	P	Pb	05 19 54.7	+0.4
WSRZ				S	Sb	05 20 04.8	+0.1
WIZ	White Island	0.74	177	P	Pg	05 19 53.8	+0.5
WIZ				S	Sg	05 20 03.7	+0.7
WIZ				AML	AML		
WIZ				AML	AML		
MYRZ	Mayor Island	0.87	235	P	Pg	05 19 55.5	-0.2
MYRZ				S	Sb	05 20 09.1	+0.5
MYRZ				AML	AML		
MYRZ				AML	AML		
WHRZ	Whale Island	1.08	187	P	Pb	05 20 00.5	+0.3
HAZ	Te Kaha	1.10	152	P	Pg	05 19 58.9	-1.2
TGRZ	Tauranga	1.17	216	P	Pg	05 19 60.0	-1.6
MXZ	Matakaoa Point	1.22	130	P	Pg	05 20 01.5	-0.8
MXZ				AML	AML		
MXZ				AML	AML		
MARZ	Manawahe	1.25	197	P	Pg	05 20 01.3	-1.8
RUGZ	Raukumara Rang	1.26	160	P	Pg	05 20 01.8	-1.3
RUGZ				AML	AML		
RUGZ				AML	AML		
PKGZ	Pakihiroa	1.32	145	P	Pn	05 20 01.2	-2.9
LIRZ	Lichensteins R	1.36	206	P	Pg	05 20 06.4	+1.4
EDRZ	Edgecumbe	1.36	193	P	Pn	05 20 03.2	-1.5
KARZ	Kaharoa	1.42	210	P	Pg	05 20 07.1	+0.7
KMRZ	Kaimai	1.43	222	P	Pn	05 20 04.4	-1.2
KMRZ				S	Sb	05 20 23.3	-1.3
KMRZ				AML	AML		
KMRZ				AML	AML		
WMGZ	Waiomatatini S	1.45	136	P	Pg	05 20 08.6	+1.7
GRZ	Great Barrier	1.45	291	P	Pn	05 20 05.7	-0.3
GRZ				S	Sb	05 20 25.0	-0.3
GRZ				AML	AML		
GRZ				AML	AML		
URZ	Urewera	1.47	181	P	Pn	05 20 04.5	-1.7
NGRZ	Ngongotaha	1.52	210	P	Pb	05 20 07.3	-0.4
TARZ	Mount Tarawera	1.53	199	P	Pg	05 20 09.2	+0.8
TWGZ	Tauwhareparae	1.54	154	P	Pg	05 20 08.6	-0.1
PUZ	Puketiti	1.56	146	P	Pg	05 20 08.9	-0.1
MWZ	Matawai	1.58	169	P	Pn	05 20 06.5	-1.3
MWZ				AML	AML		
MWZ				AML	AML		
UTU	Utuhina	1.58	208	P	Pg	05 20 12.3	+3.0
HLRZ	Highlands Stat	1.59	203	P	Pb	05 20 08.6	-0.4
HLRZ				AML	AML		
HLRZ				AML	AML		
WIAZ	Waiheke Island	1.61	269	P	Pn	05 20 07.5	-0.5
WIAZ				S	Sb	05 20 29.6	-0.2
WIAZ				AML	AML		
WIAZ				AML	AML		
TOZ	Tahuroa Road	1.61	234	P	Pn	05 20 06.4	-1.7
TOZ				S	Sn	05 20 28.4	-0.8
TOZ				AML	AML		
TOZ				AML	AML		
MKAZ	Moumakai	1.61	258	P	Pn	05 20 07.3	-0.8
MKAZ				S	Sn	05 20 29.2	-0.2
MKAZ				AML	AML		
MKAZ				AML	AML		
RAGZ	Rawiri	1.72	173	P	Pn	05 20 09.4	-0.4
RAGZ				AML	AML		
RAGZ				AML	AML		
TKGZ	Te Karaka	1.75	161	P	Pb	05 20 11.5	0.0
ETAZ	East Tamaki Re	1.78	264	P	Pn	05 20 10.2	-0.2
ETAZ				S	Sb	05 20 34.9	+0.2
ETAZ				AML	AML		
ETAZ				AML	AML		
MBAZ	Motutapu North	1.80	270	P	Pn	05 20 10.5	-0.1
MBAZ				AML	AML		
MBAZ				AML	AML		
RTZ	Ruatahuna	1.83	184	P	Pn	05 20 09.4	-1.8
ABAZ	Army Bay	1.86	275	P	Pn	05 20 11.2	-0.3
ABAZ				S	Sb	05 20 37.5	+0.5
ABAZ				AML	AML		
ABAZ				AML	AML		
CNGZ	Carnagh Statio	1.90	154	P	Pg	05 20 16.0	+0.6
HBAZ	Herne Bay Bore	1.93	267	P	Pb	05 20 14.6	-0.1
RIGZ	Rimuhau	1.98	166	P	Pb	05 20 14.5	-1.1
TLZ	Tolley Road	2.00	219	P	Pn	05 20 12.1	-1.4
TLZ				AML	AML		
TLZ				AML	AML		
AWAZ	Awhitu Peninsu	2.02	261	P	Pn	05 20 13.7	0.0
AWAZ				AML	AML		
AWAZ				AML	AML		
WTAZ	Waiatarua	2.06	265	P	Pn	05 20 14.6	+0.3
WTAZ				AML	AML		
MTHZ	Maungataniwha	2.08	186	P	Pn	05 20 14.2	-0.4
MTHZ				AML	AML		
MTHZ				AML	AML		
RAHZ	Arahi	2.13	181	P	Pn	05 20 16.0	+0.7
RAHZ				AML	AML		
RAHZ				AML	AML		
NMHZ	Naumai	2.32	186	P	Pb	05 20 20.2	-1.3
WCZ	Waipu Caves	2.41	290	P	Pn	05 20 18.7	-0.4
WCZ				AML	AML		
WCZ				AML	AML		
HIZ	Hauiti	2.50	226	P	Pn	05 20 19.6	-0.8
ETVZ	East Tongariro	2.60	205	P	Pn	05 20 21.2	-0.7
OTVZ	Oturere	2.64	206	P	Pn	05 20 23.2	+0.7
TWVZ	Taurewa	2.65	210	P	Pn	05 20 21.7	-0.8
SNVZ	South Ngauruho	2.67	206	P	Pn	05 20 25.2	+2.3
NGZ	Ngauruhoe	2.68	206	P	Pb	05 20 28.6	+1.1
KWHZ	Kaweka Forest	2.69	192	P	Pn	05 20 24.5	+1.4
FWVZ	Far West T-bar	2.77	206	P	Pb	05 20 28.4	-0.7
WHVZ	Whangaehu Hut	2.78	206	P	Pb	05 20 28.2	-1.1
WNVZ	Wahianoa	2.81	205	P	Pb	05 20 28.0	-1.9
BHHZ	Black Hill Sta	2.83	197	P	Pn	05 20 25.0	+0.1
BHHZ				AML	AML		
BHHZ				AML	AML		
MOVZ	Moawhango	2.84	202	P	Pn	05 20 25.4	+0.3
KRHZ	Kereru	2.92	192	P	Pn	05 20 27.1	+1.0
KRHZ				AML	AML		
KRHZ				AML	AML		
PNHZ	Pukenui	3.21	193	P	Pn	05 20 30.5	+0.3
PNHZ				AML	AML		
PNHZ				AML	AML		
OUZ	Omahuta	3.27	297	P	Pn	05 20 31.4	+0.5
OUZ				AML	AML		
TSZ	Takapari Road	3.40	195	P	Pn	05 20 32.7	-0.1
WAZ	Wanganui	3.42	209	P	Pn	05 20 35.9	+3.0
PKE	Pukeiti	3.46	225	P	Pn	05 20 34.7	+1.1
OGWZ	Otaki Gorge	4.31	200	P	Pn	05 20 45.6	+0.4
NNZ	Nelson	5.31	212	P	Pn	05 21 02.2	+3.3
TKNZ	Takaka Hill	5.35	216	P	Pn	05 21 02.1	+2.6
MRNZ	Matariki Terra	5.73	215	P	Pn	05 21 08.2	+3.5
THZ	Tophouse	5.96	212	P	Pn	05 21 07.7	-0.2

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*IDC **03** 05:29:51.6±0.7, 8°.31N×82°.98W, h0^{km}, mb4.1/10, mbtmp4.1/16, ML3.5/5, MS3.4/15, Error ellipse: s-maj=26.0km s-min=10.0km az=43.0*

*UPA **03** 05:29:52.8±1.1, 8°.28N×83°.00W, h15^{km}±2^{km}, MW4.5, Fault plane solution: NP1:ϕ_s146.00000°, δ32.00000°, λ118.00000°., Presumed earthquake*

*UCR **03** 05:29:53.3±0.7, 8°.32N×83°.01W, h9^{km}±2^{km}, MW4.8, Fault plane solution: NP1:ϕ_s125.00000°, δ30.00000°, λ90.00000°., Presumed earthquake*

*NEIC **03** 05:29:54.7, 8°.38N×82°.99W, h10^{km}*

*RSNC **03** 05:29:54.2±0.3, 8°N±5°×8°3W±°, h9^{km}±4^{km}, M5.1, mb5.1, mB5.6, ML3.7, Mw(mB)5.1, MwMwp4.2, Mwp4.7*

*GFZ **03** 05:29:55.2±1.0, 8°N±12°×8°3W±°, h10^{km}, M4.7/6, mb4.7/6*

*CATAC **03** 05:29:55.2±0.3, 8°N±2°×8°3W±°, h3^{km}±1^{km}, M4.7/32, mb5.1/9, mB5.1/8, MLv4.6/32, Mw(mB)4.5/8, Error ellipse: s-maj=4.9km s-min=2.1km az=12.4, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}2.35; $M_{\theta\theta}$-1.63; $M_{\phi\phi}$-0.72; $M_{r\theta}$1.00; $M_{\theta\phi}$1.40; $M_{\phi r}$0.59; Fault plane solution: $M_0$2.76887×10^{15} NP1:ϕ_s104.48326°, δ54.53188°, λ62.10651°. NP2:ϕ_s326.85559°, δ43.96071°, λ123.29072°. Principal axes: T 2.8410, Plg66.8218°, Azm317.2925°; N -0.1503, Plg22.3968°, Azm121.5572°; P -2.6907, Plg5.6636°, Azm213.8995°; confirmed*

*NEIC **03** 05:29:55.2±1.3, 8°.39N±0°.06×82°.99W±0°.06, h14^{km}±4^{km}, mb4.5/111, Mwr4.3/10 Error ellipse: s-maj=9.9km s-min=6.8km az=51.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}-0.52; $M_{\theta\theta}$-0.49; $M_{\phi\phi}$1.01; $M_{r\theta}$-0.53; $M_{\theta\phi}$3.07; $M_{\phi r}$0.71; Fault plane solution: $M_0$3.31000×10^{15} NP1:ϕ_s81.84000°, δ74.98000°, λ-10.41000°. NP2:ϕ_s174.56000°, δ79.95000°, λ-164.74000°. Principal axes: T 3.4389, Plg3.0000°, Azm308.0000°; N -0.2636, Plg72.0000°, Azm207.0000°; P -3.1754, Plg18.0000°, Azm39.0000°;*

ISC 03 05:29:53.8±0.8**, 8°.30N**±0°.02×**82°.98W**±0°.02**, h13**^{km}±5^{km}**,**
n277, σ1^{s}19/300**, mb4.5**/61**, MS3.5**/12**, 14C-32D,**
Panama-Costa Rica border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTPM	Petroterminale	0.14	135	⇑iP	Pg	05 29 57.7	+0.3
PTPM				eS	Sb	05 30 02.5	+1.3
PTPA	Petro Terminal	0.15	134	⇑eP	Pg	05 29 57.6	+0.2
PTPA				eS	Sb	05 30 01.8	+0.3
CDITO	Canoas	0.29	21	P	Pg	05 29 59.8	0.0
CDITO				S	Sg	05 30 03.9	0.0
NELY	Ciudad Neily	0.35	5	⇓eP	Pg	05 30 00.3	-0.6
NELY				eS	Sg	05 30 06.5	+0.8
NELY	Ciudad Neily	0.35	5	⇓eP	Pg	05 30 00.4	-0.5
NELY				eS	Sg	05 30 06.4	+0.8
FITO	Golfito	0.36	331	⇓eP	Pg	05 29 59.7	-1.5
FITO				eS	Sg	05 30 04.6	-1.5
PIRO	Carate, Puerto	0.37	286		Pg	05 30 00.3	-1.0
PIRO				Sg	Sg	05 30 06.7	+0.5
PIRO	Carate, Puerto	0.37	286	P	Pg	05 30 00.3	-1.0
PIRO				S	Sg	05 30 05.6	-0.6
PIRO	Carate, Puerto	0.37	286	eP	Pg	05 30 00.2	-1.0
PIRO	Carate, Puerto	0.37	286	eP	Pg	05 30 00.4	-0.9
PIRO				eS	Sg	05 30 06.6	+0.3
JIME	Puerto Jimenez	0.41	304	eP	Pg	05 30 00.7	-1.4
MLIR3	Monte Lirio, C	0.51	17	⇓iP	Pg	05 30 03.9	-0.1
MLIR3				eS	Sb	05 30 12.9	+0.7
VITO	San Vito	0.51	1	⇓eP	Pg	05 30 03.5	-0.5
VITO				eS	Sb	05 30 12.4	+0.1
VITO	San Vito	0.51	1	eP	Pg	05 30 03.6	-0.4
VITO				eS	Sb	05 30 12.7	+0.5
DVD	David	0.54	76	⇓iP	Pg	05 30 04.1	-0.3
DVD				eS	Sb	05 30 12.9	+0.1
SCLRA	Santa Clara, W	0.56	20	⇓eP	Pg	05 30 04.6	-0.3
SCLRA	Santa Clara, W	0.56	20	⇓iP	Pg	05 30 04.7	-0.2
SCLRA				eS	Sb	05 30 13.7	+0.1
BRU2	Volcan	0.56	30		Pg	05 30 04.7	-0.3
BRU2				Sg	Sg	05 30 11.1	-1.5
BRU2	Volcan	0.56	30	P	Pg	05 30 04.9	0.0
BRU2				S	Sg	05 30 13.1	+0.6
BRU2	Volcan	0.56	30	⇓eP	Pg	05 30 04.6	-0.4
BRU2	Volcan	0.56	30	P	Pg	05 30 04.7	-0.3
BRU2	Volcan	0.56	30	⇓iP	Pg	05 30 04.6	-0.3
BRU2				eS	Sb	05 30 14.3	+0.6
CLLRA	Cordillera,	0.57	39	⇓eP	Pg	05 30 04.8	-0.2
CLLRA	Cordillera,	0.57	39	iP	Pg	05 30 04.8	-0.2
CLLRA				eS	Sn	05 30 15.6	-1.5
LOMA3	Las Lomas, Chi	0.59	78	⇓iP	Pg	05 30 04.9	-0.6
LOMA3				eS	Sg	05 30 14.1	+0.7
PTAR3	Potrerillos Ar	0.61	51	iP	Pg	05 30 05.6	-0.3
PTAR3				eS	Sb	05 30 16.4	+1.3
CHIR3	Chiriqui UPA,	0.65	82	⇓iP	Pg	05 30 05.8	-0.7
CHIR3				eS	Sg	05 30 15.7	+0.6
BGUAL	Bijagual, Pana	0.67	72	⇓iP	Pg	05 30 06.3	-0.6
BGUAL				eS	Sg	05 30 16.1	+0.3
BQTLY	Boquete Panama	0.68	48	⇓eP	Pg	05 30 06.4	-0.7
BQTLY	Boquete Panama	0.68	48	iP	Pg	05 30 06.5	-0.7
BQTLY				eS	Sn	05 30 19.5	-0.5
BQSF3	Alto Boquete,	0.69	51	⇓iP	Pg	05 30 06.6	-0.8
BQSF3				eS	Sb	05 30 17.7	+0.3
LNBQ3	Los Naranjos,	0.72	48	iP	Pg	05 30 06.8	-1.1
LNBQ3				eS	Sb	05 30 17.9	-0.3
EDP2	Potrero Grande	0.73	345	⇓eP	Pg	05 30 07.0	-1.2
PANP	Palmar Norte	0.81	324	⇓eP	Pg	05 30 07.4	-2.2
BURE	Buenos Aires	0.94	338	⇓eP	Pb	05 30 09.9	-2.0
RBALA	Bur	1.00	55	⇓eP	Pb	05 30 11.5	-1.4
RBALA	Bur	1.00	55	eP	Pb	05 30 11.6	-1.4
RBALA				eS	Sb	05 30 24.5	-1.5
EDPE	Pejibaye, P	1.03	325	⇓eP	Pb	05 30 11.2	-2.5
CHGR2	Aguacate	1.04	52	eP	Pb	05 30 12.2	-1.5
CHGR2				eS	Sb	05 30 26.2	-1.1
SAJE	San Jernim	1.16	333	⇓eP	Pn	05 30 13.4	-2.6
ZEDO	Perez Zeledon	1.26	326	eP	Pn	05 30 16.3	-0.9
PDCAN	Manzana , Fuen	1.27	90	eP	Pn	05 30 15.0	-2.4
PDCAN	Manzana , Fuen	1.27	90	⇑iP	Pn	05 30 15.6	-1.7
PDCAN				eS	Sg	05 30 34.9	+0.1
KKNTU	Kakintº	1.28	65	⇓eP	Pn	05 30 15.5	-1.9
KKNTU	Kakintº	1.28	65	⇓iP	Pn	05 30 15.6	-1.8
KKNTU				eS	Sb	05 30 33.1	-1.0
BRIBI	Bribri	1.32	7	⇓eP	Pn	05 30 17.6	-0.3
RGM0	Gandoca	1.33	16		Pb	05 30 18.5	-0.1
RGM0	Gandoca	1.33	16	P	Pb	05 30 18.6	-0.1
RGM0				S	Sg	05 30 36.3	-0.5
RGM0	Gandoca	1.33	16	⇓eP	Pn	05 30 18.1	0.0
QUEP	Quepos	1.62	314	P	Pn	05 30 22.2	0.0
QUEP				S	Sn	05 30 42.9	-0.1
SVQ2	Quepos	1.62	314	eP	Pn	05 30 21.8	-0.4
PIEC	Cerro El Cedra	1.63	324	⇑eP	Pn	05 30 21.5	-1.0
LCR2	La Lucha 2	1.75	325		Pn	05 30 23.3	-0.9
LCR2	La Lucha 2	1.75	325	P	Pn	05 30 24.9	+0.7
LCR2				S	Sb	05 30 47.6	-0.4
LCR2	La Lucha 2	1.75	325	eP	Pn	05 30 22.9	-1.2
VINA	Juan Vinas	1.75	334	eP	Pn	05 30 23.5	-0.6
VERB	Verbena	1.78	337	eP	Pn	05 30 22.5	-2.0
GMAL	Guarumal, Vera	1.81	107	P	Pn	05 30 23.0	-1.7
GMAL				S	Sb	05 30 48.9	-0.6
VTCV	VTCV, Calle Va	1.83	336	⇓eP	Pn	05 30 24.0	-1.1
RAFA	San Farael, Vo	1.84	333	Pn	Pn	05 30 25.2	-0.3
RAFA	San Farael, Vo	1.84	333	eP	Pn	05 30 24.9	-0.6
ABRB	Las Abras (San	1.84	337	eP	Pn	05 30 25.1	-0.3
IRES	Siquirres	1.86	344	⇓eP	Pn	05 30 25.1	-0.3
LCOCO	El Coco	1.86	342	⇓eP	Pn	05 30 25.2	-0.2
CVTQ	Turrialba Volc	1.86	335	eP	Pn	05 30 25.0	-0.8
VTR0	Volcan Turrial	1.87	336	⇓eP	Pn	05 30 25.0	-1.0
CVTR	Volcan Turrial	1.87	336	⇓eP	Pn	05 30 24.9	-1.1
VICA	Volcano Irazu	1.88	333	⇑eP	Pn	05 30 25.3	-0.8
ACOS	Acosta	1.89	322	⇑eP	Pn	05 30 25.5	-0.5
SJS3	Mercedes San J	1.94	327	⇑eP	Pn	05 30 26.2	-0.5
CORON	Coronado	1.94	329	⇑eP	Pn	05 30 26.5	-0.2
CVIMO	Finca Echandi	1.96	331	⇑eP	Pg	05 30 30.7	-0.8
PURI	Puriscal	2.02	319	⇑eP	Pn	05 30 27.3	-0.5
HDC	Heredia	2.03	326		Pn	05 30 28.0	+0.1
HDC	Heredia	2.03	326	P	Pn	05 30 27.9	0.0
HEME	Heredia, Merce	2.03	326	eP	Pn	05 30 28.0	0.0
BELE	Belen	2.05	324	eP	Pn	05 30 28.3	+0.2
VBV1	V. Barva	2.11	328	⇑eP	Pn	05 30 29.0	-0.2
TRB2	Turrubares	2.16	318	P	Pn	05 30 30.3	+0.6
TRB2				S	Sb	05 30 58.0	-1.6
ATEO	Atenas	2.17	320	eP	Pn	05 30 29.4	-0.3
TCS1	Tacares	2.17	323	P	Pn	05 30 30.3	+0.6
TCS1	Tacares	2.17	323	⇑eP	Pn	05 30 29.8	+0.1
CACAO	El Cacao, Vera	2.30	114	P	Pn	05 30 31.3	-0.2
CACAO				S	Sn	05 31 01.5	+1.7
CACAO	El Cacao, Vera	2.30	114	eP	Pn	05 30 30.0	-1.5
CACAO				eS	Sn	05 30 56.9	-2.8
LAFE	Finca La Fe, P	2.42	308	eP	Pn	05 30 32.1	-1.1
VPL2	V. Platanar	2.43	325	eP	Pn	05 30 33.6	+0.2
PNME	Penonome	2.63	86	P	Pn	05 30 36.0	0.0
AZU	Azuero	2.73	101	P	Pn	05 30 38.3	+1.0
AZU	Azuero	2.73	101	eP	Pn	05 30 37.5	+0.1
AZU				eS	Sn	05 31 06.9	-3.3
VACR	Volcan Arenal	2.73	322	⇑eP	Pn	05 30 38.1	+0.6
JTS	Las Juntas de	2.77	316	Pn	Pn	05 30 37.8	-0.2
	562nm,0.5s,baz=232,slow=12,SNR=326						
JTS				Sn	Sn	05 31 12.4	+0.9
	50nm,0.3s,baz=64,slow=20,SNR=6.9						
JTS				Lg	Lg	05 31 20.1	
	68nm,0.3s,baz=221,slow=19,SNR=5.0						
JTS	Las Juntas de	2.77	316	P	Pn	05 30 37.6	-0.5
JTS	Las Juntas de	2.77	316	P	Pn	05 30 39.5	+1.5
JTS				S	Sn	05 31 12.7	+1.2
JTS	Las Juntas de	2.77	316	⇑eP	Pn	05 30 37.2	-0.8
JTS	Las Juntas de	2.77	316	P	Pn	05 30 37.9	-0.2
JTS	Las Juntas de	2.77	316	eP	Pn	05 30 35.9	-2.1
JTS				eS	Sn	05 31 08.3	-3.1
CMARA	Lajas Hojancha	2.96	305	P	Pn	05 30 40.8	+0.2
CMARA				S	Sn	05 31 16.7	+0.7
JUD3	Juan Diaz 3	3.13	306		Pn	05 30 42.4	-0.6

BCIP	Isla Barro Col	3.22	74		Pn	05 30 45.0	+0.8
BCIP	Isla Barro Col	3.22	74	P	Pn	05 30 44.3	+0.1
BCIP	Isla Barro Col	3.22	74	P	Pn	05 30 46.9	+2.7
BCIP				S	Sb	05 31 27.5	-2.6
BCIP	Isla Barro Col	3.22	74	⇓*e*P	Pn	05 30 44.2	+0.1
BCIP	Isla Barro Col	3.22	74	P	Pn	05 30 45.3	+1.2
UPAL	Upala	3.27	322	P	Pn	05 30 46.4	+1.6
UPAL				S	Sn	05 31 25.0	+1.5
UPA	Univ. de Panam	3.47	79	P	Pb	05 30 52.5	-2.7
BLUN	Bluefields	3.76	348	P	Pn	05 30 51.2	-0.4
BLUN	Bluefields	3.76	348	P	Pn	05 30 52.5	+0.9
BLUN				S	Sn	05 31 37.5	+1.7
CARN	Rivas	3.81	319		Pn	05 30 52.6	+0.3
CARN	Rivas	3.81	319	P	Pn	05 30 54.2	+2.0
CARN				S	Sn	05 31 39.0	+2.0
OMEN	Al SSO del Vol	4.12	321	P	Pn	05 30 57.5	+1.0
MORN	Al O del Volca	4.16	321	P	Pn	05 30 58.8	+1.7
JAPN	Al SSO del Vol	4.16	321	P	Pn	05 30 59.2	+2.1
ACON	Acoyapa	4.24	329	P	Pn	05 30 59.0	+0.9
ACON				S	Sn	05 31 49.6	+2.1
NANN	Nandasmo	4.76	320	P	Pn	05 31 07.2	+1.9
NANN				S	Sn	05 32 01.9	+1.5
BOAB	BOACO BROADBAN	4.90	328		Pn	05 31 07.7	+0.5
BOAB	BOACO BROADBAN	4.90	328	P	Pn	05 31 08.5	+1.3
BOAB				S	Sn	05 32 06.0	+2.3
BOAB	BOACO BROADBAN	4.90	328	P	Pn	05 31 08.5	+1.3
MGAN	Managua	4.99	320		Pn	05 31 08.4	-0.2
MGAN	Managua	4.99	320	P	Pn	05 31 10.1	+1.5
MGAN	Managua	4.99	320	P	Pn	05 31 10.4	+1.8
TISN	Laguna Tiscapa	5.00	320	P	Pn	05 31 10.6	+1.9
APQ2	Apoyeque	5.08	320	P	Pn	05 31 10.5	+0.7
APQ2				S	Sn	05 32 10.9	+2.5
COPN	Copaltepe	5.24	318	P	Pn	05 31 13.9	+1.9
PRVC	Isla de Provid	5.29	17	P	Pn	05 31 11.8	-0.8
	1µm1µm110nm,0.9s						
PRVC				S	Sn	05 32 12.8	-0.6
	1µm1µm110nm,0.9s						
PRVC				AML	AML		
LEVN	Ruinas Leon Vi	5.42	319	P	Pn	05 31 16.1	+1.7
LEVN				S	Sn	05 32 18.7	+1.9
CNGN	Cerro Negro	5.55	319	P	Pn	05 31 17.5	+1.3
	17µm2µm,1.0s						
CNGN				AML	AML		
CNGN	Cerro Negro	5.55	319	P	Pn	05 31 18.0	+1.8
CNGN				S	Sn	05 32 22.0	+2.0
CNGN	Cerro Negro	5.55	319	P	Pn	05 31 18.0	+1.8
	comp=Z,2µm,1.0s						
ILCN	San Idelfonso	5.61	320	P	Pn	05 31 18.6	+1.6
ILCN				S	Sn	05 32 23.2	+1.9
PLRN	Geotermica Pol	5.66	319	P	Pn	05 31 19.6	+1.9
SIUN	Universidad Ur	5.66	342		Pn	05 31 17.8	0.0
SIUN	Universidad Ur	5.66	342	P	Pn	05 31 19.6	+1.9
TELN	Telica	5.71	319	P	Pn	05 31 20.1	+1.6
HERN	Volcan Telica	5.72	319		Pn	05 31 19.0	+0.4
HERN	Volcan Telica	5.72	319	P	Pn	05 31 20.3	+1.8
BILN	Bilwi Airport	5.72	356	Pn	Pn	05 31 19.4	+0.8
BILN	Bilwi Airport	5.72	356	P	Pn	05 31 20.8	+2.2
BILN				S	Sn	05 32 26.3	+2.1
SOLC	Bahia Solano	5.90	110	P	Pn	05 31 19.6	-1.4
SOLC				AML	AML		
CRIN	San Cristobal	5.93	318		Pn	05 31 20.9	-0.5
CRIN	San Cristobal	5.93	318	P	Pn	05 31 22.8	+1.3
	comp=Z,4µmcomp=Z,379nm,0.6s						
CRIN				AML	AML		
CRIN	San Cristobal	5.93	318	P	Pn	05 31 22.9	+1.5
CRIN				S	Sn	05 32 30.8	+1.5
APAC	Apartado, Choc	6.35	93	P	Pn	05 31 29.8	+2.6
	comp=Z,40nm,0.6s						
TGUH	Tegucigalpa,Un	7.10	324		Pn	05 31 38.0	+0.3
TGUH	Tegucigalpa,Un	7.10	324	P	Pn	05 31 39.6	+1.9
TGUH	Tegucigalpa,Un	7.10	324	P	Pn	05 31 40.3	+2.6
	comp=Z,125nm,0.6s						
MTO3	Montecristo	8.71	315		Pn	05 32 00.2	+0.4
ESQI	Esquipulas	8.81	315		Pn	05 32 02.2	+1.1
OTAV	Otavalo	9.19	150	Pn	Pn	05 32 08.6	+1.9
ROSC	El Rosal	9.26	111	Pn	Pn	05 32 10.3	+2.7
	comp=Z,1.6nm,0.3s,baz=236,slow=11,SNR=9.8						
	comp=Z,5.9nm,0.2s						
ROSC				AML	AML		
ROSC	El Rosal	9.26	111		Pn	05 32 09.2	+1.6
APG	El Apazote	9.90	313	Pn	Pn	05 32 18.7	+2.5
	comp=Z,0.2nm,0.3s,baz=136,slow=11,SNR=14						
	comp=Z,3.0nm,0.9s						
APG				AML	AML		
SLOR	San Lorenzo -	10.02	153		Pn	05 32 20.5	+2.4
HUEH	Huehuetenango	10.87	311		Pn	05 32 28.3	-1.1
MTDJ	Mount Denham	11.19	28	Pn	Pn	05 32 33.7	-0.1
SDV	Santo Domingo	12.22	86	LR	LR	05 38 28.5	
	comp=Z,175nm,18.3s,baz=267,slow=42						
SOR	Soroa	14.41	360		Pn	05 33 16.8	-0.8
CMIG	Matias Romero	14.53	308	Pn	Pn	05 33 19.5	+0.2
	comp=Z,0.8nm,0.3s,baz=127,slow=11,SNR=11						
	comp=Z,4.2nm,0.6s						
CMIG				AML	AML		
ATAH	Atahualpa	16.00	163	Pn	Pn	05 33 41.0	+1.8
	comp=Z,0.3nm,0.3s,baz=325,slow=21,SNR=2.8						
ATAH				LR	LR	05 38 53.6	
	comp=Z,74nm,21.4s,baz=326,slow=34						
	comp=Z,2.1nm,0.8s						
ATAH				AML	AML		
SJG	San Juan	19.05	58	P	Pn	05 34 16.7	0.0
	comp=Z,0.8nm,0.3s,baz=255,slow=13,SNR=5.9						
SJG				LR	LR	05 40 56.4	
	comp=Z,84nm,20.3s,baz=236,slow=35						
	comp=Z,12nm,0.7s						
SJG				AML	AML		
656A	Willston	20.96	1	P	P	05 34 37.3	+0.6
656A				IAmb	IAmb	05 34 44.0	
	comp=Z,21nm,0.9s						
TIGA	Tifton	23.03	359	IAmb	IAmb	05 35 02.2	
	comp=Z,31nm,1.2s						
BOAV	Boa Vista	23.11	103	P	P	05 35 01.1	+1.3
352A	Blakely	23.13	356	IAmb	IAmb	05 35 03.0	
	comp=Z,19nm,0.9s						
250A	Grady	23.75	353		P	05 35 06.4	+0.3
250A				IAmb	IAmb	05 35 10.9	
	comp=Z,26nm,1.2s						
152A	Waverly Hall	24.30	356	IAmb	IAmb	05 35 13.2	
	comp=Z,8.6nm,0.6s						
LRAL	Lakeview Retre	24.89	352		P	05 35 16.8	+0.3
MACA	Manacapuru-AM	24.98	116		P	05 35 18.1	+0.6
MACA				IAmb	IAmb	05 35 25.4	
	comp=Z,8.8nm,0.9s						
GOGA	Godfrey	24.99	359	P	P	05 35 17.7	+0.3
GOGA	Godfrey	24.99	359	P	P	05 35 18.8	+1.4
	comp=Z,30nm,0.9s						
Z47A	Carrollton	25.22	350	P	P	05 35 20.4	+0.9
Y52A	Lilburn	25.46	358		P	05 35 21.9	+0.3
Y49A	Blount Mountai	25.63	353	P	P	05 35 23.6	+0.4
Y49A				IAmb	IAmb	05 35 28.2	
	comp=Z,7.6nm,0.9s						
HODGE	Hodges	25.81	1	P	P	05 35 25.3	+0.4
HODGE				IAmb	IAmb	05 35 26.7	
	comp=Z,9.4nm,0.8s						
X51A	Calhoun	26.20	356	IAmb	IAmb	05 35 34.1	
	comp=Z,12nm,1.0s						
X48A	Hartselle	26.29	352	IAmb	IAmb	05 35 34.7	
	comp=Z,6.9nm,0.8s						
BG3	Lake Jocassee	26.57	0	P	P	05 35 32.3	+0.6
BG3				IAmb	IAmb	05 35 36.3	
	comp=Z,12nm,1.0s						
W52A	Murphy	26.68	358	IAmb	IAmb	05 35 37.0	
	comp=Z,9.2nm,1.1s						
CCAR	Cane Creek	26.75	344		P	05 35 33.2	-0.1
CCAR				IAmb	IAmb	05 35 36.7	
	comp=Z,10nm,1.0s						
W50A	Signal Mountai	26.86	356	P	P	05 35 34.1	-0.2
W50A				IAmb	IAmb	05 35 41.1	
	comp=Z,14nm,1.1s						
SWET	Sewanee	26.92	355	IAmb	IAmb	05 35 40.9	
	comp=Z,8.7nm,0.8s						
WLAR	White Oak Lake	26.94	341	P	P	05 35 34.1	-0.9
WLAR				IAmb	IAmb	05 35 41.4	
	comp=Z,12nm,0.9s						
CPCT	Cooper Cave	27.06	357	P	P	05 35 34.8	-1.3
CPCT				IAmb	IAmb	05 35 39.0	
	comp=Z,13nm,1.2s						
JCT	Junction City	27.10	327	P	P	05 35 36.2	-0.4
TKL	Tuckaleechee C	27.24	359	IAmb	IAmb	05 35 42.0	
	comp=Z,7.5nm,1.1s						
BRDY	Brady	27.32	329	P	P	05 35 38.2	-0.3
V48A	Smith Brothers	27.54	353	IAmb	IAmb	05 35 43.1	
	comp=Z,7.6nm,0.9s						
MIAR	Mount Ida	27.88	341	IAmb	IAmb	05 35 54.3	
	comp=Z,6.4nm,1.1s						
WVT	Waverly	28.05	352	P	P	05 35 45.0	0.0
WVT				IAmb	IAmb	05 35 47.3	
	comp=Z,11nm,1.3s						
WVT	Waverly	28.05	352	P	P	05 35 44.9	0.0
	comp=Z,5.9nm,0.9s						
WHAR	Wooly Hollow	28.18	344		P	05 35 45.8	-0.4
WHAR				IAmb	IAmb	05 35 46.4	
	comp=Z,8.2nm,0.8s						
U49A	Red Boiling Sp	28.20	355	IAmb	IAmb	05 35 48.6	
	comp=Z,8.2nm,1.2s						
PLPT	Palo Pinto	28.23	332	P	P	05 35 45.7	-0.9
PLPT				IAmb	IAmb	05 35 50.2	
	comp=Z,9.6nm,1.1s						
LPAZ	La Paz	28.51	149	P	P	05 35 50.2	+0.2
	comp=Z,0.4nm,0.5s,baz=265,slow=7.1,SNR=2.6						
LPAZ				LR	LR	05 47 23.1	
	comp=Z,83nm,21.7s,baz=315,slow=37						
	comp=Z,0.4nm,0.5s						
LPAZ	La Paz	28.51	149	P	P	05 35 49.9	0.0
TXAR	Lajitas Array	28.56	320	PcP	PcP	05 39 02.2	+1.0
	comp=Z,0.2nm,0.7s,baz=167,slow=5.9,SNR=2.6						
TXAR	Lajitas Array	28.56	320	P	P	05 35 48.4	-1.4
TXAR					PcP	05 39 01.4	+0.2
LCAR	Lake Charles	28.63	346		P	05 35 49.7	-0.4
LCAR				IAmb	IAmb	05 35 53.3	
	comp=Z,12nm,1.0s						
HICK	Hickman	28.68	349	P	P	05 35 50.0	-0.6
FCAR	Ozark Folk Cen	28.70	344	P	P	05 35 50.1	-0.7
LOOK	Love County	28.72	335	P	P	05 35 50.6	-0.4
LOOK				IAmb	IAmb	05 35 55.6	
	comp=Z,11nm,0.8s						
T47A	Sharon Grove	28.80	353	IAmb	IAmb	05 35 54.5	
	comp=Z,10nm,1.1s						
S51A	Beattyville	29.21	359	IAmb	IAmb	05 35 56.7	
	comp=Z,6.2nm,0.7s						
T42A	Van Buren	29.53	347	P	P	05 35 57.5	-0.6
T42A				IAmb	IAmb	05 36 00.9	
	comp=Z,6.3nm,1.1s						
R50A	Paris	29.87	358	IAmb	IAmb	05 36 04.5	
	comp=Z,6.5nm,0.9s						
R49A	Shelbyville	29.92	357	IAmb	IAmb	05 36 05.1	
	comp=Z,9.9nm,0.7s						
WCI	Wyandotte Cave	29.94	355	P	P	05 36 01.8	0.0
WCI				IAmb	IAmb	05 36 05.2	
	comp=Z,12nm,0.9s						
WCI	Wyandotte Cave	29.94	355	P	P	05 36 02.2	+0.4
	comp=Z,14nm,1.1s						
MDP	Montagnes des	30.29	94	LR	LR	05 48 43.7	
	comp=Z,113nm,19.1s,baz=314,slow=37						
OK052	Battle Ridge R	30.32	337	IAmb	IAmb	05 36 07.2	
	comp=Z,12nm,1.0s						
CCM	Cathedral Cave	30.55	347	P	P	05 36 06.6	-0.5
CCM				IAmb	IAmb	05 36 09.5	
	comp=Z,6.5nm,0.7s						
CCM	Cathedral Cave	30.55	347	P	P	05 36 06.1	-1.1
	comp=Z,11nm,0.9s						
OLIL	Olney	30.65	352	P	P	05 36 08.3	+0.3
S39A	Bolivar	30.72	344	IAmb	IAmb	05 36 08.7	
	comp=Z,4.9nm,0.8s						
Q44A	Meyer Farm, Va	30.95	351	IAmb	IAmb	05 36 14.2	
	comp=Z,14nm,1.2s						
O49A	Covington	31.77	358		P	05 36 17.5	-0.4
P40A	Paris	32.14	347	IAmb	IAmb	05 36 24.4	
	comp=Z,7.5nm,1.0s						
P38A	Dawn	32.59	345	IAmb	IAmb	05 36 25.4	
	comp=Z,4.3nm,0.6s						
HDIL	Hopedale	32.61	351		P	05 36 24.8	-0.4
KSU1	Kansas State U	33.02	340	IAmb	IAmb	05 36 30.1	
	comp=Z,7.7nm,0.8s						
L40A	Anamosa	34.40	349		P	05 36 40.2	-0.6
SADO	Sadowa	36.48	5	LR	LR	05 52 42.7	
	comp=Z,33nm,18.4s,baz=210,slow=38						
G40A	Rib Lake	37.35	352	IAmb	IAmb	05 37 08.2	
	comp=Z,13nm,1.1s						
113A	Mohawk Valley,	37.48	315	P	P	05 37 08.0	+0.6
SPMN	Marine on St.	37.76	349	IAmb	IAmb	05 37 11.3	
	comp=Z,9.8nm,1.0s						
TBO	Thunder Bay	40.57	353		P	05 37 32.9	-0.2
TBO				IAmb	IAmb	05 37 34.6	
	comp=Z,14nm,1.0s						
QSM	Queen of Sheba	41.38	317	P	P	05 37 39.9	0.0
QSM				IAmb	IAmb	05 37 48.6	
	comp=Z,12nm,1.4s						
CCCA	Chr Cany lake	41.48	316	P	P	05 37 40.5	-0.3
CCCA				IAmb	IAmb	05 37 49.1	
	comp=Z,16nm,1.2s						
PDAR	Pinedale Array	41.51	330	P	P	05 37 40.6	-0.6
	comp=Z,0.3nm,0.6s,baz=140,slow=9.4,SNR=6.1						
	comp=Z,0.3nm,0.6s						
PDAR	Pinedale Array	41.51	330	P	P	05 37 41.5	+0.3
TPNV	Topopah Spring	41.52	318		P	05 37 42.4	+1.1
HWUT	Hardware Ranch	41.70	327	P	P	05 37 43.4	+0.7
	comp=Z,5.1nm,2.0s						
EPLO	Experimental L	42.21	350	P	P	05 37 45.4	-1.0
EPLO				IAmb	IAmb	05 37 46.0	
	comp=Z,6.9nm,0.6s						
CWC	Cottonwood Cre	42.46	317	P	P	05 37 50.3	+1.3
ULM	Lac du Bonnet	43.17	348	P	P	05 37 53.0	-1.3
	comp=Z,8.3nm,0.8s,baz=147,slow=7.0,SNR=9.8						
	comp=Z,8.3nm,0.8s						
ULM	Lac du Bonnet	43.17	348	P	P	05 37 53.0	-1.3
ULM				IAmb	IAmb	05 37 55.4	
	comp=Z,12nm,1.0s						
MT08	Bocatoma Ro	43.31	164	P	P	05 37 56.0	+0.2
MT08				IAmb	IAmb	05 38 13.6	
	comp=Z,7.5nm,1.1s						
NVAR	Mina Array Bea	43.70	319	P	P	05 37 59.9	+0.9
	comp=Z,1.1nm,0.9s,baz=108,slow=4.0,SNR=6.8						
	comp=Z,1.1nm,0.9s						
NVAR	Mina Array Bea	43.70	319	P	P	05 37 59.5	+0.4
BMN	Battle Mountai	44.18	322	P	P	05 38 01.8	-1.0
WAKR	Walker	44.48	318	P	P	05 38 04.0	-1.2
WAKR				IAmb	IAmb	05 38 13.4	
	comp=Z,6.0nm,1.2s						
BOZ	Bozeman (W)	44.61	331	P	P	05 38 06.0	-0.1
LYMT	Lyon Mountain	45.93	332	P	P	05 38 16.6	-0.1
WVOR	Wild Horse Val	46.23	323	P	P	05 38 19.3	+0.3
WVOR				IAmb	IAmb	05 38 38.0	
	comp=Z,5.0nm,1.1s						
WVOR	Wild Horse Val	46.23	323	P	P	05 38 21.1	+2.1
	comp=Z,4.7nm,1.5s						
ORV	Oroville	46.40	318		P	05 38 19.9	-0.3
MSO	Missoula	46.61	331	P	P	05 38 22.3	+0.4
PLCA	Paso Flores	50.12	168	P	P	05 38 48.5	-0.5
	comp=Z,1.7nm,0.7s,baz=346,slow=7.8,SNR=11						
	comp=Z,1.7nm,0.7s						
FRB	Frobisher Bay	56.31	8	LR	LR	06 02 38.0	
	comp=Z,50nm,21.7s,baz=132,slow=35						
YKA	Yellowknife Ar	58.78	343	P	P	05 39 50.8	-0.8
	comp=Z,2.6nm,0.9s,baz=138,slow=7.4,SNR=7.2						
	comp=Z,2.6nm,0.9s						
YKA	Yellowknife Ar	58.78	343	P	P	05 39 51.8	+0.3
F30M	Barrier River	68.80	341	P	P	05 40 57.3	-0.1
F30M				IAmb	IAmb	05 41 01.5	
	comp=Z,4.4nm,0.8s						
BCAR	Beaver Creek A	68.83	335		P	05 40 58.9	+1.1
L27K	Beaver Creek,	68.85	335	P	P	05 40 59.0	+1.1
L27K				IAmb	IAmb	05 40 59.8	
	comp=Z,4.3nm,1.1s						
SUMG	Summit	69.55	13	P	P	05 41 02.4	-0.2
ILAR	Eielson Array	71.57	336	P	P	05 41 14.8	+0.2
	comp=Z,1.8nm,0.9s,baz=109,slow=4.6,SNR=16						
ILAR				LR	LR	06 16 18.9	
	comp=Z,16nm,18.4s,baz=255,slow=39						
	comp=Z,1.8nm,0.9s						
ILAR	Eielson Array	71.57	336	P	P	05 41 15.2	+0.7
KDAK	Kodiak Island	72.19	328	LR	LR	06 15 38.5	
	comp=Z,48nm,18.3s,baz=207,slow=38						
MLY	Manley	73.21	336		P	05 41 24.9	+0.5
MLY				IAmb	IAmb	05 41 28.7	
	comp=Z,2.5nm,0.9s						
ESDC	Sonseca Array	76.30	51	P	P	05 41 42.4	-0.5
	comp=Z,1.6nm,1.0s,baz=281,slow=5.5,SNR=4.7						
ESDC				LR	LR	06 08 39.5	
	comp=Z,27nm,21.8s,baz=264,slow=30						
	comp=Z,1.6nm,1.0s						
ESDC	Sonseca Array	76.30	51	P	P	05 41 43.3	+0.5
TORD	Torodi Ar. Bea	83.00	78	P	P	05 42 19.4	-0.2
	comp=Z,1.5nm,0.8s,baz=280,slow=3.7,SNR=5.6						
	comp=Z,1.5nm,0.8s						
TORD	Torodi Ar. Bea	83.00	78	P	P	05 42 18.9	-0.7
NOA	NORSAR Array B	84.83	29	LR	LR	06 17 29.8	
	comp=Z,8.3nm,20.4s,baz=275,slow=34						
DAVOX	Davos/Dischmat	85.97	43	LR	LR	06 21 24.8	
	comp=Z,9.5nm,18.2s,baz=264,slow=36						
HFS	Hagfors	86.18	30	LR	LR	06 20 05.8	
	comp=Z,18nm,18.4s,baz=312,slow=35						
ARCES	ARCESS Array B	88.63	19	P	P	05 42 45.5	-0.9
	comp=Z,2.8nm,0.9s,baz=291,slow=3.8,SNR=5.3						
	comp=Z,2.8nm,0.9s						
ARCES	ARCESS Array B	88.63	19	P	P	05 42 46.6	+0.2
VRAC	Vranov	89.96	40	LR	LR	06 18 19.2	
	comp=Z,30nm,19.4s,baz=270,slow=32						
FINES	FINESS Array B	91.69	27	LR	LR	06 19 00.5	
	comp=Z,18nm,21.0s,baz=246,slow=32						
KSH2	Kashi	128.76	21	PKP	PKiKP	05 49 07.5	+5.1
HHC	Hu-ho-hao-te	129.29	346	*e*P	PKPdf	05 48 59.8	-2.8
NJ2	Nanjing	134.78	334	*e*P	PKiKP	05 49 14.3	-0.2
NJ2				pmax	pmax		
	comp=Z,38nm,0.6s						
ASAR	Alice Springs	141.54	242	PKP	PKPdf	05 49 24.3	-1.5
	comp=Z,0.5nm,0.7s,baz=111,slow=2.8,SNR=6.3						
WRA	Warramunga Arr	142.10	248	PKhKP	PKPpre	05 49 22.8	
	comp=Z,0.4nm,0.7s,baz=98,slow=2.8,SNR=6.0						
WRA				PKP	PKPdf	05 49 26.2	-0.7
	comp=Z,0.5nm,0.8s,baz=97,slow=1.3,SNR=4.8						
PZH	PanZhiHua	145.10	353	PKPbc	PKPdf	05 49 32.1	0.0
MTN	Manton Dam	146.19	259	PKPdf	PKPdf	05 49 33.6	-0.5
CMAR	Chiang Mai Arr	153.34	356	PKPbc	PKiKP	05 49 53.0	0.0
	comp=Z,0.5nm,0.3s,baz=22,slow=2.4,SNR=1.6						

UPA ***03*** *05:39:11.9±1.2, 8°.27N×83°.05W, h15^{km}±4^{km}, MW3.8,*
Fault plane solution: NP1:φ$_s$95.00000°, δ32.00000°,
λ37.00000°., Presumed earthquake
CATAC ***03*** *05:39:13.7±0.6, 8°N±5°×8°3W±°, h4^{km}±2^{km}, M4.1/22,*
MLv4.1/22, Error ellipse: s-maj=10.1km s-min=4.0km
az=16.3, confirmed
UCR ***03*** *05:39:13.1±0.8, 8°.31N×83°.00W, h7^{km}±3^{km}, MW4.1,*
Presumed earthquake
ISC 03 05:39:12.8±1.1, **8°.29N**±0°.04×**82°.99W**±0°.03, **h14**^{km}±8^{km},
n67, σ**1^s.15**/81, **10D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTPA	Petro Terminal	0.14	126	*e*P	Pg	05 39 17.4	+0.7
PTPA				*e*S	Sb	05 39 21.0	+0.7
CDITO	Canoas	0.31	22	P	Pg	05 39 19.4	+0.1
PIRO	Carate, Puerto	0.36	289	P	Pg	05 39 20.1	-0.2
PIRO	Carate, Puerto	0.36	289	*e*P	Pg	05 39 20.0	-0.3
NELY	Ciudad Neily	0.36	7	*e*P	Pg	05 39 20.3	0.0
NELY				*e*S	Sb	05 39 26.4	-0.3
NELY	Ciudad Neily	0.36	7	⇓*i*P	Pg	05 39 20.3	0.0
FITO	Golfito	0.38	334	*e*P	Pg	05 39 19.6	-0.8
FITO	Golfito	0.38	334	⇓*i*P	Pg	05 39 19.7	-0.8
FITO				*e*S	Sg	05 39 25.1	-0.5
VITO	San Vito	0.53	2	*e*P	Pg	05 39 23.5	+0.1
VITO				*e*S	Sb	05 39 32.7	+1.1
VITO	San Vito	0.53	2	⇓*i*P	Pg	05 39 23.6	+0.1
VITO				*e*S	Sb	05 39 32.3	+0.7
SCLRA	Santa Clara, W	0.58	21	*e*P	Pg	05 39 24.6	+0.3
SCLRA	Santa Clara, W	0.58	21	⇓*i*P	Pg	05 39 24.7	+0.3
BRU2	Volcan	0.58	30	P	Pg	05 39 24.7	+0.2
BRU2				S	Sb	05 39 34.1	+0.9
BRU2	Volcan	0.58	30	*e*P	Pg	05 39 24.5	+0.1
BRU2	Volcan	0.58	30	⇓*i*P	Pg	05 39 24.6	+0.2
BRU2				*e*S	Sb	05 39 34.0	+0.9
CLLRA	Cordillera,	0.59	39	*e*P	Pg	05 39 24.8	+0.3
CLLRA	Cordillera,	0.59	39	⇓*i*P	Pg	05 39 24.8	+0.3
BGUAL	Bijagual, Pana	0.69	71	⇓*i*P	Pb	05 39 26.2	-0.4
BGUAL				*e*S	Sb	05 39 35.1	-0.8
BQTLY	Boquete Panama	0.70	48	*e*P	Pb	05 39 26.2	-0.7
BQTLY	Boquete Panama	0.70	48	⇓*i*P	Pb	05 39 26.4	-0.5
EDP2	Potrero Grande	0.75	346	*e*P	Pb	05 39 27.0	-0.7
PANP	Palmar Norte	0.82	325	*e*P	Pb	05 39 27.3	-1.5
RBALA	Bur	1.01	54	*e*P	Pb	05 39 31.4	-0.8
RBALA	Bur	1.01	54	⇓*i*P	Pb	05 39 31.5	-0.8
RBALA				*e*S	Sb	05 39 45.7	+0.3
EDPE	Pejibaye, P	1.04	326	*e*P	Pb	05 39 31.2	-1.5
EDPE				*e*S	Sb	05 39 46.0	-0.2
SAJE	San Jernim	1.17	334	*e*P	Pn	05 39 33.5	-1.5
ZEDO	Perez Zeledon	1.27	327	*e*P	Pn	05 39 36.3	+0.1
PDCAN	Manzana , Fuen	1.28	90	*e*P	Pn	05 39 35.5	-0.8
KKNTU	Kakintº	1.29	65	*e*P	Pn	05 39 35.3	-1.2
KKNTU	Kakintº	1.29	65	⇓*i*P	Pn	05 39 35.5	-0.9
KKNTU				*e*S	Sn	05 39 52.2	-1.3
CEUA	Cerro Uatsi, L	1.33	2	*e*P	Pb	05 39 38.2	+0.6
BRIBI	Bribri	1.34	7	*e*P	Pb	05 39 37.8	+0.1
RGM0	Gandoca	1.35	16	P	Pb	05 39 38.4	+0.4
RGM0	Gandoca	1.35	16	*e*P	Pb	05 39 38.1	+0.2
QUEP	Quepos	1.63	315	P	Pn	05 39 41.3	+0.3
QUEP				S	Sb	05 40 03.6	+0.6
QUEP	Quepos	1.63	315	*e*P	Pn	05 39 40.8	-0.2
SVQ2	Quepos	1.63	314	*e*P	Pn	05 39 42.0	+0.9
PIEC	Cerro El Cedra	1.64	324	*e*P	Pn	05 39 41.7	+0.2
ABE2	San Pablo	1.76	323	*e*P	Pn	05 39 43.9	+0.8
LCR2	La Lucha 2	1.76	325	P	Pn	05 39 43.4	+0.3
LCR2				S	Sg	05 40 08.9	-0.8
LCR2	La Lucha 2	1.76	325	*e*P	Pn	05 39 43.2	+0.1
VERB	Verbena	1.79	337	*e*P	Pn	05 39 42.5	-0.9
PCAYA	Pacayas	1.81	333	*e*P	Pn	05 39 43.8	-0.1
VTCV	VTCV, Calle Va	1.84	337	*e*P	Pn	05 39 44.3	+0.2
LCOCO	El Coco	1.87	343	*e*P	Pb	05 39 45.9	-0.9
VTR0	Volcan Turrial	1.88	336	*e*P	Pn	05 39 45.7	+0.7
LUJA	Lujan	1.95	327	*e*P	Pn	05 39 46.5	+0.9
PURI	Puriscal	2.03	320	*e*P	Pn	05 39 47.8	+1.1
HDC	Heredia	2.04	327	*e*P	Pn	05 39 47.9	+1.1
HEME	Heredia, Merce	2.04	326	*e*P	Pn	05 39 48.2	+1.3
TRB2	Turrubares	2.17	318	P	Pn	05 39 50.0	+1.5
TRB2				S	Sb	05 40 17.9	-0.7
ATEO	Atenas	2.17	321	*e*P	Pn	05 39 49.6	+0.9
TCS1	Tacares	2.17	324	P	Pn	05 39 50.3	+1.6
JTS	Las Juntas de	2.78	316	P	Pn	05 39 58.0	+1.1
CMARA	Lajas Hojancha	2.96	306	P	Pn	05 40 00.4	+0.9
BCIP	Isla Barro Col	3.24	74	P	Pn	05 40 04.5	+1.3
UPAL	Upala	3.27	323	P	Pn	05 40 07.1	+3.4
BLUN	Bluefields	3.78	348	P	Pn	05 40 11.9	+1.2
CARN	Rivas	3.81	319	P	Pn	05 40 13.6	+2.5
OMEN	Al SSO del Vol	4.13	321	P	Pn	05 40 17.1	+1.7
MORN	Al O del Volca	4.17	321	P	Pn	05 40 19.2	+3.2
JAPN	Al SSO del Vol	4.17	321	P	Pn	05 40 19.0	+3.0
ACON	Acoyapa	4.25	330	P	Pn	05 40 19.7	+2.6
SABN	Sabanita	4.80	320	P	Pn	05 40 26.0	+1.2
MASN	Masaya	4.82	320	P	Pn	05 40 26.1	+1.0
MAS3	Al N del Volca	4.86	320	P	Pn	05 40 28.1	+2.5
BOAB	BOACO BROADBAN	4.91	328	P	Pn	05 40 28.3	+2.1

UCR ***03*** *05:39:56.3±0.6, 8°.33N×82°.98W, h5^{km}±5^{km}, MW3.8,*
Presumed earthquake
CATAC ***03*** *05:39:57.4±0.7, 8°N±4°×8°3W±°, h6^{km}±2^{km}, M4.2/6,*
MLv4.2/6, Error ellipse: s-maj=9.3km s-min=6.5km
az=177.5, confirmed
ISC 03 05:39:56.0±1.0, **8°.33N**±0°.04×**82°.98W**±0°.03, **h14**^{km}±8^{km},
n30, σ**0^s.78**/35, **Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTPM	Petroterminale	0.16	143	*e*S	Sb	05 40 05.0	+1.0
PTPM	Petroterminale	0.16	143	*e*P	Pb	05 40 00.4	-0.4
PTPA	Petro Terminal	0.17	141	*e*P	Pg	05 40 00.4	+0.3
PTPA				*e*S	Sb	05 40 04.1	-0.1
CDITO	Canoas	0.26	23	P	Pb	05 40 02.4	-0.1
CDITO				S	Sn	05 40 10.3	-1.0
NELY	Ciudad Neily	0.32	6	*e*P	Pb	05 40 03.3	-0.1
FITO	Golfito	0.34	329	*e*P	Pg	05 40 02.7	-0.3
FITO				*e*S	Sg	05 40 07.9	+0.3
PIRO	Carate, Puerto	0.36	281	P	Pb	05 40 03.9	-0.3
PIRO	Carate, Puerto	0.36	281	*e*P	Pg	05 40 03.6	+0.3
VITO	San Vito	0.48	1	*e*P	Pb	05 40 06.6	+0.2
SCLRA	Santa Clara, W	0.53	21	*e*P	Pb	05 40 07.5	+0.3
BRU2	Volcan	0.54	32	P	Pb	05 40 07.7	+0.3
BRU2				S	Sn	05 40 17.7	-0.7
BRU2	Volcan	0.54	32	*e*P	Pb	05 40 07.5	+0.2
CLLRA	Cordillera,	0.54	41	*e*P	Pb	05 40 07.6	+0.2
BQTLY	Boquete Panama	0.66	50	*e*P	Pg	05 40 09.1	+0.1
LNBQ3	Los Naranjos,	0.70	49	*e*S	Sn	05 40 22.3	0.0
LNBQ3	Los Naranjos,	0.70	49	*e*P	Pb	05 40 10.7	+0.7
EDP2	Potrero Grande	0.71	344	*e*P	Pb	05 40 10.2	+0.1
PANP	Palmar Norte	0.78	323	*e*P	Pg	05 40 11.3	0.0
DRK0	Durika	0.96	344	P	Pn	05 40 15.7	+0.4
RBALA	Bur	0.98	56	*e*P	Pb	05 40 14.4	-0.4
EDPE	Pejibaye, P	1.01	324	*e*P	Pb	05 40 15.0	-0.3
SAJE	San Jernim	1.14	332	*e*P	Pb	05 40 17.1	-0.4
ZEDO	Perez Zeledon	1.23	326	*e*P	Pb	05 40 19.3	+0.2

KKNTU	Kakintº	1.26	66	eP	Pn	05 40 18.3	-0.9
QUEP	Quepos	1.60	313	S	Sg	05 40 47.2	-0.5
PIEC	Cerro El Cedra	1.61	323	eP	Pb	05 40 25.7	0.0
LCR2	La Lucha 2	1.73	324	P	Pb	05 40 27.6	-0.1
LCR2				S	Sg	05 40 51.8	0.0
LCOCO	El Coco	1.83	342	eP	Pb	05 40 29.2	-0.1
JTS	Las Juntas de	2.75	315	S	Sn	05 41 15.7	+2.8
UPAL	Upala	3.24	322	P	Pb	05 40 51.0	-2.4

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*IDC **03** 05:40:41.9±2.4, 7°.56N×83°.19W, h0^{km}, mb3.6/5, mbtmp3.7/8, ML4.3/2, MS2.9/1, Error ellipse: s-maj=80.9km s-min=21.8km az=32.0*

*UCR **03** 05:40:46.7±1.1, 8°.28N×82°.99W, h18^{km}±7^{km}, MW4.4, Presumed earthquake*

*UPA **03** 05:40:47.0±1.3, 8°.35N×82°.95W, h5^{km}±3^{km}, MW4.2, Fault plane solution: NP1:φs182.90000°, δ25.70000°, λ157.30000°., Presumed earthquake*

*NEIC **03** 05:40:49.1±1.3, 8°.41N±0°.05×83°.08W±0°.04, h10^{km}±1^{km}, mb4.3/22, Error ellipse: s-maj=8.2km s-min=6.6km az=340.0*

ISC 03 05:40:47.7±0.8, **8°.33N**±0°.03×**82°.98W**±0°.02, **h12**^{km}±5^{km}, **n102**, σ**1^{s}.26**/125, **mb4.3**/16, **1C-14D**, **Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTPM	Petroterminale	0.16	140	⇑iP	Pg	05 40 51.0	-0.4
PTPM				eS	Sg	05 40 54.3	+0.2
PTPA	Petro Terminal	0.17	138	eP	Pg	05 40 50.9	-0.7
PTPA				eS	Sg	05 40 55.2	+0.8
NELY	Ciudad Neily	0.32	7	eP	Pg	05 40 53.9	-0.4
NELY				eS	Sb	05 41 00.3	-0.3
NELY	Ciudad Neily	0.32	7	⇓iP	Pg	05 40 53.9	-0.4
NELY				eS	Sb	05 41 01.2	+0.6
FITO	Golfito	0.34	330	eP	Pg	05 40 53.2	-1.4
FITO				eS	Sg	05 40 59.1	-0.2
FITO	Golfito	0.34	330	⇓iP	Pg	05 40 53.3	-1.4
PIRO	Carate, Puerto	0.36	282		Pg	05 40 53.9	-1.0
PIRO	Carate, Puerto	0.36	282	eP	Pg	05 40 53.6	-1.3
PIRO	Carate, Puerto	0.36	282	eP	Pb	05 40 54.6	-1.4
PIRO				eS	Sb	05 41 02.3	+0.7
MLIR3	Monte Lirio, C	0.49	19	⇓iP	Pg	05 40 57.5	+0.1
MLIR3				eS	Sg	05 41 03.8	-0.2
VITO	San Vito	0.49	2	eP	Pg	05 40 57.0	-0.4
VITO	San Vito	0.49	2	⇓eP	Pg	05 40 57.1	-0.2
VITO				eS	Sb	05 41 07.2	+1.7
DVD	David	0.54	78	eP	Pg	05 40 57.6	-0.7
DVD				eS	Sg	05 41 04.8	-0.7
SCLRA	Santa Clara, W	0.54	22	eP	Pg	05 40 58.2	-0.1
SCLRA	Santa Clara, W	0.54	22	⇓iP	Pg	05 40 58.3	-0.1
BRU2	Volcan	0.55	32		Pg	05 40 58.5	0.0
BRU2				Sg	Sg	05 41 07.0	+1.2
BRU2	Volcan	0.55	32	eP	Pg	05 40 57.9	-0.6
BRU2	Volcan	0.55	32	⇓eP	Pg	05 40 58.2	-0.3
BRU2				eS	Sg	05 41 06.9	+1.1
CLLRA	Cordillera,	0.55	41	eP	Pg	05 40 58.3	-0.3
CLLRA	Cordillera,	0.55	41	⇓iP	Pg	05 40 58.3	-0.3
LOMA3	Las Lomas, Chi	0.59	80	eP	Pg	05 40 58.0	-1.3
LOMA3				eS	Sg	05 41 07.9	+0.6
PTAR3	Potrerillos Ar	0.60	53	eP	Pg	05 40 59.0	-0.6
PTAR3				eS	Sg	05 41 08.4	+0.9
CHIR3	Chiriqui UPA,	0.65	84	eP	Pg	05 40 59.3	-1.1
CHIR3				eS	Sg	05 41 09.3	+0.4
BGUAL	Bijagual, Pana	0.67	74	⇓iP	Pg	05 40 59.8	-1.0
BGUAL				eS	Sg	05 41 10.7	+1.1
BQTLY	Boquete Panama	0.67	50	eP	Pg	05 40 59.5	-1.3
BQTLY	Boquete Panama	0.67	50	eP	Pg	05 41 00.0	-0.8
BQTLY				⇓iP	Pg	05 41 00.0	-0.8
BQSF3	Alto Boquete,	0.68	53	eP	Pg	05 41 00.1	-1.0
BQSF3				eS	Sg	05 41 10.7	+0.6
LNBQ3	Los Naranjos,	0.71	49	eP	Pg	05 41 00.3	-1.2
LNBQ3				eS	Sg	05 41 11.1	+0.3
EDP2	Potrero Grande	0.71	344	eP	Pg	05 41 00.5	-1.0
EDP2				eS	Sb	05 41 12.1	+0.4
PANP	Palmar Norte	0.79	323	eP	Pg	05 41 01.9	-1.0
RBALA	Bur	0.99	56	eP	Pb	05 41 05.0	-1.7
RBALA	Bur	0.99	56	eP	Pb	05 41 05.0	-1.7
RBALA				⇓iP	Pb	05 41 05.0	-1.7
RBALA				eS	Sg	05 41 19.2	-0.5
EDPE	Pejibaye, P	1.01	325	eP	Pg	05 41 05.2	-2.0
SAJE	San Jernim	1.14	333	eP	Pb	05 41 07.6	-1.8
CNI2	El Empalme, Bo	1.20	25	⇓iP	Pn	05 41 08.6	-1.7
ZEDO	Perez Zeledon	1.23	326	eP	Pn	05 41 09.9	-0.9
KKNTU	Kakintº	1.27	66	eP	Pn	05 41 08.9	-2.3
KKNTU	Kakintº	1.27	66	⇓iP	Pn	05 41 09.1	-2.2
KKNTU				eS	Sb	05 41 26.1	-1.7
PDCAN	Manzana , Fuen	1.27	91	⇓iP	Pn	05 41 09.2	-2.1
PDCAN				eS	Sb	05 41 26.6	-1.4
CEUA	Cerro Uatsi, L	1.29	2	eP	Pn	05 41 11.8	+0.2
RGM0	Gandoca	1.31	16	Pn	Pb	05 41 12.5	+0.3
RGM0	Gandoca	1.31	16	eP	Pn	05 41 10.8	-1.0
QUEP	Quepos	1.60	313	iP	Pn	05 41 14.7	-1.1
PIEC	Cerro El Cedra	1.61	323	eP	Pn	05 41 15.7	-0.5
LCR2	La Lucha 2	1.73	324	Pn	Pn	05 41 17.6	-0.2
VERB	Verbena	1.75	336	eP	Pn	05 41 16.0	-2.0
PCAYA	Pacayas	1.78	333	eP	Pn	05 41 17.9	-0.5
RAFA	San Farael, Vo	1.82	333	Pn	Pn	05 41 18.2	-0.9
HDC	Heredia	2.00	326	Pn	Pn	05 41 20.8	-0.7
CACAO	El Cacao, Vera	2.32	115	eP	Pn	05 41 26.3	+0.6
AZU	Azuero	2.73	101	eP	Pn	05 41 31.6	+0.3
JTS	Las Juntas de	2.75	315	Pn	Pn	05 41 33.0	+1.4
	78nm,0.3s,baz=106,slow=19,SNR=10						
JTS				Sn	Sn	05 42 05.0	+0.1
	20nm,0.3s,baz=323,slow=20,SNR=3.9						
	188nm,0.3s						
JTS				AML	AML		
JTS	Las Juntas de	2.75	315		Pn	05 41 31.2	-0.5
JTS	Las Juntas de	2.75	315	⇓iP	Pn	05 41 33.1	+1.4
JUD3	Juan Diaz 3	3.12	306	Pn	Pn	05 41 36.1	-0.6
CARN	Rivas	3.79	319	Pn	Pn	05 41 46.2	+0.3
BOAB	BOACO BROADBAN	4.87	327	Pn	Pn	05 42 00.2	-0.7
MGAN	Managua	4.97	320	Pn	Pn	05 42 02.3	+0.1
SIUN	Universidad Ur	5.64	342	Pn	Pn	05 42 10.6	-0.8
CRIN	San Cristobal	5.91	318	Pn	Pn	05 42 13.6	-1.5
TGUH	Tegucigalpa,Un	7.08	324	Pn	Pn	05 42 30.5	-0.8
MTO3	Montecristo	8.69	315	Pn	Pn	05 42 54.2	+0.8
ESQI	Esquipulas	8.79	315	Pn	Pn	05 42 54.1	-0.5
OTAV	Otavalo	9.22	150	Pn	Pn	05 43 02.6	+1.7
APG	El Apazote	9.88	313	Pn	Pn	05 43 12.4	+2.6
	1.0nm,0.9s,baz=129,slow=12,SNR=5.4						
SLOR	San Lorenzo -	10.05	153		Pn	05 43 16.0	+3.7
MTDJ	Mount Denham	11.18	28	Pn	Pn	05 43 28.6	+1.1
CMIG	Matias Romero	14.51	308	Pn	Pn	05 44 13.8	+0.9
	0.5nm,0.3s,baz=120,slow=9.4,SNR=6.5						
	1.5nm,0.3s						
CMIG				AML	AML		
SABA	Saba	21.32	62	P	P	05 45 37.0	+2.3
GRGR	Grenville	21.32	78	P	P	05 45 37.2	+2.5
352A	Blakely	23.11	356	P	P	05 45 53.7	+0.1
352A				IAmb	IAmb	05 45 57.9	
	comp=Z,13nm,0.6s						
154A	Montrose	24.17	360	P	P	05 46 04.7	+0.9
LRAL	Lakeview Retre	24.87	352	P	P	05 46 10.9	+0.7
LRAL				IAmb	IAmb	05 46 17.4	
	comp=Z,6.3nm,1.0s						
GOGA	Godfrey	24.97	359	P	P	05 46 11.2	0.0
GOGA				IAmb	IAmb	05 46 13.9	
	comp=Z,5.7nm,0.8s						
Y52A	Lilburn	25.43	358	P	P	05 46 15.8	+0.5
Y52A				IAmb	IAmb	05 46 18.6	
	comp=Z,5.5nm,0.7s						
HODGE	Hodges	25.79	1	P	P	05 46 19.4	+0.8
Z41A	Richland Creek	26.42	341	P	P	05 46 24.6	+0.3
Z41A				IAmb	IAmb	05 46 29.4	
	comp=Z,7.8nm,0.8s						
CCAR	Cane Creek	26.73	344	P	P	05 46 26.6	-0.4
CCAR				IAmb	IAmb	05 46 40.3	
	comp=Z,6.0nm,0.9s						
W57A	Gilead	26.84	5	P	P	05 46 28.5	+0.4
TKL	Tuckaleechee C	27.21	359	LR	LR	05 56 02.5	
	comp=Z,22nm,18.7s,baz=186,slow=33						
WVT	Waverly	28.03	352	P	P	05 46 38.9	+0.2
WHAR	Wooly Hollow	28.16	344	P	P	05 46 39.9	0.0
WHAR				IAmb	IAmb	05 46 40.2	
	comp=Z,3.4nm,0.7s						
LCAR	Lake Charles	28.61	346	P	P	05 46 43.8	0.0
LCAR				IAmb	IAmb	05 46 43.9	
	comp=Z,3.5nm,0.8s						
Q51A	Peebles	30.57	359	P	P	05 47 01.9	+0.7
Q51A				IAmb	IAmb	05 47 02.3	
	comp=Z,4.9nm,0.7s						
AC06	Mina Casimiro	37.52	161	P	P	05 48 03.4	+1.7
GO03	Copiapo	37.78	161	P	P	05 48 05.3	+1.4
PDAR	Pinedale Array	41.49	330	P	P	05 48 35.2	+0.3
	comp=Z,0.6nm,1.0s,baz=80,slow=3.2,SNR=2.3						
	comp=Z,0.6nm,1.0s						
PDAR	Pinedale Array	41.49	330	P	P	05 48 34.5	-0.4
NVAR	Mina Array Bea	43.68	319	P	P	05 48 54.0	+1.2
	comp=Z,0.3nm,0.6s,baz=132,slow=8.0,SNR=4.2						
	comp=Z,0.3nm,0.6s						
NVAR	Mina Array Bea	43.68	319	P	P	05 48 52.7	-0.1
ILAR	Eielson Array	71.55	336	P	P	05 52 06.5	-1.8
	comp=Z,0.5nm,0.6s,baz=127,slow=4.5,SNR=5.4						
	comp=Z,0.5nm,0.6s						
ILAR	Eielson Array	71.55	336	P	P	05 52 07.7	-0.6
BMAR	Burnt Mountain	71.67	339	P	P	05 52 10.6	+1.5
RND	Reindeer	71.91	334	P	P	05 52 11.3	+0.7
RND				IAmb	IAmb	05 52 11.4	
	comp=Z,3.2nm,1.0s						
I23K	Minto, Yukon-K	72.66	336	P	P	05 52 15.4	+0.4
I23K				IAmb	IAmb	05 52 19.0	
	comp=Z,1.9nm,0.9s						
E23K	Chandalar	73.69	339	P	P	05 52 21.5	+0.3
E23K				IAmb	IAmb	05 52 28.4	
	comp=Z,3.5nm,1.1s						
ESDC	Sonseca Array	76.29	51	P	P	05 52 36.3	-0.4
	comp=Z,0.9nm,0.9s,baz=272,slow=6.8,SNR=4.3						
	comp=Z,0.9nm,0.9s						
ESDC	Sonseca Array	76.29	51	P	P	05 52 37.2	+0.5
TORD	Torodi Ar. Bea	83.00	78	P	P	05 53 12.9	-0.6
	comp=Z,0.6nm,0.8s,baz=298,slow=3.1,SNR=2.2						
	comp=Z,0.6nm,0.8s						
ASAR	Alice Springs	141.55	242	PKP	PKPdf	06 00 15.4	-4.4
	comp=Z,0.2nm,0.5s,baz=76,slow=2.8,SNR=1.7						
WRA	Warramunga Arr	142.10	248	PKP	PKPdf	06 00 15.7	-5.1
	comp=Z,0.4nm,0.8s,baz=101,slow=3.8,SNR=2.3						
MTN	Manton Dam	146.18	259	PKPdf	PKPdf	06 00 27.9	0.0

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*IDC **03** 06:07:40.3±4.1, 43°.72N×147°.40E, h0^{km}, mb3.7/6, mbtmp3.7/6, Error ellipse: s-maj=119.1km s-min=44.1km az=7.0*

*MOS **03** 06:07:51.2±1.0, 44°.35N×148°.21E, h88^{km}, mb4.0/5, Error ellipse: s-maj=18.7km s-min=15.7km az=44.7*

*SKHL **03** 06:07:55.2±0.4, 44°.30N×147°.80E, h108^{km}±5^{km}, mb4.6/4, msh5.5/4*

*JMA **03** 06:07:55.5±0.3, 44°N±2°×14°8E±°, h86^{km}, MV3.7/26, SE OFF ETOROFU*

ISC 03 06:07:52.9±1.5, **44°.09N**±0°.09×**148°.1E**±0°.1, **h92**^{km}±9^{km}, **n44**, σ**1^{s}.33**/55, **mb3.8**/8, **2C-1D**, **Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	Kuril'sk	1.15	352	d iPN	Pn	06 08 15.3	+0.8
KUR				iS	Sn	06 08 30.4	-0.3
KUR				pmax	pmax		
	comp=Z,452nm,0.4s						
KUR				smax	smax		
	comp=N,879nm,0.2s						
KUR				smax	smax		
	comp=E,459nm,0.2s						
KUR	Kuril'sk	1.15	352	eP	Pn	06 08 15.3	+0.8
KUR				AMB	AMB	06 08 15.8	
	comp=E,320nm,0.4s						
KUR				eS	Sn	06 08 30.4	-0.3
KUR				A	A	06 08 31.1	
	comp=E,880nm,0.2s						
KUR				A	A	06 08 31.1	
	comp=E,460nm,0.2s						
REI	Reidovoe	1.17	358	eP	Pn	06 08 15.8	+1.0
REI				AMB	AMB	06 08 16.3	
	comp=E,80nm,0.3s						
REI				eS	Sn	06 08 31.0	-0.2
REI				A	A	06 08 31.5	
	comp=E,390nm,0.3s						
REI				A	A	06 08 31.5	
	comp=E,530nm,0.3s						
YUK	Yuzh-Kuril'sk	1.60	269	ePN	Pn	06 08 20.7	+0.7
YUK				iS	Sn	06 08 39.9	-0.7
YUK				pmax	pmax		
	comp=N,82nm,0.1s						
YUK				pmax	pmax		
	comp=E,138nm,0.1s						
YUK				pmax	pmax		
	comp=Z,380nm,0.1s						
YUK				smax	smax		
	comp=N,308nm,0.2s						
YUK				smax	smax		
	comp=E,673nm,0.4s						
YUK	Yuzh-Kuril'sk	1.60	269	eP	Pn	06 08 20.7	+0.7
YUK				AMB	AMB	06 08 22.0	
	comp=E,210nm,0.4s						
YUK				iS	Sn	06 08 39.9	-0.7
YUK				A	A	06 08 42.6	
	comp=E,410nm,0.4s						
YUK				A	A	06 08 42.6	
	comp=E,590nm,0.4s						
NEM2	Nemuro 2	1.85	248	P	Pn	06 08 24.0	+0.8
NEM2				S	Sn	06 08 45.3	-0.9
NMR	Nemuro--Hokkai	1.85	248	ePN	Pn	06 08 23.9	+0.6
NMR				iS	Sn	06 08 45.1	-1.3
NMR	Nemuro--Hokkai	1.85	248	eP	Pn	06 08 24.1	+0.8
NMR				iS	Sn	06 08 45.7	-0.7
RUSJ	Misakicho	2.04	271	ePN	Pn	06 08 27.8	+2.1
RUSJ				iS	Sn	06 08 53.1	+2.3
JRA	Rausu	2.14	267	P	Pn	06 08 28.9	+1.8
JRA				S	Sn	06 08 54.5	+1.4
JNSB	Nemuroshibetsu	2.25	263	eP	Pn	06 08 30.3	+1.9
JKHN	Kushirohamanak	2.35	246	P	Pn	06 08 30.9	+1.1
JKHN				eS	Sn	06 08 57.5	-0.6
JNK	Nakash	2.49	259	P	Pn	06 08 32.9	+1.2
JNK				S	Sn	06 09 01.6	+0.3
JAK	Akkeshi	2.70	247	P	Pn	06 08 35.3	+0.9
JAK				S	Sn	06 09 05.6	-0.6
JTKR	Abashiri--Toko	3.01	269	P	Pn	06 08 40.3	+1.7
JAR	Ashorobuto	3.23	257	P	Pn	06 08 43.6	+2.1
JAR				S	Sn	06 09 20.4	+1.3
JOB	Onbets	3.31	250	eP	Pn	06 08 44.4	+1.8
JOB				S	Sn	06 09 20.8	-0.3
JCH	Churui	3.75	248	eP	Pn	06 08 49.7	+1.2
JCH				eS	Sn	06 09 30.4	-1.2
JNBK	Urakawa-nobuka	4.30	247	eP	Pn	06 08 57.0	+1.0
JNBK				eS	Sn	06 09 42.9	-2.1
YSS	Yuzhno-Sakhali	4.71	309	ePN	Pn	06 09 03.1	+1.5
YSS	Yuzhno-Sakhali	4.71	309	eP	Pn	06 09 02.3	+0.7
KLR	Kul'dur	12.33	300	⇑ePN	Pn	06 10 44.0	-1.1
KLR				pmax	pmax		
	comp=Z,16nm,2.5s						
KLR	Kul'dur	12.33	300	eP	Pn	06 10 44.0	-1.1
YAK	Yakutsk	20.96	335	iP	P	06 12 26.6	-1.5
YAK				pmax	pmax		
	comp=Z,7.0nm,0.7s						
YAK	Yakutsk	20.96	335	eP	P	06 12 26.6	-1.5
BILL	Bilibino	25.84	16	iP	P	06 13 14.8	-0.5
BILL				pmax	pmax		
	comp=Z,4.0nm,1.1s						
BILL	Bilibino	25.84	16	eP	P	06 13 14.8	-0.5
H11N2	WAKE ISLAND Hy	28.93	141	T	T	06 44 45.7	
	baz=332,slow=76,SNR=66						
H11N1	WAKE ISLAND Hy	28.95	141	T	T	06 44 44.7	
	baz=332,slow=76,SNR=55						
H11N3	WAKE ISLAND Hy	28.95	141	T	T	06 44 45.0	
	baz=332,slow=76,SNR=56						
H11S1	WAKE ISLAND Hy	29.92	143	T	T	06 45 53.8	
	baz=332,slow=76,SNR=105						
H11S3	WAKE ISLAND Hy	29.92	143	T	T	06 45 56.3	
	baz=332,slow=76,SNR=81						
H11S2	WAKE ISLAND Hy	29.94	143	T	T	06 45 57.7	
	baz=332,slow=76,SNR=61						
MK31	Makanchi Array	45.02	298	iP	P	06 15 58.4	-0.7
MKAR	Makanchi Array	45.02	298	P	P	06 15 54.8	-4.3
	comp=Z,0.5nm,0.6s,baz=76,slow=10,SNR=6.8						
	comp=Z,0.5nm,0.6s						
MKAR	Makanchi Array	45.02	298	iP	P	06 15 58.4	-0.7
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	Makanchi Array	45.02	298	eP	P	06 15 58.4	-0.7
AAK	Ala-Archa	51.81	296	⇑eP	P	06 16 51.6	+0.1
AAK				pmax	pmax		
	comp=Z,1.0nm,0.7s						
AAK	Ala-Archa	51.81	296	eP	P	06 16 51.6	+0.1
ARCES	ARCESS Array B	59.16	340	P	P	06 17 42.4	-1.0
	comp=Z,2.4nm,1.0s,baz=34,slow=7.7,SNR=4.3						
	comp=Z,2.4nm,1.0s						
FINES	FINESS Array B	64.87	333	P	P	06 18 21.7	0.0
	comp=Z,1.3nm,0.5s,baz=47,slow=8.4,SNR=13						
	comp=Z,1.3nm,0.5s						
NOA	NORSAR Array B	69.52	339	P	P	06 18 52.1	+0.9
	comp=Z,1.1nm,0.9s,baz=30,slow=6.4,SNR=2.2						
	comp=Z,1.1nm,0.9s						
AKASG	Malin Array Be	71.70	324	P	P	06 19 04.5	0.0
	comp=Z,0.2nm,0.3s,baz=36,slow=5.9,SNR=1.2						
	comp=Z,0.2nm,0.3s						
TXAR	Lajitas Array	81.90	57	P	P	06 20 04.9	+2.5
	comp=Z,0.1nm,0.5s,baz=314,slow=5.6,SNR=1.6						
	comp=Z,0.1nm,0.5s						

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*NEIC **03** 06:20:55.7±1.1, 3°.65N±0°.09×125°.62E±0°.09, h135^{km}±6^{km}, mb4.3/23, Error ellipse: s-maj=14.8km s-min=10.7km az=46.0*

*IDC **03** 06:20:57.0±8.5, 3°.56N×125°.69E, h149^{km}±80^{km}, mb3.5/7, mbtmp4.0/8, Error ellipse: s-maj=77.5km s-min=16.8km az=60.0*

*DJA **03** 06:21:00.4±0.7, 3°N±7°×12°6E±°, h155^{km}±8^{km}, M4.4/14, mB5.4/2, mb4.3/7, MLv4.4/14, Mw(mB)4.8/2*

ISC 03 06:20:57.4±0.5, **3°.44N**±0°.05×**125°.63E**±0°.08, **h150**^{km}, **n51**, σ**1^{s}.75**/56, **mb4.2**/15, **Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	Don Marcelino,	2.65	2	eP	Pn	06 21 43.9	+3.5
DDMP				eS	Sn	06 22 15.9	+2.3
TNTI	Ternate	3.17	147	Pn	Pn	06 21 47.3	+0.3
TNTI				Sn	Sn	06 22 26.7	+1.4
TNTI	Ternate	3.17	147	P	Pn	06 21 50.1	+3.1
TNTI				AML	AML		
GTOI	Gorontalo	3.83	223	P	Pn	06 21 59.2	+3.7
GTOI				AML	AML		
CDOP	Cateel, Davao	4.39	11	iP	Pn	06 22 05.6	+2.8
CDOP				eS	Sn	06 22 54.8	+1.1
BIPH	Bislig	4.76	9	eP	Pn	06 22 11.4	+3.6
BIPH				eS	Sn	06 23 06.1	+3.4
LUWI	Luwuk	5.29	213	Pn	Pn	06 22 13.9	-0.9
LUWI	Luwuk	5.29	213	P	Pn	06 22 19.4	+4.6
LUWI				AML	AML		
TOLI2	Tolitoli	5.37	245		Pn	06 22 14.9	-1.0
SANI	Sanana	5.47	176	P	Pn	06 22 18.3	+1.2
	13µm41nm,0.8s						
KRAI	Karang Ratu	7.26	158	P	Pn	06 22 43.9	+2.8
MYLDM	Lahad Datu	7.32	284	Pn	Pn	06 22 37.9	-3.9
KAPI	Kappang	10.25	215	P	Pn	06 23 22.9	+2.0
	19nm,0.7s,baz=36,slow=19,SNR=6.6						
KAPI	Kappang	10.25	215		Pn	06 23 21.4	+0.5
SAUI	Saumlaki	12.68	154	Pn	Pn	06 23 53.5	+0.9
MTN	Manton Dam	17.08	161	P	Pn	06 24 47.6	+0.2
MTN				IAmb	IAmb	06 25 17.5	
	comp=Z,9.8nm,1.4s						
KNRA	Kununurra	19.25	171	P	P	06 25 11.4	+1.0
KNRA				IAmb	IAmb	06 25 26.8	
	comp=Z,13nm,1.5s						
BBJI	Bungbulang	20.96	239	P	P	06 25 29.1	+0.2
BBJI				IAmb	IAmb	06 25 30.4	
	comp=Z,35nm,1.5s						
FITZ	Fitzroy Crossi	21.41	180	P	P	06 25 34.3	+0.8
MYKOM	Kota Tinggi	21.82	266	P	P	06 25 37.2	-0.8
MYKOM				IAmb	IAmb	06 25 39.9	
	comp=Z,27nm,1.4s						
JMZ	Minamidaito 2	22.89	13	P	P	06 25 44.9	-3.3
WB0	Warramunga Arr	24.62	160	P	P	06 26 04.7	+0.6
WB0				IAmb	IAmb	06 26 06.5	
	comp=Z,7.4nm,1.1s						
WRA	Warramunga Arr	24.76	160	P	P	06 26 05.6	+0.2
	comp=Z,1.8nm,0.9s,baz=337,slow=9.7,SNR=25						
	comp=Z,1.8nm,0.9s						
WRA	Warramunga Arr	24.76	160	P	P	06 26 06.2	+0.7
WR8	Warramunga Arr	24.83	160	P	P	06 26 07.1	+1.1
WR8				IAmb	IAmb	06 26 22.8	
	comp=Z,11nm,1.3s						
MBWA	Marble Bar	25.12	193	P	P	06 26 09.0	+0.4
MBWA				IAmb	IAmb	06 26 15.5	
	comp=Z,13nm,1.1s						
AS31	Alice Springs	28.12	164	P	P	06 26 35.7	+0.2
ASAR	Alice Springs	28.13	164	P	P	06 26 35.8	+0.3
	comp=Z,0.2nm,0.4s,baz=342,slow=7.0,SNR=5.2						
ASAR				PcP	PcP	06 29 46.2	+0.1
	comp=Z,0.3nm,0.4s,baz=339,slow=2.6,SNR=5.6						
	comp=Z,0.2nm,0.4s						
ASAR	Alice Springs	28.13	164	P	P	06 26 35.7	+0.2
ASAR					PcP	06 29 46.0	-0.1
OUENC	Ouen Island, N	47.76	125	P	P	06 29 19.0	-0.7
MSVF	Nonsavu	55.79	114	P	P	06 30 17.4	-2.1
MKAR	Makanchi Array	57.17	326	P	P	06 30 27.9	-0.8
	comp=Z,0.8nm,0.4s,baz=118,slow=7.5,SNR=16						
	comp=Z,0.8nm,0.4s						
MKAR	Makanchi Array	57.17	326	P	P	06 30 28.5	-0.2
KURBB	Kurchatov Arra	61.39	328	P	P	06 30 57.0	-0.6
	comp=Z,1.3nm,0.5s,baz=130,slow=6.0,SNR=15						
	comp=Z,1.3nm,0.5s						
KURK	Kurchatov	61.40	328	P	P	06 30 57.0	-0.6
KURK				IAmb	IAmb	06 30 57.7	
	comp=Z,2.5nm,0.6s						
LBZ	Lake Benmore	62.07	145	P	P	06 31 03.1	+0.9
THZ	Tophouse	62.15	142	P	P	06 31 03.8	+1.0
AB31	Akbulak array	71.68	321	P	P	06 32 01.4	-1.5
ABKAR	Akbulak array	71.68	321	P	P	06 32 02.1	-0.9
M19K	Big River Lodg	82.25	28	P	P	06 33 00.8	-1.1
M19K				IAmb	IAmb	06 33 24.2	
	comp=Z,6.0nm,1.3s						
VNDA	Vanda	83.28	173	P	P	06 33 07.5	+0.8
SUA	Susitna One	83.94	29	P	P	06 33 08.9	-1.8
SUA				IAmb	IAmb	06 33 18.8	
	comp=Z,14nm,1.2s						
SLKM	Skilak Lake	84.13	30	P	P	06 33 09.4	-2.1
ILAR	Eielson Array	85.83	25	P	P	06 33 19.3	-0.6
	comp=Z,0.1nm,0.5s,baz=245,slow=5.8,SNR=4.4						
	comp=Z,0.1nm,0.5s						
ILAR	Eielson Array	85.83	25	P	P	06 33 18.5	-1.3
ARCES	ARCESS Array B	90.34	340	P	P	06 33 39.3	-1.9
	comp=Z,0.7nm,0.8s,baz=78,slow=4.9,SNR=1.2						
	comp=Z,0.7nm,0.8s						
ARCES	ARCESS Array B	90.34	340	P	P	06 33 39.9	-1.3
FINES	FINESS Array B	91.56	332	P	P	06 33 45.9	-1.1
	comp=Z,1.3nm,0.7s,baz=98,slow=2.9,SNR=2.1						
	comp=Z,1.3nm,0.7s						
QSPA	South Pole Qui	93.35	180	P	P	06 33 56.4	+1.1
QSPA				IAmb	IAmb	06 34 19.8	
	comp=Z,3.5nm,1.4s						
TXAR	Lajitas Array	122.64	52	PKP	PKPdf	06 39 36.4	+0.2
	baz=285,slow=4.7,SNR=3.8						
GO05	Hualane	144.62	155	PKPbc	PKPab	06 40 14.3	-1.4

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*JMA **03** 06:53:51.9±0.7, 44°N±2°×14°8E±°, h0^{km}, MV3.6/17, SE OFF ETOROFU*

*SKHL **03** 06:53:53.6±0.2, 44°.50N×148°.20E, h47^{km}±7^{km}, mb4.2/3*

ISC 03 06:53:47.8±2.9, **44°.3N**±0°.1×**148°.1E**±0°.1, **h13**^{km}±15^{km}, **n11**, σ**1^{s}.09**/17, **Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	Kuril'sk	0.96	350	eP	Pn	06 54 08.2	+1.2
KUR				AMB	AMB	06 54 08.9	
	140nm,0.3s						
KUR				eS	Sn	06 54 19.0	-1.4
KUR				A	A	06 54 20.9	
	180nm,0.3s						
KUR				A	A	06 54 20.9	
	550nm,0.3s						
REI	Reidovoe	0.98	357	eP	Pn	06 54 08.3	+1.1
REI				AMB	AMB	06 54 10.0	
	50nm,0.3s						
REI				eS	Sn	06 54 19.5	-1.4
REI				A	A	06 54 20.0	
	220nm,0.2s						
REI				A	A	06 54 20.0	
	540nm,0.2s						
YUK	Yuzh-Kuril'sk	1.63	262	eP	Pg	06 54 19.9	+0.8
YUK				AMB	AMB	06 54 22.5	
	240nm,0.4s						
YUK				eS	Sg	06 54 39.8	-0.5
YUK				A	A	06 54 44.1	
	120nm,0.4s						
YUK				A	A	06 54 44.1	
	230nm,0.4s						
NEM2	Nemuro 2	1.94	242	eP	Pg	06 54 24.5	-0.6
NEM2				eS	Sb	06 54 48.6	+1.5

NMR	Nemuro--Hokkai	1.95	243	*e*P	Pg	06 54 24.5	-0.7
NMR				*e*S	Sb	06 54 48.8	+1.5
JRA	Rausu	2.17	262	P	Pg	06 54 29.4	-0.1
JNSB	Nemuroshibetsu	2.29	258	*e*P	Pg	06 54 31.3	-0.4
JKHN	Kushirohamanak	2.45	241	*e*S	Sb	06 55 01.7	-0.1
JNK	Nakash	2.54	255	*e*P	Pb	06 54 34.1	+0.8
JAK	Akkeshi	2.79	244	*e*P	Pb	06 54 36.6	-0.9
JAR	Ashorobuto	3.29	254	P	Pb	06 54 45.3	-0.7
JAR				*e*S	Sb	06 55 25.3	-0.6

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*NEIC **03** 07:07:41.7±1.9, 36°.52N±0°.06×70°.32E±0°.08, h217km±12km, mb4.1/10, Error ellipse: s-maj=10.7km s-min=6.6km az=48.0*

*NNC **03** 07:07:47.2±8.0, 36°.88N×70°.01E, h132km±127km, mb2.9, mpv3.6, Error ellipse: s-maj=75.3km s-min=45.6km az=171.0*

*IDC **03** 07:07:52.7±8.5, 37°.35N×70°.29E, h232km±55km, mb3.4/2, mbtmp3.8/7, Error ellipse: s-maj=89.2km s-min=49.9km az=170.0*

ISC 03 07:07:41.0±0.7**, 36°.47N**±0°.05×**70°.45E**±0°.06**, h204**km**, n39, σ1^s.93**/47**, mb3.9**/5**, 3C, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBL	Kabul	2.24	211	Pn	Pn	07 08 24.5	+1.9
KBL					S	07 08 55.1	+0.7
DRK	Karamyk	3.19	19	Pn	Pn	07 08 36.2	+3.0
DRK				Sn	S	07 09 15.5	+1.8
NIL	Nilore	3.63	140	Pn	Pn	07 08 42.7	+4.2
NIL				Sn	S	07 09 26.4	+3.5
JMU	Jammu	5.16	134	*e*P	Pn	07 08 59.9	+2.3
JMU				*e*S	S	07 09 58.1	+0.6
JMU				IAML		07 10 03.0	
	comp=E,602nm,0.2s						
JMU				IAML		07 10 03.4	
	comp=N,679nm,0.3s						
ARSB	Arslanbob	5.23	21	Pn	Pn	07 09 00.5	+2.0
ARSB				Sn	S	07 09 58.8	-0.6
TSSA	Tissa	5.94	126	*e*S	S	07 10 15.5	-0.4
TSSA				IAML		07 10 19.9	
	comp=E,618nm,0.3s						
TSSA				IAML		07 10 20.5	
	comp=N,674nm,0.2s						
DHRM	DHARAMSHALA	6.41	129	*e*P	Pn	07 09 16.8	+2.9
DHRM				*e*S	S	07 10 25.8	-1.4
DHRM				IAML		07 10 30.3	
	comp=E,179nm,0.4s						
DHRM				IAML		07 10 30.9	
	comp=N,77nm,0.2s						
KK31	Karatay Array	6.62	0	P	Pn	07 09 17.7	+1.5
	comp=N,1.6nm,0.2s,baz=188,slow=14,SNR=43						
KK31				⇑S	S	07 10 29.0	-2.8
	comp=N,2.1nm,0.5s,baz=186,slow=23,SNR=3.7						
KK31	Karatay Array	6.62	0		Pn	07 09 16.7	+0.5
KKAR	Karatay Array	6.62	0		Pn	07 09 17.7	+1.5
AAK	Ala-Archa	6.90	26	P	Pn	07 09 23.1	+3.1
	comp=N,3.8nm,0.3s,baz=200,slow=5.5,SNR=7.6						
AAK				S	S	07 10 35.1	-3.5
	comp=N,4.1nm,0.4s,baz=158,slow=19,SNR=12						
AAK	Ala-Archa	6.90	26	⇑P	Pn	07 09 22.5	+2.4
	comp=N,2.3nm,0.6s						
AAK				⇑S	S	07 10 38.0	-0.5
	comp=N,3.7nm,0.5s						
AAK	Ala-Archa	6.90	26		Pn	07 09 20.2	+0.2
AAK				Sn	S	07 10 38.4	-0.2
SMLA	Simla	7.72	132	*e*P	Pn	07 09 32.7	+2.1
SMLA				*e*S	S	07 10 55.1	-2.7
SMLA				IAML		07 10 60.0	
	comp=N,38nm,0.3s						
SMLA				IAML		07 11 00.2	
	comp=E,41nm,0.5s						
KLP	Kalpa	8.14	125	*e*S	S	07 11 04.5	-3.7
KLP				IAML		07 11 10.8	
	comp=E,195nm,0.1s						
KLP				IAML		07 11 12.0	
	comp=N,131nm,0.2s						
MAKZ	Makanchi	13.44	36	Pn	Pn	07 10 44.0	+0.4
MK31	Makanchi Array	13.58	37	P	P	07 10 51.9	+4.2
	comp=N,0.1nm,0.2s,baz=206,slow=8.4,SNR=5.2						
MKAR	Makanchi Array	13.58	37	P	P	07 10 48.8	+1.2
	comp=N,0.3nm,0.3s,baz=219,slow=11,SNR=6.0						
MKAR	Makanchi Array	13.58	37	Pn	Pn	07 10 44.8	-0.6
AB31	Akbulak array	14.90	332	P	P	07 11 05.0	+2.7
	comp=N,0.6nm,0.4s,baz=152,slow=12,SNR=42						
AB31	Akbulak array	14.90	332		Pn	07 10 59.5	-2.1
ABKAR	Akbulak array	14.90	332		Pn	07 10 59.6	-2.0
KURBB	Kurchatov Arra	15.29	20	P	P	07 11 08.3	+1.7
	comp=N,0.6nm,0.2s,baz=212,slow=8.8,SNR=2.2						
KURK	Kurchatov	15.40	20		Pn	07 11 07.3	-0.3
EVN	Everest	16.23	117	P	Pn	07 11 17.5	-1.1
EVN				IAmb	IAmb	07 11 25.4	
	comp=Z,4.0nm,1.0s						
BVAR	Borovoye Array	16.55	360	P	P	07 11 21.3	+0.8
	comp=Z,1.1nm,0.6s,baz=171,slow=10,SNR=3.4						
BORK	Borovoye	16.57	360	P	P	07 11 19.9	-0.8
UOSS	Minazif	16.77	231	P	P	07 11 22.0	-1.1
UOSS				IAmb	IAmb	07 11 42.3	
	comp=Z,3.4nm,0.8s						
ZAA0	Zalesovo Array	20.13	25	P	P	07 11 57.9	-1.2
ZALV	Zalesovo Beam	20.13	25	P	P	07 12 00.9	+1.8
	comp=Z,1.3nm,0.3s,baz=212,slow=9.5,SNR=5.3						
ZALV	Zalesovo Beam	20.13	25	*e*P	P	07 11 58.5	-0.7
FIA1	FINESS Array S	37.26	326	P	P	07 14 31.5	-1.2
FINES	FINESS Array B	37.26	326	P	P	07 14 34.3	+1.6
	comp=Z,2.5nm,0.9s,baz=112,slow=15,SNR=2.6						
	comp=Z,2.5nm,0.9s						
FINES	FINESS Array B	37.26	326	P	P	07 14 31.5	-1.2
HIA	Hailar	37.67	54	P	P	07 14 36.7	+0.3
HIA				IAmb	IAmb	07 14 53.0	
	comp=Z,14nm,0.9s						
ARCES	ARCESS Array B	41.00	338	P	P	07 15 05.8	+2.2
	comp=Z,0.7nm,0.5s,baz=115,slow=7.9,SNR=9.0						
	comp=Z,0.7nm,0.5s						
ARCES	ARCESS Array B	41.00	338	P	P	07 15 02.8	-0.8
ARCES				IAmb	IAmb	07 15 28.9	
	comp=Z,10nm,1.4s						
CLL	Collm	42.86	309	P	P	07 15 17.3	-1.6
CLL				IAmb	IAmb	07 15 18.1	
	comp=Z,2.6nm,0.6s						
NAO01	NORSAR Array S	44.27	323	P	P	07 15 28.6	-1.4
NAO01				IAmb	IAmb	07 16 11.0	
	comp=Z,32nm,1.5s						

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*ASRS **03** 07:13:19.0±1.3, 54°.60N×83°.66E, h0km, M2.6(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 03 07:13:21.2±2.1**, 54°.62N×83°.79E, h0**km**, mbtmp2.9**/3**, ML2.4**/2**, Error ellipse: s-maj=17.4km s-min=12.0km az=162.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	0.90	137	I	I	07 18 40.0	
	0.1nm,0.8s,baz=317,slow=323,SNR=9.8						
ZALV	Zalesovo Beam	0.90	138	Pg	Pg	07 13 37.5	-0.9
	0.7nm,0.3s,baz=322,slow=18,SNR=15						
ZALV				Lg	Lg	07 13 51.3	
	5.1nm,0.3s,baz=320,slow=28,SNR=12						
KURBB	Kurchatov Arra	5.12	221	Pn	Pn	07 14 41.1	+2.0
	0.1nm,0.3s,baz=40,slow=13,SNR=2.7						
KURBB				Sn	Sn	07 15 39.3	+0.4
	0.1nm,0.3s,baz=33,slow=17,SNR=1.4						
KURBB				Lg	Lg	07 16 03.5	
	0.1nm,0.3s,baz=41,slow=30,SNR=3.6						
	0.5nm,0.2s						
KURBB				AML	AML		
MKAR	Makanchi Array	7.89	188	Pn	Pn	07 15 17.9	+0.7
	0.1nm,0.3s,baz=6.3,slow=14,SNR=2.2						
MKAR				Sn	Sn	07 16 45.4	-1.7
	baz=7.5,slow=23,SNR=2.0						
MKAR				Lg	Lg	07 17 29.6	
	baz=7.5,slow=23						
	0.2nm,0.4s						
MKAR				AML	AML		
BVAR	Borovoye Array	8.09	264	Pn	Pn	07 15 18.7	-1.2
	0.6nm,0.4s,baz=72,slow=14,SNR=2.1						

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*NIED **03** 07:14:22.3, 31°.49N×129°.28E, h9km, MW3.5, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}-0.76; $M_{\theta\theta}$0.22; $M_{\phi\phi}$0.54; $M_{r\theta}$-0.39; $M_{\theta\phi}$1.66; $M_{\phi r}$0.12; Fault plane solution: $M_0$1.77000×10^{14} NP1: ϕ_s180.00000°, δ68.00000°, λ-162.00000°. NP2: ϕ_s83.00000°, δ74.00000°, λ-23.00000°.*

JMA 03 07:14:22.3±0.2**, 31°.5N**±0°.5×**129°.3E**±0°.7**, h9**km±1km**, MV3.7**/24**, SW OFF KYUSHU, Kyushu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JSJ	Shimokoshiki	0.42	63	P	Pg	07 14 30.6	+0.1
JSJ				*e*S	Sg	07 14 36.3	+0.2
JSU	Suzuyama	1.01	89	P	Pg	07 14 41.6	0.0
JHD	Hondo	1.22	37	*e*P	Pb	07 14 44.7	-0.9
JFU	Fukue jima 2	1.24	339	*e*P	Pn	07 14 44.9	-1.0

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*ASRS **03** 07:45:32.0±1.1, 53°.40N×87°.24E, h0km, M2.5(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 03 07:45:28.1±4.4**, 53°.74N×87°.74E, h0**km**, mbtmp3.0**/2**, ML2.5**/2**, Error ellipse: s-maj=40.8km s-min=22.1km az=53.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	1.74	278	I	I	07 56 10.0	
	baz=93,slow=322,SNR=3.0						
ZALV	Zalesovo Beam	1.74	278	Pg	Pg	07 46 01.6	+0.1
	0.4nm,0.3s,baz=95,slow=16,SNR=3.8						
ZALV				Lg	Lg	07 46 22.3	
	1.1nm,0.3s,baz=97,slow=25,SNR=4.0						
KURBB	Kurchatov Arra	6.47	245	Pn	Pn	07 47 06.1	+1.6
	0.1nm,0.3s,baz=60,slow=14,SNR=2.3						
	0.6nm,0.2s						
KURBB				AML	AML		
MKAR	Makanchi Array	7.78	209	Pn	Pn	07 47 22.8	+0.2
	0.1nm,0.3s,baz=26,slow=14,SNR=6.0						
	0.2nm,0.3s						
MKAR				AML	AML		

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*IDC **03** 07:48:29.1±2.1, 17°.17S×179°.07W, h594km±21km, mb3.1/5, mbtmp4.0/6, Error ellipse: s-maj=38.4km s-min=28.1km az=167.0*

ISC 03 07:48:29.2±1.3**, 17°.1S**±0°.3×**179°.1W**±0°.2**, h600**km**, n6, σ0^s.79**/7**, mb3.9**/5**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	2.75	257	P	P	07 49 46.6	-0.5
	7.1nm,0.6s,baz=94,slow=16,SNR=1.6						
URZ	Urewera	21.32	188	P	P	07 52 34.9	+0.3
	9.7nm,1.0s,baz=7.6,slow=15,SNR=1.3						
	9.7nm,1.0s						
STKA	Stephens Creek	38.41	240	P	P	07 55 00.1	-0.9
	1.7nm,0.5s,baz=86,slow=15,SNR=5.6						
	1.7nm,0.5s						
WRA	Warramunga Arr	44.10	259	P	P	07 55 46.7	+0.7
	0.7nm,0.5s,baz=95,slow=7.7,SNR=17						
	0.7nm,0.5s						
ASAR	Alice Springs	44.34	253	P	P	07 55 48.8	+0.9
	7.2nm,0.6s,baz=93,slow=7.9,SNR=139						
ASAR				PcP	PcP	07 57 18.8	+0.3
	0.3nm,0.6s,baz=91,slow=3.6,SNR=2.0						
	7.2nm,0.6s						
TXAR	Lajitas Array	86.16	58	P	P	08 00 08.4	0.0
	0.2nm,0.7s,baz=229,slow=4.6,SNR=1.8						
	0.2nm,0.7s						

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*IDC **03** 07:52:19.8±1.9, 32°.45S×178°.20W, h0km, mb3.7/3, mbtmp3.8/4, ML2.8/1, Error ellipse: s-maj=43.8km s-min=34.0km az=88.0*

*NEIC **03** 07:52:21.1±0.8, 32°.4S±0°.1×178°.2W±0°.2, h10km±1km, mb4.3/8, Error ellipse: s-maj=30.0km s-min=19.2km az=93.0*

ISC 03 07:52:22.3±1.0**, 32°.42S**±0°.10×**178°.3W**±0°.2**, h20**km**, n19, σ2^s.48**/21**, mb4.2**/6**, 2C-2D, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	3.17	5	Pn	Pn	07 53 10.8	-0.3
URZ	Urewera	6.95	212	Pn	Pn	07 54 02.7	-0.3
	0.2nm,0.3s,baz=36,slow=14,SNR=2.0						
URZ				Sn	Sn	07 55 20.7	-0.8
	3.3nm,0.3s,baz=8.1,slow=7.1,SNR=11						
	9.1nm,0.9s						
URZ				AML	AML		
AFI	Afiamalu	19.35	19	P	P	07 56 45.5	-1.2
KOUNC	Koumac, New Ca	19.57	303	P	P	07 56 49.0	0.0
INKA	Innaminka	35.63	267	P	P	07 59 17.8	-1.2
INKA				IAmb	IAmb	07 59 20.4	
	comp=Z,5.7nm,1.2s						
COEN	Coen	39.66	288	P	P	07 59 53.0	-0.2
COEN				IAmb	IAmb	07 59 54.0	
	comp=Z,6.5nm,0.8s						
AS31	Alice Springs	42.83	269	P	P	08 00 18.7	-0.5
ASAR	Alice Springs	42.83	269	P	P	08 00 20.5	+1.3
	comp=Z,0.5nm,0.7s,baz=115,slow=8.6,SNR=7.1						
	comp=Z,0.5nm,0.7s						
ASAR	Alice Springs	42.83	269	P	P	08 00 18.7	-0.5
WRA	Warramunga Arr	44.00	274	P	P	08 00 29.3	+0.7
	comp=Z,0.5nm,0.3s,baz=113,slow=7.9,SNR=22						
	comp=Z,0.5nm,0.3s						
WRA	Warramunga Arr	44.00	274	P	P	08 00 28.3	-0.3
WB0	Warramunga Arr	44.03	275	P	P	08 00 28.4	-0.5
WB0				IAmb	IAmb	08 00 43.6	
	comp=Z,7.2nm,1.2s						
QSPA	South Pole Qui	57.70	180	P	P	08 02 12.1	+0.7
	comp=Z,1.5nm,1.0s,baz=13,slow=0.5,SNR=2.3						
	comp=Z,1.5nm,1.0s						
QSPA	South Pole Qui	57.70	180	P	P	08 02 11.6	+0.3
QSPA				IAmb	IAmb	08 02 19.6	
	comp=Z,3.9nm,1.2s						
KURK	Kurchatov	122.28	313	⇑Pg	Pdif	08 07 52.3	+7.6
	comp=Z,0.1nm,0.3s						
KURK				⇓Lg	Lg	08 08 19.2	
	comp=Z,0.5nm,0.5s						
KURBB	Kurchatov Arra	122.31	313	⇓Pg	Pdif	08 07 51.5	+6.7
	comp=Z,0.6nm,0.2s,baz=297,slow=17						
KURBB				⇑Lg	Lg	08 08 22.4	
	comp=Z,2.1nm,0.3s,baz=302,slow=28						
FIA1	FINESS Array S	146.95	339	PKPdf	PKPbc	08 12 01.6	-1.0
FIA1				PKPbc	PKPab	08 12 04.1	0.0
FINES	FINESS Array B	146.96	339	PKPbc	PKPbc	08 12 02.2	-0.5
	comp=Z,1.0nm,0.5s,baz=42,slow=4.3,SNR=6.7						
FINES	FINESS Array B	146.96	339	PKPdf	PKPbc	08 12 01.7	-0.9

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*NEIC **03** 08:00:48.2±1.1, 56°.33N±0°.03×148°.8W±0°.1, h10km±2km, ML3.6/60, ML3.3(AEIC), Error ellipse: s-maj=11.6km s-min=5.5km az=81.0*

*AEIC **03** 08:00:52.5±1.6, 56°.3N±0°.1×148°.8W±0°.1, h10km±9km, Error ellipse: s-maj=16.6km s-min=9.9km az=150.0*

ISC 03 08:00:46.1±1.4**, 56°.26N**±0°.08×**148°.76W**±0°.05**, h10**km**, n89, σ1^s.35**/87**, Gulf of Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KDAK	Kodiak Island	2.59	308		Pn	08 01 28.6	+0.6
KDAK					Sn	08 02 01.0	+1.5
OHAK	Old Harbor	2.67	293	P	Pn	08 01 29.1	-0.1
OHAK	Old Harbor	2.67	293	S	Sn	08 02 00.4	-1.2
OHAK	Old Harbor	2.67	293		Pn	08 01 29.4	+0.2
SII	Sitkinak Islan	3.03	278	P	Pn	08 01 35.2	+1.1
SII	Sitkinak Islan	3.03	278	S	Sn	08 02 09.0	-1.4
SII	Sitkinak Islan	3.03	278	Pn	Pn	08 01 35.5	+1.4
SII				IAML		08 02 18.2	
	comp=N,113nm,0.8s						
MID	Middleton Isla	3.43	21		Pn	08 01 40.4	+0.8
MID				IAML		08 02 31.0	
	comp=N,128nm,1.1s						
MID				IAML		08 02 47.9	
	comp=E,120nm,1.1s						
CNPM	China Poot	3.53	339		Pn	08 01 42.0	+1.0
CNPM					Sn	08 02 21.8	-1.1
BRSE	Bradley Lake S	3.65	344		Pn	08 01 43.2	+0.5
BRLK	Bradley Lake	3.69	343		Pn	08 01 44.1	+0.8
BRLK				IAML		08 02 30.9	
	comp=E,63nm,0.3s						
HOM	Homer	3.74	337		Pn	08 01 45.5	+1.6
HOM				IAML		08 02 55.3	
	comp=N,170nm,0.9s						
Q19K	Cape Douglas,	3.75	318		Pn	08 01 45.8	+1.8
Q19K				IAML		08 02 44.4	
	comp=N,113nm,0.7s						
P23K	Montague Islan	3.82	10		Pn	08 01 45.6	+0.7
P23K				IAML		08 02 34.0	
	comp=E,95nm,0.7s						
P23K				IAML		08 02 35.6	
	comp=N,122nm,0.6s						
KAPH	Katmai Pasha	3.82	310		Pn	08 01 46.5	+1.5
KAPH					Sn	08 02 28.4	-1.7
KAHG	Katmai Hook Gl	3.85	308		Pn	08 01 47.0	+1.6
CHIR	Chirikof Islan	3.87	266	Pn	Pn	08 01 46.7	+1.0
SEW	Seward	3.88	355		Pn	08 01 46.1	+0.4
KAWH	Katmai	3.91	306		Pn	08 01 48.0	+1.8
KARR	Katmai Rainbow	3.92	307		Pn	08 01 48.5	+2.2
MGLS	Mageik Landsli	3.96	301		Pn	08 01 48.6	+1.7
AUI	Augustine Isla	3.97	323		Pn	08 01 48.4	+1.4
AU22	Augustine Moun	3.97	324		Pn	08 01 48.5	+1.5
KAKN	Katmai Knife C	3.98	303		Pn	08 01 48.7	+1.4
AUW	Augustine West	4.01	323		Pn	08 01 49.1	+1.5
ACHA	Angle Creek He	4.07	301	Pn	Pn	08 01 50.8	+2.3
KABU	Katmai Buttres	4.08	302		Pn	08 01 50.5	+2.0
Q18K	Katmai Hardscr	4.14	308		Pn	08 01 50.8	+1.4
P19K	Oil Pt	4.16	327		Pn	08 01 51.0	+1.4
O22K	Cooper Landing	4.27	354	Pn	Pn	08 01 52.6	+1.6
HIN	Hinchinbrook I	4.32	15		Pn	08 01 52.8	+1.0
SLKM	Skilak Lake	4.33	350		Pn	08 01 52.9	+0.9
SLKM				IAML		08 02 42.1	
	comp=N,90nm,0.5s						
SLKM				IAML		08 02 42.5	
	comp=E,79nm,0.5s						
KAIM	Kayak Island	4.34	30	Pn	Pn	08 01 53.3	+1.2
KAIM				IAML		08 02 52.5	
	comp=E,128nm,1.2s						
O20K	Slope Mountain	4.35	334		Pn	08 01 52.9	+0.7
ILS	Iliamna Low So	4.36	330		Pn	08 01 53.3	+0.9
Q17K	Contact Creek	4.36	300		Pn	08 01 53.3	+0.8
ILSW	Iliamna Southw	4.40	330		Pn	08 01 53.8	+0.8
ILSW				IAML		08 02 54.4	
	comp=E,56nm,0.7s						
ILSW				IAML		08 02 54.4	
	comp=N,49nm,0.7s						
PLK2	Peulik 2	4.40	293		Pn	08 01 54.2	+1.2
EYAK	Cordova Ski Ar	4.59	19	P	Pn	08 01 56.2	+0.8
EYAK	Cordova Ski Ar	4.59	19	S	Sn	08 02 46.9	-1.8
EYAK	Cordova Ski Ar	4.59	19		Pn	08 01 56.5	+1.0
EYAK				IAML		08 02 59.4	
	comp=E,55nm,0.8s						
EYAK				IAML		08 03 04.3	
	comp=N,73nm,0.7s						
PWL	Port Wells	4.62	3		Pn	08 01 56.7	+0.7
PWL				IAML		08 02 48.3	
	comp=E,73nm,0.6s						
PWL				IAML		08 02 50.0	
	comp=N,67nm,0.7s						
FID	Port Fidalgo	4.66	14	Pn	Pn	08 01 57.0	+0.5
FID				IAML		08 02 56.6	
	comp=N,45nm,0.6s						
FID				IAML		08 03 00.1	
	comp=E,51nm,0.8s						
RAGM	Ragged Mountai	4.67	26		Pn	08 01 58.0	+1.4
P18K	Big Mountain,	4.67	315		Pn	08 01 57.1	+0.5
GLI	Glacier Island	4.72	10	Pn	Pn	08 01 58.1	+0.8
GLI				IAML		08 02 51.2	
	comp=E,63nm,0.9s						
GLI				IAML		08 02 59.4	
	comp=N,52nm,1.2s						
RDT	Redoubt	4.73	338		Pn	08 01 57.8	+0.2
RC01	Rabbit Creek A	4.87	354	Pn	Pn	08 02 00.4	+1.0
Q16K	King Salmon	4.90	303		Pn	08 02 01.1	+1.3
O19K	Port Alsworth	4.92	326		Pn	08 02 00.3	+0.3
O19K				IAML		08 03 03.4	
	comp=N,86nm,0.4s						
BERG	Berg Lake	4.93	31		Pn	08 02 01.2	+1.0
P17K	Kvichak River	5.06	309		Pn	08 02 03.2	+1.3
DIV	Divide	5.13	16		Pn	08 02 04.0	+1.0
DIV	Divide	5.13	16	IAML		08 03 19.0	
	comp=N,22nm,1.0s						
BMRM	Bremner River	5.20	23	IAML		08 03 08.2	
	comp=N,38nm,0.9s						
BMRM				IAML		08 03 20.3	
	comp=E,36nm,0.7s						
BARK	Barkley Ridge	5.31	36		Pn	08 02 06.6	+1.1
PMR	Palmer	5.36	358	P	Pn	08 02 07.3	+1.3
PMR	Palmer	5.36	358	S	Sn	08 03 05.2	-2.4
PMR	Palmer	5.36	358		Pn	08 02 06.8	+0.8
PMR	Palmer	5.36	358	IAML		08 03 11.7	
	comp=E,23nm,0.7s						
PMR				IAML		08 03 16.0	
	comp=N,20nm,0.6s						
CRQM	Cirque	5.39	31	IAML		08 03 25.1	
	comp=E,54nm,1.1s						
KLU	Klutina	5.45	14		Pn	08 02 08.7	+1.2
KLU	Klutina	5.45	14	IAML		08 03 10.6	
	comp=E,32nm,0.8s						
KLU				IAML		08 03 16.3	
	comp=N,34nm,0.6s						
STLK	Strandline Lak	5.49	344		Pn	08 02 09.2	+1.2
YAH	Yahtse	5.53	39		Pn	08 02 10.0	+1.3
SML	Sawmill	5.57	2		Pn	08 02 10.5	+1.4
M23K	Glacier View	5.58	5		Pn	08 02 10.7	+1.6
P16K	Nushagak River	5.68	303		Pn	08 02 12.2	+1.8
VRDI	Verde Repeater	5.70	27		Pn	08 02 12.1	+1.2
KIAG	Kiagna River	5.75	33		Pn	08 02 12.8	+1.1
N18K	Kilae Creek	5.80	323		Pn	08 02 12.5	+0.3
PCA	Pinnacle	5.92	46		Pn	08 02 15.5	+1.6
PTPK	Patty Peak	5.93	31		Pn	08 02 15.6	+1.5
MCARA	McCarthy VSAT	5.94	28		Pn	08 02 15.6	+1.5
PNL	Peninsula	6.04	52	P	Pn	08 02 17.1	+1.6
PNL	Peninsula	6.04	52	S	Sn	08 03 24.2	-0.4
PNL	Peninsula	6.04	52		Pn	08 02 17.0	+1.6
LOGN	Logan Glacier	6.12	38		Pn	08 02 17.8	+1.2
N17K	Nushagak Hills	6.16	318		Pn	08 02 17.5	+0.5
CHNA	Chernabura Isl	6.31	261	P	Pn	08 02 19.6	+0.5
CHNA	Chernabura Isl	6.31	261	S	Sn	08 03 28.3	-2.9
CNBA	Chernabura Isl	6.31	261		Pn	08 02 19.4	+0.2
O28M	Mount Upton	6.37	41		Pn	08 02 21.6	+1.4
HARP	HAARP	6.43	15		Pn	08 02 22.6	+1.8
YUK8	Steele Glacier	6.87	39		Pn	08 02 29.6	+2.5
DHY	Denali Highway	6.88	5		Pn	08 02 28.4	+1.4
N15K	Kwethluk River	7.15	308		Pn	08 02 32.7	+2.0
SIT	Sitka	7.45	78	P	Pn	08 02 34.7	0.0
JIS	Juneau Island	8.05	69	P	Pn	08 02 44.6	+1.6

IDC 03 08:00:58.1±3.4**, 19°.77S×175°.64W, h0**km**, mb3.7**/2**, mbtmp3.9**/3**, ML3.9**/1**, Error ellipse: s-maj=75.6km s-min=53.7km az=92.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	19.48	197	P	P	08 05 26.5	-0.1
	0.4nm,0.3s,baz=356,slow=15,SNR=3.5						
	14nm,1.1s						
URZ				AML	AML		
ASAR	Alice Springs	46.85	256	P	P	08 09 30.6	+0.3
	1.4nm,0.9s,baz=93,slow=7.9,SNR=12						
	1.4nm,0.9s						
WRA	Warramunga Arr	46.90	261	P	P	08 09 30.2	-0.5
	0.6nm,0.8s,baz=96,slow=8.2,SNR=7.7						
	0.6nm,0.8s						
BRTR	Keskin Array B	147.95	315	PKPbc	PKPbc	08 20 45.1	-0.7
	0.3nm,0.3s,baz=54,slow=2.5,SNR=2.0						

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*TRN **03** 08:21:00.0, 10°.90N×62°.03W, h99km, MD3.6, North of the Paria peninsula.*

*FUNV **03** 08:21:15.5, 10°.92N×62°.17W, h12km, MW3.3, Presumed earthquake*

ISC 03 08:21:15.5±1.9**, 10°.89N**±0°.07×**62°.20W**±0°.09**, h100**km±20km**, n19, σ1^s.08**/35**, 1D, Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DMDM	Guralp CMG5TDE	0.67	107	*e*P	Pn	08 21 33.2	+0.5
DMDM				*e*S	Sn	08 21 44.4	-1.1
PSMG	Mucurapo Girls	0.69	108	*e*P	Pn	08 21 33.7	+0.8
PSMG				*e*S	Sn	08 21 44.4	-1.5
PSKH	Kent House, Po	0.70	108	*e*P	Pn	08 21 33.6	+0.7
PSKH				*e*S	Sn	08 21 44.9	-1.1
PSQC	Port of Spain	0.71	108	*e*P	Pn	08 21 33.7	+0.7
PSQC				*e*S	Sn	08 21 44.8	-1.3
PSWS	West Secondary	0.71	109	*e*P	Pn	08 21 33.8	+0.8
PSWS				*e*S	Sn	08 21 45.3	-0.8
TRN	Trinidad (W)	0.82	107	*e*P	Pn	08 21 35.1	+1.1
TRN				*e*S	Sn	08 21 47.3	-0.8
TPP	Pointe-a-Pierr	0.93	128	*e*P	Pn	08 21 36.6	+1.4
GRGR	Grenville	1.34	23	*e*P	Pn	08 21 39.8	-0.1

GRGR				⇓eS	Sn	08 21 56.8	-1.6
GRGR	Grenville	1.34	23	eP	Pn	08 21 40.6	+0.7
GRGR				eS	Sn	08 21 58.7	+0.3
GRW	Mount Saint Ca	1.37	23	eP	Pn	08 21 41.4	+1.1
GRW				eS	Sn	08 21 59.5	+0.5
GRHS	Sauteurs	1.43	22	eP	Pn	08 21 41.8	+0.8
GRHS				eS	Sn	08 22 00.1	-0.1
GRSS	Sisters	1.51	22	eP	Pn	08 21 43.1	+1.1
GRSS				eS	Sn	08 22 02.6	+0.6
SLAC	Saint Lucia, A	3.25	23	eP	Pn	08 22 05.9	+1.3
SLCP	Castries, St.	3.32	21	eS	Sn	08 22 41.8	-2.3
SLBI	Saint Lucia, B	3.33	21	eP	Pn	08 22 06.6	+0.8
SLBI				eS	Sn	08 22 44.6	+0.1
BIM	Bigot	3.77	17	eP	Pn	08 22 11.9	+0.3
BIM				eS	Sn	08 22 53.3	-1.7
BIM	Bigot	3.77	17	eP	Pn	08 22 11.9	+0.3
BIM				eS	Sn	08 22 53.8	-1.3
TACV	Tcata	4.80	261	eP	Pn	08 22 27.0	+1.3
TACV				eS	Sn	08 23 19.9	-0.3
BENV	Beln	5.39	261	eP	Pn	08 22 33.7	+0.1
BENV				eS	Sn	08 23 33.1	-1.4

*IDC **03** 08:54:00.2±0.5, 29°.52S×61°.36E, h0^{km}, mb4.1/16, mbtmp4.1/17, ML3.7/1, MS3.5/6, Error ellipse: s-maj=21.5km s-min=15.6km az=77.0*

*NEIC **03** 08:54:02.4±1.8, 29°.46S±0°.07×61°.2E±0°.1, h10^{km}±1^{km}, mb4.6/23, Error ellipse: s-maj=18.4km s-min=8.6km az=243.0*

ISC 03 08:54:01.6±0.4, 29°.49S±0°.08×61°.16E±0°.09, h10^{km}, n82, σ0^{s}.98/69, mb4.5/24, MS3.5/6, Southwest Indian Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RER	Riviere de l'E	9.63	328	Pn	Pn	08 56 19.6	-0.8
FOMA	Nahampoana Res	13.39	286	Pn	Pn	08 57 10.8	-1.0
VOI	Vohitsoka	14.98	297	P	Pn	08 57 36.9	+3.2
OPO	Ambohidratompo	16.75	307	Pn	Pn	08 57 54.7	-1.9
	baz=139,slow=11,SNR=1.3						
OPO				Sn	Sn	09 00 50.4	-12
	baz=124,slow=18,SNR=1.7						
	4.8nm,0.9s						
H04N2	CROZET ISLANDS	18.19	201	T	T	09 16 51.7	
	baz=27,slow=75,SNR=7070						
H04N1	CROZET ISLANDS	18.20	201	T	T	09 16 52.5	
	baz=27,slow=75,SNR=7715						
H04N3	CROZET ISLANDS	18.21	201	T	T	09 16 51.6	
	baz=27,slow=75,SNR=7026						
H08S1	Diego Carcia H	24.19	28	T	T	09 24 12.1	
	baz=203,slow=76,SNR=16						
H08S2	Diego Garcia H	24.20	28	T	T	09 24 13.4	
	baz=203,slow=76,SNR=23						
H08S3	Diego Garcia H	24.21	28	T	T	09 24 14.1	
	baz=203,slow=76,SNR=275						
GRHM	Grahamstown, E	29.85	254	P	P	09 00 07.6	-1.7
BOSA	Boshof	31.32	263	LR	LR	09 10 44.3	
	comp=Z,85nm,19.9s,baz=90,slow=32						
LBTB	Lobatse	31.85	269	LR	LR	09 10 53.0	
	comp=Z,36nm,19.3s,baz=123,slow=32						
LSZ	Lusaka	33.47	288	LR	LR	09 13 31.2	
	comp=Z,100nm,18.1s,baz=216,slow=35						
SUR	Sutherland	34.59	255	LR	LR	09 12 29.2	
	comp=Z,59nm,18.9s,baz=130,slow=32						
SUR	Sutherland	34.59	255	P	P	09 00 51.6	+0.6
SUR				IAmb	IAmb	09 01 31.0	
	comp=Z,20nm,1.4s						
KSANE	Kasane	34.83	281	P	P	09 00 53.2	+0.1
KSANE				IAmb	IAmb	09 00 56.9	
	comp=Z,19nm,1.2s						
LKGWB	Lokgwabe	35.93	269	P	P	09 00 59.1	-3.4
GRTLG	Ghanzi	36.83	273	P	P	09 01 10.2	-0.1
GRTLG				IAmb	IAmb	09 01 35.8	
	comp=Z,18nm,1.4s						
MAW	Mawson	38.16	179	P	P	09 01 19.0	-1.8
	comp=Z,1.7nm,0.8s,baz=347,slow=19,SNR=4.7						
MAW				PcP	PcP	09 03 36.4	+1.1
	comp=Z,2.9nm,0.8s,baz=352,slow=7.1,SNR=7.1						
	comp=Z,1.7nm,0.8s						
MAW	Mawson	38.16	179	P	P	09 01 20.4	-0.3
MAW					PcP	09 03 36.8	+1.5
TSUM	Tsumeb	40.80	274	P	P	09 01 43.0	-0.6
TSUM				IAmb	IAmb	09 02 15.1	
	comp=Z,8.4nm,1.4s						
H01W2	Cape Leeuwin H	44.73	111	T	T	09 49 43.4	
	baz=262,slow=75,SNR=16						
H01W3	Cape Leeuwin H	44.73	111	T	T	09 49 43.2	
	baz=262,slow=75,SNR=246						
H01W1	Cape Leeuwin H	44.74	111	T	T	09 49 52.0	
	baz=262,slow=75,SNR=210						
TROLL	Troll, Antarti	52.66	199	P	P	09 03 16.4	+0.6
	comp=Z,9.2nm,0.2s						
SNAA	Sanae	54.16	201	P	P	09 03 27.0	+0.2
SNAA	Sanae	54.16	201	P	P	09 03 26.2	-0.5
	comp=Z,2.0nm,0.6s,baz=74,slow=9.9,SNR=4.6						
	comp=Z,2.0nm,0.6s						
SNAA	Sanae	54.16	201	P	P	09 03 27.2	+0.5
SNAA				IAmb	IAmb	09 03 28.7	
	comp=Z,6.5nm,1.2s						
UOSS	Minazif	54.33	354	P	P	09 03 28.3	0.0
UOSS				IAmb	IAmb	09 03 29.3	
	comp=Z,6.2nm,1.1s						
VNA3	Neumayer Olymp	56.22	202	P	P	09 03 42.2	+0.7
FITZ	Fitzroy Crossi	59.44	95	P	P	09 04 04.6	-0.3
FITZ				IAmb	IAmb	09 04 05.8	
	comp=Z,2.2nm,1.0s						
CMAR	Chiang Mai Arr	60.00	42	P	P	09 04 08.5	-0.2
	comp=Z,2.0nm,0.6s,baz=216,slow=7.5,SNR=13						
	comp=Z,2.0nm,0.6s						
CMAR	Chiang Mai Arr	60.00	42	P	P	09 04 08.1	-0.5
QSPA	South Pole Qui	60.67	180	P	P	09 04 13.0	+0.2
	comp=Z,7.9nm,1.0s,baz=280,slow=5.4,SNR=20						
	comp=Z,7.9nm,1.0s						
QSPA	South Pole Qui	60.67	180	P	P	09 04 13.5	+0.6
QSPA				IAmb	IAmb	09 04 14.1	
	comp=Z,8.2nm,0.9s						
KNRA	Kununurra	63.16	93	P	P	09 04 29.7	-0.4
KNRA				IAmb	IAmb	09 04 33.8	
	comp=Z,5.9nm,1.1s						
KKM	Kota Kinabalu	63.55	66	P	P	09 04 32.5	-0.3
VNDA	Vanda	63.72	166	P	P	09 04 32.9	0.0
	comp=Z,0.7nm,0.8s,baz=237,slow=2.8,SNR=4.6						
	comp=Z,0.7nm,0.8s						
VNDA	Vanda	63.72	166	P	P	09 04 33.6	+0.7
EIL	Elat	63.92	335	LR	LR	09 28 24.0	
	comp=Z,48nm,20.2s,baz=276,slow=32						
ASAR	Alice Springs	64.37	104	P	P	09 04 37.0	-1.1
	comp=Z,3.6nm,0.8s,baz=242,slow=6.6,SNR=26						
	comp=Z,3.6nm,0.8s						
ASAR	Alice Springs	64.37	104	P	P	09 04 37.8	-0.3
AS31	Alice Springs	64.37	104	P	P	09 04 37.7	-0.4
WRA	Warramunga Arr	66.21	100	P	P	09 04 49.5	-0.6
	comp=Z,5.3nm,0.9s,baz=245,slow=5.4,SNR=34						
	comp=Z,5.3nm,0.9s						
WRA	Warramunga Arr	66.21	100	P	P	09 04 50.0	-0.1
WRAB	Tennant Creek	66.22	100	P	P	09 04 50.1	-0.1
WRAB				IAmb	IAmb	09 05 02.3	
	comp=Z,11nm,1.2s						
MMAI	Mount Meron Ar	66.78	337	P	P	09 04 54.2	+0.8
	comp=Z,0.6nm,0.3s,baz=152,slow=12,SNR=3.2						
	comp=Z,0.6nm,0.3s						
TORD	Torodi Ar. Bea	71.29	298	P	P	09 05 23.3	+1.6
	comp=Z,1.3nm,0.9s,baz=118,slow=3.6,SNR=3.5						
	comp=Z,1.3nm,0.9s						
TORD	Torodi Ar. Bea	71.29	298	P	P	09 05 21.0	-0.6
KARP	Karpathos	72.18	331	P	P	09 05 25.3	-1.3
DBIC	Dimbokro	72.81	288	LR	LR	09 35 49.0	
	comp=Z,46nm,18.6s,baz=132,slow=34						
BRTR	Keskin Array B	73.47	338	P	P	09 05 34.1	-0.3
	comp=Z,0.9nm,0.8s,baz=146,slow=2.8,SNR=4.4						
	comp=Z,0.9nm,0.8s						
BRTR	Keskin Array B	73.47	338	P	P	09 05 35.1	+0.8
MKAR	Makanchi Array	78.29	15	P	P	09 06 00.5	-1.0
	comp=Z,0.5nm,0.7s,baz=197,slow=4.5,SNR=4.1						
	comp=Z,0.5nm,0.7s						
MKAR	Makanchi Array	78.29	15	P	P	09 06 01.3	-0.2
AB31	Akbulak array	78.39	359	P	P	09 06 02.5	+0.4
ABKAR	Akbulak array	78.39	359	P	P	09 06 02.7	+0.7
KURBB	Kurchatov Arra	81.23	11	P	P	09 06 16.4	-0.9
	comp=Z,0.3nm,0.2s,baz=208,slow=6.0,SNR=1.6						
	comp=Z,0.3nm,0.2s						
KURK	Kurchatov	81.33	11	P	P	09 06 17.4	-0.5
KURK				IAmb	IAmb	09 06 42.9	
	comp=Z,7.5nm,1.4s						
ZALV	Zalesovo Beam	85.58	14	P	P	09 06 39.5	-0.2
	comp=Z,0.5nm,0.4s,baz=216,slow=7.1,SNR=1.3						
	comp=Z,0.5nm,0.4s						
ZALV	Zalesovo Beam	85.58	14	P	P	09 06 40.0	+0.3
SONM	Songino Array	87.03	29	P	P	09 06 47.7	+0.5
	comp=Z,0.6nm,0.5s,baz=222,slow=5.8,SNR=4.0						
	comp=Z,0.6nm,0.5s						
SONM	Songino Array	87.03	29	P	P	09 06 47.8	+0.5
SONM				IAmb	IAmb	09 06 56.4	
	comp=Z,1.5nm,0.9s						
KSRS	Korea Array	91.31	47	P	P	09 07 06.9	-0.5
	comp=Z,2.0nm,0.8s,baz=253,slow=1.3,SNR=3.8						
	comp=Z,2.0nm,0.8s						
ESDC	Sonseca Array	91.62	316	P	P	09 07 11.5	+2.5
	comp=Z,1.6nm,0.9s,baz=127,slow=4.7,SNR=10.0						
	comp=Z,1.6nm,0.9s						
ESDC	Sonseca Array	91.62	316		P	09 07 09.3	+0.4
ESDC				IAmb	IAmb	09 07 16.4	
	comp=Z,6.8nm,1.1s						
ILAR	Eielson Array	140.56	18	PKP	PKPdf	09 13 29.9	-0.6
	comp=Z,1.1nm,0.9s,baz=304,slow=2.1,SNR=8.3						
O28M	Mount Upton	145.61	18	PKPdf	PKPdf	09 13 39.3	-0.7
M31M	Drury Creek, Y	145.72	13	PKPdf	PKPdf	09 13 39.9	+0.2
MMPY	Sheldon Lake,	145.88	10		PKPab	09 13 41.7	+0.6
FCC	Fort Churchill	146.16	337	PKPbc	PKPab	09 13 42.5	+0.3
PAOC	Oil Creek Stat	146.21	301	PKPbc	PKPab	09 13 43.5	+0.5
X58A	Rowland	146.28	289	PKPbc	PKPbc	09 13 42.5	-0.1
YKAW3	Yellowknife Wh	146.80	356	PKPbc	PKPbc	09 13 44.0	+0.7
YKA	Yellowknife Ar	146.87	356	PKPbc	PKPbc	09 13 43.5	0.0
	comp=Z,5.9nm,0.8s,baz=5.4,slow=2.2,SNR=14						
YKA	Yellowknife Ar	146.87	356		PKPbc	09 13 44.1	+0.6
YKAW1	Yellowknife Wh	146.88	356	PKPbc	PKPab	09 13 44.4	-0.5
ULM	Lac du Bonnet	152.98	327	PKPbc	PKPbc	09 13 58.4	-0.6
	comp=Z,8.0nm,1.0s,baz=72,slow=3.2,SNR=4.6						
PDAR	Pinedale Array	164.79	333	PKP	PKPdf	09 14 06.7	+0.6
	comp=Z,0.1nm,0.3s,baz=5.1,slow=4.3,SNR=4.2						
TXAR	Lajitas Array	166.77	273	PKP	PKPdf	09 14 08.6	+0.6
	comp=Z,0.4nm,1.0s,baz=77,slow=1.4,SNR=4.4						
NVAR	Mina Array Bea	171.07	357	PKP	PKPdf	09 14 09.8	-0.8
	comp=Z,0.1nm,0.6s,baz=28,slow=3.7,SNR=2.0						

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*UCR **03** 09:07:16.2±0.8, 8°.30N×83°.00W, h13^{km}±4^{km}, MW3.5, Presumed earthquake*

*UPA **03** 09:07:16.5±1.1, 8°.32N×82°.95W, h12^{km}±2^{km}, MW3.1, Fault plane solution: NP1:ϕ_s108.00000°, δ28.00000°, λ38.00000°., Presumed earthquake*

ISC 03 09:07:16.3±0.9, 8°.33N±0°.03×82°.97W±0°.02, h15^{km}±7^{km}, n39, σ0^{s}.66/57, 3C-11D, Panama-Costa Rica border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PTPM	Petroterminale	0.15	142	⇑iP	Pg	09 07 20.4	+0.1
PTPM				eS	Sg	09 07 23.0	0.0
PTPA	Petro Terminal	0.16	140	eP	Pg	09 07 20.4	0.0
PTPA				eS	Sb	09 07 24.7	+0.5
LIMO3	Limones	0.25	154	⇑iP	Pg	09 07 22.0	+0.2
LIMO3				eS	Sg	09 07 26.2	+0.7
LMNES	Limones	0.25	153	eP	Pg	09 07 21.9	+0.1
LMNES	Limones	0.25	153	⇑iP	Pg	09 07 21.9	+0.1
NELY	Ciudad Neily	0.32	5	eP	Pg	09 07 23.1	0.0
NELY				eS	Sb	09 07 29.4	+0.5
NELY	Ciudad Neily	0.32	5	⇓iP	Pg	09 07 23.2	+0.2
NELY				eS	Sb	09 07 29.4	+0.5
FITO	Golfito	0.35	329	eP	Pg	09 07 22.7	-0.8
FITO				eS	Sg	09 07 27.7	-0.7
PIRO	Carate, Puerto	0.37	282	eP	Pg	09 07 23.4	-0.5
PIRO	Carate, Puerto	0.37	282	eP	Pg	09 07 24.1	+0.2
PIRO				eS	Sb	09 07 31.0	+0.9
MLIR3	Monte Lirio, C	0.49	18	⇓iP	Pb	09 07 26.8	+0.1
MLIR3				eS	Sb	09 07 34.3	+0.6
VITO	San Vito	0.49	0	eP	Pg	09 07 26.5	+0.3
VITO	San Vito	0.49	0	⇓iP	Pg	09 07 26.5	+0.3
VITO				eS	Sb	09 07 34.9	+1.1
DVD	David	0.53	78	⇓iP	Pg	09 07 26.9	0.0
DVD				eS	Sb	09 07 34.5	-0.3
SCLRA	Santa Clara, W	0.54	21	eP	Pb	09 07 27.5	-0.1
SCLRA	Santa Clara, W	0.54	21	⇓iP	Pb	09 07 27.6	0.0
SCLRA				eS	Sn	09 07 39.3	+0.8
BRU2	Volcan	0.54	31	eP	Pg	09 07 27.4	+0.2
BRU2	Volcan	0.54	31	⇓iP	Pb	09 07 27.5	-0.1
BRU2				eS	Sb	09 07 37.0	+1.6
CLLRA	Cordillera,	0.55	41	eP	Pb	09 07 27.6	-0.1
CLLRA	Cordillera,	0.55	41	⇓iP	Pb	09 07 27.7	-0.1
CHIR3	Chiriqui UPA,	0.64	84	eS	Sb	09 07 39.2	+1.2
BGUAL	Bijagual, Pana	0.66	74	⇓iP	Pg	09 07 29.1	-0.2
BGUAL				eS	Sg	09 07 38.1	+0.1
BQTLY	Boquete Panama	0.67	50	eP	Pg	09 07 29.1	-0.4
BQTLY	Boquete Panama	0.67	50	⇓iP	Pg	09 07 29.2	-0.2
BQSF3	Alto Boquete,	0.68	52	eP	Pg	09 07 29.4	-0.2
BQSF3				eS	Sb	09 07 39.5	+0.3
EDP2	Potrero Grande	0.71	344	eP	Pg	09 07 29.9	-0.4
RBALA	Bur	0.98	56	eP	Pb	09 07 34.2	-0.8
RBALA	Bur	0.98	56	eP	Pb	09 07 34.3	-0.7
RBALA				eS	Sg	09 07 48.4	+0.2
EDPE	Pejibaye, P	1.02	325	eP	Pb	09 07 34.1	-1.5
CHGR2	Aguacate	1.02	53	⇓iP	Pb	09 07 35.0	-0.8
CHGR2				eS	Sg	09 07 49.5	-0.1
SAJE	San Jernim	1.14	333	eP	Pb	09 07 36.5	-1.4
KKNTU	Kakintº	1.26	66	eP	Pn	09 07 38.2	-1.2
KKNTU	Kakintº	1.26	66	⇓iP	Pn	09 07 38.3	-1.1
KKNTU				eS	Sb	09 07 55.0	-0.9
BRIBI	Bribri	1.30	7	eP	Pb	09 07 40.6	+0.2
PIEC	Cerro El Cedra	1.61	323	eP	Pn	09 07 44.6	+0.1
ABE2	San Pablo	1.74	322	eP	Pn	09 07 47.1	+0.9
LCR2	La Lucha 2	1.74	324	eP	Pn	09 07 46.6	+0.5
LCR2	La Lucha 2	1.74	324	eP	Pn	09 07 47.0	+0.8
LCR2				eS	Sb	09 08 09.2	-0.6
ACOS	Acosta	1.88	321	eP	Pn	09 07 48.7	+0.7

IDC 03 09:10:41.2±7.3, 33°.23N×142°.64E, h0^{km}, mb3.7/2, mbtmp3.5/3, ML1.7/1, MS3.6/1, Error ellipse: s-maj=237.1km s-min=24.8km az=62.0, Off east coast of Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MJAR	Matsushiro Arr	4.92	313	Pn	Pn	09 11 56.4	-0.1
	baz=133,slow=11,SNR=4.0						
	3.0nm,1.0s						
WRA	Warramunga Arr	53.46	190	P	P	09 20 04.1	+0.8
	0.8nm,0.4s,baz=8.7,slow=8.0,SNR=9.3						
	0.8nm,0.4s						
FITZ	Fitzroy Crossi	53.56	200	LR	LR	09 44 40.5	
	comp=Z,50nm,18.4s,baz=5.5,slow=38						
ASAR	Alice Springs	57.19	190	P	P	09 20 29.0	-1.1
	0.2nm,0.6s,baz=7.5,slow=7.4,SNR=5.4						
	0.2nm,0.6s						

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*IDC **03** 09:13:03.0±2.1, 8°.70N×126°.02E, h0^{km}, mb3.7/6, mbtmp3.7/6, Error ellipse: s-maj=231.4km s-min=22.2km az=67.0*

*MAN **03** 09:13:09.0, 8°.84N×126°.53E, h27^{km}, MS3.3*

ISC 03 09:13:06.7±1.6, 8°.81N±0°.03×126°.29E±0°.06, h20^{km}±6^{km}, n23, σ1^{s}.51/26, mb3.7/6, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BIPH	Bislig	0.62	174	i P	Pn	09 13 22.7	+2.3
BIPH				eS	Sn	09 13 31.3	+1.5
GLSP	General Luna,	0.98	350	eP	Pn	09 13 27.3	+1.9
GLSP				eS	Sn	09 13 40.0	+1.2
CDOP	Cateel, Davao	1.03	172	i P	Pn	09 13 28.1	+2.1
CDOP				i S	Sn	09 13 41.2	+1.4
SCPH	Surigao	1.25	321	i P	Pb	09 13 29.7	0.0
SCPH				i S	Sb	09 13 35.1	-10
CGP	Cagayan de Oro	1.62	258	i P	Pg	09 13 38.8	+0.9
CGP				i S	Sg	09 14 00.0	+1.0
KCP	Kidapawan	2.15	214	eP	Pg	09 13 46.6	-1.3
LSIP	Lazi, Siquijor	2.65	277	i P	Pb	09 13 52.7	-0.7
LSIP				i S	Sg	09 14 30.2	-1.7
PLP	Palo	2.68	331	eP	Pb	09 13 52.6	-1.4
PLP				eS	Sb	09 14 26.1	-0.3
LLP	Lapu-Lapu	2.74	303	eP	Pb	09 13 54.9	-0.2
LLP				eS	Sb	09 14 29.7	+1.4
DDMP	Don Marcelino,	2.75	192	eP	Pb	09 13 55.4	+0.3
DDMP				eS	Sb	09 14 26.2	-2.2
SNPH	Sibulan	3.06	280	eP	Pn	09 13 56.3	+2.2
SNPH				eS	Sb	09 14 36.0	-1.6
WRA	Warramunga Arr	29.65	165	P	P	09 19 09.8	-1.3
	0.4nm,0.8s,baz=344,slow=8.8,SNR=2.2						
	0.4nm,0.8s						
ASAR	Alice Springs	33.12	167	P	P	09 19 41.0	-0.7
	0.2nm,0.5s,baz=348,slow=7.0,SNR=4.4						
	0.2nm,0.5s						
H11S3	WAKE ISLAND Hy	40.33	72	T	T	10 03 38.7	
	baz=273,SNR=47						
H11S1	WAKE ISLAND Hy	40.35	72	T	T	10 03 39.9	
	baz=273,SNR=33						
H11S2	WAKE ISLAND Hy	40.35	72	T	T	10 03 39.8	
	baz=273,SNR=54						
H11N1	WAKE ISLAND Hy	40.71	70	T	T	10 04 07.5	
	baz=264,slow=75,SNR=14						
H11N2	WAKE ISLAND Hy	40.72	70	T	T	10 04 17.4	
	baz=264,slow=75,SNR=9.6						
H11N3	WAKE ISLAND Hy	40.73	70	T	T	10 04 12.6	
	baz=264,slow=75,SNR=14						
MKAR	Makanchi Array	53.20	323	P	P	09 22 22.5	-1.2
	0.8nm,0.7s,baz=121,slow=8.2,SNR=6.1						
	0.8nm,0.7s						
ZALV	Zalesovo Beam	55.92	332	P	P	09 22 41.5	-1.7
	0.4nm,0.3s,baz=144,slow=10,SNR=1.8						
	0.4nm,0.3s						
KURBB	Kurchatov Arra	57.29	326	P	P	09 22 52.0	-1.0
	0.5nm,0.7s,baz=125,slow=6.7,SNR=2.9						
	0.5nm,0.7s						
FINES	FINESS Array B	87.18	332	P	P	09 25 51.7	+0.4
	2.7nm,1.0s,baz=57,slow=5.1,SNR=4.1						
	2.7nm,1.0s						

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*TEH **03** 09:15:17.1, 34°.86N×45°.69E, h8^{km}±55^{km}, ML2.9, Presumed earthquake*

*ISN **03** 09:15:19.2±1.3, 34°.92N×45°.68E, h8^{km}, ML2.9, Presumed earthquake*

ISC 03 09:15:17.9±1.1, 34°.87N±0°.05×45°.72E±0°.04, h10^{km}, n9, σ0^{s}.74/12, Iran-Iraq border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IDHR	Dehrash	0.57	107	Pg	Pg	09 15 28.9	-0.2
IDHR				Sg	Sb	09 15 38.3	-0.2
IGHG	Ghaleghazi	0.88	128	Pg	Pb	09 15 34.8	-0.7
KCHF	Cheshme Sefid,	1.24	118	Pg	Pg	09 15 41.2	-0.5
SNJK	Sanadaj _Korde	1.25	63	Pg	Pg	09 15 41.7	-0.2
IKRK	Kirkuk	1.25	295	i P	Pg	09 15 41.4	-0.5
IKRK				i S	Sn	09 15 59.0	+0.6
IKRK				IAML		09 16 00.9	
	comp=N,928nm,0.2s						
IKRK				IAML		09 16 00.9	
	comp=E,610nm,0.6s						
SNQR	Sonqor, Kerman	1.57	90	Pg	Pb	09 15 47.2	0.0
IBDR	Badra	1.77	174	i P	Pg	09 15 51.1	-0.7
IBDR				i S	Sg	09 16 16.4	+1.6
	baz=353						
IBDR				IAML		09 16 18.2	
	comp=N,50nm,0.7s						
IBDR				IAML		09 16 18.4	
	comp=E,42nm,0.5s						
IBZA	Bozab	1.81	102	Pn	Pb	09 15 51.4	+0.1
IALM	Almabolaq	2.01	90	Pn	Pb	09 15 54.3	-0.5

NOU 03 09:16:10.2, 11°.58S×162°.49E, h0^{km}, MLv4.3/10, Solomon Islands, Bougainville-Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NGOA	Tingoa Renbel	2.38	270	P	Pn	09 16 49.8	-0.7
HNR	Honiara	3.29	310	P	Pn	09 17 02.6	-0.4
SAVO	Savo Central	3.57	312	P	Pn	09 17 06.7	-0.3
TATA	Tatamba Isabel	4.13	320	P	Pn	09 17 15.1	+0.5
TATA	Tatamba Isabel	4.13	320	S	Sn	09 18 04.1	+0.4
SANVU	Saraoutou	5.98	131	P	Pn	09 17 39.2	-0.9
KOUNC	Koumac, New Ca	9.09	169	P	Pn	09 18 22.7	0.0
MARNC	Mare, Loyalty	11.18	152	P	Pn	09 18 51.9	+0.5

IDC 03 09:16:23.8±14.0, 21°.34S×179°.02E, h534^{km}±168^{km}, mb2.7/3, mbtmp3.6/3, Error ellipse: s-maj=267.3km s-min=57.4km az=166.0, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ASAR	Alice Springs	41.62	258	P	P	09 23 24.9	-0.7
	0.2nm,0.4s,baz=94,slow=7.3,SNR=6.5						
	0.2nm,0.4s						
WRA	Warramunga Arr	41.73	264	P	P	09 23 26.8	+0.3
	0.7nm,0.5s,baz=97,slow=8.0,SNR=8.1						
	0.7nm,0.5s						
TXAR	Lajitas Array	89.86	58	P	P	09 28 26.1	-0.1
	0.2nm,0.7s,baz=226,slow=5.2,SNR=4.9						
	0.2nm,0.7s						
HFS	Hagfors	139.87	349	PKP	PKPdf	09 34 48.5	-2.3
	1.7nm,0.4s,baz=5.0,slow=3.3,SNR=7.4						
AKASG	Malin Array Be	142.33	328	PKP	PKPdf	09 34 55.2	-0.2
	0.4nm,0.5s,baz=64,slow=2.3,SNR=4.4						

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*IDC **03** 09:17:47.8±1.2, 34°.78N×24°.10E, h0^{km}, mb4.0/8, mbtmp3.9/12, ML3.2/4, Error ellipse: s-maj=27.5km s-min=13.5km az=154.0*

*NAO **03** 09:17:49.8, 34°.95N×24°.51E, h10^{km}, MB3.9*

*ISK **03** 09:17:52.9, 34°.93N×24°.22E, h5^{km}, ML3.2/12*

*THE **03** 09:17:53.9, 35°N±2°×2°4E±°, h7^{km}±2^{km}, M3.5/14, MLh3.5/14*

*ATH **03** 09:17:53.4, 34°.87N×24°.15E, h10^{km}±1^{km}, ML3.4/11, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*

ISC 03 09:17:51.7±0.8, 34°.81N±0°.05×24°.11E±0°.03, h23^{km}±4^{km}, n62, σ1^{s}.54/77, mb3.9/8, Crete

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GVD	Gavdhos	0.04	331	P	Pb	09 17 55.9	+0.3
GVD				S	Sb	09 17 59.2	+0.8
GVD				AML	AML		
GVD	Gavdhos	0.04	331	Pg	Pb	09 17 56.0	+0.3
GVD				Sg	Sb	09 17 59.1	+0.7
GVD				AML	AML		
GVD	Gavdhos	0.04	331	P	Pb	09 17 55.8	+0.1
GVD				S	Sb	09 17 57.8	-0.5
GVD				AML	AML		
GVDS	Gavdos	0.05	308	P	Pb	09 17 56.0	+0.3
GVDS				S	Sb	09 17 59.2	+0.7
GVDS				AML	AML		
GVDS	Gavdos	0.05	308	P	Pb	09 17 55.9	+0.1
GVDS				S	Sb	09 17 58.2	-0.2
KNDR	Palaiochora Ch	0.58	317	P	Pb	09 18 03.6	+0.3
KNDR				S	Sb	09 18 12.1	+1.0
KNDR				AML	AML		
KNDR	Palaiochora Ch	0.58	317	P	Pb	09 18 03.6	+0.3
KNDR				S	Sb	09 18 11.9	+0.8
SIVA	Sivas	0.61	70	P	Pb	09 18 04.4	+0.6
SIVA				S	Sn	09 18 13.4	-0.8
SIVA				AML	AML		
SIVA	Sivas	0.61	70	P	Pb	09 18 04.2	+0.5
SIVA				AML	AML		
RTHF	Rethymno-Limin	0.64	29	P	Pb	09 18 04.5	+0.3
RTHF				S	Sb	09 18 12.4	-0.3
RTHF				AML	AML		
IMMV	Iera Moni Meta	0.66	351	P	Pb	09 18 04.7	+0.1
IMMV				S	Sb	09 18 14.0	+0.5
IMMV				AML	AML		
IMMV	Iera Moni Meta	0.66	351	Pg	Pb	09 18 04.9	+0.3
IMMV				Sg	Sb	09 18 13.9	+0.5
IMMV				AML	AML		
IMMV	Iera Moni Meta	0.66	351	P	Pb	09 18 04.7	+0.1
IMMV				S	Sb	09 18 13.9	+0.5
CH01	Chania	0.71	354	P	Pb	09 18 06.2	+0.7
CH01				AML	AML		
CHAN	Chania	0.71	356	P	Pb	09 18 06.0	+0.6
IDI	Anoyia	0.80	53	Pg	Pb	09 18 06.8	-0.1
	61nm,0.3s,baz=229,slow=16,SNR=92						
IDI				LR	LR	09 18 13.4	
	comp=Z,96nm,18.5s,baz=252,slow=31						
IDI				Lg	Lg	09 18 20.4	
	99nm,0.3s,baz=324,slow=19,SNR=9.5						
IDI	Anoyia	0.80	53	P	Pb	09 18 06.9	-0.1
IDI				S	Sn	09 18 19.2	+0.2
IDI				AML	AML		
IDI	Anoyia	0.80	53	Pg	Pb	09 18 06.9	-0.1
IDI				AML	AML		
IDI	Anoyia	0.80	53	P	Pb	09 18 06.7	-0.3
IDI				S	Sb	09 18 18.0	+0.6

IDI				AML	AML		
ANKY	Antikythira Is	1.25	328	P	Pb	09 18 16.3	+1.8
ANKY				S	Sb	09 18 33.2	+2.9
ANKY				AML	AML		
NPS	Neapolis	1.31	69	S	Sb	09 18 34.8	+2.6
NPS				AML	AML		
NPS	Neapolis	1.31	69	P	Pb	09 18 17.3	+1.6
KTHA	Kythira Island	1.68	330	P	Pb	09 18 23.0	+1.0
KTHA				AML	AML		
KTHA	Kythira Island	1.68	330	Pn	Pb	09 18 24.2	+2.3
KTHA				AML	AML		
KTHA	Kythira Island	1.68	330	P	Pb	09 18 22.9	+1.0
KTHA				AML	AML		
ZKR	Zakros	1.76	79	Pn	Pb	09 18 24.4	+1.2
ZKR				AML	AML		
ZKR	Zakros	1.76	79	P	Pb	09 18 24.6	+1.4
ZKR				AML	AML		
MHLO	Agia Marina, M	1.90	7	S	Sb	09 18 50.6	+1.8
MHLO				AML	AML		
MHLO	Agia Marina, M	1.90	7	P	Pb	09 18 25.1	-0.5
THR5	Thira Island,	1.90	32	Pn	Pb	09 18 25.6	0.0
THR5	Thira Island,	1.90	32	P	Pb	09 18 25.9	+0.2
SNT5	Nea Kammeni, S	1.91	33	P	Pb	09 18 26.4	+0.7
SAP3	Santorini-Thir	1.91	31	P	Pb	09 18 25.9	0.0
THERA	Ancient Thera,	1.92	35	P	Pb	09 18 24.8	-1.1
THERA				AML	AML		
THERA	Ancient Thera,	1.92	35	P	Pb	09 18 25.4	-0.5
THR8	Santorini-Mono	1.95	35	P	Pb	09 18 25.6	-0.9
VLI	Veliai	2.13	334	P	Pb	09 18 28.4	-1.2
VLI				AML	AML		
KARP	Karpathos	2.61	73	P	Pb	09 18 35.7	-2.0
KARP				AML	AML		
KARP	Karpathos	2.61	73	Pn	Pb	09 18 36.2	-1.5
KARP				AML	AML		
MET6	Megalochori,Me	2.85	348	P	Pn	09 18 38.7	+3.0
ITM	Ithomi	2.96	324	P	Pn	09 18 40.5	+3.3
ITM				AML	AML		
VLY	Voula,Athens	3.05	355	P	Pn	09 18 40.4	+1.9
VLY				AML	AML		
KARY	Karystos	3.23	5	P	Pn	09 18 42.6	+1.6
DAT	Datca	3.41	55	Pn	Pn	09 18 46.9	+3.3
BODT	Bodrum	3.44	48	Pn	Pn	09 18 47.5	+3.6
BODT				AML	AML		
TURN	Turunc	3.89	58	Pn	Pn	09 18 53.9	+3.8
TURN				AML	AML		
YER	Yerkesik	4.11	54	Pn	Pn	09 18 56.3	+3.2
DALY	Dalyan (Mula)	4.20	60	Pn	Pn	09 18 58.9	+4.6
DALY				AML	AML		
BRTR	Keskin Array B	9.04	54	Pn	Pn	09 20 01.9	+1.0
	0.1nm,0.3s,baz=220,slow=9.4,SNR=4.8						
	0.7nm,0.7s						
BRTR				AML	AML		
GERES	GERESS Array B	16.01	334	Pn	Pn	09 21 31.6	-3.8
	baz=151,slow=12,SNR=7.9						
	0.7nm,0.2s						
AKASG	Malin Array Be	16.32	12	Pn	Pn	09 21 38.6	-0.6
	0.6nm,0.3s,baz=208,slow=10,SNR=6.2						
	0.2nm,0.3s						
AKASG				AML	AML		
KBZ	Khabaz	17.03	53	Pn	P	09 21 50.1	+0.2
	0.1nm,0.3s,baz=299,slow=5.2,SNR=8.9						
	6.7nm,1.1s						
KBZ				AML	AML		
ESDC	Sonseca Array	22.83	291	P	P	09 22 53.3	+0.2
	0.3nm,0.6s,baz=89,slow=11,SNR=1.2						
HFS	Hagfors	26.23	348	P	P	09 23 24.8	+0.1
	0.9nm,0.4s,baz=174,slow=14,SNR=4.2						
	0.9nm,0.4s						
FINES	FINESS Array B	26.69	2	P	P	09 23 27.7	-1.1
	1.6nm,0.8s,baz=211,slow=19,SNR=1.8						
	1.6nm,0.8s						
NB2	NORSAR Subarra	27.53	346	P	P	09 23 35.3	-1.1
	comp=Z,1.1nm,0.6s,baz=156,slow=9.3						
NOA	NORSAR Array B	27.53	346	P	P	09 23 35.8	-0.6
	comp=Z,1.9nm,1.1s,baz=162,slow=11,SNR=3.3						
	comp=Z,1.9nm,1.1s						
TORD	Torodi Ar. Bea	29.61	229	P	P	09 23 55.0	-0.2
	comp=Z,0.9nm,0.6s,baz=35,slow=8.0,SNR=9.1						
	comp=Z,0.9nm,0.6s						
ARCES	ARCESS Array B	34.79	1	P	P	09 24 38.5	-1.7
	comp=Z,2.7nm,1.1s,baz=185,slow=8.7,SNR=3.6						
	comp=Z,2.7nm,1.1s						
KURBB	Kurchatov Arra	42.01	51	P	P	09 25 40.5	-0.6
	comp=Z,1.2nm,0.4s,baz=280,slow=8.7,SNR=13						
	comp=Z,1.2nm,0.4s						
MKAR	Makanchi Array	44.69	56	P	P	09 26 01.9	-0.9
	comp=Z,0.7nm,0.4s,baz=282,slow=5.9,SNR=11						
	comp=Z,0.7nm,0.4s						
ZALV	Zalesovo Beam	45.87	46	P	P	09 26 11.1	-0.9
	comp=Z,2.8nm,0.4s,baz=270,slow=9.1,SNR=9.0						
	comp=Z,2.8nm,0.4s						

*IDC **03** 09:29:26.1±3.3,54°.46N×87°.11E,h0^{km},mbtmp3.2/2,
ML2.9/2,Error ellipse: s-maj=27.8km s-min=19.9km
az=71.0*

ASRS 03 09:29:28.0±1.4**,54°.33N×86°.82E,h0^{km},M2.9**(MOS)**,The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.,Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	1.24	253	I	I	09 38 00.0	
	baz=72,slow=322,SNR=3.5						
ZALV	Zalesovo Beam	1.24	253	Pg	Pg	09 29 51.2	-0.4
	5.0nm,0.3s,baz=69,slow=17,SNR=25						
ZALV				Lg	Lg	09 30 13.4	
	2.3nm,0.3s,baz=70,slow=29,SNR=4.2						
KURBB	Kurchatov Arra	6.28	237	Pn	Pn	09 31 03.5	+1.7
	0.1nm,0.3s,baz=53,slow=14,SNR=12						
KURBB				Lg	Lg	09 32 52.4	
	baz=50,slow=35,SNR=5.3						
	1.4nm,0.4s						
KURBB				AML	AML		
MKAR	Makanchi Array	8.08	203	Pn	Pn	09 31 29.3	+2.8
	0.2nm,0.3s,baz=24,slow=13,SNR=9.0						
MKAR				Lg	Lg	09 33 45.1	
	0.1nm,0.3s,baz=29,slow=21,SNR=2.0						
	0.3nm,0.3s						
MKAR				AML	AML		

*FUNV **03** 09:31:29.3,11°.93N×69°.67W,h18^{km},MW3.1,Presumed
earthquake*

*RSNC **03** 09:31:40.0±0.0,12°N±13°×7°0W±1°3,h100^{km}±27^{km},M2.6,
mB5.1,mb3.3,ML2.4,Mw(mB)4.5*

ISC 03 09:31:28.2±1.7**,12°.0N**±0°.1×**69°.65W**±0°.04**,h25^{km},n10,
σ1^{s}13**/18**,Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
URIC	Uribia, Colomb	2.31	263	P	Pn	09 32 05.1	+0.5
URIC				S	Sb	09 32 35.2	-2.0
URIC	Uribia, Colomb	2.31	263	*e*P	Pn	09 32 05.2	+0.6
URIC				*e*S	Sn	09 32 32.6	+0.4
TURV	Turiamo	2.35	130	*e*P	Pn	09 32 05.5	+0.3
TURV				*e*S	Sn	09 32 32.9	-0.4
BENV	Beln	2.85	135	*e*P	Pn	09 32 13.3	+1.1
BENV				*e*S	Sn	09 32 45.3	-0.5
TACV	Tcata	3.17	125	*e*P	Pn	09 32 17.4	+0.9
TACV				*e*S	Sn	09 32 52.6	-1.0
FUNV	FUNVISIS	3.17	118	*e*P	Pn	09 32 17.7	+1.1
FUNV				*e*S	Sn	09 32 53.0	-0.8
OCAC	Ocana	5.19	224	P	Pn	09 32 45.3	+0.9
OCAC				S	Sn	09 33 42.7	-0.9
PAMC	Pamplona, Colo	5.51	213	P	Pn	09 32 50.8	+1.7
PAMC				S	Sn	09 33 51.1	-0.9
PAMC				AML	AML		
SJCC	San Jacinto, C	5.81	250	P	Pn	09 32 54.4	+1.5
	6.4nm,1.6s						
SJCC				AML	AML		
RUSC	La Rusia	6.94	209	P	Pn	09 33 10.1	+1.3

*IDC **03** 09:35:09.6±1.0,9°.06S×119°.84E,h0^{km},mb3.9/5,
mbtmp4.0/9,ML4.0/4,Error ellipse: s-maj=44.7km
s-min=11.6km az=71.0*

*DJA **03** 09:35:13.1±0.2,9°S±2°×12°0E±°,h10^{km},M4.5/24,mB5.0/1,
mb4.6/8,MLv4.5/24,Mw(mB)4.4/1*

ISC 03 09:35:15.2±0.7**,9°.23S**±0°.04×**119°.82E**±0°.03**,h51^{km},n48,
σ2^{s}29**/48**,mb3.7**/5**,Sumba region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WBSI	Waikabubak, Su	0.59	226	P	Pn	09 35 25.7	-1.9
WBSI				S	Sn	09 35 35.5	-1.0
WSI	Waingapu	0.64	133	P	Pn	09 35 26.9	-1.3
WSI				S	Sn	09 35 37.6	-0.1
LBFI	Labuhan Bajo,	0.75	5	P	Pn	09 35 25.6	-4.0
BASI	Baing, Sumba	1.23	143	P	Pn	09 35 35.9	-0.2
DBNI	Kabupaten Domp	1.66	296	P	Pn	09 35 41.5	-0.4
EDFI	Ende, Flores	1.91	76	P	Pn	09 35 44.2	-1.2
PLAI	Plampang	2.06	281	P	Pn	09 35 46.2	-1.1
PLAI	Plampang	2.06	281	S	Sn	09 36 11.4	-0.4
PLAI	Plampang	2.06	281	P	Pn	09 35 46.8	-0.5
PLAI				AML	AML		
MMRI	Maumere	2.46	76	P	Pn	09 35 53.3	+0.4
MMRI	Maumere	2.46	76	S	Sn	09 36 23.0	+1.2
MMRI	Maumere	2.46	76	P	Pn	09 35 53.2	+0.4
MMRI				S	Sn	09 36 24.5	+2.7
MMRI				AML	AML		
TWSI	Taliwang, Sumb	2.94	279	P	Pn	09 35 59.8	+0.3
BSSI	Bau Bau, Buton	3.14	12	P	Pn	09 36 01.4	-0.8
BSSI				AML	AML		
MKS	Makassar	4.00	355	P	Pn	09 36 13.8	-0.2
KAPI	Kappang	4.19	359	Pn	Pn	09 36 15.8	-0.8
	11nm,0.3s,baz=171,slow=2.4,SNR=14						
KAPI				Sn	Sn	09 37 01.5	-2.9
	19nm,0.3s,baz=24,slow=23,SNR=17						
	38nm,0.4s						
KAPI				AML	AML		
KAPI	Kappang	4.19	359	P	Pn	09 36 16.3	-0.3
KAPI	Kappang	4.19	359	P	Pn	09 36 16.0	-0.6
KAPI				AML	AML		
KHKI	Kahang-Kahang	4.25	281	P	Pn	09 36 17.5	+0.1
KHKI				AML	AML		
SOEI	Soe	4.42	97	P	Pn	09 36 21.9	+2.1
SOEI				AML	AML		
BBSI	Bau Bau	4.61	36	P	Pn	09 36 22.4	0.0
BBSI				AML	AML		
IGBI	Denpasar	4.63	275	P	Pn	09 36 23.2	+0.5
SRBI	Singaraja	4.70	284	P	Pn	09 36 23.0	-0.5
RTBI	Rangdo, Negare	4.88	279	P	Pn	09 36 26.6	+0.5
RTBI				AML	AML		
SPSI	Sidrap Palu	5.23	359	P	Pn	09 36 31.7	+0.8
	0.3nm33nm,0.7s						
SPSI				AML	AML		
JAGI	Jajag, Banyuwa	5.65	277	P	Pn	09 36 35.9	-0.7
JAGI	Jajag, Banyuwa	5.65	277	S	Sn	09 37 39.4	-0.9
JAGI	Jajag, Banyuwa	5.65	277	P	Pn	09 36 36.0	-0.7
JAGI				AML	AML		
ABJI	Asem Bagus	5.71	284	P	Pn	09 36 37.0	-0.4
	0.4nm87nm,0.6s						
ABJI				AML	AML		
PMSI	Majene	5.76	351	P	Pn	09 36 36.0	-2.2
BLJI	Banyuglugur	6.33	283	P	Pn	09 36 47.0	+1.0
	0.4nm90nm,0.7s						
BLJI				AML	AML		
MMSI	Mamuju	6.56	352	P	Pn	09 36 49.1	-0.1
MMSI				AML	AML		
FITZ	Fitzroy Crossi	10.47	148	Pn	Pn	09 37 41.1	-1.5
	0.6nm,0.3s,baz=341,slow=8.3,SNR=21						
FITZ				Sn	Sn	09 39 32.6	-6.0
	2.3nm,0.3s,baz=182,slow=16,SNR=10						
	4.1nm,0.6s						
FITZ				AML	AML		
FITZ	Fitzroy Crossi	10.47	148	P	Pn	09 37 40.9	-1.8
WRA	Warramunga Arr	17.61	129	P	Pn	09 39 16.2	-0.9
	0.5nm,0.3s,baz=307,slow=14,SNR=32						
WRA				S	Sn	09 42 22.4	-10
	0.8nm,0.5s,baz=308,slow=25,SNR=4.9						
	1.3nm,0.6s						
WRA				AML	AML		
WRAB	Tennant Creek	17.62	129	P	Pn	09 39 15.8	-1.4
ASAR	Alice Springs	19.68	139	P	Pn	09 39 42.3	+0.2
	0.6nm,0.3s,baz=324,slow=12,SNR=59						
	5.2nm,0.7s						
ASAR				AML	AML		
STKA	Stephens Creek	30.26	141	P	P	09 41 23.1	+1.6
	4.4nm,0.7s,baz=315,slow=8.4,SNR=8.8						
	4.4nm,0.7s						
H08S2	Diego Garcia H	46.81	268	T	T	10 33 30.8	
	baz=96						
H08S3	Diego Garcia H	46.83	268	T	T	10 33 50.1	
	baz=96,SNR=44						
H08S1	Diego Carcia H	46.83	268	T	T	10 33 49.4	
	baz=96						
MKAR	Makanchi Array	65.03	333	P	P	09 45 49.5	-0.6
	0.8nm,0.5s,baz=146,slow=7.1,SNR=5.0						
	0.8nm,0.5s						
H04N2	CROZET ISLANDS	68.19	224	T	T	11 00 30.8	
	baz=82,slow=73,SNR=7.4						
H04N1	CROZET ISLANDS	68.21	224	T	T	11 00 29.6	
	baz=82,slow=73,SNR=14						
H04N3	CROZET ISLANDS	68.21	224	T	T	11 00 29.6	
	baz=82,slow=73,SNR=11						
ZALV	Zalesovo Beam	69.55	339	P	P	09 46 20.1	+1.6
	0.4nm,0.4s,baz=156,slow=11,SNR=1.8						
	0.4nm,0.4s						
VNDA	Vanda	71.63	171	P	P	09 46 35.0	+4.1
	0.3nm,0.7s,baz=322,slow=5.2,SNR=1.7						
	0.3nm,0.7s						
QSPA	South Pole Qui	80.76	180	P	P	09 47 25.5	+2.4
	0.8nm,0.9s,baz=323,slow=5.1,SNR=1.5						
	0.8nm,0.9s						

*ISK **03** 09:39:04.3,39°.84N×33°.25E,h6^{km},ML2.6/12*

*AFAD **03** 09:39:04.2,39°.85N×33°.25E,h19^{km}±1^{km},ML2.6*

ISC 03 09:39:04.5±1.0**,39°.85N**±0°.03×**33°.25E**±0°.02**,h12**^{km}±8^{km}**,
n29,**σ**1^{s}04**/48**,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GOKD	Ankara-Kalecik	0.28	38	P	Pg	09 39 10.4	0.0
GOKD				IAML		09 39 15.0	
	comp=N,1μm,0.5s						
GOKD				S	Sb	09 39 15.4	-1.0
GOKD				IAML		09 39 16.0	
	comp=E,2μm,0.3s						
BBAL	Bala	0.32	197	P	Pg	09 39 11.3	+0.3
BBAL				S	Sb	09 39 16.6	-0.8
BBAL				IAML		09 39 17.0	
	comp=E,400nm,0.2s						
BR131	Keskin Array S	0.33	112	Pg	Pg	09 39 11.1	-0.1
BR131				Sg	Sg	09 39 16.1	+0.5
KESK	Krkkale-Ke	0.33	129	P	Pg	09 39 11.4	+0.1
KESK				S	Sb	09 39 16.6	-1.2
KESK				IAML		09 39 17.0	
	comp=N,648nm,0.2s						
KESK				IAML		09 39 17.0	
	comp=E,391nm,0.3s						
LOD	Lodumlu	0.37	277	Pg	Pg	09 39 12.1	+0.1
LOD				Sg	Sb	09 39 18.2	-0.7
LOD				AML	AML		
AFSR	Afar-Bala (An	0.42	199	Pg	Pg	09 39 13.0	+0.1
AFSR				AML	AML		
DELI	KIRIKKALE	0.54	74	P	Pg	09 39 14.7	-0.4
DELI				S	Sg	09 39 22.5	+0.2
KAMT	Kaman	0.60	143	Pg	Pg	09 39 16.1	-0.1
KAMT				Sg	Sb	09 39 24.8	-0.6
KAMT				AML	AML		
AKPI	Kirsehir/Akpin	0.67	120	P	Pg	09 39 17.5	-0.1
AKPI				S	Sb	09 39 27.5	0.0
KKUL	Konya-Kulu	0.72	201	P	Pb	09 39 18.6	-0.4
KKUL				S	Sn	09 39 30.0	-1.6
KKUL				IAML		09 39 31.0	
	comp=N,155nm,0.6s						
KKUL				IAML		09 39 31.0	
	comp=E,125nm,0.3s						
KULU	Kulu	0.83	193	Pg	Pb	09 39 20.8	0.0
KULU				AML	AML		
SUNG	orum-Sungurl	0.84	66	P	Pb	09 39 20.7	-0.4
SUNG				S	Sn	09 39 38.4	+3.9
POLA	Polatl-ANKAR	0.84	260	Pg	Pb	09 39 21.1	-0.1
POLA				AML	AML		
KIRS	Kirsehir-Merke	0.88	144	P	Pg	09 39 21.0	-0.5
KIRS				S	Sb	09 39 33.6	+0.1
CDAG	Cicekdag	0.90	104	P	Pg	09 39 21.4	-0.4
CDAG				S	Sg	09 39 33.2	-0.3
SERE	Sereflikochisa	0.93	165	Pg	Pb	09 39 22.5	-0.2
SERE				AML	AML		
YOZG	Bozok Univ. Me	1.20	93	P	Pn	09 39 26.2	-1.0
YOZG				S	Sn	09 39 45.9	+2.5
MCUR	KIREHR	1.21	124	P	Pn	09 39 26.0	-1.3
MCUR				S	Sn	09 39 44.6	+1.0
MCUR				IAML		09 39 47.0	
	comp=E,94nm,0.2s						
MCUR				IAML		09 39 49.0	
	comp=N,72nm,0.3s						
AKSY	AKSARAY - Alti	1.26	161	P	Pn	09 39 27.1	-0.9
AKSY				S	Sg	09 39 47.5	+2.4
AKSY				IAML		09 39 49.0	
	comp=N,178nm,0.5s						
YUVA	Yuva-Kibriscik	1.31	295	Pn	Pg	09 39 29.9	+0.1
YUVA				AML	AML		
SVRH	Sivrihisar-ESK	1.39	254	Pn	Pg	09 39 30.9	-0.3
SVRH				AML	AML		
KOZK	Kozakli-Nevseh	1.41	116	Pn	Pg	09 39 31.1	-0.4
KOZK				AML	AML		
KIZT	Kizilcal	1.43	228	Pn	Pg	09 39 32.7	+0.6
KIZT				AML	AML		
SIRC	Yozgat	1.56	109	P	Pb	09 39 33.2	-0.1
SIRC				S	Sg	09 39 55.1	+0.5
SIRC				IAML		09 39 56.0	
	comp=E,102nm,0.4s						
SIRC				IAML		09 39 57.0	
	comp=N,100nm,0.4s						
AVNS	Nevsehir-Avano	1.62	129	P	Pg	09 39 35.8	+0.3
AVNS				S	Sg	09 39 58.6	+2.0
AVNS				IAML		09 40 01.0	
	comp=E,182nm,0.5s						
AVNS				IAML		09 40 02.0	
	comp=N,133nm,0.5s						
MDUB	Mudurnu	1.69	292	Pn	Pb	09 39 35.4	-0.2
MDUB				AML	AML		
LADK	Ladik-KONYA	1.78	203	Pn	Pb	09 39 36.4	-0.8
LADK				AML	AML		
HACI	Hacifakili, Ak	1.92	94	P	Pb	09 39 38.1	-1.4
HACI				S	Sg	09 40 06.3	+0.1
CUSAR	Sarkisla-SIVAS	2.35	100	P	Pn	09 39 43.7	+0.6
CUSAR				S	Sg	09 40 19.6	-0.6
CUSAR				IAML		09 40 20.0	
	comp=N,51nm,0.7s						
CUSAR				IAML		09 40 25.0	
	comp=E,36nm,0.6s						

*SNET **03** 09:40:05.6±1.2,12°.54N×88°.03W,h32^{km},ML3.7,
Presumed earthquake*

*CATAC **03** 09:40:06.3±0.3,13°N±2°×8°8W±°,h34^{km}±3^{km},M3.8/50,
MLv3.8/50,Error ellipse: s-maj=4.0km s-min=1.2km
az=28.8,confirmed*

*GCG **03** 09:40:08.7±0.4,12°.65N×88°.25W,h30^{km}±290^{km},MD4.1,
Presumed earthquake*

ISC 03 09:40:06.2±1.3**,12°.54N**±0°.04×**88°.06W**±0°.03**,h32**^{km}±12^{km}**,
n67,**σ**0^{s}57**/121**,8C-14D,Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CSGN	Cosiguina Volc	0.65	48	⇓P	Pn	09 40 19.1	-0.2
CSGN				S	Sn	09 40 29.5	+1.0
CNCH	Conchagua	0.76	16	*e*P	Pn	09 40 20.7	-0.2
CNCH				*e*S	Sn	09 40 31.8	+0.4
CNCH	Conchagua	0.76	16	⇓P	Pn	09 40 20.8	-0.2
CNCH				S	Sn	09 40 31.9	+0.5
LCND	La Caada	0.78	12	⇓P	Pn	09 40 20.8	-0.2
LCND				S	Sb	09 40 32.9	+1.3
RANC	El Ranchito	0.92	346	⇑P	Pn	09 40 22.8	-0.3
RANC				S	Sb	09 40 35.7	0.0
ALJI	Alcalda de J	0.93	327	*e*P	Pn	09 40 23.0	-0.1
ALJI				*e*S	Sn	09 40 35.4	+0.1
ALJI	Alcalda de J	0.93	327	P	Pn	09 40 22.9	-0.2
ALJI				S	Sb	09 40 35.9	0.0
PACA	Pacayal	0.96	344	⇓P	Pn	09 40 23.3	-0.3
PACA				S	Sb	09 40 36.6	-0.2
CRIN	San Cristobal	0.99	81	⇓P	Pb	09 40 24.3	-0.6
CRIN				S	Sb	09 40 38.8	+1.0
PQSS	Presa 15 de Se	1.18	335	S	Sn	09 40 42.2	+0.5
TELN	Telica	1.20	87	⇑P	Pn	09 40 24.3	-2.6
TELN				S	Sn	09 40 42.2	+0.1
HERN	Volcan Telica	1.20	87	⇓P	Pn	09 40 26.4	-0.5
HERN				S	Sn	09 40 42.1	0.0
TECO	Alcaldia de Te	1.22	325	⇑P	Pn	09 40 26.9	-0.2
TECO				S	Sn	09 40 42.0	-0.5
PLRN	Geotermica Pol	1.26	88	⇓P	Pn	09 40 27.4	-0.3
PLRN				S	Sn	09 40 43.2	-0.3
ILCN	San Idelfonso	1.32	88	⇓P	Pn	09 40 27.8	-0.7
ILCN				S	Sn	09 40 45.3	+0.2
CNGN	Cerro Negro	1.32	92	⇓P	Pn	09 40 28.1	-0.5
CNGN				S	Sn	09 40 45.5	+0.2
COEG	Centro de Oper	1.34	323	*e*P	Pn	09 40 28.6	-0.2
COEG				*e*S	Sn	09 40 45.1	-0.5
COEG	Centro de Oper	1.34	323	P	Pn	09 40 28.6	-0.2
COEG				S	Sn	09 40 45.5	-0.1
LEVN	Ruinas Leon Vi	1.41	96	P	Pn	09 40 28.9	-0.8
LEVN				S	Sn	09 40 47.7	+0.4
PAVA	Las Pavas	1.45	324	P	Pn	09 40 30.5	+0.2
PAVA				S	Sn	09 40 49.1	+0.8
COPN	Copaltepe	1.47	104	P	Pn	09 40 30.1	-0.6
MOMN	Momotombo	1.48	95	⇓P	Pn	09 40 30.7	-0.1
MOMN				S	Sn	09 40 49.3	+0.1
AESN	El Sauce Leon	1.52	77	P	Pn	09 40 30.6	-0.6
AESN				S	Sn	09 40 49.2	-0.7
PANCS	Alcalda de	1.53	314	P	Pn	09 40 30.9	-0.5
PANCS				S	Sn	09 40 49.7	-0.5
LOMA	Loma Larga	1.54	315	P	Pn	09 40 31.8	+0.1
LOMA				S	Sn	09 40 51.3	+0.6
LALI	Alcalda de L	1.55	307	*i* S	Sn	09 40 48.7	-2.0
LALI	Alcalda de L	1.55	307	P	Pn	09 40 31.4	-0.3
LALI				S	Sn	09 40 49.5	-1.2
P5NO	Presa 5 de nov	1.59	335	P	Pn	09 40 32.1	-0.1
P5NO				S	Sn	09 40 51.4	-0.3
AMTN	Mateare	1.61	101	P	Pn	09 40 32.6	+0.1
AMTN				S	Sn	09 40 52.5	+0.1
UEES	Universidad Ev	1.64	315	P	Pn	09 40 33.2	+0.2
UEES				S	Sn	09 40 53.5	+0.4
BOQS	Boqueron	1.68	315	*e*P	Pn	09 40 34.2	+0.5
TGUH	Tegucigalpa,Un	1.69	27	⇓P	Pn	09 40 33.4	-0.2
TGUH				S	Sn	09 40 53.6	-0.7
PMON	Piamonte	1.69	314	P	Pn	09 40 34.0	+0.3
PMON				S	Sn	09 40 54.8	+0.5
APYN	Apoyeque	1.69	100	P	Pn	09 40 33.7	+0.1
APYN				S	Sn	09 40 54.6	+0.4
APQ2	Apoyeque	1.72	101	P	Pn	09 40 34.0	-0.1
APQ2				S	Sn	09 40 55.0	0.0
APQ2	Apoyeque	1.72	101	⇑P	Pn	09 40 33.9	-0.1
APQ2				S	Sn	09 40 55.3	+0.3
JAYA	Jayaque - finc	1.75	309	*i* P	Pn	09 40 34.2	-0.4
JAYA				*i* S	Sn	09 40 54.0	-1.9
JAYA	Jayaque - finc	1.75	309	P	Pn	09 40 34.3	-0.4
JAYA				S	Sn	09 40 56.3	+0.4
ABCN	Banco Central	1.76	104	P	Pn	09 40 34.8	+0.3
ABCN				S	Sn	09 40 56.0	+0.2
ALLN	Telcor Managua	1.78	102	P	Pn	09 40 35.0	+0.1
ALLN				S	Sn	09 40 56.6	+0.2
TISN	Laguna Tiscapa	1.79	103	⇑P	Pn	09 40 34.9	0.0
CEDA	San Andres	1.81	314	S	Sn	09 40 57.6	+0.5
MGAN	Managua	1.81	102	P	Pn	09 40 35.0	-0.2
MGAN				S	Sn	09 40 57.2	+0.1
WILN	Americas 2	1.86	102	P	Pn	09 40 36.0	0.0
WILN				S	Sn	09 40 58.6	+0.1
AERN	Aeropuerto Man	1.89	102	S	Sn	09 40 59.1	+0.1
MAS3	Al N del Volca	1.91	105	⇑P	Pn	09 40 36.3	-0.3
MAS3				S	Sn	09 40 59.6	+0.1
NANN	Nandasmo	1.98	107	⇑P	Pn	09 40 38.5	+0.9
NANN				S	Sn	09 41 01.7	+0.3
CEVE	Cerro Verde	1.99	310	*e*P	Pn	09 40 38.8	+0.8
CEVE	Cerro Verde	1.99	310	P	Pn	09 40 38.5	+0.5
CEVE				S	Sn	09 41 02.2	+0.3
UNIC	Universidad Ca	2.04	315	P	Pn	09 40 38.6	+0.1
UNIC				S	Sn	09 41 03.5	+0.6
RCFN	Al S de San Ju	2.05	61	⇓P	Pn	09 40 38.4	-0.2
RCFN				S	Sn	09 41 03.1	-0.2
RCVN	Varillal2	2.09	60	P	Pn	09 40 38.9	-0.3
RCVN				S	Sn	09 41 03.8	-0.4
MATN	Matagalpa	2.11	79	⇓P	Pn	09 40 38.8	-0.7
MATN				S	Sn	09 41 05.0	+0.3
RCPN	Sur Rio San Ju	2.15	63	P	Pn	09 40 39.8	-0.1
RCPN				S	Sn	09 41 05.8	+0.1
NUBE	Las Nubes	2.16	309	*i* P	Pn	09 40 40.3	+0.1
NUBE	Las Nubes	2.16	309	P	Pn	09 40 40.3	+0.1
NUBE				S	Sn	09 41 05.9	0.0
SLOZ	Alcaldia de Sa	2.24	311	P	Pn	09 40 42.0	+0.8
MTO3	Montecristo	2.24	326	*i* P	Pn	09 40 41.6	+0.2
MTO3	Montecristo	2.24	326	P	Pn	09 40 41.6	+0.2

FAME	**Alcaldia de Sa**	**2.31**	**304**	P	**Pn**	**09 40 42.3**	**+0.2**
FAME				S	**Sn**	**09 41 08.9**	**-0.4**
SARH	**Santa Rosa de**	**2.32**	**343**	*i* P	**Pn**	**09 40 43.2**	**+0.8**
SARH	**Santa Rosa de**	**2.32**	**343**	P	**Pn**	**09 40 43.2**	**+0.8**
SARH				S	**Sn**	**09 41 10.2**	**+0.3**
BOAB	**BOACO BROADBAN**	**2.33**	**92**	⇓P	**Pn**	**09 40 41.7**	**-0.7**
BOAB				S	**Sn**	**09 41 10.3**	**+0.2**
ESQI	**Esquipulas**	**2.36**	**328**	⇑P	**Pn**	**09 40 43.6**	**+0.7**
ESQI				S	**Sn**	**09 41 11.2**	**+0.3**
MORN	**Al O del Volca**	**2.55**	**113**	P	**Pn**	**09 40 46.3**	**+0.8**
MORN				S	**Sn**	**09 41 15.8**	**+0.2**
OMEN	**Al SSO del Vol**	**2.59**	**113**	P	**Pn**	**09 40 45.2**	**-0.7**
OMEN				S	**Sn**	**09 41 16.4**	**+0.1**
CARN	**Rivas**	**2.82**	**118**	P	**Pn**	**09 40 49.9**	**+0.8**
CARN				S	**Sn**	**09 41 22.3**	**+0.2**

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*ASRS **03** 09:40:07.0±0.8, 54$\overset{\circ}{.}$22N×87$\overset{\circ}{.}$09E, h0^{km}, M2.5(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 03 09:40:07.9±4.2**, 54$\overset{\circ}{.}$32N×87$\overset{\circ}{.}$15E, h0^{km}, mbtmp2.6**/2**, ML2.4**/2**, Error ellipse: s-maj=40.7km s-min=21.1km az=66.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	**1.42**	**256**	I	I	09 49 30.0	
	baz=75,slow=325,SNR=2.9						
ZALV	**Zalesovo Beam**	**1.42**	**256**	Pg	Pn	09 40 33.1	-1.8
	0.9nm,0.3s,baz=75,slow=16,SNR=16						
ZALV				Lg	Lg	09 40 54.8	
	1.0nm,0.3s,baz=76,slow=27,SNR=5.7						
KURBB	**Kurchatov Arra**	**6.43**	**238**	Pn	Pn	09 41 44.6	+0.8
	0.1nm,0.3s,baz=54,slow=13,SNR=4.1						
	0.4nm,0.4s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**8.14**	**204**	Pn	Pn	09 42 09.5	+2.2
	0.1nm,0.3s,baz=28,slow=14,SNR=2.2						
	0.1nm,0.3s						
MKAR				AML	AML		

IDC 03 09:42:09.1±13.0**, 7$\overset{\circ}{.}$56S×129$\overset{\circ}{.}$57E, h170^{km}**±151^{km}**, mb3.4**/2**, mbtmp3.7**/5**, ML3.7**/3**, MS2.5**/1**, Error ellipse: s-maj=95.8km s-min=52.2km az=20.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	**11.15**	**200**	P	Pn	09 44 44.9	+1.0
	0.8nm,0.3s,baz=21,slow=9.4,SNR=24						
FITZ				S	Sn	09 46 47.5	-0.1
	2.7nm,0.3s,baz=276,slow=21,SNR=6.5						
	2.2nm,0.3s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**13.15**	**160**	P	Pn	09 45 07.6	-1.9
	0.3nm,0.3s,baz=340,slow=12,SNR=10						
WRA				S	Sn	09 47 29.0	-6.7
	2.6nm,0.4s,baz=334,slow=22,SNR=16						
	0.2nm,0.3s						
WRA				AML	AML		
ASAR	**Alice Springs**	**16.55**	**166**	P	Pn	09 45 52.5	+0.9
	0.2nm,0.3s,baz=336,slow=9.0,SNR=6.1						
	0.3nm,0.4s						
ASAR				AML	AML		
GUMO	**Guam**	**25.93**	**36**	LR	LR	10 00 33.7	
	comp=Z,11nm,18.1s,baz=89,slow=43						
MKAR	**Makanchi Array**	**68.46**	**327**	P	P	09 52 52.9	+0.1
	0.9nm,0.5s,baz=131,slow=7.9,SNR=9.6						
	0.9nm,0.5s						
KURBB	**Kurchatov Arra**	**72.76**	**329**	P	P	09 53 18.4	-0.2
	0.5nm,0.8s,baz=133,slow=5.7,SNR=2.4						
	0.5nm,0.8s						

DJA 03 09:53:49.9±0.3**, 3°S**±4°×**14°0E**±°**, h10^{km}**±7^{km}**, M4.3**/7**, mB5.1**/1**, mb4.9**/3**, MLv4.0**/7**, Mw(mB)4.5**/1**, Near north coast of Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GENI	**Genyem**	**0.25**	**60**	P	Pg	09 53 55.5	+0.5
GENI				S	Sb	09 54 01.0	0.0
GENI				AML	AML		
WAMI	**Wamena**	**1.69**	**227**	P	Pn	09 54 19.1	-0.5
WAMI				AML	AML		
BAKI	**Biak**	**4.13**	**291**	P	Pn	09 54 52.2	-0.9
BAKI				AML	AML		
MWPI	**Manokwari, Pap**	**6.17**	**287**	P	Pn	09 55 21.5	+0.4
	0.6nm153nm,0.8s						
MWPI				AML	AML		
KMPI	**Kaimana, Papua**	**6.31**	**261**	P	Pn	09 55 23.4	+0.4

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*GCG **03** 10:00:13.9±1.5, 17$\overset{\circ}{.}$21N×92$\overset{\circ}{.}$33W, h13^{km}±43^{km}, MD4.2, Presumed earthquake*

*MEX **03** 10:00:16.5±1.1, 17$\overset{\circ}{.}$24N×92$\overset{\circ}{.}$35W, h12^{km}, MD4.0, Presumed earthquake*

ISC 03 10:00:13.3±1.6**, 17$\overset{\circ}{.}$24N**±0$\overset{\circ}{.}$04×**92$\overset{\circ}{.}$34W**±0$\overset{\circ}{.}$05**, h9^{km}**±12^{km}**, n12, σ1$\overset{s}{.}$05**/20**, Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TGIG		**0.88**	**238**	*e*P	**Pg**	**10 00 29.7**	**-0.5**
TGIG				*e*S	**Sg**	**10 00 42.6**	**+0.9**
TGIG		**0.88**	**238**	*i* P	**Pg**	**10 00 29.7**	**-0.5**
TGIG				*i* S	**Sg**	**10 00 42.5**	**+0.9**
UXUV	**UXUV**	**1.73**	**273**	*e*P	**Pn**	**10 00 43.0**	**-0.5**
UXUV				*e*S	**Sn**	**10 01 04.4**	**-1.3**
SCIG	**Sabancuy**	**2.04**	**32**	*e*P	**Pn**	**10 00 47.6**	**-0.2**
SCIG				*e*S	**Sn**	**10 01 13.1**	**-0.3**
SCIG	**Sabancuy**	**2.04**	**32**	*i* P	**Pn**	**10 00 48.3**	**+0.6**
SCIG				*i* S	**Sn**	**10 01 13.6**	**+0.2**
PAVE	**Pavencul**	**2.04**	**176**	*e*P	**Pn**	**10 00 48.0**	**0.0**
PAVE				*e*S	**Sn**	**10 01 14.0**	**+0.2**
PATR	**El Naranjo**	**2.12**	**177**	*e*P	**Pn**	**10 00 48.8**	**-0.2**
PATR				*e*S	**Sn**	**10 01 14.2**	**-1.4**
CHUJ	**Union Juarez**	**2.15**	**174**	*e*P	**Pn**	**10 00 49.5**	**0.0**
CHUJ				*e*S	**Sn**	**10 01 16.2**	**-0.3**
CMIG	**Matias Romero**	**2.44**	**267**	*e*P	**Pn**	**10 00 52.9**	**-0.4**
CMIG				*e*S	**Sn**	**10 01 25.1**	**+1.9**
RTAL	**Retalhuleu**	**2.77**	**167**	*e*S	**Sn**	**10 01 34.0**	**+2.5**
APG	**El Apazote**	**2.86**	**141**	*i* P	**Pn**	**10 00 58.4**	**-0.9**
STG8	**El Palmar, Qui**	**2.93**	**161**	*i* P	Pn	10 00 56.2	-4.1

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*HEL **03** 10:00:30.6±0.2, 64$\overset{\circ}{.}$75N×30$\overset{\circ}{.}$82E, h0^{km}, ML1.5, Explosion*

*IDC **03** 10:00:33.1±3.5, 64$\overset{\circ}{.}$78N×30$\overset{\circ}{.}$55E, h0^{km}, mbtmp2.7/2, ML2.3/1, Error ellipse: s-maj=56.3km s-min=12.5km az=98.0*

*KOLA **03** 10:00:33.3, 64$\overset{\circ}{.}$90N×30$\overset{\circ}{.}$38E, h0^{km}, ML1.6, Karelia*

ISC 03 10:00:30.7±0.9**, 64$\overset{\circ}{.}$78N**±0$\overset{\circ}{.}$02×**30$\overset{\circ}{.}$58E**±0$\overset{\circ}{.}$05**, h0^{km}, n26, σ1$\overset{s}{.}$37**/38**, Finland-Karelia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RMF	**Romuvaara**	**0.63**	**207**	PG	**Pg**	**10 00 42.7**	**0.0**
	baz=32						
RMF				SG	**Sg**	**10 00 51.1**	**+0.3**
RMF				smax	smax	10 00 51.4	
	comp=Z,6.9nm,0.2s						
KU1	**Kurvinen**	**0.90**	**332**	PG	**Pg**	**10 00 48.1**	**+0.2**
MSF	**Maaselka**	**1.31**	**331**	PG	**Pg**	**10 00 55.5**	**-0.2**
	baz=151						
MSF				SB	**Sb**	**10 01 13.2**	**-0.3**
KU2	**Taivalkoski**	**1.36**	**315**	PG	**Pg**	**10 00 56.7**	**-0.1**
KU2				SB	**Sn**	**10 01 16.0**	**+0.4**
OLKF	**Oulanka, Finla**	**1.62**	**343**	PG	**Pn**	**10 01 01.0**	**+0.4**
OLKF				smax	smax	10 01 20.9	
	comp=Z,2.7nm,0.2s						
OLKF				SN	**Sg**	**10 01 23.8**	**+0.9**
NIF	**Nilsia**	**1.85**	**222**	PG	**Pb**	**10 01 04.7**	**-0.6**
NIF				smax	smax	10 01 27.1	
	comp=Z,1.5nm,0.2s						
NIF				SG	**Sg**	**10 01 29.4**	**-0.6**
JOF	**Joensuu**	**1.90**	**170**	PG	**Pn**	**10 01 03.3**	**-0.9**
JOF				SG	**Sn**	**10 01 28.8**	**0.0**
RANF	**Ranua**	**2.01**	**310**	PG	**Pb**	**10 01 08.0**	**-0.2**
RANF				SB	**Sg**	**10 01 34.6**	**-0.8**
OUL	**Oulu**	**2.02**	**281**	PG	**Pb**	**10 01 07.9**	**-0.3**
OUL				SB	**Sg**	**10 01 34.2**	**-1.2**
KVDA	**Kovda**	**2.14**	**25**	P	**Pn**	**10 01 09.2**	**+1.6**
KVDA				S	**Sn**	**10 01 36.9**	**+2.0**
OBF4	**Vikkela, Lumij**	**2.34**	**273**	PB	**Pb**	**10 01 13.4**	**-0.3**
OBF4				smax	smax	10 01 42.9	
	comp=Z,3.0nm,0.2s						
OBF4				SG	**Sg**	**10 01 45.9**	**0.0**
OUF	**Merijarvi**	**2.56**	**263**	PB	**Pb**	**10 01 16.4**	**-1.0**
	baz=75						
OUF				smax	smax	10 01 48.9	
	comp=Z,3.6nm,0.2s						
OUF				SB	**Sg**	**10 01 50.4**	**-2.3**
RNF	**Rovaniemi**	**2.64**	**316**	PB	**Pb**	**10 01 18.5**	**-0.2**
RNF				SB	**Sb**	**10 01 52.6**	**+1.0**
OBF0	**Syolatti, Pyha**	**2.74**	**267**	smax	smax	10 01 54.3	
	comp=Z,2.7nm,0.2s						
OBF0				SG	**Sg**	**10 01 57.6**	**-1.2**
TOF	**Tornio**	**2.92**	**299**	SB	**Sb**	**10 01 59.2**	**-0.6**
TOF				smax	smax	10 01 59.5	
	comp=Z,1.1nm,0.2s						
APA0	**Apatity Array**	**3.00**	**18**	S	**Sn**	**10 01 55.9**	**-0.3**
VRF	**Varrio**	**3.01**	**353**	PB	**Pn**	**10 01 22.2**	**+2.6**
VRF				smax	smax	10 02 00.2	
	comp=Z,0.6nm,0.2s						
KLF	**Kolari**	**3.66**	**315**	SG	**Sg**	**10 02 26.7**	**-1.4**
KEF	**Keuruu**	**3.66**	**227**	SN	**Sn**	**10 02 15.2**	**+2.9**
RAJF	**Raja-Jooseppi**	**3.82**	**347**	PN	**Pn**	**10 01 31.3**	**+0.6**
ERTU	**Ertsjaerv**	**3.90**	**301**	SG	**Sg**	**10 02 36.0**	**+0.1**
FINES	**FINESS Array B**	**3.92**	**213**	Pn	**Pn**	**10 01 34.1**	**+2.1**
	comp=Z,1.9nm,1.0s,baz=10,slow=9.4,SNR=1.7						
FINES				Pg	**Pb**	**10 01 40.1**	**-0.5**
	comp=Z,0.1nm,0.3s,baz=47,slow=8.4,SNR=1.8						
FINES				Lg	Lg	10 02 33.6	
	comp=Z,0.4nm,0.3s,baz=37,slow=28,SNR=7.0						
BURU	**Burvik**	**3.96**	**271**	SG	**Sg**	**10 02 36.9**	**-0.8**
TERR	**Teriberka**	**4.79**	**20**	S	**Sn**	**10 02 35.2**	**-4.7**
ARCES	**ARCESS Array B**	**5.17**	**340**	Pn	**Pn**	**10 01 49.5**	**+0.3**
	comp=Z,0.1nm,0.3s,baz=153,slow=12,SNR=8.2						
ARCES				Lg	Lg	10 03 09.9	
	comp=Z,0.1nm,0.3s,baz=154,slow=28,SNR=2.7						
	comp=Z,1.7nm,0.9s						
ARCES				AML	AML		
I37NO	**I37NO**	**6.38**	**318**	I	I	10 42 10.0	
	baz=126,slow=316,SNR=3.1						

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*NEIC **03** 10:06:06.0±0.8, 18$\overset{\circ}{.}$93N±0$\overset{\circ}{.}$08×65$\overset{\circ}{.}$14W±0$\overset{\circ}{.}$06, h35^{km}±2^{km}, ML3.3/31, Md3.7/11(RSPR), Error ellipse: s-maj=13.5km s-min=9.5km az=9.0*

*RSPR **03** 10:06:07.0, 18$\overset{\circ}{.}$96N×65$\overset{\circ}{.}$15W, h37^{km}±16^{km}, MD3.7/11*

ISC 03 10:05:59.5±1.8**, 19$\overset{\circ}{.}$37N**±0$\overset{\circ}{.}$07×**65$\overset{\circ}{.}$23W**±0$\overset{\circ}{.}$07**, h20^{km}**±6^{km}**, n44, σ1$\overset{s}{.}$25**/60**, 6C-8D, Puerto Rico region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HUMP	**Col San Antoni**	**1.35**	**206**		**Pn**	**10 06 23.6**	**+0.2**
HUMP					**Sn**	**10 06 37.7**	**-3.1**
HUMP	**Col San Antoni**	**1.35**	**206**	IAML		10 06 38.8	
	980nm,0.2s						
HUMP				IAML		10 06 40.6	
	809nm,0.2s						
HUMP	**Col San Antoni**	**1.35**	**206**	⇓*e*P	**Pn**	**10 06 23.6**	**+0.2**
ECPR	**Experimental S**	**1.50**	**226**		**Pb**	**10 06 27.5**	**+0.8**
ECPR					**Sn**	**10 06 43.5**	**-0.8**
ECPR	**Experimental S**	**1.50**	**226**	IAML		10 06 52.1	
	846nm,0.2s						
ECPR	**Experimental S**	**1.50**	**226**	⇑*e*P	**Pb**	**10 06 27.5**	**+0.8**
EMPR	**Esperanza - Ma**	**1.52**	**234**		**Pg**	**10 06 28.9**	**+0.1**
EMPR					**Sb**	**10 06 45.8**	**0.0**
EMPR	**Esperanza - Ma**	**1.52**	**234**	⇓*e*P	**Pg**	**10 06 28.9**	**+0.1**
EMPR				*e*S	**Sb**	**10 06 45.8**	**0.0**
PDPR	**Patillas Dam,**	**1.54**	**209**		**Pn**	**10 06 26.5**	**+0.7**
PDPR					**Sn**	**10 06 42.4**	**-2.9**
PDPR	**Patillas Dam,**	**1.54**	**209**	⇑*e*P	**Pn**	**10 06 26.5**	**+0.7**
IGPR	**InterUniversit**	**1.62**	**211**		**Pn**	**10 06 27.7**	**+0.7**
IGPR					**Sn**	**10 06 44.6**	**-2.8**
IGPR	**InterUniversit**	**1.62**	**211**	⇓*e*P	**Pn**	**10 06 27.7**	**+0.7**
AOPR	**Arecibo Observ**	**1.76**	**235**		**Pb**	**10 06 32.1**	**+0.9**
AOPR					**Sn**	**10 06 51.3**	**+0.4**
AOPR	**Arecibo Observ**	**1.76**	**235**	IAML		10 07 04.0	
	532nm,0.4s						
AOPR	**Arecibo Observ**	**1.76**	**235**	⇓*e*P	**Pb**	**10 06 32.1**	**+0.9**
CELP	**Cerrillos**	**1.81**	**225**		**Pb**	**10 06 31.9**	**-0.2**
CELP					**Sn**	**10 06 51.4**	**-0.7**
CELP	**Cerrillos**	**1.81**	**225**	IAML		10 06 57.1	
	244nm,0.3s						
CELP	**Cerrillos**	**1.81**	**225**	⇓*e*P	**Pb**	**10 06 31.9**	**-0.2**
OBIP	**Obispado Ponce**	**1.85**	**225**		**Pb**	**10 06 32.6**	**-0.2**
OBIP					**Sn**	**10 06 51.7**	**-1.4**
OBIP	**Obispado Ponce**	**1.85**	**225**	⇓*e*P	**Pb**	**10 06 32.6**	**-0.2**
OBIP				*e*S	**Sn**	**10 06 51.7**	**-1.4**
AGPR	**Aguadilla, PR**	**1.99**	**244**		**Pb**	**10 06 36.0**	**+0.9**
AGPR					**Sb**	**10 06 59.2**	**-0.3**
AGPR	**Aguadilla, PR**	**1.99**	**244**	IAML		10 07 06.8	
	208nm,0.6s						
AGPR				IAML		10 07 12.9	
	176nm,0.6s						
AGPR	**Aguadilla, PR**	**1.99**	**244**	⇑*e*P	**Pb**	**10 06 36.0**	**+0.9**
GBPR	**Guanica, Bosqu**	**2.09**	**229**		**Pb**	**10 06 36.8**	**0.0**
GBPR					**Sn**	**10 06 59.5**	**+0.6**
GBPR	**Guanica, Bosqu**	**2.09**	**229**	⇑*e*P	**Pb**	**10 06 36.8**	**0.0**
GBPR				*e*S	**Sn**	**10 06 59.5**	**+0.6**
LSP	**Las Mesas**	**2.12**	**236**		**Pb**	**10 06 37.4**	**+0.1**
LSP					**Sn**	**10 07 00.9**	**+1.2**
LSP	**Las Mesas**	**2.12**	**236**	⇓*e*P	**Pb**	**10 06 37.4**	**+0.1**
LSP				*e*S	**Sn**	**10 07 00.9**	**+1.2**
PRSN	**Puerto Rico Se**	**2.14**	**238**		**Sb**	**10 07 02.3**	**-1.6**
MLPR	**Magueyes Islan**	**2.21**	**231**		**Pb**	**10 06 38.5**	**-0.4**
MLPR					**Sn**	**10 07 02.2**	**+0.3**
MLPR	**Magueyes Islan**	**2.21**	**231**	⇑*e*P	**Pb**	**10 06 38.5**	**-0.4**
CRPR	**Cabo Rojo, PR**	**2.24**	**233**		**Pb**	**10 06 38.6**	**-0.7**
CRPR					**Sn**	**10 07 03.0**	**+0.4**
CRPR	**Cabo Rojo, PR**	**2.24**	**233**	IAML		10 07 14.1	
	134nm,0.8s						
CRPR	**Cabo Rojo, PR**	**2.24**	**233**	⇓*e*P	**Pb**	**10 06 38.6**	**-0.7**
IDE	**Isla Desecheo**	**2.34**	**246**		**Pb**	**10 06 41.0**	**0.0**
IDE					**Sb**	**10 07 08.6**	**-0.9**
IDE	**Isla Desecheo**	**2.34**	**246**	⇑*e*P	**Pb**	**10 06 41.0**	**0.0**
IDE				*e*S	**Sb**	**10 07 08.6**	**-0.9**
PCDR	**Punta Cana, DR**	**3.10**	**255**	Pn	**Pb**	**10 06 51.2**	**-2.7**
PCDR				IAML		10 07 31.9	
	comp=E,77nm,1.5s						
GDHS	**Morne Mazeau,**	**4.52**	**132**		**Pn**	**10 07 07.2**	**+0.3**
CBE	**Ff, Capester**	**4.77**	**133**		**Pn**	**10 07 10.2**	**-0.1**
SDDR	**Presa de Saban**	**5.74**	**267**	Pn	Pn	10 07 30.3	+6.6
BIM	**Bigot**	**6.26**	**140**	Pn	**Pn**	**10 07 29.6**	**-1.3**
MASC	**Masc**	**8.51**	**277**	*e*P	**Pn**	**10 08 03.9**	**+2.1**
MASC				*e*S	**Sn**	**10 09 37.7**	**+0.4**
MASC				IAML		10 09 48.7	
	comp=N,38nm,1.1s						
MASC				IAML		10 09 56.9	
	comp=E,27nm,2.2s						
QMBU	**Quimbuelo**	**9.06**	**277**	*e*P	**Pn**	**10 08 10.7**	**+1.5**
QMBU				*e*S	**Sn**	**10 09 50.5**	**-0.2**
QMBU				IAML		10 10 05.9	
	comp=N,18nm,2.0s						
QMBU				IAML		10 10 12.9	
	comp=E,20nm,1.4s						
NMDO	**Nuevo Mundo**	**9.25**	**279**	*e*P	**Pn**	**10 08 09.0**	**-2.8**
NMDO				*e*S	**Sn**	**10 09 55.6**	**+0.3**
PINC	**Pinares de May**	**9.99**	**278**	*e*P	**Pn**	**10 08 23.2**	**+1.1**
PINC				*e*S	**Sn**	**10 10 09.8**	**-3.9**

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*NEIC **03** 10:10:15.9±0.8, 18$\overset{\circ}{.}$96N±0$\overset{\circ}{.}$09×65$\overset{\circ}{.}$07W±0$\overset{\circ}{.}$02, h35^{km}±2^{km}, ML3.6/34, Md3.5/13(RSPR), Error ellipse: s-maj=14.8km s-min=3.2km az=2.0*

*RSPR **03** 10:10:17.0, 18$\overset{\circ}{.}$99N×65$\overset{\circ}{.}$12W, h15^{km}±18^{km}, MD3.5/13*

ISC 03 10:10:11.3±1.9**, 19$\overset{\circ}{.}$28N**±0$\overset{\circ}{.}$07×**65$\overset{\circ}{.}$24W**±0$\overset{\circ}{.}$07**, h31^{km}**±14^{km}**, n41, σ1$\overset{s}{.}$19**/61**, 13C-2D, Puerto Rico region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HUMP	**Col San Antoni**	**1.27**	**207**		**Pn**	**10 10 34.4**	**+1.4**
HUMP					**Sn**	**10 10 48.7**	**-0.2**
HUMP	**Col San Antoni**	**1.27**	**207**	IAML		10 10 50.9	
	2μm,0.2s						
HUMP				IAML		10 10 51.4	
	2μm,0.2s						
HUMP	**Col San Antoni**	**1.27**	**207**	⇑*e*P	**Pn**	**10 10 34.4**	**+1.4**
ECPR	**Experimental S**	**1.43**	**228**		**Pb**	**10 10 38.2**	**+0.8**
ECPR					**Sb**	**10 10 54.9**	**-0.4**
ECPR	**Experimental S**	**1.43**	**228**	⇑*e*P	**Pb**	**10 10 38.2**	**+0.8**
PDPR	**Patillas Dam,**	**1.46**	**211**		**Pn**	**10 10 37.2**	**+1.7**
PDPR					**Sn**	**10 10 53.5**	**-0.1**
PDPR	**Patillas Dam,**	**1.46**	**211**	IAML		10 10 54.4	
	671nm,0.3s						
PDPR	**Patillas Dam,**	**1.46**	**211**	⇑*e*P	**Pn**	**10 10 37.2**	**+1.7**
EMPR	**Esperanza - Ma**	**1.46**	**237**		**Pb**	**10 10 39.6**	**+1.8**
EMPR					**Sb**	**10 10 56.9**	**+0.8**
EMPR	**Esperanza - Ma**	**1.46**	**237**	⇑*e*P	**Pb**	**10 10 39.6**	**+1.8**
EMPR				*e*S	**Sb**	**10 10 56.9**	**+0.8**
IGPR	**InterUniversit**	**1.55**	**212**		**Pn**	**10 10 38.5**	**+1.8**
IGPR					**Sn**	**10 10 56.0**	**+0.3**
IGPR	**InterUniversit**	**1.55**	**212**	⇑*e*P	**Pn**	**10 10 38.5**	**+1.8**
AOPR	**Arecibo Observ**	**1.71**	**237**		**Pb**	**10 10 42.8**	**+0.6**
AOPR					**Sb**	**10 11 01.7**	**-1.6**
AOPR	**Arecibo Observ**	**1.71**	**237**	⇓*e*P	**Pb**	**10 10 42.8**	**+0.6**
CELP	**Cerrillos**	**1.75**	**227**		**Pb**	**10 10 42.7**	**0.0**
CELP					**Sb**	**10 11 02.6**	**-1.7**
CELP	**Cerrillos**	**1.75**	**227**	IAML		10 11 07.2	
	483nm,0.3s						
CELP	**Cerrillos**	**1.75**	**227**	⇑*e*P	**Pb**	**10 10 42.7**	**0.0**
OBIP	**Obispado Ponce**	**1.79**	**227**		**Pb**	**10 10 43.3**	**-0.1**
OBIP					**Sb**	**10 11 03.9**	**-1.6**
OBIP	**Obispado Ponce**	**1.79**	**227**	⇑*e*P	**Pb**	**10 10 43.3**	**-0.1**
OBIP				*e*S	**Sb**	**10 11 03.9**	**-1.6**
AGPR	**Aguadilla, PR**	**1.95**	**246**		**Pb**	**10 10 46.6**	**+0.4**
AGPR					**Sb**	**10 11 09.9**	**-0.2**
AGPR	**Aguadilla, PR**	**1.95**	**246**	IAML		10 11 14.2	
	366nm,0.3s						
AGPR				IAML		10 11 16.6	
	373nm,0.4s						
AGPR	**Aguadilla, PR**	**1.95**	**246**	⇑*e*P	**Pb**	**10 10 46.6**	**+0.4**
GBPR	**Guanica, Bosqu**	**2.03**	**230**		**Pb**	**10 10 47.4**	**-0.1**
GBPR					**Sn**	**10 11 08.7**	**+1.1**
GBPR	**Guanica, Bosqu**	**2.03**	**230**	⇑*e*P	**Pb**	**10 10 47.4**	**-0.1**
GBPR				*e*S	**Sn**	**10 11 08.7**	**+1.1**
LSP	**Las Mesas**	**2.07**	**238**		**Pb**	**10 10 48.5**	**+0.3**
LSP					**Sb**	**10 11 11.8**	**-1.7**
LSP	**Las Mesas**	**2.07**	**238**	⇑*e*P	**Pb**	**10 10 48.5**	**+0.3**
LSP				*e*S	**Sb**	**10 11 11.8**	**-1.7**
PRSN	**Puerto Rico Se**	**2.09**	**240**		**Pb**	**10 10 48.5**	**-0.1**
PRSN					**Sb**	**10 11 13.2**	**-1.0**
PRSN	**Puerto Rico Se**	**2.09**	**240**	⇑*e*P	**Pb**	**10 10 48.5**	**-0.1**
MLPR	**Magueyes Islan**	**2.15**	**233**		**Pb**	**10 10 48.9**	**-0.7**
MLPR					**Sb**	**10 11 13.7**	**-2.2**
MLPR	**Magueyes Islan**	**2.15**	**233**	⇑*e*P	**Pb**	**10 10 48.9**	**-0.7**
CRPR	**Cabo Rojo, PR**	**2.18**	**235**		**Pb**	**10 10 49.5**	**-0.7**
CRPR					**Sb**	**10 11 14.6**	**-2.1**
CRPR	**Cabo Rojo, PR**	**2.18**	**235**	⇑*e*P	**Pb**	**10 10 49.5**	**-0.7**
IDE	**Isla Desecheo**	**2.30**	**248**		**Pb**	**10 10 51.5**	**-0.6**
IDE					**Sb**	**10 11 19.4**	**-0.7**
IDE	**Isla Desecheo**	**2.30**	**248**	⇓*e*P	**Pb**	**10 10 51.5**	**-0.6**
IDE				*e*S	**Sb**	**10 11 19.4**	**-0.7**
SMRT	**St. Maarten**	**2.39**	**120**		**Pn**	**10 10 47.5**	**-0.9**
SMRT				IAML		10 11 25.7	
	comp=E,380nm,0.3s						
SMRT				IAML		10 11 25.8	
	comp=N,399nm,0.2s						
PCDR	**Punta Cana, DR**	**3.07**	**256**	Pn	**Pb**	**10 11 04.5**	**-0.8**
PCDR				IAML		10 11 47.1	
	comp=N,172nm,1.4s						
MAGL	**Barre de l’ile**	**5.02**	**131**	Pn	**Pn**	**10 11 25.0**	**+0.5**
MASC	**Masc**	**8.52**	**277**	*e*P	**Pn**	**10 12 14.5**	**+2.0**
MASC				*e*S	**Sn**	**10 13 47.7**	**+0.1**
MASC				IAML		10 13 59.5	
	comp=N,32nm,1.3s						
MASC				IAML		10 14 02.5	
	comp=E,36nm,2.8s						
QMBU	**Quimbuelo**	**9.06**	**277**	*e*P	**Pn**	**10 12 21.7**	**+1.6**
QMBU				*e*S	**Sn**	**10 13 59.4**	**-1.7**
QMBU				IAML		10 14 18.1	
	comp=N,18nm,1.0s						
QMBU				IAML		10 14 21.2	
	comp=E,18nm,1.0s						
NMDO	**Nuevo Mundo**	**9.26**	**280**	*e*P	**Pn**	**10 12 24.4**	**+1.7**
NMDO				*e*S	**Sn**	**10 14 05.6**	**-0.2**
NMDO				IAML		10 14 10.9	
	comp=E,12nm,1.4s						
NMDO				IAML		10 14 28.6	
	comp=N,15nm,1.3s						
PINC	**Pinares de May**	**10.00**	**279**	*e*P	**Pn**	**10 12 34.0**	**+1.1**
PINC				*e*S	**Sn**	**10 14 21.7**	**-2.4**
PINC				IAML		10 14 31.1	
	comp=E,6.0nm,0.7s						
PINC				IAML		10 14 38.3	
	comp=N,5.7nm,0.8s						

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*NOU **03** 10:12:58.1, 41$\overset{\circ}{.}$92S×172$\overset{\circ}{.}$87E, h101^{km}, MLv5.7/27, South Island, New Zealand*

*IDC **03** 10:13:00.3±0.8, 41$\overset{\circ}{.}$71S×172$\overset{\circ}{.}$45E, h77^{km}±6^{km}, mb3.9/10, mbtmp4.3/11, MS3.4/12, Error ellipse: s-maj=18.6km s-min=10.8km az=106.0*

*WEL **03** 10:13:00.7, 41$\overset{\circ}{.}$82S×172$\overset{\circ}{.}$70E, ML5.7, Mw4.6, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M$_{rr}$0.09; M$_{\theta\theta}$0.63; M$_{\phi\phi}$-0.34; M$_{r\theta}$0.50; M$_{\theta\phi}$0.72; M$_{\phi r}$-0.01; Fault plane solution: M$_{0}$1.02000×10^{16} NP1: φ$_{s}$107.00000°, δ87.00000°, λ29.00000°. NP2: φ$_{s}$15.00000°, δ61.00000°, λ176.00000°. Principal axes: T 1.0686, Plg22.0000°, Azm335.0000°; N -0.1432, Plg61.0000°, Azm113.0000°; P -0.9253, Plg17.0000°, Azm238.0000°; Stations used: BFZ DSZ FOZ GVZ INZ KHEZ KHZ LTZ MQZ MRZ NNZ OXZ STRIKE-SLIP FAULTING*

*WEL **03** 10:13:00.6±0.6, 42°S±3°×17°3E±°, h64^{km}±6^{km}, M5.4/13, ML5.4/13, MLv5.4/13 Error ellipse: s-maj=4.9km s-min=3.2km az=127.3, confirmed*

*NEIC **03** 10:13:00.6±1.5, 41$\overset{\circ}{.}$83S±0$\overset{\circ}{.}$03×172$\overset{\circ}{.}$73E±0$\overset{\circ}{.}$04, h74^{km}±1^{km}, mb4.6/21, Mwr4.7/37, Error ellipse: s-maj=4.2km s-min=3.7km az=47.0, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M$_{rr}$0.23; M$_{\theta\theta}$0.56; M$_{\phi\phi}$-0.80; M$_{r\theta}$0.82; M$_{\theta\phi}$0.83; M$_{\phi r}$0.02; Fault plane solution: M$_{0}$1.37000×10^{16} NP1: φ$_{s}$112.79000°, δ78.41000°, λ35.08000°. NP2: φ$_{s}$14.76000°, δ55.74000°, λ165.93000°. Principal axes: T 1.4403, Plg33.0000°, Azm339.0000°; N -0.1618, Plg53.0000°, Azm129.0000°; P -1.2785, Plg15.0000°, Azm240.0000°;*

*NEIC **03** 10:13:00.7, 41$\overset{\circ}{.}$84S×172$\overset{\circ}{.}$73E, h72^{km}*

ISC 03 10:13:00.8±0.5**, 41$\overset{\circ}{.}$85S**±0$\overset{\circ}{.}$02×**172$\overset{\circ}{.}$77E**±0$\overset{\circ}{.}$03**, h83^{km}**±3^{km}**, h82^{km}:pP-P, n298, σ1$\overset{s}{.}$76**/322**, mb4.6**/26**, 3C-5D, South Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
THZ	**Tophouse**	**0.13**	**49**		**Pn**	**10 13 11.5**	**-1.2**
THZ				Sn	**Sn**	**10 13 19.4**	**-2.2**
THZ	**Tophouse**	**0.13**	**49**	P	**Pn**	**10 13 11.6**	**-1.1**
THZ				S	**Sn**	**10 13 19.9**	**-1.7**
THZ				AML	AML		
THZ				AML	AML		
KLDS	**Kikiwa Line De**	**0.19**	**24**	P	**Pn**	**10 13 11.4**	**-1.5**
KLDS				S	**Sn**	**10 13 20.1**	**-1.7**
MCASZ	**Murchison**	**0.33**	**278**	P	**Pn**	**10 13 13.2**	**-0.4**
MATW	**Matariki Wadsw**	**0.42**	**353**	P	**Pn**	**10 13 13.0**	**-1.2**
MOLW	**Molesworth Sta**	**0.43**	**124**	P	**Pn**	**10 13 14.2**	**-0.2**
MRNZ	**Matariki Terra**	**0.45**	**359**		**Pn**	**10 13 13.5**	**-0.9**
MRNZ				Sn	**Sn**	**10 13 22.8**	**-1.7**
MRNZ	**Matariki Terra**	**0.45**	**359**	P	**Pn**	**10 13 13.2**	**-1.3**
MRNZ				S	**Sn**	**10 13 23.0**	**-1.4**
MRNZ				AML	AML		
MRNZ				AML	AML		
WVFS	**Wairau Valley**	**0.49**	**62**	P	**Pn**	**10 13 13.8**	**-1.0**
BTWS	**Nelson Brightw**	**0.53**	**30**	P	**Pn**	**10 13 14.2**	**-0.9**
LOKS	**Mount Lookout**	**0.56**	**107**	P	**Pn**	**10 13 15.8**	**+0.3**
INGS	**Inangahua Fire**	**0.61**	**269**	P	**Pn**	**10 13 15.0**	**-0.7**
SJFS	**Springs Juncti**	**0.66**	**222**	P	**Pn**	**10 13 16.1**	**-0.2**
NELH	**Nelson Hospita**	**0.68**	**34**	P	**Pn**	**10 13 16.2**	**-0.2**
NCBS	**Nelson Council**	**0.69**	**34**	P	**Pn**	**10 13 16.1**	**-0.5**
NLMS	**Nelson Nelmac**	**0.69**	**33**	P	**Pn**	**10 13 15.9**	**-0.7**
RDCS	**Reefton DOC Ce**	**0.73**	**248**	P	**Pn**	**10 13 16.2**	**-0.7**
DSZ	**Denniston Nort**	**0.73**	**278**		**Pn**	**10 13 16.2**	**-0.8**
DSZ				Sn	**Sn**	**10 13 27.1**	**-2.0**
DSZ	**Denniston Nort**	**0.73**	**278**	P	**Pn**	**10 13 16.0**	**-1.0**
DSZ				S	**Sn**	**10 13 27.3**	**-1.8**
DSZ				AML	AML		
DSZ				AML	AML		
NNZ	**Nelson**	**0.78**	**36**		**Pn**	**10 13 16.7**	**-0.8**
NNZ				Sn	**Sn**	**10 13 28.9**	**-1.0**
NNZ	**Nelson**	**0.78**	**36**	P	**Pn**	**10 13 16.4**	**-1.1**
NNZ				S	**Sn**	**10 13 28.9**	**-1.0**
NNZ				AML	AML		
NNZ				AML	AML		
KHZ	**Kahutara**	**0.81**	**135**	P	**Pn**	**10 13 17.3**	**-0.5**
KHZ	**Kahutara**	**0.81**	**135**	S	**Sn**	**10 13 30.3**	**-0.1**
KHZ	**Kahutara**	**0.81**	**135**		**Pn**	**10 13 17.1**	**-0.7**

KHZ				Sn	Sn	10 13 29.5	-0.9
KHZ	Kahutara	0.81	135	P	Pn	10 13 17.0	-0.7
KHZ				S	Sn	10 13 30.3	-0.1
KHZ				AML	AML		
KHZ				AML	AML		
TKNZ	Takaka Hill	0.83	10		Pn	10 13 17.1	-0.9
TKNZ				Sn	Sn	10 13 29.4	-1.5
TKNZ	Takaka Hill	0.83	10	P	Pn	10 13 16.9	-1.2
TKNZ				S	Sn	10 13 29.2	-1.7
TKNZ				AML	AML		
TKNZ				AML	AML		
BSWZ	Blackbirch Sta	0.84	81		Pn	10 13 18.1	0.0
BSWZ				Sn	Sn	10 13 31.7	+0.6
BSWZ	Blackbirch Sta	0.84	81	P	Pn	10 13 17.7	-0.4
BSWZ				S	Sn	10 13 32.1	+1.0
BSWZ				AML	AML		
BSWZ				AML	AML		
TUWZ	Tuamarina	0.97	65		Pn	10 13 19.6	0.0
TUWZ				Sn	Sn	10 13 33.9	+0.1
TUWZ	Tuamarina	0.97	65	P	Pn	10 13 19.7	0.0
TUWZ				S	Sn	10 13 34.2	+0.4
LTZ	Lake Taylor	1.00	202		Pn	10 13 19.9	-0.2
LTZ				Sn	Sn	10 13 33.7	-0.8
LTZ	Lake Taylor	1.00	202	P	Pn	10 13 19.7	-0.4
LTZ				S	Sn	10 13 33.7	-0.8
LTZ				AML	AML		
LTZ				AML	AML		
QRZ	Quartz Range	1.04	350	P	Pn	10 13 19.2	-1.3
QRZ	Quartz Range	1.04	350		Pn	10 13 19.2	-1.3
QRZ	Quartz Range	1.04	350	P	Pn	10 13 19.2	-1.3
QRZ				S	Sn	10 13 32.8	-2.4
QRZ				AML	AML		
QRZ				AML	AML		
CMWZ	Cape Campbell	1.08	85		Pn	10 13 20.8	-0.2
CMWZ	Cape Campbell	1.08	85	P	Pn	10 13 20.6	-0.4
CMWZ				AML	AML		
CMWZ				AML	AML		
GVZ	Greta Valley S	1.14	170		Pn	10 13 21.2	-0.4
GVZ	Greta Valley S	1.14	170	P	Pn	10 13 21.1	-0.5
GVZ				S	Sn	10 13 36.0	-1.3
GVZ				AML	AML		
GVZ				AML	AML		
TCW	Tory Channel	1.30	61		Pn	10 13 23.2	-0.5
TCW	Tory Channel	1.30	61	P	Pn	10 13 23.3	-0.3
TCW				S	Sn	10 13 40.0	-0.8
TCW				AML	AML		
TCW				AML	AML		
INZ	Inchbonnie	1.32	228		Pn	10 13 23.7	-0.2
INZ	Inchbonnie	1.32	228	P	Pn	10 13 23.5	-0.4
INZ				S	Sn	10 13 40.3	-0.9
INZ				AML	AML		
INZ				AML	AML		
AMCZ	Amberley	1.33	184		Pn	10 13 23.5	-0.6
AMCZ	Amberley	1.33	184	P	Pn	10 13 23.3	-0.7
AMCZ				S	Sn	10 13 40.5	-1.0
AMCZ				AML	AML		
AMCZ				AML	AML		
DUWZ	D'Urville Isla	1.36	40	P	Pn	10 13 24.0	-0.4
DUWZ				AML	AML		
DUWZ				AML	AML		
SNZO	South Karori	1.55	70	P	Pn	10 13 25.8	-1.0
SNZO	South Karori	1.55	70	P	Sn	10 13 45.4	-1.1
SNZO	South Karori	1.55	70		Pn	10 13 25.7	-1.1
OXZ	Oxford	1.57	200		Pn	10 13 26.2	-1.0
OXZ	Oxford	1.57	200	P	Pn	10 13 26.0	-1.2
OXZ				AML	AML		
OXZ				AML	AML		
WEL	Wellington	1.60	70	P	Pn	10 13 26.3	-1.2
WEL				AML	AML		
WEL				AML	AML		
BHW	Baring Head	1.64	75		Pn	10 13 26.4	-1.5
MQZ	McQueen's Vall	1.86	183		Pn	10 13 29.2	-1.7
MQZ	McQueen's Vall	1.86	183	P	Pn	10 13 29.0	-1.9
CAW	Cannon Point	1.88	68	P	Pn	10 13 29.5	-1.7
PLWZ	Palliser	1.88	82		Pn	10 13 29.1	-2.1
PLWZ	Palliser	1.88	82	P	Pn	10 13 29.1	-2.1
OKCZ	Okains Bay	1.89	174	P	Pn	10 13 30.1	-1.2
KIW	Kapiti Island	1.89	59	P	Pn	10 13 30.1	-1.2
MHCZ	Mount Hutt	1.90	207	P	Pn	10 13 30.3	-1.2
MSWZ	Moikau Station	1.91	78		Pn	10 13 29.6	-2.0
MSWZ	Moikau Station	1.91	78	P	Pn	10 13 29.4	-2.1
RACZ	Rakaia	1.93	194	P	Pn	10 13 30.4	-1.5
WVZ	Waitaha Valley	1.94	230	P	Pn	10 13 31.3	-0.6
AKCZ	Akaroa Harbour	2.02	177	P	Pn	10 13 31.6	-1.5
PAWZ	Paruwai Farm	2.05	78	P	Pn	10 13 30.9	-2.5
OGWZ	Otaki Gorge	2.08	61	P	Pn	10 13 32.2	-1.6
MTW	Mount Morrison	2.16	72	P	Pn	10 13 32.5	-2.5
WACZ	Wakanui South	2.20	198	P	Pn	10 13 34.0	-1.5
TRWZ	Traveller	2.23	79	P	Pn	10 13 33.5	-2.4
RPZ	Rata Peaks	2.25	214	P	Pn	10 13 35.3	-0.8
	556nm,0.4s,baz=349,slow=2.1,SNR=620						
RPZ				S	Sn	10 14 01.0	-2.2
	2µm,0.3s,baz=23,slow=10,SNR=9.2						
RPZ				LR	LR	10 14 17.7	
	comp=Z,276nm,18.1s,baz=316,slow=34						
RPZ	Rata Peaks	2.25	214	P	Pn	10 13 35.6	-0.5
RPZ	Rata Peaks	2.25	214	S	Sn	10 14 01.6	-1.5
RPZ	Rata Peaks	2.25	214	P	Pn	10 13 34.8	-1.3
HOWZ	Holdsworth Sta	2.27	66	P	Pn	10 13 34.0	-2.4
GCSZ	Gaunt Creek Bo	2.33	230	P	Pn	10 13 36.4	-0.6
ARCZ	Arundel	2.40	209	P	Pn	10 13 36.8	-1.4
MRZ	Mangatainoka R	2.43	62		Pn	10 13 36.5	-1.9
MRZ	Mangatainoka R	2.43	62	P	Pn	10 13 36.2	-2.3
TMWZ	Te Maipa	2.46	73	P	Pn	10 13 36.2	-2.7
OHWZ	Ohakea	2.53	50	P	Pn	10 13 39.2	-0.6
NMEZ	Namu Road	2.58	19	P	Pn	10 13 40.8	+0.3
TIWZ	Tintock	2.58	66	P	Pn	10 13 37.9	-2.7
WAZ	Wanganui	2.68	40	P	Pn	10 13 42.2	+0.2
LREZ	Lake Rotokare	2.69	28	P	Pn	10 13 42.9	+0.9
POWZ	Post Office Ro	2.69	58	P	Pn	10 13 39.6	-2.4
NBEZ	Newall Road No	2.71	18	P	Pn	10 13 42.6	+0.4
PREZ	Palmer Road	2.72	23	P	Pn	10 13 42.7	+0.3
KHEZ	Kahui Hut	2.72	21	P	Pn	10 13 42.2	-0.3
KHEZ	Kahui Hut	2.72	21	S	Sn	10 14 13.7	-0.8
KHEZ	Kahui Hut	2.72	21	P	Pn	10 13 42.6	+0.1
PRWZ	Pori Road	2.74	63	P	Pn	10 13 40.4	-2.3
CPWZ	Castlepoint	2.75	71	P	Pn	10 13 40.4	-2.4
FOZ	Fox Glacier	2.75	231		Pn	10 13 41.8	-1.1
FOZ	Fox Glacier	2.75	231	P	Pn	10 13 41.7	-1.1
NEZ	North Egmont	2.77	22	P	Pn	10 13 43.5	+0.4
PKE	Pukeiti	2.81	20	P	Pn	10 13 43.9	+0.3
TMZ	Timaru	2.84	206	P	Pn	10 13 42.7	-1.4
BFZ	Birch Farm	2.87	67	P	Pn	10 13 41.7	-2.7
BFZ	Birch Farm	2.87	67	S	Sn	10 14 15.1	-2.8
BFZ	Birch Farm	2.87	67		Pn	10 13 41.5	-2.9
BFZ	Birch Farm	2.87	67	P	Pn	10 13 41.2	-3.2
DREZ	Durham Road	2.87	23	P	Pn	10 13 44.6	+0.2
DVHZ	Dannevirke	3.00	60	P	Pn	10 13 43.0	-3.1
TSZ	Takapari Road	3.01	55	P	Pn	10 13 43.9	-2.4
MHEZ	Mangahewa	3.01	24	P	Pn	10 13 47.2	+0.8
VRZ	Vera Road	3.12	30	P	Pn	10 13 48.2	+0.4
ANWZ	Angora Road	3.12	65	P	Pn	10 13 44.7	-3.1
LBZ	Lake Benmore	3.16	216		Pn	10 13 46.8	-1.6
LBZ	Lake Benmore	3.16	216	P	Pn	10 13 46.4	-2.0
MTVZ	Mangateitei	3.21	41	P	Pn	10 13 48.5	-0.5
PKVZ	Pokaka	3.22	38	P	Pn	10 13 48.9	-0.4
PNHZ	Pukenui	3.24	54	P	Pn	10 13 46.5	-3.0
WPHZ	Waipukurau	3.30	59	P	Pn	10 13 47.5	-2.8
TRVZ	Turoa	3.31	41	P	Pn	10 13 49.9	-0.7
WNVZ	Wahianoa	3.31	41	P	Pn	10 13 49.4	-1.1
PRHZ	Porangahau	3.32	63	P	Pn	10 13 47.2	-3.3
MOVZ	Moawhango	3.33	44	P	Pn	10 13 48.9	-1.9
MAVZ	Matarangi	3.34	40	P	Pn	10 13 50.6	-0.5
WHVZ	Whangaehu Hut	3.34	41	P	Pn	10 13 50.1	-0.9
FWVZ	Far West T-bar	3.35	40	P	Pn	10 13 50.1	-1.0
COVZ	Chateau Observ	3.39	40	P	Pn	10 13 50.5	-1.0
TUVZ	Tukino	3.39	41	P	Pn	10 13 50.7	-0.8
NGZ	Ngauruhoe	3.43	40	P	Pn	10 13 51.3	-0.9
BHHZ	Black Hill Sta	3.44	48	P	Pn	10 13 50.2	-2.0
TWVZ	Taurewa	3.44	37	P	Pn	10 13 51.3	-1.0
SNVZ	South Ngauruho	3.44	40	P	Pn	10 13 51.5	-0.9
OTVZ	Oturere	3.47	40	P	Pn	10 13 51.7	-1.1
WTVZ	West Tongariro	3.48	39	P	Pn	10 13 51.6	-1.1
KRHZ	Kereru	3.51	52	P	Pn	10 13 50.2	-2.9
KRVZ	Karewarewa	3.52	39	P	Pn	10 13 54.1	+0.8
ETVZ	East Tongariro	3.52	41	P	Pn	10 13 52.7	-0.6
NTVZ	North Tongarir	3.53	40	P	Pn	10 13 53.0	-0.4
TMVZ	Te Maari	3.53	40	P	Pn	10 13 52.5	-1.0
ODZ	Otahua Downs	3.55	205	P	Pn	10 13 52.3	-1.3
ODZ	Otahua Downs	3.55	205	S	Sn	10 14 31.0	-3.4
ODZ	Otahua Downs	3.55	205		Pn	10 13 52.3	-1.3
ODZ	Otahua Downs	3.55	205	P	Pn	10 13 52.0	-1.5
PXZ	Pawanui	3.59	61	P	Pn	10 13 50.7	-3.5
KATZ	Kakaramea	3.64	39	P	Pn	10 13 55.0	+0.1
JCZ	Jackson Bay	3.67	231	P	Pn	10 13 54.1	-1.3
JCZ	Jackson Bay	3.67	231	S	Sn	10 14 35.7	-1.9
JCZ	Jackson Bay	3.67	231	P	Pn	10 13 53.3	-2.1
KWHZ	Kaweka Forest	3.69	50	P	Pn	10 13 52.9	-2.6
HIZ	Hauiti	3.69	26	P	Pn	10 13 55.0	-0.6
HIZ	Hauiti	3.69	26	S	Sn	10 14 35.8	-2.2
HIZ	Hauiti	3.69	26		Pn	10 13 55.2	-0.4
HIZ	Hauiti	3.69	26	P	Pn	10 13 55.1	-0.6
RITZ	Rihia Road	3.71	40	P	Pn	10 13 55.0	-0.9
KAHZ	Kahuranaki	3.73	58	P	Pn	10 13 52.9	-3.2
RATZ	Rangitukua	3.76	39	P	Pn	10 13 57.1	+0.6
MCHZ	McNeill Hill	3.83	52	P	Pn	10 13 54.8	-2.7
WATZ	Wairara	3.87	37	P	Pn	10 13 57.6	-0.4
HATZ	Hinemaiaia	3.89	42	P	Pn	10 14 00.6	+2.3
BKZ	Black Stump Fm	3.90	48	P	Pn	10 13 55.8	-2.7
CKHZ	Cape Kidnapper	3.94	58	P	Pn	10 13 55.5	-3.4
WHTZ	Whakaora	4.01	39	P	Pn	10 14 00.4	+0.5
WKZ	Wanaka	4.04	221		Pn	10 13 57.0	-3.3
WKZ	Wanaka	4.04	221	P	Pn	10 13 57.1	-3.2
POIZ	Poihipi	4.07	39	P	Pn	10 14 04.4	+3.6
KUTZ	Kaahu Road	4.09	36	P	Pn	10 14 02.3	+1.3
MRHZ	Matea Rd	4.10	44	P	Pn	10 13 58.6	-2.6
TLZ	Tolley Road	4.11	32	P	Pn	10 14 01.0	-0.2
ARHZ	Aropaoanui	4.13	53	P	Pn	10 13 58.6	-2.9
NMHZ	Naumai	4.13	50	P	Pn	10 13 58.5	-3.0
EAZ	Earnscleugh	4.21	215	P	Pn	10 13 59.3	-3.4
ALRZ	Allen Road	4.27	41	P	Pn	10 14 01.2	-2.3
MTHZ	Maungataniwha	4.32	47	P	Pn	10 14 01.1	-3.0
HHSZ	Highcliff Hill	4.33	201	P	Pn	10 14 02.7	-1.5
GRRZ	Galatos Road	4.33	37	P	Pn	10 14 09.8	+5.5
HRRZ	Handcock Road	4.38	39	P	Pn	10 14 03.6	-1.4
WHHZ	Waihua	4.39	52	P	Pn	10 14 02.1	-2.9
RAHZ	Arahi	4.41	50	P	Pn	10 14 01.7	-3.6
HSRZ	Hossack Road	4.42	38	P	Pn	10 14 05.0	-0.5
HLRZ	Highlands Stat	4.52	39	P	Pn	10 14 11.0	+4.1
MSZ	Milford Sound	4.53	230	P	Pn	10 14 04.1	-2.7
RRRZ	Republican Roa	4.53	41	P	Pn	10 14 05.1	-1.9
MUGZ	Murupara	4.55	44	P	Pn	10 14 04.1	-3.2
RTZ	Ruatahuna	4.56	46		Pn	10 14 04.5	-3.0
RTZ	Ruatahuna	4.56	46	P	Pn	10 14 04.0	-3.5
NGRZ	Ngongotaha	4.57	36	P	Pn	10 14 09.1	+1.5
TOZ	Tahuroa Road	4.62	28		Pn	10 14 07.7	-0.4
TOZ	Tahuroa Road	4.62	28	P	Pn	10 14 07.3	-0.9
KARZ	Kaharoa	4.66	36	P	Pn	10 14 09.8	+1.0
KMRZ	Kaimai	4.68	32	P	Pn	10 14 09.5	+0.4
TUZ	Tuapeka	4.69	208	P	Pn	10 14 07.0	-2.1
EDRZ	Edgecumbe	4.82	40	P	Pn	10 14 13.7	+2.7
MLZ	Mavora Lakes	4.88	222		Pn	10 14 08.9	-2.8
MLZ	Mavora Lakes	4.88	222	P	Pn	10 14 08.3	-3.4
URZ	Urewera	4.89	44	P	Pn	10 14 07.7	-4.1
	48nm,0.3s,baz=269,slow=2.4,SNR=58						
URZ				S	Sn	10 15 02.9	-4.3
	1µm,0.4s,baz=98,slow=19,SNR=15						
URZ	Urewera	4.89	44	P	Pn	10 14 07.9	-4.0
TGRZ	Tauranga	4.92	34	P	Pn	10 14 11.4	-0.8
AWAZ	Awhitu Peninsu	4.99	17	P	Pn	10 14 12.8	-0.5
MKAZ	Moumakai	5.09	22	P	Pn	10 14 14.0	-0.5
WTAZ	Waiatarua	5.10	16	P	Pn	10 14 15.2	+0.4
WHRZ	Whale Island	5.13	40	P	Pn	10 14 14.5	-0.7
ETAZ	East Tamaki Re	5.17	20	P	Pn	10 14 15.2	-0.4
EPAZ	Eden Park BICE	5.20	18	P	Pn	10 14 17.0	+1.0
HBAZ	Herne Bay Bore	5.22	18	P	Pn	10 14 17.7	+1.4
RVAZ	Riverhead Bore	5.26	16	P	Pn	10 14 16.5	-0.4
MYRZ	Mayor Island	5.29	32	P	Pn	10 14 22.4	+5.0
MBAZ	Motutapu North	5.33	19	P	Pn	10 14 17.5	-0.4
WHZ	Wether Hill Ro	5.34	219		Pn	10 14 14.5	-3.5
SYZ	Scrubby Hill	5.36	208	P	Pn	10 14 16.3	-1.9
SYZ	Scrubby Hill	5.36	208	S	Sn	10 15 15.2	-3.4
SYZ	Scrubby Hill	5.36	208	P	Pn	10 14 16.1	-2.2
WIAZ	Waiheke Island	5.37	21	P	Pn	10 14 18.2	-0.2
DCZ	Deep Cove	5.45	227		Pn	10 14 16.1	-3.3
DCZ	Deep Cove	5.45	227	P	Pn	10 14 16.2	-3.2
ABAZ	Army Bay	5.48	18	P	Pn	10 14 19.9	0.0
GRZ	Great Barrier	5.97	21	P	Pn	10 14 25.9	-0.6
WCZ	Waipu Caves	6.03	12	P	Pn	10 14 26.4	-1.0
MXZ	Matakaoa Point	6.04	47	P	Pn	10 14 23.2	-4.4
MXZ	Matakaoa Point	6.04	47	S	Sn	10 15 32.6	-2.7
MXZ	Matakaoa Point	6.04	47	Pn	Pn	10 14 23.4	-4.1
APZ	The Paps	6.05	213	P	Pn	10 14 24.2	-3.4
PYZ	Puysegur Point	6.16	223	P	Pn	10 14 26.5	-2.6
PYZ	Puysegur Point	6.16	223	S	Sn	10 15 34.5	-3.5
PYZ	Puysegur Point	6.16	223		Pn	10 14 25.9	-3.2
PYZ	Puysegur Point	6.16	223	P	Pn	10 14 27.3	-1.8
OUZ	Omahuta	6.65	6	P	Pn	10 14 34.9	-1.0
OUZ	Omahuta	6.65	6	P	Pn	10 14 35.5	-0.3
CTZ	Chatham Island	8.03	107	P	Pn	10 14 51.0	-3.6
CTZ	Chatham Island	8.03	107		Pn	10 14 51.1	-3.5
CTZ	Chatham Island	8.03	107	P	Pn	10 14 51.5	-3.1
I36NZ	CHATHAM INFRAS	8.16	108	I	I	11 01 20.0	
	baz=281,slow=314,SNR=0.5						
NFK	Norfolk Island	13.37	341	P	Pn	10 16 04.1	-2.9
	comp=Z,126nm,1.2s						
LHI	Lord Howe Isla	15.05	309	P	Pn	10 16 28.6	-0.4
	comp=Z,33nm,1.4s						
MOO	Moorlands	18.96	260	P	Pn	10 17 17.9	+1.0
	comp=Z,84nm,1.2s						
MOO	Moorlands	18.96	260	P	Pn	10 17 19.3	+2.4
	comp=Z,84nm,1.2s						
CAN	Canberra	19.66	282	P	Pn	10 17 34.8	+10
	comp=Z,21nm,2.3s						
CAN	Canberra	19.66	282	P	P	10 17 22.1	-1.0
CAN				IAmb	IAmb	10 17 35.5	
	comp=Z,18nm,1.1s						
DZM	Mont Dzumac	20.43	343	P	P	10 17 28.3	-3.1
	comp=Z,9.3nm,0.9s,baz=103,slow=21,SNR=5.8						
DZM				LR	LR	10 24 16.9	
	comp=Z,111nm,20.3s,baz=186,slow=34						
	comp=Z,9.3nm,0.9s						
KOUNC	Koumac, New Ca	22.41	339	P	P	10 17 53.6	+1.0
KOUNC				IAmb	IAmb	10 17 56.5	
	comp=Z,37nm,0.8s						
CMSA	Cobar Meteorol	23.94	287	P	P	10 18 08.2	+1.0
	comp=Z,11nm,1.7s						
EIDS	Eidsvold	24.32	306	P	P	10 18 12.4	+1.7
	comp=Z,6.6nm,1.2s						
EIDS	Eidsvold	24.32	306	P	P	10 18 11.5	+0.8
MSVF	Nonsavu	24.46	12	P	P	10 18 12.7	+0.6
MSVF				IAmb	IAmb	10 18 46.5	
	comp=Z,36nm,1.2s						
QLP	Quilpie	27.92	294	P	P	10 18 45.0	+1.8
	comp=Z,18nm,1.8s						
RAR	Rarotonga	30.94	57	LR	LR	10 31 44.3	
	comp=Z,44nm,18.3s,baz=230,slow=36						
CTAO	Charters Tower	31.21	306	P	P	10 19 13.1	+0.7
CTAO				IAmb	IAmb	10 19 48.5	
	comp=Z,20nm,1.4s						
HNR	Honiara	34.21	337	LR	LR	10 30 40.3	
	comp=Z,73nm,21.6s,baz=284,slow=31						
QIS	Mount Isa	35.10	297	P	P	10 19 48.3	+2.1
	comp=Z,8.4nm,2.5s						
VNDA	Vanda	36.06	184	P	P	10 19 55.8	+2.0
	comp=Z,0.4nm,0.7s,baz=315,slow=20,SNR=2.4						
VNDA				pP	pP	10 20 14.0	+0.5
	comp=Z,1.8nm,0.9s,baz=17,slow=6.2,SNR=6.5						
VNDA				LR	LR	10 31 23.4	
	comp=Z,60nm,20.5s,baz=316,slow=30						
	comp=Z,0.4nm,0.7s						
VNDA	Vanda	36.06	184	P	P	10 19 51.5	-2.4
VNDA				IAmb	IAmb	10 20 15.7	
	comp=Z,4.1nm,1.1s						
AS19	Alice Springs	36.93	287	P	P	10 20 02.6	+0.8
	comp=Z,6.1nm,0.7s						
AS31	Alice Springs	37.00	287	P	P	10 20 01.5	-0.9
ASAR	Alice Springs	37.00	287	P	P	10 20 01.3	-1.1
	comp=Z,1.7nm,0.6s,baz=128,slow=7.2,SNR=34						
ASAR				ScP	ScP	10 25 58.0	-3.2
	comp=Z,0.4nm,0.9s,baz=134,slow=4.0,SNR=4.9						
ASAR				LR	LR	10 36 34.4	
	comp=Z,36nm,18.1s,baz=220,slow=38						
	comp=Z,1.7nm,0.6s						
ASAR	Alice Springs	37.00	287	P	P	10 20 02.0	-0.4
WR0	Warramunga Arr	38.96	292	P	P	10 20 19.6	+0.7
WR8	Warramunga Arr	38.99	292	P	P	10 20 18.7	-0.5
WR8				IAmb	IAmb	10 20 21.2	
	comp=Z,14nm,1.2s						
WRA	Warramunga Arr	39.11	292	P	P	10 20 19.8	-0.4
	comp=Z,7.5nm,0.6s,baz=127,slow=8.2,SNR=96						
	comp=Z,7.5nm,0.6s						
WRA	Warramunga Arr	39.11	292	P	P	10 20 20.0	-0.1
PPT2	Papeete2	40.20	65	*e*LR	LR	10 31 26.4	
	comp=Z,128nm,26.0s						
PPT2				*e*LR	LR	10 31 33.2	
	comp=Z,134nm,28.5s						
CASY	Casey	41.52	213	P	P	10 20 39.5	-0.1
CASY				IAmb	IAmb	10 21 11.3	
	comp=Z,8.0nm,1.1s						
KRVT	Keravat (AS076	41.73	328	LR	LR	10 37 36.2	
	comp=Z,33nm,18.8s,baz=186,slow=36						
KNRA	Kununurra	45.88	291	P	P	10 21 16.1	+1.0
KNRA				IAmb	IAmb	10 21 20.1	
	comp=Z,9.2nm,1.4s						
MTN	Manton Dam	46.26	296	P	P	10 21 18.9	+0.8
	comp=Z,9.9nm,1.4s						
MTN	Manton Dam	46.26	296	P	P	10 21 18.6	+0.6
	comp=Z,9.9nm,1.4s						
MTN	Manton Dam	46.26	296	P	P	10 21 18.3	+0.2
MTN				IAmb	IAmb	10 21 19.4	
	comp=Z,6.8nm,0.8s						
FITZ	Fitzroy Crossi	46.47	286	P	P	10 21 19.2	-0.5
MORW	Morawa	47.15	267	P	P	10 21 24.8	-0.1
QSPA	South Pole Qui	48.28	180	P	P	10 21 35.5	+2.2
	comp=Z,4.2nm,0.6s,baz=54,slow=0.5,SNR=37						
QSPA				pP	pP	10 21 54.8	+0.9
	comp=Z,36nm,0.9s,baz=18,slow=2.8,SNR=22						
	comp=Z,4.2nm,0.6s						
QSPA	South Pole Qui	48.28	180	P	P	10 21 35.4	+2.1
MAW	Mawson	58.90	205	P	P	10 22 52.2	+1.6
	comp=Z,1.7nm,1.8s						
MAW	Mawson	58.90	205	P	P	10 22 52.4	+1.8
	comp=Z,1.7nm,1.8s						
MAW	Mawson	58.90	205	P	P	10 22 51.7	+1.1
	comp=Z,4.4nm,1.0s,baz=137,slow=1.8,SNR=11						
	comp=Z,4.4nm,1.0s						
MAW	Mawson	58.90	205	P	P	10 22 51.5	+0.8
BELA	Belgrano 2	59.37	174	P	P	10 22 54.1	+0.3
KAPI	Kappang	59.64	293	LR	LR	10 49 35.4	
	comp=Z,42nm,18.2s,baz=240,slow=37						
TOLI2	Tolitoli	63.44	298	P	P	10 23 20.6	-1.4
TOLI2				IAmb	IAmb	10 23 24.5	
	comp=Z,10.0nm,0.9s						
DAV	Davao City (W)	65.00	307	LR	LR	10 51 42.5	
	comp=Z,49nm,19.4s,baz=116,slow=36						
TROLL	Troll, Antarti	66.24	183	⇓P	P	10 23 40.6	+1.0
	comp=Z,225nm,0.5s						
TROLL				⇓pP	pP	10 24 01.4	+0.2
	comp=Z,346nm,0.6s						
SNAA	Sanae	66.74	182	⇓P	P	10 23 43.4	+0.7
	comp=Z,90nm,0.5s						
SNAA				⇑pP	pP	10 24 04.4	0.0
	comp=Z,128nm,0.8s						
SNAA	Sanae	66.74	182	P	P	10 23 43.6	+0.8
	comp=Z,2.3nm,0.4s,baz=225,slow=13,SNR=8.3						
SNAA				pP	pP	10 24 04.2	-0.2
	comp=Z,5.4nm,0.9s,baz=181,slow=7.4,SNR=5.6						
SNAA				LR	LR	10 50 15.5	
	comp=Z,47nm,20.6s,baz=114,slow=33						
	comp=Z,2.3nm,0.4s						
SNAA	Sanae	66.74	182	P	P	10 23 43.4	+0.7
SNAA				IAmb	IAmb	10 24 05.6	
	comp=Z,16nm,1.3s						
VNA3	Neumayer Olymp	67.20	179	P	P	10 23 46.0	+0.4
	comp=Z,3.5nm,0.5s						
VNA3				⇑pP	pP	10 24 07.0	-0.3
	comp=Z,13nm,0.8s						
VNA2	Neumayer--Watz	67.54	180	⇓P	P	10 23 48.5	+0.9
	comp=Z,13nm,0.6s,baz=166,slow=6.4						
VNA2				⇑pP	pP	10 24 09.5	+0.1
	comp=Z,21nm,0.7s,baz=169,slow=6.5						
VNA1	Neumayer--Stat	67.81	180	P	P	10 23 50.7	+1.4
	comp=Z,5.8nm,0.5s						
VNA1				⇓pP	pP	10 24 11.7	+0.6
	comp=Z,11nm,0.8s						
PLCA	Paso Flores	79.80	136	P	P	10 25 00.9	+0.8
	comp=Z,1.0nm,1.0s,baz=208,slow=5.3,SNR=3.4						
PLCA				pP	pP	10 25 22.1	-0.2
	comp=Z,1.6nm,0.7s,baz=253,slow=7.0,SNR=2.5						
	comp=Z,1.0nm,1.0s						
MJAR	Matsushiro Arr	84.18	333	LR	LR	10 56 11.5	
	comp=Z,26nm,22.0s,baz=176,slow=31						
AC05	El Transito	88.75	129	P	P	10 25 48.7	+3.1
KSRS	Korea Array	88.91	326	P	P	10 25 45.1	-0.5
	comp=Z,1.8nm,0.7s,baz=186,slow=4.9,SNR=3.7						
	comp=Z,1.8nm,0.7s						
CMAR	Chiang Mai Arr	90.67	294	P	P	10 25 54.5	+0.2
	comp=Z,1.0nm,0.8s,baz=150,slow=3.9,SNR=8.5						
CMAR				LR	LR	11 10 06.6	
	comp=Z,25nm,18.1s,baz=260,slow=38						
	comp=Z,1.0nm,0.8s						
FORD	Fort Ord Natur	98.39	48	P	Pdif	10 26 30.8	+1.6
BTO2	Baotou	99.99	317	*e*P	Pdif	10 26 40.2	+3.7
BTO2				pmax	pmax		
	comp=Z,14nm,0.6s						
BTO2				pmax	pmax		
	comp=Z,570nm,5.0s						
KURK	Kurchatov	123.19	311		PKPdf	10 31 45.6	-1.5
KURBB	Kurchatov Arra	123.20	311	PKP	PKPdf	10 31 45.6	-1.5
	comp=Z,0.6nm,0.5s,baz=112,slow=1.8,SNR=6.9						
DBIC	Dimbokro	144.91	184	PKPbc	PKPab	10 32 27.9	-0.1
	comp=Z,5.4nm,0.5s,baz=194,slow=4.7,SNR=6.3						
ARPR	Arapgir-MALATY	145.54	281	PKPdf	PKPbc	10 32 29.7	+0.2
ARCES	ARCESS Array B	147.49	339	PKPbc	PKPdf	10 32 32.3	+0.9
	comp=Z,3.8nm,0.7s,baz=27,slow=1.4,SNR=10						
ARCES	ARCESS Array B	147.49	339	PKPdf	PKPdf	10 32 31.1	-0.2
BRTR	Keskin Array B	149.19	280	PKPbc	PKPbc	10 32 38.5	-1.1
	comp=Z,1.1nm,0.5s,baz=161,slow=5.0,SNR=6.7						
TORD	Torodi Ar. Bea	150.37	198	PKPbc	PKPbc	10 32 42.6	-0.4
	comp=Z,1.0nm,0.4s,baz=171,slow=2.7,SNR=10						
FINES	FINESS Array B	152.00	326	PKPbc	PKPbc	10 32 43.8	-1.6
	comp=Z,3.2nm,0.8s,baz=69,slow=3.9,SNR=10						
AKASG	Malin Array Be	153.52	302	PKPbc	PKiKP	10 32 49.5	+0.4
	comp=Z,0.4nm,0.4s,baz=74,slow=2.5,SNR=4.1						

CATAC ***03*** *10:28:04.6±0.6, 8°N±4°×8°3W±°, h9^{km}±1^{km}, M3.5/9, MLv3.5/9, Error ellipse: s-maj=7.8km s-min=4.5km az=167.5, confirmed*

UCR ***03*** *10:28:04.0±0.6, 8°.31N×82°.99W, h5^{km}±3^{km}, MW3.6, Presumed earthquake*

UPA ***03*** *10:28:04.4±1.0, 8°.32N×82°.96W, h10^{km}±3^{km}, MW3.6, Fault plane solution: NP1:ϕ_s95.00000°, δ38.00000°, λ38.00000°., Presumed earthquake*

ISC 03 10:28:04.8±0.9, **8°.32N**±0°.03×**82°.98W**±0°.02, **h12**^{km}±7^{km}, **n55, σ0^s.90**/82, **2C-8D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTPM	Petroterminale	0.15	140	⇑*i*P	Pg	10 28 08.4	0.0
PTPM				*e*S	Sg	10 28 10.8	-0.1
PTPA	Petro Terminal	0.16	139	*e*P	Pg	10 28 08.3	-0.2
PTPA				*e*S	Sg	10 28 11.7	+0.6
LIMO3	Limones	0.24	153	⇓*i*P	Pg	10 28 10.0	0.0
LIMO3				*e*S	Sg	10 28 14.1	+0.7
LMNES	Limones	0.25	152	*e*P	Pg	10 28 09.8	-0.2
LMNES	Limones	0.25	152	⇑*i*P	Pg	10 28 09.8	-0.2
CDITO	Canoas	0.27	22	P	Pg	10 28 10.5	+0.1
CDITO				S	Sb	10 28 17.4	+1.1
NELY	Ciudad Neily	0.33	5	*e*P	Pg	10 28 11.3	-0.1
NELY	Ciudad Neily	0.33	5	*i* P	Pg	10 28 11.5	0.0
NELY				*e*S	Sb	10 28 17.9	0.0
FITO	Golfito	0.35	330	*e*P	Pg	10 28 10.9	-1.0
FITO				*e*S	Sg	10 28 16.1	-0.4
PIRO	Carate, Puerto	0.36	283	P	Pg	10 28 11.7	-0.4
PIRO				S	Sb	10 28 19.4	+0.4
PIRO	Carate, Puerto	0.36	283	*e*P	Pg	10 28 11.2	-0.9
PIRO	Carate, Puerto	0.36	283	*e*P	Pg	10 28 11.4	-0.7
VITO	San Vito	0.49	1	*e*P	Pg	10 28 14.7	+0.1
VITO				*e*S	Sb	10 28 23.3	+0.5
VITO	San Vito	0.49	1	⇓*i*P	Pg	10 28 14.8	+0.1
VITO				*e*S	Sb	10 28 24.0	+1.1
SCLRA	Santa Clara, W	0.54	21	*e*S	Sn	10 28 28.8	+1.0
BRU2	Volcan	0.55	31	P	Pg	10 28 15.7	+0.1
BRU2				S	Sb	10 28 24.8	+0.4
BRU2	Volcan	0.55	31	*e*P	Pg	10 28 15.7	+0.1
BRU2	Volcan	0.55	31	⇓*i*P	Pg	10 28 15.7	+0.1
BRU2				*e*S	Sb	10 28 25.0	+0.6
CLLRA	Cordillera,	0.55	40	*e*P	Pg	10 28 15.7	0.0
CLLRA	Cordillera,	0.55	40	⇓*i*P	Pg	10 28 15.8	+0.2
CLLRA				*e*S	Sb	10 28 25.3	+0.8
LOMA3	Las Lomas, Chi	0.59	79	⇓*i*P	Pg	10 28 15.9	-0.5
LOMA3				*e*S	Sg	10 28 24.6	+0.4
PTAR3	Potrerillos Ar	0.60	52	*e*P	Pg	10 28 16.5	-0.1
PTAR3				*e*S	Sb	10 28 25.6	-0.3

CHIR3	Chiriqui UPA,	0.64	83	eP	Pg	10 28 16.7	-0.7
CHIR3				eS	Sb	10 28 26.7	-0.3
BGUAL	Bijagual, Pana	0.66	74	⇓iP	Pg	10 28 17.2	-0.5
BGUAL				eS	Sb	10 28 27.3	-0.3
BQTLY	Boquete Panama	0.67	50	eP	Pg	10 28 17.4	-0.5
BQTLY	Boquete Panama	0.67	50	iP	Pg	10 28 17.4	-0.5
BQSF3	Alto Boquete,	0.68	52	eP	Pg	10 28 17.5	-0.5
BQSF3				eS	Sg	10 28 27.6	+0.5
LNBQ3	Los Naranjos,	0.71	49	⇓iP	Pg	10 28 17.7	-0.8
LNBQ3				eS	Sb	10 28 29.4	+0.5
EDP2	Potrero Grande	0.72	344	eP	Pg	10 28 18.2	-0.6
BURE	Buenos Aires	0.92	337	eP	Pg	10 28 21.4	-1.2
RBALA	Bur	0.98	56	eP	Pg	10 28 22.4	-1.5
RBALA	Bur	0.98	56	eP	Pg	10 28 22.5	-1.3
RBALA				eS	Sg	10 28 36.0	-0.6
EDPE	Pejibaye, P	1.02	325	eP	Pg	10 28 22.3	-2.2
SAJE	San Jernim	1.15	333	eP	Pb	10 28 24.7	-2.0
ZEDO	Perez Zeledon	1.24	326	eP	Pn	10 28 27.3	-0.8
KKNTU	Kakintº	1.27	66	eP	Pn	10 28 26.4	-2.0
KKNTU	Kakintº	1.27	66	⇓iP	Pn	10 28 26.4	-2.0
KKNTU				eS	Sb	10 28 44.2	-0.8
RGM0	Gandoca	1.31	16	P	Pb	10 28 29.7	+0.3
RGM0				S	Sn	10 28 46.7	+0.2
QUEP	Quepos	1.61	313	P	Pn	10 28 32.7	-0.4
QUEP				S	Sg	10 28 56.0	-0.7
LCR2	La Lucha 2	1.74	324	P	Pn	10 28 34.8	-0.3
LCR2				S	Sb	10 28 58.8	0.0
LCR2	La Lucha 2	1.74	324	eP	Pn	10 28 34.4	-0.7
VTCV	VTCV, Calle Va	1.81	336	eP	Pn	10 28 36.2	+0.1
ABRB	Las Abras (San	1.83	336	eP	Pn	10 28 36.6	+0.3
LCOCO	El Coco	1.84	342	eP	Pn	10 28 37.3	+1.0
VTR0	Volcan Turrial	1.85	335	eP	Pn	10 28 37.2	+0.3
VBV1	V. Barva	2.10	328	eP	Pn	10 28 40.4	+0.3
TRB2	Turrubares	2.15	318	P	Pn	10 28 41.7	+1.1
TRB2				S	Sb	10 29 09.5	-0.9
ATEO	Atenas	2.15	320	eP	Pn	10 28 40.8	+0.1
JTS	Las Juntas de	2.76	315	P	Pn	10 28 50.9	+1.9
JTS				S	Sn	10 29 24.3	+1.9
JTS	Las Juntas de	2.76	315	eP	Pn	10 28 48.7	-0.3
JTS				eS	Sn	10 29 23.0	+0.6
CMARA	Lajas Hojancha	2.95	305	P	Pn	10 28 51.5	-0.1
CMARA				S	Sn	10 29 28.8	+1.8
BCIP	Isla Barro Col	3.21	75	P	Pn	10 28 55.4	+0.2
BLUN	Bluefields	3.74	348	P	Pn	10 29 03.2	+0.7
NADN	Granada	4.54	319	S	Sn	10 30 08.5	+2.2
BOAB	BOACO BROADBAN	4.88	327	P	Pn	10 29 20.7	+2.6

IDC ***03*** *10:37:16.4±0.7, 26°.87N×143°.82E, h0^{km}, mb4.1/19, mbtmp4.1/23, ML3.9/4, MS3.1/3, Error ellipse: s-maj=22.0km s-min=15.5km az=63.0*

NEIC ***03*** *10:37:19.1±1.9, 27°.04N±0°.07×143°.8E±0°.1, h10^{km}±1^{km}, mb4.5/10, Error ellipse: s-maj=23.3km s-min=9.6km az=68.0*

ISC 03 10:37:22.5±0.7**, 27°.12N**±0°.09×**143°.7E**±0°.1**, h35^{km}, n47, σ1^{s}.34**/39**, mb4.2**/22**, Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHJ2	Mitsune	6.86	332	Pn	Pn	10 39 00.5	-0.1
JHJ	Hachijo jima 2	6.88	331	Pn	Pn	10 38 59.8	-1.2
	4.6nm,0.3s,baz=326,slow=16,SNR=1.7						
JHJ				Sn	Sn	10 40 12.7	-5.3
	26nm,0.3s,baz=230,slow=23,SNR=5.2						
	73nm,0.7s						
JHJ				AML	AML		
MJAR	Matsushiro Arr	10.49	335	Pn	Pn	10 39 50.0	-0.5
	0.6nm,0.3s,baz=166,slow=12,SNR=30						
MJAR				LR	LR	10 44 42.1	
	comp=Z,34nm,20.1s,baz=181,slow=41						
	3.9nm,0.4s						
MJAR				AML	AML		
MJAR	Matsushiro Arr	10.49	335		Pn	10 39 50.2	-0.3
MAJO	Matsushiro	10.50	335		Pn	10 39 50.8	+0.3
MJB9	Matsu-Tunnel	10.50	335		Pn	10 39 51.4	+0.9
GUMO	Guam	13.50	175	LR	LR	10 44 48.3	
	comp=Z,65nm,21.7s,baz=77,slow=34						
KSRS	Korea Array	16.84	312	P	Pn	10 41 17.4	+1.8
	0.4nm,0.3s,baz=122,slow=11,SNR=11						
	4.8nm,0.8s						
KSRS				AML	AML		
USRK	Ussuriysk Ar.	19.49	334	P	Pn	10 41 48.6	+0.8
	0.6nm,0.3s,baz=144,slow=9.9,SNR=9.8						
	2.7nm,0.5s						
USRK				AML	AML		
YHNB	Yeheng	20.24	268	P	P	10 41 54.4	-0.5
YULB	Yu-li	20.60	265	P	P	10 41 58.9	+0.2
YULB				IAmb	IAmb	10 42 28.8	
	comp=Z,16nm,1.0s						
SSLB	Suanglung	20.81	266	P	P	10 42 01.7	+0.7
SSLB				IAmb	IAmb	10 42 05.2	
	comp=Z,28nm,0.9s						
H11N2	WAKE ISLAND Hy	22.49	104	T	T	11 05 12.2	
	baz=293,slow=74,SNR=3.3						
H11N1	WAKE ISLAND Hy	22.49	104	T	T	11 05 13.6	
	baz=293						
H11N3	WAKE ISLAND Hy	22.51	104	T	T	11 05 16.5	
	baz=293,slow=74,SNR=2.3						
H11S3	WAKE ISLAND Hy	22.83	107	T	T	11 05 40.3	
	baz=290						
H11S1	WAKE ISLAND Hy	22.83	107	T	T	11 05 55.9	
	baz=290						
H11S2	WAKE ISLAND Hy	22.84	107	T	T	11 05 37.3	
	baz=290						
KLR	Kul'dur	23.94	340	P	P	10 42 35.0	+1.8
	comp=Z,5.2nm,0.7s,baz=158,slow=6.8,SNR=18						
	comp=Z,5.2nm,0.7s						
HILR	Hailar Array B	29.02	327	P	P	10 43 20.5	+1.4
	comp=Z,2.0nm,0.5s,baz=132,slow=11,SNR=3.9						
	comp=Z,2.0nm,0.5s						
SONM	Songino Array	35.65	316	P	P	10 44 19.2	+2.0
	comp=Z,1.3nm,0.4s,baz=122,slow=8.2,SNR=7.5						
	comp=Z,1.3nm,0.4s						
SONM	Songino Array	35.65	316	IAmb	IAmb	10 44 20.2	
	comp=Z,2.5nm,1.1s						
CMAR	Chiang Mai Arr	41.98	268	P	P	10 45 09.6	-0.9
	comp=Z,0.6nm,0.3s,baz=85,slow=6.6,SNR=2.3						
	comp=Z,0.6nm,0.3s						
WRA	Warramunga Arr	47.65	192	P	P	10 45 53.1	-2.4
	comp=Z,2.1nm,0.8s,baz=12,slow=8.3,SNR=10						
	comp=Z,2.1nm,0.8s						
ZALV	Zalesovo Beam	50.36	319	P	P	10 46 17.2	+1.3
	comp=Z,1.7nm,0.6s,baz=81,slow=7.0,SNR=6.8						
ZALV				PcP	PcP	10 47 33.5	-0.6
	comp=Z,0.9nm,0.5s,baz=144,slow=5.3,SNR=3.7						
	comp=Z,1.7nm,0.6s						
ASAR	Alice Springs	51.37	192	P	P	10 46 21.8	-2.1
	comp=Z,0.2nm,0.3s,baz=19,slow=6.0,SNR=1.8						
	comp=Z,0.2nm,0.3s						
MKAR	Makanchi Array	51.51	310	P	P	10 46 25.6	+0.8
	comp=Z,1.4nm,0.5s,baz=86,slow=9.5,SNR=16						
MKAR				PcP	PcP	10 47 38.2	-0.4
	comp=Z,0.8nm,0.8s,baz=98,slow=5.1,SNR=3.8						
	comp=Z,1.4nm,0.5s						
MKAR	Makanchi Array	51.51	310	P	P	10 46 24.9	+0.2
KURK	Kurchatov	53.94	315	P	P	10 46 43.8	+1.2
KURK				IAmb	IAmb	10 46 44.7	
	comp=Z,5.3nm,0.9s						
KURBB	Kurchatov Arra	54.00	314	P	P	10 46 43.7	+0.7
	comp=Z,3.6nm,0.5s,baz=92,slow=8.6,SNR=39						
	comp=Z,3.6nm,0.5s						
ILAR	Eielson Array	57.05	29	P	P	10 47 03.8	-0.9
	comp=Z,0.5nm,0.8s,baz=266,slow=6.2,SNR=6.2						
	comp=Z,0.5nm,0.8s						
BVAR	Borovoye Array	58.95	318	P	P	10 47 19.1	+0.9
	comp=Z,2.8nm,0.5s,baz=87,slow=7.1,SNR=11						
	comp=Z,2.8nm,0.5s						
KKAR	Karatay Array	60.17	306		P	10 47 27.8	+0.9
AB31	Akbulak array	66.05	315	IAmb	IAmb	10 48 07.3	
	comp=Z,3.4nm,1.2s						
ABKAR	Akbulak array	66.05	315	P	P	10 48 06.2	+0.4
FINES	FINESS Array B	78.52	334	P	P	10 49 20.7	+0.7
	comp=Z,1.3nm,0.7s,baz=66,slow=4.8,SNR=5.9						
	comp=Z,1.3nm,0.7s						
KBZ	Khabaz	78.98	313	P	P	10 49 23.6	+0.8
	comp=Z,3.4nm,0.8s,baz=207,slow=1.2,SNR=9.0						
	comp=Z,3.4nm,0.8s						
NVAR	Mina Array Bea	79.44	52	P	P	10 49 26.3	+0.6
	comp=Z,0.5nm,0.5s,baz=289,slow=5.8,SNR=6.4						
	comp=Z,0.5nm,0.5s						
PDAR	Pinedale Array	83.24	45	P	P	10 49 45.6	-0.2
	comp=Z,0.2nm,0.5s,baz=44,slow=1.1,SNR=4.7						
	comp=Z,0.2nm,0.5s						
AKASG	Malin Array Be	83.40	324	P	P	10 49 45.6	-0.5
	comp=Z,0.6nm,0.4s,baz=41,slow=6.4,SNR=5.1						
	comp=Z,0.6nm,0.4s						
AKASG	Malin Array Be	83.40	324	IAmb	IAmb	10 50 15.3	
	comp=Z,3.9nm,1.5s						
HFS	Hagfors	83.94	337	P	P	10 49 49.2	+0.5
	comp=Z,2.2nm,0.7s,baz=91,slow=5.8,SNR=2.2						
	comp=Z,2.2nm,0.7s						
RAYN	Ar Rayn	86.38	294	P	P	10 50 02.0	+0.3
RAYN				IAmb	IAmb	10 50 04.1	
	comp=Z,2.6nm,0.7s						
BRTR	Keskin Array B	86.98	313	P	P	10 50 04.2	-0.3
	comp=Z,0.5nm,0.4s,baz=122,slow=6.0,SNR=3.7						
	comp=Z,0.5nm,0.4s						
TXAR	Lajitas Array	94.50	54	P	P	10 50 39.6	-0.1
	comp=Z,0.2nm,0.7s,baz=305,slow=5.2,SNR=2.8						
	comp=Z,0.2nm,0.7s						
IDI	Anoyia	95.21	314	LR	LR	11 37 34.6	
	comp=Z,30nm,18.7s,baz=255,slow=38						
LPAZ	La Paz	148.60	77	PKPbc	PKPbc	10 57 07.2	-0.1
	comp=Z,1.2nm,0.4s,baz=199,slow=0.3,SNR=6.8						

IDC 03 10:40:32.2±2.7**, 8°.10N**×**103°.71W, h0^{km}, mb3.4**/5**, mbtmp3.5**/5**, MS3.4**/15**, Error ellipse: s-maj=115.1km s-min=27.8km az=58.0, Northern East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMIG	Matias Romero	12.41	43	LR	LR	10 46 57.7	
	comp=Z,257nm,18.2s,baz=170,slow=31						
JTS	Las Juntas de	18.65	82	LR	LR	10 49 45.7	
	comp=Z,65nm,18.3s,baz=265,slow=30						
TXAR	Lajitas Array	21.13	0	P	P	10 45 18.7	-0.1
	0.8nm,0.9s,baz=179,slow=12,SNR=9.0						
TXAR				LR	LR	10 52 49.8	
	comp=Z,120nm,18.4s,baz=178,slow=35						
	0.8nm,0.9s						
PFO	Pinyon Flats O	27.99	337	LR	LR	10 55 28.1	
	comp=Z,76nm,21.1s,baz=148,slow=32						
ROSC	El Rosal	29.38	94	LR	LR	10 55 05.3	
	comp=Z,73nm,20.9s,baz=90,slow=30						
ATAH	Atahualpa	29.43	120	LR	LR	10 55 49.4	
	comp=Z,180nm,18.6s,baz=273,slow=31						
TKL	Tuckaleechee C	32.94	31	LR	LR	11 01 14.8	
	comp=Z,34nm,20.2s,baz=236,slow=38						
NVAR	Mina Array Bea	32.94	339	P	P	10 47 09.1	+0.2
	0.2nm,0.7s,baz=152,slow=4.4,SNR=1.9						
	0.2nm,0.7s						
PDAR	Pinedale Array	34.91	352	P	P	10 47 26.1	+0.2
	0.3nm,0.5s,baz=152,slow=6.7,SNR=4.3						
	0.3nm,0.5s						
SADO	Sadowa	42.30	26	LR	LR	11 06 04.8	
	comp=Z,32nm,21.0s,baz=232,slow=36						
LPAZ	La Paz	42.75	125	P	P	10 48 32.3	-0.1
	2.0nm,1.1s,baz=288,slow=9.6,SNR=3.8						
	2.0nm,1.1s						
MDP	Montagnes des	50.80	90	LR	LR	11 08 11.5	
	comp=Z,23nm,18.3s,baz=171,slow=33						
PPT	Papeete	51.99	240	LR	LR	11 06 20.0	
	comp=Z,69nm,21.3s,baz=80,slow=30						
YKA	Yellowknife Ar	54.88	354	LR	LR	11 13 59.2	
	comp=Z,49nm,18.1s,baz=318,slow=37						
SCHQ	Schefferville	55.09	25	LR	LR	11 14 56.3	
	comp=Z,43nm,18.1s,baz=178,slow=38						
ILAR	Eielson Array	64.16	341	P	P	10 51 08.1	-0.2
	0.9nm,0.8s,baz=157,slow=5.7,SNR=7.7						
	0.9nm,0.8s						
RES	Resolute Bay	66.74	3	LR	LR	11 17 54.1	
	comp=Z,34nm,18.8s,baz=12,slow=34						
SFJD	Kangerlussuaq	68.75	20	LR	LR	11 21 13.8	
	comp=Z,28nm,19.5s,baz=227,slow=36						
NOA	NORSAR Array B	94.64	26	LR	LR	11 34 08.5	
	comp=Z,10nm,21.9s,baz=335,slow=34						

SKHL ***03*** *10:41:02.0±0.3, 47°.70N×147°.90E, h400^{km}±8^{km}, mb4.6/5, msh4.4/3*

IDC ***03*** *10:41:08.4±3.9, 47°.80N×146°.70E, h450^{km}±47^{km}, mb3.0/9, mbtmp3.8/10, Error ellipse: s-maj=27.8km s-min=18.2km az=153.0*

ISC 03 10:41:04.1±0.8**, 47°.55N**±0°.07×**147°.51E**±0°.10**, h400^{km}, n16, σ2^{s}.35**/19**, mb3.4**/9**, Northwest of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YSS	Yuzhno-Sakhali	3.29	261	eP	Pn	10 42 12.2	+2.5
YSS				AMB	AMB	10 42 12.7	
	30nm,0.8s						
YSS				eS	S	10 43 07.2	+4.3
YSS				A	A	10 43 10.2	
	10.0nm,0.8s						
YSS				A	A	10 43 10.2	
	10.0nm,0.8s						
YUK	Yuzh-Kuril'sk	3.70	199	eP	Pn	10 42 14.0	+0.6
YUK				AMB	AMB	10 42 19.4	
	190nm,0.4s						
YUK				eS	S	10 43 10.0	+0.5
YUK				A	A	10 43 15.4	
	180nm,0.6s						
YUK				A	A	10 43 15.4	
	220nm,0.6s						
UGL	Uglegorsk	3.94	295	eP	Pn	10 42 16.5	+1.0
UGL				AMB	AMB	10 42 17.4	
	30nm,0.3s						
NMR	Nemuro--Hokkai	4.36	197	eP	Pn	10 42 20.8	+1.1
NMR				eS	S	10 43 21.2	+0.2
TYV	Tymovskoe	4.60	318	eP	Pn	10 42 21.8	0.0
TYV				eS	S	10 43 28.2	+3.1
KLR	Kul'dur	10.62	285	eP	Pn	10 43 31.2	+2.0
USRK	Ussuriysk Ar.	11.33	259	P	P	10 43 35.7	-0.6
	1.2nm,0.6s,baz=79,slow=15,SNR=1.5						
ILAR	Eielson Array	38.32	39	P	P	10 47 49.5	+1.5
	0.5nm,0.6s,baz=272,slow=7.4,SNR=5.0						
	0.5nm,0.6s						
INK	Inuvik	43.03	32	P	P	10 48 26.0	+0.3
	1.1nm,0.3s,baz=301,slow=9.7,SNR=14						
	1.1nm,0.3s						
MKAR	Makanchi Array	43.15	294	P	P	10 48 23.0	-4.1
	0.8nm,0.5s,baz=66,slow=6.8,SNR=6.5						
	0.8nm,0.5s						
FINES	FINESS Array B	61.62	332	P	P	10 50 36.8	-3.6
	3.3nm,1.1s,baz=28,slow=6.7,SNR=1.8						
	3.3nm,1.1s						
NVAR	Mina Array Bea	65.39	59	P	P	10 51 08.2	+2.7
	0.5nm,0.6s,baz=316,slow=7.8,SNR=4.4						
	0.5nm,0.6s						
NOA	NORSAR Array B	66.16	338	P	P	10 51 06.8	-3.0
	0.3nm,0.6s,baz=29,slow=6.0,SNR=0.9						
	0.3nm,0.6s						
PDAR	Pinedale Array	67.29	51	P	P	10 51 19.1	+1.7
	0.4nm,0.4s,baz=15,slow=1.8,SNR=7.4						
	0.4nm,0.4s						
WRA	Warramunga Arr	68.21	193	P	P	10 51 22.6	-0.3
	0.3nm,0.8s,baz=9.3,slow=6.7,SNR=2.3						
	0.3nm,0.8s						
TXAR	Lajitas Array	80.35	57	P	P	10 52 34.0	+1.8
	0.5nm,0.5s,baz=290,slow=3.3,SNR=18						
	0.5nm,0.5s						

CATAC ***03*** *11:06:56.1±0.4, 14°N±3°×9°3W±°, h29^{km}±2^{km}, M4.4/13, MLv4.4/13, Error ellipse: s-maj=7.2km s-min=2.6km az=28.7, confirmed*

MEX ***03*** *11:06:56.9±0.4, 14°.68N×92°.45W, h80^{km}±4^{km}, MD4.3, Presumed earthquake*

GCG ***03*** *11:06:58.5±1.3, 14°.61N×92°.32W, h59^{km}±9^{km}, MD4.6, ML4.3, Presumed earthquake*

ISC 03 11:06:56.6±0.6**, 14°.65N**±0°.06×**92°.56W**±0°.03**, h65^{km}**±6^{km}**, n81, σ1^{s}.58**/118**, 3C-1D, Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
THIG		0.39	48	eP	Pn	11 07 07.7	-0.2
THIG				eS	Sn	11 07 16.0	-0.1
THIG		0.39	48	iP	Pn	11 07 07.7	-0.2
THIG				iS	Sn	11 07 16.3	+0.2
SMCA	Catarina	0.52	66	iP	Pn	11 07 08.4	-0.7
SMCA				iS	Sn	11 07 17.4	-0.8
SMCA				IAML		11 07 19.1	
	comp=N,25µm,0.1s						
PATR	El Naranjo	0.56	34	eP	Pn	11 07 09.0	-0.8
PATR				eS	Sn	11 07 18.9	-0.6
CHUJ	Union Juarez	0.62	45	eP	Pn	11 07 09.6	-1.0
CHUJ				eS	Sn	11 07 19.9	-0.8
PAVE	Pavencul	0.66	34	eP	Pn	11 07 10.3	-0.6
PAVE				eS	Sn	11 07 21.0	-0.3
RTAL	Retalhuleu	0.85	98	eP	Pn	11 07 11.9	-1.0
RTAL				eS	Sn	11 07 23.4	-1.6
RTAL	Retalhuleu	0.85	98	⇓P	Pn	11 07 12.0	-0.9
RTAL				S	Sn	11 07 23.8	-1.2
QUEO	Labor Ovalle	1.04	78	iP	Pn	11 07 15.0	-0.6
STG8	El Palmar, Qui	1.19	99	iP	Pn	11 07 12.9	-4.6
STG8				iS	Sn	11 07 25.2	-7.9
STG8				IAML		11 07 27.9	
	comp=E,11µm,0.2s						
HUEH	Huehuetenango	1.22	57	eP	Pn	11 07 14.7	-3.2
HUEH				eS	Sn	11 07 30.7	-3.1
HUEH	Huehuetenango	1.22	57	iP	Pn	11 07 18.0	+0.1
HUEH				iS	Sn	11 07 33.9	+0.1
HUEH				IAML		11 07 36.3	
	comp=N,4µm,0.6s						
HUEH	Huehuetenango	1.22	57	P	Pn	11 07 18.1	+0.1
HUEH				S	Sn	11 07 35.8	+2.0
FG8	Yepocapa, Chim	1.98	101	iP	Pn	11 07 21.8	-6.2
FG16	Alotenango, Sa	2.02	100	iP	Pn	11 07 23.4	-5.3
FG16				iS	Sn	11 07 41.6	-11
APG	El Apazote	2.06	80	iP	Pn	11 07 28.3	-0.8
PCG5	San Vicente Pa	2.16	101	iP	Pn	11 07 26.6	-3.9
TGIG		2.19	346	eP	Pn	11 07 30.3	-0.4
TGIG				eS	Sn	11 07 55.8	-0.9
FAME	Alcaldia de Sa	2.60	108	P	Pn	11 07 35.0	-1.2
FAME				S	Sn	11 08 05.4	-1.3
SLOZ	Alcaldia de Sa	2.76	103	P	Pn	11 07 38.0	-0.6
NUBE	Las Nubes	2.80	105	iP	Pn	11 07 38.4	-0.7
NUBE	Las Nubes	2.80	105	⇑P	Pn	11 07 38.5	-0.7
NUBE				S	Sn	11 08 10.6	-1.3
CEVE	Cerro Verde	2.96	106	P	Pn	11 07 41.1	-0.4
CEVE				S	Sn	11 08 17.1	+1.0
UNIC	Universidad Ca	3.00	102	P	Pn	11 07 40.8	-0.9
UNIC				S	Sn	11 08 16.4	-0.2
UXUV	UXUV	3.06	330	eP	Pn	11 07 44.1	+1.5
MTO3	Montecristo	3.11	94	iP	Pn	11 07 42.1	-1.4
MTO3	Montecristo	3.11	94	P	Pn	11 07 42.3	-1.2
MTO3				S	Sn	11 08 20.2	+0.7
ESQI	Esquipulas	3.12	91	P	Pn	11 07 43.5	0.0
ESQI				S	Sn	11 08 20.1	+0.4
JAYA	Jayaque - finc	3.18	108	iP	Pn	11 07 43.3	-1.1
JAYA	Jayaque - finc	3.18	108	P	Pn	11 07 43.7	-0.6
JAYA				S	Sn	11 08 19.0	-2.1
CEDA	San Andres	3.19	105	S	Sn	11 08 20.7	-0.4
PMON	Piamonte	3.29	106	⇑P	Pn	11 07 46.3	+0.5
PMON				S	Sn	11 08 23.1	-0.6
CMIG	Matias Romero	3.30	318	eP	Pn	11 07 47.0	+1.1
CMIG				eS	Sn	11 08 26.0	+2.1
LALI	Alcalda de L	3.35	110	P	Pn	11 07 46.6	+0.1
LALI				S	Sn	11 08 24.7	-0.4
UEES	Universidad Ev	3.35	106	S	Sn	11 08 24.7	-0.7
LOMA	Loma Larga	3.44	106	S	Sn	11 08 27.0	-0.5
PANCS	Alcalda de	3.44	107	S	Sn	11 08 26.6	-0.8
HUIG	Huatulco	3.60	288	eP	Pn	11 07 50.2	+0.2
HUIG				eS	Sn	11 08 29.1	-2.2
PAVA	Las Pavas	3.64	104	P	Pn	11 07 49.4	-1.2
PAVA				S	Sn	11 08 32.4	+0.1
SARH	Santa Rosa de	3.68	88	⇑P	Pn	11 07 50.2	-0.9
COEG	Centro de Oper	3.71	106	P	Pn	11 07 50.9	-0.7
COEG				S	Sn	11 08 34.1	-0.1
P5NO	Presa 5 de nov	3.75	100	S	Sn	11 08 34.1	-0.7
TECO	Alcaldia de Te	3.83	106	P	Pn	11 07 52.4	-0.7
TECO				S	Sn	11 08 37.3	+0.3
SCLA	Alcaldia de Sa	3.84	104	S	Sn	11 08 35.9	-1.2
ALJI	Alcalda de J	4.09	108	S	Sn	11 08 43.1	-0.2
PACA	Pacayal	4.28	105	P	Pn	11 08 00.2	+0.9
PACA				S	Sn	11 08 48.1	+0.1
RANC	El Ranchito	4.32	106	P	Pn	11 08 00.9	+0.9
NEUV	Arroyo Zacate	4.36	315	eP	Pn	11 08 01.6	+1.3
NEUV				eS	Sn	11 08 48.0	-1.7
SCIG	Sabancuy	4.49	17	eP	Pn	11 08 01.4	-0.8
SCIG				eS	Sn	11 08 49.4	-3.7
PEIG	Puerto Escondi	4.62	287	eP	Pn	11 08 04.6	+0.6
PEIG				eS	Sn	11 08 54.1	-2.3
VHO	Vista Hermosa	4.68	302	eP	Pn	11 08 02.3	-2.6
VHO				eS	Sn	11 08 59.0	+0.9
CNCH	Conchagua	4.79	106	P	Pn	11 08 07.6	+1.2
CNCH				S	Sn	11 09 01.1	+0.5
CSGN	Cosiguina Volc	5.14	108	S	Sn	11 09 09.2	+0.1
TGUH	Tegucigalpa,Un	5.16	96	S	Sn	11 09 10.2	+0.4
YOIG	Yosondua	5.28	295	eP	Pn	11 08 16.2	+3.0
YOIG				eS	Sn	11 09 12.0	-0.8
TOIG	Toxpalan	5.52	309	eP	Pn	11 08 18.1	+1.8
TOIG				eS	Sn	11 09 18.5	+0.1
TXIG	Tlaxiaco	5.64	298	eP	Pn	11 08 21.2	+3.1
TXIG				eS	Sn	11 09 22.1	+0.4
CRIN	San Cristobal	5.70	109	P	Pn	11 08 17.6	-1.2
CRIN				S	Sn	11 09 23.0	+0.2
TPIG	Tehuac#an	5.94	310	eP	Pn	11 08 23.6	+1.5
TPIG				eS	Sn	11 09 27.2	-1.6
HLIG	Huajuapan de L	5.95	303	eP	Pn	11 08 21.5	-0.7
HLIG				eS	Sn	11 09 26.1	-3.0
PLRN	Geotermica Pol	6.00	109	S	Sn	11 09 29.4	-0.7
ILCN	San Idelfonso	6.06	109	P	Pn	11 08 23.7	+0.1
ILCN				S	Sn	11 09 30.5	-1.1
CNGN	Cerro Negro	6.09	110	P	Pn	11 08 24.2	+0.2
CNGN				S	Sn	11 09 31.2	-1.2
JAUV	Jalcomulco	6.20	320	eP	Pn	11 08 25.3	-0.3
JAUV				eS	Sn	11 09 32.2	-2.9
LVIG	Laguna Verde	6.25	324	eS	Sn	11 09 32.0	-4.2
FTIG	Fresnillo de T	6.25	302	eP	Pn	11 08 24.2	-2.2
FTIG				eS	Sn	11 09 34.9	-1.6
RCFN	Al S de San Ju	6.26	99	P	Pn	11 08 26.4	-0.1
RCFN				S	Sn	11 09 35.2	-1.6
MOMN	Momotombo	6.27	110	S	Sn	11 09 35.7	-1.1
RCVN	Varillal2	6.27	99	P	Pn	11 08 24.6	-2.0
TLIG	Tlapa	6.46	297	eP	Pn	11 08 21.7	-7.5
TLIG				eS	Sn	11 09 41.1	-0.4
TLIG	Tlapa	6.46	297	P	Pn	11 08 30.1	+0.9
TLIG				S	Sn	11 09 45.6	+4.0
MGAN	Managua	6.63	111	S	Sn	11 09 44.7	-0.9
CRIG	Cruz Grande	6.66	289	eP	Pn	11 08 33.2	+1.4
CRIG				eS	Sn	11 09 40.5	-5.8
MATN	Matagalpa	6.67	104	P	Pn	11 08 32.1	0.0
MATN				S	Sn	11 09 46.9	+0.1
NANN	Nandasmo	6.82	112	S	Sn	11 09 49.6	-0.9
TEIG	Tepich	6.89	36	P	Pn	11 08 36.8	+1.8
BOAB	BOACO BROADBAN	7.05	107	S	Sn	11 09 55.8	-0.3
DAIG	Los Arroyos	7.22	290	eP	Pn	11 08 41.8	+2.3
DAIG				eS	Sn	11 09 59.8	-0.2
CXUV	Coxquihui	7.29	320	eP	Pn	11 08 39.1	-1.5
CXUV				eS	Sn	11 09 59.9	-2.1
PLIG	Platanillo	7.63	300	eP	Pn	11 08 47.6	+2.4
PLIG				eS	Sn	11 10 04.0	-6.2
CAIG	El Cayaco	7.79	289	eP	Pn	11 08 47.6	+0.3

SJA ***03*** *11:36:39.7±1.2, 22°.90S×66°.28W, h252^{km}±6^{km}, ML4.0, MW3.7*

IDC ***03*** *11:36:40.4±4.1, 22°.84S×66°.23W, h253^{km}±55^{km}, mb3.2/1, mbtmp3.7/3, Error ellipse: s-maj=92.9km s-min=23.5km az=97.0*

GUC ***03*** *11:36:41.3±0.6, 22°.87S×66°.60W, h278^{km}±12^{km}, ML3.9*

ISC 03 11:36:39.6±0.9**, 22°.90S**±0°.04×**66°.34W**±0°.05**, h252^{km}**±8^{km}**, n39, σ1^{s}.38**/63**, 4C-2D, Jujuy Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HJA	Humahuaca	0.91	110	iP	Pn	11 37 15.6	+0.8
HJA				iS	S	11 37 42.0	-0.5
YJA	Yavi	1.05	47	iP	Pn	11 37 16.2	+0.5
YJA				iS	S	11 37 42.4	-1.6
SALTA		1.32	180	iP	Pn	11 37 18.4	+1.0
SALTA				iS	S	11 37 45.3	-1.9
AF01	San Pedro de A	1.70	268	eP	Pn	11 37 21.7	+1.7
SLA	San Lorenzo	1.97	157	iP	Pn	11 37 22.5	+0.3
PB09	IPOC Station P	2.90	292	iP	Pn	11 37 32.9	+1.6
PB09				iS	S	11 38 13.0	+0.7
PB09				IAML		11 38 15.0	
	comp=Z,143nm,0.2s						
PB09	IPOC Station P	2.90	292	⇑eP	Pn	11 37 33.3	+1.9
PB09				eS	S	11 38 12.0	-0.3
PB09				IAML		11 38 13.9	
	comp=N,137nm,0.4s						
PB06	IPOC Station P	2.99	273	iP	Pn	11 37 33.1	+0.8
PB06				iS	S	11 38 13.4	-0.5
PB06				IAML		11 38 17.4	
	comp=Z,298nm,0.3s						
PB06	IPOC Station P	2.99	273	eP	Pn	11 37 33.7	+1.5
PB06				eS	S	11 38 13.9	0.0
PB03	IPOC Station P	3.27	284	iP	Pn	11 37 36.3	+1.0

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB03				i S	S	11 38 18.0	-1.4
PB03				IAML		11 38 20.1	
	comp=Z,516nm,0.1s						
PB03	IPOC Station P	3.27	284	eP	Pn	11 37 36.5	+1.2
PB03				eS	S	11 38 18.2	-1.2
PB07	IPOC Station P	3.48	289	i P	Pn	11 37 38.9	+1.1
PB07				i S	S	11 38 22.3	-1.6
PB07				IAML		11 38 24.0	
	comp=Z,300nm,0.2s						
PB07	IPOC Station P	3.48	289	⇑iP	Pn	11 37 39.0	+1.2
PB07				eS	S	11 38 22.4	-1.5
PB05	IPOC Station P	3.56	270	i P	Pn	11 37 39.7	+1.1
PB05				IAML		11 38 36.4	
	comp=Z,136nm,0.6s						
PB05	IPOC Station P	3.56	270	⇑iP	Pn	11 37 39.7	+1.1
PB05				eS	S	11 38 23.6	-1.7
PB02	IPOC Station P	3.65	295	i P	Pn	11 37 40.5	+0.9
PB02				i S	S	11 38 25.1	-2.1
PB02				IAML		11 38 30.0	
	comp=Z,343nm,0.2s						
PB02	IPOC Station P	3.65	295	eP	Pn	11 37 40.5	+0.9
PB02				eS	S	11 38 25.6	-1.6
PB08	IPOC Station P	3.79	316	i P	Pn	11 37 43.4	+1.9
PB08				i S	S	11 38 29.9	-0.8
PB08				IAML		11 38 32.7	
	comp=Z,98nm,0.3s						
PB08	IPOC Station P	3.79	316	eP	Pn	11 37 43.4	+1.9
PB08				eS	S	11 38 31.2	+0.6
PB14	IPOC Station P	4.10	244	i P	Pn	11 37 46.1	+1.1
PB14				i S	S	11 38 35.5	-1.4
PB14				IAML		11 38 38.6	
	comp=Z,315nm,0.1s						
PB14	IPOC Station P	4.10	244	eP	Pn	11 37 46.1	+1.1
PB14				eS	S	11 38 35.9	-1.0
GO01	Chusmiza	4.17	320	i P	Pn	11 37 47.2	+1.1
GO01				i S	S	11 38 36.6	-2.2
GO01				IAML		11 38 43.6	
	comp=Z,90nm,0.1s						
GO01	Chusmiza	4.17	320	eP	Pn	11 37 47.3	+1.2
TA01	Diego Aracena	4.26	302	i P	Pn	11 37 46.7	+0.1
TA01				i S	S	11 38 38.1	-1.8
TA01				IAML		11 38 41.5	
	comp=Z,43nm,0.5s						
TA01	Diego Aracena	4.26	302	eP	Pn	11 37 46.6	+0.1
PB11	IPOC Station P	4.39	315	i P	Pn	11 37 48.4	0.0
PB11				i S	S	11 38 41.0	-2.0
PB11				IAML		11 38 43.3	
	comp=Z,122nm,0.2s						
PB11	IPOC Station P	4.39	315	eP	Pn	11 37 48.6	+0.2
AC02	Maricunga	4.67	212	i P	Pn	11 37 53.0	+1.2
AC02				IAML		11 38 56.0	
	comp=Z,28nm,0.2s						
AC02	Maricunga	4.67	212	⇓eP	Pn	11 37 53.1	+1.2
PSGCX	Pisagua	4.82	312	i P	Pn	11 37 52.8	-0.7
PSGCX				i S	S	11 38 49.7	-2.6
PSGCX				IAML		11 38 54.0	
	comp=Z,79nm,0.5s						
PSGCX	Pisagua	4.82	312	⇑eP	Pn	11 37 52.7	-0.7
AC01	Pan de Azucar	5.05	229	i P	Pn	11 37 56.2	+0.1
AC01				IAML		11 39 00.9	
	comp=Z,86nm,0.4s						
AC01	Pan de Azucar	5.05	229	⇓eP	Pn	11 37 56.1	+0.1
TINO	Tinogasta	5.26	192	i P	Pn	11 37 59.8	+1.1
TINO				i S	S	11 38 57.7	-4.2
TINO				IAML		11 39 04.5	
	comp=Z,13nm,1.4s						
PX02	IPOC Station P	5.32	317	eP	Pn	11 37 57.4	-2.1
LPAZ	La Paz	6.79	345	P	Pn	11 38 19.3	+1.0
	comp=Z,1.5nm,0.3s,baz=175,slow=12,SNR=20						
LPAZ				S	S	11 39 37.5	+0.1
	comp=Z,4.3nm,0.5s,baz=309,slow=19,SNR=8.6						
PLCA	Paso Flores	18.13	190	P	P	11 40 34.9	+1.4
	comp=Z,0.8nm,0.4s,baz=4.2,slow=14,SNR=3.2						
TORD	Torodi Ar. Bea	75.61	69	P	P	11 47 57.3	-0.1
	comp=Z,0.3nm,0.4s,baz=257,slow=5.1,SNR=4.7						
	comp=Z,0.3nm,0.4s						
MKAR	Makanchi Array	145.29	39	PKPbc	PKPdf	11 55 47.2	0.0
	comp=Z,0.6nm,0.7s,baz=325,slow=1.8,SNR=4.0						

IDC ***03*** *11:47:33.5±1.1, 3.°20N×127.°81E, h0km, mb3.9/5, mbtmp3.9/5, Error ellipse: s-maj=65.7km s-min=21.6km az=83.0*

ISC 03 11:47:45.3±1.0**, 3.°1N**±0.°1×**127.°6E**±0.°3**, h100**km**, n6,** σ**0.s96**/8**, mb3.7**/5**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	Don Marcelino,	3.56	328	eP	Pn	11 48 38.6	+0.1
DDMP				eS	Sn	11 49 19.3	-0.4
FITZ	Fitzroy Crossi	21.13	185	P	P	11 52 21.0	-1.3
	0.5nm,0.3s,baz=6.3,slow=9.2,SNR=1.7						
	0.5nm,0.3s						
WRA	Warramunga Arr	23.81	164	P	P	11 52 49.0	-0.3
	1.2nm,0.4s,baz=346,slow=10,SNR=38						
	1.2nm,0.4s						
ASAR	Alice Springs	27.28	167	P	P	11 53 21.0	+0.4
	0.5nm,0.4s,baz=353,slow=7.9,SNR=7.7						
ASAR				PcP	PcP	11 56 39.2	+1.2
	0.3nm,0.4s,baz=356,slow=2.1,SNR=5.2						
	0.5nm,0.4s						
PETK	Petropavlovsk-	55.70	21	P	P	11 57 10.5	-0.8
	2.4nm,0.8s,baz=179,slow=2.0,SNR=4.4						
	2.4nm,0.8s						
KURBB	Kurchatov Arra	62.76	327	P	P	11 58 00.6	+0.7
	1.0nm,0.3s,baz=118,slow=6.4,SNR=2.1						
	1.0nm,0.3s						

NNC ***03*** *12:09:36.2±2.4, 41.°96N×81.°62E, h0km, mb3.7, mpv3.3, Error ellipse: s-maj=19.8km s-min=15.8km az=46.0*

SOME 03 12:09:34.8, 42.°03N×81.°73E, h10km**, 1C-1D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KTMS	Ketmen	1.74	325	P	Pg	12 10 08.5	+0.3
	8.8nm,0.3s						
KTMS				S	Sg	12 10 33.0	+2.2
	6.6nm,0.2s						
KTMS	Ketmen	1.74	325	eP	Pg	12 10 08.5	+0.3
	8.8nm,0.3s						
KTMS				eS	Sg	12 10 33.0	+2.3
	6.6nm,0.2s						
SHLS	Shalkode	2.02	305	P	Pn	12 10 09.1	0.0
	24nm,0.2s						
SHLS				S	Sn	12 10 33.4	-1.0
	36nm,0.3s						
SHLS	Shalkode	2.02	305	eP	Pn	12 10 08.4	-0.6
	24nm,0.2s						
SHLS				eS	Sn	12 10 32.6	-1.8
	36nm,0.3s						
PDGK	Podgornoye	2.10	309	⇑Pn	Pb	12 10 13.5	+0.4
	7.3nm,0.4s						
PDGK				⇓Lg	Lg	12 10 44.5	
	49nm,0.7s						
UZB	Uzynbulak	2.29	300	Pg	Pg	12 10 17.8	-0.9
	5.5nm,0.3s						
UZB				Lg	Lg	12 10 48.4	
	12nm,0.5s						
UZB	Uzynbulak	2.29	300	eP	Pg	12 10 17.8	-0.9
UZB				eS	Sg	12 10 48.4	0.0
KPKS	Kokpek	2.66	304	Pg	Pb	12 10 23.1	+0.5
	0.4nm,0.2s						
KPKS				Lg	Lg	12 10 58.2	
	59nm,0.3s						
KPKS	Kokpek	2.66	304	eP	Pb	12 10 23.1	+0.5
	0.4nm,0.2s						
KPKS				eS	Sg	12 10 58.2	-2.2
	59nm,0.3s						
SATY	Saty	2.66	294	Pg	Pb	12 10 24.0	+1.4
	5.0nm,0.2s						
SATY				Lg	Lg	12 10 59.6	
	18nm,0.4s						
SATY	Saty	2.66	294	eP	Pb	12 10 24.0	+1.4
	5.0nm,0.2s						
SATY				eS	Sg	12 10 59.6	-0.8
	18nm,0.4s						
DJR	Jarkent	2.70	329	Pg	Pb	12 10 23.7	+0.4
	11nm,0.3s						
DJR				Lg	Lg	12 10 58.6	
	8.5nm,0.4s						
DJR	Jarkent	2.70	329	eP	Pb	12 10 23.7	+0.4
	11nm,0.3s						
DJR				eS	Sb	12 10 58.6	+2.1
	8.5nm,0.4s						
KNOS	Konyrlen	2.98	322	Pg	Pb	12 10 29.0	+0.9
	8.2nm,0.3s						
KNOS				Lg	Lg	12 11 08.0	
	22nm,0.4s						
KURS	Kuram	3.00	300	Pg	Pb	12 10 29.5	+1.1
	1.9nm,0.4s						
KURS				Lg	Lg	12 11 09.0	
	6.6nm,0.4s						
KURS	Kuram	3.00	300	eP	Pb	12 10 29.5	+1.1
	1.9nm,0.4s						
KURS				eS	Sg	12 11 09.0	-2.1
	6.6nm,0.4s						
KOTS	Kotyrbulak	3.62	291	Pg	Pb	12 10 39.2	+0.3
	3.5nm,0.3s						
KOTS				Lg	Lg	12 11 25.9	
	13nm,0.4s						
KOTS	Kotyrbulak	3.62	291	eP	Pb	12 10 40.2	+1.3
	3.5nm,0.3s						
KOTS				eS	Sg	12 11 26.9	-3.9
	15nm,0.5s						
KST	Kastek	4.38	285	Pg	Pg	12 10 55.5	-3.2
	0.5nm,0.2s						
KST				Lg	Lg	12 11 53.9	
	6.0nm,0.5s						
KST	Kastek	4.38	285	eP	Pg	12 10 55.5	-3.2
	0.5nm,0.2s						
KST				eS	Sg	12 11 53.9	-1.5
	6.0nm,0.5s						

UCR ***03*** *12:20:14.9±0.7, 8.°26N×83.°02W, h17km±9km, MW3.7, Presumed earthquake*

UPA ***03*** *12:20:14.9±1.0, 8.°28N×83.°03W, h15km±2km, MW3.4, Fault plane solution: NP1:φs85.00000°, δ43.00000°, λ58.00000°., Presumed earthquake*

ISC 03 12:20:15.2±1.0**, 8.°30N**±0.°03×**83.°00W**±0.°03**, h17**km±8km**, n31,** σ**0.s66**/48**, 3C-8D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTPM	Petroterminale	0.15	128	⇓iP	Pb	12 20 19.5	-0.1
PTPM				eS	Sb	12 20 22.4	0.0
PTPA	Petro Terminal	0.16	128	eP	Pg	12 20 19.3	-0.1
PTPA				eS	Sb	12 20 23.4	+0.7
LMNES	Limones	0.24	145	eP	Pb	12 20 20.7	-0.4
LMNES	Limones	0.24	145	⇑eP	Pb	12 20 21.0	-0.1
LMNES				eS	Sb	12 20 27.0	+2.0
PIRO	Carate, Puerto	0.35	288	eP	Pg	12 20 22.3	-0.2
PIRO	Carate, Puerto	0.35	288	⇓eP	Pg	12 20 22.3	-0.2
PIRO				eS	Sn	12 20 33.5	+1.2
NELY	Ciudad Neily	0.35	8	eP	Pg	12 20 22.7	+0.1
NELY	Ciudad Neily	0.35	8	⇓iP	Pg	12 20 22.9	+0.3
NELY				eS	Sb	12 20 29.4	+1.0
FITO	Golfito	0.36	334	eP	Pg	12 20 22.0	-0.7
FITO	Golfito	0.36	334	⇓iP	Pg	12 20 22.2	-0.5
FITO				eS	Sg	12 20 28.1	+0.3
MLIR3	Monte Lirio, C	0.52	19	⇓iP	Pb	12 20 26.3	+0.3
MLIR3				eS	Sn	12 20 35.7	-0.9
DVD	David	0.56	76	eP	Pb	12 20 26.7	+0.2
DVD				eS	Sb	12 20 35.1	+0.9
BRU2	Volcan	0.58	31	eP	Pb	12 20 27.0	0.0
BRU2	Volcan	0.58	31	⇓iP	Pb	12 20 27.1	+0.1
BRU2				eS	Sn	12 20 37.2	-0.9
CLLRA	Cordillera,	0.58	40	eP	Pg	12 20 27.1	+0.2
CLLRA	Cordillera,	0.58	40	i P	Pb	12 20 27.2	+0.1
LOMA3	Las Lomas, Chi	0.61	77	eP	Pg	12 20 27.4	+0.1
PTAR3	Potrerillos Ar	0.63	51	eP	Pg	12 20 27.9	+0.2
CHIR3	Chiriqui UPA,	0.67	82	eP	Pb	12 20 28.4	0.0
CHIR3				eS	Sb	12 20 38.6	+1.3
ALCO	Alturas Coton,	0.67	14	eP	Pg	12 20 28.1	-0.3
BGUAL	Bijagual, Pana	0.69	72	⇑iP	Pg	12 20 28.8	0.0
BGUAL				eS	Sb	12 20 39.3	+1.3
BQTLY	Boquete Panama	0.70	49	eS	Sn	12 20 40.7	-0.4
BQSF3	Alto Boquete,	0.71	51	eP	Pg	12 20 29.1	0.0
BQSF3				eS	Sb	12 20 39.8	+1.0
LNBQ3	Los Naranjos,	0.74	48	eP	Pb	12 20 30.0	+0.3
RBALA	Bur	1.01	55	eP	Pb	12 20 33.8	-0.6
RBALA	Bur	1.01	55	⇓iP	Pb	12 20 33.9	-0.4
RBALA				eS	Sb	12 20 47.7	+0.2
CHGR2	Aguacate	1.06	53	eP	Pb	12 20 34.5	-0.6
CHGR2				eS	Sb	12 20 49.2	+0.6
KKNTU	Kakintº	1.29	65	eP	Pn	12 20 37.8	-0.8
KKNTU	Kakintº	1.29	65	⇓iP	Pn	12 20 37.9	-0.6
KKNTU				eS	Sn	12 20 55.9	+0.3
LCR2	La Lucha 2	1.75	325	⇑eP	Pb	12 20 47.1	+0.1
LCR2				eS	Sg	12 21 11.6	0.0
GMAL	Guarumal, Vera	1.82	107	eP	Pn	12 20 45.6	-0.2
GMAL				eS	Sn	12 21 07.3	-1.3

VIE 03 12:25:39.2±1.2**, 47.°15N**×**11.°27E, h11**km±7km**, ml0.7**/4**, Error ellipse: s-maj=6.2km s-min=3.3km az=13.0 6 km W of Fulpmes, Austria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SQTA	Sankt Quirin	0.08	328	i Pg	Pg	12 25 42.7	+0.9
	6.5nm,0.2s						
SQTA				i Sg	Sg	12 25 44.5	+0.7
	11nm,0.1s						
MOTA	Moosalm	0.22	329	ePg	Pg	12 25 44.0	0.0
	0.8nm,0.1s						
MOTA				i Sg	Sg	12 25 47.3	0.0
	3.8nm,0.1s						
WTTA	Wattenberg	0.27	66	ePg	Pb	12 25 45.8	-0.4
	0.4nm,0.1s						
WTTA				eSg	Sg	12 25 49.6	+0.9
	1.0nm,0.2s						
WATA	Walderalm	0.28	49	ePg	Pg	12 25 44.8	-0.2
	1.3nm,0.0s						
WATA				eSg	Sg	12 25 49.1	+0.3
	14nm,0.0s						

ROM 03 12:25:54.4±0.1**, 45.°652N**±0.°007×**10.°43E**±0.°01**, h6**km±1km**, ML1.1**/10**, Error ellipse: s-maj=0.8km s-min=0.7km az=54.0, Northern Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VOBA	Vobarno	0.05	100	P	Pg	12 25 55.9	+0.1
VOBA				S	Sg	12 25 56.9	0.0
SALO	Salr	0.07	117	P	Pg	12 25 56.4	+0.2
SALO				S	Sg	12 25 57.9	+0.4
SALO				AML	AML		
	comp=E,367μm,0.2s						
SALO				AML	AML		
	comp=N,444μm,0.3s						
SALO				AML	AML		
	comp=E,335μm,0.2s						
SALO				AML	AML		
	comp=N,467μm,0.2s						
MAGA	Magasa	0.19	48	P	Pg	12 25 58.8	+0.6
MAGA				S	Sg	12 26 02.1	+1.5
MAGA				AML	AML		
	comp=E,118μm,0.3s						
MAGA				AML	AML		
	comp=N,82μm,0.2s						
MAGA				AML	AML		
	comp=E,119μm,0.3s						
MAGA				AML	AML		
	comp=N,82μm,0.2s						
ZONE	Zone	0.25	297	P	Pg	12 26 00.2	+0.9
ZONE				AML	AML		
	comp=E,45μm,0.7s						
ZONE				AML	AML		
	comp=N,80μm,1.1s						
ZONE				AML	AML		
	comp=E,38μm,0.3s						
ZONE				AML	AML		
	comp=N,69μm,0.2s						
MBAL	Monte Baldo -	0.30	81	P	Pb	12 26 01.6	-0.7
MBAL				AML	AML		
	comp=E,38μm,0.2s						
MBAL				AML	AML		
	comp=N,31μm,0.1s						
RONC	Roncone	0.35	22	P	Pb	12 26 02.3	-0.9
RONC				S	Sb	12 26 07.8	-1.4
VARA	Varagna	0.37	62	P	Pb	12 26 03.2	-0.3
MABI	Malga Bissina	0.41	8	P	Pg	12 26 03.2	+0.8
LUSI	Trento, Gardas	0.47	49	P	Pb	12 26 04.4	-0.8

IDC 03 12:30:18.7±51.0**, 18.°34S**×**179.°04E, h0**km**, mb4.1**/3**, mbtmp4.1**/3**, Error ellipse: s-maj=924.4km s-min=154.1km az=78.0, Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	36.30	241	P	P	12 37 24.3	+0.1
	3.7nm,0.9s,baz=67,slow=7.7,SNR=2.9						
	3.7nm,0.9s						
WRA	Warramunga Arr	42.16	260	P	P	12 38 13.1	-0.3
	0.5nm,0.5s,baz=96,slow=7.7,SNR=25						
	0.5nm,0.5s						
ASAR	Alice Springs	42.33	255	P	P	12 38 14.8	-0.1
	3.3nm,0.6s,baz=88,slow=8.6,SNR=60						
	3.3nm,0.6s						

GCMT ***03*** *12:46:30.6±0.4, 18.°61N±0.°02×106.°27W±0.°02, h17km±1km, MW4.8/86, Moment Tensor Solution. s12,c12; s86,c121; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.20±.07; $M_{\theta\theta}$-0.52±.06; $M_{\phi\phi}$0.72±.07; $M_{r\theta}$0.19±.16; $M_{\theta\phi}$-1.54±.06; $M_{\phi r}$0.67±.17; Best double couple: $M_0$1.80700×10^{16} NP1:φs282.00000°, δ67.00000°, λ-175.00000°. NP2: φs190.00000°, δ85.00000°, λ-23.00000°. Principal axes: T 1.8640, Plg13.0000°, Azm238.0000°; N -0.1150, Plg66.0000°, Azm359.0000°; P -1.7490, Plg20.0000°, Azm143.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

MEX ***03*** *12:46:30.1±0.8, 18.°58N×106.°15W, h11km±96km, MD4.6, Presumed earthquake*

NEIC ***03*** *12:46:31.6±2.6, 18.°56N±0.°09×106.°07W±0.°08, h10km±2km, mb4.2/132, Md4.6/87(MEX), Error ellipse: s-maj=16.4km s-min=11.2km az=206.0*

IDC ***03*** *12:46:34.1±2.9, 18.°96N×106.°65W, h0km, mb3.6/4, mbtmp3.6/6, ML3.0/2, MS3.8/44, Error ellipse: s-maj=55.8km s-min=31.7km az=41.0*

ISC 03 12:46:31.4±2.7**, 18.°67N**±0.°06×**106.°05W**±0.°06**, h10**km±16km**, n222,** σ**2.s01**/166**, mb4.2**/28**, MS3.9**/41**, Off coast of Jalisco**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CJM	Chamela	1.25	49	eP	Pn	12 46 51.7	-3.3
CJM				eS	Sg	12 47 08.5	-3.4
CIHU	Emiliano Zapat	1.37	64	eP	Pn	12 46 53.3	-3.4
CIHU				eS	Sn	12 47 11.1	-3.9
TOMAT	Tomatlan	1.48	31	eP	Pn	12 46 54.7	-3.5
TOMAT				eS	Sn	12 47 15.0	-2.7
CDAR	Ciudad de Arme	1.95	82	eP	Pn	12 47 01.5	-3.1
CDAR				eS	Sn	12 47 25.8	-3.3
ESTA	Talpa de Allen	2.05	33	eP	Pn	12 47 04.7	-1.5
ESTA				eS	Sn	12 47 30.4	-1.5
ESTA	Talpa de Allen	2.05	33		Pn	12 47 04.7	-1.5
ESTA					Sn	12 47 30.4	-1.5
CEGR	Campo Tres	2.19	71	eP	Pn	12 47 05.8	-2.2
CEGR				eS	Sn	12 47 34.3	-1.1
CEGR	Campo Tres	2.19	71		Pn	12 47 05.8	-2.2
CEGR					Sn	12 47 34.3	-1.1
COMA	Comala	2.26	73	eP	Pn	12 47 06.6	-2.3
COMA				eS	Sn	12 47 36.9	0.0
COMA	Comala	2.26	73		Pn	12 47 06.6	-2.3
COMA					Sn	12 47 36.9	0.0
INCO	Volcan de Coli	2.46	69	eP	Pn	12 47 10.7	-1.3
INCO				eS	Sn	12 47 41.9	-0.5
MMIG	Aquila	2.59	98	eP	Pn	12 47 08.8	-4.6
MMIG				eS	Sn	12 47 38.3	-6.8
ZIIG	Zihuatanejo	4.49	103	eP	Pn	12 47 36.7	-2.8
ZIIG				eS	Sn	12 48 29.0	-2.7
ZIIG	Zihuatanejo	4.49	103		Pn	12 47 36.7	-2.8
ZIIG					Sn	12 48 29.0	-2.7
MAIG	Mazatlaan	4.51	356	eP	Pn	12 47 36.3	-3.4
MAIG				eS	Sn	12 48 28.7	-3.5
H06S1	SOCORRO T	4.65	272	T	T	12 52 04.4	
	SNR=50						
H06N1	SOCORRO T-PHAS	4.68	273	T	T	12 52 07.7	
	SNR=38						
MOIG	Morelia	4.70	77	eP	Pn	12 47 38.2	-4.4
MOIG				eS	Sn	12 48 39.6	+2.2
MOIG	Morelia	4.70	77		Pn	12 47 42.9	+0.2
IGIG	Irapuato, Guan	4.90	64	eP	Pn	12 47 44.6	-0.8
IGIG	Irapuato, Guan	4.90	64		Pn	12 47 44.6	-0.8
ZAIG	Zacatecas	5.22	38	eP	Pn	12 47 51.9	+2.0
ZAIG				eS	Sn	12 48 57.5	+7.3
ZAIG	Zacatecas	5.22	38		Pn	12 47 50.7	+0.9
CAIG	El Cayaco	5.74	105	eP	Pn	12 47 51.3	-5.4
CAIG				eS	Sn	12 49 07.7	+5.0
ATVM	ATLACOMULCO	5.96	79	eS	Sn	12 49 08.6	-0.1
ATVM	ATLACOMULCO	5.96	79		Sn	12 49 08.6	-0.1
TOVM	TOLUCA	6.06	83	eP	Pn	12 47 59.3	-2.1
TOVM				eS	Sn	12 49 10.2	-0.9
TOVM	TOLUCA	6.06	83		Pn	12 47 59.3	-2.1
TOVM					Sn	12 49 10.2	-0.9
SLBS	Sierra La Lagu	6.17	325		Pn	12 48 03.2	+0.4
MAVM	Malinalco, Edo	6.21	86	eP	Pn	12 48 03.3	-0.2
MAVM				eS	Sn	12 49 13.6	-1.2
MAVM	Malinalco, Edo	6.21	86		Pn	12 48 03.3	-0.2
MAVM					Sn	12 49 13.6	-1.2
PLIG	Platanillo	6.22	92	eP	Pn	12 48 01.3	-2.1
PLIG				eS	Sn	12 49 12.8	-1.8
PLIG	Platanillo	6.22	92		Pn	12 48 01.3	-2.1
PLIG					Sn	12 49 12.8	-1.8
DAIG	Los Arroyos	6.31	104	eP	Pn	12 48 03.8	-0.8
DAIG				eS	Sn	12 49 15.1	-1.7
DAIG	Los Arroyos	6.31	104		Pn	12 48 03.8	-0.8
DAIG					Sn	12 49 15.1	-1.7
PDIG	Papasquiaro	6.36	5	eP	Pn	12 48 04.2	-1.3
PDIG				eS	Sn	12 49 15.7	-2.7
PDIG	Papasquiaro	6.36	5		Pn	12 48 04.2	-1.3
AOVM	Tlapan	6.39	84	eP	Pn	12 48 09.2	+3.1
AOVM				eS	Sn	12 49 18.2	-1.2
AOVM	Tlapan	6.39	84		Pn	12 48 09.2	+3.1
AOVM					Sn	12 49 18.2	-1.2
AZVM	Cuida Lopez Ma	6.46	81	eP	Pn	12 48 05.8	-1.1
AZVM	Cuida Lopez Ma	6.46	81		Pn	12 48 05.8	-1.1
TLVM	San Miguel Top	6.55	84	eS	Sn	12 49 21.7	-1.3
TLVM	San Miguel Top	6.55	84		Sn	12 49 21.7	-1.3
XCVM	Xochimilco	6.58	84	eS	Sn	12 49 22.1	-1.8
XCVM	Xochimilco	6.58	84		Sn	12 49 22.1	-1.8
PTVM	Pico Tres Padr	6.62	81	eP	Pn	12 48 02.1	-7.0
PTVM				eS	Sn	12 49 24.8	0.0
PTVM	Pico Tres Padr	6.62	81		Sn	12 49 24.8	0.0
PBVM	Pinon	6.63	82	eP	Pn	12 48 05.5	-3.4
PBVM				eS	Sn	12 49 23.7	-0.9
PBVM	Pinon	6.63	82		Sn	12 49 23.7	-0.9
MPVM	San Francisco	6.68	84	eS	Sn	12 49 23.9	-2.3
MPVM	San Francisco	6.68	84		Sn	12 49 23.9	-2.3
LPIG	La Paz	6.70	324	LR	LR	12 49 58.5	
	comp=Z,910nm,20.0s,baz=160,slow=33						
THVM	De Xico	6.72	83	eP	Pn	12 48 08.4	-2.1
THVM				eS	Sn	12 49 26.1	-1.3
THVM	De Xico	6.72	83		Pn	12 48 08.4	-2.1
THVM					Sn	12 49 26.1	-1.3
DHIG	Demacu	6.81	75		Pn	12 48 11.1	-0.6
DHIG					Sn	12 49 28.3	-1.1
DEIG	Demacu	6.81	75	eP	Pn	12 48 11.1	-0.6
DEIG				eS	Sn	12 49 28.3	-1.1
CRIG	Cruz Grande	6.87	105	eP	Pn	12 48 09.0	-3.3
CRIG	Cruz Grande	6.87	105		Pn	12 48 09.0	-3.3
VTVM	Tizayuca	6.96	80	eS	Sn	12 49 31.1	-2.1
VTVM	Tizayuca	6.96	80		Sn	12 49 31.1	-2.1
PPCU	Popocatapetl	7.04	86	eP	Pn	12 48 16.8	+1.8
PPCU				eS	Sn	12 49 33.9	-1.5
PPCU	Popocatapetl	7.04	86		Pn	12 48 16.8	+1.8
PPCU					Sn	12 49 33.9	-1.5
PPPT	Popocatepetl	7.04	86	eP	Pn	12 48 16.2	+1.1
PPPT				eS	Sn	12 49 34.6	-0.9
PPPT	Popocatepetl	7.04	86		Pn	12 48 16.2	+1.1
PPPT					Sn	12 49 34.6	-0.9
PPCL	Tochimilco	7.04	87	eP	Pn	12 48 14.0	-0.9
PPCL				eS	Sn	12 49 33.3	-1.9
PPCL	Tochimilco	7.04	87		Pn	12 48 14.0	-0.9
PPCL					Sn	12 49 33.3	-1.9
PBCV	Popocatepetl	7.10	86	eP	Pn	12 48 17.4	+1.6
PBCV				eS	Sn	12 49 36.1	-0.6
TLIG	Tlapa	7.20	98	eP	Pn	12 48 13.6	-3.4
TLIG				eS	Sn	12 49 40.0	+1.1
TLIG	Tlapa	7.20	98		Sn	12 49 40.0	+1.1
TLIG	Tlapa	7.20	98		Pn	12 48 16.7	-0.2
PPAX	Atlixo	7.23	87	eP	Pn	12 48 14.6	-2.8

PPAX				eS	Sn	12 49 39.0	-0.8
PPAX	Atlixo	7.23	87		Pn	12 48 14.6	-2.8
PPAX					Sn	12 49 39.0	-0.8
TXIG	Tlaxiaco	8.01	99	eP	Pn	12 48 26.8	-1.3
TXIG				eS	Sn	12 49 57.9	-1.1
TXIG	Tlaxiaco	8.01	99		Pn	12 48 26.8	-1.3
TXIG					Sn	12 49 57.9	-1.1
HPIG		8.23	2	Pn	Pn	12 48 33.2	+2.1
YOIG	Yosondua	8.30	101	eP	Pn	12 48 29.5	-2.7
YOIG				eS	Sn	12 50 08.1	+1.9
YOIG	Yosondua	8.30	101		Pn	12 48 29.5	-2.7
PEIG	Puerto Escondi	8.91	106	eP	Pn	12 48 35.1	-5.2
PEIG				eS	Sn	12 50 22.1	+1.3
SRIG	Santa Rosalia	10.32	328		Pn	12 48 59.2	-0.4
CMIG	Matias Romero	10.74	97	LR	LR	12 52 35.9	
	comp=Z,163nm,22.0s,baz=281,slow=32						
TXAR	Lajitas Array	10.83	11	Pn	Pn	12 49 10.4	+3.6
	baz=189,slow=15,SNR=10						
TXAR				LR	LR	12 53 19.7	
	comp=Z,720nm,18.6s,baz=190,slow=38						
	0.9nm,0.8s						
TX31	Lajitas Ar. Si	10.83	11		Pn	12 49 09.8	+3.1
HSIG		11.23	337	eP	Pn	12 49 09.3	-2.7
HSIG				eS	Sn	12 51 12.6	-5.1
HSIG		11.23	337		Pn	12 49 12.3	+0.2
833A	Chaparral WMA,	11.38	31		Pn	12 49 16.3	+2.2
SAND	Sanderson	11.79	17		Pn	12 49 22.5	+2.8
VHRN	Van Horn	12.10	4		Pn	12 49 27.6	+3.5
319A	Douglas	12.98	348		Pn	12 49 38.6	+2.5
MNTX	Cornudas Mount	12.98	3		Pn	12 49 39.1	+3.1
OZNA	Ozona	12.98	19		Pn	12 49 40.1	+4.0
TPB28		13.02	6		Pn	12 49 37.6	+1.0
JCT	Junction City	13.05	25		Pn	12 49 39.9	+2.9
TPB11	China Draw	13.33	7		Pn	12 49 42.0	+1.1
GDL2	Guadalupe Moun	13.55	6		Pn	12 49 46.7	+2.7
121A	Cookes Peak, D	13.89	354		Pn	12 49 51.5	+2.9
SGCY	Sterling City	13.91	18	Pn	Pn	12 49 52.3	+3.5
TUC	Tucson	14.23	343		Pn	12 49 54.5	+1.3
129A	Stewart Farms,	14.40	14	Pn	Pn	12 49 57.4	+1.9
POST	Post	14.90	15		Pn	12 50 04.0	+1.7
SN07	Snyder 07	15.08	17	P	P	12 50 10.7	+0.6
Y22A	Socorro	15.22	357	Pn	Pn	12 50 08.3	+1.6
Y22A				IAmb	IAmb	12 50 35.3	
	comp=Z,11nm,1.2s						
CRNM	Carthage	15.23	358	Pn	Pn	12 50 09.6	+2.9
APG	El Apazote	15.36	101	Pn	P	12 50 20.1	+6.7
	baz=102,slow=12,SNR=5.0						
	comp=Z,0.6nm,0.7s						
LENM	Lemitar	15.45	357	P	Pn	12 50 13.7	+4.0
MSTX	Muleshoe	15.51	10	P	Pn	12 50 13.9	+3.5
DKNS	Dickens	15.62	16		Pn	12 50 13.3	+1.5
DKNS				IAmb	IAmb	12 50 22.7	
	comp=Z,32nm,1.2s						
PLPT	Palo Pinto	15.70	25	Pn	Pn	12 50 14.9	+2.1
PLPT				IAmb	IAmb	12 50 28.5	
	comp=Z,28nm,1.1s						
ALQ	Albuquerque	16.21	359	Pn	Pn	12 50 21.3	+1.7
ANMO	Albuquerque	16.21	359	P	Pn	12 50 22.6	+3.0
MTO3	Montecristo	16.55	102	P	P	12 50 27.7	+1.1
MTO3				IAmb	IAmb	12 50 35.0	
	comp=Z,33nm,1.3s						
AMTX	Amarillo	16.61	13		Pn	12 50 27.0	+2.6
AMTX				IAmb	IAmb	12 50 50.6	
	comp=Z,20nm,1.2s						
SMWD	Samnorwood	17.16	16	IAmb	IAmb	12 50 40.5	
	comp=Z,16nm,1.0s						
X34A	Smith Ranch, M	17.47	23	Pn	Pn	12 50 35.0	-0.2
X34A				IAmb	IAmb	12 51 03.6	
	comp=Z,26nm,1.1s						
PFO	Pinyon Flats O	17.55	330	LR	LR	12 56 30.8	
	comp=Z,327nm,19.0s,baz=174,slow=35						
Z38A	Mt. Pleasant	17.58	32	IAmb	IAmb	12 50 41.4	
	comp=Z,36nm,1.1s						
SDCO	Great Sand Dun	19.01	1		P	12 50 56.1	+2.4
SDCO				IAmb	IAmb	12 51 19.4	
	comp=Z,12nm,1.4s						
S22A	4UR Ranch, Cre	19.02	358		P	12 50 52.8	-1.0
MIAR	Mount Ida	19.32	33	IAmb	IAmb	12 51 31.8	
	comp=Z,11nm,1.2s						
PV05	Paradox Valley	19.52	353	IAmb	IAmb	12 51 43.9	
	comp=Z,12nm,1.5s						
OK051	E0350 and S346	19.53	23	P	P	12 51 00.0	+0.9
PV02	Paradox Valley	19.60	354	IAmb	IAmb	12 51 20.2	
	comp=Z,13nm,1.2s						
BLOK	Blackwell	19.62	22	P	P	12 51 01.5	+1.4
BLOK				IAmb	IAmb	12 51 08.9	
	comp=Z,18nm,1.1s						
HMU	Henry Mountain	19.63	349	IAmb	IAmb	12 51 34.6	
	comp=Z,15nm,1.3s						
LRMC	Laurel Mtn Rad	19.66	331	IAmb	IAmb	12 51 19.3	
	comp=Z,12nm,1.4s						
PV18	Skein Mesa, Pa	19.66	353		P	12 51 01.8	+1.0
PV18				IAmb	IAmb	12 51 16.4	
	comp=Z,23nm,1.4s						
PV03	Paradox Valley	19.66	353	IAmb	IAmb	12 51 29.9	
	comp=Z,12nm,1.4s						
QSM	Queen of Sheba	19.70	333	IAmb	IAmb	12 51 04.5	
	comp=Z,13nm,1.4s						
PV15	Paradox Valley	19.71	354	P	P	12 51 01.8	+0.4
PV15				IAmb	IAmb	12 51 27.7	
	comp=Z,10.0nm,1.1s						
PV12	Saucer Basin,	19.72	354	IAmb	IAmb	12 51 39.4	
	comp=Z,21nm,1.2s						
PV16	Nyswonger Mesa	19.73	353	P	P	12 51 02.8	+1.4
PV19	Morning Glory	19.73	353	IAmb	IAmb	12 51 19.2	
	comp=Z,14nm,1.1s						
PV20	West Nyswonger	19.76	353	P	P	12 51 02.0	+0.1
PV20				IAmb	IAmb	12 51 34.0	
	comp=Z,14nm,1.1s						
GWY	Greenwater Val	19.80	334		P	12 51 02.5	+0.2
PV10	Paradox Valley	19.80	353	IAmb	IAmb	12 51 15.4	
	comp=Z,12nm,1.0s						
PV04	Paradox Valley	19.81	353	IAmb	IAmb	12 51 45.0	
	comp=Z,19nm,1.4s						
SZCU	Shurtz Canyon	19.83	343	IAmb	IAmb	12 51 25.5	
	comp=Z,12nm,1.5s						
CCUT	Cedar City	19.87	343		P	12 51 05.0	+2.0
PV23	Carpenter Ridg	19.88	353	IAmb	IAmb	12 51 23.9	
	comp=Z,28nm,1.3s						
PV22	Blue Mesa, Par	19.93	354	IAmb	IAmb	12 51 20.0	
	comp=Z,13nm,1.3s						
PV21	Cone Mtn., Par	19.98	353	IAmb	IAmb	12 51 31.2	
	comp=Z,12nm,1.3s						
T35A	Sooner Cattle	20.01	23	P	P	12 51 04.8	+0.4
TPNV	Topopah Spring	20.29	336		P	12 51 07.6	0.0
U38A	Gravette	20.46	28	P	P	12 51 10.4	+1.1
U38A				IAmb	IAmb	12 51 15.1	
	comp=Z,24nm,1.1s						
WHAR	Wooly Hollow	20.56	34		P	12 51 11.3	+1.0
BOAB	BOACO BROADBAN	20.58	105		P	12 51 10.7	+0.1
Q16A	Castle Valley	20.66	349	IAmb	IAmb	12 51 16.3	
	comp=Z,14nm,1.3s						
GRAC	Grapevine Rang	20.79	334	P	P	12 51 12.6	-0.2
GRAC				IAmb	IAmb	12 51 34.2	
	comp=Z,19nm,1.5s						
PSUT	Pine Spring	20.92	343	IAmb	IAmb	12 51 18.5	
	comp=Z,7.0nm,1.0s						
TMUT	Trail Mountain	21.03	349	IAmb	IAmb	12 51 19.8	
	comp=Z,11nm,1.1s						
ISCO	Idaho Springs	21.06	1	P	P	12 51 16.0	0.0
FCAR	Ozark Folk Cen	21.11	33	IAmb	IAmb	12 51 25.5	
	comp=Z,20nm,1.1s						
P17A	Butcher Ranch,	21.12	350	IAmb	IAmb	12 51 42.4	
	comp=Z,12nm,1.1s						
P18A	Preston Nutter	21.20	351	IAmb	IAmb	12 51 40.8	
	comp=Z,9.1nm,1.0s						
O20A	White River Ci	21.47	355	IAmb	IAmb	12 51 44.3	
	comp=Z,20nm,1.3s						
TPH	Tonopah	21.65	336	IAmb	IAmb	12 51 26.2	
	comp=Z,11nm,1.4s						
MPU	Maple Canyon	21.81	348	IAmb	IAmb	12 51 59.5	
	comp=Z,14nm,1.5s						
RDMU	Red Mountain	22.03	353	IAmb	IAmb	12 51 51.8	
	comp=Z,12nm,1.2s						
MDPB	Devils Postpil	22.06	332	IAmb	IAmb	12 52 00.3	
	comp=Z,15nm,1.5s						
250A	Grady	22.20	50		P	12 51 28.5	+0.4
DUG	Dugway, Tooele	22.23	346	IAmb	IAmb	12 51 49.6	
	comp=Z,11nm,1.3s						
LRAL	Lakeview Retre	22.27	46		P	12 51 30.2	+1.4
LHV	Little Huntoon	22.33	333	IAmb	IAmb	12 51 31.9	
	comp=Z,12nm,1.4s						
NVAR	Mina Array Bea	22.39	334	P	P	12 51 28.9	-1.4
	comp=Z,1.7nm,1.1s,baz=154,slow=10,SNR=11						
NVAR				LR	LR	12 59 35.3	
	comp=Z,239nm,20.9s,baz=163,slow=36						
	comp=Z,1.7nm,1.1s						
NVAR	Mina Array Bea	22.39	334	P	P	12 51 30.8	+0.5
WAKR	Walker	22.94	332	IAmb	IAmb	12 51 54.2	
	comp=Z,9.3nm,1.4s						
X48A	Hartselle	23.08	43		P	12 51 38.6	+1.3
X48A				IAmb	IAmb	12 51 43.8	
	comp=Z,14nm,1.1s						
CCM	Cathedral Cave	23.23	31	P	P	12 51 40.0	+1.1
CCM				IAmb	IAmb	12 51 46.8	
	comp=Z,13nm,1.1s						
YERR	Yerington	23.26	333	IAmb	IAmb	12 51 41.8	
	comp=Z,9.8nm,1.3s						
ELK	Elko	23.37	342	LR	LR	13 00 01.3	
	comp=Z,311nm,20.5s,baz=166,slow=35						
ELK	Elko	23.37	342	IAmb	IAmb	12 51 43.0	
	comp=Z,9.2nm,1.4s						
FVM	French Village	23.58	32		P	12 51 41.9	-0.4
BMN	Battle Mountai	23.72	338	IAmb	IAmb	12 52 01.2	
	comp=Z,14nm,1.5s						
HVU	Hansel Valley	23.74	347	P	P	12 51 44.1	+0.2
V48A	Smith Brothers	24.04	41	IAmb	IAmb	12 51 57.1	
	comp=Z,9.4nm,1.1s						
P40A	Paris	24.06	27		P	12 51 48.2	+1.3
P40A				IAmb	IAmb	12 52 01.5	
	comp=Z,14nm,1.2s						
FPAL	Fort Paine	24.08	45	IAmb	IAmb	12 51 52.8	
	comp=Z,11nm,1.1s						
PDAR	Pinedale Array	24.20	354	P	P	12 51 49.0	+0.6
	comp=Z,0.2nm,0.6s,baz=171,slow=8.5,SNR=4.4						
PDAR				LR	LR	13 01 10.2	
	comp=Z,195nm,18.9s,baz=168,slow=37						
	comp=Z,0.2nm,0.6s						
BEKR	Beckworth	24.47	333	IAmb	IAmb	12 51 57.2	
	comp=Z,7.0nm,1.4s						
ORV	Oroville	24.73	331	P	P	12 51 53.9	+0.9
ORV				IAmb	IAmb	12 52 00.2	
	comp=Z,7.8nm,1.4s						
GOGA	Godfrey	24.96	50	P	P	12 51 55.8	+0.7
FXWY	Fox Creek	25.24	352	IAmb	IAmb	12 52 16.0	
	comp=Z,6.5nm,1.2s						
TKL	Tuckaleechee C	25.96	45	LR	LR	13 04 47.4	
	comp=Z,184nm,19.8s,baz=236,slow=42						
BCYI	Bear Canyon	26.30	348	IAmb	IAmb	12 52 31.9	
	comp=Z,6.8nm,1.3s						
JSC	Jenkinsville	26.99	50	P	P	12 52 13.7	+0.1
YBH	Yreka Blue Hor	27.02	332	LR	LR	13 02 33.9	
	comp=Z,262nm,20.0s,baz=162,slow=36						
NEW	Newport	30.86	346	LR	LR	13 04 32.7	
	comp=Z,186nm,19.1s,baz=158,slow=35						
ULM	Lac du Bonnet	32.54	12	LR	LR	13 06 49.6	
	comp=Z,430nm,18.2s,baz=197,slow=38						
SADO	Sadowa	34.36	35	LR	LR	13 07 21.8	
	comp=Z,82nm,21.7s,baz=282,slow=36						
SDV	Santo Domingo	35.68	101	LR	LR	13 08 23.2	
	comp=Z,68nm,20.5s,baz=260,slow=36						
ATAH	Atahualpa	37.44	131	LR	LR	13 05 49.0	
	comp=Z,255nm,21.8s,baz=307,slow=30						
BBB	Bella Bella	37.66	338	LR	LR	13 09 05.4	
	comp=Z,137nm,18.6s,baz=206,slow=36						
NNA	Nana	41.93	134	LR	LR	13 09 16.6	
	comp=Z,150nm,20.6s,baz=310,slow=32						
DLBC	Dease Lake	43.42	342	LR	LR	13 13 12.7	
	comp=Z,309nm,18.3s,baz=126,slow=37						
YKA	Yellowknife Ar	44.18	354	LR	LR	13 13 60.0	
	comp=Z,204nm,20.1s,baz=207,slow=38						
SCHQ	Schefferville	46.80	30	LR	LR	13 14 30.5	
	comp=Z,190nm,18.2s,baz=272,slow=36						
LPAZ	La Paz	50.98	131	LR	LR	13 14 41.1	
	comp=Z,126nm,20.2s,baz=302,slow=33						
FRB	Frobisher Bay	51.72	20	LR	LR	13 18 01.8	
	comp=Z,279nm,18.3s,baz=176,slow=36						
KDAK	Kodiak Island	51.82	330	LR	LR	13 13 11.8	
	comp=Z,70nm,20.5s,baz=124,slow=31						
INK	Inuvik	52.55	348	LR	LR	13 19 04.0	
	comp=Z,132nm,18.2s,baz=182,slow=37						
ILAR	Eielson Array	53.49	340	P	P	12 55 52.1	+0.4
	comp=Z,0.9nm,1.1s,baz=139,slow=9.0,SNR=4.5						
ILAR				LR	LR	13 19 37.3	
	comp=Z,41nm,18.6s,baz=89,slow=37						
	comp=Z,0.9nm,1.1s						
MDP	Montagnes des	53.77	97	LR	LR	13 20 14.8	
	comp=Z,45nm,19.6s,baz=138,slow=37						
PPT	Papeete	55.93	232	LR	LR	13 13 47.8	
	comp=Z,109nm,21.8s,baz=58,slow=29						
RAR	Rarotonga	65.87	236	LR	LR	13 17 05.2	
	comp=Z,186nm,21.5s,baz=78,slow=28						
PLCA	Paso Flores	67.69	152	LR	LR	13 20 57.6	
	comp=Z,135nm,18.6s,baz=304,slow=30						
SHEM	Shemya Is, Ala	69.25	320	LR	LR	13 20 58.2	
	comp=Z,45nm,21.9s,baz=265,slow=30						
BORG	Borgarnes	71.04	27	LR	LR	13 28 47.3	
	comp=Z,44nm,20.8s,baz=312,slow=36						
PETK	Petropavlovsk-	78.95	322	LR	LR	13 26 08.5	
	comp=Z,51nm,19.1s,baz=113,slow=30						
EKA	Eskdalemuir Ar	81.93	34	LR	LR	13 34 07.6	
	comp=Z,43nm,19.2s,baz=324,slow=35						
TIXI	Tiksi	82.57	345	LR	LR	13 39 34.8	
	comp=Z,66nm,18.0s,baz=50,slow=39						
ARCES	ARCESS Array B	85.60	15	P	P	12 59 14.6	+4.9
	comp=Z,6.1nm,1.2s,baz=304,slow=13,SNR=1.6						
ARCES				LR	LR	13 39 19.3	
	comp=Z,37nm,18.5s,baz=228,slow=37						
	comp=Z,6.1nm,1.2s						
NOA	NORSAR Array B	86.18	26	LR	LR	13 37 03.6	
	comp=Z,33nm,21.3s,baz=280,slow=35						
ESDC	Sonseca Array	87.18	49	LR	LR	13 39 43.3	
	comp=Z,30nm,18.4s,baz=275,slow=36						
HFS	Hagfors	87.70	26	LR	LR	13 39 12.2	
	comp=Z,47nm,18.4s,baz=310,slow=36						
YAK	Yakutsk	88.34	337	LR	LR	13 39 33.3	
	comp=Z,44nm,18.1s,baz=34,slow=36						
URZ	Urewera	91.51	230	LR	LR	13 31 05.6	
	comp=Z,86nm,20.9s,baz=312,slow=29						
FINES	FINESS Array B	91.52	21	LR	LR	13 41 14.5	
	comp=Z,90nm,18.5s,baz=299,slow=36						
ASAJ	Asahikawa	91.60	318	LR	LR	13 33 16.2	
	comp=Z,36nm,20.3s,baz=139,slow=31						
DAVOX	Davos/Dischmat	93.08	38	LR	LR	13 40 57.2	
	comp=Z,98nm,19.3s,baz=259,slow=35						
KLR	Kul'dur	95.21	326	LR	LR	13 40 27.8	
	comp=Z,35nm,19.1s,baz=210,slow=34						
VRAC	Vranov	95.40	34	LR	LR	13 44 47.0	
	comp=Z,45nm,18.2s,baz=304,slow=37						
HHC	Hu-ho-hao-te	111.24	330	eP	PKiKP	13 05 03.3	-2.7
WMQ	Urumqi	116.55	349	ePKP	PKPdf	13 05 13.5	-2.5
WMQ				LR	LR		
	comp=Z,51nm,24.9s						

NNC 03 13:10:23.5±8.8, 37°.03N×70°.59E, h0km, mb4.0, mpv3.8, 2C-1D, Error ellipse: s-maj=83.4km s-min=48.8km az=158.0, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KK31	Karatay Array	6.07	359	P	Pn	13 11 56.4	+1.9
	7.7nm,0.3s,baz=183,slow=14,SNR=64						
KK31				⇑S	Sn	13 13 07.4	+2.8
	4.6nm,0.5s,baz=180,slow=24,SNR=6.0						
AAK	Ala-Archa	6.36	27	⇓P	Pn	13 11 58.3	-0.3
	0.9nm,0.3s						
AAK				⇑S	Sn	13 13 12.0	0.0
	3.5nm,0.8s						
AB31	Akbulak array	14.46	331	P	Pn	13 13 46.7	-2.7
	0.7nm,0.4s,baz=260,slow=37,SNR=45						

ASRS 03 13:42:26.4, 53°.4N±0°.9×87°.5E±0°.9, h5km, MLh3.2/7, confirmed

NNC 03 13:42:27.1±1.6, 53°.52N×87°.56E, h0km, mb4.2, mpv3.9, Error ellipse: s-maj=15.7km s-min=7.2km az=45.0, Suspected Mining explosion.

ISC 03 13:42:27.3±0.7, 53°.41N±0°.02×87°.46E±0°.02, h0km, n33, σ0s90/63, 4C-6D, Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KALT1	Kaltan 1	0.02	284	⇓Pg	Pg	13 42 27.8	+0.1
KALT1				Sg	Sg	13 42 28.7	+0.7
KALT2	Kaltan 2	0.08	263	⇓Pg	Pg	13 42 29.7	+0.9
KALT2				Sg	Sg	13 42 31.2	+1.3
KALT3	Kaltan 3	0.10	353	Pg	Pg	13 42 30.4	+1.1
KALT3				Sg	Sg	13 42 32.0	+1.3
MALIN	Malinovka, Kuz	0.11	275	Pg	Pg	13 42 29.3	-0.1
MALIN				Sg	Sg	13 42 31.2	+0.4
TAIL	Tailep, Kuzbas	0.16	283	Pg	Pg	13 42 30.2	-0.2
TAIL				Sg	Sg	13 42 33.1	+0.6
KIYZ	Kiyzas, Kuzbas	0.23	50	Pg	Pg	13 42 32.3	+0.6
KIYZ				Sg	Sg	13 42 35.3	+0.5
TASR	Tashtagol	0.70	159	Pg	Pb	13 42 41.7	-0.7
TASR				Sg	Sb	13 42 52.4	-0.2
ELT	Eltsovka	0.75	259	Pg	Pg	13 42 41.0	-0.6
ELT				Sg	Sg	13 42 50.3	-1.0
ELT				AML	AML		
VCHU	Verkh-Chumysh,	0.81	312	Pg	Pg	13 42 42.9	0.0
VCHU				S	Sb	13 42 55.9	+0.1
KOTO	Kotino, Kuzbas	0.84	338	Pg	Pg	13 42 43.9	+0.5
KOTO				Sg	Sb	13 42 55.7	-0.9
LUZB	Luzhba, Kemero	0.90	73	Pg	Pg	13 42 44.4	0.0
LUZB				Sg	Sb	13 42 57.5	-0.7
BJR3	Bachatsky-3 (S	1.12	317	Pg	Pg	13 42 48.1	-0.7
BJR3				Sg	Sg	13 43 03.8	+0.4
BJR4	Bachatsky-4, K	1.14	322	Pg	Pg	13 42 48.9	-0.1
BJR4				Sg	Sb	13 43 05.3	+0.2
POMOR	Pomortsevo, Ku	1.14	331	Pg	Pb	13 42 49.8	-0.1
POMOR				S	Sn	13 43 07.1	+0.3
BJR2	Bachatsky-2, K	1.18	318	Pg	Pn	13 42 50.6	-0.4
BJR2				Sg	Sn	13 43 08.1	+0.4
BJR1	Bachatsky 1, K	1.18	315	Pg	Pg	13 42 48.7	-1.3
BJR1				Sg	Sg	13 43 05.6	+0.3
BJR1				AML	AML		
SALR	Pechorkino, Sa	1.45	315	Pg	Pn	13 42 53.8	-0.9
SALR				Sg	Sn	13 43 15.7	+1.3
SALR				AML	AML		
ARTR	Artybash	1.62	184	Pg	Pn	13 42 57.0	-0.1
ARTR				Sg	Sg	13 43 19.1	-0.1
ARTR				AML	AML		
YALR	Yailyu, Altay	1.65	177	Pg	Pn	13 42 57.4	-0.1
YALR				Sg	Sb	13 43 19.4	-0.4
YALR				AML	AML		
ZAA0	Zalesovo Array	1.66	290	⇓P	Pn	13 42 57.2	-0.4
	23nm,0.5s						
ZAA0				⇑S	Sg	13 43 20.5	-0.2
	51nm,0.8s						
GALT	Gorno-Altaysk,	1.72	213	Pg	Pb	13 42 59.4	-0.4
GALT				Sg	Sg	13 43 22.8	+0.2
VEH	Verkhnyaya Baz	1.72	94	Pg	Pn	13 42 58.8	+0.2
VEH				Sg	Sg	13 43 22.2	-0.4
KEM	Kemerovo	2.10	338	Pg	Pn	13 43 04.4	+0.8
KEM				Sg	Sn	13 43 30.9	+0.6
DJO	Djoy, Khakassi	2.35	104	Pg	Pb	13 43 10.1	-0.5
DJO				Sg	Sb	13 43 40.0	-0.2
DJO				AML	AML		
ELDR	Elanda	2.35	201	Pg	Pb	13 43 09.2	-1.3
ELDR				Sg	Sb	13 43 41.1	+0.9
ELDR				AML	AML		
BALAH	Balakhonka, Ku	2.36	340	Pg	Pb	13 43 10.4	-0.3
BALAH				Sg	Sg	13 43 42.5	-0.6
ULGR	Ulagan, Altay	2.81	173	Pg	Pb	13 43 17.4	-1.0
ULGR				Sg	Sb	13 43 53.8	+0.4
NVSII	Novosibirsk	2.87	302	Pg	Pb	13 43 16.9	-2.4
NVSII				Sg	Sb	13 43 53.8	-1.1
TEL	Teeli	2.93	144	Pg	Pb	13 43 17.7	-2.7
TEL				Sg	Sg	13 44 01.7	+0.3
UKR	Ust'-Kan	2.98	215	Pg	Pb	13 43 20.5	-0.7
UKR				Sg	Sb	13 43 60.0	+1.8
KURK	Kurchatov	6.08	247	⇑Pn	Pn	13 43 59.9	+1.5
	4.0nm,0.7s						
KURK				⇓Lg	Lg	13 45 42.1	
	12nm,0.8s						
KURBB	Kurchatov Arra	6.18	247	⇓Pn	Pn	13 44 01.2	+1.5
	22nm,0.6s						
KURBB				⇑Lg	Lg	13 45 48.2	
	25nm,0.6s						
MK31	Makanchi Array	7.41	209	⇑Pn	Pn	13 44 18.5	+1.9
	4.4nm,0.5s,baz=29,slow=12,SNR=108						
MK31				⇓Lg	Lg	13 46 22.8	
	12nm,1.1s,baz=24,slow=31,SNR=4.4						

PRU 03 14:27:43.0, 50°.42N×18°.77E, h0km, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OKC	Ostrava-Krasne	0.71	215	ePG	Pg	14 27 55.7	-0.8
OKC				eSG	Sg	14 28 05.0	-0.7
	comp=Z,15nm,0.4s						
OKC				AML	AML		
STEB	Steborice	0.81	233	eSG	Sg	14 28 09.3	+0.5
	comp=Z,61nm,0.6s						
STEB				AML	AML		
MORC	Moravsky Berou	1.02	231	ePG	Pg	14 28 01.4	-1.1
MORC				eSG	Sg	14 28 14.4	-1.3
MAUC	Maruska	1.22	210	ePG	Pg	14 28 05.2	-1.1
MAUC				eSG	Sg	14 28 22.4	+0.3
LANS	Liptovska Anna	1.35	160	ePG	Pg	14 28 07.1	-1.7
LANS				eSG	Sg	14 28 24.1	-2.2
LANS				eLG	Lg	14 28 51.1	
DPC	Dobruska-Polom	1.57	268	ePG	Pn	14 28 11.4	-0.8
DPC				AML	AML		
JAVC	Velka Javorina	1.72	205	ePN	Pn	14 28 13.6	-0.6
VRAC	Vranov	1.79	233	ePN	Pn	14 28 14.3	-0.9
STHS	Stebnicka Huta	1.89	121	ePG	Pn	14 28 16.4	-0.1
VYHS	Vyhne	1.93	179	ePN	Pn	14 28 15.0	-2.1
KRUC	Moravsky	2.06	229	ePN	Pn	14 28 17.8	-1.0

VIE 03 14:28:02.6±1.1, 50°.28N×18°.72E, h0km, mb2.5/9, ml2.6/8, ms3.3/4, Error ellipse: s-maj=11.8km s-min=4.5km az=163.0 19 km W of Katowice Suspected Mining induced.

IPEC 03 14:28:03.8±0.2, 50°.29N×18°.82E, h1km, ML2.8/6, Error ellipse: s-maj=1.9km s-min=0.8km az=175.0

IDC 03 14:28:04.8±1.6, 50°.50N×18°.61E, h0km, mbtmp3.6/2, ML3.0/2, Error ellipse: s-maj=29.2km s-min=11.3km az=138.0

PRU 03 14:28:04.7, 50°.37N×18°.80E, h0km

BGR 03 14:28:04.7±0.4, 50°.34N×18°.79E, h1km, ML3.0/12, Error ellipse: s-maj=5.6km s-min=3.3km az=9.0

ISC 03 14:28:01.9±0.7, 50°.40N±0°.03×18°.84E±0°.02, h0km, n58, σ1s76/82, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OJC	Ojcow	0.64	106	ePg	Pb	14 28 16.0	+0.1
OJC				eSg	Sb	14 28 25.0	-0.5
OJC	Ojcow	0.64	106	ePg	Pb	14 28 17.0	+1.1
OJC				eSg	Sb	14 28 25.2	-0.2
OKC	Ostrava-Krasne	0.71	219	ePg	Pb	14 28 17.3	+0.1
OKC				eSg	Sb	14 28 26.5	-1.1
STEB	Steborice	0.83	236	ePG	Pb	14 28 19.4	+0.3
STEB				eSG	Sb	14 28 30.1	-0.7
	comp=Z,312nm,0.5s						
STEB				AML	AML		
ANAC	Anensky vrch	0.99	252	ePg	Pb	14 28 22.2	+0.3
	baz=76						
ANAC				eSg	Sg	14 28 33.8	+0.1
	282nm,0.5s,baz=76						
ANAC				AML	AML		
MORC	Moravsky Berou	1.04	234	eSg	Sg	14 28 35.6	+0.4
MORC	Moravsky Berou	1.04	234	ePg	Pb	14 28 22.5	-0.3
	baz=58						
MORC				eSg	Sg	14 28 34.3	-0.9
	176nm,0.4s,baz=58						
MORC				AML	AML		
MAUC	Maruska	1.22	213	eSG	Sb	14 28 42.6	+0.4
LOSC	Losov	1.22	231	ePg	Pn	14 28 26.1	-0.1
	baz=54						
LOSC				eSg	Sg	14 28 39.9	-1.2
	197nm,0.5s,baz=54						
LOSC				AML	AML		
LANS	Liptovska Anna	1.31	162	ePG	Pb	14 28 27.3	-0.1
LANS	Liptovska Anna	1.31	162	eSG	Sb	14 28 45.1	+0.3
KRLC	Kraliky	1.36	257	ePG	Pb	14 28 28.4	+0.2
KRLC				eSG	Sn	14 28 47.2	+0.3
	comp=Z,109nm,0.5s						
KRLC				AML	AML		
NIE	Niedzica	1.36	135	ePg	Pb	14 28 29.5	+1.3
NIE				eSg	Sn	14 28 48.6	+1.6
DPC	Dobruska-Polom	1.61	269	eSG	Sg	14 28 54.6	+1.0
	comp=Z,55nm,0.7s						
DPC				AML	AML		
DPC	Dobruska-Polom	1.61	269	ePn	Pb	14 28 32.4	0.0
DPC				ePg	Pg	14 28 33.5	+0.8
DPC				eSg	Sg	14 28 54.5	+1.0
DPC	Dobruska-Polom	1.61	269	eSG	Pb	14 28 32.5	0.0
	comp=Z,16nm,0.4s						

KSP	**Ksiaz**	1.68	286	*e*Pg	Pg	14 28 34.8	+0.8
KSP				*e*Sg	Sg	14 28 57.5	+1.7
KSP	**Ksiaz**	1.68	286	*e*Pn	Pg	14 28 34.8	+0.8
KSP				*e*Sg	Sg	14 28 57.8	+2.0
JAVC	**Velka Javorina**	1.72	207	*e*Pn	Pn	14 28 33.5	+0.4
	baz=27						
CHVC	**Chvalec**	1.79	277	*e*SG	Sg	14 29 00.7	+1.4
	comp=Z,48nm,0.8s						
CHVC				AML	AML		
UPC	**Upice**	1.81	275	*e*SG	Sg	14 29 01.8	+1.8
	comp=Z,43nm,0.5s						
UPC				AML	AML		
VRAC	**Vranov**	1.82	234	Pn	Pg	14 28 36.4	-0.2
	4.1nm,0.3s,baz=49,slow=15,SNR=11						
VRAC				Lg	Lg	14 28 59.0	
	12nm,0.3s,baz=335,slow=23,SNR=21						
VRAC	**Vranov**	1.82	234	*e*Pn	Pb	14 28 35.4	-0.6
	baz=55						
VRAC				*e*Sg	Sn	14 28 58.5	+0.4
	80nm,0.6s,baz=55						
VRAC				AML	AML		
STHS	**Stebnicka Huta**	1.84	121	*e*PG	Pg	14 28 37.0	-0.1
STHS				*e*SG	Sg	14 29 02.9	+2.0
STHS				*e*LG	Lg	14 29 10.6	
VYHS	**Vyhne**	1.91	180	*e*PN	Pn	14 28 36.5	+0.9
VYHS				*e*SN	Sn	14 28 59.3	-1.0
VYHS				*e*LG	Lg	14 29 04.7	
KRUC	**Moravsky**	2.07	231	*e*Pn	Pn	14 28 38.5	+0.6
	baz=51						
KRUC				*e*Sg	Sb	14 29 06.2	-0.4
	52nm,0.8s,baz=51						
KRUC				AML	AML		
KRUC	**Moravsky**	2.07	231	*e*PN	Pn	14 28 38.6	+0.6
KRUC				*e*SG	Sb	14 29 06.3	-0.4
KECS	**Kecovo**	2.20	150	*e*PN	Pn	14 28 40.0	+0.4
KECS				*e*SN	Sn	14 29 05.9	-1.6
KECS				*e*LG	Lg	14 29 13.5	
MODS	**Modra-Piesok**	2.27	207	*e*SN	Sn	14 29 06.3	-3.0
KOLS	**Kolonicke sedl**	2.67	122	*e*SN	Sn	14 29 19.8	+0.6
CONA	**Conrad Observa**	3.15	219	*e*Pg	Pg	14 29 01.8	-0.4
	1.0nm,0.3s						
CONA				*e*Sg	Sg	14 29 43.4	+0.4
	17nm,0.6s						
BRG	**Berggiesshubel**	3.15	281	*e*Sg	Sg	14 29 44.7	+1.6
BRG	**Berggiesshubel**	3.15	281	Pg	Pg	14 29 02.9	+0.6
BRG				Sg	Sg	14 29 43.9	+0.8
BRG				Amp		14 29 46.8	
	comp=Z,14nm,0.5s						
RONA	**Rosalia, Austr**	3.17	213	*e*Sn	Sn	14 29 33.2	+1.6
	comp=Z,6.0nm,0.5s						
FBE	**Freiberg**	3.53	281	*e*Sg	Sg	14 29 55.7	+0.6
KHC	**Kasperske Hory**	3.64	252	*e*PN	Pn	14 29 00.0	+0.6
KHC				*e*SG	Sg	14 29 58.5	-0.2
	comp=Z,16nm,0.4s						
KHC				AML	AML		
GEC2	**GERESS Array S**	3.68	247	*e*Sg	Sg	14 29 58.0	-2.1
GERES	**GERESS Array B**	3.68	247	Pg	Pg	14 29 11.0	-1.4
	comp=Z,0.3nm,0.3s,baz=60,slow=16,SNR=14						
GERES				Lg	Lg	14 29 57.6	
	comp=Z,0.8nm,0.3s,baz=58,slow=30,SNR=16						
CLL	**Collm**	3.81	286	*i* Pg	Pg	14 29 16.5	+1.7
CLL				*i* x	x	14 29 46.7	
CLL				*i* Sg	Sg	14 30 05.1	+1.0
	comp=Z,42nm,0.9s						
ARSA	**Arzberg**	3.83	216	Sg	Sg	14 30 09.7	+4.7
	comp=Z,8.9nm,0.7s						
MOA	**Molln**	3.94	231	Sg	Sg	14 30 05.1	-3.3
	comp=Z,20nm,0.8s						
TANN	**Tannenbergstha**	4.08	273	*e*Sg	Sg	14 30 13.1	+0.2
WERD	**Werda**	4.18	273	*e*Sg	Sg	14 30 16.6	+0.6
BIOA	**Bad Ischl, Aus**	4.36	234	*e*Sg	Sg	14 30 23.4	+1.5
	comp=Z,15nm,0.4s						
MOX	**Moxa**	4.61	276	*e*Sg	Sg	14 30 29.8	-0.2
KBA	**Koelnbreinsper**	4.92	230	*e*Sg	Sg	14 30 38.4	-1.5
	comp=Z,12nm,0.6s						
LESA	**Schwarzleotal**	5.03	236	*e*Sn	Sn	14 30 18.9	+1.4
	comp=Z,1.6nm,0.3s						
LESA				*e*Sg	Sg	14 30 40.1	-3.4
	comp=Z,5.7nm,0.3s						
MYKA	**Terra Mystica**	5.11	224	*e*Sg	Sg	14 30 48.8	+2.8
	comp=Z,2.2nm,0.3s						
WTTA	**Wattenberg**	5.70	239	*e*Sg	Sg	14 31 04.1	-0.6
	comp=Z,5.9nm,0.4s						
MOTA	**Moosalm**	5.95	242	Sg	Sg	14 31 12.7	-0.1
	comp=Z,7.7nm,0.5s						
RETA	**Reutte**	6.06	244	*e*Sg	Sg	14 31 20.0	+3.5
	comp=Z,4.3nm,0.3s						
FETA	**Feichten**	6.34	241	Sg	Sg	14 31 30.6	+5.2
	comp=Z,5.1nm,0.8s						
KIJV	**Kijevo**	6.61	195	Sg	Sn	14 31 02.1	+5.9
AKASG	**Malin Array Be**	6.63	83	Pg	Pg	14 30 08.4	-0.4
	comp=Z,0.6nm,0.3s,baz=275,slow=15,SNR=4.1						
DAVA	**Damuels**	6.68	246	*e*Sg	Sg	14 31 40.2	+3.8
	comp=Z,7.3nm,0.5s						
DAVOX	**Davos/Dischmat**	6.96	242	Lg	Lg	14 31 40.2	
	comp=Z,0.4nm,0.3s,baz=225,slow=14,SNR=3.0						
FINES	**FINESS Array B**	11.78	17	Pn	Pn	14 30 49.7	-1.3
	comp=Z,0.2nm,0.3s,baz=212,slow=13,SNR=1.1						
FINES				Sn	Sn	14 32 57.6	-5.4
	comp=Z,0.2nm,0.3s,baz=195,slow=20,SNR=1.9						
	comp=Z,1.1nm,0.6s						
FINES				AML	AML		
ARCES	**ARCESS Array B**	19.46	7	Pn	P	14 32 30.3	+0.5
	comp=Z,0.1nm,0.3s,baz=206,slow=14,SNR=2.0						
	comp=Z,1.3nm,0.8s						
ARCES				AML	AML		

IDC 03 14:34:24.7±1.3**, 15°.63N**×**46°.90W, h0^{km}, mb3.9**/4**, mbtmp3.9**/4**, Error ellipse: s-maj=42.1km s-min=36.9km az=163.0, Northern Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
H05S1	**Guadeloupe/Mar**	13.52	267	T	T	14 51 06.6	
	SNR=5.1						
LPAZ	**La Paz**	38.01	214	P	P	14 41 46.3	+0.8
	1.0nm,0.8s,baz=14,slow=10,SNR=2.8						
	1.0nm,0.8s						
H10N3	**ASCENSION HYDR**	39.67	124	T	T	15 24 25.1	
	baz=306,slow=75,SNR=22						
H10N2	**ASCENSION HYDR**	39.67	124	T	T	15 24 19.3	
	baz=306,slow=75,SNR=29						
H10N1	**ASCENSION HYDR**	39.69	124	T	T	15 24 25.5	
	baz=306,slow=75,SNR=33						
H10S3	**ASCENSION HYDR**	40.20	125	T	T	15 24 59.5	
	baz=276,slow=74,SNR=6.2						
H10S2	**ASCENSION HYDR**	40.22	125	T	T	15 24 55.3	
	baz=304,slow=74,SNR=12						
TORD	**Torodi Ar. Bea**	47.06	86	P	P	14 43 00.1	+1.5
	0.8nm,0.8s,baz=280,slow=9.5,SNR=3.8						
	0.8nm,0.8s						
ILAR	**Eielson Array**	80.19	335	P	P	14 46 36.6	-0.2
	0.6nm,0.8s,baz=72,slow=6.4,SNR=5.2						
	0.6nm,0.8s						
BOSA	**Boshof**	82.41	122	P	P	14 46 47.6	-1.7
	1.8nm,0.6s,baz=292,slow=5.4,SNR=4.7						
	1.8nm,0.6s						

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*JMA **03** 14:43:55.4±0.2, 43°.2N±0°.6×14°6E±°, h50^{km}±1^{km}, MV2.9/29, OFF NEMURO PENINSULA*

*SKHL **03** 14:43:56.5±0.0, 43°.20N×146°.40E, h37^{km}±8^{km}, mb3.9/2*

ISC 03 14:43:57.4±2.4**, 43°.30N**±0°.08×**146°.37E**±0°.07**, h33**^{km}±7^{km}**, n10, σ0^{s}.80**/20**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NEM2	**Nemuro 2**	0.46	279	P	Pn	14 44 07.3	-0.4
NEM2				S	Sn	14 44 16.0	+1.2
NMR	**Nemuro--Hokkai**	0.48	279	*e*P	Pn	14 44 07.3	-0.6
NMR				*e*S	Sb	14 44 14.9	+0.3
YUK	**Yuzh-Kuril'sk**	0.82	333	*e*P	Pn	14 44 10.5	-2.2
YUK				AMB	AMB	14 44 11.3	
	110nm,0.2s						
YUK				*e*S	Sn	14 44 24.3	+0.6
YUK				A	A	14 44 26.0	
	510nm,0.4s						
YUK				A	A	14 44 26.0	
	480nm,0.4s						
JKHN	**Kushirohamanak**	0.91	257	P	Pn	14 44 13.2	-0.6
JKHN				S	Sb	14 44 26.5	0.0
JNSB	**Nemuroshibetsu**	1.10	296	P	Pn	14 44 16.3	-0.2
JNSB				S	Sb	14 44 32.4	+0.4
JRA	**Rausu**	1.11	306	P	Pn	14 44 16.8	+0.2
JRA				S	Sb	14 44 32.2	0.0
JNK	**Nakash**	1.24	284	P	Pn	14 44 17.7	-0.7
JNK				S	Sn	14 44 34.5	+0.6
JAK	**Akkeshi**	1.26	257	P	Pn	14 44 17.8	-0.9
JAK				S	Sn	14 44 34.8	+0.3
KUR	**Kuril'sk**	2.21	28	*e*P	Pn	14 44 31.9	+0.2
KUR				*e*S	Sn	14 44 57.3	-0.6
KUR				A	A	14 45 05.1	
	20nm,0.3s						
KUR				A	A	14 45 05.1	
	20nm,0.3s						
REI	**Reidovoe**	2.29	30	*e*P	Pn	14 44 33.1	+0.2
REI				*e*S	Sn	14 45 00.7	+0.7

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*NEIC **03** 14:49:16.5±1.8, 16°.33S±0°.08×174°.0W±0°.1, h59^{km}±7^{km}, mb4.5/24, Error ellipse: s-maj=16.3km s-min=11.9km az=101.0*

*IDC **03** 14:49:17.1±3.1, 16°.30S×174°.03W, h67^{km}±27^{km}, mb3.8/9, mbtmp4.2/11, ML4.0/2, MS3.1/5, Error ellipse: s-maj=23.5km s-min=16.1km az=128.0*

ISC 03 14:49:14.8±0.5**, 16°.33S**±0°.07×**174°.03W**±0°.08**, h50^{km}, n50, σ1^{s}.61**/50**, mb4.4**/16**, MS3.2**/3**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	3.25	42	P	Pn	14 50 05.6	+2.3
	31nm,0.3s,baz=204,slow=3.2,SNR=110						
AFI				LR	LR	14 50 37.7	
	comp=Z,51nm,19.9s,baz=200,slow=25						
AFI				S	Sn	14 50 38.4	-2.4
	362nm,0.3s,baz=236,slow=20,SNR=3.6						
	93nm,0.4s						
AFI				AML	AML		
AFI	**Afiamalu**	3.25	42		Pn	14 50 05.3	+2.0
AFI				Sn	Sn	14 50 38.0	-2.8
NIUE	**Niue**	4.77	126		Pn	14 50 26.0	+1.8
RAR	**Rarotonga**	14.35	112	P	Pn	14 52 36.2	+1.0
	3.2nm,0.3s,baz=150,slow=2.4,SNR=3.1						
RAR				LR	LR	14 57 14.5	
	comp=Z,69nm,20.5s,baz=288,slow=33						
	44nm,0.9s						
RAR				AML	AML		
RAR	**Rarotonga**	14.35	112	Pn	Pn	14 52 33.4	-1.8
ONTNC	**Ouen Toro**	19.34	249	P	P	14 53 33.9	-2.3
ONTNC				IAmb	IAmb	14 53 57.1	
	comp=Z,37nm,0.9s						
KOUNC	**Koumac, New Ca**	20.99	255	P	P	14 53 55.3	+1.2
KOUNC				IAmb	IAmb	14 54 35.1	
	comp=Z,24nm,1.0s						
PPT	**Papeete**	23.43	97	LR	LR	15 02 45.8	
	comp=Z,64nm,18.3s,baz=193,slow=34						
RTZ	**Ruatahuna**	23.56	198	P	P	14 54 19.2	-1.7
MRZ	**Mangatainoka R**	25.87	198	P	P	14 54 44.7	+2.9
HNR	**Honiara**	26.25	282	LR	LR	15 02 58.5	
	comp=Z,72nm,21.1s,baz=234,slow=31						
QRZ	**Quartz Range**	27.04	203	P	P	14 54 48.4	-4.0
NNZ	**Nelson**	27.08	201	P	P	14 54 48.0	-4.7
CTA	**Charters Tower**	37.85	258	LR	LR	15 08 48.0	
	comp=Z,56nm,19.1s,baz=210,slow=31						
WRA	**Warramunga Arr**	49.04	258	P	P	14 57 57.2	-0.1
	comp=Z,0.3nm,0.5s,baz=96,slow=7.3,SNR=11						
	comp=Z,0.3nm,0.5s						
WRA	**Warramunga Arr**	49.04	258	P	P	14 57 57.0	-0.2
ASAR	**Alice Springs**	49.25	253	P	P	14 57 59.1	+0.3
	comp=Z,2.1nm,0.6s,baz=91,slow=7.6,SNR=55						
	comp=Z,2.1nm,0.6s						
ASAR	**Alice Springs**	49.25	253	P	P	14 57 58.9	+0.1
SBA	**Scott Base**	62.28	185		P	14 59 33.5	+2.2
SBA				IAmb	IAmb	14 59 34.3	
	comp=Z,6.8nm,1.2s						
VNDA	**Vanda**	62.40	186	P	P	14 59 33.9	+1.8
	comp=Z,1.7nm,0.8s,baz=7.7,slow=6.7,SNR=9.9						
	comp=Z,1.7nm,0.8s						
VNDA	**Vanda**	62.40	186	P	P	14 59 32.2	+0.2
VNDA				IAmb	IAmb	14 59 35.2	
	comp=Z,2.8nm,1.1s						
PETK	**Petropavlovsk-**	73.33	343	P	P	15 00 42.0	+1.1
	comp=Z,1.6nm,0.7s,baz=107,slow=9.1,SNR=6.0						
	comp=Z,1.6nm,0.7s						
PETK	**Petropavlovsk-**	73.33	343	P	P	15 00 41.9	+1.0
QSPA	**South Pole Qui**	73.72	180	P	P	15 00 43.7	+0.3
	comp=Z,3.1nm,0.9s,baz=20,slow=0.7,SNR=13						
	comp=Z,3.1nm,0.9s						
QSPA	**South Pole Qui**	73.72	180	P	P	15 00 43.4	0.0
QSPA				IAmb	IAmb	15 01 16.2	
	comp=Z,12nm,1.4s						
WAKR	**Walker**	74.74	42	P	P	15 00 48.5	-1.3
NVAR	**Mina Array Bea**	75.42	42	P	P	15 00 54.5	+0.7
	comp=Z,1.6nm,0.7s,baz=234,slow=8.9,SNR=7.6						
	comp=Z,1.6nm,0.7s						
GMN	**Gold Mountain**	75.47	44	P	P	15 00 53.6	-0.5
U15A	**North Rim**	78.38	46		P	15 01 10.8	+0.2
U15A				IAmb	IAmb	15 01 13.1	
	comp=Z,6.7nm,1.1s						
ELK	**Elko**	78.68	42		P	15 01 12.4	+0.3
DUN6	**Lazy B Ranch**	78.83	51	P	P	15 01 13.3	+0.4
121A	**Cookes Peak, D**	79.80	52	P	P	15 01 19.6	+1.4
121A				IAmb	IAmb	15 01 20.1	
	comp=Z,4.8nm,0.8s						
SRU	**San Rafael Swe**	80.93	45	P	P	15 01 24.0	-0.2
SRU				IAmb	IAmb	15 01 25.6	
	comp=Z,7.7nm,1.3s						
LENM	**Lemitar**	81.13	51	P	P	15 01 25.6	+0.2
MNTX	**Cornudas Mount**	81.27	53		P	15 01 26.4	+0.4
MNTX				IAmb	IAmb	15 01 27.4	
	comp=Z,5.0nm,0.9s						
TXAR	**Lajitas Array**	81.63	56	P	P	15 01 28.8	+0.8
	comp=Z,2.3nm,0.9s,baz=217,slow=6.1,SNR=14						
	comp=Z,2.3nm,0.9s						
TXAR	**Lajitas Array**	81.63	56		P	15 01 28.5	+0.4
J20K	**Nowinta River**	81.70	9		P	15 01 28.0	+0.5
J20K				IAmb	IAmb	15 01 29.9	
	comp=Z,12nm,1.4s						
ANMO	**Albuquerque**	81.86	50		P	15 01 29.5	+0.2
PDAR	**Pinedale Array**	83.36	42	P	P	15 01 36.8	-0.2
	comp=Z,3.5nm,0.9s,baz=208,slow=2.9,SNR=18						
	comp=Z,3.5nm,0.9s						
PDAR	**Pinedale Array**	83.36	42		P	15 01 36.4	-0.5
ILAR	**Eielson Array**	83.47	11	P	P	15 01 35.8	-0.9
	comp=Z,0.5nm,0.6s,baz=206,slow=5.1,SNR=11						
	comp=Z,0.5nm,0.6s						
ILAR	**Eielson Array**	83.47	11	P	P	15 01 35.9	-0.8
PRP	**Porcupine Dome**	84.40	12	P	P	15 01 41.0	-0.5
PRP				IAmb	IAmb	15 01 42.5	
	comp=Z,2.6nm,0.8s						
E19K	**Redstone River**	84.46	6	P	P	15 01 42.1	+0.5
CLL	**Collm**	144.65	352	*e*PKPdf	PKPab	15 08 44.0	-0.5
BRTR	**Keskin Array B**	146.48	320	PKPbc	PKPbc	15 08 52.1	+1.2
	comp=Z,0.9nm,0.5s,baz=75,slow=2.2,SNR=6.5						
GERES	**GERESS Array B**	146.96	351	PKPbc	PKPdf	15 08 52.2	+2.2
	comp=Z,0.6nm,0.3s,baz=36,slow=2.5,SNR=5.9						
KEST	**Kesra**	160.44	352	PKP	PKPdf	15 09 07.3	-2.2
	comp=Z,3.1nm,0.6s,baz=72,slow=2.5,SNR=4.6						
TORD	**Torodi Ar. Bea**	174.80	127	PKP	PKPdf	15 09 17.8	-2.3
	comp=Z,0.6nm,0.9s,baz=218,slow=2.9,SNR=3.9						
TORD				PKPab	PKPab	15 10 53.9	-0.5
	comp=Z,1.0nm,0.8s,baz=272,slow=3.0,SNR=4.9						

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*ISK **03** 15:07:33.7, 38°.18N×23°.90E, h5^{km}, ML4.2/30*

*AFAD **03** 15:07:34.0, 38°.02N×23°.92E, h15^{km}, MW4.0*

*IDC **03** 15:07:35.7±0.7, 38°.10N×23°.97E, h0^{km}, mb3.9/10, mbtmp4.0/20, ML3.6/9, MS3.4/21, Error ellipse: s-maj=13.3km s-min=9.8km az=51.0*

*MED_RC **03** 15:07:35.0, 38°.18N×23°.99E, h12^{km}, Mw4.3, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}-0.86±.19; $M_{\theta\theta}$2.13±.19; $M_{\phi\phi}$0.00±.18; $M_{r\theta}$0.79±.41; $M_{\theta\phi}$-2.33±.18; $M_{\phi r}$1.37±.42; Fault plane solution: $M_0$3.37000×10^{15} NP1:ϕ_s157.00000°, δ67.00000°, λ-23.00000°. NP2:ϕ_s257.00000°, δ69.00000°, λ-156.00000°. Principal axes: T 3.3200, Plg1.0000°, Azm27.0000°; N 0.1100, Plg58.0000°, Azm294.0000°; P -3.4300, Plg32.0000°, Azm117.0000°;*

*ATH **03** 15:07:35.8, 38°.17N×23°.99E, h4^{km}, Mw4.1, Moment Tensor Solution. s10 Moment tensor: M_{rr}-0.28; $M_{\theta\theta}$0.59; $M_{\phi\phi}$-0.31; $M_{r\theta}$1.22; $M_{\theta\phi}$-0.88; $M_{\phi r}$0.15; Fault plane solution: NP1:ϕ_s263.00000°, δ84.00000°, λ-127.00000°. NP2:ϕ_s165.00000°, δ38.00000°, λ-10.00000°.*

*NEIC **03** 15:07:36.7±1.0, 38°.20N±0°.04×23°.98E±0°.05, h10^{km}±1^{km}, mb4.3/23 Error ellipse: s-maj=7.0km s-min=6.8km az=94.0*

*THE **03** 15:07:36.6, 38°.1N±0°.5×23°.9E±0°.5, h1^{km}, M4.1/32, MLh4.1/32*

*PDG **03** 15:07:36.0±1.8, 38°.14N×23°.98E, h0^{km}±11^{km}, ML4.3/10, Error ellipse: s-maj=1.6km s-min=2.0km az=0.0*

*GFZ **03** 15:07:38.7±0.2, 38°N±2°×2°4E±°, h10^{km}, M4.2/22, mb4.3/22*

ISC 03 15:07:35.9±0.8**, 38°.16N**±0°.02×**23°.97E**±0°.01**, h7**^{km}±5^{km}**, n361, σ1^{s}.08**/415**, mb4.3**/16**, MS3.4**/16**, 11C-10D, Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DION	**Dionisos Attik**	0.09	201	P	Pg	15 07 38.1	+0.2
DION				S	Sg	15 07 39.3	-0.1
DION				AML	AML		
DION	**Dionisos Attik**	0.09	201	P	Pg	15 07 38.2	+0.2
DION				S	Sg	15 07 39.5	+0.1
DION				AML	AML		
PTL	**Penteli**	0.14	218	P	Pg	15 07 39.0	+0.2
PTL				S	Sg	15 07 40.9	+0.1
PTL				AML	AML		
PTL	**Penteli**	0.14	218	P	Pg	15 07 38.9	0.0
PTL				S	Sg	15 07 40.7	-0.2
PTL				AML	AML		
ACHAR	**Athens-Acharne**	0.20	246	P	Pg	15 07 40.1	+0.2
ACHAR				S	Sg	15 07 43.0	+0.3
ACHAR				AML	AML		
ATHP	**Athens-Neo Psi**	0.22	225	P	Pg	15 07 40.4	+0.1
ATHP				S	Sg	15 07 43.1	-0.2
ATHP				AML	AML		
ATHU	**Athens Univers**	0.24	218	P	Pg	15 07 40.7	0.0
ATHU				S	Sg	15 07 43.2	-0.7
ATHU				AML	AML		
ATHU	**Athens Univers**	0.24	218	P	Pg	15 07 40.8	0.0
ATHU				S	Sg	15 07 43.7	-0.2
ATH5	**Athens Parliam**	0.26	226	P	Pg	15 07 40.3	-0.7
ATH5				S	Sg	15 07 43.9	-0.5
NOAC	**Athens-Thissio**	0.27	228	P	Pg	15 07 41.5	+0.2
NOAC				S	Sg	15 07 45.4	+0.5
NOAC				AML	AML		
ATH	**Athens Observa**	0.27	228	P	Pg	15 07 41.5	+0.2
ATH				S	Sg	15 07 45.1	+0.2
ATH				AML	AML		
ATH	**Athens Observa**	0.27	228	P	Pg	15 07 41.5	+0.2
ATH				S	Sg	15 07 45.5	+0.6
ATH				AML	AML		
VLY	**Voula,Athens**	0.34	205	P	Pg	15 07 42.6	+0.1
VLY				S	Sg	15 07 46.5	-0.4
VLY				AML	AML		
VLY	**Voula,Athens**	0.34	205	P	Pg	15 07 42.4	0.0
VLY				S	Sg	15 07 47.1	+0.2
VLY				AML	AML		
STFN	**Stefani**	0.34	273	P	Pg	15 07 42.8	+0.3
STFN				S	Sg	15 07 47.4	+0.3
STFN				AML	AML		
STFN	**Stefani**	0.34	273	P	Pg	15 07 42.7	+0.2
STFN				S	Sg	15 07 47.3	+0.3
STFN				AML	AML		
ELFA	**Athens-Elefsin**	0.36	252	P	Pg	15 07 43.1	+0.2
ELFA				S	Sg	15 07 48.1	+0.5
ELFA				AML	AML		
KARY	**Karystos**	0.39	109	P	Pb	15 07 44.4	-0.7
KARY				S	Sb	15 07 50.8	-0.4
KARY				AML	AML		
KARY	**Karystos**	0.39	109	P	Pg	15 07 44.1	+0.6
KARY				S	Sg	15 07 49.1	+0.6
LVRA	**Laurium**	0.45	172	P	Pg	15 07 45.1	+0.6
LVRA				S	Sg	15 07 50.5	0.0
LVRA				AML	AML		
KYMI	**Kymi, Euboea I**	0.48	12	P	Pb	15 07 46.4	-0.4
KYMI				S	Sb	15 07 54.2	+0.1
KYMI				AML	AML		
KYMI	**Kymi, Euboea I**	0.48	12	P	Pb	15 07 46.0	-0.7
VILL	**Villia**	0.52	271	P	Pg	15 07 46.1	+0.1
VILL				S	Sg	15 07 53.1	+0.3
VILL				AML	AML		
VIL2	**Platees**	0.56	276	P	Pg	15 07 45.9	-0.7
VIL2				S	Sg	15 07 53.6	-0.4
VIL2				AML	AML		
MET4	**Agioi Theodoro**	0.70	221	P	Pg	15 07 49.6	+0.3
MET4				S	Sb	15 07 59.7	-0.5
MET4				AML	AML		
MET1	**Methana Town,**	0.74	219	P	Pg	15 07 50.2	0.0
MET1				S	Sb	15 08 00.9	-0.5
MET1				AML	AML		
MET2	**Kameni Chora,**	0.74	223	P	Pg	15 07 50.4	+0.2
MET2				S	Sb	15 08 01.2	-0.4
MET2				AML	AML		
MET6	**Megalochori,Me**	0.75	221	P	Pg	15 07 50.3	+0.1
MET6				S	Sg	15 08 00.5	+0.6
MET6				AML	AML		
LTK	**Loutraki**	0.81	261	P	Pg	15 07 51.3	0.0
LTK				S	Sg	15 08 02.2	+0.4
LTK				AML	AML		
LTK	**Loutraki**	0.81	261	P	Pg	15 07 51.3	0.0
LTK				S	Sg	15 08 02.2	+0.4
LTK				AML	AML		
LOUT	**Loutraki**	0.81	258	P	Pg	15 07 51.1	-0.3
LOUT				S	Sb	15 08 02.7	-0.6
LOUT				AML	AML		
YDRA	**Hydra**	0.90	207	P	Pg	15 07 52.9	-0.3
YDRA				S	Sb	15 08 06.2	+0.2
YDRA				AML	AML		
LKR	**Lokris**	0.91	303	P	Pg	15 07 52.7	-0.6
LKR				S	Sb	15 08 06.0	-0.3
LKR				AML	AML		
LKR	**Lokris**	0.91	303	P	Pg	15 07 52.4	-1.0
LKR				S	Sb	15 08 06.2	-0.1
ATAL	**Atalanti**	0.92	306	P	Pg	15 07 52.9	-0.6
ATAL				S	Sb	15 08 06.5	-0.1
ATAL				AML	AML		
ATAL	**Atalanti**	0.92	306	P	Pg	15 07 53.1	-0.4
ATAL				S	Sg	15 08 05.8	+0.4
KIAA	**Kiato**	0.98	262	P	Pb	15 07 55.3	+0.2
KIAA				S	Sb	15 08 08.7	+0.5
AOS2	**Alonissos-2**	0.99	354	P	Pg	15 07 54.5	-0.5
AOS2				S	Sb	15 08 08.6	-0.1
AOS2				AML	AML		
AOS	**Alonnisos**	1.01	356	P	Pg	15 07 55.3	-0.1
AOS				S	Sb	15 08 08.8	-0.5
AOS				AML	AML		
THAL	**Thalero**	1.04	264	P	Pb	15 07 56.3	+0.1
THAL				S	Sb	15 08 10.0	0.0
THAL				AML	AML		
THAL	**Thalero**	1.04	264	P	Pg	15 07 55.8	-0.1
THAL				S	Sb	15 08 10.2	+0.1
ARS1	**Argos**	1.11	242	P	Pn	15 07 57.8	-0.1
TNSA	**Tinos**	1.13	123	P	Pg	15 07 57.6	+0.1
TNSA				S	Sb	15 08 12.8	+0.3
TNSA				AML	AML		
AXAR	**Agios Charalam**	1.20	301	P	Pg	15 07 58.2	-0.7
AXAR				S	Sn	15 08 16.0	+0.4
AXAR				AML	AML		
AXAR	**Agios Charalam**	1.20	301	P	Pg	15 07 58.1	-0.8
DLFA	**Delphi**	1.21	286	P	Pg	15 07 58.7	-0.3
DLFA				S	Sb	15 08 15.1	+0.2
DLFA				AML	AML		
NEO	**Neokhori**	1.29	333	P	Pg	15 08 00.6	0.0
NEO				S	Sb	15 08 17.5	+0.2
NEO				AML	AML		
NEO	**Neokhori**	1.29	333	P	Pg	15 08 00.6	0.0
NEO				AML	AML		
GUR	**Goura**	1.31	261	P	Pn	15 08 00.4	-0.3
GUR				S	Sb	15 08 17.6	-0.2
GUR				AML	AML		
GUR	**Goura**	1.31	261	P	Pn	15 08 00.2	-0.5
XOR	**Xorichti**	1.35	333	P	Pb	15 08 01.4	-0.1
XOR				S	Sb	15 08 18.9	-0.2
XOR	**Xorichti**	1.35	333	P	Pn	15 08 01.1	-0.1
LAM2	**Lamia**	1.42	302	P	Pg	15 08 03.1	0.0
LAM2				AML	AML		
KLV	**Kalavryta, Ach**	1.44	266	P	Pn	15 08 02.3	-0.2
KLV				S	Sb	15 08 21.4	-0.3
KLV				AML	AML		
KLV	**Kalavryta, Ach**	1.44	266	P	Pn	15 08 02.5	0.0
KLV				AML	AML		
MILOS	**Milos**	1.46	165	P	Pn	15 08 02.3	-0.3
KALE	**Kalithea**	1.46	280	P	Pn	15 08 03.1	+0.4
KALE				S	Sg	15 08 23.2	+0.3

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KALE                                AML   AML
KALE  Kalithea           1.46 280   P     Pn    15 08 03.0 +0.2
KALE                                AML   AML
KLV1  Kalavrita          1.48 266   P     Pb    15 08 03.7  0.0
KLV1                                AML   AML
VLX   Vlachokerasia      1.49 239   P     Pn    15 08 03.4 +0.3
VLX                                 S     Sn    15 08 22.0 -0.8
VLX                                 AML   AML
MHLO  Agia Marina, M     1.50 167   P     Pb    15 08 03.9 -0.2
MHLO                                AML   AML
MHLO  Agia Marina, M     1.50 167   P     Pn    15 08 03.8 +0.5
AGEO  AgiosGiorgios,     1.51 275   P     Pb    15 08 03.8 -0.3
AIOA  Agios Ioannis,     1.51 272   P     Pn    15 08 03.5 +0.2
SERG  Sergoula           1.53 280   S     Sb    15 08 24.5 +0.3
SERG                                AML   AML
SERG  Sergoula           1.53 280   P     Pn    15 08 03.9 +0.3
SERG                                AML   AML
NAX1  Naxos Island       1.53 133   P     Pn    15 08 04.0 +0.4
NAX1                                AML   AML
AGG   Agios Georgios     1.55 304   P     Pb    15 08 04.5 -0.4
AGG                                 AML   AML
AGG   Agios Georgios     1.55 304   P     Pn    15 08 04.0 +0.1
AGG                                 AML   AML
AGG   Agios Georgios     1.55 304   P     Pb    15 08 04.7 -0.2
      comp=Z,2µm,0.7s
PYRG  Pyrgos, Dorida     1.56 280   P     Pn    15 08 04.3 +0.2
PYRG                                AML   AML
LAKA  Lakka              1.57 274   P     Pb    15 08 05.0 -0.4
LAKA                                AML   AML
LAKA  Lakka              1.57 274   P     Pn    15 08 04.7 +0.4
EFSA  Agios Efstrati     1.59  30   P     Pn    15 08 04.5  0.0
EFSA                                AML   AML
MG00  Magoula, Dorid     1.61 280   P     Pb    15 08 05.5 -0.5
MG00                                AML   AML
MNVA  Monemvasia         1.65 207   P     Pn    15 08 05.4 +0.2
MNVA                                AML   AML
EFP   Efpalio            1.65 280   P     Pb    15 08 06.1 -0.4
EFP                                 AML   AML
EFP   Efpalio            1.65 280   P     Pn    15 08 05.6 +0.3
EFP                                 AML   AML
CHOS  Chios island       1.66  81   P     Pn    15 08 06.0 +0.6
CHOS                                AML   AML
CHOS  Chios island       1.66  81   Pn    Pn    15 08 05.5 +0.1
CHOS                                Sn    Sg    15 08 29.3 +0.2
CHOS                                AML   AML
CHOS  Chios island       1.66  81   P     Pn    15 08 05.7 +0.3
CHOS                                AML   AML
CHOS  Chios island       1.66  81   P     Pb    15 08 06.2 -0.6
VLI   Veliai             1.66 210   P     Pn    15 08 05.3 -0.1
VLI                                 AML   AML
VLI   Veliai             1.66 210   P     Pn    15 08 05.1 -0.2
VLI                                 AML   AML
ANX   Ano Chora          1.67 286   P     Pn    15 08 06.4 +0.7
ANX                                 AML   AML
ANX   Ano Chora          1.67 286   P     Pn    15 08 06.3 +0.7
VVK   Vomvokou           1.72 279   P     Pn    15 08 06.9 +0.6
VVK                                 AML   AML
RIOA  Rio                1.72 275   P     Pb    15 08 07.5 -0.4
RIOA                                AML   AML
PAIG  Paliouri           1.78 353   P     Pn    15 08 07.3 +0.2
PAIG                                AML   AML
PAIG  Paliouri           1.78 353   P     Pn    15 08 07.4 +0.3
      comp=Z,213nm,1.1s
AGRP  Agrapidokambos     1.79 278   P     Pn    15 08 07.8 +0.6
AGRP                                AML   AML
NPS1  Neapolis Lacon     1.79 204   P     Pn    15 08 07.6 +0.3
DRO   Drossia            1.80 264   P     Pn    15 08 08.0 +0.7
DRO                                 AML   AML
CESE  eme                1.84  84   Pn    Pn    15 08 08.8 +0.9
CESE                                Sn    Sg    15 08 34.7 -0.3
CESE                                AML   AML
EVR   Evrytania          1.86 295   P     Pb    15 08 09.5 -0.8
EVR                                 AML   AML
EVR   Evrytania          1.86 295   P     Pn    15 08 09.2 +1.0
EVR                                 AML   AML
VALY  Valyra             1.86 238   P     Pn    15 08 09.2 +1.0
VALY                                AML   AML
VALY  Valyra             1.86 238   P     Pn    15 08 09.0 +0.8
VALY                                AML   AML
ITM   Ithomi             1.89 240   P     Pn    15 08 09.6 +1.0
ITM   Ithomi             1.89 240   Pn    Pn    15 08 08.4 -0.3
ITM                                 AML   AML
ITM   Ithomi             1.89 240         Pn    15 08 09.5 +0.9
ITM                                 Sn    Sn    15 08 33.5 +0.7
ITM   Ithomi             1.89 240   P     Pn    15 08 09.3 +0.7
ITM                                 AML   AML
ITM   Ithomi             1.89 240   P     Pn    15 08 09.7 +1.0
      comp=Z,1µm,1.2s
AMT   Artemida-Makis     1.90 251   P     Pn    15 08 09.1 +0.4
AMT                                 AML   AML
LIA   Limnos Island      1.98  28   P     Pn    15 08 09.3 -0.4
PVO   Paravola           1.98 284   P     Pn    15 08 10.9 +1.2
PVO                                 AML   AML
RLS   Riolos of Patr     1.98 268   P     Pn    15 08 10.5 +0.7
RLS                                 AML   AML
KTHA  Kythira Island     2.03 201   Pn    Pn    15 08 10.3 -0.2
KTHA                                AML   AML
KTHA  Kythira Island     2.03 201   P     Pn    15 08 10.4 -0.1
KTHA                                AML   AML
KTHA  Kythira Island     2.03 201   P     Pn    15 08 10.9 +0.4
PLEV  Plevrona-Mesol     2.04 278   P     Pn    15 08 10.8 +0.2
PLEV                                AML   AML
SAP3  Santorini-Thir     2.04 147   P     Pn    15 08 11.1 +0.5
AXS   Araxos             2.05 272   P     Pn    15 08 11.3 +0.6
THR5  Thira Island,      2.05 147   P     Pn    15 08 11.1 +0.3
THR2  Thira island,      2.07 145   P     Pn    15 08 11.4 +0.4
KRBN  Karaburun          2.08  77   Pn    Pn    15 08 11.8 +0.7
KRBN  Karaburun          2.08  77   P     Pb    15 08 14.0 +0.2
URLA  Izmir              2.08  84   Pn    Pn    15 08 11.9 +0.8
URLA                                AML   AML
URLA  Izmir              2.08  84   P     Pn    15 08 11.3 +0.1
THL   Klokotos Trika     2.08 313   P     Pn    15 08 11.6 +0.5
SNT5  Nea Kammeni, S     2.09 147   P     Pn    15 08 11.6 +0.3
PRK   Paraskevi          2.10  58   P     Pn    15 08 11.2 -0.3
PRK                                 AML   AML
THR9  Santorini-Faro     2.11 148   P     Pn    15 08 12.0 +0.5
THR8  Santorini-Mono     2.12 145   P     Pn    15 08 12.4 +0.6
THR6  Thira Island,      2.13 147   P     Pn    15 08 12.8 +1.0
THERA Ancient Thera,     2.15 146   P     Pn    15 08 12.4 +0.2
THERA                               AML   AML
THERA Ancient Thera,     2.15 146   P     Pn    15 08 12.8 +0.6
OUR   Ouranopolis        2.17   0   Pn    Pn    15 08 11.9 -0.5
OUR                                 AML   AML
OUR   Ouranopolis        2.17   0   P     Pn    15 08 12.0 -0.5
OUR                                 AML   AML
KRL1  Karlovasi Samo     2.19  99   P     Pn    15 08 12.9 +0.2
KRL1                                AML   AML
PYL1  Pylos              2.19 236   P     Pn    15 08 13.4 +0.6
PYL1                                AML   AML
FOCM  Foa                2.24  75   Pn    Pn    15 08 14.3 +1.0
PDO   Prodromos          2.24 282   P     Pn    15 08 13.9 +0.6
PDO                                 AML   AML
PLG   Polygyros          2.25 350   P     Pn    15 08 13.6  0.0
PLG                                 AML   AML
LIT   Litokhoron         2.26 330         Pn    15 08 14.1 +0.4
LIT                                 Sn    Sn    15 08 40.5 -1.2
LIT   Litokhoron         2.26 330   P     Pn    15 08 13.7 +0.1
LIT   Litokhoron         2.26 330   P     Pn    15 08 14.2 +0.6
AMPL  Ampelaki           2.29 290   P     Pn    15 08 14.9 +0.7
AMPL                                AML   AML
ANKY  Antikythira Is     2.35 193   P     Pn    15 08 14.9  0.0
ANKY                                AML   AML
TETR  Tetrakomo, Epi     2.42 300   P     Pn    15 08 16.5 +0.6
TETR                                AML   AML
BLCB  Balcova            2.43  84   Pn    Pn    15 08 16.9 +1.0
DKL   Dikili             2.47  67   Pn    Pn    15 08 17.7 +1.1
DKL                                 AML   AML
EZN   Ezine              2.48  47   Pn    Pn    15 08 17.4 +0.8
EZN                                 AML   AML
GOAD  anakkale-G¶        2.50  36   P     Pn    15 08 17.3 +0.2
GADA  Gvkgeada           2.52  36   Pn    Pn    15 08 17.8 +0.5
GADA                                AML   AML
HORT  Hortiatis          2.53 345   P     Pn    15 08 19.1 +1.7
THE   Thessaloniki       2.59 343   P     Pn    15 08 19.7 +1.5
GCAM  G?zelcaml?         2.62  99   Pn    Pn    15 08 19.1 +0.5
GCAM                                AML   AML
GCAM  G?zelcaml?         2.62  99   P     Pn    15 08 18.4 -0.2
LKD2  Lefkada island     2.68 285   P     Pb    15 08 25.2 +1.0
DDIM  Aydin, Didim       2.68 104   P     Pn    15 08 19.4  0.0
IMMV  Iera Moni Meta     2.69 180   Pn    Pn    15 08 19.9 +0.3
IMMV                                AML   AML
IMMV  Iera Moni Meta     2.69 180   P     Pb    15 08 23.1 -1.2
SOH   Sokhos             2.70 350   P     Pn    15 08 20.9 +1.1
DUVT  Torbali            2.74  88   P     Pn    15 08 21.1 +0.8
COMU  Canakkale          2.75  44   Pn    Pn    15 08 21.2 +0.8
COMU                                AML   AML
BODT  Bodrum             2.87 111   Pn    Pn    15 08 23.4 +1.4
BODT                                AML   AML
BODT  Bodrum             2.87 111   P     Pn    15 08 21.6 -0.4
IDI   Anoyia             2.96 165   Pn    Pn    15 08 24.8 +1.4
      comp=Z,50nm,0.4s,baz=323,slow=12,SNR=48
IDI                                 Sn    Sn    15 08 58.2 -0.9
      comp=Z,32nm,0.3s,baz=271,slow=11,SNR=9.0
IDI   Anoyia             2.96 165   Pn    Pn    15 08 24.2 +0.9
IDI                                 AML   AML
IDI   Anoyia             2.96 165         Pn    15 08 24.0 +0.7
IDI                                 Sn    Sn    15 08 58.0 -1.1
GELI  Tayfur-Gelibol     2.96  40   Pn    Pn    15 08 23.3  0.0
GELI                                AML   AML
BDRM  Kayabasi           2.96 111  ⇓P     Pn    15 08 24.4 +1.0
GRG   Griva              3.05 337   P     Pn    15 08 26.3 +1.7
CAVK  Edirne/Enez-Ca     3.05  33  ⇓P     Pb    15 08 30.3 -0.2
ENEZ  Enez               3.08  33   Pn    Pn    15 08 25.8 +0.9
ENEZ                                AML   AML
KNT   Kendrikon          3.11 345   P     Pb    15 08 30.4 -1.2
AYDN  Tasoluk            3.13  98   P     Pn    15 08 27.2 +1.6
MLSB  Milas              3.14 105   Pn    Pn    15 08 26.8 +1.1
MLSB                                AML   AML
MLSB  Milas              3.14 105   P     Pn    15 08 26.5 +0.8
ALN   Alexandroupoli     3.17  30   Pn    Pn    15 08 24.9 -1.3
ALN                                 AML   AML
ALN   Alexandroupoli     3.17  30         Pn    15 08 25.8 -0.4
ALN   Alexandroupoli     3.17  30   P     Pn    15 08 26.4 +0.2
STEP  BALIKESIR_Sava     3.17  66   P     Pn    15 08 28.1 +1.9
ERIK  Erikli-Kesan       3.19  37   Pn    Pn    15 08 27.7 +1.3
ERIK                                AML   AML
DAT   Datca              3.20 115   Pn    Pn    15 08 28.1 +1.4
DAT                                 AML   AML
ODEM  Odemis-Izmir       3.23  87   Pn    Pn    15 08 28.5 +1.4
ODEM                                AML   AML
KTTT  Salihli            3.28  79   P     Pg    15 08 39.0 +0.3
GVD   Gavdhos            3.31 178   Pn    Pn    15 08 28.8 +0.7
GVD                                 AML   AML
GVD   Gavdhos            3.31 178   P     Pb    15 08 31.8 -3.1
GORD  Gordes-Manisa      3.38  76   Pn    Pn    15 08 30.6 +1.5
GORD                                AML   AML
BALB  Balikesir          3.39  63         Pn    15 08 29.2 +0.1
KBN   Korca              3.49 316   P     Pn    15 08 32.5 +1.9
KBN   Korca              3.49 316   P     Pb    15 08 35.6 -2.3
ZKR   Zakros             3.53 149   Pn    Pn    15 08 32.4 +1.2
ZKR                                 AML   AML
ZKR   Zakros             3.53 149   P     Pb    15 08 35.8 -2.9
SRN   Sarande            3.54 300   P     Pn    15 08 35.0 +3.8
KEK   Kerkira            3.61 297         Pn    15 08 32.4 +0.2
KEK                                 Sn    Sn    15 09 13.8 -1.2
KEK   Kerkira            3.61 297   P     Pn    15 08 33.2 +1.0
MANT  Manisa             3.62  83         Pn    15 08 32.7 +0.2
KDZ   Kurdzhali          3.62  16   Pn    Pn    15 08 32.2 -0.2
KDZ                                 AML   AML
KARP  Karpathos          3.65 135   Pn    Pn    15 08 33.7 +0.9
KARP                                AML   AML
KARP  Karpathos          3.65 135         Pn    15 08 34.1 +1.2
KARP  Karpathos          3.65 135   P     Pn    15 08 34.4 +1.6
GAZK  Gazikoy-TEKIRD     3.67  44   Pn    Pn    15 08 34.1 +1.1
GAZK                                AML   AML
TURN  Turunc             3.67 111   Pn    Pn    15 08 34.2 +1.2
TURN                                AML   AML
TURN  Turunc             3.67 111   P     Pn    15 08 32.5 -0.5
EDC   Edincik            3.73  53   P     Pn    15 08 32.5 -1.3
ARG   Arkhangelos        3.84 119   Pn    Pn    15 08 36.9 +1.5
ARG                                 AML   AML
ARG   Arkhangelos        3.84 119         Pn    15 08 35.9 +0.5
DALY  Dalyan (Mula)      3.96 108   Pn    Pn    15 08 38.8 +1.8
DALY                                AML   AML
TAVA  DENIZLI_Tavas      3.97  98  ⇑P     Pn    15 08 39.5 +2.2
PASA  Karahalli, USA     4.34  86   P     Pn    15 08 42.8 +0.4
PHP   Peshkopia          4.45 323   P     Pn    15 08 46.7 +2.9
AKAS  Kas                4.89 111         Pn    15 08 50.0  0.0
AKAS                                Sn    Sn    15 09 49.3 +2.5
AKAS  Kas                4.89 111   P     Pn    15 08 55.8 +5.8
ELL   Elmali             4.93 105   Pn    Pn    15 08 50.5 +0.1
ISP   Isparta            5.18  92   Pn    Pn    15 08 56.3 +2.3
BORA  Eskisehir          5.33  69   Pn    Pn    15 08 55.3 -0.7
DRME  Dracevica, Mon     5.44 319 ⇓iPn    Pn    15 08 57.6 +0.2
DRME                                i Sn  Sn    15 10 01.2 +0.9
DRME                                AML   AML
PDG   Podgorica          5.59 321         Pn    15 09 00.1 +0.7
PDG   Podgorica          5.59 321   P     Pn    15 09 02.3 +2.9
      comp=Z,85nm,0.8s
PDG   Podgorica          5.59 321 ⇓iPn    Pn    15 08 59.8 +0.4
PDG                                 i Sn  Sn    15 10 04.3 +0.5
PDG                                 AML   AML
IVA   Berane             5.64 328 ⇓iPn    Pn    15 09 00.4 +0.2
IVA                                 i Sn  Sn    15 10 05.3  0.0
IVA                                 AML   AML
BUM   Brajici-Budva      5.68 318 ⇑iPn    Pn    15 09 02.2 +1.5
BUM                                 i Sn  Sn    15 10 05.8 -0.3
BUM                                 AML   AML
BOVS  Bovan              5.74 343  ⇑P     Pn    15 08 50.1  -11
TIP   Timpagrande        5.74 282   Pn    Pn    15 09 01.0 -0.5
TIP   Timpagrande        5.74 282   P     Pn    15 09 04.6 +3.0
      comp=Z,88nm,0.6s
KOME  Kolasin            5.79 325 ⇑iPn    Pn    15 09 02.3 +0.1
KOME                                i Sn  Sn    15 10 09.4 +0.5
KOME                                AML   AML
CEME  Cevo               5.84 320 ⇑iPn    Pn    15 09 03.8 +0.9
CEME                                i Sn  Sn    15 10 10.0 -0.2
CEME                                AML   AML
NKME  Niksic             5.99 322 ⇓iPn    Pn    15 09 05.1 +0.2
NKME                                i Sn  Sn    15 10 12.8 -0.9
NKME                                AML   AML
HCY   Herceg Novi        5.99 317 ⇓iPn    Pn    15 09 05.4 +0.5
HCY                                 i Sn  Sn    15 10 13.1 -0.7
HCY                                 AML   AML
MDUB  Mudurnu            6.06  65   Pn    Pn    15 09 05.6 -0.4
MATE  Matera             6.15 296   P     Pn    15 09 09.3 +2.1
      comp=Z,49nm,1.0s
KEPZ  Antalya-Kepez      6.19  99  ⇑P     Pn    15 09 11.3 +3.5
BRY   Bratogost          6.29 321 ⇓iPn    Pn    15 09 09.9 +0.7
BRY                                 i Sn  Sn    15 10 20.6 -0.8
BRY                                 AML   AML
UPM   Unac-Piva          6.34 324 ⇑iPn    Pn    15 09 10.7 +0.8
UPM                                 i Sn  Sn    15 10 21.9 -0.8
UPM                                 AML   AML
CEL   Celeste            6.36 273   Pn    Pn    15 09 10.0 -0.1
CUC   Castrocucco        6.61 289   Pn    Pn    15 09 12.7 -0.7
CUC   Castrocucco        6.61 289   P     Pn    15 09 16.4 +3.0
      comp=Z,74nm,0.9s
MARCO Tramutola          6.69 291   P     Pn    15 09 17.9 +3.2
      comp=Z,129nm,1.2s
MDVR  Moldovita          6.83 346  ⇑P     Pn    15 09 04.7  -12
KKUL  Konya-Kulu         7.07  79   P     Pn    15 09 25.8 +5.9
      comp=Z,19nm,1.0s
TIRR  Tirgusor           7.13  27   Pn    Pn    15 09 19.4 -1.1
TIRR  Tirgusor           7.13  27   P     Pn    15 09 22.8 +2.3
      comp=Z,9.4nm,0.8s
ARR   Arges              7.22   4   P     Pn    15 09 22.8 +0.9
      comp=Z,17nm,0.9s
LOT   Lotru              7.29 359   P     Pn    15 09 23.9 +1.1
      comp=Z,22nm,0.8s
VOIR                     7.32   6  ⇑P     Pn    15 09 22.5 -0.7
VOIR                     7.32   6   P     Pn    15 09 24.3 +1.0
      comp=Z,15nm,0.9s
MLR   Muntele Rosu       7.47  11   Pn    Pn    15 09 26.8 +1.4
      comp=Z,0.7nm,0.3s,baz=217,slow=6.1,SNR=12
MLR                                 Sn    Sn    15 10 49.3 -1.2
      comp=Z,0.6nm,0.3s,baz=275,slow=24,SNR=1.1
MLR                                 LR    LR    15 12 52.4
      comp=Z,332nm,19.6s,baz=186,slow=42
      comp=Z,11nm,1.0s
MLR                                 AML   AML
MLR   Muntele Rosu       7.47  11         Pn    15 09 24.5 -0.9
MLR   Muntele Rosu       7.47  11  ⇑P     Pn    15 09 24.9 -0.5
MLR   Muntele Rosu       7.47  11   P     Pn    15 09 27.2 +1.8
      comp=Z,17nm,0.7s
BZS   Buzias             7.66 347   P     Pn    15 09 29.2 +1.4
      comp=Z,7.2nm,0.8s
RAFF  Raffo Rosso        7.68 266   Pn    Pn    15 09 28.5 +0.4
BR131 Keskin Array S     7.70  75         Pn    15 09 28.0 -0.5
BRTR  Keskin Array B     7.70  75   Pn    Pn    15 09 31.6 +3.2
      comp=Z,0.2nm,0.3s,baz=255,slow=13,SNR=15
      comp=Z,3.2nm,0.7s
BRTR                                AML   AML
BRTR  Keskin Array B     7.70  75   Pn    Pn    15 09 28.4 -0.1
PAOL  Paolisi            7.81 294         Pn    15 09 29.8 -0.2
WDD   Wied Dalam         7.91 256   Pn    Pn    15 09 30.8 -0.4
VRI   Vrincioaia         7.97  14  ⇑P     Pn    15 09 34.4 +2.4
VRI   Vrincioaia         7.97  14   P     Pn    15 09 34.5 +2.4
      comp=Z,18nm,1.1s
ILGA  Ilgaz              8.06  66   Pn    Pn    15 09 32.6 -1.0
CSS   Mathiatis          8.18 110   Pn    Pn    15 09 35.3 +0.3
CSS   Mathiatis          8.18 110   P     Pn    15 09 37.1 +2.1
      comp=Z,12nm,1.1s
BLY   Banja Luka         8.32 324         Pn    15 09 36.5 -0.4
BLY   Banja Luka         8.32 324   P     Pn    15 09 39.3 +2.3
      comp=Z,31nm,1.1s
TESR  Tescani            8.58  12   P     Pn    15 09 44.0 +3.5
      comp=Z,12nm,0.9s
INTR  Introdacqua        8.62 300         Pn    15 09 40.7 -0.4
MORH  Mrgy, Hungar       8.97 336   P     Pn    15 09 49.2 +3.4
      comp=Z,6.5nm,1.2s
AQU   L'Aquila           9.10 301   Pn    Pn    15 09 47.2 -0.4
AQU   L'Aquila           9.10 301   P     Pn    15 09 50.9 +3.2
      comp=Z,32nm,1.1s
CY604 RAF Akrotiri,      9.32 111   Pn    Pn    15 09 51.3 +0.8
BNN   Bunyan             9.34  82   Pn    Pn    15 09 50.8 -0.2
GUMA  Gualdo di Mace     9.46 305   Pn    Pn    15 09 52.6 +0.1
BURAR Bucovina Array     9.50   5   Pn    Pn    15 09 53.0 -0.1
NRCA  Norcia             9.50 303         Pn    15 09 53.8 +0.7
BUR08 Bucovina Ar. S     9.52   5         Pn    15 09 54.0 +0.5
FDMO  Fiordimonte        9.60 304         Pn    15 09 54.6  0.0
MURB  Monte Urbino      10.07 304   Pn    Pn    15 10 00.9 -0.1
MMAI  Mount Meron Ar    10.62 115   Pn    Pn    15 10 08.2 -0.4
      comp=Z,0.5nm,0.3s,baz=325,slow=19,SNR=4.0
MMAI                                LR    LR    15 15 22.8
      comp=Z,109nm,18.3s,baz=329,slow=44
      comp=Z,8.7nm,0.9s
MMAI                                AML   AML
SOKA  Soboth            10.77 325  ePn    Pn    15 10 11.9 +1.3
      comp=Z,4.9nm,0.7s
OBKA  Obir              10.87 323  ePn    Pn    15 10 13.9 +2.0
      comp=Z,12nm,1.1s
OBKA  Obir              10.87 323   P     Pn    15 10 13.0 +1.1
      comp=Z,13nm,0.9s
SABO  M.te Sabotino     10.97 319         Pn    15 10 12.5 -0.7
ARSA  Arzberg           11.00 328         Pn    15 10 13.0 -0.7
ARSA  Arzberg           11.00 328  ePn    Pn    15 10 16.8 +3.2
      comp=Z,7.8nm,1.0s
ARSA  Arzberg           11.00 328   P     Pn    15 10 17.1 +3.4
      comp=Z,10nm,1.0s
RONA  Rosalia, Austr    11.07 332  ePn    Pn    15 10 17.3 +2.8
      comp=Z,4.4nm,1.2s
DRE   Drenchia          11.08 320   P     Pn    15 10 16.5 +1.7
      comp=Z,12nm,0.9s
MODS  Modra-Piesok      11.31 337  ePN    Pn    15 10 20.6 +2.7
MODS  Modra-Piesok      11.31 337   P     Pn    15 10 20.7 +2.9
      comp=Z,14nm,0.9s
VSL   Villasalto        11.46 281         Pn    15 10 19.7 -0.3
GHAJ  Ghor Haditha      11.73 122   Pn    Pn    15 10 24.0 +0.4
KBA   Koelnbreinsper    11.85 322  ePn    Pn    15 10 25.3 -0.1
      comp=Z,14nm,1.0s
KBA   Koelnbreinsper    11.85 322   P     Pn    15 10 25.7 +0.2
      comp=Z,17nm,1.1s
KEST  Kesra             11.95 263   Pn    Pn    15 10 27.2 +0.4
      comp=Z,0.1nm,0.3s,baz=104,slow=4.2,SNR=3.6
      comp=Z,4.6nm,0.9s
KEST                                AML   AML
MOA   Molln             12.00 327  ePn    Pn    15 10 28.8 +1.5
      comp=Z,6.0nm,1.2s
ABTA  Abfaltersbach     12.04 319   Pn    Pn    15 10 27.9 -0.1
      comp=Z,4.0nm,0.6s
CTI   Castel Tesino     12.07 315   Pn    Pn    15 10 27.8 -0.5
ASF   Jabal al Asfar    12.14 116   Pn    Pn    15 10 29.0 -0.3
      comp=Z,0.1nm,0.3s,baz=164,slow=8.3,SNR=1.8
      comp=Z,1.0nm,0.5s
ASF                                 AML   AML
HRFI  Mount Harif       12.23 128   P     Pn    15 10 30.9 +0.4
      comp=Z,19nm,1.0s
VRAC  Vranov            12.35 337   Pn    Pn    15 10 34.7 +2.6
      comp=Z,0.3nm,0.3s,baz=174,slow=14,SNR=3.1
VRAC                                LR    LR    15 15 03.6
      comp=Z,35nm,18.9s,baz=151,slow=36
      comp=Z,2.1nm,0.5s
VRAC                                AML   AML
LESA  Schwarzleotal     12.42 322  ePn    Pn    15 10 32.8 -0.3
      comp=Z,5.9nm,0.9s
EIL   Elat              12.43 130   Pn    Pn    15 10 32.8 -0.5
      comp=Z,0.5nm,0.3s,baz=50,slow=5.0,SNR=3.8
      comp=Z,5.9nm,0.6s
EIL                                 AML   AML
RJOB  Jochberg          12.58 323   P     Pn    15 10 37.0 +1.7
      comp=Z,9.7nm,0.9s
WTTA  Wattenberg        12.84 319   P     Pn    15 10 39.7 +0.8
      comp=Z,8.7nm,1.3s
WATA  Walderalm         12.91 319  ePn    Pn    15 10 40.9 +1.0
      comp=Z,13nm,0.8s
GEC2  GERESS Array S    13.01 328   Pn    Pn    15 10 40.5 -0.7
GERES GERESS Array B    13.01 328   Pn    Pn    15 10 44.2 +3.0
      baz=153,slow=14,SNR=6.4
      comp=Z,1.0nm,0.2s
GERES GERESS Array B    13.01 328         Pn    15 10 39.6 -1.6
SQTA  Sankt Quirin      13.03 318  eP     Pn    15 10 43.0 +1.6
      comp=Z,16nm,1.4s
AKASG Malin Array Be    13.09  15   LR    LR    15 16 05.5
      comp=Z,113nm,20.8s,baz=188,slow=39
FETA  Feichten          13.16 317  ePn    Pn    15 10 44.0 +0.7
      comp=Z,5.5nm,1.0s
MOTA  Moosalm           13.16 318  ePn    Pn    15 10 44.6 +1.3
      comp=Z,11nm,1.1s
FUORN Ofenpass-Fuorn    13.18 314   Pn    Pn    15 10 40.9 -2.7
RETA  Reutte            13.43 318  ePn    Pn    15 10 49.1 +2.2
      comp=Z,5.9nm,1.3s
DAVOX Davos/Dischmat    13.49 314   Pn    Pn    15 10 49.3 +1.5
      comp=Z,0.4nm,0.3s,baz=168,slow=9.3,SNR=2.0
DAVOX                               LR    LR    15 16 36.5
      comp=Z,116nm,19.3s,baz=85,slow=40
      comp=Z,1.3nm,0.4s
DAVOX                               AML   AML
BRG   Berggiesshubel    14.57 334  eP     P     15 11 08.5 -0.4
BRG                                 Amp         15 11 13.6
      comp=Z,2.4nm,0.7s
SENIN Lac Senin/Sane    14.80 309         Pn    15 11 04.0 -1.8
GEVA  Gevas             15.00  84   Pn    Pn    15 11 06.6 -1.9
CLL   Collm             15.26 333         Pn    15 11 09.7 -1.9
CLL                                 IAmb  IAmb  15 11 21.3
      comp=Z,12nm,1.0s
CLL   Collm             15.26 333  i P    P     15 11 20.0 +3.4
      comp=Z,12nm,1.0s
CLL                                 AMS   AMS   15 16 00.0
      comp=N,100nm,20.1s
CLL                                 AMS   AMS   15 16 00.0
      comp=E,200nm,19.1s
CLL                                 AMS   AMS   15 16 00.0
      comp=Z,100nm,18.2s
MAHO  Mahon             15.42 283         Pn    15 11 12.3 -1.4
GIMEL St. Georges /     15.52 308   P     Pn    15 11 15.6 +0.5
      comp=Z,16nm,1.1s
ECH   Echery            15.82 315   Pn    Pn    15 11 17.4 -1.7
CEST  Esterri de Car    17.85 292         P     15 11 45.5  0.0
CEST                                IAmb  IAmb  15 11 51.1
      comp=Z,20nm,1.1s
BMRD  Maredsous         18.29 318  dP     Pn    15 11 49.6 -0.4
BMRD                               dS     Sn    15 15 11.8 -2.4
CART  Cartagena         19.71 276   P     P     15 12 05.3 -0.5
ESBB  Sonseca Array     21.76 283         P     15 12 27.5 -0.5
ESBB                                IAmb  IAmb  15 12 34.1
      comp=Z,17nm,1.2s
ESDC  Sonseca Array     21.76 283   P     P     15 12 28.9 +0.9
      comp=Z,8.4nm,0.9s,baz=77,slow=10,SNR=21
ESDC                                LR    LR    15 21 06.8
      comp=Z,72nm,18.2s,baz=68,slow=37
      comp=Z,8.4nm,0.9s
ESDC  Sonseca Array     21.76 283   P     P     15 12 27.6 -0.5
ESDC                                IAmb  IAmb  15 12 32.8
      comp=Z,26nm,1.4s
BELG  Belogornoye       21.77  42   LR    LR    15 21 51.7
      comp=Z,155nm,21.0s,baz=276,slow=39
TAM   Tamanrasset       22.01 231   P     P     15 12 30.8 -0.2
PAB   San Pablo         22.07 282   P     P     15 12 31.4 +0.1
PAB                                 IAmb  IAmb  15 12 37.9
      comp=Z,10.0nm,0.9s
PAB   San Pablo         22.07 282   P     P     15 12 32.8 +1.4
      comp=Z,12nm,1.1s
HFS   Hagfors           22.95 347   P     P     15 12 42.5 +2.1
      comp=Z,1.5nm,0.6s,baz=169,slow=10,SNR=2.1
HFS                                 LR    LR    15 21 34.6
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	comp=Z,30nm,20.0s,baz=160,slow=36						
	comp=Z,1.5nm,0.6s						
FINES	**FINESS Array B**	**23.35**	**3**	P	**P**	**15 12 44.7**	**+0.1**
	comp=Z,2.5nm,0.9s,baz=188,slow=9.6,SNR=1.6						
FINES				LR	LR	15 23 06.0	
	comp=Z,138nm,20.7s,baz=204,slow=40						
	comp=Z,2.5nm,0.9s						
RAYN	**Ar Rayn**	**23.47**	**122**	P	**P**	**15 12 47.2**	**+1.0**
NC602	**NORSAR Array S**	**23.92**	**345**	P	**P**	**15 12 50.6**	**+0.5**
MD01	**Midelt array s**	**23.93**	**266**	P	**P**	**15 12 50.3**	**-0.3**
NOA	**NORSAR Array B**	**24.26**	**345**	P	**P**	**15 12 54.1**	**+0.7**
	comp=Z,1.4nm,0.9s,baz=157,slow=10,SNR=2.6						
	comp=Z,1.4nm,0.9s						
NBO00	**NORSAR Array S**	**24.35**	**344**	P	**P**	**15 12 53.7**	**-0.4**
MTE	**Manteigas**	**24.43**	**285**	P	**P**	**15 12 55.0**	**-0.2**
MTE				IAmb	IAmb	15 13 18.6	
	comp=Z,15nm,1.2s						
PESTR	**Estremoz**	**24.65**	**282**	P	**P**	**15 12 57.3**	**+0.2**
PESTR				IAmb	IAmb	15 12 59.3	
	comp=Z,14nm,1.2s						
EKA	**Eskdalemuir Ar**	**25.07**	**322**	P	**P**	**15 13 01.6**	**+0.9**
	comp=Z,7.5nm,0.9s,baz=123,slow=9.2,SNR=11						
	comp=Z,7.5nm,0.9s						
PFVI	**Vila Bisbo**	**25.92**	**278**	P	**P**	**15 13 08.1**	**-0.5**
KIRV	**Kirov**	**26.24**	**31**	LR	LR	15 24 12.0	
	comp=Z,107nm,18.6s,baz=252,slow=38						
AKTO	**Aktyubinsk**	**27.03**	**52**	LR	LR	15 26 04.2	
	comp=Z,69nm,18.5s,baz=60,slow=41						
ARTI	**Arti**	**29.19**	**40**	LR	LR	15 26 09.0	
	comp=Z,59nm,18.6s,baz=238,slow=38						
ARTI	**Arti**	**29.19**	**40**	P	**P**	**15 13 36.5**	**-1.2**
UOSS	**Minazif**	**30.30**	**106**	P	**P**	**15 13 47.3**	**-0.6**
UOSS				IAmb	IAmb	15 13 51.7	
	comp=Z,3.2nm,0.8s						
TORD	**Torodi Ar. Bea**	**31.82**	**224**	P	**P**	**15 14 01.5**	**+0.2**
	comp=Z,2.6nm,0.8s,baz=34,slow=9.0,SNR=12						
	comp=Z,2.6nm,0.8s						
AAK	**Ala-Archa**	**38.27**	**67**	LR	LR	15 31 56.5	
	comp=Z,59nm,18.8s,baz=230,slow=38						
NIL	**Nilore**	**39.80**	**81**	P	**P**	**15 15 09.6**	**0.0**
NIL				IAmb	IAmb	15 15 18.5	
	comp=Z,8.6nm,1.1s						
KURBB	**Kurchatov Arra**	**40.05**	**54**	P	**P**	**15 15 12.7**	**+1.2**
	comp=Z,1.0nm,0.6s,baz=282,slow=8.7,SNR=4.9						
KURBB				LR	LR	15 35 39.1	
	comp=Z,57nm,18.3s,baz=202,slow=42						
	comp=Z,1.0nm,0.6s						
KURK	**Kurchatov**	**40.10**	**54**	P	**P**	**15 15 11.6**	**-0.3**
DBIC	**Dimbokro**	**40.80**	**227**	LR	LR	15 34 02.7	
	comp=Z,64nm,18.4s,baz=128,slow=39						
MKAR	**Makanchi Array**	**42.99**	**59**	P	**P**	**15 15 37.1**	**+1.5**
	comp=Z,1.0nm,0.6s,baz=284,slow=6.5,SNR=8.0						
MKAR				LR	LR	15 35 47.6	
	comp=Z,43nm,18.2s,baz=160,slow=39						
	comp=Z,1.0nm,0.6s						
MKAR	**Makanchi Array**	**42.99**	**59**	P	**P**	**15 15 35.4**	**-0.3**
ZALV	**Zalesovo Beam**	**43.67**	**48**	P	**P**	**15 15 42.3**	**+1.2**
	comp=Z,0.7nm,0.5s,baz=268,slow=8.9,SNR=4.2						
ZALV				LR	LR	15 35 47.6	
	comp=Z,31nm,20.1s,baz=324,slow=39						
	comp=Z,0.7nm,0.5s						
ZALV	**Zalesovo Beam**	**43.67**	**48**	P	**P**	**15 15 41.3**	**+0.2**
NRS	**Narsarsuaq**	**47.73**	**322**		**P**	**15 16 14.2**	**+1.2**
SCHQ	**Schefferville**	**60.30**	**318**	P	**P**	**15 17 45.6**	**+0.6**
	comp=Z,2.7nm,0.7s,baz=108,slow=6.4,SNR=1.4						
	comp=Z,2.7nm,0.7s						
SCHQ	**Schefferville**	**60.30**	**318**	P	**P**	**15 17 44.9**	**0.0**
YAK	**Yakutsk**	**63.77**	**30**	LR	LR	15 50 54.6	
	comp=Z,24nm,20.6s,baz=256,slow=41						
HHC	**Hu-ho-hao-te**	**64.78**	**57**	*e*P	**P**	**15 18 15.0**	**-0.3**
HHC				pmax	pmax		
	comp=Z,9.0nm,0.6s						
PZH	**PanZhiHua**	**64.99**	**75**	P	**P**	**15 18 17.4**	**+0.6**
KSRS	**Korea Array**	**77.21**	**52**	LR	LR	15 57 55.8	
	comp=Z,28nm,18.1s,baz=165,slow=39						
DLBC	**Dease Lake**	**81.34**	**347**	LR	LR	15 56 23.0	
	comp=Z,26nm,19.8s,baz=35,slow=36						
PFO	**Pinyon Flats O**	**99.68**	**327**	LR	LR	16 07 24.0	
	comp=Z,43nm,20.5s,baz=193,slow=36						

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*IDC **03** 15:07:51.4±1.1, 31°.04N×86°.93W, h0^{km}, mb3.9/7, mbtmp3.9/10, ML3.7/3, MS3.0/3, Error ellipse: s-maj=21.9km s-min=13.4km az=128.0*

*NEIC **03** 15:07:53.2±1.6, 31°.03N±0°.02×87°.19W±0°.03, h4^{km}±1^{km}, mb4.0/64, mb_Lg3.8/56, ML4.2/22, Mwr3.8/24, Error ellipse: s-maj=5.7km s-min=2.9km az=231.0, Moment Tensor Solution. Moment tensor: Scale 10^{14}Nm; M$_{rr}$-4.96; M$_{\theta\theta}$2.52; M$_{\phi\phi}$2.44; M$_{r\theta}$2.37; M$_{\theta\phi}$-2.72; M$_{\phi r}$-1.29; Fault plane solution: M$_0$5.75000×10^{14} NP1:ϕ_s307.01000°, δ59.00000°, λ-98.11000°. NP2:ϕ_s142.47000°, δ31.94000°, λ-76.79000°. Principal axes: T 5.8249, Plg14.0000°, Azm43.0000°; N -0.1475, Plg7.0000°, Azm311.0000°; P -5.6774, Plg75.0000°, Azm195.0000°;*

*NEIC **03** 15:07:53.7, 31°.01N×87°.16W, h10^{km}*

ISC 03 15:07:52.7±1.2, **31°.01N**±0°.06×**87°.14W**±0°.04, **h15**^{km}±7^{km}, **n199**, σ**1^{s}20**/200, **mb4.0**/22, **Alabama**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BRAL	**Brewton**	**0.18**	**26**		**Pg**	**15 07 58.1**	**+1.1**
BRAL				Sg	**Sg**	**15 08 00.2**	**+0.3**
BRAL				IAML		15 08 02.7	
	63µm,0.9s						
250A	**Grady**	**1.22**	**38**		**Pn**	**15 08 15.7**	**+0.4**
250A				Sg	**Sn**	**15 08 31.8**	**+0.2**
250A				IAML		15 08 40.6	
	3µm,1.0s						
451A	**Vernon**	**1.26**	**108**		**Pn**	**15 08 16.8**	**+1.0**
451A				Sg	**Sn**	**15 08 33.5**	**+0.9**
451A				IAML		15 08 40.7	
	4µm,0.4s						
451A				IAML		15 08 43.1	
	3µm,0.4s						
352A	**Blakely**	**1.96**	**76**		**Pn**	**15 08 26.2**	**+0.8**
352A					**Sb**	**15 08 51.9**	**-0.3**
352A				IAML		15 09 03.3	
	2µm,0.7s						
LRAL	**Lakeview Retre**	**2.02**	**3**		**Pn**	**15 08 27.6**	**+1.2**
LRAL					**Sn**	**15 08 53.1**	**+1.8**
LRAL				IAmb_Lg		15 09 01.1	
	comp=Z,423nm,1.0s						
346A	**Big Creek Wild**	**2.02**	**281**		**Pn**	**15 08 27.5**	**+1.2**
346A					**Sn**	**15 08 53.2**	**+1.8**
346A				IAML		15 09 00.7	
	comp=Z,2µm,0.5s						
346A				IAmb_Lg		15 09 00.8	
	comp=Z,419nm,0.8s						
346A				IAML		15 09 11.8	
	comp=Z,2µm,0.7s						
146A	**Union**	**2.30**	**315**		**Pn**	**15 08 31.5**	**+1.4**
146A				IAmb_Lg		15 09 08.1	
	comp=Z,305nm,0.9s						
146A				IAML		15 09 15.8	
	comp=Z,1µm,0.7s						
146A				IAML		15 09 19.9	
	comp=Z,883nm,0.7s						
Z47A	**Carrollton**	**2.32**	**340**		**Pn**	**15 08 31.5**	**+1.1**
Z47A				IAmb_Lg		15 09 11.9	
	comp=Z,312nm,0.9s						
Z47A				IAML		15 09 19.8	
	comp=Z,2µm,0.6s						
553A	**Crawfordville**	**2.48**	**109**		**Pn**	**15 08 34.3**	**+1.7**
553A				IAmb_Lg		15 09 19.2	
	comp=Z,284nm,0.8s						
553A				IAML		15 09 19.8	
	comp=Z,1µm,0.4s						
553A				IAML		15 09 24.0	
	comp=Z,1µm,0.4s						
152A	**Waverly Hall**	**2.65**	**51**		**Pn**	**15 08 35.8**	**+1.0**
152A				IAmb_Lg		15 09 23.8	
	comp=Z,274nm,0.9s						
Y49A	**Blount Mountai**	**2.91**	**12**		**Pn**	**15 08 39.8**	**+1.3**
545A	**Edgard**	**3.04**	**252**	Pn	**Pn**	**15 08 41.3**	**+1.0**
TIGA	**Tifton**	**3.07**	**81**		**Pn**	**15 08 41.3**	**+0.6**
TIGA				IAmb_Lg		15 09 35.3	
	comp=Z,389nm,0.9s						
VBMS	**Vicksburg**	**3.12**	**294**		**Pn**	**15 08 42.1**	**+0.7**
X48A	**Hartselle**	**3.44**	**1**		**Pn**	**15 08 46.5**	**+0.8**
X48A				IAmb_Lg		15 09 51.0	
	comp=Z,207nm,0.9s						
Y45A	**Yeager Farm, C**	**3.50**	**325**		**Pn**	**15 08 47.8**	**+1.2**
FPAL	**Fort Paine**	**3.75**	**20**		**Pn**	**15 08 50.9**	**+0.7**
154A	**Montrose**	**3.79**	**64**		**Pn**	**15 08 51.2**	**+0.6**
154A				IAmb_Lg		15 10 04.5	
	comp=Z,266nm,0.8s						
Y52A	**Lilburn**	**3.86**	**42**		**Pn**	**15 08 52.7**	**+1.1**
Y52A				IAmb_Lg		15 10 05.2	
	comp=Z,259nm,0.9s						
GOGA	**Godfrey**	**3.93**	**51**		**Pn**	**15 08 53.8**	**+1.3**
GOGA	**Godfrey**	**3.93**	**51**	IAmb_Lg		15 10 05.2	
	comp=Z,221nm,0.9s						
143A	**Socs Landing,**	**4.00**	**296**		**Pn**	**15 08 54.0**	**+0.6**
X51A	**Calhoun**	**4.04**	**28**		**Pn**	**15 08 54.8**	**+0.8**
656A	**Willston**	**4.31**	**111**		**Pn**	**15 08 58.6**	**+0.8**
SWET	**Sewanee**	**4.32**	**13**		**Pn**	**15 08 58.6**	**+0.7**
SWET				IAmb_Lg		15 10 21.2	
	comp=Z,319nm,0.7s						
456A	**Hilliard**	**4.41**	**92**		**Pn**	**15 08 59.7**	**+0.6**
456A				IAmb_Lg		15 10 25.8	
	comp=Z,175nm,0.8s						
W50A	**Signal Mountai**	**4.45**	**20**		**Pn**	**15 09 00.2**	**+0.4**
MET	**Memphis--Engin**	**4.72**	**331**	Pn	**Pn**	**15 09 03.9**	**+0.4**
V48A	**Smith Brothers**	**4.73**	**3**		**Pn**	**15 09 03.7**	**+0.2**
V48A				IAmb_Lg		15 10 35.0	
	comp=Z,148nm,0.9s						
CCAR	**Cane Creek**	**4.87**	**308**		**Pn**	**15 09 06.2**	**+0.8**
W52A	**Murphy**	**4.89**	**33**	Pn	**Pn**	**15 09 06.8**	**+1.1**
CPCT	**Cooper Cave**	**4.94**	**26**		**Pn**	**15 09 07.3**	**+0.9**
CPCT				IAmb_Lg		15 10 33.1	
	comp=Z,257nm,0.8s						
CLTN	**Cedars of Leba**	**5.12**	**7**		**Pn**	**15 09 09.6**	**+0.7**
CLTN				IAmb_Lg		15 10 48.1	
	comp=Z,147nm,1.2s						
WVT	**Waverly**	**5.14**	**354**		**Pn**	**15 09 09.4**	**+0.2**
WVT	**Waverly**	**5.14**	**354**	IAmb_Lg		15 10 47.2	
	comp=Z,269nm,1.0s						
441A	**DeRidder**	**5.20**	**269**	Pn	**Pn**	**15 09 10.3**	**+0.3**
HALT	**Halls**	**5.22**	**340**	Pn	**Pn**	**15 09 10.8**	**+0.5**
HALT				IAmb_Lg		15 10 39.8	
	comp=Z,227nm,0.7s						
HODGE	**Hodges**	**5.23**	**51**		**Pn**	**15 09 11.4**	**+1.0**
HODGE				IAmb_Lg		15 10 49.0	
	comp=Z,198nm,1.0s						
Z41A	**Richland Creek**	**5.30**	**297**		**Pn**	**15 09 11.9**	**+0.6**
257A	**Skidaway Islan**	**5.31**	**78**	Pn	**Pn**	**15 09 12.2**	**+0.7**
HBAR	**Harrisburg**	**5.41**	**328**		**Pn**	**15 09 12.1**	**-0.7**
TKL	**Tuckaleechee C**	**5.43**	**30**	Pn	**Pn**	**15 09 11.7**	**-1.4**
	comp=Z,1.0nm,0.3s,baz=211,slow=9.6,SNR=6.3						
TKL				Pg	**Pb**	**15 09 27.4**	**+0.1**
	comp=Z,4.2nm,0.3s,baz=216,slow=15,SNR=9.2						
TKL				Lg	Lg	15 10 36.5	
	comp=Z,29nm,0.3s,baz=146,slow=6.1,SNR=13						
	comp=Z,1.7nm,0.3s						
TKL				AML	AML		
TKL	**Tuckaleechee C**	**5.43**	**30**		**Pn**	**15 09 14.6**	**+1.5**
LNXT	**Lenox**	**5.44**	**340**		**Pn**	**15 09 13.9**	**+0.6**
GNAR	**Gosnell**	**5.50**	**335**		**Pn**	**15 09 13.5**	**-0.6**
UTMT	**University of**	**5.51**	**345**	Pn	**Pn**	**15 09 14.8**	**+0.6**
GLAT	**Glass**	**5.54**	**342**		**Pn**	**15 09 14.9**	**+0.3**
PEBM	**Pemiscott Bayo**	**5.57**	**337**	Pn	**Pn**	**15 09 15.2**	**0.0**
U49A	**Red Boiling Sp**	**5.61**	**11**		**Pn**	**15 09 15.8**	**+0.3**
WLAR	**White Oak Lake**	**5.71**	**299**		**Pn**	**15 09 17.1**	**+0.1**
DWPF	**Disney Wildern**	**5.75**	**119**		**Pn**	**15 09 17.3**	**-0.3**
DWPF	**Disney Wildern**	**5.75**	**119**	IAmb_Lg		15 11 03.9	
	comp=Z,137nm,0.8s						
UALR	**University of**	**5.76**	**312**		**Pn**	**15 09 17.8**	**+0.1**
HICK	**Hickman**	**5.79**	**343**		**Pn**	**15 09 17.7**	**-0.3**
PAULI	**Pauline**	**5.88**	**48**		**Pn**	**15 09 19.5**	**+0.2**
V53A	**Saluda**	**5.89**	**37**		**Pn**	**15 09 19.8**	**+0.2**
JSC	**Jenkinsville**	**5.94**	**55**	Pn	**Pn**	**15 09 20.6**	**+0.5**
PARMO	**Parma**	**6.04**	**340**	Pn	**Pn**	**15 09 21.3**	**-0.2**
LCAR	**Lake Charles**	**6.06**	**328**		**Pn**	**15 09 21.1**	**-0.6**
WHAR	**Wooly Hollow**	**6.07**	**316**		**Pn**	**15 09 21.9**	**0.0**
T45A	**Paducah**	**6.12**	**349**		**Pn**	**15 09 22.9**	**+0.2**
RGRS	**Roger Stewart**	**6.20**	**70**	Pn	**Pn**	**15 09 24.6**	**+0.8**
NHSC	**New Hope**	**6.27**	**69**	Pn	**Pn**	**15 09 24.4**	**-0.3**
NHSC				IAmb_Lg		15 11 27.3	
	comp=Z,129nm,0.8s						
TZTN	**Tazewell**	**6.28**	**27**		**Pn**	**15 09 25.0**	**+0.2**
PBMO	**Poplar Bluff**	**6.37**	**335**		**Pn**	**15 09 25.8**	**-0.2**
PBMO				IAmb_Lg		15 11 25.4	
	comp=Z,145nm,1.0s						
KMSC	**Kings Mountain**	**6.38**	**48**		**Pn**	**15 09 26.1**	**-0.1**
FCAR	**Ozark Folk Cen**	**6.40**	**321**		**Pn**	**15 09 26.6**	**0.0**
Y57A	**Sumter**	**6.44**	**60**	Pn	**Pn**	**15 09 27.7**	**+0.7**
MIAR	**Mount Ida**	**6.46**	**305**		**Pn**	**15 09 26.9**	**-0.4**
NATX	**Nacogdoches**	**6.47**	**279**		**Pn**	**15 09 27.1**	**-0.4**
BIRD	**Birdtown, Kers**	**6.69**	**55**		**Pn**	**15 09 29.9**	**-0.6**
T42A	**Van Buren**	**6.84**	**332**		**Pn**	**15 09 32.5**	**-0.1**
S44A	**Carbondale**	**6.89**	**346**	Pn	**Pn**	**15 09 33.1**	**-0.1**
V55A	**Taylorsville**	**6.92**	**44**		**Pn**	**15 09 33.8**	**+0.1**
Y58A	**Scranton**	**6.95**	**63**	Pn	**Pn**	**15 09 33.9**	**-0.1**
USIN	**University of**	**6.95**	**357**		**Pn**	**15 09 33.5**	**-0.6**
Z38A	**Mt. Pleasant**	**7.02**	**291**	Pn	**Pn**	**15 09 35.1**	**+0.2**
U54A	**Nelsons Funny**	**7.06**	**37**		**Pn**	**15 09 35.8**	**+0.1**
S51A	**Beattyville**	**7.24**	**23**		**Pn**	**15 09 38.5**	**+0.6**
WCI	**Wyandotte Cave**	**7.24**	**5**	Pn	**Pn**	**15 09 38.5**	**+0.5**
WCI				IAmb_Lg		15 11 55.1	
	comp=Z,192nm,0.8s						
R49A	**Shelbyville**	**7.45**	**12**		**Pn**	**15 09 40.2**	**-0.6**
X58A	**Rowland**	**7.46**	**60**	Pn	**Pn**	**15 09 41.8**	**+0.8**
FVM	**French Village**	**7.47**	**340**		**Pn**	**15 09 40.7**	**-0.4**
R50A	**Paris**	**7.62**	**17**		**Pn**	**15 09 43.0**	**-0.2**
HHAR	**Hobbs**	**7.73**	**315**		**Pn**	**15 09 44.6**	**-0.2**
OLIL	**Olney**	**7.75**	**354**	Pn	**Pn**	**15 09 44.7**	**-0.2**
OLIL				IAmb_Lg		15 12 19.4	
	comp=Z,161nm,1.0s						
U56A	**King**	**7.75**	**45**		**Pn**	**15 09 45.3**	**+0.2**
TREL	**Terrell**	**7.80**	**285**	Pn	**Pn**	**15 09 45.5**	**-0.2**
CCM	**Cathedral Cave**	**7.80**	**335**	Pn	**Pn**	**15 09 45.2**	**-0.5**
SLM	**Saint Louis**	**8.02**	**342**	Pn	**Pn**	**15 09 49.3**	**+0.6**
SLM				IAmb_Lg		15 12 04.8	
	comp=Z,83nm,0.9s						
Q44A	**Meyer Farm, Va**	**8.03**	**349**	Pn	**Pn**	**15 09 49.1**	**+0.4**
U38A	**Gravette**	**8.11**	**314**		**Pn**	**15 09 50.0**	**0.0**
BLO	**Bloomington**	**8.16**	**3**		**Pn**	**15 09 49.7**	**-0.9**
BLO				IAmb_Lg		15 12 20.7	
	comp=Z,142nm,0.7s						
V58A	**Windy Hill, Pi**	**8.23**	**52**		**Pn**	**15 09 51.5**	**-0.2**
BLA	**Blacksburg**	**8.33**	**40**	Pn	**Pn**	**15 09 53.7**	**+0.8**
W59A	**Clinton**	**8.39**	**58**	Pn	**Pn**	**15 09 54.0**	**+0.2**
S39A	**Bolivar**	**8.40**	**324**		**Pn**	**15 09 54.2**	**+0.3**
R40A	**Maddies Statio**	**8.40**	**331**		**Pn**	**15 09 54.1**	**+0.2**
P48A	**Milroy**	**8.55**	**9**		**Pn**	**15 09 55.2**	**-0.8**
Q51A	**Peebles**	**8.58**	**20**		**Pn**	**15 09 56.1**	**-0.3**
P46A	**Rosedale**	**8.59**	**360**		**Pn**	**15 09 55.9**	**-0.7**
TUL3	**Leonard**	**8.72**	**306**		**Pn**	**15 09 57.6**	**-0.7**
LOOK	**Love County**	**8.98**	**292**		**Pn**	**15 10 02.8**	**+0.9**
W35A	**Tecumseh**	**9.15**	**299**		**Pn**	**15 10 03.5**	**-0.7**
DEOK	**Depew**	**9.18**	**304**		**Pn**	**15 10 04.0**	**-0.7**
R55A	**Marlinton**	**9.28**	**37**		**Pn**	**15 10 06.5**	**+0.5**
P40A	**Paris**	**9.40**	**336**		**Pn**	**15 10 07.8**	**+0.2**
OK052	**Battle Ridge R**	**9.47**	**304**		**Pn**	**15 10 08.5**	**-0.1**
QUOK	**Quay**	**9.49**	**305**		**Pn**	**15 10 08.1**	**-0.8**
X34A	**Smith Ranch, M**	**9.68**	**295**		**Pn**	**15 10 11.4**	**-0.2**
T59A	**Double "B" Far**	**9.93**	**51**		**Pn**	**15 10 13.7**	**-1.2**
WMOK	**Wichita Mounta**	**10.47**	**294**	Pn	**Pn**	**15 10 21.4**	**-0.9**
O54A	**Avella**	**10.68**	**29**		**Pn**	**15 10 24.6**	**-0.5**
ELIS	**Ellis County**	**11.41**	**299**		**Pn**	**15 10 33.5**	**-1.8**
DKNS	**Dickens**	**11.95**	**286**		**Pn**	**15 10 41.5**	**-1.2**
PAOC	**Oil Creek Stat**	**12.09**	**28**		**Pn**	**15 10 43.3**	**-1.1**
CBKS	**Cedar Bluff**	**12.93**	**310**		**Pn**	**15 10 54.3**	**-1.7**
128A	**Castleberry Fa**	**13.15**	**281**		**Pn**	**15 10 58.1**	**-0.9**
HTMS	**Hat Mesa**	**14.11**	**280**		**Pn**	**15 11 10.3**	**-1.9**
TX31	**Lajitas Ar. Si**	**14.39**	**268**		**Pn**	**15 11 15.2**	**-0.9**
TXAR	**Lajitas Array**	**14.39**	**268**	Pn	**Pn**	**15 11 16.6**	**+0.5**
	comp=Z,0.1nm,0.3s,baz=81,slow=13,SNR=5.5						
	comp=Z,0.3nm,0.5s						
TXAR				AML	AML		
GDL2	**Guadalupe Moun**	**14.73**	**279**		**Pn**	**15 11 18.7**	**-1.9**
ECSD	**EROS Data Cent**	**14.75**	**332**		**Pn**	**15 11 18.6**	**-2.2**
SADO	**Sadowa**	**15.11**	**22**	Pn	**Pn**	**15 11 21.1**	**-4.5**
	comp=Z,0.5nm,0.3s,baz=258,slow=11,SNR=3.4						
SADO				Lg	Lg	15 15 33.9	
	comp=Z,0.6nm,0.3s,baz=232,slow=4.7,SNR=5.7						
SADO				LR	LR	15 17 05.8	
	comp=Z,65nm,18.6s,baz=158,slow=37						
	comp=Z,4.2nm,0.6s						
SADO				AML	AML		
SADO	**Sadowa**	**15.11**	**22**		**Pn**	**15 11 22.4**	**-3.2**
VHRN	**Van Horn**	**15.32**	**274**		**Pn**	**15 11 26.6**	**-2.0**
DELO	**Deloro Mine**	**15.43**	**26**	Pn	**Pn**	**15 11 27.1**	**-2.7**
DELO				IAmb	IAmb	15 11 58.8	
	comp=Z,7.5nm,0.9s						
E46A	**Sault Ste Mari**	**15.49**	**7**	Pn	**Pn**	**15 11 27.9**	**-2.8**
CMIG	**Matias Romero**	**15.54**	**209**	LR	LR	15 18 35.4	
	comp=Z,22nm,18.2s,baz=164,slow=41						
MNTX	**Cornudas Mount**	**15.60**	**277**		**Pn**	**15 11 29.8**	**-2.4**
BUKO	**Buck Lake**	**15.63**	**21**		**Pn**	**15 11 29.1**	**-3.3**
M63A	**Gales Ferry**	**15.98**	**45**	Pn	**Pn**	**15 11 34.4**	**-2.5**
F33A	**5 Mile Ranch,**	**16.43**	**337**	Pn	**Pn**	**15 11 39.1**	**-3.7**
F33A				IAmb	IAmb	15 12 00.1	
	comp=Z,5.2nm,0.6s						
SDCO	**Great Sand Dun**	**16.57**	**299**		**Pn**	**15 11 42.6**	**-2.2**
TASM	**ASL Pad, Albuq**	**16.68**	**289**	Pn	**Pn**	**15 11 43.4**	**-2.7**
WBO	**Williamsburg**	**16.78**	**30**	Pn	**Pn**	**15 11 45.9**	**-1.3**
WBO				IAmb	IAmb	15 12 14.6	
	comp=Z,5.8nm,0.7s						
SBM	**South Baldy**	**17.16**	**285**		**Pn**	**15 11 51.5**	**-0.9**
ISCO	**Idaho Springs**	**17.40**	**305**		**Pn**	**15 11 54.2**	**-1.1**
FLET	**Fletcher**	**17.65**	**35**		**Pn**	**15 11 55.1**	**-2.9**
FLET				IAmb	IAmb	15 11 56.2	
	comp=Z,18nm,1.0s						
AGMN	**Agassiz Nation**	**18.50**	**341**	P	**P**	**15 12 07.4**	**-0.9**
AGMN				IAmb	IAmb	15 12 09.7	
	comp=Z,7.5nm,0.8s						
RSSD	**Black Hills**	**18.68**	**319**	P	**P**	**15 12 10.7**	**+0.2**
PV12	**Saucer Basin,**	**19.23**	**298**	P	**P**	**15 12 17.6**	**+1.0**
PV12				IAmb	IAmb	15 12 23.6	
	comp=Z,8.8nm,1.2s						
EPLO	**Experimental L**	**19.29**	**347**	P	**P**	**15 12 16.9**	**-0.1**
EPLO				IAmb	IAmb	15 12 30.2	
	comp=Z,9.8nm,0.9s						
PV16	**Nyswonger Mesa**	**19.31**	**298**	P	**P**	**15 12 16.9**	**-0.6**
PV19	**Morning Glory**	**19.36**	**298**	P	**P**	**15 12 18.2**	**+0.2**
PV19				IAmb	IAmb	15 12 24.9	
	comp=Z,9.4nm,1.2s						
PV05	**Paradox Valley**	**19.39**	**297**	P	**P**	**15 12 16.3**	**-2.1**
PV05				IAmb	IAmb	15 12 24.6	
	comp=Z,7.2nm,1.3s						
TUC	**Tucson**	**20.16**	**280**	P	**P**	**15 12 24.9**	**-1.8**
ULM	**Lac du Bonnet**	**20.30**	**344**	P	**P**	**15 12 28.9**	**+0.9**
	comp=Z,5.6nm,0.8s,baz=158,slow=9.9,SNR=5.6						
	comp=Z,5.6nm,0.8s						
ULM	**Lac du Bonnet**	**20.30**	**344**	P	**P**	**15 12 26.7**	**-1.2**
ULM				IAmb	IAmb	15 13 04.0	
	comp=Z,16nm,1.3s						
P18A	**Preston Nutter**	**20.68**	**301**	P	**P**	**15 12 31.9**	**-0.6**
WUAZ	**Wupatki**	**20.74**	**289**	P	**P**	**15 12 32.9**	**-0.1**
WUAZ				IAmb	IAmb	15 12 42.7	
	comp=Z,3.8nm,0.8s						
Q16A	**Castle Valley**	**21.17**	**298**	P	**P**	**15 12 37.5**	**-0.2**
Q16A				IAmb	IAmb	15 12 45.0	
	comp=Z,6.5nm,1.1s						
BSUT	**Blindstream Ca**	**21.34**	**303**	P	**P**	**15 12 40.0**	**+0.3**
BSUT				IAmb	IAmb	15 12 46.3	
	comp=Z,4.0nm,0.9s						
BW06	**Boulder Array**	**21.36**	**310**	P	**P**	**15 12 39.2**	**-0.5**
BW06				IAmb	IAmb	15 12 43.2	
	comp=Z,7.8nm,1.2s						
PD31	**Pinedale Array**	**21.36**	**310**	P	**P**	**15 12 39.6**	**-0.1**
PD31				IAmb	IAmb	15 12 43.2	
	comp=Z,8.4nm,1.3s						
PDAR	**Pinedale Array**	**21.36**	**310**	P	**P**	**15 12 42.1**	**+2.5**
	comp=Z,2.7nm,0.9s,baz=127,slow=12,SNR=16						
	comp=Z,2.7nm,0.9s						
PDAR	**Pinedale Array**	**21.36**	**310**	P	**P**	**15 12 39.4**	**-0.3**
LAO	**LASA Array**	**21.50**	**322**	P	**P**	**15 12 41.6**	**+0.7**
LAO				IAmb	IAmb	15 12 42.9	
	comp=Z,8.0nm,1.1s						
U15A	**North Rim**	**21.58**	**291**	P	**P**	**15 12 42.2**	**0.0**
Y14A	**Wickenburg**	**22.00**	**284**	P	**P**	**15 12 46.7**	**+0.3**
NLU	**North Lily Min**	**22.12**	**301**	P	**P**	**15 12 48.0**	**+0.1**
NLU				IAmb	IAmb	15 12 52.8	
	comp=Z,10nm,1.4s						
HWUT	**Hardware Ranch**	**22.27**	**305**	P	**P**	**15 12 49.4**	**-0.1**
RLMT	**Red Lodge**	**22.31**	**315**	P	**P**	**15 12 50.6**	**+0.8**
RLMT				IAmb	IAmb	15 12 52.6	
	comp=Z,4.5nm,0.8s						
YNE	**Yellowstone No**	**22.70**	**314**	P	**P**	**15 12 54.8**	**+0.7**
FXWY	**Fox Creek**	**22.70**	**310**	P	**P**	**15 12 53.7**	**-0.4**
FXWY				IAmb	IAmb	15 12 58.0	
	comp=Z,3.8nm,1.1s						
W13A	**Hualapai Mount**	**22.75**	**287**	P	**P**	**15 12 53.2**	**-1.5**
GCMT	**Greycliff**	**22.90**	**316**	P	**P**	**15 12 55.0**	**-1.1**
YHH	**Holmes Hill**	**23.11**	**313**	P	**P**	**15 12 57.3**	**-1.1**
MCMT	**McKenzie Canyo**	**24.40**	**312**	P	**P**	**15 13 10.7**	**-0.1**
BCYI	**Bear Canyon**	**24.55**	**310**	P	**P**	**15 13 13.8**	**+1.7**
BCYI				IAmb	IAmb	15 13 17.7	
	comp=Z,3.2nm,0.9s						
ELK	**Elko**	**24.66**	**301**	P	**P**	**15 13 14.5**	**+1.3**
TPNV	**Topopah Spring**	**24.80**	**292**	P	**P**	**15 13 15.3**	**+1.0**
TPNV				IAmb	IAmb	15 13 20.7	
	comp=Z,3.0nm,0.7s						
HLID	**Hailey**	**24.93**	**308**	P	**P**	**15 13 16.0**	**+0.5**
HLID				IAmb	IAmb	15 13 21.8	
	comp=Z,4.2nm,1.2s						
GWY	**Greenwater Val**	**25.08**	**290**	P	**P**	**15 13 17.1**	**+0.2**
GWY				IAmb	IAmb	15 13 26.1	
	comp=Z,4.4nm,1.2s						
CBX	**Cerro Bola**	**25.13**	**281**	P	**P**	**15 13 17.3**	**0.0**
QSM	**Queen of Sheba**	**25.23**	**289**	P	**P**	**15 13 19.3**	**+1.2**
QSM				IAmb	IAmb	15 13 53.8	
	comp=Z,4.5nm,1.2s						
MPMC	**Manual Prospec**	**25.73**	**289**	P	**P**	**15 13 25.0**	**+2.1**
MPMC				IAmb	IAmb	15 13 29.6	
	comp=Z,3.6nm,1.0s						
NVAR	**Mina Array Bea**	**26.57**	**295**	P	**P**	**15 13 32.1**	**+1.7**
	comp=Z,1.4nm,0.8s,baz=112,slow=8.4,SNR=6.2						
	comp=Z,1.4nm,0.8s						
NVAR	**Mina Array Bea**	**26.57**	**295**	P	**P**	**15 13 31.8**	**+1.3**
YKA	**Yellowknife Ar**	**36.12**	**339**	P	**P**	**15 14 53.5**	**-0.4**
	comp=Z,0.4nm,0.6s,baz=130,slow=8.7,SNR=2.6						
	comp=Z,0.4nm,0.6s						
IL31		**49.57**	**331**		**P**	**15 16 44.3**	**+1.6**
ILAR	**Eielson Array**	**49.57**	**331**	P	**P**	**15 16 45.2**	**+2.4**
	comp=Z,2.2nm,0.8s,baz=104,slow=5.7,SNR=26						
	comp=Z,2.2nm,0.8s						
ILAR	**Eielson Array**	**49.57**	**331**	P	**P**	**15 16 44.5**	**+1.7**
CCB	**Clear Creek Bu**	**49.92**	**331**	P	**P**	**15 16 47.7**	**+2.2**
LPAZ	**La Paz**	**50.45**	**156**	P	**P**	**15 16 51.1**	**+0.4**
	comp=Z,2.2nm,0.7s,baz=333,slow=5.2,SNR=11						
	comp=Z,2.2nm,0.7s						
LPAZ	**La Paz**	**50.45**	**156**	P	**P**	**15 16 51.3**	**+0.5**
I23K	**Minto, Yukon-K**	**50.67**	**331**	P	**P**	**15 16 53.4**	**+2.2**
I23K				IAmb	IAmb	15 16 56.3	
	comp=Z,2.9nm,1.0s						
KTH	**Kantishna Hill**	**51.08**	**329**	P	**P**	**15 16 56.7**	**+2.3**
CAST	**Castle Rocks**	**51.58**	**329**	P	**P**	**15 16 59.9**	**+1.8**
CAST				IAmb	IAmb	15 16 60.0	
	comp=Z,3.2nm,1.2s						
I21K	**Tanana**	**51.77**	**331**	P	**P**	**15 17 01.4**	**+2.0**
I21K				IAmb	IAmb	15 17 05.8	
	comp=Z,3.6nm,1.2s						
J20K	**Nowinta River**	**52.57**	**329**	P	**P**	**15 17 07.0**	**+1.6**
L18K	**Granite Mounta**	**53.60**	**327**	P	**P**	**15 17 14.1**	**+1.1**
G19K	**Purcell Mounta**	**53.98**	**332**	P	**P**	**15 17 17.1**	**+1.4**
H18K	**Honhosa River**	**54.45**	**331**	P	**P**	**15 17 20.9**	**+1.7**
NOA	**NORSAR Array B**	**67.23**	**31**	LR	LR	15 46 48.2	
	comp=Z,14nm,18.8s,baz=305,slow=35						
ARCES	**ARCESS Array B**	**68.68**	**20**	P	**P**	**15 18 56.9**	**+1.7**
FINES	**FINESS Array B**	**73.33**	**27**	P	**P**	**15 19 24.4**	**+0.9**
	comp=Z,1.2nm,0.8s,baz=299,slow=3.9,SNR=4.7						
	comp=Z,1.2nm,0.8s						
WRA	**Warramunga Arr**	**141.16**	**276**	PKP	**PKPdf**	**15 27 24.6**	**+1.4**
	comp=Z,0.3nm,0.7s,baz=60,slow=1.8,SNR=2.0						
ASAR	**Alice Springs**	**142.97**	**271**	PKhKP	PKPpre	15 27 23.9	
	comp=Z,0.3nm,0.4s,baz=82,slow=2.6,SNR=10.0						

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*IDC **03** 15:19:01.7±1.1, 39°.76S×119°.88E, h0^{km}, mb3.8/5, mbtmp3.8/7, ML3.1/2, Error ellipse: s-maj=30.6km s-min=15.7km az=86.0*

*NEIC **03** 15:19:02.1±2.6, 39°.51S±0°.05×119°.8E±0°.1, h10^{km}±1^{km}, mb4.1/13, Error ellipse: s-maj=16.4km s-min=6.2km az=117.0*

ISC 03 15:19:04.9±1.4, **39°.2S**±0°.1×**120°.01E**±0°.07, **h10**^{km}, **n32**, σ**2^{s}41**/33, **mb4.0**/8, **Off south coast of Australia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
H01W1	**Cape Leeuwin H**	**6.33**	**310**	Pn	**Pn**	**15 20 38.7**	**+0.6**
	baz=160,slow=18						
H01W1				Sn	**Sn**	**15 21 47.7**	**-2.6**
	baz=195,slow=74						
H01W1				T	T	15 27 30.2	
	baz=132,slow=73,SNR=23						
H01W2	**Cape Leeuwin H**	**6.34**	**310**	Pn	**Pn**	**15 20 38.8**	**+0.6**
	baz=160,slow=18						

H01W2				Sn	**Sn**	**15 21 48.1**	**-2.4**
	baz=195,slow=74						
H01W2				T	T	15 27 35.3	
	baz=132,slow=73,SNR=22						
H01W3	**Cape Leeuwin H**	**6.35**	**310**	Pn	**Pn**	**15 20 38.9**	**+0.6**
	baz=160,slow=18						
H01W3				Sn	**Sn**	**15 21 48.9**	**-1.8**
	baz=195,slow=74						
H01W3				T	T	15 27 34.9	
	baz=132,slow=73,SNR=23						
NWAO	**Narrogin (SRO)**	**6.61**	**339**	Pn	**Pn**	**15 20 45.0**	**+2.8**
	3.9nm,0.3s,baz=154,slow=9.9,SNR=27						
NWAO				Sn	**Sn**	**15 21 58.8**	**+1.2**
	6.4nm,0.3s,baz=52,slow=19,SNR=7.5						
	10nm,0.3s						
NWAO				AML	AML		
NWAO	**Narrogin (SRO)**	**6.61**	**339**	P	**Pn**	**15 20 44.9**	**+2.8**
NWAO	**Narrogin (SRO)**	**6.61**	**339**	Pn	**Pn**	**15 20 43.6**	**+1.4**
NWAO				Sn	**Sn**	**15 21 58.1**	**+0.5**
KLBR	**Kellerberrin**	**7.77**	**346**	P	Pn	15 21 03.5	+5.4
MUN	**Mundaring**	**7.80**	**335**	P	**Pn**	**15 21 00.9**	**+2.3**
BLDU	**Ballidu**	**8.94**	**341**	P	**Pn**	**15 21 15.8**	**+1.6**
MORW	**Morawa**	**10.59**	**341**	Pn	**Pn**	**15 21 37.6**	**+0.9**
MORW				Sn	**Sn**	**15 23 30.6**	**-4.8**
FORT	**Forrest**	**10.65**	**41**	Pn	**Pn**	**15 21 40.0**	**+2.5**
FORT				Sn	**Sn**	**15 23 34.5**	**-2.3**
BBOO	**Buckleboo**	**14.45**	**69**	Pn	**Pn**	**15 22 26.5**	**-3.0**
MGBR	**Mount Gambier**	**16.18**	**91**	Pn	**Pn**	**15 22 51.0**	**-1.3**
GIRL	**Giralia**	**17.18**	**342**		**Pn**	**15 23 06.0**	**+0.8**
MBWA	**Marble Bar**	**17.94**	**359**	P	**Pn**	**15 23 14.2**	**-0.4**
MBWA				IAmb	IAmb	15 23 40.0	
	comp=Z,17nm,1.3s						
ASAR	**Alice Springs**	**19.43**	**41**	P	**Pn**	**15 23 35.0**	**+2.3**
	comp=Z,0.2nm,0.3s,baz=209,slow=9.3,SNR=18						
	comp=Z,0.4nm,0.5s						
ASAR				AML	AML		
ASAR	**Alice Springs**	**19.43**	**41**	P	**P**	**15 23 31.6**	**0.0**
AS31	**Alice Springs**	**19.43**	**41**	P	**P**	**15 23 32.0**	**+0.4**
TOO	**Toolangi**	**20.03**	**94**		Pn	15 23 39.6	-0.1
TOO				IAmb	IAmb	15 24 23.6	
	comp=Z,7.8nm,1.2s						
FITZ	**Fitzroy Crossi**	**21.55**	**15**	P	**P**	**15 23 59.7**	**+5.2**
	comp=Z,3.8nm,1.1s,baz=183,slow=17,SNR=1.7						
FITZ				S	**S**	**15 27 48.2**	**-5.1**
	comp=Z,1.4nm,0.7s,baz=105,slow=20,SNR=5.6						
	comp=Z,3.8nm,1.1s						
FITZ	**Fitzroy Crossi**	**21.55**	**15**	IAmb	IAmb	15 24 05.7	
	comp=Z,2.5nm,1.4s						
WRA	**Warramunga Arr**	**22.79**	**37**	P	**P**	**15 24 11.4**	**+3.6**
	comp=Z,1.8nm,1.1s,baz=209,slow=11,SNR=11						
	comp=Z,1.8nm,1.1s						
WRAB	**Tennant Creek**	**22.81**	**37**	P	**P**	**15 24 09.1**	**+1.1**
WRAB				IAmb	IAmb	15 24 32.2	
	comp=Z,6.0nm,1.2s						
WR8	**Warramunga Arr**	**22.86**	**37**	P	**P**	**15 24 09.7**	**+1.2**
WR8				IAmb	IAmb	15 24 14.7	
	comp=Z,7.6nm,1.2s						
WB0	**Warramunga Arr**	**22.97**	**37**	P	**P**	**15 24 10.5**	**+0.8**
WB0				IAmb	IAmb	15 24 29.4	
	comp=Z,11nm,1.4s						
QSPA	**South Pole Qui**	**50.96**	**180**	P	P	15 27 59.8	-6.7
	comp=Z,1.4nm,0.9s,baz=311,slow=15,SNR=3.9						
	comp=Z,1.4nm,0.9s						
QSPA	**South Pole Qui**	**50.96**	**180**	P	P	15 28 00.7	-5.8
QSPA				IAmb	IAmb	15 28 18.6	
	comp=Z,6.3nm,1.5s						
CMAR	**Chiang Mai Arr**	**60.61**	**337**	P	**P**	**15 29 17.4**	**+1.4**
	comp=Z,0.6nm,0.7s,baz=162,slow=6.2,SNR=6.6						
	comp=Z,0.6nm,0.7s						
SNAA	**Sanae**	**62.41**	**197**	P	P	15 29 22.2	-5.3
	comp=Z,3.2nm,0.7s,baz=124,slow=7.3,SNR=8.0						
	comp=Z,3.2nm,0.7s						
SNAA	**Sanae**	**62.41**	**197**	IAmb	IAmb	15 29 23.5	
	comp=Z,4.4nm,0.9s						
MAJO	**Matsushiro**	**77.18**	**15**	P	**P**	**15 30 56.6**	**-2.1**
MJB9	**Matsu-Tunnel**	**77.18**	**15**	P	**P**	**15 30 57.0**	**-1.7**

*AEIC **03** 15:21:23.0±1.2, 53°.81N±0°.04×163°.94W±0°.06, h26^{km}±7^{km}, Error ellipse: s-maj=7.1km s-min=4.5km az=150.0*

NEIC 03 15:21:23.3±1.7**, 53°.82N**±0°.05×**163°.99W**±0°.04**, h27**^{km}±12^{km}**, ML3.5**/16**, ML3.2**(AEIC)**, Error ellipse: s-maj=7.3km s-min=3.5km az=178.0, Unimak Island region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SSLS	**Shishaldin Sou**	**0.89**	**359**		Pn	15 21 39.5	-0.6
SSLS					Sb	15 21 51.6	-0.1
AKUT	**Akutan**	**1.10**	**287**		Pn	15 21 42.7	-0.2
AKUT					Sn	15 21 56.5	-0.6
AKUT				IAML		15 21 57.9	
	comp=E,618nm,0.8s						
AKUT				IAML		15 22 02.0	
	comp=N,652nm,0.4s						
AKBBA	**Akutan Broad B**	**1.18**	**284**		Pn	15 21 43.9	-0.2
AKBBA					Sb	15 21 59.8	-0.1
AKV	**Akutan Volcano**	**1.21**	**285**		Pn	15 21 44.2	-0.2
AKV					Sb	15 22 00.3	-0.4
AKLV	**Akutan Long Va**	**1.21**	**287**		Pn	15 21 44.2	-0.2
AKLV					Sb	15 22 00.8	0.0
AKGG	**Akutan Green G**	**1.24**	**288**		Pn	15 21 44.9	+0.1
LVA	**Lava Point**	**1.26**	**286**		Pn	15 21 44.9	-0.1
LVA				Sn	Sn	15 22 01.5	+0.4
LVA				IAML		15 22 09.2	
	comp=N,1µm,0.6s						
LVA				IAML		15 22 09.7	
	comp=E,602nm,0.6s						
AKRB	**Akutan Reef Bi**	**1.27**	**285**		Pn	15 21 45.1	-0.1
AKRB					Sb	15 22 02.1	-0.3
UNV	**Unalaska Valle**	**1.49**	**272**		Pn	15 21 47.2	-1.1
UNV				Sn	Sn	15 22 05.5	-1.4
UNV				IAML		15 22 16.5	
	comp=E,272nm,0.6s						
MNAT	**Makushin Natee**	**1.60**	**273**		Pn	15 21 49.6	-0.1
DT1	**Dutton Round H**	**1.63**	**37**		Pn	15 21 49.4	-0.7
DT1					Sn	15 22 09.7	-0.5
MSW	**Makushin Switc**	**1.66**	**274**		Pn	15 21 50.5	-0.1
DTNA	**Dutton South F**	**1.67**	**37**		Pn	15 21 50.3	-0.4
MGOD	**Makushin Gods**	**1.71**	**270**		Pn	15 21 51.2	-0.2
DOL	**Dolgoi Island**	**1.81**	**42**		Pn	15 21 52.2	-0.5
DOL					Sn	15 22 14.7	-0.1
PS4A	**Pavlof South-4**	**1.96**	**38**		Pn	15 21 55.0	+0.3
PS1A	**Pavlof South-1**	**2.06**	**38**		Pn	15 21 56.9	+0.8
OKFG	**Magazine Ridge**	**2.38**	**262**		Pn	15 22 01.9	+1.5
OKTU	**Okmok Mt. Tuli**	**2.46**	**261**		Pn	15 22 02.4	+0.8
OKCE	**Okmok Cone E**	**2.52**	**263**		Pn	15 22 03.7	+1.3
SDPT	**Sand Point**	**2.55**	**52**		Pn	15 22 03.2	+0.5
SDPT				Sn	Sn	15 22 32.6	-0.3
SDPT				IAML		15 22 41.6	
	comp=N,356nm,0.9s						
SDPT				IAML		15 22 41.8	
	comp=E,297nm,0.8s						
CNBA	**Chernabura Isl**	**2.76**	**67**		Pn	15 22 04.6	-1.1
VNFG	**Fog Glacier, M**	**3.55**	**44**	Pn	Pn	15 22 17.3	+0.8
CLCO	**Concord Point,**	**3.60**	**256**		Pn	15 22 18.3	+1.1
CLES	**Cleveland East**	**3.68**	**257**	Pn	Pn	15 22 19.2	+0.8
SPIA	**Saint Paul Isl**	**4.89**	**316**	Pn	Pn	15 22 35.6	+0.7
SPIA				IAML		15 24 33.0	
	comp=E,72nm,1.2s						
O14K	**Tigyukauivet M**	**5.65**	**14**	Pn	Pn	15 22 46.5	+1.3
O15K	**Ungalikthiuk R**	**5.84**	**22**	Pn	Pn	15 22 49.3	+1.4
P16K	**Nushagak River**	**6.19**	**30**	Pn	Pn	15 22 53.6	+0.9
N14K	**Kuskokwak Cree**	**6.24**	**11**	Pn	Pn	15 22 54.5	+1.1
ATKA	**Atka Island**	**6.37**	**259**	Pn	Pn	15 22 55.9	+0.7
M13K	**Dall Lake**	**6.62**	**3**	Pn	Pn	15 22 59.9	+1.3
O16K	**Kokwok River B**	**6.63**	**27**	Pn	Pn	15 22 59.9	+1.1
M11K	**Mekoryuk**	**6.69**	**351**	Pn	Pn	15 23 00.2	+0.6
N15K	**Kwethluk River**	**6.71**	**17**	Pn	Pn	15 22 59.3	-0.6
P17K	**Kvichak River**	**6.81**	**35**	Pn	Pn	15 23 00.5	-0.7
OHAK	**Old Harbor**	**6.96**	**56**	Pn	Pn	15 23 02.2	-1.1
M14K	**Bethel**	**7.03**	**8**	Pn	Pn	15 23 04.4	+0.2
GSTR	**Great Sitkin T**	**7.50**	**262**	Pn	Pn	15 23 10.5	-0.2
KDAK	**Kodiak Island**	**7.55**	**54**	Pn	Pn	15 23 10.4	-1.0
L14K	**Kuka Creek**	**7.57**	**5**	Pn	Pn	15 23 11.5	-0.2
N17K	**Nushagak Hills**	**7.66**	**26**	Pn	Pn	15 23 12.4	-0.6
Q19K	**Cape Douglas,**	**7.68**	**44**	Pn	Pn	15 23 12.3	-1.0
M16K	**Timber Creek**	**7.71**	**19**	Pn	Pn	15 23 13.4	-0.1
ADK	**Adak**	**7.93**	**261**	Pn	Pn	15 23 16.4	-0.3
K13K	**Kusilvak Mount**	**8.14**	**358**	Pn	Pn	15 23 21.1	+1.6
N18K	**Kilae Creek**	**8.15**	**29**	Pn	Pn	15 23 18.8	-0.8
KIWB	**Kanaga Island**	**8.21**	**261**		Pn	15 23 20.7	+0.2
L16K	**Owhat River**	**8.27**	**15**	Pn	Pn	15 23 22.1	+0.9
M17K	**Holitna River**	**8.37**	**22**	Pn	Pn	15 23 23.9	+1.3
ILSW	**Iliamna Southw**	**8.55**	**39**	Pn	Pn	15 23 25.8	+0.5
K15K	**Wolf Creek Mou**	**8.59**	**8**	Pn	Pn	15 23 27.0	+1.3
N19K	**Bonanza Creek**	**8.68**	**32**	Pn	Pn	15 23 28.1	+1.1
J14K	**Nanvaranak Lak**	**8.95**	**1**	Pn	Pn	15 23 32.1	+1.5
CNPM	**China Poot**	**9.04**	**46**	Pn	Pn	15 23 32.5	+0.6
L18K	**Granite Mounta**	**9.26**	**22**	Pn	Pn	15 23 35.6	+0.8
K17K	**Iditarod**	**9.40**	**16**	Pn	Pn	15 23 36.4	-0.4
J16K	**Anvik River**	**9.65**	**9**	Pn	Pn	15 23 41.6	+1.4
L19K	**White Mountain**	**9.67**	**26**	Pn	Pn	15 23 40.5	+0.1
M20K	**Styx River**	**9.92**	**31**	Pn	Pn	15 23 45.0	+1.0
J17K	**VABM Dome**	**9.93**	**13**	Pn	Pn	15 23 44.7	+0.7
J18K	**Innoko River**	**10.38**	**18**	Pn	Pn	15 23 50.9	+0.8
K20K	**Telida**	**10.85**	**24**	Pn	Pn	15 23 56.3	-0.3
J19K	**Poorman**	**11.06**	**20**	Pn	Pn	15 23 57.9	-1.6
CAST	**Castle Rocks**	**11.42**	**28**	Pn	Pn	15 24 05.6	+1.1
J20K	**Nowinta River**	**11.54**	**22**	Pn	Pn	15 24 05.5	-0.5
HIN	**Hinchinbrook I**	**11.54**	**48**	Pn	Pn	15 24 04.4	-1.6
H18K	**Honhosa River**	**11.71**	**12**	Pn	Pn	15 24 08.6	+0.3
SCM	**Sheep Creek Mo**	**11.93**	**41**	Pn	Pn	15 24 10.3	-1.1
I21K	**Tanana**	**12.88**	**23**	Pn	Pn	15 24 24.1	-0.2

*IDC **03** 15:24:37.0±6.3, 14°.57N×122°.49E, h0^{km}, mb3.4/3, mbtmp3.4/3, Error ellipse: s-maj=616.1km s-min=28.3km az=63.0*

*MAN **03** 15:24:57.0, 13°.76N×120°.59E, h148^{km}, MS3.1*

ISC 03 15:24:56.4±1.2**, 13°.70N**±0°.10×**120°.6E**±0°.1**, h150**^{km}**, n11,** σ**1^s.25**/14**, mb3.2**/3**, Mindoro**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TGY	**Tagaytay City**	**0.54**	**42**	*i* P	**Pn**	**15 25 20.0**	**+1.9**
TIRP	**Brgy. Gulod. B**	**0.91**	**44**	*e*P	**Pn**	**15 25 20.9**	**+0.5**
TIRP				*e*S	**Sn**	**15 25 39.4**	**+0.7**
LQP	**Lukban**	**1.03**	**66**	*e*P	Pn	15 25 27.8	+6.1
LQP				*e*S	**Sn**	**15 25 40.2**	**-0.8**
PCPS	**Palayan City**	**1.06**	**27**	*e*P	Pn	15 25 30.9	+9.2
PCPS				*e*S	Sn	15 25 57.3	+16
BOAC	**Boac**	**1.27**	**101**	*i* P	**Pn**	**15 25 24.6**	**+1.0**
BOAC				*i* S	**Sn**	**15 25 46.2**	**+1.8**
GQP	**Guinayangan**	**1.84**	**83**	*e*P	**Pn**	**15 25 30.5**	**+0.8**
GQP				*i* S	**Sn**	**15 25 54.8**	**-0.5**
BOLP	**Bolinao**	**2.74**	**347**	*e*P	**Pn**	**15 25 41.3**	**+0.8**
BOLP				*i* S	**Sn**	**15 26 14.2**	**-0.5**
CAAP	**Casiguran, Aur**	**2.88**	**30**	*i* P	**Pn**	**15 25 42.1**	**-0.1**
WRA	**Warramunga Arr**	**36.07**	**158**	P	**P**	**15 31 41.7**	**-2.1**
	0.5nm,0.9s,baz=342,slow=7.9,SNR=1.4						
	0.5nm,0.9s						
ASAR	**Alice Springs**	**39.36**	**161**	P	**P**	**15 32 10.2**	**-1.2**
	0.2nm,0.3s,baz=338,slow=9.0,SNR=9.6						
	0.2nm,0.3s						
MKAR	**Makanchi Array**	**45.96**	**324**	P	**P**	**15 33 05.2**	**+0.8**
	0.2nm,0.3s,baz=122,slow=7.7,SNR=4.3						
	0.2nm,0.3s						

*TIR **03** 15:28:00.6, 39°.30N×19°.20E, h11^{km}, Ml2.7/2*

*THE **03** 15:28:01.9, 39°N±3°×1°9E±°, h3^{km}±5^{km}, M2.5/11, MLh2.5/11*

*ROM **03** 15:28:01.6±0.2, 39°.32N±0°.02×19°.27E±0°.02, h10^{km}, ML2.7/18, Error ellipse: s-maj=1.8km s-min=1.1km az=336.0*

*ATH **03** 15:28:02.0, 39°.32N×19°.25E, h11^{km}±2^{km}, ML2.7/18, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*

ISC 03 15:28:01.9±1.1**, 39°.32N**±0°.03×**19°.28E**±0°.02**, h10**^{km}±9^{km}**, n52,** σ**0^s.49**/89**, Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KEK	**Kerkira**	**0.56**	**46**	P	**Pg**	**15 28 12.8**	**-0.1**
KEK				S	**Sb**	**15 28 21.8**	**-0.1**
KEK	**Kerkira**	**0.56**	**46**	P	**Pg**	**15 28 12.7**	**-0.1**
KEK				S	**Sg**	**15 28 21.0**	**+0.7**
KEK				AML	AML		
KEK	**Kerkira**	**0.56**	**46**	P	**Pg**	**15 28 11.9**	**-1.0**
KEK				S	**Sb**	**15 28 21.6**	**-0.4**
KEK				AML	AML		
	comp=E,964µm,1.1s						
KEK				AML	AML		
	comp=N,528µm,0.2s						
KEK				AML	AML		
	comp=E,874µm,0.2s						
KEK	**Kerkira**	**0.56**	**46**	P	**Pg**	**15 28 12.9**	**0.0**
KEK				S	**Sg**	**15 28 21.1**	**+0.7**
KEK				AML	AML		
KRK1	**kERKIRA**	**0.58**	**59**	P	**Pb**	**15 28 13.7**	**-0.4**
KRK1				S	**Sb**	**15 28 22.6**	**+0.2**
SRN	**Sarande**	**0.79**	**45**	P	**Pg**	**15 28 17.4**	**+0.2**
SRN				S	**Sn**	**15 28 30.1**	**-0.9**
SRN				AML	AML	15 28 30.8	
	comp=E,0.8nm,0.4s						
SRN	**Sarande**	**0.79**	**45**	P	**Pg**	**15 28 17.3**	**+0.2**
SRN				S	**Sb**	**15 28 29.0**	**+0.5**
SRN				AML	AML		
IGT	**Igoumenitsa**	**0.84**	**75**	P	**Pg**	**15 28 18.2**	**0.0**
IGT				S	**Sn**	**15 28 31.5**	**-0.8**
IGT	**Igoumenitsa**	**0.84**	**75**	P	**Pg**	**15 28 18.0**	**-0.2**
IGT				S	**Sb**	**15 28 30.7**	**+0.6**
IGT				AML	AML		
IGT	**Igoumenitsa**	**0.84**	**75**	P	**Pg**	**15 28 18.0**	**-0.2**
IGT				S	**Sb**	**15 28 30.6**	**+0.6**
PRGA	**Parga**	**0.87**	**92**	P	**Pn**	**15 28 19.7**	**-0.5**
PRGA				S	**Sb**	**15 28 31.8**	**+1.0**
PRGA				AML	AML		
TSLK	**Tsoukalades, L**	**1.18**	**114**	P	**Pb**	**15 28 23.4**	**-1.0**
TSLK				S	**Sn**	**15 28 41.1**	**+0.5**
TSLK				AML	AML		
TSLK	**Tsoukalades, L**	**1.18**	**114**	P	**Pg**	**15 28 24.6**	**0.0**
TSLK				S	**Sg**	**15 28 40.0**	**+0.1**
TSLK				AML	AML		
DRAG	**Dragano-Lefkad**	**1.19**	**122**	P	**Pn**	**15 28 23.7**	**-1.0**
DRAG	**Dragano-Lefkad**	**1.19**	**122**	P	**Pn**	**15 28 24.4**	**-0.2**
DRAG				S	**Sn**	**15 28 41.2**	**+0.3**
LKD2	**Lefkada island**	**1.20**	**116**	P	**Pn**	**15 28 24.4**	**-0.3**
LKD2				S	**Sn**	**15 28 42.3**	**+1.3**
LKD2				AML	AML	15 28 43.4	
	comp=E,0.6nm,0.5s						
LKD2	**Lefkada island**	**1.20**	**116**	P	**Pn**	**15 28 24.2**	**-0.5**
LKD2				S	**Sn**	**15 28 41.2**	**+0.2**
LKD2				AML	AML		
LKD2	**Lefkada island**	**1.20**	**116**	P	**Pb**	**15 28 24.8**	**+0.2**
LKD2				S	**Sn**	**15 28 41.4**	**+0.4**
LKD2				AML	AML		
NYDR	**Nydri-Lefkada**	**1.26**	**118**	P	**Pn**	**15 28 25.0**	**-0.5**
NYDR				S	**Sg**	**15 28 42.8**	**+0.3**
NYDR				AML	AML		
NYDR	**Nydri-Lefkada**	**1.26**	**118**	P	**Pn**	**15 28 25.3**	**-0.2**
NYDR				S	**Sg**	**15 28 42.9**	**+0.4**
JAN	**Janina**	**1.26**	**74**	P	**Pb**	**15 28 25.9**	**+0.1**
JAN				S	**Sg**	**15 28 42.9**	**+0.3**
JAN				AML	AML		
EVGI	**Lefkada island**	**1.28**	**122**	P	**Pn**	**15 28 25.5**	**-0.3**
EVGI				S	**Sg**	**15 28 43.4**	**+0.3**
EVGI				AML	AML		
EVGI	**Lefkada island**	**1.28**	**122**	P	**Pn**	**15 28 25.5**	**-0.3**
EVGI				S	**Sn**	**15 28 42.9**	**-0.1**
EVGI				AML	AML		
FSK	**Fiskardo**	**1.32**	**130**	P	**Pn**	**15 28 26.0**	**-0.3**
FSK				S	**Sg**	**15 28 44.4**	**0.0**
FSK				AML	AML		
FSK	**Fiskardo**	**1.32**	**130**	P	**Pn**	**15 28 26.4**	**0.0**
FSK				S	**Sg**	**15 28 44.5**	**+0.1**
FSK				AML	AML		
DMLN	**Damoulianata-K**	**1.38**	**141**	P	**Pn**	**15 28 27.3**	**+0.2**
DMLN				S	**Sg**	**15 28 46.4**	**+0.2**
PRMD	**Pramanda**	**1.43**	**81**	P	**Pb**	**15 28 28.9**	**+0.3**
PRMD				AML	AML		
PRMD	**Pramanda**	**1.43**	**81**	P	**Pg**	**15 28 29.1**	**-0.2**
PRMD				S	**Sb**	**15 28 47.3**	**+0.5**
PRMD				AML	AML		
VLS	**Valsamata**	**1.53**	**138**	P	**Pn**	**15 28 28.3**	**-1.0**
VLS	**Valsamata**	**1.53**	**138**	P	**Pn**	**15 28 28.7**	**-0.6**
VLS				S	**Sg**	**15 28 50.6**	**-0.6**
VLS	**Valsamata**	**1.53**	**138**	P	**Pn**	**15 28 29.5**	**+0.2**
VLS				S	**Sg**	**15 28 50.7**	**-0.5**
VLS				AML	AML		
TETR	**Tetrakomo, Epi**	**1.55**	**88**	P	**Pb**	**15 28 30.3**	**-0.4**
TETR	**Tetrakomo, Epi**	**1.55**	**88**	P	**Pb**	**15 28 30.6**	**-0.2**
TETR				S	**Sb**	**15 28 50.6**	**+0.2**
TETR				AML	AML		
AMPL	**Ampelaki**	**1.56**	**104**	P	**Pn**	**15 28 29.7**	**+0.1**
AMPL				AML	AML		
AMPL	**Ampelaki**	**1.56**	**104**	P	**Pb**	**15 28 30.2**	**-0.6**
AMPL				S	**Sb**	**15 28 50.6**	**0.0**
AMPL				AML	AML		
PDO	**Prodromos**	**1.65**	**115**	P	**Pn**	**15 28 31.5**	**+0.6**
PDO				S	**Sb**	**15 28 53.0**	**-0.3**
PDO				AML	AML		
MESG	**Mesagne**	**1.68**	**320**	P	**Pb**	**15 28 32.4**	**-0.5**
MESG				S	**Sn**	**15 28 52.4**	**-0.4**
MESG				AML	AML		
RTZL	**Ratzakli, Kefa**	**1.71**	**136**	P	**Pn**	**15 28 32.4**	**+0.8**
KPRO	**Kipourio**	**1.73**	**68**	P	**Pb**	**15 28 33.5**	**-0.4**
KPRO				S	**Sb**	**15 28 55.1**	**-0.6**
KPRO				AML	AML		
LADO	**San Nicola del**	**1.78**	**270**	P	**Pn**	**15 28 33.0**	**+0.3**
LADO				AML	AML		
	comp=E,80µm,0.3s						
LADO				AML	AML		
	comp=N,72µm,1.0s						
LADO				AML	AML		
	comp=N,72µm,1.0s						
ORTH	**Orthonies,Zaky**	**1.84**	**142**	P	**Pn**	**15 28 34.2**	**+0.7**
ORTH				S	**Sb**	**15 28 58.6**	**-0.1**
TIP	**Timpagrande**	**1.96**	**267**	P	**Pn**	**15 28 35.4**	**+0.1**
TIP	**Timpagrande**	**1.96**	**267**	P	**Pn**	**15 28 35.4**	**+0.1**
TIP				S	**Sn**	**15 29 00.3**	**+0.4**
SELL	**Sellia**	**2.09**	**262**	P	**Pn**	**15 28 36.4**	**-0.5**
THL	**Klokotos Trika**	**2.13**	**83**	P	**Pn**	**15 28 37.9**	**+0.3**
ORI	**Oriolo Calabro**	**2.31**	**290**	AML	AML		
	comp=E,274µm,1.4s						
ORI				AML	AML		
	comp=E,274µm,0.6s						
ORI				AML	AML		
	comp=N,258µm,0.4s						
ORI				AML	AML		
	comp=N,258µm,1.6s						
DRO	**Drossia**	**2.34**	**125**	P	**Pn**	**15 28 40.9**	**+0.5**
DRO				AML	AML		
PLAC	**Placanica**	**2.38**	**250**	P	**Pn**	**15 28 41.0**	**0.0**
PLAC				S	**Sn**	**15 29 11.0**	**+0.8**
CAR1	**CAROLEI**	**2.38**	**269**	P	**Pn**	**15 28 41.8**	**+0.8**
CAR1				AML	AML		
	comp=E,46µm,1.0s						
CAR1				AML	AML		
	comp=N,36µm,0.5s						
JOPP	**Joppolo**	**2.74**	**256**	P	**Pn**	**15 28 46.2**	**+0.3**
JOPP				S	**Sn**	**15 29 19.1**	**0.0**
JOPP				AML	AML		
	comp=E,35µm,0.5s						
JOPP				AML	AML		
	comp=N,35µm,1.6s						
JOPP				AML	AML		
	comp=N,35µm,0.4s						
CEL	**Celeste**	**2.85**	**249**	P	**Pn**	**15 28 47.6**	**+0.2**
CEL				S	**Sn**	**15 29 21.0**	**-0.8**
CEL				AML	AML		
	comp=E,108µm,1.6s						
CEL				AML	AML		
	comp=N,120µm,0.8s						
CEL				AML	AML		
	comp=N,120µm,1.2s						
CEL				AML	AML		
	comp=E,108µm,0.4s						
CEL	**Celeste**	**2.85**	**249**	P	**Pn**	**15 28 47.3**	**-0.1**
CEL				AML	AML		

*IDC **03** 15:33:36.3±2.6, 39°.53N×142°.42E, h74^{km}±21^{km}, mb3.3/5, mbtmp3.6/9, Error ellipse: s-maj=34.2km s-min=15.9km az=99.0*

*JMA **03** 15:33:36.1±0.1, 39°.6N±0°.2×142°.1E±0°.3, h49^{km}, MV3.6/40, E OFF IWATE PREF*

JMA Felt II J1 at E OFF IWATE PREF .

ISC 03 15:33:35.6±1.1**, 39°.61N**±0°.04×**142°.16E**±0°.09**, h51**^{km}±8^{km}**, n27,** σ**1^s.51**/31**, mb3.8**/6**, 15D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MIYJ	**Miyakonagasawa**	**0.26**	**264**	⇓*i*P	**Pn**	**15 33 44.5**	**0.0**
MIYJ				⇓S	**Sn**	**15 33 50.1**	**-0.7**
JTH	**Tanohata**	**0.40**	**326**	⇓*i*P	**Pn**	**15 33 45.6**	**-0.3**
JTH				⇓S	**Sn**	**15 33 52.2**	**-1.0**
OFUJ	**Ofunato**	**0.65**	**216**	*i* P	**Pn**	**15 33 48.9**	**+0.2**
OFUJ				S	**Sn**	**15 33 57.8**	**-0.4**
JOM	**Ohasama**	**0.68**	**259**	⇓*i*P	**Pn**	**15 33 49.3**	**+0.1**
JOM				⇓S	**Sn**	**15 33 58.8**	**-0.2**
JKZ	**Kuzumaki**	**0.74**	**301**	⇓*i*P	**Pn**	**15 33 49.9**	**-0.1**
JKZ				⇓S	**Sn**	**15 33 59.4**	**-1.0**
JANG	**Nango**	**0.91**	**328**	⇓*i*P	**Pn**	**15 33 51.7**	**-0.5**
JANG				⇓S	**Sn**	**15 34 02.7**	**-1.7**
JMK	**Ichinoseki**	**0.98**	**228**	⇓*i*P	**Pn**	**15 33 53.3**	**+0.2**
JMK				⇓S	**Sn**	**15 34 05.7**	**-0.2**
JRG	**Rokugo**	**1.20**	**260**	⇓*i*P	**Pn**	**15 33 56.0**	**0.0**
JAH	**Hinai**	**1.31**	**297**	⇓*i*P	**Pn**	**15 33 57.6**	**+0.1**
JAH				⇓S	**Sn**	**15 34 13.5**	**-0.3**
JIO	**Ouri**	**1.31**	**209**	P	**Pn**	**15 33 58.0**	**+0.5**
JTM	**Tenmabayashi**	**1.45**	**325**	*i* P	**Pn**	**15 33 59.3**	**-0.1**
JTM				S	**Sn**	**15 34 16.5**	**-0.7**
MJAR	**Matsushiro Arr**	**4.37**	**227**	P	**Pn**	**15 34 41.9**	**+2.5**
	2.5nm,0.4s,baz=33,slow=14,SNR=21						
ASAJ	**Asahikawa**	**4.52**	**4**	P	**Pn**	**15 34 42.2**	**+0.7**
	6.6nm,0.8s,baz=279,slow=6.6,SNR=7.4						
ASAJ				S	**Sn**	**15 35 36.2**	**+3.5**
	5.8nm,0.8s,baz=56,slow=32,SNR=0.9						
USRK	**Ussuriysk Ar.**	**8.86**	**304**	P	**Pn**	**15 35 42.8**	**+1.8**
	1.9nm,0.6s,baz=113,slow=13,SNR=2.0						
KSRS	**Korea Array**	**11.36**	**264**	P	**Pn**	**15 36 19.4**	**+4.4**
	1.0nm,0.4s,baz=72,slow=14,SNR=4.4						
H11N2	**WAKE ISLAND Hy**	**29.07**	**126**	T	T	16 10 04.4	
	baz=318,slow=75,SNR=151						
H11N1	**WAKE ISLAND Hy**	**29.08**	**126**	T	T	16 10 11.7	
	baz=318,slow=75,SNR=183						
H11N3	**WAKE ISLAND Hy**	**29.09**	**126**	T	T	16 10 11.9	
	baz=318,slow=75,SNR=138						
H11S1	**WAKE ISLAND Hy**	**29.87**	**128**	T	T	16 11 09.0	
	baz=319,slow=76,SNR=21						
H11S3	**WAKE ISLAND Hy**	**29.87**	**128**	T	T	16 11 05.9	
	baz=319,slow=76,SNR=28						
H11S2	**WAKE ISLAND Hy**	**29.88**	**128**	T	T	16 11 11.6	
	baz=319,slow=76,SNR=26						
ZALV	**Zalesovo Beam**	**40.66**	**310**	P	**P**	**15 41 10.7**	**+0.1**
	0.8nm,0.4s,baz=93,slow=8.1,SNR=5.7						
	0.8nm,0.4s						
MKAR	**Makanchi Array**	**43.30**	**300**	P	**P**	**15 41 31.9**	**-0.3**
	0.7nm,0.7s,baz=87,slow=11,SNR=4.5						
	0.7nm,0.7s						
KURBB	**Kurchatov Arra**	**44.92**	**306**	P	**P**	**15 41 44.9**	**-0.3**
	1.4nm,0.2s,baz=81,slow=8.4,SNR=3.4						
WRA	**Warramunga Arr**	**59.69**	**189**	P	**P**	**15 43 33.8**	**-1.1**
	0.6nm,0.9s,baz=7.9,slow=6.6,SNR=2.9						
	0.6nm,0.9s						
ASAR	**Alice Springs**	**63.41**	**188**	P	**P**	**15 43 56.6**	**-3.4**
	0.2nm,0.8s,baz=1.9,slow=6.3,SNR=2.0						
	0.2nm,0.8s						
FINES	**FINESS Array B**	**66.82**	**332**	P	**P**	**15 44 20.9**	**-0.7**
	1.3nm,0.9s,baz=59,slow=5.6,SNR=1.5						
	1.3nm,0.9s						

IDC 03 15:33:49.8±7.7**, 30°.21S**×**177°.90W, h0**^{km}**, mb3.3**/2**, mbtmp3.3**/2**, Error ellipse: s-maj=321.0km s-min=61.6km az=155.0, Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	**9.03**	**206**	Sn	Sn	15 37 38.9	-4.8
	0.4nm,0.3s,baz=185,slow=22,SNR=5.9						
ASAR	**Alice Springs**	**43.21**	**267**	P	P	15 41 52.9	0.0
	0.3nm,0.9s,baz=104,slow=7.5,SNR=4.9						
	0.3nm,0.9s						
WRA	**Warramunga Arr**	**44.18**	**272**	P	P	15 42 00.3	-0.3
	0.3nm,0.4s,baz=110,slow=8.1,SNR=7.1						
	0.3nm,0.4s						
FINES	**FINESS Array B**	**145.00**	**340**	PKPbc	PKPbc	15 53 26.9	-0.7
	0.3nm,0.5s,baz=48,slow=2.1,SNR=3.9						

*SJA **03** 15:36:08.0±0.7, 27°.85S×72°.08W, h14^{km}, ML4.0, MW4.1*

*IDC **03** 15:36:11.0±0.9, 27°.83S×71°.94W, h0^{km}, mb4.2/4, mbtmp4.0/8, ML3.9/4, MS3.2/3, Error ellipse: s-maj=24.7km s-min=15.8km az=82.0*

NEIC ***03*** *15:36:11.5±1.4, 27°.88S±0°.04×71°.75W±0°.05, h10^{km}±1^{km}, Mwr4.0/40, ML3.5(GUC), Error ellipse: s-maj=7.5km s-min=6.8km az=203.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}1.31; $M_{\theta\theta}$-0.07; $M_{\phi\phi}$-1.24; $M_{r\theta}$0.12; $M_{\theta\phi}$-0.22; $M_{\phi r}$-0.63; Fault plane solution: $M_0$1.45000×10^{15} NP1:ϕ_s18.79000°, δ33.15000°, λ104.54000°. NP2:ϕ_s181.58000°, δ58.04000°, λ80.69000°. Principal axes: T 1.4796, Plg75.0000°, Azm65.0000°; N -0.0635, Plg8.0000°, Azm187.0000°; P -1.4161, Plg13.0000°, Azm278.0000°;*

NEIC ***03*** *15:36:11.5, 27°.87S×71°.73W, h10^{km}*

GUC ***03*** *15:36:14.1±0.8, 27°.98S×71°.60W, h25^{km}±4^{km}, ML3.6*

ISC 03 15:36:10.6±1.5**, 27°.89S**±0°.03×**71°.76W**±0°.05**, h4**^{km}±9^{km}**, n98, σ1^{s}55**/121**, mb4.3**/3**, 4C-3D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	Llanos de Chal	0.68	117	*e*P	Pg	15 36 24.2	+0.7
AC04				*e*S	Pg	15 36 24.3	+0.7
AC04				IAML		15 36 34.1	
	comp=Z,4µm,0.7s						
AC04	Llanos de Chal	0.68	117	*i* P	Pg	15 36 24.3	+0.7
AC04				*e*S	Sg	15 36 31.7	-0.7
AC04				IAML		15 36 33.9	
	comp=E,5µm,0.3s						
AC04	Llanos de Chal	0.68	117		Pg	15 36 24.1	+0.5
AC04				Sg	Sg	15 36 31.9	-0.6
AC06	Mina Casimiro	1.35	67⇑	*e*P	Pb	15 36 36.3	-0.3
AC06				*e*S	Sb	15 36 52.9	-1.3
AC06				IAML		15 36 55.8	
	comp=N,1µm,0.2s						
AC06	Mina Casimiro	1.35	67		Pb	15 36 36.1	-0.4
AC06					Sb	15 36 52.4	-1.8
GO03	Copiapo	1.38	78⇓	*e*P	Pb	15 36 36.6	-0.5
GO03				*e*S	Sn	15 36 53.3	-2.2
GO03				IAML		15 37 02.4	
	comp=N,2µm,0.6s						
GO03	Copiapo	1.38	78		Pb	15 36 36.5	-0.5
LCO	Las Campanas	1.45	140	*e*P	Pn	15 36 37.8	0.0
LCO				IAML		15 37 03.9	
	comp=Z,2µm,0.8s						
LCO	Las Campanas	1.45	140⇓	*e*P	Pn	15 36 37.6	-0.3
LCO				*e*S	Sn	15 36 54.7	-2.8
LCO	Las Campanas	1.45	140		Pn	15 36 37.5	-0.3
LCO				Sn	Sn	15 36 54.6	-2.9
AC05	El Transito	1.61	126	*e*P	Pn	15 36 40.4	+0.5
AC05				*e*S	Sb	15 37 02.5	+0.8
AC05	El Transito	1.61	126⇓	*e*P	Pn	15 36 40.1	+0.1
AC05				*e*S	Sn	15 36 58.6	-2.7
AC05				IAML		15 37 02.8	
	comp=N,1µm,0.6s						
AC05	El Transito	1.61	126		Pn	15 36 40.0	+0.1
AC05				Sn	Sn	15 36 58.5	-2.7
AC01	Pan de Azucar	2.02	31	*e*P	Pn	15 36 40.5	-5.0
AC01				*e*P	Pb	15 36 45.8	-2.2
AC01				*e*S	Sg	15 37 17.5	+1.9
AC01				IAML		15 37 27.0	
	comp=Z,554nm,0.5s						
AC01	Pan de Azucar	2.02	31⇑	*i*P	Pn	15 36 45.9	+0.4
AC01	Pan de Azucar	2.02	31		Pn	15 36 45.6	+0.1
AC01				Sn	Sn	15 37 08.9	-2.4
GO04	Tololo Observa	2.42	160	*e*P	Pn	15 36 52.0	+0.8
GO04				*e*S	Sb	15 37 25.0	-0.2
GO04				IAML		15 37 33.7	
	comp=Z,1µm,0.9s						
GO04	Tololo Observa	2.42	160	*e*P	Pn	15 36 51.9	+0.8
GO04				*e*S	Sn	15 37 19.6	-1.8
GO04	Tololo Observa	2.42	160		Pn	15 36 51.0	-0.1
GO04				Sn	Sn	15 37 17.5	-3.9
CO01	Juntas del Tor	2.54	145	*e*P	Pn	15 36 54.9	+2.1
CO01				*e*S	Sb	15 37 29.6	+1.1
CO01				IAML		15 37 31.5	
	comp=Z,515nm,0.9s						
CO01	Juntas del Tor	2.54	145⇑	*e*P	Pn	15 36 54.8	+2.1
CO01				*e*S	Sn	15 37 24.0	-0.3
CO01				IAML		15 37 30.5	
	comp=N,694nm,0.9s						
CO01	Juntas del Tor	2.54	145		Pn	15 36 54.2	+1.4
AC02	Maricunga	2.56	66	*e*P	Pb	15 36 55.7	-1.7
AC02				*e*S	Sn	15 37 24.5	-0.8
AC02				IAML		15 37 37.6	
	comp=Z,718nm,1.1s						
AC02	Maricunga	2.56	66⇑	*e*P	Pb	15 36 55.7	-1.7
AC02				IAML		15 37 37.8	
	comp=E,1µm,0.5s						
AC02	Maricunga	2.56	66		Pb	15 36 55.1	-2.3
CO06	Fray Jorge	2.77	178	*e*P	Pn	15 36 55.9	+0.2
CO06				IAML		15 37 49.2	
	comp=N,201nm,0.5s						
CO06	Fray Jorge	2.77	178		Pn	15 36 56.0	+0.2
AROD	Rodeo	3.02	139	*e*P	Pb	15 37 03.1	-2.1
AROD				*e*S	Sb	15 37 45.9	+3.4
CO03	El Pedregal	3.08	163	*e*P	Pn	15 37 01.2	+1.1
CO03				*e*S	Sn	15 37 38.5	+1.1
CO03				IAML		15 37 55.6	
	comp=Z,410nm,0.7s						
CO03	El Pedregal	3.08	163	*e*P	Pn	15 37 01.0	+0.9
CO03				IAML		15 37 53.2	
	comp=N,387nm,0.5s						
CO03	El Pedregal	3.08	163		Pn	15 37 00.5	+0.4
VCA	Vinchina	3.24	106	*e*P	Pb	15 37 07.9	-0.9
CO02	Combarbal	3.36	169	*e*P	Pn	15 37 04.5	+0.4
CO02				*e*S	Sn	15 37 40.5	-4.0
CO02				IAML		15 38 05.1	
	comp=Z,533nm,0.8s						
CO02	Combarbal	3.36	169	*e*P	Pn	15 37 04.2	+0.2
CO02	Combarbal	3.36	169		Pn	15 37 04.3	+0.2
PB14	IPOC Station P	3.47	21	*e*P	Pn	15 37 06.0	+0.2
PB14				*e*S	Sg	15 38 03.5	+1.2
PB14				IAML		15 38 10.9	
	comp=Z,222nm,1.1s						
PB14	IPOC Station P	3.47	21		Pn	15 37 05.5	-0.2
TINO	Tinogasta	3.71	94	*e*P	Pb	15 37 13.2	-3.5
TINO				*e*S	Sg	15 38 10.8	+1.1
TINO				IAML		15 38 13.8	
	comp=Z,202nm,0.7s						
CO04	Los Peladeros	4.19	171		Pn	15 37 15.7	+0.2
ACLC	CERRO LA CRUZ	4.49	111	*e*P	Pn	15 37 22.5	+2.9
ACLC				*e*S	Sb	15 38 20.0	-4.7
ACLC				IAML		15 38 28.1	
	comp=Z,88nm,0.6s						
ZON	Zonda	4.52	144		Pn	15 37 20.0	+0.2
CFA	Coronel Fontan	4.80	141	Pn	Pn	15 37 26.4	+2.6
	comp=Z,3.8nm,0.3s,baz=312,slow=9.1,SNR=15						
CFA				Sn	Sn	15 38 25.1	+5.3
	comp=Z,3.2nm,0.3s,baz=65,slow=23,SNR=3.9						
	comp=Z,5.4nm,0.4s						
CFA				AML	AML		
VA03	San Esteban	4.96	168		Pn	15 37 26.2	+0.1
VA01	Torpederas	5.11	179	Pn	Pn	15 37 27.8	-0.1
PB05	IPOC Station P	5.21	16	*e*P	Pn	15 37 29.2	-0.3
PB05				*e*S	Sn	15 38 30.3	+0.2
PB05				IAML		15 39 12.5	
	comp=Z,72nm,0.9s						
PB05	IPOC Station P	5.21	16		Pn	15 37 28.2	-1.3
PEL	Peldehue	5.31	170	Pn	Pn	15 37 30.8	0.0
MT02	Curacav	5.37	174	Pn	Pn	15 37 32.0	+0.5
PB06	IPOC Station P	5.53	21		Pn	15 37 33.6	-0.3
MT05	Renca	5.55	171	Pn	Pn	15 37 34.2	+0.2
MT16	CCHEN	5.62	169	Pn	Pn	15 37 35.6	+0.6
MT03	Universidad Ad	5.68	169	Pn	Pn	15 37 35.7	-0.2
MT08	Bocatoma Ro	5.73	165	Pn	Pn	15 37 35.6	-1.1
AF01	San Pedro de A	5.89	34	Pn	Pn	15 37 37.8	-1.2
MT09	Talagante	5.90	174		Pn	15 37 39.1	+0.2
MT13	San Alfonso	5.97	168		Pn	15 37 40.0	+0.2
MT01	Popeta	5.97	176		Pn	15 37 39.8	+0.1
PB03	IPOC Station P	6.10	18		Pn	15 37 40.0	-1.7
BO04	La Punta	6.16	171	Pn	Pn	15 37 41.6	-0.7
PB07	IPOC Station P	6.37	16		Pn	15 37 44.3	-1.1
PB09	IPOC Station P	6.49	21	Pn	Pn	15 37 47.0	0.0
BO01	Tunca	6.50	175	Pn	Pn	15 37 47.3	+0.2
PB02	IPOC Station P	6.76	15		Pn	15 37 49.5	-1.3
BO02	Sierra Bellavi	6.93	173	Pn	Pn	15 37 51.8	-1.2
TA01	Diego Aracena	7.44	11	Pn	Pn	15 37 58.8	-1.1
PB08	IPOC Station P	8.08	18	Pn	Pn	15 38 07.8	-1.2
H03N1	Juan Fernandez	8.28	226	T	T	15 46 54.3	
	baz=207,slow=74,SNR=327						
H03N2	Juan Fernandez	8.29	226	T	T	15 46 54.3	
	baz=55,slow=74,SNR=82						
PB11	IPOC Station P	8.32	14	Pn	Pn	15 38 10.0	-2.3
PSGCX	Pisagua	8.39	11	Pn	Pn	15 38 11.3	-1.8
GO01	Chusmiza	8.52	17	Pn	Pn	15 38 15.2	0.0
BI02	San Fabin de	8.75	177		Pn	15 38 17.7	-0.4
PB12	IPOC Station P	9.33	8	Pn	Pn	15 38 24.4	-1.6
PB16	IPOC Station P	9.74	13	Pn	Pn	15 38 30.2	-1.8
PB18	Visviri	10.47	12	Pn	Pn	15 38 40.6	-1.4
LPAZ	La Paz	12.03	17	Pn	Pn	15 39 03.8	+0.4
	comp=Z,0.2nm,0.3s,baz=196,slow=8.5,SNR=5.2						
	comp=Z,0.9nm,0.5s						
LPAZ				AML	AML		
LPAZ	La Paz	12.03	17	Pn	Pn	15 39 01.5	-1.9
PLCA	Paso Flores	12.85	176	LR	LR	15 44 07.6	
	comp=Z,89nm,19.9s,baz=352,slow=37						
CPUP	Villa Florida	12.95	86	Pn	Pn	15 39 17.0	+1.6
	comp=Z,0.2nm,0.3s,baz=232,slow=20,SNR=2.2						
CPUP				LR	LR	15 45 13.1	
	comp=Z,76nm,20.7s,baz=256,slow=41						
	comp=Z,0.8nm,0.3s						
CPUP				AML	AML		
CPUP	Villa Florida	12.95	86	Pn	Pn	15 39 15.1	-0.3
SIV	San Ignacio	15.43	42	Pn	Pn	15 39 49.8	+0.6
	baz=224,slow=10.0,SNR=28						
	comp=Z,0.5nm,0.4s						
PMSA	Palmer Station	37.22	175	LR	LR	15 57 31.6	
	comp=Z,60nm,18.6s,baz=174,slow=34						
SNAA	Sanae	57.17	159	P	P	15 45 59.4	+1.1
	comp=Z,1.4nm,0.5s,baz=293,slow=3.5,SNR=5.0						
	comp=Z,1.4nm,0.5s						
SNAA	Sanae	57.17	159	P	P	15 45 58.9	+0.6
TROLL	Troll, Antarti	58.88	160	P	P	15 46 11.5	+1.2
	comp=Z,59nm,0.6s						
QSPA	South Pole Qui	62.32	180	P	P	15 46 35.4	+1.5
	comp=Z,1.1nm,0.7s,baz=114,slow=1.9,SNR=7.6						
	comp=Z,1.1nm,0.7s						
QSPA	South Pole Qui	62.32	180	P	P	15 46 35.0	+1.1
DBIC	Dimbokro	73.07	73	P	P	15 47 43.4	+1.0
	comp=Z,5.7nm,0.8s,baz=225,slow=4.9,SNR=3.4						
	comp=Z,5.7nm,0.8s						
TORD	Torodi Ar. Bea	81.93	71	P	P	15 48 33.5	+1.5
	comp=Z,1.6nm,0.9s,baz=266,slow=3.9,SNR=6.1						
	comp=Z,1.6nm,0.9s						
ASAR	Alice Springs	123.08	208	PKP	PKiKP	15 55 10.2	+0.9
	comp=Z,0.5nm,0.9s,baz=129,slow=2.5,SNR=2.1						
WRA	Warramunga Arr	126.16	211	PKP	PKiKP	15 55 16.4	+0.9
	comp=Z,0.3nm,0.7s,baz=144,slow=1.6,SNR=2.0						
KURK	Kurchatov	148.04	36		PKPbc	15 55 56.2	-0.9
KURBB	Kurchatov Arra	148.04	37	PKPbc	PKPbc	15 55 56.2	-0.9
	comp=Z,0.5nm,0.5s,baz=296,slow=3.1,SNR=4.8						
ZALV	Zalesovo Beam	148.81	27	PKPbc	PKiKP	15 56 00.4	0.0
	comp=Z,3.0nm,0.7s,baz=302,slow=3.3,SNR=16						
ZALV	Zalesovo Beam	148.81	27		PKPab	15 56 01.5	-1.3
MKAR	Makanchi Array	152.25	40	PKPbc	PKiKP	15 56 09.2	+1.4
	comp=Z,0.7nm,0.7s,baz=348,slow=3.1,SNR=5.3						
HHC	Hu-ho-hao-te	166.79	349	*e*P	PKPdf	15 56 18.3	+0.6
PZH	PanZhiHua	174.05	102	PKP	PKPdf	15 56 20.2	-1.9

TRN 03 15:37:30.0, 18°.04N×62°.86W, h21^{km}, MD3.8, East of St. Martin. Felt in St. Martin MMI IV., Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SABA	Saba	0.56	221	*e*P	Pn	15 37 49.5	+6.7
SABA				*e*S	Sn	15 37 58.4	+7.0
SEUS	St. Eustatius	0.56	192	*e*P	Pn	15 37 50.1	+7.3
SEUS				*e*S	Sn	15 37 59.2	+7.7
SKI	Saint Kitts	0.71	171	*e*P	Pn	15 37 52.8	+7.8
SKI				*e*S	Sn	15 38 04.1	+8.8
ANWB	Willy Bob	1.08	110	*e*P	Pb	15 37 57.8	+7.8
ANWB				*e*S	Sn	15 38 13.7	+9.3
MBWH	Windy Hill	1.44	154	*e*P	Pb	15 38 02.8	+6.6
MBWH				*e*S	Sb	15 38 22.1	+8.0
MLYT	Lee's Yard	1.46	154	*e*S	Sb	15 38 23.6	+9.0
DHSZ	Broadband at M	2.04	149	*e*P	Pb	15 38 12.3	+5.9
DHSZ				*e*S	Sb	15 38 36.8	+5.4
MMLZ	Guadeloupe Bro	2.29	150	*e*P	Pb	15 38 15.7	+5.2
MMLZ				*e*S	Sb	15 38 43.0	+4.6
DSDZ	La Diserade, G	2.42	135	*e*P	Pb	15 38 16.4	+3.4
DSDZ				*e*S	Sb	15 38 45.3	+2.9
TBG	Guadaloupe-3	2.47	152	*e*P	Pb	15 38 17.7	+4.0
TBG				*e*S	Sb	15 38 47.4	+3.8
DWS	Wesley	2.87	149	*e*P	Pb	15 38 21.8	+1.3
DWS				*e*S	Sb	15 38 58.1	+2.8
DSLB	Salisbury	2.93	152	*e*P	Pb	15 38 24.2	+2.6
DSLB				*e*S	Sb	15 38 58.9	+1.9

MOS ***03*** *16:02:51.8±0.9, 4°.36S×102°.71E, h40^{km}, mb5.5/61, Error ellipse: s-maj=8.9km s-min=4.2km az=116.3*

BJI ***03*** *16:02:52.0, 4°.60S×102°.50E, h60^{km}, mB5.2/16, mb5.4/65, Ms4.5/14, Ms7 4.3/16*

DJA ***03*** *16:02:54.6±0.4, 5°S±2°×10°3E±°, h23^{km}±3^{km}, M5.2/53, mB5.5/18, mb5.5/21, MLv5.4/53, Mw(mB)5.0/18, MwMwp4.5/1, Mwp4.9/1*

GFZ ***03*** *16:02:55.5±0.1, 5°S±2°×10°3E±°, h56^{km}, M5.1/102, mb5.3/102, Mw4.8/35*

NEIC ***03*** *16:02:55.2±1.7, 4°.48S±0°.06×102°.59E±0°.06, h54^{km}±4^{km}, mb5.3/152, Error ellipse: s-maj=9.8km s-min=8.0km az=219.0*

IDC ***03*** *16:02:56.6±1.6, 4°.40S×102°.78E, h68^{km}±13^{km}, mb4.8/31, mbtmp5.0/32, MS3.7/49, Error ellipse: s-maj=13.9km s-min=7.8km az=55.0*

GCMT ***03*** *16:02:58.2±0.4, 4°.80S±0°.03×102°.36E±0°.03, h69^{km}±2^{km}, MW4.8/68, Moment Tensor Solution. s35,c41; s68,c92; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}1.77±.12; $M_{\theta\theta}$-1.23±.09; $M_{\phi\phi}$-0.54±.10; $M_{r\theta}$0.69±.07; $M_{\theta\phi}$1.49±.07; $M_{\phi r}$-0.21±.08; Best double couple: $M_0$2.22300×10^{16} NP1:ϕ_s321.00000°, δ37.00000°, λ109.00000°. NP2: ϕ_s118.00000°, δ55.00000°, λ76.00000°. Principal axes: T 1.9270, Plg76.0000°, Azm345.0000°; N 0.5910, Plg11.0000°, Azm126.0000°; P -2.5190, Plg9.0000°, Azm218.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 03 16:02:54.7±0.3**, 4°.54S**±0°.03×**102°.56E**±0°.03**, h57**^{km}±2^{km}**, h57**^{km}**:pP-P, n874, σ1^{s}32**/875**, mb5.2**/283**, MS3.8**/58**, 72C-18D, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MNAI	Manna	0.43	65	P	Pn	16 03 08.3	+2.5
MNAI	Manna	0.43	65		Pn	16 03 05.7	-0.1
MNAI				Sn	Sn	16 03 13.5	-0.2
MNAI	Manna	0.43	65	P	Pn	16 03 06.3	+0.6
MNAI				S	Sn	16 03 13.7	0.0
MNAI				AML	AML		
MNAI	Manna	0.43	65	P	Pn	16 03 06.4	+0.6
UBSI	University, Be	0.83	339	P	Pn	16 03 11.3	+0.8
KSI	Kapahiang	0.89	2	P	Pn	16 03 12.1	+0.8
KSI				S	Sn	16 03 25.7	+2.3
KSI				AML	AML		
LHSI	Lahat	1.19	53	P	Pn	16 03 16.8	+1.6
LHSI				S	Sn	16 03 33.5	+3.0
MDSI	Maura Dua	1.61	88	P	Pn	16 03 21.9	+1.0
MDSI				AML	AML		
KASI	Kota Agung	2.16	117	P	Pn	16 03 29.0	+0.7
PMBI	Palembang	2.73	54	P	Pn	16 03 38.8	+2.7
PMBI	Palembang	2.73	54		Pn	16 03 36.0	-0.1
PMBI	Palembang	2.73	54	P	Pn	16 03 37.8	+1.7
PMBI				AML	AML		
PMBI	Palembang	2.73	54	P	Pn	16 03 37.4	+1.3
BLSI	Bandar Lampung	2.79	107	P	Pn	16 03 38.3	+1.3
JMBI	JAMBI	3.08	20	P	Pn	16 03 43.0	+2.0
JMBI				AML	AML		
PPSI	Pulau Pagai	3.10	305	P	Pn	16 03 43.5	+2.3
CGJI	Cibinong	3.73	124	P	Pn	16 03 50.6	+0.7
SDSI	Sungai Dareh	3.76	342	P	Pn	16 03 52.6	+2.3
SDSI				AML	AML		
RGRI	Rengat	4.17	357	P	Pn	16 03 58.1	+2.2
RGRI				AML	AML		
PDSI	Padang	4.17	330	P	Pn	16 03 57.7	+1.7
PDSI				AML	AML		
PPBI	Pangkal Pinang	4.28	57	P	Pn	16 04 01.8	+4.4
PPI	Padang Panjang	4.60	332	P	Pn	16 04 03.0	+1.2
PPI				AML	AML		
BKNI	Bangkinang	5.07	342	P	Pn	16 04 09.8	+1.5
BKNI	Bangkinang	5.07	342		Pn	16 04 07.3	-1.0
BKNI	Bangkinang	5.07	342	P	Pn	16 04 10.2	+1.9
	4.8nm6µm834nm,1.0s						
BKNI				AML	AML		
BKNI	Bangkinang	5.07	342	P	Pn	16 04 11.0	+2.7
	comp=Z,833nm,1.0s						
CNJI	Cibinong	5.31	121	P	Pn	16 04 11.7	+0.2
	comp=Z,3.8nmcomp=Z,7µmcomp=Z,433nm,0.7s						
CNJI				AML	AML		
TPI	Tanjungpandan	5.38	71	P	Pn	16 04 13.2	+0.7
TPI				AML	AML		
TPRI	Tanjung Pinang	5.77	20	P	Pn	16 04 19.2	+1.4
	comp=Z,1.4nmcomp=Z,2µmcomp=Z,5µmcomp=Z,304nm,0.5s						
TPRI				AML	AML		
BBJI	Bungbulang	5.83	120	P	Pn	16 04 19.7	+1.0
BBJI	Bungbulang	5.83	120		Pn	16 04 18.6	-0.2
BBJI				Sn	Sn	16 05 18.2	-6.1
BBJI	Bungbulang	5.83	120	P	Pn	16 04 19.3	+0.6
	comp=Z,159nm,0.6s						
BBJI	Bungbulang	5.83	120	P	Pn	16 04 19.7	+1.0
	comp=Z,151nm,0.6s						
BTDF	Bukit Timah Da	5.99	12	P	Pn	16 04 23.0	+2.1
BTDF	Bukit Timah Da	5.99	12	P	Pn	16 04 22.9	+2.1
	comp=Z,190nm,0.6s						
PBSI	Pulau Batu	6.18	316	P	Pn	16 04 24.5	+1.0
	comp=Z,268nm,0.5s						
MYKOM	Kota Tinggi	6.42	12	P	Pn	16 04 29.2	+2.4
MYKOM	Kota Tinggi	6.42	12		Pn	16 04 28.4	+1.6
MYKOM	Kota Tinggi	6.42	12	P	Pn	16 04 28.7	+1.9
	comp=Z,2µmcomp=Z,209nm,0.8s						
MYKOM	Kota Tinggi	6.42	12	P	Pn	16 04 29.3	+2.5
	comp=Z,209nm,0.8s						
CMJI	Cimerak	6.68	119	P	Pn	16 04 30.5	+0.2
	comp=Z,1.2nmcomp=Z,221nm,0.6s						
CMJI				AML	AML		
GSI	Gunungsitoli	7.65	319	P	Pn	16 04 44.0	+0.4
GSI	Gunungsitoli	7.65	319	S	Sn	16 06 07.1	-1.9
GSI	Gunungsitoli	7.65	319		Pn	16 04 43.0	-0.7
GSI	Gunungsitoli	7.65	319	P	Pn	16 04 44.1	+0.4
	comp=Z,1.1nmcomp=Z,4µmcomp=Z,312nm,0.6s						
GSI				AML	AML		
GSI	Gunungsitoli	7.65	319	P	Pn	16 04 43.9	+0.2
	comp=Z,306nm,0.6s						
RPSI	Rantau Prapat	8.06	333		Pn	16 04 48.7	-0.5
RPSI	Rantau Prapat	8.06	333	P	Pn	16 04 49.6	+0.4
	comp=Z,23nm,0.8s						
PSI	Prapat	8.15	333	P	Pn	16 04 49.5	-1.1
PSI	Prapat	8.15	333	P	Pn	16 04 48.7	-1.9
SMRI	Semarang	8.22	108	P	Pn	16 04 54.7	+3.2
SMRI	Semarang	8.22	108	P	Pn	16 04 53.1	+1.6
	comp=Z,163nm,1.0s						
UGM	Wanagama	8.59	113	Pn	Pn	16 04 56.7	+0.1
COCO	West Island	9.48	216	P	Pn	16 05 07.9	-0.7
COCO	West Island	9.48	216	*i* P	Pn	16 05 08.2	-0.4
COCO	West Island	9.48	216		Pn	16 05 06.2	-2.4
COCO	West Island	9.48	216	P	Pn	16 05 06.8	-1.8
	comp=Z,1µm,0.9s						
LHMI	Lhok Sumawe	11.21	330	Pn	Pn	16 05 30.1	-2.3
JAGI	Jajag, Banyuwa	12.15	109	P	Pn	16 05 46.1	+0.8
JAGI	Jajag, Banyuwa	12.15	109	S	Sn	16 08 03.3	+4.0
JAGI	Jajag, Banyuwa	12.15	109		Pn	16 05 44.8	-0.4
JAGI	Jajag, Banyuwa	12.15	109	P	Pn	16 05 46.3	+1.0
	comp=Z,145nm,0.9s						
BKB	Balikpapan	14.68	78		P	16 06 24.3	+0.2
KAPI	Kappang	17.14	92	P	Pn	16 06 50.4	-0.1
	comp=Z,31nm,0.6s,baz=281,slow=9.4,SNR=8.6						
KAPI				LR	LR	16 14 03.9	
	comp=Z,236nm,20.3s,baz=266,slow=39						
KAPI	Kappang	17.14	92	P	P	16 06 52.6	+1.2
KAPI	Kappang	17.14	92	P	Pn	16 06 49.9	-0.6
KKM	Kota Kinabalu	17.22	52	P	P	16 06 53.7	+1.3
KKM	Kota Kinabalu	17.22	52		Pn	16 06 51.9	+0.3
KKM	Kota Kinabalu	17.22	52	P	P	16 06 52.2	-0.2
	comp=Z,40nm,0.7s						
DLV	Lat	17.41	20	P	P	16 06 54.4	-0.2
MYLDM	Lahad Datu	18.62	59	P	Pn	16 07 10.2	+1.6
MYLDM	Lahad Datu	18.62	59		Pn	16 07 08.8	+0.2
MYLDM				IAmb	IAmb	16 07 13.3	
	comp=Z,94nm,0.7s						
MYLDM	Lahad Datu	18.62	59	P	Pn	16 07 09.7	+1.1
	comp=Z,170nm,0.8s						
PBA	Port Blair	18.83	329	P	P	16 07 09.0	-1.0
TOLI2	Tolitoli	19.05	73	P	Pn	16 07 13.9	+0.2
TOLI2	Tolitoli	19.05	73		P	16 07 12.5	0.0
TOLI2				IAmb	IAmb	16 07 15.6	
	comp=Z,69nm,0.7s						
TOLI2	Tolitoli	19.05	73	P	Pn	16 07 14.0	+0.2
	comp=Z,99nm,0.9s						
MMRI	Maumere	19.96	103	P	P	16 07 23.2	+0.8
MMRI	Maumere	19.96	103		P	16 07 20.6	-1.9
MMRI				IAmb	IAmb	16 07 23.5	
	comp=Z,84nm,0.5s						
MMRI	Maumere	19.96	103	P	P	16 07 21.5	-1.0
	comp=Z,99nm,0.6s						
LUWI	Luwuk	20.48	81	P	Pn	16 07 30.3	-0.4
LUWI	Luwuk	20.48	81		P	16 07 27.2	-0.8
LUWI				IAmb	IAmb	16 07 44.3	
	comp=Z,173nm,0.8s						
LUWI	Luwuk	20.48	81	P	P	16 07 29.0	+0.9
	comp=Z,238nm,0.9s						
GIRL	Giralia	21.24	149	P	P	16 07 37.5	+1.3
	comp=Z,74nm,1.4s						
GIRL	Giralia	21.24	149	P	P	16 07 37.2	+1.0
GIRL				IAmb	IAmb	16 07 37.3	
	comp=Z,105nm,1.2s						
PPR	Puerto Princes	21.49	49	*i* P	P	16 07 40.8	+1.9
SOEI	Soe	22.14	105	P	P	16 07 47.1	+1.0
SOEI	Soe	22.14	105	P	P	16 07 43.8	-2.2
SOEI				IAmb	IAmb	16 08 06.4	
	comp=Z,106nm,0.7s						
SOEI	Soe	22.14	105	P	P	16 07 46.7	+0.6
	comp=Z,158nm,0.8s						
CM31	Chiang Mai Arr	23.13	351	P	P	16 07 55.0	-1.2
CM31				IAmb	IAmb	16 07 57.6	
	comp=Z,110nm,0.9s						
CMAR	Chiang Mai Arr	23.13	351	P	P	16 07 55.8	-0.5
	comp=Z,68nm,0.9s,baz=183,slow=8.9,SNR=319						
CMAR				PcP	PcP	16 11 44.8	+1.3
	comp=Z,5.5nm,0.8s,baz=205,slow=3.1,SNR=15						
CMAR				ScP	ScP	16 15 16.6	-0.1
	comp=Z,1.2nm,0.9s,baz=200,slow=4.1,SNR=5.6						
CMAR				LR	LR	16 16 27.3	
	comp=Z,218nm,21.7s,baz=175,slow=35						
	comp=Z,68nm,0.9s						
CMAR	Chiang Mai Arr	23.13	351	*ce*P	P	16 07 55.7	-0.5
CMAR				pmax	pmax		
	comp=Z,85nm,0.9s						
CMAR	Chiang Mai Arr	23.13	351		P	16 07 54.8	-1.5
CMAR					PcP	16 11 44.5	+1.0
MBWA	Marble Bar	23.47	136	P	P	16 08 00.6	+1.2
	comp=Z,26nm,0.9s						
MBWA	Marble Bar	23.47	136	P	P	16 08 00.3	+0.9
	comp=Z,26nm,0.9s						
MBWA	Marble Bar	23.47	136	P	P	16 08 00.2	+0.7
MBWA	Marble Bar	23.47	136		P	16 07 59.1	-0.4
MBWA	Marble Bar	23.47	136	P	P	16 08 00.2	+0.7
	comp=Z,26nm,0.9s						
CHTO	Chiang Mai	23.48	351	P	P	16 07 59.3	-0.2
CHTO	Chiang Mai	23.48	351	P	P	16 07 58.8	-0.8
CHTO				pmax	pmax		
	comp=Z,40nm,0.7s						
CHTO	Chiang Mai	23.48	351		P	16 07 58.8	-0.8
CHTO	Chiang Mai	23.48	351	P	P	16 07 59.4	-0.2
	comp=Z,64nm,1.2s						
SANI	Sanana	23.52	85	P	P	16 08 00.2	+0.2
SANI	Sanana	23.52	85	P	P	16 07 59.8	-0.2
	comp=Z,60nm,1.5s						
QIZ	Qiongzhong	24.50	17	P	P	16 08 09.7	+0.9
QIZ				sP	sP	16 08 28.3	-1.5
QIZ				S	S	16 12 28.6	+3.2
PALK	Pallekele	24.77	298	LR	LR	16 17 10.1	
	comp=Z,132nm,21.6s,baz=116,slow=34						
PALK	Pallekele	24.77	298⇑	*e*P	P	16 08 10.0	-1.5
PALK				pmax	pmax		
	comp=Z,34nm,1.1s						
PALK	Pallekele	24.77	298	P	P	16 08 10.2	-1.3
PALK	Pallekele	24.77	298	P	P	16 08 15.3	+3.8
SNPH	Sibulan	24.80	56	*e*P	P	16 08 12.6	+0.9
GUIM	Jordan	24.99	53	*e*P	P	16 08 13.5	+0.1
LSIP	Lazi, Siquijor	25.01	57	*i* P	P	16 08 13.8	+0.2
TNTI	Ternate	25.34	79	P	P	16 08 16.3	-0.3
TNTI	Ternate	25.34	79		P	16 08 15.3	-1.2
TNTI	Ternate	25.34	79	P	P	16 08 15.9	-0.7
	comp=Z,25nm,0.9s						
IBAJ	Ibajay, Aklan	25.39	50	*i* P	P	16 08 17.7	+0.7
DDMP	Don Marcelino,	25.42	66	*e*P	P	16 08 17.6	+0.2
MALK	Mahakanadarawa	25.45	300	P	P	16 08 18.0	+0.5
	comp=Z,44nm,1.1s						

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CGP   Cagayan de Oro  25.57  60  eP     P     16 08 20.7 +2.1
SLVN  Son La          25.75   3   P     P     16 08 20.8 +0.5
SLVN  Son La          25.75   3         P     16 08 20.1 -0.2
SLVN  Son La          25.75   3   P     P     16 08 20.7 +0.5
      comp=Z,18nm,1.1s
FITZ  Fitzroy Crossi  26.28 123   P     P     16 08 25.5 +0.4
      comp=Z,11nm,0.7s
FITZ  Fitzroy Crossi  26.28 123   P     P     16 08 25.1  0.0
      comp=Z,11nm,0.7s
FITZ  Fitzroy Crossi  26.28 123   P     P     16 08 25.4 +0.3
      comp=Z,28nm,0.5s,baz=310,slow=7.3,SNR=36
FITZ                              PcP   PcP   16 11 51.5 +1.0
      comp=Z,3.1nm,0.5s,baz=292,slow=5.4,SNR=2.8
FITZ                              LR    LR    16 21 08.0
      comp=Z,111nm,18.1s,baz=354,slow=42
      comp=Z,28nm,0.5s
FITZ  Fitzroy Crossi  26.28 123   P     P     16 08 25.5 +0.4
FITZ  Fitzroy Crossi  26.28 123         P     16 08 24.4 -0.7
FITZ  Fitzroy Crossi  26.28 123   P     P     16 08 25.5 +0.4
      comp=Z,11nm,0.7s
LQP   Lukban          26.42  45  eP     P     16 08 26.7 +0.2
CDOP  Cateel, Davao   26.78  63  eP     P     16 08 28.7 -1.0
MEEK  Meekatharra     26.80 147   P     P     16 08 31.1 +1.4
      comp=Z,19nm,1.6s
GQP   Guinayangan     26.93  47  eP     P     16 08 28.9 -2.0
BOLP  Bolinao         26.96  39  eP     P     16 08 30.9 -0.2
KNRA  Kununurra       28.02 115   P     P     16 08 39.8 -0.9
      comp=Z,18nm,0.8s
KNRA  Kununurra       28.02 115   P     P     16 08 40.1 -0.6
      comp=Z,18nm,0.8s
KNRA  Kununurra       28.02 115         P     16 08 39.8 -0.9
CAAP  Casiguran, Aur  28.22  43 i P     P     16 08 41.6 -0.8
BRDH  Bariadhala      29.08 339   LR    LR    16 22 09.0
      comp=Z,306nm,18.6s,baz=164,slow=40
MTN   Manton Dam      29.39 108   P     P     16 08 51.9 -1.0
      comp=Z,9.7nm,0.4s
MTN   Manton Dam      29.39 108   P     P     16 08 51.2 -1.7
      comp=Z,9.7nm,0.4s
KMI2  Kunming         29.51   0 ⇓P      P     16 08 54.2 +0.1
KMI2                              pmax  pmax
      comp=Z,17nm,0.7s
KMI2                              pmax  pmax
      comp=Z,60nm,5.0s
KMI2                              L     L
      comp=Z,210nm,12.7s
KMI2                              L     L
      comp=Z,410nm,20.5s
KMI2                              L     L
      comp=Z,370nm,15.0s
TNCH  TengChong       29.66 353   P     P     16 08 55.2 -0.1
TNCH                              pP    pP    16 09 09.7 +0.1
TNCH                              pmax  pmax
      comp=Z,36nm,1.0s
TNCH                              L     L
      comp=Z,230nm,5.2s
TNCH                              L     L
      comp=Z,280nm,4.4s
TNCH                              L     L
      comp=Z,350nm,15.6s
FAKI  Fak Fak         29.66  88   P     P     16 08 53.7 -1.7
MORE  Moreh           29.72 345   IAmb  IAmb  16 08 55.7
      comp=Z,37nm,0.7s
MTKN  Mount Kenneth   29.93 157   P     P     16 08 57.6 +0.1
      comp=Z,91nm,1.2s
H08S2 Diego Garcia H  30.05 263   T     T     16 40 29.6
      baz=86,slow=75
H08S3 Diego Garcia H  30.06 263   T     T     16 40 23.2
      baz=86,SNR=192
H08S1 Diego Carcia H  30.07 263   T     T     16 40 23.2
      baz=86,slow=75,SNR=17
KLBR  Kellerberrin    30.46 154   P     P     16 09 06.3 +4.2
      comp=Z,19nm,1.2s
KDU   Kakadu          30.63 107   P     P     16 09 00.5 -3.3
KDU   Kakadu          30.63 107   P     P     16 09 01.4 -2.5
      comp=Z,5.3nm,1.9s
PZH   PanZhiHua       30.87 359   P     P     16 09 09.2 +3.2
GYA   Guiyang         31.07   7 ⇑P      P     16 09 08.1 +0.4
GYA                               pmax  pmax
      comp=Z,28nm,1.0s
NWAO  Narrogin (SRO)  31.39 156   LR    LR    16 20 26.7
      comp=Z,299nm,21.5s,baz=316,slow=33
NWAO  Narrogin (SRO)  31.39 156   P     P     16 09 11.6 +1.3
NWAO                              pmax  pmax
      comp=Z,137nm,1.8s
NWAO  Narrogin (SRO)  31.39 156   P     P     16 09 11.6 +1.3
NWAO                              IAmb  IAmb  16 09 30.6
      comp=Z,137nm,1.8s
SHL   Shillong        31.68 341   P     P     16 09 12.2 -0.9
SHL   Shillong        31.68 341         P     16 09 12.2 -0.9
WRKA  Warakurna       32.03 132   P     P     16 09 17.7 +1.5
      comp=Z,11nm,1.1s
WRKA  Warakurna       32.03 132   P     P     16 09 17.3 +1.1
      comp=Z,11nm,1.2s
H01W3 Cape Leeuwin H  32.04 162   T     T     16 43 00.3
      baz=339,slow=76,SNR=707
H01W2 Cape Leeuwin H  32.05 162   T     T     16 43 16.4
      baz=339,slow=76,SNR=521
H01W1 Cape Leeuwin H  32.05 162   T     T     16 43 16.6
      baz=339,slow=76,SNR=476
HYB   Hyderabad       32.22 313  eP     P     16 09 16.8 -1.1
HYB                              epP    pP    16 09 31.9 -0.3
HYB                              ePP    PP    16 10 31.4 -0.2
HYB                              ePcP   PcP   16 12 05.2 -0.4
HYB                              eS     S     16 14 27.1 -0.2
KMBL  Kambalda        32.28 148   P     P     16 09 16.7 -1.5
      comp=Z,13nm,1.5s
TWG   Pinlang         32.66  33   P     P     16 09 21.1 -0.5
TWG                               IAmb  IAmb  16 09 48.2
      comp=Z,52nm,1.5s
WB0   Warramunga Arr  34.50 119         P     16 09 36.5 -1.2
WB0                               IAmb  IAmb  16 09 39.0
      comp=Z,30nm,0.5s
WB9   Warramunga Arr  34.50 119   P     P     16 09 37.7  0.0
WB8   Warramunga Arr  34.51 119   P     P     16 09 37.8  0.0
WRA   Warramunga Arr  34.52 119   P     P     16 09 37.6 -0.2
      comp=Z,13nm,0.7s,baz=306,slow=8.5,SNR=198
WRA                               PcP   PcP   16 12 12.2 +0.2
      comp=Z,4.5nm,0.5s,baz=302,slow=2.0,SNR=5.8
WRA                               S     S     16 14 58.3 -4.5
      comp=Z,2.2nm,0.8s,baz=286,slow=16,SNR=5.1
WRA                               ScP   ScP   16 15 52.0 -0.5
      comp=Z,1.6nm,0.8s,baz=277,slow=2.2,SNR=4.6
WRA                               P3KPbc      16 40 38.4
      comp=Z,0.9nm,0.7s,baz=104,slow=4.2,SNR=10
      comp=Z,13nm,0.7s
WRA   Warramunga Arr  34.52 119 i P     P     16 09 37.5 -0.4
WRA                               pmax  pmax
      comp=Z,13nm,0.4s
WRA   Warramunga Arr  34.52 119   P     P     16 09 36.7 -1.1
WRAB  Tennant Creek   34.52 119   P     P     16 09 38.0 +0.1
WRAB  Tennant Creek   34.52 119c iP     P     16 09 37.7 -0.2
WRAB                              pmax  pmax
      comp=Z,23nm,0.8s
WRAB  Tennant Creek   34.52 119   P     P     16 09 37.1 -0.8
WRAB                              IAmb  IAmb  16 09 38.7
      comp=Z,18nm,0.8s
WRAB  Tennant Creek   34.52 119   P     P     16 09 38.0 +0.1
      comp=Z,26nm,0.5s
WRAB  Tennant Creek   34.52 119   P     P     16 09 37.9  0.0
WRAB                              pP    pP    16 09 52.6 +0.5
WR8   Warramunga Arr  34.66 119         P     16 09 38.4 -0.7
WR8                               IAmb  IAmb  16 09 40.7
      comp=Z,26nm,0.5s
ENH   Enshi           35.25  10   P     P     16 09 43.5 -0.5
ENH   Enshi           35.25  10   P     P     16 09 43.4 -0.5
ENH   Enshi           35.25  10   P     P     16 09 44.0  0.0
      comp=Z,68nm,0.6s
ENH   Enshi           35.25  10   P     P     16 09 43.6 -0.5
ENH                               pP    pP    16 09 56.9 -1.6
CD2   Chengdu         35.27   2   P     P     16 09 43.7 -0.5
CD2                               S     S     16 15 17.8 +3.6
CD2                               pmax  pmax
      comp=Z,40nm,0.5s
CD2                               L     L
      comp=Z,600nm,14.2s
CD2                               L     L
      comp=Z,670nm,17.6s
FORT  Forrest         35.46 140   P     P     16 09 48.2 +2.4
      comp=Z,11nm,0.7s
FORT  Forrest         35.46 140   P     P     16 09 47.4 +1.6
AS15  Alice Springs   35.69 125   P     P     16 09 48.8 +0.8
      comp=Z,46nm,0.5s
AS15  Alice Springs   35.69 125   P     P     16 09 48.5 +0.5
      comp=Z,46nm,0.5s
AUALC St Philip's Co  35.69 125   P     P     16 09 48.6 +0.6
ASAR  Alice Springs   35.70 125   P     P     16 09 48.5 +0.5
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      comp=Z,25nm,0.7s,baz=294,slow=7.8,SNR=417
ASAR                              PcP   PcP   16 12 16.2 +0.8
      comp=Z,7.3nm,0.4s,baz=306,slow=2.4,SNR=11
ASAR                              S     S     16 15 19.4 -1.7
      comp=Z,3.8nm,0.7s,baz=296,slow=16,SNR=12
ASAR                              ScP   ScP   16 15 56.6 -0.2
      comp=Z,3.1nm,0.8s,baz=308,slow=3.8,SNR=7.6
ASAR                              LR    LR    16 26 20.3
      comp=Z,79nm,19.5s,baz=286,slow=39
ASAR                              P3KPbc      16 40 31.8
      comp=Z,0.4nm,0.6s,baz=120,slow=1.9,SNR=9.1
      comp=Z,25nm,0.7s
ASAR  Alice Springs   35.70 125         P     16 09 47.8 -0.2
ASAR                                    PcP   16 12 16.2 +0.8
AS31  Alice Springs   35.70 125   P     P     16 09 48.6 +0.6
      comp=Z,27nm,0.4s
AS31  Alice Springs   35.70 125   P     P     16 09 48.7 +0.6
      comp=Z,27nm,0.4s
AS31  Alice Springs   35.70 125         P     16 09 48.4 +0.3
EVN   Everest         35.70 336   P     P     16 09 49.4 +0.8
      comp=Z,68nm,0.9s
AS01  Alice Springs   35.74 125   P     P     16 09 48.2 -0.1
      comp=Z,49nm,0.5s
AS01  Alice Springs   35.74 125   P     P     16 09 49.1 +0.7
AS09  Alice Springs   35.74 125   P     P     16 09 49.2 +0.8
      comp=Z,46nm,0.8s
AS09  Alice Springs   35.74 125   P     P     16 09 49.0 +0.6
      comp=Z,46nm,0.8s
LSA   Lhasa           35.77 343   IAmb  IAmb  16 09 50.2
      comp=Z,36nm,1.1s
LSA   Lhasa           35.77 343   P     P     16 09 49.5 +0.6
LSA   Lhasa           35.77 343   P     P     16 09 49.3 +0.3
      comp=Z,32nm,0.9s
LSA   Lhasa           35.77 343   P     P     16 09 49.2 +0.3
LSA                               sP    sP    16 10 08.9 -1.2
AS17  Alice Springs   35.77 125   P     P     16 09 49.4 +0.7
      comp=Z,46nm,0.7s
WHN   Wuhan           36.67  17   P     P     16 09 57.4 +1.4
XAN   Xi'an           38.84   8   P     P     16 10 14.1 -0.4
XAN                               pmax  pmax
      comp=Z,140nm,0.5s
XAN                               pmax  pmax
      comp=Z,400nm,3.6s
XAN                               L     L
      comp=Z,510nm,15.1s
XAN                               L     L
      comp=Z,320nm,13.9s
XAN                               L     L
      comp=Z,750nm,14.9s
XAN   Xi'an           38.84   8   P     P     16 10 14.0 -0.4
XAN                               pP    pP    16 10 27.9 -1.2
QIS   Mount Isa       39.36 117   P     P     16 10 19.2 +0.2
      comp=Z,42nm,1.2s
QIS   Mount Isa       39.36 117   P     P     16 10 19.3 +0.2
      comp=Z,42nm,1.2s
QIS   Mount Isa       39.36 117   P     P     16 10 19.1  0.0
QIS   Mount Isa       39.36 117   P     P     16 10 19.3 +0.2
      comp=Z,42nm,1.2s
NJ2   Nanjing         39.56  22  eP     P     16 10 23.4 +3.0
NJ2                               pmax  pmax
      comp=Z,28nm,0.5s
JOW   Kunigami        39.89  37   LR    LR    16 26 58.5
      comp=Z,72nm,19.1s,baz=226,slow=36
JOW   Kunigami        39.89  37   P     P     16 10 23.8 +0.5
LYN   LuoYang         39.99  13   P     P     16 10 24.1 +0.1
LYN                               pmax  pmax
      comp=Z,130nm,0.9s
LYN                               L     L
      comp=Z,640nm,14.8s
LYN                               L     L
      comp=Z,300nm,7.2s
LYN                               L     L
      comp=Z,600nm,18.9s
LZDM  Lanzhou Array   40.30   1   P     P     16 10 25.3 -1.6
      comp=Z,7.6nm,0.4s,baz=196,slow=14,SNR=7.6
      comp=Z,7.6nm,0.4s
LZH   Lanzhou         40.43   2  eP     P     16 10 28.2 +0.4
LZH                               pP    pP    16 10 45.7 +3.2
LZH                               sP    sP    16 10 53.8 +4.7
LZH                               PcP   PcP   16 12 30.6 +0.7
LZH                               pmax  pmax
      comp=Z,56nm,1.0s
LZH                               L     L
      comp=Z,370nm,13.9s
LZH                               L     L
      comp=Z,170nm,13.7s
LZH                               L     L
      comp=Z,330nm,14.8s
GOMU  GeErMu          41.17 350   P     P     16 10 32.9 -1.2
GOMU                              pmax  pmax
      comp=Z,16nm,0.8s
BBOO  Buckleboo       42.05 136   P     P     16 10 42.0 +1.0
      comp=Z,49nm,1.8s
BBOO  Buckleboo       42.05 136   P     P     16 10 41.1 +0.1
      comp=Z,49nm,1.8s
BBOO  Buckleboo       42.05 136   P     P     16 10 41.0  0.0
BBOO                              IAmb  IAmb  16 10 43.4
      comp=Z,191nm,2.0s
TIA   Tai'an          42.77  17   P     P     16 10 46.5 -0.3
TIA                               pmax  pmax
      comp=Z,19nm,0.7s
MTSU  Mount Surprise  42.98 112   P     P     16 10 49.3 +0.6
      comp=Z,39nm,0.8s
MTSU  Mount Surprise  42.98 112   P     P     16 10 49.2 +0.4
MTSU  Mount Surprise  42.98 112   P     P     16 10 49.4 +0.6
      comp=Z,39nm,0.8s
INKA  Innaminka       43.03 127         P     16 10 49.1 +0.1
TIY   Taiyuan         43.03  11  eP     P     16 10 49.1 +0.2
TIY                               pmax  pmax
      comp=Z,44nm,0.8s
HNS   HongShan        43.23  14 ⇓P      P     16 10 50.6 +0.2
HNS                               pmax  pmax
      comp=Z,19nm,0.8s
GTA2  Gaotai          43.89 357   P     P     16 10 56.0 +0.2
GTA2                              PcP   PcP   16 12 42.1 +0.9
GTA2                              pmax  pmax
      comp=Z,35nm,1.0s
GTA2                              L     L
      comp=Z,330nm,19.0s
GTA2                              L     L
      comp=Z,220nm,18.1s
GTA2                              L     L
      comp=Z,400nm,20.6s
HTT   Hallett         44.40 135   P     P     16 11 01.5 +1.5
      comp=Z,16nm,0.6s
HTT   Hallett         44.40 135   P     P     16 11 00.8 +0.8
PMG   Port Moresby    44.50  99   LR    LR    16 32 03.9
      comp=Z,79nm,19.2s,baz=270,slow=39
PMG   Port Moresby    44.50  99   P     P     16 10 59.7 -1.3
PMG                               pmax  pmax
      comp=Z,45nm,1.2s
PMG   Port Moresby    44.50  99   P     P     16 10 59.7 -1.3
PMG                               IAmb  IAmb  16 11 02.0
      comp=Z,45nm,1.1s
JSU   Suzuyama        44.63  35   P     P     16 11 01.1 -0.6
JSU                               IAmb  IAmb  16 12 44.5
      comp=Z,63nm,1.4s
MANU  Manus Island    44.79  88   P     P     16 11 01.9 -1.4
CTA   Charters Tower  45.22 114   LR    LR    16 32 18.0
      comp=Z,76nm,18.5s,baz=266,slow=39
CTAO  Charters Tower  45.22 114   P     P     16 11 07.5 +0.8
CTAO  Charters Tower  45.22 114   P     P     16 11 05.9 -0.8
CTAO                              pmax  pmax
      comp=Z,53nm,0.7s
CTAO  Charters Tower  45.22 114         P     16 11 07.0 +0.4
CTAO  Charters Tower  45.22 114   P     P     16 11 05.9 -0.8
CTAO                              IAmb  IAmb  16 11 08.0
      comp=Z,53nm,0.7s
CTAO  Charters Tower  45.22 114   P     P     16 11 07.6 +0.8
      comp=Z,96nm,1.1s
CTAO  Charters Tower  45.22 114   P     P     16 11 07.3 +0.6
QLP   Quilpie         45.42 123   P     P     16 11 09.5 +1.3
      comp=Z,81nm,0.8s
QLP   Quilpie         45.42 123   P     P     16 11 09.2 +1.0
QLP   Quilpie         45.42 123   P     P     16 11 09.6 +1.3
      comp=Z,81nm,0.8s
STKA  Stephens Creek  45.56 131   P     P     16 11 10.3 +1.1
      comp=Z,54nm,0.6s,baz=308,slow=7.3,SNR=131
STKA                              LR    LR    16 32 32.1
      comp=Z,113nm,18.8s,baz=240,slow=39
      comp=Z,54nm,0.6s
STKA  Stephens Creek  45.56 131deP      P     16 11 09.2  0.0
STKA  Stephens Creek  45.56 131   P     P     16 11 10.5 +1.3
      comp=Z,323nm,0.7s
BTO2  Baotou          45.56   8  eP     P     16 11 09.5 +0.3
BTO2                              pP    pP    16 11 23.1 -1.0
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BTO2                              S     S     16 17 47.6 +0.2
BTO2                              pmax  pmax
      comp=Z,35nm,0.9s
BTO2                              pmax  pmax
      comp=Z,310nm,5.5s
BTO2                              L     L
      comp=Z,490nm,6.2s
BTO2                              L     L
      comp=Z,400nm,6.3s
BTO2                              L     L
      comp=Z,410nm,5.2s
HHC   Hu-ho-hao-te    45.92  10⇓iP      P     16 11 13.1 +1.1
HHC                               pmax  pmax
      comp=Z,48nm,1.0s
HHC                               pmax  pmax
      comp=Z,95nm,5.9s
BJT   Baijiatuau      46.08  15   P     P     16 11 13.5 +0.4
BJT   Baijiatuau      46.08  15   P     P     16 11 13.4 +0.4
BJT                               pmax  pmax
      comp=Z,19nm,0.7s
BJT   Baijiatuau      46.08  15   P     P     16 11 13.4 +0.4
BJT                               IAmb  IAmb  16 11 14.1
      comp=Z,19nm,0.7s
BJT   Baijiatuau      46.08  15   P     P     16 11 13.7 +0.7
      comp=Z,27nm,0.7s
JNU   Nakatsue        46.08  34   LR    LR    16 33 51.6
      comp=Z,40nm,18.4s,baz=164,slow=40
BJI2  Beijing         46.08  15   P     P     16 11 13.5 +0.4
BJI2                              pmax  pmax
      comp=Z,16nm,0.6s
NIL   Nilore          47.02 326   P     P     16 11 20.4 -0.3
NIL                               pmax  pmax
      comp=Z,106nm,0.7s
NIL   Nilore          47.02 326         P     16 11 20.4 -0.3
NIL   Nilore          47.02 326   P     P     16 11 20.8 +0.2
      comp=Z,170nm,0.7s
KSRS  Korea Array     47.99  27   P     P     16 11 27.6 -0.4
      comp=Z,12nm,0.8s,baz=224,slow=7.5,SNR=28
KSRS                              PcP   PcP   16 12 55.0 -0.4
      comp=Z,3.7nm,0.8s,baz=221,slow=2.5,SNR=6.1
KSRS                              LR    LR    16 31 48.0
      comp=Z,52nm,18.4s,baz=205,slow=36
      comp=Z,12nm,0.8s
KS19  Wonju Array Si  48.01  27   P     P     16 11 27.8 -0.4
ARPS  Mount Arapiles  48.20 137   P     P     16 11 31.7 +2.0
      comp=Z,8.2nm,1.5s
JMN   Monobe          48.22  36   P     P     16 11 30.0 +0.1
CMSA  Cobar Meteorol  48.53 129   P     P     16 11 33.9 +1.4
      comp=Z,52nm,0.9s
CMSA  Cobar Meteorol  48.53 129   P     P     16 11 33.4 +1.0
CMSA  Cobar Meteorol  48.53 129   P     P     16 11 33.8 +1.4
      comp=Z,52nm,0.9s
AULRC Lightning Ridg  49.54 125   P     P     16 11 41.0 +0.9
XLT   XiLinHaoTe      49.74  13  eP     P     16 11 41.6 +0.2
XLT                               pmax  pmax
      comp=Z,38nm,0.9s
WMQ   Urumqi          49.97 346 ⇑P      P     16 11 43.8 +0.6
WMQ                               S     S     16 18 46.5 -3.3
WMQ                               pmax  pmax
      comp=Z,99nm,0.9s
WMQ                               pmax  pmax
      comp=Z,150nm,3.6s
WMQ                               L     L
      comp=Z,57nm,20.3s
WMQ   Urumqi          49.97 346   P     P     16 11 43.7 +0.6
WMQ                               pP    pP    16 11 58.4 +0.2
KBL   Kabul           50.08 324   P     P     16 11 43.8 -0.6
KBL                               pmax  pmax
      comp=Z,24nm,1.2s
KBL   Kabul           50.08 324   P     P     16 11 43.8 -0.6
KBL                               IAmb  IAmb  16 11 45.4
      comp=Z,24nm,1.1s
KBL   Kabul           50.08 324   P     P     16 11 44.5 +0.1
      comp=Z,16nm,1.0s
KSH2  Kashi           50.11 333   P     P     16 11 44.4 -0.1
KSH2                              pP    pP    16 11 59.5  0.0
KSH2                              S     S     16 18 48.9 -3.2
KSH2                              pmax  pmax
      comp=Z,47nm,0.9s
WUS   Wushi           50.28 337   P     P     16 11 46.2 +0.6
      comp=Z,128nm,0.9s
WUS   Wushi           50.28 337   P     P     16 11 46.1 +0.4
WUS                               PcP   PcP   16 13 05.0 +1.1
EIDS  Eidsvold        50.88 119   P     P     16 11 51.8 +1.5
      comp=Z,13nm,1.0s
EIDS  Eidsvold        50.88 119   P     P     16 11 51.0 +0.6
TOO   Toolangi        51.11 136   P     P     16 11 54.8 +2.9
      comp=Z,11nm,2.1s
TOO   Toolangi        51.11 136   P     P     16 11 52.4 +0.4
TOO                               pmax  pmax
      comp=Z,25nm,1.6s
TOO   Toolangi        51.11 136   P     P     16 11 52.4 +0.4
ASAI  AK-SAY(Kyrgyzs  51.14 335   P     P     16 11 53.1 +0.7
      comp=Z,13nm,0.8s
TARG  Taragay, Kyrgy  51.29 336   P     P     16 11 53.5  0.0
TARG                              pmax  pmax
      comp=Z,19nm,0.7s
TARG  Taragay, Kyrgy  51.29 336         P     16 11 53.5  0.0
TARG                              IAmb  IAmb  16 12 03.9
      comp=Z,19nm,0.7s
TARG  Taragay, Kyrgy  51.29 336   P     P     16 11 54.5 +0.9
      comp=Z,27nm,0.8s
JHJ   Hachijo jima 2  51.43  40   LR    LR    16 32 37.9
      comp=Z,36nm,21.9s,baz=9.5,slow=35
NRN   Naryn           51.79 335   P     P     16 11 57.1 -0.1
NRN                               IAmb  IAmb  16 11 58.3
      comp=Z,37nm,0.9s
NRN                               PcP   PcP   16 13 10.2 +0.5
KDJ   Kajisay         51.88 336   P     P     16 11 58.3 +0.6
KDJ                               pmax  pmax
      comp=Z,88nm,0.7s
KDJ   Kajisay         51.88 336   P     P     16 11 58.3 +0.6
KDJ   Kajisay         51.88 336   P     P     16 11 58.6 +0.9
      comp=Z,124nm,0.8s
SHLS  Shalkode        51.88 339c iP     P     16 11 56.6 -1.0
SHLS                              pmax  pmax
      comp=Z,12nm,0.4s
SHLS  Shalkode        51.88 339⇑iP      P     16 11 56.7 -1.0
      comp=Z,12nm,0.4s
UZB   Uzynbulak       52.03 338c iP     P     16 11 58.9 +0.2
UZB                               pmax  pmax
      comp=Z,21nm,0.6s
UZB   Uzynbulak       52.03 338⇑iP      P     16 11 59.0 +0.2
      comp=Z,21nm,0.6s
DRK   Karamyk         52.18 330   P     P     16 12 00.1 -0.1
DRK                               pmax  pmax
      comp=Z,46nm,0.8s
DRK   Karamyk         52.18 330   P     P     16 12 00.1 -0.1
DRK   Karamyk         52.18 330   P     P     16 12 00.8 +0.6
      comp=Z,74nm,0.9s
SATY  Saty            52.18 338c iP     P     16 12 00.0 +0.1
SATY                              pmax  pmax
      comp=Z,19nm,0.6s
SATY  Saty            52.18 338⇑iP      P     16 12 00.0 +0.1
      comp=Z,19nm,0.6s
SONM  Songino Array   52.27   3   P     P     16 12 01.1 +0.7
      comp=Z,70nm,0.7s,baz=184,slow=9.1,SNR=301
SONM                              PcP   PcP   16 13 11.1  0.0
      comp=Z,7.2nm,0.4s,baz=191,slow=4.0,SNR=9.6
SONM                              LR    LR    16 36 24.0
      comp=Z,103nm,19.0s,baz=193,slow=38
      comp=Z,70nm,0.7s
SONM  Songino Array   52.27   3   P     P     16 12 00.8 +0.4
SONM                              PcP   PcP   16 13 10.5 -0.6
ULN   Ulaanbaatar     52.34   4c iP     P     16 12 01.4 +0.4
ULN                               pmax  pmax
      comp=Z,46nm,1.0s
ULN   Ulaanbaatar     52.34   4   P     P     16 12 01.1 +0.1
ULN                               IAmb  IAmb  16 12 02.4
      comp=Z,39nm,0.9s
ULN                               PcP   PcP   16 13 09.9 -1.5
ULN   Ulaanbaatar     52.34   4   P     P     16 12 01.6 +0.6
      comp=Z,46nm,0.9s
ULN   Ulaanbaatar     52.34   4   P     P     16 12 01.3 +0.4
ULN                               pP    pP    16 12 17.0 +0.9
ULN                               PcP   PcP   16 13 11.4  0.0
CN2   Changchun       52.36  21   P     P     16 11 59.7 -1.3
CN2                               pmax  pmax
      comp=Z,20nm,0.9s
KPKS  Kokpek          52.43 338  eP     P     16 12 01.7 +0.1
KPKS  Kokpek          52.43 338  eP     P     16 12 01.8 +0.1
OHH   Osh             52.51 332   P     P     16 12 01.4 -0.8
      comp=Z,62nm,0.7s
CAN   Canberra        52.62 132   P     P     16 12 04.8 +1.5
      comp=Z,22nm,2.6s
CAN   Canberra        52.62 132   P     P     16 12 03.8 +0.6
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CAN				pmax	pmax		
	comp=Z,87nm,1.7s						
CAN	**Canberra**	**52.62**	**132**	P	**P**	**16 12 03.8**	**+0.6**
BOOM	**Boomskoye usch**	**52.68**	**335**	IAmb	IAmb	16 12 04.8	
	comp=Z,31nm,0.8s						
BOOM	**Boomskoye usch**	**52.68**	**335**	P	**P**	**16 12 03.0**	**-0.7**
	comp=Z,43nm,0.9s						
MAJO	**Matsushiro**	**52.72**	**36**	P	**P**	**16 12 02.6**	**-1.2**
MAJO	**Matsushiro**	**52.72**	**36**	*de*P	**P**	**16 12 02.2**	**-1.6**
MAJO				pmax	pmax		
	comp=Z,17nm,0.9s						
MAJO	**Matsushiro**	**52.72**	**36**	P	**P**	**16 12 02.0**	**-1.8**
MAJO				IAmb	IAmb	16 12 02.8	
	comp=Z,14nm,0.8s						
MAJO	**Matsushiro**	**52.72**	**36**	P	**P**	**16 12 02.5**	**-1.4**
	comp=Z,22nm,1.0s						
MJAR	**Matsushiro Arr**	**52.72**	**36**	P	**P**	**16 12 02.4**	**-1.4**
	comp=Z,13nm,0.7s,baz=214,slow=7.0,SNR=44						
MJAR				PcP	**PcP**	**16 13 12.7**	**-0.2**
	comp=Z,5.3nm,0.8s,baz=195,slow=4.3,SNR=5.8						
MJAR				LR	LR	16 35 23.1	
	comp=Z,43nm,19.0s,baz=212,slow=37						
	comp=Z,13nm,0.7s						
MJAR	**Matsushiro Arr**	**52.72**	**36**	P	**P**	**16 12 01.9**	**-1.9**
MJB9	**Matsu-Tunnel**	**52.72**	**36**	IAmb	IAmb	16 12 03.8	
	comp=Z,13nm,0.8s						
TNSS	**Tian-Shan**	**52.73**	**337**	*e*P	**P**	**16 12 04.1**	**-0.1**
TNSS	**Tian-Shan**	**52.73**	**337**	*e*P	**P**	**16 12 04.2**	**-0.1**
MDOK	**Medeo**	**52.80**	**337**	*e*P	**P**	**16 12 04.4**	**0.0**
MDOK				*e*S	**S**	**16 19 29.6**	**+0.8**
MDOK	**Medeo**	**52.80**	**337**	*e*P	**P**	**16 12 04.5**	**0.0**
MDOK				*e*S	**S**	**16 19 29.6**	**+0.8**
ARMA	**Armidale**	**52.85**	**125**	P	**P**	**16 12 05.3**	**+0.2**
ARMA				IAmb	IAmb	16 13 58.7	
	comp=Z,74nm,1.9s						
BTK	**Batken**	**53.11**	**330**	P	**P**	**16 12 07.3**	**+0.6**
	comp=Z,30nm,1.3s						
TKM2	**Tokmak 2**	**53.18**	**335**	P	**P**	**16 12 07.6**	**+0.2**
	SNR=54						
KBK	**Karagaybulak**	**53.24**	**335**	P	**P**	**16 12 08.5**	**+0.8**
	SNR=10						
AAK	**Ala-Archa**	**53.42**	**334**	LR	LR	16 39 14.5	
	comp=Z,38nm,18.1s,baz=138,slow=41						
AAK	**Ala-Archa**	**53.42**	**334**	P	**P**	**16 12 09.9**	**+0.9**
	SNR=7.5						
AAK	**Ala-Archa**	**53.42**	**334**	*c i*P	**P**	**16 12 09.4**	**+0.4**
AAK				pmax	pmax		
	comp=Z,12nm,0.8s						
AAK	**Ala-Archa**	**53.42**	**334**	P	**P**	**16 12 08.5**	**-0.5**
AAK	**Ala-Archa**	**53.42**	**334**	*i* P	**P**	**16 12 09.7**	**+0.7**
	SNR=7.8						
AAK	**Ala-Archa**	**53.42**	**334**	P	**P**	**16 12 09.6**	**+0.6**
	comp=Z,15nm,0.8s						
AAK	**Ala-Archa**	**53.42**	**334**	P	**P**	**16 12 09.4**	**+0.4**
AAK				PcP	**PcP**	**16 13 17.1**	**+1.5**
FRU1	**Bishkek**	**53.50**	**335**	IAmb	IAmb	16 12 10.9	
	comp=Z,40nm,0.9s						
CHMS	**Chumysh**	**53.60**	**335**	P	**P**	**16 12 10.4**	**+0.2**
	SNR=7.0						
UOSS	**Minazif**	**53.73**	**305**	P	**P**	**16 12 11.2**	**-0.3**
UOSS	**Minazif**	**53.73**	**305**	P	**P**	**16 12 12.3**	**+0.8**
UOSS	**Minazif**	**53.73**	**305**	P	**P**	**16 12 13.3**	**+1.8**
	comp=Z,11nm,1.3s						
ASHO	**Ashiyiah**	**53.74**	**305**	*i* P	**P**	**16 12 13.5**	**+1.9**
	SNR=6.7						
HATD	**Hatta, Dubai**	**53.74**	**305**	*i* P	**P**	**16 12 13.5**	**+1.9**
	SNR=6.1						
EKS2	**Erkin-Say**	**53.75**	**334**	P	**P**	**16 12 12.5**	**+1.1**
	SNR=8.7						
MDH	**Madha**	**53.81**	**306**	P	**P**	**16 12 12.7**	**+0.7**
ARK	**Arkit**	**53.89**	**332**	P	**P**	**16 12 12.7**	**+0.2**
	comp=Z,19nm,0.6s						
USP	**Ospenovka**	**53.92**	**335**	P	**P**	**16 12 12.6**	**0.0**
	SNR=15						
MSFE	**Esma-Masafi**	**53.95**	**306**	P	**P**	**16 12 14.9**	**+1.8**
ZSN	**Zaisan**	**54.07**	**345**	*e*P	**P**	**16 12 13.8**	**+0.3**
ZSN				pmax	pmax		
	comp=Z,17nm,0.7s						
ZSN	**Zaisan**	**54.07**	**345**	*e*P	**P**	**16 12 13.9**	**+0.3**
	comp=Z,17nm,0.7s						
BANOM	**Banah**	**54.10**	**307**	P	**P**	**16 12 16.9**	**+2.8**
FAQ	**Al Faqa, Dubai**	**54.14**	**305**	*i* P	**P**	**16 12 16.3**	**+1.8**
	SNR=8.2						
MK31	**Makanchi Array**	**54.17**	**343**	*c i*P	**P**	**16 12 13.8**	**-0.5**
MKAR	**Makanchi Array**	**54.17**	**343**	P	**P**	**16 12 14.0**	**-0.3**
	comp=Z,49nm,0.6s,baz=148,slow=8.0,SNR=376						
MKAR				LR	LR	16 37 26.6	
	comp=Z,83nm,21.3s,baz=144,slow=38						
	comp=Z,49nm,0.6s						
MKAR	**Makanchi Array**	**54.17**	**343**	P	**P**	**16 12 13.7**	**-0.6**
NAZ	**Nazwa, Dubai**	**54.19**	**305**	*i* P	**P**	**16 12 16.7**	**+1.9**
	SNR=5.6						
HRA	**Herat**	**54.24**	**319**	P	**P**	**16 12 14.1**	**-1.2**
MAKZ	**Makanchi**	**54.28**	**343**	P	**P**	**16 12 14.5**	**-0.5**
MAKZ				pmax	pmax		
	comp=Z,21nm,0.9s						
MAKZ	**Makanchi**	**54.28**	**343**	P	**P**	**16 12 14.5**	**-0.5**
MAKZ				IAmb	IAmb	16 12 15.6	
	comp=Z,21nm,0.9s						
MAKZ	**Makanchi**	**54.28**	**343**	P	**P**	**16 12 14.8**	**-0.3**
	comp=Z,26nm,1.0s						
MAKZ	**Makanchi**	**54.28**	**343**	P	**P**	**16 12 14.6**	**-0.5**
SHME	**Shamm**	**54.28**	**307**	P	**P**	**16 12 17.0**	**+1.5**
ASUD	**Al Ashush, Dub**	**54.31**	**305**	P	**P**	**16 12 17.8**	**+2.2**
ZAK	**Zakamensk**	**54.71**	**1**	*e*P	**P**	**16 12 17.8**	**-0.4**
ZAK				pmax	pmax		
	comp=Z,19nm,0.9s						
BNX	**BinXian**	**54.73**	**21**	⇑P	**P**	**16 12 17.8**	**-0.5**
BNX				pmax	pmax		
	comp=Z,110nm,0.8s						
TAU	**Tasmania Unive**	**55.01**	**141**	P	**P**	**16 12 21.9**	**+1.5**
TAU				pmax	pmax		
	comp=Z,69nm,1.2s						
TAU	**Tasmania Unive**	**55.01**	**141**	P	**P**	**16 12 21.9**	**+1.5**
IUG	**Iuzhnay**	**55.08**	**331**	*e*P	**P**	**16 12 21.1**	**0.0**
IUG				pmax	pmax		
	comp=Z,15nm,0.7s						
IUG	**Iuzhnay**	**55.08**	**331**	*e*P	**P**	**16 12 21.1**	**0.0**
	comp=Z,15nm,0.7s						
MZR	**Muzera**	**55.18**	**302**	*i* P	**P**	**16 12 24.2**	**+2.2**
	SNR=16						
USA0B	**Ussuriysk Arra**	**55.26**	**25**	*d i*P	**P**	**16 12 21.9**	**-0.3**
USRK	**Ussuriysk Ar.**	**55.26**	**25**	P	**P**	**16 12 21.7**	**-0.5**
	comp=Z,52nm,0.6s,baz=212,slow=5.2,SNR=94						
USRK				LR	LR	16 38 16.9	
	comp=Z,58nm,18.4s,baz=206,slow=38						
	comp=Z,52nm,0.6s						
USRK	**Ussuriysk Ar.**	**55.26**	**25**	P	**P**	**16 12 21.8**	**-0.4**
USRK	**Ussuriysk Ar.**	**55.26**	**25**		**P**	**16 12 21.8**	**-0.4**
CHM	**Chimkent**	**55.42**	**331**	*e*P	**P**	**16 12 23.6**	**+0.2**
CHM				pmax	pmax		
	comp=Z,6.0nm,0.4s						
CHM	**Chimkent**	**55.42**	**331**	*e*P	**P**	**16 12 23.7**	**+0.2**
	comp=Z,6.1nm,0.4s						
KKAR	**Karatay Array**	**55.58**	**332**	P	**P**	**16 12 23.1**	**-1.4**
KKAR	**Karatay Array**	**55.58**	**332**	P	**P**	**16 12 23.1**	**-1.4**
HIA	**Hailar**	**55.64**	**14**	P	**P**	**16 12 23.9**	**-0.9**
HIA	**Hailar**	**55.64**	**14**	IAmb	IAmb	16 12 24.8	
	comp=Z,16nm,0.8s						
HIA	**Hailar**	**55.64**	**14**	P	**P**	**16 12 24.1**	**-0.7**
	comp=Z,22nm,0.7s						
BRLS	**Borolday**	**55.84**	**331**	*e*P	**P**	**16 12 25.8**	**-0.6**
BRLS	**Borolday**	**55.84**	**331**	*e*P	**P**	**16 12 25.9**	**-0.6**
HILR	**Hailar Array B**	**55.91**	**13**	P	**P**	**16 12 26.4**	**-0.4**
	comp=Z,28nm,0.5s,baz=193,slow=9.4,SNR=50						
	comp=Z,28nm,0.5s						
MOY	**Mondy**	**56.01**	**359**	*e*P	**P**	**16 12 27.6**	**0.0**
MOY				pmax	pmax		
	comp=Z,27nm,2.0s						
IRK	**Irkutsk**	**56.59**	**1**	*e*P	**P**	**16 12 31.5**	**0.0**
IRK				pmax	pmax		
	comp=Z,30nm,1.4s						
HNR	**Honiara**	**57.11**	**98**	LR	LR	16 40 09.5	
	comp=Z,46nm,18.2s,baz=338,slow=39						
HEH	**HeiHe**	**58.64**	**18**	*e*P	**P**	**16 12 45.5**	**-0.5**
HEH				pmax	pmax		
	comp=Z,87nm,0.9s						
KURBB	**Kurchatov Arra**	**58.72**	**342**	P	**P**	**16 12 46.1**	**-0.4**
	comp=Z,40nm,0.8s,baz=159,slow=6.5,SNR=303						
KURBB				PcP	**PcP**	**16 13 35.6**	**-0.2**
	comp=Z,5.3nm,0.7s,baz=158,slow=4.0,SNR=4.5						
KURBB				S	**S**	**16 20 47.6**	**+0.6**
	comp=Z,0.4nm,0.5s,baz=151,slow=12,SNR=4.0						
KURBB				LR	LR	16 42 18.9	
	comp=Z,76nm,18.1s,baz=176,slow=40						
	comp=Z,40nm,0.8s						

KURK	**Kurchatov**	**58.77**	**342**	*c i*P	**P**	**16 12 46.5**	**-0.3**
KURK				pmax	pmax		
	comp=Z,74nm,0.8s						
KURK	**Kurchatov**	**58.77**	**342**		**PcP**	**16 13 35.6**	**-0.4**
KURK	**Kurchatov**	**58.77**	**342**	P	**P**	**16 12 46.0**	**-0.8**
KURK	**Kurchatov**	**58.77**	**342**	P	**P**	**16 12 46.7**	**-0.1**
	comp=Z,87nm,0.9s						
KURK	**Kurchatov**	**58.77**	**342**	P	**P**	**16 12 46.6**	**-0.3**
KLR	**Kul'dur**	**59.26**	**22**	LR	LR	16 38 00.5	
	comp=Z,68nm,21.6s,baz=200,slow=36						
KLR	**Kul'dur**	**59.26**	**22**	*c i*P	**P**	**16 12 49.4**	**-0.9**
KLR				pmax	pmax		
	comp=Z,35nm,0.9s						
ZAA0	**Zalesovo Array**	**60.15**	**348**	P	**P**	**16 12 55.7**	**-0.6**
ZALV	**Zalesovo Beam**	**60.15**	**348**	P	**P**	**16 12 55.7**	**-0.6**
	comp=Z,100nm,0.4s,baz=166,slow=5.5,SNR=523						
ZALV				LR	LR	16 42 05.3	
	comp=Z,156nm,20.4s,baz=123,slow=39						
ZALV	**Zalesovo Beam**	**60.15**	**348**	P	**P**	**16 12 55.3**	**-1.0**
ASAJ	**Asahikawa**	**60.32**	**32**	LR	LR	16 39 02.4	
	comp=Z,38nm,20.4s,baz=182,slow=36						
ASAJ	**Asahikawa**	**60.32**	**32**	P	**P**	**16 12 56.8**	**-0.9**
ASAJ				pmax	pmax		
	comp=Z,25nm,0.6s						
JKA	**Kamikawa-asahi**	**60.32**	**32**	P	**P**	**16 12 56.8**	**-0.9**
H04N2	**CROZET ISLANDS**	**60.34**	**218**	T	T	17 17 38.1	
	baz=63,slow=75,SNR=3461						
H04N1	**CROZET ISLANDS**	**60.35**	**218**	T	T	17 17 38.4	
	baz=63,slow=75,SNR=3703						
H04N3	**CROZET ISLANDS**	**60.36**	**218**	T	T	17 17 37.1	
	baz=63,slow=75,SNR=3397						
H04S1	**CROZET ISLANDS**	**60.59**	**218**	T	T	17 17 54.3	
	baz=64,slow=74,SNR=217						
H04S3	**CROZET ISLANDS**	**60.60**	**218**	T	T	17 17 49.3	
	baz=64,slow=74,SNR=1005						
H04S2	**CROZET ISLANDS**	**60.60**	**218**	T	T	17 17 50.6	
	baz=64,slow=74,SNR=621						
ZEA	**Zeya**	**61.65**	**16**	*e*P	**P**	**16 13 06.5**	**0.0**
ZEA				pmax	pmax		
	comp=N,20nm,0.9s						
ZEA				pmax	pmax		
	comp=E,20nm,0.9s						
ZEA				pmax	pmax		
	comp=Z,60nm,0.8s						
CASY	**Casey**	**61.88**	**176**	P	**P**	**16 13 09.9**	**+2.1**
KOUNC	**Koumac, New Ca**	**61.96**	**111**	P	**P**	**16 13 10.1**	**+0.9**
RAYN	**Ar Rayn**	**62.20**	**299**	P	**P**	**16 13 10.8**	**-0.1**
RAYN				pmax	pmax		
	comp=Z,9.0nm,0.8s						
RAYN	**Ar Rayn**	**62.20**	**299**	P	**P**	**16 13 10.8**	**-0.1**
RAYN	**Ar Rayn**	**62.20**	**299**	*i* P	**P**	**16 13 12.2**	**+1.3**
	SNR=14						
RAYN	**Ar Rayn**	**62.20**	**299**	P	**P**	**16 13 12.4**	**+1.5**
	comp=Z,18nm,0.9s						
RAYN	**Ar Rayn**	**62.20**	**299**	P	**P**	**16 13 12.1**	**+1.2**
YSS	**Yuzhno-Sakhali**	**62.33**	**30**	P	**P**	**16 13 10.8**	**-0.4**
YSS	**Yuzhno-Sakhali**	**62.33**	**30**	*e*P	**P**	**16 13 11.1**	**-0.1**
YSS				pmax	pmax		
	comp=Z,50nm,0.8s						
YSS	**Yuzhno-Sakhali**	**62.33**	**30**	P	**P**	**16 13 10.4**	**-0.8**
YSS	**Yuzhno-Sakhali**	**62.33**	**30**	P	**P**	**16 13 11.3**	**+0.1**
	comp=Z,65nm,0.8s						
YSS	**Yuzhno-Sakhali**	**62.33**	**30**	P	**P**	**16 13 10.7**	**-0.4**
YSS				pP	**pP**	**16 13 25.0**	**-1.7**
BVAR	**Borovoye Array**	**63.45**	**339**	P	**P**	**16 13 17.8**	**-0.7**
	comp=Z,38nm,0.7s,baz=143,slow=7.7,SNR=74						
	comp=Z,38nm,0.7s						
BORK	**Borovoye**	**63.49**	**339**	*c i*P	**P**	**16 13 17.6**	**-1.2**
BORK				pmax	pmax		
	comp=Z,36nm,0.9s						
BORK	**Borovoye**	**63.49**	**339**	P	**P**	**16 13 17.6**	**-1.2**
ONTNC	**Ouen Toro**	**64.15**	**112**	P	**P**	**16 13 24.4**	**+0.6**
OUENC	**Ouen Island, N**	**64.52**	**113**	P	**P**	**16 13 26.3**	**+0.1**
OUENC				IAmb	IAmb	16 15 41.2	
	comp=Z,54nm,1.2s						
ABKAR	**Akbulak array**	**65.09**	**331**	P	**P**	**16 13 28.7**	**-0.6**
AKTO	**Aktyubinsk**	**66.81**	**331**	LR	LR	16 45 15.4	
	comp=Z,27nm,19.2s,baz=78,slow=38						
LODK	**Lodwar**	**67.61**	**276**	P	**P**	**16 13 48.6**	**+2.4**
AKT	**Akhty**	**67.70**	**318**	*e*P	**P**	**16 13 46.2**	**-0.1**
AKT				*e**PP	**pP**	**16 13 59.4**	**-2.6**
AKT				*e**SP	**sP**	**16 14 05.4**	**-3.0**
AKT				*e*		16 14 12.3	
AKT				*e*		16 16 17.2	
AKT				*e*S	**S**	**16 22 40.6**	**+0.8**
AKT				pmax	pmax		
	comp=Z,39nm,0.8s						
MAW	**Mawson**	**68.49**	**195**	P	**P**	**16 13 53.3**	**+2.7**
	comp=Z,4.2nm,0.9s,baz=45,slow=6.4,SNR=7.4						
MAW				LR	LR	16 37 56.0	
	comp=Z,172nm,20.6s,baz=12,slow=31						
	comp=Z,4.2nm,0.9s						
HAKT	**HAKKARI**	**68.78**	**313**	P	**P**	**16 13 53.8**	**+0.4**
	comp=Z,33nm,0.7s						
OZAP	**Van, Ozalp-Mer**	**69.02**	**314**	⇑P	**P**	**16 13 55.6**	**+0.8**
GNI	**Garni**	**69.12**	**316**	*c i*P	**P**	**16 13 56.2**	**+0.9**
GNI				pmax	pmax		
	comp=Z,12nm,1.1s						
GEVA	**Gevas**	**69.55**	**314**		**P**	**16 13 58.2**	**+0.1**
YAK	**Yakutsk**	**69.58**	**13**	LR	LR	16 46 47.6	
	comp=Z,73nm,20.4s,baz=206,slow=38						
YAK	**Yakutsk**	**69.58**	**13**	*e*P	**P**	**16 13 55.8**	**-1.6**
YAK				*e**PP	**pP**	**16 14 12.5**	**-0.7**
YAK				*e*		16 14 17.3	
YAK				*e*		16 16 34.4	
YAK				*e*S	**S**	**16 23 01.4**	**+0.4**
YAK				*e**SS	**sS**	**16 23 32.7**	**+4.8**
YAK				pmax	pmax		
	comp=Z,58nm,1.0s						
YAK				pmax	pmax		
	comp=N,22nm,1.1s						
YAK				pmax	pmax		
	comp=E,15nm,1.3s						
YAK				pmax	pmax		
	comp=Z,99nm,4.5s						
YAK				pmax	pmax		
	comp=E,81nm,4.3s						
YAK				pmax	pmax		
	comp=N,108nm,4.8s						
YAK				smax	smax		
	comp=E,57nm,3.8s						
YAK				smax	smax		
	comp=N,128nm,4.2s						
YAK	**Yakutsk**	**69.58**	**13**	P	**P**	**16 13 55.8**	**-1.6**
YAK	**Yakutsk**	**69.58**	**13**	P	**P**	**16 13 56.1**	**-1.4**
	comp=Z,86nm,1.1s						
YAK	**Yakutsk**	**69.58**	**13**	P	**P**	**16 13 55.9**	**-1.5**
WHZ	**Wether Hill Ro**	**69.74**	**137**	P	**P**	**16 13 58.7**	**-0.1**
SVE	**Sverdlovsk**	**70.00**	**337**	*e*P	**P**	**16 14 00.2**	**0.0**
SVE				pmax	pmax		
	comp=Z,65nm,1.2s						
GURO	**Guroymak-BITLI**	**70.39**	**314**	IAmb	IAmb	16 14 05.2	
	comp=Z,23nm,1.1s						
ARTI	**Arti**	**70.60**	**336**	LR	LR	16 50 41.1	
	comp=Z,41nm,18.0s,baz=146,slow=41						
ARTI	**Arti**	**70.60**	**336**	*c i*P	**P**	**16 14 03.5**	**-0.3**
ARTI				*PP	**pP**	**16 14 19.2**	**-0.4**
ARTI				S	**S**	**16 23 11.2**	**-2.0**
ARTI				pmax	pmax		
	comp=Z,32nm,0.7s						
ARTI	**Arti**	**70.60**	**336**	P	**P**	**16 14 03.1**	**-0.7**
ARTI				IAmb	IAmb	16 14 04.3	
	comp=Z,46nm,0.8s						
ARTI	**Arti**	**70.60**	**336**	P	**P**	**16 14 03.5**	**-0.3**
ARTI				pP	**pP**	**16 14 18.7**	**-0.9**
LBZ	**Lake Benmore**	**70.91**	**135**	P	**P**	**16 14 06.7**	**+0.6**
WVZ	**Waitaha Valley**	**71.03**	**134**	P	**P**	**16 14 06.9**	**+0.1**
HOMI	**Horasan**	**71.06**	**315**	⇑P	**P**	**16 14 07.3**	**0.0**
EPOS	**Posof**	**71.08**	**317**	P	**P**	**16 14 08.5**	**+1.2**
	comp=Z,13nm,1.2s						
NCK	**Nalchik**	**71.33**	**319**	⇓*e*P	**P**	**16 14 09.0**	**+0.4**
NCK				pmax	pmax		
	comp=Z,21nm,0.8s						
RPZ	**Rata Peaks**	**71.38**	**135**	P	**P**	**16 14 09.5**	**+0.6**
INZ	**Inchbonnie**	**71.47**	**134**	P	**P**	**16 14 09.2**	**-0.3**
INZ				IAmb	IAmb	16 14 11.0	
	comp=Z,31nm,0.9s						
INZ	**Inchbonnie**	**71.47**	**134**	P	**P**	**16 14 09.1**	**-0.3**
CCD	**Concordia, Ant**	**71.51**	**174**	P	**P**	**16 14 12.0**	**+2.5**
DSZ	**Denniston Nort**	**71.54**	**132**	P	**P**	**16 14 09.5**	**-0.5**
NEUR	**Neytrino**	**71.83**	**318**	⇑*e*P	**P**	**16 14 12.9**	**+1.1**
NEUR				pmax	pmax		
	comp=Z,10.0nm,1.2s						
MBAR	**Mbarara**	**71.83**	**271**	LR	LR	16 42 36.6	
	comp=Z,34nm,20.3s,baz=122,slow=33						

KBZ	**Khabaz**	**71.89**	**319**	P	**P**	**16 14 12.7**	**+0.8**
	comp=Z,20nm,0.8s,baz=122,slow=4.8,SNR=48						
	comp=Z,20nm,0.8s						
KBZ	**Khabaz**	**71.89**	**319**	*ce*P	**P**	**16 14 12.5**	**+0.6**
KBZ				pmax	pmax		
	comp=Z,22nm,0.9s						
QRZ	**Quartz Range**	**71.92**	**131**	IAmb	IAmb	16 14 14.7	
	comp=Z,65nm,1.1s						
QRZ	**Quartz Range**	**71.92**	**131**	P	**P**	**16 14 12.6**	**+0.4**
KIV	**Kislovodsk**	**72.13**	**319**	*e*P	**P**	**16 14 14.1**	**+0.7**
KIV				pmax	pmax		
	comp=Z,18nm,1.0s						
KIV	**Kislovodsk**	**72.13**	**319**	P	**P**	**16 14 14.2**	**+0.7**
	comp=Z,24nm,0.9s						
ASF	**Jabal al Asfar**	**72.14**	**306**	LR	LR	16 47 10.4	
	comp=Z,33nm,18.5s,baz=25,slow=37						
ASF	**Jabal al Asfar**	**72.14**	**306**	P	**P**	**16 14 16.3**	**+2.5**
	comp=Z,315nm,0.9s						
MRNZ	**Matariki Terra**	**72.18**	**132**	P	**P**	**16 14 14.3**	**+0.5**
THZ	**Tophouse**	**72.36**	**132**	IAmb	IAmb	16 14 16.8	
	comp=Z,40nm,0.7s						
THZ	**Tophouse**	**72.36**	**132**	P	**P**	**16 14 14.6**	**-0.3**
NNZ	**Nelson**	**72.62**	**132**	P	**P**	**16 14 16.2**	**-0.2**
NNZ				IAmb	IAmb	16 14 58.5	
	comp=Z,77nm,1.5s						
NNZ	**Nelson**	**72.62**	**132**	P	**P**	**16 14 15.5**	**-0.9**
NBEZ	**Newall Road No**	**72.68**	**130**	P	**P**	**16 14 19.5**	**+2.7**
KHEZ	**Kahui Hut**	**72.80**	**130**	P	**P**	**16 14 20.2**	**+2.6**
AQBJ	**Aqaba**	**72.97**	**303**	P	**P**	**16 14 21.0**	**+2.3**
	comp=Z,100nm,1.0s						
GHAJ	**Ghor Haditha**	**72.98**	**305**	IAmb	IAmb	16 14 21.4	
	comp=Z,32nm,0.7s						
GHAJ	**Ghor Haditha**	**72.98**	**305**	P	**P**	**16 14 21.0**	**+2.4**
	comp=Z,493nmcomp=Z,54nm,0.8s						
GHAJ	**Ghor Haditha**	**72.98**	**305**	P	**P**	**16 14 18.9**	**+0.3**
	comp=Z,54nm,0.8s						
KELT	**Kelkit**	**72.98**	**314**	P	**P**	**16 14 18.5**	**-0.3**
	comp=Z,42nm,2.2s						
LISJ	**El Lisan**	**73.03**	**304**	P	**P**	**16 14 22.1**	**+3.2**
	comp=Z,24nm,1.3s						
EIL	**Elat**	**73.04**	**303**	LR	LR	16 46 11.5	
	comp=Z,36nm,19.8s,baz=93,slow=36						
EIL	**Elat**	**73.04**	**303**	P	**P**	**16 14 21.2**	**+2.1**
	comp=Z,44nm,0.9s						
EIL	**Elat**	**73.04**	**303**	P	**P**	**16 14 21.1**	**+2.0**
	comp=Z,44nm,0.9s						
HRFI	**Mount Harif**	**73.07**	**303**	P	**P**	**16 14 21.5**	**+2.2**
	comp=Z,611nmcomp=Z,49nm,1.0s						
HRFI	**Mount Harif**	**73.07**	**303**	P	**P**	**16 14 20.2**	**+0.9**
	comp=Z,49nm,1.0s						
LREZ	**Lake Rotokare**	**73.12**	**130**	P	**P**	**16 14 21.4**	**+2.1**
PRNI	**Paran**	**73.18**	**303**	P	**P**	**16 14 22.3**	**+2.4**
	comp=Z,115nm,1.0s						
BELG	**Belogornoye**	**73.22**	**328**	*c i*P	**P**	**16 14 19.2**	**-0.4**
BELG				pmax	pmax		
	comp=Z,8.0nm,0.9s						
QRNJ	**Al-Qirein**	**73.26**	**306**	P	**P**	**16 14 23.7**	**+3.4**
	comp=Z,30µmcomp=Z,2µm,0.8s						
ARPR	**Arapgir-MALATY**	**73.27**	**313**	P	**P**	**16 14 21.6**	**+1.2**
	comp=Z,11nm,1.0s						
HIZ	**Hauiti**	**73.34**	**129**	P	**P**	**16 14 22.1**	**+1.4**
HIZ	**Hauiti**	**73.34**	**129**	P	**P**	**16 14 22.7**	**+2.0**
VRZ	**Vera Road**	**73.35**	**129**	P	**P**	**16 14 22.0**	**+1.3**
GAZ	**Gaziantep**	**73.46**	**311**	IAmb	IAmb	16 14 23.7	
	comp=Z,26nm,0.9s						
SALP	**Salfit**	**73.50**	**305**	P	**P**	**16 14 24.4**	**+2.6**
	comp=Z,40nm,1.1s						
MATP	**Matopo**	**73.50**	**250**	LR	LR	16 43 29.7	
	comp=Z,63nm,19.1s,baz=123,slow=33						
MMAI	**Mount Meron Ar**	**73.59**	**306**	P	**P**	**16 14 24.8**	**+2.4**
	comp=Z,12nm,0.6s,baz=62,slow=10,SNR=16						
MMAI				LR	LR	16 46 53.5	
	comp=Z,46nm,21.1s,baz=130,slow=36						
	comp=Z,12nm,0.6s						
WAZ	**Wanganui**	**73.61**	**130**	P	**P**	**16 14 24.1**	**+1.8**
VSLR	**Vesyoloye**	**73.69**	**318**	*d i*P	**P**	**16 14 22.9**	**+0.3**
VSLR				pmax	pmax		
	comp=Z,25nm,1.0s						
PETK	**Petropavlovsk-**	**73.69**	**31**	P	**P**	**16 14 21.6**	**-0.8**
	comp=Z,5.9nm,0.6s,baz=325,slow=1.8,SNR=22						
PETK				LR	LR	16 48 44.9	
	comp=Z,26nm,18.2s,baz=229,slow=37						
	comp=Z,5.9nm,0.6s						
PETK	**Petropavlovsk-**	**73.69**	**31**	P	**P**	**16 14 21.3**	**-1.1**
TOZ	**Tahuroa Road**	**73.75**	**128**	P	**P**	**16 14 24.3**	**+1.2**
TOZ	**Tahuroa Road**	**73.75**	**128**	P	**P**	**16 14 24.9**	**+1.8**
LSZ	**Lusaka**	**73.76**	**255**	LR	LR	16 43 54.1	
	comp=Z,111nm,18.9s,baz=148,slow=33						
KZIT	**Kziot**	**73.83**	**304**	P	**P**	**16 14 26.4**	**+2.7**
	comp=Z,60nm,1.0s						
KZIT	**Kziot**	**73.83**	**304**	P	**P**	**16 14 23.7**	**-0.1**
	comp=Z,60nm,1.0s						
TWVZ	**Taurewa**	**73.86**	**129**	P	**P**	**16 14 24.8**	**+0.9**
OGWZ	**Otaki Gorge**	**73.89**	**131**	P	**P**	**16 14 24.5**	**+0.6**
MTVZ	**Mangateitei**	**73.93**	**130**	P	**P**	**16 14 25.4**	**+1.1**
SOC	**Sochi**	**73.94**	**318**	*e*P	**P**	**16 14 23.8**	**-0.3**
SOC				*e*		16 17 12.8	
SOC				*e*S	**S**	**16 23 52.4**	**+0.4**
SOC				*e*SS	**SS**	**16 28 33.8**	**-3.8**
SOC				*e*SSS	SSS	16 31 56.4	
SOC				pmax	pmax		
	comp=Z,24nm,0.7s						
COVZ	**Chateau Observ**	**73.96**	**129**	P	**P**	**16 14 25.7**	**+1.3**
FWVZ	**Far West T-bar**	**73.98**	**129**	P	**P**	**16 14 25.9**	**+1.1**
TRVZ	**Turoa**	**73.98**	**129**	P	**P**	**16 14 25.9**	**+1.2**
MAVZ	**Matarangi**	**73.98**	**129**	P	**P**	**16 14 26.0**	**+1.1**
WTVZ	**West Tongariro**	**73.99**	**129**	P	**P**	**16 14 26.0**	**+1.4**
NGZ	**Ngauruhoe**	**74.00**	**129**	P	**P**	**16 14 26.0**	**+1.2**
WHVZ	**Whangaehu Hut**	**74.01**	**129**	P	**P**	**16 14 26.0**	**+1.1**
WNVZ	**Wahianoa**	**74.02**	**129**	P	**P**	**16 14 26.0**	**+1.1**
SNVZ	**South Ngauruho**	**74.04**	**129**	P	**P**	**16 14 26.2**	**+1.2**
KATZ	**Kakaramea**	**74.05**	**129**	P	**P**	**16 14 26.7**	**+1.7**
NTVZ	**North Tongarir**	**74.05**	**129**	P	**P**	**16 14 26.4**	**+1.4**
OTVZ	**Oturere**	**74.05**	**129**	P	**P**	**16 14 26.4**	**+1.3**
TMVZ	**Te Maari**	**74.08**	**129**	P	**P**	**16 14 26.7**	**+1.5**
ETVZ	**East Tongariro**	**74.08**	**129**	P	**P**	**16 14 26.5**	**+1.3**
PET	**Petropavlovsk**	**74.14**	**31**	P	**P**	**16 14 24.1**	**-0.9**
PET	**Petropavlovsk**	**74.14**	**31**	*e*P	**P**	**16 14 24.1**	**-0.9**
PET				pmax	pmax		
	comp=Z,91nm,0.6s						
PET	**Petropavlovsk**	**74.14**	**31**	P	**P**	**16 14 24.0**	**-0.9**
PET	**Petropavlovsk**	**74.14**	**31**	P	**P**	**16 14 24.4**	**-0.6**
	comp=Z,81nm,0.6s						
PET	**Petropavlovsk**	**74.14**	**31**	P	**P**	**16 14 24.2**	**-0.8**
MOVZ	**Moawhango**	**74.15**	**130**	P	**P**	**16 14 26.1**	**+0.6**
HOWZ	**Holdsworth Sta**	**74.17**	**131**	P	**P**	**16 14 26.2**	**+0.7**
ANDN	**Andirin**	**74.24**	**311**	P	**P**	**16 14 27.4**	**+1.3**
	comp=Z,105nm,1.0s						
MA2	**Magadan**	**74.31**	**23**	LR	LR	16 47 22.7	
	comp=Z,31nm,21.9s,baz=263,slow=36						
TGRZ	**Tauranga**	**74.35**	**128**	P	**P**	**16 14 28.2**	**+1.6**
TSZ	**Takapari Road**	**74.39**	**130**	P	**P**	**16 14 28.1**	**+1.2**
BHHZ	**Black Hill Sta**	**74.40**	**130**	P	**P**	**16 14 27.4**	**+0.5**
PRWZ	**Pori Road**	**74.46**	**131**	P	**P**	**16 14 28.0**	**+0.7**
PNHZ	**Pukenui**	**74.56**	**130**	P	**P**	**16 14 28.9**	**+1.0**
DVHZ	**Dannevirke**	**74.58**	**130**	P	**P**	**16 14 28.7**	**+0.8**
BFZ	**Birch Farm**	**74.69**	**131**	P	**P**	**16 14 28.7**	**+0.1**
BFZ	**Birch Farm**	**74.69**	**131**	P	**P**	**16 14 28.6**	**+0.1**
BKZ	**Black Stump Fm**	**74.69**	**129**	P	**P**	**16 14 28.9**	**+0.2**
WPHZ	**Waipukurau**	**74.76**	**130**	P	**P**	**16 14 30.0**	**+1.1**
ANWZ	**Angora Road**	**74.83**	**131**	P	**P**	**16 14 30.5**	**+1.2**
MCHZ	**McNeill Hill**	**74.88**	**130**	P	**P**	**16 14 31.0**	**+1.3**
NMHZ	**Naumai**	**74.92**	**129**	P	**P**	**16 14 31.1**	**+1.1**
RTZ	**Ruatahuna**	**75.01**	**129**	P	**P**	**16 14 29.8**	**-0.7**
RTZ	**Ruatahuna**	**75.01**	**129**	P	**P**	**16 14 30.1**	**-0.4**
URZ	**Urewera**	**75.07**	**128**	LR	LR	16 51 31.7	
	comp=Z,79nm,18.4s,baz=251,slow=39						
URZ	**Urewera**	**75.07**	**128**	P	**P**	**16 14 30.5**	**-0.2**
MWZ	**Matawai**	**75.41**	**128**	P	**P**	**16 14 32.1**	**-0.7**
HAZ	**Te Kaha**	**75.55**	**128**	P	**P**	**16 14 32.5**	**-1.0**
KIRV	**Kirov**	**75.75**	**334**	*d i*P	**P**	**16 14 33.9**	**-0.2**
CSS	**Mathiatis**	**75.79**	**308**		**P**	**16 14 35.9**	**+0.9**
CSS				IAmb	IAmb	16 14 37.2	
	comp=Z,38nm,0.9s						
CSS	**Mathiatis**	**75.79**	**308**	P	**P**	**16 14 36.1**	**+1.1**
	comp=Z,408nmcomp=Z,49nm,0.9s						
CSS	**Mathiatis**	**75.79**	**308**	P	**P**	**16 14 35.8**	**+0.8**
	comp=Z,412nmcomp=Z,49nm,0.9s						
CSS	**Mathiatis**	**75.79**	**308**	P	**P**	**16 14 36.4**	**+1.4**
	comp=Z,49nm,0.9s						
VRH	**Novokhopyorsk**	**75.85**	**325**	*e*P	**P**	**16 14 34.8**	**-0.1**
VRH				pmax	pmax		
	comp=Z,51nm,0.8s						
MXZ	**Matakaoa Point**	**75.94**	**127**	P	**P**	**16 14 36.1**	**+0.3**
MXZ	**Matakaoa Point**	**75.94**	**127**	P	**P**	**16 14 35.3**	**-0.4**

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PUZ   Puketiti          75.95 128   P       P      16 14 34.9 -1.0
LBTB  Lobatse           76.29 245   LR      LR     16 42 02.9
      comp=Z,222nm,19.3s,baz=100,slow=31
KIRS  Kirsehir-Merke    76.53 312 ⇑P        P      16 14 39.6 +0.4
BOSA  Boshof            76.70 242   P       P      16 14 41.4 +0.9
      comp=Z,3.0nm,0.9s,baz=128,slow=6.6,SNR=4.9
BOSA                                LR      LR     16 41 37.5
      comp=Z,187nm,19.2s,baz=125,slow=30
      comp=Z,3.0nm,0.9s
BOSA  Boshof            76.70 242   IAmb    IAmb   16 17 18.1
      comp=Z,51nm,2.0s
BR104 Keskin Array S    76.91 312   P       P      16 14 41.1 -0.3
      comp=Z,169nmcomp=Z,18nm,0.8s
BR131 Keskin Array S    76.92 312c iP       P      16 14 41.1 -0.3
BR131 Keskin Array S    76.92 312   IAmb    IAmb   16 14 42.3
      comp=Z,17nm,0.7s
BRTR  Keskin Array B    76.92 312   P       P      16 14 41.3 -0.1
      comp=Z,12nm,0.7s,baz=133,slow=7.1,SNR=67
      comp=Z,12nm,0.7s
BRTR  Keskin Array B    76.92 312   P       P      16 14 40.8 -0.6
BR105 Keskin Array S    76.93 312   P       P      16 14 41.4 -0.1
      comp=Z,184nmcomp=Z,19nm,0.7s
BR106 Keskin Array S    76.93 312   P       P      16 14 41.4 -0.1
      comp=Z,150nmcomp=Z,17nm,0.8s
SEY   Seymchan          77.04  21⇑eP        P      16 14 41.0 -0.4
SEY                                 pmax    pmax
      comp=Z,8.0nm,0.8s
VORD  Divnogorie        77.14 325  eP       P      16 14 40.2 -2.0
VORD                                pmax    pmax
      comp=Z,10.0nm,0.9s
ILGA  Ilgaz             77.26 314   IAmb    IAmb   16 14 45.6
      comp=Z,17nm,1.0s
KKUL  Konya-Kulu        77.29 312   P       P      16 14 43.9 +0.4
      comp=Z,34nm,0.9s
VSR   Storozhevoye      77.31 325  eP       P      16 14 43.0 -0.2
VSR                                 pmax    pmax
      comp=Z,37nm,0.8s
VORR  Voronezh          77.48 325  eP       P      16 14 44.1  0.0
VORR                                pmax    pmax
      comp=Z,30nm,0.8s
KEPZ  Antalya-Kepez     77.66 309 ⇑P        P      16 14 45.5  0.0
TIXI  Tiksi             77.97   8   P       P      16 14 44.6 -1.8
TIXI                                pmax    pmax
      comp=Z,17nm,1.3s
TIXI  Tiksi             77.97   8   P       P      16 14 44.6 -1.8
LPSR  Galich'ya Gora    78.01 326  eP       P      16 14 47.2 +0.2
LPSR                                pmax    pmax
      comp=Z,51nm,0.8s
SIM   Simferopol'       78.19 318  eP       P      16 14 48.3 +0.1
SIM                                e               16 14 58.0
SIM                                 pmax    pmax
      comp=Z,57nm,0.8s
MDUB  Mudurnu           78.92 313   IAmb    IAmb   16 14 53.7
      comp=Z,35nm,0.8s
VNDA  Vanda             79.19 169   P       P      16 14 54.6 +1.5
      comp=Z,1.0nm,0.5s,baz=314,slow=5.5,SNR=14
VNDA                                LR      LR     16 46 37.9
      comp=Z,60nm,18.9s,baz=274,slow=33
      comp=Z,1.0nm,0.5s
VNDA  Vanda             79.19 169   P       P      16 14 53.8 +0.7
VNDA  Vanda             79.19 169   P       P      16 14 55.0 +1.9
      comp=Z,4.1nm,1.3s
VNDA  Vanda             79.19 169   P       P      16 14 54.6 +1.5
SAHE  Sakarya_HENDEK    79.28 313 ⇑P        P      16 14 54.7 +0.3
MOS   Moscow            79.98 329  eP       P      16 14 57.9 +0.2
MOS                                 pmax    pmax
      comp=Z,61nm,0.8s
ARG   Arkhangelos       80.21 308   IAmb    IAmb   16 15 01.5
      comp=Z,45nm,1.0s
SBA   Scott Base        80.28 169   P       P      16 15 01.3 +2.3
SBA                                 pmax    pmax
      comp=Z,11nm,1.3s
SBA   Scott Base        80.28 169   P       P      16 15 01.3 +2.3
OBN   Obninsk           80.29 328d iP       P      16 14 59.2 -0.2
OBN                                                16 15 06.0
OBN                                e*PP     pP     16 15 14.4 -1.0
OBN                                                16 18 10.0
OBN                                 PS      PnS    16 26 04.0  +12
OBN                                 SS      SS     16 30 21.0 +8.2
OBN                                 pmax    pmax
      comp=Z,31nm,0.9s
OBN                                 MLR     MLR
      comp=Z,27nm,14.0s
OBN   Obninsk           80.29 328   P       P      16 14 59.2 -0.2
OBN   Obninsk           80.29 328   P       P      16 14 59.6 +0.2
      comp=Z,60nm,0.9s
SUR   Sutherland        80.62 238   LR      LR     16 42 52.0
      comp=Z,91nm,22.0s,baz=117,slow=30
SUR   Sutherland        80.62 238   P       P      16 15 04.6 +2.5
SUR                                 IAmb    IAmb   16 15 39.2
      comp=Z,74nm,1.8s
AYDN  Tasoluk           80.73 309   P       P      16 15 03.8 +1.5
      comp=Z,104nm,1.1s
KARP  Karpathos         80.83 307   P       P      16 15 03.8 +1.0
      comp=Z,1µmcomp=Z,188nm,0.9s
KARP  Karpathos         80.83 307   P       P      16 15 04.5 +1.7
      comp=Z,188nm,0.9s
BDRM  Kayabasi          80.94 308 ⇑P        P      16 15 03.5 +0.2
BAND  Balkesir-Ban      81.18 312 ⇑P        P      16 15 04.8 +0.3
KLMR  Klimovskoe        81.22 334  eP       P      16 15 02.3 -2.0
KLMR                               e*PP     pP     16 15 16.9 -3.4
KLMR                                pmax    pmax
      comp=Z,35nm,1.0s
BALY  Balya             81.40 311   P       P      16 15 06.7 +0.9
      comp=Z,86nm,0.8s
TLCR                    81.86 317   P       P      16 15 09.3 +1.4
TLCR                    81.86 317 ⇑P        P      16 15 09.4 +1.4
TIRR  Tirgusor          81.95 316   P       P      16 15 09.1 +0.6
TIRR  Tirgusor          81.95 316   IAmb    IAmb   16 15 10.0
      comp=Z,15nm,0.9s
TIRR  Tirgusor          81.95 316 ⇑P        P      16 15 09.1 +0.6
TIRR  Tirgusor          81.95 316   P       P      16 15 09.3 +0.8
      comp=Z,19nm,1.1s
TIRR                                pP      pP     16 15 24.6 +0.1
TPGR  Topolog           82.04 316 ⇑P        P      16 15 09.4 +0.4
CHOS  Chios island      82.29 310   P       P      16 15 12.2 +1.7
      comp=Z,74nm,1.0s
CHOS                                pP      pP     16 15 27.0 +0.4
THERA Ancient Thera,    82.34 307   P       P      16 15 10.6 -0.1
      comp=Z,57nm,0.8s
HARR  Harsova           82.34 316   P       P      16 15 11.3 +0.8
HARR  Harsova           82.34 316 ⇑P        P      16 15 11.3 +0.8
ELIB  Princess Elisa    82.36 198  dP       P      16 15 12.2 +1.8
      comp=Z,4.6nm,0.6s
ELIB                               dpP      pP     16 15 26.3 +0.2
IDI   Anoyia            82.60 306   IAmb    IAmb   16 15 14.5
      comp=Z,31nm,0.7s
SORM  Soroca            82.92 319   P       P      16 15 13.9 +0.5
SORM  Soroca            82.92 319 ⇑P        P      16 15 14.0 +0.5
AKASG Malin Array Be    83.05 322   P       P      16 15 13.8 -0.3
      comp=Z,33nm,1.2s,baz=85,slow=5.1,SNR=34
      comp=Z,33nm,1.2s
AKASG Malin Array Be    83.05 322 i P       P      16 15 13.8 -0.3
AKASG                               pmax    pmax
      comp=Z,6.0nm,0.5s
AKASG Malin Array Be    83.05 322   P       P      16 15 13.8 -0.3
AKBB  Malin Array Si    83.05 322c iP       P      16 15 13.6 -0.5
AKBB  Malin Array Si    83.05 322   IAmb    IAmb   16 15 14.3
      comp=Z,12nm,0.6s
KIEV  Kiev              83.06 322   P       P      16 15 14.0 -0.1
KIEV  Kiev              83.06 322   P       P      16 15 13.4 -0.7
KIEV                                IAmb    IAmb   16 15 14.3
      comp=Z,11nm,0.7s
KIEV  Kiev              83.06 322 i P       P      16 15 14.0 -0.1
      SNR=8.3
KIEV  Kiev              83.06 322 ⇓P        P      16 15 14.0 -0.1
KIEV  Kiev              83.06 322   P       P      16 15 14.0 -0.1
      comp=Z,19nm,1.0s
KIEV  Kiev              83.06 322   P       P      16 15 14.0 -0.1
RAZG  Razgrad           83.07 315 ⇑P        P      16 15 14.8 +0.4
SAHR  Sahastru          83.44 317 ⇑P        P      16 15 18.0 +1.7
VRI   Vrincioaia        83.44 317   P       P      16 15 17.7 +1.5
VRI   Vrincioaia        83.44 317 ⇑P        P      16 15 17.8 +1.5
VRI   Vrincioaia        83.44 317   P       P      16 15 17.8 +1.5
      comp=Z,46nm,0.9s
PLOR  Plostina          83.49 317   P       P      16 15 17.9 +1.4
PLOR  Plostina          83.49 317 ⇑P        P      16 15 17.9 +1.4
NEHR  Nehoiu            83.64 317 ⇓P        P      16 15 18.8 +1.5
TESR  Tescani           83.65 318 ⇑P        P      16 15 18.4 +1.1
TESR  Tescani           83.65 318   P       P      16 15 18.4 +1.1
      comp=Z,54nm,0.9s
ONER  Baraj Valea Uz    83.78 317 ⇑P        P      16 15 18.6 +0.7
TSUM  Tsumeb            83.79 251   LR      LR     16 49 36.8
      comp=Z,86nm,18.9s,baz=149,slow=33
COVR  Voineasa-Covas    83.80 317 ⇑P        P      16 15 18.6 +0.5
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GIRR  Girov             83.85 318 ⇑P        P      16 15 19.5 +1.2
MLR   Muntele Rosu      83.89 317   P       P      16 15 20.0 +1.3
MLR   Muntele Rosu      83.89 317   IAmb    IAmb   16 15 21.5
      comp=Z,33nm,1.0s
MLR   Muntele Rosu      83.89 317 ⇑P        P      16 15 20.0 +1.3
MLR   Muntele Rosu      83.89 317   P       P      16 15 20.0 +1.3
      comp=Z,39nm,1.1s
TURR  Turia             83.97 317 ⇑P        P      16 15 20.0 +1.0
BIZ   Bicaz             84.11 318 ⇑P        P      16 15 20.8 +1.1
PRAR  RASCA             84.12 318 ⇑P        P      16 15 20.5 +0.8
DOPR  Dopca             84.38 317 ⇑P        P      16 15 22.1 +1.0
PLVB  Pleven            84.38 314 ⇑P        P      16 15 21.4 +0.3
MTUR  Matau             84.44 316   P       P      16 15 22.1 +0.6
MTUR  Matau             84.44 316 ⇑P        P      16 15 22.1 +0.6
VOIR                    84.50 316   P       P      16 15 22.0 +0.3
VOIR                    84.50 316 ⇑P        P      16 15 22.0 +0.3
VOIR                    84.50 316   P       P      16 15 22.0 +0.3
      comp=Z,6.3nm,0.9s
BILL  Bilibino          84.65  20⇑eP        P      16 15 20.7 -1.2
BILL                                pmax    pmax
      comp=Z,4.0nm,0.9s
SOH   Sokhos            84.81 312   P       P      16 15 22.7 -0.7
      comp=Z,14nm,0.9s
BURAR Bucovina Array    84.85 318   P       P      16 15 25.3 +1.9
BURAR Bucovina Array    84.85 318   P       P      16 15 24.6 +1.2
BURAR                               IAmb    IAmb   16 15 26.0
      comp=Z,22nm,0.7s
BURAR Bucovina Array    84.85 318 ⇑P        P      16 15 25.3 +1.9
MNK   Minsk             84.85 326 i P       P      16 15 24.4 +1.3
MNK                               i *PP     pP     16 15 39.8 +0.5
MNK                               i PPP     PPP    16 20 33.3
MNK                               i S       SKSac  16 25 42.6  0.0
MNK                               i SSS     SSS    16 34 48.6
MNK                                 pmax    pmax
      comp=N,16nm,0.9s
MNK                                 pmax    pmax
      comp=Z,53nm,0.9s
MNK                                 pmax    pmax
      comp=E,8.0nm,0.7s
MNK                                 MLR     MLR
      comp=Z,24nm,15.0s
MNK                                 MLR     MLR
      comp=N,40nm,15.0s
MNK                                 MLR     MLR
      comp=E,76nm,18.0s
MNK   Minsk             84.85 326 i P       P      16 15 24.5 +1.3
      comp=E,8.0nm,0.7s,baz=105
MNK                               i P       P      16 15 24.5 +1.3
      comp=N,16nm,0.9s
MNK                               i P       P      16 15 24.5 +1.3
      comp=Z,53nm,0.9s
MNK                               i pP      pP     16 15 39.8 +0.5
MNK                               i sP      sP     16 15 47.3 +1.7
MNK                               i PP      PP     16 18 33.8 -6.5
MNK                               i PPP     PPP    16 20 33.4
MNK                               i S       SKSac  16 25 42.6  0.0
MNK                               i sS      pS     16 26 10.6 +3.2
MNK                               i SS      SS     16 31 07.5  -13
MNK                               i SSS     SSS    16 34 48.7
MNK                               i LRM     MLR    16 55 45.1
      comp=Z,24nm,15.2s
HORT  Hortiatis         84.96 311   P       P      16 15 24.6 +0.5
      comp=Z,15nm,0.9s
KNT   Kendrikon         85.21 312   P       P      16 15 26.9 +1.6
      comp=Z,9.6nm,1.1s
ARCR  ARCALIA           85.31 318 ⇑P        P      16 15 27.4 +1.7
LIT   Litokhoron        85.33 311   P       P      16 15 26.1 +0.1
      comp=Z,50nm,0.9s
LOT   Lotru             85.38 316 ⇑P        P      16 15 26.9 +0.6
LOT   Lotru             85.38 316   P       P      16 15 26.4 +0.2
      comp=Z,8.9nm,0.8s
QSPA  South Pole Qui    85.43 180   P       P      16 15 27.2 +1.2
      comp=Z,1.7nm,0.6s,baz=261,slow=0.4,SNR=16
QSPA                                LR      LR     16 51 40.6
      comp=Z,69nm,18.1s,baz=302,slow=34
      comp=Z,1.7nm,0.6s
QSPA  South Pole Qui    85.43 180   P       P      16 15 26.9 +0.9
GRG   Griva             85.55 312   P       P      16 15 27.3 +0.2
      comp=Z,52nm,1.0s
NACGM Naroch            85.57 326  eP       P      16 15 27.9 +1.1
CJR   Cluj-Napoca       85.75 317   P       P      16 15 29.5 +1.6
CJR   Cluj-Napoca       85.75 317 ⇓P        P      16 15 29.5 +1.6
BMR   Baia Mare         86.00 318   P       P      16 15 30.6 +1.6
BMR   Baia Mare         86.00 318 ⇑P        P      16 15 30.6 +1.6
BMR   Baia Mare         86.00 318   P       P      16 15 30.8 +1.7
      comp=Z,44nm,0.8s
LVZ   Lovozero          86.04 339   P       P      16 15 28.3 -0.6
GZR   Gura Zlata        86.06 316   P       P      16 15 30.2 +0.7
GZR   Gura Zlata        86.06 316 ⇑P        P      16 15 30.2 +0.7
DEV   Deva              86.06 316   P       P      16 15 31.0 +1.6
DEV   Deva              86.06 316 ⇑P        P      16 15 31.0 +1.6
DEV   Deva              86.06 316   P       P      16 15 31.3 +1.9
      comp=Z,33nm,0.9s
MARR  Marisel-Cluj      86.06 317 ⇓P        P      16 15 30.9 +1.3
HERR  Herculane         86.22 315 ⇑P        P      16 15 29.8 -0.4
DRGR                    86.36 317   P       P      16 15 31.3 +0.4
DRGR                    86.36 317 ⇑P        P      16 15 31.3 +0.4
DRGR                    86.36 317   P       P      16 15 32.2 +1.2
      comp=Z,11nm,1.2s
VSU   Vasula            86.48 329ceP        P      16 15 30.5 -0.7
VSU                                 pmax    pmax
      comp=Z,31nm,1.3s
VSU   Vasula            86.48 329   P       P      16 15 30.8 -0.4
      comp=Z,50nm,0.8s
BOVS  Bovan             86.51 314 ⇑P        P      16 15 31.5 -0.1
MDVR  Moldovita         86.69 315 ⇓P        P      16 15 33.3 +0.7
TRPA  Tarpa             86.72 319   P       P      16 15 33.6 +1.0
      comp=Z,16nm,1.0s
BZS   Buzias            86.90 316   P       P      16 15 34.2 +0.7
BZS   Buzias            86.90 316 ⇑P        P      16 15 34.2 +0.7
BZS   Buzias            86.90 316   P       P      16 15 34.6 +1.1
      comp=Z,13nm,1.0s
KOLS  Kolonicke sedl    87.03 319  eP       P      16 15 35.9 +1.8
KOLS                                pmax    pmax
      comp=Z,52nm,0.8s
KOLS  Kolonicke sedl    87.03 319  eP       P      16 15 35.9 +1.8
KOLS  Kolonicke sedl    87.03 319   P       P      16 15 36.2 +2.1
      comp=Z,50nm,0.9s
ARBE  Arbavere          87.10 330   P       P      16 15 35.3 +1.2
      comp=Z,180nm,0.8s
PHP   Peshkopia         87.12 312   P       P      16 15 35.0 +0.2
      comp=Z,15nm,1.3s
PABE  Paberze           87.28 326   P       P      16 15 36.0 +0.9
      comp=Z,82nm,0.8s
SUW   Suwalki           87.43 325  eP       P      16 15 35.9  0.0
MSF   Maaselka          87.46 337   P       P      16 15 35.4 -0.4
      comp=Z,22nm,0.8s
FIA1  FINESS Array S    87.54 332   P       P      16 15 36.7 +0.5
FINES FINESS Array B    87.54 332   P       P      16 15 36.6 +0.4
      comp=Z,10.0nm,0.5s,baz=107,slow=5.0,SNR=100
FINES                               LR      LR     16 58 36.7
      comp=Z,45nm,20.1s,baz=110,slow=38
      comp=Z,10.0nm,0.5s
FINES FINESS Array B    87.54 332           P      16 15 36.5 +0.2
STHS  Stebnicka Huta    87.78 320  eP       P      16 15 38.9 +1.2
STHS                                pmax    pmax
      comp=Z,21nm,0.8s
STHS  Stebnicka Huta    87.78 320  eP       P      16 15 38.9 +1.2
PDG   Podgorica         88.10 313   IAmb    IAmb   16 15 41.1
      comp=Z,17nm,0.8s
PDG   Podgorica         88.10 313 ⇑P        P      16 15 39.4  0.0
PDG   Podgorica         88.10 313   P       P      16 15 39.7 +0.3
      comp=Z,23nm,1.0s
KECS  Kecovo            88.13 319  eP       P      16 15 40.4 +1.0
KECS  Kecovo            88.13 319  eP       P      16 15 40.4 +1.0
NIE   Niedzica          88.39 320  eP       P      16 15 42.3 +1.6
PSZ   Piszkesteto       88.43 318   P       P      16 15 40.8 -0.1
PSZ   Piszkesteto       88.43 318   IAmb    IAmb   16 15 42.9
      comp=Z,15nm,0.9s
PSZ   Piszkesteto       88.43 318 ⇑P        P      16 15 40.8 -0.1
PSZ   Piszkesteto       88.43 318   P       P      16 15 42.0 +1.1
      comp=Z,19nm,1.0s
OUL   Oulu              88.50 336   P       P      16 15 41.5 +0.8
      comp=Z,38nm,0.8s
TROLL Troll, Antarti    88.81 198   P       P      16 15 45.6 +3.3
      comp=Z,174nm,0.9s
OJC   Ojcow             88.83 320  eP       P      16 15 43.9 +1.2
OJC   Ojcow             88.83 320   P       P      16 15 43.8 +1.2
      comp=Z,12nm,0.9s
LANS  Liptovska Anna    88.89 319  eP       P      16 15 44.3 +1.3
LANS  Liptovska Anna    88.89 319  eP       P      16 15 44.3 +1.3
MORH  Mrgy, Hungar      89.04 316 ⇓P        P      16 15 45.0 +1.3
MORH  Mrgy, Hungar      89.04 316   P       P      16 15 44.7 +1.0
      comp=Z,20nm,0.9s
VYHS  Vyhne             89.22 319  eP       P      16 15 45.2 +0.7
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VYHS                                pmax    pmax
      comp=Z,12nm,1.2s
VYHS  Vyhne             89.22 319  eP       P      16 15 45.2 +0.7
VYHS  Vyhne             89.22 319   P       P      16 15 45.5 +1.0
SRO   Srobarova         89.47 318  eP       P      16 15 47.5 +1.8
SRO                                 pmax    pmax
      comp=Z,22nm,0.6s
SRO   Srobarova         89.47 318  eP       P      16 15 47.5 +1.8
TIP   Timpagrande       89.59 309   IAmb    IAmb   16 15 49.4
      comp=Z,16nm,1.1s
TIP   Timpagrande       89.59 309 ⇑P        P      16 15 48.6 +2.1
TIP   Timpagrande       89.59 309   P       P      16 15 47.9 +1.3
      comp=Z,18nm,1.0s
ARCES ARCESS Array B    89.72 340   P       P      16 15 46.7 +0.3
      comp=Z,2.3nm,0.5s,baz=102,slow=5.0,SNR=22
ARCES                               LR      LR     16 59 36.8
      comp=Z,52nm,21.9s,baz=144,slow=38
      comp=Z,2.3nm,0.5s
ARCES ARCESS Array B    89.72 340   P       P      16 15 46.5 +0.1
ARCES                               IAmb    IAmb   16 19 00.9
      comp=Z,27nm,1.6s
MATE  Matera            89.79 311 ⇑P        P      16 15 48.5 +1.2
OKC   Ostrava-Krasne    89.84 320  eP       P      16 15 48.8 +1.5
OKC   Ostrava-Krasne    89.84 320   P       P      16 15 48.9 +1.6
      comp=Z,20nm,0.9s
BLY   Banja Luka        89.88 315 ⇑P        P      16 15 49.1 +1.4
BLY   Banja Luka        89.88 315   P       P      16 15 49.2 +1.5
      comp=Z,44nm,1.0s
MPLH  Magyarpolny       89.92 317   P       P      16 15 49.4 +1.6
      comp=Z,38nm,0.9s
MAUC  Maruska           89.98 319  eP       P      16 15 49.5 +1.4
JAVC  Velka Javorina    90.03 319  eP       P      16 15 49.3 +0.9
JAVC  Velka Javorina    90.03 319   P       P      16 15 49.7 +1.3
      comp=Z,18nm,1.0s
STEB  Steborice         90.09 320  eP       P      16 15 49.9 +1.4
SMOL  Smolenice         90.15 319  eP       P      16 15 50.5 +1.7
CEL   Celeste           90.17 308   P       P      16 15 50.4 +1.2
      comp=Z,38nm,1.0s
MORC  Moravsky Berou    90.22 320   P       P      16 15 50.5 +1.3
MORC  Moravsky Berou    90.22 320   IAmb    IAmb   16 15 51.5
      comp=Z,13nm,0.9s
MORC  Moravsky Berou    90.22 320  eP       P      16 15 49.4 +0.2
MORC  Moravsky Berou    90.22 320 ⇑P        P      16 15 50.5 +1.3
MORC  Moravsky Berou    90.22 320   P       P      16 15 50.6 +1.4
      comp=Z,18nm,1.4s
MODS  Modra-Piesok      90.23 318  eP       P      16 15 50.5 +1.2
MODS  Modra-Piesok      90.23 318   P       P      16 15 50.6 +1.4
      comp=Z,25nm,1.1s
BEHE  Becsehely         90.36 316   IAmb    IAmb   16 15 52.6
      comp=Z,21nm,0.9s
BEHE  Becsehely         90.36 316   P       P      16 15 52.1 +2.2
      comp=Z,26nm,1.1s
CUC   Castrocucco       90.40 310   IAmb    IAmb   16 15 51.8
      comp=Z,11nm,1.0s
MARCO Tramutola         90.43 310   P       P      16 15 52.4 +1.9
      comp=Z,18nm,1.2s
SNAA  Sanae             90.52 198   P       P      16 15 52.9 +2.7
      comp=Z,49nm,0.7s
SNAA  Sanae             90.52 198   P       P      16 15 50.9 +0.6
      comp=Z,2.1nm,0.7s,baz=298,slow=6.6,SNR=5.8
SNAA                                LR      LR     16 49 33.7
      comp=Z,61nm,19.6s,baz=114,slow=31
      comp=Z,2.1nm,0.7s
SNAA  Sanae             90.52 198   IAmb    IAmb   16 16 10.3
      comp=Z,20nm,1.8s
KRLC  Kraliky           90.74 320  eP       P      16 15 53.3 +1.7
KRLC  Kraliky           90.74 320   P       P      16 15 53.3 +1.7
      comp=Z,21nm,0.9s
RONA  Rosalia, Austr    90.81 318  ePcP     P      16 15 52.7 +0.7
      comp=Z,3.5nm,0.7s
WINA  Alland / Wiene    91.00 318  ePcP     P      16 15 53.8 +0.9
      comp=Z,6.0nm,1.0s
DPC   Dobruska-Polom    91.06 320  eP       P      16 15 54.8 +1.7
DPC   Dobruska-Polom    91.06 320   P       P      16 15 54.8 +1.7
      comp=Z,12nm,1.2s
CONA  Conrad Observa    91.13 318  ePcP     P      16 15 54.3 +0.7
      comp=Z,4.7nm,1.1s
KSP   Ksiaz             91.13 321  eP       P      16 15 54.6 +1.3
OSTC  Ostas             91.15 320  eP       P      16 15 55.1 +1.6
CHVC  Chvalec           91.26 320  eP       P      16 15 55.4 +1.4
ARSA  Arzberg           91.29 317   P       P      16 15 54.6 +0.3
ARSA                                IAmb    IAmb   16 15 56.4
      comp=Z,8.3nm,0.9s
ARSA  Arzberg           91.29 317 i PcP     P      16 15 55.5 +1.3
      comp=Z,8.3nm,1.0s,SNR=5.4
ARSA  Arzberg           91.29 317   P       P      16 15 55.6 +1.3
      comp=Z,13nm,0.9s
TREC  Trest             91.50 319   P       P      16 15 55.7 +0.6
      comp=Z,14nm,0.6s
SOKA  Soboth            91.58 317  ePcP     P      16 15 56.8 +1.2
      comp=Z,10nm,1.0s,SNR=12
OBKA  Obir              91.89 316  ePcP     P      16 15 58.4 +1.2
      comp=Z,7.0nm,0.9s
SESA  Seetaler Alpe,    91.93 317 i PcP     P      16 15 58.1 +0.7
      comp=Z,15nm,0.9s,SNR=5.9
MOA   Molln             92.19 318  ePcP     P      16 15 59.0 +0.6
      comp=Z,3.2nm,0.8s
CKRC  Cesky Krumlov     92.23 319  eP       P      16 15 59.6 +1.0
ZVC   Zvikov            92.36 319  eP       P      16 15 50.5 -8.6
DRE   Drenchia          92.50 316   P       P      16 16 00.5 +0.6
      comp=Z,16nm,0.9s
PRED  Cave del Predi    92.57 316   IAmb    IAmb   16 16 02.4
      comp=Z,8.6nm,0.8s
PRED  Cave del Predi    92.57 316   P       P      16 16 01.5 +1.3
      comp=Z,12nm,0.9s
BIOA  Bad Ischl, Aus    92.60 317  ePcP     P      16 16 00.7 +0.4
      comp=Z,3.7nm,0.7s
BRG   Berggiesshubel    92.62 321   P       P      16 16 01.1 +0.8
      comp=Z,13nm,0.8s
BRG   Berggiesshubel    92.62 321 i P       P      16 16 01.6 +1.4
BRG                                 Amp            16 16 02.2
      comp=Z,7.1nm,0.8s
BRG                                 PP      PP     16 19 43.8 +1.3
BRG                                 Amp            16 19 44.5
      comp=Z,2.9nm,0.8s
GEC2  GERESS Array S    92.64 319   P       P      16 16 01.6 +1.1
      comp=Z,6.5nm,1.2s
GERES GERESS Array B    92.64 319   P       P      16 16 01.2 +0.7
      comp=Z,3.8nm,0.7s,baz=103,slow=2.9,SNR=19
      comp=Z,3.8nm,0.7s
GERES GERESS Array B    92.64 319   P       P      16 16 00.9 +0.4
KHC   Kasperske Hory    92.74 319  eP       P      16 16 01.6 +0.7
KBA   Koelnbreinsper    92.76 317  ePcP     P      16 16 01.4 +0.2
      comp=Z,4.2nm,1.1s
FUSE  Fusea             92.95 316   P       P      16 16 02.4 +0.5
      comp=Z,16nm,1.1s
STAL  STALIGIAL         93.15 316   IAmb    IAmb   16 16 04.4
      comp=Z,12nm,0.9s
LESA  Schwarzleotal     93.23 317  eP       P      16 16 02.9 -0.4
      comp=Z,3.3nm,0.5s
CLL   Collm             93.24 321 i P       P      16 16 03.7 +0.6
CLL                                 pmax    pmax
      comp=Z,6.0nm,1.0s
CLL   Collm             93.24 321 i P       P      16 16 03.7 +0.6
      comp=Z,6.0nm,1.0s
ABTA  Abfaltersbach     93.31 316  eP       P      16 16 03.6 -0.1
      comp=Z,5.1nm,1.1s
HFS   Hagfors           93.34 330   P       P      16 16 03.7 +0.3
      comp=Z,9.9nm,0.9s,baz=184,slow=4.5,SNR=10
HFS                                 PP      PP     16 19 48.0 +0.2
      comp=Z,5.0nm,0.9s,baz=102,slow=14,SNR=3.5
HFS                                 LR      LR     17 04 41.4
      comp=Z,23nm,18.3s,baz=63,slow=40
      comp=Z,9.9nm,0.9s
SPITS Spitsbergen Ar    93.63 348   P       P      16 16 03.1 -1.2
      comp=Z,4.9nm,0.7s,baz=117,slow=6.9,SNR=8.0
SPITS                               LR      LR     17 04 15.2
      comp=Z,72nm,19.3s,baz=104,slow=39
      comp=Z,4.9nm,0.7s
CTI   Castel Tesino     93.87 316   IAmb    IAmb   16 16 08.3
      comp=Z,10nm,0.9s
WTTA  Wattenberg        93.93 317  ePcP     P      16 16 06.9 +0.2
      comp=Z,8.9nm,1.0s
WTTA  Wattenberg        93.93 317   P       P      16 16 07.1 +0.5
      comp=Z,10nm,1.0s
WATA  Walderalm         93.98 317  ePcP     P      16 16 06.8  0.0
      comp=Z,7.5nm,1.3s
GRB1  Grafenberg Arr    94.01 319   P       P      16 16 08.0 +1.3
      comp=Z,16nm,0.9s
GRB4  Grafenberg Arr    94.07 319   P       P      16 16 08.2 +1.1
      comp=Z,19nm,1.0s
SQTA  Sankt Quirin      94.22 317  ePcP     P      16 16 08.1 +0.2
      comp=Z,3.5nm,0.5s
MOTA  Moosalm           94.30 317  ePcP     P      16 16 08.7 +0.4
      comp=Z,4.3nm,0.8s
RETA  Reutte            94.53 317  ePcP     P      16 16 09.7 +0.5
      comp=Z,5.0nm,0.9s
```

FETA	**Feichten**	94.54	317	*e*PcP	P	16 16 10.0	+0.6
	comp=Z,4.3nm,1.0s						
NB2	**NORSAR Subarra**	94.60	331	P	P	16 16 08.8	-0.4
	comp=Z,1.6nm,0.7s,baz=92,slow=4.6						
NOA	**NORSAR Array B**	94.60	331	P	P	16 16 09.2	0.0
	comp=Z,3.0nm,0.8s,baz=92,slow=4.6,SNR=8.0						
NOA				PP	PP	16 19 57.5	-0.1
	comp=Z,1.5nm,0.8s,baz=88,slow=7.3,SNR=3.5						
NOA				LR	LR	17 02 35.4	
	comp=Z,23nm,21.8s,baz=90,slow=38						
	comp=Z,3.0nm,0.8s						
FUORN	**Ofenpass-Fuorn**	94.85	316	IAmb	IAmb	16 16 12.8	
	comp=Z,6.3nm,0.9s						
FUORN	**Ofenpass-Fuorn**	94.85	316	P	P	16 16 12.1	+1.1
	comp=Z,9.0nm,1.0s						
DAVA	**Damuels**	95.13	317	*e*PcP	P	16 16 12.7	+0.6
	comp=Z,9.9nm,1.1s						
KEST	**Kesra**	95.24	305	P	P	16 16 14.8	+2.1
	comp=Z,4.6nm,0.8s,baz=257,slow=20,SNR=4.9						
	comp=Z,4.6nm,0.8s						
KEST	**Kesra**	95.24	305	IAmb	IAmb	16 16 15.9	
	comp=Z,11nm,1.1s						
E19K	**Redstone River**	98.09	23	IAmb	IAmb	16 16 25.5	
	comp=Z,6.8nm,0.9s						
D20K	**Etivluk River**	98.14	21	IAmb	IAmb	16 16 25.8	
	comp=Z,14nm,0.9s						
G19K	**Purcell Mounta**	98.32	24	IAmb	IAmb	16 16 26.6	
	comp=Z,5.8nm,1.0s						
F20K	**Avaraart Lake**	98.73	23	P	P	16 16 26.9	-0.8
F20K				IAmb	IAmb	16 16 28.3	
	comp=Z,5.5nm,0.8s						
E21K	**Killik River**	99.14	21	P	Pdif	16 16 28.4	-1.2
E21K				IAmb	IAmb	16 16 29.6	
	comp=Z,7.8nm,0.8s						
G21K	**Allakaket**	99.69	23	IAmb	IAmb	16 16 32.8	
	comp=Z,5.4nm,0.9s						
ILAR	**Eielson Array**	102.77	24	P	Pdif	16 16 44.1	-1.7
	comp=Z,0.2nm,0.6s,baz=302,slow=6.4,SNR=2.3						
PPT2	**Papeete2**	105.55	110	*e*LR	LR	16 51 44.5	
	comp=Z,60nm,24.5s						
PPT2				*e*LR	LR	16 51 48.7	
	comp=Z,102nm,30.2s						
YKA	**Yellowknife Ar**	116.01	18	PKP	PKiKP	16 21 30.1	-0.9
	comp=Z,1.2nm,0.9s,baz=306,slow=2.1,SNR=4.1						
EDM	**Edmonton**	123.25	25	PKIKP	PKPdf	16 21 44.7	-0.6
EDM	**Edmonton**	123.25	25		PKPdf	16 21 44.7	-0.6
B08A	**Colville Reser**	123.61	32		PKPdf	16 21 45.5	-0.6
NEW	**Newport**	124.83	31	PKP	PKiKP	16 21 49.7	+0.9
	comp=Z,2.8nm,0.9s,baz=35,slow=0.9,SNR=4.5						
YBH	**Yreka Blue Hor**	125.26	41	PKP	PKiKP	16 21 50.7	+0.8
	comp=Z,1.7nm,0.8s,baz=25,slow=6.7,SNR=5.9						
M02C	**Callahan**	125.33	41		PKPdf	16 21 48.3	-1.3
LNOR	**Lincton Mounta**	125.67	34		PKPdf	16 21 49.5	-0.6
O03E	**Paynes Creek**	126.57	42		PKPdf	16 21 51.4	-0.7
ORV	**Oroville**	127.14	42	PKIKP	PKPdf	16 21 52.5	-0.6
ORV	**Oroville**	127.14	42		PKPdf	16 21 52.5	-0.6
MSO	**Missoula**	127.40	31		PKPdf	16 21 52.7	-0.8
SCHQ	**Schefferville**	129.13	352	PKP	PKiKP	16 21 57.1	0.0
	comp=Z,6.4nm,0.6s,baz=256,slow=19,SNR=7.4						
SCHQ	**Schefferville**	129.13	352		PKPdf	16 21 56.5	+0.1
NVAR	**Mina Array Bea**	129.85	42	PKP	PKiKP	16 21 59.7	+0.3
	comp=Z,1.4nm,0.6s,baz=314,slow=1.6,SNR=12						
NVAR				PP	PP	16 24 01.1	-9.0
	comp=Z,0.6nm,0.6s,baz=307,slow=5.4,SNR=3.7						
NVAR	**Mina Array Bea**	129.85	42		PKPdf	16 21 57.8	-0.8
ELK	**Elko**	130.51	38	PKP	PKiKP	16 22 00.5	-0.2
	comp=Z,1.0nm,0.5s,baz=271,slow=5.8,SNR=8.1						
ULM	**Lac du Bonnet**	131.87	16	PKP	PKPdf	16 22 02.0	+0.3
	comp=Z,3.9nm,0.7s,baz=167,slow=0.7,SNR=6.3						
PDAR	**Pinedale Array**	132.45	32	PKP	PKPdf	16 22 03.4	0.0
	comp=Z,1.1nm,0.8s,baz=39,slow=0.9,SNR=8.4						
PFO	**Pinyon Flats O**	133.60	47	PKP	PKPdf	16 22 05.3	-0.3
	comp=Z,2.8nm,0.9s,baz=339,slow=5.7,SNR=4.8						
RSSD	**Black Hills**	134.15	27	PKIKP	PKPdf	16 22 00.2	-6.3
RSSD	**Black Hills**	134.15	27		PKPpre	16 22 00.2	
RSSD					PKPdf	16 22 05.5	-1.0
SPB	**Sao Paulo**	139.52	225		PKPdf	16 22 13.8	-3.0
VHRN	**Van Horn**	143.20	42		PKPbc	16 22 20.2	-0.2
CPUP	**Villa Florida**	143.65	211	PKP	PKPdf	16 22 24.2	+0.1
	comp=Z,2.4nm,0.8s,baz=168,slow=5.3,SNR=3.6						
ACSO	**Alum Creek Sta**	144.12	7		PKPab	16 22 21.1	-1.0
CCM	**Cathedral Cave**	144.34	19	PKIKP	PKPab	16 22 22.0	-1.0
CCM	**Cathedral Cave**	144.34	19		PKPab	16 22 22.0	-1.0
ALPN	**Alpine**	144.35	41		PKPdf	16 22 25.5	+0.1
PAGS	**Pennsylvania G**	144.47	359		PKPab	16 22 22.6	-0.8
BDFB	**Brasilia**	144.64	235	PKP	PKPdf	16 22 26.8	+0.6
	comp=Z,16nm,0.6s,baz=105,slow=2.4,SNR=16						
MVL	**Millersville**	144.69	359		PKPab	16 22 23.3	-0.9
TXAR	**Lajitas Array**	145.00	42	PKP	PKPdf	16 22 26.2	-0.2
	comp=Z,26nm,0.8s,baz=268,slow=1.3,SNR=222						
TXAR	**Lajitas Array**	145.00	42		PKPbc	16 22 25.8	-0.1
SDMD	**Soldier's Deli**	145.29	359		PKPbc	16 22 24.9	-1.4
WCI	**Wyandotte Cave**	145.51	12	PKIKP	PKPdf	16 22 25.7	-1.3
WCI	**Wyandotte Cave**	145.51	12		PKPdf	16 22 25.7	-1.3
S51A	**Beattyville**	146.58	9		PKPdf	16 22 29.0	+0.2
WVT	**Waverly**	147.14	16	PKHKP	PKPpre	16 22 27.1	
WVT						16 22 30.8	
WVT	**Waverly**	147.14	16		PKPdf	16 22 27.1	-2.7
WVT					PKPbc	16 22 30.8	-1.2
HKT	**Hockley**	149.33	32	PKHKP	PKPpre	16 22 31.3	
HKT						16 22 37.8	
HKT	**Hockley**	149.33	32	PKPdf	PKPdf	16 22 31.2	-2.2
HKT					PKPbc	16 22 37.8	0.0
PB11	**IPOC Station P**	154.66	197		PKPdf	16 22 38.8	-3.2

JMA 03 16:11:21.0±0.1**,37°.3N**±0°.2×**141°.4E**±0°.2**,h28**^{km}±1^{km}**,**
MV1.1/23**,E OFF FUKUSHIMA PREF,Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JFK	**Kawauchi**	0.39	275	P	Pb	16 11 29.5	-0.1
JFK				S	Sb	16 11 35.3	-0.1
ONAJ	**Iwakimizuishiy**	0.51	243	P	Pb	16 11 31.2	-0.3
ONAJ				*e*S	Sb	16 11 38.1	-0.6
JMST	**Minamisoumatoc**	0.54	316	P	Pb	16 11 31.6	-0.4
JMST				*e*S	Sb	16 11 38.9	-0.5
JMM	**Marumori**	0.69	320	P	Pb	16 11 33.9	-0.7
JOTO	**OTAMA OYAMA**	0.85	286	*e*S	Sb	16 11 48.1	-0.1
JIO	**Ouri**	1.12	360	P	Pn	16 11 40.4	-0.5
JIO				*e*S	Sn	16 11 53.8	-1.5

WEL 03 16:12:26.7±0.4**,44°S**±3°×**17°2E**±°**,h4**^{km}±2^{km}**,M2.5**/9**,**
ML2.4/8**,MLv2.5**/9**,Error ellipse: s-maj=3.8km s-min=3.1km az=28.0,confirmed,South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MHCZ	**Mount Hutt**	0.07	338	P	Pg	16 12 28.4	+0.1
MHCZ				S	Sg	16 12 29.7	+0.4
MHCZ				AML	AML		
MHCZ				AML	AML		
WACZ	**Wakanui South**	0.38	154	P	Pg	16 12 34.6	+0.5
WACZ				S	Sg	16 12 40.1	+1.0
WACZ				AML	AML		
WACZ				AML	AML		
RACZ	**Rakaia**	0.41	108	P	Pg	16 12 35.1	+0.5
RACZ				S	Sg	16 12 40.7	+0.8
RACZ				AML	AML		
RACZ				AML	AML		
OXZ	**Oxford**	0.42	49	P	Pg	16 12 35.0	+0.2
OXZ				S	Sg	16 12 41.2	+1.1
OXZ				AML	AML		
OXZ				AML	AML		
RPZ	**Rata Peaks**	0.42	254	P	Pg	16 12 34.8	+0.1
RPZ				AML	AML		
RPZ				AML	AML		
MQZ	**McQueen's Vall**	0.77	98	P	Pg	16 12 41.5	0.0
MQZ				S	Sg	16 12 51.9	+0.5
MQZ				AML	AML		
MQZ				AML	AML		
WVZ	**Waitaha Valley**	0.82	309	P	Pg	16 12 42.5	0.0
WVZ				AML	AML		
WVZ				AML	AML		
AMCZ	**Amberley**	0.87	61	P	Pb	16 12 44.0	-0.4
AMCZ				S	Sb	16 12 56.2	-0.2
AMCZ				AML	AML		
AMCZ				AML	AML		
INZ	**Inchbonnie**	0.88	352	P	Pg	16 12 43.6	0.0
TMZ	**Timaru**	0.90	209	P	Pg	16 12 43.8	-0.2
TMZ				AML	AML		
LTZ	**Lake Taylor**	0.95	31	P	Pg	16 12 44.9	0.0
GCSZ	**Gaunt Creek Bo**	0.97	286	P	Pb	16 12 45.9	-0.2
GCSZ				AML	AML		
AKCZ	**Akaroa Harbour**	0.98	107	P	Pg	16 12 45.3	-0.3
AKCZ				AML	AML		
AKCZ				AML	AML		
OKCZ	**Okains Bay**	1.06	97	P	Pg	16 12 46.5	-0.6
OKCZ				AML	AML		
GVZ	**Greta Valley S**	1.22	59	P	Pg	16 12 49.1	-1.0
LBZ	**Lake Benmore**	1.29	232	P	Pg	16 12 50.5	-1.0
FOZ	**Fox Glacier**	1.30	272	P	Pg	16 12 51.5	-0.2
ODZ	**Otahua Downs**	1.60	205	P	Pn	16 12 53.8	-2.1
KHZ	**Kahutara**	1.85	51	P	Pn	16 12 57.3	-1.9
DSZ	**Denniston Nort**	1.86	5	P	Pn	16 12 58.8	-0.7
THZ	**Tophouse**	2.07	28	P	Pn	16 13 00.9	-1.5
JCZ	**Jackson Bay**	2.10	256	P	Pn	16 13 02.9	+0.2
WKZ	**Wanaka**	2.23	236	P	Pg	16 13 09.4	-0.1
EAZ	**Earnscleugh**	2.32	224	P	Pn	16 13 05.1	-0.6
MRNZ	**Matariki Terra**	2.36	22	P	Pn	16 13 06.3	0.0
TUZ	**Tuapeka**	2.74	210	P	Pn	16 13 09.9	-1.7
QRZ	**Quartz Range**	2.85	14	P	Pn	16 13 12.1	-0.9

SJA ***03*** *16:18:32.4±0.6,27°.46S×71°.74W,h17*^{km}*±4*^{km}*,ML3.3,*
MW3.6
GUC ***03*** *16:18:34.4±0.7,27°.53S×71°.57W,h24*^{km}*±6*^{km}*,ML3.1*
ISC 03 16:18:33.6±2.1**,27°.50S**±0°.03×**71°.65W**±0°.07**,h15**^{km}±14^{km}**,**
n23,σ**1**^{s}**.52**/37**,Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	**Llanos de Chal**	0.87	144	*e*P	Pb	16 18 50.5	0.0
AC04				*e*S	Sb	16 19 00.5	-1.5
AC04				IAML		16 19 02.0	
	comp=Z,950nm,0.3s						
AC04	**Llanos de Chal**	0.87	144	*e*P	Pb	16 18 50.2	-0.2
AC04				*i* S	Sb	16 19 00.3	-1.6
AC04				IAML		16 19 02.1	
	comp=E,3µm,0.2s						
AC06	**Mina Casimiro**	1.16	83	*e*P	Pn	16 18 54.9	-0.5
AC06				*i* S	Sb	16 19 10.2	-0.1
AC06				IAML		16 19 13.9	
	comp=N,719nm,0.5s						
GO03	**Copiapo**	1.26	95	*e*P	Pb	16 18 56.9	-0.2
GO03				*e*S	Sg	16 19 16.8	+2.4
GO03				IAML		16 19 17.3	
	comp=Z,485nm,0.5s						
GO03	**Copiapo**	1.26	95	*e*P	Pn	16 18 56.4	-0.4
GO03				*i* S	Sn	16 19 13.3	-0.3
GO03				IAML		16 19 16.3	
	comp=N,614nm,0.6s						
AC01	**Pan de Azucar**	1.64	35	*e*P	Pb	16 19 03.1	-0.5
AC01				*e*S	Sg	16 19 25.5	-0.9
AC01				IAML		16 19 37.3	
	comp=Z,166nm,0.5s						
AC01	**Pan de Azucar**	1.64	35	*e*P	Pb	16 19 03.1	-0.5
LCO	**Las Campanas**	1.73	151	*e*P	Pb	16 19 05.1	-0.1
LCO				*e*S	Sn	16 19 26.0	+0.7
LCO				IAML		16 19 34.3	
	comp=Z,722nm,0.8s						
LCO	**Las Campanas**	1.73	151	*e*P	Pb	16 19 04.4	-0.8
LCO				*i* S	Sn	16 19 24.8	-0.5
AC05	**El Transito**	1.81	138	*e*P	Pb	16 19 06.2	-0.2
AC05				*e*S	Sn	16 19 25.2	-1.9
AC05				IAML		16 19 33.7	
	comp=Z,289nm,0.7s						
AC05	**El Transito**	1.81	138	*e*P	Pb	16 19 06.1	-0.4
AC05				*i* S	Sb	16 19 29.2	+0.2
AC05				IAML		16 19 37.6	
	comp=N,573nm,0.7s						
AC02	**Maricunga**	2.34	74	*e*P	Pb	16 19 15.1	-0.8
AC02				*e*S	Sb	16 19 44.5	-0.3
AC02				IAML		16 19 54.2	
	comp=Z,206nm,0.8s						
AC02	**Maricunga**	2.34	74	*e*P	Pb	16 19 15.0	-0.8
AC02				*i* S	Sb	16 19 45.6	+0.8
AC02				IAML		16 19 50.6	
	comp=N,396nm,0.5s						
GO04	**Tololo Observa**	2.77	164	*e*S	Sb	16 19 55.7	-1.2
GO04				IAML		16 20 09.7	
	comp=Z,128nm,0.7s						
GO04	**Tololo Observa**	2.77	164	*e*P	Pn	16 19 19.7	+2.0
GO04				*i* S	Sb	16 19 55.5	-1.4
CO01	**Juntas del Tor**	2.83	151	*e*S	Sb	16 20 01.6	+3.2
CO01				IAML		16 20 02.1	
	comp=Z,129nm,0.7s						
CO01	**Juntas del Tor**	2.83	151	*e*P	Pb	16 19 20.8	-3.1
PB14	**IPOC Station P**	3.07	22	*e*P	Pn	16 19 23.1	+1.2
PB14				IAML		16 20 23.4	
	comp=Z,102nm,0.6s						
PB14	**IPOC Station P**	3.07	22	*e*P	Pn	16 19 22.9	+1.0
VCA	**Vinchina**	3.29	113	*e*P	Pb	16 19 30.0	-1.8
VCA				*e*S	Sg	16 20 17.5	-1.7
VCA				IAML		16 20 29.4	
	comp=Z,79nm,0.5s						
ACLC	**CERRO LA CRUZ**	4.56	116	*e*P	Pn	16 19 46.7	+4.4
ACLC				IAML		16 21 03.7	
	comp=Z,15nm,1.2s						
PB05	**IPOC Station P**	4.81	16	*e*P	Pn	16 19 46.3	+0.7
PB05				IAML		16 21 22.4	
	comp=Z,22nm,1.0s						
PB06	**IPOC Station P**	5.13	22	*e*P	Pn	16 19 51.3	+1.3
PB06				IAML		16 21 35.5	
	comp=Z,23nm,0.6s						

NEIC ***03*** *16:25:43.9±1.1,47°.49N±0°.04×92°.57W±0°.06,h0*^{km}*±2*^{km}*,*
mb_Lg3.0/27,ML3.2/12,Error ellipse: s-maj=8.6km s-min=5.3km az=217.0
IDC ***03*** *16:25:48.0±3.7,47°.44N×93°.24W,h0*^{km}*,mbtmp2.8/2,*
ML1.1/1,Error ellipse: s-maj=67.4km s-min=19.5km az=76.0
ISC 03 16:25:43.1±1.0**,47°.48N**±0°.04×**92°.50W**±0°.05**,h0**^{km}**,n28,**
σ**0**^{s}**.74**/23**,Minnesota**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EYMN	**Ely**	0.83	55		Pb	16 26 00.2	-0.1
EYMN				IAML		16 26 14.6	
	839nm,0.8s						
E38A	**The Farm, Brul**	1.08	143		Pb	16 26 04.8	+0.1
E38A				IAML		16 26 27.1	
	471nm,0.6s						
E38A				IAML		16 26 32.1	
	411nm,0.5s						
SPMN	**Marine on St.**	2.26	185		Pn	16 26 22.6	+0.9
SPMN				IAmb_Lg		16 26 58.2	
	comp=Z,48nm,0.8s						
EPLO	**Experimental L**	2.34	340	Pn	Pn	16 26 21.8	-1.0
TBO	**Thunder Bay**	2.38	59		Pn	16 26 23.9	+0.5
TBO				IAML		16 27 00.1	
	comp=N,127nm,0.8s						
TBO				IAmb_Lg		16 27 02.7	
	comp=Z,59nm,1.0s						
TBO				IAML		16 27 12.6	
	comp=E,140nm,1.0s						
AGMN	**Agassiz Nation**	2.41	291		Pn	16 26 24.0	+0.3
AGMN				IAML		16 26 59.4	
	comp=E,167nm,0.6s						
AGMN				IAmb_Lg		16 27 00.8	
	comp=Z,55nm,0.9s						
G40A	**Rib Lake**	2.72	143		Pn	16 26 28.9	+0.8
G40A				IAmb_Lg		16 27 16.1	
	comp=Z,38nm,1.3s						
F33A	**5 Mile Ranch,**	3.08	239	Pn	Pn	16 26 33.7	+0.7
F33A				IAmb_Lg		16 27 26.0	
	comp=Z,84nm,1.1s						
F42A	**Maple Grove Fa**	3.46	118	Pn	Pn	16 26 39.1	+0.9
I37A	**Lemond, Waseca**	3.52	191		Pn	16 26 39.0	0.0
ULM	**Lac du Bonnet**	3.56	323	Pn	Pn	16 26 40.1	+0.6
	comp=Z,0.3nm,0.3s,baz=143,slow=5.1,SNR=1.9						
ULM				Pg	Pb	16 26 48.2	+1.3
	comp=Z,0.7nm,0.3s,baz=142,slow=15,SNR=6.3						
ULM				Sn	Sn	16 27 21.9	-0.4
	comp=Z,0.8nm,0.3s,baz=134,slow=16,SNR=4.1						
ULM				Lg	Lg	16 27 32.1	
	comp=Z,3.7nm,0.3s,baz=230,slow=8.0,SNR=20						
	comp=Z,5.6nm,1.0s						
ULM				AML	AML		
ULM	**Lac du Bonnet**	3.56	323	Pn	Pn	16 26 40.0	+0.5
ULM				IAmb_Lg		16 27 39.6	
	comp=Z,47nm,0.8s						
I10CA	**LAC DU BONNET**	3.59	321	I	I	16 47 00.0	
	comp=Z,0.1nm,1.1s,baz=147,slow=329,SNR=1.4						
I40A	**Norwalk**	3.82	159		Pn	16 26 42.9	-0.2
I42A	**Draeger Farm,**	4.38	144	Pn	Pn	16 26 50.6	-0.2
H43A	**Windswept, Lux**	4.46	131	Pn	Pn	16 26 52.2	+0.2
H43A				IAmb_Lg		16 28 06.3	
	comp=Z,47nm,0.8s						
ECSD	**EROS Data Cent**	4.73	219		Pn	16 26 54.8	-0.8
ECSD				IAmb_Lg		16 28 12.8	
	comp=Z,28nm,0.7s						
JFWS	**Jewell Farm**	4.83	160	IAmb_Lg		16 28 29.1	
	comp=Z,30nm,0.8s						
SUSD	**Miller**	5.43	238	Pn	Pn	16 27 04.6	-0.6
SUSD				IAmb_Lg		16 28 38.2	
	comp=Z,42nm,0.9s						
K43A	**Burlington**	5.61	147	IAmb_Lg		16 28 50.0	
	comp=Z,48nm,1.1s						
E28A	**Huff**	5.67	264	Pn	Pn	16 27 07.2	-1.4
E46A	**Sault Ste Mari**	5.72	98	Pn	Pn	16 27 09.5	+0.3
L42A	**Oliver, Polo**	5.83	159	Pn	Pn	16 27 10.2	-0.6
L42A				IAmb_Lg		16 29 02.7	
	comp=Z,22nm,0.8s						
N38A	**Joes South For**	6.70	185	IAmb_Lg		16 29 30.3	
	comp=Z,15nm,0.8s						
HDIL	**Hopedale**	7.29	160	IAmb_Lg		16 29 44.5	
	comp=Z,20nm,0.7s						
I56US	**NEWPORT INFRAS**	16.53	282	I	I	18 08 20.0	
	baz=84,slow=313,SNR=1.6						
TXAR	**Lajitas Array**	20.08	210	P	Pn	16 30 20.1	+0.3
	comp=Z,0.2nm,0.7s,baz=15,slow=9.6,SNR=2.9						
TXAR	**Lajitas Array**	20.08	210	P	P	16 30 17.2	-0.8

IDC ***03*** *16:28:26.3±2.6,10°.89N×87°.17W,h0*^{km}*,mb3.5/2,*
mbtmp3.5/4,ML2.6/3,MS2.2/1,Error ellipse: s-maj=98.3km s-min=14.8km az=29.0
CATAC ***03*** *16:28:30.8±0.4,11°N±2°×8°7W±°,h21*^{km}*±3*^{km}*,M3.8/43,*
MLv3.8/43,Error ellipse: s-maj=3.8km s-min=2.2km az=36.9,confirmed
SNET ***03*** *16:28:31.4±6.3,11°.39N×86°.76W,h72*^{km}*,ML3.7,*
Presumed earthquake
ISC 03 16:28:30.4±1.7**,11°.10N**±0°.05×**87°.02W**±0°.04**,h23**^{km}±13^{km}**,**
n57,σ**1**^{s}**.04**/91**,8C-6D,Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COPN	**Copaltepe**	1.16	21	⇑P	Pn	16 28 51.2	0.0
NADN	**Granada**	1.16	56	⇓P	Pn	16 28 50.9	-0.4
NADN				S	Sn	16 29 06.4	-0.1
SABN	**Sabanita**	1.20	44	P	Pn	16 28 51.0	-0.8
NANN	**Nandasmo**	1.21	46	P	Pb	16 28 52.9	+0.2
MASN	**Masaya**	1.23	44	P	Pn	16 28 52.3	+0.1
MAS3	**Al N del Volca**	1.24	42	P	Pn	16 28 52.5	+0.2
MAS3				S	Sb	16 29 08.3	-0.4
TISN	**Laguna Tiscapa**	1.27	35	⇓P	Pn	16 28 53.2	+0.4
APQ2	**Apoyeque**	1.29	32	P	Pn	16 28 53.6	+0.5
APQ2				S	Sb	16 29 10.1	0.0
MGAN	**Managua**	1.29	36	P	Pn	16 28 53.4	+0.3
MGAN				S	Sb	16 29 10.1	-0.1
APYN	**Apoyeque**	1.31	30	P	Pn	16 28 53.8	+0.5
APYN				S	Sb	16 29 10.9	+0.2
AERN	**Aeropuerto Man**	1.33	38	P	Pn	16 28 53.9	+0.3
AERN				S	Sb	16 29 11.1	-0.3
WILN	**Americas 2**	1.33	37	P	Pn	16 28 54.1	+0.4
WILN				S	Sb	16 29 11.2	-0.3
LEVN	**Ruinas Leon Vi**	1.36	17	P	Pn	16 28 54.0	+0.1
LEVN				S	Sb	16 29 11.9	-0.2
JAPN	**Al SSO del Vol**	1.38	72	P	Pb	16 28 55.0	-0.5
JAPN				S	Sn	16 29 11.9	+0.1
MOMN	**Momotombo**	1.39	20	⇑P	Pn	16 28 54.6	+0.2
MOMN				S	Sb	16 29 12.7	-0.3
PACN	**Al O del Volca**	1.41	9	⇑P	Pn	16 28 54.1	-0.7
PACN				S	Sb	16 29 14.0	+0.2
MORN	**Al O del Volca**	1.42	71	⇑P	Pn	16 28 54.7	-0.1
MORN				S	Sn	16 29 12.7	0.0
OMEN	**Al SSO del Vol**	1.42	73	⇑P	Pn	16 28 54.0	-0.9
OMEN				S	Sn	16 29 13.0	+0.1
CNGA	**Al SSO del Vol**	1.42	12	⇑P	Pn	16 28 54.2	-0.7
CNGA				S	Sb	16 29 13.7	-0.4
CNGN	**Cerro Negro**	1.43	13	P	Pn	16 28 55.4	+0.4
CNGN				S	Sb	16 29 14.1	-0.2
MOM2	**El Cardon**	1.43	21	P	Pn	16 28 55.6	+0.6
MOM2				S	Sb	16 29 13.9	-0.4
CARN	**Rivas**	1.47	86	P	Pn	16 28 55.6	+0.1
CARN				S	Sn	16 29 14.3	+0.3
TEL3	**Telica 3**	1.48	6	P	Pn	16 28 55.8	+0.2
QUEN	**Al S del Volca**	1.50	6	P	Pn	16 28 56.1	+0.2
QUEN				S	Sb	16 29 15.9	-0.3
PLRN	**Geotermica Pol**	1.50	9	P	Pn	16 28 56.1	+0.2
PLRN				S	Sn	16 29 15.6	+0.8
ILCN	**San Idelfonso**	1.50	12	⇓P	Pn	16 28 56.1	+0.1
ILCN				S	Sb	16 29 16.0	-0.5
TELN	**Telica**	1.51	7	P	Pn	16 28 56.6	+0.4
HERN	**Volcan Telica**	1.52	7	P	Pn	16 28 56.6	+0.3
CRIN	**San Cristobal**	1.59	359	⇓P	Pn	16 28 57.7	+0.4
CRIN				S	Sb	16 29 18.6	-0.5
BOAB	**BOACO BROADBAN**	1.89	44	⇑P	Pn	16 29 01.1	-0.2
BOAB				S	Sn	16 29 25.3	+1.0
CMARA	**Lajas Hojancha**	1.90	124	P	Pn	16 29 01.4	-0.1
CSGN	**Cosiguina Volc**	1.94	344	⇑P	Pn	16 29 01.9	-0.3
CSGN				S	Sn	16 29 27.0	+1.1
UPAL	**Upala**	1.98	96	P	Pn	16 29 02.8	+0.3
UPAL				S	Sn	16 29 27.2	+0.7
ACON	**Acoyapa**	2.00	64	P	Pn	16 29 03.1	+0.3
ACON				S	Sn	16 29 27.9	+0.7
LIMN	**Finca el Limon**	2.06	18	⇓P	Pn	16 29 03.8	+0.1
MATN	**Matagalpa**	2.11	30	⇓P	Pn	16 29 04.6	+0.2
JTS	**Las Juntas de**	2.18	111	Pn	Pn	16 29 04.6	-0.7
	4.1nm,0.3s,baz=274,slow=15,SNR=12						
JTS				Sn	Sn	16 29 31.9	+0.3
	9.8nm,0.3s,baz=273,slow=22,SNR=6.3						
JTS				LR	LR	16 29 37.0	
	comp=Z,56nm,21.7s,baz=286,slow=31						
	6.2nm,0.3s						
JTS				AML	AML		
JTS	**Las Juntas de**	2.18	111	P	Pn	16 29 05.4	+0.1
CNCH	**Conchagua**	2.31	340	*e*P	Pn	16 29 06.9	-0.3
CNCH				*e*S	Sn	16 29 35.8	+0.8
CNCH	**Conchagua**	2.31	340	P	Pn	16 29 07.9	+0.7
CNCH				S	Sn	16 29 36.1	+1.1
INTP	**Intipuca**	2.32	334	*e*S	Sn	16 29 33.7	-1.5
LCND	**La Caada**	2.36	339	P	Pn	16 29 08.3	+0.5
JUCU	**Jucuar¡n**	2.46	331	*e*S	Sn	16 29 31.7	-7.0
RCVN	**Varillal2**	2.60	18	P	Pn	16 29 12.1	+0.9
RCVN				S	Sn	16 29 43.3	+1.1
RANC	**El Ranchito**	2.64	332	P	Pn	16 29 12.8	+1.1
RANC				S	Sn	16 29 44.6	+1.5
PACA	**Pacayal**	2.68	332	P	Pn	16 29 13.1	+0.8
PACA				S	Sn	16 29 45.8	+1.6
TRB2	**Turrubares**	2.79	115	S	Sn	16 29 47.7	+1.1
TGUH	**Tegucigalpa,Un**	2.95	355	P	Pn	16 29 17.4	+1.3
TGUH				S	Sn	16 29 52.5	+1.6
TECO	**Alcaldia de Te**	2.98	325	S	Sn	16 29 53.1	+1.8
LCR2	**La Lucha 2**	3.25	114	P	Pn	16 29 22.3	+2.0
LCR2				S	Sn	16 29 59.1	+0.7
NUBE	**Las Nubes**	3.88	316	P	Pn	16 29 29.8	+0.9
NUBE				S	Sn	16 30 14.6	+0.8
APG	**El Apazote**	5.14	320	Pn	Pn	16 29 46.9	+0.7
	baz=120,slow=8.8,SNR=2.1						
CMIG	**Matias Romero**	9.68	309	Pn	Pn	16 30 50.1	+1.7
	0.2nm,0.3s,baz=135,slow=13,SNR=1.8						
	0.9nm,0.3s						
CMIG				AML	AML		
TXAR	**Lajitas Array**	23.89	322	P	P	16 33 43.2	+0.6
	1.1nm,0.8s,baz=134,slow=9.4,SNR=9.0						
	1.1nm,0.8s						
PDAR	**Pinedale Array**	37.16	332	P	P	16 35 39.4	-0.5
	0.5nm,0.7s,baz=135,slow=9.8,SNR=3.9						
	0.5nm,0.7s						
WRA	**Warramunga Arr**	139.28	252	PKP	PKPdf	16 47 54.9	-1.7
	0.4nm,0.9s,baz=92,slow=2.4,SNR=1.8						
CMAR	**Chiang Mai Arr**	150.05	349	PKPbc	PKPbc	16 48 19.8	-0.4
	0.5nm,0.6s,baz=19,slow=3.6,SNR=5.6						

IDC 03 16:29:42.8±3.6**,5°.04S**×**134°.17E,h0**^{km}**,mb3.4**/1**,**
mbtmp3.2/3**,ML3.2**/2**,MS3.3**/2**,Error ellipse: s-maj=177.0km s-min=24.5km az=80.0,Aru Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	14.81	179	Pn	Pn	16 33 09.9	-3.7
	0.1nm,0.3s,baz=358,slow=13,SNR=5.6						

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WRA                                 Sn      Sn       16 35 47.9  -11
       baz=359,slow=23,SNR=1.9
       0.3nm,0.5s
WRA                                 AML     AML
ASAR   Alice Springs     18.52 181  P       P        16 33 58.8 -2.1
       0.1nm,0.3s,baz=0.2,slow=13,SNR=14
       0.4nm,0.6s
ASAR                                AML     AML
USRK   Ussuriysk Ar.     49.06 358  LR      LR       16 56 11.9
       comp=Z,35nm,20.3s,baz=185,slow=32
ASAJ   Asahikawa         49.52   8  LR      LR       16 59 38.8
       comp=Z,31nm,18.7s,baz=166,slow=36
MKAR   Makanchi Array    68.95 325  P       P        16 40 50.1 +0.2
       0.2nm,0.4s,baz=116,slow=8.2,SNR=1.8
       0.2nm,0.4s
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*NEIC **03** 16:31:34.9±1.4, 18°.00N±0°.08×65°.36W±0°.02, h15^{km}±5^{km}, ML2.9/37, Md3.5/9(RSPR), Error ellipse: s-maj=11.5km s-min=1.9km az=183.0*

*RSPR **03** 16:31:38.8, 18°.00N×65°.45W, h10^{km}±2^{km}, MD3.5/9*

ISC 03 16:31:34.7±1.4, **17°.95N**±0°.08×**65°.41W**±0°.04, **h14**^{km}±10^{km}, **n49**, σ**0ˢ.55**/59, **7C-9D, Puerto Rico region**

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Code   Station Name        Δ°   AZ°    Phase ID          Time      Res
                                      Op      ISC      h  m  s    ISC
HUMP   Col San Antoni     0.46 295            Pb       16 31 45.2 +0.6
HUMP                                          Sb       16 31 51.3 -0.1
HUMP                                  IAML             16 31 52.6
       831nm,0.2s
HUMP                                  IAML             16 31 52.8
       1µm,0.2s
HUMP   Col San Antoni     0.46 295⇑eP         Pb       16 31 45.3 +0.6
PDPR   Patillas Dam,      0.59 277            Pb       16 31 47.2 +0.4
PDPR                                          Sb       16 31 55.0 +0.1
PDPR                                  IAML             16 31 56.2
       406nm,0.1s
PDPR   Patillas Dam,      0.59 277⇑eP         Pb       16 31 47.5 +0.7
IGPR   InterUniversit     0.66 271            Pb       16 31 48.7 +0.6
IGPR                                          Sb       16 31 58.7 +1.5
IGPR   InterUniversit     0.66 271⇑eP         Pb       16 31 48.7 +0.6
SJG    San Juan           0.72 283            Pb       16 31 49.5 +0.4
SJG                                   IAML             16 32 01.3
       348nm,0.2s
SJG                                   IAML             16 32 04.9
       563nm,0.2s
SJG    San Juan           0.72 283    Sn      Sb       16 31 58.8  0.0
SJG    San Juan           0.72 283⇑eP         Pn       16 31 49.8 -0.7
ECPR   Experimental S     0.98 292            Pn       16 31 53.8 -0.3
ECPR                                          Sb       16 32 06.3  0.0
ECPR   Experimental S     0.98 292⇑eP         Pn       16 31 53.9 -0.1
CELP   Cerrillos          1.12 277            Sn       16 32 11.8 +0.6
CELP   Cerrillos          1.12 277            Pn       16 31 55.9 -0.1
CELP   Cerrillos          1.12 277    IAML             16 32 14.4
       132nm,0.5s
CELP                                  IAML             16 32 19.8
       160nm,0.6s
CELP   Cerrillos          1.12 277⇓eP         Pg       16 31 56.3 -0.1
OBIP   Obispado Ponce     1.14 275            Pb       16 31 56.5 +0.3
OBIP   Obispado Ponce     1.14 275⇓eP         Pg       16 31 56.9 +0.1
EMPR   Esperanza - Ma     1.19 296            Pg       16 31 58.2 +0.5
EMPR                                          Sg       16 32 13.0 -0.1
EMPR   Esperanza - Ma     1.19 296⇓eP         Pg       16 31 58.2 +0.5
EMPR                                  eS      Sg       16 32 13.0 -0.1
AOPR   Arecibo Observ     1.34 287            Sb       16 32 17.2 +0.5
AOPR   Arecibo Observ     1.34 287            Pb       16 31 59.2 -0.5
AOPR   Arecibo Observ     1.34 287    IAML             16 32 24.2
       642nm,0.3s
AOPR                                  IAML             16 32 25.4
       1µm,0.4s
AOPR   Arecibo Observ     1.34 287⇓eP         Pb       16 31 59.7 +0.1
GBPR   Guanica, Bosqu     1.40 271            Pg       16 32 01.4 -0.3
GBPR                                          Sb       16 32 18.8 +0.4
GBPR   Guanica, Bosqu     1.40 271⇓eP         Pg       16 32 01.4 -0.3
GBPR                                  eS      Sb       16 32 18.8 +0.4
MLPR   Magueyes Islan     1.56 271            Pb       16 32 03.0 -0.4
MLPR   Magueyes Islan     1.56 271⇑eP         Pb       16 32 03.3  0.0
LSP    Las Mesas          1.61 278            Pb       16 32 03.9 -0.4
LSP                                           Sn       16 32 23.6 +0.2
LSP    Las Mesas          1.61 278⇓eP         Pb       16 32 03.9 -0.4
LSP                                   eS      Sn       16 32 23.6 +0.2
CRPR   Cabo Rojo, PR      1.62 272            Sn       16 32 23.9 +0.4
CRPR   Cabo Rojo, PR      1.62 272            Pb       16 32 03.9 -0.5
CRPR   Cabo Rojo, PR      1.62 272⇑eP         Pb       16 32 04.8 +0.4
PRSN   Puerto Rico Se     1.67 279            Pb       16 32 05.1 -0.2
PRSN                                          Sn       16 32 25.0 +0.2
PRSN   Puerto Rico Se     1.67 279⇓eP         Pb       16 32 05.1 -0.2
AGPR   Aguadilla, PR      1.70 288            Sn       16 32 25.0 -0.5
AGPR   Aguadilla, PR      1.70 288            Pb       16 32 05.2 -0.6
AGPR   Aguadilla, PR      1.70 288    IAML             16 32 37.5
       146nm,0.8s
AGPR                                  IAML             16 32 48.2
       138nm,1.8s
AGPR   Aguadilla, PR      1.70 288⇓eP         Pb       16 32 05.8  0.0
IDE    Isla Desecheo      2.01 283            Pb       16 32 09.8 -1.3
IDE                                           Sn       16 32 32.7 -0.6
IDE    Isla Desecheo      2.01 283⇓eP         Pb       16 32 09.8 -1.3
IDE                                   eS      Sn       16 32 32.7 -0.6
SABA   Saba               2.09  99    Pn      Pn       16 32 09.0 -0.4
SABA                                  IAML             16 32 25.6
       comp=N,150nm,0.7s
SMRT   St. Maarten        2.22  87    Pn      Pn       16 32 10.7 -0.5
SMRT                                  IAML             16 32 48.3
       comp=N,133nm,0.2s
SMRT                                  IAML             16 32 52.9
       comp=E,130nm,0.3s
MBWH   Windy Hill         3.30 111    eP      Pn       16 32 26.2 +0.1
MLYT   Lee's Yard         3.31 111    eP      Pn       16 32 26.3 +0.1
ANWB   Willy Bob          3.46  94    eP      Pn       16 32 28.2  0.0
DHSZ   Broadband at M     3.86 115    eP      Pn       16 32 34.3 +0.5
TBG    Guadaloupe-3       4.16 120    eP      Pn       16 32 37.8 -0.1
DSDZ   La Diserade, G     4.46 111    eP      Pn       16 32 42.6 +0.6
DSLB   Salisbury          4.57 123    eP      Pn       16 32 41.8 -1.6
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*JMA **03** 16:48:32.9±0.2, 23°.6N±0°.8×122°.1E±0°.7, h32^{km}, MV3.2/17, TAIWAN REGION*

*TAP **03** 16:48:33.7, 23°.53N×122°.14E, h42^{km}, ML3.6, C*

ISC 03 16:48:32.6±1.0, **23°.53N**±0°.02×**122°.15E**±0°.02, **h26**^{km}±11^{km}, **n203**, σ**0ˢ.97**/376, **3C-8D, Taiwan region**

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Code   Station Name        Δ°   AZ°    Phase ID          Time      Res
                                      Op      ISC      h  m  s    ISC
TEGC   Jichi Village      0.59 288   i P      Pn       16 48 45.1 -0.1
TEGC                                   S      Sn       16 48 54.0  0.0
SHUL   Shoufeng           0.60 295     P      Pn       16 48 45.1 -0.3
SHUL                                   S      Sn       16 48 53.9 -0.4
EOS4   EOS4               0.61  14     P      Pn       16 48 45.6 +0.4
EOS4                                 i S      Sn       16 48 54.2 +0.2
TEYL   Yanliau Villag     0.61 304   i P      Pn       16 48 45.5  0.0
TEYL                                 i S      Sn       16 48 54.4 -0.1
HGSD   Ruisui             0.67 267   i P      Pb       16 48 45.8 +0.1
HGSD                                   S      Sb       16 48 55.0 +0.4
HWA    Hwalien            0.67 312⇓iP         Pn       16 48 46.0 -0.4
HWA                                   eS      Sn       16 48 56.9 +0.8
ECBN   Changbin           0.68 252  ⇓P        Pb       16 48 46.2 +0.4
ECBN                                   S      Sb       16 48 55.4 +0.5
EGFH   Guangfu            0.68 282     P      Pb       16 48 46.3 +0.5
EGFH                                  eS      Sn       16 48 56.1 -0.2
ESL    Shilin             0.72 293     P      Pb       16 48 46.3 -0.2
ESL                                  i S      Sb       16 48 55.8 -0.2
WARBT  Fenglin Townsh     0.73 285   i P      Pb       16 48 46.7  0.0
WARBT                                  S      Sb       16 48 56.7 +0.4
EHYH   Wanrong            0.74 267   i P      Pb       16 48 47.3 +0.4
EHYH                                  eS      Sb       16 48 57.4 +0.7
ETM    Tongmen            0.74 306     P      Pb       16 48 46.7 -0.2
ETM                                    S      Sb       16 48 56.4 -0.4
TWD    Chiawan            0.75 317    eP      Pb       16 48 46.9 -0.1
TWD                                    S      Sb       16 48 56.7 -0.1
EHY    Hungye             0.76 268     P      Pb       16 48 47.4 +0.2
EHY                                    S      Sn       16 48 58.5 +0.1
EOS3   EOS3               0.77  11     P      Pn       16 48 48.4 +0.8
EOS3                                   S      Sn       16 48 58.9 +0.7
CHKH   Chenggong          0.77 244    eP      Pb       16 48 47.0 -0.4
CHKH                                   S      Sb       16 48 56.8 -0.7
EYUL   Yuli               0.79 257   i P      Pb       16 48 47.7  0.0
EYUL                                   S      Sb       16 48 58.5 +0.5
ETL    Fush Village       0.79 322     P      Pb       16 48 47.6 -0.2
ETL                                    S      Sb       16 48 58.1  0.0
YULB   Yu-li              0.80 260     P      Pb       16 48 47.4 -0.5
YULB   Yu-li              0.80 260     S      Sb       16 48 59.2 +0.9
YULB   Yu-li              0.80 260   i P      Pb       16 48 47.9  0.0
YULB                                  eS      Sb       16 48 57.8 -0.5
TWF1   Yuli               0.81 257   i P      Pb       16 48 47.9 -0.1
TWF1                                   S      Sb       16 48 58.7 +0.2
NACB   Ninganchiao        0.82 321     P      Pb       16 48 47.5 -0.7
NACB   Ninganchiao        0.82 321     S      Sb       16 48 58.4 -0.5
NACB   Ninganchiao        0.82 321     P      Pb       16 48 47.9 -0.3
NACB                                   S      Sb       16 48 58.3 -0.5
LXIB   Xiulin Townshi     0.84 306   i P      Pb       16 48 48.5 -0.1
LXIB                                   S      Sb       16 48 59.5  0.0
CHKT   Chengkung          0.84 240   i P      Pn       16 48 47.8 -0.9
CHKT                                 i S      Sb       16 48 58.1 -1.4
FULB   Fuli               0.86 247   i P      Pn       16 48 48.2 -0.8
FULB                                  eS      Sb       16 48 58.8 -1.1
EHP    Heping Village     0.86 334    eP      Pn       16 48 50.0 +1.0
EAHA   Aohua              0.88 335     P      Pn       16 48 48.9 -0.4
EAHA                                   S      Sn       16 49 00.6 -0.6
EOS2   EOS2               0.89   5    eP      Pb       16 48 50.4 +1.1
EOS2                                  eS      Sn       16 49 03.2 +2.0
ETLH   Xiulin Townshi     0.91 318    eP      Pb       16 48 49.9 +0.1
ETLH                                 i S      Sb       16 49 01.4 -0.2
EHD    Haiduan            0.95 247    eP      Pn       16 48 49.7 -0.5
EHD                                    S      Sb       16 49 01.8 -0.8
EDH    Donghe             0.96 235   i P      Pn       16 48 49.7 -0.6
EDH                                  i S      Sn       16 49 01.3 -1.8
ECS    Chishang           0.96 243    eP      Pn       16 48 50.4  0.0
ECS                                   eS      Sn       16 49 04.2 +0.9
ENA    Nanau              0.97 337⇓eP         Pn       16 48 48.2 -2.3
ENA                                   eS      Sb       16 49 00.4 -2.7
EWUT   Wuta               0.97 339     S      Sn       16 49 03.8 +0.3
OWD    Renai              0.99 295     P      Pn       16 48 51.0  0.0
OWD                                    S      Sb       16 49 03.1 -0.8
WHF    Hehuan Shan        1.02 307    eP      Pn       16 48 51.2 -0.4
WHF                                   eS      Sb       16 49 04.3 -0.7
WUSB   Renai              1.05 296  ⇑P        Pn       16 48 51.9 +0.1
WUSB                                   S      Sn       16 49 05.2 -0.5
LDUT   Ludao              1.06 217     P      Pn       16 48 50.8 -1.0
LDUT                                   S      Sn       16 49 03.3 -2.4
ESAO   Su ao              1.08 345     P      Pb       16 48 52.5 -0.1
ESAO                                   S      Sb       16 49 06.8 +0.5
FUSS   Fushou             1.10 311    eP      Pn       16 48 52.7 +0.2
FUSS                                   S      Sb       16 49 06.8 -0.3
ELDTW  Lidau              1.10 252     P      Pn       16 48 52.0 -0.4
ELDTW                                  S      Sn       16 49 05.3 -1.5
YUS    Yu-Shan            1.10 268     P      Pn       16 48 52.7 -0.1
YUS                                   eS      Sn       16 49 05.2 -2.2
LONT   Longtian           1.13 237    eP      Pn       16 48 52.6 -0.1
LONT                                   S      Sn       16 49 06.8 -0.6
SSLB   Suanglung          1.13 283     P      Pn       16 48 53.0 +0.2
SSLB   Suanglung          1.13 283     S      Sn       16 49 06.2 -1.3
SSLB   Suanglung          1.13 283     P      Pn       16 48 53.0 +0.2
SSLB                                   S      Sn       16 49 06.1 -1.3
NNSB   Datong             1.14 322   i P      Pn       16 48 53.2 +0.2
NNSB                                  eS      Sb       16 49 07.6 -0.5
NNSH   Datong             1.14 322     P      Pn       16 48 53.1 +0.1
NNSH                                   S      Sb       16 49 07.5 -0.6
TWT    Tachien            1.15 309     P      Pn       16 48 53.2 +0.1
TWT                                    S      Sn       16 49 07.8 -0.3
LATG   Datong             1.15 330    eP      Pb       16 48 53.4 -0.5
LATG                                   S      Sb       16 49 08.4 -0.1
NNS    Nan Shan           1.15 322     P      Pn       16 48 53.4 +0.2
NNS                                    S      Sn       16 49 07.7 -0.4
TDCB   Techi              1.16 308  ⇑P        Pb       16 48 53.9 -0.2
TDCB                                   S      Sn       16 49 08.0 -0.4
JYNG   Yonagunijimaku     1.17  38     P      Pb       16 48 54.1  0.0
JYNG                                   S      Sb       16 49 09.0 +0.2
NDS    Dongshan           1.17 340   i P      Pb       16 48 53.8 -0.3
NDS                                    S      Sb       16 49 09.0 +0.2
WPL    Puli Township      1.20 294     P      Pb       16 48 54.5 -0.1
WPL                                    S      Sn       16 49 08.7 -0.4
SMLT   Sun Moon Lake      1.20 287     P      Pb       16 48 54.6 -0.1
SMLT                                   S      Sb       16 49 09.8 -0.1
WHYT   Xinyi Township     1.20 278    eP      Pb       16 48 55.3 +0.5
WHYT                                   S      Sb       16 49 09.8 -0.1
TTN    Taitung            1.21 230     P      Pn       16 48 53.6 -0.2
TTN                                   eS      Sn       16 49 08.7 -0.6
YOJ    Yonaguni jima      1.21  40     S      Sb       16 49 10.6 +0.4
YOJ    Yonaguni jima      1.21  40     S      Sb       16 49 10.4 +0.2
NDT    Datong Townshi     1.22 331    eP      Pb       16 48 54.6 -0.4
NDT                                    S      Sb       16 49 09.8 -0.5
TWGBT  Beinan             1.22 235     P      Pn       16 48 53.4 -0.5
TWGBT  Beinan             1.22 235  ⇓P        Pn       16 48 53.5 -0.5
TWGBT                                  S      Sn       16 49 08.3 -1.3
TWG    Pinlang            1.22 235    eP      Pn       16 48 53.6 -0.4
TWG                                    S      Sn       16 49 08.2 -1.5
DPDB   Guoxing            1.23 294     P      Pb       16 48 55.0 -0.2
DPDB                                   S      Sn       16 49 09.9  0.0
ALS    Alishan            1.24 269     P      Pn       16 48 54.8 +0.3
ALS                                    S      Sn       16 49 11.1 +0.6
TYC    Yuchr              1.25 288     P      Pb       16 48 55.3 -0.1
TYC                                   eS      Sb       16 49 11.1  0.0
WCS    Beigang Elemen     1.25 295     P      Pb       16 48 55.1 -0.4
WCS                                   eS      Sb       16 49 11.6 +0.3
TWE    Neicheng           1.27 340  ⇓P        Pb       16 48 55.4 -0.4
TWE                                    S      Sb       16 49 12.0 +0.3
ILA    Ilan               1.28 343     P      Pb       16 48 56.0  0.0
ILA                                    S      Sb       16 49 12.9 +0.7
STYH   Taoyuan            1.32 254     P      Pn       16 48 55.8 +0.5
STYH                                  eS      Sb       16 49 13.2 +0.1
EGS                       1.32 351     P      Pb       16 48 56.3 -0.5
EGS                                    S      Sb       16 49 12.1 -1.2
FUSB   Fushanzhiwuyua     1.33 337    eP      Pb       16 48 56.3 -0.6
FUSB                                   S      Sb       16 49 13.3 -0.3
WHP    Taichung City      1.33 304     P      Pb       16 48 56.9  0.0
WHP                                    S      Sn       16 49 12.6 +0.1
STYT   Tauyuan            1.33 254  ⇓P        Pn       16 48 55.5 -0.1
STYT                                   S      Sn       16 49 12.2 -0.3
YHNB   Yeheng             1.34 328     P      Pn       16 48 56.0 +0.3
YHNB   Yeheng             1.34 328     S      Sn       16 49 12.1 -0.6
YHNB   Yeheng             1.34 328    eP      Pb       16 48 56.3 -0.7
YHNB                                   S      Sn       16 49 12.1 -0.6
WJS    Zhushan            1.34 283     P      Pb       16 48 57.4 +0.4
WJS                                    S      Sb       16 49 14.3 +0.5
NSK    Sanguang           1.35 328     P      Pb       16 48 56.5 -0.8
NSK                                   eS      Sb       16 49 13.2 -1.0
CHN5   Tsauling           1.36 273     P      Pb       16 48 57.6 +0.2
CHN5                                  eS      Sb       16 49 15.2 +0.9
NWLT   Wulai              1.38 335   i P      Pb       16 48 57.0 -0.6
NWLT                                  eS      Sn       16 49 13.5  0.0
WNT    Mingjian           1.39 285     P      Pb       16 48 58.5 +0.6
WNT                                    S      Sb       16 49 16.3 +1.1
WNT1   Nantou City        1.40 286     P      Pb       16 48 58.7 +0.6
WNT1                                   S      Sb       16 49 15.7 +0.1
TPUB   Ta-pu              1.42 261     P      Pb       16 48 58.1 -0.3
TPUB   Ta-pu              1.42 261     S      Sb       16 49 15.9 -0.2
TPUB   Ta-pu              1.42 261    eP      Pb       16 48 58.6 +0.2
TPUB                                   S      Sb       16 49 16.1  0.0
WCKO   Fanlu              1.43 267     P      Pb       16 48 59.1 +0.6
WCKO                                   S      Sb       16 49 16.9 +0.6
WWF    Wufeng             1.43 291     P      Pb       16 48 59.6 +1.1
WWF                                   eS      Sb       16 49 20.0 +3.7
WTP    Ta-pu              1.44 259     P      Pb       16 48 59.0 +0.2
WTP                                    S      Sb       16 49 16.7 -0.1
ECL    Taimali            1.44 230    eP      Pn       16 48 56.4 -0.6
ECL                                    S      Sn       16 49 12.8 -2.4
NFF    Wufeng Townshi     1.45 319     P      Pb       16 48 58.7 -0.2
NFF                                    S      Sb       16 49 16.5 -0.5
TIPB   Shuangxi           1.47 348    eP      Pb       16 48 58.9 -0.3
TIPB                                   S      Sb       16 49 16.5 -1.0
WGK    Gukeng             1.47 276    eP      Pb       16 48 60.0 +0.8
WGK                                    S      Sb       16 49 17.7 +0.3
TWB1   Santiao Chiao      1.48 354  ⇓P        Pb       16 48 58.5 -0.9
TWB1                                   S      Sn       16 49 15.9 -0.1
SLGT   Liugui             1.49 249     P      Pn       16 48 58.6 +1.0
SLGT                                   S      Sn       16 49 17.0 +0.8
TCU    Taichung           1.49 295    eP      Pb       16 49 00.6 +1.1
TCU                                   eS      Sb       16 49 19.6 +1.7
WDLH   Douliu             1.49 276    eP      Pb       16 48 60.0 +0.4
WDLH                                   S      Sb       16 49 18.9 +0.8
WDL    Douliou City       1.49 277    eP      Pb       16 49 00.5 +0.9
WDL                                   eS      Sb       16 49 20.8 +2.6
TWQ1   Liyutan            1.50 303  ⇑P        Pb       16 49 00.0 +0.2
TWQ1                                   S      Sb       16 49 18.7 +0.2
WYL    Yuanlin Townsh     1.50 287     P      Pb       16 48 59.6 -0.2
WYL                                    S      Sb       16 49 19.3 +0.8
SGST   Jiashian           1.51 253     P      Pn       16 48 58.7 +0.7
SGST                                   S      Sb       16 49 19.1 +0.4
NSTT   Nanjuang           1.52 316  ⇓P        Pb       16 49 00.3 +0.2
NSTT                                   S      Sb       16 49 18.3 -0.6
LIOB   Emei               1.52 317     P      Pb       16 49 00.3 +0.2
LIOB                                  eS      Sb       16 49 19.7 +0.7
KSHI   Guanxi Townshi     1.53 324     P      Pb       16 49 00.4 +0.1
CHN1   Nanshi             1.53 257     P      Pb       16 49 00.5 +0.2
CHN1                                   S      Sn       16 49 18.9 +1.5
TWA    Mucha              1.53 340    eP      Pb       16 49 00.6 +0.2
TWA                                    S      Sb       16 49 18.9 -0.5
NHDH   Xindian Distri     1.54 338    eP      Pb       16 49 00.1 -0.3
NHDH                                   S      Sb       16 49 18.2 -1.2
CHN2   Minshiung          1.54 270     P      Pb       16 48 59.9 -0.6
CHN2                                  eS      Sb       16 49 21.2 +1.6
NJD    Zhudong            1.54 321     P      Pb       16 49 01.0 +0.5
NJD                                   eS      Sb       16 49 20.2 +0.5
NSY    Sanyi              1.55 305     P      Pb       16 49 00.1 -0.5
NSY                                   eS      Sb       16 49 20.6 +0.7
SNST   Tainan City        1.55 259     P      Pb       16 49 00.6  0.0
SNST                                  eS      Sb       16 49 20.8 +0.9
WCHH   Zhanghua           1.56 291     P      Pb       16 49 01.1 +0.4
WCHH                                   S      Sb       16 49 20.7 +0.6
TATO   Taipei             1.56 337     P      Pb       16 48 59.7 -1.1
TATO                                   S      Sb       16 49 19.5 -0.6
WCH1   Changhua City      1.57 290     P      Pb       16 49 01.1 +0.2
WCH1                                  eS      Sb       16 49 22.2 +1.9
WFSB   Wu-fen Shan        1.57 348    eP      Pb       16 49 00.7 -0.3
WFSB                                  eS      Sb       16 49 20.8 +0.3
SXI1   Grass Mountain     1.58 351    eP      Pb       16 49 00.3 -0.8
SXI1                                   S      Sn       16 49 18.9 +0.3
LAY    Lan-yu             1.59 201    eP      Pn       16 48 59.7 +0.7
LAY                                   eS      Sn       16 49 14.8 -3.9
CHY    Chiayi             1.59 269    eP      Pb       16 49 01.5 +0.3
CHY                                    S      Sb       16 49 21.3 +0.4
NHY    Taipei             1.59 341     P      Pb       16 49 01.0 -0.3
NHY                                    S      Sb       16 49 20.2 -0.9
NMLH   Miaoli             1.60 309     P      Pb       16 49 01.5 +0.1
NMLH                                  eS      Sb       16 49 21.8 +0.6
HATJ   Hateruma jima      1.60  71     P      Pn       16 48 59.9 +0.7
HATJ                                   S      Sn       16 49 19.5 +0.5
SSD    Sandimen           1.60 241     P      Pn       16 49 00.1 +0.9
WDJ    Dajia District     1.61 301     P      Pb       16 49 01.3 -0.3
WDJ                                   eS      Sb       16 49 21.8 +0.4
LYUB   Lan-yu             1.61 199     P      Pn       16 48 59.2 -0.1
LYUB                                  eS      Sn       16 49 14.7 -4.6
TAP    Taipei             1.61 339     P      Pb       16 49 01.0 -0.7
TAP                                   eS      Sb       16 49 21.6 -0.1
TSMG   Majia              1.61 240     P      Pn       16 48 59.5 +0.1
HSN1   Hsinchu            1.62 320     P      Pb       16 49 01.4 -0.4
HSN1                                   S      Sb       16 49 21.4 -0.3
WTK    Tuku               1.63 276     P      Pb       16 49 01.9  0.0
WTK                                    S      Sb       16 49 21.7 -0.3
TAW    Tawu               1.65 225    eP      Pn       16 48 57.6 -2.2
TAW                                    S      Sn       16 49 18.4 -1.7
SBCB   Hsinchu            1.65 320     P      Pb       16 49 01.4 -0.9
SBCB                                  eS      Sb       16 49 21.7 -1.0
TNOU   National Taiwa     1.65 348    eP      Pb       16 49 02.2 -0.1
TNOU                                   S      Sn       16 49 20.0 -0.2
IRIF   Iriomote-Funau     1.65  61     P      Pn       16 49 00.9 +1.1
SCST   Cishan             1.66 248     P      Pb       16 49 02.4  0.0
SCST                                  eS      Sb       16 49 25.3 +2.4
NTY    Taoyuan            1.66 332    eP      Pb       16 49 02.8 +0.3
NTY                                    S      Sb       16 49 22.5 -0.5
EAST   Anshuo             1.66 227     P      Pn       16 48 59.9 -0.2
EAST                                   S      Sn       16 49 19.5 -1.0
TAWH   Dawu Township      1.66 225     P      Pn       16 48 59.2 -0.8
TAWH                                  eS      Sn       16 49 18.5 -2.1
WRL    Guolierlin Hig     1.67 283     P      Pb       16 49 02.7  0.0
WRL                                    S      Sb       16 49 23.2  0.0
MASBT  Mashibuluo         1.67 237     P      Pn       16 49 00.9 +0.7
NCUH   Zhongli            1.68 328     P      Pb       16 49 01.8 -1.1
NCUH                                   S      Sb       16 49 22.7 -0.9
RLNB   Erlin              1.68 283    eP      Pb       16 49 03.1 +0.2
RLNB                                  eS      Sb       16 49 24.5 +0.9
YM01   YM01               1.69 342    eP      Pb       16 49 02.4 -0.7
YM01                                 i S      Sb       16 49 22.6 -1.4
TWS1   Kuangyinshan       1.70 337    eP      Pb       16 49 02.3 -0.9
TWS1                                   S      Sb       16 49 22.7 -1.5
CHN3   Shinhua            1.71 255    eP      Pb       16 49 04.0 +0.7
CHN3                                  eS      Sb       16 49 27.8 +3.5
ZUZH   Zhuzihu            1.72 341   i P      Pb       16 49 02.1 -1.4
ZUZH                                 i S      Sn       16 49 22.4 +0.5
YM08   YM08               1.73 343     P      Pb       16 49 02.2 -1.5
YM08                                  eS      Sn       16 49 22.7 +0.5
ICHU   Yijhu              1.73 265     P      Pb       16 49 02.8 -0.9
ICHU                                   S      Sb       16 49 24.4 -0.6
SHHT   Tainan City        1.74 253    eP      Pb       16 49 05.1 +1.3
SHHT                                  eS      Sb       16 49 29.4 +4.2
ANP    Anpu               1.75 341    eP      Pb       16 49 02.6 -1.4
ANP                                   eS      Sb       16 49 24.2 -1.3
TSPT   Pingtung City      1.75 241     P      Pb       16 49 03.4 -0.5
TSPT                                  eS      Sb       16 49 26.7 +1.2
WTCT   Ta-ch'eng          1.75 281     P      Pn       16 49 01.6 +0.4
WTCT                                  eS      Sb       16 49 25.5  0.0
NTST   Danshui            1.75 339     P      Pb       16 49 02.7 -1.3
NTST                                   S      Sb       16 49 24.4 -1.2
SSHA   Shanhua            1.76 257    eP      Pn       16 49 01.8 +0.4
SSHA                                  eS      Sb       16 49 27.8 +2.0
WSL    Shuilin Townsh     1.77 270    eP      Pb       16 49 04.0 -0.4
WSL                                    S      Sn       16 49 24.8 +1.6
WSF    Szhu               1.77 274     P      Pn       16 49 02.7 +1.1
WSF                                   eS      Sb       16 49 25.8 -0.5
NHW    Xinwu Township     1.78 326     P      Pn       16 49 02.7 +1.0
NHW                                    S      Sb       16 49 25.3 -1.3
CHN8   Yiju               1.79 265     P      Pn       16 49 03.1 +1.2
CHN8                                   S      Sb       16 49 26.4 -0.4
SSPT   Xinbi              1.79 235    eP      Pn       16 49 03.7 +1.8
SLIU   Shizi              1.81 224    eP      Pn       16 49 02.0 -0.1
SLIU                                  eS      Sn       16 49 23.4 -0.8
TWY    Chenhua            1.81 344     P      Pb       16 49 03.7 -1.3
TWY                                    S      Sb       16 49 26.0 -1.2
NSM    Shimen             1.82 344     P      Pb       16 49 04.0 -1.3
NSM                                    S      Sb       16 49 26.3 -1.4
SCZT   Fangliau           1.82 231     P      Pn       16 49 02.9 +0.7
SCLT   Jiali              1.84 259     P      Pn       16 49 03.3 +0.9
SCLT                                  eS      Sb       16 49 28.3 +0.3
TAI1   Yung-k'ang         1.84 255     P      Pn       16 49 03.6 +1.2
TAI1                                  eS      Sn       16 49 25.0 +0.2
JKRS   Kuro-shima         1.84  67     P      Pn       16 49 03.6 +1.1
JKRS                                  eS      Sn       16 49 26.2 +1.3
SMST   Manzhou Townsh     1.93 219     P      Pn       16 49 03.8 +0.1
SMST                                  eS      Sn       16 49 25.4 -1.8
TSCK   Chigu Township     1.94 259     P      Pn       16 49 04.8 +1.0
TSCK                                   S      Sb       16 49 29.7 -1.2
KAU    Kaohsiung          1.95 241    eP      Pn       16 49 04.2 +0.2
WSSB   Gushan             1.95 243    eP      Pn       16 49 05.1 +1.0
WSSB                                  eS      Sn       16 49 28.5 +0.7
TSEB   Hengchuen, Pin     1.99 216     P      Pn       16 49 05.6 +1.0
TSEB                                   S      Sn       16 49 30.0 +1.3
JIJ    Ishigaki jima      2.00  65     P      Pn       16 49 05.2 +0.5
JIJ                                   eS      Sn       16 49 28.6 -0.3
HEN    Hengchun           2.00 221     P      Pn       16 49 05.2 +0.5
HEN                                    S      Sn       16 49 29.2 +0.3
TWKBT  Hengchun           2.01 218     P      Pn       16 49 05.5 +0.7
TWKBT                                  S      Sn       16 49 29.2 +0.1
TWK1   Hengchun           2.01 218     P      Pn       16 49 05.7 +0.9
TWK1                                   S      Sn       16 49 28.7 -0.4
WLCH   Liuqiu             2.01 235    eP      Pn       16 49 06.4 +1.5
TWP    Hsiaoliuchiu       2.03 235    eP      Pn       16 49 05.6 +0.5
SNW    Nanwan             2.03 220    eP      Pn       16 49 06.2 +1.1
SNW                                   eS      Sn       16 49 29.2 -0.4
JISG   Ishigakijimahi     2.23  61   i P      Pn       16 49 08.2 +0.3
JISG                                  eS      Sn       16 49 33.7 -1.0
WDGT   Dungji             2.31 264     P      Pn       16 49 09.9 +1.0
WDGT                                  eS      Sn       16 49 36.5  0.0
PNG    Penghu             2.38 271     P      Pn       16 49 11.1 +1.1
PNG                                    S      Sn       16 49 39.1 +0.7
VCHM   Qimei              2.52 263     P      Pn       16 49 11.6 -0.3
VCHM                                   S      Sn       16 49 42.1 +0.3
JTJ    Tarama             2.58  64     P      Pn       16 49 13.4 +0.8
VWUC   VWUC               2.87 301    eP      Pn       16 49 16.5 -0.1
VWUC                                  eS      Sn       16 49 48.5 -1.7
JIRJ   Irabujima          3.06  64     P      Pn       16 49 20.0 +0.6
JIRJ                                  eS      Sn       16 49 55.0 -0.1
JMJ    Miyako jima 2      3.14  65    eP      Pn       16 49 21.6 +1.2
JMJ                                    S      Sn       16 49 56.9 -0.1
JMJ2   Miyako jima3       3.14  67     P      Pn       16 49 21.4 +1.0
JMJ2                                  eS      Sn       16 49 57.3 +0.3
JIKM   Ikemajima          3.15  63     P      Pn       16 49 21.1 +0.6
PTMZ   Houxiangcun        3.15 299     P      Pn       16 49 20.9 +0.4
PTMZ                                  eS      Sn       16 49 55.9 -1.3
MATB   Ma-tsu             3.29 323    eP      Pn       16 49 23.0 +0.5
MATB                                  eS      Sn       16 49 59.1 -1.7
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MSUT	Lienchiang	3.32	323	*e*P	Pn	16 49 24.5	+1.7
KNM	Kinmen	3.52	285	*e*P	Pn	16 49 28.3	+2.8
KNM				*e*S	Sn	16 50 08.7	+2.4
KNMB	Chin-men Tao	3.57	286	P	Pn	16 49 27.1	+0.8
KNMB				*e*S	Sn	16 50 05.4	-2.2
LYJJ	Jianjiangzhen	3.71	325	*e*P	Pn	16 49 29.0	+0.8
LYJJ				*e*S	Sn	16 50 10.2	-0.8
MHZQ	Yeshan	3.82	313	P	Pn	16 49 31.1	+1.4
MHZQ				*e*S	Sn	16 50 13.5	-0.3
XPSS	Dashiqiu	3.82	333	*e*P	Pn	16 49 29.6	-0.2
XPSS				*e*S	Sn	16 50 11.6	-2.3
ZPLA	Ao Xicun	4.05	277	*e*S	Sn	16 50 19.0	-0.6
AXDP	Jialang	4.06	290	*e*P	Pn	16 49 34.3	+1.4
AXDP				*e*S	Sn	16 50 19.4	-0.2
DSXP	Dongshan	4.34	273	*e*P	Pn	16 49 38.3	+1.4
DSXP				*e*S	Sn	16 50 25.8	-0.9
SXFK	Yanhouchang	4.99	306	*e*P	Pn	16 49 46.2	+0.4
SXFK				*e*S	Sn	16 50 41.1	-1.6
JOW	Kunigami	6.45	58	*e*P	Pn	16 50 04.8	-1.0

IDC 03 16:56:13.7±1.5**, 11°.02S×160°.75E, h0^{km}, mb3.6**/3**, mbtmp3.7**/4**, ML3.5**/1**, Error ellipse: s-maj=39.4km s-min=14.3km az=65.0, Bougainville-Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	Honiara	1.76	333	Pn	Pn	16 56 43.1	-2.4
	77nm,0.3s,baz=28,slow=4.1,SNR=78						
HNR				Sn	Sn	16 57 07.1	-1.6
	258nm,0.3s,baz=63,slow=18,SNR=25						
HNR				LR	LR	16 57 33.3	
	comp=Z,90nm,18.0s,baz=294,slow=45						
DZM	Mont Dzumac	12.27	154	Pn	Pn	16 59 09.9	0.0
	0.3nm,0.3s,baz=355,slow=12,SNR=16						
DZM				Sn	Sn	17 01 21.7	-5.8
	0.2nm,0.3s,baz=118,slow=19,SNR=1.0						
	4.0nm,0.7s						
DZM				AML	AML		
WRA	Warramunga Arr	26.92	248	P	P	17 01 56.9	0.0
	0.6nm,0.6s,baz=76,slow=9.1,SNR=6.3						
	0.6nm,0.6s						
ASAR	Alice Springs	28.48	240	P	P	17 02 10.7	-0.2
	0.3nm,1.0s,baz=65,slow=10,SNR=4.6						
	0.3nm,1.0s						
H11S2	WAKE ISLAND Hy	29.91	11	T	T	17 33 22.7	
	baz=188,slow=76,SNR=3.9						
H11S3	WAKE ISLAND Hy	29.91	11	T	T	17 33 27.2	
	baz=188,slow=76,SNR=3.5						
H11S1	WAKE ISLAND Hy	29.92	11	T	T	17 33 01.9	
	baz=188,slow=76,SNR=5.5						
H11N1	WAKE ISLAND Hy	31.13	11	T	T	17 34 48.5	
	baz=193						
H11N3	WAKE ISLAND Hy	31.14	11	T	T	17 34 46.0	
	baz=193						
H11N2	WAKE ISLAND Hy	31.15	11	T	T	17 34 54.0	
	baz=193						
SONM	Songino Array	75.81	326	P	P	17 08 03.6	+1.8
	0.5nm,0.4s,baz=137,slow=4.5,SNR=3.6						
	0.5nm,0.4s						

BJI ***03*** *17:11:55.8, 17°.77S×174°.83W, h212^{km}, mB5.5/5, mb5.1/42*

IDC ***03*** *17:11:57.6±1.8, 18°.07S×175°.23W, h210^{km}±16^{km}, mb4.5/26, mbtmp5.1/29, MS3.4/1, Error ellipse: s-maj=10.5km s-min=8.7km az=133.0*

NEIC ***03*** *17:11:59.0±1.3, 18°.03S±0°.08×175°.20W±0°.07, h230^{km}±5^{km}, mb4.8/324, Error ellipse: s-maj=12.9km s-min=9.4km az=206.0*

BGR ***03*** *17:12:00.2, 17°.09S×174°.79W, h200^{km}*

GFZ ***03*** *17:12:00.9±0.4, 18°S±5°×17°5W±°, h259^{km}±5^{km}, M5.1/23, mb5.3/23*

GCMT ***03*** *17:12:03.0±0.3, 18°.13S±0°.03×174°.99W±0°.02, h256^{km}±2^{km}, MW5.0/100, Moment Tensor Solution. s54,c65; s100,c120; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-1.71±.14; M$_{\theta\theta}$-0.54±.20; M$_{\phi\phi}$2.25±.17; M$_{r\theta}$-2.05±.14; M$_{\theta\phi}$-0.03±.17; M$_{\phi r}$-3.48±.12; Best double couple: M$_0$4.52200×10^{16} NP1:φ$_s$153.00000°, δ19.00000°, λ-142.00000°. NP2:φ$_s$27.00000°, δ79.00000°, λ-75.00000°. Principal axes: T 4.4920, Plg32.0000°, Azm104.0000°; N 0.0610, Plg15.0000°, Azm204.0000°; P -4.5520, Plg54.0000°, Azm315.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 03 17:11:59.0±0.5**, 17°.98S**±0°.05×**175°.16W**±0°.04**, h232^{km}**±4^{km}**, h232^{km}:pP-P, n639,** σ**1**^{s}**.30**/522**, mb4.9**/255**, 55C-29D, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FUTU	Fugatoga	4.63	322		Pn	17 13 10.1	+0.3
FUTU	Fugatoga	4.63	322	P	Pn	17 13 14.9	+5.1
NIUE	Niue	5.08	103	P	Pn	17 13 15.7	+0.4
NIUE	Niue	5.08	103	P	Pn	17 13 15.8	+0.4
	comp=Z,2μm,0.9s						
NIUE	Niue	5.08	103		Pn	17 13 15.4	+0.1
NIUE				Sn	S	17 14 08.8	-6.8
NIUE	Niue	5.08	103	P	Pn	17 13 15.8	+0.5
NIUE				S	S	17 14 15.0	-0.7
NIUE				AML	AML		
NIUE	Niue	5.08	103	P	Pn	17 13 16.0	+0.7
	comp=Z,2μm,0.9s						
AFI	Afiamalu	5.19	39	P	Pn	17 13 15.6	-1.2
	comp=Z,569nm,0.5s,baz=202,slow=1.8,SNR=159						
AFI				S	S	17 14 13.0	-5.5
	comp=Z,696nm,0.3s,baz=245,slow=19,SNR=14						
AFI	Afiamalu	5.19	39	P	Pn	17 13 14.9	-1.9
AFI				S	S	17 14 12.7	-5.8
AFI				AML	AML		
AFI	Afiamalu	5.19	39	P	Pn	17 13 15.9	-1.0
	comp=Z,817nm,0.6s						
MSVF	Nonsavu	6.48	271	P	Pn	17 13 33.2	+0.2
	comp=Z,499nm,0.8s,baz=117,slow=16,SNR=132						
MSVF				LR	LR	17 15 51.1	
	comp=Z,353nm,19.8s,baz=60,slow=36						
MSVF	Nonsavu	6.48	271		Pn	17 13 36.6	+3.6
MSVF	Nonsavu	6.48	271	P	Pn	17 13 37.4	+4.4
	comp=Z,871nm,0.9s						
FUNA	Funafuti	10.89	329	P	P	17 14 33.3	-1.1
	comp=Z,326nm,1.3s						
RAR	Rarotonga	14.85	105	P	P	17 15 18.6	+0.3
	comp=Z,75nm,0.8s,baz=244,slow=8.0,SNR=10						
RAR	Rarotonga	14.85	105		Pn	17 15 15.2	-3.0
RAR	Rarotonga	14.85	105	P	Pn	17 15 18.3	+0.1
RAR	Rarotonga	14.85	105	P	P	17 15 19.0	+0.7
	comp=Z,176nm,1.0s						
MARNC	Mare, Loyalty	16.21	255	P	P	17 15 33.3	0.0
SANVU	Saraoutou	17.09	276	P	P	17 15 43.4	+0.4
SANVU	Saraoutou	17.09	276	P	Pn	17 15 46.5	+1.7
	comp=Z,246nm,0.8s						
OUENC	Ouen Island, N	17.46	252		P	17 15 46.5	-0.5
DZM	Mont Dzumac	17.76	254	P	P	17 15 50.8	+0.4
	comp=Z,98nm,0.9s,baz=81,slow=16,SNR=26						
ONTNC	Ouen Toro	17.79	253		P	17 15 49.6	-1.0
KOUNC	Koumac, New Ca	19.57	259		P	17 16 08.7	-1.2
OUZ	Omahuta	19.87	208	P	P	17 16 14.0	+1.1
GRZ	Great Barrier	20.00	203	P	Pn	17 16 17.0	-2.0
WCZ	Waipu Caves	20.16	205	P	P	17 16 15.2	-0.7
MXZ	Matakaoa Point	20.33	195	P	P	17 16 16.9	-0.9
MXZ	Matakaoa Point	20.33	195	P	P	17 16 19.3	+1.5
WMGZ	Waiomatatini S	20.55	195	P	P	17 16 22.0	+1.9
WIAZ	Waiheke Island	20.60	203	P	P	17 16 18.8	-1.9
HAZ	Te Kaha	20.65	196	P	P	17 16 21.0	-0.2
MBAZ	Motutapu North	20.67	203	P	P	17 16 23.5	+2.1
PKGZ	Pakihiroa	20.68	195	P	P	17 16 21.9	+0.4
ETAZ	East Tamaki Re	20.82	203	P	P	17 16 23.7	+0.8
PUZ	Puketiti	20.83	195	P	P	17 16 22.8	-0.3
MKAZ	Moumakai	20.87	202	P	P	17 16 22.7	-0.8
RUGZ	Raukumara Rang	20.88	196	P	P	17 16 23.6	0.0
TWGZ	Tauwhareparae	21.00	195	P	P	17 16 25.2	+0.4
CNGZ	Carnagh Statio	21.23	195	P	P	17 16 28.0	+0.8
MWZ	Matawai	21.26	196	P	P	17 16 26.9	-0.6
TKGZ	Te Karaka	21.28	195	P	P	17 16 27.5	-0.1
URZ	Urewera	21.30	197	P	P	17 16 26.7	-1.2
	comp=Z,52nm,0.4s,baz=358,slow=1.2,SNR=67						
URZ				S	S	17 20 04.6	-4.5
	comp=Z,10nm,0.7s,baz=82,slow=22,SNR=6.0						
	comp=Z,52nm,0.4s						
URZ	Urewera	21.30	197	P	P	17 16 27.7	-0.2
	comp=Z,72nm,0.6s						
TOZ	Tahuroa Road	21.31	201	P	P	17 16 26.4	-1.5
RAGZ	Rawiri	21.44	196	P	P	17 16 29.8	+0.5
RIGZ	Rimuhau	21.55	195	P	P	17 16 30.4	+0.1
MUGZ	Murupara	21.60	197	P	P	17 16 30.3	-0.5
RTZ	Ruatahuna	21.67	197	P	P	17 16 30.1	-1.4
PRGZ	Paritu Road	21.73	195	P	P	17 16 32.0	0.0
MHGZ	Mahia Peninsul	21.94	195	P	P	17 16 35.7	+1.8
HIZ	Hauiti	22.24	201	P	P	17 16 36.0	-0.7
BFZ	Birch Farm	23.80	196	P	P	17 16 49.6	-1.3
MRZ	Mangatainoka R	23.97	198	P	P	17 16 50.8	-1.6
PPT	Papeete	24.36	93	P	P	17 16 56.8	+0.6
	comp=Z,45nm,0.7s,baz=256,slow=14,SNR=4.3						
	comp=Z,45nm,0.7s						
PPTF	Pamatai, Papee	24.37	93	P	P	17 16 55.6	-0.8
MSWZ	Moikau Station	24.76	197	P	P	17 16 58.2	-1.4
BHW	Baring Head	24.87	198	P	P	17 16 59.2	-1.2
TCW	Tory Channel	24.87	199	P	P	17 16 59.6	-0.9
PLWZ	Palliser	24.90	197	P	P	17 16 59.2	-1.7
QRZ	Quartz Range	25.11	202	P	P	17 17 01.3	-1.4
TKNZ	Takaka Hill	25.14	202	P	P	17 17 01.7	-1.3
NNZ	Nelson	25.16	201	P	P	17 17 02.1	-1.1
NNZ				IAmb	IAmb	17 17 04.2	
	comp=Z,40nm,1.0s						
TUWZ	Tuamarina	25.17	200	P	P	17 17 02.1	-1.1
BSWZ	Blackbirch Sta	25.45	199		P	17 17 04.9	-0.9
MRNZ	Matariki Terra	25.54	201	P	P	17 17 05.7	-0.9
HNR	Honiara	25.61	286	P	P	17 17 08.0	+0.5
	comp=Z,185nm,0.7s,baz=143,slow=1.0,SNR=5.8						
	comp=Z,185nm,0.7s						
HNR	Honiara	25.61	286	P	P	17 17 07.5	0.0
DSZ	Denniston Nort	26.18	202	P	P	17 17 11.0	-1.4
KHZ	Kahutara	26.19	199	IAmb	IAmb	17 17 19.0	
	comp=Z,21nm,0.7s						
RPZ	Rata Peaks	28.17	201		P	17 17 28.1	-1.9
WHZ	Wether Hill Ro	31.17	203	P	P	17 17 54.7	-1.7
EIDS	Eidsvold	32.16	251	P	P	17 18 04.7	-0.6
	comp=Z,42nm,1.0s						
EIDS	Eidsvold	32.16	251	P	P	17 18 04.9	-0.4
	comp=Z,42nm,1.0s						
EIDS	Eidsvold	32.16	251		P	17 18 04.1	-1.2
EIDS				IAmb	IAmb	17 18 05.8	
	comp=Z,34nm,0.9s						
EIDS	Eidsvold	32.16	251	P	P	17 18 04.7	-0.6
	comp=Z,42nm,1.0s						
ARMA	Armidale	32.60	241	P	P	17 18 09.1	-0.2
	comp=Z,60nm,0.7s						
ARMA	Armidale	32.60	241	P	P	17 18 09.0	-0.2
	comp=Z,60nm,0.7s						
ARMA	Armidale	32.60	241		P	17 18 08.4	-0.8
ARMA	Armidale	32.60	241	P	P	17 18 09.2	0.0
	comp=Z,59nm,0.7s						
CNB	Canberra Magne	35.86	234	P	P	17 18 36.4	-0.7
	comp=Z,0.9nm,1.7s						
CNB	Canberra Magne	35.86	234	P	P	17 18 36.2	-0.9
	comp=Z,0.9nm,1.0s						
PATS	Pohnpei	35.98	311	P	P	17 18 38.5	+0.4
	comp=Z,108nm,1.9s						
PATS	Pohnpei	35.98	311	P	P	17 18 39.6	+1.5
	comp=Z,109nm,1.9s						
PATS	Pohnpei	35.98	311	P	P	17 18 37.6	-0.5
CAN	Canberra	36.15	234	P	P	17 18 39.1	-0.4
	comp=Z,31nm,1.9s						
CTA	Charters Tower	36.49	260	P	P	17 18 41.5	-1.0
	comp=Z,19nm,0.7s						
CTA	Charters Tower	36.49	260	P	P	17 18 41.8	-0.7
	comp=Z,19nm,0.7s						
CTA	Charters Tower	36.49	260	P	P	17 18 41.5	-1.0
	comp=Z,35nm,0.5s,baz=86,slow=10,SNR=89						
	comp=Z,35nm,0.5s						
CTAO	Charters Tower	36.49	260	P	P	17 18 41.1	-1.4
CTAO	Charters Tower	36.49	260	P	P	17 18 39.1	-3.4
	comp=Z,49nm,0.7s						
CTAO	Charters Tower	36.49	260	P	P	17 18 41.4	-1.0
CTAO				x	x	17 19 36.8	
CTAO				PcP	PcP	17 21 01.1	0.0
PMG	Port Moresby	37.53	278	P	P	17 18 50.9	-0.3
	comp=Z,91nm,0.8s,baz=73,slow=4.5,SNR=15						
	comp=Z,91nm,0.8s						
PMG	Port Moresby	37.53	278		P	17 18 51.0	-0.3
PMG	Port Moresby	37.53	278	P	P	17 18 51.5	+0.2
	comp=Z,110nm,0.9s						
PMG	Port Moresby	37.53	278	P	P	17 18 52.2	+0.9
	comp=Z,113nm,0.9s						
PMG	Port Moresby	37.53	278	P	P	17 18 52.3	+1.0
CMSA	Cobar Meteorol	37.82	242	P	P	17 18 52.9	-0.6
	comp=Z,76nm,1.0s						
CMSA	Cobar Meteorol	37.82	242	P	P	17 18 53.0	-0.5
	comp=Z,76nm,1.0s						
CMSA	Cobar Meteorol	37.82	242	P	P	17 18 52.9	-0.6
	comp=Z,76nm,1.0s						
QLP	Quilpie	38.41	250	P	P	17 18 57.7	-0.8
	comp=Z,201nm,0.6s						
QLP	Quilpie	38.41	250	P	P	17 18 57.8	-0.7
	comp=Z,201nm,0.6s						
QLP	Quilpie	38.41	250	P	P	17 18 57.8	-0.7
	comp=Z,201nm,0.6s						
MTSU	Mount Surprise	38.48	263	P	P	17 18 58.1	-1.1
	comp=Z,23nm,0.7s						
MTSU	Mount Surprise	38.48	263	P	P	17 18 58.0	-1.1
	comp=Z,23nm,0.7s						
MTSU	Mount Surprise	38.48	263	P	P	17 18 58.3	-0.9
	comp=Z,23nm,0.7s						
TOO	Toolangi	39.55	232	P	P	17 19 06.6	-1.2
	comp=Z,14nm,0.7s						
TOO	Toolangi	39.55	232	P	P	17 19 06.9	-0.9
	comp=Z,14nm,0.7s						
MANU	Manus Island	40.03	289	P	P	17 19 11.6	-0.5
COEN	Coen	40.20	270	P	P	17 19 14.6	+1.1
	comp=Z,19nm,0.8s						
STKA	Stephens Creek	41.32	242	P	P	17 19 21.8	-0.5
	comp=Z,128nm,1.1s,baz=87,slow=9.7,SNR=72						
	comp=Z,128nm,1.1s						
INKA	Innaminka	41.59	248		P	17 19 24.1	-0.5
ARPS	Mount Arapiles	42.12	235	P	P	17 19 27.6	-1.1
	comp=Z,15nm,1.0s						
QIS	Mount Isa	42.68	259	P	P	17 19 31.8	-1.6
	comp=Z,20nm,0.7s						
QIS	Mount Isa	42.68	259	P	P	17 19 31.9	-1.6
	comp=Z,20nm,0.7s						
HTT	Hallett	43.79	240	P	P	17 19 42.0	-0.3
	comp=Z,47nm,1.0s						
BBOO	Buckleboo	46.09	242	P	P	17 19 59.6	-0.7
	comp=Z,205nm,0.8s						
BBOO	Buckleboo	46.09	242	P	P	17 19 59.0	-1.2
BBOO	Buckleboo	46.09	242	P	P	17 19 59.5	-0.7
	comp=Z,205nm,0.8s						
GENI	Genyem	46.38	284	P	P	17 20 03.4	+0.7
	comp=Z,122nm,0.5s						
GENI	Genyem	46.38	284	P	P	17 20 03.6	+0.8
	comp=Z,118nm,0.5s						
WR8	Warramunga Arr	47.51	259	IAmb	IAmb	17 20 13.1	
	comp=Z,42nm,0.7s						
WRAB	Tennant Creek	47.65	259	P	P	17 20 10.4	-2.2
WRAB				PcP	PcP	17 21 34.7	-3.6
WRAB	Tennant Creek	47.65	259	P	P	17 20 11.0	-1.5
	comp=Z,124nm,0.6s						
WRAB	Tennant Creek	47.65	259	P	P	17 20 11.5	-1.0
WRAB				pP	pP	17 21 02.5	+0.9
WRAB				PcP	PcP	17 21 38.5	+0.3
WRA	Warramunga Arr	47.66	259	P	P	17 20 11.8	-0.8
	comp=Z,62nm,0.4s,baz=98,slow=6.6,SNR=1313						
WRA				S	S	17 26 44.8	-5.9
	comp=Z,1.1nm,0.8s,baz=103,slow=14,SNR=4.1						
WRA	Warramunga Arr	47.66	259	P	P	17 20 10.4	-2.2
WRA				PcP	PcP	17 21 36.2	-2.1
AS17	Alice Springs	47.67	254	P	P	17 20 12.1	-0.6
	comp=Z,1μm,0.8s						
AS09	Alice Springs	47.72	254	P	P	17 20 12.4	-0.6
	comp=Z,615nm,0.8s						
AS15	Alice Springs	47.74	254	P	P	17 20 12.6	-0.6
	comp=Z,821nm,0.7s						
AS31	Alice Springs	47.75	254	P	P	17 20 12.6	-0.7
	comp=Z,192nm,0.8s						
ASAR	Alice Springs	47.75	254	P	P	17 20 12.4	-0.9
	comp=Z,524nm,0.6s,baz=96,slow=7.2						
ASAR				S	S	17 26 46.1	-5.8
	comp=Z,6.0nm,0.8s,baz=92,slow=16,SNR=18						
ASAR	Alice Springs	47.75	254	P	P	17 20 12.1	-1.2
ASAR				PcP	PcP	17 21 38.0	-0.6
GUMO	Guam	50.39	306	P	P	17 20 34.6	+1.4
KDU	Kakadu	50.65	268	P	P	17 20 34.5	-0.7
	comp=Z,102nm,0.9s						
BAKI	Biak	50.66	284	P	P	17 20 34.7	-0.6
	comp=Z,68nm,0.7s						
MTN	Manton Dam	51.89	268	P	P	17 20 43.4	-1.0
	comp=Z,84nm,0.8s						
WRKA	Warakurna	52.77	252	P	P	17 20 50.1	-0.7
	comp=Z,85nm,0.9s						
FORT	Forrest	52.77	245	P	P	17 20 49.5	-1.2
	comp=Z,50nm,0.8s						
FORT	Forrest	52.77	245	IAmb	IAmb	17 20 50.1	
	comp=Z,37nm,0.8s						
KNRA	Kununurra	53.56	264	P	P	17 20 56.0	-0.7
	comp=Z,103nm,0.9s						
SWI	Sorong	55.28	282	P	P	17 21 08.5	-0.5
	comp=Z,143nm,0.7s						
DRV	Dumont d'Urvil	56.61	200	P	P	17 21 17.9	+0.4
KMBL	Kambalda	58.06	244	P	P	17 21 27.1	-1.2
	comp=Z,14nm,1.4s						
SOEI	Soe	59.17	269	P	P	17 21 35.4	-0.9
SOEI	Soe	59.17	269	P	P	17 21 37.6	+1.2
	comp=Z,433nm,0.9s						
TNTI	Ternate	59.50	282	P	P	17 21 37.5	-1.0
TNTI				IAmb	IAmb	17 21 39.3	
	comp=Z,32nm,0.9s						
TNTI	Ternate	59.50	282	P	P	17 21 38.1	-0.3
	comp=Z,35nm,0.7s						
TNTI	Ternate	59.50	282	P	P	17 21 38.8	+0.4
	comp=Z,35nm,0.7s						
SANI	Sanana	59.81	278	P	P	17 21 40.1	-0.5
	comp=Z,701nmcomp=Z,61nm,1.3s						
SANI	Sanana	59.81	278	P	P	17 21 40.0	-0.6
	comp=Z,62nm,1.3s						
SBA	Scott Base	60.56	184	P	P	17 21 45.4	+0.8
SBA	Scott Base	60.56	184	P	P	17 21 47.2	+2.6
	comp=Z,12nm,0.8s						
VNDA	Vanda	60.65	186	P	P	17 21 46.4	+1.1
	comp=Z,2.9nm,0.7s,baz=356,slow=6.7,SNR=29						
	comp=Z,2.9nm,0.7s						
VNDA	Vanda	60.65	186	P	P	17 21 45.8	+0.6
VNDA	Vanda	60.65	186	P	P	17 21 46.8	+1.5
VNDA				x	x	17 22 35.6	
VNDA				pP	pwP	17 22 39.8	+0.2
MBWA	Marble Bar	61.06	255	P	P	17 21 48.0	-0.9
	comp=Z,78nm,1.2s						
MBWA	Marble Bar	61.06	255	P	P	17 21 47.5	-1.4
MBWA	Marble Bar	61.06	255	P	P	17 21 48.0	-0.9
	comp=Z,78nm,1.2s						
MBWA	Marble Bar	61.06	255	P	P	17 21 47.5	-1.4
MBWA				pP	pP	17 22 41.2	+0.7
MBWA				ScP	ScP	17 26 08.2	-0.6
MEEK	Meekatharra	61.30	249	P	P	17 21 49.1	-1.4
	comp=Z,42nm,0.6s						
MEEK	Meekatharra	61.30	249	P	P	17 21 49.2	-1.4
	comp=Z,42nm,0.6s						
MMRI	Maumere	61.40	270	P	P	17 21 49.8	-1.5
MMRI	Maumere	61.40	270	P	P	17 21 50.6	-0.7
	comp=Z,222nm,0.8s						
KLBR	Kellerberrin	61.57	243	P	P	17 21 51.4	-0.8
	comp=Z,154nm,0.8s						
KLBR	Kellerberrin	61.57	243	P	P	17 21 51.3	-0.8
	comp=Z,154nm,0.8s						
NWAO	Narrogin (SRO)	61.91	242	P	P	17 21 53.5	-0.9
	comp=Z,102nm,2.4s						
BLDU	Ballidu	62.54	244	P	P	17 21 57.6	-1.1
	comp=Z,37nm,1.6s						
MUN	Mundaring	62.85	243	P	P	17 22 00.2	-0.4
	comp=Z,67nm,1.0s						
WSI	Waingapu	62.97	268	P	P	17 22 01.0	-0.7
MORW	Morawa	63.28	246	P	P	17 22 02.9	-0.7
	comp=Z,36nm,1.1s						
MORW	Morawa	63.28	246	P	P	17 22 02.2	-1.4
BIPH	Bislig	63.31	289	*i* P	P	17 22 00.3	-3.6
GTOI	Gorontalo	63.52	280	P	P	17 22 04.6	-0.7
	comp=Z,42nm,0.9s						
LBFI	Labuhan Bajo,	63.67	269	P	P	17 22 05.0	-1.3
	comp=Z,28nm,0.6s						
CCD	Concordia, Ant	65.56	194	P	P	17 22 18.6	+0.6
PLAI	Plampang	65.59	268	P	P	17 22 17.9	-0.8
	comp=Z,2μmcomp=Z,173nm,0.8s						
PLAI	Plampang	65.59	268	P	P	17 22 18.1	-0.6
	comp=Z,254nm,0.9s						
TOLI2	Tolitoli	65.78	280	IAmb	IAmb	17 22 23.6	
	comp=Z,20nm,0.7s						
TOLI2	Tolitoli	65.78	280	P	P	17 22 19.6	-0.3
	comp=Z,31nm,0.7s						
PLP	Palo	65.80	291	*e*P	P	17 22 19.4	-0.6
GIRL	Giralia	65.83	253	P	P	17 22 20.5	+0.3
	comp=Z,64nm,1.3s						
PCI	Palu	65.99	277	P	P	17 22 21.0	-0.3
	comp=Z,1μmcomp=Z,132nm,1.1s						
MMSI	Mamuju	66.30	275	P	P	17 22 22.9	-0.3
	comp=Z,30nm,0.7s						
CASY	Casey	67.37	205	P	P	17 22 28.6	-0.4
CASY	Casey	67.37	205	P	P	17 22 28.4	-0.7
IGBI	Denpasar	68.09	268	P	P	17 22 34.0	-0.5
IBAJ	Ibajay, Aklan	68.57	291	*i* P	P	17 22 37.1	-0.2
JAGI	Jajag, Banyuwa	69.13	268	P	P	17 22 40.5	-0.4
	comp=Z,226nm,0.9s						
JAGI	Jajag, Banyuwa	69.13	268	P	P	17 22 39.6	-1.3
	comp=Z,227nm,0.9s						
GQP	Guinayangan	69.21	293	*i* P	P	17 22 42.0	+0.7
ABJI	Asem Bagus	69.24	268	P	P	17 22 41.2	-0.3
	comp=Z,120nm,1.2s						
MYLDM	Lahad Datu	69.34	283	IAmb	IAmb	17 22 57.4	
	comp=Z,35nm,0.9s						
MYLDM	Lahad Datu	69.34	283	P	P	17 22 42.2	+0.1
	comp=Z,47nm,1.0s						
ADK	Adak	69.58	359	P	P	17 22 42.9	+0.1
ADK	Adak	69.58	359	P	P	17 22 43.6	+0.9
ADK				x	x	17 23 34.5	
ADK				pP	pwP	17 23 40.2	+1.3
INU	Inuyama	69.78	320	P	P	17 22 44.2	-0.1
INU	Inuyama	69.78	320	P	P	17 22 45.8	+1.4
	comp=Z,38nm,1.1s						
MJAR	Matsushiro Arr	69.86	321	P	P	17 22 45.4	+0.6
	comp=Z,37nm,0.8s,baz=155,slow=6.1,SNR=107						
	comp=Z,37nm,0.8s						
MJAR	Matsushiro Arr	69.86	321	P	P	17 22 45.6	+0.8
MAJO	Matsushiro	69.86	321	P	P	17 22 45.0	+0.1
MAJO	Matsushiro	69.86	321	P	P	17 22 45.9	+1.1
BLJI	Banyuglugur	69.86	268	P	P	17 22 45.7	+0.4
	comp=Z,196nm,0.7s						
ATKA	Atka Island	69.89	1	P	P	17 22 45.2	+0.6
BBKI	Banjar Baru	69.92	273	P	P	17 22 46.6	+0.9
	comp=Z,4μmcomp=Z,123nm,0.9s						
LQP	Lukban	70.09	293	*e*P	P	17 22 47.1	+0.2
TIRP	Brgy. Gulod. B	70.48	293	*e*P	P	17 22 48.1	-0.8
CAAP	Casiguran, Aur	70.56	295	*i* P	P	17 22 50.1	+0.6
PALP	Palanan	70.61	296	*i* P	P	17 22 51.4	+1.7
JWT	Wachi	70.74	319	IAmb	IAmb	17 23 11.7	
	comp=Z,11nm,0.6s						
PCPS	Palayan City	70.74	293	*e*P	P	17 22 53.5	+2.9
SNJI	Sawahan-Nganju	71.60	268	P	P	17 22 56.9	+0.9
	comp=Z,151nm,1.0s						
JSU	Suzuyama	71.71	313	P	P	17 22 55.8	-0.3
KKM	Kota Kinabalu	71.77	283	IAmb	IAmb	17 22 57.7	
	comp=Z,27nm,0.7s						
KKM	Kota Kinabalu	71.77	283	P	P	17 22 57.1	+0.2
	comp=Z,579nmcomp=Z,44nm,1.0s						
PCJI	Pacitan	72.04	267	P	P	17 22 58.5	+0.1
QSPA	South Pole Qui	72.08	180	P	P	17 22 58.8	+0.9
	comp=Z,15nm,0.7s,baz=346,slow=0.7,SNR=84						
	comp=Z,15nm,0.7s						
QSPA	South Pole Qui	72.08	180	P	P	17 22 58.8	+0.9
QSPA				IAmb	IAmb	17 23 00.1	
	comp=Z,15nm,0.8s						
QSPA	South Pole Qui	72.08	180	P	P	17 22 58.8	+0.9
QSPA				PcP	PcP	17 23 21.3	+6.4
QSPA				x	x	17 23 57.3	
JKA	Kamikawa-asahi	72.86	330	IAmb	IAmb	17 23 05.9	
	comp=Z,31nm,0.9s						
SMRI	Semarang	73.06	268	P	P	17 23 05.3	+0.8
	comp=Z,174nm,0.8s						
STKI	Sintang	74.21	275	P	P	17 23 12.1	+1.0
	comp=Z,2μmcomp=Z,132nm,0.8s						
YULB	Yu-li	74.43	301	IAmb	IAmb	17 23 13.9	
	comp=Z,17nm,0.7s						
PETK	Petropavlovsk-	74.59	343	P	P	17 23 13.4	+1.0
	comp=Z,14nm,0.7s,baz=99,slow=7.7,SNR=48						
	comp=Z,14nm,0.7s						
PETK	Petropavlovsk-	74.59	343	P	P	17 23 13.3	+0.9
MHC	Mount Hamilton	74.59	42	IAmb	IAmb	17 23 16.2	
	comp=Z,15nm,1.2s						
KCPM	Cahto Peak	74.85	39	IAmb	IAmb	17 23 17.6	
	comp=Z,17nm,1.2s						
SSLB	Suanglung	74.89	302	IAmb	IAmb	17 23 15.6	
	comp=Z,29nm,0.9s						
YSS	Yuzhno-Sakhali	74.91	332	P	P	17 23 14.9	+0.5
YSS	Yuzhno-Sakhali	74.91	332	P	P	17 23 16.3	+2.0
TPUB	Ta-pu	74.93	301	P	P	17 23 14.4	-0.6

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KMPM  Mount Pierce      75.00  38  IAmb     IAmb     17 23 18.6
      comp=Z,17nm,0.8s
VES   Vestal, Richgr    75.36  44  P        P        17 23 16.7 -0.5
KHMM  Horse Mountain    75.52  38  IAmb     IAmb     17 23 21.6
      comp=Z,11nm,1.0s
BBJI  Bungbulang        75.59 267  P        P        17 23 17.1 -2.0
BBJI  Bungbulang        75.59 267  P        P        17 23 18.2 -0.9
      comp=Z,67nm,0.8s
O02D  Mt. Diablo Mer    75.64  39  IAmb     IAmb     17 23 22.3
      comp=Z,9.9nm,0.8s
KRMB  Red Mountain      75.84  37  IAmb     IAmb     17 23 23.8
      comp=Z,11nm,0.9s
ORV   Oroville          76.03  40  P        P        17 23 20.1 -0.8
KSXB  Camp Six Broad    76.05  37  IAmb     IAmb     17 23 25.8
      comp=Z,18nm,1.1s
O03E  Paynes Creek      76.30  39  P        P        17 23 21.7 -0.8
O03E                               IAmb     IAmb     17 23 25.2
      comp=Z,15nm,1.2s
CLC   China Lake        76.34  45  IAmb     IAmb     17 25 42.3
      comp=Z,6.1nm,0.3s
YBH   Yreka Blue Hor    76.66  38  IAmb     IAmb     17 23 27.7
      comp=Z,8.7nm,0.8s
WAKR  Walker            76.68  42  P        P        17 23 24.4 -0.4
M03C  McCloud           76.72  38  IAmb     IAmb     17 23 27.7
      comp=Z,20nm,1.2s
KSRS  Korea Array       76.84 317  P        P        17 23 27.6 +2.1
      comp=Z,24nm,0.9s,baz=134,slow=6.3,SNR=39
      comp=Z,24nm,0.9s
QSM   Queen of Sheba    76.91  45  P        P        17 23 26.3 +0.3
NVAR  Mina Array Bea    77.36  42  P        P        17 23 30.9 +2.2
      comp=Z,4.2nm,0.8s,baz=226,slow=9.2,SNR=14
      comp=Z,4.2nm,0.8s
NVAR  Mina Array Bea    77.36  42  P        P        17 23 30.0 +1.4
ACHA  Angle Creek He    77.67  11  P        P        17 23 29.9 +0.2
KDAK  Kodiak Island     77.78  12  P        P        17 23 31.7 +1.5
      comp=Z,10nm,0.6s,baz=223,slow=3.5,SNR=15
      comp=Z,10nm,0.6s
KDAK  Kodiak Island     77.78  12  P        P        17 23 31.2 +1.1
KDAK                               IAmb     IAmb     17 23 32.1
      comp=Z,14nm,0.7s
KDAK  Kodiak Island     77.78  12  P        P        17 23 31.6 +1.4
J04A  Umpqua Nationa    77.96  37  IAmb     IAmb     17 23 34.8
      comp=Z,16nm,0.7s
MOD   Modoc Plateau     78.18  39  IAmb     IAmb     17 23 35.7
      comp=Z,7.7nm,0.8s
K05A  Summer Lake       78.33  38  IAmb     IAmb     17 23 37.6
      comp=Z,14nm,1.0s
USRK  Ussuriysk Ar.     78.45 324  P        P        17 23 36.4 +2.1
      comp=Z,15nm,1.0s,baz=39,slow=2.5,SNR=7.6
      comp=Z,15nm,1.0s
USRK  Ussuriysk Ar.     78.45 324  P        P        17 23 34.4 +0.1
O16K  Kokwok River B    78.54   9  IAmb     IAmb     17 23 35.6
      comp=Z,15nm,1.0s
H04A  Detroit Lake      78.82  35  IAmb     IAmb     17 23 38.6
      comp=Z,10nm,1.0s
N15K  Kwethluk River    78.83   8  IAmb     IAmb     17 23 40.0
      comp=Z,11nm,0.8s
PINE  Pine Mountain     78.96  37  IAmb     IAmb     17 23 40.4
      comp=Z,14nm,0.9s
M14K  Bethel            79.18   7  IAmb     IAmb     17 23 40.6
      comp=Z,24nm,0.8s
WVOR  Wild Horse Val    79.49  39  IAmb     IAmb     17 23 42.9
      comp=Z,10nm,0.9s
HOOD  Mount Hood Mea    79.52  35  IAmb     IAmb     17 23 43.2
      comp=Z,9.1nm,0.9s
N17K  Nushagak Hills    79.57   9  IAmb     IAmb     17 23 41.5
      comp=Z,7.8nm,0.8s
CNPM  China Poot        79.66  12  IAmb     IAmb     17 23 42.7
      comp=Z,34nm,0.9s
NLWA  Neilton Lookou    79.67  33  P        P        17 23 40.8  0.0
NLWA                               IAmb     IAmb     17 23 43.9
      comp=Z,15nm,1.2s
L14K  Kuka Creek        79.68   6  IAmb     IAmb     17 23 43.4
      comp=Z,17nm,0.9s
MDSI  Maura Dua         79.76 269  P        P        17 23 40.8 -1.2
      comp=Z,46nm,0.9s
STD   Studebaker Rid    79.79  34  IAmb     IAmb     17 23 44.7
      comp=Z,18nm,1.0s
N18K  Kilae Creek       79.92   9  IAmb     IAmb     17 24 36.7
      comp=Z,32nm,1.0s
BRLK  Bradley Lake      79.95  12  IAmb     IAmb     17 23 44.1
      comp=Z,29nm,0.9s
SMAI  San Martin Ant    79.98 159           P        17 23 42.6 +0.4
MDJ   Mudanjiang        80.06 323  P        P        17 23 45.1 +2.2
J08A  Circle Bar Ran    80.13  38  IAmb     IAmb     17 23 46.8
      comp=Z,9.1nm,0.8s
N19K  Bonanza Creek     80.27  10  P        P        17 23 44.1 +0.3
N19K                               IAmb     IAmb     17 23 45.4
      comp=Z,23nm,1.2s
M17K  Holitna River     80.37   9  IAmb     IAmb     17 23 47.4
      comp=Z,25nm,0.8s
NJ2   Nanjing           80.40 308 eP        P        17 23 46.2 +1.2
NJ2                                pmax     pmax
      comp=Z,30nm,0.5s
L16K  Owhat River       80.40   8  IAmb     IAmb     17 23 47.5
      comp=Z,32nm,1.1s
CBB   Campbell River    80.69  30  IAmb     IAmb     17 23 49.0
      comp=Z,15nm,1.0s
PGC   Sidney            80.71  32  P        P        17 23 46.8 +0.6
PGC                                IAmb     IAmb     17 23 48.9
      comp=Z,14nm,0.9s
K15K  Wolf Creek Mou    80.73   6  P        P        17 23 47.3 +1.2
SLKM  Skilak Lake       80.77  12  IAmb     IAmb     17 23 48.3
      comp=Z,32nm,0.8s
DLV    Lat              80.99 286  IAmb     IAmb     17 23 51.2
      comp=Z,24nm,0.8s
G08A  Pilot Rock        81.00  36  IAmb     IAmb     17 23 50.8
      comp=Z,12nm,0.9s
A04D  Lummi Island      81.13  32  IAmb     IAmb     17 23 52.0
      comp=Z,27nm,0.8s
L18K  Granite Mounta    81.26   9  IAmb     IAmb     17 23 51.9
      comp=Z,19nm,0.8s
E07A  Sunnyside         81.27  35  IAmb     IAmb     17 23 52.1
      comp=Z,14nm,0.9s
HAWA  Hanford           81.34  35  IAmb     IAmb     17 23 52.5
      comp=Z,11nm,1.0s
STLK  Strandline Lak    81.38  11  IAmb     IAmb     17 23 50.6
      comp=Z,13nm,0.9s
L19K  White Mountain    81.50   9  P        P        17 23 50.4 +0.2
K17K  Iditarod          81.52   8  IAmb     IAmb     17 23 52.8
      comp=Z,11nm,0.6s
LNOR  Lincton Mounta    81.73  36  IAmb     IAmb     17 24 53.4
      comp=Z,22nm,1.9s
BTDF  Bukit Timah Da    81.93 274  P        P        17 23 54.2 +0.7
      comp=Z,48nm,1.0s
M22K  Willow            81.93  12  P        P        17 23 52.3  0.0
BNX   BinXian           81.97 323 ⇑P        P        17 23 54.4 +1.5
BNX                                pmax     pmax
      comp=Z,44nm,1.0s
MYKOM Kota Tinggi       81.99 274  IAmb     IAmb     17 23 55.6
      comp=Z,32nm,1.0s
MYKOM Kota Tinggi       81.99 274  P        P        17 23 54.8 +1.0
      comp=Z,41nm,1.1s
CN2   Changchun         82.00 321  P        P        17 23 54.8 +1.7
CN2                                pmax     pmax
      comp=Z,20nm,1.0s
D08A  Wollman Farm,     82.08  35  IAmb     IAmb     17 23 56.2
      comp=Z,11nm,1.0s
J17K  VABM Dome         82.08   7  IAmb     IAmb     17 23 56.3
      comp=Z,33nm,1.3s
MA2   Magadan           82.12 343  P        P        17 23 54.1 +0.7
      comp=Z,15nm,1.0s,baz=180,slow=9.1,SNR=4.7
      comp=Z,15nm,1.0s
MA2   Magadan           82.12 343  P        P        17 23 53.6 +0.2
MA2                                IAmb     IAmb     17 26 09.4
      comp=Z,26nm,1.2s
MA2   Magadan           82.12 343  P        P        17 23 54.0 +0.6
GHO   Glory Hole Cre    82.19  12  IAmb     IAmb     17 23 55.8
      comp=Z,27nm,0.8s
DIV   Divide            82.29  14  IAmb     IAmb     17 23 56.2
      comp=Z,27nm,0.7s
F10A  Beach Ranch, E    82.38  37  IAmb     IAmb     17 23 57.4
      comp=Z,14nm,0.6s
BMRM  Bremner River     82.42  14  IAmb     IAmb     17 23 57.0
      comp=Z,24nm,0.9s
J18K  Innoko River      82.45   8  IAmb     IAmb     17 23 57.7
      comp=Z,26nm,1.1s
SCM   Sheep Creek Mo    82.57  13  P        P        17 23 55.6 -0.2
SCM                                IAmb     IAmb     17 23 58.6
      comp=Z,37nm,1.0s
CRQM  Cirque            82.59  15  IAmb     IAmb     17 23 58.2
      comp=Z,21nm,0.9s
K20K  Telida            82.73   9  IAmb     IAmb     17 23 58.8
      comp=Z,16nm,0.9s
SRU   San Rafael Swe    82.85  45  P        P        17 23 58.3 +0.4
VRDI  Verde Repeater    82.92  15  IAmb     IAmb     17 23 59.8
      comp=Z,23nm,1.2s
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GRNC  Granite Creek     82.92  16  IAmb     IAmb     17 24 00.0
      comp=Z,24nm,1.1s
GLB   Gilahina Butte    83.02  15  IAmb     IAmb     17 24 00.1
      comp=Z,15nm,0.7s
J19K  Poorman           83.11   9  IAmb     IAmb     17 24 01.3
      comp=Z,10nm,0.8s
CAST  Castle Rocks      83.11  10  IAmb     IAmb     17 23 59.1
      comp=Z,11nm,1.0s
P29M  Windy Craggy      83.12  18  IAmb     IAmb     17 24 01.5
      comp=Z,20nm,0.9s
LOGN  Logan Glacier     83.20  16  IAmb     IAmb     17 24 01.4
      comp=Z,17nm,1.0s
BARN  Barnard Glacie    83.23  16  IAmb     IAmb     17 24 01.7
      comp=Z,21nm,0.9s
TCUT  Toone Canyon      83.28  43  IAmb     IAmb     17 24 03.5
      comp=Z,20nm,1.2s
PV05  Paradox Valley    83.32  47  IAmb     IAmb     17 24 04.3
      comp=Z,12nm,1.2s
O28M  Mount Upton       83.37  16  IAmb     IAmb     17 24 02.9
      comp=Z,12nm,0.8s
HWUT  Hardware Ranch    83.43  43  P        P        17 24 00.6 -0.3
O29M  Mount Kennedy     83.43  17  IAmb     IAmb     17 24 02.5
      comp=Z,9.9nm,0.8s
TXAR  Lajitas Array     83.44  56  P        P        17 24 02.5 +1.4
      comp=Z,2.0nm,0.9s,baz=215,slow=7.8,SNR=13
      comp=Z,2.0nm,0.9s
TXAR  Lajitas Array     83.44  56  P        P        17 24 03.0 +2.0
KTH   Kantishna Hill    83.44  11  IAmb     IAmb     17 24 01.4
      comp=Z,46nm,1.9s
TRF   Thorofare Moun    83.46  11  IAmb     IAmb     17 24 01.8
      comp=Z,16nm,0.9s
H17K  Granite Mounta    83.48   6  IAmb     IAmb     17 24 02.6
      comp=Z,13nm,0.8s
J20K  Nowinta River     83.50   9  IAmb     IAmb     17 24 02.8
      comp=Z,23nm,0.9s
PV19  Morning Glory     83.51  46  IAmb     IAmb     17 24 05.2
      comp=Z,12nm,1.0s
PV18  Skein Mesa, Pa    83.53  46  IAmb     IAmb     17 24 05.2
      comp=Z,11nm,1.0s
PV20  West Nyswonger    83.53  46  IAmb     IAmb     17 24 05.2
      comp=Z,18nm,0.9s
PV23  Carpenter Ridg    83.56  46  IAmb     IAmb     17 24 05.9
      comp=Z,19nm,0.9s
PV02  Paradox Valley    83.63  47  IAmb     IAmb     17 24 14.2
      comp=Z,10nm,1.0s
PV12  Saucer Basin,     83.64  46  IAmb     IAmb     17 24 05.4
      comp=Z,14nm,1.1s
DHY   Denali Highway    83.68  12  IAmb     IAmb     17 24 03.5
      comp=Z,22nm,1.4s
G16K  Koyuk River       83.69   5  P        P        17 24 01.2 -0.1
G16K                               IAmb     IAmb     17 24 03.9
      comp=Z,12nm,0.8s
ALQ   Albuquerque       83.74  50  IAmb     IAmb     17 24 06.7
      comp=Z,3.8nm,1.0s
ANMO  Albuquerque       83.74  50           P        17 24 02.3 -0.3
ANMO  Albuquerque       83.74  50  P        P        17 24 05.1 +2.5
H18K  Honhosa River     83.86   7  IAmb     IAmb     17 24 03.9
      comp=Z,11nm,0.8s
S34M  Telegraph Cree    83.93  22  IAmb     IAmb     17 24 05.8
      comp=Z,23nm,0.9s
M26K  Nabesna, AK       84.05  14  IAmb     IAmb     17 24 06.2
      comp=Z,31nm,1.1s
HYT   Haines Junctio    84.16  18  IAmb     IAmb     17 24 06.8
      comp=Z,14nm,1.1s
M27K  Edge Creek, AK    84.28  15  IAmb     IAmb     17 24 07.4
      comp=Z,29nm,0.9s
Q32M  Nakina River      84.32  21  IAmb     IAmb     17 24 07.7
      comp=Z,15nm,0.8s
MENT  Mentasta          84.34  14  IAmb     IAmb     17 24 07.3
      comp=Z,22nm,1.1s
PDSI  Padang            84.38 271  P        P        17 24 06.3 +0.3
      comp=Z,34nm,1.1s
G18K  Tagagawik         84.55   7  IAmb     IAmb     17 24 07.8
      comp=Z,18nm,0.8s
SEY   Seymchan          84.58 346  P        P        17 24 06.9 +1.1
      comp=Z,16nm,0.6s,baz=139,slow=5.4,SNR=41
      comp=Z,16nm,0.6s
HEH   HeiHe             84.63 327 eP        P        17 24 05.8 -0.6
HEH                                pmax     pmax
      comp=Z,12nm,0.7s
NEA2  Nenana            84.72  11  IAmb     IAmb     17 24 08.7
      comp=Z,14nm,0.8s
DLMT  Dillon            84.74  39  IAmb     IAmb     17 24 10.3
      comp=Z,11nm,1.2s
I21K  Tanana            84.77  10  IAmb     IAmb     17 24 08.8
      comp=Z,24nm,0.9s
WHY   Whitehorse        84.80  19  IAmb     IAmb     17 24 09.9
      comp=Z,49nm,1.5s
MAW   Mawson            84.82 199  P        P        17 24 06.5 -0.6
      comp=Z,2.6nm,1.2s
MAW   Mawson            84.82 199  P        P        17 24 07.4 +0.2
      comp=Z,9.3nm,0.7s,baz=129,slow=6.6,SNR=27
      comp=Z,9.3nm,0.7s
MAW   Mawson            84.82 199  P        P        17 24 06.2 -1.0
MLY   Manley            84.83  10  IAmb     IAmb     17 24 08.5
      comp=Z,24nm,1.0s
LDM   Libby Dam         84.87  35  IAmb     IAmb     17 24 10.3
      comp=Z,14nm,1.0s
L27K  Beaver Creek,     84.89  15  IAmb     IAmb     17 24 09.8
      comp=Z,9.2nm,0.8s
BCAR  Beaver Creek A    84.91  15  P        P        17 24 08.1 +0.6
G19K  Purcell Mounta    84.97   7  IAmb     IAmb     17 24 10.3
      comp=Z,24nm,0.9s
H21K  Melozitna Rive    85.09   9  IAmb     IAmb     17 24 11.6
      comp=Z,24nm,1.1s
R33M  Jennings River    85.09  21  P        P        17 24 09.0 +0.3
R33M                               IAmb     IAmb     17 24 12.2
      comp=Z,18nm,1.1s
H03S2 Juan Fernandez    85.17 124  T        T        18 57 17.5
      baz=250,slow=75,SNR=60
I23K  Minto, Yukon-K    85.18  11  IAmb     IAmb     17 24 10.5
      comp=Z,15nm,1.0s
H03S1 Juan Fernandez    85.19 124  T        T        18 57 20.9
      baz=250,slow=75,SNR=48
SCRK  Sand Creek        85.19  13  IAmb     IAmb     17 24 11.2
      comp=Z,13nm,0.8s
H03S3 Juan Fernandez    85.19 124  T        T        18 57 19.8
      baz=250,slow=75,SNR=53
N31M  Braeburn, Yuko    85.19  18  IAmb     IAmb     17 24 11.7
      comp=Z,14nm,0.8s
COLA  College           85.20  11  P        P        17 24 09.1 +0.2
COLA  College           85.20  11  P        P        17 24 09.4 +0.5
M29M  Somme Creek       85.22  16  IAmb     IAmb     17 24 11.7
      comp=Z,13nm,1.0s
IMAR  Indian Mountai    85.26   9  P        P        17 24 09.2 +0.1
ILAR  Eielson Array     85.30  12  P        P        17 24 09.9 +0.6
      comp=Z,8.9nm,0.6s,baz=226,slow=5.9,SNR=95
      comp=Z,8.9nm,0.6s
ILAR  Eielson Array     85.30  12  P        P        17 24 09.5 +0.1
PDAR  Pinedale Array    85.30  42  P        P        17 24 11.6 +1.3
      comp=Z,0.6nm,0.6s,baz=202,slow=4.0,SNR=7.7
PDAR  Pinedale Array    85.30  42  P        P        17 24 10.8 +0.6
J25K  Salcha River,     85.46  12  IAmb     IAmb     17 24 12.3
      comp=Z,21nm,0.7s
F19K  Shaleruckik Mo    85.55   7  IAmb     IAmb     17 24 12.8
      comp=Z,19nm,0.8s
K27K  Chicken           85.66  14  IAmb     IAmb     17 24 14.1
      comp=Z,15nm,1.0s
H23K  Yukon River       85.77  10  IAmb     IAmb     17 24 13.2
      comp=Z,7.2nm,0.8s
G21K  Allakaket         85.79   9  IAmb     IAmb     17 24 14.3
      comp=Z,17nm,0.8s
HNS   HongShan          85.87 311 ⇓P        P        17 24 14.6 +1.8
HNS                                pmax     pmax
      comp=Z,42nm,1.3s
ESPZ  Base Esperanza    85.88 157  IAmb     IAmb     17 24 14.0
      comp=Z,12nm,1.0s
F20K  Avaraart Lake     86.00   8  IAmb     IAmb     17 24 15.2
      comp=Z,13nm,0.9s
BJI2  Beijing           86.03 314  P        P        17 24 14.6 +1.0
BJI2                               pmax     pmax
      comp=Z,6.0nm,0.9s
E19K  Redstone River    86.21   7  IAmb     IAmb     17 24 16.4
      comp=Z,37nm,1.3s
LYN   LuoYang           86.30 308  P        P        17 24 17.1 +2.1
LYN                                pmax     pmax
      comp=Z,52nm,0.9s
DAWY  Dawson            86.33  15  IAmb     IAmb     17 24 17.0
      comp=Z,19nm,0.7s
F21K  Alatna River      86.46   8  IAmb     IAmb     17 24 17.4
      comp=Z,20nm,1.4s
G23K  Bananza Creek     86.50  10  IAmb     IAmb     17 24 17.7
      comp=Z,8.2nm,1.0s
K29M  Barlow Dome       86.62  16  IAmb     IAmb     17 24 18.8
      comp=Z,21nm,0.9s
ENH   Enshi             86.89 303  P        P        17 24 20.0 +2.0
RPSI  Rantau Prapat     86.94 274  P        P        17 24 17.3 -1.3
COLD  Coldfoot          86.95   9  IAmb     IAmb     17 24 20.0
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      comp=Z,8.8nm,0.7s
PSI   Prapat            86.98 274  P        P        17 24 18.7 -0.2
      comp=Z,737nmcomp=Z,87nm,1.0s
MMPY  Sheldon Lake,     87.42  19  IAmb     IAmb     17 24 22.6
      comp=Z,17nm,1.3s
D20K  Etivluk River     87.49   7  IAmb     IAmb     17 24 22.1
      comp=Z,19nm,0.8s
J30M  Hart River        87.52  16  IAmb     IAmb     17 24 22.9
      comp=Z,7.8nm,0.9s
E21K  Killik River      87.54   8  IAmb     IAmb     17 24 22.1
      comp=Z,10nm,0.8s
F24K  Squaw Lake        87.59  10  IAmb     IAmb     17 24 22.9
      comp=Z,6.2nm,0.6s
GYA   Guiyang           87.78 299 ⇑P        P        17 24 24.4 +2.0
GYA                                pmax     pmax
      comp=Z,10.0nm,1.2s
GSI   Gunungsitoli      87.80 272  P        P        17 24 24.4 +1.7
      comp=Z,141nm,1.0s
E23K  Chandalar         87.80   9  IAmb     IAmb     17 24 23.8
      comp=Z,10nm,0.7s
G26K  Porcupine Rive    87.83  12  IAmb     IAmb     17 24 24.6
      comp=Z,7.7nm,0.8s
XLT   XiLinHaoTe        87.87 318 eP        P        17 24 23.3 +0.9
XLT                                pmax     pmax
      comp=Z,20nm,0.9s
E24K  Your Creek        87.99  10  IAmb     IAmb     17 24 24.9
      comp=Z,7.0nm,0.7s
I30M  Mount Dempster    88.03  15  IAmb     IAmb     17 24 25.0
      comp=Z,11nm,0.9s
BMAR  Burnt Mountain    88.09  11  P        P        17 24 24.2 +1.3
SLVN  Son La            88.35 293  IAmb     IAmb     17 24 28.4
      comp=Z,20nm,1.5s
HILR  Hailar Array B    88.39 324  P        P        17 24 25.4 +0.8
      comp=Z,9.1nm,0.7s,baz=138,slow=9.1,SNR=8.0
      comp=Z,9.1nm,0.7s
D23K  Nanushuk River    88.48   9  IAmb     IAmb     17 24 27.6
      comp=Z,19nm,0.9s
EDM   Edmonton          88.56  32  IAmb     IAmb     17 24 27.6
      comp=Z,20nm,1.2s
TPTI                    88.77 274  P        P        17 24 28.2 +0.9
      comp=Z,107nm,1.0s
XAN   Xi'an             88.78 306  P        P        17 24 29.0 +2.1
XAN                                pmax     pmax
      comp=Z,44nm,1.2s
D24K  Happy Valley      88.92   9  IAmb     IAmb     17 24 28.6
      comp=Z,9.2nm,0.8s
G29M  Pine Creek        89.01  14  IAmb     IAmb     17 24 37.1
      comp=Z,24nm,1.6s
PLCA  Paso Flores       89.02 133  P        P        17 24 29.2 +1.2
      comp=Z,1.1nm,0.5s,baz=304,slow=3.2,SNR=3.9
      comp=Z,1.1nm,0.5s
PLCA  Paso Flores       89.02 133  P        P        17 24 29.7 +1.6
C23K  Itkillik River    89.29   8  IAmb     IAmb     17 24 30.4
      comp=Z,17nm,1.0s
E27K  Coleen River      89.32  12  IAmb     IAmb     17 24 33.2
      comp=Z,14nm,1.6s
ELIB  Princess Elisa    89.42 186 dP        P        17 24 29.2 -0.2
      comp=Z,4.2nm,0.8s
D25K  Kavik River       89.46  10  IAmb     IAmb     17 24 31.8
      comp=Z,8.7nm,1.1s
G30M  tAoh Zraii Nji    89.48  14  IAmb     IAmb     17 24 31.6
      comp=Z,16nm,1.1s
HHC   Hu-ho-hao-te      89.55 313 eP        P        17 24 31.4 +1.0
HHC                                pmax     pmax
      comp=Z,19nm,1.1s
TROLL Troll, Antarti    90.22 179 ⇑P        P        17 24 33.0 -0.1
      comp=Z,146nm,0.6s
E29M  Blow River        90.25  13  IAmb     IAmb     17 24 35.6
      comp=Z,8.2nm,1.3s
D27M  Malcolm River     90.35  12  IAmb     IAmb     17 24 36.3
      comp=Z,28nm,2.0s
SNAA  Sanae             90.42 178 ⇑P        P        17 24 34.3 +0.4
      comp=Z,48nm,0.7s
SNAA  Sanae             90.42 178  P        P        17 24 33.4 -0.6
      comp=Z,1.5nm,0.6s,baz=171,slow=4.6,SNR=5.0
      comp=Z,1.5nm,0.6s
SNAA  Sanae             90.42 178  IAmb     IAmb     17 25 31.4
      comp=Z,19nm,1.9s
VNA3  Neumayer Olymp    90.44 175 ⇑P        P        17 24 33.9 -0.1
      comp=Z,8.2nm,0.6s
KMI2  Kunming           90.64 296  P        P        17 24 38.1 +2.1
KMI2                               pmax     pmax
      comp=Z,13nm,1.0s
VNA2  Neumayer--Watz    90.92 176 ⇑P        P        17 24 36.5 +0.3
      comp=Z,12nm,0.7s,baz=187,slow=3.4
VNA1  Neumayer--Stat    91.13 176  P        P        17 24 37.1  0.0
      comp=Z,4.5nm,0.4s
MT01  Popeta            91.15 126  P        P        17 24 37.7 -0.3
MT01                               IAmb     IAmb     17 24 40.2
      comp=Z,16nm,0.9s
INK   Inuvik            91.17  14  P        P        17 24 38.3 +1.2
      comp=Z,9.3nm,0.9s,baz=228,slow=5.5,SNR=14
      comp=Z,9.3nm,0.9s
INK   Inuvik            91.17  14  IAmb     IAmb     17 24 39.0
      comp=Z,12nm,1.0s
CMAR  Chiang Mai Arr    91.83 289  P        P        17 24 42.2 +0.8
      comp=Z,3.9nm,0.8s,baz=107,slow=2.9,SNR=35
      comp=Z,3.9nm,0.8s
CMAR  Chiang Mai Arr    91.83 289           P        17 24 41.7 +0.3
PZH   PanZhiHua         91.94 297  P        P        17 24 40.2 -1.6
CHTO  Chiang Mai        91.94 289  P        P        17 24 41.1 -0.8
CHTO                               IAmb     IAmb     17 24 43.8
      comp=Z,8.4nm,0.6s
CHTO  Chiang Mai        91.94 289  P        P        17 24 43.2 +1.3
YKA   Yellowknife Ar    93.12  24  P        P        17 24 47.5 +1.3
      comp=Z,3.9nm,0.9s,baz=237,slow=4.5,SNR=11
      comp=Z,3.9nm,0.9s
YKA   Yellowknife Ar    93.12  24  P        P        17 24 47.1 +0.8
YKAW3 Yellowknife Wh    93.16  24  IAmb     IAmb     17 24 48.4
      comp=Z,8.1nm,1.1s
LZH   Lanzhou           93.40 307 eP        P        17 24 47.5 -0.9
LZH                                pmax     pmax
      comp=Z,17nm,1.1s
ULN   Ulaanbaatar       95.24 319  P        P        17 24 59.9 +3.4
SONM  Songino Array     95.64 318  P        P        17 24 59.5 +1.2
      comp=Z,1.4nm,0.8s,baz=133,slow=3.6,SNR=6.8
SONM                               PP       PP       17 28 48.5 -4.8
      comp=Z,0.5nm,0.5s,baz=116,slow=8.4,SNR=3.9
      comp=Z,1.4nm,0.8s
SONM  Songino Array     95.64 318  P        P        17 24 58.8 +0.5
SONM                               IAmb     IAmb     17 24 60.0
      comp=Z,14nm,1.9s
GTA2  Gaotai            97.54 309 eP        Pdif     17 25 07.3 +0.1
GTA2                               pmax     pmax
      comp=Z,3.0nm,1.3s
ZSN   Zaisan           109.71 315 ePKiKP    PKiKP    17 30 02.4 +0.1
ZALV  Zalesovo Beam    110.21 322  PKiKP    PKiKP    17 30 02.7 -0.3
      comp=Z,1.8nm,0.6s,baz=134,slow=0.8,SNR=10
ZALV                               PP       PP       17 30 39.6 -1.6
      comp=Z,1.8nm,0.8s,baz=85,slow=6.6,SNR=5.8
MKAR  Makanchi Array   111.41 314  Pdiff    Pdif     17 26 08.7 +0.2
      comp=Z,0.4nm,0.7s,baz=72,slow=5.9,SNR=2.6
MKAR                               PKiKP    PKiKP    17 30 05.2 -0.3
      comp=Z,2.8nm,0.5s,baz=164,slow=0.6,SNR=36
SHLS  Shalkode         113.20 310 ePKiKP    PKiKP    17 30 08.3 -0.9
UZB   Uzynbulak        113.52 310 ePKiKP    PKiKP    17 30 09.6 -0.3
KPKS  Kokpek           113.78 310 ePKiKP    PKiKP    17 30 10.2 -0.1
KURK  Kurchatov        113.95 318           PKiKP    17 30 09.9 -0.3
SATY  Saty             113.96 310 ePKP      PKiKP    17 30 10.5 -0.2
KURBB Kurchatov Arra   114.01 318  PKP      PKPdf    17 30 10.0 -0.3
      comp=Z,1.2nm,0.2s,baz=67,slow=2.0,SNR=15
KURBB                              PP       PP       17 31 06.0 -2.4
      comp=Z,0.9nm,0.2s,baz=88,slow=6.8,SNR=6.6
TDK   Taldyqorghan     114.04 312 ePKP      PKPdf    17 30 10.5 -0.1
MDOK  Medeo            114.96 310 ePKP      PKiKP    17 30 12.4 -0.2
SGDS  Sogindy          116.73 310 ePKP      PKPdf    17 30 15.7 -0.2
BVAR  Borovoye Array   118.85 321  PKP      PKiKP    17 30 19.8 +0.1
      comp=Z,7.5nm,0.6s,baz=64,slow=2.4,SNR=38
DZA   Taraz            119.15 309 ePKP      PKPdf    17 30 20.4 -0.2
SPITS Spitsbergen Ar   119.51 357  PKP      PKPdf    17 30 19.3 -1.0
      comp=Z,5.7nm,0.7s,baz=79,slow=10,SNR=5.4
IUG   Iuzhnay          120.14 309 ePKP      PKPdf    17 30 22.3 -0.3
BRLS  Borolday         120.24 310 ePKP      PKiKP    17 30 22.7  0.0
CHM   Chimkent         120.45 309 ePKP      PKPdf    17 30 22.8 -0.2
HSPB  Hornsund (broa   120.70 357 ePKP      PKPdf    17 30 09.9  -13
ARCES ARCESS Array B   126.90 351  PKP      PKiKP    17 30 35.1  0.0
      comp=Z,8.3nm,0.7s,baz=5.8,slow=0.9,SNR=35
ARCES ARCESS Array B   126.90 351           PKPdf    17 30 34.7 +0.1
BOSA  Boshof           129.65 203  PKP      PKiKP    17 30 42.1 +0.1
      comp=Z,1.0nm,0.6s,baz=130,slow=1.9,SNR=5.5
BOSA  Boshof           129.65 203           PKiKP    17 30 41.7 -0.4
FINES FINESS Array B   134.06 346  PKhKP    PKPpre   17 30 36.5
      comp=Z,0.6nm,0.6s,baz=45,slow=4.1,SNR=5.7
FINES                              PKP      PKiKP    17 30 49.7  0.0
      comp=Z,6.6nm,0.7s,baz=70,slow=1.5,SNR=21
NB2   NORSAR Subarra136.75 355  PKPdf    PKPdf    17 30 44.5 -9.0
      comp=Z,5.9nm,1.2s,baz=14,slow=1.8
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NOA	NORSAR Array B	136.75	355	PKP	PKPdf	17 30 54.0	+0.6
	comp=Z,1.7nm,0.7s,baz=14,slow=3.8,SNR=4.1						
HFS	Hagfors	137.42	353	PKhKP	PKPpre	17 30 42.4	
	comp=Z,1.5nm,0.5s,baz=316,slow=4.1,SNR=8.0						
HFS				PKP	PKPdf	17 30 54.7	0.0
	comp=Z,1.2nm,0.3s,baz=233,slow=11,SNR=5.6						
KBZ	Khabaz	139.00	317	PKP	PKPdf	17 30 58.5	+0.5
	comp=Z,1.8nm,0.9s,baz=45,slow=1.4,SNR=3.9						
AKASG	Malin Array Be	142.01	335	PKhKP	PKPpre	17 30 58.5	
	comp=Z,3.5nm,0.4s,baz=41,slow=4.2,SNR=43						
KIEV	Kiev	142.02	335	⇑P	PKPdf	17 30 57.7	-5.6
EKA	Eskdalemuir Ar	142.22	7	PKhKP	PKPpre	17 30 58.7	
	comp=Z,4.7nm,1.0s,baz=309,slow=27,SNR=3.5						
BSEG	Bad Segeberg	143.87	355	ePKPbc	PKPbc	17 31 05.6	+0.8
	baz=11,slow=2.9						
BEL	Belsk	143.95	343	ePKP	PKPdf	17 31 06.1	-0.5
SORM	Soroca	144.34	333	⇓P	PKPbc	17 31 06.6	+0.2
GORT1	Trebel	144.70	353	ePKPbc	PKPdf	17 31 08.6	+0.7
	baz=11,slow=2.9						
RUE	Ruedersdorf	144.87	350	ePKPbc	PKPdf	17 31 08.9	+0.7
	baz=11,slow=2.9						
RETH	Rethem/Aller,	145.14	355	ePKPbc	PKPab	17 31 10.1	+1.2
	baz=11,slow=2.9						
KWP	Kalwaria Pacla	145.30	339	ePKP	PKPab	17 31 10.4	+0.6
FLTG	Flechtingen	145.36	353	ePKPbc	PKPab	17 31 10.5	+0.6
	baz=11,slow=2.9						
ASSE	Asse, Remlinge	145.62	354	ePKPbc	PKPab	17 31 11.6	+0.8
	baz=11,slow=2.9						
IBBN	Ibbenburen	145.67	357	ePKPbc	PKPab	17 31 11.9	+0.9
	baz=11,slow=2.9						
OJC	Ojcow	145.68	343	ePKP	PKPab	17 31 11.1	-0.1
CLZ	Clausthal	145.93	354	ePKPbc	PKPab	17 31 12.9	+0.7
	baz=11,slow=2.9						
STHS	Stebnicka Huta	145.96	341	ePKP	PKPab	17 31 12.2	-0.1
KSP	Ksiaz	145.97	347	ePKP	PKPab	17 31 12.9	+0.7
KOLS	Kolonicke sedl	146.05	339	ePKP	PKPab	17 31 13.1	+0.5
GIRR	Girov	146.05	333	⇑P	PKPbc	17 31 11.9	+0.2
BURAR	Bucovina Array	146.06	335	⇑P	PKPab	17 31 13.3	+0.4
CLL	Collm	146.12	351	ePKPbc	PKPab	17 31 13.1	+0.3
	baz=11,slow=2.9						
CLL	Collm	146.12	351	⇓iPKPbc	PKPab	17 31 12.7	-0.1
	comp=Z,56nm,0.8s						
BIZ	Bicaz	146.23	333	⇑P	PKPab	17 31 14.1	+0.7
NIE	Niedzica	146.25	342	ePKP	PKPab	17 31 14.3	+0.9
OSTC	Ostas	146.25	347	⇑ePKP	PKPab	17 31 13.7	+0.3
CHVC	Chvalec	146.26	347	⇑ePKP	PKPab	17 31 13.4	0.0
GTTG	Gottingen	146.27	354	ePKPbc	PKPab	17 31 13.7	+0.4
	baz=11,slow=2.9						
TLCR		146.30	329	⇓P	PKPab	17 31 13.4	-0.3
TESR	Tescani	146.33	332	⇓P	PKPab	17 31 13.4	-0.4
GHRR		146.33	331	⇑P	PKPab	17 31 14.1	+0.3
UPC	Upice	146.34	347	⇑ePKP	PKPab	17 31 13.7	0.0
BRG	Berggiesshubel	146.39	350	ePKPbc	PKPab	17 31 14.1	+0.2
	baz=11,slow=2.9						
NEUB	Neuenburg	146.39	352	ePKPbc	PKPab	17 31 14.1	+0.2
	baz=11,slow=2.9						
DPC	Dobruska-Polom	146.42	347	⇑ePKP	PKPab	17 31 14.4	+0.3
OKC	Ostrava-Krasne	146.47	344	⇑ePKP	PKPab	17 31 14.0	-0.2
STEB	Steborice	146.47	345	⇑ePKP	PKPab	17 31 14.2	0.0
IZVR	Izvoarele	146.55	330	⇑P	PKPab	17 31 14.1	-0.6
BUG	Bochum--Univer	146.56	357	ePKPbc	PKPab	17 31 14.2	-0.3
	baz=11,slow=2.9						
JURR	Jurilovca	146.57	328	⇑P	PKPab	17 31 14.2	-0.6
ONER	Baraj Valea Uz	146.57	332	⇑P	PKPab	17 31 14.5	-0.3
KRLC	Kraliky	146.58	346	⇑ePKP	PKPab	17 31 14.3	-0.4
CFR	Carcaliu	146.64	329	⇓P	PKPab	17 31 14.3	-0.7
MORC	Moravsky Berou	146.67	345	ePKP	PKPab	17 31 14.4	-0.7
MORC	Moravsky Berou	146.67	345	⇑P	PKPab	17 31 14.5	-0.6
BMR	Baia Mare	146.68	337	⇑P	PKPab	17 31 14.6	-0.5
LANS	Liptovska Anna	146.73	342	ePKP	PKiKP	17 31 15.8	-0.3
KASTN	Kahler Asten	146.73	356	ePKPbc	PKPab	17 31 14.9	-0.4
	baz=11,slow=2.9						
TPGR	Topolog	146.73	329	⇓P	PKPab	17 31 14.9	-0.5
HSKC	Hora Svate Kat	146.73	350	⇑ePKP	PKPab	17 31 14.5	-0.8
BOST	Ostende	146.78	2	dPKP	PKPbc	17 31 14.4	+0.8
VRI	Vrincioaia	146.79	332	⇓P	PKPbc	17 31 14.7	+0.8
ARCR	ARCALIA	146.83	335	⇑P	PKPab	17 31 15.2	-0.5
PLOR	Plostina	146.83	332	⇓P	PKPbc	17 31 14.5	+0.4
BMOL	Mol	146.84	360	dPKP	PKPab	17 31 15.4	-0.2
TURR	Turia	146.96	333	⇑P	PKPab	17 31 16.0	-0.3
MOX	Moxa	146.97	352	ePKPbc	PKPab	17 31 15.5	-0.6
	baz=11,slow=2.9						
MAUC	Maruska	146.98	344	⇑ePKP	PKPab	17 31 15.9	-0.4
BRTR	Keskin Array B	146.99	317	PKPbc	PKPbc	17 31 15.4	+0.6
	comp=Z,18nm,0.8s,baz=138,slow=3.9,SNR=78						
BRTR	Keskin Array B	146.99	317		PKPdf	17 31 12.5	+0.1
TIRR	Tirgusor	147.02	328	⇑P	PKPbc	17 31 15.4	+0.9
OZUR		147.03	333	⇑P	PKPab	17 31 15.7	-0.9
BISRR	Bisoca	147.03	331	⇑P	PKPbc	17 31 15.6	+1.0
PLN	Plauen	147.05	351	ePKPbc	PKPab	17 31 15.9	-0.6
	baz=11,slow=2.9						
PLN				ePKPab	PKiKP	17 31 17.5	+0.9
TANN	Tannenbergstha	147.07	351	ePKPbc	PKPab	17 31 16.1	-0.6
	baz=11,slow=2.9						
HARR	Harsova	147.09	329	⇓P	PKPab	17 31 15.9	-0.9
KIRS	Kirsehir-Merke	147.12	316	⇑P	PKPbc	17 31 15.5	+0.4
PRU	Pruhonice	147.13	348	⇑ePKP	PKiKP	17 31 15.8	-1.0
NKC	Novy Kostel	147.25	351	⇑ePKP	PKiKP	17 31 16.4	-0.7
UCC	Uccle	147.26	1	dPKP	PKiKP	17 31 16.2	-0.8
DOPR	Dopca	147.30	333	⇑P	PKiKP	17 31 17.0	-0.4
VRAC	Vranov	147.34	346	ePKP	PKiKP	17 31 16.4	-1.0
VRAC	Vranov	147.34	346	⇑P	PKiKP	17 31 16.3	-1.0
MANR	Mangalia	147.39	327	⇑P	PKiKP	17 31 17.0	-0.5
MLR	Muntele Rosu	147.43	332	⇑P	PKPbc	17 31 16.7	+0.9
CJR	Cluj-Napoca	147.44	336	⇑P	PKiKP	17 31 17.1	-0.6
MEM	Membach	147.44	359	dPKP	PKiKP	17 31 16.5	-0.9
ISR	Istrita	147.44	331	⇑P	PKiKP	17 31 16.8	-0.9
BTNL	Ternell	147.46	358	dPKP	PKPbc	17 31 16.1	+0.5
JAVC	Velka Javorina	147.49	344	ePKP	PKiKP	17 31 17.8	+0.1
LTVH	Ltavrtes, Hu	147.50	338	⇑P	PKiKP	17 31 17.2	-0.5
VYHS	Vyhne	147.50	343	e	PKPab	17 31 19.9	+1.5
VYHS	Vyhne	147.50	343	ePKP	PKiKP	17 31 17.2	-0.5
MDB	Medias	147.59	334	⇑P	PKPbc	17 31 16.2	+0.1
TREC	Trest	147.60	347	⇑ePKP	PKiKP	17 31 17.0	-0.9
KRUC	Moravsky	147.62	346	ePKP	PKPbc	17 31 16.9	+0.9
BCLA	Clavier	147.64	359	dPKP	PKiKP	17 31 17.1	-0.8
MARR	Marisel-Cluj	147.65	336	⇓P	PKPbc	17 31 17.2	+0.9
PSZ	Piszkesteto	147.71	341	⇑P	PKiKP	17 31 17.5	-0.7
DRGR		147.71	337	⇓P	PKiKP	17 31 17.4	-0.8
ZVC	Zvikov	147.72	349	⇑ePKP	PKiKP	17 31 17.5	-0.6
BMRD	Maredsous	147.76	0	dPKP	PKPbc	17 31 17.2	+0.9
ASF	Jabal al Asfar	147.85	302	PKPbc	PKiKP	17 31 18.2	-0.8
	comp=Z,9.2nm,0.7s,baz=34,slow=1.3,SNR=19						
VOIR		147.86	333	⇑P	PKiKP	17 31 18.0	-0.6
GRF	Grafenberg Arr	147.95	352	ePKPbc	PKiKP	17 31 18.5	0.0
	baz=11,slow=2.9						
GRF				ePKPab	PKPab	17 31 21.4	+1.2
DOU	Dourbes	147.96	0	dPKP	PKiKP	17 31 17.8	-0.7
MODS	Modra-Piesok	148.04	344	ePKP	PKiKP	17 31 19.1	+0.3
ARR	Arges	148.10	333	⇑P	PKiKP	17 31 19.5	+0.4
KHC	Kasperske Hory	148.13	349	⇑ePKP	PKiKP	17 31 18.7	-0.3
CKRC	Cesky Krumlov	148.29	348	⇑ePKP	PKiKP	17 31 19.0	-0.3
WLF	Walferdange	148.38	358	dPKP	PKiKP	17 31 19.6	+0.2
WLF				dpPKP	pPKPdf	17 32 12.4	-0.6
WLF	Walferdange	148.38	358	ePKPbc	PKiKP	17 31 20.0	+0.6
	baz=11,slow=2.9						
WLF				ePKPab	PKPab	17 31 23.5	+1.7
GEC2	GERESS Array S	148.39	349	ePKPbc	PKiKP	17 31 19.5	-0.1
	baz=11,slow=2.9						
GERES	GERESS Array B	148.39	349	PKPbc	PKiKP	17 31 19.1	-0.5
	comp=Z,16nm,0.7s,baz=15,slow=1.5,SNR=21						
GERES	GERESS Array B	148.39	349		PKPbc	17 31 18.9	+0.7
DEV	Deva	148.39	336	⇓P	PKiKP	17 31 18.9	-0.6
LOT	Lotru	148.40	334	⇑P	PKPdf	17 31 12.9	-1.6
WINA	Alland / Wiene	148.58	346	i PKiKP	PKiKP	17 31 20.0	+0.1
	comp=Z,17nm,0.7s,SNR=8.3						
MMAI	Mount Meron Ar	148.76	305	PKPbc	PKiKP	17 31 21.0	+0.2
	comp=Z,8.0nm,0.5s,baz=49,slow=8.9,SNR=21						
MMAI	Mount Meron Ar	148.76	305		PKiKP	17 31 21.0	+0.2
CONA	Conrad Observa	148.80	346	i PKiKP	PKiKP	17 31 20.6	+0.1
	comp=Z,22nm,0.8s,SNR=18						
GZR	Gura Zlata	148.85	335	⇑P	PKPbc	17 31 19.9	+0.5
RONA	Rosalia, Austr	148.91	345	i PKiKP	PKiKP	17 31 20.7	0.0
	comp=Z,20nm,0.7s,SNR=16						
STU	Stuttgart	149.09	354	ePKPbc	PKiKP	17 31 21.3	+0.4
	baz=11,slow=2.9						
STU				ePKiKP	PKPab	17 31 23.1	-1.6
STU				ePKPab	PKPbc	17 31 25.8	+6.0
BZS	Buzias	149.11	337	⇑P	PKPbc	17 31 20.5	+0.6
MOA	Molln	149.23	348	i PKiKP	PKiKP	17 31 21.2	-0.1
	comp=Z,5.5nm,0.6s,SNR=6.8						
FUR	Furstenfeldbru	149.44	352	ePKPbc	PKiKP	17 31 22.1	+0.4
	baz=11,slow=2.9						
FUR				ePKiKP	PKPab	17 31 24.0	-2.2
FUR				ePKPab	PKPbc	17 31 27.3	+6.6
BIOA	Bad Ischl, Aus	149.50	348	i PKiKP	PKiKP	17 31 21.6	-0.3
	comp=Z,14nm,1.0s,SNR=6.6						
ARSA	Arzberg	149.52	346	i PKiKP	PKiKP	17 31 21.6	-0.3
	comp=Z,9.1nm,0.9s,SNR=7.9						
BFO	Black Forest	149.60	355	ePKPbc	PKiKP	17 31 22.4	+0.4
	baz=11,slow=2.9						
MORH	Mrgy, Hungar	149.61	341	⇑P	PKiKP	17 31 21.8	-0.3
MORH	Mrgy, Hungar	149.61	341	⇓iP	PKPbc	17 31 21.5	+0.4
SESA	Seetaler Alpe,	149.87	347	i PKiKP	PKPbc	17 31 22.4	+0.4
	comp=Z,84nm,0.8s,SNR=15						
BEHE	Becsehely	149.92	343	eP	PKPab	17 31 29.5	+1.2
LESA	Schwarzleotal	149.94	349	ePKP	PKPdf	17 31 17.1	+0.2
	comp=Z,5.4nm,1.5s						
LESA				i PKiKP	PKiKP	17 31 22.6	-0.2
	comp=Z,7.6nm,0.4s,SNR=8.3						
BAND	Balkesir-Ban	150.01	323	⇑P	PKPbc	17 31 22.6	+0.3
UBR	Ueberruh	150.07	353	ePKPbc	PKiKP	17 31 23.5	+0.4
	baz=11,slow=2.9						
KBA	Koelnbreinsper	150.15	348	i PKiKP	PKPbc	17 31 23.0	+0.3
	comp=Z,16nm,0.5s,SNR=13						
FRGS	Fruska Gora	150.16	338	⇓iP	PKiKP	17 31 23.2	-0.1
SOKA	Soboth	150.17	346	i PKiKP	PKPbc	17 31 22.9	+0.3
	comp=Z,17nm,0.9s,SNR=13						
RETA	Reutte	150.18	352	i PKiKP	PKiKP	17 31 23.5	+0.2
	comp=Z,16nm,0.8s,SNR=8.0						
EIL	Elat	150.19	299	PKPbc	PKiKP	17 31 23.9	+0.1
	comp=Z,36nm,0.9s,baz=347,slow=3.7,SNR=26						
WATA	Walderalm	150.21	351	i PKiKP	PKiKP	17 31 23.5	0.0
	comp=Z,16nm,0.5s,SNR=9.9						
MOTA	Moosalm	150.27	351	i PKiKP	PKiKP	17 31 23.6	0.0
	comp=Z,32nm,1.1s,SNR=12						
WTTA	Wattenberg	150.27	351	ePKP	PKPdf	17 31 17.5	-0.1
	comp=Z,2.0nm,0.7s						
WTTA				i PKiKP	PKiKP	17 31 24.0	+0.3
	comp=Z,45nm,0.4s,SNR=25						
SQTA	Sankt Quirin	150.37	351	ePKP	PKPdf	17 31 18.3	+0.7
	comp=Z,6.8nm,1.2s						
SQTA				i PKiKP	PKiKP	17 31 24.1	+0.3
	comp=Z,23nm,0.7s,SNR=11						
OBKA	Obir	150.44	346	i PKiKP	PKPbc	17 31 23.4	+0.2
	comp=Z,10nm,0.8s,SNR=5.6						
DAVA	Damuels	150.48	353	i PKiKP	PKiKP	17 31 24.5	+0.5
	comp=Z,56nm,1.1s,SNR=13						
MYKA	Terra Mystica	150.52	348	i PKiKP	PKPbc	17 31 23.6	+0.2
	comp=Z,18nm,0.5s,SNR=10						
ABTA	Abfaltersbach	150.62	349	ePKP	PKPdf	17 31 18.1	+0.1
	comp=Z,7.3nm,0.9s						
ABTA				i PKiKP	PKiKP	17 31 24.1	-0.2
	comp=Z,38nm,0.6s,SNR=17						
FETA	Feichten	150.64	352	ePKP	PKPdf	17 31 18.8	+0.7
	comp=Z,9.7nm,1.2s						
FETA				ePKiKP	PKiKP	17 31 24.9	+0.5
	comp=Z,27nm,0.7s						
TEKS	Tekeris	150.79	338	⇓iP	PKPbc	17 31 24.1	+0.1
LJU	Ljubljana	150.89	346	i PKPab	PKPab	17 31 32.2	-0.1
LJU	Ljubljana	150.89	346	i PKPdf	PKPdf	17 31 18.5	+0.2
LJU	Ljubljana	150.89	346	i PKPbc	PKiKP	17 31 24.9	+0.2
CEY	Cerknica	151.20	346	i PKPbc	PKiKP	17 31 25.5	+0.1
CEY				i PKPab	PKPab	17 31 33.9	+0.3
BOJS	Bojanci	151.22	345	i PKPbc	PKiKP	17 31 26.0	+0.6
TAVA	DENIZLI_Tavas	151.32	317	⇓P	PKiKP	17 31 26.4	+0.4
BLY	Banja Luka	151.38	341	⇑P	PKiKP	17 31 26.6	+0.8
BLY	Banja Luka	151.38	341	⇓iP	PKiKP	17 31 26.0	+0.2
BDRM	Kayabasi	152.50	318	⇑P	PKPbc	17 31 27.8	-0.3
ESDC	Sonseca Array	157.07	18	PKP	PKPdf	17 31 28.1	+0.9
	comp=Z,0.4nm,0.7s,baz=352,slow=2.3,SNR=5.5						
ESDC				PKPab	PKPab	17 32 00.4	+1.6
	comp=Z,5.5nm,1.0s,baz=328,slow=3.9,SNR=20						
ESDC	Sonseca Array	157.07	18		PKPab	17 32 00.1	+1.3
TORD	Torodi Ar. Bea	174.32	147	PKPab	PKPab	17 33 13.8	-1.4
	comp=Z,1.4nm,0.7s,baz=237,slow=3.0,SNR=4.0						

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*ATH **03** 17:27:54.8, 36.°70N×27.°53E, h81^{km}±4^{km}, ML2.6/6, Latitude uncertainty: 1 km; Longitude uncertainty: 2 km*
*ISK **03** 17:27:54.1, 36.°70N×27.°32E, h8^{km}, ML3.0/17*
*THE **03** 17:27:55.2, 37°N±7°×2°7E±°, h15^{km}±13^{km}, M2.6/5, MLh2.6/5*
*AFAD **03** 17:27:55.7, 36.°77N×27.°39E, h7^{km}±2^{km}, ML2.6*
ISC 03 17:27:54.9±0.9**, 36.°72N**±0.°02×**27.°39E**±0.°02**, h17**^{km}±6^{km}**, n60, σ0.^{s}66**/83**, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YAZI	Mula-Dat§a-	0.07	129	P	Pg	17 27 57.9	-0.2
DAT	Datca	0.15	88	Pg	Pg	17 27 58.9	-0.2
DAT				Sg	Sb	17 28 02.6	+0.3
DAT				AML	AML		
DATC	Datca-Mugla	0.22	80	Pg	Pg	17 28 00.3	+0.3
DATC				AML	AML		
BODA	Bodrum-Mula	0.31	6	Pg	Pg	17 28 01.4	-0.1
BODA				Sg	Sb	17 28 06.7	-0.2
BDRM	Kayabasi	0.34	7	P	Pg	17 28 01.8	-0.3
BODT	Bodrum	0.34	349	P	Pg	17 28 02.2	+0.1
BODT				S	Sg	17 28 07.1	+0.1
BODT				AML	AML		
BODT	Bodrum	0.34	349	Pg	Pg	17 28 01.7	-0.4
BODT				AML	AML		
YKAV	Yalikavak-Bodr	0.41	348	Pg	Pg	17 28 02.9	-0.4
YKAV				Sg	Sg	17 28 09.3	+0.4
YKAV				AML	AML		
MLSB	Milas	0.65	28	Pg	Pg	17 28 07.9	+0.2
MLSB				Sg	Sb	17 28 17.9	+1.3
MLSB				AML	AML		
DIDI	Didim-Aydin	0.66	350	Pg	Pg	17 28 07.6	-0.3
DIDI				Sg	Sn	17 28 18.5	-1.1
DIDI				AML	AML		
TURN	Turunc	0.69	85	Pg	Pb	17 28 08.9	+0.5
TURN				AML	AML		
TURN	Turunc	0.69	85	P	Pb	17 28 08.9	+0.5
TURN				S	Sn	17 28 19.2	-0.9
TURN				IAML		17 28 21.0	
	comp=N,357nm,0.5s						
DDIM	Aydin, Didim	0.74	351	P	Pg	17 28 08.9	-0.5
DDIM				S	Sb	17 28 19.7	+0.4
DDIM				IAML		17 28 22.0	
	comp=N,349nm,0.5s						
ARG	Arkhangelos	0.78	130	P	Pg	17 28 10.4	+0.3
ARG				S	Sn	17 28 22.0	-0.4
ARG				AML	AML		
ARG	Arkhangelos	0.78	130	Pg	Pb	17 28 10.1	+0.1
ARG				AML	AML		
ARG	Arkhangelos	0.78	130	P	Pg	17 28 10.4	+0.3
ARG				S	Sn	17 28 22.0	-0.4
ARG				AML	AML		
YER	Yerkesik	0.83	60	P	Pn	17 28 11.9	+0.1
YER				S	Sn	17 28 23.4	-0.3
YER				AML	AML		
YER	Yerkesik	0.83	60	Pg	Pn	17 28 11.6	-0.2
YER				AML	AML		
GCAM	G?zelcaml?	0.98	353	Pg	Pb	17 28 13.7	+0.2
GCAM				AML	AML		
GCAM	G?zelcaml?	0.98	353	P	Pb	17 28 13.6	+0.1
AYDN	Tasoluk	1.01	23	P	Pb	17 28 14.3	+0.2
AYDN				S	Sg	17 28 27.9	0.0
AYDN				IAML		17 28 30.0	
	comp=N,219nm,0.2s						
DALY	Dalyan (Mula)	1.02	84	Pg	Pg	17 28 15.1	+0.5
DALY				AML	AML		
DALY	Dalyan (Mula)	1.02	84	P	Pg	17 28 15.5	+0.9
DALY				S	Sn	17 28 29.2	+0.9
DALY				IAML		17 28 34.0	
	comp=N,132nm,0.7s						
KARP	Karpathos	1.19	189	P	Pn	17 28 16.3	-0.4
KARP				AML	AML		
KARP	Karpathos	1.19	189	Pn	Pn	17 28 16.4	-0.4
KARP				AML	AML		
KARP	Karpathos	1.19	189	P	Pn	17 28 16.3	-0.4
KARP				S	Sb	17 28 32.2	+0.1
KARP				AML	AML		
KRL1	Karlovasi Samo	1.20	333	P	Pb	17 28 17.6	+0.4
KRL1				S	Sg	17 28 34.2	+0.5
SABU	Mula-Dalaman	1.27	85	P	Pg	17 28 19.5	+0.1
SABU				S	Sg	17 28 37.0	+0.9
AYDB	Zeytinkoy-Aydi	1.28	18	Pn	Pb	17 28 18.7	0.0
AYDB				AML	AML		
ESEN	Aydn-Nazilli	1.32	35	P	Pb	17 28 19.4	+0.2
DGB	zmir	1.39	343	P	Pn	17 28 18.3	-1.1
TAVA	DENIZLI_Tavas	1.43	58	P	Pg	17 28 22.1	-0.3
TAVA				S	Sb	17 28 40.0	+0.9
IZMR	zmir-demi	1.48	17	P	Pb	17 28 22.5	+0.5
IZMR				S	Sb	17 28 41.2	+0.7
IZMR				IAML		17 28 47.0	
	comp=N,80nm,0.9s						
IZZE	Mula-Seydike	1.50	100	P	Pg	17 28 24.1	+0.3
IZZE				S	Sg	17 28 43.8	+0.4
IZZE				IAML		17 28 51.0	
	comp=N,163nm,0.4s						
CAME	Cameli-Denizli	1.55	81	Pn	Pg	17 28 24.9	+0.2
CAME				AML	AML		
THERA	Ancient Thera,	1.58	258	P	Pn	17 28 21.8	-0.3
THERA				S	Sb	17 28 44.5	+1.1
DNIZ	Denizli-Tavas-	1.60	55	P	Pb	17 28 23.9	-0.1
CAEL	Denizli, Camel	1.60	75	P	Pg	17 28 25.9	+0.3
SNT5	Nea Kammeni, S	1.64	259	P	Pn	17 28 23.4	+0.5
ODEM	Odemis-Izmir	1.64	19	Pn	Pb	17 28 24.4	-0.4
THR5	Thira Island,	1.67	260	P	Pn	17 28 24.2	+0.9
KIRA	zmir-Kiraz	1.68	28	P	Pn	17 28 23.1	-0.5
THR9	Santorini-Faro	1.68	258	P	Pn	17 28 22.7	-0.7
BLCB	Balcova	1.68	351	P	Pn	17 28 23.5	-0.1
BLCB	Balcova	1.68	351	Pn	Pb	17 28 25.6	+0.2
BLCB				AML	AML		
APMY	Acipayam-Deniz	1.70	63	Pn	Pb	17 28 25.5	-0.3
APMY				AML	AML		
SULTU	Buldan	1.72	39	P	Pn	17 28 24.8	+0.5
URLA	Izmir	1.75	339	Pn	Pn	17 28 25.5	+1.0
URLA				AML	AML		
KNIK	Mula-Seydike	1.76	85	P	Pb	17 28 26.4	-0.4
GOLH	Golhisar	1.81	73	P	Pb	17 28 28.6	+0.9
GOLH				S	Sg	17 28 52.8	-0.5
GOLH				IAML		17 29 10.0	
	comp=N,40nm,0.5s						
AKAS	Kas	1.85	105	P	Pb	17 28 28.9	+0.6
ZKR	Zakros	1.87	211	P	Pn	17 28 26.2	+0.1
ZKR				S	Sn	17 28 48.1	-1.2
ZKR				AML	AML		
CHOS	Chios island	1.97	328	P	Pn	17 28 27.2	-0.3
CHOS	Chios island	1.97	328	P	Pn	17 28 27.3	-0.3
CHOS				S	Sn	17 28 52.6	+0.6
CHOS				AML	AML		
NPS	Neapolis	2.05	225	P	Pn	17 28 28.6	0.0
NPS				AML	AML		
DKL	Dikili	2.38	351	P	Pn	17 28 32.5	-0.5
IDI	Anoyia	2.48	235	P	Pn	17 28 34.2	-0.4
IDI	Anoyia	2.48	235	P	Pn	17 28 34.2	-0.4
IDI				AML	AML		
ALN	Alexandroupoli	4.30	346	P	Pn	17 28 58.5	-1.0
AKMS	Akamas	4.36	111	P	Pn	17 28 57.1	-3.3

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*TEH **03** 17:30:09.9, 27.°75N×53.°23E, h5^{km}, ML3.2, Presumed earthquake*
*IDC **03** 17:30:12.8±14.0, 28.°14N×53.°17E, h0^{km}, mb3.8/5, mbtmp3.7/6, ML3.2/1, MS3.1/1, Error ellipse: s-maj=277.2km s-min=33.9km az=2.0*
ISC 03 17:30:10.9±1.3**, 27.°74N**±0.°05×**53.°27E**±0.°06**, h4**^{km}±11^{km}**, n19, σ1.^{s}33**/19**, mb3.6**/5**, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KHL1	Khalili_Fars	0.11	165	Pg	Pg	17 30 12.1	-1.0
KHL1				Sg	Sg	17 30 14.8	+0.2
LMD1	Lamerd	0.41	193	Pg	Pg	17 30 18.9	0.0
JHRM	Jahrom	0.81	20	Pg	Pg	17 30 26.1	-0.4
DSBU	Dashti - Bushe	1.88	290	Pn	Pg	17 30 47.8	+0.8
SHI	Shiraz	2.01	341	Pn	Pn	17 30 46.8	+0.9
GENO	Geno	2.60	97	Pn	Pn	17 30 56.4	+2.4
IMEH	Mehriz	3.82	18	Pn	Pn	17 31 12.2	+1.4
TAFT	Taft - Yazd	4.04	11	Pn	Pn	17 31 15.5	+1.6
CHMN	Cheshme madani	4.30	60	Pn	Pn	17 31 19.5	+1.9
IBAF	Bafgh	4.33	27	Pn	Pn	17 31 18.5	+0.8
DOBD	Dorbid, Yazd	4.37	14	Pn	Pn	17 31 19.6	+1.3
KBAM	BAM	4.77	72	Pn	Pn	17 31 25.0	+1.3
BRTR	Keskin Array B	20.18	311	P	P	17 34 46.6	-0.1
	0.1nm,0.3s,baz=124,slow=11,SNR=2.0						
	0.6nm,0.8s						
BRTR				AML	AML		
BVAR	Borovoye Array	28.27	22	P	P	17 36 04.3	-1.0
	0.6nm,0.6s,baz=210,slow=8.1,SNR=2.7						
	0.6nm,0.6s						
ARTI	Arti	28.86	6	LR	LR	17 50 16.9	
	comp=Z,32nm,18.1s,baz=185,slow=42						
MKAR	Makanchi Array	29.66	42	P	P	17 36 17.9	+0.2
	0.3nm,0.5s,baz=227,slow=8.1,SNR=5.6						
	0.3nm,0.5s						
ZALV	Zalesovo Beam	34.92	33	P	P	17 37 04.3	+0.7
	0.4nm,0.4s,baz=243,slow=9.5,SNR=2.1						
	0.4nm,0.4s						
FINES	FINESS Array B	38.29	339	P	P	17 37 31.1	-1.1
	1.2nm,0.5s,baz=149,slow=9.6,SNR=12						
	1.2nm,0.5s						
HFS	Hagfors	42.03	332	P	P	17 38 01.7	-1.6
	0.9nm,0.5s,baz=141,slow=9.3,SNR=1.5						
	0.9nm,0.5s						

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*NEIC **03** 17:48:29.9±1.7, 17.°2S±0.°1×69.°8W±0.°1, h152^{km}±6^{km}, mb4.2/6, Error ellipse: s-maj=22.4km s-min=7.7km az=126.0*
*IDC **03** 17:48:33.4±1.6, 17.°27S×69.°18W, h168^{km}±11^{km}, mb3.6/5, mbtmp4.1/6, Error ellipse: s-maj=33.2km s-min=22.8km az=142.0*
ISC 03 17:48:29.6±0.8**, 17.°26S**±0.°08×**69.°54W**±0.°10**, h150**^{km}**, n32, σ1.^{s}63**/33**, mb3.9**/4**, Peru-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PB18	Visviri	0.34	170		Pn	17 48 52.8	+1.8
PB16	IPOC Station P	1.07	178		Pn	17 48 57.7	+2.0
AP01	Chacalluta	1.34	214	Pn	Pn	17 48 57.4	-0.1
PB12	IPOC Station P	1.54	209		Pn	17 48 59.4	-0.4
PB12				Sn	Sn	17 49 21.9	-1.0
LPAZ	La Paz	1.66	55	P	Pn	17 49 03.7	+2.1
	77nm,0.3s,baz=267,slow=5.7,SNR=395						
LPAZ				S	Sn	17 49 27.8	+1.9
	84nm,0.8s,baz=132,slow=22,SNR=4.0						
LPAZ	La Paz	1.66	55		Pn	17 49 03.6	+2.0
PSGCX	Pisagua	2.39	193		Pn	17 49 09.7	+0.2
GO01	Chusmiza	2.42	172		Pn	17 49 12.4	+2.2
PB11	IPOC Station P	2.49	182		Pn	17 49 12.0	+1.2
PB08	IPOC Station P	2.89	173		Pn	17 49 18.1	+2.1
TA01	Diego Aracena	3.35	190		Pn	17 49 21.2	-0.2
PB02	IPOC Station P	4.05	185		Pn	17 49 30.9	+0.2
PB07	IPOC Station P	4.46	184		Pn	17 49 36.7	+0.7
PB09	IPOC Station P	4.53	176		Pn	17 49 38.0	+1.1
PB03	IPOC Station P	4.77	182		Pn	17 49 40.5	+0.3
PB06	IPOC Station P	5.42	180		Pn	17 49 48.7	-0.1
PB05	IPOC Station P	5.60	186		Pn	17 49 50.5	-0.7
SIV	San Ignacio	8.22	82	P	Pn	17 50 25.0	-1.0
	18nm,0.4s,baz=276,slow=12,SNR=72						
SIV				S	Sn	17 51 54.8	-2.8
	0.9nm,0.5s,baz=267,slow=21,SNR=3.5						
VILB	Vilhena	9.98	66		Pn	17 50 47.7	-1.8
BDFB	Brasilia	20.71	89	P	P	17 52 56.3	-2.2
	1.9nm,0.4s,baz=277,slow=6.4,SNR=4.3						
	1.9nm,0.4s						
BDFB	Brasilia	20.71	89	P	P	17 53 00.2	+1.8
BDFB				IAmb	IAmb	17 53 01.9	
	comp=Z,12nm,1.5s						
BOAV	Boa Vista	21.46	25	P	P	17 53 07.2	+0.8
GO06	Curarrehue	22.31	184	P	P	17 53 14.6	-0.4
GO06				IAmb	IAmb	17 53 29.8	
	comp=Z,9.8nm,1.5s						
PLCA	Paso Flores	23.41	182	P	P	17 53 27.0	+1.9
	comp=Z,1.8nm,0.8s,baz=359,slow=14,SNR=3.2						
	comp=Z,1.8nm,0.8s						
DBIC	Dimbokro	68.17	75	P	P	17 59 14.0	-0.2
	comp=Z,2.4nm,0.5s,baz=231,slow=5.2,SNR=1.7						
	comp=Z,2.4nm,0.5s						
DBIC	Dimbokro	68.17	75	IAmb	IAmb	17 59 28.8	
	comp=Z,22nm,1.4s						
QSPA	South Pole Qui	72.91	180	P	P	17 59 44.5	+2.2
	comp=Z,0.7nm,0.7s,baz=149,slow=5.9,SNR=2.2						
	comp=Z,0.7nm,0.7s						
QSPA	South Pole Qui	72.91	180	IAmb	IAmb	17 59 52.5	
	comp=Z,6.2nm,1.4s						
TORD	Torodi Ar. Bea	76.54	72	P	P	18 00 03.8	-0.1
	comp=Z,2.3nm,0.6s,baz=255,slow=5.1,SNR=15						
	comp=Z,2.3nm,0.6s						
DPSS	Saipan	146.05	272	PKPdf	PKPdf	18 07 49.1	-2.7
GUMO	Guam	146.66	269	PKPdf	PKPdf	18 07 49.6	-3.2
SONM	Songino Array	149.32	5	PKPbc	PKiKP	18 08 01.8	-0.2
	comp=Z,0.3nm,0.4s,baz=5.7,slow=4.3,SNR=2.3						

*OMAN **03** 17:50:57.0±1.3,26°.82N×55°.21E,h10km,mb3.6/3, ml2.8/15,Error ellipse: s-maj=12.2km s-min=9.4km az=37.0*
*DSN **03** 17:50:60.0±1.1,26°.51N×55°.05E,h10km,ML2.9/12,Error ellipse: s-maj=13.4km s-min=2.8km az=179.0*
*TEH **03** 17:50:59.7,26°.33N×55°.15E,h10km±43km,ML2.8, Presumed earthquake*
ISC 03 17:50:59.3±1.4,**26°.52N**±0°.03×**55°.08E**±0°.06,**h7km**±11km, **n36,**σ1.**58**/51,**Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHME	Shamm	1.06	116	P	Pn	17 51 21.0	+0.4
	SNR=20						
SHME				S	Sn	17 51 36.2	+0.5
SHME	Shamm	1.06	116	*e*P	Pn	17 51 21.0	+0.4
	SNR=24						
SHME				S	Sn	17 51 35.6	-0.1
BANOM	Banah	1.25	118	P	Pg	17 51 24.1	+0.8
BANOM				S	Sn	17 51 41.6	+1.4
BANOM	Banah	1.25	118	*e*P	Pg	17 51 23.5	+0.3
	SNR=15						
BNDS	Bandar-Abbas	1.31	48	Pg	Pg	17 51 27.1	+2.5
BNDS				Sg	Sn	17 51 47.7	+5.6
MASF	Masafi	1.50	139	P	Pg	17 51 27.6	-0.5
MASF				S	Sg	17 51 48.2	+0.6
MSFE	Esma-Masafi	1.51	140	*e*P	Pb	17 51 27.1	-0.6
	SNR=9.2						
IBND	Bandar-abas	1.60	54	Pg	Pg	17 51 34.6	+4.6
NAZ	Nazwa, Dubai	1.61	161	P	Pb	17 51 29.2	-0.2
NAZ				S	Sg	17 51 52.1	+1.0
NAZ	Nazwa, Dubai	1.61	161	P	Pb	17 51 28.8	-0.5
MDH	Madha	1.64	138	P	Pg	17 51 30.1	-0.6
	SNR=7.0						
MDH				S	Sg	17 51 51.6	-0.4
MDH	Madha	1.64	138	*e*P	Pb	17 51 29.0	-0.8
	SNR=11						
FAQ	Al Faqa, Dubai	1.82	165	P	Pb	17 51 32.6	-0.5
FAQ				S	Sg	17 51 59.2	+1.3
UOSS	Minazif	1.87	147	P	Pb	17 51 32.2	-1.5
UOSS				S	Sg	17 51 59.2	-0.1
UOSS	Minazif	1.87	147	P	Pn	17 51 31.6	0.0
UOSS	Minazif	1.87	147	Pg	Pb	17 51 32.2	-1.5
ASUD	Al Ashush, Dub	1.90	173	P	Pb	17 51 34.1	-0.2
ASUD				S	Sg	17 52 02.7	+2.4
ASUD	Al Ashush, Dub	1.90	173	P	Pb	17 51 33.1	-1.2
HATD	Hatta, Dubai	1.94	150	P	Pb	17 51 34.5	-0.4
HATD				S	Sg	17 52 02.2	+0.7
HATD	Hatta, Dubai	1.94	150	P	Pn	17 51 32.8	+0.2
AJN	Ajban	1.95	182	P	Pg	17 51 36.3	-0.4
AJN				S	Sg	17 52 03.5	+1.6
ASHO	Ashiyiah	2.03	154	P	Pb	17 51 34.9	-1.7
ASHO				S	Sg	17 52 05.1	+0.5
ASHO	Ashiyiah	2.03	154	*e*P	Pn	17 51 34.4	+0.4
	SNR=9.6						
JASK	Jask - Hormozg	2.59	104	Pn	Pn	17 51 42.8	+1.2
SOHO	SOHO	2.71	151	P	Pn	17 51 43.3	0.0
SOHO				S	Sb	17 52 19.5	-2.2
ARQ	Araqi	3.43	157	P	Pn	17 51 54.8	+1.6
ARQ				S	Sn	17 52 36.1	+2.1
KRBR	Kerman	3.76	23	Pn	Pb	17 52 03.4	-2.8
KHGB	Koh Gabri	4.04	17	Pn	Pb	17 52 06.6	-4.3
BSY	Bisya	4.22	152	P	Pn	17 52 05.1	+1.0
SMDO	Samad	4.38	141	P	Pn	17 52 04.6	-1.6
SMDO				S	Sn	17 52 57.2	-0.4
JMDO	Jabal Madar	4.96	146	P	Pn	17 52 13.2	-1.1
WBK	Wadi Bani Khal	5.26	137	P	Pn	17 52 15.7	-2.7
MHTO	MHTO	6.11	154	P	Pn	17 52 30.0	0.0
	SNR=12						
WHFO	Wadi Hawf	8.64	188	P	Pn	17 53 05.0	+0.1
	SNR=14						
DMTO	DMTO	8.76	181	P	Pn	17 53 07.4	+1.0
RBK	Rabkut	9.01	185	P	Pn	17 53 09.7	-0.2

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*AEIC **03** 18:02:21.6±1.6,52°.19N±0°.09×173°.7E±0°.1,h19km±4km, Error ellipse: s-maj=13.3km s-min=8.8km az=163.0*
*IDC **03** 18:02:24.4±1.7,52°.33N×173°.85E,h35km±10km,mb3.7/19, mbtmp4.0/21,ML3.9/2,MS2.9/9,Error ellipse: s-maj=23.4km s-min=12.6km az=167.0*
*NEIC **03** 18:02:25.5±1.3,52°.39N±0°.08×173°.8E±0°.1,h35km±2km, mb4.1/90,ML3.7(AEIC),Error ellipse: s-maj=14.6km s-min=10.5km az=153.0*
ISC 03 18:02:24.5±0.6,**52°.4N**±0°.1×**173°.63E**±0°.06,**h35km,n153,** σ0.**91**/138,**mb4.1**/52,**MS2.9**/6,**Near Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHEM	Shemya Is, Ala	0.46	38	Pg	Pn	18 02 34.5	-0.1
	3µm,0.3s,baz=158,slow=4.5,SNR=2968						
SHEM				Lg	Lg	18 02 41.4	
	3µm,0.3s,baz=289,slow=22,SNR=20						
SMY	Shemya	0.46	38	P	Pn	18 02 34.1	-0.5
SMY	Shemya	0.46	38		Pn	18 02 34.3	-0.3
LSSE	Little Sitkin	3.07	96		Pn	18 03 11.2	+0.7
AMKA	Amchitka	3.65	104		Pn	18 03 17.6	-0.8
GASW	Gareloi Southw	4.67	94		Pn	18 03 32.8	+0.3
GAEA	Gareloi East	4.74	94		Pn	18 03 33.4	0.0
TANO	Tanaga North	5.10	92		Pn	18 03 38.5	+0.2
TAFP	Tanaga Falls P	5.18	92		Pn	18 03 39.5	0.0
KIWB	Kanaga Island	5.70	92		Pn	18 03 45.9	-0.8
ADK	Adak	5.98	91	P	Pn	18 03 51.5	+1.0
ADK	Adak	5.98	91		Pn	18 03 50.3	-0.2
GSTR	Great Sitkin T	6.34	88	Pn	Pn	18 03 52.5	-2.9
KOWE	Korovin West	7.42	85		Pn	18 04 11.6	+1.4
ATKA	Atka Island	7.47	86	P	Pn	18 04 11.0	+0.2
ATKA	Atka Island	7.47	86		Pn	18 04 10.9	+0.1
PET	Petropavlovsk	9.12	280	P	Pn	18 04 30.5	-3.0
PEA0B	Petropavlovsk-	9.70	281	Pn	Pn	18 04 43.6	+2.2
PETK	Petropavlovsk-	9.70	281	Pn	Pn	18 04 43.7	+2.3
	0.6nm,0.3s,baz=90,slow=16,SNR=20						
PETK				Sn	Sn	18 06 27.3	-1.7
	0.3nm,0.3s,baz=114,slow=18,SNR=1.6						
PETK				LR	LR	18 08 40.6	
	comp=Z,18nm,21.3s,baz=126,slow=38						
	3.1nm,0.6s						
PETK				AML	AML		
PETK	Petropavlovsk-	9.70	281		Pn	18 04 43.3	+1.9
SPIA	Saint Paul Isl	10.47	56	P	Pn	18 04 53.6	+1.6
SPIA	Saint Paul Isl	10.47	56	Pn	Pn	18 04 52.9	+1.0
UNV	Unalaska Valle	12.03	75	P	Pn	18 05 14.7	+1.5
LVA	Lava Point	12.30	74	Pn	Pn	18 05 17.5	+0.5
MA2	Magadan	14.64	309	LR	LR	18 10 55.1	
	comp=Z,34nm,21.2s,baz=104,slow=35						
M13K	Dall Lake	15.01	49	P	P	18 05 59.1	+0.4
K13K	Kusilvak Mount	15.10	42		Pn	18 05 57.3	+2.3
O14K	Tigyukauivet M	15.63	54		P	18 06 04.0	-1.7
L14K	Kuka Creek	15.68	46	Pn	Pn	18 06 03.5	+1.1
L14K				IAmb	IAmb	18 06 18.6	
	comp=Z,17nm,1.3s						
M14K	Bethel	15.77	48	Pn	Pn	18 06 02.5	-1.1
M14K				IAmb	IAmb	18 06 23.1	
	comp=Z,11nm,0.8s						
J14K	Nanvaranak Lak	15.96	40	P	P	18 06 08.8	-0.4
CHNA	Chernabura Isl	16.05	71	P	Pn	18 06 08.7	+1.5
O15K	Ungalikthiuk R	16.33	55	P	P	18 06 12.7	-0.8
O15K				IAmb	IAmb	18 06 13.5	
	comp=Z,19nm,0.9s						
N15K	Kwethluk River	16.46	51	Pn	Pn	18 06 11.7	-0.8
N15K				IAmb	IAmb	18 06 53.7	
	comp=Z,15nm,1.2s						
L16K	Owhat River	17.24	47	P	P	18 06 24.1	+0.7
O16K	Kokwok River B	17.29	54		P	18 06 23.6	-0.4
M17K	Holitna River	18.06	49	P	Pn	18 06 32.1	-0.3
K17K	Iditarod	18.12	44		P	18 06 34.5	+1.4
ACHA	Angle Creek He	18.50	59	P	P	18 06 37.6	+0.1
N18K	Kilae Creek	18.60	51	P	P	18 06 38.1	-0.4
L18K	Granite Mounta	18.65	47	P	Pn	18 06 39.4	-0.1
SII	Sitkinak Islan	19.06	65	P	Pn	18 06 45.0	+0.5
J18K	Innoko River	19.07	43		Pn	18 06 44.1	-0.4
H18K	Honhosa River	19.14	37	P	Pn	18 06 45.7	+0.3
N19K	Bonanza Creek	19.31	52	P	P	18 06 45.6	-0.7
G18K	Tagagawik	19.40	35		P	18 06 47.9	+0.7
G18K				IAmb	IAmb	18 06 51.0	
	comp=Z,8.7nm,0.7s						
L19K	White Mountain	19.46	47	P	P	18 06 48.6	+0.7
L19K				IAmb	IAmb	18 07 14.4	
	comp=Z,15nm,1.5s						
OHAK	Old Harbor	19.55	63	P	P	18 06 47.0	-1.9
J19K	Poorman	19.72	42		P	18 06 51.4	+0.7
KDAK	Kodiak Island	19.94	61	P	P	18 06 51.4	-1.6
	comp=Z,2.8nm,0.3s,baz=261,slow=8.5,SNR=31						
KDAK				LR	LR	18 14 42.1	
	comp=Z,62nm,19.1s,baz=238,slow=37						
	comp=Z,6.7nm,0.3s						
KDAK				AML	AML		
KDAK	Kodiak Island	19.94	61	P	P	18 06 51.7	-1.3
G19K	Purcell Mounta	20.08	35	P	P	18 06 54.3	-0.3
K20K	Telida	20.15	44		P	18 06 56.1	+0.8
K20K				IAmb	IAmb	18 07 26.1	
	comp=Z,9.2nm,1.3s						
M20K	Styx River	20.17	49	P	P	18 06 56.5	+0.8
F19K	Shaleruckik Mo	20.20	33		P	18 06 56.3	+0.5
F19K				IAmb	IAmb	18 07 13.9	
	comp=Z,7.5nm,0.8s						
C18K	Utukok River	20.23	27	P	P	18 06 56.4	+0.1
C18K				IAmb	IAmb	18 06 59.3	
	comp=Z,8.0nm,0.8s						
J20K	Nowinta River	20.39	42		P	18 06 58.6	+0.7
I20K	Naaghedeneel	20.48	40	P	P	18 06 59.6	+0.8
I20K				IAmb	IAmb	18 07 00.4	
	comp=Z,7.4nm,0.8s						
YSS	Yuzhno-Sakhali	20.61	267	P	P	18 06 57.7	-2.7
STLK	Strandline Lak	20.70	50		Pn	18 07 03.9	0.0
E19K	Redstone River	20.71	32		Pn	18 07 03.6	-0.3
E19K				IAmb	IAmb	18 07 20.6	
	comp=Z,6.0nm,0.8s						
CNPM	China Poot	20.73	56	P	P	18 07 01.6	-0.1
PPLA	Purkeypile	20.84	46		Pn	18 07 05.9	+0.4
PPLA				IAmb	IAmb	18 07 10.1	
	comp=Z,15nm,1.2s						
SKT	Skwentna	20.93	49	P	P	18 07 04.5	+0.7
SKT				IAmb	IAmb	18 07 09.5	
	comp=Z,7.7nm,0.7s						
C19K	Lookout Ridge	20.97	27	P	Pn	18 07 07.3	+0.4
F20K	Avaraart Lake	21.00	34	P	P	18 07 05.0	+0.5
CAST	Castle Rocks	21.02	45	P	P	18 07 04.8	0.0
CAST				IAmb	IAmb	18 07 11.0	
	comp=Z,7.6nm,0.7s						
IMAR	Indian Mountai	21.23	38	P	P	18 07 06.8	-0.2
G21K	Allakaket	21.54	36		P	18 07 10.9	+0.6
G21K				IAmb	IAmb	18 07 24.8	
	comp=Z,8.8nm,1.4s						
KTH	Kantishna Hill	21.56	45	P	P	18 07 11.6	+0.9
KTH				IAmb	IAmb	18 07 15.4	
	comp=Z,17nm,1.4s						
TRF	Thorofare Moun	21.81	45		P	18 07 13.8	+0.4
TRF				IAmb	IAmb	18 07 17.4	
	comp=Z,11nm,1.0s						
F21K	Alatna River	21.86	35	P	P	18 07 13.8	+0.1
F21K				IAmb	IAmb	18 07 31.8	
	comp=Z,6.0nm,0.8s						
MLY	Manley	22.06	41		P	18 07 16.7	+0.8
B20K	Meade River	22.20	26	P	P	18 07 17.3	-0.1
KNK	Knik Glacier	22.29	51	P	P	18 07 18.3	-0.1
BWN	Browne	22.34	44	P	P	18 07 19.8	+0.9
SML	Sawmill	22.40	50	P	P	18 07 19.7	0.0
RND	Reindeer	22.43	46	P	P	18 07 19.9	0.0
RND				IAmb	IAmb	18 07 23.3	
	comp=Z,5.2nm,0.8s						
MCK	McKinley	22.47	45	P	P	18 07 20.4	+0.1
MCK				IAmb	IAmb	18 07 23.7	
	comp=Z,6.0nm,0.8s						
NEA2	Nenana	22.62	43	P	P	18 07 21.2	-0.7
NEA2				IAmb	IAmb	18 07 25.6	
	comp=Z,7.2nm,0.7s						
SCM	Sheep Creek Mo	22.88	50	P	P	18 07 23.4	-1.2
G23K	Bananza Creek	22.90	37		P	18 07 24.4	-0.4
G23K				IAmb	IAmb	18 07 43.5	
	comp=Z,11nm,1.5s						
WRH	Wood River Hil	23.00	43	P	P	18 07 26.0	+0.2
CCB	Clear Creek Bu	23.16	43	P	P	18 07 27.2	-0.2
COLA	College	23.19	42	P	P	18 07 27.4	-0.3
H24K	Noodor Dome	23.44	40		P	18 07 30.6	+0.4
H24K				IAmb	IAmb	18 07 35.8	
	comp=Z,4.2nm,0.7s						
KLU	Klutina	23.51	51	P	P	18 07 30.7	-0.3
KLU				IAmb	IAmb	18 07 55.4	
	comp=Z,12nm,1.2s						
E23K	Chandalar	23.55	34		P	18 07 31.6	+0.3
E23K				IAmb	IAmb	18 07 45.6	
	comp=Z,4.3nm,0.8s						
IL31		23.57	43		P	18 07 30.4	-1.0
ILAR	Eielson Array	23.57	43	P	P	18 07 30.9	-0.6
	comp=Z,1.8nm,0.5s,baz=249,slow=8.4,SNR=18						
ILAR				LR	LR	18 16 49.2	
	comp=Z,29nm,19.5s,baz=206,slow=37						
	comp=Z,1.8nm,0.5s						
G24K	Hadweenzic Riv	23.85	38	P	P	18 07 34.9	+0.8
G24K				IAmb	IAmb	18 07 42.6	
	comp=Z,5.5nm,0.8s						
K24K	Donnelly Dome	23.86	46	P	P	18 07 33.8	-0.4
E24K	Your Creek	23.95	35	P	P	18 07 35.6	+0.5
E24K				IAmb	IAmb	18 07 41.6	
	comp=Z,3.5nm,0.7s						
C23K	Itkillik River	24.01	30	P	P	18 07 35.9	+0.4
J25K	Salcha River,	24.18	44	P	P	18 07 36.5	-0.7
J25K				IAmb	IAmb	18 07 39.4	
	comp=Z,3.7nm,0.6s						
RIDG	Independent Ri	24.26	46	P	P	18 07 37.2	-0.7
RIDG				IAmb	IAmb	18 07 38.6	
	comp=Z,14nm,1.5s						
PRP	Porcupine Dome	24.30	41	P	P	18 07 38.5	+0.1
PRP				IAmb	IAmb	18 07 42.0	
	comp=Z,5.2nm,0.7s						
MENT	Mentasta	24.66	48	P	P	18 07 41.7	0.0
MENT				IAmb	IAmb	18 07 45.6	
	comp=Z,8.0nm,1.0s						
SCRK	Sand Creek	24.67	45		P	18 07 40.9	-0.8
SCRK				IAmb	IAmb	18 07 43.1	
	comp=Z,4.0nm,0.9s						
F25K	Christian Rive	24.80	37	P	P	18 07 43.5	+0.6
F25K				IAmb	IAmb	18 07 46.5	
	comp=Z,3.0nm,0.6s						
L26K	Log Cabin Wild	24.84	48	P	P	18 07 43.9	+0.7
L26K				IAmb	IAmb	18 07 47.0	
	comp=Z,6.8nm,0.8s						
E25K	Arctic Village	24.99	35	P	P	18 07 45.2	+0.6
E25K				IAmb	IAmb	18 07 48.4	
	comp=Z,5.0nm,0.8s						
D25K	Kavik River	25.14	33	P	P	18 07 46.2	+0.4
D25K				IAmb	IAmb	18 07 48.7	
	comp=Z,4.5nm,0.6s						
YAK	Yakutsk	25.21	310	LR	LR	18 17 23.2	
	comp=Z,26nm,18.4s,baz=104,slow=36						
G26K	Porcupine Rive	25.32	39	P	P	18 07 47.4	-0.1
G26K				IAmb	IAmb	18 07 52.9	
	comp=Z,7.5nm,1.1s						
F26K	Sheenjek River	25.38	37	P	P	18 07 48.6	+0.6
F26K				IAmb	IAmb	18 07 52.6	
	comp=Z,4.8nm,0.7s						
M27K	Edge Creek, AK	25.47	49	P	P	18 07 48.7	-0.3
M27K				IAmb	IAmb	18 07 53.4	
	comp=Z,10nm,1.2s						
K27K	Chicken	25.51	46	P	P	18 07 49.6	+0.3
K27K				IAmb	IAmb	18 07 52.8	
	comp=Z,3.2nm,0.7s						
L27K	Beaver Creek,	25.53	48		P	18 07 49.5	0.0
L27K				IAmb	IAmb	18 07 52.2	
	comp=Z,4.9nm,0.7s						
BARN	Barnard Glacie	25.55	52	P	P	18 07 49.5	-0.4
BCAR	Beaver Creek A	25.55	48		P	18 07 49.9	+0.2
O28M	Mount Upton	26.28	53	P	P	18 07 55.8	-0.7
E27K	Coleen River	26.44	36	P	P	18 07 57.6	0.0
E27K				IAmb	IAmb	18 08 03.0	
	comp=Z,3.5nm,0.7s						
I28M	Miner Creek	26.58	43		P	18 07 57.8	-1.3
M29M	Somme Creek	27.06	49	P	P	18 08 03.6	+0.2
M29M				IAmb	IAmb	18 08 05.5	
	comp=Z,3.4nm,0.6s						
L29M	L29M	27.22	48		P	18 08 04.5	-0.2
L29M				IAmb	IAmb	18 08 09.9	
	comp=Z,3.4nm,0.5s						
HYT	Haines Junctio	27.59	53		P	18 08 08.0	-0.1
HYT				IAmb	IAmb	18 08 11.3	
	comp=Z,2.8nm,0.6s						
DLBC	Dease Lake	31.72	56	LR	LR	18 20 51.8	
	comp=Z,32nm,21.6s,baz=258,slow=35						
H11N2	WAKE ISLAND Hy	32.99	192	T	T	18 43 46.3	
	baz=7.9,slow=76,SNR=107						
H11N3	WAKE ISLAND Hy	33.01	192	T	T	18 43 51.6	
	baz=7.9,slow=76,SNR=148						
H11N1	WAKE ISLAND Hy	33.01	192	T	T	18 43 46.1	
	baz=7.9,slow=76,SNR=177						
H11S1	WAKE ISLAND Hy	34.23	192	T	T	18 45 18.6	
	baz=7.6,slow=76,SNR=93						
H11S3	WAKE ISLAND Hy	34.24	192	T	T	18 45 19.9	
	baz=7.6,slow=76,SNR=124						
H11S2	WAKE ISLAND Hy	34.24	192	T	T	18 45 20.1	
	baz=7.6,slow=76,SNR=117						
KSRS	Korea Array	35.01	263	LR	LR	18 23 38.9	
	comp=Z,10nm,19.4s,baz=30,slow=36						
YKA	Yellowknife Ar	37.93	46	P	P	18 09 38.0	0.0
	comp=Z,1.1nm,0.6s,baz=291,slow=8.1,SNR=4.8						
	comp=Z,1.1nm,0.6s						
SONM	Songino Array	41.96	292	P	P	18 10 13.5	+1.6
	comp=Z,0.2nm,0.4s,baz=71,slow=9.2,SNR=2.2						
SONM				LR	LR	18 28 47.3	
	comp=Z,29nm,18.3s,baz=80,slow=38						
	comp=Z,0.2nm,0.4s						
SONM	Songino Array	41.96	292	P	P	18 10 12.9	+1.0
SPITS	Spitsbergen Ar	48.98	354	P	P	18 11 06.0	-0.8
	comp=Z,3.4nm,0.6s,baz=53,slow=5.6,SNR=6.7						
	comp=Z,3.4nm,0.6s						
PDAR	Pinedale Array	50.39	69	P	P	18 11 17.5	-0.8
	comp=Z,0.7nm,0.6s,baz=312,slow=3.6,SNR=8.8						
	comp=Z,0.7nm,0.6s						
GTA2	Gaotai	50.79	286	*e*P	P	18 11 31.8	+11
GTA2				pP	sP	18 11 36.0	+0.2
GTA2				pmax	pmax		
	comp=Z,3.0nm,0.7s						
ULM	Lac du Bonnet	52.96	54	P	P	18 11 36.1	-1.0
	comp=Z,2.0nm,0.4s,baz=320,slow=10,SNR=2.0						
	comp=Z,2.0nm,0.4s						
ULM	Lac du Bonnet	52.96	54	P	P	18 11 36.6	-0.5
KURK	Kurchatov	54.85	309	P	P	18 11 51.6	+0.8
KURBB	Kurchatov Arra	54.95	309	P	P	18 11 51.8	+0.2
	comp=Z,1.7nm,0.2s,baz=48,slow=7.6,SNR=2.7						
	comp=Z,1.7nm,0.2s						
MKAR	Makanchi Array	55.66	304	P	P	18 11 56.9	+0.1
	comp=Z,0.5nm,0.4s,baz=52,slow=6.3,SNR=14						
MKAR				LR	LR	18 36 22.3	
	comp=Z,35nm,18.9s,baz=56,slow=36						
	comp=Z,0.5nm,0.4s						
MKAR	Makanchi Array	55.66	304	P	P	18 11 56.8	0.0
ARCES	ARCESS Array B	56.20	347	P	P	18 12 00.9	+0.7
	comp=Z,1.6nm,0.9s,baz=30,slow=7.0,SNR=1.6						
	comp=Z,1.6nm,0.9s						
ARCES	ARCESS Array B	56.20	347	P	P	18 12 00.7	+0.5
BVAR	Borovoye Array	57.00	315	P	P	18 12 07.0	+0.8
	comp=Z,0.7nm,0.5s,baz=39,slow=7.4,SNR=2.7						
	comp=Z,0.7nm,0.5s						
SCHQ	Schefferville	62.00	35	P	P	18 12 40.4	-0.3
	comp=Z,5.6nm,0.8s,baz=342,slow=3.2,SNR=4.7						
	comp=Z,5.6nm,0.8s						
TXAR	Lajitas Array	63.06	76	P	P	18 12 48.0	-0.3
	comp=Z,1.7nm,0.5s,baz=304,slow=5.7,SNR=30						
	comp=Z,1.7nm,0.5s						
FINES	FINESS Array B	63.63	343	P	P	18 12 50.6	-0.7
	comp=Z,1.8nm,0.9s,baz=8.9,slow=9.8,SNR=3.5						
	comp=Z,1.8nm,0.9s						
NOA	NORSAR Array B	66.07	351	P	P	18 13 06.9	-0.5
	comp=Z,0.9nm,0.8s,baz=12,slow=6.5,SNR=3.5						
	comp=Z,0.9nm,0.8s						
CMAR	Chiang Mai Arr	66.28	270	P	P	18 13 10.7	+1.5
	comp=Z,0.4nm,0.9s,baz=29,slow=7.5,SNR=7.8						
	comp=Z,0.4nm,0.9s						
CMAR	Chiang Mai Arr	66.28	270	P	P	18 13 10.0	+0.8
HFS	Hagfors	66.69	349	P	P	18 13 10.7	-0.6
	comp=Z,1.1nm,0.6s,baz=15,slow=6.0,SNR=1.7						
	comp=Z,1.1nm,0.6s						
AKASG	Malin Array Be	72.99	337	P	P	18 13 50.9	+0.8
	comp=Z,0.3nm,0.3s,baz=22,slow=6.4,SNR=2.8						
	comp=Z,0.3nm,0.3s						
AKASG	Malin Array Be	72.99	337	IAmb	IAmb	18 14 02.2	
	comp=Z,2.6nm,1.2s						
WRA	Warramunga Arr	79.71	217	P	P	18 14 28.8	+0.3
	comp=Z,0.5nm,0.7s,baz=21,slow=6.1,SNR=2.8						
	comp=Z,0.5nm,0.7s						
ASAR	Alice Springs	83.28	216	P	P	18 14 47.2	-0.1
	comp=Z,0.3nm,0.8s,baz=22,slow=5.0,SNR=6.1						
	comp=Z,0.3nm,0.8s						
MAW	Mawson	144.39	218	PKP	PKPab	18 21 53.7	+0.1
	comp=Z,2.1nm,0.7s,baz=79,slow=4.4,SNR=4.3						
BOSA	Boshof	146.66	303	PKPbc	PKPdf	18 22 01.2	+0.6
	comp=Z,1.1nm,0.8s,baz=22,slow=5.4,SNR=1.1						

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*IDC **03** 18:15:50.4±0.7,3°.40S×135°.58E,h0km,mb4.0/9, mbtmp4.1/13,ML4.3/3,MS3.5/4,Error ellipse: s-maj=29.6km s-min=14.8km az=66.0*
*NEIC **03** 18:15:56.2±1.3,3°.53S±0°.09×135°.6E±0°.1,h41km±2km, mb4.3/21,Error ellipse: s-maj=17.6km s-min=10.9km az=56.0*
*DJA **03** 18:15:57.6±0.8,4°S±2°×13°5E±°,h26km±7km,M4.4/12, mB4.8/2,mb4.4/5,MLv4.4/12,Mw(mB)4.0/2*
ISC 03 18:15:52.6±0.5,**3°.68S**±0°.04×**135°.31E**±0°.04,**h22km,n61,** σ2.**37**/61,**mb4.2**/14,**Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BAKI	Biak	2.60	18	P	Pb	18 16 35.0	-3.5
BAKI				S	Sn	18 17 03.2	-1.0
BAKI				AML	AML		
MWPI	Manokwari, Pap	3.01	335	P	Pb	18 16 42.9	-2.6
MWPI				S	Sb	18 17 18.1	-3.8
MWPI				AML	AML		
FAKI	Fak Fak	3.15	284	S	Sb	18 17 25.3	-0.5
FAKI	Fak Fak	3.15	284	P	Pb	18 16 46.6	-1.3
FAKI	Fak Fak	3.15	284		Pb	18 16 46.8	-1.1
FAKI				Sn	Sb	18 17 23.8	-2.0
FAKI	Fak Fak	3.15	284	P	Pb	18 16 47.3	-0.6
FAKI				S	Sb	18 17 26.2	+0.4
FAKI				AML	AML		
SWI	Sorong	4.92	305	P	Pn	18 17 09.8	+4.6
GENI	Genyem	4.97	78	P	Pn	18 17 06.9	+1.0
GENI	Genyem	4.97	78	S	Sn	18 18 03.0	+0.2
GENI	Genyem	4.97	78	P	Pn	18 17 06.9	+1.0
GENI				S	Sn	18 18 03.5	+0.7
GENI				AML	AML		
MTN	Manton Dam	10.00	204		Pn	18 18 20.4	+5.4
MTN				Sn	Sn	18 20 07.2	+0.7
SOEI	Soe	12.51	241	S	Sn	18 21 24.0	+16
SOEI	Soe	12.51	241	P	P	18 18 58.5	-2.6
SOEI	Soe	12.51	241		P	18 18 54.2	-6.9
SOEI	Soe	12.51	241	P	P	18 19 09.9	+8.8
PMG	Port Moresby	13.07	116	Pn	Pn	18 18 57.7	+0.7
	14nm,0.9s,baz=133,slow=21,SNR=3.2						
PMG	Port Moresby	13.07	116		Pn	18 18 58.0	+0.9
KNRA	Kununurra	13.55	208		P	18 19 07.6	-4.9
DAV	Davao City (W)	14.44	318	LR	LR	18 25 30.5	
	comp=Z,49nm,18.2s,baz=181,slow=40						
TOLI2	Tolitoli	15.28	288	P	P	18 19 35.2	+3.4
WB0	Warramunga Arr	16.01	183		P	18 19 37.2	-2.7
WB0				IAmb	IAmb	18 19 45.5	
	comp=Z,24nm,1.1s						
WRAB	Tennant Creek	16.18	183	P	P	18 19 39.6	-2.2
WRAB				IAmb	IAmb	18 19 47.6	
	comp=Z,17nm,0.7s						
WRA	Warramunga Arr	16.19	183	Pn	P	18 19 38.9	-3.0
	comp=Z,1.1nm,0.3s,baz=1.5,slow=13,SNR=25						
WRA				Sn	Sn	18 22 28.2	-10
	comp=Z,1.1nm,0.3s,baz=12,slow=23,SNR=6.5						
	comp=Z,5.3nm,0.6s						
WRA				AML	AML		
WR8	Warramunga Arr	16.20	183		P	18 19 39.9	-2.1
WR8				IAmb	IAmb	18 19 47.6	
	comp=Z,16nm,0.7s						
FITZ	Fitzroy Crossi	17.18	213	Pn	P	18 19 53.9	+1.1
	comp=Z,0.8nm,0.3s,baz=28,slow=9.6,SNR=41						
FITZ				Sn	Sn	18 22 55.5	-6.3
	comp=Z,1.1nm,0.3s,baz=190,slow=13,SNR=6.1						
	comp=Z,1.5nm,0.2s						
FITZ				AML	AML		
FITZ	Fitzroy Crossi	17.18	213		P	18 19 54.3	+1.6
CTA	Charters Tower	19.49	148	P	Pn	18 20 20.7	+1.1
	comp=Z,0.6nm,0.3s,baz=334,slow=11,SNR=7.8						
CTA				LR	LR	18 28 21.1	
	comp=Z,96nm,18.2s,baz=326,slow=38						
	comp=Z,13nm,1.0s						
CTA				AML	AML		
CTAO	Charters Tower	19.49	148	Pn	Pn	18 20 20.6	+1.1
CTAO				IAmb	IAmb	18 20 50.9	
	comp=Z,22nm,1.3s						
AS31	Alice Springs	19.91	184		Pn	18 20 27.6	+3.0
AS31				IAmb	IAmb	18 20 30.5	
	comp=Z,5.5nm,0.6s						
ASAR	Alice Springs	19.92	184	P	Pn	18 20 27.8	+3.1
	comp=Z,6.2nm,0.5s,baz=10,slow=12,SNR=149						
ASAR				S	S	18 24 00.9	-5.3
	comp=Z,1.0nm,0.6s,baz=2.9,slow=27,SNR=5.2						

	comp=Z,6.2nm,0.5s						
ASAR	**Alice Springs**	**19.92**	**184**		**Pn**	**18 20 27.3**	**+2.6**
INKA	**Innaminka**	**24.48**	**168**	P	**P**	**18 21 12.6**	**+2.3**
STKA	**Stephens Creek**	**28.66**	**169**	P	**P**	**18 21 49.8**	**+1.9**
	comp=Z,3.6nm,0.7s,baz=356,slow=11,SNR=4.8						
STKA				LR	LR	18 34 47.1	
	comp=Z,141nm,18.2s,baz=254,slow=39						
	comp=Z,3.6nm,0.7s						
BBOO	**Buckleboo**	**28.99**	**179**	P	**P**	**18 21 52.5**	**+1.8**
CMAR	**Chiang Mai Arr**	**42.04**	**303**	P	**P**	**18 23 45.1**	**+2.3**
	comp=Z,0.5nm,0.7s,baz=126,slow=7.5,SNR=6.2						
	comp=Z,0.5nm,0.7s						
SONM	**Songino Array**	**57.22**	**337**	P	**P**	**18 25 39.2**	**+1.0**
	comp=Z,0.3nm,0.4s,baz=158,slow=7.4,SNR=2.2						
	comp=Z,0.3nm,0.4s						
SONM	**Songino Array**	**57.22**	**337**	P	**P**	**18 25 38.8**	**+0.6**
MKAR	**Makanchi Array**	**68.52**	**324**	P	**P**	**18 26 55.0**	**+1.5**
	comp=Z,1.3nm,0.5s,baz=111,slow=8.1,SNR=30						
	comp=Z,1.3nm,0.5s						
MKAR	**Makanchi Array**	**68.52**	**324**	P	**P**	**18 26 54.6**	**+1.1**
MAKZ	**Makanchi**	**68.71**	**324**	P	**P**	**18 26 56.0**	**+1.3**
MAKZ				IAmb	IAmb	18 26 56.9	
	comp=Z,2.5nm,0.6s						
ZALV	**Zalesovo Beam**	**71.10**	**331**	P	**P**	**18 27 09.3**	**+0.2**
	comp=Z,0.9nm,0.7s,baz=105,slow=6.6,SNR=4.7						
	comp=Z,0.9nm,0.7s						
ZALV	**Zalesovo Beam**	**71.10**	**331**	P	**P**	**18 27 09.1**	**0.0**
KURK	**Kurchatov**	**72.59**	**326**	P	**P**	**18 27 19.0**	**+0.9**
KURK	**Kurchatov**	**72.59**	**326**	IAmb	IAmb	18 27 37.3	
	comp=Z,1.2nm,0.5s						
KURBB	**Kurchatov Arra**	**72.60**	**326**	P	**P**	**18 27 19.0**	**+0.8**
	comp=Z,0.7nm,0.5s,baz=120,slow=5.3,SNR=8.7						
	comp=Z,0.7nm,0.5s						
KKAR	**Karatay Array**	**74.47**	**317**	P	**P**	**18 27 30.6**	**+1.2**
BVAR	**Borovoye Array**	**78.19**	**326**	P	**P**	**18 27 51.5**	**+1.2**
	comp=Z,1.3nm,0.7s,baz=120,slow=8.8,SNR=7.4						
	comp=Z,1.3nm,0.7s						
BORK	**Borovoye**	**78.23**	**326**	P	**P**	**18 27 51.9**	**+1.4**
BORK				IAmb	IAmb	18 27 54.3	
	comp=Z,1.8nm,0.6s						
AB31	**Akbulak array**	**83.28**	**320**	P	**P**	**18 28 18.6**	**+1.0**
ABKAR	**Akbulak array**	**83.28**	**320**	P	**P**	**18 28 18.0**	**+0.4**
G18K	**Tagagawik**	**83.78**	**22**	P	**P**	**18 28 20.0**	**+0.1**
G18K				IAmb	IAmb	18 28 26.4	
	comp=Z,5.0nm,1.2s						
J20K	**Nowinta River**	**84.94**	**24**	P	**P**	**18 28 25.3**	**-0.4**
J20K				IAmb	IAmb	18 29 07.2	
	comp=Z,4.3nm,1.4s						
CAST	**Castle Rocks**	**85.57**	**26**	P	**P**	**18 28 28.0**	**-1.0**
QSPA	**South Pole Qui**	**86.27**	**180**	P	**P**	**18 28 33.0**	**+0.5**
MLY	**Manley**	**86.60**	**24**	P	**P**	**18 28 33.6**	**-0.4**
MLY				IAmb	IAmb	18 28 40.7	
	comp=Z,3.0nm,1.3s						
DHY	**Denali Highway**	**87.54**	**26**	P	**P**	**18 28 39.2**	**+0.4**
CCB	**Clear Creek Bu**	**87.71**	**25**	P	**P**	**18 28 37.7**	**-1.6**
ILAR	**Eielson Array**	**88.12**	**25**	P	**P**	**18 28 39.6**	**-1.7**
	comp=Z,0.5nm,0.6s,baz=260,slow=4.6,SNR=5.5						
	comp=Z,0.5nm,0.6s						
ILAR	**Eielson Array**	**88.12**	**25**	P	**P**	**18 28 40.2**	**-1.1**
BELG	**Belogornoye**	**91.47**	**322**	LR	LR	19 11 29.9	
	comp=Z,90nm,21.4s,baz=93,slow=36						
ARCES	**ARCESS Array B**	**100.29**	**340**	P	**Pdif**	**18 29 36.1**	**-0.8**
	comp=Z,1.0nm,0.5s,baz=86,slow=6.2,SNR=7.0						

PRU ***03*** *18:18:04.8, 51°.47N×16°.28E, h0^{km}*
DNK ***03*** *18:18:04.4±0.8, 51°.55N×16°.19E, h0^{km}±313^{km}, ML2.8, Presumed earthquake*
ISC 03 18:18:03.2±0.8**, 51°.48N**±0°.03×**16°.29E**±0°.03**, h0**^{km}**, n29, σ1^s.14**/60**, Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSP	**Ksiaz**	**0.64**	**180**	*e*Pg	**Pg**	**18 18 16.2**	**+0.7**
KSP				*e*Sg	**Sg**	**18 18 23.8**	**0.0**
CHVC	**Chvalec**	**0.91**	**189**	*e*PG	**Pg**	**18 18 21.3**	**+0.7**
CHVC				*e*SG	**Sb**	**18 18 33.8**	**-0.7**
	comp=Z,10nm,0.4s						
CHVC				AML	AML		
OSTC	**Ostas**	**0.93**	**183**	*e*PG	**Pg**	**18 18 21.7**	**+0.7**
OSTC				*e*SG	**Sg**	**18 18 34.1**	**+1.1**
	comp=Z,9.3nm,0.5s						
OSTC				AML	AML		
UPC	**Upice**	**0.99**	**190**	*e*PG	**Pg**	**18 18 22.8**	**+0.6**
UPC				*e*SG	**Sg**	**18 18 35.8**	**+0.7**
	comp=Z,50nm,0.6s						
UPC				AML	AML		
DPC	**Dobruska-Polom**	**1.14**	**179**	*e*PG	**Pg**	**18 18 24.6**	**-0.4**
DPC				*e*SG	**Sb**	**18 18 41.0**	**0.0**
	comp=Z,16nm,0.6s						
DPC				AML	AML		
KRLC	**Kraliky**	**1.44**	**167**	*e*PG	**Pn**	**18 18 30.9**	**+0.2**
KRLC				*e*SG	**Sg**	**18 18 49.9**	**+0.3**
	comp=Z,11nm,0.4s						
KRLC				AML	AML		
BRG	**Berggiesshubel**	**1.60**	**248**	Pg	**Pg**	**18 18 34.0**	**+0.2**
BRG				Sg	**Sg**	**18 18 54.8**	**+0.3**
BRG				Amp		18 18 56.1	
	comp=Z,9.1nm,0.4s						
RICC	**Richard**	**1.67**	**237**	*e*PG	**Pg**	**18 18 35.3**	**0.0**
RICC				*e*SG	**Sg**	**18 18 57.9**	**+1.0**
	comp=Z,33nm,0.3s						
RICC				AML	AML		
STEB	**Steborice**	**1.82**	**148**	*e*PG	**Pb**	**18 18 37.3**	**0.0**
STEB				*e*SG	**Sg**	**18 19 01.5**	**0.0**
	comp=Z,15nm,0.4s						
STEB				AML	AML		
PRU	**Pruhonice**	**1.86**	**217**	*e*PG	**Pb**	**18 18 38.1**	**0.0**
PRU				*e*SG	**Sb**	**18 19 02.6**	**+0.7**
	comp=Z,7.2nm,0.3s						
PRU				AML	AML		
MORC	**Moravsky Berou**	**1.89**	**154**	*e*PN	**Pn**	**18 18 36.5**	**-0.2**
MORC				*e*SG	**Sb**	**18 19 02.2**	**-0.5**
HSKC	**Hora Svate Kat**	**2.00**	**245**	*e*PG	**Pb**	**18 18 39.7**	**-0.9**
HSKC				*e*SG	**Sg**	**18 19 07.9**	**+0.3**
	comp=Z,10nm,0.3s						
HSKC				AML	AML		
CLL	**Collm**	**2.06**	**266**	*i* Pn	**Pg**	**18 18 42.4**	**-0.4**
CLL				*i* Pg	**Pb**	**18 18 45.4**	**+3.8**
CLL				*i* Sg	**Sg**	**18 19 10.2**	**+0.7**
	comp=Z,8.0nm,0.6s						
VRAC	**Vranov**	**2.19**	**175**	*e*PN	**Pn**	**18 18 40.3**	**-0.5**
VRAC				*e*SG	**Sb**	**18 19 11.2**	**-0.1**
MAUC	**Maruska**	**2.34**	**154**	*e*PG	**Pb**	**18 18 46.7**	**+0.5**
MAUC				*e*SG	**Sg**	**18 19 19.6**	**+1.3**
KRUC	**Moravsky**	**2.42**	**178**	*e*PN	**Pn**	**18 18 43.5**	**-0.6**
KRUC				*e*SG	**Sb**	**18 19 18.8**	**+0.7**
ZVC	**Zvikov**	**2.45**	**214**	*e*PN	**Pn**	**18 18 45.2**	**+0.8**
ZVC				*e*PG	**Pb**	**18 18 48.8**	**+0.7**
ZVC				*e*SG	**Sg**	**18 19 21.1**	**-0.7**
	comp=Z,6.0nm,0.2s						
ZVC				AML	AML		
OJC	**Ojcow**	**2.56**	**118**	*e*Pg	**Pg**	**18 18 52.9**	**+0.6**
OJC				*e*Sg	**Sg**	**18 19 27.1**	**+1.7**
KHC	**Kasperske Hory**	**2.93**	**217**	*e*PN	**Pn**	**18 18 52.1**	**+1.1**
KHC				*e*PG	**Pb**	**18 18 57.3**	**+1.0**
KHC				*e*SN	**Sn**	**18 19 24.5**	**-2.4**
KHC				*e*SG	**Sg**	**18 19 36.7**	**-0.5**
	comp=Z,4.5nm,0.3s						
KHC				AML	AML		
MODS	**Modra-Piesok**	**3.18**	**168**	*e*PG	**Pg**	**18 19 04.0**	**-0.1**
MODS				*e*SG	**Sg**	**18 19 46.3**	**+1.0**
CONA	**Conrad Observa**	**3.57**	**185**	*e*Pn	**Pn**	**18 19 02.4**	**+2.5**
	comp=Z,0.3nm,0.2s						
CONA				Sg	**Sg**	**18 19 57.4**	**-0.5**
	comp=Z,3.0nm,0.3s						
BSD	**Bornholm Skovb**	**3.73**	**348**	*i* P	**Pn**	**18 19 02.5**	**+0.6**
BSD				*i* S	**Sn**	**18 19 44.2**	**-2.3**
BSD				IAML		18 19 57.0	
	comp=Z,12nm,1.1s						
MOA	**Molln**	**3.87**	**201**	*e*Pn	**Pn**	**18 19 04.4**	**+0.5**
	comp=Z,0.7nm,0.2s						
MOA				Sg	**Sg**	**18 20 06.0**	**-1.4**
	comp=Z,1.4nm,0.2s						
BIOA	**Bad Ischl, Aus**	**4.17**	**205**	*i* Pn	**Pb**	**18 19 16.6**	**-0.8**
	comp=Z,1.3nm,0.3s						
BIOA				*e*Sn	**Sb**	**18 20 08.1**	**-0.2**
	comp=Z,2.5nm,0.4s						
ARSA	**Arzberg**	**4.27**	**187**	*e*Sg	**Sg**	**18 20 20.2**	**0.0**
	comp=Z,2.0nm,0.6s						
LUNU	**Lund**	**4.49**	**339**	*i* P	**Pn**	**18 19 12.4**	**0.0**
LUNU				*i* S	**Sn**	**18 20 03.0**	**-2.2**
SESA	**Seetaler Alpe,**	**4.52**	**195**	*e*Pn	**Pn**	**18 19 14.4**	**+1.3**
	comp=Z,1.4nm,0.3s						
BLEU	**Blekinge**	**4.84**	**357**	*i* P	**Pn**	**18 19 18.1**	**+0.9**
BLEU				*i* S	**Sn**	**18 20 11.6**	**-2.3**
DEL	**Delary**	**5.20**	**345**	*i* P	**Pn**	**18 19 22.9**	**+0.8**
DEL				*i* S	**Sn**	**18 20 20.3**	**-2.4**

IDC ***03*** *18:35:48.2±2.1, 35°.95N×141°.72E, h0^{km}, mb3.4/3, mbtmp3.3/4, ML2.2/1, Error ellipse: s-maj=51.4km s-min=25.7km az=33.0*
JMA ***03*** *18:35:56.3±0.1, 35°.8N±0°.4×141°.0E±0°.3, h33^{km}±1^{km}, MV2.7/35, NEAR CHOSHI CITY*
ISC 03 18:35:53.9±1.4**, 35°.78N**±0°.07×**141°.27E**±0°.09**, h26**^{km}**, n16, σ1^s.36**/13**, mb3.5**/3**, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JIHU	**Itakohorinouch**	**0.63**	**287**	*i* P	**Pb**	**18 36 06.4**	**+0.1**
JIHU				*e*S	**Sb**	**18 36 14.2**	**-0.6**
JSMT	**Sammumatsuo**	**0.68**	**259**	P	**Pb**	**18 36 06.6**	**-0.6**
JSMT				*e*S	**Sb**	**18 36 14.6**	**-1.6**
JYT	**Yasato**	**0.98**	**298**	*e*P	**Pn**	**18 36 10.7**	**-1.3**
JHO	**Hitachi**	**1.00**	**326**	*e*P	**Pb**	**18 36 12.6**	**-0.1**
BSO1	**Boso 1**	**1.15**	**192**	*e*P	**Pn**	**18 36 14.0**	**+0.2**
BSO3	**Boso 3**	**1.16**	**213**	*e*P	**Pn**	**18 36 14.1**	**-0.1**
MJAR	**Matsushiro Arr**	**2.59**	**288**	Pn	**Pn**	**18 36 34.3**	**+0.1**
	0.4nm,0.3s,baz=100,slow=8.4,SNR=26						
MJAR				Sn	**Sn**	**18 37 08.5**	**+3.7**
	0.2nm,0.3s,baz=116,slow=17,SNR=4.9						
	2.0nm,0.3s						
MJAR				AML	AML		
H11N2	**WAKE ISLAND Hy**	**27.63**	**119**	T	T	19 10 40.7	
	baz=311,slow=75,SNR=11						
H11N1	**WAKE ISLAND Hy**	**27.64**	**119**	T	T	19 10 41.3	
	baz=311,slow=75,SNR=7.1						
H11N3	**WAKE ISLAND Hy**	**27.65**	**119**	T	T	19 10 42.2	
	baz=311,slow=75,SNR=10						
H11S1	**WAKE ISLAND Hy**	**28.30**	**121**	T	T	19 11 35.9	
	baz=312,slow=76,SNR=11						
H11S3	**WAKE ISLAND Hy**	**28.30**	**121**	T	T	19 11 35.9	
	baz=312,slow=76,SNR=8.5						
H11S2	**WAKE ISLAND Hy**	**28.31**	**121**	T	T	19 11 36.7	
	baz=312,slow=76,SNR=6.0						
MKAR	**Makanchi Array**	**44.70**	**303**	P	**P**	**18 44 04.4**	**-0.2**
	0.4nm,0.6s,baz=82,slow=8.9,SNR=3.6						
	0.4nm,0.6s						
KURBB	**Kurchatov Arra**	**46.69**	**309**	P	**P**	**18 44 20.0**	**-0.2**
	0.4nm,0.4s,baz=82,slow=7.6,SNR=6.5						
	0.4nm,0.4s						
WRA	**Warramunga Arr**	**55.80**	**188**	P	**P**	**18 45 28.8**	**-0.1**
	0.3nm,0.8s,baz=6.6,slow=7.2,SNR=1.5						
	0.3nm,0.8s						

KRSC 03 18:36:38.1±2.1**, 48°.99N**×**156°.40E, h15**^{km}±22^{km}**, Ml4.1, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril's**	**1.70**	**354**	*e*P	Pn	18 37 07.2	0.0
SKR				*e*S	Sn	18 37 28.0	-0.6
PAU	**Pauzhetka**	**2.49**	**6**	*e*P	Pb	18 37 21.9	-0.6
PAU				*e*S	Sb	18 37 50.6	-2.3
KDTR	**Khodutka, Kamc**	**3.02**	**20**	*e*P	Pn	18 37 27.8	+2.6
KDTR				*e*S	Sn	18 38 04.3	+3.2
MTVR	**Mutnovka**	**3.67**	**17**	*e*P	Pn	18 37 38.5	+4.1
MTVR				*e*S	Sb	18 38 22.7	-4.4
RUS	**Russkaya**	**3.70**	**20**	*e*P	Pn	18 37 37.9	+3.3
GRL	**Gorelyy**	**3.72**	**16**	*e*P	Pb	18 37 39.3	-4.2
PET	**Petropavlovsk**	**4.28**	**19**	*e*P	Pn	18 37 45.0	+2.4
PET				*e*S	Sn	18 38 37.8	+5.6
DALK	**Dalny**	**4.31**	**19**	*e*P	Pn	18 37 47.8	+4.8
UGLR	**Uglovaya**	**4.49**	**19**	*e*P	Pn	18 37 49.7	+4.0
KRX	**Arik**	**4.59**	**17**	*e*P	Pn	18 37 51.9	+4.8
SPN	**Mys Shipunski**	**4.70**	**28**	*e*P	Pn	18 37 53.4	+4.9
SPN				*e*S	Sn	18 38 49.3	+6.7
MKZ	**Mys Kozlova**	**6.48**	**29**	*e*P	Pn	18 38 15.7	+2.9

IDC 03 18:38:21.8±2.3**, 1°.66N**×**127°.26E, h0**^{km}**, mb3.3**/3**, mbtmp3.4**/3**, MS3.4**/1**, Error ellipse: s-maj=180.0km s-min=26.9km az=66.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DDMP	**Don Marcelino,**	**4.67**	**341**	*e*P	Pg	18 39 48.4	-3.1
DDMP				*e*S	Sn	18 40 34.9	+6.2
WRA	**Warramunga Arr**	**22.57**	**162**	P	P	18 43 24.4	+0.6
	0.7nm,0.4s,baz=341,slow=11,SNR=16						
	0.7nm,0.4s						
PMG	**Port Moresby**	**22.67**	**119**	LR	LR	18 53 34.7	
	comp=Z,92nm,19.8s,baz=243,slow=40						
ASAR	**Alice Springs**	**25.99**	**166**	P	P	18 43 55.8	-0.7
	0.1nm,0.4s,baz=352,slow=7.8,SNR=4.1						
	0.1nm,0.4s						
MKAR	**Makanchi Array**	**59.55**	**326**	P	P	18 48 27.2	+0.1
	0.1nm,0.3s,baz=119,slow=7.2,SNR=4.3						
	0.1nm,0.3s						

IDC ***03*** *18:39:17.3±1.0, 65°.91N×0°.70E, h0^{km}, mb3.5/4, mbtmp3.6/11, ML3.3/7, MS2.9/5, Error ellipse: s-maj=15.7km s-min=12.9km az=59.0*
NAO ***03*** *18:39:19.8±0.5, 65°.76N×0°.64E, h22^{km}±9^{km}, ML3.5*
HEL ***03*** *18:39:20.1±0.4, 65°.65N×1°.25E, h10^{km}, ML3.3, ML2.7(BER), ML3.5(NAO), Confirmed Earthquake*
BER ***03*** *18:39:20.7±4.4, 65°.74N×0°.67E, h16^{km}±17^{km}, ML2.7, ML3.5(NAO), Confirmed Earthquake*
ISC 03 18:39:17.9±0.8**, 65°.70N**±0°.05×**1°.14E**±0°.06**, h10**^{km}**, n165, σ2^s.46**/263**, mb3.6**/3**, MS3.2**/3**, Norwegian Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MOL	**Molde**	**4.21**	**135**	Pn	**Pn**	**18 40 24.4**	**+2.3**
MOL				Sn	**Sn**	**18 41 12.5**	**+1.2**
MOL	**Molde**	**4.21**	**135**	*e*P	**Pn**	**18 40 24.1**	**+1.9**
MOL				*e*S	**Sn**	**18 41 10.3**	**-1.0**
MOL				IAML		18 41 16.7	
	comp=Z,23nm,0.4s						
MOL	**Molde**	**4.21**	**135**	*e*P	**Pn**	**18 40 24.1**	**+1.9**
MOL				*e*S	**Sn**	**18 41 10.3**	**-1.0**
MOL				IAML		18 41 16.7	
	comp=Z,23nm,0.4s						
AKN	**Aaknes**	**4.38**	**141**	Pn	**Pn**	**18 40 27.4**	**+3.0**
AKN				Sn	**Sn**	**18 41 15.3**	**-0.2**
AKN	**Aaknes**	**4.38**	**141**	Pn	**Pn**	**18 40 27.4**	**+3.0**
AKN				Sn	**Sn**	**18 41 15.3**	**-0.2**
AKN				IAML		18 41 19.9	
	comp=Z,73nm,0.3s						
AKN	**Aaknes**	**4.38**	**141**	*e*P	**Pn**	**18 40 27.4**	**+3.0**
AKN				*e*S	**Sn**	**18 41 15.3**	**-0.2**
AKN				IAML		18 41 19.9	
	comp=Z,73nm,0.3s						
FOO	**Floro**	**4.47**	**155**	Pn	**Pn**	**18 40 27.4**	**+1.8**
FOO				Sn	**Sn**	**18 41 16.4**	**-1.2**
FOO	**Floro**	**4.47**	**155**	*e*P	**Pn**	**18 40 27.3**	**+1.7**
FOO				*e*S	**Sn**	**18 41 16.4**	**-1.2**
FOO				IAML		18 41 21.4	
	comp=Z,53nm,0.3s						
FOO	**Floro**	**4.47**	**155**	*e*P	**Pn**	**18 40 27.3**	**+1.7**
FOO				*e*S	**Sn**	**18 41 16.4**	**-1.2**
FOO				IAML		18 41 21.4	
	comp=Z,53nm,0.3s						
NSS	**Namsos**	**4.72**	**99**	Pn	**Pn**	**18 40 32.0**	**+2.9**
NSS				Sn	**Sn**	**18 41 23.9**	**+0.1**
NSS	**Namsos**	**4.72**	**99**	*e*P	**Pn**	**18 40 31.5**	**+2.4**
NSS				*e*S	**Sn**	**18 41 23.2**	**-0.6**
NSS				IAML		18 41 28.7	
	comp=Z,38nm,0.4s						
NSS	**Namsos**	**4.72**	**99**	*e*P	**Pn**	**18 40 31.5**	**+2.4**
NSS				*e*S	**Sn**	**18 41 23.2**	**-0.6**
NSS				IAML		18 41 28.7	
	comp=Z,38nm,0.4s						
STOK	**Stokkvaagen**	**4.89**	**77**	Pn	**Pn**	**18 40 33.4**	**+2.1**
STOK				Sn	**Sn**	**18 41 26.0**	**-1.8**
STOK	**Stokkvaagen**	**4.89**	**77**	*e*P	**Pn**	**18 40 32.9**	**+1.6**
STOK				*e*S	**Sn**	**18 41 25.3**	**-2.5**
STOK				IAML		18 41 32.4	
	comp=Z,27nm,0.4s						
STOK	**Stokkvaagen**	**4.89**	**77**	*e*P	**Pn**	**18 40 32.9**	**+1.6**
STOK				*e*S	**Sn**	**18 41 25.3**	**-2.5**
STOK				IAML		18 41 32.4	
	comp=Z,27nm,0.4s						
LEIR	**Leirfjorden**	**4.92**	**80**	Pn	**Pn**	**18 40 34.4**	**+2.5**
LEIR				Sn	**Sn**	**18 41 26.9**	**-1.8**
LEIR	**Leirfjorden**	**4.92**	**80**	*e*P	**Pn**	**18 40 34.2**	**+2.3**
LEIR				*e*S	**Sn**	**18 41 26.7**	**-2.1**
LEIR				IAML		18 41 32.8	
	comp=Z,35nm,0.4s						
LEIR	**Leirfjorden**	**4.92**	**80**	*e*P	**Pn**	**18 40 34.2**	**+2.3**
LEIR				*e*S	**Sn**	**18 41 26.7**	**-2.1**
LEIR				IAML		18 41 32.8	
	comp=Z,35nm,0.4s						
KONS	**Konsvik**	**4.94**	**75**	*e*P	**Pn**	**18 40 33.6**	**+1.6**
KONS				*e*S	**Sn**	**18 41 26.6**	**-2.4**
KONS				IAML		18 41 31.7	
	comp=Z,60nm,0.4s						
KONS	**Konsvik**	**4.94**	**75**	*e*P	**Pn**	**18 40 33.6**	**+1.6**
KONS				*e*S	**Sn**	**18 41 26.6**	**-2.4**
KONS				IAML		18 41 31.7	
	comp=Z,60nm,0.4s						
SUE	**Sulen**	**4.94**	**159**	Pn	**Pn**	**18 40 33.6**	**+1.5**
SUE				Sn	**Sn**	**18 41 27.9**	**-1.3**
SUE	**Sulen**	**4.94**	**159**	*e*P	**Pn**	**18 40 33.3**	**+1.2**
SUE				*e*S	**Sn**	**18 41 27.0**	**-2.1**
SUE				IAML		18 41 29.4	
	comp=Z,28nm,0.5s						
SUE	**Sulen**	**4.94**	**159**	*e*P	**Pn**	**18 40 33.3**	**+1.2**
SUE				*e*S	**Sn**	**18 41 27.0**	**-2.1**
SUE				IAML		18 41 29.4	
	comp=Z,28nm,0.5s						
VAGH	**Vaagaholmen**	**5.02**	**73**	Pn	**Pn**	**18 40 35.1**	**+2.0**
VAGH				Sn	**Sn**	**18 41 27.9**	**-3.2**
VAGH	**Vaagaholmen**	**5.02**	**73**	*e*P	**Pn**	**18 40 35.0**	**+1.9**
VAGH				*e*S	**Sn**	**18 41 27.6**	**-3.5**
VAGH				IAML		18 41 32.6	
	comp=Z,24nm,0.3s						
VAGH	**Vaagaholmen**	**5.02**	**73**	*e*P	**Pn**	**18 40 35.0**	**+1.9**
VAGH				*e*S	**Sn**	**18 41 27.6**	**-3.5**
VAGH				IAML		18 41 32.6	
	comp=Z,24nm,0.3s						
DOMB	**Dombas**	**5.07**	**133**	*e*P	**Pn**	**18 40 36.6**	**+2.6**
DOMB				*e*S	**Sn**	**18 41 33.4**	**+0.8**
DOMB				IAML		18 41 37.3	
	comp=Z,16nm,0.5s						
DOMB	**Dombas**	**5.07**	**133**	*e*P	**Pn**	**18 40 36.6**	**+2.6**
DOMB				*e*S	**Sn**	**18 41 33.4**	**+0.8**
DOMB				IAML		18 41 37.3	
	comp=Z,16nm,0.5s						
HYA	**Hoyanger**	**5.09**	**151**	Pn	**Pn**	**18 40 36.3**	**+2.3**
HYA				Sn	**Sn**	**18 41 33.0**	**+0.3**
HYA	**Hoyanger**	**5.09**	**151**	*e*P	**Pn**	**18 40 36.1**	**+2.0**
HYA				*e*S	**Sn**	**18 41 30.7**	**-2.0**
HYA				IAML		18 41 36.2	
	comp=Z,27nm,0.3s						
HYA	**Hoyanger**	**5.09**	**151**	*e*P	**Pn**	**18 40 36.1**	**+2.0**
HYA				*e*S	**Sn**	**18 41 30.7**	**-2.0**
HYA				IAML		18 41 36.2	
	comp=Z,27nm,0.3s						
SOFL	**Sornfelli, Far**	**5.11**	**228**	*e*P	**Pn**	**18 40 34.2**	**-0.3**
SOFL				*e*S	Sn	18 41 23.6	-10
SOFL				IAML		18 41 29.1	
	comp=Z,26nm,0.3s						
RAUS	**Rausandaksla**	**5.30**	**76**	*e*P	**Pn**	**18 40 39.1**	**+2.0**
RAUS				*e*S	**Sn**	**18 41 36.2**	**-1.9**
RAUS				IAML		18 41 41.6	
	comp=Z,34nm,0.3s						
RAUS	**Rausandaksla**	**5.30**	**76**	*e*P	**Pn**	**18 40 39.1**	**+2.0**
RAUS				*e*S	**Sn**	**18 41 36.2**	**-1.9**
RAUS				IAML		18 41 41.6	
	comp=Z,34nm,0.3s						
BAS02	**BAS02**	**5.40**	**160**	*e*P	**Pn**	**18 40 39.5**	**+1.2**
BAS02				*e*S	**Sn**	**18 41 38.6**	**-1.9**
BAS02				IAML		18 41 42.8	
	comp=Z,12nm,0.5s						
GILDE	**Gildeskaal**	**5.40**	**71**	*e*P	**Pn**	**18 40 40.3**	**+1.9**
GILDE				*e*S	**Sn**	**18 41 37.8**	**-2.8**
GILDE				IAML		18 41 43.8	
	comp=Z,26nm,0.3s						
LOF	**Lofoten**	**5.45**	**58**	Pn	**Pn**	**18 40 40.6**	**+1.5**
LOF				Sn	**Sn**	**18 41 38.4**	**-3.2**
LOF	**Lofoten**	**5.45**	**58**	*e*P	**Pn**	**18 40 39.4**	**+0.3**
LOF				*e*S	**Sn**	**18 41 37.8**	**-3.9**
LOF				IAML		18 41 41.2	
	comp=Z,16nm,0.4s						
LOF	**Lofoten**	**5.45**	**58**	*e*P	**Pn**	**18 40 39.4**	**+0.3**
LOF				*e*S	**Sn**	**18 41 37.8**	**-3.9**
LOF				IAML		18 41 41.2	
	comp=Z,16nm,0.4s						
MOR8	**Moi Rana**	**5.46**	**79**	Pn	**Pn**	**18 40 43.6**	**+4.4**
MOR8				Sn	**Sn**	**18 41 44.6**	**+2.5**
MOR8	**Moi Rana**	**5.46**	**79**	*e*P	**Pn**	**18 40 43.0**	**+3.8**
MOR8				*e*S	**Sn**	**18 41 43.2**	**+1.1**
MOR8				IAML		18 41 50.4	
	comp=Z,50nm,0.4s						
MOR8	**Moi Rana**	**5.46**	**79**	*e*P	**Pn**	**18 40 43.0**	**+3.8**
MOR8				*e*S	**Sn**	**18 41 43.2**	**+1.1**
MOR8				IAML		18 41 50.4	
	comp=Z,50nm,0.4s						
BAS03	**BAS03**	**5.48**	**159**	*e*P	**Pn**	**18 40 40.8**	**+1.3**
BAS03				*e*S	**Sn**	**18 41 40.4**	**-2.2**
BAS03				IAML		18 41 46.4	
	comp=Z,22nm,0.4s						
ASK	**Askoy**	**5.55**	**159**	Pn	**Pn**	**18 40 42.0**	**+1.5**
ASK				Sn	**Sn**	**18 41 42.5**	**-1.8**
ASK	**Askoy**	**5.55**	**159**	*e*P	**Pn**	**18 40 41.7**	**+1.2**
ASK				*e*S	**Sn**	**18 41 41.0**	**-3.2**
ASK				IAML		18 41 56.8	
	comp=Z,9.9nm,0.7s						
ASK	**Askoy**	**5.55**	**159**	*e*P	**Pn**	**18 40 41.7**	**+1.2**
ASK				*e*S	**Sn**	**18 41 41.0**	**-3.2**
ASK				IAML		18 41 56.8	
	comp=Z,9.9nm,0.7s						
BER	**Bergen**	**5.67**	**158**	Pn	**Pn**	**18 40 43.5**	**+1.4**
BER				Sn	**Sn**	**18 41 44.9**	**-2.3**
BER	**Bergen**	**5.67**	**158**	*e*P	**Pn**	**18 40 43.3**	**+1.2**
BER				*e*S	**Sn**	**18 41 43.6**	**-3.5**
BER				IAML		18 41 50.4	
	comp=Z,18nm,0.6s						
BER	**Bergen**	**5.67**	**158**	*e*P	**Pn**	**18 40 43.3**	**+1.2**
BER				*e*S	**Sn**	**18 41 43.6**	**-3.5**
BER				IAML		18 41 50.4	
	comp=Z,18nm,0.6s						
LRW	**Lerwick**	**5.69**	**192**	Pn	**Pn**	**18 40 42.9**	**+0.5**
LRW				Sn	**Sn**	**18 41 42.6**	**-5.0**
LRW	**Lerwick**	**5.69**	**192**	*e*P	**Pn**	**18 40 42.4**	**+0.1**
LRW				*e*S	**Sn**	**18 41 41.3**	**-6.3**
LRW				IAML		18 41 46.0	
	comp=Z,50nm,0.5s						
LRW	**Lerwick**	**5.69**	**192**	*e*P	**Pn**	**18 40 42.4**	**+0.1**
LRW				IAML		18 41 46.0	
	comp=Z,50nm,0.5s						
BAS15	**BAS15**	**5.74**	**160**	*e*P	**Pn**	**18 40 44.0**	**+1.0**
BAS15				*e*S	**Sn**	**18 41 46.0**	**-3.0**
BAS15				IAML		18 41 53.2	
	comp=Z,13nm,0.4s						
BAS16	**BAS16**	**5.79**	**160**	*e*P	**Pn**	**18 40 44.7**	**+1.0**
BAS17	**BAS17**	**5.87**	**159**	*e*P	**Pn**	**18 40 45.8**	**+1.0**
FAUS	**Fauske**	**5.89**	**67**	Pn	**Pn**	**18 40 47.3**	**+2.2**
FAUS				Sn	**Sn**	**18 41 50.6**	**-2.0**
FAUS	**Fauske**	**5.89**	**67**	*e*P	**Pn**	**18 40 46.7**	**+1.6**
FAUS				IAML		18 41 58.2	
	comp=Z,19nm,0.4s						
FAUS	**Fauske**	**5.89**	**67**	*e*P	**Pn**	**18 40 46.7**	**+1.6**
FAUS				IAML		18 41 58.2	
	comp=Z,19nm,0.4s						
SKAR	**Skarslia**	**5.99**	**144**	Pn	**Pn**	**18 40 49.1**	**+2.5**
SKAR				Sn	**Sn**	**18 41 54.6**	**-0.5**
SKAR	**Skarslia**	**5.99**	**144**	*e*P	**Pn**	**18 40 48.8**	**+2.2**
SKAR				*e*S	**Sn**	**18 41 53.6**	**-1.5**
SKAR				IAML		18 41 58.2	
	comp=Z,17nm,0.3s						
STEI	**Steigen**	**6.00**	**62**	Pn	**Pn**	**18 40 48.4**	**+1.8**
STEI				Sn	**Sn**	**18 41 52.5**	**-2.6**
STEI	**Steigen**	**6.00**	**62**	*e*P	**Pn**	**18 40 48.1**	**+1.6**
STEI				*e*S	**Sn**	**18 41 52.3**	**-2.8**
STEI				IAML		18 41 57.6	
	comp=Z,14nm,0.3s						
STEI	**Steigen**	**6.00**	**62**	*e*P	**Pn**	**18 40 48.1**	**+1.6**
STEI				*e*S	**Sn**	**18 41 52.3**	**-2.8**
STEI				IAML		18 41 57.6	
	comp=Z,14nm,0.3s						
NC204	**NORSAR Array S**	**6.18**	**131**	*e*P	**Pn**	**18 40 51.6**	**+2.3**
NC204				*e*S	**Sn**	**18 42 00.6**	**+0.6**
NC204				IAML		18 42 04.1	
	comp=Z,11nm,0.5s						
BAS23	**BAS23**	**6.24**	**156**	*e*P	**Pn**	**18 40 51.5**	**+1.5**
BAS21	**BAS21**	**6.27**	**157**	*e*P	**Pn**	**18 40 51.7**	**+1.3**

BAS21				*e*S	**Sn**	**18 41 59.5**	**-2.5**
BAS21				IAML		18 42 06.0	
	comp=Z,5.3nm,0.5s						
ODD1	**Odda**	**6.33**	**154**	Pn	**Pn**	**18 40 53.0**	**+1.7**
ODD1				Sn	**Sn**	**18 42 01.3**	**-2.2**
ODD1	**Odda**	**6.33**	**154**	*e*P	**Pn**	**18 40 52.7**	**+1.5**
ODD1				*e*S	**Sn**	**18 42 00.7**	**-2.8**
ODD1				IAML		18 42 04.7	
	comp=Z,14nm,0.6s						
ODD1	**Odda**	**6.33**	**154**	*e*P	**Pn**	**18 40 52.7**	**+1.5**
ODD1				*e*S	**Sn**	**18 42 00.7**	**-2.8**
ODD1				IAML		18 42 04.7	
	comp=Z,14nm,0.6s						
NB2	**NORSAR Subarra**	**6.51**	**131**	Pn	**Pn**	**18 40 56.1**	**+2.4**
	baz=320,slow=14						
NB2	**NORSAR Subarra**	**6.51**	**131**	Pn	**Pn**	**18 40 56.1**	**+2.4**
NB2	**NORSAR Subarra**	**6.51**	**131**	*e*P	**Pn**	**18 40 56.1**	**+2.4**
NOA	**NORSAR Array B**	**6.51**	**131**	Pn	**Pn**	**18 40 56.0**	**+2.4**
	comp=Z,0.2nm,0.3s,baz=314,slow=13,SNR=18						
NOA				Sn	**Sn**	**18 42 06.1**	**-1.7**
	comp=Z,0.3nm,0.3s,baz=322,slow=24,SNR=6.7						
NOA				LR	LR	18 43 39.1	
	comp=Z,25nm,20.5s,baz=310,slow=39						
	comp=Z,0.8nm,0.3s						
NOA				AML	AML		
BLS5	**Blasjo**	**6.76**	**156**	Pn	**Pn**	**18 40 58.4**	**+1.2**
BLS5				Sn	**Sn**	**18 42 10.5**	**-3.6**
BLS5	**Blasjo**	**6.76**	**156**	*e*P	**Pn**	**18 40 57.2**	**+0.1**
BLS5				*e*S	**Sn**	**18 42 10.1**	**-4.0**
BLS5				IAML		18 42 16.2	
	comp=Z,17nm,0.5s						
BLS5	**Blasjo**	**6.76**	**156**	*e*P	**Pn**	**18 40 57.2**	**+0.1**
BLS5				*e*S	**Sn**	**18 42 10.1**	**-4.0**
BLS5				IAML		18 42 16.2	
	comp=Z,17nm,0.5s						
KMY	**Karmoy**	**6.79**	**162**	Pn	**Pn**	**18 40 57.6**	**+0.2**
KMY				Sn	**Sn**	**18 42 11.7**	**-2.9**
KMY	**Karmoy**	**6.79**	**162**	*e*P	**Pn**	**18 40 57.2**	**-0.2**
KMY				*e*S	**Sn**	**18 42 11.3**	**-3.3**
KMY				IAML		18 42 13.1	
	comp=Z,21nm,0.3s						
KMY	**Karmoy**	**6.79**	**162**	*e*P	**Pn**	**18 40 57.2**	**-0.2**
KMY				*e*S	**Sn**	**18 42 11.3**	**-3.3**
KMY				IAML		18 42 13.1	
	comp=Z,21nm,0.3s						
NRA0	**NORESS Array S**	**6.84**	**132**	Pn	**Pn**	**18 41 00.3**	**+2.1**
	baz=317,slow=14						
NRA0				Sn	**Sn**	**18 42 15.3**	**-0.7**
	baz=324,slow=28						
NRA0	**NORESS Array S**	**6.84**	**132**	Pn	**Pn**	**18 41 00.3**	**+2.1**
NRA0				Sn	**Sn**	**18 42 15.3**	**-0.7**
NRA0	**NORESS Array S**	**6.84**	**132**	*e*P	**Pn**	**18 41 00.3**	**+2.1**
NRA0				*e*S	**Sn**	**18 42 15.3**	**-0.7**
STAV	**Stavanger**	**7.12**	**161**	Pn	**Pn**	**18 41 02.1**	**+0.2**
STAV				Sn	**Sn**	**18 42 17.7**	**-5.0**
STAV	**Stavanger**	**7.12**	**161**	*e*P	**Pn**	**18 41 00.4**	**-1.5**
SALU	**Saltoluokta**	**7.13**	**69**	*e*P	**Pn**	**18 41 04.2**	**+2.1**
SALU				*e*S	**Sn**	**18 42 21.4**	**-1.6**
SALU	**Saltoluokta**	**7.13**	**69**	*e*P	**Pn**	**18 41 04.2**	**+2.1**
SALU				*e*S	**Sn**	**18 42 21.4**	**-1.6**
KONO	**Kongsberg**	**7.21**	**143**	*e*P	**Pn**	**18 41 04.9**	**+1.6**
KONO				*e*S	**Sn**	**18 42 22.6**	**-2.5**
KONO				IAML		18 42 31.3	
	comp=Z,3.9nm,0.3s						
KONO	**Kongsberg**	**7.21**	**143**	*e*P	**Pn**	**18 41 04.9**	**+1.6**
KONO				*e*S	**Sn**	**18 42 22.6**	**-2.5**
KONO				IAML		18 42 31.3	
	comp=Z,3.9nm,0.3s						
OSL	**Oslo**	**7.25**	**138**	*e*P	**Pn**	**18 41 06.1**	**+2.3**
OSL	**Oslo**	**7.25**	**138**	*e*P	**Pn**	**18 41 06.1**	**+2.3**
TRO	**Tromso**	**7.82**	**52**	*e*P	**Pn**	**18 41 13.6**	**+2.1**
TRO	**Tromso**	**7.82**	**52**	*e*P	**Pn**	**18 41 13.3**	**+1.8**
TRO				*e*S	**Sn**	**18 42 36.2**	**-3.7**
SNART	**Snartemo**	**7.92**	**156**	*e*P	**Pn**	**18 41 13.6**	**+0.7**
SNART				*e*S	**Sn**	**18 42 38.1**	**-4.3**
SNART				IAML		18 42 45.9	
	comp=Z,7.5nm,0.7s						
SNART	**Snartemo**	**7.92**	**156**	*i*P	**Pn**	**18 41 14.1**	**+1.1**
SNART				*i*S	**Sn**	**18 42 38.2**	**-4.3**
SNART	**Snartemo**	**7.92**	**156**	*e*P	**Pn**	**18 41 13.6**	**+0.7**
SNART				*e*S	**Sn**	**18 42 38.1**	**-4.3**
SNART				IAML		18 42 45.9	
	comp=Z,7.5nm,0.7s						
HFS	**Hagfors**	**7.99**	**129**	Pn	**Pn**	**18 41 16.5**	**+2.6**
	comp=Z,0.7nm,0.3s,baz=307,slow=15,SNR=17						
HFS				Sn	**Sn**	**18 42 45.6**	**+1.4**
	comp=Z,0.7nm,0.3s,baz=331,slow=30,SNR=2.1						
	comp=Z,3.0nm,0.5s						
HFS				AML	AML		
HFS	**Hagfors**	**7.99**	**129**	Pn	**Pn**	**18 41 16.8**	**+2.9**
	baz=312,slow=14						
HFS	**Hagfors**	**7.99**	**129**	Pn	**Pn**	**18 41 16.8**	**+2.9**
STRU	**Stroemstad**	**8.15**	**141**	*e*P	**Pn**	**18 41 17.3**	**+1.3**
STRU				*e*S	**Sn**	**18 42 43.4**	**-4.7**
STRU	**Stroemstad**	**8.15**	**141**	*e*P	**Pn**	**18 41 17.2**	**+1.2**
STRU	**Stroemstad**	**8.15**	**141**	*i*P	**Pn**	**18 41 17.6**	**+1.6**
HOMB	**Homborsund**	**8.22**	**152**	*e*P	**Pn**	**18 41 18.4**	**+1.4**
HOMB				*e*S	**Sn**	**18 42 46.3**	**-3.5**
HOMB	**Homborsund**	**8.22**	**152**	*i*P	**Pn**	**18 41 18.4**	**+1.4**
HOMB				*i*S	**Sn**	**18 42 46.2**	**-3.5**
JETT	**Jettan, Norway**	**8.28**	**54**	Pn	**Pn**	**18 41 20.9**	**+3.0**
JETT	**Jettan, Norway**	**8.28**	**54**	Pn	**Pn**	**18 41 20.9**	**+3.0**
SJUU	**Sjulsmark**	**8.46**	**82**	*e*P	**Pn**	**18 41 22.0**	**+1.6**
LANU	**Lannavaara**	**8.52**	**65**	*e*P	**Pn**	**18 41 23.7**	**+2.6**
LANU				*e*S	**Sn**	**18 42 53.3**	**-3.9**
LANU	**Lannavaara**	**8.52**	**65**	*e*P	**Pn**	**18 41 24.3**	**+3.2**
LANU	**Lannavaara**	**8.52**	**65**	*e*P	**Pn**	**18 41 23.7**	**+2.6**
LANU				*e*S	**Sn**	**18 42 53.3**	**-3.9**
ERTU	**Ertsjaerv**	**8.57**	**75**	*e*P	**Pn**	**18 41 24.2**	**+2.4**
ERTU				*e*S	**Sn**	**18 42 55.0**	**-3.3**
ERTU	**Ertsjaerv**	**8.57**	**75**	*e*P	**Pn**	**18 41 24.2**	**+2.4**
ERTU				*e*S	**Sn**	**18 42 55.0**	**-3.3**
BURU	**Burvik**	**8.59**	**88**	*e*P	**Pn**	**18 41 25.9**	**+3.8**
BURU				*e*S	**Sn**	**18 42 57.6**	**-1.3**
BURU	**Burvik**	**8.59**	**88**	*e*P	**Pn**	**18 41 25.9**	**+3.8**
BURU				*e*S	**Sn**	**18 42 57.6**	**-1.3**
DRUM	**Mains of Drumt**	**8.99**	**193**	*e*P	**Pn**	**18 41 27.0**	**-0.6**
DRUM				*e*S	Sn	18 43 00.5	-8.3
KPL	**Plockton**	**8.99**	**204**	*e*P	**Pn**	**18 41 27.4**	**-0.3**
KPL				*e*S	Sn	18 43 00.4	-8.4
KTK1	**Kautokeino**	**9.12**	**59**	*e*P	**Pn**	**18 41 31.5**	**+2.2**
KTK1				*e*S	**Sn**	**18 43 05.7**	**-6.0**
KTK1				IAML		18 43 15.0	
	comp=Z,2.4nm,0.3s						
TJOU	**Tjoern**	**9.14**	**142**	*i*P	**Pn**	**18 41 31.8**	**+2.2**
TJOU				*i*S	**Sn**	**18 43 07.9**	**-4.4**
HEF	**Hetta**	**9.18**	**63**	*e*P	**Pn**	**18 41 32.7**	**+2.6**
HEF				smax	smax	18 43 09.6	
HEF	**Hetta**	**9.18**	**63**	*e*P	**Pn**	**18 41 32.7**	**+2.6**
HEF				MSN		18 43 09.6	
	comp=Z,2.6nm,0.4s						
KLF	**Kolari**	**9.24**	**70**	*e*P	**Pn**	**18 41 33.7**	**+2.8**
KLF				*e*S	**Sn**	**18 43 11.3**	**-3.5**
KLF				smax	smax	18 43 16.5	
KLF	**Kolari**	**9.24**	**70**	*e*P	**Pn**	**18 41 33.7**	**+2.8**
KLF				*e*S	**Sn**	**18 43 11.3**	**-3.5**
KLF				MSN		18 43 16.5	
	comp=Z,7.8nm,0.3s						
TOF	**Tornio**	**9.47**	**77**	*e*P	**Pn**	**18 41 35.9**	**+1.7**
TOF				*e*S	**Sn**	**18 43 17.3**	**-3.2**
TOF				smax	smax	18 43 22.1	
TOF	**Tornio**	**9.47**	**77**	*e*P	**Pn**	**18 41 35.9**	**+1.7**
TOF				*e*S	**Sn**	**18 43 17.3**	**-3.2**
TOF				MSN		18 43 22.1	
	comp=Z,3.8nm,0.3s						
VAF	**Ylistaro**	**9.68**	**96**	*e*P	**Pn**	**18 41 40.1**	**+3.0**
VAF				*e*S	**Sn**	**18 43 24.7**	**-0.9**
VAF	**Ylistaro**	**9.68**	**96**	*e*P	**Pn**	**18 41 41.0**	**+4.0**
HAMF	**Hammerfest**	**9.70**	**49**	*e*P	**Pn**	**18 41 38.1**	**+0.9**
HAMF				IAML		18 43 27.2	
	comp=Z,4.2nm,0.6s						
ONAU	**Onsala**	**9.78**	**143**	*i*P	**Pn**	**18 41 39.4**	**+1.0**
ONAU				*i*S	**Sn**	**18 43 23.7**	**-4.3**
ARA0	**ARCESS Array S**	**10.01**	**57**	Pn	**Pn**	**18 41 42.4**	**+0.9**
	baz=250,slow=12						
ARA0	**ARCESS Array S**	**10.01**	**57**	Pn	**Pn**	**18 41 42.4**	**+0.9**
ARCES	**ARCESS Array B**	**10.01**	**57**	Pn	**Pn**	**18 41 41.3**	**-0.2**
	comp=Z,0.1nm,0.3s,baz=251,slow=12,SNR=7.4						
	comp=Z,0.3nm,0.2s						
ARCES				AML	AML		
MUD	**Monsted U'grnd**	**10.05**	**154**	*i*P	**Pn**	**18 41 44.1**	**+2.0**
RNF	**Rovaniemi**	**10.08**	**74**	*e*P	**Pn**	**18 41 44.3**	**+1.8**
RNF	**Rovaniemi**	**10.08**	**74**	*e*P	**Pn**	**18 41 44.3**	**+1.8**
FABU	**Falkenberg**	**10.33**	**142**	*i*P	**Pn**	**18 41 47.2**	**+1.3**
FABU				*i*S	**Sn**	**18 43 35.2**	**-6.3**
RAF	**Rauma**	**10.35**	**107**	*e*P	**Pn**	**18 41 49.0**	**+2.8**
EKA	**Eskdalemuir Ar**	**10.62**	**193**	Pn	**Pn**	**18 41 49.6**	**-0.2**
	baz=358,slow=13						
EKA				Sn	Sn	18 43 40.2	-8.4
	baz=350,slow=24						
	comp=Z,0.9nm,0.4s						
EKA	**Eskdalemuir Ar**	**10.62**	**193**	Pn	**Pn**	**18 41 49.8**	**-0.1**
	baz=10,slow=14						
EKA				Sn	Sn	18 43 38.4	-10
	baz=10,slow=28						
EKA	**Eskdalemuir Ar**	**10.62**	**193**	Pn	**Pn**	**18 41 49.8**	**-0.1**
EKA				Sn	Sn	18 43 38.4	-10
KEF	**Keuruu**	**10.99**	**98**	*e*P	**Pn**	**18 41 57.6**	**+2.7**
DEL	**Delary**	**11.10**	**141**	*i*P	**Pn**	**18 41 57.9**	**+1.5**
SUF	**Sumiainen**	**11.26**	**94**	*e*P	**Pn**	**18 42 00.6**	**+2.0**
VADS	**Vadso**	**11.43**	**55**	*e*P	**Pn**	**18 42 02.5**	**+1.6**
VADS	**Vadso**	**11.43**	**55**	*e*P	**Pn**	**18 42 02.5**	**+1.6**
BLEU	**Blekinge**	**11.78**	**136**	*i*P	**Pn**	**18 42 07.3**	**+1.6**
FIA0	**FINESS Array S**	**11.85**	**99**	Pn	**Pn**	**18 42 07.8**	**+1.1**
	baz=311,slow=14						
FIA0				Sn	**Sn**	**18 44 12.7**	**-6.1**
	baz=302,slow=28						
FIA0	**FINESS Array S**	**11.85**	**99**	Pn	**Pn**	**18 42 07.8**	**+1.1**
FIA0				Sn	**Sn**	**18 44 12.7**	**-6.1**
FINES	**FINESS Array B**	**11.85**	**99**	Pn	**Pn**	**18 42 07.6**	**+0.9**
	comp=Z,0.2nm,0.3s,baz=311,slow=12,SNR=9.2						
FINES				Sn	**Sn**	**18 44 12.3**	**-6.5**
	comp=Z,0.9nm,0.3s,baz=303,slow=23,SNR=8.6						
	comp=Z,0.7nm,0.4s						
FINES				AML	AML		
MTSE	**Matsula**	**12.62**	**113**	*e*P	**Pn**	**18 42 19.3**	**+2.1**
APA0	**Apatity Array**	**12.69**	**67**	Pn	**Pn**	**18 42 20.0**	**+1.9**
	baz=270,slow=14						
APA0	**Apatity Array**	**12.69**	**67**	Pn	**Pn**	**18 42 20.0**	**+1.9**
SLIT	**Slitere, Latvi**	**12.83**	**119**	*e*P	**Pn**	**18 42 21.1**	**+1.0**
JOF	**Joensuu**	**13.30**	**88**	*e*P	**Pn**	**18 42 28.5**	**+2.0**
SPA0	**Spitsbergen Ar**	**13.31**	**14**	*e*P	**Pn**	**18 42 31.3**	**+4.8**
SPITS	**Spitsbergen Ar**	**13.31**	**14**	Pn	**Pn**	**18 42 24.1**	**-2.4**
	baz=219,slow=11						
	comp=Z,5.2nm,0.8s						
KLMR	**Klimovskoe**	**17.70**	**88**	*e*P	**Pn**	**18 43 22.4**	**-1.8**
KLMR				*e*S	Sn	18 46 28.6	-13
	comp=Z,8.4nm,3.1s						
GERES	**GERESS Array B**	**18.15**	**153**	P	**P**	**18 43 33.1**	**+3.0**
	baz=344,slow=13,SNR=1.8						
	comp=Z,0.3nm,0.3s						
DAVOX	**Davos/Dischmat**	**19.54**	**162**	LR	LR	18 53 00.2	
	comp=Z,20nm,19.4s,baz=85,slow=42						
AKASG	**Malin Array Be**	**20.81**	**123**	P	Pn	18 44 02.4	+0.8
	comp=Z,0.8nm,0.5s,baz=329,slow=11,SNR=1.6						
	comp=Z,0.8nm,0.5s						
MLR	**Muntele Rosu**	**24.32**	**134**	LR	LR	18 54 28.3	
	comp=Z,24nm,18.8s,baz=12,slow=37						
BVAR	**Borovoye Array**	**35.50**	**77**	P	**P**	**18 46 16.9**	**+2.6**
	comp=Z,0.4nm,0.5s,baz=306,slow=11,SNR=3.7						
	comp=Z,0.4nm,0.5s						
KURBB	**Kurchatov Arra**	**40.59**	**73**	LR	LR	19 04 58.5	
	comp=Z,50nm,19.1s,baz=173,slow=38						
YKA	**Yellowknife Ar**	**43.71**	**323**	P	**P**	**18 47 21.5**	**-1.0**
	comp=Z,0.6nm,0.7s,baz=36,slow=8.2,SNR=2.2						
	comp=Z,0.6nm,0.7s						
MKAR	**Makanchi Array**	**45.15**	**73**	LR	LR	19 06 35.5	
	comp=Z,29nm,20.1s,baz=122,slow=36						
PDAR	**Pinedale Array**	**59.45**	**307**	P	**P**	**18 49 19.8**	**-0.9**
	comp=Z,0.3nm,0.4s,baz=68,slow=5.3,SNR=4.2						
	comp=Z,0.3nm,0.4s						
ASAR	**Alice Springs**	**128.38**	**59**	PKP	**PKPdf**	**18 58 24.2**	**0.0**
	comp=Z,0.5nm,0.9s,baz=3.4,slow=2.0,SNR=3.7						

*SJA **03** 18:41:40.7±1.0,27°.80S×71°.80W,h14^{km}±4^{km},ML4.3,*
MW4.3
*IDC **03** 18:41:43.0±0.8,27°.69S×71°.75W,h0^{km},mb4.0/6,*
mbtmp4.0/10,ML4.0/4,MS3.5/10,Error ellipse:
s-maj=22.5km s-min=14.2km az=73.0
*NEIC **03** 18:41:45.0±2.1,27°.84S±0°.03×71°.56W±0°.05,h10^{km}±1^{km},*
mb4.6/6,ML4.3(GUC),Error ellipse: s-maj=7.3km
s-min=5.1km az=273.0
*GUC **03** 18:41:44.7±0.7,27°.90S×71°.52W,h24^{km}±3^{km},ML4.3*
ISC 03 18:41:42.5±1.6,**27°.84S**±0°.03×**71°.64W**±0°.05,**h0**^{km}±9^{km},
n123,σ**1^{s}.89**/145,**mb4.5**/7,**MS3.8**/6,**1C,Near coast of**
northern Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	**Llanos de Chal**	**0.62**	**126**	*e*P	**Pg**	**18 41 55.7**	**+1.3**
AC04	**Llanos de Chal**	**0.62**	**126**	*e*P	**Pg**	**18 41 55.5**	**+1.2**
AC04				*i*S	**Sg**	**18 42 02.8**	**+0.4**
AC04				IAML		18 42 04.7	
	comp=E,20µm,0.2s						
AC04	**Llanos de Chal**	**0.62**	**126**		**Pg**	**18 41 55.7**	**+1.3**
AC04				Sg	**Sg**	**18 42 02.5**	**+0.2**
AC06	**Mina Casimiro**	**1.23**	**67**	*e*P	**Pb**	**18 42 06.2**	**-0.5**
AC06				*i*S	**Sg**	**18 42 22.7**	**+0.5**
AC06				IAML		18 42 30.1	
	comp=E,7µm,0.4s						
AC06	**Mina Casimiro**	**1.23**	**67**		**Pb**	**18 42 06.5**	**-0.2**
AC06				Sn	**Sb**	**18 42 21.9**	**-1.3**
GO03	**Copiapo**	**1.27**	**79**	*e*P	**Pb**	**18 42 07.2**	**-0.1**
GO03				*e*S	**Sg**	**18 42 23.8**	**+0.5**
GO03				IAML		18 42 25.6	
	comp=Z,4µm,0.3s						
GO03	**Copiapo**	**1.27**	**79**	*e*P	**Pb**	**18 42 06.4**	**-0.9**
GO03				*i*S	**Sb**	**18 42 23.4**	**-0.7**
GO03	**Copiapo**	**1.27**	**79**		**Pb**	**18 42 06.8**	**-0.5**
LCO	**Las Campanas**	**1.43**	**145**	Pn	**Pn**	**18 42 09.6**	**-0.4**
LCO				Sn	**Sb**	**18 42 26.8**	**-2.2**
AC05	**El Transito**	**1.56**	**130**	*e*P	**Pn**	**18 42 11.7**	**+0.1**
AC05				*e*S	**Sb**	**18 42 32.0**	**-0.6**
AC05				IAML		18 42 36.4	
	comp=Z,2µm,0.6s						
AC05	**El Transito**	**1.56**	**130**	*e*P	**Pn**	**18 42 11.5**	**-0.1**
AC05				*i*S	**Sn**	**18 42 31.2**	**-1.3**
AC05				IAML		18 42 35.1	
	comp=N,7µm,0.6s						
AC05	**El Transito**	**1.56**	**130**	Pn	**Pn**	**18 42 11.5**	**-0.1**
AC05				Sn	**Sn**	**18 42 31.7**	**-0.9**
AC01	**Pan de Azucar**	**1.92**	**29**	*e*P	**Pn**	**18 42 16.4**	**-0.1**
AC01				*e*S	**Sn**	**18 42 41.8**	**+0.4**
AC01				IAML		18 42 53.0	
	comp=Z,2µm,0.8s						
AC01	**Pan de Azucar**	**1.92**	**29**	⇑*i*P	**Pn**	**18 42 16.2**	**-0.3**
AC01	**Pan de Azucar**	**1.92**	**29**		**Pn**	**18 42 16.2**	**-0.3**
AC01				Sn	**Sn**	**18 42 39.0**	**-2.4**
GO04	**Tololo Observa**	**2.44**	**163**	*e*P	**Pn**	**18 42 24.3**	**+0.5**
GO04				*e*S	**Sg**	**18 43 03.4**	**+2.5**
GO04				IAML		18 43 04.9	
	comp=Z,2µm,0.6s						
GO04	**Tololo Observa**	**2.44**	**163**	*e*P	**Pn**	**18 42 23.9**	**+0.1**
GO04				*i*S	**Sn**	**18 42 56.2**	**+1.8**
GO04	**Tololo Observa**	**2.44**	**163**		**Pn**	**18 42 24.2**	**+0.4**
AC02	**Maricunga**	**2.44**	**66**	*e*P	**Pn**	**18 42 26.2**	**+2.1**
AC02				*e*S	**Sg**	**18 42 59.9**	**-1.2**
AC02				IAML		18 43 01.4	
	comp=Z,2µm,1.0s						
AC02	**Maricunga**	**2.44**	**66**	*e*P	**Pn**	**18 42 26.0**	**+1.9**
AC02				*i*S	**Sb**	**18 42 58.3**	**-0.1**
AC02				IAML		18 43 01.9	
	comp=N,4µm,0.4s						
AC02	**Maricunga**	**2.44**	**66**		**Pn**	**18 42 25.3**	**+1.2**
AC02				Sn	**Sn**	**18 42 55.9**	**+1.0**
CO01	**Juntas del Tor**	**2.52**	**148**	*e*P	**Pn**	**18 42 26.6**	**+1.6**
CO01				*e*S	**Sb**	**18 42 58.8**	**-1.7**
CO01				IAML		18 43 03.2	
	comp=Z,1µm,0.8s						
CO01	**Juntas del Tor**	**2.52**	**148**	*e*P	**Pn**	**18 42 26.5**	**+1.5**
CO01				*i*S	**Sn**	**18 42 57.8**	**+1.3**
CO01				IAML		18 43 08.1	
	comp=N,1µm,0.6s						
CO01	**Juntas del Tor**	**2.52**	**148**		**Pn**	**18 42 26.4**	**+1.4**
CO06	**Fray Jorge**	**2.83**	**180**	*e*P	**Pn**	**18 42 28.1**	**-0.8**
CO06	**Fray Jorge**	**2.83**	**180**		**Pn**	**18 42 28.1**	**-0.8**
AROD	**Rodeo**	**3.00**	**141**	*e*P	**Pb**	**18 42 35.2**	**-1.7**
AROD				*e*S	**Sb**	**18 43 15.1**	**+0.9**
CO03	**El Pedregal**	**3.10**	**165**	*e*P	**Pn**	**18 42 33.4**	**+0.6**
CO03				*e*S	Sn	18 42 53.0	-18
CO03				IAML		18 43 22.1	
	comp=Z,720nm,1.0s						
CO03	**El Pedregal**	**3.10**	**165**	*e*P	**Pn**	**18 42 33.2**	**+0.4**
CO03				*i*S	**Sn**	**18 43 11.9**	**+1.3**
CO03				IAML		18 43 22.3	
	comp=E,1µm,0.2s						
CO03	**El Pedregal**	**3.10**	**165**		**Pn**	**18 42 33.1**	**+0.4**
VCA	**Vinchina**	**3.15**	**107**	*e*P	**Pb**	**18 42 37.6**	**-2.0**
VCA				*e*S	**Sb**	**18 43 16.7**	**-1.9**
VCA				IAML		18 43 26.0	
	comp=Z,1µm,0.9s						
VCA	**Vinchina**	**3.15**	**107**	*e*P	**Pb**	**18 42 38.0**	**-1.6**
ACDV	**Cuesta del Vie**	**3.20**	**137**	*e*P	**Pb**	**18 42 38.2**	**-2.1**
ACDV				*e*S	**Sn**	**18 43 15.8**	**+2.5**
ACDV				IAML		18 43 27.8	
	comp=Z,621nm,0.7s						
PB14	**IPOC Station P**	**3.38**	**19**	*e*P	**Pn**	**18 42 36.4**	**-0.5**
PB14				*e*S	**Sb**	**18 43 27.3**	**+1.9**
PB14				IAML		18 43 39.4	
	comp=Z,600nm,0.6s						
PB14	**IPOC Station P**	**3.38**	**19**	*e*P	**Pn**	**18 42 36.0**	**-0.8**
PB14				IAML		18 43 39.5	
	comp=E,600nm,0.6s						
PB14	**IPOC Station P**	**3.38**	**19**		**Pn**	**18 42 36.1**	**-0.8**
CO02	**Combarbal**	**3.40**	**171**	*e*P	**Pn**	**18 42 37.0**	**+0.1**
CO02				*e*S	**Sn**	**18 43 10.7**	**-7.3**
CO02				IAML		18 43 36.9	
	comp=Z,1µm,0.6s						
CO02	**Combarbal**	**3.40**	**171**	*e*P	**Pn**	**18 42 36.7**	**-0.2**
CO02				*i*S	**Sn**	**18 43 19.7**	**+1.8**
CO02	**Combarbal**	**3.40**	**171**		**Pn**	**18 42 36.7**	**-0.2**
ACCO	**Cerro Coronel**	**3.54**	**141**	*e*P	**Pn**	**18 42 42.8**	**+3.7**
ACCO				*e*S	**Sn**	**18 43 19.1**	**-2.7**
ACCO				IAML		18 43 38.8	
	comp=Z,441nm,0.9s						
TINO	**Tinogasta**	**3.60**	**94**	*e*P	**Pn**	**18 42 42.2**	**+2.5**
TINO				*e*S	**Sg**	**18 43 36.9**	**-1.5**
TINO				IAML		18 43 37.4	
	comp=Z,556nm,1.2s						
CO04	**Los Peladeros**	**4.23**	**172**		**Pn**	**18 42 48.6**	**+0.1**
ACLC	**CERRO LA CRUZ**	**4.41**	**112**	*e*P	**Pn**	**18 42 53.6**	**+2.7**
ACLC				*e*S	**Sb**	**18 43 49.9**	**-4.8**
ACLC				IAML		18 43 59.2	
	comp=Z,234nm,0.5s						
RTLL	**Cerro Villicun**	**4.43**	**142**	*e*P	**Pn**	**18 42 55.4**	**+4.3**
RTLL				*e*S	**Sn**	**18 43 42.6**	**-0.9**
RTLL				IAML		18 44 08.2	
	comp=Z,258nm,1.1s						
RTLS	**Leoncito**	**4.44**	**153**	*e*P	**Pn**	**18 42 55.5**	**+4.2**
RTLS				*e*S	**Sn**	**18 43 46.4**	**+2.5**
ZON	**Zonda**	**4.50**	**146**		**Pn**	**18 42 53.8**	**+1.8**
CFA	**Coronel Fontan**	**4.78**	**143**	Pn	**Pn**	**18 42 58.6**	**+2.8**
	comp=Z,6.8nm,0.3s,baz=319,slow=14,SNR=27						
CFA				Sn	**Sb**	**18 43 58.3**	**-6.9**
	comp=Z,9.9nm,0.3s,baz=83,slow=2.9,SNR=6.1						
CFA				LR	LR	18 44 45.0	
	comp=Z,219nm,19.4s,baz=306,slow=37						
	comp=Z,22nm,0.3s						
CFA				AML	AML		
CFA	**Coronel Fontan**	**4.78**	**143**	*e*P	**Pn**	**18 42 58.6**	**+2.8**
CFA				*e*S	**Sn**	**18 43 54.3**	**+2.5**
CFA				IAML		18 44 11.3	
	comp=Z,160nm,0.6s						
VA03	**San Esteban**	**5.00**	**169**	*e*P	**Pn**	**18 43 00.9**	**+2.1**
VA03				*e*S	**Sn**	**18 44 04.8**	**+7.4**
VA03				IAML		18 44 29.5	
	comp=Z,462nm,0.7s						
VA03	**San Esteban**	**5.00**	**169**		**Pn**	**18 43 00.6**	**+1.8**
PB05	**IPOC Station P**	**5.13**	**15**	*e*P	**Pn**	**18 42 59.6**	**-1.1**
PB05				IAML		18 44 44.2	
	comp=Z,211nm,0.5s						
PB05	**IPOC Station P**	**5.13**	**15**		**Pn**	**18 42 59.1**	**-1.7**
CYA	**Choya**	**5.19**	**98**	*e*P	**Pn**	**18 43 04.7**	**+3.3**
CYA				*e*S	**Sn**	**18 44 01.5**	**-0.4**
CYA				IAML		18 44 28.7	
	comp=Z,134nm,1.9s						
PEL	**Peldehue**	**5.35**	**171**	Pn	**Pn**	**18 43 05.3**	**+1.6**
MT02	**Curacav**	**5.42**	**176**		**Pn**	**18 43 05.6**	**+1.0**
PB06	**IPOC Station P**	**5.44**	**21**		**Pn**	**18 43 04.1**	**-0.9**
MT05	**Renca**	**5.59**	**172**	Pn	**Pn**	**18 43 07.8**	**+0.8**
MT16	**CCHEN**	**5.65**	**171**		**Pn**	**18 43 08.9**	**+1.1**
MT03	**Universidad Ad**	**5.72**	**171**		**Pn**	**18 43 09.8**	**+1.0**
MT08	**Bocatoma Ro**	**5.76**	**166**	Pn	**Pn**	**18 43 08.1**	**-1.3**
AF01	**San Pedro de A**	**5.78**	**33**		**Pn**	**18 43 07.1**	**-2.8**
MT09	**Talagante**	**5.94**	**175**		**Pn**	**18 43 13.3**	**+1.4**
MT13	**San Alfonso**	**6.00**	**169**		**Pn**	**18 43 13.8**	**+1.1**
PB03	**IPOC Station P**	**6.01**	**17**		**Pn**	**18 43 11.1**	**-1.8**
MT01	**Popeta**	**6.01**	**177**		**Pn**	**18 43 13.7**	**+0.9**
PB07	**IPOC Station P**	**6.29**	**15**		**Pn**	**18 43 14.7**	**-2.0**
SLA	**San Lorenzo**	**6.32**	**62**	*e*P	Pb	18 43 26.3	-7.2
PB09	**IPOC Station P**	**6.40**	**20**		**Pn**	**18 43 16.8**	**-1.4**
BO01	**Tunca**	**6.55**	**176**		**Pn**	**18 43 23.4**	**+3.3**
PB02	**IPOC Station P**	**6.68**	**14**		**Pn**	**18 43 20.2**	**-1.8**
BO02	**Sierra Bellavi**	**6.97**	**174**		**Pn**	**18 43 27.6**	**+1.6**
TCA	**Tanti**	**7.05**	**121**	*e*P	**Pn**	**18 43 27.9**	**+0.9**
GO05	**Hualane**	**7.15**	**182**	Pn	**Pn**	**18 43 29.2**	**+0.8**
TA01	**Diego Aracena**	**7.36**	**11**	Pn	**Pn**	**18 43 29.2**	**-2.0**
ML02	**Panimavida**	**7.90**	**179**		**Pn**	**18 43 40.0**	**+1.3**
PB08	**IPOC Station P**	**7.99**	**17**		**Pn**	**18 43 38.7**	**-1.6**
PB11	**IPOC Station P**	**8.24**	**13**	Pn	**Pn**	**18 43 40.7**	**-2.8**
PSGCX	**Pisagua**	**8.32**	**10**		**Pn**	**18 43 42.5**	**-2.0**
H03N1	**Juan Fernandez**	**8.39**	**227**	T	T	18 52 43.6	
	baz=207,slow=74,SNR=2778						
H03N2	**Juan Fernandez**	**8.40**	**227**	T	T	18 52 44.5	
	baz=55,slow=74,SNR=2953						
GO01	**Chusmiza**	**8.43**	**16**	Pn	**Pn**	**18 43 44.2**	**-2.2**
PB16	**IPOC Station P**	**9.66**	**12**		**Pn**	**18 44 02.6**	**-0.7**
LPAZ	**La Paz**	**11.94**	**16**	Pn	**Pn**	**18 44 33.1**	**-1.6**
	comp=Z,0.4nm,0.3s,baz=181,slow=4.6,SNR=9.2						
LPAZ				LR	LR	18 49 14.3	
	comp=Z,88nm,19.9s,baz=202,slow=38						
	comp=Z,1.3nm,0.4s						
LPAZ				AML	AML		
LPAZ	**La Paz**	**11.94**	**16**		**Pn**	**18 44 33.5**	**-1.2**
CPUP	**Villa Florida**	**12.84**	**87**	Pn	**Pn**	**18 44 47.0**	**+0.8**
	comp=Z,0.2nm,0.3s,baz=242,slow=20,SNR=1.4						
CPUP				LR	LR	18 50 41.7	
	comp=Z,42nm,20.9s,baz=250,slow=42						
	comp=Z,0.8nm,0.3s						
CPUP				AML	AML		
PLCA	**Paso Flores**	**12.89**	**176**	LR	LR	18 49 50.6	
	comp=Z,222nm,18.6s,baz=358,slow=37						
SIV	**San Ignacio**	**15.32**	**42**	Pn	**Pn**	**18 45 18.7**	**-1.5**
	comp=Z,0.1nm,0.3s,baz=229,slow=12,SNR=21						
	comp=Z,0.6nm,0.4s						
SIV				AML	AML		
VAO	**Valinhos**	**22.78**	**83**	P	**P**	**18 46 46.0**	**-0.8**
VAO				IAmb	IAmb	18 46 46.2	
	comp=Z,17nm,1.0s						
BDFB	**Brasilia**	**25.02**	**66**	LR	LR	18 58 15.1	
	comp=Z,223nm,18.0s,baz=1.3,slow=40						
PMSA	**Palmer Station**	**37.26**	**175**	LR	LR	19 03 25.9	
	comp=Z,73nm,18.5s,baz=204,slow=35						
PMSA	**Palmer Station**	**37.26**	**175**	P	**P**	**18 48 56.3**	**+0.7**
PMSA				IAmb	IAmb	18 49 04.5	
	comp=Z,8.6nm,0.7s						
MDP	**Montagnes des**	**37.53**	**32**	LR	LR	19 06 36.9	
	comp=Z,72nm,18.4s,baz=147,slow=40						
ORCD	**Orcadas**	**37.57**	**159**	P	**P**	**18 48 58.4**	**+0.1**
SNAA	**Sanae**	**57.18**	**159**	P	**P**	**18 51 31.6**	**+0.8**
	comp=Z,4.1nm,1.1s,baz=311,slow=3.9,SNR=4.2						
	comp=Z,4.1nm,1.1s						
SNAA	**Sanae**	**57.18**	**159**	P	**P**	**18 51 31.1**	**+0.2**
TROLL	**Troll, Antarti**	**58.89**	**160**	P	**P**	**18 51 43.3**	**+0.3**
	comp=Z,112nm,0.7s						
QSPA	**South Pole Qui**	**62.38**	**180**	P	**P**	**18 52 07.9**	**+1.1**
	comp=Z,2.7nm,1.1s,baz=154,slow=3.7,SNR=5.1						
	comp=Z,2.7nm,1.1s						
QSPA	**South Pole Qui**	**62.38**	**180**	P	**P**	**18 52 07.0**	**+0.1**
QSPA				IAmb	IAmb	18 52 10.0	
	comp=Z,4.0nm,1.1s						
TXAR	**Lajitas Array**	**64.59**	**329**	P	**P**	**18 52 22.1**	**+0.3**
	comp=Z,0.1nm,0.6s,baz=32,slow=36,SNR=1.4						
	comp=Z,0.1nm,0.6s						
TXAR	**Lajitas Array**	**64.59**	**329**	P	**P**	**18 52 21.1**	**-0.7**
DBIC	**Dimbokro**	**72.95**	**73**	P	**P**	**18 53 14.1**	**-0.1**
	comp=Z,7.0nm,0.9s,baz=206,slow=6.6,SNR=4.1						
	comp=Z,7.0nm,0.9s						
DBIC	**Dimbokro**	**72.95**	**73**	P	**P**	**18 53 13.1**	**-1.1**
PDAR	**Pinedale Array**	**78.45**	**332**	P	**P**	**18 53 44.6**	**-0.8**
	comp=Z,0.2nm,0.4s,baz=47,slow=49,SNR=2.1						
	comp=Z,0.2nm,0.4s						
PDAR	**Pinedale Array**	**78.45**	**332**	P	**P**	**18 53 43.8**	**-1.6**
TORD	**Torodi Ar. Bea**	**81.81**	**71**	P	**P**	**18 54 04.2**	**+0.4**
	comp=Z,5.2nm,1.1s,baz=256,slow=4.7,SNR=11						
	comp=Z,5.2nm,1.1s						
BOSA	**Boshof**	**82.65**	**118**	LR	LR	19 28 48.9	
	comp=Z,40nm,19.3s,baz=147,slow=34						
LBTB	**Lobatse**	**84.59**	**115**	LR	LR	19 30 25.0	

	comp=Z,63nm,19.2s,baz=139,slow=34						
LSZ	Lusaka	91.39	108	LR	LR	19 35 09.9	
	comp=Z,120nm,19.2s,baz=158,slow=35						
ASAR	Alice Springs	123.17	208	PKP	PKPdf	19 00 41.8	-0.1
	comp=Z,0.2nm,0.8s,baz=237,slow=39,SNR=2.0						
H11S2	WAKE ISLAND Hy	125.98	273	T	T	21 20 03.8	
	baz=111						
H11S1	WAKE ISLAND Hy	125.99	273	T	T	21 20 02.4	
	baz=111,slow=74,SNR=5.0						
H11S3	WAKE ISLAND Hy	126.00	273	T	T	21 19 59.7	
	baz=111,slow=74,SNR=4.2						
WRA	Warramunga Arr	126.26	211	PKP	PKPdf	19 00 48.5	+0.7
	comp=Z,0.2nm,0.6s,baz=157,slow=1.6,SNR=4.6						
BVAR	Borovoye Array	142.36	37	PKP	PKPdf	19 01 17.7	+0.9
	comp=Z,0.2nm,0.4s,baz=250,slow=43,SNR=1.9						
KK31	Karatay Array	145.94	53	PKPdf	PKPdf	19 01 23.0	-0.3
KKAR	Karatay Array	145.94	53	PKPdf	PKPdf	19 01 23.2	-0.1
KURK	Kurchatov	147.93	36		PKPdf	19 01 28.0	+1.6
KURBB	Kurchatov Arra	147.93	37	PKPbc	PKPdf	19 01 28.0	+1.6
	comp=Z,0.5nm,0.3s,baz=308,slow=3.5,SNR=9.8						
ARSB	Arslanbob	148.14	56		PKiKP	19 01 32.4	+0.2
ZAA0	Zalesovo Array	148.71	27	PKPbc	PKPbc	19 01 32.5	+1.2
ZALV	Zalesovo Beam	148.71	27	PKPbc	PKPbc	19 01 32.6	+1.4
	comp=Z,3.8nm,0.7s,baz=304,slow=3.4,SNR=20						
ZALV	Zalesovo Beam	148.71	27		PKPbc	19 01 32.2	+0.9
MKAR	Makanchi Array	152.13	40	PKPbc	PKPbc	19 01 40.6	+0.8
	comp=Z,0.5nm,0.5s,baz=359,slow=1.4,SNR=7.4						

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*BGR **03** 19:12:59.6, 18°.75S×178°.21W, h600^{km}*

*NEIC **03** 19:13:00.7±1.5, 17°.9S±0°.1×178°.51W±0°.08, h593^{km}±5^{km}, mb4.4/117, Error ellipse: s-maj=15.2km s-min=10.9km az=158.0*

*IDC **03** 19:13:01.7±0.9, 17°.87S×178°.50W, h608^{km}±9^{km}, mb3.7/19, mbtmp4.6/21, Error ellipse: s-maj=14.8km s-min=11.2km az=114.0*

*NOU **03** 19:13:01.9, 17°.99S×178°.60W, h606^{km}, mb4.8/45, Fiji Islands Region*

*GFZ **03** 19:13:02.0±0.2, 18°S±7°×17°9W±°, h604^{km}, M4.9/24, mb4.8/24, confirmed*

ISC 03 19:13:01.1±0.5**, 17°.89S**±0°.06×**178°.48W**±0°.06**, h608**^{km}±5^{km}**, n366, σ0^{s}.97**/354**, mb4.5**/95**, 60C-14D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LKBA	Tubou, Lakemba	0.47	224	P	P	19 14 12.4	+0.1
LKBA	Tubou, Lakemba	0.47	224	S	S	19 15 10.6	+0.4
MSVF	Nonsavu	3.31	272	P	P	19 14 23.1	+0.2
	318nm,0.8s,baz=135,slow=2.9,SNR=115						
MSVF				S	S	19 15 31.8	+2.3
	12nm,0.8s,baz=33,slow=21,SNR=6.3						
MSVF	Nonsavu	3.31	272	P	P	19 14 23.6	+0.7
MSVF	Nonsavu	3.31	272	P	P	19 14 24.0	+1.1
FUTU	Fugatoga	3.58	6	P	P	19 14 22.8	-1.7
AFI	Afiamalu	7.56	59	P	P	19 14 54.4	-2.4
AFI	Afiamalu	7.56	59	P	P	19 14 55.4	-1.4
	comp=Z,57nm,0.5s						
NIUE	Niue	8.20	100		P	19 15 01.8	-0.8
MARNC	Mare, Loyalty	13.20	252	P	P	19 15 50.4	-1.4
SANVU	Saraoutou	13.94	278	P	P	19 15 58.9	-0.3
OUENC	Ouen Island, N	14.50	249	P	P	19 16 03.9	-0.5
DZM	Mont Dzumac	14.77	251	P	P	19 16 07.1	+0.1
	comp=Z,5.9nm,0.4s,baz=90,slow=19						
KOUNC	Koumac, New Ca	16.49	258	P	P	19 16 23.2	+0.6
KOUNC				IAmb	IAmb	19 16 26.1	
	comp=Z,35nm,0.9s						
OUZ	Omahuta	18.64	201	P	P	19 16 45.5	+3.4
	comp=Z,63nm,1.0s						
URZ	Urewera	20.66	190	P	P	19 16 58.3	-1.8
	comp=Z,4.3nm,0.3s,baz=353,slow=8.1,SNR=8.3						
BFZ	Birch Farm	23.16	190	P	P	19 17 21.5	-1.0
MRZ	Mangatainoka R	23.26	192	P	P	19 17 21.9	-1.5
QRZ	Quartz Range	24.13	197	P	P	19 17 31.6	+0.5
QRZ	Quartz Range	24.13	197	S	S	19 21 07.8	+0.2
KHZ	Kahutara	25.38	194	P	P	19 17 41.6	-0.4
KHZ	Kahutara	25.38	194	S	S	19 21 25.5	-1.5
CTZ	Chatham Island	25.81	177	P	P	19 17 46.0	+0.2
LTZ	Lake Taylor	26.03	196	P	P	19 17 46.6	-1.1
INZ	Inchbonnie	26.20	197	P	P	19 17 48.1	-1.1
ODZ	Otahua Downs	28.56	196	P	P	19 18 08.3	-1.5
ODZ				IAmb	IAmb	19 18 37.6	
	comp=Z,32nm,1.3s						
WKZ	Wanaka	28.83	199	P	P	19 18 11.1	-1.1
EIDS	Eidsvold	29.21	250	P	P	19 18 15.1	-0.6
EIDS				IAmb	IAmb	19 18 16.4	
	comp=Z,14nm,0.8s						
ARMA	Armidale	29.89	240	P	P	19 18 22.2	+0.6
ARMA				IAmb	IAmb	19 18 23.4	
	comp=Z,8.0nm,0.8s						
CTA	Charters Tower	33.39	261	P	P	19 18 51.4	+0.1
	comp=Z,19nm,0.6s,baz=88,slow=10,SNR=10.0						
	comp=Z,19nm,0.6s						
CTA	Charters Tower	33.39	261	P	P	19 18 51.3	+0.1
CTAO	Charters Tower	33.39	261	P	P	19 18 51.4	+0.1
CTAO	Charters Tower	33.39	261	P	P	19 18 51.3	+0.1
CTAO	Charters Tower	33.39	261	P	P	19 18 51.3	+0.1
	comp=Z,34nm,0.7s						
PATS	Pohnpei	33.60	315	P	P	19 18 53.6	+0.5
CAN	Canberra	33.66	232	P	P	19 18 53.7	+0.3
CAN				IAmb	IAmb	19 19 29.4	
	comp=Z,30nm,1.4s						
PMG	Port Moresby	34.39	280	P	P	19 19 00.1	+0.4
PMG	Port Moresby	34.39	280	P	P	19 18 59.9	+0.2
PMG	Port Moresby	34.39	280		P	19 19 00.0	+0.4
PMG	Port Moresby	34.39	280	P	P	19 18 59.5	-0.2
	comp=Z,101nm,0.9s						
PMG	Port Moresby	34.39	280	P	P	19 19 01.0	+1.3
	comp=Z,104nm,0.9s						
CMSA	Cobar Meteorol	35.10	240	P	P	19 19 06.1	+0.7
CMSA	Cobar Meteorol	35.10	240	S	S	19 23 55.7	-0.7
MTSU	Mount Surprise	35.35	264	P	P	19 19 07.6	0.0
MTSU	Mount Surprise	35.35	264	P	P	19 19 08.0	+0.4
	comp=Z,16nm,1.0s						
QLP	Quilpie	35.48	249	P	P	19 19 08.8	+0.2
QLP	Quilpie	35.48	249	S	S	19 24 01.7	-0.5
QLP	Quilpie	35.48	249	P	P	19 19 08.9	+0.3
	comp=Z,58nm,0.8s						
MANU	Manus Island	37.03	291	P	P	19 19 21.9	+0.4
MANU				IAmb	IAmb	19 19 23.3	
	comp=Z,29nm,1.1s						
TOO	Toolangi	37.13	231	P	P	19 19 22.5	+0.6
TOO				IAmb	IAmb	19 20 04.5	
	comp=Z,13nm,1.5s						
STKA	Stephens Creek	38.58	241	P	P	19 19 34.6	+0.9
	comp=Z,19nm,0.8s,baz=93,slow=10.0,SNR=21						
STKA				PcP	PcP	19 21 31.0	+0.9
	comp=Z,3.4nm,0.8s,baz=90,slow=3.0,SNR=2.8						
	comp=Z,19nm,0.8s						
STKA	Stephens Creek	38.58	241	P	P	19 19 34.7	+0.9
	comp=Z,125nm,1.8s						
INKA	Innaminka	38.69	248		P	19 19 35.8	+1.1
INKA				IAmb	IAmb	19 19 36.8	
	comp=Z,9.8nm,0.7s						
QIS	Mount Isa	39.59	259	P	P	19 19 41.9	-0.2
QIS	Mount Isa	39.59	259	P	P	19 19 41.6	-0.5
	comp=Z,6.8nm,0.4s						
GENI	Genyem	43.30	286	P	P	19 20 11.8	+0.6
GENI	Genyem	43.30	286	P	P	19 20 10.9	-0.3
GENI	Genyem	43.30	286	P	P	19 20 12.4	+1.1
	comp=Z,101nm,0.8s						
BBOO	Buckleboo	43.36	241	P	P	19 20 11.8	+0.4
BBOO	Buckleboo	43.36	241	P	P	19 20 11.8	+0.4
	comp=Z,33nm,2.9s						
CPK	Cone Peak	43.47	33	P	P	19 20 12.6	+0.1
BYL	Byron's Ledge	43.52	33	P	P	19 20 13.0	+0.1
HMH	Humu‘ula Sheep	43.57	32	P	P	19 20 13.7	+0.2
JOKA	Jonika Flow	43.67	33	P	P	19 20 14.3	+0.3
KEKH	Kekaha	43.68	26	P	P	19 20 13.4	-0.5
WR8	Warramunga Arr	44.42	260		P	19 20 18.9	-0.9
WR8				IAmb	IAmb	19 20 21.4	
	comp=Z,20nm,1.1s						
WR8				PcP	PcP	19 21 49.4	-0.5
WB0	Warramunga Arr	44.54	260		P	19 20 20.0	-0.7
WB0				PcP	PcP	19 21 50.1	-0.2
WRAB	Tennant Creek	44.56	260	P	P	19 20 20.6	-0.3
WRAB	Tennant Creek	44.56	260	P	P	19 20 20.8	-0.1
	comp=Z,42nm,0.7s						
WRA	Warramunga Arr	44.57	260	P	P	19 20 20.4	-0.6
	comp=Z,18nm,0.5s,baz=95,slow=7.3,SNR=460						
WRA				PcP	PcP	19 21 50.3	-0.2
	comp=Z,3.3nm,0.5s,baz=96,slow=3.3,SNR=6.5						
WRA				ScP	ScP	19 24 47.3	+1.8
	comp=Z,0.6nm,0.8s,baz=94,slow=4.1,SNR=2.4						
WRA				S	S	19 26 09.7	-4.3
	comp=Z,2.2nm,0.8s,baz=100,slow=13,SNR=6.2						
	comp=Z,18nm,0.5s						
WRA	Warramunga Arr	44.57	260	P	P	19 20 19.6	-1.4
WRA				PcP	PcP	19 21 49.9	-0.6
AS01	Alice Springs	44.69	254	P	P	19 20 21.9	0.0
AS31	Alice Springs	44.73	254		P	19 20 22.1	-0.1
ASAR	Alice Springs	44.73	254	P	P	19 20 22.3	+0.1
	comp=Z,102nm,0.6s,baz=88,slow=8.5,SNR=1903						
ASAR				PcP	PcP	19 21 51.1	+0.1
	comp=Z,4.6nm,0.5s,baz=107,slow=3.5,SNR=6.7						
ASAR				ScP	ScP	19 24 48.7	+2.5
	comp=Z,0.6nm,0.6s,baz=91,slow=3.8,SNR=3.3						
ASAR				S	S	19 26 13.1	-3.2
	comp=Z,4.4nm,1.0s,baz=93,slow=14,SNR=18						
AUALC	St Philip’s Co	44.75	254	P	P	19 20 22.4	+0.1
AUALC	St Philip’s Co	44.75	254	S	S	19 26 15.1	-1.4
BAKI	Biak	47.58	285	P	P	19 20 43.7	0.0
	comp=Z,2µmcomp=Z,82nm,0.7s						
GUMO	Guam	47.82	308	P	P	19 20 45.3	-0.1
MTN	Manton Dam	48.74	268		P	19 20 51.7	-0.6
MTN				IAmb	IAmb	19 20 52.4	
	comp=Z,15nm,0.8s						
FORT	Forrest	49.96	245		P	19 21 00.4	-0.6
FORT				PcP	PcP	19 22 08.9	-0.8
KNRA	Kununurra	50.43	264		P	19 21 04.2	-0.4
KNRA				IAmb	IAmb	19 21 05.1	
	comp=Z,14nm,0.7s						
FAKI	Fak Fak	50.51	281	P	P	19 21 05.0	-0.3
FAKI				IAmb	IAmb	19 21 43.9	
	comp=Z,29nm,1.1s						
SWI	Sorong	52.18	283	P	P	19 21 17.3	+0.1
FITZ	Fitzroy Crossi	52.97	261	P	P	19 21 23.2	+0.4
FITZ	Fitzroy Crossi	52.97	261		P	19 21 22.9	+0.1
NLAI	Namlea	55.23	279	P	P	19 21 38.9	+0.2
	comp=Z,1µmcomp=Z,81nm,0.6s						
SOEI	Soe	56.01	270	P	P	19 21 44.8	+0.6
SOEI	Soe	56.01	270	P	P	19 21 45.5	+1.3
SOEI	Soe	56.01	270	P	P	19 21 43.6	-0.6
	comp=Z,109nm,0.8s						
SOEI	Soe	56.01	270	P	P	19 21 45.9	+1.7
	comp=Z,108nm,0.8s						
TNTI	Ternate	56.40	283	P	P	19 21 47.0	+0.3
TNTI	Ternate	56.40	283		P	19 21 46.6	-0.1
TNTI				IAmb	IAmb	19 21 47.9	
	comp=Z,33nm,0.8s						
TNTI	Ternate	56.40	283	P	P	19 21 46.4	-0.3
	comp=Z,44nm,1.0s						
TNTI	Ternate	56.40	283	P	P	19 21 47.4	+0.6
	comp=Z,44nm,1.1s						
SANI	Sanana	56.68	280	P	P	19 21 48.3	-0.3
SANI	Sanana	56.68	280	P	P	19 21 48.3	-0.3
	comp=Z,582nmcomp=Z,64nm,0.8s						
SANI	Sanana	56.68	280	P	P	19 21 47.9	-0.7
	comp=Z,64nm,0.8s						
MBWA	Marble Bar	58.02	256	P	P	19 21 57.3	-0.3
MBWA	Marble Bar	58.02	256		P	19 21 57.1	-0.6
MBWA				IAmb	IAmb	19 21 58.0	
	comp=Z,19nm,0.8s						
MBWA	Marble Bar	58.02	256	P	P	19 21 57.0	-0.6
	comp=Z,30nm,0.7s						
MMRI	Maumere	58.23	271	P	P	19 21 58.8	-0.4
MMRI				IAmb	IAmb	19 21 59.2	
	comp=Z,30nm,0.6s						
KLBR	Kellerberrin	58.78	244	P	P	19 22 02.1	-0.5
KLBR	Kellerberrin	58.78	244	P	P	19 22 02.5	-0.1
	comp=Z,76nm,0.7s						
NWAO	Narrogin (SRO)	59.16	242	P	P	19 22 04.8	-0.3
NWAO				IAmb	IAmb	19 22 23.8	
	comp=Z,46nm,1.3s						
LUWI	Luwuk	60.04	279	P	P	19 22 11.1	-0.1
LUWI				IAmb	IAmb	19 22 43.3	
	comp=Z,43nm,0.8s						
MORW	Morawa	60.43	246	P	P	19 22 13.0	-0.5
MORW				IAmb	IAmb	19 22 14.0	
	comp=Z,10nm,0.8s						
VNDA	Vanda	60.45	185	P	P	19 22 13.4	+0.6
	comp=Z,0.4nm,0.9s,baz=28,slow=2.9,SNR=1.1						
VNDA	Vanda	60.45	185	IAmb	IAmb	19 22 21.7	
	comp=Z,1.7nm,1.2s						
LBFI	Labuhan Bajo,	60.51	270	P	P	19 22 13.9	-0.4
PLAI	Plampang	62.43	269	P	P	19 22 26.7	-0.1
TOLI2	Tolitoli	62.65	281	P	P	19 22 27.9	-0.3
TOLI2	Tolitoli	62.65	281		P	19 22 28.2	0.0
TOLI2				IAmb	IAmb	19 22 32.0	
	comp=Z,11nm,0.7s						
TOLI2	Tolitoli	62.65	281	P	P	19 22 28.4	+0.2
	comp=Z,13nm,0.6s						
GIRL	Giralia	62.84	253	P	P	19 22 29.8	+0.5
PCI	Palu	62.85	278	P	P	19 22 29.2	-0.3
	comp=Z,59nm,0.8s						
JAGI	Jajag, Banyuwa	65.98	269		P	19 22 47.9	-1.3
MYLDM	Lahad Datu	66.25	284	P	P	19 22 51.8	+1.0
MYLDM	Lahad Datu	66.25	284	P	P	19 22 50.6	-0.2
	comp=Z,20nm,1.1s						
MYLDM	Lahad Datu	66.25	284	P	P	19 22 53.5	+2.7
	comp=Z,20nm,1.1s						
BBKI	Banjar Baru	66.76	274	P	P	19 22 53.7	-0.3
	comp=Z,6µmcomp=Z,45nm,1.2s						
JGF	Kuroka	67.69	322	P	P	19 22 59.4	+0.2
JGF				IAmb	IAmb	19 23 34.2	
	comp=Z,43nm,1.5s						
MJAR	Matsushiro Arr	67.86	323	P	P	19 22 59.8	-0.4
	comp=Z,9.0nm,0.6s,baz=153,slow=5.7,SNR=40						
	comp=Z,9.0nm,0.6s						
MJAR	Matsushiro Arr	67.86	323	P	P	19 22 59.6	-0.6
MJAR				IAmb	IAmb	19 23 00.7	
	comp=Z,5.5nm,0.7s						
MAJO	Matsushiro	67.86	323	P	P	19 22 59.9	-0.3
MAJO	Matsushiro	67.86	323		P	19 22 59.7	-0.6
MAJO				IAmb	IAmb	19 23 00.5	
	comp=Z,13nm,0.5s						
MJB9	Matsu-Tunnel	67.86	323	P	P	19 23 00.8	+0.6
MJB9				IAmb	IAmb	19 23 01.5	
	comp=Z,12nm,0.5s						
JOW	Kunigami	68.16	310	P	P	19 23 03.2	+1.0
KKM	Kota Kinabalu	68.68	284	P	P	19 23 06.0	+0.2
KKM	Kota Kinabalu	68.68	284		P	19 23 05.7	0.0
KKM				IAmb	IAmb	19 23 06.4	
	comp=Z,15nm,0.6s						
KKM	Kota Kinabalu	68.68	284	P	P	19 23 05.4	-0.3
	comp=Z,23nm,0.9s						
KKM	Kota Kinabalu	68.68	284	P	P	19 23 05.9	+0.2
	comp=Z,23nm,0.9s						
JTM	Tenmabayashi	69.42	328	P	P	19 23 10.3	+0.9
KIWB	Kanaga Island	69.45	1	P	P	19 23 10.0	+0.6
KIWB				IAmb	IAmb	19 23 35.1	
	comp=Z,23nm,1.3s						
ADK	Adak	69.49	1	P	P	19 23 09.2	-0.4
ADK				IAmb	IAmb	19 23 28.3	
	comp=Z,21nm,1.1s						
UGM	Wanagama	69.58	268	P	P	19 23 10.9	-0.2
ATKA	Atka Island	69.90	3	P	P	19 23 11.2	-0.8
ATKA				IAmb	IAmb	19 23 42.0	
	comp=Z,17nm,1.0s						
JNU	Nakatsue	70.08	316	P	P	19 23 13.4	-0.2
	comp=Z,6.2nm,0.8s,baz=111,slow=13,SNR=3.6						
	comp=Z,6.2nm,0.8s						
JNU	Nakatsue	70.08	316	IAmb	IAmb	19 23 41.6	
	comp=Z,5.5nm,0.5s						
STKI	Sintang	71.06	276	P	P	19 23 20.2	+0.4
	comp=Z,6µmcomp=Z,44nm,0.7s						
JKA	Kamikawa-asahi	71.23	331	P	P	19 23 21.2	+1.1
JKA				IAmb	IAmb	19 23 42.0	
	comp=Z,23nm,1.3s						
TWG	Pinlang	71.61	302	P	P	19 23 21.4	-1.3
TWG				IAmb	IAmb	19 23 55.4	
	comp=Z,41nm,1.5s						
YULB	Yu-li	71.71	303	P	P	19 23 22.3	-1.0
YULB				IAmb	IAmb	19 23 27.9	
	comp=Z,17nm,1.1s						
NACB	Ninganchiao	71.86	304	P	P	19 23 24.0	-0.1
QSPA	South Pole Qui	72.16	180	P	P	19 23 26.3	+1.0
	comp=Z,3.3nm,0.7s,baz=315,slow=1.1,SNR=21						
	comp=Z,3.3nm,0.7s						
QSPA	South Pole Qui	72.16	180	P	P	19 23 26.3	+1.0
SSLB	Suanglung	72.17	303	P	P	19 23 24.9	-1.1
TPUB	Ta-pu	72.20	302	P	P	19 23 25.4	-0.7
TPUB	Ta-pu	72.20	302	P	P	19 23 25.5	-0.6
	comp=Z,63nm,0.7s						
BBJI	Bungbulang	72.44	268	P	P	19 23 27.1	-0.7
PEA0B	Petropavlovsk-	73.65	345	P	P	19 23 33.5	-0.2
PETK	Petropavlovsk-	73.65	345	P	P	19 23 33.8	+0.1
	comp=Z,4.7nm,0.6s,baz=107,slow=6.2,SNR=16						
	comp=Z,4.7nm,0.6s						
PETK	Petropavlovsk-	73.65	345	P	P	19 23 33.5	-0.2
KSRS	Korea Array	74.65	318	P	P	19 23 40.9	+1.2
	comp=Z,2.6nm,0.7s,baz=125,slow=6.5,SNR=9.1						
	comp=Z,2.6nm,0.7s						
USRK	Ussuriysk Ar.	76.57	326	P	P	19 23 51.8	+1.7
	comp=Z,3.2nm,0.7s,baz=102,slow=7.3,SNR=6.7						
	comp=Z,3.2nm,0.7s						
KMRM	Mail Ridge	77.04	40	P	P	19 23 54.2	+1.3
KMRM				IAmb	IAmb	19 23 55.4	
	comp=Z,9.3nm,0.8s						
AFDM	Forest Hills D	78.01	42		P	19 23 58.9	+0.8
MDPB	Devils Postpil	78.51	44	P	P	19 24 01.9	+0.9
CCCA	Chr Cany lake	78.54	47	IAmb	IAmb	19 24 03.9	
	comp=Z,13nm,1.5s						
YBH	Yreka Blue Hor	78.55	39		P	19 24 02.0	+1.0
M03C	McCloud	78.64	40	IAmb	IAmb	19 24 03.4	
	comp=Z,8.2nm,0.8s						
WAKR	Walker	78.75	43	IAmb	IAmb	19 24 04.5	
	comp=Z,6.0nm,0.9s						
BEKR	Beckworth	78.92	42		P	19 24 03.9	+0.8
YERR	Yerington	79.15	43	IAmb	IAmb	19 24 06.1	
	comp=Z,6.4nm,0.9s						
NVAR	Mina Array Bea	79.46	44	P	P	19 24 07.0	+1.0
	comp=Z,2.6nm,0.7s,baz=227,slow=8.5,SNR=15						
	comp=Z,2.6nm,0.7s						
NVAR	Mina Array Bea	79.46	44	P	P	19 24 06.8	+0.8
J04A	Umpqua Nationa	79.81	38	IAmb	IAmb	19 24 09.7	
	comp=Z,14nm,0.6s						
TPNV	Topopah Spring	80.05	46		P	19 24 10.1	+0.9
KLR	Kul'dur	80.06	329	P	P	19 24 09.0	+0.4
	comp=Z,1.2nm,0.5s,baz=32,slow=5.0,SNR=4.5						
	comp=Z,1.2nm,0.5s						
MOD	Modoc Plateau	80.11	40	IAmb	IAmb	19 24 11.1	
	comp=Z,6.0nm,0.8s						
K05A	Summer Lake	80.23	39	IAmb	IAmb	19 24 12.2	
	comp=Z,14nm,1.1s						
PINE	Pine Mountain	80.82	38		P	19 24 14.1	+1.2
PINE				IAmb	IAmb	19 24 14.7	
	comp=Z,5.5nm,0.8s						
PRN	Pahroc Range	81.11	46	IAmb	IAmb	19 24 16.9	
	comp=Z,5.4nm,0.9s						
BMN	Battle Mountai	81.24	43	IAmb	IAmb	19 24 17.1	
	comp=Z,6.3nm,1.0s						
WVOR	Wild Horse Val	81.44	40	IAmb	IAmb	19 24 18.1	
	comp=Z,6.8nm,1.0s						
WVOR	Wild Horse Val	81.44	40	P	P	19 24 17.2	+1.2
	comp=Z,7.2nm,1.0s						
TUC	Tucson	81.74	52		P	19 24 18.9	+1.1
TUC				IAmb	IAmb	19 24 47.0	
	comp=Z,11nm,0.7s						
TUC	Tucson	81.74	52	P	P	19 24 19.8	+2.0
	comp=Z,18nm,0.7s						
BELA	Belgrano 2	82.19	173	IAmb	IAmb	19 24 20.1	
	comp=Z,6.8nm,0.8s						
CCUT	Cedar City	82.35	47	P	P	19 24 22.0	+1.1
U15A	North Rim	82.56	48	IAmb	IAmb	19 24 24.5	
	comp=Z,5.9nm,0.9s						
G08A	Pilot Rock	82.84	38		P	19 24 23.8	+0.7
G08A				IAmb	IAmb	19 24 24.8	
	comp=Z,8.8nm,1.4s						
SEY	Seymchan	83.75	347	P	P	19 24 26.9	-0.1
	comp=Z,8.2nm,0.6s,baz=142,slow=5.7,SNR=30						
	comp=Z,8.2nm,0.6s						
RPSI	Rantau Prapat	83.79	275		P	19 24 28.1	-0.2
RPSI				IAmb	IAmb	19 24 29.1	
	comp=Z,15nm,0.7s						
RPSI	Rantau Prapat	83.79	275	P	P	19 24 28.6	+0.3
	comp=Z,25nm,0.9s						
PSI	Prapat	83.82	275	P	P	19 24 28.5	-0.1
PSI	Prapat	83.82	275	P	P	19 24 28.3	-0.3
	comp=Z,25nm,0.9s						
MAW	Mawson	83.85	200	P	P	19 24 28.3	+0.7
	comp=Z,2.9nm,0.7s,baz=142,slow=4.4,SNR=11						
	comp=Z,2.9nm,0.7s						
MAW	Mawson	83.85	200	P	P	19 24 28.3	+0.7
	comp=Z,0.8nm,0.9s						
ENH	Enshi	84.21	304	P	P	19 24 31.1	+1.0
ENH	Enshi	84.21	304	P	P	19 24 31.2	+1.1
	comp=Z,38nm,1.0s						
GSI	Gunungsitoli	84.64	273	P	P	19 24 32.9	+0.4
Y22A	Socorro	85.33	52	IAmb	IAmb	19 24 37.9	
	comp=Z,8.4nm,0.7s						
SLVN	Son La	85.42	294	P	P	19 24 36.7	+0.6
SLVN	Son La	85.42	294	IAmb	IAmb	19 24 39.5	
	comp=Z,6.2nm,1.3s						
MNTX	Cornudas Mount	85.62	55	P	P	19 24 38.3	+1.4
	comp=Z,4.7nm,1.7s						
ILAR	Eielson Array	85.89	13	P	P	19 24 36.6	-0.7
	comp=Z,0.6nm,0.4s,baz=223,slow=5.2,SNR=11						
	comp=Z,0.6nm,0.4s						
TX31	Lajitas Ar. Si	86.04	58	IAmb	IAmb	19 24 41.5	
	comp=Z,4.5nm,0.9s						
TXAR	Lajitas Array	86.04	58	P	P	19 24 40.6	+1.6
	comp=Z,3.1nm,0.8s,baz=220,slow=6.1,SNR=31						
	comp=Z,3.1nm,0.8s						
PDAR	Pinedale Array	87.38	43	P	P	19 24 45.8	+0.6
	comp=Z,1.2nm,0.5s,baz=216,slow=3.4,SNR=16						
PDAR				PP	PP	19 28 17.0	-4.7
	comp=Z,0.1nm,0.3s,baz=296,slow=9.6,SNR=5.0						
	comp=Z,1.2nm,0.5s						
I29M	Ogilvie Camp,	88.41	16	IAmb	IAmb	19 24 58.5	
	comp=Z,4.3nm,1.1s						
CMAR	Chiang Mai Arr	88.82	290	P	P	19 24 53.8	+1.7
	comp=Z,4.8nm,0.9s,baz=118,slow=2.7,SNR=33						
	comp=Z,4.8nm,0.9s						
CMAR	Chiang Mai Arr	88.82	290		P	19 24 52.7	+0.6
CHTO	Chiang Mai	88.94	290	P	P	19 24 53.5	+0.9
CHTO	Chiang Mai	88.94	290		P	19 24 53.2	+0.6
CHTO				IAmb	IAmb	19 24 54.5	
	comp=Z,7.2nm,0.8s						
CHTO	Chiang Mai	88.94	290	P	P	19 24 53.7	+1.1
CHTO	Chiang Mai	88.94	290	P	P	19 24 53.8	+1.2
	comp=Z,12nm,1.4s						
ELIB	Princess Elisa	89.17	187	*d*P	P	19 24 53.0	+0.2
	comp=Z,5.5nm,0.7s						
ELIB				*d*pP	pP	19 27 02.6	-0.6
TROLL	Troll, Antarti	90.32	180	⇑P	P	19 24 58.5	+0.3
	comp=Z,213nm,0.6s						
SNAA	Sanae	90.61	179	⇑P	P	19 24 59.2	-0.2
	comp=Z,42nm,0.6s						
SNAA	Sanae	90.61	179	P	P	19 24 59.3	-0.2
	comp=Z,1.3nm,0.5s,baz=217,slow=9.5,SNR=5.1						
	comp=Z,1.3nm,0.5s						
SNAA	Sanae	90.61	179	IAmb	IAmb	19 25 01.5	
	comp=Z,2.5nm,1.0s						
VNA3	Neumayer Olymp	90.76	176	⇑P	P	19 25 00.4	+0.4
	comp=Z,8.6nm,0.8s						
VNA3	Neumayer Olymp	90.76	176	P	P	19 25 00.5	+0.5
VNA1	Neumayer--Stat	91.43	177	⇑P	P	19 25 04.0	+0.9
	comp=Z,9.0nm,1.1s						
SONM	Songino Array	93.50	319	P	P	19 25 13.2	+0.1
	comp=Z,0.8nm,0.6s,baz=110,slow=4.8,SNR=7.1						
	comp=Z,0.8nm,0.6s						
SONM	Songino Array	93.50	319	IAmb	IAmb	19 25 14.0	
	comp=Z,4.1nm,1.3s						
TEIG	Tepich	96.20	71		P	19 25 25.1	-0.7
TEIG	Tepich	96.20	71	P	P	19 25 28.6	+2.9
	comp=Z,48nm,0.6s						
WVT	Waverly	100.83	56	P	Pdif	19 25 48.1	+2.0
	comp=Z,16nm,1.4s						
ZALV	Zalesovo Beam	108.18	322	PKiKP	PKiKP	19 30 19.9	-0.9
	comp=Z,1.0nm,0.5s,baz=70,slow=1.1,SNR=6.6						
MKAR	Makanchi Array	109.08	314	PKiKP	PKiKP	19 30 21.8	-1.0
	comp=Z,1.2nm,0.5s,baz=91,slow=0.2,SNR=29						
KURBB	Kurchatov Arra	111.83	318	PKiKP	PKiKP	19 30 26.8	-1.0
	comp=Z,1.4nm,0.6s,baz=94,slow=1.7,SNR=21						
KURBB				PP	PP	19 31 23.8	+0.7
	comp=Z,0.1nm,0.3s,baz=87,slow=7.5,SNR=4.2						
BVAR	Borovoye Array	116.79	321	PKP	PKPdf	19 30 36.6	-0.6
	comp=Z,4.4nm,0.4s,baz=124,slow=0.9,SNR=34						
ARTI	Arti	122.91	326		PKPdf	19 30 48.6	-0.3
ARCES	ARCESS Array B	126.29	350	PKP	PKPdf	19 30 55.0	0.0
	comp=Z,0.9nm,0.4s,baz=51,slow=1.8,SNR=7.1						
FINES	FINESS Array B	133.16	344	PKhKP	PKPpre	19 31 01.5	
	comp=Z,1.7nm,0.9s,baz=57,slow=5.1,SNR=5.5						
FINES				PKP	PKPdf	19 31 08.1	-0.1
	comp=Z,2.1nm,0.6s,baz=80,slow=3.4,SNR=7.9						
FINES				SKPbc	SKPab	19 33 42.3	-0.8
	comp=Z,1.3nm,0.6s,baz=346,slow=2.9,SNR=5.8						
NOA	NORSAR Array B	136.35	353	PKP	PKiKP	19 31 15.8	-0.3
	comp=Z,1.0nm,0.7s,baz=22,slow=3.5,SNR=4.0						
KBZ	Khabaz	136.75	316	PKP	PKiKP	19 31 17.6	+0.2
	comp=Z,1.2nm,0.7s,baz=45,slow=1.4,SNR=3.6						
HFS	Hagfors	136.91	351	PKhKP	PKPpre	19 31 03.7	
	comp=Z,1.4nm,0.4s,baz=35,slow=5.3,SNR=8.8						
OZAP	Van, Ozalp-Mer	137.72	308	⇑P	PKPdf	19 31 18.7	+0.9
AKASG	Malin Array Be	140.52	332	PKhKP	PKPpre	19 31 15.6	
	comp=Z,0.7nm,0.3s,baz=45,slow=4.0,SNR=8.4						

EKA	Eskdalemuir Ar	142.46	4	PKhKP	PKPpre	19 31 21.7	
	comp=Z,0.3nm,0.4s,baz=0.2,slow=2.9,SNR=3.8						
SORM	Soroca	142.74	330	⇑P	PKPdf	19 31 23.3	-2.9
GAZ	Gaziantep	143.27	309		PKPab	19 31 24.3	-1.7
BNN	Bunyan	143.59	312		PKPbc	19 31 25.7	-1.6
KWP	Kalwaria Pacla	144.03	336	ePKP	PKPbc	19 31 27.8	-0.3
PRAR	RASCA	144.30	331	⇑P	PKPbc	19 31 25.1	-3.8
GIRR	Girov	144.47	330	⇑P	PKPbc	19 31 29.5	0.0
VLDR	Vladesti	144.47	327	⇓P	PKPab	19 31 30.3	+0.2
TLCR		144.52	326	⇑P	PKPab	19 31 30.4	0.0
BURAR	Bucovina Array	144.57	332		PKPdf	19 31 28.3	-1.3
BURAR	Bucovina Array	144.57	332	⇑P	PKPab	19 31 30.7	+0.1
OJC	Ojcow	144.57	340	ePKP	PKPbc	19 31 30.1	+0.4
OJC	Ojcow	144.57	340		PKPdf	19 31 28.3	-1.0
GHRR		144.66	328	⇑P	PKPab	19 31 31.4	+0.5
BIZ	Bicaz	144.66	330	⇑P	PKPab	19 31 31.4	+0.5
TESR	Tescani	144.71	329	⇑P	PKPbc	19 31 30.3	+0.1
BRTR	Keskin Array B	144.73	315	PKP	PKPbc	19 31 30.6	-0.1
	comp=Z,5.4nm,0.5s,baz=64,slow=2.1,SNR=42						
BRTR	Keskin Array B	144.73	315		PKPdf	19 31 29.3	-0.8
STHS	Stebnicka Huta	144.75	338	ePKP	PKPbc	19 31 30.3	0.0
KOLS	Kolonicke sedl	144.76	336	ePKP	PKPab	19 31 31.1	-0.1
KIRS	Kirsehir-Merke	144.82	314	⇑P	PKPbc	19 31 30.9	0.0
SCHL	Schela	144.83	327	⇑P	PKPdf	19 31 22.8	-7.1
CFR	Carcaliu	144.89	327	⇑P	PKPbc	19 31 31.3	+0.5
TPGR	Topolog	144.95	326	⇑P	PKPab	19 31 31.9	-0.2
ONER	Baraj Valea Uz	144.96	330	⇑P	PKPab	19 31 31.7	-0.4
KSP	Ksiaz	145.08	344	ePKP	PKPab	19 31 32.2	-0.2
NIE	Niedzica	145.09	338	ePKP	PKPab	19 31 32.4	-0.1
VRI	Vrincioaia	145.13	329	⇑P	PKPbc	19 31 31.9	+0.4
PLOR	Plostina	145.18	329	⇓P	PKPbc	19 31 31.7	0.0
TIRR	Tirgusor	145.22	325	⇑P	PKPbc	19 31 31.7	0.0
SAHR	Sahastru	145.25	328	⇑P	PKPbc	19 31 32.4	+0.5
BMR	Baia Mare	145.27	334	⇓P	PKPbc	19 31 32.3	+0.5
HARR	Harsova	145.32	326	⇑P	PKPbc	19 31 32.6	+0.5
TURR	Turia	145.35	329	⇑P	PKiKP	19 31 34.8	-0.3
ARCR	ARCALIA	145.35	332	⇑P	PKPab	19 31 33.1	-0.4
OSTC	Ostas	145.36	343	⇑ePKP	PKPab	19 31 32.9	-0.6
CHVC	Chvalec	145.37	344	⇑ePKP	PKPbc	19 31 32.8	+0.7
COVR	Voineasa-Covas	145.41	329	⇓P	PKPbc	19 31 32.0	-0.3
CLZ	Clausthal	145.41	350	ePKPbc	PKPbc	19 31 32.9	+0.7
	baz=17,slow=2.6						
OZUR		145.43	330	⇑P	PKPbc	19 31 33.0	+0.6
CLL	Collm	145.43	347	ePKPbc	PKPbc	19 31 32.7	+0.5
	baz=17,slow=2.6						
CLL	Collm	145.43	347	i PKPbc	PKPbc	19 31 32.0	-0.2
	comp=Z,16nm,0.9s						
UPC	Upice	145.46	344	⇑ePKP	PKPbc	19 31 32.7	+0.4
STEB	Steborice	145.47	341	⇑ePKP	PKPbc	19 31 32.9	+0.6
BOSR	Bodos	145.50	330	⇑P	PKPbc	19 31 33.5	+0.9
DPC	Dobruska-Polom	145.51	343	⇑ePKP	PKPbc	19 31 33.2	+0.7
MANR	Mangalia	145.54	324	⇑P	PKPbc	19 31 33.6	+0.9
LANS	Liptovska Anna	145.60	339	ePKP	PKPab	19 31 34.1	-0.4
KRLC	Kraliky	145.63	343	⇑ePKP	PKPbc	19 31 33.3	+0.4
BRG	Berggiesshubel	145.63	346	ePKPbc	PKPbc	19 31 33.4	+0.6
	baz=17,slow=2.6						
BRG	Berggiesshubel	145.63	346	⇑iPKP	PKPbc	19 31 33.3	+0.5
BRG				Amp		19 31 33.7	
	comp=Z,6.8nm,0.7s						
MORC	Moravsky Berou	145.68	342	ePKP	PKPbc	19 31 33.2	+0.2
MORC	Moravsky Berou	145.68	342	⇑P	PKPbc	19 31 33.4	+0.4
DOPR	Dopca	145.71	330	⇓P	PKPbc	19 31 34.2	+1.0
ISR	Istrita	145.75	328	⇑P	PKPbc	19 31 34.3	+0.9
GTTG	Gottingen	145.76	351	ePKPbc	PKPbc	19 31 33.7	+0.6
	baz=17,slow=2.6						
NEUB	Neuenburg	145.77	349	ePKPbc	PKPbc	19 31 33.7	+0.6
	baz=17,slow=2.6						
MLR	Muntele Rosu	145.78	329	⇑P	PKPbc	19 31 33.8	+0.3
MBAR	Mbarara	145.88	240		PKPab	19 31 36.0	-0.9
MAUC	Maruska	145.95	341	⇑ePKP	PKPbc	19 31 34.5	+0.7
CJR	Cluj-Napoca	145.97	332	⇑P	PKPbc	19 31 34.7	+0.7
MMAI	Mount Meron Ar	146.08	303	PKPbc	PKPbc	19 31 35.0	+0.3
	comp=Z,8.6nm,0.6s,baz=45,slow=8.3,SNR=27						
LTVH	Ltavrtes, Hu	146.16	335	⇑P	PKPbc	19 31 34.0	-0.3
MARR	Marisel-Cluj	146.21	333	⇑P	PKPbc	19 31 35.3	+0.6
VOIR		146.26	330	⇑P	PKPbc	19 31 35.3	+0.5
DRGR		146.30	333	⇓P	PKPbc	19 31 35.1	+0.2
PRU	Pruhonice	146.31	345	⇑ePKP	PKPbc	19 31 34.9	+0.2
KASTN	Kahler Asten	146.31	352	ePKPbc	PKPbc	19 31 35.1	+0.4
	baz=17,slow=2.6						
MOX	Moxa	146.34	348	ePKPbc	PKPbc	19 31 35.2	+0.5
	baz=17,slow=2.6						
CY604	RAF Akrotiri,	146.34	306		PKPbc	19 31 35.6	+0.7
VRAC	Vranov	146.38	342	ePKP	PKPbc	19 31 35.3	+0.4
VYHS	Vyhne	146.38	339	ePKP	PKPbc	19 31 35.7	+0.8
PLN	Plauen	146.39	348	ePKPbc	PKPbc	19 31 35.5	+0.6
	baz=17,slow=2.6						
TANN	Tannenbergstha	146.39	347	ePKPbc	PKPbc	19 31 35.6	+0.7
	baz=17,slow=2.6						
JAVC	Velka Javorina	146.45	341	ePKP	PKiKP	19 31 36.5	-0.8
PSZ	Piszkesteto	146.50	337	⇑P	PKPdf	19 31 33.9	+1.1
ARR	Arges	146.51	330	⇑P	PKiKP	19 31 36.8	-0.8
KRUC	Moravsky	146.65	342	ePKP	PKPbc	19 31 35.8	+0.2
RAZG	Razgrad	146.84	326	⇑P	PKPbc	19 31 36.3	-0.1
LOT	Lotru	146.86	331	⇓P	PKPbc	19 31 36.0	-0.5
ZVC	Zvikov	146.91	345	⇑ePKP	PKPbc	19 31 37.2	+0.9
MODS	Modra-Piesok	147.00	341	ePKP	PKiKP	19 31 37.8	-0.6
CSS	Mathiatis	147.02	307	PKPdf	PKPdf	19 31 32.5	-1.5
CSS					PKPbc	19 31 36.4	-0.7
SRO	Srobarova	147.15	339	ePKP	PKPbc	19 31 37.9	+0.9
GRF	Grafenberg Arr	147.33	348	ePKPbc	PKPbc	19 31 38.3	+0.9
	baz=17,slow=2.6						
KHC	Kasperske Hory	147.34	345	⇑ePKP	PKPbc	19 31 38.0	+0.5
KHC				ePKPAB	PKPab	19 31 42.2	+0.7
GZR	Gura Zlata	147.35	332	⇑P	PKPbc	19 31 37.3	-0.4
CKRC	Cesky Krumlov	147.45	344	⇑ePKP	PKPbc	19 31 38.3	+0.5
KEPZ	Antalya-Kepez	147.47	312	⇑P	PKPdf	19 31 36.5	+1.8
BMRD	Maredsous	147.56	356	dPKP	PKPbc	19 31 38.6	+0.7
GEC2	GERESS Array S	147.58	345	ePKPbc	PKPbc	19 31 38.8	+0.5
	baz=17,slow=2.6						
GERES	GERESS Array B	147.58	345	PKPbc	PKPbc	19 31 38.5	+0.3
	comp=Z,8.0nm,0.5s,baz=29,slow=3.0,SNR=67						
BZS	Buzias	147.69	333	⇑P	PKPbc	19 31 38.7	+0.2
CONA	Conrad Observa	147.83	342	i PKP	PKPbc	19 31 39.4	+0.6
	comp=Z,4.7nm,0.6s,SNR=7.5						
RONA	Rosalia, Austr	147.90	341	i PKP	PKPbc	19 31 39.5	+0.5
	comp=Z,7.7nm,0.6s,SNR=6.6						
HERR	Herculane	147.91	331	⇑P	PKPbc	19 31 39.4	+0.3
PLVB	Pleven	147.95	327	⇑P	PKPbc	19 31 39.4	+0.2
BAND	Balkesir-Ban	147.97	320	⇑P	PKPbc	19 31 39.4	+0.1
WLF	Walferdange	148.09	354	dPKP	PKPbc	19 31 39.7	+0.4
WLF				dPKPab	PKPab	19 31 44.2	-0.3
WLF	Walferdange	148.09	354	ePKPbc	PKiKP	19 31 40.4	-0.1
	baz=17,slow=2.6						
MDVR	Moldovita	148.30	332	⇑P	PKPbc	19 31 40.2	+0.1
MOA	Molln	148.35	344	ePKiKP	PKiKP	19 31 41.1	-0.1
	comp=Z,5.0nm,1.0s						
MORH	Mrgy, Hungar	148.39	337	⇑P	PKPbc	19 31 39.6	-0.6
ARSA	Arzberg	148.54	342	ePKiKP	PKiKP	19 31 41.5	-0.1
	comp=Z,3.3nm,0.9s						
STU	Stuttgart	148.57	350	ePKPbc	PKiKP	19 31 41.2	-0.4
	baz=17,slow=2.6						
BIOA	Bad Ischl, Aus	148.66	344	ePKP	PKPbc	19 31 40.9	+0.1
	comp=Z,8.1nm,1.3s						
FUR	Furstenfeldbru	148.77	347	ePKPbc	PKiKP	19 31 41.7	-0.4
	baz=17,slow=2.6						
ALN	Alexandroupoli	148.86	323	PKPdf	PKPdf	19 31 34.7	-2.0
ALN					PKPbc	19 31 40.5	-1.0
ALN					PKPab	19 31 48.3	+0.3
SESA	Seetaler Alpe,	148.94	343	i PKP	PKPbc	19 31 41.5	-0.2
	comp=Z,19nm,0.6s,SNR=7.9						
TAVA	DENIZLI_Tavas	149.06	315	⇑P	PKPbc	19 31 42.6	+0.4
BFO	Black Forest	149.14	351		PKPbc	19 31 42.2	+0.2
BFO	Black Forest	149.14	351	ePKPbc	PKPbc	19 31 42.5	+0.5
	baz=17,slow=2.6						
LESA	Schwarzleotal	149.15	345	i PKP	PKPbc	19 31 42.4	+0.2
	comp=Z,3.5nm,0.5s,SNR=5.4						
BOVS	Bovan	149.19	331	⇑P	PKPbc	19 31 42.0	-0.2
SOKA	Soboth	149.20	342	ePKP	PKPbc	19 31 41.7	-0.5
	comp=Z,5.3nm,1.1s						
PERS	Pernice	149.21	342	i PKPbc	PKPbc	19 31 41.9	-0.4
KBA	Koelnbreinsper	149.31	344	i PKP	PKPbc	19 31 42.5	-0.1
	comp=Z,4.1nm,0.5s						
UBR	Ueberruh	149.47	349	ePKPbc	PKPbc	19 31 43.2	+0.4
	baz=17,slow=2.6						
WATA	Walderalm	149.49	346	ePKP	PKPbc	19 31 42.8	-0.3
	comp=Z,8.8nm,0.6s						
RETA	Reutte	149.52	348	ePKP	PKPbc	19 31 43.4	+0.4
	comp=Z,2.3nm,0.4s						
WTTA	Wattenberg	149.55	346	ePKP	PKPbc	19 31 43.1	-0.1
	comp=Z,14nm,0.6s,SNR=8.1						
MOTA	Moosalm	149.59	347	ePKP	PKPbc	19 31 43.4	+0.2
	comp=Z,8.5nm,0.9s						
MYKA	Terra Mystica	149.64	343	ePKP	PKPbc	19 31 42.5	-0.8
	comp=Z,5.5nm,0.5s						
SQTA	Sankt Quirin	149.68	347	i PKP	PKPbc	19 31 43.5	+0.1
	comp=Z,7.6nm,0.6s						
ABTA	Abfaltersbach	149.83	345	i PKP	PKPbc	19 31 43.2	-0.5
	comp=Z,11nm,0.7s,SNR=6.4						
DAVA	Damuels	149.89	349	i PKP	PKPbc	19 31 44.4	+0.4
	comp=Z,11nm,1.5s						
FETA	Feichten	149.98	347	ePKP	PKPbc	19 31 43.8	-0.4
	comp=Z,9.2nm,1.1s						
BLY	Banja Luka	150.18	337	⇑P	PKPbc	19 31 44.8	+0.3
CEY	Cerknica	150.23	342	i PKPbc	PKPbc	19 31 44.5	-0.1
BDRM	Kayabasi	150.26	315	⇓P	PKPbc	19 31 44.4	-0.6
FUORN	Ofenpass-Fuorn	150.45	348	PKPdf	PKPdf	19 31 37.4	-1.9
FUORN					PKPbc	19 31 44.7	-0.8
TUE	Stuetta	150.77	349		PKPbc	19 31 45.1	-0.9
PDG	Podgorica	151.25	332	⇓P	PKPbc	19 31 46.8	-0.2
LIT	Litokhoron	151.40	325		PKPbc	19 31 45.9	-1.5
TORD	Torodi Ar. Bea	175.28	182	PKPab	PKPab	19 33 43.7	0.0
	comp=Z,0.2nm,0.5s,baz=169,slow=2.9,SNR=1.7						

IDC 03 19:37:38.1±7.2, 6°.09S×149°.78E, h75km±51km, mb3.6/3, mbtmp4.0/4, ML2.0/1, MS2.9/2, Error ellipse: s-maj=83.2km s-min=49.3km az=129.0, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	4.20	218	P	Pn	19 38 39.8	+0.1
	6.5nm,0.3s,baz=30,slow=5.1,SNR=21						
PMG				S	Sn	19 39 28.2	+0.7
	119nm,0.9s,baz=352,slow=22,SNR=10						
PMG				LR	LR	19 40 29.1	
	comp=Z,140nm,21.2s,baz=40,slow=41						
	34nm,0.5s						
PMG				AML	AML		
HNR	Honiara	10.61	109	LR	LR	19 44 10.5	
	comp=Z,58nm,18.1s,baz=222,slow=37						
WRA	Warramunga Arr	20.36	226	P	P	19 42 09.1	+0.3
	6.2nm,0.8s,baz=51,slow=10,SNR=37						
	6.2nm,0.8s						
ASAR	Alice Springs	23.21	220	P	P	19 42 38.8	-0.2
	0.7nm,0.6s,baz=56,slow=9.1,SNR=15						
	0.7nm,0.6s						
STKA	Stephens Creek	26.77	196	P	P	19 43 11.0	-0.1
	3.3nm,1.1s,baz=0.0,slow=14,SNR=1.9						
	3.3nm,1.1s						

NEIC 03 19:41:30.7±1.6, 45°.78N±0°.04×106°.63W±0°.06, h0km±1km, ML2.8/18, Error ellipse: s-maj=7.8km s-min=6.1km az=115.0

IDC 03 19:41:31.2±2.1, 45°.85N×106°.68W, h0km, mbtmp3.1/3, ML2.9/3, Error ellipse: s-maj=54.4km s-min=12.6km az=135.0

ISC 03 19:41:29.0±1.1, 45°.86N±0°.07×106°.71W±0°.06, h0km, n16, σ1ˢ.91/18, Montana

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LAO	LASA Array	0.90	22		Pn	19 41 49.1	+0.1
RLMT	Red Lodge	1.94	249	Pn	Pg	19 42 06.5	+0.2
RLMT				IAML		19 42 35.3	
	111nm,0.5s						
RLMT				IAML		19 42 39.5	
	58nm,0.4s						
GCMT	Greycliff	2.07	269	Pn	Pg	19 42 09.1	+0.4
GCMT					Sg	19 42 35.2	-0.3
YNE	Yellowstone No	2.48	251	Pn	Pb	19 42 13.7	-0.8
RSSD	Black Hills	2.57	132	Pn	Pn	19 42 12.3	+0.2
RSSD				IAML		19 42 58.3	
	49nm,0.5s						
RSSD				IAML		19 43 11.9	
	43nm,0.8s						
YMP	Mirror Lake Pl	2.68	247	Pn	Pb	19 42 16.4	-1.7
YHH	Holmes Hill	3.11	251		Pb	19 42 23.6	-1.8
K22A	Casper	3.21	178	Pn	Pn	19 42 23.1	+2.3
K22A				IAML		19 43 17.3	
	27nm,0.5s						
K22A				IAML		19 43 26.4	
	24nm,0.5s						
YPP	Pitchstone Pla	3.31	243	Pn	Pn	19 42 25.0	+2.6
YHL	Hebgen Lake	3.31	254		Pn	19 42 25.0	+2.6
YHL				IAML		19 43 24.6	
	comp=N,26nm,1.2s						
YHL				IAML		19 43 29.4	
	comp=E,29nm,1.2s						
BOZ	Bozeman (W)	3.46	267		Pb	19 42 29.6	-1.6
BOZ				IAML		19 43 23.8	
	comp=E,17nm,1.4s						
BOZ				IAML		19 43 28.4	
	comp=E,12nm,1.0s						
QLMT	Earthquake Lak	3.48	255		Pb	19 42 29.7	-2.0
PD31	Pinedale Array	3.71	215	Pn	Pn	19 42 30.8	+3.0
PDAR	Pinedale Array	3.71	215	Pn	Pn	19 42 31.0	+3.2
	comp=E,0.3nm,0.3s,baz=47,slow=14,SNR=6.2						
PDAR				Pg	Pg	19 42 39.4	-0.7
	comp=E,1.6nm,0.3s,baz=40,slow=19,SNR=13						
PDAR				Lg	Lg	19 43 25.9	
	comp=E,3.2nm,0.3s,baz=34,slow=32,SNR=8.9						
	comp=E,0.4nm,0.3s						
PDAR				AML	AML		
ULM	Lac du Bonnet	8.48	55	Pn	Pn	19 43 34.5	+1.5
	comp=E,0.4nm,0.3s,baz=270,slow=8.6,SNR=2.2						
ULM				Lg	Lg	19 45 55.0	
	comp=E,0.4nm,0.3s,baz=81,slow=15,SNR=1.9						
	comp=E,3.3nm,0.8s						
ULM				AML	AML		
TXAR	Lajitas Array	16.67	171	Pn	P	19 45 25.8	-0.8
	baz=348,slow=13,SNR=2.0						
	comp=E,0.3nm,0.8s						

TAP 03 19:45:43.0, 24°.10N×122°.30E, h52km, ML2.5, C

JMA 03 19:45:42.8±0.1, 24°.1N±0°.9×122°.3E±0°.3, h49km±3km, MV2.0/10, TAIWAN REGION

ISC 03 19:45:43.5±1.3, 24°.08N±0°.03×122°.30E±0°.03, h48km±7km, n63, σ0ˢ.76/105, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EOS4	EOS4	0.04	21	P	Pn	19 45 50.5	+0.1
EOS4				eS	Sn	19 45 56.4	+1.0
EOS3	EOS3	0.21	4	P	Pn	19 45 51.0	-0.5
EOS3				eS	Sn	19 45 58.2	+1.1
EOS2	EOS2	0.34	350	eP	Pn	19 45 52.9	+0.2
EOS2				S	Sn	19 46 00.7	+1.4
EAHA	Aohua	0.57	296	eS	Sn	19 46 04.1	0.0
EWUT	Wuta	0.60	308	eP	Pn	19 45 55.6	-0.2
EWUT				eS	Sn	19 46 04.3	-0.5
ETL	Fush Village	0.62	278	eP	Pn	19 45 55.5	-0.8
ETL				eS	Sn	19 46 05.5	+0.1
TWD	Chiawan	0.64	270	i P	Pn	19 45 55.8	-0.6
TWD				i S	Sn	19 46 05.0	-0.7
NACB	Ninganchiao	0.65	279	P	Pn	19 45 55.3	-1.2
NACB	Ninganchiao	0.65	279	S	Sn	19 46 02.8	-3.1
NACB	Ninganchiao	0.65	279	eP	Pn	19 45 55.9	-0.6
NACB				S	Sn	19 46 03.8	-2.2
SHUL	Shoufeng	0.73	247	eP	Pn	19 45 57.5	-0.1
SHUL				eS	Sn	19 46 08.2	+0.4
ETM	Tongmen	0.75	262	i P	Pn	19 45 57.2	-0.6
ETM				eS	Sn	19 46 07.3	-0.8
YOJ	Yonaguni jima	0.75	59	eP	Pn	19 45 57.8	0.0
YOJ				eS	Sn	19 46 08.5	+0.3
YOJ	Yonaguni jima	0.75	59	P	Pn	19 45 57.5	-0.3
ETLH	Xiulin Townshi	0.76	280	P	Pn	19 45 57.6	-0.4
ETLH				i S	Sn	19 46 07.8	-0.8
NDS	Dongshan	0.77	316	P	Pn	19 45 58.0	0.0
NDS				i S	Sn	19 46 08.6	-0.1
TEGC	Jichi Village	0.79	242	eP	Pn	19 45 57.2	-1.0
TEGC				eS	Sn	19 46 09.3	+0.3
LXIB	Xiulin Townshi	0.81	266	i P	Pn	19 45 58.1	-0.6
LXIB				S	Sn	19 46 09.2	-0.7
EGS		0.83	336	eS	Sn	19 46 09.8	-0.4
ESL	Shilin	0.84	252	i P	Pn	19 45 58.4	-0.6
ESL				i S	Sn	19 46 09.8	-0.4
LATG	Datong	0.84	303	eP	Pn	19 45 59.1	-0.1
LATG				S	Sn	19 46 10.4	-0.1
TWE	Neicheng	0.86	318	i P	Pn	19 45 58.3	-1.0
NDT	Datong Townshi	0.89	306	eP	Pn	19 45 59.4	-0.2
NDT				eS	Sn	19 46 12.2	+0.7
NNSB	Datong	0.91	293	i P	Pn	19 45 59.9	-0.1
NNSB				i S	Sn	19 46 12.1	-0.1
WARBT	Fenglin Townsh	0.91	247	eP	Pn	19 45 59.7	-0.3
WARBT				S	Sn	19 46 11.4	-0.7
NNS	Nan Shan	0.92	293	i P	Pn	19 45 60.0	-0.2
NNS				eS	Sn	19 46 12.2	-0.3
FUSB	Fushanzhiwuyua	0.94	316	i P	Pn	19 46 00.6	+0.1
FUSB				S	Sn	19 46 13.4	+0.6
WHF	Hehuan Shan	0.95	274	i P	Pn	19 46 00.3	-0.6
WHF				eS	Sn	19 46 13.0	-0.5
FUSS	Fushou	0.98	280	eP	Pn	19 46 01.2	+0.1
FUSS				eS	Sn	19 46 13.6	-0.4
TIPB	Shuangxi	0.99	334	eP	Pn	19 45 59.9	-1.1
TIPB				eS	Sn	19 46 13.2	-0.8
HGSD	Ruisui	0.99	234	eS	Sn	19 46 14.9	+0.9
NWLT	Wulai	1.01	314	eP	Pn	19 46 01.4	+0.2
NWLT				i S	Sn	19 46 14.7	+0.3
YHNB	Yeheng	1.03	305	P	Pn	19 46 01.4	-0.2
YHNB	Yeheng	1.03	305	S	Sn	19 46 14.4	-0.5
YHNB	Yeheng	1.03	305	i P	Pn	19 46 01.7	+0.1
YHNB				S	Sn	19 46 14.5	-0.5
OWD	Renai	1.03	263	i P	Pn	19 46 01.5	-0.2
OWD				i S	Sn	19 46 14.5	-0.7
TWT	Tachien	1.04	280	eP	Pn	19 46 02.0	+0.1
TWT				eS	Sn	19 46 15.5	+0.1
NSK	Sanguang	1.04	305	P	Pn	19 46 01.6	-0.2
NSK				S	Sn	19 46 14.6	-0.8
EHYH	Wanrong	1.05	237	eS	Sn	19 46 15.3	-0.1
TDCB	Techi	1.06	280	eP	Pn	19 46 02.3	+0.2
TDCB				i S	Sn	19 46 15.6	-0.2
WUSB	Renai	1.08	266	i P	Pn	19 46 02.5	+0.1
WUSB				i S	Sn	19 46 16.3	-0.1
YULB	Yu-li	1.15	234	P	Pn	19 46 02.8	-0.3
YULB	Yu-li	1.15	234	S	Sn	19 46 17.0	-0.7
YULB	Yu-li	1.15	234	eP	Pn	19 46 02.8	-0.3
YULB				S	Sn	19 46 17.0	-0.7
EYUL	Yuli	1.16	231	eP	Pn	19 46 03.4	+0.1
TWF1	Yuli	1.17	232	eP	Pn	19 46 03.3	-0.2
NFF	Wufeng Townshi	1.21	297	eP	Pn	19 46 04.9	+0.8
WHP	Taichung City	1.25	279	eP	Pn	19 46 06.8	+2.1
SSLB	Suanglung	1.27	257	P	Pn	19 46 04.8	0.0
SSLB	Suanglung	1.27	257	S	Sn	19 46 20.3	-0.4
SSLB	Suanglung	1.27	257	i P	Pn	19 46 05.0	+0.2
SSLB				eS	Sn	19 46 20.4	-0.2
WCS	Beigang Elemen	1.27	269	P	Pn	19 46 05.4	+0.6
WCS				eS	Sn	19 46 21.8	+1.1
ZUZH	Zhuzihu	1.28	328	eP	Pn	19 46 05.4	+0.4
ZUZH				i S	Sn	19 46 21.5	+0.4
SMLT	Sun Moon Lake	1.29	262	eP	Pn	19 46 05.8	+0.5
SMLT				eS	Sn	19 46 22.5	+1.0
LIOB	Emei	1.30	296	eP	Pn	19 46 06.3	+1.0
LIOB				S	Sn	19 46 23.3	+1.8
IRIF	Iriomote-Funau	1.33	79	P	Pn	19 46 05.4	-0.3
IRIF				eS	Sn	19 46 22.1	-0.1
WHYT	Xinyi Township	1.38	254	P	Pn	19 46 07.2	+0.9
WHYT				S	Sn	19 46 24.0	+0.6
ELDTW	Lidau	1.47	233	eP	Pn	19 46 07.8	+0.1
ELDTW				S	Sn	19 46 25.5	-0.4
JKRS	Kuro-shima	1.57	84	P	Pn	19 46 09.4	+0.5
STYH	Taoyuan	1.67	237	eP	Pn	19 46 11.3	+1.1
STYH				i S	Sn	19 46 31.5	+1.1
JIJ	Ishigaki jima	1.71	80	P	Pn	19 46 10.4	-0.4
TPUB	Ta-pu	1.72	244	P	Pn	19 46 12.4	+1.5
JISG	Ishigakijimahi	1.90	74	P	Pn	19 46 13.0	-0.5
JISG				S	Sn	19 46 35.0	-1.3

IDC 03 20:08:41.8±1.7, 1°.06N×125°.11E, h0km, mb3.2/4, mbtmp3.2/4, Error ellipse: s-maj=232.9km s-min=27.4km az=64.0, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	22.75	157	P	P	20 13 45.8	0.0
	0.2nm,0.5s,baz=337,slow=11,SNR=6.4						
	0.2nm,0.5s						
MKAR	Makanchi Array	58.86	327	P	P	20 18 41.7	-0.7
	0.1nm,0.4s,baz=115,slow=8.2,SNR=4.2						
	0.1nm,0.4s						
ZALV	Zalesovo Beam	62.25	334	P	P	20 19 07.2	+1.8
	0.2nm,0.3s,baz=151,slow=3.3,SNR=1.8						
	0.2nm,0.3s						
KURBB	Kurchatov Arra	63.14	329	P	P	20 19 10.3	-1.1
	0.1nm,0.4s,baz=136,slow=5.9,SNR=1.7						
	0.1nm,0.4s						

IDC 03 20:14:39.6±1.1, 34°.38N×26°.10E, h0km, mb3.7/8, mbtmp3.6/9, ML3.5/1, Error ellipse: s-maj=28.7km s-min=16.6km az=180.0

ISK 03 20:14:40.8, 34°.19N×26°.27E, h11km, ML2.6/7

ISC 03 20:14:40.4±1.1, 34°.2N±0°.1×26°.28E±0°.08, h10km, n16, σ1ˢ.39/17, mb3.7/7, Crete

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZKR	Zakros	0.95	357	Pg	Pb	20 14 59.0	-0.1
ZKR				AML	AML		
KARP	Karpathos	1.56	27	Pn	Pn	20 15 08.9	+0.6
KARP				AML	AML		
IDI	Anoyia	1.60	315	Pn	Pn	20 15 09.5	+0.6
IDI				AML	AML		
IMMV	Iera Moni Meta	2.29	305	Pn	Pn	20 15 19.4	+1.1
IMMV				AML	AML		
ARG	Arkhangelos	2.55	36	Pn	Pn	20 15 23.0	+1.2
DAT	Datca	2.78	22	Pn	Pn	20 15 26.2	+1.2
DAT				AML	AML		
BODT	Bodrum	3.02	16	Pn	Pn	20 15 29.6	+1.3
MMAI	Mount Meron Ar	7.70	96	Pn	Pn	20 16 34.6	+1.9
	0.6nm,0.3s,baz=296,slow=11,SNR=1.5						
MMAI				Sn	Sn	20 17 57.6	-2.4
	baz=255,slow=32						
	0.3nm,0.2s						
MMAI				AML	AML		
ESDC	Sonseca Array	24.73	292	P	P	20 20 01.1	-0.9
	0.4nm,0.6s,baz=86,slow=9.6,SNR=6.1						
	0.4nm,0.6s						
HFS	Hagfors	27.26	346	P	P	20 20 23.1	-1.4
	1.1nm,0.6s,baz=172,slow=11,SNR=1.3						
	1.1nm,0.6s						
FINES	FINESS Array B	27.30	360	P	P	20 20 22.6	-2.3
	1.5nm,0.9s,baz=184,slow=8.9,SNR=1.6						
	1.5nm,0.9s						
TORD	Torodi Ar. Bea	30.58	233	P	P	20 20 55.1	+0.5
	0.2nm,0.3s,baz=34,slow=8.9,SNR=6.7						
	0.2nm,0.3s						
KURBB	Kurchatov Arra	41.05	50	P	P	20 22 24.9	+1.1
	1.0nm,0.6s,baz=276,slow=8.8,SNR=12						
	1.0nm,0.6s						
MKAR	Makanchi Array	43.57	56	P	P	20 22 45.6	+1.2
	0.7nm,0.6s,baz=271,slow=5.1,SNR=6.9						
	0.7nm,0.6s						
ZALV	Zalesovo Beam	45.04	45	P	P	20 22 55.9	-0.2
	0.7nm,0.5s,baz=270,slow=9.0,SNR=4.1						
	0.7nm,0.5s						
SONM	Songino Array	59.41	50	P	P	20 24 43.4	+0.2
	0.2nm,0.4s,baz=290,slow=8.9,SNR=2.0						
	0.2nm,0.4s						

IDC 03 20:18:12.8±1.6, 14°.91N×56°.66E, h0km, mb3.6/6, mbtmp3.6/6, Error ellipse: s-maj=45.8km s-min=31.7km az=36.0

ISC 03 20:18:14.4±1.6, 14°.9N±0°.3×56°.7E±0°.2, h10km, n9, σ0ˢ.47/6, mb3.6/6, Owen Fracture Zone region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KURBB	Kurchatov Arra	39.74	22	P	P	20 25 47.7	+0.5
	0.5nm,0.8s,baz=218,slow=8.1,SNR=4.5						
	0.5nm,0.8s						
CMAR	Chiang Mai Arr	40.58	79	P	P	20 25 54.6	0.0
	0.4nm,0.3s,baz=272,slow=8.1,SNR=4.1						
	0.4nm,0.3s						
ZALV	Zalesovo Beam	44.73	23	P	P	20 26 27.2	-0.6
	0.6nm,0.6s,baz=224,slow=7.2,SNR=2.3						
	0.6nm,0.6s						
ESDC	Sonseca Array	58.08	308	P	P	20 28 08.2	0.0
	0.4nm,0.7s,baz=108,slow=8.5,SNR=4.5						
	0.4nm,0.7s						
H01W3	Cape Leeuwin H	73.65	134	T	T	21 50 01.5	
	baz=303						
H01W2	Cape Leeuwin H	73.65	134	T	T	21 50 02.1	
	baz=303						
H01W1	Cape Leeuwin H	73.67	134	T	T	21 50 03.1	
	baz=303						

```
WRA   Warramunga Arr   83.84 112  P      P       20 30 44.9 +0.1
      0.4nm,0.8s,baz=291,slow=7.0,SNR=2.1
      0.4nm,0.8s
ASAR  Alice Springs    84.63 116  P      P       20 30 48.8  0.0
      0.4nm,0.7s,baz=290,slow=3.8,SNR=2.5
      0.4nm,0.7s
```

IDC ***03*** *20:25:22.8±0.9, 14°.41N×56°.35E, h0km, mb3.9/18, mbtmp3.9/18, MS3.7/29, Error ellipse: s-maj=22.3km s-min=17.2km az=32.0*

NEIC ***03*** *20:25:25.4±1.4, 14°.52N±0°.09×56°.24E±0°.09, h10km±1km, mb4.5/68, Error ellipse: s-maj=16.6km s-min=13.8km az=134.0*

GFZ ***03*** *20:25:26.7±0.4, 14°N±7°×5°6E±°, h10km, M4.7/30, mb4.5/30*

GCMT ***03*** *20:25:27.4±0.4, 14°.50N±0°.03×56°.40E±0°.04, h21km±1km, MW4.7/77, Moment Tensor Solution. s19,c19; s77,c103; Duration: 0 Moment tensor: Scale 10^16Nm; Mrr-1.59±.13; Mθθ1.07±.08; Mφφ0.52±.07; Mrθ-0.39±.12; Mθφ-0.58±.04; Mφr-0.28±.14; Best double couple: M0 1.57600×10^16 NP1:φs315.00000°,δ43.00000°,λ-70.00000°. NP2: φs109.00000°,δ50.00000°,λ-108.00000°. Principal axes: T 1.4440, Plg3.0000°, Azm211.0000°; N 0.2630, Plg13.0000°, Azm120.0000°; P -1.7070, Plg76.0000°, Azm315.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

OMAN ***03*** *20:25:32.1±0.1, 14°.93N×56°.10E, h10km, mb3.6/17, ml3.7/5, ms3.6/8 Error ellipse: s-maj=2.3km s-min=1.4km az=8.0*

ISC 03 20:25:24.7±0.4**, 14°.48N**±0°.06×**56°.21E**±0°.05**, h10**km**, n214, σ1.69**/186**, mb4.4**/85**, MS3.6**/31**, Owen Fracture Zone region**

```
Code  Station Name      Δ°   AZ°    Phase ID         Time      Res
                                   Op     ISC      h  m  s    ISC
DMTO  DMTO              3.44 340  P      Pn      20 26 17.8 -0.6
      SNR=7.1
DMTO                              S      Sn      20 26 55.9 -3.3
SHAO  Shalim            3.56 351  P      Pn      20 26 21.5 +1.3
      SNR=5.5
SHAO                              S      Sn      20 26 56.7 -5.6
RBK   Rabkut            3.57 328  P      Pn      20 26 21.8 +1.5
RBK                               S      Sn      20 27 00.1 -2.4
ABTO  Aybut             4.00 316  P      Pn      20 26 27.1 +0.9
      SNR=7.6
ABTO                              S      Sn      20 27 11.3 -1.9
WHFO  Wadi Hawf         4.14 326  P      Pn      20 26 29.9 +1.7
      SNR=16
WHFO                              S      Sn      20 27 15.0 -1.7
MHTO  MHTO              6.68  14  P      Pn      20 27 04.2 +1.2
JMDO  Jabal Madar       8.05  13  P      Pn      20 27 24.9 +3.1
JLN   Jalan Bani Buh    8.21  21  P      Pn      20 27 23.8 -0.2
JLN                               S      Sn      20 28 56.8 -0.1
UMZA  Um Al Zommool     8.25 353  P      Pn      20 27 26.5 +2.0
UMZA                              S      Sn      20 28 57.2 -0.6
BSY   Bisya             8.27   6  P      Pn      20 27 25.0 +0.1
WBK   Wadi Bani Khal    8.50  18  P      Pn      20 27 28.3 +0.3
SMDO  Samad             8.71  11  P      Pn      20 27 32.5 +1.6
      SNR=8.4
ARQ   Araqi             8.81   2  P      Pn      20 27 33.3 +1.0
      SNR=8.2
WSAR  Wadi Sarin        9.01  14  LR     LR      20 30 49.6
      comp=Z,5.5nm,20.4s,baz=140,slow=36
WSAR  Wadi Sarin        9.01  14  P      Pn      20 27 37.9 +2.9
HOQ   Hoqain            9.11   6  P      Pn      20 27 36.7 +0.3
BIDO  Bidbid            9.17  11  P      Pn      20 27 37.6 +0.4
SOHO  SOHO              9.61   2  P      Pn      20 27 46.3 +3.1
ASHO  Ashiyiah         10.15 359  P      Pn      20 27 52.3 +1.6
      SNR=7.4
HATD  Hatta, Dubai     10.29 360  P      Pn      20 27 55.0 +2.4
UOSS  Minazif          10.41 360  P      Pn      20 27 56.0 +1.8
UOSS  Minazif          10.41 360         Pn      20 27 51.9 -2.3
UOSS  Minazif          10.41 360  P      Pn      20 27 56.3 +2.1
      comp=Z,13nm,1.2s
MASF  Masafi           10.83 360  P      Pn      20 28 01.2 +1.2
      SNR=5.1
SHME  Shamm            11.51 360  P      Pn      20 28 12.4 +3.2
ATD   Arta Tunnel      13.35 259  LR     LR      20 32 23.6
      comp=Z,20nm,19.7s,baz=92,slow=31
ATD   Arta Tunnel      13.35 259  Pn     Pn      20 28 34.0 -0.5
RAYN  Ar Rayn          13.53 313         Pn      20 28 36.1 -0.8
RAYN  Ar Rayn          13.53 313  P      Pn      20 28 36.5 -0.5
      comp=Z,9.1nm,1.0s
HRA   Herat            20.55  14         P       20 30 02.8 -1.1
HYB   Hyderabad        21.68  79  eP     P       20 30 15.5 -0.4
HYB                               eS     S       20 34 19.4 +3.3
KBL   Kabul            23.09  28         P       20 30 30.0 -0.9
KBL                               IAmb   IAmb    20 30 40.9
      comp=Z,16nm,1.1s
KBL   Kabul            23.09  28  P      P       20 30 33.9 +3.0
      comp=Z,14nm,1.4s
LODK  Lodwar           23.31 244         P       20 30 33.5 +0.2
LODK  Lodwar           23.31 244  P      P       20 30 37.1 +3.8
      comp=Z,7.9nm,1.6s
NIL   Nilore           24.55  36  P      P       20 30 44.8  0.0
NIL   Nilore           24.55  36  P      P       20 30 48.6 +3.8
      comp=Z,12nm,1.2s
EIL   Elat             24.76 311  LR     LR      20 40 59.0
      comp=Z,176nm,18.0s,baz=94,slow=38
EIL   Elat             24.76 311  P      P       20 30 48.9 +2.2
      comp=Z,12nm,1.8s
HRFI  Mount Harif      24.90 312  P      P       20 30 53.0 +5.0
      comp=Z,12nm,1.8s
ASF   Jabal al Asfar   24.92 318  LR     LR      20 41 39.3
      comp=Z,104nm,18.6s,baz=200,slow=39
PALK  Pallekele        25.08 104  LR     LR      20 38 35.5
      comp=Z,129nm,20.4s,baz=282,slow=32
GHAJ  Ghor Haditha     25.26 315  P      P       20 30 51.0 -0.1
GHAJ                              IAmb   IAmb    20 31 01.9
      comp=Z,13nm,1.1s
HAKT  HAKKARI          25.53 336  P      P       20 30 56.1 +2.2
      comp=Z,58nm,1.1s
KZIT  Kziot            25.84 313  P      P       20 31 00.1 +3.5
      comp=Z,11nm,1.2s
MMAI  Mount Meron Ar   26.42 318  P      P       20 31 03.0 +1.2
      comp=Z,3.4nm,0.9s,baz=138,slow=18,SNR=3.5
MMAI                              LR     LR      20 42 35.4
      comp=Z,110nm,18.4s,baz=122,slow=39
      comp=Z,3.4nm,0.9s
GEVA  Gevas            26.43 336         P       20 31 02.4 +0.4
GURO  Guroymak-BITLI   27.05 335  P      P       20 31 09.0 +1.5
GURO                              IAmb   IAmb    20 31 22.7
      comp=Z,16nm,1.2s
GNI   Garni            27.47 341  LR     LR      20 43 21.8
      comp=Z,124nm,19.8s,baz=149,slow=39
GNI   Garni            27.47 341  P      P       20 31 14.7 +3.4
GNI   Garni            27.47 341         P       20 31 12.3 +1.0
GNI   Garni            27.47 341  P      P       20 31 13.6 +2.3
      comp=Z,23nm,1.6s
GNI   Garni            27.47 341  P      P       20 31 13.9 +2.6
      comp=Z,23nm,1.6s
CY604 RAF Akrotiri,    27.84 319  P      P       20 31 14.8 +0.7
GAZ   Gaziantep        28.23 327  P      P       20 31 17.8 -0.2
GAZ                               IAmb   IAmb    20 31 28.0
      comp=Z,13nm,1.4s
DRK   Karamyk          28.42  26  P      P       20 31 19.9 -0.1
DRK                               IAmb   IAmb    20 31 29.4
      comp=Z,11nm,1.1s
BTK   Batken           28.51  24  P      P       20 31 20.9 +0.3
KOPT  Kop Dagi         28.93 335         P       20 31 25.2 +0.7
CSS   Mathiatis        28.98 319  P      P       20 31 24.3 -0.4
ARPR  Arapgir-MALATY   29.13 331  P      P       20 31 26.4 +0.3
ARPR  Arapgir-MALATY   29.13 331  P      P       20 31 29.9 +3.7
      comp=Z,15nm,1.6s
MBAR  Mbarara          29.33 241  LR     LR      20 41 50.2
      comp=Z,136nm,21.7s,baz=58,slow=34
KELT  Kelkit           29.56 333  P      P       20 31 33.5 +3.5
      comp=Z,56nm,1.3s
KSH2  Kashi            29.90  31  P      P       20 31 33.4 +0.5
KSH2                              pP     pwP     20 31 38.8 -0.4
KSH2                              pmax   pmax
      comp=Z,8.0nm,1.1s
BNN   Bunyan           30.19 327  P      P       20 31 36.3 +0.8
BNN                               IAmb   IAmb    20 31 51.0
      comp=Z,4.2nm,1.0s
ARSB  Arslanbob        30.46  25  P      P       20 31 37.6 -0.2
ARSB                              IAmb   IAmb    20 31 50.6
      comp=Z,4.8nm,1.0s
TOKA  Tokat            30.99 330  P      P       20 31 42.1 -0.3
TOKA                              IAmb   IAmb    20 31 58.1
      comp=Z,4.5nm,0.8s
KK31  Karatay Array    31.06  21  P      P       20 31 42.4 -0.6
KKAR  Karatay Array    31.06  21  P      P       20 31 42.7 -0.3
KBZ   Khabaz           31.29 341  P      P       20 31 46.7 +1.7
      comp=Z,2.4nm,0.9s,baz=141,slow=4.5,SNR=5.4
KBZ                               LR     LR      20 46 19.6
      comp=Z,126nm,19.8s,baz=156,slow=40
      comp=Z,2.4nm,0.9s
EVN   Everest          31.42  60         P       20 31 46.3 -0.7
EVN                               IAmb   IAmb    20 31 54.5
      comp=Z,12nm,1.0s
EVN   Everest          31.42  60  P      P       20 31 47.5 +0.5
      comp=Z,13nm,1.1s
KIV   Kislovodsk       31.56 341  P      P       20 31 47.4 -0.1
NRN   Naryn            31.88  29  P      P       20 31 50.1 -0.5
BR104 Keskin Array S   31.99 326  P      P       20 31 51.7 +0.4
      comp=Z,2.0nm,1.3s
BR131 Keskin Array S   32.00 326  P      P       20 31 50.6 -0.9
BRTR  Keskin Array B   32.00 326  P      P       20 31 53.0 +1.5
      comp=Z,0.2nm,0.3s,baz=116,slow=6.6,SNR=7.8
BRTR                              LR     LR      20 46 41.5
      comp=Z,80nm,18.7s,baz=126,slow=40
      comp=Z,0.2nm,0.3s
BRTR  Keskin Array B   32.00 326  P      P       20 31 50.5 -1.0
AAK   Ala-Archa        32.18  26  LR     LR      20 46 34.2
      comp=Z,65nm,21.2s,baz=200,slow=40
AAK   Ala-Archa        32.18  26         P       20 31 52.7 -0.3
AAK                               IAmb   IAmb    20 32 02.6
      comp=Z,13nm,1.1s
AAK   Ala-Archa        32.18  26  P      P       20 31 55.8 +2.8
      comp=Z,12nm,1.1s
ELL   Elmali           32.27 318  P      P       20 31 53.0 -0.9
ELL                               IAmb   IAmb    20 32 28.6
      comp=Z,9.9nm,1.2s
FRU1  Bishkek          32.38  26  P      P       20 31 53.5 -1.2
ILGA  Ilgaz            32.92 328  P      P       20 31 59.2 -0.4
WUS   Wushi            33.30  33  P      P       20 32 02.6 -0.1
WUS                               IAmb   IAmb    20 32 16.1
      comp=Z,11nm,1.2s
KARP  Karpathos        33.45 314  P      P       20 32 03.9 -0.2
KARP  Karpathos        33.45 314  P      P       20 32 04.8 +0.7
      comp=Z,28nm,1.3s
MANT  Manisa           34.17 320  P      P       20 32 09.6 -1.0
BRDH  Bariadhala       34.49  71  LR     LR      20 45 20.6
      comp=Z,162nm,19.3s,baz=302,slow=35
AB31  Akbulak array    34.81   4         P       20 32 14.8 -0.9
AB31                              IAmb   IAmb    20 32 23.3
      comp=Z,6.8nm,1.4s
ABKAR Akbulak array    34.81   4         P       20 32 15.1 -0.5
IDI   Anoyia           34.93 312  P      P       20 32 16.8 -0.1
PDGK  Podgornoye       34.99  30  P      P       20 32 17.4 -0.1
SHL   Shillong         35.18  66  P      P       20 32 18.8 -0.5
PBA   Port Blair       35.67  90  P      P       20 32 23.8 +0.3
AKTO  Aktyubinsk       35.89   2  LR     LR      20 49 21.0
      comp=Z,125nm,20.1s,baz=72,slow=40
MORE  Moreh            37.12  69  P      P       20 32 36.0 +0.2
MORE                              IAmb   IAmb    20 32 37.5
      comp=Z,7.3nm,1.2s
ALN   Alexandroupoli   37.16 321  P      P       20 32 35.9  0.0
VOI   Vohitsoka        37.32 195  P      P       20 32 37.8 +0.2
TIRR  Tirgusor         38.09 327  P      P       20 32 43.1 -0.5
TIRR                              IAmb   IAmb    20 32 57.5
      comp=Z,9.4nm,1.1s
MAKZ  Makanchi         38.76  28         P       20 32 48.3 -1.1
MAKZ                              IAmb   IAmb    20 32 53.0
      comp=Z,11nm,1.5s
MKAR  Makanchi Array   38.89  29  P      P       20 32 50.8 +0.3
      comp=Z,2.7nm,1.1s,baz=229,slow=11,SNR=7.6
MKAR                              LR     LR      20 50 42.2
      comp=Z,170nm,19.9s,baz=185,slow=39
      comp=Z,2.7nm,1.1s
MKAR  Makanchi Array   38.89  29  P      P       20 32 49.3 -1.2
ISR   Istrita          39.52 327  P      P       20 32 58.4 +2.6
      comp=Z,24nm,1.1s
WMQ   Urumqi           39.70  36  eP     P       20 33 00.1 +2.7
WMQ                               LR     LR
      comp=Z,81nm,22.3s
VRI   Vrincioaia       39.92 328  P      P       20 33 01.2 +2.2
      comp=Z,18nm,1.2s
VRI   Vrincioaia       39.92 328  P      P       20 33 01.4 +2.4
      comp=Z,18nm,1.2s
BVAR  Borovoye Array   40.06  13  P      P       20 32 59.9 -0.3
      comp=Z,1.0nm,0.9s,baz=169,slow=12,SNR=5.0
      comp=Z,1.0nm,0.9s
BORK  Borovoye         40.07  13  P      P       20 33 00.0 -0.1
MLR   Muntele Rosu     40.08 327  LR     LR      20 53 37.0
      comp=Z,68nm,18.5s,baz=175,slow=42
MLR   Muntele Rosu     40.08 327         P       20 32 59.7 -0.9
MLR                               IAmb   IAmb    20 33 16.4
      comp=Z,18nm,1.2s
MLR   Muntele Rosu     40.08 327  P      P       20 33 02.6 +2.1
      comp=Z,13nm,1.3s
KURBB Kurchatov Arra   40.33  22  P      P       20 33 02.7 +0.3
      comp=Z,3.8nm,1.0s,baz=220,slow=8.3,SNR=16
KURBB                             LR     LR      20 50 49.0
      comp=Z,80nm,20.3s,baz=186,slow=38
      comp=Z,3.8nm,1.0s
TESR  Tescani          40.39 328  P      P       20 33 04.5 +1.5
      comp=Z,19nm,1.2s
TESR  Tescani          40.39 328  P      P       20 33 04.6 +1.7
      comp=Z,21nm,1.3s
KURK  Kurchatov        40.44  22         P       20 33 03.1 -0.2
KURK  Kurchatov        40.44  22  P      P       20 33 04.1 +0.9
      comp=Z,6.5nm,1.2s
LSZ   Lusaka           40.52 224  LR     LR      20 50 11.2
      comp=Z,201nm,19.6s,baz=53,slow=37
LSZ   Lusaka           40.52 224  P      P       20 33 04.2 -0.3
LSZ                               IAmb   IAmb    20 33 13.3
      comp=Z,9.3nm,1.2s
VOIR                   40.53 326  P      P       20 33 05.8 +1.6
      comp=Z,7.7nm,1.6s
VOIR                   40.53 326  P      P       20 33 06.3 +2.1
      comp=Z,7.7nm,1.6s
SORM  Soroca           40.70 331  P      P       20 33 05.8 +0.4
      comp=Z,13nm,1.2s
ARR   Arges            40.71 326  P      P       20 33 07.5 +1.8
      comp=Z,10nm,1.6s
CHTO  Chiang Mai       41.10  78  P      P       20 33 08.8 -0.3
CM31  Chiang Mai Arr   41.10  78  P      P       20 33 08.7 -0.6
CM31                              IAmb   IAmb    20 33 16.5
      comp=Z,8.2nm,0.9s
CMAR  Chiang Mai Arr   41.10  78  P      P       20 33 09.2  0.0
      comp=Z,3.5nm,0.9s,baz=277,slow=8.7,SNR=19
      comp=Z,3.5nm,0.9s
CMAR  Chiang Mai Arr   41.10  78         P       20 33 08.2 -1.0
LOT   Lotru            41.24 325  P      P       20 33 11.2 +1.1
      comp=Z,7.4nm,1.2s
ARTI  Arti             41.85   2  LR     LR      20 52 25.6
      comp=Z,50nm,21.1s,baz=179,slow=39
ARTI  Arti             41.85   2  P      P       20 33 14.5 -0.3
ARTI                              IAmb   IAmb    20 33 22.4
      comp=Z,11nm,1.5s
BURAR Bucovina Array   41.86 329  P      P       20 33 14.7 -0.5
BUR08 Bucovina Ar. S   41.89 329  P      P       20 33 14.6 -0.7
KMPD  K-Podol'skiy     41.89 330  P      P       20 33 15.0 -0.2
AKASG Malin Array Be   42.21 335  P      P       20 33 18.3 +0.5
      comp=Z,2.4nm,1.0s,baz=140,slow=7.9,SNR=9.5
      comp=Z,2.4nm,1.0s
AKASG Malin Array Be   42.21 335  IAmb   IAmb    20 33 24.3
      comp=Z,2.8nm,1.2s
AKBB  Malin Array Si   42.21 335  P      P       20 33 17.7 -0.1
AKBB                              IAmb   IAmb    20 33 25.4
      comp=Z,6.1nm,0.8s
BZS   Buzias           42.55 324  P      P       20 33 22.0 +1.3
      comp=Z,5.8nm,1.7s
DRGR                   42.65 326  P      P       20 33 23.4 +1.9
      comp=Z,4.7nm,1.9s
OBN   Obninsk          43.32 344  LR     LR      20 54 12.1
      comp=Z,77nm,18.8s,baz=172,slow=40
RAFF  Raffo Rosso      43.47 309  P      P       20 33 28.1 -0.2
TRPA  Tarpa            43.57 327  P      P       20 33 30.6 +1.8
      comp=Z,7.2nm,1.9s
MARCO Tramutola        43.59 314  P      P       20 33 33.0 +3.7
      comp=Z,20nm,1.4s
PZH   PanZhiHua        44.08  67  P      P       20 33 31.8 -1.7
KOLS  Kolonicke sedl   44.21 328  eP     P       20 33 38.2 +4.1
KOLS  Kolonicke sedl   44.21 328  P      P       20 33 38.5 +4.4
      comp=Z,6.5nm,1.1s
KIRV  Kirov            44.32 355  LR     LR      20 55 51.1
      comp=Z,78nm,18.5s,baz=171,slow=41
KSANE Kasane           44.35 225  P      P       20 33 36.1 +0.5
KSANE                             IAmb   IAmb    20 33 44.9
      comp=Z,4.2nm,0.9s
ABAH  Abaujker         44.35 327  P      P       20 33 38.8 +3.7
      comp=Z,10nm,1.5s
MORH  Mrgy, Hungar     44.60 323  P      P       20 33 38.6 +1.4
      comp=Z,3.8nm,1.2s
BLY   Banja Luka       44.72 320  P      P       20 33 37.5 -0.6
BLY                               IAmb   IAmb    20 33 52.5
      comp=Z,9.7nm,1.0s
ZAA0  Zalesovo Array   45.32  23         P       20 33 42.1 -0.7
ZAA0                              IAmb   IAmb    20 33 49.7
      comp=Z,6.2nm,0.9s
ZALV  Zalesovo Beam    45.32  23  P      P       20 33 41.8 -1.0
      comp=Z,3.4nm,0.8s,baz=232,slow=7.3,SNR=13
ZALV                              LR     LR      20 55 04.2
      comp=Z,77nm,18.4s,baz=217,slow=39
      comp=Z,3.4nm,0.8s
ZALV  Zalesovo Beam    45.32  23         P       20 33 41.5 -1.3
GTA2  Gaotai           45.52  48  eP     P       20 33 44.9 +0.1
GTA2                              pP     pwP     20 33 49.7 -1.5
GTA2                              pmax   pmax
      comp=Z,3.0nm,1.2s
GTA2                              LR     LR
      comp=N,130nm,15.9s
GTA2                              LR     LR
      comp=E,220nm,20.6s
GTA2                              LR     LR
      comp=Z,230nm,21.3s
SLVN  Son La           45.76  74  P      P       20 33 45.4 -1.5
SLVN                              IAmb   IAmb    20 33 53.9
      comp=Z,3.9nm,1.0s
SLVN  Son La           45.76  74  P      P       20 33 46.9  0.0
      comp=Z,4.5nm,1.2s
LANS  Liptovska Anna   45.80 327  eP     P       20 33 51.4 +4.6
NACGM Naroch           46.36 337  eP     P       20 33 51.2 +0.3
      comp=Z,8.0nm,0.9s,baz=139
MODS  Modra-Piesok     46.56 325  eP     P       20 34 00.2 +7.5
EDA   Edea             46.60 261  P      P       20 33 51.9 -1.6
JAVC  Velka Javorina   46.61 326  eP     P       20 33 51.8 -1.3
RONA  Rosalia, Austr   46.76 323  eP     P       20 33 56.3 +2.0
      comp=Z,4.7nm,1.1s
SOKA  Soboth           46.98 322  epP    P       20 33 58.8 +2.6
      comp=Z,7.4nm,1.3s
KHWEE KHWEE            47.12 220  P      P       20 33 57.6 +0.1
MORC  Moravsky Berou   47.19 326         P       20 33 57.7  0.0
MORC                              IAmb   IAmb    20 34 06.4
      comp=Z,7.7nm,1.3s
MORC  Moravsky Berou   47.19 326  eP     P       20 33 57.1 -0.6
MORC  Moravsky Berou   47.19 326  P      P       20 33 59.8 +2.1
      comp=Z,5.5nm,1.5s
KRUC  Moravsky         47.42 325  eP     P       20 33 58.7 -0.7
KRUC  Moravsky         47.42 325  P      P       20 34 05.8 +6.4
      comp=Z,4.6nm,1.7s
VRAC  Vranov           47.45 325  LR     LR      20 57 28.0
      comp=Z,27nm,18.6s,baz=113,slow=40
VRAC  Vranov           47.45 325  eP     P       20 33 59.6  0.0
SESA  Seetaler Alpe,   47.47 322  eP     P       20 34 01.1 +1.0
      comp=Z,15nm,1.2s
LESA  Schwarzleotal    48.75 322  eP     P       20 34 09.9  0.0
      comp=Z,3.3nm,0.9s
GERES GERESS Array B   48.83 324  P      P       20 34 11.9 +1.5
      comp=Z,0.3nm,0.2s,baz=106,slow=3.6,SNR=3.4
      comp=Z,0.3nm,0.2s
WATA  Walderalm        49.38 321  eP     P       20 34 14.3 -0.4
      comp=Z,2.9nm,0.9s
GRTLG Ghanzi           49.48 225  P      P       20 34 15.7 -0.1
GRTLG                             IAmb   IAmb    20 34 32.4
      comp=Z,9.5nm,1.4s
MOTA  Moosalm          49.67 321  eP     P       20 34 16.4 -0.6
      comp=Z,8.7nm,1.2s
DAVOX Davos/Dischmat   50.19 320  LR     LR      20 56 53.9
      comp=Z,32nm,19.5s,baz=88,slow=38
CLL   Collm            50.46 326  LV             20 50 00.0
FINES FINESS Array B   51.65 342  P      P       20 34 30.9 -0.5
      comp=Z,2.9nm,1.0s,baz=128,slow=12,SNR=4.6
FINES                             LR     LR      20 59 00.8
      comp=Z,86nm,21.6s,baz=169,slow=39
      comp=Z,2.9nm,1.0s
BFO   Black Forest     51.78 321  P      P       20 34 32.9 +0.2
BFO                               IAmb   IAmb    20 34 39.8
      comp=Z,4.0nm,0.9s
BOSA  Boshof           52.27 215  P      P       20 34 36.8 +0.2
      comp=Z,1.6nm,0.7s,baz=58,slow=12,SNR=3.2
      comp=Z,1.6nm,0.7s
BOSA  Boshof           52.27 215  IAmb   IAmb    20 34 45.5
      comp=Z,11nm,1.2s
SONM  Songino Array    53.02  40  P      P       20 34 40.6 -1.5
      comp=Z,1.1nm,0.9s,baz=233,slow=5.5,SNR=6.6
      comp=Z,1.1nm,0.9s
SONM  Songino Array    53.02  40  P      P       20 34 40.7 -1.4
HHC   Hu-ho-hao-te     54.57  50  eP     P       20 34 55.2 +1.7
HHC                               pmax   pmax
      comp=Z,11nm,0.6s
NOA   NORSAR Array B   56.60 336  LR     LR      21 02 24.4
      comp=Z,24nm,18.6s,baz=110,slow=39
ESDC  Sonseca Array    58.00 308  P      P       20 35 18.1 +0.1
      comp=Z,0.8nm,0.8s,baz=93,slow=7.2,SNR=7.1
      comp=Z,0.8nm,0.8s
ESDC  Sonseca Array    58.00 308  IAmb   IAmb    20 35 27.2
      comp=Z,11nm,1.4s
ARCES ARCESS Array B   58.29 348  P      P       20 35 18.3 -1.2
      comp=Z,1.0nm,0.8s,baz=130,slow=6.5,SNR=5.4
      comp=Z,1.0nm,0.8s
ARCES ARCESS Array B   58.29 348  P      P       20 35 18.2 -1.2
ARCES                             IAmb   IAmb    20 35 26.3
      comp=Z,7.2nm,1.1s
NJ2   Nanjing          59.39  61  eP     P       20 35 28.6 +0.9
NJ2                               pmax   pmax
      comp=Z,25nm,0.6s
KKM   Kota Kinabalu    59.50  91  P      P       20 35 27.1 -1.7
H04N1 CROZET ISLANDS   60.49 184  T      T       21 41 00.5
      baz=2.1
H04N2 CROZET ISLANDS   60.49 184  T      T       21 40 59.1
      baz=2.1
H04N3 CROZET ISLANDS   60.51 184  T      T       21 41 11.0
      baz=2.1
CN2   Changchun        65.16  48  P      P       20 36 05.7 -0.5
CN2                               pmax   pmax
      comp=Z,10.0nm,0.7s
SPITS Spitsbergen Ar   66.64 352  LR     LR      21 10 07.8
      comp=Z,48nm,18.7s,baz=129,slow=40
KSRS  Korea Array      66.90  55  P      P       20 36 15.7 -1.8
      comp=Z,0.8nm,0.4s,baz=278,slow=7.3,SNR=4.0
      comp=Z,0.8nm,0.4s
YAK   Yakutsk          69.57  29  LR     LR      21 10 04.0
      comp=Z,58nm,18.1s,baz=257,slow=38
H01W3 Cape Leeuwin H   73.66 133  T      T       21 57 10.7
      baz=302,slow=75,SNR=52
H01W2 Cape Leeuwin H   73.67 133  T      T       21 57 13.6
      baz=302,slow=75,SNR=53
H01W1 Cape Leeuwin H   73.68 133  T      T       21 57 12.0
      baz=302,slow=75,SNR=50
JHJ   Hachijo jima 2   76.93  59  LR     LR      21 11 13.4
      comp=Z,51nm,19.0s,baz=346,slow=36
MAW   Mawson           82.00 177  LR     LR      21 08 21.6
      comp=Z,138nm,18.1s,baz=3.5,slow=32
WRA   Warramunga Arr   84.08 112  P      P       20 37 54.7 -1.7
      comp=Z,0.5nm,0.7s,baz=298,slow=4.2,SNR=5.1
      comp=Z,0.5nm,0.7s
WRA   Warramunga Arr   84.08 112  P      P       20 37 55.0 -1.3
ASAR  Alice Springs    84.83 116  P      P       20 37 58.5 -1.7
      comp=Z,0.7nm,0.9s,baz=281,slow=5.2,SNR=6.7
      comp=Z,0.7nm,0.9s
ASAR  Alice Springs    84.83 116  P      P       20 37 58.9 -1.3
RES   Resolute Bay     89.19 353  LR     LR      21 23 10.5
      comp=Z,34nm,20.0s,baz=18,slow=39
FRB   Frobisher Bay    91.32 339  LR     LR      21 23 08.7
      comp=Z,51nm,18.1s,baz=88,slow=38
TCW   Tory Channel    120.46 129  PKPdf  PKPdf   20 44 15.2 -1.6
NVAR  Mina Array Bea  127.12 355  PKP    PKPdf   20 44 30.9 +0.8
      comp=Z,0.3nm,0.5s,baz=352,slow=5.5,SNR=3.9
BI02  San Fabin de    128.44 235         PKPdf   20 44 31.5 -0.8
```

IDC ***03*** *20:28:08.3±1.4, 9°.39N×84°.84W, h0km, mb3.4/5, mbtmp3.5/6, ML3.2/1, MS3.3/3, Error ellipse: s-maj=33.7km s-min=19.8km az=73.0*

UPA ***03*** *20:28:08.8±2.8, 9°.26N×85°.32W, h57km±869km, MW3.9, Presumed earthquake*

CATAC ***03*** *20:28:11.9±0.3, 9°N±2°×8°5W±°, h4km±1km, M4.3/35, MLv4.3/35, Error ellipse: s-maj=4.9km s-min=1.9km az=40.0, confirmed*

UCR ***03*** *20:28:12.7±0.7, 9°.54N×84°.85W, h18km±5km, MW4.4, Presumed earthquake*

ISC 03 20:28:10.9±1.1**, 9°.44N**±0°.03×**84°.86W**±0°.03**, h11**km±7km**, n90, σ1.29**/125**, mb3.5**/5**, MS3.2**/3**, 2D, Costa Rica**

```
Code  Station Name      Δ°   AZ°    Phase ID         Time      Res
                                   Op     ISC      h  m  s    ISC
BITO  Garabito Jaco     0.29  53  eP     Pb      20 28 18.2 -0.1
BITO                              eS     Sb      20 28 22.8 -0.4
```

CAO2	Cobano, Puntar	0.35	315	eP	Pb	20 28 18.8	-0.3
PAQE	Paquera	0.38	349	eP	Pg	20 28 19.1	+0.5
PAQE				eS	Sg	20 28 24.3	+0.7
ENAS	Puntarenas	0.53	2	eP	Pg	20 28 21.9	+0.5
ENAS				eS	Sg	20 28 29.2	+0.8
OROT	Orotina	0.57	35	eP	Pg	20 28 22.2	+0.1
ARZA	Esparza	0.58	19	eP	Pg	20 28 22.2	0.0
TRB2	Turrubares	0.62	41	P	Pg	20 28 23.2	+0.2
TRB2				S	Sg	20 28 31.8	+0.7
TRB2	Turrubares	0.62	41	eP	Pg	20 28 23.2	+0.2
PURI	Puriscal	0.67	53	eP	Pg	20 28 24.4	+0.3
SVQ2	Quepos	0.68	91	eP	Pn	20 28 29.6	+3.0
QUEP	Quepos	0.69	91	P	Pb	20 28 25.6	+0.6
QUEP				S	Sb	20 28 35.0	+0.5
QUEP	Quepos	0.69	91	eP	Pn	20 28 25.8	-0.8
ATEO	Atenas	0.71	41	eP	Pg	20 28 24.8	0.0
PALD	Palmares	0.74	34	eP	Pg	20 28 25.1	-0.2
SRA1	San Ramn	0.74	30	eP	Pg	20 28 25.0	-0.3
RAMO	San Ramon	0.75	31	eP	Pg	20 28 25.2	-0.2
ACOS	Acosta	0.77	63	eP	Pg	20 28 25.9	0.0
CMARA	Lajas Hojancha	0.80	316	P	Pb	20 28 26.9	0.0
CMARA				S	Sb	20 28 38.1	+0.3
CMARA	Lajas Hojancha	0.80	316	eP	Pg	20 28 26.5	+0.1
TCS1	Tacares	0.81	43	P	Pg	20 28 27.0	+0.3
TCS1	Tacares	0.81	43	eP	Pg	20 28 26.9	+0.3
ABE2	San Pablo	0.83	72	⇓eP	Pb	20 28 27.5	-0.2
BELE	Belen	0.85	51	eP	Pg	20 28 27.2	-0.1
JTS	Las Juntas de	0.85	354	Pg	Pg	20 28 26.7	-0.6
	314nm,0.3s,baz=190,slow=5.4,SNR=262						
JTS				Lg	Lg	20 28 37.1	
	709nm,0.3s,baz=265,slow=22,SNR=11						
JTS	Las Juntas de	0.85	354	P	Pg	20 28 26.8	-0.5
JTS				S	Sg	20 28 37.6	-0.8
LCR2	La Lucha 2	0.89	70	P	Pb	20 28 28.4	-0.2
LCR2				S	Sb	20 28 41.3	+0.7
LCR2	La Lucha 2	0.89	70	eP	Pg	20 28 28.2	0.0
HEME	Heredia, Merce	0.90	52	eP	Pg	20 28 28.3	0.0
JUD3	Juan Diaz 3	0.98	317	eP	Pg	20 28 29.4	-0.6
CHIK	Chiripa	0.99	357	eP	Pg	20 28 29.4	-0.7
FORC	Fortuna	1.03	10	eP	Pg	20 28 30.1	-0.8
ARTO	Ro Cuarto	1.10	35	eP	Pb	20 28 31.5	-0.5
VTR0	Volcan Turrial	1.22	62	eP	Pb	20 28 34.2	-0.2
OCHAL	Ojochal	1.25	106	P	Pg	20 28 34.6	-0.3
OCHAL				S	Sn	20 28 51.7	+0.5
ABRB	Las Abras (San	1.26	63	⇓eP	Pb	20 28 34.9	0.0
HORNC	Hornillas	1.30	346	eP	Pn	20 28 34.3	-1.0
COVE	Coope Vega, Sa	1.35	19	P	Pn	20 28 35.3	-0.5
COVE				S	Sb	20 28 53.8	+0.2
CANAL	Canalete	1.40	352	eP	Pn	20 28 35.9	-0.6
UPAL	Upala	1.45	354	P	Pn	20 28 37.5	+0.2
UPAL				S	Sb	20 28 57.1	+0.5
PIRO	Carate, Puerto	1.82	124	P	Pb	20 28 43.8	-0.6
PIRO				S	Sg	20 29 08.4	-1.2
CARN	Rivas	1.85	339	P	Pn	20 28 43.9	+1.1
CARN				S	Sb	20 29 08.4	+0.3
VITO	San Vito	1.96	108	eP	Pg	20 28 51.5	+2.8
VITO				eS	Sg	20 29 13.6	-0.6
NELY	Ciudad Neily	2.05	112	eP	Pg	20 28 52.5	+2.3
NELY				eS	Sb	20 29 12.3	-1.4
CDITO	Canoas	2.14	114	P	Pb	20 28 48.5	-1.3
CDITO				S	Sb	20 29 15.0	-1.5
OMEN	Al SSO del Vol	2.19	340	P	Pn	20 28 49.1	+1.7
OMEN				S	Sb	20 29 16.8	-1.0
JAPN	Al SSO del Vol	2.22	339	P	Pn	20 28 48.8	+0.9
RGM0	Gandoca	2.23	86	P	Pb	20 28 49.7	-1.6
RGM0				S	Sb	20 29 18.2	-0.7
MORN	Al O del Volca	2.23	340	P	Pb	20 28 50.0	-1.4
MORN				S	Sb	20 29 17.7	-1.4
BRU2	Volcan	2.23	107	P	Pn	20 28 49.7	+1.6
BRU2				S	Sb	20 29 18.5	-0.8
BRU2	Volcan	2.23	107	eP	Pb	20 28 50.0	-1.5
BRU2				eS	Sb	20 29 18.2	-1.1
CLLRA	Cordillera,	2.32	107	eP	Pn	20 28 49.8	+0.5
CLLRA				eS	Sb	20 29 23.5	+1.7
LMNES	Limones	2.38	124	eP	Pn	20 28 50.7	+0.6
BQTLY	Boquete Panama	2.46	106	eP	Pn	20 28 52.6	+1.3
ACON	Acoyapa	2.53	353	P	Pn	20 28 53.2	+1.1
ACON				S	Sn	20 29 24.9	+2.0
NADN	Granada	2.57	333	P	Pn	20 28 53.9	+1.4
NADN				S	Sn	20 29 25.9	+2.1
RBALA	Bur	2.73	102	eP	Pn	20 28 55.5	+0.7
BLUN	Bluefields	2.76	23	P	Pn	20 28 56.2	+1.0
BLUN				S	Sn	20 29 30.0	+1.4
NANN	Nandasmo	2.77	334	P	Pn	20 28 57.0	+1.5
NANN				S	Sn	20 29 31.3	+2.3
MAS3	Al N del Volca	2.87	333	P	Pn	20 28 58.3	+1.5
WILN	Americas 2	3.00	334	P	Pn	20 29 00.3	+1.8
WILN				S	Sn	20 29 37.3	+2.8
KKNTU	Kakintº	3.07	101	eP	Pn	20 29 00.9	+1.3
BOAB	BOACO BROADBAN	3.09	345	P	Pn	20 29 01.3	+1.6
BOAB				S	Sn	20 29 39.4	+2.6
APYN	Apoyeque	3.14	332	P	Pn	20 29 01.9	+1.4
COPN	Copaltepe	3.21	328	P	Pn	20 29 02.3	+0.9
MOM2	El Cardon	3.38	332	P	Pn	20 29 05.3	+1.5
MOM2				S	Sn	20 29 46.4	+2.6
MOMN	Momotombo	3.38	331	P	Pn	20 29 05.1	+1.3
MOMN				S	Sn	20 29 45.2	+1.2
LEVN	Ruinas Leon Vi	3.41	330	P	Pn	20 29 05.2	+1.1
LEVN				S	Sn	20 29 47.2	+2.6
CNGN	Cerro Negro	3.54	329	P	Pn	20 29 07.4	+1.4
CNGN				S	Sn	20 29 49.7	+1.9
ROCN	Rota Cerro Neg	3.57	329	S	Sn	20 29 51.1	+2.3
ILCN	San Idelfonso	3.60	330	S	Sn	20 29 51.3	+1.9
MATN	Matagalpa	3.62	343	P	Pn	20 29 08.7	+1.6
MATN				S	Sn	20 29 52.2	+2.2
PLRN	Geotermica Pol	3.64	329	P	Pn	20 29 09.2	+1.9
TELN	Telica	3.69	329	P	Pn	20 29 09.2	+1.1
TELN				S	Sn	20 29 53.9	+2.1
HERN	Volcan Telica	3.69	329	P	Pn	20 29 09.6	+1.5
HERN				S	Sn	20 29 53.6	+1.7
CRIN	San Cristobal	3.89	327	P	Pn	20 29 12.4	+1.6
CRIN				S	Sn	20 29 58.1	+1.5
SIUN	Universidad Ur	4.25	1	S	Sn	20 30 07.2	+1.8
RCVN	Varillal2	4.32	342	P	Pn	20 29 17.9	+1.1
RCVN				S	Sn	20 30 09.0	+1.7
CSGN	Cosiguina Volc	4.40	323	P	Pn	20 29 18.9	+1.1
CSGN				S	Sn	20 30 11.5	+2.3
CMIG	Matias Romero	12.37	309	Pn	Pn	20 31 08.0	+0.9
	0.2nm,0.3s,baz=120,slow=18,SNR=2.4						
	1.3nm,0.5s						
CMIG				AML	AML		
TXAR	Lajitas Array	26.50	321	P	P	20 33 49.4	+0.6
	0.2nm,0.4s,baz=132,slow=12,SNR=6.2						
	0.2nm,0.4s						
LPAZ	La Paz	30.46	147	LR	LR	20 47 26.2	
	comp=Z,41nm,18.2s,baz=250,slow=38						
MDP	Montagnes des	32.24	95	LR	LR	20 48 14.0	
	comp=Z,86nm,19.1s,baz=86,slow=37						
SADO	Sadowa	35.54	7	LR	LR	20 49 48.4	
	comp=Z,39nm,19.2s,baz=166,slow=36						
PDAR	Pinedale Array	39.62	331	P	P	20 35 40.5	-2.5
	0.2nm,0.6s,baz=94,slow=6.4,SNR=2.0						
	0.2nm,0.6s						
NVAR	Mina Array Bea	41.63	319	P	P	20 36 00.3	+0.7
	0.5nm,0.5s,baz=125,slow=6.6,SNR=5.2						
	0.5nm,0.5s						
ILAR	Eielson Array	69.78	336	P	P	20 39 20.0	-1.2
	0.2nm,0.5s,baz=117,slow=6.2,SNR=2.4						
	0.2nm,0.5s						
ESDC	Sonseca Array	77.05	51	P	P	20 40 03.2	-1.3
	0.6nm,0.7s,baz=269,slow=5.6,SNR=7.4						
	0.6nm,0.7s						
ASAR	Alice Springs	140.39	244	PKP	PKPdf	20 47 40.3	-0.9
	0.9nm,1.0s,baz=99,slow=4.8,SNR=1.3						
WRA	Warramunga Arr	140.77	250	PKP	PKPdf	20 47 42.2	+0.3
	0.3nm,0.5s,baz=96,slow=1.9,SNR=2.0						
CMAR	Chiang Mai Arr	152.02	352	PKP	PKPdf	20 48 00.0	-0.9
	0.2nm,0.3s,baz=358,slow=2.6,SNR=5.0						

*KRNET **03** 20:31:58.7±0.1, 42°.88N×77°.73E, h19^{km}, mb2.4*
*NNC **03** 20:31:59.1±0.6, 42°.94N×77°.74E, h0^{km}, mpv2.7, Error ellipse: s-maj=7.3km s-min=1.8km az=3.0*
*SOME **03** 20:31:59.1, 42°.90N×77°.70E, h10^{km}*
ISC 03 20:31:58.7±0.9**, 42°.88N**±0°.03×**77°.73E**±0°.02**, h11**^{km}±7^{km}**,**
n24, σ0^{s}.61/47**, 12C, Lake Issyk-Kul region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ANVS	Anan'yevo	0.11	207	⇑iP	Pg	20 32 01.9	+0.1
ANVS				⇑iS	Sg	20 32 04.0	0.0
SATY	Saty	0.53	70	P	Pg	20 32 09.1	+0.1
	6.6nm,0.2s						
SATY				S	Sg	20 32 16.5	+0.4
	39nm,0.1s						
SATY	Saty	0.53	70	eP	Pg	20 32 09.1	+0.1
	6.6nm,0.2s						
SATY				eS	Sg	20 32 16.5	+0.4
	39nm,0.1s						
KOTS	Kotyrbulak	0.58	308	P	Pg	20 32 10.1	+0.1
	4.4nm,0.1s						
KOTS				S	Sg	20 32 18.1	+0.4
	28nm,0.2s						
KOTS	Kotyrbulak	0.58	308	eP	Pg	20 32 10.1	+0.1
KOTS				eS	Sg	20 32 18.1	+0.4
KOTS	Kotyrbulak	0.58	308	eP	Pg	20 32 10.1	+0.1
	4.4nm,0.1s						
KOTS				eS	Sg	20 32 18.1	+0.4
	28nm,0.2s						
MDOK	Medeo	0.58	300	Pg	Pg	20 32 10.0	-0.1
	7.3nm,0.1s						
MDOK				Lg	Lg	20 32 17.9	
	24nm,0.3s						
MDOK	Medeo	0.58	300	eP	Pg	20 32 10.0	-0.1
	7.3nm,0.1s						
MDOK				eS	Sg	20 32 17.9	+0.2
	24nm,0.3s						
PRZ	Przheval'sk	0.63	128	⇑eP	Pg	20 32 11.3	+0.3
PRZ				⇑eS	Sg	20 32 19.3	0.0
KDJ	Kajisay	0.85	209	⇑iP	Pg	20 32 14.9	-0.3
KDJ				⇑iS	Sg	20 32 26.1	-0.3
KPKS	Kokpek	0.91	49	P	Pg	20 32 15.7	-0.7
	0.2nm,0.1s						
KPKS				S	Sg	20 32 27.9	-0.3
	4.4nm,0.3s						
KPKS	Kokpek	0.91	49	eP	Pg	20 32 15.7	-0.7
	0.2nm,0.1s						
KPKS				eS	Sg	20 32 27.9	-0.3
	4.4nm,0.3s						
UZB	Uzynbulak	0.98	74	P	Pg	20 32 17.5	-0.2
	1.3nm,0.1s						
UZB				S	Sg	20 32 30.6	+0.1
	5.1nm,0.1s						
UZB	Uzynbulak	0.98	74	eP	Pg	20 32 17.5	-0.2
	1.3nm,0.1s						
UZB				eS	Sg	20 32 30.6	+0.1
	5.1nm,0.1s						
KTBS	Karatobe	1.13	318	P	Pb	20 32 19.4	-1.0
	1.4nm,0.1s						
KTBS				S	Sg	20 32 33.0	-2.3
	3.8nm,0.3s						
KTBS	Karatobe	1.13	318	eP	Pb	20 32 19.4	-1.0
	1.4nm,0.1s						
KTBS				eS	Sg	20 32 34.0	-1.3
	3.8nm,0.3s						
TARG	Taragay, Kyrgy	1.15	177	⇑iP	Pg	20 32 20.4	-0.5
TARG				⇑iS	Sg	20 32 35.4	-0.5
ULHL	Ulahol	1.27	241	⇑iP	Pn	20 32 22.2	-0.4
ULHL				⇑iS	Sb	20 32 39.1	-0.1
KST	Kastek	1.31	278	P	Pn	20 32 23.5	+0.5
	0.6nm,0.2s						
KST				S	Sn	20 32 41.1	+0.5
	3.9nm,0.2s						
KST	Kastek	1.31	278	eP	Pn	20 32 23.5	+0.5
	0.6nm,0.2s						
KST				eS	Sn	20 32 41.0	+0.5
	3.9nm,0.2s						
BOOM	Boomskoye usch	1.38	254	⇑iP	Pn	20 32 24.0	0.0
BOOM				⇑iS	Sb	20 32 42.0	-0.2
KRBS	Karabastau	1.71	299	P	Pb	20 32 30.3	+0.1
	0.7nm,0.2s						
KRBS				S	Sb	20 32 52.8	+1.0
	1.3nm,0.2s						
KRBS	Karabastau	1.71	299	eP	Pb	20 32 30.3	+0.1
KRBS				eS	Sb	20 32 52.7	+1.0
KRBS	Karabastau	1.71	299	eP	Pb	20 32 30.3	+0.1
	0.7nm,0.2s						
KRBS				eS	Sb	20 32 52.8	+1.0
	1.3nm,0.2s						

*GEN **03** 20:36:35.8, 45°.88N×6°.98E, h4^{km}, Ml2.1*
*ZUR **03** 20:36:36.7, 45°.87N×6°.99E, h1^{km}, MLh2.5/137, Error ellipse: s-maj=1229.0km s-min=464.9km az=263.0*
*ROM **03** 20:36:36.5±0.2, 45°.861N±0°.009×7°.02E±0°.01, h8^{km}, ML2.1/30, Error ellipse: s-maj=1.0km s-min=0.9km az=312.0*
*PRU **03** 20:36:37.9, 44°.53N×9°.42E, h0^{km}*
*STR **03** 20:36:37.0±0.0, 45°.85N±0°.03×7°.01E±0°.04, h5^{km}, MLv2.4/36, LOCSAT earthModelID alpes_taup-2.11 preliminary*
*LDG **03** 20:36:37.4±0.1, 45°.85N×7°.05E, h2^{km}, Md2.8/2, Ml2.8/28, Error ellipse: s-maj=1.7km s-min=1.4km az=104.0*
ISC 03 20:36:36.6±0.8**, 45°.858N**±0°.010×**7°.00E**±0°.01**, h4**^{km}±4^{km}**,**
n229, σ1^{s}.09/387**, 37C-25D, Northern Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BLANC	P.ta Helbronne	0.05	254	⇑Pg	Pg	20 36 38.0	-0.2
BLANC				Sg	Sg	20 36 39.0	-0.3
BLANC				AML	AML		
BLANC	P.ta Helbronne	0.05	254	⇑Pg	Pg	20 36 38.0	-0.2
BLANC				Sg	Sg	20 36 39.0	-0.3
BLANC				AML	AML		
BLANC	P.ta Helbronne	0.05	254	P	Pg	20 36 38.0	-0.2
BLANC				S	Sg	20 36 38.9	-0.3
BLANC	P.ta Helbronne	0.05	254	⇑iP	Pg	20 36 38.0	-0.2
BLANC				S	Sg	20 36 39.0	-0.3
BLANC				AML	AML		
	comp=E,12750µm,0.4s						
BLANC				AML	AML		
	comp=N,11170µm,0.3s						
BLANC				AML	AML		
	comp=N,5751µm,1.1s						
BLANC				AML	AML		
	comp=E,6635µm,0.3s						
MRGE	Morge	0.10	155	⇑Pg	Pg	20 36 39.3	+0.6
MRGE				AML	AML		
MRGE	Morge	0.10	155	⇑Pg	Pg	20 36 39.3	+0.6
MRGE				Sg	Sg	20 36 41.2	+1.1
MRGE				AML	AML		
MRGE	Morge	0.10	155	P	Pg	20 36 39.3	+0.6
MRGE				S	Sg	20 36 41.2	+1.1
MRGE	Morge	0.10	155	⇑iP	Pg	20 36 39.3	+0.6
MRGE				S	Sg	20 36 41.3	+1.1
MRGE				AML	AML		
	comp=E,1835µm,0.1s						
MRGE				AML	AML		
	comp=N,2680µm,0.9s						
MRGE				AML	AML		
	comp=N,1491µm,0.2s						
MRGE				AML	AML		
	comp=E,1835µm,0.1s						
REMY	Saint-Rhmy-en	0.11	101	⇑Pg	Pg	20 36 39.7	+0.7
REMY				AML	AML		
REMY	Saint-Rhmy-en	0.11	101	⇑Pg	Pg	20 36 39.7	+0.7
REMY				AML	AML		
REMY	Saint-Rhmy-en	0.11	101	Pg	Pg	20 36 39.6	+0.7
REMY	Saint-Rhmy-en	0.11	101	P	Pg	20 36 39.6	+0.7
REMY				S	Sg	20 36 41.8	+1.3
REMY	Saint-Rhmy-en	0.11	101	⇑iP	Pg	20 36 39.6	+0.7
REMY				S	Sg	20 36 41.9	+1.3
MFERR	Prayon, Val Fe	0.12	39	⇑Pg	Pg	20 36 39.4	+0.2
MFERR				Sg	Sg	20 36 41.2	+0.4
MFERR				AML	AML		
MFERR	Prayon, Val Fe	0.12	39	⇑Pg	Pg	20 36 39.4	+0.2
MFERR				Sg	Sg	20 36 41.2	+0.4
MFERR				AML	AML		
SEMOS	Emosson Stauma	0.21	347	⇑Pg	Pg	20 36 40.9	+0.1
SEMOS				Sg	Sg	20 36 43.7	0.0
SEMOS				AML	AML		
SEMOS	Emosson Stauma	0.21	347	⇑Pg	Pg	20 36 40.9	+0.1
SEMOS				Sg	Sg	20 36 43.7	0.0
SEMOS				AML	AML		
SMAO	Martigny, Rue	0.25	12	Pg	Pg	20 36 41.7	+0.3
SMAO				AML	AML		
OGSI	Sixt	0.27	320	⇑Pg	Pg	20 36 41.7	-0.2
OGSI				Sg	Sg	20 36 45.1	-0.4
OGSI				AML	AML		
OGSI	Sixt	0.27	320	⇑Pg	Pg	20 36 41.7	-0.2
OGSI				Sg	Sg	20 36 45.1	-0.4
OGSI				AML	AML		
OGSI	Sixt	0.27	320	Pg	Pg	20 36 41.7	-0.2
OGSI				Sg	Sg	20 36 45.1	-0.4
SALAN	Lac Salanfe	0.29	356	⇑Pg	Pg	20 36 42.3	+0.1
SALAN				Sg	Sg	20 36 46.0	-0.1
SALAN				AML	AML		
SALAN	Lac Salanfe	0.29	356	⇑Pg	Pg	20 36 42.3	+0.1
SALAN				Sg	Sg	20 36 46.0	-0.1
SALAN				AML	AML		
FULLY	Reservoir Maze	0.31	17	⇓Pg	Pg	20 36 42.9	+0.2
FULLY				Sg	Sg	20 36 46.8	0.0
FULLY				AML	AML		
FULLY	Reservoir Maze	0.31	17	⇓Pg	Pg	20 36 42.9	+0.2
FULLY				Sg	Sg	20 36 46.8	0.0
FULLY				AML	AML		
RSL	Roselend	0.31	237	⇓Pg	Pg	20 36 42.9	+0.2
RSL				Sg	Sg	20 36 46.9	+0.1
RSL				AML	AML		
RSL	Roselend	0.31	237	⇓Pg	Pg	20 36 42.9	+0.2
RSL				Sg	Sg	20 36 46.9	+0.1
RSL				AML	AML		
RSL	Roselend	0.31	237	Pg	Pg	20 36 42.9	+0.2
RSL				Sg	Sg	20 36 47.0	+0.1
RSL	Roselend	0.31	237	P	Pg	20 36 42.9	+0.2
RSL				S	Sg	20 36 47.0	+0.1
LAVEY	Lavey les Bain	0.34	2	Pg	Pg	20 36 43.4	+0.1
LAVEY				Sg	Sg	20 36 47.6	-0.2
LAVEY				AML	AML		
LAVEY	Lavey les Bain	0.34	2	Pg	Pg	20 36 43.3	+0.1
LAVEY				Sg	Sg	20 36 47.6	-0.2
LAVEY				AML	AML		
DIX	Grande Dixence	0.36	52	⇑Pg	Pg	20 36 43.8	+0.2
DIX				AML	AML		
DIX	Grande Dixence	0.36	52	⇑Pg	Pg	20 36 43.8	+0.2
DIX				Sg	Sg	20 36 48.9	+0.4
DIX				AML	AML		
DIX	Grande Dixence	0.36	52	Pg	Pg	20 36 43.8	+0.2
DIX				Sg	Sg	20 36 49.0	+0.4
DIX	Grande Dixence	0.36	52	P	Pg	20 36 43.8	+0.2
DIX				S	Sg	20 36 48.8	+0.4
DIX	Grande Dixence	0.36	52	P	Pg	20 36 43.9	+0.2
DIX				S	Sg	20 36 48.9	+0.4
DIX				AML	AML		
	comp=N,1046µm,1.5s						
DIX				AML	AML		
	comp=E,1095µm,1.0s						
DIX				AML	AML		
	comp=N,1046µm,0.5s						
DIX				AML	AML		
	comp=E,505µm,0.7s						
ILLEZ	Chalet Vouargn	0.36	353	⇓Pg	Pg	20 36 43.8	0.0
ILLEZ				Sg	Sg	20 36 48.4	-0.1
ILLEZ				AML	AML		
ILLEZ	Chalet Vouargn	0.36	353	⇑Pg	Pg	20 36 43.7	0.0
ILLEZ				Sg	Sg	20 36 48.3	-0.1
ILLEZ				AML	AML		
RAW4	Former Reservo	0.37	19	⇓Pg	Pg	20 36 44.0	+0.2
RAW4				AML	AML		
RAW4	Former Reservo	0.37	19	⇓Pg	Pg	20 36 44.0	+0.2
RAW4				Sg	Sg	20 36 48.8	+0.1
RAW4				AML	AML		
LPL	La Plagne	0.39	209	ePg	Pg	20 36 44.4	+0.2
LPL				eSg	Sg	20 36 51.1	+1.7
	comp=E,62nm,0.2s						
GRYON	Gryon	0.40	11	⇓Pg	Pg	20 36 44.5	+0.1
GRYON				AML	AML		
GRYON	Gryon	0.40	11	⇓Pg	Pg	20 36 44.5	+0.1
GRYON				Sg	Sg	20 36 49.6	-0.1
GRYON				AML	AML		
LPG	La Plagne	0.40	206	ePg	Pg	20 36 44.7	+0.3
LPG				eSg	Sg	20 36 50.0	+0.3
	comp=E,120nm,0.3s						
VET02	Vtroz, Route	0.41	28	Sg	Sg	20 36 50.5	+0.7
VET02				AML	AML		
LSD	Lago del Serru	0.41	167	⇑Pg	Pg	20 36 45.0	+0.4
LSD				AML	AML		
LSD	Lago del Serru	0.41	167	⇑Pg	Pg	20 36 45.0	+0.4
LSD				Sg	Sg	20 36 50.5	+0.6
LSD				AML	AML		
LSD	Lago del Serru	0.41	167	Pg	Pg	20 36 45.0	+0.4
LSD				Sg	Sg	20 36 50.7	+0.8
LSD	Lago del Serru	0.41	167	P	Pg	20 36 45.0	+0.4
LSD				S	Sg	20 36 50.6	+0.6
LSD	Lago del Serru	0.41	167	⇑iP	Pg	20 36 45.0	+0.4
LSD				S	Sg	20 36 50.7	+0.8
LSD				AML	AML		
	comp=N,312µm,1.1s						
LSD				AML	AML		
	comp=E,3µm,0.2s						
LSD				AML	AML		
	comp=N,312µm,0.9s						
VET01	Vtroz, Route	0.41	27	Sg	Sg	20 36 50.0	+0.1
VET01				AML	AML		
VET01	Vtroz, Route	0.41	27	⇓Pg	Pg	20 36 44.7	+0.2
VET01				Sg	Sg	20 36 50.0	+0.1
VET01				AML	AML		
SHER	Hrmence, R	0.43	40	⇓Pg	Pg	20 36 45.2	+0.3
SHER				AML	AML		
CIRO	Champorcher	0.47	123	⇑Pg	Pg	20 36 46.0	+0.2
CIRO				AML	AML		
CIRO	Champorcher	0.47	123	Pg	Pg	20 36 46.1	+0.4
CIRO				Sg	Sg	20 36 53.1	+1.2
CIRO	Champorcher	0.47	123	P	Pg	20 36 46.0	+0.2
CIRO				S	Sg	20 36 52.3	+0.4
CIRO	Champorcher	0.47	123	⇑P	Pg	20 36 46.0	+0.2
CIRO				S	Sg	20 36 52.6	+0.7
CIRO				AML	AML		
	comp=E,151µm,1.6s						
CIRO				AML	AML		
	comp=N,184µm,0.8s						
CIRO				AML	AML		
	comp=N,184µm,1.2s						
CIRO				AML	AML		
	comp=E,151µm,0.4s						
CIRO				AML	AML		
	comp=E,119µm,0.2s						
MH36	Zermatt, Posit	0.48	75	⇑Pg	Pg	20 36 45.7	-0.3
MH36				AML	AML		
MH44	Zermatt, Posit	0.48	75	Pg	Pg	20 36 45.9	-0.1
MH44				AML	AML		
AIGLE	Aigle	0.48	356	Pg	Pg	20 36 46.1	+0.1
AIGLE				AML	AML		
AIGLE	Aigle	0.48	356	⇓Pg	Pg	20 36 46.1	+0.1
AIGLE				Sg	Sg	20 36 52.2	-0.1
AIGLE				AML	AML		
AIGLE	Aigle	0.48	356	Pg	Pg	20 36 46.1	+0.1
AIGLE				Sg	Sg	20 36 52.3	0.0
RAW2	Sanetsch, VS	0.51	25	⇓Pg	Pg	20 36 46.7	+0.3
RAW2				AML	AML		
RAW2	Sanetsch, VS	0.51	25	⇓Pg	Pg	20 36 46.7	+0.3
RAW2				Sg	Sg	20 36 53.2	+0.2
RAW2				AML	AML		
SIE01	Sierre, Farmho	0.54	40	⇑Pg	Pg	20 36 47.2	+0.2
SIE01				AML	AML		
SIE01	Sierre, Farmho	0.54	40	⇑Pg	Pg	20 36 47.2	+0.2
SIE01				AML	AML		
VANNI	Vissoie, Val d	0.54	49	P	Pg	20 36 47.7	+0.6
VANNI				S	Sg	20 36 54.3	+0.2
SENIN	Lac Senin/Sane	0.55	22	Pg	Pg	20 36 47.1	0.0
SENIN				Sg	Sg	20 36 54.5	+0.3
SENIN				AML	AML		
SENIN	Lac Senin/Sane	0.55	22	⇓Pg	Pg	20 36 47.2	0.0
SENIN				Sg	Sg	20 36 54.4	+0.1
SENIN				AML	AML		
SENIN	Lac Senin/Sane	0.55	22	P	Pg	20 36 47.2	0.0
SENIN				S	Sg	20 36 54.6	+0.4
ILL15	Illgraben, Alp	0.58	47	Pg	Pg	20 36 48.0	+0.2
ILL15				AML	AML		
ILL16	Illgraben, For	0.58	45	Pg	Pg	20 36 48.1	+0.3
ILL16				AML	AML		
ILL17	Plaine Madelei	0.59	44	Pg	Pg	20 36 48.2	+0.2
ILL17				AML	AML		
ILL14	Mittler Illalp	0.59	47	Pg	Pg	20 36 48.3	+0.2
ILL14				AML	AML		
ILL18	Steinschlaghue	0.60	45	⇓Pg	Pg	20 36 48.3	+0.2
ILL18				AML	AML		
ILL18	Steinschlaghue	0.60	45	Pg	Pg	20 36 48.3	+0.2
ILL18				AML	AML		
SATI	Passo dei Sala	0.60	88	⇑Pg	Pg	20 36 47.9	-0.5
SATI				AML	AML		
SATI	Passo dei Sala	0.60	88	⇑Pg	Pg	20 36 47.8	-0.5
SATI				AML	AML		
SATI	Passo dei Sala	0.60	88	Pg	Pg	20 36 47.8	-0.5
SATI				Sg	Sg	20 36 57.5	+1.3

SATI	**Passo dei Sala**	0.60	88	P	Pg	20 36 47.9	-0.5
SATI				S	Sg	20 36 56.5	+0.3
SATI	**Passo dei Sala**	0.60	88	P	Pg	20 36 47.8	-0.5
SATI				S	Sg	20 36 56.7	+0.6
SATI				AML	AML		
	comp=N,84µm,1.6s						
SATI				AML	AML		
	comp=E,84µm,0.4s						
SATI				AML	AML		
	comp=N,84µm,0.4s						
ILL12	**Sagenschleif I**	0.61	45	Pg	Pg	20 36 48.4	0.0
ILL12				AML	AML		
ILL13	**Obere Abschlac**	0.62	45	Pg	Pg	20 36 48.6	+0.1
ILL13				AML	AML		
OG02	**Monnetier-Morn**	0.62	299	Pg	Pg	20 36 49.2	+0.7
OG02				AML	AML		
OG02	**Monnetier-Morn**	0.62	299	Pg	Pg	20 36 49.3	+0.7
OG02				Sg	Sg	20 36 58.0	+1.4
TRAV	**Traversella**	0.63	123	⇑Pg	Pg	20 36 48.9	+0.3
TRAV				AML	AML		
TRAV	**Traversella**	0.63	123	⇑Pg	Pg	20 36 48.9	+0.3
TRAV				AML	AML		
TRAV	**Traversella**	0.63	123	Pg	Pg	20 36 48.9	+0.3
TRAV				Sg	Sb	20 36 58.3	-1.0
TRAV	**Traversella**	0.63	123	P	Pg	20 36 48.9	+0.3
TRAV				S	Sg	20 36 57.7	+0.9
TRAV	**Traversella**	0.63	123	P	Pg	20 36 48.9	+0.3
TRAV				S	Sb	20 36 58.4	-0.9
TRAV				AML	AML		
	comp=N,229µm,1.2s						
TRAV				AML	AML		
	comp=E,180µm,0.7s						
TRAV				AML	AML		
	comp=N,229µm,0.8s						
TRAV				AML	AML		
	comp=N,203µm,0.3s						
TRAV				AML	AML		
	comp=E,94µm,0.2s						
RAW1	**Lenk, BE**	0.64	28	⇓Pg	Pg	20 36 48.9	0.0
RAW1				Sg	Sg	20 36 57.4	+0.1
RAW1				AML	AML		
SALEV	**Sal¨ve**	0.66	288	Pg	Pg	20 36 49.7	+0.3
SALEV				AML	AML		
EMBD	**Embd, Matterta**	0.68	58	⇑Pg	Pg	20 36 49.5	-0.2
EMBD				AML	AML		
EMBD	**Embd, Matterta**	0.68	58	Pg	Pg	20 36 49.5	-0.2
EMBD				Sg	Sg	20 36 59.4	+0.9
EMBD	**Embd, Matterta**	0.68	58	P	Pg	20 36 49.5	-0.2
EMBD				S	Sg	20 36 58.1	-0.4
LKBD2	**Leukerbad 2**	0.68	41	⇓Pg	Pg	20 36 49.8	0.0
LKBD2				AML	AML		
OGMO	**Fort Saint-Gob**	0.69	199	Pg	Pg	20 36 49.8	0.0
OGMO				Sg	Sg	20 37 00.0	+1.3
OGMO	**Fort Saint-Gob**	0.69	199	P	Pg	20 36 49.8	0.0
OGMO				S	Sg	20 36 58.9	+0.1
MMK	**Mattmark**	0.70	74	Pg	Pg	20 36 49.5	-0.5
MMK				AML	AML		
RSP	**Reno Superiore**	0.73	165	⇑Pg	Pg	20 36 50.7	+0.1
RSP				AML	AML		
RSP	**Reno Superiore**	0.73	165	Pg	Pg	20 36 50.8	+0.1
RSP	**Reno Superiore**	0.73	165	P	Pg	20 36 50.8	+0.1
RSP				S	Sg	20 37 00.8	+0.6
RSP	**Reno Superiore**	0.73	165	⇑P	Pg	20 36 50.8	+0.1
RSP				S	Sg	20 37 00.8	+0.6
RSP				AML	AML		
	comp=N,376µm,0.2s						
RSP				AML	AML		
	comp=N,410µm,0.2s						
RSP				AML	AML		
	comp=E,254µm,0.2s						
RSP				AML	AML		
	comp=E,274µm,0.2s						
RSP				AML	AML		
	comp=N,411µm,0.2s						
RSP				AML	AML		
	comp=N,376µm,0.2s						
RSP				AML	AML		
	comp=E,213µm,0.2s						
SAVIG	**Le Moulin, Sav**	0.75	286	Pg	Pg	20 36 51.2	+0.3
SAVIG				AML	AML		
LAUCH	**Lauchernalp**	0.77	44	⇓Pg	Pg	20 36 51.4	-0.1
LAUCH				AML	AML		
LAUCH	**Lauchernalp**	0.77	44	P	Pg	20 36 51.4	-0.1
LAUCH				S	Sg	20 37 02.3	+0.7
OGMY	**Moye**	0.78	272	Pg	Pg	20 36 52.0	+0.4
OGMY				PmP		20 36 55.2	
OGMY				AML	AML		
OGMY	**Moye**	0.78	272	Pg	Pg	20 36 52.2	+0.7
OGMY				Pn	Pn	20 36 55.3	+0.9
JAUN	**Jaun, Euschels**	0.80	14	Pg	Pg	20 36 52.1	+0.1
JAUN				PmP		20 36 55.9	
JAUN				AML	AML		
SIMPL	**Simplonpass**	0.80	61	⇑Pg	Pg	20 36 51.8	-0.3
SIMPL				Sg	Sg	20 37 02.6	0.0
SIMPL				AML	AML		
SIMPL	**Simplonpass**	0.80	61	P	Pg	20 36 51.8	-0.3
SIMPL				S	Sg	20 37 02.9	+0.4
GIMEL	**St. Georges /**	0.85	323	Pg	Pg	20 36 53.2	+0.3
GIMEL				AML	AML		
GIMEL	**St. Georges /**	0.85	323	Pg	Pg	20 36 53.2	+0.3
GIMEL				Sg	Sg	20 37 05.3	+1.4
GIMEL				Sn	Sn	20 37 09.8	+1.4
GIMEL	**St. Georges /**	0.85	323	P	Pg	20 36 53.4	+0.5
GIMEL				S	Sg	20 37 05.2	+1.2
GIMEL				AML	AML		
	comp=E,122µm,0.7s						
GIMEL				AML	AML		
	comp=N,95µm,0.9s						
GIMEL				AML	AML		
	comp=E,122µm,1.3s						
GIMEL				AML	AML		
	comp=E,78µm,0.2s						
GIMEL				AML	AML		
	comp=N,78µm,0.4s						
WIMIS	**Wimmis**	0.92	28	⇓Pg	Pg	20 36 54.3	+0.1
WIMIS				AML	AML		
WIMIS	**Wimmis**	0.92	28	⇓Pg	Pg	20 36 54.3	+0.1
WIMIS				AML	AML		
TORNY	**Torny/Romont**	0.92	358	⇑Pg	Pg	20 36 54.5	+0.3
TORNY				PmP		20 36 57.3	
TORNY				SmS		20 37 11.4	
TORNY				AML	AML		
TORNY	**Torny/Romont**	0.92	358	Pg	Pg	20 36 54.7	+0.5
TORNY				Pn	Pn	20 36 57.4	+1.0
TORNY				Sn	Sn	20 37 11.5	+1.5
OGSM	**Saint Maurice**	0.95	255	Pg	Pg	20 36 55.1	+0.3
OGSM				Pn	Pn	20 36 57.8	+1.1
OGSM				Sg	Sg	20 37 08.2	+1.1
OGSM				Sn	Sn	20 37 12.7	+2.0
RRL	**Rocca Remolon**	0.95	189	Pg	Pg	20 36 54.6	-0.2
RRL				P	Pg	20 36 54.7	-0.1
RRL	**Rocca Remolon**	0.95	189	P	Pg	20 36 54.7	-0.1
RRL				S	Sg	20 37 07.4	+0.2
RRL	**Rocca Remolon**	0.95	189	P	Pg	20 36 54.7	-0.1
RRL				S	Sg	20 37 07.2	+0.1
RRL				AML	AML		
	comp=E,85µm,0.9s						
RRL				AML	AML		
	comp=N,91µm,0.5s						
RRL				AML	AML		
	comp=E,85µm,1.1s						
RRL				AML	AML		
	comp=N,91µm,1.5s						
RRL				AML	AML		
	comp=N,49µm,0.5s						
RRL				AML	AML		
	comp=E,59µm,0.5s						
FIESA	**Fiescheralp**	0.96	53	Pg	Pg	20 36 54.9	-0.2
FIESA				AML	AML		
FIESA	**Fiescheralp**	0.96	53	P	Pg	20 36 55.0	-0.2
FIESA				S	Sg	20 37 08.4	+0.8
CABF	**La Chapelle**	0.98	320	*e*Pg	Pg	20 36 56.2	+0.7
CABF				*e*Sg	Sg	20 37 09.1	+0.8
OG35	**Corcelles**	1.02	281	Pg	Pg	20 36 56.3	+0.1
OG35				PmP		20 36 58.5	
OG35				Sg	Sg	20 37 09.6	+0.3
OG35				SmS		20 37 13.6	
OG35				AML	AML		
OG35	**Corcelles**	1.02	281	Pg	Pg	20 36 56.2	+0.1
OG35				Pn	Pn	20 36 58.6	+0.9
OG35				Sg	Sg	20 37 09.8	+0.5
OG35				Sn	Sn	20 37 13.8	+1.3
BHB	**Bricherasio**	1.03	170	Pg	Pg	20 36 56.6	+0.1
BHB				Sg	Sg	20 37 10.5	+0.7
BHB	**Bricherasio**	1.03	170	P	Pg	20 36 56.5	+0.1
BHB				S	Sg	20 37 10.2	+0.3
BHB	**Bricherasio**	1.03	170	P	Pg	20 36 56.5	0.0
BHB				S	Sg	20 37 10.1	+0.3
BHB				AML	AML		
	comp=N,113µm,1.6s						
BHB				AML	AML		
	comp=E,82µm,0.9s						
BHB				AML	AML		
	comp=N,113µm,0.4s						
GRN	**Grenoble**	1.08	236	Pg	Pg	20 36 57.5	+0.2
GRN				Pn	Pn	20 37 00.2	+1.6
GRN				Sn	Sn	20 37 16.2	+2.3
BRANT	**Les Verrieres**	1.14	341	Pg	Pg	20 36 58.8	+0.3
BRANT				AML	AML		
BRANT	**Les Verrieres**	1.14	341	Pg	Pg	20 36 58.8	+0.3
BRANT				Pn	Pn	20 37 00.6	+1.1
BRANT				Sn	Sn	20 37 16.9	+1.3
MBDF	**Montbardon**	1.14	188	*e*Pg	Pg	20 36 58.1	-0.4
MBDF				*e*Sg	Sg	20 37 13.8	+0.4
	comp=N,36nm,0.4s						
MBDF				AML	AML		
RIVEL	**MONT RIVEL**	1.17	321	Pg	Pg	20 36 59.0	-0.1
RIVEL				AML	AML		
RIVEL	**MONT RIVEL**	1.17	321	Pg	Pg	20 36 59.0	-0.1
ORIF	**Oris-en-Rattie**	1.23	220	*e*Pg	Pg	20 36 59.8	-0.4
ORIF				*e*Sg	Sb	20 37 17.1	+0.4
	comp=N,58nm,0.3s						
ORIF				AML	AML		
ORIF	**Oris-en-Rattie**	1.23	220	Pg	Pg	20 36 59.9	-0.2
ORIF				Sg	Sb	20 37 17.7	+1.0
ORIF	**Oris-en-Rattie**	1.23	220	P	Pg	20 36 59.8	-0.4
ORIF				S	Sb	20 37 17.2	+0.5
ORIF				AML	AML		
	comp=N,116µm,0.4s						
ORIF				AML	AML		
	comp=E,101µm,0.4s						
ORIF				AML	AML		
	comp=N,116µm,1.6s						
VARE	**Varese**	1.23	89	P	Pg	20 36 60.0	-0.3
VARE				S	Sg	20 37 14.6	-1.7
STFL	**Fournets-Luisa**	1.29	347	Pg	Pb	20 37 02.7	+1.2
FUSIO	**Fusio**	1.30	62	Pg	Pg	20 37 01.0	-0.5
FUSIO				AML	AML		
FUSIO	**Fusio**	1.30	62	P	Pg	20 37 01.2	-0.3
FUSIO	**Fusio**	1.30	62	P	Pg	20 37 01.2	-0.3
FUSIO				AML	AML		
	comp=E,111µm,0.4s						
FUSIO				AML	AML		
	comp=N,70µm,0.4s						
FUSIO				AML	AML		
	comp=N,70µm,1.6s						
A060B	**Romoos, Napf,**	1.32	30	Pg	Pb	20 37 02.5	+0.4
A060B				AML	AML		
CREF	**Crivoux**	1.34	192	Pn	Pn	20 37 01.8	-0.5
PZZ	**Stroppo**	1.35	177	⇓Pg	Pn	20 37 02.0	-0.4
PZZ				AML	AML		
PZZ	**Stroppo**	1.35	177	Pn	Pn	20 37 02.2	-0.2
PZZ	**Stroppo**	1.35	177	P	Pn	20 37 02.3	-0.2
PZZ				S	Sg	20 37 18.8	-1.4
PZZ	**Stroppo**	1.35	177	P	Pn	20 37 02.2	-0.2
PZZ				AML	AML		
	comp=E,138µm,0.4s						
PZZ				AML	AML		
	comp=N,112µm,0.5s						
SURF	**Saint Ours**	1.38	186	Pn	Pn	20 37 02.6	-0.3
SURF	**Saint Ours**	1.38	186	P	Pn	20 37 02.6	-0.3
SURF				S	Sg	20 37 21.4	+0.4
CHMF	**Charmoille**	1.41	350	⇓Pg	Pn	20 37 03.4	+0.2
CHMF				Sg	Sb	20 37 22.1	+0.1
CHMF				AML	AML		
CHMF	**Charmoille**	1.41	350	Pn	Pn	20 37 03.3	+0.2
CHMF				Pg	Pg	20 37 04.7	+1.0
CHMF				Sn	Sn	20 37 23.6	+1.4
BNALP	**Bannalp**	1.41	44	AML	AML		
	comp=E,69µm,0.5s						
BNALP				AML	AML		
	comp=N,77µm,1.6s						
BNALP				AML	AML		
	comp=N,77µm,0.4s						
MUGIO	**Muggio**	1.43	87	Pg	Pn	20 37 03.2	-0.1
MUGIO				AML	AML		
MUGIO	**Muggio**	1.43	87	P	Pn	20 37 03.3	-0.1
MUGIO				S	Sn	20 37 22.8	+0.2
JAUF	**Jausiers**	1.44	187	Pn	Pn	20 37 03.5	-0.1
OGAG	**Argentiere**	1.44	193	Pg	Pn	20 36 58.0	-5.6
OGAG	**Argentiere**	1.44	193	P	Pn	20 36 57.9	-5.7
OGAG				S	Sb	20 37 14.7	-8.1
BOUC	**Bouclans**	1.48	340	Pg	Pn	20 37 04.2	+0.1
BOUC				AML	AML		
BOUC	**Bouclans**	1.48	340	Pn	Pn	20 37 04.2	+0.1
BOUC				Pg	Pg	20 37 05.9	+0.9
BOUC				Sn	Sg	20 37 24.6	+0.4
FOURG	**Fourg**	1.49	327	Pn	Pn	20 37 04.4	+0.2
FOURG				Pg	Pg	20 37 06.1	+0.8
FOURG				Sn	Sg	20 37 25.3	+0.7
MTIA3	**Mont Terri MTI**	1.52	3	⇓Pg	Pn	20 37 04.7	+0.1
MTIA3				AML	AML		
MTI02	**Mont Terri, (H**	1.53	4	Pg	Pn	20 37 04.8	+0.1
MTI02				AML	AML		
MTIA1	**Mont Terri MTI**	1.53	4	Pg	Pn	20 37 04.7	0.0
MTIA1				AML	AML		
BOURR	**Bourrignon**	1.54	6	Pn	Pn	20 37 04.9	-0.1
BOURR				Pg	Pg	20 37 07.5	+1.3
BOURR				Sg	Sg	20 37 27.9	+1.6
BALST	**Balsthal**	1.55	18	Pn	Pn	20 37 05.4	+0.3
BALST				Pg	Pg	20 37 07.3	+0.9
BALST				Sn	Sg	20 37 28.1	+1.6
ENR	**Entracque**	1.66	170	Pn	Pn	20 37 06.1	-0.4
ISO	**Isola**	1.68	179	Pn	Pb	20 37 08.6	+0.5
GBOS	**Grotte di Boss**	1.72	160	Pn	Pn	20 37 07.9	+0.4
TUE	**Stuetta**	1.74	69	P	Pb	20 37 09.1	-0.2
TUE				AML	AML		
	comp=E,46µm,0.8s						
TUE				AML	AML		
	comp=E,58µm,0.9s						
TUE				AML	AML		
	comp=N,55µm,0.4s						
TUE				AML	AML		
	comp=N,70µm,0.4s						
ENAUX	**Enaux**	1.76	185	Pn	Pb	20 37 10.1	+0.6
PIAF	**les Granges de**	1.80	166	Pn	Pn	20 37 08.6	+0.1
SPIF	**crte de Spivo**	1.81	175	Pg	Pb	20 37 10.8	+0.4
SSB	**Saint Sauveur**	1.82	252	Pn	Pn	20 37 08.9	+0.1
SSB				Pg	Pg	20 37 12.2	+0.6
SSB				Sn	Sb	20 37 34.4	+0.7
ILLF	**Illfurth**	1.83	5	Pn	Pn	20 37 08.9	0.0
SULZ	**Cheisacher**	1.84	24	Pn	Pn	20 37 09.2	+0.2
SULZ				Pg	Pg	20 37 12.2	+0.3
ZUR	**Degenried**	1.86	35	Pg	Pg	20 37 13.2	+0.9
ZUR				Sg	Sg	20 37 38.1	+1.6
RONF	**Ronchamp**	1.87	353	Pn	Pn	20 37 09.2	-0.1
RORO	**Rocca Rossa**	1.90	156	P	Pn	20 37 10.6	+0.7
MGRO	**Montegrosso**	1.90	162	Pg	Pn	20 37 11.1	+1.1
TURF	**col de Turini**	1.90	172	Pg	Pg	20 37 13.2	+0.1
SAOF	**Saorge**	1.91	168	Pn	Pn	20 37 10.8	+0.8
ENDD	**Endenburg**	1.92	15	Pn	Pn	20 37 09.6	-0.6
ENDD				Pg	Pg	20 37 13.6	+0.1
VIVF	**Saint-Julien-l**	1.92	239	*e*Pn	Pn	20 37 10.8	+0.6
VIVF				*e*Sg	Sb	20 37 37.9	+1.3
	comp=N,39nm,0.3s						
VIVF				AML	AML		
FAHY	**Fahy-L¨s-Autr**	1.96	328	Pn	Pn	20 37 10.9	+0.3
HINF	**Hinteralfeld**	1.96	357	*e*Pn	Pn	20 37 10.4	-0.3
HINF				*e*Sn	Sn	20 37 33.0	-2.8
HINF				*e*Sg	Sb	20 37 38.5	+0.7
	comp=N,17nm,0.3s						
HINF				AML	AML		
MVIF	**Mont Vial**	1.96	177	Pg	Pg	20 37 14.3	0.0
SBF	**Sospel**	2.02	171	*e*Pg	Pn	20 37 12.3	+0.8
WILA	**Wila**	2.04	39	Pn	Pn	20 37 12.5	+0.7
WILA				AML	AML		
SMRF	**Simiane la Rot**	2.14	209	*e*Pg	Pb	20 37 15.1	-0.8
SMRF				*e*Sg	Sn	20 37 41.9	+1.8
	comp=N,6.6nm,0.5s						
SMRF				AML	AML		
SLE	**Schleitheim**	2.16	28	Pn	Pn	20 37 12.5	-1.0
SLE				Pg	Pg	20 37 17.8	-0.3
BERGE	**Lenzkirch (DE)**	2.17	21	Pn	Pn	20 37 12.9	-0.7
KIZ	**Kirchzarten**	2.19	16	⇓Pn	Pn	20 37 12.9	-0.9
HAU	**Haudompre**	2.19	348	*e*Pn	Pn	20 37 13.5	-0.4
HAU				*e*Pg	Pg	20 37 19.3	+0.6
HAU				*e*S	Sb	20 37 44.8	+0.4
	comp=N,22nm,0.3s						
SMF	**Signal de Mont**	2.33	291	*e*Pn	Pn	20 37 16.7	+1.0
SMF				*e*Sg	Sb	20 37 49.8	+1.5
	comp=N,18nm,0.2s						
SMF				AML	AML		
ECH	**Echery**	2.36	3	Pn	Pn	20 37 15.6	-0.6
DAVA	**Damuels**	2.45	53	*e*Pn	Pg	20 37 24.4	+0.9
	comp=N,1.5nm,0.2s						
DAVA				*e*Sn	Sg	20 37 57.2	+2.1
	comp=N,11nm,0.4s						
LMR	**La Mourre**	2.55	188	*e*Pg	Pb	20 37 21.4	-1.5
CDF	**Champ du Feu**	2.56	4	*e*Pn	Pn	20 37 18.5	-0.5
CDF				*e*Pg	Pg	20 37 25.7	0.0
CDF				*e*Sg	Sg	20 37 57.6	-1.3
	comp=N,8.3nm,0.4s						
CDF				AML	AML		
LOR	**Lormes**	2.59	304	*e*Pn	Pn	20 37 19.6	+0.3
LOR				*e*Pg	Pg	20 37 26.9	+0.7
LOR				*e*Sg	Sb	20 37 56.5	+0.8
	comp=N,10nm,0.2s						
LOR				AML	AML		
AVF	**Avril sur Loir**	2.70	292	*e*Pn	Pn	20 37 20.9	+0.2
AVF				*e*Sg	Sb	20 38 00.1	+1.3
	comp=N,11nm,0.3s						
AVF				AML	AML		
SSF	**Saint Saulge**	2.70	298	*e*Pn	Pn	20 37 21.5	+0.7
SSF				*e*Pg	Pg	20 37 29.3	+0.9
SSF				*e*Sg	Sb	20 38 01.5	+2.6
	comp=N,7.2nm,0.2s						
SSF				AML	AML		
FETA	**Feichten**	2.83	64	Pn	Pb	20 37 28.9	+1.1
	comp=N,0.9nm,0.2s						
FETA				Sn	Sg	20 38 09.0	+1.6
	comp=N,3.7nm,0.5s						
LASF	**Ste Croix**	2.86	233	*e*Pn	Pn	20 37 23.6	+0.6
LASF				*e*Sn	Sn	20 37 54.2	-3.6
LASF				*e*Sg	Sb	20 38 05.2	+1.7
	comp=N,9.4nm,0.4s						
LASF				AML	AML		
MEZF	**Maizieres J’vi**	2.96	334	*e*Pg	Pg	20 37 34.1	+0.8
MEZF				*e*Sg	Sg	20 38 13.7	+2.0
	comp=N,11nm,0.3s						
MEZF				AML	AML		
BGF	**Bois d'Agland**	2.97	285	*e*Pn	Pn	20 37 24.0	-0.5
BGF				*e*Pg	Pg	20 37 33.3	-0.2
BGF				*e*Sg	Sg	20 38 10.2	-1.8
	comp=N,22nm,0.4s						
BGF				AML	AML		
MOTA	**Moosalm**	3.19	61	*e*Sn	Sn	20 38 07.2	+0.9
	comp=N,2.1nm,0.4s						
SQTA	**Sankt Quirin**	3.21	63	*e*Pn	Pb	20 37 31.7	-2.5
	comp=N,1.2nm,0.2s						
SQTA				Sg	Sg	20 38 23.1	+3.5
	comp=N,6.1nm,0.6s						
HYF	**Humbligny**	3.32	297	*e*Pn	Pn	20 37 30.0	+0.6
HYF				*e*Sn	Sn	20 38 08.1	-1.2
HYF				*e*Sg	Sg	20 38 21.7	-1.7
	comp=N,35nm,0.3s						
HYF				AML	AML		
TCF	**Toulx Ste Croi**	3.36	279	*e*Pn	Pn	20 37 30.8	+0.8
TCF				*e*Pg	Pg	20 37 40.4	-0.7
TCF				*e*Sn	Sn	20 38 08.2	-2.1
TCF				*e*Sg	Sg	20 38 23.3	-1.3
	comp=N,7.1nm,0.3s						
TCF				AML	AML		
WTTA	**Wattenberg**	3.49	65	*e*Pn	Pb	20 37 36.0	-3.1
	comp=N,0.9nm,0.3s						
CAF	**Calviac**	3.60	257	*e*Pn	Pn	20 37 33.7	+0.5
CAF				*e*Sg	Sb	20 38 27.3	+2.4
	comp=N,4.5nm,0.3s						
CAF				AML	AML		
PGF	**Pioggiola**	3.61	156	*e*Pn	Pn	20 37 34.2	+0.8
RJF	**Les Rejaudoux**	3.89	264	*e*Sg	Sb	20 38 37.7	+4.5
	comp=N,4.8nm,0.4s						
RJF				AML	AML		
LESA	**Schwarzleotal**	4.21	66	*e*Pn	Pb	20 37 47.8	-3.5
	comp=N,0.6nm,0.2s						
LESA				*i* Sn	Sn	20 38 32.9	+1.6
	comp=N,1.1nm,0.3s						
MTLF	**Montolieu**	4.24	235	*e*Pn	Pn	20 37 42.8	+0.8
MTLF				*e*Sg	Sb	20 38 47.9	+4.5
	comp=N,2.4nm,0.3s						
MTLF				AML	AML		
LFF	**La Frestale**	4.51	260	*e*Pn	Pn	20 37 46.1	+0.5
LFF				*e*Sg	Sg	20 38 58.7	-2.6
	comp=N,4.1nm,0.4s						
LFF				AML	AML		
BAIF	**Baives**	4.60	337	*e*P	Pn	20 37 47.8	+0.9
MFF	**Saint Martin d**	5.02	281	*e*Pn	Pn	20 37 53.6	+1.0
MFF				*e*Sn	Sn	20 38 48.6	-2.4
MFF				*e*Sg	Sg	20 39 16.1	-1.6
	comp=N,1.1nm,0.2s						
MFF				AML	AML		
KHC	**Kasperske Hory**	5.53	51	*e*PN	Pn	20 37 58.8	-0.9
KHC				*e*SN	Sn	20 39 00.8	-2.9
KHC				*e*SG	Sg	20 39 30.2	-3.9
	comp=N,0.4nm,0.3s						
KHC				AML	AML		
EPF	**Esparros**	5.54	242	*e*Sg	Sg	20 39 32.2	-2.4
	comp=N,1.8nm,0.4s						
EPF				AML	AML		
LDF	**La Druitiere**	5.57	302	*e*Pn	Pn	20 38 00.4	+0.2
LDF				*e*Sn	Sn	20 39 01.9	-2.8
	comp=N,1.1nm,0.3s						
LDF				*e*Sg	Sg	20 39 29.9	-5.5
LDF				AML	AML		
FLN	**La Foliniere**	5.86	302	*e*Pn	Pn	20 38 03.9	-0.3
FLN				*e*Sn	Sn	20 39 08.8	-3.0
	comp=N,3.7nm,0.3s						
FLN				AML	AML		
GRR	**Gorron**	5.93	298	*e*P	Pn	20 38 05.6	+0.4
GRR				*e*Sn	Sn	20 39 11.5	-2.0
	comp=N,5.5nm,0.4s						
GRR				AML	AML		
SGMF	**Saint Gilles**	6.96	294	*e*Pn	Pn	20 38 19.3	+0.1
SGMF				*e*Sn	Sn	20 39 37.1	-1.6
	comp=N,0.9nm,0.2s						
SGMF				AML	AML		
QUIF	**Quistinic**	7.27	290	*e*Pn	Pn	20 38 24.4	+0.9
QUIF				*e*Sn	Sn	20 39 44.4	-1.9
	comp=N,0.7nm,0.3s						
QUIF				AML	AML		
ROSF	**Rostrenen**	7.44	293	*e*Pn	Pn	20 38 27.0	+1.1
ROSF				*e*Sn	Sn	20 39 48.2	-2.4
	comp=N,0.8nm,0.3s						
ROSF				AML	AML		

IDC ***03*** *20:36:53.8±0.9, 14.°36N×56.°39E, h0km, mb3.8/15, mbtmp3.8/15, Error ellipse: s-maj=22.5km s-min=19.7km az=42.0*

NEIC ***03*** *20:36:55.6±1.8, 14.°4N±0.°1×56.°3E±0.°1, h10km±1km, mb4.3/30, Error ellipse: s-maj=20.5km s-min=16.8km az=108.0*

GFZ ***03*** *20:36:55.2±0.5, 14°N±7°×5°6E±°, h10km, M4.3/12, mb4.3/12, Error ellipse: s-maj=15.4km s-min=10.0km az=2.1, confirmed*

ISC 03 20:36:56.4±0.7**, 14.°40N**±0.°10×**56.°31E**±0.°09**, h19**km**, n69, σ1.s12**/62**, mb4.2**/35**, Owen Fracture Zone region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
UOSS	**Minazif**	10.49	359		Pn	20 39 25.3	-0.6
UOSS	**Minazif**	10.49	359	P	Pn	20 39 25.5	-0.3
	comp=Z,8.8nm,1.0s						
RAYN	**Ar Rayn**	13.66	313		Pn	20 40 07.3	-1.9
RAYN	**Ar Rayn**	13.66	313	P	Pn	20 40 07.9	-1.4
	comp=Z,5.8nm,1.0s						
HRA	**Herat**	20.61	14	P	P	20 41 35.1	+0.3
KBL	**Kabul**	23.12	28	P	P	20 42 01.4	-0.2
KBL				IAmb	IAmb	20 42 41.3	
	comp=Z,8.8nm,1.1s						
KBL	**Kabul**	23.12	28	P	P	20 42 03.7	+2.1
	comp=Z,8.2nm,1.0s						
LODK	**Lodwar**	23.36	244		P	20 42 05.0	+0.9
LODK				IAmb	IAmb	20 42 09.3	
	comp=Z,6.0nm,1.1s						
LODK	**Lodwar**	23.36	244	P	P	20 42 03.1	-1.0
	comp=Z,6.3nm,1.4s						
NIL	**Nilore**	24.57	36	P	P	20 42 13.7	-1.5

NIL				IAmb	IAmb	20 42 52.1	
	comp=Z,11nm,1.4s						
GURO	Guroymak-BITLI	27.16	335	P	P	20 42 39.9	+1.1
GURO				IAmb	IAmb	20 42 54.6	
	comp=Z,6.0nm,0.6s						
GNI	Garni	27.58	341	P	P	20 42 44.1	+1.5
BTK	Batken	28.55	24	P	P	20 42 52.6	+1.5
BTK				IAmb	IAmb	20 43 05.2	
	comp=Z,12nm,1.2s						
BTK	Batken	28.55	24	P	P	20 42 53.7	+2.6
	comp=Z,10nm,1.2s						
KOPT	Kop Dagi	29.04	334	P	P	20 42 56.2	+0.5
ARPR	Arapgir-MALATY	29.25	331	P	P	20 42 58.9	+1.5
ARPR				IAmb	IAmb	20 43 07.9	
	comp=Z,11nm,1.2s						
ARPR	Arapgir-MALATY	29.25	331	P	P	20 42 57.5	0.0
	comp=Z,7.2nm,1.5s						
KELT	Kelkit	29.68	333	P	P	20 43 01.1	-0.2
	comp=Z,28nm,1.4s						
KK31	Karatay Array	31.10	20	P	P	20 43 14.4	+0.8
KKAR	Karatay Array	31.10	20	P	P	20 43 15.0	+1.4
EVN	Everest	31.38	60	P	P	20 43 17.3	+0.3
EVN				IAmb	IAmb	20 43 25.3	
	comp=Z,5.0nm,0.9s						
KBZ	Khabaz	31.40	341	P	P	20 43 17.6	+1.4
	comp=Z,1.5nm,0.8s,baz=112,slow=7.0,SNR=4.1						
	comp=Z,1.5nm,0.8s						
BRTR	Keskin Array B	32.12	326	P	P	20 43 23.8	+0.9
	comp=Z,0.2nm,0.5s,baz=152,slow=11,SNR=5.9						
	comp=Z,0.2nm,0.5s						
AAK	Ala-Archa	32.21	26	P	P	20 43 24.9	+1.4
AAK	Ala-Archa	32.21	26	P	P	20 43 21.3	-2.2
	comp=Z,9.4nm,1.1s						
FRU1	Bishkek	32.41	26	P	P	20 43 27.1	+1.9
AB31	Akbulak array	34.88	4		P	20 43 46.9	+0.4
AB31				IAmb	IAmb	20 43 50.0	
	comp=Z,3.2nm,1.2s						
ABKAR	Akbulak array	34.88	4	P	P	20 43 46.8	+0.2
PDGK	Podgornoye	35.02	30	P	P	20 43 48.8	+0.8
SHL	Shillong	35.12	66	P	P	20 43 47.9	-1.3
SHL				IAmb	IAmb	20 44 04.1	
	comp=Z,11nm,1.4s						
MAKZ	Makanchi	38.78	28	P	P	20 44 20.7	+0.9
	comp=Z,3.0nm,2.3s						
MKAR	Makanchi Array	38.92	29	P	P	20 44 21.8	+0.9
	comp=Z,1.1nm,0.8s,baz=208,slow=6.9,SNR=6.9						
	comp=Z,1.1nm,0.8s						
BVAR	Borovoye Array	40.12	13	P	P	20 44 31.3	+0.4
	comp=Z,0.2nm,0.4s,baz=182,slow=11,SNR=4.0						
	comp=Z,0.2nm,0.4s						
MLR	Muntele Rosu	40.20	327		P	20 44 31.6	-0.1
MLR				IAmb	IAmb	20 44 42.4	
	comp=Z,11nm,1.2s						
KURBB	Kurchatov Arra	40.37	22	P	P	20 44 33.5	+0.6
	comp=Z,1.8nm,0.8s,baz=220,slow=8.3,SNR=20						
	comp=Z,1.8nm,0.8s						
KURK	Kurchatov	40.48	22		P	20 44 34.1	+0.3
KURK				IAmb	IAmb	20 44 41.7	
	comp=Z,3.8nm,0.9s						
KURK	Kurchatov	40.48	22	P	P	20 44 34.0	+0.2
	comp=Z,5.4nm,1.9s						
TESR	Tescani	40.51	328	P	P	20 44 37.0	+2.8
	comp=Z,14nm,1.2s						
CM31	Chiang Mai Arr	41.03	78	P	P	20 44 37.8	-1.0
CM31				IAmb	IAmb	20 44 42.2	
	comp=Z,4.8nm,1.2s						
CMAR	Chiang Mai Arr	41.03	78	P	P	20 44 39.6	+0.8
	comp=Z,2.2nm,0.9s,baz=278,slow=8.5,SNR=11						
	comp=Z,2.2nm,0.9s						
CMAR	Chiang Mai Arr	41.03	78	P	P	20 44 38.6	-0.2
AKASG	Malin Array Be	42.32	335	P	P	20 44 49.0	+0.1
	comp=Z,0.1nm,0.3s,baz=134,slow=7.6,SNR=4.2						
	comp=Z,0.1nm,0.3s						
AKASG	Malin Array Be	42.32	335	P	P	20 44 48.3	-0.7
AKBB	Malin Array Si	42.32	335		P	20 44 48.8	-0.1
AKBB				IAmb	IAmb	20 44 55.8	
	comp=Z,11nm,1.4s						
KIEV	Kiev	42.33	335		P	20 44 49.2	+0.2
KIEV				IAmb	IAmb	20 44 55.8	
	comp=Z,9.8nm,1.4s						
ZAA0	Zalesovo Array	45.36	23		P	20 45 12.8	-0.5
ZAA0				IAmb	IAmb	20 45 15.9	
	comp=Z,4.5nm,0.9s						
ZALV	Zalesovo Beam	45.36	23	P	P	20 45 13.3	0.0
	comp=Z,3.6nm,0.8s,baz=225,slow=7.6,SNR=15						
	comp=Z,3.6nm,0.8s						
ZALV	Zalesovo Beam	45.36	23		P	20 45 13.2	-0.2
FDMO	Fiordimonte	46.70	316	P	P	20 45 24.1	0.0
FUORN	Ofenpass-Fuorn	50.01	320	P	P	20 45 49.9	0.0
	comp=Z,4.9nm,1.7s						
FINES	FINESS Array B	51.76	342	P	P	20 46 03.8	+1.4
	comp=Z,2.2nm,0.9s,baz=134,slow=6.0,SNR=4.7						
	comp=Z,2.2nm,0.9s						
FINES	FINESS Array B	51.76	342	P	P	20 46 01.1	-1.3
BOSA	Boshof	52.26	215	P	P	20 46 08.7	+1.9
	comp=Z,1.7nm,0.8s,baz=58,slow=10,SNR=3.7						
	comp=Z,1.7nm,0.8s						
BOSA	Boshof	52.26	215	P	P	20 46 06.5	-0.3
BOSA				IAmb	IAmb	20 46 10.1	
	comp=Z,3.9nm,1.0s						
SONM	Songino Array	53.02	40	P	P	20 46 13.5	+1.2
	comp=Z,0.5nm,0.4s,baz=246,slow=8.3,SNR=6.1						
	comp=Z,0.5nm,0.4s						
SONM	Songino Array	53.02	40	P	P	20 46 12.5	+0.2
ESDC	Sonseca Array	58.13	308	P	P	20 46 48.8	-0.2
	comp=Z,0.4nm,0.8s,baz=83,slow=6.2,SNR=5.0						
	comp=Z,0.4nm,0.8s						
ESDC	Sonseca Array	58.13	308	P	P	20 46 49.0	0.0
H04N1	CROZET ISLANDS	60.41	184	T	T	21 53 04.1	
	baz=15						
H04N2	CROZET ISLANDS	60.42	184	T	T	21 52 52.1	
	baz=15						
H04N3	CROZET ISLANDS	60.43	184	T	T	21 52 46.6	
	baz=15						
KSRS	Korea Array	66.87	55	P	P	20 47 45.8	-1.7
	comp=Z,2.1nm,0.9s,baz=253,slow=7.3,SNR=5.9						
	comp=Z,2.1nm,0.9s						
H01W3	Cape Leeuwin H	73.53	133	T	T	22 08 37.6	
	baz=302,slow=75,SNR=41						
H01W2	Cape Leeuwin H	73.54	133	T	T	22 08 40.9	
	baz=302,slow=75,SNR=33						
H01W1	Cape Leeuwin H	73.55	133	T	T	22 08 41.8	
	baz=302,slow=75,SNR=31						
WRA	Warramunga Arr	83.96	112	P	P	20 49 25.1	-0.8
	comp=Z,0.7nm,0.8s,baz=304,slow=4.0,SNR=5.3						
	comp=Z,0.7nm,0.8s						
WRA	Warramunga Arr	83.96	112	IAmb	IAmb	20 49 34.5	
	comp=Z,0.3nm,1.4s						
ASAR	Alice Springs	84.71	116	P	P	20 49 29.1	-0.7
	comp=Z,0.8nm,0.8s,baz=286,slow=5.3,SNR=5.0						
	comp=Z,0.8nm,0.8s						
NVAR	Mina Array Bea	127.21	355	PKP	PKiKP	20 56 01.9	+1.0
	comp=Z,0.4nm,0.5s,baz=346,slow=3.8,SNR=2.3						

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*IDC **03** 20:40:40.6±0.7, 14°.28N×56°.36E, h0^{km}, mb4.0/22, mbtmp4.0/22, MS3.7/38, Error ellipse: s-maj=18.1km s-min=15.4km az=27.0*

*NEIC **03** 20:40:43.4±2.1, 14°.40N±0°.10×56°.4E±0°.1, h10^{km}±1^{km}, mb4.5/30, Error ellipse: s-maj=19.1km s-min=14.3km az=126.0*

*GFZ **03** 20:40:44.5±0.3, 14°N±6°×5°6E±°, h10^{km}, M4.5/18, mb4.5/18, confirmed*

ISC 03 20:40:44.1±0.6**, 14°.42N**±0°.09×**56°.40E**±0°.07**, h19^{km}, n135,** σ1^{s}.**19**/104**, mb4.3**/54**, MS3.7**/38**, 6C-5D, Owen Fracture Zone region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WSAR	Wadi Sarin	9.03	13	LR	LR	20 46 17.9	
	comp=Z,6.1nm,18.1s,baz=144,slow=37						
UOSS	Minazif	10.48	359		Pn	20 43 11.4	-2.0
UOSS	Minazif	10.48	359	P	Pn	20 43 14.0	+0.5
	comp=Z,9.6nm,0.9s						
ATD	Arta Tunnel	13.51	259	LR	LR	20 47 51.8	
	comp=Z,16nm,21.3s,baz=95,slow=32						
RAYN	Ar Rayn	13.71	313		Pn	20 43 54.6	-3.1
RAYN	Ar Rayn	13.71	313	P	Pn	20 43 56.1	-1.6
	comp=Z,8.5nm,0.7s						
HYB	Hyderabad	21.51	79	*e*P	P	20 45 31.8	-0.5
HYB				*e*S	S	20 49 30.4	+0.2
KBL	Kabul	23.07	27	P	P	20 45 48.9	0.0
KBL				IAmb	IAmb	20 46 00.2	
	comp=Z,16nm,1.4s						
KBL	Kabul	23.07	27	P	P	20 45 52.6	+3.8
	comp=Z,5.2nm,0.7s						
LODK	Lodwar	23.45	244		P	20 45 52.6	-0.1
LODK	Lodwar	23.45	244	P	P	20 45 55.4	+2.7
	comp=Z,8.1nm,1.6s						
NIL	Nilore	24.50	36	P	P	20 46 00.4	-2.0
NIL				IAmb	IAmb	20 46 14.1	
	comp=Z,12nm,1.1s						
KIBK	Kibwezi	24.65	229	P	P	20 46 04.0	0.0
KIBK				IAmb	IAmb	20 46 05.8	
	comp=Z,24nm,1.5s						
KIBK	Kibwezi	24.65	229	P	P	20 46 04.5	+0.5
	comp=Z,14nm,1.5s						
PALK	Pallekele	24.89	104	LR	LR	20 54 03.0	
	comp=Z,117nm,20.1s,baz=300,slow=32						
EIL	Elat	24.94	311	LR	LR	20 56 31.8	
	comp=Z,148nm,21.4s,baz=92,slow=38						
ASF	Jabal al Asfar	25.09	318	LR	LR	20 57 00.3	
	comp=Z,74nm,20.1s,baz=207,slow=39						
GEVA	Gevas	26.57	336		P	20 46 21.5	+0.2
MMAI	Mount Meron Ar	26.59	318	LR	LR	20 57 56.2	
	comp=Z,99nm,18.1s,baz=110,slow=39						
GURO	Guroymak-BITLI	27.19	335	P	P	20 46 27.5	+0.7
GURO				IAmb	IAmb	20 46 36.2	
	comp=Z,10nm,1.1s						
GNI	Garni	27.59	340	LR	LR	20 59 27.7	
	comp=Z,124nm,18.5s,baz=145,slow=41						
GNI	Garni	27.59	340	P	P	20 46 31.3	+0.8
GNI				IAmb	IAmb	20 46 39.9	
	comp=Z,17nm,1.3s						
BTK	Batken	28.50	24	P	P	20 46 40.1	+1.7
BTK				IAmb	IAmb	20 46 41.6	
	comp=Z,5.0nm,0.8s						
BTK	Batken	28.50	24	P	P	20 46 41.1	+2.7
	comp=Z,6.7nm,0.9s						
ARPR	Arapgir-MALATY	29.28	330	P	P	20 46 46.4	+0.9
ARPR				IAmb	IAmb	20 46 57.3	
	comp=Z,10nm,1.1s						
ARPR	Arapgir-MALATY	29.28	330	P	P	20 46 48.4	+2.9
	comp=Z,9.4nm,1.4s						
MBAR	Mbarara	29.45	242	LR	LR	20 57 20.2	
	comp=Z,152nm,22.0s,baz=58,slow=34						
KELT	Kelkit	29.71	333	P	P	20 46 52.2	+2.9
	comp=Z,33nm,1.6s						
KKAR	Karatay Array	31.06	20	P	P	20 47 02.3	+1.3
KBZ	Khabaz	31.41	341	P	P	20 47 04.3	+0.2
	comp=Z,1.8nm,0.8s,baz=152,slow=7.8,SNR=4.9						
KBZ				LR	LR	21 01 39.4	
	comp=Z,108nm,18.7s,baz=151,slow=40						
	comp=Z,1.8nm,0.8s						
KVAR	Kislovodsk Arr	31.68	341	LR	LR	21 00 02.8	
	comp=Z,80nm,21.4s,baz=58,slow=36						
AAK	Ala-Archa	32.16	26	LR	LR	21 01 29.5	
	comp=Z,169nm,21.1s,baz=198,slow=39						
BRTR	Keskin Array B	32.16	326	P	P	20 47 11.8	+0.9
	comp=Z,0.5nm,0.8s,baz=128,slow=5.4,SNR=3.7						
BRTR				PcP	PcP	20 50 00.0	+0.3
	comp=Z,0.5nm,0.7s,baz=93,slow=4.3,SNR=3.3						
BRTR				LR	LR	21 02 11.8	
	comp=Z,73nm,18.3s,baz=128,slow=40						
	comp=Z,0.5nm,0.8s						
OPO	Ambohidratompo	34.01	196	LR	LR	20 58 08.6	
	comp=Z,215nm,21.9s,baz=94,slow=31						
BRDH	Bariadhala	34.34	71	LR	LR	21 00 02.3	
	comp=Z,181nm,19.8s,baz=300,slow=34						
AB31	Akbulak array	34.86	4		P	20 47 33.8	-0.4
ABKAR	Akbulak array	34.86	4	P	P	20 47 34.2	+0.1
IDI	Anoyia	35.11	312	P	P	20 47 37.6	+1.1
AKTO	Aktyubinsk	35.95	2	P	P	20 47 45.1	+1.7
	comp=Z,0.5nm,0.3s,baz=143,slow=6.6,SNR=4.8						
AKTO				PcP	PcP	20 50 10.2	+0.1
	comp=Z,1.7nm,0.7s,baz=104,slow=5.2,SNR=4.1						
AKTO				LR	LR	21 04 29.8	
	comp=Z,147nm,19.8s,baz=238,slow=40						
	comp=Z,0.5nm,0.3s						
MORE	Moreh	36.98	69	P	P	20 47 51.4	-1.2
MORE				IAmb	IAmb	20 47 57.5	
	comp=Z,7.5nm,1.2s						
MKAR	Makanchi Array	38.87	29	P	P	20 48 09.2	+1.0
	comp=Z,0.7nm,0.7s,baz=224,slow=8.5,SNR=4.7						
MKAR				LR	LR	21 06 22.3	
	comp=Z,194nm,19.4s,baz=178,slow=40						
	comp=Z,0.7nm,0.7s						
VRI	Vrincioaia	40.07	328	⇑P	P	20 48 19.5	+1.1
VRI	Vrincioaia	40.07	328	P	P	20 48 20.0	+1.7
	comp=Z,8.5nm,1.3s						
BVAR	Borovoye Array	40.09	13	P	P	20 48 18.6	+0.3
	comp=Z,0.7nm,0.7s,baz=178,slow=4.3,SNR=2.8						
BVAR				PcP	PcP	20 50 23.1	+0.3
	comp=Z,2.4nm,0.8s,baz=188,slow=2.9,SNR=9.0						
	comp=Z,0.7nm,0.7s						
PLOR	Plostina	40.10	327	⇓P	P	20 48 20.1	+1.5
MLR	Muntele Rosu	40.24	327	P	P	20 48 21.2	+1.4
	comp=Z,2.9nm,0.8s,baz=165,slow=7.2,SNR=4.6						
MLR				LR	LR	21 06 56.5	
	comp=Z,57nm,19.2s,baz=144,slow=39						
	comp=Z,2.9nm,0.8s						
MLR	Muntele Rosu	40.24	327		P	20 48 20.3	+0.4
MLR				IAmb	IAmb	20 48 30.2	
	comp=Z,5.7nm,0.9s						
MLR	Muntele Rosu	40.24	327	⇓P	P	20 48 22.0	+2.2
KURBB	Kurchatov Arra	40.32	22	P	P	20 48 21.3	+1.0
	comp=Z,1.6nm,0.7s,baz=222,slow=8.1,SNR=14						
KURBB				LR	LR	21 06 07.6	
	comp=Z,99nm,18.3s,baz=186,slow=38						
	comp=Z,1.6nm,0.7s						
KURK	Kurchatov	40.43	22	P	P	20 48 21.3	+0.1
KURK	Kurchatov	40.43	22	IAmb	IAmb	20 48 22.9	
	comp=Z,2.4nm,0.8s						
TESR	Tescani	40.54	328	⇑P	P	20 48 22.7	+0.5
TESR	Tescani	40.54	328	P	P	20 48 23.2	+0.9
	comp=Z,13nm,1.4s						
LSZ	Lusaka	40.60	225	LR	LR	21 05 39.8	
	comp=Z,181nm,19.8s,baz=48,slow=37						
VOIR		40.69	326	⇑P	P	20 48 24.1	+0.6
VOIR		40.69	326	P	P	20 48 24.8	+1.3
	comp=Z,6.3nm,1.8s						
ARR	Arges	40.87	325	⇑P	P	20 48 25.8	+0.8
ARR	Arges	40.87	325	P	P	20 48 26.2	+1.2
	comp=Z,9.1nm,1.1s						
CM31	Chiang Mai Arr	40.94	78	P	P	20 48 27.2	+1.3
CM31				IAmb	IAmb	20 48 28.6	
	comp=Z,4.0nm,0.8s						
CMAR	Chiang Mai Arr	40.94	78	P	P	20 48 26.7	+0.9
	comp=Z,2.6nm,0.9s,baz=276,slow=9.0,SNR=16						
CMAR				LR	LR	21 05 42.4	
	comp=Z,43nm,19.4s,baz=275,slow=37						
	comp=Z,2.6nm,0.9s						
LOT	Lotru	41.40	325	⇓P	P	20 48 30.0	+0.6
LOT	Lotru	41.40	325	P	P	20 48 29.8	+0.4
	comp=Z,6.9nm,1.4s						
BOVS	Bovan	41.53	321	⇓P	P	20 48 30.2	-0.2
ARTI	Arti	41.91	2	LR	LR	21 08 52.5	
	comp=Z,56nm,18.9s,baz=178,slow=40						
BURAR	Bucovina Array	42.01	328	P	P	20 48 34.7	+0.4
MDVR	Moldovita	42.17	323	⇑P	P	20 48 35.6	-0.1
AKASG	Malin Array Be	42.35	334	P	P	20 48 36.3	-0.6
	comp=Z,2.3nm,1.0s,baz=139,slow=8.1,SNR=6.2						
	comp=Z,2.3nm,1.0s						
MARR	Marisel-Cluj	42.51	326	⇓P	P	20 48 38.9	+0.4
BZS	Buzias	42.71	324	⇑P	P	20 48 40.3	+0.3
BZS	Buzias	42.71	324	P	P	20 48 40.2	+0.3
RAFF	Raffo Rosso	43.66	309	P	P	20 48 49.7	+1.9
TRPA	Tarpa	43.72	327	P	P	20 48 48.9	+0.8
	comp=Z,8.3nm,2.0s						
MARCO	Tramutola	43.77	314	P	P	20 48 47.0	-1.7
	comp=Z,18nm,1.2s						
MATP	Matopo	44.17	219	LR	LR	21 08 55.8	
	comp=Z,171nm,18.0s,baz=40,slow=38						
KOLS	Kolonicke sedl	44.36	328	*e*P	P	20 48 54.9	+1.6
MORH	Mrgy, Hungar	44.77	323	P	P	20 48 56.9	+0.4
	comp=Z,3.4nm,2.2s						
ZAA0	Zalesovo Array	45.31	23		P	20 49 00.3	-0.4
ZAA0				IAmb	IAmb	20 49 01.6	
	comp=Z,3.2nm,0.8s						
ZALV	Zalesovo Beam	45.31	23	P	P	20 49 00.9	+0.2
	comp=Z,2.8nm,0.7s,baz=226,slow=8.5,SNR=14						
ZALV				PcP	PcP	20 50 39.4	-0.8
	comp=Z,0.3nm,0.3s,baz=241,slow=5.9,SNR=2.1						
ZALV				LR	LR	21 10 04.6	
	comp=Z,64nm,18.6s,baz=216,slow=39						
	comp=Z,2.8nm,0.7s						
ZALV	Zalesovo Beam	45.31	23		P	20 49 00.1	-0.6
VYHS	Vyhne	45.92	326	*e*P	P	20 49 06.9	+1.2
MODS	Modra-Piesok	46.72	325	*e*P	P	20 49 12.4	+0.5
RONA	Rosalia, Austr	46.92	323	P	P	20 49 13.6	0.0
	comp=Z,1.9nm,0.6s						
ARSA	Arzberg	47.14	323	*e*P	P	20 49 15.7	+0.4
	comp=Z,0.3nm,0.2s						
SOKA	Soboth	47.15	322	*e*P	P	20 49 15.6	+0.2
	comp=Z,3.5nm,1.1s						
CONA	Conrad Observa	47.29	323	*e*P	P	20 49 16.7	+0.2
	comp=Z,5.9nm,1.0s						
MORC	Moravsky Berou	47.35	326	P	P	20 49 16.6	-0.3
MORC				IAmb	IAmb	20 49 24.3	
	comp=Z,13nm,1.5s						
VRAC	Vranov	47.60	325	P	P	20 49 19.3	+0.5
	comp=Z,1.9nm,0.4s,baz=129,slow=6.5,SNR=3.6						
VRAC				LR	LR	21 12 38.3	
	comp=Z,45nm,18.0s,baz=96,slow=40						
	comp=Z,1.9nm,0.4s						
SESA	Seetaler Alpe,	47.64	322	*e*P	P	20 49 19.4	+0.1
	comp=Z,8.5nm,0.9s						
CHVC	Chvalec	48.59	327	*e*P	P	20 49 24.3	-2.2
LESA	Schwarzleotal	48.92	321	*e*P	P	20 49 28.4	-0.7
	comp=Z,3.6nm,0.8s						
GERES	GERESS Array B	48.99	324	P	P	20 49 28.7	-1.0
	comp=Z,0.5nm,0.3s,baz=133,slow=5.7,SNR=4.7						
	comp=Z,0.5nm,0.3s						
ZVC	Zvikov	49.01	324	*e*P	P	20 49 28.6	-1.1
KHC	Kasperske Hory	49.20	324	*e*P	P	20 49 30.8	-0.4
LBTB	Lobatse	49.38	218	LR	LR	21 12 06.1	
	comp=Z,110nm,18.0s,baz=72,slow=38						
LBTB	Lobatse	49.38	218		P	20 49 33.9	+1.0
LBTB				IAmb	IAmb	20 49 36.9	
	comp=Z,12nm,1.1s						
WTTA	Wattenberg	49.48	321	*e*P	P	20 49 32.9	-0.6
	comp=Z,6.7nm,1.0s						
SQTA	Sankt Quirin	49.72	321	*e*P	P	20 49 34.4	-0.9
	comp=Z,5.7nm,0.9s						
MOTA	Moosalm	49.84	321	*e*P	P	20 49 35.1	-1.1
	comp=Z,5.9nm,0.8s						
FETA	Feichten	49.93	320	*e*P	P	20 49 36.3	-0.6
	comp=Z,2.6nm,0.9s						
DAVOX	Davos/Dischmat	50.36	320	P	P	20 49 39.5	-0.8
	comp=Z,2.5nm,0.8s,baz=116,slow=11,SNR=5.1						
DAVOX				LR	LR	21 12 55.0	
	comp=Z,20nm,21.5s,baz=87,slow=38						
	comp=Z,2.5nm,0.8s						
TSUM	Tsumeb	50.76	230	LR	LR	21 11 48.7	
	comp=Z,314nm,20.0s,baz=32,slow=37						
FINES	FINESS Array B	51.77	342	P	P	20 49 50.0	-0.3
	comp=Z,1.6nm,0.8s,baz=138,slow=9.1,SNR=4.6						
FINES				LR	LR	21 12 50.0	
	comp=Z,38nm,20.1s,baz=122,slow=37						
	comp=Z,1.6nm,0.8s						
BOSA	Boshof	52.32	215	P	P	20 49 54.0	-1.0
	comp=Z,3.1nm,0.6s,baz=39,slow=6.3,SNR=11						
BOSA				LR	LR	21 12 10.8	
	comp=Z,62nm,18.9s,baz=31,slow=36						
	comp=Z,3.1nm,0.6s						
BOSA	Boshof	52.32	215	IAmb	IAmb	20 50 01.2	
	comp=Z,9.2nm,1.2s						
SONM	Songino Array	52.95	40	P	P	20 50 00.4	+0.9
	comp=Z,1.7nm,0.8s,baz=242,slow=7.6,SNR=12						
SONM				LR	LR	21 15 47.5	
	comp=Z,108nm,19.7s,baz=248,slow=40						
	comp=Z,1.7nm,0.8s						
SONM	Songino Array	52.95	40	IAmb	IAmb	20 50 01.2	
	comp=Z,1.6nm,1.0s						
TORD	Torodi Ar. Bea	53.04	276	P	P	20 50 00.6	+0.2
	comp=Z,0.5nm,0.6s,baz=72,slow=6.6,SNR=3.6						
	comp=Z,0.5nm,0.6s						
SUR	Sutherland	57.66	216	LR	LR	21 16 58.0	
	comp=Z,67nm,18.0s,baz=82,slow=38						
MDT	Midelt	58.06	300	LR	LR	21 16 58.5	
	comp=Z,122nm,18.6s,baz=64,slow=38						
ESDC	Sonseca Array	58.19	308	P	P	20 50 36.6	-0.6
	comp=Z,1.6nm,0.8s,baz=84,slow=6.6,SNR=17						
	comp=Z,1.6nm,0.8s						
MD01	Midelt array s	58.20	300		P	20 50 37.8	+0.2
ARCES	ARCESS Array B	58.40	348	LR	LR	21 18 32.9	
	comp=Z,56nm,18.1s,baz=122,slow=39						
SALU	Saltoluokta	58.40	344	*e*P	P	20 50 43.8	+5.6
H04N1	CROZET ISLANDS	60.44	184	T	T	21 56 23.4	
	baz=4.4						
H04N2	CROZET ISLANDS	60.44	184	T	T	21 56 11.8	
	baz=4.4						
H04N3	CROZET ISLANDS	60.45	184	T	T	21 56 13.0	
	baz=4.4						
DBIC	Dimbokro	60.56	270	LR	LR	21 18 47.8	
	comp=Z,37nm,18.2s,baz=100,slow=38						
KAPI	Kappang	65.71	102	LR	LR	21 18 10.4	
	comp=Z,30nm,18.7s,baz=256,slow=34						
SPITS	Spitsbergen Ar	66.73	352	P	P	20 51 32.4	-1.2
	comp=Z,9.1nm,1.0s,baz=130,slow=15,SNR=1.6						
	comp=Z,9.1nm,1.0s						
KSRS	Korea Array	66.79	55	P	P	20 51 33.7	-1.0
	comp=Z,1.7nm,0.7s,baz=266,slow=6.9,SNR=6.2						
KSRS				LR	LR	21 22 27.0	
	comp=Z,38nm,18.4s,baz=260,slow=38						
	comp=Z,1.7nm,0.7s						
KLR	Kul'dur	69.67	43	LR	LR	21 25 54.1	
	comp=Z,67nm,18.7s,baz=210,slow=39						
USRK	Ussuriysk Ar.	69.80	48	LR	LR	21 23 56.3	
	comp=Z,77nm,18.1s,baz=241,slow=37						
H01W3	Cape Leeuwin H	73.48	134	T	T	22 12 26.3	
	baz=302,slow=75,SNR=37						
H01W2	Cape Leeuwin H	73.49	134	T	T	22 12 24.0	
	baz=302,slow=75,SNR=35						
H01W1	Cape Leeuwin H	73.50	134	T	T	22 12 35.9	
	baz=302,slow=75,SNR=42						
JGF	Kuroka	74.49	57	P	P	20 52 22.4	+0.7
FITZ	Fitzroy Crossi	75.51	113	LR	LR	21 20 43.2	
	comp=Z,51nm,19.3s,baz=324,slow=32						
WB0	Warramunga Arr	83.88	112	P	P	20 53 12.1	-1.2
WRA	Warramunga Arr	83.89	112	P	P	20 53 12.0	-1.3
	comp=Z,2.3nm,0.9s,baz=301,slow=4.0,SNR=14						
	comp=Z,2.3nm,0.9s						
WRA	Warramunga Arr	83.89	112	P	P	20 53 12.7	-0.6
WR8	Warramunga Arr	84.03	112	P	P	20 53 12.8	-1.3
WR8				IAmb	IAmb	20 53 14.9	
	comp=Z,8.1nm,1.2s						
ASAR	Alice Springs	84.64	116	P	P	20 53 16.1	-1.1
	comp=Z,2.6nm,0.9s,baz=288,slow=4.8,SNR=17						
	comp=Z,2.6nm,0.9s						
SNAA	Sanae	94.47	196	LR	LR	21 29 48.5	
	comp=Z,35nm,18.6s,baz=114,slow=31						
PDAR	Pinedale Array	121.65	348	PKP	PKPdf	20 59 36.2	-1.1
	comp=Z,0.5nm,0.7s,baz=9.1,slow=2.4,SNR=4.9						
NVAR	Mina Array Bea	127.20	355	PKP	PKiKP	20 59 48.9	+0.3
	comp=Z,1.6nm,0.8s,baz=316,slow=0.8,SNR=8.8						

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*SJA **03** 21:29:15.1±0.6, 27°.54S×71°.82W, h18^{km}±3^{km}, ML3.6, MW3.8*

*GUC **03** 21:29:20.0±0.8, 27°.64S×71°.51W, h24^{km}±3^{km}, ML3.3*

ISC 03 21:29:16.3±1.7**, 27°.52S**±0°.03×**71°.63W**±0°.06**, h3^{km}**±11^{km}**, n25,** σ1^{s}.**63**/45**, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.84	144	*e*P	Pg	21 29 33.2	+0.7
AC04				IAML		21 29 47.3	
	comp=Z,811nm,0.5s						
AC04	Llanos de Chal	0.84	144	*e*P	Pg	21 29 33.1	+0.7
AC04				*e*S	Sg	21 29 42.4	-1.0
AC04				IAML		21 29 44.1	
	comp=N,3µm,0.4s						
AC06	Mina Casimiro	1.15	82	*e*P	Pn	21 29 38.8	-0.5
AC06				*e*S	Sg	21 29 52.8	-0.5
AC06				IAML		21 29 56.0	
	comp=N,756nm,0.4s						
GO03	Copiapo	1.24	94	*e*P	Pb	21 29 34.9	-5.6
GO03				*e*P	Pg	21 29 40.5	+0.3
GO03				*e*S	Sb	21 29 45.9	-11
GO03				IAML		21 29 57.5	
	comp=Z,976nm,0.6s						
GO03	Copiapo	1.24	94	*e*P	Pb	21 29 40.3	-0.2
GO03				*e*S	Sb	21 29 55.2	-1.8
GO03				IAML		21 29 56.8	
	comp=E,797nm,0.5s						
AC01	Pan de Azucar	1.65	34	*e*P	Pb	21 29 46.9	-0.5
AC01				*e*S	Sg	21 30 10.4	+1.0
AC01	Pan de Azucar	1.65	34	*e*P	Pb	21 29 47.0	-0.5
LCO	Las Campanas	1.70	151	*e*P	Pn	21 29 47.4	+0.3
LCO				*e*S	Sn	21 30 07.9	-1.6
LCO				IAML		21 30 08.8	
	comp=Z,753nm,0.2s						
LCO	Las Campanas	1.70	151	*e*P	Pn	21 29 47.1	+0.1
LCO				*e*S	Sn	21 30 07.4	-2.0
AC05	El Transito	1.78	138	*e*P	Pn	21 29 48.8	+0.7
AC05				*e*S	Sn	21 30 05.9	-5.4
AC05				IAML		21 30 16.2	
	comp=Z,452nm,0.5s						
AC05	El Transito	1.78	138	*e*P	Pn	21 29 48.8	+0.7

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
AC05				*e*S	**Sn**	**21 30 09.2**	**-2.0**
AC05				IAML		21 30 15.6	
	comp=E,552nm,0.3s						
AC02	**Maricunga**	**2.33**	**74**	*e*P	**Pb**	**21 29 58.6**	**-0.7**
AC02				*e*S	**Sg**	**21 30 29.5**	**-1.8**
AC02				*e*S	**Sg**	**21 30 29.6**	**-1.8**
AC02				IAML		21 30 33.1	
	comp=Z,220nm,0.3s						
AC02	**Maricunga**	**2.33**	**74**	*e*P	**Pb**	**21 29 58.8**	**-0.5**
AC02				*e*S	**Sb**	**21 30 27.5**	**-1.3**
AC02				IAML		21 30 33.5	
	comp=E,570nm,0.5s						
GO04	**Tololo Observa**	**2.74**	**165**	*e*P	**Pn**	**21 30 01.9**	**+0.5**
GO04				*e*S	**Sn**	**21 30 35.7**	**+0.5**
GO04				IAML		21 30 49.1	
	comp=Z,351nm,0.7s						
GO04	**Tololo Observa**	**2.74**	**165**	*e*P	**Pn**	**21 30 01.9**	**+0.5**
GO04				*e*S	**Sn**	**21 30 35.1**	**-0.1**
CO01	**Juntas del Tor**	**2.80**	**151**	*e*P	**Pn**	**21 30 04.3**	**+2.1**
CO01				*e*S	**Sn**	**21 30 37.5**	**+0.9**
CO01				IAML		21 30 48.1	
	comp=Z,195nm,0.5s						
CO01	**Juntas del Tor**	**2.80**	**151**	*e*P	**Pn**	**21 30 03.8**	**+1.6**
CO01				*e*S	**Sn**	**21 30 36.0**	**-0.5**
CO01				IAML		21 30 38.1	
	comp=E,194nm,0.4s						
PB14	**IPOC Station P**	**3.09**	**21**	*e*P	**Pn**	**21 30 07.1**	**+0.8**
PB14				*e*S	**Sn**	**21 30 43.7**	**-0.2**
CO06	**Fray Jorge**	**3.14**	**180**	*e*P	**Pn**	**21 30 05.6**	**-1.1**
CO03	**El Pedregal**	**3.41**	**166**	*e*P	**Pn**	**21 30 10.7**	**+0.2**
CO03				IAML		21 31 10.5	
	comp=E,145nm,0.4s						
TINO	**Tinogasta**	**3.64**	**99**	*e*P	**Pn**	**21 30 16.9**	**+3.2**
TINO				*e*S	**Sb**	**21 31 05.9**	**-0.2**
TINO				IAML		21 31 16.4	
	comp=Z,90nm,1.6s						
CO02	**Combarbal**	**3.71**	**172**	*e*P	**Pn**	**21 30 14.8**	**+0.1**
CO02				*e*S	**Sn**	**21 30 59.4**	**+0.4**
CO02				IAML		21 31 21.0	
	comp=Z,205nm,0.5s						
CO02	**Combarbal**	**3.71**	**172**	*e*P	**Pn**	**21 30 14.6**	**0.0**
ACLC	**CERRO LA CRUZ**	**4.54**	**116**	*e*P	**Pn**	**21 30 29.5**	**+3.4**
ACLC				*e*S	**Sb**	**21 31 34.9**	**+3.0**
CFA	**Coronel Fontan**	**5.03**	**145**	*e*P	**Pn**	**21 30 34.4**	**+1.6**
CFA				*e*S	**Sn**	**21 31 34.1**	**+2.7**
CFA				IAML		21 32 03.3	
	comp=Z,21nm,0.7s						

*IDC **03** 21:45:04.5±0.5, 37°.09N×142°.45E, h0^{km}, mb4.7/27, mbtmp4.7/33, ML4.2/5, MS4.9/77, Error ellipse: s-maj=12.5km s-min=10.6km az=136.0*

*BJI **03** 21:45:05.4, 36°.93N×142°.41E, h20^{km}, mB5.5/54, mb5.1/77, Ms5.4/81, Ms7 5.3/80*

*GFZ **03** 21:45:06.8, 37°.15N×142°.42E, h27^{km}, Mw5.3/50, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}0.95; $M_{\theta\theta}$-0.20; $M_{\phi\phi}$-0.75; $M_{r\theta}$0.27; $M_{\theta\phi}$-0.31; $M_{\phi r}$0.47; Fault plane solution: $M_0$1.07419×10^{17} NP1: ϕ_s201.61281°, δ29.81320°, λ85.30877°. NP2: ϕ_s27.01568°, δ60.29673°, λ92.68316°. Principal axes: T 1.1030, Plg74.5577°, Azm304.1570°; N -0.0602, Plg2.3304°, Azm205.6854°; P -1.0428, Plg15.2567°, Azm115.0494°;*

*NIED **03** 21:45:08.6, 37°.12N×142°.42E, h17^{km}, MW5.3, Moment Tensor Solution. s3 Moment tensor: Scale 10^{17}Nm; M_{rr}0.68; $M_{\theta\theta}$-0.05; $M_{\phi\phi}$-0.63; $M_{r\theta}$0.26; $M_{\theta\phi}$-0.34; $M_{\phi r}$0.68; Fault plane solution: $M_0$1.03000×10^{17} NP1: ϕ_s209.00000°, δ23.00000°, λ97.00000°. NP2: ϕ_s22.00000°, δ67.00000°, λ87.00000°.*

*BGR **03** 21:45:08.9, 36°.92N×142°.46E, h35^{km}, mb5.1, Ms5.3*

*MOS **03** 21:45:08.0±1.0, 37°.20N×142°.50E, h37^{km}, mb5.3/108, MS5.3/21, Error ellipse: s-maj=5.4km s-min=3.6km az=111.2*

*JMA **03** 21:45:08.6±0.1, 37°.1N±0°.3×142°.4E±0°.3, h17^{km}, MD5.3/29, MW5.3/29, E OFF FUKUSHIMA PREF*

JMA Felt II J1 at E OFF FUKUSHIMA PREF .

*NEIC **03** 21:45:09.6, 37°.16N×142°.54E, h35^{km}*

*NEIC **03** 21:45:09.2±1.5, 37°.13N±0°.06×142°.56E±0°.09, h35^{km}±1^{km}, mb5.1/477, Mww5.3/16, Error ellipse: s-maj=13.0km s-min=9.3km az=113.0*

*GFZ **03** 21:45:09.9±0.2, 37°N±2°×14°2E±°, h30^{km}, M5.2/121, mb5.1/121, Error ellipse: s-maj=6.9km s-min=3.8km az=126.7, confirmed*

*NEIC **03** 21:45:10.1, 37°.06N×142°.79E, h36^{km}, Moment Tensor Solution. Duration: 2^{s}3 Moment tensor: Scale 10^{17}Nm; M_{rr}0.84; $M_{\theta\theta}$-0.28; $M_{\phi\phi}$-0.56; $M_{r\theta}$0.28; $M_{\theta\phi}$-0.34; $M_{\phi r}$0.68; Fault plane solution: $M_0$1.09000×10^{17} NP1: ϕ_s220.27000°, δ24.62000°, λ102.61000°. NP2: ϕ_s26.45000°, δ66.01000°, λ84.29000°. Principal axes: T 1.1257, Plg68.0000°, Azm285.0000°; N -0.0672, Plg5.0000°, Azm29.0000°; P -1.0586, Plg21.0000°, Azm121.0000°;*

*GCMT **03** 21:45:11.2±0.1, 37°.11N±0°.01×142°.35E±0°.01, h18^{km}, MW5.3/153, Moment Tensor Solution. s116,c200; s153,c303; Duration: 1^{s}1 Moment tensor: Scale 10^{17} Nm; M_{rr}0.86±.01; $M_{\theta\theta}$-0.12±.01; $M_{\phi\phi}$-0.73±.01; $M_{r\theta}$0.35±.03; $M_{\theta\phi}$-0.37±.01; $M_{\phi r}$0.76±.03; Best double couple: $M_0$1.21400×10^{17} NP1: ϕ_s205.00000°, δ23.00000°, λ90.00000°. NP2: ϕ_s25.00000°, δ67.00000°, λ90.00000°. Principal axes: T 1.1910, Plg68.0000°, Azm294.0000°; N 0.0460, Plg0.0000°, Azm25.0000°; P -1.2370, Plg22.0000°, Azm115.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 03 21:45:08.4±0.3**, 37°.11N**±0°.03×**142°.52E**±0°.03**, h31**^{km}±1^{km}**, h32**^{km}**:pP-P, n1341,** σ**1^{s}42**/1330**, mb5.1**/489**, MS5.1**/123**, 72C-43D, Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JFK	**Kawauchi**	**1.34**	**282**	A	A	21 45 31.4	
	comp=N,28nm,4.6s,comp=E,47nm,5.9s						
ONAJ	**Iwakimizuishiy**	**1.38**	**270**	A	A	21 45 31.9	
	comp=N,49nm,5.0s,comp=E,60nm,3.9s						
JMST	**Minamisoumatoc**	**1.44**	**296**	A	A	21 45 32.9	
	comp=N,41nm,1.3s,comp=E,41nm,2.2s						
JIKH	**Ishinomakikobu**	**1.47**	**325**	A	A	21 45 33.7	
	comp=N,45nm,6.2s,comp=E,60nm,4.0s						
JFFD	**Fukushimafurud**	**1.57**	**270**	A	A	21 45 34.8	
	comp=N,28nm,3.8s,comp=E,31nm,3.9s						
JMM	**Marumori**	**1.57**	**299**	A	A	21 45 35.0	
	comp=N,30nm,1.2s,comp=E,39nm,4.8s						
JIO	**Ouri**	**1.64**	**326**	A	A	21 45 36.3	
	comp=N,34nm,3.7s,comp=E,47nm,3.2s						
JHO	**Hitachi**	**1.64**	**253**	A	A	21 45 36.1	
	comp=N,40nm,3.1s,comp=E,24nm,3.3s						
JHYU	**Hitachinakayam**	**1.73**	**244**	A	A	21 45 37.5	
	comp=N,41nm,3.5s,comp=E,32nm,4.2s						
JOTO	**OTAMA OYAMA**	**1.80**	**285**	A	A	21 45 38.4	
	comp=N,66nm,1.2s,comp=E,56nm,1.0s						
JKMT	**Kesennumamotoy**	**1.89**	**334**	A	A	21 45 40.2	
	comp=N,24nm,5.9s,comp=E,42nm,5.2s						
JCAJ	**Choshiashikaji**	**1.93**	**225**	A	A	21 45 40.6	
	comp=N,46nm,3.9s,comp=E,55nm,3.6s						
JOU	**Okura**	**1.94**	**311**	A	A	21 45 40.6	
	comp=N,68nm,1.3s,comp=E,61nm,2.2s						
JOFO	**Osakifurukawao**	**1.96**	**320**	A	A	21 45 41.0	
	comp=N,229nm,2.2s,comp=E,218nm,3.7s						
JIHU	**Itakohorinouch**	**1.97**	**235**	A	A	21 45 41.1	
	comp=N,172nm,3.1s,comp=E,218nm,3.8s						
JYAR	**Yonezawaarcadi**	**2.06**	**294**	A	A	21 45 42.1	
	comp=N,104nm,1.2s,comp=E,123nm,1.3s						
JYT	**Yasato**	**2.07**	**246**	A	A	21 45 42.4	
	comp=N,29nm,3.0s,comp=E,22nm,0.5s						
OFUJ	**Ofunato**	**2.08**	**341**	A	A	21 45 43.2	
	comp=N,26nm,4.1s,comp=E,46nm,5.1s						
JSB	**Shiboa**	**2.09**	**267**	A	A	21 45 42.6	
	comp=N,118nm,5.5s,comp=E,111nm,3.5s						
JMK	**Ichinoseki**	**2.11**	**331**	A	A	21 45 43.4	
	comp=N,35nm,4.3s,comp=E,44nm,3.9s						
JSMT	**Sammumatsuo**	**2.22**	**229**	A	A	21 45 44.8	
	comp=N,138nm,5.6s,comp=E,129nm,6.3s						
JYS	**Shirataka**	**2.24**	**300**	A	A	21 45 44.9	
	comp=N,67nm,1.3s,comp=E,62nm,1.9s						
JFY	**Yanaizu**	**2.27**	**278**	A	A	21 45 45.2	
	comp=N,35nm,3.7s,comp=E,32nm,4.1s						
JYK	**Kaneyama**	**2.49**	**317**	A	A	21 45 48.6	
	comp=N,36nm,3.0s,comp=E,22nm,5.5s						
JCCN	**Chibachonan**	**2.52**	**228**	A	A	21 45 49.2	
	comp=N,136nm,3.0s,comp=E,88nm,3.7s						
MIYJ	**Miyakonagasawa**	**2.53**	**348**	A	A	21 45 49.7	
	comp=N,20nm,3.6s,comp=E,23nm,4.0s						
JOM	**Ohasama**	**2.55**	**338**	A	A	21 45 49.9	
	comp=N,22nm,4.0s,comp=E,40nm,5.3s						
JAG	**Ashikaga**	**2.56**	**255**	A	A	21 45 49.4	
	comp=N,23nm,4.5s,comp=E,18nm,10.6s						
TOK	**Tokyo**	**2.64**	**238**	A	A	21 45 50.7	
	comp=N,98nm,3.8s,comp=E,106nm,3.9s						
JKT	**Katashina**	**2.64**	**264**	A	A	21 45 50.7	
	comp=N,27nm,3.2s,comp=E,16nm,2.9s						
JNS	**Sasagawa**	**2.65**	**287**	A	A	21 45 50.6	
	comp=N,15nm,3.3s,comp=E,27nm,8.0s						
JYA	**Atsumi**	**2.67**	**305**	A	A	21 45 51.1	
	comp=N,20nm,5.8s,comp=E,20nm,1.5s						
JKUC	**kamogawauchiur**	**2.70**	**225**	A	A	21 45 51.8	
	comp=N,38nm,3.4s,comp=E,54nm,7.4s						
JRG	**Rokugo**	**2.73**	**328**	A	A	21 45 52.2	
	comp=N,47nm,4.8s,comp=E,62nm,5.4s						
JUON	**Uonuma**	**2.77**	**273**	A	A	21 45 52.3	
	comp=N,23nm,4.0s,comp=E,16nm,5.1s						
JYYZ	**Yamagatayuza**	**2.80**	**314**	A	A	21 45 52.9	
	comp=N,112nm,3.5s,comp=E,88nm,3.1s						
JTH	**Tanohata**	**2.88**	**350**	A	A	21 45 54.7	
	comp=N,16nm,2.4s,comp=E,25nm,5.7s						
JHU2	**Hanno**	**2.90**	**245**	A	A	21 45 54.4	
	comp=N,19nm,4.0s,comp=E,15nm,4.9s						
JSZI	**Iwateshizukuis**	**2.91**	**335**	A	A	21 45 54.9	
	comp=N,116nm,2.7s,comp=E,92nm,3.5s						
JAW	**Awa shima**	**2.92**	**298**	A	A	21 45 54.6	
	comp=N,25nm,4.6s,comp=E,35nm,5.1s						
TATJ	**Tateyama 2**	**2.97**	**227**	A	A	21 45 55.6	
	comp=N,94nm,3.4s,comp=E,64nm,5.7s						
JYO	**Yokosk**	**2.98**	**232**	A	A	21 45 55.6	
	comp=N,72nm,5.8s,comp=E,77nm,6.9s						
JKZ	**Kuzumaki**	**3.02**	**342**	A	A	21 45 56.7	
	comp=N,22nm,1.2s,comp=E,34nm,3.2s						
JYW	**Yuwa**	**3.04**	**324**	A	A	21 45 56.5	
	comp=N,86nm,3.7s,comp=E,63nm,4.8s						
JSGW	**Sagamiharawaka**	**3.07**	**242**	A	A	21 45 56.8	
	comp=N,18nm,1.6s,comp=E,18nm,3.9s						
JIZZ	**Izumozaki**	**3.07**	**279**	A	A	21 45 56.6	
	comp=N,75nm,2.6s,comp=E,82nm,3.9s						
JKEN	**Kujiedanarisaw**	**3.16**	**349**	A	A	21 45 58.7	
	comp=N,36nm,1.1s,comp=E,43nm,1.7s						
JGK	**Kuni**	**3.16**	**261**	A	A	21 45 58.1	
	comp=N,38nm,2.5s,comp=E,42nm,3.8s						
JOD2	**Odawara 2**	**3.33**	**238**	A	A	21 46 00.6	
	comp=N,23nm,2.9s,comp=E,37nm,4.1s						
JANG	**Nango**	**3.36**	**347**	A	A	21 46 01.5	
	comp=N,13nm,4.2s,comp=E,24nm,3.2s						
JAH	**Hinai**	**3.41**	**335**	A	A	21 46 02.1	
	comp=N,34nm,2.4s,comp=E,46nm,3.3s						
JIM2	**Oshima 3**	**3.46**	**227**	A	A	21 46 02.6	
	comp=N,27nm,6.9s,comp=E,23nm,4.0s						
JJN	**Nakama**	**3.48**	**271**	A	A	21 46 02.5	
	comp=N,38nm,4.0s,comp=E,35nm,3.9s						
MJAR	**Matsushiro Arr**	**3.50**	**262**	Pn	**Pn**	**21 46 01.2**	**+0.4**
	comp=E,13nm,0.3s,baz=89,slow=15,SNR=305						
MJAR				LR	LR	21 47 36.5	
	comp=E,29µm,19.1s,baz=149,slow=44						
	comp=E,80nm,0.4s						
MJAR				AML	AML		
MJAR	**Matsushiro Arr**	**3.50**	**262**	P	**Pn**	**21 46 01.8**	**+1.0**
MJAR	**Matsushiro Arr**	**3.50**	**262**	Pn	**Pn**	**21 46 01.8**	**+1.0**
MAJO	**Matsushiro**	**3.51**	**262***c*	*i*P	**Pn**	**21 46 01.6**	**+0.8**
MAJO	**Matsushiro**	**3.51**	**262**		**Pn**	**21 46 01.9**	**+1.0**
MAJO	**Matsushiro**	**3.51**	**262**	P	**Pn**	**21 46 01.9**	**+1.0**
MJB9	**Matsu-Tunnel**	**3.51**	**262**		**Pn**	**21 46 02.2**	**+1.4**
JHTM	**Izuhatsuma**	**3.56**	**234**	A	A	21 46 03.9	
	comp=N,29nm,1.6s,comp=E,38nm,3.8s						
JYN	**Shimob**	**3.59**	**245**	A	A	21 46 04.3	
	comp=N,33nm,1.3s,comp=E,22nm,3.5s						
JFNN	**Fujinakano**	**3.64**	**240**	A	A	21 46 05.0	
	comp=N,22nm,3.9s,comp=E,42nm,2.8s						
JNTW	**Noshirotokiwa**	**3.66**	**330**	A	A	21 46 05.5	
	comp=N,170nm,2.7s,comp=E,161nm,3.4s						
JNT	**Takato**	**3.74**	**252**	A	A	21 46 06.5	
	comp=N,17nm,6.0s,comp=E,12nm,2.9s						
JIZS	**Izushimoda**	**3.80**	**232**	A	A	21 46 07.3	
	comp=N,13nm,4.9s,comp=E,13nm,3.6s						
JTM	**Tenmabayashi**	**3.85**	**343**		**Pn**	**21 46 05.2**	**-0.2**
JTM	**Tenmabayashi**	**3.85**	**343**	P	**Pn**	**21 46 05.1**	**-0.3**
JOG3	**Oga3**	**3.90**	**317**	A	A	21 46 03.4	
	comp=N,38nm,4.0s,comp=E,25nm,4.0s						
JHHS	**Hirosakihyakuz**	**3.92**	**335**	A	A	21 46 09.3	
	comp=N,72nm,3.8s,comp=E,67nm,4.2s						
JIW	**Iwasaki**	**4.00**	**331**	A	A	21 46 10.3	
	comp=N,23nm,3.4s,comp=E,24nm,3.5s						
JARK	**Aomorirokkasho**	**4.00**	**347**	A	A	21 46 10.5	
	comp=N,16nm,9.5s,comp=E,20nm,3.1s						
SHZ3	**Shizuoka 3**	**4.04**	**241**	A	A	21 46 10.7	
	comp=N,17nm,1.5s,comp=E,15nm,5.1s						
JNY	**Yasuok**	**4.15**	**247**	A	A	21 46 12.2	
	comp=N,24nm,1.5s,comp=E,15nm,3.8s						
JTT	**Ttatey**	**4.19**	**265**	A	A	21 46 12.6	
	comp=N,20nm,3.4s,comp=E,30nm,4.5s						
JAHD	**Aomorihigashid**	**4.25**	**348**	A	A	21 46 14.2	
	comp=N,31nm,1.2s,comp=E,38nm,1.4s						
JSI2	**Shiura 2**	**4.27**	**338**	A	A	21 46 14.3	
	comp=N,26nm,1.9s,comp=E,29nm,3.6s						
JSG	**Sagara**	**4.28**	**237**		**Pn**	**21 46 13.1**	**+1.7**
JSG	**Sagara**	**4.28**	**237**	P	**Pn**	**21 46 12.3**	**+1.0**
JSG	**Sagara**	**4.28**	**237**	A	A	21 46 13.9	
	comp=N,24nm,3.9s,comp=E,36nm,5.9s						
JKKS	**Kakegawashinom**	**4.37**	**239**	A	A	21 46 15.2	
	comp=N,20nm,4.0s,comp=E,26nm,3.2s						
JOT	**Ohata**	**4.42**	**345**	A	A	21 46 16.5	
	comp=N,12nm,4.0s,comp=E,13nm,3.7s						
JGF	**Kuroka**	**4.43**	**252**		**Pn**	**21 46 15.1**	**+1.6**
JGF	**Kuroka**	**4.43**	**252**	P	**Pn**	**21 46 15.2**	**+1.6**
JGF	**Kuroka**	**4.43**	**252**	A	A	21 46 16.1	
	comp=N,13nm,6.5s,comp=E,11nm,2.2s						
HMMJ	**Hamamatsu 2**	**4.49**	**241**	A	A	21 46 17.0	
	comp=N,7.0nm,4.2s,comp=E,8.0nm,3.8s						
JHG	**Hegura jima**	**4.52**	**281**	A	A	21 46 17.1	
	comp=N,7.0nm,3.3s,comp=E,9.0nm,4.4s						
JHJ2	**Mitsune**	**4.56**	**210**		**Pn**	**21 46 16.5**	**+1.2**
JHJ2	**Mitsune**	**4.56**	**210**	P	**Pn**	**21 46 18.0**	**+2.7**
JHJ	**Hachijo jima 2**	**4.57**	**210**	Pn	**Pn**	**21 46 14.3**	**-1.0**
	comp=E,83nm,0.3s,baz=290,slow=21,SNR=16						
JHJ				Sn	**Sn**	**21 47 00.7**	**-6.6**
	comp=E,202nm,0.3s,baz=64,slow=20,SNR=8.2						
JHJ				LR	LR	21 47 32.6	
	comp=E,4µm,18.5s,baz=355,slow=33						
	comp=E,232nm,0.4s						
JHJ				AML	AML		
JJH	**Hakui**	**4.60**	**269**	A	A	21 46 18.2	
	comp=N,12nm,4.3s,comp=E,9.0nm,4.0s						
JAO	**Obara**	**4.63**	**248**	A	A	21 46 19.0	
	comp=N,12nm,4.6s,comp=E,12nm,2.0s						
JSR	**Shiriuchi**	**4.71**	**340**	A	A	21 46 20.5	
	comp=N,20nm,4.0s,comp=E,30nm,3.9s						
INU	**Inuyama**	**4.78**	**250**		**Pn**	**21 46 19.2**	**+0.9**
INU	**Inuyama**	**4.78**	**250**	P	**Pn**	**21 46 19.4**	**+1.0**
JOMM	**Oshimamatsumae**	**4.82**	**337**	A	A	21 46 22.0	
	comp=N,20nm,3.4s,comp=E,13nm,6.3s						
ERM	**Erimo**	**4.93**	**6**	P	**Pn**	**21 46 19.0**	**-1.3**
ERM	**Erimo**	**4.93**	**6**		**Pn**	**21 46 19.0**	**-1.3**
ERM	**Erimo**	**4.93**	**6**	P	**Pn**	**21 46 19.9**	**-0.4**
JICN	**Ichinomiyachia**	**4.93**	**250**	A	A	21 46 23.0	
	comp=N,15nm,3.9s,comp=E,12nm,2.4s						
JAA	**Atsumi**	**5.02**	**242**	A	A	21 46 24.3	
	comp=N,8.0nm,5.8s,comp=E,7.0nm,2.9s						
JNBK	**Urakawa-nobuka**	**5.17**	**2**	A	A	21 46 27.4	
	comp=N,22nm,3.3s,comp=E,19nm,2.8s						
JYM2	**Yakumo 2**	**5.27**	**342**	A	A	21 46 28.4	
	comp=N,12nm,4.6s,comp=E,14nm,2.8s						
JSHD	**Hidakashinhida**	**5.30**	**360**	A	A	21 46 29.0	
	comp=N,23nm,1.9s,comp=E,28nm,6.8s						
JIE	**Ise**	**5.45**	**242**	A	A	21 46 30.4	
	comp=N,7.0nm,6.0s,comp=E,6.0nm,5.0s						
JFM	**Mihama**	**5.51**	**255**	A	A	21 46 31.1	
	comp=N,10.0nm,5.7s,comp=E,5.0nm,2.2s						
JIAM	**Iburiatsuma**	**5.53**	**355**	A	A	21 46 32.2	
	comp=N,22nm,7.3s,comp=E,25nm,3.1s						
JCH	**Churui**	**5.54**	**6**	A	A	21 46 32.6	
	comp=N,8.0nm,5.4s,comp=E,13nm,4.8s						
JBT2	**Biratori 2**	**5.67**	**359**	A	A	21 46 34.2	
	comp=N,9.0nm,3.2s,comp=E,12nm,3.7s						
JAK	**Akkeshi**	**6.12**	**15**	A	A	21 46 40.8	
	comp=N,12nm,1.0s,comp=E,16nm,1.0s						
JISS	**Ishikarishitsu**	**6.22**	**353**	A	A	21 46 41.8	
	comp=N,20nm,3.9s,comp=E,17nm,4.6s						
JAR	**Ashorobuto**	**6.26**	**8**	A	A	21 46 42.7	
	comp=N,11nm,1.0s,comp=E,8.0nm,1.4s						
JKHN	**Kushirohamanak**	**6.30**	**18**	A	A	21 46 43.5	
	comp=N,10.0nm,0.9s,comp=E,12nm,1.4s						
JAB	**Ashibetsu**	**6.39**	**358**	A	A	21 46 44.4	
	comp=N,16nm,3.7s,comp=E,13nm,2.2s						
JHR	**Hokuryu**	**6.66**	**355**	A	A	21 46 48.0	
	comp=N,12nm,4.5s,comp=E,11nm,7.8s						
NMR	**Nemuro--Hokkai**	**6.72**	**20**	*e*P	**Pn**	**21 46 42.7**	**-2.2**
NMR				*i* S	**Sn**	**21 47 54.2**	**-6.1**
ASAJ	**Asahikawa**	**7.00**	**0**	P	**Pn**	**21 46 48.5**	**-0.3**
JKA	**Kamikawa-asahi**	**7.00**	**0**		**Pn**	**21 46 48.5**	**-0.3**
JKA	**Kamikawa-asahi**	**7.00**	**0**	P	**Pn**	**21 46 48.5**	**-0.3**
	comp=Z,140nm,1.0s						
RUSJ	**Misakicho**	**7.29**	**16**	*e*P	**Pn**	**21 46 51.3**	**-1.4**
RUSJ				*i* S	**Sn**	**21 48 10.8**	**-3.6**
YUK	**Yuzh-Kuril'sk**	**7.37**	**19**	*e*P	**Pn**	**21 46 52.5**	**-1.3**
YUK				*i* S	**Sn**	**21 48 10.4**	**-6.0**
YUK				pmax	pmax		
	comp=Z,334nm,0.5s						
YUK				pmax	pmax		
	comp=N,170nm,0.4s						
YUK				pmax	pmax		
	comp=E,334nm,0.3s						
YUK				pmax	pmax		
	comp=Z,788nm,0.9s						
JMN	**Monobe**	**7.82**	**247**		**Pn**	**21 47 01.4**	**+1.3**
JMN	**Monobe**	**7.82**	**247**	P	**Pn**	**21 47 00.6**	**+0.6**
	comp=Z,154nm,1.1s						
KUR	**Kuril'sk**	**9.06**	**25**	*e*P	**Pn**	**21 47 15.0**	**-2.0**
KUR				*e*S	**Sn**	**21 48 52.6**	**-5.3**
KUR				pmax	pmax		
	comp=N,103nm,0.8s						
KUR				pmax	pmax		
	comp=Z,110nm,0.8s						
KUR				MLR	MLR		
	comp=Z,4µm,14.0s						
YSS	**Yuzhno-Sakhali**	**9.84**	**1**κ	*e*P	**Pn**	**21 47 27.8**	**+0.1**
YSS				*e*S	**Sn**	**21 49 14.8**	**-2.2**
YSS				pmax	pmax		
	comp=Z,110nm,0.8s						
YSS				pmax	pmax		
	comp=N,400nm,4.9s						
YSS				pmax	pmax		
	comp=Z,300nm,4.9s						
YSS				pmax	pmax		
	comp=E,100nm,4.5s						
YSS				smax	smax		
	comp=N,130nm,1.0s						
YSS				smax	smax		
	comp=E,100nm,0.9s						
YSS				smax	smax		
	comp=N,500nm,3.8s						
YSS				smax	smax		
	comp=E,700nm,3.6s						
YSS				MLR	MLR		
	comp=E,6µm,16.0s						
YSS	**Yuzhno-Sakhali**	**9.84**	**1**		**Pn**	**21 47 26.8**	**-0.9**
YSS	**Yuzhno-Sakhali**	**9.84**	**1**	P	**Pn**	**21 47 28.0**	**+0.4**
	comp=Z,125nm,1.0s						
VLA	**Vladivostok**	**10.12**	**310**⇓	*e*P	**Pn**	**21 47 29.5**	**-2.0**
VLA				pmax	pmax		
	comp=Z,204nm,2.0s						
JNU	**Nakatsue**	**10.33**	**251**	Pn	**Pn**	**21 47 35.1**	**+0.6**
	comp=Z,2.3nm,0.3s,baz=48,slow=8.9,SNR=52						
JNU				LR	LR	21 51 20.1	
	comp=Z,3µm,20.7s,baz=70,slow=37						
	comp=Z,212nm,1.0s						
JNU				AML	AML		
USA0B	**Ussuriysk Arra**	**10.68**	**315***d*	*e*P	**Pn**	**21 47 40.2**	**+1.0**
USA0B	**Ussuriysk Arra**	**10.68**	**315**		**Pn**	**21 47 39.7**	**+0.5**
USRK	**Ussuriysk Ar.**	**10.68**	**315**	Pn	**Pn**	**21 47 39.8**	**+0.6**
	comp=Z,1.1nm,0.3s,baz=123,slow=12,SNR=13						
USRK				LR	LR	21 51 27.7	
	comp=Z,13µm,19.0s,baz=127,slow=36						
	comp=Z,10nm,0.8s						
USRK				AML	AML		
JSU	**Suzuyama**	**11.43**	**244**		**Pn**	**21 47 50.1**	**+0.6**
JSU	**Suzuyama**	**11.43**	**244**	P	**Pn**	**21 47 50.2**	**+0.6**
	comp=Z,72nm,1.0s						
KSRS	**Korea Array**	**11.64**	**276**	Pn	**Pn**	**21 47 54.3**	**+2.0**
	comp=Z,0.9nm,0.3s,baz=88,slow=13,SNR=63						
KSRS				LR	LR	21 52 08.7	
	comp=Z,14µm,18.7s,baz=85,slow=36						
	comp=Z,56nm,1.0s						
KSRS				AML	AML		
KSAR	**Wonju Array Be**	**11.67**	**276**	P	**Pn**	**21 47 53.0**	**+0.2**
KSAR	**Wonju Array Be**	**11.67**	**276**		**Pn**	**21 47 53.0**	**+0.2**
KS19	**Wonju Array Si**	**11.68**	**276**		**Pn**	**21 47 54.2**	**+1.3**
TJN	**Taejon**	**12.18**	**271**⇑	*e*P	**Pn**	**21 48 00.6**	**+0.8**
MDJ	**Mudanjiang**	**12.32**	**312**	P	Pn	21 48 07.0	+5.4
MDJ				S	Sn	21 50 30.6	+13
MDJ				pmax	pmax		
	comp=Z,50nm,2.3s						
MDJ				L	L		
	comp=Z,8µm,18.9s						
MDJ				L	L		
	comp=Z,9µm,16.5s						
MDJ				L	L		
	comp=Z,17µm,17.2s						
TYV	**Tymovskoe**	**13.75**	**0**	*e*P	**Pn**	**21 48 19.7**	**-1.4**
TYV				*e*S	**Sn**	**21 50 53.0**	**+0.3**
TYV				pmax	pmax		
	comp=Z,30nm,1.3s						
TYV				pmax	pmax		
	comp=Z,200nm,4.6s						
TYV				smax	smax		
	comp=N,500nm,6.0s						
TYV				smax	smax		
	comp=E,600nm,6.0s						
TYV				MLR	MLR		
	comp=Z,7µm,16.0s						
TYV				MLR	MLR		
	comp=N,6µm,16.0s						
BNX	**BinXian**	**14.23**	**312**	⇓P	**Pn**	**21 48 25.5**	**-2.2**
BNX				pmax	pmax		
	comp=N,13nm,1.3s						
BNX				pmax	pmax		
	comp=N,840nm,5.7s						
GRNR	**Gornyy**	**14.34**	**344**⇑	*i*P	**Pn**	**21 48 25.9**	**-3.3**
GRNR				pmax	pmax		
	comp=Z,9.0nm,1.1s						
GRNR				MLR	MLR		
	comp=E,2µm,13.0s						
GRNR				MLR	MLR		
	comp=N,3µm,15.0s						
GRNR				MLR	MLR		
	comp=Z,5µm,14.0s						
KLR	**Kul'dur**	**14.42**	**331**	Pn	**Pn**	**21 48 28.1**	**-2.3**
	comp=Z,0.3nm,0.3s,baz=146,slow=12,SNR=8.0						
KLR				LR	LR	21 53 58.6	
	comp=Z,9µm,19.0s,baz=148,slow=37						
KLR	**Kul'dur**	**14.42**	**331**⇓	*e*P	**Pn**	**21 48 28.0**	**-2.3**
KLR				pmax	pmax		
	comp=Z,15nm,1.3s						
CN2	**Changchun**	**14.61**	**303**	P	**Pn**	**21 48 31.6**	**-1.2**
CN2				pP	P	21 48 39.1	+0.3
CN2				S	**Sn**	**21 51 13.0**	**-0.5**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.7s						
CN2				pmax	pmax		
	comp=Z,600nm,7.0s						
CN2				L	L		
	comp=Z,2µm,17.0s						
CN2				L	L		
	comp=Z,4µm,17.0s						
CN2				L	L		
	comp=Z,4µm,17.0s						
SNY	**Shenyang**	**15.37**	**294**	P	**Pn**	**21 48 41.5**	**-1.4**
SNY				S	**Sn**	**21 51 29.8**	**-2.2**
SNY				pmax	pmax		
	comp=Z,9.0nm,0.9s						
SNY				pmax	pmax		
	comp=Z,320nm,4.8s						
SNY				L	L		
	comp=Z,3µm,12.3s						
SNY				L	L		
	comp=Z,11µm,13.8s						
SNY				L	L		
	comp=Z,14µm,16.8s						
JOW	**Kunigami**	**15.83**	**234**	Pn	**Pn**	**21 48 49.6**	**+0.7**
	comp=Z,1.9nm,0.3s,baz=9.1,slow=25,SNR=5.3						
JOW				LR	LR	21 55 34.5	
	comp=Z,3µm,18.4s,baz=36,slow=40						
JOW	**Kunigami**	**15.83**	**234**		**Pn**	**21 48 49.4**	**+0.4**
DL2	**Dalian**	**16.57**	**283**	P	**P**	**21 49 00.1**	**-0.5**
DL2				S	**S**	**21 52 08.0**	**-4.1**
DL2				pmax	pmax		

	comp=Z,79nm,1.4s						
DL2				pmax	pmax		
	comp=Z,2µm,7.7s						
DL2				L	L		
	comp=Z,3µm,13.4s						
DL2				L	L		
	comp=Z,8µm,13.1s						
DL2				L	L		
	comp=Z,10µm,17.8s						
SSE	**Sheshan**	**18.64**	**258**	P	**P**	**21 49 22.5**	**-1.1**
SSE				S	**Sn**	**21 52 48.4**	**-3.2**
SSE				pmax	pmax		
	comp=Z,13nm,0.7s						
SSE				pmax	pmax		
	comp=Z,400nm,8.7s						
SSE				L	L		
	comp=Z,2µm,18.9s						
SSE				L	L		
	comp=Z,2µm,18.2s						
PEA0B	**Petropavlovsk-**	**19.19**	**29**	*ce*P	**Pn**	**21 49 31.2**	**+0.7**
PETK	**Petropavlovsk-**	**19.19**	**29**	P	**Pn**	**21 49 30.9**	**+0.5**
	comp=Z,5.3nm,0.8s,baz=202,slow=11,SNR=6.5						
PETK				LR	LR	21 57 55.0	
	comp=Z,2µm,18.3s,baz=213,slow=40						
PETK	**Petropavlovsk-**	**19.19**	**29**	P	**Pn**	**21 49 31.0**	**+0.5**
PETK	**Petropavlovsk-**	**19.19**	**29**	P	**P**	**21 49 28.0**	**-1.4**
PET	**Petropavlovsk**	**19.50**	**30**	*e*P	Pn	21 49 44.2	+10
PET				*e*S	**Sn**	**21 53 11.9**	**0.0**
PET				pmax	pmax		
	comp=Z,600nm,7.4s						
PET				pmax	pmax		
	comp=Z,900nm,5.9s						
PET				pmax	pmax		
	comp=Z,42nm,1.6s						
PET				MLR	MLR		
	comp=Z,2µm,16.0s						
PET				MLR	MLR		
	comp=Z,3µm,16.0s						
ZEA	**Zeya**	**19.71**	**332**	*e*P	**P**	**21 49 34.0**	**-1.1**
ZEA				pmax	pmax		
	comp=N,30nm,1.0s						
ZEA				pmax	pmax		
	comp=E,20nm,1.0s						
ZEA				pmax	pmax		
	comp=Z,80nm,0.9s						
ZEA				MLR	MLR		
	comp=E,2µm,15.0s						
ZEA				MLR	MLR		
	comp=N,4µm,16.0s						
NJ2	**Nanjing**	**20.11**	**262**	*e*P	**P**	**21 49 37.3**	**-2.3**
NJ2				sP	**sP**	**21 49 54.9**	**+3.6**
NJ2				S	Sn	21 53 26.8	-0.2
NJ2				pmax	pmax		
	comp=N,66nm,0.9s						
NJ2				L	L		
	comp=N,9µm,16.5s						
NJ2				L	L		
	comp=N,17µm,16.0s						
NJ2				L	L		
	comp=N,22µm,15.8s						
TIA	**Tai'an**	**20.38**	**275**	P	**P**	**21 49 40.6**	**-2.0**
TIA				pmax	pmax		
	comp=N,620nm,6.3s						
TIA				L	L		
	comp=N,6µm,14.1s						
TIA				L	L		
	comp=N,9µm,16.2s						
TIA				L	L		
	comp=N,13µm,15.9s						
HIA	**Hailar**	**20.49**	**314**	P	**P**	**21 49 44.2**	**+0.5**
HIA				pmax	pmax		
	comp=Z,28nm,1.1s						
HIA	**Hailar**	**20.49**	**314**		**P**	**21 49 44.2**	**+0.5**
HILR	**Hailar Array B**	**20.62**	**314**	P	**P**	**21 49 41.7**	**-3.4**
	comp=Z,9.2nm,0.6s,baz=123,slow=11,SNR=8.2						
HILR				LR	LR	21 57 57.6	
	comp=Z,7µm,18.1s,baz=105,slow=38						
BJI2	**Beijing**	**20.79**	**286**	P	**P**	**21 49 43.9**	**-3.0**
BJI2				pP	**pP**	**21 49 53.5**	**-1.2**
BJI2				sP	**pwP**	**21 49 56.2**	**-1.2**
BJI2				S	**S**	**21 53 31.2**	**-6.0**
BJI2				pmax	pmax		
	comp=Z,260nm,4.3s						
BJI2				L	L		
	comp=Z,2µm,14.4s						
BJI2				L	L		
	comp=Z,2µm,16.5s						
BJI2				L	L		
	comp=Z,2µm,19.9s						
BJT	**Baijiatuau**	**20.79**	**286**	P	**P**	**21 49 44.8**	**-2.1**
BJT				pmax	pmax		
	comp=Z,102nm,1.3s						
BJT	**Baijiatuau**	**20.79**	**286**		**P**	**21 49 44.8**	**-2.1**
BJT				IAmb	IAmb	21 49 57.1	
	comp=Z,102nm,1.3s						
BJT	**Baijiatuau**	**20.79**	**286**	P	**P**	**21 49 43.2**	**-3.7**
	comp=Z,62nm,1.2s						
YOJ	**Yonaguni jima**	**20.92**	**238**	P	**P**	**21 49 46.8**	**-1.7**
YOJ				pmax	pmax		
	comp=Z,223nm,1.5s						
YOJ	**Yonaguni jima**	**20.92**	**238**	P	**P**	**21 49 46.8**	**-1.7**
XLT	**XiLinHaoTe**	**21.16**	**297**	*e*P	**P**	**21 49 48.2**	**-2.9**
XLT				pP	pP	21 49 57.5	-1.6
XLT				S	**S**	**21 53 35.0**	**-10**
XLT				sS	Sn	21 53 53.7	+1.4
XLT				pmax	pmax		
	comp=Z,45nm,1.0s						
XLT				pmax	pmax		
	comp=Z,520nm,4.5s						
XLT				L	L		
	comp=Z,7µm,17.1s						
XLT				L	L		
	comp=Z,8µm,17.1s						
TATO	**Taipei**	**21.65**	**242**	P	**P**	**21 49 57.8**	**+1.6**
YHNB	**Yeheng**	**21.92**	**242**	P	**P**	**21 49 58.6**	**-0.6**
YHNB				IAmb	IAmb	21 50 09.8	
	comp=Z,72nm,1.4s						
NACB	**Ninganchiao**	**22.08**	**240**	P	**P**	**21 49 59.5**	**-1.4**
NACB	**Ninganchiao**	**22.08**	**240**	P	**P**	**21 49 59.6**	**-1.4**
	comp=Z,23nm,1.0s						
HNS	**HongShan**	**22.11**	**279**	⇑P	**P**	**21 49 57.8**	**-3.4**
HNS				pmax	pmax		
	comp=Z,85nm,1.1s						
HNS				L	L		
	comp=Z,4µm,15.2s						
HNS				L	L		
	comp=Z,6µm,12.7s						
HNS				L	L		
	comp=Z,9µm,13.8s						
SSLB	**Suanglung**	**22.78**	**240**	P	**P**	**21 50 06.0**	**-2.4**
SSLB	**Suanglung**	**22.78**	**240**	P	**P**	**21 50 06.9**	**-1.6**
	comp=Z,39nm,1.2s						
YULB	**Yu-li**	**22.80**	**239**	P	**P**	**21 50 06.1**	**-2.5**
YULB	**Yu-li**	**22.80**	**239**	P	**P**	**21 50 07.5**	**-1.2**
	comp=Z,44nm,1.1s						
MA2	**Magadan**	**23.11**	**11**	LR	LR	22 00 00.6	
	comp=Z,1µm,18.2s,baz=199,slow=39						
MA2	**Magadan**	**23.11**	**11**	*de*P	**P**	**21 50 12.5**	**+1.0**
MA2				pmax	pmax		
	comp=Z,73nm,1.3s						
MA2	**Magadan**	**23.11**	**11**		**P**	**21 50 09.4**	**-2.0**
MA2				IAmb	IAmb	21 50 29.3	
	comp=Z,72nm,1.1s						
MA2	**Magadan**	**23.11**	**11**	P	**P**	**21 50 10.8**	**-0.7**
	comp=Z,1µmcomp=Z,75nm,1.4s						
MA2	**Magadan**	**23.11**	**11**	P	**P**	**21 50 12.7**	**+1.2**
	comp=Z,67nm,1.4s						
TPUB	**Ta-pu**	**23.32**	**240**	P	**P**	**21 50 11.4**	**-2.5**
TPUB				IAmb	IAmb	21 50 27.0	
	comp=Z,93nm,1.1s						
TPUB	**Ta-pu**	**23.32**	**240**	P	**P**	**21 50 12.7**	**-1.3**
	comp=Z,79nm,1.0s						
TWG	**Pinlang**	**23.34**	**238**	P	**P**	**21 50 12.5**	**-1.5**
TWG				IAmb	IAmb	21 50 31.1	
	comp=Z,88nm,1.2s						
TWG	**Pinlang**	**23.34**	**238**	P	**P**	**21 50 12.3**	**-1.8**
	comp=Z,63nm,1.3s						
GUMO	**Guam**	**23.51**	**174**	LR	LR	21 58 26.5	
	comp=Z,1µm,21.8s,baz=8.5,slow=34						
QZH2	**Quanzhou**	**23.74**	**246**	*e*P	**P**	**21 50 15.4**	**-2.5**
QZH2				S	**S**	**21 54 30.7**	**-0.5**
QZH2				pmax	pmax		
	comp=Z,490nm,8.7s						
QZH2				L	L		
	comp=Z,3µm,18.8s						
QZH2				L	L		
	comp=Z,3µm,17.9s						
QZH2				L	L		
	comp=Z,4µm,14.9s						
TIY	**Taiyuan**	**23.86**	**281**	*e*P	**P**	**21 50 20.1**	**+1.0**
TIY				sP	**sP**	**21 50 34.1**	**+3.1**
TIY				PP	**PnPn**	**21 50 55.4**	**+7.7**
TIY				S	**S**	**21 54 32.4**	**-0.8**
TIY				pmax	pmax		
	comp=Z,45nm,1.2s						
TIY				pmax	pmax		
	comp=Z,410nm,3.7s						
TIY				L	L		
	comp=Z,5µm,17.2s						
TIY				L	L		
	comp=Z,5µm,17.2s						
TIY				L	L		
	comp=Z,7µm,17.9s						
KNMB	**Chin-men Tao**	**24.18**	**245**		**P**	**21 50 19.3**	**-2.8**
KNMB				IAmb	IAmb	21 50 21.6	
	comp=Z,67nm,0.9s						
WHN	**Wuhan**	**24.25**	**263**	P	**P**	**21 50 21.5**	**-1.1**
WHN				pP	**pP**	**21 50 31.3**	**+0.2**
WHN				S	**S**	**21 54 41.5**	**+2.2**
WHN				pmax	pmax		
	comp=Z,230nm,1.2s						
WHN				L	L		
	comp=Z,10µm,11.3s						
WHN				L	L		
	comp=Z,13µm,12.9s						
WHN				L	L		
	comp=Z,18µm,20.2s						
HHC	**Hu-ho-hao-te**	**24.29**	**288**	⇓*i*P	**P**	**21 50 21.6**	**-1.5**
HHC				pP	pP	21 50 29.6	-1.8
HHC				S	**S**	**21 54 33.8**	**-6.2**
HHC				pmax	pmax		
	comp=Z,23nm,1.0s						
HHC				pmax	pmax		
	comp=Z,300nm,6.7s						
HHC				L	L		
	comp=Z,3µm,15.0s						
HHC				L	L		
	comp=Z,4µm,14.9s						
HHC				L	L		
	comp=Z,5µm,15.1s						
LYN	**LuoYang**	**24.45**	**273**	P	**P**	**21 50 21.3**	**-3.2**
LYN				S	**S**	**21 54 37.5**	**-5.1**
LYN				pmax	pmax		
	comp=Z,54nm,1.0s						
LYN				pmax	pmax		
	comp=Z,880nm,6.5s						
LYN				L	L		
	comp=Z,8µm,14.8s						
LYN				L	L		
	comp=Z,6µm,17.5s						
LYN				L	L		
	comp=Z,9µm,17.5s						
CIT	**Chita**	**25.24**	**315**	*e*P	**P**	**21 50 31.2**	**-0.3**
CIT				*e*		21 50 41.2	
CIT				*e*		21 51 06.2	
CIT				*e*		21 51 18.6	
CIT				*e*S	**S**	**21 54 53.0**	**-2.0**
CIT				pmax	pmax		
	comp=Z,447nm,1.4s						
BTO2	**Baotou**	**25.57**	**288**	*e*P	**P**	**21 50 33.5**	**-1.2**
BTO2				pP	**pP**	**21 50 43.3**	**+0.2**
BTO2				PP	sP	21 51 14.7	+28
BTO2				S	**S**	**21 54 59.1**	**-1.5**
BTO2				pmax	pmax		
	comp=Z,63nm,1.2s						
BTO2				pmax	pmax		
	comp=Z,830nm,3.9s						
BTO2				L	L		
	comp=Z,8µm,15.3s						
BTO2				L	L		
	comp=Z,7µm,13.4s						
BTO2				L	L		
	comp=Z,8µm,14.1s						
YAK	**Yakutsk**	**26.20**	**346**	LR	LR	22 02 26.7	
	comp=Z,2µm,18.3s,baz=151,slow=40						
YAK	**Yakutsk**	**26.20**	**346**	*c i*P	**P**	**21 50 39.8**	**-0.2**
YAK				e*PP	**pP**	**21 50 48.1**	**-0.6**
YAK				*e*		21 51 18.2	
YAK				*e*S	**S**	**21 55 13.4**	**+3.6**
YAK				e*SS	sS	21 55 34.3	+10
YAK				*e*SS		21 56 18.1	
YAK				*e*SSS	SSS	21 56 39.8	
YAK				pmax	pmax		
	comp=Z,66nm,0.9s						
YAK				pmax	pmax		
	comp=N,21nm,1.0s						
YAK				pmax	pmax		
	comp=N,280nm,3.5s						
YAK				pmax	pmax		
	comp=Z,324nm,3.5s						
YAK				pmax	pmax		
	comp=E,60nm,1.8s						
YAK				smax	smax		
	comp=E,263nm,4.6s						
YAK				smax	smax		
	comp=N,449nm,4.8s						
YAK				MLR	MLR		
	comp=Z,7µm,15.0s						
YAK				MLR	MLR		
	comp=N,3µm,13.0s						
YAK				MLR	MLR		
	comp=E,2µm,13.0s						
YAK	**Yakutsk**	**26.20**	**346**		**P**	**21 50 39.7**	**-0.2**
YAK	**Yakutsk**	**26.20**	**346**	P	**P**	**21 50 40.2**	**+0.2**
	comp=Z,106nm,1.0s						
CNSH	**ChangSha**	**26.37**	**259**	P	**P**	**21 50 39.7**	**-2.2**
CNSH				S	**S**	**21 55 10.5**	**-2.7**
CNSH				pmax	pmax		
	comp=Z,54nm,1.3s						
CNSH				L	L		
	comp=Z,3µm,15.3s						
CNSH				L	L		
	comp=Z,3µm,16.2s						
CNSH				L	L		
	comp=Z,3µm,19.0s						
SEY	**Seymchan**	**26.56**	**10**	LR	LR	22 02 29.3	
	comp=Z,1µm,18.2s,baz=207,slow=39						
SEY	**Seymchan**	**26.56**	**10**	*ce*P	**P**	**21 50 45.1**	**+1.9**
SEY				pmax	pmax		
	comp=Z,9.0nm,0.3s						
SHEM	**Shemya Is, Ala**	**26.99**	**45**	LR	LR	22 00 05.7	
	comp=Z,948nm,18.8s,baz=246,slow=33						
XAN	**Xi'an**	**27.42**	**274**	P	**P**	**21 50 50.6**	**-0.8**
XAN				pP	pP	21 50 58.8	-1.0
XAN				PP	**PnPn**	**21 51 40.1**	**+3.8**
XAN				S	**S**	**21 55 28.2**	**-1.5**
XAN				SS	**SnSn**	**21 56 44.1**	**+3.7**
XAN				pmax	pmax		
	comp=Z,50nm,1.2s						
XAN				pmax	pmax		
	comp=Z,970nm,5.8s						
XAN				L	L		
	comp=Z,2µm,12.9s						
XAN				L	L		
	comp=Z,5µm,15.1s						
XAN				L	L		
	comp=Z,6µm,14.3s						
H11N2	**WAKE ISLAND Hy**	**27.43**	**122**	T	T	22 19 50.0	
	baz=314,slow=75,SNR=203						
H11N1	**WAKE ISLAND Hy**	**27.44**	**122**	T	T	22 19 50.5	
	baz=314,slow=75,SNR=313						
H11N3	**WAKE ISLAND Hy**	**27.45**	**122**	T	T	22 19 53.1	
	baz=314,slow=75,SNR=224						
ULN	**Ulaanbaatar**	**28.05**	**304**	P	**P**	**21 50 57.6**	**+0.6**
ULN	**Ulaanbaatar**	**28.05**	**304**	*c i*P	**P**	**21 50 57.1**	**+0.1**
ULN				pmax	pmax		
	comp=Z,42nm,1.3s						
ULN	**Ulaanbaatar**	**28.05**	**304**	P	**P**	**21 50 56.3**	**-0.7**
ULN				IAmb	IAmb	21 51 11.0	
	comp=Z,50nm,1.2s						
ULN	**Ulaanbaatar**	**28.05**	**304**	P	**P**	**21 50 56.1**	**-0.9**
	comp=Z,3µmcomp=Z,144nm,1.6s						
ULN	**Ulaanbaatar**	**28.05**	**304**	P	**P**	**21 50 57.6**	**+0.6**
	comp=Z,37nm,1.6s						
ULN				pP	**pP**	**21 51 05.9**	**+0.2**
GZH2	**Guangzhou**	**28.16**	**250**	P	**P**	**21 50 58.8**	**+0.8**
GZH2				pP	**pP**	**21 51 07.3**	**+1.0**
GZH2				S	**S**	**21 55 43.3**	**+1.9**
GZH2				pmax	pmax		
	comp=Z,54nm,0.9s						
GZH2				L	L		
	comp=Z,3µm,17.1s						
GZH2				L	L		
	comp=Z,2µm,17.8s						
GZH2				L	L		
	comp=Z,3µm,16.5s						
H11S1	**WAKE ISLAND Hy**	**28.16**	**125**	T	T	22 20 46.4	
	baz=317,slow=76,SNR=122						
H11S3	**WAKE ISLAND Hy**	**28.16**	**125**	T	T	22 20 44.2	
	baz=317,slow=76,SNR=132						
H11S2	**WAKE ISLAND Hy**	**28.18**	**125**	T	T	22 20 47.6	
	baz=317,slow=76,SNR=89						
ENH	**Enshi**	**28.22**	**266**		**P**	**21 50 57.2**	**-1.4**
ENH	**Enshi**	**28.22**	**266**	P	**P**	**21 50 58.2**	**-0.4**
	comp=Z,213nm,1.0s						
ENH				pP	**pP**	**21 51 06.8**	**-0.3**
SONM	**Songino Array**	**28.48**	**304**	P	**P**	**21 51 00.7**	**-0.1**
	comp=Z,33nm,0.9s,baz=105,slow=8.9,SNR=127						
SONM				PcP	**PcP**	**21 54 13.1**	**+1.0**
	comp=Z,2.1nm,0.9s,baz=108,slow=4.7,SNR=2.7						
SONM				LR	LR	22 02 40.4	
	comp=Z,3µm,19.2s,baz=99,slow=37						
	comp=Z,33nm,0.9s						
SONM	**Songino Array**	**28.48**	**304**	P	**P**	**21 51 01.1**	**+0.3**
SONM				pmax	pmax		
	comp=Z,56nm,0.9s						
SONM	**Songino Array**	**28.48**	**304**	P	**P**	**21 51 01.1**	**+0.3**
SONM				IAmb	IAmb	21 51 11.8	
	comp=Z,56nm,0.9s						
HKPS	**Hong Kong Po S**	**28.61**	**247**	P	**P**	**21 51 00.8**	**-1.1**
HKPS				IAmb	IAmb	21 51 08.1	
	comp=Z,38nm,1.1s						
HKPS	**Hong Kong Po S**	**28.61**	**247**	P	**P**	**21 51 02.8**	**+0.9**
	comp=Z,38nm,1.0s						
GULI	**GuiLin**	**29.78**	**256**	P	**P**	**21 51 11.6**	**-0.8**
GULI				sP	**pP**	**21 51 20.5**	**-0.2**
GULI				S	**S**	**21 56 06.4**	**-0.5**
GULI				pmax	pmax		
	comp=Z,140nm,1.2s						
GULI				L	L		
	comp=Z,3µm,16.0s						
GULI				L	L		
	comp=Z,3µm,16.1s						
GULI				L	L		
	comp=Z,4µm,17.6s						
IRK	**Irkutsk**	**30.71**	**312**	*e*P	**P**	**21 51 20.9**	**+0.6**
IRK				pmax	pmax		
	comp=Z,68nm,2.2s						
ZAK	**Zakamensk**	**30.92**	**308**	*e*P	**P**	**21 51 21.8**	**-0.5**
ZAK				pmax	pmax		
	comp=Z,74nm,1.3s						
LZH	**Lanzhou**	**30.93**	**280**	*e*P	**P**	**21 51 23.0**	**+0.4**
LZH				pP	pP	21 51 30.3	-0.8
LZH				S	**S**	**21 56 25.9**	**+0.9**
LZH				pmax	pmax		
	comp=Z,56nm,1.1s						
LZH				pmax	pmax		
	comp=Z,400nm,4.3s						
LZH				L	L		
	comp=Z,4µm,17.9s						
LZH				L	L		
	comp=Z,8µm,16.3s						
LZH				L	L		
	comp=Z,10µm,17.3s						
LZDM	**Lanzhou Array**	**31.07**	**280**	P	**P**	**21 51 24.1**	**-0.1**
	comp=Z,21nm,0.9s,baz=96,slow=6.1,SNR=9.9						
LZDM				LR	LR	22 04 47.1	
	comp=Z,6µm,18.0s,baz=60,slow=38						
	comp=Z,21nm,0.9s						
GYA	**Guiyang**	**32.11**	**261**	⇑P	**P**	**21 51 31.9**	**-1.1**
GYA				S	**S**	**21 56 43.6**	**+0.1**
GYA				pmax	pmax		
	comp=Z,38nm,0.9s						
GYA				L	L		
	comp=Z,4µm,17.8s						
GYA				L	L		
	comp=Z,3µm,19.3s						
GYA				L	L		
	comp=Z,4µm,22.0s						
CD2	**Chengdu**	**32.56**	**271**	P	**P**	**21 51 36.5**	**-0.4**
CD2				S	**S**	**21 56 49.5**	**-0.9**
CD2				pmax	pmax		
	comp=Z,60nm,1.1s						
CD2				pmax	pmax		
	comp=Z,470nm,5.3s						
CD2				L	L		
	comp=Z,4µm,16.3s						
CD2				L	L		
	comp=Z,9µm,14.3s						
CD2				L	L		
	comp=Z,11µm,15.5s						
MOY	**Mondy**	**32.57**	**310**	*e*P	**P**	**21 51 37.0**	**+0.2**
MOY				pmax	pmax		
	comp=Z,51nm,1.6s						
GSTR	**Great Sitkin T**	**32.58**	**49**	P	**P**	**21 51 36.5**	**-0.3**
PATS	**Pohnpei**	**33.39**	**151**	P	**P**	**21 51 45.2**	**+1.1**
GTA2	**Gaotai**	**33.42**	**287**	P	**P**	**21 51 45.6**	**+1.2**
GTA2				PP	**PP**	**21 53 00.5**	**+0.3**
GTA2				S	**S**	**21 57 07.4**	**+3.7**
GTA2				pmax	pmax		
	comp=Z,29nm,1.2s						
GTA2				pmax	pmax		
	comp=Z,450nm,8.9s						
GTA2				L	L		
	comp=Z,2µm,17.5s						
GTA2				L	L		
	comp=Z,3µm,19.4s						
GTA2				L	L		
	comp=Z,4µm,21.6s						
DAV	**Davao City (W)**	**33.65**	**211**	LR	LR	22 05 29.1	
	comp=Z,1µm,19.8s,baz=54,slow=36						
BILL	**Bilibino**	**33.71**	**16**	*ce*P	**P**	**21 51 47.1**	**+0.6**
BILL				pmax	pmax		
	comp=Z,14nm,1.0s						
BILL	**Bilibino**	**33.71**	**16**	P	**P**	**21 51 47.0**	**+0.6**
BILL				IAmb	IAmb	21 51 48.6	
	comp=Z,28nm,1.2s						
QIZ	**Qiongzhong**	**33.77**	**247**	P	**P**	**21 51 48.6**	**+1.1**
QIZ				pP	**pwP**	**21 51 58.2**	**-0.8**
QIZ				S	**S**	**21 57 11.5**	**+2.3**
QIZ				pmax	pmax		
	comp=Z,32nm,1.3s						
QIZ				pmax	pmax		
	comp=Z,320nm,3.9s						
QIZ				L	L		
	comp=Z,2µm,17.1s						
QIZ				L	L		
	comp=Z,1µm,16.4s						
QIZ				L	L		
	comp=Z,2µm,16.8s						
KMI2	**Kunming**	**35.83**	**262**	⇑P	**P**	**21 52 05.2**	**-0.3**
KMI2				pP	pP	21 52 14.5	+0.4
KMI2				S	**S**	**21 57 38.1**	**-3.2**
KMI2				SS	**SnSn**	**21 59 57.5**	**-7.9**
KMI2				pmax	pmax		
	comp=Z,56nm,1.5s						
KMI2				pmax	pmax		
	comp=Z,520nm,5.7s						
KMI2				L	L		
	comp=Z,3µm,16.2s						
KMI2				L	L		
	comp=Z,4µm,19.3s						
KMI2				L	L		
	comp=Z,4µm,20.9s						
KMI	**Kunming**	**35.85**	**262**	P	**P**	**21 52 05.3**	**-0.3**
PZH	**PanZhiHua**	**35.99**	**265**	P	**P**	**21 52 06.3**	**-0.4**
PZH				pP	**pP**	**21 52 14.6**	**-0.8**
PZH				S	**S**	**21 57 39.0**	**-4.6**
PZH				sS	**sS**	**21 57 58.2**	**+0.4**
PZH				SS	**SS**	**22 00 08.8**	**-12**
PZH				pmax	pmax		
	comp=Z,30nm,1.2s						
PZH				L	L		
	comp=Z,3µm,14.7s						
PZH				L	L		
	comp=Z,3µm,17.7s						
PZH				L	L		
	comp=Z,5µm,16.5s						
SLVN	**Son La**	**36.90**	**256**		**P**	**21 52 14.8**	**+0.3**
SLVN				IAmb	IAmb	21 52 17.4	
	comp=Z,25nm,1.1s						
SLVN	**Son La**	**36.90**	**256**	P	**P**	**21 52 14.9**	**+0.3**
	comp=Z,22nm,1.1s						
SLVN				pP	**pP**	**21 52 23.8**	**+0.8**
GOMU	**GeErMu**	**37.97**	**283**	P	**P**	**21 52 23.5**	**-0.2**
GOMU				pP	pP	21 52 26.7	-5.6
GOMU				sP	pwP	21 52 31.2	-3.8
GOMU				pmax	pmax		

	comp=Z,47nm,1.3s						
GOMU				L	L		
	comp=Z,1µm,14.0s						
GOMU				L	L		
	comp=Z,2µm,14.0s						
GOMU				L	L		
	comp=Z,3µm,14.0s						
TNCH	TengChong	39.25	265	P	P	21 52 34.5	+0.1
TNCH				pP	pwP	21 52 44.3	-1.0
TNCH				sP	sP	21 52 50.3	+3.7
TNCH				PP	PnPn	21 54 09.4	+2.0
TNCH				S	S	21 58 28.3	-4.8
TNCH				sS	sS	21 58 49.3	+1.9
TNCH				pmax	pmax		
	comp=Z,46nm,1.2s						
TNCH				pmax	pmax		
	comp=Z,450nm,3.2s						
TNCH				L	L		
	comp=Z,2µm,16.3s						
TNCH				L	L		
	comp=Z,1µm,15.9s						
TNCH				L	L		
	comp=Z,3µm,16.5s						
DLV	Lat	39.48	239	P	P	21 52 36.9	+0.6
DLV	Lat	39.48	239	P	P	21 52 37.6	+1.2
	comp=Z,79nm,1.1s						
DLV				pP	pP	21 52 45.3	+0.4
GTOI	Gorontalo	40.52	211	P	P	21 52 46.8	+2.0
	comp=Z,58nm,1.0s						
TOLI2	Tolitoli	41.06	214	P	P	21 52 48.6	-0.6
TOLI2	Tolitoli	41.06	214	P	P	21 52 51.3	+2.1
	comp=Z,22nm,1.2s						
TOLI2				pP	sP	21 53 00.2	-0.9
WMQ	Urumqi	41.60	297	⇑P	P	21 52 54.4	+0.9
WMQ				pP	sP	21 53 04.1	-1.5
WMQ				PP	PnPn	21 54 37.8	+3.1
WMQ				S	S	21 59 10.3	+2.7
WMQ				pmax	pmax		
	comp=Z,14nm,0.9s						
WMQ				pmax	pmax		
	comp=Z,610nm,4.7s						
WMQ				L	L		
	comp=Z,2µm,17.7s						
WMQ				L	L		
	comp=Z,2µm,19.3s						
WMQ				L	L		
	comp=Z,2µm,21.9s						
WMQ	Urumqi	41.60	297	P	P	21 52 54.6	+1.1
M14K	Bethel	41.79	37	P	P	21 52 55.4	+0.7
M14K				IAmb	IAmb	21 53 04.0	
	comp=Z,83nm,1.8s						
KRVT	Keravat (AS076	42.14	166	LR	LR	22 07 23.8	
	comp=Z,423nm,21.3s,baz=146,slow=32						
CHTO	Chiang Mai	42.17	257	P	P	21 52 58.9	+0.5
CHTO				S	S	21 59 04.8	-12
CHTO	Chiang Mai	42.17	257	P	P	21 52 58.3	0.0
CHTO				pmax	pmax		
	comp=Z,24nm,1.2s						
CHTO	Chiang Mai	42.17	257	P	P	21 52 58.3	0.0
CHTO	Chiang Mai	42.17	257	P	P	21 52 58.8	+0.5
CHTO	Chiang Mai	42.17	257	P	P	21 52 58.7	+0.4
	comp=Z,19nm,2.1s						
CHTO				pP	pP	21 53 07.7	+0.8
CHTO	Chiang Mai	42.17	257	P	P	21 52 58.3	0.0
CHTO				pP	pP	21 53 08.2	+1.3
CM31	Chiang Mai Arr	42.37	256	P	P	21 53 01.1	+1.2
	SNR=5.9						
CM31	Chiang Mai Arr	42.37	256	P	P	21 53 00.8	+0.8
CMAR	Chiang Mai Arr	42.37	256	P	P	21 52 60.0	0.0
	comp=Z,5.2nm,0.9s,baz=48,slow=5.7,SNR=26						
CMAR				PcP	PcP	21 54 54.0	+1.0
	comp=Z,0.8nm,0.3s,baz=7.9,slow=2.2,SNR=1.7						
CMAR				LR	LR	22 12 29.5	
	comp=Z,3µm,18.8s,baz=55,slow=39						
	comp=Z,5.2nm,0.9s						
CMAR	Chiang Mai Arr	42.37	256	*i* P	P	21 53 00.5	+0.5
CMAR				pmax	pmax		
	comp=Z,6.0nm,0.9s						
CMAR	Chiang Mai Arr	42.37	256		P	21 52 59.5	-0.5
ZAA0	Zalesovo Array	42.52	312	P	P	21 53 00.3	-0.4
ZALV	Zalesovo Beam	42.52	312	P	P	21 53 01.0	+0.3
	comp=Z,51nm,1.0s,baz=89,slow=6.2,SNR=126						
ZALV				PcP	PcP	21 54 53.5	+0.6
	comp=Z,16nm,1.0s,baz=84,slow=2.8,SNR=3.7						
ZALV				ScP	ScP	21 58 42.7	+1.4
	comp=Z,3.1nm,1.0s,baz=93,slow=3.0,SNR=5.8						
ZALV				LR	LR	22 11 18.4	
	comp=Z,3µm,18.7s,baz=81,slow=37						
	comp=Z,51nm,1.0s						
ZALV	Zalesovo Beam	42.52	312	*i* P	P	21 53 01.0	+0.3
ZALV				pmax	pmax		
	comp=Z,50nm,1.0s						
ZALV	Zalesovo Beam	42.52	312		P	21 53 00.6	-0.2
ZALV					PcP	21 54 52.8	-0.1
ZALV					ScP	21 58 42.3	+1.0
N15K	Kwethluk River	42.64	38	P	P	21 53 02.6	+1.0
N15K				IAmb	IAmb	21 53 23.1	
	comp=Z,76nm,1.8s						
MORE	Moreh	42.99	267	P	P	21 53 04.3	-0.7
ZSN	Zaisan	42.99	303	*c i*P	P	21 53 04.8	+0.1
ZSN				pmax	pmax		
	comp=Z,56nm,1.6s						
ZSN	Zaisan	42.99	303	⇑*i*P	P	21 53 04.8	+0.1
	comp=Z,56nm,1.6s						
LSA	Lhasa	43.08	276	P	P	21 53 06.0	-0.2
LSA				pmax	pmax		
	comp=Z,60nm,1.2s						
LSA	Lhasa	43.08	276		P	21 53 06.0	-0.2
LSA				IAmb	IAmb	21 53 19.5	
	comp=Z,60nm,1.2s						
LSA	Lhasa	43.08	276	P	P	21 53 06.1	-0.2
LSA	Lhasa	43.08	276	P	P	21 53 07.5	+1.2
	comp=Z,45nm,1.3s						
LSA	Lhasa	43.08	276	P	P	21 53 07.2	+1.0
LSA				pP	pwP	21 53 17.7	+0.3
L16K	Owhat River	43.12	36		P	21 53 05.3	-0.2
M16K	Timber Creek	43.28	37	P	P	21 53 06.7	-0.2
J17K	VABM Dome	43.53	34	P	P	21 53 08.9	0.0
J17K				IAmb	IAmb	21 53 36.5	
	comp=Z,29nm,1.2s						
O16K	Kokwok River B	43.59	39	P	P	21 53 08.3	-1.1
O16K				IAmb	IAmb	21 53 18.5	
	comp=Z,42nm,1.6s						
P16K	Nushagak River	43.61	40	P	P	21 53 08.7	-0.8
P16K				IAmb	IAmb	21 53 20.2	
	comp=Z,50nm,1.0s						
K17K	Iditarod	43.79	35	P	P	21 53 10.4	-0.5
C18K	Utukok River	43.82	26		P	21 53 10.8	-0.4
C18K				IAmb	IAmb	21 53 41.6	
	comp=Z,23nm,0.9s						
M17K	Holitna River	44.05	37		P	21 53 12.6	-0.4
N17K	Nushagak Hills	44.11	38		P	21 53 12.8	-0.7
N17K				IAmb	IAmb	21 53 23.0	
	comp=Z,50nm,1.6s						
H18K	Honhosa River	44.12	31	P	P	21 53 14.5	+0.9
G18K	Tagagawik	44.14	30	P	P	21 53 13.8	+0.1
SHL	Shillong	44.29	270	P	P	21 53 15.4	-0.3
	SNR=12						
SHL	Shillong	44.29	270	P	P	21 53 15.0	-0.6
SHL				pmax	pmax		
	comp=Z,32nm,0.9s						
SHL	Shillong	44.29	270	P	P	21 53 15.0	-0.6
SHL				IAmb	IAmb	21 53 30.6	
	comp=Z,32nm,0.9s						
P17K	Kvichak River	44.42	40	P	P	21 53 16.3	+0.4
P17K				IAmb	IAmb	21 53 44.4	
	comp=Z,31nm,1.1s						
L18K	Granite Mounta	44.48	36	P	P	21 53 17.2	+0.8
L18K				IAmb	IAmb	21 53 26.2	
	comp=Z,38nm,1.6s						
C19K	Lookout Ridge	44.51	26	P	P	21 53 17.6	+0.9
C19K				IAmb	IAmb	21 53 41.6	
	comp=Z,29nm,1.0s						
J18K	Innoko River	44.59	34	P	P	21 53 17.1	-0.3
N18K	Kilae Creek	44.75	38	P	P	21 53 18.0	-0.7
N18K				IAmb	IAmb	21 53 28.3	
	comp=Z,41nm,1.5s						
G19K	Purcell Mounta	44.81	30	P	P	21 53 18.4	-0.6
MK31	Makanchi Array	44.83	302	*c i*P	P	21 53 19.6	+0.1
MKAR	Makanchi Array	44.83	302	P	P	21 53 19.7	+0.2
	comp=Z,16nm,0.8s,baz=86,slow=9.3,SNR=98						
MKAR				LR	LR	22 13 12.0	
	comp=Z,2µm,18.1s,baz=70,slow=38						
	comp=Z,16nm,0.8s						
MKAR	Makanchi Array	44.83	302		P	21 53 19.1	-0.4
D19K	Kuna River	44.88	27	P	P	21 53 20.1	+0.5
D19K				IAmb	IAmb	21 53 42.3	
	comp=Z,22nm,0.9s						
E19K	Redstone River	44.99	28	P	P	21 53 21.0	+0.5
E19K				IAmb	IAmb	21 53 44.3	
	comp=Z,17nm,1.0s						
MAKZ	Makanchi	45.04	302	P	P	21 53 20.7	-0.5
MAKZ				pmax	pmax		
	comp=Z,71nm,1.1s						
MAKZ	Makanchi	45.04	302		P	21 53 20.7	-0.5
MAKZ	Makanchi	45.04	302	P	P	21 53 21.6	+0.4
	comp=Z,66nm,1.1s						
MAKZ				pP	pP	21 53 30.2	+0.1
MAKZ	Makanchi	45.04	302	P	P	21 53 21.6	+0.4
MAKZ				pP	pP	21 53 30.9	+0.8
J19K	Poorman	45.14	33	P	P	21 53 22.7	+1.0
L19K	White Mountain	45.34	36	P	P	21 53 22.9	-0.4
F20K	Avaraart Lake	45.49	29	P	P	21 53 24.6	+0.2
B20K	Meade River	45.56	25	P	P	21 53 25.2	+0.3
B20K				IAmb	IAmb	21 53 47.9	
	comp=Z,29nm,0.9s						
SEM	Semipalatinsk	45.60	308	*e*P	P	21 53 25.4	-0.4
SEM				pmax	pmax		
	comp=Z,29nm,1.1s						
SEM				MLR	MLR		
	comp=Z,2µm,15.0s						
SEM	Semipalatinsk	45.60	308	*e*P	P	21 53 25.4	-0.4
	comp=Z,29nm,1.1s						
SEM				LR	LR	22 12 47.2	
	comp=Z,2µm,15.3s						
I20K	Naaghedeneel	45.71	32	P	P	21 53 27.2	+1.0
I20K				IAmb	IAmb	21 54 31.8	
	comp=Z,38nm,1.3s						
K20K	Telida	45.77	34	P	P	21 53 26.2	-0.5
K20K				IAmb	IAmb	21 53 36.1	
	comp=Z,33nm,1.6s						
J20K	Nowinta River	45.80	33	P	P	21 53 26.5	-0.4
J20K				IAmb	IAmb	21 53 36.1	
	comp=Z,45nm,1.8s						
BRDH	Bariadhala	45.88	267	LR	LR	22 15 32.0	
	comp=Z,4µm,18.5s,baz=74,slow=40						
M20K	Styx River	46.13	36	P	P	21 53 29.7	0.0
IMAR	Indian Mountai	46.14	31	P	P	21 53 29.6	+0.1
G21K	Allakaket	46.30	30	P	P	21 53 30.6	-0.1
F21K	Alatna River	46.39	29	P	P	21 53 31.4	-0.1
KDAK	Kodiak Island	46.45	42	LR	LR	22 12 48.6	
	comp=Z,639nm,21.2s,baz=240,slow=36						
KDAK	Kodiak Island	46.45	42	P	P	21 53 31.6	-0.5
KDAK				pmax	pmax		
	comp=Z,89nm,1.8s						
KDAK	Kodiak Island	46.45	42	P	P	21 53 31.6	-0.5
PMG	Port Moresby	46.47	174	LR	LR	22 11 13.9	
	comp=Z,240nm,21.3s,baz=340,slow=34						
PMG	Port Moresby	46.47	174	P	P	21 53 30.7	-1.9
PMG				pmax	pmax		
	comp=Z,41nm,1.2s						
PMG	Port Moresby	46.47	174		P	21 53 30.7	-1.9
H21K	Melozitna Rive	46.49	31	P	P	21 53 32.4	0.0
KURK	Kurchatov	46.58	308	P	P	21 53 33.6	+0.4
KURK	Kurchatov	46.58	308	*c i*P	P	21 53 33.3	+0.1
KURK				pmax	pmax		
	comp=Z,94nm,1.0s						
KURK	Kurchatov	46.58	308		P	21 53 32.5	-0.7
KURK	Kurchatov	46.58	308	P	P	21 53 33.5	+0.2
	comp=Z,151nm,1.0s						
KURK				pP	pP	21 53 42.2	0.0
KURK	Kurchatov	46.58	308	P	P	21 53 33.4	+0.2
KURK				pP	pP	21 53 42.6	+0.4
PPLA	Purkeypile	46.60	35	P	P	21 53 33.0	-0.4
PPLA				IAmb	IAmb	21 54 39.3	
	comp=Z,48nm,1.5s						
KURBB	Kurchatov Arra	46.66	308	P	P	21 53 33.9	+0.1
	comp=Z,32nm,0.7s,baz=82,slow=8.1,SNR=199						
KURBB				LR	LR	22 13 50.3	
	comp=Z,4µm,18.5s,baz=86,slow=37						
	comp=Z,32nm,0.7s						
CAST	Castle Rocks	46.67	34	P	P	21 53 33.6	-0.1
CAST				IAmb	IAmb	21 53 43.3	
	comp=Z,46nm,1.9s						
STKI	Sintang	46.71	225	P	P	21 53 36.4	+1.8
	comp=Z,67nm,1.0s						
STLK	Strandline Lak	46.75	37	P	P	21 53 32.9	-1.5
STLK				IAmb	IAmb	21 53 43.5	
	comp=Z,30nm,1.7s						
I21K	Tanana	46.80	32	P	P	21 53 32.5	-2.2
I21K				IAmb	IAmb	21 54 48.8	
	comp=Z,34nm,1.8s						
SKT	Skwentna	46.89	36	P	P	21 53 35.9	+0.4
D22K	Ayikyak River	46.90	27	P	P	21 53 35.1	-0.4
D22K				IAmb	IAmb	21 54 11.5	
	comp=Z,32nm,1.4s						
KAPI	Kappang	46.98	212	S	S	22 00 26.2	0.0
KAPI	Kappang	46.98	212	*de*P	P	21 53 38.0	+1.3
KAPI				pmax	pmax		
	comp=Z,30nm,1.1s						
KAPI	Kappang	46.98	212	P	P	21 53 37.2	+0.5
KAPI	Kappang	46.98	212	P	P	21 53 37.7	+1.0
	comp=Z,20nm,1.3s						
KAPI	Kappang	46.98	212	P	P	21 53 38.9	+2.3
	comp=Z,38nm,1.3s						
H22K	Ishtalitna Cre	47.10	31	P	P	21 53 37.2	+0.1
H22K				IAmb	IAmb	21 54 15.5	
	comp=Z,31nm,1.9s						
KTH	Kantishna Hill	47.19	34	P	P	21 53 36.6	-1.3
KTH				IAmb	IAmb	21 54 15.3	
	comp=Z,22nm,1.2s						
EVN	Everest	47.26	276	P	P	21 53 39.6	0.0
EVN	Everest	47.26	276	P	P	21 53 40.5	+0.9
	comp=Z,48nm,1.1s						
EVN				pP	pP	21 53 49.3	+0.9
MLY	Manley	47.32	32	P	P	21 53 39.8	+1.0
PDGK	Podgornoye	47.52	298	P	P	21 53 40.0	-0.9
PDGK	Podgornoye	47.52	298	P	P	21 53 40.0	-0.9
M22K	Willow	47.56	37	P	P	21 53 41.3	+0.6
M22K				IAmb	IAmb	21 53 47.9	
	comp=Z,25nm,1.0s						
SHLS	Shalkode	47.59	298	*c i*P	P	21 53 38.9	-2.4
SHLS				pmax	pmax		
	comp=Z,24nm,1.4s						
SHLS	Shalkode	47.59	298	⇑*i*P	P	21 53 39.0	-2.4
	comp=Z,24nm,1.4s						
D23K	Nanushuk River	47.63	27	P	P	21 53 41.2	+0.1
C23K	Itkillik River	47.75	26	P	P	21 53 42.1	+0.1
BWN	Browne	47.85	33	P	P	21 53 42.8	-0.1
TDK	Taldyqorghan	47.86	301	*e*P	P	21 53 43.4	+0.1
TDK				pmax	pmax		
	comp=Z,17nm,0.8s						
TDK				MLR	MLR		
	comp=Z,1µm,16.0s						
TDK	Taldyqorghan	47.86	301	*e*P	P	21 53 43.5	+0.1
	comp=Z,17nm,0.8s						
TDK				LR	LR	22 14 13.4	
	comp=Z,1µm,15.7s						
UZB	Uzynbulak	47.90	298	*e*P	P	21 53 43.7	-0.1
UZB				pmax	pmax		
	comp=Z,21nm,1.6s						
UZB	Uzynbulak	47.90	298	*e*P	P	21 53 43.8	-0.1
	comp=Z,21nm,1.6s						
I23K	Minto, Yukon-K	47.91	32	P	P	21 53 43.9	+0.6
I23K				IAmb	IAmb	21 55 20.3	
	comp=Z,18nm,1.3s						
E23K	Chandalar	47.94	28	P	P	21 53 44.0	+0.4
E23K				IAmb	IAmb	21 53 47.4	
	comp=Z,13nm,1.0s						
NEA2	Nenana	48.02	33	P	P	21 53 45.7	+1.5
NEA2				IAmb	IAmb	21 53 53.2	
	comp=Z,27nm,1.4s						
PMR	Palmer	48.04	37	P	P	21 53 43.9	-0.5
PMR				pmax	pmax		
	comp=Z,51nm,1.7s						
PMR	Palmer	48.04	37	P	P	21 53 43.9	-0.5
KPKS	Kokpek	48.05	299	*e*P	P	21 53 45.1	+0.2
KPKS	Kokpek	48.05	299	*e*P	P	21 53 45.1	+0.2
MCK	McKinley	48.08	34	P	P	21 53 44.3	-0.4
MCK				pmax	pmax		
	comp=Z,43nm,1.8s						
MCK	McKinley	48.08	34	P	P	21 53 44.3	-0.4
MCK				IAmb	IAmb	21 55 03.1	
	comp=Z,43nm,1.8s						
RND	Reindeer	48.12	34	P	P	21 53 45.6	+0.5
RND				pmax	pmax		
	comp=Z,13nm,1.0s						
RND	Reindeer	48.12	34	P	P	21 53 45.5	+0.5
RND				IAmb	IAmb	21 53 47.6	
	comp=Z,13nm,1.0s						
GHO	Glory Hole Cre	48.13	36	P	P	21 53 43.9	-1.3
WUS	Wushi	48.30	295		P	21 53 46.8	-0.1
WUS	Wushi	48.30	295	P	P	21 53 48.0	+1.0
	comp=Z,75nm,1.3s						
WUS				pP	pP	21 53 56.1	+0.5
WUS	Wushi	48.30	295	P	P	21 53 47.7	+0.8
WUS				pP	pwP	21 53 57.5	-1.0
SATY	Saty	48.36	298	*c i*P	P	21 53 47.3	0.0
SATY				pmax	pmax		
	comp=Z,29nm,1.5s						
SATY	Saty	48.36	298	⇑*i*P	P	21 53 47.3	0.0
	comp=Z,29nm,1.5s						
E24K	Your Creek	48.37	28	P	P	21 53 47.3	+0.4
KNK	Knik Glacier	48.37	37	P	P	21 53 46.7	-0.3
KNK				IAmb	IAmb	21 54 17.6	
	comp=Z,15nm,1.0s						
C24K	Franklin Bluff	48.40	26	P	P	21 53 47.7	+0.6
C24K				IAmb	IAmb	21 54 07.8	
	comp=Z,31nm,1.1s						
SML	Sawmill	48.41	36	P	P	21 53 47.0	-0.3
SML				pmax	pmax		
	comp=Z,35nm,1.3s						
SML	Sawmill	48.41	36	P	P	21 53 47.0	-0.3
SML				IAmb	IAmb	21 54 35.7	
	comp=Z,34nm,1.3s						
WRH	Wood River Hil	48.45	33	P	P	21 53 47.4	-0.1
H24K	Noodor Dome	48.53	31	P	P	21 53 48.4	+0.1
H24K				IAmb	IAmb	21 54 04.6	
	comp=Z,14nm,1.1s						
COLA	College	48.55	32	P	P	21 53 48.6	+0.4
COLA				pmax	pmax		
	comp=Z,42nm,0.3s						
COLA	College	48.55	32	P	P	21 53 48.5	+0.4
COLA	College	48.55	32	P	P	21 53 50.3	+2.1
	comp=Z,16nm,1.0s						
CCB	Clear Creek Bu	48.57	33	P	P	21 53 47.1	-1.3
G24K	Hadweenzic Riv	48.71	30	P	P	21 53 49.6	0.0
G24K				IAmb	IAmb	21 54 25.5	
	comp=Z,17nm,1.2s						
HDA	Harding Lake	48.94	33	P	P	21 53 51.0	-0.4
IL31		48.96	32		P	21 53 51.1	-0.3
ILAR	Eielson Array	48.96	32	P	P	21 53 52.6	+1.1
	comp=Z,6.0nm,0.9s,baz=269,slow=6.3,SNR=30						
ILAR				LR	LR	22 16 28.0	
	comp=Z,387nm,19.3s,baz=254,slow=38						
	comp=Z,6.0nm,0.9s						
ILAR	Eielson Array	48.96	32	P	P	21 53 51.1	-0.4
HNR	Honiara	49.10	157	LR	LR	22 14 04.7	
	comp=Z,1µm,19.8s,baz=52,slow=35						
TARG	Taragay, Kyrgy	49.16	297	P	P	21 53 55.0	+1.2
	comp=Z,37nm,0.9s						
TARG				pP	pP	21 54 03.8	+1.2
D25K	Kavik River	49.19	26	P	P	21 53 53.1	-0.1
MDOK	Medeo	49.28	299	*e*P	P	21 53 54.4	0.0
MDOK	Medeo	49.28	299	*e*P	P	21 53 54.5	0.0
MDOK				LR	LR	22 15 09.2	
MMRI	Maumere	49.32	207	P	P	21 53 55.0	+0.3
TNSS	Tian-Shan	49.39	298	*e*P	P	21 53 55.4	-0.2
TNSS	Tian-Shan	49.39	298	*e*P	P	21 53 55.4	-0.2
F25K	Christian Rive	49.43	29	P	P	21 53 55.6	+0.5
E25K	Arctic Village	49.46	28	P	P	21 53 55.1	-0.1
E25K				IAmb	IAmb	21 55 00.3	
	comp=Z,35nm,1.9s						
KDJ	Kajisay	49.49	297	P	P	21 53 54.5	-1.6
KDJ				pmax	pmax		
	comp=Z,32nm,1.1s						
KDJ	Kajisay	49.49	297	P	P	21 53 54.5	-1.6
PRP	Porcupine Dome	49.51	31	P	P	21 53 56.2	+0.3
KLU	Klutina	49.58	37	P	P	21 53 56.0	-0.3
KLU				IAmb	IAmb	21 54 18.0	
	comp=Z,32nm,1.4s						
FYU	Fort Yukon	49.60	30	P	P	21 53 55.5	-0.8
SOEI	Soe	49.66	204	P	P	21 53 57.3	-0.2
SOEI	Soe	49.66	204	P	P	21 53 58.5	+1.0
	comp=Z,65nm,1.0s						
BMAR	Burnt Mountain	49.84	29		P	21 53 58.7	+0.5
HARP	HAARP	49.86	35	P	P	21 53 58.7	+0.3
HARP				IAmb	IAmb	21 54 38.4	
	comp=Z,26nm,1.0s						
RIDG	Independent Ri	49.90	34	P	P	21 53 59.1	+0.4
RIDG				IAmb	IAmb	21 55 40.0	
	comp=Z,28nm,1.6s						
F26K	Sheenjek River	50.00	29	P	P	21 54 00.2	+0.8
F26K				IAmb	IAmb	21 54 03.8	
	comp=Z,12nm,0.9s						
C27K	Jago River	50.14	26	P	P	21 54 00.7	+0.3
G26K	Porcupine Rive	50.17	29	P	P	21 54 00.9	+0.3
G26K				IAmb	IAmb	21 54 10.5	
	comp=Z,22nm,1.4s						
SCRK	Sand Creek	50.26	33	P	P	21 54 01.4	-0.1
BOOM	Boomskoye usch	50.26	298	P	P	21 54 01.9	0.0
BOOM				pmax	pmax		
	comp=Z,65nm,1.3s						
BOOM	Boomskoye usch	50.26	298	P	P	21 54 01.9	0.0
BOOM	Boomskoye usch	50.26	298	P	P	21 54 02.9	+1.0
	comp=Z,40nm,1.0s						
BMRM	Bremner River	50.27	37	P	P	21 54 01.5	-0.1
BMRM				IAmb	IAmb	21 54 11.3	
	comp=Z,35nm,1.3s						
ASAI	AK-SAY(Kyrgyzs	50.33	296	P	P	21 54 03.7	+1.1
	comp=Z,30nm,1.2s						
ASAI				pP	pP	21 54 12.3	+0.9
TKM2	Tokmak 2	50.37	299	P	P	21 54 03.8	+1.0
	SNR=30						
MENT	Mentasta	50.47	35	P	P	21 54 02.7	-0.3
NRN	Naryn	50.54	297	P	P	21 54 04.0	-0.3
NRN				pmax	pmax		
	comp=Z,32nm,1.4s						
NRN	Naryn	50.54	297	P	P	21 54 04.0	-0.3
NRN				IAmb	IAmb	21 54 23.6	
	comp=Z,32nm,1.4s						
L26K	Log Cabin Wild	50.63	35	P	P	21 54 04.9	+0.7
L26K				IAmb	IAmb	21 54 26.4	
	comp=Z,20nm,1.1s						
VRDI	Verde Repeater	50.79	37	P	P	21 54 04.9	-0.8
VRDI				IAmb	IAmb	21 54 25.4	
	comp=Z,35nm,1.5s						
COEN	Coen	50.79	179	P	P	21 54 05.0	-0.9
COEN				IAmb	IAmb	21 54 10.7	
	comp=Z,17nm,0.9s						
MTN	Manton Dam	50.83	194	P	P	21 54 16.5	+10
	comp=Z,6.6nm,1.4s						
MTN	Manton Dam	50.83	194	P	P	21 54 06.3	+0.2
MTN				IAmb	IAmb	21 55 35.2	
	comp=Z,12nm,0.4s						
M26K	Nabesna, AK	50.86	35	P	P	21 54 05.7	-0.3
M26K				IAmb	IAmb	21 54 15.4	
	comp=Z,26nm,1.4s						
SGDS	Sogindy	50.89	300	⇑*i*P	P	21 54 06.7	+0.1
KBK	Karagaybulak	50.91	299	P	P	21 54 07.7	+0.9
	SNR=20						
CHMS	Chumysh	50.94	299	P	P	21 54 07.2	+0.3
	SNR=7.7						
E27K	Coleen River	50.95	28		P	21 54 06.0	-0.5
E27K				IAmb	IAmb	21 54 54.5	
	comp=Z,27nm,1.6s						
CRQM	Cirque	51.00	37	P	P	21 54 07.9	+0.6
CRQM				IAmb	IAmb	21 54 43.6	
	comp=Z,26nm,1.0s						
USP	Ospenovka	51.04	299	P	P	21 54 07.9	+0.3
	SNR=11						
FRU1	Bishkek	51.09	299	P	P	21 54 08.1	+0.1
FRU1				pmax	pmax		
	comp=Z,59nm,1.0s						
FRU1	Bishkek	51.09	299	P	P	21 54 08.1	+0.1
H27K	Steamboat Moun	51.11	30		P	21 54 06.6	-1.2
H27K				IAmb	IAmb	21 54 17.7	
	comp=Z,40nm,1.6s						
D27M	Malcolm River	51.12	26	P	P	21 54 06.5	-1.4
I27K	Kandik River	51.13	31	P	P	21 54 07.7	-0.3
TGL	Tana Glacier	51.15	37	P	P	21 54 07.8	-0.5
TGL				IAmb	IAmb	21 54 42.9	
	comp=Z,24nm,1.1s						
BVAR	Borovoye Array	51.18	312	P	P	21 54 08.8	+0.3
	comp=Z,18nm,0.9s,baz=75,slow=6.9,SNR=52						
BVAR				PcP	PcP	21 55 23.9	+0.4
	comp=Z,9.9nm,0.9s,baz=105,slow=3.4,SNR=4.9						
	comp=Z,18nm,0.9s						
BORK	Borovoye	51.22	312	*c i*P	P	21 54 08.8	+0.1
BORK				pmax	pmax		
	comp=Z,21nm,1.0s						
BORK	Borovoye	51.22	312		P	21 54 07.6	-1.2
BORK				IAmb	IAmb	21 54 19.4	
	comp=Z,30nm,1.1s						
AAK	Ala-Archa	51.23	299	LR	LR	22 17 21.5	

	comp=Z,5µm,18.5s,baz=80,slow=38						
AAK	**Ala-Archa**	**51.23**	**299**	P	**P**	**21 54 10.3**	**+1.1**
AAK	**Ala-Archa**	**51.23**	**299**	*ce*P	**P**	**21 54 09.5**	**+0.3**
AAK				pmax	pmax		
	comp=Z,11nm,0.8s						
AAK	**Ala-Archa**	**51.23**	**299**		**P**	**21 54 08.3**	**-0.9**
AAK				IAmb	IAmb	21 54 22.9	
	comp=Z,18nm,1.0s						
AAK	**Ala-Archa**	**51.23**	**299**	P	**P**	**21 54 08.4**	**-0.9**
AAK	**Ala-Archa**	**51.23**	**299**	P	**P**	**21 54 09.8**	**+0.5**
	comp=Z,19nm,0.9s						
AAK	**Ala-Archa**	**51.23**	**299**	P	**P**	**21 54 09.6**	**+0.3**
AAK				pP	**pwP**	**21 54 19.7**	**-1.2**
L27K	**Beaver Creek,**	**51.32**	**34**	P	**P**	**21 54 10.6**	**+1.2**
L27K				IAmb	IAmb	21 54 18.7	
	comp=Z,19nm,1.3s						
BCAR	**Beaver Creek A**	**51.33**	**34**		**P**	**21 54 10.3**	**+0.8**
M27K	**Edge Creek, AK**	**51.38**	**35**	P	**P**	**21 54 11.7**	**+1.7**
KSH2	**Kashi**	**51.61**	**294**	P	**P**	**21 54 13.0**	**+0.9**
KSH2				pP	pP	21 54 21.3	+0.4
KSH2				sP	sP	21 54 25.5	+1.1
KSH2				S	**S**	**22 01 33.2**	**+2.1**
KSH2				pmax	pmax		
	comp=Z,18nm,1.2s						
KSH2				pmax	pmax		
	comp=Z,420nm,7.2s						
KSH2				L	L		
	comp=Z,4µm,16.2s						
KSH2				L	L		
	comp=Z,4µm,16.5s						
KSH2				L	L		
	comp=Z,8µm,16.1s						
F28M	**Old Crow**	**51.64**	**28**	P	**P**	**21 54 11.9**	**+0.2**
E28M	**Babbage River**	**51.68**	**27**	P	**P**	**21 54 13.0**	**+1.0**
EKS2	**Erkin-Say**	**51.73**	**299**	P	**P**	**21 54 13.4**	**+0.5**
	SNR=8.3						
I28M	**Miner Creek**	**51.84**	**31**	P	**P**	**21 54 13.7**	**+0.4**
I28M				IAmb	IAmb	21 54 22.6	
	comp=Z,24nm,1.4s						
DAWY	**Dawson**	**52.26**	**33**	P	**P**	**21 54 16.8**	**+0.4**
E29M	**Blow River**	**52.30**	**27**		**P**	**21 54 18.7**	**+2.1**
E29M				IAmb	IAmb	21 54 26.3	
	comp=Z,17nm,1.0s						
H29M	**Whitestone**	**52.38**	**30**	P	**P**	**21 54 17.7**	**+0.5**
H29M				IAmb	IAmb	21 55 13.0	
	comp=Z,33nm,1.6s						
O28M	**Mount Upton**	**52.43**	**37**	P	**P**	**21 54 18.4**	**+0.4**
G29M	**Pine Creek**	**52.43**	**29**	P	**P**	**21 54 18.2**	**+0.6**
G29M				IAmb	IAmb	21 54 57.4	
	comp=Z,27nm,1.1s						
I29M	**Ogilvie Camp,**	**52.53**	**31**	P	**P**	**21 54 19.3**	**+1.0**
I29M				IAmb	IAmb	21 54 32.4	
	comp=Z,15nm,0.9s						
PSI	**Prapat**	**52.59**	**240**	P	**P**	**21 54 18.3**	**-1.3**
PSI				pmax	pmax		
	comp=Z,17nm,0.9s						
PSI	**Prapat**	**52.59**	**240**	P	**P**	**21 54 19.9**	**+0.3**
	comp=Z,21nm,0.8s						
RPSI	**Rantau Prapat**	**52.67**	**240**		**P**	**21 54 18.3**	**-1.7**
RPSI				IAmb	IAmb	21 54 20.6	
	comp=Z,17nm,0.9s						
RPSI	**Rantau Prapat**	**52.67**	**240**	P	**P**	**21 54 20.1**	**+0.1**
	comp=Z,22nm,0.8s						
J29N	**Klondike Camp**	**52.71**	**32**	P	**P**	**21 54 19.9**	**+0.1**
ARSB	**Arslanbob**	**52.73**	**298**	P	**P**	**21 54 19.9**	**-0.4**
ARSB				pmax	pmax		
	comp=Z,67nm,1.3s						
ARSB	**Arslanbob**	**52.73**	**298**	P	**P**	**21 54 19.9**	**-0.4**
M29M	**Somme Creek**	**52.94**	**35**	P	**P**	**21 54 19.6**	**-2.0**
BKNI	**Bangkinang**	**52.96**	**236**	P	**P**	**21 54 22.3**	**+0.2**
BKNI	**Bangkinang**	**52.96**	**236**	P	**P**	**21 54 23.3**	**+1.1**
BKNI	**Bangkinang**	**52.96**	**236**	P	**P**	**21 54 23.5**	**+1.3**
	comp=Z,115nm,1.0s						
L29M	**L29M**	**52.97**	**34**	P	**P**	**21 54 21.8**	**+0.1**
L29M				IAmb	IAmb	21 54 31.7	
	comp=Z,35nm,1.4s						
EPYK	**Eagle Plains**	**53.02**	**30**	P	**P**	**21 54 21.7**	**-0.3**
EPYK				IAmb	IAmb	21 54 31.4	
	comp=Z,33nm,1.1s						
K29M	**Barlow Dome**	**53.11**	**33**	P	**P**	**21 54 23.6**	**+0.7**
K29M				IAmb	IAmb	21 54 32.4	
	comp=Z,23nm,1.3s						
G30M	**tAoh Zraii Nji**	**53.12**	**29**	P	**P**	**21 54 24.1**	**+1.4**
OHH	**Osh**	**53.14**	**297**	P	**P**	**21 54 22.9**	**-0.5**
	comp=Z,22nm,1.1s						
F30M	**Barrier River**	**53.19**	**28**		**P**	**21 54 23.0**	**-0.2**
F30M				IAmb	IAmb	21 54 51.1	
	comp=Z,33nm,1.2s						
ARK	**Arkit**	**53.28**	**298**	P	**P**	**21 54 25.5**	**+1.0**
	comp=Z,26nm,1.1s						
O29M	**Mount Kennedy**	**53.30**	**38**	P	**P**	**21 54 24.7**	**+0.5**
O29M				IAmb	IAmb	21 54 39.2	
	comp=Z,16nm,1.1s						
I30M	**Mount Dempster**	**53.35**	**31**	P	**P**	**21 54 24.2**	**-0.4**
I30M				IAmb	IAmb	21 54 56.3	
	comp=Z,25nm,1.1s						
DZA	**Taraz**	**53.36**	**300**	*e*P	**P**	**21 54 25.0**	**+0.2**
DZA	**Taraz**	**53.36**	**300**	*e*P	**P**	**21 54 25.0**	**+0.2**
J30M	**Hart River**	**53.49**	**32**		**P**	**21 54 24.1**	**-1.5**
HYT	**Haines Junctio**	**53.71**	**37**	P	**P**	**21 54 28.5**	**+1.2**
HYT				IAmb	IAmb	21 55 05.4	
	comp=Z,19nm,1.0s						
N30M	**Aishikik Lake**	**53.77**	**36**		**P**	**21 54 27.6**	**0.0**
KK31	**Karatay Array**	**53.85**	**300**	P	**P**	**21 54 27.6**	**-0.9**
KK31				pmax	pmax		
	comp=Z,90nm,1.9s						
KK31	**Karatay Array**	**53.85**	**300**	P	**P**	**21 54 27.6**	**-0.9**
KKAR	**Karatay Array**	**53.85**	**300**	P	**P**	**21 54 28.0**	**-0.5**
KKAR	**Karatay Array**	**53.85**	**300**	P	**P**	**21 54 28.0**	**-0.5**
P29M	**Windy Craggy**	**53.86**	**38**	P	**P**	**21 54 28.0**	**-0.2**
G31M	**Satah River**	**53.89**	**29**	P	**P**	**21 54 28.1**	**-0.2**
G31M				IAmb	IAmb	21 54 58.0	
	comp=Z,13nm,0.9s						
INK	**Inuvik**	**53.92**	**27**	LR	LR	22 20 34.9	
	comp=Z,764nm,18.5s,baz=276,slow=40						
INK	**Inuvik**	**53.92**	**27**	P	**P**	**21 54 29.2**	**+0.7**
INK				pmax	pmax		
	comp=Z,28nm,1.7s						
INK	**Inuvik**	**53.92**	**27**	P	**P**	**21 54 29.2**	**+0.7**
INK				IAmb	IAmb	21 54 37.3	
	comp=Z,28nm,1.7s						
INK	**Inuvik**	**53.92**	**27**	P	**P**	**21 54 31.0**	**+2.6**
	comp=Z,7.3nm,1.2s						
F31M	**Tsiigehtchic**	**53.99**	**28**	P	**P**	**21 54 29.2**	**+0.2**
F31M				IAmb	IAmb	21 54 32.3	
	comp=Z,27nm,1.3s						
H31M	**Peel River**	**54.08**	**30**		**P**	**21 54 30.9**	**+1.2**
KNRA	**Kununurra**	**54.08**	**196**	P	**P**	**21 54 30.1**	**-0.1**
DRK	**Karamyk**	**54.22**	**296**	P	**P**	**21 54 30.9**	**-0.6**
DRK				pmax	pmax		
	comp=Z,24nm,0.9s						
DRK	**Karamyk**	**54.22**	**296**	P	**P**	**21 54 30.9**	**-0.6**
DRK				IAmb	IAmb	21 54 46.7	
	comp=Z,24nm,0.9s						
BRLS	**Borolday**	**54.34**	**301**	*c i*P	**P**	**21 54 33.6**	**+1.6**
BRLS				pmax	pmax		
	comp=Z,21nm,1.7s						
BRLS	**Borolday**	**54.34**	**301**	⇑*i*P	**P**	**21 54 33.6**	**+1.6**
	comp=Z,21nm,1.7s						
N31M	**Braeburn, Yuko**	**54.38**	**36**	P	**P**	**21 54 31.0**	**-1.0**
N31M				IAmb	IAmb	21 55 39.1	
	comp=Z,12nm,0.8s						
IUG	**Iuzhnay**	**54.52**	**299**	*e*P	**P**	**21 54 33.7**	**+0.3**
IUG				pmax	pmax		
	comp=Z,32nm,1.2s						
IUG	**Iuzhnay**	**54.52**	**299**	*e*P	**P**	**21 54 33.7**	**+0.3**
	comp=Z,32nm,1.2s						
GSI	**Gunungsitoli**	**54.60**	**240**	P	**P**	**21 54 33.2**	**-1.0**
GSI	**Gunungsitoli**	**54.60**	**240**	P	**P**	**21 54 35.2**	**+1.0**
GSI	**Gunungsitoli**	**54.60**	**240**	P	**P**	**21 54 34.4**	**+0.3**
	comp=Z,82nm,1.1s						
MDSI	**Maura Dua**	**54.66**	**229**	P	**P**	**21 54 34.9**	**+0.4**
	comp=Z,47nm,1.3s						
BTK	**Batken**	**54.71**	**297**	P	**P**	**21 54 34.1**	**-0.7**
BTK				pmax	pmax		
	comp=Z,35nm,1.4s						
BTK	**Batken**	**54.71**	**297**	P	**P**	**21 54 34.1**	**-0.7**
BTK				IAmb	IAmb	21 54 49.8	
	comp=Z,35nm,1.4s						
BTK	**Batken**	**54.71**	**297**	P	**P**	**21 54 35.1**	**+0.3**
	comp=Z,18nm,1.2s						
BTK				pP	**pP**	**21 54 43.5**	**-0.1**
CHM	**Chimkent**	**54.75**	**300**	*e*P	**P**	**21 54 35.3**	**+0.3**
CHM				pmax	pmax		
	comp=Z,52nm,1.4s						
CHM				MLR	MLR		
	comp=Z,2µm,18.0s						
CHM	**Chimkent**	**54.75**	**300**	*e*P	**P**	**21 54 35.3**	**+0.3**
	comp=Z,52nm,1.4s						
CHM				LR	LR	22 18 37.3	
	comp=Z,2µm,18.2s						
M31M	**Drury Creek, Y**	**54.85**	**35**	P	**P**	**21 54 36.3**	**+0.9**
MTSU	**Mount Surprise**	**54.97**	**178**	P	P	21 54 44.8	+8.2
	comp=Z,8.7nm,1.0s						
WHY	**Whitehorse**	**55.00**	**37**	P	**P**	**21 54 37.1**	**+0.5**
WHY				IAmb	IAmb	21 54 59.1	
	comp=Z,21nm,1.1s						
NIL	**Nilore**	**55.43**	**289**	P	**P**	**21 54 41.2**	**+1.2**
NIL	**Nilore**	**55.43**	**289**	P	**P**	**21 54 40.1**	**+0.1**
NIL				pmax	pmax		
	comp=Z,40nm,1.0s						
NIL	**Nilore**	**55.43**	**289**	P	**P**	**21 54 40.1**	**+0.1**
NIL	**Nilore**	**55.43**	**289**	P	**P**	**21 54 41.1**	**+1.0**
	comp=Z,45nm,1.1s						
SVE	**Sverdlovsk**	**55.68**	**319**	*e*P	**P**	**21 54 42.5**	**+1.1**
SVE				pmax	pmax		
	comp=Z,91nm,1.1s						
SVE				MLR	MLR		
	comp=Z,5µm,15.0s						
P32M	**Atlin**	**55.85**	**38**	P	**P**	**21 54 42.4**	**-0.2**
P32M				IAmb	IAmb	21 54 52.4	
	comp=Z,20nm,1.2s						
P33M	**Teslin, Yukon**	**56.11**	**37**		**P**	**21 54 44.2**	**-0.4**
P33M				IAmb	IAmb	21 54 54.3	
	comp=Z,27nm,1.4s						
MMPY	**Sheldon Lake,**	**56.15**	**34**	P	**P**	**21 54 45.4**	**+0.6**
MMPY				IAmb	IAmb	21 55 17.4	
	comp=Z,20nm,1.4s						
Q32M	**Nakina River**	**56.74**	**38**	P	**P**	**21 54 48.6**	**-0.7**
Q32M				IAmb	IAmb	21 55 03.9	
	comp=Z,27nm,1.5s						
CTA	**Charters Tower**	**56.99**	**176**	LR	LR	22 17 30.7	
	comp=Z,230nm,21.8s,baz=350,slow=34						
CTAO	**Charters Tower**	**56.99**	**176**	P	**P**	**21 54 50.8**	**-0.3**
CTAO				pmax	pmax		
	comp=Z,40nm,1.7s						
CTAO	**Charters Tower**	**56.99**	**176**	P	**P**	**21 54 50.8**	**-0.3**
CTAO				IAmb	IAmb	21 54 55.1	
	comp=Z,40nm,1.6s						
ARTI	**Arti**	**57.00**	**319**	LR	LR	22 21 29.6	
	comp=Z,3µm,18.5s,baz=76,slow=38						
ARTI	**Arti**	**57.00**	**319**	*c i*P	**P**	**21 54 51.1**	**+0.3**
ARTI				*PP	**pP**	**21 54 59.2**	**-0.7**
ARTI						21 55 44.2	
ARTI				S	**S**	**22 02 41.9**	**-1.0**
ARTI				SS	**SS**	**22 06 30.4**	**-0.7**
ARTI				pmax	pmax		
	comp=Z,104nm,1.2s						
ARTI				MLR	MLR		
	comp=Z,4µm,16.0s						
ARTI	**Arti**	**57.00**	**319**		**P**	**21 54 50.1**	**-0.7**
ARTI	**Arti**	**57.00**	**319**	P	**P**	**21 54 51.1**	**+0.3**
ARTI				x	x	21 54 59.4	
ARTI				pP	**pP**	**21 55 01.1**	**+1.2**
WB0	**Warramunga Arr**	**57.08**	**189**		**P**	**21 54 51.2**	**-0.6**
WB0				IAmb	IAmb	21 55 02.6	
	comp=Z,25nm,1.0s						
FITZ	**Fitzroy Crossi**	**57.17**	**199**	LR	LR	22 19 36.3	
	comp=Z,162nm,19.8s,baz=9.0,slow=36						
FITZ	**Fitzroy Crossi**	**57.17**	**199**	P	**P**	**21 54 51.5**	**-0.8**
FITZ	**Fitzroy Crossi**	**57.17**	**199**	P	**P**	**21 54 53.5**	**+1.2**
	comp=Z,2.8nm,1.8s						
R33M	**Jennings River**	**57.25**	**37**		**P**	**21 54 52.4**	**-0.3**
R33M				IAmb	IAmb	21 55 15.5	
	comp=Z,27nm,1.6s						
WRAB	**Tennant Creek**	**57.25**	**189**	*ce*P	**P**	**21 54 52.6**	**-0.3**
WRAB				pmax	pmax		
	comp=Z,16nm,1.3s						
WRAB	**Tennant Creek**	**57.25**	**189**	P	**P**	**21 54 52.2**	**-0.7**
WRAB				IAmb	IAmb	21 55 03.8	
	comp=Z,22nm,1.0s						
WRAB	**Tennant Creek**	**57.25**	**189**	P	**P**	**21 54 53.1**	**+0.1**
	comp=Z,26nm,1.3s						
WR8	**Warramunga Arr**	**57.26**	**189**		**P**	**21 54 52.1**	**-0.9**
WRA	**Warramunga Arr**	**57.26**	**189**	P	**P**	**21 54 52.9**	**-0.1**
	comp=Z,7.5nm,0.7s,baz=7.5,slow=7.1,SNR=67						
	comp=Z,7.5nm,0.7s						
WRA	**Warramunga Arr**	**57.26**	**189**	P	**P**	**21 54 51.0**	**-2.0**
QIS	**Mount Isa**	**57.42**	**183**	P	**P**	**21 54 54.2**	**+0.1**
	comp=Z,9.0nm,1.3s						
QIS	**Mount Isa**	**57.42**	**183**	P	**P**	**21 54 53.9**	**-0.2**
	comp=Z,9.0nm,1.3s						
S34M	**Telegraph Cree**	**57.65**	**39**	P	**P**	**21 54 55.4**	**0.0**
WTLY	**Watson Lake, Y**	**58.05**	**36**	P	**P**	**21 54 56.6**	**-1.6**
WTLY				IAmb	IAmb	21 55 08.6	
	comp=Z,45nm,1.8s						
KBL	**Kabul**	**58.22**	**291**	P	**P**	**21 54 59.9**	**-0.1**
	SNR=21						
KBL	**Kabul**	**58.22**	**291**	P	**P**	**21 54 59.0**	**-1.0**
KBL				pmax	pmax		
	comp=Z,38nm,1.1s						
KBL	**Kabul**	**58.22**	**291**		**P**	**21 54 59.0**	**-1.0**
KBL	**Kabul**	**58.22**	**291**	P	**P**	**21 54 59.8**	**-0.2**
	comp=Z,30nm,1.0s						
KBL				pP	**pP**	**21 55 08.7**	**-0.3**
T35M	**Bob Quinn**	**58.41**	**40**	P	**P**	**21 55 00.6**	**-0.2**
T35M				IAmb	IAmb	21 55 34.1	
	comp=Z,13nm,0.6s						
DIB	**Dawson Inlet,**	**58.55**	**45**	P	**P**	**21 55 00.9**	**-0.8**
AB31	**Akbulak array**	**58.57**	**310**		**P**	**21 55 01.4**	**-0.6**
ABKAR	**Akbulak array**	**58.57**	**310**		**P**	**21 55 01.2**	**-0.7**
HYB	**Hyderabad**	**59.09**	**269**	*e*P	**P**	**21 55 06.0**	**-0.1**
HYB				*e*pP	**pwP**	**21 55 16.7**	**-0.7**
HYB				*e*PcP	**PcP**	**21 55 54.3**	**-0.3**
HYB				*e*PP	**PP**	**21 57 17.0**	**+0.2**
HYB				*e*S	**S**	**22 03 11.5**	**+0.2**
HYB				*e*ScS	**ScS**	**22 04 52.9**	**-1.2**
AKTO	**Aktyubinsk**	**59.28**	**312**	LR	LR	22 21 45.1	
	comp=Z,2µm,18.7s,baz=78,slow=37						
ALE	**Alert**	**59.98**	**4**	P	**P**	**21 55 11.9**	**+0.6**
SPITS	**Spitsbergen Ar**	**60.62**	**349**	P	**P**	**21 55 15.6**	**-0.1**
	comp=Z,16nm,1.1s,baz=67,slow=8.0,SNR=2.4						
SPITS				LR	LR	22 24 40.9	
	comp=Z,964nm,18.6s,baz=38,slow=39						
	comp=Z,16nm,1.1s						
KIRV	**Kirov**	**60.72**	**323**	LR	LR	22 26 13.7	
	comp=Z,615nm,18.5s,baz=63,slow=41						
KIRV	**Kirov**	**60.72**	**323**	*c i*P	**P**	**21 55 17.2**	**+0.6**
KBS	**Kingsbay**	**60.74**	**350**	⇑*e*P	**P**	**21 55 18.0**	**+1.6**
KBS				pmax	pmax		
	comp=Z,80nm,1.7s						
KBS	**Kingsbay**	**60.74**	**350**	P	**P**	**21 55 16.4**	**0.0**
KBS	**Kingsbay**	**60.74**	**350**	*i* P	**P**	**21 55 16.7**	**+0.3**
AS15	**Alice Springs**	**60.96**	**189**	P	**P**	**21 55 18.9**	**+0.3**
	comp=Z,8.2nm,1.2s						
AS17	**Alice Springs**	**60.98**	**189**	P	**P**	**21 55 19.0**	**+0.3**
	comp=Z,11nm,1.2s						
AS31	**Alice Springs**	**60.99**	**189**		**P**	**21 55 17.8**	**-1.0**
ASAR	**Alice Springs**	**60.99**	**189**	P	**P**	**21 55 18.8**	**0.0**
	comp=Z,4.1nm,0.8s,baz=12,slow=6.1,SNR=32						
ASAR				LR	LR	22 20 30.8	
	comp=Z,513nm,21.8s,baz=1.0,slow=35						
	comp=Z,4.1nm,0.8s						
ASAR	**Alice Springs**	**60.99**	**189**	P	**P**	**21 55 18.5**	**-0.3**
AS09	**Alice Springs**	**61.02**	**189**	P	**P**	**21 55 19.3**	**+0.3**
	comp=Z,15nm,0.8s						
BBB	**Bella Bella**	**61.39**	**45**	LR	LR	22 19 41.9	
	comp=Z,210nm,19.6s,baz=295,slow=34						
MBWA	**Marble Bar**	**61.81**	**204**	P	**P**	**21 55 24.8**	**+0.4**
	comp=Z,23nm,2.0s						
MBWA	**Marble Bar**	**61.81**	**204**	P	P	21 55 35.2	+11
RES	**Resolute Bay**	**62.31**	**15**	LR	LR	22 26 36.5	
	comp=Z,388nm,18.1s,baz=321,slow=40						
RES	**Resolute Bay**	**62.31**	**15**	P	**P**	**21 55 26.2**	**-0.9**
RES				pmax	pmax		
	comp=Z,18nm,0.9s						
RES	**Resolute Bay**	**62.31**	**15**	P	**P**	**21 55 26.1**	**-0.9**
RES				IAmb	IAmb	21 55 34.8	
	comp=Z,18nm,0.8s						
LVZ	**Lovozero**	**62.41**	**336**	*ce*P	**P**	**21 55 28.5**	**+0.6**
LVZ				pmax	pmax		
	comp=Z,24nm,1.0s						
LVZ	**Lovozero**	**62.41**	**336**	P	**P**	**21 55 27.6**	**-0.3**
LVZ	**Lovozero**	**62.41**	**336**	P	**P**	**21 55 28.1**	**+0.2**
	comp=Z,34nm,1.7s						
LVZ	**Lovozero**	**62.41**	**336**	P	**P**	**21 55 28.5**	**+0.6**
	comp=Z,31nm,1.7s						
LVZ	**Lovozero**	**62.41**	**336**	P	**P**	**21 55 28.2**	**+0.2**
APA	**Apatity**	**62.98**	**336**	*e*P	**P**	**21 55 30.8**	**-0.9**
APA				*e*		21 56 07.7	
APA				*e*		21 57 48.4	
APA				*e*S	**S**	**22 03 53.0**	**-6.4**
APA				*e*		22 05 12.8	
APA				*e*SS	**SS**	**22 08 01.9**	**-2.4**
APA				pmax	pmax		
	comp=Z,29nm,1.1s						
APA				MLR	MLR		
	comp=Z,3µm,17.1s						
WRKA	**Warakurna**	**63.25**	**194**	P	**P**	**21 55 34.4**	**+0.5**
	comp=Z,4.9nm,1.6s						
PALK	**Pallekele**	**63.25**	**258**	LR	LR	22 25 52.6	
	comp=Z,1µm,19.2s,baz=48,slow=39						
PALK	**Pallekele**	**63.25**	**258**	P	**P**	**21 55 35.8**	**+1.5**
ONTNC	**Ouen Toro**	**63.26**	**155**	P	**P**	**21 55 34.2**	**+0.3**
YKAW3	**Yellowknife Wh**	**63.26**	**30**	P	**P**	**21 55 32.7**	**-0.9**
YKAW3				IAmb	IAmb	21 55 42.6	
	comp=Z,25nm,1.6s						
HRA	**Herat**	**63.30**	**294**		**P**	**21 55 33.7**	**-0.9**
YKA	**Yellowknife Ar**	**63.30**	**30**	P	**P**	**21 55 35.0**	**+1.2**
	comp=Z,3.4nm,0.9s,baz=295,slow=7.0,SNR=8.5						
YKA				LR	LR	22 23 36.6	
	comp=Z,258nm,21.3s,baz=297,slow=36						
	comp=Z,3.4nm,0.9s						
YKA	**Yellowknife Ar**	**63.30**	**30**	*i* P	**P**	**21 55 35.4**	**+1.6**
YKA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
YKA	**Yellowknife Ar**	**63.30**	**30**	P	**P**	**21 55 33.7**	**-0.1**
YKAW1	**Yellowknife Wh**	**63.35**	**30**	P	**P**	**21 55 34.4**	**+0.2**
YKAW1				IAmb	IAmb	21 55 42.5	
	comp=Z,17nm,1.1s						
QLP	**Quilpie**	**63.37**	**178**	P	**P**	**21 55 35.8**	**+1.2**
	comp=Z,21nm,0.9s						
KEV	**Kevo**	**63.69**	**339**	P	**P**	**21 55 35.5**	**-0.8**
KEV				pmax	pmax		
	comp=Z,33nm,1.2s						
KEV	**Kevo**	**63.69**	**339**		**P**	**21 55 35.5**	**-0.8**
KEV	**Kevo**	**63.69**	**339**	P	**P**	**21 55 37.5**	**+1.2**
	comp=Z,27nm,1.1s						
KEV	**Kevo**	**63.69**	**339**	P	**P**	**21 55 37.3**	**+1.1**
MSVF	**Nonsavu**	**64.01**	**142**	LR	LR	22 19 52.2	
	comp=Z,816nm,19.5s,baz=352,slow=33						
KLMR	**Klimovskoe**	**64.17**	**328**	*e*P	**P**	**21 55 38.3**	**-1.3**
KLMR				*e*		21 57 58.8	
KLMR				pmax	pmax		
	comp=Z,57nm,1.2s						
KLMR				MLR	MLR		
	comp=Z,2µm,18.0s						
ARCES	**ARCESS Array B**	**64.24**	**340**	P	**P**	**21 55 40.9**	**+0.9**
	comp=Z,10nm,1.0s,baz=66,slow=5.9,SNR=15						
ARCES				LR	LR	22 26 18.9	
	comp=Z,873nm,21.7s,baz=38,slow=38						
	comp=Z,10nm,1.0s						
ARCES	**ARCESS Array B**	**64.24**	**340**	P	**P**	**21 55 38.9**	**-1.1**
BELG	**Belogornoye**	**64.35**	**317**	LR	LR	22 28 25.4	
	comp=Z,1µm,18.9s,baz=114,slow=40						
BELG	**Belogornoye**	**64.35**	**317**	*ce*P	**P**	**21 55 41.3**	**+0.4**
BELG				pmax	pmax		
	comp=Z,13nm,1.0s						
INKA	**Innaminka**	**64.53**	**182**	P	**P**	**21 55 41.9**	**-0.3**
TULEG	**Thule**	**64.91**	**8**	*i* P	**P**	**21 55 44.6**	**+0.4**
TULEG				IAmb	IAmb	21 55 45.9	
	comp=Z,22nm,0.9s						
SGF	**Sodankyl**	**65.23**	**338**	P	**P**	**21 55 47.5**	**+1.1**
	comp=Z,38nm,1.3s						
MSF	**Maaselka**	**65.35**	**336**	P	**P**	**21 55 48.5**	**+1.2**
	comp=Z,30nm,1.0s						
NEEM	**North Greenlan**	**65.41**	**3**	*i* P	**P**	**21 55 48.6**	**+0.7**
NEEM				IAmb	IAmb	21 55 49.9	
	comp=Z,25nm,1.1s						
OUL	**Oulu**	**66.90**	**336**	P	**P**	**21 55 58.2**	**+1.1**
	comp=Z,40nm,1.1s						
STD	**Studebaker Rid**	**67.57**	**48**	P	**P**	**21 56 01.3**	**-0.6**
MOS	**Moscow**	**67.72**	**324**	*e*P	**P**	**21 56 03.0**	**+0.5**
MOS				*e*		21 56 27.7	
MOS				pmax	pmax		
	comp=Z,77nm,1.3s						
MOS				pmax	pmax		
	comp=Z,300nm,2.0s						
MOS				MLR	MLR		
	comp=Z,1µm,18.0s						
VRH	**Novokhopyorsk**	**68.12**	**318**	*e*P	**P**	**21 56 05.3**	**+0.2**
VRH				pmax	pmax		
	comp=Z,49nm,1.1s						
CMSA	**Cobar Meteorol**	**68.35**	**177**	P	P	21 56 14.9	+8.2
OBN	**Obninsk**	**68.57**	**324**	LR	LR	22 28 35.2	
	comp=Z,2µm,18.6s,baz=46,slow=38						
OBN	**Obninsk**	**68.57**	**324**	*c i*P	**P**	**21 56 08.3**	**+0.5**
OBN				*i* *SP	**sP**	**21 56 21.2**	**+0.6**
OBN						21 56 32.0	
OBN				*e*		21 58 38.1	
OBN				*i* S	**S**	**22 05 13.7**	**+5.9**
OBN				*i* SS	**SS**	**22 09 38.5**	**+7.1**
OBN				pmax	pmax		
	comp=Z,89nm,1.7s						
OBN				MLR	MLR		
	comp=Z,1µm,18.0s						
OBN	**Obninsk**	**68.57**	**324**	P	**P**	**21 56 07.4**	**-0.4**
OBN	**Obninsk**	**68.57**	**324**	P	**P**	**21 56 07.6**	**-0.2**
	comp=Z,1µmcomp=Z,56nm,1.2s						
OBN	**Obninsk**	**68.57**	**324**	P	**P**	**21 56 08.6**	**+0.8**
	comp=Z,56nm,1.2s						
PUL	**Pulkovo**	**68.57**	**330**	⇓*e*P	**P**	**21 56 09.4**	**+1.6**
PUL				pmax	pmax		
	comp=Z,71nm,1.0s						
G05A	**Wamic**	**68.62**	**49**	P	**P**	**21 56 08.7**	**+0.3**
STKA	**Stephens Creek**	**68.63**	**181**	P	**P**	**21 56 09.2**	**+0.8**
	comp=Z,2.5nm,0.8s,baz=321,slow=6.5,SNR=3.9						
STKA				LR	LR	22 28 16.4	
	comp=Z,102nm,19.6s,baz=4.7,slow=38						
	comp=Z,2.5nm,0.8s						
I04A	**Tendick Farm,**	**68.71**	**51**	P	**P**	**21 56 07.0**	**-2.0**
EDM	**Edmonton**	**68.74**	**39**	P	**P**	**21 56 08.1**	**-0.9**
EDM				pmax	pmax		
	comp=Z,25nm,1.2s						
EDM	**Edmonton**	**68.74**	**39**	P	**P**	**21 56 08.1**	**-0.9**
EDM				IAmb	IAmb	21 56 42.7	
	comp=Z,25nm,1.2s						
LPSR	**Galich'ya Gora**	**68.81**	**321**	*e*P	**P**	**21 56 09.9**	**+0.5**
LPSR				pmax	pmax		
	comp=Z,56nm,1.0s						
WAH2	**Wahluke Slope**	**68.87**	**47**	P	**P**	**21 56 10.2**	**+0.3**
FORT	**Forrest**	**68.88**	**193**	P	**P**	**21 56 11.2**	**+1.2**
	comp=Z,25nm,1.9s						
FORT	**Forrest**	**68.88**	**193**		**P**	**21 56 10.0**	**+0.1**
FORT				IAmb	IAmb	21 56 11.8	
	comp=Z,16nm,0.8s						
WIFE	**Three Sisters-**	**68.94**	**50**	P	**P**	**21 56 10.0**	**-0.6**
ILON	**Igloolik, Nuna**	**68.95**	**15**	P	**P**	**21 56 10.7**	**+0.7**
G06A	**Carlson Farm,**	**69.04**	**49**	P	**P**	**21 56 11.0**	**0.0**
G06A				IAmb	IAmb	21 56 20.3	
	comp=Z,30nm,1.6s						
C09A	**Chrisman Ranch**	**69.06**	**45**	P	**P**	**21 56 11.1**	**+0.1**
I05D	**Terrebonne, OR**	**69.08**	**50**	P	**P**	**21 56 11.3**	**0.0**
I05D				IAmb	IAmb	21 56 20.6	
	comp=Z,19nm,1.4s						
D08A	**Wollman Farm,**	**69.08**	**46**	P	**P**	**21 56 11.4**	**+0.2**
MAK	**Makhachkala**	**69.11**	**308**	*e*P	**P**	**21 56 10.5**	**-0.9**
MAK				*e*		21 58 48.1	
MAK				*e*PPP	PPP	22 00 25.8	
MAK				*e*S	**S**	**22 05 14.3**	**-0.4**
MAK				*e*SS	**SS**	**22 09 43.9**	**+3.5**
MAK				pmax	pmax		
	comp=Z,18nm,0.3s						
MAK				MLR	MLR		
	comp=Z,2µm,16.0s						
FIA1	**FINESS Array S**	**69.16**	**333**	P	**P**	**21 56 11.2**	**-0.2**
FINES	**FINESS Array B**	**69.16**	**333**	P	**P**	**21 56 12.4**	**+1.0**
	comp=Z,33nm,0.9s,baz=57,slow=7.0,SNR=57						
FINES				LR	LR	22 30 53.0	
	comp=Z,2µm,18.9s,baz=36,slow=40						
	comp=Z,33nm,0.9s						
FINES	**FINESS Array B**	**69.16**	**333**	*i* P	**P**	**21 56 12.3**	**+0.9**
FINES				pmax	pmax		
	comp=Z,33nm,0.9s						
FINES	**FINESS Array B**	**69.16**	**333**	P	**P**	**21 56 11.2**	**-0.2**
J04A	**Umpqua Nationa**	**69.18**	**51**	P	**P**	**21 56 12.2**	**0.0**
J04A				IAmb	IAmb	21 56 22.2	
	comp=Z,30nm,1.2s						
VORR	**Voronezh**	**69.18**	**320**	*e*P	**P**	**21 56 12.6**	**+0.9**
VORR				pmax	pmax		
	comp=Z,44nm,1.0s						
JCC	**Jacoby Creek,**	**69.23**	**54**	P	**P**	**21 56 12.6**	**+0.4**
JCC				IAmb	IAmb	21 56 23.0	
	comp=Z,30nm,1.1s						
E08A	**Dider Farm, El**	**69.30**	**47**	P	**P**	**21 56 12.0**	**-0.6**

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NEW   Newport            69.46  45   P      P      21 56 13.9 +0.3
NEW                                  pmax   pmax
      comp=Z,6.0nm,1.0s
NEW   Newport            69.46  45   P      P      21 56 13.9 +0.3
VSR   Storozhevoye       69.46 319  eP      P      21 56 14.1 +0.7
VSR                                  pmax   pmax
      comp=Z,42nm,1.0s
HMDM  Hanimaadhoo        69.48 263   P      P      21 56 16.7 +2.5
VORD  Divnogorie         69.53 319  eP      P      21 56 11.7 -2.2
VORD                                 pmax   pmax
      comp=Z,60nm,1.3s
VORD                                 MLR    MLR
      comp=Z,2µm,15.0s
YBH   Yreka Blue Hor     69.60  53   P      P      21 56 14.4 -0.2
YBH                                  pmax   pmax
      comp=Z,14nm,1.4s
YBH   Yreka Blue Hor     69.60  53          P      21 56 14.4 -0.2
L04D  Klamath Falls      69.60  52   P      P      21 56 14.9 +0.2
L04D                                 IAmb   IAmb   21 56 24.8
      comp=Z,27nm,1.2s
YPT   Yellepit           69.60  47   P      P      21 56 14.6 +0.2
YPT                                  IAmb   IAmb   21 56 23.6
      comp=Z,22nm,1.7s
PINE  Pine Mountain      69.61  50          P      21 56 14.5 -0.4
PINE                                 IAmb   IAmb   21 56 25.3
      comp=Z,30nm,1.2s
M02C  Callahan           69.69  53   P      P      21 56 15.1 -0.1
M02C                                 IAmb   IAmb   21 56 25.2
      comp=Z,21nm,1.6s
J05D  Fort Rock, OR      69.70  51   P      P      21 56 14.9 -0.4
J05D                                 IAmb   IAmb   21 57 21.5
      comp=Z,24nm,1.0s
AKT   Akhty              69.74 307  eP      P      21 56 15.5 -0.1
AKT                                 e              21 56 38.0
AKT                                 e              21 58 47.8
AKT                                 ePPP    PPP    22 00 31.4
AKT                                 eS      S      22 05 19.9 -2.6
AKT                                  pmax   pmax
      comp=Z,28nm,1.1s
AKT                                  MLR    MLR
      comp=Z,3µm,18.0s
E09A  Wood Farm, Sta     69.82  47   P      P      21 56 17.3 +1.5
E09A                                 IAmb   IAmb   21 56 24.9
      comp=Z,17nm,1.2s
KHBM  Hayfork Bally      69.83  54   P      P      21 56 15.4 -0.8
KHBM                                 IAmb   IAmb   21 56 25.8
      comp=Z,34nm,2.0s
G08A  Pilot Rock         70.01  48   P      P      21 56 17.6 +0.4
G08A                                 IAmb   IAmb   21 56 26.1
      comp=Z,21nm,1.8s
LNOR  Lincton Mounta     70.09  47   P      P      21 56 17.6 +0.1
LNOR                                 IAmb   IAmb   21 57 05.0
      comp=Z,19nm,1.6s
KCPM  Cahto Peak         70.11  55   P      P      21 56 16.8 -1.1
KCPM                                 IAmb   IAmb   21 56 35.9
      comp=Z,24nm,1.3s
K05A  Summer Lake        70.21  51   P      P      21 56 17.4 -1.2
K05A                                 IAmb   IAmb   21 56 29.0
      comp=Z,32nm,1.2s
O02D  Mt. Diablo Mer     70.37  54          P      21 56 18.1 -1.3
DCMP  DeCamp, Califo     70.39  55   P      P      21 56 19.9 +0.5
DCMP                                 IAmb   IAmb   21 57 10.3
      comp=Z,20nm,1.8s
ARBE  Arbavere           70.50 331   P      P      21 56 19.9 +0.3
      comp=Z,119nm,1.1s
SUMG  Summit             70.61   0   P      P      21 56 20.1 -0.6
SUMG                                 pmax   pmax
      comp=Z,30nm,1.1s
SUMG  Summit             70.61   0          P      21 56 20.1 -0.6
SUMG  Summit             70.61   0  i P     P      21 56 22.8 +2.1
SUMG                                 IAmb   IAmb   21 56 24.0
      comp=Z,30nm,1.1s
SUMG  Summit             70.61   0   P      P      21 56 23.2 +2.6
      comp=Z,36nm,1.1s
F10A  Beach Ranch, E     70.65  47   P      P      21 56 21.5 +0.5
F10A                                 IAmb   IAmb   21 57 05.8
      comp=Z,19nm,1.7s
GOF   Gofitskoye         70.70 312c iP      P      21 56 21.6 +0.4
VSU   Vasula             70.84 330ceP      P      21 56 21.5 -0.2
VSU                                  pmax   pmax
      comp=Z,44nm,1.0s
VSU   Vasula             70.84 330   P      P      21 56 21.9 +0.1
      comp=Z,52nm,1.1s
HATC  Hat Creek Radi     70.88  53   P      P      21 56 22.8 +0.3
O03E  Paynes Creek       70.94  54          P      21 56 23.2 +0.3
O03E                                 IAmb   IAmb   21 56 48.2
      comp=Z,22nm,1.4s
MOD   Modoc Plateau      71.03  52   P      P      21 56 23.1 -0.3
BMO   Blue Mountains     71.23  48   P      P      21 56 24.9 +0.3
BMO                                  pmax   pmax
      comp=Z,35nm,2.0s
BMO   Blue Mountains     71.23  48   P      P      21 56 24.9 +0.3
BMO                                  IAmb   IAmb   21 56 32.7
      comp=Z,35nm,2.0s
J08A  Circle Bar Ran     71.36  49   P      P      21 56 25.2 -0.1
J08A                                 IAmb   IAmb   21 56 34.9
      comp=Z,19nm,1.4s
KVAR  Kislovodsk Arr     71.52 311   LR     LR     22 30 58.8
      comp=Z,808nm,18.2s,baz=275,slow=38
KBZ   Khabaz             71.53 311   P      P      21 56 27.2 +1.0
      comp=Z,23nm,1.0s,baz=53,slow=2.4,SNR=41
KBZ                                  LR     LR     22 32 26.2
      comp=Z,2µm,18.3s,baz=37,slow=40
      comp=Z,23nm,1.0s
KBZ   Khabaz             71.53 311deP      P      21 56 26.1 -0.1
KBZ                                  pmax   pmax
      comp=Z,31nm,1.0s
KIV   Kislovodsk         71.53 311   P      P      21 56 27.8 +1.4
KIV   Kislovodsk         71.53 311  eP      P      21 56 27.4 +1.1
KIV                                 eS      S      22 05 43.5 +0.4
KIV                                  pmax   pmax
      comp=Z,60nm,1.1s
KIV                                  pmax   pmax
      comp=Z,63nm,3.6s
KIV   Kislovodsk         71.53 311   P      P      21 56 26.2 -0.1
KIV   Kislovodsk         71.53 311  i P     P      21 56 26.4  0.0
      SNR=13
KIV   Kislovodsk         71.53 311  ⇑P      P      21 56 27.6 +1.2
KIV   Kislovodsk         71.53 311   P      P      21 56 26.6 +0.3
      comp=Z,763nmcomp=Z,62nm,1.1s
KIV   Kislovodsk         71.53 311   P      P      21 56 27.0 +0.6
      comp=Z,79nm,1.1s
KIV                                  pP     pP     21 56 36.7 +1.0
KIV   Kislovodsk         71.53 311   P      P      21 56 27.4 +1.1
KIV                                  pP     sP     21 56 37.4 -1.4
ORV   Oroville           71.54  54   P      P      21 56 26.1 -0.3
ORV                                  pmax   pmax
      comp=Z,9.0nm,1.3s
ORV   Oroville           71.54  54          P      21 56 26.1 -0.3
CVS   Carmenet Viney     71.57  56   P      P      21 56 26.6 -0.1
CVS                                  IAmb   IAmb   21 58 03.7
      comp=Z,28nm,1.4s
SHA1  Shidzhatmaz        71.66 311c iP      P      21 56 28.0 +0.6
JLN   Jalan Bani Buh     71.69 284   P      P      21 56 28.5 +1.0
WSAR  Wadi Sarin         71.70 286   P      P      21 56 28.9 +1.3
WVOR  Wild Horse Val     71.77  50   P      P      21 56 28.1 +0.2
WVOR                                 pmax   pmax
      comp=Z,20nm,1.5s
WVOR  Wild Horse Val     71.77  50   P      P      21 56 28.1 +0.2
WVOR                                 IAmb   IAmb   21 56 37.1
      comp=Z,20nm,1.4s
WVOR  Wild Horse Val     71.77  50   P      P      21 56 29.1 +1.2
      comp=Z,11nm,1.5s
WBK   Wadi Bani Khal     71.78 285   P      P      21 56 30.0 +1.9
      SNR=5.3
MTSE  Matsula            71.82 331   P      P      21 56 27.2 -0.5
      comp=Z,177nm,1.0s
ERBR  Yeremizino-Bor     71.83 314  eP      P      21 56 27.4 -0.6
ERBR                                e*PP    pP     21 56 36.4 -1.0
ERBR                                e              21 59 05.3
ERBR                                eS      S      22 05 43.3 -3.1
ERBR                                 pmax   pmax
      comp=Z,82nm,1.1s
ERBR                                 MLR    MLR
      comp=Z,2µm,17.0s
PLID  Pearl Lake         71.86  47          P      21 56 28.5  0.0
PLID                                 IAmb   IAmb   21 56 37.0
      comp=Z,29nm,1.8s
BIDO  Bidbid             71.94 286   P      P      21 56 30.1 +1.1
MSO   Missoula           72.05  45   P      P      21 56 28.7 -0.7
MSO                                  IAmb   IAmb   21 56 37.9
      comp=Z,31nm,1.9s
SHME  Shamm              72.07 289   P      P      21 56 31.7 +1.9
      SNR=8.1
SHME  Shamm              72.07 289  i P     P      21 56 29.4 -0.4
      SNR=11
BEKR  Beckworth          72.11  53          P      21 56 30.0  0.0
SCO   Scoresbysund       72.13 355   P      P      21 56 28.6 -0.7
SCO                                  pmax   pmax
      comp=Z,58nm,1.2s
SCO   Scoresbysund       72.13 355   P      P      21 56 28.6 -0.7
AFDM  Forest Hills D     72.22  54   P      P      21 56 29.9 -0.6
JRSC  Jasper Ridge       72.23  56   P      P      21 56 30.6 +0.1
JRSC                                 IAmb   IAmb   21 56 35.6
      comp=Z,28nm,1.1s
SMDO  Samad              72.25 286   P      P      21 56 33.0 +1.9
      SNR=5.4
LABN  Labinsk            72.30 313  eP      P      21 56 31.7 +0.8
LABN                                e*PP    pP     21 56 40.2  0.0
LABN                                eS      S      22 05 47.8 -4.0
LABN                                 pmax   pmax
      comp=Z,45nm,0.9s
LABN                                 MLR    MLR
      comp=Z,1µm,18.0s
GNI   Garni              72.37 307   LR     LR     22 30 53.8
      comp=Z,808nm,19.2s,baz=66,slow=38
GNI   Garni              72.37 307c iP      P      21 56 32.7 +1.1
GNI                                  pmax   pmax
      comp=Z,32nm,1.7s
GNI   Garni              72.37 307          P      21 56 31.5 -0.1
GNI                                  IAmb   IAmb   21 56 59.7
      comp=Z,37nm,1.3s
GNI   Garni              72.37 307   P      P      21 56 32.7 +1.1
GNI   Garni              72.37 307   P      P      21 56 32.6 +1.0
      comp=Z,15nm,1.0s
GNI   Garni              72.37 307   P      P      21 56 33.2 +1.6
      comp=Z,15nm,1.0s
MSFE  Esma-Masafi        72.44 289   P      P      21 56 32.4 +0.3
HOQ   Hoqain             72.53 287   P      P      21 56 34.0 +1.4
      SNR=5.5
JMDO  Jabal Madar        72.58 285   P      P      21 56 33.7 +0.8
UOSS  Minazif            72.63 288   P      P      21 56 33.7 +0.6
UOSS  Minazif            72.63 288          P      21 56 32.8 -0.3
UOSS                                 IAmb   IAmb   21 56 34.3
      comp=Z,29nm,1.2s
UOSS  Minazif            72.63 288  i P     P      21 56 32.6 -0.5
      SNR=8.5
UOSS  Minazif            72.63 288   P      P      21 56 33.4 +0.2
      comp=Z,22nm,1.5s
UOSS  Minazif            72.63 288   P      P      21 56 32.9 -0.2
UOSS                                 pP     pP     21 56 42.5 +0.2
MHC   Mount Hamilton     72.66  56   P      P      21 56 33.5 +0.2
MHC                                  pmax   pmax
      comp=Z,17nm,1.3s
MHC   Mount Hamilton     72.66  56   P      P      21 56 33.5 +0.2
HATD  Hatta, Dubai       72.75 288   P      P      21 56 34.7 +0.9
      SNR=6.2
HATD  Hatta, Dubai       72.75 288  i P     P      21 56 34.6 +0.7
      SNR=9.7
SOHO  SOHO               72.82 287   P      P      21 56 34.9 +0.6
EPOS  Posof              72.88 309   P      P      21 56 36.2 +1.6
      comp=Z,50nm,1.2s
EPOS                                 pP     pP     21 56 44.8 +0.9
ASHO  Ashiyiah           72.88 288   P      P      21 56 35.0 +0.3
      SNR=8.1
ASHO  Ashiyiah           72.88 288  i P     P      21 56 35.1 +0.4
      SNR=11
MFID  Camas Ranch        72.92  48          P      21 56 35.4 +0.7
MFID                                 IAmb   IAmb   21 56 43.9
      comp=Z,20nm,1.4s
MNK   Minsk              72.93 326  i P     P      21 56 35.4 +1.0
MNK                                 i              21 56 51.9
MNK                                 i              21 59 17.8
MNK                                 i PPP   PPP    22 01 02.6
MNK                                 i S     S      22 06 01.6 +3.0
MNK                                  pmax   pmax
      comp=N,19nm,0.9s
MNK                                  pmax   pmax
      comp=Z,51nm,0.8s
MNK                                  pmax   pmax
      comp=E,26nm,0.8s
MNK                                  MLR    MLR
      comp=N,1µm,16.0s
MNK                                  MLR    MLR
      comp=Z,2µm,16.0s
MNK                                  MLR    MLR
      comp=E,1µm,15.0s
MNK   Minsk              72.93 326  i P     P      21 56 35.4 +1.0
      comp=E,26nm,0.8s
MNK                                 i P     P      21 56 35.4 +1.0
      comp=N,19nm,0.9s
MNK                                 i P     P      21 56 35.4 +1.0
      comp=Z,51nm,0.8s,baz=49
MNK                                 i PcP   PcP    21 56 51.9 +0.6
MNK                                 i PP    PP     21 59 17.9 +1.5
MNK                                 i PPP   PPP    22 01 02.7
MNK                                 i S     S      22 06 01.7 +3.0
MNK                                 i SS    SS     22 10 53.0  +15
MNK                                 i SSS   SSS    22 14 15.6
MNK                                 i LQ    LQ     22 22 43.0
MNK                                 i LRM   MLR    22 31 11.0
      comp=N,1µm,15.6s
MNK                                 i LRM   MLR    22 31 25.1
      comp=Z,2µm,16.3s
MNK                                 i LRM   MLR    22 31 30.7
      comp=E,1µm,15.4s
PNTR  Pine Nut           73.03  54   P      P      21 56 35.0 -0.6
PNTR                                 IAmb   IAmb   21 59 10.2
      comp=Z,12nm,0.7s
BSY   Bisya              73.08 286   P      P      21 56 36.7 +0.9
      SNR=5.6
CMB   Columbia Colle     73.10  55   P      P      21 56 35.7 -0.1
CMB                                  pmax   pmax
      comp=Z,12nm,1.3s
CMB   Columbia Colle     73.10  55   P      P      21 56 35.7 -0.1
FFC   Flin Flon          73.16  33   P      P      21 56 34.9 -0.9
FFC                                  pmax   pmax
      comp=Z,18nm,1.1s
FFC   Flin Flon          73.16  33   P      P      21 56 34.9 -0.9
FFC                                  IAmb   IAmb   21 56 38.4
      comp=Z,18nm,1.1s
ARQ   Araqi              73.27 287   P      P      21 56 37.8 +0.8
      SNR=5.2
YERR  Yerington          73.31  54   P      P      21 56 36.9 -0.3
VSLR  Vesyoloye          73.39 312c iP      P      21 56 38.1 +0.8
VSLR                                 pmax   pmax
      comp=Z,58nm,1.1s
MHTO  MHTO               73.45 284   P      P      21 56 38.6 +0.6
      SNR=11
WAKR  Walker             73.46  54   P      P      21 56 37.4 -0.7
WAKR                                 IAmb   IAmb   21 59 04.1
      comp=Z,13nm,0.5s
ALNE  Al Ain             73.46 288   P      P      21 56 38.6 +0.6
      SNR=5.4
ALNE  Al Ain             73.46 288  i P     P      21 56 38.4 +0.3
      SNR=10
ASUD  Al Ashush, Dub     73.47 289   P      P      21 56 38.6 +0.6
SOC   Sochi              73.51 312  eP      P      21 56 37.6 -0.4
SOC                                 e              21 59 18.3
SOC                                 ePPP    PPP    22 01 02.8
SOC                                 eS      S      22 06 03.8 -1.7
SOC                                 eSS     SS     22 10 47.0 -0.7
SOC                                  pmax   pmax
      comp=Z,21nm,1.1s
SOC                                  MLR    MLR
      comp=Z,821nm,17.0s
NWAO  Narrogin (SRO)     73.56 202   LR     LR     22 29 52.0
      comp=Z,121nm,19.6s,baz=18,slow=37
DLMT  Dillon             73.66  45   P      P      21 56 39.9 +0.8
DLMT                                 IAmb   IAmb   21 57 02.0
      comp=Z,21nm,1.2s
HLID  Hailey             73.67  48          P      21 56 40.2 +1.0
HLID  Hailey             73.67  48   P      P      21 56 42.2 +3.0
      comp=Z,7.2nm,1.8s
OZAP  Van, Ozalp-Mer     73.69 306  ⇑P      P      21 56 40.8 +1.4
BMN   Battle Mountai     73.78  51   P      P      21 56 40.3 +0.4
BMN                                  pmax   pmax
      comp=Z,12nm,1.2s
BMN   Battle Mountai     73.78  51   P      P      21 56 40.3 +0.4
BCYI  Bear Canyon        73.82  46   P      P      21 56 39.9 -0.3
PABE  Paberze            73.94 329          P      21 56 40.0 -0.3
PABE  Paberze            73.94 329   P      P      21 56 41.6 +1.3
      comp=Z,77nm,1.0s
KVN   Kaiserville        74.01  53   P      P      21 56 41.7 +0.4
KVN                                  pmax   pmax
      comp=Z,25nm,0.6s
KVN   Kaiserville        74.01  53          P      21 56 41.7 +0.4
BOZ   Bozeman (W)        74.07  45   P      P      21 56 42.1 +0.6
BOZ                                  pmax   pmax
      comp=Z,9.0nm,1.0s
BOZ   Bozeman (W)        74.07  45          P      21 56 42.1 +0.6
ANN   Anapa              74.12 314  eP      P      21 56 41.6 +0.1
ANN                                 e*PP    pP     21 56 51.1 +0.2
ANN                                 eS      S      22 06 14.2 +1.9
ANN                                  pmax   pmax
      comp=Z,32nm,1.2s
ANN                                  MLR    MLR
      comp=Z,1µm,16.0s
PKD   Bear Valley Ra     74.17  57   P      P      21 56 43.0 +0.9
PKD                                  IAmb   IAmb   21 56 51.9
      comp=Z,18nm,1.3s
MDPB  Devils Postpil     74.19  55   P      P      21 56 42.3 -0.1
LHV   Little Huntoon     74.21  54   P      P      21 56 42.7 +0.5
HOMI  Horasan            74.22 308  ⇓P      P      21 56 44.6 +2.0
NVAR  Mina Array Bea     74.23  54   P      P      21 56 45.1 +2.4
      comp=Z,2.9nm,0.8s,baz=284,slow=6.4,SNR=12
NVAR                                 LR     LR     22 21 38.2
      comp=Z,234nm,21.9s,baz=293,slow=30
      comp=Z,2.9nm,0.8s
NVAR  Mina Array Bea     74.23  54   P      P      21 56 43.8 +1.1
NC405 NORSAR Array S     74.25 338   P      P      21 56 42.2 +0.1
NC303 NORSAR Array S     74.27 338   P      P      21 56 40.8 -1.3
NC303                                IAmb   IAmb   21 56 44.6
      comp=Z,43nm,1.4s
NV11  Mina Array Sit     74.33  54   P      P      21 56 42.9 -0.3
TOO   Toolangi           74.36 178   P      P      21 56 40.5 -2.3
      comp=Z,8.2nm,2.0s
HFS   Hagfors            74.38 336   P      P      21 56 43.7 +0.8
      comp=Z,12nm,0.9s,baz=44,slow=8.7,SNR=10
HFS                                  LR     LR     22 32 22.5
      comp=Z,4µm,18.4s,baz=32,slow=38
      comp=Z,12nm,0.9s
NC204 NORSAR Array S     74.41 338   P      P      21 56 43.1 +0.1
NB201 NORSAR Array S     74.43 338   P      P      21 56 43.0 -0.1
NB2   NORSAR Subarra     74.46 338   P      P      21 56 43.9 +0.6
      comp=Z,395nm,5.0s,baz=38,slow=5.9
NB2   NORSAR Subarra     74.46 338   P      P      21 56 43.9 +0.6
NOA   NORSAR Array B     74.46 338   P      P      21 56 44.0 +0.6
      comp=Z,11nm,1.0s,baz=38,slow=5.8,SNR=22
      comp=Z,11nm,1.0s
NOA   NORSAR Array B     74.46 338   P      P      21 56 44.0 +0.6
GEVA  Gevas              74.49 306   P      P      21 56 43.0 -1.1
HAKT  HAKKARI            74.50 305   P      P      21 56 45.0 +0.8
      comp=Z,27nm,1.3s
HAKT                                 pP     pP     21 56 53.1 -0.2
NBO00 NORSAR Array S     74.60 338   P      P      21 56 43.6 -0.5
QLMT  Earthquake Lak     74.64  45   P      P      21 56 45.5 +0.5
UMZA  Um Al Zommool      74.66 287   P      P      21 56 44.8 -0.2
AK03  Malin Array Si     74.76 323   P      P      21 56 45.2  0.0
YHL   Hebgen Lake        74.77  45   P      P      21 56 44.9 -0.9
AKASG Malin Array Be     74.78 323   P      P      21 56 45.7 +0.4
      comp=Z,24nm,1.0s,baz=46,slow=6.1,SNR=74
AKASG                                LR     LR     22 33 25.8
      comp=Z,1µm,19.4s,baz=42,slow=39
      comp=Z,24nm,1.0s
AKASG Malin Array Be     74.78 323   P      P      21 56 45.0 -0.2
AKASG                                IAmb   IAmb   21 56 47.4
      comp=Z,21nm,1.1s
AKBB  Malin Array Si     74.78 323c iP      P      21 56 45.5 +0.2
AKBB  Malin Array Si     74.78 323   P      P      21 56 45.0 -0.2
AKBB  Malin Array Si     74.78 323   P      P      21 56 45.3  0.0
AK23  Malin Array Si     74.79 323   P      P      21 56 46.4 +1.1
AK01  Malin Array Si     74.79 323   P      P      21 56 45.1 -0.3
KIEV  Kiev               74.79 323  ⇓P      P      21 56 45.6 +0.3
KIEV  Kiev               74.79 323   P      P      21 56 45.3  0.0
KIEV  Kiev               74.79 323  i P     P      21 56 45.9 +0.5
      SNR=16
KIEV  Kiev               74.79 323  ⇓P      P      21 56 45.6 +0.3
KIEV  Kiev               74.79 323   P      P      21 56 45.1 -0.2
      comp=Z,155nm,1.5s
KIEV  Kiev               74.79 323   P      P      21 56 45.9 +0.5
      comp=Z,40nm,1.5s
KIEV  Kiev               74.79 323   P      P      21 56 45.7 +0.3
AK04  Malin Array Si     74.79 323   P      P      21 56 45.7 +0.3
AK02  Malin Array Si     74.82 323   P      P      21 56 45.4 -0.1
AK21  Malin Array Si     74.82 323   P      P      21 56 45.1 -0.4
AK11  Malin Array Si     74.82 323   P      P      21 56 45.8 +0.3
ELK   Elko               74.82  50   LR     LR     22 30 34.5
      comp=Z,168nm,18.1s,baz=312,slow=36
ELK   Elko               74.82  50   P      P      21 56 46.4 +0.3
ELK                                  pmax   pmax
      comp=Z,13nm,1.6s
ELK   Elko               74.82  50          P      21 56 46.4 +0.3
YHB   Horse Butte        74.83  45   P      P      21 56 46.9 +0.9
AK15  Malin Array Si     74.83 323   P      P      21 56 45.7 +0.1
AK10  Malin Array Si     74.83 323   P      P      21 56 45.5 -0.1
AK05  Malin Array Si     74.84 323   P      P      21 56 46.2 +0.5
AK06  Malin Array Si     74.87 323   P      P      21 56 46.1 +0.3
AK17  Malin Array Si     74.87 323   P      P      21 56 46.0 +0.2
AK14  Malin Array Si     74.88 323   P      P      21 56 46.0 +0.1
YHH   Holmes Hill        75.00  45   P      P      21 56 46.4 -0.7
GURO  Guroymak-BITLI     75.01 307   P      P      21 56 47.5 +0.5
GURO                                 IAmb   IAmb   21 56 59.9
      comp=Z,22nm,1.1s
DSP   Deep Springs       75.06  54          P      21 56 48.2 +1.1
KOPT  Kop Dagi           75.12 309   P      P      21 56 46.3 -1.5
KOPT                                 IAmb   IAmb   21 57 01.5
      comp=Z,19nm,1.1s
TPH   Tonopah            75.13  53   P      P      21 56 48.6 +0.7
TPH                                  pmax   pmax
      comp=Z,36nm,0.6s
TPH   Tonopah            75.13  53   P      P      21 56 48.5 +0.7
YNR   Norris Junctio     75.14  45   P      P      21 56 47.0 -0.9
YNR                                  IAmb   IAmb   21 56 57.7
      comp=Z,27nm,1.6s
YFT   Old Faithful       75.21  45   P      P      21 56 46.6 -1.7
SUW   Suwalki            75.30 328  eP      P      21 56 48.8 +0.6
SUW   Suwalki            75.30 328   P      P      21 56 47.2 -1.0
SUW   Suwalki            75.30 328   P      P      21 56 47.2 -1.0
YPP   Pitchstone Pla     75.34  45   P      P      21 56 49.4 +0.3
YPP                                  IAmb   IAmb   21 57 03.0
      comp=Z,35nm,1.9s
CWC   Cottonwood Cre     75.52  55   P      P      21 56 49.7 -0.4
GMN   Gold Mountain      75.56  54   P      P      21 56 49.9 -0.4
FXWY  Fox Creek          75.60  46   P      P      21 56 50.0 -0.5
GRAC  Grapevine Rang     75.67  54   P      P      21 56 51.8 +1.1
RLMT  Red Lodge          75.68  44   P      P      21 56 50.2 -0.6
ISA   Isabella, Lake     75.71  56   P      P      21 56 51.0 -0.1
ISA                                  pmax   pmax
      comp=Z,13nm,1.5s
ISA   Isabella, Lake     75.71  56   P      P      21 56 51.0 -0.1
SFJD  Kangerlussuaq      75.74   5   LR     LR     22 32 09.0
      comp=Z,440nm,19.9s,baz=345,slow=37
SFJD  Kangerlussuaq      75.74   5  i P     P      21 56 52.1 +1.6
SFJD                                 IAmb   IAmb   21 56 53.1
      comp=Z,20nm,1.2s
MZR   Muzera             75.78 288   P      P      21 56 51.5  0.0
MZR   Muzera             75.78 288  i P     P      21 56 51.4 -0.2
      SNR=8.9
KELT  Kelkit             75.81 310   P      P      21 56 53.2 +1.5
      comp=Z,80nm,1.4s
KELT                                 pP     pP     21 57 02.2 +1.4
RNPP9 Sopachiv           75.88 325   P      P      21 56 52.4 +0.8
SIM   Simferopol'        75.89 316  eP      P      21 56 51.5 -0.3
SIM                                 e              21 57 05.0
SIM                                 eS      S      22 06 29.0 -3.2
SIM                                  pmax   pmax
      comp=Z,32nm,1.1s
RNPP8 Varash             75.95 325   P      P      21 56 52.4 +0.4
LUBAR Lubar, Ukraine     76.00 323   P      P      21 56 52.9 +0.6
RNPP5 Staryi Chortor     76.01 325   P      P      21 56 52.7 +0.4
BGU   Big Grassy Mou     76.06  49   P      P      21 56 52.3 -0.7
BGU                                  IAmb   IAmb   21 57 02.6
      comp=Z,28nm,2.0s
AHID  Auburn Hatcher     76.09  47   P      P      21 56 53.3  0.0
AHID                                 IAmb   IAmb   21 57 02.3
      comp=Z,15nm,1.1s
MPMC  Manual Prospec     76.13  55   P      P      21 56 52.8 -0.9
SPUT  South Promonto     76.18  49   P      P      21 56 54.0 +0.3
SPUT                                 IAmb   IAmb   21 57 03.3
      comp=Z,27nm,1.8s
CLC   China Lake         76.20  56   P      P      21 56 54.2 +0.4
CLC                                  pmax   pmax
      comp=Z,14nm,1.4s
CLC   China Lake         76.20  56   P      P      21 56 54.2 +0.4
WCT   Wildcat Mounta     76.27  54   P      P      21 56 54.4 +0.1
WCT                                  IAmb   IAmb   21 59 36.3
      comp=Z,12nm,0.5s
BAL3X Bal3x, Balta       76.39 320   P      P      21 56 54.7 +0.1
TPNV  Topopah Spring     76.42  54   P      P      21 56 55.6 +0.4
TPNV                                 pmax   pmax
      comp=Z,19nm,0.6s
TPNV  Topopah Spring     76.42  54          P      21 56 55.6 +0.4
FRB   Frobisher Bay      76.50  14   LR     LR     22 34 58.8
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	comp=Z,951nm,18.8s,baz=344,slow=39						
SLWR	Sila	76.52	290	P	P	21 56 55.9	+0.2
HWUT	Hardware Ranch	76.53	48	P	P	21 56 55.6	-0.1
HWUT				IAmb	IAmb	21 57 05.2	
	comp=Z,25nm,1.4s						
HWUT	Hardware Ranch	76.53	48	P	P	21 56 57.6	+1.9
	comp=Z,12nm,1.8s						
HWUT				pP	pP	21 57 05.8	+1.0
CCCA	Chr Cany lake	76.53	56	P	P	21 56 55.1	-0.6
CCCA				IAmb	IAmb	21 57 23.8	
	comp=Z,12nm,0.5s						
GWY	Greenwater Val	76.60	55	P	P	21 56 55.8	-0.4
GWY				IAmb	IAmb	21 57 05.7	
	comp=Z,15nm,1.2s						
QSM	Queen of Sheba	76.60	55	P	P	21 56 57.0	+1.0
QSM				IAmb	IAmb	21 57 05.7	
	comp=Z,25nm,1.2s						
DUG	Dugway, Tooele	76.64	50	P	P	21 56 55.9	-0.4
DUG				pmax	pmax		
	comp=Z,14nm,1.2s						
DUG	Dugway, Tooele	76.64	50	P	P	21 56 55.9	-0.4
DUG	Dugway, Tooele	76.64	50	P	P	21 56 58.9	+2.5
	comp=Z,8.3nm,1.1s						
NOQ	North Oquirrh	76.78	49	P	P	21 56 57.8	+0.7
NOQ				IAmb	IAmb	21 57 06.5	
	comp=Z,16nm,1.2s						
SORM	Soroca	76.89	321	⇑P	P	21 56 57.7	+0.3
SORM	Soroca	76.89	321	⇑P	P	21 56 57.7	+0.3
SORM	Soroca	76.89	321	P	P	21 56 57.4	0.0
	comp=Z,37nm,1.5s						
PRN	Pahroc Range	76.92	53	P	P	21 56 57.4	-0.6
CTU	Camp Tracy	76.98	49	P	P	21 56 58.0	-0.3
BW06	Boulder Array	76.98	46	P	P	21 56 57.9	-0.4
PD31	Pinedale Array	76.98	46	P	P	21 56 57.8	-0.6
PDAR	Pinedale Array	76.98	46	P	P	21 57 00.2	+1.9
	comp=Z,1.3nm,0.8s,baz=287,slow=2.8,SNR=14						
	comp=Z,1.3nm,0.8s						
PDAR	Pinedale Array	76.98	46		P	21 56 58.4	+0.1
PSUT	Pine Spring	77.00	51		P	21 56 57.2	-1.3
ARPR	Arapgir-MALATY	77.01	309	P	P	21 56 57.8	-0.7
ARPR	Arapgir-MALATY	77.01	309	P	P	21 57 00.4	+1.9
	comp=Z,66nm,1.2s						
SHOC	Shoshone, Teco	77.02	55	P	P	21 56 58.3	-0.1
GSC	Goldstone, Bar	77.03	56	P	P	21 56 57.7	-0.9
GSC				pmax	pmax		
	comp=Z,14nm,1.5s						
GSC	Goldstone, Bar	77.03	56	P	P	21 56 57.7	-0.9
BFSC	Mount Baldy Ra	77.09	57	P	P	21 56 57.7	-1.2
NLU	North Lily Min	77.23	49		P	21 56 58.7	-1.1
TOKA	Tokat	77.39	311	P	P	21 57 00.1	-0.4
TOKA				IAmb	IAmb	21 57 03.3	
	comp=Z,24nm,1.3s						
MPU	Maple Canyon	77.46	49	P	P	21 57 01.4	+0.4
MPU				IAmb	IAmb	21 57 17.8	
	comp=Z,19nm,1.5s						
KMPD	K-Podol'skiy	77.54	322	P	P	21 57 00.1	-0.9
ELS	Elsinore Mount	77.59	57	P	P	21 57 01.1	-0.6
DMTO	DMTO	77.65	283	P	P	21 57 02.5	+0.4
BSUT	Blindstream Ca	77.66	48		P	21 57 01.5	-0.9
BSUT				IAmb	IAmb	21 58 23.5	
	comp=Z,27nm,2.0s						
BORG	Borgarnes	77.69	353	LR	LR	22 34 27.9	
	comp=Z,265nm,18.1s,baz=16,slow=38						
MTPC	Mountain Pass	77.74	55	P	P	21 57 02.7	+0.1
TCRU	Three Creeks R	77.83	51	P	P	21 57 02.4	-0.8
TCRU				IAmb	IAmb	21 59 23.0	
	comp=Z,9.1nm,0.4s						
BEL	Belsk	77.87	327	*e*P	P	21 57 03.6	+0.8
BEL	Belsk	77.87	327	P	P	21 57 04.7	+1.9
BEL				pmax	pmax		
	comp=Z,6.0nm,1.1s						
CCUT	Cedar City	77.90	52		P	21 57 04.4	+0.8
SZCU	Shurtz Canyon	78.05	52	P	P	21 57 04.9	+0.6
TMUT	Trail Mountain	78.16	50	P	P	21 57 04.3	-0.8
PFO	Pinyon Flats O	78.26	57	LR	LR	22 24 31.2	
	comp=Z,587nm,21.9s,baz=296,slow=30						
PFO	Pinyon Flats O	78.26	57	P	P	21 57 04.3	-1.2
PFO				pmax	pmax		
	comp=Z,17nm,1.5s						
PFO	Pinyon Flats O	78.26	57	P	P	21 57 04.3	-1.2
PMD	Palm Desert	78.29	57	P	P	21 57 04.7	-0.8
DPP	Dos Picos Cty	78.30	58	P	P	21 57 04.7	-1.0
LCMT	Little Creek M	78.31	52	P	P	21 57 04.9	-0.8
LCMT				IAmb	IAmb	21 57 15.9	
	comp=Z,24nm,1.4s						
BELC	Belle Mtn. Jos	78.34	56	P	P	21 57 04.7	-1.2
P17A	Butcher Ranch,	78.34	49	P	P	21 57 04.7	-1.2
P17A				IAmb	IAmb	21 57 15.2	
	comp=Z,34nm,1.4s						
MTPU	Mount Pierson	78.34	51	P	P	21 57 04.8	-1.3
MTPU				IAmb	IAmb	21 57 16.0	
	comp=Z,24nm,1.5s						
RDMU	Red Mountain	78.35	48	P	P	21 57 04.9	-1.1
RDMU				IAmb	IAmb	21 57 15.2	
	comp=Z,33nm,1.3s						
NUUK	Nuuk	78.42	6	*i* P	P	21 57 07.6	+2.0
NUUK				IAmb	IAmb	21 57 08.2	
	comp=Z,56nm,1.3s						
Q16A	Castle Valley	78.42	50	P	P	21 57 06.5	+0.1
WHFO	Wadi Hawf	78.45	284	P	P	21 57 06.3	-0.3
PRAR	RASCA	78.47	322	⇓P	P	21 57 06.2	-0.1
BORC	Borrego Spring	78.49	57	P	P	21 57 06.1	-0.5
P18A	Preston Nutter	78.54	49	P	P	21 57 06.4	-0.8
P18A				IAmb	IAmb	21 57 16.6	
	comp=Z,32nm,1.6s						
ILGA	Ilgaz	78.57	313	P	P	21 57 07.3	0.0
ILGA				IAmb	IAmb	21 57 10.4	
	comp=Z,31nm,1.2s						
KWP	Kalwaria Pacla	78.58	325	*e*P	P	21 57 08.4	+1.6
KWP	Kalwaria Pacla	78.58	325	P	P	21 57 08.0	+1.2
	comp=Z,66nm,1.4s						
TLCR		78.61	319	⇑P	P	21 57 07.5	+0.5
GIRR	Girov	78.62	321	⇑P	P	21 57 07.5	+0.5
PKCU	Pink Cliffs	78.63	52	P	P	21 57 06.8	-0.9
PKCU				IAmb	IAmb	21 58 29.6	
	comp=Z,29nm,1.5s						
BNN	Bunyan	78.69	310		P	21 57 07.4	-0.4
BNN				IAmb	IAmb	21 57 21.8	
	comp=Z,23nm,1.1s						
SRU	San Rafael Swe	78.69	49	P	P	21 57 08.1	+0.2
SRU				pmax	pmax		
	comp=Z,10.0nm,0.7s						
SRU	San Rafael Swe	78.69	49	P	P	21 57 08.1	+0.2
SRU				IAmb	IAmb	21 57 21.0	
	comp=Z,9.7nm,0.7s						
K22A	Casper	78.78	45		P	21 57 07.0	-1.3
K22A				IAmb	IAmb	21 57 30.6	
	comp=Z,23nm,1.5s						
BUR08	Bucovina Ar. S	78.79	322	P	P	21 57 08.0	-0.1
BUR08				IAmb	IAmb	21 57 10.7	
	comp=Z,17nm,1.1s						
BURAR	Bucovina Array	78.80	322	⇓P	P	21 57 08.7	+0.5
BURAR	Bucovina Array	78.80	322		P	21 57 08.4	+0.3
BURAR				IAmb	IAmb	21 57 11.0	
	comp=Z,14nm,1.0s						
BURAR	Bucovina Array	78.80	322	⇓P	P	21 57 08.7	+0.5
IRM	Iron Mountain	78.81	56	P	P	21 57 08.0	-0.4
IRM				IAmb	IAmb	21 57 17.4	
	comp=Z,21nm,1.5s						
BIZ	Bicaz	78.83	321	⇑P	P	21 57 09.8	+1.6
TESR	Tescani	78.84	321	⇑P	P	21 57 09.3	+1.0
TESR	Tescani	78.84	321	P	P	21 57 08.8	+0.5
	comp=Z,21nm,1.1s						
TESR	Tescani	78.84	321	P	P	21 57 09.3	+1.0
	comp=Z,22nm,1.1s						
GAZ	Gaziantep	78.88	308		P	21 57 08.5	-0.3
GAZ				IAmb	IAmb	21 57 22.0	
	comp=Z,20nm,1.0s						
CBX	Cerro Bola	78.90	58	P	P	21 57 08.2	-0.8
BC3	Big Chuckawall	78.91	56		P	21 57 08.2	-0.8
BC3				IAmb	IAmb	21 57 17.9	
	comp=Z,38nm,1.8s						
MDND	Maddock	78.92	37	P	P	21 57 07.9	-0.8
ULM	Lac du Bonnet	78.95	34	LR	LR	22 34 23.6	
	comp=Z,216nm,20.6s,baz=11,slow=38						
CFR	Carcaliu	78.98	319	⇑P	P	21 57 09.3	+0.3
CFR	Carcaliu	78.98	319	⇑P	P	21 57 09.3	+0.3
TPGR	Topolog	79.04	319	⇑P	P	21 57 09.9	+0.5
W13A	Hualapai Mount	79.06	54		P	21 57 08.9	-1.1
ONER	Baraj Valea Uz	79.09	321	⇓P	P	21 57 11.4	+1.7
ANDN	Andirin	79.17	309	P	P	21 57 12.0	+1.6
	comp=Z,67nm,1.1s						
RSSD	Black Hills	79.18	42	P	P	21 57 09.2	-1.3
RSSD				pmax	pmax		
	comp=Z,20nm,1.6s						
RSSD	Black Hills	79.18	42	P	P	21 57 09.2	-1.3
RSSD	Black Hills	79.18	42	P	P	21 57 11.9	+1.4
	comp=Z,7.9nm,1.7s						
YUH	Yuha Desert	79.20	57	P	P	21 57 08.9	-1.6
VRI	Vrincioaia	79.24	320	⇓P	P	21 57 12.1	+1.6
VRI	Vrincioaia	79.24	320	⇓P	P	21 57 12.1	+1.6
VRI	Vrincioaia	79.24	320	P	P	21 57 11.7	+1.2
	comp=Z,809nmcomp=Z,25nm,1.5s						
VRI	Vrincioaia	79.24	320	P	P	21 57 11.9	+1.4
	comp=Z,26nm,1.5s						
KOLS	Kolonicke sedl	79.28	325	*e*P	P	21 57 11.9	+1.2
KOLS				pmax	pmax		
	comp=Z,12nm,1.0s						
KOLS	Kolonicke sedl	79.28	325	*e*P	P	21 57 11.8	+1.1
KOLS	Kolonicke sedl	79.28	325	P	P	21 57 12.3	+1.7
	comp=Z,9.0nm,1.0s						
PLOR	Plostina	79.29	320	⇑P	P	21 57 11.7	+0.9
PLOR	Plostina	79.29	320	⇑P	P	21 57 11.7	+0.9
HMU	Henry Mountain	79.30	50	P	P	21 57 12.1	+0.8
HMU				IAmb	IAmb	21 57 20.4	
	comp=Z,16nm,1.0s						
SAHR	Sahastru	79.36	320	⇑P	P	21 57 13.1	+1.8
STHS	Stebnicka Huta	79.41	325	*e*P	P	21 57 12.1	+0.7
STHS				pmax	pmax		
	comp=Z,15nm,1.3s						
STHS	Stebnicka Huta	79.41	325	*e*P	P	21 57 12.1	+0.7
O20A	White River Ci	79.41	47	P	P	21 57 12.1	+0.2
O20A				IAmb	IAmb	21 57 39.9	
	comp=Z,21nm,1.6s						
BLYC	Blythe	79.46	56	P	P	21 57 11.0	-0.9
BLYC				IAmb	IAmb	21 57 21.2	
	comp=Z,31nm,1.6s						
BR131	Keskin Array S	79.46	312	*ce*P	P	21 57 12.0	0.0
BR131	Keskin Array S	79.46	312		P	21 57 11.9	-0.1
BRTR	Keskin Array B	79.46	312	P	P	21 57 13.2	+1.2
	comp=Z,4.9nm,1.1s,baz=101,slow=3.9,SNR=23						
BRTR				PP	PP	22 00 12.7	+0.7
	comp=Z,1.4nm,0.9s,baz=38,slow=5.9,SNR=4.1						
BRTR				LR	LR	22 36 46.9	
	comp=Z,597nm,18.8s,baz=53,slow=39						
	comp=Z,4.9nm,1.1s						
OJC	Ojcow	79.47	327	*e*P	P	21 57 13.1	+1.4
OJC	Ojcow	79.47	327	P	P	21 57 11.4	-0.3
OJC	Ojcow	79.47	327		P	21 57 11.4	-0.3
OJC	Ojcow	79.47	327	P	P	21 57 12.0	+0.3
	comp=Z,661nmcomp=Z,38nm,1.2s						
OJC	Ojcow	79.47	327	P	P	21 57 13.0	+1.4
	comp=Z,38nm,1.2s						
BR106	Keskin Array S	79.47	312	P	P	21 57 12.5	+0.5
	comp=Z,71nmcomp=Z,6.6nm,1.2s						
BR104	Keskin Array S	79.47	312	P	P	21 57 12.5	+0.4
	comp=Z,85nmcomp=Z,8.7nm,1.1s						
TURR	Turia	79.47	321	⇑P	P	21 57 13.8	+2.0
BR105	Keskin Array S	79.48	312	P	P	21 57 12.5	+0.4
	comp=Z,97nmcomp=Z,8.7nm,1.1s						
RAR	Rarotonga	79.49	127	LR	LR	22 29 04.4	
	comp=Z,759nm,18.9s,baz=288,slow=33						
COVR	Voineasa-Covas	79.52	320	⇑P	P	21 57 13.1	+1.0
ESJX	Sierra Juarez	79.57	58	P	P	21 57 12.8	0.0
ARCR	ARCALIA	79.59	322	⇓P	P	21 57 14.6	+2.2
BMR	Baia Mare	79.59	323	P	P	21 57 12.5	+0.1
	comp=Z,19nm,1.2s						
BOSR	Bodos	79.64	321	⇓P	P	21 57 14.6	+1.8
TRPA	Tarpa	79.73	324	P	P	21 57 14.7	+1.6
	comp=Z,39nm,1.2s						
HAYD	Hayden	79.74	47	P	P	21 57 13.0	-0.6
HAYD				IAmb	IAmb	21 57 22.8	
	comp=Z,35nm,2.0s						
NIE	Niedzica	79.83	326	*e*P	P	21 57 15.4	+1.7
NIE	Niedzica	79.83	326	P	P	21 57 14.1	+0.4
	comp=Z,11nm,1.3s						
ISR	Istrita	79.85	320	⇓P	P	21 57 15.5	+1.6
ISR	Istrita	79.85	320	⇓P	P	21 57 15.5	+1.6
ISR	Istrita	79.85	320	P	P	21 57 14.3	+0.4
	comp=Z,34nm,1.3s						
DOPR	Dopca	79.85	321	⇓P	P	21 57 15.6	+1.7
MLR	Muntele Rosu	79.90	320	LR	LR	22 35 17.3	
	comp=Z,2µm,20.1s,baz=43,slow=38						
MLR	Muntele Rosu	79.90	320	⇓P	P	21 57 14.9	+0.6
MLR	Muntele Rosu	79.90	320		P	21 57 13.8	-0.5
MLR				IAmb	IAmb	21 57 16.8	
	comp=Z,29nm,1.5s						
MLR	Muntele Rosu	79.90	320	⇓P	P	21 57 14.9	+0.6
MLR	Muntele Rosu	79.90	320	P	P	21 57 14.5	+0.2
	comp=Z,421nmcomp=Z,14nm,1.6s						
MLR	Muntele Rosu	79.90	320	P	P	21 57 15.3	+1.1
	comp=Z,13nm,1.6s						
PV21	Cone Mtn., Par	79.98	49	P	P	21 57 14.6	-0.4
PV21				IAmb	IAmb	21 57 28.2	
	comp=Z,10nm,0.7s						
PV23	Carpenter Ridg	80.03	49	P	P	21 57 15.1	-0.1
PV10	Paradox Valley	80.06	49	P	P	21 57 15.9	+0.4
PV22	Blue Mesa, Par	80.11	49	P	P	21 57 14.8	-0.8
PV22				IAmb	IAmb	21 57 24.8	
	comp=Z,23nm,1.4s						
PV20	West Nyswonger	80.12	49	P	P	21 57 15.5	-0.2
PV04	Paradox Valley	80.13	49	P	P	21 57 15.8	+0.1
PV19	Morning Glory	80.14	49	P	P	21 57 15.1	-0.7
PV17	East Wray Mesa	80.17	49	P	P	21 57 16.2	+0.2
PV17				IAmb	IAmb	21 57 28.8	
	comp=Z,21nm,1.0s						
PV16	Nyswonger Mesa	80.17	49	P	P	21 57 15.4	-0.6
PV16				IAmb	IAmb	21 57 25.2	
	comp=Z,40nm,1.4s						
PV11	David Mesa, Pa	80.21	49	P	P	21 57 15.8	-0.3
PV05	Paradox Valley	80.21	49	P	P	21 57 16.2	0.0
ABAH	Abaujker	80.22	325	P	P	21 57 17.3	+1.6
	comp=Z,16nm,1.5s						
PV18	Skein Mesa, Pa	80.22	49		P	21 57 16.6	+0.3
CJR	Cluj-Napoca	80.22	322	⇑P	P	21 57 18.3	+2.4
CJR	Cluj-Napoca	80.22	322	⇑P	P	21 57 18.3	+2.4
MESR	Meseseni	80.23	323	⇓P	P	21 57 18.0	+2.2
PV12	Saucer Basin,	80.24	49	P	P	21 57 16.9	+0.6
KKUL	Konya-Kulu	80.25	312	P	P	21 57 17.7	+1.4
	comp=Z,26nm,1.3s						
PV03	Paradox Valley	80.25	49	P	P	21 57 15.6	-0.9
PV03				IAmb	IAmb	21 57 25.5	
	comp=Z,44nm,1.6s						
RUE	Ruedersdorf	80.25	331	*e*P	P	21 57 17.6	+1.8
	comp=Z,13nm,0.5s,baz=37,slow=5.2						
PV07	Paradox Valley	80.26	49	P	P	21 57 16.8	+0.3
PV07				IAmb	IAmb	21 57 25.7	
	comp=Z,20nm,1.4s						
PV13	Radium Mtn., P	80.33	49	P	P	21 57 16.0	-0.9
PV13				IAmb	IAmb	21 57 25.9	
	comp=Z,45nm,1.5s						
PV02	Paradox Valley	80.35	49	P	P	21 57 17.1	+0.1
AGMN	Agassiz Nation	80.37	35	P	P	21 57 15.3	-1.3
AGMN				IAmb	IAmb	21 57 37.1	
	comp=Z,44nm,1.7s						
BSEG	Bad Segeberg	80.39	334	*e*P	P	21 57 18.1	+1.6
	comp=Z,10nm,1.1s,baz=37,slow=5.2						
VOIR		80.39	321	⇑P	P	21 57 17.9	+1.0
VOIR		80.39	321	⇑P	P	21 57 17.9	+1.0
VOIR		80.39	321	P	P	21 57 17.2	+0.3
	comp=Z,307nmcomp=Z,8.0nm,1.6s						
VOIR		80.39	321	P	P	21 57 18.2	+1.3
	comp=Z,8.0nm,1.6s						
LANS	Liptovska Anna	80.40	326	*e*P	P	21 57 18.4	+1.6
LANS				pmax	pmax		
	comp=Z,9.0nm,1.2s						
LANS	Liptovska Anna	80.40	326	*e*P	P	21 57 18.4	+1.6
MDUB	Mudurnu	80.41	314	P	P	21 57 15.8	-1.3
MDUB				IAmb	IAmb	21 57 29.6	
	comp=Z,18nm,0.8s						
WUAZ	Wupatki	80.42	53	P	P	21 57 15.0	-2.3
PV15	Paradox Valley	80.42	49	P	P	21 57 17.5	+0.1
OKC	Ostrava-Krasne	80.47	327	AMS	AMS	22 35 50.0	
	comp=Z,2µm,16.1s						
OKC	Ostrava-Krasne	80.47	327	P	P	21 57 18.5	+1.4
	comp=Z,19nm,1.2s						
MARR	Marisel-Cluj	80.48	323	⇑P	P	21 57 18.4	+1.1
PV01	Paradox Valley	80.50	49	P	P	21 57 17.3	-0.5
PV01				IAmb	IAmb	21 57 26.9	
	comp=Z,20nm,1.4s						
KSP	Ksiaz	80.50	329	*e*P	P	21 57 18.7	+1.4
KSP	Ksiaz	80.50	329	P	P	21 57 17.2	0.0
	comp=Z,27nm,1.4s						
STEB	Steborice	80.56	327	*e*P	P	21 57 18.4	+0.8
113A	Mohawk Valley,	80.56	56	P	P	21 57 18.1	+0.2
113A				IAmb	IAmb	21 57 26.7	
	comp=Z,22nm,1.6s						
TNR	Turnu Rosu	80.63	321	⇓P	P	21 57 20.8	+2.7
TNR	Turnu Rosu	80.63	321	⇓P	P	21 57 20.8	+2.7
ARR	Arges	80.65	321	⇑P	P	21 57 21.0	+2.8
ARR	Arges	80.65	321	P	P	21 57 20.2	+1.9
	comp=Z,35nm,1.5s						
OSTC	Ostas	80.75	329	*e*P	P	21 57 20.7	+2.1
OSTC				*e*S	SKSac	22 07 33.0	-1.7
OSTC				AMS	AMS	22 35 40.0	
	comp=Z,2µm,17.1s						
MORC	Moravsky Berou	80.78	327	⇑P	P	21 57 19.6	+0.8
MORC	Moravsky Berou	80.78	327		P	21 57 18.5	-0.3
MORC				IAmb	IAmb	21 57 33.0	
	comp=Z,19nm,1.1s						
MORC	Moravsky Berou	80.78	327	*e*P	P	21 57 19.7	+0.9
MORC	Moravsky Berou	80.78	327	⇑P	P	21 57 19.6	+0.9
MORC	Moravsky Berou	80.78	327	P	P	21 57 20.2	+1.4
	comp=Z,18nm,1.1s						
GORT1	Trebel	80.79	333	*e*P	P	21 57 20.5	+1.9
	comp=Z,24nm,1.3s,baz=37,slow=5.2						
CHVC	Chvalec	80.80	329	*e*P	P	21 57 20.7	+1.9
CHVC				AMS	AMS	22 35 40.0	
	comp=Z,2µm,15.9s						
DPC	Dobruska-Polom	80.86	328	*e*P	P	21 57 19.5	+0.3
DPC				*e*SKS	SKSac	22 07 36.9	+1.4
DPC				AMS	AMS	22 35 50.0	
	comp=Z,2µm,17.5s						
DPC	Dobruska-Polom	80.86	328	P	P	21 57 20.4	+1.2
	comp=Z,15nm,1.9s						
DPC	Dobruska-Polom	80.86	328	P	P	21 57 20.9	+1.6
	comp=Z,14nm,1.9s						
UPC	Upice	80.87	329	*e*P	P	21 57 21.1	+1.9
UPC				AMS	AMS	22 36 00.0	
	comp=Z,2µm,16.4s						
UPC	Upice	80.87	329	P	P	21 57 20.8	+1.6
	comp=Z,12nm,1.0s						
KRLC	Kraliky	80.88	328	*e*P	P	21 57 21.1	+1.8
KRLC				AMS	AMS	22 35 50.0	
	comp=Z,2µm,17.3s						
KRLC	Kraliky	80.88	328	P	P	21 57 20.7	+1.4
	comp=Z,8.2nm,1.0s						
SFX	San Felipe	80.90	58	P	P	21 57 18.6	-1.1
SFX				IAmb	IAmb	21 57 29.2	
	comp=Z,37nm,1.4s						
LOT	Lotru	81.03	321	⇓P	P	21 57 20.7	+0.4
LOT	Lotru	81.03	321	P	P	21 57 21.3	+1.0
	comp=Z,8.2nm,1.0s						
X16A	Lo Mia Camp, P	81.06	54	P	P	21 57 19.6	-1.2
PSZ	Piszkesteto	81.11	325	⇑P	P	21 57 22.0	+1.4
PSZ	Piszkesteto	81.11	325		P	21 57 20.1	-0.5
PSZ				IAmb	IAmb	21 57 23.5	
	comp=Z,25nm,1.1s						
PSZ	Piszkesteto	81.11	325	⇑P	P	21 57 22.0	+1.4
PSZ	Piszkesteto	81.11	325	P	P	21 57 22.2	+1.6
	comp=Z,28nm,1.3s						
MVCO	Mesa Verde	81.13	50		P	21 57 19.5	-1.6
MVCO				IAmb	IAmb	21 57 30.3	
	comp=Z,40nm,1.7s						
MVCO	Mesa Verde	81.13	50	P	P	21 57 23.9	+2.7
	comp=Z,14nm,1.4s						
ISCO	Idaho Springs	81.16	46	P	P	21 57 20.3	-1.1
ISCO				pmax	pmax		
	comp=Z,17nm,1.7s						
ISCO	Idaho Springs	81.16	46	P	P	21 57 20.3	-1.1
ISCO	Idaho Springs	81.16	46	P	P	21 57 23.5	+2.2
	comp=Z,4.8nm,1.8s						
VYHS	Vyhne	81.17	326	*e*P	P	21 57 22.3	+1.5
VYHS				*e*		21 57 33.0	
VYHS				pmax	pmax		
	comp=Z,17nm,1.3s						
VYHS	Vyhne	81.17	326	*e*P	P	21 57 22.3	+1.5
VYHS				*e*		21 57 33.0	
VYHS	Vyhne	81.17	326	P	P	21 57 22.0	+1.2
	comp=Z,4.0nm,1.2s						
BORA	Eskisehir	81.23	314	P	P	21 57 21.1	-0.4
BORA				IAmb	IAmb	21 57 33.3	
	comp=Z,20nm,1.4s						
FLTG	Flechtingen	81.34	332	*e*P	P	21 57 22.7	+1.0
	comp=Z,14nm,1.0s,baz=37,slow=5.2						
FLTG				*e*pP	sP	21 57 32.9	-1.2
	baz=37,slow=5.2						
FLTG	Flechtingen	81.34	332	P	P	21 57 21.7	+0.1
	comp=Z,19nm,0.9s						
JAVC	Velka Javorina	81.41	327	*e*P	P	21 57 24.0	+1.8
JAVC	Velka Javorina	81.41	327	P	P	21 57 24.6	+2.5
	comp=Z,19nm,1.9s						
BRG	Berggiesshubel	81.44	330	*e*P	P	21 57 23.6	+1.4
	comp=Z,12nm,1.2s,baz=37,slow=5.2						
BRG				*e*pP	sP	21 57 33.7	-1.1
	baz=37,slow=5.2						
BRG	Berggiesshubel	81.44	330	P	P	21 57 22.9	+0.7
	comp=Z,12nm,1.1s						
BRG	Berggiesshubel	81.44	330	*e*P	P	21 57 23.2	+1.0
BRG				Amp		21 57 24.6	
	comp=Z,12nm,1.2s						
BRG				pP	sP	21 57 33.7	-1.0
BRG				Amp		21 57 35.1	
	comp=Z,8.3nm,0.9s						
BRG	Berggiesshubel	81.44	330	S	S	22 07 40.0	+8.8
RAYN	Ar Rayn	81.45	293	P	P	21 57 23.3	+0.5
RAYN	Ar Rayn	81.45	293	⇑P	P	21 57 23.4	+0.5
RAYN	Ar Rayn	81.45	293		P	21 57 21.8	-1.0
RAYN				IAmb	IAmb	21 57 24.3	
	comp=Z,14nm,1.1s						
RAYN	Ar Rayn	81.45	293	*i* P	P	21 57 23.3	+0.5
	SNR=16						
RAYN	Ar Rayn	81.45	293	P	P	21 57 23.4	+0.5
	comp=Z,20nm,1.1s						
RAYN	Ar Rayn	81.45	293	P	P	21 57 23.1	+0.3
CLL	Collm	81.47	331	*i* P	P	21 57 23.0	+0.6
CLL				pmax	pmax		
	comp=Z,25nm,1.3s						
CLL				MLR	MLR		
	comp=Z,2µm,17.9s						
CLL	Collm	81.47	331		P	21 57 21.9	-0.5
CLL				IAmb	IAmb	21 57 35.9	
	comp=Z,23nm,1.1s						
CLL	Collm	81.47	331	*e*P	P	21 57 23.4	+1.0
	comp=Z,19nm,1.1s,baz=37,slow=5.2						
CLL				*e*pP	sP	21 57 33.6	-1.3
	baz=37,slow=5.2						
CLL	Collm	81.47	331	P	P	21 57 22.6	+0.2
	comp=Z,544nmcomp=Z,19nm,1.1s						
CLL	Collm	81.47	331	P	P	21 57 22.9	+0.5
	comp=Z,19nm,1.1s						
CLL	Collm	81.47	331	*i* P	P	21 57 23.0	+0.6
	comp=Z,25nm,1.3s						
CLL				*i* pP	sP	21 57 33.9	-1.0
	comp=Z,23nm,1.1s						
CLL				*i* x	x	21 57 49.2	
CLL				*e*PP	PP	22 00 34.0	+6.0
CLL				*e*S	SKSac	22 07 38.0	-1.5
CLL				*e*sS	ScS	22 07 58.0	+9.0
CLL				*e*SS	SS	22 13 06.0	+19
CLL				L	L	22 27 00.0	
CLL				AMS	AMS	22 32 00.0	
	comp=N,700nm,19.8s						
CLL				AMS	AMS	22 32 00.0	
	comp=E,1µm,22.1s						
CLL				AMS	AMS	22 36 00.0	
	comp=Z,2µm,17.9s						
PIX	Pinacate	81.52	57	P	P	21 57 21.5	-1.4
VRAC	Vranov	81.54	328	LR	LR	22 37 47.6	
	comp=Z,2µm,18.1s,baz=35,slow=39						
VRAC	Vranov	81.54	328	⇓P	P	21 57 25.7	+2.9
VRAC	Vranov	81.54	328	*e*P	P	21 57 23.6	+0.8
VRAC	Vranov	81.54	328	⇓P	P	21 57 25.7	+2.9
VRAC	Vranov	81.54	328	P	P	21 57 24.3	+1.5
	comp=Z,4.6nm,1.7s						
GZR	Gura Zlata	81.56	322	⇓P	P	21 57 24.6	+1.5
GZR	Gura Zlata	81.56	322	⇓P	P	21 57 24.6	+1.5
RETH	Rethem/Aller,	81.70	333	*e*P	P	21 57 25.0	+1.5
	comp=Z,15nm,1.2s,baz=37,slow=5.2						
VLAD	Vladila	81.72	320	⇑P	P	21 57 25.2	+1.3
SMOL	Smolenice	81.78	327	*e*P	P	21 57 26.0	+1.9
SMOL				*e*		21 57 36.5	
SMOL				pmax	pmax		
	comp=Z,4.0nm,1.0s						
KRUC	Moravsky	81.81	328	*e*P	P	21 57 25.1	+0.9
KRUC	Moravsky	81.81	328	P	P	21 57 25.6	+1.3
	comp=Z,15nm,1.3s						
HSKC	Hora Svate Kat	81.85	330	AMS	AMS	22 36 50.0	
	comp=Z,2µm,14.9s						
HSKC	Hora Svate Kat	81.85	330	P	P	21 57 25.8	+1.3
	comp=Z,18nm,1.2s						
PRU	Pruhonice	81.88	329	*e*P	P	21 57 25.6	+1.0
PRU				*e*SKS	S	22 07 46.5	+11
PRU				AMS	AMS	22 36 40.0	

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            comp=Z,2µm,16.4s
PRU   Pruhonice        81.88 329  P       P       21 57 25.8 +1.2
            comp=Z,13nm,1.2s
SRO   Srobarova        81.91 326 eP       P       21 57 26.7 +2.0
SRO                              e                21 57 37.7
SRO                               pmax    pmax
            comp=Z,60nm,2.2s
SRO   Srobarova        81.91 326 eP       P       21 57 26.7 +2.0
SRO                              e                21 57 37.6
MODS  Modra-Piesok     81.95 327 eP       P       21 57 26.4 +1.4
MODS                             e                21 57 37.6
MODS  Modra-Piesok     81.95 327  P       P       21 57 26.6 +1.6
            comp=Z,30nm,1.2s
BZS   Buzias           81.97 323 ⇓P       P       21 57 26.2 +1.1
BZS   Buzias           81.97 323 ⇓P       P       21 57 26.2 +1.1
BZS   Buzias           81.97 323  P       P       21 57 25.9 +0.8
            comp=Z,13nm,2.6s
TREC  Trest            82.02 328  P       P       21 57 26.7 +1.3
            comp=Z,17nm,1.4s
NEUB  Neuenburg        82.03 331 eP       P       21 57 26.7 +1.4
            comp=Z,26nm,1.2s,baz=37,slow=5.2
CLZ   Clausthal        82.05 332 eP       P       21 57 27.2 +1.7
            comp=Z,14nm,0.9s,baz=37,slow=5.2
CLZ   Clausthal        82.05 332  P       P       21 57 27.4 +1.9
            comp=Z,23nm,1.3s
ASF   Jabal al Asfar   82.20 304  LR      LR      22 37 52.9
            comp=Z,776nm,18.4s,baz=30,slow=39
TANN  Tannenbergstha   82.39 330 eP       P       21 57 28.6 +1.3
            comp=Z,20nm,1.7s,baz=37,slow=5.2
TANN                             epP      sP      21 57 38.7  -1.1
            baz=37,slow=5.2
GTTG  Gottingen        82.44 332 eP       P       21 57 29.2 +1.7
            comp=Z,7.3nm,0.6s,baz=37,slow=5.2
GTTG                             epP      sP      21 57 39.1  -0.9
            baz=37,slow=5.2
ZVC   Zvikov           82.45 329 eP       P       21 57 29.1 +1.5
ZVC                               AMS     AMS     22 37 00.0
            comp=Z,2µm,15.5s
MDVR  Moldovita        82.52 322 ⇑P       P       21 57 28.9 +0.8
MOX   Moxa             82.53 331 eP       P       21 57 29.3 +1.3
            comp=Z,20nm,1.5s,baz=37,slow=5.2
MOX                              epP      sP      21 57 39.4  -1.1
            baz=37,slow=5.2
MOX                              eS       S       22 07 54.2  +12
MOX                              eL       L       22 37 14.5
            comp=Z,1µm,18.0s
MOX   Moxa             82.53 331  P       P       21 57 27.9  -0.1
            comp=Z,8.3nm,1.4s
SDCO  Great Sand Dun   82.59  48          P       21 57 28.9 +0.1
IBBN  Ibbenburen       82.62 334 eP       P       21 57 29.6 +1.2
            comp=Z,32nm,1.2s,baz=37,slow=5.2
MMAI  Mount Meron Ar   82.64 306  P       P       21 57 29.2 +0.2
            comp=Z,4.1nm,0.9s,baz=44,slow=8.5,SNR=3.6
MMAI                              LR      LR      22 37 56.7
            comp=Z,702nm,18.4s,baz=39,slow=38
            comp=Z,4.1nm,0.9s
WINA  Alland / Wiene   82.67 327 i PcP    P       21 57 30.5 +1.7
            comp=Z,16nm,1.3s,SNR=5.5
CSS   Mathiatis        82.71 309  P       P       21 57 28.8  -0.5
CSS                               IAmb    IAmb    21 57 42.5
            comp=Z,25nm,1.3s
CSS   Mathiatis        82.71 309  P       P       21 57 29.5 +0.3
            comp=Z,499nmcomp=Z,13nm,2.1s
CSS   Mathiatis        82.71 309  P       P       21 57 30.1 +0.8
            comp=Z,13nm,2.1s
MPLH  Magyarpolny      82.73 326  P       P       21 57 29.4 +0.3
            comp=Z,39nm,1.2s
MPLH  Magyarpolny      82.73 326  P       P       21 57 30.2 +1.1
            comp=Z,15nm,1.2s
SOP   Sopron           82.78 327  P       P       21 57 30.9 +1.6
            comp=Z,16nm,1.2s
BALB  Balikesir        82.86 315          P       21 57 29.0  -0.9
CKRC  Cesky Krumlov    82.88 328 eP       P       21 57 31.0 +1.2
CKRC                              AMS     AMS     22 37 10.0
            comp=Z,2µm,15.7s
RONA  Rosalia, Austr   82.89 327 i PcP    P       21 57 31.9 +1.9
            comp=Z,18nm,1.2s,SNR=9.6
CONA  Conrad Observa   82.90 327 i PcP    P       21 57 31.7 +1.6
            comp=Z,25nm,2.3s,SNR=10
KHC   Kasperske Hory   82.94 329ceP       P       21 57 31.3 +1.1
KHC                               pmax    pmax
            comp=Z,11nm,1.0s
KHC   Kasperske Hory   82.94 329 eP       P       21 57 30.9 +0.7
KHC                              epP      pP      21 57 40.5 +0.8
KHC                               AMS     AMS     22 37 00.0
            comp=Z,2µm,16.8s
KHC   Kasperske Hory   82.94 329          P       21 57 29.7  -0.5
KHC   Kasperske Hory   82.94 329  P       P       21 57 30.3 +0.1
            comp=Z,11nm,1.0s
KHC   Kasperske Hory   82.94 329  P       P       21 57 31.5 +1.3
            comp=Z,11nm,1.2s
MORH  Mrgy, Hungar     82.94 324 ⇑P       P       21 57 30.5 +0.4
MORH  Mrgy, Hungar     82.94 324  P       P       21 57 29.8  -0.4
            comp=Z,7.6nm,1.8s
MORH  Mrgy, Hungar     82.94 324  P       P       21 57 30.6 +0.4
            comp=Z,8.5nm,1.7s
MMLI  Mount Malkishu   83.00 305  P       P       21 57 30.2  -0.6
            comp=Z,38nm,1.8s
ALN   Alexandroupoli   83.02 317  P       P       21 57 30.5  -0.1
ALN                               pmax    pmax
            comp=Z,15nm,1.3s
ALN   Alexandroupoli   83.02 317          P       21 57 30.5  -0.1
ALN                               IAmb    IAmb    21 57 33.2
            comp=Z,15nm,1.3s
ALN   Alexandroupoli   83.02 317  P       P       21 57 31.4 +0.7
            comp=Z,15nm,2.1s
GEC2  GERESS Array S   83.11 329  P       P       21 57 30.5  -0.7
GEC2  GERESS Array S   83.11 329 eP       P       21 57 32.2 +1.1
            comp=Z,11nm,1.3s,baz=37,slow=5.2
GEC2                             epP      sP      21 57 42.4  -1.3
            baz=37,slow=5.2
GEC2  GERESS Array S   83.11 329  P       P       21 57 31.9 +0.7
            comp=Z,7.4nm,1.0s
GERES GERESS Array B   83.11 329  P       P       21 57 31.7 +0.5
            comp=Z,3.1nm,0.7s,baz=25,slow=4.4,SNR=22
            comp=Z,3.1nm,0.7s
GERES GERESS Array B   83.11 329  P       P       21 57 30.7  -0.4
MANT  Manisa           83.25 314  P       P       21 57 30.7  -1.5
MANT                              IAmb    IAmb    21 57 34.4
            comp=Z,20nm,1.2s
KASTN Kahler Asten     83.29 333 eP       P       21 57 33.1 +1.2
            comp=Z,15nm,1.4s,baz=37,slow=5.2
ECSD  EROS Data Cent   83.31  39  P       P       21 57 31.1  -1.1
ECSD                              IAmb    IAmb    21 58 22.2
            comp=Z,26nm,1.8s
GRA3  Grafenberg Arr   83.35 331  P       P       21 57 32.9 +0.7
            comp=Z,20nm,1.0s
BOVS  Bovan            83.36 321 ⇑P       P       21 57 33.1 +0.7
EKA   Eskdalemuir Ar   83.36 341  P       P       21 57 32.9 +0.8
            comp=Z,1.4nm,0.6s,baz=32,slow=4.5,SNR=4.0
EKA                               LR      LR      22 38 50.3
            comp=Z,1µm,18.4s,baz=36,slow=39
            comp=Z,1.4nm,0.6s
KSCO  Kaye Shedlock'   83.41  45  P       P       21 57 31.1  -1.8
KSCO                              IAmb    IAmb    21 58 35.5
            comp=Z,9.2nm,0.6s
GRA2  Grafenberg Arr   83.42 330  P       P       21 57 34.6 +2.0
            comp=Z,18nm,1.3s
GRA1  Grafenberg Arr   83.45 331          P       21 57 31.9  -0.8
GRA1  Grafenberg Arr   83.45 331  P       P       21 57 34.2 +1.5
GRF   Grafenberg Arr   83.45 331  P       P       21 57 31.9  -0.8
GRF                               pmax    pmax
            comp=Z,73nm,1.8s
GRF   Grafenberg Arr   83.45 331 eP       P       21 57 34.5 +1.7
            comp=Z,35nm,1.4s,baz=37,slow=5.2
GRF                              eS       S       22 08 02.8  +11
GRF                              eL       L       22 37 44.1
            comp=Z,1µm,18.1s
GRFO  Grafenberg       83.45 331  P       P       21 57 34.7 +2.0
GRFO  Grafenberg       83.45 331  P       P       21 57 34.7 +2.0
GRFO  Grafenberg       83.45 331  P       P       21 57 34.1 +1.4
GRB4  Grafenberg Arr   83.49 330  P       P       21 57 34.3 +1.3
            comp=Z,16nm,1.1s
GRB3  Grafenberg Arr   83.49 330  P       P       21 57 34.9 +1.9
            comp=Z,22nm,1.3s
GRB1  Grafenberg Arr   83.51 330  P       P       21 57 35.1 +2.0
            comp=Z,24nm,1.0s
GHAJ  Ghor Haditha     83.63 305          P       21 57 33.0  -0.9
GHAJ  Ghor Haditha     83.63 305  P       P       21 57 35.1 +1.2
            comp=Z,30nm,1.2s
ELL   Elmali           83.63 312  P       P       21 57 32.4  -1.7
ELL                               pmax    pmax
            comp=Z,17nm,0.9s
ELL   Elmali           83.63 312          P       21 57 32.4  -1.7
ELL                               IAmb    IAmb    21 57 51.7
            comp=Z,17nm,0.9s
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T25A  Trinidad         83.64  48  P       P       21 57 34.2  0.0
T25A                              IAmb    IAmb    21 57 43.3
            comp=Z,32nm,1.7s
MOA   Molln            83.65 328 ePcP     P       21 57 35.0 +1.2
            comp=Z,6.2nm,1.1s
MOA   Molln            83.65 328  P       P       21 57 35.5 +1.6
            comp=Z,12nm,1.2s
MSBI  Mazada           83.76 305  P       P       21 57 36.0 +1.4
            comp=Z,20nm,1.9s
GRC4  Grafenberg Arr   83.81 330  P       P       21 57 35.7 +1.1
            comp=Z,13nm,1.1s
TASM  ASL Pad, Albuq   83.86  50  P       P       21 57 33.8  -1.5
TASM                              IAmb    IAmb    21 57 45.4
            comp=Z,18nm,1.5s
TASM  ASL Pad, Albuq   83.86  50  P       P       21 57 34.2  -1.1
TASM                              IAmb    IAmb    21 57 45.4
            comp=Z,16nm,1.4s
ANMO  Albuquerque      83.86  50  LR      LR      22 35 51.2
            comp=Z,96nm,18.6s,baz=330,slow=36
ANMO  Albuquerque      83.86  50⇑eP       P       21 57 36.7 +1.3
ANMO                              pmax    pmax
            comp=Z,7.0nm,1.0s
ANMO  Albuquerque      83.86  50  P       P       21 57 33.3  -2.1
ANMO                              IAmb    IAmb    21 57 45.3
            comp=Z,17nm,1.4s
ANMO  Albuquerque      83.86  50  P       P       21 57 38.3 +2.9
            comp=Z,6.4nm,1.5s
ANMO  Albuquerque      83.86  50  P       P       21 57 38.1 +2.8
ANMO                              pP      pwP     21 57 48.4  -0.3
ALQ   Albuquerque      83.86  50          P       21 57 34.0  -1.4
ALQ                               IAmb    IAmb    21 57 45.4
            comp=Z,16nm,1.4s
ALQ   Albuquerque      83.86  50          P       21 57 33.1  -2.3
ALQ                               IAmb    IAmb    21 57 45.4
            comp=Z,17nm,1.4s
PPT   Papeete          83.88 117  LR      LR      22 29 58.1
            comp=Z,599nm,19.9s,baz=353,slow=32
GRC1  Grafenberg Arr   83.88 330  P       P       21 57 34.7  -0.3
            comp=Z,13nm,1.0s
GRC3  Grafenberg Arr   83.94 330  P       P       21 57 36.3 +1.0
            comp=Z,15nm,1.1s
BIOA  Bad Ischl, Aus   84.04 328 i PcP    P       21 57 36.8 +1.0
            comp=Z,10nm,1.2s,SNR=7.1
SESA  Seetaler Alpe,   84.09 327 i PcP    P       21 57 37.5 +1.1
            comp=Z,31nm,1.2s,SNR=7.7
SRS   Serrai           84.18 318  P       P       21 57 37.3 +0.6
            comp=Z,19nm,1.6s
AYDN  Tasoluk          84.21 314  P       P       21 57 38.6 +1.7
            comp=Z,199nm,1.2s
SOKA  Soboth           84.22 327 i PcP    P       21 57 37.6 +0.8
            comp=Z,21nm,1.8s,SNR=9.3
RJOB  Jochberg         84.36 329  P       P       21 57 38.7 +1.2
            comp=Z,9.8nm,1.0s
RPZ   Rata Peaks       84.51 160  LR      LR      22 33 25.8
            comp=Z,109nm,18.6s,baz=92,slow=34
MEM   Membach          84.64 334 dP       P       21 57 38.9 +0.1
            comp=Z,7.0nm,1.2s
KBA   Koelnbreinsper   84.64 328 ePcP     PcP     21 57 41.0  -1.6
            comp=Z,3.1nm,0.7s
KZIT  Kziot            84.65 305  P       P       21 57 40.2 +1.0
            comp=Z,49nm,1.2s
LESA  Schwarzleotal    84.65 328 i PcP    P       21 57 40.1 +1.0
            comp=Z,9.6nm,1.2s,SNR=6.1
HRFI  Mount Harif      84.78 304  P       P       21 57 40.9 +0.9
            comp=Z,34nm,1.1s
BDRM  Kayabasi         84.87 313 ⇓P       P       21 57 41.7 +1.5
GRG   Griva            84.93 319  P       P       21 57 41.1 +0.7
            comp=Z,26nm,1.2s
STU   Stuttgart        84.98 331 eP       P       21 57 41.9 +1.4
            comp=Z,32nm,0.9s,baz=37,slow=5.2
STU                              epP      sP      21 57 52.2  -0.9
            baz=37,slow=5.2
PAIG  Paliouri         84.98 317  P       P       21 57 41.3 +0.6
            comp=Z,5.5nm,1.1s
ACOM  Acomizza, Ital   84.99 327  P       P       21 57 41.0 +0.2
            comp=Z,13nm,1.1s
SCHQ  Schefferville    85.02  17  LR      LR      22 36 60.0
            comp=Z,467nm,21.1s,baz=339,slow=37
EIL   Elat             85.08 304  LR      LR      22 41 04.2
            comp=Z,1µm,18.1s,baz=68,slow=40
EIL   Elat             85.08 304  P       P       21 57 42.2 +0.9
            comp=Z,17nm,1.1s
RTBA  Rita Blanca      85.10  47          P       21 57 41.4  -0.2
WTTA  Wattenberg       85.21 329 epP      P       21 57 50.3 +8.4
            comp=Z,5.8nm,0.8s
WTTA  Wattenberg       85.21 329  P       P       21 57 43.2 +1.2
            comp=Z,8.9nm,2.4s
BMRD  Maredsous        85.33 334 dP       P       21 57 42.7 +0.5
            comp=Z,8.7nm,1.0s
BMRD                             dpP      sP      21 57 54.0  -0.8
MOTA  Moosalm          85.37 329 i PcP    P       21 57 43.4 +0.7
            comp=Z,11nm,1.2s,SNR=6.3
RETA  Reutte           85.39 329 i PcP    P       21 57 43.6 +0.9
            comp=Z,15nm,1.2s,SNR=6.0
PHP   Peshkopia        85.41 320  P       P       21 57 43.4 +0.5
            comp=Z,13nm,1.2s
SQTA  Sankt Quirin     85.42 329 ePcP     P       21 57 43.7 +0.7
            comp=Z,8.4nm,1.3s
PDG   Podgorica        85.46 322          P       21 57 43.2 +0.2
PDG   Podgorica        85.46 322  P       P       21 57 43.7 +0.6
            comp=Z,25nm,1.3s
LIT   Litokhoron       85.50 318  P       P       21 57 42.1  -1.2
LIT                               pmax    pmax
            comp=Z,27nm,1.1s
LIT   Litokhoron       85.50 318          P       21 57 42.1  -1.2
LIT   Litokhoron       85.50 318  P       P       21 57 43.0  -0.4
            comp=Z,23nm,1.1s
STAL  STALIGIAL        85.56 328  P       P       21 57 42.5  -1.0
STAL                              IAmb    IAmb    21 58 04.8
            comp=Z,13nm,1.2s
DOU   Dourbes          85.56 334 dP       P       21 57 43.5 +0.1
XOR   Xorichti         85.65 317  P       P       21 57 44.6 +0.5
            comp=Z,16nm,1.1s
BFO   Black Forest     85.67 331  P       P       21 57 44.0  0.0
BFO                               pmax    pmax
            comp=Z,12nm,0.9s
BFO   Black Forest     85.67 331  P       P       21 57 44.0  0.0
BFO                               IAmb    IAmb    21 57 56.0
            comp=Z,12nm,0.9s
BFO   Black Forest     85.67 331 eP       P       21 57 45.2 +1.2
            comp=Z,21nm,1.2s,baz=37,slow=5.2
BFO                              epP      sP      21 57 55.5  -1.1
            baz=37,slow=5.2
BFO   Black Forest     85.67 331  P       P       21 57 44.9 +0.9
BFO                               pP      sP      21 57 55.2  -1.4
FETA  Feichten         85.78 329 ePcP     P       21 57 45.0 +0.3
            comp=Z,9.5nm,1.3s
DAVA  Damuels          85.91 330 i PcP    P       21 57 46.4 +1.0
            comp=Z,15nm,1.2s,SNR=5.2
DAVA  Damuels          85.91 330  P       P       21 57 46.2 +0.8
            comp=Z,21nm,1.1s
CTI   Castel Tesino    86.17 328  P       P       21 57 44.9  -1.8
CTI                               pmax    pmax
            comp=Z,6.0nm,1.0s
CTI   Castel Tesino    86.17 328  P       P       21 57 44.9  -1.8
ECH   Echery           86.21 332  P       P       21 57 46.0  -0.7
ECH                               pmax    pmax
            comp=Z,12nm,1.1s
ECH   Echery           86.21 332          P       21 57 46.0  -0.7
ECH                               IAmb    IAmb    21 57 48.7
            comp=Z,12nm,1.1s
ECH   Echery           86.21 332  P       P       21 57 47.9 +1.2
            comp=Z,15nm,2.5s
ECH   Echery           86.21 332  P       P       21 57 47.5 +0.8
CGRP  Cima Grappa      86.25 328  P       P       21 57 46.8  -0.4
            comp=Z,9.1nm,1.3s
PH02  Texas Public H   86.28  48  P       P       21 57 46.5  -0.9
FUORN Ofenpass-Fuorn   86.29 329  P       P       21 57 46.6  -0.8
FUORN                             IAmb    IAmb    21 58 15.9
            comp=Z,16nm,1.0s
FUORN Ofenpass-Fuorn   86.29 329  P       P       21 57 48.3 +0.9
            comp=Z,17nm,1.1s
DAVOX Davos/Dischmat   86.32 330  LR      LR      22 39 48.7
            comp=Z,2µm,18.9s,baz=24,slow=38
KSU1  Kansas State U   86.67  42  P       P       21 57 48.4  -0.7
KSU1                              IAmb    IAmb    21 57 50.4
            comp=Z,14nm,1.1s
TUE   Stuetta          86.78 330          P       21 57 48.1  -1.7
TUE                               IAmb    IAmb    21 58 22.4
            comp=Z,14nm,1.4s
TUE   Stuetta          86.78 330  P       P       21 57 49.1  -0.7
            comp=Z,7.0nm,1.9s
AMTX  Amarillo         86.79  48          P       21 57 49.6  -0.2
AMTX                              IAmb    IAmb    21 58 02.6
            comp=Z,8.1nm,0.8s
GDL2  Guadalupe Moun   86.99  51  P       P       21 57 50.3  -0.7
L40A  Anamosa          87.20  37  P       P       21 57 51.1  -0.5
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TPB28                  87.26  52  P       P       21 57 51.9  -0.4
TPB28                             IAmb    IAmb    21 58 01.5
            comp=Z,10nm,1.3s
KAN08 Anthony NE Sta   87.27  44  P       P       21 57 50.1  -1.9
ELIS  Ellis County     87.28  46  P       P       21 57 51.7  -0.5
ELIS                              IAmb    IAmb    21 58 04.9
            comp=Z,15nm,1.0s
TPB11 China Draw       87.38  51  P       P       21 57 53.5 +0.7
TPB11                             IAmb    IAmb    21 58 19.5
            comp=Z,11nm,1.4s
SMWD  Samnorwood       87.48  47  P       P       21 57 52.2  -1.0
SMWD                              IAmb    IAmb    21 58 02.1
            comp=Z,9.1nm,0.9s
VHRN  Van Horn         87.55  53          P       21 57 53.7  0.0
SENIN Lac Senin/Sane   87.69 331  P       P       21 57 54.1  -0.1
SENIN                             IAmb    IAmb    21 58 20.3
            comp=Z,24nm,1.8s
FDMO  Fiordimonte      87.93 325          P       21 57 55.1  -0.1
LOR   Lormes           88.22 333  P       P       21 57 57.4 +1.0
            comp=Z,17nm,2.9s
INTR  Introdacqua      88.35 324          P       21 57 56.8  -0.4
INTR                              IAmb    IAmb    21 57 59.4
            comp=Z,11nm,1.0s
LPIG  La Paz           88.38  61  LR      LR      22 37 14.9
            comp=Z,177nm,18.1s,baz=275,slow=35
N41A  Harden Midland   88.41  38  P       P       21 57 57.2  -0.2
WMOK  Wichita Mounta   88.59  46  P       P       21 57 56.3  -2.1
WMOK                              pmax    pmax
            comp=Z,15nm,1.6s
WMOK  Wichita Mounta   88.59  46  P       P       21 57 56.3  -2.1
WMOK                              IAmb    IAmb    21 58 06.8
            comp=Z,15nm,1.6s
WMOK  Wichita Mounta   88.59  46  P       P       21 57 59.7 +1.3
            comp=Z,6.2nm,2.0s
L44A  Lake County Fo   88.66  35  P       P       21 57 57.0  -1.5
APMT  Aspermont        88.80  48  P       P       21 57 58.7  -0.7
OK052 Battle Ridge R   88.81  44  P       P       21 58 00.1 +0.7
OK052                             IAmb    IAmb    21 59 31.7
            comp=Z,17nm,1.2s
TX31  Lajitas Ar. Si   89.37  53          P       21 58 01.6  -0.6
TX31                              IAmb    IAmb    21 58 18.6
            comp=Z,11nm,1.5s
TXAR  Lajitas Array    89.37  53  P       P       21 58 04.2 +1.9
            comp=Z,2.6nm,0.9s,baz=290,slow=3.9,SNR=21
TXAR                              LR      LR      22 31 48.4
            comp=Z,350nm,21.7s,baz=318,slow=31
            comp=Z,2.6nm,0.9s
TXAR  Lajitas Array    89.37  53  P       P       21 58 00.9  -1.4
CCM   Cathedral Cave   90.25  40  P       P       21 58 04.2  -1.9
CCM                               pmax    pmax
            comp=Z,17nm,1.3s
CCM   Cathedral Cave   90.25  40  P       P       21 58 04.2  -1.9
CCM                               IAmb    IAmb    21 58 08.4
            comp=Z,17nm,1.3s
CEL   Celeste          90.29 321          P       21 58 06.1  -0.2
CEL   Celeste          90.29 321  P       P       21 58 07.3 +1.0
            comp=Z,22nm,1.1s
SLM   Saint Louis      90.31  39  P       P       21 58 06.1  -0.3
SLM                               pmax    pmax
            comp=Z,19nm,0.5s
SLM   Saint Louis      90.31  39  P       P       21 58 06.1  -0.3
ATD   Arta Tunnel      90.71 285  LR      LR      22 43 18.9
            comp=Z,24nm,20.1s,baz=22,slow=38
BRDY  Brady            90.91  49          P       21 58 08.6  -0.8
JCT   Junction City    91.00  50  P       P       21 58 10.4 +0.6
JCT                               pmax    pmax
            comp=Z,8.0nm,0.3s
JCT   Junction City    91.00  50  P       P       21 58 10.3 +0.6
VAE   Valguarnera      91.64 321  LR      LR      22 43 29.8
            comp=Z,2µm,18.5s,baz=69,slow=38
MIAR  Mount Ida        91.66  43  P       P       21 58 11.9  -0.8
MIAR                              pmax    pmax
            comp=Z,10.0nm,1.1s
MIAR  Mount Ida        91.66  43          P       21 58 11.9  -0.8
MIAR                              IAmb    IAmb    21 58 15.5
            comp=Z,9.7nm,1.1s
MIAR  Mount Ida        91.66  43  P       P       21 58 14.8 +2.0
            comp=Z,12nm,1.8s
WHAR  Wooly Hollow     91.80  42  P       P       21 58 12.9  -0.5
VT1   Waterbury        92.87  25  P       P       21 58 18.1  0.0
T47A  Sharon Grove     93.14  38  P       P       21 58 19.8 +0.3
CEST  Esterri de Car   93.17 332  P       P       21 58 18.9  -0.8
CEST                              IAmb    IAmb    21 58 21.9
            comp=Z,8.2nm,1.1s
KEST  Kesra            95.50 323  LR      LR      22 46 45.0
            comp=Z,1µm,18.2s,baz=19,slow=39
ESDC  Sonseca Array    97.61 335  P       P       21 58 39.8  -0.1
            comp=Z,0.2nm,0.4s,baz=32,slow=4.4,SNR=4.1
ESDC                              PP      PP      22 02 36.0  -0.7
            comp=Z,1.9nm,1.1s,baz=37,slow=5.8,SNR=5.8
ESDC                              LR      LR      22 48 47.4
            comp=Z,2µm,18.0s,baz=14,slow=39
            comp=Z,0.2nm,0.4s
TORD  Torodi Ar. Bea  117.90 316  PKP     PKPdf   22 03 52.2  -0.2
            comp=Z,1.4nm,0.9s,baz=10,slow=3.2,SNR=4.3
TORD                              PP      PP      22 04 59.0  -6.6
            comp=Z,1.7nm,0.9s,baz=33,slow=6.5,SNR=3.6
QSPA  South Pole Qui  126.85 180  PKP     PKPdf   22 04 08.0  0.0
            comp=Z,0.8nm,0.5s,baz=77,slow=2.0,SNR=4.7
CZSB  Cruzeiro do Su  136.68  56 eP       PKiKP   22 04 29.2  -0.7
TROLL Troll, Antarti  139.58 198  PKPdf   PKPdf   22 04 33.0 +1.1
            comp=Z,158nm,0.9s
SNAA  Sanae           141.07 197  PKP     PKPdf   22 04 33.2  -1.3
            comp=Z,1.0nm,0.5s,baz=153,slow=4.5,SNR=3.6
VNA3  Neumayer Olymp  142.86 194 ⇓PKPdf   PKPdf   22 04 34.2  -3.4
            comp=Z,4.6nm,0.8s
VNA1  Neumayer--Stat  143.03 196  PKPdf   PKPbc   22 04 35.5 +0.8
            comp=Z,11nm,0.8s
ITTB  Itaituba        143.37  32 eP       PKPdf   22 04 41.6 +1.3
SMAI  San Martin Ant  144.82 161           PKPdf   22 04 42.0 +0.9
SHEL  Horse Pasture   144.91 298 i PKIKP  PKPdf   22 04 43.9 +1.0
SHEL  Horse Pasture   144.91 298  PKPdf   PKPdf   22 04 42.9  0.0
AP01  Chacalluta      145.68  66  PKPdf   PKPdf   22 04 41.9  -2.2
PB12  IPOC Station P  145.84  66  PKPdf   PKPbc   22 04 44.8  -0.2
LPAZ  La Paz          145.89  61  PKPbc   PKPab   22 04 46.9 +0.5
            comp=Z,7.9nm,0.8s,baz=355,slow=5.8,SNR=15
LPAZ  La Paz          145.89  61 eP       PKPbc   22 04 46.1 +0.2
NPGB  Novo Progresso  145.93  33 eP       PKPab   22 04 46.2 +0.3
PMSA  Palmer Station  148.12 159          PKPbc   22 04 49.3  -0.7
PMSA  Palmer Station  148.12 159 eP       PKiKP   22 04 51.0  -0.7
VILB  Vilhena         148.51  46          PKPdf   22 04 49.3 +0.4
VILB  Vilhena         148.51  46 eP       PKPbc   22 04 50.9  -1.7
CLDB  Colider         149.10  37 eP       PKPdf   22 04 50.9 +0.9
NBMA  Muriti-CE       150.37   3 eP       PKPdf   22 04 52.5 +0.5
SMTB  Santa Maria do  150.43  21 eP       PKPdf   22 04 54.0 +1.9
PTLB  Pontes e Lacer  151.11  47 eP       PKPdf   22 04 54.8 +1.8
BI02  San Fabin de    153.04  99          PKPab   22 05 12.8  -1.6
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*GII **03** 22:04:50.5±0.0, 33°070N±0°002×35°463E±0°001,*
h0km, Mws2.1/5, confirmed

*GRAL **03** 22:04:51.4±0.2, 33°06N×35°46E, h0km±1km, MD2.8*

ISC 03 22:04:50.5±0.9, **33°07N**±0°02×**35°45E**±0°04, **h11**km±5km,
n23, σ0s**75**/43, **Jordan-Syria region**

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Code  Station Name      Δ°   AZ°   Phase ID        Time      Res
                                  Op      ISC      h  m  s   ISC
MMA0B Mount Meron ar   0.07 212  P       Pg      22 04 52.7  -0.3
MMA0B                            S       Sg      22 04 54.2  -0.5
ZEFT  Zefat            0.11 160  P       Pg      22 04 53.0  -0.4
ZEFT                             S       Sg      22 04 55.9 +0.3
KNHM  Kefar Nahum      0.22 150  P       Pg      22 04 55.1  0.0
KNHM                             S       Sg      22 04 59.1 +0.8
GEM   Giv'at Ha'Em     0.23  53  P       Pg      22 04 55.5 +0.3
GEM                              S       Sg      22 04 59.5 +1.1
NATI  Neve Ativ        0.31  52  P       Pb      22 04 57.5  -0.5
NATI                             S       Sb      22 05 02.8  -0.3
KSHT  Keshet           0.32 107  P       Pb      22 04 57.6  -0.7
KSHT                             S       Sb      22 05 02.9  -0.6
SHBL  Chebaa           0.37  42 eP       Pg      22 04 58.0 +0.1
SHBL                            eS       Sg      22 05 03.2 +0.3
RCY   Rachaya          0.53  38 eP       Pg      22 05 01.1 +0.1
RCY                             eS       Sg      22 05 08.2 +0.2
OFRI  `Ofer            0.60 221  P       Pb      22 05 02.8  -0.2
OFRI                             S       Sb      22 05 12.7 +1.3
MMLI  Mount Malkishu   0.64 182  P       Pb      22 05 03.1  -0.5
MMLI                             S       Sb      22 05 13.9 +1.4
DQRL  Deir Qamar       0.64   9 eP       Pg      22 05 03.1 +0.2
DQRL                            eS       Sg      22 05 11.8 +0.4
ROII  Roi              0.82 178  P       Pg      22 05 06.1  -0.3
ROII                             S       Sn      22 05 19.3  -0.9
BHL   Bhannes          0.85  12 eP       Pg      22 05 06.8  0.0
ZAHL  Zahle            0.86  25 eP       Pg      22 05 07.1  -0.1
RGMN  Argaman          0.91 176  P       Pb      22 05 08.3 +0.1
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RGMN				S	Sn	22 05 21.8	-0.4
HWQ	Hawqa	1.27	19	*e*P	Pn	22 05 14.3	-0.1
HWQ				*e*S	Sg	22 05 31.2	-0.2
MZS	Mizpe Shalem	1.50	182	P	Pb	22 05 18.4	0.0
MZS				S	Sg	22 05 38.8	0.0
BEIL	Beino	1.59	23	*e*P	Pb	22 05 19.4	-0.5
AMAZ	Amatzia	1.60	196	P	Pb	22 05 20.0	-0.2
AMAZ				S	Sg	22 05 41.6	-0.4
MSBI	Mazada	1.76	183	P	Pn	22 05 21.7	+0.9
MSBI				S	Sb	22 05 45.1	+0.3
GHAJ	Ghor Haditha	1.77	177	P	Pb	22 05 22.3	-0.7
GHAJ				S	Sb	22 05 45.7	+0.5
KZIT	Kziot	2.34	203	P	Pn	22 05 30.2	+1.3
KZIT				S	Sb	22 05 59.8	-1.7
RMNI	Mount Ramon	2.54	193	P	Pn	22 05 33.0	+1.3
RMNI				S	Sb	22 06 05.3	-2.2

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*ATH **03** 22:24:20.4, 34°.62N×24°.77E, h15^{km}±1^{km}, ML3.0/7, Latitude uncertainty: 1 km; Longitude uncertainty: 0 km*
*ISK **03** 22:24:21.2, 34°.82N×24°.69E, h4^{km}, ML2.6/6*
*THE **03** 22:24:22.1, 35°N±2°×2°5E±°, h6^{km}±3^{km}, M2.6/8, MLh2.6/8*
ISC 03 22:24:21.5±1.4, **34°.77N**±0°.06×**24°.70E**±0°.03, **h9**^{km}±10^{km}, **n26**, σ**0^{s}.52**/42, **Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SIVA	Sivas	0.26	21	P	Pb	22 24 28.2	-0.3
SIVA				S	Sg	22 24 31.2	+0.8
SIVA				AML	AML		
SIVA	Sivas	0.26	21	P	Pb	22 24 28.2	-0.3
SIVA				S	Sb	22 24 33.9	+0.8
SIVA				AML	AML		
GVD	Gavdhos	0.51	278	P	Pb	22 24 31.8	-0.9
GVD				S	Sb	22 24 39.9	-0.2
GVD				AML	AML		
GVD	Gavdhos	0.51	278	Pg	Pg	22 24 31.6	+0.3
GVD				Sg	Sb	22 24 39.4	-0.7
GVD				AML	AML		
GVD	Gavdhos	0.51	278	P	Pb	22 24 32.1	-0.5
GVD				S	Sb	22 24 40.8	+0.7
GVD				AML	AML		
GVDS	Gavdos	0.53	277	P	Pg	22 24 32.1	+0.3
GVDS				S	Sb	22 24 40.0	-0.8
GVDS				AML	AML		
GVDS	Gavdos	0.53	277	P	Pb	22 24 32.8	-0.2
IDI	Anoyia	0.54	17	P	Pb	22 24 32.3	-0.9
IDI				S	Sb	22 24 40.6	-0.6
IDI				AML	AML		
IDI	Anoyia	0.54	17	Pg	Pg	22 24 31.6	-0.4
IDI				AML	AML		
IDI	Anoyia	0.54	17	P	Pb	22 24 32.3	-0.9
IDI				S	Sb	22 24 41.4	+0.3
IDI				AML	AML		
VAM	Vamos	0.75	327	P	Pn	22 24 38.1	-0.3
VAM				S	Sn	22 24 50.0	0.0
VAM				AML	AML		
CHNB	Souda	0.88	324	P	Pn	22 24 40.0	-0.1
CHNB				S	Sn	22 24 53.1	+0.1
NPS	Neapolis	0.90	57	P	Pb	22 24 38.8	-0.5
NPS				AML	AML		
NPS	Neapolis	0.90	57	P	Pg	22 24 38.6	-0.2
NPS				S	Sg	22 24 50.4	-0.1
IMMV	Iera Moni Meta	0.90	320	P	Pg	22 24 38.7	-0.2
IMMV				S	Sb	22 24 52.0	+0.4
IMMV				AML	AML		
IMMV	Iera Moni Meta	0.90	320	Pg	Pg	22 24 38.7	-0.2
IMMV				AML	AML		
IMMV	Iera Moni Meta	0.90	320	P	Pn	22 24 40.4	0.0
IMMV				S	Sn	22 24 54.0	+0.3
IMMV				AML	AML		
CHAN	Chania	0.92	324	P	Pn	22 24 40.9	+0.3
CHAN				S	Sn	22 24 55.3	+1.3
CHAN				AML	AML		
KNDR	Palaiochora Ch	0.99	298	P	Pg	22 24 40.3	-0.3
KNDR				AML	AML		
KNDR	Palaiochora Ch	0.99	298	P	Pg	22 24 40.5	-0.1
KNDR				S	Sn	22 24 55.8	-0.1
KNDR				AML	AML		
ZKR	Zakros	1.29	74	Pn	Pg	22 24 46.6	+0.2
ZKR				AML	AML		
ANKY	Antikythira Is	1.58	314	P	Pn	22 24 50.2	+0.4
THERA	Ancient Thera,	1.71	22	P	Pn	22 24 51.7	+0.1
THERA	Ancient Thera,	1.71	22	P	Pn	22 24 51.7	+0.1
THERA				S	Sb	22 25 14.9	0.0
KTHA	Kythira Island	1.99	318	Pn	Pn	22 24 56.3	+0.8
KTHA				AML	AML		
VLI	Veliai	2.41	324	P	Pn	22 25 01.4	+0.2

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*IDC **03** 22:29:07.5±0.8, 60°.59N×28°.72W, h0^{km}, mb3.8/13, mbtmp3.8/15, ML3.8/2, MS3.9/8, Error ellipse: s-maj=17.6km s-min=16.5km az=156.0*
*NEIC **03** 22:29:09.6±2.1, 60°.66N±0°.10×28°.6W±0°.2, h10^{km}±1^{km}, mb4.7/42, Error ellipse: s-maj=16.5km s-min=14.9km az=188.0*
ISC 03 22:29:09.3±0.4, **60°.62N**±0°.07×**28°.56W**±0°.07, **h10**^{km}, **n79**, σ**0^{s}.96**/75, **mb4.4**/33, **MS3.9**/8, **Reykjanes Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BORG	Borgarnes	5.32	36	Pn	Pn	22 30 27.5	-1.1
	4.6nm,0.3s,baz=269,slow=6.9,SNR=19						
BORG				Sn	Sn	22 31 29.4	-0.5
	0.4nm,0.3s,baz=72,slow=20,SNR=5.1						
	20nm,0.6s						
BORG				AML	AML		
SUMG	Summit	12.61	346	Pn	Pn	22 32 09.0	+0.2
EKA	Eskdalemuir Ar	14.42	100	Pn	Pn	22 32 33.5	+0.2
	baz=298,slow=8.0						
	0.9nm,0.6s						
ARCES	ARCESS Array B	23.63	45	P	P	22 34 21.6	+1.5
	1.5nm,0.7s,baz=298,slow=10,SNR=2.0						
	1.5nm,0.7s						
BATG	Bathurst New B	25.37	255	P	P	22 34 37.3	+1.0
BATG				IAmb	IAmb	22 34 53.6	
	comp=Z,18nm,1.4s						
CEST	Esterri de Car	25.50	121	P	P	22 34 36.9	-0.7
FIA1	FINESS Array S	25.84	64	P	P	22 34 40.6	+0.2
FIA1				IAmb	IAmb	22 34 44.8	
	comp=Z,54nm,1.4s						
FINES	FINESS Array B	25.84	64	P	P	22 34 41.0	+0.6
ESBB	Sonseca Array	25.94	133	P	P	22 34 40.1	-1.4
ESDC	Sonseca Array	25.94	133	P	P	22 34 43.2	+1.6
	comp=Z,1.1nm,0.9s,baz=330,slow=11,SNR=7.9						
	comp=Z,1.1nm,0.9s						
ESDC	Sonseca Array	25.94	133	P	P	22 34 42.1	+0.5
TUE	Stuetta	26.15	106	P	P	22 34 44.0	+0.4
HAL	Halifax	26.17	248	P	P	22 34 45.0	+1.4
HAL				IAmb	IAmb	22 35 06.7	
	comp=Z,25nm,1.2s						
CART	Cartagena	28.87	130	P	P	22 35 07.8	0.0
CART				IAmb	IAmb	22 35 13.9	
	comp=Z,29nm,1.0s						
G62A	West of Eustis	29.00	257	P	P	22 35 09.4	+0.5
G62A				IAmb	IAmb	22 35 23.7	
	comp=Z,13nm,1.3s						
MAHO	Mahon	29.00	121	P	P	22 35 08.1	-0.8
MAHO				IAmb	IAmb	22 35 10.6	
	comp=Z,39nm,1.4s						
TRQ	Mont Tremblant	30.23	263	P	P	22 35 19.9	0.0
TRQ				IAmb	IAmb	22 35 31.2	
	comp=Z,15nm,1.4s						
FDMO	Fiordimonte	30.49	106	P	P	22 35 22.4	+0.3
FDMO				IAmb	IAmb	22 35 32.6	
	comp=Z,7.3nm,1.3s						
CESX	Cesi	30.57	107	P	P	22 35 24.2	+1.4
CESX				IAmb	IAmb	22 35 35.2	
	comp=Z,7.2nm,1.3s						
BLY	Banja Luka	31.18	100	P	P	22 35 28.7	+0.6
BLY				IAmb	IAmb	22 35 50.5	
	comp=Z,6.0nm,1.2s						
LONY	Lake Ozonia	31.40	260	P	P	22 35 31.4	+1.2
LONY				IAmb	IAmb	22 35 37.5	
	comp=Z,7.2nm,1.1s						
M63A	Gales Ferry	32.61	254	P	P	22 35 40.1	-0.6
M63A				IAmb	IAmb	22 35 41.8	
	comp=Z,28nm,1.2s						
MACI	Morro de la Ar	33.37	160	P	P	22 35 47.1	-0.6
N58A	Sunbury	35.28	258	P	P	22 36 04.0	+0.1
N58A				IAmb	IAmb	22 36 23.2	
	comp=Z,11nm,1.2s						
TIRR	Tirgusor	36.90	90	P	P	22 36 18.1	+0.3
TIRR				IAmb	IAmb	22 36 21.3	
	comp=Z,15nm,1.2s						
ULM	Lac du Bonnet	37.90	285	LR	LR	22 50 02.4	
	comp=Z,219nm,18.3s,baz=7.5,slow=33						
YKAW3	Yellowknife Wh	38.12	312	P	P	22 36 29.1	+1.2
YKAW3				IAmb	IAmb	22 36 39.3	
	comp=Z,15nm,1.5s						
YKA	Yellowknife Ar	38.16	311	P	P	22 36 29.5	+1.3
	comp=Z,1.3nm,0.8s,baz=55,slow=8.9,SNR=3.1						
	comp=Z,1.3nm,0.8s						
T59A	Double "B" Far	38.73	255	P	P	22 36 34.3	+1.1
K43A	Burlington	39.56	271	P	P	22 36 39.3	-0.9
K43A				IAmb	IAmb	22 36 41.8	
	comp=Z,68nm,1.1s						
INK	Inuvik	40.52	326	LR	LR	22 53 33.0	
	comp=Z,81nm,18.5s,baz=33,slow=36						
BRTR	Keskin Array B	43.02	90	P	P	22 37 10.2	+1.4
	comp=Z,0.7nm,0.9s,baz=333,slow=4.1,SNR=3.8						
	comp=Z,0.7nm,0.9s						
ARG	Arkhangelos	43.05	98	P	P	22 37 09.7	+0.8
ARG				IAmb	IAmb	22 37 12.5	
	comp=Z,48nm,1.4s						
I30M	Mount Dempster	43.50	324	P	P	22 37 12.3	0.0
C23K	Itkillik River	43.51	335	P	P	22 37 13.5	+1.2
C23K				IAmb	IAmb	22 37 27.3	
	comp=Z,16nm,1.4s						
MMPY	Sheldon Lake,	43.84	319	P	P	22 37 15.9	+0.8
MMPY				IAmb	IAmb	22 37 18.6	
	comp=Z,8.8nm,1.5s						
I29M	Ogilvie Camp,	43.95	325	P	P	22 37 15.6	-0.3
I29M				IAmb	IAmb	22 37 16.9	
	comp=Z,3.9nm,0.8s						
J30M	Hart River	43.97	324		P	22 37 16.6	+0.5
H27K	Steamboat Moun	44.17	328		P	22 37 17.7	+0.1
G26K	Porcupine Rive	44.20	329	P	P	22 37 18.2	+0.4
M29M	Somme Creek	46.21	323	P	P	22 37 34.0	+0.1
M29M				IAmb	IAmb	22 37 38.3	
	comp=Z,6.8nm,1.0s						
ILAR	Eielson Array	46.71	329	P	P	22 37 37.6	-0.1
	comp=Z,0.9nm,0.8s,baz=34,slow=6.1,SNR=7.9						
ILAR				PcP	PcP	22 39 11.1	+0.2
	comp=Z,0.3nm,0.7s,baz=359,slow=3.6,SNR=4.5						
	comp=Z,0.9nm,0.8s						
ILAR	Eielson Array	46.71	329	P	P	22 37 36.2	-1.5
K24K	Donnelly Dome	47.20	327	P	P	22 37 39.7	-1.9
NEW	Newport	49.04	298	LR	LR	22 59 06.2	
	comp=Z,114nm,18.3s,baz=18,slow=37						
PDAR	Pinedale Array	49.80	288	P	P	22 38 00.2	-1.9
	comp=Z,0.3nm,0.5s,baz=72,slow=9.5,SNR=4.7						
PDAR				LR	LR	22 58 21.7	
	comp=Z,62nm,18.7s,baz=344,slow=35						
	comp=Z,0.3nm,0.5s						
PDAR	Pinedale Array	49.80	288	P	P	22 37 59.9	-2.3
TORD	Torodi Ar. Bea	52.30	142	P	P	22 38 18.9	-1.9
	comp=Z,1.0nm,1.0s,baz=347,slow=8.1,SNR=3.0						
	comp=Z,1.0nm,1.0s						
ELK	Elko	54.03	290	LR	LR	23 00 58.9	
	comp=Z,95nm,18.3s,baz=10.0,slow=35						
ZALV	Zalesovo Beam	54.13	42	P	P	22 38 35.0	+1.1
	comp=Z,0.2nm,0.3s,baz=302,slow=3.2,SNR=1.6						
	comp=Z,0.2nm,0.3s						
ZALV	Zalesovo Beam	54.13	42	P	P	22 38 34.0	+0.1
KURK	Kurchatov	54.63	48	P	P	22 38 36.3	-1.3
KURBB	Kurchatov Arra	54.67	48	P	P	22 38 37.8	-0.1
	comp=Z,0.9nm,0.7s,baz=323,slow=7.0,SNR=8.5						
	comp=Z,0.9nm,0.7s						
NVAR	Mina Array Bea	57.30	291	LR	LR	23 04 57.4	
	comp=Z,57nm,18.1s,baz=358,slow=38						
MKAR	Makanchi Array	59.24	48	P	P	22 39 10.2	-0.1
	comp=Z,0.6nm,0.6s,baz=343,slow=4.6,SNR=6.7						
	comp=Z,0.6nm,0.6s						
MKAR	Makanchi Array	59.24	48	P	P	22 39 10.0	-0.3
PFO	Pinyon Flats O	60.37	286	LR	LR	23 04 09.9	
	comp=Z,153nm,18.0s,baz=360,slow=35						
CMIG	Matias Romero	63.67	258	LR	LR	23 06 11.1	
	comp=Z,106nm,20.0s,baz=3.5,slow=35						
SONM	Songino Array	65.92	31	P	P	22 39 54.6	-0.5
	comp=Z,0.7nm,0.6s,baz=328,slow=7.2,SNR=4.1						
	comp=Z,0.7nm,0.6s						
SONM	Songino Array	65.92	31	P	P	22 39 54.6	-0.5
LZDM	Lanzhou Array	76.15	38	P	P	22 40 57.7	+0.2
	comp=Z,1.4nm,0.4s,baz=336,slow=6.6,SNR=2.1						
	comp=Z,1.4nm,0.4s						
INCN	Inchon	80.15	20	P	P	22 41 18.6	-0.8
TA01	Diego Aracena	87.61	219	P	P	22 41 57.9	+0.5
PB07	IPOC Station P	88.61	218	P	P	22 42 03.2	+0.9
POHA	Pohakuloa	89.26	311	P	P	22 42 05.6	-0.1
HUH	Hualalai	89.44	311	P	P	22 42 05.8	-0.8
MLH	Mauna Loa	89.44	311	P	P	22 42 06.5	-0.1
BYL	Byron's Ledge	89.47	311	P	P	22 42 06.0	-0.6
CMAR	Chiang Mai Arr	90.64	49	P	P	22 42 12.8	+0.9
	comp=Z,0.4nm,0.3s,baz=347,slow=5.2,SNR=4.4						
	comp=Z,0.4nm,0.3s						
CMAR	Chiang Mai Arr	90.64	49	P	P	22 42 11.7	-0.3
QSPA	South Pole Qui	150.52	180	PKPbc	PKPbc	22 48 57.8	-1.7
	comp=Z,1.5nm,0.7s,baz=264,slow=3.7,SNR=8.6						
STKA	Stephens Creek	150.53	17	PKPbc	PKiKP	22 49 01.4	+0.1
	comp=Z,1.4nm,0.5s,baz=259,slow=5.2,SNR=3.7						
MXZ	Matakaoa Point	151.37	311	PKPdf	PKPdf	22 48 57.5	+1.3
MXZ					sPKPbc	22 49 08.0	+1.5
TOZ	Tahuroa Road	152.52	316	PKPdf	PKPdf	22 48 58.5	+0.6
RTZ	Ruatahuna	152.78	312	PKPdf	PKPdf	22 48 57.7	-0.8
VNDA	Vanda	162.67	188	PKP	PKPdf	22 49 07.7	-1.7
	comp=Z,0.2nm,0.6s,baz=217,slow=5.1,SNR=1.5						
VNDA	Vanda	162.67	188		PKPdf	22 49 09.9	+0.5
PYZ	Puysegur Point	162.98	321	PKPdf	PKPdf	22 49 10.5	-0.1
MCQ	Macquarie Isla	172.66	323	PKPdf	PKPdf	22 49 18.1	+1.1

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*IDC **03** 22:33:56.1±1.1, 9°.11S×111°.96E, h0^{km}, mb3.9/10, mbtmp3.8/11, ML3.7/1, MS3.2/2, Error ellipse: s-maj=42.8km s-min=15.9km az=54.0*
*DJA **03** 22:34:00.8±0.4, 9°S±4°×11°2E±°, h10^{km}, M4.4/30, mB5.3/1, mb4.5/1, MLv4.3/30, Mw(mB)4.8/1*
ISC 03 22:33:57.7±0.8, **9°.44S**±0°.08×**111°.91E**±0°.04, **h10**^{km}, **n25**, σ**2^{s}.38**/29, **mb3.9**/10, **South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCJI	Pacitan	1.43	329	P	Pg	22 34 26.5	+1.3
SNJI	Sawahan-Nganju	1.65	355	P	Pn	22 34 28.4	+1.5
SNJI				AML	AML		
UGM	Wanagama	2.04	318	P	Pb	22 34 35.0	0.0
UGM				AML	AML		
YOGI	Yogyakarta	2.27	315	P	Pb	22 34 38.8	0.0
YOGI				S	Sn	22 35 06.6	+3.2
YOGI				AML	AML		
BLJI	Banyuglugur	2.36	45	P	Pn	22 34 38.8	+2.2
BLJI				S	Sn	22 35 08.4	+2.7
BLJI				AML	AML		
JAGI	Jajag, Banyuwa	2.41	67	P	Pn	22 34 38.7	+1.5
JAGI				AML	AML		
SMRI	Semarang	2.78	328	P	Pb	22 34 46.3	-1.3
SMRI				AML	AML		
ABJI	Asem Bagus	2.81	55	P	Pn	22 34 46.1	+3.3
ABJI				S	Sn	22 35 19.9	+3.1
ABJI				AML	AML		
RTBI	Rangdo, Negare	3.15	72	P	Pn	22 34 50.6	+3.2
RTBI				S	Sn	22 35 28.1	+3.1
RTBI				AML	AML		
IGBI	Denpasar	3.25	79	P	Pn	22 34 50.9	+2.1
IGBI				S	Sn	22 35 29.4	+1.8
IGBI				AML	AML		
KHKI	Kahang-Kahang	3.80	74	P	Pn	22 34 59.1	+2.7
KHKI				AML	AML		
BBJI	Bungbulang	4.65	295	P	Pn	22 35 11.1	+3.0
BBJI				S	Sn	22 36 06.0	+3.7
KAPI	Kappang	8.93	61	LR	LR	22 39 42.3	
	comp=Z,123nm,21.0s,baz=275,slow=40						
FITZ	Fitzroy Crossi	15.86	124	Pn	Pn	22 37 40.4	-0.9
	0.2nm,0.3s,baz=288,slow=6.9,SNR=6.2						
FITZ				Sn	Sn	22 40 22.2	-15
	0.2nm,0.3s,baz=170,slow=20,SNR=6.2						
	1.9nm,0.8s						
FITZ				AML	AML		
WRA	Warramunga Arr	24.04	118	P	P	22 39 13.6	+0.3
	0.6nm,0.6s,baz=294,slow=11,SNR=18						
	0.6nm,0.6s						
ASAR	Alice Springs	25.33	127	P	P	22 39 27.1	+2.1
	0.8nm,0.6s,baz=301,slow=9.2,SNR=10						
	0.8nm,0.6s						
CMAR	Chiang Mai Arr	30.53	335	LR	LR	22 52 38.8	
	comp=Z,56nm,18.0s,baz=195,slow=37						
MJAR	Matsushiro Arr	51.99	27	P	P	22 43 04.1	-3.2
	1.1nm,0.6s,baz=204,slow=8.0,SNR=5.9						
	1.1nm,0.6s						
USRK	Ussuriysk Ar.	56.40	17	P	P	22 43 36.7	-2.6
	2.7nm,0.7s,baz=183,slow=7.2,SNR=5.1						
	2.7nm,0.7s						
SONM	Songino Array	57.23	356	P	P	22 43 43.5	-1.7
	0.5nm,0.4s,baz=174,slow=9.0,SNR=5.2						
	0.5nm,0.4s						
MKAR	Makanchi Array	61.90	337	P	P	22 44 16.2	-1.3
	1.6nm,0.6s,baz=148,slow=7.3,SNR=19						
	1.6nm,0.6s						
KURBB	Kurchatov Arra	66.47	338	P	P	22 44 45.7	-1.6
	0.3nm,0.5s,baz=160,slow=5.0,SNR=4.4						
	0.3nm,0.5s						
ZALV	Zalesovo Beam	67.18	343	P	P	22 44 49.8	-2.0
	1.2nm,0.6s,baz=153,slow=5.3,SNR=7.7						
	1.2nm,0.6s						
BVAR	Borovoye Array	71.56	335	P	P	22 45 16.9	-2.0
	0.4nm,0.5s,baz=152,slow=6.4,SNR=2.1						
	0.4nm,0.5s						
QSPA	South Pole Qui	80.57	180	P	P	22 46 11.3	+1.0
	1.2nm,1.0s,baz=259,slow=5.2,SNR=2.1						
	1.2nm,1.0s						

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*MCSM **03** 22:41:11.2±0.5, 35°N±4°×2°8E±°, h5^{km}±3^{km}, mb4.2, mB4.5, MLv4.1, Mw(mB)3.7*
*IDC **03** 22:41:12.6±0.6, 35°.54N×27°.63E, h0^{km}, mb4.0/16, mbtmp4.0/26, ML3.7/7, Error ellipse: s-maj=12.9km s-min=10.3km az=19.0*
*NIC **03** 22:41:13.7, 35°.52N×27°.68E, h9^{km}±2^{km}, Ml3.8/15*
*GII **03** 22:41:13.7±0.0, 35°.28N×27°.63E, h0^{km}±9^{km}, Mws4.1, confirmed*
*ATH **03** 22:41:13.3, 35°.45N×27°.73E, h6^{km}±1^{km}, ML3.9/7, Latitude uncertainty: 2 km; Longitude uncertainty: 1 km*
*ISK **03** 22:41:14.1, 35°.55N×27°.61E, h6^{km}, ML4.0/41*
*AFAD **03** 22:41:14.0, 35°.59N×27°.62E, h25^{km}±6^{km}, MW4.2*
*GFZ **03** 22:41:15.6±0.2, 35°N±2°×2°8E±°, h10^{km}, M4.4/25, mb4.4/25*
*THE **03** 22:41:16.0, 36°N±3°×2°8E±°, h2^{km}±3^{km}, M3.9/12, MLh3.9/12*
*NAO **03** 22:41:23.0, 35°.08N×24°.47E, h33^{km}, MB3.4*
ISC 03 22:41:14.2±1.1, **35°.51N**±0°.03×**27°.64E**±0°.02, **h12**^{km}±7^{km}, **n321**, σ**1^{s}.64**/397, **mb3.9**/15, **15C-10D**, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KARP	Karpathos	0.39	276	P	Pb	22 41 22.7	-0.4
KARP				S	Sb	22 41 29.3	+0.1
KARP				AML	AML		
KARP	Karpathos	0.39	276	Pg	Pb	22 41 22.2	-0.9
KARP				AML	AML		
KARP	Karpathos	0.39	276	P	Pb	22 41 22.8	-0.4
KARP				S	Sb	22 41 29.0	-0.1
KARP				AML	AML	22 41 31.7	
	36nm,0.3s						
KARP				AML	AML	22 41 35.0	
	28nm,0.4s						
KARP	Karpathos	0.39	276	P	Pb	22 41 22.1	-1.0
KARP				AML	AML		
KARP	Karpathos	0.39	276	P	Pb	22 41 22.5	-0.6
KARP				S	Sb	22 41 29.2	+0.1
KARP				AML	AML		
KARP	Karpathos	0.39	276	P	Pb	22 41 22.9	-0.2
ARG	Arkhangelos	0.81	29	P	Pg	22 41 29.3	-0.6
ARG				S	Sg	22 41 39.9	-0.6
ARG				AML	AML		
ARG	Arkhangelos	0.81	29	Pg	Pg	22 41 29.4	-0.5
ARG				Sg	Sb	22 41 41.4	+0.2
ARG				AML	AML		
ARG	Arkhangelos	0.81	29	P	Pg	22 41 29.2	-0.6
ARG				S	Sg	22 41 40.0	-0.5
ARG				AML	AML	22 41 46.7	
	15nm,0.4s						
ARG				AML	AML	22 41 49.4	
	17nm,0.6s						
ARG	Arkhangelos	0.81	29	P	Pg	22 41 29.2	-0.6
ARG				S	Sg	22 41 40.2	-0.3
ARG				AML	AML		
ARG	Arkhangelos	0.81	29	P	Pg	22 41 29.3	-0.6
RODB	Rodos	1.05	26	P	Pg	22 41 33.3	-1.2
RODB				S	Sb	22 41 48.3	+0.2
RDI1	Rhodes Town Ha	1.06	26	P	Pg	22 41 34.0	-0.5
RDI1				S	Sb	22 41 48.7	+0.5
YAZI	Mula-Dat§a-	1.18	353	P	Pg	22 41 36.0	-0.9
YAZI				S	Sn	22 41 53.4	+0.8
YAZI				IAML		22 41 54.0	
	comp=E,2µm,0.9s						
DAT	Datca	1.22	358	P	Pg	22 41 36.9	-0.9
DAT				S	Sn	22 41 53.8	0.0
DAT				AML	AML		
DAT	Datca	1.22	358	Pn	Pg	22 41 36.8	-0.9
DAT				Sn	Sn	22 41 54.4	+0.6
DAT				AML	AML		
DAT	Datca	1.22	358	P	Pg	22 41 36.8	-0.9
DAT				S	Sg	22 41 52.6	-1.0
DAT				IAML		22 42 00.0	
	comp=E,3µm,0.5s						
ZKR	Zakros	1.23	252	P	Pn	22 41 38.6	+1.4
ZKR				S	Sn	22 41 57.6	+3.8
ZKR	Zakros	1.23	252	Pn	Pn	22 41 37.6	+0.4
ZKR				AML	AML		
ZKR	Zakros	1.23	252	P	Pb	22 41 37.3	0.0
ZKR				AML	AML	22 42 04.9	
	14nm,0.5s						
ZKR				AML	AML	22 42 08.0	
	8.8nm,0.6s						
ZKR	Zakros	1.23	252	P	Pn	22 41 37.9	+0.7
ZKR				S	Sn	22 41 54.7	+1.0
ZKR	Zakros	1.23	252	P	Pn	22 41 37.8	+0.6
DATC	Datca-Mugla	1.25	1	Pn	Pg	22 41 37.4	-0.8
DATC				AML	AML		
SIT2	Siteia	1.29	257	P	Pg	22 41 38.9	0.0
SIT2				S	Sn	22 41 56.7	+1.5
TURN	Turunc	1.36	21	Pn	Pn	22 41 39.2	+0.2
TURN				AML	AML		
TURN	Turunc	1.36	21	P	Pn	22 41 38.5	-0.5
BODA	Bodrum-Mula	1.54	354	Pn	Pb	22 41 42.1	-0.5
DALY	Dalyan (Mula)	1.54	32	Pn	Pb	22 41 42.5	-0.2
DALY				AML	AML		
DALY	Dalyan (Mula)	1.54	32	P	Pb	22 41 42.6	-0.1
KLNA	Kalymnos	1.55	340	P	Pn	22 41 41.6	0.0
KLNA				S	Sg	22 42 03.9	-0.1
BDRM	Kayabasi	1.57	354	P	Pn	22 41 41.3	-0.6
BDRM				S	Sn	22 42 00.3	-1.8
BDRM				IAML		22 42 06.0	
	comp=E,1µm,0.4s						
BODT	Bodrum	1.58	350	P	Pn	22 41 42.5	+0.5
BODT				S	Sn	22 42 02.7	+0.3
BODT				AML	AML		
BODT	Bodrum	1.58	350	Pn	Pn	22 41 42.5	+0.5
BODT				AML	AML		
IZZE	Mula-Seydike	1.59	54	P	Pn	22 41 42.1	0.0
YKAV	Yalikavak-Bodr	1.64	350	Pn	Pn	22 41 43.4	+0.5
YKAV				AML	AML		
NPS	Neapolis	1.68	262	P	Pg	22 41 45.9	-0.5
NPS				S	Sg	22 42 08.5	+0.5
NPS				AML	AML		
NPS	Neapolis	1.68	262	P	Pb	22 41 45.1	+0.1
NPS				S	Sg	22 42 06.8	-1.2
NPS				AML	AML		
SABU	Mula-Dalaman	1.70	39	P	Pb	22 41 45.4	0.0
SABU				S	Sg	22 42 08.1	-0.8
SABU				IAML		22 42 17.0	
	comp=E,1µm,0.9s						
YER	Yerkesik	1.71	17	P	Pb	22 41 45.3	-0.2
YER				S	Sn	22 42 06.4	+0.7
YER	Yerkesik	1.71	17	Pn	Pn	22 41 44.7	+0.8
YER				AML	AML		
AKAS	Kas	1.75	65	Pn	Pn	22 41 45.6	+1.1
AKAS				AML	AML		
AKAS	Kas	1.75	65	P	Pn	22 41 45.7	+1.1
AKAS	Kas	1.75	65	P	Pb	22 41 46.0	-0.4
MLSB	Milas	1.79	3	Pn	Pn	22 41 45.5	+0.5
MLSB				AML	AML		
DIDI	Didim-Aydin	1.90	350	Pn	Pn	22 41 47.3	+0.9
DIDI				AML	AML		
THERA	Ancient Thera,	1.96	297	P	Pn	22 41 48.4	+1.1
THERA				S	Sb	22 42 13.5	-0.7
THERA				AML	AML		

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THERA Ancient Thera,   1.96 297  P    Pn   22 41 48.3 +1.0
THERA                            S    Sb   22 42 13.3 -0.8
THERA                            AML  AML
THERA Ancient Thera,   1.96 297  P    Pn   22 41 48.2 +1.0
CAME  Cameli-Denizli   1.97  43  Pn   Pb   22 41 48.9 -1.1
CAME                             AML  AML
DDIM  Aydin, Didim     1.98 351  P    Pn   22 41 47.9 +0.4
DDIM                             S    Sb   22 42 15.0 +0.3
DDIM                             IAML      22 42 19.0
      comp=E,1µm,0.6s
KNIK  Mula-Seydike     2.06  49  P    Pn   22 41 49.6 +0.8
CAEL  Denizli, Camel   2.11  40  P    Pn   22 41 50.9 +1.5
IACM  Heraklion        2.11 265  P    Pb   22 41 51.8 -0.6
IACM                             S    Sb   22 42 19.6 +1.1
IACM  Heraklion        2.11 265  P    Pn   22 41 50.4 +1.1
IACM                             S    Sb   22 42 17.6 -0.9
AYDN  Tasoluk          2.16   5  P    Pn   22 41 51.5 +1.4
AYDN  Tasoluk          2.16   5  P    Pn   22 41 50.9 +0.9
TAVA  DENIZLI_Tavas    2.21  27  P    Pb   22 41 52.9 -1.3
TAVA                             S    Sb   22 42 22.7 +1.2
TAVA                             IAML      22 42 32.0
      comp=E,517nm,0.7s
ELL   Elmali           2.22  55  Pn   Pn   22 41 52.5 +1.6
ELL                              AML  AML
ELL   Elmali           2.22  55  P    Pn   22 41 52.3 +1.4
ELL                              S    Sn   22 42 18.3  0.0
GCAM  G?zelcaml?       2.22 352  Pn   Pn   22 41 51.8 +1.0
GCAM                             AML  AML
GCAM  G?zelcaml?       2.22 352  P    Pn   22 41 51.2 +0.5
IDI   Anoyia           2.26 265  Pn   Pn   22 41 52.7 +1.3
      138nm,0.5s,baz=72,slow=14,SNR=112
IDI                              Sn   Sb   22 42 22.1 -0.8
      76nm,0.3s,baz=279,slow=14,SNR=4.6
IDI   Anoyia           2.26 265  P    Pb   22 41 53.8 -1.2
IDI                              S    Sb   22 42 22.8  0.0
IDI                              AML  AML
IDI   Anoyia           2.26 265  Pn   Pn   22 41 52.9 +1.5
IDI                              AML  AML
IDI   Anoyia           2.26 265  P    Pb   22 41 53.3 -1.7
IDI                              S    Sn   22 42 21.2 +2.0
IDI                              AML  AML
GOLH  Golhisar         2.32  41  P    Pn   22 41 54.0 +1.6
AKUM  Antalya-Kumluc   2.34  69  P    Pn   22 41 53.4 +1.0
ESEN  Aydn-Nazilli     2.36  14  P    Pn   22 41 54.5 +1.8
SIVA  Sivas            2.37 259  P    Pb   22 41 56.0 -0.7
SIVA                             S    Sb   22 42 25.6 -0.3
SIVA                             AML  AML
KUSD  Kusadasi-Aydin   2.37 353  Pn   Pn   22 41 53.9 +1.0
APMY  Acipayam-Deniz   2.38  34  Pn   Pn   22 41 54.7 +1.6
APMY                             AML  AML
DNIZ  Denizli-Tavas-   2.40  28  P    Pn   22 41 55.4 +2.0
AYDB  Zeytinkoy-Aydi   2.45   5  Pn   Pn   22 41 55.2 +1.1
AYDB                             AML  AML
NAZL  Nazilli-Aydin    2.51  12  Pn   Pn   22 41 56.1 +1.2
NAZL                             AML  AML
KEMT  Kemer-ANTALYA    2.60  64  Pn   Pn   22 41 58.1 +2.0
KEMT                             AML  AML
DGB   zmir             2.61 347  P    Pn   22 41 56.5 +0.2
GMLD  Gumuldur         2.63 347  Pn   Pn   22 41 57.9 +1.4
GMLD                             AML  AML
IZMR  zmir-demi        2.64   5  P    Pn   22 41 56.7 +0.1
IZMR                             P    Pb   22 41 57.3 -4.1
KORT  Korkueli         2.65  55  Pn   Pn   22 41 58.7 +1.8
KORT                             AML  AML
KORT  Korkueli         2.65  55  P    Pb   22 42 00.3 -1.3
INCE  Denizli-Bozkur   2.69  35  P    Pn   22 41 58.7 +1.2
SULTU Buldan           2.70  19  P    Pn   22 41 59.5 +1.9
DUVT  Torbali          2.71 357  P    Pn   22 41 57.6 -0.1
KIRA  zmir-Kiraz       2.75  13  P    Pn   22 41 59.0 +0.6
ODEM  Odemis-Izmir     2.79   7  Pn   Pn   22 41 59.4 +0.7
ODEM                             AML  AML
ANTB  Antalya          2.81  59  Pn   Pn   22 42 00.9 +2.0
ANTB                             AML  AML
VAM   Vamos            2.81 269  P    Pn   22 42 01.5 +2.6
VAM                              S    Sb   22 42 36.4 -2.3
VAM                              AML  AML
MHLO  Agia Marina, M   2.88 295  P    Pn   22 42 02.2 +2.3
MHLO                             S    Sn   22 42 36.5 +2.1
MHLO                             AML  AML
BLCB  Balcova          2.92 351  P    Pn   22 42 01.0 +0.6
BLCB                             S    Sn   22 42 36.0 +0.6
BLCB                             AML  AML
BLCB  Balcova          2.92 351  Pn   Pn   22 42 01.7 +1.3
BRDR  BURDUR-Merkez    2.93  41  P    Pb   22 42 03.6 -2.7
URLA  Izmir            2.97 344  Pn   Pn   22 42 02.6 +1.4
URLA                             AML  AML
URLA  Izmir            2.97 344  P    Pn   22 42 01.7 +0.5
BUCA  Burdur, Bucak-   2.98  51  P    Pn   22 42 04.2 +2.9
HARTU Esme             2.98  18  P    Pn   22 42 02.5 +1.2
GVD   Gavdhos          2.99 258  P    Pb   22 42 06.6 -0.7
IMMV  Iera Moni Meta   2.99 270  P    Pn   22 42 03.1 +1.8
IMMV                             S    Sb   22 42 41.1 -2.6
IMMV  Iera Moni Meta   2.99 270  P    Pn   22 42 03.5 +2.1
MANT  Manisa           3.07  14  P    Pn   22 42 03.6 +0.9
BCK   Bucak            3.08  50  Pn   Pn   22 42 04.7 +2.0
BCK                              AML  AML
BASM  Basmaki-Afyon    3.09  38  Pn   Pn   22 42 04.7 +1.8
BASM                             AML  AML
KULA  Kula-Manisa      3.11  15  Pn   Pn   22 42 04.8 +1.6
KULA                             AML  AML
CHOS  Chios island     3.15 337  Pn   Pn   22 42 04.9 +1.3
CHOS                             AML  AML
CHOS  Chios island     3.15 337  P    Pb   22 42 07.1 -3.0
KTTT  Salihli          3.20   6  P    Pn   22 42 04.8 +0.4
PASA  Karahalli, USA   3.20  27  P    Pn   22 42 05.6 +1.2
KRBN  Karaburun        3.20 345  Pn   Pn   22 42 05.6 +1.2
GOMA  Golmarmara-Man   3.21   4  Pn   Pn   22 42 05.6 +1.2
GOMA                             AML  AML
BAGT  Foa              3.21 349  P    Pn   22 42 04.2 -0.2
CAMT  Merkez           3.25 355  P    Pn   22 42 04.5 -0.5
ISP   Isparta          3.27  44  Pn   Pn   22 42 07.4 +2.0
FOCM  Foa              3.28 347  Pn   Pn   22 42 06.9 +1.5
KARB  zmir-Karabur     3.30 343  P    Pn   22 42 07.2 +1.5
AKS   Akhisar          3.37   2  Pn   Pn   22 42 08.3 +1.6
AKS                              AML  AML
USAK  Uak-Merkez       3.39  19  P    Pn   22 42 08.6 +1.7
GORD  Gordes-Manisa    3.42   7  Pn   Pn   22 42 08.9 +1.4
GORD                             AML  AML
ZEDA  zmir-Bergama     3.48 353  P    Pn   22 42 08.9 +0.7
KEPZ  Antalya-Kepez    3.50  65 ⇑P    Pn   22 42 09.6 +1.2
OSC1  CSNet OBS 1      3.61 123  P    Pn   22 42 09.6 -0.3
OSC1                             S    Sn   22 42 53.2 +0.8
OSC1                             AML  AML  22 43 02.2
      0.3nm,0.5s
OSC1                             AML  AML  22 43 14.6
      0.4nm,0.6s
DKL   Dikili           3.61 351  Pn   Pn   22 42 10.6 +0.7
DKL                              AML  AML
DEMI  Demirci          3.63  13  P    Pn   22 42 10.8 +0.5
SOMA  Soma-Manisa      3.65 359  Pn   Pn   22 42 12.3 +1.9
SOMA                             AML  AML
SIMA  Simav-Kutahya    3.73  16  Pn   Pn   22 42 12.9 +1.2
SIMA                             AML  AML
SHAP  Saphane-Kutahy   3.73  19  Pn   Pn   22 42 13.1 +1.4
SHAP                             AML  AML
SMAA  Simav-Kutahya    3.75  16  Pn   Pn   22 42 13.7 +1.8
SMAA                             AML  AML
KTHA  Kythira Island   3.79 283  P    Pn   22 42 15.0 +2.5
GEDZ  Gediz            3.81  21  Pn   Pn   22 42 14.8 +2.1
GEDZ                             AML  AML
SHUT  Suhut-Afyon      3.83  37  Pn   Pn   22 42 15.3 +2.2
SHUT                             AML  AML
AKMS  Akamas           3.87  96  P    Pn   22 42 13.4 -0.2
AKMS                             S    Sn   22 43 00.6 +1.6
AKMS                             AML  AML  22 43 02.8
      0.8nm,0.4s
AKMS                             AML  AML  22 43 05.9
      0.6nm,0.4s
POL7C Prodromi         3.93  96  P    Pn   22 42 14.6 +0.3
POL7C                            S    Sn   22 43 01.4 +1.0
SDAG  Sultandagi-AFY   3.93  41  Pn   Pn   22 42 16.7 +2.2
SDAG                             AML  AML
ALFC  Alefka           4.07  93  P    Pn   22 42 15.7 -0.6
ALFC                             S    Sn   22 43 04.0 +0.1
ALFC                             AML  AML  22 43 08.2
      0.6nm,0.5s
ALFC                             AML  AML  22 43 09.0
      0.7nm,0.5s
NATA  Nata             4.10  99  P    Pn   22 42 16.7 -0.1
NATA                             S    Sn   22 43 05.8 +1.1
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NATA                             AML  AML  22 43 09.6
      2.1nm,0.5s
NATA                             AML  AML  22 43 17.2
      1.3nm,0.6s
BALY  Balya            4.23 360  P    Pn   22 42 19.9 +1.4
TROD  Troodos          4.31  96  P    Pn   22 42 18.9 -0.9
TROD                             S    Sn   22 43 10.0 -0.2
TROD                             AML  AML  22 43 19.4
      0.7nm,0.5s
TROD                             AML  AML  22 43 28.4
      0.4nm,0.6s
APOL  The Sanctuary    4.36  99  P    Pn   22 42 19.8 -0.5
APOL                             S    Sn   22 43 12.8 +1.7
APOL                             AML  AML  22 43 18.6
      0.5nm,0.5s
APOL                             AML  AML  22 43 19.7
      0.4nm,0.4s
XYLS  Xyliatos         4.45  95  P    Pn   22 42 20.8 -0.8
XYLS                             S    Sn   22 43 13.7 +0.3
XYLS                             AML  AML  22 43 16.6
      0.4nm,0.5s
XYLS                             AML  AML  22 43 20.1
      0.5nm,0.4s
OSC2  CSNet OBS 4      4.53 121  P    Pn   22 42 22.0 -0.6
OSC2                             S    Sn   22 43 16.7 +1.4
OSC2                             AML  AML  22 43 34.1
      0.3nm,0.7s
OSC2                             AML  AML  22 43 37.3
      0.3nm,1.1s
ASGA  Asgata           4.65  97  P    Pn   22 42 23.7 -0.5
ASGA                             S    Sn   22 43 19.0 +0.9
ASGA                             AML  AML  22 43 27.1
      0.5nm,0.4s
ASGA                             AML  AML  22 43 30.8
      0.5nm,0.5s
CSS   Mathiatis        4.69  95  P    Pn   22 42 24.2 -0.6
CSS                              S    Sn   22 43 19.6 +0.4
CSS                              AML  AML  22 43 30.5
      0.3nm,0.8s
CSS                              AML  AML  22 43 39.0
      0.3nm,0.6s
CSS   Mathiatis        4.69  95  P    Pn   22 42 23.6 -1.2
CSS                              AML  AML
CSS   Mathiatis        4.69  95  P    Pn   22 42 24.4 -0.4
CSS   Mathiatis        4.69  95  P    Pn   22 42 24.5 -0.3
CSS                              S    Sn   22 43 19.4 +0.3
ATHAL Athalassa        4.72  93  P    Pn   22 42 25.0 -0.2
ATHAL                            S    Sn   22 43 21.5 +1.6
ATHAL                            AML  AML  22 43 40.1
      0.8nm,0.8s
ATHAL                            AML  AML  22 43 41.0
      0.6nm,0.6s
BAND  Balkesir-Ban     4.86   4 ⇓P    Pn   22 42 28.2 +1.1
ITM   Ithomi           4.91 292  P    Pn   22 42 32.3 +4.5
      comp=Z,65nm,0.6s
MVOU  Mavrovouni       4.93  94  P    Pn   22 42 27.6 -0.4
MVOU                             S    Sn   22 43 25.0 +0.1
MVOU                             AML  AML  22 43 35.9
      comp=Z,0.3nm,0.7s
MVOU                             AML  AML  22 43 40.8
      comp=Z,0.3nm,0.7s
XOR   Xorichti         5.23 319  P    Pn   22 42 35.2 +2.9
      comp=Z,24nm,0.4s
YLV   Yalova           5.24  15  P    Pn   22 42 36.6 +4.2
      comp=Z,0.3nmcomp=Z,752nmcomp=Z,89nm,0.9s
YLV                              AML  AML
CAVK  Edirne/Enez-Ca   5.31 348 ⇑P    Pn   22 42 34.6 +1.3
ALN   Alexandroupoli   5.53 347  P    Pn   22 42 39.4 +3.1
      comp=Z,35nm,0.7s
KKUL  Konya-Kulu       5.57  47  P    Pn   22 42 40.0 +3.0
      comp=Z,26nm,0.9s
SAHE  Sakarya_HENDEK   5.91  24 ⇓P    Pn   22 42 43.7 +2.1
LIT   Litokhoron       6.14 320  P    Pn   22 42 50.5 +5.8
      comp=Z,17nm,1.1s
KIRS  Kirsehir-Merke   6.17  52 ⇓P    Pn   22 42 46.7 +1.5
BR105 Keskin Array S   6.34  47  P    Pn   22 42 50.0 +2.4
      comp=Z,0.0nmcomp=Z,148nmcomp=Z,11nm,0.7s
BR105                            AML  AML
BR104 Keskin Array S   6.35  47  P    Pn   22 42 49.8 +2.1
      comp=Z,0.0nmcomp=Z,83nmcomp=Z,8.6nm,0.7s
BR104                            AML  AML
BR106 Keskin Array S   6.35  47  P    Pn   22 42 49.2 +1.5
      comp=Z,0.0nmcomp=Z,99nmcomp=Z,13nm,0.8s
BR106                            AML  AML
BRTR  Keskin Array B   6.36  47  Pn   Pn   22 42 49.4 +1.5
      comp=Z,0.6nm,0.3s,baz=222,slow=15,SNR=15
BRTR                             Sn   Sn   22 44 01.6 +1.2
      comp=Z,0.4nm,0.3s,baz=211,slow=24,SNR=4.6
      comp=Z,2.8nm,0.5s
BRTR                             AML  AML
SRS   Serrai           6.44 332  P    Pn   22 42 52.1 +3.2
      comp=Z,6.7nm,0.6s
OFRI  `Ofer            6.74 113  P    Pn   22 42 52.0 -1.0
OFRI                             S    Sn   22 44 07.9 -1.9
DQRL  Deir Qamar       6.78 103 eP    Pn   22 42 52.4 -1.2
BHL   Bhannes          6.79 101 eP    Pn   22 42 52.8 -1.0
GRG   Griva            6.83 324  P    Pn   22 42 60.0 +5.8
      comp=Z,35nm,0.7s
MMA0B Mount Meron ar   6.89 109  P    Pn   22 42 53.8 -1.3
MMA0B                            S    Sn   22 44 12.5 -1.0
MMAI  Mount Meron Ar   6.89 109  Pn   Pn   22 42 53.7 -1.4
      comp=Z,4.7nm,0.2s,baz=324,slow=14,SNR=78
MMAI                             Sn   Sn   22 44 12.5 -0.9
      comp=Z,10.0nm,0.3s,baz=309,slow=26,SNR=7.7
HWQ   Hawqa            6.93  98 eP    Pn   22 42 55.1 -0.6
KIRY  Kiryat Shemona   6.95 107  P    Pn   22 42 53.7 -2.1
KIRY                             S    Sn   22 44 13.7 -1.0
SLTI  Sal'it           6.96 116  P    Pn   22 42 54.2 -1.8
SLTI                             S    Sn   22 44 13.0 -2.2
ZAHL  Zahle            6.99 101 eP    Pn   22 42 55.3 -1.2
GEM   Giv'at Ha'Em     7.02 107  P    Pn   22 42 55.8 -1.0
GEM                              S    Sn   22 44 15.0 -1.6
SHBL  Chebaa           7.03 105 eP    Pn   22 42 55.7 -1.4
HULT  Hulata           7.04 108  P    Pn   22 42 55.9 -1.1
HULT                             S    Sn   22 44 15.9 -1.1
RCY   Rachaya          7.06 104 eP    Pn   22 42 56.2 -1.2
NATI  Neve Ativ        7.06 106  P    Pn   22 42 56.7 -0.6
NATI                             S    Sn   22 44 17.2 -0.3
BEIL  Beino            7.08  95 eP    Pn   22 42 56.4 -1.2
KNHM  Kefar Nahum      7.08 109  P    Pn   22 42 56.9 -0.7
KNHM                             S    Sn   22 44 16.7 -1.3
MMLI  Mount Malkishu   7.15 113  P    Pn   22 42 57.7 -1.0
MMLI                             S    Sn   22 44 17.6 -2.2
KSHT  Keshet           7.22 108  P    Pn   22 42 58.9 -0.7
KSHT                             S    Sn   22 44 20.3 -1.2
AMAZ  Amatzia          7.25 121  P    Pn   22 42 58.6 -1.4
AMAZ                             S    Sn   22 44 20.1 -2.2
KZIT  Kziot            7.29 127  P    Pn   22 42 59.9 -0.6
      comp=Z,41nm,0.8s
KZIT  Kziot            7.29 127  P    Pn   22 42 59.1 -1.3
KZIT                             S    Sn   22 44 20.3 -2.8
ROII  Roi              7.29 114  P    Pn   22 42 59.9 -0.6
ROII                             S    Sn   22 44 20.8 -2.4
ANDN  Andirin          7.31  71  P    Pn   22 43 02.1 +1.3
      comp=Z,57nm,0.7s
RGMN  Argaman          7.35 115  P    Pn   22 43 00.3 -1.0
RGMN                             S    Sn   22 44 22.5 -2.2
YITV  Yitav            7.39 116  P    Pn   22 43 01.1 -0.8
YITV                             S    Sn   22 44 23.5 -2.1
UJAP  Al Uja           7.42 116  P    Pn   22 43 01.9 -0.3
      comp=Z,22nm,0.6s
ALMO  Almog            7.50 117  P    Pn   22 43 02.3 -1.1
ALMO                             S    Sn   22 44 26.2 -2.1
MZS   Mizpe Shalem     7.57 119  P    Pn   22 43 02.8 -1.6
MZS                              S    Sn   22 44 27.9 -2.3
MSBI  Mazada           7.69 121  P    Pn   22 43 05.6 -0.3
      comp=Z,59nm,0.7s
MSBI  Mazada           7.69 121  P    Pn   22 43 04.3 -1.7
MSBI                             S    Sn   22 44 30.1 -2.8
RMNI  Mount Ramon      7.72 127  P    Pn   22 43 05.2 -1.3
RMNI                             S    Sn   22 44 31.3 -2.7
GHAJ  Ghor Haditha     7.84 120  P    Pn   22 43 08.5 +0.5
      comp=Z,81nm,0.5s
GHAJ  Ghor Haditha     7.84 120  P    Pn   22 43 06.9 -1.1
GHAJ                             S    Sn   22 44 34.5 -2.2
LOZB  Loznitsa         7.90 354 ⇓P    Pn   22 43 10.4 +1.6
ZFRI  Zfri             8.02 126  P    Pn   22 43 08.7 -1.9
ZFRI                             S    Sn   22 44 38.2 -3.1
RAZG  Razgrad          8.10 354 ⇑P    Pn   22 43 14.4 +2.8
PLVB  Pleven           8.21 344 ⇑P    Pn   22 43 17.4 +4.3
HRFI  Mount Harif      8.28 129  P    Pn   22 43 13.6 -0.5
      comp=Z,28nm,0.5s
HRFI  Mount Harif      8.28 129  P    Pn   22 43 12.6 -1.5
HRFI                             S    Sn   22 44 44.5 -3.0
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ASF   Jabal al Asfar    8.39 111  Pn   Pn   22 43 14.9 -0.7
      comp=Z,1.2nm,0.3s,baz=293,slow=21,SNR=16
ASF                               Sn   Sn   22 44 49.6 -0.8
      comp=Z,0.5nm,0.3s,baz=142,slow=22,SNR=1.6
      comp=Z,4.0nm,0.3s
ASF                               AML  AML
YTVT  Yotvata           8.39 130  P    Pn   22 43 13.8 -1.8
EIL   Elat              8.48 131  Pn   Pn   22 43 16.0 -0.8
      comp=Z,3.7nm,0.3s,baz=341,slow=10,SNR=39
EIL                               Sn   Sn   22 44 47.1 -5.3
      comp=Z,6.2nm,0.3s,baz=5.2,slow=12,SNR=10
      comp=Z,7.6nm,0.3s
EIL                               AML  AML
EIL   Elat              8.48 131  P    Pn   22 43 16.9 +0.1
      comp=Z,16nm,0.7s
EIL   Elat              8.48 131  P    Pn   22 43 14.8 -2.0
EIL                               S    Sn   22 44 49.0 -3.5
ICOR  Ion Corvin        8.60   1 ⇓P    Pn   22 43 19.9 +1.4
TIP   Timpagrande       9.41 296 ⇑P    Pn   22 43 27.8 -1.9
TIP   Timpagrande       9.41 296  P    Pn   22 43 29.2 -0.4
      comp=Z,12nm,1.0s
ISR   Istrita           9.64 355  P    Pn   22 43 35.8 +3.0
      comp=Z,2µmcomp=Z,28nm,1.1s
TLCR                    9.71   5 ⇑P    Pn   22 43 35.7 +2.0
CEL   Celeste           9.80 290  P    Pn   22 43 34.7 -0.3
      comp=Z,15nm,0.7s
MLR   Muntele Rosu     10.06 353  Pn   Pn   22 43 38.7 +0.1
      comp=Z,9.4nm,0.9s,baz=90,slow=20
MLR   Muntele Rosu     10.06 353 ⇑P    Pn   22 43 40.8 +2.3
MLR   Muntele Rosu     10.06 353  P    Pn   22 43 41.1 +2.5
      comp=Z,17nm,1.4s
MLR   Muntele Rosu     10.06 353  P    Pn   22 43 41.4 +2.8
      comp=Z,17nm,1.0s
ARR   Arges            10.11 348 ⇑P    Pn   22 43 41.8 +2.5
VOIR                   10.12 350 ⇑P    Pn   22 43 40.8 +1.5
VOIR                   10.12 350  P    Pn   22 43 37.6 -1.7
      comp=Z,4.3nm,0.7s
KELT  Kelkit           10.29  60  P    Pn   22 43 45.9 +4.1
      comp=Z,40nm,1.1s
MDVR  Moldovita        10.31 336 ⇓P    Pn   22 43 46.0 +4.0
PLOR  Plostina         10.36 356 ⇓P    Pn   22 43 42.1 -0.6
VRI   Vrincioaia       10.37 356 ⇑P    Pn   22 43 47.5 +4.8
VRI   Vrincioaia       10.37 356  P    Pn   22 43 46.2 +3.4
      comp=Z,15nm,1.2s
VRI   Vrincioaia       10.37 356  P    Pn   22 43 46.9 +4.1
      comp=Z,14nm,1.2s
CUC   Castrocucco      10.38 299  P    Pn   22 43 43.9 +1.0
      comp=Z,28nm,0.8s
COVR  Voineasa-Covas   10.39 354 ⇓P    Pn   22 43 46.0 +3.0
MARCO Tramutola        10.50 301  P    Pn   22 43 47.5 +2.9
      comp=Z,22nm,0.7s
GZR   Gura Zlata       10.55 341 ⇓P    Pn   22 43 46.0 +0.8
DOPR  Dopca            10.59 351 ⇑P    Pn   22 43 49.4 +3.6
TURR  Turia            10.61 354 ⇑P    Pn   22 43 48.1 +2.1
OZUR                   10.67 353 ⇑P    Pn   22 43 50.2 +3.3
VAE   Valguarnera      10.83 284  Pn   Pn   22 43 44.0 -5.1
      comp=Z,0.6nm,0.3s,baz=358,slow=17,SNR=2.2
VAE                               Sn   Sn   22 45 43.6 -6.7
      comp=Z,1.0nm,0.3s,baz=56,slow=20,SNR=1.7
TESR  Tescani          11.02 356 ⇑P    Pn   22 43 53.9 +2.3
BZS   Buzias           11.09 337  P    Pn   22 43 54.6 +2.0
      comp=Z,2.3nm,1.2s
BIZ   Bicaz            11.48 355 ⇑P    Pn   22 43 59.4 +1.5
BURAR Bucovina Array   12.23 352 ⇓P    Pn   22 44 11.9 +3.6
EPOS  Posof            13.24  59  P    Pn   22 44 26.5 +4.4
      comp=Z,10.0nm,1.3s
MPLH  Magyarpolny      13.89 330  P    Pn   22 44 35.0 +4.2
      comp=Z,13nm,1.1s
GNI   Garni            14.29  66  P    Pn   22 44 38.5 +2.1
      comp=Z,6.2nm,1.7s
KBZ   Khabaz           14.33  50  Pn   Pn   22 44 39.8 +3.0
      comp=Z,0.1nm,0.3s,baz=233,slow=6.5,SNR=8.6
LUBAR Lubar, Ukraine   14.41   0  P    Pn   22 44 41.4 +3.5
VYHS  Vyhne            14.52 336 eP    P    22 44 47.9 +1.8
SOKA  Soboth           14.64 324  P    P    22 44 44.7 -2.8
      comp=Z,4.2nm,1.1s
KEST  Kesra            14.89 276  Pn   Pn   22 44 44.6 +0.1
      comp=Z,0.5nm,0.3s,baz=126,slow=9.2,SNR=8.4
      comp=Z,1.5nm,0.8s
KEST                              AML  AML
LANS  Liptovska Anna   14.90 339 eP    P    22 44 52.6 +2.2
DRE   Drenchia         15.00 320  P    Pn   22 44 46.7 +0.6
      comp=Z,13nm,0.9s
AK07  Malin Array Si   15.08   4  P    P    22 44 52.4 +0.1
AK06  Malin Array Si   15.12   4  P    P    22 44 52.7 +0.1
AK10  Malin Array Si   15.13   4  P    P    22 44 53.0 +0.2
AK13  Malin Array Si   15.14   3  P    P    22 44 53.3 +0.4
AK09  Malin Array Si   15.15   4  P    P    22 44 51.8 -1.2
AK05  Malin Array Si   15.15   4  P    P    22 44 52.5 -0.5
AK14  Malin Array Si   15.16   4  P    P    22 44 52.4 -0.7
AK08  Malin Array Si   15.17   4  P    P    22 44 53.0 -0.2
AK12  Malin Array Si   15.17   4  P    P    22 44 53.0 -0.3
SESA  Seetaler Alpe,   15.17 324 epP   P    22 44 55.5 +2.0
      comp=Z,8.8nm,1.0s
AK02  Malin Array Si   15.19   4  P    P    22 44 54.1 +0.7
AK16  Malin Array Si   15.20   4  P    P    22 44 51.8 -1.7
AK11  Malin Array Si   15.21   4  P    P    22 44 52.3 -1.4
AK17  Malin Array Si   15.21   3  P    P    22 44 53.5 -0.2
AK15  Malin Array Si   15.22   4  P    P    22 44 53.5 -0.3
KIEV  Kiev             15.22   4  P    P    22 44 52.8 -1.0
      comp=Z,7.7nm,0.7s
AKASG Malin Array Be   15.23   4  Pn   Pn   22 44 49.8 +0.8
      comp=Z,1.3nm,0.3s,baz=200,slow=11,SNR=9.7
      comp=Z,0.2nm,0.3s
AKASG                             AML  AML
AKBB  Malin Array Si   15.23   4  P    P    22 44 54.1 +0.2
AK19  Malin Array Si   15.24   3  P    P    22 44 53.7 -0.4
FUSE  Fusea            15.50 319  P    P    22 44 57.7 +0.7
      comp=Z,18nm,0.7s
KBA   Koelnbreinsper   15.75 322 epP   P    22 45 01.7 +1.8
      comp=Z,11nm,0.9s
KBA   Koelnbreinsper   15.75 322  P    P    22 45 01.8 +1.8
      comp=Z,19nm,1.0s
OJC   Ojcow            15.78 341  P    P    22 45 01.0 +1.0
      comp=Z,16nm,1.2s
OJC   Ojcow            15.78 341  P    P    22 45 01.6 +1.6
      comp=Z,16nm,1.2s
CGRP  Cima Grappa      15.84 316  P    P    22 45 02.0 +1.1
      comp=Z,16nm,0.8s
ABTA  Abfaltersbach    15.97 319 eP    P    22 45 03.6 +1.4
      comp=Z,4.7nm,0.6s
BIOA  Bad Ischl, Aus   16.03 324 eP    P    22 45 04.2 +1.4
      comp=Z,4.9nm,0.9s
KRLC  Kraliky          16.57 335 eP    P    22 45 11.6 +2.7
WTTA  Wattenberg       16.76 319 eP    P    22 45 11.9 +0.7
      comp=Z,4.0nm,0.7s
WTTA  Wattenberg       16.76 319  P    P    22 45 13.1 +2.0
      comp=Z,9.1nm,1.6s
GEC2  GERESS Array S   16.83 327  P    P    22 45 12.2 +0.4
      comp=Z,6.1nm,1.3s
GERES GERESS Array B   16.83 327  Pn   Pn   22 45 10.8 +1.1
      baz=143,slow=12,SNR=18
      comp=Z,2.1nm,0.6s
WATA  Walderalm        16.84 319 epP   P    22 45 14.0 +2.1
      comp=Z,14nm,1.2s
DPC   Dobruska-Polom   16.96 334 eP    P    22 45 14.8 +1.6
DPC   Dobruska-Polom   16.96 334  P    P    22 45 14.1 +0.9
      comp=Z,4.1nm,0.7s
SQTA  Sankt Quirin     16.96 319 ePn   P    22 45 14.1 +0.8
      comp=Z,6.8nm,0.7s
KHC   Kasperske Hory   17.09 327 eP    Pn   22 45 13.6 +0.7
KHC   Kasperske Hory   17.09 327  P    P    22 45 14.8 +0.2
      comp=Z,6.2nm,1.0s
KHC   Kasperske Hory   17.09 327  P    P    22 45 15.8 +1.2
      comp=Z,8.1nm,0.9s
MOTA  Moosalm          17.10 319 ePn   P    22 45 15.7 +0.9
      comp=Z,4.8nm,0.8s
FETA  Feichten         17.11 317 ePn   P    22 45 15.7 +0.8
      comp=Z,13nm,1.2s
OSTC  Ostas            17.17 335 eP    P    22 45 19.0 +3.5
PRU   Pruhonice        17.34 331 eP    P    22 45 18.7 +1.4
DAVOX Davos/Dischmat   17.45 316  P    Pn   22 45 17.8 +0.3
      comp=Z,0.3nm,0.3s,baz=145,slow=18,SNR=8.5
      comp=Z,3.1nm,0.7s
DAVOX                             AML  AML
TUE   Stuetta          17.59 314  P    P    22 45 21.0 +0.7
      comp=Z,24nm,1.4s
DAVA  Damuels          17.73 317 ePn   P    22 45 21.7 -0.1
      comp=Z,4.4nm,0.5s
DAVA  Damuels          17.73 317  P    P    22 45 21.7 -0.1
      comp=Z,11nm,0.7s
CALF  Calern           17.93 304  P    P    22 45 24.7 +0.7
      comp=Z,14nm,0.9s
BNALP Bannalp          18.34 314  P    P    22 45 29.8 +1.3
CLL   Collm            18.98 331  P    Pn   22 45 37.3 +1.2
      comp=Z,5.3nm,1.9s
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CLL    Collm              18.98 331  iP     Pn       22 45 37.6 +1.5
       comp=Z,6.0nm,1.2s
CLL                                  ex     x        22 45 43.0
OBN    Obninsk            20.56  15   P     Pn       22 45 54.1 -0.7
       comp=Z,12nm,0.5s,baz=220,slow=20,SNR=4.0
       comp=Z,12nm,0.5s
OBN    Obninsk            20.56  15   P     Pn       22 45 54.7  0.0
       comp=Z,17nm,0.6s
BSD    Bornholm Skovb     21.49 340  iP     P        22 46 00.9 -1.7
BSD                                   IAmb  IAmb     22 46 03.7
       comp=Z,53nm,1.3s
BLEU   Blekinge           22.31 342  iP     P        22 46 08.6 -2.8
LUNU   Lund               22.36 339  iP     P        22 46 13.1 +1.2
DEL    Delary             22.96 340  iP     P        22 46 17.4 -0.8
TJOU   Tjoern             24.93 340  iP     P        22 46 36.4 -0.6
ESDC   Sonseca Array      25.32 289   P     P        22 46 41.4 +0.6
       comp=Z,3.7nm,0.6s,baz=84,slow=9.9,SNR=26
       comp=Z,3.7nm,0.6s
STRU   Stroemstad         25.91 340  iP     P        22 46 45.3 -0.5
FINES  FINESS Array B     25.98 358   P     P        22 46 45.8 -0.6
       comp=Z,1.6nm,0.6s,baz=166,slow=9.8,SNR=13
       comp=Z,1.6nm,0.6s
HFS    Hagfors            26.25 344   P     P        22 46 48.3 -0.7
       comp=Z,1.2nm,0.3s,baz=168,slow=9.1,SNR=9.5
       comp=Z,1.2nm,0.3s
NB2    NORSAR Subarra     27.63 343   P     P        22 47 04.3 +2.9
       comp=Z,0.2nm,0.3s,baz=156,slow=9.3
NOA    NORSAR Array B     27.63 343   P     P        22 46 59.6 -1.8
       comp=Z,0.6nm,0.8s,baz=145,slow=9.3,SNR=3.8
       comp=Z,0.6nm,0.8s
EKA    Eskdalemuir Ar     28.96 323   P     P        22 47 12.8 -0.5
       comp=Z,1.8nm,0.9s,baz=123,slow=9.1,SNR=1.5
       comp=Z,1.8nm,0.9s
TORD   Torodi Ar. Bea     32.29 233   P     P        22 47 43.4 +0.3
       comp=Z,2.9nm,0.6s,baz=36,slow=8.6,SNR=40
       comp=Z,2.9nm,0.6s
ARCES  ARCESS Array B     34.11 359   P     P        22 47 56.4 -1.9
       comp=Z,0.4nm,0.4s,baz=172,slow=8.7,SNR=6.8
       comp=Z,0.4nm,0.4s
BVAR   Borovoye Array     34.64  46   P     P        22 48 03.8 +0.6
       comp=Z,0.3nm,0.3s,baz=284,slow=7.3,SNR=4.2
       comp=Z,0.3nm,0.3s
KURBB  Kurchatov Arra     39.33  51   P     P        22 48 43.4 +0.4
       comp=Z,2.1nm,0.2s,baz=275,slow=9.1,SNR=4.0
       comp=Z,2.1nm,0.2s
MKAR   Makanchi Array     41.89  57   P     P        22 49 04.7 +0.3
       comp=Z,0.5nm,0.4s,baz=270,slow=8.5,SNR=9.6
       comp=Z,0.5nm,0.4s
ZALV   Zalesovo Beam      43.30  46   P     P        22 49 16.0 +0.4
       comp=Z,0.8nm,0.4s,baz=270,slow=8.2,SNR=6.3
       comp=Z,0.8nm,0.4s
SONM   Songino Array      57.69  51   P     P        22 51 06.2 +1.5
       comp=Z,0.4nm,0.5s,baz=282,slow=7.2,SNR=5.0
       comp=Z,0.4nm,0.5s
BOSA   Boshof             63.81 182   P     P        22 51 46.0 -0.4
       comp=Z,1.6nm,1.0s,baz=11,slow=10,SNR=1.1
       comp=Z,1.6nm,1.0s
SCHQ   Schefferville      64.23 320   P     P        22 51 48.0 -0.9
       comp=Z,2.1nm,0.6s,baz=34,slow=5.2,SNR=6.4
       comp=Z,2.1nm,0.6s
ILAR   Eielson Array      79.96 358   P     P        22 53 22.3 -0.6
       comp=Z,0.2nm,0.5s,baz=360,slow=5.7,SNR=2.3
       comp=Z,0.2nm,0.5s
```

IDC 03 22:41:22.5±4.5**, 8°.33S**×**120°.86E, h140**km±45km**, mb4.0**/1**,**
mbtmp3.9/4**, Error ellipse: s-maj=102.0km**
s-min=33.6km az=56.0, Flores region

```
Code   Station Name        Δ°   AZ°   Phase ID           Time     Res
                                      Op    ISC        h  m  s    ISC
FITZ   Fitzroy Crossi     10.77 155   P     Pn       22 43 52.8 -0.2
       3.4nm,1.0s,baz=329,slow=12,SNR=3.3
FITZ                                  S     Sn       22 45 53.0 +1.1
       2.5nm,0.5s,baz=184,slow=20,SNR=6.5
WRA    Warramunga Arr     17.43 133   P     Pn       22 45 17.5 +0.3
       0.4nm,0.3s,baz=303,slow=13,SNR=9.4
WRA                                   S     S        22 48 30.6 -0.1
       0.2nm,0.4s,baz=311,slow=22,SNR=4.6
ASAR   Alice Springs      19.72 142   P     P        22 45 42.0 +0.7
       1.7nm,0.5s,baz=318,slow=8.8,SNR=17
ASAR                                  S     S        22 49 16.9 +0.8
       0.6nm,0.7s,baz=323,slow=21,SNR=4.8
STKA   Stephens Creek     30.35 143   P     P        22 47 20.2 -0.9
       2.0nm,0.4s,baz=320,slow=9.8,SNR=6.3
       2.0nm,0.4s
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*SNET **03** 22:47:37.4±1.4, 11°.99N×89°.09W, h6km, ML3.7,*
Presumed earthquake
*CATAC **03** 22:47:37.5±0.3, 12°N±2°×8°9W±°, h20km, M3.8/37,*
MLv3.8/37, Error ellipse: s-maj=4.3km s-min=1.9km
az=39.1, confirmed
ISC 03 22:47:35.5±3.2**, 11°.90N**±0°.06×**89°.15W**±0°.05**, h6**km±18km**,**
n53, σ0s.67/90**, Off coast of central America**

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Code   Station Name        Δ°   AZ°   Phase ID           Time     Res
                                      Op    ISC        h  m  s    ISC
ALJI   Alcalda de J        1.53  21   P     Pn       22 48 04.0 +0.6
ALJI                                  S     Sg       22 48 24.5 -0.2
LALI   Alcalda de L        1.59 354   P     Pn       22 48 05.2 +1.0
LALI                                  S     Sn       22 48 24.8 -0.4
JUCU   Jucuar¡n            1.61  33  eP     Pn       22 48 04.5 -0.1
TECO   Alcaldia de Te      1.67  12   P     Pn       22 48 05.7 +0.3
TECO                                  S     Sb       22 48 27.7 -0.3
INTP   Intipuca            1.68  39  eP     Pn       22 48 05.5 +0.1
COEG   Centro de Oper      1.73   9   P     Pn       22 48 06.5 +0.3
COEG                                  S     Sn       22 48 29.0 +0.2
LOMA   Loma Larga          1.74 359   P     Pn       22 48 07.0 +0.6
LOMA                                  S     Sb       22 48 29.6 -0.6
RANC   El Ranchito         1.74  29   P     Pn       22 48 07.3 +0.9
RANC                                  S     Sb       22 48 29.8 -0.5
PACA   Pacayal             1.76  27   P     Pn       22 48 07.1 +0.4
PACA                                  S     Sb       22 48 30.0 -0.7
JAYA   Jayaque - finc      1.77 350  eP     Pn       22 48 07.3 +0.4
JAYA   Jayaque - finc      1.77 350   P     Pn       22 48 07.3 +0.4
JAYA                                  S     Sn       22 48 29.4 -0.5
UEES   Universidad Ev      1.81 357   P     Pn       22 48 08.4 +1.0
UEES                                  S     Sn       22 48 30.6 -0.2
PMON   Piamonte            1.81 355   P     Pn       22 48 07.9 +0.5
PMON                                  S     Sn       22 48 30.5 -0.3
PAVA   Las Pavas           1.82   6   P     Pn       22 48 08.0 +0.5
PAVA                                  S     Sn       22 48 31.1 +0.2
BOQS   Boqueron            1.83 356  eP     Pn       22 48 08.6 +0.8
SCLA   Alcaldia de Sa      1.84  13   S     Sb       22 48 31.9 -1.2
LCND   La Caada            1.86  41  eP     Pn       22 48 08.3 +0.3
LCND   La Caada            1.86  41   P     Pn       22 48 08.3 +0.3
LCND                                  S     Sb       22 48 32.8 -0.8
CNCH   Conchagua           1.88  43   P     Pn       22 48 08.4 +0.1
CNCH                                  S     Sb       22 48 33.2 -0.9
CSGN   Cosiguina Volc      1.89  55   P     Pn       22 48 08.3 -0.1
CSGN                                  S     Sb       22 48 33.6 -0.7
CEDA   San Andres          1.91 353   P     Pn       22 48 10.0 +1.3
CEDA                                  S     Sn       22 48 32.8 -0.4
CEVE   Cerro Verde         1.98 346  eP     Pn       22 48 10.7 +0.9
CEVE   Cerro Verde         1.98 346   P     Pn       22 48 10.6 +0.9
CEVE                                  S     Sn       22 48 35.9 +0.8
NUBE   Las Nubes           2.09 343   P     Pn       22 48 11.4 +0.2
NUBE                                  S     Sn       22 48 36.2 -1.5
UNIC   Universidad Ca      2.11 349   P     Pn       22 48 12.5 +1.1
UNIC                                  S     Sn       22 48 38.1  0.0
P5NO   Presa 5 de nov      2.11  10   P     Pn       22 48 12.7 +1.3
P5NO                                  S     Sn       22 48 38.7 +0.7
FAME   Alcaldia de Sa      2.11 336   P     Pn       22 48 11.8 +0.4
CRIN   San Cristobal       2.20  68   P     Pn       22 48 12.9 +0.3
CRIN                                  S     Sn       22 48 41.1 +0.8
PACN   Al O del Volca      2.38  75   P     Pn       22 48 15.6 +0.5
CNGA   Al SSO del Vol      2.46  76   P     Pn       22 48 16.5 +0.2
CNGN   Cerro Negro         2.47  76   P     Pn       22 48 16.5 +0.1
CNGN                                  S     Sn       22 48 48.5 +1.6
ILCN   San Idelfonso       2.48  74   S     Sn       22 48 46.7 -0.6
MTO3   Montecristo         2.50 355   P     Pn       22 48 18.2 +1.3
MTO3                                  S     Sn       22 48 48.2 +0.4
MOMN   Momotombo           2.60  78   P     Pn       22 48 18.5 +0.3
MOMN                                  S     Sn       22 48 50.5 +0.4
ESQI   Esquipulas          2.66 356  eP     Pn       22 48 20.3 +1.3
ESQI                                 eS     Sn       22 48 50.8 -0.8
ESQI   Esquipulas          2.66 356   S     Sn       22 48 52.1 +0.5
MOM2   El Cardon           2.66  78   P     Pn       22 48 19.0 +0.1
MOM2                                  S     Sn       22 48 51.6 +0.1
APYN   Apoyeque            2.76  83   P     Pn       22 48 20.7 +0.4
APYN                                  S     Sn       22 48 53.8 -0.2
TGUH   Tegucigalpa,Un      2.82  40   P     Pn       22 48 22.6 +1.3
TGUH                                  S     Sn       22 48 56.2 +0.5
TISN   Laguna Tiscapa      2.83  85   P     Pn       22 48 21.8 +0.5
MGAN   Managua             2.85  85   P     Pn       22 48 21.9 +0.4
MGAN                                  S     Sn       22 48 55.6 -0.5
WILN   Americas 2          2.91  84   P     Pn       22 48 23.0 +0.7
WILN                                  S     Sn       22 48 57.1 -0.5
MAS3   Al N del Volca      2.91  87   P     Pn       22 48 23.1 +0.7
MAS3                                  S     Sn       22 48 57.0 -0.8
MASN   Masaya              2.93  88   P     Pn       22 48 23.2 +0.5
MASN                                  S     Sn       22 48 58.5 +0.2
NANN   Nandasmo            2.96  89   P     Pn       22 48 23.2 +0.1
NANN                                  S     Sn       22 48 58.9 -0.2
NADN   Granada             3.05  92   P     Pn       22 48 24.8 +0.4
MATN   Matagalpa           3.31  72   S     Sn       22 49 08.1 +0.4
RCVN   Varillal2           3.33  59   P     Pn       22 48 28.7 +0.4
RCVN                                  S     Sn       22 49 09.2 +0.8
MORN   Al O del Volca      3.44  95   P     Pn       22 48 30.4 +0.6
MORN                                  S     Sn       22 49 10.7 -0.2
BOAB   BOACO BROADBAN3.45         80   P     Pn       22 48 30.5 +0.7
BOAB                                  S     Sn       22 49 10.8 -0.1
OMEN   Al SSO del Vol      3.47  96   P     Pn       22 48 30.7 +0.7
RTAL   Retalhuleu          3.60 317   P     Pn       22 48 32.6 +0.7
RTAL                                  S     Sn       22 49 13.9 -1.0
CARN   Rivas               3.62 101   P     Pn       22 48 33.0 +0.8
CARN                                  S     Sn       22 49 15.0 -0.3
```

IDC 03 22:48:51.3±3.0**, 6°.18S**×**151°.70E, h0**km**, mb3.5**/2**,**
mbtmp3.7/3**, ML1.8**/1**, Error ellipse: s-maj=118.4km**
s-min=41.6km az=132.0, New Britain region

```
Code   Station Name        Δ°   AZ°   Phase ID           Time     Res
                                      Op    ISC        h  m  s    ISC
PMG    Port Moresby        5.53 234   Pn    Pn       22 50 16.2 +1.3
       1.9nm,0.3s,baz=56,slow=18,SNR=2.1
PMG                                   Sn    Sn       22 51 18.8 -0.4
       2.2nm,0.3s,baz=246,slow=18,SNR=1.6
       10nm,0.4s
PMG                                   AML   AML
WRA    Warramunga Arr     21.72 229   P     P        22 53 44.5 +0.2
       0.3nm,0.4s,baz=56,slow=11,SNR=5.7
       0.3nm,0.4s
ASAR   Alice Springs      24.40 223   P     P        22 54 11.6 -0.1
       3.2nm,0.9s,baz=53,slow=9.4,SNR=17
       3.2nm,0.9s
TORD   Torodi Ar. Bea    149.65 285   PKPbc PKPbc    23 08 43.3 -0.8
       0.7nm,0.8s,baz=80,slow=1.6,SNR=2.5
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*SJA **03** 22:49:42.0±0.6, 27°.76S×71°.90W, h11km, ML4.5, MW4.2*
*NEIC **03** 22:49:45.3±1.9, 27°.81S±0°.02×71°.68W±0°.04, h11km±5km,*
mb4.6/5, Mwr4.4/45, ML4.1(GUC), Error ellipse:
s-maj=5.6km s-min=2.6km az=103.0, Moment Tensor
Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}3.70;
$M_{\theta\theta}$0.98; $M_{\phi\phi}$-4.68; $M_{r\theta}$1.34; $M_{\theta\phi}$-1.00; $M_{\phi r}$-2.28; Fault
plane solution: $M_0$5.12000×10^{15} NP1:ϕ_s33.51000°,
δ37.41000°, λ129.24000°. NP2:ϕ_s167.71000°, δ61.93000°,
λ64.18000°. Principal axes: T 4.8936, Plg63.0000°,
Azm34.0000°; N 0.4313, Plg23.0000°, Azm181.0000°; P
-5.3249, Plg13.0000°, Azm276.0000°;
*NEIC **03** 22:49:46, 27°.82S×71°.66W, h15km*
*IDC **03** 22:49:47.0±1.1, 27°.64S×71°.40W, h0km, mb4.4/3,*
mbtmp4.1/8, ML3.9/5, MS3.9/2, Error ellipse: s-maj=26.2km
s-min=14.6km az=84.0
*GUC **03** 22:49:48.2±0.8, 27°.90S×71°.44W, h32km±3km, ML4.1*
ISC 03 22:49:44.7±1.0**, 27°.78S**±0°.03×**71°.69W**±0°.04**, h6**km±6km**,**
n121, σ1s.72/149**, mb4.7**/5**, 5C-5D, Near coast of northern Chile**

```
Code   Station Name        Δ°   AZ°   Phase ID           Time     Res
                                      Op    ISC        h  m  s    ISC
AC04   Llanos de Chal      0.69 128  eP     Pg       22 49 58.1  0.0
AC04   Llanos de Chal      0.69 128⇓iP     Pg       22 49 58.1  0.0
AC04                                 eS     Sg       22 50 05.7 -1.4
AC04                                  IAML           22 50 06.4
       comp=N,15µm,0.2s
AC04   Llanos de Chal      0.69 128   Pg    Pg       22 49 58.0  0.0
AC04                                  Sg    Sg       22 50 05.6 -1.5
AC06   Mina Casimiro       1.26  71⇓iP     Pg       22 50 08.8 -0.1
AC06                                 eS     Sg       22 50 24.5 -0.8
AC06                                  IAML           22 50 26.6
       comp=E,8µm,0.3s
AC06   Mina Casimiro       1.26  71         Pg       22 50 08.8 -0.1
AC06                                  Sg    Sg       22 50 24.4 -0.8
GO03   Copiapo             1.31  82  eP     Pg       22 50 09.4 -0.4
GO03                                 eS     Sg       22 50 25.1 -1.7
GO03                                  IAML           22 50 27.2
       comp=Z,7µm,0.5s
GO03   Copiapo             1.31  82⇓iP     Pg       22 50 09.2 -0.6
GO03                                  IAML           22 50 32.3
       comp=N,9µm,0.6s
GO03   Copiapo             1.31  82         Pg       22 50 09.3 -0.4
GO03                                  Sg    Sg       22 50 25.0 -1.7
LCO    Las Campanas        1.51 145  eP     Pn       22 50 12.0 -0.6
LCO                                   IAML           22 50 39.9
       comp=Z,8µm,0.8s
LCO    Las Campanas        1.51 145⇓iP     Pn       22 50 11.9 -0.6
LCO                                  eS     Sn       22 50 29.4 -3.3
LCO    Las Campanas        1.51 145         Pn       22 50 11.7 -0.9
LCO                                   Sn    Sn       22 50 29.4 -3.3
AC05   El Transito         1.64 130  eP     Pn       22 50 14.1 -0.1
AC05                                 eS     Sn       22 50 34.2 -1.4
AC05                                 eS     Sb       22 50 34.5 -1.9
AC05                                  IAML           22 50 45.5
       comp=Z,2µm,0.5s
AC05   El Transito         1.64 130⇓iP     Pn       22 50 13.9 -0.4
AC05                                 eS     Sn       22 50 33.3 -2.4
AC05                                  IAML           22 50 38.8
       comp=N,8µm,0.5s
AC05   El Transito         1.64 130         Pn       22 50 13.8 -0.4
AC01   Pan de Azucar       1.90  31  eP     Pn       22 50 04.1  -14
AC01                                 eS     Sg       22 50 54.0 +8.4
AC01                                  IAML           22 51 00.8
       comp=Z,1µm,0.6s
AC01   Pan de Azucar       1.90  31⇑iP     Pb       22 50 18.8 -1.0
AC01   Pan de Azucar       1.90  31         Pn       22 50 18.4 +0.7
AC01                                  Sn    Sn       22 50 41.1 -0.8
AC02   Maricunga           2.47  68  eP     Pn       22 50 27.5 +1.5
AC02                                 eS     Sg       22 51 02.5 -1.6
AC02                                  IAML           22 51 06.8
       comp=Z,2µm,0.5s
AC02   Maricunga           2.47  68⇑iP     Pb       22 50 28.5 -1.3
AC02   Maricunga           2.47  68         Pn       22 50 27.6 +1.6
AC02                                  Sn    Sn       22 50 58.3 +1.6
GO04   Tololo Observa      2.51 162  eP     Pn       22 50 26.7 +0.3
GO04                                 eS     Sb       22 51 02.7 +1.0
GO04                                  IAML           22 51 05.4
       comp=Z,3µm,0.8s
GO04   Tololo Observa      2.51 162  eP     Pn       22 50 26.6 +0.3
GO04   Tololo Observa      2.51 162         Pn       22 50 26.1 -0.2
GO04                                  Sn    Sn       22 50 58.5 +1.1
CO01   Juntas del Tor      2.60 148  eP     Pn       22 50 29.1 +1.5
CO01                                 eS     Sn       22 51 02.3 +2.7
CO01                                  IAML           22 51 04.2
       comp=Z,1µm,0.3s
CO01   Juntas del Tor      2.60 148  eP     Pn       22 50 28.9 +1.3
CO01                                 eS     Sn       22 50 59.1 -0.6
CO01                                  IAML           22 51 04.3
       comp=N,2µm,0.5s
CO01   Juntas del Tor      2.60 148         Pn       22 50 28.6 +1.0
CO01                                  Sn    Sn       22 50 57.7 -1.9
CO06   Fray Jorge          2.88 179  eP     Pn       22 50 30.8 -0.5
CO06                                  IAML           22 51 33.2
       comp=E,653nm,0.4s
CO06   Fray Jorge          2.88 179         Pn       22 50 31.2 -0.1
AROD   Rodeo               3.07 141  eP     Pn       22 50 37.9 +3.8
AROD                                 eS     Sn       22 51 12.9 +1.5
CO03   El Pedregal         3.17 164  eP     Pn       22 50 36.0 +0.7
CO03                                 eS     Sn       22 51 14.8 +1.2
CO03                                  IAML           22 51 34.1
       comp=Z,946nm,0.6s
CO03   El Pedregal         3.17 164  eP     Pn       22 50 35.8 +0.4
CO03                                  IAML           22 51 26.2
       comp=N,1µm,0.4s
CO03                                 e               22 51 34.6
CO03   El Pedregal         3.17 164         Pn       22 50 35.5 +0.2
VCA    Vinchina            3.22 108  eP     Pn       22 50 39.6 +3.6
VCA                                  eS     Sb       22 51 25.3 +3.2
VCA                                   IAML           22 51 35.4
       comp=Z,1µm,0.5s
VCA    Vinchina            3.22 108  eP     Pb       22 50 40.2 -2.3
ACDV   Cuesta del Vie      3.28 137  eP     Pn       22 50 40.9 +4.0
ACDV                                 eS     Sb       22 51 25.4 +1.7
ACDV                                  IAML           22 51 37.1
       comp=Z,533nm,1.2s
PB14   IPOC Station P      3.35  21  eP     Pn       22 50 38.8 +0.9
PB14                                 eS     Sg       22 51 34.2 +1.9
PB14                                  IAML           22 51 43.9
       comp=Z,527nm,0.6s
PB14   IPOC Station P      3.35  21⇑eP     Pn       22 50 38.6 +0.7
PB14   IPOC Station P      3.35  21         Pn       22 50 38.0 +0.1
CO02   Combarbal           3.47 170  eP     Pn       22 50 39.5 +0.1
CO02                                 eS     Sn       22 51 21.0 +0.1
CO02                                  IAML           22 51 37.8
       comp=Z,1µm,0.6s
CO02   Combarbal           3.47 170         Pn       22 50 39.2 -0.2
ACCO   Cerro Coronel       3.62 141  eP     Pn       22 50 45.3 +3.6
ACCO                                 eS     Sb       22 51 31.3 -2.4
ACCO                                  IAML           22 51 42.3
       comp=Z,926nm,0.6s
TINO   Tinogasta           3.66  95  eP     Pn       22 50 44.6 +2.5
TINO                                 eS     Sb       22 51 33.0 -1.7
TINO                                  IAML           22 51 39.6
       comp=Z,832nm,0.5s
CO04   Los Peladeros       4.29 172  eP     Pn       22 50 51.5 +0.5
CO04   Los Peladeros       4.29 172         Pn       22 50 51.3 +0.4
ACLC   CERRO LA CRUZ       4.48 113  eP     Pn       22 50 50.6 -2.8
ACLC                                 eP     Pb       22 50 56.0 -7.9
ACLC                                 eS     Sn       22 51 50.6 +4.6
ACLC                                  IAML           22 51 59.1
       comp=Z,338nm,0.7s
RTLL   Cerro Villicun      4.51 142  eP     Pn       22 50 56.8 +3.1
RTLL                                 eS     Sn       22 51 51.4 +4.8
RTLL                                  IAML           22 52 09.5
       comp=Z,494nm,0.6s
RTLS   Leoncito            4.51 153  eP     Pn       22 50 57.7 +3.7
RTLS                                 eS     Sn       22 51 49.0 +2.0
RTLS                                  IAML           22 52 17.3
       comp=Z,1µm,0.9s
ZON    Zonda               4.58 146         Pn       22 50 56.4 +1.8
CFA    Coronel Fontan      4.86 143   Pn    Pn       22 51 01.0 +2.7
       comp=Z,8.3nm,0.3s,baz=320,slow=14,SNR=60
CFA                                   Sn    Sn       22 51 56.5 +1.6
       comp=Z,6.5nm,0.3s,baz=319,slow=14,SNR=3.6
       comp=Z,16nm,0.3s
CFA                                   AML   AML
CFA    Coronel Fontan      4.86 143  eP     Pn       22 51 01.1 +2.7
CFA                                  eS     Sn       22 51 59.6 +4.6
CFA                                   IAML           22 52 13.9
       comp=Z,264nm,0.5s
VA03   San Esteban         5.07 169  eP     Pn       22 51 04.1 +2.7
VA03   San Esteban         5.07 169         Pn       22 51 01.6 +0.2
PB05   IPOC Station P      5.09  16  eP     Pn       22 51 02.0 +0.3
PB05                                  IAML           22 53 01.3
       comp=Z,176nm,0.6s
PB05   IPOC Station P      5.09  16⇑eP     Pn       22 51 01.7  0.0
PB05   IPOC Station P      5.09  16         Pn       22 51 01.0 -0.7
PB06   IPOC Station P      5.40  21  eP     Pn       22 51 06.8 +0.8
PB06                                  IAML           22 52 48.9
       comp=Z,322nm,0.7s
PB06   IPOC Station P      5.40  21⇑eP     Pn       22 51 06.6 +0.5
PB06   IPOC Station P      5.40  21         Pn       22 51 05.9 -0.1
PEL    Peldehue            5.42 171   Pn    Pn       22 51 07.0 +0.8
MT02   Curacav             5.48 175         Pn       22 51 07.5 +0.5
MT05   Renca               5.66 172   Pn    Pn       22 51 10.9 +1.5
MT16   CCHEN               5.72 170         Pn       22 51 10.3  0.0
AF01   San Pedro de A      5.76  34  eP     Pn       22 51 13.9 +2.8
AF01   San Pedro de A      5.76  34   Pn    Pn       22 51 11.8 +0.7
MT03   Universidad Ad      5.79 170         Pn       22 51 11.1 -0.2
MT08   Bocatoma Ro         5.83 166         Pn       22 51 10.3 -1.7
PB03   IPOC Station P      5.97  18         Pn       22 51 13.1 -0.8
MT09   Talagante           6.01 174         Pn       22 51 13.7 -0.7
MT13   San Alfonso         6.07 169         Pn       22 51 16.9 +1.8
MT01   Popeta              6.08 177         Pn       22 51 16.0 +0.8
PB07   IPOC Station P      6.25  16         Pn       22 51 17.4 -0.2
BO04   La Punta            6.26 172   Pn    Pn       22 51 17.1 -0.6
SLA    San Lorenzo         6.33  63  eP     Pb       22 51 27.9 -7.7
PB09   IPOC Station P      6.36  21         Pn       22 51 19.4 +0.2
BO01   Tunca               6.61 176   Pn    Pn       22 51 22.4 -0.1
PB02   IPOC Station P      6.63  15         Pn       22 51 22.0 -1.0
BO02   Sierra Bellavi      7.04 174         Pn       22 51 28.3 -0.1
TCA    Tanti               7.12 122  eP     Pn       22 51 29.8 +0.1
GO05   Hualane             7.21 182         Pn       22 51 31.3 +0.5
TA01   Diego Aracena       7.31  11   Pn    Pn       22 51 32.0 -0.2
PB08   IPOC Station P      7.95  18         Pn       22 51 39.5 -1.8
ML02   Panimavida          7.96 178   Pn    Pn       22 51 39.9 -1.2
PB11   IPOC Station P      8.20  14         Pn       22 51 42.9 -1.6
PSGCX  Pisagua             8.27  10         Pn       22 51 43.5 -1.9
GO01   Chusmiza            8.39  16         Pn       22 51 46.9 -0.6
H03N1  Juan Fernandez      8.40 226   Pn    Pn       22 51 45.8 -0.9
       baz=170,slow=74
H03N1                                 T     T        23 00 53.7
       baz=55,slow=74,SNR=1441
H03N2  Juan Fernandez      8.41 226   Pn    Pn       22 51 45.9 -1.0
       baz=91,slow=74
H03N2                                 T     T        23 00 27.3
       baz=207,slow=74,SNR=1560
VA04   Juan Fernndez       8.48 225         Pn       22 51 47.2 -0.9
H03S3  Juan Fernandez      8.65 224   Pn    Pn       22 51 49.4 -0.8
       baz=107,slow=78
H03S3                                 T     T        23 00 58.1
       baz=54,slow=74,SNR=3.9
H03S1  Juan Fernandez      8.66 224   Pn    Pn       22 51 48.9 -1.4
       baz=107,slow=78
H03S1                                 T     T        23 00 52.6
       baz=54
H03S2  Juan Fernandez      8.67 224   Pn    Pn       22 51 49.0 -1.4
       baz=107,slow=78
H03S2                                 T     T        23 00 52.3
       baz=54,slow=74,SNR=4.5
BI02   San Fabin de        8.87 178         Pn       22 51 52.6 -0.9
PB12   IPOC Station P      9.21   8         Pn       22 51 56.8 -1.5
PB16   IPOC Station P      9.61  13         Pn       22 52 03.9 -0.3
PB18   Visviri            10.35  12         Pn       22 52 13.7 -0.6
LPAZ   La Paz             11.90  17   Pn    Pn       22 52 36.6 +1.0
       comp=Z,0.8nm,0.3s,baz=210,slow=6.2,SNR=18
       comp=Z,3.1nm,0.4s
LPAZ                                  AML   AML
LPAZ   La Paz             11.90  17         Pn       22 52 35.3 -0.3
CPUP   Villa Florida      12.88  87   Pn    Pn       22 52 48.0 -0.4
       comp=Z,0.3nm,0.3s,baz=280,slow=14,SNR=4.3
CPUP                                  LR    LR       22 58 02.0
       comp=Z,222nm,21.2s,baz=288,slow=39
       comp=Z,1.7nm,0.7s
CPUP                                  AML   AML
CPUP   Villa Florida      12.88  87   Pn    Pn       22 52 49.9 +1.4
PLCA   Paso Flores        12.96 176   Pn    Pn       22 52 53.2 +3.8
       baz=346,slow=12,SNR=1.3
       comp=Z,0.3nm,0.4s
SIV    San Ignacio        15.31  42   Pn    Pn       22 53 19.0 -2.6
       comp=Z,0.1nm,0.3s,baz=222,slow=11,SNR=6.3
       comp=Z,1.0nm,0.4s
SIV                                   AML   AML
VAO    Valinhos           22.82  84   P     P        22 54 46.8 -2.0
VAO                                   IAmb  IAmb     22 54 59.1
       comp=Z,19nm,0.8s
BDFB   Brasilia           25.04  66   P     P        22 55 09.8 -0.3
       comp=Z,3.8nm,0.6s,baz=233,slow=10,SNR=5.8
BDFB                                  LR    LR       23 06 17.2
       comp=Z,596nm,18.2s,baz=327,slow=40
       comp=Z,3.8nm,0.6s
BDFB   Brasilia           25.04  66   P     P        22 55 09.8 -0.3
MACA   Manacapuru-AM      26.64  25   P     P        22 55 25.4 +1.0
MACA                                  IAmb  IAmb     22 55 37.2
       comp=Z,14nm,0.8s
BOAV   Boa Vista          31.87  22   P     P        22 56 10.0 -0.8
BOAV                                  IAmb  IAmb     22 56 13.6
       comp=Z,3.3nm,0.9s
ORCD   Orcadas            37.64 159   P     P        22 57 00.0 -0.2
DBIC   Dimbokro           72.98  73   P     P        23 01 16.6 +0.9
       comp=Z,3.9nm,0.5s,baz=255,slow=7.6,SNR=4.8
       comp=Z,3.9nm,0.5s
TORD   Torodi Ar. Bea     81.84  71   P     P        23 02 06.9 +1.6
       comp=Z,1.5nm,0.5s,baz=268,slow=4.2,SNR=19
       comp=Z,1.5nm,0.5s
H11S2  WAKE ISLAND Hy125.93 273       T     T        01 28 07.9
       baz=112,slow=75,SNR=3.6
H11S1  WAKE ISLAND Hy125.94 273       T     T        01 28 09.1
       baz=112,slow=75,SNR=5.2
H11S3  WAKE ISLAND Hy125.95 273       T     T        01 27 59.6
       baz=112,slow=75,SNR=4.0
WRA    Warramunga Arr    126.28 211   PKP   PKiKP    23 08 51.2 +1.7
       comp=Z,0.5nm,0.6s,baz=158,slow=1.8,SNR=7.5
WRA    Warramunga Arr    126.28 211         PKiKP    23 08 50.7 +1.1
KURBB  Kurchatov Arra    147.91  37   PKPbc PKiKP    23 09 33.1 +0.6
       comp=Z,0.9nm,0.6s,baz=302,slow=3.5,SNR=9.1
```

ZALV	Zalesovo Beam	148.68	27	PKPbc	PKiKP	23 09 35.2	+1.2
	comp=Z,5.2nm,0.7s,baz=307,slow=3.4,SNR=23						
MKAR	Makanchi Array	152.12	40	PKPbc	PKiKP	23 09 43.2	+1.8
	comp=Z,1.5nm,0.8s,baz=311,slow=1.8,SNR=10						
JHJ2	Mitsune	152.38	289	PKPdf	PKPdf	23 09 36.0	+0.9
MJAR	Matsushiro Arr	153.31	297	PKPdf	PKPdf	23 09 38.7	+2.2
HHC	Hu-ho-hao-te	166.69	349	*e*P	PKPdf	23 09 47.9	-3.5
PZH	PanZhiHua	174.01	101	PKP	PKPdf	23 09 52.6	-3.3
PZH				PKP	sPKPab	23 11 30.5	+2.7

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*IDC **03** 22:52:19.7±0.6, 60°.50S×25°.82W, h0^{km}, mb4.5/12, mbtmp4.5/14, ML4.9/2, MS4.0/16, Error ellipse: s-maj=20.8km s-min=13.8km az=59.0*

*NEIC **03** 22:52:19.8±2.1, 60°.35S±0°.07×25°.4W±0°.2, h10^{km}±1^{km}, mb4.9/39, Error ellipse: s-maj=17.4km s-min=4.5km az=47.0*

*GCMT **03** 22:52:24.8±0.4, 60°.75S±0°.02×24°.94W±0°.03, h12^{km}, MW4.8/86, Moment Tensor Solution. s10,c11; s86,c114; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-0.29±.08; M$_{θθ}$-0.72±.08; M$_{φφ}$1.01±.07; M$_{rθ}$0.34±.20; M$_{θφ}$1.52±.05; M$_{φr}$1.52±.24; Best double couple: M$_{0}$2.24600×10^{16} NP1:φ$_{s}$80.00000°,δ51.00000°,λ1.00000°. NP2: φ$_{s}$349.00000°,δ89.00000°,λ141.00000°. Principal axes: T 2.6540, Plg27.0000°, Azm297.0000°; N -0.8170, Plg51.0000°, Azm168.0000°; P -1.8370, Plg26.0000°, Azm41.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 03 22:52:19.8±0.4**, 60°.46S**±0°.07×**25°.46W**±0°.08**, h10^{km}, n93, σ2^{s}.16**/74**, mb4.8**/26**, MS4.1**/15**, 8C, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HOPE	Hope Point	8.58	311	Pn	Pn	22 54 21.8	-2.1
ORCD	Orcadas	9.48	260		Pn	22 54 36.8	+0.6
VNA1	Neumayer--Stat	12.39	153	P	Pn	22 55 12.7	-3.3
	comp=Z,94nm,0.4s						
VNA3	Neumayer Olymp	12.55	156	⇑P	Pn	22 55 13.9	-4.2
	comp=Z,65nm,0.2s						
VNA3				⇑S	Sn	22 57 17.8	-20
	comp=E,51nm,0.3s						
VNA2	Neumayer--Watz	12.79	153	⇑P	Pn	22 55 16.9	-4.5
	comp=Z,28nm,0.4s,baz=314,slow=14						
VNA2				⇑S	Sn	22 57 23.7	-20
	comp=E,24nm,0.3s,baz=321,slow=16						
SNAA	Sanae	14.38	151	⇑P	Pn	22 55 39.2	-3.9
	comp=Z,778nm,0.4s						
SNAA				⇑S	Sn	22 58 04.9	-17
	comp=E,1μm,0.7s						
SNAA	Sanae	14.38	151	Pn	Pn	22 55 39.5	-3.6
	comp=E,5.6nm,0.3s,baz=310,slow=13,SNR=48						
SNAA				Sn	Sn	22 58 04.6	-18
	comp=E,2.2nm,0.3s,baz=198,slow=21,SNR=11						
SNAA				LR	LR	22 59 48.7	
	comp=E,667nm,21.9s,baz=295,slow=31						
	comp=E,38nm,0.6s						
SNAA				AML	AML		
SNAA	Sanae	14.38	151		Pn	22 55 39.2	-3.9
ESPZ	Base Esperanza	15.05	245		Pn	22 55 52.7	+0.6
TROLL	Troll, Antarti	15.94	148	⇑P	Pn	22 56 00.1	-3.8
	comp=Z,1μm,0.6s						
TROLL				⇑S	Sn	22 58 42.1	-18
	comp=E,1μm,0.5s						
BELA	Belgrano 2	17.76	186		P	22 56 27.5	+0.1
PMSA	Palmer Station	18.06	240	P	Pn	22 56 30.0	-0.3
	comp=E,4.3nm,0.3s,baz=356,slow=11,SNR=25						
PMSA				LR	LR	23 02 03.8	
	comp=E,330nm,21.7s,baz=282,slow=33						
	comp=E,10nm,0.3s						
PMSA				AML	AML		
PMSA	Palmer Station	18.06	240		Pn	22 56 29.7	-0.6
SMAI	San Martin Ant	19.26	229	P	P	22 56 43.6	-0.3
EFI	East Falkland	20.02	281	P	P	22 56 50.9	-1.4
EFI				IAmb	IAmb	22 56 55.7	
	comp=Z,85nm,1.2s						
DSPA	Despedida	23.72	267	P	P	22 57 32.5	+1.0
MG02	Cerro Sombrero	24.86	268	P	P	22 57 42.0	-0.1
QSPA	South Pole Qui	29.78	180	P	P	22 58 28.1	+1.8
	comp=Z,10nm,0.9s,baz=194,slow=1.7,SNR=19						
	comp=Z,10nm,0.9s						
QSPA	South Pole Qui	29.78	180	P	P	22 58 27.5	+1.2
QSPA				IAmb	IAmb	22 59 23.5	
	comp=Z,14nm,0.8s						
LL02	Futaleuf	32.61	281	P	P	22 58 50.3	-0.9
LL02				IAmb	IAmb	22 58 54.5	
	comp=Z,33nm,1.8s						
GO07	Milladeo Hill,	33.56	279	P	P	22 58 58.1	-1.4
PLCA	Paso Flores	33.86	285	P	P	22 59 02.2	0.0
	comp=Z,6.9nm,0.9s,baz=135,slow=9.6,SNR=5.7						
PLCA				LR	LR	23 11 32.8	
	comp=Z,270nm,20.8s,baz=145,slow=34						
	comp=Z,6.9nm,0.9s						
PLCA	Paso Flores	33.86	285	P	P	22 59 01.0	-1.2
PLCA				IAmb	IAmb	22 59 06.1	
	comp=Z,14nm,1.1s						
GO06	Curarrehue	35.19	285	P	P	22 59 13.7	-0.1
GO06				IAmb	IAmb	22 59 43.2	
	comp=Z,40nm,2.0s						
CPSB	Cacapava Do Su	35.36	316	P	P	22 59 13.2	-2.0
MAW	Mawson	36.12	139	P	P	22 59 22.4	+1.1
	comp=Z,5.4nm,0.9s,baz=235,slow=7.5,SNR=11						
MAW				LR	LR	23 12 07.4	
	comp=Z,449nm,19.8s,baz=230,slow=33						
	comp=Z,5.4nm,0.9s						
MAW	Mawson	36.12	139		P	22 59 21.6	+0.3
BI02	San Fabin de	37.43	288	P	P	22 59 32.6	-0.3
BI02				IAmb	IAmb	23 00 52.5	
	comp=Z,27nm,1.9s						
BI05	Punta Hualpn	38.27	286		P	22 59 39.1	-0.8
BO02	Sierra Bellavi	38.73	291		P	22 59 43.9	0.0
GO05	Hualane	39.08	289	P	P	22 59 46.2	-0.5
GO05				IAmb	IAmb	22 59 51.9	
	comp=Z,23nm,0.8s						
BO01	Tunca	39.20	291		P	22 59 46.9	-0.8
BO01				IAmb	IAmb	22 59 51.2	
	comp=Z,20nm,0.9s						
MT08	Bocatoma Ro	39.49	293	P	P	22 59 48.8	-1.7
MT08				IAmb	IAmb	22 59 52.7	
	comp=Z,16nm,0.8s						
MT09	Talagante	39.66	291	P	P	22 59 51.8	0.0
MT09				IAmb	IAmb	22 59 55.8	
	comp=Z,49nm,0.9s						
MT03	Universidad Ad	39.68	292	P	P	22 59 52.0	+0.2
MT03				IAmb	IAmb	22 59 56.5	
	comp=Z,50nm,1.1s						
MT01	Popeta	39.71	291	P	P	22 59 50.7	-1.3
MT01				IAmb	IAmb	22 59 55.4	
	comp=Z,21nm,0.7s						
MT16	CCHEN	39.74	292	P	P	22 59 50.7	-1.6
MT16				IAmb	IAmb	22 59 54.6	
	comp=Z,46nm,0.9s						
PEL	Peldehue	40.05	292	P	P	22 59 54.7	-0.2
MT02	Curacav	40.16	292	P	P	22 59 55.6	-0.1
MT02				IAmb	IAmb	23 01 06.4	
	comp=Z,27nm,0.9s						
CFA	Coronel Fontan	40.24	296	LR	LR	23 16 50.3	
	comp=Z,126nm,19.1s,baz=349,slow=37						
CPUP	Villa Florida	40.46	313	P	P	22 59 58.0	-0.2
	comp=Z,6.9nm,0.9s,baz=170,slow=7.1,SNR=3.8						
CPUP				LR	LR	23 15 12.8	
	comp=Z,276nm,20.9s,baz=188,slow=34						
	comp=Z,6.9nm,0.9s						
CPUP	Villa Florida	40.46	313	P	P	22 59 58.4	+0.2
CPUP				IAmb	IAmb	23 00 31.0	
	comp=Z,35nm,1.8s						
SUR	Sutherland	41.17	68	LR	LR	23 13 53.6	
	comp=Z,328nm,18.3s,baz=3.0,slow=31						
SUR	Sutherland	41.17	68	P	P	23 00 02.7	-1.6
SUR				IAmb	IAmb	23 00 52.8	
	comp=Z,67nm,1.7s						
SBA	Scott Base	41.73	184	P	P	23 00 09.1	+0.9
VNDA	Vanda	42.20	182	P	P	23 00 13.9	+2.0
	comp=Z,2.4nm,0.8s,baz=191,slow=4.5,SNR=10						
VNDA				LR	LR	23 16 36.3	
	comp=Z,61nm,18.6s,baz=199,slow=35						
	comp=Z,2.4nm,0.8s						
VNDA	Vanda	42.20	182	P	P	23 00 13.0	+1.0
H04S2	CROZET ISLANDS	45.07	109	T	T	23 49 06.4	
	baz=221,slow=73,SNR=64						
H04S3	CROZET ISLANDS	45.08	109	T	T	23 49 03.9	
	baz=221,slow=73,SNR=64						
H04S1	CROZET ISLANDS	45.09	109	T	T	23 49 03.3	
	baz=221,slow=73,SNR=59						
BOSA	Boshof	46.39	70	P	P	23 00 50.0	+3.8
	comp=Z,5.3nm,1.0s,baz=194,slow=7.7,SNR=7.2						
	comp=Z,5.3nm,1.0s						
BOSA	Boshof	46.39	70	P	P	23 00 46.9	+0.6
BOSA				IAmb	IAmb	23 01 33.8	
	comp=Z,52nm,2.0s						
BDFB	Brasilia	47.65	330	P	P	23 00 56.6	+0.5
	comp=Z,1.0nm,0.3s,baz=150,slow=8.1,SNR=3.6						
	comp=Z,1.0nm,0.3s						
CASY	Casey	49.45	158		P	23 01 10.0	+0.7
CASY				IAmb	IAmb	23 02 43.3	
	comp=Z,12nm,1.5s						
LBTB	Lobatse	49.62	68	LR	LR	23 18 21.0	
	comp=Z,196nm,18.6s,baz=336,slow=31						
SIV	San Ignacio	51.30	314	P	P	23 01 23.9	0.0
	comp=Z,2.8nm,0.5s,baz=184,slow=7.2,SNR=15						
SIV				LR	LR	23 23 12.7	
	comp=Z,229nm,19.3s,baz=110,slow=36						
	comp=Z,2.8nm,0.5s						
H10S2	ASCENSION HYDR	52.02	14	T	T	23 58 03.1	
	baz=34,slow=74,SNR=42						
H10S3	ASCENSION HYDR	52.03	14	T	T	23 58 02.3	
	baz=186,slow=74,SNR=45						
PB16	IPOC Station P	52.42	304	P	P	23 01 33.2	+0.4
PB16				IAmb	IAmb	23 03 28.2	
	comp=Z,8.9nm,1.0s						
PB12	IPOC Station P	52.51	303	P	P	23 01 32.1	-0.9
H10N1	ASCENSION HYDR	53.14	14	T	T	23 59 28.0	
	baz=192,slow=80,SNR=24						
H10N3	ASCENSION HYDR	53.14	14	T	T	23 59 32.0	
	baz=192,slow=80,SNR=36						
H10N2	ASCENSION HYDR	53.16	14	T	T	23 59 29.8	
	baz=192,slow=80,SNR=40						
LPAZ	La Paz	53.70	306	P	P	23 01 43.0	+0.6
	comp=Z,6.1nm,0.7s,baz=143,slow=10.0,SNR=19						
	comp=Z,6.1nm,0.7s						
LPAZ	La Paz	53.70	306	P	P	23 01 42.2	-0.2
LPAZ				IAmb	IAmb	23 01 56.1	
	comp=Z,14nm,1.2s						
MATP	Matopo	54.91	68	LR	LR	23 22 21.4	
	comp=Z,139nm,19.9s,baz=309,slow=33						
BOAV	Boa Vista	68.33	322	P	P	23 03 19.5	-1.5
BOAV				IAmb	IAmb	23 03 20.9	
	comp=Z,5.3nm,0.9s						
MDP	Montagnes des	68.75	331	LR	LR	23 31 37.0	
	comp=Z,100nm,20.4s,baz=136,slow=34						
DBIC	Dimbokro	68.86	22	P	P	23 03 26.9	+2.7
	comp=Z,10nm,1.1s,baz=168,slow=6.8,SNR=3.0						
	comp=Z,10nm,1.1s						
DBIC	Dimbokro	68.86	22	P	P	23 03 23.3	-0.9
MBAR	Mbarara	73.45	60	LR	LR	23 33 17.3	
	comp=Z,50nm,20.0s,baz=205,slow=33						
ROSC	El Rosal	75.40	309	LR	LR	23 39 35.9	
	comp=Z,86nm,19.4s,baz=126,slow=38						
LTZ	Lake Taylor	76.10	193	P	P	23 04 10.0	+2.8
TORD	Torodi Ar. Bea	76.51	27	P	P	23 04 12.1	+2.4
	comp=Z,6.6nm,0.9s,baz=196,slow=7.2,SNR=15						
	comp=Z,6.6nm,0.9s						
SDV	Santo Domingo	77.76	314	LR	LR	23 40 38.6	
	comp=Z,174nm,19.4s,baz=132,slow=37						
SJG	San Juan	84.89	321	LR	LR	23 41 37.6	
	comp=Z,43nm,22.0s,baz=158,slow=35						
PPT2	Papeete2	90.25	232	*e*LR	LR	23 34 04.9	
	comp=Z,91nm,28.0s						
PPT2				*e*LR	LR	23 34 08.5	
	comp=Z,111nm,29.5s						
ASAR	Alice Springs	94.51	161	P	P	23 05 40.4	+0.2
	comp=Z,0.4nm,0.6s,baz=195,slow=4.7,SNR=4.3						
	comp=Z,0.4nm,0.6s						
RPSI	Rantau Prapat	108.67	120		Pdif	23 06 32.5	-11
FINES	FINESS Array B	127.85	28	PKP	PKiKP	23 11 25.4	+0.9
	comp=Z,2.0nm,0.8s,baz=111,slow=4.3,SNR=4.4						
CD2	Chengdu	135.50	108	PKP	PKPdf	23 11 39.0	-0.5
BVAR	Borovoye Array	136.28	60	PKP	PKiKP	23 11 43.4	+1.6
	comp=Z,0.6nm,0.7s,baz=285,slow=2.8,SNR=3.8						
WMQ	Urumqi	137.76	82	*e*PKP	PKiKP	23 11 44.7	-0.5
WMQ				LR	LR		
	comp=Z,72nm,23.1s						
LZH	Lanzhou	139.78	104	*e*P	PKPdf	23 11 45.0	-2.3
LZH				pP	PKiKP	23 11 50.3	+0.6
LZH				pmax	pmax		
	comp=Z,18nm,1.3s						
YKA	Yellowknife Ar	139.98	314	PKP	PKPdf	23 11 47.0	+0.5
	comp=Z,2.4nm,0.8s,baz=132,slow=2.1,SNR=5.9						
YKA	Yellowknife Ar	139.98	314		PKiKP	23 11 48.3	-0.8
SPITS	Spitsbergen Ar	140.69	13	PKP	PKiKP	23 11 49.5	-0.6
	comp=Z,0.9nm,0.4s,baz=47,slow=15,SNR=6.5						
NJ2	Nanjing	143.18	124	*e*P	PKPdf	23 11 53.7	+0.4
NJ2				pmax	pmax		
	comp=Z,25nm,0.5s						
HHC	Hu-ho-hao-te	147.24	107	*e*P	PKPdf	23 11 56.8	-3.4
SONM	Songino Array	149.84	93	PKPbc	PKiKP	23 12 09.9	0.0
	comp=Z,1.3nm,0.7s,baz=208,slow=4.9,SNR=6.9						
ILAR	Eielson Array	153.57	305	PKPbc	PKiKP	23 12 19.4	+2.5
	comp=Z,5.4nm,1.0s,baz=141,slow=2.2,SNR=15						
ILAR	Eielson Array	153.57	305		PKiKP	23 12 19.3	+2.4
F25K	Christian Rive	153.86	311	PKPbc	PKiKP	23 12 20.5	+3.0

KRSC 03 22:55:46.9±0.6**, 55°.39N×162°.93E, h55^{km}**±17^{km}**, Ml3.7, Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBTR	Krutoberegovo	0.83	356	*e*P	Pn	22 56 02.9	+0.5
KBTR				*e*S	Sn	22 56 14.6	+0.7
MKZ	Mys Kozlova	1.08	220	*e*P	Pn	22 56 06.9	+1.1
MKZ				*e*S	Sn	22 56 21.5	+1.7
ZLN	Zelenaya	1.36	299	*e*P	Pn	22 56 11.4	+1.8
ZLN				*e*S	Sn	22 56 27.6	+1.0
BZGR	Bezymyannyi-Gr	1.38	295	*e*P	Pn	22 56 10.8	+0.9
BZGR				*e*S	Sn	22 56 29.0	+1.8
CIRR	Tsirk	1.43	302	*e*P	Pn	22 56 12.2	+1.5
TUMD	Tumrok D	1.46	264	*e*P	Pn	22 56 12.9	+2.1
TUMD				*e*S	Sn	22 56 31.4	+2.5
BZMR	Bezymyannaya	1.49	293	*e*P	Pn	22 56 12.5	+1.2
BZWR	Bezymyannyi-We	1.49	294	*e*P	Pn	22 56 13.3	+1.8
KIRR	Kirishev	1.57	292	*e*P	Pn	22 56 14.1	+1.6
KMNR	Kamenistaya	1.57	285	*e*P	Pn	22 56 15.0	+2.5
KMNR				*e*S	Sn	22 56 34.3	+2.5
KLY	Klyuchi	1.58	307	*e*P	Pn	22 56 12.5	0.0
KLY				*e*S	Sn	22 56 31.1	-0.8
TUMR	Tumrok	1.59	267	*e*P	Pn	22 56 15.7	+2.9
KPT	Kopyto	1.64	292	*e*P	Pn	22 56 15.7	+2.3
KPT				*e*S	Sn	22 56 36.3	+2.9
BKI	Bering	1.75	95	*e*P	Pn	22 56 17.5	+2.7
BKI				*e*S	Sn	22 56 38.4	+2.5
KOZ	Kozyrevsk	1.85	293	*e*P	Pn	22 56 19.0	+2.7
SRDR	Sredinnyy	2.04	299	*e*P	Pn	22 56 21.2	+2.4
KII	Karymskiy	2.43	238	*e*P	Pn	22 56 26.6	+2.5
ESO	Esso	2.46	284	*e*P	Pn	22 56 27.1	+2.7
SPN	Mys Shipunski	2.86	218	*e*P	Pn	22 56 32.3	+2.4
SPN				*e*S	Sn	22 57 04.6	+1.5
NLC	Nalytchevo	3.06	225	*e*P	Pn	22 56 35.5	+2.9
NLC				*e*S	Sn	22 57 10.2	+2.4
SDLR	Sedlovina	3.17	230	*e*P	Pn	22 56 37.2	+2.9
KRER	Koryakskii	3.21	231	*e*P	Pn	22 56 38.8	+3.8
SMAR	Somma	3.22	230	*e*P	Pn	22 56 38.2	+3.1
KRX	Arik	3.22	233	*e*P	Pn	22 56 37.8	+2.8
AVH	Avacha	3.25	231	*e*P	Pn	22 56 39.3	+4.0
UGLR	Uglovaya	3.25	229	*e*P	Pn	22 56 38.5	+3.2
KOK	Koryaka	3.27	232	*e*P	Pn	22 56 39.3	+3.6
GNL	Ganaly	3.36	242	*e*P	Pn	22 56 40.4	+3.5
KRMR	Karymshinskiy	3.81	230	*e*P	Pn	22 56 46.8	+3.8
RUS	Russkaya	3.94	223	*e*P	Pn	22 56 47.1	+2.3
GRL	Gorelyy	4.03	227	*e*P	Pn	22 56 50.7	+4.5
MTVR	Mutnovka	4.04	226	*e*P	Pn	22 56 49.4	+3.1
ASAK	Asacha	4.23	227	*e*P	Pn	22 56 52.9	+4.1
KDTR	Khodutka, Kamc	4.60	221	*e*P	Pn	22 56 56.5	+2.8

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*SJA **03** 22:57:07.6±0.7, 27°.57S×71°.77W, h20^{km}±4^{km}, ML3.6, MW3.2*

*GUC **03** 22:57:16.1±0.7, 27°.95S×71°.05W, h37^{km}±3^{km}, ML2.7*

ISC 03 22:57:10.5±2.6**, 27°.71S**±0°.05×**71°.53W**±0°.09**, h14^{km}**±14^{km}**, n20, σ2^{s}.35**/28**, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	Llanos de Chal	0.64	141	*e*P	Pb	22 57 25.2	+1.8
AC04				*i* S	Sg	22 57 30.2	-1.2
AC06	Mina Casimiro	1.10	72	*e*P	Pb	22 57 32.7	+1.4
AC06				*i* S	Sb	22 57 45.1	-0.5
AC06				IAML		22 57 48.0	
	comp=E,347nm,0.3s						
GO03	Copiapo	1.16	84	*e*P	Pb	22 57 33.4	+1.1
GO03	Copiapo	1.16	84	*e*P	Pn	22 57 33.1	+0.8
GO03				*i* S	Sb	22 57 44.0	-3.2
GO03				IAML		22 57 48.0	
	comp=N,603nm,0.1s						
LCO	Las Campanas	1.49	151	*e*P	Pn	22 57 38.4	+1.4
LCO				*e*S	Sn	22 57 53.7	-2.7
LCO				IAML		22 57 54.8	
	comp=Z,571nm,0.1s						
LCO	Las Campanas	1.49	151	*e*P	Pn	22 57 37.0	-0.1
LCO				*i* S	Sn	22 57 52.6	-3.8
AC05	El Transito	1.58	136	*e*P	Pn	22 57 39.0	+0.9
AC05				*e*S	Sn	22 57 55.8	-2.6
AC05	El Transito	1.58	136	*e*P	Pn	22 57 38.6	+0.5
AC05				*i* S	Sn	22 57 53.4	-5.0
AC05				IAML		22 57 58.1	
	comp=E,185nm,0.2s						
AC01	Pan de Azucar	1.77	28	*e*P	Pn	22 57 39.1	-1.6
AC01				*e*S	Sn	22 57 47.0	-16
AC02	Maricunga	2.31	68	*e*P	Pn	22 57 37.9	-11
AC02				*e*S	Sb	22 58 20.8	0.0
AC02	Maricunga	2.31	68	*e*P	Pb	22 57 51.6	-0.6
AC02				*i* S	Sn	22 58 19.6	+2.6
AC02				IAML		22 58 22.3	
	comp=N,162nm,0.3s						
GO04	Tololo Observa	2.53	165	*e*P	Pb	22 57 54.7	-1.2
GO04				*e*S	Sb	22 58 27.2	+0.1
GO04	Tololo Observa	2.53	165	*e*P	Pn	22 57 54.3	+2.8
GO04				*i* S	Sn	22 58 23.1	+0.9
CO01	Juntas del Tor	2.58	151	*e*P	Pb	22 57 55.5	-1.3
CO01				*e*S	Sn	22 58 25.2	+1.7
VCA	Vinchina	3.11	110	*e*P	Pn	22 57 45.4	-14
CO03	El Pedregal	3.20	167	*e*P	Pn	22 58 03.8	+3.3
TINO	Tinogasta	3.52	97	*e*P	Pn	22 58 08.2	+3.3
ACLC	CERRO LA CRUZ	4.37	114	*e*P	Pn	22 58 20.1	+3.4
RTLS	Leoncito	4.51	155	*e*P	Pn	22 58 23.6	+4.9
CFA	Coronel Fontan	4.82	144	*e*P	Pn	22 58 27.6	+4.9

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*IDC **03** 23:18:41.6±4.1, 56°.04N×159°.85W, h69^{km}±35^{km}, mb3.5/11, mbtmp3.8/14, ML3.9/3, Error ellipse: s-maj=36.0km s-min=19.2km az=20.0*

*NEIC **03** 23:18:43.0±1.4, 55°.80N±0°.05×159°.50W±0°.09, h90^{km}±5^{km}, mb3.8/13, ML3.5/54, ML3.4(AEIC), Error ellipse: s-maj=8.9km s-min=5.8km az=131.0*

*AEIC **03** 23:18:44.4±1.8, 55°.78N±0°.05×159°.57W±0°.05, h78^{km}±5^{km}, Error ellipse: s-maj=6.7km s-min=3.8km az=189.0*

ISC 03 23:18:43.2±0.6**, 55°.82N**±0°.05×**159°.55W**±0°.04**, h100^{km}, n225, σ1^{s}.20**/227**, mb3.7**/11**, Alaska Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VNKR	Veniaminof 5	0.23	25		Pn	23 18 56.0	-1.6
VNKR					Sn	23 19 05.1	-3.2
VNWF	Veniaminof 8	0.33	358		Pn	23 18 56.5	-1.6
VNSG	Veniaminof 6	0.40	40		Pn	23 18 57.0	-1.4
VNSG					Sn	23 19 07.0	-2.8
VNSS	Veniaminof 8	0.41	7		Pn	23 18 57.0	-1.7
VNFG	Fog Glacier, M	0.46	359		Pn	23 18 57.4	-1.4
VNFG				IAML		23 19 19.8	
	comp=N,2μm,0.5s						
VNFG				IAML		23 19 21.3	
	comp=E,2μm,0.6s						
VNFG	Fog Glacier, M	0.46	359		Pn	23 18 57.5	-1.4
SDPT	Sand Point	0.71	229	P	Pn	23 18 59.0	-1.6
SDPT	Sand Point	0.71	229	S	Sn	23 19 11.4	-2.4
SDPT	Sand Point	0.71	229		Pn	23 18 59.0	-1.6
SDPT	Sand Point	0.71	229		Sn	23 19 11.2	-2.6
SDPT	Sand Point	0.71	229	IAML		23 19 11.4	
	comp=E,2μm,0.5s						
SDPT				IAML		23 19 12.3	
	comp=N,2μm,0.5s						
BPBCA	Veniaminof	0.98	38		Pn	23 19 02.7	-0.8
CNBA	Chernabura Isl	1.00	181		Pn	23 19 01.9	-1.8
CNBA	Chernabura Isl	1.00	181		Sn	23 19 16.6	-2.4
CNBA	Chernabura Isl	1.00	181	IAML		23 19 21.0	
	comp=N,2μm,0.5s						
CNBA				IAML		23 19 21.9	
	comp=E,1μm,0.3s						
ANPB	Aniakchak Plen	1.21	35		Pn	23 19 05.3	-0.7
AZAC	Aniakchak	1.30	34		Pn	23 19 06.5	-0.7
PS1A	Pavlof South-1	1.31	253		Pn	23 19 06.0	-1.1
PS4A	Pavlof South-4	1.40	251		Sn	23 19 24.9	-2.2
PN7A	Pavlof North-7	1.45	255		Sn	23 19 27.1	-1.1
DOL	Dolgoi Island	1.48	244		Sn	23 19 26.3	-2.7
DTNA	Dutton South F	1.68	247		Sn	23 19 31.6	-1.8
DT1	Dutton Round H	1.71	246		Pn	23 19 10.9	-1.2
DT1					Sn	23 19 32.1	-2.0
R16K	Pilot Point	2.06	31	Pn	Pn	23 19 16.2	-0.3
CHIR	Chirikof Islan	2.21	88	P	Pn	23 19 17.7	-0.8
CHIR	Chirikof Islan	2.21	88	S	Sn	23 19 44.7	-0.8
CHIR	Chirikof Islan	2.21	88		Pn	23 19 17.4	-1.1
CHIR				IAML		23 19 57.4	
	comp=N,408nm,0.8s						
CHIR				IAML		23 20 03.5	
	comp=E,414nm,0.8s						
PLK2	Peulik 2	2.63	41		Pn	23 19 24.5	+0.5
SSLS	Shishaldin Sou	2.78	248		Pn	23 19 25.7	-0.4
SII	Sitkinak Islan	3.09	74	P	Pn	23 19 30.1	0.0
SII	Sitkinak Islan	3.09	74		Pn	23 19 29.1	-1.0
KJL	Kejulik	3.12	43		Pn	23 19 30.8	+0.2
Q17K	Contact Creek	3.16	38		Pn	23 19 31.4	+0.3
ACHA	Angle Creek He	3.33	42		Pn	23 19 33.1	-0.2
P16K	Nushagak River	3.33	14		Pn	23 19 33.6	+0.3
P16K				IAML		23 20 37.4	
	comp=E,134nm,0.8s						
P16K				IAML		23 20 41.8	
	comp=N,117nm,0.9s						
O15K	Ungalikthiuk R	3.37	358		Pn	23 19 33.6	-0.2
O15K	Ungalikthiuk R	3.37	358		Sn	23 20 11.7	-1.1
O15K	Ungalikthiuk R	3.37	358	IAML		23 20 12.9	
	comp=E,74nm,0.9s						
O15K				IAML		23 20 13.2	
	comp=N,59nm,1.1s						
KAKN	Katmai Knife C	3.49	43		Pn	23 19 36.0	+0.6
O14K	Tigyukauivet M	3.56	346	Pn	Pn	23 19 36.4	0.0
O14K				IAML		23 20 18.8	
	comp=N,51nm,1.1s						
OHAK	Old Harbor	3.74	65	P	Pn	23 19 37.7	-1.1
OHAK	Old Harbor	3.74	65		Pn	23 19 38.0	-0.8
OHAK				IAML		23 20 36.5	
	comp=N,120nm,0.8s						
OHAK				IAML		23 20 38.8	
	comp=E,85nm,1.1s						
P17K	Kvichak River	3.77	25		Pn	23 19 39.7	+0.5
P17K				IAML		23 21 15.4	
	comp=E,111nm,1.1s						
KAHG	Katmai Hook Gl	3.82	43		Pn	23 19 40.3	+0.3
O16K	Kokwok River B	3.86	11		Pn	23 19 40.5	+0.1
AKUT	Akutan	3.97	247	P	Pn	23 19 42.1	+0.3
AKUT	Akutan	3.97	247	S	Sn	23 20 26.8	-0.5
AKUT	Akutan	3.97	247		Pn	23 19 41.7	-0.1
AKUT				IAML		23 20 44.1	
	comp=E,79nm,0.8s						
AKUT				IAML		23 20 51.7	
	comp=N,87nm,0.7s						
AKLV	Akutan Long Va	4.05	248		Pn	23 19 43.0	-0.1
LVA	Lava Point	4.09	249	Pn	Pn	23 19 43.8	+0.2
P18K	Big Mountain,	4.27	31		Pn	23 19 46.7	+0.8
N14K	Kuskokwak Cree	4.27	345		Pn	23 19 45.8	-0.1
N14K				IAML		23 21 00.7	
	comp=N,33nm,1.1s						
KDAK	Kodiak Island	4.30	60	P	Pn	23 19 45.2	-1.2
	comp=N,13nm,0.3s,baz=151,slow=2.1,SNR=83						
KDAK				S	Sn	23 20 31.0	-4.4
	comp=N,15nm,0.3s,baz=53,slow=18,SNR=12						
	comp=N,23nm,0.3s						
KDAK				AML	AML		
KDAK	Kodiak Island	4.30	60		Pn	23 19 45.8	-0.6
KDAK				Sn	Sn	23 20 32.8	-2.6
KDAK				IAML		23 20 50.9	
	comp=N,83nm,0.9s						
N15K	Kwethluk River	4.37	356		Pn	23 19 47.5	+0.2
N15K				IAML		23 20 38.1	
	comp=N,34nm,0.6s						
N15K				IAML		23 20 38.3	
	comp=E,38nm,0.7s						
Q19K	Cape Douglas,	4.46	43		Pn	23 19 48.0	-0.5
UNV	Unalaska Valle	4.49	247		Pn	23 19 49.3	+0.5
UNV				IAML		23 21 00.5	

	comp=N,40nm,0.7s						
UNV				IAML		23 21 05.7	
	comp=E,40nm,0.7s						
MNAT	Makushin Natee	4.56	248		Pn	23 19 49.2	-0.7
MSW	Makushin Switc	4.60	248		Pn	23 19 49.9	-0.5
N16K	Nishlik Lake	4.68	5		Pn	23 19 51.9	+0.4
N17K	Nushagak Hills	4.88	14		Pn	23 19 54.2	0.0
M13K	Dall Lake	5.03	338	Pn	Pn	23 19 56.1	0.0
M13K				IAML		23 20 54.5	
	comp=N,21nm,0.8s						
M13K				IAML		23 20 55.5	
	comp=E,21nm,1.1s						
M14K	Bethel	5.11	347	Pn	Pn	23 19 57.2	0.0
M14K				IAML		23 20 53.9	
	comp=E,21nm,1.1s						
M14K				IAML		23 20 55.3	
	comp=N,17nm,0.6s						
O19K	Port Alsworth	5.19	30		Pn	23 19 58.7	+0.4
M16K	Timber Creek	5.22	3		Pn	23 19 59.0	+0.1
M16K				IAML		23 20 57.8	
	comp=E,20nm,0.5s						
N18K	Kilae Creek	5.24	20		Pn	23 19 59.2	+0.2
ILSW	Iliamna Southw	5.39	37		Pn	23 20 00.7	-0.5
IVE	Iliamna Volcan	5.46	37		Pn	23 20 03.4	+1.3
OKTU	Okmok Mt. Tuli	5.51	247		Pn	23 20 03.0	+0.2
N19K	Bonanza Creek	5.67	26		Pn	23 20 05.4	+0.4
M17K	Holitna River	5.70	10		Pn	23 20 05.4	+0.1
L14K	Kuka Creek	5.77	345	Pn	Pn	23 20 06.1	-0.2
CNPM	China Poot	5.80	47	Pn	Pn	23 20 07.1	+0.4
RDSO	Redoubt South	5.88	35		Pn	23 20 08.0	+0.1
NCT	North Crescent	5.90	34		Pn	23 20 09.2	+1.1
L16K	Owhat River	5.91	0		Pn	23 20 08.6	+0.5
L15K	Ungalak Mounta	5.96	351		Pn	23 20 08.1	-0.7
DFR	Drift River	6.00	34		Pn	23 20 10.6	+1.2
SPIA	Saint Paul Isl	6.08	287	P	Pn	23 20 10.7	+0.2
SPIA	Saint Paul Isl	6.08	287	Pn	Pn	23 20 10.6	+0.1
BRLK	Bradley Lake	6.09	46	Pn	Pn	23 20 10.0	-0.6
BRSE	Bradley Lake S	6.13	47		Pn	23 20 10.4	-0.8
L17K	Donlin	6.37	5		Pn	23 20 14.0	-0.3
K15K	Wolf Creek Mou	6.57	352	Pn	Pn	23 20 17.2	+0.1
L18K	Granite Mounta	6.58	12		Pn	23 20 17.4	+0.1
K13K	Kusilvak Mount	6.67	339	Pn	Pn	23 20 18.3	-0.2
CLCO	Concord Point,	6.69	247		Pn	23 20 18.7	0.0
CLES	Cleveland East	6.76	248	Pn	Pn	23 20 19.8	+0.1
SLKM	Skilak Lake	6.81	43	Pn	Pn	23 20 20.3	-0.1
L19K	White Mountain	6.82	19		Pn	23 20 20.7	+0.2
SEW	Seward	6.87	47	Pn	Pn	23 20 20.9	-0.3
M20K	Styx River	6.93	26	Pn	Pn	23 20 24.0	+2.0
K17K	Iditarod	6.95	5		Pn	23 20 22.5	+0.3
STLK	Strandline Lak	6.97	32		Pn	23 20 22.6	+0.1
J14K	Nanvaranak Lak	7.24	345	Pn	Pn	23 20 26.3	+0.1
SUA	Susitna One	7.28	35	Pn	Pn	23 20 26.0	-0.9
RC01	Rabbit Creek A	7.37	40	Pn	Pn	23 20 26.8	-1.2
SKT	Skwentna	7.43	31	Pn	Pn	23 20 28.8	-0.1
J16K	Anvik River	7.51	356		Pn	23 20 29.7	-0.1
J17K	VABM Dome	7.60	2	Pn	Pn	23 20 30.3	-0.8
P23K	Montague Islan	7.70	52	Pn	Pn	23 20 31.4	-1.0
PWL	Port Wells	7.76	45	Pn	Pn	23 20 32.2	-1.1
J18K	Innoko River	7.80	9		Pn	23 20 34.4	+0.6
PPLA	Purkeypile	8.02	25		Pn	23 20 38.5	+1.5
K20K	Telida	8.05	18		Pn	23 20 37.2	0.0
I17K	Unalakleet	8.11	356	Pn	Pn	23 20 38.5	+0.6
GLI	Glacier Island	8.27	47	Pn	Pn	23 20 39.4	-0.8
HIN	Hinchinbrook I	8.28	51	Pn	Pn	23 20 39.7	-0.7
J19K	Poorman	8.43	12		Pn	23 20 42.9	+0.5
FID	Port Fidalgo	8.46	49		Pn	23 20 40.7	-2.2
CAST	Castle Rocks	8.50	23		Pn	23 20 44.0	+0.6
EYAK	Cordova Ski Ar	8.69	51	P	Pn	23 20 45.7	-0.1
EYAK	Cordova Ski Ar	8.69	51	Pn	Pn	23 20 45.2	-0.6
SCM	Sheep Creek Mo	8.73	41	Pn	Pn	23 20 46.0	-0.5
J20K	Nowinta River	8.80	16		Pn	23 20 47.9	+0.5
KTH	Kantishna Hill	8.89	26	Pn	Pn	23 20 49.0	+0.4
DIV	Divide	8.96	48	Pn	Pn	23 20 48.2	-1.4
TRF	Thorofare Moun	8.96	28	Pn	Pn	23 20 49.6	-0.2
KAIM	Kayak Island	9.04	57	Pn	Pn	23 20 50.8	+0.1
KLU	Klutina	9.08	46		Pn	23 20 50.3	-1.0
RAGM	Ragged Mountai	9.10	54	Pn	Pn	23 20 50.7	-0.7
H17K	Granite Mounta	9.15	359	Pn	Pn	23 20 52.8	+0.7
RND	Reindeer	9.32	31	Pn	Pn	23 20 53.9	-0.7
I20K	Naaghedeneel	9.34	13	Pn	Pn	23 20 55.5	+0.8
ATKA	Atka Island	9.35	253	P	Pn	23 20 54.0	-0.9
ATKA	Atka Island	9.35	253	Pn	Pn	23 20 54.2	-0.7
BMRM	Bremner River	9.38	51	Pn	Pn	23 20 54.0	-1.2
H18K	Honhosa River	9.38	3	Pn	Pn	23 20 55.7	+0.5
DHY	Denali Highway	9.54	35	Pn	Pn	23 20 56.4	-1.1
BERG	Berg Lake	9.54	55	Pn	Pn	23 20 55.8	-1.7
HARP	HAARP	9.89	42	Pn	Pn	23 21 01.8	-0.5
GLB	Gilahina Butte	9.94	49	Pn	Pn	23 21 01.7	-1.2
CRQM	Cirque	9.94	53	Pn	Pn	23 21 03.2	+0.2
TGL	Tana Glacier	10.08	54	Pn	Pn	23 21 04.5	-0.4
G18K	Tagagawik	10.12	2	Pn	Pn	23 21 05.7	+0.4
MLY	Manley	10.20	22	Pn	Pn	23 21 05.8	-0.6
MCARA	McCarthy VSAT	10.25	50	Pn	Pn	23 21 06.9	-0.2
WRH	Wood River Hil	10.37	29	Pn	Pn	23 21 05.4	-3.2
H21K	Melozitna Rive	10.40	16		Pn	23 21 09.2	+0.2
G19K	Purcell Mounta	10.43	6	Pn	Pn	23 21 09.7	+0.3
YAH	Yahtse	10.45	57		Pn	23 21 09.9	-0.1
K24K	Donnelly Dome	10.56	35	Pn	Pn	23 21 08.7	-2.6
GRNC	Granite Creek	10.56	55		Pn	23 21 10.6	-1.0
IMAR	Indian Mountai	10.57	13		Pn	23 21 11.8	+0.4
CCB	Clear Creek Bu	10.58	28	Pn	Pn	23 21 09.3	-2.2
HDA	Harding Lake	10.64	31	Pn	Pn	23 21 09.9	-2.4
BARN	Barnard Glacie	10.72	53	Pn	Pn	23 21 13.3	-0.4
M26K	Nabesna, AK	10.74	45		Pn	23 21 13.6	-0.2
MENT	Mentasta	10.75	42	Pn	Pn	23 21 13.8	0.0
RIDG	Independent Ri	10.83	37	Pn	Pn	23 21 14.8	-0.3
ADK	Adak	10.86	256	P	Pn	23 21 14.4	-1.0
ADK	Adak	10.86	256	Pn	Pn	23 21 14.4	-1.0
IL31		10.93	30	Pn	Pn	23 21 15.2	-1.0
ILAR	Eielson Array	10.93	30	P	Pn	23 21 13.6	-2.7
	comp=E,0.2nm,0.3s,baz=220,slow=13,SNR=6.5						
	comp=E,0.5nm,0.4s						
ILAR				AML	AML		
LOGN	Logan Glacier	10.94	55	Pn	Pn	23 21 17.3	+0.7
PCA	Pinnacle	11.09	59	Pn	Pn	23 21 18.3	-0.2
G21K	Allakaket	11.11	13		Pn	23 21 19.2	+0.4
KIWB	Kanaga Island	11.13	256	Pn	Pn	23 21 17.8	-1.3
M27K	Edge Creek, AK	11.17	47	Pn	Pn	23 21 20.1	+0.4
J25K	Salcha River,	11.26	33	Pn	Pn	23 21 18.2	-2.5
O28M	Mount Upton	11.31	56		Pn	23 21 21.4	-0.3
PNL	Peninsula	11.42	62	P	Pn	23 21 22.6	-0.3
L27K	Beaver Creek,	11.54	44		Pn	23 21 24.1	-0.5
BCAR	Beaver Creek A	11.56	44	Pn	Pn	23 21 25.2	+0.4
E19K	Redstone River	11.73	4	Pn	Pn	23 21 29.4	+2.4
F21K	Alatna River	11.79	12		Pn	23 21 29.4	+1.6
G23K	Bananza Creek	11.83	19	Pn	Pn	23 21 27.9	-0.4
PRP	Porcupine Dome	11.87	29	Pn	Pn	23 21 27.7	-1.3
O29M	Mount Kennedy	11.95	59		Pn	23 21 30.4	+0.2
P29M	Windy Craggy	12.24	63	Pn	Pn	23 21 35.8	+1.9
G24K	Hadweenzic Riv	12.33	23	Pn	Pn	23 21 35.2	+0.2
M29M	Somme Creek	12.65	50		Pn	23 21 39.3	0.0
D20K	Etivluk River	13.01	5	Pn	Pn	23 21 46.4	+2.5
I27K	Kandik River	13.10	34	Pn	Pn	23 21 45.0	-0.2
C19K	Lookout Ridge	13.33	360	Pn	Pn	23 21 50.8	+2.6
G26K	Porcupine Rive	13.42	27	Pn	Pn	23 21 51.0	+1.7
D22K	Ayikyak River	13.47	11	Pn	P	23 21 52.9	-2.7
F25K	Christian Rive	13.47	23	Pn	P	23 21 53.5	-2.3
H27K	Steamboat Moun	13.54	32	Pn	Pn	23 21 50.2	-0.7
I28M	Miner Creek	13.55	37		Pn	23 21 49.1	-2.0
BMAR	Burnt Mountain	13.59	25	Pn	Pn	23 21 51.4	-0.1
K29M	Barlow Dome	13.62	45	P	P	23 22 00.5	+3.1
S32K	Killisnoo	13.81	73	Pn	Pn	23 21 54.8	+0.4
G27K	Doyon Strip	13.90	30	Pn	Pn	23 21 55.2	-0.3
F26K	Sheenjek River	13.90	25	Pn	Pn	23 21 56.0	+0.5
I29M	Ogilvie Camp,	14.07	39	Pn	Pn	23 21 58.7	+0.9
M31M	Drury Creek, Y	14.38	53		P	23 22 05.0	-0.8
J30M	Hart River	14.41	43	Pn	P	23 22 04.4	-1.8
H29M	Whitestone	14.53	36	Pn	Pn	23 22 05.0	+1.4
C23K	Itkillik River	14.62	12	Pn	Pn	23 22 05.3	+0.6
I30M	Mount Dempster	14.69	41	P	P	23 22 11.7	+2.3
U33K	Whale Pass	14.77	78	Pn	Pn	23 22 06.3	-0.4
D25K	Kavik River	14.79	18	Pn	Pn	23 22 07.5	+0.6
F28M	Old Crow	14.96	30	Pn	Pn	23 22 09.9	+0.8
Q32M	Nakina River	14.99	67	Pn	Pn	23 22 10.6	+0.9
G29M	Pine Creek	15.06	34	Pn	Pn	23 22 11.0	+0.7
G29M				IAmb	IAmb	23 22 15.6	
	comp=Z,5.3nm,0.7s						
EPYK	Eagle Plains	15.17	37	P	P	23 22 15.9	+1.4
C27K	Jago River	15.55	21	Pn	Pn	23 22 16.9	+0.4
G30M	tAoh Zraii Nji	15.67	35	Pn	Pn	23 22 18.5	+0.4
G30M				IAmb	IAmb	23 22 23.2	
	comp=Z,6.3nm,0.5s						
H31M	Peel River	15.72	40	Pn	Pn	23 22 19.1	+0.4
MMPY	Sheldon Lake,	15.89	53		P	23 22 21.8	-0.8
MMPY				IAmb	IAmb	23 22 26.4	
	comp=Z,5.9nm,0.7s						
E29M	Blow River	16.03	30	Pn	Pn	23 22 22.0	-0.5
F30M	Barrier River	16.17	34		P	23 22 25.6	0.0
F30M				IAmb	IAmb	23 22 29.8	
	comp=Z,3.6nm,0.7s						
G31M	Satah River	16.29	37	Pn	Pn	23 22 24.6	-1.0
G31M				IAmb	IAmb	23 22 30.5	
	comp=Z,5.8nm,1.0s						
F31M	Tsiigehtchic	16.73	36	Pn	Pn	23 22 30.6	-0.5
INK	Inuvik	17.27	33	P	Pn	23 22 37.5	-0.2
	comp=Z,0.5nm,0.3s,baz=258,slow=9.5,SNR=4.0						
	comp=Z,2.2nm,0.5s						
INK				AML	AML		
INK	Inuvik	17.27	33		P	23 22 37.1	-0.5
INK				IAmb	IAmb	23 22 41.3	
	comp=Z,3.3nm,0.8s						
C36M	Paulatuk	20.79	35	P	P	23 23 15.2	-0.6
C36M				IAmb	IAmb	23 23 17.0	
	comp=Z,7.2nm,1.0s						
A36M	Sachs Harbour	21.62	28	P	P	23 23 24.7	0.0
YKA	Yellowknife Ar	23.56	55	P	P	23 23 44.5	+0.3
	comp=Z,0.7nm,0.5s,baz=277,slow=9.0,SNR=4.6						
	comp=Z,0.7nm,0.5s						
YKA	Yellowknife Ar	23.56	55	P	P	23 23 44.3	+0.1
PETK	Petropavlovsk-	24.71	282	P	P	23 23 54.2	-0.4
	comp=Z,1.1nm,0.5s,baz=70,slow=12,SNR=2.2						
	comp=Z,1.1nm,0.5s						
PETK	Petropavlovsk-	24.71	282	P	P	23 23 53.9	-0.8
NVAR	Mina Array Bea	32.40	105	P	P	23 25 07.2	+3.7
	comp=Z,0.6nm,0.6s,baz=321,slow=10.0,SNR=3.1						
	comp=Z,0.6nm,0.6s						
NVAR	Mina Array Bea	32.40	105	P	P	23 25 04.0	+0.4
TXAR	Lajitas Array	47.25	100	P	P	23 27 09.1	+2.9
	comp=Z,0.6nm,0.7s,baz=303,slow=6.0,SNR=7.5						
	comp=Z,0.6nm,0.7s						
TXAR	Lajitas Array	47.25	100	P	P	23 27 08.1	+1.9
ZALV	Zalesovo Beam	58.56	321	P	P	23 28 28.2	-0.7
	comp=Z,0.3nm,0.3s,baz=37,slow=8.0,SNR=2.4						
	comp=Z,0.3nm,0.3s						
FINES	FINESS Array B	62.99	357	P	P	23 28 59.2	+0.5
	comp=Z,1.6nm,0.9s,baz=320,slow=8.5,SNR=3.6						
	comp=Z,1.6nm,0.9s						
BVAR	Borovoye Array	63.99	329	P	P	23 29 05.8	+0.3
	comp=Z,0.6nm,0.6s,baz=27,slow=8.1,SNR=2.1						
	comp=Z,0.6nm,0.6s						
HFS	Hagfors	64.27	4	P	P	23 29 07.0	-0.1
	comp=Z,3.1nm,1.0s,baz=3.8,slow=4.3,SNR=1.7						
	comp=Z,3.1nm,1.0s						
MKAR	Makanchi Array	65.37	318	P	P	23 29 14.6	0.0
	comp=Z,0.6nm,0.5s,baz=46,slow=5.5,SNR=9.8						
	comp=Z,0.6nm,0.5s						
MKAR	Makanchi Array	65.37	318	P	P	23 29 13.9	-0.6
CMAR	Chiang Mai Arr	81.21	290	P	P	23 30 48.2	+0.3
	comp=Z,0.8nm,0.3s,baz=2.8,slow=5.0,SNR=5.6						
	comp=Z,0.8nm,0.3s						
ESDC	Sonseca Array	82.63	19	P	P	23 30 57.3	+2.2
	comp=Z,0.2nm,0.4s,baz=346,slow=5.0,SNR=1.9						
	comp=Z,0.2nm,0.4s						

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*ISN **03** 23:23:05.9±1.1, 33°.26N×47°.99E, h18^{km}, ML2.5,*
Presumed earthquake
*TEH **03** 23:23:06.3, 33°.26N×47°.92E, h18^{km}±40^{km}, ML2.6,*
Presumed earthquake
ISC 03 23:23:06.6±1.1**, 33°.29N**±0°.05×**47°.89E**±0°.05**, h10**^{km}**, n10,**
σ**0^s.80**/12**, Western Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IBZA	Bozab	1.18	359	Pg	Pb	23 23 28.5	-0.8
KCHF	Cheshme Sefid,	1.21	325	Pg	Pn	23 23 28.4	-1.4
KCHF				Sg	Sb	23 23 46.1	+0.6
SNQR	Sonqor, Kerman	1.58	352	Pg	Pb	23 23 36.6	+0.4
IALM	Almabolaq	1.59	8	Pg	Pg	23 23 37.1	0.0
IBDR	Badra	1.65	264	*i* P	Pn	23 23 36.1	+0.5
	baz=84						
IBDR				*i* S	Sg	23 24 00.2	+0.6
IBDR				IAML		23 24 01.9	
	comp=E,77nm,0.4s						
IBDR				IAML		23 24 01.9	
	comp=N,64nm,0.4s						
IDHR	Dehrash	1.88	319	Pn	Pb	23 23 40.7	-0.5
AMIS	Naft Sefid	2.00	143	Pn	Pb	23 23 42.1	-1.1
SNJK	Sanadaj _Korde	2.24	343	Pn	Pb	23 23 47.3	0.0
JHBN	Jahan bin	2.57	113	Pn	Pn	23 23 48.9	+0.3
IPIR	Pirpir	2.60	103	Pn	Pn	23 23 49.7	+0.8

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*IDC **03** 23:29:38.4±0.5, 62°.25S×57°.92W, h0^{km}, mb4.6/15,*
mbtmp4.6/16, ML4.8/1, MS4.2/33, Error ellipse:
s-maj=19.3km s-min=12.6km az=103.0
*NEIC **03** 23:29:40.2±2.0, 62°.39S±0°.06×58°.14W±0°.08, h10^{km}±1^{km},*
mb5.1/60, Mww5.0/21, Error ellipse: s-maj=10.9km
s-min=4.4km az=210.0
*NEIC **03** 23:29:40.3, 62°.38S×58°.12W, h10^{km}*
*GFZ **03** 23:29:41.9±0.2, 62°S±4°×5°8W±°, h10^{km}, M5.1/26,*
mb5.2/26
*NEIC **03** 23:29:42.8, 62°.38S×58°.12W, h18^{km}, Moment Tensor*
Solution. Duration: 1^s.6 Moment tensor: Scale 10^{16}Nm;
M_{rr}-0.85; $M_{\theta\theta}$1.22; $M_{\phi\phi}$-0.37; $M_{r\theta}$2.00; $M_{\theta\phi}$3.56; $M_{\phi r}$-1.32;
Fault plane solution: $M_0$4.43000×10^{16} NP1:ϕ_s10.92000°,
δ60.79000°, λ-163.22000°. NP2:ϕ_s272.54000°,
δ75.41000°, λ-30.29000°. Principal axes: T 4.2036,
Plg10.0000°, Azm324.0000°; N 0.4270, Plg57.0000°,
Azm69.0000°; P -4.6306, Plg32.0000°, Azm228.0000°;
*GCMT **03** 23:29:43.2±0.2, 62°.33S±0°.01×58°.14W±0°.03, h18^{km}±1^{km},*
MW5.0/111, Moment Tensor Solution. s49, c59;
s111, c166; Duration: 0 Moment tensor: Scale 10^{16}Nm;
M_{rr}-0.57±.14; $M_{\theta\theta}$0.77±.11; $M_{\phi\phi}$-0.20±.12; $M_{r\theta}$0.59±.29;
$M_{\theta\phi}$4.44±.10; $M_{\phi r}$-0.52±.29; Best double couple:
$M_0$4.54900×10^{16} NP1:ϕ_s4.00000°, δ81.00000°,
λ-172.00000°. NP2:ϕ_s273.00000°, δ83.00000°,
λ-9.00000°. Principal axes: T 4.7520, Plg1.0000°,
Azm318.0000°; N -0.4060, Plg78.0000°, Azm53.0000°; P
-4.3460, Plg12.0000°, Azm228.0000°; nsta1 refers to
body waves, cutoff=40s. nsta2 refers to surface waves,
cutoff=50s. Triangular moment-rate function
ISC 03 23:29:40.5±0.3**, 62°.32S**±0°.05×**58°.15W**±0°.07**, h10**^{km}**, n277,**
σ**1^s.52**/255**, mb5.0**/59**, MS4.2**/32**, 7C, South Shetland**
Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ESPZ	Base Esperanza	1.20	154		Pn	23 30 01.4	-1.9
PMSA	Palmer Station	3.61	224	Pn	Pn	23 30 35.5	-0.8
	71nm,0.3s,baz=48,slow=11,SNR=812						
PMSA				Lg	Lg	23 31 28.0	
	151nm,0.3s,baz=319,slow=12,SNR=6.0						
	266nm,0.5s						
PMSA				AML	AML		
PMSA	Palmer Station	3.61	224		Pn	23 30 34.8	-1.5
PMSA	Palmer Station	3.61	224	*e*P	Pn	23 30 34.5	-1.8
PMSA	Palmer Station	3.61	224	P	Pn	23 30 34.8	-1.5
ORCD	Orcadas	6.61	82		Pn	23 31 17.0	-0.5
SMAI	San Martin Ant	6.93	209		Pn	23 31 19.9	-2.0
USHA	Ushuaia	9.22	320	Pn	Pn	23 31 53.1	-0.2
	1.1nm,0.3s,baz=126,slow=13,SNR=15						
USHA				Sn	Sn	23 33 31.4	-5.6
	1.3nm,0.3s,baz=280,slow=4.4,SNR=0.8						
USHA				LR	LR	23 33 49.2	
	comp=Z,426nm,20.2s,baz=122,slow=27						
DSPA	Despedida	9.94	323		Pn	23 32 03.8	+0.7
EFI	East Falkland	10.68	0	Pn	Pn	23 32 13.6	+0.3
MG02	Cerro Sombrero	11.24	323		Pn	23 32 21.2	+0.2
MG02	Cerro Sombrero	11.24	323	P	Pn	23 32 21.5	+0.5
	comp=Z,244nm,1.1s						
GO10	Punta Arenas	11.46	317		Pn	23 32 24.0	0.0
GO10	Punta Arenas	11.46	317	P	Pn	23 32 26.2	+2.2
	comp=Z,117nm,1.1s						
GO08	Villa O’Higgin	16.06	323		Pn	23 33 26.6	+0.5
GO08	Villa O’Higgin	16.06	323	P	Pn	23 33 28.0	+1.9
	comp=Z,51nm,1.2s						
BELA	Belgrano 2	17.29	164		Pn	23 33 38.6	-2.9
COYC	Coyhaique	18.60	328		P	23 33 58.1	+0.5
COYC	Coyhaique	18.60	328	P	Pn	23 33 59.5	+1.7
	comp=Z,84nm,1.0s						
VNA3	Neumayer Olymp	20.47	136	⇑P	P	23 34 19.0	+1.2
	comp=Z,138nm,0.8s						
VNA3	Neumayer Olymp	20.47	136	P	P	23 34 19.1	+1.3
	comp=Z,249nm,0.8s						
LL02	Futaleuf	20.79	331		P	23 34 21.1	-0.4
LL02				IAmb	IAmb	23 34 25.7	
	comp=Z,79nm,1.0s						
LL02	Futaleuf	20.79	331	P	P	23 34 22.0	+0.4
	comp=Z,98nm,1.4s						
VNA1	Neumayer--Stat	20.93	134	⇑P	P	23 34 24.8	+1.9
	comp=Z,218nm,0.9s						
VNA2	Neumayer--Watz	21.21	135	⇑P	P	23 34 27.4	+1.5
	comp=Z,117nm,0.8s,baz=256,slow=11						
VNA2	Neumayer--Watz	21.21	135	P	P	23 34 27.6	+1.7
	comp=Z,231nm,0.9s						
GO07	Milladeo Hill,	21.30	327	P	P	23 34 26.2	-0.8
GO07				IAmb	IAmb	23 34 30.4	
	comp=Z,99nm,0.8s						
GO07	Milladeo Hill,	21.30	327	P	P	23 34 29.1	+2.1
	comp=Z,129nm,0.8s						
SNAA	Sanae	22.64	137	⇑P	P	23 34 42.3	+1.0
	comp=Z,2µm,0.7s						
SNAA	Sanae	22.64	137	P	P	23 34 41.6	+0.4
	comp=Z,80nm,0.8s,baz=264,slow=9.0,SNR=168						
SNAA				S	S	23 38 46.4	-2.3
	comp=Z,2.1nm,0.7s,baz=246,slow=16,SNR=1.5						
SNAA				LR	LR	23 42 06.4	
	comp=Z,823nm,20.9s,baz=289,slow=33						
	comp=Z,80nm,0.8s						
SNAA	Sanae	22.64	137		P	23 34 40.3	-1.0
SNAA	Sanae	22.64	137	P	P	23 34 42.5	+1.2
	comp=Z,187nm,1.5s						
LL05	Los Muermos	22.87	329	P	P	23 34 41.8	-1.9
	comp=Z,255nm,1.0s						
LL03	Petrohue	22.87	331	P	P	23 34 43.0	-0.8
	comp=Z,73nm,0.9s						
PLCA	Paso Flores	22.88	335	P	P	23 34 42.1	-1.8
	comp=Z,17nm,1.1s,baz=164,slow=10,SNR=12						
PLCA				LR	LR	23 43 42.7	
	comp=Z,490nm,18.4s,baz=148,slow=37						
	comp=Z,17nm,1.1s						
PLCA	Paso Flores	22.88	335	P	P	23 34 42.6	-1.3
PLCA				IAmb	IAmb	23 34 48.3	
	comp=Z,49nm,1.1s						
PLCA	Paso Flores	22.88	335	*e*P	P	23 34 43.9	-0.1
PLCA	Paso Flores	22.88	335	P	P	23 34 43.8	-0.2
	comp=Z,64nm,1.3s						
GO06	Curarrehue	24.17	334	P	P	23 34 55.5	-1.2
GO06	Curarrehue	24.17	334	P	P	23 34 55.7	-1.0
	comp=Z,120nm,1.1s						
TROLL	Troll, Antarti	24.28	139	⇑P	P	23 34 58.7	+1.2
	comp=Z,3µm,0.9s						
TRQA	Tornquist	24.41	353	P	P	23 34 58.8	-0.1
TRQA				IAmb	IAmb	23 35 24.4	
	comp=Z,35nm,1.1s						
BI02	San Fabin de	26.95	336	P	P	23 35 21.6	-0.3
BI02				IAmb	IAmb	23 35 27.2	
	comp=Z,37nm,0.9s						
BI02	San Fabin de	26.95	336	P	P	23 35 22.8	+0.9
	comp=Z,46nm,1.3s						
BI05	Punta Hualpn	27.25	333	P	P	23 35 24.3	-0.2
ML02	Panimavida	27.85	336	P	P	23 35 29.6	-0.3
ML02				IAmb	IAmb	23 35 35.5	
	comp=Z,48nm,0.9s						
ML02	Panimavida	27.85	336	P	P	23 35 31.0	+1.1
	comp=Z,56nm,1.0s						
QSPA	South Pole Qui	27.90	180	P	P	23 35 30.8	+0.4
	comp=Z,20nm,0.7s,baz=158,slow=2.8,SNR=69						
QSPA				LR	LR	23 47 37.1	
	comp=Z,367nm,19.1s,baz=168,slow=39						
	comp=Z,20nm,0.7s						
QSPA	South Pole Qui	27.90	180	P	P	23 35 30.4	0.0
GO05	Hualane	28.68	336	P	P	23 35 35.4	-2.0
GO05	Hualane	28.68	336	P	P	23 35 38.0	+0.7
	comp=Z,66nm,1.2s						
BO02	Sierra Bellavi	28.68	338	P	P	23 35 37.6	+0.2
BO02				IAmb	IAmb	23 35 46.3	
	comp=Z,39nm,1.1s						
BO02	Sierra Bellavi	28.68	338	P	P	23 35 40.3	+2.9
	comp=Z,44nm,1.1s						
BO01	Tunca	29.13	338	P	P	23 35 41.2	0.0
BO01				IAmb	IAmb	23 35 50.6	
	comp=Z,40nm,1.2s						
BO01	Tunca	29.13	338	P	P	23 35 43.6	+2.3
	comp=Z,31nm,1.2s						
BO04	La Punta	29.44	339	P	P	23 35 43.9	-0.2
BO04				IAmb	IAmb	23 36 00.5	
	comp=Z,24nm,0.9s						
MT13	San Alfonso	29.62	339	P	P	23 35 46.0	+0.3
MT13				IAmb	IAmb	23 36 09.3	
	comp=Z,22nm,0.8s						
MT01	Popeta	29.67	338	P	P	23 35 46.6	+0.5
MT01				IAmb	IAmb	23 36 03.2	
	comp=Z,28nm,1.1s						
MT09	Talagante	29.71	338	P	P	23 35 47.2	+0.6
MT08	Bocatoma Ro	29.87	340	P	P	23 35 47.6	-0.6
MT08				IAmb	IAmb	23 36 01.4	
	comp=Z,34nm,1.0s						
MT03	Universidad Ad	29.90	339	P	P	23 35 48.7	+0.4
MT16	CCHEN	29.97	339	P	P	23 35 47.9	-0.9
MT05	Renca	30.04	339	P	P	23 35 49.8	+0.3
MT02	Curacav	30.24	338	P	P	23 35 51.5	+0.4
MT02				IAmb	IAmb	23 36 06.4	
	comp=Z,33nm,1.0s						
PEL	Peldehue	30.28	339	P	P	23 35 51.7	+0.2
PEL	Peldehue	30.28	339	P	P	23 35 55.4	+3.9
	comp=Z,60nm,1.0s						
ELIB	Princess Elisa	30.49	143	P	P	23 35 53.8	+0.7
	comp=Z,16nm,0.9s						
ELIB				PP	PnPn	23 36 50.5	-1.1
VA03	San Esteban	30.62	339	P	P	23 35 56.1	+1.5
CO04	Los Peladeros	31.40	339	P	P	23 36 00.9	-0.8
CO04				IAmb	IAmb	23 36 05.8	
	comp=Z,37nm,1.2s						
CFA	Coronel Fontan	31.41	343	LR	LR	23 47 53.6	
	comp=Z,278nm,19.0s,baz=193,slow=35						
ZON	Zonda	31.53	343	P	P	23 36 01.4	-1.2
ZON				IAmb	IAmb	23 36 14.9	
	comp=Z,24nm,1.0s						
ZON	Zonda	31.53	343	P	P	23 36 04.2	+1.6
	comp=E,24nm,1.3s						
CO02	Combarbal	32.22	339	P	P	23 36 07.3	-1.4
CO02	Combarbal	32.22	339	P	P	23 36 08.1	-0.6
	comp=Z,45nm,1.2s						
CO03	El Pedregal	32.53	340	P	P	23 36 10.2	-1.1
CO03				IAmb	IAmb	23 36 27.1	
	comp=Z,28nm,0.9s						
CO03	El Pedregal	32.53	340	P	P	23 36 14.3	+2.9
	comp=Z,38nm,1.0s						
GO04	Tololo Observa	33.20	340	*e*P	P	23 36 18.6	+1.2
CO01	Juntas del Tor	33.28	341	P	P	23 36 16.9	-1.2
CO01	Juntas del Tor	33.28	341	P	P	23 36 18.4	+0.3
	comp=Z,42nm,0.6s						
CPUP	Villa Florida	35.99	1	P	P	23 36 41.0	-0.3
	comp=Z,5.4nm,0.7s,baz=169,slow=9.3,SNR=12						
CPUP				LR	LR	23 51 29.1	
	comp=Z,200nm,19.0s,baz=181,slow=36						
	comp=Z,5.4nm,0.7s						
CPUP	Villa Florida	35.99	1	P	P	23 36 41.5	+0.2
AC02	Maricunga	36.23	343	P	P	23 36 48.4	+4.5
	comp=Z,36nm,0.5s						
SBA	Scott Base	37.42	194	P	P	23 36 56.7	+3.7
	comp=Z,15nm,2.6s						
VNDA	Vanda	38.25	193	P	P	23 37 01.3	+1.3
	comp=Z,1.5nm,1.0s,baz=144,slow=6.9,SNR=9.6						
VNDA				LR	LR	23 53 49.0	
	comp=Z,475nm,18.5s,baz=150,slow=38						
	comp=Z,1.5nm,1.0s						
VNDA	Vanda	38.25	193	P	P	23 37 01.4	+1.3
SALTA		38.49	348	P	P	23 37 05.0	+1.9
	comp=Z,16nm,1.3s						
PB06	IPOC Station P	40.36	344	P	P	23 37 18.2	-0.1
PB06				IAmb	IAmb	23 37 30.1	
	comp=Z,39nm,1.1s						
PB06	IPOC Station P	40.36	344	P	P	23 37 18.4	+0.1
	comp=Z,37nm,1.1s						
MURT	Porto Murtinho	40.64	1	*e*P	P	23 37 17.6	-2.8
PB03	IPOC Station P	41.03	343	P	P	23 37 23.0	-0.9
PB03	IPOC Station P	41.03	343	P	P	23 37 24.5	+0.7
	comp=Z,24nm,1.1s						
PB09	IPOC Station P	41.21	344	P	P	23 37 26.1	+0.7
PB09				IAmb	IAmb	23 37 38.8	
	comp=Z,26nm,1.1s						
PB07	IPOC Station P	41.36	343	P	P	23 37 26.9	+0.3
PB07				IAmb	IAmb	23 37 33.3	
	comp=Z,38nm,1.3s						

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BB19B Bebedouro         41.76  14 eP      P       23 37 30.1 +0.4
PB02  IPOC Station P    41.77 343  P      P       23 37 31.0 +1.2
AQDB  Aquidauana        41.85   3  P      P       23 37 30.0 -0.4
AQDB  Aquidauana        41.85   3 eP      P       23 37 31.0 +0.6
BDQN  Bodoquena, MS     41.85   2 eP      P       23 37 30.5  0.0
COIM  Forte Coimbra     42.38   1 eP      P       23 37 35.0 +0.3
PB11  IPOC Station P    43.27 344  P      P       23 37 41.3 -0.8
      comp=Z,28nm,1.0s
GO01  Chusmiza          43.30 345  P      P       23 37 43.2 +0.4
GO01  Chusmiza          43.30 345  P      P       23 37 47.3 +4.6
      comp=Z,15nm,1.3s
PSGCX Pisagua           43.49 343  P      P       23 37 43.4 -0.4
MAW   Mawson            43.57 152  P      P       23 37 44.6 +0.8
      comp=Z,5.2nm,0.9s
MAW   Mawson            43.57 152  P      P       23 37 45.2 +1.4
      comp=Z,5.3nm,0.9s
MAW   Mawson            43.57 152  P      P       23 37 44.6 +0.8
      comp=Z,18nm,0.9s,baz=211,slow=7.8,SNR=39
MAW                                LR     LR      23 55 22.7
      comp=Z,712nm,21.6s,baz=212,slow=35
      comp=Z,18nm,0.9s
MAW   Mawson            43.57 152  P      P       23 37 43.4 -0.4
MAW   Mawson            43.57 152  P      P       23 37 44.9 +1.0
      comp=Z,5.2nm,0.9s
PB12  IPOC Station P    44.49 343  P      P       23 37 51.3 -0.6
PB12                               IAmb   IAmb    23 37 56.7
      comp=Z,13nm,0.7s
PB16  IPOC Station P    44.66 345  P      P       23 37 53.2 -0.6
PB16  IPOC Station P    44.66 345  P      P       23 37 52.0 -1.8
      comp=Z,16nm,0.8s
PP1B  Ponte de Pedra    44.73   4 eP      P       23 37 53.7  0.0
IPMB  Ipameri, GO       44.84  13 eP      P       23 37 53.5 -1.2
BSFB  Barra de Sao F    45.09  23 eP      P       23 37 58.1 +1.5
DIAM  Diamantina, MG    45.13  20 eP      P       23 37 55.6 -1.4
SJMB  Sao Joao De Ma    45.16  23 eP      P       23 37 57.0 -0.1
SIV   San Ignacio       46.32 356  LR     LR      23 58 21.5
      comp=Z,339nm,19.4s,baz=187,slow=37
SALV  Santo Antonio     46.40   3 eP      P       23 38 06.8 -0.1
LPAZ  La Paz            46.52 347  P      P       23 38 08.9 +0.4
      comp=Z,3.5nm,0.9s,baz=152,slow=6.1,SNR=3.9
LPAZ                               LR     LR      23 59 28.0
      comp=Z,239nm,18.2s,baz=160,slow=38
      comp=Z,3.5nm,0.9s
LPAZ  La Paz            46.52 347  P      P       23 38 07.4 -1.2
LPAZ  La Paz            46.52 347 eP      P       23 38 08.0 -0.5
MC01  Montes Claros     46.65  19 eP      P       23 38 09.3 +0.4
ARAG  Araguaiana, MT    46.78   8 eP      P       23 38 11.2 +1.4
PTLB  Pontes e Lacer    46.82 359 eP      P       23 38 10.6 +0.4
ARCA  Ara§uai, MG       46.84  21 eP      P       23 38 12.3 +2.0
BDFB  Brasilia          47.17  13  P      P       23 38 13.3 +0.2
      comp=Z,6.4nm,0.8s,baz=158,slow=3.5,SNR=4.9
BDFB                               LR     LR      23 56 46.8
      comp=Z,181nm,21.3s,baz=162,slow=35
      comp=Z,6.4nm,0.8s
BDFB  Brasilia          47.17  13  P      P       23 38 12.5 -0.6
BDFB                               IAmb   IAmb    23 38 19.0
      comp=Z,13nm,0.9s
GUA01 Guaratinga, BA    47.48  24 eP      P       23 38 15.4 +0.1
JANB  Januaria          48.22  18 eP      P       23 38 21.6 +0.5
RPN   Rapa Nui          48.55 292  LR     LR      23 53 02.7
      comp=Z,234nm,21.8s,baz=148,slow=29
VILB  Vilhena           49.32 357 eP      P       23 38 30.0 +0.5
SNDB  Serra Nova Dou    50.51   9 eP      P       23 38 38.3 -0.3
SDBA  SAO DESIDERIO     50.74  17 eP      P       23 38 41.4 +1.0
CLDB  Colider           51.39   3 eP      P       23 38 45.6 +0.4
CLDB  Colider           51.39   3  P      P       23 38 46.7 +1.4
      comp=Z,15nm,0.9s
CASY  Casey             51.43 174  P      P       23 38 43.6 -1.4
CASY                               IAmb   IAmb    23 38 56.1
      comp=Z,17nm,1.1s
NNA   Nana              52.03 337  LR     LR      23 59 24.2
      comp=Z,89nm,18.6s,baz=157,slow=34
SMTB  Santa Maria do    53.92  13 eP      P       23 39 03.8 -0.1
CZSB  Cruzeiro do Su    55.52 342 eP      P       23 39 14.8 -0.7
SUR   Sutherland        56.84  97  LR     LR      23 58 30.4
      comp=Z,332nm,20.3s,baz=212,slow=30
H04S2 CROZET ISLANDS 57.77 130     T      T       00 43 30.6
      baz=234,slow=73,SNR=82
H04S3 CROZET ISLANDS 57.78 130     T      T       00 43 21.6
      baz=234,slow=73,SNR=58
H04S1 CROZET ISLANDS 57.79 130     T      T       00 43 27.0
      baz=234,slow=73,SNR=82
ITTB  Itaituba          57.85   3 eP      P       23 39 32.7 +0.6
TEFE  Tefe              58.88 352 eP      P       23 39 39.5 +0.2
MACA  Manacapuru-AM     59.05 357 eP      P       23 39 40.7 +0.3
H10S3 ASCENSION HYDR61.88  50      T      T       00 47 12.0
      baz=203,slow=74,SNR=38
H10S2 ASCENSION HYDR61.88  50      T      T       00 47 12.0
      baz=17,slow=74,SNR=38
BOSA  Boshof            62.07  99  P      P       23 39 59.5 -1.6
      comp=Z,6.7nm,0.9s,baz=210,slow=5.0,SNR=7.1
BOSA                               LR     LR      00 01 55.8
      comp=Z,181nm,19.7s,baz=198,slow=31
      comp=Z,6.7nm,0.9s
BOSA  Boshof            62.07  99  P      P       23 40 00.2 -0.9
BOSA                               IAmb   IAmb    23 40 12.2
      comp=Z,13nm,0.9s
BOSA  Boshof            62.07  99 iP      P       23 39 59.0 -2.2
SGC2  Sao Gabriel da    62.37 350 eP      P       23 40 03.1  0.0
H10N3 ASCENSION HYDR62.96  50      T      T       00 48 33.6
      baz=202,slow=74,SNR=106
H10N1 ASCENSION HYDR62.97  50      T      T       00 48 32.8
      baz=202,slow=74,SNR=90
H10N2 ASCENSION HYDR62.98  50      T      T       00 48 33.9
      baz=202,slow=74,SNR=20
OTAV  Otavalo           64.26 337  P      P       23 40 15.1 -1.1
OTAV                               IAmb   IAmb    23 40 23.7
      comp=Z,22nm,1.1s
OTAV  Otavalo           64.26 337 eP      P       23 40 16.3 +0.1
BOAV  Boa Vista         64.57 357  P      P       23 40 16.9 -0.7
BOAV                               IAmb   IAmb    23 40 21.4
      comp=Z,17nm,1.3s
BOAV  Boa Vista         64.57 357 eP      P       23 40 17.9 +0.3
LBTB  Lobatse           65.29  97  LR     LR      00 03 29.3
      comp=Z,298nm,20.1s,baz=210,slow=31
LBTB  Lobatse           65.29  97  P      P       23 40 21.2 -1.2
LBTB                               IAmb   IAmb    23 40 34.0
      comp=Z,18nm,0.9s
LBTB  Lobatse           65.29  97 iP      P       23 40 15.9 -6.5
POGA  Pongola           66.10 103  P      P       23 40 26.7 -0.9
POGA                               IAmb   IAmb    23 40 33.6
      comp=Z,18nm,0.9s
GRTLG Ghanzi            66.39  91  P      P       23 40 28.1 -1.5
TSUM  Tsumeb            66.56  87  LR     LR      00 04 19.5
      comp=Z,80nm,19.2s,baz=189,slow=31
TSUM  Tsumeb            66.56  87 iP      P       23 40 29.3 -1.3
ROSC  El Rosal          68.11 343  LR     LR      00 11 13.3
      comp=Z,287nm,19.7s,baz=220,slow=37
URZ   Urewera           70.38 223  P      P       23 40 54.4 +0.3
      comp=Z,6.4nm,0.3s,baz=253,slow=2.8,SNR=11
URZ                                LR     LR      00 07 55.2
      comp=Z,180nm,18.5s,baz=162,slow=33
      comp=Z,6.4nm,0.3s
MATP  Matopo            70.59  97  LR     LR      00 06 29.7
      comp=Z,221nm,21.9s,baz=204,slow=31
SDV   Santo Domingo     71.65 347  LR     LR      00 14 06.6
      comp=Z,142nm,18.6s,baz=166,slow=37
MOO   Moorlands         73.61 199  P      P       23 41 13.2 -0.2
      comp=Z,94nm,1.8s
LSZ   Lusaka            74.91  94  LR     LR      00 11 43.2
      comp=Z,102nm,18.3s,baz=178,slow=34
LSZ   Lusaka            74.91  94  P      P       23 41 19.9 -1.6
LSZ                                IAmb   IAmb    23 41 32.1
      comp=Z,15nm,1.0s
DBIC  Dimbokro          79.91  54  P      P       23 41 48.9 -0.4
      comp=Z,4.5nm,0.7s,baz=209,slow=6.0,SNR=5.3
DBIC                               LR     LR      00 09 07.3
      comp=Z,103nm,21.7s,baz=186,slow=30
      comp=Z,4.5nm,0.7s
DBIC  Dimbokro          79.91  54  P      P       23 41 49.0 -0.2
DBIC                               IAmb   IAmb    23 42 02.9
      comp=Z,25nm,1.4s
MTO3  Montecristo       80.30 329  P      P       23 41 50.1 -1.5
SJG   San Juan          80.41 352  LR     LR      00 19 10.4
      comp=Z,129nm,20.1s,baz=165,slow=37
HTT   Hallett           83.59 194  P      P       23 42 09.9 +1.2
      comp=Z,13nm,1.1s
CMIG  Matias Romero     84.28 325  LR     LR      00 11 40.3
      comp=Z,72nm,21.6s,baz=176,slow=30
STKA  Stephens Creek    84.79 197  P      P       23 42 13.0 -1.7
      comp=Z,2.5nm,0.7s,baz=215,slow=9.3,SNR=3.5
STKA                               LR     LR      00 17 33.1
      comp=Z,119nm,18.1s,baz=179,slow=34
      comp=Z,2.5nm,0.7s
NWAO  Narrogin (SRO)    85.01 176  LR     LR      00 18 35.3
      comp=Z,272nm,21.5s,baz=216,slow=34
TORD  Torodi Ar. Bea    88.36  57  P      P       23 42 30.0 -2.2
      comp=Z,0.8nm,0.7s,baz=239,slow=5.8,SNR=3.6
      comp=Z,0.8nm,0.7s
MBAR  Mbarara           88.95  89  LR     LR      00 18 29.2
      comp=Z,93nm,19.1s,baz=200,slow=33
QLP   Quilpie           89.60 200  P      P       23 42 37.0 -1.1
      comp=Z,42nm,1.0s
ASAR  Alice Springs     93.77 191  P      P       23 42 56.3 -1.2
      comp=Z,3.6nm,0.9s,baz=162,slow=4.1,SNR=14
ASAR                               PP     PP      23 46 44.7 +2.9
      comp=Z,0.2nm,0.3s,baz=170,slow=7.8,SNR=4.2
      comp=Z,3.6nm,0.9s
LPIG  La Paz            95.58 314  LR     LR      00 18 14.9
      comp=Z,53nm,18.6s,baz=128,slow=30
WRA   Warramunga Arr    97.41 192  P      P       23 43 12.2 -1.9
      comp=Z,1.4nm,0.7s,baz=175,slow=4.1,SNR=12
WRA                                PP     PP      23 47 13.0 +2.9
      comp=Z,1.8nm,1.0s,baz=182,slow=6.3,SNR=4.9
WRA                                LR     LR      00 28 41.3
      comp=Z,108nm,18.1s,baz=88,slow=36
      comp=Z,1.4nm,0.7s
WRA   Warramunga Arr    97.41 192  P      P       23 43 13.2 -1.0
WRAB  Tennant Creek     97.42 192  P      P       23 43 12.8 -1.4
WRAB                               IAmb   IAmb    23 43 13.3
      comp=Z,4.2nm,1.1s
TXAR  Lajitas Array     98.36 321  LR     LR      00 22 33.9
      comp=Z,58nm,18.5s,baz=131,slow=32
FITZ  Fitzroy Crossi    99.79 184  LR     LR      00 30 19.6
      comp=Z,150nm,18.1s,baz=186,slow=36
TKL   Tuckaleechee C    99.81 339  LR     LR      00 34 13.1
      comp=Z,81nm,18.2s,baz=154,slow=39
MURB  Monte Urbino     119.41  52         PKPdf   23 48 28.8 -0.2
LDM   Libby Dam        119.43 320  PKPdf  PKPdf   23 48 27.9 -1.0
GERES GERESS Array B   124.60  50  PKP    PKPdf   23 48 36.5 -2.4
      comp=Z,0.5nm,0.4s,baz=212,slow=3.5,SNR=6.1
HYB   Hyderabad        125.98 126 ePKiKP  PKPdf   23 48 42.7 +0.2
HYB                               eSKSac  SKSac   23 55 46.5 -0.8
HYB                               eSKKSac SKKSac  23 57 32.0 -1.8
VYHS  Vyhne            126.18  53 ePKP    PKiKP   23 48 46.2 +3.9
MARR  Marisel-Cluj     126.33  58 ⇑P      PKPdf   23 48 39.7 -2.6
MORC  Moravsky Berou   126.76  52 ⇑P      PKiKP   23 48 46.8 +3.3
LANS  Liptovska Anna   126.96  53 ePKP    PKiKP   23 48 46.2 +2.4
KOLS  Kolonicke sedl   127.85  55 ePKP    PKiKP   23 48 48.4 +2.8
YKA   Yellowknife Ar   131.56 329  PKP    PKPdf   23 48 53.2 +1.6
      comp=Z,0.6nm,0.6s,baz=156,slow=2.2,SNR=2.0
AKASG Malin Array Be   131.98  59  PKP    PKPdf   23 48 53.8 +1.0
      comp=Z,0.4nm,0.4s,baz=272,slow=1.2,SNR=4.0
CMAR  Chiang Mai Arr   133.36 149  PKP    PKPdf   23 48 57.7 +1.3
      comp=Z,2.0nm,0.8s,baz=225,slow=3.5,SNR=6.5
FINES FINESS Array B   138.85  47  PKhKP  PKPpre  23 49 00.7
      comp=Z,18nm,1.4s,baz=225,slow=1.8,SNR=3.7
PZH   PanZhiHua        141.76 150  PKP    PKPdf   23 49 09.4 -2.4
ILAR  Eielson Array    142.61 315  PKP    PKPdf   23 49 10.4 -1.5
      comp=Z,0.4nm,0.8s,baz=151,slow=2.1,SNR=4.4
KSH2  Kashi            143.80 108  PKP    PKPab   23 49 12.2 +0.1
ARCES ARCESS Array B   144.06  37  PKhKP  PKPpre  23 49 09.6
      comp=Z,3.9nm,0.8s,baz=215,slow=4.0,SNR=9.0
M16K  Timber Creek     144.59 304         PKPab   23 49 13.2 -1.0
KEV   Kevo             144.62  37         PKPab   23 49 13.1 -0.9
KKAR  Karatay Array    144.66  99         PKPab   23 49 13.9 -1.1
H21K  Melozitna Rive   145.13 314         PKPbc   23 49 15.6 -0.4
J19K  Poorman          145.13 310         PKPbc   23 49 16.4 +0.4
E24K  Your Creek       145.14 319  PKPbc  PKPbc   23 49 15.9 -0.1
L16K  Owhat River      145.20 305  PKPbc  PKPdf   23 49 17.9 +1.4
K17K  Iditarod         145.36 307         PKPbc   23 49 16.5 -0.2
E23K  Chandalar        145.48 318  PKPdf  PKPdf   23 49 18.0 +1.0
M14K  Bethel           145.59 302  PKPdf  PKPdf   23 49 17.6 +0.4
IMAR  Indian Mountai   145.64 314         PKPdf   23 49 15.5 -1.7
LVZ   Lovozero         145.81  42  PKPdf  PKPdf   23 49 16.9 -0.6
NRN   Naryn            145.85 106         PKPdf   23 49 18.5 -0.3
G21K  Allakaket        145.86 315         PKPdf   23 49 17.8 +0.3
D24K  Happy Valley     145.86 320  PKPdf  PKPdf   23 49 18.1 +0.6
J17K  VABM Dome        146.04 308  PKPdf  PKPdf   23 49 18.1 +0.2
AAK   Ala-Archa        146.12 103         PKPdf   23 49 19.1 +0.1
C24K  Franklin Bluff   146.14 321  PKPdf  PKPdf   23 49 19.0 +1.1
E22K  Anaktuvuk Pass   146.21 318  PKPdf  PKPdf   23 49 18.9 +0.8
K15K  Wolf Creek Mou   146.33 305         PKPdf   23 49 19.7 +1.3
CD2   Chengdu          146.46 151  PKPbc  PKPdf   23 49 19.0 -0.8
KIWB  Kanaga Island    146.52 280  PKPdf  PKPdf   23 49 19.3 +0.2
J16K  Anvik River      146.54 307         PKPdf   23 49 19.8 +1.0
H18K  Honhosa River    146.77 311  PKPdf  PKPbc   23 49 21.2 +0.3
KBS   Kingsbay         146.81  19  PKPbc  PKPab   23 49 23.9 +1.8
D22K  Ayikyak River    146.88 319         PKPdf   23 49 19.2  0.0
F20K  Avaraart Lake    146.89 315  PKPdf  PKPdf   23 49 19.0 -0.2
E21K  Killik River     147.05 317  PKPdf  PKPdf   23 49 20.5 +0.9
SPITS Spitsbergen Ar   147.10  21  PKPbc  PKPdf   23 49 20.5 +1.1
      comp=Z,8.6nm,0.9s,baz=194,slow=3.0,SNR=5.2
G18K  Tagagawik        147.27 312         PKPdf   23 49 20.9 +0.9
K13K  Kusilvak Mount   147.34 303  PKPdf  PKPdf   23 49 20.6 +0.4
J14K  Nanvaranak Lak   147.36 305  PKPdf  PKPdf   23 49 20.1  0.0
F19K  Shaleruckik Mo   147.46 314  PKPdf  PKPdf   23 49 20.2 +0.1
E19K  Redstone River   147.60 315         PKPdf   23 49 22.5 +2.0
D20K  Etivluk River    148.03 317         PKPdf   23 49 22.3 +1.1
ARTI  Arti             148.31  71         PKPdf   23 49 24.2 +2.2
G16K  Koyuk River      148.32 309         PKPbc   23 49 24.7 -0.4
D19K  Kuna River       148.41 316  PKPdf  PKPdf   23 49 22.5 +0.7
JSU   Suzuyama         148.67 194         PKPdf   23 49 24.6 +1.2
GOMU  GeErMu           148.91 135  PKPbc  PKPdf   23 49 23.5 -0.6
PDGK  Podgornoye       148.92 108         PKPdf   23 49 26.8 +3.2
ANM   Nome             149.01 307  PKPdf  PKPdf   23 49 22.9 +0.1
C18K  Utukok River     149.48 315         PKPdf   23 49 26.7 +3.2
NJ2   Nanjing          149.65 175 ePKPbc  PKPdf   23 49 24.7 -0.2
JNU   Nakatsue         150.22 195  PKPbc  PKPdf   23 49 29.6 +3.8
      comp=Z,12nm,0.9s,baz=263,slow=0.8,SNR=5.6
XAN   Xi'an            150.53 158  PKPbc  PKPdf   23 49 28.9 +2.6
LZDM  Lanzhou Array    151.27 148  PKPbc  PKPbc   23 49 32.3 -1.4
      comp=Z,7.5nm,0.7s,baz=170,slow=9.9,SNR=4.7
LZH   Lanzhou          151.43 148 ePKPbc  PKPdf   23 49 26.4 -1.4
LYN   LuoYang          151.58 164  PKPbc  PKiKP   23 49 37.1 +2.6
BORK  Borovoye         151.68  85         PKPdf   23 49 27.1 -0.3
BORK                               PKPbc  sPKPdf  23 49 33.7 +2.4
BVAR  Borovoye Array   151.70  85  PKPbc  PKPdf   23 49 31.6 +4.1
      comp=Z,7.3nm,0.7s,baz=244,slow=2.2,SNR=23
MJAR  Matsushiro Arr   152.26 209  PKPbc  PKPbc   23 49 34.5 -1.1
      comp=Z,2.3nm,0.6s,baz=144,slow=3.3,SNR=5.0
MJB9  Matsu-Tunnel     152.26 209  PKPdf  PKPdf   23 49 27.6 -1.2
WMQ   Urumqi           152.85 117 ePKPbc  PKPdf   23 49 29.9 +0.4
MKAR  Makanchi Array   152.86 106  PKPbc  PKPbc   23 49 35.4 -1.2
      comp=Z,4.7nm,0.7s,baz=232,slow=1.8,SNR=19
MKAR  Makanchi Array   152.86 106         PKPdf   23 49 30.6 +1.3
GTA2  Gaotai           153.49 139  PKPbc  PKPbc   23 49 37.9 -0.5
TIA   Tai'an           153.70 171  PKPbc  PKPab   23 49 54.2 +2.7
KURBB Kurchatov Arra   153.91  97  PKPbc  PKPdf   23 49 36.0 +5.3
      comp=Z,2.9nm,0.7s,baz=233,slow=2.4,SNR=7.5
KURK  Kurchatov        154.01  96         PKPbc   23 49 37.0 -1.9
KSAR  Wonju Array Be   154.81 191  PKPdf  PKPdf   23 49 32.5 +0.1
KSRS  Korea Array      154.82 191  PKPab  PKPab   23 49 57.2 +1.0
      comp=Z,0.8nm,0.4s,baz=196,slow=4.0,SNR=4.6
HHC   Hu-ho-hao-te     157.62 159 ePKP    PKPdf   23 49 31.6 -4.5
JKA   Kamikawa-asahi   158.11 223  PKPdf  PKPdf   23 49 36.4 -0.1
ZALV  Zalesovo Beam    159.00  97  PKPab  PKPab   23 50 14.2 +0.3
      comp=Z,1.3nm,0.7s,baz=224,slow=2.3,SNR=5.3
ZALV  Zalesovo Beam    159.00  97         PKPab   23 50 15.3 +1.4
SONM  Songino Array    163.07 142  PKP    PKPdf   23 49 41.4 -0.5
      comp=Z,0.2nm,0.4s,baz=146,slow=2.8,SNR=1.5
SONM                               PKPab  PKPab   23 50 32.2 +0.2
      comp=Z,3.5nm,1.0s,baz=205,slow=2.9,SNR=8.6
KLR   Kul'dur          165.77 207  PKPab  PKPab   23 50 42.7 -0.9
      comp=Z,2.8nm,0.9s,baz=104,slow=4.2,SNR=4.8
```

NOU ***03*** *23:31:56.5, 38˚.54S×177˚.59E, h30km, MLv3.7/13, North Island, New Zealand*

WEL ***03*** *23:31:56.7±0.4, 38˚S±3˚×17˚8E±˚, h64km±4km, M3.5/56, ML3.4/56, MLv3.5/56, Error ellipse: s-maj=4.4km s-min=3.4km az=125.9, confirmed*

ISC 03 23:31:56.0±1.4**, 38˚.43S**±0˚.03×**177˚.51E**±0˚.03**, h80**km±7km**, n117, σ0ˢ91**/134**, North Island**

```
Code  Station Name       Δ°   AZ°  Phase ID        Time       Res
                                   Op     ISC      h  m  s    ISC
MWZ   Matawai           0.10   7   P      Pn      23 32 07.3 -0.3
MWZ                                S      Sn      23 32 14.9 -1.1
MWZ                                AML    AML
MWZ                                AML    AML
RAGZ  Rawiri            0.10 229   P      Pn      23 32 07.7  0.0
RAGZ                               S      Sn      23 32 15.7 -0.5
RAGZ                               AML    AML
RAGZ                               AML    AML
TKGZ  Te Karaka         0.26  92   P      Pn      23 32 08.3 +0.2
TKGZ                               S      Sn      23 32 17.9 +0.9
TKGZ                               AML    AML
TKGZ                               AML    AML
RIGZ  Rimuhau           0.34 145   P      Pn      23 32 09.2 +0.5
RIGZ                               S      Sn      23 32 18.7 +0.7
RIGZ                               AML    AML
RIGZ                               AML    AML
URZ   Urewera           0.36 298   P      Pn      23 32 07.8 -0.9
URZ   Urewera           0.36 298   P      Pn      23 32 08.1 -0.5
URZ                                S      Sn      23 32 16.3 -1.7
URZ                                AML    AML
URZ                                AML    AML
TWGZ  Tauwhareparae     0.45  56   P      Pn      23 32 09.9 +0.5
TWGZ                               S      Sn      23 32 20.0 +0.7
TWGZ                               AML    AML
TWGZ                               AML    AML
RTZ   Ruatahuna         0.46 246   P      Pn      23 32 09.4 -0.1
RTZ                                S      Sn      23 32 20.0 +0.6
RTZ                                AML    AML
RTZ                                AML    AML
RUGZ  Raukumara Rang    0.48  16   P      Pn      23 32 09.7 -0.1
RUGZ                               AML    AML
RUGZ                               AML    AML
CNGZ  Carnagh Statio    0.55  96   P      Pn      23 32 11.2 +1.0
CNGZ                               AML    AML
CNGZ                               AML    AML
PRGZ  Paritu Road       0.57 150   P      Pn      23 32 10.9 +0.4
PRGZ                               S      Sn      23 32 21.5 +0.4
PRGZ                               AML    AML
PRGZ                               AML    AML
MUGZ  Murupara          0.58 265   P      Pn      23 32 10.4 -0.1
MUGZ                               S      Sn      23 32 20.4 -1.0
MUGZ                               AML    AML
MUGZ                               AML    AML
RAHZ  Arahi             0.59 214   P      Pn      23 32 11.3 +0.6
RAHZ                               S      Sn      23 32 22.1 +0.7
RAHZ                               AML    AML
RAHZ                               AML    AML
KNZ   Kokohu            0.60 168   P      Pn      23 32 11.3 +0.5
KNZ                                S      Sn      23 32 22.1 +0.5
KNZ                                AML    AML
KNZ                                AML    AML
MTHZ  Maungataniwha     0.67 231   P      Pn      23 32 11.9 +0.4
MTHZ                               S      Sn      23 32 23.5 +0.6
MTHZ                               AML    AML
MTHZ                               AML    AML
WHHZ  Waihua            0.68 198   P      Pn      23 32 12.4 +0.8
WHHZ                               S      Sn      23 32 24.7 +1.6
WHHZ                               AML    AML
WHHZ                               AML    AML
PUZ   Puketiti          0.69  59   P      Pn      23 32 11.8 +0.2
PUZ                                S      Sn      23 32 22.9 -0.2
PUZ                                AML    AML
PUZ                                AML    AML
EDRZ  Edgecumbe         0.69 298   P      Pn      23 32 11.5 -0.2
EDRZ                               S      Sn      23 32 22.1 -1.1
EDRZ                               AML    AML
EDRZ                               AML    AML
HAZ   Te Kaha           0.70  18   P      Pn      23 32 11.5 -0.2
HAZ                                S      Sn      23 32 22.3 -1.1
HAZ                                AML    AML
HAZ                                AML    AML
WHRZ  Whale Island      0.71 323   P      Pn      23 32 11.6 -0.3
WHRZ                               AML    AML
WHRZ                               AML    AML
PKGZ  Pakihiroa         0.72  39   P      Pn      23 32 12.1 +0.2
PKGZ                               S      Sn      23 32 23.0 -0.8
PKGZ                               AML    AML
PKGZ                               AML    AML
MHGZ  Mahia Peninsul    0.79 157   P      Pn      23 32 13.6 +1.0
MHGZ                               AML    AML
MHGZ                               AML    AML
RRRZ  Republican Roa    0.79 276   P      Pn      23 32 12.7  0.0
RRRZ                               AML    AML
RRRZ                               AML    AML
MARZ  Manawahe          0.80 304   P      Pn      23 32 12.6 -0.1
MARZ                               AML    AML
MARZ                               AML    AML
TARZ  Mount Tarawera    0.81 283   P      Pn      23 32 13.2 +0.2
TARZ                               AML    AML
TARZ                               AML    AML
NMHZ  Naumai            0.86 219   P      Pn      23 32 14.6 +1.0
NMHZ                               AML    AML
NMHZ                               AML    AML
MKRZ  Makatiti          0.87 289   P      Pn      23 32 14.2 +0.5
MKRZ                               AML    AML
MKRZ                               AML    AML
ARHZ  Aropaoanui        0.93 206   P      Pn      23 32 15.0 +0.9
ARHZ                               AML    AML
ARHZ                               AML    AML
ALRZ  Allen Road        0.93 261   P      Pn      23 32 14.4 +0.2
ALRZ                               AML    AML
ALRZ                               AML    AML
HLRZ  Highlands Stat    0.93 281   P      Pn      23 32 14.5 +0.3
HLRZ                               AML    AML
HLRZ                               AML    AML
WIZ   White Island      0.94 344   P      Pn      23 32 13.6 -0.8
WIZ                                AML    AML
WIZ                                AML    AML
WMGZ  Waiomatatini S    0.94  50   P      Pn      23 32 14.8 +0.5
WMGZ                               AML    AML
WMGZ                               AML    AML
MRHZ  Matea Rd          0.95 244   P      Pn      23 32 14.8 +0.2
MRHZ                               AML    AML
MRHZ                               AML    AML
HRRZ  Handcock Road     0.97 272   P      Pn      23 32 14.8 +0.1
HRRZ                               AML    AML
HRRZ                               AML    AML
LIRZ  Lichensteins R    0.98 295   P      Pn      23 32 14.9  0.0
LIRZ                               AML    AML
LIRZ                               AML    AML
HSRZ  Hossack Road      1.00 276   P      Pn      23 32 15.5 +0.4
HSRZ                               AML    AML
HSRZ                               AML    AML
UTU   Utuhina           1.07 283   P      Pn      23 32 16.5 +0.6
UTU                                AML    AML
UTU                                AML    AML
MXZ   Matakaoa Point    1.07  36   P      Pn      23 32 16.4 +0.5
MXZ   Matakaoa Point    1.07  36   S      Sn      23 32 31.9 +1.1
MXZ   Matakaoa Point    1.07  36   P      Pn      23 32 16.6 +0.7
MXZ                                AML    AML
MXZ                                AML    AML
KARZ  Kaharoa           1.08 292   P      Pn      23 32 16.0 -0.1
KARZ                               AML    AML
KARZ                               AML    AML
BKZ   Black Stump Fm    1.08 227   P      Pn      23 32 16.2  0.0
BKZ   Black Stump Fm    1.08 227   S      Sn      23 32 31.8 +0.6
NGRZ  Ngongotaha        1.09 287   P      Pn      23 32 16.8 +0.6
NGRZ                               AML    AML
NGRZ                               AML    AML
GRRZ  Galatos Road      1.10 274   P      Pn      23 32 16.9 +0.5
GRRZ                               AML    AML
GRRZ                               AML    AML
MCHZ  McNeill Hill      1.20 212   P      Pn      23 32 18.2 +0.8
MCHZ                               AML    AML
MCHZ                               AML    AML
WHTZ  Whakaora          1.24 259   P      Pn      23 32 18.8 +0.7
WHTZ                               AML    AML
WHTZ                               AML    AML
CKHZ  Cape Kidnapper    1.27 195   P      Pn      23 32 18.7 +0.3
CKHZ                               AML    AML
CKHZ                               AML    AML
KWHZ  Kaweka Forest     1.31 220   P      Pn      23 32 19.3 +0.3
KWHZ                               AML    AML
KWHZ                               AML    AML
KUTZ  Kaahu Road        1.33 267   P      Pn      23 32 19.6 +0.5
KUTZ                               AML    AML
KUTZ                               AML    AML
KMRZ  Kaimai            1.37 295   P      Pn      23 32 19.4 -0.3
KMRZ                               AML    AML
KMRZ                               AML    AML
RITZ  Rihia Road        1.41 247   P      Pn      23 32 20.7 +0.5
RITZ                               AML    AML
RITZ                               AML    AML
WATZ  Wairara           1.42 258   P      Pn      23 32 20.9 +0.5
WATZ                               AML    AML
WATZ                               AML    AML
RATZ  Rangitukua        1.43 252   P      Pn      23 32 21.0 +0.5
RATZ                               AML    AML
RATZ                               AML    AML
KAHZ  Kahuranaki        1.45 200   P      Pn      23 32 20.9 +0.2
KAHZ                               AML    AML
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KAHZ				AML	AML		
KRHZ	Kereru	1.50	216	P	Pn	23 32 21.3	-0.1
KRHZ				AML	AML		
KRHZ				AML	AML		
KATZ	Kakaramea	1.52	248	P	Pn	23 32 22.2	+0.4
KATZ				AML	AML		
KATZ				AML	AML		
BHHZ	Black Hill Sta	1.55	226	P	Pn	23 32 22.4	+0.4
BHHZ				AML	AML		
BHHZ				AML	AML		
TLZ	Tolley Road	1.56	273	P	Pn	23 32 22.4	+0.3
TLZ				AML	AML		
TLZ				AML	AML		
TMVZ	Te Maari	1.57	244	P	Pn	23 32 22.7	+0.3
TMVZ				AML	AML		
TMVZ				AML	AML		
ETVZ	East Tongariro	1.57	243	P	Pn	23 32 22.7	+0.3
ETVZ				AML	AML		
ETVZ				AML	AML		
NTVZ	North Tongarir	1.58	244	P	Pn	23 32 22.8	+0.3
NTVZ				AML	AML		
NTVZ				AML	AML		
KRVZ	Karewarewa	1.61	245	P	Pn	23 32 23.1	+0.3
KRVZ				AML	AML		
KRVZ				AML	AML		
OTVZ	Oturere	1.62	243	P	Pn	23 32 23.3	+0.3
OTVZ				AML	AML		
OTVZ				AML	AML		
SNVZ	South Ngauruho	1.65	242	P	Pn	23 32 23.7	+0.3
SNVZ				AML	AML		
SNVZ				AML	AML		
WTVZ	West Tongariro	1.65	245	P	Pn	23 32 23.8	+0.4
WTVZ				AML	AML		
WTVZ				AML	AML		
NGZ	Ngauruhoe	1.67	243	P	Pn	23 32 24.0	+0.3
NGZ				AML	AML		
NGZ				AML	AML		
TUVZ	Tukino	1.68	239	P	Pn	23 32 24.1	+0.3
TUVZ				AML	AML		
TUVZ				AML	AML		
PXZ	Pawanui	1.68	197	P	Pn	23 32 23.1	-0.6
PXZ				AML	AML		
PXZ				AML	AML		
MOVZ	Moawhango	1.68	234	P	Pn	23 32 23.8	0.0
MOVZ				AML	AML		
MOVZ				AML	AML		
COVZ	Chateau Observ	1.72	243	P	Pn	23 32 24.7	+0.4
COVZ				AML	AML		
COVZ				AML	AML		
WHVZ	Whangaehu Hut	1.73	240	P	Pn	23 32 24.7	+0.2
WHVZ				AML	AML		
WHVZ				AML	AML		
TOZ	Tahuroa Road	1.73	293	P	Pn	23 32 24.6	+0.2
TOZ				AML	AML		
TOZ				AML	AML		
FWVZ	Far West T-bar	1.74	241	P	Pn	23 32 24.9	+0.2
FWVZ				AML	AML		
FWVZ				AML	AML		
MAVZ	Matarangi	1.74	241	P	Pn	23 32 24.9	+0.2
MAVZ				AML	AML		
MAVZ				AML	AML		
WNVZ	Wahianoa	1.74	238	P	Pn	23 32 24.9	+0.2
WNVZ				AML	AML		
WNVZ				AML	AML		
TWVZ	Taurewa	1.74	248	P	Pn	23 32 24.7	+0.1
TWVZ				AML	AML		
TWVZ				AML	AML		
TRVZ	Turoa	1.76	240	P	Pn	23 32 25.2	+0.2
TRVZ				AML	AML		
TRVZ				AML	AML		
PNHZ	Pukenui	1.80	214	P	Pn	23 32 24.8	-0.5
WPHZ	Waipukurau	1.83	207	P	Pn	23 32 25.3	-0.5
MTVZ	Mangateitei	1.86	238	P	Pn	23 32 26.3	+0.2
PKVZ	Pokaka	1.90	242	P	Pn	23 32 27.0	+0.4
PRHZ	Porangahau	1.96	200	P	Pn	23 32 26.7	-0.6
TSZ	Takapari Road	2.02	216	P	Pn	23 32 27.4	-0.9
HIZ	Hauiti	2.09	267	P	Pn	23 32 29.9	+0.8
HIZ	Hauiti	2.09	267	S	Sn	23 32 55.3	+1.0
HIZ	Hauiti	2.09	267	P	Pn	23 32 30.1	+1.1
DVHZ	Dannevirke	2.14	209	P	Pn	23 32 28.5	-1.2
VRZ	Vera Road	2.26	251	P	Pn	23 32 32.4	+1.0
MKAZ	Moumakai	2.29	305	P	Pn	23 32 31.9	+0.2
WAZ	Wanganui	2.37	235	P	Pn	23 32 33.7	+0.9
POWZ	Post Office Ro	2.38	214	P	Pn	23 32 31.9	-1.1
PRWZ	Pori Road	2.43	209	P	Pn	23 32 32.7	-1.1
BFZ	Birch Farm	2.45	203	P	Pn	23 32 32.5	-1.5
BFZ	Birch Farm	2.45	203	S	Sn	23 33 02.7	-0.4
BFZ	Birch Farm	2.45	203	P	Pn	23 32 32.5	-1.5
WIAZ	Waiheke Island	2.50	310	P	Pn	23 32 35.0	+0.4
LREZ	Lake Rotokare	2.63	246	P	Pn	23 32 37.5	+1.1
MBAZ	Motutapu North	2.66	308	P	Pn	23 32 37.6	+0.9
TIWZ	Tintock	2.66	208	P	Pn	23 32 35.5	-1.3
CPWZ	Castlepoint	2.68	202	P	Pn	23 32 36.1	-0.9
MRZ	Mangatainoka R	2.68	213	P	Pn	23 32 35.4	-1.7
PREZ	Palmer Road	2.77	250	P	Pn	23 32 40.2	+1.9
PKE	Pukeiti	2.86	253	P	Pn	23 32 41.4	+2.0
KHEZ	Kahui Hut	2.86	251	P	Pn	23 32 41.1	+1.5
KHEZ	Kahui Hut	2.86	251	S	Sn	23 33 15.4	+2.3
KHEZ	Kahui Hut	2.86	251	P	Pn	23 32 41.1	+1.5
HOWZ	Holdsworth Sta	2.91	211	P	Pn	23 32 37.9	-2.2
OGWZ	Otaki Gorge	2.99	216	P	Pn	23 32 39.4	-1.8
KIW	Kapiti Island	3.15	219	P	Pn	23 32 41.6	-1.8
PAWZ	Paruwai Farm	3.36	208	P	Pn	23 32 43.8	-2.4
WCZ	Waipu Caves	3.55	314	P	Pn	23 32 50.2	+1.5
SNZO	South Karori	3.60	216	P	Pn	23 32 47.6	-1.8
DUWZ	D'Urville Isla	3.65	228	P	Pn	23 32 47.9	-2.2
QRZ	Quartz Range	4.53	237	P	Pn	23 33 01.6	-0.5
LTZ	Lake Taylor	5.90	221	P	Pn	23 33 18.6	-2.2
CTZ	Chatham Island	6.91	142	P	Pn	23 33 36.6	+2.0

NEIC ***03*** *23:35:56.4±2.5, 51.°26N±0.°04×178.°38W±0.°05, h35^{km}±1^{km}, mb4.4/344, ML4.6/14, ML4.4(AEIC), Error ellipse: s-maj=7.1km s-min=4.6km az=164.0*

AEIC ***03*** *23:35:56.5±2.7, 51.°26N±0.°04×178.°33W±0.°05, h27^{km}±4^{km}, Error ellipse: s-maj=6.3km s-min=3.9km az=166.0*

IDC ***03*** *23:35:57.9±2.2, 51.°48N×178.°36W, h52^{km}±18^{km}, mb4.0/30, mbtmp4.2/34, ML4.3/3, MS3.6/25, Error ellipse: s-maj=16.3km s-min=9.6km az=166.0*

ISC 03 23:35:57.6±1.0, **51.°35N**±0.°08×**178.°41W**±0.°03, **h53**^{km}±7^{km}, **n494,** σ**1^s.38**/482, **mb4.4**/162, **MS3.5**/23, **13C-3D,**
Andreanof Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GAKI	Gareloi-Kavalg	0.32	309		Pn	23 36 05.6	-1.6
GAKI					Sn	23 36 12.9	-1.2
GALAA	Gareloi Lava P	0.47	331		Pn	23 36 08.4	-0.4
GALAA					Sn	23 36 16.8	+0.1
GAEA	Gareloi East	0.48	334		Pn	23 36 08.6	-0.3
GAEA					Sn	23 36 17.6	+0.6
GASW	Gareloi Southw	0.51	327		Pn	23 36 08.6	-0.6
GASW					Sn	23 36 18.2	+0.6
TAFL	Tanaga Flats	0.52	38		Pn	23 36 08.0	-1.3
TAFL					Sn	23 36 16.6	-1.0
GANE	Gareloi Northe	0.52	334		Pn	23 36 08.9	-0.4
GANE					Sn	23 36 18.2	+0.4
TASE	Tanaga Southea	0.54	26		Pn	23 36 08.7	-0.9
TASE					Sn	23 36 18.4	+0.2
TACS	Tanaga Cape Sa	0.54	18		Pn	23 36 08.8	-0.8
TACS					Sn	23 36 18.4	+0.1
TANO	Tanaga North	0.59	18		Pn	23 36 09.6	-0.7
TAPA	Tanaga Point A	0.60	38		Pn	23 36 09.2	-1.1
TAPA					Sn	23 36 18.6	-0.8
TAFP	Tanaga Falls P	0.61	26		Pn	23 36 09.6	-0.9
TAFP					Sn	23 36 19.2	-0.5
KIMD	Kanaga Island	0.84	60		Sn	23 36 23.6	-1.2
KIWB	Kanaga Island	0.93	57		Pn	23 36 13.7	-0.9
KIWB				Sn	Sn	23 36 26.4	-0.5
KIWB				IAML		23 36 30.6	
	comp=N,20µm,0.4s						
KIKV	Kanaga Island	0.94	55		Sn	23 36 26.5	-0.6
KIRH	Kanaga Island	0.99	56		Pn	23 36 14.5	-0.8
KINC	Kanaga Island	0.99	53		Pn	23 36 14.6	-0.6
KINC					Sn	23 36 28.1	-0.1
ADK	Adak	1.20	63	P	Pn	23 36 17.1	-1.0
ADK	Adak	1.20	63		Pn	23 36 17.2	-0.9
ADK				Sn	Sn	23 36 32.9	-0.4
ADK				IAML		23 36 35.7	
	comp=N,14µm,0.8s						
ADK				IAML		23 36 36.0	
	comp=N,15µm,0.4s						
ETKA	Kagalaska Isla	1.35	67		Sn	23 36 36.4	-0.6
AMKA	Amchitka	1.43	272	Pn	Pn	23 36 20.4	-0.9
AMKA					Sn	23 36 38.3	-0.7
CETU	Semis' Tuman	1.44	296		Pn	23 36 21.6	+0.2
GSSP	Great Sitkin S	1.58	61		Pn	23 36 23.2	0.0
GSSP					Sn	23 36 44.3	+1.8
GSTD	Great Sitkin T	1.58	63		Sn	23 36 42.9	+0.2
GSMY	Great Sitkin M	1.62	64		Sn	23 36 44.4	+0.8
GSTR	Great Sitkin T	1.64	62		Pn	23 36 24.1	0.0
GSTR				Sn	Sn	23 36 45.6	+1.5
LSSE	Little Sitkin	1.97	288		Pn	23 36 29.3	+0.7
LSPA	Little Sitkin	1.98	289		Pn	23 36 29.6	+1.0
LSNW	Little Sitkin	2.01	289		Pn	23 36 29.8	+0.6
ATKA	Atka Island	2.75	70	P	Pn	23 36 38.6	-0.6
ATKA	Atka Island	2.75	70		Sn	23 37 12.4	+1.1
ATKA	Atka Island	2.75	70		Pn	23 36 38.7	-0.6
ATKA	Atka Island	2.75	70	IAML		23 37 14.9	
	comp=N,2µm,0.6s						
ATKA				IAML		23 37 18.8	
	comp=E,2µm,0.5s						
KOWE	Korovin West	2.77	67		Pn	23 36 39.3	-0.2
KOKL	Mount Kliuchef	2.79	68		Pn	23 36 40.1	+0.3
KOFP	Korovin Flat P	2.83	69		Sn	23 37 16.8	+3.5
KOSE	Korovin Southe	2.88	68		Pn	23 36 41.1	0.0
SHEM	Shemya Is, Ala	4.83	290	P	Pn	23 37 07.4	-0.3
	comp=E,13nm,0.3s,baz=41,slow=2.9,SNR=9.8						
SHEM				S	Sn	23 38 03.7	+1.5
	comp=E,64nm,0.7s,baz=274,slow=18,SNR=1.3						
	comp=E,26nm,0.3s						
SHEM				AML	AML		
SHEM	Shemya Is, Ala	4.83	290	IAML		23 38 27.4	
	comp=E,179nm,0.8s						
SMY	Shemya	4.83	290		Pn	23 37 09.3	+1.7
SMY	Shemya	4.83	290	IAML		23 38 22.9	
	comp=N,286nm,1.0s						
SMY				IAML		23 38 27.0	
	comp=E,389nm,0.9s						
CLES	Cleveland East	5.45	71		Pn	23 37 19.0	+2.8
CLCO	Concord Point,	5.55	72		Pn	23 37 19.7	+2.1
OKWE	Okmok W'ng Wal	6.58	67		Pn	23 37 33.5	+1.9
OKTU	Okmok Mt. Tuli	6.67	68		Pn	23 37 32.9	-0.1
MGOD	Makushin Gods	7.45	66		Pn	23 37 45.2	+1.6
SPIA	Saint Paul Isl	7.54	36	P	Pn	23 37 47.9	+3.1
SPIA	Saint Paul Isl	7.54	36	S	Sn	23 39 10.4	+1.6
SPIA	Saint Paul Isl	7.54	36		Pn	23 37 47.1	+2.3
MNAT	Makushin Natee	7.58	66		Pn	23 37 46.4	+1.1
UNV	Unalaska Valle	7.67	66		Pn	23 37 49.1	+2.6
AKRB	Akutan Reef Bi	7.99	65		Pn	23 37 53.5	+2.5
LVA	Lava Point	8.02	65		Pn	23 37 54.5	+3.1
AKUT	Akutan	8.16	65	P	Pn	23 37 54.3	+1.0
AKUT	Akutan	8.16	65	Pn	Pn	23 37 57.3	+4.0
M11K	Mekoryuk	11.34	32	Pn	Pn	23 38 39.0	+2.4
SDPT	Sand Point	11.43	63	P	Pn	23 38 39.4	+1.4
CNBA	Chernabura Isl	11.83	66	Pn	Pn	23 38 43.9	+0.5
CHNA	Chernabura Isl	11.83	66	P	Pn	23 38 44.3	+0.8
VNFG	Fog Glacier, M	12.18	59	Pn	Pn	23 38 50.5	+2.3
M13K	Dall Lake	12.38	37	Pn	Pn	23 38 54.5	+3.8
O14K	Tigyukauivet M	12.54	44	Pn	Pn	23 38 56.7	+3.6
N14K	Kuskokwak Cree	12.73	41		Pn	23 38 59.8	+4.2
GAMB	Gambell	12.96	13	Pn	Pn	23 39 01.9	+3.2
K13K	Kusilvak Mount	12.99	30	Pn	Pn	23 39 01.9	+2.7
M14K	Bethel	13.12	38		Pn	23 39 04.7	+3.7
O15K	Ungalikthiuk R	13.14	46	Pn	Pn	23 39 04.0	+2.7
L14K	Kuka Creek	13.23	35		Pn	23 39 06.3	+3.8
N15K	Kwethluk River	13.53	42	Pn	Pn	23 39 10.6	+3.9
P16K	Nushagak River	13.93	49	Pn	Pn	23 39 15.7	+3.8
J14K	Nanvaranak Lak	13.95	29	Pn	Pn	23 39 14.5	+2.3
O16K	Kokwok River B	14.12	46	Pn	Pn	23 39 17.8	+3.2
K15K	Wolf Creek Mou	14.28	33		P	23 39 22.1	-0.4
M16K	Timber Creek	14.47	40		P	23 39 23.9	-0.7
L16K	Owhat River	14.66	38		Pn	23 39 25.5	+3.8
P17K	Kvichak River	14.72	49		P	23 39 26.5	-0.9
PETK	Petropavlovsk-	14.73	286	P	Pn	23 39 22.2	-0.5
	comp=E,1.3nm,0.8s,baz=97,slow=12,SNR=1.5						
PETK				LR	LR	23 44 49.9	
	comp=E,259nm,21.3s,baz=96,slow=36						
ACHA	Angle Creek He	14.93	54		Pn	23 39 28.1	+2.8
N17K	Nushagak Hills	14.96	44		P	23 39 29.8	-0.2
N17K				IAmb	IAmb	23 39 37.1	
	comp=Z,14nm,0.7s						
SII	Sitkinak Islan	15.14	60	P	Pn	23 39 29.1	+1.1
SII	Sitkinak Islan	15.14	60	Pn	Pn	23 39 29.7	+1.7
J16K	Anvik River	15.27	32		P	23 39 33.3	-0.1
J16K				IAmb	IAmb	23 39 36.7	
	comp=Z,10nm,0.7s						
M17K	Holitna River	15.29	41		P	23 39 35.0	+1.2
M17K				IAmb	IAmb	23 39 41.2	
	comp=Z,20nm,0.7s						
N18K	Kilae Creek	15.60	45		P	23 39 38.5	+1.3
N18K				IAmb	IAmb	23 39 42.3	
	comp=Z,12nm,0.6s						
K17K	Iditarod	15.71	36		P	23 39 39.6	+1.3
OHAK	Old Harbor	15.75	58	P	Pn	23 39 36.6	+0.9
OHAK	Old Harbor	15.75	58	IAmb	IAmb	23 39 46.4	
	comp=Z,15nm,0.6s						
J17K	VABM Dome	15.86	33		P	23 39 41.5	+1.5
J17K				IAmb	IAmb	23 39 53.2	
	comp=Z,26nm,1.2s						
Q19K	Cape Douglas,	15.99	52		Pn	23 39 41.1	+2.3
Q19K				IAmb	IAmb	23 39 57.6	
	comp=Z,27nm,1.0s						
F15K	North Star Dit	16.03	21		P	23 39 43.7	+1.9
L18K	Granite Mounta	16.03	39		Pn	23 39 42.0	+2.7
KDAK	Kodiak Island	16.23	57	P	Pn	23 39 39.5	-2.3
	comp=Z,4.0nm,0.3s,baz=125,slow=1.9,SNR=38						
KDAK				S	Sn	23 42 37.9	-2.9
	comp=Z,2.0nm,0.8s,baz=358,slow=19,SNR=1.2						
	comp=Z,11nm,0.4s						
KDAK				AML	AML		
KDAK	Kodiak Island	16.23	57	Pn	Pn	23 39 40.3	-1.6
KDAK				IAmb	IAmb	23 39 53.5	
	comp=Z,21nm,1.1s						
N19K	Bonanza Creek	16.28	45		P	23 39 45.5	+0.7
N19K				IAmb	IAmb	23 39 52.2	
	comp=Z,11nm,0.6s						
ILSW	Iliamna Southw	16.57	49		P	23 39 50.4	+2.3
H17K	Granite Mounta	16.65	28		P	23 39 52.0	+3.3
J18K	Innoko River	16.73	35		P	23 39 51.8	+2.1
L19K	White Mountain	16.75	41		P	23 39 51.4	+1.5
L19K				IAmb	IAmb	23 39 57.6	
	comp=Z,14nm,0.8s						
H18K	Honhosa River	17.27	29		P	23 39 57.5	+1.9
CNPM	China Poot	17.35	51		Pn	23 39 56.7	+0.9
J19K	Poorman	17.44	35	P	P	23 39 58.8	+1.3
BRLK	Bradley Lake	17.59	51		Pn	23 39 59.1	+0.4
K20K	Telida	17.66	38		Pn	23 40 01.9	+2.4
G18K	Tagagawik	17.71	27	P	Pn	23 40 02.0	+1.8
STLK	Strandline Lak	17.73	45		Pn	23 40 02.1	+1.6
SKT	Skwentna	18.05	44		Pn	23 40 05.8	+1.4
J20K	Nowinta River	18.08	35		P	23 40 05.3	+0.9
SLKM	Skilak Lake	18.12	49		P	23 40 06.3	+1.2
SLKM				IAmb	IAmb	23 40 12.4	
	comp=Z,13nm,0.6s						
C16K	Lisburne Hills	18.13	16		P	23 40 04.8	-0.1
PPLA	Purkeypile	18.18	40	Pn	Pn	23 40 08.4	+2.4
PPLA				IAmb	IAmb	23 40 12.9	
	comp=Z,14nm,0.6s						
I20K	Naaghedeneel	18.31	34		P	23 40 08.1	+1.1
G19K	Purcell Mounta	18.34	28	Pn	Pn	23 40 10.2	+2.4
SEW	Seward	18.37	50		P	23 40 08.5	+0.8
SEW				IAmb	IAmb	23 40 18.3	
	comp=Z,24nm,1.2s						
CAST	Castle Rocks	18.46	39	Pn	Pn	23 40 11.3	+1.9
CAST				IAmb	IAmb	23 40 17.9	
	comp=Z,12nm,0.6s						
RC01	Rabbit Creek A	18.53	47	Pn	Pn	23 40 13.3	+3.1
KTH	Kantishna Hill	18.99	39	Pn	Pn	23 40 17.0	+1.3
KTH				IAmb	IAmb	23 40 19.4	
	comp=Z,26nm,0.6s						
GHO	Glory Hole Cre	19.13	46	Pn	Pn	23 40 18.3	+1.0
MA2	Magadan	19.16	307	LR	LR	23 47 12.5	
	comp=Z,177nm,20.3s,baz=108,slow=35						
TRF	Thorofare Moun	19.20	40		P	23 40 18.5	+1.6
TRF				IAmb	IAmb	23 40 25.8	
	comp=Z,15nm,1.0s						
KNK	Knik Glacier	19.22	47		P	23 40 18.3	+1.3
KNK				IAmb	IAmb	23 40 24.3	
	comp=Z,13nm,1.0s						
C18K	Utukok River	19.23	19		P	23 40 18.5	+1.3
E19K	Redstone River	19.24	25		P	23 40 18.5	+1.4
IMAR	Indian Mountai	19.27	31	Pn	P	23 40 19.4	+1.9
P23K	Montague Islan	19.34	51	Pn	P	23 40 20.0	+1.6
P23K				IAmb	IAmb	23 40 31.9	
	comp=Z,45nm,1.2s						
H21K	Melozitna Rive	19.39	33	Pn	P	23 40 20.7	+1.9
SML	Sawmill	19.40	46	Pn	Pn	23 40 21.6	+1.0
SEY	Seymchan	19.43	318	P	P	23 40 19.4	+0.2
	comp=Z,0.3nm,0.3s,baz=121,slow=11,SNR=4.6						
	comp=Z,1.2nm,0.3s						
SEY				AML	AML		
G21K	Allakaket	19.68	30		P	23 40 23.5	+1.5
G21K				IAmb	IAmb	23 40 24.5	
	comp=Z,15nm,0.7s						
GLI	Glacier Island	19.70	49		P	23 40 23.0	+0.8
GLI				IAmb	IAmb	23 40 30.5	
	comp=Z,18nm,0.9s						
RND	Reindeer	19.76	41	P	P	23 40 22.7	-0.3
RND				IAmb	IAmb	23 40 30.2	
	comp=Z,12nm,0.8s						
MLY	Manley	19.78	36	P	P	23 40 24.6	+1.5
D19K	Kuna River	19.79	22	P	P	23 40 24.8	+1.6
D19K				IAmb	IAmb	23 40 30.0	
	comp=Z,12nm,1.1s						
SCM	Sheep Creek Mo	19.86	46	P	Pn	23 40 27.5	+1.4
SCM				IAmb	IAmb	23 40 30.8	
	comp=Z,14nm,0.5s						
MCK	McKinley	19.86	40	P	Pn	23 40 26.7	+0.6
HIN	Hinchinbrook I	19.87	51	P	P	23 40 26.2	+2.0
HIN				IAmb	IAmb	23 40 30.7	
	comp=Z,29nm,0.9s						
C19K	Lookout Ridge	19.94	20	P	Pn	23 40 27.8	+0.9
FID	Port Fidalgo	19.96	50	P	P	23 40 26.7	+1.5
FID				IAmb	IAmb	23 40 36.6	
	comp=Z,29nm,1.2s						
H22K	Ishtalitna Cre	20.01	33		P	23 40 26.9	+1.3
F21K	Alatna River	20.13	28	P	P	23 40 28.2	+1.2
F21K				IAmb	IAmb	23 40 29.3	
	comp=Z,8.8nm,0.7s						
DHY	Denali Highway	20.26	43	P	P	23 40 29.0	+0.6
D20K	Etivluk River	20.32	23	P	P	23 40 30.4	+1.4
D20K				IAmb	IAmb	23 40 31.6	
	comp=Z,23nm,1.1s						
I23K	Minto, Yukon-K	20.34	36	P	Pn	23 40 32.0	+0.4
I23K				IAmb	IAmb	23 40 37.5	
	comp=Z,10nm,0.6s						
DIV	Divide	20.39	49	P	P	23 40 31.8	+1.9
DIV				IAmb	IAmb	23 40 42.8	
	comp=Z,10nm,0.6s						
KLU	Klutina	20.41	48	P	Pn	23 40 33.3	+0.8
KLU				IAmb	IAmb	23 40 42.4	
	comp=Z,17nm,1.1s						
WRH	Wood River Hil	20.52	39	P	P	23 40 32.0	+1.0
BMRM	Bremner River	20.91	50	P	Pn	23 40 38.9	+0.5
BMRM				IAmb	IAmb	23 40 49.0	
	comp=Z,12nm,0.8s						
G23K	Bananza Creek	20.92	32	P	P	23 40 38.1	+2.6
HARP	HAARP	21.01	45	P	P	23 40 42.4	+6.0
HARP				IAmb	IAmb	23 40 45.8	
	comp=Z,25nm,0.7s						
ILAR	Eielson Array	21.11	38	P	P	23 40 36.6	-0.9
	comp=Z,1.8nm,0.5s,baz=229,slow=9.6,SNR=20						
ILAR				PcP	PcP	23 44 41.1	-0.3
	comp=Z,1.2nm,0.5s,baz=291,slow=3.8,SNR=8.5						
ILAR				ScP	ScP	23 48 15.1	+1.5
	comp=Z,0.5nm,0.5s,baz=272,slow=3.6,SNR=5.5						
ILAR				LR	LR	23 49 38.2	
	comp=Z,132nm,19.3s,baz=261,slow=39						
	comp=Z,1.8nm,0.5s						
COLD	Coldfoot	21.15	31	P	P	23 40 39.1	+1.2
COLD				IAmb	IAmb	23 40 42.4	
	comp=Z,5.2nm,0.6s						
K24K	Donnelly Dome	21.19	41	P	P	23 40 39.5	+1.2
K24K				IAmb	IAmb	23 40 42.9	
	comp=Z,14nm,0.6s						
H24K	Noodor Dome	21.22	35	P	P	23 40 40.8	+2.2
H24K				IAmb	IAmb	23 40 44.9	
	comp=Z,6.1nm,0.7s						
BERG	Berg Lake	21.23	51	P	P	23 40 43.4	+4.5
BERG				IAmb	IAmb	23 40 50.7	
	comp=Z,9.2nm,0.6s						
GLB	Gilahina Butte	21.39	48	P	P	23 40 43.1	+2.7
GLB				IAmb	IAmb	23 40 48.4	
	comp=Z,13nm,0.7s						
D22K	Ayikyak River	21.45	25	P	P	23 40 42.2	+1.1
VRDI	Verde Repeater	21.51	49	P	P	23 40 44.9	+2.9
RIDG	Independent Ri	21.55	42	P	P	23 40 42.3	0.0
RIDG				IAmb	IAmb	23 40 48.5	
	comp=Z,9.8nm,0.5s						
J25K	Salcha River,	21.65	40	P	P	23 40 45.7	+2.4
MCARA	McCarthy VSAT	21.74	49	P	P	23 40 48.1	+3.9
MCARA				IAmb	IAmb	23 40 59.7	
	comp=Z,8.1nm,0.8s						
G24K	Hadweenzic Riv	21.78	33	P	P	23 40 46.0	+1.4
G24K				IAmb	IAmb	23 40 51.3	
	comp=Z,10nm,0.7s						
MENT	Mentasta	21.80	45	P	P	23 40 51.4	+6.6
MENT				IAmb	IAmb	23 41 01.4	
	comp=Z,8.2nm,0.6s						
E23K	Chandalar	21.82	29	P	P	23 40 46.6	+1.5
M26K	Nabesna, AK	21.98	46	P	P	23 40 51.0	+4.1
SCRK	Sand Creek	21.99	42	P	P	23 40 47.0	0.0
SCRK				IAmb	IAmb	23 40 53.0	
	comp=Z,5.1nm,0.6s						
D23K	Nanushuk River	22.06	27	IAmb	IAmb	23 41 02.1	
	comp=Z,9.0nm,0.9s						
F24K	Squaw Lake	22.06	31	P	P	23 40 49.1	+1.4
F24K				IAmb	IAmb	23 40 51.7	
	comp=Z,12nm,0.6s						
GRNC	Granite Creek	22.24	51	P	P	23 40 52.8	+2.9
GRNC				IAmb	IAmb	23 40 54.4	
	comp=Z,5.8nm,0.7s						
BARN	Barnard Glacie	22.33	50	P	P	23 40 54.9	+4.0
BARN				IAmb	IAmb	23 40 56.5	
	comp=Z,6.5nm,0.7s						
M27K	Edge Creek, AK	22.48	47	P	P	23 40 54.2	+1.9
M27K				IAmb	IAmb	23 40 59.9	
	comp=Z,6.6nm,0.7s						
FYU	Fort Yukon	22.51	35	P	P	23 40 53.5	+1.1
FYU				IAmb	IAmb	23 40 56.6	
	comp=Z,8.2nm,0.6s						
LOGN	Logan Glacier	22.62	51	P	P	23 40 54.7	+0.9
LOGN				IAmb	IAmb	23 41 00.6	
	comp=Z,9.5nm,1.1s						
C23K	Itkillik River	22.64	25	P	P	23 40 54.1	+0.4
C23K				IAmb	IAmb	23 40 55.9	
	comp=Z,12nm,0.7s						
L27K	Beaver Creek,	22.66	45	P	P	23 40 55.3	+1.2
BCAR	Beaver Creek A	22.68	45	P	P	23 40 54.9	+0.5
F25K	Christian Rive	22.84	32	P	P	23 40 56.3	+0.4
O28M	Mount Upton	23.00	51	P	P	23 41 00.1	+2.1
BMAR	Burnt Mountain	23.12	33	P	P	23 40 60.0	+1.1
E25K	Arctic Village	23.13	31		P	23 40 59.0	+0.1
E25K				IAmb	IAmb	23 41 02.7	
	comp=Z,4.7nm,0.7s						
G26K	Porcupine Rive	23.19	35	P	P	23 41 00.0	+0.7
G26K				IAmb	IAmb	23 41 04.1	
	comp=Z,15nm,0.6s						
F26K	Sheenjek River	23.40	33	P	P	23 41 03.4	+2.0
I27K	Kandik River	23.49	39	P	P	23 41 01.6	-0.7
D25K	Kavik River	23.51	28	P	P	23 41 02.5	0.0
D25K				IAmb	IAmb	23 41 05.6	
	comp=Z,6.8nm,0.7s						
H27K	Steamboat Moun	23.74	37	P	P	23 41 05.3	+0.7
G27K	Doyon Strip	23.90	36	P	P	23 41 07.0	+0.9
M29M	Somme Creek	24.05	47	IAmb	IAmb	23 41 11.9	
	comp=Z,5.0nm,0.7s						
I28M	Miner Creek	24.10	40	P	P	23 41 07.3	-0.7
I28M				IAmb	IAmb	23 41 12.7	
	comp=Z,5.7nm,0.6s						
L29M	L29M	24.32	46	P	P	23 41 09.7	-0.2
L29M				IAmb	IAmb	23 41 16.7	
	comp=Z,7.1nm,0.6s						
C27K	Jago River	24.47	29	P	P	23 41 11.6	+0.3
E27K	Coleen River	24.48	33	P	P	23 41 12.0	+0.6
K29M	Barlow Dome	24.72	44	P	P	23 41 13.0	-0.7
K29M				IAmb	IAmb	23 41 18.0	
	comp=Z,6.5nm,0.5s						
I29M	Ogilvie Camp,	24.73	40	IAmb	IAmb	23 41 18.6	
	comp=Z,4.8nm,0.7s						
F28M	Old Crow	24.85	35	P	P	23 41 14.4	-0.3
F28M				IAmb	IAmb	23 41 20.1	
	comp=Z,5.9nm,0.8s						
H29M	Whitestone	24.95	38	P	P	23 41 16.0	+0.4
G29M	Pine Creek	25.29	37	P	P	23 41 18.0	-0.6
E28M	Babbage River	25.35	33	P	P	23 41 20.8	+1.6

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J30M  Hart River        25.37  42  P     P     23 41 19.7 +0.1
I30M  Mount Dempster    25.49  41  P     P     23 41 19.7 -0.9
I30M                               IAmb  IAmb  23 41 26.9
      comp=Z,5.0nm,0.6s
EPYK  Eagle Plains      25.63  38  P     P     23 41 20.6 -1.2
E29M  Blow River        25.82  34  P     P     23 41 24.4 +0.9
F30M  Barrier River     26.33  36  P     P     23 41 28.7 +0.6
H31M  Peel River        26.44  40  P     P     23 41 28.1 -1.0
G31M  Satah River       26.71  38  P     P     23 41 31.1 -0.4
JKA   Kamikawa-asahi    26.95 270  IAmb  IAmb  23 41 38.0
      comp=Z,12nm,0.8s
ASAJ  Asahikawa         26.95 270  P     P     23 41 35.1 +1.3
      comp=Z,11nm,0.8s,baz=330,slow=3.1,SNR=7.5
      comp=Z,11nm,0.8s
INK   Inuvik            27.34  35  P     P     23 41 36.9 -0.2
MMPY  Sheldon Lake,     27.39  47  P     P     23 41 38.4 +0.6
DIB   Dawson Inlet,     27.80  68  P     P     23 41 42.4 +1.0
DLBC  Dease Lake        28.17  56  LR    LR    23 53 39.0
      comp=Z,57nm,18.1s,baz=272,slow=38
T35M  Bob Quinn         28.26  59  P     P     23 41 47.0 +1.6
YAK   Yakutsk           29.62 311  LR    LR    23 54 19.1
      comp=Z,150nm,18.3s,baz=106,slow=37
BBB   Bella Bella       30.64  68  LR    LR    23 54 06.9
      comp=Z,19nm,18.8s,baz=226,slow=36
HOLB  Holberg           31.15  71  P     P     23 42 09.1 -2.1
KLR   Kul'dur           31.42 286  P     P     23 42 13.6 +0.1
      comp=Z,6.8nm,0.4s,baz=73,slow=6.5,SNR=32
KLR                                LR    LR    23 55 10.1
      comp=Z,91nm,19.6s,baz=108,slow=37
      comp=Z,6.8nm,0.4s
USRK  Ussuriysk Ar.     33.54 278  P     P     23 42 32.3 +0.3
      comp=Z,6.8nm,0.6s,baz=54,slow=8.8,SNR=17
USRK                               LR    LR    23 57 29.7
      comp=Z,30nm,19.2s,baz=307,slow=38
      comp=Z,6.8nm,0.6s
H11N2 WAKE ISLAND Hy    33.61 206  T     T     00 18 24.1
      SNR=1089
H11N3 WAKE ISLAND Hy    33.62 206  T     T     00 19 20.2
      baz=135,slow=74,SNR=1447
H11N1 WAKE ISLAND Hy    33.63 206  T     T     00 19 20.9
      baz=18,slow=74,SNR=1040
MJAR  Matsushiro Arr    34.02 261  P     P     23 42 37.1 +0.8
      comp=Z,2.9nm,0.6s,baz=51,slow=8.5,SNR=7.5
MJAR                               LR    LR    23 54 36.9
      comp=Z,82nm,21.7s,baz=48,slow=33
      comp=Z,2.9nm,0.6s
MJAR  Matsushiro Arr    34.02 261  P     P     23 42 38.6 +2.2
MJAR                               IAmb  IAmb  23 42 38.7
      comp=Z,3.8nm,1.0s
H11S1 WAKE ISLAND Hy    34.83 205  T     T     00 19 54.9
      baz=16,slow=76,SNR=1236
H11S2 WAKE ISLAND Hy    34.84 205  T     T     00 19 58.1
      baz=16,slow=76,SNR=926
H11S3 WAKE ISLAND Hy    34.84 205  T     T     00 20 02.5
      baz=16,slow=76,SNR=763
YKAW3 Yellowknife Wh    35.06  46  P     P     23 42 44.9  0.0
YKAW3                              IAmb  IAmb  23 42 51.1
      comp=Z,4.3nm,0.7s
YKA   Yellowknife Ar    35.07  46  P     P     23 42 45.5 +0.4
      comp=Z,1.4nm,0.6s,baz=288,slow=8.2,SNR=7.1
YKA                                PcP   PcP   23 45 16.3 +0.7
      comp=Z,1.0nm,0.7s,baz=289,slow=3.5,SNR=3.2
      comp=Z,1.4nm,0.6s
YKA   Yellowknife Ar    35.07  46  P     P     23 42 45.3 +0.2
JHJ   Hachijo jima 2    35.33 255  LR    LR    23 55 13.3
      comp=Z,39nm,21.5s,baz=342,slow=33
LON   Longmire          36.59  74  IAmb  IAmb  23 43 02.0
      comp=Z,3.0nm,0.7s
I02E  Swisshome, OR     36.66  79  P     P     23 42 56.5 -2.4
LTY   Liberty           37.03  73  P     P     23 43 01.9 -0.3
LTY                                IAmb  IAmb  23 43 11.3
      comp=Z,3.0nm,0.8s
H04D  Lebanon           37.13  78  P     P     23 43 01.5 -1.4
H04D                               IAmb  IAmb  23 43 10.8
      comp=Z,8.8nm,1.0s
I03D  Drain, OR         37.18  80  P     P     23 43 03.4  0.0
I03D                               IAmb  IAmb  23 43 20.5
      comp=Z,4.5nm,1.1s
B08A  Colville Reser    37.31  71  P     P     23 43 05.3 +0.8
B08A                               IAmb  IAmb  23 43 07.5
      comp=Z,5.5nm,0.8s
H04A  Detroit Lake      37.38  78  P     P     23 43 04.6 -0.5
H04A                               IAmb  IAmb  23 43 18.5
      comp=Z,7.4nm,0.9s
EPH   Ephrata           37.63  72  P     P     23 43 06.5 -0.6
EPH                                IAmb  IAmb  23 43 12.9
      comp=Z,4.3nm,0.6s
I04A  Tendick Farm,     37.71  79  P     P     23 43 06.8 -1.1
I04A                               IAmb  IAmb  23 43 11.0
      comp=Z,5.2nm,0.7s
KSXB  Camp Six Broad    37.86  83  P     P     23 43 10.2 +1.0
KSXB                               IAmb  IAmb  23 43 22.1
      comp=Z,5.3nm,1.1s
WIFE  Three Sisters-    37.93  78  P     P     23 43 10.4 +0.4
WIFE                               IAmb  IAmb  23 43 14.9
      comp=Z,5.8nm,0.7s
WAH2  Wahluke Slope     37.94  73  P     P     23 43 09.5 -0.1
KRMB  Red Mountain      38.01  83  P     P     23 43 11.7 +1.2
KRMB                               IAmb  IAmb  23 43 25.9
      comp=Z,3.5nm,1.0s
HAWA  Hanford           38.14  74        P     23 43 11.7 +0.3
HAWA                               IAmb  IAmb  23 43 13.7
      comp=Z,5.7nm,0.6s
J04A  Umpqua Nationa    38.19  80  P     P     23 43 11.1 -1.0
EDM   Edmonton          38.61  61  P     P     23 43 14.9 -0.5
EDM                                IAmb  IAmb  23 43 17.1
      comp=Z,7.0nm,0.7s
L04D  Klamath Falls     38.62  81  P     P     23 43 16.6 +0.9
L04D                               IAmb  IAmb  23 43 21.8
      comp=Z,2.8nm,0.7s
YBH   Yreka Blue Hor    38.64  82  LR    LR    23 55 33.8
      comp=Z,80nm,19.6s,baz=276,slow=30
YBH   Yreka Blue Hor    38.64  82  P     P     23 43 16.9 +1.2
NEW   Newport           38.66  70  P     P     23 43 16.2 +0.3
NEW                                IAmb  IAmb  23 43 17.5
      comp=Z,6.9nm,0.6s
K05A  Summer Lake       39.22  79  P     P     23 43 21.7 +1.0
K05A                               IAmb  IAmb  23 43 33.3
      comp=Z,7.5nm,1.0s
O02D  Mt. Diablo Mer    39.48  84  P     P     23 43 23.7 +0.9
RES   Resolute Bay      39.67  24  LR    LR    00 03 54.3
      comp=Z,57nm,18.2s,baz=5.0,slow=42
KSRS  Korea Array       39.88 271  P     P     23 43 27.9 +1.9
      comp=Z,4.0nm,0.7s,baz=54,slow=8.1,SNR=13
      comp=Z,4.0nm,0.7s
HATC  Hat Creek Radi    39.94  82  P     P     23 43 24.2 -2.4
HATC                               IAmb  IAmb  23 43 34.1
      comp=Z,8.6nm,0.9s
O03E  Paynes Creek      40.02  83  P     P     23 43 27.2 -0.1
O03E                               IAmb  IAmb  23 43 39.5
      comp=Z,3.4nm,0.8s
JTMT  Jette             40.58  69  P     P     23 43 31.4 -0.5
PLID  Pearl Lake        40.93  73  P     P     23 43 34.9  0.0
BEKR  Beckworth         41.17  83  P     P     23 43 36.3 -0.6
MSO   Missoula          41.25  70  P     P     23 43 37.0 -0.3
MSO                                IAmb  IAmb  23 43 38.7
      comp=Z,7.8nm,1.1s
PNTR  Pine Nut          42.11  83  P     P     23 43 43.7 -0.9
PNTR                               IAmb  IAmb  23 43 51.6
      comp=Z,7.8nm,0.6s
WAKR  Walker            42.56  84  P     P     23 43 49.0 +0.8
HLID  Hailey            42.71  74  P     P     23 43 50.4 +1.0
BMN   Battle Mountai    42.79  80  P     P     23 43 49.2 -0.8
BCYI  Bear Canyon       42.91  73  P     P     23 43 51.4 +0.3
BCYI                               IAmb  IAmb  23 43 56.4
      comp=Z,6.7nm,0.6s
MCMT  McKenzie Canyo    42.95  72  P     P     23 43 51.6 +0.2
KVN   Kaiserville       43.06  82  P     P     23 43 51.8 -0.5
BOZ   Bozeman (W)       43.26  70  P     P     23 43 53.8  0.0
BOZ                                IAmb  IAmb  23 43 55.3
      comp=Z,8.1nm,0.6s
NVAR  Mina Array Bea    43.31  83  P     P     23 43 55.0 +0.7
      comp=Z,0.6nm,0.6s,baz=297,slow=6.5,SNR=3.8
      comp=Z,0.6nm,0.6s
ELK   Elko              43.82  78  P     P     23 43 59.6 +1.1
YHH   Holmes Hill       44.16  71  P     P     23 44 01.7 +0.5
YNE   Yellowstone No    44.54  70  P     P     23 44 03.2 -1.0
YNE                                IAmb  IAmb  23 44 10.9
      comp=Z,2.9nm,0.8s
GMN   Gold Mountain     44.66  84  P     P     23 44 05.8 +0.6
HVU   Hansel Valley     44.72  76  IAmb  IAmb  23 44 08.4
      comp=Z,3.3nm,0.6s
RLMT  Red Lodge         44.91  70  P     P     23 44 07.4 +0.3
RLMT                               IAmb  IAmb  23 44 09.7
      comp=Z,5.8nm,0.8s
ILON  Igloolik, Nuna    45.34  30  P     P     23 44 07.9 -1.9
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TPNV  Topopah Spring    45.51  83  P     P     23 44 12.8 +1.0
TPNV                               IAmb  IAmb  23 44 23.9
      comp=Z,4.7nm,0.9s
DUG   Dugway, Tooele    45.64  77  P     P     23 44 13.3 +0.5
DUG                                IAmb  IAmb  23 44 24.6
      comp=Z,6.0nm,1.0s
CCCA  Chr Cany lake     45.72  86  P     P     23 44 14.7 +1.4
FCC   Fort Churchill    45.80  46  P     P     23 44 11.8 -1.9
FCC                                IAmb  IAmb  23 44 29.9
      comp=Z,6.0nm,1.0s
PRN   Pahroc Range      45.97  82  P     P     23 44 16.0 +0.6
PRN                                IAmb  IAmb  23 44 27.7
      comp=Z,7.9nm,1.1s
PSUT  Pine Spring       46.01  80  P     P     23 44 16.4 +0.6
PSUT                               IAmb  IAmb  23 44 17.7
      comp=Z,3.0nm,0.6s
PD31  Pinedale Array    46.09  72  P     P     23 44 16.2 -0.2
PD31                               IAmb  IAmb  23 44 21.6
      comp=Z,6.4nm,0.7s
PDAR  Pinedale Array    46.09  72  P     P     23 44 16.9 +0.5
      comp=Z,5.1nm,0.6s,baz=325,slow=2.9,SNR=26
      comp=Z,5.1nm,0.6s
NLU   North Lily Min    46.23  77  P     P     23 44 18.1 +0.6
NLU                                IAmb  IAmb  23 44 19.6
      comp=Z,2.5nm,0.8s
BSUT  Blindstream Ca    46.68  76  P     P     23 44 21.8 +0.5
BSUT                               IAmb  IAmb  23 44 24.7
      comp=Z,2.4nm,0.6s
SONM  Songino Array     46.88 297  P     P     23 44 23.5 +1.1
      comp=Z,1.0nm,0.5s,baz=63,slow=6.4,SNR=8.3
SONM                               PcP   PcP   23 45 55.9 +1.4
      comp=Z,1.0nm,0.5s,baz=75,slow=3.7,SNR=4.1
SONM                               LR    LR    00 04 40.2
      comp=Z,106nm,20.9s,baz=55,slow=37
      comp=Z,1.0nm,0.5s
SONM  Songino Array     46.88 297  IAmb  IAmb  23 44 25.1
      comp=Z,0.8nm,0.7s
CCUT  Cedar City        46.92  81  P     P     23 44 23.3 +0.3
P17A  Butcher Ranch,    47.34  77  P     P     23 44 26.6 +0.5
P17A                               IAmb  IAmb  23 44 28.3
      comp=Z,4.0nm,0.6s
RDMU  Red Mountain      47.38  75  P     P     23 44 26.7 +0.2
Q16A  Castle Valley     47.42  78  P     P     23 44 26.4 -0.5
Q16A                               IAmb  IAmb  23 44 29.1
      comp=Z,3.8nm,0.7s
P18A  Preston Nutter    47.55  76  P     P     23 44 29.1 +1.1
P18A                               IAmb  IAmb  23 44 39.7
      comp=Z,10nm,1.2s
PKCU  Pink Cliffs       47.64  80  P     P     23 44 30.2 +1.5
PKCU                               IAmb  IAmb  23 44 32.6
      comp=Z,2.8nm,0.6s
SRU   San Rafael Swe    47.70  77  P     P     23 44 29.4 +0.4
SRU                                IAmb  IAmb  23 44 30.9
      comp=Z,4.0nm,0.6s
K22A  Casper            47.96  71  P     P     23 44 31.6 +0.7
K22A                               IAmb  IAmb  23 44 36.1
      comp=Z,3.8nm,0.7s
HMU   Henry Mountain    48.30  78  P     P     23 44 34.5 +0.8
U15A  North Rim         48.30  81  P     P     23 44 34.6 +0.9
U15A                               IAmb  IAmb  23 44 40.5
      comp=Z,3.2nm,0.7s
O20A  White River Ci    48.45  74  P     P     23 44 35.0 +0.2
RSSD  Black Hills       48.54  68  P     P     23 44 35.4 -0.1
RSSD                               IAmb  IAmb  23 44 36.2
      comp=Z,3.1nm,0.7s
PV21  Cone Mtn., Par    48.99  77  P     P     23 44 38.7 -0.2
PV21                               IAmb  IAmb  23 44 44.3
      comp=Z,7.0nm,1.1s
PV10  Paradox Valley    49.06  77  P     P     23 44 40.4 +0.8
PV22  Blue Mesa, Par    49.12  77  P     P     23 44 40.9 +1.0
PV22                               IAmb  IAmb  23 44 43.8
      comp=Z,5.6nm,0.7s
PV17  East Wray Mesa    49.17  77  P     P     23 44 40.9 +0.5
PV16  Nyswonger Mesa    49.18  77  P     P     23 44 41.0 +0.5
PV11  David Mesa, Pa    49.21  77  P     P     23 44 41.1 +0.4
PV05  Paradox Valley    49.21  77  P     P     23 44 41.9 +1.2
PV05                               IAmb  IAmb  23 44 48.0
      comp=Z,3.5nm,0.6s
PV18  Skein Mesa, Pa    49.22  77  P     P     23 44 41.4 +0.7
PV12  Saucer Basin,     49.24  77  P     P     23 44 41.5 +0.5
PV03  Paradox Valley    49.26  77  P     P     23 44 40.9 -0.1
PV03                               IAmb  IAmb  23 44 51.2
      comp=Z,7.4nm,1.1s
PV07  Paradox Valley    49.26  77  P     P     23 44 41.4 +0.3
PV07                               IAmb  IAmb  23 44 44.4
      comp=Z,4.5nm,0.8s
PV13  Radium Mtn., P    49.33  77  P     P     23 44 42.1 +0.5
PV02  Paradox Valley    49.35  77  P     P     23 44 42.2 +0.4
PV15  Paradox Valley    49.42  77  P     P     23 44 42.2 -0.1
PV15                               IAmb  IAmb  23 44 53.2
      comp=Z,3.5nm,0.8s
WUAZ  Wupatki           49.45  81  P     P     23 44 43.5 +1.1
WUAZ                               IAmb  IAmb  23 44 48.8
      comp=Z,3.1nm,0.8s
ULM   Lac du Bonnet     49.49  57  P     P     23 44 41.7 -0.6
      comp=Z,1.7nm,0.6s,baz=226,slow=6.0,SNR=3.1
ULM                                LR    LR    00 07 20.8
      comp=Z,58nm,18.4s,baz=211,slow=38
      comp=Z,1.7nm,0.6s
ULM   Lac du Bonnet     49.49  57  P     P     23 44 41.9 -0.5
ULM                                IAmb  IAmb  23 44 58.2
      comp=Z,3.1nm,1.0s
PV01  Paradox Valley    49.50  77  P     P     23 44 43.3 +0.4
PV01                               IAmb  IAmb  23 44 44.5
      comp=Z,5.3nm,0.6s
MVCO  Mesa Verde        50.13  78  P     P     23 44 47.0 -0.7
MVCO                               IAmb  IAmb  23 44 56.7
      comp=Z,3.3nm,0.6s
SPITS Spitsbergen Ar    50.42 356  P     P     23 44 48.6 -0.4
      comp=Z,3.3nm,0.5s,baz=28,slow=7.6,SNR=11
SPITS                              LR    LR    00 08 10.5
      comp=Z,34nm,18.3s,baz=270,slow=38
      comp=Z,3.3nm,0.5s
SPB2  Spitsbergen Ar    50.42 356  P     P     23 44 48.2 -0.8
SDCO  Great Sand Dun    51.62  75  P     P     23 44 59.8 +0.8
SDCO                               IAmb  IAmb  23 45 01.4
      comp=Z,2.0nm,0.8s
T25A  Trinidad          52.67  75  P     P     23 45 07.3 +0.6
T25A                               IAmb  IAmb  23 45 18.4
      comp=Z,5.4nm,1.0s
TASM  ASL Pad, Albuq    52.86  78  P     P     23 45 08.6 +0.5
TASM  ASL Pad, Albuq    52.86  78  P     P     23 45 09.2 +1.2
TASM                               IAmb  IAmb  23 45 15.3
      comp=Z,1.1nm,0.8s
TASM  ASL Pad, Albuq    52.86  78  P     P     23 45 09.6 +1.6
TASM                               IAmb  IAmb  23 45 15.4
      comp=Z,0.9nm,0.8s
TASM  ASL Pad, Albuq    52.86  78  P     P     23 45 09.6 +1.6
TASM                               IAmb  IAmb  23 45 15.4
      comp=Z,0.9nm,0.7s
ANMO  Albuquerque       52.86  78        P     23 45 09.0 +0.9
ANMO  Albuquerque       52.86  78  P     P     23 45 09.8 +1.7
ANMO                               IAmb  IAmb  23 45 19.3
      comp=Z,2.4nm,1.1s
ABQ   Albuquerque       52.86  78  P     P     23 45 09.3 +1.2
ALQ   Albuquerque       52.86  78  P     P     23 45 09.3 +1.2
ALQ   Albuquerque       52.86  78  P     P     23 45 09.3 +1.2
SBM   South Baldy       53.06  80  P     P     23 45 10.9 +1.1
LENM  Lemitar           53.06  80  P     P     23 45 09.9 +0.3
Y22A  Socorro           53.22  80  P     P     23 45 11.3 +0.7
Y22A                               IAmb  IAmb  23 45 13.0
      comp=Z,3.5nm,0.8s
SUMG  Summit            53.27  14  P     P     23 45 09.6 -1.2
SUMG                               IAmb  IAmb  23 45 13.4
      comp=Z,3.8nm,1.0s
121A  Cookes Peak, D    53.66  82  P     P     23 45 14.8 +0.9
121A                               IAmb  IAmb  23 45 20.7
      comp=Z,3.0nm,0.7s
ILULI Ilulissat         53.71  21  P     P     23 45 14.3 +0.8
ZALV  Zalesovo Beam     54.23 314  P     P     23 45 16.6 -0.9
      comp=Z,0.3nm,0.2s,baz=52,slow=9.3,SNR=1.9
ZALV                               PcP   PcP   23 46 21.9 +0.7
      comp=Z,3.2nm,0.6s,baz=36,slow=3.7,SNR=16
ZALV                               LR    LR    00 09 32.5
      comp=Z,35nm,19.9s,baz=26,slow=37
      comp=Z,0.3nm,0.2s
ZALV  Zalesovo Beam     54.23 314        PcP   23 46 21.6 +0.4
MNTX  Cornudas Mount    55.71  81  P     P     23 45 28.9 +0.3
MNTX                               IAmb  IAmb  23 45 40.7
      comp=Z,3.9nm,1.1s
MSTX  Muleshoe          55.77  77  P     P     23 45 28.4 -0.7
MSTX                               IAmb  IAmb  23 45 29.9
      comp=Z,3.6nm,0.6s
AMTX  Amarillo          55.82  75  P     P     23 45 27.3 -2.1
AMTX                               IAmb  IAmb  23 45 31.2
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      comp=Z,4.1nm,0.9s
VHRN  Van Horn          56.59  81  P     P     23 45 35.7 +0.7
VHRN                               IAmb  IAmb  23 45 36.8
      comp=Z,1.9nm,0.8s
L40A  Anamosa           57.12  62  P     P     23 45 38.4  0.0
L40A                               IAmb  IAmb  23 45 39.1
      comp=Z,6.5nm,0.8s
H43A  Windswept, Lux    57.40  58  P     P     23 45 39.4 -1.0
P38A  Dawn              57.45  66  P     P     23 45 39.3 -1.5
MNHN  Monahans          57.58  79  P     P     23 45 41.8 -0.2
MNHN                               IAmb  IAmb  23 45 43.3
      comp=Z,4.8nm,0.6s
WMOK  Wichita Mounta    57.67  73  P     P     23 45 42.8 +0.4
WMOK                               IAmb  IAmb  23 45 44.1
      comp=Z,3.4nm,0.9s
OK029 Liberty Lake      57.74  72  P     P     23 45 43.5 +0.6
ARCES ARCESS Array B    58.16 350  P     P     23 45 44.1 -1.2
      comp=Z,2.1nm,0.5s,baz=25,slow=7.4,SNR=19
ARCES                              PcP   PcP   23 46 35.8 -0.5
      comp=Z,0.8nm,0.6s,baz=26,slow=3.5,SNR=3.7
      comp=Z,2.1nm,0.5s
ARCES ARCESS Array B    58.16 350  P     P     23 45 43.8 -1.6
ARCES                              IAmb  IAmb  23 45 50.9
      comp=Z,5.8nm,1.1s
SGCY  Sterling City     58.19  77  P     P     23 45 45.9 -0.3
DEOK  Depew             58.28  71  P     P     23 45 47.3 +0.6
P40A  Paris             58.36  65  P     P     23 45 46.7 -0.4
TX31  Lajitas Ar. Si    58.42  81  P     P     23 45 47.9 +0.1
TX31                               IAmb  IAmb  23 45 59.7
      comp=Z,4.0nm,1.1s
TXAR  Lajitas Array     58.42  81  P     P     23 45 48.1 +0.2
      comp=Z,1.0nm,0.5s,baz=305,slow=5.0,SNR=16
      comp=Z,1.0nm,0.5s
TXAR  Lajitas Array     58.42  81  P     P     23 45 47.9 +0.1
LVZ   Lovozero          58.53 346  P     P     23 45 46.8 -1.1
ABTX  Abilene, Hawle    58.60  76  P     P     23 45 49.7 +0.7
ABTX                               IAmb  IAmb  23 46 00.8
      comp=Z,4.9nm,0.8s
S39A  Bolivar           58.88  67  P     P     23 45 49.2 -1.6
S39A                               IAmb  IAmb  23 45 50.2
      comp=Z,4.1nm,0.8s
SAND  Sanderson         58.94  80  P     P     23 45 50.8 -0.6
SAND                               IAmb  IAmb  23 45 55.9
      comp=Z,1.8nm,1.0s
U38A  Gravette          59.12  69  P     P     23 45 51.7 -0.8
U38A                               IAmb  IAmb  23 46 05.8
      comp=Z,3.0nm,0.9s
KURK  Kurchatov         59.22 314  P     P     23 45 54.5 +1.5
KURK  Kurchatov         59.22 314  IAmb  IAmb  23 45 57.2
      comp=Z,1.3nm,0.8s
PLPT  Palo Pinto        59.27  75  P     P     23 45 53.2 -0.4
PLPT                               IAmb  IAmb  23 45 57.1
      comp=Z,3.7nm,0.7s
KURBB Kurchatov Arra    59.32 314  P     P     23 45 54.5 +0.8
      comp=Z,1.5nm,0.3s,baz=43,slow=7.1,SNR=4.1
KURBB                              LR    LR    00 12 23.6
      comp=Z,64nm,19.2s,baz=174,slow=37
      comp=Z,1.5nm,0.3s
M44A  Midewin, Midew    59.34  61  P     P     23 45 54.4 +0.5
HHAR  Hobbs             59.49  69  P     P     23 45 53.9 -1.2
HHAR                               IAmb  IAmb  23 46 05.7
      comp=Z,3.8nm,0.7s
BRDY  Brady             59.92  77  P     P     23 45 58.9 +0.7
BRDY                               IAmb  IAmb  23 46 00.5
      comp=Z,1.2nm,0.7s
MK31  Makanchi Array    60.24 309  P     P     23 45 58.7 -1.4
MKAR  Makanchi Array    60.24 309  P     P     23 45 60.0 -0.2
      comp=Z,1.0nm,0.5s,baz=46,slow=6.1,SNR=17
MKAR                               PcP   PcP   23 46 45.4 +0.4
      comp=Z,0.7nm,0.5s,baz=43,slow=4.0,SNR=4.5
      comp=Z,1.0nm,0.5s
MKAR  Makanchi Array    60.24 309  P     P     23 45 58.8 -1.4
FVM   French Village    60.34  65        P     23 46 00.3 -0.6
WHTX  Lake Whitney,     60.37  75  P     P     23 46 01.1  0.0
WHTX                               IAmb  IAmb  23 46 05.3
      comp=Z,5.3nm,0.8s
MAKZ  Makanchi          60.38 309  P     P     23 46 00.4 -0.7
MAKZ                               IAmb  IAmb  23 46 08.6
      comp=Z,2.1nm,1.0s
T42A  Van Buren         60.62  67  P     P     23 46 01.4 -1.4
T42A                               IAmb  IAmb  23 46 02.2
      comp=Z,2.8nm,0.6s
TREL  Terrell           60.67  73  P     P     23 46 03.0 -0.2
FCAR  Ozark Folk Cen    60.82  68  P     P     23 46 03.2 -0.9
MIAR  Mount Ida         60.90  70  P     P     23 46 04.9 +0.1
KRVT  Keravat (AS076    60.93 214  LR    LR    00 08 09.6
      comp=Z,57nm,20.3s,baz=148,slow=32
N47A  Urbana            60.97  60  P     P     23 46 04.2 -0.9
P46A  Rosedale          61.02  62  P     P     23 46 05.5  0.0
BUKO  Buck Lake         61.05  53  P     P     23 46 05.0 -0.6
BVAR  Borovoye Array    61.07 320  P     P     23 46 06.2 +0.6
      comp=Z,2.7nm,0.5s,baz=49,slow=6.6,SNR=14
BVAR                               PcP   PcP   23 46 48.5 +0.3
      comp=Z,2.7nm,0.6s,baz=40,slow=3.9,SNR=7.4
      comp=Z,2.7nm,0.5s
BORK  Borovoye          61.08 320  P     P     23 46 03.2 -2.4
BORK                               IAmb  IAmb  23 46 18.6
      comp=Z,2.2nm,0.8s
OLIL  Olney             61.14  63  P     P     23 46 06.3 +0.1
WHAR  Wooly Hollow      61.14  69  P     P     23 46 05.8 -0.5
WHAR                               IAmb  IAmb  23 46 07.4
      comp=Z,3.0nm,0.8s
S44A  Carbondale        61.21  65  P     P     23 46 07.1 +0.3
LCAR  Lake Charles      61.26  67  P     P     23 46 05.3 -1.7
LCAR                               IAmb  IAmb  23 46 09.4
      comp=Z,5.2nm,1.1s
O48B  Farmland          61.70  60  P     P     23 46 09.2 -0.8
N49A  Columbus Grove    61.76  59  P     P     23 46 10.1 -0.3
WLAR  White Oak Lake    61.78  71  P     P     23 46 10.1 -0.5
USIN  University of     61.92  64  P     P     23 46 11.2 -0.4
P48A  Milroy            62.11  61  P     P     23 46 11.7 -1.2
WCI   Wyandotte Cave    62.50  63  P     P     23 46 14.7 -0.7
ARTI  Arti              62.85 328  LR    LR    00 16 20.6
      comp=Z,38nm,18.2s,baz=338,slow=39
T47A  Sharon Grove      62.92  64  P     P     23 46 18.3 +0.1
WVT   Waverly           63.12  65  P     P     23 46 19.3 -0.3
WVT                                IAmb  IAmb  23 46 20.8
      comp=Z,5.1nm,0.8s
R50A  Paris             63.55  61  P     P     23 46 22.6 +0.2
Q51A  Peebles           63.55  60  P     P     23 46 22.5  0.0
KIRV  Kirov             63.70 334  LR    LR    00 16 43.1
      comp=Z,94nm,19.6s,baz=15,slow=38
O53A  New Philadelph    63.82  58  P     P     23 46 23.7 -0.5
O53A                               IAmb  IAmb  23 46 36.7
      comp=Z,5.0nm,0.8s
V48A  Smith Brothers    63.97  65  P     P     23 46 25.0 -0.2
CLTN  Cedars of Leba    64.00  64        P     23 46 25.7 +0.3
U49A  Red Boiling Sp    64.01  64  P     P     23 46 25.8 +0.4
L56A  Greenwood         64.35  54  P     P     23 46 27.9 +0.3
S51A  Beattyville       64.41  61  P     P     23 46 27.7 -0.4
S51A                               IAmb  IAmb  23 46 29.4
      comp=Z,4.8nm,0.7s
X48A  Hartselle         64.77  66  P     P     23 46 29.3 -1.1
SWET  Sewanee           64.85  65        P     23 46 30.6 -0.4
Z47A  Carrollton        65.08  68  P     P     23 46 32.1 -0.3
BINY  Binghamton        65.10  53  P     P     23 46 32.3 -0.3
BINY                               IAmb  IAmb  23 46 33.0
      comp=Z,7.0nm,1.1s
M57A  Sunshine Farm,    65.16  54  P     P     23 46 32.2 -0.7
M57A                               IAmb  IAmb  23 46 39.9
      comp=Z,1.6nm,0.6s
W50A  Signal Mountai    65.21  64  P     P     23 46 33.1 -0.3
TZTN  Tazewell          65.23  62  P     P     23 46 33.8 +0.4
TZTN                               IAmb  IAmb  23 46 39.5
      comp=Z,7.8nm,1.1s
CPCT  Cooper Cave       65.48  64  P     P     23 46 34.3 -0.8
FPAL  Fort Paine        65.52  65  P     P     23 46 35.3 -0.1
Y49A  Blount Mountai    65.56  66  P     P     23 46 35.2 -0.4
346A  Big Creek Wild    65.57  70  P     P     23 46 35.0 -0.6
H62A  Milan             65.68  49  P     P     23 46 35.8 -0.4
H62A                               IAmb  IAmb  23 46 40.7
      comp=Z,2.5nm,0.7s
TKL   Tuckaleechee C    65.75  63  P     P     23 46 36.4 -0.4
FIA1  FINESS Array S    65.86 347  P     P     23 46 36.0 -1.1
FINES FINESS Array B    65.86 347  P     P     23 46 35.5 -1.6
      comp=Z,2.1nm,0.6s,baz=28,slow=7.8,SNR=19
      comp=Z,2.1nm,0.6s
V53A  Saluda            66.27  62  P     P     23 46 40.6 +0.4
BG3   Lake Jocassee     66.70  63  P     P     23 46 43.1 +0.2
Y52A  Lilburn           66.89  64  P     P     23 46 44.0 -0.1
250A  Grady             67.01  67  P     P     23 46 44.4 -0.4
NC204 NORSAR Array S    67.48 355  P     P     23 46 46.0 -1.5
NC303 NORSAR Array S    67.50 355  P     P     23 46 46.9 -0.7
GOGA  Godfrey           67.56  64  P     P     23 46 47.9 -0.4
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NC405	**NORSAR Array S**	**67.59**	**355**	P	**P**	**23 46 46.4**	**-1.7**
NC405				IAmb	IAmb	23 47 02.4	
	comp=Z,5.0nm,1.1s						
HODGE	**Hodges**	**67.64**	**63**	P	**P**	**23 46 48.6**	**-0.2**
NB201	**NORSAR Array S**	**67.68**	**355**	P	**P**	**23 46 48.1**	**-0.6**
NB201				IAmb	IAmb	23 46 52.7	
	comp=Z,4.3nm,0.8s						
NB2	**NORSAR Subarra**	**67.69**	**355**	P	**P**	**23 46 47.7**	**-1.1**
	comp=Z,0.8nm,0.5s,baz=3.0,slow=6.2						
NOA	**NORSAR Array B**	**67.69**	**355**	P	**P**	**23 46 47.9**	**-0.9**
	comp=Z,0.8nm,0.6s,baz=6.4,slow=6.3,SNR=4.5						
NOA				LR	LR	00 14 45.6	
	comp=Z,17nm,21.8s,baz=220,slow=34						
	comp=Z,0.8nm,0.6s						
AKTO	**Aktyubinsk**	**67.85**	**325**	LR	LR	00 17 49.2	
	comp=Z,101nm,21.7s,baz=77,slow=37						
JSC	**Jenkinsville**	**68.16**	**62**	P	**P**	**23 46 52.5**	**+0.4**
HFS	**Hagfors**	**68.44**	**354**	P	**P**	**23 46 52.6**	**-0.8**
	comp=Z,0.8nm,0.3s,baz=11,slow=9.5,SNR=7.3						
	comp=Z,0.8nm,0.3s						
456A	**Hilliard**	**70.37**	**65**	P	**P**	**23 47 06.6**	**+0.8**
CMAR	**Chiang Mai Arr**	**71.26**	**276**	P	**P**	**23 47 10.8**	**-0.5**
	comp=Z,1.3nm,0.4s,baz=22,slow=6.4,SNR=8.7						
	comp=Z,1.3nm,0.4s						
PABE	**Paberze**	**71.90**	**347**	P	**P**	**23 47 13.4**	**-1.2**
EKA	**Eskdalemuir Ar**	**73.61**	**3**	P	**P**	**23 47 24.3**	**-0.5**
	comp=Z,0.4nm,0.3s,baz=4.9,slow=6.2,SNR=9.7						
	comp=Z,0.4nm,0.3s						
AKASG	**Malin Array Be**	**75.65**	**342**	P	**P**	**23 47 35.8**	**-0.9**
	comp=Z,1.0nm,0.3s,baz=21,slow=6.3,SNR=7.5						
	comp=Z,1.0nm,0.3s						
SORM	**Soroca**	**78.27**	**342**	⇑P	**P**	**23 47 50.7**	**-0.7**
KOLS	**Kolonicke sedl**	**78.54**	**346**	*e*P	**P**	**23 47 54.0**	**+1.0**
KVAR	**Kislovodsk Arr**	**78.61**	**331**	LR	LR	00 26 39.6	
	comp=Z,77nm,21.0s,baz=277,slow=39						
BMRD	**Maredsous**	**78.69**	**358**	*d*P	**P**	**23 47 53.8**	**+0.1**
DOU	**Dourbes**	**78.90**	**358**	*d*P	**P**	**23 47 56.4**	**+1.5**
BURAR	**Bucovina Array**	**79.35**	**344**	P	**P**	**23 47 57.5**	**0.0**
BURAR	**Bucovina Array**	**79.35**	**344**	⇑P	**P**	**23 47 57.3**	**-0.2**
VYHS	**Vyhne**	**79.44**	**348**	*e*P	**P**	**23 47 58.4**	**+0.5**
GERES	**GERESS Array B**	**79.65**	**352**	P	**P**	**23 47 59.0**	**-0.2**
	comp=Z,1.0nm,0.5s,baz=24,slow=4.5,SNR=12						
	comp=Z,1.0nm,0.5s						
GERES	**GERESS Array B**	**79.65**	**352**	P	**P**	**23 47 58.8**	**-0.4**
BIZ	**Bicaz**	**79.84**	**343**	⇑P	**P**	**23 48 01.6**	**+1.5**
ARCR	**ARCALIA**	**80.01**	**344**	⇑P	**P**	**23 48 01.6**	**+0.7**
TESR	**Tescani**	**80.16**	**343**	⇑P	**P**	**23 48 01.4**	**-0.3**
DRGR		**80.56**	**345**	⇑P	**P**	**23 48 03.7**	**-0.3**
VRI	**Vrincioaia**	**80.76**	**342**	⇑P	P	23 47 57.9	-7.2
PLOR	**Plostina**	**80.79**	**343**	⇑P	**P**	**23 48 07.3**	**+2.1**
COVR	**Voineasa-Covas**	**80.88**	**343**	⇓P	**P**	**23 48 06.3**	**+0.6**
DOPR	**Dopca**	**80.91**	**343**	⇑P	**P**	**23 48 05.2**	**-0.7**
CLF	**Chambon-Foret**	**81.00**	**360**	P	**P**	**23 48 06.8**	**+0.5**
CLF				IAmb	IAmb	23 48 08.0	
	comp=Z,5.9nm,0.7s						
LESA	**Schwarzleotal**	**81.14**	**352**	*e*P	**P**	**23 48 07.6**	**+0.4**
	comp=Z,1.4nm,0.5s						
CFR	**Carcaliu**	**81.15**	**341**	⇑P	**P**	**23 48 06.9**	**-0.2**
RETA	**Reutte**	**81.23**	**354**	*e*P	**P**	**23 48 08.0**	**+0.4**
	comp=Z,0.6nm,0.4s						
MLR	**Muntele Rosu**	**81.27**	**343**	P	**P**	**23 48 07.5**	**-0.4**
MLR					**PcP**	**23 48 10.9**	**-3.1**
MLR				IAmb	IAmb	23 48 11.8	
	comp=Z,2.0nm,0.7s						
MLR	**Muntele Rosu**	**81.27**	**343**	⇑P	**P**	**23 48 08.7**	**+0.8**
MOTA	**Moosalm**	**81.34**	**353**	*e*P	**P**	**23 48 08.8**	**+0.4**
	comp=Z,0.9nm,0.4s						
WTTA	**Wattenberg**	**81.39**	**353**	*e*P	**P**	**23 48 08.6**	**0.0**
	comp=Z,1.5nm,0.4s						
KBA	**Koelnbreinsper**	**81.43**	**352**	*e*P	**P**	**23 48 09.8**	**+1.0**
	comp=Z,4.1nm,0.4s						
SQTA	**Sankt Quirin**	**81.46**	**353**	*e*P	**P**	**23 48 09.2**	**+0.3**
	comp=Z,0.8nm,0.3s						
VOIR		**81.48**	**344**	⇑P	**P**	**23 48 09.5**	**+0.5**
DAVA	**Damuels**	**81.48**	**354**	*e*PcP	**P**	**23 48 10.8**	**+1.7**
	comp=Z,1.1nm,0.5s						
SOKA	**Soboth**	**81.67**	**351**	*e*P	**P**	**23 48 10.8**	**+0.8**
	comp=Z,1.3nm,0.5s						
GZR	**Gura Zlata**	**81.91**	**345**	⇑P	**P**	**23 48 11.1**	**-0.1**
FUORN	**Ofenpass-Fuorn**	**82.12**	**354**	P	**P**	**23 48 12.5**	**0.0**
FUORN				IAmb	IAmb	23 48 15.4	
	comp=Z,2.5nm,0.7s						
WRA	**Warramunga Arr**	**82.16**	**224**	P	**P**	**23 48 12.2**	**-0.4**
	comp=Z,0.6nm,0.6s,baz=32,slow=6.0,SNR=10						
	comp=Z,0.6nm,0.6s						
WRA	**Warramunga Arr**	**82.16**	**224**	IAmb	IAmb	23 48 13.4	
	comp=Z,0.1nm,1.1s						
CTI	**Castel Tesino**	**82.59**	**353**	P	**P**	**23 48 13.6**	**-1.3**
CTI				IAmb	IAmb	23 48 15.1	
	comp=Z,2.1nm,0.6s						
TEOL	**Teolo**	**83.28**	**353**	P	**P**	**23 48 17.7**	**-0.5**
ZCCA	**Zocca**	**84.33**	**353**	P	**P**	**23 48 23.0**	**-0.7**
ZCCA				IAmb	IAmb	23 48 28.7	
	comp=Z,4.0nm,0.7s						
BRTR	**Keskin Array B**	**85.07**	**336**	P	**P**	**23 48 27.6**	**-0.1**
	comp=Z,1.4nm,0.6s,baz=28,slow=3.0,SNR=9.9						
	comp=Z,1.4nm,0.6s						
BRTR	**Keskin Array B**	**85.07**	**336**	P	**P**	**23 48 26.8**	**-0.9**
BNN	**Bunyan**	**85.30**	**334**	P	**P**	**23 48 28.4**	**-0.4**
BNN				IAmb	IAmb	23 48 30.0	
	comp=Z,3.0nm,0.6s						
GUMA	**Gualdo di Mace**	**85.41**	**351**	P	**P**	**23 48 28.7**	**-0.4**
FDMO	**Fiordimonte**	**85.46**	**352**	P	**P**	**23 48 28.8**	**-0.5**
FDMO				IAmb	IAmb	23 48 44.4	
	comp=Z,4.5nm,1.0s						
ASAR	**Alice Springs**	**85.63**	**223**	P	**P**	**23 48 31.1**	**+0.8**
	comp=Z,1.4nm,0.7s,baz=25,slow=5.9,SNR=13						
	comp=Z,1.4nm,0.7s						
NRCA	**Norcia**	**85.66**	**352**	P	**P**	**23 48 30.2**	**-0.2**
NRCA				IAmb	IAmb	23 48 47.6	
	comp=Z,3.9nm,0.8s						
CASP	**Castiglione de**	**85.89**	**353**	P	**P**	**23 48 30.8**	**-0.7**
TIP	**Timpagrande**	**88.87**	**348**	P	**P**	**23 48 44.7**	**-1.3**
ESDC	**Sonseca Array**	**89.22**	**4**	P	**P**	**23 48 46.5**	**-1.1**
	comp=Z,0.7nm,0.5s,baz=350,slow=3.9,SNR=17						
ESDC				LR	LR	00 31 20.4	
	comp=Z,33nm,18.1s,baz=206,slow=37						
	comp=Z,0.7nm,0.5s						
STKA	**Stephens Creek**	**90.04**	**213**	P	**P**	**23 48 52.3**	**+1.2**
	comp=Z,2.0nm,0.5s,baz=345,slow=5.7,SNR=3.8						
	comp=Z,2.0nm,0.5s						
KEST	**Kesra**	**93.02**	**354**	LR	LR	00 33 13.4	
	comp=Z,80nm,19.8s,baz=328,slow=37						
TORD	**Torodi Ar. Bea**	**115.77**	**360**	PKP	**PKiKP**	**23 54 33.2**	**-1.1**
	comp=Z,0.6nm,0.5s,baz=15,slow=3.3,SNR=6.8						
DBIC	**Dimbokro**	**121.94**	**8**	PKP	**PKPdf**	**23 54 45.5**	**-0.7**
	comp=Z,2.2nm,0.5s,baz=19,slow=2.0,SNR=7.7						
QSPA	**South Pole Qui**	**141.10**	**180**	PKhKP	PKPpre	23 55 16.5	
	comp=Z,0.7nm,0.7s,baz=299,slow=0.3,SNR=5.4						
MAW	**Mawson**	**146.61**	**218**	PKPbc	**PKPbc**	**23 55 31.2**	**-0.5**
	comp=Z,2.4nm,0.6s,baz=100,slow=4.8,SNR=16						
BOSA	**Boshof**	**151.18**	**313**	PKPbc	**PKPbc**	**23 55 44.5**	**-0.3**
	comp=Z,9.1nm,0.6s,baz=21,slow=2.7,SNR=41						
BOSA	**Boshof**	**151.18**	**313**		**PKiKP**	**23 55 45.4**	**+0.1**

TRN 03 23:41:06.6, 16°.93N×62°.38W, h152^{km}, MD3.6, North-west of Montserrat., Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MBWH	**Windy Hill**	**0.26**	**136**	*e*P	Pn	23 41 28.6	+1.2
MBWH				*e*S	Sn	23 41 44.0	+0.9
MLYT	**Lee's Yard**	**0.27**	**139**	*e*P	Pn	23 41 29.0	+1.6
MLYT				*e*S	Sn	23 41 44.6	+1.4
SKI	**Saint Kitts**	**0.53**	**319**	*e*P	Pn	23 41 29.5	+1.1
SKI				*e*S	Sn	23 41 46.7	+1.7
DHSZ	**Broadband at M**	**0.88**	**138**	*e*P	Pn	23 41 31.9	+1.3
DHSZ				*e*S	Sn	23 41 50.2	+1.3
ANWB	**Willy Bob**	**0.93**	**37**	*e*P	Pn	23 41 32.9	+1.8
ANWB				*e*S	Sn	23 41 51.0	+1.3
MMLZ	**Guadeloupe Bro**	**1.11**	**142**	*e*P	Pn	23 41 33.5	+1.0
MMLZ				*e*S	Sn	23 41 52.9	+0.5
TBG	**Guadaloupe-3**	**1.28**	**147**	*e*P	Pn	23 41 34.6	+0.5
SMRT	**St. Maarten**	**1.30**	**329**	*e*P	Pn	23 41 35.6	+1.2
SMRT				*e*S	Sn	23 41 55.1	-0.6
DSDZ	**La Diserade, G**	**1.40**	**116**	*e*P	Pn	23 41 36.5	+1.2
DSDZ				*e*S	Sn	23 41 57.4	+0.2
DWS	**Wesley**	**1.69**	**143**	*e*P	Pn	23 41 38.8	+0.4
DSLB	**Salisbury**	**1.74**	**148**	*e*P	Pn	23 41 40.5	+1.5
DSLB				*e*S	Sn	23 42 04.8	+0.9
BIM	**Bigot**	**2.71**	**152**	*e*P	Pn	23 41 51.8	+1.3
BIM				*e*S	Sn	23 42 24.7	+0.4

IDC ***03*** *23:41:49.1±2.2, 41°.33N×140°.92E, h144^{km}±26^{km}, mb3.2/4, mbtmp3.7/5, Error ellipse: s-maj=29.2km s-min=23.4km az=72.0*

JMA ***03*** *23:41:52.6±0.1, 41°.3N±0°.4×140°.5E±0°.8, h156^{km}±1^{km}, MV3.1/33, TSUGARU STRAIT REGION*

ISC 03 23:41:51.7±0.9**, 41°.32N**±0°.05×**140°.54E**±0°.06**, h162**^{km}±6^{km}**, n19, σ1^{s}.40**/30**, mb3.5**/4**, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JSR	**Shiriuchi**	**0.23**	**336**	*i* P	**Pn**	**23 42 13.7**	**+0.2**
JSR				*e*S	**Sn**	**23 42 29.6**	**-0.7**
JSI2	**Shiura 2**	**0.28**	**200**	*i* P	**Pn**	**23 42 13.8**	**+0.2**
JSI2				S	**Sn**	**23 42 29.8**	**-0.6**
JOT	**Ohata**	**0.39**	**81**	P	**Pn**	**23 42 14.6**	**+0.6**
JOT				*e*S	**Sn**	**23 42 31.1**	**+0.1**
JOMM	**Oshimamatsumae**	**0.45**	**297**	*e*P	**Pn**	**23 42 14.4**	**+0.2**
JTM	**Tenmabayashi**	**0.67**	**143**	P	**Pn**	**23 42 15.7**	**+0.3**
JTM				S	**Sn**	**23 42 33.0**	**-0.5**
JKB	**Kayabe**	**0.67**	**33**	P	**Pn**	**23 42 16.0**	**+0.7**
JKB				*e*S	**Sn**	**23 42 34.1**	**+0.5**
JYM2	**Yakumo 2**	**0.80**	**351**	P	**Pn**	**23 42 16.7**	**+0.6**
JYM2				*e*S	**Sn**	**23 42 34.8**	**-0.2**
JIW	**Iwasaki**	**0.83**	**209**	P	**Pn**	**23 42 16.5**	**+0.1**
JOSM	**Okushiri--Mats**	**1.10**	**314**	P	**Pn**	**23 42 18.4**	**0.0**
JOSM				S	**Sn**	**23 42 37.7**	**-1.3**
JAH	**Hinai**	**1.14**	**176**	P	**Pn**	**23 42 19.0**	**+0.2**
JAH				S	**Sn**	**23 42 39.3**	**-0.3**
JANG	**Nango**	**1.20**	**142**	*i* P	**Pn**	**23 42 19.2**	**-0.2**
JANG				S	**Sn**	**23 42 39.4**	**-1.2**
JNBK	**Urakawa-nobuka**	**1.91**	**59**	P	**Pn**	**23 42 28.0**	**+1.5**
JNBK				S	**Sn**	**23 42 54.8**	**+1.4**
JOM	**Ohasama**	**1.94**	**163**	*i* P	**Pn**	**23 42 26.8**	**-0.1**
JOM				S	**Sn**	**23 42 52.8**	**-1.2**
ASAJ	**Asahikawa**	**3.18**	**28**	P	Pn	23 42 35.8	-5.9
	4.2nm,0.9s,baz=159,slow=15,SNR=1.2						
ASAJ				S	**Sn**	**23 43 14.5**	**-6.1**
	4.7nm,0.5s,baz=133,slow=9.5,SNR=2.4						
USRK	**Ussuriysk Ar.**	**6.92**	**297**	P	**Pn**	**23 43 31.5**	**+0.9**
	8.4nm,0.7s,baz=102,slow=14,SNR=9.4						
MKAR	**Makanchi Array**	**41.39**	**298**	P	**P**	**23 49 22.5**	**+0.8**
	0.3nm,0.6s,baz=88,slow=8.2,SNR=2.4						
	0.3nm,0.6s						
WRA	**Warramunga Arr**	**61.22**	**187**	P	**P**	**23 51 48.8**	**-0.6**
	0.7nm,0.5s,baz=5.2,slow=7.0,SNR=17						
	0.7nm,0.5s						
FINES	**FINESS Array B**	**64.72**	**331**	P	**P**	**23 52 12.2**	**+0.3**
	0.5nm,0.5s,baz=38,slow=7.1,SNR=4.4						
	0.5nm,0.5s						
ASAR	**Alice Springs**	**64.95**	**187**	P	**P**	**23 52 13.9**	**0.0**
	0.2nm,0.4s,baz=2.6,slow=6.7,SNR=1.8						
	0.2nm,0.4s						

MOS ***03*** *23:58:35.8±0.9, 42°.09N×144°.75E, h42^{km}, mb4.3/1, Error ellipse: s-maj=16.6km s-min=9.2km az=90.4*

SKHL ***03*** *23:58:37.9±0.1, 42°.10N×144°.90E, h61^{km}±8^{km}, mb4.9/4*

NIED ***03*** *23:58:39.9, 42°.41N×144°.64E, h26^{km}, MW3.9, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M$_{rr}$5.66; M$_{\theta\theta}$-3.35; M$_{\phi\phi}$-2.31; M$_{r\theta}$3.28; M$_{\theta\phi}$-2.93; M$_{\phi r}$2.82; Fault plane solution: M$_0$7.18000×10^{14} NP1: φ$_s$231.00000°, δ26.00000°, λ91.00000°. NP2:φ$_s$50.00000°, δ64.00000°, λ90.00000°.*

JMA ***03*** *23:58:39.9±0.0, 42°.4N±0°.2×144°.6E±0°.3, h26^{km}±1^{km}, MV3.9/40, SE OFF TOKACHI*

JMA Felt I J1 at SE OFF TOKACHI .

IDC ***03*** *23:58:40.5±3.0, 42°.09N×144°.53E, h61^{km}±21^{km}, mb3.5/13, mbtmp3.8/16, ML3.6/3, MS3.0/2, Error ellipse: s-maj=22.4km s-min=21.4km az=72.0*

ISC 03 23:58:39.7±1.5**, 42°.34N**±0°.08×**144°.70E**±0°.04**, h43**^{km}±12^{km}**, n44, σ1^{s}.38**/53**, mb3.6**/13**, 9D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAK	**Akkeshi**	**0.65**	**360**	⇓*i*P	**Pn**	**23 58 51.6**	**-1.0**
AKK	**Akkeshi**	**0.68**	**9**	*e*P	**Pn**	**23 58 51.9**	**-1.1**
AKK				*e*S	**Sn**	**23 59 01.6**	**-0.9**
JKHN	**Kushirohamanak**	**0.81**	**24**	*i* P	**Pn**	**23 58 54.7**	**-0.1**
JOB	**Onbets**	**0.85**	**311**	⇓*i*P	**Pn**	**23 58 54.6**	**-0.7**
JOB				⇓*e*S	**Sn**	**23 59 04.5**	**-2.1**
JCH	**Churui**	**1.03**	**286**	⇓*i*P	**Pn**	**23 58 57.5**	**-0.2**
JCH				⇓*e*S	**Sn**	**23 59 10.4**	**-0.5**
JAR	**Ashorobuto**	**1.18**	**325**	⇓*i*P	**Pn**	**23 58 58.7**	**-1.0**
JAR				⇓*e*S	**Sn**	**23 59 13.3**	**-1.2**
JEM	**Erimo**	**1.20**	**255**	P	**Pn**	**23 59 01.1**	**+1.2**
JNK	**Nakash**	**1.24**	**1**	⇓*i*P	**Pn**	**23 58 59.6**	**-1.1**
JNK				⇓*e*S	**Sn**	**23 59 14.4**	**-1.8**
NMR	**Nemuro--Hokkai**	**1.27**	**36**	*e*PN	**Pn**	**23 59 00.7**	**-0.3**
NMR				*i* S	**Sn**	**23 59 17.2**	**+0.3**
NMR	**Nemuro--Hokkai**	**1.27**	**36**	*e*P	**Pn**	**23 59 00.8**	**-0.3**
NMR				*i* S	**Sn**	**23 59 17.9**	**+1.0**
NEM2	**Nemuro 2**	**1.28**	**36**	*i* P	**Pn**	**23 59 00.7**	**-0.4**
NEM2				*e*S	**Sn**	**23 59 16.9**	**0.0**
RUSJ	**Misakicho**	**1.81**	**13**	*e*PN	**Pn**	**23 59 08.8**	**+0.5**
RUSJ				*i* S	**Sn**	**23 59 31.3**	**+1.3**
YUK	**Yuzh-Kuril'sk**	**1.89**	**26**	*e*PN	**Pn**	**23 59 08.9**	**-0.6**
YUK				*i* S	**Sn**	**23 59 31.7**	**-0.4**
YUK				pmax	pmax		
	comp=Z,424nm,0.4s						
YUK				pmax	pmax		
	comp=N,161nm,0.2s						
YUK				pmax	pmax		
	comp=E,110nm,0.2s						
YUK				smax	smax		
	comp=N,424nm,0.2s						
YUK				smax	smax		
	comp=E,1µm,0.4s						
YUK	**Yuzh-Kuril'sk**	**1.89**	**26**	*e*P	**Pn**	**23 59 09.9**	**+0.4**
YUK				AMB	AMB	23 59 11.8	
	comp=E,350nm,0.3s						
YUK				*i* S	**Sn**	**23 59 31.1**	**-1.0**
YUK				A	A	23 59 33.6	
	comp=E,1µm,0.4s						
YUK				A	A	23 59 33.6	
	comp=E,1µm,0.4s						
SHO	**Shikotan**	**2.18**	**45**	*e*S	Sn	23 59 54.2	+15
SHO				A	A	23 59 57.4	
	comp=E,440nm,0.4s						
SHO				A	A	23 59 57.4	
	comp=E,560nm,0.4s						
JKA	**Kamikawa-asahi**	**2.35**	**320**	*e*P	**Pn**	**23 59 16.8**	**+1.0**
ASAJ	**Asahikawa**	**2.35**	**320**	P	**Pn**	**23 59 16.8**	**+1.0**
	comp=E,42nm,0.3s,baz=144,slow=12,SNR=80						
ASAJ				S	**Sn**	**23 59 48.6**	**+5.2**
	comp=E,403nm,0.8s,baz=304,slow=21,SNR=19						
ASAJ				LR	LR	00 00 20.6	
	comp=E,204nm,18.4s,baz=152,slow=40						
	comp=E,75nm,0.3s						
ASAJ				AML	AML		
ASAJ				AML	AML		
KUR	**Kuril'sk**	**3.69**	**37**	PN	**Pn**	**23 59 34.0**	**-0.1**
KUR				*e*S	**Sn**	**00 00 18.4**	**+2.1**
KUR				pmax	pmax		
	comp=Z,87nm,0.4s						
KUR				smax	smax		
	comp=N,130nm,0.4s						
KUR				smax	smax		
	comp=E,50nm,0.8s						
KUR	**Kuril'sk**	**3.69**	**37**	*e*P	**Pn**	**23 59 34.1**	**-0.1**
KUR				AMB	AMB	23 59 45.6	
	comp=E,90nm,0.4s						
KUR				*e*S	**Sn**	**00 00 18.4**	**+2.1**
KUR				A	A	00 00 32.2	
	comp=E,130nm,0.6s						
KUR				A	A	00 00 32.2	
	comp=E,50nm,0.6s						
REI	**Reidovoe**	**3.78**	**38**	*e*P	**Pn**	**23 59 36.2**	**+0.8**
REI				AMB	AMB	23 59 42.6	
	comp=E,200nm,0.7s						
REI				*e*S	**Sn**	**00 00 18.4**	**-0.2**
MJAR	**Matsushiro Arr**	**7.67**	**223**	P	**Pn**	**00 00 26.1**	**-2.7**
	comp=E,0.1nm,0.3s,baz=32,slow=13,SNR=4.4						
	comp=E,1.0nm,0.4s						
MJAR				AML	AML		
KLR	**Kul'dur**	**11.36**	**312**	P	**Pn**	**00 01 21.4**	**+2.1**
	comp=E,0.1nm,0.3s,baz=137,slow=12,SNR=4.1						
KLR				LR	LR	00 06 23.6	
	comp=E,83nm,18.1s,baz=102,slow=40						
	comp=E,2.5nm,0.8s						
KLR				AML	AML		
SONM	**Songino Array**	**27.39**	**295**	P	**P**	**00 04 20.4**	**-0.7**
	comp=E,0.8nm,0.6s,baz=75,slow=8.2,SNR=6.4						
	comp=E,0.8nm,0.6s						
TWGBT	**Beinan**	**27.69**	**233**	P	**PKiKP**	**00 15 12.9**	**-3.6**
H11N2	**WAKE ISLAND Hy**	**29.32**	**133**	T	T	00 35 51.7	
	baz=326,slow=75,SNR=186						
H11N1	**WAKE ISLAND Hy**	**29.34**	**133**	T	T	00 35 58.9	
	baz=326,slow=75,SNR=143						
H11N3	**WAKE ISLAND Hy**	**29.34**	**133**	T	T	00 36 00.8	
	baz=326,slow=75,SNR=133						
H11S1	**WAKE ISLAND Hy**	**30.23**	**135**	T	T	00 37 06.0	
	baz=328,slow=76,SNR=270						
H11S3	**WAKE ISLAND Hy**	**30.23**	**135**	T	T	00 37 10.4	
	baz=328,slow=76,SNR=70						
H11S2	**WAKE ISLAND Hy**	**30.24**	**135**	T	T	00 37 05.9	
	baz=328,slow=76,SNR=89						
ZALV	**Zalesovo Beam**	**40.43**	**308**	P	**P**	**00 06 13.4**	**-0.2**
	comp=E,1.9nm,0.6s,baz=78,slow=9.2,SNR=9.2						
ZALV				PcP	**PcP**	**00 08 15.6**	**-0.1**
	comp=E,0.6nm,0.5s,baz=44,slow=4.4,SNR=3.8						
	comp=E,1.9nm,0.6s						
MKAR	**Makanchi Array**	**43.66**	**298**	P	**P**	**00 06 38.7**	**-1.3**
	comp=E,0.6nm,0.7s,baz=77,slow=9.2,SNR=4.1						
	comp=E,0.6nm,0.7s						
ILAR	**Eielson Array**	**43.68**	**35**	P	**P**	**00 06 40.6**	**+0.7**
	comp=E,0.8nm,0.7s,baz=272,slow=7.1,SNR=7.8						
	comp=E,0.8nm,0.7s						
KURK	**Kurchatov**	**44.84**	**304**	P	**P**	**00 06 49.3**	**0.0**
KURK	**Kurchatov**	**44.84**	**304**	*e*P	**P**	**00 06 49.3**	**0.0**
KURBB	**Kurchatov Arra**	**44.92**	**304**	P	**P**	**00 06 49.3**	**-0.7**
	comp=E,1.2nm,0.6s,baz=73,slow=8.9,SNR=5.5						
	comp=E,1.2nm,0.6s						
BVAR	**Borovoye Array**	**49.01**	**310**	P	**P**	**00 07 20.3**	**-1.6**
	comp=E,1.3nm,0.4s,baz=93,slow=5.8,SNR=11						
	comp=E,1.3nm,0.4s						
ARCES	**ARCESS Array B**	**59.93**	**339**	P	**P**	**00 08 41.0**	**+0.1**
	comp=E,1.2nm,0.7s,baz=30,slow=9.8,SNR=4.2						
	comp=E,1.2nm,0.7s						
FINES	**FINESS Array B**	**65.30**	**332**	P	**P**	**00 09 16.5**	**-0.2**
	comp=E,1.0nm,0.5s,baz=51,slow=8.4,SNR=12						
	comp=E,1.0nm,0.5s						
NOA	**NORSAR Array B**	**70.25**	**338**	P	**P**	**00 09 47.9**	**-0.1**
	comp=E,0.4nm,0.7s,baz=34,slow=6.4,SNR=4.7						
	comp=E,0.4nm,0.7s						
HFS	**Hagfors**	**70.28**	**336**	P	**P**	**00 09 48.0**	**-0.1**
	comp=E,1.2nm,0.7s,baz=34,slow=10,SNR=1.3						
	comp=E,1.2nm,0.7s						
AKASG	**Malin Array Be**	**71.63**	**323**	P	**P**	**00 09 55.6**	**-0.8**
	comp=E,0.3nm,0.4s,baz=44,slow=6.9,SNR=4.4						
	comp=E,0.3nm,0.4s						
PDAR	**Pinedale Array**	**72.19**	**48**	P	**P**	**00 10 00.9**	**+0.7**
	comp=E,0.1nm,0.3s,baz=303,slow=9.3,SNR=1.7						
	comp=E,0.1nm,0.3s						
TXAR	**Lajitas Array**	**84.92**	**55**	P	**P**	**00 11 11.8**	**+1.4**
	comp=E,0.3nm,0.7s,baz=331,slow=7.2,SNR=2.2						
	comp=E,0.3nm,0.7s						

IDC ***04*** *00:10:52.2±0.4, 36°.13N×136°.15E, h0^{km}, mb4.7/33, mbtmp4.6/39, ML3.9/6, MS4.2/48, Error ellipse: s-maj=10.6km s-min=9.4km az=20.0*

MOS ***04*** *00:10:53.0±0.8, 36°.15N×136°.12E, h15^{km}, mb5.1/103, MS4.4/8, Error ellipse: s-maj=5.3km s-min=4.1km az=115.4*

NIED ***04*** *00:10:53.3, 36°.12N×136°.19E, h7^{km}, MW4.7, Moment Tensor Solution. s3 Moment tensor: Scale 10^{16}Nm; M$_{rr}$1.22; M$_{\theta\theta}$-0.23; M$_{\phi\phi}$-1.00; M$_{r\theta}$0.16; M$_{\theta\phi}$-0.70; M$_{\phi r}$-0.17; Fault plane solution: M$_0$1.34000×10^{16} NP1:φ$_s$42.00000°, δ45.00000°, λ107.00000°. NP2:φ$_s$199.00000°, δ47.00000°, λ74.00000°.*

JMA ***04*** *00:10:53.3±0.1, 36°.1N±0°.2×136°.2E±0°.3, h7^{km}, MD5.0/20, MW4.8/20, CENTRAL FUKUI PREF*

JMA Felt V J1 at CENTRAL FUKUI PREF .

NEIC ***04*** *00:10:54.5, 36°.09N×136°.23E, h10^{km}*

NEIC ***04*** *00:10:54.4±1.3, 36°.08N±0°.04×136°.21E±0°.05, h10^{km}±1^{km}, mb4.9/523, Mwr4.6/18, Error ellipse: s-maj=8.1km s-min=4.7km az=219.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M$_{rr}$8.55; M$_{\theta\theta}$-2.04; M$_{\phi\phi}$-6.51; M$_{r\theta}$-0.91; M$_{\theta\phi}$-3.58; M$_{\phi r}$0.27; Fault plane solution: M$_0$8.57000×10^{15} NP1:φ$_s$22.98000°, δ44.64000°, λ81.36000°. NP2:φ$_s$215.04000°, δ46.00000°, λ98.44000°. Principal axes: T 8.6506, Plg84.0000°, Azm203.0000°; N -0.1547, Plg6.0000°, Azm29.0000°; P -8.4959, Plg1.0000°, Azm299.0000°;*

GFZ ***04*** *00:10:54.4±0.1, 36°N±3°×13°6E±°, h10^{km}, M5.4/55, mb4.9/55, confirmed*

GCMT ***04*** *00:10:55.4±0.3, 36°.04N±0°.02×136°.12E±0°.02, h13^{km}±1^{km}, MW4.8/90, Moment Tensor Solution. s27,c33; s90,c138; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$1.63±.12; M$_{\theta\theta}$-0.38±.08; M$_{\phi\phi}$-1.24±.07; M$_{r\theta}$0.52±.21; M$_{\theta\phi}$-1.04±.05; M$_{\phi r}$-0.76±.18; Best double couple: M$_0$2.02300×10^{16} NP1:φ$_s$57.00000°, δ45.00000°, λ127.00000°. NP2: φ$_s$190.00000°, δ56.00000°, λ59.00000°. Principal axes: T 2.0740, Plg64.0000°, Azm44.0000°; N -0.0950, Plg25.0000°, Azm209.0000°; P -1.9730, Plg6.0000°, Azm302.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

BGR ***04*** *00:11:00.5, 36°.29N×135°.58E, h33^{km}, mb4.5, Ms4.2*

ISC 04 00:10:54.2±0.5**, 36°.11N**±0°.03×**136°.19E**±0°.02**, h12**^{km}±3^{km}**, n1080, σ1^{s}.13**/1030**, mb4.9**/387**, MS4.4**/71**, 55C-30D, Near west coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JKG	**Kaga**	**0.20**	**35**	*i* P	**Pg**	**00 10 57.6**	**-1.0**
JKG				A	A	00 10 57.6	
	comp=N,414nm,3.4s,comp=E,330nm,1.7s						
JKG				*e*S	**Sg**	**00 11 00.8**	**-0.9**
JFM	**Mihama**	**0.60**	**196**	A	A	00 11 05.1	
	comp=N,90nm,3.5s,comp=E,102nm,4.5s						
JYTA	**Yamagatataniai**	**0.68**	**139**	⇓*i*P	**Pg**	**00 11 06.3**	**-1.1**
JYTA				A	A	00 11 06.3	
	comp=N,136nm,2.6s,comp=E,100nm,3.7s						
JYTA				⇓*e*S	**Sg**	**00 11 16.1**	**-0.3**
JGN	**Niukaw**	**0.92**	**83**	*i* P	**Pg**	**00 11 10.8**	**-1.1**
JGN				A	A	00 11 10.8	
	comp=N,79nm,5.8s,comp=E,91nm,3.3s						
JGN				*e*S	**Sg**	**00 11 23.6**	**-0.4**
JJH	**Hakui**	**0.95**	**30**	A	A	00 11 11.2	
	comp=N,58nm,0.6s,comp=E,36nm,0.4s						
JICN	**Ichinomiyachia**	**0.97**	**146**	A	A	00 11 11.7	
	comp=N,88nm,3.6s,comp=E,188nm,3.1s						
JEG	**Eigenji**	**0.98**	**170**	A	A	00 11 12.1	
	comp=N,77nm,3.7s,comp=E,100nm,4.3s						
INU	**Inuyama**	**1.01**	**138**	P	**Pg**	**00 11 13.3**	**-0.5**
INU	**Inuyama**	**1.01**	**138**	S	**Sg**	**00 11 26.2**	**-0.8**
INU	**Inuyama**	**1.01**	**138**		**Pg**	**00 11 12.7**	**-1.0**
INU					**Sg**	**00 11 25.9**	**-1.1**
INU	**Inuyama**	**1.01**	**138**	P	**Pg**	**00 11 12.7**	**-1.0**
JWT	**Wachi**	**1.04**	**218**	*i* P	**Pb**	**00 11 13.1**	**-1.1**
JWT				A	A	00 11 13.2	
	comp=N,49nm,4.4s,comp=E,33nm,3.4s						
JTT	**Ttatey**	**1.05**	**62**	A	A	00 11 13.1	
	comp=N,123nm,6.0s,comp=E,198nm,3.7s						
JGF	**Kuroka**	**1.08**	**118**	P	**Pb**	**00 11 13.8**	**-1.1**
JGF	**Kuroka**	**1.08**	**118**	S	**Sg**	**00 11 28.3**	**-0.7**
JGF	**Kuroka**	**1.08**	**118**		**Pb**	**00 11 13.6**	**-1.2**
JGF				Sg	**Sg**	**00 11 27.7**	**-1.3**
JGF	**Kuroka**	**1.08**	**118**	P	**Pb**	**00 11 13.7**	**-1.1**
JGF	**Kuroka**	**1.08**	**118**	A	A	00 11 13.7	
	comp=N,42nm,3.1s,comp=E,61nm,3.4s						
JAO	**Obara**	**1.21**	**134**	A	A	00 11 16.0	
	comp=N,51nm,2.8s,comp=E,94nm,3.0s						
JKSM	**Kasumi**	**1.34**	**248**	P	**Pn**	**00 11 17.5**	**-1.3**
JKSM				A	A	00 11 18.2	
	comp=N,47nm,0.8s,comp=E,20nm,1.1s						
TSUJ	**Tsu 2**	**1.41**	**172**	A	A	00 11 19.2	
	comp=N,54nm,4.9s,comp=E,59nm,0.6s						
JHE	**Heguri**	**1.51**	**196**	A	A	00 11 20.9	
	comp=N,45nm,4.7s,comp=E,54nm,5.0s						
JNY	**Yasuok**	**1.56**	**118**	A	A	00 11 21.6	
	comp=N,68nm,1.7s,comp=E,73nm,2.5s						
JKS	**Kasai**	**1.57**	**225**	P	**Pb**	**00 11 21.6**	**-1.5**
JKS				A	A	00 11 21.8	
	comp=N,19nm,3.2s,comp=E,24nm,5.0s						
JNG	**Nsakai**	**1.57**	**79**	A	A	00 11 21.8	
	comp=N,41nm,7.2s,comp=E,25nm,3.4s						
JMIK	**Miki**	**1.59**	**216**	A	A	00 11 22.2	
	comp=N,54nm,1.0s,comp=E,44nm,5.9s						
JNT	**Takato**	**1.60**	**98**	A	A	00 11 22.2	
	comp=N,23nm,7.3s,comp=E,26nm,2.7s						
JSSY	**Shinshiroyabe**	**1.61**	**137**	A	A	00 11 22.3	
	comp=N,75nm,3.4s,comp=E,40nm,0.8s						

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JSZ   Suzu               1.64  35   P      Pn    00 11 21.5 -1.3
JSZ                                 A      A     00 11 22.6
      comp=N,17nm,7.0s,comp=E,14nm,2.1s
JAA   Atsumi             1.67 152   A      A     00 11 23.2
      comp=N,22nm,2.2s,comp=E,22nm,1.4s
MJB9  Matsu-Tunnel       1.69  74          Pn    00 11 24.4 +0.9
MAJO  Matsushiro         1.69  75   P      Pn    00 11 24.1 +0.5
MAJO  Matsushiro         1.69  75c iP      Pn    00 11 22.7 -0.9
MAJO  Matsushiro         1.69  75          Pn    00 11 23.6  0.0
MAJO  Matsushiro         1.69  75   P      Pn    00 11 23.9 +0.3
MJAR  Matsushiro Arr     1.69  75   Pn     Pn    00 11 24.4 +0.8
      comp=E,28nm,0.3s,baz=263,slow=14,SNR=368
MJAR                                Sn     Sb    00 11 48.6 +2.2
      comp=E,11nm,0.3s,baz=259,slow=27,SNR=7.3
MJAR  Matsushiro Arr     1.69  75          Pn    00 11 23.9 +0.4
JIE   Ise                1.77 166   A      A     00 11 24.7
      comp=N,34nm,2.6s,comp=E,32nm,5.0s
HMMJ  Hamamatsu 2        1.77 134   A      A     00 11 24.7
      comp=N,41nm,3.9s,comp=E,50nm,2.9s
JHG   Hegura jima        1.83  18   A      A     00 11 25.6
      comp=N,18nm,2.1s,comp=E,16nm,7.5s
JNTK  Naratenkawa        1.85 188   A      A     00 11 26.2
      comp=N,15nm,3.6s,comp=E,25nm,5.6s
JKN2  Miekihoku          1.87 178   A      A     00 11 26.3
      comp=N,19nm,4.1s,comp=E,35nm,7.0s
JJN   Nakama             1.88  57   A      A     00 11 26.2
      comp=N,23nm,1.7s,comp=E,24nm,2.7s
JAWN  Awajishima-nag     1.93 213   A      A     00 11 27.2
      comp=N,23nm,4.6s,comp=E,22nm,6.4s
JWY   Kouya              1.95 195   A      A     00 11 27.5
      comp=N,28nm,5.2s,comp=E,34nm,6.0s
SHZ3  Shizuoka 3         1.95 122   A      A     00 11 27.5
      comp=N,58nm,3.8s,comp=E,47nm,3.7s
JYN   Shimob             2.01 107   A      A     00 11 28.4
      comp=N,26nm,2.0s,comp=E,51nm,3.7s
JAD   Aida               2.02 235   P      Pn    00 11 27.8 -0.3
JAD                                 A      A     00 11 28.5
      comp=N,10.0nm,4.1s,comp=E,12nm,7.0s
JGK   Kuni               2.03  76   A      A     00 11 28.6
      comp=N,27nm,3.4s,comp=E,19nm,4.7s
JKR   Kurayoshi          2.06 250   A      A     00 11 29.1
      comp=N,13nm,4.1s,comp=E,19nm,4.3s
JSG   Sagara             2.17 131   P      Pn    00 11 31.0 +0.8
JSG   Sagara             2.17 131          Pn    00 11 30.2  0.0
JSG   Sagara             2.17 131   P      Pn    00 11 31.5 +1.3
JSG   Sagara             2.17 131   A      A     00 11 30.6
      comp=N,108nm,3.3s,comp=E,83nm,2.5s
JRY   Ryogami san        2.20  92   A      A     00 11 31.1
      comp=N,12nm,3.1s,comp=E,13nm,4.0s
JFNN  Fujinakano         2.23 113   A      A     00 11 31.5
      comp=N,67nm,4.0s,comp=E,83nm,2.8s
TTO5  TONANKAI O.B.S     2.24 145   A      A     00 11 29.8
      comp=N,121nm,1.7s,comp=E,110nm,2.7s
JMMH  Miemihama          2.29 183   A      A     00 11 32.4
      comp=N,11nm,2.4s,comp=E,24nm,6.6s
JTNC  Tanabenakahech     2.33 192   A      A     00 11 33.1
      comp=N,25nm,1.1s,comp=E,51nm,1.0s
JWM   Minabe             2.35 197   A      A     00 11 33.4
      comp=N,34nm,4.9s,comp=E,30nm,6.0s
TTO4  TONANKAI O.B.S     2.37 152   A      A     00 11 31.7
      comp=N,125nm,3.3s,comp=E,97nm,2.2s
TTO3  TONANKAI O.B.S     2.45 156   A      A     00 11 33.1
      comp=N,127nm,3.4s,comp=E,178nm,4.2s
TTO2  TONANKAI O.B.S     2.47 163   A      A     00 11 33.6
      comp=N,107nm,8.2s,comp=E,125nm,2.8s
JIZZ  Izumozaki          2.47  54   A      A     00 11 34.9
      comp=N,25nm,4.9s,comp=E,33nm,4.8s
JSGW  Sagamiharawaka     2.51 101   A      A     00 11 35.5
      comp=N,26nm,1.2s,comp=E,27nm,1.4s
JOD2  Odawara 2          2.51 109   A      A     00 11 35.5
      comp=N,33nm,3.4s,comp=E,33nm,4.1s
JHU2  Hanno              2.52  95   A      A     00 11 35.7
      comp=N,13nm,5.0s,comp=E,15nm,4.6s
TTO1  TONANKAI O.B.S     2.53 169   A      A     00 11 34.4
      comp=N,112nm,2.6s,comp=E,67nm,2.7s
JJS   Sakaide            2.53 228   A      A     00 11 35.9
      comp=N,14nm,5.0s,comp=E,10.0nm,3.2s
JHTM  Izuhatsuma         2.57 116   A      A     00 11 36.4
      comp=N,47nm,1.3s,comp=E,45nm,1.3s
JIZS  Izushimoda         2.60 121   A      A     00 11 36.8
      comp=N,14nm,1.7s,comp=E,13nm,3.3s
JAG   Ashikaga           2.66  82   A      A     00 11 37.6
      comp=N,8.0nm,5.7s,comp=E,8.0nm,3.7s
JWKM  Wakayamakushim     2.68 188   A      A     00 11 38.0
      comp=N,31nm,2.1s,comp=E,34nm,5.2s
JISK  Izumosakaura       2.78 258   A      A     00 11 39.5
      comp=N,8.0nm,4.9s,comp=E,9.0nm,5.2s
JJG   Jouge              2.88 240   A      A     00 11 40.9
      comp=N,10.0nm,3.3s,comp=E,9.0nm,3.0s
TOK   Tokyo              2.93  97   A      A     00 11 41.5
      comp=N,51nm,5.0s,comp=E,69nm,3.3s
JYO   Yokosk             2.97 106   A      A     00 11 42.0
      comp=N,27nm,2.9s,comp=E,36nm,2.6s
JIM2  Oshima 3           2.99 117   A      A     00 11 42.4
      comp=N,20nm,1.7s,comp=E,27nm,3.8s
JMN   Monobe             3.04 219   P      Pn    00 11 43.5 +1.4
JMN   Monobe             3.04 219   S      Sn    00 12 19.5 +1.0
JMN   Monobe             3.04 219          Pn    00 11 42.2  0.0
JMN   Monobe             3.04 219   P      Pn    00 11 42.9 +0.8
JMN   Monobe             3.04 219   A      A     00 11 43.2
      comp=N,10.0nm,3.5s,comp=E,11nm,6.3s
JSKK  Shikinejimakit     3.04 125   A      A     00 11 43.2
      comp=N,17nm,1.7s,comp=E,25nm,1.9s
JKO   Kozu shima         3.08 128   A      A     00 11 43.7
      comp=N,30nm,2.8s,comp=E,33nm,4.4s
TATJ  Tateyama 2         3.21 109   A      A     00 11 45.4
      comp=N,36nm,3.1s,comp=E,38nm,3.7s
JHT   Toyohira           3.40 246   A      A     00 11 48.3
      comp=N,13nm,1.8s,comp=E,7.0nm,2.6s
JKUC  kamogawauchiur     3.40 105   A      A     00 11 48.2
      comp=N,16nm,4.1s,comp=E,17nm,3.7s
JKHR  Kochiharuno        3.41 221   A      A     00 11 48.4
      comp=N,11nm,4.0s,comp=E,7.0nm,3.9s
JHIK  Hikimi             3.82 247   A      A     00 11 54.3
      comp=N,6.0nm,8.8s,comp=E,5.0nm,5.6s
JHJ   Hachijo jima 2     4.21 134   Pn     Pn    00 12 00.7 +2.5
      comp=E,22nm,0.3s,baz=220,slow=3.3,SNR=4.4
JHJ                                 Sn     Sn    00 12 48.3 +1.1
      comp=E,6.3nm,0.3s,baz=16,slow=23,SNR=1.3
JHJ                                 LR     LR    00 13 50.8
      comp=E,3µm,18.2s,baz=322,slow=42
      comp=E,162nm,0.8s
JHJ                                 AML    AML
JHJ2  Mitsune            4.23 134   Pn     Pn    00 11 56.8 -1.7
JTY   Toyota             4.58 248   A      A     00 12 05.0
      comp=N,5.0nm,8.2s,comp=E,4.0nm,5.9s
JUS   Usuki              4.75 232   A      A     00 12 07.4
      comp=N,4.0nm,2.8s,comp=E,4.0nm,3.1s
JBEP  Beppuamama         4.81 236   A      A     00 12 08.2
      comp=N,8.0nm,1.7s,comp=E,10.0nm,5.6s
JSKE  Saikikamae         4.84 228   A      A     00 12 08.6
      comp=N,4.0nm,2.4s,comp=E,5.0nm,3.0s
JNU   Nakatsue           5.29 237   Pn     Pn    00 12 14.6 +1.5
      comp=E,2.7nm,0.3s,baz=121,slow=2.5,SNR=14
JNU                                 Sn     Sn    00 13 14.0 -0.1
      comp=E,3.8nm,0.3s,baz=352,slow=8.9,SNR=3.8
      comp=E,33nm,0.9s
JNU                                 AML    AML
JTU   Tsushima           5.77 256   P      Pn    00 12 20.6 +1.0
JTU   Tsushima           5.77 256   Pn     Pn    00 12 18.7 -0.9
JTM   Tenmabayashi       6.04  38          Pn    00 12 22.5 -0.8
JSU   Suzuyama           6.62 228   P      Pn    00 12 32.4 +1.1
JSU   Suzuyama           6.62 228          Pn    00 12 31.9 +0.6
JSU   Suzuyama           6.62 228   P      Pn    00 12 35.4 +4.0
      comp=Z,162nm,0.9s
KSRS  Korea Array        6.77 284   Pn     Pn    00 12 33.6 +0.3
      comp=Z,1.2nm,0.3s,baz=99,slow=15,SNR=13
KSRS                                Sn     Sn    00 13 49.0 -1.3
      comp=Z,1.8nm,0.3s,baz=95,slow=24,SNR=6.3
KSRS                                LR     LR    00 15 02.8
      comp=Z,3µm,20.3s,baz=100,slow=37
      comp=Z,6.8nm,0.5s
KSRS                                AML    AML
KSAR  Wonju Array Be     6.79 284   P      Pn    00 12 33.1 -0.6
KSAR  Wonju Array Be     6.79 284   Pn     Pn    00 12 33.1 -0.6
KS19  Wonju Array Si     6.82 284   Pn     Pn    00 12 33.2 -0.8
TJN   Taejon             7.13 275⇑eP      Pn    00 12 38.8 +0.4
PSTR  Posyet             7.75 329⇓eP      Pn    00 12 47.3 +0.6
VLA   Vladivostok        7.75 336⇑eP      Pn    00 12 45.7 -1.0
ERM   Erimo              8.01  40deP      Pn    00 12 51.0 +0.7
ERM   Erimo              8.01  40   Pn     Pn    00 12 51.2 +0.9
USA0B Ussuriysk Arra     8.70 340⇑eP      Pn    00 12 58.4 -1.4
USA0B Ussuriysk Arra     8.70 340          Pn    00 12 59.0 -0.7
USRK  Ussuriysk Ar.      8.70 340   Pn     Pn    00 12 59.2 -0.6
      comp=Z,1.2nm,0.3s,baz=166,slow=13,SNR=9.4
USRK                                Sn     Sn    00 14 35.6 -2.1
      comp=Z,1.2nm,0.3s,baz=350,slow=9.7,SNR=5.1
USRK                                LR     LR    00 16 06.2
      comp=Z,2µm,18.1s,baz=154,slow=36
      comp=Z,4.2nm,0.4s
USRK                                AML    AML
USRK  Ussuriysk Ar.      8.70 340   P      Pn    00 12 59.4 -0.3
USRK  Ussuriysk Ar.      8.70 340   Pn     Pn    00 12 59.4 -0.3
CN2   Changchun         11.26 316  eP      Pn    00 13 38.7 +3.8
CN2                                eS      Sn    00 15 39.7 -0.9
CN2                                 pmax   pmax
      comp=Z,10.0nm,1.5s
CN2                                 pmax   pmax
      comp=Z,100nm,4.0s
CN2                                 LR     LR
      comp=N,800nm,14.0s
CN2                                 LR     LR
      comp=E,800nm,14.0s
CN2                                 LR     LR
      comp=Z,700nm,17.6s
BNX   BinXian           11.68 328  ⇑P      Pn    00 13 44.7 +4.0
BNX                                 pmax   pmax
      comp=Z,15nm,1.0s
DL2   Dalian            11.89 288  eP      Pn    00 13 47.8 +4.2
DL2                                 S      Sn    00 16 04.4 +8.2
DL2                                 pmax   pmax
      comp=Z,51nm,0.7s
DL2                                 LR     LR
      comp=N,1µm,13.0s
DL2                                 LR     LR
      comp=E,3µm,14.5s
DL2                                 LR     LR
      comp=Z,3µm,15.7s
YSS   Yuzhno-Sakhali    11.89  22   P      Pn    00 13 46.9 +3.4
YSS   Yuzhno-Sakhali    11.89  22  eP      Pn    00 13 45.2 +1.7
YSS                                eS      Sn    00 15 57.5 +1.4
YSS                                 pmax   pmax
      comp=Z,400nm,3.3s
YSS                                 pmax   pmax
      comp=N,300nm,3.2s
YSS                                 pmax   pmax
      comp=Z,70nm,0.9s
YSS                                 MLR    MLR
      comp=Z,800nm,16.0s
YSS                                 MLR    MLR
      comp=E,800nm,15.0s
YSS   Yuzhno-Sakhali    11.89  22          Pn    00 13 44.7 +1.2
YSS   Yuzhno-Sakhali    11.89  22   P      Pn    00 13 45.6 +2.0
      comp=Z,102nm,1.1s
SSE   Sheshan           13.46 252   P      Pn    00 14 03.3 -1.7
SSE                                 S      Sn    00 16 33.4 -1.2
SSE                                 pmax   pmax
      comp=Z,6.0nm,0.4s
SSE                                 pmax   pmax
      comp=Z,91nm,4.0s
SSE                                 LR     LR
      comp=N,1µm,14.5s
SSE                                 LR     LR
      comp=E,510nm,14.6s
KLR   Kul'dur           13.51 347   Pn     Pn    00 14 07.3 +1.7
      comp=E,0.3nm,0.3s,baz=147,slow=12,SNR=12
KLR                                 LR     LR    00 19 08.0
      comp=E,1µm,18.5s,baz=166,slow=37
      comp=E,6.3nm,0.9s
KLR                                 AML    AML
KLR   Kul'dur           13.51 347  eP      Pn    00 14 09.3 +3.7
KLR                                 pmax   pmax
      comp=Z,6.0nm,1.6s
NJ2   Nanjing           14.92 259  eP      Pn    00 14 26.8 +1.9
NJ2                                 pmax   pmax
      comp=Z,22nm,0.6s
NJ2                                 LR     LR
      comp=N,3µm,13.7s
NJ2                                 LR     LR
      comp=E,2µm,13.6s
NJ2                                 LR     LR
      comp=Z,3µm,17.4s
TIA   Tai'an            15.40 276   P      P     00 14 38.5 +2.6
TIA                                 S      S     00 17 32.7 -5.3
TIA                                 pmax   pmax
      comp=Z,14nm,1.1s
TIA                                 LR     LR
      comp=N,2µm,17.7s
TIA                                 LR     LR
      comp=E,870nm,19.6s
TIA                                 LR     LR
      comp=Z,2µm,12.4s
TYV   Tymovskoe         15.47  16  eP      Pn    00 14 18.6  -13
TYV                                 pmax   pmax
      comp=Z,21nm,0.7s
TYV                                 pmax   pmax
      comp=Z,300nm,4.5s
TYV                                 MLR    MLR
      comp=Z,600nm,16.0s
YOJ   Yonaguni jima     16.23 228   P      Pn    00 14 41.4 -0.7
YOJ                                 pmax   pmax
      comp=Z,83nm,1.1s
YOJ   Yonaguni jima     16.23 228   Pn     Pn    00 14 41.4 -0.7
YOJ                                 IAmb   IAmb  00 14 44.7
      comp=Z,83nm,1.1s
BJI2  Beijing           16.24 290   P      P     00 14 43.7 -1.5
BJI2                                S      Sn    00 17 42.3 +0.2
BJI2                                pmax   pmax
      comp=Z,6.0nm,0.9s
BJI2                                pmax   pmax
      comp=Z,190nm,6.0s
BJI2                                LR     LR
      comp=N,420nm,15.8s
BJI2                                LR     LR
      comp=E,470nm,15.3s
BJI2                                LR     LR
      comp=Z,490nm,13.3s
BJT   Baijiatuau        16.24 290   P      P     00 14 45.4 +0.2
BJT   Baijiatuau        16.24 290   P      P     00 14 43.6 -1.6
BJT                                 pmax   pmax
      comp=Z,12nm,1.0s
BJT   Baijiatuau        16.24 290   Pn     P     00 14 43.6 -1.6
BJT   Baijiatuau        16.24 290   P      P     00 14 46.8 +1.6
      comp=Z,15nm,1.5s
XLT   XiLinHaoTe        17.23 303  eP      P     00 15 00.9 +4.6
XLT                                 pP     sP    00 15 04.6 +3.3
XLT                                 sP     pP    00 15 09.0 +9.3
XLT                                 S      S     00 18 12.4 -3.0
XLT                                 pmax   pmax
      comp=Z,22nm,0.8s
XLT                                 AMB    AMB
      comp=Z,210nm,4.9s
XLT                                 LR     LR
      comp=N,62nm,13.2s
XLT                                 LR     LR
      comp=E,490nm,12.3s
XLT                                 LR     LR
      comp=Z,810nm,13.6s
HNS   HongShan          17.26 281  ⇓P      P     00 15 00.4 +3.9
HNS                                 pmax   pmax
      comp=Z,43nm,1.2s
HNS                                 LR     LR
      comp=N,690nm,12.0s
HNS                                 LR     LR
      comp=E,1µm,13.5s
HNS                                 LR     LR
      comp=Z,2µm,15.1s
HILR  Hailar Array B    18.00 323   P      Pn    00 15 04.5 +0.3
      baz=117,slow=18
HILR                                LR     LR    00 21 57.6
      comp=Z,491nm,19.6s,baz=225,slow=37
      comp=Z,1.1nm,0.3s
ZEA   Zeya              18.70 343  eP      Pn    00 15 21.5 +8.8
ZEA                                 pmax   pmax
      comp=Z,20nm,0.8s
ZEA                                 MLR    MLR
      comp=N,500nm,15.0s
ZEA                                 MLR    MLR
      comp=Z,700nm,12.0s
WHN   Wuhan             19.06 259  ⇓P      Pn    00 15 19.9 +2.8
WHN                                 sP     sP    00 15 28.7 +7.4
WHN                                 S      S     00 19 01.9 +9.4
WHN                                 pmax   pmax
      comp=Z,150nm,0.8s
WHN                                 LR     LR
      comp=N,3µm,11.0s
WHN                                 LR     LR
      comp=E,3µm,11.2s
WHN                                 LR     LR
      comp=Z,6µm,12.5s
LYN   LuoYang           19.41 272   P      Pn    00 15 22.0 +0.7
LYN                                 S      Sn    00 18 56.1 -2.8
LYN                                 sS     S     00 19 00.5 +1.0
LYN                                 pmax   pmax
      comp=Z,73nm,1.0s
LYN                                 pmax   pmax
      comp=Z,280nm,3.6s
LYN                                 LR     LR
      comp=N,2µm,14.1s
LYN                                 LR     LR
      comp=E,2µm,16.8s
LYN                                 LR     LR
      comp=Z,4µm,15.5s
HHC   Hu-ho-hao-te      19.82 291  eP      Pn    00 15 27.8 +1.4
HHC                                 pP     sP    00 15 30.8 +1.0
HHC                                 S      Sn    00 19 14.4 +5.3
HHC                                 pmax   pmax
      comp=Z,24nm,1.7s
HHC                                 pmax   pmax
      comp=Z,190nm,4.7s
HHC                                 LR     LR
      comp=N,580nm,14.8s
HHC                                 LR     LR
      comp=E,1µm,14.8s
HHC                                 LR     LR
      comp=Z,1µm,13.2s
BTO2  Baotou            21.09 291  eP      P     00 15 39.4 +0.8
BTO2                                pP     sP    00 15 43.7 +0.1
BTO2                                sP     pP    00 15 46.5 +4.5
BTO2                                PP     PnPn  00 16 02.0 +4.4
BTO2                                S      S     00 19 28.2 -5.0
BTO2                                sS     sS    00 19 36.0 -2.7
BTO2                                SS     SnSn  00 20 02.0 +7.6
BTO2                                pmax   pmax
      comp=Z,20nm,0.9s
BTO2                                pmax   pmax
      comp=Z,350nm,4.6s
BTO2                                LR     LR
      comp=N,1µm,12.4s
BTO2                                LR     LR
      comp=E,1µm,16.4s
BTO2                                LR     LR
      comp=Z,2µm,22.2s
CNSH  ChangSha          21.18 255   P      P     00 15 40.8 +1.3
CNSH                                S      Sn    00 19 40.8 -1.0
CNSH                                pmax   pmax
      comp=Z,93nm,1.1s
CNSH                                LR     LR
      comp=N,1µm,16.6s
CNSH                                LR     LR
      comp=E,660nm,15.9s
CNSH                                LR     LR
      comp=Z,1µm,15.3s
XAN   Xi'an             22.39 273   P      P     00 15 54.5 +2.0
XAN                                 S      Sn    00 20 03.7 -6.9
XAN                                 pmax   pmax
      comp=Z,24nm,0.7s
XAN                                 pmax   pmax
      comp=Z,190nm,5.5s
XAN                                 LR     LR
      comp=N,2µm,14.8s
XAN                                 LR     LR
      comp=E,1µm,16.7s
XAN                                 LR     LR
      comp=Z,2µm,15.8s
PEA0B Petropavlovsk-    22.73  35⇑eP      P     00 15 54.1 -1.8
PETK  Petropavlovsk-    22.73  35   P      P     00 15 55.9 -0.1
      comp=Z,2.9nm,0.8s,baz=220,slow=9.7,SNR=2.7
PETK                                LR     LR    00 24 36.0
      comp=Z,211nm,18.2s,baz=207,slow=36
      comp=Z,2.9nm,0.8s
PETK  Petropavlovsk-    22.73  35   P      P     00 15 55.6 -0.3
ENH   Enshi             23.05 263   P      P     00 16 00.6 +1.1
ENH   Enshi             23.05 263          P     00 16 00.1 +0.7
ENH   Enshi             23.05 263   P      P     00 16 00.7 +1.1
      comp=Z,118nm,1.1s
PET   Petropavlovsk     23.13  36⇑eP      P     00 16 00.7 +0.7
PET                                 pmax   pmax
      comp=Z,26nm,1.1s
PET   Petropavlovsk     23.13  36   P      P     00 15 59.6 -0.4
PET   Petropavlovsk     23.13  36   P      P     00 16 00.7 +0.7
      comp=Z,22nm,1.6s
HKPS  Hong Kong Po S    23.60 240   P      P     00 16 05.3 +0.3
HKPS                                IAmb   IAmb  00 16 13.0
      comp=Z,24nm,1.1s
GUMO  Guam              23.74 159   LR     LR    00 24 25.9
      comp=Z,306nm,21.4s,baz=348,slow=34
ULN   Ulaanbaatar       24.48 308ceP      P     00 16 13.4 +0.1
ULN                                 pmax   pmax
      comp=Z,24nm,1.0s
ULN   Ulaanbaatar       24.48 308          P     00 16 12.7 -0.6
ULN                                 IAmb   IAmb  00 16 16.2
      comp=Z,20nm,0.9s
ULN   Ulaanbaatar       24.48 308   P      P     00 16 13.4 +0.1
      comp=Z,106nm,1.1s
ULN   Ulaanbaatar       24.48 308   P      P     00 16 14.2 +0.9
      comp=Z,27nm,1.1s
SONM  Songino Array     24.90 307   P      P     00 16 17.7 +0.7
      comp=Z,15nm,0.9s,baz=113,slow=8.7,SNR=41
SONM                                LR     LR    00 26 25.7
      comp=Z,1µm,18.6s,baz=108,slow=38
      comp=Z,15nm,0.9s
SONM  Songino Array     24.90 307          P     00 16 17.1 +0.1
SONM                                IAmb   IAmb  00 16 20.2
      comp=Z,21nm,0.9s
MA2   Magadan           25.32  17   LR     LR    00 26 52.8
      comp=Z,133nm,18.6s,baz=201,slow=38
MA2   Magadan           25.32  17c iP      P     00 16 20.4 -0.1
MA2                                 pmax   pmax
      comp=Z,17nm,0.9s
MA2   Magadan           25.32  17   P      P     00 16 20.9 +0.4
MA2                                 IAmb   IAmb  00 16 24.5
      comp=Z,16nm,0.8s
MA2   Magadan           25.32  17   P      P     00 16 20.7 +0.2
      comp=Z,31nm,1.4s
LZH   Lanzhou           26.07 280  eP      P     00 16 28.2 +0.4
LZH                                 pP     sP    00 16 31.5 -1.5
LZH                                 S      S     00 21 09.5  +11
LZH                                 SS     SnSn  00 22 21.1  +25
LZH                                 pmax   pmax
      comp=Z,54nm,1.5s
LZH                                 LR     LR
      comp=N,960nm,15.6s
LZH                                 LR     LR
      comp=E,600nm,16.5s
LZH                                 LR     LR
      comp=Z,790nm,16.2s
LZDM  Lanzhou Array     26.21 279   P      P     00 16 29.3  0.0
      comp=Z,2.8nm,0.3s,baz=114,slow=6.6,SNR=12
LZDM                                LR     LR    00 28 20.3
      comp=Z,411nm,18.5s,baz=185,slow=40
      comp=Z,2.8nm,0.3s
YAK   Yakutsk           26.27 353   P      P     00 16 28.1 -1.0
      comp=Z,15nm,0.5s,baz=172,slow=2.4,SNR=9.3
YAK                                 LR     LR    00 26 46.1
      comp=Z,908nm,18.5s,baz=164,slow=36
      comp=Z,15nm,0.5s
YAK   Yakutsk           26.27 353  eP      P     00 16 28.0 -1.0
YAK                                e*PP    pP    00 16 32.4 -0.3
YAK                                e             00 17 05.8
YAK                                ePPP    PPP   00 17 21.0
YAK                                eS      S     00 21 02.9 +1.9
YAK                                eSS     SnSn  00 22 05.2 +4.7
YAK                                eSSS    SSS   00 22 19.3
YAK                                e             00 27 23.1
YAK                                 pmax   pmax
      comp=Z,30nm,1.0s
YAK                                 pmax   pmax
      comp=N,25nm,1.4s
YAK                                 pmax   pmax
      comp=E,5.0nm,1.5s
YAK                                 pmax   pmax
      comp=Z,92nm,3.1s
YAK                                 pmax   pmax
      comp=N,82nm,3.7s
YAK                                 pmax   pmax
      comp=E,83nm,6.9s
YAK                                 smax   smax
      comp=E,293nm,6.9s
YAK                                 smax   smax
      comp=N,216nm,5.9s
YAK                                 MLR    MLR
      comp=Z,956nm,19.0s
YAK                                 MLR    MLR
      comp=N,638nm,16.0s
YAK                                 MLR    MLR
      comp=E,46nm,12.0s
YAK   Yakutsk           26.27 353   P      P     00 16 27.8 -1.2
YAK                                 IAmb   IAmb  00 16 29.1
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              comp=Z,38nm,1.1s
GYA    Guiyang           26.91 257 ⇓P     P     00 16 35.3 -0.1
GYA                                 S     S     00 21 14.9 +2.7
GYA                                 pmax  pmax
              comp=Z,20nm,0.8s
ZAK    Zakamensk         27.63 311 eP     P     00 16 41.0 -0.6
ZAK                                 pmax  pmax
              comp=Z,6.0nm,1.7s
SEY    Seymchan          28.66  15 eP     P     00 16 49.6 -0.9
SEY                                 pmax  pmax
              comp=Z,9.0nm,1.1s
QIZ    Qiongzhong        28.76 241  P     P     00 16 54.3 +2.5
QIZ                                 S     S     00 21 45.3 +4.2
QIZ                                 LR    LR
              comp=N,330nm,14.6s
QIZ                                 LR    LR
              comp=E,390nm,17.6s
QIZ                                 LR    LR
              comp=Z,350nm,11.4s
GTA2   Gaotai            28.86 288 eP     P     00 16 52.6 -0.1
GTA2                                S     S     00 21 45.5 +2.8
GTA2                                pmax  pmax
              comp=Z,8.0nm,1.1s
GTA2                                LR    LR
              comp=N,510nm,13.7s
GTA2                                LR    LR
              comp=E,750nm,16.5s
GTA2                                LR    LR
              comp=Z,960nm,19.0s
KMI2   Kunming           30.64 259  P     P     00 17 07.5 -1.2
KMI2                                pmax  pmax
              comp=Z,19nm,1.2s
KMI2                                LR    LR
              comp=N,780nm,16.3s
KMI2                                LR    LR
              comp=E,420nm,16.4s
KMI2                                LR    LR
              comp=Z,780nm,14.9s
PZH    PanZhiHua         30.81 262  P     P     00 17 10.2 +0.1
SHEM   Shemya Is, Ala    31.32  46  P     P     00 17 14.0 -0.1
SMY    Shemya            31.32  46  P     P     00 17 12.6 -1.5
SMY                                 pmax  pmax
              comp=Z,109nm,1.2s
SMY    Shemya            31.32  46  P     P     00 17 12.6 -1.5
WAKE   Wake Island       31.58 114  P     P     00 17 16.0 -0.7
SLVN   Son La            31.74 251  P     P     00 17 19.4 +1.2
SLVN   Son La            31.74 251  P     P     00 17 19.1 +0.8
              comp=Z,11nm,1.3s
GOMU   GeErMu            33.22 283  P     P     00 17 31.1 -0.4
GOMU                                pP    pP    00 17 34.3 -0.9
GOMU                                sP    sP    00 17 38.8 +2.1
GOMU                                S     S     00 22 49.5 -2.0
GOMU                                pmax  pmax
              comp=Z,6.0nm,0.5s
GOMU                                LR    LR
              comp=N,400nm,13.2s
GOMU                                LR    LR
              comp=E,600nm,13.4s
GOMU                                LR    LR
              comp=Z,690nm,13.8s
TNCH   TengChong         34.07 262⇓iP     P     00 17 40.2 +1.5
TNCH                                pmax  pmax
              comp=Z,130nm,1.6s
DLV     Lat              34.68 233  P     P     00 17 45.2 +1.1
DLV     Lat              34.68 233  P     P     00 17 43.6 -0.6
DLV                                 IAmb  IAmb  00 17 46.4
              comp=Z,19nm,0.8s
MYLDM  Lahad Datu        34.81 212  P     P     00 17 44.5 -0.5
PATS   Pohnpei           35.48 140  P     P     00 17 49.9 -0.9
TIXI   Tiksi             35.81 356⇑eP     P     00 17 51.8 -1.2
TIXI                                pmax  pmax
              comp=Z,7.0nm,0.7s
TIXI   Tiksi             35.81 356  P     P     00 17 51.9 -1.1
TIXI                                IAmb  IAmb  00 17 52.9
              comp=Z,13nm,1.1s
BILL   Bilibino          36.18  19deP     P     00 17 56.3 +0.1
BILL                                pmax  pmax
              comp=Z,11nm,1.0s
CHTO   Chiang Mai        36.99 252  P     P     00 18 04.8 +1.1
CHTO   Chiang Mai        36.99 252  P     P     00 18 04.8 +1.1
CHTO                                pmax  pmax
              comp=Z,11nm,0.9s
CHTO   Chiang Mai        36.99 252        P     00 18 04.8 +1.1
CHTO   Chiang Mai        36.99 252  P     P     00 18 04.4 +0.7
              comp=Z,19nm,1.4s
CHTO   Chiang Mai        36.99 252  P     P     00 18 04.2 +0.5
              comp=Z,19nm,1.4s
CMAR   Chiang Mai Arr    37.20 252  P     P     00 18 06.2 +0.7
              comp=Z,1.4nm,0.3s,baz=41,slow=9.7,SNR=24
CMAR                                PcP   PcP   00 20 26.1 +0.7
              comp=Z,1.0nm,0.3s,baz=16,slow=1.5,SNR=6.6
CMAR                                LR    LR    00 35 05.1
              comp=Z,210nm,18.1s,baz=115,slow=39
              comp=Z,1.4nm,0.3s
WMQ    Urumqi            37.51 297 eP     P     00 18 11.8 +3.9
WMQ                                 pmax  pmax
              comp=Z,14nm,1.1s
WMQ                                 LR    LR
              comp=N,320nm,13.5s
WMQ                                 LR    LR
              comp=E,420nm,15.3s
WMQ                                 LR    LR
              comp=Z,240nm,24.3s
FAKI   Fak Fak           39.00 186  P     P     00 18 20.4 -0.2
FAKI                                IAmb  IAmb  00 18 22.4
              comp=Z,39nm,1.1s
ZSN    Zaisan            39.25 303c iP    P     00 18 22.5 +0.1
ZSN    Zaisan            39.25 303⇑iP     P     00 18 22.6 +0.1
ZALV   Zalesovo Beam     39.46 313  P     P     00 18 22.6 -1.5
              comp=Z,1.6nm,0.5s,baz=88,slow=9.7,SNR=3.8
ZALV                                PcP   PcP   00 20 31.1 -0.6
              comp=Z,3.4nm,0.7s,baz=103,slow=3.2,SNR=8.4
ZALV                                LR    LR    00 35 11.6
              comp=Z,696nm,18.7s,baz=96,slow=37
              comp=Z,1.6nm,0.5s
ZALV   Zalesovo Beam     39.46 313  P     P     00 18 23.1 -1.0
ZALV                                            00 20 30.9
ZALV   Zalesovo Beam     39.46 313  P     P     00 18 23.1 -1.0
ZALV                                      PcP   00 20 30.9 -0.9
BRDH   Bariadhala        40.71 263  LR    LR    00 37 45.9
              comp=Z,432nm,18.4s,baz=117,slow=40
MK31   Makanchi Array    41.05 302deP     P     00 18 37.2 -0.2
MKAR   Makanchi Array    41.05 302  P     P     00 18 37.5  0.0
              comp=Z,6.2nm,0.6s,baz=90,slow=10,SNR=61
MKAR                                PcP   PcP   00 20 36.5 -0.6
              comp=Z,2.5nm,1.0s,baz=66,slow=5.9,SNR=4.7
MKAR                                LR    LR    00 35 56.9
              comp=Z,400nm,21.9s,baz=92,slow=37
              comp=Z,6.2nm,0.6s
MKAR   Makanchi Array    41.05 302        P     00 18 37.2 -0.2
MKAR                                      PcP   00 20 36.6 -0.4
MAKZ   Makanchi          41.26 302  P     P     00 18 39.2  0.0
MAKZ                                pmax  pmax
              comp=Z,9.0nm,0.8s
MAKZ   Makanchi          41.26 302  P     P     00 18 39.2  0.0
MAKZ   Makanchi          41.26 302  P     P     00 18 38.8 -0.3
              comp=Z,14nm,0.9s
EVN    Everest           42.26 273  P     P     00 18 48.9 +0.6
EVN                                 IAmb  IAmb  00 18 51.6
              comp=Z,25nm,1.0s
EVN    Everest           42.26 273  P     P     00 18 49.1 +0.8
              comp=Z,29nm,1.1s
KURK   Kurchatov         43.20 308ceP     P     00 18 53.9 -0.9
KURK                                pmax  pmax
              comp=Z,28nm,1.0s
KURK   Kurchatov         43.20 308        P     00 18 54.1 -0.7
KURK                                IAmb  IAmb  00 18 54.8
              comp=Z,17nm,0.8s
KURK   Kurchatov         43.20 308  P     P     00 18 54.2 -0.7
              comp=Z,27nm,0.9s
KURBB  Kurchatov Arra    43.26 308  P     P     00 18 54.4 -0.9
              comp=Z,12nm,0.8s,baz=87,slow=8.4,SNR=100
KURBB                               PcP   PcP   00 20 42.9 -1.4
              comp=Z,1.3nm,0.9s,baz=86,slow=3.0,SNR=4.4
KURBB                               LR    LR    00 37 43.2
              comp=Z,2µm,18.0s,baz=141,slow=37
              comp=Z,12nm,0.8s
PDGK   Podgornoye        43.48 298  P     P     00 18 57.3 -0.1
PDGK   Podgornoye        43.48 298  P     P     00 18 57.3 -0.1
SHLS   Shalkode          43.53 297 eP     P     00 18 55.0 -2.8
SHLS                                pmax  pmax
              comp=Z,19nm,1.7s
SHLS   Shalkode          43.53 297 eP     P     00 18 55.0 -2.8
              comp=Z,19nm,1.7s
KAPI   Kappang           43.71 204d iP    P     00 18 59.0 -0.3
KAPI                                pmax  pmax
              comp=Z,14nm,0.9s
KAPI   Kappang           43.71 204  P     P     00 18 58.3 -0.9
KAPI                                IAmb  IAmb  00 18 59.5
              comp=Z,17nm,0.8s
UZB    Uzynbulak         43.85 297c iP    P     00 19 00.1 -0.3
UZB                                 pmax  pmax
              comp=Z,16nm,1.6s
UZB    Uzynbulak         43.85 297⇑iP     P     00 19 00.1 -0.3
              comp=Z,16nm,1.6s
TDK    Taldyqorghan      43.96 300 eP     P     00 19 01.1  0.0
TDK    Taldyqorghan      43.96 300 eP     P     00 19 01.1  0.0
KPKS   Kokpek            44.03 298 eP     P     00 19 01.8  0.0
KPKS   Kokpek            44.03 298 eP     P     00 19 01.9  0.0
WUS    Wushi             44.10 295        P     00 19 02.1 -0.3
WUS    Wushi             44.10 295  P     P     00 19 03.1 +0.7
              comp=Z,41nm,1.1s
SATY   Saty              44.31 297 eP     P     00 19 03.9 -0.1
SATY   Saty              44.31 297 eP     P     00 19 04.0 -0.1
K13K   Kusilvak Mount    44.49  35  P     P     00 19 04.8 -0.2
K13K                                IAmb  IAmb  00 19 07.6
              comp=Z,15nm,1.1s
ANM    Nome              44.58  32  P     P     00 19 03.2 -2.6
ANM                                 pmax  pmax
              comp=Z,19nm,0.9s
ANM    Nome              44.58  32  P     P     00 19 03.2 -2.6
ANM                                 IAmb  IAmb  00 19 08.5
              comp=Z,19nm,0.9s
F15K   North Star Dit    45.10  30  P     P     00 19 10.7 +0.8
F15K                                IAmb  IAmb  00 19 12.5
              comp=Z,21nm,0.9s
J14K   Nanvaranak Lak    45.11  34  P     P     00 19 10.1 +0.2
MDOK   Medeo             45.26 298 eP     P     00 19 11.4 -0.2
MDOK   Medeo             45.26 298 eP     P     00 19 11.5 -0.2
TNSS   Tian-Shan         45.36 298 eP     P     00 19 12.1 -0.6
TNSS   Tian-Shan         45.36 298 eP     P     00 19 12.2 -0.6
L14K   Kuka Creek        45.37  36        P     00 19 12.3 +0.3
L14K                                IAmb  IAmb  00 19 15.0
              comp=Z,11nm,1.0s
C16K   Lisburne Hills    45.40  26  P     P     00 19 12.6 +0.4
C16K                                IAmb  IAmb  00 19 13.7
              comp=Z,24nm,1.0s
KUU    Kurty             45.62 299 eP     P     00 19 14.4 +0.1
KUU                                 pmax  pmax
              comp=Z,11nm,1.4s
KUU    Kurty             45.62 299 eP     P     00 19 14.4 +0.1
              comp=Z,11nm,1.4s
M14K   Bethel            45.68  37  P     P     00 19 15.2 +0.7
M14K                                IAmb  IAmb  00 19 17.2
              comp=Z,15nm,1.0s
N14K   Kuskokwak Cree    45.77  38  P     P     00 19 16.6 +1.3
N14K                                IAmb  IAmb  00 19 26.6
              comp=Z,12nm,0.9s
O14K   Tigyukauivet M    45.96  39  P     P     00 19 17.3 +0.5
O14K                                IAmb  IAmb  00 19 32.4
              comp=Z,13nm,1.1s
G16K   Koyuk River       45.99  31  P     P     00 19 16.9  0.0
G16K                                IAmb  IAmb  00 19 19.1
              comp=Z,11nm,1.1s
K15K   Wolf Creek Mou    45.99  35  P     P     00 19 18.0 +1.0
ASAI   AK-SAY(Kyrgyzs    46.15 295  P     P     00 19 19.9 +0.9
              comp=Z,12nm,1.1s
NRN    Naryn             46.41 296  P     P     00 19 21.1 +0.1
NRN                                 pmax  pmax
              comp=Z,9.0nm,1.0s
NRN    Naryn             46.41 296        P     00 19 21.1 +0.1
NRN                                 IAmb  IAmb  00 19 22.3
              comp=Z,9.0nm,1.0s
I17K   Unalakleet        46.51  33  P     P     00 19 21.5 +0.5
N15K   Kwethluk River    46.58  38  P     P     00 19 21.4 -0.2
N15K                                IAmb  IAmb  00 19 26.2
              comp=Z,16nm,1.1s
SGDS   Sogindy           46.92 299⇑iP     P     00 19 24.6 -0.1
              comp=Z,12nm,1.6s
L16K   Owhat River       46.93  36  P     P     00 19 24.3  0.0
H17K   Granite Mounta    46.95  32  P     P     00 19 24.5 -0.1
H17K                                IAmb  IAmb  00 19 39.4
              comp=Z,8.1nm,1.1s
C18K   Utukok River      46.97  26        P     00 19 25.4 +0.7
CNBA   Chernabura Isl    46.98  45  P     P     00 19 24.8  0.0
CNBA                                IAmb  IAmb  00 19 29.6
              comp=Z,17nm,0.9s
SOEI   Soe               46.98 196  P     P     00 19 25.0 -0.4
SOEI                                IAmb  IAmb  00 19 29.0
              comp=Z,18nm,1.0s
FRU1   Bishkek           47.07 298  P     P     00 19 25.9 +0.1
FRU1                                pmax  pmax
              comp=Z,36nm,1.2s
FRU1   Bishkek           47.07 298  P     P     00 19 25.9 +0.1
M16K   Timber Creek      47.16  37  P     P     00 19 26.9 +0.8
J17K   VABM Dome         47.20  34  P     P     00 19 27.5 +1.1
J17K                                IAmb  IAmb  00 19 28.5
              comp=Z,8.4nm,1.1s
AAK    Ala-Archa         47.21 298  LR    LR    00 40 08.7
              comp=Z,323nm,18.6s,baz=100,slow=37
AAK    Ala-Archa         47.21 298deP     P     00 19 27.5 +0.5
AAK                                 pmax  pmax
              comp=Z,12nm,1.3s
AAK    Ala-Archa         47.21 298  P     P     00 19 27.0  0.0
AAK                                 IAmb  IAmb  00 19 30.0
              comp=Z,9.7nm,1.1s
AAK    Ala-Archa         47.21 298  P     P     00 19 27.8 +0.8
              comp=Z,9.6nm,1.1s
KSH2   Kashi             47.33 293  P     P     00 19 28.9 +0.9
KSH2                                pmax  pmax
              comp=Z,8.0nm,0.9s
KSH2                                pmax  pmax
              comp=Z,410nm,14.2s
KSH2                                LR    LR
              comp=N,280nm,15.3s
KSH2                                LR    LR
              comp=E,420nm,15.2s
KSH2                                LR    LR
              comp=Z,410nm,14.2s
K17K   Iditarod          47.52  35  P     P     00 19 30.0 +1.1
K17K                                IAmb  IAmb  00 19 31.6
              comp=Z,7.8nm,0.8s
G18K   Tagagawik         47.57  30        P     00 19 29.8 +0.5
O16K   Kokwok River B    47.58  39  P     P     00 19 30.1 +0.6
O16K                                IAmb  IAmb  00 19 31.3
              comp=Z,6.8nm,1.0s
C19K   Lookout Ridge     47.62  26  P     P     00 19 30.7 +1.0
H18K   Honhosa River     47.63  31  P     P     00 19 30.9 +1.1
H18K                                IAmb  IAmb  00 19 32.0
              comp=Z,14nm,0.9s
M17K   Holitna River     47.90  36  P     P     00 19 33.3 +1.4
M17K                                IAmb  IAmb  00 19 34.8
              comp=Z,7.8nm,0.9s
F19K   Shaleruckik Mo    48.01  29  P     P     00 19 33.4 +0.7
F19K                                IAmb  IAmb  00 19 33.9
              comp=Z,7.8nm,1.0s
N17K   Nushagak Hills    48.02  38  P     P     00 19 32.7 -0.2
D19K   Kuna River        48.07  27  P     P     00 19 33.7 +0.6
BVAR   Borovoye Array    48.08 312  P     P     00 19 32.2 -1.2
              comp=Z,5.3nm,0.8s,baz=86,slow=9.1,SNR=14
BVAR                                PcP   PcP   00 21 00.7 -0.3
              comp=Z,3.6nm,0.7s,baz=92,slow=7.4,SNR=7.1
              comp=Z,5.3nm,0.8s
BORK   Borovoye          48.12 312⇓eP     P     00 19 32.4 -1.3
BORK                                pmax  pmax
              comp=Z,6.0nm,0.9s
BORK   Borovoye          48.12 312  P     P     00 19 32.8 -0.9
G19K   Purcell Mounta    48.23  30  P     P     00 19 34.8 +0.4
G19K                                IAmb  IAmb  00 19 36.2
              comp=Z,14nm,1.0s
L18K   Granite Mounta    48.25  35  P     P     00 19 35.5 +0.9
J18K   Innoko River      48.26  34  P     P     00 19 35.1 +0.4
E19K   Redstone River    48.28  28        P     00 19 35.2 +0.4
E19K                                IAmb  IAmb  00 19 37.0
              comp=Z,16nm,0.9s
P17K   Kvichak River     48.44  39        P     00 19 36.3 +0.2
P17K                                IAmb  IAmb  00 19 51.7
              comp=Z,13nm,0.9s
B20K   Meade River       48.60  25  P     P     00 19 37.5 +0.4
ARSB   Arslanbob         48.63 296  P     P     00 19 37.9 -0.2
ARSB                                pmax  pmax
              comp=Z,15nm,0.9s
ARSB   Arslanbob         48.63 296  P     P     00 19 37.9 -0.2
ARSB                                IAmb  IAmb  00 19 40.5
              comp=Z,15nm,0.9s
D20K   Etivluk River     48.64  27  P     P     00 19 38.0 +0.4
N18K   Kilae Creek       48.66  37  P     P     00 19 38.5 +0.7
N18K                                IAmb  IAmb  00 19 40.1
              comp=Z,9.7nm,1.2s
J19K   Poorman           48.76  33  P     P     00 19 39.3 +0.8
F20K   Avaraart Lake     48.83  29  P     P     00 19 39.0  0.0
MTN    Manton Dam        48.92 187  P     P     00 19 39.3 -0.9
              comp=Z,12nm,0.9s
MTN    Manton Dam        48.92 187        P     00 19 39.4 -0.8
MTN                                 IAmb  IAmb  00 19 41.5
              comp=Z,8.8nm,0.9s
ACHA   Angle Creek He    49.08  41  P     P     00 19 40.8 -0.3
L19K   White Mountain    49.11  35  P     P     00 19 42.8 +1.5
CHIR   Chirikof Islan    49.15  44  P     P     00 19 42.5 +0.9
I20K   Naaghedeneel      49.26  32  P     P     00 19 42.6 +0.3
I20K                                IAmb  IAmb  00 19 46.4
              comp=Z,11nm,1.1s
DZA    Taraz             49.40 299 eP     P     00 19 43.7 -0.1
DZA                                 pmax  pmax
              comp=Z,4.0nm,0.6s
DZA    Taraz             49.40 299 eP     P     00 19 43.8 -0.1
              comp=Z,4.3nm,0.6s
J20K   Nowinta River     49.41  33  P     P     00 19 43.5 +0.1
K20K   Telida            49.45  34  P     P     00 19 45.2 +1.3
O19K   Port Alsworth     49.46  38  P     P     00 19 44.0 +0.1
IMAR   Indian Mountai    49.58  30  P     P     00 19 45.5 +0.8
E21K   Killik River      49.59  27  P     P     00 19 44.5 -0.3
G21K   Allakaket         49.69  30  P     P     00 19 46.7 +1.1
G21K                                IAmb  IAmb  00 19 48.0
              comp=Z,19nm,1.0s
F21K   Alatna River      49.72  29  P     P     00 19 46.7 +0.9
GSI    Gunungsitoli      49.77 235  P     P     00 19 45.9 -0.9
B22K   Teshekpuk Lake    49.90  25  P     P     00 19 48.3 +1.2
KK31   Karatay Array     49.92 299  P     P     00 19 47.6 -0.1
KK31                                pmax  pmax
              comp=Z,25nm,1.1s
KK31   Karatay Array     49.92 299        P     00 19 47.6 -0.1
KK31                                IAmb  IAmb  00 19 48.9
              comp=Z,25nm,1.1s
KKAR   Karatay Array     49.92 299  P     P     00 19 47.8 +0.1
KKAR   Karatay Array     49.92 299        P     00 19 47.8 +0.1
H21K   Melozitna Rive    49.97  31  P     P     00 19 48.2 +0.5
DRK    Karamyk           50.02 294  P     P     00 19 49.2 +0.3
DRK                                 pmax  pmax
              comp=Z,12nm,1.0s
DRK    Karamyk           50.02 294        P     00 19 49.2 +0.3
DRK                                 IAmb  IAmb  00 19 52.7
              comp=Z,12nm,1.0s
D22K   Ayikyak River     50.08  27  P     P     00 19 49.8 +1.2
MDSI   Maura Dua         50.28 223  P     P     00 19 50.2 -0.5
              comp=Z,30nm,1.0s
I21K   Tanana            50.32  31  P     P     00 19 51.0 +0.6
PPLA   Purkeypile        50.32  34  P     P     00 19 51.0 +0.4
CAST   Castle Rocks      50.34  34  P     P     00 19 51.6 +0.9
BRLS   Borolday          50.42 299c iP    P     00 19 53.0 +1.5
BRLS                                pmax  pmax
              comp=Z,7.0nm,0.9s
BRLS   Borolday          50.42 299⇑iP     P     00 19 53.0 +1.5
              comp=Z,7.0nm,0.9s
HNR    Honiara           50.53 149  LR    LR    00 40 11.0
              comp=Z,108nm,20.1s,baz=48,slow=35
IUG    Iuzhnay           50.53 298c iP    P     00 19 52.5 +0.1
IUG                                 pmax  pmax
              comp=Z,16nm,0.8s
IUG    Iuzhnay           50.53 298⇑iP     P     00 19 52.6 +0.1
              comp=Z,16nm,0.8s
H22K   Ishtalitna Cre    50.56  30        P     00 19 54.0 +1.8
H22K                                IAmb  IAmb  00 19 55.0
              comp=Z,15nm,1.2s
BTK    Batken            50.57 295  P     P     00 19 52.6 -0.2
BTK                                 pmax  pmax
              comp=Z,7.0nm,1.0s
BTK    Batken            50.57 295  P     P     00 19 52.6 -0.2
KDAK   Kodiak Island     50.58  41  P     P     00 19 52.5 +0.1
KDAK                                pmax  pmax
              comp=Z,15nm,1.1s
KDAK   Kodiak Island     50.58  41  P     P     00 19 52.5 +0.1
KDAK                                IAmb  IAmb  00 20 08.4
              comp=Z,15nm,1.1s
STLK   Strandline Lak    50.58  36  P     P     00 19 53.1 +0.6
CHM    Chimkent          50.78 299 eP     P     00 19 54.4 +0.1
CHM                                 pmax  pmax
              comp=Z,6.0nm,0.8s
CHM    Chimkent          50.78 299 eP     P     00 19 54.4 +0.1
              comp=Z,5.6nm,0.8s
D23K   Nanushuk River    50.80  26        P     00 19 55.1 +1.1
D23K                                IAmb  IAmb  00 19 55.9
              comp=Z,11nm,1.0s
C23K   Itkillik River    50.84  25  P     P     00 19 55.2 +1.0
C23K                                IAmb  IAmb  00 19 56.4
              comp=Z,23nm,1.1s
MLY    Manley            50.85  32  P     P     00 19 55.1 +0.6
KTH    Kantishna Hill    50.85  33  P     P     00 19 56.0 +1.5
NIL    Nilore            50.88 287  P     P     00 19 55.1  0.0
NIL                                 pmax  pmax
              comp=Z,11nm,0.9s
NIL    Nilore            50.88 287        P     00 19 55.1  0.0
NIL                                 IAmb  IAmb  00 19 57.4
              comp=Z,10nm,0.9s
NIL    Nilore            50.88 287  P     P     00 19 56.0 +0.9
              comp=Z,13nm,1.0s
COLD   Coldfoot          50.99  29  P     P     00 19 55.7 +0.3
G23K   Bananza Creek     51.08  29        P     00 19 57.3 +1.1
G23K                                IAmb  IAmb  00 19 58.4
              comp=Z,12nm,1.1s
SUA    Susitna One       51.10  36  P     P     00 19 57.0 +0.5
SUA                                 IAmb  IAmb  00 19 59.7
              comp=Z,13nm,0.8s
TRF    Thorofare Moun    51.15  34  P     P     00 19 55.8 -1.1
E23K   Chandalar         51.20  28  P     P     00 19 58.1 +1.0
E23K                                IAmb  IAmb  00 19 59.5
              comp=Z,21nm,0.9s
BRLK   Bradley Lake      51.22  38  P     P     00 19 56.9 -0.4
BRLK                                IAmb  IAmb  00 19 59.6
              comp=Z,19nm,1.1s
H23K   Yukon River       51.31  31  P     P     00 19 59.3 +1.4
H23K                                IAmb  IAmb  00 20 01.5
              comp=Z,11nm,0.9s
I23K   Minto, Yukon-K    51.43  31  P     P     00 19 59.2 +0.5
BWN    Browne            51.45  33  P     P     00 19 59.4 +0.5
C24K   Franklin Bluff    51.51  26  P     P     00 19 59.7 +0.5
E24K   Your Creek        51.62  28  P     P     00 20 00.7 +0.5
E24K                                IAmb  IAmb  00 20 02.0
              comp=Z,11nm,0.9s
RC01   Rabbit Creek A    51.63  37  P     P     00 20 00.3  0.0
RC01                                IAmb  IAmb  00 20 01.7
              comp=Z,15nm,1.0s
MCK    McKinley          51.73  33  P     P     00 20 01.4 +0.4
MCK                                 pmax  pmax
              comp=Z,6.0nm,1.1s
MCK    McKinley          51.73  33  P     P     00 20 01.4 +0.4
RND    Reindeer          51.79  34  P     P     00 20 01.4 -0.2
RND                                 pmax  pmax
              comp=Z,9.0nm,1.0s
RND    Reindeer          51.79  34  P     P     00 20 01.4 -0.2
PMR    Palmer            51.86  36  P     P     00 20 02.2 +0.2
PMR                                 pmax  pmax
              comp=Z,11nm,1.0s
PMR    Palmer            51.86  36  P     P     00 20 02.2 +0.2
PMR                                 IAmb  IAmb  00 20 03.3
              comp=Z,11nm,1.0s
F24K   Squaw Lake        51.88  28  P     P     00 20 02.2 +0.1
GHO    Glory Hole Cre    51.94  36  P     P     00 20 02.6 -0.1
GHO                                 IAmb  IAmb  00 20 04.5
              comp=Z,21nm,1.0s
KNRA   Kununurra         51.98 189  P     P     00 20 01.5 -1.8
H24K   Noodor Dome       52.00  30  P     P     00 20 03.5 +0.4
WRH    Wood River Hil    52.02  32  P     P     00 20 03.1  0.0
COLA   College           52.09  32  P     P     00 20 05.2 +1.6
COLA   College           52.09  32deP     P     00 20 04.6 +1.0
COLA                                pmax  pmax
              comp=Z,17nm,1.4s
COLA   College           52.09  32  P     P     00 20 04.3 +0.6
              comp=Z,10nm,1.5s
G24K   Hadweenzic Riv    52.09  29  P     P     00 20 04.9 +1.2
CCB    Clear Creek Bu    52.13  32  P     P     00 20 05.3 +1.3
KNK    Knik Glacier      52.20  36  P     P     00 20 03.9 -0.7
KNK                                 IAmb  IAmb  00 20 06.3
              comp=Z,18nm,0.9s
SML    Sawmill           52.21  36  P     P     00 20 04.7  0.0
SML                                 pmax  pmax
              comp=Z,13nm,0.8s
SML    Sawmill           52.21  36  P     P     00 20 04.7  0.0
SML                                 IAmb  IAmb  00 20 07.2
              comp=Z,13nm,0.8s
D25K   Kavik River       52.34  26  P     P     00 20 05.7 +0.1
D25K                                IAmb  IAmb  00 20 07.3
              comp=Z,13nm,0.8s
PWL    Port Wells        52.34  37  P     P     00 20 04.9 -0.7
PWL                                 IAmb  IAmb  00 20 06.9
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      comp=Z,22nm,1.2s
DHY   Denali Highway    52.49  34   P       P       00 20 07.5 +0.6
IL31                    52.51  32   P       P       00 20 06.8  0.0
ILAR  Eielson Array     52.51  32   P       P       00 20 06.8 -0.1
      comp=Z,2.2nm,0.9s,baz=271,slow=4.7,SNR=21
      comp=Z,2.2nm,0.9s
ILAR  Eielson Array     52.51  32   P       P       00 20 06.6 -0.2
HDA   Harding Lake      52.52  32   P       P       00 20 07.1 +0.1
HDA                                 IAmb    IAmb    00 20 09.8
      comp=Z,9.4nm,0.9s
SCM   Sheep Creek Mo    52.68  35   P       P       00 20 08.2  0.0
SCM                                 pmax    pmax
      comp=Z,16nm,1.0s
SCM   Sheep Creek Mo    52.68  35   P       P       00 20 08.2  0.0
SCM                                 IAmb    IAmb    00 20 20.1
      comp=Z,16nm,1.0s
E25K  Arctic Village    52.71  27   P       P       00 20 09.0 +0.7
F25K  Christian Rive    52.73  28   P       P       00 20 10.0 +1.5
P23K  Montague Islan    52.92  38   P       P       00 20 09.8 -0.1
P23K                                IAmb    IAmb    00 20 13.8
      comp=Z,16nm,0.9s
FYU   Fort Yukon        53.00  29           P       00 20 11.2 +0.8
PRP   Porcupine Dome    53.00  31   P       P       00 20 09.8 -0.7
SVE   Sverdlovsk        53.04 318  eP       P       00 20 10.7 -0.1
BMAR  Burnt Mountain    53.16  28           P       00 20 12.2 +0.6
C27K  Jago River        53.25  26   P       P       00 20 11.5 -0.7
C27K                                IAmb    IAmb    00 20 14.6
      comp=Z,17nm,1.0s
F26K  Sheenjek River    53.29  28   P       P       00 20 13.4 +0.8
F26K                                IAmb    IAmb    00 20 15.6
      comp=Z,23nm,1.0s
KLU   Klutina           53.40  36   P       P       00 20 14.6 +1.1
G26K  Porcupine Rive    53.52  29   P       P       00 20 15.3 +1.1
DIV   Divide            53.53  36   P       P       00 20 14.6 +0.2
DIV                                 IAmb    IAmb    00 20 16.6
      comp=Z,11nm,0.9s
RIDG  Independent Ri    53.53  33   P       P       00 20 14.0 -0.4
RIDG                                IAmb    IAmb    00 20 17.1
      comp=Z,10nm,1.1s
HARP  HAARP             53.60  35   P       P       00 20 15.3 +0.4
HARP                                IAmb    IAmb    00 20 18.1
      comp=Z,13nm,1.0s
KBL   Kabul             53.78 289   P       P       00 20 16.4 -0.5
KBL                                 pmax    pmax
      comp=Z,16nm,1.1s
KBL   Kabul             53.78 289           P       00 20 16.4 -0.5
KBL                                 IAmb    IAmb    00 20 19.1
      comp=Z,16nm,1.1s
KBL   Kabul             53.78 289   P       P       00 20 15.9 -1.0
      comp=Z,15nm,1.2s
SCRK  Sand Creek        53.87  33   P       P       00 20 16.4 -0.5
SCRK                                IAmb    IAmb    00 20 19.1
      comp=Z,9.2nm,1.0s
BMRM  Bremner River     54.12  36   P       P       00 20 19.5 +0.7
E27K  Coleen River      54.18  27   P       P       00 20 20.0 +0.9
RAGM  Ragged Mountai    54.19  37   P       P       00 20 19.1 -0.2
D27M  Malcolm River     54.26  26   P       P       00 20 20.4 +0.7
D27M                                IAmb    IAmb    00 20 21.9
      comp=Z,11nm,0.9s
L26K  Log Cabin Wild    54.31  34   P       P       00 20 20.0 -0.1
L26K                                IAmb    IAmb    00 20 21.9
      comp=Z,8.8nm,1.0s
ARTI  Arti              54.35 318   P       P       00 20 19.4 -1.1
      comp=Z,7.4nm,0.7s,baz=66,slow=3.7,SNR=14
ARTI                                LR      LR      00 45 35.9
      comp=Z,427nm,18.2s,baz=85,slow=38
      comp=Z,7.4nm,0.7s
ARTI  Arti              54.35 318c iP       P       00 20 19.5 -0.9
ARTI                                S       S       00 27 57.8 -0.3
ARTI                                SS      SS      00 31 35.7 -4.0
ARTI                                pmax    pmax
      comp=Z,8.0nm,0.7s
ARTI  Arti              54.35 318           P       00 20 19.5 -0.9
ARTI                                IAmb    IAmb    00 20 21.1
      comp=Z,11nm,0.8s
G27K  Doyon Strip       54.37  29   P       P       00 20 20.9 +0.4
GLB   Gilahina Butte    54.40  36   P       P       00 20 21.4 +0.6
H27K  Steamboat Moun    54.52  30   P       P       00 20 23.2 +1.6
M26K  Nabesna, AK       54.59  34   P       P       00 20 23.5 +1.3
M26K                                IAmb    IAmb    00 20 24.7
      comp=Z,14nm,1.1s
I27K  Kandik River      54.59  30   P       P       00 20 23.3 +1.2
MCARA McCarthy VSAT     54.78  36   P       P       00 20 22.6 -0.9
MCARA                               IAmb    IAmb    00 20 39.6
      comp=Z,15nm,1.1s
FITZ  Fitzroy Crossi    54.83 192   P       P       00 20 24.4 +0.2
      comp=Z,3.4nm,0.9s
FITZ  Fitzroy Crossi    54.83 192   P       P       00 20 24.6 +0.4
FITZ  Fitzroy Crossi    54.83 192           P       00 20 24.0 -0.2
FITZ  Fitzroy Crossi    54.83 192   P       P       00 20 24.0 -0.2
      comp=Z,3.4nm,0.9s
E28M  Babbage River     54.87  27   P       P       00 20 23.2 -0.9
F28M  Old Crow          54.92  28   P       P       00 20 25.4 +0.9
L27K  Beaver Creek,     54.99  33   P       P       00 20 25.9 +0.9
BCAR  Beaver Creek A    55.01  33           P       00 20 25.9 +0.8
M27K  Edge Creek, AK    55.11  34   P       P       00 20 27.3 +1.3
M27K                                IAmb    IAmb    00 20 28.3
      comp=Z,14nm,1.1s
AB31  Akbulak array     55.29 309   P       P       00 20 26.6 -0.7
AB31                                IAmb    IAmb    00 20 28.8
      comp=Z,10nm,0.9s
ABKAR Akbulak array     55.29 309   P       P       00 20 25.8 -1.6
I28M  Miner Creek       55.31  30           P       00 20 28.9 +1.5
I28M                                IAmb    IAmb    00 20 30.8
      comp=Z,7.2nm,0.8s
E29M  Blow River        55.50  27   P       P       00 20 29.9 +1.3
E29M                                IAmb    IAmb    00 20 31.1
      comp=Z,20nm,1.1s
WB0   Warramunga Arr    55.60 182   P       P       00 20 29.0 -0.7
G29M  Pine Creek        55.76  28   P       P       00 20 31.9 +1.3
WRAB  Tennant Creek     55.76 182   P       P       00 20 30.4 -0.6
WRAB  Tennant Creek     55.76 182d iP       P       00 20 30.2 -0.8
WRAB                                pmax    pmax
      comp=Z,20nm,1.0s
WRAB  Tennant Creek     55.76 182   P       P       00 20 29.9 -1.0
WRAB  Tennant Creek     55.76 182   P       P       00 20 29.9 -1.0
      comp=Z,29nm,1.3s
WRA   Warramunga Arr    55.77 182   P       P       00 20 30.1 -1.0
      comp=Z,20nm,0.8s,baz=356,slow=7.4,SNR=171
      comp=Z,20nm,0.8s
WRA   Warramunga Arr    55.77 182   P       P       00 20 29.7 -1.3
H29M  Whitestone        55.78  29   P       P       00 20 31.9 +1.3
WR8   Warramunga Arr    55.78 182           P       00 20 30.3 -0.8
DAWY  Dawson            55.84  32   P       P       00 20 32.6 +1.5
I29M  Ogilvie Camp,     55.99  30   P       P       00 20 31.9 -0.3
I29M                                IAmb    IAmb    00 20 50.9
      comp=Z,5.1nm,0.7s
EPYK  Eagle Plains      56.39  29   P       P       00 20 36.0 +1.0
EPYK                                IAmb    IAmb    00 20 37.2
      comp=Z,18nm,0.9s
G30M  tAoh Zraii Nji    56.44  28   P       P       00 20 36.3 +0.9
QIS   Mount Isa         56.45 176   P       P       00 20 35.2 -0.7
      comp=Z,19nm,1.0s
QIS   Mount Isa         56.45 176   P       P       00 20 35.3 -0.6
QIS   Mount Isa         56.45 176   P       P       00 20 35.1 -0.8
      comp=Z,19nm,1.0s
F30M  Barrier River     56.45  27   P       P       00 20 35.9 +0.5
L29M  L29M              56.61  33           P       00 20 37.5 +0.8
M29M  Somme Creek       56.64  34   P       P       00 20 37.1 +0.1
K29M  Barlow Dome       56.69  32   P       P       00 20 38.4 +1.1
CTA   Charters Tower    56.70 169   LR      LR      00 44 23.8
      comp=Z,78nm,19.7s,baz=29,slow=36
CTAO  Charters Tower    56.70 169   P       P       00 20 36.8 -0.9
CTAO                                pmax    pmax
      comp=Z,12nm,1.2s
CTAO  Charters Tower    56.70 169           P       00 20 36.8 -0.9
CTAO                                IAmb    IAmb    00 20 49.8
      comp=Z,12nm,1.1s
I30M  Mount Dempster    56.81  30   P       P       00 20 39.0 +0.8
I30M                                IAmb    IAmb    00 20 40.4
      comp=Z,14nm,1.1s
KEKH  Kekaha            56.86  86   P       P       00 20 39.3 +0.3
J30M  Hart River        57.00  31   P       P       00 20 39.3 -0.2
INK   Inuvik            57.10  26   P       P       00 20 40.5 +0.6
INK                                 pmax    pmax
      comp=Z,9.0nm,1.0s
INK   Inuvik            57.10  26           P       00 20 40.5 +0.6
INK                                 IAmb    IAmb    00 20 41.0
      comp=Z,9.3nm,0.9s
INK   Inuvik            57.10  26   P       P       00 20 40.6 +0.6
      comp=Z,12nm,1.3s
O29M  Mount Kennedy     57.16  36   P       P       00 20 41.1 +0.4
O29M                                IAmb    IAmb    00 20 43.8
      comp=Z,20nm,1.1s
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G31M  Satah River       57.20  28   P       P       00 20 40.3 -0.3
G31M                                IAmb    IAmb    00 20 42.1
      comp=Z,9.2nm,1.1s
F31M  Tsiigehtchic      57.26  27   P       P       00 20 41.6 +0.5
F31M                                IAmb    IAmb    00 20 42.6
      comp=Z,14nm,1.1s
H31M  Peel River        57.48  29           P       00 20 42.3 -0.4
HYT   Haines Junctio    57.52  35   P       P       00 20 44.4 +1.1
HYT                                 IAmb    IAmb    00 20 46.2
      comp=Z,18nm,1.2s
N30M  Aishikik Lake     57.53  35   P       P       00 20 43.8 +0.6
P29M  Windy Craggy      57.76  37   P       P       00 20 45.0 +0.2
PALK  Pallekele         58.06 254   LR      LR      00 49 14.2
      comp=Z,116nm,18.6s,baz=70,slow=40
PALK  Pallekele         58.06 254   P       P       00 20 48.1 +0.5
PALK                                pmax    pmax
      comp=Z,8.0nm,1.1s
PALK  Pallekele         58.06 254   P       P       00 20 48.1 +0.5
KIRV  Kirov             58.42 322   P       P       00 20 48.6 -0.8
      comp=Z,16nm,0.7s,baz=355,slow=3.2,SNR=7.8
KIRV                                LR      LR      00 48 13.7
      comp=Z,414nm,19.7s,baz=74,slow=38
      comp=Z,16nm,0.7s
KIRV  Kirov             58.42 322deP        P       00 20 49.0 -0.3
WHY   Whitehorse        58.80  35   P       P       00 20 52.7 +0.6
WHY                                 IAmb    IAmb    00 20 58.7
      comp=Z,14nm,1.2s
HRA   Herat             59.00 292   P       P       00 20 53.8 -0.3
HRA                                 IAmb    IAmb    00 20 56.5
      comp=Z,5.6nm,0.8s
MBWA  Marble Bar        59.05 198   P       P       00 20 53.7 -0.4
MBWA                                IAmb    IAmb    00 21 01.7
      comp=Z,10nm,1.1s
AS15  Alice Springs     59.46 182   P       P       00 20 56.9 -0.1
      comp=Z,14nm,0.8s
AS17  Alice Springs     59.48 182   P       P       00 20 57.0 -0.1
      comp=Z,21nm,0.9s
AS31  Alice Springs     59.49 182   P       P       00 20 57.1 -0.1
      comp=Z,6.1nm,0.7s
AS31  Alice Springs     59.49 182   P       P       00 20 55.8 -1.4
AS31                                IAmb    IAmb    00 20 59.2
      comp=Z,4.2nm,0.7s
ASAR  Alice Springs     59.49 182   P       P       00 20 56.7 -0.5
      comp=Z,10nm,0.3s,baz=8.6,slow=7.0,SNR=61
      comp=Z,10nm,0.3s
AUALC St Philip's Co    59.51 182   P       P       00 20 57.3  0.0
AS09  Alice Springs     59.52 182   P       P       00 20 57.3 -0.1
      comp=Z,22nm,0.9s
P32M  Atlin             59.71  36   P       P       00 20 59.0 +0.6
P32M                                IAmb    IAmb    00 21 03.3
      comp=Z,10nm,1.0s
MMPY  Sheldon Lake,     59.76  32           P       00 20 59.4 +0.7
SIT   Sitka             59.80  39   P       P       00 20 59.8 +0.9
SIT   Sitka             59.80  39   P       P       00 20 59.8 +0.9
P33M  Teslin, Yukon     59.91  35   P       P       00 21 00.5 +0.7
P33M                                IAmb    IAmb    00 21 02.5
      comp=Z,17nm,1.1s
C36M  Paulatuk          60.00  24   P       P       00 21 00.3 +0.1
S32K  Killisnoo         60.03  39   P       P       00 21 01.1 +0.6
S32K                                IAmb    IAmb    00 21 03.1
      comp=Z,9.3nm,1.1s
KHLH  Kahului Airpor    60.05  85   P       P       00 21 01.6 +0.3
SPITS Spitsbergen Ar    60.59 348   LR      LR      00 47 13.9
      comp=Z,253nm,19.8s,baz=34,slow=36
WRKA  Warakurna         61.27 188   P       P       00 21 09.4  0.0
      comp=Z,10.0nm,0.8s
U33K  Whale Pass        61.28  40   P       P       00 21 11.2 +2.1
U33K                                IAmb    IAmb    00 21 12.0
      comp=Z,14nm,0.9s
BELG  Belogornoye       61.57 316   P       P       00 21 10.6 -0.5
      comp=Z,35nm,1.0s,baz=235,slow=1.7,SNR=12
      comp=Z,35nm,1.0s
BELG  Belogornoye       61.57 316c iP       P       00 21 09.9 -1.2
BELG                                pmax    pmax
      comp=Z,7.0nm,1.1s
APA   Apatity           61.77 335  eP       P       00 21 08.7 -3.5
APA                                e                00 21 51.6
APA                                e                00 23 26.5
APA                                eS       S       00 29 27.1 -7.6
APA                                e                00 30 56.1
APA                                 pmax    pmax
      comp=Z,7.0nm,1.3s
APA                                 MLR     MLR
      comp=Z,517nm,5.8s
KLMR  Klimovskoe        62.25 327  eP       P       00 21 12.6 -3.0
KLMR                                pmax    pmax
      comp=Z,33nm,1.3s
KLMR                                MLR     MLR
      comp=Z,276nm,20.0s
T35M  Bob Quinn         62.39  38           P       00 21 17.7 +1.1
EIDS  Eidsvold          62.74 165   P       P       00 21 18.0 -1.2
KEV   Kevo              62.78 338   P       P       00 21 18.4 -0.5
KEV                                 pmax    pmax
      comp=Z,13nm,1.0s
KEV   Kevo              62.78 338   P       P       00 21 18.4 -0.5
KEV                                 IAmb    IAmb    00 21 19.6
      comp=Z,13nm,1.0s
WRGLY Wrigley           62.79  30   P       P       00 21 19.1  0.0
WRGLY                               IAmb    IAmb    00 21 21.2
      comp=Z,12nm,0.8s
QLP   Quilpie           62.81 172   P       P       00 21 19.4 -0.2
ARCES ARCESS Array B    63.34 338   P       P       00 21 22.1 -0.7
      comp=Z,3.8nm,0.7s,baz=64,slow=6.9,SNR=10
ARCES                               LR      LR      00 52 47.4
      comp=Z,525nm,19.0s,baz=76,slow=40
      comp=Z,3.8nm,0.7s
ARCES ARCESS Array B    63.34 338   P       P       00 21 22.8 +0.1
ARCES                               pmax    pmax
      comp=Z,10.0nm,1.2s
ARCES ARCESS Array B    63.34 338   P       P       00 21 22.8 +0.1
ARCES                               IAmb    IAmb    00 21 25.1
      comp=Z,9.7nm,1.1s
INKA  Innaminka         63.65 175   P       P       00 21 24.8 -0.3
INKA                                IAmb    IAmb    00 21 27.9
      comp=Z,4.2nm,0.6s
OUENC Ouen Island, N    65.03 149   P       P       00 21 34.4 +0.1
VRH   Novokhopyorsk     65.39 316  eP       P       00 21 35.3 -1.1
VRH                                 pmax    pmax
      comp=Z,18nm,0.8s
MOS   Moscow            65.44 322  eP       P       00 21 36.1 -0.5
MOS                                 pmax    pmax
      comp=Z,29nm,0.9s
MOS                                 MLR     MLR
      comp=E,400nm,16.0s
MOS                                 MLR     MLR
      comp=Z,600nm,16.0s
MOS                                 MLR     MLR
      comp=N,200nm,15.0s
BBB   Bella Bella       65.62  42   P       P       00 21 39.0 +1.2
MAK   Makhachkala       65.66 306c iP       P       00 21 29.8 -8.5
MAK                                ePPP     PPP     00 25 34.6
MAK                                 pmax    pmax
      comp=Z,57nm,1.8s
MAK                                 MLR     MLR
      comp=Z,994nm,15.0s
AKT   Akhty             66.20 305  eP       P       00 21 41.5 -0.5
AKT                                e                00 22 13.5
AKT                                e                00 24 06.4
AKT                                ePPP     PPP     00 25 43.0
AKT                                 pmax    pmax
      comp=Z,45nm,1.0s
AKT                                 MLR     MLR
      comp=Z,863nm,17.0s
LPSR  Galich'ya Gora    66.26 319  eP       P       00 21 41.3 -0.7
LPSR                                pmax    pmax
      comp=Z,22nm,0.8s
OBN   Obninsk           66.27 322   P       P       00 21 41.2 -0.7
      comp=Z,7.7nm,0.5s,baz=155,slow=2.9,SNR=7.6
OBN                                 LR      LR      00 52 49.1
      comp=Z,412nm,19.6s,baz=100,slow=38
      comp=Z,7.7nm,0.5s
OBN   Obninsk           66.27 322d iP       P       00 21 41.4 -0.5
OBN                                e                00 22 14.2
OBN                                e                00 24 06.3
OBN                                ePPP     PPP     00 25 45.4
OBN                                 pmax    pmax
      comp=Z,23nm,1.3s
OBN                                 MLR     MLR
      comp=Z,624nm,16.0s
OBN   Obninsk           66.27 322   P       P       00 21 41.0 -0.9
OBN   Obninsk           66.27 322   P       P       00 21 41.4 -0.5
      comp=Z,25nm,1.2s
OBN   Obninsk           66.27 322   P       P       00 21 41.7 -0.3
      comp=Z,25nm,1.2s
HOLB  Holberg           66.34  44   P       P       00 21 42.5 -0.1
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VORR  Voronezh          66.56 318  eP       P       00 21 43.2 -0.7
VORR                                pmax    pmax
      comp=Z,13nm,0.7s
MSVF  Nonsavu           66.60 136   LR      LR      00 48 50.3
      comp=Z,62nm,18.1s,baz=196,slow=34
NEEM  North Greenlan    66.62   2 i P       P       00 21 44.4 +0.1
NEEM                                IAmb    IAmb    00 21 45.0
      comp=Z,22nm,0.9s
YKA   Yellowknife Ar    66.67  29   P       P       00 21 44.5  0.0
      comp=Z,3.4nm,0.9s,baz=303,slow=6.2,SNR=8.1
      comp=Z,3.4nm,0.9s
YKA   Yellowknife Ar    66.67  29ceP        P       00 21 44.7 +0.2
YKA                                 pmax    pmax
      comp=Z,3.0nm,0.9s
YKA   Yellowknife Ar    66.67  29   P       P       00 21 44.3 -0.1
VSR   Storozhevoye      66.80 317  eP       P       00 21 44.8 -0.7
VSR                                 pmax    pmax
      comp=Z,15nm,0.8s
VORD  Divnogorie        66.85 317  eP       P       00 21 44.0 -1.8
VORD                                pmax    pmax
      comp=Z,9.0nm,0.7s
FORT  Forrest           66.97 188   P       P       00 21 46.5 -0.1
FORT                                IAmb    IAmb    00 21 46.9
      comp=Z,7.2nm,0.7s
GOF   Gofitskoye        67.52 310ceP        P       00 21 49.2 -0.9
MORW  Morawa            67.55 199   P       P       00 21 50.1 -0.2
MORW                                IAmb    IAmb    00 21 53.8
      comp=Z,5.9nm,1.0s
FIA1  FINESS Array S    67.62 331   P       P       00 21 50.8 +0.3
FINES FINESS Array B    67.62 331   P       P       00 21 50.2 -0.3
      comp=Z,10nm,0.7s,baz=88,slow=6.4,SNR=41
FINES                               LR      LR      00 53 12.0
      comp=Z,105nm,18.1s,baz=50,slow=38
      comp=Z,10nm,0.7s
FINES FINESS Array B    67.62 331 i P       P       00 21 50.0 -0.5
FINES                               pmax    pmax
      comp=Z,11nm,0.6s
FINES FINESS Array B    67.62 331           P       00 21 49.6 -0.8
STKA  Stephens Creek    67.82 175   P       P       00 21 52.1 +0.2
      comp=Z,4.2nm,0.8s,baz=343,slow=6.4,SNR=4.5
STKA                                LR      LR      00 51 47.7
      comp=Z,76nm,20.4s,baz=26,slow=36
      comp=Z,4.2nm,0.8s
UOSS  Minazif           68.04 285   P       P       00 21 52.9 -0.9
UOSS                                IAmb    IAmb    00 21 56.1
      comp=Z,10nm,1.1s
UOSS  Minazif           68.04 285   P       P       00 21 53.6 -0.2
      comp=Z,12nm,1.6s
KBZ   Khabaz            68.25 309   P       P       00 21 54.6 -0.1
      comp=Z,6.9nm,0.9s,baz=34,slow=3.1,SNR=17
KBZ                                 LR      LR      00 54 04.0
      comp=Z,337nm,19.1s,baz=62,slow=38
      comp=Z,6.9nm,0.9s
KBZ   Khabaz            68.25 309deP        P       00 21 55.0 +0.2
KBZ                                 pmax    pmax
      comp=Z,8.0nm,0.9s
KVAR  Kislovodsk Arr    68.27 309   LR      LR      00 53 47.9
      comp=Z,225nm,20.2s,baz=265,slow=38
KIV   Kislovodsk        68.28 309  eP       P       00 21 54.7 -0.4
KIV                                 pmax    pmax
      comp=Z,17nm,1.0s
KIV                                 MLR     MLR
      comp=Z,145nm,17.0s
KIV   Kislovodsk        68.28 309   P       P       00 21 55.4 +0.3
KIV   Kislovodsk        68.28 309 ⇑P        P       00 21 54.5 -0.5
KIV   Kislovodsk        68.28 309   P       P       00 21 54.9 -0.2
      comp=Z,18nm,0.8s
KIV   Kislovodsk        68.28 309   P       P       00 21 54.6 -0.5
      comp=Z,24nm,0.8s
SHA1  Shidzhatmaz       68.40 309deP        P       00 21 56.3 +0.3
BBOO  Buckleboo         68.56 180   P       P       00 21 56.1 -0.5
BBOO                                IAmb    IAmb    00 22 02.9
      comp=Z,16nm,1.1s
DBG   Daneborg          68.74 353 i P       P       00 21 53.7 -3.6
DBG                                 IAmb    IAmb    00 21 59.5
      comp=Z,78nm,1.5s
GNI   Garni             68.83 305   LR      LR      00 54 36.3
      comp=Z,341nm,18.7s,baz=73,slow=38
GNI   Garni             68.83 305ceP        P       00 21 58.8 +0.1
GNI                                 pmax    pmax
      comp=Z,22nm,1.3s
GNI   Garni             68.83 305   P       P       00 21 59.5 +0.8
GNI   Garni             68.83 305   P       P       00 21 59.1 +0.4
      comp=Z,22nm,1.2s
VSU   Vasula            69.06 328deP        P       00 21 58.2 -1.3
VSU                                 pmax    pmax
      comp=Z,42nm,1.7s
VSU   Vasula            69.06 328   P       P       00 21 59.5  0.0
      comp=Z,22nm,0.8s
KULLO Kullorsuaq        69.23   4 i P       P       00 22 00.4  0.0
KULLO                               IAmb    IAmb    00 22 02.9
      comp=Z,20nm,0.9s
OZAP  Van, Ozalp-Mer    70.08 304 ⇑P        P       00 22 07.8 +1.3
VSLR  Vesyoloye         70.19 310d iP       P       00 22 06.5 -0.3
VSLR                                pmax    pmax
      comp=Z,6.0nm,0.9s
SOC   Sochi             70.32 310  eP       P       00 22 06.2 -1.4
SOC                                eS       S       00 31 20.7 +1.2
SOC                                 pmax    pmax
      comp=Z,5.0nm,0.6s
SOC                                 MLR     MLR
      comp=Z,199nm,18.0s
NLWA  Neilton Lookou    70.40  45   P       P       00 22 09.4 +1.3
NLWA                                IAmb    IAmb    00 22 10.9
      comp=Z,16nm,1.1s
HOMI  Horasan           70.75 306 ⇑P        P       00 22 11.0 +0.4
GURO  Guroymak-BITLI    71.45 304   P       P       00 22 15.4 +0.7
SUMG  Summit            71.54 358   P       P       00 22 15.9 +0.9
SUMG                                pmax    pmax
      comp=Z,16nm,0.9s
SUMG  Summit            71.54 358   P       P       00 22 15.9 +0.9
SUMG  Summit            71.54 358 i P       P       00 22 16.1 +1.1
SUMG                                IAmb    IAmb    00 22 17.8
      comp=Z,16nm,0.9s
SUMG  Summit            71.54 358   P       P       00 22 16.5 +1.5
      comp=Z,20nm,1.2s
KOPT  Kop Dagi          71.69 306   P       P       00 22 17.0 +0.7
KOPT                                IAmb    IAmb    00 22 20.5
      comp=Z,9.3nm,1.0s
STD   Studebaker Rid    71.97  46   P       P       00 22 18.1 +0.4
STD                                 IAmb    IAmb    00 22 20.2
      comp=Z,16nm,1.0s
PABE  Paberze           72.04 326   P       P       00 22 17.9 +0.1
PABE                                IAmb    IAmb    00 22 23.6
      comp=Z,9.6nm,0.8s
AKASG Malin Array Be    72.39 320   P       P       00 22 19.1 -0.8
      comp=Z,13nm,0.8s,baz=52,slow=6.2,SNR=60
AKASG                               LR      LR      00 56 10.9
      comp=Z,602nm,18.5s,baz=44,slow=38
      comp=Z,13nm,0.8s
AKBB  Malin Array Si    72.39 320ceP        P       00 22 18.8 -1.1
AKBB  Malin Array Si    72.39 320   P       P       00 22 19.5 -0.4
KIEV  Kiev              72.40 320   P       P       00 22 19.5 -0.5
KIEV                                pmax    pmax
      comp=Z,19nm,0.9s
KIEV  Kiev              72.40 320   P       P       00 22 19.5 -0.5
KIEV  Kiev              72.40 320 ⇑P        P       00 22 19.1 -0.9
KIEV  Kiev              72.40 320   P       P       00 22 19.0 -1.0
      comp=Z,25nm,0.9s
B08A  Colville Reser    72.42  43   P       P       00 22 20.8 +0.5
B08A                                IAmb    IAmb    00 22 22.1
      comp=Z,8.1nm,1.1s
BUCK  Buck Mountain     72.65  48   P       P       00 22 22.8 +1.0
I03D  Drain, OR         72.71  48   P       P       00 22 23.3 +1.3
MXC   Moxie City        72.89  45   P       P       00 22 23.0  0.0
MXC                                 IAmb    IAmb    00 22 25.3
      comp=Z,9.7nm,1.1s
SIM   Simferopol'       72.97 313  eP       P       00 22 22.1 -1.4
G05A  Wamic             73.06  46   P       P       00 22 24.7 +0.6
G05A                                IAmb    IAmb    00 22 29.2
      comp=Z,15nm,1.1s
NC405 NORSAR Array S    73.12 335   P       P       00 22 24.1 -0.1
NC405                               IAmb    IAmb    00 22 24.5
      comp=Z,6.8nm,0.8s
HFS   Hagfors           73.13 334   P       P       00 22 23.8 -0.4
      comp=Z,4.3nm,0.7s,baz=54,slow=2.6,SNR=6.1
HFS                                 LR      LR      00 58 12.3
      comp=Z,128nm,20.1s,baz=24,slow=39
      comp=Z,4.3nm,0.7s
E07A  Sunnyside         73.15  44   P       P       00 22 24.6  0.0
E07A                                IAmb    IAmb    00 22 26.8
      comp=Z,12nm,1.1s
NC303 NORSAR Array S    73.16 335           P       00 22 24.7 +0.3
WAH2  Wahluke Slope     73.20  44   P       P       00 22 24.6 -0.3
WAH2                                IAmb    IAmb    00 22 26.2
      comp=Z,8.7nm,1.0s
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I04A  Tendick Farm,    73.22  48   P      P      00 22 25.1  0.0
NB201 NORSAR Array S   73.31 335   P      P      00 22 25.2 -0.1
NB201                              IAmb   IAmb   00 22 27.4
      comp=Z,17nm,1.1s
NC204 NORSAR Array S   73.32 336   P      P      00 22 24.9 -0.5
NB2   NORSAR Subarra   73.34 335   P      P      00 22 24.6 -0.9
      comp=Z,9.6nm,1.1s,baz=43,slow=5.9
NOA   NORSAR Array B   73.34 335   P      P      00 22 25.0 -0.5
      comp=Z,3.3nm,0.9s,baz=42,slow=5.9,SNR=8.8
NOA                                LR     LR     01 00 00.4
      comp=Z,94nm,19.3s,baz=40,slow=40
      comp=Z,3.3nm,0.9s
NOA   NORSAR Array B   73.34 335   P      P      00 22 25.0 -0.5
D08A  Wollman Farm,    73.39  44   P      P      00 22 26.4 +0.4
KSXB  Camp Six Broad   73.42  50   P      P      00 22 28.0 +1.6
KSXB                               IAmb   IAmb   00 22 29.1
      comp=Z,13nm,1.1s
WIFE  Three Sisters-   73.43  47   P      P      00 22 27.7 +1.1
WIFE                               IAmb   IAmb   00 22 28.4
      comp=Z,12nm,1.1s
HAWA  Hanford          73.43  44          P      00 22 25.9 -0.3
L02F  Cave Junction    73.44  50   P      P      00 22 26.7 +0.2
L02F                               IAmb   IAmb   00 22 28.9
      comp=Z,8.6nm,0.9s
G06A  Carlson Farm,    73.46  46   P      P      00 22 26.2 -0.2
G06A                               IAmb   IAmb   00 22 28.2
      comp=Z,9.4nm,1.1s
F07A  Phinny Hill Vi   73.49  45   P      P      00 22 25.5 -1.1
F07A                               IAmb   IAmb   00 22 28.8
      comp=Z,9.8nm,0.8s
BBOR  Butler Butte     73.56  49   P      P      00 22 27.8 +0.5
KRMB  Red Mountain     73.57  50   P      P      00 22 26.3 -1.0
KRMB                               IAmb   IAmb   00 22 29.4
      comp=Z,16nm,1.2s
ARPR  Arapgir-MALATY   73.60 307   P      P      00 22 27.1 -0.5
ARPR                               IAmb   IAmb   00 22 30.6
      comp=Z,18nm,1.1s
ARPR  Arapgir-MALATY   73.60 307   P      P      00 22 28.3 +0.7
      comp=Z,18nm,1.2s
NEW   Newport          73.67  42   P      P      00 22 29.0 +1.3
NEW                                pmax   pmax
      comp=Z,6.0nm,0.9s
NEW   Newport          73.67  42   P      P      00 22 29.0 +1.3
NEW   Newport          73.67  42   P      P      00 22 28.5 +0.8
      comp=Z,9.0nm,1.2s
J04A  Umpqua Nationa   73.71  48   P      P      00 22 25.5 -2.7
TOO   Toolangi         73.82 172   P      P      00 22 28.5 +0.1
TOO                                pmax   pmax
      comp=Z,4.0nm,1.0s
TOO   Toolangi         73.82 172   P      P      00 22 28.5 +0.1
JCC   Jacoby Creek,    73.88  51   P      P      00 22 30.4 +1.4
KHMM  Horse Mountain   74.04  51   P      P      00 22 31.5 +1.4
KHMM                               IAmb   IAmb   00 22 32.9
      comp=Z,14nm,0.9s
KMPM  Mount Pierce     74.05  52   P      P      00 22 32.0 +1.9
PINE  Pine Mountain    74.10  47   P      P      00 22 32.0 +1.5
E09A  Wood Farm, Sta   74.14  44   P      P      00 22 31.3 +0.9
E09A                               IAmb   IAmb   00 22 32.5
      comp=Z,12nm,1.1s
L04D  Klamath Falls    74.17  49   P      P      00 22 32.2 +1.3
YBH   Yreka Blue Hor   74.19  50   P      P      00 22 32.3 +1.4
YBH                                pmax   pmax
      comp=Z,11nm,1.0s
YBH   Yreka Blue Hor   74.19  50   P      P      00 22 32.3 +1.4
YBH                                IAmb   IAmb   00 22 33.6
      comp=Z,11nm,1.0s
M02C  Callahan         74.30  50   P      P      00 22 32.9 +1.4
M02C                               IAmb   IAmb   00 22 34.3
      comp=Z,12nm,0.8s
SORM  Soroca           74.36 319   P      P      00 22 31.0 -0.6
SORM  Soroca           74.36 319  ⇓P      P      00 22 31.1 -0.6
KMRM  Mail Ridge       74.42  51   P      P      00 22 33.9 +1.7
KMRM                               IAmb   IAmb   00 22 35.0
      comp=Z,13nm,0.8s
KHBM  Hayfork Bally    74.48  51   P      P      00 22 33.7 +1.0
KHBM                               IAmb   IAmb   00 22 35.2
      comp=Z,16nm,1.2s
K05A  Summer Lake      74.74  48   P      P      00 22 35.7 +1.5
M03C  McCloud          74.82  50   P      P      00 22 34.9 +0.3
O02D  Mt. Diablo Mer   75.03  51          P      00 22 35.1 -0.6
O02D                               IAmb   IAmb   00 22 38.4
      comp=Z,16nm,0.8s
DCMP  DeCamp, Califo   75.08  52   P      P      00 22 33.8 -2.2
BNN   Bunyan           75.34 307   P      P      00 22 37.4 -0.2
BNN                                IAmb   IAmb   00 22 40.8
      comp=Z,17nm,1.2s
GAZ   Gaziantep        75.40 305          P      00 22 38.3 +0.4
GAZ                                IAmb   IAmb   00 22 39.5
      comp=Z,13nm,0.9s
ILGA  Ilgaz            75.43 310   P      P      00 22 38.5 +0.2
ILGA                               IAmb   IAmb   00 22 40.9
      comp=Z,9.5nm,0.8s
HATC  Hat Creek Radi   75.49  50   P      P      00 22 38.0 -0.4
JTMT  Jette            75.51  41   P      P      00 22 39.0 +0.5
MOD   Modoc Plateau    75.57  49   P      P      00 22 38.3 -0.7
O03E  Paynes Creek     75.58  51   P      P      00 22 39.4 +0.4
BMO   Blue Mountains   75.60  45   P      P      00 22 38.6 -0.4
BMO                                pmax   pmax
      comp=Z,10.0nm,1.2s
BMO   Blue Mountains   75.60  45   P      P      00 22 38.6 -0.4
BMO                                IAmb   IAmb   00 22 41.0
      comp=Z,10nm,1.1s
J08A  Circle Bar Ran   75.81  47   P      P      00 22 40.4 +0.2
J08A                               IAmb   IAmb   00 22 42.1
      comp=Z,7.8nm,0.8s
TLCR                   75.89 316   P      P      00 22 40.0 -0.4
TLCR                   75.89 316  ⇑P      P      00 22 40.1 -0.4
ORV   Oroville         76.19  51   P      P      00 22 41.9 -0.5
ORV                                pmax   pmax
      comp=Z,10.0nm,0.8s
ORV   Oroville         76.19  51          P      00 22 41.9 -0.5
ORV                                IAmb   IAmb   00 22 43.8
      comp=Z,9.6nm,0.8s
PLID  Pearl Lake       76.19  44          P      00 22 42.0 -0.6
SUTB  Sutter Butte     76.20  51   P      P      00 22 41.7 -0.7
SUTB                               IAmb   IAmb   00 22 44.6
      comp=Z,9.0nm,0.6s
BR131 Keskin Array S   76.24 309d iP      P      00 22 42.9 +0.1
BR131 Keskin Array S   76.24 309   P      P      00 22 42.4 -0.5
BR131                              IAmb   IAmb   00 22 45.6
      comp=Z,13nm,1.1s
BRTR  Keskin Array B   76.24 309   P      P      00 22 43.0 +0.1
      comp=Z,6.0nm,1.0s,baz=93,slow=4.2,SNR=29
BRTR                               LR     LR     00 59 42.7
      comp=Z,110nm,19.1s,baz=96,slow=38
      comp=Z,6.0nm,1.0s
BRTR  Keskin Array B   76.24 309   P      P      00 22 43.0 +0.1
BRTR  Keskin Array B   76.24 309   P      P      00 22 42.1 -0.7
MSO   Missoula         76.26  42   P      P      00 22 42.9 +0.1
MSO                                IAmb   IAmb   00 22 45.4
      comp=Z,8.3nm,1.1s
WVOR  Wild Horse Val   76.26  47   P      P      00 22 42.6 -0.3
WVOR                               pmax   pmax
      comp=Z,6.0nm,0.9s
WVOR  Wild Horse Val   76.26  47   P      P      00 22 42.6 -0.3
WVOR                               IAmb   IAmb   00 22 44.5
      comp=Z,6.2nm,0.9s
WVOR  Wild Horse Val   76.26  47   P      P      00 22 44.0 +1.1
      comp=Z,9.4nm,1.4s
CFR   Carcaliu         76.27 316   P      P      00 22 42.0 -0.7
CFR   Carcaliu         76.27 316  ⇑P      P      00 22 42.0 -0.7
TESR  Tescani          76.27 318  ⇑P      P      00 22 42.5 -0.2
TESR  Tescani          76.27 318   P      P      00 22 42.8 +0.1
      comp=Z,15nm,1.1s
CVS   Carmenet Viney   76.28  53   P      P      00 22 43.3 +0.4
BIZ   Bicaz            76.30 319  ⇑P      P      00 22 42.4 -0.5
TPGR  Topolog          76.31 316  ⇑P      P      00 22 42.6 -0.4
BUR08 Bucovina Ar. S   76.34 319   P      P      00 22 42.5 -0.7
BUR08                              IAmb   IAmb   00 22 44.2
      comp=Z,7.2nm,0.9s
BURAR Bucovina Array   76.35 319   P      P      00 22 43.4 +0.2
BURAR Bucovina Array   76.35 319          P      00 22 42.5 -0.8
BURAR                              IAmb   IAmb   00 22 44.6
      comp=Z,7.9nm,0.8s
BURAR Bucovina Array   76.35 319  ⇓P      P      00 22 43.4 +0.2
TIRR  Tirgusor         76.56 315   P      P      00 22 43.2 -1.1
TIRR                               pmax   pmax
      comp=Z,10.0nm,0.9s
TIRR  Tirgusor         76.56 315   P      P      00 22 43.2 -1.1
TIRR                               IAmb   IAmb   00 22 45.0
      comp=Z,9.8nm,0.9s
VRI   Vrincioaia       76.63 317   P      P      00 22 44.8 +0.1
VRI   Vrincioaia       76.63 317  ⇑P      P      00 22 44.9 +0.1
VRI   Vrincioaia       76.63 317   P      P      00 22 45.4 +0.7
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      comp=Z,12nm,1.2s
FCC   Fort Churchill   76.64  24   P      P      00 22 44.1 -0.4
FCC                                pmax   pmax
      comp=Z,14nm,1.0s
FCC   Fort Churchill   76.64  24   P      P      00 22 44.1 -0.4
FCC                                IAmb   IAmb   00 22 45.5
      comp=Z,14nm,1.0s
PLOR  Plostina         76.68 317   P      P      00 22 45.3 +0.3
PLOR  Plostina         76.68 317  ⇓P      P      00 22 45.4 +0.3
FFC   Flin Flon        76.69  30 i P      P      00 22 45.5 +0.6
FFC   Flin Flon        76.69  30   P      P      00 22 44.9  0.0
BEKR  Beckworth        76.73  50   P      P      00 22 45.9 +0.3
SAHR  Sahastru         76.74 317  ⇑P      P      00 22 45.8 +0.4
AFDM  Forest Hills D   76.88  51          P      00 22 46.3  0.0
AFDM                               IAmb   IAmb   00 22 48.2
      comp=Z,13nm,1.2s
TURR  Turia            76.90 318  ⇓P      P      00 22 47.2 +0.9
COVR  Voineasa-Covas   76.93 318  ⇑P      P      00 22 46.4 -0.1
KOLS  Kolonicke sedl   77.02 322  eP      P      00 22 47.7 +0.8
RAYN  Ar Rayn          77.06 290   P      P      00 22 47.5 -0.1
RAYN  Ar Rayn          77.06 290          P      00 22 47.2 -0.4
RAYN                               IAmb   IAmb   00 22 48.4
      comp=Z,10nm,0.9s
RAYN  Ar Rayn          77.06 290   P      P      00 22 47.3 -0.3
      comp=Z,14nm,1.2s
BOSR  Bodos            77.08 318  ⇑P      P      00 22 48.0 +0.7
ICOR  Ion Corvin       77.11 315  ⇑P      P      00 22 48.3 +0.9
BMR   Baia Mare        77.21 320   P      P      00 22 49.0 +1.1
      comp=Z,9.3nm,1.5s
MPK   Martis Peak      77.27  51   P      P      00 22 47.9 -0.9
MLR   Muntele Rosu     77.29 317   LR     LR     00 58 02.8
      comp=Z,137nm,22.0s,baz=16,slow=37
MLR   Muntele Rosu     77.29 317   P      P      00 22 49.1 +0.5
MLR   Muntele Rosu     77.29 317          P      00 22 48.0 -0.7
MLR   Muntele Rosu     77.29 317  ⇑P      P      00 22 49.1 +0.5
MLR   Muntele Rosu     77.29 317   P      P      00 22 48.9 +0.3
      comp=Z,6.4nm,1.4s
DOPR  Dopca            77.30 318  ⇑P      P      00 22 49.5 +1.0
MFID  Camas Ranch      77.31  45          P      00 22 49.1 +0.3
MDUB  Mudurnu          77.32 311   P      P      00 22 48.4 -0.4
OJC   Ojcow            77.38 324  eP      P      00 22 48.7 -0.2
OJC   Ojcow            77.38 324   P      P      00 22 48.3 -0.6
OJC   Ojcow            77.38 324          P      00 22 48.3 -0.6
OJC   Ojcow            77.38 324   P      P      00 22 49.0 +0.1
      comp=Z,9.9nm,0.7s
TRPA  Tarpa            77.41 321   P      P      00 22 49.8 +0.8
BUT   Butte            77.51  42   P      P      00 22 49.7 -0.2
PNTR  Pine Nut         77.66  51   P      P      00 22 51.0 +0.1
PNTR                               IAmb   IAmb   00 22 53.2
      comp=Z,12nm,0.9s
EGMT  Eagleton         77.69  39          P      00 22 51.1 +0.3
MDB   Medias           77.73 319   P      P      00 22 51.6 +0.7
MDB   Medias           77.73 319  ⇑P      P      00 22 51.6 +0.7
CMB   Columbia Colle   77.79  52   P      P      00 22 51.7 +0.3
CMB                                pmax   pmax
      comp=Z,12nm,0.8s
CMB   Columbia Colle   77.79  52          P      00 22 51.7 +0.3
CMB                                IAmb   IAmb   00 22 53.4
      comp=Z,12nm,0.8s
VOIR                   77.82 318   P      P      00 22 51.5  0.0
VOIR                   77.82 318  ⇑P      P      00 22 51.5  0.0
VOIR                   77.82 318   P      P      00 22 51.7 +0.2
      comp=Z,4.4nm,1.4s
DLMT  Dillon           77.91  42   P      P      00 22 53.1 +1.0
YERR  Yerington        77.95  50   P      P      00 22 52.7 +0.2
ABAH  Abaujker         77.96 322   P      P      00 22 52.8 +0.7
      comp=Z,9.5nm,1.6s
HLID  Hailey           78.03  44          P      00 22 52.6 -0.3
HLID  Hailey           78.03  44   P      P      00 22 54.2 +1.4
      comp=Z,7.6nm,2.0s
ARR   Arges            78.09 318  ⇑P      P      00 22 53.9 +0.9
ARR   Arges            78.09 318   P      P      00 22 53.7 +0.7
      comp=Z,16nm,1.1s
WAKR  Walker           78.11  51   P      P      00 22 52.3 -1.1
WAKR                               IAmb   IAmb   00 22 55.8
      comp=Z,9.8nm,0.8s
BORA  Eskisehir        78.13 311   P      P      00 22 52.4 -1.0
BORA                               IAmb   IAmb   00 22 55.7
      comp=Z,7.0nm,1.0s
BCYI  Bear Canyon      78.13  43   P      P      00 22 52.0 -1.4
DRGR                   78.19 320   P      P      00 22 53.7 +0.2
DRGR                   78.19 320  ⇑P      P      00 22 53.8 +0.2
DRGR                   78.19 320   P      P      00 22 54.2 +0.6
      comp=Z,5.1nm,2.5s
LANS  Liptovska Anna   78.26 323  eP      P      00 22 56.6 +2.8
BOZ   Bozeman (W)      78.28  42   P      P      00 22 53.7 -0.5
BOZ                                pmax   pmax
      comp=Z,11nm,0.9s
BOZ   Bozeman (W)      78.28  42          P      00 22 53.7 -0.5
BOZ                                IAmb   IAmb   00 22 56.0
      comp=Z,11nm,0.8s
BMN   Battle Mountai   78.31  48   P      P      00 22 54.8 +0.3
BMN                                pmax   pmax
      comp=Z,12nm,1.0s
BMN   Battle Mountai   78.31  48   P      P      00 22 54.8 +0.3
BMN                                IAmb   IAmb   00 22 56.9
      comp=Z,12nm,1.0s
OKC   Ostrava-Krasne   78.42 324   AMS    AMS    01 00 20.0
      comp=Z,400nm,16.0s
ASF   Jabal al Asfar   78.46 301   LR     LR     01 02 22.7
      comp=Z,87nm,18.1s,baz=25,slow=39
LOT   Lotru            78.50 318  ⇑P      P      00 22 56.0 +0.7
LOT   Lotru            78.50 318   P      P      00 22 55.8 +0.5
      comp=Z,6.0nm,1.1s
STEB  Steborice        78.53 325  eP      P      00 22 55.8 +0.5
KVN   Kaiserville      78.62  50   P      P      00 22 56.3 +0.1
KVN                                pmax   pmax
      comp=Z,13nm,0.9s
KVN   Kaiserville      78.62  50   P      P      00 22 56.3 +0.1
KVN                                IAmb   IAmb   00 22 58.4
      comp=Z,13nm,0.9s
MORC  Moravsky Berou   78.75 325   P      P      00 22 56.5  0.0
MORC  Moravsky Berou   78.75 325   P      P      00 22 56.3 -0.2
MORC  Moravsky Berou   78.75 325  eP      P      00 22 56.3 -0.2
MORC  Moravsky Berou   78.75 325  ⇑P      P      00 22 56.5  0.0
CY604 RAF Akrotiri,    78.82 304   P      P      00 22 56.5 -0.3
OSTC  Ostas            78.82 326   AMS    AMS    01 01 20.0
      comp=Z,500nm,16.9s
LHV   Little Huntoon   78.85  51   P      P      00 22 57.6 +0.4
NVAR  Mina Array Bea   78.87  50   P      P      00 22 58.8 +1.1
      comp=Z,8.2nm,0.9s,baz=288,slow=5.8,SNR=30
      comp=Z,8.2nm,0.9s
NVAR  Mina Array Bea   78.87  50   P      P      00 22 57.5 -0.1
CHVC  Chvalec          78.87 326   AMS    AMS    01 01 30.0
      comp=Z,400nm,18.1s
PSZ   Piszkesteto      78.88 322   P      P      00 22 57.3  0.0
PSZ                                pmax   pmax
      comp=Z,7.0nm,1.0s
PSZ   Piszkesteto      78.88 322   P      P      00 22 57.3  0.0
PSZ   Piszkesteto      78.88 322   P      P      00 22 58.1 +0.8
      comp=Z,10nm,1.4s
QLMT  Earthquake Lak   78.88  42   P      P      00 22 57.7 +0.1
KRLC  Kraliky          78.90 325  eP      P      00 22 57.8 +0.4
KRLC                               AMS    AMS    01 01 10.0
      comp=Z,500nm,12.2s
MAUC  Maruska          78.90 324  eP      P      00 22 58.2 +0.8
DPC   Dobruska-Polom   78.92 326  eP      P      00 22 57.9 +0.4
DPC                                AMS    AMS    01 01 20.0
      comp=Z,500nm,16.6s
PKD   Bear Valley Ra   78.93  54   P      P      00 22 57.8  0.0
PKD                                IAmb   IAmb   00 22 59.6
      comp=Z,8.4nm,0.8s
UPC   Upice            78.95 326   AMS    AMS    01 01 20.0
      comp=Z,500nm,14.9s
NV11  Mina Array Sit   78.96  50   P      P      00 22 57.9 -0.1
MMAI  Mount Meron Ar   79.00 303   P      P      00 22 58.1 -0.1
      comp=Z,9.5nm,1.1s,baz=186,slow=16,SNR=6.7
      comp=Z,9.5nm,1.1s
YHL   Hebgen Lake      79.00  42   P      P      00 22 59.1 +0.8
YHL                                IAmb   IAmb   00 23 00.5
      comp=Z,15nm,0.9s
YHB   Horse Butte      79.06  42   P      P      00 23 00.1 +1.5
YHB                                IAmb   IAmb   00 23 00.8
      comp=Z,17nm,0.9s
GZR   Gura Zlata       79.07 319   P      P      00 22 58.1 -0.3
GZR   Gura Zlata       79.07 319  ⇑P      P      00 22 58.2 -0.3
VLAD  Vladila          79.09 317  ⇑P      P      00 22 58.4  0.0
GCMT  Greycliff        79.20  41   P      P      00 22 59.4 +0.2
KEPZ  Antalya-Kepez    79.20 308  ⇑P      P      00 22 59.6 +0.4
YHH   Holmes Hill      79.22  42          P      00 23 00.6 +1.1
CSS   Mathiatis        79.24 305   P      P      00 22 58.4 -1.1
CSS                                IAmb   IAmb   00 23 01.2
      comp=Z,8.7nm,0.8s
CSS   Mathiatis        79.24 305   P      P      00 22 59.2 -0.2
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      comp=Z,15nm,1.3s
YMR   Madison River    79.24  42   P      P      00 23 00.1 +0.6
YMR                                IAmb   IAmb   00 23 01.9
      comp=Z,11nm,0.7s
ELK   Elko             79.31  47   P      P      00 23 00.0  0.0
ELK                                pmax   pmax
      comp=Z,5.0nm,1.0s
ELK   Elko             79.31  47   P      P      00 22 60.0  0.0
MMLI  Mount Malkishu   79.32 302   P      P      00 23 00.1 +0.1
      comp=Z,29nm,2.1s
JAVC  Velka Javorina   79.32 324  eP      P      00 23 00.3 +0.6
YNM   Yellowstone No   79.34  42   P      P      00 22 59.8 -0.3
YNR   Norris Junctio   79.36  42   P      P      00 23 00.8 +0.6
YNR                                IAmb   IAmb   00 23 05.6
      comp=Z,10nm,1.0s
VRAC  Vranov           79.52 325   P      P      00 23 01.0 +0.2
      comp=Z,3.0nm,0.8s,baz=64,slow=5.1,SNR=7.1
VRAC                               LR     LR     00 59 47.4
      comp=Z,122nm,20.6s,baz=48,slow=37
      comp=Z,3.0nm,0.8s
VRAC  Vranov           79.52 325   P      P      00 23 01.0 +0.2
VRAC  Vranov           79.52 325  eP      P      00 23 00.6 -0.1
VRAC  Vranov           79.52 325  ⇑P      P      00 23 00.9 +0.2
YNE   Yellowstone No   79.53  41   P      P      00 23 01.5 +0.3
BZS   Buzias           79.54 320   P      P      00 23 00.9  0.0
      comp=Z,4.3nm,1.2s
UJAP  Al Uja           79.58 302   P      P      00 23 02.0 +0.8
      comp=Z,13nm,1.0s
YPP   Pitchstone Pla   79.59  42   P      P      00 23 01.8 +0.2
H17A  Grant Village    79.63  42   P      P      00 23 04.0 +2.3
YMP   Mirror Lake Pl   79.63  42   P      P      00 23 02.1 +0.4
YMP                                IAmb   IAmb   00 23 04.4
      comp=Z,8.6nm,0.9s
CLL   Collm            79.72 328 i P      P      00 23 00.7 -1.0
CLL                                pmax   pmax
      comp=Z,22nm,1.5s
CLL                                MLR    MLR
      comp=Z,300nm,16.8s
CLL   Collm            79.72 328   P      P      00 23 00.9 -0.8
CLL                                IAmb   IAmb   00 23 03.6
      comp=Z,6.5nm,0.7s
CLL   Collm            79.72 328   P      P      00 23 01.0 -0.7
      comp=Z,12nm,1.1s
CLL   Collm            79.72 328 i P      P      00 23 00.7 -1.0
      comp=Z,22nm,1.5s
CLL                                LR     LR     00 49 00.0
CLL                                AMS    AMS    01 01 00.0
      comp=Z,300nm,16.8s
DSP   Deep Springs     79.72  51   P      P      00 23 03.0 +1.1
DSP                                IAmb   IAmb   00 23 04.6
      comp=Z,13nm,1.1s
TPH   Tonopah          79.76  50   P      P      00 23 03.2 +0.8
TPH                                pmax   pmax
      comp=Z,20nm,1.0s
TPH   Tonopah          79.76  50   P      P      00 23 03.2 +0.8
TPH                                IAmb   IAmb   00 23 04.6
      comp=Z,20nm,1.0s
KRUC  Moravsky         79.79 325  eP      P      00 23 01.5 -0.7
KRUC  Moravsky         79.79 325   P      P      00 23 02.0 -0.2
      comp=Z,3.8nm,0.8s
BALB  Balikesir        79.84 312   P      P      00 23 03.1 +0.5
BALB                               IAmb   IAmb   00 23 08.8
      comp=Z,12nm,1.2s
RLMT  Red Lodge        79.85  41   P      P      00 23 03.6 +0.7
FXWY  Fox Creek        79.88  43   P      P      00 23 03.5 +0.4
GHAJ  Ghor Haditha     79.89 301          P      00 23 02.4 -0.6
GHAJ  Ghor Haditha     79.89 301   P      P      00 23 03.4 +0.4
      comp=Z,30nm,1.0s
VES   Vestal, Richgr   79.94  53   P      P      00 23 02.9 -0.3
VES                                IAmb   IAmb   00 23 04.3
      comp=Z,17nm,0.8s
PRU   Pruhonice        79.98 326   AMS    AMS    01 02 00.0
      comp=Z,300nm,16.4s
HSKC  Hora Svate Kat   80.03 327  eP      P      00 23 05.5 +2.0
HSKC                               AMS    AMS    01 02 30.0
      comp=Z,400nm,16.4s
HSKC  Hora Svate Kat   80.03 327   P      P      00 23 04.0 +0.5
      comp=Z,10nm,0.9s
MDVR  Moldovita        80.04 319  ⇓P      P      00 23 02.3 -1.4
TREC  Trest            80.05 325  eP      P      00 23 04.0 +0.4
ZST   Bratislava       80.06 324  eP      P      00 23 06.3 +2.7
HVU   Hansel Valley    80.09  45   P      P      00 23 04.3 +0.1
HVU                                pmax   pmax
      comp=Z,6.0nm,0.8s
HVU   Hansel Valley    80.09  45   P      P      00 23 04.3 +0.1
ALN   Alexandroupoli   80.14 314   P      P      00 23 02.2 -2.0
ALN                                pmax   pmax
      comp=Z,4.0nm,0.9s
ALN   Alexandroupoli   80.14 314   P      P      00 23 02.2 -2.0
MANT  Manisa           80.14 311   P      P      00 23 03.6 -1.0
SNOW  Snow King Moun   80.14  43   P      P      00 23 05.5 +0.9
SNOW                               IAmb   IAmb   00 23 07.0
      comp=Z,8.8nm,0.8s
GMN   Gold Mountain    80.21  51   P      P      00 23 05.2 +0.2
CWC   Cottonwood Cre   80.22  52   P      P      00 23 04.1 -0.8
LAO   LASA Array       80.36  38          P      00 23 05.3 -0.1
LAO                                IAmb   IAmb   00 23 07.2
      comp=Z,14nm,0.9s
ELL   Elmali           80.37 309   P      P      00 23 04.3 -1.4
ELL                                pmax   pmax
      comp=Z,10.0nm,1.1s
ELL   Elmali           80.37 309   P      P      00 23 04.2 -1.4
ELL                                IAmb   IAmb   00 23 08.8
      comp=Z,10nm,1.1s
AHID  Auburn Hatcher   80.41  44   P      P      00 23 06.1 +0.2
ISA   Isabella, Lake   80.44  53   P      P      00 23 05.7 -0.3
ISA                                pmax   pmax
      comp=Z,6.0nm,0.8s
ISA   Isabella, Lake   80.44  53   P      P      00 23 05.7 -0.3
BGU   Big Grassy Mou   80.49  46   P      P      00 23 06.5 +0.1
ZVC   Zvikov           80.54 326  eP      P      00 23 07.1 +0.9
ZVC                                AMS    AMS    01 02 20.0
      comp=Z,500nm,14.4s
SPUT  South Promonto   80.58  45   P      P      00 23 07.6 +0.7
MORH  Mrgy, Hungar     80.67 321   P      P      00 23 07.9 +1.0
      comp=Z,4.2nm,1.3s
RONA  Rosalia, Austr   80.79 324  eP      P      00 23 08.3 +0.7
      comp=Z,3.5nm,1.0s
MOX   Moxa             80.80 328  eL      L      01 05 18.3
      comp=Z,126nm,18.5s
MPMC  Manual Prospec   80.83  52   P      P      00 23 08.3  0.0
MPMC                               IAmb   IAmb   00 23 10.1
      comp=Z,7.5nm,0.9s
CONA  Conrad Observa   80.84 324 i P      P      00 23 08.7 +0.7
      comp=Z,3.3nm,0.9s
HWUT  Hardware Ranch   80.90  45          P      00 23 08.6 +0.1
HWUT                               IAmb   IAmb   00 23 10.9
      comp=Z,14nm,1.1s
HWUT  Hardware Ranch   80.90  45   P      P      00 23 09.1 +0.6
      comp=Z,8.9nm,1.1s
CLC   China Lake       80.91  52   P      P      00 23 08.5  0.0
CLC                                pmax   pmax
      comp=Z,8.0nm,0.9s
CLC   China Lake       80.91  52   P      P      00 23 08.5  0.0
CLC                                IAmb   IAmb   00 23 10.3
      comp=Z,8.1nm,0.9s
OSI   Osito Audit: C   80.92  54   P      P      00 23 07.7 -0.9
OSI                                IAmb   IAmb   00 23 20.0
      comp=Z,15nm,0.9s
WCT   Wildcat Mounta   80.92  51   P      P      00 23 08.7 +0.1
CKRC  Cesky Krumlov    80.93 325  eP      P      00 23 08.3  0.0
CKRC                               AMS    AMS    01 02 30.0
      comp=Z,300nm,15.4s
KZIT  Kziot            80.93 302   P      P      00 23 08.8 +0.2
      comp=Z,32nm,1.1s
FURC  Furnace Creek,   80.97  51   P      P      00 23 09.1 +0.4
KHC   Kasperske Hory   81.04 326⇑eP      P      00 23 08.6 -0.3
KHC                                pmax   pmax
      comp=Z,6.0nm,1.7s
KHC   Kasperske Hory   81.04 326  eP      P      00 23 08.8 -0.1
KHC                                AMS    AMS    01 02 30.0
      comp=Z,600nm,14.6s
KHC   Kasperske Hory   81.04 326   P      P      00 23 08.8 -0.1
LRMC  Laurel Mtn Rad   81.06  53   P      P      00 23 09.8 +0.4
TPNV  Topopah Spring   81.06  51   P      P      00 23 10.1 +0.7
TPNV                               pmax   pmax
      comp=Z,17nm,1.0s
TPNV  Topopah Spring   81.06  51   P      P      00 23 10.1 +0.7
TPNV                               IAmb   IAmb   00 23 11.5
      comp=Z,17nm,1.0s
TPO   Tropico Hills    81.08  53   P      P      00 23 08.9 -0.5
TPO                                IAmb   IAmb   00 23 11.5
      comp=Z,14nm,0.8s
DUG   Dugway, Tooele   81.09  46   P      P      00 23 09.9 +0.4
DUG                                pmax   pmax
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      comp=Z,8.0nm,1.0s
DUG   Dugway, Tooele     81.09  46          P       00 23 09.9 +0.4
DUG                                 IAmb    IAmb    00 23 11.3
      comp=Z,7.8nm,0.9s
DUG   Dugway, Tooele     81.09  46  P       P       00 23 10.8 +1.3
      comp=Z,13nm,1.4s
GERES GERESS Array B     81.19 326  P       P       00 23 09.1 -0.8
      comp=Z,1.6nm,0.7s,baz=290,slow=13,SNR=12
      comp=Z,1.6nm,0.7s
GERES GERESS Array B     81.19 326  P       P       00 23 09.5 -0.3
GERES GERESS Array B     81.19 326  P       P       00 23 09.5 -0.3
CCCA  Chr Cany lake      81.24  52  P       P       00 23 10.1 -0.2
CCCA                                IAmb    IAmb    00 23 12.2
      comp=Z,11nm,0.8s
BW06  Boulder Array      81.26  43  P       P       00 23 10.0 -0.5
BW06                                IAmb    IAmb    00 23 11.8
      comp=Z,9.1nm,0.8s
PD31  Pinedale Array     81.26  43  P       P       00 23 10.5  0.0
PD31                                IAmb    IAmb    00 23 11.8
      comp=Z,9.1nm,0.9s
PDAR  Pinedale Array     81.26  43  P       P       00 23 11.1 +0.6
      comp=Z,5.9nm,0.8s,baz=318,slow=2.0,SNR=43
      comp=Z,5.9nm,0.8s
PDAR  Pinedale Array     81.26  43          P       00 23 09.7 -0.8
GWY   Greenwater Val     81.27  51          P       00 23 10.0 -0.6
GWY                                 IAmb    IAmb    00 23 12.4
      comp=Z,14nm,0.9s
EIL   Elat               81.28 300  LR      LR      01 04 07.7
      comp=Z,117nm,20.0s,baz=92,slow=39
EIL   Elat               81.28 300  P       P       00 23 10.8 +0.3
      comp=Z,14nm,1.1s
QSM   Queen of Sheba     81.28  52          P       00 23 10.2 -0.3
TCUT  Toone Canyon       81.31  45  P       P       00 23 10.6 -0.2
TCUT                                IAmb    IAmb    00 23 12.9
      comp=Z,14nm,1.0s
CTU   Camp Tracy         81.39  45  P       P       00 23 11.6 +0.4
SRS   Serrai             81.41 315  P       P       00 23 10.5 -0.5
ARSA  Arzberg            81.48 324  P       P       00 23 11.8 +0.5
ARSA  Arzberg            81.48 324 i P      P       00 23 11.3  0.0
      comp=Z,2.6nm,0.8s
PRN   Pahroc Range       81.52  50  P       P       00 23 11.7 -0.1
PRN                                 IAmb    IAmb    00 23 14.2
      comp=Z,11nm,1.2s
PSUT  Pine Spring        81.53  48  P       P       00 23 12.4 +0.4
PSUT                                IAmb    IAmb    00 23 14.1
      comp=Z,7.9nm,1.0s
MOA   Molln              81.65 325 i pP     P       00 23 13.7 +1.6
      comp=Z,2.9nm,1.0s
GRA1  Grafenberg Arr     81.67 327  P       P       00 23 12.1 -0.2
GRF   Grafenberg Arr     81.67 327  P       P       00 23 12.1 -0.2
GRF                                 pmax    pmax
      comp=Z,5.0nm,0.9s
GRF   Grafenberg Arr     81.67 327 eP       P       00 23 12.1 -0.2
      comp=Z,5.5nm,1.0s,baz=46,slow=4.5
GRF                                eL       L       00 53 34.0
      comp=Z,88nm,21.5s
NLU   North Lily Min     81.68  46          P       00 23 12.5 -0.3
NLU                                 IAmb    IAmb    00 23 14.8
      comp=Z,7.0nm,0.9s
SHOC  Shoshone, Teco     81.70  51  P       P       00 23 13.0 +0.3
SHOC                                IAmb    IAmb    00 23 14.5
      comp=Z,9.1nm,0.8s
GSC   Goldstone, Bar     81.73  52  P       P       00 23 13.1 +0.2
GSC                                 pmax    pmax
      comp=Z,14nm,1.0s
GSC   Goldstone, Bar     81.73  52  P       P       00 23 13.1 +0.2
GSC                                 IAmb    IAmb    00 23 14.7
      comp=Z,14nm,1.0s
MPU   Maple Canyon       81.89  46  P       P       00 23 13.3 -0.6
MPU                                 IAmb    IAmb    00 23 15.9
      comp=Z,9.5nm,0.9s
BIOA  Bad Ischl, Aus     82.05 325 i P      P       00 23 14.5 +0.2
      comp=Z,4.4nm,0.9s
BSUT  Blindstream Ca     82.06  45  P       P       00 23 15.5 +0.6
SOKA  Soboth             82.12 323 i P      P       00 23 14.2 -0.6
      comp=Z,5.4nm,1.0s
TCRU  Three Creeks R     82.33  47  P       P       00 23 16.9 +0.7
TCRU                                IAmb    IAmb    00 23 21.6
      comp=Z,6.7nm,0.7s
ELS   Elsinore Mount     82.36  54  P       P       00 23 15.6 -0.6
RJOB  Jochberg           82.41 325  P       P       00 23 16.5 +0.2
      comp=Z,4.3nm,0.8s
MTPC  Mountain Pass      82.42  51  P       P       00 23 17.5 +0.9
MTPC                                IAmb    IAmb    00 23 18.6
      comp=Z,11nm,0.9s
CCUT  Cedar City         82.46  49  P       P       00 23 16.0 -0.9
OBKA  Obir               82.48 324 epP      P       00 23 19.1 +2.4
      comp=Z,3.3nm,1.0s
EKA   Eskdalemuir Ar     82.50 338  P       P       00 23 17.4 +1.0
      comp=Z,1.9nm,0.8s,baz=31,slow=5.2,SNR=2.0
EKA                                 LR      LR      01 05 04.1
      comp=Z,98nm,18.3s,baz=20,slow=39
      comp=Z,1.9nm,0.8s
ULM   Lac du Bonnet      82.52  31  P       P       00 23 16.2 -0.4
      comp=Z,13nm,1.0s,baz=284,slow=6.0,SNR=7.3
      comp=Z,13nm,1.0s
ULM   Lac du Bonnet      82.52  31          P       00 23 15.6 -1.1
SZCU  Shurtz Canyon      82.60  49  P       P       00 23 17.0 -0.6
TMUT  Trail Mountain     82.61  46  P       P       00 23 18.2 +0.4
KBA   Koelnbreinsper     82.64 325 epP      P       00 23 19.1 +1.6
      comp=Z,4.2nm,0.6s
LESA  Schwarzleotal      82.69 325 i P      P       00 23 17.5 -0.3
      comp=Z,5.7nm,1.2s
LIT   Litokhoron         82.71 315  P       P       00 23 17.9  0.0
LIT                                 pmax    pmax
      comp=Z,8.0nm,1.0s
LIT   Litokhoron         82.71 315  P       P       00 23 17.9  0.0
LIT                                 IAmb    IAmb    00 23 24.3
      comp=Z,8.4nm,1.0s
RDMU  Red Mountain       82.71  44  P       P       00 23 18.4 +0.2
P17A  Butcher Ranch,     82.77  46  P       P       00 23 18.4  0.0
MYKA  Terra Mystica      82.82 324 eP       P       00 23 19.3 +0.9
      comp=Z,1.3nm,0.4s
LCMT  Little Creek M     82.88  49  P       P       00 23 18.5 -0.4
LCMT                                IAmb    IAmb    00 23 21.4
      comp=Z,13nm,1.1s
Q16A  Castle Valley      82.88  47  P       P       00 23 19.7 +0.6
Q16A                                IAmb    IAmb    00 23 20.9
      comp=Z,7.3nm,1.0s
DNR   Dunn Ranch,Anz     82.93  53  P       P       00 23 19.6 +0.4
PDG   Podgorica          82.94 318  P       P       00 23 18.7 -0.3
PDG                                 IAmb    IAmb    00 23 21.9
      comp=Z,14nm,1.1s
P18A  Preston Nutter     82.95  46  P       P       00 23 20.2 +0.6
K22A  Casper             82.98  41  P       P       00 23 19.4  0.0
K22A                                IAmb    IAmb    00 23 20.0
      comp=Z,6.5nm,1.1s
PFO   Pinyon Flats O     83.01  53  LR      LR      00 59 35.4
      comp=Z,27nm,18.4s,baz=319,slow=35
PFO   Pinyon Flats O     83.01  53⇑eP       P       00 23 20.1 +0.4
PFO                                 pmax    pmax
      comp=Z,16nm,1.0s
PFO   Pinyon Flats O     83.01  53  P       P       00 23 20.0 +0.3
PFO                                 IAmb    IAmb    00 23 21.3
      comp=Z,13nm,1.1s
PFO   Pinyon Flats O     83.01  53  P       P       00 23 20.4 +0.7
      comp=Z,20nm,1.4s
PMD   Palm Desert        83.04  53  P       P       00 23 20.0 +0.3
PMD                                 IAmb    IAmb    00 23 21.2
      comp=Z,8.6nm,0.9s
BELC  Belle Mtn. Jos     83.06  53  P       P       00 23 20.0  0.0
BELC                                IAmb    IAmb    00 23 21.3
      comp=Z,7.8nm,0.8s
DPP   Dos Picos Cty      83.08  54  P       P       00 23 20.2 +0.2
DPP                                 IAmb    IAmb    00 23 21.3
      comp=Z,7.2nm,1.0s
URZ   Urewera            83.12 149  LR      LR      00 54 10.8
      comp=Z,100nm,20.4s,baz=303,slow=31
RAR   Rarotonga          83.13 122  LR      LR      00 57 02.2
      comp=Z,64nm,19.9s,baz=297,slow=33
KNB   Kanab              83.14  49  P       P       00 23 21.0 +0.6
KNB                                 pmax    pmax
      comp=Z,24nm,1.2s
KNB   Kanab              83.14  49  P       P       00 23 21.0 +0.6
SRU   San Rafael Swe     83.14  46  P       P       00 23 20.5 +0.2
SRU                                 pmax    pmax
      comp=Z,12nm,0.8s
SRU   San Rafael Swe     83.14  46  P       P       00 23 20.5 +0.2
SRU                                 IAmb    IAmb    00 23 24.0
      comp=Z,12nm,0.8s
PKCU  Pink Cliffs        83.17  48  P       P       00 23 20.5 -0.2
STU   Stuttgart          83.24 328  P       P       00 23 20.0 -0.5
STU                                 pmax    pmax
      comp=Z,6.0nm,0.9s
STU   Stuttgart          83.24 328  P       P       00 23 20.0 -0.5
STU                                 IAmb    IAmb    00 23 29.3
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      comp=Z,6.2nm,0.9s
BORC  Borrego Spring     83.25  54  P       P       00 23 20.9 +0.1
RSSD  Black Hills        83.26  39  P       P       00 23 20.7 -0.2
RSSD                                pmax    pmax
      comp=Z,5.0nm,0.8s
RSSD  Black Hills        83.26  39  P       P       00 23 20.7 -0.2
RSSD                                IAmb    IAmb    00 23 22.9
      comp=Z,4.5nm,0.8s
RSSD  Black Hills        83.26  39  P       P       00 23 21.4 +0.5
      comp=Z,9.0nm,1.3s
WATA  Walderalm          83.27 326 eP       P       00 23 22.0 +1.2
      comp=Z,4.4nm,1.4s
ABTA  Abfaltersbach      83.27 325 eP       P       00 23 20.3 -0.4
      comp=Z,3.8nm,1.1s
WTTA  Wattenberg         83.29 326 i P      P       00 23 20.5 -0.5
      comp=Z,4.0nm,1.1s
BAR   Barrett            83.45  54  P       P       00 23 22.2 +0.4
BAR                                 IAmb    IAmb    00 23 23.3
      comp=Z,9.6nm,1.1s
IRM   Iron Mountain      83.51  52  P       P       00 23 22.7 +0.5
IRM                                 IAmb    IAmb    00 23 24.2
      comp=Z,13nm,1.2s
SQTA  Sankt Quirin       83.52 326 eP       P       00 23 21.3 -0.7
      comp=Z,2.3nm,1.2s
RETA  Reutte             83.52 326 i P      P       00 23 21.9 -0.1
      comp=Z,6.1nm,1.1s
BC3   Big Chuckawall     83.63  53  P       P       00 23 23.0 +0.1
BC3                                 IAmb    IAmb    00 23 24.7
      comp=Z,8.8nm,1.0s
W13A  Hualapai Mount     83.71  51  P       P       00 23 23.7 +0.3
W13A                                IAmb    IAmb    00 23 25.4
      comp=Z,11nm,1.1s
O20A  White River Ci     83.76  44  P       P       00 23 23.5  0.0
O20A                                IAmb    IAmb    00 23 25.0
      comp=Z,11nm,0.9s
HMU   Henry Mountain     83.78  47  P       P       00 23 23.8  0.0
U15A  North Rim          83.84  49  P       P       00 23 24.9 +0.8
EPLO  Experimental L     83.84  30          P       00 23 22.3 -1.2
FETA  Feichten           83.89 326 i P      P       00 23 23.0 -1.0
      comp=Z,4.1nm,1.0s
BFO   Black Forest       83.95 328 i P      P       00 23 24.2 +0.1
BFO   Black Forest       83.95 328  P       P       00 23 23.4 -0.8
BFO                                 IAmb    IAmb    00 23 24.5
      comp=Z,6.2nm,1.0s
YUH   Yuha Desert        83.96  54  P       P       00 23 24.2 -0.2
HAYD  Hayden             84.04  43  P       P       00 23 25.0 -0.1
HAYD                                IAmb    IAmb    00 23 27.1
      comp=Z,8.9nm,1.1s
DAVA  Damuels            84.07 327 i P      P       00 23 22.2 -2.7
      comp=Z,12nm,1.2s
DAVA  Damuels            84.07 327  P       P       00 23 24.3 -0.6
      comp=Z,17nm,1.5s
BLYC  Blythe             84.17  52  P       P       00 23 25.6 +0.2
BLYC                                IAmb    IAmb    00 23 27.5
      comp=Z,12nm,1.0s
CTI   Castel Tesino      84.19 325  P       P       00 23 25.1 -0.4
CTI                                 pmax    pmax
      comp=Z,8.0nm,1.2s
CTI   Castel Tesino      84.19 325  P       P       00 23 25.1 -0.4
CTI                                 IAmb    IAmb    00 23 31.4
      comp=Z,7.8nm,1.2s
ESJX  Sierra Juarez      84.35  54  P       P       00 23 26.6 -0.1
FUORN Ofenpass-Fuorn     84.40 326          P       00 23 25.5 -1.2
FUORN                               IAmb    IAmb    00 23 27.4
      comp=Z,7.5nm,0.9s
FUORN Ofenpass-Fuorn     84.40 326  P       P       00 23 26.3 -0.5
      comp=Z,9.4nm,1.1s
PV21  Cone Mtn., Par     84.40  46  P       P       00 23 27.2 +0.3
IDI   Anoyia             84.44 310  P       P       00 23 26.4 -0.6
DAVOX Davos/Dischmat     84.45 326  LR      LR      01 03 26.8
      comp=Z,84nm,21.1s,baz=40,slow=37
PV23  Carpenter Ridg     84.45  46  P       P       00 23 27.9 +0.7
PV10  Paradox Valley     84.49  46  P       P       00 23 27.6 +0.2
TCW   Tory Channel       84.50 152  P       P       00 23 25.9 -0.8
PV22  Blue Mesa, Par     84.53  46  P       P       00 23 27.3 -0.2
PV20  West Nyswonger     84.55  46  P       P       00 23 28.4 +0.8
PV04  Paradox Valley     84.56  46  P       P       00 23 27.6  0.0
PV19  Morning Glory      84.57  46  P       P       00 23 28.2 +0.5
PV17  East Wray Mesa     84.60  46  P       P       00 23 28.0 +0.1
PV16  Nyswonger Mesa     84.60  46  P       P       00 23 28.0 +0.1
PV11  David Mesa, Pa     84.64  46  P       P       00 23 27.9 -0.2
PV18  Skein Mesa, Pa     84.65  46  P       P       00 23 28.8 +0.6
PV05  Paradox Valley     84.66  46  P       P       00 23 27.6 -0.6
PV12  Saucer Basin,      84.67  46  P       P       00 23 28.1 -0.1
PV07  Paradox Valley     84.67  46  P       P       00 23 28.6 +0.3
PV07                                IAmb    IAmb    00 23 30.2
      comp=Z,11nm,1.1s
PV03  Paradox Valley     84.68  46  P       P       00 23 28.1 -0.2
PV13  Radium Mtn., P     84.76  46  P       P       00 23 28.4 -0.3
PV02  Paradox Valley     84.78  46  P       P       00 23 29.0 +0.2
PV15  Paradox Valley     84.83  46  P       P       00 23 29.4 +0.3
PV01  Paradox Valley     84.92  46  P       P       00 23 29.7 +0.2
TUE   Stuetta            84.92 326          P       00 23 28.4 -1.0
TUE   Stuetta            84.92 326  P       P       00 23 29.1 -0.2
      comp=Z,4.0nm,0.9s
ITM   Ithomi             84.99 313  P       P       00 23 28.9 -0.7
WUAZ  Wupatki            85.00  49  P       P       00 23 30.2 +0.4
113A  Mohawk Valley,     85.29  53  P       P       00 23 31.5 +0.4
113A                                IAmb    IAmb    00 23 32.8
      comp=Z,9.5nm,1.1s
ISCO  Idaho Springs      85.45  43  P       P       00 23 32.4 +0.1
ISCO                                pmax    pmax
      comp=Z,3.0nm,0.9s
ISCO  Idaho Springs      85.45  43  P       P       00 23 32.4 +0.1
MVCO  Mesa Verde         85.59  46  P       P       00 23 33.2 +0.4
MVCO  Mesa Verde         85.59  46  P       P       00 23 34.4 +1.5
      comp=Z,21nm,1.1s
X16A  Lo Mia Camp, P     85.68  50  P       P       00 23 33.8 +0.4
X16A                                IAmb    IAmb    00 23 35.7
      comp=Z,10nm,1.0s
F33A  5 Mile Ranch,      85.71  34  P       P       00 23 33.1 +0.1
F33A                                IAmb    IAmb    00 23 35.0
      comp=Z,6.8nm,1.1s
FDMO  Fiordimonte        85.71 322  P       P       00 23 33.4 +0.3
FDMO                                IAmb    IAmb    00 23 36.3
      comp=Z,9.5nm,1.1s
NRCA  Norcia             85.85 322  P       P       00 23 33.6 -0.3
NRCA                                IAmb    IAmb    00 23 36.4
      comp=Z,12nm,1.1s
ATD   Arta Tunnel        85.97 281  P       P       00 23 34.9  0.0
ATD   Arta Tunnel        85.97 281  P       P       00 23 36.5 +1.6
      comp=Z,27nm,1.3s
S22A  4UR Ranch, Cre     86.19  45  P       P       00 23 36.8 +0.9
S22A                                IAmb    IAmb    00 23 38.3
      comp=Z,8.4nm,1.0s
W18A  Petrified Fore     86.26  49  P       P       00 23 36.4 +0.2
K30B  Basset             86.53  38  P       P       00 23 36.1 -1.0
X18A  Snowflake          86.53  49  P       P       00 23 37.6 +0.1
ODZ   Otahua Downs       86.59 156  P       P       00 23 36.5 -0.5
ODZ                                 IAmb    IAmb    00 23 49.5
      comp=Z,15nm,1.2s
SDCO  Great Sand Dun     86.95  44  P       P       00 23 39.6  0.0
ECSD  EROS Data Cent     87.17  35  P       P       00 23 40.2 -0.1
ECSD                                IAmb    IAmb    00 23 43.0
      comp=Z,11nm,1.1s
ECSD  EROS Data Cent     87.17  35  P       P       00 23 40.6 +0.3
      comp=Z,14nm,1.4s
SCHQ  Schefferville      87.29  13  LR      LR      01 05 07.5
      comp=Z,91nm,19.4s,baz=338,slow=37
TUC   Tucson             87.49  51  P       P       00 23 42.1  0.0
TUC                                 pmax    pmax
      comp=Z,5.0nm,1.1s
TUC   Tucson             87.49  51  P       P       00 23 42.1  0.0
TUC                                 IAmb    IAmb    00 23 44.1
      comp=Z,4.8nm,1.1s
T25A  Trinidad           87.99  44  P       P       00 23 44.8 +0.2
T25A                                IAmb    IAmb    00 23 48.0
      comp=Z,5.6nm,0.9s
PPT   Papeete            88.06 113  LR      LR      00 58 02.3
      comp=Z,80nm,21.6s,baz=347,slow=32
PPT2  Papeete2           88.08 113 eLR      LR      00 51 37.3
      comp=Z,211nm,27.0s
PPT2                               eLR      LR      00 51 37.6
      comp=Z,333nm,30.8s
TASM  ASL Pad, Albuq     88.34  47  P       P       00 23 45.5 -0.7
TASM  ASL Pad, Albuq     88.34  47          P       00 23 46.6 +0.3
TASM                                IAmb    IAmb    00 23 50.4
      comp=Z,3.9nm,1.1s
ANMO  Albuquerque        88.34  47⇓eP       P       00 23 47.0 +0.7
ANMO                                pmax    pmax
      comp=Z,4.0nm,1.1s
ANMO  Albuquerque        88.34  47  P       P       00 23 46.6 +0.3
ANMO  Albuquerque        88.34  47  P       P       00 23 44.5 -1.8
      comp=Z,4.8nm,1.3s
ALQ   Albuquerque        88.35  47  P       P       00 23 46.3 +0.1
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ALQ                                 IAmb    IAmb    00 23 48.7
      comp=Z,5.8nm,1.2s
ALQ   Albuquerque        88.35  47  P       P       00 23 45.7 -0.6
ALQ                                 IAmb    IAmb    00 23 48.6
      comp=Z,5.6nm,1.2s
I37A  Lemond, Waseca     88.42  33  P       P       00 23 46.0 -0.2
LENM  Lemitar            88.58  48  P       P       00 23 48.2 +0.8
SBM   South Baldy        88.58  48  P       P       00 23 48.1 +0.5
L34A  Svendsen Farm,     88.64  36  P       P       00 23 46.9 -0.4
Y22A  Socorro            88.74  48  P       P       00 23 48.6 +0.5
121A  Cookes Peak, D     89.21  49  P       P       00 23 50.5 +0.2
RTBA  Rita Blanca        89.43  44  P       P       00 23 52.1 +0.8
TAOE  Nuku Hiva Isla     90.08 101 eLR      LR      00 52 35.5
      comp=Z,292nm,27.0s
H43A  Windswept, Lux     90.44  30          P       00 23 56.0 +0.4
N38A  Joes South For     91.04  35  P       P       00 23 58.2 -0.3
AMTX  Amarillo           91.15  44  P       P       00 23 58.0 -1.3
AMTX                                IAmb    IAmb    00 24 01.0
      comp=Z,5.0nm,0.9s
MSTX  Muleshoe           91.19  45  P       P       00 23 57.9 -1.6
MSTX                                IAmb    IAmb    00 24 00.7
      comp=Z,7.7nm,1.2s
MNTX  Cornudas Mount     91.25  49  P       P       00 23 58.6 -1.1
GDL2  Guadalupe Moun     91.51  48          P       00 24 00.9 -0.1
KAN01 Argonia South      91.60  40  P       P       00 24 02.0 +0.8
HTMS  Hat Mesa           91.75  47  P       P       00 24 02.9 +0.8
CLNB  Carlsbad           91.76  47  P       P       00 24 02.6 +0.5
SMWD  Samnorwood         91.79  43  P       P       00 24 01.9 -0.3
SMWD                                IAmb    IAmb    00 24 04.0
      comp=Z,5.2nm,0.9s
TPB28                    91.81  48  P       P       00 24 02.9 +0.5
TPB28                               IAmb    IAmb    00 24 04.8
      comp=Z,9.5nm,0.9s
P38A  Dawn               91.81  36  P       P       00 24 02.2 +0.1
VHRN  Van Horn           92.13  49  P       P       00 24 04.1 +0.2
VHRN                                IAmb    IAmb    00 24 06.7
      comp=Z,7.8nm,1.2s
128A  Castleberry Fa     92.32  46  P       P       00 24 05.5 +0.8
128A                                IAmb    IAmb    00 24 08.1
      comp=Z,3.2nm,0.8s
DKNS  Dickens            92.46  45  P       P       00 24 06.2 +0.8
DKNS                                IAmb    IAmb    00 24 08.0
      comp=Z,4.9nm,0.8s
POST  Post               92.57  45  P       P       00 24 06.3 +0.4
POST                                IAmb    IAmb    00 24 07.3
      comp=Z,6.1nm,0.8s
TPB06 Permian Basin      92.59  47  P       P       00 24 05.8 -0.1
TPB06                               IAmb    IAmb    00 24 07.9
      comp=Z,7.5nm,0.9s
ODSA  Odessa             92.64  47  P       P       00 24 05.6 -0.7
129A  Stewart Farms,     92.68  46  P       P       00 24 06.7 +0.3
TPB01 Permian Basin      92.75  48  P       P       00 24 06.8 +0.1
TPB01                               IAmb    IAmb    00 24 08.2
      comp=Z,5.6nm,1.1s
WMOK  Wichita Mounta     92.87  42  P       P       00 24 06.3 -0.8
WMOK                                pmax    pmax
      comp=Z,4.0nm,1.1s
WMOK  Wichita Mounta     92.87  42  P       P       00 24 06.3 -0.8
WMOK                                IAmb    IAmb    00 24 08.5
      comp=Z,4.2nm,1.1s
SN07  Snyder 07          92.90  45  P       P       00 24 07.0 -0.3
SN07                                IAmb    IAmb    00 24 11.1
      comp=Z,3.5nm,1.0s
TPB05 Hovey Rd           93.04  48  P       P       00 24 08.8 +0.8
MNHN  Monahans           93.08  47  P       P       00 24 07.7 -0.5
MNHN                                IAmb    IAmb    00 24 09.3
      comp=Z,5.1nm,1.1s
APMT  Aspermont          93.17  44  P       P       00 24 08.5  0.0
APMT                                IAmb    IAmb    00 24 09.9
      comp=Z,5.9nm,1.2s
ALPN  Alpine             93.24  48  P       P       00 24 08.2 -0.8
ALPN                                IAmb    IAmb    00 24 10.8
      comp=Z,4.7nm,1.1s
TMB01 Midkiff            93.25  47  P       P       00 24 08.9 -0.1
TMB01                               IAmb    IAmb    00 24 18.9
      comp=Z,2.0nm,0.6s
DEOK  Depew              93.26  40  P       P       00 24 09.7 +0.8
SADO  Sadowa             93.37  24  LR      LR      01 10 23.8
      comp=Z,43nm,19.1s,baz=174,slow=38
S39A  Bolivar            93.44  37  P       P       00 24 10.4 +0.7
S39A                                IAmb    IAmb    00 24 10.6
      comp=Z,4.2nm,1.0s
X34A  Smith Ranch, M     93.48  42  P       P       00 24 09.7 -0.2
TUL3  Leonard            93.57  40  P       P       00 24 09.8 -0.5
TUL3                                IAmb    IAmb    00 24 11.6
      comp=Z,6.3nm,0.8s
W35A  Tecumseh           93.58  41  P       P       00 24 10.5 +0.2
SGCY  Sterling City      93.63  46  P       P       00 24 10.6 -0.1
ABTX  Abilene, Hawle     93.96  44  P       P       00 24 12.0 -0.2
ABTX                                IAmb    IAmb    00 24 27.8
      comp=Z,2.7nm,0.6s
TX31  Lajitas Ar. Si     93.96  49  P       P       00 24 11.9 -0.5
TX31                                IAmb    IAmb    00 24 14.2
      comp=Z,9.6nm,1.1s
TXAR  Lajitas Array      93.97  49  P       P       00 24 13.3 +1.0
      comp=Z,3.9nm,0.9s,baz=290,slow=2.9,SNR=41
      comp=Z,3.9nm,0.9s
TXAR  Lajitas Array      93.97  49  P       P       00 24 12.0 -0.3
HPIG                     94.40  52  P       P       00 24 14.4 -0.1
HPIG                                IAmb    IAmb    00 24 15.9
      comp=Z,5.7nm,1.0s
HPIG                     94.40  52  P       P       00 24 15.9 +1.4
      comp=Z,7.6nm,0.4s
BRDY  Brady              95.31  45  P       P       00 24 17.9 -0.5
BRDY                                IAmb    IAmb    00 24 19.8
      comp=Z,3.1nm,0.9s
ESDC  Sonseca Array      96.13 330  LR      LR      01 11 43.7
      comp=Z,101nm,18.4s,baz=21,slow=38
M57A  Sunshine Farm,     97.10  25  P       P       00 24 25.9 -0.3
M57A                                IAmb    IAmb    00 24 27.6
      comp=Z,4.9nm,0.9s
MAW   Mawson            116.93 204  PKP     PKPdf   00 29 36.8 -0.9
      comp=Z,1.8nm,0.8s,baz=110,slow=3.3,SNR=5.2
MAW   Mawson            116.93 204  PKIKP   PKiKP   00 29 38.2 +0.5
MAW   Mawson            116.93 204          PKiKP   00 29 38.2 +0.5
BOSA  Boshof            122.27 256  PKP     PKPdf   00 29 49.1 -0.3
      comp=Z,1.3nm,0.6s,baz=20,slow=1.6,SNR=4.3
QSPA  South Pole Qui    125.85 180  PKP     PKPdf   00 29 54.4 -0.5
      comp=Z,9.2nm,1.1s,baz=295,slow=1.6,SNR=21
QSPA  South Pole Qui    125.85 180          PKPdf   00 29 54.7 -0.3
TROLL Troll, Antarti    137.00 199 ⇓PKPdf   PKPdf   00 30 16.3 +0.3
      comp=Z,129nm,0.6s
SNAA  Sanae             138.59 198 ⇓PKPdf   PKiKP   00 30 21.6 +0.6
      comp=Z,20nm,0.3s
SNAA  Sanae             138.59 198  PKP     PKiKP   00 30 20.7 -0.3
      comp=Z,1.5nm,0.6s,baz=180,slow=6.5,SNR=3.8
SNAA  Sanae             138.59 198  PKPdf   PKiKP   00 30 21.4 +0.4
LPAZ  La Paz            150.72  54  PKPbc   PKPbc   00 30 45.1 -2.5
      comp=Z,3.9nm,0.8s,baz=9.6,slow=14,SNR=8.5
LPAZ  La Paz            150.72  54          PKPbc   00 30 46.3 -1.3
PB18  Visviri           150.74  58  PKPbc   PKiKP   00 30 49.5 +1.4
PB12  IPOC Station P    150.85  60          PKiKP   00 30 47.8  0.0
PB16  IPOC Station P    151.23  59          PKiKP   00 30 49.4 +0.2
ESPZ  Base Esperanza    151.51 168  PKPdf   PKPdf   00 30 43.3 +2.3
ESPZ                                PKPbc   PKiKP   00 30 47.9 +0.3
PSGCX Pisagua           151.64  62  PKPbc   PKPbc   00 30 48.6 -0.3
PB11  IPOC Station P    152.08  61  PKPbc   PKiKP   00 30 50.5 +0.1
PB11                                PKPab   PKPab   00 30 59.8 +0.2
TA01  Diego Aracena     152.22  63  PKPdf   PKPdf   00 30 44.0 +0.5
SIV   San Ignacio       154.74  42  PKP     PKPdf   00 30 47.3 +0.1
      comp=Z,0.8nm,0.7s,baz=135,slow=4.9,SNR=3.6
SIV                                 PKPbc   PKiKP   00 30 56.6 +0.8
      comp=Z,0.6nm,0.6s,baz=294,slow=0.7,SNR=3.5
SIV                                 PKPab   PKPab   00 31 08.7 -1.9
      comp=Z,4.4nm,0.9s,baz=328,slow=3.3,SNR=13
CPUP  Villa Florida     164.89  54  PKPab   PKPab   00 31 54.2 -0.3
      comp=Z,2.2nm,1.0s,baz=172,slow=6.7,SNR=3.2
```

IDC ***04*** *00:28:59.3±0.6, 31°.14S×59°.15E, h0^{km}, mb4.0/15, mbtmp4.0/16, ML4.2/1, MS3.5/10, Error ellipse: s-maj=25.8km s-min=16.1km az=72.0*

NEIC ***04*** *00:29:00.8±1.5, 31°.08S±0°.09×59°.1E±0°.1, h10^{km}±1^{km}, mb4.9/58, Error ellipse: s-maj=15.7km s-min=15.4km az=252.0*

ISC 04 00:29:00.4±0.4**, 31°.08S**±0°.07×**59°.13E**±0°.07**, h10^{km}, n105,** σ0^{s}.**83**/89**, mb4.7**/43**, MS3.5**/9**, Southwest Indian Ridge**

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Code  Station Name        Δ°   AZ°   Phase ID          Time     Res
                                    Op      ISC      h  m  s   ISC
RER   Riviere de l'E     10.34 342  Pn      Pn      00 31 28.5 -0.4
ROCAM Rodrigues Isla     11.91  20  Pn      Pn      00 31 49.6 -0.7
H04N2 CROZET ISLANDS     16.10 199  T       T       00 49 16.3
      baz=24,slow=72,SNR=1854
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H04N1	CROZET ISLANDS	16.10	199	T	T	00 49 18.2	
	baz=24,slow=72,SNR=2036						
H04N3	CROZET ISLANDS	16.12	199	T	T	00 49 17.0	
	baz=24,slow=72,SNR=1831						
ABPO	Ambohimpanom	16.13	315	Pn	Pn	00 32 46.8	-0.7
OPO	Ambohidratompo	16.50	316	Pn	Pn	00 32 50.5	-1.7
	0.1nm,0.3s,baz=144,slow=13,SNR=7.9						
OPO				Sn	Sn	00 35 35.5	-20
	baz=282,slow=21,SNR=2.2						
OPO				LR	LR	00 37 48.1	
	comp=Z,146nm,20.6s,baz=112,slow=32						
	6.6nm,0.9s						
OPO				AML	AML		
PAF	Port-aux-Franc	20.07	159	P	P	00 33 33.3	-0.5
H08S1	Diego Carcia H	26.45	31	T	T	01 02 44.9	
	baz=206,slow=76,SNR=14						
H08S2	Diego Garcia H	26.45	31	T	T	01 02 45.4	
	baz=206,slow=76,SNR=6.8						
H08S3	Diego Garcia H	26.46	31	T	T	01 02 46.7	
	baz=206,slow=76,SNR=60						
BOSA	Boshof	29.42	266	LR	LR	00 44 48.4	
	comp=Z,57nm,19.4s,baz=136,slow=32						
MATP	Matopo	29.47	284	LR	LR	00 44 46.9	
	comp=Z,98nm,20.3s,baz=130,slow=32						
LSZ	Lusaka	32.36	292	LR	LR	00 48 47.6	
	comp=Z,76nm,18.1s,baz=126,slow=37						
LSZ	Lusaka	32.36	292	P	P	00 35 29.8	-0.6
SUR	Sutherland	32.50	258	LR	LR	00 46 23.1	
	comp=Z,88nm,18.3s,baz=126,slow=32						
SUR	Sutherland	32.50	258	P	P	00 35 31.8	+0.2
SUR				IAmb	IAmb	00 35 45.8	
	comp=Z,97nm,2.0s						
LKGWB	Lokgwabe	34.19	272	P	P	00 35 41.5	-4.8
LKGWB				IAmb	IAmb	00 35 57.8	
	comp=Z,67nm,1.9s						
GRTLG	Ghanzi	35.22	277	P	P	00 35 53.7	-1.5
GRTLG				IAmb	IAmb	00 36 02.2	
	comp=Z,24nm,1.7s						
MAW	Mawson	36.62	178	P	P	00 36 05.3	-1.2
	comp=Z,0.8nm,0.5s,baz=54,slow=16,SNR=2.3						
MAW				LR	LR	00 47 01.1	
	comp=Z,114nm,19.2s,baz=8.0,slow=30						
	comp=Z,0.8nm,0.5s						
MAW	Mawson	36.62	178	P	P	00 36 05.5	-1.0
WIN	Windhoek	38.27	272	P	P	00 36 21.1	-0.3
WIN				IAmb	IAmb	00 37 07.0	
	comp=Z,19nm,1.5s						
TSUM	Tsumeb	39.21	278	LR	LR	00 50 50.5	
	comp=Z,58nm,20.3s,baz=152,slow=33						
TSUM	Tsumeb	39.21	278	P	P	00 36 28.0	-1.2
COCO	West Island	39.52	70	P	P	00 36 30.1	-1.4
MBAR	Mbarara	40.53	313	LR	LR	00 52 00.1	
	comp=Z,106nm,20.2s,baz=162,slow=34						
H01W2	Cape Leeuwin H	45.81	110	T	T	01 26 42.9	
	baz=258,slow=74,SNR=48						
H01W3	Cape Leeuwin H	45.82	110	T	T	01 26 43.3	
	baz=258,slow=74,SNR=55						
H01W1	Cape Leeuwin H	45.83	110	T	T	01 26 44.2	
	baz=258,slow=74,SNR=46						
GSI	Gunungsitoli	48.69	56	P	P	00 37 45.7	+0.5
RPSI	Rantau Prapat	50.62	56	P	P	00 37 57.9	-2.0
RPSI				IAmb	IAmb	00 38 54.0	
	comp=Z,33nm,1.6s						
BBJI	Bungbulang	50.97	73	P	P	00 38 02.7	+0.1
BBJI				IAmb	IAmb	00 38 06.6	
	comp=Z,31nm,1.2s						
SNAA	Sanae	52.05	201	LR	LR	00 56 40.1	
	comp=Z,52nm,19.6s,baz=112,slow=32						
IPM	Ipoh	53.36	56	P	P	00 38 19.1	-1.2
IPM				IAmb	IAmb	00 38 32.7	
	comp=Z,23nm,1.1s						
TRIS	Tristan da Cun	58.22	243	P	P	00 38 54.9	0.0
QSPA	South Pole Qui	59.08	180	P	P	00 39 00.6	-0.1
	comp=Z,4.3nm,0.7s,baz=256,slow=1.6,SNR=30						
	comp=Z,4.3nm,0.7s						
QSPA	South Pole Qui	59.08	180	P	P	00 39 00.8	+0.1
QSPA				IAmb	IAmb	00 39 01.3	
	comp=Z,5.8nm,0.8s						
KAPI	Kappang	62.36	79	P	P	00 39 23.9	+0.3
KAPI				IAmb	IAmb	00 39 33.4	
	comp=Z,24nm,1.3s						
CMAR	Chiang Mai Arr	62.36	43	P	P	00 39 22.9	-0.5
	comp=Z,0.9nm,0.3s,baz=230,slow=7.0,SNR=9.6						
CMAR				LR	LR	01 01 44.5	
	comp=Z,33nm,21.7s,baz=185,slow=32						
	comp=Z,0.9nm,0.3s						
CMAR	Chiang Mai Arr	62.36	43	P	P	00 39 24.0	+0.6
VNDA	Vanda	62.59	166	P	P	00 39 23.8	-0.4
	comp=Z,1.6nm,0.8s,baz=258,slow=6.9,SNR=11						
	comp=Z,1.6nm,0.8s						
VNDA	Vanda	62.59	166	P	P	00 39 24.6	+0.4
CHTO	Chiang Mai	62.64	43	P	P	00 39 23.9	-1.4
CHTO				IAmb	IAmb	00 39 25.1	
	comp=Z,20nm,2.0s						
SOEI	Soe	63.77	86	P	P	00 39 33.4	+0.3
ASAR	Alice Springs	65.69	104	P	P	00 39 46.6	+1.1
	comp=Z,1.8nm,0.8s,baz=237,slow=6.8,SNR=11						
	comp=Z,1.8nm,0.8s						
AS31	Alice Springs	65.69	104	P	P	00 39 45.6	+0.1
MMAI	Mount Meron Ar	67.58	339	P	P	00 39 58.8	+1.6
	comp=Z,1.0nm,0.6s,baz=145,slow=6.9,SNR=2.1						
	comp=Z,1.0nm,0.6s						
WRA	Warramunga Arr	67.65	100	P	P	00 39 59.4	+1.4
	comp=Z,2.9nm,0.9s,baz=241,slow=5.6,SNR=19						
	comp=Z,2.9nm,0.9s						
WRA	Warramunga Arr	67.65	100	P	P	00 39 58.5	+0.5
TAU	Tasmania Unive	68.38	128	P	P	00 40 03.1	+0.8
CSS	Mathiatis	70.04	338	P	P	00 40 12.1	-0.3
CSS				IAmb	IAmb	00 40 55.1	
	comp=Z,6.2nm,1.3s						
GURO	Guroymak-BITLI	71.09	346	P	P	00 40 18.6	-0.3
BTK	Batken	71.61	9	P	P	00 40 22.4	+0.5
BTK				IAmb	IAmb	00 40 26.3	
	comp=Z,12nm,1.8s						
GNI	Garni	72.12	348	P	P	00 40 24.8	-0.3
GNI				IAmb	IAmb	00 42 08.8	
	comp=Z,4.5nm,0.9s						
SMAI	San Martin Ant	73.36	198	P	P	00 40 32.4	+0.4
IDI	Anoyia	73.45	331	P	P	00 40 31.7	-1.3
IDI				IAmb	IAmb	00 41 15.0	
	comp=Z,50nm,1.9s						
FAKI	Fak Fak	74.05	84	P	P	00 40 36.5	-0.4
FAKI				IAmb	IAmb	00 40 51.7	
	comp=Z,28nm,1.1s						
BRTR	Keskin Array B	74.32	340	P	P	00 40 37.6	-0.5
	comp=Z,0.4nm,0.7s,baz=182,slow=7.0,SNR=3.5						
	comp=Z,0.4nm,0.7s						
KKAR	Karatay Array	74.56	9	P	P	00 40 40.3	+1.1
BORA	Eskisehir	75.45	338	P	P	00 40 43.7	-0.8
BORA				IAmb	IAmb	00 41 03.7	
	comp=Z,8.9nm,1.6s						
MDUB	Mudurnu	75.75	338	P	P	00 40 46.1	-0.2
MDUB				IAmb	IAmb	00 41 55.4	
	comp=Z,7.2nm,1.0s						
WDD	Wied Dalam	78.64	324	P	P	00 41 03.1	+0.7
KNMB	Chin-men Tao	79.16	53	P	P	00 41 05.3	-0.2
TPUB	Ta-pu	79.96	55	P	P	00 41 10.1	+0.1
AB31	Akbulak array	79.98	1	P	P	00 41 09.2	-0.2
ABKAR	Akbulak array	79.98	1	P	P	00 41 09.7	+0.2
TIRR	Tirgusor	80.23	338	P	P	00 41 10.6	-0.3
TIRR				IAmb	IAmb	00 41 22.6	
	comp=Z,12nm,1.0s						
TIP	Timpagrande	80.25	328	P	P	00 41 10.4	-0.8
TIP				IAmb	IAmb	00 41 26.0	
	comp=Z,12nm,1.2s						
MKAR	Makanchi Array	80.29	16	P	P	00 41 11.1	-0.1
	comp=Z,0.2nm,0.5s,baz=218,slow=9.1,SNR=2.2						
	comp=Z,0.2nm,0.5s						
TATO	Taipei	81.63	54	P	P	00 41 18.4	-0.5
MLR	Muntele Rosu	81.96	337	P	P	00 41 19.5	-0.8
KURBB	Kurchatov Arra	83.14	12	P	P	00 41 27.4	+1.3
	comp=Z,0.5nm,0.5s,baz=210,slow=5.9,SNR=8.8						
	comp=Z,0.5nm,0.5s						
KURK	Kurchatov	83.25	12	P	P	00 41 26.9	+0.3
BURAR	Bucovina Array	84.06	338	P	P	00 41 31.2	+0.1
BVAR	Borovoye Array	84.33	7	P	P	00 41 33.0	+0.8
	comp=Z,0.3nm,0.5s,baz=185,slow=5.4,SNR=6.1						
	comp=Z,0.3nm,0.5s						
BORK	Borovoye	84.34	7	P	P	00 41 33.0	+0.8
KIEV	Kiev	85.61	341	P	P	00 41 38.9	+0.3
KIEV				IAmb	IAmb	00 41 39.5	
	comp=Z,8.9nm,1.4s						
AKASG	Malin Array Be	85.61	341	P	P	00 41 38.8	+0.1
	comp=Z,0.3nm,0.4s,baz=169,slow=5.0,SNR=6.2						
	comp=Z,0.3nm,0.4s						
TKNZ	Takaka Hill	85.77	136	P	P	00 41 40.1	0.0
PSZ	Piszkesteto	86.17	335	P	P	00 41 41.2	-0.4
PSZ				IAmb	IAmb	00 44 24.4	
	comp=Z,5.2nm,1.2s						
ARTI	Arti	87.12	360	P	P	00 41 47.0	+1.0
ARTI				IAmb	IAmb	00 41 56.5	
	comp=Z,5.5nm,1.1s						
ZAA0	Zalesovo Array	87.56	15	P	P	00 41 48.2	+0.1
ZAA0				IAmb	IAmb	00 44 04.7	
	comp=Z,8.7nm,1.8s						
ZALV	Zalesovo Beam	87.56	15	P	P	00 41 48.7	+0.5
	comp=Z,1.4nm,1.0s,baz=208,slow=5.0,SNR=4.0						
	comp=Z,1.4nm,1.0s						
ZALV	Zalesovo Beam	87.56	15	P	P	00 41 48.3	+0.2
STAL	STALIGIAL	87.69	330	P	P	00 41 49.4	+0.4
STAL				IAmb	IAmb	00 41 56.8	
	comp=Z,5.9nm,1.1s						
FUORN	Ofenpass-Fuorn	89.04	329	P	P	00 41 56.1	+0.4
FUORN				IAmb	IAmb	00 42 00.3	
	comp=Z,9.7nm,1.7s						
GERES	GERESS Array B	89.31	332	P	P	00 41 56.2	-0.5
SUW	Suwalki	90.27	340	P	P	00 42 00.6	-0.3
CLL	Collm	91.53	333	P	P	00 42 07.9	+1.0
CLL				IAmb	IAmb	00 42 16.6	
	comp=Z,16nm,1.7s						
ESDC	Sonseca Array	91.55	316	P	P	00 42 08.7	+1.4
	comp=Z,0.5nm,1.0s,baz=104,slow=2.2,SNR=4.2						
	comp=Z,0.5nm,1.0s						
ESDC	Sonseca Array	91.55	316	P	P	00 42 08.4	+1.1
ESDC				IAmb	IAmb	00 45 41.0	
	comp=Z,25nm,1.9s						
PAB	San Pablo	91.69	316	P	P	00 42 08.4	+0.3
PAB				IAmb	IAmb	00 44 18.2	
	comp=Z,23nm,1.7s						
ONTNC	Ouen Toro	92.45	118	P	P	00 42 12.1	+0.1
PESTR	Estremoz	93.23	314	P	P	00 42 15.1	0.0
RGN	Rugen	93.96	335	P	P	00 42 19.2	+1.3
MTE	Manteigas	94.14	315	P	P	00 42 19.7	+0.4
MTE				IAmb	IAmb	00 42 30.5	
	comp=Z,22nm,1.4s						
UCC	Uccle	94.76	329	P	P	00 42 22.7	+1.0
UCC				IAmb	IAmb	00 43 02.0	
	comp=Z,11nm,1.0s						
TRCB	Terra Rica	95.49	239	P	P	00 42 25.5	-0.5
FIA1	FINESS Array S	96.03	345	P	P	00 42 29.9	+2.6
FINES	FINESS Array B	96.03	345	P	P	00 42 28.8	+1.6
	comp=Z,1.6nm,0.8s,baz=129,slow=5.6,SNR=2.1						
	comp=Z,1.6nm,0.8s						
FINES	FINESS Array B	96.03	345	P	P	00 42 27.9	+0.7
YKA	Yellowknife Ar	148.32	354	PKPbc	PKPbc	00 48 46.1	0.0
	comp=Z,1.7nm,0.8s,baz=357,slow=2.0,SNR=4.8						
YKA	Yellowknife Ar	148.32	354		PKPdf	00 48 42.8	0.0
YKA				PKPbc	PKPbc	00 48 46.5	+0.3
YKAW1	Yellowknife Wh	148.32	354	PKPdf	PKPdf	00 48 43.2	+0.5
TXAR	Lajitas Array	165.02	268	PKPab	PKPab	00 50 03.2	+1.2
	comp=Z,0.2nm,0.7s,baz=120,slow=7.4,SNR=3.8						

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*NOU **04** 00:29:31.6, 40°.19S×174°.34E, h84^{km}, MLv4.0/20, Cook Strait, New Zealand*

*WEL **04** 00:29:33.6±0.6, 40°S±3°×17°4E±°, h66^{km}±9^{km}, M3.7/19, ML3.7/19, MLv3.7/19, Error ellipse: s-maj=6.4km s-min=3.9km az=83.3, confirmed*

ISC 04 00:29:30.8±1.4**, 40°.20S**±0°.03×**174°.33E**±0°.03**, h103**^{km}±8^{km}**, n152, σ0^{s}.97**/156**, Cook Strait**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WCDS	Wanganui Civil	0.61	65	P	Pn	00 29 48.4	+0.7
WCDS				S	Sn	00 30 00.4	0.0
WAZ	Wanganui	0.67	49	P	Pn	00 29 48.9	+0.6
WAZ				S	Sn	00 30 00.9	-0.4
WAZ				AML	AML		
WAZ				AML	AML		
DUWZ	D'Urville Isla	0.68	207	P	Pn	00 29 48.9	+0.6
DUWZ				S	Sn	00 30 01.3	-0.3
DUWZ				AML	AML		
DUWZ				AML	AML		
FXBS	Foxton Beach S	0.74	111	S	Sn	00 30 02.4	+0.1
LREZ	Lake Rotokare	0.74	5	P	Pn	00 29 49.2	+0.4
LREZ				S	Sn	00 30 02.2	-0.1
LREZ				AML	AML		
LREZ				AML	AML		
OHWZ	Ohakea	0.76	91	P	Pn	00 29 48.2	-0.8
KIW	Kapiti Island	0.80	146	P	Pn	00 29 49.7	+0.3
KIW				S	Sn	00 30 01.7	-1.8
KIW				AML	AML		
KIW				AML	AML		
NMEZ	Namu Road	0.85	336	P	Pn	00 29 50.2	+0.3
NMEZ				AML	AML		
NMEZ				AML	AML		
PREZ	Palmer Road	0.86	351	P	Pn	00 29 50.4	+0.3
PREZ				S	Sn	00 30 04.1	-0.4
PREZ				AML	AML		
PREZ				AML	AML		
OGWZ	Otaki Gorge	0.89	134	P	Pn	00 29 50.9	+0.6
OGWZ				AML	AML		
OGWZ				AML	AML		
KHEZ	Kahui Hut	0.93	345	P	Pn	00 29 50.6	-0.2
KHEZ	Kahui Hut	0.93	345	S	Sn	00 30 05.1	-0.8
KHEZ	Kahui Hut	0.93	345	P	Pn	00 29 51.2	+0.3
KHEZ				AML	AML		
KHEZ				AML	AML		
NEZ	North Egmont	0.94	349	P	Pn	00 29 51.2	+0.3
NEZ				AML	AML		
NEZ				AML	AML		
HUKS	Huiakama Schoo	0.95	11	P	Pn	00 29 51.3	+0.4
NBEZ	Newall Road No	0.99	339	P	Pn	00 29 51.8	+0.5
NBEZ				AML	AML		
NBEZ				AML	AML		
POKS	Katoa Kinderga	1.00	158	P	Pn	00 29 52.7	+1.3
PWES	Porirua West	1.00	158	P	Pn	00 29 52.7	+1.2
DREZ	Durham Road	1.01	354	P	Pn	00 29 52.2	+0.6
DREZ				AML	AML		
DREZ				AML	AML		
TCW	Tory Channel	1.01	182	P	Pn	00 29 52.5	+0.9
TCW				AML	AML		
TCW				AML	AML		
PKE	Pukeiti	1.03	345	P	Pn	00 29 52.2	+0.4
PKE				AML	AML		
PKE				AML	AML		
MRZ	Mangatainoka R	1.06	116	P	Pn	00 29 52.6	+0.6
MRZ				AML	AML		
MRZ				AML	AML		
CAW	Cannon Point	1.07	149	P	Pn	00 29 53.1	+0.9
MHEZ	Mangahewa	1.12	360	P	Pn	00 29 53.5	+0.8
MHEZ				AML	AML		
MHEZ				AML	AML		
POWZ	Post Office Ro	1.12	101	P	Pn	00 29 54.5	+1.8
POWZ				AML	AML		
POWZ				AML	AML		
VRZ	Vera Road	1.12	17	P	Pn	00 29 53.2	+0.5
VRZ				AML	AML		
VRZ				AML	AML		
WEL	Wellington	1.14	163	P	Pn	00 29 54.1	+1.2
WEL				AML	AML		
WEL				AML	AML		
HOWZ	Holdsworth Sta	1.15	128	P	Pn	00 29 53.8	+0.8
HOWZ				AML	AML		
HOWZ				AML	AML		
SNZO	South Karori	1.15	166	P	Pn	00 29 53.7	+0.7
SNZO	South Karori	1.15	166	S	Sn	00 30 09.1	-0.8
MTVZ	Mangateitei	1.20	48	P	Pn	00 29 54.2	+0.5
NNZ	Nelson	1.25	215	P	Pn	00 29 55.4	+1.2
NNZ				AML	AML		
NNZ				AML	AML		
TSZ	Takapari Road	1.26	84	P	Pn	00 29 54.7	+0.3
TRVZ	Turoa	1.30	47	P	Pn	00 29 55.6	+0.6
PRWZ	Pori Road	1.31	106	P	Pn	00 29 55.6	+0.8
WNVZ	Wahianoa	1.31	49	P	Pn	00 29 55.6	+0.5
MTW	Mount Morrison	1.31	137	P	Pn	00 29 55.9	+1.0
TIWZ	Tintock	1.32	117	P	Pn	00 29 58.7	+3.6
MAVZ	Matarangi	1.33	46	P	Pn	00 29 55.9	+0.4
FWVZ	Far West T-bar	1.33	46	P	Pn	00 29 55.8	+0.4
WHVZ	Whangaehu Hut	1.33	47	P	Pn	00 29 55.7	+0.3
TKNZ	Takaka Hill	1.34	231	P	Pn	00 29 56.3	+1.1
TKNZ				AML	AML		
TKNZ				AML	AML		
MOVZ	Moawhango	1.35	55	P	Pn	00 29 55.9	+0.4
COVZ	Chateau Observ	1.37	44	P	Pn	00 29 56.2	+0.5
TUVZ	Tukino	1.38	48	P	Pn	00 29 56.8	+0.9
MSWZ	Moikau Station	1.41	150	P	Pn	00 29 57.1	+1.0
DVHZ	Dannevirke	1.41	95	P	Pn	00 29 56.2	+0.1
TWVZ	Taurewa	1.41	38	P	Pn	00 29 56.7	+0.4
NGZ	Ngauruhoe	1.42	44	P	Pn	00 29 56.8	+0.4
SNVZ	South Ngauruho	1.43	46	P	Pn	00 29 57.1	+0.6
PAWZ	Paruwai Farm	1.45	145	P	Pn	00 29 57.5	+0.9
WTVZ	West Tongariro	1.45	42	P	Pn	00 29 57.3	+0.5
OTVZ	Oturere	1.46	45	P	Pn	00 29 57.4	+0.6
PNHZ	Pukenui	1.46	80	P	Pn	00 29 56.7	0.0
KRVZ	Karewarewa	1.50	43	P	Pn	00 29 57.7	+0.5
TMWZ	Te Maipa	1.50	128	P	Pn	00 29 58.2	+1.1
ETVZ	East Tongariro	1.50	46	P	Pn	00 29 58.1	+0.7
QRZ	Quartz Range	1.51	245	P	Pn	00 29 57.6	+0.3
QRZ	Quartz Range	1.51	245	P	Sn	00 30 16.6	-0.8
QRZ	Quartz Range	1.51	245	P	Pn	00 29 57.9	+0.6
QRZ				AML	AML		
QRZ				AML	AML		
BHHZ	Black Hill Sta	1.51	63	P	Pn	00 29 57.6	+0.2
NTVZ	North Tongarir	1.51	44	P	Pn	00 29 58.0	+0.6
TMVZ	Te Maari	1.51	45	P	Pn	00 29 58.2	+0.7
PLWZ	Palliser	1.54	153	P	Pn	00 29 58.6	+0.8
PLWZ				AML	AML		
PLWZ				AML	AML		
BFZ	Birch Farm	1.54	109	P	Pn	00 29 58.2	+0.5
BFZ	Birch Farm	1.54	109	P	Sn	00 30 16.6	-1.6
BFZ	Birch Farm	1.54	109	P	Pn	00 29 58.0	+0.3
CMWZ	Cape Campbell	1.55	183	P	Pn	00 30 00.1	+2.2
CMWZ				AML	AML		
CMWZ				AML	AML		
BSWZ	Blackbirch Sta	1.56	193	P	Pn	00 29 59.5	+1.6
BSWZ				AML	AML		
BSWZ				AML	AML		
TRWZ	Traveller	1.58	140	P	Pn	00 29 59.6	+1.4
KATZ	Kakaramea	1.61	41	P	Pn	00 29 59.3	+0.6
WPHZ	Waipukurau	1.62	86	P	Pn	00 30 00.4	+1.7
KRHZ	Kereru	1.67	71	P	Pn	00 29 59.4	+0.2
MRNZ	Matariki Terra	1.69	224	P	Pn	00 30 01.0	+1.4
RITZ	Rihia Road	1.70	45	P	Pn	00 30 00.6	+0.9
HIZ	Hauiti	1.73	14	P	Pn	00 30 00.2	+0.2
HIZ	Hauiti	1.73	14	S	Sn	00 30 21.5	-0.8
HIZ	Hauiti	1.73	14	P	Pn	00 30 00.5	+0.5
RATZ	Rangitukua	1.73	41	P	Pn	00 30 01.0	+0.8
PRHZ	Porangahau	1.77	93	P	Pn	00 30 00.8	+0.3
KWHZ	Kaweka Forest	1.79	65	P	Pn	00 30 01.7	+0.9
WATZ	Wairara	1.84	37	P	Pn	00 30 02.8	+1.4
THZ	Tophouse	1.90	214	P	Pn	00 30 03.8	+1.6
PXZ	Pawanui	1.95	86	P	Pn	00 30 03.5	+0.8
BKZ	Black Stump Fm	1.96	59	P	Pn	00 30 02.8	-0.2
BKZ	Black Stump Fm	1.96	59	S	Sn	00 30 27.0	-0.6
MCHZ	McNeill Hill	1.97	68	P	Pn	00 30 03.5	+0.4
WHTZ	Whakaora	1.98	40	P	Pn	00 30 08.8	+5.6
KAHZ	Kahuranaki	2.00	79	P	Pn	00 30 03.9	+0.4
KUTZ	Kaahu Road	2.06	35	P	Pn	00 30 06.1	+1.8
TLZ	Tolley Road	2.09	27	P	Pn	00 30 05.1	+0.5
MRHZ	Matea Rd	2.11	51	P	Pn	00 30 04.9	-0.1
NMHZ	Naumai	2.21	61	P	Pn	00 30 06.3	+0.1
ARHZ	Aropaoanui	2.26	67	P	Pn	00 30 06.7	-0.1
KHZ	Kahutara	2.30	195	P	Pn	00 30 08.4	+1.2
KHZ	Kahutara	2.30	195	P	Pn	00 30 08.7	+1.5
MTHZ	Maungataniwha	2.36	56	P	Pn	00 30 08.2	0.0
DSZ	Denniston Nort	2.46	230	P	Pn	00 30 10.6	+1.2
RAHZ	Arahi	2.49	60	P	Pn	00 30 12.5	+2.7
MUGZ	Murupara	2.56	49	P	Pn	00 30 11.1	+0.4
RTZ	Ruatahuna	2.59	53	P	Pn	00 30 12.2	+1.0
TOZ	Tahuroa Road	2.63	21	P	Pn	00 30 12.4	+0.8
TGRZ	Tauranga	2.89	32	P	Pn	00 30 16.4	+1.3
URZ	Urewera	2.90	49	P	Pn	00 30 15.2	0.0
URZ	Urewera	2.90	49	P	Pn	00 30 15.0	-0.3
GVZ	Greta Valley S	2.93	199	P	Pn	00 30 16.4	+0.7
RAGZ	Rawiri	2.94	56	P	Pn	00 30 19.4	+3.6
MHGZ	Mahia Peninsul	2.95	70	P	Pn	00 30 15.0	-0.9
LTZ	Lake Taylor	3.01	210	P	Pn	00 30 17.3	+0.5
MWZ	Matawai	3.10	54	P	Pn	00 30 20.2	+2.2
AWAZ	Awhitu Peninsu	3.14	5	P	Pn	00 30 19.4	+1.0
MKAZ	Moumakai	3.15	12	P	Pn	00 30 19.5	+0.8
AMCZ	Amberley	3.23	202	P	Pn	00 30 20.0	+0.4
WTAZ	Waiatarua	3.26	3	P	Pn	00 30 21.4	+1.2
ETAZ	East Tamaki Re	3.27	8	P	Pn	00 30 21.3	+1.1
MYRZ	Mayor Island	3.27	28	P	Pn	00 30 21.7	+1.5
INZ	Inchbonnie	3.33	220	P	Pn	00 30 21.0	+0.1
EPAZ	Eden Park BICE	3.33	6	P	Pn	00 30 22.2	+1.2
HBAZ	Herne Bay Bore	3.35	6	P	Pn	00 30 22.5	+1.2
RVAZ	Riverhead Bore	3.43	3	P	Pn	00 30 23.3	+1.0
RUGZ	Raukumara Rang	3.43	51	P	Pn	00 30 21.2	-1.2
MBAZ	Motutapu North	3.45	8	P	Pn	00 30 23.6	+1.0
WIAZ	Waiheke Island	3.46	11	P	Pn	00 30 23.7	+1.0
TWGZ	Tauwhareparae	3.48	56	P	Pn	00 30 27.9	+4.9
OXZ	Oxford	3.57	208	P	Pn	00 30 23.4	-0.7
ABAZ	Army Bay	3.61	6	P	Pn	00 30 26.0	+1.2
OKCZ	Okains Bay	3.65	195	P	Pn	00 30 25.1	-0.1
PUZ	Puketiti	3.72	56	P	Pn	00 30 26.1	-0.2
MQZ	McQueen's Vall	3.72	199	P	Pn	00 30 25.2	-1.0
PKGZ	Pakihiroa	3.73	53	P	Pn	00 30 24.9	-1.5
AKCZ	Akaroa Harbour	3.82	196	P	Pn	00 30 27.4	-0.1
RACZ	Rakaia	3.89	204	P	Pn	00 30 27.7	-0.7
MHCZ	Mount Hutt	3.92	211	P	Pn	00 30 28.9	0.0
GRZ	Great Barrier	4.04	13	P	Pn	00 30 31.3	+0.8
MXZ	Matakaoa Point	4.07	51	P	Pn	00 30 31.5	+0.6
MXZ	Matakaoa Point	4.07	51	P	Pn	00 30 31.3	+0.4
WACZ	Wakanui South	4.18	206	P	Pn	00 30 31.7	-0.6
WCZ	Waipu Caves	4.25	0	P	Pn	00 30 34.6	+1.2
RPZ	Rata Peaks	4.28	214	P	Pn	00 30 34.9	+1.2
GCSZ	Gaunt Creek Bo	4.32	223	P	Pn	00 30 34.6	+0.4
ARCZ	Arundel	4.42	211	P	Pn	00 30 35.9	+0.2
FOZ	Fox Glacier	4.74	224	P	Pn	00 30 39.6	-0.3
TMZ	Timaru	4.86	209	P	Pn	00 30 40.5	-1.0
OUZ	Omahuta	5.00	353	P	Pn	00 30 44.1	+0.6
OUZ	Omahuta	5.00	353	P	Pn	00 30 44.5	+1.0
ODZ	Otahua Downs	5.55	208	P	Pn	00 30 51.3	+0.4
ODZ	Otahua Downs	5.55	208	P	Pn	00 30 50.2	-0.7
JCZ	Jackson Bay	5.66	225	P	Pn	00 30 52.0	-0.4
JCZ	Jackson Bay	5.66	225	P	Pn	00 30 52.1	-0.4
TUZ	Tuapeka	6.70	209	P	Pn	00 31 07.2	+0.7
CTZ	Chatham Island	7.62	121	P	Pn	00 31 19.7	+0.8
CTZ	Chatham Island	7.62	121	P	Pn	00 31 19.5	+0.5

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*IDC **04** 00:30:20.1±1.0, 36°.22N×136°.10E, h0^{km}, mb3.7/6, mbtmp3.7/8, ML3.0/2, Error ellipse: s-maj=22.7km s-min=15.6km az=176.0*

*JMA **04** 00:30:21.5±0.1, 36°.1N±0°.1×136°.2E±0°.2, h7^{km}, MV3.7/20, CENTRAL FUKUI PREF*

JMA Felt III J1 at CENTRAL FUKUI PREF .

*NIED **04** 00:30:21.5, 36°.11N×136°.19E, h7^{km}, MW3.7, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}1.71; $M_{\theta\theta}$0.65; $M_{\phi\phi}$-2.36; $M_{r\theta}$1.80; $M_{\theta\phi}$-1.75; $M_{\phi r}$0.90. Fault plane solution: $M_0$3.36000×10^{14} NP1: ϕ_s170.00000°, δ41.00000°, λ31.00000°. NP2: ϕ_s55.00000°, δ70.00000°, λ126.00000°.*

ISC 04 00:30:21.5±1.3**, 36°.14N**±0°.06×**136°.18E**±0°.06**, h12**^{km}±8^{km}**, n12, σ0^{s}.81**/15**, mb3.6**/6**, 3D, Near west coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JKG	Kaga	0.18	41	*i* P	Pg	00 30 25.8	+0.2
JKG				S	Sg	00 30 28.9	+0.4
JYTA	Yamagatataniai	0.70	140	⇓*i*P	Pg	00 30 34.5	-0.6
JGN	Niukaw	0.92	84	⇓*i*P	Pg	00 30 38.9	-0.5
JGN				⇓S	Sg	00 30 51.2	-0.2
MJAR	Matsushiro Arr	1.69	76	Pn	Pb	00 30 52.3	-0.2
	4.6nm,0.3s,baz=256,slow=15,SNR=145						
MJAR				Sn	Sb	00 31 14.7	+1.0
	2.5nm,0.3s,baz=256,slow=28,SNR=6.7						
JNU	Nakatsue	5.31	237	Pn	Pn	00 31 41.5	+0.8
	0.4nm,0.3s,baz=350,slow=6.1,SNR=3.0						
	4.5nm,0.7s						
JNU				AML	AML		
USRK	Ussuriysk Ar.	8.67	340	Pn	Pn	00 32 25.0	-1.7
	0.4nm,0.3s,baz=162,slow=10,SNR=2.9						
	3.7nm,0.8s						
USRK				AML	AML		
SONM	Songino Array	24.88	307	P	P	00 35 44.6	+0.5
	0.9nm,0.6s,baz=120,slow=9.5,SNR=4.8						
	0.9nm,0.6s						
MKAR	Makanchi Array	41.03	302	P	P	00 38 05.1	+0.5
	0.7nm,0.6s,baz=86,slow=10,SNR=7.3						
	0.7nm,0.6s						
KURBB	Kurchatov Arra	43.24	308	P	P	00 38 22.3	-0.2
	1.0nm,0.8s,baz=87,slow=8.3,SNR=11						
	1.0nm,0.8s						

```
ASAR  Alice Springs     59.52 182  P       P        00 40 25.3 +0.6
      0.7nm,0.8s,baz=7.1,slow=7.4,SNR=2.6
      0.7nm,0.8s
FINES FINESS Array B    67.59 331  P       P        00 41 16.9 -0.7
      2.4nm,1.0s,baz=98,slow=2.7,SNR=5.7
      2.4nm,1.0s
PDAR  Pinedale Array    81.24  43  P       P        00 42 38.2 +0.5
      0.3nm,0.7s,baz=308,slow=7.9,SNR=2.0
      0.3nm,0.7s
```

ZUR 04 00:43:54.1, 45°.87N×6°.99E, h0km±1km, MLh0.1/7, 3C, Error ellipse: s-maj=2882.6km s-min=863.5km az=67.0, France

```
Code  Station Name       Δ°   AZ°    Phase ID            Time     Res
                                   Op      ISC         h  m  s    ISC
BLANC P.ta Helbronne     0.04 234 ⇑Pg      Pg        00 43 55.4 +0.3
BLANC                              AML     AML
MRGE  Morge              0.11 153 ⇑Pg      Pg        00 43 56.7 +0.4
MRGE                               AML     AML
MFERR Prayon, Val Fe     0.12  48  Sg      Sg        00 43 58.6 +0.6
MFERR                              AML     AML
REMY  Saint-Rhmy-en      0.12 106 ⇑Pg      Pg        00 43 57.1 +0.5
REMY                               AML     AML
REMY  Saint-Rhmy-en      0.12 106  Pg      Pg        00 43 57.0 +0.5
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*LDG **04** 00:43:57.8±0.1, 45°.84N×7°.00E, h2km, Md1.9/2, Ml1.0/1, Error ellipse: s-maj=2.4km s-min=2.0km az=107.0*

*ZUR **04** 00:43:57.7, 45°.88N×6°.99E, h0km±1km, MLh0.7/25, Error ellipse: s-maj=2273.3km s-min=783.6km az=85.0*

STR 04 00:43:57.8±0.0, 45°.9N±0°.1×6°.99E±0°.09, h2km, MLv0.8/6, 3C, LOCSAT earthModelID alpes_taup-2.11 preliminary, France

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Code  Station Name       Δ°   AZ°    Phase ID            Time     Res
                                   Op      ISC         h  m  s    ISC
BLANC P.ta Helbronne     0.04 233 ⇑Pg      Pg        00 43 59.0 +0.2
BLANC                              AML     AML
BLANC P.ta Helbronne     0.04 233  P       Pg        00 43 58.9  0.0
BLANC                              S       Sg        00 43 59.8 +0.1
MRGE  Morge              0.12 152 ⇑Pg      Pg        00 44 00.4 +0.3
MRGE                               AML     AML
MRGE  Morge              0.12 152  P       Pg        00 44 00.3 +0.2
MRGE                               S       Sg        00 44 02.2 +0.6
MFERR Prayon, Val Fe     0.12  48  Sg      Sg        00 44 02.2 +0.4
MFERR                              AML     AML
REMY  Saint-Rhmy-en      0.12 106 ⇑Pg      Pg        00 44 00.7 +0.4
REMY                               AML     AML
REMY  Saint-Rhmy-en      0.12 106  Sg      Sg        00 44 00.8 -1.2
REMY  Saint-Rhmy-en      0.12 106  P       Pg        00 44 00.7 +0.4
REMY                               S       Sg        00 44 02.8 +0.8
OGSI  Sixt               0.25 321  Pg      Pg        00 44 02.6 -0.1
OGSI                               Sg      Sg        00 44 06.2 +0.2
RSL   Roselend           0.31 234  Pg      Pg        00 44 03.9 +0.1
RSL                                Sg      Sg        00 44 07.9  0.0
RSL   Roselend           0.31 234  P       Pb        00 44 05.8 -0.4
RSL                                S       Sb        00 44 10.0 -1.8
DIX   Grande Dixence     0.36  55  Pg      Pg        00 44 05.0 +0.2
DIX                                Sg      Sg        00 44 09.9 +0.4
LPL   La Plagne          0.40 207  ePg     Pg        00 44 05.0 -0.4
LPL                                eSg     Sg        00 44 09.2 -1.4
      1.4nm,0.2s
LPG   La Plagne          0.41 204  ePg     Pg        00 44 05.4 -0.3
LPG                                eSg     Sg        00 44 10.6 -0.4
      1.7nm,0.2s
LSD   Lago del Serru     0.42 166  Pg      Pg        00 44 06.2 +0.3
LSD                                Sg      Sg        00 44 12.0 +0.4
AIGLE Aigle              0.47 357  Sg      Sg        00 44 13.4 +0.4
CIRO  Champorcher        0.49 123  Pg      Pg        00 44 07.3 +0.1
CIRO                               Sg      Sg        00 44 13.9 +0.4
SENIN Lac Senin/Sane     0.54  24  Sg      Sg        00 44 15.6 +0.5
SENIN                              AML     AML
SATI  Passo dei Sala     0.62  89  Sg      Sg        00 44 18.2 +0.5
OG35  Corcelles          1.00 280  Pn      Pn        00 44 19.0  0.0
OG35                               Sg      Sb        00 44 31.1 -0.5
OG35                               Sn      Sn        00 44 34.6 +0.9
MBDF  Montbardon         1.15 188  ePg     Pg        00 44 18.3 -1.6
MBDF                               eSg     Sg        00 44 33.1 -1.8
      0.2nm,0.2s
MBDF                               AML     AML
CHMF  Charmoille         1.40 351  Pn      Pn        00 44 24.2 -0.2
CHMF                               Sn      Sn        00 44 44.8 +1.4
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*NEIC **04** 00:44:50.3±1.2, 6°.61S±0°.08×128°.40E±0°.08, h272km±8km, mb4.2/26, Error ellipse: s-maj=12.4km s-min=10.5km az=133.0*

*DJA **04** 00:44:51.2±0.2, 7°S±3°×12°8E±°, h256km±8km, M4.4/13, mb4.5/13, mB4.8/6, MLv4.5/13, Mw(mB)4.1/6*

*IDC **04** 00:44:51.0±3.4, 6°.65S×128°.30E, h280km±37km, mb3.7/12, mbtmp4.5/15, Error ellipse: s-maj=28.9km s-min=12.5km az=74.0*

ISC 04 00:44:48.6±0.5, 6°.66S±0°.05×128°.36E±0°.06, h250km, n64, σ1s.50/60, mb4.2/25, Banda Sea

```
Code  Station Name       Δ°   AZ°    Phase ID            Time     Res
                                   Op      ISC         h  m  s    ISC
SAUI  Saumlaki           3.19 114  Pn      Pn        00 45 46.0 +2.7
SAUI                                       S         00 46 27.7 +1.2
KRAI  Karang Ratu        3.32   1  P       Pn        00 45 49.1 +4.4
KRAI                               AML     AML
NLAI  Namlea             3.62 340  P       Pn        00 45 53.6 +5.5
NLAI                               AML     AML
SOEI  Soe                5.09 233          Pn        00 46 08.6 +3.0
SOEI                               Sn      S         00 47 08.7 +1.7
SOEI  Soe                5.09 233  P       Pn        00 46 08.5 +2.8
      1.0nm3μm187nm,0.8s
SOEI                               AML     AML
SANI  Sanana             5.16 333  P       Pn        00 46 09.3 +2.9
      0.5nm1μm108nm,0.6s
SANI                               AML     AML
FAKI  Fak Fak            5.37  46          Pn        00 46 10.1 +1.1
FAKI  Fak Fak            5.37  46  P       Pn        00 46 10.0 +1.0
      0.6nm2μm70nm,0.6s
FAKI                               AML     AML
SWI   Sorong             6.44  27  P       Pn        00 46 23.8 +1.4
      60nm,0.8s
MTN   Manton Dam         6.72 156          Pn        00 46 28.0 +2.2
KNRA  Kununurra          8.97 178          Pn        00 46 56.1 +1.9
FITZ  Fitzroy Crossi    11.68 193  P       Pn        00 47 29.1 +0.9
      7.4nm,0.4s,baz=29,slow=10,SNR=42
FITZ                               S       S         00 49 37.3 -1.3
      6.1nm,0.5s,baz=102,slow=18,SNR=3.7
FITZ  Fitzroy Crossi    11.68 193          Pn        00 47 29.4 +1.1
WB0   Warramunga Arr    14.28 156  P       Pn        00 48 00.7 +0.4
WRAB  Tennant Creek     14.42 157  P       Pn        00 48 02.3 +0.4
WRA   Warramunga Arr    14.42 157  P       Pn        00 48 02.2 +0.2
      14nm,0.5s,baz=336,slow=12,SNR=85
WRA                                S       S         00 50 39.1 -2.5
      3.7nm,0.6s,baz=336,slow=22,SNR=6.1
WRA   Warramunga Arr    14.42 157  P       Pn        00 48 01.2 -0.8
WR8   Warramunga Arr    14.50 156  P       Pn        00 48 03.3 +0.4
COEN  Coen              16.27 118  P       P         00 48 22.9 +0.3
AS31  Alice Springs     17.73 163  P       P         00 48 40.2 +1.8
ASAR  Alice Springs     17.73 163  P       P         00 48 40.2 +1.8
      34nm,0.5s,baz=344,slow=11,SNR=4.3
ASAR                               S       S         00 51 46.0 -3.3
      1.9nm,0.9s,baz=348,slow=23,SNR=5.0
ASAR  Alice Springs     17.73 163  P       P         00 48 39.4 +1.0
CTA   Charters Tower    21.90 129  P       P         00 49 23.1 +1.2
      7.4nm,0.7s,baz=288,slow=12,SNR=7.7
      7.4nm,0.7s
CTAO  Charters Tower    21.90 129  P       P         00 49 23.1 +1.2
CTAO                               IAmb    IAmb      00 49 24.3
      comp=Z,10nm,0.8s
FORT  Forrest           24.00 181  P       P         00 49 40.6 -0.2
FORT                               IAmb    IAmb      00 49 42.3
      comp=Z,9.9nm,0.9s
MORW  Morawa            25.14 206  P       P         00 49 51.0 -0.2
MORW                               IAmb    IAmb      00 50 08.9
      comp=Z,8.0nm,1.1s
BBOO  Buckleboo         26.99 166  P       P         00 50 07.9 +0.3
BBOO                               IAmb    IAmb      00 50 08.6
      comp=Z,8.1nm,0.6s
STKA  Stephens Creek    27.97 155  P       P         00 50 16.6 +0.2
      comp=Z,3.7nm,0.6s,baz=292,slow=8.2,SNR=5.4
      comp=Z,3.7nm,0.6s
ARMA  Armidale          32.18 140  P       P         00 50 55.2 +1.6
ARMA                               IAmb    IAmb      00 51 08.4
      comp=Z,6.8nm,1.1s
JOW   Kunigami          33.29 360  P       P         00 51 02.2 -0.8
CAN   Canberra          34.26 149  P       P         00 51 12.8 +1.5
KSRS  Korea Array       43.89 359  P       P         00 52 30.3 -0.4
      comp=Z,4.8nm,0.6s,baz=178,slow=9.4,SNR=14
      comp=Z,4.8nm,0.6s
MJAR  Matsushiro Arr    43.95  11  P       P         00 52 28.9 -2.3
      comp=Z,3.5nm,0.9s,baz=184,slow=9.0,SNR=5.9
      comp=Z,3.5nm,0.9s
USRK  Ussuriysk Ar.     50.73   3  P       P         00 53 22.4 -0.7
      comp=Z,3.3nm,0.6s,baz=186,slow=6.9,SNR=5.7
      comp=Z,3.3nm,0.6s
XLT   XiLinHaoTe        51.54 349  eP      P         00 53 28.8 -0.5
XLT                                pmax    pmax
      comp=Z,14nm,0.9s
ULN   Ulaanbaatar       57.46 343  P       P         00 54 12.4 +0.7
SONM  Songino Array     57.62 343  P       P         00 54 13.1 +0.3
      comp=Z,3.1nm,0.6s,baz=162,slow=7.9,SNR=18
      comp=Z,3.1nm,0.6s
SONM  Songino Array     57.62 343  P       P         00 54 12.9 +0.1
SONM                               IAmb    IAmb      00 54 14.0
      comp=Z,3.7nm,0.8s
CASY  Casey             60.80 188  P       P         00 54 33.4 -0.7
MKAR  Makanchi Array    67.06 327  P       P         00 55 14.6 -0.5
      comp=Z,5.4nm,0.4s,baz=115,slow=8.7,SNR=86
      comp=Z,5.4nm,0.4s
MKAR  Makanchi Array    67.06 327  P       P         00 55 14.9 -0.3
MAKZ  Makanchi          67.24 327  P       P         00 55 15.3 -1.0
BOOM  Boomskoye usch    68.25 321  P       P         00 55 22.3 -0.6
ZAA0  Zalesovo Array    70.57 334  P       P         00 55 35.2 -1.3
ZAA0                               IAmb    IAmb      00 55 35.8
      comp=Z,4.2nm,0.7s
ZALV  Zalesovo Beam     70.57 334  P       P         00 55 35.1 -1.4
      comp=Z,3.8nm,0.6s,baz=124,slow=5.3,SNR=21
      comp=Z,3.8nm,0.6s
ZALV  Zalesovo Beam     70.57 334  P       P         00 55 35.3 -1.2
KURBB Kurchatov Arra    71.38 329  P       P         00 55 40.7 -0.8
      comp=Z,5.2nm,0.5s,baz=133,slow=5.1,SNR=74
      comp=Z,5.2nm,0.5s
VNDA  Vanda             72.98 173  P       P         00 55 49.8 -0.7
      comp=Z,0.4nm,0.7s,baz=318,slow=9.1,SNR=2.3
      comp=Z,0.4nm,0.7s
VNDA  Vanda             72.98 173  P       P         00 55 49.7 -0.8
BVAR  Borovoye Array    76.92 328  P       P         00 56 11.8 -1.5
      comp=Z,1.3nm,0.6s,baz=128,slow=4.1,SNR=5.2
      comp=Z,1.3nm,0.6s
QSPA  South Pole Qui    83.31 180  P       P         00 56 45.9 -1.5
      comp=Z,1.0nm,0.9s,baz=281,slow=1.7,SNR=6.3
      comp=Z,1.0nm,0.9s
QSPA  South Pole Qui    83.31 180  P       P         00 56 46.1 -1.3
ARTI  Arti              84.64 328  P       P         00 56 53.0 -1.0
ARTI                               IAmb    IAmb      00 56 53.6
      comp=Z,4.1nm,0.7s
RAYN  Ar Rayn           86.12 294  P       P         00 57 01.4 -0.8
RAYN                               IAmb    IAmb      00 57 02.0
      comp=Z,1.3nm,0.7s
L16K  Owhat River       87.50  27  P       P         00 57 06.4 -1.4
L16K                               IAmb    IAmb      00 57 14.1
      comp=Z,2.5nm,1.1s
M16K  Timber Creek      87.51  28  P       P         00 57 06.7 -1.2
M16K                               IAmb    IAmb      00 57 09.4
      comp=Z,4.8nm,1.1s
KDAK  Kodiak Island     89.78  32  P       P         00 57 18.9 +0.3
C19K  Lookout Ridge     89.87  20  P       P         00 57 17.6 -1.2
K20K  Telida            90.37  26  P       P         00 57 20.1 -1.1
F20K  Avaraart Lake     90.64  22  P       P         00 57 20.4 -2.0
F20K                               IAmb    IAmb      00 57 39.2
      comp=Z,2.6nm,1.1s
RND   Reindeer          92.68  27  P       P         00 57 29.1 -3.0
RND                                IAmb    IAmb      00 57 29.9
      comp=Z,4.8nm,1.0s
BMAR  Burnt Mountain    94.97  23  P       P         00 57 41.2 -1.2
BCAR  Beaver Creek A    95.82  27  P       P         00 57 45.2 -1.2
F28M  Old Crow          96.78  23  P       P         00 57 49.4 -1.2
F28M                               IAmb    IAmb      00 58 08.7
      comp=Z,2.1nm,1.1s
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*IDC **04** 00:47:18.0±1.7, 23°.72S×66°.57W, h192km±18km, mb3.3/4, mbtmp3.8/9, Error ellipse: s-maj=25.7km s-min=13.8km az=99.0*

*SJA **04** 00:47:18.8±0.7, 23°.85S×66°.71W, h219km±6km, ML3.6, MW3.6*

*NEIC **04** 00:47:18.3±1.7, 23°.91S±0°.06×66°.7W±0°.1, h203km±6km, mb4.3/5, ML4.0(GUC), Error ellipse: s-maj=15.8km s-min=9.0km az=88.0*

*GUC **04** 00:47:19.0±0.6, 23°.81S×66°.76W, h223km±9km, ML4.0*

ISC 04 00:47:18.0±0.6, 23°.82S±0°.04×66°.73W±0°.04, h195km, n92, σ2s.32/123, mb3.8/4, 6C-1D, Jujuy Province

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Code  Station Name       Δ°   AZ°    Phase ID            Time     Res
                                   Op      ISC         h  m  s    ISC
SALTA                    0.54 138  eP      Pn        00 47 48.8 +3.5
SALTA                               IAML             00 47 49.1
      comp=Z,341nm,0.7s
HJA   Humahuaca          1.36  63  eP      Pn        00 47 47.4 -3.1
HJA                                eP                00 47 53.4
SLA   San Lorenzo        1.43 129  eP      Pn        00 47 54.2 +3.3
SLA   San Lorenzo        1.43 129⇓eP      Pn        00 47 54.2 +3.3
AF01  San Pedro de A     1.59 303  eP      Pn        00 47 56.9 +4.5
AF01                               eS      Sn        00 48 27.2 +8.2
AF01                                IAML             00 48 44.3
      comp=Z,140nm,0.5s
AF01  San Pedro de A     1.59 303  eP      Pn        00 47 56.5 +4.1
AF01  San Pedro de A     1.59 303          Pn        00 47 55.0 +2.6
YJA   Yavi               1.99  35  eP      Pn        00 47 59.8 +3.3
YJA                                eS      Sn        00 48 30.9 +4.5
YJA   Yavi               1.99  35  eP      Pn        00 47 59.4 +2.8
PB06  IPOC Station P     2.84 293  eP      Pn        00 48 08.9 +3.2
PB06                               eS      Sn        00 48 45.5 +2.7
PB06                                IAML             00 48 47.9
      comp=Z,212nm,0.4s
PB06  IPOC Station P     2.84 293  eP      Pn        00 48 08.3 +2.7
PB06                               eS      Sn        00 48 44.9 +2.2
PB06                                IAML             00 48 50.2
      comp=E,276nm,0.3s
PB06  IPOC Station P     2.84 293          Pn        00 48 08.3 +2.7
PB06                                Sn     Sn        00 48 44.9 +2.2
PB09  IPOC Station P     3.07 311  eP      Pn        00 48 12.1 +3.7
PB09                               eS      Sn        00 48 50.4 +2.7
PB09                                IAML             00 48 55.4
      comp=Z,66nm,0.2s
PB09  IPOC Station P     3.07 311  eP      Pn        00 48 11.6 +3.1
PB09                               eS      Sn        00 48 50.5 +2.7
PB09                                IAML             00 49 00.8
      comp=E,91nm,0.5s
PB09  IPOC Station P     3.07 311          Pn        00 48 11.5 +3.1
PB09                                Sn     Sn        00 48 50.4 +2.7
AHML  Horco Molle        3.21 157  eP      Pn        00 48 08.7 -1.2
AHML                               eS      Sn        00 48 47.4 -3.2
PB03  IPOC Station P     3.30 302  eP      Pn        00 48 13.7 +2.5
PB03                               eS      Sn        00 48 53.7 +1.1
PB03                                IAML             00 48 58.2
      comp=Z,237nm,0.3s
PB03  IPOC Station P     3.30 302⇑eP      Pn        00 48 13.4 +2.3
PB03                               eS      Sn        00 48 53.2 +0.6
PB03  IPOC Station P     3.30 302          Pn        00 48 13.3 +2.1
PB05  IPOC Station P     3.33 286  eP      Pn        00 48 14.0 +2.5
PB05                               eS      Sn        00 48 54.7 +1.4
PB05                                IAML             00 49 01.6
      comp=Z,66nm,0.2s
PB05  IPOC Station P     3.33 286⇑eP      Pn        00 48 13.6 +2.0
PB05  IPOC Station P     3.33 286          Pn        00 48 13.5 +2.0
PB05                                Sn     Sn        00 48 54.3 +1.0
PB14  IPOC Station P     3.44 256  eP      Pn        00 48 15.4 +2.3
PB14                               eS      Sn        00 48 57.8 +1.7
PB14                                IAML             00 48 58.7
      comp=Z,109nm,0.5s
PB14  IPOC Station P     3.44 256⇑eP      Pn        00 48 15.2 +2.2
PB14  IPOC Station P     3.44 256          Pn        00 48 15.0 +1.9
PB07  IPOC Station P     3.58 305  eP      Pn        00 48 16.9 +2.3
PB07                               eS      Sn        00 48 59.5 +0.6
PB07                                IAML             00 49 04.1
      comp=Z,118nm,0.4s
PB07  IPOC Station P     3.58 305⇑eP      Pn        00 48 16.6 +2.0
PB07                               i S     Sn        00 48 58.8 -0.1
PB07  IPOC Station P     3.58 305          Pn        00 48 16.5 +2.0
AC02  Maricunga          3.70 215  eP      Pn        00 48 19.1 +2.8
AC02                               eS      Sn        00 49 09.6 +7.6
AC02  Maricunga          3.70 215⇑eP      Pn        00 48 19.1 +2.8
AC02  Maricunga          3.70 215          Pn        00 48 18.8 +2.4
PB02  IPOC Station P     3.84 310  eP      Pn        00 48 20.4 +2.6
PB02                               eS      Sn        00 49 04.0 -0.6
PB02                                IAML             00 49 08.1
      comp=Z,208nm,0.3s
PB02  IPOC Station P     3.84 310  eP      Pn        00 48 19.7 +2.0
PB02                               eS      Sn        00 49 03.8 -0.8
PB02  IPOC Station P     3.84 310          Pn        00 48 19.8 +2.0
AC01  Pan de Azucar      4.20 236  eP      Pn        00 48 23.3 +1.2
AC01                               eS      Sn        00 49 12.7 +0.1
AC01                                IAML             00 49 14.5
      comp=Z,30nm,0.5s
AC01  Pan de Azucar      4.20 236⇑eP      Pn        00 48 23.1 +1.0
AC01  Pan de Azucar      4.20 236          Pn        00 48 23.1 +1.0
AC01                                       Sn        00 49 11.7 -0.9
TINO  Tinogasta          4.29 190  eP      Pn        00 48 26.3 +3.0
PB08  IPOC Station P     4.30 328  eP      Pn        00 48 26.7 +2.9
PB08                               eS      Sn        00 49 17.1 +1.7
PB08                                IAML             00 49 19.9
      comp=Z,24nm,1.2s
PB08  IPOC Station P     4.30 328          Pn        00 48 26.3 +2.5
TA01  Diego Aracena      4.55 315  eP      Pn        00 48 28.7 +2.1
TA01                               eS      Sn        00 49 19.8 -0.8
TA01                                IAML             00 49 33.6
      comp=Z,35nm,0.5s
TA01  Diego Aracena      4.55 315   Pn     Pn        00 48 28.0 +1.4
GO01  Chusmiza           4.72 331  eP      Pn        00 48 32.4 +3.1
GO01                               eS      Sn        00 49 27.0 +1.7
GO01                                IAML             00 49 30.1
      comp=Z,25nm,0.6s
GO01  Chusmiza           4.72 331  eP      Pn        00 48 31.8 +2.5
GO01                               eS      Sn        00 49 25.7 +0.4
GO01  Chusmiza           4.72 331          Pn        00 48 30.8 +1.5
AC06  Mina Casimiro      4.80 222          Pn        00 48 30.1 +0.3
PB11  IPOC Station P     4.87 326  eP      Pn        00 48 31.9 +1.1
PB11                               eS      Sn        00 49 27.0 -1.2
PB11                                IAML             00 49 37.0
      comp=Z,28nm,0.3s
PB11  IPOC Station P     4.87 326  eP      Pn        00 48 31.5 +0.7
PB11                               eS      Sn        00 49 26.2 -2.0
PB11  IPOC Station P     4.87 326          Pn        00 48 31.9 +1.1
GO03  Copiapo            4.91 219  eP      Pn        00 48 32.0 +0.9
GO03                               eS      Sn        00 49 28.4 -0.3
GO03                                IAML             00 49 31.9
      comp=Z,44nm,0.4s
GO03  Copiapo            4.91 219          Pn        00 48 31.3 +0.2
VCA   Vinchina           5.07 195  eP      Pn        00 48 36.0 +2.7
PSGCX Pisagua            5.25 323  eP      Pn        00 48 36.4 +0.8
PSGCX                              eS      Sn        00 49 31.3 -5.7
PSGCX                               IAML             00 49 40.8
      comp=Z,22nm,0.4s
PSGCX Pisagua            5.25 323   Pn     Pn        00 48 36.5 +0.8
AC04  Llanos de Chal     5.85 221          Pn        00 48 43.1 -0.2
AC05  El Transito        5.92 212          Pn        00 48 44.9 +0.7
PB16  IPOC Station P     6.04 334          Pn        00 48 47.2 +0.9
PB12  IPOC Station P     6.17 326   Pn     Pn        00 48 47.7 +0.1
LCO   Las Campanas       6.27 214   Pn     Pn        00 48 48.1 -0.8
CO01  Juntas del Tor     6.82 205   Pn     Pn        00 48 56.8 +0.7
GO04  Tololo Observa     7.29 209   Pn     Pn        00 49 01.4 -0.8
LPAZ  La Paz             7.61 350   P      Pn        00 49 06.9  0.0
      comp=Z,1.8nm,0.5s,baz=164,slow=11,SNR=9.0
LPAZ                                S      Sn        00 50 31.2 -2.0
      comp=Z,0.7nm,0.5s,baz=90,slow=2.3,SNR=1.4
LPAZ  La Paz             7.61 350          Pn        00 49 08.0 +1.2
CO03  El Pedregal        7.82 206   Pn     Pn        00 49 08.5 -0.4
CFA   Coronel Fontan     7.86 189   P      Pn        00 49 09.4 -0.1
      comp=Z,3.0nm,0.3s,baz=25,slow=12,SNR=62
CFA                                 S      Sn        00 50 33.2 -4.9
      comp=Z,4.2nm,0.3s,baz=288,slow=23,SNR=19
ZON   Zonda              7.88 192   Pn     Pn        00 49 10.1 +0.3
CO06  Fray Jorge         8.10 212   Pn     Pn        00 49 11.6 -0.9
CO02  Combarbal          8.27 206   Pn     Pn        00 49 13.4 -1.4
CO04  Los Peladeros      9.00 204   Pn     Pn        00 49 23.5 -1.1
SIV   San Ignacio        9.44  35   P      Pn        00 49 28.9 -1.2
      comp=Z,5.1nm,0.6s,baz=211,slow=12,SNR=32
VA03  San Esteban        9.52 200   Pn     Pn        00 49 31.0 -0.1
MT02  Curacav           10.16 201   Pn     Pn        00 49 38.1 -1.2
MT03  Universidad Ad    10.19 198   Pn     Pn        00 49 37.6 -2.2
MT09  Talagante         10.59 200   Pn     Pn        00 49 44.1 -0.9
MT01  Popeta            10.76 201   Pn     Pn        00 49 46.6 -0.4
BO01  Tunca             11.19 199   Pn     Pn        00 49 50.0 -2.7
BO02  Sierra Bellavi    11.48 197   Pn     Pn        00 49 56.2 -0.3
TRQA  Tornquist         14.76 165   Pn     Pn        00 50 35.1 -2.3
PLCA  Paso Flores       17.16 190   P      Pn        00 51 07.0 +0.6
      comp=Z,1.3nm,0.8s,baz=358,slow=13,SNR=9.8
PLCA  Paso Flores       17.16 190   P      P         00 51 02.8 -2.1
VAO   Valinhos          18.16  91   P      P         00 51 14.6 -1.5
VAO                                 IAmb   IAmb      00 51 19.0
      comp=Z,9.6nm,0.6s
BDFB  Brasilia          19.40  69   P      P         00 51 28.3 -1.2
      comp=Z,1.7nm,0.3s,baz=228,slow=13,SNR=4.7
BDFB  Brasilia          19.40  69   P      P         00 51 27.7 -1.8
BDFB                                IAmb   IAmb      00 51 38.5
      comp=Z,7.2nm,1.2s
GO07  Milladeo Hill,    20.07 195   P      P         00 51 36.2 -0.2
SNAA  Sanae             59.44 161   P      P         00 57 00.7 +0.9
      comp=Z,0.6nm,0.4s,baz=9.0,slow=4.0,SNR=1.6
      comp=Z,0.6nm,0.4s
TXAR  Lajitas Array     63.68 324   P      P         00 57 29.0 +0.2
      comp=Z,0.2nm,0.6s,baz=127,slow=7.5,SNR=2.3
      comp=Z,0.2nm,0.6s
R40A  Maddies Statio    66.27 338   P      P         00 57 44.5 -0.7
R40A                                IAmb   IAmb      00 57 59.7
      comp=Z,8.9nm,1.4s
QSPA  South Pole Qui    66.38 180   P      P         00 57 47.4 +1.6
      comp=Z,1.1nm,0.5s,baz=85,slow=0.8,SNR=10
      comp=Z,1.1nm,0.5s
QSPA  South Pole Qui    66.38 180   P      P         00 57 46.9 +1.1
TORD  Torodi Ar. Bea    76.28  69   P      P         00 58 44.3 -1.4
      comp=Z,0.8nm,0.7s,baz=259,slow=5.6,SNR=11
      comp=Z,0.8nm,0.7s
MKAR  Makanchi Array   146.24  40   PKPbc  PKPdf     01 06 34.1 +0.1
      comp=Z,0.4nm,0.6s,baz=332,slow=2.8,SNR=3.4
MKAR  Makanchi Array   146.24  40          PKPdf     01 06 33.4 -0.6
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*CATAC **04** 01:05:27.8±0.5, 7°N±2°×7°3W±°, h147km±5km, M3.8/8, mb4.0/1, MLv3.7/8, Error ellipse: s-maj=7.5km s-min=4.7km az=113.4, confirmed*

*RSNC **04** 01:05:28.3±0.0, 7°N±1°×7°3W±°, h149km±1km, M3.2, mB5.0, mb3.5, ML2.9, MLv3.5, Mw(mB)4.3*

*FUNV **04** 01:05:30.7, 7°.13N×73°.19W, h17km, MW3.3, Presumed earthquake*

ISC 04 01:05:26.3±1.4, 6°.87N±0°.03×73°.12W±0°.04, h156km±8km, n35, σ1s.49/67, Northern Colombia

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Code  Station Name       Δ°   AZ°    Phase ID            Time     Res
                                   Op      ISC         h  m  s    ISC
BARC  Barichara          0.28 193  P       Pn        01 05 48.4 +0.5
BARC                               S       Sn        01 06 03.7 -0.7
BARC                               AML     AML
BARC                               AML     AML
PAMC  Pamplona, Colo     0.62  42  P       Pn        01 05 51.3 +1.7
PAMC                               S       Sn        01 06 08.4 +1.0
PAMC                               AML     AML
PAMC                               AML     AML
BRJC  Barrancabermej     0.63 279  P       Pn        01 05 50.1 +1.0
BRJC                               S       Sn        01 06 07.0 +0.6
BRJC                               AML     AML
BRJC                               AML     AML
RUSC  La Rusia           0.97 178  P       Pn        01 05 52.3 +0.3
RUSC                               S       Sn        01 06 10.9 -0.8
RUSC                               AML     AML
RUSC                               AML     AML
RUSC  La Rusia           0.97 178  eP      Pn        01 05 52.5 +0.4
RUSC                               eS      Sn        01 06 09.9 -1.8
RUSC  La Rusia           0.97 178  P       Pn        01 05 52.7 +0.6
RUSC                               S       Sn        01 06 10.9 -0.8
PTBC  PUERTO BERRIO,     1.37 256  P       Pn        01 05 54.8 -0.2
PTBC                               S       Sn        01 06 15.6 -1.5
PTBC                               AML     AML
PTBC                               AML     AML
OCAC  Ocana              1.38 352  P       Pn        01 05 56.5 +1.2
OCAC                               S       Sn        01 06 18.2 +0.6
OCAC                               AML     AML
OCAC                               AML     AML
SPBC  San Pablo de B     1.54 218  P       Pn        01 05 57.2 +0.4
SPBC                               S       Sn        01 06 19.1 -1.2
SPBC                               AML     AML
SPBC                               AML     AML
NORC  Norcasia           2.17 233  P       Pn        01 06 04.2 +0.3
NORC                               S       Sn        01 06 31.3 -1.5
NORC                               AML     AML
NORC                               AML     AML
CHIC  Chingaza           2.31 195  P       Pn        01 06 06.4 +0.5
CHIC                               S       Sn        01 06 35.6 -0.7
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CHIC				AML	AML		
CHIC				AML	AML		
ROSC	**El Rosal**	**2.34**	**211**	P	**Pn**	**01 06 08.1**	**+1.8**
ROSC				S	**Sn**	**01 06 36.5**	**-0.6**
ROSC				AML	AML		
ROSC				AML	AML		
HELC	**Santa Helena**	**2.49**	**254**	P	**Pn**	**01 06 09.0**	**+1.0**
HELC				S	**Sn**	**01 06 40.4**	**+0.3**
HELC				AML	AML		
HELC				AML	AML		
HELC	**Santa Helena**	**2.49**	**254**	*e*P	**Pn**	**01 06 10.3**	**+2.4**
HELC				*e*S	**Sn**	**01 06 39.4**	**-0.6**
CVER	**Cruz Verde, Cu**	**2.52**	**202**	P	**Pn**	**01 06 10.0**	**+1.5**
CVER				S	**Sn**	**01 06 41.4**	**+0.4**
CVER				AML	AML		
CVER				AML	AML		
UREC	**San Jos de Ur**	**2.55**	**290**	P	**Pn**	**01 06 08.7**	**+0.3**
UREC				S	**Sn**	**01 06 39.3**	**-1.6**
UREC				AML	AML		
UREC				AML	AML		
GUY2C	**Guyana, Caldas**	**2.77**	**234**	P	**Pn**	**01 06 12.5**	**+1.0**
GUY2C				S	**Sn**	**01 06 47.9**	**+1.5**
GUY2C				AML	AML		
GUY2C				AML	AML		
VILC	**Villavicencio,**	**2.80**	**192**	P	**Pn**	**01 06 11.5**	**-0.1**
VILC				S	**Sn**	**01 06 45.8**	**-0.8**
VILC				AML	AML		
VILC				AML	AML		
CBOC	**Ciudad Bolivar**	**3.04**	**251**	P	**Pn**	**01 06 16.3**	**+1.6**
CBOC				S	**Sn**	**01 06 52.0**	**-0.1**
CBOC				AML	AML		
CBOC				AML	AML		
DBBC	**Dabeiba**	**3.07**	**273**	P	**Pn**	**01 06 16.0**	**+1.1**
DBBC				S	**Sn**	**01 06 50.9**	**-1.7**
DBBC				AML	AML		
DBBC				AML	AML		
SDV	**Santo Domingo**	**3.17**	**51**	P	**Pn**	**01 06 17.4**	**+1.1**
SDV				S	**Sn**	**01 06 55.4**	**+0.3**
SDV				AML	AML		
SDV				AML	AML		
APAC	**Apartado, Choc**	**3.58**	**287**	P	**Pn**	**01 06 22.2**	**+0.9**
APAC				S	**Sn**	**01 07 04.9**	**+0.8**
APAC				AML	AML		
APAC				AML	AML		
PRAC	**Prado**	**3.59**	**209**	P	**Pn**	**01 06 21.8**	**+0.2**
PRAC				S	**Sn**	**01 07 04.0**	**-0.5**
PRAC				AML	AML		
PRAC				AML	AML		
PRAC	**Prado**	**3.59**	**209**	P	**Pn**	**01 06 22.2**	**+0.6**
PRAC				S	**Sn**	**01 07 05.2**	**+0.6**
ORTC	**Ortega, Tolima**	**3.62**	**216**	P	**Pn**	**01 06 22.8**	**+0.9**
ORTC				S	**Sn**	**01 07 05.2**	**0.0**
ORTC				AML	AML		
ORTC				AML	AML		
SJCC	**San Jacinto, C**	**3.63**	**326**	P	**Pn**	**01 06 22.1**	**0.0**
SJCC				S	**Sn**	**01 07 04.1**	**-1.3**
SJCC				AML	AML		
SJCC				AML	AML		
SJCC	**San Jacinto, C**	**3.63**	**326**	*e*P	**Pn**	**01 06 22.3**	**+0.2**
SJCC				*e*S	**Sn**	**01 06 59.8**	**-5.6**
SJCC	**San Jacinto, C**	**3.63**	**326**	P	**Pn**	**01 06 22.7**	**+0.6**
SJCC				S	**Sn**	**01 07 05.1**	**-0.3**
LCBC	**Los crdobas,**	**3.78**	**302**	P	**Pn**	**01 06 25.3**	**+1.5**
LCBC				S	**Sn**	**01 07 09.5**	**+0.9**
LCBC				AML	AML		
LCBC				AML	AML		
MACC	**Macarena, Meta**	**4.75**	**189**	P	**Pn**	**01 06 35.2**	**-1.4**
MACC				S	**Sn**	**01 07 27.5**	**-4.0**
MACC				AML	AML		
MACC				AML	AML		
URI	**Uribia**	**4.93**	**13**	P	**Pn**	**01 06 39.2**	**+0.3**
URIC	**Uribia, Colomb**	**4.93**	**13**	P	**Pn**	**01 06 38.5**	**-0.4**
URIC				S	**Sn**	**01 07 36.2**	**+0.6**
URIC	**Uribia, Colomb**	**4.93**	**13**	*e*P	**Pn**	**01 06 38.9**	**0.0**
URIC				*e*S	**Sn**	**01 07 30.1**	**-5.6**
GARC	**Garzon, Huila**	**5.22**	**207**	P	**Pn**	**01 06 42.1**	**-0.9**
GARC				AML	AML		
GARC				AML	AML		
POPC	**Popayan, Colom**	**5.57**	**220**	P	**Pn**	**01 06 48.7**	**+1.0**

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*DJA **04** 01:12:34.9±0.2, 4°N±4°×12°2E±°, h587^{km}±3^{km}, M4.9/18, mb4.8/18, mB5.4/12, MLv4.9/18, Mw(mB)4.9/12*

*NEIC **04** 01:12:35.8±1.6, 3°.5N±0°.1×122°.2E±0°.1, h597^{km}±8^{km}, mb4.4/39, Error ellipse: s-maj=19.6km s-min=13.6km az=55.0*

*IDC **04** 01:12:36.9±1.9, 3°.47N×122°.35E, h630^{km}±28^{km}, mb3.4/16, mbtmp4.4/16, Error ellipse: s-maj=37.9km s-min=10.0km az=61.0*

ISC 04 01:12:35.2±0.4, **3°.49N**±0°.06×**122°.23E**±0°.07, **h604**^{km}, **n82**, σ**1^{s}.47**/85, **mb4.3**/36, **Celebes Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TOLI2	**Tolitoli**	**2.77**	**212**		**P**	**01 13 51.2**	**-2.3**
GTOI	**Gorontalo**	**2.94**	**165**	P	**P**	**01 13 51.8**	**-2.7**
GTOI				S	**S**	**01 14 54.9**	**-3.9**
MNI	**Manado**	**3.30**	**128**	P	**P**	**01 13 56.3**	**-0.3**
MNI				AML	AML		
MYLDM	**Lahad Datu**	**4.08**	**294**		**P**	**01 14 02.2**	**+0.6**
MYLDM	**Lahad Datu**	**4.08**	**294**	P	**P**	**01 14 02.0**	**+0.4**
MYLDM				AML	AML		
DDMP	**Don Marcelino,**	**4.33**	**53**	*e*P	**P**	**01 14 02.0**	**-1.4**
DDMP				*e*S	**S**	**01 15 14.2**	**-1.1**
LUWI	**Luwuk**	**4.53**	**173**	P	**P**	**01 14 03.7**	**-1.2**
LUWI	**Luwuk**	**4.53**	**173**	P	**P**	**01 14 03.6**	**-1.2**
LUWI				S	**S**	**01 15 16.4**	**-1.5**
LUWI				AML	AML		
TNTI	**Ternate**	**5.80**	**118**		**P**	**01 14 13.4**	**-1.5**
TNTI	**Ternate**	**5.80**	**118**	P	**P**	**01 14 13.9**	**-1.0**
	0.5nm164nm,0.9s						
TNTI				S	**S**	**01 15 32.8**	**-3.5**
	0.5nm164nm,0.9s						
TNTI				AML	AML		
KKM	**Kota Kinabalu**	**6.51**	**293**		**P**	**01 14 20.3**	**-0.9**
KKM	**Kota Kinabalu**	**6.51**	**293**	P	**P**	**01 14 19.8**	**-1.4**
	1.1nm3µm331nm,0.8s						
KKM				AML	AML		
SANI	**Sanana**	**6.66**	**146**	P	**P**	**01 14 22.9**	**+0.5**
	1.0nm2µm81nm,0.8s						
SANI				AML	AML		
PPR	**Puerto Princes**	**7.15**	**331**	*e*P	**P**	**01 14 26.4**	**-0.4**
JAGI	**Jajag, Banyuwa**	**14.35**	**214**	P	**P**	**01 15 38.4**	**+0.9**
TPI	**Tanjungpandan**	**15.84**	**247**	P	**P**	**01 15 51.9**	**+0.9**
	65nm,1.0s						
BBJI	**Bungbulang**	**18.17**	**233**	P	**P**	**01 16 10.4**	**-2.0**
BBJI				IAmb	IAmb	01 16 29.3	
	comp=Z,49nm,1.5s						
MYKOM	**Kota Tinggi**	**18.44**	**265**		**P**	**01 16 15.2**	**+0.4**
MYKOM				IAmb	IAmb	01 16 16.7	
	comp=Z,28nm,0.8s						
MYKOM	**Kota Tinggi**	**18.44**	**265**	P	**P**	**01 16 16.0**	**+1.2**
	comp=Z,40nm,0.8s						
KULM	**Kulim**	**21.59**	**276**	P	**P**	**01 16 43.5**	**+0.3**
KULM				IAmb	IAmb	01 16 46.4	
	comp=Z,20nm,1.2s						
FITZ	**Fitzroy Crossi**	**21.71**	**171**	P	**P**	**01 16 44.1**	**-0.1**
	comp=Z,9.8nm,0.4s,baz=13,slow=9.5,SNR=4.6						
	comp=Z,9.8nm,0.4s						
FITZ	**Fitzroy Crossi**	**21.71**	**171**	IAmb	IAmb	01 16 44.8	
	comp=Z,2.6nm,0.7s						
MBWA	**Marble Bar**	**24.62**	**186**	P	**P**	**01 17 09.8**	**-0.1**
GSI	**Gunungsitoli**	**24.73**	**266**	P	**P**	**01 17 10.2**	**-0.8**
WB0	**Warramunga Arr**	**26.02**	**153**	P	**P**	**01 17 22.3**	**0.0**
WRA	**Warramunga Arr**	**26.15**	**153**	P	**P**	**01 17 22.7**	**-0.7**
	comp=Z,23nm,0.6s,baz=334,slow=9.1,SNR=17						
	comp=Z,23nm,0.6s						
WRA	**Warramunga Arr**	**26.15**	**153**	IAmb	IAmb	01 17 24.2	
	comp=Z,0.8nm,0.7s						
WB2	**Warramunga Arr**	**26.15**	**153**	P	**P**	**01 17 23.8**	**+0.3**
GIRL	**Giralia**	**27.12**	**196**	P	**P**	**01 17 32.5**	**+0.6**
CMAR	**Chiang Mai Arr**	**27.22**	**305**	P	**P**	**01 17 34.0**	**+1.1**
	comp=Z,1.0nm,0.3s,baz=134,slow=7.6,SNR=15						
CMAR				PcP	**PcP**	**01 20 31.8**	**-0.6**
	comp=Z,0.8nm,0.2s,baz=138,slow=1.5,SNR=4.5						
	comp=Z,1.0nm,0.3s						
CHTO	**Chiang Mai**	**27.40**	**306**		**P**	**01 17 34.5**	**+0.1**
CHTO				IAmb	IAmb	01 17 36.1	
	comp=Z,9.0nm,1.1s						
CHTO	**Chiang Mai**	**27.40**	**306**	P	**P**	**01 17 35.5**	**+1.1**
	comp=Z,8.2nm,0.9s						
WHN	**Wuhan**	**27.92**	**345**	P	**P**	**01 17 32.0**	**-6.8**
NJ2	**Nanjing**	**28.59**	**354**	*e*P	**P**	**01 17 45.0**	**+0.4**
NJ2				pmax	pmax		
	comp=Z,29nm,0.5s						
PZH	**PanZhiHua**	**30.15**	**321**	P	**P**	**01 17 58.1**	**-0.2**
PZH				pmax	pmax		
	comp=Z,20nm,0.5s						
MORW	**Morawa**	**32.91**	**190**	P	**P**	**01 18 22.0**	**+0.5**
MORW				IAmb	IAmb	01 18 22.2	
	comp=Z,19nm,1.4s						
CTA	**Charters Tower**	**33.25**	**136**	P	**P**	**01 18 23.6**	**-0.9**
	comp=Z,8.4nm,1.0s,baz=14,slow=6.5,SNR=3.7						
	comp=Z,8.4nm,1.0s						
INKA	**Innaminka**	**35.81**	**151**	P	**P**	**01 18 47.8**	**+2.2**
NWAO	**Narrogin (SRO)**	**36.52**	**187**	P	**P**	**01 18 51.9**	**+0.5**
BBOO	**Buckleboo**	**38.41**	**161**	P	**P**	**01 19 07.9**	**+1.2**
BBOO				IAmb	IAmb	01 19 08.9	
	comp=Z,37nm,1.2s						
HHC	**Hu-ho-hao-te**	**38.42**	**347**	*e*P	**P**	**01 19 09.2**	**+2.4**
HHC				pmax	pmax		
	comp=Z,14nm,0.5s						
HHC				pmax	pmax		
	comp=Z,150nm,4.5s						
STKA	**Stephens Creek**	**39.70**	**154**	P	**P**	**01 19 17.7**	**+0.6**
	comp=Z,14nm,0.7s,baz=332,slow=8.3,SNR=18						
	comp=Z,14nm,0.7s						
EIDS	**Eidsvold**	**40.08**	**137**	P	**P**	**01 19 20.7**	**+0.5**
EIDS				IAmb	IAmb	01 19 21.8	
	comp=Z,13nm,1.0s						
GTA2	**Gaotai**	**41.23**	**333**	*e*P	**P**	**01 19 30.8**	**+1.5**
GTA2				sP	sP	01 19 36.8	-164
GTA2				pmax	pmax		
	comp=Z,8.0nm,0.9s						
EVN	**Everest**	**41.60**	**309**		**P**	**01 19 32.6**	**-0.4**
EVN				IAmb	IAmb	01 19 35.0	
	comp=Z,15nm,0.8s						
ARMA	**Armidale**	**43.88**	**142**		**P**	**01 19 52.8**	**+2.8**
ARMA				IAmb	IAmb	01 19 53.9	
	comp=Z,24nm,0.8s						
CAN	**Canberra**	**46.05**	**149**	P	**P**	**01 20 09.0**	**+2.6**
SONM	**Songino Array**	**46.24**	**345**	P	**P**	**01 20 08.3**	**+0.6**
	comp=Z,2.5nm,0.7s,baz=165,slow=9.0,SNR=14						
	comp=Z,2.5nm,0.7s						
SONM	**Songino Array**	**46.24**	**345**	IAmb	IAmb	01 20 09.6	
	comp=Z,2.4nm,0.8s						
MKAR	**Makanchi Array**	**55.27**	**328**	P	**P**	**01 21 13.8**	**+0.9**
	comp=Z,4.4nm,0.6s,baz=123,slow=8.4,SNR=35						
MKAR				PcP	**PcP**	**01 22 04.2**	**-0.1**
	comp=Z,2.0nm,0.7s,baz=119,slow=5.2,SNR=9.5						
	comp=Z,4.4nm,0.6s						
MKAR	**Makanchi Array**	**55.27**	**328**	P	**P**	**01 21 13.6**	**+0.7**
MAKZ	**Makanchi**	**55.45**	**327**		**P**	**01 21 14.7**	**+0.5**
MAKZ				IAmb	IAmb	01 21 15.7	
	comp=Z,11nm,1.4s						
ARSB	**Arslanbob**	**57.96**	**318**	P	**P**	**01 21 32.5**	**+0.9**
KBL	**Kabul**	**58.14**	**309**		**P**	**01 21 33.1**	**+0.1**
KBL				IAmb	IAmb	01 21 34.3	
	comp=Z,8.3nm,0.7s						
ZALV	**Zalesovo Beam**	**58.84**	**335**	P	**P**	**01 21 36.7**	**-0.3**
	comp=Z,1.2nm,0.5s,baz=115,slow=6.7,SNR=5.5						
	comp=Z,1.2nm,0.5s						
BTK	**Batken**	**58.90**	**316**	P	**P**	**01 21 37.5**	**-0.3**
KURBB	**Kurchatov Arra**	**59.59**	**329**	P	**P**	**01 21 42.5**	**+0.4**
	comp=Z,5.1nm,0.8s,baz=128,slow=6.1,SNR=32						
	comp=Z,5.1nm,0.8s						
KURK	**Kurchatov**	**59.60**	**329**	P	**P**	**01 21 42.5**	**+0.4**
KK31	**Karatay Array**	**60.39**	**319**	P	**P**	**01 21 48.1**	**+0.5**
KKAR	**Karatay Array**	**60.39**	**319**	P	**P**	**01 21 48.0**	**+0.4**
ROCAM	**Rodrigues Isla**	**62.23**	**246**	P	**P**	**01 21 59.9**	**0.0**
DSZ	**Denniston Nort**	**63.62**	**141**	P	**P**	**01 22 08.8**	**+0.4**
DSZ				IAmb	IAmb	01 22 30.3	
	comp=Z,60nm,1.5s						
LBZ	**Lake Benmore**	**64.07**	**144**	P	**P**	**01 22 12.9**	**+1.7**
LBZ				IAmb	IAmb	01 22 54.4	
	comp=Z,28nm,1.1s						
THZ	**Tophouse**	**64.33**	**140**	P	**P**	**01 22 14.2**	**+1.2**
THZ				IAmb	IAmb	01 22 14.5	
	comp=Z,16nm,0.9s						
BVAR	**Borovoye Array**	**65.12**	**328**	P	**P**	**01 22 18.1**	**+0.4**
	comp=Z,1.7nm,0.7s,baz=142,slow=7.5,SNR=6.0						
	comp=Z,1.7nm,0.7s						
AB31	**Akbulak array**	**69.53**	**322**		**P**	**01 22 44.9**	**+0.3**
ABKAR	**Akbulak array**	**69.53**	**322**		**P**	**01 22 44.8**	**+0.2**
ARTI	**Arti**	**72.85**	**329**	P	**P**	**01 23 03.7**	**-0.1**
RAYN	**Ar Rayn**	**76.45**	**293**		**P**	**01 23 24.4**	**-0.3**
KBZ	**Khabaz**	**79.89**	**314**	P	**P**	**01 23 42.7**	**+0.2**
	comp=Z,1.2nm,0.7s,baz=154,slow=8.4,SNR=3.8						
	comp=Z,1.2nm,0.7s						
GURO	**Guroymak-BITLI**	**80.17**	**308**	P	**P**	**01 23 45.4**	**+1.0**
GURO				IAmb	IAmb	01 23 46.4	
	comp=Z,8.8nm,1.0s						
L16K	**Owhat River**	**81.39**	**28**	P	**P**	**01 23 52.0**	**+2.1**
L16K				IAmb	IAmb	01 23 52.6	
	comp=Z,2.7nm,0.7s						
M16K	**Timber Creek**	**81.54**	**29**	P	**P**	**01 23 52.5**	**+1.8**
M16K				IAmb	IAmb	01 24 12.7	
	comp=Z,9.2nm,1.4s						
J18K	**Innoko River**	**82.89**	**27**	P	**P**	**01 23 58.9**	**+1.4**
D19K	**Kuna River**	**82.98**	**21**	P	**P**	**01 23 59.8**	**+1.9**
D19K				IAmb	IAmb	01 24 02.5	
	comp=Z,11nm,1.4s						
VNDA	**Vanda**	**83.78**	**172**	P	**P**	**01 24 01.1**	**-0.5**
	comp=Z,0.5nm,0.6s,baz=306,slow=7.0,SNR=7.1						
	comp=Z,0.5nm,0.6s						
VNDA	**Vanda**	**83.78**	**172**	P	**P**	**01 24 02.6**	**+1.1**
MMAI	**Mount Meron Ar**	**85.46**	**303**	P	**P**	**01 24 10.2**	**-0.5**
	comp=Z,1.1nm,0.6s,baz=79,slow=6.1,SNR=2.4						
	comp=Z,1.1nm,0.6s						
BRTR	**Keskin Array B**	**86.71**	**309**	P	**P**	**01 24 16.0**	**-0.7**
	comp=Z,0.4nm,0.8s,baz=180,slow=2.5,SNR=4.3						
	comp=Z,0.4nm,0.8s						
SPITS	**Spitsbergen Ar**	**89.83**	**349**	P	**P**	**01 24 28.4**	**-1.8**
	comp=Z,1.4nm,0.3s,baz=118,slow=10,SNR=7.0						
	comp=Z,1.4nm,0.3s						
FINES	**FINESS Array B**	**89.91**	**331**	P	**P**	**01 24 28.9**	**-1.9**
	comp=Z,1.8nm,0.8s,baz=51,slow=6.1,SNR=4.4						
	comp=Z,1.8nm,0.8s						
TORD	**Torodi Ar. Bea**	**118.71**	**287**	PKP	**PKPdf**	**01 30 16.2**	**-0.6**
	comp=Z,0.5nm,0.6s,baz=59,slow=3.4,SNR=4.5						

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*SJA **04** 01:13:12.7±1.3, 27°.72S×71°.87W, h10^{km}, ML4.5, MW4.1*

*IDC **04** 01:13:14.7±0.6, 27°.73S×71°.65W, h0^{km}, mb4.2/10, mbtmp4.2/13, ML4.2/3, MS3.8/16, Error ellipse: s-maj=17.4km s-min=13.1km az=85.0*

*VAO **04** 01:13:15.3±0.9, 27°.87S×71°.58W, h10^{km}, mb4.4, Presumed earthquake*

*GFZ **04** 01:13:16.4±0.3, 28°S±2°×7°2W±°, h10^{km}, M4.9/12, mb4.9/12*

*NEIC **04** 01:13:17.1±2.2, 27°.86S±0°.02×71°.53W±0°.03, h10^{km}±1^{km}, mb4.8/17, Mwr4.4/45, Mwr4.5(GUC), Error ellipse: s-maj=5.4km s-min=3.6km az=292.0*

*GUC **04** 01:13:17.1±0.8, 27°.90S×71°.59W, h22^{km}±3^{km}, ML4.2*

ISC 04 01:13:15.0±0.4, **27°.82S**±0°.03×**71°.68W**±0°.04, **h10**^{km}, **n171**, σ**1^{s}.94**/170, **mb4.7**/17, **MS3.9**/14, **11C-5D**, **Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	**Llanos de Chal**	**0.66**	**126**	⇓*i*P	**Pb**	**01 13 27.7**	**-0.9**
AC04				*i* S	**Sg**	**01 13 34.4**	**-1.9**
AC04				IAML		01 13 36.1	
	comp=E,49µm,0.2s						
AC04	**Llanos de Chal**	**0.66**	**126**		**Pb**	**01 13 27.7**	**-0.9**
AC04				Sg	**Sg**	**01 13 34.5**	**-1.9**
AC04	**Llanos de Chal**	**0.66**	**126**	P	**Pb**	**01 13 27.8**	**-0.9**
AC06	**Mina Casimiro**	**1.26**	**69**	⇓*i*P	**Pg**	**01 13 38.1**	**-1.1**
AC06				*i* S	**Sb**	**01 13 52.8**	**-2.4**
AC06				IAML		01 14 00.4	
	comp=E,5µm,0.3s						
AC06	**Mina Casimiro**	**1.26**	**69**		**Pg**	**01 13 38.1**	**-1.1**
GO03	**Copiapo**	**1.30**	**80**	*i* P	**Pg**	**01 13 38.8**	**-1.2**
GO03				*e*S	**Sb**	**01 13 53.7**	**-2.6**
GO03				IAML		01 13 59.4	
	comp=Z,6µm,0.7s						
GO03	**Copiapo**	**1.30**	**80**	⇓*i*P	**Pb**	**01 13 38.5**	**-1.0**
GO03				IAML		01 14 01.7	
	comp=E,9µm,0.6s						
GO03	**Copiapo**	**1.30**	**80**		**Pb**	**01 13 38.6**	**-1.0**
GO03	**Copiapo**	**1.30**	**80**	P	**Pg**	**01 13 38.7**	**-1.3**
LCO	**Las Campanas**	**1.47**	**144**	⇓*i*P	**Pb**	**01 13 41.7**	**-0.9**
LCO				*i* S	**Sn**	**01 13 58.5**	**-2.8**
LCO	**Las Campanas**	**1.47**	**144**		**Pg**	**01 13 41.8**	**-1.4**
AC05	**El Transito**	**1.60**	**130**	*i* P	**Pb**	**01 13 43.8**	**-1.0**
AC05				*e*S	**Sb**	**01 14 03.8**	**-1.3**
AC05				IAML		01 14 07.8	
	comp=Z,3µm,0.8s						
AC05	**El Transito**	**1.60**	**130**	⇓*i*P	**Pb**	**01 13 43.6**	**-1.1**
AC05				*i* S	**Sn**	**01 14 02.5**	**-1.8**
AC05				IAML		01 14 08.0	
	comp=N,4µm,0.4s						
AC05	**El Transito**	**1.60**	**130**		**Pb**	**01 13 43.7**	**-1.1**
AC05	**El Transito**	**1.60**	**130**	P	**Pb**	**01 13 43.8**	**-1.0**
AC01	**Pan de Azucar**	**1.92**	**30**	*i* P	**Pb**	**01 13 48.0**	**-2.2**
AC01				IAML		01 14 22.7	
	comp=Z,2µm,0.6s						
AC01	**Pan de Azucar**	**1.92**	**30**	⇑*i*P	**Pb**	**01 13 48.0**	**-2.2**
AC01				*i* S	**Sg**	**01 14 14.9**	**-1.9**
AC01				IAML		01 14 24.3	
	comp=E,2µm,0.7s						
AC01	**Pan de Azucar**	**1.92**	**30**		**Pb**	**01 13 48.0**	**-2.2**
AC01	**Pan de Azucar**	**1.92**	**30**	P	**Pb**	**01 13 48.1**	**-2.2**
AC02	**Maricunga**	**2.47**	**67**	*i* P	**Pb**	**01 13 57.9**	**-1.9**
AC02	**Maricunga**	**2.47**	**67**	⇑*i*P	**Pb**	**01 13 57.8**	**-2.1**
AC02				*i* S	**Sb**	**01 14 28.9**	**-1.5**
AC02				IAML		01 14 36.0	
	comp=N,4µm,0.6s						
AC02	**Maricunga**	**2.47**	**67**		**Pb**	**01 13 57.7**	**-2.1**
AC02	**Maricunga**	**2.47**	**67**	P	**Pb**	**01 13 57.8**	**-1.9**
GO04	**Tololo Observa**	**2.47**	**162**	*i* P	**Pb**	**01 13 56.8**	**-2.9**
GO04	**Tololo Observa**	**2.47**	**162**	⇑*i*P	**Pb**	**01 13 56.5**	**-3.2**
GO04				*i* S	**Sn**	**01 14 26.8**	**+0.9**
GO04	**Tololo Observa**	**2.47**	**162**		**Pb**	**01 13 56.5**	**-3.2**
GO04	**Tololo Observa**	**2.47**	**162**	P	**Pb**	**01 13 56.7**	**-2.9**
CO01	**Juntas del Tor**	**2.56**	**148**	*i* P	**Pb**	**01 13 58.9**	**-2.3**
CO01				IAML		01 14 34.6	
	comp=Z,2µm,0.6s						
CO01	**Juntas del Tor**	**2.56**	**148**	⇑*i*P	**Pb**	**01 13 58.6**	**-2.6**
CO01				*i* S	**Sn**	**01 14 29.2**	**+1.0**
CO01				IAML		01 14 36.4	
	comp=E,2µm,0.4s						
CO01	**Juntas del Tor**	**2.56**	**148**		**Pb**	**01 13 58.6**	**-2.6**
CO01	**Juntas del Tor**	**2.56**	**148**	P	**Pb**	**01 13 58.8**	**-2.5**
CO06	**Fray Jorge**	**2.85**	**179**	*e*P	**Pn**	**01 14 00.7**	**+0.1**
CO06				IAML		01 14 52.3	
	comp=E,984nm,0.4s						
CO06	**Fray Jorge**	**2.85**	**179**		**Pn**	**01 14 00.7**	**+0.1**
AROD	**Rodeo**	**3.03**	**141**	*i* P	**Pb**	**01 14 07.2**	**-2.2**
CO03	**El Pedregal**	**3.13**	**164**		**Pn**	**01 14 05.9**	**+1.3**
CO03	**El Pedregal**	**3.13**	**164**	P	**Pn**	**01 14 06.1**	**+1.5**
VCA	**Vinchina**	**3.19**	**107**	*i* P	**Pb**	**01 14 10.3**	**-1.7**
VCA	**Vinchina**	**3.19**	**107**	⇑*e*P	**Pb**	**01 14 09.6**	**-2.4**
ACDV	**Cuesta del Vie**	**3.24**	**137**	*i* P	**Pb**	**01 14 10.4**	**-2.4**
ACDV				IAML		01 15 03.2	
	comp=Z,986nm,1.2s						
PB14	**IPOC Station P**	**3.38**	**20**	*i* P	**Pn**	**01 14 08.1**	**-0.1**
PB14				IAML		01 15 13.9	
	comp=Z,1µm,0.6s						
PB14	**IPOC Station P**	**3.38**	**20**	⇑*i*P	**Pn**	**01 14 07.8**	**-0.3**
PB14	**IPOC Station P**	**3.38**	**20**		**Pn**	**01 14 07.8**	**-0.3**
PB14	**IPOC Station P**	**3.38**	**20**	P	**Pn**	**01 14 08.0**	**-0.2**
CO02	**Combarbal**	**3.42**	**170**	*i* P	**Pn**	**01 14 09.3**	**+0.7**
CO02				IAML		01 15 09.7	
	comp=Z,2µm,0.3s						
CO02	**Combarbal**	**3.42**	**170**	*i* P	**Pn**	**01 14 09.1**	**+0.5**
CO02				*i* S	**Sn**	**01 14 50.6**	**+1.3**
CO02	**Combarbal**	**3.42**	**170**		**Pn**	**01 14 09.2**	**+0.6**
CO02	**Combarbal**	**3.42**	**170**	P	**Pn**	**01 14 09.7**	**+1.0**
ACCO	**Cerro Coronel**	**3.58**	**141**	*i* P	**Pb**	**01 14 15.3**	**-3.4**
TINO	**Tinogasta**	**3.64**	**95**	*i* P	**Pn**	**01 14 14.2**	**+2.6**
CO04	**Los Peladeros**	**4.25**	**172**		**Pn**	**01 14 21.2**	**+1.0**
CO04	**Los Peladeros**	**4.25**	**172**	P	**Pn**	**01 14 21.8**	**+1.6**
ACLC	**CERRO LA CRUZ**	**4.45**	**112**	*i* P	**Pn**	**01 14 25.6**	**+2.8**
ACLC				IAML		01 15 26.9	
	comp=Z,456nm,1.1s						
RTLL	**Cerro Villicun**	**4.47**	**142**	*i* P	Pn	01 14 26.9	+3.9
RTLL				IAML		01 15 42.3	
	comp=Z,417nm,2.5s						
RTLS	**Leoncito**	**4.47**	**153**	*i* P	Pb	01 14 27.8	-6.1
ZON	**Zonda**	**4.54**	**146**	*i* P	Pn	01 14 27.7	+3.8
ZON				IAML		01 15 43.9	
	comp=Z,282nm,1.2s						
ZON	**Zonda**	**4.54**	**146**		**Pn**	**01 14 27.2**	**+3.3**
ZON	**Zonda**	**4.54**	**146**	P	**Pn**	**01 14 27.3**	**+3.5**
CFA	**Coronel Fontan**	**4.81**	**142**	Pn	**Pn**	**01 14 30.8**	**+3.1**
	comp=Z,17nm,0.3s,baz=318,slow=13,SNR=80						
CFA				Sn	**Sn**	**01 15 26.2**	**+2.6**
	comp=Z,9.7nm,0.3s,baz=6.3,slow=18,SNR=5.9						
	comp=Z,35nm,0.3s						
CFA				AML	AML		
CFA	**Coronel Fontan**	**4.81**	**142**	*i* P	**Pn**	**01 14 31.0**	**+3.3**
CFA				IAML		01 16 10.1	
	comp=Z,289nm,1.4s						
VA03	**San Esteban**	**5.02**	**169**	*i* P	**Pn**	**01 14 32.4**	**+1.8**
VA03	**San Esteban**	**5.02**	**169**		**Pn**	**01 14 31.9**	**+1.3**
VA03	**San Esteban**	**5.02**	**169**	P	Pn	01 14 34.8	+4.2
	comp=Z,187nm,0.6s						
PB05	**IPOC Station P**	**5.12**	**15**	*i* P	**Pn**	**01 14 31.3**	**-0.6**
PB05				IAML		01 16 13.4	
	comp=Z,484nm,1.5s						
PB05	**IPOC Station P**	**5.12**	**15**		**Pn**	**01 14 31.0**	**-1.0**
PB05	**IPOC Station P**	**5.12**	**15**	P	**Pn**	**01 14 31.1**	**-0.8**
	comp=Z,182nm,0.7s						
CYA	**Choya**	**5.22**	**98**	⇑*e*P	**Pn**	**01 14 34.9**	**+1.6**
PEL	**Peldehue**	**5.38**	**171**	P	Pb	01 14 41.9	-7.2
	comp=Z,95nm,0.7s						
PB06	**IPOC Station P**	**5.43**	**21**		**Pn**	**01 14 35.9**	**-0.4**
PB06	**IPOC Station P**	**5.43**	**21**	P	**Pn**	**01 14 36.0**	**-0.4**
	comp=Z,109nm,0.4s						
PB03	**IPOC Station P**	**6.00**	**17**	P	**Pn**	**01 14 43.3**	**-0.8**
	comp=Z,70nm,0.5s						
PB07	**IPOC Station P**	**6.28**	**15**	P	**Pn**	**01 14 47.2**	**-0.7**
	comp=Z,74nm,0.6s						
SLA	**San Lorenzo**	**6.34**	**62**	*e*P	Pb	01 14 56.1	-10
PB09	**IPOC Station P**	**6.39**	**21**	P	**Pn**	**01 14 49.9**	**+0.4**
	comp=Z,75nm,0.8s						
PB02	**IPOC Station P**	**6.67**	**14**	P	**Pn**	**01 14 51.2**	**-2.0**
	comp=Z,88nm,0.7s						
TCA	**Tanti**	**7.09**	**121**	*e*P	**Pn**	**01 14 59.3**	**+0.3**
PB08	**IPOC Station P**	**7.98**	**17**	P	**Pn**	**01 15 10.9**	**-0.6**
	comp=Z,30nm,0.8s						
PB11	**IPOC Station P**	**8.23**	**13**		**Pn**	**01 15 12.6**	**-2.1**
H03N1	**Juan Fernandez**	**8.38**	**226**	Pn	**Pn**	**01 15 17.0**	**+0.6**
	baz=210,slow=74						
H03N1				Sn	**Sn**	**01 16 48.0**	**-2.9**
H03N1				T	T	01 24 19.1	
	baz=55,slow=74,SNR=2327						
H03N2	**Juan Fernandez**	**8.39**	**226**	Pn	**Pn**	**01 15 16.8**	**+0.4**
	baz=52,slow=74						
H03N2				Sn	**Sn**	**01 16 47.6**	**-3.6**
H03N2				T	T	01 24 16.2	
	baz=207,slow=74,SNR=1778						
VA04	**Juan Fernndez**	**8.46**	**225**		**Pn**	**01 15 16.6**	**-1.1**
H03S3	**Juan Fernandez**	**8.63**	**224**	Pn	**Pn**	**01 15 19.9**	**+0.2**
	baz=106,slow=78						
H03S3				Sn	**Sn**	**01 16 50.5**	**-6.6**
	baz=242,slow=75						
H03S1	**Juan Fernandez**	**8.64**	**224**	Pn	**Pn**	**01 15 19.4**	**-0.5**
	baz=106,slow=78						
H03S1				Sn	**Sn**	**01 16 50.9**	**-6.4**
	baz=242,slow=75						
H03S2	**Juan Fernandez**	**8.65**	**224**	Pn	**Pn**	**01 15 19.9**	**-0.1**
	baz=106,slow=78						
H03S2				Sn	**Sn**	**01 16 49.9**	**-7.6**
	baz=242,slow=75						
PB12	**IPOC Station P**	**9.24**	**8**		**Pn**	**01 15 27.0**	**-1.5**
PB18	**Visviri**	**10.38**	**12**		**Pn**	**01 15 45.7**	**+1.2**
PB18	**Visviri**	**10.38**	**12**	P	**Pn**	**01 15 47.0**	**+2.5**
	comp=Z,44nm,0.8s						
LPAZ	**La Paz**	**11.94**	**17**	Pn	**Pn**	**01 16 05.9**	**+0.1**
	comp=Z,1.0nm,0.3s,baz=204,slow=6.6,SNR=26						
LPAZ				LR	LR	01 21 35.7	
	comp=Z,223nm,18.9s,baz=191,slow=42						
	comp=Z,3.3nm,0.4s						
LPAZ				AML	AML		
LPAZ	**La Paz**	**11.94**	**17**		**Pn**	**01 16 06.0**	**+0.1**
LPAZ	**La Paz**	**11.94**	**17**	*e*P	**Pn**	**01 16 05.7**	**-0.2**
LPAZ	**La Paz**	**11.94**	**17**	P	**Pn**	**01 16 06.1**	**+0.2**
	comp=Z,11nm,0.6s						
PSAL	**Palomas, Salto**	**12.68**	**108**	*e*P	**Pn**	**01 16 14.8**	**-0.7**
PSAL				*e*S	**Sn**	**01 18 35.5**	**-1.3**
CPUP	**Villa Florida**	**12.87**	**87**	Pn	**Pn**	**01 16 16.4**	**-1.7**
	comp=Z,0.1nm,0.3s,baz=264,slow=15,SNR=4.1						
CPUP				LR	LR	01 21 30.4	
	comp=Z,279nm,20.5s,baz=252,slow=39						
	comp=Z,2.8nm,1.0s						
CPUP				AML	AML		
CPUP	**Villa Florida**	**12.87**	**87**	*e*P	**Pn**	**01 16 18.7**	**+0.6**

ANCO	Parque Anchore	13.39	122	eP	Pn	01 16 24.3	-0.9
MURT	Porto Murtinho	14.17	67	eP	Pn	01 16 36.2	+0.4
SJPY	San Joaquin	14.23	82	eP	Pn	01 16 36.3	-0.5
LL06	Loncomilla	14.45	186	P	Pn	01 16 40.0	+0.3
	comp=Z,3μm,0.8s						
COIM	Forte Coimbra	14.94	61	eP	Pn	01 16 44.9	-1.4
SIV	San Ignacio	15.33	42	Pn	Pn	01 16 45.9	-5.7
	comp=Z,0.1nm,0.3s,baz=227,slow=11,SNR=5.8						
PTGB	Pitanga	17.86	84	eP	P	01 17 24.8	+0.3
VILB	Vilhena	18.27	38	P	P	01 17 29.8	+0.8
VILB	Vilhena	18.27	38	eP	P	01 17 29.5	+0.6
CZSB	Cruzeiro do Su	20.00	357	P	P	01 17 46.8	-1.1
CZSB				IAmb	IAmb	01 18 05.6	
	comp=Z,49nm,1.2s						
CZSB	Cruzeiro do Su	20.00	357	eP	Pn	01 17 49.7	0.0
FRTB	Fartura	20.43	82	eP	P	01 17 49.5	-3.1
ARAG	Araguaiana, MT	22.00	61	eP	P	01 18 08.7	-0.9
BB19B	Bebedouro	22.10	77	eP	P	01 18 10.0	-0.6
PET01	Itanhaem-SP	22.19	86	eP	P	01 18 11.1	-0.5
CLDB	Colider	22.51	45	eP	P	01 18 14.3	-0.7
CLDB	Colider	22.51	45	P	P	01 18 15.2	+0.2
	comp=Z,12nm,2.2s						
VAO	Valinhos	22.81	83	P	P	01 18 17.4	-0.9
VAO				IAmb	IAmb	01 18 18.5	
	comp=Z,39nm,0.9s						
VAO	Valinhos	22.81	83	eP	P	01 18 16.9	-1.4
SNDB	Serra Nova Dou	24.75	54	eP	P	01 18 35.7	-1.3
PMNB	Patos De Minas	24.93	74	eP	P	01 18 38.1	-0.6
BDFB	Brasilia	25.04	66	P	P	01 18 40.0	+0.3
	comp=Z,6.2nm,0.8s,baz=230,slow=5.6,SNR=7.9						
BDFB				LR	LR	01 29 37.1	
	comp=Z,413nm,19.2s,baz=249,slow=39						
	comp=Z,6.2nm,0.8s						
TEFE	Tefe	25.09	17	eP	P	01 18 39.4	-0.6
MACA	Manacapuru-AM	26.67	25	P	P	01 18 54.5	+0.2
MACA				IAmb	IAmb	01 18 58.5	
	comp=Z,12nm,0.6s						
MACA	Manacapuru-AM	26.67	25	eP	P	01 18 55.1	+0.8
ITTB	Itaituba	27.83	36	eP	P	01 19 04.7	0.0
JANB	Januaria	28.38	69	eP	P	01 19 09.9	+0.1
SDBA	SAO DESIDERIO	29.35	64	eP	P	01 19 17.9	-0.4
SJMB	Sao Joao De Ma	29.38	79	eP	P	01 19 17.6	-1.0
BSFB	Barra de Sao F	29.62	79	eP	P	01 19 20.3	-0.4
NBPN	Ponto Novo - B	34.02	66	eP	P	01 19 59.8	+0.4
NBMA	Muriti-CE	37.19	63	eP	P	01 20 26.5	-0.2
PMSA	Palmer Station	37.28	175	LR	LR	01 36 36.2	
	comp=Z,126nm,18.5s,baz=330,slow=38						
MDP	Montagnes des	37.53	32	LR	LR	01 36 24.3	
	comp=Z,106nm,18.1s,baz=185,slow=37						
JTS	Las Juntas de	40.01	339	LR	LR	01 34 43.2	
	comp=Z,38nm,19.5s,baz=166,slow=32						
TEIG	Tepich	50.39	340	P	P	01 22 15.8	+3.2
TEIG				IAmb	IAmb	01 22 42.3	
	comp=Z,13nm,0.9s						
VNA3	Neumayer Olymp	54.99	160	⇑P	P	01 22 47.4	+1.3
	comp=Z,3.0nm,0.9s						
VNA3	Neumayer Olymp	54.99	160	P	P	01 22 47.7	+1.6
	comp=Z,5.2nm,1.4s						
VNA2	Neumayer--Watz	55.61	159	⇑P	P	01 22 52.1	+1.4
	comp=Z,3.7nm,0.6s,baz=285,slow=8.0						
VNA2	Neumayer--Watz	55.61	159	P	P	01 22 51.7	+1.1
	comp=Z,9.4nm,1.1s						
SNAA	Sanae	57.21	159	⇑P	P	01 23 03.3	+1.2
	comp=Z,101nm,0.8s						
SNAA	Sanae	57.21	159	P	P	01 23 03.1	+1.1
	comp=Z,4.8nm,0.8s,baz=278,slow=6.1,SNR=11						
SNAA				LR	LR	01 46 12.9	
	comp=Z,59nm,19.8s,baz=295,slow=34						
	comp=Z,4.8nm,0.8s						
SNAA	Sanae	57.21	159	P	P	01 23 03.3	+1.2
SNAA				IAmb	IAmb	01 23 04.4	
	comp=Z,14nm,1.4s						
SNAA	Sanae	57.21	159	P	P	01 23 03.5	+1.4
	comp=Z,7.5nm,1.1s						
TROLL	Troll, Antarti	58.92	160	⇑P	P	01 23 15.6	+1.4
	comp=Z,221nm,0.9s						
QSPA	South Pole Qui	62.40	180	P	P	01 23 40.1	+2.2
	comp=Z,4.9nm,1.0s,baz=190,slow=1.0,SNR=10						
	comp=Z,4.9nm,1.0s						
QSPA	South Pole Qui	62.40	180	P	P	01 23 40.5	+2.5
QSPA				IAmb	IAmb	01 23 41.2	
	comp=Z,5.2nm,1.1s						
W50A	Signal Mountai	63.99	348	P	P	01 23 51.0	+2.3
W50A				IAmb	IAmb	01 23 51.7	
	comp=Z,5.8nm,0.9s						
TXAR	Lajitas Array	64.55	329	P	P	01 23 54.3	+1.7
	comp=Z,0.4nm,0.8s,baz=152,slow=8.1,SNR=4.9						
	comp=Z,0.4nm,0.8s						
TXAR	Lajitas Array	64.55	329	P	P	01 23 56.3	+3.8
S44A	Carbondale	67.22	345	P	P	01 24 11.2	+1.8
R40A	Maddies Statio	68.53	343	P	P	01 24 20.6	+2.9
R40A				IAmb	IAmb	01 24 21.4	
	comp=Z,8.9nm,0.9s						
VNDA	Vanda	70.21	191	P	P	01 24 30.3	+2.7
	comp=Z,0.7nm,1.0s,baz=137,slow=7.0,SNR=3.0						
	comp=Z,0.7nm,1.0s						
VNDA	Vanda	70.21	191	IAmb	IAmb	01 24 31.9	
	comp=Z,3.5nm,1.4s						
DBIC	Dimbokro	72.98	73	P	P	01 24 46.2	+0.9
	comp=Z,9.3nm,0.8s,baz=227,slow=7.4,SNR=7.5						
DBIC				LR	LR	01 54 24.2	
	comp=Z,49nm,20.7s,baz=174,slow=34						
	comp=Z,9.3nm,0.8s						
DBIC	Dimbokro	72.98	73	P	P	01 24 45.8	+0.5
SUR	Sutherland	77.59	120	LR	LR	01 54 09.7	
	comp=Z,50nm,18.5s,baz=280,slow=32						
PDAR	Pinedale Array	78.42	333	P	P	01 25 16.0	-0.1
	comp=Z,0.2nm,0.3s,baz=138,slow=4.8,SNR=1.8						
PDAR				LR	LR	01 56 53.8	
	comp=Z,18nm,20.1s,baz=55,slow=33						
	comp=Z,0.2nm,0.3s						
RAR	Rarotonga	78.79	252	LR	LR	01 53 01.0	
	comp=Z,74nm,19.1s,baz=276,slow=30						
MAW	Mawson	79.01	164	P	P	01 25 20.7	+1.9
	comp=Z,2.4nm,0.7s,baz=177,slow=2.6,SNR=5.1						
MAW				LR	LR	01 59 56.7	
	comp=Z,108nm,18.1s,baz=319,slow=35						
	comp=Z,2.4nm,0.7s						
MAW	Mawson	79.01	164	IAmb	IAmb	01 25 21.3	
	comp=Z,0.8nm,1.1s						
TSUM	Tsumeb	80.64	107	LR	LR	01 59 34.2	
	comp=Z,78nm,18.1s,baz=197,slow=34						
TORD	Torodi Ar. Bea	81.84	71	P	P	01 25 36.1	+1.2
	comp=Z,7.0nm,0.9s,baz=270,slow=4.0,SNR=41						
	comp=Z,7.0nm,0.9s						
BOSA	Boshof	82.69	118	P	P	01 25 40.1	+0.6
	comp=Z,2.2nm,0.6s,baz=270,slow=4.3,SNR=3.8						
	comp=Z,2.2nm,0.6s						
BOSA	Boshof	82.69	118	IAmb	IAmb	01 25 48.9	
	comp=Z,16nm,1.4s						
GRTLG	Ghanzi	82.73	110	P	P	01 25 41.3	+1.5
LBTB	Lobatse	84.64	115	LR	LR	02 01 39.5	
	comp=Z,71nm,18.5s,baz=187,slow=34						
MATP	Matopo	89.18	113	LR	LR	02 02 38.6	
	comp=Z,80nm,18.6s,baz=200,slow=33						
LSZ	Lusaka	91.43	108	LR	LR	02 03 39.2	
	comp=Z,99nm,19.5s,baz=203,slow=33						
ASAR	Alice Springs	123.18	208	PKP	PKiKP	01 32 12.8	-0.1
	comp=Z,0.2nm,0.5s,baz=149,slow=1.8,SNR=1.6						
WRA	Warramunga Arr	126.26	211	PKP	PKiKP	01 32 19.7	+0.6
	comp=Z,0.6nm,0.5s,baz=153,slow=1.7,SNR=13						
BVAR	Borovoye Array	142.37	37	PKP	PKiKP	01 32 48.5	-2.1
	comp=Z,0.3nm,0.4s,baz=346,slow=0.6,SNR=2.1						
KURBB	Kurchatov Arra	147.94	37	PKPbc	PKiKP	01 33 00.8	-1.3
	comp=Z,2.2nm,0.3s,baz=305,slow=3.6,SNR=6.7						
ZALV	Zalesovo Beam	148.71	27	PKPbc	PKPab	01 33 04.3	-1.5
	comp=Z,11nm,0.8s,baz=304,slow=3.5,SNR=31						
ZALV	Zalesovo Beam	148.71	27		PKPbc	01 33 00.9	-1.3
KSH2	Kashi	150.59	59	PKPbc	PKPab	01 33 10.0	-4.3
MKAR	Makanchi Array	152.14	40	PKPbc	PKiKP	01 33 12.3	+1.3
	comp=Z,2.4nm,0.8s,baz=321,slow=1.8,SNR=12						
MKAR	Makanchi Array	152.14	40		PKiKP	01 33 12.8	+1.8

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*IDC **04** 01:13:25.9±4.0, 6°.10S×130°.48E, h110^{km}±37^{km}, mb3.9/13, mbtmp4.4/16, Error ellipse: s-maj=32.2km s-min=13.2km az=67.0*

*DJA **04** 01:13:29.7±0.2, 6°S±2°×13°0E±°, h175^{km}±5^{km}, M4.9/15, mB5.3/6, mb4.8/10, MLv5.0/15, Mw(mB)4.7/6*

*NEIC **04** 01:13:30.7±1.6, 6°.13S±0°.07×130°.40E±0°.05, h151^{km}±7^{km}, mb4.4/22, Error ellipse: s-maj=10.4km s-min=7.3km az=197.0*

ISC 04 01:13:29.5±0.4, **6°.21S**±0°.04×**130°.51E**±0°.05, **h150**^{km}, **n82**, σ**1^{s}92**/83, **mb4.2**/23, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BNDI	Bandanaira	1.78	340	P	Pn	01 14 03.2	+1.0
BNDI	Bandanaira	1.78	340	S	Sn	01 14 30.1	+2.8
BNDI	Bandanaira	1.78	340	P	Pn	01 14 03.2	+1.0
BNDI				S	Sn	01 14 30.2	+2.9
BNDI				AML	AML		
SAUI	Saumlaki	1.93	156	P	Pn	01 14 06.6	+2.8
SAUI	Saumlaki	1.93	156		Pn	01 14 06.2	+2.4
SAUI	Saumlaki	1.93	156	P	Pn	01 14 05.8	+2.0
SAUI				S	Sn	01 14 35.6	+5.4
SAUI				AML	AML		
MSAI	Masohi	3.25	331	P	Pn	01 14 20.2	0.0
MSAI				S	Sn	01 15 00.3	+0.9
MSAI				AML	AML		
AAI	Ambon	3.41	317	P	Pn	01 14 22.5	+0.4
AAI	Ambon	3.41	317	P	Pn	01 14 25.8	+3.7
FAKI	Fak Fak	3.70	28	P	Pn	01 14 25.8	-0.2
FAKI	Fak Fak	3.70	28	S	Sn	01 15 07.8	-2.0
FAKI	Fak Fak	3.70	28		Pn	01 14 26.0	0.0
FAKI	Fak Fak	3.70	28	P	Pn	01 14 25.9	0.0
FAKI				AML	AML		
KMPI	Kaimana, Papua	4.07	52	P	Pn	01 14 31.8	+1.1
KMPI	Kaimana, Papua	4.07	52	P	Sn	01 15 19.0	+0.7
NLAI	Namlea	4.50	311	P	Pn	01 14 37.8	+1.4
NLAI				S	Sn	01 15 29.2	+0.7
NLAI				AML	AML		
NLAI	Namlea	4.50	311	P	Pn	01 14 38.0	+1.6
	8μm284nm,0.8s						
SWI	Sorong	5.37	8	P	Pn	01 14 47.0	-0.9
DRS	Darwin Rock St	6.19	176	P	Pn	01 14 58.4	-0.4
MTN	Manton Dam	6.62	175		Pn	01 15 04.4	-0.1
SOEI	Soe	7.11	240	P	Pn	01 15 10.9	-0.4
SOEI	Soe	7.11	240		Pn	01 15 10.7	-0.6
SOEI	Soe	7.11	240	P	Pn	01 15 10.7	-0.6
	0.7nm3μm87nm,0.4s						
SOEI				AML	AML		
SOEI	Soe	7.11	240	P	Pn	01 15 11.7	+0.4
BAKI	Biak	7.49	48	P	Pn	01 15 17.7	+1.5
	1.0nm3μm305nm,1.0s						
BAKI				AML	AML		
TNTI	Ternate	7.61	336	Pn	Pn	01 15 17.0	-0.8
TNTI	Ternate	7.61	336	P	Pn	01 15 35.7	+18
KNRA	Kununurra	9.56	190		Pn	01 15 42.0	-1.7
FITZ	Fitzroy Crossi	12.73	201	P	Pn	01 16 22.6	-2.7
	18nm,0.3s,baz=22,slow=10,SNR=60						
FITZ				S	Sn	01 18 32.8	-13
	39nm,0.3s,baz=74,slow=24,SNR=7.2						
FITZ	Fitzroy Crossi	12.73	201	Pn	Pn	01 16 22.1	-3.3
PLAI	Plampang	12.89	258	P	Pn	01 16 25.0	-2.4
WRAB	Tennant Creek	14.14	165	P	Pn	01 16 41.3	-2.0
WRA	Warramunga Arr	14.15	165	P	Pn	01 16 41.7	-1.7
	18nm,0.4s,baz=342,slow=13,SNR=104						
WRA				S	Sn	01 19 09.9	-10
	8.3nm,0.4s,baz=342,slow=19,SNR=6.2						
WRA	Warramunga Arr	14.15	165	P	Pn	01 16 39.3	-4.1
WR8	Warramunga Arr	14.20	165		Pn	01 16 41.0	-3.0
JAGI	Jajag, Banyuwa	16.38	261	P	Pn	01 17 07.8	-3.3
JAGI	Jajag, Banyuwa	16.38	261	P	Pn	01 17 07.7	-3.3
QIS	Mount Isa	16.77	149	P	P	01 17 11.8	-3.6
QIS	Mount Isa	16.77	149	S	S	01 20 18.3	-4.0
AS31	Alice Springs	17.66	170		Pn	01 17 27.2	+0.8
AS31				IAmb	IAmb	01 17 30.4	
	comp=Z,13nm,0.8s						
ASAR	Alice Springs	17.66	170	P	Pn	01 17 27.3	+0.9
	comp=Z,22nm,0.3s,baz=355,slow=13,SNR=8.5						
ASAR				S	S	01 20 34.5	-6.6
	comp=Z,4.9nm,0.7s,baz=350,slow=26,SNR=7.8						
MBWA	Marble Bar	18.16	214	P	Pn	01 17 31.2	-1.1
MBWA				IAmb	IAmb	01 17 31.9	
	comp=Z,17nm,1.1s						
CTA	Charters Tower	20.59	134	P	Pn	01 17 58.9	-2.1
	comp=Z,4.4nm,0.5s,baz=322,slow=1.9,SNR=4.2						
	comp=Z,4.4nm,0.5s						
CTAO	Charters Tower	20.59	134	P	Pn	01 17 58.8	-2.2
CTAO				IAmb	IAmb	01 18 26.4	
	comp=Z,15nm,1.1s						
BBJI	Bungbulang	22.73	266	P	P	01 18 17.6	-1.5
BBJI				IAmb	IAmb	01 18 18.8	
	comp=Z,17nm,0.7s						
INKA	Innaminka	23.52	157	P	P	01 18 27.6	+1.6
INKA				IAmb	IAmb	01 18 48.3	
	comp=Z,13nm,0.6s						
FORT	Forrest	24.55	185		P	01 18 35.4	0.0
MORW	Morawa	26.53	209	P	P	01 18 53.5	+0.2
MORW				IAmb	IAmb	01 19 35.3	
	comp=Z,25nm,1.5s						
BBOO	Buckleboo	26.96	170	P	P	01 18 57.9	+0.7
STKA	Stephens Creek	27.56	159	P	P	01 19 04.0	+1.5
	comp=Z,3.0nm,0.5s,baz=334,slow=8.1,SNR=5.1						
	comp=Z,3.0nm,0.5s						
CMAR	Chiang Mai Arr	39.62	309	P	P	01 20 46.9	+0.1
	comp=Z,2.4nm,0.6s,baz=135,slow=7.2,SNR=13						
	comp=Z,2.4nm,0.6s						
NJ2	Nanjing	39.64	344	eP	P	01 20 48.3	+1.6
NJ2				pmax	pmax		
	comp=Z,23nm,0.5s						
CHTO	Chiang Mai	39.83	309	P	P	01 20 47.6	-1.0
CHTO				IAmb	IAmb	01 20 49.1	
	comp=Z,4.6nm,0.8s						
CHTO	Chiang Mai	39.83	309	P	P	01 20 49.0	+0.5
PZH	PanZhiHua	42.84	321	P	P	01 21 14.9	+1.8
HHC	Hu-ho-hao-te	49.96	341	eP	P	01 22 11.4	+3.0
HHC				pmax	pmax		
	comp=Z,7.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,81nm,4.7s						
USRK	Ussuriysk Ar.	50.20	1	P	P	01 22 08.4	-1.5
	comp=Z,0.8nm,0.3s,baz=182,slow=9.7,SNR=1.6						
	comp=Z,0.8nm,0.3s						
EVN	Everest	54.14	311	P	P	01 22 40.3	+0.1
EVN				IAmb	IAmb	01 22 40.9	
	comp=Z,9.7nm,1.3s						
ULN	Ulaanbaatar	57.68	342	P	P	01 23 05.5	+1.1
ULN				IAmb	IAmb	01 23 06.4	
	comp=Z,3.6nm,0.7s						
SONM	Songino Array	57.86	341	P	P	01 23 05.0	-0.6
	comp=Z,0.8nm,0.3s,baz=140,slow=9.2,SNR=5.1						
	comp=Z,0.8nm,0.3s						
CASY	Casey	61.55	189	P	P	01 23 31.4	+0.9
CASY				IAmb	IAmb	01 23 37.7	
	comp=Z,4.6nm,1.3s						
MKAR	Makanchi Array	67.85	326	P	P	01 24 12.4	+0.8
	comp=Z,4.6nm,0.4s,baz=118,slow=8.1,SNR=42						
	comp=Z,4.6nm,0.4s						
MAKZ	Makanchi	68.03	326	P	P	01 24 13.6	+0.8
BOOM	Boomskoye usch	69.27	320	P	P	01 24 21.5	+0.8
ARSB	Arslanbob	70.65	318	P	P	01 24 30.3	+1.2
ARSB				IAmb	IAmb	01 24 30.8	
	comp=Z,7.0nm,0.7s						
ZALV	Zalesovo Beam	71.11	333	P	P	01 24 31.3	-0.1
	comp=Z,2.2nm,0.5s,baz=121,slow=5.2,SNR=7.3						
	comp=Z,2.2nm,0.5s						
ZALV	Zalesovo Beam	71.11	333	P	P	01 24 30.8	-0.6
KURBB	Kurchatov Arra	72.11	328	P	P	01 24 38.1	+0.6
	comp=Z,2.2nm,0.5s,baz=128,slow=5.0,SNR=24						
	comp=Z,2.2nm,0.5s						
VNDA	Vanda	73.16	173	P	P	01 24 44.6	+1.4
	comp=Z,1.0nm,0.8s,baz=321,slow=8.0,SNR=6.5						
	comp=Z,1.0nm,0.8s						
VNDA	Vanda	73.16	173	P	P	01 24 44.8	+1.4
MAW	Mawson	75.86	201	P	P	01 25 00.2	+1.2
	comp=Z,1.0nm,0.6s,baz=50,slow=22,SNR=2.2						
	comp=Z,1.0nm,0.6s						
MAW	Mawson	75.86	201	P	P	01 25 00.0	+1.0
BVAR	Borovoye Array	77.67	328	P	P	01 25 09.2	-0.2
	comp=Z,1.6nm,0.6s,baz=115,slow=8.9,SNR=6.7						
	comp=Z,1.6nm,0.6s						
AB31	Akbulak array	82.21	321	P	P	01 25 33.4	-0.5
ABKAR	Akbulak array	82.21	321	P	P	01 25 33.8	-0.1
QSPA	South Pole Qui	83.76	180	P	P	01 25 42.1	+0.4
	comp=Z,1.4nm,0.8s,baz=279,slow=1.6,SNR=1.8						
	comp=Z,1.4nm,0.8s						
QSPA	South Pole Qui	83.76	180	IAmb	IAmb	01 25 51.6	
	comp=Z,3.9nm,1.2s						
RAYN	Ar Rayn	87.89	294	P	P	01 26 03.3	+0.4
RAYN				IAmb	IAmb	01 26 04.1	
	comp=Z,2.9nm,0.8s						
ILAR	Eielson Array	92.42	25	P	P	01 26 21.6	-1.3
	comp=Z,0.2nm,0.6s,baz=269,slow=5.4,SNR=2.1						
	comp=Z,0.2nm,0.6s						
KMBO	Kilima Mbogo	93.12	269	P	P	01 26 27.9	+0.3
	baz=153,slow=4.3						
LPAZ	La Paz	151.02	141	PKPbc	PKiKP	01 33 08.6	+1.5
	comp=Z,1.3nm,0.4s,baz=163,slow=11,SNR=14						
LPAZ	La Paz	151.02	141		PKiKP	01 33 08.1	+1.0

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*KRSC **04** 01:17:13.8±1.9, 59°.02N×158°.61E, h43^{km}±13^{km}, Ml3.8*

*NERS **04** 01:17:25.3, 58°.98N×158°.16E, h33^{km}*

ISC 04 01:17:14.9±1.0, **58°.95N**±0°.06×**158°.66E**±0°.04, **h10**^{km}, **n13**, σ**2^{s}51**/15, **Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALN	Palana	0.69	78	eP	Pb	01 17 28.7	-0.3
PALN				eS	Sb	01 17 38.2	-0.3
TIGL	Tigil	1.19	180	eP	Pn	01 17 36.4	-1.1
TIGL				eS	Sb	01 17 52.2	-0.8
OSSR	Ossora	2.29	81	eP	Pn	01 17 51.1	-1.5
SRDR	Sredinnyy	2.70	167	eP	Pn	01 17 58.5	+0.1
KOZ	Kozyrevsk	2.98	167	eP	Pn	01 18 03.1	+1.0
ESO	Esso	3.04	180	eP	Pn	01 18 02.4	-0.6
BZMR	Bezymyannaya	3.18	161	eP	Pn	01 18 07.2	+2.1
TLAR	Talaya	3.82	307	eP	Pb	01 18 18.3	-4.1
TLAR				ePg	Pg	01 18 30.9	+2.8
TLAR				Pgmax		01 18 35.2	
	20nm,0.7s						
TLAR				eSg	Sg	01 19 21.7	+4.1
TLAR				Sgmax		01 19 50.9	
	90nm,0.6s						
GADL	Gadlja	3.83	284	ePg	Pg	01 18 33.5	+5.3
GADL				eSg	Sg	01 19 19.6	+1.9
GADL				Sgmax		01 19 37.9	
	240nm,0.8s						
MA2	Magadan	4.10	282	ePg	Pg	01 18 38.4	+5.1
MA2				Pgmax		01 18 45.1	
	10.0nm,0.6s						
MA2				eSg	Sg	01 19 29.1	+2.8
MA2				Sgmax		01 19 41.1	
	60nm,0.8s						
MGD	Magadan 1	4.19	289	eSg	Sg	01 19 30.6	+1.4
MGD				Sgmax		01 19 43.2	
	60nm,0.4s						
SEY	Seymchan	5.03	325	ePg	Pg	01 18 57.4	+6.3
SEY				Pgmax		01 18 59.6	
SEY				eSg	Sg	01 20 02.5	+6.3
SEY				Sgmax		01 20 20.1	
	10.0nm,0.7s						
SUUS	Susuman	6.40	311	eSg	Sg	01 20 44.3	+4.3
SUUS				Sgmax		01 20 59.8	
	30nm,0.8s						

IDC 04 01:23:48.5±17.0, **4°.24S**×**152°.67E**, **h206**^{km}±174^{km}, **mb3.0**/2, **mbtmp3.5**/2, **Error ellipse: s-maj=217.7km s-min=51.5km az=132.0**, **New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	23.72	227	P	P	01 28 42.2	+0.1
	0.9nm,0.6s,baz=53,slow=9.3,SNR=21						
	0.9nm,0.6s						
ASAR	Alice Springs	26.48	221	P	P	01 29 06.8	-0.2
	0.4nm,0.3s,baz=39,slow=8.6,SNR=1.9						
HHC	Hu-ho-hao-te	58.51	324	eP	P	01 33 18.2	-5.3
ILAR	Eielson Array	81.69	22	P	P	01 35 43.6	0.0
	0.1nm,0.4s,baz=255,slow=4.6,SNR=1.5						
	0.1nm,0.4s						
TORD	Torodi Ar. Bea	150.00	289	PKPbc	PKPbc	01 43 15.3	-0.4
	0.2nm,0.7s,baz=86,slow=4.0,SNR=1.3						

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*IDC **04** 01:25:54.0±0.8, 23°.14N×126°.25E, h0^{km}, mb4.0/12, mbtmp4.1/16, ML4.4/2, MS3.1/13, Error ellipse: s-maj=20.7km s-min=12.0km az=104.0*

*NIED **04** 01:25:58.9, 23°.57N×126°.17E, h128^{km}, MW4.3, Moment Tensor Solution. s2 Moment tensor: Scale 10^{15}Nm; M$_{rr}$-1.23; M$_{\theta\theta}$2.21; M$_{\phi\phi}$-0.99; M$_{r\theta}$2.89; M$_{\theta\phi}$0.59; M$_{\phi r}$-0.87; Fault plane solution: M$_0$3.60000×10^{15} NP1:φ$_s$44.00000°, δ25.00000°, λ-150.00000°. NP2:φ$_s$286.00000°, δ78.00000°, λ-68.00000°.*

*JMA **04** 01:25:58.9±0.2, 24°N±1°×126°.2E±0°.9, h128^{km}, MV4.1/30, FAR S OFF OKINAWAJIMA*

ISC 04 01:25:57.2±0.7, **23°.18N**±0°.05×**126°.38E**±0°.05, **h35**^{km}, **n61**, σ**2^{s}74**/76, **mb3.9**/12, **MS3.0**/9, **Southeast of Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JOGS	Gusukube	1.81	331	P	Pn	01 26 25.7	-0.2
JOGS				eS	Sn	01 26 46.0	-1.7
JMJ2	Miyako jima3	1.83	329	i P	Pn	01 26 26.0	-0.2
JMJ2				eS	Sn	01 26 46.3	-1.8
JMJ	Miyako jima 2	1.91	329	P	Pn	01 26 26.5	-0.8
JMJ	Miyako jima 2	1.91	329	S	Sn	01 26 47.1	-3.0
JIRJ	Irabujima	1.97	327	P	Pn	01 26 27.9	-0.3
JIRJ				eS	Sn	01 26 49.5	-2.2
JIKM	Ikemajima	2.02	329	P	Pn	01 26 28.6	-0.3
JIKM				eS	Sn	01 26 50.9	-2.0
JTJ	Tarama	2.12	314	P	Pn	01 26 29.6	-0.6
JTJ				S	Sn	01 26 52.2	-3.0
JISG	Ishigakijimahi	2.36	307	P	Pn	01 26 33.2	-0.2
JISG				S	Sn	01 26 58.4	-2.8
JIJ	Ishigaki jima	2.37	300	P	Pn	01 26 33.1	-0.4
JIJ				S	Sn	01 26 58.3	-3.1
JKRS	Kuro-shima	2.42	296	P	Pn	01 26 34.2	0.0
JKRS				eS	Sn	01 27 00.1	-2.5
HATJ	Hateruma jima	2.52	291	P	Pn	01 26 35.2	-0.4
HATJ				eS	Sn	01 27 02.2	-2.9
IRIF	Iriomote-Funau	2.69	296	P	Pn	01 26 37.8	-0.1
IRIF				eS	Sn	01 27 07.3	-1.9
JKE	Kume jima 2	3.16	7	i P	Pn	01 26 43.4	-1.1
JJT3	Tamagusuku3	3.22	23	P	Pn	01 26 44.6	-0.7
JJT3				S	Sn	01 27 20.4	-2.0
YOJ	Yonaguni jima	3.34	293	eP	Pn	01 26 46.9	0.0
YOJ				eS	Sn	01 27 21.9	-3.5
JYNG	Yonagunijimaku	3.39	293	P	Pn	01 26 47.6	-0.1
JYNG				eS	Sn	01 27 22.9	-3.7
JAGN	Aguni-jima	3.49	13	i P	Pn	01 26 48.0	-1.0
JAGN				eS	Sn	01 27 25.6	-3.4
JNTH	Nagotoyohara	3.65	24	P	Pn	01 26 50.0	-1.1
JOW	Kunigami	4.03	25	Pn	Pn	01 26 55.7	-0.8
	55nm,0.3s,baz=139,slow=17,SNR=191						
JOW				Sn	Sn	01 27 36.5	-5.9
	35nm,0.3s,baz=135,slow=27,SNR=7.7						
	139nm,0.3s						
JOW				AML	AML		
JOW	Kunigami	4.03	25	P	Pn	01 26 55.6	-0.8
JOW				eS	Sn	01 27 40.1	-2.2
JIH	Iheya	4.10	20	P	Pn	01 26 56.8	-0.6
JIH				eS	Sn	01 27 40.4	-3.8
JYRO	Yoronjima	4.27	26	P	Pn	01 26 59.0	-0.7
JYRO				eS	Sn	01 27 45.7	-2.5
NACB	Ninganchiao	4.50	284	P	Pn	01 27 02.0	-0.9
NACB	Ninganchiao	4.50	284	S	Sn	01 27 48.7	-5.3
JOKE	Okinoerabujima	4.62	25	P	Pn	01 27 03.4	-1.1
JOKE				eS	Sn	01 27 52.5	-4.3
YULB	Yu-li	4.68	274	P	Pn	01 27 03.6	-1.8
YULB	Yu-li	4.68	274	S	Sn	01 27 53.7	-4.8
YHNB	Yeheng	4.81	289	P	Pn	01 27 07.5	+0.2
YHNB	Yeheng	4.81	289	S	Sn	01 27 57.2	-4.7
TWGBT	Beinan	4.90	267	P	Pn	01 27 07.9	-0.5
TWGBT	Beinan	4.90	267	S	Sn	01 27 58.8	-5.0
SSLB	Suanglung	5.02	278	P	Pn	01 27 09.3	-0.8
SSLB	Suanglung	5.02	278	S	Sn	01 28 02.4	-4.5
JMZ	Minamidaito 2	5.14	58	eS	Sn	01 28 02.7	-7.1
JTK	Tokunoshima	5.14	26	P	Pn	01 27 10.7	-1.1
JTK				eS	Sn	01 28 04.9	-5.1
JKDJ	Kitadaitoujima	5.26	57	eS	Sn	01 28 07.4	-5.3
TPUB	Ta-pu	5.29	272	P	Pn	01 27 13.9	+0.1
TPUB	Ta-pu	5.29	272	S	Sn	01 28 10.2	-3.4
TIRP	Brgy. Gulod. B	10.05	210	eP	Pn	01 28 18.9	-0.2
TIRP				eS	Sn	01 30 05.5	-5.2
JNU	Nakatsue	10.67	21	Pn	Pn	01 28 26.9	-0.7
	2.3nm,0.3s,baz=172,slow=9.0,SNR=8.4						
JNU				Sn	Sn	01 30 19.5	-6.4
	1.1nm,0.3s,baz=181,slow=13,SNR=7.2						
JNU				LR	LR	01 33 01.0	
	comp=Z,84nm,18.5s,baz=236,slow=40						
	7.1nm,0.4s						
JNU				AML	AML		
KSRS	Korea Array	14.29	5	Pn	Pn	01 29 16.7	-0.3
	1.8nm,0.8s,baz=183,slow=12,SNR=5.9						
KSRS				LR	LR	01 34 44.9	
	comp=Z,37nm,20.6s,baz=185,slow=37						
DAV	Davao City (W)	16.03	183	LR	LR	01 35 12.7	

	comp=Z,58nm,21.8s,baz=336,slow=35						
MJAR	Matsushiro Arr	16.79	35	Pn	P	01 29 51.1	-0.5
	0.8nm,0.3s,baz=214,slow=13,SNR=1.3						
MJAR				LR	LR	01 37 17.8	
	comp=Z,41nm,18.4s,baz=248,slow=40						
USRK	Ussuriysk Ar.	21.47	11	P	P	01 30 44.0	+1.4
	3.6nm,0.8s,baz=190,slow=9.7,SNR=4.7						
	3.6nm,0.8s						
CMAR	Chiang Mai Arr	26.05	265	P	P	01 31 28.4	+0.9
	0.7nm,0.3s,baz=71,slow=10,SNR=1.7						
CMAR				LR	LR	01 42 44.5	
	comp=Z,35nm,19.5s,baz=50,slow=39						
	0.7nm,0.3s						
KLR	Kul'dur	26.35	8	LR	LR	01 42 37.6	
	comp=Z,23nm,18.2s,baz=210,slow=38						
SONM	Songino Array	29.32	332	P	P	01 31 56.6	-0.1
	0.6nm,0.5s,baz=154,slow=7.3,SNR=3.1						
SONM				LR	LR	01 44 32.9	
	comp=Z,48nm,19.2s,baz=140,slow=38						
	0.6nm,0.5s						
YAK	Yakutsk	38.90	2	LR	LR	01 48 53.6	
	comp=Z,25nm,20.9s,baz=115,slow=35						
MA2	Magadan	40.23	19	LR	LR	01 49 24.6	
	comp=Z,14nm,21.4s,baz=218,slow=35						
MKAR	Makanchi Array	42.40	315	P	P	01 33 50.6	+2.3
	2.1nm,0.7s,baz=96,slow=8.9,SNR=9.1						
	2.1nm,0.7s						
WRA	Warramunga Arr	43.55	169	P	P	01 34 00.2	+2.4
	3.7nm,0.7s,baz=352,slow=8.7,SNR=32						
	3.7nm,0.7s						
ZALV	Zalesovo Beam	43.73	325	P	P	01 33 59.8	+0.9
	0.5nm,0.4s,baz=108,slow=7.2,SNR=1.1						
ZALV				LR	LR	01 54 53.8	
	comp=Z,16nm,21.2s,baz=89,slow=40						
	0.5nm,0.4s						
KURBB	Kurchatov Arra	45.97	319	P	P	01 34 17.3	+0.5
	1.7nm,0.3s,baz=106,slow=7.8,SNR=4.4						
	1.7nm,0.3s						
ASAR	Alice Springs	47.13	171	P	P	01 34 27.8	+1.6
	0.8nm,0.6s,baz=349,slow=10,SNR=3.5						
	0.8nm,0.6s						
CTA	Charters Tower	47.17	154	P	P	01 34 27.2	+0.7
	2.1nm,0.2s,baz=336,slow=7.7,SNR=1.9						
	2.1nm,0.2s						
TIXI	Tiksi	48.52	1	LR	LR	01 55 25.8	
	comp=Z,36nm,20.1s,baz=222,slow=36						
BVAR	Borovoye Array	51.48	320	P	P	01 35 02.1	+3.0
	0.4nm,0.4s,baz=106,slow=10.0,SNR=4.4						
	0.4nm,0.4s						
FINES	FINESS Array B	74.69	331	P	P	01 37 35.0	+2.0
	3.4nm,0.9s,baz=81,slow=8.6,SNR=5.2						
	3.4nm,0.9s						
EIL	Elat	80.05	298	LR	LR	02 20 29.0	
	comp=Z,21nm,18.4s,baz=273,slow=41						
NOA	NORSAR Array B	81.29	334	LR	LR	02 16 18.7	
	comp=Z,22nm,19.9s,baz=30,slow=37						
YKA	Yellowknife Ar	81.99	24	P	P	01 38 16.5	+3.2
	0.7nm,0.8s,baz=312,slow=6.2,SNR=2.2						
	0.7nm,0.8s						

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*IDC **04** 01:28:04.7±10.0, 24°.04S×69°.03E, h0^{km}, mb4.0/5, mbtmp4.0/5, Error ellipse: s-maj=344.5km s-min=30.5km az=50.0*

ISC 04 01:28:10.2±13.0**, 23°S**±2°×**7°0E**±°**, h10^{km}, n15,** σ**0^{s}.19**/6**, mb3.9**/6**, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H08S1	Diego Carcia H	15.93	10	T	T	01 48 24.3	
	baz=190,slow=76,SNR=75						
H08S2	Diego Garcia H	15.93	10	T	T	01 48 29.3	
	baz=190,slow=76,SNR=102						
H08S3	Diego Garcia H	15.95	10	T	T	01 48 25.7	
	baz=190,slow=76,SNR=220						
H04N2	CROZET ISLANDS	26.92	208	T	T	02 01 42.3	
	baz=40,slow=75,SNR=1155						
H04N1	CROZET ISLANDS	26.93	208	T	T	02 01 40.6	
	baz=40,slow=75,SNR=1463						
H04N3	CROZET ISLANDS	26.94	208	T	T	02 01 42.9	
	baz=40,slow=75,SNR=889						
H01W2	Cape Leeuwin H	40.08	117	T	T	02 18 18.9	
	baz=273,slow=75,SNR=37						
H01W3	Cape Leeuwin H	40.08	117	T	T	02 18 20.0	
	baz=273,slow=75,SNR=34						
H01W1	Cape Leeuwin H	40.09	117	T	T	02 18 18.5	
	baz=273,slow=75,SNR=39						
ASAR	Alice Springs	58.30	104	P	P	01 38 05.7	+0.1
	0.6nm,0.8s,baz=257,slow=7.1,SNR=2.4						
WRA	Warramunga Arr	59.64	100	P	P	01 38 14.9	-0.1
	0.6nm,1.0s,baz=253,slow=6.7,SNR=6.6						
	0.6nm,1.0s						
MKAR	Makanchi Array	70.82	9	P	P	01 39 26.8	-0.1
	1.9nm,0.7s,baz=192,slow=6.6,SNR=15						
	1.9nm,0.7s						
KURBB	Kurchatov Arra	74.15	6	P	P	01 39 46.8	+0.2
	0.4nm,0.3s,baz=202,slow=6.6,SNR=5.4						
	0.4nm,0.3s						
BVAR	Borovoye Array	76.15	0	P	P	01 39 57.9	-0.2
	0.8nm,0.7s,baz=165,slow=6.2,SNR=5.1						
	0.8nm,0.7s						
ZALV	Zalesovo Beam	78.17	9	P	P	01 40 09.4	0.0
	1.8nm,0.7s,baz=190,slow=5.6,SNR=7.3						
	1.8nm,0.7s						

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*IDC **04** 01:38:34.1±1.8, 3°.09N×127°.69E, h0^{km}, mb3.7/4, mbtmp3.8/4, Error ellipse: s-maj=153.9km s-min=21.5km az=68.0*

ISC 04 01:38:37.7±1.7**, 3°.5N**±0°.3×**128°.9E**±0°.4**, h35^{km}, n6,** σ**0^{s}.63**/7**, mb3.8**/5**, North of Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	Don Marcelino,	4.09	309	*e*P	Pn	01 39 38.2	+0.4
DDMP				*e*S	Sn	01 40 24.1	-0.3
WRA	Warramunga Arr	23.93	167	P	P	01 43 49.0	+0.3
	1.4nm,0.4s,baz=344,slow=10.0,SNR=37						
	1.4nm,0.4s						
ASAR	Alice Springs	27.47	170	P	P	01 44 19.8	-1.0
	0.5nm,0.4s,baz=350,slow=8.7,SNR=4.5						
MKAR	Makanchi Array	58.97	324	P	P	01 48 33.6	-0.1
	0.6nm,0.7s,baz=116,slow=7.9,SNR=4.9						
	0.6nm,0.7s						
KURBB	Kurchatov Arra	63.09	327	P	P	01 49 01.2	-0.3
	0.4nm,0.3s,baz=128,slow=5.6,SNR=4.3						
	0.4nm,0.3s						
VNDA	Vanda	82.97	173	P	P	01 50 59.0	+0.4
	0.5nm,0.7s,baz=317,slow=7.1,SNR=3.5						
	0.5nm,0.7s						

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*SJA **04** 02:01:21.0±0.8, 20°.09S×69°.17W, h102^{km}±3^{km}, ML3.3, MW3.6*

*GUC **04** 02:01:22.0±0.8, 20°.12S×69°.20W, h94^{km}±3^{km}, ML3.3*

ISC 04 02:01:24.4±1.3**, 20°.12S**±0°.03×**69°.28W**±0°.05**, h85**^{km}±7^{km}**, n33,** σ**1^{s}.29**/56**, 4C-3D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB08	IPOC Station P	0.12	101	*e*P	Pn	02 01 36.3	-0.8
PB08				*e*S	Sn	02 01 47.4	+1.0
PB08				IAML		02 01 48.0	
	comp=Z,678nm,0.1s						
PB08	IPOC Station P	0.12	101	⇓*i*P	Pn	02 01 36.2	-0.8
PB08				*i* S	Sn	02 01 46.8	+0.4
PB08				IAML		02 01 48.4	
	comp=E,1μm,0.4s						
GO01	Chusmiza	0.46	10	*e*P	Pn	02 01 37.8	-1.2
GO01				*e*S	Sn	02 01 50.3	+0.7
GO01				IAML		02 01 51.6	
	comp=Z,586nm,0.2s						
GO01	Chusmiza	0.46	10	⇓*i*P	Pn	02 01 37.7	-1.2
GO01				*i* S	Sn	02 01 49.7	+0.1
GO01				*e*S	Sn	02 01 49.7	+0.1
GO01				IAML		02 01 51.5	
	comp=E,5μm,0.1s						
PB11	IPOC Station P	0.51	315	⇓*i*P	Pn	02 01 38.1	-0.8
PB11				*i* S	Sn	02 01 50.6	+1.0
PB11				IAML		02 01 52.7	
	comp=E,2μm,0.5s						
TA02	Huaiquique	0.82	259	*e*S	Sn	02 01 57.2	+2.5
TA02				IAML		02 02 00.3	
	comp=Z,1μm,0.3s						
TA02	Huaiquique	0.82	259	*e*P	Pn	02 01 41.4	-0.4
TA02				*e*S	Sn	02 01 55.8	+1.1
PSGCX	Pisagua	0.95	303	*e*P	Pn	02 01 42.6	-0.8
PSGCX				*e*S	Sn	02 01 58.7	+1.2
PSGCX				IAML		02 02 02.8	
	comp=Z,434nm,0.6s						
PSGCX	Pisagua	0.95	303	⇑*i*P	Pn	02 01 42.4	-0.9
PSGCX				*i* S	Sn	02 01 58.0	+0.5
TA01	Diego Aracena	0.96	242	*e*P	Pn	02 01 42.7	-0.7
TA01				*e*S	Sn	02 01 59.7	+2.2
TA01				IAML		02 02 03.5	
	comp=Z,337nm,0.4s						
TA01	Diego Aracena	0.96	242	⇑*i*P	Pn	02 01 42.5	-0.8
TA01				*i* S	Sn	02 01 58.3	+0.8
TA01				IAML		02 02 04.3	
	comp=N,571nm,0.4s						
PB02	IPOC Station P	1.33	206	*e*P	Pn	02 01 47.6	-0.4
PB02				*e*S	Sn	02 02 07.5	+1.9
PB02				IAML		02 02 14.6	
	comp=Z,760nm,0.1s						
PB02	IPOC Station P	1.33	206	*e*P	Pn	02 01 47.1	-0.8
PB02				*e*S	Sn	02 02 06.4	+0.8
PB02				IAML		02 02 14.9	
	comp=E,779nm,0.3s						
PX02	IPOC Station P	1.44	323	*e*P	Pn	02 01 47.3	-2.1
PB09	IPOC Station P	1.67	179	*e*P	Pn	02 01 51.6	-0.8
PB09	IPOC Station P	1.67	179	*e*P	Pn	02 01 51.5	-0.9
PB09				*e*S	Sn	02 02 13.0	-0.4
PB09				IAML		02 02 17.0	
	comp=N,292nm,0.3s						
PB07	IPOC Station P	1.70	200	*e*P	Pn	02 01 51.8	-0.9
PB07	IPOC Station P	1.70	200	*e*P	Pn	02 01 51.4	-1.3
PB07				*e*S	Sn	02 02 13.7	-0.4
PB07				IAML		02 02 18.1	
	comp=E,412nm,0.3s						
PB16	IPOC Station P	1.79	353	*e*P	Pn	02 01 53.4	-0.8
PB16				*e*S	Sn	02 02 19.2	+2.4
PB16	IPOC Station P	1.79	353	⇑*i*P	Pn	02 01 53.5	-0.8
PB16				*e*S	Sn	02 02 16.6	-0.2
PB16				IAML		02 02 20.3	
	comp=E,164nm,0.4s						
PB12	IPOC Station P	1.80	326	*e*P	Pn	02 01 52.4	-1.5
PB12				*e*S	Sn	02 02 19.2	+2.9
PB12	IPOC Station P	1.80	326	⇑*i*P	Pn	02 01 52.3	-1.7
PB12				*i* S	Sn	02 02 15.9	-0.4
PB03	IPOC Station P	1.97	193	*e*P	Pn	02 01 55.4	-0.9
PB03				*e*S	Sn	02 02 19.8	-0.7
PB03	IPOC Station P	1.97	193	*e*P	Pn	02 01 55.0	-1.3
PB03				IAML		02 02 27.6	
	comp=E,340nm,0.2s						
AP01	Chacalluta	2.01	330	*e*P	Pn	02 01 55.3	-1.3
AP01				*e*S	Sn	02 02 21.5	+0.3
AP01	Chacalluta	2.01	330	*e*P	Pn	02 01 54.9	-1.7
AP01				*e*S	Sn	02 02 21.3	+0.1
AP01				IAML		02 02 29.5	
	comp=N,811nm,0.2s						
PB18	Visviri	2.52	356	*e*P	Pn	02 02 05.4	+1.4
PB06	IPOC Station P	2.59	186	*e*P	Pn	02 02 03.6	-0.9
PB06				*e*S	Sn	02 02 38.1	+2.9
PB06	IPOC Station P	2.59	186	*e*P	Pn	02 02 03.2	-1.3
PB05	IPOC Station P	2.85	197	*e*P	Pn	02 02 06.8	-1.2
PB05	IPOC Station P	2.85	197	*e*P	Pn	02 02 06.0	-2.0
LPAZ	La Paz	3.96	16	*e*P	Pn	02 02 23.2	-0.3
HJA	Humahuaca	4.73	131	*e*P	Pn	02 02 33.9	+0.2

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*GUC **04** 02:02:16.0±0.8, 23°.51S×68°.65W, h115^{km}±4^{km}, ML4.1*

*NEIC **04** 02:02:16.6±1.2, 23°.50S±0°.06×68°.60W±0°.06, h107^{km}±5^{km}, mb4.3/6, Error ellipse: s-maj=9.3km s-min=7.6km az=151.0*

*IDC **04** 02:02:17.1±1.2, 23°.47S×68°.35W, h111^{km}±8^{km}, mb3.8/5, mbtmp4.1/7, Error ellipse: s-maj=36.2km s-min=20.9km az=113.0*

*VAO **04** 02:02:20.3±0.8, 23°.33S×68°.32W, h138^{km}±8^{km}, mb4.2, Presumed earthquake*

ISC 04 02:02:16.0±0.6**, 23°.49S**±0°.04×**68°.59W**±0°.05**, h110**^{km}±5^{km}**, n68,** σ**1^{s}.07**/81**, mb3.9**/3**, 2C-2D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AF01	San Pedro de A	0.66	36	⇓*i*P	Pn	02 02 34.6	+0.3
AF01				*i* S	Sn	02 02 48.6	+0.4
AF01				IAML		02 02 49.6	
	comp=E,11μm,0.8s						
AF01	San Pedro de A	0.66	36	Pn	Pn	02 02 34.6	+0.3
AF01				Sn	Sn	02 02 48.5	+0.4
PB06	IPOC Station P	1.19	311	⇑*i*P	Pn	02 02 39.9	+0.5
PB06				*i* S	Sn	02 02 57.0	-0.1
PB06				IAML		02 02 58.2	
	comp=N,5μm,0.5s						
PB06	IPOC Station P	1.19	311	Pn	Pn	02 02 40.0	+0.5
PB06				Sn	Sn	02 02 57.3	+0.1
PB05	IPOC Station P	1.61	293	⇑*i*P	Pn	02 02 44.2	-0.1
PB05				*i* S	Sn	02 03 04.8	-0.9
PB05	IPOC Station P	1.61	293	Pn	Pn	02 02 44.2	-0.1
PB05	IPOC Station P	1.61	293	*e*S	Sn	02 02 44.4	+2.7
PB09	IPOC Station P	1.79	340	⇓*i*P	Pn	02 02 47.9	+1.4
PB09				*i* S	Sn	02 03 10.7	+0.9
PB09				IAML		02 03 12.4	
	comp=E,1μm,0.3s						
PB09	IPOC Station P	1.79	340	Pn	Pn	02 02 47.9	+1.4
PB03	IPOC Station P	1.79	323	*e*P	Pn	02 02 46.6	0.0
PB03				*e*S	Sn	02 03 09.4	-0.4
PB03				IAML		02 03 11.2	
	comp=E,4μm,0.3s						
PB14	IPOC Station P	2.00	235	*i* P	Pn	02 02 49.0	-0.3
PB14				*i* S	Sn	02 03 13.6	-1.2
PB14	IPOC Station P	2.00	235	Pn	Pn	02 02 49.1	-0.3
PB07	IPOC Station P	2.12	325	*e*P	Pn	02 02 51.3	+0.5
PB07				*e*S	Sn	02 03 15.4	-1.8
PB07				IAML		02 03 19.0	
	comp=E,1μm,0.2s						
PB07	IPOC Station P	2.12	325	Pn	Pn	02 02 51.6	+0.8
PB02	IPOC Station P	2.47	331	*e*P	Pn	02 02 55.4	+0.1
PB02				*i* S	Sn	02 03 23.5	-1.8
PB02				IAML		02 03 29.4	
	comp=N,1μm,0.2s						
TA01	Diego Aracena	3.26	333	*e*P	Pn	02 03 04.3	-1.2
AC02	Maricunga	3.37	188		Pn	02 03 07.6	+0.3
PB08	IPOC Station P	3.37	351	*e*P	Pn	02 03 07.7	+0.3
PB08	IPOC Station P	3.37	351	Pn	Pn	02 03 07.5	+0.1
PB11	IPOC Station P	3.84	345	Pn	Pn	02 03 13.3	-0.1
GO01	Chusmiza	3.84	352	*e*P	Pn	02 03 13.8	+0.1
LPAZ	La Paz	7.18	4	P	Pn	02 04 00.1	+1.2
	comp=N,16nm,0.4s,baz=191,slow=1.4,SNR=67						
LPAZ	La Paz	7.18	4		Pn	02 03 59.9	+1.0
LPAZ	La Paz	7.18	4	*e*P	Pn	02 04 00.1	+1.2
CPUP	Villa Florida	10.61	108	P	Pn	02 04 44.0	-0.8
	comp=N,1.3nm,0.9s,baz=199,slow=13,SNR=1.8						
SJPY	San Joaquin	11.49	100	*e*P	Pn	02 04 57.6	+0.8
TRCB	Terra Rica	14.70	90	P	P	02 05 42.2	+0.4
TRCB	Terra Rica	14.70	90	*e*P	Pn	02 05 38.7	+0.1
PTGB	Pitanga	15.14	98	*e*P	P	02 05 44.8	-2.0
CPSB	Cacapava Do Su	15.16	120		P	02 05 45.7	-1.1
CPSB				IAmb	IAmb	02 05 46.6	
	comp=Z,17nm,0.8s						
CPSB	Cacapava Do Su	15.16	120	*e*P	P	02 05 45.6	-1.2
LDASE	Londrina, Braz	16.04	93	*e*P	P	02 05 56.1	-0.5
CZSB	Cruzeiro do Su	16.16	345	*e*P	P	02 05 58.8	+0.8
PLCA	Paso Flores	17.27	185	*e*P	Pn	02 06 14.2	+3.8
FRTB	Fartura	17.47	93	*e*P	P	02 06 11.6	-0.9
CLDB	Colider	17.50	46	*e*P	P	02 06 11.7	-1.1
ARAG	Araguaiana, MT	17.59	67	*e*P	Pn	02 06 13.6	-0.8
BB19B	Bebedouro	18.73	86	*e*P	P	02 06 25.4	-0.8
SPB	Sao Paulo	19.40	95	*e*P	P	02 06 32.7	-0.9
PET01	Itanhaem-SP	19.51	97	*e*P	P	02 06 33.6	-1.1
IPMB	Ipameri, GO	19.83	78	*e*P	P	02 06 37.5	-0.8
VAO	Valinhos	19.88	93	P	P	02 06 37.0	-1.9
VAO	Valinhos	19.88	93	*e*P	P	02 06 37.9	-1.0
SNDB	Serra Nova Dou	20.04	58	*e*P	P	02 06 38.3	-2.2
TEFE	Tefe	20.23	11	*e*P	P	02 06 42.7	+0.2
CANS	Sao Roque de M	20.84	85	*e*P	P	02 06 48.3	-0.9
BDFB	Brasilia	20.89	72	P	P	02 06 47.9	-1.9
	comp=Z,3.9nm,0.4s,baz=232,slow=11,SNR=8.7						
	comp=Z,3.9nm,0.4s						
BDFB	Brasilia	20.89	72	P	P	02 06 48.0	-1.7
BDFB				IAmb	IAmb	02 06 49.5	
	comp=Z,9.2nm,1.0s						
PMNB	Patos De Minas	21.25	81	*e*P	P	02 06 51.9	-1.7
BSCB	Bom Sucesso	22.18	88	*e*P	P	02 07 03.7	+0.2
DIAM	Diamantina, MG	23.83	82	*e*P	P	02 07 19.0	-0.4
JANB	Januaria	24.38	74	*e*P	P	02 07 22.9	-1.3
SMTB	Santa Maria do	24.82	58	*e*P	P	02 07 27.1	-1.0
ARCA	Ara§uai, MG	25.83	80	*e*P	P	02 07 36.9	-0.4
ALF01	Guarapari-ES	25.97	89	*e*P	P	02 07 37.9	-0.6
SJMB	Sao Joao De Ma	25.99	85	*e*P	P	02 07 38.1	-0.6
BSFB	Barra de Sao F	26.27	85	*e*P	P	02 07 40.5	-0.7
RIB01	Linhares ES	26.56	86	*e*P	P	02 07 43.1	-0.8
BOAV	Boa Vista	26.90	18	*e*P	P	02 07 46.6	-0.3
GUA01	Guaratinga, BA	27.87	81	*e*P	P	02 07 55.0	-0.6
QSPA	South Pole Qui	66.71	180	P	P	02 12 56.4	+1.3
	comp=Z,0.5nm,0.5s,baz=232,slow=1.2,SNR=1.6						
QSPA				pP	PcP	02 13 23.6	+0.3
	comp=Z,1.7nm,1.1s,baz=92,slow=8.7,SNR=1.3						
	comp=Z,0.5nm,0.5s						
QSPA	South Pole Qui	66.71	180	P	P	02 12 56.2	+1.1
QSPA				IAmb	IAmb	02 13 34.8	
	comp=Z,3.6nm,1.2s						
DBIC	Dimbokro	69.03	73	P	P	02 13 09.3	-1.0
	comp=Z,2.6nm,0.6s,baz=273,slow=6.0,SNR=2.2						
	comp=Z,2.6nm,0.6s						
DBIC	Dimbokro	69.03	73	P	P	02 13 09.2	-1.1
DBIC				IAmb	IAmb	02 13 44.0	
	comp=Z,25nm,1.5s						
TORD	Torodi Ar. Bea	77.75	70	P	P	02 14 01.5	+0.1
	comp=Z,2.0nm,0.5s,baz=258,slow=5.1,SNR=29						
TORD				pP	pP	02 14 30.2	0.0
	comp=Z,0.3nm,0.5s,baz=247,slow=8.2,SNR=1.3						
	comp=Z,2.0nm,0.5s						
MAW	Mawson	82.35	163	P	P	02 14 26.3	+1.1
	comp=Z,1.0nm,0.5s,baz=206,slow=5.8,SNR=8.9						
MAW				pP	pP	02 14 53.7	-0.8
	comp=Z,0.9nm,0.8s,baz=198,slow=20,SNR=1.8						
	comp=Z,1.0nm,0.5s						
MAW	Mawson	82.35	163	P	P	02 14 26.4	+1.2
MKAR	Makanchi Array	147.04	38	PKPbc	PKPdf	02 21 45.2	+1.5
	comp=Z,0.6nm,0.8s,baz=300,slow=2.3,SNR=3.2						

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*IDC **04** 02:10:05.3±1.6, 9°.10S×112°.00E, h0^{km}, mb3.8/7, mbtmp3.8/8, ML3.5/1, MS3.1/3, Error ellipse: s-maj=91.3km s-min=16.5km az=48.0*

*NEIC **04** 02:10:09.1±1.9, 9°.56S±0°.08×111°.98E±0°.07, h35^{km}±2^{km}, mb4.2/7, Error ellipse: s-maj=14.4km s-min=10.3km az=36.0*

*DJA **04** 02:10:10.7±0.6, 9°S±6°×11°2E±°, h10^{km}, M4.2/19, MLv4.2/19*

ISC 04 02:10:10.2±0.6**, 9°.52S**±0°.09×**111°.93E**±0°.06**, h40^{km}, n37,** σ**1^{s}.65**/34**, mb4.0**/12**, South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCJI	Pacitan	1.51	330	P	Pn	02 10 34.3	-0.5
SNJI	Sawahan-Nganju	1.73	354	P	Pn	02 10 38.3	+0.2
SNJI				AML	AML		
UGM	Wanagama	2.12	319		Pn	02 10 44.3	+1.1
UGM	Wanagama	2.12	319	P	Pn	02 10 44.4	+1.1
UGM				AML	AML		
NGJI	Ngawi	2.19	348	P	Pn	02 10 47.1	+3.0
BLJI	Banyuglugur	2.41	43	P	Pn	02 10 48.4	+1.2
BLJI				AML	AML		
JAGI	Jajag, Banyuwa	2.43	65		Pn	02 10 47.5	+0.1
JAGI	Jajag, Banyuwa	2.43	65	P	Pn	02 10 47.7	+0.2
JAGI				AML	AML		
ABJI	Asem Bagus	2.85	53	P	Pn	02 10 55.2	+2.0
ABJI				AML	AML		
SMRI	Semarang	2.86	329		Pn	02 10 55.6	+2.2
SMRI	Semarang	2.86	329	P	Pn	02 10 56.2	+2.8
SMRI				AML	AML		
BBJI	Bungbulang	4.70	295	Pn	Pn	02 11 20.2	+1.4
KAPI	Kappang	8.95	61	LR	LR	02 16 12.9	
	comp=Z,77nm,19.6s,baz=276,slow=42						
MMSI	Mamuju	9.70	46	P	Pn	02 12 37.0	+10
GIRL	Giralia	13.24	171	Pn	Pn	02 13 15.7	0.0
MBWA	Marble Bar	13.80	148	Pn	Pn	02 13 21.2	-2.2
FITZ	Fitzroy Crossi	15.80	124	Pn	Pn	02 13 48.6	-1.3
	0.1nm,0.3s,baz=309,slow=9.4,SNR=1.5						
FITZ				Sn	Sn	02 16 30.9	-13
	0.1nm,0.3s,baz=257,slow=5.5,SNR=1.5						
FITZ				LR	LR	02 19 43.1	
	comp=Z,66nm,20.7s,baz=348,slow=36						
	1.3nm,0.9s						
FITZ				AML	AML		
FITZ	Fitzroy Crossi	15.80	124		Pn	02 13 48.9	-1.1
WB0	Warramunga Arr	23.97	118	P	P	02 15 19.1	-2.1
WB0				IAmb	IAmb	02 15 43.6	
	comp=Z,10nm,1.4s						
WRA	Warramunga Arr	23.99	118	P	P	02 15 22.5	+1.2
	comp=Z,0.6nm,0.8s,baz=295,slow=11,SNR=10						
	comp=Z,0.6nm,0.8s						
WR8	Warramunga Arr	24.14	118	P	P	02 15 24.2	+1.5
WR8				IAmb	IAmb	02 15 37.9	
	comp=Z,9.6nm,1.4s						
ASAR	Alice Springs	25.27	127	P	P	02 15 35.8	+2.8
	comp=Z,0.6nm,0.7s,baz=304,slow=9.5,SNR=3.6						
CMAR	Chiang Mai Arr	30.61	335	LR	LR	02 29 59.5	
	comp=Z,47nm,18.0s,baz=175,slow=40						
STKA	Stephens Creek	35.36	133	P	P	02 17 04.7	+2.6
	comp=Z,0.9nm,0.5s,baz=283,slow=14,SNR=1.4						
	comp=Z,0.9nm,0.5s						
SONM	Songino Array	57.31	356	P	P	02 19 52.7	-1.5
	comp=Z,0.6nm,0.6s,baz=180,slow=8.6,SNR=2.9						
	comp=Z,0.6nm,0.6s						
SONM	Songino Array	57.31	356	P	P	02 19 52.8	-1.3
SONM				IAmb	IAmb	02 19 53.5	
	comp=Z,0.6nm,0.6s						
JKA	Kamikawa-asahi	60.19	25	P	P	02 20 16.1	+2.1
JKA				IAmb	IAmb	02 20 50.6	
	comp=Z,23nm,1.4s						
BOOM	Boomskoye usch	61.33	330	P	P	02 20 21.2	-0.9
MKAR	Makanchi Array	61.99	337	P	P	02 20 25.1	-1.2
	comp=Z,1.0nm,0.4s,baz=151,slow=6.8,SNR=17						
	comp=Z,1.0nm,0.4s						
KKAR	Karatay Array	64.54	328	P	P	02 20 42.3	-0.9
KURBB	Kurchatov Arra	66.55	338	P	P	02 20 54.9	-1.1
	comp=Z,0.1nm,0.4s,baz=144,slow=6.8,SNR=1.9						
	comp=Z,0.1nm,0.4s						
ZALV	Zalesovo Beam	67.26	343	P	P	02 20 58.5	-2.0
	comp=Z,1.0nm,0.4s,baz=141,slow=7.3,SNR=5.7						
	comp=Z,1.0nm,0.4s						
ZALV	Zalesovo Beam	67.26	343	P	P	02 20 58.9	-1.6
AB31	Akbulak array	74.10	328	P	P	02 21 41.6	-0.6
AB31				IAmb	IAmb	02 21 42.7	
	comp=Z,1.3nm,0.7s						
ABKAR	Akbulak array	74.10	328	P	P	02 21 41.5	-0.7
BRTR	Keskin Array B	87.15	311	P	P	02 22 52.6	+0.1
	comp=Z,0.7nm,0.8s,baz=150,slow=5.7,SNR=4.5						
	comp=Z,0.7nm,0.8s						
BRTR	Keskin Array B	87.15	311	P	P	02 22 51.0	-1.5

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*IDC **04** 02:14:51.7±1.2, 0°.09S×80°.19W, h0^{km}, mb3.6/5, mbtmp3.7/6, ML3.3/1, Error ellipse: s-maj=54.2km s-min=18.8km az=75.0*

*IGQ **04** 02:14:52.2±0.5, 0°S±2°×8°1W±°, h6^{km}±2^{km}, M3.9/21, Mjma4.0/21, MLv3.8/21, Ms(BB)3.8/17*

*RSNC **04** 02:14:57.0±0.9, 0°S±3°×8°1W±°, h31^{km}±16^{km}, M4.1, mB5.7, mb4.4, ML3.2, Mw(mB)5.2*

ISC 04 02:14:51.7±1.4**, 0°.24S**±0°.03×**80°.56W**±0°.04**, h1**^{km}±9^{km}**, n103,** σ**1^{s}.47**/109**, mb3.7**/4**, 28C-5D, Near coast of Ecuador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ABH3	Manabi, Bahia	0.38	159	P	Pn	02 15 02.4	-2.0
ABH3				S	Sb	02 15 09.7	+2.0
AMNT	Manta-Manabi	0.72	194	P	Pn	02 15 08.1	-0.9
AMNT				S	Sn	02 15 18.8	-1.8
PECV	Mancha de Ca P	0.74	136	⇓P	Pg	02 15 04.8	-1.2
JIPI	JIPIJAPA	1.11	180	⇓P	Pn	02 15 15.1	+0.6
JIPI				S	Sn	02 15 31.7	+1.1
ISPT	Isla de la Pla	1.14	207	⇓P	Pb	02 15 12.9	-1.3
ISPT				S	Sn	02 15 29.6	-1.5
AV18	Acelerografo,	1.22	63	P	Pg	02 15 17.2	+2.2
AATC	Ecuador-Atacam	1.30	32	P	Pn	02 15 15.9	-1.1
PPLP	Puerto Lpez	1.31	189	P	Pb	02 15 16.9	-0.3
PPLP				⇑P	Pg	02 15 16.6	-0.4
PPLP				S	Sg	02 15 35.1	+1.1
PPLP	Puerto Lpez	1.31	189	P	Pg	02 15 16.5	-0.4
PPLP				S	Sg	02 15 34.8	+0.8
ATON	Ecuador-Tonsup	1.35	34	P	Pg	02 15 18.3	+0.7
AV21	Acelerografo,	1.35	49	P	Pb	02 15 17.2	-0.7
BV15	Puerto Quito-O	1.40	74	⇑P	Pb	02 15 17.9	-0.8
AMA1	Acelerografo,	1.44	36	P	Pb	02 15 19.0	-0.4
ASDO	Santo Domingo	1.44	91	P	Pg	02 15 19.2	-0.1
AES2	Ecuador-Puerto	1.53	37	P	Pn	02 15 19.0	-1.1
APR2	Miler	1.62	79	P	Pb	02 15 22.0	-0.6
RVRD	Rio Verde	1.75	42	⇑P	Pn	02 15 22.5	-0.8
PAC1	Pacto, Paraso	1.84	74	⇑P	Pb	02 15 24.5	-1.8

PAC1	Pacto, Paraso	1.84	74	P	Pn	02 15 24.3	-0.3
PAC1				S	Sb	02 15 48.3	-1.6
ILLI	Illinizas Sur	1.89	104	⇓P	Pb	02 15 26.7	-0.8
GGPT	Toaza - Volcan	1.94	90	⇑P	Pb	02 15 26.6	-1.5
JUA2	San Juan 2	1.96	89	⇑P	Pb	02 15 27.3	-1.2
APR1	Acelerografo,	1.96	84	P	Pb	02 15 27.3	-1.2
TERV	Terraza Guagua	1.96	88	⇑P	Pb	02 15 27.0	-1.5
GGPC	Guagua Pichinc	1.97	88	⇑P	Pb	02 15 27.3	-1.4
SALI	Salinas	1.98	192	P	Pb	02 15 27.3	-1.3
YANA	Yana	2.00	87	⇑P	Pb	02 15 27.9	-1.3
SRAM	San Ramn-Vol	2.06	104	⇑P	Pb	02 15 29.2	-0.9
CHSH	Refugio Sur-Vo	2.10	126	P	Pb	02 15 30.4	-0.6
SUCR	Mariscal Sucre	2.10	101	⇑P	Pb	02 15 30.4	-0.6
TING	Casa Alexandra	2.11	91	P	Pb	02 15 30.4	-0.6
SLOR	San Lorenzo -	2.12	103	⇑P	Pb	02 15 30.7	-0.6
NAS2	Nasa	2.13	101	⇑P	Pb	02 15 31.1	-0.4
TOMA	Boca Toma-Volc	2.14	97	⇑P	Pb	02 15 30.8	-0.8
PITA	Cotopaxi Volc	2.15	98	⇑P	Pb	02 15 31.3	-0.5
BRRN	Barrancas-Volc	2.15	104	⇑P	Pb	02 15 31.0	-0.9
BREF	Cotopaxi Volca	2.16	101	⇑P	Pb	02 15 31.8	-0.4
OTAV	Otavalo	2.16	77	⇑P	Pn	02 15 29.6	+0.2
OTAV	Otavalo	2.16	77	P	Pb	02 15 29.7	-2.3
OTAV				S	Sn	02 15 55.7	-1.4
BVC2	Cotopaxi Volca	2.19	101	⇑P	Pb	02 15 32.0	-0.5
PUEM	Granja Avicola	2.19	87	P	Pb	02 15 31.8	-0.7
VC1	Cotopaxi 1	2.20	100	⇑P	Pb	02 15 32.1	-0.5
TAMH	Tambohuasha Ch	2.20	126	P	Pb	02 15 31.8	-0.9
BTAM	Cotopaxi Volca	2.21	101	⇑P	Pb	02 15 32.3	-0.6
CUSE	Cuicocha Este	2.23	76	P	Pb	02 15 31.0	-2.1
CUSE	Cuicocha Este	2.23	76	P	Pb	02 15 30.9	-2.2
CUSE				S	Sn	02 15 58.0	-0.7
TAMB	Tambo	2.24	102	⇑P	Pb	02 15 32.9	-0.4
CUIC	Cuicocha-Domo	2.27	76	P	Pb	02 15 31.7	-2.0
IGUA	Igualata	2.29	123	P	Pb	02 15 33.6	-0.6
SNLR	San Lorenzo-Es	2.29	48	⇑P	Pb	02 15 31.4	-2.6
ANTG	Antisana-Guama	2.32	96	P	Pb	02 15 34.1	-0.7
MORR	Playas El Morr	2.40	175	P	Pg	02 15 37.9	+0.2
BBIL	Ulba Tungurahu	2.40	120	P	Pb	02 15 35.1	-0.8
JUI6	Juive	2.40	119	P	Pb	02 15 35.0	-1.0
URCU	Urcuqui	2.40	74	P	Pb	02 15 34.4	-1.7
ANTS	Antisana-Sarah	2.41	96	P	Pb	02 15 35.6	-0.6
ANTI	Antisana	2.41	95	⇑P	Pb	02 15 35.2	-1.0
IMBA	Imbabura, San	2.42	78	P	Pb	02 15 35.6	-0.7
PIAT	Ana Tenorio	2.42	108	P	Pb	02 15 35.8	-0.5
PIAT	Ana Tenorio	2.42	108	P	Pb	02 15 34.9	-1.4
PIAT				S	Sb	02 16 04.6	-2.2
LITE1	Lita	2.43	65	P	Pn	02 15 32.6	-0.1
ARRY	Arrayan	2.45	121	P	Pb	02 15 36.8	0.0
BPAT	Tungurahua Vol	2.47	121	P	Pg	02 15 37.7	-1.5
YAHU	Yahuarcocha	2.56	76	P	Pb	02 15 37.5	-1.3
CAYR	Refugio Cayamb	2.57	84	⇓P	Pb	02 15 37.9	-1.1
ANGU	Angureal	2.57	84	⇑P	Pb	02 15 37.8	-1.3
CHMA	Chilma	2.73	66	P	Pn	02 15 37.5	+0.5
ISPG	Isla Puna-Puer	2.74	172	P	Pg	02 15 42.4	-1.8
LNGL	El Angel-Carch	2.74	69	P	Pb	02 15 38.7	-3.2
ECEN	Cerro Negro	2.80	68	P	Pb	02 15 39.5	-3.4
CHL1	Volc¡n Chiles	2.81	69	⇑P	Pn	02 15 39.6	+1.3
SANGA	Volcan Sangay	2.83	129	P	Pb	02 15 42.0	-1.4
CHL2	Volc¡n Chiles	2.84	69	⇑P	Pn	02 15 39.8	+1.1
TULM	Tulcn-Chalpat	2.93	71	P	Pb	02 15 44.3	-0.8
TULM	Tulcn-Chalpat	2.93	71	P	Pb	02 15 43.3	-1.8
CMBC	Cumbal	2.98	67	P	Pb	02 15 43.8	-2.1
CMBC	Cumbal	2.98	67	P	Pb	02 15 42.8	-3.1
CASC	Dorado de Casc	3.25	83	P	Pb	02 15 49.4	-0.8
CASC	Dorado de Casc	3.25	83	P	Pb	02 15 47.6	-2.7
PKYU	Pakayacu	3.28	115	⇑P	Pb	02 15 48.4	-2.4
BBAC	Balboa, Cauca	4.00	56	P	Pn	02 15 54.5	0.0
BBAC	Balboa, Cauca	4.00	56	P	Pn	02 15 54.3	-0.2
MCRA	Macar, Loja	4.15	172	P	Pn	02 15 57.3	+1.0
POPC	Popayan, Colom	4.77	55	P	Pn	02 16 05.4	+0.4
ZUMB	Zumba	4.81	163	P	Pb	02 16 10.6	-6.3
PTLC	Puerto Leguiza	5.78	86	P	Pn	02 16 21.1	+2.4
	944nm121nm,1.1s						
PTLC				AML	AML		
BETC	Betania	5.88	60	P	Pn	02 16 22.5	+2.3
ORTC	Ortega, Tolima	6.72	52	P	Pn	02 16 35.5	+3.8
	43nm,1.1s						
MACC	Macarena, Meta	7.12	71	P	Pn	02 16 39.0	+1.9
	21nm,0.7s						
ATAH	Atahualpa	7.18	163	Pn	Pn	02 16 40.8	+2.4
	0.5nm,0.3s,baz=57,slow=18,SNR=1.5						
ATAH				Sn	Sn	02 18 04.7	+3.9
	0.3nm,0.3s,baz=258,slow=22,SNR=1.8						
	1.5nm,0.3s						
ATAH				AML	AML		
GUY2C	Guyana, Caldas	7.51	44	P	Pn	02 16 45.0	+2.1
	10nm,1.1s						
CBOC	Ciudad Bolivar	7.58	37	P	Pn	02 16 46.3	+2.7
	20nm,0.9s						
NORC	Norcasia	8.10	45	P	Pn	02 16 55.7	+5.1
	8.9nm,0.9s						
VILC	Villavicencio,	8.11	58	P	Pn	02 16 55.6	+4.7
CHIC	Chingaza	8.36	55	P	Pn	02 16 58.4	+3.8
	16nm,0.7s						
CZSB	Cruzeiro do Su	10.80	134	P	Pn	02 17 29.9	+2.2
NNA	Nana	12.24	163	Sn	Sn	02 20 04.2	-0.5
	0.9nm,0.3s,baz=140,slow=18,SNR=1.7						
LPAZ	La Paz	20.11	143	P	P	02 19 27.1	-0.7
	0.6nm,0.6s,baz=319,slow=9.3,SNR=5.9						
	0.6nm,0.6s						
PLCA	Paso Flores	41.32	168	P	P	02 22 39.9	+0.7
	1.5nm,1.0s,baz=338,slow=8.2,SNR=3.0						
	1.5nm,1.0s						
NVAR	Mina Array Bea	51.79	322	P	P	02 24 02.3	+0.7
	0.3nm,0.7s,baz=127,slow=7.3,SNR=4.4						
	0.3nm,0.7s						
ESDC	Sonseca Array	79.85	50	P	P	02 27 00.5	-1.9
	0.9nm,1.1s,baz=270,slow=5.9,SNR=4.3						
	0.9nm,1.1s						
QSPA	South Pole Qui	89.81	180	P	P	02 27 53.2	+1.2
	1.9nm,1.1s,baz=124,slow=3.3,SNR=7.3						
	1.9nm,1.1s						
WRA	Warramunga Arr	140.37	238	PKhKP	PKPpre	02 34 21.0	
	0.8nm,1.1s,baz=114,slow=2.6,SNR=1.9						

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*IDC **04** 02:17:30.6±0.6, 0°.28S×80°.65W, h0^{km}, mb3.9/13, mbtmp4.0/17, ML3.7/4, MS3.8/16, Error ellipse: s-maj=19.4km s-min=10.6km az=72.0*

*IGQ **04** 02:17:30.1±0.5, 0°S±2°×8°1W±°, h4^{km}±3^{km}, M4.7/11, Mjma4.9/11, MLv4.5/11, Ms(BB)4.6/6*

*NEIC **04** 02:17:33.5±1.9, 0°.15S±0°.06×80°.46W±0°.07, h10^{km}±1^{km}, mb4.5/35, Error ellipse: s-maj=13.3km s-min=6.9km az=49.0*

*RSNC **04** 02:17:33.1±0.3, 0°S±2°×8°0W±°, h0^{km}, M4.6, mB5.1, mb4.9, ML3.9, Mw(mB)4.4*

*VAO **04** 02:17:36.6±2.9, 0°.08S×80°.40W, h49^{km}±11^{km}, mb4.7, Presumed earthquake*

ISC 04 02:17:30.3±1.3, **0°.25S**±0°.03×**80°.52W**±0°.03, **h0**^{km}±8^{km}, **n207**, σ**1^{s}39**/183, **mb4.4**/20, **MS3.8**/14, **48C-2D, Near coast of Ecuador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ABH3	Manabi, Bahia	0.36	165	⇓P	Pb	02 17 40.2	+0.7
PECV	Mancha de Ca P	0.70	138	⇑P	Pg	02 17 42.8	-1.0
AMNT	Manta-Manabi	0.72	198	P	Pb	02 17 46.0	+0.3
AMNT				S	Sn	02 17 57.5	-2.0
JIPI	JIPIJAPA	1.10	182	⇑P	Pn	02 17 52.8	-0.3
JIPI				S	Sn	02 18 10.2	+1.1
ISPT	Isla de la Pla	1.15	209	⇓P	Pb	02 17 50.9	-2.2
ISPT				S	Sb	02 18 07.7	-0.9
AV18	Acelerografo,	1.18	62	⇑P	Pn	02 17 55.1	+1.0
AATC	Ecuador-Atacam	1.28	30	P	Pn	02 17 53.9	-1.6
PPLP	Puerto Lpez	1.31	191	⇑P	Pn	02 17 54.6	-1.3
PPLP				P	Pb	02 17 55.4	-0.5
PPLP				S	Sn	02 18 13.0	-1.1
PPLP				S	Sg	02 18 13.8	+1.4
PPLP	Puerto Lpez	1.31	191	P	Pn	02 17 54.4	-1.5
PPLP				S	Sb	02 18 12.3	-0.9
AV21	Acelerografo,	1.33	47	P	Pg	02 17 55.5	-0.2
ATON	Ecuador-Tonsup	1.33	32	P	Pn	02 17 54.9	-1.3
BV15	Puerto Quito-O	1.35	73	⇑P	Pb	02 17 55.9	-0.6
ASDO	Santo Domingo	1.39	90	P	Pg	02 17 57.6	+0.6
AMA1	Acelerografo,	1.42	34	P	Pb	02 17 56.8	-0.8
AES2	Ecuador-Puerto	1.51	35	P	Pn	02 17 57.1	-1.5
APR2	Miler	1.58	78	P	Pb	02 17 60.0	-0.5
RVRD	Rio Verde	1.73	41	⇑P	Pn	02 18 00.9	-0.7
PAC1	Pacto, Paraso	1.80	73	⇑P	Pn	02 18 02.2	-0.5
PAC1	Pacto, Paraso	1.80	73	P	Pn	02 18 02.4	-0.3
PAC1				S	Sg	02 18 28.6	+0.5
ABAB	Ecuador-Univer	1.84	147	P	Pg	02 18 05.3	-0.3
ILLI	Illinizas Sur	1.84	104	⇑P	Pb	02 18 04.5	-0.8
GGPT	Toaza - Volcan	1.90	89	⇑P	Pb	02 18 04.7	-1.3
JUA2	San Juan 2	1.91	89	⇑P	Pb	02 18 05.3	-1.0
APR1	Acelerografo,	1.91	84	P	Pb	02 18 05.7	-0.6
TERV	Terraza Guagua	1.91	88	⇑P	Pb	02 18 05.0	-1.4
GGPC	Guagua Pichinc	1.92	88	⇑P	Pb	02 18 05.2	-1.3
YANA	Yana	1.95	86	P	Pb	02 18 05.4	-1.6
AC07	Ecuador-Guayaq	1.96	164	P	Pb	02 18 06.3	-0.7
ZALD	Colegio Gonzal	1.97	90	P	Pb	02 18 06.6	-0.8
SALI	Salinas	1.98	194	P	Pb	02 18 07.5	+0.3
GYE3	Ecuador-Guayaq	1.99	162	P	Pb	02 18 07.1	-0.3
SRAM	San Ramn-Vol	2.01	104	P	Pb	02 18 07.7	-0.3
ALAT	Latacunga	2.01	109	P	Pg	02 18 08.5	-0.4
CIVI	Edificio de In	2.02	89	P	Pb	02 18 07.5	-0.7
PULU	Pululahua	2.03	82	⇑P	Pb	02 18 06.8	-1.5
FENY	Casa Vinicio C	2.04	87	P	Pb	02 18 07.9	-0.5
CHSH	Refugio Sur-Vo	2.06	127	⇑P	Pb	02 18 08.9	0.0
SUCR	Mariscal Sucre	2.06	101	⇑P	Pb	02 18 08.4	-0.4
TING	Casa Alexandra	2.07	91	⇑P	Pb	02 18 08.7	-0.2
SLOR	San Lorenzo -	2.07	103	Pn	Pb	02 18 08.6	-0.5
SLOR	San Lorenzo -	2.07	103	⇑P	Pb	02 18 08.7	-0.4
ASLC	Ecuador-Salced	2.08	112	P	Pb	02 18 08.8	-0.3
NAS2	Nasa	2.08	101	⇑P	Pb	02 18 08.9	-0.4
TOMA	Boca Toma-Volc	2.10	97	⇑P	Pb	02 18 08.9	-0.5
PITA	Cotopaxi Volc	2.10	98	⇑P	Pb	02 18 09.2	-0.4
BRRN	Barrancas-Volc	2.11	105	⇑P	Pb	02 18 09.0	-0.7
BMOR	Cotopaxi Volca	2.11	103	⇑P	Pb	02 18 09.2	-0.5
BREF	Cotopaxi Volca	2.12	101	⇑P	Pb	02 18 09.8	-0.1
JSCH	Cashca Tororas	2.12	133	⇑P	Pb	02 18 08.9	-0.9
PORT	Chimborazo Vol	2.12	125	⇑P	Pb	02 18 08.8	-1.1
OTAV	Otavalo	2.12	77	Pn	Pn	02 18 07.6	+0.2
OTAV	Otavalo	2.12	77	⇑P	Pn	02 18 07.5	+0.1
OTAV	Otavalo	2.12	77	P	Pn	02 18 07.5	+0.1
OTAV				S	Sb	02 18 36.4	-0.5
OTAV	Otavalo	2.12	77	*e*P	Pn	02 18 07.5	+0.1
BVC2	Cotopaxi Volca	2.14	101	⇑P	Pb	02 18 10.0	-0.3
VC1	Cotopaxi 1	2.15	100	⇑P	Pb	02 18 10.0	-0.4
PUEM	Granja Avicola	2.15	87	⇑P	Pb	02 18 10.3	0.0
AV11	Acelerografo,	2.15	85	P	Pb	02 18 10.4	+0.1
TAMH	Tambohuasha Ch	2.16	127	P	Pb	02 18 10.3	-0.3
BTAM	Cotopaxi Volca	2.16	101	⇑P	Pb	02 18 10.2	-0.4
CUSE	Cuicocha Este	2.19	75	P	Pb	02 18 09.2	-1.8
CUSE	Cuicocha Este	2.19	75	P	Pb	02 18 08.9	-2.1
CUSE				S	Sg	02 18 39.5	-1.2
TAMB	Tambo	2.19	102	⇑P	Pb	02 18 11.0	-0.1
CUIC	Cuicocha-Domo	2.22	76	⇑P	Pb	02 18 09.3	-2.3
IGUA	Igualata	2.24	123	⇑P	Pb	02 18 10.8	-1.2
COTA	Cotacachi	2.25	75	P	Pb	02 18 10.9	-1.3
ALOR	Ecuador-San Lo	2.27	47	P	Pb	02 18 10.7	-1.3
SNLR	San Lorenzo-Es	2.27	47	⇑P	Pn	02 18 09.4	+0.4
ANTG	Antisana-Guama	2.27	96	P	Pb	02 18 12.1	-0.4
PIS1	Pisayambo	2.27	111	P	Pg	02 18 13.2	-0.8
ANTM	Antisana-La Mi	2.31	97	P	Pb	02 18 12.9	-0.3
BBIL	Ulba Tungurahu	2.35	120	⇑P	Pb	02 18 13.7	-0.1
JUI6	Juive	2.35	120	P	Pb	02 18 13.5	-0.3
ANTS	Antisana-Sarah	2.36	96	⇑P	Pb	02 18 13.0	-1.0
URCU	Urcuqui	2.36	73	⇑P	Pb	02 18 12.2	-1.8
ANTI	Antisana	2.36	95	⇑P	Pb	02 18 13.1	-1.0
PIAT	Ana Tenorio	2.37	108	P	Pb	02 18 13.9	-0.3
PIAT	Ana Tenorio	2.37	108	P	Pb	02 18 12.8	-1.3
PIAT				S	Sb	02 18 43.9	-0.2
IMBA	Imbabura, San	2.37	77	P	Pb	02 18 14.0	-0.2
MORR	Playas El Morr	2.38	176	P	Pb	02 18 13.4	-0.6
ALIT	Ecuador-Imbabu	2.39	64	P	Pn	02 18 10.9	+0.1
LITE1	Lita	2.39	64	P	Pn	02 18 10.4	-0.5
ARRY	Arrayan	2.41	121	P	Pb	02 18 14.4	-0.3
BPAT	Tungurahua Vol	2.42	121	P	Pg	02 18 16.0	-0.8
YAHU	Yahuarcocha	2.52	76	P	Pb	02 18 16.1	-0.6
CAYR	Refugio Cayamb	2.52	84	⇑P	Pb	02 18 15.9	-0.9
ANGU	Angureal	2.52	83	⇑P	Pb	02 18 15.5	-1.4
CHMA	Chilma	2.69	66	⇑P	Pn	02 18 15.3	+0.1
LNGL	El Angel-Carch	2.70	69	P	Pb	02 18 17.1	-2.7
ISPG	Isla Puna-Puer	2.72	173	P	Pb	02 18 20.0	+0.1
ECEN	Cerro Negro	2.76	67	P	Pn	02 18 17.3	+1.0
CHL1	Volc¡n Chiles	2.77	68	⇑P	Pn	02 18 17.4	+0.9
PUYO	Puyo, Santa Ro	2.78	116	P	Pb	02 18 21.2	+0.3
SANGA	Volcan Sangay	2.79	130	⇑P	Pb	02 18 19.6	-1.7
CHL2	Volc¡n Chiles	2.80	68	⇑P	Pn	02 18 17.9	+1.0
TULM	Tulcn-Chalpat	2.89	71	⇑P	Pb	02 18 21.0	-2.1
TULM	Tulcn-Chalpat	2.89	71	P	Pb	02 18 21.1	-2.0
CMBC	Cumbal	2.94	66	P	Pb	02 18 20.9	-2.9
CMBC	Cumbal	2.94	66	P	Pn	02 18 20.1	+1.4
ATUL	Tulcn	2.97	70	P	Pb	02 18 23.2	-1.1
CASC	Dorado de Casc	3.20	83	P	Pb	02 18 27.2	-0.9
CASC	Dorado de Casc	3.20	83	P	Pb	02 18 25.1	-3.0
PKYU	Pakayacu	3.23	115	⇑P	Pb	02 18 26.6	-2.0
TAIS	Taisha	3.68	125	⇑P	Pb	02 18 32.9	-3.4
BBAC	Balboa, Cauca	3.97	55	P	Pn	02 18 32.6	-0.1
BBAC	Balboa, Cauca	3.97	55	P	Pn	02 18 31.9	-0.8
CRUC	La Cruz	4.00	63	P	Pn	02 18 36.1	+3.0
GONZ	Gonzanam	4.11	164	P	Pb	02 18 40.9	-3.0
MCRA	Macar, Loja	4.13	172	P	Pb	02 18 39.9	-4.0
MCRA	Macar, Loja	4.13	172	P	Pn	02 18 35.9	+1.2
POPC	Popayan, Colom	4.74	54	P	Pn	02 18 43.4	+0.2
ZUMB	Zumba	4.78	163	P	Pb	02 18 49.6	-5.5
GARC	Garzon, Huila	5.57	64	P	Pn	02 18 59.9	+5.1
	1µm89nm,0.6s						
GARC				AML	AML		
PTLC	Puerto Leguiza	5.73	86	⇑P	Pn	02 18 58.4	+1.6
PTLC	Puerto Leguiza	5.73	86	P	Pn	02 18 58.4	+1.6
	3µm340nm,1.3s						
PTLC				AML	AML		
ORTC	Ortega, Tolima	6.69	52	P	Pn	02 19 12.6	+2.6
	2µm226nm,1.2s						
PRAC	Prado	6.87	55	P	Pn	02 19 13.2	+0.8
	1µm76nm,0.8s						
MACC	Macarena, Meta	7.08	70	P	Pn	02 19 17.6	+2.4
	1µm79nm,0.8s						
ATAH	Atahualpa	7.16	163	Pn	Pn	02 19 19.7	+3.0
	2.9nm,0.3s,baz=210,slow=2.2,SNR=8.6						
ATAH				Sn	Sn	02 20 41.7	+2.7
	1.5nm,0.3s,baz=48,slow=24,SNR=1.5						
ATAH				LR	LR	02 22 03.4	
	comp=Z,511nm,20.3s,baz=347,slow=38						
	6.1nm,0.8s						
ATAH				AML	AML		
GUY2C	Guyana, Caldas	7.49	43	P	Pn	02 19 23.0	+1.8
	39nm,0.7s						
CBOC	Ciudad Bolivar	7.56	36	P	Pn	02 19 24.5	+2.5
	598nm55nm,0.8s						
ROSC	El Rosal	7.99	51	Pn	Pn	02 19 31.7	+3.6
	6.8nm,0.3s,baz=270,slow=20,SNR=8.7						
	5.3nm,0.4s						
ROSC				AML	AML		
ROSC	El Rosal	7.99	51		Pn	02 19 32.1	+4.0
VILC	Villavicencio,	8.08	57	P	Pn	02 19 34.0	+4.9
CHIC	Chingaza	8.33	54	P	Pn	02 19 38.7	+5.9
	68nm,0.7s						
DBBC	Dabeiba	8.40	31	P	Pn	02 19 42.0	+8.5
SPBC	San Pablo de B	8.70	48	P	Pn	02 19 46.1	+8.5
	14nm,0.8s						
APAC	Apartado, Choc	9.00	26	P	Pn	02 19 52.6	+11
	35nm,1.4s						
PTBC	PUERTO BERRIO,	9.06	42	P	Pn	02 19 49.1	+6.7
	18nm,1.0s						
PAYG	Puerto Ayora	9.78	268	Pn	Pn	02 19 53.4	+1.0
PAYG	Puerto Ayora	9.78	268	P	Pn	02 19 53.3	+1.0
	94nm,1.6s						
CZSB	Cruzeiro do Su	10.76	134		Pn	02 20 08.5	+2.7
CZSB	Cruzeiro do Su	10.76	134	P	Pn	02 20 07.9	+2.1
CZSB	Cruzeiro do Su	10.76	134	*e*P	Pn	02 20 08.3	+2.5
NNA	Nana	12.22	163	Pn	Pn	02 20 27.9	+2.1
	2.6nm,0.3s,baz=272,slow=12,SNR=4.3						
NNA				Sn	Sn	02 22 37.8	-5.0
	0.7nm,0.3s,baz=340,slow=4.7,SNR=1.4						
	4.7nm,0.3s						
NNA				AML	AML		
NNA	Nana	12.22	163		Pn	02 20 20.6	-5.1
SDV	Santo Domingo	13.39	47	Pn	P	02 20 47.4	-4.4
	1.3nm,0.3s,baz=222,slow=11,SNR=6.8						
SDV				LR	LR	02 26 41.3	
	comp=Z,426nm,18.8s,baz=214,slow=41						
	7.5nm,0.3s						
SDV				AML	AML		
TEFE	Tefe	16.20	102	*e*P	P	02 21 20.1	-2.6
ESQI	Esquipulas	17.11	330	P	P	02 21 34.8	+1.8
ESQI				IAmb	IAmb	02 22 16.3	
	comp=Z,47nm,1.3s						
MACA	Manacapuru-AM	20.03	99		Pn	02 22 05.0	-1.7
MACA				IAmb	IAmb	02 22 35.1	
	comp=Z,14nm,0.6s						
MACA	Manacapuru-AM	20.03	99	*e*P	P	02 22 03.8	-1.2
LPAZ	La Paz	20.08	143	P	Pn	02 22 06.8	-1.1
	comp=Z,2.4nm,0.7s,baz=333,slow=12,SNR=11						
LPAZ				LR	LR	02 31 41.5	
	comp=Z,410nm,19.6s,baz=306,slow=42						
	comp=Z,2.4nm,0.7s						
LPAZ	La Paz	20.08	143		Pn	02 22 07.8	-0.1
LPAZ	La Paz	20.08	143	*e*P	Pn	02 22 06.6	-1.3
BOAV	Boa Vista	20.16	82		P	02 22 05.6	-0.8
BOAV	Boa Vista	20.16	82	*e*P	P	02 22 05.9	-0.6
PB18	Visviri	20.37	148		Pn	02 22 10.8	-0.4
PB18				IAmb	IAmb	02 22 54.4	
	comp=Z,48nm,1.4s						
PB16	IPOC Station P	20.98	150		Pn	02 22 17.5	-0.8
PB16				IAmb	IAmb	02 22 33.5	
	comp=Z,13nm,0.8s						
GO01	Chusmiza	22.26	151	P	P	02 22 31.6	+2.0
GO01				IAmb	IAmb	02 22 49.2	
	comp=Z,27nm,1.3s						
VILB	Vilhena	23.77	123		P	02 22 45.3	+0.6
VILB	Vilhena	23.77	123	*e*P	P	02 22 45.4	+0.7
SIV	San Ignacio	24.75	130	LR	LR	02 33 28.6	
	comp=Z,1µm,18.5s,baz=316,slow=39						
ITTB	Itaituba	25.09	100	*e*P	P	02 22 56.5	-0.4
PTLB	Pontes e Lacer	25.96	127		P	02 23 05.3	+0.5
PTLB	Pontes e Lacer	25.96	127	*e*P	P	02 23 05.2	+0.5
CLDB	Colider	26.74	114	*e*P	P	02 23 11.3	-0.6
MDP	Montagnes des	28.34	79	LR	LR	02 37 11.9	
	comp=Z,107nm,19.4s,baz=256,slow=42						
SNDB	Serra Nova Dou	31.25	113	*e*P	P	02 23 51.5	-0.6
SMTB	Santa Maria do	33.89	106	*e*P	P	02 24 13.7	-1.5
SJPY	San Joaquin	34.09	138	*e*P	P	02 24 16.9	0.0
CPUP	Villa Florida	34.22	141	LR	LR	02 41 01.9	
	comp=Z,283nm,19.4s,baz=1.5,slow=41						
BDFB	Brasilia	35.54	117	P	P	02 24 30.0	+0.4
	comp=Z,2.8nm,0.8s,baz=287,slow=6.2,SNR=3.1						
BDFB				LR	LR	02 39 09.6	
	comp=Z,226nm,20.6s,baz=317,slow=36						
	comp=Z,2.8nm,0.8s						
JCT	Junction City	35.65	331	P	P	02 24 32.9	+2.6
IPMB	Ipameri, GO	36.31	121	*e*P	P	02 24 35.5	-0.7
TXAR	Lajitas Array	36.80	325	P	P	02 24 38.2	-2.0
	comp=Z,0.5nm,0.8s,baz=131,slow=5.7,SNR=4.4						
TXAR				PcP	PcP	02 27 03.7	+1.2
	comp=Z,0.4nm,1.0s,baz=128,slow=3.4,SNR=2.0						
TXAR				ScP	ScP	02 30 49.5	-1.3
	comp=Z,0.1nm,0.4s,baz=129,slow=3.8,SNR=3.6						
	comp=Z,0.5nm,0.8s						
WHAR	Wooly Hollow	37.03	344	P	P	02 24 42.9	+1.0
WHAR				IAmb	IAmb	02 25 01.9	
	comp=Z,9.2nm,1.2s						
LCAR	Lake Charles	37.47	346		P	02 24 45.1	-0.5
MNHN	Monahans	37.84	328	P	P	02 24 49.2	+0.2
MNHN				IAmb	IAmb	02 24 55.0	
	comp=Z,5.7nm,0.7s						
APMT	Aspermont	38.16	333	P	P	02 24 53.8	+2.3
APMT				IAmb	IAmb	02 24 57.7	
	comp=Z,7.3nm,0.8s						
TPB28		39.04	327	IAmb	IAmb	02 25 05.5	
	comp=Z,4.4nm,0.8s						
MSTX	Muleshoe	39.94	331	IAmb	IAmb	02 25 12.4	
	comp=Z,8.9nm,0.8s						
PLCA	Paso Flores	41.30	169	P	P	02 25 17.8	+0.1
	comp=Z,1.9nm,0.8s,baz=316,slow=18,SNR=4.0						
	comp=Z,1.9nm,0.8s						
PLCA	Paso Flores	41.30	169	P	P	02 25 18.3	+0.7
PLCA				IAmb	IAmb	02 25 24.3	
	comp=Z,8.6nm,1.1s						
PLCA	Paso Flores	41.30	169	*e*P	P	02 25 18.2	+0.5
ALQ	Albuquerque	42.59	328	IAmb	IAmb	02 25 34.9	
	comp=Z,6.6nm,0.7s						
ALQ	Albuquerque	42.59	328	IAmb	IAmb	02 25 34.8	
	comp=Z,6.5nm,0.7s						
ANMO	Albuquerque	42.59	328		P	02 25 29.4	+1.0
TASM	ASL Pad, Albuq	42.59	328	IAmb	IAmb	02 25 34.9	
	comp=Z,5.8nm,0.7s						
TASM	ASL Pad, Albuq	42.59	328	IAmb	IAmb	02 25 34.9	
	comp=Z,6.0nm,0.7s						
Q24A	Divide	45.10	333	IAmb	IAmb	02 26 20.9	
	comp=Z,5.2nm,0.8s						
PV03	Paradox Valley	46.35	329	IAmb	IAmb	02 26 04.5	
	comp=Z,4.8nm,0.6s						
PFO	Pinyon Flats O	47.69	319	LR	LR	02 44 29.6	
	comp=Z,31nm,18.6s,baz=36,slow=34						
PDAR	Pinedale Array	50.15	332	P	P	02 26 27.9	+0.1
	comp=Z,0.3nm,0.6s,baz=129,slow=8.4,SNR=3.6						
PDAR				PcP	PcP	02 27 48.4	+1.0
	comp=Z,0.2nm,0.4s,baz=124,slow=4.3,SNR=1.8						
	comp=Z,0.3nm,0.6s						
ELK	Elko	51.56	326	P	P	02 26 39.1	+0.5
	comp=Z,0.5nm,0.5s,baz=127,slow=3.8,SNR=4.3						
	comp=Z,0.5nm,0.5s						
NVAR	Mina Array Bea	51.83	322	P	P	02 26 40.9	+0.3
	comp=Z,0.6nm,0.7s,baz=131,slow=8.8,SNR=6.3						
	comp=Z,0.6nm,0.7s						
NVAR	Mina Array Bea	51.83	322	P	P	02 26 40.8	+0.2
ULM	Lac du Bonnet	52.00	348	P	P	02 26 42.1	+0.8
	comp=Z,2.5nm,0.7s,baz=164,slow=6.4,SNR=4.6						
	comp=Z,2.5nm,0.7s						
ULM	Lac du Bonnet	52.00	348	P	P	02 26 40.4	-1.0
ULM				IAmb	IAmb	02 27 09.6	
	comp=Z,7.8nm,1.2s						
YBH	Yreka Blue Hor	56.52	323	P	P	02 27 14.0	-0.6
	comp=Z,0.8nm,0.6s,baz=100,slow=11,SNR=4.6						
	comp=Z,0.8nm,0.6s						
YBH	Yreka Blue Hor	56.52	323	IAmb	IAmb	02 27 33.1	
	comp=Z,5.6nm,1.4s						
PPT	Papeete	69.99	251	LR	LR	02 52 29.0	
	comp=Z,152nm,18.6s,baz=3.5,slow=30						
DBIC	Dimbokro	75.79	83	LR	LR	03 00 07.9	
	comp=Z,103nm,20.0s,baz=272,slow=34						
ESDC	Sonseca Array	79.82	50	P	P	02 29 40.5	-0.4
	comp=Z,0.6nm,0.7s,baz=264,slow=6.5,SNR=5.9						
ESDC				LR	LR	03 03 40.1	
	comp=Z,24nm,18.7s,baz=232,slow=35						
	comp=Z,0.6nm,0.7s						
ILAR	Eielson Array	80.34	337	LR	LR	03 07 30.9	
	comp=Z,48nm,18.6s,baz=74,slow=37						
SKT	Skwentna	81.39	333	P	P	02 29 49.0	+0.2
CAST	Castle Rocks	82.05	334	P	P	02 29 54.4	+2.1
CAST				IAmb	IAmb	02 30 11.7	
	comp=Z,9.4nm,1.5s						
TORD	Torodi Ar. Bea	82.47	77	P	P	02 29 57.0	+1.6
	comp=Z,0.7nm,0.6s,baz=280,slow=6.0,SNR=12						
TORD				LR	LR	03 04 55.9	
	comp=Z,185nm,21.8s,baz=170,slow=34						
	comp=Z,0.7nm,0.6s						
QSPA	South Pole Qui	89.80	180	P	P	02 30 30.1	-0.6
	comp=Z,0.8nm,0.6s,baz=152,slow=2.1,SNR=11						
	comp=Z,0.8nm,0.6s						
QSPA	South Pole Qui	89.80	180	P	P	02 30 30.4	-0.3
NOA	NORSAR Array B	91.06	29	LR	LR	03 07 41.2	
	comp=Z,9.7nm,21.9s,baz=255,slow=33						
HFS	Hagfors	92.32	30	LR	LR	03 11 17.7	
	comp=Z,28nm,18.4s,baz=300,slow=35						
VRAC	Vranov	94.83	41	LR	LR	03 12 52.3	
	comp=Z,15nm,18.2s,baz=280,slow=35						
FINES	FINESS Array B	98.11	28	P	Pdif	02 31 10.6	+1.8
	comp=Z,0.7nm,0.5s,baz=284,slow=3.3,SNR=12						
	comp=Z,0.7nm,0.5s						
FINES	FINESS Array B	98.11	28	P	Pdif	02 31 11.0	+2.2
KURBB	Kurchatov Arra	126.74	17	PKP	PKiKP	02 36 35.0	-1.5
	comp=Z,0.2nm,0.4s,baz=319,slow=2.4,SNR=1.7						
ASAR	Alice Springs	138.99	232	PKhKP	PKPpre	02 36 54.1	
	comp=Z,0.5nm,0.6s,baz=135,slow=2.6,SNR=1.9						
WRA	Warramunga Arr	140.40	238	PKhKP	PKPpre	02 36 56.1	
	comp=Z,1.1nm,0.7s,baz=102,slow=1.7,SNR=5.4						

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*NIED **04** 02:22:03.6, 43°.80N×142°.03E, h185^{km}, MW3.8, Moment Tensor Solution. s2 Moment tensor: Scale 10^{14}Nm; M_{rr}-4.30; $M_{\theta\theta}$0.35; $M_{\phi\phi}$3.95; $M_{r\theta}$1.45; $M_{\theta\phi}$-3.26; $M_{\phi r}$-2.44; Fault plane solution: $M_0$5.83000×10^{14} NP1: ϕ_s150.00000°, δ30.00000°, λ-90.00000°. NP2: ϕ_s329.00000°, δ60.00000°, λ-90.00000°.*

*IDC **04** 02:22:03.5±3.0, 43°.80N×142°.03E, h183^{km}±28^{km}, mb3.4/14, mbtmp3.9/16 Error ellipse: s-maj=17.0km s-min=15.2km az=146.0*

*NEIC **04** 02:22:03.8±1.2, 43°.79N±0°.07×142°.0E±0°.1, h181^{km}±5^{km}, mb4.1/12, Error ellipse: s-maj=15.3km s-min=10.4km az=100.0*

*JMA **04** 02:22:03.6±0.2, 43°.8N±0°.6×142°.0E±0°.9, h185^{km}±1^{km}, MV3.5/39, KAMIKAWA-SORACHI REGION*

*SKHL **04** 02:22:04.7±0.2, 43°.90N×142°.20E, h161^{km}±5^{km}, mb4.5/6,* *msh4.9/6*

ISC 04 02:22:03.8±0.6**, 43°.78N**±0°.04×**142°.03E**±0°.04**, h186**^{km}±5^{km}**, n64, σ0^s.77**/83**, mb3.7**/19**, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHR	Hokuryu	0.23	260	P	Pn	02 22 28.7	+0.2
JHR				eS	Sn	02 22 47.8	+0.5
JAB	Ashibetsu	0.31	153	iP	Pn	02 22 28.7	0.0
JAB				S	Sn	02 22 47.5	-0.3
JKK2	Kamakawa 2	0.53	80	iP	Pn	02 22 29.3	-0.1
JKK2				S	Sn	02 22 49.3	+0.2
ASAJ	Asahikawa	0.53	50	iP	Pn	02 22 29.0	-0.3
JKA	Kamikawa-asahi	0.53	51		Pn	02 22 28.9	-0.4
JSS	Shosan	0.63	348	iP	Pn	02 22 29.9	+0.1
JSS				eS	Sn	02 22 49.6	-0.5
JISS	Ishikarishitsu	0.68	222	eP	Pn	02 22 30.1	0.0
JISS				S	Sn	02 22 50.8	+0.6
JFR	Furan	0.74	146	P	Pn	02 22 30.1	-0.3
JFR				eS	Sn	02 22 50.7	-0.3
JYG	Yagishiri	0.78	326	P	Pn	02 22 30.4	-0.1
JYG				S	Sn	02 22 50.7	-0.7
JEW	Eniwo	1.03	205	P	Pn	02 22 32.6	+0.3
JEW				S	Sn	02 22 54.5	+0.1
JSE	Soyaes	1.24	18	iP	Pn	02 22 33.8	-0.1
JSE				S	Sn	02 22 56.4	-0.9
JAR	Ashorobuto	1.35	110	iP	Pn	02 22 35.3	+0.4
JAR				eS	Sn	02 22 59.8	+0.8
JTKR	Abashiri--Toko	1.37	81	iP	Pn	02 22 35.5	+0.5
JTKR				eS	Sn	02 22 59.7	+0.6
JCH	Churui	1.52	140	P	Pn	02 22 35.5	-0.9
JCH				S	Sn	02 22 59.8	-1.9
JWK2	Keihoku	1.54	356	P	Pn	02 22 36.7	+0.2
JWK2				eS	Sn	02 23 00.7	-1.3
JNBK	Urakawa-nobuka	1.59	160	P	Pn	02 22 37.5	+0.4
JNBK				eS	Sn	02 23 03.2	+0.3
JRBN	Rebuntou	1.78	337	P	Pn	02 22 38.7	-0.2
JRBN				eS	Sn	02 23 05.9	-0.4
ERM	Erimo	1.95	155	Pn	Pn	02 22 41.8	+1.1
JAK	Akkeshi	2.10	111	P	Pn	02 22 41.7	-0.5
JAK				S	Sn	02 23 11.0	-1.1
AKK	Akkeshi	2.19	110	eP	Pn	02 22 42.3	-0.9
AKK				eS	Sn	02 23 11.9	-2.0
JRA	Rausu	2.24	85	eP	Pn	02 22 44.9	+1.1
JRA				eS	Sn	02 23 17.0	+2.0
NMR	Nemuro--Hokkai	2.72	97	eP	Pn	02 22 48.1	-1.2
NMR				eS	Sn	02 23 22.4	-2.3
JTM	Tenmabayashi	3.08	194		Pn	02 22 52.5	-1.1
YSS	Yuzhno-Sakhali	3.21	9		Pn	02 22 55.0	-0.2
YSS	Yuzhno-Sakhali	3.21	9	eP	Pn	02 22 55.4	+0.2
YSS				AMB	AMB	02 22 57.6	
	50nm,0.5s						
YSS				eS	Sn	02 23 34.4	-1.1
YSS				A	A	02 23 36.4	
	40nm,0.5s						
YSS				A	A	02 23 36.4	
	40nm,0.5s						
SHO	Shikotan	3.47	87	eP	Pn	02 23 12.6	+14
SHO				AMB	AMB	02 23 13.4	
	20nm,0.3s						
SHO				eS	Sn	02 23 53.7	+13
SHO				A	A	02 23 55.7	
	130nm,0.3s						
SHO				A	A	02 23 55.7	
	110nm,0.3s						
USRK	Ussuriysk Ar.	7.26	277	P	Pn	02 23 46.9	-0.3
	3.3nm,0.6s,baz=89,slow=10,SNR=4.4						
USRK	Ussuriysk Ar.	7.26	277		Pn	02 23 46.4	-0.8
PEA0B	Petropavlovsk-	13.94	43	Pn	Pn	02 25 12.3	-1.0
PETK	Petropavlovsk-	13.94	43	P	Pn	02 25 12.7	-0.6
	2.7nm,0.5s,baz=225,slow=8.6,SNR=6.8						
PETK	Petropavlovsk-	13.94	43		Pn	02 25 14.2	+1.0
SEY	Seymchan	20.11	14	P	P	02 26 22.5	-0.3
	1.2nm,0.3s,baz=146,slow=8.3,SNR=6.1						
	1.2nm,0.3s						
SONM	Songino Array	25.03	292	P	P	02 27 10.7	+0.1
	1.0nm,0.5s,baz=79,slow=7.7,SNR=4.6						
	1.0nm,0.5s						
SONM	Songino Array	25.03	292	P	P	02 27 11.2	+0.5
M14K	Bethel	36.92	43	P	P	02 28 55.6	+1.4
N15K	Kwethluk River	37.84	44	P	P	02 29 03.4	+1.4
ZALV	Zalesovo Beam	38.00	306	P	P	02 29 03.3	-0.1
	0.8nm,0.5s,baz=89,slow=6.8,SNR=4.5						
	0.8nm,0.5s						
ZALV	Zalesovo Beam	38.00	306	P	P	02 29 03.7	+0.3
N17K	Nushagak Hills	39.27	43	P	P	02 29 15.5	+1.5
N17K				IAmb	IAmb	02 29 16.3	
	comp=Z,13nm,1.5s						
MKAR	Makanchi Array	41.26	296	P	P	02 29 30.8	+0.3
	comp=Z,1.3nm,0.7s,baz=82,slow=9.6,SNR=8.7						
	comp=Z,1.3nm,0.7s						
MKAR	Makanchi Array	41.26	296	P	P	02 29 30.6	+0.1
KURBB	Kurchatov Arra	42.49	302	P	P	02 29 40.5	+0.2
	comp=Z,1.3nm,0.4s,baz=72,slow=8.9,SNR=22						
	comp=Z,1.3nm,0.4s						
SLKM	Skilak Lake	42.70	42	P	P	02 29 42.4	+0.4
SLKM				IAmb	IAmb	02 30 14.4	
	comp=Z,9.2nm,1.0s						
ILAR	Eielson Array	43.65	36	P	P	02 29 49.4	0.0
	comp=Z,0.6nm,0.8s,baz=274,slow=8.9,SNR=4.0						
	comp=Z,0.6nm,0.8s						
SCRK	Sand Creek	45.01	37	P	P	02 30 00.0	-0.4
SCRK				IAmb	IAmb	02 30 24.5	
	comp=Z,2.2nm,1.1s						
BVAR	Borovoye Array	46.59	308	P	P	02 30 12.4	-0.4
	comp=Z,0.9nm,0.3s,baz=80,slow=9.6,SNR=5.1						
	comp=Z,0.9nm,0.3s						
INK	Inuvik	48.23	30	P	P	02 30 25.1	0.0
	comp=Z,0.6nm,0.3s,baz=287,slow=6.1,SNR=1.2						
	comp=Z,0.6nm,0.3s						
INK	Inuvik	48.23	30	P	P	02 30 25.2	0.0
INK				IAmb	IAmb	02 30 40.1	
	comp=Z,7.0nm,1.4s						
H31M	Peel River	48.60	33	P	P	02 30 28.4	+0.4
H31M				IAmb	IAmb	02 30 32.7	
	comp=Z,8.3nm,1.4s						
KKAR	Karatay Array	50.39	296	P	P	02 30 41.9	0.0
AB31	Akbulak array	54.11	307	P	P	02 31 09.4	+0.3
AB31				IAmb	IAmb	02 31 09.8	
	comp=Z,1.9nm,0.5s						
ABKAR	Akbulak array	54.11	307	P	P	02 31 09.4	+0.3
FINES	FINESS Array B	63.10	331	P	P	02 32 10.4	-0.6
	comp=Z,1.5nm,0.9s,baz=79,slow=4.1,SNR=3.9						
	comp=Z,1.5nm,0.9s						
WB0	Warramunga Arr	63.62	188	P	P	02 32 14.5	-0.3
WRA	Warramunga Arr	63.80	188	P	P	02 32 15.4	-0.6
	comp=Z,0.4nm,0.5s,baz=6.0,slow=6.6,SNR=6.1						
	comp=Z,0.4nm,0.5s						
WRA	Warramunga Arr	63.80	188	P	P	02 32 15.6	-0.4
KBZ	Khabaz	66.95	309	P	P	02 32 36.0	0.0
	comp=Z,0.8nm,0.5s,baz=66,slow=6.3,SNR=2.1						
	comp=Z,0.8nm,0.5s						
ASAR	Alice Springs	67.53	188	P	P	02 32 40.5	+0.6
	comp=Z,1.0nm,0.8s,baz=7.0,slow=6.2,SNR=4.9						
HFS	Hagfors	68.16	335	P	P	02 32 43.2	-0.1
	comp=Z,1.6nm,0.7s,baz=20,slow=4.6,SNR=1.7						
	comp=Z,1.6nm,0.7s						
AKASG	Malin Array Be	69.29	321	P	P	02 32 49.3	-1.2
	comp=Z,0.4nm,0.4s,baz=38,slow=7.4,SNR=4.2						
	comp=Z,0.4nm,0.4s						
PDAR	Pinedale Array	72.66	47	P	P	02 33 11.6	+0.4
	comp=Z,0.3nm,0.6s,baz=310,slow=9.2,SNR=2.3						
	comp=Z,0.3nm,0.6s						
BURAR	Bucovina Array	73.34	321	P	P	02 33 15.5	+0.5
SIV	San Ignacio	146.05	43	PKPbc	PKPdf	02 41 21.5	+0.6
	comp=Z,1.1nm,0.7s,baz=253,slow=7.3,SNR=3.2						
SNAA	Sanae	147.30	200	PKPbc	PKPbc	02 41 23.9	-0.1
	comp=Z,0.9nm,0.5s,baz=80,slow=17,SNR=2.4						

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*IDC **04** 02:22:43.7±1.0, 62°.20N×124°.57W, h0^{km}, mb3.1/2, mbtmp3.3/5, ML3.6/3, Error ellipse: s-maj=16.7km s-min=12.4km az=120.0*

ISC 04 02:22:43.8±0.9**, 62°.29N**±0°.08×**124°.61W**±0°.09**, h8**^{km}**, n7, σ1^s.80**/8**, Northwest Territories**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YKA	Yellowknife Ar	4.66	83	Pn	Pn	02 23 54.2	-0.1
	0.9nm,0.3s,baz=270,slow=12,SNR=48						
YKA				Lg	Lg	02 25 04.3	
	4.6nm,0.3s,baz=272,slow=28,SNR=8.1						
	2.2nm,0.5s						
YKA				AML	AML		
DLBC	Dease Lake	4.71	217	Pn	Pn	02 23 56.3	+1.2
	2.3nm,0.3s,baz=39,slow=13,SNR=23						
DLBC				Sn	Sn	02 24 47.4	-2.6
	3.0nm,0.3s,baz=357,slow=23,SNR=5.8						
DLBC				Lg	Lg	02 25 08.6	
	6.6nm,0.3s,baz=106,slow=18,SNR=10.0						
	9.8nm,0.5s						
DLBC				AML	AML		
INK	Inuvik	7.09	332	Pn	Pn	02 24 29.2	+1.6
	1.2nm,0.3s,baz=141,slow=16,SNR=20						
INK				Sn	Sn	02 25 46.0	-2.3
	1.2nm,0.3s,baz=106,slow=18,SNR=4.2						
	3.1nm,0.4s						
INK				AML	AML		
ILAR	Eielson Array	10.23	294	Lg	Lg	02 28 02.7	
	baz=87,slow=33,SNR=2.1						
NVAR	Mina Array Bea	24.20	168	P	P	02 28 01.5	+0.7
	0.4nm,0.7s,baz=342,slow=8.3,SNR=3.9						
	0.4nm,0.7s						
TXAR	Lajitas Array	35.70	148	P	P	02 29 42.3	-0.3
	0.2nm,0.7s,baz=338,slow=8.3,SNR=2.5						
	0.2nm,0.7s						
QSPA	South Pole Qui	152.13	180	PKPbc	PKiKP	02 42 38.4	+0.1
	1.0nm,1.0s,baz=113,slow=1.3,SNR=1.5						

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*IDC **04** 02:38:14.0±1.8, 24°.08S×67°.25W, h190^{km}±18^{km}, mb3.4/4, mbtmp4.0/9, Error ellipse: s-maj=24.6km s-min=14.9km az=100.0*

*SJA **04** 02:38:15.7±0.6, 24°.20S×67°.11W, h196^{km}±6^{km}, ML3.9, MW3.7*

*NEIC **04** 02:38:15.7±1.8, 24°.17S±0°.04×67°.1W±0°.1, h203^{km}±7^{km}, mb4.2/10, ML4.2(GUC), Error ellipse: s-maj=15.1km s-min=6.5km az=87.0*

*GUC **04** 02:38:17.4±0.7, 24°.12S×67°.36W, h220^{km}±6^{km}, ML4.2*

ISC 04 02:38:14.9±0.6**, 24°.16S**±0°.04×**67°.07W**±0°.04**, h202**^{km}±7^{km}**, n81, σ1^s.54**/104**, mb4.2**/6**, 5C-2D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SALTA		0.67	96	eP	Pn	02 38 44.1	+0.5
SLA	San Lorenzo	1.53	112	eP	Pn	02 38 50.8	+1.6
SLA				eS	S	02 39 10.9	-4.6
AF01	San Pedro de A	1.57	320	eP	Pn	02 38 51.6	+1.7
AF01				eS	S	02 39 18.9	+2.4
AF01	San Pedro de A	1.57	320	eP	Pn	02 38 51.4	+1.6
AF01				eS	S	02 39 18.0	+1.5
AF01	San Pedro de A	1.57	320		Pn	02 38 50.5	+0.7
HJA	Humahuaca	1.79	58	eP	Pn	02 38 52.7	+0.7
YJA	Yavi	2.44	36	eP	Pn	02 38 55.5	-3.3
PB06	IPOC Station P	2.72	302	eP	Pn	02 39 02.6	+1.0
PB06				eS	S	02 39 36.8	-0.5
PB06				IAML		02 39 38.4	
	comp=Z,360nm,0.6s						
PB06	IPOC Station P	2.72	302	⇑iP	Pn	02 39 02.8	+1.2
PB06				iS	S	02 39 36.8	-0.5
PB06				IAML		02 39 39.3	
	comp=E,669nm,0.3s						
PB06	IPOC Station P	2.72	302		Pn	02 39 02.6	+1.0
AHML	Horco Molle	3.05	149	eP	Pn	02 38 55.2	-10
PB14	IPOC Station P	3.08	261	eP	Pn	02 39 06.8	+0.9
PB14				eS	S	02 39 44.6	-0.4
PB14	IPOC Station P	3.08	261	⇑iP	Pn	02 39 06.6	+0.8
PB14				iS	S	02 39 43.9	-1.1
PB14	IPOC Station P	3.08	261		Pn	02 39 06.5	+0.6
PB09	IPOC Station P	3.09	319	eP	Pn	02 39 07.7	+1.8
PB09				eS	S	02 39 45.5	+0.3
PB09				IAML		02 39 48.2	
	comp=Z,216nm,0.7s						
PB09	IPOC Station P	3.09	319	⇓iP	Pn	02 39 07.7	+1.8
PB09				iS	S	02 39 45.2	0.0
PB09				IAML		02 39 47.0	
	comp=N,290nm,0.5s						
PB09	IPOC Station P	3.09	319		Pn	02 39 08.0	+2.0
PB05	IPOC Station P	3.16	294	eP	Pn	02 39 07.5	+0.9
PB05				eS	S	02 39 45.7	-0.7
PB05				IAML		02 39 52.1	
	comp=Z,88nm,0.5s						
PB05	IPOC Station P	3.16	294	⇑iP	Pn	02 39 07.7	+0.9
PB05				iS	S	02 39 44.7	-1.7
PB05				IAML		02 39 47.6	
	comp=E,134nm,0.6s						
PB05	IPOC Station P	3.16	294		Pn	02 39 07.6	+0.9
PB03	IPOC Station P	3.24	310	eP	Pn	02 39 08.6	+0.8
PB03				eS	S	02 39 47.0	-1.4
PB03				IAML		02 39 48.7	
	comp=Z,391nm,0.4s						
PB03	IPOC Station P	3.24	310	eP	Pn	02 39 08.6	+0.8
PB03				iS	S	02 39 47.4	-1.1
PB03				IAML		02 39 49.2	
	comp=N,647nm,0.3s						
PB03	IPOC Station P	3.24	310		Pn	02 39 08.8	+1.0
AC02	Maricunga	3.25	214	eP	Pn	02 39 10.6	+2.5
AC02				eS	S	02 39 46.8	-2.3
AC02	Maricunga	3.25	214	eP	Pn	02 39 10.1	+2.0
AC02	Maricunga	3.25	214	Pn	Pn	02 39 08.9	+0.8
PB07	IPOC Station P	3.55	312	eP	Pn	02 39 12.5	+1.0
PB07				eS	S	02 39 52.9	-2.2
PB07				IAML		02 39 55.0	
	comp=Z,376nm,0.4s						
PB07	IPOC Station P	3.55	312	⇑iP	Pn	02 39 12.2	+0.7
PB07				iS	S	02 39 53.4	-1.7
PB07	IPOC Station P	3.55	312		Pn	02 39 12.5	+1.0
AC01	Pan de Azucar	3.76	238	eP	Pn	02 39 14.2	+0.3
AC01				eS	S	02 39 57.9	-1.6
AC01				IAML		02 40 01.0	
	comp=Z,89nm,0.4s						
AC01	Pan de Azucar	3.76	238	⇑eP	Pn	02 39 13.8	0.0
AC01				iS	S	02 39 57.7	-1.7
AC01	Pan de Azucar	3.76	238		Pn	02 39 14.1	+0.3
PB02	IPOC Station P	3.85	317	eP	Pn	02 39 16.2	+1.1
PB02				eS	S	02 40 00.3	-1.3
PB02				IAML		02 40 06.1	
	comp=Z,280nm,0.3s						
PB02	IPOC Station P	3.85	317	⇓eP	Pn	02 39 15.5	+0.4
PB02	IPOC Station P	3.85	317		Pn	02 39 15.5	+0.4
TINO	Tinogasta	3.91	186	eP	Pn	02 39 18.2	+2.4
AC06	Mina Casimiro	4.35	222	eP	Pn	02 39 06.0	-15
CYA	Choya	4.41	165	eP	Pn	02 39 24.0	+2.0
CYA				eS	S	02 40 17.9	+3.6
PB08	IPOC Station P	4.44	334	eP	Pn	02 39 24.1	+1.3
PB08				eS	S	02 40 15.3	-0.2
PB08				IAML		02 40 16.5	
	comp=Z,52nm,0.4s						
PB08	IPOC Station P	4.44	334	eP	Pn	02 39 24.0	+1.3
PB08				iS	S	02 40 14.7	-0.8
PB08	IPOC Station P	4.44	334		Pn	02 39 24.0	+1.3
GO03	Copiapo	4.45	219	eP	Pn	02 39 05.0	-17
TA01	Diego Aracena	4.59	321	eP	Pn	02 39 24.9	+0.7
TA01				eS	S	02 40 07.2	-11
TA01				IAML		02 40 19.8	
	comp=Z,54nm,1.3s						
TA01	Diego Aracena	4.59	321	eP	Pn	02 39 24.2	0.0
TA01	Diego Aracena	4.59	321	Pn	Pn	02 39 24.7	+0.4
VCA	Vinchina	4.67	192	eP	Pn	02 39 28.7	+3.4
GO01	Chusmiza	4.88	336	eP	Pn	02 39 30.6	+2.1
GO01				eS	S	02 40 25.6	-0.2
GO01				IAML		02 40 27.4	
	comp=Z,39nm,0.4s						
GO01	Chusmiza	4.88	336		Pn	02 39 29.3	+0.8
PB11	IPOC Station P	4.99	331	eP	Pn	02 39 29.6	+0.1
PB11				eS	S	02 40 18.2	-10
PB11				eS	S	02 40 25.0	-2.8
PB11				IAML		02 40 27.4	
	comp=Z,61nm,0.4s						
PB11	IPOC Station P	4.99	331		Pn	02 39 29.5	0.0
ACLC	CERRO LA CRUZ	5.25	179	eP	Pn	02 39 33.6	+1.0
ACLC				eS	S	02 40 34.0	+0.3
PSGCX	Pisagua	5.35	327	eP	Pn	02 39 33.6	-0.5
PSGCX				eS	S	02 40 22.2	-14
PSGCX				IAML		02 40 33.1	
	comp=Z,48nm,0.4s						
PSGCX	Pisagua	5.35	327		Pn	02 39 33.9	-0.2
PB16	IPOC Station P	6.23	338		Pn	02 39 46.0	+0.2
PB12	IPOC Station P	6.30	331		Pn	02 39 45.5	-0.8
PB18	Visviri	6.92	341		Pn	02 39 54.4	-0.3
CFA	Coronel Fontan	7.49	188	P	Pn	02 40 00.1	-1.5
	comp=Z,1.3nm,0.3s,baz=24,slow=11,SNR=7.3						
CFA				S	S	02 41 21.4	-4.8
	comp=Z,1.5nm,0.2s,baz=12,slow=9.3,SNR=10						
ZON	Zonda	7.49	191	Pn	Pn	02 40 02.0	+0.4
LPAZ	La Paz	7.89	353	P	Pn	02 40 07.0	-0.5
	comp=Z,4.7nm,0.4s,baz=122,slow=5.1,SNR=49						
LPAZ				S	S	02 41 34.1	-2.8
	comp=Z,1.0nm,0.5s,baz=183,slow=9.8,SNR=2.0						
LPAZ	La Paz	7.89	353		Pn	02 40 08.4	+0.9
SIV	San Ignacio	9.89	36	P	Pn	02 40 31.6	-1.2
	comp=Z,3.0nm,0.3s,baz=216,slow=11,SNR=17						
TRCB	Terra Rica	13.32	87	P	Pn	02 41 18.8	+2.3
TRQA	Tornquist	14.52	164	P	Pn	02 41 30.9	-0.3
GO06	Curarrehue	15.82	193		P	02 41 44.7	-2.1
GO06				IAmb	IAmb	02 42 01.4	
	comp=Z,5.5nm,0.9s						
PLCA	Paso Flores	16.78	189	P	P	02 41 57.4	+0.1
	comp=Z,1.5nm,0.9s,baz=358,slow=9.7,SNR=4.7						
PLCA	Paso Flores	16.78	189	P	P	02 41 56.6	-0.7
PLCA				IAmb	IAmb	02 42 08.0	
	comp=Z,2.5nm,0.9s						
VAO	Valinhos	18.46	90	P	P	02 42 16.1	+0.2
BDFB	Brasilia	19.80	68	P	P	02 42 31.6	+1.3
	comp=Z,9.8nm,0.7s,baz=234,slow=11,SNR=15						
BDFB	Brasilia	19.80	68	P	P	02 42 31.5	+1.1
BDFB				IAmb	IAmb	02 42 32.9	
	comp=Z,9.6nm,0.7s						
MTDJ	Mount Denham	43.35	345	P	P	02 45 56.0	-1.5
SMAI	San Martin Ant	43.98	180	P	P	02 46 03.1	+1.4
TLIG	Tlapa	51.62	321	P	P	02 47 01.2	0.0
TLIG				IAmb	IAmb	02 47 04.6	
	comp=Z,7.0nm,0.6s						
TXAR	Lajitas Array	63.77	325	P	P	02 48 23.9	-1.8
	comp=Z,0.3nm,0.8s,baz=135,slow=7.9,SNR=3.6						
	comp=Z,0.3nm,0.8s						
TXAR	Lajitas Array	63.77	325	P	P	02 48 25.9	+0.3
QSPA	South Pole Qui	66.05	180	P	P	02 48 41.6	+1.8
	comp=Z,1.0nm,0.8s,baz=180,slow=0.6,SNR=5.6						
	comp=Z,1.0nm,0.8s						
QSPA	South Pole Qui	66.05	180	P	P	02 48 41.4	+1.5
QSPA				IAmb	IAmb	02 48 41.8	
	comp=Z,2.4nm,1.2s						
DBIC	Dimbokro	67.91	72	P	P	02 48 52.9	+0.6
	comp=Z,5.5nm,0.9s,baz=240,slow=16,SNR=3.0						
	comp=Z,5.5nm,0.9s						
TASM	ASL Pad, Albuq	69.64	326	P	P	02 48 60.0	-2.8
TASM				IAmb	IAmb	02 49 02.8	
	comp=Z,4.3nm,1.0s						
LCMT	Little Creek M	74.79	323	P	P	02 49 31.1	-2.1
LCMT				IAmb	IAmb	02 49 32.1	
	comp=Z,3.5nm,0.8s						
TORD	Torodi Ar. Bea	76.69	69	P	P	02 49 45.2	+1.1
	comp=Z,0.7nm,0.6s,baz=246,slow=4.5,SNR=5.4						
	comp=Z,0.7nm,0.6s						
MKAR	Makanchi Array	146.69	40	PKPbc	PKPbc	02 57 32.6	-0.3
	comp=Z,0.6nm,0.6s,baz=299,slow=3.7,SNR=5.3						

IDC 04 02:56:26.2±1.9**, 6°.57S**×**128°.84E, h0**^{km}**, mb3.8**/1**, mbtmp4.1**/3**, ML3.6**/2**, Error ellipse: s-maj=124.2km s-min=24.4km az=66.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	14.32	159	Pn	Pn	02 59 43.9	-6.6
	0.4nm,0.3s,baz=337,slow=13,SNR=20						
WRA				Sn	Sn	03 02 06.7	-23
	0.8nm,0.3s,baz=334,slow=21,SNR=8.9						
	0.5nm,0.4s						
WRA				AML	AML		
ASAR	Alice Springs	17.68	165	Pn	Pn	03 00 28.1	-6.0
	0.1nm,0.3s,baz=345,slow=12,SNR=2.9						
ASAR				Sn	Sn	03 03 25.6	-26
	0.1nm,0.3s,baz=350,slow=24,SNR=1.6						
	12nm,0.3s						
ASAR				AML	AML		
MKAR	Makanchi Array	67.25	327	P	P	03 07 22.6	0.0
	0.4nm,0.4s,baz=116,slow=6.6,SNR=5.9						
	0.4nm,0.4s						

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*IDC **04** 02:57:50.9±0.7, 27°.51S×71°.32W, h0^{km}, mb4.3/8, mbtmp4.2/13, ML3.9/5, MS3.4/5, Error ellipse: s-maj=19.4km s-min=12.1km az=81.0*

*SJA **04** 02:57:50.1±0.7, 27°.65S×71°.81W, h31^{km}±4^{km}, ML4.5, MW4.6*

*NEIC **04** 02:57:52.6±2.7, 27°.77S±0°.02×71°.50W±0°.05, h10^{km}±1^{km}, mb4.8/17, Mwr4.2/41, Mwr4.4(GUC), Error ellipse: s-maj=7.4km s-min=3.9km az=97.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}2.09; $M_{\theta\theta}$0.43; $M_{\phi\phi}$-2.52; $M_{r\theta}$0.48; $M_{\theta\phi}$0.25; $M_{\phi r}$-1.11; Fault plane solution: $M_0$2.64000×10^{15} NP1:ϕ_s7.26000°, δ32.99000°, λ108.92000°. NP2:ϕ_s165.03000°, δ59.00000°, λ78.11000°. Principal axes: T 2.4286, Plg73.0000°, Azm45.0000°; N 0.3850, Plg10.0000°, Azm171.0000°; P -2.8137, Plg13.0000°, Azm264.0000°;*

*NEIC **04** 02:57:52.3, 27°.77S×71°.58W, h10^{km}*

*GUC **04** 02:57:55.1±0.5, 27°.82S×71°.40W, h28^{km}±2^{km}, ML4.2*

*VAO **04** 02:58:06.3±1.6, 26°.71S×70°.25W, h26^{km}±3^{km}, mb4.6, Presumed earthquake*

ISC 04 02:57:52.3±1.0**, 27°.73S**±0°.02×**71°.48W**±0°.04**, h12**^{km}±6^{km}**, n123, σ2^s.15**/146**, mb4.5**/17**, MS3.4**/3**, 7C-4D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	Llanos de Chal	0.60	143	eP	Pn	02 58 07.1	+0.5
AC04	Llanos de Chal	0.60	143	eP	Pg	02 58 04.2	+0.2
AC04				eS	Sg	02 58 10.9	-1.0
AC04				IAML		02 58 11.8	
	comp=N,19µm,0.3s						
AC04	Llanos de Chal	0.60	143		Pg	02 58 04.2	+0.2
AC04				Sg	Sg	02 58 10.7	-1.2
AC06	Mina Casimiro	1.06	70	eP	Pg	02 58 13.0	+0.2
AC06				eS	Sn	02 58 27.1	-0.7
AC06				IAML		02 58 28.4	
	comp=N,8µm,0.5s						
AC06	Mina Casimiro	1.06	70		Pg	02 58 13.0	+0.2
AC06					Sb	02 58 26.0	-0.6
GO03	Copiapo	1.11	84	eP	Pn	02 58 13.6	-0.2
GO03				eS	Sg	02 58 28.8	+0.6
GO03				IAML		02 58 36.1	
	comp=Z,6µm,0.5s						
GO03	Copiapo	1.11	84	eP	Pn	02 58 13.6	-0.2
GO03	Copiapo	1.11	84		Pn	02 58 13.5	-0.2
LCO	Las Campanas	1.45	152	eP	Pn	02 58 18.6	-0.1
LCO				eS	Sn	02 58 37.8	0.0
LCO				IAML		02 58 39.1	
	comp=Z,14µm,0.5s						
LCO	Las Campanas	1.45	152	eP	Pn	02 58 18.3	-0.3
LCO				eS	Sn	02 58 36.2	-1.6
LCO	Las Campanas	1.45	152		Pn	02 58 18.4	-0.2
AC05	El Transito	1.54	136	eP	Pn	02 58 20.0	+0.4
AC05				eS	Sn	02 58 40.5	+0.9
AC05				IAML		02 58 43.0	
	comp=Z,2µm,0.3s						
AC05	El Transito	1.54	136	eP	Pn	02 58 19.7	+0.1
AC05				IAML		02 58 44.0	
	comp=N,4µm,0.3s						
AC05	El Transito	1.54	136		Pn	02 58 19.9	+0.2
AC01	Pan de Azucar	1.76	27	eP	Pn	02 58 17.6	-5.0
AC01				eP	Pb	02 58 23.2	-1.2
AC01				eS	Sg	02 58 56.1	+7.3
AC01				IAML		02 58 56.3	
	comp=Z,2µm,0.5s						
AC01	Pan de Azucar	1.76	27	eP	Pb	02 58 23.3	-1.2
AC01				IAML		02 58 55.1	
	comp=N,3µm,0.4s						
AC01	Pan de Azucar	1.76	27		Pb	02 58 23.2	-1.2
AC02	Maricunga	2.27	68	eP	Pb	02 58 32.9	-0.6
AC02				eS	Sb	02 59 02.6	+0.8
AC02				IAML		02 59 07.8	
	comp=Z,2µm,0.3s						
AC02	Maricunga	2.27	68	eP	Pb	02 58 32.9	-0.6
AC02				eS	Sb	02 59 01.1	-0.7
AC02				IAML		02 59 08.0	
	comp=N,4µm,0.3s						
AC02	Maricunga	2.27	68		Pb	02 58 32.9	-0.6
GO04	Tololo Observa	2.51	166	eP	Pn	02 58 33.7	+0.6
GO04				eS	Sn	02 59 01.6	-2.2
GO04				eS	Sb	02 59 03.1	-5.3
GO04				IAML		02 59 10.4	
	comp=Z,4µm,1.0s						
GO04	Tololo Observa	2.51	166	eP	Pn	02 58 33.7	+0.6
GO04	Tololo Observa	2.51	166		Pn	02 58 33.7	+0.6
CO01	Juntas del Tor	2.55	152	eP	Pn	02 58 35.2	+1.5
CO01				eS	Sb	02 59 09.3	-0.3

CO01				IAML		02 59 16.0	
	comp=Z,2µm,0.4s						
CO01	Juntas del Tor	2.55	152	eP	Pn	02 58 35.4	+1.6
CO01				eS	Sn	02 59 05.6	+0.8
CO01				IAML		02 59 10.8	
	comp=E,2µm,0.4s						
CO01	Juntas del Tor	2.55	152		Pn	02 58 35.4	+1.6
CO06	Fray Jorge	2.94	183	⇓eP	Pn	02 58 37.6	-1.2
CO06	Fray Jorge	2.94	183		Pn	02 58 37.6	-1.2
AROD	Rodeo	3.00	145	eP	Pn	02 58 43.3	+3.3
AROD				eS	Sn	02 59 17.6	+1.5
VCA	Vinchina	3.06	110	eP	Pb	02 58 45.4	-1.3
VCA				eP	Pn	02 58 46.2	+5.5
VCA				eS	Sg	02 59 34.6	+4.0
VCA	Vinchina	3.06	110	⇑eP	Pb	02 58 45.3	-1.5
CO03	El Pedregal	3.18	168	eP	Pn	02 58 42.8	+0.6
CO03				eS	Sb	02 59 30.8	+3.3
CO03				IAML		02 59 35.8	
	comp=Z,2µm,0.7s						
CO03	El Pedregal	3.18	168	⇑eP	Pn	02 58 42.6	+0.5
CO03	El Pedregal	3.18	168		Pn	02 58 42.7	+0.5
ACDV	Cuesta del Vie	3.20	140	eP	Pn	02 58 46.2	+3.7
ACDV				eS	Sb	02 59 25.6	-2.5
ACDV				IAML		02 59 40.7	
	comp=Z,822nm,0.5s						
PB14	IPOC Station P	3.23	18	eP	Pn	02 58 43.1	-0.1
PB14				eP	Pb	02 58 43.3	-6.5
PB14				eS	Sn	02 59 21.0	-0.8
PB14				IAML		02 59 42.1	
	comp=Z,592nm,0.5s						
PB14	IPOC Station P	3.23	18	⇑eP	Pn	02 58 43.1	-0.1
PB14				IAML		02 59 47.4	
	comp=E,451nm,0.5s						
PB14	IPOC Station P	3.23	18		Pn	02 58 43.1	-0.1
TINO	Tinogasta	3.48	96	eP	Pn	02 58 49.4	+3.0
TINO				eS	Sg	02 59 43.0	-1.0
CO02	Combarbal	3.49	173	eP	Pn	02 58 46.4	-0.1
CO02	Combarbal	3.49	173	eP	Pn	02 58 46.2	-0.3
CO02	Combarbal	3.49	173		Pn	02 58 46.2	-0.3
ACCO	Cerro Coronel	3.55	144	eP	Pn	02 58 51.2	+3.7
ACCO				eS	Sb	02 59 36.6	-1.8
CO04	Los Peladeros	4.33	174		Pn	02 58 58.3	+0.2
ACLC	CERRO LA CRUZ	4.33	114	eP	Pn	02 59 01.6	+3.5
ACLC				eS	Sb	02 59 55.1	-5.6
RTLL	Cerro Villicun	4.45	145	eP	Pn	02 58 57.6	-2.0
RTLL				eP	Pb	02 59 02.7	-7.6
RTLL				eS	Sn	02 59 57.6	+6.3
RTLS	Leoncito	4.48	155	eP	Pn	02 59 03.9	+3.6
RTLS				eS	Sb	03 00 12.1	+6.9
CFA	Coronel Fontan	4.79	145	Pn	Pn	02 59 06.9	+2.6
	comp=E,5.7nm,0.3s,baz=319,slow=14,SNR=130						
CFA				Sn	Sn	03 00 03.5	+3.8
	comp=E,25nm,0.3s,baz=242,slow=21,SNR=10						
	comp=E,30nm,0.3s						
CFA				AML	AML		
CFA	Coronel Fontan	4.79	145	eP	Pn	02 59 01.6	-2.6
PB05	IPOC Station P	4.99	14	eP	Pn	02 59 06.5	-0.6
PB05	IPOC Station P	4.99	14		Pn	02 59 06.3	-0.8
CYA	Choya	5.07	99	eP	Pn	02 59 11.3	+3.2
CYA				eS	Sn	03 00 13.1	+6.5
CYA				eS	Sb	03 00 18.6	-3.2
CYA	Choya	5.07	99	⇑eP	Pn	02 59 10.2	+2.1
VA03	San Esteban	5.09	171	eP	Pn	02 59 11.6	+3.2
VA03				eS	Sb	03 00 23.1	+0.7
PB06	IPOC Station P	5.29	19	eP	Pn	02 59 11.3	0.0
PB06				eS	Sn	03 00 11.0	-1.2
PB06	IPOC Station P	5.29	19		Pn	02 59 11.1	-0.1
PB03	IPOC Station P	5.87	16		Pn	02 59 18.4	-0.8
MT09	Talagante	6.05	176		Pn	02 59 21.3	-0.4
SLA	San Lorenzo	6.14	62	eP	Pn	02 59 27.7	+4.6
PB07	IPOC Station P	6.14	14		Pn	02 59 22.1	-1.0
PB02	IPOC Station P	6.54	13		Pn	02 59 27.4	-1.0
TCA	Tanti	7.00	123	⇓eP	Pn	02 59 35.2	+0.5
VA04	Juan Fernndez	8.65	225		Pn	02 59 53.9	-3.4
PB18	Visviri	10.26	11		Pn	03 00 20.6	+0.8
LPAZ	La Paz	11.80	16	Pn	Pn	03 00 36.5	-4.5
	comp=E,0.5nm,0.3s,baz=284,slow=6.1,SNR=11						
LPAZ				LR	LR	03 05 09.3	
	comp=E,112nm,19.8s,baz=214,slow=38						
	comp=E,2.9nm,0.5s						
LPAZ				AML	AML		
LPAZ	La Paz	11.80	16		Pn	03 00 36.4	-4.6
LPAZ	La Paz	11.80	16	eP	Pn	03 00 35.5	-5.5
LPAZ				epP		03 00 41.3	
PSAL	Palomas, Salto	12.55	109	eP	Pn	03 00 53.7	+3.1
PSAL				epP	P	03 00 60.0	-2.3
CPUP	Villa Florida	12.69	87	Pn	Pn	03 00 49.6	-3.0
	comp=E,0.2nm,0.3s,baz=268,slow=12,SNR=5.3						
	comp=E,2.9nm,1.1s						
CPUP				AML	AML		
PLCA	Paso Flores	13.00	177	Pn	Pn	03 00 57.4	+0.6
	comp=E,0.1nm,0.3s,baz=343,slow=12,SNR=2.4						
PLCA				LR	LR	03 06 02.2	
	comp=E,241nm,18.6s,baz=354,slow=37						
	comp=E,1.4nm,0.9s						
PLCA				AML	AML		
SIV	San Ignacio	15.14	42	Pn	Pn	03 01 20.3	-5.8
	baz=246,slow=8.0,SNR=7.3						
	comp=E,0.9nm,0.3s						
CZSB	Cruzeiro do Su	19.92	356	P	Pn	03 02 26.4	+0.7
CZSB				IAmb	IAmb	03 02 33.0	
	comp=Z,35nm,1.3s						
CZSB	Cruzeiro do Su	19.92	356	eP	Pn	03 02 27.9	+2.2
CLDB	Colider	22.32	44	eP	P	03 02 47.0	-3.0
VAO	Valinhos	22.63	84	P	P	03 02 53.0	-0.3
VAO				IAmb	IAmb	03 02 53.7	
	comp=Z,41nm,0.7s						
VAO	Valinhos	22.63	84	eP	P	03 02 52.8	-0.5
VAO				epP	pwP	03 03 00.3	+0.8
SNDB	Serra Nova Dou	24.56	54	eP	P	03 03 10.5	-1.6
BDFB	Brasilia	24.85	66	P	P	03 03 12.9	-1.9
	comp=Z,7.3nm,0.8s,baz=245,slow=10.0,SNR=11						
	comp=Z,7.3nm,0.8s						
BDFB	Brasilia	24.85	66	P	P	03 03 14.6	-0.3
TEFE	Tefe	24.95	16	eP	P	03 03 15.8	+0.2
MACA	Manacapuru-AM	26.51	25	P	P	03 03 31.1	+1.3
MACA				IAmb	IAmb	03 03 33.7	
	comp=Z,15nm,0.5s						
MACA	Manacapuru-AM	26.51	25	eP	P	03 03 28.7	-1.1
BOAV	Boa Vista	31.75	21	P	P	03 04 17.1	+0.7
BOAV	Boa Vista	31.75	21	eP	P	03 04 16.0	-0.4
ROSC	El Rosal	32.49	355	LR	LR	03 18 56.7	
	comp=Z,69nm,18.1s,baz=214,slow=39						
SDV	Santo Domingo	36.40	1	LR	LR	03 21 52.6	
	comp=Z,27nm,19.2s,baz=256,slow=40						
NBMA	Muriti-CE	36.99	63	eP	P	03 05 02.3	+0.3
MDP	Montagnes des	37.36	32	LR	LR	03 22 32.6	
	comp=Z,83nm,18.1s,baz=214,slow=40						
ORCD	Orcadas	37.63	159	P	P	03 05 07.3	+0.6
VNA3	Neumayer Olymp	55.02	160	⇑P	P	03 07 23.8	+0.6
	comp=Z,3.1nm,0.7s						
VNA1	Neumayer--Stat	55.29	159	⇓P	P	03 07 27.1	+2.0
	comp=Z,5.9nm,1.2s						
VNA2	Neumayer--Watz	55.64	159	⇓P	P	03 07 28.6	+0.9
	comp=Z,4.1nm,0.6s,baz=284,slow=7.7						
SNAA	Sanae	57.24	159	⇑P	P	03 07 39.6	+0.4
	comp=Z,119nm,0.8s						
SNAA	Sanae	57.24	159	P	P	03 07 39.4	+0.2
	comp=Z,3.8nm,0.7s,baz=270,slow=7.4,SNR=12						
	comp=Z,3.8nm,0.7s						
SNAA	Sanae	57.24	159	P	P	03 07 39.4	+0.2
SNAA				IAmb	IAmb	03 07 40.5	
	comp=Z,5.2nm,0.8s						
TROLL	Troll, Antarti	58.95	160	⇑P	P	03 07 51.9	+0.6
	comp=Z,157nm,0.7s						
QSPA	South Pole Qui	62.49	180	P	P	03 08 16.6	+1.2
	comp=Z,3.4nm,1.0s,baz=150,slow=0.8,SNR=10						
	comp=Z,3.4nm,1.0s						
QSPA	South Pole Qui	62.49	180	IAmb	IAmb	03 08 17.6	
	comp=Z,7.2nm,1.1s						
W50A	Signal Mountai	63.94	347	P	P	03 08 25.8	+0.6
W50A				IAmb	IAmb	03 08 50.4	
	comp=Z,6.0nm,1.2s						
TXAR	Lajitas Array	64.56	329	P	P	03 08 28.4	-1.1
	comp=Z,0.5nm,0.8s,baz=163,slow=6.0,SNR=3.5						
R40A	Maddies Statio	68.50	343	P	P	03 08 56.2	+1.9
R40A				IAmb	IAmb	03 09 22.5	
	comp=Z,8.3nm,1.2s						
DBIC	Dimbokro	72.78	73	P	P	03 09 19.9	-1.1
	comp=Z,14nm,0.9s,baz=249,slow=6.8,SNR=12						
	comp=Z,14nm,0.9s						
DBIC	Dimbokro	72.78	73	P	P	03 09 22.1	+1.0
DBIC				IAmb	IAmb	03 09 23.1	
	comp=Z,14nm,1.0s						
ECSD	EROS Data Cent	74.75	341	P	P	03 09 33.7	+1.8
ECSD				IAmb	IAmb	03 09 39.6	
	comp=Z,6.5nm,1.2s						
PDAR	Pinedale Array	78.42	332	P	P	03 09 53.3	+0.3
	comp=Z,0.1nm,0.4s,baz=140,slow=5.1,SNR=2.1						
	comp=Z,0.1nm,0.4s						
MAW	Mawson	79.05	164	P	P	03 09 57.0	+1.1
	comp=Z,1.1nm,0.7s,baz=226,slow=9.1,SNR=2.8						
	comp=Z,1.1nm,0.7s						
MAW	Mawson	79.05	164	P	P	03 09 57.2	+1.3
NVAR	Mina Array Bea	79.05	324	P	P	03 09 57.6	+1.1
	comp=Z,0.1nm,0.3s,baz=130,slow=5.5,SNR=1.6						
TSUM	Tsumeb	80.50	107	P	P	03 10 06.1	+1.2
TORD	Torodi Ar. Bea	81.64	70	P	P	03 10 11.7	+0.9
	comp=Z,6.0nm,0.9s,baz=265,slow=3.4,SNR=24						
	comp=Z,6.0nm,0.9s						
BOSA	Boshof	82.58	118	P	P	03 10 15.3	-0.4
	comp=Z,2.2nm,0.9s,baz=225,slow=2.9,SNR=1.9						
	comp=Z,2.2nm,0.9s						
H11S2	WAKE ISLAND Hy	126.11	273	T	T	05 36 11.3	
	baz=112,slow=74,SNR=12						
H11S1	WAKE ISLAND Hy	126.12	273	T	T	05 36 11.9	
	baz=112,slow=74,SNR=7.4						
H11S3	WAKE ISLAND Hy	126.13	273	T	T	05 36 10.0	
	baz=112,slow=74,SNR=6.8						
WRA	Warramunga Arr	126.43	211	PKP	PKPdf	03 16 56.2	+0.3
	comp=Z,0.4nm,0.7s,baz=166,slow=1.7,SNR=5.7						
KURK	Kurchatov	147.75	36		PKPbc	03 17 35.9	-0.7
KURBB	Kurchatov Arra	147.76	37	PKPbc	PKPbc	03 17 35.9	-0.7
	comp=Z,2.1nm,0.7s,baz=303,slow=3.3,SNR=17						
ZALV	Zalesovo Beam	148.55	27	PKPbc	PKiKP	03 17 40.4	+0.2
	comp=Z,8.5nm,0.7s,baz=305,slow=3.4,SNR=33						
ZALV	Zalesovo Beam	148.55	27		PKiKP	03 17 40.1	0.0
KSH2	Kashi	150.39	59	PKPbc	PKiKP	03 17 45.9	+1.2
MKAR	Makanchi Array	151.96	40	PKPbc	PKiKP	03 17 47.4	-0.1
	comp=Z,2.4nm,0.7s,baz=319,slow=1.9,SNR=22						
MKAR	Makanchi Array	151.96	40		PKiKP	03 17 48.3	+0.8
HHC	Hu-ho-hao-te	166.67	350	eP	PKPdf	03 17 53.0	-4.9

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*IDC **04** 03:17:20.4±1.4, 37°.57N×144°.08E, h0^{km}, mb3.6/5, mbtmp3.7/8, ML3.2/3, Error ellipse: s-maj=28.1km s-min=19.7km az=91.0*

*NIED **04** 03:17:25.0, 37°.52N×143°.71E, h26^{km}, MW3.6, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}-0.07; $M_{\theta\theta}$-1.65; $M_{\phi\phi}$1.72; $M_{r\theta}$0.80; $M_{\theta\phi}$2.47; $M_{\phi r}$0.59; Fault plane solution: $M_0$3.15000×10^{14} NP1: ϕ_s342.00000°, δ73.00000°, λ175.00000°. NP2: ϕ_s73.00000°, δ86.00000°, λ17.00000°.*

*JMA **04** 03:17:25.0±0.1, 37°.5N±0°.2×143°.7E±0°.3, h26^{km}±2^{km}, MV3.6/26, FAR E OFF FUKUSHIMA PREF*

ISC 04 03:17:25.3±1.4**, 37°.6N**±0°.2×**144°.0E**±0°.2**, h35^{km}, n12, σ1^{s}.04**/8**, mb3.5**/6**, Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MJAR	Matsushiro Arr	4.76	259	Pn	Pn	03 18 33.4	-1.2
	0.6nm,0.3s,baz=89,slow=15,SNR=22						
MJAR				Sn	Sn	03 19 19.4	-9.1
	0.3nm,0.3s,baz=86,slow=30,SNR=6.6						
	3.7nm,0.4s						
MJAR				AML	AML		
JHJ	Hachijo jima 2	5.66	219	Pn	Pn	03 18 43.1	-3.7
	9.7nm,0.3s,baz=31,slow=9.8,SNR=6.7						
JHJ				Sn	Sn	03 19 30.1	-21
	6.4nm,0.3s,baz=30,slow=21,SNR=1.8						
	35nm,0.5s						
JHJ				AML	AML		
PETK	Petropavlovsk-	18.19	27	P	P	03 21 33.6	-1.2
	0.2nm,0.3s,baz=210,slow=13,SNR=2.5						
	1.5nm,0.6s						
PETK				AML	AML		
H11N2	WAKE ISLAND Hy	26.73	125	T	T	03 51 09.5	
	baz=317,slow=74						
H11N1	WAKE ISLAND Hy	26.74	125	T	T	03 51 10.8	
	baz=317						
H11N3	WAKE ISLAND Hy	26.75	125	T	T	03 51 08.5	
	baz=317,slow=74						
SONM	Songino Array	29.20	303	P	P	03 23 24.0	+0.4
	0.3nm,0.5s,baz=100,slow=6.3,SNR=2.0						
	0.3nm,0.5s						
ZALV	Zalesovo Beam	43.06	312	P	P	03 25 22.1	+0.7
	0.3nm,0.3s,baz=63,slow=7.5,SNR=7.1						
	0.3nm,0.3s						
MKAR	Makanchi Array	45.56	302	P	P	03 25 42.6	+0.9
	0.3nm,0.6s,baz=94,slow=8.8,SNR=1.9						
	0.3nm,0.6s						
KURBB	Kurchatov Arra	47.27	308	P	P	03 25 55.8	+0.8
	0.9nm,0.7s,baz=81,slow=8.1,SNR=5.9						
	0.9nm,0.7s						
WRA	Warramunga Arr	57.97	191	P	P	03 27 14.2	-0.1
	0.9nm,0.6s,baz=13,slow=7.3,SNR=8.7						
	0.9nm,0.6s						
ASAR	Alice Springs	61.69	191	P	P	03 27 40.6	+0.7
	0.5nm,0.9s,baz=353,slow=8.9,SNR=3.4						

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*IDC **04** 03:23:35.9±0.6, 52°.51S×13°.33E, h0^{km}, mb4.5/11, mbtmp4.5/11, MS4.2/38, Error ellipse: s-maj=22.2km s-min=16.4km az=85.0*

*NEIC **04** 03:23:37.5±1.5, 52°.5S±0°.1×13°.5E±0°.2, h10^{km}±1^{km}, mb5.0/19, Error ellipse: s-maj=22.1km s-min=19.2km az=80.0*

*GCMT **04** 03:23:38.5±0.2, 52°.40S±0°.01×13°.55E±0°.03, h12^{km}, MW4.9/108, Moment Tensor Solution. s39,c49; s108,c161; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.44±.10; $M_{\theta\theta}$3.76±.07; $M_{\phi\phi}$-2.32±.10; $M_{r\theta}$0.95±.22; $M_{\theta\phi}$0.84±.08; $M_{\phi r}$0.05±.29; Best double couple: $M_0$3.23800×10^{16} NP1: ϕ_s37.00000°, δ80.00000°, λ176.00000°. NP2: ϕ_s127.00000°, δ87.00000°, λ10.00000°. Principal axes: T 4.0370, Plg10.0000°, Azm352.0000°; N -1.5970, Plg79.0000°, Azm145.0000°; P -2.4390, Plg5.0000°, Azm262.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 04 03:23:37.3±0.4**, 52°.47S**±0°.08×**13°.4E**±0°.1**, h10^{km}, n88, σ1^{s}.27**/50**, mb4.9**/16**, MS4.2**/39**, 5C, Southwest of Africa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TROLL	Troll, Antarti	20.19	190	⇑P	P	03 28 12.6	+0.8
	comp=Z,5µm,1.0s						
SNAA	Sanae	20.57	195	⇑P	P	03 28 16.7	+0.8
	comp=Z,3µm,0.9s						
SNAA	Sanae	20.57	195	P	P	03 28 16.8	+0.8
	comp=Z,120nm,0.9s,baz=25,slow=9.7,SNR=215						
SNAA				LR	LR	03 34 24.5	
	comp=Z,793nm,20.3s,baz=70,slow=32						
	comp=Z,120nm,0.9s						
SNAA	Sanae	20.57	195		P	03 28 16.7	+0.8
VNA1	Neumayer--Stat	20.73	200	⇑P	P	03 28 18.3	+0.8
	comp=Z,48nm,1.0s						
VNA2	Neumayer--Watz	20.76	199	⇑P	P	03 28 18.1	+0.2
	comp=Z,57nm,0.8s,baz=28,slow=11						
SUR	Sutherland	20.78	18	P	Pn	03 28 20.1	-0.9
	comp=Z,26nm,0.9s,baz=188,slow=11,SNR=8.6						
SUR				S	S	03 31 54.4	-16
	comp=Z,6.8nm,1.0s,baz=267,slow=15,SNR=2.0						
SUR				LR	LR	03 34 17.2	
	comp=Z,681nm,21.6s,baz=182,slow=31						
	comp=Z,26nm,0.9s						
SUR	Sutherland	20.78	18		P	03 28 19.0	+0.4
SUR				IAmb	IAmb	03 28 20.5	
	comp=Z,100nm,1.4s						
FRAZ	Fraserburg	21.33	19	eP	P	03 28 28.5	+4.0
GRHM	Grahamstown, E	21.34	31	P	P	03 28 32.2	+7.8
GRHM				IAmb	IAmb	03 28 34.4	
	comp=Z,81nm,1.6s						
VNA3	Neumayer Olymp	21.48	200	⇑P	P	03 28 25.7	+0.1
	comp=Z,169nm,0.8s						
BFON	Badsfontein, M	21.97	24	eP	P	03 28 43.5	+12
ALKP	Alkanpan, Nort	23.43	20	eP	P	03 28 44.6	-2.0
H04S2	CROZET ISLANDS	25.30	93	T	T	03 55 18.2	
	baz=244,slow=75,SNR=102						
H04S3	CROZET ISLANDS	25.30	93	T	T	03 55 19.5	
	baz=244,slow=75,SNR=120						
H04S1	CROZET ISLANDS	25.32	93	T	T	03 55 19.0	
	baz=244,slow=75,SNR=97						
BOSA	Boshof	25.40	25	P	P	03 29 06.1	+1.2
	comp=Z,5.8nm,0.9s,baz=183,slow=8.5,SNR=6.3						
BOSA				LR	LR	03 37 04.5	
	comp=Z,713nm,21.8s,baz=198,slow=32						
	comp=Z,5.8nm,0.9s						
BOSA	Boshof	25.40	25	P	P	03 29 03.1	-1.8
BOSA	Boshof	25.40	25	eP	P	03 29 09.1	+4.2
MAW	Mawson	27.98	142	P	P	03 29 27.6	-0.1
	comp=Z,4.8nm,1.0s,baz=286,slow=11,SNR=7.7						
MAW				LR	LR	03 38 17.3	
	comp=Z,667nm,21.2s,baz=292,slow=32						
	comp=Z,4.8nm,1.0s						
MAW	Mawson	27.98	142		P	03 29 27.0	-0.6
LBTB	Lobatse	28.93	23	LR	LR	03 39 21.1	
	comp=Z,493nm,20.4s,baz=190,slow=33						
BELA	Belgrano 2	30.73	198	P	P	03 29 51.6	-0.3
BELA				IAmb	IAmb	03 29 54.1	
	comp=Z,21nm,1.3s						
TSUM	Tsumeb	33.36	7	P	P	03 30 14.9	-0.8
TSUM				IAmb	IAmb	03 30 28.1	
	comp=Z,24nm,1.6s						
MATP	Matopo	34.06	26	LR	LR	03 42 46.0	
	comp=Z,662nm,18.5s,baz=201,slow=34						
QSPA	South Pole Qui	37.76	180	P	P	03 30 53.1	-0.1
	comp=Z,23nm,1.0s,baz=235,slow=4.0,SNR=45						
QSPA				LR	LR	03 45 18.5	
	comp=Z,502nm,21.2s,baz=222,slow=34						
	comp=Z,23nm,1.0s						
QSPA	South Pole Qui	37.76	180	P	P	03 30 53.2	+0.1
QSPA				IAmb	IAmb	03 30 54.4	
	comp=Z,41nm,1.1s						
PMSA	Palmer Station	39.51	221		P	03 31 08.4	+0.9
SMAI	San Martin Ant	39.55	215		P	03 31 07.7	-0.1
MG02	Cerro Sombrero	47.48	235	P	P	03 32 11.5	-0.4
VNDA	Vanda	48.80	171	P	P	03 32 21.7	-0.1
	comp=Z,4.8nm,0.8s,baz=231,slow=8.1,SNR=37						
VNDA				LR	LR	03 51 52.2	
	comp=Z,673nm,21.0s,baz=200,slow=35						
	comp=Z,4.8nm,0.8s						
VNDA	Vanda	48.80	171	P	P	03 32 22.0	+0.2
VNDA				IAmb	IAmb	03 32 22.5	
	comp=Z,6.8nm,0.9s						
MBAR	Mbarara	53.68	22	LR	LR	03 55 05.8	
	comp=Z,514nm,18.7s,baz=194,slow=35						
KMBO	Kilima Mbogo	54.90	30	LR	LR	03 55 25.9	
	comp=Z,287nm,18.1s,baz=186,slow=35						
PLCA	Paso Flores	55.74	246	P	P	03 33 13.0	-1.0
	comp=Z,3.3nm,1.1s,baz=150,slow=9.4,SNR=3.9						
PLCA				LR	LR	03 54 58.3	
	comp=Z,69nm,18.6s,baz=141,slow=34						
	comp=Z,3.3nm,1.1s						
CPUP	Villa Florida	58.00	268	P	P	03 33 29.7	-0.4
	comp=Z,10nm,1.1s,baz=135,slow=8.2,SNR=8.5						
CPUP				LR	LR	03 53 57.5	
	comp=Z,67nm,21.8s,baz=76,slow=31						
	comp=Z,10nm,1.1s						
CPUP	Villa Florida	58.00	268	P	P	03 33 29.9	-0.2
CPUP				IAmb	IAmb	03 33 32.6	
	comp=Z,35nm,1.4s						
BI02	San Fabin de	58.96	249		P	03 33 36.2	-0.5
BI02				IAmb	IAmb	03 33 40.1	
	comp=Z,18nm,1.1s						
BDFB	Brasilia	60.42	283	LR	LR	03 53 00.6	
	comp=Z,77nm,21.4s,baz=179,slow=29						
DBIC	Dimbokro	60.94	339	LR	LR	03 55 30.6	
	comp=Z,185nm,19.6s,baz=150,slow=31						
TORD	Torodi Ar. Bea	66.13	347	P	P	03 34 24.0	-0.6
	comp=Z,1.0nm,0.9s,baz=188,slow=3.2,SNR=3.6						
TORD				LR	LR	03 57 30.8	
	comp=Z,210nm,20.6s,baz=150,slow=31						
	comp=Z,1.0nm,0.9s						
ATD	Arta Tunnel	68.58	31	LR	LR	04 04 54.6	
	comp=Z,4.8nm,18.3s,baz=181,slow=36						
H01W2	Cape Leeuwin H	69.07	120	T	T	04 51 06.2	
	baz=221,slow=75,SNR=18						
H01W3	Cape Leeuwin H	69.09	120	T	T	04 51 06.2	
	baz=221,slow=75,SNR=23						
H01W1	Cape Leeuwin H	69.09	120	T	T	04 51 08.0	
	baz=221,slow=75,SNR=14						
PB11	IPOC Station P	70.42	263	P	P	03 34 52.8	+1.0
PB11				IAmb	IAmb	03 34 55.3	
	comp=Z,22nm,1.1s						
LPAZ	La Paz	72.14	266	P	P	03 35 03.0	+0.2
	comp=Z,16nm,0.9s,baz=98,slow=5.8,SNR=30						
LPAZ				LR	LR	04 02 55.4	
	comp=Z,98nm,21.6s,baz=104,slow=33						
	comp=Z,16nm,0.9s						
LPAZ	La Paz	72.14	266	P	P	03 35 03.0	+0.2
MDP	Montagnes des	79.79	292	LR	LR	04 06 55.3	
	comp=Z,78nm,18.1s,baz=159,slow=33						
BOAV	Boa Vista	82.18	284	P	P	03 35 58.4	-0.1
BOAV				IAmb	IAmb	03 36 02.0	
	comp=Z,16nm,1.3s						
PALK	Pallekele	82.24	67	LR	LR	04 04 38.8	
	comp=Z,87nm,20.2s,baz=220,slow=30						
RPZ	Rata Peaks	82.27	164	LR	LR	04 10 04.6	
	comp=Z,109nm,20.9s,baz=226,slow=34						
EIL	Elat	83.93	19	LR	LR	04 13 03.9	
	comp=Z,336nm,19.1s,baz=262,slow=35						
ATAH	Atahualpa	85.51	264	LR	LR	04 12 28.3	
	comp=Z,43nm,20.9s,baz=152,slow=34						
MDT	Midelt	86.38	345	LR	LR	04 10 53.9	
	comp=Z,124nm,19.7s,baz=173,slow=33						
ASF	Jabal al Asfar	86.75	20	LR	LR	04 13 54.6	
	comp=Z,165nm,20.0s,baz=205,slow=35						
MMAI	Mount Meron Ar	87.27	18	LR	LR	04 15 35.4	
	comp=Z,236nm,18.2s,baz=189,slow=36						
IDI	Anoyia	87.96	9	LR	LR	04 16 06.9	
	comp=Z,150nm,20.8s,baz=126,slow=36						
ASAR	Alice Springs	88.21	128	P	P	03 36 28.1	-0.6
	comp=Z,2.6nm,0.9s,baz=213,slow=5.1,SNR=13						
ASAR				LR	LR	04 09 05.8	
	comp=Z,114nm,18.2s,baz=126,slow=31						
URZ	Urewera	88.53	167	LR	LR	04 16 41.4	
	comp=Z,217nm,18.1s,baz=184,slow=36						
FITZ	Fitzroy Crossi	88.61	118	LR	LR	04 10 19.4	
	comp=Z,89nm,19.1s,baz=186,slow=32						
HYB	Hyderabad	89.41	60	eP	P	03 36 34.1	0.0
HYB				ePP	PP	03 40 04.9	-0.6
HYB				eSKKSac	SKKSac	03 47 15.7	-0.8
HYB				eS	S	03 47 24.6	+0.3
VAE	Valguarnera	89.58	1	LR	LR	04 17 13.5	
	comp=Z,141nm,18.1s,baz=144,slow=36						
WRA	Warramunga Arr	91.57	126	P	P	03 36 45.7	+1.3
	comp=Z,0.5nm,0.9s,baz=206,slow=3.9,SNR=2.3						
	comp=Z,0.5nm,0.9s						
ROSC	El Rosal	92.43	275	LR	LR	04 14 24.5	
	comp=Z,98nm,21.1s,baz=97,slow=33						
ESDC	Sonseca Array	93.01	347	LR	LR	04 13 09.9	
	comp=Z,81nm,20.9s,baz=179,slow=32						
SDV	Santo Domingo	93.38	280	LR	LR	04 16 22.6	
	comp=Z,57nm,18.4s,baz=224,slow=34						
BRTR	Keskin Array B	93.48	15	LR	LR	04 20 50.5	
	comp=Z,74nm,18.3s,baz=228,slow=37						
KAPI	Kappang	95.89	106	LR	LR	04 14 50.6	
	comp=Z,45nm,18.7s,baz=160,slow=32						
GNI	Garni	96.17	24	LR	LR	04 20 32.4	
	comp=Z,136nm,19.9s,baz=215,slow=36						
MLR	Muntele Rosu	98.17	9	LR	LR	04 25 15.9	
	comp=Z,58nm,18.8s,baz=203,slow=38						
KBZ	Khabaz	99.14	21	LR	LR	04 22 03.8	
	comp=Z,140nm,20.1s,baz=196,slow=35						
KVAR	Kislovodsk Arr	99.31	21	LR	LR	04 22 23.6	
	comp=Z,81nm,19.6s,baz=96,slow=36						
CLL	Collm	103.40	360	LV		04 13 00.0	
PPT2	Papeete2	108.69	197	eLR	LR	04 14 00.1	
	comp=Z,228nm,28.0s						
PPT2				eLR	LR	04 14 06.2	
	comp=Z,180nm,26.5s						
CD2	Chengdu	114.04	70	PKP	PKiKP	03 42 17.0	+0.7
TAOE	Nuku Hiva Isla	114.86	209	eLR	LR	04 16 51.0	
	comp=Z,182nm,30.6s						
WMQ	Urumqi	115.20	50	ePKP	PKiKP	03 42 18.4	+0.3
NJ2	Nanjing	123.77	80	eP	PKPdf	03 42 34.4	-0.4
NJ2				pmax	pmax		
	comp=Z,34nm,0.5s						
HHC	Hu-ho-hao-te	125.53	67	eP	PKPdf	03 42 35.0	-3.1
TXAR	Lajitas Array	128.97	269	PKP	PKPdf	03 42 45.0	-0.1
	comp=Z,0.7nm,1.0s,baz=104,slow=4.0,SNR=6.3						
PDAR	Pinedale Array	141.31	279	PKhKP	PKPpre	03 43 00.9	
	comp=Z,0.6nm,0.9s,baz=108,slow=4.8,SNR=5.0						
NVAR	Mina Array Bea	144.05	267	PKP	PKPdf	03 43 11.9	-0.8
	comp=Z,1.3nm,0.9s,baz=144,slow=5.5,SNR=5.9						
O03E	Paynes Creek	147.33	266		PKPdf	03 43 18.9	+0.7
G08A	Pilot Rock	148.37	276		PKPdf	03 43 20.1	+0.3
YKA	Yellowknife Ar	151.12	311	PKPbc	PKPbc	03 43 27.8	-1.4
	comp=Z,4.0nm,0.8s,baz=95,slow=2.2,SNR=15						
YKA	Yellowknife Ar	151.12	311		PKPdf	03 43 25.5	+2.2
ILAR	Eielson Array	164.07	328	PKPab	PKPab	03 44 34.7	+1.9
	comp=Z,0.3nm,0.7s,baz=28,slow=3.8,SNR=5.4						

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*NORS **04** 03:44:30.8, 42°.56N×43°.44E, h2^{km}, MPVA3.8*

*TIF **04** 03:44:31.9, 42°.53N×43°.48E, h14^{km}*
ISC 04 03:44:33.0±0.9, **42°.52N**±0°.02×**43°.44E**±0°.03, **h11**^{km}±6^{km}, **n30**, σ**1^{s}.65**/58, **Western Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GARIG	**Gari**	**0.09**	**15**	P	**Pg**	**03 44 35.2**	**-0.5**
GARIG				S	**Sg**	**03 44 37.4**	**-0.3**
DIGR	**Digorskoe uzhe**	**0.40**	**15**	*i* Pg	**Pg**	**03 44 40.1**	**-0.8**
DIGR				*e*Sg	**Sg**	**03 44 46.1**	**-0.1**
LACR	**Lac**	**0.70**	**64**	*i* Pg	**Pg**	**03 44 45.3**	**-1.4**
LACR				*e*Sg	**Sg**	**03 44 54.8**	**-1.1**
KORR	**Kora**	**0.73**	**39**	*i* Pg	**Pb**	**03 44 46.7**	**-1.1**
KORR				*e*Sg	**Sn**	**03 44 58.1**	**-2.4**
LSNR	**Lesken**	**0.81**	**20**	*e*Pg	**Pb**	**03 44 48.2**	**-0.9**
LSNR				*e*Sg	**Sn**	**03 45 00.8**	**-1.7**
ARNR	**Ardon**	**0.91**	**43**	*e*Pg	**Pg**	**03 44 50.6**	**0.0**
ARNR				*e*Sg	**Sn**	**03 45 03.8**	**-1.0**
NEUR	**Neytrino**	**0.92**	**324**	*e*Pg	**Pb**	**03 44 50.4**	**-0.7**
NEUR				*e*Sg	**Sn**	**03 45 03.9**	**-1.4**
STDR	**Stavd-Durt**	**0.97**	**28**	*e*Pg	**Pn**	**03 44 52.4**	**-0.1**
STDR				*e*Sg	**Sn**	**03 45 06.7**	**+0.5**
NCK	**Nalchik**	**0.98**	**7**	*e*Pg	**Pn**	**03 44 52.2**	**-0.6**
NCK				*e*Sg	**Sn**	**03 45 07.0**	**+0.3**
VLKR	**Vladikavkaz**	**1.05**	**59**	*e*Pg	**Pg**	**03 44 53.5**	**+0.2**
VLKR				*e*Sg	**Sn**	**03 45 09.1**	**+0.6**
TRLG	**Trialeti**	**1.10**	**153**	P	**Pg**	**03 44 55.6**	**+1.5**
TRLG				S	**Sg**	**03 45 10.9**	**+2.6**
AKH	**Akhalkalaki**	**1.11**	**178**	P	**Pn**	**03 44 52.9**	**-1.7**
AKH				S	**Sb**	**03 45 08.6**	**-0.1**
CHRG	**Chargali**	**1.12**	**99**	P	**Pb**	**03 44 52.9**	**-1.5**
CHRG				S	**Sb**	**03 45 08.8**	**-0.2**
BTKR	**Batakoyurt**	**1.18**	**43**	*e*Pg	**Pg**	**03 44 56.7**	**+1.1**
BTKR				*e*Sg	**Sg**	**03 45 14.4**	**+3.4**
KMGR	**Komgaron**	**1.18**	**62**	*e*Pg	**Pg**	**03 44 56.0**	**+0.2**
KMGR				*e*Sg	**Sg**	**03 45 15.7**	**+4.6**
TBLG	**Delisi**	**1.25**	**129**	P	**Pn**	**03 44 55.5**	**-0.9**
TBLG				S	**Sb**	**03 45 12.2**	**-0.4**
BGD	**Bogdanovka**	**1.26**	**174**	P	**Pn**	**03 44 55.5**	**-1.2**
BGD				S	**Sb**	**03 45 13.4**	**+0.3**
SHTL	**Shatili**	**1.27**	**83**	P	**Pn**	**03 44 55.5**	**-1.4**
KBTC	**Kuba-Taba**	**1.30**	**359**	*e*Pg	**Pb**	**03 44 57.4**	**-0.1**
KBTC				*e*Sg	**Sg**	**03 45 16.7**	**+1.8**
KZRT	**Kazreti**	**1.34**	**147**	P	Pn	03 44 51.3	-6.3
KZRT				S	**Sn**	**03 45 08.9**	**-6.5**
SHA1	**Shidzhatmaz**	**1.35**	**335**	*e*Pg	**Pb**	**03 44 58.6**	**+0.2**
SHA1				*e*Sg	**Sg**	**03 45 16.6**	**+0.2**
PRTR	**Priterechnaya**	**1.38**	**26**	*e*Pg	**Pn**	**03 44 57.5**	**-0.7**
PRTR				*e*Sg	**Sg**	**03 45 20.8**	**+3.4**
BATM	**Batumi**	**1.59**	**235**	P	**Pn**	**03 45 01.1**	**+0.1**
BATM				S	**Sb**	**03 45 23.9**	**+1.5**
DGRG	**David-gareji**	**1.79**	**126**	P	**Pb**	**03 45 05.5**	**-0.4**
DGRG				S	**Sg**	**03 45 30.4**	**-0.3**
GROC	**Groznyy**	**1.86**	**68**	*e*Pg	**Pb**	**03 45 07.8**	**+0.7**
GROC				*e*Sg	**Sg**	**03 45 33.1**	**+0.2**
BTLR	**Botlikh**	**2.06**	**85**	*e*Pg	**Pb**	**03 45 10.8**	**+0.4**
BTLR				*e*Sg	**Sg**	**03 45 39.3**	**+0.1**
LGD	**Lagodekhi**	**2.19**	**107**	P	**Pb**	**03 45 12.5**	**-0.2**
LGD				S	**Sb**	**03 45 40.8**	**+0.9**
XNZR	**Khunzakh**	**2.42**	**88**	*e*Pn	**Pg**	**03 45 20.2**	**+1.0**
XNZR				*e*Sn	**Sg**	**03 45 51.5**	**+0.9**
VSHL	**Vashlovani**	**2.56**	**119**	P	**Pn**	**03 45 16.5**	**+2.1**
VSHL				S	**Sb**	**03 45 50.3**	**0.0**
GNI	**Garni**	**2.56**	**157**	*e*Pn	**Pb**	**03 45 20.1**	**+1.1**
GNI				*e*Sn	**Sb**	**03 45 53.0**	**+2.4**

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*SDD **04** 03:58:05.8±2.2, 20°.06N×70°.22W, h40^{km}±21^{km}, MD3.1, ML2.6, MW3.1, Presumed earthquake*
*OSPL **04** 03:58:07.4±2.4, 20°.13N×70°.19W, h0^{km}±10^{km}, ML2.5, Presumed earthquake*
ISC 04 03:58:02.6±1.4, **20°.17N**±0°.04×**70°.08W**±0°.05, **h7**^{km}±11^{km}, **n18**, σ**0^{s}.71**/27, **6C-8D**, **Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SODR	**Sosua Marina B**	**0.62**	**228**	⇓*e*Pg	**Pb**	**03 58 15.9**	**0.0**
SODR				⇑*e*Sg	**Sg**	**03 58 22.8**	**0.0**
SODR				IAML		03 58 29.6	
	comp=N,277nm,0.4s						
LUDR	**Luperon**	**0.86**	**251**	*e*Pg	**Pb**	**03 58 19.6**	**-0.4**
SC01	**Santiago de lo**	**0.96**	**219**	*i* P	**Pb**	**03 58 21.7**	**+0.1**
SC01				IAML		03 58 42.0	
	comp=Z,46nm,0.3s						
SC01	**Santiago de lo**	**0.96**	**219**	⇑*e*Pg	**Pg**	**03 58 20.5**	**-0.5**
SC01				IAML		03 58 41.9	
	comp=N,87nm,0.7s						
LOPP1	**Punta Rusia, P**	**1.10**	**253**	*i* P	**Pn**	**03 58 24.2**	**-0.2**
LOPP1				*e*S	**Sb**	**03 58 39.0**	**+0.5**
LOPP1				IAML		03 58 43.7	
	comp=Z,106nm,1.0s						
ABDR	**Alto Bandera**	**1.45**	**201**	⇓*e*Pg	**Pb**	**03 58 30.0**	**-0.2**
ABDR				IAML		03 59 24.9	
	comp=N,97nm,1.4s						
MCDR	**Montecristi**	**1.51**	**260**	⇑*e*Pg	**Pg**	**03 58 31.1**	**-0.5**
MCDR				⇓*e*Sg	**Sn**	**03 58 49.1**	**-0.9**
MCDR				IAML		03 58 51.3	
	comp=N,116nm,1.3s						
REDR	**Restauracion**	**1.59**	**231**	⇑*e*Pg	**Pg**	**03 58 34.1**	**+1.0**
REDR				IAML		03 58 57.3	
	comp=N,282nm,0.2s						
SDDR	**Presa de Saban**	**1.64**	**224**	*i* P	**Pn**	**03 58 32.4**	**+0.4**
SDDR				*e*S	**Sb**	**03 58 54.2**	**0.0**
SDDR	**Presa de Saban**	**1.64**	**224**	⇑*e*Pg	**Pn**	**03 58 31.9**	**-0.1**
SDDR				IAML		03 59 00.8	
	comp=N,41nm,0.6s						
GRTK	**Grand Turk**	**1.66**	**324**	*i* P	**Pg**	**03 58 34.6**	**+0.1**
GRTK				*e*S	**Sg**	**03 58 57.0**	**+1.1**
SDD	**Santo Domingo**	**1.71**	**175**	*i* P	**Pg**	**03 58 36.6**	**+1.1**
SDD				*e*S	**Sb**	**03 58 57.3**	**+1.0**
SDD				IAML		03 58 59.8	
	comp=Z,91nm,0.3s						
BANI	**BANI**	**1.79**	**188**	⇓*e*Pg	**Pb**	**03 58 35.9**	**0.0**
BANI				⇓*e*Sg	**Sn**	**03 58 56.9**	**-0.3**
BANI				IAML		03 59 03.7	
	comp=N,102nm,0.3s						
HIDR	**Higuey Centro**	**2.03**	**140**	*e*Pg	**Pg**	**03 58 41.3**	**-0.3**
HIDR				⇓*e*Sg	**Sg**	**03 59 07.0**	**-1.0**
HIDR				IAML		03 59 11.0	
	comp=N,73nm,0.3s						
NEDR	**Neiba UASD**	**2.10**	**217**	⇑*e*Pg	**Pb**	**03 58 40.3**	**-0.7**
NEDR				⇓*e*Sg	**Sn**	**03 59 05.6**	**+0.9**
NEDR				IAML		03 59 08.3	
	comp=N,34nm,0.3s						
LODU1	**El Espartillar**	**2.24**	**216**	*i* P	**Pb**	**03 58 43.0**	**-0.4**
LODU1				IAML		03 59 17.8	
	comp=Z,67nm,0.6s						
JIDR	**Jimani**	**2.36**	**225**	⇓*e*Pg	**Pb**	**03 58 44.3**	**-1.3**
JIDR				IAML		03 59 32.0	
	comp=N,39nm,3.4s						
LOBH	**Bahia de las A**	**2.73**	**213**	*i* P	**Pb**	**03 58 50.9**	**-0.9**
LOBH				IAML		03 59 32.4	
	comp=Z,36nm,1.4s						

IDC 04 03:58:25.0±1.6, **5°.53S**×**130°.32E**, **h0**^{km}, **mb3.7**/2, **mbtmp3.9**/5, **ML3.8**/3, **MS3.3**/1, **Error ellipse: s-maj=58.6km s-min=19.8km az=80.0**, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**13.30**	**200**	Pn	Pn	04 01 29.9	-5.3
	0.4nm,0.3s,baz=21,slow=13,SNR=8.8						
FITZ				Sn	Sn	04 03 37.1	-27
	0.9nm,0.3s,baz=51,slow=18,SNR=6.5						
	1.2nm,0.5s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**14.85**	**165**	Pn	Pn	04 01 50.6	-5.9
	0.6nm,0.3s,baz=346,slow=11,SNR=29						
WRA				Sn	Sn	04 04 16.4	-26
	0.8nm,0.3s,baz=334,slow=22,SNR=12						
	0.3nm,0.3s						
WRA				AML	AML		
ASAR	**Alice Springs**	**18.36**	**170**	Pn	Pn	04 02 35.5	-5.7
	0.3nm,0.3s,baz=350,slow=10,SNR=2.1						
ASAR				Sn	Sn	04 05 45.4	-22
	0.1nm,0.3s,baz=357,slow=26,SNR=2.5						
	13nm,0.3s						
ASAR				AML	AML		
CTA	**Charters Tower**	**21.20**	**134**	LR	LR	04 11 37.6	
	comp=Z,87nm,20.6s,baz=224,slow=37						
MKAR	**Makanchi Array**	**67.18**	**326**	P	P	04 09 21.1	+0.2
	0.6nm,0.3s,baz=113,slow=8.3,SNR=7.5						
	0.6nm,0.3s						
KURBB	**Kurchatov Arra**	**71.43**	**328**	P	P	04 09 46.9	-0.2
	0.3nm,0.5s,baz=117,slow=6.2,SNR=2.3						
	0.3nm,0.5s						

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*JMA **04** 04:24:27.9±0.2, 23°N±1°×122°.9E±0°.7, h53^{km}, MV2.7/13, NEAR ISHIGAKIJIMA ISLAND*
*TAP **04** 04:24:29.5, 23°.06N×122°.91E, h55^{km}±1^{km}, ML3.4, D*
ISC 04 04:24:24.4±1.2, **23°.03N**±0°.03×**122°.93E**±0°.03, **h12**^{km}±9^{km}, **n76**, σ**0^{s}.92**/134, **Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EOS4	**EOS4**	**1.22**	**333**	*e*P	**Pg**	**04 24 49.2**	**+1.5**
EOS4				*e*S	**Sg**	**04 25 04.4**	**+0.8**
HATJ	**Hateruma jima**	**1.30**	**38**	P	**Pg**	**04 24 50.3**	**+1.0**
HATJ				S	**Sg**	**04 25 05.8**	**-0.3**
EOS3	**EOS3**	**1.37**	**336**	*e*P	**Pg**	**04 24 51.9**	**+1.2**
EOS3				*e*S	**Sg**	**04 25 08.7**	**+0.3**
ECBN	**Changbin**	**1.39**	**282**	*e*P	**Pb**	**04 24 49.7**	**-0.6**
ECBN				*e*S	**Sb**	**04 25 07.7**	**-0.2**
CHKH	**Chenggong**	**1.42**	**277**	*e*P	**Pg**	**04 24 51.9**	**+0.2**
CHKH				S	**Sn**	**04 25 07.3**	**-1.3**
YOJ	**Yonaguni jima**	**1.42**	**3**	*i* P	**Pg**	**04 24 53.2**	**+1.5**
YOJ				*i* S	**Sg**	**04 25 10.1**	**-0.2**
CHKT	**Chengkung**	**1.44**	**273**	P	**Pg**	**04 24 52.0**	**-0.1**
CHKT				S	**Sn**	**04 25 08.3**	**-0.9**
TEGC	**Jichi Village**	**1.44**	**298**	P	**Pg**	**04 24 52.2**	**+0.1**
TEGC				S	**Sg**	**04 25 09.8**	**-1.1**
HGSD	**Ruisui**	**1.46**	**289**	P	**Pg**	**04 24 52.0**	**-0.4**
HGSD				*e*S	**Sn**	**04 25 08.5**	**-1.1**
SHUL	**Shoufeng**	**1.46**	**301**	P	**Pg**	**04 24 52.7**	**+0.2**
SHUL				S	**Sb**	**04 25 10.2**	**+0.1**
IRIF	**Iriomote-Funau**	**1.49**	**29**	S	**Sg**	**04 25 11.1**	**-1.2**
EDH	**Donghe**	**1.50**	**268**	P	**Pg**	**04 24 52.8**	**-0.4**
EDH				*i* S	**Sn**	**04 25 09.3**	**-1.3**
EYUL	**Yuli**	**1.52**	**282**	*e*P	**Pg**	**04 24 53.1**	**-0.4**
EYUL				*e*S	**Sb**	**04 25 11.4**	**-0.2**
FULB	**Fuli**	**1.52**	**277**	S	**Sn**	**04 25 10.8**	**-0.2**
EGFH	**Guangfu**	**1.52**	**295**	*e*P	**Pg**	**04 24 53.4**	**-0.1**
EGFH				*e*S	**Sg**	**04 25 12.5**	**-0.8**
EOS2	**EOS2**	**1.52**	**335**	*e*P	**Pg**	**04 24 54.3**	**+0.7**
EOS2				*e*S	**Sg**	**04 25 13.9**	**+0.6**
TWF1	**Yuli**	**1.54**	**282**	*e*P	**Pg**	**04 24 53.5**	**-0.4**
YULB	**Yu-li**	**1.54**	**284**	*e*P	**Pg**	**04 24 53.8**	**-0.2**
EHY	**Hungye**	**1.55**	**288**	*e*P	**Pg**	**04 24 53.9**	**-0.2**
JKRS	**Kuro-shima**	**1.55**	**39**	P	**Pg**	**04 24 53.7**	**-0.5**
JKRS				S	**Sb**	**04 25 12.0**	**-0.7**
WARBT	**Fenglin Townsh**	**1.57**	**296**	*i* P	**Pg**	**04 24 53.7**	**-0.9**
WARBT				*e*S	**Sn**	**04 25 12.1**	**-0.3**
ECS	**Chishang**	**1.58**	**273**	P	**Pg**	**04 24 56.5**	**+1.8**
ECS				*e*S	**Sb**	**04 25 13.5**	**+0.1**
TWD	**Chiawan**	**1.61**	**311**	*e*P	**Pg**	**04 24 54.2**	**-1.0**
ETM	**Tongmen**	**1.61**	**305**	*e*P	**Pb**	**04 24 53.9**	**-0.2**
ETM				*e*S	**Sn**	**04 25 13.2**	**-0.1**
LYUB	**Lan-yu**	**1.61**	**231**	P	**Pb**	**04 24 54.3**	**+0.2**
LYUB				*e*S	**Sn**	**04 25 12.0**	**-1.4**
LONT	**Longtian**	**1.66**	**266**	*e*P	**Pb**	**04 24 55.2**	**+0.3**
LONT				*e*S	**Sb**	**04 25 16.3**	**+0.4**
NACB	**Ninganchiao**	**1.67**	**313**	P	**Pb**	**04 24 55.0**	**0.0**
NACB				*e*S	**Sn**	**04 25 14.3**	**-0.5**
LXIB	**Xiulin Townshi**	**1.70**	**305**	*e*P	**Pg**	**04 24 56.0**	**-1.1**
LXIB				*e*S	**Sb**	**04 25 16.2**	**-1.0**
TWGBT	**Beinan**	**1.72**	**263**	*e*P	**Pb**	**04 24 56.1**	**+0.2**
TWGBT				S	**Sb**	**04 25 16.9**	**-0.6**
TWG	**Pinlang**	**1.73**	**263**	*e*P	**Pg**	**04 24 56.7**	**-0.8**
TWG				S	**Sb**	**04 25 16.8**	**-0.9**
JIJ	**Ishigaki jima**	**1.73**	**40**	P	**Pg**	**04 24 56.3**	**-1.2**
JIJ				*e*S	**Sn**	**04 25 15.9**	**-0.3**
EWUT	**Wuta**	**1.76**	**323**	*e*P	**Pg**	**04 24 57.1**	**-1.0**
ENA	**Nanau**	**1.76**	**322**	*e*P	**Pn**	**04 24 54.9**	**+0.2**
ETLH	**Xiulin Townshi**	**1.77**	**312**	P	**Pb**	**04 24 56.9**	**+0.1**
ETLH				*e*S	**Sb**	**04 25 17.8**	**-1.2**
OWD	**Renai**	**1.85**	**300**	P	**Pb**	**04 24 58.4**	**+0.2**
OWD				*e*S	**Sn**	**04 25 19.1**	**-0.4**
WHF	**Hehuan Shan**	**1.89**	**306**	*e*P	**Pb**	**04 24 59.1**	**+0.1**
WHF				*e*S	**Sn**	**04 25 20.3**	**-0.4**
WUSB	**Renai**	**1.92**	**300**	*i* P	**Pb**	**04 24 59.6**	**+0.3**
WUSB				S	**Sn**	**04 25 20.3**	**-0.8**
NDS	**Dongshan**	**1.94**	**325**	P	**Pg**	**04 25 00.1**	**-1.5**
NDS				*e*S	**Sb**	**04 25 23.4**	**-0.5**
FUSS	**Fushou**	**1.96**	**308**	P	**Pb**	**04 25 00.2**	**0.0**
FUSS				*i* S	**Sb**	**04 25 23.7**	**-1.0**
SSLB	**Suanglung**	**1.96**	**293**	*e*P	**Pb**	**04 25 00.2**	**+0.2**
SSLB				*e*S	**Sn**	**04 25 22.3**	**+0.2**
LATG	**Datong**	**1.97**	**320**	*e*P	**Pb**	**04 25 00.2**	**0.0**
LATG				*e*S	**Sn**	**04 25 22.1**	**-0.3**
NNSB	**Datong**	**1.98**	**315**	P	**Pb**	**04 25 00.4**	**-0.1**
NNSB				*e*S	**Sn**	**04 25 23.1**	**+0.3**
STYH	**Taoyuan**	**1.99**	**274**	*e*S	**Sn**	**04 25 23.4**	**+0.8**
JISG	**Ishigakijimahi**	**2.00**	**39**	P	**Pb**	**04 24 59.9**	**-0.7**
JISG				S	**Sn**	**04 25 22.6**	**-0.2**
NNS	**Nan Shan**	**2.00**	**315**	P	**Pb**	**04 25 00.8**	**0.0**
NNS				*e*S	**Sb**	**04 25 24.0**	**-1.6**
ALS	**Alishan**	**2.01**	**284**	*e*P	**Pg**	**04 25 01.9**	**-1.1**
ALS				*e*S	**Sb**	**04 25 25.4**	**-0.8**
TWT	**Tachien**	**2.02**	**307**	P	**Pb**	**04 25 01.3**	**+0.3**
TWT				*e*S	**Sb**	**04 25 24.8**	**-1.4**
WHYT	**Xinyi Township**	**2.02**	**289**	P	**Pb**	**04 25 01.6**	**+0.6**
WHYT				S	**Sb**	**04 25 24.7**	**-1.5**
TDCB	**Techi**	**2.03**	**307**	P	**Pb**	**04 25 01.0**	**-0.2**
TDCB				*e*S	**Sn**	**04 25 23.6**	**-0.2**
EAST	**Anshuo**	**2.03**	**252**	P	**Pb**	**04 25 01.6**	**+0.4**
EAST				*e*S	**Sb**	**04 25 25.0**	**-1.4**
NDT	**Datong Townshi**	**2.03**	**321**	*e*P	**Pg**	**04 25 01.8**	**-1.5**
SMLT	**Sun Moon Lake**	**2.05**	**295**	*e*P	**Pb**	**04 25 01.7**	**+0.1**
SMLT				*e*S	**Sb**	**04 25 26.1**	**-0.9**
TYC	**Yuchr**	**2.09**	**295**	*e*S	**Sb**	**04 25 27.6**	**-0.6**
FUSB	**Fushanzhiwuyua**	**2.11**	**325**	*e*P	**Pb**	**04 25 03.1**	**+0.5**
FUSB				*e*S	**Sb**	**04 25 27.9**	**-0.9**
WCS	**Beigang Elemen**	**2.11**	**299**	*e*P	**Pb**	**04 25 02.8**	**+0.2**
SLIU	**Shizi**	**2.13**	**248**	*e*P	**Pb**	**04 25 03.0**	**+0.1**
SLIU				*e*S	**Sb**	**04 25 27.9**	**-1.4**
TPUB	**Ta-pu**	**2.13**	**278**	*e*P	**Pg**	**04 25 04.2**	**-1.1**
TPUB				S	**Sb**	**04 25 29.4**	**-0.1**
WTP	**Ta-pu**	**2.14**	**276**	*e*P	**Pg**	**04 25 05.0**	**-0.5**
WTP				S	**Sb**	**04 25 30.2**	**+0.5**
CHN5	**Tsauling**	**2.15**	**286**	*e*S	**Sb**	**04 25 30.2**	**+0.3**
MASBT	**Mashibuluo**	**2.16**	**259**	*e*P	**Pb**	**04 25 03.2**	**-0.2**
YHNB	**Yeheng**	**2.16**	**319**	P	**Pb**	**04 25 03.3**	**-0.2**
YHNB				*e*S	**Sn**	**04 25 27.8**	**+0.7**
NWLT	**Wulai**	**2.17**	**323**	*e*P	**Pb**	**04 25 03.8**	**+0.1**
NWLT				*e*S	**Sb**	**04 25 28.8**	**-1.7**
TIPB	**Shuangxi**	**2.18**	**333**	P	**Pb**	**04 25 03.2**	**-0.5**
TIPB				*e*S	**Sn**	**04 25 27.7**	**+0.3**
WCKO	**Fanlu**	**2.18**	**281**	*e*S	**Sb**	**04 25 31.6**	**+0.9**
NSK	**Sanguang**	**2.18**	**319**	P	**Pb**	**04 25 03.6**	**-0.1**
NSK				*e*S	**Sb**	**04 25 28.7**	**-2.0**
WHP	**Taichung City**	**2.20**	**305**	*e*P	**Pg**	**04 25 05.1**	**-1.5**
WHP				*e*S	**Sb**	**04 25 30.0**	**-1.4**
CHN1	**Nanshi**	**2.22**	**274**	*e*P	**Pg**	**04 25 05.7**	**-1.2**
CHN1				*e*S	**Sb**	**04 25 33.0**	**+1.1**
TWKBT	**Hengchun**	**2.24**	**241**	*e*P	**Pb**	**04 25 03.5**	**-1.3**
TWKBT				*e*S	**Sn**	**04 25 30.2**	**+1.3**
SXI1	**Grass Mountain**	**2.27**	**335**	*e*P	**Pb**	**04 25 04.3**	**-1.0**
JTJ	**Tarama**	**2.28**	**45**	S	**Sn**	**04 25 30.1**	**+0.4**
NFF	**Wufeng Townshi**	**2.30**	**314**	P	**Pb**	**04 25 05.8**	**0.0**
NFF				*e*S	**Sb**	**04 25 31.9**	**-2.3**
KSHI	**Guanxi Townshi**	**2.36**	**318**	*e*P	**Pb**	**04 25 07.4**	**+0.5**
LIOB	**Emei**	**2.38**	**313**	*e*P	**Pb**	**04 25 07.4**	**+0.3**
LIOB				*e*S	**Sb**	**04 25 34.0**	**-2.4**
ZUZH	**Zhuzihu**	**2.47**	**329**	*e*P	**Pb**	**04 25 08.1**	**-0.6**
ZUZH				*e*S	**Sn**	**04 25 35.3**	**+0.7**
VWUC	**VWUC**	**3.73**	**302**	*e*P	**Pn**	**04 25 24.7**	**+2.9**
VWUC				*e*S	**Sn**	**04 26 05.9**	**+0.2**
PTMZ	**Houxiangcun**	**4.01**	**301**	*e*P	**Pn**	**04 25 28.5**	**+2.8**
PTMZ				*e*S	**Sn**	**04 26 12.9**	**+0.2**

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*NEIC **04** 04:29:40.8±1.8, 6°.41S±0°.08×128°.8E±0°.1, h255^{km}±6^{km}, mb4.0/4, Error ellipse: s-maj=17.4km s-min=11.8km az=100.0*
*IDC **04** 04:29:43.5±3.7, 6°.58S×128°.68E, h283^{km}±38^{km}, mb3.4/5, mbtmp4.3/8, Error ellipse: s-maj=48.0km s-min=13.3km az=73.0*
ISC 04 04:29:40.2±0.7, **6°.49S**±0°.06×**128°.8E**±0°.1, **h250**^{km}, **n24**, σ**0^{s}.89**/27, **mb3.8**/5, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SAUI	**Saumlaki**	**2.89**	**121**	Pn	**Pn**	**04 30 33.2**	**+1.7**
FAKI	**Fak Fak**	**4.94**	**44**	Pn	**Pn**	**04 30 54.7**	**-0.5**
SOEI	**Soe**	**5.54**	**234**	Pn	**Pn**	**04 31 03.0**	**+0.3**
MTN	**Manton Dam**	**6.72**	**160**		**Pn**	**04 31 18.8**	**+1.4**
KNRA	**Kununurra**	**9.13**	**180**		**Pn**	**04 31 48.5**	**+0.6**
FITZ	**Fitzroy Crossi**	**11.95**	**195**	P	**Pn**	**04 32 23.5**	**+0.3**
	10nm,0.3s,baz=26,slow=9.8,SNR=41						
FITZ				S	**S**	**04 34 35.2**	**-1.2**
	2.5nm,0.3s,baz=22,slow=4.5,SNR=4.8						
FITZ	**Fitzroy Crossi**	**11.95**	**195**		**Pn**	**04 32 23.2**	**+0.1**
WRA	**Warramunga Arr**	**14.42**	**159**	P	**P**	**04 32 54.0**	**+0.3**
	4.9nm,0.6s,baz=340,slow=12,SNR=64						
WRA				S	**S**	**04 35 32.6**	**-0.5**
	5.4nm,0.8s,baz=336,slow=21,SNR=11						
WRA	**Warramunga Arr**	**14.42**	**159**	P	**Pn**	**04 32 52.2**	**-1.3**
WR8	**Warramunga Arr**	**14.49**	**158**		**P**	**04 32 54.8**	**+0.3**
MBWA	**Marble Bar**	**17.03**	**210**		**P**	**04 33 23.3**	**+1.0**
AS31	**Alice Springs**	**17.77**	**165**	P	**P**	**04 33 31.8**	**+1.4**
AS31				IAmb	IAmb	04 33 38.2	
	comp=Z,2.5nm,0.5s						
ASAR	**Alice Springs**	**17.77**	**165**	P	**Pn**	**04 33 32.8**	**-0.4**
	comp=Z,13nm,0.5s,baz=344,slow=10,SNR=25						
ASAR				S	**S**	**04 36 39.8**	**-2.0**
	comp=Z,4.0nm,0.8s,baz=349,slow=23,SNR=14						
USRK	**Ussuriysk Ar.**	**50.53**	**3**	P	**P**	**04 38 13.3**	**+0.1**
	comp=Z,1.8nm,0.5s,baz=193,slow=6.4,SNR=4.8						
	comp=Z,1.8nm,0.5s						
USRK	**Ussuriysk Ar.**	**50.53**	**3**	P	**P**	**04 38 13.2**	**-0.1**
MKAR	**Makanchi Array**	**67.15**	**327**	P	**P**	**04 40 07.6**	**+0.3**
	comp=Z,1.1nm,0.3s,baz=116,slow=8.7,SNR=15						
	comp=Z,1.1nm,0.3s						
MKAR	**Makanchi Array**	**67.15**	**327**	P	**P**	**04 40 07.5**	**+0.2**
ZALV	**Zalesovo Beam**	**70.60**	**334**	P	**P**	**04 40 27.7**	**-0.6**
	comp=Z,1.2nm,0.6s,baz=150,slow=4.0,SNR=4.8						
	comp=Z,1.2nm,0.6s						
ZALV	**Zalesovo Beam**	**70.60**	**334**	P	**P**	**04 40 27.4**	**-0.9**
KURBB	**Kurchatov Arra**	**71.46**	**329**	P	**P**	**04 40 33.6**	**+0.2**
	comp=Z,1.5nm,0.5s,baz=133,slow=5.0,SNR=24						
	comp=Z,1.5nm,0.5s						
VNDA	**Vanda**	**73.10**	**173**	P	**P**	**04 40 42.9**	**+0.1**
	comp=Z,0.2nm,0.7s,baz=330,slow=8.1,SNR=1.3						
	comp=Z,0.2nm,0.7s						
VNDA	**Vanda**	**73.10**	**173**	P	**P**	**04 40 43.6**	**+0.9**
VNDA				IAmb	IAmb	04 41 08.6	
	comp=Z,3.6nm,1.4s						
AB31	**Akbulak array**	**81.37**	**322**	P	**P**	**04 41 28.3**	**-0.7**
ABKAR	**Akbulak array**	**81.37**	**322**	P	**P**	**04 41 29.0**	**0.0**

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*MOS **04** 04:36:24.6±0.9, 58°.82N×158°.80E, h33^{km}, mb4.8/34, Error ellipse: s-maj=9.0km s-min=3.1km az=95.1*
*KRSC **04** 04:36:24.4±2.3, 58°.90N×158°.71E, h31^{km}±21^{km}, Mc4.8, Ml4.9*
*IDC **04** 04:36:25.1±0.5, 58°.75N×158°.93E, h0^{km}, mb4.2/25, mbtmp4.2/30, ML4.0/5, MS3.7/35, Error ellipse: s-maj=10.2km s-min=9.2km az=21.0*
*NEIC **04** 04:36:27.5±2.1, 58°.79N±0°.03×158°.8E±0°.1, h10^{km}±1^{km}, mb4.6/247, Error ellipse: s-maj=12.3km s-min=3.2km az=69.0*
*GFZ **04** 04:36:28.2±0.3, 59°N±8°×15°9E±°, h10^{km}, M4.6/35, mb4.6/35, confirmed*
*NERS **04** 04:36:32.1, 58°.90N×158°.28E, h33^{km}*
ISC 04 04:36:27.2±0.3, **58°.78N**±0°.02×**158°.82E**±0°.02, **h10**^{km}, **n412**, σ**1^{s}.40**/322, **mb4.6**/195, **MS3.7**/35, **16C-11D**, **Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALN	**Palana**	**0.67**	**62**	PN	**Pg**	**04 36 37.9**	**-2.3**
PALN				S	**Sg**	**04 36 47.4**	**-1.6**
PALN	**Palana**	**0.67**	**62**	*e*P	**Pg**	**04 36 37.9**	**-2.3**
PALN				*e*S	**Sg**	**04 36 47.4**	**-1.6**
TIGL	**Tigil**	**1.02**	**184**	PN	**Pg**	**04 36 44.9**	**-1.8**
TIGL				S	**Sb**	**04 37 01.3**	**+1.0**
TIGL	**Tigil**	**1.02**	**184**	*e*P	**Pg**	**04 36 45.0**	**-1.8**
TIGL				*e*S	**Sb**	**04 37 01.3**	**+1.0**
OSSR	**Ossora**	**2.25**	**76**	PN	**Pn**	**04 37 00.8**	**-3.5**
OSSR				S	**Sn**	**04 37 31.6**	**-0.5**
OSSR	**Ossora**	**2.25**	**76**	*e*P	**Pn**	**04 37 00.9**	**-3.5**
OSSR				*e*S	**Sn**	**04 37 31.7**	**-0.5**
SRDR	**Sredinnyy**	**2.51**	**168**	PN	**Pn**	**04 37 07.1**	**-1.0**
SRDR	**Sredinnyy**	**2.51**	**168**	*e*P	**Pn**	**04 37 07.2**	**-1.0**
KLY	**Klyuchi**	**2.66**	**157**	PN	**Pn**	**04 37 11.1**	**+1.0**
KLY	**Klyuchi**	**2.66**	**157**	*e*P	**Pn**	**04 37 11.1**	**+1.0**
KLY				*e*S	**Sn**	**04 37 42.5**	**+0.2**
KOZ	**Kozyrevsk**	**2.78**	**168**	PN	**Pn**	**04 37 11.4**	**-0.4**
KOZ	**Kozyrevsk**	**2.78**	**168**	*e*P	**Pn**	**04 37 11.4**	**-0.4**
ESO	**Esso**	**2.86**	**181**	PN	**Pn**	**04 37 12.3**	**-0.5**
ESO				S	**Sn**	**04 37 46.9**	**-0.3**
ESO	**Esso**	**2.86**	**181**	*e*P	**Pn**	**04 37 12.3**	**-0.5**
ESO				*e*S	**Sn**	**04 37 47.0**	**-0.3**
CIRR	**Tsirk**	**2.86**	**158**	PN	**Pn**	**04 37 13.7**	**+0.7**
CIRR	**Tsirk**	**2.86**	**158**	*e*P	**Pn**	**04 37 13.8**	**+0.7**
LGNR	**Loginova**	**2.88**	**159**	PN	**Pn**	**04 37 13.9**	**+0.5**
LGNR	**Loginova**	**2.88**	**159**	*e*P	**Pn**	**04 37 14.0**	**+0.5**
KPT	**Kopyto**	**2.92**	**164**	PN	**Pn**	**04 37 14.1**	**+0.4**
KPT	**Kopyto**	**2.92**	**164**	*e*P	**Pn**	**04 37 14.1**	**+0.4**
KIRR	**Kirishev**	**2.95**	**163**	PN	**Pb**	**04 37 18.2**	**-1.7**
KIRR	**Kirishev**	**2.95**	**163**	*e*P	**Pb**	**04 37 18.2**	**-1.7**
BZMR	**Bezymyannaya**	**2.99**	**162**	PN	**Pn**	**04 37 14.9**	**+0.2**
BZMR	**Bezymyannaya**	**2.99**	**162**	*e*P	**Pn**	**04 37 15.0**	**+0.2**
BZP	**Bezymyannyi-Pe**	**3.02**	**161**	PN	**Pn**	**04 37 14.7**	**-0.4**
BZP	**Bezymyannyi-Pe**	**3.02**	**161**	*e*P	**Pn**	**04 37 14.8**	**-0.4**
BZGR	**Bezymyannyi-Gr**	**3.02**	**160**	PN	**Pn**	**04 37 15.4**	**+0.3**
BZGR	**Bezymyannyi-Gr**	**3.02**	**160**	*e*P	**Pn**	**04 37 15.5**	**+0.3**
KMNR	**Kamenistaya**	**3.12**	**165**	PN	**Pn**	**04 37 17.4**	**+0.9**
KMNR	**Kamenistaya**	**3.12**	**165**	*e*P	**Pn**	**04 37 17.5**	**+0.9**
KBTR	**Krutoberegovo**	**3.36**	**138**	PN	**Pn**	**04 37 20.9**	**+1.3**
KBTR	**Krutoberegovo**	**3.36**	**138**	*e*P	**Pn**	**04 37 21.0**	**+1.3**
TUMR	**Tumrok**	**3.58**	**168**	PN	**Pn**	**04 37 22.6**	**-0.1**
TUMR	**Tumrok**	**3.58**	**168**	*e*P	**Pn**	**04 37 22.7**	**-0.1**
GADL	**Gadlja**	**3.96**	**286**	*e*P	**Pn**	**04 37 28.4**	**+0.5**
GADL				*e*		04 37 37.9	
GADL				*e*Pg	**Pg**	**04 37 42.5**	**-0.4**
GADL				*e*Sg	**Sg**	**04 38 30.4**	**-3.7**
GADL				Sgmax		04 38 47.6	
	7µm,0.8s						
TLAR	**Talaya**	**4.00**	**309**	*e*PN	**Pn**	**04 37 28.5**	**0.0**
TLAR				pmax	pmax		
	comp=Z,110nm,0.7s						
TLAR				pmax	pmax		
	comp=Z,670nm,0.8s						
TLAR	**Talaya**	**4.00**	**309**	*e*P	**Pn**	**04 37 28.5**	**0.0**
TLAR				Pmax		04 37 31.9	
	comp=Z,110nm,0.7s						
TLAR				*e*Pg	**Pg**	**04 37 41.7**	**-2.1**
TLAR				Pgmax		04 37 52.2	
	comp=Z,670nm,0.8s						
TLAR				*e*S	**Sn**	**04 38 13.8**	**-1.6**
TLAR				*e*Sg	**Sg**	**04 38 31.1**	**-4.4**
TLAR				Sgmax		04 38 59.6	
	comp=Z,2µm,0.7s						
OMS	**Omsukchan**	**4.04**	**340**	*e*Pg	**Pg**	**04 37 43.6**	**-0.9**
OMS				*e*Sg	**Sg**	**04 38 35.2**	**-1.6**
OMS				Sgmax		04 38 51.2	
	comp=Z,740nm,1.0s						
MA2	**Magadan**	**4.22**	**284**	Pn	**Pn**	**04 37 31.7**	**+0.2**
	comp=Z,3.1nm,0.3s,baz=97,slow=11,SNR=21						
MA2				Pg	**Pb**	**04 37 42.7**	**+1.2**
	comp=Z,18nm,0.3s,baz=94,slow=14,SNR=23						
MA2				Lg	Lg	04 38 38.6	
	comp=Z,48nm,0.3s,baz=25,slow=5.1,SNR=7.6						
MA2				LR	LR	04 39 14.5	
	comp=Z,790nm,19.0s,baz=164,slow=40						
	comp=Z,44nm,0.8s						
MA2				AML	AML		
MA2	**Magadan**	**4.22**	**284**	*de*PN	**Pn**	**04 37 30.9**	**-0.6**
MA2	**Magadan**	**4.22**	**284**		**Pn**	**04 37 31.5**	**0.0**
MA2	**Magadan**	**4.22**	**284**	*e*P	**Pn**	**04 37 32.0**	**+0.4**
MA2				Pmax		04 37 34.6	
	comp=Z,40nm,0.9s						
MA2				*e*Pg	**Pb**	**04 37 44.3**	**+2.9**
MA2				Pgmax		04 37 51.9	
	comp=Z,350nm,0.6s						
MA2				*e*Sg	**Sg**	**04 38 38.6**	**-4.0**
MA2				Sgmax		04 38 56.4	
	comp=Z,930nm,0.6s						
MA2	**Magadan**	**4.22**	**284**	P	**Pn**	**04 37 31.9**	**+0.4**
MGD	**Magadan 1**	**4.33**	**291**	*e*PN	**Pn**	**04 37 31.8**	**-1.1**
MGD				pmax	pmax		

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      comp=Z,70nm,0.4s
MGD                                pmax    pmax
      comp=Z,90nm,0.6s
MGD   Magadan 1          4.33 291 eP      Pn      04 37 31.8 -1.1
MGD                                Pmax           04 37 34.2
      comp=Z,70nm,0.4s
MGD                               ePg     Pg      04 37 46.9 -3.1
MGD                                Pgmax          04 37 49.3
      comp=Z,90nm,0.6s
MGD                               eSg     Sb      04 38 39.1 +3.7
MGD                                Sgmax          04 38 52.4
      comp=Z,970nm,0.5s
KII   Karymskiy          4.76 176  PN     Pn      04 37 39.5 +0.5
KII   Karymskiy          4.76 176 eP      Pn      04 37 39.6 +0.5
GNL   Ganaly             5.12 186  PN     Pn      04 37 44.9 +1.0
GNL   Ganaly             5.12 186 eP      Pn      04 37 45.0 +1.0
SEY   Seymchan           5.22 326  Pn     Pn      04 37 45.2  0.0
      comp=Z,1.8nm,0.3s,baz=130,slow=12,SNR=21
SEY                                Pg     Pb      04 37 59.9 +1.4
      comp=Z,2.1nm,0.3s,baz=136,slow=20,SNR=11
SEY                                Lg     Lg      04 39 08.9
      comp=Z,7.9nm,0.3s,baz=140,slow=14,SNR=4.1
      comp=Z,4.2nm,0.3s
SEY                                AML    AML
SEY   Seymchan           5.22 326 ePN     Pn      04 37 45.8 +0.5
SEY                                pmax   pmax
      comp=Z,120nm,0.7s
SEY   Seymchan           5.22 326 eP      Pn      04 37 45.3  0.0
SEY                               ePg     Pg      04 38 04.6 -2.5
SEY                                Pgmax          04 38 09.5
      comp=Z,120nm,0.7s
SEY                               eSg     Sg      04 39 11.9 -2.8
SEY                                Sgmax          04 39 30.3
      comp=Z,290nm,0.7s
TLON  Talon              5.30 285 ePg     Pb      04 38 03.8 +3.9
TLON                              eS      Sn      04 38 37.7  -10
TLON                              eSg     Sg      04 39 13.3 -4.1
TLON                               Sgmax          04 39 27.9
      comp=Z,2µm,0.7s
KRX   Arik               5.43 181  PN     Pn      04 37 48.9 +0.6
KRX   Arik               5.43 181 eP      Pn      04 37 48.9 +0.6
KRER  Koryakskii         5.49 180  PN     Pn      04 37 50.4 +1.3
KRER  Koryakskii         5.49 180 eP      Pn      04 37 50.4 +1.3
KOK   Koryaka            5.50 181  PN     Pn      04 37 50.8 +1.7
KOK   Koryaka            5.50 181 eP      Pn      04 37 50.9 +1.7
SDLR  Sedlovina          5.51 180  PN     Pn      04 37 50.9 +1.5
SDLR  Sedlovina          5.51 180 eP      Pn      04 37 50.9 +1.5
AVH   Avacha             5.52 181  PN     Pn      04 37 51.5 +2.0
AVH   Avacha             5.52 181 eP      Pn      04 37 51.5 +2.0
SMAR  Somma              5.53 180  PN     Pn      04 37 51.1 +1.5
SMAR  Somma              5.53 180 eP      Pn      04 37 51.2 +1.5
UGLR  Uglovaya           5.58 180  PN     Pn      04 37 53.0 +2.7
UGLR  Uglovaya           5.58 180 eP      Pn      04 37 53.1 +2.7
PEA0B Petropavlovsk-     5.71 187⇓ePN     Pn      04 37 52.5 +0.4
PEA0B Petropavlovsk-     5.71 187         Pn      04 37 53.2 +1.1
PETK  Petropavlovsk-     5.71 187  Pn     Pn      04 37 52.9 +0.9
      comp=Z,2.9nm,0.3s,baz=38,slow=14,SNR=12
      comp=Z,7.2nm,0.6s
PETK                               AML    AML
SPN   Mys Shipunski      5.73 173  PN     Pn      04 37 50.9 -1.3
SPN   Mys Shipunski      5.73 173 eP      Pn      04 37 50.9 -1.3
PET   Petropavlovsk      5.77 181 dePN    Pn      04 37 53.4 +0.7
PET   Petropavlovsk      5.77 181  Pn     Pn      04 37 53.6 +0.9
APC   Apacha             5.94 190  PN     Pn      04 37 56.8 +1.7
APC   Apacha             5.94 190 eP      Pn      04 37 56.8 +1.7
GRL   Gorelyy            6.25 184  PN     Pn      04 38 02.3 +2.8
GRL   Gorelyy            6.25 184 eP      Pn      04 38 02.4 +2.8
MTVR  Mutnovka           6.32 184  PN     Pn      04 38 03.1 +2.7
MTVR  Mutnovka           6.32 184 eP      Pn      04 38 03.1 +2.7
RUS   Russkaya           6.36 182  PN     Pn      04 38 01.4 +0.6
RUS   Russkaya           6.36 182 eP      Pn      04 38 01.5 +0.6
SUUS  Susuman            6.58 312 ePN     Pn      04 38 04.8 +0.9
SUUS                               pmax   pmax
      comp=Z,20nm,0.7s
SUUS                               pmax   pmax
      comp=Z,80nm,0.7s
SUUS  Susuman            6.58 312 eP      Pn      04 38 04.8 +0.9
SUUS                               Pmax           04 38 07.8
      comp=Z,20nm,0.7s
SUUS                              ePg     Pg      04 38 32.0 -1.1
SUUS                               Pgmax          04 38 36.3
      comp=Z,80nm,0.7s
SUUS                              eSg     Sg      04 39 54.2 -3.9
SUUS                               Sgmax          04 40 12.1
      comp=Z,760nm,0.9s
BILL  Bilibino           9.87  17⇑ePN     Pn      04 38 47.8 -1.1
BILL  Bilibino           9.87  17 eS      Sn      04 41 39.2  +60
BILL                               Sgmax          04 41 57.2
      comp=Z,60nm,1.1s
OKH   Okha              10.28 246 dePN    Pn      04 38 51.9 -2.6
OKH                                MLR    MLR
      comp=N,400nm,14.0s
OKH                                MLR    MLR
      comp=Z,500nm,14.0s
OKH                                MLR    MLR
      comp=E,2µm,15.0s
SHEM  Shemya Is, Ala    10.51 119  LR     LR      04 42 19.5
      comp=E,298nm,21.4s,baz=328,slow=34
YAK   Yakutsk           14.69 295  LR     LR      04 45 52.6
      comp=E,562nm,18.2s,baz=92,slow=38
YAK   Yakutsk           14.69 295 eP      Pn      04 39 56.8 +2.0
YAK                               eS      Sn      04 42 32.3 -5.2
YAK                                pmax   pmax
      comp=Z,23nm,1.1s
YAK                                pmax   pmax
      comp=E,12nm,0.9s
YAK                                pmax   pmax
      comp=N,3.0nm,0.9s
YAK                                pmax   pmax
      comp=Z,41nm,1.0s
YAK                                pmax   pmax
      comp=N,48nm,2.3s
YAK                                pmax   pmax
      comp=E,72nm,2.3s
YAK                                smax   smax
      comp=E,154nm,5.1s
YAK                                smax   smax
      comp=N,21nm,1.5s
YAK                                MLR    MLR
      comp=Z,821nm,25.0s
YAK                                MLR    MLR
      comp=E,428nm,21.0s
YAK                                MLR    MLR
      comp=N,463nm,18.0s
TIXI  Tiksi             17.71 329  P      P       04 40 34.2 -0.2
      comp=N,0.7nm,0.3s,baz=99,slow=14,SNR=2.4
      comp=N,5.1nm,0.7s
TIXI                               AML    AML
TIXI  Tiksi             17.71 329  P      P       04 40 34.2 -0.2
TIXI                               pmax   pmax
      comp=Z,7.0nm,0.9s
KLR   Kul'dur           18.43 251  P      Pn      04 40 43.5 +1.0
      comp=Z,0.3nm,0.3s,baz=50,slow=13,SNR=7.6
KLR                                LR     LR      04 49 04.0
      comp=Z,281nm,18.5s,baz=44,slow=41
      comp=Z,4.0nm,0.8s
KLR                                AML    AML
KLR   Kul'dur           18.43 251 eP      Pn      04 40 43.9 +1.3
KLR                                pmax   pmax
      comp=Z,2.0nm,1.0s
K15K  Wolf Creek Mou    19.59  63         Pn      04 40 57.8 +1.3
UNV   Unalaska Valle    19.70  89         P       04 40 56.5 +0.2
UNV                                IAmb   IAmb    04 41 00.4
      comp=Z,43nm,1.0s
C18K  Utukok River      19.87  44  P      P       04 40 58.4 +0.2
J16K  Anvik River       19.91  60         Pn      04 41 00.6 +0.4
HEH   HeiHe             19.96 258 eP      P       04 40 59.3 +0.1
HEH                                pmax   pmax
      comp=Z,14nm,0.9s
H17K  Granite Mounta    20.11  55         P       04 41 01.4 +0.7
O14K  Tigyukauivet M    20.35  71  P      P       04 41 03.3  0.0
O14K                               IAmb   IAmb    04 41 12.4
      comp=Z,27nm,1.0s
C19K  Lookout Ridge     20.52  43  P      P       04 41 05.4 +0.1
C19K                               IAmb   IAmb    04 41 14.3
      comp=Z,18nm,0.9s
J17K  VABM Dome         20.58  59         P       04 41 06.0 +0.2
J17K                               IAmb   IAmb    04 41 10.3
      comp=Z,40nm,1.3s
G18K  Tagagawik         20.62  52         P       04 41 05.7 -0.6
G18K                               IAmb   IAmb    04 41 10.4
      comp=Z,30nm,1.2s
L16K  Owhat River       20.65  64         P       04 41 06.9 +0.3
N15K  Kwethluk River    20.68  68  P      Pn      04 41 08.9 -0.5
N15K                               IAmb   IAmb    04 41 11.3
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      comp=Z,48nm,1.1s
H18K  Honhosa River     20.75  54  P      P       04 41 07.7 -0.1
H18K                               IAmb   IAmb    04 41 12.1
      comp=Z,45nm,1.4s
D19K  Kuna River        20.97  45  P      P       04 41 10.0  0.0
D19K                               IAmb   IAmb    04 41 17.1
      comp=Z,49nm,1.4s
K17K  Iditarod          21.02  61  IAmb   IAmb    04 41 14.9
      comp=Z,46nm,1.2s
M16K  Timber Creek      21.03  66  IAmb   IAmb    04 41 14.8
      comp=Z,30nm,1.2s
O15K  Ungalikthiuk R    21.08  71         P       04 41 13.2 +1.9
O15K                               IAmb   IAmb    04 41 20.1
      comp=Z,29nm,1.2s
E19K  Redstone River    21.22  48  IAmb   IAmb    04 41 21.7
      comp=Z,19nm,0.9s
B20K  Meade River       21.51  41  IAmb   IAmb    04 41 27.8
      comp=Z,29nm,0.8s
J18K  Innoko River      21.62  59  IAmb   IAmb    04 41 21.0
      comp=Z,30nm,1.2s
M17K  Holitna River     21.66  64  IAmb   IAmb    04 41 25.8
      comp=Z,39nm,1.4s
L18K  Granite Mounta    21.84  62  IAmb   IAmb    04 41 24.4
      comp=Z,30nm,1.4s
USRK  Ussuriysk Ar.     21.97 240  P      P       04 41 22.0 +1.1
      comp=Z,4.9nm,0.8s,baz=46,slow=12,SNR=6.2
USRK                               LR     LR      04 51 11.8
      comp=Z,189nm,18.5s,baz=34,slow=40
      comp=Z,4.9nm,0.8s
N17K  Nushagak Hills    21.99  67  P      P       04 41 23.4 +2.3
N17K                               IAmb   IAmb    04 41 25.5
      comp=Z,30nm,1.5s
J19K  Poorman           22.03  57         P       04 41 23.1 +1.6
J19K                               IAmb   IAmb    04 41 26.0
      comp=Z,23nm,1.4s
IMAR  Indian Mountai    22.62  52  P      P       04 41 27.1 -0.7
J20K  Nowinta River     22.65  56         P       04 41 28.4 +0.3
F21K  Alatna River      22.67  48  IAmb   IAmb    04 41 31.1
      comp=Z,13nm,0.9s
G21K  Allakaket         22.69  50  IAmb   IAmb    04 41 31.1
      comp=Z,15nm,0.8s
K20K  Telida            22.82  58  IAmb   IAmb    04 41 34.0
      comp=Z,17nm,1.2s
B22K  Teshekpuk Lake    22.82  40  IAmb   IAmb    04 41 31.0
      comp=Z,31nm,1.0s
BNX   BinXian           22.98 249 ⇓P      P       04 41 32.3 +0.7
BNX                                pmax   pmax
      comp=Z,10.0nm,1.2s
BOD   Bodaibo           23.24 287 eP      P       04 41 32.7 -1.6
BOD                                pmax   pmax
      comp=Z,26nm,1.7s
H22K  Ishtalitna Cre    23.60  52         P       04 41 37.4 -0.4
H22K                               IAmb   IAmb    04 41 51.5
      comp=Z,21nm,1.5s
C23K  Itkillik River    23.74  42  IAmb   IAmb    04 41 42.4
      comp=Z,17nm,0.8s
PPLA  Purkeypile        23.74  59  IAmb   IAmb    04 42 24.1
      comp=Z,22nm,1.3s
COLD  Coldfoot          23.95  48  IAmb   IAmb    04 41 51.8
      comp=Z,21nm,1.2s
MLY   Manley            23.98  54         P       04 41 40.6 -0.9
MLY                                IAmb   IAmb    04 41 56.4
      comp=Z,16nm,1.2s
KTH   Kantishna Hill    24.17  57  IAmb   IAmb    04 41 47.1
      comp=Z,28nm,1.1s
HILR  Hailar Array B    24.33 265  LR     LR      04 52 27.3
      comp=Z,212nm,18.9s,baz=185,slow=40
D24K  Happy Valley      24.37  43  IAmb   IAmb    04 41 48.1
      comp=Z,15nm,1.1s
E24K  Your Creek        24.54  46  IAmb   IAmb    04 41 50.9
      comp=Z,17nm,0.8s
SUA   Susitna One       24.76  62  IAmb   IAmb    04 41 52.4
      comp=Z,25nm,1.3s
F24K  Squaw Lake        24.81  47  IAmb   IAmb    04 41 53.5
      comp=Z,9.7nm,0.9s
G24K  Hadweenzic Riv    25.07  49  IAmb   IAmb    04 41 56.8
      comp=Z,12nm,1.1s
RND   Reindeer          25.10  57  IAmb   IAmb    04 41 54.8
      comp=Z,13nm,1.2s
KDAK  Kodiak Island     25.13  71  LR     LR      04 51 46.2
      comp=Z,171nm,21.8s,baz=276,slow=37
KDAK  Kodiak Island     25.13  71⇑eP      P       04 41 52.4 +0.5
KDAK                               pmax   pmax
      comp=Z,17nm,1.3s
COLA  College           25.22  53 ceP     P       04 41 52.7 +0.1
COLA                               pmax   pmax
      comp=Z,13nm,1.3s
COLA  College           25.22  53  P      P       04 41 52.2 -0.4
COLA                               IAmb   IAmb    04 42 26.4
      comp=Z,8.3nm,0.6s
COLA  College           25.22  53  P      P       04 41 53.0 +0.3
      comp=Z,12nm,1.3s
CCB   Clear Creek Bu    25.28  54  IAmb   IAmb    04 41 57.9
      comp=Z,14nm,1.3s
E25K  Arctic Village    25.63  46  IAmb   IAmb    04 42 01.7
      comp=Z,15nm,1.0s
IL31                    25.64  54  P      P       04 41 55.5 -1.0
IL31                               IAmb   IAmb    04 41 59.9
      comp=Z,12nm,1.1s
ILAR  Eielson Array     25.64  54  P      P       04 41 55.8 -0.8
      comp=Z,3.4nm,0.7s,baz=274,slow=9.9,SNR=25
ILAR                               LR     LR      04 53 14.8
      comp=Z,168nm,18.4s,baz=1.5,slow=39
      comp=Z,3.4nm,0.7s
HDA   Harding Lake      25.69  54  IAmb   IAmb    04 42 06.2
      comp=Z,8.9nm,1.0s
SML   Sawmill           25.76  61  IAmb   IAmb    04 42 00.2
      comp=Z,11nm,0.9s
DHY   Denali Highway    25.84  57         P       04 41 59.0 +0.5
DHY                                IAmb   IAmb    04 42 03.0
      comp=Z,11nm,0.8s
FYU   Fort Yukon        25.97  49  IAmb   IAmb    04 42 03.5
      comp=Z,23nm,1.1s
MAJO  Matsushiro        26.01 220 ceP     P       04 42 00.2 +0.1
MAJO                               pmax   pmax
      comp=Z,16nm,1.0s
MAJO  Matsushiro        26.01 220  P      P       04 42 01.3 +1.2
      comp=Z,18nm,1.2s
MJAR  Matsushiro Arr    26.01 220  P      P       04 41 59.9 -0.2
      comp=Z,13nm,0.9s,baz=14,slow=9.3,SNR=18
MJAR                               LR     LR      04 52 20.3
      comp=Z,110nm,19.5s,baz=33,slow=37
      comp=Z,13nm,0.9s
MJAR  Matsushiro Arr    26.01 220  P      P       04 41 59.2 -0.9
MJAR                               pmax   pmax
      comp=Z,4.0nm,0.9s
MJAR  Matsushiro Arr    26.01 220  P      P       04 41 59.2 -0.9
PRP   Porcupine Dome    26.05  52  IAmb   IAmb    04 42 04.4
      comp=Z,14nm,0.9s
SCM   Sheep Creek Mo    26.21  60  IAmb   IAmb    04 42 19.7
      comp=Z,19nm,0.9s
RIDG  Independent Ri    26.75  55  IAmb   IAmb    04 42 11.3
      comp=Z,11nm,1.0s
SCRK  Sand Creek        27.06  55  IAmb   IAmb    04 42 10.8
      comp=Z,13nm,1.4s
E28M  Babbage River     27.77  44  IAmb   IAmb    04 42 21.2
      comp=Z,9.2nm,1.1s
M26K  Nabesna, AK       27.96  58  IAmb   IAmb    04 42 31.5
      comp=Z,7.2nm,1.0s
L27K  Beaver Creek,     28.25  56  IAmb   IAmb    04 42 22.4
      comp=Z,9.5nm,1.4s
BCAR  Beaver Creek A    28.27  56         P       04 42 19.4 -0.8
I28M  Miner Creek       28.33  51  IAmb   IAmb    04 42 25.1
      comp=Z,9.4nm,1.2s
KSRS  Korea Array       29.23 237  P      P       04 42 29.1 +0.2
      comp=Z,2.7nm,0.8s,baz=27,slow=9.0,SNR=7.5
KSRS                               LR     LR      04 53 40.4
      comp=Z,70nm,18.5s,baz=50,slow=35
      comp=Z,2.7nm,0.8s
F30M  Barrier River     29.36  45  IAmb   IAmb    04 42 33.6
      comp=Z,15nm,1.1s
INK   Inuvik            30.00  43  P      P       04 42 34.5 -0.9
      comp=Z,1.7nm,0.8s,baz=338,slow=10,SNR=5.6
      comp=Z,1.7nm,0.8s
JNU   Nakatsue          31.74 228  LR     LR      04 55 10.0
      comp=Z,98nm,18.1s,baz=76,slow=35
ULN   Ulaanbaatar       31.99 273⇑eP      P       04 42 54.7 +1.3
ULN                                pmax   pmax
      comp=Z,5.0nm,1.1s
SONM  Songino Array     32.35 274  P      P       04 42 56.8 +0.3
      comp=Z,1.6nm,0.8s,baz=60,slow=8.7,SNR=6.5
SONM                               LR     LR      04 56 39.3
      comp=Z,214nm,19.2s,baz=70,slow=38
      comp=Z,1.6nm,0.8s
SONM  Songino Array     32.35 274  IAmb   IAmb    04 43 01.5
      comp=Z,2.1nm,1.0s
Q32M  Nakina River      34.19  59  IAmb   IAmb    04 43 17.1
      comp=Z,5.8nm,0.9s
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HHC   Hu-ho-hao-te      34.47 260 eP      P       04 43 15.8 +0.7
HHC                                pmax   pmax
      comp=Z,6.0nm,0.6s
HHC                                pmax   pmax
      comp=Z,120nm,4.8s
R33M  Jennings River    34.55  58  IAmb   IAmb    04 43 20.2
      comp=Z,10nm,1.3s
TIA   Tai'an            35.25 249  P      P       04 43 22.3 +0.6
DLBC  Dease Lake        35.46  59  LR     LR      04 58 40.8
      comp=Z,164nm,18.0s,baz=268,slow=38
T35M  Bob Quinn         36.15  61  IAmb   IAmb    04 43 40.6
      comp=Z,8.8nm,1.0s
NJ2   Nanjing           37.83 243 eP      P       04 43 42.6 -1.1
NJ2                                pmax   pmax
      comp=Z,25nm,0.5s
ZALV  Zalesovo Beam     39.34 296  LR     LR      05 02 11.5
      comp=Z,55nm,20.5s,baz=51,slow=39
YKA   Yellowknife Ar    39.61  47  P      P       04 43 57.0 -1.3
      comp=Z,2.0nm,0.8s,baz=306,slow=8.1,SNR=7.5
      comp=Z,2.0nm,0.8s
BBB   Bella Bella       40.00  66  LR     LR      05 01 31.8
      comp=Z,93nm,18.5s,baz=260,slow=38
KBS   Kingsbay          41.14 351⇑eP      P       04 44 12.1 +1.3
KBS                                pmax   pmax
      comp=Z,10.0nm,0.9s
SPITS Spitsbergen Ar    41.40 349  P      P       04 44 13.0  0.0
      comp=Z,14nm,0.9s,baz=8.9,slow=10,SNR=3.0
      comp=Z,14nm,0.9s
SPITS Spitsbergen Ar    41.40 349  P      P       04 44 13.0  0.0
GTA2  Gaotai            41.59 269 eP      P       04 44 16.2 +1.1
GTA2                               pmax   pmax
      comp=Z,4.0nm,1.1s
GTA2                               LR     LR
      comp=N,240nm,15.5s
GTA2                               LR     LR
      comp=E,260nm,14.6s
GTA2                               LR     LR
      comp=Z,370nm,17.8s
KURK  Kurchatov         44.33 296 ceP     P       04 44 37.0  0.0
KURK                               pmax   pmax
      comp=Z,41nm,1.7s
KURK  Kurchatov         44.33 296  P      P       04 44 38.4 +1.4
KURK  Kurchatov         44.33 296  P      P       04 44 37.5 +0.5
      comp=Z,24nm,1.1s
KURBB Kurchatov Arra    44.44 296  P      P       04 44 38.4 +0.6
      comp=Z,11nm,0.8s,baz=50,slow=8.3,SNR=82
KURBB                              LR     LR      05 03 34.8
      comp=Z,65nm,20.4s,baz=184,slow=37
      comp=Z,11nm,0.8s
WMQ   Urumqi            44.69 283 eP      P       04 44 43.1 +3.1
WMQ                                pmax   pmax
      comp=Z,18nm,0.7s
WMQ                                LR     LR
      comp=Z,69nm,17.9s
MK31  Makanchi Array    45.28 290 deP     P       04 44 44.2 -0.5
MKAR  Makanchi Array    45.28 290  P      P       04 44 44.5 -0.1
      comp=Z,1.8nm,0.8s,baz=60,slow=7.2,SNR=12
MKAR                               LR     LR      05 04 28.9
      comp=Z,115nm,20.3s,baz=334,slow=37
      comp=Z,1.8nm,0.8s
MAKZ  Makanchi          45.43 290  P      P       04 44 44.6 -1.2
      comp=Z,5.9nm,1.3s
EDM   Edmonton          46.06  57  P      P       04 44 53.2 +2.4
EDM                                pmax   pmax
      comp=Z,12nm,0.9s
EDM   Edmonton          46.06  57         P       04 44 53.2 +2.4
BVAR  Borovoye Array    46.46 304  P      P       04 44 53.8  0.0
      comp=Z,6.3nm,0.7s,baz=60,slow=8.8,SNR=23
      comp=Z,6.3nm,0.7s
BORK  Borovoye          46.47 304 deP     P       04 44 54.1 +0.2
BORK                               pmax   pmax
      comp=Z,9.0nm,0.9s
BORK  Borovoye          46.47 304         P       04 44 53.8 -0.1
BORK                               IAmb   IAmb    04 44 55.1
      comp=Z,7.8nm,0.8s
B08A  Colville Reser    46.74  65         P       04 44 57.5 +1.3
B08A                               IAmb   IAmb    04 44 58.8
      comp=Z,3.4nm,0.9s
WAH2  Wahluke Slope     47.77  67  IAmb   IAmb    04 45 06.7
      comp=Z,5.3nm,0.8s
NEW   Newport           47.85  64  LR     LR      05 04 55.0
      comp=Z,85nm,20.6s,baz=314,slow=36
E09A  Wood Farm, Sta    48.63  66  IAmb   IAmb    04 45 14.6
      comp=Z,11nm,1.4s
ARTI  Arti              48.93 313  LR     LR      05 09 23.2
      comp=Z,77nm,21.4s,baz=72,slow=40
ARTI  Arti              48.93 313 c iP    P       04 45 13.2 +0.2
ARTI                                              04 46 34.8
ARTI                               S      S       04 52 16.9 +0.5
ARTI                               SS     SS      04 55 39.5 -6.9
ARTI                               pmax   pmax
      comp=Z,9.0nm,0.9s
ARTI  Arti              48.93 313  P      P       04 45 12.6 -0.4
PINE  Pine Mountain     49.26  70  IAmb   IAmb    04 45 45.2
      comp=Z,7.5nm,1.1s
F10A  Beach Ranch, E    49.46  66  IAmb   IAmb    04 45 30.6
      comp=Z,6.3nm,1.3s
YBH   Yreka Blue Hor    49.91  73  LR     LR      05 03 31.0
      comp=Z,73nm,21.6s,baz=318,slow=33
YBH   Yreka Blue Hor    49.91  73  P      P       04 45 22.2 +1.4
YBH                                pmax   pmax
      comp=Z,2.0nm,1.0s
YBH   Yreka Blue Hor    49.91  73  P      P       04 45 22.2 +1.4
BMO   Blue Mountains    50.24  67  IAmb   IAmb    04 45 27.6
      comp=Z,10nm,1.4s
KIRV  Kirov             50.47 320⇑eP      P       04 45 25.2 +0.6
PZH   PanZhiHua         50.76 256  P      P       04 45 27.2 -0.2
WVOR  Wild Horse Val    51.40  70  P      P       04 45 34.7 +2.7
O03E  Paynes Creek      51.44  74  IAmb   IAmb    04 45 35.7
      comp=Z,15nm,1.4s
KLMR  Klimovskoe        51.72 327 eP      P       04 45 32.2 -1.8
KLMR                               pmax   pmax
      comp=Z,11nm,1.0s
AAK   Ala-Archa         52.11 292  P      P       04 45 37.9 +0.5
AAK                                pmax   pmax
      comp=Z,7.0nm,1.0s
AAK   Ala-Archa         52.11 292  P      P       04 45 37.9 +0.5
AAK                                IAmb   IAmb    04 45 39.2
      comp=Z,6.7nm,0.9s
AAK   Ala-Archa         52.11 292  P      P       04 45 38.6 +1.2
      comp=Z,7.7nm,1.4s
FRB   Frobisher Bay     52.58  24  P      P       04 45 42.8 +2.5
FRB   Frobisher Bay     52.58  24  P      P       04 45 42.8 +2.5
PNTR  Pine Nut          53.46  73  IAmb   IAmb    04 45 51.7
      comp=Z,5.0nm,0.8s
YNE   Yellowstone No    53.55  62  IAmb   IAmb    04 45 52.7
      comp=Z,4.5nm,1.0s
AKTO  Aktyubinsk        53.57 309  LR     LR      05 11 11.5
      comp=Z,111nm,20.2s,baz=60,slow=39
KK31  Karatay Array     53.67 295  P      P       04 45 49.1 +0.4
KK31                               pmax   pmax
      comp=Z,10.0nm,1.0s
KK31  Karatay Array     53.67 295  P      P       04 45 49.1 +0.4
KK31                               IAmb   IAmb    04 45 50.0
      comp=Z,9.9nm,0.9s
KKAR  Karatay Array     53.67 295  P      P       04 45 48.7  0.0
KKAR  Karatay Array     53.67 295  P      P       04 45 48.7  0.0
AB31  Akbulak array     53.69 307  IAmb   IAmb    04 45 49.9
      comp=Z,3.5nm,0.8s
ABKAR Akbulak array     53.69 307  P      P       04 45 49.2 +0.5
YERR  Yerington         53.72  73  IAmb   IAmb    04 45 53.5
      comp=Z,7.4nm,1.3s
H17A  Grant Village     53.76  63  IAmb   IAmb    04 45 56.4
      comp=Z,11nm,1.5s
RLMT  Red Lodge         53.81  61  IAmb   IAmb    04 45 53.5
      comp=Z,7.8nm,1.1s
WAKR  Walker            53.99  74  IAmb   IAmb    04 46 27.1
      comp=Z,6.8nm,1.4s
KSH2  Kashi             54.25 288  P      P       04 45 54.3 +1.2
KSH2                               pmax   pmax
      comp=Z,6.0nm,1.0s
KSH2                               LR     LR
      comp=N,190nm,12.2s
KSH2                               LR     LR
      comp=E,220nm,12.4s
KSH2                               LR     LR
      comp=Z,180nm,13.0s
ELK   Elko              54.34  69  IAmb   IAmb    04 45 57.5
      comp=Z,5.0nm,1.2s
TRKS  Terek-Say         54.57 293  P      P       04 45 55.5  0.0
NVAR  Mina Array Bea    54.61  73  P      P       04 45 54.9 -0.9
      comp=Z,0.7nm,0.6s,baz=312,slow=7.3,SNR=9.4
NVAR                               LR     LR      05 06 26.7
      comp=Z,69nm,21.9s,baz=278,slow=33
      comp=Z,0.7nm,0.6s
NVAR  Mina Array Bea    54.61  73  P      P       04 45 57.7 +1.8
FINES FINESS Array B    54.64 334  P      P       04 45 54.7 -0.8
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Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
	comp=Z,3.8nm,0.8s,baz=38,slow=9.6,SNR=9.4						
FINES				LR	LR	05 12 13.2	
	comp=Z,40nm,18.1s,baz=44,slow=39						
	comp=Z,3.8nm,0.8s						
FINES	FINESS Array B	54.64	334	i P	P	04 45 55.0	-0.4
FINES				pmax	pmax		
	comp=Z,4.0nm,0.8s						
LHV	Little Huntoon	54.65	73	IAmb	IAmb	04 46 00.8	
	comp=Z,11nm,1.3s						
MDPB	Devils Postpil	54.84	74	IAmb	IAmb	04 46 05.8	
	comp=Z,4.9nm,1.1s						
TPH	Tonopah	55.43	72	IAmb	IAmb	04 46 05.0	
	comp=Z,6.0nm,1.1s						
HWUT	Hardware Ranch	55.44	66	IAmb	IAmb	04 46 06.9	
	comp=Z,9.8nm,1.4s						
HWUT	Hardware Ranch	55.44	66	P	P	04 46 02.8	+1.0
	comp=Z,5.9nm,1.5s						
PDAR	Pinedale Array	55.48	63	P	P	04 46 01.4	-0.8
	comp=Z,1.3nm,0.7s,baz=345,slow=3.1,SNR=17						
PDAR				LR	LR	05 11 35.6	
	comp=Z,38nm,20.3s,baz=338,slow=38						
	comp=Z,1.3nm,0.7s						
PDAR	Pinedale Array	55.48	63	P	P	04 46 02.4	+0.2
ULM	Lac du Bonnet	55.52	49	LR	LR	05 10 14.8	
	comp=Z,68nm,19.9s,baz=346,slow=37						
ULM	Lac du Bonnet	55.52	49	⇑eP	P	04 46 03.1	+1.1
BTK	Batken	55.87	292	P	P	04 46 05.6	+0.8
BTK	Batken	55.87	292	P	P	04 46 05.6	+0.8
	comp=Z,13nm,1.7s						
DUG	Dugway, Tooele	55.94	68	P	P	04 46 08.2	+2.9
DUG	Dugway, Tooele	55.94	68	IAmb	IAmb	04 46 08.9	
	comp=Z,5.0nm,1.1s						
DUG	Dugway, Tooele	55.94	68	P	P	04 46 08.2	+2.9
	comp=Z,4.7nm,1.5s						
BELG	Belogornoye	56.01	316	c iP	P	04 46 05.0	-0.4
BELG				pmax	pmax		
	comp=Z,5.0nm,0.9s						
NLU	North Lily Min	56.48	67	IAmb	IAmb	04 46 18.8	
	comp=Z,5.1nm,1.2s						
TPNV	Topopah Spring	56.79	73	IAmb	IAmb	04 46 15.7	
	comp=Z,4.7nm,1.1s						
FURC	Furnace Creek,	56.86	73	IAmb	IAmb	04 46 16.3	
	comp=Z,11nm,1.3s						
RSSD	Black Hills	56.94	59	P	P	04 46 14.9	+2.4
RSSD				pmax	pmax		
	comp=Z,4.0nm,0.8s						
RSSD	Black Hills	56.94	59	P	P	04 46 14.9	+2.4
RSSD				IAmb	IAmb	04 46 15.5	
	comp=Z,4.0nm,0.8s						
RSSD	Black Hills	56.94	59	P	P	04 46 15.0	+2.4
	comp=Z,7.4nm,1.6s						
K22A	Casper	56.97	61	IAmb	IAmb	04 46 16.3	
	comp=Z,3.9nm,0.9s						
PRN	Pahroc Range	57.02	71	IAmb	IAmb	04 46 16.9	
	comp=Z,7.0nm,1.2s						
AGMN	Agassiz Nation	57.08	50	P	P	04 46 14.5	+1.3
	comp=Z,4.7nm,1.3s						
GWY	Greenwater Val	57.18	73	IAmb	IAmb	04 46 18.4	
	comp=Z,6.6nm,1.2s						
OBN	Obninsk	57.39	325	deP	P	04 46 13.9	-1.3
OBN				e*PP	pP	04 46 15.9	-2.4
OBN				e		04 47 07.6	
OBN				e		04 48 23.7	
OBN				eS	S	04 54 12.2	+0.8
OBN				pmax	pmax		
	comp=Z,7.0nm,0.5s						
OBN				MLR	MLR		
	comp=Z,53nm,14.0s						
TMUT	Trail Mountain	57.41	67	IAmb	IAmb	04 46 19.6	
	comp=Z,4.7nm,1.0s						
P17A	Butcher Ranch,	57.50	67	IAmb	IAmb	04 46 19.9	
	comp=Z,4.3nm,1.1s						
P18A	Preston Nutter	57.61	66	IAmb	IAmb	04 46 31.1	
	comp=Z,5.2nm,1.0s						
Q16A	Castle Valley	57.73	67	IAmb	IAmb	04 46 21.9	
	comp=Z,4.7nm,1.0s						
SRU	San Rafael Swe	57.88	67	IAmb	IAmb	04 46 22.8	
	comp=Z,5.0nm,0.9s						
NB2	NORSAR Subarra	57.89	342	P	P	04 46 17.8	-0.9
	comp=Z,0.9nm,0.6s,baz=19,slow=7.4						
NOA	NORSAR Array B	57.89	342	P	P	04 46 17.9	-0.8
	comp=Z,2.3nm,0.8s,baz=20,slow=7.0,SNR=6.3						
	comp=Z,2.3nm,0.8s						
O20A	White River Ci	58.16	64	IAmb	IAmb	04 46 24.4	
	comp=Z,7.5nm,0.9s						
KNB	Kanab	58.42	70	IAmb	IAmb	04 46 31.6	
	comp=Z,9.3nm,1.4s						
LPSR	Galich'ya Gora	58.80	322	eP	P	04 46 25.3	+0.2
LPSR				pmax	pmax		
	comp=Z,11nm,0.8s						
CMAR	Chiang Mai Arr	58.88	254	P	P	04 46 26.2	0.0
	comp=Z,0.7nm,0.4s,baz=13,slow=6.2,SNR=5.6						
	comp=Z,0.7nm,0.4s						
CMAR	Chiang Mai Arr	58.88	254	i P	P	04 46 26.8	+0.7
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
VRH	Novokhopyorsk	59.05	319	eP	P	04 46 26.7	-0.2
VRH				pmax	pmax		
	comp=Z,13nm,1.0s						
PV21	Cone Mtn., Par	59.06	66	IAmb	IAmb	04 46 30.7	
	comp=Z,4.0nm,0.8s						
U15A	North Rim	59.15	70	IAmb	IAmb	04 46 32.5	
	comp=Z,8.3nm,1.3s						
PFO	Pinyon Flats O	59.32	75	LR	LR	05 11 29.0	
	comp=Z,56nm,18.6s,baz=302,slow=36						
PFO	Pinyon Flats O	59.32	75	⇑eP	P	04 46 27.9	-1.3
PV03	Paradox Valley	59.36	66	IAmb	IAmb	04 46 39.0	
	comp=Z,5.1nm,0.9s						
VORR	Voronezh	59.50	321	P	P	04 46 31.6	+1.7
VORR				pmax	pmax		
	comp=Z,8.0nm,0.4s						
IRM	Iron Mountain	59.54	74	IAmb	IAmb	04 46 35.7	
	comp=Z,9.1nm,1.3s						
PV01	Paradox Valley	59.59	66	IAmb	IAmb	04 46 51.9	
	comp=Z,8.6nm,1.4s						
ISCO	Idaho Springs	59.65	63	P	P	04 46 32.3	+0.7
ISCO	Idaho Springs	59.65	63	IAmb	IAmb	04 46 37.0	
	comp=Z,3.9nm,1.1s						
ISCO	Idaho Springs	59.65	63	P	P	04 46 32.3	+0.7
	comp=Z,4.8nm,1.6s						
NIL	Nilore	59.71	286	P	P	04 46 31.5	-0.2
NIL				pmax	pmax		
	comp=Z,11nm,0.8s						
NIL	Nilore	59.71	286	P	P	04 46 31.5	-0.2
VSR	Storozhevoye	59.90	321	eP	P	04 46 33.0	+0.3
VSR				pmax	pmax		
	comp=Z,12nm,0.9s						
WUAZ	Wupatki	60.32	70	P	P	04 46 38.4	+2.3
WUAZ				IAmb	IAmb	04 46 40.0	
	comp=Z,7.0nm,1.1s						
ECSD	EROS Data Cent	60.46	54	P	P	04 46 35.9	-0.8
ECSD				IAmb	IAmb	04 46 39.0	
	comp=Z,4.8nm,0.8s						
ECSD	EROS Data Cent	60.46	54	P	P	04 46 35.7	-1.0
	comp=Z,8.7nm,1.4s						
PABE	Paberze	60.46	332	P	P	04 46 36.3	-0.2
	comp=Z,23nm,0.9s						
S22A	4UR Ranch, Cre	60.73	65	IAmb	IAmb	04 46 44.5	
	comp=Z,8.7nm,1.3s						
KBL	Kabul	61.09	289	P	P	04 46 40.1	-1.3
KBL	Kabul	61.09	289	P	P	04 46 40.1	-1.3
	comp=Z,8.9nm,1.0s						
X16A	Lo Mia Camp, P	61.17	71	IAmb	IAmb	04 46 46.0	
	comp=Z,3.8nm,1.1s						
SDCO	Great Sand Dun	61.35	64	IAmb	IAmb	04 46 47.5	
	comp=Z,6.7nm,1.4s						
T25A	Trinidad	62.35	64	IAmb	IAmb	04 46 53.9	
	comp=Z,5.3nm,1.1s						
ANMO	Albuquerque	63.16	67	LR	LR	05 16 20.3	
	comp=Z,68nm,18.7s,baz=338,slow=38						
ANMO	Albuquerque	63.16	67	⇑eP	P	04 46 58.0	+2.7
ANMO				pmax	pmax		
	comp=Z,3.0nm,1.2s						
ALQ	Albuquerque	63.16	67	IAmb	IAmb	04 47 02.9	
	comp=Z,3.1nm,1.1s						
TUC	Tucson	63.19	72	P	P	04 46 54.5	-0.9
TUC	Tucson	63.19	72	P	P	04 46 54.5	-0.9
	comp=Z,2.8nm,2.2s						
AKASG	Malin Array Be	63.41	327	P	P	04 46 55.8	-0.6
	comp=Z,4.3nm,0.8s,baz=30,slow=6.8,SNR=14						
	comp=Z,4.3nm,0.8s						
AKASG	Malin Array Be	63.41	327	i P	P	04 46 55.7	-0.6
AKASG				pmax	pmax		
	comp=Z,5.0nm,0.8s						
AKASG	Malin Array Be	63.41	327	IAmb	IAmb	04 46 58.4	
	comp=Z,2.2nm,1.1s						
AKBB	Malin Array Si	63.41	327	deP	P	04 46 55.9	-0.5
AKBB	Malin Array Si	63.41	327		P	04 46 55.8	-0.5
KIEV	Kiev	63.42	327	P	P	04 46 55.7	-0.7
KIEV				pmax	pmax		
	comp=Z,6.0nm,1.0s						
KIEV	Kiev	63.42	327	P	P	04 46 55.7	-0.7
KIEV				IAmb	IAmb	04 46 56.7	
	comp=Z,6.2nm,0.9s						
KIEV	Kiev	63.42	327	P	P	04 46 56.0	-0.5
	comp=Z,8.0nm,1.1s						
KIV	Kislovodsk	64.87	314	eP	P	04 47 07.0	+0.8
KIV				pmax	pmax		
	comp=Z,6.0nm,1.1s						
KBZ	Khabaz	64.98	314	P	P	04 47 06.6	-0.2
	comp=Z,6.1nm,0.9s,baz=86,slow=5.9,SNR=12						
KBZ				LR	LR	05 20 06.3	
	comp=Z,61nm,18.0s,baz=28,slow=40						
	comp=Z,6.1nm,0.9s						
KBZ	Khabaz	64.98	314	ceP	P	04 47 07.7	+0.9
KBZ				pmax	pmax		
	comp=Z,7.0nm,0.9s						
AKT	Akhty	65.01	309	eP	P	04 47 06.9	-0.3
AKT				e		04 47 40.3	
AKT				e		04 49 30.7	
AKT				eS	S	04 55 49.5	+0.4
AKT				pmax	pmax		
	comp=Z,18nm,1.4s						
SHA1	Shidzhatmaz	65.06	314	ceP	P	04 47 08.3	+0.6
EKA	Eskdalemuir Ar	65.33	349	P	P	04 47 08.3	-0.6
	comp=Z,3.8nm,0.9s,baz=10,slow=5.9,SNR=6.0						
	comp=Z,3.8nm,0.9s						
VSLR	Vesyoloye	66.27	316	⇑eP	P	04 47 13.7	-1.5
VSLR				pmax	pmax		
	comp=Z,11nm,0.9s						
OJC	Ojcow	66.33	333	P	P	04 47 16.3	+0.8
OJC	Ojcow	66.33	333		P	04 47 16.3	+0.8
OJC	Ojcow	66.33	333	P	P	04 47 16.4	+1.0
	comp=Z,14nm,1.4s						
MNTX	Cornudas Mount	66.33	68	IAmb	IAmb	04 47 23.1	
	comp=Z,4.3nm,1.2s						
MNTX	Cornudas Mount	66.33	68	P	P	04 47 17.1	+1.3
	comp=Z,5.8nm,1.8s						
CLZ	Clausthal	66.79	339	P	P	04 47 18.5	+0.1
	comp=Z,9.5nm,1.6s						
CLL	Collm	66.80	337	i P	P	04 47 18.0	-0.4
CLL				pmax	pmax		
	comp=Z,7.0nm,0.9s						
CLL	Collm	66.80	337	i P	P	04 47 18.0	-0.4
	comp=Z,7.0nm,0.9s						
KOLS	Kolonicke sedl	66.90	330	P	P	04 47 19.7	+0.6
	comp=Z,4.6nm,0.5s						
WMOK	Wichita Mounta	66.92	61	P	P	04 47 19.8	+0.3
WMOK	Wichita Mounta	66.92	61	P	P	04 47 19.8	+0.3
	comp=Z,16nm,1.1s						
DPC	Dobruska-Polom	67.00	335	P	P	04 47 20.0	+0.2
DPC	Dobruska-Polom	67.00	335	P	P	04 47 20.0	+0.2
	comp=Z,4.9nm,1.0s						
KRLC	Kraliky	67.16	335	P	P	04 47 21.5	+0.7
KRLC	Kraliky	67.16	335	P	P	04 47 21.5	+0.7
	comp=Z,8.3nm,1.4s						
MORC	Moravsky Berou	67.27	334	P	P	04 47 22.6	+1.1
MORC	Moravsky Berou	67.27	334	eP	P	04 47 21.5	0.0
MORC	Moravsky Berou	67.27	334	P	P	04 47 22.6	+1.1
	comp=Z,7.0nm,1.2s						
BUR08	Bucovina Ar. S	67.30	328	IAmb	IAmb	04 47 24.6	
	comp=Z,2.5nm,0.8s						
PECS	Pecos	67.33	67	IAmb	IAmb	04 47 26.5	
	comp=Z,4.7nm,1.1s						
GNI	Garni	67.34	311	LR	LR	05 21 52.7	
	comp=Z,76nm,18.8s,baz=40,slow=40						
HSKC	Hora Svate Kat	67.38	337	P	P	04 47 22.3	+0.2
	comp=Z,7.2nm,2.0s						
U38A	Gravette	67.45	57		P	04 47 22.2	-0.6
APMT	Aspermont	67.47	63	IAmb	IAmb	04 47 25.1	
	comp=Z,5.8nm,1.0s						
TRPA	Tarpa	67.57	330	P	P	04 47 24.5	+1.1
	comp=Z,12nm,1.2s						
DSB	Dublin	67.69	350	P	P	04 47 25.3	+1.2
	comp=Z,38nm,2.4s						
VRAC	Vranov	67.92	334	P	P	04 47 26.2	+0.6
VRAC	Vranov	67.92	334	P	P	04 47 26.2	+0.6
	comp=Z,2.7nm,1.1s						
TESR	Tescani	67.93	326	P	P	04 47 25.4	-0.2
	comp=Z,14nm,1.0s						
JAVC	Velka Javorina	68.10	333	P	P	04 47 28.6	+1.8
	comp=Z,11nm,1.2s						
TREC	Trest	68.18	335	P	P	04 47 27.5	+0.3
TREC	Trest	68.18	335	P	P	04 47 27.5	+0.3
	comp=Z,6.1nm,2.4s						
KRUC	Moravsky	68.20	334	P	P	04 47 27.9	+0.6
KRUC	Moravsky	68.20	334	eP	P	04 47 27.2	-0.1
KRUC	Moravsky	68.20	334	P	P	04 47 27.9	+0.6
	comp=Z,6.7nm,1.3s						
T42A	Van Buren	68.37	54	IAmb	IAmb	04 47 30.1	
	comp=Z,5.3nm,0.9s						
PSZ	Piszkesteto	68.44	332	P	P	04 47 29.4	+0.5
PSZ	Piszkesteto	68.44	332	P	P	04 47 29.4	+0.5
	comp=Z,10nm,1.0s						
PMG	Port Moresby	68.60	192	LR	LR	05 13 09.0	
	comp=Z,296nm,21.2s,baz=296,slow=32						
KHC	Kasperske Hory	68.75	336	deP	P	04 47 31.5	+0.8
KHC				pmax	pmax		
	comp=Z,8.0nm,1.7s						
KHC	Kasperske Hory	68.75	336	P	P	04 47 31.6	+0.8
	comp=Z,4.6nm,1.3s						
DRGR		68.76	329	P	P	04 47 31.1	+0.1
DRGR		68.76	329	P	P	04 47 31.1	+0.1
	comp=Z,3.7nm,1.1s						
GRB4	Grafenberg Arr	68.83	338	P	P	04 47 31.6	+0.3
	comp=Z,12nm,0.8s						
FCAR	Ozark Folk Cen	68.90	55	IAmb	IAmb	04 47 33.1	
	comp=Z,4.8nm,0.9s						
GEC2	GERESS Array S	68.99	336	P	P	04 47 32.6	+0.2
	comp=Z,4.5nm,1.3s						
GERES	GERESS Array B	68.99	336	P	P	04 47 32.2	-0.2
	comp=Z,0.9nm,0.4s,baz=24,slow=3.6,SNR=11						
	comp=Z,0.9nm,0.4s						
KOPT	Kop Dagi	69.09	314	P	P	04 47 35.0	+1.6
TX31	Lajitas Ar. Si	69.11	68	IAmb	IAmb	04 47 36.9	
	comp=Z,6.5nm,1.4s						
TXAR	Lajitas Array	69.11	68	P	P	04 47 33.5	+0.1
	comp=Z,1.6nm,1.0s,baz=305,slow=4.4,SNR=12						
TXAR				LR	LR	05 18 00.7	
	comp=Z,72nm,19.7s,baz=318,slow=36						
	comp=Z,1.6nm,1.0s						
BMRD	Maredsous	69.23	343	dP	P	04 47 32.3	-1.4
	comp=Z,4.5nm,1.0s						
SAND	Sanderson	69.34	66	IAmb	IAmb	04 47 37.4	
	comp=Z,4.5nm,1.1s						
KELT	Kelkit	69.44	315	P	P	04 47 36.7	+1.2
	comp=Z,39nm,1.1s						
ARR	Arges	69.55	327	P	P	04 47 36.8	+0.9
	comp=Z,2.9nm,2.5s						
BRDY	Brady	69.70	63	IAmb	IAmb	04 47 40.9	
	comp=Z,5.0nm,1.3s						
X40A	Basin Creek Fa	69.78	57	IAmb	IAmb	04 47 40.1	
	comp=Z,5.0nm,1.0s						
RJOB	Jochberg	70.23	336	P	P	04 47 40.3	+0.3
	comp=Z,3.7nm,0.8s						
WVT	Waverly	70.49	52	P	P	04 47 40.9	-0.8
WVT				pmax	pmax		
	comp=Z,5.0nm,0.7s						
WVT	Waverly	70.49	52	P	P	04 47 40.9	-0.8
WVT				IAmb	IAmb	04 47 43.7	
	comp=Z,4.8nm,0.7s						
WVT	Waverly	70.49	52	P	P	04 47 40.8	-0.9
OBKA	Obir	71.02	335	P	P	04 47 44.5	-0.4
	comp=Z,19nm,1.2s						
BRTR	Keskin Array B	71.83	318	P	P	04 47 50.3	+0.3
	comp=Z,1.0nm,0.9s,baz=33,slow=2.9,SNR=5.7						
	comp=Z,1.0nm,0.9s						
BRTR	Keskin Array B	71.83	318	i P	P	04 47 50.7	+0.8
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
SWET	Sewanee	72.06	51	IAmb	IAmb	04 47 52.4	
	comp=Z,5.3nm,0.8s						
LOR	Lormes	72.33	342	P	P	04 47 51.7	-0.9
LOR	Lormes	72.33	342	P	P	04 47 51.7	-0.9
	comp=Z,10nm,1.1s						
TKL	Tuckaleechee C	72.54	49	LR	LR	05 23 22.8	
	comp=Z,81nm,18.5s,baz=344,slow=39						
KMSC	Kings Mountain	73.94	48	IAmb	IAmb	04 48 03.7	
	comp=Z,7.3nm,1.0s						
ISO	Isola	74.77	339	P	P	04 48 07.3	+0.2
ISO	Isola	74.77	339	P	P	04 48 07.3	+0.2
	comp=Z,4.6nm,1.6s						
ESDC	Sonseca Array	80.87	347	P	P	04 48 40.9	-0.3
	comp=Z,1.5nm,0.8s,baz=6.6,slow=5.5,SNR=10.0						
	comp=Z,1.5nm,0.8s						
ESDC	Sonseca Array	80.87	347	IAmb	IAmb	04 49 00.6	
	comp=Z,8.0nm,1.4s						
WRA	Warramunga Arr	80.99	203	P	P	04 48 41.2	-0.5
	comp=Z,1.6nm,0.8s,baz=13,slow=5.8,SNR=12						
	comp=Z,1.6nm,0.8s						
WRA	Warramunga Arr	80.99	203	IAmb	IAmb	04 48 43.0	
	comp=Z,0.3nm,1.2s						
RAYN	Ar Rayn	81.40	302	P	P	04 48 42.9	-1.3
RAYN				pmax	pmax		
	comp=Z,2.0nm,0.8s						
RAYN	Ar Rayn	81.40	302	P	P	04 48 42.9	-1.3
CMIG	Matias Romero	83.71	67	LR	LR	05 26 04.7	
	comp=Z,22nm,21.3s,baz=350,slow=36						
ASAR	Alice Springs	84.69	203	P	P	04 49 00.6	-0.3
	comp=Z,2.2nm,0.6s,baz=13,slow=5.4,SNR=12						
STKA	Stephens Creek	91.45	195	P	P	04 49 32.5	-0.6
	comp=Z,2.0nm,0.6s,baz=32,slow=9.5,SNR=3.0						
	comp=Z,2.0nm,0.6s						
JTS	Las Juntas de	94.31	62	LR	LR	05 36 28.1	
	comp=Z,19nm,20.8s,baz=345,slow=38						
URZ	Urewera	97.87	166	LR	LR	05 28 25.6	
	comp=Z,70nm,20.4s,baz=280,slow=32						
MAW	Mawson	144.01	220	PKP	PKPbc	04 55 59.4	+0.3
	comp=Z,4.8nm,1.0s,baz=120,slow=2.6,SNR=7.8						
MAW	Mawson	144.01	220		PKPbc	04 55 59.8	+0.7
QSPA	South Pole Qui	148.53	180	PKPbc	PKPdf	04 56 10.7	+1.8
	comp=Z,6.1nm,0.8s,baz=339,slow=5.5,SNR=16						
QSPA	South Pole Qui	148.53	180		PKPbc	04 56 11.8	-0.8

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*IGQ **04** 04:44:13.5±0.4, 0°S±2°×8°1W±°, h8km±2km, M3.8/30, Mjma3.8/30, ML3.9/1, MLv3.7/28*
*RSNC **04** 04:44:13.3±0.5, 0°S±3°×8°1W±°, h0km, M3.6, ML3.0*
ISC 04 04:44:12.7±1.3**, 0°.21S**±0°.03×**80°.60W**±0°.05**, h14**km±8km**,**
n80, σ1s.44/90**, 23C-6D, Near coast of Ecuador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ABH3	Manabi, Bahia	0.42	156	P	Pn	04 44 22.7	-1.7
ABH3				S	Sn	04 44 30.3	-1.8
AMNT	Manta-Manabi	0.74	191	P	Pn	04 44 28.8	+0.1
AMNT				S	Sn	04 44 40.0	+0.1
JIPI	JIPIJAPA	1.15	178	⇓P	Pg	04 44 35.6	+0.7
ISPT	Isla de la Pla	1.15	204	⇓P	Pn	04 44 33.7	-0.7
ISPT				S	Sn	04 44 50.5	+0.5
AV18	Acelerografo,	1.24	65	P	Pg	04 44 37.7	+1.2
AATC	Ecuador-Atacam	1.29	35	P	Pg	04 44 38.0	+0.3
PPLP	Puerto Lpez	1.34	188	⇑P	Pg	04 44 37.6	-0.9
PPLP				S	Sg	04 44 56.2	+0.2
PPLP	Puerto Lpez	1.34	188	P	Pg	04 44 37.9	-0.6
PPLP				S	Sg	04 44 55.5	-0.5
ATON	Ecuador-Tonsup	1.34	36	P	Pg	04 44 39.6	+1.0
BV15	Puerto Quito-O	1.42	75	⇑P	Pb	04 44 38.2	-0.9
AMA1	Acelerografo,	1.43	38	P	Pg	04 44 41.2	+0.9
AES2	Ecuador-Puerto	1.53	39	P	Pg	04 44 41.1	-1.0
APR2	Miler	1.66	80	P	Pn	04 44 41.4	-0.1
RVRD	Rio Verde	1.76	44	P	Pb	04 44 43.7	-1.0
PAC1	Pacto, Paraso	1.87	75	⇓P	Pb	04 44 45.1	-1.7
PAC1	Pacto, Paraso	1.87	75	P	Pn	04 44 44.4	-0.1
PAC1				S	Sn	04 45 08.5	+0.5
ILLI	Illinizas Sur	1.94	105	⇓P	Pb	04 44 46.9	-1.2
GGPT	Toaza - Volcan	1.98	90	⇑P	Pb	04 44 46.9	-1.9
JUA2	San Juan 2	1.99	90	⇑P	Pb	04 44 47.5	-1.6
TERV	Terraza Guagua	2.00	89	⇑P	Pn	04 44 47.1	+0.5
GGPC	Guagua Pichinc	2.00	89	⇑P	Pb	04 44 47.5	-1.8
YANA	Yana	2.03	87	⇑P	Pb	04 44 48.0	-1.7
ZALD	Colegio Gonzal	2.06	92	P	Pb	04 44 48.7	-1.5
AGRD	Ecuador-Guaran	2.09	130	P	Pb	04 44 48.9	-1.8
SRAM	San Ramn-Vol	2.10	105	⇑P	Pb	04 44 49.4	-1.5
PULU	Pululahua	2.11	84	P	Pb	04 44 49.2	-1.9
SUCR	Mariscal Sucre	2.15	101	⇑P	Pb	04 44 50.5	-1.2
CHSH	Refugio Sur-Vo	2.15	126	P	Pb	04 44 50.9	-0.9
TING	Casa Alexandra	2.15	92	P	Pb	04 44 50.5	-1.2
SLOR	San Lorenzo -	2.17	104	⇑P	Pb	04 44 50.8	-1.2
NAS2	Nasa	2.17	101	⇑P	Pb	04 44 51.6	-0.6
TOMA	Boca Toma-Volc	2.18	98	P	Pb	04 44 51.5	-0.8
OTAV	Otavalo	2.19	78	⇑P	Pn	04 44 49.8	+0.6
OTAV	Otavalo	2.19	78	P	Pn	04 44 49.5	+0.3
OTAV				S	Sb	04 45 17.8	-1.9
PITA	Cotopaxi Volc	2.19	99	⇑P	Pb	04 44 51.4	-1.1
BRRN	Barrancas-Volc	2.20	105	⇑P	Pb	04 44 51.3	-1.3
BMOR	Cotopaxi Volca	2.20	104	⇑P	Pb	04 44 51.4	-1.3
BREF	Cotopaxi Volca	2.21	102	⇑P	Pb	04 44 52.0	-0.9
PORT	Chimborazo Vol	2.21	124	⇑P	Pb	04 44 51.2	-1.6
PUEM	Granja Avicola	2.23	88	P	Pb	04 44 50.9	-2.2
BVC2	Cotopaxi Volca	2.23	102	⇑P	Pb	04 44 52.1	-1.1
VC1	Cotopaxi 1	2.24	101	⇑P	Pb	04 44 52.6	-0.7
BTAM	Cotopaxi Volca	2.25	102	⇑P	Pb	04 44 52.4	-1.2
TAMH	Tambohuasha Ch	2.25	126	⇑P	Pb	04 44 52.4	-1.1
CUSE	Cuicocha Este	2.26	77	P	Pb	04 44 51.5	-2.1
CUSE	Cuicocha Este	2.26	77	P	Pb	04 44 51.2	-2.4
CUSE				S	Sb	04 45 22.1	+0.5
TAMB	Tambo	2.28	102	⇓P	Pb	04 44 53.3	-0.8
CUIC	Cuicocha-Domo	2.29	77	⇓P	Pb	04 44 52.0	-2.2
SNLR	San Lorenzo-Es	2.30	50	P	Pb	04 44 52.1	-1.9
COTA	Cotacachi	2.33	77	P	Pn	04 44 51.5	+0.4
IGUA	Igualata	2.34	123	P	Pb	04 44 52.8	-2.2
ANTG	Antisana-Guama	2.36	97	P	Pb	04 44 53.9	-1.5
PIS1	Pisayambo	2.37	111	P	Pb	04 44 54.2	-1.3
ANTM	Antisana-La Mi	2.40	98	P	Pb	04 44 55.0	-1.0
URCU	Urcuqui	2.43	75	P	Pb	04 44 54.6	-1.9
BBIL	Ulba Tungurahu	2.44	120	P	Pb	04 44 56.1	-0.6
IMBA	Imbabura, San	2.45	79	P	Pb	04 44 55.7	-1.1
JUI6	Juive	2.45	120	P	Pb	04 44 55.3	-1.5
ANTI	Antisana	2.45	96	P	Pb	04 44 55.6	-1.4
ALIT	Ecuador-Imbabu	2.45	66	P	Pn	04 44 53.0	+0.5
LITE1	Lita	2.45	66	P	Pn	04 44 52.9	+0.4
PIAT	Ana Tenorio	2.46	109	P	Pb	04 44 55.4	-1.7
PIAT	Ana Tenorio	2.46	109	P	Pb	04 44 55.4	-1.7
PIAT				S	Sb	04 45 26.8	-0.7
ARRY	Arrayan	2.50	121	P	Pb	04 44 56.3	-1.4
BPAT	Tungurahua Vol	2.52	121	P	Pb	04 44 58.3	+0.3
YAHU	Yahuarcocha	2.59	77	P	Pb	04 44 58.3	-0.9
CAYR	Refugio Cayamb	2.60	85	⇑P	Pb	04 44 58.2	-1.4
ANGU	Angureal	2.60	84	⇑P	Pb	04 44 58.2	-1.4
CHMA	Chilma	2.75	67	P	Pn	04 44 57.9	+1.2
ISPG	Isla Puna-Puer	2.77	171	P	Pb	04 45 02.8	+0.6
CHL1	Volc¡n Chiles	2.83	69	P	Pb	04 45 00.1	-3.4
CHL2	Volc¡n Chiles	2.86	69	P	Pn	04 45 00.4	+1.9
CASC	Dorado de Casc	3.28	84	P	Pb	04 45 09.8	-1.0
CASC	Dorado de Casc	3.28	84	P	Pb	04 45 09.3	-1.5
PKYU	Pakayacu	3.33	115	P	Pb	04 45 09.4	-2.2
BBAC	Balboa, Cauca	4.02	57	P	Pn	04 45 14.8	+0.7
BBAC	Balboa, Cauca	4.02	57	P	Pn	04 45 14.7	+0.6
BBAC				S	Sn	04 46 04.3	+3.1
MCRA	Macar, Loja	4.18	171	P	Pn	04 45 20.2	+4.0
MCRA				S	Sn	04 46 06.8	+1.8
POPC	Popayan, Colom	4.78	55	P	Pn	04 45 25.1	+0.5
ZUMB	Zumba	4.85	163	P	Pb	04 45 31.2	-6.4

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*VAO **04** 04:58:01.0±0.6, 7°.48N×72°.86W, h10km, mb4.8, Presumed earthquake*
*IDC **04** 04:58:18.6±0.5, 6°.80N×73°.02W, h160km±4km, mb3.9/19, mbtmp4.4/23, MS3.1/2, Error ellipse: s-maj=10.1km s-min=6.9km az=127.0*
*CATAC **04** 04:58:18.4±0.5, 7°N±3°×7°3W±°, h159km±5km, M4.4/13, mb4.3/6, mB4.3/5, MLv5.0/13, Mw(mB)3.4/5, Error ellipse: s-maj=9.6km s-min=5.6km az=108.0, confirmed*
*NEIC **04** 04:58:19.7±2.0, 6°.77N±0°.07×73°.03W±0°.08, h158km±5km, mb4.4/105, Error ellipse: s-maj=12.0km s-min=8.5km az=124.0*
*FUNV **04** 04:58:22.6, 7°.06N×73°.05W, h90km, MW4.6, Presumed earthquake*
ISC 04 04:58:17.6±0.4**, 6°.88N**±0°.03×**73°.01W**±0°.03**, h153**km±4km**,**
n213, σ2s.05/227**, mb4.4**/66**, 3C, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BARC	Barichara	0.33	211	P	Pn	04 58 40.0	+1.0
BARC				S	Sn	04 58 54.9	-0.3
PAMC	Pamplona, Colo	0.56	34	P	Pn	04 58 42.8	+2.6
PAMC				S	Sn	04 59 00.0	+2.6
BRJC	Barrancabermej	0.73	278	P	Pn	04 58 41.6	+0.9
BRJC				S	Sn	04 58 58.6	+0.4
RUSC	La Rusia	0.98	184	P	Pn	04 58 43.8	+0.7
RUSC				S	Sn	04 59 02.4	-0.2
RUSC	La Rusia	0.98	184	eP	Pn	04 58 44.1	+0.9
RUSC				eS	Sn	04 58 59.1	-3.5

RUSC	La Rusia	0.98	184	P	Pn	04 58 44.1	+0.9
RUSC				S	Sn	04 59 03.0	+0.5
OCAC	Ocana	1.39	347	P	Pn	04 58 48.1	+1.6
OCAC				S	Sn	04 59 10.1	+1.5
PTBC	PUERTO BERRIO,	1.47	257	P	Pn	04 58 46.3	-0.9
PTBC				S	Sn	04 59 07.8	-2.0
SPBC	San Pablo de B	1.61	221	P	Pn	04 58 48.7	0.0
SPBC				S	Sn	04 59 11.4	-1.1
NORC	Norcasia	2.26	235	P	Pn	04 58 55.5	-0.6
NORC				S	Sn	04 59 23.5	-2.2
CHIC	Chingaza	2.34	198	P	Pn	04 58 57.9	+0.4
CHIC				S	Sn	04 59 27.3	-0.8
ROSC	El Rosal	2.41	213	P	Pn	04 58 59.6	+1.5
	1µm,0.3s,baz=275,slow=2.6,SNR=560						
ROSC				S	Sn	04 59 29.8	+0.4
	7µm,0.3s,baz=184,slow=22,SNR=9.8						
ROSC	El Rosal	2.41	213	P	Pn	04 58 59.5	+1.3
ROSC				S	Sn	04 59 29.0	-0.4
CVER	Cruz Verde, Cu	2.57	204	P	Pn	04 59 01.4	+1.2
CVER				S	Sn	04 59 33.3	+0.3
MEDEC	Medelln, Ant	2.63	257	P	Pn	04 59 01.2	+0.5
MEDEC				S	Sn	04 59 32.9	-1.0
UREC	San Jos de Ur	2.65	289	P	Pn	04 58 59.4	-1.3
UREC				S	Sn	04 59 31.4	-2.6
VILC	Villavicencio,	2.83	194	P	Pn	04 59 03.4	+0.3
VILC				S	Sn	04 59 37.3	-1.0
GUY2C	Guyana, Caldas	2.86	235	P	Pn	04 59 03.7	-0.1
GUY2C				S	Sn	04 59 37.8	-1.6
CMAN1	Manizales, Cal	3.08	234	P	Pn	04 59 08.6	+2.2
CMAN1				S	Sn	04 59 44.5	+0.5
SDV	Santo Domingo	3.09	50	P	Pn	04 59 09.7	+3.2
	137nm,0.3s,baz=148,slow=2.2,SNR=42						
SDV				S	Sn	04 59 47.6	+3.4
	664nm,0.4s,baz=42,slow=13,SNR=45						
SDV	Santo Domingo	3.09	50	P	Pn	04 59 09.4	+2.9
SDV				S	Sn	04 59 46.8	+2.6
SDV	Santo Domingo	3.09	50	*e*P	Pn	04 59 09.4	+2.9
SDV				*e*S	Sn	04 59 40.1	-4.1
CBOC	Ciudad Bolivar	3.15	252	P	Pn	04 59 07.2	+0.1
CBOC				S	Sn	04 59 42.9	-2.5
PGA3	Puerto Gaitan	3.29	154	P	Pn	04 59 09.7	+0.8
PGA3				S	Sn	04 59 46.8	-1.8
PGA4	Puerto Gaitan	3.39	152	P	Pn	04 59 10.8	+0.7
PGA4				S	Sn	04 59 47.9	-2.9
ARMEC	Armenia, Quind	3.50	229	P	Pn	04 59 13.3	+1.6
ARMEC				S	Sn	04 59 55.7	+2.1
PRAC	Prado	3.65	211	P	Pn	04 59 12.9	-0.7
PRAC				S	Sn	04 59 55.0	-2.0
PRAC	Prado	3.65	211	P	Pn	04 59 13.3	-0.3
APAC	Apartado, Choc	3.68	286	P	Pn	04 59 13.8	0.0
APAC				S	Sn	04 59 54.7	-2.8
SJCC	San Jacinto, C	3.69	325	P	Pn	04 59 13.6	-0.4
SJCC				S	Sn	04 59 54.8	-3.0
SJCC	San Jacinto, C	3.69	325	*e*P	Pn	04 59 13.9	-0.1
SJCC				*e*S	Sn	04 59 52.5	-5.3
SJCC	San Jacinto, C	3.69	325	P	Pn	04 59 13.7	-0.3
ORTC	Ortega, Tolima	3.69	217	P	Pn	04 59 13.7	-0.4
ORTC				S	Sn	04 59 56.9	-1.0
LCBC	Los crdobas,	3.86	301	P	Pn	04 59 15.7	-0.5
LCBC				S	Sn	05 00 00.6	-1.1
SOLC	Bahia Solano	4.41	262	P	Pn	04 59 25.7	+2.3
SOLC				S	Sn	05 00 12.2	-2.4
PIZC	Pizarro, Choco	4.72	247	P	Pn	04 59 28.5	+1.0
PIZC				S	Sn	05 00 21.2	-0.7
PTAC	Punta Ardita,	4.77	274	P	Pn	04 59 27.0	-1.0
MACC	Macarena, Meta	4.77	190	P	Pn	04 59 27.0	-1.2
BETC	Betania	4.82	210	P	Pn	04 59 27.7	-1.1
URI	Uribia	4.90	12	P	Pn	04 59 30.5	+0.8
URI				S	Sn	05 00 26.6	+0.5
URIC	Uribia, Colomb	4.90	12	P	Pn	04 59 30.4	+0.6
URIC	Uribia, Colomb	4.90	12	*e*P	Pn	04 59 30.7	+0.9
URIC				*i* P	Pn	04 59 30.7	+0.9
URIC				*e*S	Sn	05 00 19.8	-6.3
UPD2	Meteti	5.23	289	P	Pn	04 59 33.0	-1.1
GARC	Garzon, Huila	5.27	208	P	Pn	04 59 33.7	-1.3
GARC				AML	AML		
POPC	Popayan, Colom	5.65	220	P	Pn	04 59 39.4	-0.5
	1µm124nm,0.7s						
POPC				AML	AML		
BENV	Beln	6.17	60	*e*P	Pn	04 59 48.3	+1.5
BENV				*e*S	Sn	05 00 52.2	-4.3
TURV	Turiamo	6.23	55	*e*P	Pn	04 59 49.3	+1.9
TURV				*e*S	Sn	05 00 53.1	-4.6
BBAC	Balboa, Cauca	6.41	221	P	Pn	04 59 48.8	-1.3
	2µm169nm,0.6s						
CRUC	La Cruz	6.58	217	P	Pn	04 59 54.7	+2.3
TACV	Tcata	6.75	61	*e*P	Pn	04 59 55.6	+1.2
TACV				*e*S	Sn	05 01 05.2	-5.2
UPA	Univ. de Panam	6.79	288	P	Pn	04 59 52.9	-2.0
	50nm,0.9s						
FUNV	FUNVISIS	7.09	59	*e*P	Pn	05 00 00.2	+1.1
FUNV				*e*S	Sn	05 01 14.0	-4.7
BCIP	Isla Barro Col	7.13	289		Pn	04 59 57.6	-1.9
BCIP	Isla Barro Col	7.13	289	P	Pn	04 59 57.1	-2.4
AZU	Azuero	7.26	278	P	Pn	05 00 00.2	-1.0
	44nm,0.6s						
PNME	Penonome	7.42	283	P	Pn	05 00 03.2	-0.2
	1µm116nm,0.7s						
CMBC	Cumbal	7.60	219	P	Pn	05 00 07.0	+0.8
CASC	Dorado de Casc	7.97	213	P	Pn	05 00 10.0	-0.7
	55nm,0.8s						
CUSE	Cuicocha Este	8.45	220	P	Pn	05 00 17.6	0.0
	3µm43nm,0.8s						
OTAV	Otavalo	8.54	220		Pn	05 00 17.7	-1.0
OTAV	Otavalo	8.54	220	P	Pn	05 00 17.6	-1.1
SLOR	San Lorenzo -	9.33	216		Pn	05 00 28.4	-0.9
BRU2	Volcan	9.78	282		Pn	05 00 35.4	+0.6
PRVC	Isla de Provid	10.45	309	P	Pn	05 00 41.3	-2.3
LCR2	La Lucha 2	11.24	285		Pn	05 00 55.3	+1.1
HDC	Heredia	11.41	287		Pn	05 00 55.9	-0.4
JTS	Las Juntas de	12.28	287	P	Pn	05 01 09.4	+1.8
	5.5nm,0.4s,baz=226,slow=1.8,SNR=15						
JTS				LR	LR	05 06 00.6	
	comp=Z,47nm,21.1s,baz=84,slow=38						
JTS	Las Juntas de	12.28	287		Pn	05 01 09.7	+2.1
GRGR	Grenville	12.36	64		P	05 01 12.9	-1.5
GRGR	Grenville	12.36	64	*e*P	Pn	05 01 10.2	+1.6
CRPR	Cabo Rojo, PR	12.47	27	Pn	Pn	05 01 10.6	+0.7
CELP	Cerrillos	12.78	29	Pn	Pn	05 01 14.4	+0.5
JUD3	Juan Diaz 3	12.81	286		Pn	05 01 16.3	+1.8
GTBY	Guantanamo Bay	13.13	351	*e*P	P	05 01 22.7	-0.2
GTBY				IAmb	IAmb	05 01 22.8	
	comp=Z,74nm,1.6s						
GTBY				*e*S	Sn	05 03 40.0	-3.8
BOAV	Boa Vista	13.22	109		Pn	05 01 19.0	-0.6
BOAV	Boa Vista	13.22	109	*e*P	Pn	05 01 10.5	-9.2
BOAV				*e*S	Sn	05 03 38.0	-8.1
MASC	Masc	13.27	355	*e*P	P	05 01 23.1	-1.4
MASC				IAmb	IAmb	05 01 29.1	
	comp=Z,46nm,1.2s						
MASC				*e*S	Sn	05 03 44.6	-2.6
TEFE	Tefe	13.28	141	*e*P	Pn	05 01 15.7	-4.8
RCC	Rio Carpintero	13.30	349	*e*P	P	05 01 25.3	+0.6
RCC				IVmB_BB		05 01 26.6	
	comp=Z,2µm,1.0s						
RCC				IAmb	IAmb	05 01 26.7	
	comp=Z,89nm,0.5s						
RCC				*e*S	Sn	05 03 42.7	-5.1
QMBU	Quimbuelo	13.36	353	*e*P	P	05 01 25.7	+0.2
QMBU				IAmb	IAmb	05 01 36.1	
	comp=Z,36nm,0.8s						
QMBU				*e*S	Sn	05 03 43.9	-5.4
CHIV	Chivirico	13.43	346	Pn	P	05 01 25.2	-1.0
CHIV	Chivirico	13.43	346	*e*P	P	05 01 26.1	-0.2
CHIV				IAmb	IAmb	05 01 31.7	
	comp=Z,25nm,1.1s						
CHIV				*e*S	Sn	05 03 47.3	-3.8
BOAB	BOACO BROADBAN	13.64	295		Pn	05 01 23.9	-1.1
NMDO	Nuevo Mundo	13.73	352	*e*P	P	05 01 31.3	+1.7
NMDO				IAmb	IAmb	05 01 35.8	
	comp=Z,22nm,1.1s						
PINC	Pinares de May	13.79	349	*e*P	P	05 01 31.3	+1.0
PINC				IVmB_BB		05 01 33.0	
	comp=Z,570nm,1.0s						
PINC				IAmb	IAmb	05 01 33.4	
	comp=Z,58nm,0.6s						
PINC				*e*S	Sn	05 03 52.5	-7.3
YAR	Yar	13.80	347	*e*P	P	05 01 31.7	+1.3
YAR				*e*S	Sn	05 03 53.4	-6.6
MOAC	Moa	13.83	352	*e*P	P	05 01 33.1	+2.4
MOAC				IVmB_BB		05 01 35.8	
	comp=Z,490nm,1.0s						
MOAC				IAmb	IAmb	05 01 38.7	
	comp=Z,35nm,1.0s						
MOAC				*e*S	Sn	05 03 59.6	-1.1
FDFM	Morne la Roset	14.01	55	Pn	Pn	05 01 30.1	+0.4
MPOM	Morne Pois Mar	14.11	57	P	P	05 01 36.8	+3.0
HLGC	Holguin	14.24	348	*e*P	Sn	05 04 06.9	-3.6
HLGC				IAmb	IAmb	05 04 14.9	
	comp=Z,32nm,1.1s						
CBCY	The Bluff, Cay	14.37	334	*e*P	P	05 01 37.6	+1.0
CBCY				IAmb	IAmb	05 01 41.0	
	comp=Z,140nm,0.7s						
CBCY				*e*S	Sn	05 04 06.4	-7.1
CBE	Ff, Capester	14.43	50		P	05 01 40.9	+3.5
CZSB	Cruzeiro do Su	14.51	179		Pn	05 01 35.8	-0.1
CZSB	Cruzeiro do Su	14.51	179	*e*P	Pn	05 01 35.1	-0.8
CZSB				*e*S	S	05 04 22.8	-2.1
FSCY	Frank Sound, G	14.69	328	*e*P	P	05 01 41.5	+1.2
FSCY				IAmb	IAmb	05 01 45.0	
	comp=Z,270nm,1.3s						
ATAH	Atahualpa	14.92	201	P	P	05 01 42.8	-0.5
	comp=Z,2.9nm,0.7s,baz=330,slow=5.1,SNR=7.1						
GDSD	La Dsirade Is	14.99	50	P	P	05 01 42.9	-0.7
TGUH	Tegucigalpa,Un	15.73	298	P	Pn	05 01 51.4	+0.3
MACA	Manacapuru-AM	15.84	129	P	P	05 01 53.1	0.0
MACA	Manacapuru-AM	15.84	129	*e*P	Pn	05 01 48.2	-4.2
MACA				*e*S	Sn	05 04 47.3	-1.7
MGV	Manicaragua	16.57	337	*e*P	Pn	05 02 10.6	+9.4
CAIB	Caibarien	16.73	339	*e*P	Pn	05 02 14.6	+12
CAIB				IAmb	IAmb	05 02 16.5	
	comp=Z,44nm,0.8s						
MTO3	Montecristo	17.71	296	P	Pn	05 02 14.8	-0.4
MTO3				IAmb	IAmb	05 02 18.5	
	comp=Z,23nm,0.7s						
CAMR	Camarioca	17.99	334	*e*P	Pn	05 02 17.8	-0.4
CAMR				IAmb	IAmb	05 02 21.5	
	comp=Z,69nm,1.1s						
APG	El Apazote	18.93	297	P	P	05 02 26.1	-1.1
	comp=Z,1.3nm,0.7s,baz=156,slow=10,SNR=6.5						
TEIG	Tepich	19.88	313		Pn	05 02 39.7	-0.7
MDP	Montagnes des	20.34	94	P	Pn	05 02 44.2	-1.7
	comp=Z,17nm,0.7s,baz=277,slow=8.8,SNR=7.8						
	comp=Z,17nm,0.7s						
ITTB	Itaituba	20.55	122	*e*P	P	05 02 42.8	-1.6
ITTB				*e*S	Sn	05 06 34.7	-6.8
VILB	Vilhena	23.46	147	P	P	05 03 15.1	+1.7
LPAZ	La Paz	23.52	168	P	P	05 03 14.8	+0.2
	comp=Z,0.9nm,0.6s,baz=22,slow=2.8,SNR=6.9						
LPAZ				pP	pP	05 03 46.8	+2.1
	comp=Z,5.4nm,0.7s,baz=341,slow=12,SNR=9.9						
	comp=Z,0.9nm,0.6s						
LPAZ	La Paz	23.52	168	P	P	05 03 15.2	+0.6
LPAZ				IAmb	IAmb	05 03 48.7	
	comp=Z,5.8nm,0.7s						
CLDB	Colider	24.59	136	*e*P	P	05 03 24.1	+0.3
CLDB				*e*S	S	05 07 49.9	+16
SMTB	Santa Maria do	29.78	121	*e*P	P	05 04 09.9	-0.2
SMTB				*e*S	S	05 09 09.7	+14
X48A	Hartselle	30.34	337	IAmb	IAmb	05 04 18.7	
	comp=Z,5.5nm,0.8s						
ARAG	Araguaiana, MT	30.73	137	*e*P	P	05 04 18.8	+0.2
V48A	Smith Brothers	31.40	338	IAmb	IAmb	05 04 27.9	
	comp=Z,10nm,1.0s						
HBVL	Hebbronville	31.58	312	P	P	05 04 27.2	+1.3
WVT	Waverly	32.12	337	P	P	05 04 32.6	+2.1
WVT				IAmb	IAmb	05 04 33.8	
	comp=Z,7.2nm,1.0s						
X40A	Basin Creek Fa	33.01	329	IAmb	IAmb	05 04 40.6	
	comp=Z,4.7nm,0.7s						
WHAR	Wooly Hollow	33.37	331	IAmb	IAmb	05 04 44.8	
	comp=Z,7.4nm,1.0s						
BDFB	Brasilia	33.37	132	P	P	05 04 42.2	+0.5
	comp=Z,4.9nm,0.7s,baz=298,slow=8.7,SNR=8.0						
	comp=Z,4.9nm,0.7s						
BDFB	Brasilia	33.37	132	IAmb	IAmb	05 04 43.4	
	comp=Z,5.8nm,0.8s						
P52A	Corning	33.63	347	IAmb	IAmb	05 04 48.4	
	comp=Z,8.9nm,0.7s						
FCAR	Ozark Folk Cen	33.77	331	IAmb	IAmb	05 04 46.7	
	comp=Z,6.0nm,0.5s						
SDBA	SAO DESIDERIO	33.88	124	*e*P	P	05 04 45.8	-0.4
S44A	Carbondale	34.04	337	IAmb	IAmb	05 04 49.8	
	comp=Z,6.0nm,0.7s						
T42A	Van Buren	34.24	334	IAmb	IAmb	05 04 51.0	
	comp=Z,4.5nm,0.8s						
BRDY	Brady	34.35	318	IAmb	IAmb	05 04 51.7	
	comp=Z,11nm,1.3s						
PLPT	Palo Pinto	34.91	321	IAmb	IAmb	05 04 57.0	
	comp=Z,7.6nm,0.8s						
CCM	Cathedral Cave	35.17	335	P	P	05 04 58.9	+2.1
ABTX	Abilene, Hawle	35.63	320	IAmb	IAmb	05 05 03.0	
	comp=Z,5.5nm,0.7s						
R40A	Maddies Statio	35.81	334	IAmb	IAmb	05 05 04.0	
	comp=Z,5.0nm,0.6s						
SGCY	Sterling City	36.16	317	IAmb	IAmb	05 05 07.5	
	comp=Z,6.1nm,0.5s						
APMT	Aspermont	36.39	320	P	P	05 05 09.0	+1.7
PMNB	Patos De Minas	36.40	134	*e*P	P	05 05 08.0	+0.4
WMOK	Wichita Mounta	36.50	323	IAmb	IAmb	05 05 09.5	
	comp=Z,3.8nm,0.7s						
TXAR	Lajitas Array	36.51	312	P	P	05 05 09.9	+1.4
	comp=Z,3.2nm,0.6s,baz=127,slow=9.0,SNR=49						
TXAR				PcP	PcP	05 07 29.0	0.0
	comp=Z,0.7nm,0.7s,baz=129,slow=5.8,SNR=6.1						
	comp=Z,3.2nm,0.6s						
TXAR	Lajitas Array	36.51	312	P	P	05 05 09.7	+1.2
TX31	Lajitas Ar. Si	36.51	312	IAmb	IAmb	05 05 10.3	
	comp=Z,3.3nm,0.7s						
SN07	Snyder 07	36.73	319	IAmb	IAmb	05 05 12.1	
	comp=Z,5.2nm,0.7s						
MNHN	Monahans	36.95	315	IAmb	IAmb	05 05 13.4	
	comp=Z,5.0nm,0.5s						
129A	Stewart Farms,	37.09	318	IAmb	IAmb	05 05 15.5	
	comp=Z,7.8nm,1.1s						
NBPN	Ponto Novo - B	37.11	118	*e*P	P	05 05 12.6	-1.0
POST	Post	37.12	318	IAmb	IAmb	05 05 15.7	
	comp=Z,9.4nm,0.8s						
TPB01	Permian Basin	37.45	314	IAmb	IAmb	05 05 18.3	
	comp=Z,6.5nm,0.6s						
P38A	Dawn	37.46	334	IAmb	IAmb	05 05 18.2	
	comp=Z,7.5nm,0.6s						
VHRN	Van Horn	38.24	313	IAmb	IAmb	05 05 25.2	
	comp=Z,8.9nm,1.2s						
G62A	West of Eustis	38.26	3	P	P	05 05 26.3	+3.5
AMTX	Amarillo	38.38	321	IAmb	IAmb	05 05 27.0	
	comp=Z,8.6nm,0.8s						
MSTX	Muleshoe	38.51	319	IAmb	IAmb	05 05 27.2	
	comp=Z,14nm,1.4s						
ARCA	Ara§uai, MG	38.71	128	*e*P	P	05 05 27.1	+0.1
MNTX	Cornudas Mount	39.01	314	P	P	05 05 31.0	+1.6
MNTX				IAmb	IAmb	05 05 32.4	
	comp=Z,5.9nm,0.7s						
F64A	Sherman	39.05	5	P	P	05 05 32.2	+2.8
F64A				IAmb	IAmb	05 05 35.5	
	comp=Z,12nm,1.0s						
CMC01	Camacan, BA	39.87	124	*e*P	P	05 05 36.6	-0.1
LMQ	La Malbaie	40.59	3	P	P	05 05 45.1	+2.9
LMQ				IAmb	IAmb	05 05 45.8	
	comp=Z,10nm,0.6s						
BATG	Bathurst New B	40.69	7	P	P	05 05 45.7	+2.7
LDAQ	Lac Daran	40.97	2	P	P	05 05 48.3	+3.0
ALQ	Albuquerque	41.54	317	P	P	05 05 51.5	+1.0
SUSD	Miller	43.73	333	P	P	05 06 08.6	+0.9
W18A	Petrified Fore	43.90	315	IAmb	IAmb	05 06 12.6	
	comp=Z,7.7nm,0.9s						
ISCO	Idaho Springs	43.92	323	P	P	05 06 11.7	+2.1
PV15	Paradox Valley	44.82	320	P	P	05 06 19.2	+2.5
PV15				IAmb	IAmb	05 06 20.0	
	comp=Z,8.2nm,1.0s						
PV02	Paradox Valley	44.90	319	IAmb	IAmb	05 06 20.4	
	comp=Z,7.7nm,0.7s						
PV13	Radium Mtn., P	44.93	319	IAmb	IAmb	05 06 20.4	
	comp=Z,5.1nm,0.7s						
PV12	Saucer Basin,	45.01	319	IAmb	IAmb	05 06 21.3	
	comp=Z,5.6nm,0.7s						
PV18	Skein Mesa, Pa	45.04	319	IAmb	IAmb	05 06 23.2	
	comp=Z,5.2nm,0.7s						
PV05	Paradox Valley	45.07	319	IAmb	IAmb	05 06 22.8	
	comp=Z,3.8nm,0.7s						
PV23	Carpenter Ridg	45.22	319	IAmb	IAmb	05 06 27.9	
	comp=Z,5.1nm,0.6s						
WUAZ	Wupatki	45.26	315	IAmb	IAmb	05 06 23.7	
	comp=Z,9.4nm,0.9s						
HMU	Henry Mountain	46.07	318	IAmb	IAmb	05 06 29.7	
	comp=Z,5.5nm,0.8s						
K22A	Casper	46.29	326	P	P	05 06 29.7	+1.6
ULM	Lac du Bonnet	47.27	340	P	P	05 06 35.6	+0.3
	comp=Z,3.0nm,0.5s,baz=135,slow=7.4,SNR=14						
	comp=Z,3.0nm,0.5s						
ULM	Lac du Bonnet	47.27	340	IAmb	IAmb	05 06 36.5	
	comp=Z,9.7nm,1.3s						
PLCA	Paso Flores	47.43	177	P	P	05 06 35.6	-1.1
	comp=Z,1.3nm,0.8s,baz=336,slow=6.2,SNR=4.3						
PLCA				ScP	ScP	05 11 42.6	-2.0
	comp=Z,1.1nm,0.8s,baz=316,slow=4.5,SNR=3.5						
	comp=Z,1.3nm,0.8s						
TCRU	Three Creeks R	47.57	318	IAmb	IAmb	05 06 41.6	
	comp=Z,6.0nm,0.6s						
SCHQ	Schefferville	48.08	5	P	P	05 06 43.6	+2.1
	comp=Z,27nm,0.6s,baz=189,slow=7.3,SNR=58						
	comp=Z,27nm,0.6s						
PDAR	Pinedale Array	48.10	324	P	P	05 06 43.0	+0.9
	comp=Z,1.0nm,0.6s,baz=121,slow=9.0,SNR=12						
PDAR				PcP	PcP	05 08 08.4	+0.9
	comp=Z,0.5nm,0.4s,baz=118,slow=6.7,SNR=6.1						
PDAR				ScP	ScP	05 11 46.9	-0.9
	comp=Z,0.4nm,0.7s,baz=126,slow=4.0,SNR=3.5						
	comp=Z,1.0nm,0.6s						
TCUT	Toone Canyon	48.25	321	IAmb	IAmb	05 06 45.9	
	comp=Z,7.3nm,0.6s						
BGU	Big Grassy Mou	49.17	320	IAmb	IAmb	05 06 52.6	
	comp=Z,4.3nm,0.6s						
TPNV	Topopah Spring	49.41	314	P	P	05 06 54.4	+2.2
PNTR	Pine Nut	52.72	315	IAmb	IAmb	05 07 57.9	
	comp=Z,3.9nm,0.7s						
WVOR	Wild Horse Val	53.56	319	IAmb	IAmb	05 07 26.7	
	comp=Z,5.5nm,1.2s						
YKA	Yellowknife Ar	63.25	340	P	P	05 08 30.8	+1.3
	comp=Z,2.7nm,0.6s,baz=134,slow=6.5,SNR=34						
	comp=Z,2.7nm,0.6s						
SAATT	Saattut	65.29	8	*i* P	P	05 08 43.8	+1.2
SAATT				IAmb	IAmb	05 08 44.6	
	comp=Z,12nm,0.7s						
DBIC	Dimbokro	67.62	86	P	P	05 08 58.4	-0.2
	comp=Z,11nm,0.7s,baz=293,slow=7.2,SNR=15						
	comp=Z,11nm,0.7s						
DBIC	Dimbokro	67.62	86	IAmb	IAmb	05 08 59.5	
	comp=Z,12nm,0.8s						
BORG	Borgarnes	68.19	21	LR	LR	05 34 45.8	
	comp=Z,26nm,21.3s,baz=340,slow=32						
SUMG	Summit	68.91	11	*i* P	P	05 09 07.9	+1.8
SUMG				IAmb	IAmb	05 09 08.4	
	comp=Z,29nm,0.6s						
NEEM	North Greenlan	71.49	5	*i* P	P	05 09 23.1	+1.7
NEEM				IAmb	IAmb	05 09 24.2	
	comp=Z,25nm,0.6s						
EKA	Eskdalemuir Ar	72.96	34	P	P	05 09 29.8	-0.4
	comp=Z,1.7nm,0.8s,baz=321,slow=1.2,SNR=4.4						
	comp=Z,1.7nm,0.8s						
TORD	Torodi Ar. Bea	73.62	78	P	P	05 09 34.0	-0.8
	comp=Z,1.2nm,0.7s,baz=285,slow=6.4,SNR=19						
	comp=Z,1.2nm,0.7s						
DAG	Danmarks Havn	75.58	11	*i* P	P	05 09 46.3	+1.3
DAG				IAmb	IAmb	05 09 49.0	
	comp=Z,7.0nm,0.6s						
ILAR	Eielson Array	76.96	335	P	P	05 09 51.8	-1.2
	comp=Z,0.5nm,0.7s,baz=118,slow=4.8,SNR=6.6						
ILAR				pP	pP	05 10 31.8	+0.9
	comp=Z,0.5nm,0.7s,baz=90,slow=4.5,SNR=3.0						
	comp=Z,0.5nm,0.7s						
NB2	NORSAR Subarra	81.23	29	P	P	05 10 17.7	+1.4
	comp=Z,2.4nm,0.6s,baz=268,slow=5.3						
NOA	NORSAR Array B	81.23	29	P	P	05 10 17.3	+0.9
	comp=Z,1.3nm,0.6s,baz=267,slow=5.3,SNR=8.4						
	comp=Z,1.3nm,0.6s						
HFS	Hagfors	82.44	30	P	P	05 10 21.5	-1.1
	comp=Z,1.4nm,0.5s,baz=224,slow=9.5,SNR=5.4						
	comp=Z,1.4nm,0.5s						
GERES	GERESS Array B	82.71	42	P	P	05 10 24.2	-0.2
	comp=Z,1.8nm,0.6s,baz=258,slow=4.0,SNR=8.4						
	comp=Z,1.8nm,0.6s						
SPITS	Spitsbergen Ar	83.19	12	P	P	05 10 26.3	+0.1
	comp=Z,11nm,1.1s,baz=199,slow=1.8,SNR=5.6						
	comp=Z,11nm,1.1s						
ARCES	ARCESS Array B	86.58	20	P	P	05 10 44.2	+0.9
	comp=Z,3.5nm,0.8s,baz=274,slow=4.5,SNR=12						
	comp=Z,3.5nm,0.8s						
ARCES	ARCESS Array B	86.58	20	IAmb	IAmb	05 10 44.9	
	comp=Z,4.8nm,0.9s						
VNA3	Neumayer Olymp	88.19	163	⇑P	P	05 10 49.8	-1.1
	comp=Z,2.4nm,0.6s						
FINES	FINESS Array B	88.34	28	P	P	05 10 52.5	+0.7
	comp=Z,2.5nm,0.9s,baz=242,slow=4.1,SNR=4.0						
	comp=Z,2.5nm,0.9s						
VNA2	Neumayer--Watz	88.72	163	⇑P	P	05 10 52.9	-0.4
	comp=Z,1.8nm,0.4s,baz=304,slow=4.6						
SNAA	Sanae	90.36	163	⇑P	P	05 11 00.7	-0.4
	comp=Z,43nm,0.7s						
TROLL	Troll, Antarti	92.06	162	P	P	05 11 08.8	-0.2
	comp=Z,110nm,0.6s						
ZALV	Zalesovo Beam	116.59	14	PKP	PKPdf	05 16 43.5	+0.1
	comp=Z,1.7nm,0.4s,baz=230,slow=3.5,SNR=3.6						
KURBB	Kurchatov Arra	117.67	20	PKP	PKPdf	05 16 45.7	+0.1
	comp=Z,1.2nm,0.6s,baz=311,slow=2.5,SNR=5.2						
MKAR	Makanchi Array	122.23	20	PKP	PKiKP	05 16 54.9	+0.1
	comp=Z,1.6nm,0.5s,baz=299,slow=2.4,SNR=8.2						
HILR	Hailar Array B	122.71	350	PKP	PKiKP	05 16 57.0	+1.3
	comp=Z,1.4nm,0.2s,baz=347,slow=6.1,SNR=4.7						
SONM	Songino Array	125.52	0	PKP	PKiKP	05 17 02.0	+0.6
	comp=Z,1.4nm,0.5s,baz=9.0,slow=2.1,SNR=4.4						
ASAR	Alice Springs	149.23	234	PKPbc	PKPbc	05 17 48.8	-0.3
	comp=Z,4.2nm,0.7s,baz=110,slow=3.0,SNR=6.6						
ASAR				pPKPbc	pPKPbc	05 18 30.0	+0.2
	comp=Z,1.9nm,0.8s,baz=125,slow=3.3,SNR=2.6						
WRA	Warramunga Arr	150.46	241	PKPbc	PKPbc	05 17 52.0	-0.1
	comp=Z,4.9nm,0.6s,baz=106,slow=2.9,SNR=18						
WRA				pPKPbc	pPKPbc	05 18 33.4	+0.6
	comp=Z,3.4nm,0.7s,baz=108,slow=2.8,SNR=3.5						
CMAR	Chiang Mai Arr	153.60	17	PKP	PKPdf	05 17 50.3	-1.1
	comp=Z,1.1nm,0.3s,baz=332,slow=2.3,SNR=6.8						
CMAR				PKPbc	PKiKP	05 17 59.6	+0.3
	comp=Z,3.7nm,0.5s,baz=323,slow=3.6,SNR=12						

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*BJI **04** 05:00:24.3, 6°.47S×129°.45E, h216^{km}, mB4.9/18, mb5.0/75*

*GFZ **04** 05:00:29.0, 6°.38S×129°.16E, h225^{km}, Mw5.2/27, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M$_{rr}$2.32; M$_{θθ}$-2.89; M$_{φφ}$0.57; M$_{rθ}$-4.93; M$_{θφ}$6.34; M$_{φr}$-2.04; Fault plane solution: M$_0$8.70591×10^{16} NP1: φ$_s$166.65067°, δ51.82077°, λ163.11061°. NP2: φ$_s$267.28002°, δ76.79851°, λ39.41272°. Principal axes: T 8.8886, Plg36.7672°, Azm134.2825°; N -0.3777, Plg48.7792°, Azm282.8108°; P -8.5109, Plg15.9974°, Azm31.9127°;*

*IDC **04** 05:00:28.0±0.5, 6°.34S×129°.11E, h217^{km}±4^{km}, mb4.6/20, mbtmp5.2/23 Error ellipse: s-maj=13.4km s-min=6.8km az=72.0*

*GFZ **04** 05:00:29.0±0.2, 6°S±2°×12°9E±°, h226^{km}±3^{km}, M5.1/41, mb5.3/41*

*GCMT **04** 05:00:29.2±0.2, 6°.40S±0°.01×129°.25E±0°.01, h222^{km}±1^{km}, MW5.2/125, Moment Tensor Solution. s101,c135; s125,c217; Duration: 1^{s}0 Moment tensor: Scale 10^{16} Nm; M$_{rr}$1.65±.14; M$_{θθ}$-3.25±.14; M$_{φφ}$1.60±.15; M$_{rθ}$-5.50±.13; M$_{θφ}$6.57±.13; M$_{φr}$-1.96±.14; Best double couple: M$_0$9.22500×10^{16} NP1:φ$_s$166.00000°, δ51.00000°, λ169.00000°. NP2:φ$_s$263.00000°, δ81.00000°, λ40.00000°. Principal axes: T 9.3780, Plg34.0000°, Azm132.0000°; N -0.3050, Plg49.0000°, Azm273.0000°; P -9.0730, Plg20.0000°, Azm28.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*DJA **04** 05:00:29.0±0.1, 6°S±1°×12°9E±°, h217^{km}±2^{km}, M5.2/97, mB5.7/65, mb5.3/97, MLv6.0/30, Mw(mB)5.2/65, MwMwp4.9/16, Mwp5.2/16*

*NEIC **04** 05:00:30.2±1.1, 6°.33S±0°.07×129°.19E±0°.08, h235^{km}±6^{km}, mb5.1/88, Mww5.2/16, Error ellipse: s-maj=11.1km s-min=9.8km az=86.0*

ISC 04 05:00:29.0±0.3**, 6°.37S**±0°.03×**129°.17E**±0°.04**, h230^{km}**±2^{km}**, h230^{km}:pP-P, n570, σ1^{s}37**/644**, mb5.1**/115**, 6C-9D, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BNDI	Bandanaira	1.98	22	P	Pn	05 01 09.9	+0.3
BNDI	Bandanaira	1.98	22	P	Pn	05 01 10.0	+0.3
BNDI	Bandanaira	1.98	22	P	Pn	05 01 10.4	+0.7
SAUI	Saumlaki	2.65	127	P	Pn	05 01 16.3	-0.2
SAUI	Saumlaki	2.65	127		Pn	05 01 16.2	-0.2
SAUI	Saumlaki	2.65	127	P	Pn	05 01 16.0	-0.5
SAUI				AML	AML		

SAUI	Saumlaki	2.65	127	P	Pn	05 01 16.4	-0.2
MSAI	Masohi	3.02	355	P	Pn	05 01 20.4	-0.1
MSAI				AML	AML		
NLAI	Namlea	3.73	326	P	Pn	05 01 30.0	+1.2
NLAI				AML	AML		
FAKI	Fak Fak	4.61	42	P	Pn	05 01 37.0	-2.4
FAKI	Fak Fak	4.61	42		Pn	05 01 37.5	-1.9
FAKI	Fak Fak	4.61	42	P	Pn	05 01 37.3	-2.1
FAKI				AML	AML		
FAKI	Fak Fak	4.61	42	P	Pn	05 01 36.8	-2.6
KMPI	Kaimana, Papua	5.26	59	P	Pn	05 01 45.5	-2.0
SANI	Sanana	5.34	323	P	Pn	05 01 48.6	+0.1
SANI	Sanana	5.34	323	P	Pn	05 01 47.3	-1.2
	4.5nm4µm14µm1µm,1.4s						
SANI				S	S	05 02 53.1	+1.6
	4.5nm4µm14µm1µm,1.4s						
SANI				AML	AML		
SANI	Sanana	5.34	323	P	Pn	05 01 48.7	+0.2
	comp=Z,1µm,1.4s						
SWI	Sorong	5.86	21	P	Pn	05 01 52.3	-2.7
SOEI	Soe	5.90	235	P	Pn	05 01 54.3	-1.4
SOEI	Soe	5.90	235	S	S	05 03 00.0	-4.6
SOEI	Soe	5.90	235		Pn	05 01 54.9	-0.7
SOEI	Soe	5.90	235	P	Pn	05 01 54.0	-1.7
	comp=Z,17nmcomp=Z,18µmcomp=Z,1µm,1.1s						
SOEI				AML	AML		
SOEI	Soe	5.90	235	P	Pn	05 01 54.2	-1.4
	comp=Z,2µm,0.8s						
DRS	Darwin Rock St	6.26	164	P	Pn	05 01 58.8	-1.2
MTN	Manton Dam	6.71	163	P	Pn	05 02 04.2	-1.7
	comp=Z,599nm,0.5s,comp=Z,0.0nm						
MTN	Manton Dam	6.71	163		Pn	05 02 04.5	-1.3
KDI	Kendari	6.95	290	P	Pn	05 02 10.4	+1.5
	comp=Z,3µmcomp=Z,291nm,1.0s						
KDU	Kakadu	7.07	153	P	Pn	05 02 08.8	-1.6
	comp=Z,257nm,0.6s,comp=Z,0.0nm						
MMRI	Maumere	7.23	251	P	Pn	05 02 12.8	+0.3
MMRI	Maumere	7.23	251		Pn	05 02 11.8	-0.6
MMRI	Maumere	7.23	251	P	Pn	05 02 12.6	+0.2
	comp=Z,1.9nmcomp=Z,3µmcomp=Z,6µmcomp=Z,566nm,0.8s						
MMRI				AML	AML		
MMRI	Maumere	7.23	251	P	Pn	05 02 12.6	+0.2
	comp=Z,580nm,0.8s						
MWPI	Manokwari, Pap	7.27	42	P	Pn	05 02 12.4	-0.6
TNTI	Ternate	7.32	346	P	Pn	05 02 13.6	-0.1
TNTI	Ternate	7.32	346		Pn	05 02 13.3	-0.4
TNTI	Ternate	7.32	346	P	Pn	05 02 13.4	-0.3
	comp=Z,2.6nmcomp=Z,6µmcomp=Z,882nm,0.9s						
TNTI				AML	AML		
TNTI	Ternate	7.32	346	P	Pn	05 02 13.7	0.0
	comp=Z,877nm,0.9s						
LUWI	Luwuk	8.29	309	P	Pn	05 02 26.6	+0.5
LUWI	Luwuk	8.29	309		Pn	05 02 26.6	+0.5
LUWI	Luwuk	8.29	309	P	Pn	05 02 27.6	+1.5
	comp=Z,1.8nmcomp=Z,3µmcomp=Z,6µmcomp=Z,618nm,1.1s						
LUWI				AML	AML		
LUWI	Luwuk	8.29	309	P	Pn	05 02 26.5	+0.5
	comp=Z,613nm,1.1s						
BAKI	Biak	8.63	54	P	Pn	05 02 30.6	+0.2
MNI	Manado	8.89	331	P	Pn	05 02 34.3	+0.6
	comp=Z,3.5nmcomp=Z,12µmcomp=Z,996nm,0.8s						
MNI				AML	AML		
KNRA	Kununurra	9.25	182	P	Pn	05 02 36.6	-1.8
	comp=Z,1µm,0.6s						
KNRA	Kununurra	9.25	182		Pn	05 02 36.1	-2.2
WSI	Waingapu	9.37	249	P	Pn	05 02 38.4	-1.5
LBFI	Labuhan Bajo,	9.43	257	P	Pn	05 02 41.7	+1.0
KAPI	Kappang	9.47	278	P	Pn	05 02 38.6	-2.5
	comp=Z,31nm,1.0s,baz=91,slow=11,SNR=11						
KAPI	Kappang	9.47	278	P	Pn	05 02 41.5	+0.4
KAPI	Kappang	9.47	278	P	Pn	05 02 42.1	+1.0
KAPI				S	S	05 04 28.4	+0.7
KAPI	Kappang	9.47	278		Pn	05 02 41.3	+0.2
KAPI	Kappang	9.47	278	P	Pn	05 02 42.4	+1.3
KAPI	Kappang	9.47	278	P	Pn	05 02 40.6	-0.5
	comp=Z,74nm,1.5s						
WAMI	Wamena	9.82	76	P	P	05 02 50.9	-1.6
PCI	Palu	10.78	300	P	P	05 03 03.1	-0.2
	comp=Z,295nm,1.1s						
MMSI	Mamuju	10.86	289	P	P	05 03 01.6	-2.6
	comp=Z,4µmcomp=Z,258nm,1.4s						
TOLI2	Tolitoli	11.20	311	P	Pn	05 03 04.0	+0.9
TOLI2	Tolitoli	11.20	311	P	Pn	05 03 04.8	+1.7
	comp=Z,154nm,1.4s						
MMPI	Merauke	11.32	101	P	P	05 03 11.4	+2.2
PLAI	Plampang	11.55	257	P	Pn	05 03 05.6	-2.0
PLAI	Plampang	11.55	257	P	Pn	05 03 06.4	-1.2
	comp=Z,3µmcomp=Z,232nm,0.6s						
PLAI	Plampang	11.55	257	P	Pn	05 03 06.0	-1.6
	comp=Z,235nm,0.6s						
GENI	Genyem	11.59	72	P	Pn	05 03 08.6	+0.5
GENI	Genyem	11.59	72	P	Pn	05 03 08.3	+0.2
	comp=Z,4µmcomp=Z,353nm,0.9s						
GENI	Genyem	11.59	72	P	Pn	05 03 08.0	-0.1
	comp=Z,397nm,1.1s						
FITZ	Fitzroy Crossi	12.15	196	P	Pn	05 03 12.3	-2.7
	comp=Z,265nm,0.7s						
FITZ	Fitzroy Crossi	12.15	196	P	Pn	05 03 12.7	-2.4
	comp=Z,829nm,0.5s,baz=26,slow=10,SNR=399						
FITZ				S	S	05 05 21.0	-8.6
	comp=Z,664nm,0.7s,baz=99,slow=8.5,SNR=7.1						
FITZ	Fitzroy Crossi	12.15	196	P	Pn	05 03 12.3	-2.7
FITZ	Fitzroy Crossi	12.15	196		Pn	05 03 12.3	-2.7
FITZ	Fitzroy Crossi	12.15	196	P	Pn	05 03 12.3	-2.7
	comp=Z,264nm,0.7s						
DDMP	Don Marcelino,	12.87	344	*e*P	Pn	05 03 22.6	-1.4
DDMP				*e*S	S	05 05 39.7	-6.8
BKB	Balikpapan	13.25	292	P	Pn	05 03 29.6	+0.8
BKB	Balikpapan	13.25	292		P	05 03 31.9	+1.1
BKB	Balikpapan	13.25	292	P	P	05 03 33.4	+2.6
	comp=Z,5µmcomp=Z,358nm,1.3s						
BKB	Balikpapan	13.25	292	P	P	05 03 33.1	+2.3
	comp=Z,355nm,1.3s						
KHKI	Kahang-Kahang	13.59	261	P	P	05 03 36.9	+2.4
	comp=Z,62nm,0.6s						
DAV	Davao City (W)	13.83	345	P	Pn	05 03 34.1	-1.8
	comp=Z,182nm,0.3s,baz=84,slow=10,SNR=3.9						
DAV	Davao City (W)	13.83	345	P	Pn	05 03 36.0	+0.2
DAV	Davao City (W)	13.83	345	P	P	05 03 37.6	+0.5
DAV				S	S	05 06 11.1	+2.2
DAV	Davao City (W)	13.83	345	P	P	05 03 54.2	+17
DAV	Davao City (W)	13.83	345	P	P	05 03 38.1	+0.9
	comp=Z,604nm,0.9s						
KCP	Kidapawan	13.90	343	*i* P	Pn	05 03 37.0	+0.2
WB0	Warramunga Arr	14.25	160	Pn	Pn	05 03 38.1	-2.9
WRAB	Tennant Creek	14.39	160	P	Pn	05 03 40.2	-2.5
WRAB	Tennant Creek	14.39	160	Pn	Pn	05 03 40.0	-2.7
WRAB	Tennant Creek	14.39	160	P	Pn	05 03 40.1	-2.6
	comp=Z,955nm,1.1s						
WRA	Warramunga Arr	14.39	160	P	Pn	05 03 40.4	-2.3
	comp=Z,402nm,0.8s,baz=337,slow=13,SNR=250						
WRA				S	S	05 06 12.1	-10
	comp=Z,260nm,0.6s,baz=335,slow=24,SNR=13						
WRA	Warramunga Arr	14.39	160	Pn	Pn	05 03 39.5	-3.2
WR1	Warramunga Arr	14.39	160	P	Pn	05 03 40.5	-2.2
	comp=Z,1µm,1.0s						
WB2	Warramunga Arr	14.40	160	P	Pn	05 03 40.6	-2.2
	comp=Z,1µm,1.1s						
WB1	Warramunga Ar.	14.41	160	P	Pn	05 03 40.5	-2.5
WR8	Warramunga Arr	14.46	160	Pn	Pn	05 03 40.7	-2.9
WR0	Warramunga Arr	14.48	159	P	P	05 03 46.0	+1.6
BBKI	Banjar Baru	14.56	281	P	P	05 03 47.8	+2.5
	comp=Z,204nm,1.2s						
BIPH	Bislig	14.73	349	*e*P	Pn	05 03 45.5	-1.4
MYLDM	Lahad Datu	15.66	317	P	Pn	05 03 58.2	+0.2
MYLDM	Lahad Datu	15.66	317	P	Pn	05 04 01.2	+3.2
MYLDM	Lahad Datu	15.66	317	P	Pn	05 04 01.0	+3.0
	comp=Z,77nm,1.1s						
COEN	Coen	15.71	120	P	P	05 03 53.9	-4.0
	comp=Z,14nm,1.1s						
COEN	Coen	15.71	120	P	P	05 03 54.0	-4.0
LSIP	Lazi, Siquijor	16.36	340	*i* P	Pn	05 04 06.8	+0.4
SNPH	Sibulan	16.69	339	*e*P	Pn	05 04 11.8	+1.4
TBP	Tagbilaran	16.81	342	*e*P	Pn	05 04 11.4	-0.3
MBWA	Marble Bar	17.31	211	P	P	05 04 15.3	-0.1
	comp=Z,136nm,0.8s						
MBWA	Marble Bar	17.31	211	P	P	05 04 15.3	-0.1
MBWA	Marble Bar	17.31	211	P	P	05 04 15.9	+0.5
MBWA				S	S	05 07 24.0	+0.4
MBWA	Marble Bar	17.31	211	P	P	05 04 15.4	0.0
MBWA	Marble Bar	17.31	211	P	P	05 04 15.6	+0.2
	comp=Z,137nm,0.8s						
SNJI	Sawahan-Nganju	17.33	264	P	Pn	05 04 18.8	+0.8
	comp=Z,129nm,0.7s						
QIS	Mount Isa	17.36	145	P	P	05 04 16.8	+0.7
	comp=Z,1µm,1.0s						
QIS	Mount Isa	17.36	145	P	P	05 04 16.2	+0.2
QIS	Mount Isa	17.36	145	S	S	05 07 24.4	-0.3
QIS	Mount Isa	17.36	145	P	P	05 04 16.9	+0.8
	comp=Z,1µm,1.0s						
LLP	Lapu-Lapu	17.37	343	*e*P	P	05 04 16.8	+0.6
LLP				*e*S	S	05 07 25.5	+0.6
AS15	Alice Springs	17.76	166	P	P	05 04 21.2	+0.8
AS31	Alice Springs	17.79	166	P	P	05 04 21.3	+0.6
ASAR	Alice Springs	17.79	166	P	P	05 04 21.7	+1.0
	comp=Z,1µm,0.8s,baz=345,slow=8.9,SNR=140						
ASAR				S	S	05 07 27.6	-5.6
	comp=Z,174nm,0.7s,baz=345,slow=22,SNR=11						
ASAR	Alice Springs	17.79	166	P	P	05 04 20.8	+0.2
AS17	Alice Springs	17.81	165	P	Pn	05 04 22.9	-0.4
AS09	Alice Springs	17.83	166	P	P	05 04 22.0	+0.9
KKM	Kota Kinabalu	17.87	313	P	P	05 04 22.6	+0.9
KKM	Kota Kinabalu	17.87	313	P	P	05 04 22.6	+0.9
KKM	Kota Kinabalu	17.87	313	P	Pn	05 04 23.7	-0.5
	comp=Z,59nm,0.7s						
KKM	Kota Kinabalu	17.87	313	P	P	05 04 22.3	+0.6
	comp=Z,59nm,0.7s						
PLP	Palo	17.91	347	*e*P	P	05 04 23.4	+1.3
PMG	Port Moresby	18.07	101	P	P	05 04 24.1	+0.3
	comp=Z,162nm,1.1s,baz=327,slow=2.0,SNR=24						
PMG				S	S	05 07 35.6	-3.4
	comp=Z,27nm,0.8s,baz=39,slow=23,SNR=1.2						
PMG	Port Moresby	18.07	101	P	P	05 04 24.5	+0.7
PMG	Port Moresby	18.07	101	P	P	05 04 24.7	+0.9
PMG	Port Moresby	18.07	101	P	P	05 04 21.9	-2.0
PMG	Port Moresby	18.07	101	P	Pn	05 04 26.4	-0.2
	comp=Z,6µmcomp=Z,582nm,0.9s						
PMG	Port Moresby	18.07	101	P	P	05 04 24.9	+1.0
	comp=Z,596nm,0.9s						
WRKA	Warakurna	18.58	182	P	P	05 04 29.7	+0.5
	comp=Z,200nm,0.7s						
MANU	Manus Island	18.65	77	P	P	05 04 30.4	+0.3
MTSU	Mount Surprise	18.84	130	P	P	05 04 32.9	+0.8
	comp=Z,599nm,0.8s						
MTSU	Mount Surprise	18.84	130	P	P	05 04 32.7	+0.6
MTSU	Mount Surprise	18.84	130	P	P	05 04 33.1	+1.0
	comp=Z,599nm,0.8s						
PPR	Puerto Princes	19.12	327	*i* P	Pn	05 04 37.4	-1.4
IBAJ	Ibajay, Aklan	19.37	339	*e*P	Pn	05 04 53.3	+12
BBJI	Bungbulang	21.39	266	P	P	05 04 58.9	-0.2
BBJI	Bungbulang	21.39	266	P	P	05 04 58.1	-1.0
BBJI	Bungbulang	21.39	266	P	P	05 04 59.3	+0.2
BBJI	Bungbulang	21.39	266	P	P	05 04 58.5	-0.6
	comp=Z,51nm,0.9s						
CTA	Charters Tower	21.47	131	P	P	05 05 00.8	+0.9
	comp=Z,179nm,1.0s						
CTA	Charters Tower	21.47	131	P	P	05 05 00.7	+0.9
	comp=Z,330nm,0.8s,baz=304,slow=11,SNR=171						
	comp=Z,330nm,0.8s						
CTA	Charters Tower	21.47	131	P	P	05 05 00.8	+0.9
CTAO	Charters Tower	21.47	131	P	P	05 05 00.8	+0.9
CTAO	Charters Tower	21.47	131	P	P	05 05 00.4	+0.6
CTAO	Charters Tower	21.47	131	P	P	05 05 00.9	+1.1
	comp=Z,454nm,0.9s						
GIRL	Giralia	21.66	220	P	P	05 05 02.2	+0.7
	comp=Z,114nm,1.1s						
GIRL	Giralia	21.66	220	P	P	05 05 01.9	+0.4
LQP	Lukban	21.71	340	*e*P	P	05 05 02.3	-0.1
TIRP	Brgy. Gulod. B	22.05	339	*e*P	P	05 05 03.6	-1.7
AUAYR	Ayr State High	22.06	128	P	P	05 05 07.0	+1.6
QVPH	Quezon City--P	22.38	339	*e*P	P	05 05 09.0	+0.6
MEEK	Meekatharra	22.52	205	P	P	05 05 09.5	0.0
	comp=Z,147nm,0.8s						
MEEK	Meekatharra	22.52	205	P	P	05 05 09.4	-0.2
MEEK	Meekatharra	22.52	205	P	P	05 05 09.6	0.0
	comp=Z,146nm,0.8s						
CGJI	Cibinong	23.32	268	P	P	05 05 17.0	+0.1
	comp=Z,3µmcomp=Z,369nm,0.9s						
CAAP	Casiguran, Aur	23.52	343	*e*P	P	05 05 17.8	-0.8
INKA	Innaminka	23.93	154	P	P	05 05 22.8	+0.5
FORT	Forrest	24.30	182	P	P	05 05 25.8	+0.2
	comp=Z,152nm,0.8s						
FORT	Forrest	24.30	182	P	P	05 05 25.6	0.0
QLP	Quilpie	24.70	146	P	P	05 05 29.7	+0.3
	comp=Z,338nm,0.7s						
QLP	Quilpie	24.70	146	P	P	05 05 29.6	+0.3
QLP	Quilpie	24.70	146	P	P	05 05 29.9	+0.6
	comp=Z,338nm,0.7s						
GUMO	Guam	25.23	38	P	P	05 05 33.7	-0.4
GUMO	Guam	25.23	38	P	P	05 05 33.8	-0.4
GUMO	Guam	25.23	38	P	P	05 05 33.9	-0.3
	comp=Z,436nm,1.2s						
MORW	Morawa	25.76	207	P	P	05 05 38.8	0.0
MORW	Morawa	25.76	207	P	P	05 05 38.4	-0.4
MORW	Morawa	25.76	207	P	P	05 05 39.0	+0.2
	comp=Z,33nm,1.0s						
KMBL	Kambalda	25.78	194	P	P	05 05 39.0	0.0
	comp=Z,66nm,0.9s						
BBOO	Buckleboo	27.07	167	P	P	05 05 50.3	-0.2
	comp=Z,133nm,0.9s						
BBOO	Buckleboo	27.07	167	P	P	05 05 50.3	-0.2
BBOO	Buckleboo	27.07	167	P	P	05 05 50.3	-0.2
BBOO	Buckleboo	27.07	167	P	P	05 05 50.0	-0.5
	comp=Z,133nm,0.9s						
KLBR	Kellerberrin	27.27	202	P	P	05 05 52.3	+0.1
	comp=Z,96nm,0.8s						
KLBR	Kellerberrin	27.27	202	P	P	05 05 52.4	+0.1
KLBR	Kellerberrin	27.27	202	P	P	05 05 52.3	+0.1
	comp=Z,96nm,0.8s						
GD1S	Gladstone Soft	27.36	132	P	P	05 05 54.3	+1.2
STKA	Stephens Creek	27.91	157	P	P	05 05 58.2	+0.3
	comp=Z,706nm,1.0s						
STKA	Stephens Creek	27.91	157	P	P	05 05 58.2	+0.3
	comp=Z,85nm,0.7s,baz=332,slow=8.6,SNR=89						
	comp=Z,85nm,0.7s						
STKA	Stephens Creek	27.91	157	P	P	05 05 58.0	+0.1
STKA	Stephens Creek	27.91	157	S	S	05 10 28.2	+3.9
STKA	Stephens Creek	27.91	157	P	P	05 05 58.4	+0.5
	comp=Z,706nm,1.0s						
EIDS	Eidsvold	28.22	134	P	P	05 06 00.5	-0.2
	comp=Z,52nm,1.5s						
EIDS	Eidsvold	28.22	134	P	P	05 06 00.3	-0.4
EIDS	Eidsvold	28.22	134	P	P	05 06 00.0	-0.7
EIDS				IAmb	IAmb	05 06 01.8	
	comp=Z,90nm,1.3s						
EIDS	Eidsvold	28.22	134	P	P	05 06 00.7	0.0
	comp=Z,52nm,1.5s						
HTT	Hallett	28.41	163	P	P	05 06 02.5	+0.1
	comp=Z,27nm,1.6s						
HTT	Hallett	28.41	163	P	P	05 06 02.6	+0.2
HTT	Hallett	28.41	163	S	S	05 10 34.7	+2.4
NWAO	Narrogin (SRO)	28.66	201	P	P	05 06 04.7	+0.1
CMSA	Cobar Meteorol	29.43	150	P	P	05 06 12.0	+0.7
	comp=Z,317nm,0.9s						
CMSA	Cobar Meteorol	29.43	150	P	P	05 06 11.6	+0.3
CMSA	Cobar Meteorol	29.43	150	P	P	05 06 12.3	+0.9
	comp=Z,316nm,0.9s						
AUMAR	Marden Senior	29.69	164	P	P	05 06 14.4	+0.8
AUMBR	Murray Bridge	30.10	163	P	P	05 06 18.1	+0.9
TW1H	Toowoomba 1 Ha	30.20	137	P	P	05 06 19.2	+0.9
AUTOO	Toowoomba Stat	30.21	137	P	P	05 06 19.0	+0.7
AUBSH	Beerwah State	30.45	135	P	P	05 06 20.2	-0.2
SAVO	Savo Central	30.48	97	P	P	05 06 21.1	+0.2
TPUB	Ta-pu	30.65	344	P	P	05 06 20.4	-1.8
TPUB	Ta-pu	30.65	344	P	P	05 06 20.5	-1.8
TPUB	Ta-pu	30.65	344	P	P	05 06 20.1	-2.1
	comp=Z,82nm,1.1s						
SSLB	Suanglung	31.03	345	P	P	05 06 23.6	-2.0
SSLB	Suanglung	31.03	345	P	P	05 06 23.5	-2.1
SSLB				IAmb	IAmb	05 06 25.8	
	comp=Z,85nm,1.3s						
SSLB	Suanglung	31.03	345	P	P	05 06 23.0	-2.5
	comp=Z,53nm,1.2s						
YOJ	Yonaguni jima	31.23	349	P	P	05 06 27.5	+0.3
YOJ	Yonaguni jima	31.23	349	P	P	05 06 26.8	-0.5
NACB	Ninganchiao	31.25	347	P	P	05 06 26.0	-1.4
AUDCS	Dubbo College	31.49	147	P	P	05 06 30.0	+0.5
RPSI	Rantau Prapat	31.51	286	P	P	05 06 30.5	+0.6
RPSI				IAmb	IAmb	05 07 22.4	
	comp=Z,48nm,1.1s						
RPSI	Rantau Prapat	31.51	286	P	P	05 06 29.4	-0.5
	comp=Z,19nm,1.1s						
PSI	Prapat	31.54	286	P	P	05 06 31.5	+1.2
PSI	Prapat	31.54	286	P	P	05 06 38.9	+8.6
QIZ	Qiongzhong	31.62	323	P	P	05 06 32.1	+1.4
QIZ				pP	pP	05 07 16.3	+0.7
QIZ				sP	sP	05 07 42.7	+1.1
QIZ				S	S	05 11 25.6	+2.9
QIZ				sS	sS	05 12 45.6	+1.6
QIZ				pmax	pmax		
	comp=Z,140nm,4.2s						
GC1S	Gold Coast 1 S	31.65	136	P	P	05 06 32.7	+1.8
YHNB	Yeheng	31.78	346	P	P	05 06 31.4	-0.7
YHNB	Yeheng	31.78	346	P	P	05 06 30.4	-1.6
YHNB				IAmb	IAmb	05 06 31.8	
	comp=Z,62nm,1.0s						
YHNB	Yeheng	31.78	346	P	P	05 06 31.2	-0.9
	comp=Z,76nm,0.9s						
ARMA	Armidale	31.90	141	P	P	05 06 34.4	+1.2
	comp=Z,105nm,1.3s						
ARMA	Armidale	31.90	141	P	P	05 06 34.3	+1.1
ARMA	Armidale	31.90	141	P	P	05 06 34.0	+0.8
ARMA	Armidale	31.90	141	P	P	05 06 34.6	+1.4
	comp=Z,105nm,1.3s						
ARPS	Mount Arapiles	32.40	161	P	P	05 06 38.4	+1.1
	comp=Z,115nm,1.3s						
KNMB	Chin-men Tao	32.40	341	P	P	05 06 36.8	-0.7
KNMB	Chin-men Tao	32.40	341	P	P	05 06 37.1	-0.4
	comp=Z,220nm,0.9s						
QZH2	Quanzhou	32.79	342	⇑*i*P	P	05 06 40.8	0.0
QZH2				pmax	pmax		
	comp=Z,140nm,0.6s						
AUMAG	Moama Anglican	32.86	156	P	P	05 06 42.8	+1.5
MGBR	Mount Gambier	32.89	163	P	P	05 06 42.6	+1.0
MGBR				IAmb	IAmb	05 06 44.7	
	comp=Z,60nm,1.0s						
JOW	Kunigami	33.02	359	P	P	05 06 43.9	+1.1
JOW	Kunigami	33.02	359	P	P	05 06 43.3	+0.5
JOW	Kunigami	33.02	359	P	P	05 06 43.8	+1.0
	comp=Z,163nm,1.0s						
MGCD	Mangrove Creek	33.59	146	P	P	05 06 49.9	+2.2
	comp=Z,124nm,0.8s						
MGCD	Mangrove Creek	33.59	146	P	P	05 06 48.9	+1.2
MGCD	Mangrove Creek	33.59	146	P	P	05 06 50.0	+2.3
	comp=Z,124nm,0.8s						
SYDH	Sydney Hard Ro	33.80	147	P	P	05 06 50.3	+0.8
BRAT	Ballarat	33.82	159	P	P	05 06 51.2	+1.6
AUKHS	Kincumber High	33.93	146	P	P	05 06 52.4	+1.8
AUMTS	Mt Stromlo	34.10	150	P	P	05 06 53.4	+1.3
CAN	Canberra	34.10	150	P	P	05 06 53.7	+1.5
	comp=Z,416nm,0.9s						
CAN	Canberra	34.10	150	P	P	05 06 53.5	+1.4
CAN	Canberra	34.10	150	P	P	05 06 53.9	+1.7
CAN	Canberra	34.10	150	P	P	05 06 54.0	+1.9
	comp=Z,416nm,0.9s						
CAN	Canberra	34.10	150	P	P	05 06 53.9	+1.7
AUMHS	Melrose High S	34.18	150	P	P	05 06 54.0	+1.2
CNB	Canberra Magne	34.28	150	P	P	05 06 55.0	+1.4
	comp=Z,4.0nm,1.2s						
WOLH	Wollongong Har	34.36	147	P	P	05 06 56.1	+1.8
MLBS	Spotswood, Mel	34.42	158	P	P	05 06 56.4	+1.7
TOO	Toolangi	34.43	157	P	P	05 06 57.0	+2.1
	comp=Z,116nm,1.0s						
TOO	Toolangi	34.43	157	P	P	05 06 56.6	+1.7
TOO				IAmb	IAmb	05 06 58.1	
	comp=Z,74nm,0.8s						
AUUHS	Ulladulla High	34.88	149	P	P	05 07 00.4	+1.7
MILA	Mila	35.57	152	P	P	05 07 06.4	+1.7
	comp=Z,61nm,1.5s						
MILA	Mila	35.57	152	P	P	05 07 06.3	+1.7
KOUNC	Koumac, New Ca	36.84	116	P	P	05 07 16.6	+1.1
KOUNC	Koumac, New Ca	36.84	116	P	P	05 07 15.3	-0.2
KOUNC				IAmb	IAmb	05 07 17.2	
	comp=Z,42nm,0.8s						
SLVN	Son La	37.05	319	P	P	05 07 17.6	+0.3
SLVN	Son La	37.05	319	P	P	05 07 17.1	-0.3
SLVN	Son La	37.05	319	P	P	05 07 17.9	+0.5
	comp=Z,17nm,1.1s						
LHI	Lord Howe Isla	37.51	136	P	P	05 07 18.0	-3.1
	comp=Z,89nm,1.0s						
LHI	Lord Howe Isla	37.51	136	P	P	05 07 21.7	+0.7
AUBRN	Burnie High Sc	37.61	159	P	P	05 07 23.1	+1.5
JSU	Suzuyama	37.69	2	P	P	05 07 22.4	0.0
JSU	Suzuyama	37.69	2	P	P	05 07 22.4	0.0
JSU				IAmb	IAmb	05 07 23.5	
	comp=Z,62nm,0.8s						
JSU	Suzuyama	37.69	2	P	P	05 07 22.4	0.0
	comp=Z,91nm,1.1s						
SANVU	Saraoutou	38.36	107	P	P	05 07 29.5	+1.1
SANVU	Saraoutou	38.36	107	P	P	05 07 28.1	-0.3
SANVU	Saraoutou	38.36	107	P	P	05 07 30.0	+1.6
	comp=Z,361nm,1.1s						
SANVU	Saraoutou	38.36	107	P	P	05 07 29.1	+0.7
SANVU				pP	pwP	05 08 20.4	+0.8
CORO	Coronation Par	38.43	158	P	P	05 07 30.0	+1.5
CM31	Chiang Mai Arr	38.70	310	P	P	05 07 32.3	+1.2
	SNR=8.7						
CM31	Chiang Mai Arr	38.70	310	P	P	05 07 31.2	+0.1
CMAR	Chiang Mai Arr	38.70	310	P	P	05 07 31.1	0.0
	comp=Z,7.0nm,0.8s,baz=140,slow=7.5,SNR=52						
CMAR				pP	pP	05 08 16.1	-1.9
	comp=Z,2.3nm,0.6s,baz=141,slow=6.8,SNR=1.4						
CMAR				ScP	ScP	05 13 04.8	+0.5
	comp=Z,7.3nm,0.9s,baz=155,slow=3.1,SNR=20						
	comp=Z,7.0nm,0.8s						
CMAR	Chiang Mai Arr	38.70	310	P	P	05 07 31.0	-0.1
CHTO	Chiang Mai	38.91	311	P	P	05 07 33.1	+0.2
CHTO	Chiang Mai	38.91	311	P	P	05 07 33.4	+0.6
CHTO	Chiang Mai	38.91	311	P	P	05 07 32.8	0.0
CHTO	Chiang Mai	38.91	311	P	P	05 07 33.0	+0.2
	comp=Z,26nm,0.9s						
CHTO	Chiang Mai	38.91	311	P	P	05 07 33.1	+0.2
CHTO				x	x	05 08 20.2	
CHTO				ScP	ScP	05 13 05.6	+0.4
NOUC	Port Laguerre	39.10	117	P	P	05 07 35.1	+0.7
GYA	Guiyang	39.26	327	⇓P	P	05 07 35.1	-0.7
GYA				pmax	pmax		
	comp=Z,20nm,0.9s						
ONTNC	Ouen Toro	39.30	118	P	P	05 07 35.5	-0.5
ONTNC				IAmb	IAmb	05 07 38.8	
	comp=Z,61nm,0.9s						
MOO	Moorlands	39.31	159	P	P	05 07 37.9	+2.0
	comp=Z,205nm,1.3s						
MOO	Moorlands	39.31	159	P	P	05 07 36.7	+0.9
MOO	Moorlands	39.31	159	P	P	05 07 37.7	+1.8
MOO	Moorlands	39.31	159	P	P	05 07 37.8	+2.0
	comp=Z,205nm,1.3s						
WHN	Wuhan	39.36	340	⇓P	P	05 07 36.9	+0.6
WHN				pmax	pmax		
	comp=Z,280nm,0.9s						
NJ2	Nanjing	39.46	346	⇓P	P	05 07 37.5	+0.4
NJ2				pmax	pmax		
	comp=Z,240nm,1.1s						
YATNC	Mamie plateau,	39.60	117	P	P	05 07 39.9	+1.3
OUENC	Ouen Island, N	39.67	118	P	P	05 07 39.5	+0.4
TAU	Tasmania Unive	39.76	159	P	P	05 07 40.2	+0.7
TAU	Tasmania Unive	39.76	159	P	P	05 07 40.1	+0.5
TAU				IAmb	IAmb	05 07 42.4	
	comp=Z,91nm,1.1s						
TAU	Tasmania Unive	39.76	159	P	P	05 07 40.6	+1.1
	comp=Z,94nm,1.5s						
TAU	Tasmania Unive	39.76	159	P	P	05 07 41.3	+1.8
JMN	Monobe	40.13	6	P	P	05 07 43.0	+0.3
JMN	Monobe	40.13	6	P	P	05 07 42.6	-0.1
JMN				IAmb	IAmb	05 07 44.1	
	comp=Z,47nm,0.8s						
JMN	Monobe	40.13	6	P	P	05 07 43.1	+0.4
	comp=Z,73nm,1.2s						
MARNC	Mare, Loyalty	40.45	116	P	P	05 07 45.6	0.0
KMI2	Kunming	40.53	322	P	P	05 07 46.6	+0.3
KMI2				sP	sP	05 08 53.1	-6.0
KMI2				S	S	05 13 38.8	+0.6
KMI2				pmax	pmax		
	comp=Z,21nm,1.1s						
KMI2				L	L		
	comp=Z,130nm,10.1s						
KMI2				L	L		
	comp=Z,220nm,15.1s						
KMI2				L	L		
	comp=Z,270nm,15.8s						
ENH	Enshi	41.04	334	P	P	05 07 50.1	-0.1
ENH	Enshi	41.04	334	P	P	05 07 49.6	-0.5
PZH	PanZhiHua	42.13	322	P	P	05 08 00.6	+1.4
INU	Inuyama	42.15	10	P	P	05 07 59.1	0.0
INU	Inuyama	42.15	10	P	P	05 07 58.8	-0.2
	comp=Z,32nm,1.5s						
JGF	Kuroka	42.46	10	P	P	05 08 00.9	-0.7
JGF	Kuroka	42.46	10	P	P	05 08 01.6	0.0
JGF	Kuroka	42.46	10	P	P	05 08 01.1	-0.5
	comp=Z,28nm,2.4s						
TJN	Taejon	42.56	358	P	P	05 08 03.0	+0.7
TJN	Taejon	42.56	358	P	P	05 08 02.6	+0.3

MJAR	**Matsushiro Arr**	**43.52**	**11**	P	**P**	**05 08 08.9**	**-1.2**
	comp=Z,39nm,0.9s,baz=187,slow=9.3,SNR=74						
MJAR				pP	**pP**	**05 08 55.8**	**-1.5**
	comp=Z,11nm,0.9s,baz=187,slow=8.7,SNR=3.7						
MJAR				ScP	**ScP**	**05 13 22.8**	**-0.3**
	comp=Z,5.5nm,1.0s,baz=193,slow=4.6,SNR=7.4						
	comp=Z,39nm,0.9s						
MAJO	**Matsushiro**	**43.52**	**11**	P	**P**	**05 08 08.7**	**-1.4**
MAJO	**Matsushiro**	**43.52**	**11**	P	**P**	**05 08 09.5**	**-0.6**
MAJO				IAmb	IAmb	05 08 10.2	
	comp=Z,59nm,0.9s						
MAJO	**Matsushiro**	**43.52**	**11**	P	**P**	**05 08 08.9**	**-1.2**
	comp=Z,74nm,0.9s						
MAJO	**Matsushiro**	**43.52**	**11**	P	**P**	**05 08 08.6**	**-1.4**
MAJO				pP	**pP**	**05 08 59.0**	**+1.8**
MAJO				ScP	**ScP**	**05 13 22.3**	**-0.7**
MJB9	**Matsu-Tunnel**	**43.53**	**11**	P	**P**	**05 08 10.2**	**+0.1**
MJB9				IAmb	IAmb	05 08 11.2	
	comp=Z,54nm,0.8s						
KSRS	**Korea Array**	**43.62**	**359**	P	**P**	**05 08 11.2**	**+0.5**
	comp=Z,14nm,0.8s,baz=176,slow=11,SNR=47						
KSRS				pP	**pP**	**05 08 56.5**	**-1.4**
	comp=Z,5.4nm,0.7s,baz=176,slow=9.3,SNR=1.1						
KSRS				ScP	**ScP**	**05 13 24.1**	**+0.8**
	comp=Z,3.4nm,0.8s,baz=184,slow=4.0,SNR=7.1						
	comp=Z,14nm,0.8s						
LYN	**LuoYang**	**43.66**	**340**	P	**P**	**05 08 10.7**	**-0.4**
LYN				pmax	pmax		
	comp=Z,64nm,1.0s						
TIA	**Tai'an**	**43.84**	**346**	P	**P**	**05 08 12.0**	**-0.6**
TIA				pmax	pmax		
	comp=Z,48nm,1.1s						
CD2	**Chengdu**	**44.34**	**328**	P	**P**	**05 08 16.4**	**-0.3**
CD2				pmax	pmax		
	comp=Z,20nm,0.4s						
XAN	**Xi'an**	**44.53**	**336**	P	**P**	**05 08 17.1**	**-1.0**
XAN				pP	pP	05 09 04.3	-1.3
XAN				ScP	**ScP**	**05 13 27.3**	**0.0**
XAN				pmax	pmax		
	comp=Z,81nm,1.0s						
XAN				pmax	pmax		
	comp=Z,150nm,3.6s						
XAN	**Xi'an**	**44.53**	**336**	P	**P**	**05 08 17.4**	**-0.7**
XAN				ScP	**ScP**	**05 13 27.9**	**+0.6**
DL2	**Dalian**	**45.59**	**352**	P	**P**	**05 08 26.5**	**+0.2**
DL2				pmax	pmax		
	comp=Z,76nm,1.1s						
HNS	**HongShan**	**45.59**	**344**	⇓P	**P**	**05 08 26.1**	**-0.2**
HNS				ScP	**ScP**	**05 13 32.2**	**+0.7**
HNS				pmax	pmax		
	comp=Z,120nm,1.1s						
TIY	**Taiyuan**	**46.55**	**342**	P	**P**	**05 08 34.0**	**+0.1**
TIY				S	**S**	**05 15 04.0**	**-0.8**
TIY				pmax	pmax		
	comp=Z,73nm,0.5s						
BJI2	**Beijing**	**47.70**	**346**	P	**P**	**05 08 42.5**	**-0.1**
BJI2				pmax	pmax		
	comp=Z,55nm,1.0s						
BJT	**Baijiatuau**	**47.70**	**346**	P	**P**	**05 08 42.8**	**+0.2**
BJT	**Baijiatuau**	**47.70**	**346**	P	**P**	**05 08 42.3**	**-0.3**
BJT				IAmb	IAmb	05 08 43.6	
	comp=Z,62nm,0.8s						
BJT	**Baijiatuau**	**47.70**	**346**	P	**P**	**05 08 42.4**	**-0.2**
BJT				pP	**pwP**	**05 09 35.4**	**-1.8**
BJT				ScP	**ScP**	**05 13 38.6**	**-1.7**
SHL	**Shillong**	**48.17**	**313**	P	**P**	**05 08 46.6**	**-0.1**
	SNR=6.4						
JTM	**Tenmabayashi**	**48.19**	**12**	P	**P**	**05 08 46.9**	**+0.6**
JTM	**Tenmabayashi**	**48.19**	**12**	P	**P**	**05 08 46.1**	**-0.2**
JTM				IAmb	IAmb	05 08 47.5	
	comp=Z,104nm,1.0s						
LZDM	**Lanzhou Array**	**48.43**	**332**	P	**P**	**05 08 48.6**	**-0.1**
	comp=Z,6.5nm,0.5s,baz=147,slow=8.5,SNR=12						
LZDM				ScP	**ScP**	**05 13 44.5**	**+0.5**
	comp=Z,3.9nm,0.5s,baz=165,slow=6.2,SNR=5.2						
	comp=Z,6.5nm,0.5s						
LZH	**Lanzhou**	**48.47**	**332**	*e*P	**P**	**05 08 49.1**	**+0.3**
LZH				pP	pwP	05 09 40.1	-0.8
LZH				pmax	pmax		
	comp=Z,60nm,1.5s						
LZH				L	L		
	comp=Z,280nm,18.5s						
LZH				L	L		
	comp=Z,250nm,19.2s						
HHC	**Hu-ho-hao-te**	**49.70**	**342**	*e*P	**P**	**05 08 58.8**	**+0.9**
HHC				pmax	pmax		
	comp=Z,35nm,0.8s						
HHC				pmax	pmax		
	comp=Z,99nm,4.6s						
OUZ	**Omahuta**	**49.88**	**131**	P	**P**	**05 09 01.1**	**+1.8**
CN2	**Changchun**	**50.05**	**356**	*e*P	**P**	**05 09 00.1**	**-0.3**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.9s						
BTO2	**Baotou**	**50.13**	**341**	*e*P	**P**	**05 09 01.8**	**+0.6**
BTO2				pP	**pP**	**05 09 51.0**	**+1.3**
BTO2				pmax	pmax		
	comp=Z,33nm,1.1s						
BTO2				pmax	pmax		
	comp=Z,250nm,9.2s						
USA0B	**Ussuriysk Arra**	**50.40**	**3**	P	**P**	**05 09 03.1**	**+0.1**
USA0B				IAmb	IAmb	05 09 04.6	
	comp=Z,122nm,1.7s						
USRK	**Ussuriysk Ar.**	**50.40**	**3**	P	**P**	**05 09 03.2**	**+0.2**
	comp=Z,24nm,0.6s,baz=184,slow=7.5,SNR=36						
	comp=Z,24nm,0.6s						
USRK	**Ussuriysk Ar.**	**50.40**	**3**		**P**	**05 09 02.7**	**-0.3**
DGTI	**Dogotuki**	**50.43**	**106**	P	**P**	**05 09 05.1**	**+1.3**
WCZ	**Waipu Caves**	**50.73**	**132**	P	**P**	**05 09 07.6**	**+2.0**
MDJ	**Mudanjiang**	**50.76**	**0**	P	**P**	**05 09 05.9**	**+0.3**
MDJ				pmax	pmax		
	comp=Z,35nm,0.9s						
MDJ	**Mudanjiang**	**50.76**	**0**	P	**P**	**05 09 06.2**	**+0.5**
MSZ	**Milford Sound**	**50.93**	**145**	P	**P**	**05 09 08.9**	**+1.9**
JCZ	**Jackson Bay**	**51.08**	**144**	P	**P**	**05 09 09.9**	**+1.7**
JCZ	**Jackson Bay**	**51.08**	**144**	P	**P**	**05 09 10.1**	**+1.9**
PYZ	**Puysegur Point**	**51.16**	**147**	P	**P**	**05 09 09.6**	**+1.0**
FOZ	**Fox Glacier**	**51.38**	**143**	P	**P**	**05 09 11.4**	**+1.1**
FOZ				IAmb	IAmb	05 09 12.3	
	comp=Z,56nm,0.8s						
FOZ	**Fox Glacier**	**51.38**	**143**	P	**P**	**05 09 11.4**	**+1.1**
XLT	**XiLinHaoTe**	**51.42**	**348**	*e*P	**P**	**05 09 10.9**	**+0.2**
XLT				pP	pwP	05 10 04.0	-1.7
XLT				sP	PcP	05 10 21.2	-0.6
XLT				S	**S**	**05 16 10.1**	**-2.3**
XLT				ScS	**ScS**	**05 18 33.1**	**-3.8**
XLT				pmax	pmax		
	comp=Z,69nm,1.2s						
XLT				pmax	pmax		
	comp=Z,170nm,4.4s						
MLZ	**Mavora Lakes**	**51.46**	**145**	P	**P**	**05 09 11.8**	**+0.9**
MLZ				IAmb	IAmb	05 09 12.9	
	comp=Z,136nm,1.4s						
MLZ	**Mavora Lakes**	**51.46**	**145**	P	**P**	**05 09 12.0**	**+1.1**
WKZ	**Wanaka**	**51.65**	**144**	P	**P**	**05 09 13.5**	**+1.1**
DSZ	**Denniston Nort**	**51.66**	**140**	P	**P**	**05 09 14.1**	**+1.5**
QRZ	**Quartz Range**	**51.67**	**138**	P	**P**	**05 09 14.5**	**+1.9**
GRZ	**Great Barrier**	**51.68**	**132**	P	**P**	**05 09 14.4**	**+1.7**
WHZ	**Wether Hill Ro**	**51.68**	**146**	P	**P**	**05 09 12.8**	**+0.2**
WHZ	**Wether Hill Ro**	**51.68**	**146**	P	**P**	**05 09 13.1**	**+0.6**
WVZ	**Waitaha Valley**	**51.69**	**142**	P	**P**	**05 09 13.0**	**+0.4**
JKA	**Kamikawa-asahi**	**51.70**	**12**	P	**P**	**05 09 12.6**	**0.0**
JKA				IAmb	IAmb	05 09 13.9	
	comp=Z,35nm,0.7s						
INZ	**Inchbonnie**	**51.94**	**141**	P	**P**	**05 09 15.5**	**+1.0**
KHEZ	**Kahui Hut**	**51.95**	**136**	P	**P**	**05 09 16.8**	**+2.0**
EAZ	**Earnscleugh**	**52.05**	**145**	P	**P**	**05 09 16.0**	**+0.7**
TKNZ	**Takaka Hill**	**52.06**	**138**	P	**P**	**05 09 16.9**	**+1.5**
LBZ	**Lake Benmore**	**52.08**	**143**	P	**P**	**05 09 16.5**	**+0.9**
HIZ	**Hauiti**	**52.19**	**135**	P	**P**	**05 09 18.1**	**+1.7**
RPZ	**Rata Peaks**	**52.23**	**142**	P	**P**	**05 09 18.3**	**+1.6**
APZ	**The Paps**	**52.28**	**147**	P	**P**	**05 09 18.1**	**+1.1**
TOZ	**Tahuroa Road**	**52.32**	**134**	P	**P**	**05 09 19.8**	**+2.4**
THZ	**Tophouse**	**52.38**	**139**	P	**P**	**05 09 19.1**	**+1.2**
NNZ	**Nelson**	**52.42**	**138**	P	**P**	**05 09 18.4**	**+0.3**
ARCZ	**Arundel**	**52.43**	**142**	P	**P**	**05 09 19.2**	**+1.0**
TMZ	**Timaru**	**52.57**	**143**	P	**P**	**05 09 19.8**	**+0.7**
DUWZ	**D'Urville Isla**	**52.59**	**138**	P	**P**	**05 09 20.0**	**+0.7**
TLZ	**Tolley Road**	**52.59**	**134**	P	**P**	**05 09 21.6**	**+2.1**
OXZ	**Oxford**	**52.63**	**141**	P	**P**	**05 09 21.6**	**+2.0**
TUZ	**Tuapeka**	**52.66**	**145**	P	**P**	**05 09 20.4**	**+0.7**
ODZ	**Otahua Downs**	**52.72**	**144**	P	**P**	**05 09 21.3**	**+1.1**
WAZ	**Wanganui**	**52.83**	**136**	P	**P**	**05 09 23.2**	**+2.0**
TWVZ	**Taurewa**	**52.84**	**135**	P	**P**	**05 09 22.7**	**+1.4**
TUWZ	**Tuamarina**	**52.90**	**138**	P	**P**	**05 09 22.0**	**+0.4**
COVZ	**Chateau Observ**	**52.97**	**135**	P	**P**	**05 09 24.5**	**+2.2**
NGZ	**Ngauruhoe**	**53.00**	**135**	P	**P**	**05 09 24.4**	**+1.9**
TRVZ	**Turoa**	**53.02**	**135**	P	**P**	**05 09 24.5**	**+1.8**
NTVZ	**North Tongarir**	**53.02**	**135**	P	**P**	**05 09 24.5**	**+1.8**
SNVZ	**South Ngauruho**	**53.03**	**135**	P	**P**	**05 09 24.6**	**+1.7**
OTVZ	**Oturere**	**53.04**	**135**	P	**P**	**05 09 24.6**	**+1.7**
WNVZ	**Wahianoa**	**53.06**	**135**	P	**P**	**05 09 24.7**	**+1.6**
GVZ	**Greta Valley S**	**53.07**	**140**	P	**P**	**05 09 23.7**	**+0.9**
KHZ	**Kahutara**	**53.12**	**140**	P	**P**	**05 09 23.3**	**+0.2**
GTA2	**Gaotai**	**53.12**	**332**	P	**P**	**05 09 23.6**	**+0.3**
GTA2				pP	pP	05 10 11.1	-1.6
GTA2				ScP	**ScP**	**05 14 04.4**	**+0.5**
GTA2				pmax	pmax		
	comp=Z,41nm,1.1s						
GTA2				L	L		
	comp=Z,210nm,16.5s						
GTA2				L	L		
	comp=Z,220nm,16.5s						
GTA2				L	L		
	comp=Z,200nm,15.9s						
HHSZ	**Highcliff Hill**	**53.17**	**145**	P	**P**	**05 09 25.2**	**+1.7**
MOVZ	**Moawhango**	**53.21**	**135**	P	**P**	**05 09 24.8**	**+0.8**
MQZ	**McQueen's Vall**	**53.21**	**141**	P	**P**	**05 09 25.1**	**+1.3**
EVN	**Everest**	**53.25**	**312**	P	**P**	**05 09 24.7**	**-0.4**
EVN				IAmb	IAmb	05 09 26.3	
	comp=Z,39nm,0.8s						
KIW	**Kapiti Island**	**53.28**	**137**	P	**P**	**05 09 25.1**	**+0.7**
OGWZ	**Otaki Gorge**	**53.43**	**137**	P	**P**	**05 09 26.0**	**+0.5**
BKZ	**Black Stump Fm**	**53.62**	**135**	P	**P**	**05 09 27.2**	**+0.2**
TSZ	**Takapari Road**	**53.63**	**136**	P	**P**	**05 09 27.4**	**+0.4**
MRZ	**Mangatainoka R**	**53.64**	**137**	P	**P**	**05 09 26.9**	**-0.1**
MCQ	**Macquarie Isla**	**53.65**	**159**	P	**P**	**05 09 28.7**	**+1.9**
MCQ	**Macquarie Isla**	**53.65**	**159**	P	**P**	**05 09 27.7**	**+0.9**
URZ	**Urewera**	**53.69**	**134**	P	**P**	**05 09 27.3**	**0.0**
RTZ	**Ruatahuna**	**53.74**	**134**	P	**P**	**05 09 28.1**	**+0.2**
RTZ	**Ruatahuna**	**53.74**	**134**	P	**P**	**05 09 28.3**	**+0.4**
HAZ	**Te Kaha**	**53.98**	**133**	P	**P**	**05 09 29.8**	**+0.4**
MWZ	**Matawai**	**54.02**	**133**	P	**P**	**05 09 30.3**	**+0.4**
BFZ	**Birch Farm**	**54.10**	**137**	P	**P**	**05 09 30.8**	**+0.5**
PXZ	**Pawanui**	**54.25**	**136**	P	**P**	**05 09 31.7**	**+0.4**
MXZ	**Matakaoa Point**	**54.29**	**132**	P	**P**	**05 09 33.0**	**+1.2**
YSS	**Yuzhno-Sakhali**	**54.45**	**11**	P	**P**	**05 09 33.5**	**+0.9**
YSS				IAmb	IAmb	05 09 33.6	
	comp=Z,27nm,0.6s						
PUZ	**Puketiti**	**54.45**	**133**	P	**P**	**05 09 33.9**	**+1.0**
HYB	**Hyderabad**	**55.30**	**296**	*e*P	**P**	**05 09 38.8**	**-0.5**
HYB				*e*pP	**pP**	**05 10 31.2**	**+2.4**
HYB				*e*PcP	**PcP**	**05 10 36.8**	**-0.3**
HYB				*e*PP	**PP**	**05 11 45.7**	**0.0**
HYB				*e*S	**S**	**05 17 04.8**	**-0.6**
HYB				*e*ScS	**ScS**	**05 19 03.8**	**-1.5**
HILR	**Hailar Array B**	**56.30**	**353**	P	**P**	**05 09 46.2**	**+0.4**
	comp=Z,5.1nm,0.4s,baz=163,slow=11,SNR=11						
HILR				ScP	**ScP**	**05 14 16.8**	**-0.7**
	comp=Z,0.9nm,0.2s,baz=52,slow=10.0,SNR=3.5						
	comp=Z,5.1nm,0.4s						
HEH	**HeiHe**	**56.42**	**359**	*e*P	**P**	**05 09 45.7**	**-0.8**
HEH				pmax	pmax		
	comp=Z,66nm,1.2s						
ULN	**Ulaanbaatar**	**57.42**	**342**	P	**P**	**05 09 55.0**	**+1.2**
ULN				S	**S**	**05 17 36.5**	**+4.0**
ULN	**Ulaanbaatar**	**57.42**	**342**	P	**P**	**05 09 54.2**	**+0.4**
ULN				IAmb	IAmb	05 09 55.9	
	comp=Z,36nm,0.8s						
ULN	**Ulaanbaatar**	**57.42**	**342**	P	**P**	**05 09 54.5**	**+0.6**
	comp=Z,2µmcomp=Z,208nm,1.1s						
ULN	**Ulaanbaatar**	**57.42**	**342**	P	**P**	**05 09 54.4**	**+0.6**
ULN				pP	**pwP**	**05 10 48.9**	**-1.3**
SONM	**Songino Array**	**57.59**	**342**	P	**P**	**05 09 56.1**	**+1.1**
	comp=Z,17nm,0.9s,baz=162,slow=7.2,SNR=69						
SONM				pP	**pP**	**05 10 43.8**	**-1.2**
	comp=Z,4.4nm,0.8s,baz=152,slow=8.6,SNR=1.8						
SONM				ScP	**ScP**	**05 14 22.7**	**-0.6**
	comp=Z,1.7nm,0.8s,baz=140,slow=3.3,SNR=3.5						
SONM				PKP2bc	**P'P'bc**	**05 39 46.7**	**-4.2**
	comp=Z,1.2nm,1.0s,baz=337,slow=3.4,SNR=4.7						
	comp=Z,17nm,0.9s						
SONM	**Songino Array**	**57.59**	**342**	P	**P**	**05 09 55.3**	**+0.3**
SONM				IAmb	IAmb	05 09 57.1	
	comp=Z,56nm,1.3s						
CTZ	**Chatham Island**	**60.18**	**137**	P	**P**	**05 10 14.3**	**+1.5**
CTZ	**Chatham Island**	**60.18**	**137**	P	**P**	**05 10 14.2**	**+1.4**
CTZ	**Chatham Island**	**60.18**	**137**	P	**P**	**05 10 14.2**	**+1.4**
DRV	**Dumont d'Urvil**	**60.66**	**175**	P	**P**	**05 10 15.8**	**+0.3**
DRV				PcP	**PcP**	**05 10 57.7**	**+0.4**
DRV				x	x	05 11 07.1	
DRV				pP	**pwP**	**05 11 12.2**	**+2.4**
CASY	**Casey**	**61.19**	**188**	P	**P**	**05 10 19.4**	**+0.3**
CASY				IAmb	IAmb	05 10 20.6	
	comp=Z,30nm,0.8s						
CASY				PcP	**PcP**	**05 10 59.8**	**+0.4**
CASY	**Casey**	**61.19**	**188**	P	**P**	**05 10 19.3**	**+0.2**
CASY				PcP	**PcP**	**05 10 59.9**	**+0.4**
CASY				pP	**pwP**	**05 11 14.9**	**-0.9**
WMQ	**Urumqi**	**62.42**	**327**	*e*P	**P**	**05 10 28.9**	**+1.1**
WMQ				pP	pP	05 11 17.6	-1.1
WMQ				pmax	pmax		
	comp=Z,37nm,1.1s						
WMQ				pmax	pmax		
	comp=Z,110nm,3.6s						
WMQ				L	L		
	comp=Z,82nm,24.0s						
PEA0B	**Petropavlovsk-**	**63.99**	**19**		**P**	**05 10 38.6**	**+0.8**
PETK	**Petropavlovsk-**	**63.99**	**19**	P	**P**	**05 10 38.4**	**+0.6**
	comp=Z,58nm,0.8s,baz=201,slow=4.0,SNR=40						
	comp=Z,58nm,0.8s						
PET	**Petropavlovsk**	**64.23**	**19**	P	**P**	**05 10 40.0**	**+0.7**
NIL	**Nilore**	**66.18**	**311**	P	**P**	**05 10 52.9**	**+0.6**
NIL	**Nilore**	**66.18**	**311**	P	**P**	**05 10 52.1**	**-0.2**
ZSN	**Zaisan**	**66.31**	**329**	*e*P	**P**	**05 10 53.4**	**+0.5**
SHLS	**Shalkode**	**66.72**	**323**	*e*P	**P**	**05 10 54.5**	**-1.2**
PDGK	**Podgornoye**	**66.80**	**323**	P	**P**	**05 10 56.5**	**+0.3**
UZB	**Uzynbulak**	**66.98**	**322**	*e*P	**P**	**05 10 57.7**	**+0.3**
KSH2	**Kashi**	**67.09**	**317**	P	**P**	**05 10 58.4**	**+0.3**
KSH2				pP	pP	05 11 50.0	+0.2
KSH2				pmax	pmax		
	comp=Z,14nm,1.0s						
MKAR	**Makanchi Array**	**67.25**	**327**	P	**P**	**05 10 59.2**	**+0.4**
	comp=Z,6.6nm,0.4s,baz=116,slow=8.4,SNR=135						
MKAR				pP	**pP**	**05 11 48.6**	**-1.8**
	comp=Z,8.8nm,0.7s,baz=123,slow=8.8,SNR=1.6						
MKAR				S	**S**	**05 19 33.6**	**-1.3**
	comp=Z,1.0nm,0.9s,baz=149,slow=6.7,SNR=2.4						
MKAR				P3KP		05 38 14.8	
	comp=Z,0.7nm,0.5s,baz=309,slow=2.5,SNR=6.0						
MKAR				PKP2bc	**P'P'bc**	**05 39 24.4**	**-1.9**
	comp=Z,1.2nm,1.1s,baz=227,slow=4.8,SNR=3.6						
	comp=Z,6.6nm,0.4s						
SATY	**Saty**	**67.31**	**322**	*e*P	**P**	**05 10 59.8**	**+0.4**
MAKZ	**Makanchi**	**67.43**	**327**	P	**P**	**05 11 00.5**	**+0.6**
MAKZ				x	x	05 11 49.6	
MAKZ				pP	**pwP**	**05 11 56.5**	**-1.2**
MA2	**Magadan**	**67.95**	**12**	P	**P**	**05 11 03.7**	**+0.8**
MA2	**Magadan**	**67.95**	**12**	P	**P**	**05 11 03.2**	**+0.4**
MA2				IAmb	IAmb	05 11 04.8	
	comp=Z,51nm,1.0s						
MA2	**Magadan**	**67.95**	**12**	P	**P**	**05 11 02.8**	**-0.1**
	comp=Z,58nm,1.1s						
TNSS	**Tian-Shan**	**68.19**	**321**	*e*P	**P**	**05 11 05.3**	**+0.1**
MDOK	**Medeo**	**68.20**	**322**	*e*P	**P**	**05 11 05.3**	**+0.4**
YAK	**Yakutsk**	**68.20**	**0**	P	**P**	**05 11 04.0**	**-0.3**
YAK	**Yakutsk**	**68.20**	**0**	P	**P**	**05 11 04.6**	**+0.2**
AAA	**Alma-Ata**	**68.31**	**322**	*e*P	**P**	**05 11 06.0**	**+0.5**
TDK	**Taldyqorghan**	**68.39**	**324**	*e*P	**P**	**05 11 06.4**	**+0.5**
	comp=Z,26nm,1.5s						
CCD	**Concordia, Ant**	**68.76**	**182**	P	**P**	**05 11 09.0**	**+0.9**
CCD				PcP	**PcP**	**05 11 32.8**	**+1.6**
CCD				pP	**pwP**	**05 12 07.5**	**+1.5**
KUU	**Kurty**	**69.03**	**322**	*e*P	**P**	**05 11 10.4**	**+0.5**
AAK	**Ala-Archa**	**69.53**	**320**	P	**P**	**05 11 13.9**	**+0.7**
KBL	**Kabul**	**69.73**	**310**	P	**P**	**05 11 15.8**	**+1.2**
KBL	**Kabul**	**69.73**	**310**	P	**P**	**05 11 14.8**	**+0.1**
SGDS	**Sogindy**	**69.86**	**321**	*e*P	**P**	**05 11 15.4**	**+0.4**
ARSB	**Arslanbob**	**69.88**	**318**	P	**P**	**05 11 15.8**	**+0.5**
ZAA0	**Zalesovo Array**	**70.66**	**334**	P	**P**	**05 11 19.6**	**0.0**
ZAA0				IAmb	IAmb	05 11 20.9	
	comp=Z,79nm,1.4s						
ZALV	**Zalesovo Beam**	**70.66**	**334**	P	**P**	**05 11 19.0**	**-0.5**
	comp=Z,39nm,1.0s,baz=112,slow=4.0,SNR=61						
ZALV				pP	**pP**	**05 12 09.4**	**-2.2**
	comp=Z,10nm,0.9s,baz=108,slow=4.8,SNR=3.5						
ZALV				S	**S**	**05 20 12.8**	**-1.7**
	comp=Z,0.7nm,0.6s,baz=325,slow=25,SNR=3.6						
ZALV				P3KP		05 38 07.2	
	comp=Z,1.0nm,0.6s,baz=318,slow=2.0,SNR=5.9						
ZALV				PKP2bc	**P'P'bc**	**05 39 12.2**	**-3.3**
	comp=Z,0.6nm,0.4s,baz=316,slow=4.1,SNR=5.4						
	comp=Z,39nm,1.0s						
ZALV	**Zalesovo Beam**	**70.66**	**334**	P	**P**	**05 11 19.3**	**-0.2**
KURBB	**Kurchatov Arra**	**71.55**	**329**	P	**P**	**05 11 25.1**	**+0.2**
	comp=Z,16nm,0.9s,baz=133,slow=5.1,SNR=80						
KURBB				pP	**pP**	**05 12 15.2**	**-2.1**
	comp=Z,12nm,0.8s,baz=131,slow=5.3,SNR=4.4						
KURBB				S	**S**	**05 20 19.7**	**-5.1**
	comp=Z,1.2nm,0.9s,baz=116,slow=17,SNR=6.4						
KURBB				P3KP		05 38 05.8	
	comp=Z,0.5nm,0.6s,baz=303,slow=3.5,SNR=5.4						
KURBB				PKP2bc	**P'P'bc**	**05 39 10.8**	**-2.1**
	comp=Z,0.2nm,0.3s,baz=303,slow=5.3,SNR=5.6						
	comp=Z,16nm,0.9s						
KURK	**Kurchatov**	**71.56**	**329**	P	**P**	**05 11 25.5**	**+0.5**
KURK	**Kurchatov**	**71.56**	**329**	P	**P**	**05 11 25.1**	**+0.2**
KURK				x	x	05 12 14.8	
KURK				pP	**pwP**	**05 12 22.3**	**-1.1**
DZA	**Taraz**	**71.70**	**319**	*e*P	**P**	**05 11 26.4**	**+0.3**
IUG	**Iuzhnay**	**72.22**	**318**	*e*P	**P**	**05 11 29.7**	**+0.4**
	comp=Z,22nm,1.0s						
KK31	**Karatay Array**	**72.33**	**319**	P	**P**	**05 11 30.0**	**+0.2**
KKAR	**Karatay Array**	**72.33**	**319**	P	**P**	**05 11 30.1**	**+0.3**
CHM	**Chimkent**	**72.58**	**318**	*e*P	**P**	**05 11 31.9**	**+0.6**
	comp=Z,11nm,0.5s						
BRLS	**Borolday**	**72.74**	**319**	*e*P	**P**	**05 11 32.5**	**+0.3**
VNDA	**Vanda**	**73.17**	**173**	P	**P**	**05 11 34.3**	**+0.2**
	comp=Z,26nm,0.7s,baz=320,slow=6.2,SNR=202						
	comp=Z,26nm,0.7s						
VNDA	**Vanda**	**73.17**	**173**	P	**P**	**05 11 34.0**	**0.0**
VNDA				IAmb	IAmb	05 11 35.4	
	comp=Z,34nm,0.8s						
VNDA	**Vanda**	**73.17**	**173**	P	**P**	**05 11 34.3**	**+0.2**
VNDA				x	x	05 12 27.4	
VNDA				pP	**pwP**	**05 12 34.1**	**+1.5**
KIWB	**Kanaga Island**	**73.82**	**31**	P	**P**	**05 11 38.6**	**+0.3**
KIWB				IAmb	IAmb	05 11 40.4	
	comp=Z,64nm,1.0s						
JLN	**Jalan Bani Buh**	**73.89**	**295**	P	**P**	**05 11 40.4**	**+1.0**
SBA	**Scott Base**	**74.06**	**172**	P	**P**	**05 11 40.3**	**+1.0**
SBA				IAmb	IAmb	05 11 41.7	
	comp=Z,31nm,0.8s						
SBA	**Scott Base**	**74.06**	**172**	P	**P**	**05 11 41.0**	**+1.7**
SBA				x	x	05 12 34.1	
SBA				pP	**pwP**	**05 12 40.5**	**+2.6**
WBK	**Wadi Bani Khal**	**74.39**	**295**	P	**P**	**05 11 43.6**	**+1.4**
WSAR	**Wadi Sarin**	**74.85**	**296**	P	**P**	**05 11 46.1**	**+1.2**
	SNR=5.1						
MHTO	**MHTO**	**74.93**	**294**	P	**P**	**05 11 45.9**	**+0.6**
JMDO	**Jabal Madar**	**75.12**	**295**	P	**P**	**05 11 47.9**	**+1.5**
MAW	**Mawson**	**75.23**	**201**	P	**P**	**05 11 47.1**	**+1.1**
MAW	**Mawson**	**75.23**	**201**	P	**P**	**05 11 46.9**	**+0.8**
	comp=Z,25nm,0.9s,baz=66,slow=7.1,SNR=36						
	comp=Z,25nm,0.9s						
MAW	**Mawson**	**75.23**	**201**	P	**P**	**05 11 46.8**	**+0.8**
SMDO	**Samad**	**75.33**	**296**	P	**P**	**05 11 49.1**	**+1.4**
BIDO	**Bidbid**	**75.37**	**296**	P	**P**	**05 11 49.6**	**+1.8**
	SNR=9.2						
ATKA	**Atka Island**	**75.55**	**32**	P	**P**	**05 11 47.9**	**-0.3**
ATKA				IAmb	IAmb	05 11 49.4	
	comp=Z,43nm,0.9s						
BSY	**Bisya**	**76.02**	**295**	P	**P**	**05 11 52.7**	**+1.2**
HOQ	**Hoqain**	**76.11**	**296**	P	**P**	**05 11 53.5**	**+1.5**
	SNR=6.3						
ARQ	**Araqi**	**76.76**	**296**	P	**P**	**05 11 57.1**	**+1.5**
ARQ				S	**S**	**05 21 27.0**	**+3.1**
SOHO	**SOHO**	**76.93**	**296**	P	**P**	**05 11 57.1**	**+0.6**
DMTO	**DMTO**	**77.04**	**290**	S	**S**	**05 21 27.6**	**+0.6**
BVAR	**Borovoye Array**	**77.10**	**328**	P	**P**	**05 11 56.9**	**0.0**
	comp=Z,3.9nm,0.4s,baz=116,slow=6.8,SNR=18						
BVAR				pP	**pP**	**05 12 48.0**	**-1.9**
	comp=Z,8.3nm,0.8s,baz=141,slow=5.0,SNR=3.7						
	comp=Z,3.9nm,0.4s						
UOSS	**Minazif**	**77.40**	**297**	P	**P**	**05 12 00.4**	**+1.2**
UOSS	**Minazif**	**77.40**	**297**	P	**P**	**05 11 59.9**	**+0.7**
ASHO	**Ashiyiah**	**77.47**	**297**	P	**P**	**05 12 01.2**	**+1.6**
ASHO				S	**S**	**05 21 33.7**	**+2.1**
MASF	**Masafi**	**77.54**	**298**	P	**P**	**05 12 01.6**	**+1.6**
ALNE	**Al Ain**	**77.61**	**296**	P	**P**	**05 12 01.9**	**+1.6**
SHME	**Shamm**	**77.71**	**298**	P	**P**	**05 12 02.4**	**+1.6**
TIXI	**Tiksi**	**77.86**	**360**	P	**P**	**05 12 01.2**	**+0.5**
	comp=Z,22nm,0.4s,baz=202,slow=6.1,SNR=23						
	comp=Z,22nm,0.4s						
TIXI	**Tiksi**	**77.86**	**360**	P	**P**	**05 12 00.6**	**-0.1**
TIXI				IAmb	IAmb	05 12 01.5	
	comp=Z,26nm,0.5s						
FAQ	**Al Faqa, Dubai**	**77.90**	**297**	P	**P**	**05 12 02.9**	**+1.0**
CLES	**Cleveland East**	**78.15**	**33**	P	**P**	**05 12 03.0**	**+0.4**
WHFO	**Wadi Hawf**	**78.18**	**290**	P	**P**	**05 12 03.9**	**+0.3**
UNV	**Unalaska Valle**	**80.43**	**33**	P	**P**	**05 12 15.7**	**+0.7**
AB31	**Akbulak array**	**81.51**	**322**	P	**P**	**05 12 20.5**	**-0.3**
ABKAR	**Akbulak array**	**81.51**	**322**	P	**P**	**05 12 20.1**	**-0.6**
QSPA	**South Pole Qui**	**83.60**	**180**	P	**P**	**05 12 31.1**	**-0.3**
	comp=Z,32nm,0.7s,baz=261,slow=0.5,SNR=151						
QSPA				pP	**pP**	**05 13 25.7**	**0.0**
	comp=Z,5.4nm,0.8s,baz=296,slow=1.3,SNR=1.4						
	comp=Z,32nm,0.7s						
QSPA	**South Pole Qui**	**83.60**	**180**	P	**P**	**05 12 30.8**	**-0.6**
QSPA				IAmb	IAmb	05 12 32.2	
	comp=Z,38nm,0.7s						
QSPA	**South Pole Qui**	**83.60**	**180**	P	**P**	**05 12 30.8**	**-0.6**
QSPA				x	x	05 13 33.4	
SYO	**Syowa Base**	**83.94**	**201**	⇑*i*P	**P**	**05 12 33.1**	**+0.2**
K13K	**Kusilvak Mount**	**84.68**	**26**	P	**P**	**05 12 37.8**	**+1.1**
K13K				IAmb	IAmb	05 12 39.6	
	comp=Z,36nm,1.1s						
M14K	**Bethel**	**85.42**	**27**	P	**P**	**05 12 41.0**	**+0.7**
M14K				IAmb	IAmb	05 12 42.4	
	comp=Z,49nm,1.1s						
K15K	**Wolf Creek Mou**	**86.18**	**26**	P	**P**	**05 12 45.4**	**+1.4**
RAYN	**Ar Rayn**	**86.74**	**294**	P	**P**	**05 12 48.3**	**+0.6**
RAYN				IAmb	IAmb	05 13 48.7	
	comp=Z,30nm,0.9s						
M16K	**Timber Creek**	**86.89**	**28**	P	**P**	**05 12 48.5**	**+1.0**
M16K				IAmb	IAmb	05 12 50.2	
	comp=Z,27nm,1.1s						
J17K	**VABM Dome**	**87.61**	**25**	P	**P**	**05 12 51.5**	**+0.6**
J17K				IAmb	IAmb	05 12 54.1	
	comp=Z,20nm,0.9s						
K17K	**Iditarod**	**87.73**	**26**	P	**P**	**05 12 52.0**	**+0.5**
H17K	**Granite Mounta**	**87.79**	**24**	P	**P**	**05 12 52.6**	**+0.8**
L18K	**Granite Mounta**	**88.29**	**27**		**P**	**05 12 55.4**	**+1.3**
ELIB	**Princess Elisa**	**88.84**	**197**	*d*P	**P**	**05 12 58.1**	**+1.3**
	comp=Z,19nm,1.0s						
ELIB				*d*pP	**pP**	**05 13 53.0**	**+1.1**
ELIB				*d*x	x	05 14 01.8	
C19K	**Lookout Ridge**	**89.33**	**20**	P	**P**	**05 12 59.4**	**+0.4**
C19K				IAmb	IAmb	05 13 00.6	
	comp=Z,32nm,1.1s						
IMAR	**Indian Mountai**	**90.56**	**24**	P	**P**	**05 13 04.9**	**+0.3**
E22K	**Anaktuvuk Pass**	**91.80**	**22**	P	**P**	**05 13 10.7**	**+0.3**
E22K				IAmb	IAmb	05 13 12.5	
	comp=Z,34nm,1.8s						
RND	**Reindeer**	**92.07**	**26**	P	**P**	**05 13 10.5**	**-1.3**
RND				IAmb	IAmb	05 13 12.3	
	comp=Z,12nm,0.8s						
ILAR	**Eielson Array**	**93.14**	**25**	P	**P**	**05 13 14.9**	**-1.7**
	comp=Z,1.8nm,0.8s,baz=266,slow=4.3,SNR=16						
ILAR				pP	**pP**	**05 14 11.6**	**+0.3**
	comp=Z,1.5nm,0.9s,baz=269,slow=4.6,SNR=1.8						
ILAR				PP	**PP**	**05 16 56.7**	**-6.5**
	comp=Z,4.0nm,1.2s,baz=256,slow=6.3,SNR=8.5						
ILAR				PKKPbc	**PKKPdf**	**05 30 24.0**	**-1.0**
	comp=Z,0.8nm,0.8s,baz=112,slow=1.2,SNR=7.7						
	comp=Z,1.8nm,0.8s						
F24K	**Squaw Lake**	**93.14**	**22**	P	**P**	**05 13 16.8**	**+0.1**
BMAR	**Burnt Mountain**	**94.40**	**23**		**P**	**05 13 22.8**	**+0.4**
TROLL	**Troll, Antarti**	**94.56**	**194**	⇑P	**P**	**05 13 24.0**	**+0.8**
	comp=Z,960nm,1.2s						
G26K	**Porcupine Rive**	**94.66**	**23**	P	**P**	**05 13 23.7**	**+0.2**
BCAR	**Beaver Creek A**	**95.20**	**27**	P	**P**	**05 13 26.1**	**0.0**
I27K	**Kandik River**	**95.43**	**25**	P	**P**	**05 13 27.3**	**+0.1**
I27K				IAmb	IAmb	05 14 27.6	
	comp=Z,8.9nm,0.9s						
H27K	**Steamboat Moun**	**95.51**	**24**	P	**P**	**05 13 28.1**	**+0.6**
H27K				IAmb	IAmb	05 13 30.0	
	comp=Z,16nm,1.4s						
SNAA	**Sanae**	**96.07**	**194**	⇓P	**P**	**05 13 30.9**	**+0.8**
	comp=Z,82nm,0.7s						
SNAA	**Sanae**	**96.07**	**194**	P	**P**	**05 13 30.3**	**+0.2**
	comp=Z,4.7nm,0.8s,baz=104,slow=2.7,SNR=8.9						
	comp=Z,4.7nm,0.8s						

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
SNAA	**Sanae**	96.07	194	P	P	05 13 29.8	-0.2
SNAA				IAmb	IAmb	05 13 31.7	
	comp=Z,22nm,1.4s						
I28M	**Miner Creek**	96.12	25	P	P	05 13 30.6	+0.2
DAWY	**Dawson**	96.32	26	P	P	05 13 31.2	0.0
I29M	**Ogilvie Camp,**	96.81	25	P	P	05 13 33.3	-0.1
G29M	**Pine Creek**	96.92	23	P	P	05 13 33.3	-0.6
G29M				IAmb	IAmb	05 14 34.5	
	comp=Z,16nm,1.1s						
VNA2	**Neumayer--Watz**	97.65	193	⇓P	Pdif	05 13 37.9	+0.7
	comp=Z,3.3nm,0.8s,baz=121,slow=4.8						
VNA2				⇑SKSac	SKSac	05 23 51.5	-0.5
	comp=E,2.0nm,0.6s,slow=5.1						
VNA3	**Neumayer Olymp**	97.92	192	⇑P	Pdif	05 13 38.3	0.0
	comp=Z,4.4nm,0.9s						
VNA3				⇑SKSac	SKSac	05 23 52.9	-0.3
	comp=E,2.1nm,1.0s						
ARCES	**ARCESS Array B**	100.71	340	P	Pdif	05 13 49.2	-1.4
	comp=E,2.6nm,0.9s,baz=75,slow=6.0,SNR=6.8						
AKASG	**Malin Array Be**	101.20	320	P	Pdif	05 13 51.8	-1.4
	comp=E,0.5nm,0.4s,baz=78,slow=1.3,SNR=1.8						
FINES	**FINESS Array B**	101.82	331	P	Pdif	05 13 55.1	-0.6
	comp=E,3.7nm,1.0s,baz=80,slow=4.6,SNR=4.5						
FINES				PKiKP	PKiKP	05 18 17.1	-0.4
	comp=E,1.8nm,0.9s,baz=85,slow=3.0,SNR=1.6						
YKA	**Yellowknife Ar**	107.56	26	PKiKP	PKiKP	05 18 27.6	-0.6
	comp=E,0.6nm,0.6s,baz=293,slow=2.0,SNR=6.4						
YKA				PKKPbc	PKKPbc	05 29 43.2	-2.9
	comp=E,1.7nm,0.8s,baz=104,slow=2.7,SNR=8.0						
HFS	**Hagfors**	108.02	332	PKiKP	PKiKP	05 18 30.2	+1.1
	comp=E,1.6nm,0.7s,baz=76,slow=1.2,SNR=1.8						
NOA	**NORSAR Array B**	108.85	333	PKiKP	PKiKP	05 18 31.4	+0.7
	comp=E,0.6nm,0.8s,baz=67,slow=2.2,SNR=4.2						
GERES	**GERESS Array B**	111.41	320	PKiKP	PKiKP	05 18 35.8	-0.2
	comp=E,0.7nm,0.2s,baz=90,slow=1.7,SNR=5.1						
NVAR	**Mina Array Bea**	111.55	51	PKiKP	PKiKP	05 18 36.1	-0.6
	comp=E,0.7nm,0.8s,baz=219,slow=1.6,SNR=5.7						
NVAR				PKKPbc	PKKPbc	05 29 32.7	0.0
	comp=E,0.4nm,0.8s,baz=108,slow=3.8,SNR=2.6						
PDAR	**Pinedale Array**	117.04	45	PKP	PKPdf	05 18 46.4	-0.7
	comp=E,0.9nm,0.6s,baz=234,slow=0.6,SNR=11						
PDAR				PKKPbc	PKKPbc	05 29 12.8	-1.4
	comp=E,0.9nm,0.7s,baz=107,slow=5.1,SNR=4.7						
ULM	**Lac du Bonnet**	122.37	33	PKP	PKPdf	05 18 56.2	-0.6
	comp=E,1.3nm,0.4s,baz=298,slow=3.3,SNR=7.1						
TXAR	**Lajitas Array**	125.31	59	PKP	PKiKP	05 19 04.0	+0.4
	comp=E,1.3nm,0.7s,baz=208,slow=1.4,SNR=20						
TXAR				PKKPbc	PKKPab	05 28 41.7	+0.2
	comp=E,0.4nm,0.8s,baz=87,slow=4.4,SNR=4.7						
ESDC	**Sonseca Array**	126.48	316	PKP	PKiKP	05 19 05.8	+0.2
	comp=E,0.9nm,0.9s,baz=1.7,slow=4.9,SNR=4.8						
ESDC				SKPbc	SKPbc	05 22 01.2	
	comp=E,3.3nm,1.2s,baz=65,slow=4.5,SNR=5.8						
TORD	**Torodi Ar. Bea**	127.88	282	PKP	PKiKP	05 19 08.9	0.0
	comp=E,3.8nm,0.9s,baz=73,slow=2.3,SNR=14						
PGAV	**Gavieira, Arco**	128.27	320	ex	SKPbc	05 21 57.6	
PMRV	**Marv??o**	128.95	317	ex	SKPbc	05 22 08.9	
PSARD	**Sardoal**	129.39	317	ex	SKPbc	05 22 10.2	-0.1
PMTG	**Montargil**	129.69	317	ex	SKPbc	05 22 11.1	-0.4
PLCA	**Paso Flores**	129.74	161	PKP	PKiKP	05 19 12.2	+0.1
	comp=E,5.5nm,0.8s,baz=216,slow=3.8,SNR=18						
PLCA				SKPbc	SKPbc	05 22 12.0	+0.2
	comp=E,15nm,1.0s,baz=194,slow=6.9,SNR=16						
SCHQ	**Schefferville**	129.99	12	SKPbc	SKPbc	05 22 11.1	-1.0
	comp=E,3.1nm,0.7s,baz=333,slow=5.2,SNR=6.4						
PVAQ	**Vaqueiros**	130.12	315	ex	SKPbc	05 22 13.8	+0.6
MESJ	**Messejana**	130.28	315	ex	SKPbc	05 22 13.8	+0.1
PTEO	**Sao Teotonio**	130.77	315	ex	SKPbc	05 22 12.9	-2.7
DBIC	**Dimbokro**	134.33	273	PKP	PKiKP	05 19 21.9	-0.1
	comp=E,2.4nm,0.4s,baz=98,slow=0.8,SNR=8.4						
DBIC				SKPbc	SKPbc	05 22 27.1	-1.5
	comp=E,7.6nm,0.6s,baz=90,slow=2.7,SNR=7.2						
CPUP	**Villa Florida**	146.88	169	PKPbc	PKPbc	05 19 45.5	+0.5
	comp=E,39nm,0.9s,baz=237,slow=2.1,SNR=60						
LPAZ	**La Paz**	151.72	143	PKP	PKPdf	05 19 51.0	-0.5
	comp=E,6.4nm,1.0s,baz=111,slow=0.9,SNR=15						
LPAZ				PKPbc	PKiKP	05 19 58.8	+0.5
	comp=E,6.2nm,0.4s,baz=4.3,slow=2.5,SNR=85						
LPAZ				PKPab	PKPab	05 20 08.2	+0.6
	comp=E,39nm,0.8s,baz=210,slow=2.5,SNR=50						
ROSC	**El Rosal**	156.58	93	PKPab	PKPab	05 20 28.9	+0.6
	comp=E,9.4nm,0.7s,baz=78,slow=21,SNR=6.5						
BDFB	**Brasilia**	157.95	187	PKPab	PKPab	05 20 34.2	+0.8
	comp=E,1.9nm,0.6s,baz=91,slow=5.0,SNR=4.1						

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*SJA **04** 05:18:18.1±0.6, 27°.50S×71°.93W, h13^{km}±4^{km}, ML3.7, MW4.0*

*GUC **04** 05:18:23.5±0.8, 27°.69S×71°.67W, h30^{km}±3^{km}, ML3.3*

ISC 04 05:18:19.3±1.9**, 27°.60S**±0°.03×**71°.84W**±0°.07**, h9**^{km}±11^{km}**, n21,** σ**2^{s}.07**/36**, 7C-1D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	**Llanos de Chal**	0.91	132	⇑iP	Pg	05 18 37.4	+0.6
AC04				eS	Sg	05 18 47.2	-1.4
AC04				IAML		05 18 50.8	
	comp=E,3µm,0.7s						
AC06	**Mina Casimiro**	1.34	80	⇑iP	Pn	05 18 44.5	+0.3
AC06				i S	Sg	05 19 01.1	-1.4
AC06				IAML		05 19 08.2	
	comp=N,1µm,0.5s						
GO03	**Copiapo**	1.43	90	eP	Pn	05 18 40.6	-4.8
GO03				eP	Pb	05 18 46.4	+0.3
GO03				eS	Sg	05 19 07.7	+2.5
GO03				IAML		05 19 08.6	
	comp=Z,1µm,0.5s						
GO03	**Copiapo**	1.43	90	⇑iP	Pb	05 18 46.0	-0.1
GO03				eS	Sn	05 19 03.3	-1.1
GO03				IAML		05 19 14.2	
	comp=N,1µm,0.6s						
LCO	**Las Campanas**	1.73	145	⇑iP	Pn	05 18 50.7	+0.9
LCO				i S	Sn	05 19 10.3	-1.9
AC01	**Pan de Azucar**	1.82	38	⇑iP	Pn	05 18 52.1	+1.3
AC01				IAML		05 19 34.5	
	comp=N,311nm,0.4s						
AC05	**El Transito**	1.85	132	eP	Pb	05 18 53.3	-0.1
AC05				eS	Sg	05 19 20.0	+1.2
AC05				IAML		05 19 22.9	
	comp=Z,416nm,0.6s						
AC05	**El Transito**	1.85	132	⇑iP	Pn	05 18 52.8	+1.5
AC05				i S	Sn	05 19 14.4	-0.6
AC05				IAML		05 19 26.7	
	comp=N,634nm,0.5s						
AC02	**Maricunga**	2.53	73	eP	Pb	05 19 03.9	-1.4
AC02				eS	Sb	05 19 33.9	-2.8
GO04	**Tololo Observa**	2.72	161	⇓iP	Pn	05 19 05.1	+1.6
GO04				i S	Sn	05 19 37.1	+0.5
CO01	**Juntas del Tor**	2.82	147	eP	Pn	05 19 07.5	+2.6
CO01				eS	Sn	05 19 40.6	+1.5
CO01				eS	Sb	05 19 41.2	-3.5
CO01				IAML		05 19 51.2	
	comp=Z,243nm,0.7s						
CO01	**Juntas del Tor**	2.82	147	⇑iP	Pn	05 19 07.4	+2.6
CO01				i S	Sn	05 19 39.5	+0.4
CO01				IAML		05 19 48.4	
	comp=E,240nm,0.2s						
CO06	**Fray Jorge**	3.07	177	eP	Pn	05 19 08.5	+0.5
PB14	**IPOC Station P**	3.23	24	eP	Pn	05 19 12.0	+1.5
PB14				eS	Sn	05 19 49.6	+0.3
PB14				IAML		05 20 17.1	
	comp=Z,99nm,0.7s						
AROD	**Rodeo**	3.29	141	eP	Pb	05 19 15.8	-2.3
AROD				eS	Sb	05 19 57.6	-0.9
CO03	**El Pedregal**	3.38	163	eP	Pn	05 19 14.1	+1.7
CO02	**Combarbal**	3.67	169	eP	Pn	05 19 17.6	+1.2
ACLC	**CERRO LA CRUZ**	4.67	114	eP	Pn	05 19 22.6	-7.6
ACLC				eS	Sb	05 20 39.7	+1.7
ACLC				IAML		05 20 54.5	
	comp=Z,51nm,0.9s						
PB05	**IPOC Station P**	4.95	18	eP	Pn	05 19 35.2	+1.1
PB05				eS	Sb	05 20 40.6	-5.5
PB05				IAML		05 21 15.6	
	comp=Z,37nm,1.0s						
PB06	**IPOC Station P**	5.29	23	eP	Pn	05 19 40.2	+1.5
PB06				eS	Sn	05 20 44.9	+5.0
PB06				IAML		05 21 21.1	
	comp=Z,89nm,0.8s						
SALTA		5.99	57	eP	Pn	05 19 39.1	-9.5

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*JMA **04** 05:34:00.1±0.3, 25°N±2°×123°.5E±0°.7, h157^{km}±3^{km}, MV3.1/18, NW OFF ISHIGAKIJIMA IS*

ISC 04 05:34:00.5±1.5**, 25°.3N**±0°.1×**123°.43E**±0°.04**, h150**^{km}**, n22,** σ**0^{s}.62**/26**, Northeast of Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	**Yonaguni jima**	0.89	205	P	Pn	05 34 24.8	+0.4
YOJ	**Yonaguni jima**	0.89	205	S	Sn	05 34 43.1	+0.5
YOJ	**Yonaguni jima**	0.89	205	P	Pn	05 34 24.7	+0.4
YOJ				eS	Sn	05 34 43.2	+0.5
JYNG	**Yonagunijimaku**	0.93	208	S	Sn	05 34 43.9	+0.8
IRIF	**Iriomote-Funau**	0.97	164	P	Pn	05 34 24.9	-0.2
JISG	**Ishigakijimahi**	1.05	130	P	Pn	05 34 25.8	+0.1
JISG				S	Sn	05 34 45.2	+0.3
JIJ	**Ishigaki jima**	1.11	144	i P	Pn	05 34 26.2	-0.1
JIJ				S	Sn	05 34 45.6	-0.3
JKRS	**Kuro-shima**	1.16	153	i P	Pn	05 34 26.9	+0.3
JKRS				S	Sn	05 34 47.0	+0.4
HATJ	**Hateruma jima**	1.26	164	eP	Pn	05 34 27.8	+0.2
JTJ	**Tarama**	1.31	118	S	Sn	05 34 49.5	+0.2
JIRJ	**Irabujima**	1.66	105	S	Sn	05 34 55.4	-0.2
JIKM	**Ikemajima**	1.68	102	S	Sn	05 34 56.2	+0.1
JMJ2	**Miyako jima3**	1.80	107	S	Sn	05 34 58.8	+0.3
YHNB	**Yeheng**	1.96	253	P	Pn	05 34 36.1	+0.9
YHNB	**Yeheng**	1.96	253	S	Sn	05 35 02.0	+0.1
NACB	**Ninganchiao**	2.00	237	P	Pn	05 34 35.6	0.0
SSLB	**Suanglung**	2.70	237	P	Pn	05 34 44.5	+0.4
SSLB	**Suanglung**	2.70	237	S	Sn	05 35 17.2	-0.5
YULB	**Yu-li**	2.70	227	P	Pn	05 34 42.7	-1.4
JKE	**Kume jima 2**	3.20	70	P	Pn	05 34 49.8	-0.6
TPUB	**Ta-pu**	3.22	233	P	Pn	05 34 51.1	+0.4
TPUB	**Ta-pu**	3.22	233	S	Sn	05 35 27.9	-1.7

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*IDC **04** 05:42:09.3±5.4, 34°.28N×138°.37E, h124^{km}±86^{km}, mb3.4/2, mbtmp3.6/4, ML2.9/2, Error ellipse: s-maj=103.2km s-min=31.8km az=136.0*

*JMA **04** 05:42:10.4±0.3, 36°.3N±0°.8×13°7E±°, h263^{km}±2^{km}, MV2.6/13, TOYAMA GIFU BORDER REG*

ISC 04 05:42:10.3±1.5**, 36°.3N**±0°.2×**137°.2E**±0°.2**, h265**^{km}±10^{km}**, n9,** σ**0^{s}.33**/11**, Eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JGN	**Niukaw**	0.10	113	eP	Pn	05 42 44.4	+0.1
JGN				eS	S	05 43 10.6	-0.5
JYTA	**Yamagatataniai**	0.77	210	P	Pn	05 42 45.9	0.0
MAT	**Matsushiro**	0.85	70	P	Pn	05 42 46.2	+0.1
MJAR	**Matsushiro Arr**	0.85	71	P	Pn	05 42 46.6	+0.5
	1.1nm,0.3s,baz=176,slow=4.7,SNR=30						
MJAR				S	S	05 43 14.7	+0.3
	2.4nm,0.3s,baz=169,slow=14,SNR=7.8						
	5.0nm,0.3s						
MJAR				AML	AML		
JSZ	**Suzu**	1.19	6	eP	Pn	05 42 47.9	0.0
JWT	**Wachi**	1.76	237	P	Pn	05 42 52.2	+0.2
JNU	**Nakatsue**	6.08	241	P	Pn	05 43 40.1	+0.3
	0.5nm,0.3s,baz=33,slow=12,SNR=2.4						
	3.2nm,0.5s						
JNU				AML	AML		
WRA	**Warramunga Arr**	55.96	183	P	P	05 51 21.1	-0.3
	1.0nm,0.4s,baz=360,slow=7.6,SNR=38						
	1.0nm,0.4s						
ASAR	**Alice Springs**	59.69	184	P	P	05 51 47.1	-0.1
	0.2nm,0.3s,baz=360,slow=6.1,SNR=6.7						
	0.2nm,0.3s						

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*IDC **04** 05:50:11.4±1.9, 2°.72N×126°.12E, h0^{km}, mb3.5/4, mbtmp3.5/4, MS3.2/1, Error ellipse: s-maj=124.4km s-min=24.5km az=68.0*

ISC 04 05:50:12.8±1.2**, 2°.8N**±0°.1×**126°.1E**±0°.6**, h10**^{km}**, n6,** σ**1^{s}.48**/6**, mb3.5**/3**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	**Don Marcelino,**	3.35	353	eP	Pn	05 51 06.5	+1.3
DDMP				eS	Sn	05 51 43.3	-1.9
FITZ	**Fitzroy Crossi**	20.73	181	P	P	05 54 52.8	-0.9
	0.5nm,0.3s,baz=0.8,slow=12,SNR=1.3						
	0.5nm,0.3s						
WRA	**Warramunga Arr**	23.96	161	P	P	05 55 27.0	-0.5
	0.5nm,0.4s,baz=340,slow=10,SNR=22						
	0.5nm,0.4s						
PMG	**Port Moresby**	24.20	120	LR	LR	06 06 47.1	
	comp=Z,55nm,21.2s,baz=219,slow=41						
ASAR	**Alice Springs**	27.34	164	P	P	05 55 58.9	+0.7
	0.2nm,0.4s,baz=345,slow=9.2,SNR=5.7						
	0.2nm,0.4s						
MKAR	**Makanchi Array**	58.01	326	P	P	06 00 06.1	+0.2
	0.6nm,0.6s,baz=133,slow=8.0,SNR=5.5						
	0.6nm,0.6s						

IDC 04 05:58:04.7±2.6**, 54°.44N**×**83°.44E, h0**^{km}**, mbtmp2.7**/2**, ML2.4**/2**, Error ellipse: s-maj=23.3km s-min=13.7km az=143.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	**ZALESOVO INFRA**	0.95	121	I	I	06 02 50.0	
	baz=303,slow=313,SNR=3.0						
ZALV	**Zalesovo Beam**	0.95	121	Pg	Pg	05 58 22.7	-0.2
	0.3nm,0.3s,baz=300,slow=16,SNR=7.6						
ZALV				Lg	Lg	05 58 34.3	
	0.9nm,0.3s,baz=302,slow=28,SNR=16						
KURBB	**Kurchatov Arra**	4.86	220	Pn	Pn	05 59 19.2	+0.2
	0.1nm,0.3s,baz=42,slow=13,SNR=2.0						
	0.4nm,0.3s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	7.69	186	Pn	Pn	05 59 59.8	+1.8
	0.1nm,0.3s,baz=7.5,slow=12,SNR=2.4						
	0.4nm,0.8s						
MKAR				AML	AML		

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*VIE **04** 05:59:50.4±0.1, 47°.16N×11°.38E, h6^{km}±1^{km}, mb2.0/20, ml2.8/21, Error ellipse: s-maj=0.7km s-min=0.6km az=94.0 3 km ENE of Fulpmes felt 4 ems98 NE of Fulpmes / Tyrol*

*ROM **04** 05:59:50.2±0.1, 47°.154N±0°.006×11°.41E±0°.01, h8^{km}, ML2.4/56, Error ellipse: s-maj=1.1km s-min=0.5km az=115.0*

*BGR **04** 05:59:51.8±0.2, 47°.17N×11°.35E, h10^{km}, ML2.4/19, Error ellipse: s-maj=5.6km s-min=3.3km az=2.0*

*PRU **04** 05:59:54.2, 47°.26N×11°.49E, h0^{km}, Fulmpes*

ISC 04 05:59:49.9±0.8**, 47°.18N**±0°.02×**11°.41E**±0°.01**, h12**^{km}±5^{km}**, n68,** σ**1^{s}.01**/111**, 2C-2D, Austria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SQTA	**Sankt Quirin**	0.14	286	ePg	Pg	05 59 53.6	+0.1
SQTA				eSg	Sg	05 59 55.4	-0.6
SQTA	**Sankt Quirin**	0.14	286	i Pg	Pg	05 59 53.6	+0.1
	239nm,0.1s,SNR=757						
SQTA				i Sg	Sg	05 59 55.4	-0.6
	609nm,0.1s						
WTTA	**Wattenberg**	0.17	61	ePg	Pb	05 59 54.7	-0.5
WTTA				eSg	Sg	05 59 57.5	+0.7
WTTA	**Wattenberg**	0.17	61	⇑P	Pb	05 59 54.7	-0.5
WTTA				S	Sg	05 59 57.5	+0.7
WTTA				AML	AML		
	comp=E,1305µm,0.4s						
WTTA				AML	AML		
	comp=N,1210µm,0.2s						
WTTA				AML	AML		
	comp=E,1305µm,1.6s						
WTTA	**Wattenberg**	0.17	61	i Pg	Pb	05 59 54.7	-0.5
	comp=E,325nm,0.1s						
WTTA				eSg	Sg	05 59 57.5	+0.7
	comp=E,212nm,0.1s						
WATA	**Walderalm**	0.19	36	i Pg	Pb	05 59 55.0	-0.4
	comp=E,223nm,0.2s,SNR=70						
WATA				i Sg	Sg	05 59 57.9	+0.7
	comp=E,289nm,0.1s						
ROSI	**Rosskopf**	0.25	180	⇓P	Pb	05 59 55.6	-0.9
ROSI				S	Sg	05 59 59.2	+0.3
ROSI				AML	AML		
	comp=N,1150µm,0.5s						
ROSI				AML	AML		
	comp=N,1150µm,1.5s						
ROSI				AML	AML		
	comp=E,1055µm,0.4s						
MOTA	**Moosalm**	0.27	308	ePg	Pg	05 59 55.7	+0.2
MOTA				eSg	Sg	05 59 59.9	+0.6
MOTA	**Moosalm**	0.27	308	i Pg	Pg	05 59 55.7	+0.2
	comp=E,74nm,0.1s,SNR=155						
MOTA				i Sg	Sg	05 59 59.6	+0.3
	comp=E,206nm,0.1s						
PART	**Garmisch-Parte**	0.38	327	ePg	Pg	05 59 57.5	+0.1
PART				eSg	Sb	06 00 03.8	-0.6
ZUGS	**Zugspitze, Sch**	0.38	309	ePg	Pg	05 59 57.7	+0.2
ZUGS				eSg	Sb	06 00 03.3	-1.3
ABSI	**Aberstueckl**	0.46	188	P	Pb	05 59 59.3	-0.7
ABSI				S	Sg	06 00 05.0	0.0
FETA	**Feichten**	0.49	251	i Pg	Pg	05 59 59.6	0.0
	comp=E,9.1nm,0.1s,SNR=32						
FETA				i Sg	Sg	06 00 05.5	-0.7
	comp=E,34nm,0.2s						
BRES	**Bressanone**	0.53	155	⇓P	Pb	06 00 01.0	-0.2
BRES				S	Sb	06 00 08.3	-0.6
BRES				AML	AML		
	comp=E,264µm,0.2s						
BRES				AML	AML		
	comp=E,264µm,0.2s						
BRES				AML	AML		
	comp=N,498µm,0.5s						
RETA	**Reutte**	0.54	305	ePg	Pg	06 00 00.4	0.0
RETA				eSg	Sg	06 00 07.9	+0.3
RETA	**Reutte**	0.54	305	ePg	Pg	06 00 00.5	0.0
	comp=N,7.7nm,0.2s,SNR=11						
RETA				i Sg	Sg	06 00 07.8	+0.3
	comp=N,13nm,0.2s						
APPI	**Appiano**	0.71	190	P	Pb	06 00 04.1	-0.2
APPI				AML	AML		
	comp=E,168µm,0.4s						
APPI				AML	AML		
	comp=E,168µm,0.4s						
APPI				AML	AML		
	comp=N,193µm,1.4s						
APPI				AML	AML		
	comp=N,193µm,0.6s						
KOSI	**Kohlern**	0.72	182	P	Pb	06 00 04.3	-0.2
KOSI				AML	AML		
	comp=E,108µm,0.6s						
KOSI				AML	AML		
	comp=N,197µm,0.7s						
BE1	**Monatshausen**	0.74	350	ePg	Pn	06 00 05.4	-0.8
BE1				eSg	Sn	06 00 16.6	-0.9
OZOL	**Ozolo**	0.82	198	P	Pb	06 00 06.2	+0.1
OZOL				S	Sb	06 00 16.4	-0.6
OZOL				AML	AML		
	comp=E,457µm,0.6s						
OZOL				AML	AML		
	comp=N,273µm,1.6s						
OZOL				AML	AML		
	comp=N,273µm,0.4s						
OZOL				AML	AML		
	comp=E,458µm,0.6s						
ABTA	**Abfaltersbach**	0.87	120	i Pg	Pn	06 00 07.3	-0.7
	comp=E,11nm,0.1s,SNR=8.7						
ABTA				i Sg	Sb	06 00 18.4	-0.1
	comp=E,52nm,0.2s						
LESA	**Schwarzleotal**	0.89	74	ePg	Pb	06 00 07.3	-0.1
	comp=E,10nm,0.2s,SNR=9.8						
LESA				i Sg	Sn	06 00 20.4	-0.9
	comp=E,16nm,0.2s						
CARE	**Lago del Cares**	0.90	213	⇑P	Pg	06 00 07.2	-0.2
CARE				S	Sg	06 00 18.6	-0.6
CARE				AML	AML		
	comp=E,121µm,0.4s						
CARE				AML	AML		
	comp=N,91µm,0.4s						
CARE				AML	AML		
	comp=N,91µm,0.4s						
ZIAN	**Ziano**	0.91	173	P	Pn	06 00 07.9	-0.7
ZIAN				S	Sb	06 00 20.1	+0.3
ZIAN				AML	AML		
	comp=E,134µm,1.0s						
ZIAN				AML	AML		
	comp=N,137µm,0.7s						
ZIAN				AML	AML		
	comp=N,136µm,0.7s						
ZIAN				AML	AML		
	comp=N,136µm,1.3s						
FUORN	**Ofenpass-Fuorn**	0.97	235	P	Pg	06 00 08.2	-0.4
FUORN				AML	AML		
	comp=N,66µm,0.5s						
FUORN				AML	AML		
	comp=E,101µm,0.6s						
UBR	**Ueberruh**	1.02	300	ePg	Pn	06 00 12.3	+2.3
UBR				eSg	Sn	06 00 24.4	+0.1
DAVA	**Damuels**	1.05	276	ePn	Pb	06 00 09.8	-0.2
DAVA	**Damuels**	1.05	276	i Pg	Pb	06 00 09.8	-0.2
	comp=E,5.2nm,0.3s,SNR=12						
DAVA				eSg	Sn	06 00 24.6	-0.7
	comp=E,33nm,0.4s						
RJOB	**Jochberg**	1.09	59	ePn	Pn	06 00 12.1	+1.1
RJOB				eSg	Sn	06 00 29.2	+3.1
DAVOX	**Davos/Dischmat**	1.12	250	P	Pb	06 00 10.8	-0.5
DAVOX				S	Sn	06 00 31.3	+4.2
GAGG	**Gaggia**	1.14	196	P	Pn	06 00 12.4	+0.6
GAGG				S	Sb	06 00 26.1	-0.3
CTI	**Castel Tesino**	1.15	172	P	Pn	06 00 12.0	+0.2
CTI				S	Sn	06 00 28.1	+0.7
BERNI	**Berninapass**	1.23	232	P	Pb	06 00 12.9	-0.2
BERNI				S	Sn	06 00 30.3	+0.7
DOSS	**Dosso del Somm**	1.31	187	P	Pg	06 00 15.1	0.0
DOSS				S	Sb	06 00 30.9	-0.4
KBA	**Koelnbreinsper**	1.32	94	ePn	Pg	06 00 15.2	-0.1
KBA				eSn	Sg	06 00 32.5	0.0
KBA	**Koelnbreinsper**	1.32	94	i Pg	Pg	06 00 15.4	0.0
	comp=E,1.9nm,0.2s,SNR=7.4						
KBA				i Sg	Sg	06 00 32.3	-0.2
	comp=E,15nm,0.3s						
PLONS	**Plons/SG**	1.39	265	ePn	Pg	06 00 16.7	0.0
BIOA	**Bad Ischl, Aus**	1.59	71	ePg	Pg	06 00 21.2	+0.7
	comp=E,13nm,0.2s,SNR=6.5						
BIOA				i Sg	Sg	06 00 44.5	+3.3
	comp=E,17nm,0.3s						
MYKA	**Terra Mystica**	1.62	109	i Pg	Pg	06 00 21.0	-0.1
	comp=E,3.5nm,0.2s						
MYKA				eSn	Sg	06 00 42.6	+0.5
	comp=E,14nm,0.4s						
NORI	**Noerdlinger Ri**	1.63	341	ePn	Pg	06 00 21.6	+0.4
NORI				eSg	Sg	06 00 43.5	+1.3
WILA	**Wila**	1.72	279	ePn	Pg	06 00 23.3	+0.4
MOA	**Molln**	2.05	70	ePn	Pg	06 00 28.7	-0.5
MOA				eSg	Sg	06 00 57.5	+1.8
MOA	**Molln**	2.05	70	i Pg	Pg	06 00 28.6	-0.5
	comp=E,5.6nm,0.2s,SNR=9.0						
MOA				eSn	Sg	06 00 55.1	-0.5
	comp=E,29nm,0.4s						
SLE	**Schleitheim**	2.06	287	eSg	Sg	06 00 55.7	-0.6
SESA	**Seetaler Alpe,**	2.15	91	ePn	Pg	06 00 29.8	-1.3
	SNR=9.8						
SESA				eSn	Sb	06 00 55.9	+0.3
TRI	**Trieste**	2.19	131	AML	AML		
	comp=N,32µm,0.5s						
TRI				AML	AML		
	comp=E,34µm,0.4s						
TRI				AML	AML		
	comp=E,34µm,1.6s						
OBKA	**Obir**	2.25	106	ePn	Pn	06 00 28.3	+1.2
	comp=E,6.7nm,0.4s						
OBKA				eSn	Sb	06 00 57.0	-1.5
	comp=E,4.6nm,0.3s						
GEC2	**GERESS Array S**	2.27	42	eSn	Sb	06 00 58.1	-0.7
NDIM	**Novi di Modena**	2.32	189	AML	AML		
	comp=N,1013µm,0.1s						
NDIM				AML	AML		
	comp=E,1440µm,0.5s						
NDIM				AML	AML		
	comp=E,1240µm,0.3s						
NDIM				AML	AML		
	comp=N,1270µm,0.3s						
BFO	**Black Forest**	2.38	300	ePn	Pb	06 00 30.8	-1.8
KHC	**Kasperske Hory**	2.43	36	ePG	Pg	06 00 36.2	-0.3
KHC				eSG	Sg	06 01 07.7	-0.3
	comp=N,13nm,0.3s						
KHC				AML	AML		
GRF	**Grafenberg Arr**	2.52	357	eSg	Sg	06 01 10.9	+0.2
SOKA	**Soboth**	2.53	100	ePn	Pb	06 00 34.5	-0.8
	comp=N,1.4nm,0.2s						
SOKA				eSn	Sb	06 01 04.3	-2.1
	comp=N,2.3nm,0.3s						
CKRC	**Cesky Krumlov**	2.54	49	eSG	Sg	06 01 11.7	+0.1
	comp=N,14nm,0.5s						
CKRC				AML	AML		
ROTZ	**Rotzenmuhle**	2.64	11	eSg	Sg	06 01 14.4	-0.2
ARSA	**Arzberg**	2.80	87	i Pn	Pb	06 00 37.1	-2.7
	comp=N,2.0nm,0.2s						

ARSA				*i* Sn	Sb	06 01 11.3	-2.9
	comp=N,2.9nm,0.6s						
ZVC	**Zvikov**	2.92	38	*e*PG	Pg	06 00 45.6	-0.3
ZVC				*e*SG	Sg	06 01 23.7	0.0
CONA	**Conrad Observa**	3.10	74	*e*Pn	Pn	06 00 40.4	+1.7
	comp=N,0.6nm,0.2s						
CONA				*e*Sn	Sn	06 01 17.7	+1.9
	comp=N,0.4nm,0.1s						
RONA	**Rosalia, Austr**	3.35	79	*e*Pn	Pn	06 00 44.0	+1.9
	comp=N,0.4nm,0.1s						
RONA				*e*Sn	Sn	06 01 23.1	+1.2
	comp=N,0.7nm,0.2s						
MOX	**Moxa**	3.47	2	*e*Sn	Sn	06 01 24.1	-0.5
PRU	**Pruhonice**	3.49	35	*e*SG	Sg	06 01 42.0	0.0
	comp=N,4.2nm,0.5s						
PRU				AML	AML		
HSKC	**Hora Svate Kat**	3.68	20	*e*SG	Sg	06 01 48.4	+0.5
	comp=N,11nm,0.5s						
HSKC				AML	AML		
KRUC	**Moravsky**	3.83	59	*e*SG	Sg	06 01 52.7	-0.1
VRAC	**Vranov**	4.06	57	*e*SG	Sg	06 01 59.7	-0.6
CLL	**Collm**	4.26	14	*i* Sg	Sg	06 02 06.1	-0.5
DPC	**Dobruska-Polom**	4.54	44	*e*SG	Sg	06 02 15.2	-0.3
	comp=N,5.9nm,0.7s						
DPC				AML	AML		
KRLC	**Kraliky**	4.59	49	*e*SG	Sg	06 02 17.6	+0.5
	comp=N,6.5nm,0.8s						
KRLC				AML	AML		
MORC	**Moravsky Berou**	4.83	55	*e*SG	Sg	06 02 25.2	+0.2

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*FUNV **04** 06:01:56.8, 11°.74N×72°.90W, h22^{km}, MW3.8, Presumed earthquake*

*RSNC **04** 06:01:57.7±0.0, 12°N±2°×7°3W±°, h66^{km}±5^{km}, M3.0, mb3.4, ML2.4*

ISC 04 06:01:56.6±1.3**, 11°.46N**±0°.08×**72°.81W**±0°.06**, h14^{km}, n16, σ1^s.55**/28**, Near north coast of Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URIC	**Uribia, Colomb**	0.84	73	P	Pg	06 02 13.3	+0.4
URIC				S	Sb	06 02 25.4	+1.2
URIC	**Uribia, Colomb**	0.84	73	*e*P	Pg	06 02 13.4	+0.5
URIC				*e*S	Sn	06 02 25.6	-0.6
SJCC	**San Jacinto, C**	2.79	237	P	Pn	06 02 40.7	-0.3
SJCC	**San Jacinto, C**	2.79	237	*e*P	Pn	06 02 41.2	+0.2
SJCC				*e*S	Sn	06 03 13.0	-1.6
OCAC	**Ocana**	3.24	189	P	Pn	06 02 46.1	-1.1
OCAC				S	Sn	06 03 24.6	-1.0
PAMC	**Pamplona, Colo**	4.09	178	P	Pn	06 02 58.5	-0.7
PAMC				S	Sn	06 03 46.5	-0.7
BRJC	**Barrancabermej**	4.55	192	P	Pn	06 03 04.4	-0.7
BRJC				S	Sn	06 03 57.8	0.0
BARC	**Barichara**	4.85	184	P	Pn	06 03 11.5	+2.1
BARC				S	Sn	06 04 06.0	+0.5
TURV	**Turiamo**	4.99	101	*e*P	Pn	06 03 10.9	-0.1
TURV				*e*S	Sn	06 04 05.3	-3.2
PTBC	**PUERTO BERRIO,**	5.15	199	P	Pn	06 03 13.9	+0.5
	6.5nm,1.0s						
PTBC				S	Sn	06 04 12.2	-0.4
	6.5nm,1.0s						
PTBC				AML	AML		
BENV	**Beln**	5.33	106	*e*P	Pn	06 03 15.7	-0.2
BENV				*e*S	Sn	06 04 14.3	-3.0
RUSC	**La Rusia**	5.54	183	P	Pn	06 03 20.2	+1.1
	4.7nm,1.3s						
RUSC				AML	AML		
RUSC	**La Rusia**	5.54	183	*e*P	Pn	06 03 19.8	+0.7
RUSC				*e*S	Sn	06 04 21.6	-1.3
NORC	**Norcasia**	6.20	199	P	Pn	06 03 29.7	+1.9
	4.1nm,1.8s						
NORC				AML	AML		
CBOC	**Ciudad Bolivar**	6.39	210	P	Pn	06 03 32.3	+1.7
	3.5nm,1.1s						
CBOC				S	Sn	06 04 40.3	-3.2
	3.5nm,1.1s						
PRAC	**Prado**	7.96	195	P	Pn	06 03 54.6	+2.5

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*SJA **04** 06:06:29.0±1.6, 27°.72S×71°.86W, h10^{km}, ML4.2, MW3.9*

*IDC **04** 06:06:30.7±0.9, 27°.73S×71°.79W, h0^{km}, mb4.2/5, mbtmp4.0/9, ML3.8/4, MS3.2/4, Error ellipse: s-maj=24.0km s-min=15.3km az=84.0*

*GUC **04** 06:06:34.6±0.9, 27°.89S×71°.53W, h31^{km}±3^{km}, ML4.0*

*NEIC **04** 06:06:34.4±1.5, 27°.84S±0°.02×71°.46W±0°.06, h17^{km}±4^{km}, mb4.5/8, Mwr4.0/29, ML4.0(GUC), Error ellipse: s-maj=8.1km s-min=2.7km az=93.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M$_{rr}$0.57; M$_{\theta\theta}$0.02; M$_{\phi\phi}$-0.59; M$_{r\theta}$0.16; M$_{\theta\phi}$-0.10; M$_{\phi r}$-1.00; Fault plane solution: M$_0$1.17000×10^{15} NP1:φ$_s$23.60000°, δ16.73000°, λ119.28000°. NP2:φ$_s$173.25000°, δ75.46000°, λ81.64000°. Principal axes: T 1.1756, Plg59.0000°, Azm72.0000°; N -0.0100, Plg8.0000°, Azm175.0000°; P -1.1656, Plg30.0000°, Azm270.0000°;*

*NEIC **04** 06:06:34.4, 27°.83S×71°.46W, h17^{km}*

ISC 04 06:06:30.9±2.0**, 27°.78S**±0°.03×**71°.59W**±0°.05**, h2^{km}**±12^{km}**, n100, σ1^s.54**/116**, mb4.4**/7**, 3C-7D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	**Llanos de Chal**	0.62	133	*i* P	Pb	06 06 44.4	-0.1
AC04				*e*S	Sg	06 06 50.7	-0.2
AC04				IAML		06 06 51.8	
	comp=Z,5µm,0.3s						
AC04	**Llanos de Chal**	0.62	133	⇓*i*P	Pb	06 06 44.5	-0.1
AC04				*i* S	Sg	06 06 51.1	+0.2
AC04				IAML		06 06 51.4	
	comp=E,12µm,0.2s						
AC04	**Llanos de Chal**	0.62	133		Pb	06 06 44.4	-0.1
AC04				Sg	Sg	06 06 51.1	+0.2
AC06	**Mina Casimiro**	1.18	69	⇓*i*P	Pn	06 06 54.7	+0.3
AC06				*i* S	Sn	06 07 08.8	-2.2
AC06				IAML		06 07 16.2	
	comp=N,3µm,0.3s						
AC06	**Mina Casimiro**	1.18	69		Pn	06 06 54.5	0.0
AC06				Sn	Sn	06 07 09.8	-1.2
GO03	**Copiapo**	1.22	81	*i* P	Pn	06 06 55.3	+0.2
GO03				IAML		06 07 16.5	
	comp=Z,2µm,0.5s						
GO03	**Copiapo**	1.22	81	⇓*i*P	Pn	06 06 55.2	+0.2
GO03				*i* S	Sn	06 07 11.0	-1.1
GO03				IAML		06 07 16.5	
	comp=E,5µm,0.5s						
GO03	**Copiapo**	1.22	81		Pn	06 06 55.1	+0.1
LCO	**Las Campanas**	1.45	148	*i* P	Pn	06 06 58.8	+0.3
LCO				*e*S	Sn	06 07 16.1	-2.2
LCO				IAML		06 07 22.8	
	comp=Z,4µm,0.7s						
LCO	**Las Campanas**	1.45	148	⇓*i*P	Pn	06 06 58.5	+0.1
LCO				*i* S	Sn	06 07 15.7	-2.6
LCO				IAML		06 07 20.3	
	comp=Z,20µm,0.6s						
LCO	**Las Campanas**	1.45	148		Pn	06 06 58.3	-0.2
LCO					Pn	06 06 58.8	+0.3
LCO				Sn	Sn	06 07 15.5	-2.7
AC05	**El Transito**	1.56	132	*i* P	Pb	06 07 00.5	-0.2
AC05				*e*S	Sn	06 07 18.9	-2.0
AC05				*e*S	Sb	06 07 20.0	-1.0
AC05				IAML		06 07 20.5	
	comp=Z,1µm,0.5s						
AC05	**El Transito**	1.56	132	⇓*i*P	Pb	06 07 00.3	-0.4
AC05				*i* S	Sn	06 07 18.9	-2.0
AC05				IAML		06 07 20.3	
	comp=N,2µm,0.4s						
AC05	**El Transito**	1.56	132		Pb	06 07 00.5	-0.2
AC01	**Pan de Azucar**	1.85	29	⇑*i*P	Pb	06 07 05.0	-0.6
AC01				IAML		06 07 42.0	
	comp=N,1µm,0.5s						
AC01	**Pan de Azucar**	1.85	29		Pb	06 07 04.8	-0.7
AC02	**Maricunga**	2.38	67	*i* P	Pb	06 07 14.5	-0.4
AC02				IAML		06 07 50.6	
	comp=Z,2µm,0.3s						
AC02	**Maricunga**	2.38	67	⇑*i*P	Pb	06 07 14.5	-0.4
AC02				*i* S	Sb	06 07 43.5	-1.5
AC02				IAML		06 07 50.9	
	comp=E,2µm,0.5s						
AC02	**Maricunga**	2.38	67		Pb	06 07 14.8	-0.1
GO04	**Tololo Observa**	2.48	164	*i* P	Pn	06 07 13.8	+1.2
GO04				⇓*e*S	Sb	06 07 49.2	+1.7
GO04				IAML		06 07 52.2	
	comp=Z,2µm,0.6s						
GO04	**Tololo Observa**	2.48	164	⇑*i*P	Pn	06 07 13.5	+0.9
GO04				*i* S	Sn	06 07 42.9	-0.7
GO04				IAML		06 07 56.0	
	comp=N,5µm,0.4s						
GO04	**Tololo Observa**	2.48	164		Pn	06 07 13.5	+0.9
CO01	**Juntas del Tor**	2.55	149	*e*P	Pn	06 07 15.7	+2.1
CO01				*i* S	Sn	06 07 45.2	-0.1
CO01				IAML		06 07 51.7	
	comp=N,1µm,0.7s						
CO01	**Juntas del Tor**	2.55	149		Pn	06 07 15.0	+1.4
CO06	**Fray Jorge**	2.88	181	*e*P	Pn	06 07 17.7	-0.2
CO06	**Fray Jorge**	2.88	181		Pn	06 07 18.0	+0.1
AROD	**Rodeo**	3.01	143	*i* P	Pb	06 07 24.0	-1.5
VCA	**Vinchina**	3.13	108	*i* P	Pb	06 07 26.9	-0.6
VCA				IAML		06 08 12.0	
	comp=Z,796nm,0.6s						
VCA	**Vinchina**	3.13	108	*e*P	Pb	06 07 26.4	-1.0
CO03	**El Pedregal**	3.15	166		Pn	06 07 22.7	+1.1
ACDV	**Cuesta del Vie**	3.22	138	*i* P	Pb	06 07 27.1	-1.8
ACDV				IAML		06 08 20.5	
	comp=Z,331nm,0.5s						
PB14	**IPOC Station P**	3.32	19	*i* P	Pn	06 07 25.2	+1.0
PB14				IAML		06 08 29.4	
	comp=Z,456nm,0.7s						
PB14	**IPOC Station P**	3.32	19	*e*P	Pn	06 07 24.9	+0.7
PB14	**IPOC Station P**	3.32	19		Pn	06 07 24.7	+0.5
CO02	**Combarbal**	3.45	172	*i* P	Pn	06 07 26.4	+0.7
CO02				IAML		06 08 26.4	
	comp=Z,843nm,0.5s						
CO02	**Combarbal**	3.45	172	⇓*e*P	Pn	06 07 26.3	+0.5
CO02	**Combarbal**	3.45	172		Pn	06 07 27.6	+1.8
ACCO	**Cerro Coronel**	3.56	142	*i* P	Pb	06 07 32.0	-2.9
ACCO				IAML		06 08 25.4	
	comp=Z,384nm,0.6s						
TINO	**Tinogasta**	3.57	95	*i* P	Pb	06 07 30.8	-4.1
TINO				IAML		06 08 28.1	
	comp=Z,476nm,1.3s						
CO04	**Los Peladeros**	4.28	173		Pn	06 07 37.9	+0.6
ACLC	**CERRO LA CRUZ**	4.39	113	*i* P	Pn	06 07 42.2	+3.4
ACLC				IAML		06 08 41.9	
	comp=Z,206nm,1.7s						
RTLL	**Cerro Villicun**	4.46	143	*i* P	Pn	06 07 43.7	+4.1
RTLL				IAML		06 08 52.2	
	comp=Z,218nm,0.4s						
RTLS	**Leoncito**	4.47	154	*i* P	Pn	06 07 44.6	+4.6
RTLS				IAML		06 08 55.8	
	comp=Z,993nm,0.9s						
ZON	**Zonda**	4.53	147	*i* P	Pn	06 07 44.7	+4.1
ZON				IAML		06 09 10.6	
	comp=Z,133nm,0.7s						
ZON	**Zonda**	4.53	147		Pn	06 07 43.4	+2.8
CFA	**Coronel Fontan**	4.80	143	Pn	Pn	06 07 47.5	+3.3
	comp=Z,7.3nm,0.3s,baz=319,slow=13,SNR=161						
CFA				Sn	Sn	06 08 42.0	+1.6
	comp=Z,4.5nm,0.3s,baz=60,slow=7.8,SNR=5.6						
CFA				Lg	Lg	06 08 52.5	
	comp=Z,29nm,0.3s,baz=70,slow=23,SNR=12						
	comp=Z,17nm,0.4s						
CFA				AML	AML		
CFA	**Coronel Fontan**	4.80	143	*i* P	Pn	06 07 47.8	+3.5
CFA				IAML		06 09 04.2	
	comp=Z,110nm,0.5s						
VA03	**San Esteban**	5.04	170	*i* P	Pn	06 07 49.5	+1.8
VA03				IAML		06 09 14.6	
	comp=Z,236nm,0.6s						
VA03	**San Esteban**	5.04	170		Pn	06 07 48.9	+1.2
PB05	**IPOC Station P**	5.07	15	*i* P	Pn	06 07 48.4	+0.3
PB05				IAML		06 09 30.7	
	comp=Z,117nm,1.0s						
PB05	**IPOC Station P**	5.07	15		Pn	06 07 48.0	-0.1
CYA	**Choya**	5.15	99	*i* P	Pn	06 07 51.8	+2.6
CYA				IAML		06 09 22.8	
	comp=Z,86nm,0.8s						
PB06	**IPOC Station P**	5.38	20	*i* P	Pn	06 07 53.1	+0.7
PB06				IAML		06 09 28.1	
	comp=Z,181nm,0.9s						
PEL	**Peldehue**	5.40	172		Pn	06 07 53.8	+1.3
MT02	**Curacav**	5.47	176		Pn	06 07 53.3	-0.2
MT16	**CCHEN**	5.70	171		Pn	06 07 59.5	+2.7
AF01	**San Pedro de A**	5.71	33		Pn	06 07 58.9	+1.7
MT03	**Universidad Ad**	5.77	171		Pn	06 07 59.0	+1.3
MT08	**Bocatoma Ro**	5.80	167	Pn	Pn	06 08 01.1	+2.8
PB03	**IPOC Station P**	5.95	17		Pn	06 07 59.5	-0.7
MT09	**Talagante**	6.00	175		Pn	06 08 01.2	+0.3
MT01	**Popeta**	6.07	177		Pn	06 08 02.8	+1.1
PB07	**IPOC Station P**	6.22	15		Pn	06 08 03.8	-0.2
PB09	**IPOC Station P**	6.33	20		Pn	06 08 06.8	+1.3
BO01	**Tunca**	6.60	176		Pn	06 08 09.7	+0.7
PB02	**IPOC Station P**	6.62	14		Pn	06 08 08.8	-0.6
BO02	**Sierra Bellavi**	7.02	175		Pn	06 08 16.1	+1.2
TCA	**Tanti**	7.05	122	*e*P	Pn	06 08 15.7	+0.5
GO05	**Hualane**	7.21	182	Pn	Pn	06 08 17.0	-0.4
PB08	**IPOC Station P**	7.93	17		Pn	06 08 26.8	-0.8
ML02	**Panimavida**	7.96	179		Pn	06 08 28.2	+0.5
PB11	**IPOC Station P**	8.18	13	Pn	Pn	06 08 29.5	-1.3
GO01	**Chusmiza**	8.37	16		Pn	06 08 32.7	-1.0
H03N1	**Juan Fernandez**	8.46	226	T	T	06 17 28.2	
	baz=207,slow=74,SNR=713						
H03N2	**Juan Fernandez**	8.47	226	T	T	06 17 26.6	
	baz=55,slow=74,SNR=1055						
BI02	**San Fabin de**	8.86	178		Pn	06 08 40.4	+0.3
PB16	**IPOC Station P**	9.60	12		Pn	06 08 50.0	-0.7
PB18	**Visviri**	10.33	11		Pn	06 09 02.4	+1.7
LPAZ	**La Paz**	11.88	16	Pn	Pn	06 09 22.7	+0.7
	comp=Z,0.2nm,0.3s,baz=207,slow=4.9,SNR=6.7						
LPAZ				LR	LR	06 14 27.1	
	comp=Z,63nm,18.7s,baz=228,slow=40						
	comp=Z,0.8nm,0.4s						
LPAZ				AML	AML		
CPUP	**Villa Florida**	12.79	87	Pn	Pn	06 09 35.5	+1.6
	comp=Z,0.1nm,0.3s,baz=223,slow=13,SNR=3.2						
CPUP				LR	LR	06 14 45.8	
	comp=Z,80nm,19.9s,baz=252,slow=38						
	comp=Z,0.9nm,0.7s						
CPUP				AML	AML		
CPUP	**Villa Florida**	12.79	87	Pn	Pn	06 09 36.3	+2.5
SIV	**San Ignacio**	15.25	42	Pn	Pn	06 10 04.9	-2.5
	comp=Z,0.1nm,0.3s,baz=230,slow=10,SNR=23						
SIV				LR	LR	06 17 06.0	
	comp=Z,82nm,18.8s,baz=202,slow=41						
	comp=Z,0.3nm,0.3s						
SIV				AML	AML		
VAO	**Valinhos**	22.73	83	P	P	06 11 34.3	-0.2
VAO				IAmb	IAmb	06 11 34.9	
	comp=Z,16nm,0.8s						
BDFB	**Brasilia**	24.96	66	P	P	06 11 55.6	-0.5
	comp=Z,2.0nm,0.6s,baz=57,slow=6.5,SNR=3.9						
BDFB				LR	LR	06 23 11.2	
	comp=Z,167nm,19.0s,baz=259,slow=40						
	comp=Z,2.0nm,0.6s						
BDFB	**Brasilia**	24.96	66	P	P	06 11 55.7	-0.4
MACA	**Manacapuru-AM**	26.61	25	P	P	06 12 11.1	+0.2
MACA				IAmb	IAmb	06 12 15.3	
	comp=Z,5.0nm,0.6s						
ORCD	**Orcadas**	37.61	159	P	P	06 13 47.4	+0.6
SNAA	**Sanae**	57.22	159	P	P	06 16 19.6	+0.3
	comp=Z,1.6nm,0.6s,baz=264,slow=6.4,SNR=6.1						
	comp=Z,1.6nm,0.6s						
SNAA	**Sanae**	57.22	159	P	P	06 16 20.2	+1.0
SNAA				IAmb	IAmb	06 16 20.8	
	comp=Z,3.0nm,0.9s						
JSC	**Jenkinsville**	62.40	351	P	P	06 16 55.5	+0.2
JSC				IAmb	IAmb	06 17 16.9	
	comp=Z,4.2nm,0.9s						
QSPA	**South Pole Qui**	62.43	180	P	P	06 16 55.4	+0.1
	comp=Z,1.2nm,0.9s,baz=173,slow=4.3,SNR=2.4						
	comp=Z,1.2nm,0.9s						
QSPA	**South Pole Qui**	62.43	180	P	P	06 16 56.2	+0.9
DBIC	**Dimbokro**	72.89	73	P	P	06 18 03.0	+1.1
	comp=Z,4.3nm,0.6s,baz=232,slow=6.6,SNR=4.4						
	comp=Z,4.3nm,0.6s						
DBIC	**Dimbokro**	72.89	73	P	P	06 18 01.6	-0.4
TORD	**Torodi Ar. Bea**	81.75	71	P	P	06 18 52.5	+0.8
	comp=Z,1.2nm,0.5s,baz=268,slow=3.4,SNR=12						
	comp=Z,1.2nm,0.5s						
ASAR	**Alice Springs**	123.24	208	PKP	PKPdf	06 25 28.9	-1.3
	comp=Z,0.4nm,0.9s,baz=169,slow=3.1,SNR=2.3						
WRA	**Warramunga Arr**	126.33	211	PKP	PKPdf	06 25 34.9	-1.2
	comp=Z,0.2nm,0.4s,baz=143,slow=1.5,SNR=4.7						
KURBB	**Kurchatov Arra**	147.86	37	PKPbc	PKPbc	06 26 16.5	-0.8
	comp=Z,0.4nm,0.4s,baz=300,slow=2.9,SNR=6.5						
ZALV	**Zalesovo Beam**	148.64	27	PKPbc	PKiKP	06 26 19.9	-0.8
	comp=Z,4.0nm,0.8s,baz=297,slow=4.2,SNR=12						
MKAR	**Makanchi Array**	152.06	40	PKPbc	PKiKP	06 26 29.1	+1.0
	comp=Z,1.0nm,0.8s,baz=326,slow=2.2,SNR=7.4						

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*IDC **04** 06:07:33.8±0.7, 9°.01S×109°.05E, h0^{km}, mb4.3/17, mbtmp4.3/18, ML3.7/1, MS3.4/14, Error ellipse: s-maj=32.0km s-min=12.9km az=57.0*

*GFZ **04** 06:07:36.1±0.4, 9°S±5°×10°9E±°, h10^{km}, M4.4/11, mb4.8/8, Error ellipse: s-maj=10.8km s-min=4.3km az=19.7, confirmed*

*DJA **04** 06:07:38.8±0.4, 9°S±4°×10°9E±°, h42^{km}±7^{km}, M4.6/33, mB5.3/3, mb4.8/7, MLv4.5/33, Mw(mB)4.7/3*

*NEIC **04** 06:07:39.1±1.0, 9°.2S±0°.1×108°.88E±0°.07, h35^{km}±4^{km}, mb4.8/20, Error ellipse: s-maj=16.6km s-min=8.8km az=199.0*

ISC 04 06:07:37.6±0.5**, 9°.23S**±0°.06×**108°.88E**±0°.05**, h27^{km}, n117, σ1^s.27**/106**, mb4.7**/35**, MS3.5**/12**, 1D, South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMJI	**Cimerak**	1.50	343	P	Pn	06 08 02.8	+0.1
CMJI				S	Sb	06 08 25.6	+2.3
CMJI	**Cimerak**	1.50	343	P	Pn	06 08 02.5	-0.2
KPJI	**Karang Pucung**	1.88	2	P	Pn	06 08 09.7	+1.7
YOGI	**Yogyakarta**	1.98	45	P	Pn	06 08 09.2	-0.2
YOGI				S	Sb	06 08 36.8	-0.5
YOGI				AML	AML		
YOGI	**Yogyakarta**	1.98	45	P	Pn	06 08 08.9	-0.6
UGM	**Wanagama**	2.09	51		Pn	06 08 10.6	-0.3
UGM	**Wanagama**	2.09	51	P	Pn	06 08 10.6	-0.3
UGM				S	Sn	06 08 38.3	+2.3
UGM				AML	AML		
UGM	**Wanagama**	2.09	51	P	Pn	06 08 10.0	-0.9
BBJI	**Bungbulang**	2.13	325		Pn	06 08 11.9	+0.4
BBJI	**Bungbulang**	2.13	325	P	Pn	06 08 12.3	+0.7
BBJI	**Bungbulang**	2.13	325	P	Pn	06 08 12.0	+0.4
WOJI	**Wonogiri, Jawa**	2.45	56	P	Pn	06 08 15.9	0.0
PCJI	**Pacitan**	2.49	66	P	Pn	06 08 16.7	+0.2
PCJI				AML	AML		
PCJI	**Pacitan**	2.49	66	P	Pn	06 08 16.6	+0.1
CNJI	**Cibinong**	2.57	318	P	Pn	06 08 18.4	+0.8
CNJI				AML	AML		
CNJI	**Cibinong**	2.57	318	P	Pn	06 08 18.0	+0.4
SMRI	**Semarang**	2.66	36		Pn	06 08 19.6	+0.8
SMRI	**Semarang**	2.66	36	P	Pn	06 08 20.6	+1.8
SMRI				AML	AML		
SMRI	**Semarang**	2.66	36	P	Pn	06 08 20.5	+1.8
NGJI	**Ngawi**	3.15	54	P	Pn	06 08 28.7	+3.2
NGJI				AML	AML		
NGJI	**Ngawi**	3.15	54	P	Pn	06 08 28.8	+3.2
SKJI	**Sukabumi**	3.19	314	P	Pn	06 08 28.3	+2.3
SNJI	**Sawahan-Nganju**	3.19	63	P	Pn	06 08 28.0	+1.8
SNJI				AML	AML		
SJI	**Sawahan**	3.22	63	P	Pn	06 08 27.4	+0.8
CGJI	**Cibinong**	4.09	309	P	Pn	06 08 37.9	-0.5
BLJI	**Banyuglugur**	4.89	73	P	Pb	06 08 57.0	-5.7
BLJI	**Banyuglugur**	4.89	73	P	Pn	06 08 50.5	+1.0
JAGI	**Jajag, Banyuwa**	5.26	82		Pn	06 08 54.6	0.0
JAGI	**Jajag, Banyuwa**	5.26	82	P	Pn	06 08 54.7	0.0
	0.7nm3µm96nm,0.6s						
JAGI				AML	AML		
JAGI	**Jajag, Banyuwa**	5.26	82	P	Pn	06 08 55.5	+0.9
	comp=Z,78nm,0.7s						
ABJI	**Asem Bagus**	5.49	75	P	Pn	06 08 59.6	+2.0
	comp=Z,0.6nmcomp=Z,71nm,0.5s						
ABJI				AML	AML		
ABJI	**Asem Bagus**	5.49	75	P	Pn	06 08 59.4	+1.8
	comp=Z,99nm,0.6s						
RTBI	**Rangdo, Negare**	6.04	83	P	Pn	06 09 08.1	+2.8
IGBI	**Denpasar**	6.20	87	P	Pn	06 09 08.2	+0.6
	comp=Z,2µm,0.9s						
MDSI	**Maura Dua**	6.63	315	P	Pb	06 09 27.0	-5.3
MDSI	**Maura Dua**	6.63	315	P	Pn	06 09 13.5	+0.1
	comp=Z,16nm,0.7s						
MNAI	**Manna**	7.61	309	Pn	Pn	06 09 26.3	-0.6
TWSI	**Taliwang, Sumb**	7.92	87	P	Pn	06 09 31.6	+0.5
UBSI	**University, Be**	8.52	309	P	Pn	06 09 38.5	-0.9
DBNI	**Kabupaten Domp**	9.35	86	P	Pn	06 09 50.8	0.0
LBFI	**Labuhan Bajo,**	10.91	87	P	Pn	06 10 12.8	+0.7
	comp=Z,23nm,1.0s						
KAPI	**Kappang**	11.57	70	LR	LR	06 15 41.3	
	comp=Z,82nm,18.2s,baz=246,slow=43						
GSI	**Gunungsitoli**	15.37	312	P	Pn	06 11 11.7	-1.2
	comp=Z,27nm,0.6s						
TOLI2	**Tolitoli**	15.69	50	P	P	06 11 21.0	+0.2
	comp=Z,29nm,1.1s						
FITZ	**Fitzroy Crossi**	18.51	120	P	P	06 11 52.0	0.0
	comp=Z,0.2nm,0.3s,baz=245,slow=6.8,SNR=5.7						
FITZ				S	Sn	06 14 59.0	-20
	comp=Z,1.3nm,0.3s,baz=170,slow=22,SNR=6.5						
FITZ				LR	LR	06 19 21.5	
	comp=Z,95nm,20.7s,baz=315,slow=38						
	comp=Z,1.1nm,0.5s						
FITZ				AML	AML		
FITZ	**Fitzroy Crossi**	18.51	120	P	P	06 11 51.5	-0.5
MEEK	**Meekatharra**	19.62	153	P	Pn	06 12 05.5	-0.2
	comp=Z,12nm,2.2s						
AAI	**Ambon**	19.96	75	P	P	06 12 06.1	-1.9
	comp=Z,58nm,1.1s						
KNRA	**Kununurra**	20.44	110	P	P	06 12 12.7	-0.4
SAUI	**Saumlaki**	22.20	89	P	P	06 12 31.8	-0.4
DAV	**Davao City (W)**	23.22	46	LR	LR	06 22 43.0	
	comp=Z,86nm,19.1s,baz=168,slow=40						
WB0	**Warramunga Arr**	26.79	116	P	P	06 13 15.1	-0.7
WRA	**Warramunga Arr**	26.80	116	P	P	06 13 15.6	-0.3
	comp=Z,2.9nm,0.8s,baz=289,slow=12,SNR=19						
WRA				PcP	PcP	06 16 39.0	+0.5
	comp=Z,0.4nm,0.6s,baz=305,slow=1.9,SNR=2.9						
	comp=Z,2.9nm,0.8s						
WRA	**Warramunga Arr**	26.80	116	P	P	06 13 15.3	-0.6
ASAR	**Alice Springs**	27.90	124	P	P	06 13 25.3	-0.4
	comp=Z,0.7nm,0.4s,baz=298,slow=9.5,SNR=13						
ASAR				PcP	PcP	06 16 42.0	+0.9
	comp=Z,0.8nm,0.6s,baz=307,slow=2.1,SNR=7.1						
	comp=Z,0.7nm,0.4s						
CMAR	**Chiang Mai Arr**	29.20	340	P	P	06 13 35.6	-1.6
	comp=Z,1.6nm,0.3s,baz=176,slow=8.4,SNR=5.6						
CMAR				LR	LR	06 25 20.2	
	comp=Z,78nm,21.4s,baz=180,slow=37						
	comp=Z,1.6nm,0.3s						
PALK	**Pallekele**	32.51	299	LR	LR	06 26 34.0	
	comp=Z,71nm,18.7s,baz=108,slow=35						
H08S2	**Diego Garcia H**	36.02	270	T	T	06 52 52.3	
	baz=95,slow=74						
H08S3	**Diego Garcia H**	36.03	270	T	T	06 52 52.3	
	baz=95,slow=74						
H08S1	**Diego Carcia H**	36.03	270	T	T	06 52 52.3	
	baz=95						
PZH	**PanZhiHua**	36.19	349	P	P	06 14 39.1	+0.8
CTA	**Charters Tower**	37.65	111	LR	LR	06 32 28.7	
	comp=Z,80nm,19.4s,baz=236,slow=40						
STKA	**Stephens Creek**	37.78	131	P	P	06 14 52.3	+0.6
	comp=Z,1.9nm,0.4s,baz=294,slow=9.3,SNR=3.8						
	comp=Z,1.9nm,0.4s						
WHN	**Wuhan**	39.89	7	P	P	06 15 12.0	+2.7
JOW	**Kunigami**	40.49	27	P	P	06 15 13.2	-1.2
JOW				IAmb	IAmb	06 15 19.5	
	comp=Z,44nm,1.1s						
NJ2	**Nanjing**	42.14	13	*e*P	P	06 15 30.5	+2.7
NJ2				pmax	pmax		
	comp=Z,24nm,0.5s						
EVN	**Everest**	42.69	331	P	P	06 15 32.5	-0.6
EVN				IAmb	IAmb	06 15 33.8	
	comp=Z,4.9nm,0.6s						
XAN	**Xi'an**	43.03	0	P	P	06 15 35.0	-0.1
XAN				pmax	pmax		
	comp=Z,12nm,0.8s						
LZDM	**Lanzhou Array**	45.20	354	P	P	06 15 52.6	-0.3
	comp=Z,1.6nm,0.3s,baz=162,slow=9.2,SNR=2.4						
	comp=Z,1.6nm,0.3s						
TIA	**Tai'an**	45.86	9	P	P	06 15 56.8	-0.8
TIA				pmax	pmax		
	comp=Z,13nm,0.6s						
GTA2	**Gaotai**	49.20	351	*e*P	P	06 16 24.8	+1.1
GTA2				pmax	pmax		
	comp=Z,7.0nm,0.8s						
HHC	**Hu-ho-hao-te**	49.89	3	*e*P	P	06 16 31.4	+2.5
HHC				pmax	pmax		
	comp=Z,9.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,58nm,5.5s						
MJAR	**Matsushiro Arr**	53.22	30	P	P	06 16 50.8	-3.1
	comp=Z,3.0nm,0.6s,baz=196,slow=7.5,SNR=9.3						
	comp=Z,3.0nm,0.6s						
NIL	**Nilore**	54.44	323	P	P	06 17 01.8	-1.1

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NIL                                IAmb   IAmb     06 17 05.7
      comp=Z,7.2nm,0.8s
WMQ   Urumqi            56.19 342 eP      P        06 17 15.8 +0.5
WMQ                                pP     pwP      06 17 28.0 +1.2
WMQ                                PP     PP       06 19 25.3 +4.5
WMQ                                pmax   pmax
      comp=Z,13nm,0.9s
SONM  Songino Array     56.85 358  P      P        06 17 20.0  0.0
      comp=Z,2.4nm,0.6s,baz=176,slow=8.0,SNR=14
SONM                               LR     LR       06 44 27.5
      comp=Z,46nm,19.8s,baz=149,slow=39
      comp=Z,2.4nm,0.6s
SONM  Songino Array     56.85 358  P      P        06 17 19.6 -0.4
SONM                               IAmb   IAmb     06 17 20.6
      comp=Z,2.4nm,0.7s
ULN   Ulaanbaatar       56.86 359  P      P        06 17 19.8 -0.3
WUS   Wushi             57.12 334         P        06 17 21.5 -0.5
WUS   Wushi             57.12 334  P      P        06 17 22.4 +0.3
BNX   BinXian           57.19  15 ⇓P      P        06 17 20.7 -1.5
BNX                                pmax   pmax
      comp=Z,8.0nm,0.9s
KSH2  Kashi             57.22 329  P      P        06 17 22.0 -0.8
KSH2                               pmax   pmax
      comp=Z,9.0nm,0.7s
PDGK  Podgornoye        58.75 335  P      P        06 17 32.9 -0.5
NRN   Naryn             58.77 331         P        06 17 33.1 -0.8
NRN                                IAmb   IAmb     06 17 34.1
      comp=Z,5.7nm,0.6s
MCQ   Macquarie Isla    60.07 149  P      P        06 17 43.9 +1.7
MKAR  Makanchi Array    60.60 339  P      P        06 17 45.7 -0.3
      comp=Z,7.2nm,0.6s,baz=145,slow=7.5,SNR=81
MKAR                               LR     LR       06 49 23.8
      comp=Z,23nm,18.6s,baz=146,slow=42
      comp=Z,7.2nm,0.6s
MKAR  Makanchi Array    60.60 339         P        06 17 45.5 -0.5
H04N2 CROZET ISLANDS    60.83 222  T      T        07 23 54.8
      baz=71,slow=74,SNR=15
H04N1 CROZET ISLANDS    60.84 222  T      T        07 23 55.0
      baz=71,slow=74,SNR=11
H04N3 CROZET ISLANDS    60.84 222  T      T        07 23 53.7
      baz=71,slow=74,SNR=13
ASAJ  Asahikawa         61.25  27  LR     LR       06 45 30.8
      comp=Z,20nm,20.1s,baz=189,slow=37
MLZ   Mavora Lakes      62.04 137  P      P        06 17 56.0 +0.2
MLZ                                IAmb   IAmb     06 18 46.9
      comp=Z,15nm,1.0s
KURBB Kurchatov Arra    65.17 339  P      P        06 18 16.0 -0.3
      comp=Z,2.0nm,0.5s,baz=154,slow=5.4,SNR=12
      comp=Z,2.0nm,0.5s
KURK  Kurchatov         65.22 339         P        06 18 16.1 -0.4
KURK                               IAmb   IAmb     06 18 17.2
      comp=Z,8.2nm,1.1s
ZAA0  Zalesovo Array    66.15 345         P        06 18 21.4 -1.1
ZAA0                               IAmb   IAmb     06 18 21.9
      comp=Z,3.8nm,0.9s
ZALV  Zalesovo Beam     66.15 345  P      P        06 18 21.5 -1.0
      comp=Z,3.3nm,0.8s,baz=106,slow=4.8,SNR=13
      comp=Z,3.3nm,0.8s
ZALV  Zalesovo Beam     66.15 345         P        06 18 21.0 -1.5
BVAR  Borovoye Array    70.14 336  P      P        06 18 47.3 -0.3
      comp=Z,2.9nm,0.5s,baz=133,slow=8.8,SNR=14
      comp=Z,2.9nm,0.5s
AB31  Akbulak array     72.27 329         P        06 19 00.1 -0.4
AB31                               IAmb   IAmb     06 19 02.4
      comp=Z,12nm,0.7s
ABKAR Akbulak array     72.27 329         P        06 19 00.2 -0.3
VNDA  Vanda             73.45 170  P      P        06 19 08.0 +0.8
      comp=Z,0.4nm,0.7s,baz=309,slow=8.1,SNR=4.4
      comp=Z,0.4nm,0.7s
VNDA  Vanda             73.45 170  P      P        06 19 08.1 +0.9
AKTO  Aktyubinsk        73.98 329  P      P        06 19 09.9 -0.7
      comp=Z,1.7nm,0.5s,baz=116,slow=14,SNR=5.0
      comp=Z,1.7nm,0.5s
PETK  Petropavlovsk-    74.64  28  P      P        06 19 13.4 -1.1
      comp=Z,1.4nm,0.5s,baz=357,slow=1.4,SNR=5.1
      comp=Z,1.4nm,0.5s
GNI   Garni             76.83 315  LR     LR       06 56 21.9
      comp=Z,11nm,18.6s,baz=124,slow=38
ARTI  Arti              77.47 334  P      P        06 19 30.3 -0.2
      comp=Z,4.2nm,0.5s,baz=140,slow=2.3,SNR=7.3
ARTI                               LR     LR       06 58 29.1
      comp=Z,29nm,19.3s,baz=223,slow=40
      comp=Z,4.2nm,0.5s
ARTI  Arti              77.47 334         P        06 19 29.8 -0.7
ARTI  Arti              77.47 334  P      P        06 19 30.3 -0.2
QSPA  South Pole Qui    80.78 180  P      P        06 19 51.1 +2.4
      comp=Z,0.9nm,0.8s,baz=248,slow=3.1,SNR=2.0
QSPA                               LR     LR       06 51 54.8
      comp=Z,28nm,19.0s,baz=298,slow=33
      comp=Z,0.9nm,0.8s
EIL   Elat              80.83 302  LR     LR       06 56 29.6
      comp=Z,20nm,18.0s,baz=100,slow=36
TIXI  Tiksi             81.79   6  P      P        06 19 52.5 -1.1
TIXI                               IAmb   IAmb     06 19 53.1
      comp=Z,9.3nm,0.8s
BRTR  Keskin Array B    84.69 311  P      P        06 20 09.6 +0.1
      comp=Z,1.7nm,0.8s,baz=128,slow=8.0,SNR=8.7
      comp=Z,1.7nm,0.8s
SNAA  Sanae             87.96 197  LR     LR       06 54 43.5
      comp=Z,34nm,20.7s,baz=104,slow=32
ATKA  Atka Island       89.32  37  P      P        06 20 30.1 -1.4
K17K  Iditarod          99.42  28  P      Pdif     06 21 17.9 +0.4
K17K                               IAmb   IAmb     06 24 58.6
      comp=Z,4.5nm,1.1s
NVAR  Mina Array Bea   128.73  48  PKP    PKPdf    06 26 41.8 -1.5
      comp=Z,0.1nm,0.4s,baz=287,slow=4.2,SNR=1.8
TXAR  Lajitas Array    143.54  52  PKhKP  PKPpre   06 27 05.5
      comp=Z,0.1nm,0.4s,baz=86,slow=0.4,SNR=4.1
```

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*ASRS **04** 06:29:28.0±0.9, 54°.19N×86°.39E, h0^{km}, M2.7(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 04 06:29:30.3±4.2**, 54°.23N×86°.45E, h0^{km}, mbtmp2.9**/2**, ML2.6**/2**, Error ellipse: s-maj=34.6km s-min=15.6km az=65.0, Southwestern Siberia**

```
Code  Station Name       Δ°   AZ°    Phase ID          Time    Res
                                   Op     ISC       h  m  s    ISC
I46RU ZALESOVO INFRA     1.00 254  I      I        06 36 20.0
      baz=73,slow=327,SNR=1.6
ZALV  Zalesovo Beam      1.00 254  Pg     Pg       06 29 48.2 -1.2
      2.5nm,0.3s,baz=72,slow=20,SNR=18
ZALV                               Lg     Lg       06 30 03.7
      2.6nm,0.3s,baz=75,slow=31,SNR=11
KURBB Kurchatov Arra     6.04 236  Pn     Pn       06 31 01.8 +1.0
      0.1nm,0.3s,baz=55,slow=13,SNR=2.4
      0.6nm,0.2s
KURBB                              AML    AML
MKAR  Makanchi Array     7.90 201  Pn     Pn       06 31 27.8 +1.4
      0.1nm,0.3s,baz=24,slow=14,SNR=4.4
      0.1nm,0.3s
MKAR                               AML    AML
```

---

*SNET **04** 06:34:16.5±3.8, 11°.31N×87°.32W, h8^{km}, ML3.6, Presumed earthquake*

*CATAC **04** 06:34:19.8±0.5, 11°N±2°×8°7W±°, h16^{km}±5^{km}, M3.4/39, MLv3.4/39, Error ellipse: s-maj=5.3km s-min=3.1km az=24.0, confirmed*

ISC 04 06:34:17.5±1.7**, 11°.33N**±0°.05×**87°.36W**±0°.05**, h9^{km}**±11^{km}**, n47, σ0^{s}.93**/60**, Near coast of Nicaragua**

```
Code  Station Name       Δ°   AZ°    Phase ID          Time    Res
                                   Op     ISC       h  m  s    ISC
LEVN  Ruinas Leon Vi     1.29  34  P      Pg       06 34 42.3  0.0
LEVN                               S      Sg       06 34 59.5 +0.4
ABCN  Banco Central      1.30  53  P      Pg       06 34 43.0 +0.6
ABCN                               S      Sg       06 34 59.5 +0.2
SABN  Sabanita           1.33  62  P      Pb       06 34 42.5 -0.1
APQ2  Apoyeque           1.33  50  P      Pn       06 34 41.5 -0.7
APQ2  Apoyeque           1.33  50  P      Pg       06 34 43.3 +0.2
CNGN  Cerro Negro        1.33  29  P      Pb       06 34 42.8 +0.1
CNGN                               S      Sg       06 35 00.1 -0.3
APYN  Apoyeque           1.34  48  P      Pg       06 34 43.4 +0.2
MOMN  Momotombo          1.34  37  P      Pb       06 34 43.0 +0.2
TISN  Laguna Tiscapa     1.34  53  P      Pn       06 34 41.9 -0.5
ALLN  Telcor Managua     1.34  52  P      Pg       06 34 43.6 +0.3
MAS3  Al N del Volca     1.35  59  P      Pb       06 34 42.8 -0.2
MASN  Masaya             1.35  61  P      Pg       06 34 44.0 +0.4
NANN  Nandasmo           1.36  63  P      Pg       06 34 44.1 +0.5
NANN                               S      Sg       06 35 01.1 -0.1
MGAN  Managua            1.36  53  P      Pb       06 34 43.2 +0.1
MGAN                               S      Sg       06 35 00.6 -0.8
NADN  Granada            1.37  72  P      Pn       06 34 42.6 -0.1
TELN  Telica             1.37  22  P      Pb       06 34 43.3  0.0
HERN  Volcan Telica      1.37  22  P      Pb       06 34 43.7 +0.3
PLRN  Geotermica Pol     1.38  25  P      Pn       06 34 42.9  0.0
CRIN  San Cristobal      1.40  13  P      Pb       06 34 44.2 +0.4
CRIN                               S      Sb       06 35 01.8 +0.1
ILCN  San Idelfonso      1.40  28  P      Pn       06 34 42.4 -0.7
WILN  Americas 2         1.42  54  P      Pb       06 34 44.0 -0.1
WILN                               S      Sg       06 35 02.7 -0.4
CSGN  Cosiguina Volc     1.65 353  P      Pb       06 34 47.7 -0.4
CSGN                               S      Sn       06 35 08.0 -0.1
JAPN  Al SSO del Vol     1.66  83  P      Pb       06 34 47.5 -0.8
JAPN                               S      Sb       06 35 09.1 -0.3
MORN  Al O del Volca     1.69  83  P      Pn       06 34 47.6 +0.3
OMEN  Al SSO del Vol     1.71  84  P      Pn       06 34 47.6 +0.1
CARN  Rivas              1.81  94  P      Pn       06 34 49.5 +0.7
INTP  Intipuca           1.98 340 eP      Pn       06 34 52.5 +1.4
CNCH  Conchagua          1.99 347 eP      Pn       06 34 50.6 -0.8
CNCH                              eS      Sb       06 35 18.2 -0.7
CNCH  Conchagua          1.99 347  P      Pb       06 34 53.2 -0.7
CNCH                               S      Sb       06 35 17.9 -1.0
BOAB  BOACO BROADBAN2.00  56       P      Pn       06 34 51.6 +0.1
BOAB                               S      Sb       06 35 17.5 -1.5
LCND  La Caada           2.03 345  P      Pn       06 34 52.3 +0.4
MATN  Matagalpa          2.12  41  P      Pn       06 34 53.3 +0.1
MATN                               S      Sn       06 35 20.3 +0.5
ACON  Acoyapa            2.24  73  P      Pn       06 34 56.2 +1.5
CMARA Lajas Hojancha     2.31 124  P      Pb       06 34 57.8 -1.5
ALJI  Alcalda de J       2.31 329 eP      Pn       06 34 55.7  0.0
ALJI  Alcalda de J       2.31 329  P      Pn       06 34 56.6 +0.9
PACA  Pacayal            2.33 336  P      Pn       06 34 57.1 +1.0
RCFN  Al S de San Ju     2.46  27  P      Pn       06 34 59.0 +1.1
RCVN  Varillal2          2.51  27  P      Pn       06 34 59.3 +0.6
JTS   Las Juntas de      2.58 113  P      Pn       06 35 01.6 +2.1
TECO  Alcaldia de Te     2.59 328  P      Pn       06 35 00.7 +1.0
TGUH  Tegucigalpa,Un     2.71   2  P      Pn       06 35 02.8 +1.4
COEG  Centro de Oper     2.72 327 eP      Pn       06 34 57.3 -4.1
COEG  Centro de Oper     2.72 327  P      Pn       06 35 01.9 +0.5
PAVA  Las Pavas          2.83 327  P      Pn       06 35 04.0 +1.1
LOMA  Loma Larga         2.90 323  P      Pn       06 35 05.4 +1.5
ESPN  Las Esperanzas     3.12  74  P      Pn       06 35 07.6 +0.8
```

NOU 04 06:40:45.4, 10°.74S×164°.97E, h25^{km}, ML5.2/14**, Santa Cruz Islands Region, Santa Cruz Islands region**

```
Code  Station Name       Δ°   AZ°    Phase ID          Time    Res
                                   Op     ISC       h  m  s    ISC
HURO  Huro Makira        3.03 275  P      Pn       06 41 31.3 -0.5
NGOA  Tingoa Renbel      4.88 260  P      Pn       06 41 55.7 -1.6
HNR   Honiara            5.11 284  P      Pn       06 42 00.5  0.0
HNR   Honiara            5.11 284  S      Sn       06 43 01.0 +2.2
SANVU Saraoutou          5.16 155  P      Pn       06 42 01.3 +0.2
SAVO  Savo Central       5.32 287  P      Pn       06 42 04.2 +0.9
SAVO  Savo Central       5.32 287  S      Sn       06 43 05.7 +1.8
TATA  Tatamba Isabel     5.61 294  P      Pn       06 42 07.1 -0.1
TATA  Tatamba Isabel     5.61 294  S      Sn       06 43 10.0 -0.9
KOUNC Koumac, New Ca     9.78 184  P      Pn       06 43 05.7 +1.2
KOUNC Koumac, New Ca     9.78 184  S      Sn       06 44 53.8 +0.3
```

IDC 04 06:44:30.1±2.2**, 6°.00S×147°.76E, h0^{km}, mb3.8**/2**, mbtmp3.8**/4**, ML3.9**/1**, MS2.8**/2**, Error ellipse: s-maj=62.6km s-min=26.9km az=96.0, Eastern New Guinea region**

```
Code  Station Name       Δ°   AZ°    Phase ID          Time    Res
                                   Op     ISC       h  m  s    ISC
PMG   Port Moresby       3.43 190  Pn     Pn       06 45 26.1 +1.2
      21nm,0.3s,baz=149,slow=1.9,SNR=6.3
PMG                                Sn     Sn       06 46 05.5 -0.9
      9.7nm,0.3s,baz=66,slow=14,SNR=6.7
WRA   Warramunga Arr    19.03 222  P      P        06 48 53.5 -0.4
      0.4nm,0.3s,baz=45,slow=11,SNR=19
      1.2nm,0.6s
WRA                                AML    AML
GUMO  Guam              19.68 352  LR     LR       06 56 47.7
      comp=Z,24nm,18.2s,baz=184,slow=38
ASAR  Alice Springs     22.05 216  P      P        06 49 26.8 +0.1
      2.1nm,0.5s,baz=51,slow=9.0,SNR=51
      2.1nm,0.5s
PETK  Petropavlovsk-    59.49   7  LR     LR       07 18 25.8
      comp=Z,11nm,20.2s,baz=169,slow=34
QSPA  South Pole Qui    83.96 180  P      P        06 57 01.5 -0.7
      0.5nm,0.6s,baz=281,slow=2.1,SNR=6.1
      0.5nm,0.6s
TORD  Torodi Ar. Bea   145.82 285  PKPbc  PKPdf    07 04 12.1 +0.2
      0.4nm,0.6s,baz=77,slow=6.8,SNR=2.4
```

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*SOME **04** 06:47:30.9, 41°.32N×83°.93E, h20^{km}*

*NNC **04** 06:47:33.0±2.1, 41°.24N×83°.64E, h0^{km}, mb3.5, mpv3.3, Error ellipse: s-maj=15.0km s-min=9.3km az=164.0*

ISC 04 06:47:24.7±4.0**, 40°.5N**±0°.2×**83°.39E**±0°.09**, h10^{km}, n12, σ1^{s}.33**/17**, 2C, Southern Xinjiang**

```
Code  Station Name       Δ°   AZ°    Phase ID          Time    Res
                                   Op     ISC       h  m  s    ISC
KTMS  Ketmen             3.73 324  Pg     Pb       06 48 32.9 +2.1
      2.0nm,0.4s
KTMS                               Lg     Lg       06 49 17.7
      4.3nm,0.4s
KTMS  Ketmen             3.73 324 eP      Pb       06 48 32.9 +2.1
      2.0nm,0.4s
KTMS                              eS      Sb       06 49 17.7 +1.6
      4.3nm,0.4s
SHLS  Shalkode           3.97 314  Pg     Pb       06 48 34.8 -0.1
      6.3nm,0.3s
SHLS                               Lg     Lg       06 49 21.0
      17nm,0.4s
SHLS  Shalkode           3.97 314 eP      Pb       06 48 34.8 -0.1
      6.3nm,0.3s
SHLS                              eS      Sb       06 49 21.0 -2.1
      17nm,0.4s
UZB   Uzynbulak          4.22 311  Pg     Pg       06 48 45.1 -0.3
      3.7nm,0.3s
UZB                                Lg     Lg       06 49 38.7
      4.2nm,0.5s
UZB   Uzynbulak          4.22 311 eP      Pg       06 48 45.1 -0.3
UZB                               eS      Sg       06 49 38.7 -1.4
DJR   Jarkent            4.69 327  Pg     Pb       06 48 48.4 +1.4
      1.4nm,0.3s
DJR                                Lg     Lg       06 49 43.6
      3.9nm,0.5s
DJR   Jarkent            4.69 327 eP      Pb       06 48 48.4 +1.4
      1.4nm,0.3s
DJR                               eS      Sb       06 49 43.6 +0.2
      3.9nm,0.5s
MK31  Makanchi Array     6.37 353  Pg     Pb       06 49 16.8 +1.2
      0.1nm,0.3s,baz=166,slow=15,SNR=4.1
MK31                              ⇑Lg     Lg       06 50 32.8
      1.6nm,0.5s,baz=168,slow=27
MAKZ  Makanchi           6.41 351  Pg     Pb       06 49 17.3 +1.0
      4.8nm,1.6s
MAKZ                              ⇑Lg     Lg       06 50 35.8
      4.6nm,0.8s
ZSN   Zaisan             7.05   8  Pg     Pb       06 49 27.0 -0.2
      4.5nm,0.2s
ZSN                                Lg     Lg       06 50 50.9
      4.0nm,0.2s
ZSN   Zaisan             7.05   8 eP      Pb       06 49 27.0 -0.2
      4.5nm,0.2s
ZSN                               eS      Sb       06 50 50.9 -0.6
      4.0nm,0.2s
```

IDC 04 06:56:25.2±1.8**, 0°.73N×126°.98E, h0^{km}, mb3.1**/3**, mbtmp3.1**/3**, Error ellipse: s-maj=180.3km s-min=22.8km az=67.0, Northern Molucca Sea**

```
Code  Station Name       Δ°   AZ°    Phase ID          Time    Res
                                   Op     ISC       h  m  s    ISC
WRA   Warramunga Arr    21.77 161  P      P        07 01 18.4 -0.4
      0.4nm,0.7s,baz=340,slow=12,SNR=8.8
      0.4nm,0.7s
ASAR  Alice Springs     25.17 165  P      P        07 01 52.8 +0.4
      0.2nm,0.7s,baz=346,slow=9.3,SNR=2.0
      0.2nm,0.7s
MKAR  Makanchi Array    60.16 326  P      P        07 06 33.8 -1.0
      0.2nm,0.5s,baz=128,slow=7.8,SNR=2.1
      0.2nm,0.5s
KURBB Kurchatov Arra    64.39 328  P      P        07 07 03.5 +0.5
      3.7nm,0.3s,baz=115,slow=6.4,SNR=22
```

IDC 04 07:19:58.5±3.8**, 11°.08S×118°.22E, h0^{km}, mb3.7**/1**, mbtmp3.3**/3**, ML3.0**/2**, Error ellipse: s-maj=261.6km s-min=30.6km az=47.0, South of Sumbawa**

```
Code  Station Name       Δ°   AZ°    Phase ID          Time    Res
                                   Op     ISC       h  m  s    ISC
WRA   Warramunga Arr    17.84 122  P      Pn       07 24 07.5 -0.9
      baz=291,slow=13,SNR=4.5
      0.3nm,0.7s
ASAR  Alice Springs     19.49 132  P      Pn       07 24 28.2 -0.3
      0.1nm,0.3s,baz=309,slow=12,SNR=4.0
      0.6nm,0.8s
ASAR                               AML    AML
MKAR  Makanchi Array    65.96 334  P      P        07 30 46.5 -0.1
      0.4nm,0.5s,baz=157,slow=8.4,SNR=4.2
      0.4nm,0.5s
```

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*ASRS **04** 07:44:37.0±1.2, 53°.92N×87°.52E, h0^{km}, M2.3(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 04 07:44:43.9±3.4**, 53°.69N×86°.88E, h0^{km}, mbtmp2.8**/2**, ML2.5**/1**, Error ellipse: s-maj=34.2km s-min=18.1km az=83.0, Southwestern Siberia**

```
Code  Station Name       Δ°   AZ°    Phase ID          Time    Res
                                   Op     ISC       h  m  s    ISC
I46RU ZALESOVO INFRA     1.25 283  I      I        07 50 40.0
      baz=101,slow=328,SNR=2.4
ZALV  Zalesovo Beam      1.25 283  Pg     Pb       07 45 08.5 +0.1
      0.3nm,0.3s,baz=98,slow=18,SNR=5.6
ZALV                               Lg     Lg       07 45 23.8
      0.2nm,0.3s,baz=100,slow=28,SNR=1.8
KURBB Kurchatov Arra     5.99 242  Pn     Pn       07 46 14.6 +0.9
      0.2nm,0.4s,baz=62,slow=12,SNR=1.6
MKAR  Makanchi Array     7.50 205  Pn     Pn       07 46 35.3 +0.7
      0.1nm,0.3s,baz=25,slow=14,SNR=6.8
      0.9nm,0.7s
MKAR                               AML    AML
```

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*GUC **04** 07:46:33.7±0.6, 21°.06S×68°.50W, h136^{km}±4^{km}, ML3.3*

*IDC **04** 07:46:35.5±2.6, 20°.92S×68°.03W, h144^{km}±31^{km}, mb3.5/1, mbtmp3.7/5, Error ellipse: s-maj=47.6km s-min=25.9km az=118.0*

ISC 04 07:46:32.4±0.9**, 21°.03S**±0°.05×**68°.5W**±0°.1**, h137^{km}**±13^{km}**, n17, σ1^{s}.09**/24**, Chile-Bolivia border region**

```
Code  Station Name       Δ°   AZ°    Phase ID          Time    Res
                                   Op     ISC       h  m  s    ISC
PB09  IPOC Station P     1.06 224 eP      Pn       07 46 57.2 +0.6
PB09                              eS      Sn       07 47 15.4 +0.3
PB08  IPOC Station P     1.10 323 eP      Pn       07 46 58.4 +1.0
PB08                              eS      Sn       07 47 16.8 +0.5
PB08                               IAML            07 47 20.6
      comp=N,481nm,0.3s
PB02  IPOC Station P     1.38 258 eP      Pn       07 46 60.0 +0.2
PB02                              eS      Sn       07 47 20.2 -0.5
PB02                               IAML            07 47 21.2
      comp=N,801nm,0.4s
GO01  Chusmiza           1.53 333 eP      Pn       07 47 02.6 +0.8
PB03  IPOC Station P     1.58 230 eP      Pn       07 47 02.0  0.0
PB03                              eS      Sn       07 47 23.8 -0.8
PB03                               IAML            07 47 24.8
      comp=N,599nm,0.4s
TA01  Diego Aracena      1.68 286 eP      Pn       07 47 02.9 -0.1
TA01                               IAML            07 47 27.8
      comp=N,215nm,0.3s
PB11  IPOC Station P     1.70 318 eP      Pn       07 47 03.7 +0.3
PB11                              eS      Sn       07 47 26.9 -0.2
TA02  Huaiquique         1.75 295 eP      Pn       07 47 03.8  0.0
PB06  IPOC Station P     1.96 212 eP      Pn       07 47 06.5  0.0
PB06                              eS      Sn       07 47 31.9 -0.7
PB06                               IAML            07 47 33.9
      comp=N,401nm,0.1s
PSGCX Pisagua            2.12 312 eP      Pn       07 47 08.0 -0.4
PSGCX                             eS      Sn       07 47 35.0 -0.9
PB05  IPOC Station P     2.43 222 eP      Pn       07 47 12.0 -0.2
PB05                               IAML            07 47 43.3
      comp=E,96nm,0.3s
PB16  IPOC Station P     2.86 340 eP      Pn       07 47 19.4 +1.3
PB16                               IAML            07 47 59.9
      comp=N,36nm,0.2s
LPAZ  La Paz             4.73   4  P      Pn       07 47 44.8 +2.1
      comp=N,2.7nm,0.4s,baz=174,slow=5.5,SNR=82
SIV   San Ignacio        8.61  56  P      Pn       07 48 31.0 -3.2
      comp=N,3.0nm,0.4s,baz=245,slow=13,SNR=25
SIV                                S      Sn       07 49 58.4  -11
      comp=N,0.9nm,0.8s,baz=119,slow=14,SNR=3.6
PLCA  Paso Flores       19.72 185  P      Pn       07 50 55.3 +1.3
      comp=N,1.3nm,0.7s,baz=12,slow=12,SNR=6.0
BDFB  Brasilia          20.12  78  P      P        07 50 54.9 -0.9
      comp=N,1.5nm,0.5s,baz=264,slow=10,SNR=3.8
TORD  Torodi Ar. Bea    76.80  70  P      P        07 58 09.3 -0.1
      comp=N,0.6nm,0.5s,baz=259,slow=5.4,SNR=6.8
      comp=N,0.6nm,0.5s
```

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*IDC **04** 08:10:13.1±3.9, 53°.71N×88°.01E, h0^{km}, mbtmp2.6/2, ML2.4/2, Error ellipse: s-maj=35.7km s-min=22.8km az=62.0*

ASRS 04 08:10:14.0±1.6**, 53°.65N×87°.88E, h0^{km}, M2.5**(MOS)**, The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Southwestern Siberia**

```
Code  Station Name       Δ°   AZ°    Phase ID          Time    Res
                                   Op     ISC       h  m  s    ISC
I46RU ZALESOVO INFRA     1.84 281  I      I        08 22 50.0
      baz=95,slow=331,SNR=4.4
ZALV  Zalesovo Beam      1.84 281  Pn     Pb       08 10 47.7 -0.8
      0.4nm,0.3s,baz=98,slow=16,SNR=4.7
ZALV                               Lg     Lg       08 11 14.3
      0.9nm,0.3s,baz=96,slow=25,SNR=8.0
KURBB Kurchatov Arra     6.50 246  Pn     Pn       08 11 52.2 +1.3
      0.1nm,0.3s,baz=62,slow=14,SNR=3.3
      0.3nm,0.3s
KURBB                              AML    AML
MKAR  Makanchi Array     7.74 210  Pn     Pn       08 12 09.1 +1.2
      0.1nm,0.3s,baz=25,slow=13,SNR=1.8
      0.2nm,0.5s
MKAR                               AML    AML
```

---

*IDC **04** 08:15:16.7±3.8, 53°.75N×88°.11E, h0^{km}, mbtmp2.8/2, ML2.4/2, Error ellipse: s-maj=35.7km s-min=22.9km az=60.0*

ASRS 04 08:15:13.0±1.0**, 53°.72N×88°.17E, h0^{km}, M2.7**(MOS)**, The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Southwestern Siberia**

```
Code  Station Name       Δ°   AZ°    Phase ID          Time    Res
                                   Op     ISC       h  m  s    ISC
I46RU ZALESOVO INFRA     2.00 278  I      I        08 28 30.0
      0.4nm,0.8s,baz=93,slow=331,SNR=31
ZALV  Zalesovo Beam      2.00 278  Pn     Pg       08 15 52.2 +1.0
      0.8nm,0.3s,baz=95,slow=14,SNR=14
ZALV                               Lg     Lg       08 16 19.6
      3.1nm,0.3s,baz=95,slow=28,SNR=16
KURBB Kurchatov Arra     6.69 246  Pn     Pn       08 16 56.4 +3.9
      0.1nm,0.3s,baz=61,slow=14,SNR=3.6
      0.6nm,0.5s
KURBB                              AML    AML
MKAR  Makanchi Array     7.89 211  Pn     Pn       08 17 14.0 +5.0
      0.1nm,0.3s,baz=27,slow=13,SNR=1.7
      0.1nm,0.3s
MKAR                               AML    AML
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*ASRS **04** 08:18:08.0±1.3, 54°.31N×86°.71E, h0^{km}, M2.4(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 04 08:18:10.6±4.6**, 54°.39N×86°.86E, h0^{km}, mbtmp2.6**/2**, ML2.5**/2**, Error ellipse: s-maj=43.5km s-min=19.7km az=63.0, Southwestern Siberia**

```
Code  Station Name       Δ°   AZ°    Phase ID          Time    Res
                                   Op     ISC       h  m  s    ISC
I46RU ZALESOVO INFRA     1.28 250  I      I        08 26 30.0
      baz=70,slow=327,SNR=1.5
ZALV  Zalesovo Beam      1.28 250  Pg     Pg       08 18 33.9 -1.2
      0.9nm,0.3s,baz=71,slow=17,SNR=11
ZALV                               Lg     Lg       08 18 52.4
      1.3nm,0.3s,baz=67,slow=26,SNR=6.1
KURBB Kurchatov Arra     6.33 237  Pn     Pn       08 19 47.2 +2.2
      0.1nm,0.3s,baz=48,slow=14,SNR=1.9
      0.3nm,0.4s
KURBB                              AML    AML
MKAR  Makanchi Array     8.14 203  Pn     Pn       08 20 10.7 +0.8
      0.1nm,0.3s,baz=24,slow=14,SNR=1.4
      0.2nm,0.5s
```

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
MKAR				AML	AML		

CATAC ***04*** *08:20:46.9±0.2, 10°N±2°×8°4W±°, h7^{km}±1^{km}, M3.4/16, MLv3.4/16, Error ellipse: s-maj=4.3km s-min=2.6km az=45.9, confirmed*
UCR ***04*** *08:20:46.8±0.8, 9°.62N×84°.14W, h24^{km}±1^{km}, MW3.7, Presumed earthquake*
UPA ***04*** *08:20:46.9±1.0, 9°.61N×84°.14W, h15^{km}±3^{km}, MW3.6, Presumed earthquake*
ISC 04 08:20:47.0±0.9**, 9°.59N**±0°.02×**84°.14W**±0°.02**, h23**^{km}±4^{km}**, n148,** σ**0.^{s}66**/175**, 5C-39D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PICV	PH. Pirrs	0.06	304	⇓eP	Pb	08 20 50.9	-0.3
PICV				eS	Sb	08 20 54.2	+0.1
RAZU	San Marcos de	0.14	61	⇓eP	Pb	08 20 51.5	-0.5
RAZU				eS	Sb	08 20 55.3	0.0
PITB	Pirrs, San	0.14	60	⇓eP	Pb	08 20 51.5	-0.4
PITB				eS	Sb	08 20 55.3	0.0
ABE2	San Pablo	0.14	38	⇓eP	Pb	08 20 51.6	-0.5
QUEP	Quepos	0.16	187	P	Pb	08 20 51.3	-0.8
QUEP				S	Sb	08 20 54.9	-0.5
QUEP	Quepos	0.16	187	eP	Pb	08 20 51.3	-0.8
SVQ2	Quepos	0.16	188	eP	Pb	08 20 52.8	+0.7
SVQ2				eS	Sb	08 20 57.5	+2.1
PIEC	Cerro El Cedra	0.18	81	⇓eP	Pb	08 20 52.1	-0.5
PIEC				eS	Sb	08 20 56.3	-0.1
RITA	Parrita	0.20	249	⇑eP	Pb	08 20 52.7	+0.3
LCR2	La Lucha 2	0.20	43	P	Pb	08 20 52.2	-0.5
LCR2				S	Sb	08 20 55.9	-0.6
LCR2	La Lucha 2	0.20	43	⇓eP	Pb	08 20 52.1	-0.6
LCR2	La Lucha 2	0.20	43	eP	Pb	08 20 52.2	-0.5
LCR2				eS	Sb	08 20 56.0	-0.6
ACOS	Acosta	0.20	354	⇓eP	Pb	08 20 52.2	-0.5
PURI	Puriscal	0.30	327	⇓eP	Pb	08 20 53.8	-0.3
AMPA	Desamparados	0.31	15	⇓eP	Pb	08 20 53.7	-0.5
LUJA	Lujan	0.34	12	⇓eP	Pb	08 20 54.2	-0.4
SANTA	Santa Ana	0.34	353	⇓eP	Pb	08 20 54.1	-0.5
TRIO	Tres Rios	0.34	25	⇓eP	Pb	08 20 54.1	-0.6
PAVB	Pavas, San Jos	0.35	4	eP	Pb	08 20 54.2	-0.6
TAGO	Cartago	0.35	39	⇓eP	Pb	08 20 54.4	-0.4
MEXI	Barrio Mexico	0.35	9	⇓eP	Pb	08 20 54.5	-0.3
SJS3	Mercedes San J	0.35	15	⇓eP	Pb	08 20 54.7	-0.2
SJS	Escuela Geolog	0.35	14	⇓eP	Pb	08 20 54.6	-0.3
REPA	Paraso	0.36	49	⇓eP	Pb	08 20 54.4	-0.6
TIBA	Tibas	0.37	11	⇓eP	Pb	08 20 54.9	-0.3
BELE	Belen	0.38	353	⇓eP	Pb	08 20 54.9	-0.4
DOMI	Santo Domingo	0.39	8	⇓eP	Pb	08 20 55.3	-0.2
HEME	Heredia, Merce	0.40	1	⇓eP	Pb	08 20 55.4	-0.2
CORON	Coronado	0.40	20	⇓eP	Pb	08 20 55.6	-0.1
TRB2	Turrubares	0.44	317	P	Pb	08 20 55.6	-0.5
TRB2				S	Sb	08 21 02.4	0.0
TRB2	Turrubares	0.44	317	eP	Pb	08 20 55.6	-0.5
ATEO	Atenas	0.45	328	⇓eP	Pb	08 20 55.9	-0.5
PCAYA	Pacayas	0.46	45	⇓eP	Pb	08 20 56.1	-0.5
BITO	Garabito Jaco	0.47	273	⇑eP	Pb	08 20 56.2	-0.5
CVIMO	Finca Echandi	0.47	25	⇓eP	Pn	08 21 00.8	+2.2
TCS1	Tacares	0.47	341	P	Pb	08 20 56.6	-0.2
TCS1	Tacares	0.47	341	⇓eP	Pb	08 20 56.6	-0.2
VICA	Volcano Irazu	0.49	37	⇓eP	Pb	08 20 56.8	-0.5
RAFA	San Farael, Vo	0.49	42	eP	Pb	08 20 56.7	-0.5
POAS	San Pedro de P	0.49	348	⇓eP	Pb	08 20 57.1	-0.1
OROT	Orotina	0.49	310	eP	Pb	08 20 55.9	-1.2
VINA	Juan Vinas	0.49	52	⇑eP	Pb	08 20 56.5	-0.7
GREC	Grecia	0.51	341	eP	Pb	08 20 57.2	-0.1
ZEDO	Perez Zeledon	0.51	117	eP	Pb	08 20 57.5	+0.1
VBV1	V. Barva	0.52	5	⇓eP	Pb	08 20 57.5	-0.2
SARCI	Sarchi	0.53	338	eP	Pb	08 20 57.7	-0.2
PALD	Palmares	0.54	328	⇓eP	Pb	08 20 57.3	-0.7
CVTQ	Turrialba Volc	0.55	42	⇓eP	Pb	08 20 57.8	-0.5
NARAN	Naranjo de Ala	0.55	335	⇓eP	Pb	08 20 57.9	-0.2
VERB	Verbena	0.56	52	⇑eP	Pb	08 20 57.4	-1.0
VTCV	VTCV, Calle Va	0.56	47	eP	Pb	08 20 57.8	-0.6
VTR0	Volcan Turrial	0.57	42	eP	Pb	08 20 58.1	-0.5
CVTR	Volcan Turrial	0.57	42	⇓eP	Pb	08 20 58.1	-0.5
RAMO	San Ramon	0.59	327	eP	Pb	08 20 58.1	-0.6
ABRB	Las Abras (San	0.59	46	eP	Pb	08 20 58.4	-0.5
SRA1	San Ramn	0.59	326	⇓eP	Pb	08 20 58.2	-0.7
VPS5	V. Poas	0.60	352	eP	Pb	08 20 58.7	-0.4
ZARE	Zarcero	0.64	337	⇓eP	Pb	08 20 59.4	-0.2
ARZA	Esparza	0.65	307	⇑eP	Pb	08 20 58.9	-0.9
VPL1	V. Platanar	0.69	342	eP	Pb	08 20 59.9	-0.7
EDPE	Pejibaye, P	0.71	127	eP	Pb	08 20 59.9	-0.8
PILE	Guapiles	0.71	29	eP	Pb	08 21 00.6	-0.2
VPL2	V. Platanar	0.75	342	⇓eP	Pb	08 21 00.9	-0.6
ARTO	Ro Cuarto	0.75	354	⇓eP	Pb	08 21 01.0	-0.4
RVLA	Villa Bonita	0.75	47	eP	Pb	08 21 01.0	-0.4
LCOCO	El Coco	0.76	50	eP	Pb	08 21 00.8	-0.7
VPL3	V. Platanar	0.77	348	eP	Pb	08 21 01.3	-0.4
QUEU	Ciudad Quesada	0.78	338	⇓eP	Pb	08 21 02.1	+0.1
LAFE	Finca La Fe, P	0.79	286	eP	Pb	08 21 01.9	-0.1
PAQE	Paquera	0.81	286	eP	Pb	08 21 01.6	-0.9
BURE	Buenos Aires	0.90	118	eP	Pb	08 21 02.7	-1.3
PANP	Palmar Norte	0.92	133	eP	Pb	08 21 03.4	-1.0
TAAN	Batan	0.92	58	eP	Pb	08 21 03.4	-0.9
MTEVE	Monteverde	0.99	317	eP	Pb	08 21 04.8	-0.8
FORC	Fortuna	1.01	329	eP	Pn	08 21 05.2	-0.6
CASO	Castillo	1.02	325	eP	Pn	08 21 05.3	-0.7
VACR	Volcan Arenal	1.02	329	eP	Pn	08 21 05.4	-0.6
ARE1	Arenal 1	1.03	327	eP	Pn	08 21 05.6	-0.6
VARE2	V. Arenal	1.03	327	eP	Pn	08 21 05.7	-0.5
CEDE	Laguna Cedeo	1.05	328	⇓eP	Pn	08 21 06.0	-0.4
JUNT	Juntas	1.06	310	eP	Pn	08 21 05.4	-1.0
JTS	Las Juntas de	1.06	311	P	Pn	08 21 05.9	-0.6
JTS				S	Sb	08 21 19.5	-0.6
JTS	Las Juntas de	1.06	311	eP	Pn	08 21 05.6	-0.8
JTS	Las Juntas de	1.06	311	eP	Pn	08 21 05.6	-0.8
JTS				eS	Sb	08 21 19.6	-0.6
REZ	Monterrey de S	1.08	330	eP	Pn	08 21 06.6	-0.2
TABAC	Tabacon	1.09	326	eP	Pb	08 21 07.3	0.0
EDP2	Potrero Grande	1.11	121	eP	Pn	08 21 06.4	-0.8
CHIK	Chiripa	1.13	318	eP	Pn	08 21 07.3	-0.3
COVE	Coope Vega, Sa	1.15	347	P	Pb	08 21 08.3	+0.1
NYURE	Nandayure	1.17	290	eP	Pn	08 21 07.8	-0.1
CEUA	Cerro Uatsi, L	1.19	89	eP	Pb	08 21 08.9	0.0
TILA	Tilaran	1.19	317	eP	Pn	08 21 08.0	-0.4
COTE	Lago Cote	1.24	322	eP	Pn	08 21 08.9	-0.1
CNAS	Canas	1.25	312	eP	Pb	08 21 10.8	+0.9
QUEB	Quebradon, Cot	1.26	324	eP	Pn	08 21 09.2	-0.1
TIMP	Tierras Morena	1.31	319	eP	Pn	08 21 10.1	+0.1
JIME	Puerto Jimenez	1.32	142	eP	Pn	08 21 10.4	+0.3
CMARA	Lajas Hojancha	1.33	289	P	Pn	08 21 10.3	0.0
CMARA				S	Sb	08 21 29.6	+1.6
CMARA	Lajas Hojancha	1.33	289	eP	Pn	08 21 10.1	-0.2
CMARA	Lajas Hojancha	1.33	289	eP	Pn	08 21 10.2	0.0
EDAD	Golfito	1.34	134	eP	Pn	08 21 08.7	-1.7
TENO	El Achiote	1.38	323	eP	Pn	08 21 11.2	+0.3
VITO	San Vito	1.39	123	eP	Pn	08 21 11.3	+0.2
VITO	San Vito	1.39	123	eP	Pn	08 21 11.2	+0.1
VITO				eS	Sb	08 21 29.4	-0.4
PIRO	Carate, Puerto	1.43	146	P	Pn	08 21 11.8	+0.3
PIRO				S	Sb	08 21 30.7	+0.1
PIRO	Carate, Puerto	1.43	146	eP	Pn	08 21 11.8	+0.3
PIRO	Carate, Puerto	1.43	146	eP	Pb	08 21 12.0	-1.0
PIRO				eS	Sb	08 21 31.4	+0.8
CUI	Cuipilapa	1.46	317	eP	Pn	08 21 12.4	+0.4
JUD3	Juan Diaz 3	1.49	293	eP	Pn	08 21 12.6	+0.2
NELY	Ciudad Neily	1.51	128	eP	Pn	08 21 11.8	-0.8
NELY	Ciudad Neily	1.51	128	eP	Pn	08 21 11.7	-0.9
NELY				eS	Sn	08 21 31.0	-0.5
HORNC	Hornillas	1.51	318	eP	Pn	08 21 13.1	+0.4
RGM0	Gandoca	1.51	90	P	Pb	08 21 13.7	-0.8
RGM0				S	Sb	08 21 34.8	+1.5
RGM0	Gandoca	1.51	90	eP	Pb	08 21 13.8	-0.6
RGM0	Gandoca	1.51	90	eP	Pn	08 21 13.4	+0.7
RGM0				eS	Sb	08 21 32.8	-0.5
CANAL	Canalete	1.52	324	eP	Pn	08 21 13.2	+0.3
MLIR3	Monte Lirio, C	1.53	121	eP	Pn	08 21 13.2	+0.2
MESS	Mesas	1.54	318	eP	Pn	08 21 13.7	+0.5
LCHIL	Los Chiles	1.54	339	eP	Pn	08 21 13.5	+0.4
SCLRA	Santa Clara, W	1.54	119	eP	Pn	08 21 12.9	-0.3
SCLRA	Santa Clara, W	1.54	119	eP	Pn	08 21 12.8	-0.3
SCLRA				eS	Sb	08 21 34.1	-0.1
VMAR	Armenia, Volca	1.54	322	eP	Pn	08 21 14.0	+0.8
UPAL	Upala	1.55	327	P	Pb	08 21 14.6	-0.6
UPAL				S	Sb	08 21 34.7	+0.4
CDITO	Canoas	1.61	129	P	Pb	08 21 15.6	-0.6
CDITO				S	Sb	08 21 38.9	+2.9
BRU2	Volcan	1.64	119	P	Pn	08 21 14.6	0.0
BRU2	Volcan	1.64	119	eP	Pn	08 21 14.9	+0.4
BRU2	Volcan	1.64	119	eP	Pn	08 21 14.9	+0.4
BRU2				eS	Sn	08 21 35.8	+0.8
CNI2	El Empalme, Bo	1.66	96	eP	Pn	08 21 14.4	-0.3
CNI2				eS	Sn	08 21 35.7	+0.5
VRLE	La Escondida,	1.69	315	eP	Pn	08 21 16.2	+0.9
ALIBA	Liberia Airpor	1.70	306	eP	Pb	08 21 17.1	-0.5
LAPC	Finca la Perla	1.73	313	eP	Pn	08 21 15.4	-0.3
CLLRA	Cordillera,	1.73	119	eP	Pn	08 21 15.4	-0.4
CLLRA	Cordillera,	1.73	119	eP	Pn	08 21 15.5	-0.4
CLLRA				eS	Sn	08 21 37.4	+0.1
BQTLY	Boquete Panama	1.86	116	eP	Pn	08 21 17.5	0.0
BQTLY	Boquete Panama	1.86	116	eP	Pn	08 21 17.2	-0.3
BQTLY				eS	Sn	08 21 41.5	+1.1
LNBQ3	Los Naranjos,	1.86	115	eP	Pn	08 21 17.8	+0.2
LNBQ3				eS	Sn	08 21 40.5	0.0
BQSF3	Alto Boquete,	1.89	116	eP	Pn	08 21 18.3	+0.4
CARN	Rivas	2.09	320	P	Pb	08 21 23.9	-0.3
BGUAL	Bijagual, Pana	2.09	121	eP	Pn	08 21 20.4	-0.2
RBALA	Bur	2.09	110	eP	Pn	08 21 20.6	0.0
RBALA	Bur	2.09	110	eP	Pn	08 21 20.7	+0.1
RBALA				eS	Sn	08 21 46.2	+0.3
OMEN	Al SSO del Vol	2.40	323	P	Pb	08 21 27.5	-2.1
BLUN	Bluefields	2.42	9	P	Pb	08 21 28.7	-1.2
KKNTU	Kakintº	2.42	108	eP	Pn	08 21 25.1	-0.2
KKNTU	Kakintº	2.42	108	eP	Pn	08 21 25.5	+0.3
JAPN	Al SSO del Vol	2.44	322	P	Pb	08 21 29.8	-0.5
ACON	Acoyapa	2.57	337	P	Pn	08 21 27.9	+0.6
BOAB	BOACO BROADBAN	3.21	332	P	Pn	08 21 36.7	+0.7

IDC ***04*** *08:20:51.7±0.6, 11°.75N×142°.10E, h0^{km}, mb4.5/22, mbtmp4.5/23, ML4.6/1, MS3.6/29, Error ellipse: s-maj=17.4km s-min=13.0km az=86.0*
NEIC ***04*** *08:20:54.2±1.0, 11°.78N±0°.09×142°.2E±0°.1, h10^{km}±1^{km}, mb4.8/58, Error ellipse: s-maj=17.7km s-min=15.2km az=277.0*
BJI ***04*** *08:20:57.8, 12°.16N×142°.12E, h28^{km}, mB5.3/6, mb4.9/29, Ms4.4/1, Ms7 4.3/3*
ISC 04 08:20:58.3±0.4**, 11°.76N**±0°.06×**142°.21E**±0°.07**, h50**^{km}**, n122,** σ**1.^{s}17**/106**, mb4.7**/59**, MS3.6**/28**, 1C-1D, South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	3.17	55	Pn	Pn	08 21 46.0	+0.2
	64nm,0.3s,baz=181,slow=7.3,SNR=29						
GUMO				Sn	Sn	08 22 22.5	+0.1
	45nm,0.3s,baz=180,slow=22,SNR=6.7						
	462nm,0.6s						
GUMO				AML	AML		
GUMO	Guam	3.17	55		Pn	08 21 45.6	-0.1
DPSS	Saipan	4.91	45	Pn	Pn	08 22 07.8	-1.8
PATS	Pohnpei	16.63	106	Pn	Pn	08 24 46.2	-1.9
JMZ	Minamidaito 2	17.41	325		Pn	08 24 57.6	-0.2
FAKI	Fak Fak	17.63	215		Pn	08 24 59.4	-1.1
RABL	Rabaul	18.69	147	P	Pn	08 25 12.7	-0.8
KRVT	Keravat (AS076	18.71	148	LR	LR	08 32 28.1	
	comp=Z,195nm,18.4s,baz=334,slow=37						
JHJ	Hachijo jima 2	21.38	354	LR	LR	08 32 41.1	
	comp=Z,238nm,18.9s,baz=158,slow=33						
PMG	Port Moresby	21.60	167	P	P	08 25 43.5	-0.6
	14nm,0.6s,baz=8.8,slow=12,SNR=2.1						
PMG				LR	LR	08 34 22.2	
	comp=Z,203nm,18.5s,baz=113,slow=38						
	14nm,0.6s						
PMG	Port Moresby	21.60	167	P	P	08 25 44.6	+0.4
PMG				IAmb	IAmb	08 26 21.5	
	comp=Z,49nm,1.2s						
JSU	Suzuyama	22.45	333	P	P	08 25 53.3	+0.1
JSU				IAmb	IAmb	08 25 56.7	
	comp=Z,43nm,1.0s						
JMN	Monobe	23.16	342	P	P	08 26 00.5	-0.1
JMN				IAmb	IAmb	08 26 09.9	
	comp=Z,25nm,1.0s						
SSLB	Suanglung	23.47	304	P	P	08 26 03.5	-0.1
SSLB				IAmb	IAmb	08 26 04.9	
	comp=Z,15nm,0.7s						
YHNB	Yeheng	23.54	306	P	P	08 26 05.1	+0.7
YHNB				IAmb	IAmb	08 26 05.6	
	comp=Z,26nm,0.8s						
JNU	Nakatsue	23.66	336	LR	LR	08 35 18.2	
	comp=Z,118nm,18.2s,baz=114,slow=37						
INU	Inuyama	23.95	350	P	P	08 26 07.1	-0.9
INU				IAmb	IAmb	08 26 12.9	
	comp=Z,21nm,1.0s						
MJAR	Matsushiro Arr	24.94	352	P	P	08 26 15.8	-1.2
	comp=Z,12nm,1.1s,baz=166,slow=9.2,SNR=15						
MJAR				LR	LR	08 35 37.9	
	comp=Z,152nm,18.4s,baz=139,slow=36						
	comp=Z,12nm,1.1s						
MJAR	Matsushiro Arr	24.94	352	P	P	08 26 17.0	+0.1
MAJO	Matsushiro	24.94	352		P	08 26 15.8	-1.2
MAJO				IAmb	IAmb	08 26 17.6	
	comp=Z,16nm,1.0s						
MJB9	Matsu-Tunnel	24.94	352	P	P	08 26 17.6	+0.6
MJB9				IAmb	IAmb	08 26 18.6	
	comp=Z,15nm,1.0s						
MTN	Manton Dam	26.80	205	P	P	08 26 33.2	-0.7
HNR	Honiara	27.46	139	LR	LR	08 38 29.6	
	comp=Z,84nm,18.3s,baz=29,slow=38						
SOEI	Soe	27.84	221	P	P	08 26 44.4	+1.0
SOEI				IAmb	IAmb	08 26 58.2	
	comp=Z,14nm,0.8s						
KAPI	Kappang	27.87	234	LR	LR	08 38 04.2	
	comp=Z,67nm,18.6s,baz=28,slow=37						
KSRS	Korea Array	28.61	336	P	P	08 26 49.9	0.0
	comp=Z,1.8nm,0.6s,baz=153,slow=8.7,SNR=5.8						
KSRS				LR	LR	08 38 07.9	
	comp=Z,107nm,18.2s,baz=155,slow=36						
	comp=Z,1.8nm,0.6s						
NJ2	Nanjing	29.50	317	eP	P	08 26 59.1	+1.2
NJ2				pmax	pmax		
	comp=Z,28nm,0.5s						
CTA	Charters Tower	31.90	173	LR	LR	08 39 42.1	
	comp=Z,135nm,19.3s,baz=6.5,slow=35						
WB0	Warramunga Arr	32.26	194	P	P	08 27 21.4	-1.0
WRA	Warramunga Arr	32.44	194	P	P	08 27 22.9	-1.1
	comp=Z,2.6nm,0.9s,baz=15,slow=9.5,SNR=18						
	comp=Z,2.6nm,0.9s						
WRA	Warramunga Arr	32.44	194	P	P	08 27 22.4	-1.6
TIA	Tai'an	33.24	321	P	P	08 27 31.4	+0.6
USA0B	Ussuriysk Arra	33.50	347	P	P	08 27 33.1	+0.2
USRK	Ussuriysk Ar.	33.50	347	P	P	08 27 33.7	+0.7
	comp=Z,13nm,0.7s,baz=169,slow=8.9,SNR=17						
USRK				LR	LR	08 40 14.5	
	comp=Z,157nm,18.6s,baz=150,slow=35						
	comp=Z,13nm,0.7s						
USRK	Ussuriysk Ar.	33.50	347	P	P	08 27 33.1	+0.2
LYN	LuoYang	35.30	315	P	P	08 27 49.6	+0.9
LYN				pmax	pmax		
	comp=Z,29nm,0.7s						
HNS	HongShan	35.49	321	⇑P	P	08 27 50.8	+0.6
HNS				pmax	pmax		
	comp=Z,22nm,0.9s						
AS31	Alice Springs	36.13	193	P	P	08 27 56.3	+0.4
ASAR	Alice Springs	36.13	193	P	P	08 27 56.0	0.0
	comp=Z,0.5nm,0.5s,baz=19,slow=12,SNR=16						
ASAR				LR	LR	08 45 25.3	
	comp=Z,49nm,18.2s,baz=359,slow=41						
	comp=Z,0.5nm,0.5s						
ASAR	Alice Springs	36.13	193	P	P	08 27 55.5	-0.4
BNX	BinXian	36.14	342	⇓P	P	08 27 56.4	+0.7
BNX				pmax	pmax		
	comp=Z,56nm,0.6s						
BJI2	Beijing	36.35	325	P	P	08 27 58.1	+0.5
BJI2				pP	pP	08 28 02.7	-6.5
BJI2				pmax	pmax		
	comp=Z,13nm,0.7s						
BJT	Baijiatuau	36.35	325		P	08 27 58.1	+0.5
BJT				IAmb	IAmb	08 27 59.7	
	comp=Z,15nm,0.8s						
KLR	Kul'dur	38.35	349	LR	LR	08 42 20.9	
	comp=Z,106nm,21.8s,baz=193,slow=34						
XLT	XiLinHaoTe	39.15	330	eP	P	08 28 21.8	+0.5
XLT				sP	pP	08 28 36.0	+3.0
XLT				pmax	pmax		
	comp=Z,30nm,1.1s						
HHC	Hu-ho-hao-te	39.55	323	eP	P	08 28 26.1	+1.4
HHC				pmax	pmax		
	comp=Z,3.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,130nm,5.5s						
HEH	HeiHe	40.27	345	eP	P	08 28 30.2	-0.1
HEH				pmax	pmax		
	comp=Z,27nm,0.7s						
BTO2	Baotou	40.50	321	eP	P	08 28 32.7	+0.1
BTO2				pP	pP	08 28 42.5	-1.9
BTO2				sP	sP	08 28 46.6	-3.1
BTO2				pmax	pmax		
	comp=Z,20nm,0.9s						
BTO2				pmax	pmax		
	comp=Z,350nm,4.1s						
PZH	PanZhiHua	40.75	297	P	P	08 28 36.8	+1.9
DZM	Mont Dzumac	41.18	145	LR	LR	08 43 17.3	
	comp=Z,52nm,20.4s,baz=19,slow=33						
OUENC	Ouen Island, N	41.68	145	P	P	08 28 43.8	+1.5
HILR	Hailar Array B	42.01	338	P	P	08 28 45.6	+0.9
	comp=Z,2.3nm,0.2s,baz=140,slow=9.5,SNR=4.3						
	comp=Z,2.3nm,0.2s						
CMAR	Chiang Mai Arr	42.22	284	P	P	08 28 47.5	+0.7
	comp=Z,2.2nm,0.5s,baz=85,slow=6.9,SNR=12						
CMAR				LR	LR	08 46 09.5	
	comp=Z,63nm,19.9s,baz=90,slow=36						
	comp=Z,2.2nm,0.5s						
PETK	Petropavlovsk-	43.07	14	LR	LR	08 45 22.6	
	comp=Z,105nm,20.9s,baz=180,slow=34						
STKA	Stephens Creek	43.39	181	P	P	08 28 55.5	-0.5
	comp=Z,3.1nm,0.7s,baz=346,slow=11,SNR=4.7						
STKA				LR	LR	08 47 26.7	
	comp=Z,109nm,18.3s,baz=246,slow=37						
	comp=Z,3.1nm,0.7s						
BBOO	Buckleboo	44.71	187	P	P	08 29 06.8	+0.2
ULN	Ulaanbaatar	46.46	328		P	08 29 20.5	0.0
ULN				IAmb	IAmb	08 29 22.5	
	comp=Z,9.2nm,1.1s						
GTA2	Gaotai	46.57	314	eP	P	08 29 23.0	+1.5
GTA2				pP	pP	08 29 27.1	-6.5
GTA2				pmax	pmax		
	comp=Z,5.0nm,0.8s						
SONM	Songino Array	46.79	327	P	P	08 29 23.9	+0.8
	comp=Z,3.0nm,0.7s,baz=141,slow=7.7,SNR=13						
SONM				LR	LR	08 50 36.5	
	comp=Z,74nm,18.1s,baz=100,slow=38						
	comp=Z,3.0nm,0.7s						
SONM	Songino Array	46.79	327		P	08 29 23.5	+0.4
SONM				IAmb	IAmb	08 29 25.2	
	comp=Z,10nm,1.3s						
MA2	Magadan	48.15	6	LR	LR	08 48 35.4	
	comp=Z,40nm,20.7s,baz=197,slow=34						
YAK	Yakutsk	51.00	352	LR	LR	08 49 59.1	
	comp=Z,90nm,20.8s,baz=148,slow=34						
ATKA	Atka Island	53.41	32	P	P	08 30 13.0	0.0
EVN	Everest	54.09	296	P	P	08 30 18.9	-0.3
WMQ	Urumqi	56.55	315	eP	P	08 30 38.7	+2.8
TIXI	Tiksi	60.40	355	LR	LR	08 59 22.3	
	comp=Z,36nm,18.2s,baz=219,slow=38						
PALK	Pallekele	60.73	272	LR	LR	08 57 46.8	
	comp=Z,29nm,19.1s,baz=100,slow=36						
MKAR	Makanchi Array	61.03	317	P	P	08 31 07.4	+0.5
	comp=Z,1.5nm,0.6s,baz=95,slow=8.5,SNR=9.7						
MKAR				LR	LR	08 58 25.1	
	comp=Z,91nm,19.5s,baz=96,slow=37						
	comp=Z,1.5nm,0.6s						
MKAR	Makanchi Array	61.03	317	P	P	08 31 06.7	-0.3
RPZ	Rata Peaks	61.15	156	LR	LR	08 55 32.7	
	comp=Z,14nm,19.9s,baz=52,slow=34						
ZALV	Zalesovo Beam	61.62	326	P	P	08 31 10.4	-0.3
	comp=Z,3.1nm,0.2s,baz=98,slow=8.9,SNR=7.3						
ZALV				LR	LR	08 59 11.5	
	comp=Z,51nm,18.8s,baz=177,slow=37						
	comp=Z,3.1nm,0.2s						
K13K	Kusilvak Mount	62.85	25	P	P	08 31 19.8	+0.9
L14K	Kuka Creek	63.42	26		P	08 31 24.4	+1.9
L14K				IAmb	IAmb	08 31 24.7	
	comp=Z,5.8nm,0.7s						
KURK	Kurchatov	64.33	321	P	P	08 31 28.6	-0.1
K15K	Wolf Creek Mou	64.33	26		P	08 31 29.2	+0.7
K15K				IAmb	IAmb	08 31 30.3	
	comp=Z,7.6nm,0.8s						
KURBB	Kurchatov Arra	64.36	321	P	P	08 31 28.9	-0.1
	comp=Z,3.6nm,0.5s,baz=104,slow=6.6,SNR=35						
	comp=Z,3.6nm,0.5s						
P16K	Nushagak River	64.66	30	P	P	08 31 31.3	+0.6
AAK	Ala-Archa	65.75	312	LR	LR	09 02 12.9	
	comp=Z,78nm,19.5s,baz=93,slow=38						
M17K	Holitna River	65.76	27	P	P	08 31 39.0	+1.1
M17K				IAmb	IAmb	08 31 40.0	
	comp=Z,8.1nm,0.8s						
KDAK	Kodiak Island	66.99	32	LR	LR	08 58 09.7	
	comp=Z,18nm,21.4s,baz=235,slow=33						
BVAR	Borovoye Array	69.76	322	P	P	08 32 03.4	+0.1
	comp=Z,6.2nm,0.7s,baz=101,slow=7.7,SNR=19						
	comp=Z,6.2nm,0.7s						
BORK	Borovoye	69.80	322	P	P	08 32 04.0	+0.5
BORK				IAmb	IAmb	08 32 04.6	
	comp=Z,8.5nm,0.9s						
G23K	Bananza Creek	70.54	23		P	08 32 08.9	+1.0
G23K				IAmb	IAmb	08 32 09.9	
	comp=Z,8.6nm,0.8s						
DHY	Denali Highway	70.75	27		P	08 32 10.0	+0.7
ILAR	Eielson Array	71.32	25	P	P	08 32 11.7	-0.8
	comp=Z,5.1nm,0.7s,baz=249,slow=6.1,SNR=84						
ILAR				LR	LR	09 01 17.2	
	comp=Z,53nm,20.7s,baz=263,slow=34						
	comp=Z,5.1nm,0.7s						
E24K	Your Creek	71.48	22	P	P	08 32 14.5	+1.0
F24K	Squaw Lake	71.56	22		P	08 32 15.2	+1.3
F24K				IAmb	IAmb	08 32 16.9	
	comp=Z,9.4nm,1.1s						
SCRK	Sand Creek	72.41	26		P	08 32 20.0	+0.8
F26K	Sheenjek River	73.00	23	P	P	08 32 24.0	+1.4
F26K				IAmb	IAmb	08 32 24.9	
	comp=Z,6.8nm,0.8s						
PPT	Papeete	73.39	112	LR	LR	09 00 19.4	
	comp=Z,31nm,19.6s,baz=342,slow=32						
PPT2	Papeete2	73.39	112	eLR	LR	08 54 59.8	
	comp=Z,57nm,22.5s						
H27K	Steamboat Moun	73.78	24		P	08 32 28.3	+1.2
H27K				IAmb	IAmb	08 32 29.3	
	comp=Z,12nm,0.9s						
F28M	Old Crow	74.60	23	P	P	08 32 33.0	+1.1
F28M				IAmb	IAmb	08 32 34.1	
	comp=Z,7.2nm,0.8s						
L29M	L29M	74.92	28		P	08 32 35.1	+1.2
I30M	Mount Dempster	75.80	25		P	08 32 39.8	+0.8
G30M	tAoh Zraii Nji	75.96	24		P	08 32 40.1	+0.4
G30M				IAmb	IAmb	08 32 41.8	
	comp=Z,14nm,1.2s						
ABKAR	Akbulak array	76.15	318	P	P	08 32 40.9	-0.2
R32K	Eaglecrest	76.56	33	P	P	08 32 44.1	+0.9
R32K				IAmb	IAmb	08 32 45.5	
	comp=Z,8.2nm,0.8s						
G31M	Satah River	76.72	24		P	08 32 44.6	+0.6
ARTI	Arti	76.89	325	P	P	08 32 44.4	-0.7
	comp=Z,1.6nm,0.3s,baz=102,slow=21,SNR=4.2						
ARTI				LR	LR	09 08 29.9	
	comp=Z,70nm,19.9s,baz=49,slow=37						
	comp=Z,1.6nm,0.3s						
N32M	Quiet Lake	77.24	30	P	P	08 32 48.7	+1.6
H02S1	DAWSON INLET T	77.89	38	T	T	09 58 04.7	
	SNR=28						
H02S2	DAWSON INLET T	77.89	38	T	T	09 58 01.4	
	SNR=25						
R33M	Jennings River	78.36	31		P	08 32 54.6	+1.1
R33M				IAmb	IAmb	08 32 55.9	
	comp=Z,9.7nm,0.8s						
KIRV	Kirov	81.52	328	P	P	08 33 09.7	-0.6
	comp=Z,6.9nm,0.6s,baz=50,slow=17,SNR=3.6						
	comp=Z,6.9nm,0.6s						
YKA	Yellowknife Ar	85.66	27	P	P	08 33 31.9	+0.4
	comp=Z,2.3nm,0.5s,baz=292,slow=5.0,SNR=15						
	comp=Z,2.3nm,0.5s						
LTY	Liberty	86.24	43	P	P	08 33 35.5	+0.7
LTY				IAmb	IAmb	08 33 48.3	
	comp=Z,6.0nm,0.9s						
PINE	Pine Mountain	86.84	46		P	08 33 39.2	+1.1
EPH	Ephrata	86.93	42		P	08 33 39.0	+0.9
EPH				IAmb	IAmb	08 33 39.4	
	comp=Z,6.8nm,0.8s						
D08A	Wollman Farm,	87.45	43	P	P	08 33 41.7	+1.1
D08A				IAmb	IAmb	08 33 43.5	
	comp=Z,8.4nm,1.1s						
ARCES	ARCESS Array B	88.00	342	P	P	08 33 42.1	-0.8
	comp=Z,2.0nm,0.5s,baz=68,slow=8.0,SNR=13						
	comp=Z,2.0nm,0.5s						
WVOR	Wild Horse Val	88.81	47	P	P	08 33 47.9	+0.5
WVOR				IAmb	IAmb	08 34 02.0	
	comp=Z,8.1nm,1.2s						

NVAR	**Mina Array Bea**	**90.08**	**51**	P	**P**	**08 33 55.1**	**+1.6**
	comp=Z,3.4nm,0.7s,baz=263,slow=5.7,SNR=32						
	comp=Z,3.4nm,0.7s						
NV11	**Mina Array Sit**	**90.20**	**51**	P	**P**	**08 33 54.9**	**+0.9**
FINES	**FINESS Array B**	**91.70**	**334**	P	**P**	**08 33 58.9**	**-1.3**
	comp=Z,5.5nm,0.6s,baz=70,slow=5.0,SNR=32						
	comp=Z,5.5nm,0.6s						
FURC	**Furnace Creek,**	**91.71**	**52**	P	**P**	**08 34 02.2**	**+1.5**
WCT	**Wildcat Mounta**	**91.81**	**52**	P	**P**	**08 34 02.4**	**+1.1**
TPNV	**Topopah Spring**	**92.05**	**52**		**P**	**08 34 03.5**	**+0.8**
TPNV				IAmb	IAmb	08 34 18.2	
	comp=Z,3.5nm,1.1s						
PDAR	**Pinedale Array**	**95.09**	**45**	P	**P**	**08 34 16.2**	**-0.3**
	comp=Z,0.1nm,0.4s,baz=316,slow=4.6,SNR=2.3						
	comp=Z,0.1nm,0.4s						
TORD	**Torodi Ar. Bea**	**133.66**	**301**	PKP	**PKiKP**	**08 40 11.8**	**+0.1**
	comp=Z,0.9nm,0.9s,baz=63,slow=0.6,SNR=3.7						
PLCA	**Paso Flores**	**139.24**	**141**	PKP	**PKiKP**	**08 40 22.8**	**+0.2**
	comp=Z,1.2nm,0.9s,baz=213,slow=1.9,SNR=3.3						
LPAZ	**La Paz**	**150.24**	**102**	PKPbc	**PKiKP**	**08 40 47.4**	**+0.9**
	comp=Z,3.4nm,0.6s,baz=292,slow=1.7,SNR=17						

IDC ***04*** *08:39:12.1±3.9, 53°.70N×87°.33E, h0^{km}, mbtmp2.9/2, ML2.3/2, Error ellipse: s-maj=37.1km s-min=21.4km az=71.0*

ASRS 04 08:39:11.0±1.1**, 53°.65N×87°.12E, h0**^{km}**, M2.4**(MOS)**, The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	**1.39**	**283**	I	I	08 47 00.0	
	baz=98,slow=329,SNR=1.9						
ZALV	**Zalesovo Beam**	**1.39**	**283**	Pg	Pb	08 39 40.4	+2.5
	0.6nm,0.3s,baz=95,slow=14,SNR=6.4						
ZALV				Lg	Lg	08 40 01.0	
	0.7nm,0.3s,baz=98,slow=27,SNR=5.8						
KURBB	**Kurchatov Arra**	**6.09**	**244**	Pn	Pn	08 40 45.6	+3.3
	baz=60,slow=14,SNR=4.1						
	0.4nm,0.4s						
MKAR	**Makanchi Array**	**7.53**	**206**	Pn	Pn	08 41 05.5	+3.5
	0.1nm,0.3s,baz=27,slow=12,SNR=3.8						
	1.0nm,0.9s						
MKAR				AML	AML		

ASRS ***04*** *08:48:38.0±1.9, 53°.79N×91°.02E, h0^{km}, M2.9(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 04 08:48:44.9±3.7**, 53°.57N×90°.78E, h0**^{km}**, mbtmp3.2**/3**, ML2.4**/3**, Error ellipse: s-maj=35.6km s-min=26.8km az=32.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	**3.56**	**278**	I	I	09 11 19.8	
	baz=88,slow=334,SNR=5.2						
ZALV	**Zalesovo Beam**	**3.56**	**278**	Pn	Pn	08 49 43.2	+1.9
	0.7nm,0.3s,baz=92,slow=15,SNR=9.6						
ZALV				Lg	Lg	08 50 37.3	
	1.6nm,0.3s,baz=95,slow=25,SNR=8.8						
	2.0nm,0.5s						
ZALV				AML	AML		
KURBB	**Kurchatov Arra**	**8.10**	**254**	Pn	Pn	08 50 44.4	+0.8
	0.1nm,0.3s,baz=65,slow=15,SNR=5.1						
KURBB				Lg	Lg	08 53 01.0	
	baz=65,slow=31						
	1.0nm,0.5s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**8.70**	**222**	Pn	Pn	08 50 53.1	+1.3
	0.1nm,0.3s,baz=30,slow=15,SNR=1.2						
	2.1nm,1.2s						
MKAR				AML	AML		
SONM	**Songino Array**	**11.44**	**114**	Lg	Lg	08 54 43.3	
	baz=297,slow=25						

NNC 04 09:03:16.5±1.8**, 50°.81N×73°.47E, h0**^{km}**, mb4.1, mpv3.8, 2C-3D, Error ellipse: s-maj=14.9km s-min=7.5km az=115.0, Suspected Mining explosion., Central Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BVA0	**Borovoye Array**	**2.92**	**321**	⇓Lg	Lg	09 04 46.8	
	34nm,0.8s						
KURBB	**Kurchatov Arra**	**3.23**	**91**	⇑Pn	Pn	09 04 07.7	-0.6
	6.5nm,0.5s,baz=266,slow=14						
KURBB				⇑Lg	Lg	09 04 59.1	
	68nm,0.8s,baz=243,slow=24						
MAKZ	**Makanchi**	**6.90**	**122**	⇓Lg	Lg	09 06 54.9	
	27nm,1.6s						
MK31	**Makanchi Array**	**7.08**	**121**	⇓Lg	Lg	09 07 01.6	
	4.6nm,0.7s,baz=334,slow=25						
ARXS	**Arharly**	**7.23**	**154**	Pg	Pb	09 05 28.5	+5.7
	1.9nm,0.4s						
ARXS				Lg	Lg	09 07 04.6	
	13nm,0.8s						
KRBS	**Karabastau**	**7.28**	**167**	Pg	Pb	09 05 28.6	+5.0
	1.1nm,0.5s						
KRBS				Lg	Lg	09 07 04.4	
	2.2nm,0.5s						
SGDS	**Sogindy**	**7.41**	**173**	Pg	Pg	09 05 32.5	-5.8
	1.7nm,0.5s						
SGDS				Lg	Lg	09 07 09.9	
	8.0nm,0.8s						
SGDS				Lg	Lg	09 07 10.7	
	8.0nm,0.5s						
KTBS	**Karatobe**	**7.43**	**162**	Pg	Pb	09 05 31.7	+5.5
	0.5nm,0.1s						
KTBS				Lg	Lg	09 07 09.7	
	6.0nm,0.5s						
KNOS	**Konyrlen**	**7.52**	**147**	Pg	Pb	09 05 33.7	+5.9
	1.4nm,0.1s						
KNOS				Lg	Lg	09 07 13.3	
	6.2nm,0.9s						
DGS	**Degeres**	**7.73**	**167**	Pg	Pg	09 05 38.3	-6.3
	2.1nm,0.3s						
DGS				Lg	Lg	09 07 21.2	
	16nm,0.5s						
DGS				Lg	Lg	09 07 21.7	
	6.2nm,0.7s						
DJR	**Jarkent**	**7.76**	**144**	Pg	Pb	09 05 38.0	+6.0
	2.2nm,0.3s						
DJR				Lg	Lg	09 07 20.4	
	3.6nm,0.9s						
KST	**Kastek**	**7.96**	**167**	Pg	Pg	09 05 43.1	-5.7
	1.6nm,0.4s						
KST				Lg	Lg	09 07 29.3	
	13nm,0.5s						
KST				Lg	Lg	09 07 30.1	
	13nm,0.7s						
KOTS	**Kotyrbulak**	**7.98**	**160**	Lg	Lg	09 07 32.7	
	17nm,0.7s						
KURS	**Kuram**	**8.00**	**155**	Pg	Pg	09 05 43.0	-6.5
	3.9nm,0.3s						
KURS				Lg	Lg	09 07 29.1	
	8.2nm,0.7s						
MRKS	**Merke**	**8.07**	**181**	Lg	Lg	09 07 39.3	
	6.1nm,0.7s						
ZSN	**Zaisan**	**8.20**	**110**	Pg	Pb	09 05 45.5	+6.2
ZSN				Lg	Lg	09 07 33.7	
SATY	**Saty**	**8.46**	**155**	Pg	Pg	09 05 51.1	-7.3
	1.8nm,0.4s						
SATY				Lg	Lg	09 07 42.9	
	4.7nm,0.1s						

HEL 04 09:03:58.4±0.5**, 67°.83N×20°.21E, h0**^{km}**, ML1.0, Suspected explosion, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LANU	**Lannavaara**	**0.71**	**71**	PG	Pg	09 04 11.0	-1.0
LANU				SG	Sg	09 04 19.6	-1.5
PAJU	**Pajala**	**1.38**	**124**	PG	Pg	09 04 22.8	-2.0
	baz=307						
PAJU				SG	Sg	09 04 41.5	-1.1
HEF	**Hetta**	**1.42**	**64**	PG	Pn	09 04 23.6	-1.8
HEF				smax	smax	09 04 41.2	
	comp=Z,0.9nm,0.2s						
HEF				SB	Sg	09 04 41.7	-2.2
ERTU	**Ertsjaerv**	**1.49**	**148**	PG	Pn	09 04 24.6	-1.8
ERTU				SG	Sg	09 04 46.1	-0.1
KLF	**Kolari**	**1.56**	**111**	smax	smax	09 04 45.1	
	comp=Z,1.0nm,0.2s						
KLF				SG	Sn	09 04 47.1	-1.1
KTK1	**Kautokeino**	**1.64**	**42**	SN	Sn	09 04 48.0	-2.1
TRO	**Tromso**	**1.88**	**346**	SN	Sb	09 04 57.9	+0.5
RNF	**Rovaniemi**	**2.57**	**116**	PB	Pn	09 04 42.9	+1.8
RNF				SG	Sb	09 05 17.6	+0.3
ARA0	**ARCESS Array S**	**2.59**	**46**	SG	Sn	09 05 14.8	+1.2
RANF	**Ranua**	**3.17**	**122**	PB	Pb	09 04 52.8	-2.6

HEL 04 09:04:08.8±0.3**, 61°.07N×29°.86E, h0**^{km}**, ML1.7, Suspected explosion, Finland-Karelia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RUF	**Ruokolahti**	**0.57**	**310**	PG	Pg	09 04 19.4	-0.3
RUF				SG	Sg	09 04 26.7	-0.3
RUF				smax	smax	09 04 27.0	
	comp=Z,7.8nm,0.2s						
VJF	**Virojoki**	**1.25**	**246**	PG	Pg	09 04 31.7	-1.0
	baz=63						
VJF				smax	smax	09 04 46.6	
	comp=Z,8.4nm,0.2s						
VJF				SN	Sn	09 04 53.1	+2.2
FIA0	**FINESS Array S**	**1.87**	**283**	PG	Pn	09 04 42.0	0.0
	baz=101						
FIA0				smax	smax	09 05 04.5	
	comp=Z,3.3nm,0.2s						
FIA0				SN	Sn	09 05 06.9	+0.7
JOF	**Joensuu**	**1.98**	**20**	*e*P	Pn	09 04 43.6	+0.1
JOF	**Joensuu**	**1.98**	**20**	PN	Pn	09 04 43.4	-0.1
	baz=198						
JOF				SB	Sn	09 05 08.5	-0.5
KAF	**Kangasniemi**	**2.00**	**303**	PG	Pb	09 04 45.0	-1.0
KAF				smax	smax	09 05 08.2	
	comp=Z,4.9nm,0.2s						
KAF				SN	Sb	09 05 10.4	-0.9
PVF	**Pernaja**	**2.03**	**257**	PG	Pn	09 04 45.1	+0.9
	baz=74						
PVF				smax	smax	09 05 09.2	
	comp=Z,6.8nm,0.2s						
SUF	**Sumiainen**	**2.42**	**315**	*e*P	Pb	09 04 51.9	-1.2
SUF	**Sumiainen**	**2.42**	**315**	PG	Pb	09 04 51.6	-1.5
	baz=132						
SUF				smax	smax	09 05 20.3	
	comp=Z,2.0nm,0.2s						
SUF				SG	Sb	09 05 23.2	-0.1
NIF	**Nilsia**	**2.52**	**339**	PB	Pn	09 04 52.5	+1.5
NIF				smax	smax	09 05 23.2	
	comp=Z,2.5nm,0.2s						
NIF				SB	Sn	09 05 24.3	+1.9
NUR	**Nurmijarvi**	**2.62**	**260**	PG	Pb	09 04 55.5	-0.9
	baz=75						
NUR				smax	smax	09 05 26.0	
	comp=Z,3.1nm,0.2s						
KEF	**Keuruu**	**2.63**	**297**	*e*P	Pn	09 04 54.0	+1.6
KEF	**Keuruu**	**2.63**	**297**	PB	Pn	09 04 54.0	+1.6
KEF				smax	smax	09 05 26.3	
	comp=Z,1.7nm,0.2s						
KEF				SG	Sb	09 05 27.8	-1.6
MEF	**Metsahovi**	**2.82**	**255**	*e*P	Pn	09 04 57.3	+2.2
VSU	**Vasula**	**3.05**	**213**	SN	Sn	09 05 33.3	-2.2
RMF	**Romuvaara**	**3.16**	**1**	PN	Pn	09 05 01.2	+1.4
	baz=177						
VAF	**Ylistaro**	**3.92**	**303**	*e*P	Pn	09 05 12.2	+2.0
VAF	**Ylistaro**	**3.92**	**303**	PN	Pn	09 05 12.3	+2.1
	baz=120						
RAF	**Rauma**	**3.94**	**273**	*e*P	Pn	09 05 12.0	+1.6
OUL	**Oulu**	**4.42**	**338**	SG	Sg	09 06 26.9	-3.6

HEL ***04*** *09:04:51.1±0.2, 66°.45N×25°.67E, h0^{km}, ML1.0, Explosion*

ISC 04 09:04:50.7±0.8**, 66°.45N**±0°.03×**25°.67E**±0°.02**, h0**^{km}**, n18, σ0^{s}.85**/27**, Finland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RNF	**Rovaniemi**	**0.21**	**41**	PG	**Pg**	**09 04 54.7**	**0.0**
RNF				SG	**Sg**	**09 04 57.5**	**+0.1**
RANF	**Ranua**	**0.63**	**133**	PG	**Pg**	**09 05 02.6**	**-0.1**
	baz=311						
RANF				SG	**Sg**	**09 05 11.3**	**+0.4**
TOF	**Tornio**	**0.66**	**236**	SB	**Sg**	**09 05 11.0**	**-0.8**
TOF	**Tornio**	**0.66**	**236**	PB	**Pg**	**09 05 03.8**	**+0.5**
TOF				SG	**Sg**	**09 05 11.0**	**-0.8**
TOF				smax	smax	09 05 11.9	
	comp=Z,1.4nm,0.2s						
KLF	**Kolari**	**1.04**	**320**	PG	**Pg**	**09 05 10.6**	**+0.1**
	baz=137						
KLF				smax	smax	09 05 22.7	
	comp=Z,0.8nm,0.2s						
KALU	**Kalix**	**1.11**	**239**	SG	**Pg**	**09 05 11.3**	**-0.6**
KALU	**Kalix**	**1.11**	**239**	PG	**Pg**	**09 05 11.3**	**-0.6**
KALU				SN	**Sn**	**09 05 31.8**	**+2.4**
PAJU	**Pajala**	**1.17**	**301**	PB	**Pg**	**09 05 12.3**	**-0.6**
	baz=120						
PAJU				SB	**Sg**	**09 05 27.8**	**-0.3**
KU2	**Taivalkoski**	**1.28**	**124**	PG	**Sn**	**09 05 34.9**	**+1.3**
KU2	**Taivalkoski**	**1.28**	**124**	PN	**Pg**	**09 05 15.2**	**0.0**
	baz=303						
KU2				SN	**Sn**	**09 05 34.9**	**+1.3**
ERTU	**Ertsjaerv**	**1.40**	**276**	PN	**Pn**	**09 05 17.2**	**-0.2**
	baz=93						
MSF	**Maaselka**	**1.47**	**110**	SG	**Sg**	**09 05 36.5**	**-1.4**
OLKF	**Oulanka, Finla**	**1.51**	**93**	PG	**Pn**	**09 05 18.5**	**-0.4**
OLKF				smax	smax	09 05 36.5	
	comp=Z,1.7nm,0.2s						
OLKF				SN	**Sg**	**09 05 38.3**	**-0.8**
VRF	**Varrio**	**2.02**	**48**	smax	smax	09 05 51.0	
	comp=Z,1.0nm,0.2s						
VRF				SG	**Sb**	**09 05 53.6**	**-0.3**
HEF	**Hetta**	**2.11**	**339**	smax	smax	09 05 53.6	
	comp=Z,0.6nm,0.2s						
HEF				SG	**Sb**	**09 05 56.4**	**-0.1**
LANU	**Lannavaara**	**2.15**	**320**	PG	**Pb**	**09 05 29.5**	**-0.9**
LANU				SG	**Sb**	**09 05 58.4**	**+0.9**
RAJF	**Raja-Jooseppi**	**2.27**	**25**	SB	**Pn**	**09 05 30.0**	**+0.6**
RAJF	**Raja-Jooseppi**	**2.27**	**25**	PB	**Pn**	**09 05 30.0**	**+0.6**
RAJF				SG	**Sb**	**09 06 00.7**	**-0.5**

IDC ***04*** *09:07:49.9±1.0, 60°.63N×28°.17W, h0^{km}, mb3.4/7, mbtmp3.5/8, ML3.0/1, MS3.2/2, Error ellipse: s-maj=24.4km s-min=23.3km az=6.0*

ISC 04 09:07:51.4±0.9**, 60°.7N**±0°.1×**28°.1W**±0°.1**, h10**^{km}**, n10, σ1^{s}.40**/9**, mb3.5**/6**, Reykjanes Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BORG	**Borgarnes**	**5.12**	**34**	Pn	**Pn**	**09 09 07.0**	**-1.1**
	0.5nm,0.3s,baz=203,slow=17,SNR=1.7						
	21nm,1.0s						
BORG				AML	AML		
ESDC	**Sonseca Array**	**25.82**	**134**	P	**P**	**09 13 24.1**	**+1.5**
	0.8nm,1.0s,baz=333,slow=9.9,SNR=2.2						
ESDC				LR	LR	09 23 10.2	
	comp=Z,45nm,18.3s,baz=318,slow=36						
	0.8nm,1.0s						
RES	**Resolute Bay**	**27.03**	**327**	LR	LR	09 23 56.6	
	comp=Z,45nm,18.2s,baz=338,slow=36						
ILAR	**Eielson Array**	**46.77**	**329**	P	**P**	**09 16 21.4**	**+1.1**
	0.4nm,0.8s,baz=34,slow=5.4,SNR=4.7						
	0.4nm,0.8s						
PDAR	**Pinedale Array**	**50.00**	**288**	P	**P**	**09 16 45.6**	**-0.2**
	0.3nm,0.7s,baz=18,slow=7.7,SNR=3.1						
	0.3nm,0.7s						
TORD	**Torodi Ar. Bea**	**52.21**	**142**	P	**P**	**09 17 01.8**	**-0.5**
	0.5nm,0.8s,baz=352,slow=7.3,SNR=2.6						
	0.5nm,0.8s						
KURBB	**Kurchatov Arra**	**54.45**	**49**	P	**P**	**09 17 19.0**	**+0.6**
	0.5nm,0.2s,baz=317,slow=7.6,SNR=1.0						
	0.5nm,0.2s						
TXAR	**Lajitas Array**	**57.91**	**273**	P	**P**	**09 17 43.4**	**-0.1**
	0.1nm,0.7s,baz=12,slow=6.8,SNR=1.8						
	0.1nm,0.7s						
MKAR	**Makanchi Array**	**59.02**	**49**	P	**P**	**09 17 52.2**	**+1.2**
	0.6nm,0.8s,baz=335,slow=6.0,SNR=1.5						
	0.6nm,0.8s						
QSPA	**South Pole Qui**	**150.59**	**180**	PKPbc	**PKPbc**	**09 27 39.6**	**-2.2**
	1.9nm,1.0s,baz=286,slow=3.9,SNR=3.7						

IDC ***04*** *09:08:23.4±0.7, 60°.51N×28°.79W, h0^{km}, mb3.8/12, mbtmp3.8/14, ML4.0/2, MS3.8/2, Error ellipse: s-maj=20.2km s-min=15.1km az=6.0*

NEIC ***04*** *09:08:25.9±2.1, 60°.53N±0°.08×28°.6W±0°.1, h10^{km}±1^{km}, mb4.4/42, Error ellipse: s-maj=14.8km s-min=9.1km az=153.0*

ISC 04 09:08:25.6±0.6**, 60°.55N**±0°.10×**28°.53W**±0°.07**, h10**^{km}**, n56, σ1^{s}.08**/47**, mb4.4**/29**, Reykjanes Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BORG	**Borgarnes**	**5.36**	**35**	Pn	**Pn**	**09 09 44.6**	**-0.9**
	5.8nm,0.3s,baz=242,slow=3.9,SNR=8.3						
	23nm,0.5s						
BORG				AML	AML		
BORG	**Borgarnes**	**5.36**	**35**		**Pn**	**09 09 45.3**	**-0.2**
ANGG	**Ammassalik, Gr**	**6.55**	**325**	Pn	**Pn**	**09 10 01.4**	**-0.4**
SCO	**Scoresbysund**	**10.33**	**12**	Pn	**Pn**	**09 10 53.2**	**-0.3**
SUMG	**Summit**	**12.67**	**346**	Pn	**Pn**	**09 11 25.2**	**-0.7**
EKA	**Eskdalemuir Ar**	**14.39**	**100**	Pn	**Pn**	**09 11 48.9**	**-0.3**
	baz=285,slow=9.4						
EKA				LR	LR	09 16 26.7	
	comp=Z,548nm,18.1s,baz=345,slow=33						
	1.0nm,0.6s						
NBO00	**NORSAR Array S**	**19.00**	**71**	P	**P**	**09 12 46.5**	**-0.5**
ILON	**Igloolik, Nuna**	**23.42**	**314**	P	**P**	**09 13 35.5**	**+1.2**
ARCES	**ARCESS Array B**	**23.66**	**45**	P	**P**	**09 13 37.6**	**+0.9**
	2.9nm,0.8s,baz=342,slow=7.6,SNR=4.5						
	2.9nm,0.8s						
ARCES	**ARCESS Array B**	**23.66**	**45**	P	**P**	**09 13 37.6**	**+0.9**
ICQ	**Pointe Anglais**	**24.41**	**261**	P	**P**	**09 13 43.9**	**0.0**
CLL	**Collm**	**24.64**	**93**	L	L	09 20 00.0	
CLL				AMS	AMS	09 22 00.0	
	comp=N,200nm,20.4s						
CLL				AMS	AMS	09 22 00.0	
	comp=Z,200nm,18.3s						
ESDC	**Sonseca Array**	**25.89**	**133**	P	**P**	**09 13 59.0**	**+1.6**
	comp=Z,2.0nm,0.8s,baz=331,slow=10,SNR=7.7						
	comp=Z,2.0nm,0.8s						
ESDC	**Sonseca Array**	**25.89**	**133**	P	**P**	**09 13 58.5**	**+1.1**
TUE	**Stuetta**	**26.12**	**105**	P	**P**	**09 13 59.9**	**+0.3**
AKASG	**Malin Array Be**	**33.00**	**81**	P	**P**	**09 15 00.3**	**-0.1**
	comp=Z,1.6nm,0.3s,baz=322,slow=9.0,SNR=6.9						
	comp=Z,1.6nm,0.3s						
AKASG	**Malin Array Be**	**33.00**	**81**	P	**P**	**09 15 00.5**	**+0.1**
H31M	**Peel River**	**42.56**	**324**		**P**	**09 16 22.0**	**+1.1**
H31M				IAmb	IAmb	09 16 25.9	
	comp=Z,9.8nm,1.1s						
BRTR	**Keskin Array B**	**43.00**	**90**	P	**P**	**09 16 25.4**	**+0.4**
	comp=Z,1.2nm,1.0s,baz=318,slow=6.6,SNR=4.1						
	comp=Z,1.2nm,1.0s						
BRTR	**Keskin Array B**	**43.00**	**90**	P	**P**	**09 16 25.2**	**+0.2**
I30M	**Mount Dempster**	**43.56**	**324**		**P**	**09 16 30.5**	**+1.3**
I30M				IAmb	IAmb	09 16 33.0	
	comp=Z,5.3nm,0.9s						
I29M	**Ogilvie Camp,**	**44.01**	**325**	P	**P**	**09 16 34.0**	**+1.3**
I29M				IAmb	IAmb	09 16 36.9	
	comp=Z,7.0nm,1.0s						
J30M	**Hart River**	**44.03**	**324**		**P**	**09 16 33.8**	**+0.8**
BMAR	**Burnt Mountain**	**44.09**	**330**	P	**P**	**09 16 33.2**	**-0.1**
H27K	**Steamboat Moun**	**44.23**	**328**		**P**	**09 16 36.0**	**+1.5**
G26K	**Porcupine Rive**	**44.26**	**329**	P	**P**	**09 16 35.0**	**+0.4**
G26K				IAmb	IAmb	09 16 39.5	
	comp=Z,6.7nm,1.1s						
I27K	**Kandik River**	**44.73**	**327**	P	**P**	**09 16 39.9**	**+1.4**
I27K				IAmb	IAmb	09 16 42.2	
	comp=Z,4.2nm,1.0s						
DAWY	**Dawson**	**45.30**	**325**	P	**P**	**09 16 44.4**	**+1.4**
DAWY				IAmb	IAmb	09 16 48.0	
	comp=Z,6.2nm,1.1s						
G23K	**Bananza Creek**	**45.97**	**332**		**P**	**09 16 49.9**	**+1.6**
G23K				IAmb	IAmb	09 16 52.2	
	comp=Z,5.2nm,1.1s						
M29M	**Somme Creek**	**46.27**	**323**	P	**P**	**09 16 51.4**	**+0.7**
AKTO	**Aktyubinsk**	**46.57**	**62**	LR	LR	09 36 06.3	
	comp=Z,75nm,19.4s,baz=258,slow=36						
H23K	**Yukon River**	**46.58**	**331**	IAmb	IAmb	09 16 57.2	
	comp=Z,4.8nm,1.1s						
SCRK	**Sand Creek**	**46.64**	**327**	IAmb	IAmb	09 17 04.9	
	comp=Z,5.4nm,1.5s						
ILAR	**Eielson Array**	**46.77**	**329**	P	**P**	**09 16 55.0**	**+0.5**
	comp=Z,1.4nm,0.9s,baz=24,slow=6.3,SNR=9.6						
ILAR				PcP	**PcP**	**09 18 27.2**	**-0.3**
	comp=Z,0.8nm,0.7s,baz=1.9,slow=2.4,SNR=7.6						
	comp=Z,1.4nm,0.9s						
ILAR	**Eielson Array**	**46.77**	**329**	P	**P**	**09 16 54.5**	**0.0**
ILAR					**PcP**	**09 18 27.2**	**-0.3**
G19K	**Purcell Mounta**	**48.01**	**335**	IAmb	IAmb	09 17 08.6	
	comp=Z,4.9nm,1.1s						
AB31	**Akbulak array**	**48.28**	**61**	P	**P**	**09 17 05.7**	**-0.8**
AB31				IAmb	IAmb	09 17 11.4	
	comp=Z,5.2nm,1.4s						
ABKAR	**Akbulak array**	**48.28**	**61**		**P**	**09 17 07.5**	**+1.0**
YNE	**Yellowstone No**	**48.34**	**290**	P	**P**	**09 17 07.0**	**-0.2**
YNE				IAmb	IAmb	09 17 28.0	
	comp=Z,4.4nm,1.3s						
J19K	**Poorman**	**49.54**	**332**	IAmb	IAmb	09 17 18.0	
	comp=Z,4.2nm,1.2s						
K20K	**Telida**	**49.72**	**331**	IAmb	IAmb	09 17 21.1	
	comp=Z,4.6nm,1.0s						
PDAR	**Pinedale Array**	**49.84**	**288**	P	**P**	**09 17 16.2**	**-2.5**
	comp=Z,1.0nm,0.8s,baz=56,slow=5.8,SNR=5.9						
	comp=Z,1.0nm,0.8s						
L18K	**Granite Mounta**	**51.32**	**332**	IAmb	IAmb	09 17 32.9	
	comp=Z,7.5nm,1.2s						
TORD	**Torodi Ar. Bea**	**52.24**	**142**	P	**P**	**09 17 36.1**	**-0.5**
	comp=Z,1.1nm,0.8s,baz=333,slow=9.5,SNR=3.8						
	comp=Z,1.1nm,0.8s						
SGCY	**Sterling City**	**54.34**	**273**	P	**P**	**09 17 54.7**	**+2.6**
KURK	**Kurchatov**	**54.66**	**48**	P	**P**	**09 17 54.4**	**+0.3**
KURBB	**Kurchatov Arra**	**54.70**	**48**	P	**P**	**09 17 54.4**	**0.0**
	comp=Z,1.5nm,0.8s,baz=320,slow=7.6,SNR=6.3						
	comp=Z,1.5nm,0.8s						
WUAZ	**Wupatki**	**56.43**	**284**	IAmb	IAmb	09 18 10.9	
	comp=Z,3.3nm,0.8s						
NVAR	**Mina Array Bea**	**57.34**	**291**	P	**P**	**09 18 12.1**	**-1.6**
	comp=Z,0.4nm,0.7s,baz=45,slow=2.3,SNR=4.0						
	comp=Z,0.4nm,0.7s						
MPK	**Martis Peak**	**57.43**	**293**	IAmb	IAmb	09 18 17.8	
	comp=Z,5.8nm,1.0s						
TXAR	**Lajitas Array**	**57.70**	**273**	P	**P**	**09 18 14.7**	**-1.6**
	comp=Z,0.2nm,0.8s,baz=57,slow=9.1,SNR=3.6						
	comp=Z,0.2nm,0.8s						
GWY	**Greenwater Val**	**58.40**	**288**		**P**	**09 18 21.6**	**+0.4**
GWY				IAmb	IAmb	09 18 25.0	
	comp=Z,2.9nm,0.9s						
MKAR	**Makanchi Array**	**59.27**	**48**	P	**P**	**09 18 27.4**	**+0.5**
	comp=Z,1.1nm,0.7s,baz=334,slow=7.2,SNR=3.0						
	comp=Z,1.1nm,0.7s						
SONM	**Songino Array**	**65.96**	**31**	P	**P**	**09 19 11.9**	**+0.2**
	comp=Z,0.6nm,0.3s,baz=339,slow=7.9,SNR=5.9						
	comp=Z,0.6nm,0.3s						
SONM	**Songino Array**	**65.96**	**31**	IAmb	IAmb	09 19 15.1	
	comp=Z,3.7nm,1.3s						
QSPA	**South Pole Qui**	**150.46**	**180**	PKPbc	**PKPbc**	**09 28 13.2**	**-2.5**
	comp=Z,3.5nm,1.0s,baz=208,slow=1.5,SNR=7.3						

IDC ***04*** *09:24:10.7±0.5, 62°.16S×57°.82W, h0^{km}, mb4.3/13, mbtmp4.3/14, ML3.6/1, MS3.8/17, Error ellipse: s-maj=21.0km s-min=13.8km az=94.0*

NEIC ***04*** *09:24:12.4±1.0, 62°.36S±0°.03×58°.2W±0°.2, h10^{km}±1^{km}, mb4.9/49, Error ellipse: s-maj=12.0km s-min=5.9km az=79.0*

GFZ ***04*** *09:24:14.3±0.2, 62°S±4°×5°8W±°, h10^{km}, M4.7/13, mb4.7/13, confirmed*

ISC 04 09:24:12.3±0.3**, 62°.33S**±0°.05×**58°.17W**±0°.07**, h10**^{km}**, n126, σ1^{s}.33**/111**, mb4.8**/38**, MS3.8**/16**, 6C-1D, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ESPZ	**Base Esperanza**	**1.20**	**154**		**Pb**	**09 24 34.5**	**-0.6**
PMSA	**Palmer Station**	**3.60**	**224**	Pn	**Pn**	**09 25 08.7**	**+0.7**
	3.9nm,0.3s,baz=55,slow=10,SNR=46						
PMSA				Sn	**Sb**	**09 25 56.4**	**-3.0**
	15nm,0.3s,baz=51,slow=11,SNR=4.0						
PMSA				LR	LR	09 26 25.7	
	comp=Z,680nm,18.2s,baz=66,slow=35						
	15nm,0.3s						
PMSA				AML	AML		
PMSA	**Palmer Station**	**3.60**	**224**		**Pn**	**09 25 08.3**	**+0.3**
PMSA	**Palmer Station**	**3.60**	**224**	P	**Pn**	**09 25 08.9**	**+0.9**
ORCD	**Orcadas**	**6.62**	**82**		**Pn**	**09 25 50.1**	**+0.6**
SMAI	**San Martin Ant**	**6.92**	**209**		**Pn**	**09 25 53.3**	**-0.3**
DSPA	**Despedida**	**9.94**	**323**	Pn	**Pn**	**09 26 35.0**	**+0.1**
EFI	**East Falkland**	**10.68**	**0**	Pn	**Pn**	**09 26 46.0**	**+0.8**
EFI	**East Falkland**	**10.68**	**0**	P	**Pn**	**09 26 47.7**	**+2.5**
	comp=Z,102nm,0.4s						
MG02	**Cerro Sombrero**	**11.24**	**323**	Pn	**Pn**	**09 26 54.0**	**+1.1**
MG02	**Cerro Sombrero**	**11.24**	**323**	P	**Pn**	**09 26 54.4**	**+1.6**

	comp=Z,37nm,0.7s						
GO10	Punta Arenas	11.46	318	Pn	Pn	09 26 56.7	+0.8
GO08	Villa O'Higgin	16.06	323		Pn	09 27 58.9	+1.0
BELA	Belgrano 2	17.29	163		Pn	09 28 12.5	-0.8
COYC	Coyhaique	18.61	328		Pn	09 28 29.8	+0.1
VNA3	Neumayer Olymp	20.47	136	⇑P	Pn	09 28 53.0	+1.1
	comp=Z,29nm,0.6s						
VNA3	Neumayer Olymp	20.47	136	P	Pn	09 28 53.2	+1.3
	comp=Z,54nm,0.8s						
LL02	Futaleuf	20.80	331	P	P	09 28 53.4	-0.1
VNA1	Neumayer--Stat	20.93	134	⇑P	Pn	09 28 58.1	+0.9
	comp=Z,28nm,0.9s						
VNA1				⇑S	S	09 32 41.2	-6.3
	comp=N,1.6nm,0.6s						
VNA2	Neumayer--Watz	21.21	135	⇑P	P	09 29 01.2	+3.5
	comp=Z,14nm,0.6s,baz=268,slow=10						
VNA2				⇑S	S	09 32 52.0	-1.1
	comp=N,2.9nm,0.6s,baz=263,slow=19						
VNA2	Neumayer--Watz	21.21	135	P	P	09 29 01.3	+3.6
	comp=Z,26nm,0.7s						
SNAA	Sanae	22.64	137	⇑P	P	09 29 16.2	+3.2
	comp=Z,221nm,0.6s						
SNAA	Sanae	22.64	137	P	P	09 29 14.7	+1.6
	comp=Z,9.1nm,0.6s,baz=260,slow=8.1,SNR=20						
SNAA				LR	LR	09 37 06.6	
	comp=Z,174nm,18.7s,baz=277,slow=34						
	comp=Z,9.1nm,0.6s						
SNAA	Sanae	22.64	137		P	09 29 13.3	+0.3
SNAA	Sanae	22.64	137	P	P	09 29 16.3	+3.2
	comp=Z,22nm,1.0s						
PLCA	Paso Flores	22.88	335	P	P	09 29 15.7	-0.1
	comp=Z,12nm,1.1s,baz=162,slow=8.0,SNR=8.6						
PLCA				LR	LR	09 38 08.5	
	comp=Z,160nm,18.0s,baz=179,slow=37						
	comp=Z,12nm,1.1s						
PLCA	Paso Flores	22.88	335		P	09 29 15.9	+0.2
PLCA	Paso Flores	22.88	335	P	P	09 29 16.9	+1.1
	comp=Z,16nm,1.4s						
GO06	Curarrehue	24.17	334		P	09 29 28.4	-0.2
GO06				IAmb	IAmb	09 29 33.0	
	comp=Z,37nm,1.2s						
GO06	Curarrehue	24.17	334	P	P	09 29 29.3	+0.8
	comp=Z,24nm,1.1s						
ML02	Panimavida	27.86	336	P	P	09 30 01.5	-0.3
ML02				IAmb	IAmb	09 30 22.0	
	comp=Z,33nm,1.4s						
QSPA	South Pole Qui	27.89	180	P	P	09 30 04.3	+2.2
	comp=Z,5.8nm,0.7s,baz=175,slow=1.7,SNR=25						
QSPA				LR	LR	09 42 12.2	
	comp=Z,119nm,20.1s,baz=151,slow=38						
	comp=Z,5.8nm,0.7s						
QSPA	South Pole Qui	27.89	180	P	P	09 30 01.6	-0.5
QSPA				IAmb	IAmb	09 30 14.2	
	comp=Z,15nm,1.0s						
GO05	Hualane	28.68	336	P	P	09 30 09.6	+0.4
GO05				IAmb	IAmb	09 30 16.1	
	comp=Z,19nm,1.1s						
BO02	Sierra Bellavi	28.69	338	P	P	09 30 09.4	+0.1
BO02				IAmb	IAmb	09 30 16.9	
	comp=Z,13nm,1.0s						
BO02	Sierra Bellavi	28.69	338	P	P	09 30 08.7	-0.6
	comp=Z,18nm,1.2s						
MT01	Popeta	29.67	338	P	P	09 30 18.3	+0.4
MT01				IAmb	IAmb	09 31 20.8	
	comp=Z,52nm,1.9s						
ELIB	Princess Elisa	30.49	143	*d*P	P	09 30 27.0	+2.0
VA03	San Esteban	30.63	339		P	09 30 25.5	-1.0
VA03				IAmb	IAmb	09 30 39.4	
	comp=Z,24nm,1.0s						
CO02	Combarbal	32.23	339	P	P	09 30 40.6	0.0
CO02				IAmb	IAmb	09 30 46.0	
	comp=Z,32nm,1.1s						
CO01	Juntas del Tor	33.28	341	P	P	09 30 50.8	+0.8
CO01	Juntas del Tor	33.28	341	P	P	09 30 51.0	+1.0
	comp=Z,27nm,1.0s						
LCO	Las Campanas	34.33	340	P	P	09 30 58.9	-0.2
AC04	Llanos de Chal	35.18	340	P	P	09 31 06.7	+0.6
AC06	Mina Casimiro	35.90	341	P	P	09 31 12.4	+0.1
AC06				IAmb	IAmb	09 32 11.7	
	comp=Z,14nm,1.1s						
CPUP	Villa Florida	36.00	1	P	P	09 31 11.9	-1.3
	comp=Z,0.8nm,0.5s,baz=178,slow=9.9,SNR=3.3						
CPUP				LR	LR	09 45 52.5	
	comp=Z,60nm,18.1s,baz=238,slow=36						
	comp=Z,0.8nm,0.5s						
CPUP	Villa Florida	36.00	1	P	P	09 31 13.3	+0.1
SBA	Scott Base	37.41	194	P	P	09 31 24.5	-0.2
SBA				IAmb	IAmb	09 31 35.8	
	comp=Z,23nm,1.8s						
SBA	Scott Base	37.41	194	P	P	09 31 28.4	+3.6
	comp=Z,12nm,2.9s						
VNDA	Vanda	38.24	193	P	P	09 31 33.7	+2.0
	comp=Z,0.3nm,0.8s,baz=153,slow=6.0,SNR=1.8						
VNDA				PcP	PcP	09 33 46.0	+0.4
	comp=Z,0.5nm,0.7s,baz=194,slow=5.2,SNR=2.3						
VNDA				LR	LR	09 45 57.8	
	comp=Z,69nm,18.9s,baz=146,slow=34						
VNDA	Vanda	38.24	193	P	P	09 31 30.8	-0.9
PB06	IPOC Station P	40.36	344	P	P	09 31 50.0	-0.2
PB06				IAmb	IAmb	09 32 01.7	
	comp=Z,14nm,0.8s						
PB08	IPOC Station P	42.84	345	P	P	09 32 10.6	-0.1
PB08				IAmb	IAmb	09 32 16.5	
	comp=Z,22nm,1.6s						
MAW	Mawson	43.56	152	P	P	09 32 16.6	+0.9
	comp=Z,5.0nm,0.8s,baz=200,slow=9.9,SNR=13						
MAW				PcP	PcP	09 34 03.9	+0.9
	comp=Z,1.7nm,0.8s,baz=37,slow=5.1,SNR=2.5						
MAW				LR	LR	09 50 24.6	
	comp=Z,220nm,18.4s,baz=224,slow=36						
	comp=Z,5.0nm,0.8s						
MAW	Mawson	43.56	152	P	P	09 32 15.7	+0.1
MAW					PcP	09 34 04.3	+1.4
MAW	Mawson	43.56	152	P	P	09 32 18.0	+2.4
	comp=Z,1.6nm,1.5s						
PB16	IPOC Station P	44.66	345	P	P	09 32 25.1	-0.6
PB16				IAmb	IAmb	09 32 30.7	
	comp=Z,36nm,1.9s						
LPAZ	La Paz	46.52	347	P	P	09 32 39.6	-0.8
	comp=Z,0.7nm,0.7s,baz=111,slow=6.4,SNR=5.6						
	comp=Z,0.7nm,0.7s						
LPAZ	La Paz	46.52	347	P	P	09 32 39.9	-0.5
LPAZ				IAmb	IAmb	09 32 55.2	
	comp=Z,14nm,1.9s						
BDFB	Brasilia	47.18	13	P	P	09 32 44.4	-0.6
	comp=Z,2.3nm,0.3s,baz=154,slow=15,SNR=3.9						
	comp=Z,2.3nm,0.3s						
BDFB	Brasilia	47.18	13	P	P	09 32 44.8	-0.2
BDFB				IAmb	IAmb	09 32 50.4	
	comp=Z,41nm,1.9s						
CLDB	Colider	51.40	3	P	P	09 33 17.2	+0.1
	comp=Z,9.0nm,0.9s						
CASY	Casey	51.42	174	P	P	09 33 17.2	+0.5
CZSB	Cruzeiro do Su	55.53	342		P	09 33 47.5	0.0
CZSB				IAmb	IAmb	09 33 54.2	
	comp=Z,33nm,1.4s						
SUR	Sutherland	56.85	97	LR	LR	09 54 20.8	
	comp=Z,50nm,18.2s,baz=191,slow=32						
SUR	Sutherland	56.85	97	P	P	09 33 57.5	+0.5
H10S2	ASCENSION HYDR	61.89	50	T	T	10 41 43.2	
	baz=17,slow=74,SNR=15						
H10S3	ASCENSION HYDR	61.89	50	T	T	10 41 43.1	
	baz=203,slow=74,SNR=15						
BOSA	Boshof	62.08	99	P	P	09 34 32.3	-0.7
	comp=Z,3.2nm,0.6s,baz=214,slow=6.8,SNR=9.3						
BOSA				LR	LR	09 56 01.9	
	comp=Z,54nm,18.2s,baz=213,slow=31						
	comp=Z,3.2nm,0.6s						
BOSA	Boshof	62.08	99	P	P	09 34 33.1	0.0
BOSA				IAmb	IAmb	09 35 11.4	
	comp=Z,14nm,1.3s						
H10N3	ASCENSION HYDR	62.97	50	T	T	10 43 03.3	
	baz=202,slow=75,SNR=92						
H10N1	ASCENSION HYDR	62.98	50	T	T	10 43 03.5	
	baz=202,slow=75,SNR=76						
H10N2	ASCENSION HYDR	62.99	50	T	T	10 43 04.6	
	baz=202,slow=75,SNR=99						
OTAV	Otavalo	64.26	337	P	P	09 34 48.2	+0.3
OTAV				IAmb	IAmb	09 34 52.3	
	comp=Z,16nm,1.4s						
OTAV	Otavalo	64.26	337	P	P	09 34 49.3	+1.3
	comp=Z,8.2nm,1.4s						
BOAV	Boa Vista	64.58	357	P	P	09 34 48.7	-0.8
BOAV				IAmb	IAmb	09 36 18.8	
	comp=Z,18nm,1.8s						
LBTB	Lobatse	65.30	97	LR	LR	09 59 11.7	
	comp=Z,63nm,18.4s,baz=200,slow=32						
LBTB	Lobatse	65.30	97	P	P	09 34 54.2	-0.1
LBTB				IAmb	IAmb	09 36 14.2	
	comp=Z,43nm,1.9s						
POGA	Pongola	66.11	103	P	P	09 34 59.5	+0.1
POGA				IAmb	IAmb	09 35 01.1	
	comp=Z,14nm,1.0s						
TSUM	Tsumeb	66.57	87	P	P	09 35 01.7	-0.8
TSUM				IAmb	IAmb	09 36 41.0	
	comp=Z,7.0nm,1.3s						
MDP	Montagnes des	67.37	6	LR	LR	10 07 46.1	
	comp=Z,37nm,18.1s,baz=212,slow=39						
ROSC	El Rosal	68.12	343	LR	LR	10 05 12.4	
	comp=Z,118nm,19.7s,baz=68,slow=36						
DSZ	Denniston Nort	68.78	218	P	P	09 35 16.7	+0.6
SDV	Santo Domingo	71.66	347	LR	LR	10 10 09.7	
	comp=Z,71nm,18.4s,baz=280,slow=39						
LSZ	Lusaka	74.92	94	LR	LR	10 04 11.7	
	comp=Z,82nm,19.3s,baz=196,slow=32						
PPT2	Papeete2	75.25	260	*e*LR	LR	09 59 51.3	
	comp=Z,79nm,24.5s						
PPT2				*e*LR	LR	09 59 56.0	
	comp=Z,109nm,26.2s						
JUD3	Juan Diaz 3	75.34	332	P	P	09 35 55.6	-0.1
JUD3				IAmb	IAmb	09 37 30.6	
	comp=Z,26nm,1.6s						
TOO	Toolangi	78.63	199	P	P	09 36 14.1	+0.1
TOO				IAmb	IAmb	09 39 02.6	
	comp=Z,21nm,1.7s						
MTO3	Montecristo	80.30	329	P	P	09 36 22.7	-0.7
MTO3				IAmb	IAmb	09 36 26.1	
	comp=Z,17nm,1.6s						
CMIG	Matias Romero	84.28	325	LR	LR	10 06 48.2	
	comp=Z,43nm,19.5s,baz=182,slow=30						
BBOO	Buckleboo	84.50	192	P	P	09 36 44.9	-0.2
NWAO	Narrogin (SRO)	85.00	176	P	P	09 36 47.1	-0.5
	comp=Z,11nm,0.9s,baz=164,slow=18,SNR=2.6						
	comp=Z,11nm,0.9s						
NWAO	Narrogin (SRO)	85.00	176	P	P	09 36 47.7	+0.1
NWAO				IAmb	IAmb	09 39 58.2	
	comp=Z,174nm,1.9s						
TEIG	Tepich	85.68	332	P	P	09 36 50.5	-0.3
FORT	Forrest	87.08	185	P	P	09 36 58.6	+0.7
TOA0	Torodi Ar. Sit	88.37	57	P	P	09 37 04.1	0.0
TORD	Torodi Ar. Bea	88.37	57	P	P	09 37 02.7	-1.4
	comp=Z,0.8nm,0.8s,baz=208,slow=5.6,SNR=3.7						
	comp=Z,0.8nm,0.8s						
TORD	Torodi Ar. Bea	88.37	57	P	P	09 37 03.6	-0.5
QLP	Quilpie	89.59	200	P	P	09 37 11.1	+1.2
	comp=Z,25nm,1.2s						
ASAR	Alice Springs	93.76	191	P	P	09 37 29.2	-0.1
	comp=Z,0.7nm,0.7s,baz=169,slow=4.6,SNR=10.0						
ASAR				LR	LR	10 20 00.3	
	comp=Z,34nm,18.3s,baz=108,slow=36						
	comp=Z,0.7nm,0.7s						
WR8	Warramunga Arr	97.38	192	P	P	09 37 45.4	-0.4
WRA	Warramunga Arr	97.41	192	P	P	09 37 44.8	-1.1
	comp=Z,0.7nm,0.7s,baz=174,slow=4.2,SNR=5.5						
	comp=Z,0.7nm,0.7s						
WRA	Warramunga Arr	97.41	192	P	P	09 37 45.2	-0.7
WB0	Warramunga Arr	97.57	192	P	P	09 37 46.2	-0.5
TXAR	Lajitas Array	98.36	321	P	P	09 37 48.7	-1.2
	comp=Z,0.1nm,0.7s,baz=151,slow=4.7,SNR=1.9						
	comp=Z,0.1nm,0.7s						
TXAR	Lajitas Array	98.36	321	P	Pdif	09 37 50.3	+0.5
FITZ	Fitzroy Crossi	99.79	184	LR	LR	10 23 51.7	
	comp=Z,81nm,18.8s,baz=182,slow=36						
GERES	GERESS Array B	124.61	50	PKP	PKPdf	09 43 08.9	-1.8
	comp=Z,0.7nm,0.3s,baz=241,slow=2.7,SNR=5.2						
CMAR	Chiang Mai Arr	133.35	149	PKP	PKPdf	09 43 28.0	-0.2
	comp=Z,0.6nm,0.3s,baz=194,slow=3.7,SNR=4.1						
FINES	FINESS Array B	138.86	47	PKP	PKPdf	09 43 35.9	-1.1
	comp=Z,2.9nm,0.9s,baz=256,slow=5.0,SNR=2.0						
PZH	PanZhiHua	141.76	150	PKP	PKiKP	09 43 45.5	-1.0
ILAR	Eielson Array	142.61	315	PKhKP	PKPpre	09 43 40.6	
	comp=Z,0.4nm,0.9s,baz=106,slow=1.1,SNR=4.6						
KSH2	Kashi	143.80	108	PKP	PKPbc	09 43 45.1	+0.5
ARCES	ARCESS Array B	144.07	37	PKhKP	PKPpre	09 43 42.4	
	comp=Z,4.9nm,0.7s,baz=238,slow=3.4,SNR=19						
AKTO	Aktyubinsk	144.25	79	PKP	PKPab	09 43 43.9	-1.2
	comp=Z,2.8nm,0.5s,baz=243,slow=2.8,SNR=7.4						
SPITS	Spitsbergen Ar	147.11	21	PKPbc	PKPbc	09 43 52.7	-0.8
	comp=Z,3.7nm,0.7s,baz=187,slow=4.6,SNR=1.2						
ARTI	Arti	148.32	71	PKPbc	PKPbc	09 43 57.3	0.0
	comp=Z,2.2nm,0.4s,baz=191,slow=1.6,SNR=3.6						
NJ2	Nanjing	149.65	175	*e*P	PKPdf	09 43 57.2	+0.5
NJ2				pmax	pmax		
	comp=Z,29nm,0.5s						
JNU	Nakatsue	150.21	195	PKPbc	PKPbc	09 44 02.7	-0.1
	comp=Z,5.0nm,0.8s,baz=233,slow=5.1,SNR=4.3						
LZH	Lanzhou	151.43	148	*e*P	PKiKP	09 44 08.2	+2.0
LZH				pP	sPKPab	09 44 17.6	-0.1
LZH				pmax	pmax		
	comp=Z,19nm,1.5s						
BVAR	Borovoye Array	151.71	85	PKPbc	PKPbc	09 44 04.6	-1.0
	comp=Z,7.7nm,0.7s,baz=258,slow=1.7,SNR=21						
MKAR	Makanchi Array	152.86	106	PKPbc	PKPbc	09 44 07.5	-1.0
	comp=Z,1.8nm,0.6s,baz=226,slow=2.3,SNR=11						
GTA2	Gaotai	153.49	139	PKPbc	PKiKP	09 44 11.0	+0.7
KURBB	Kurchatov Arra	153.91	97	PKPbc	PKPbc	09 44 09.8	-0.7
	comp=Z,1.1nm,0.6s,baz=231,slow=2.7,SNR=9.9						
HHC	Hu-ho-hao-te	157.62	159	*e*P	PKPdf	09 44 05.9	-2.1
SONM	Songino Array	163.07	142	PKPab	PKPab	09 45 03.7	-0.1
	comp=Z,0.6nm,0.6s,baz=197,slow=4.6,SNR=4.4						

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*NNC **04** 09:29:51.8±2.2, 54°.31N×86°.96E, h0^{km}, mb3.5, mpv3.8, Error ellipse: s-maj=13.9km s-min=10.3km az=51.0, Suspected Mining explosion.*

*ASRS **04** 09:29:51.0±0.7, 54°.28N×86°.87E, h0^{km}, M3.1(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

*IDC **04** 09:29:53.2±3.2, 54°.31N×86°.89E, h0^{km}, mbtmp3.7/3, ML3.2/3, Error ellipse: s-maj=28.7km s-min=17.8km az=69.0*

ISC 04 09:29:52.8±3.2, **54°.3N**±0°.2×**86°.9E**±0°.1, **h0**^{km}, **n10**, σ**0^{s}.82**/13, **4C-2D, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	ZALESOVO INFRA	1.28	253	I	I	09 38 40.0	
	baz=72,slow=326,SNR=7.3						
ZAA0	Zalesovo Array	1.28	253	⇓P	Pg	09 30 16.2	-1.1
	8.4nm,0.2s,baz=75,slow=17						
ZAA0				⇑S	Sg	09 30 34.2	+0.4
	4.9nm,0.2s,baz=72,slow=25						
ZALV	Zalesovo Beam	1.28	253	Pg	Pg	09 30 16.2	-1.0
	21nm,0.3s,baz=72,slow=17,SNR=212						
ZALV				Lg	Lg	09 30 34.2	
	9.3nm,0.3s,baz=75,slow=30,SNR=12						
KURBB	Kurchatov Arra	6.32	237	Pn	Pn	09 31 28.1	+1.1
	0.6nm,0.3s,baz=55,slow=14,SNR=32						
KURBB				Lg	Lg	09 33 13.4	
	0.1nm,0.3s,baz=52,slow=33,SNR=2.5						
	4.4nm,0.4s						
KURBB				AML	AML		
KURBB	Kurchatov Arra	6.32	237	⇓Pn	Pn	09 31 26.8	-0.2
	8.4nm,0.7s						
KURBB				⇑Sn	Sn	09 32 40.5	+0.6
	2.2nm,0.3s						
KURBB				⇑Lg	Lg	09 33 13.5	
	5.4nm,0.7s						
MK31	Makanchi Array	8.10	203	Pn	Pn	09 31 50.9	-0.7
	9.6nm,1.2s,baz=26,slow=13,SNR=19						
MK31				⇑Sn	Sn	09 33 23.5	-0.2
	3.7nm,1.3s,baz=25,slow=26						
MKAR	Makanchi Array	8.10	203	Pn	Pn	09 31 52.6	+1.1
	0.6nm,0.3s,baz=26,slow=14,SNR=20						
	0.9nm,0.3s						
MKAR				AML	AML		
MAKZ	Makanchi	8.16	204	Pn	Pn	09 31 52.4	0.0
MAKZ				Sn	Sn	09 33 25.7	+0.4
BVA0	Borovoye Array	9.88	269	P	Pn	09 32 16.3	+0.4
	0.1nm,1.1s,baz=66,slow=15,SNR=5.5						
BVAR	Borovoye Array	9.88	269	Pn	Pn	09 32 16.8	+0.8
	0.1nm,0.3s,baz=69,slow=15,SNR=5.6						
	1.5nm,0.4s						
BVAR				AML	AML		

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*SKHL **04** 09:31:44.8±0.1, 44°.40N×149°.20E, h49^{km}±7^{km}, mb4.2/3*

*JMA **04** 09:31:46.9±0.9, 44°N±2°×14°9E±°, h30^{km}, MV3.1/11, SE OFF ETOROFU*

ISC 04 09:31:45.2±4.8, **44°.53N**±0°.09×**149°.2E**±0°.3, **h42**^{km}, **n8**, σ**1^{s}.02**/11, **Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
REI	Reidovoe	1.10	313	*e*P	Pn	09 32 03.7	-0.4
REI				AMB	AMB	09 32 05.6	
	100nm,0.6s						
REI				*e*S	Sn	09 32 17.8	-0.3
REI				A	A	09 32 18.9	
	150nm,0.4s						
REI				A	A	09 32 18.9	
	250nm,0.4s						
KUR	Kuril'sk	1.16	308	*e*P	Pn	09 32 04.9	-0.1
KUR				AMB	AMB	09 32 06.1	
	110nm,0.2s						
KUR				*e*S	Sn	09 32 20.1	+0.5
KUR				A	A	09 32 23.1	
	680nm,0.5s						
KUR				A	A	09 32 23.1	
	300nm,0.5s						
NEM2	Nemuro 2	2.73	246	*e*P	Pn	09 32 26.6	+0.1
NMR	Nemuro--Hokkai	2.74	246	*e*P	Pn	09 32 26.2	-0.4
NMR				*e*S	Sn	09 32 56.6	-1.9
JRA	Rausu	2.96	260	P	Pn	09 32 31.1	+1.3
JNK	Nakash	3.34	255	*e*P	Pn	09 32 35.7	+0.8
JAR	Ashorobuto	4.09	254	*e*P	Pn	09 32 46.3	+1.1
JCH	Churui	4.63	248	*e*P	Pn	09 32 53.2	+0.6

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*IDC **04** 09:33:28.4±4.0, 42°.41N×143°.92E, h118^{km}±24^{km}, mb3.4/8, mbtmp3.8/10, MS3.2/1, Error ellipse: s-maj=41.0km s-min=21.1km az=166.0*

*NIED **04** 09:33:31.9, 42°.92N×143°.82E, h119^{km}, MW3.7, Moment Tensor Solution. s2 Moment tensor: Scale 10^{14}Nm; M$_{rr}$-1.06; M$_{\theta\theta}$2.39; M$_{\phi\phi}$-1.33; M$_{r\theta}$2.94; M$_{\theta\phi}$-0.55; M$_{\phi r}$-0.43; Fault plane solution: M$_{0}$3.45000×10^{14} NP1:ϕ_s98.00000°, δ15.00000°, λ-91.00000°. NP2:ϕ_s278.00000°, δ75.00000°, λ-90.00000°.*

*NEIC **04** 09:33:31.5±1.5, 42°.87N±0°.05×143°.72E±0°.07, h134^{km}±6^{km}, mb4.5/15 Error ellipse: s-maj=8.6km s-min=6.8km az=45.0*

*JMA **04** 09:33:31.9±0.1, 42°.9N±0°.5×143°.8E±0°.6, h119^{km}±1^{km}, MV3.7/40, KUSHIRO REGION*

JMA Felt I J1 at KUSHIRO REGION .

*SKHL **04** 09:33:32.5±0.3, 42°.90N×143°.90E, h112^{km}±3^{km}, mb4.4/3, msh5.3/3*

ISC 04 09:33:30.6±0.6, **42°.84N**±0°.04×**143°.88E**±0°.03, **h126**^{km}±5^{km}, **n67**, σ**1^{s}.19**/82, **mb4.1**/16, **15D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JOB	Onbets	0.07	333	⇓*e*P	Pn	09 33 48.8	+1.1
JOB				⇓*e*S	Sn	09 34 01.2	+0.6
JCH	Churui	0.44	240	P	Pn	09 33 49.5	+0.7
JCH				S	Sn	09 34 02.0	-0.6
JAR	Ashorobuto	0.47	350	⇓P	Pn	09 33 49.4	+0.4
JAR				⇓S	Sn	09 34 02.4	-0.5
JAK	Akkeshi	0.62	75	P	Pn	09 33 50.7	+0.8
JAK				*e*S	Sn	09 34 04.8	+0.3
AKK	Akkeshi	0.73	75	*e*P	Pn	09 33 51.6	+0.9
AKK				*e*S	Sn	09 34 06.1	+0.2
JNK	Nakash	0.97	39	⇓P	Pn	09 33 53.1	+0.4
JNK				⇓*e*S	Sn	09 34 09.1	-0.5
JKHN	Kushirohamanak	0.97	75	P	Pn	09 33 53.8	+1.1
JKHN				*e*S	Sn	09 34 09.9	+0.3
ERM	Erimo	0.98	213		Pn	09 33 54.4	+1.5
ERM				Sn	Sn	09 34 12.1	+2.3
JEM	Erimo	0.98	213	*e*P	Pn	09 33 54.3	+1.4
JFR	Furan	1.00	289	⇓*e*P	Pn	09 33 52.9	-0.1
JFR				⇓*e*S	Sn	09 34 09.7	-0.4
JNBK	Urakawa-nobuka	1.00	237	*i* P	Pn	09 33 54.1	+1.0
JNBK				*e*S	Sn	09 34 10.6	+0.5
JBT2	Biratori 2	1.12	267	⇓*e*P	Pn	09 33 54.8	+0.6
JBT2				⇓*e*S	Sn	09 34 12.3	+0.1
JTKR	Abashiri--Toko	1.13	1	⇓P	Pn	09 33 54.7	+0.4
JTKR				⇓*e*S	Sn	09 34 11.5	-0.9
JMP	Maruseppu	1.23	342	⇓P	Pn	09 33 55.5	+0.1
JMP				⇓*e*S	Sn	09 34 12.7	-1.6
JKK2	Kamakawa 2	1.32	322	P	Pn	09 33 56.7	+0.4
JAB	Ashibetsu	1.38	299	⇓*e*P	Pn	09 33 57.8	+0.8
JRA	Rausu	1.42	39	*e*P	Pn	09 33 58.2	+0.8
NMR	Nemuro--Hokkai	1.45	68	*e*P	Pn	09 33 58.1	+0.3
NMR				*e*S	Sn	09 34 17.3	-1.2
NEM2	Nemuro 2	1.46	68	*e*P	Pn	09 33 58.3	+0.4
NEM2				*e*S	Sn	09 34 17.8	-0.9
JKA	Kamikawa-asahi	1.58	324		Pn	09 33 59.9	+0.6
JKA				Sn	Sn	09 34 22.2	+1.0
ASAJ	Asahikawa	1.58	324	P	Pn	09 34 00.3	+1.1
	80nm,0.2s,baz=173,slow=9.8,SNR=343						
ASAJ				S	Sn	09 34 27.2	+6.0
	51nm,0.6s,baz=188,slow=21,SNR=4.6						
JEW	Eniwo	1.79	271	*e*P	Pn	09 34 02.7	+1.0
JEW				*e*S	Sn	09 34 25.7	+0.2
JHR	Hokuryu	1.81	301	P	Pn	09 34 03.0	+1.0
YUK	Yuzh-Kuril'sk	1.87	50	*e*P	Pn	09 34 03.6	+0.9
YUK				AMB	AMB	09 34 05.2	
	80nm,0.2s						
YUK				*e*S	Sn	09 34 27.0	-0.3
YUK				A	A	09 34 31.8	
	810nm,0.4s						
YUK				A	A	09 34 31.8	
	290nm,0.4s						
JTM	Tenmabayashi	2.94	227		Pn	09 34 16.9	+0.7
JTM				Sn	Sn	09 34 50.0	-1.3
KUR	Kuril'sk	3.74	49	*e*P	Pn	09 34 29.2	+2.5
KUR				AMB	AMB	09 34 29.4	
	20nm,0.3s						
KUR				*e*S	Sn	09 35 12.0	+1.8
KUR				A	A	09 35 13.0	
	40nm,0.3s						
KUR				A	A	09 35 13.0	
	30nm,0.3s						
REI	Reidovoe	3.84	49	*e*P	Pn	09 34 28.5	+0.4
REI				*e*S	Sn	09 35 12.6	0.0
YSS	Yuzhno-Sakhali	4.19	349	*e*P	Pn	09 34 33.7	+1.0
YSS				*e*S	Sn	09 35 20.2	-0.7
JHJ2	Mitsune	10.22	200	Pn	Pn	09 35 54.3	+0.3
JMN	Monobe	12.01	224	Pn	Pn	09 36 15.9	-1.8
KSRS	Korea Array	13.33	252	P	Pn	09 36 31.7	-3.0
	0.5nm,0.4s,baz=62,slow=16,SNR=1.8						
PETK	Petropavlovsk-	13.80	37	P	Pn	09 36 41.1	+0.4
	1.6nm,0.8s,baz=222,slow=11,SNR=2.0						
PETK	Petropavlovsk-	13.80	37		Pn	09 36 40.6	-0.1
JSU	Suzuyama	15.55	228	Pn	Pn	09 37 01.6	-1.3
JSU				IAmb	IAmb	09 37 19.9	
	comp=Z,40nm,1.2s						
MA2	Magadan	17.29	12	P	P	09 37 21.6	-1.8
YOJ	Yonaguni jima	25.14	230	P	P	09 38 43.9	+0.1
SONM	Songino Array	26.64	294	P	P	09 38 57.4	0.0
	comp=Z,1.0nm,0.8s,baz=79,slow=8.0,SNR=5.6						
	comp=Z,1.0nm,0.8s						
SONM	Songino Array	26.64	294	P	P	09 38 56.0	-1.3
TIXI	Tiksi	29.82	351	LR	LR	09 51 54.8	
	comp=Z,44nm,20.9s,baz=8.0,slow=37						
H11N2	WAKE ISLAND Hy	30.11	133	T	T	10 11 08.4	
	baz=326,slow=76,SNR=14						
H11N1	WAKE ISLAND Hy	30.12	133	T	T	10 11 00.1	
	baz=326,slow=76,SNR=24						
H11N3	WAKE ISLAND Hy	30.12	133	T	T	10 11 09.3	
	baz=326,slow=76,SNR=11						
ENH	Enshi	30.13	257	P	P	09 39 26.2	-2.2
ENH				IAmb	IAmb	09 39 26.3	
	comp=Z,13nm,0.4s						
H11S1	WAKE ISLAND Hy	31.01	134	T	T	10 12 12.4	
	baz=328,slow=76,SNR=39						
H11S3	WAKE ISLAND Hy	31.01	134	T	T	10 12 12.7	
	baz=328,slow=76,SNR=18						
H11S2	WAKE ISLAND Hy	31.02	134	T	T	10 12 13.7	
	baz=328,slow=76,SNR=20						
M11K	Mekoryuk	34.59	42	P	P	09 40 07.2	+0.3
M11K				IAmb	IAmb	09 40 07.6	
	comp=Z,27nm,0.8s						
L16K	Owhat River	37.97	40	P	P	09 40 35.8	+0.2
L16K				IAmb	IAmb	09 40 38.2	
	comp=Z,3.5nm,1.1s						
G18K	Tagagawik	38.73	34	P	P	09 40 42.0	+0.1
G18K				IAmb	IAmb	09 41 10.7	
	comp=Z,4.6nm,1.3s						
F19K	Shaleruckik Mo	39.20	32	P	P	09 40 46.9	+1.0
IMAR	Indian Mountai	40.73	34	P	P	09 40 59.3	+0.8
SII	Sitkinak Islan	40.91	48	P	P	09 41 00.5	+0.4
ILSW	Iliamna Southw	41.09	43	P	P	09 41 02.3	+0.6
ILSW				IAmb	IAmb	09 41 29.7	
	comp=Z,18nm,1.5s						
MKAR	Makanchi Array	42.89	297	P	P	09 41 17.4	+1.1

	comp=Z,0.4nm,0.6s,baz=75,slow=6.1,SNR=1.7						
	comp=Z,0.4nm,0.6s						
MKAR	**Makanchi Array**	**42.89**	**297**	P	**P**	**09 41 16.5**	**+0.2**
ILAR	**Eielson Array**	**43.62**	**36**	P	**P**	**09 41 23.4**	**+1.5**
	comp=Z,0.6nm,0.8s,baz=269,slow=7.5,SNR=7.9						
	comp=Z,0.6nm,0.8s						
ILAR	**Eielson Array**	**43.62**	**36**	P	**P**	**09 41 21.6**	**-0.3**
KURK	**Kurchatov**	**44.06**	**304**	P	**P**	**09 41 25.2**	**-0.3**
KURK				IAmb	IAmb	09 41 32.2	
	comp=Z,4.8nm,1.4s						
KURBB	**Kurchatov Arra**	**44.14**	**304**	P	**P**	**09 41 27.0**	**+0.8**
	comp=Z,0.8nm,0.5s,baz=70,slow=8.6,SNR=6.4						
	comp=Z,0.8nm,0.5s						
BVAR	**Borovoye Array**	**48.23**	**309**	P	**P**	**09 41 59.7**	**+1.5**
	comp=Z,1.2nm,0.4s,baz=52,slow=9.3,SNR=3.9						
	comp=Z,1.2nm,0.4s						
H31M	**Peel River**	**48.65**	**33**	P	**P**	**09 42 03.3**	**+2.0**
H31M				IAmb	IAmb	09 42 14.4	
	comp=Z,11nm,1.5s						
WHY	**Whitehorse**	**49.85**	**40**	P	**P**	**09 42 10.7**	**+0.1**
WHY				IAmb	IAmb	09 42 15.6	
	comp=Z,8.0nm,0.7s						
FINES	**FINESS Array B**	**64.58**	**332**	P	**P**	**09 43 54.5**	**+0.7**
	comp=Z,3.9nm,1.0s,baz=51,slow=7.6,SNR=8.9						
	comp=Z,3.9nm,1.0s						
HFS	**Hagfors**	**69.58**	**336**	P	**P**	**09 44 25.1**	**-0.3**
	comp=Z,1.6nm,0.6s,baz=64,slow=9.9,SNR=1.5						
	comp=Z,1.6nm,0.6s						
TXAR	**Lajitas Array**	**85.13**	**54**	P	**P**	**09 45 54.0**	**+1.3**
	comp=Z,0.2nm,0.9s,baz=324,slow=7.7,SNR=1.8						
	comp=Z,0.2nm,0.9s						
TXAR	**Lajitas Array**	**85.13**	**54**	P	**P**	**09 45 52.5**	**-0.2**
SLM	**Saint Louis**	**85.20**	**40**	P	**P**	**09 45 52.5**	**-0.3**

IDC 04 09:34:04.5±1.1,31°.66N×103°.47E,h0^{km},mb3.5/5, mbtmp3.5/7,ML4.4/1,MS3.3/1,Error ellipse: s-maj=31.9km s-min=19.2km az=77.0

ISC 04 09:34:04.6±1.0,31°.5N±0°.1×103°.2E±0°.2,h10^{km},n8, σ1^s.00/7,mb3.6/5,Sichuan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LZDM	**Lanzhou Array**	**4.52**	**5**	Pn	**Pn**	**09 35 13.1**	**-0.3**
	1.1nm,0.3s,baz=182,slow=17,SNR=1.0						
CMAR	**Chiang Mai Arr**	**13.49**	**198**	Pn	**P**	**09 37 24.6**	**-1.0**
	0.5nm,0.3s,baz=10,slow=9.4,SNR=4.2						
	0.5nm,0.3s						
CMAR				AML	AML		
KSRS	**Korea Array**	**21.23**	**67**	P	**P**	**09 38 49.9**	**-0.7**
	1.0nm,0.7s,baz=249,slow=8.9,SNR=5.2						
	1.0nm,0.7s						
MKAR	**Makanchi Array**	**22.21**	**320**	P	**P**	**09 39 01.8**	**+0.6**
	0.9nm,0.8s,baz=114,slow=15,SNR=3.3						
	0.9nm,0.8s						
ZALV	**Zalesovo Beam**	**26.08**	**335**	P	**P**	**09 39 38.4**	**+0.2**
	1.0nm,0.6s,baz=147,slow=8.2,SNR=4.3						
	1.0nm,0.6s						
MA2	**Magadan**	**42.24**	**34**	LR	LR	10 00 13.5	
	comp=Z,41nm,19.4s,baz=343,slow=37						
WRA	**Warramunga Arr**	**59.20**	**145**	P	**P**	**09 44 06.9**	**+0.9**
	1.1nm,0.8s,baz=338,slow=7.4,SNR=6.3						
	1.1nm,0.8s						
ASAR	**Alice Springs**	**62.19**	**148**	P	**P**	**09 44 27.6**	**+1.1**
	0.3nm,0.7s,baz=347,slow=6.3,SNR=6.0						
	0.3nm,0.7s						

IDC 04 09:43:48.1±3.7,53°.58N×91°.12E,h0^{km},mbtmp2.6/3, ML2.1/3,Error ellipse: s-maj=34.6km s-min=26.7km az=24.0

ASRS 04 09:43:41.0±1.8,53°.58N×91°.43E,h0^{km},M2.9(MOS),The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.,Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	**ZALESOVO INFRA**	**3.94**	**278**	I	I	10 09 20.0	
	baz=93,slow=330,SNR=1.7						
ZALV	**Zalesovo Beam**	**3.94**	**278**	Pn	Pb	09 44 48.0	-3.3
	0.5nm,0.3s,baz=94,slow=15,SNR=10						
ZALV				Lg	Lg	09 45 47.2	
	0.9nm,0.3s,baz=96,slow=27,SNR=7.7						
	0.5nm,0.4s						
ZALV				AML	AML		
KURBB	**Kurchatov Arra**	**8.48**	**255**	Pn	Pn	09 45 50.6	+5.7
	baz=65,slow=14,SNR=2.5						
KURBB				Sn	Sn	09 47 22.9	+1.7
	baz=68,slow=25,SNR=1.4						
KURBB				Lg	Lg	09 48 11.0	
	baz=66,slow=33,SNR=4.6						
	0.2nm,0.5s						
MKAR	**Makanchi Array**	**8.97**	**224**	Pn	Pn	09 45 59.6	+7.9
	baz=32,slow=14,SNR=1.1						
	0.1nm,0.4s						

IDC 04 09:47:00.2±11.0,55°.95S×148°.98E,h0^{km},mb3.6/3, mbtmp3.6/3,MS3.4/4,Error ellipse: s-maj=380.4km s-min=106.3km az=94.0,West of Macquarie Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RPZ	**Rata Peaks**	**18.68**	**58**	LR	LR	09 57 18.6	
	comp=Z,26nm,21.9s,baz=82,slow=33						
H01W1	**Cape Leeuwin H**	**31.75**	**297**	T	T	10 25 57.1	
	baz=143,slow=75,SNR=129						
H01W2	**Cape Leeuwin H**	**31.75**	**297**	T	T	10 25 58.9	
	baz=143,slow=75,SNR=93						
H01W3	**Cape Leeuwin H**	**31.76**	**297**	T	T	10 25 60.0	
	baz=143,slow=75,SNR=95						
ASAR	**Alice Springs**	**34.11**	**335**	P	P	09 53 46.2	-0.3
	0.3nm,0.9s,baz=159,slow=9.2,SNR=2.6						
	0.3nm,0.9s						
CTA	**Charters Tower**	**35.87**	**356**	LR	LR	10 07 20.1	
	comp=Z,101nm,18.4s,baz=226,slow=34						
WRA	**Warramunga Arr**	**37.60**	**337**	P	P	09 54 16.4	0.0
	0.8nm,1.0s,baz=166,slow=7.5,SNR=5.2						
	0.8nm,1.0s						
MAW	**Mawson**	**38.89**	**218**	LR	LR	10 08 56.4	
	comp=Z,75nm,18.4s,baz=92,slow=34						
CMAR	**Chiang Mai Arr**	**85.26**	**313**	P	P	09 59 38.6	+0.1
	0.7nm,0.3s,baz=166,slow=6.4,SNR=1.9						
	0.7nm,0.3s						
BRDH	**Bariadhala**	**92.10**	**309**	LR	LR	10 43 01.5	
	comp=Z,33nm,18.1s,baz=169,slow=36						

UPP 04 10:06:25.7±3.0,64°.54N×31°.43E,h0^{km},ML2.0,Presumed earthquake

BER 04 10:06:28.5±2.0,64°.63N×31°.44E,h0^{km},ML1.6,Suspected explosion

HEL 04 10:06:30.3±0.2,64°.79N×30°.76E,h0^{km},ML2.1,Explosion

IGKR 04 10:06:31.0±0.3,64°.74N±0°.02×30°.8E±0°.1,M2.7(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.

KOLA 04 10:06:31.6,64°.80N×31°.01E,h0^{km},ML2.4,Error ellipse: s-maj=16.4km s-min=7.2km az=160.0,Kostomuksha, Karelia

IDC 04 10:06:31.6±2.8,64°.77N×30°.60E,h0^{km},mbtmp3.2/4, ML2.3/4,Error ellipse: s-maj=38.6km s-min=10.6km az=98.0

ISC 04 10:06:30.5±0.9,64°.83N±0°.02×30°.58E±0°.04,h0^{km},n61, σ1^s.42/93,Finland-Karelia border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RMF	**Romuvaara**	**0.68**	**205**	PG	**Pg**	**10 06 42.8**	**-0.6**
	baz=29						
RMF				SG	**Sg**	**10 06 51.3**	**-0.8**
RMF				smax	smax	10 06 51.6	
	comp=Z,39nm,0.2s						
KU1	**Kurvinen**	**0.85**	**330**	PG	**Pg**	**10 06 47.3**	**+0.5**
MSF	**Maaselka**	**1.26**	**330**	PG	**Pg**	**10 06 54.0**	**-0.6**
MSF				SN	**Sn**	**10 07 13.6**	**+0.6**
KU2	**Taivalkoski**	**1.33**	**313**	PG	**Pg**	**10 06 55.6**	**-0.3**
OLKF	**Oulanka, Finla**	**1.58**	**342**	PG	**Pn**	**10 06 59.5**	**-0.1**
OLKF				smax	smax	10 07 19.3	
	comp=Z,10nm,0.2s						
OLKF				SN	**Sg**	**10 07 23.0**	**+2.0**
NIF	**Nilsia**	**1.89**	**221**	PG	**Pn**	**10 07 04.7**	**+0.7**
	baz=45						
NIF				smax	smax	10 07 27.1	
	comp=Z,20nm,0.2s						
NIF				SG	**Sn**	**10 07 28.9**	**+0.5**
JOF	**Joensuu**	**1.95**	**170**	*e*P	**Pn**	**10 07 03.7**	**-1.0**
JOF	**Joensuu**	**1.95**	**170**	PG	**Pn**	**10 07 03.5**	**-1.2**
	baz=356						
JOF				SG	**Sn**	**10 07 29.5**	**-0.3**
OUL	**Oulu**	**2.01**	**279**	PG	**Pb**	**10 07 07.3**	**-0.5**
	baz=97						
OUL				SG	**Sb**	**10 07 33.4**	**0.0**
KVDA	**Kovda**	**2.10**	**26**	P	**Pn**	**10 07 06.9**	**+0.1**
KVDA				S	**Sn**	**10 07 32.4**	**-1.1**
OBF4	**Vikkela, Lumij**	**2.34**	**272**	PB	**Pn**	**10 07 11.6**	**+1.5**
	baz=91						
OBF4				smax	smax	10 07 41.8	
	comp=Z,18nm,0.2s						
OBF4				SG	**Sb**	**10 07 43.8**	**+0.9**
OUF	**Merijarvi**	**2.56**	**262**	PN	**Pn**	**10 07 14.3**	**+1.1**
OUF				smax	smax	10 07 48.0	
	comp=Z,15nm,0.2s						
OUF				SB	**Sb**	**10 07 49.6**	**+0.3**
RNF	**Rovaniemi**	**2.60**	**315**	PB	**Pn**	**10 07 15.6**	**+1.9**
	baz=129						
RNF				SG	**Sb**	**10 07 52.2**	**+2.0**
OBF0	**Syolatti, Pyha**	**2.75**	**266**	PN	**Pn**	**10 07 16.7**	**+1.0**
OBF0				smax	smax	10 07 53.5	
	comp=Z,11nm,0.2s						
OBF0				SG	**Sb**	**10 07 56.3**	**+1.8**
SUF	**Sumiainen**	**2.89**	**225**	*e*P	**Pn**	**10 07 19.3**	**+1.7**
SUF	**Sumiainen**	**2.89**	**225**	PB	**Pn**	**10 07 19.4**	**+1.7**
SUF				smax	smax	10 07 56.1	
	comp=Z,4.2nm,0.2s						
SUF				SG	**Sb**	**10 07 58.5**	**-0.2**
TOF	**Tornio**	**2.90**	**298**	PB	**Pn**	**10 07 19.5**	**+1.7**
	baz=109						
TOF				smax	smax	10 07 57.9	
	comp=Z,3.7nm,0.2s						
TOF				SB	**Sb**	**10 07 58.9**	**+0.1**
APA0	**Apatity Array**	**2.96**	**18**	P	**Pn**	**10 07 19.3**	**+0.7**
APA0				S	**Sn**	**10 07 56.0**	**+1.4**
VRF	**Varrio**	**2.96**	**353**	PN	**Pn**	**10 07 19.6**	**+0.9**
	baz=169						
VRF				smax	smax	10 07 58.7	
	comp=Z,2.9nm,0.2s						
APA	**Apatity**	**2.98**	**21**	P	**Pn**	**10 07 19.2**	**+0.3**
APA				S	**Sn**	**10 07 54.4**	**-0.9**
OBF8	**Ulkokalla**	**3.12**	**264**	PN	**Pn**	**10 07 21.9**	**+1.1**
KALU	**Kalix**	**3.20**	**292**	P	**Pn**	**10 07 23.2**	**+1.3**
KALU				S	**Sb**	**10 08 06.2**	**-1.4**
KALU	**Kalix**	**3.20**	**292**	PN	**Pn**	**10 07 23.5**	**+1.6**
	baz=110						
KALU				SG	**Sb**	**10 08 10.1**	**+2.6**
KAF	**Kangasniemi**	**3.33**	**217**	PN	**Pn**	**10 07 25.6**	**+1.8**
KAF				SG	**Sb**	**10 08 11.4**	**0.0**
LVZ	**Lovozero**	**3.49**	**26**	S	**Sn**	**10 08 06.2**	**-1.7**
LVZ	**Lovozero**	**3.49**	**26**	PN	**Pn**	**10 07 26.1**	**+0.2**
RUF	**Ruokolahti**	**3.50**	**193**	PN	**Pn**	**10 07 26.5**	**+0.5**
	baz=9.0						
RUF				SN	**Sn**	**10 08 08.3**	**+0.3**
KLF	**Kolari**	**3.62**	**315**	PN	**Pn**	**10 07 30.0**	**+2.3**
KEF	**Keuruu**	**3.70**	**226**	*e*P	**Pn**	**10 07 30.7**	**+1.9**
KEF	**Keuruu**	**3.70**	**226**	PN	**Pn**	**10 07 30.8**	**+1.9**
	baz=44						
PAJU	**Pajala**	**3.77**	**309**	P	**Pn**	**10 07 30.7**	**+0.9**
PAJU	**Pajala**	**3.77**	**309**	PN	**Pn**	**10 07 31.1**	**+1.3**
PAJU				SG	**Sg**	**10 08 30.2**	**-1.2**
RAJF	**Raja-Jooseppi**	**3.77**	**347**	PN	**Pn**	**10 07 30.5**	**+0.7**
SJUU	**Sjulsmark**	**3.85**	**284**	P	**Pn**	**10 07 31.4**	**+0.6**
SJUU	**Sjulsmark**	**3.85**	**284**	*e*P	**Pn**	**10 07 31.9**	**+1.1**
ERTU	**Ertsjaerv**	**3.88**	**300**	P	**Pn**	**10 07 32.7**	**+1.5**
ERTU	**Ertsjaerv**	**3.88**	**300**	PN	**Pn**	**10 07 32.7**	**+1.5**
VAF	**Ylistaro**	**3.92**	**246**	*e*P	**Pn**	**10 07 33.3**	**+1.4**
VAF	**Ylistaro**	**3.92**	**246**	PN	**Pn**	**10 07 33.5**	**+1.6**
	baz=59						
BURU	**Burvik**	**3.96**	**271**	P	**Pn**	**10 07 32.2**	**-0.1**
BURU	**Burvik**	**3.96**	**271**	PN	**Pn**	**10 07 32.5**	**+0.2**
BURU				SG	**Sg**	**10 08 35.4**	**-2.0**
FIA0	**FINESS Array S**	**3.96**	**213**	PN	**Pn**	**10 07 32.8**	**+0.4**
	baz=26						
FIA0				SG	**Sb**	**10 08 33.1**	**+3.5**
FINES	**FINESS Array B**	**3.96**	**213**	Pn	**Pn**	**10 07 32.9**	**+0.4**
	comp=Z,0.2nm,0.3s,baz=28,slow=13,SNR=14						
FINES				Sn	**Sn**	**10 08 19.4**	**-0.1**
	comp=Z,0.9nm,0.3s,baz=31,slow=24,SNR=7.5						
FINES				Lg	Lg	10 08 31.7	
	comp=Z,2.6nm,0.3s,baz=29,slow=31,SNR=12						
	comp=Z,0.7nm,0.2s						
FINES				AML	AML		
ODEU	**Stanfors**	**4.27**	**269**	P	**Pn**	**10 07 36.3**	**-0.3**
UMAU	**Umeaa**	**4.41**	**262**	PN	**Pn**	**10 07 38.2**	**-0.3**
UMAU				SG	**Sg**	**10 08 48.8**	**-3.1**
VJF	**Virojoki**	**4.53**	**199**	SG	**Sb**	**10 08 49.2**	**+3.6**
HEF	**Hetta**	**4.53**	**326**	*e*P	**Pn**	**10 07 42.3**	**+2.1**
HEF	**Hetta**	**4.53**	**326**	PN	**Pn**	**10 07 42.1**	**+1.9**
HEF				SG	**Sg**	**10 08 51.6**	**-4.1**
LANU	**Lannavaara**	**4.72**	**317**	*e*P	**Pn**	**10 07 43.5**	**+0.7**
KTK1	**Kautokeino**	**5.09**	**329**	*e*P	**Pn**	**10 07 48.3**	**+0.3**
KTK1				*e*S	**Sn**	**10 08 49.7**	**+2.3**
KTK1				IAML		10 08 53.0	
	comp=Z,1.3nm,0.3s						
ARA0	**ARCESS Array S**	**5.12**	**340**	*e*P	**Pn**	**10 07 48.5**	**+0.2**
ARA0				*e*S	**Sn**	**10 08 46.6**	**-1.4**
ARA0				IAML		10 08 49.1	
	comp=Z,2.1nm,0.9s						
ARCES	**ARCESS Array B**	**5.12**	**340**	Pn	**Pn**	**10 07 48.7**	**+0.4**
	comp=Z,0.8nm,0.3s,baz=156,slow=14,SNR=83						
ARCES				Sn	**Sn**	**10 08 46.6**	**-1.4**
	comp=Z,0.3nm,0.3s,baz=151,slow=28,SNR=5.3						
ARCES				Lg	Lg	10 09 06.7	
	comp=Z,0.6nm,0.3s,baz=153,slow=32,SNR=9.8						
	comp=Z,1.5nm,0.3s						
ARCES				AML	AML		
ARCES	**ARCESS Array B**	**5.12**	**340**	P	**Pn**	**10 07 48.4**	**+0.1**
ARCES				S	**Sn**	**10 08 47.8**	**-0.3**
VADS	**Vadso**	**5.34**	**356**	P	**Pn**	**10 07 51.9**	**+0.7**
MEF	**Metsahovi**	**5.44**	**215**	*e*P	**Pn**	**10 07 53.0**	**+0.4**
SALU	**Saltoluokta**	**5.53**	**303**	*e*P	**Pn**	**10 07 55.9**	**+1.9**
SALU				*e*S	**Sn**	**10 09 00.4**	**+2.2**
FAUS	**Fauske**	**6.71**	**299**	*e*P	**Pn**	**10 08 09.9**	**-0.3**
FAUS				*e*S	**Sn**	**10 09 25.7**	**-1.5**
FAUS	**Fauske**	**6.71**	**299**	P	**Pn**	**10 08 11.1**	**+1.0**
FAUS				S	**Sn**	**10 09 27.2**	**+0.1**
VAGH	**Vaagaholmen**	**7.37**	**293**	*e*P	**Pn**	**10 08 19.3**	**+0.2**
HFS	**Hagfors**	**9.11**	**247**	Pn	**Pn**	**10 08 41.3**	**-1.7**
	comp=Z,0.2nm,0.3s,baz=54,slow=14,SNR=6.7						
	comp=Z,1.4nm,0.5s						
HFS				AML	AML		
NOA	**NORSAR Array B**	**9.59**	**256**	Pn	**Pn**	**10 08 47.5**	**-2.1**
	baz=58,slow=14,SNR=4.0						
	comp=Z,0.4nm,0.7s						

IDC 04 10:13:53.5±2.0,5°.63S×152°.62E,h0^{km},mb3.3/3, mbtmp3.3/3,MS3.5/1,Error ellipse: s-maj=46.1km s-min=20.5km az=92.0,New Britain region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KRVT	**Keravat (AS076**	**1.44**	**336**	Pn	Pb	10 14 21.3	+0.1
	136nm,0.3s,baz=211,slow=5.9,SNR=16						
KRVT				Sn	Sg	10 14 38.4	-1.5
	138nm,0.3s,baz=195,slow=20,SNR=9.3						
WRA	**Warramunga Arr**	**22.77**	**230**	P	P	10 18 58.0	+0.2
	0.2nm,0.4s,baz=51,slow=9.9,SNR=5.0						
	0.2nm,0.4s						
ASAR	**Alice Springs**	**25.42**	**223**	P	P	10 19 22.8	-0.3
	0.7nm,1.0s,baz=66,slow=7.4,SNR=4.2						
	0.7nm,1.0s						
STKA	**Stephens Creek**	**28.08**	**200**	LR	LR	10 32 15.5	
	comp=Z,89nm,18.2s,baz=206,slow=39						
ILAR	**Eielson Array**	**82.99**	**22**	P	P	10 26 19.7	-0.6
	0.3nm,0.7s,baz=232,slow=5.6,SNR=3.2						
	0.3nm,0.7s						

IDC 04 10:23:54.7±1.1,60°.66N×27°.48W,h0^{km},mb3.4/4, mbtmp3.5/5,ML3.5/1,MS3.1/14,Error ellipse: s-maj=25.9km s-min=19.3km az=104.0

ISC 04 10:23:55.9±1.0,60°.7N±0°.1×27°.5W±0°.2,h10^{km},n18, σ1^s.74/7,mb3.4/3,MS3.1/12,Reykjanes Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BORG	**Borgarnes**	**4.98**	**32**	Pn	**Pn**	**10 25 08.3**	**-2.2**
	1.8nm,0.3s,baz=202,slow=7.3,SNR=8.0						
BORG				Sn	**Sn**	**10 26 10.0**	**+2.0**
	baz=216,slow=7.5						
	26nm,1.2s						
BORG				AML	AML		
NOA	**NORSAR Array B**	**18.67**	**72**	LR	LR	10 35 22.4	
	comp=Z,23nm,20.0s,baz=275,slow=37						
FRB	**Frobisher Bay**	**19.15**	**297**	LR	LR	10 34 29.7	
	comp=Z,56nm,20.3s,baz=108,slow=33						
HFS	**Hagfors**	**20.11**	**73**	LR	LR	10 35 24.6	
	comp=Z,38nm,20.3s,baz=285,slow=34						
SCHQ	**Schefferville**	**21.54**	**272**	LR	LR	10 35 25.8	
	comp=Z,40nm,19.4s,baz=96,slow=32						
ESDC	**Sonseca Array**	**25.59**	**135**	P	**P**	**10 29 24.4**	**-0.6**
	0.5nm,0.7s,baz=334,slow=9.9,SNR=4.4						
ESDC				LR	LR	10 38 39.8	
	comp=Z,23nm,18.6s,baz=14,slow=35						
	0.5nm,0.7s						
VRAC	**Vranov**	**27.18**	**95**	LR	LR	10 39 45.0	
	comp=Z,14nm,19.6s,baz=302,slow=35						
SADO	**Sadowa**	**34.06**	**266**	LR	LR	10 41 44.2	
	comp=Z,44nm,19.1s,baz=352,slow=31						
ULM	**Lac du Bonnet**	**38.40**	**286**	LR	LR	10 46 01.1	
	comp=Z,60nm,18.4s,baz=25,slow=34						
BRTR	**Keskin Array B**	**42.48**	**91**	LR	LR	10 51 15.3	
	comp=Z,15nm,18.6s,baz=288,slow=39						
TKL	**Tuckaleechee C**	**43.31**	**261**	LR	LR	10 48 54.5	
	comp=Z,21nm,20.7s,baz=31,slow=35						
ILAR	**Eielson Array**	**46.94**	**329**	P	**P**	**10 32 27.1**	**+1.1**
	0.6nm,0.9s,baz=34,slow=6.4,SNR=5.0						
	0.6nm,0.9s						
NEW	**Newport**	**49.49**	**298**	LR	LR	10 53 07.8	
	comp=Z,40nm,19.3s,baz=101,slow=35						
PDAR	**Pinedale Array**	**50.30**	**289**	P	**P**	**10 32 51.7**	**-0.8**
	0.3nm,0.7s,baz=66,slow=7.3,SNR=4.7						
PDAR				LR	LR	10 53 17.6	
	comp=Z,21nm,20.5s,baz=40,slow=35						
	0.3nm,0.7s						
TORD	**Torodi Ar. Bea**	**52.01**	**143**	P	**P**	**10 33 06.0**	**+0.7**
	0.3nm,0.6s,baz=324,slow=7.4,SNR=1.3						
	0.3nm,0.6s						
ELK	**Elko**	**54.51**	**291**	LR	LR	10 57 18.3	
	comp=Z,27nm,19.0s,baz=16,slow=37						
YBH	**Yreka Blue Hor**	**57.07**	**297**	LR	LR	10 57 53.3	
	comp=Z,26nm,19.9s,baz=342,slow=36						
QSPA	**South Pole Qui**	**150.58**	**180**	PKPbc	**PKiKP**	**10 43 47.7**	**+0.8**
	1.3nm,0.9s,baz=166,slow=2.0,SNR=4.0						

BJI 04 10:39:49.3,32°.53S×178°.23W,h13^{km},mB5.9/1,mb5.4/9

WEL 04 10:39:49.9±0.8,33°S±6°×17°8W±1°5,h12^{km},M5.4/16, mB5.7/11,ML5.7/15,MLv5.7/16,Mw(mB)5.2/11,Error ellipse: s-maj=20.2km s-min=3.9km az=107.9,confirmed

GFZ 04 10:39:51.5±0.1,33°S±3°×17°8W±°,h10^{km},M5.3/40, mb5.3/40,confirmed

MOS 04 10:39:51.2±1.0,32°.61S×178°.46W,h18^{km},mb5.5/14, Error ellipse: s-maj=11.0km s-min=9.6km az=94.1

NEIC 04 10:39:51.3±1.1,32°.57S±0°.07×178°.4W±0°.1,h10^{km}±1^{km}, mb5.2/188,Error ellipse: s-maj=16.2km s-min=11.0km az=300.0

IDC 04 10:39:56.2±1.3,32°.50S×178°.45W,h48^{km}±10^{km},mb4.5/16, mbtmp4.7/19,ML4.3/2,MS3.7/40,Error ellipse: s-maj=16.0km s-min=13.0km az=70.0

NOU 04 10:40:15.4,34°.14S×179°.11W,h279^{km},mB5.0/7,South of Kermadec Islands

ISC 04 10:39:54.0±1.5,32°.60S±0°.04×178°.37W±0°.06,h33^{km}±7^{km}, n523,σ1^s.61/479,mb5.2/150,MS3.8/38,9C-1D,South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GLKZ	**Green Lake**	**3.34**	**7**	P	**Pn**	**10 40 43.7**	**-0.2**
GLKZ				S	**Sn**	**10 41 21.2**	**-1.3**
GLKZ				AML	AML		
GLKZ				AML	AML		
RAO	**Raoul Island**	**3.35**	**7**	P	**Pn**	**10 40 44.7**	**+0.6**
RAO	**Raoul Island**	**3.35**	**7**		**Pn**	**10 40 44.7**	**+0.6**
RIZ	**Raoul Island**	**3.36**	**7**	P	**Pn**	**10 40 44.7**	**+0.5**
RIZ				S	**Sn**	**10 41 24.6**	**+1.7**
RIZ				AML	AML		
RIZ				AML	AML		
MXZ	**Matakaoa Point**	**5.66**	**208**	P	**Pn**	**10 41 16.1**	**+0.4**
MXZ				S	**Sn**	**10 42 20.2**	**+0.8**
MXZ				AML	AML		
MXZ				AML	AML		
WMGZ	**Waiomatatini S**	**5.84**	**206**	P	**Pn**	**10 41 19.6**	**+1.4**
WMGZ				S	**Sn**	**10 42 24.9**	**+1.0**
WMGZ				AML	AML		
WMGZ				AML	AML		
PKGZ	**Pakihiroa**	**6.01**	**208**	P	**Pn**	**10 41 21.7**	**+1.2**
PKGZ				S	**Sn**	**10 42 29.0**	**+0.8**
PKGZ				AML	AML		
PKGZ				AML	AML		
HAZ	**Te Kaha**	**6.04**	**210**	P	**Pn**	**10 41 22.4**	**+1.5**
HAZ				S	**Sn**	**10 42 32.0**	**+3.2**
HAZ				AML	AML		
HAZ				AML	AML		
PUZ	**Puketiti**	**6.12**	**206**	P	**Pn**	**10 41 22.2**	**+0.1**
PUZ				S	**Sn**	**10 42 31.0**	**0.0**
PUZ				AML	AML		
PUZ				AML	AML		
WIZ	**White Island**	**6.12**	**215**	P	**Pn**	**10 41 24.3**	**+2.3**
WIZ				S	**Sn**	**10 42 31.6**	**+0.8**
WIZ				AML	AML		
WIZ				AML	AML		
RUGZ	**Raukumara Rang**	**6.26**	**210**	P	**Pn**	**10 41 24.7**	**+0.7**
RUGZ				AML	AML		
RUGZ				AML	AML		
TWGZ	**Tauwhareparae**	**6.32**	**207**	P	**Pn**	**10 41 25.6**	**+0.8**
TWGZ				AML	AML		
TWGZ				AML	AML		
CNGZ	**Carnagh Statio**	**6.50**	**204**	P	**Pn**	**10 41 27.8**	**+0.4**
CNGZ				AML	AML		
CNGZ				AML	AML		
MWZ	**Matawai**	**6.63**	**209**	P	**Pn**	**10 41 29.3**	**+0.1**
MWZ				AML	AML		
MWZ				AML	AML		
URZ	**Urewera**	**6.75**	**212**	P	**Pn**	**10 41 31.7**	**+1.0**
	16nm,0.3s,baz=268,slow=4.5,SNR=116						
URZ				S	**Sn**	**10 42 45.0**	**-1.3**
	472nm,0.5s,baz=155,slow=19,SNR=16						
	65nm,0.4s						
URZ				AML	AML		
URZ	**Urewera**	**6.75**	**212**	P	**Pn**	**10 41 31.1**	**+0.5**
URZ				AML	AML		
URZ				AML	AML		
URZ	**Urewera**	**6.75**	**212**	P	**Pn**	**10 41 30.9**	**+0.3**
	comp=Z,285nm,0.6s						
WCZ	**Waipu Caves**	**6.89**	**239**	P	Pn	10 41 39.5	+6.9
WCZ				AML	AML		
WCZ				AML	AML		
RTZ	**Ruatahuna**	**7.10**	**211**	P	**Pn**	**10 41 35.5**	**-0.1**
RTZ				AML	AML		
RTZ				AML	AML		
TOZ	**Tahuroa Road**	**7.17**	**223**	P	**Pn**	**10 41 40.3**	**+3.8**
TOZ				AML	AML		
TOZ				AML	AML		
KNZ	**Kokohu**	**7.17**	**205**	P	**Pn**	**10 41 35.3**	**-1.1**
KNZ				AML	AML		
KNZ				AML	AML		
OUZ	**Omahuta**	**7.17**	**246**	P	Pn	10 41 45.4	+8.9
OUZ	**Omahuta**	**7.17**	**246**	P	Pn	10 41 43.4	+6.9
OUZ				AML	AML		
OUZ				AML	AML		
TLZ	**Tolley Road**	**7.58**	**219**	P	**Pn**	**10 41 44.6**	**+2.5**
TLZ				AML	AML		
TLZ				AML	AML		
BKZ	**Black Stump Fm**	**7.77**	**211**	P	**Pn**	**10 41 45.2**	**+0.5**
BKZ	**Black Stump Fm**	**7.77**	**211**	S	Sn	10 42 58.8	-13
HIZ	**Hauiti**	**8.08**	**221**	P	**Pn**	**10 41 51.3**	**+2.4**
HIZ	**Hauiti**	**8.08**	**221**	P	**Pn**	**10 41 52.5**	**+3.5**
HIZ				AML	AML		
HIZ	**Hauiti**	**8.08**	**221**	P	**Pn**	**10 41 51.4**	**+2.4**
	comp=Z,91nm,1.0s						
NGZ	**Ngauruhoe**	**8.19**	**215**	P	**Pn**	**10 41 51.5**	**+0.9**
PXZ	**Pawanui**	**8.36**	**206**	P	**Pn**	**10 41 50.1**	**-2.7**
VRZ	**Vera Road**	**8.57**	**219**	P	**Pn**	**10 41 57.5**	**+1.8**
TSZ	**Takapari Road**	**8.74**	**210**	P	**Pn**	**10 41 56.3**	**-1.7**
WAZ	**Wanganui**	**8.94**	**215**	P	**Pn**	**10 42 00.6**	**-0.1**
NEZ	**North Egmont**	**9.04**	**220**	P	**Pn**	**10 42 06.7**	**+4.6**
BFZ	**Birch Farm**	**9.15**	**207**	P	**Pn**	**10 42 00.5**	**-3.1**
MRZ	**Mangatainoka R**	**9.40**	**209**	P	**Pn**	**10 42 04.7**	**-2.4**
NNZ	**Nelson**	**10.84**	**215**	P	**Pn**	**10 42 23.9**	**-2.9**
QRZ	**Quartz Range**	**10.98**	**219**	P	**Pn**	**10 42 25.6**	**-3.2**
QRZ	**Quartz Range**	**10.98**	**219**	S	Sn	10 44 13.0	-17

QRZ	**Quartz Range**	10.98	219	P	Pn	10 42 25.5	-3.2
CTZ	**Chatham Island**	11.21	173	P	Pn	10 42 30.6	-1.1
THZ	**Tophouse**	11.49	215	P	Pn	10 42 32.2	-3.5
KHZ	**Kahutara**	11.71	211	P	Pn	10 42 35.1	-3.6
KHZ	**Kahutara**	11.71	211	P	Pn	10 42 34.4	-4.3
KHZ	**Kahutara**	11.71	211	P	Pn	10 42 40.5	+1.8
	comp=Z,109nm,0.8s						
DSZ	**Denniston Nort**	12.03	218	P	Pn	10 42 40.8	-2.2
GVZ	**Greta Valley S**	12.38	211	P	Pn	10 42 43.8	-4.0
LTZ	**Lake Taylor**	12.57	213	P	Pn	10 42 46.1	-4.4
INZ	**Inchbonnie**	12.93	216	P	Pn	10 42 51.8	-3.5
OXZ	**Oxford**	13.10	212	P	Pn	10 42 53.1	-4.6
MQZ	**McQueen’s Vall**	13.14	210	P	Pn	10 42 51.8	-6.3
WVZ	**Waitaha Valley**	13.53	216	P	Pn	10 43 02.2	-1.4
RPZ	**Rata Peaks**	13.86	214	P	Pn	10 43 06.2	-1.8
	comp=Z,12nm,0.4s,baz=43,slow=1.7,SNR=80						
RPZ				S	Sn	10 45 27.8	-13
	comp=Z,14nm,0.5s,baz=86,slow=20,SNR=15						
RPZ	**Rata Peaks**	13.86	214	P	Pn	10 43 05.7	-2.3
RPZ	**Rata Peaks**	13.86	214	P	Pn	10 43 05.9	-2.1
FOZ	**Fox Glacier**	14.33	217	P	Pn	10 43 12.2	-2.2
TMZ	**Timaru**	14.40	212	P	Pn	10 43 09.4	-6.0
LBZ	**Lake Benmore**	14.78	214	P	Pn	10 43 16.3	-4.2
ODZ	**Otahua Downs**	15.07	211	P	Pn	10 43 18.5	-5.9
ODZ	**Otahua Downs**	15.07	211	P	Pn	10 43 22.7	-1.7
	comp=Z,48nm,1.7s						
MSVF	**Nonsavu**	15.15	347	P	Pn	10 43 26.5	+0.9
	comp=Z,79nm,0.8s,baz=166,slow=12,SNR=27						
MSVF				LR	LR	10 48 28.7	
	comp=Z,622nm,19.4s,baz=177,slow=34						
MSVF	**Nonsavu**	15.15	347	*i* P	Pn	10 43 27.4	+1.7
MSVF	**Nonsavu**	15.15	347	Pn	Pn	10 43 25.8	+0.2
MSVF				IAmb	IAmb	10 43 29.4	
	comp=Z,129nm,0.9s						
MSVF	**Nonsavu**	15.15	347	P	Pn	10 43 27.3	+1.7
	comp=Z,207nm,1.1s						
NIUE	**Niue**	15.45	31	Pn	Pn	10 43 26.4	-3.1
NIUE	**Niue**	15.45	31	P	Pn	10 43 26.0	-3.5
	comp=Z,332nm,0.6s						
HHSZ	**Highcliff Hill**	15.76	209	P	Pn	10 43 31.8	-1.6
TUZ	**Tuapeka**	16.23	211	P	Pn	10 43 38.0	-1.4
MLZ	**Mavora Lakes**	16.49	215	P	Pn	10 43 40.7	-2.1
ONTNC	**Ouen Toro**	16.91	304	Pn	Pn	10 43 47.1	-0.9
WHZ	**Wether Hill Ro**	16.96	215	P	Pn	10 43 45.5	-3.0
DZM	**Mont Dzumac**	17.07	304	P	Pn	10 43 50.4	+0.2
	comp=Z,0.3nm,0.3s,baz=107,slow=18,SNR=5.3						
DZM				LR	LR	10 49 12.3	
	comp=Z,727nm,20.5s,baz=178,slow=33						
	comp=Z,16nm,1.1s						
DZM				AML	AML		
AFI	**Afiamalu**	19.55	19	P	P	10 44 17.0	-2.0
AFI	**Afiamalu**	19.55	19	P	P	10 44 16.3	-2.7
AFI	**Afiamalu**	19.55	19	P	P	10 44 16.0	-3.0
AFI	**Afiamalu**	19.55	19	P	P	10 44 18.0	-1.1
	comp=Z,351nm,0.9s						
KOUNC	**Koumac, New Ca**	19.58	304	P	P	10 44 17.2	-2.0
RAR	**Rarotonga**	20.06	60	LR	LR	10 50 06.9	
	comp=Z,140nm,21.9s,baz=240,slow=30						
SANVU	**Saraoutou**	21.52	319	P	P	10 44 37.9	-2.4
SANVU				IAmb	IAmb	10 44 39.2	
	comp=Z,106nm,1.3s						
ARMA	**Armidale**	25.63	267	P	P	10 45 24.7	+4.1
	comp=Z,18nm,0.7s						
ARMA	**Armidale**	25.63	267		P	10 45 19.8	-0.9
ARMA	**Armidale**	25.63	267	P	P	10 45 24.9	+4.2
	comp=Z,18nm,0.7s						
CAN	**Canberra**	27.14	255	P	P	10 45 33.4	-0.7
CAN				pmax	pmax		
	comp=Z,38nm,1.3s						
CAN	**Canberra**	27.14	255	P	P	10 45 33.4	-0.7
CAN				IAmb	IAmb	10 45 38.4	
	comp=Z,37nm,1.3s						
EIDS	**Eidsvold**	27.61	277	P	P	10 45 40.5	+2.0
	comp=Z,42nm,0.8s						
EIDS	**Eidsvold**	27.61	277	P	P	10 45 37.9	-0.5
EIDS				IAmb	IAmb	10 45 43.3	
	comp=Z,38nm,1.0s						
EIDS	**Eidsvold**	27.61	277	P	P	10 45 40.8	+2.4
	comp=Z,42nm,0.8s						
TAU	**Tasmania Unive**	28.84	239	P	P	10 45 48.1	-1.1
TAU				pmax	pmax		
	comp=Z,153nm,1.7s						
TAU	**Tasmania Unive**	28.84	239	P	P	10 45 48.1	-1.1
PPT	**Papeete**	29.94	67	LR	LR	10 57 17.9	
	comp=Z,110nm,18.5s,baz=268,slow=35						
CMSA	**Cobar Meteorol**	30.39	262	P	P	10 46 05.4	+2.4
	comp=Z,40nm,1.4s						
CMSA	**Cobar Meteorol**	30.39	262	P	P	10 46 04.4	+1.4
	comp=Z,39nm,1.4s						
HNR	**Honiara**	30.55	314	LR	LR	10 56 44.5	
	comp=Z,82nm,21.0s,baz=234,slow=33						
ARPS	**Mount Arapiles**	32.82	251	P	P	10 46 26.3	+1.9
	comp=Z,16nm,0.8s						
QLP	**Quilpie**	32.95	271	P	P	10 46 27.3	+1.7
	comp=Z,63nm,0.8s						
QLP	**Quilpie**	32.95	271	P	P	10 46 27.2	+1.7
	comp=Z,63nm,0.8s						
STKA	**Stephens Creek**	33.73	260	P	P	10 46 34.0	+1.6
	comp=Z,84nm,1.0s						
STKA	**Stephens Creek**	33.73	260	P	P	10 46 33.5	+1.1
	comp=Z,10nm,0.8s,baz=95,slow=9.0,SNR=17						
STKA				PcP	PcP	10 49 10.3	-1.2
	comp=Z,2.6nm,0.6s,baz=81,slow=7.1,SNR=3.1						
STKA				LR	LR	11 00 13.5	
	comp=Z,74nm,18.9s,baz=39,slow=36						
	comp=Z,10nm,0.8s						
STKA	**Stephens Creek**	33.73	260	*i* P	P	10 46 32.4	0.0
STKA	**Stephens Creek**	33.73	260	P	P	10 46 33.3	+0.9
	comp=Z,85nm,1.0s						
CTA	**Charters Tower**	33.90	283	P	P	10 46 36.4	+2.4
	comp=Z,32nm,0.9s						
CTA	**Charters Tower**	33.90	283	LR	LR	10 58 14.1	
	comp=Z,171nm,19.2s,baz=72,slow=32						
CTA	**Charters Tower**	33.90	283	P	P	10 46 36.4	+2.4
CTAO	**Charters Tower**	33.90	283	P	P	10 46 36.4	+2.4
CTAO				pmax	pmax		
	comp=Z,48nm,0.8s						
CTAO	**Charters Tower**	33.90	283		P	10 46 36.4	+2.4
CTAO	**Charters Tower**	33.90	283	P	P	10 46 36.4	+2.4
	comp=Z,81nm,0.9s						
INKA	**Innaminka**	35.52	267		P	10 46 49.2	+1.4
HTT	**Hallett**	35.64	257	P	P	10 46 50.3	+1.4
	comp=Z,15nm,2.4s						
HTT	**Hallett**	35.64	257	P	P	10 46 50.3	+1.4
MTSU	**Mount Surprise**	36.46	284	P	P	10 46 58.0	+2.0
	comp=Z,33nm,0.7s						
MTSU	**Mount Surprise**	36.46	284	P	P	10 46 58.2	+2.2
	comp=Z,34nm,0.7s						
BBOO	**Buckleboo**	38.12	257	P	P	10 47 10.2	+0.3
	comp=Z,33nm,1.0s						
BBOO	**Buckleboo**	38.12	257		P	10 47 09.8	-0.2
BBOO				IAmb	IAmb	10 47 11.3	
	comp=Z,30nm,1.0s						
BBOO	**Buckleboo**	38.12	257	P	P	10 47 09.7	-0.2
	comp=Z,33nm,1.0s						
QIS	**Mount Isa**	39.22	277	P	P	10 47 19.5	+0.2
	comp=Z,29nm,0.8s						
QIS	**Mount Isa**	39.22	277	P	P	10 47 20.4	+1.1
	comp=Z,29nm,0.8s						
PMG	**Port Moresby**	39.31	298	*i* P	P	10 47 20.8	+0.7
AS17	**Alice Springs**	42.65	270	P	P	10 47 48.1	+0.5
	comp=Z,69nm,0.8s						
AS09	**Alice Springs**	42.68	269	P	P	10 47 48.4	+0.5
	comp=Z,88nm,0.8s						
AS31	**Alice Springs**	42.72	269	P	P	10 47 49.5	+1.3
	comp=Z,24nm,0.8s						
AS31	**Alice Springs**	42.72	269		P	10 47 48.5	+0.3
ASAR	**Alice Springs**	42.72	269	P	P	10 47 48.5	+0.3
	comp=Z,46nm,0.7s,baz=111,slow=7.9,SNR=221						
ASAR				PcP	PcP	10 49 38.3	-1.3
	comp=Z,2.9nm,0.6s,baz=104,slow=4.0,SNR=2.5						
ASAR				ScP	ScP	10 53 24.5	-3.5
	comp=Z,0.7nm,0.6s,baz=106,slow=3.6,SNR=3.1						
ASAR				S	S	10 54 03.4	-6.4
	comp=Z,1.2nm,0.8s,baz=112,slow=16,SNR=5.2						
ASAR				LR	LR	11 05 02.6	
	comp=Z,147nm,18.1s,baz=126,slow=35						
	comp=Z,46nm,0.7s						
ASAR	**Alice Springs**	42.72	269	P	P	10 47 48.3	+0.1
AS15	**Alice Springs**	42.73	270	P	P	10 47 48.8	+0.6
	comp=Z,58nm,0.9s						
WR8	**Warramunga Arr**	43.77	275		P	10 47 56.8	+0.2
WRAB	**Tennant Creek**	43.91	275	*ce*P	P	10 47 57.0	-0.7
WRAB				pmax	pmax		
	comp=Z,93nm,1.3s						
WRAB	**Tennant Creek**	43.91	275	P	P	10 47 57.8	+0.1
WRAB	**Tennant Creek**	43.91	275	P	P	10 47 57.9	+0.1
	comp=Z,99nm,1.0s						
WRA	**Warramunga Arr**	43.91	275	P	P	10 47 57.9	+0.1
	comp=Z,40nm,0.3s,baz=113,slow=8.0,SNR=112						
WRA				PcP	PcP	10 49 42.1	-1.4
	comp=Z,3.5nm,0.8s,baz=124,slow=3.5,SNR=1.9						
WRA				ScP	ScP	10 53 29.5	-3.3
	comp=Z,0.9nm,0.6s,baz=111,slow=3.7,SNR=4.9						
WRA				S	S	10 54 19.8	-7.5
	comp=Z,2.8nm,1.1s,baz=115,slow=14,SNR=6.9						
WRA	**Warramunga Arr**	43.91	275	P	P	10 47 56.8	-1.0
MANU	**Manus Island**	44.26	306	P	P	10 48 01.8	+1.2
FORT	**Forrest**	45.22	257		P	10 48 07.6	-0.5
SBA	**Scott Base**	45.83	184	P	P	10 48 15.4	+3.2
	comp=Z,22nm,1.2s						
VNDA	**Vanda**	45.89	186	P	P	10 48 15.1	+2.4
	comp=Z,1.8nm,0.8s,baz=354,slow=8.6,SNR=16						
VNDA				PcP	PcP	10 49 49.8	+0.5
	comp=Z,5.3nm,0.9s,baz=325,slow=5.3,SNR=7.8						
VNDA				LR	LR	11 02 45.8	
	comp=Z,78nm,20.7s,baz=20,slow=30						
VNDA	**Vanda**	45.89	186	P	P	10 48 13.0	+0.3
VNDA					PcP	10 49 50.8	+1.5
VNDA	**Vanda**	45.89	186	P	P	10 48 15.3	+2.6
	comp=Z,4.6nm,2.0s						
WRKA	**Warakurna**	46.93	265	P	P	10 48 21.1	-0.6
	comp=Z,60nm,0.9s						
KDU	**Kakadu**	49.02	282	P	P	10 48 37.6	-0.3
	comp=Z,25nm,0.8s						
MTN	**Manton Dam**	50.05	281	P	P	10 48 45.5	-0.2
	comp=Z,39nm,0.6s						
MTN	**Manton Dam**	50.05	281	P	P	10 48 45.5	-0.2
KMBL	**Kambalda**	50.10	254	P	P	10 48 44.7	-1.3
	comp=Z,12nm,1.1s						
KNRA	**Kununurra**	50.59	276	P	P	10 48 49.9	+0.1
	comp=Z,24nm,0.9s						
KNRA	**Kununurra**	50.59	276		P	10 48 49.0	-0.8
KNRA				IAmb	IAmb	10 48 50.8	
	comp=Z,24nm,1.1s						
FITZ	**Fitzroy Crossi**	52.08	272	P	P	10 49 00.8	-0.1
	comp=Z,7.8nm,1.0s						
FITZ	**Fitzroy Crossi**	52.08	272	LR	LR	11 10 10.5	
	comp=Z,166nm,18.9s,baz=136,slow=35						
FITZ	**Fitzroy Crossi**	52.08	272		P	10 49 00.7	-0.2
FITZ	**Fitzroy Crossi**	52.08	272	P	P	10 49 00.9	-0.1
	comp=Z,7.8nm,1.0s						
CASY	**Casey**	53.06	209		P	10 49 08.3	+0.8
CASY				IAmb	IAmb	10 49 10.5	
	comp=Z,33nm,0.8s						
CASY	**Casey**	53.06	209	P	P	10 49 08.5	+0.9
	comp=Z,52nm,1.0s						
KLBR	**Kellerberrin**	53.37	253	P	P	10 49 09.1	-1.3
	comp=Z,49nm,0.6s						
KLBR	**Kellerberrin**	53.37	253	P	P	10 49 09.3	-1.1
	comp=Z,49nm,0.6s						
MEEK	**Meekatharra**	54.42	259	P	P	10 49 16.8	-1.3
	comp=Z,25nm,1.0s						
MEEK	**Meekatharra**	54.42	259	P	P	10 49 17.0	-1.1
	comp=Z,25nm,1.0s						
BLDU	**Ballidu**	54.54	253	P	P	10 49 17.7	-1.2
MORW	**Morawa**	55.63	255	P	P	10 49 25.8	-1.0
	comp=Z,20nm,0.8s						
MORW	**Morawa**	55.63	255		P	10 49 25.7	-1.1
MORW				IAmb	IAmb	10 49 28.3	
	comp=Z,30nm,1.4s						
MBWA	**Marble Bar**	55.70	265	P	P	10 49 26.4	-1.0
	comp=Z,43nm,1.2s						
MBWA	**Marble Bar**	55.70	265	P	P	10 49 26.3	-1.2
MBWA	**Marble Bar**	55.70	265	P	P	10 49 26.6	-0.9
	comp=Z,43nm,1.2s						
KIP	**Kipapa**	57.13	23	*i* P	P	10 49 39.9	+2.5
KIP				pmax	pmax		
	comp=Z,35nm,1.0s						
SOEI	**Soe**	57.38	280	P	P	10 49 39.3	-0.3
SOEI	**Soe**	57.38	280	P	P	10 49 40.9	+1.3
SOEI	**Soe**	57.38	280	P	P	10 49 41.1	+1.5
	comp=Z,144nm,0.9s						
QSPA	**South Pole Qui**	57.52	180	P	P	10 49 42.2	+2.4
	comp=Z,7.8nm,0.8s,baz=31,slow=2.3,SNR=18						
QSPA				LR	LR	11 11 54.2	
	comp=Z,96nm,20.0s,baz=46,slow=33						
	comp=Z,7.8nm,0.8s						
QSPA	**South Pole Qui**	57.52	180	P	P	10 49 41.1	+1.2
QSPA				IAmb	IAmb	10 50 05.8	
	comp=Z,21nm,0.7s						
QSPA	**South Pole Qui**	57.52	180	P	P	10 49 42.5	+2.6
	comp=Z,40nm,0.8s						
GUMO	**Guam**	57.83	317	LR	LR	11 12 44.6	
	comp=Z,41nm,20.4s,baz=163,slow=34						
MMRI	**Maumere**	59.67	280	P	P	10 49 55.4	0.0
MMRI	**Maumere**	59.67	280	P	P	10 49 55.5	+0.1
MMRI	**Maumere**	59.67	280	P	P	10 49 55.4	0.0
	comp=Z,143nm,0.9s						
WSI	**Waingapu**	60.74	277	P	P	10 50 03.1	+0.4
LBFI	**Labuhan Bajo,**	61.71	278	P	P	10 50 08.5	-0.8
	comp=Z,127nmcomp=Z,16nm,0.6s						
KAPI	**Kappang**	63.71	281	LR	LR	11 17 15.6	
	comp=Z,56nm,19.8s,baz=113,slow=35						
DAV	**Davao City (W)**	66.28	296	LR	LR	11 20 57.5	
	comp=Z,39nm,18.6s,baz=152,slow=37						
JAGI	**Jajag, Banyuwa**	66.53	275		P	10 50 39.5	-1.4
SMAI	**San Martin Ant**	67.52	158		P	10 50 47.7	+1.3
BELA	**Belgrano 2**	67.66	172	P	P	10 50 47.7	+0.5
MAW	**Mawson**	70.15	201	P	P	10 51 03.8	+1.1
	comp=Z,2.6nm,0.7s,baz=148,slow=10.0,SNR=14						
MAW				LR	LR	11 20 02.4	
	comp=Z,133nm,21.3s,baz=113,slow=34						
	comp=Z,2.6nm,0.7s						
MAW	**Mawson**	70.15	201	P	P	10 51 03.4	+0.7
MAW	**Mawson**	70.15	201	P	P	10 51 03.9	+1.1
	comp=Z,1.8nm,1.9s						
PMSA	**Palmer Station**	70.40	156	LR	LR	11 16 13.6	
	comp=Z,43nm,20.4s,baz=246,slow=31						
PMSA	**Palmer Station**	70.40	156	P	P	10 51 04.8	+0.5
PMSA				IAmb	IAmb	10 51 05.8	
	comp=Z,10nm,0.8s						
BBJI	**Bungbulang**	72.53	272	P	P	10 51 17.6	-0.5
KKM	**Kota Kinabalu**	72.95	289	P	P	10 51 20.4	-0.2
ESPZ	**Base Esperanza**	73.69	156	P	P	10 51 24.6	+0.6
ESPZ				IAmb	IAmb	10 51 25.8	
	comp=Z,26nm,0.8s						
MG03	**Isla Dawson**	73.85	144	P	P	10 51 25.7	+0.5
SBUM	**Sibu**	74.11	283	P	P	10 51 27.2	-0.1
SBUM	**Sibu**	74.11	283	P	P	10 51 27.1	-0.1
	comp=Z,13nm,1.7s						
SBUM	**Sibu**	74.11	283	P	P	10 51 27.0	-0.3
	comp=Z,13nm,1.7s						
ELIB	**Princess Elisa**	74.64	187	*d*P	P	10 51 30.6	+1.0
	comp=Z,10nm,1.1s						
SYO	**Syowa Base**	74.91	193	⇑*i*P	P	10 51 31.6	+0.6
SYO	**Syowa Base**	74.91	193	⇑*i*P	P	10 51 33.4	+2.4
TROLL	**Troll, Antarti**	75.68	180	⇑P	P	10 51 36.7	+1.0
	comp=Z,1μm,1.0s						
GO08	**Villa O’Higgin**	75.70	139	P	P	10 51 36.8	+0.9
GO08				IAmb	IAmb	10 53 25.7	
	comp=Z,28nm,1.6s						
GO08	**Villa O’Higgin**	75.70	139	P	P	10 51 37.1	+1.1
	comp=Z,14nm,2.9s						
SNAA	**Sanae**	75.98	179	⇑P	P	10 51 38.0	+0.7
	comp=Z,305nm,1.0s						
SNAA	**Sanae**	75.98	179	P	P	10 51 37.5	+0.3
	comp=Z,12nm,0.9s,baz=205,slow=6.2,SNR=24						
	comp=Z,12nm,0.9s						
SNAA	**Sanae**	75.98	179	*i* P	P	10 51 36.8	-0.4
SNAA				pmax	pmax		
	comp=Z,11nm,0.9s						
SNAA	**Sanae**	75.98	179	P	P	10 51 37.9	+0.6
SNAA				IAmb	IAmb	10 51 39.1	
	comp=Z,20nm,1.0s						
SNAA	**Sanae**	75.98	179	P	P	10 51 38.2	+0.9
	comp=Z,22nm,1.4s						
VNA3	**Neumayer Olymp**	76.14	176	⇑P	P	10 51 38.7	+0.6
	comp=Z,56nm,0.7s						
VNA3	**Neumayer Olymp**	76.14	176	P	P	10 51 38.8	+0.7
	comp=Z,95nm,0.8s						
VNA2	**Neumayer--Watz**	76.57	177	⇑P	P	10 51 41.5	+0.9
	comp=Z,44nm,0.7s,baz=183,slow=5.5						
VNA2	**Neumayer--Watz**	76.57	177	P	P	10 51 41.6	+1.1
	comp=Z,80nm,0.8s						
VNA1	**Neumayer--Stat**	76.80	177	⇑P	P	10 51 42.8	+1.0
	comp=Z,35nm,0.8s						
COYC	**Coyhaique**	77.57	136		P	10 51 47.4	+0.8
COYC				IAmb	IAmb	10 51 49.2	
	comp=Z,22nm,0.8s						
COYC	**Coyhaique**	77.57	136	P	P	10 51 48.5	+1.9
	comp=Z,35nm,1.3s						
LL02	**Futaleuf**	79.04	134		P	10 51 55.4	+0.5
LL02				IAmb	IAmb	10 51 57.2	
	comp=Z,20nm,0.8s						
LL02	**Futaleuf**	79.04	134	P	P	10 51 55.9	+1.1
	comp=Z,30nm,0.9s						
H03S2	**Juan Fernandez**	79.52	123	T	T	12 20 41.8	
	baz=236,slow=74,SNR=35						
H03S1	**Juan Fernandez**	79.53	123	T	T	12 20 40.7	
	baz=236,slow=74,SNR=32						
H03S3	**Juan Fernandez**	79.54	123	T	T	12 20 40.1	
	baz=236,slow=74,SNR=32						
ORCD	**Orcadas**	79.58	159		P	10 51 57.9	+0.5
H03N2	**Juan Fernandez**	79.73	123	T	T	12 20 56.2	
	baz=240,slow=74,SNR=27						
H03N1	**Juan Fernandez**	79.74	123	T	T	12 21 01.3	
	baz=22,slow=74,SNR=41						
LL03	**Petrohue**	79.86	132	P	P	10 52 00.1	+0.8
LL03				IAmb	IAmb	10 52 01.4	
	comp=Z,33nm,0.8s						
MJAR	**Matsushiro Arr**	79.87	326	P	P	10 51 58.6	-0.5
	comp=Z,2.1nm,0.7s,baz=154,slow=4.7,SNR=6.4						
MJAR				LR	LR	11 29 08.8	
	comp=Z,33nm,18.3s,baz=156,slow=37						
	comp=Z,2.1nm,0.7s						
MJAR	**Matsushiro Arr**	79.87	326	P	P	10 51 59.0	-0.1
MJAR	**Matsushiro Arr**	79.87	326	P	P	10 51 59.0	-0.1
MAJO	**Matsushiro**	79.87	326	P	P	10 51 59.4	+0.2
MAJO				pmax	pmax		
	comp=Z,13nm,1.1s						
MAJO	**Matsushiro**	79.87	326	P	P	10 51 59.4	+0.2
PLCA	**Paso Flores**	81.25	133	P	P	10 52 08.4	+1.6
	comp=Z,16nm,1.1s,baz=220,slow=5.4,SNR=20						
PLCA				LR	LR	11 22 22.2	
	comp=Z,46nm,18.6s,baz=216,slow=31						
	comp=Z,16nm,1.1s						
PLCA	**Paso Flores**	81.25	133		P	10 52 07.5	+0.6
PLCA				IAmb	IAmb	10 52 09.5	
	comp=Z,25nm,1.2s						
PLCA	**Paso Flores**	81.25	133	P	P	10 52 07.8	+1.0
	comp=Z,23nm,1.1s						
GO06	**Curarrehue**	81.33	132		P	10 52 08.0	+0.6
GO06	**Curarrehue**	81.33	132	P	P	10 52 08.7	+1.3
	comp=Z,15nm,1.3s						
BI02	**San Fabin de**	83.15	129	P	P	10 52 17.5	+0.6
BI02				IAmb	IAmb	10 52 19.0	
	comp=Z,19nm,0.9s						
BI02	**San Fabin de**	83.15	129	P	P	10 52 18.1	+1.2
	comp=Z,22nm,1.1s						
ML02	**Panimavida**	83.58	128	P	P	10 52 18.5	-0.5
GO05	**Hualane**	83.68	128	P	P	10 52 20.4	+0.8
	comp=Z,24nm,1.2s						
BO02	**Sierra Bellavi**	84.57	128	P	P	10 52 25.3	+1.1
	comp=Z,55nm,0.9s						
MT09	**Talagante**	85.03	127	IAmb	IAmb	10 52 52.7	
	comp=Z,21nm,1.0s						
SHEM	**Shemya Is, Ala**	85.22	355	LR	LR	11 25 55.0	
	comp=Z,72nm,19.5s,baz=85,slow=32						
MT13	**San Alfonso**	85.52	127	IAmb	IAmb	10 52 31.3	
	comp=Z,18nm,0.8s						
PEL	**Peldehue**	85.61	127	P	P	10 52 30.8	+1.5
PEL	**Peldehue**	85.61	127	P	P	10 52 30.9	+1.5
	comp=Z,43nm,1.4s						
GSI	**Gunungsitoli**	85.68	274	P	P	10 52 29.0	-1.0
GSI	**Gunungsitoli**	85.68	274	P	P	10 52 30.0	+0.1
GSI	**Gunungsitoli**	85.68	274	P	P	10 52 29.6	-0.3
	comp=Z,51nm,0.8s						
KSRS	**Korea Array**	85.81	320	P	P	10 52 30.1	+0.2
	comp=Z,2.7nm,0.8s,baz=133,slow=5.1,SNR=8.2						
KSRS				LR	LR	11 29 05.1	
	comp=Z,14nm,19.0s,baz=130,slow=34						
	comp=Z,2.7nm,0.8s						
LPIG	**La Paz**	85.96	58	LR	LR	11 21 47.4	
	comp=Z,53nm,21.4s,baz=196,slow=29						
CO02	**Combarbal**	86.53	125	P	P	10 52 35.1	+1.0
	comp=Z,56nm,0.9s						
YSS	**Yuzhno-Sakhali**	86.58	334	*e*P	P	10 52 34.4	+0.9
YSS				pmax	pmax		
	comp=Z,20nm,0.7s						
YSS	**Yuzhno-Sakhali**	86.58	334	P	P	10 52 34.6	+1.1
YSS				IAmb	IAmb	10 52 35.8	
	comp=Z,17nm,0.8s						
UNV	**Unalaska Valle**	86.70	7	P	P	10 52 34.5	+0.6
VTX	**Valle De La Tr**	86.88	49	IAmb	IAmb	10 52 38.7	
	comp=Z,18nm,1.2s						
CO03	**El Pedregal**	86.96	125	P	P	10 52 36.5	+0.4
	comp=Z,27nm,1.4s						
ESJX	**Sierra Juarez**	87.18	49	IAmb	IAmb	10 52 40.0	
	comp=Z,10.0nm,1.0s						
DPP	**Dos Picos Cty**	87.21	48	IAmb	IAmb	10 52 39.3	
	comp=Z,13nm,1.1s						
ELS	**Elsinore Mount**	87.35	47	IAmb	IAmb	10 52 40.3	
	comp=Z,12nm,1.1s						
MWC	**Mount Wilson**	87.35	46	P	P	10 52 37.6	-0.2
MWC				pmax	pmax		
	comp=Z,19nm,1.4s						
MWC	**Mount Wilson**	87.35	46	P	P	10 52 37.6	-0.2
MWC				IAmb	IAmb	10 52 40.9	
	comp=Z,18nm,1.4s						
NJ2	**Nanjing**	87.43	311	*e*P	P	10 52 39.0	+1.0
NJ2				pmax	pmax		
	comp=Z,35nm,0.5s						
BFSC	**Mount Baldy Ra**	87.60	46	IAmb	IAmb	10 52 41.3	
	comp=Z,22nm,1.2s						
YUH	**Yuha Desert**	87.62	48	IAmb	IAmb	10 52 41.6	
	comp=Z,9.3nm,1.0s						
TPO	**Tropico Hills**	87.69	46	P	P	10 52 40.3	+1.0
BORC	**Borrego Spring**	87.72	48	IAmb	IAmb	10 52 42.1	
	comp=Z,16nm,1.1s						
GDXM	**Geysers**	87.81	40	P	P	10 52 40.7	+0.9
GDXM				IAmb	IAmb	10 52 42.6	
	comp=Z,16nm,1.2s						
VES	**Vestal, Richgr**	87.83	44	P	P	10 52 40.1	+0.3
PEA0B	**Petropavlovsk-**	87.86	346	*i* P	P	10 52 39.9	+0.4
PETK	**Petropavlovsk-**	87.86	346	P	P	10 52 39.9	+0.4
	comp=Z,3.5nm,0.7s,baz=114,slow=5.8,SNR=8.7						
PETK				LR	LR	11 26 24.1	
	comp=Z,50nm,21.0s,baz=156,slow=32						
	comp=Z,3.5nm,0.7s						
PETK	**Petropavlovsk-**	87.86	346	P	P	10 52 39.3	-0.2
PFO	**Pinyon Flats O**	87.92	47	LR	LR	11 22 01.9	
	comp=Z,37nm,20.9s,baz=238,slow=29						
PFO	**Pinyon Flats O**	87.92	47	*i* P	P	10 52 41.6	+1.1
PFO				pmax	pmax		
	comp=Z,24nm,1.1s						
PFO	**Pinyon Flats O**	87.92	47	P	P	10 52 40.4	-0.1
PFO				IAmb	IAmb	10 52 43.3	
	comp=Z,14nm,1.1s						
PFO	**Pinyon Flats O**	87.92	47	P	P	10 52 42.3	+1.8
	comp=Z,16nm,1.2s						
ZON	**Zonda**	87.92	126	IAmb	IAmb	10 55 40.8	
	comp=Z,23nm,1.6s						
PMD	**Palm Desert**	88.00	47	P	P	10 52 40.9	+0.2
PMD				IAmb	IAmb	10 52 43.4	
	comp=Z,8.6nm,0.9s						
ISA	**Isabella, Lake**	88.08	45	IAmb	IAmb	10 52 43.9	
	comp=Z,19nm,1.0s						
CFA	**Coronel Fontan**	88.18	127	P	P	10 52 42.1	+0.2
	comp=Z,5.2nm,0.9s,baz=273,slow=4.2,SNR=15						
	comp=Z,5.2nm,0.9s						
KMRM	**Mail Ridge**	88.34	39	IAmb	IAmb	10 52 45.0	
	comp=Z,11nm,0.8s						
LRMC	**Laurel Mtn Rad**	88.42	45	IAmb	IAmb	10 52 45.4	
	comp=Z,16nm,1.0s						
BELC	**Belle Mtn. Jos**	88.47	47	IAmb	IAmb	10 52 46.0	
	comp=Z,16nm,0.9s						
PIX	**Pinacate**	88.49	51		P	10 52 43.7	+0.6
PIX				IAmb	IAmb	10 52 45.5	
	comp=Z,13nm,1.1s						
HSIG		88.56	54	P	P	10 52 44.1	+0.7
HSIG				IAmb	IAmb	10 52 45.7	
	comp=Z,10nm,1.0s						
BC3	**Big Chuckawall**	88.58	48		P	10 52 44.3	+0.7
BC3				IAmb	IAmb	10 52 46.8	
	comp=Z,23nm,1.2s						
CMB	**Columbia Colle**	88.60	42	P	P	10 52 44.4	+0.9
CMB				pmax	pmax		
	comp=Z,26nm,1.6s						
CMB	**Columbia Colle**	88.60	42		P	10 52 44.4	+0.9
CMB				IAmb	IAmb	10 52 45.6	
	comp=Z,26nm,1.6s						
SUTB	**Sutter Butte**	88.66	40	P	P	10 52 44.4	+0.7
SUTB				IAmb	IAmb	10 52 45.0	
	comp=Z,7.6nm,0.6s						
O02D	**Mt. Diablo Mer**	88.79	39		P	10 52 45.9	+1.5
KHMM	**Horse Mountain**	88.80	38	P	P	10 52 45.7	+1.2
KHMM				IAmb	IAmb	10 52 47.2	
	comp=Z,8.3nm,1.0s						
USA0B	**Ussuriysk Arra**	88.81	327	P	P	10 52 44.2	-0.1

USA0B				pmax	pmax		
	comp=Z,81nm,2.0s						
USA0B	Ussuriysk Arra	88.81	327	P	P	10 52 44.2	-0.1
USRK	Ussuriysk Ar.	88.81	327	P	P	10 52 45.1	+0.8
	comp=Z,8.4nm,0.9s,baz=110,slow=4.5,SNR=8.1						
USRK				LR	LR	11 25 54.0	
	comp=Z,31nm,21.6s,baz=127,slow=31						
	comp=Z,8.4nm,0.9s						
USRK	Ussuriysk Ar.	88.81	327	P	P	10 52 44.8	+0.5
GSC	Goldstone, Bar	88.83	46	P	P	10 52 46.0	+1.3
GSC				pmax	pmax		
	comp=Z,32nm,1.5s						
GSC	Goldstone, Bar	88.83	46	P	P	10 52 46.0	+1.3
AFDM	Forest Hills D	88.91	41	IAmb	IAmb	10 52 47.0	
	comp=Z,8.4nm,1.1s						
KHBM	Hayfork Bally	88.91	39	P	P	10 52 46.2	+1.1
KHBM				IAmb	IAmb	10 52 47.6	
	comp=Z,7.8nm,0.9s						
SDPT	Sand Point	88.93	10	P	P	10 52 45.4	+0.9
ORV	Oroville	89.05	40	P	P	10 52 45.9	+0.4
ORV				pmax	pmax		
	comp=Z,4.0nm,1.0s						
ORV	Oroville	89.05	40		P	10 52 45.9	+0.4
IRM	Iron Mountain	89.10	48	P	P	10 52 46.9	+1.0
BLYC	Blythe	89.22	48	IAmb	IAmb	10 52 49.5	
	comp=Z,11nm,0.9s						
O03E	Paynes Creek	89.41	40	IAmb	IAmb	10 52 49.2	
	comp=Z,21nm,1.2s						
KSXB	Camp Six Broad	89.42	37	IAmb	IAmb	10 52 54.8	
	comp=Z,10nm,1.2s						
WAKR	Walker	89.46	42	IAmb	IAmb	10 52 50.4	
	comp=Z,22nm,1.4s						
M02C	Callahan	89.63	38	IAmb	IAmb	10 52 51.3	
	comp=Z,23nm,1.4s						
MPK	Martis Peak	89.68	41	P	P	10 52 49.5	+0.7
MPK				IAmb	IAmb	10 52 51.1	
	comp=Z,14nm,1.0s						
MTPC	Mountain Pass	89.72	47	IAmb	IAmb	10 52 52.0	
	comp=Z,22nm,1.3s						
PNTR	Pine Nut	89.78	42	IAmb	IAmb	10 52 51.4	
	comp=Z,12nm,0.9s						
L02F	Cave Junction	89.78	37	IAmb	IAmb	10 52 51.8	
	comp=Z,10nm,1.2s						
LHV	Little Huntoon	89.82	43	IAmb	IAmb	10 52 51.7	
	comp=Z,9.8nm,1.0s						
BEKR	Beckworth	89.89	41		P	10 52 50.2	+0.5
YERR	Yerington	89.91	42	IAmb	IAmb	10 52 51.8	
	comp=Z,8.7nm,1.0s						
M03C	McCloud	89.93	39	P	P	10 52 50.6	+0.9
M03C				IAmb	IAmb	10 52 51.9	
	comp=Z,18nm,1.0s						
TYV	Tymovskoe	89.93	337	*e*P	P	10 52 50.8	+1.5
TYV				*e*S	S	11 03 43.2	+4.0
TYV				pmax	pmax		
	comp=Z,21nm,0.8s						
TYV				pmax	pmax		
	comp=Z,100nm,3.5s						
TYV				smax	smax		
	comp=N,300nm,6.3s						
TYV				smax	smax		
	comp=E,400nm,6.3s						
YBH	Yreka Blue Hor	89.95	38	LR	LR	11 26 15.6	
	comp=E,34nm,20.9s,baz=233,slow=31						
NVAR	Mina Array Bea	90.06	43	P	P	10 52 51.5	+1.0
	comp=E,6.1nm,0.9s,baz=218,slow=8.0,SNR=30						
NVAR				PKKPbc	PKKPbc	11 10 21.8	-0.3
	comp=E,0.2nm,0.5s,baz=59,slow=3.2,SNR=6.0						
NVAR				LR	LR	11 27 43.2	
	comp=E,42nm,18.8s,baz=218,slow=32						
	comp=E,6.1nm,0.9s						
NV11	Mina Array Sit	90.15	43	P	P	10 52 51.6	+0.8
TPNV	Topopah Spring	90.27	45	P	P	10 52 52.4	+0.9
TPNV				pmax	pmax		
	comp=Z,6.0nm,0.8s						
TPNV	Topopah Spring	90.27	45	P	P	10 52 52.4	+0.9
TPH	Tonopah	90.44	44	P	P	10 52 52.9	+0.6
TPH				pmax	pmax		
	comp=Z,22nm,1.4s						
TPH	Tonopah	90.44	44	P	P	10 52 52.9	+0.6
TPH				IAmb	IAmb	10 52 54.6	
	comp=Z,22nm,1.4s						
AC02	Maricunga	90.45	122	IAmb	IAmb	10 52 57.2	
	comp=Z,14nm,1.1s						
AC02	Maricunga	90.45	122	P	P	10 52 55.2	+2.0
	comp=Z,12nm,1.0s						
W13A	Hualapai Mount	90.50	48	IAmb	IAmb	10 52 55.5	
	comp=Z,9.4nm,0.9s						
L04D	Klamath Falls	90.51	38	IAmb	IAmb	10 52 54.7	
	comp=Z,12nm,1.0s						
SHPR	Sheep Range	90.63	46	P	P	10 52 54.7	+1.5
TUC	Tucson	90.72	52	P	P	10 52 55.1	+1.5
TUC				pmax	pmax		
	comp=Z,11nm,1.0s						
TUC	Tucson	90.72	52	P	P	10 52 55.1	+1.5
TUC				IAmb	IAmb	10 52 56.8	
	comp=Z,11nm,0.9s						
319A	Douglas	91.15	53	IAmb	IAmb	10 52 58.6	
	comp=Z,8.8nm,1.0s						
PRN	Pahroc Range	91.29	45	IAmb	IAmb	10 52 59.2	
	comp=Z,9.4nm,1.0s						
MOD	Modoc Plateau	91.34	39		P	10 52 56.3	0.0
MOD				IAmb	IAmb	10 52 58.3	
	comp=Z,7.8nm,1.1s						
I04A	Tendick Farm,	91.58	37	IAmb	IAmb	10 52 59.1	
	comp=Z,10nm,0.9s						
K05A	Summer Lake	91.61	38	IAmb	IAmb	10 53 00.0	
	comp=Z,13nm,1.0s						
X16A	Lo Mia Camp, P	91.61	50	IAmb	IAmb	10 53 01.0	
	comp=Z,11nm,1.0s						
CN2	Changchun	91.70	323	*e*P	P	10 52 57.9	+0.2
CN2				pmax	pmax		
	comp=Z,10.0nm,0.8s						
BMN	Battle Mountai	92.03	42	IAmb	IAmb	10 53 01.1	
	comp=Z,5.3nm,0.8s						
WIFE	Three Sisters-	92.07	37	IAmb	IAmb	10 53 01.5	
	comp=Z,10nm,0.8s						
LCMT	Little Creek M	92.13	47	P	P	10 53 00.7	+0.6
U15A	North Rim	92.34	48		P	10 53 02.2	+0.9
U15A				IAmb	IAmb	10 53 04.2	
	comp=Z,8.8nm,0.8s						
WUAZ	Wupatki	92.35	49	IAmb	IAmb	10 53 04.0	
	comp=Z,5.9nm,0.9s						
KNB	Kanab	92.39	47	IAmb	IAmb	10 53 04.1	
	comp=Z,8.1nm,0.8s						
I05D	Terrebonne, OR	92.51	37	IAmb	IAmb	10 53 03.8	
	comp=Z,14nm,1.0s						
ENH	Enshi	92.58	304	P	P	10 53 02.4	+0.2
WVOR	Wild Horse Val	92.61	40	P	P	10 53 02.9	+0.8
WVOR				pmax	pmax		
	comp=Z,9.0nm,1.2s						
WVOR	Wild Horse Val	92.61	40	P	P	10 53 02.9	+0.8
WVOR				IAmb	IAmb	10 53 04.3	
	comp=Z,9.2nm,1.1s						
WVOR	Wild Horse Val	92.61	40	P	P	10 53 02.6	+0.4
	comp=Z,10nm,1.8s						
KDAK	Kodiak Island	92.61	13	LR	LR	11 28 35.0	
	comp=Z,17nm,18.9s,baz=190,slow=32						
KLR	Kul'dur	92.77	330	LR	LR	11 27 45.5	
	comp=Z,46nm,21.9s,baz=178,slow=31						
PKCU	Pink Cliffs	92.98	47	IAmb	IAmb	10 53 37.2	
	comp=Z,5.5nm,1.0s						
J08A	Circle Bar Ran	93.32	39	IAmb	IAmb	10 53 07.5	
	comp=Z,7.0nm,1.0s						
ELK	Elko	93.37	43	LR	LR	11 29 36.9	
	comp=Z,48nm,18.7s,baz=181,slow=32						
N15K	Kwethluk River	93.64	9	P	P	10 53 07.5	+1.2
N15K				IAmb	IAmb	10 53 08.3	
	comp=Z,10nm,0.8s						
CMIG	Matias Romero	93.73	72	LR	LR	11 26 23.4	
	comp=Z,34nm,21.0s,baz=224,slow=30						
CMAR	Chiang Mai Arr	93.83	289	P	P	10 53 07.2	-1.0
	comp=Z,0.4nm,0.4s,baz=152,slow=2.9,SNR=4.8						
CMAR				PP	PP	10 56 53.0	-1.2
	comp=Z,0.4nm,0.3s,baz=148,slow=6.1,SNR=4.6						
CMAR				PKKPbc	PKKPdf	11 10 10.4	-0.1
	comp=Z,0.7nm,0.7s,baz=297,slow=3.3,SNR=4.2						
CMAR				LR	LR	11 34 02.5	
	comp=Z,11nm,21.8s,baz=140,slow=35						
	comp=Z,0.4nm,0.4s						
CMAR	Chiang Mai Arr	93.83	289	P	P	10 53 07.6	-0.6
CMAR	Chiang Mai Arr	93.83	289	P	P	10 53 07.6	-0.6
TX31	Lajitas Ar. Si	93.83	58		P	10 53 08.3	+0.2
TXAR	Lajitas Array	93.83	58	P	P	10 53 08.6	+0.5
	comp=Z,2.1nm,0.9s,baz=210,slow=8.0,SNR=17						
TXAR				PKKPbc	PKKPdf	11 10 09.6	-1.6
	comp=Z,0.1nm,0.4s,baz=48,slow=3.7,SNR=3.6						
TXAR				LR	LR	11 26 34.8	
	comp=Z,45nm,20.2s,baz=201,slow=30						
	comp=Z,2.1nm,0.9s						
TXAR	Lajitas Array	93.83	58	P	P	10 53 08.0	-0.1
SALTA		94.03	122	P	P	10 53 12.0	+2.1
	comp=Z,7.6nm,1.2s						
PB11	IPOC Station P	94.30	117	P	P	10 53 11.1	+0.4
PB11	IPOC Station P	94.30	117	P	P	10 53 11.8	+1.2
	comp=Z,23nm,1.1s						
LENM	Lemitar	94.38	52	P	P	10 53 10.2	-0.4
G08A	Pilot Rock	94.39	38	IAmb	IAmb	10 53 12.2	
	comp=Z,8.1nm,1.1s						
ALPN	Alpine	94.45	57	IAmb	IAmb	10 53 12.7	
	comp=Z,6.6nm,0.9s						
BBB	Bella Bella	95.17	28	LR	LR	11 27 36.0	
	comp=Z,35nm,21.2s,baz=210,slow=30						
XAN	Xi'an	95.19	307	P	P	10 53 07.7	-6.4
XAN				pmax	pmax		
	comp=Z,10.0nm,1.1s						
TASM	ASL Pad, Albuq	95.19	52	IAmb	IAmb	10 55 09.1	
	comp=Z,6.3nm,0.9s						
ANMO	Albuquerque	95.19	52	LR	LR	11 28 33.0	
	comp=Z,34nm,21.4s,baz=252,slow=31						
ANMO	Albuquerque	95.19	52	*i* P	P	10 53 14.2	-0.1
PB16	IPOC Station P	95.25	115	P	P	10 53 15.3	-0.3
PB16				IAmb	IAmb	10 53 18.0	
	comp=Z,18nm,1.3s						
PB16	IPOC Station P	95.25	115	P	P	10 53 17.2	+1.7
	comp=Z,12nm,1.1s						
MA2	Magadan	95.32	345	LR	LR	11 30 31.7	
	comp=Z,43nm,22.0s,baz=140,slow=32						
HLID	Hailey	95.67	41		P	10 53 16.2	-0.1
HLID	Hailey	95.67	41	P	P	10 53 16.8	+0.6
	comp=Z,5.8nm,0.8s						
PV12	Saucer Basin,	95.69	48	P	P	10 53 17.1	+0.5
PV12				IAmb	IAmb	10 56 16.0	
	comp=Z,14nm,1.5s						
F10A	Beach Ranch, E	95.75	38	IAmb	IAmb	10 53 19.0	
	comp=Z,9.8nm,1.2s						
PLID	Pearl Lake	95.80	39	P	P	10 53 17.3	+0.4
PLID				IAmb	IAmb	10 53 18.5	
	comp=Z,4.7nm,0.9s						
PZH	PanZhiHua	96.04	297	P	P	10 53 18.8	+0.5
CD2	Chengdu	96.98	302	*e*P		10 53 24.0	
NEW	Newport	97.33	36	LR	LR	11 33 40.9	
	comp=Z,22nm,19.2s,baz=222,slow=33						
HHC	Hu-ho-hao-te	97.53	314	*e*P	Pdif	10 53 27.5	+2.8
HHC				pmax	pmax		
	comp=Z,5.0nm,0.7s						
HHC				pmax	pmax		
	comp=Z,140nm,5.6s						
LPAZ	La Paz	97.53	115	P	Pdif	10 53 26.6	+0.6
	comp=Z,2.2nm,0.7s,baz=208,slow=3.4,SNR=11						
LPAZ				LR	LR	11 27 48.1	
	comp=Z,18nm,19.8s,baz=231,slow=29						
	comp=Z,2.2nm,0.7s						
LPAZ	La Paz	97.53	115	P	P	10 53 24.2	-1.8
PD31	Pinedale Array	97.94	44	P	Pdif	10 53 27.3	+0.6
PD31				IAmb	IAmb	10 57 13.5	
	comp=Z,12nm,2.0s						
PDAR	Pinedale Array	97.94	44	P	P	10 53 26.6	-0.1
	comp=Z,0.6nm,0.7s,baz=199,slow=3.3,SNR=7.1						
PDAR				PKKPbc	PKKPbc	11 09 58.8	-2.5
	comp=Z,0.3nm,0.5s,baz=109,slow=6.1,SNR=4.7						
PDAR				LR	LR	11 30 17.2	
	comp=Z,22nm,21.5s,baz=236,slow=31						
	comp=Z,0.6nm,0.7s						
JTS	Las Juntas de	98.32	83	LR	LR	11 30 32.6	
	comp=Z,22nm,18.5s,baz=278,slow=31						
CPUP	Villa Florida	98.86	129	PKKPbc	PKKPbc	11 09 55.5	-1.7
	comp=Z,0.8nm,0.3s,baz=5.6,slow=20,SNR=3.4						
Q32M	Nakina River	98.93	22	P	Pdif	10 53 31.8	+1.2
DLBC	Dease Lake	99.26	23	LR	LR	11 30 50.0	
	comp=Z,44nm,21.4s,baz=209,slow=31						
ILAR	Eielson Array	100.13	13	P	Pdif	10 53 37.0	+1.4
	comp=Z,0.4nm,0.8s,baz=234,slow=7.9,SNR=4.8						
ILAR				PKiKP	PKiKP	10 58 01.1	-1.9
	comp=Z,0.6nm,0.7s,baz=246,slow=2.1,SNR=6.2						
ILAR				PKKPbc	PKKPbc	11 09 51.5	-4.0
	comp=Z,0.4nm,0.9s,baz=349,slow=1.9,SNR=4.5						
ILAR	Eielson Array	100.13	13	*i* P	Pdif	10 53 36.7	+1.1
ILAR	Eielson Array	100.13	13		Pdif	10 53 36.7	+1.1
YKA	Yellowknife Ar	107.55	26	PKiKP	PKiKP	10 58 15.6	-0.9
	comp=Z,1.1nm,0.7s,baz=254,slow=1.6,SNR=7.2						
YKA				PKKPbc	PKKPbc	11 09 29.6	-3.4
	comp=Z,1.2nm,0.7s,baz=45,slow=3.0,SNR=5.0						
HYB	Hyderabad	109.99	278	*e*PKiKP	PKiKP	10 58 23.0	+0.5
HYB				*e*SKSac	SKSac	11 05 00.6	+2.5
HYB				*e*SKKSac	SKKSac	11 05 57.8	+1.1
WMQ	Urumqi	114.32	308	*e*PKP	PKiKP	10 58 31.3	+1.3
BOSA	Boshof	115.12	203	PKP	PKiKP	10 58 32.2	-0.1
	comp=Z,2.9nm,0.6s,baz=182,slow=1.3,SNR=5.8						
ZSN	Zaisan	117.47	311	*e*PKIKP	PKPdf	10 58 35.5	-0.4
ZSN	Zaisan	117.47	311	*e*PKP	PKPdf	10 58 35.5	-0.4
MKAR	Makanchi Array	118.93	309	PKP	PKPdf	10 58 37.8	-1.0
	comp=Z,2.3nm,0.7s,baz=141,slow=0.8,SNR=18						
MKAR				PKKPbc	PKKPab	11 08 54.1	0.0
	comp=Z,1.1nm,0.7s,baz=294,slow=3.9,SNR=5.5						
ZALV	Zalesovo Beam	119.45	318	PKP	PKPdf	10 58 38.1	-1.3
	comp=Z,1.3nm,0.4s,baz=96,slow=1.4,SNR=6.2						
SHLS	Shalkode	119.71	305	*e*PKIKP	PKPdf	10 58 39.2	-1.3
SHLS	Shalkode	119.71	305	*e*PKP	PKPdf	10 58 39.2	-1.3
UZB	Uzynbulak	120.01	304	*e*PKIKP	PKPdf	10 58 40.3	-0.8
UZB	Uzynbulak	120.01	304	*e*PKP	PKPdf	10 58 40.3	-0.8
KPKS	Kokpek	120.34	305	*e*PKIKP	PKPdf	10 58 40.9	-0.7
KPKS	Kokpek	120.34	305	*e*PKP	PKPdf	10 58 41.0	-0.7
SATY	Saty	120.42	304	*e*PKIKP	PKPdf	10 58 41.1	-0.8
SATY				*e*		11 00 07.8	
SATY	Saty	120.42	304	*e*PKP	PKPdf	10 58 41.1	-0.8
SATY				*e*PP	PP	11 00 07.9	-1.3
TARG	Taragay, Kyrgy	120.43	303	PKIKP	PKPdf	10 58 42.2	-0.1
TDK	Taldyqorghan	120.99	306	*e*PKIKP	PKPdf	10 58 42.2	-0.5
TDK	Taldyqorghan	120.99	306	*e*PKP	PKPdf	10 58 42.3	-0.5
MDOK	Medeo	121.40	304	*e*PKIKP	PKPdf	10 58 42.9	-0.9
MDOK	Medeo	121.40	304	*e*PKP	PKPdf	10 58 43.0	-0.9
BOOM	Boomskoye usch	121.98	303	PKIKP	PKiKP	10 58 45.2	+0.1
KURK	Kurchatov	122.32	313	PKIKP	PKPdf	10 58 44.6	-0.5
KURBB	Kurchatov Arra	122.36	313	PKP	PKPdf	10 58 44.5	-0.6
	comp=Z,5.5nm,0.7s,baz=114,slow=1.9,SNR=45						
AAK	Ala-Archa	123.05	303	*i* PKIKP	PKPdf	10 58 46.7	-0.3
SGDS	Sogindy	123.17	304	*e*PKP	PKPdf	10 58 46.4	-0.7
ARK	Arkit	124.64	301	PKIKP	PKiKP	10 58 50.4	+0.1
KBL	Kabul	124.77	292	PKIKP	PKiKP	10 58 50.9	0.0
BTK	Batken	125.02	299	PKIKP	PKPdf	10 58 50.8	0.0
TRKS	Terek-Say	125.17	301	PKIKP	PKPdf	10 58 50.3	-0.8
DZA	Taraz	125.37	302	*e*PKIKP	PKPdf	10 58 50.5	-0.7
DZA	Taraz	125.37	302	*e*PKP	PKPdf	10 58 50.5	-0.7
IUG	Iuzhnay	126.12	301	*e*PKIKP	PKPdf	10 58 51.9	-0.9
IUG	Iuzhnay	126.12	301	*e*PKP	PKPdf	10 58 51.9	-0.9
BRLS	Borolday	126.47	302	*e*PKIKP	PKPdf	10 58 52.6	-0.7
BRLS	Borolday	126.47	302	*e*PKP	PKPdf	10 58 52.7	-0.7
CHM	Chimkent	126.47	301	*e*PKIKP	PKPdf	10 58 52.6	-0.8
CHM	Chimkent	126.47	301	*e*PKP	PKPdf	10 58 52.6	-0.8
BVAR	Borovoye Array	127.73	315	PKP	PKPdf	10 58 55.4	0.0
	comp=Z,5.0nm,0.5s,baz=108,slow=1.6,SNR=23						
BORK	Borovoye	127.78	315	*i* PKIKP	PKPdf	10 58 54.7	-0.8
SPITS	Spitsbergen Ar	133.86	356	PKP	PKPdf	10 59 05.5	-0.9
	comp=Z,7.7nm,0.8s,baz=76,slow=3.5,SNR=4.2						
ARTI	Arti	134.66	319	PKP	PKPdf	10 59 09.0	+0.6
	comp=Z,4.3nm,0.5s,baz=86,slow=7.3,SNR=5.7						
ARTI				SKPbc	SKPbc	11 02 33.8	-2.2
	comp=Z,16nm,0.9s,baz=107,slow=2.3,SNR=14						
ARTI	Arti	134.66	319	PKIKP	PKPdf	10 59 09.0	+0.6
AKTO	Aktyubinsk	135.32	311	PKP	PKiKP	10 59 10.8	-0.6
	comp=Z,3.9nm,0.5s,baz=106,slow=5.2,SNR=11						
AKTO				SKPbc	SKPbc	11 02 36.5	-1.8
	comp=Z,0.8nm,0.3s,baz=183,slow=21,SNR=3.6						
H10N3	ASCENSION HYDR	136.95	156	T	T	13 33 09.5	
	baz=204,slow=74,SNR=6.1						
H10N1	ASCENSION HYDR	136.95	156	T	T	13 33 10.1	
	baz=204,slow=74,SNR=7.8						
H10N2	ASCENSION HYDR	136.97	156	T	T	13 33 07.8	
	baz=204,slow=74,SNR=7.4						
KIRV	Kirov	138.92	324	*i* PKIKP	PKPdf	10 59 16.4	+0.2
VADS	Vadso	139.41	346	*e*PKPdf	PKiKP	10 59 18.5	-0.6
RAYN	Ar Rayn	140.47	268	PKIKP	PKPdf	10 59 21.3	+1.1
ARCES	ARCESS Array B	140.66	347	PKhKP	PKPpre	10 59 13.8	
	comp=Z,1.8nm,0.5s,baz=60,slow=1.8,SNR=7.6						
ARCES				PKP	PKiKP	10 59 20.7	-1.0
	comp=Z,8.4nm,0.7s,baz=51,slow=0.8,SNR=12						
ARCES				SKPbc	SKPbc	11 02 51.6	-1.5
	comp=Z,6.2nm,0.7s,baz=45,slow=2.2,SNR=12						
JETT	Jettan, Norway	141.51	350	*e*PKPdf	PKiKP	10 59 22.4	-1.1
KTK1	Kautokeino	141.53	348	*e*PKPdf	PKiKP	10 59 22.2	-1.2
BELG	Belogornoye	141.54	315	PKhKP	PKPpre	10 59 12.6	
	comp=Z,15nm,0.6s,baz=145,slow=5.7,SNR=5.3						
BELG				PKP	PKPdf	10 59 22.4	+1.3
	comp=Z,10nm,0.5s,baz=338,slow=2.0,SNR=6.5						
BELG				SKPbc	SKPbc	11 02 55.0	-0.8
	comp=Z,25nm,0.9s,baz=191,slow=2.9,SNR=7.4						
KLMR	Klimovskoe	142.53	330	*e*PKIKP	PKPdf	10 59 20.4	-2.2
KLMR				pmax	pmax		
	comp=Z,21nm,1.6s						
STEI	Steigen	143.75	351	*e*PKPdf	PKPdf	10 59 24.1	-0.5
FAUS	Fauske	144.26	351	*e*PKPdf	PKPbc	10 59 23.9	+0.1
VAGH	Vaagaholmen	145.13	352	*e*PKPbc	PKPbc	10 59 26.6	-0.1
RAUS	Rausandaksla	145.32	351	*e*PKPbc	PKPbc	10 59 26.8	-0.5
KONS	Konsvik	145.37	352	*e*PKPbc	PKPbc	10 59 27.4	0.0
VRH	Novokhopyorsk	145.39	314	*e*PKP2	PKPbc	10 59 27.4	-0.5
VRH				pmax	pmax		
	comp=Z,43nm,0.8s						
MOR8	Moi Rana	145.52	351	*e*PKPbc	PKPdf	10 59 26.6	-1.2
STOK	Stokkvaagen	145.54	352	*e*PKPdf	PKPdf	10 59 27.8	0.0
LEIR	Leirfjorden	145.75	352	*e*PKPdf	PKPbc	10 59 28.4	-0.1
MOS	Moscow	145.94	324	*e*PKP2	PKPbc	10 59 29.2	-0.3
MOS				pmax	pmax		
	comp=Z,145nm,0.7s						
MOS				pmax	pmax		
	comp=Z,200nm,0.8s						
KBZ	Khabaz	146.02	301	PKPbc	PKPbc	10 59 30.1	0.0
	comp=Z,19nm,0.9s,baz=134,slow=3.3,SNR=30						
KBZ	Khabaz	146.02	301	*i* PKP2	PKPbc	10 59 29.9	-0.2
KIV	Kislovodsk	146.15	302	*i* PKP2	PKPbc	10 59 30.4	-0.3
KIV				pmax	pmax		
	comp=Z,23nm,1.0s						
NEUR	Neytrino	146.20	300	*i* PKP2	PKPbc	10 59 31.0	0.0
LPSR	Galich'ya Gora	146.56	318	*e*PKP2	PKPbc	10 59 31.3	-0.1
LPSR				pmax	pmax		
	comp=Z,104nm,0.9s						
VORR	Voronezh	146.73	316	*e*PKP2	PKPdf	10 59 31.0	+0.8
VORR				pmax	pmax		
	comp=Z,50nm,0.9s						
OBN	Obninsk	146.76	323	PKPbc	PKPbc	10 59 31.3	-0.6
	comp=Z,26nm,0.4s,baz=63,slow=4.0,SNR=11						
OBN	Obninsk	146.76	323*c*	*i*PKP2	PKPbc	10 59 31.7	-0.2
OBN				*e*		11 02 58.8	
OBN				pmax	pmax		
	comp=Z,45nm,1.3s						
OBN	Obninsk	146.76	323	PKPdf	PKPdf	10 59 30.8	+0.7
GURO	Guroymak-BITLI	146.80	292	PKPbc	PKPbc	10 59 32.4	-0.5
VSR	Storozhevoye	146.91	315	*e*PKP2	PKPbc	10 59 32.3	-0.2
VSR				pmax	pmax		
	comp=Z,59nm,1.0s						
VORD	Divnogorie	146.92	315	*e*PKIKP	PKPdf	10 59 30.4	-0.1
VORD				pmax	pmax		
	comp=Z,30nm,0.9s						
FIA1	FINESS Array S	147.08	339	PKPdf	PKPbc	10 59 32.0	-0.6
FINES	FINESS Array B	147.08	339	PKPbc	PKPbc	10 59 32.3	-0.3
	comp=Z,36nm,0.5s,baz=43,slow=4.1,SNR=239						
FINES				SKPbc	SKPbc	11 03 05.5	-3.0
	comp=Z,4.0nm,0.8s,baz=59,slow=2.1,SNR=3.2						
NSS	Namsos	147.41	352	*e*PKPdf	PKPbc	10 59 32.9	-0.6
ERBR	Yeremizino-Bor	147.47	305	*i* PKP2	PKPbc	10 59 34.4	+0.1
ERBR				pmax	pmax		
	comp=Z,45nm,0.9s						
LABN	Labinsk	147.47	303	*i* PKP2	PKPbc	10 59 34.5	+0.2
LABN				pmax	pmax		
	comp=Z,32nm,0.6s						
SOC	Sochi	148.33	301	*e*PKIKP	PKPdf	10 59 33.9	+0.7
SOC				*i*		10 59 38.1	
SOC				*e*		11 03 01.5	
SOC				*e*PPP	PPP	11 06 23.1	
SOC				*e*SS	SS	11 22 08.7	-3.2
SOC				*e*SSS	SSS	11 27 48.0	
SOC				pmax	pmax		
	comp=Z,34nm,0.8s						
SOC				pmax	pmax		
	comp=Z,21nm,1.0s						
VSU	Vasula	149.08	334	*i* PKIKP	PKPdf	10 59 34.8	+0.9
ANN	Anapa	149.76	304	*i* PKHKP	PKPpre	10 59 39.4	
ANN				pmax	pmax		
	comp=Z,69nm,0.7s						
MOL	Molde	149.77	355	*e*PKPdf	PKPbc	10 59 37.7	-1.9
DOMB	Dombas	150.15	353	*e*	PKPbc	10 59 39.2	-1.4
AKN	Aaknes	150.20	355	*e*PKPdf	PKPdf	10 59 38.0	+2.4
ASF	Jabal al Asfar	150.29	279	P	PKiKP	10 59 42.6	-0.2
NB2	NORSAR Subarra	150.86	350	PKP	PKPbc	10 59 41.9	-0.5
	comp=Z,22nm,0.7s,baz=16,slow=2.5						
NB2	NORSAR Subarra	150.86	350	PKP	PKPbc	10 59 41.9	-0.5
NOA	NORSAR Array B	150.86	350	PKPbc	PKPbc	10 59 42.2	-0.2
	comp=Z,18nm,0.7s,baz=14,slow=4.1,SNR=63						
HSUJ	Al Zarqa	150.87	278	P	PKiKP	10 59 43.8	-0.1
NC602	NORSAR Array S	151.11	350	*e*	PKPbc	10 59 42.7	-0.1
GHAJ	Ghor Haditha	151.24	277	P	PKPbc	10 59 43.6	-0.5
MNK	Minsk	151.29	328	*i* PKIKP	PKPbc	10 59 43.7	+0.2
MNK				*i*		11 03 23.6	
MNK				*i*		11 06 44.0	
MNK				*i* PPP	PPP	11 06 46.7	
MNK				*i* SSS	SSS	11 28 31.3	
MNK				pmax	pmax		
	comp=Z,66nm,0.9s						
MNK				pmax	pmax		
	comp=N,28nm,0.8s						
MNK				pmax	pmax		
	comp=E,26nm,0.8s						
MNK	Minsk	151.29	328	*i* PKiKP	PKPbc	10 59 43.7	+0.2
	comp=E,26nm,0.8s						
MNK				*i* PKiKP	PKPbc	10 59 43.7	+0.2
	comp=N,28nm,0.8s						
MNK				*i* PKiKP	PKPbc	10 59 43.7	+0.2
	comp=Z,66nm,0.9s,baz=51						
MNK				*i* PP	PP	11 03 23.7	+1.3
MNK				*i* SKS	SKSdf	11 06 44.0	+1.8
MNK				*i* PPP	PPP	11 06 46.7	
MNK				*i* SKKS	SKKSdf	11 15 32.0	-0.3
MNK				*i* SS	SS	11 22 54.0	+11
MNK				*i* SSS	SSS	11 28 31.4	
MNK				*i* LR	LR	12 11 35.2	
LISJ	El Lisan	151.30	276	P	PKiKP	10 59 45.3	+0.6
HFS	Hagfors	151.32	347	PKPbc	PKPbc	10 59 43.0	-0.4
	comp=Z,32nm,0.6s,baz=114,slow=1.8,SNR=38						
HFS	Hagfors	151.32	347	PKIKP	PKPbc	10 59 43.0	-0.4
AQBJ	Aqaba	151.32	273	P	PKiKP	10 59 44.8	-0.1
EIL	Elat	151.39	273	P	PKiKP	10 59 45.3	+0.3
HRFI	Mount Harif	151.41	274	P	PKiKP	10 59 45.1	0.0
MSBI	Mazada	151.42	277	P	PKiKP	10 59 45.0	0.0
QRNJ	Al-Qirein	151.43	279	P	PKiKP	10 59 45.3	+0.4
GEM	Giv'at Ha'Em	151.49	281	P	PKiKP	10 59 46.0	+0.9
PRNI	Paran	151.51	274	P	PKiKP	10 59 45.3	0.0
SKAR	Skarslia	151.56	353	*e*	PKPbc	10 59 44.2	+0.1
MMAI	Mount Meron Ar	151.68	280	PKPbc	PKiKP	10 59 46.0	+0.4
	comp=Z,37nm,0.9s,baz=51,slow=6.6,SNR=26						
KZIT	Kziot	152.14	275	P	PKiKP	10 59 46.6	+0.1
KONO	Kongsberg	152.42	351	*e*	PKPbc	10 59 45.6	-0.3
AKASG	Malin Array Be	152.81	320	PKP	PKPdf	10 59 38.9	-1.0
	comp=Z,0.8nm,0.6s,baz=56,slow=1.2,SNR=4.9						
AKASG				PKPbc	PKPbc	10 59 46.6	-0.4
	comp=Z,2.2nm,0.4s,baz=55,slow=2.4,SNR=28						
AKBB	Malin Array Si	152.81	320	PKPdf	PKPbc	10 59 45.6	-1.4
AK09	Malin Array Si	152.82	320	PKPdf	PKPbc	10 59 45.2	-1.9
KIEV	Kiev	152.82	320	PKPdf	PKPbc	10 59 45.4	-1.7
AK04	Malin Array Si	152.83	320	PKPdf	PKPdf	10 59 39.6	-0.3
AK12	Malin Array Si	152.88	320	PKPdf	PKPbc	10 59 45.7	-1.5
AK06	Malin Array Si	152.88	320	PKPdf	PKPbc	10 59 45.9	-1.3
AK13	Malin Array Si	152.95	320	PKPdf	PKPbc	10 59 45.8	-1.5
BRTR	Keskin Array B	153.29	295	PKPbc	PKPbc	10 59 48.3	-0.4
	comp=Z,10nm,0.6s,baz=125,slow=3.0,SNR=37						
DBIC	Dimbokro	153.51	165	PKP	PKPdf	10 59 42.2	+0.2
	comp=Z,7.6nm,1.0s,baz=131,slow=4.7,SNR=4.6						
DBIC				PKPbc	PKiKP	10 59 50.0	+0.2
	comp=Z,16nm,0.6s,baz=190,slow=2.6,SNR=17						
CSS	Mathiatis	153.60	284	PKPdf	PKPbc	10 59 47.6	-1.8
LUBAR	Lubar, Ukraine	154.02	319	PKPdf	PKPbc	10 59 48.5	-1.2
RNPP9	Sopachiv	154.15	324	PKPdf	PKPbc	10 59 48.6	-1.3
RNPP8	Varash	154.21	324	PKPdf	PKPbc	10 59 48.5	-1.6
RNPP5	Staryi Chortor	154.26	323	PKPdf	PKPbc	10 59 48.8	-1.4
KMPD	K-Podol'skiy	155.46	318	PKPdf	PKPdf	10 59 51.4	+7.7
VYHS	Vyhne	159.50	326	*e*PKP	PKPab	11 00 27.1	+0.2
CLL	Collm	159.52	339	*i* PKP2	PKPab	11 00 25.9	-0.9
CLL				pmax	pmax		
	comp=Z,4.0nm,0.6s						
CLL	Collm	159.52	339	*i* PKPab	PKPab	11 00 25.9	-0.9
	comp=Z,4.0nm,0.6s						
BRG	Berggiesshubel	159.61	337	*e*PKPab	PKPab	11 00 27.2	0.0
BRG				Amp		11 00 27.8	
	comp=Z,4.8nm,0.7s						
MODS	Modra-Piesok	160.31	328	*e*PKP	PKPdf	10 59 51.4	+1.7
MODS				*e*		11 00 30.9	
TORD	Torodi Ar. Bea	160.64	180	PKP	PKPdf	10 59 51.4	+0.3
	comp=Z,3.8nm,1.0s,baz=252,slow=1.0,SNR=12						

TORD				PKPab	PKPab	11 00 32.9	+0.3
	comp=Z,16nm,0.8s,baz=178,slow=3.6,SNR=34						
KHC	Kasperske Hory	161.21	335	PKIKP	PKPdf	10 59 48.4	-2.3
GERES	GERESS Array B	161.41	334	PKP	PKPdf	10 59 50.8	-0.2
	comp=Z,0.8nm,0.2s,baz=51,slow=2.6,SNR=5.0						
GERES				PKPab	PKPab	11 00 34.1	-1.1
	comp=Z,2.9nm,0.7s,baz=42,slow=4.2,SNR=9.9						
ESDC	Sonseca Array	171.61	31	PKP	PKPdf	10 59 59.9	+0.8
	comp=Z,0.9nm,0.9s,baz=332,slow=2.5,SNR=7.5						
ESDC				PKPab	PKPab	11 01 20.4	-0.1
	comp=Z,1.4nm,0.8s,baz=315,slow=4.7,SNR=5.9						

IDC 04 10:40:29.4±17.0,7°.88S×129°.20E,h146^{km}±121^{km}, mb3.6/1,mbtmp4.2/3,ML4.2/2,Error ellipse: s-maj=125.5km s-min=92.8km az=162.0,Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	12.98	158	P	Pn	10 43 28.8	+0.1
	1.0nm,0.3s,baz=338,slow=13,SNR=61						
WRA				S	Sn	10 45 52.3	0.0
	2.3nm,0.4s,baz=333,slow=22,SNR=8.6						
	1.8nm,0.5s						
WRA				AML	AML		
ASAR	Alice Springs	16.33	164	P	P	10 44 11.6	+0.8
	1.8nm,0.3s,baz=341,slow=11,SNR=202						
	8.9nm,0.5s						
ASAR				AML	AML		
STKA	Stephens Creek	26.52	156	P	P	10 45 53.1	-0.4
	2.0nm,0.9s,baz=333,slow=11,SNR=4.1						
	2.0nm,0.9s						

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*IDC **04** 11:31:59.8±3.8,0°.21N×99°.32E,h0^{km},mb3.4/3, mbtmp3.4/3,Error ellipse: s-maj=218.3km s-min=30.8km az=54.0*

*DJA **04** 11:32:14.0±0.2,1°N±3°×9°9E±°,h80^{km}±4^{km},M4.0/27, mB5.8/1,mb4.4/3,MLv3.8/27,Mw(mB)5.3/1*

ISC 04 11:32:12.6±1.0,0°.53N±0°.08×99°.47E±0°.07,h100^{km},n12, σ1^{s}.20/13,mb3.4/3,Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MNSI	Mandailing Nat	0.28	24	P	Pn	11 32 27.7	+0.6
PBSI	Pulau Batu	1.32	244	P	Pn	11 32 37.2	+0.6
PBSI				AML	AML		
PPI	Padang Panjang	1.35	137	P	Pn	11 32 38.1	+1.0
PPI				AML	AML		
BKNI	Bangkinang	1.59	97	P	Pn	11 32 41.0	+1.1
BKNI				AML	AML		
PDSI	Padang	1.75	145	P	Pn	11 32 42.9	+0.9
PDSI				AML	AML		
GSI	Gunungsitoli	2.04	292	P	Pn	11 32 46.4	+0.8
GSI				AML	AML		
PSI	Prapat	2.32	347	P	Pn	11 32 49.5	+0.1
SDSI	Sungai Dareh	2.44	127	P	Pn	11 32 51.9	+0.9
TPTI		3.54	320	P	Pn	11 33 06.5	+0.9
TPTI				AML	AML		
WRA	Warramunga Arr	39.77	123	P	P	11 39 34.1	-1.9
	0.5nm,0.8s,baz=300,slow=7.8,SNR=8.4						
	0.5nm,0.8s						
ASAR	Alice Springs	41.20	128	P	P	11 39 45.9	-1.8
	0.5nm,0.7s,baz=299,slow=7.4,SNR=11						
ASAR				PcP	PcP	11 41 45.2	0.0
	0.2nm,0.6s,baz=305,slow=2.4,SNR=4.1						
	0.5nm,0.7s						
MKAR	Makanchi Array	48.46	344	P	P	11 40 46.1	+1.1
	0.1nm,0.3s,baz=160,slow=8.2,SNR=1.1						
	0.1nm,0.3s						

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*IDC **04** 11:44:21.4±1.3,0°.31N×98°.00E,h0^{km},mb4.0/12, mbtmp4.0/13,ML3.5/1,MS3.0/2,Error ellipse: s-maj=40.7km s-min=21.0km az=51.0*

*NEIC **04** 11:44:26.7±0.7,0°.3N±0°.1×97°.84E±0°.10,h29^{km}±6^{km}, mb4.2/13,Error ellipse: s-maj=18.6km s-min=9.2km az=224.0*

*DJA **04** 11:44:26.9±0.4,1°N±3°×9°8E±°,h10^{km},M4.4/24,mb4.6/2, MLv4.3/24*

ISC 04 11:44:25.9±0.7,0°.38N±0°.07×97°.83E±0°.07,h29^{km},n63, σ1^{s}.27/48,mb4.2/18,Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PBSI	Pulau Batu	0.62	134	P	Pb	11 44 36.6	-1.7
PBSI				AML	AML		
GSI	Gunungsitoli	0.95	344		Pn	11 44 43.1	-0.3
GSI	Gunungsitoli	0.95	344	P	Pn	11 44 43.0	-0.4
GSI				AML	AML		
SNSI	Sinabang, Aceh	2.52	323	P	Pb	11 45 25.7	+15
RPSI	Rantau Prapat	2.55	25	Pn	Pn	11 45 05.4	+0.1
PSI	Prapat	2.64	24	P	Pn	11 45 06.3	-0.5
PPI	Padang Panjang	2.70	108	P	Pn	11 45 07.8	+0.4
PPI				AML	AML		
PDSI	Padang	2.93	116	P	Pb	11 45 15.6	-1.8
PDSI				AML	AML		
TPTI		2.94	347	P	Pn	11 45 12.0	+1.3
BKNI	Bangkinang	3.21	91	Pn	Pn	11 45 14.3	-0.1
BKNI	Bangkinang	3.21	91	P	Pb	11 45 20.1	-2.1
SDSI	Sungai Dareh	3.83	110	P	Pn	11 45 23.1	+0.2
SDSI				S	Sn	11 46 07.5	+0.6
SDSI				AML	AML		
IPM	Ipoh	5.17	38	Pn	Pn	11 45 43.0	+1.5
KULM	Kulim	5.63	30		Pn	11 45 48.6	+0.8
MYKOM	Kota Tinggi	6.18	77	Pn	Pn	11 45 55.1	-0.2
MDSI	Maura Dua	7.97	127	P	Pn	11 46 23.6	+3.7
MDSI				AML	AML		
STKI	Sintang	13.65	91	P	Pn	11 47 41.6	+3.9
CMAR	Chiang Mai Arr	18.00	3	P	Pn	11 48 32.4	-1.7
	0.1nm,0.3s,baz=194,slow=12,SNR=6.9						
CMAR				LR	LR	11 56 19.5	
	comp=Z,20nm,21.1s,baz=125,slow=40						
	0.3nm,0.3s						
CMAR				AML	AML		
SHL	Shillong	25.69	348	P	P	11 49 54.2	+0.4
SHL				IAmb	IAmb	11 49 55.5	
	comp=Z,6.7nm,0.9s						
H08S2	Diego Garcia H	26.49	252	T	T	12 17 27.9	
	baz=72,slow=75,SNR=109						
H08S3	Diego Garcia H	26.50	252	T	T	12 17 27.7	
	baz=72,slow=75,SNR=571						
H08S1	Diego Carcia H	26.51	252	T	T	12 17 29.7	
	baz=72,slow=75,SNR=22						
H01W3	Cape Leeuwin H	38.25	158	T	T	12 31 52.2	
	baz=334						
H01W2	Cape Leeuwin H	38.26	158	T	T	12 31 50.0	
	baz=334						
H01W1	Cape Leeuwin H	38.27	158	T	T	12 31 49.2	
	baz=334						
WRA	Warramunga Arr	41.07	122	P	P	11 52 06.2	-1.1
	comp=Z,0.2nm,0.4s,baz=300,slow=8.0,SNR=1.4						
	comp=Z,0.2nm,0.4s						
WRA	Warramunga Arr	41.07	122	P	P	11 52 05.6	-1.8
WRAB	Tennant Creek	41.07	122	P	P	11 52 07.2	-0.1
WRAB				IAmb	IAmb	11 52 30.4	
	comp=Z,4.4nm,0.9s						
ASAR	Alice Springs	42.40	127	P	P	11 52 16.1	-2.1
	comp=Z,0.2nm,0.5s,baz=306,slow=8.3,SNR=1.9						
	comp=Z,0.2nm,0.5s						
JNU	Nakatsue	45.01	40	LR	LR	12 14 23.4	
	comp=Z,40nm,18.6s,baz=360,slow=40						
KSRS	Korea Array	46.17	34	P	P	11 52 47.2	-0.9
	comp=Z,1.9nm,0.7s,baz=222,slow=8.6,SNR=8.1						
	comp=Z,1.9nm,0.7s						
SONM	Songino Array	47.85	8	P	P	11 52 59.9	-1.4
	comp=Z,1.5nm,0.6s,baz=190,slow=8.3,SNR=6.5						
	comp=Z,1.5nm,0.6s						
SONM	Songino Array	47.85	8	P	P	11 53 01.8	+0.6
MK31	Makanchi Array	48.19	346	P	P	11 53 04.1	+0.4
MK31				IAmb	IAmb	11 53 36.4	
	comp=Z,2.2nm,0.9s						
MKAR	Makanchi Array	48.19	346	P	P	11 53 05.0	+1.3
	comp=Z,2.2nm,0.7s,baz=158,slow=8.3,SNR=14						
	comp=Z,2.2nm,0.7s						
MKAR	Makanchi Array	48.19	346	P	P	11 53 04.1	+0.3
KURBB	Kurchatov Arra	52.68	345	P	P	11 53 39.0	+1.4
	comp=Z,2.0nm,0.8s,baz=166,slow=7.2,SNR=12						
	comp=Z,2.0nm,0.8s						
KURK	Kurchatov	52.74	345		P	11 53 38.7	+0.6
KURK				IAmb	IAmb	11 53 40.7	
	comp=Z,2.2nm,0.8s						
USRK	Ussuriysk Ar.	53.15	30	P	P	11 53 41.6	+0.4
	comp=Z,1.9nm,0.7s,baz=190,slow=4.0,SNR=3.1						
	comp=Z,1.9nm,0.7s						
ZAA0	Zalesovo Array	54.47	351		P	11 53 51.5	+0.8
ZALV	Zalesovo Beam	54.47	351	P	P	11 53 51.8	+1.1
	comp=Z,6.3nm,0.7s,baz=180,slow=6.3,SNR=20						
	comp=Z,6.3nm,0.7s						
ZALV	Zalesovo Beam	54.47	351		P	11 53 51.3	+0.6
BVAR	Borovoye Array	57.23	341	P	P	11 54 11.2	+0.8
	comp=Z,3.7nm,0.7s,baz=138,slow=9.0,SNR=15						
	comp=Z,3.7nm,0.7s						
AB31	Akbulak array	58.53	332		P	11 54 20.2	+0.5
AB31				IAmb	IAmb	11 54 21.3	
	comp=Z,2.6nm,0.8s						
ABKAR	Akbulak array	58.53	332	P	P	11 54 20.1	+0.5
H04N2	CROZET ISLANDS	61.46	215	T	T	13 01 14.2	
	baz=56,slow=74,SNR=144						
H04N1	CROZET ISLANDS	61.47	215	T	T	13 01 10.9	
	baz=56,slow=74,SNR=150						
H04N3	CROZET ISLANDS	61.48	215	T	T	13 01 09.6	
	baz=56,slow=74,SNR=176						
H04S1	CROZET ISLANDS	61.78	214	T	T	13 01 34.4	
	baz=51,slow=74,SNR=23						
H04S3	CROZET ISLANDS	61.80	214	T	T	13 01 33.2	
	baz=51,slow=74,SNR=24						
H04S2	CROZET ISLANDS	61.80	214	T	T	13 01 33.8	
	baz=51,slow=74,SNR=16						
BR131	Keskin Array S	70.13	312	P	P	11 55 36.0	-0.1
BR131				IAmb	IAmb	11 55 39.8	
	comp=Z,3.7nm,1.2s						
BRTR	Keskin Array B	70.13	312	P	P	11 55 37.0	+0.9
	comp=Z,0.8nm,0.7s,baz=133,slow=6.9,SNR=3.8						
	comp=Z,0.8nm,0.7s						
BRTR	Keskin Array B	70.13	312	P	P	11 55 36.3	+0.3
BURAR	Bucovina Array	78.05	319	P	P	11 56 21.1	-1.1
BUR08	Bucovina Ar. S	78.07	319	P	P	11 56 21.9	-0.3
BUR08				IAmb	IAmb	11 56 25.4	
	comp=Z,1.9nm,0.8s						
FINES	FINESS Array B	81.01	332	P	P	11 56 37.9	+0.1
	comp=Z,1.2nm,0.5s,baz=90,slow=5.7,SNR=8.2						
	comp=Z,1.2nm,0.5s						
FINES	FINESS Array B	81.01	332	P	P	11 56 38.7	+0.9
ARCES	ARCESS Array B	83.52	340	P	P	11 56 51.0	+0.3
	comp=Z,1.2nm,0.7s,baz=69,slow=6.6,SNR=4.4						
	comp=Z,1.2nm,0.7s						
SNAA	Sanae	93.71	198	P	P	11 57 39.8	+0.1
D20K	Etivluk River	95.27	21	P	P	11 57 47.7	+0.9
IMAR	Indian Mountai	97.08	23	P	Pdif	11 57 56.1	+1.0
TXAR	Lajitas Array	144.02	33	PKP	PKPbc	12 03 58.6	+1.1
	comp=Z,0.5nm,0.5s,baz=327,slow=1.1,SNR=6.0						

IDC 04 11:46:52.7±1.6,8°.84S×125°.58E,h0^{km},mb3.8/1, mbtmp3.7/4,ML3.7/3,Error ellipse: s-maj=61.2km s-min=21.4km az=67.0,Timor region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	9.20	180	Pn	Pn	11 49 03.5	-3.3
	1.1nm,0.3s,baz=1.8,slow=11,SNR=41						
FITZ				Sn	Sn	11 50 33.4	-18
	3.4nm,0.3s,baz=356,slow=19,SNR=13						
	3.1nm,0.3s						
FITZ				AML	AML		
WRA	Warramunga Arr	13.91	143	Pn	Pn	11 50 06.0	-5.3
	0.4nm,0.3s,baz=321,slow=14,SNR=31						
WRA				Sn	Sn	11 52 25.5	-21
	1.0nm,0.3s,baz=321,slow=26,SNR=11						
	1.4nm,0.8s						
WRA				AML	AML		
ASAR	Alice Springs	16.76	153	Pn	Pn	11 50 43.8	-5.3
	0.1nm,0.3s,baz=320,slow=10,SNR=14						
ASAR				Sn	Sn	11 53 34.8	-21
	0.3nm,0.3s,baz=315,slow=21,SNR=7.7						
	0.4nm,0.7s						
ASAR				AML	AML		
MKAR	Makanchi Array	67.46	329	P	P	11 57 50.4	0.0
	0.5nm,0.5s,baz=114,slow=7.6,SNR=5.3						
	0.5nm,0.5s						

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*NEIC **04** 11:49:35.6±1.1,55°.46S±0°.07×27°.5W±0°.1,h10^{km}±1^{km}, mb4.9/43,Error ellipse: s-maj=17.7km s-min=3.6km az=48.0*

*GFZ **04** 11:49:35.1±0.2,55°S±4°×2°7W±°,h22^{km},M4.8/30, mb4.8/30*

*IDC **04** 11:49:40.4±2.2,55°.44S×27°.51W,h45^{km}±19^{km},mb4.4/8, mbtmp4.6/9,ML4.8/1,MS3.7/20,Error ellipse: s-maj=24.2km s-min=15.1km az=76.0*

ISC 04 11:49:34.6±0.4,55°.39S±0°.07×27°.49W±0°.07,h10^{km},n130, σ1^{s}.28/108,mb4.9/41,MS3.7/20,4C,South Sandwich Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HOPE	Hope Point	5.32	278	Pn	Pn	11 50 55.4	+1.5
HOPE				Sn	Sn	11 51 53.1	-2.0
HOPE	Hope Point	5.32	278	P	Pn	11 50 60.0	+6.0
	comp=Z,88nm,0.7s						
ORCD	Orcadas	10.57	233	Pn	Pn	11 52 06.8	+0.8
ESPZ	Base Esperanza	16.89	230	Pn	Pn	11 53 31.4	+0.7
VNA1	Neumayer--Stat	17.47	159	⇑P	P	11 53 39.4	+0.2
	comp=Z,25nm,0.8s						
VNA3	Neumayer Olymp	17.67	161	⇑P	Pn	11 53 40.6	+0.2
	comp=Z,23nm,0.8s						
VNA3	Neumayer Olymp	17.67	161	P	Pn	11 53 40.0	-0.5
	comp=Z,32nm,0.8s						
VNA2	Neumayer--Watz	17.87	158	⇑P	P	11 53 44.0	+0.5
	comp=Z,7.3nm,0.4s,baz=319,slow=12						
VNA2	Neumayer--Watz	17.87	158	P	Pn	11 53 41.9	-0.9
	comp=Z,26nm,1.0s						
SNAA	Sanae	19.42	157	P	Pn	11 54 01.9	+0.1
	comp=Z,2.7nm,0.3s,baz=314,slow=11,SNR=4.4						
	comp=Z,13nm,0.6s						
SNAA				AML	AML		
SNAA	Sanae	19.42	157	P	P	11 53 59.8	-0.8
SNAA	Sanae	19.42	157	P	P	11 53 59.8	-0.8
	comp=Z,22nm,1.0s						
PMSA	Palmer Station	20.21	228	P	Pn	11 54 10.7	-0.4
	comp=Z,4.4nm,0.8s,baz=57,slow=8.9,SNR=4.5						
PMSA				LR	LR	12 00 44.9	
	comp=Z,140nm,20.1s,baz=66,slow=33						
	comp=Z,4.4nm,0.8s						
PMSA	Palmer Station	20.21	228		P	11 54 08.4	-0.7
PMSA	Palmer Station	20.21	228	P	Pn	11 54 12.1	+1.0
	comp=Z,22nm,0.9s						
TROLL	Troll, Antarti	20.91	154	⇑P	P	11 54 17.4	+0.4
	comp=Z,662nm,0.6s						
BELA	Belgrano 2	22.72	184	P	P	11 54 35.2	-0.9
DSPA	Despedida	23.39	256	P	P	11 54 42.0	-1.2
MG02	Cerro Sombrero	24.35	259	P	P	11 54 52.5	+0.2
MG02	Cerro Sombrero	24.35	259	P	P	11 54 54.8	+2.4
GO08	Villa O'Higgin	28.22	265	P	P	11 55 27.9	+0.6
GO08				IAmb	IAmb	11 56 02.8	
	comp=Z,43nm,1.9s						
GO08	Villa O'Higgin	28.22	265	P	P	11 55 28.0	+0.7
PLCA	Paso Flores	31.72	279	LR	LR	12 09 20.4	
	comp=Z,39nm,18.5s,baz=110,slow=37						
QSPA	South Pole Qui	34.86	180	P	P	11 56 26.2	+0.6
	comp=Z,13nm,0.5s,baz=206,slow=1.8,SNR=159						
QSPA				ScP	ScP	12 02 38.4	-5.0
	comp=Z,1.0nm,0.6s,baz=224,slow=2.7,SNR=7.7						
QSPA				LR	LR	12 09 44.2	
	comp=Z,244nm,21.8s,baz=188,slow=35						
	comp=Z,13nm,0.5s						
QSPA	South Pole Qui	34.86	180	P	P	11 56 26.1	+0.5
QSPA				IAmb	IAmb	11 56 28.1	
	comp=Z,15nm,0.6s						
QSPA	South Pole Qui	34.86	180	P	P	11 56 26.4	+0.8
	comp=Z,22nm,0.6s						
SPB	Sao Paulo	35.03	327	P	P	11 56 24.9	-2.3
	comp=Z,19nm,1.4s						
BO02	Sierra Bellavi	36.07	287	P	P	11 56 35.7	-0.5
BO02				IAmb	IAmb	11 57 36.9	
	comp=Z,32nm,1.9s						
BO02	Sierra Bellavi	36.07	287	P	P	11 56 36.2	-0.1
	comp=Z,10nm,2.1s						
CPUP	Villa Florida	36.25	311	P	P	11 56 38.3	+0.6
	comp=Z,4.7nm,0.8s,baz=148,slow=9.0,SNR=8.7						
CPUP				LR	LR	12 09 39.4	
	comp=Z,84nm,21.1s,baz=84,slow=33						
	comp=Z,4.7nm,0.8s						
CPUP	Villa Florida	36.25	311	P	P	11 56 38.9	+1.2
CPUP				IAmb	IAmb	11 56 56.2	
	comp=Z,38nm,1.8s						
CPUP	Villa Florida	36.25	311	P	P	11 56 37.2	-0.4
	comp=Z,13nm,2.2s						
GO05	Hualane	36.54	285	P	P	11 56 40.1	-0.1
GO05				IAmb	IAmb	11 56 57.9	
	comp=Z,20nm,1.3s						
GO05	Hualane	36.54	285	P	P	11 56 39.8	-0.4
	comp=Z,10nm,0.7s						
MT08	Bocatoma Ro	36.67	289	P	P	11 56 42.0	+0.5
MT09	Talagante	36.95	287	P	P	11 56 44.1	+0.3
MT09				IAmb	IAmb	11 56 44.5	
	comp=Z,9.6nm,0.5s						
MT01	Popeta	37.02	287	P	P	11 56 44.7	+0.4
MT01				IAmb	IAmb	11 57 20.1	
	comp=Z,39nm,1.8s						
PEL	Peldehue	37.26	288	P	P	11 56 46.8	+0.4
PEL				IAmb	IAmb	11 56 48.6	
	comp=Z,23nm,0.8s						
PEL	Peldehue	37.26	288	P	P	11 56 47.2	+0.9
	comp=Z,44nm,1.2s						
MT02	Curacav	37.42	288	P	P	11 56 48.6	+1.0
MT02				IAmb	IAmb	11 56 56.4	
	comp=Z,31nm,1.4s						
ZON	Zonda	37.42	292	P	P	11 56 48.4	+0.6
ZON	Zonda	37.42	292	P	P	11 56 48.5	+0.8
	comp=E,14nm,0.5s						
VA03	San Esteban	37.48	289		P	11 56 50.0	+1.8
VA03				IAmb	IAmb	11 56 50.8	
	comp=Z,15nm,0.8s						
VA03	San Esteban	37.48	289	P	P	11 56 49.2	+1.0
	comp=Z,22nm,0.8s						
BSFB	Barra de Sao F	37.88	339	P	P	11 56 49.6	-2.0
CO04	Los Peladeros	38.26	289	P	P	11 56 56.0	+1.0
CO04				IAmb	IAmb	11 56 57.0	
	comp=Z,10nm,0.7s						
CO02	Combarbal	38.92	290	P	P	11 57 01.9	+1.4
CO02				IAmb	IAmb	11 57 05.5	
	comp=Z,35nm,1.3s						
CO02	Combarbal	38.92	290	P	P	11 57 02.1	+1.7
	comp=Z,26nm,1.5s						
CO03	El Pedregal	39.04	291	P	P	11 57 02.9	+1.5
CO03				IAmb	IAmb	11 57 05.6	
	comp=Z,45nm,1.6s						
CO03	El Pedregal	39.04	291	P	P	11 57 03.1	+1.7
	comp=Z,15nm,1.9s						
CO01	Juntas del Tor	39.41	292	P	P	11 57 06.9	+2.3
CO01	Juntas del Tor	39.41	292	P	P	11 57 06.3	+1.6
	comp=Z,16nm,2.1s						
AC05	El Transito	40.41	293	P	P	11 57 14.2	+1.3
	comp=Z,17nm,1.3s						
LCO	Las Campanas	40.49	293	P	P	11 57 14.6	+0.9
	comp=Z,18nm,1.1s						
MAW	Mawson	40.78	144	P	P	11 57 15.9	+0.5
	comp=Z,4.8nm,0.6s,baz=229,slow=7.7,SNR=30						
MAW				ScP	ScP	12 03 02.2	-3.2
	comp=Z,1.6nm,0.9s,baz=279,slow=5.4,SNR=4.6						
MAW				LR	LR	12 11 43.3	
	comp=Z,123nm,21.5s,baz=251,slow=32						
	comp=Z,4.8nm,0.6s						
MAW	Mawson	40.78	144		P	11 57 15.8	+0.5
MAW	Mawson	40.78	144	P	P	11 57 14.9	-0.4
	comp=Z,1.3nm,0.7s						
AQDB	Aquidauana	40.80	317		P	11 57 16.4	+0.5
AQDB				IAmb	IAmb	11 57 17.8	
	comp=Z,18nm,1.2s						
AQDB	Aquidauana	40.80	317	P	P	11 57 16.2	+0.3
	comp=Z,14nm,1.1s						
AC04	Llanos de Chal	41.33	293	P	P	11 57 20.8	+0.4
AC04				IAmb	IAmb	11 57 22.8	
	comp=Z,25nm,0.8s						
AC04	Llanos de Chal	41.33	293	P	P	11 57 21.4	+1.0
	comp=Z,35nm,1.1s						
GO03	Copiapo	41.38	294	P	P	11 57 21.6	+0.8
	comp=Z,18nm,1.2s						
AC02	Maricunga	41.43	296	P	P	11 57 22.6	+0.8
	comp=Z,7.4nm,1.2s						
AC02				pP	pwP	11 57 28.7	-3.4
BDFB	Brasilia	42.70	330	LR	LR	12 12 55.3	
	comp=Z,176nm,20.5s,baz=161,slow=33						
SHEL	Horse Pasture	42.76	32	P	P	11 57 26.4	-5.7
	comp=Z,84nm,1.4s						
PB06	IPOC Station P	45.07	299	P	P	11 57 51.0	+0.2
PB05	IPOC Station P	45.26	298	P	P	11 57 52.2	-0.1
	comp=Z,16nm,1.7s						
PB09	IPOC Station P	45.67	300	P	P	11 57 57.2	+1.7
PB09	IPOC Station P	45.67	300	P	P	11 57 56.7	+1.1
	comp=Z,21nm,1.6s						
PB03	IPOC Station P	45.71	299	P	P	11 57 56.4	+0.5
	comp=Z,14nm,2.8s						
BOSA	Boshof	45.98	77	LR	LR	12 15 19.8	
	comp=Z,46nm,18.5s,baz=208,slow=34						
PB07	IPOC Station P	46.05	299	P	P	11 57 58.6	+0.1
PTLB	Pontes e Lacer	46.70	316		P	11 58 04.5	+1.0
PTLB				IAmb	IAmb	11 58 05.4	
	comp=Z,13nm,0.8s						
SBA	Scott Base	46.73	184		P	11 58 04.0	+0.9
SBA	Scott Base	46.73	184	P	P	11 58 03.4	+0.4
	comp=Z,6.9nm,0.8s						
SIV	San Ignacio	47.00	313	LR	LR	12 16 41.9	
	comp=Z,92nm,22.0s,baz=145,slow=34						
PB08	IPOC Station P	47.03	301	P	P	11 58 07.8	+1.3
PB08				IAmb	IAmb	11 58 09.7	
	comp=Z,15nm,1.2s						
PB08	IPOC Station P	47.03	301	P	P	11 58 07.4	+0.9
	comp=Z,15nm,1.0s						
VNDA	Vanda	47.23	183	P	P	11 58 07.5	+0.6
	comp=Z,9.0nm,0.6s,baz=186,slow=6.2,SNR=100						
VNDA				ScP	ScP	12 03 27.8	-3.9
	comp=Z,0.5nm,0.8s,baz=143,slow=5.4,SNR=2.8						
VNDA				LR	LR	12 16 26.4	
	comp=Z,41nm,21.7s,baz=162,slow=34						
	comp=Z,9.0nm,0.6s						
VNDA	Vanda	47.23	183	P	P	11 58 07.6	+0.6
VNDA				IAmb	IAmb	11 58 09.2	
	comp=Z,9.2nm,0.7s						
VNDA	Vanda	47.23	183	P	P	11 58 07.8	+0.9
	comp=Z,16nm,0.7s						
H10S2	ASCENSION HYDR	47.42	17	T	T	12 49 37.7	
	baz=31,slow=74,SNR=17						
H10S3	ASCENSION HYDR	47.42	17	T	T	12 49 39.4	
	baz=189,slow=74,SNR=8.2						
GO01	Chusmiza	47.45	302	P	P	11 58 09.6	-0.3
	comp=Z,25nm,1.1s						
PB11	IPOC Station P	47.60	301	P	P	11 58 11.3	+0.6
	comp=Z,36nm,1.1s						
PSGCX	Pisagua	47.97	301	P	P	11 58 14.4	+1.0
PSGCX	Pisagua	47.97	301	P	P	11 58 12.9	-0.5
	comp=Z,20nm,1.4s						
H04S2	CROZET ISLANDS	47.98	115	T	T	12 50 26.1	
	baz=227,slow=74,SNR=3.5						
H04S3	CROZET ISLANDS	47.98	115	T	T	12 50 23.9	
	baz=227,slow=74,SNR=5.5						
H04S1	CROZET ISLANDS	47.99	115	T	T	12 50 26.1	
	baz=227,slow=74,SNR=5.7						
H10N1	ASCENSION HYDR	48.54	17	T	T	12 51 05.1	
	baz=189						
H10N3	ASCENSION HYDR	48.54	17	T	T	12 51 03.4	
	baz=189						
H10N2	ASCENSION HYDR	48.55	17	T	T	12 51 02.8	
	baz=189						
PB16	IPOC Station P	48.74	302	P	P	11 58 20.7	+0.7
	comp=Z,5.5nm,1.2s						
VILB	Vilhena	49.39	316	IAmb	IAmb	11 58 25.7	
	comp=Z,14nm,0.8s						
TSUM	Tsumeb	49.51	62	P	P	11 58 26.5	+1.1
TSUM				IAmb	IAmb	11 59 47.2	
	comp=Z,13nm,1.6s						
TSUM	Tsumeb	49.51	62	P	P	11 58 20.9	-4.5
	comp=Z,5.0nm,2.1s						
CLDB	Colider	49.66	322	P	P	11 58 26.5	+0.2
	comp=Z,14nm,0.7s						
LPAZ	La Paz	49.86	305	P	P	11 58 30.2	+1.6
	comp=Z,9.0nm,0.6s,baz=142,slow=5.0,SNR=40						
LPAZ				LR	LR	12 19 12.6	
	comp=Z,33nm,21.9s,baz=156,slow=36						
	comp=Z,9.0nm,0.6s						
LPAZ	La Paz	49.86	305		P	11 58 29.4	+0.9
LPAZ				IAmb	IAmb	11 58 31.1	
	comp=Z,10nm,0.8s						
LPAZ	La Paz	49.86	305	P	P	11 58 29.0	+0.4
	comp=Z,20nm,1.4s						
CASY	Casey	54.59	161	P	P	11 59 02.9	+0.5
BOAV	Boa Vista	63.65	323		P	12 00 05.9	+0.1
BOAV				IAmb	IAmb	12 00 06.4	
	comp=Z,5.5nm,0.6s						
MDP	Montagnes des	63.77	332	LR	LR	12 25 37.4	
	comp=Z,99nm,20.5s,baz=136,slow=34						
DBIC	Dimbokro	64.64	25	P	P	12 00 13.3	+1.1
	comp=Z,10.0nm,0.9s,baz=207,slow=9.1,SNR=4.4						
DBIC				LR	LR	12 21 22.5	
	comp=Z,88nm,21.7s,baz=172,slow=29						

	comp=Z,10.0nm,0.9s						
DBIC	Dimbokro	64.64	25	P	P	12 00 13.2	+0.9
ROSC	El Rosal	71.33	310	LR	LR	12 33 22.2	
	comp=Z,37nm,20.2s,baz=125,slow=37						
TORD	Torodi Ar. Bea	72.56	30	P	P	12 01 02.9	+1.2
	comp=Z,4.5nm,0.6s,baz=202,slow=6.8,SNR=39						
	comp=Z,4.5nm,0.6s						
SDV	Santo Domingo	73.42	315	LR	LR	12 32 33.2	
	comp=Z,97nm,21.8s,baz=178,slow=35						
SJG	San Juan	80.21	323	LR	LR	12 36 31.4	
	comp=Z,41nm,21.8s,baz=103,slow=35						
JTS	Las Juntas de	81.01	303	LR	LR	12 40 14.5	
	comp=Z,11nm,19.9s,baz=75,slow=37						
CRIN	San Cristobal	84.11	302	P	P	12 02 06.4	+0.8
MTO3	Montecristo	86.69	301	P	P	12 02 18.8	+0.1
MTO3				IAmb	IAmb	12 03 34.8	
	comp=Z,18nm,1.7s						
MDT	Midelt	90.02	19	LR	LR	12 38 42.1	
	comp=Z,58nm,18.4s,baz=228,slow=33						
PPT2	Papeete2	92.43	234	*e*LR	LR	12 32 27.9	
	comp=Z,51nm,22.2s						
STKA	Stephens Creek	92.58	171	LR	LR	12 43 19.4	
	comp=Z,113nm,18.1s,baz=204,slow=35						
KEST	Kesra	96.08	29	LR	LR	12 43 52.3	
	comp=Z,46nm,18.1s,baz=339,slow=34						
ESDC	Sonseca Array	96.80	18	LR	LR	12 41 13.0	
	comp=Z,62nm,20.7s,baz=148,slow=32						
ARCES	ARCESS Array B	130.39	22	PKP	PKPdf	12 08 43.8	+0.2
	comp=Z,4.7nm,1.1s,baz=197,slow=1.6,SNR=4.4						
PZH	PanZhiHua	133.46	107	PKP	PKiKP	12 08 53.4	+1.3
BVAR	Borovoye Array	134.57	57	PKP	PKPdf	12 08 52.8	+0.9
	comp=Z,0.5nm,0.4s,baz=233,slow=1.4,SNR=3.0						
YKA	Yellowknife Ar	135.56	319	PKP	PKPdf	12 08 53.4	0.0
	comp=Z,0.4nm,0.6s,baz=130,slow=2.1,SNR=5.1						
M29M	Somme Creek	145.29	310	PKPbc	PKPab	12 09 12.0	+0.9
I30M	Mount Dempster	145.34	315		PKPab	12 09 11.6	+0.3
L29M	L29M	145.37	312	PKPbc	PKPab	12 09 12.2	+0.9
I29M	Ogilvie Camp,	146.16	315	PKPdf	PKPab	12 09 14.2	0.0
NJ2	Nanjing	146.83	121	*e*P	PKPdf	12 09 15.2	+0.6
NJ2				pmax	pmax		
	comp=Z,41nm,0.5s						
HHC	Hu-ho-hao-te	149.54	101	*e*P	PKPdf	12 09 19.4	+0.5
ILAR	Eielson Array	149.54	313	PKPbc	PKPbc	12 09 22.9	+0.4
	comp=Z,6.1nm,0.7s,baz=130,slow=2.6,SNR=73						
SONM	Songino Array	150.85	86	PKPbc	PKPbc	12 09 26.8	+0.3
	comp=Z,2.0nm,0.6s,baz=223,slow=3.3,SNR=11						

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*SJA **04** 13:23:20.2±0.6, 33°.37S×71°.32W, h52^{km}±4^{km}, ML3.7, MW3.7*

*GUC **04** 13:23:20.8±0.6, 33°.37S×71°.34W, h56^{km}±1^{km}, ML3.8*

*NEIC **04** 13:23:21.6±0.8, 33°.37S±0°.03×71°.32W±0°.04, h47^{km}±8^{km}, ML3.9/46, ML3.8(GUC), Error ellipse: s-maj=4.5km s-min=3.5km az=69.0*

ISC 04 13:23:21.9±1.2**, 33°.38S**±0°.02×**71°.35W**±0°.03**, h42**^{km}±7^{km}**, n77, σ0^s.80**/118**, 6C-18D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MT02	Curacav	0.21	57	*e*P	Pn	13 23 29.1	-0.3
MT02	Curacav	0.21	57⇓	*e*P	Pn	13 23 29.3	-0.2
MT02				*e*S	Sn	13 23 35.4	+0.5
MT02	Curacav	0.21	57		Pn	13 23 29.2	-0.3
MT02				Sn	Sn	13 23 34.8	0.0
VA01	Torpederas	0.43	325	Pn	Pn	13 23 31.6	-0.3
VA01				Sn	Sn	13 23 39.5	+0.7
VA01				IAML		13 23 41.3	
	comp=N,10µm,0.1s						
VA01				IAML		13 23 42.0	
	comp=E,8µm,0.1s						
MT01	Popeta	0.49	170	*e*P	Pn	13 23 32.2	-0.5
MT01				IAML		13 23 43.4	
	comp=Z,3µm,0.2s						
MT01	Popeta	0.49	170⇓	*e*P	Pn	13 23 32.3	-0.3
MT01				*e*S	Sn	13 23 40.4	+0.2
MT01				IAML		13 23 40.8	
	comp=N,5µm,0.3s						
MT01	Popeta	0.49	170	Sn	Sn	13 23 40.5	+0.2
ROCH	El Roble	0.49	35⇑	*e*P	Pn	13 23 32.4	-0.5
ROCH				*e*S	Sn	13 23 40.9	+0.3
ROCH				IAML		13 23 42.2	
	comp=N,9µm,0.3s						
MT09	Talagante	0.50	143⇓	*e*P	Pn	13 23 32.8	-0.1
MT09				*e*S	Sn	13 23 41.2	+0.6
MT09				IAML		13 23 42.1	
	comp=E,13µm,0.4s						
MT09	Talagante	0.50	143	Pn	Pn	13 23 33.0	+0.1
MT09				Sn	Sn	13 23 40.9	+0.3
MT09				IAML		13 23 43.4	
	comp=N,10µm,0.2s						
MT05	Renca	0.51	92	*e*P	Pn	13 23 32.6	-0.4
MT05				*e*S	Sn	13 23 41.4	+0.6
MT05				IAML		13 23 41.6	
	comp=Z,5µm,0.3s						
MT05	Renca	0.51	92⇑	*e*P	Pn	13 23 32.6	-0.4
MT05				*e*S	Sn	13 23 41.1	+0.4
MT05				IAML		13 23 42.1	
	comp=E,14µm,0.4s						
MT05	Renca	0.51	92	Pn	Pn	13 23 32.6	-0.4
MT05				Sn	Sn	13 23 41.0	+0.3
MT05				IAML		13 23 45.1	
	comp=N,8µm,0.3s						
PEL	Peldehue	0.60	67	*e*P	Pn	13 23 33.6	-0.6
PEL				*e*S	Sn	13 23 43.3	+0.4
PEL				IAML		13 23 43.8	
	comp=Z,3µm,0.2s						
PEL	Peldehue	0.60	67⇑	*e*P	Pn	13 23 33.3	-0.8
PEL				*e*S	Sn	13 23 42.8	0.0
PEL				IAML		13 23 43.6	
	comp=N,7µm,0.7s						
PEL	Peldehue	0.60	67	Pn	Pn	13 23 33.5	-0.6
PEL				Sn	Sn	13 23 42.4	-0.4
PEL				IAML		13 23 43.5	
	comp=N,5µm,0.5s						
PEL				IAML		13 23 44.2	
	comp=E,3µm,0.4s						
MT14	Cerro Cal¡n	0.68	92⇓	*e*P	Pn	13 23 34.7	-0.5
MT14				*e*S	Sn	13 23 44.6	-0.1
MT14				IAML		13 23 49.0	
	comp=N,6µm,0.5s						
MT10	Hacienda Santa	0.69	82⇓	*e*P	Pn	13 23 34.9	-0.5
MT10				*e*S	Sn	13 23 44.9	-0.1
MT10				IAML		13 23 46.2	
	comp=N,17µm,0.4s						
MT16	CCHEN	0.69	94⇓	*e*P	Pn	13 23 34.8	-0.6
MT16				*e*S	Sn	13 23 44.7	-0.4
MT16				IAML		13 23 45.5	
	comp=E,5µm,0.2s						
MT16	CCHEN	0.69	94	Pn	Pn	13 23 34.8	-0.6
MT16				Sn	Sn	13 23 44.6	-0.4
MT16				IAML		13 23 45.3	
	comp=E,5µm,0.3s						
MT16				IAML		13 23 45.6	
	comp=N,3µm,0.2s						
MT03	Universidad Ad	0.71	100	*e*P	Pn	13 23 35.0	-0.6
MT03				*e*S	Sn	13 23 45.7	+0.2
MT03				IAML		13 23 46.1	
	comp=Z,5µm,0.1s						
MT03	Universidad Ad	0.71	100⇓	*e*P	Pn	13 23 35.1	-0.6
MT03				*e*S	Sn	13 23 45.4	-0.1
MT03	Universidad Ad	0.71	100	Pn	Pn	13 23 34.9	-0.6
MT03				Sn	Sn	13 23 45.2	-0.3
MT15	Las Vizcachas	0.74	108⇓	*e*P	Pn	13 23 35.3	-0.7
MT15				*e*S	Sn	13 23 45.9	-0.3
MT15				IAML		13 23 46.8	
	comp=E,14µm,0.3s						
MT12	Pirque	0.76	118⇓	*e*P	Pn	13 23 35.7	-0.5
MT12				*e*S	Sn	13 23 46.5	-0.1
MT12				IAML		13 23 47.1	
	comp=E,8µm,0.1s						
BO04	La Punta	0.87	135⇓	*e*P	Pn	13 23 37.2	-0.6
BO04				*e*S	Sn	13 23 49.2	0.0
BO04				IAML		13 23 50.8	
	comp=N,4µm,0.2s						
BO04	La Punta	0.87	135	Pn	Pn	13 23 37.1	-0.6
BO04				Sn	Sn	13 23 49.4	+0.1
BO04				IAML		13 23 51.0	
	comp=N,3µm,0.2s						
VA03	San Esteban	0.91	48	*e*P	Pn	13 23 37.6	-0.6
VA03				*e*S	Sn	13 23 50.2	0.0
VA03				IAML		13 23 51.7	
	comp=Z,4µm,0.3s						
VA03	San Esteban	0.91	48⇑	*e*P	Pn	13 23 37.7	-0.6
VA03				*e*S	Sn	13 23 50.1	-0.2
VA03	San Esteban	0.91	48	Pn	Pn	13 23 37.7	-0.6
VA03				IAML		13 23 52.1	
	comp=N,6µm,0.1s						
MT13	San Alfonso	0.96	113	*e*P	Pn	13 23 38.7	-0.4
MT13				*e*S	Sn	13 23 51.9	+0.3
MT13				IAML		13 23 52.4	
	comp=Z,6µm,0.1s						
MT13	San Alfonso	0.96	113⇓	*e*P	Pn	13 23 38.6	-0.4
MT13				*e*S	Sn	13 23 51.7	+0.1
MT13	San Alfonso	0.96	113	Pn	Pn	13 23 38.5	-0.6
MT04	Ro Olivares	1.01	92	*e*P	Pn	13 23 39.0	-0.9
MT04				*e*S	Sn	13 23 53.1	0.0
MT04				IAML		13 23 53.9	
	comp=Z,2µm,0.2s						
MT04	Ro Olivares	1.01	92⇓	*e*P	Pn	13 23 39.0	-0.9
MT04				*e*S	Sn	13 23 52.8	-0.3
MT04				IAML		13 23 53.7	
	comp=N,3µm,0.2s						
BO01	Tunca	1.04	168	*e*P	Pn	13 23 39.3	-0.7
BO01				*e*S	Sn	13 23 53.9	+0.6
BO01	Tunca	1.04	168⇓	*e*P	Pn	13 23 39.5	-0.5
BO01				*e*S	Sn	13 23 53.4	0.0
BO01	Tunca	1.04	168	Pn	Pn	13 23 39.5	-0.5
LMEL	Las Melosas	1.06	116⇓	*e*P	Pn	13 23 40.2	-0.3
LMEL				*e*S	Sn	13 23 54.5	+0.2
MT08	Bocatoma Ro	1.12	94	*e*P	Pn	13 23 40.9	-0.4
MT08				*e*S	Sn	13 23 55.6	0.0
MT08	Bocatoma Ro	1.12	94⇓	*e*P	Pn	13 23 40.7	-0.6
MT08				*e*S	Sn	13 23 55.5	-0.1
MT08	Bocatoma Ro	1.12	94	Pn	Pn	13 23 40.7	-0.6
BO03	Pichilemu	1.23	204⇑	*e*P	Pn	13 23 41.6	-1.0
CO04	Los Peladeros	1.37	13⇓	*e*P	Pn	13 23 43.9	-0.9
CO04				*e*S	Sn	13 24 01.6	-0.2
CO04				IAML		13 24 04.3	
	comp=E,2µm,0.4s						
CO04	Los Peladeros	1.37	13	Pn	Pn	13 23 43.9	-0.9
CO04				IAML		13 24 03.2	
	comp=E,2µm,0.4s						
CO04				IAML		13 24 05.6	
	comp=N,2µm,0.3s						
BO02	Sierra Bellavi	1.49	162	*e*P	Pn	13 23 45.9	-0.4
BO02				*e*S	Sn	13 23 54.6	-10
BO02				IAML		13 24 09.3	
	comp=Z,1µm,0.3s						
BO02	Sierra Bellavi	1.49	162⇓	*e*P	Pn	13 23 45.8	-0.4
BO02				*e*S	Sn	13 24 05.0	+0.5
BO02				IAML		13 24 10.3	
	comp=E,2µm,0.3s						
BO02	Sierra Bellavi	1.49	162	Pn	Pn	13 23 46.1	-0.1
BO02				IAML		13 24 06.6	
	comp=N,2µm,0.3s						
BO02				IAML		13 24 10.3	
	comp=E,2µm,0.4s						
ARCO	CERRO ARCO	2.10	76	*e*P	Pn	13 23 44.2	-10
ARCO				*e*S	Sn	13 24 03.5	-16
AAGR	Agrelo	2.13	83	*e*P	Pn	13 23 57.4	+2.3
CO02	Combarbal	2.19	8	*e*P	Pn	13 23 55.2	-0.7
CO02				*e*S	Sn	13 24 22.7	+0.9
CO02				IAML		13 24 28.8	
	comp=Z,654nm,0.1s						
CO02	Combarbal	2.19	8⇓	*e*P	Pn	13 23 55.1	-0.8
CO02				*e*S	Sn	13 24 21.8	0.0
CO02	Combarbal	2.19	8	Pn	Pn	13 23 55.4	-0.5
RTLS	Leoncito	2.34	48	*e*P	Pn	13 24 00.1	+1.9
RTLS				IAML		13 24 34.4	
	comp=Z,406nm,0.4s						
AVIZ	Vizcacheras	2.37	93	*e*P	Pn	13 23 56.4	-2.0
ML02	Panimavida	2.38	181	*e*P	Pn	13 23 44.3	-14
ML02				*e*S	Sn	13 24 27.9	+1.5
ML02				IAML		13 24 44.5	
	comp=Z,218nm,0.6s						
ML02	Panimavida	2.38	181	*e*P	Pn	13 23 58.2	-0.3
ML02				*e*S	Sn	13 24 27.4	+1.0
ML02				IAML		13 24 35.6	
	comp=E,760nm,0.7s						
ML02	Panimavida	2.38	181	Pn	Pn	13 23 58.6	+0.1
ML02				IAML		13 24 35.5	
	comp=E,763nm,0.5s						
ML02				IAML		13 24 45.0	
	comp=N,584nm,0.6s						
CO03	El Pedregal	2.59	13	*e*P	Pn	13 24 01.3	-0.1
CO03				*e*S	Sn	13 24 32.5	+0.8
CO03				IAML		13 24 42.3	
	comp=Z,224nm,0.2s						
CO06	Fray Jorge	2.71	355	Pn	Pn	13 24 01.4	-1.5
CO06				IAML		13 24 45.9	
	comp=E,341nm,0.2s						
CO06				IAML		13 24 46.0	
	comp=N,257nm,0.2s						
ZON	Zonda	2.90	52	*e*P	Pn	13 24 05.3	-0.4
ZON				*e*S	Sn	13 24 49.4	+10
SJA	San Juan	2.99	53	*e*P	Pn	13 24 16.4	+9.5
SJA				*e*S	Sn	13 24 23.7	-18
SJA				IAML		13 24 44.1	
	comp=Z,109nm,0.1s						
CFA	Coronel Fontan	3.17	57	*e*P	Pn	13 24 10.4	+1.1
RTLL	Cerro Villicun	3.17	51	*e*P	Pn	13 24 08.1	-1.4
RTLL				*e*S	Sn	13 24 49.6	+3.5
RTLL				IAML		13 24 58.5	
	comp=Z,140nm,0.3s						
GO04	Tololo Observa	3.23	8	*e*P	Pn	13 24 10.0	-0.3
GO04				*e*S	Sn	13 24 56.5	+8.9
GO04				IAML		13 24 57.9	
	comp=Z,349nm,0.2s						
GO04	Tololo Observa	3.23	8	Pn	Pn	13 24 10.0	-0.3
BI02	San Fabin de	3.28	179⇑	*e*P	Pn	13 24 10.9	+0.1
BI02				*e*S	Sn	13 24 48.4	-0.2
BI02				IAML		13 25 00.8	
	comp=E,113nm,0.6s						
BI02	San Fabin de	3.28	179	Pn	Pn	13 24 11.0	+0.1
CO01	Juntas del Tor	3.55	18	*e*P	Pn	13 24 12.4	-2.4
CO01				IAML		13 25 17.9	
	comp=Z,68nm,0.5s						
CO01	Juntas del Tor	3.55	18	Pn	Pn	13 24 15.5	+0.7
LCO	Las Campanas	4.39	7	*e*P	Pn	13 24 25.6	-0.7
LCO				IAML		13 25 27.8	
	comp=Z,92nm,0.2s						
LCO	Las Campanas	4.39	7	Pn	Pn	13 24 25.5	-0.7
LCO				IAML		13 25 32.6	
	comp=Z,133nm,0.5s						
LCO				IAML		13 25 32.7	
	comp=Z,129nm,0.3s						
AC05	El Transito	4.62	12	Pn	Pn	13 24 28.9	-0.4
AC05				IAML		13 25 42.3	
	comp=N,133nm,0.8s						
AC05				IAML		13 25 43.8	
	comp=E,115nm,0.5s						
AC04	Llanos de Chal	5.16	3	Pn	Pn	13 24 35.3	-1.4
AC04				IAML		13 25 54.2	
	comp=N,73nm,0.6s						
AC04				IAML		13 25 56.5	
	comp=E,97nm,0.7s						
GO06	Curarrehue	6.20	181	Pn	Pn	13 24 50.7	-0.2
AC01	Pan de Azucar	7.23	5	Pn	Pn	13 25 02.4	-2.7
PLCA	Paso Flores	7.37	175	Pn	Pn	13 25 06.5	-0.5

IDC 04 13:28:14.4±1.8**, 29°.09S**×**75°.14E, h0**^{km}**, mb3.5**/4**, mbtmp3.5**/4**, MS3.5**/2**, Error ellipse: s-maj=50.7km s-min=39.1km az=100.0, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H08S2	Diego Garcia H	21.47	353	T	T	13 55 22.3	
	baz=174,slow=76,SNR=21						
H08S1	Diego Carcia H	21.47	353	T	T	13 55 20.8	
	baz=174,slow=76,SNR=5.0						
H08S3	Diego Garcia H	21.49	353	T	T	13 55 21.4	
	baz=174,slow=76,SNR=34						
H04N2	CROZET ISLANDS	25.00	221	T	T	13 59 29.1	
	baz=55,slow=74,SNR=340						
H04N1	CROZET ISLANDS	25.01	221	T	T	13 59 29.6	
	baz=55,slow=74,SNR=351						
H04N3	CROZET ISLANDS	25.02	221	T	T	13 59 25.4	
	baz=55,slow=74,SNR=322						
H04S1	CROZET ISLANDS	25.34	219	T	T	13 59 51.4	
	baz=52,slow=76,SNR=19						
H04S3	CROZET ISLANDS	25.35	219	T	T	13 59 54.9	
	baz=52,slow=76,SNR=26						
H04S2	CROZET ISLANDS	25.35	219	T	T	13 59 56.0	
	baz=52,slow=76,SNR=22						
H01W2	Cape Leeuwin H	33.43	110	T	T	14 10 11.2	
	baz=268,slow=74,SNR=12						
H01W3	Cape Leeuwin H	33.43	110	T	T	14 10 14.4	
	baz=268,slow=74,SNR=9.6						
H01W1	Cape Leeuwin H	33.44	110	T	T	14 10 12.9	
	baz=268,slow=74,SNR=11						
BOSA	Boshof	43.42	258	LR	LR	13 51 16.0	
	comp=Z,59nm,19.3s,baz=76,slow=32						
SUR	Sutherland	46.40	252	LR	LR	13 51 49.5	
	comp=Z,42nm,18.5s,baz=154,slow=30						
ASAR	Alice Springs	52.47	99	P	P	13 37 28.9	-0.5
	0.2nm,0.6s,baz=246,slow=5.8,SNR=5.7						
	0.2nm,0.6s						
WRA	Warramunga Arr	54.16	95	P	P	13 37 42.3	+0.5
	0.6nm,1.0s,baz=250,slow=8.7,SNR=2.8						
	0.6nm,1.0s						
QSPA	South Pole Qui	61.05	180	P	P	13 38 29.9	0.0
	1.6nm,1.0s,baz=299,slow=1.5,SNR=5.2						
	1.6nm,1.0s						
MKAR	Makanchi Array	75.80	5	P	P	13 40 02.0	0.0
	0.3nm,0.7s,baz=205,slow=6.4,SNR=1.7						
	0.3nm,0.7s						

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*IDC **04** 13:30:42.6±2.1, 59°.79N×152°.38W, h75^{km}±22^{km}, mb3.2/1, mbtmp3.7/6, Error ellipse: s-maj=36.3km s-min=21.0km az=113.0*

*NEIC **04** 13:30:43.0±0.7, 59°.80N±0°.04×152°.25W±0°.05, h73^{km}±5^{km}, ML3.6/174, ML3.4(AEIC), Error ellipse: s-maj=5.2km s-min=3.6km az=193.0*

*AEIC **04** 13:30:44.0±0.8, 59°.81N±0°.04×152°.21W±0°.06, h70^{km}±5^{km}, Error ellipse: s-maj=6.6km s-min=3.7km az=199.0*

ISC 04 13:30:42.5±0.8**, 59°.78N**±0°.03×**152°.21W**±0°.03**, h78**^{km}±6^{km}**, n222, σ0^s.80**/199**, Southern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HOM	Homer	0.31	112		Pn	13 30 54.9	+0.3
HOM				Sn	Sn	13 31 04.0	+0.5
O20K	Slope Mountain	0.37	326		Pn	13 30 55.0	-0.2
O20K					Sn	13 31 04.4	-0.1
ILS	Iliamna Low So	0.47	293		Pn	13 30 55.6	-0.3
ILS					Sn	13 31 05.2	-0.7
IVE	Iliamna Volcan	0.47	301		Pn	13 30 55.5	-0.4
IVE					Sn	13 31 05.0	-0.9
ILIM	Iliamna	0.49	309		Pn	13 30 55.7	-0.3
ILIM					Sn	13 31 05.3	-0.7
ILSW	Iliamna Southw	0.52	294		Pn	13 30 55.8	-0.5
ILSW	Iliamna Southw	0.52	294		Sn	13 31 05.7	-0.9
ILSW	Iliamna Southw	0.52	294	IAML		13 31 06.0	
	comp=E,4µm,0.7s						
ILSW				IAML		13 31 06.5	
	comp=N,3µm,0.5s						
P19K	Oil Pt	0.54	257		Pn	13 30 56.4	0.0
P19K					Sn	13 31 06.9	+0.2
CNPM	China Poot	0.55	117		Pn	13 30 56.9	+0.3
CNPM				Sn	Sn	13 31 07.2	+0.2
BRLK	Bradley Lake	0.67	90		Pn	13 30 57.7	0.0
AUL	Augustine Lava	0.74	238		Pn	13 30 59.0	+0.6
BRSE	Bradley Lake S	0.74	92		Sn	13 31 10.8	+0.5
AUF	Augustine Flow	0.75	239		Pn	13 30 58.9	+0.4
AUF					Sn	13 31 11.0	+0.6
AUJK	Augustine Jueg	0.75	236		Sn	13 31 11.2	+0.8
REF	Redoubt East F	0.76	341		Pn	13 30 58.5	-0.3
REF					Sn	13 31 10.1	-0.8
AUI	Augustine Isla	0.76	235		Sn	13 31 11.3	+0.6
RDT	Redoubt	0.81	353		Sn	13 31 10.9	-0.8
DFR	Drift River	0.85	344		Pn	13 30 59.5	-0.4
DFR					Sn	13 31 12.0	-0.7
RDJH	Redoubt Jeurge	0.87	340		Sn	13 31 12.4	-0.7
CAPN	Captain Cook N	1.12	27		Pn	13 31 04.7	+1.8
Q19K	Cape Douglas,	1.12	222		Pn	13 31 03.4	+0.4
Q19K				IAML		13 31 23.4	
	comp=E,2µm,0.7s						
Q19K				IAML		13 31 31.4	
	comp=N,1µm,0.6s						
Q19K	Cape Douglas,	1.12	222		Sn	13 31 18.9	+0.5
O19K	Port Alsworth	1.14	292		Pn	13 31 02.9	-0.2
O19K				Sn	Sn	13 31 18.0	-0.6
SLKM	Skilak Lake	1.23	53		Pn	13 31 04.3	-0.1
SLKM				IAML		13 31 24.7	
	comp=N,1µm,0.2s						
SEW	Seward	1.43	75		Pn	13 31 06.4	-0.3
SEW				IAML		13 31 31.1	
	comp=N,587nm,0.7s						
SEW				IAML		13 31 32.2	
	comp=E,838nm,0.7s						
O22K	Cooper Landing	1.43	59		Pn	13 31 07.2	+0.4
SPWE	Spurr West	1.51	354		Pn	13 31 08.3	+0.3
N19K	Bonanza Creek	1.54	314		Sn	13 31 26.7	-1.1
N19K	Bonanza Creek	1.54	314		Pn	13 31 08.1	-0.3
N19K	Bonanza Creek	1.54	314	IAML		13 31 27.5	
	comp=N,692nm,0.4s						
N19K				IAML		13 31 27.5	
	comp=E,539nm,0.4s						
P18K	Big Mountain,	1.59	257		Pn	13 31 08.4	-0.5
P18K					Sn	13 31 27.7	-1.2
SPNN	North Nagishla	1.61	352		Pn	13 31 09.9	+0.5
KAPH	Katmai Pasha	1.62	224		Pn	13 31 10.1	+0.7
STLK	Strandline Lak	1.74	6		Pn	13 31 11.7	+0.8
STLK				IAML		13 31 34.7	
	comp=E,470nm,0.6s						
STLK				IAML		13 31 35.3	
	comp=N,341nm,0.4s						
RC01	Rabbit Creek A	1.80	42		Pn	13 31 12.0	+0.3
RC01				IAML		13 31 41.8	
	comp=E,722nm,0.4s						
Q18K	Katmai Hardscr	1.83	233		Pn	13 31 12.4	+0.2
KAWH	Katmai	1.94	225		Pn	13 31 14.0	+0.4
KDAK	Kodiak Island	2.01	186	P	Pn	13 31 14.6	+0.2
	comp=E,22nm,0.3s,baz=42,slow=4.8,SNR=552						
KDAK				S	Sn	13 31 35.2	-3.5
	comp=E,55nm,0.4s,baz=334,slow=16,SNR=7.0						
KDAK	Kodiak Island	2.01	186		Pn	13 31 14.7	+0.2
N18K	Kilae Creek	2.05	298		Pn	13 31 14.9	-0.1
KAKN	Katmai Knife C	2.09	226		Pn	13 31 16.1	+0.4
M20K	Styx River	2.16	348	Pn	Pn	13 31 17.4	+0.8
KABU	Katmai Buttres	2.19	228		Pn	13 31 17.8	+0.8
PWL	Port Wells	2.21	59		Pn	13 31 17.1	-0.1
PWL				IAML		13 31 56.7	
	comp=E,544nm,0.5s						
M22K	Willow	2.23	26		Pn	13 31 18.3	+0.9
SKT	Skwentna	2.24	8		Pn	13 31 18.1	+0.6
SKT				IAML		13 31 48.6	
	comp=N,206nm,0.2s						
SKT				IAML		13 31 50.0	
	comp=E,298nm,0.3s						
P17K	Kvichak River	2.24	257		Pn	13 31 17.6	+0.2
ACHA	Angle Creek He	2.25	227		Pn	13 31 18.7	+0.9
ANCK	Angle Creek	2.32	229		Pn	13 31 19.3	+0.5
CAHL	Cahill	2.36	224		Pn	13 31 20.3	+1.1
PMR	Palmer	2.37	38	P	Pn	13 31 19.1	-0.1
PMR	Palmer	2.37	38		Pn	13 31 19.2	0.0
PMR				IAML		13 31 54.4	
	comp=N,434nm,0.3s						
PMR				IAML		13 31 54.9	
	comp=E,491nm,0.4s						
M19K	Big River Lodg	2.39	334		Pn	13 31 19.9	+0.4
P23K	Montague Islan	2.43	83		Pn	13 31 20.3	+0.2
P23K				IAML		13 32 06.4	
	comp=N,403nm,0.6s						
P23K				IAML		13 32 11.3	
	comp=E,232nm,0.7s						
Q17K	Contact Creek	2.43	233		Pn	13 31 20.6	+0.4
KNK	Knik Glacier	2.47	47		Pn	13 31 20.8	+0.1
M18K	Stony River	2.48	316		Pn	13 31 20.6	-0.1
Q16K	King Salmon	2.54	246		Pn	13 31 22.3	+0.8
GHO	Glory Hole Cre	2.57	37		Pn	13 31 22.1	+0.1
N17K	Nushagak Hills	2.60	289		Pn	13 31 22.4	0.0
N17K				IAML		13 31 52.1	
	comp=N,161nm,0.5s						
N17K				IAML		13 31 53.0	
	comp=E,141nm,0.5s						
OHAK	Old Harbor	2.62	193	P	Pn	13 31 22.3	-0.4
OHAK	Old Harbor	2.62	193		Pn	13 31 22.4	-0.3
L19K	White Mountain	2.74	333		Pn	13 31 24.5	+0.3
L19K				IAML		13 31 56.7	
	comp=N,156nm,0.9s						
GLI	Glacier Island	2.77	64		Pn	13 31 23.6	-1.1
GLI	Glacier Island	2.77	64	IAML		13 31 57.2	
	comp=E,245nm,0.5s						
GLI				IAML		13 32 15.9	
	comp=N,280nm,0.5s						
SML	Sawmill	2.79	41	IAML		13 32 07.2	
	comp=N,247nm,0.7s						
SML				IAML		13 32 14.3	

	comp=E,201nm,0.7s						
HIN	**Hinchinbrook I**	**2.92**	**75**		**Pn**	**13 31 26.2**	**-0.6**
HIN				IAML		13 32 23.8	
	comp=N,145nm,0.9s						
HIN				IAML		13 32 29.9	
	comp=E,138nm,1.2s						
PLK2	**Peulik 2**	**2.94**	**229**		**Pn**	**13 31 27.4**	**+0.4**
M23K	**Glacier View**	**2.99**	**45**		**Pn**	**13 31 27.4**	**-0.2**
O16K	**Kokwok River B**	**2.99**	**269**		**Pn**	**13 31 27.9**	**+0.3**
O16K				IAML		13 32 17.8	
	comp=N,154nm,0.6s						
FID	**Port Fidalgo**	**3.02**	**69**		**Pn**	**13 31 26.6**	**-1.5**
FID				IAML		13 32 00.5	
	comp=E,222nm,0.4s						
PLK1	**Peulik 1**	**3.03**	**231**		**Pn**	**13 31 29.2**	**+1.1**
P16K	**Nushagak River**	**3.05**	**258**		**Pn**	**13 31 29.2**	**+0.8**
P16K	**Nushagak River**	**3.05**	**258**	IAML		13 32 20.6	
	comp=E,244nm,0.8s						
P16K				IAML		13 32 24.0	
	comp=N,231nm,0.6s						
M17K	**Holitna River**	**3.05**	**305**	IAML		13 32 03.7	
	comp=N,284nm,0.6s						
R17L	**Mt. Peulik Vol**	**3.05**	**227**		**Pn**	**13 31 30.1**	**+1.6**
SCM	**Sheep Creek Mo**	**3.16**	**47**	IAML		13 32 09.1	
	comp=E,217nm,0.5s						
SCM				IAML		13 32 24.1	
	comp=N,167nm,0.8s						
PLBL	**Peulik Blue Cr**	**3.18**	**231**		**Pn**	**13 31 31.6**	**+1.3**
L18K	**Granite Mounta**	**3.28**	**320**		**Pn**	**13 31 31.7**	**+0.1**
EYAK	**Cordova Ski Ar**	**3.32**	**74**	P	**Pn**	**13 31 31.3**	**-0.8**
EYAK	**Cordova Ski Ar**	**3.32**	**74**		**Pn**	**13 31 31.2**	**-0.8**
SII	**Sitkinak Islan**	**3.39**	**199**	P	**Pn**	**13 31 33.4**	**+0.2**
SII	**Sitkinak Islan**	**3.39**	**199**		**Pn**	**13 31 33.4**	**+0.2**
SII				IAML		13 32 27.6	
	comp=E,131nm,0.6s						
SII				IAML		13 32 30.6	
	comp=N,113nm,0.9s						
DIV	**Divide**	**3.46**	**64**	IAML		13 32 14.7	
	comp=N,128nm,0.3s						
DIV				IAML		13 32 14.7	
	comp=E,76nm,0.4s						
WAT7	**Susitna Watana**	**3.47**	**26**		**Pn**	**13 31 35.0**	**+0.8**
WAT1	**Susitna Watana**	**3.54**	**28**		**Pn**	**13 31 35.8**	**+0.7**
KLU	**Klutina**	**3.54**	**58**	IAML		13 32 16.2	
	comp=E,171nm,0.4s						
M16K	**Timber Creek**	**3.58**	**293**	IAML		13 32 46.3	
	comp=E,73nm,1.0s						
CAST	**Castle Rocks**	**3.66**	**1**		**Pn**	**13 31 37.1**	**+0.4**
K20K	**Telida**	**3.70**	**347**		**Pn**	**13 31 37.9**	**+0.5**
TRF	**Thorofare Moun**	**3.80**	**13**		**Pn**	**13 31 39.0**	**+0.3**
TRF	**Thorofare Moun**	**3.80**	**13**	IAML		13 32 29.8	
	comp=E,96nm,0.6s						
TRF				IAML		13 32 31.4	
	comp=N,89nm,0.5s						
RAGM	**Ragged Mountai**	**3.82**	**78**	IAML		13 32 23.3	
	comp=E,135nm,0.3s						
PS12	**TAPS Pump St12**	**3.87**	**61**		**Pn**	**13 31 39.4**	**-0.2**
KAIM	**Kayak Island**	**3.93**	**84**		**Pn**	**13 31 40.3**	**-0.1**
KAIM	**Kayak Island**	**3.93**	**84**	IAML		13 32 32.4	
	comp=E,66nm,1.2s						
KAIM				IAML		13 32 33.1	
	comp=N,53nm,1.2s						
O15K	**Ungalikthiuk R**	**3.93**	**264**		**Pn**	**13 31 41.2**	**+0.8**
O15K				IAML		13 32 54.8	
	comp=N,52nm,0.7s						
BMRM	**Bremner River**	**3.96**	**69**		**Pn**	**13 31 39.9**	**-1.0**
BMRM	**Bremner River**	**3.96**	**69**	IAML		13 32 29.2	
	comp=N,71nm,0.8s						
BMRM				IAML		13 32 43.9	
	comp=E,80nm,0.6s						
RND	**Reindeer**	**3.98**	**22**		**Pn**	**13 31 41.7**	**+0.6**
RND	**Reindeer**	**3.98**	**22**	IAML		13 32 27.9	
	comp=E,87nm,0.3s						
RND				IAML		13 32 49.4	
	comp=N,49nm,1.1s						
N15K	**Kwethluk River**	**3.98**	**279**		**Pn**	**13 31 41.9**	**+0.8**
N15K				IAML		13 32 27.4	
	comp=N,79nm,0.5s						
DHY	**Denali Highway**	**4.04**	**33**		**Pn**	**13 31 42.8**	**+0.7**
DHY	**Denali Highway**	**4.04**	**33**	IAML		13 32 32.4	
	comp=N,81nm,0.3s						
N25K	**Chitina, Valde**	**4.17**	**61**		**Pn**	**13 31 43.3**	**-0.4**
K17K	**Iditarod**	**4.17**	**318**		**Pn**	**13 31 43.8**	**+0.2**
K17K	**Iditarod**	**4.17**	**318**	IAML		13 32 31.4	
	comp=N,50nm,0.7s						
K17K				IAML		13 32 45.5	
	comp=E,67nm,0.8s						
MCK	**McKinley**	**4.26**	**20**		**Pn**	**13 31 45.5**	**+0.5**
MCK	**McKinley**	**4.26**	**20**	IAML		13 32 37.2	
	comp=E,55nm,0.3s						
MCK				IAML		13 33 12.9	
	comp=N,53nm,1.1s						
BERG	**Berg Lake**	**4.30**	**78**		**Pn**	**13 31 46.1**	**+0.6**
HARP	**HAARP**	**4.32**	**49**		**Pn**	**13 31 46.2**	**+0.6**
CHIR	**Chirikof Islan**	**4.37**	**206**	P	**Pn**	**13 31 46.3**	**0.0**
CHIR	**Chirikof Islan**	**4.37**	**206**		**Pn**	**13 31 46.1**	**-0.3**
CHIR	**Chirikof Islan**	**4.37**	**206**	IAML		13 32 48.7	
	comp=E,54nm,1.2s						
CHIR				IAML		13 32 51.8	
	comp=N,37nm,1.0s						
GLB	**Gilahina Butte**	**4.46**	**64**	IAML		13 32 37.8	
	comp=E,35nm,0.4s						
GLB				IAML		13 32 39.0	
	comp=N,56nm,0.5s						
J20K	**Nowinta River**	**4.51**	**349**		**Pn**	**13 31 48.7**	**+0.5**
J19K	**Poorman**	**4.53**	**341**		**Pn**	**13 31 49.0**	**+0.4**
WAZA	**Wrangell Mount**	**4.56**	**56**		**Pn**	**13 31 49.6**	**+0.5**
VRDI	**Verde Repeater**	**4.57**	**68**		**Pn**	**13 31 48.4**	**-0.8**
VRDI	**Verde Repeater**	**4.57**	**68**	IAML		13 32 41.2	
	comp=N,30nm,0.7s						
BWN	**Browne**	**4.60**	**15**	IAML		13 32 57.6	
	comp=N,62nm,1.2s						
BWN				IAML		13 33 10.2	
	comp=E,84nm,0.8s						
CRQM	**Cirque**	**4.62**	**74**		**Pn**	**13 31 49.2**	**-0.8**
CRQM	**Cirque**	**4.62**	**74**	IAML		13 32 42.4	
	comp=E,59nm,0.3s						
CRQM				IAML		13 32 46.8	
	comp=N,51nm,0.8s						
O14K	**Tigyukauivet M**	**4.64**	**267**	IAML		13 33 14.2	
	comp=N,50nm,0.8s						
TGL	**Tana Glacier**	**4.77**	**74**		**Pn**	**13 31 51.2**	**-0.8**
TGL	**Tana Glacier**	**4.77**	**74**	IAML		13 32 45.5	
	comp=E,45nm,0.4s						
N14K	**Kuskokwak Cree**	**4.78**	**276**	IAML		13 33 19.9	
	comp=N,58nm,1.1s						
J17K	**VABM Dome**	**4.89**	**321**		**Pn**	**13 31 53.5**	**0.0**
BARK	**Barkley Ridge**	**4.91**	**78**		**Pn**	**13 31 53.8**	**0.0**
L15K	**Ungalak Mounta**	**4.94**	**297**		**Pn**	**13 31 54.3**	**+0.2**
M14K	**Bethel**	**4.96**	**286**	IAML		13 33 28.3	
	comp=N,24nm,1.0s						
M14K				IAML		13 33 35.1	
	comp=E,29nm,1.1s						
PTPK	**Patty Peak**	**5.02**	**69**		**Pn**	**13 31 55.4**	**-0.1**
KIAG	**Kiagna River**	**5.02**	**73**		**Pn**	**13 31 55.2**	**-0.3**
BALM	**Baldy**	**5.05**	**71**		**Pn**	**13 31 55.1**	**-0.6**
K24K	**Donnelly Dome**	**5.06**	**34**		**Pn**	**13 31 57.5**	**+1.6**
WRH	**Wood River Hil**	**5.09**	**21**		**Pn**	**13 31 56.4**	**+0.2**
WRH	**Wood River Hil**	**5.09**	**21**	IAML		13 32 54.4	
	comp=N,27nm,0.3s						
I20K	**Naaghedeneel**	**5.15**	**349**		**Pn**	**13 31 58.0**	**+1.0**
I20K	**Naaghedeneel**	**5.15**	**349**	IAML		13 34 10.0	
	comp=E,54nm,1.1s						
MENT	**Mentasta**	**5.17**	**49**	P	**Pn**	**13 31 57.7**	**+0.4**
MENT	**Mentasta**	**5.17**	**49**	S	**Sn**	**13 32 57.4**	**+1.9**
MENT	**Mentasta**	**5.17**	**49**	IAML		13 33 24.3	
	comp=E,57nm,0.5s						
MENT				IAML		13 33 29.6	
	comp=N,57nm,0.6s						
M26K	**Nabesna, AK**	**5.19**	**56**		**Pn**	**13 31 57.7**	**+0.1**
M26K	**Nabesna, AK**	**5.19**	**56**	IAML		13 32 55.9	
	comp=N,29nm,0.6s						
HDA	**Harding Lake**	**5.26**	**26**		**Pn**	**13 31 59.2**	**+0.7**
YAH	**Yahtse**	**5.27**	**79**		**Pn**	**13 31 58.9**	**0.0**
YAH	**Yahtse**	**5.27**	**79**	IAML		13 32 59.2	
	comp=E,32nm,0.7s						
YAH				IAML		13 32 59.6	
	comp=N,40nm,0.6s						
RIDG	**Independent Ri**	**5.29**	**38**		**Pn**	**13 31 59.7**	**+0.7**
GRNC	**Granite Creek**	**5.29**	**75**		**Pn**	**13 31 59.5**	**+0.3**
GRNC	**Granite Creek**	**5.29**	**75**	IAML		13 33 01.8	
	comp=E,20nm,0.7s						
GRNC				IAML		13 33 02.1	
	comp=N,34nm,0.6s						
CCB	**Clear Creek Bu**	**5.30**	**21**	IAML		13 32 59.5	
	comp=E,32nm,0.3s						
CCB				IAML		13 33 00.7	
	comp=N,26nm,0.3s						
MLY	**Manley**	**5.32**	**7**		**Pn**	**13 32 00.0**	**+0.7**
J16K	**Anvik River**	**5.34**	**315**		**Pn**	**13 31 59.7**	**+0.1**
L26K	**Log Cabin Wild**	**5.36**	**49**	IAML		13 33 29.8	
	comp=E,38nm,0.5s						
L26K				IAML		13 33 36.8	
	comp=N,40nm,0.4s						
BARN	**Barnard Glacie**	**5.38**	**72**		**Pn**	**13 32 00.0**	**-0.3**
BARN	**Barnard Glacie**	**5.38**	**72**	IAML		13 33 01.2	
	comp=N,20nm,0.5s						
BARN				IAML		13 33 02.9	
	comp=E,24nm,0.4s						
L14K	**Kuka Creek**	**5.40**	**291**	IAML		13 33 34.4	
	comp=N,39nm,1.0s						
L14K				IAML		13 33 45.1	
	comp=E,32nm,1.0s						
I21K	**Tanana**	**5.42**	**1**		**Pn**	**13 32 01.8**	**+1.0**
COLA	**College**	**5.50**	**20**	P	**Pn**	**13 32 02.1**	**+0.3**
COLA	**College**	**5.50**	**20**		**Pn**	**13 32 02.0**	**+0.3**
MDM	**Murphy Dome**	**5.52**	**18**		**Pn**	**13 32 02.7**	**+0.6**
I23K	**Minto, Yukon-K**	**5.55**	**13**		**Pn**	**13 32 03.0**	**+0.6**
CHX	**Chaix Hills**	**5.59**	**82**		**Pn**	**13 32 04.4**	**+1.3**
ILAR	**Eielson Array**	**5.59**	**24**	P	**Pn**	**13 32 03.5**	**+0.4**
	comp=E,2.8nm,0.3s,baz=199,slow=13,SNR=112						
ILAR				S	**Sn**	**13 33 01.6**	**-4.2**
	comp=E,1.9nm,0.3s,baz=195,slow=18,SNR=6.4						
M13K	**Dall Lake**	**5.61**	**281**		**Pn**	**13 32 04.2**	**+0.9**
M27K	**Edge Creek, AK**	**5.64**	**58**		**Pn**	**13 32 04.0**	**+0.2**
LOGN	**Logan Glacier**	**5.67**	**74**		**Pn**	**13 32 04.6**	**+0.4**
SCRK	**Sand Creek**	**5.73**	**39**		**Pn**	**13 32 05.1**	**+0.1**
SAMH	**Samovar Hills**	**5.75**	**82**		**Pn**	**13 32 05.7**	**+0.4**
POKR	**Poker Plat Res**	**5.80**	**20**		**Pn**	**13 32 05.8**	**-0.1**
H21K	**Melozitna Rive**	**5.91**	**358**		**Pn**	**13 32 08.1**	**+0.7**
BC01	**Beaver Creek A**	**5.97**	**52**		**Pn**	**13 32 08.1**	**-0.2**
L27K	**Beaver Creek,**	**5.97**	**52**		**Pn**	**13 32 08.2**	**-0.1**
BC03		**5.99**	**52**		**Pn**	**13 32 08.3**	**-0.1**
PCA	**Pinnacle**	**6.02**	**82**		**Pn**	**13 32 09.3**	**+0.4**
O28M	**Mount Upton**	**6.06**	**75**		**Pn**	**13 32 10.5**	**+0.8**
YUK3	**Moose Creek**	**6.09**	**66**		**Pn**	**13 32 10.0**	**-0.1**
H18K	**Honhosa River**	**6.10**	**335**		**Pn**	**13 32 11.1**	**+1.1**
H22K	**Ishtalitna Cre**	**6.15**	**3**		**Pn**	**13 32 11.4**	**+0.7**
H23K	**Yukon River**	**6.19**	**10**		**Pn**	**13 32 11.6**	**+0.4**
IM01	**Indian Mountai**	**6.28**	**354**		**Pn**	**13 32 12.8**	**+0.3**
SDPT	**Sand Point**	**6.28**	**229**	P	**Pn**	**13 32 15.8**	**+3.3**
H17K	**Granite Mounta**	**6.30**	**329**		**Pn**	**13 32 13.2**	**+0.6**
YUK8	**Steele Glacier**	**6.33**	**71**		**Pn**	**13 32 14.1**	**+0.8**
CHNA	**Chernabura Isl**	**6.37**	**222**	P	**Pn**	**13 32 15.3**	**+1.7**
H24K	**Noodor Dome**	**6.40**	**16**		**Pn**	**13 32 14.7**	**+0.7**
PNL	**Peninsula**	**6.48**	**85**	P	**Pn**	**13 32 15.4**	**+0.2**
PRP	**Porcupine Dome**	**6.53**	**25**		**Pn**	**13 32 16.5**	**+0.5**
G19K	**Purcell Mounta**	**6.76**	**343**		**Pn**	**13 32 18.9**	**-0.1**
G21K	**Allakaket**	**6.79**	**356**		**Pn**	**13 32 19.4**	**0.0**
PN7A	**Pavlof North-7**	**6.83**	**235**		**Pn**	**13 32 21.3**	**+1.4**
I26K	**Coal Creek Min**	**6.95**	**33**		**Pn**	**13 32 21.4**	**0.0**
YUK6	**Outpost Mounta**	**6.97**	**74**		**Pn**	**13 32 22.6**	**+0.6**
G23K	**Bananza Creek**	**7.03**	**7**		**Pn**	**13 32 22.5**	**-0.2**
YUK7	**Dusty Glacier**	**7.06**	**78**		**Pn**	**13 32 24.2**	**+0.9**
H25L	**Birch Creek**	**7.13**	**21**		**Pn**	**13 32 24.3**	**+0.4**
G16K	**Koyuk River**	**7.32**	**325**		**Pn**	**13 32 26.7**	**+0.1**
P29M	**Windy Craggy**	**7.32**	**85**		**Pn**	**13 32 27.2**	**+0.5**
HYT	**Haines Junctio**	**7.38**	**75**		**Pn**	**13 32 27.8**	**+0.3**
F20K	**Avaraart Lake**	**7.47**	**349**		**Pn**	**13 32 29.0**	**+0.4**
F19K	**Shaleruckik Mo**	**7.51**	**343**		**Pn**	**13 32 29.3**	**+0.2**
L29M	**L29M**	**7.53**	**58**		**Pn**	**13 32 29.7**	**+0.2**
G25K	**Bearman Lake**	**7.53**	**19**		**Pn**	**13 32 29.8**	**+0.3**
I27K	**Kandik River**	**7.60**	**35**		**Pn**	**13 32 30.5**	**+0.1**
N30M	**Aishikik Lake**	**7.62**	**71**		**Pn**	**13 32 30.1**	**-0.7**
I28M	**Miner Creek**	**8.01**	**40**		**Pn**	**13 32 35.8**	**-0.4**
H27K	**Steamboat Moun**	**8.09**	**32**		**Pn**	**13 32 36.4**	**-0.7**
N31M	**Braeburn, Yuko**	**8.25**	**71**		**Pn**	**13 32 39.4**	**+0.1**
BM05	**Burnt Mountain**	**8.39**	**21**		**Pn**	**13 32 40.7**	**-0.5**
SIT	**Sitka**	**9.27**	**100**	P	**Pn**	**13 32 52.7**	**-0.4**
JIS	**Juneau Island**	**9.31**	**92**	P	**Pn**	**13 32 54.5**	**+0.8**
P32M	**Atlin**	**9.35**	**83**		**Pn**	**13 32 53.7**	**-0.7**
P33M	**Teslin, Yukon**	**9.72**	**79**		**Pn**	**13 32 58.9**	**-0.5**
CRAG	**Craig**	**11.09**	**105**	P	**Pn**	**13 33 16.6**	**-1.4**
DLBC	**Dease Lake**	**11.47**	**87**	P	**Pn**	**13 33 24.9**	**+1.8**
	comp=E,2.3nm,0.5s,baz=250,slow=10.0,SNR=11						
DLBC				S	Sn	13 35 20.1	-9.2
	comp=E,0.4nm,0.5s,baz=308,slow=6.9,SNR=1.3						
INK	**Inuvik**	**11.78**	**36**	P	**Pn**	**13 33 26.0**	**-1.2**
	comp=E,1.3nm,0.7s,baz=148,slow=25,SNR=2.0						
ATKA	**Atka Island**	**14.40**	**248**	P	**P**	**13 34 05.8**	**-1.1**
YKA	**Yellowknife Ar**	**18.18**	**65**	P	**Pn**	**13 34 50.1**	**+0.9**
	comp=E,1.7nm,0.6s,baz=279,slow=9.8,SNR=13						
MKAR	**Makanchi Array**	**64.86**	**322**	P	**P**	**13 41 12.9**	**0.0**
	comp=E,0.3nm,0.6s,baz=13,slow=7.0,SNR=2.2						
	comp=E,0.3nm,0.6s						
BOSA	**Boshof**	**148.79**	**4**	PKPbc	**PKPbc**	**13 50 19.9**	**-0.7**
	comp=E,1.8nm,0.6s,baz=26,slow=6.4,SNR=3.8						
QSPA	**South Pole Qui**	**149.57**	**180**	PKPbc	**PKPbc**	**13 50 21.8**	**+0.5**
	comp=E,0.8nm,0.8s,baz=56,slow=3.1,SNR=1.7						

NORS ***04*** *13:46:46.5, 43°.33N×44°.91E, h9km, MPVA3.5*

DRS ***04*** *13:46:49.2, 43°.16N×44°.79E, h33km*

MOS 04 13:46:46.4, 43°.32N×44°.90E, h7km, MPVA3.7, 1C, Western Caucasus

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMGR	**Komgaron**	**0.26**	**185**	*e*Pg	Pb	13 46 53.3	-0.3
KMGR				*e*Sg	Sb	13 46 59.2	+0.9
KMGR	**Komgaron**	**0.26**	**185**	*e*PG	Pb	13 46 53.3	-0.2
KMGR				*e*S	Sb	13 46 59.2	+0.9
BTKR	**Batakoyurt**	**0.27**	**281**	*e*PG	Pb	13 46 53.0	-0.6
BTKR				*e*S	Sb	13 46 59.0	+0.6
VLKR	**Vladikavkaz**	**0.32**	**211**	*e*PG	Pb	13 46 54.2	-0.3
VLKR				*e*S	Sb	13 47 00.1	+0.2
TRKR	**Terskaya**	**0.42**	**343**	*e*Pg	Pb	13 46 56.6	+0.4
TRKR				*e*Sg	Sb	13 47 04.8	+2.0
TRKR	**Terskaya**	**0.42**	**343**	*e*PG	Pb	13 46 56.6	+0.4
TRKR				*e*S	Sb	13 47 04.8	+2.0
ARNR	**Ardon**	**0.47**	**253**	*e*PG	Pn	13 46 58.5	-1.1
ARNR				*e*S	Sb	13 47 07.4	+3.1
STDR	**Stavd-Durt**	**0.61**	**275**	*e*Pg	Pn	13 47 00.7	-0.8
STDR				*e*Sg	Sb	13 47 10.0	+1.7
STDR	**Stavd-Durt**	**0.61**	**275**	*e*PG	Pn	13 47 00.7	-0.9
STDR				*e*S	Sb	13 47 10.0	+1.7
KORR	**Kora**	**0.65**	**249**	*e*Pg	Pn	13 47 02.2	+0.1
KORR				*e*Sg	Sn	13 47 12.2	-0.5
KORR	**Kora**	**0.65**	**249**	*e*PG	Pn	13 47 02.2	0.0
KORR				*e*S	Sn	13 47 12.2	-0.5
LACR	**Lac**	**0.66**	**222**	*e*Pg	Pb	13 47 00.7	+0.3
LACR				*e*Sg	Sn	13 47 13.4	+0.3
LACR	**Lac**	**0.66**	**222**	*e*PG	Pb	13 47 00.7	+0.3
LACR				*e*S	Sn	13 47 13.4	+0.3
GROC	**Groznyy**	**0.67**	**100**	*e*Pg	Pn	13 47 02.2	-0.1
GROC				*e*Sg	Sn	13 47 14.9	+1.9
GROC	**Groznyy**	**0.67**	**100**	*e*PG	Pn	13 47 02.2	-0.1
GROC				*e*S	Sn	13 47 14.9	+1.9
LSNR	**Lesken**	**0.79**	**267**	*e*PG	Pn	13 47 03.5	-0.5
LSNR				*e*S	Sn	13 47 18.0	+2.0
NCK	**Nalchik**	**0.97**	**281**	*i* PG	Pb	13 47 05.9	+0.4
NCK				pmax	pmax		
	comp=Z,126nm,0.3s						
DIGR	**Digorskoe uzhe**	**1.05**	**247**	*e*Pg	Pb	13 47 07.2	+0.1
DIGR				*e*Sg	Sn	13 47 22.7	-0.2
DIGR	**Digorskoe uzhe**	**1.05**	**247**	*e*PG	Pb	13 47 07.2	+0.1
DIGR				*e*S	Sn	13 47 22.7	-0.2
BTLR	**Botlikh**	**1.17**	**124**	*e*Pg	Pn	13 47 10.0	+0.7
BTLR				*e*Sg	Sn	13 47 26.9	+1.3
BTLR	**Botlikh**	**1.17**	**124**	*e*PG	Pn	13 47 10.0	+0.7
BTLR				*e*S	Sn	13 47 26.9	+1.3
DLMR	**Dylym**	**1.29**	**101**	*e*Pg	Pg	13 47 12.2	+1.1
DLMR				*e*Sg	Sn	13 47 30.6	+2.2
DLMR	**Dylym**	**1.29**	**101**	*e*PG	Pg	13 47 12.2	+1.1
DLMR				*e*S	Sn	13 47 30.6	+2.2
DBC	**Dubki**	**1.44**	**101**	*e*PG	Pg	13 47 14.9	+0.8
DBC				*e*S	Sg	13 47 36.7	+3.9
KBZ	**Khabaz**	**1.51**	**286**	*i* PG	Pn	13 47 12.8	-1.1
UNCR	**Uncukul**	**1.52**	**113**	*e*PG	Pg	13 47 15.6	+0.1
UNCR				*e*S	Sg	13 47 37.0	+1.9
HNZR	**Khunzah**	**1.54**	**119**	*e*PG	Pg	13 47 16.5	+0.7
HNZR				*e*S	Sg	13 47 38.1	+2.3
XNZR	**Khunzakh**	**1.54**	**120**	*e*Pg	Pg	13 47 16.5	+0.6
XNZR				*e*Sg	Sg	13 47 38.1	+2.3
KRNR	**Karanay**	**1.55**	**108**	*e*Pg	Pg	13 47 16.1	-0.1
KRNR				*e*Sg	Sg	13 47 37.9	+1.7
KRNR	**Karanay**	**1.55**	**108**	*e*PG	Pg	13 47 16.1	0.0
KRNR				*e*S	Sg	13 47 37.9	+1.7
NEUR	**Neytrino**	**1.61**	**269**	*e*Pg	Pb	13 47 16.1	-0.4
NEUR				*e*Sg	Sg	13 47 37.8	-0.3
NEUR	**Neytrino**	**1.61**	**269**	*e*PG	Pb	13 47 16.1	-0.4
NEUR				*e*S	Sg	13 47 37.8	-0.2
BUJR	**Buynaksk**	**1.69**	**106**	*e*Pg	Pg	13 47 19.2	+0.4
BUJR				*e*Sg	Sg	13 47 43.5	+2.7
BUJR	**Buynaksk**	**1.69**	**106**	*e*PN	Pg	13 47 19.2	+0.4
BUJR				*e*S	Sg	13 47 43.5	+2.7
ARKR	**Arakani**	**1.70**	**114**	*e*PN	Pg	13 47 18.8	-0.1
ARKR				*e*S	Sg	13 47 42.4	+1.5
KIV	**Kislovodsk**	**1.73**	**292**	*i* PN	Pn	13 47 15.4	-1.6
KIV				pmax	pmax		
	comp=Z,18nm,1.2s						
GNBR	**Gunib**	**1.78**	**121**	*e*Pg	Pg	13 47 20.1	-0.4
GNBR				*e*Sg	Sg	13 47 44.8	+1.2
GNBR	**Gunib**	**1.78**	**121**	*e*PN	Pg	13 47 20.4	-0.1
GNBR				*e*S	Sg	13 47 44.8	+1.2
MAK	**Makhachkala**	**1.94**	**100**	⇑*i*PN	Pn	13 47 20.8	+1.0
MAK				pmax	pmax		
	comp=Z,212nm,0.2s						
KMKR	**Kumukh**	**2.01**	**126**	*e*Pg	Pb	13 47 23.2	-0.2
KMKR				*e*Sg	Sg	13 47 50.6	-0.4
KMKR	**Kumukh**	**2.01**	**126**	*e*PN	Pb	13 47 23.2	-0.2
SGKR	**Sergokala**	**2.20**	**112**	*e*Pg	Pb	13 47 26.4	-0.1
SGKR				*e*Sg	Sg	13 47 56.1	-1.0
SGKR	**Sergokala**	**2.20**	**112**	*e*PN	Pb	13 47 26.4	-0.2
SGKR				*e*S	Sg	13 47 56.1	-1.0
URKR	**Urkarakh**	**2.32**	**119**	*i* Pn	Pb	13 47 27.4	-1.3
URKR				*e*Sn	Sb	13 47 58.2	+0.6
URKR	**Urkarakh**	**2.32**	**119**	*i* PN	Pb	13 47 27.4	-1.3
URKR				*e*S	Sb	13 47 58.2	+0.6
AKT	**Akhty**	**2.79**	**130**	*e*PN	Pn	13 47 27.3	-4.3
AKT				*e*		13 48 10.9	
AKT				pmax	pmax		
	comp=Z,6.0nm,0.2s						
AKT				smax	smax		
	comp=E,15nm,0.4s						
OBN	**Obninsk**	**12.99**	**338**	*e*P	Pn	13 49 49.2	-2.0
OBN				pmax	pmax		
	comp=Z,25nm,0.4s						

IDC ***04*** *14:05:28.4±1.8, 0°.39N×96°.65E, h0km, mb3.8/7, mbtmp3.8/8, ML3.8/1, MS2.9/1, Error ellipse: s-maj=75.0km s-min=20.8km az=59.0*

NEIC ***04*** *14:05:30.6±1.0, 0°.52N±0°.06×96°.7E±0°.1, h10km±2km, mb4.2/10, Error ellipse: s-maj=21.2km s-min=7.7km az=247.0*

DJA ***04*** *14:05:32.7±0.6, 1°N±3°×9°7E±°, h44km±44km, M4.4/18, mB4.7/1, mb4.5/3, MLv4.4/18, Mw(mB)3.9/1*

ISC 04 14:05:31.9±0.9**, 0°.56N**±0°.07×**96°.71E**±0°.08**, h20km, n46, σ1ˢ.15**/39**, mb4.1**/13**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GSI	**Gunungsitoli**	**1.14**	**50**		**Pn**	**14 05 52.4**	**-0.3**
GSI	**Gunungsitoli**	**1.14**	**50**	P	**Pn**	**14 05 52.5**	**-0.3**
GSI				S	**Sb**	**14 06 07.2**	**-0.2**
GSI				AML	AML		
PBSI	**Pulau Batu**	**1.69**	**111**	P	**Pn**	**14 05 59.3**	**-1.0**
PBSI				S	**Sn**	**14 06 18.7**	**-2.6**
PBSI				AML	AML		
TPTI		**2.73**	**10**	P	**Pn**	**14 06 13.1**	**-1.4**
TPTI				S	**Sn**	**14 06 45.2**	**-1.7**
RPSI	**Rantau Prapat**	**3.07**	**46**		**Pn**	**14 06 19.6**	**+0.3**
PSI	**Prapat**	**3.14**	**45**	P	**Pn**	**14 06 19.0**	**-1.4**
PPI	**Padang Panjang**	**3.83**	**105**	P	**Pb**	**14 06 41.0**	**+2.2**
BSI	**Banda Aceh**	**5.10**	**344**	P	**Pn**	**14 06 45.3**	**-2.0**
	0.3nm26nm,0.7s						
BSI				AML	AML		
IPM	**Ipoh**	**5.81**	**48**		**Pn**	**14 06 57.3**	**+0.3**
IPM	**Ipoh**	**5.81**	**48**	P	**Pn**	**14 06 57.2**	**+0.2**
	0.1nm567nm31nm,0.9s						
IPM				AML	AML		
KULM	**Kulim**	**6.13**	**40**		**Pn**	**14 07 01.0**	**-0.4**
KULM	**Kulim**	**6.13**	**40**	P	**Pn**	**14 07 00.4**	**-1.0**
KULM				AML	AML		
MYKOM	**Kota Tinggi**	**7.25**	**80**	Pn	**Pn**	**14 07 16.2**	**-0.5**
CM31	**Chiang Mai Arr**	**17.92**	**7**	P	**P**	**14 09 40.8**	**+0.1**
CMAR	**Chiang Mai Arr**	**17.92**	**7**	P	**P**	**14 09 41.3**	**+0.7**
	0.1nm,0.3s,baz=201,slow=11,SNR=8.9						
CMAR				LR	LR	14 17 04.1	
	comp=Z,39nm,18.4s,baz=100,slow=38						
	1.2nm,0.7s						
CMAR				AML	AML		
CMAR	**Chiang Mai Arr**	**17.92**	**7**	P	**P**	**14 09 40.5**	**-0.1**
SLVN	**Son La**	**21.81**	**18**		**P**	**14 10 23.3**	**+0.3**
SLVN				IAmb	IAmb	14 10 24.9	
	comp=Z,8.2nm,0.7s						
SHL	**Shillong**	**25.29**	**350**		**P**	**14 10 57.9**	**+0.6**
H08S2	**Diego Garcia H**	**25.48**	**251**	T	T	14 38 01.4	
	baz=71,slow=75,SNR=16						
H08S3	**Diego Garcia H**	**25.49**	**251**	T	T	14 38 08.3	
	baz=71,slow=75,SNR=28						
H08S1	**Diego Carcia H**	**25.50**	**251**	T	T	14 38 02.9	
	baz=71,slow=75,SNR=10						
H01W3	**Cape Leeuwin H**	**38.85**	**157**	T	T	14 54 24.2	
	baz=333,slow=76,SNR=16						
H01W2	**Cape Leeuwin H**	**38.86**	**157**	T	T	14 54 23.6	
	baz=333,slow=76,SNR=24						
H01W1	**Cape Leeuwin H**	**38.86**	**157**	T	T	14 54 24.8	
	baz=333,slow=76,SNR=19						
WB0	**Warramunga Arr**	**42.10**	**121**	P	**P**	**14 13 21.9**	**-1.0**
WB0				IAmb	IAmb	14 13 45.8	
	comp=Z,11nm,1.5s						
WRA	**Warramunga Arr**	**42.12**	**121**	P	**P**	**14 13 22.3**	**-0.8**
	comp=Z,0.8nm,0.8s,baz=304,slow=8.6,SNR=5.3						
	comp=Z,0.8nm,0.8s						
WRA	**Warramunga Arr**	**42.12**	**121**	P	**P**	**14 13 20.3**	**-2.8**
WR8	**Warramunga Arr**	**42.27**	**121**	P	**P**	**14 13 21.9**	**-2.4**
WR8				IAmb	IAmb	14 13 28.7	
	comp=Z,9.6nm,1.3s						
AS31	**Alice Springs**	**43.41**	**126**	P	**P**	**14 13 32.8**	**-0.8**
AS31				IAmb	IAmb	14 13 40.4	
	comp=Z,1.6nm,1.4s						
ASAR	**Alice Springs**	**43.41**	**126**	P	**P**	**14 13 32.8**	**-0.8**
	comp=Z,0.3nm,0.7s,baz=298,slow=7.5,SNR=7.5						
	comp=Z,0.3nm,0.7s						
ASAR	**Alice Springs**	**43.41**	**126**	P	**P**	**14 13 33.0**	**-0.6**
MK31	**Makanchi Array**	**47.74**	**347**	P	**P**	**14 14 07.1**	**-0.4**
MK31				IAmb	IAmb	14 14 46.7	
	comp=Z,4.8nm,1.5s						
MKAR	**Makanchi Array**	**47.74**	**347**	P	**P**	**14 14 08.2**	**+0.6**
	comp=Z,0.6nm,0.5s,baz=145,slow=6.6,SNR=5.8						
	comp=Z,0.6nm,0.5s						
MKAR	**Makanchi Array**	**47.74**	**347**	P	**P**	**14 14 07.3**	**-0.2**
SONM	**Songino Array**	**47.84**	**9**	P	**P**	**14 14 08.8**	**+0.5**
	comp=Z,0.3nm,0.3s,baz=202,slow=11,SNR=2.0						
	comp=Z,0.3nm,0.3s						
KURBB	**Kurchatov Arra**	**52.22**	**345**	P	**P**	**14 14 42.6**	**+1.2**
	comp=Z,0.8nm,0.3s,baz=198,slow=8.6,SNR=0.8						
	comp=Z,0.8nm,0.3s						
ZAA0	**Zalesovo Array**	**54.11**	**351**	P	**P**	**14 14 54.9**	**-0.4**
ZALV	**Zalesovo Beam**	**54.11**	**351**	P	**P**	**14 14 55.6**	**+0.4**
	comp=Z,0.7nm,0.3s,baz=167,slow=6.8,SNR=3.5						
	comp=Z,0.7nm,0.3s						
ZALV	**Zalesovo Beam**	**54.11**	**351**	P	**P**	**14 14 55.2**	**0.0**
AB31	**Akbulak array**	**57.85**	**332**	P	**P**	**14 15 22.1**	**0.0**
AB31				IAmb	IAmb	14 15 35.3	
	comp=Z,1.6nm,1.1s						
ABKAR	**Akbulak array**	**57.85**	**332**	P	**P**	**14 15 22.4**	**+0.3**
H04S1	**CROZET ISLANDS**	**61.31**	**213**	T	T	15 22 57.0	
	baz=53,slow=76,SNR=5.1						
H04S3	**CROZET ISLANDS**	**61.32**	**213**	T	T	15 22 55.3	
	baz=53,slow=76,SNR=6.4						
H04S2	**CROZET ISLANDS**	**61.33**	**213**	T	T	15 22 57.2	
	baz=53,slow=76,SNR=4.8						
ARCES	**ARCESS Array B**	**82.97**	**340**	P	**P**	**14 17 56.5**	**+1.2**
	comp=Z,2.0nm,1.0s,baz=94,slow=4.9,SNR=4.8						
	comp=Z,2.0nm,1.0s						
CPUP	**Villa Florida**	**144.20**	**222**	PKP	PKPbc	14 25 04.9	-0.4
	comp=Z,1.3nm,0.5s,baz=135,slow=2.9,SNR=3.9						

KRSC 04 14:09:58.4±2.1**, 50°.39N×157°.38E, h40km**±27km**, Ml3.9, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	**0.86**	**291**	*e*P	Pn	14 10 14.3	+0.3
SKR				*e*S	Sn	14 10 25.6	+0.3
PAU	**Pauzhetka**	**1.14**	**342**	*e*P	Pn	14 10 19.8	+1.9

PAU				*e*S	Sn	14 10 34.7	+2.4
KDTR	**Khodutka, Kamc**	**1.49**	**17**	*e*P	Pn	14 10 23.8	+1.1
KDTR				*e*S	Sn	14 10 42.1	+1.2
MIPR	**Malaya Ipel'ka**	**1.93**	**349**	*e*P	Pn	14 10 32.3	+3.5
ASAK	**Asacha**	**2.03**	**9**	*e*P	Pn	14 10 31.9	+1.8
MTVR	**Mutnovka**	**2.16**	**13**	*e*P	Pn	14 10 33.9	+1.9
MTVR				*e*S	Sn	14 11 00.1	+2.5
RUS	**Russkaya**	**2.17**	**19**	*e*P	Pn	14 10 33.1	+1.1
RUS				*e*S	Sn	14 10 58.5	+0.9
GRL	**Gorelyy**	**2.21**	**11**	*e*P	Pn	14 10 34.8	+2.1
GRL				*e*S	Sn	14 11 01.3	+2.4
KRMR	**Karymshinskiy**	**2.49**	**11**	*e*P	Pn	14 10 40.4	+4.0
KRMR				*e*S	Sn	14 11 11.0	+5.4
DALK	**Dalny**	**2.78**	**17**	*e*P	Pn	14 10 42.6	+2.2
DALK				*e*S	Sn	14 11 16.1	+3.4
UGLR	**Uglovaya**	**2.97**	**17**	*e*P	Pn	14 10 46.6	+3.6
UGLR				*e*S	Sn	14 11 24.1	+6.6
AVH	**Avacha**	**3.00**	**16**	*e*P	Pn	14 10 47.1	+3.6
KOK	**Koryaka**	**3.01**	**15**	*e*P	Pn	14 10 47.3	+3.7
SMAR	**Somma**	**3.01**	**16**	*e*P	Pn	14 10 47.9	+4.1
KRER	**Koryakskii**	**3.04**	**16**	*e*P	Pn	14 10 47.5	+3.3
KRX	**Arik**	**3.08**	**14**	*e*P	Pn	14 10 48.3	+3.7
SPN	**Mys Shipunski**	**3.17**	**30**	*e*P	Pn	14 10 52.1	+6.3
GNL	**Ganaly**	**3.33**	**6**	*e*P	Pn	14 10 51.7	+3.6
KII	**Karymskiy**	**3.87**	**18**	*e*P	Pn	14 11 02.4	+7.0
MKZ	**Mys Kozlova**	**4.95**	**31**	*e*P	Pn	14 11 11.9	+1.8
KBTR	**Krutoberegovo**	**6.68**	**27**	*e*P	Pn	14 11 38.0	+4.1

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*IDC **04** 14:12:19.4±0.8, 52°.84S×10°.58E, h0^{km}, mb4.2/10, mbtmp4.2/11, ML4.6/1, MS3.7/22, Error ellipse: s-maj=24.8km s-min=18.3km az=74.0*

*NEIC **04** 14:12:21.1±1.2, 52°.86S±0°.07×10°.5E±0°.2, h10^{km}±1^{km}, mb4.6/18, Error ellipse: s-maj=27.0km s-min=5.3km az=111.0*

ISC 04 14:12:20.8±0.6, **52°.85S**±0°.08×**10°.5E**±0°.1, **h10^{km}**, **n54**, σ**0^{s}59**/34, **mb4.5**/15, **MS3.7**/21, **4C**, **Southwest of Africa**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TROLL	**Troll, Antarti**	**19.55**	**187**	⇑P	**Pn**	**14 16 49.8**	**+0.2**
	comp=Z,2μm,0.9s						
VNA1	**Neumayer--Stat**	**19.77**	**198**	⇑P	**P**	**14 16 50.8**	**+0.1**
	comp=Z,31nm,0.9s						
SNAA	**Sanae**	**19.79**	**192**	P	**P**	**14 16 51.4**	**+0.5**
	comp=Z,1.7nm,0.3s,baz=32,slow=11,SNR=9.9						
SNAA				LR	LR	14 22 41.8	
	comp=Z,202nm,21.0s,baz=52,slow=31						
	comp=Z,26nm,0.8s						
SNAA				AML	AML		
SNAA	**Sanae**	**19.79**	**192**	P	**P**	**14 16 50.6**	**-0.3**
SNAA				IAmb	IAmb	14 16 54.6	
	comp=Z,60nm,1.2s						
VNA2	**Neumayer--Watz**	**19.84**	**197**	⇑P	**P**	**14 16 50.8**	**-0.6**
	comp=Z,14nm,0.8s,baz=23,slow=12						
VNA3	**Neumayer Olymp**	**20.53**	**199**	⇑P	**P**	**14 16 58.2**	**-0.7**
	comp=Z,19nm,0.6s						
SUR	**Sutherland**	**21.77**	**24**	P	**P**	**14 17 13.1**	**+0.3**
	comp=Z,19nm,1.0s,baz=224,slow=4.9,SNR=6.6						
SUR				LR	LR	14 23 36.1	
	comp=Z,158nm,20.7s,baz=164,slow=31						
	comp=Z,19nm,1.0s						
SUR	**Sutherland**	**21.77**	**24**	P	**P**	**14 17 13.4**	**+0.6**
SUR				IAmb	IAmb	14 17 16.0	
	comp=Z,32nm,1.1s						
BOSA	**Boshof**	**26.56**	**30**	LR	LR	14 26 47.7	
	comp=Z,185nm,19.5s,baz=192,slow=33						
H04S2	**CROZET ISLANDS**	**27.06**	**94**	T	T	14 46 38.3	
	baz=242,slow=76,SNR=60						
H04S3	**CROZET ISLANDS**	**27.07**	**94**	T	T	14 46 39.9	
	baz=242,slow=76,SNR=70						
H04S1	**CROZET ISLANDS**	**27.08**	**94**	T	T	14 46 39.1	
	baz=242,slow=76,SNR=70						
MAW	**Mawson**	**28.80**	**141**	P	**P**	**14 18 18.4**	**-0.1**
	comp=Z,2.7nm,0.9s,baz=273,slow=11,SNR=7.3						
MAW				LR	LR	14 27 47.0	
	comp=Z,66nm,19.4s,baz=276,slow=32						
	comp=Z,2.7nm,0.9s						
MAW	**Mawson**	**28.80**	**141**	P	**P**	**14 18 18.9**	**+0.4**
MAKGR	**Makgori**	**29.07**	**27**	P	**P**	**14 18 21.3**	**0.0**
MAKGR				IAmb	IAmb	14 18 22.6	
	comp=Z,6.9nm,0.8s						
BELA	**Belgrano 2**	**29.82**	**198**	P	**P**	**14 18 26.6**	**-0.8**
LBTB	**Lobatse**	**30.05**	**28**	LR	LR	14 28 31.9	
	comp=Z,140nm,20.3s,baz=178,slow=32						
LBTB	**Lobatse**	**30.05**	**28**	P	**P**	**14 18 29.4**	**-0.6**
WIN	**Windhoek**	**30.65**	**12**	P	**P**	**14 18 35.7**	**+0.2**
WIN				IAmb	IAmb	14 18 38.5	
	comp=Z,17nm,1.5s						
KHWEE	**KHWEE**	**32.92**	**26**	P	**P**	**14 18 54.5**	**-0.8**
TSUM	**Tsumeb**	**34.03**	**12**	LR	LR	14 31 36.7	
	comp=Z,150nm,18.1s,baz=152,slow=34						
TSUM	**Tsumeb**	**34.03**	**12**	P	**P**	**14 19 05.3**	**+0.3**
TSUM				IAmb	IAmb	14 19 10.2	
	comp=Z,6.8nm,1.0s						
MATP	**Matopo**	**35.23**	**30**	LR	LR	14 31 30.6	
	comp=Z,151nm,20.3s,baz=197,slow=33						
KSANE	**Kasane**	**36.81**	**24**	P	**P**	**14 19 27.4**	**-1.5**
KSANE				IAmb	IAmb	14 19 44.4	
	comp=Z,6.0nm,0.8s						
QSPA	**South Pole Qui**	**37.39**	**180**	P	**P**	**14 19 33.3**	**-0.2**
	comp=Z,5.4nm,1.0s,baz=230,slow=4.1,SNR=8.9						
QSPA				LR	LR	14 34 16.6	
	comp=Z,141nm,19.2s,baz=222,slow=35						
	comp=Z,5.4nm,1.0s						
QSPA	**South Pole Qui**	**37.39**	**180**	P	**P**	**14 19 33.6**	**+0.1**
QSPA				IAmb	IAmb	14 19 37.5	
	comp=Z,9.3nm,1.1s						
PMSA	**Palmer Station**	**38.03**	**222**	LR	LR	14 32 02.1	
	comp=Z,80nm,21.8s,baz=112,slow=31						
LSZ	**Lusaka**	**40.02**	**27**	LR	LR	14 35 10.0	
	comp=Z,156nm,18.2s,baz=176,slow=34						
VNDA	**Vanda**	**48.68**	**172**	P	**P**	**14 21 04.7**	**+0.3**
	comp=Z,6.8nm,0.9s,baz=226,slow=7.0,SNR=48						
VNDA				LR	LR	14 40 37.5	
	comp=Z,87nm,19.8s,baz=195,slow=35						
	comp=Z,6.8nm,0.9s						
VNDA	**Vanda**	**48.68**	**172**	P	**P**	**14 21 05.2**	**+0.7**
VNDA				IAmb	IAmb	14 21 06.1	
	comp=Z,6.2nm,0.8s						
SBA	**Scott Base**	**48.74**	**173**		**P**	**14 21 05.3**	**+0.4**
SBA				IAmb	IAmb	14 21 39.1	
	comp=Z,6.6nm,1.4s						
PLCA	**Paso Flores**	**53.95**	**248**	P	**P**	**14 21 45.6**	**+1.1**
	comp=Z,0.9nm,0.8s,baz=147,slow=10,SNR=3.6						
PLCA				LR	LR	14 41 18.5	
	comp=Z,23nm,22.0s,baz=142,slow=32						
	comp=Z,0.9nm,0.8s						
MBAR	**Mbarara**	**54.74**	**25**	LR	LR	14 43 07.4	
	comp=Z,155nm,21.2s,baz=162,slow=34						
KMBO	**Kilima Mbogo**	**56.15**	**33**	LR	LR	14 46 07.2	
	comp=Z,96nm,18.1s,baz=128,slow=36						
CPUP	**Villa Florida**	**56.21**	**270**	P	**P**	**14 22 00.7**	**-0.2**
	comp=Z,2.1nm,0.8s,baz=70,slow=7.9,SNR=4.6						
	comp=Z,2.1nm,0.8s						
CPUP	**Villa Florida**	**56.21**	**270**	P	**P**	**14 22 01.0**	**+0.1**
DBIC	**Dimbokro**	**60.71**	**342**	LR	LR	14 43 30.2	
	comp=Z,29nm,19.9s,baz=146,slow=31						
CO01	**Juntas del Tor**	**61.23**	**258**	P	**P**	**14 22 35.9**	**-0.3**
CO01				IAmb	IAmb	14 22 45.0	
	comp=Z,8.2nm,0.9s						
TORD	**Torodi Ar. Bea**	**66.16**	**351**	P	**P**	**14 23 08.3**	**-0.1**
	comp=Z,2.2nm,1.1s,baz=178,slow=6.4,SNR=7.5						
	comp=Z,2.2nm,1.1s						
PB18	**Visviri**	**70.15**	**267**	P	**P**	**14 23 33.7**	**-0.5**
LPAZ	**La Paz**	**70.34**	**269**	P	**P**	**14 23 36.3**	**+0.9**
	comp=Z,3.3nm,0.7s,baz=176,slow=4.4,SNR=13						
LPAZ				LR	LR	14 50 03.6	
	comp=Z,13nm,21.7s,baz=127,slow=32						
	comp=Z,3.3nm,0.7s						
LPAZ	**La Paz**	**70.34**	**269**		**P**	**14 23 34.4**	**-1.1**
H01W2	**Cape Leeuwin H**	**70.41**	**122**	T	T	15 41 26.6	
	baz=219,slow=75,SNR=23						
H01W3	**Cape Leeuwin H**	**70.42**	**122**	T	T	15 41 30.2	
	baz=219,slow=75,SNR=20						
H01W1	**Cape Leeuwin H**	**70.43**	**122**	T	T	15 41 25.0	
	baz=219,slow=75,SNR=24						
PALK	**Pallekele**	**84.04**	**70**	LR	LR	14 54 55.2	
	comp=Z,38nm,19.4s,baz=175,slow=30						
EIL	**Elat**	**84.90**	**21**	LR	LR	15 01 08.7	
	comp=Z,50nm,20.0s,baz=173,slow=34						
ASF	**Jabal al Asfar**	**87.74**	**22**	LR	LR	15 03 16.0	
	comp=Z,43nm,19.1s,baz=206,slow=35						
MMAI	**Mount Meron Ar**	**88.22**	**21**	LR	LR	15 02 55.1	
	comp=Z,30nm,21.1s,baz=194,slow=34						
ASAR	**Alice Springs**	**89.36**	**130**	P	**P**	**14 25 17.4**	**-0.2**
	comp=Z,0.5nm,1.0s,baz=206,slow=5.4,SNR=5.9						
ASAR				LR	LR	15 04 18.9	
	comp=Z,65nm,18.3s,baz=128,slow=35						
	comp=Z,0.5nm,1.0s						
WRA	**Warramunga Arr**	**92.76**	**129**	P	**P**	**14 25 33.8**	**+0.3**
	comp=Z,0.4nm,0.8s,baz=224,slow=5.2,SNR=2.2						
	comp=Z,0.4nm,0.8s						
WRA	**Warramunga Arr**	**92.76**	**129**	P	**P**	**14 25 34.0**	**+0.6**
GNI	**Garni**	**97.26**	**26**	LR	LR	15 11 22.0	
	comp=Z,25nm,18.2s,baz=194,slow=36						
YKA	**Yellowknife Ar**	**150.01**	**311**	PKPbc	**PKPbc**	**14 32 09.7**	**-0.4**
	comp=Z,0.7nm,0.9s,baz=87,slow=2.8,SNR=3.8						

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*IDC **04** 14:20:40.5±2.5, 24°.65N×124°.39E, h48^{km}±25^{km}, mb3.9/19, mbtmp4.1/22, ML3.3/3, MS3.1/18, Error ellipse: s-maj=18.0km s-min=12.8km az=61.0*

*NEIC **04** 14:20:41.0±1.6, 24°.65N±0°.09×124°.36E±0°.07, h54^{km}±6^{km}, mb4.5/51, Error ellipse: s-maj=13.2km s-min=8.3km az=160.0*

*JMA **04** 14:20:41.7±0.1, 25°N±1°×124°.4E±0°.6, h57^{km}, MD4.2/14, MV4.1/14, NEAR ISHIGAKIJIMA ISLAND*

JMA Felt I J1 at NEAR ISHIGAKIJIMA ISLAND.

ISC 04 14:20:41.3±0.6, **24°.59N**±0°.05×**124°.41E**±0°.03, **h60^{km}**±5^{km}, **n130**, σ**1^{s}23**/125, **mb4.4**/48, **MS3.1**/13, **1C**, **Southwestern Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JISG	**Ishigakijimahi**	**0.09**	**270**	*i* P	**Pn**	**14 20 50.4**	**+0.2**
JISG				A	A	14 20 50.4	
	comp=N,34nm,0.5s,comp=E,65nm,0.6s						
JISG				*e*S	**Sn**	**14 20 56.7**	**0.0**
JTJ	**Tarama**	**0.27**	**78**	P	**Pn**	**14 20 51.0**	**-0.2**
JTJ				A	A	14 20 51.0	
	comp=N,21nm,0.7s,comp=E,73nm,0.7s						
JTJ				S	**Sn**	**14 20 58.0**	**-0.3**
JIJ	**Ishigaki jima**	**0.33**	**228**	P	**Pn**	**14 20 51.9**	**+0.3**
JIJ				A	A	14 20 51.9	
	comp=N,27nm,0.7s,comp=E,50nm,0.6s						
JIJ				S	**Sn**	**14 20 59.5**	**+0.4**
JKRS	**Kuro-shima**	**0.51**	**227**	P	**Pn**	**14 20 54.2**	**+0.9**
JKRS				A	A	14 20 54.2	
	comp=N,54nm,1.3s,comp=E,51nm,1.7s						
JKRS				S	**Sn**	**14 21 03.7**	**+1.7**
IRIF	**Iriomote-Funau**	**0.67**	**248**	P	**Pn**	**14 20 55.9**	**+0.8**
IRIF				A	A	14 20 55.9	
	comp=N,40nm,1.2s,comp=E,34nm,1.3s						
IRIF				S	**Sn**	**14 21 07.0**	**+1.7**
JIRJ	**Irabujima**	**0.75**	**71**	*i* P	**Pn**	**14 20 55.7**	**-0.5**
JIRJ				A	A	14 20 55.7	
	comp=N,19nm,1.0s,comp=E,26nm,5.0s						
JIRJ				*e*S	**Sn**	**14 21 06.4**	**-0.6**
HATJ	**Hateruma jima**	**0.77**	**227**	P	**Pn**	**14 20 57.5**	**+1.2**
HATJ				A	A	14 20 57.5	
	comp=N,19nm,1.1s,comp=E,17nm,2.2s						
HATJ				S	**Sn**	**14 21 09.3**	**+2.0**
JIKM	**Ikemajima**	**0.83**	**66**	*i* P	**Pn**	**14 20 56.8**	**-0.3**
JIKM				A	A	14 20 56.8	
	comp=N,21nm,0.5s,comp=E,27nm,0.8s						
JIKM				S	**Sn**	**14 21 08.2**	**-0.5**
JMJ2	**Miyako jima3**	**0.85**	**79**	*i* P	**Pn**	**14 20 57.4**	**0.0**
JMJ2				A	A	14 20 57.4	
	comp=N,20nm,1.2s,comp=E,23nm,1.6s						
JMJ2				*e*S	**Sn**	**14 21 09.2**	**+0.1**
JOGS	**Gusukube**	**0.92**	**79**	P	**Pn**	**14 20 58.5**	**+0.2**
JOGS				A	A	14 20 58.5	
	comp=N,16nm,0.9s,comp=E,20nm,1.0s						
JOGS				S	**Sn**	**14 21 11.2**	**+0.4**
YOJ	**Yonaguni jima**	**1.28**	**265**	P	**Pn**	**14 21 04.3**	**+1.2**
YOJ	**Yonaguni jima**	**1.28**	**265**		**Pn**	**14 21 03.8**	**+0.7**
YOJ				Sn	**Sn**	**14 21 17.3**	**-2.0**
YOJ	**Yonaguni jima**	**1.28**	**265**	P	**Pn**	**14 21 04.2**	**+1.2**
YOJ				A	A	14 21 04.2	
	comp=N,4.0nm,3.7s,comp=E,7.0nm,1.5s						
YOJ				S	**Sn**	**14 21 19.7**	**+0.3**
JYNG	**Yonagunijimaku**	**1.34**	**265**	P	**Pn**	**14 21 04.9**	**+1.1**
JYNG				A	A	14 21 04.9	
	comp=N,4.0nm,0.6s,comp=E,12nm,0.7s						
JYNG				S	**Sn**	**14 21 21.6**	**+0.8**
NACB	**Ninganchiao**	**2.60**	**261**	P	**Pn**	**14 21 22.6**	**+1.6**
NACB	**Ninganchiao**	**2.60**	**261**		**Pn**	**14 21 21.5**	**+0.5**
TATO	**Taipei**	**2.69**	**279**	P	**Pn**	**14 21 24.7**	**+2.6**
TATO	**Taipei**	**2.69**	**279**	S	Sn	14 22 02.9	+9.4
TATO	**Taipei**	**2.69**	**279**		**Pn**	**14 21 24.0**	**+1.9**
YHNB	**Yeheng**	**2.77**	**272**	P	**Pn**	**14 21 25.9**	**+2.6**
YHNB	**Yeheng**	**2.77**	**272**		**Pn**	**14 21 25.3**	**+2.0**
YULB	**Yu-li**	**3.09**	**248**	P	**Pn**	**14 21 27.6**	**-0.1**
YULB	**Yu-li**	**3.09**	**248**		**Pn**	**14 21 26.9**	**-0.7**
YULB				Sn	**Sn**	**14 22 00.7**	**-2.7**
SSLB	**Suanglung**	**3.26**	**257**	P	**Pn**	**14 21 30.9**	**+0.9**
SSLB	**Suanglung**	**3.26**	**257**		**Pn**	**14 21 29.8**	**-0.2**
TWGBT	**Beinan**	**3.53**	**241**	P	**Pn**	**14 21 33.0**	**-0.6**
TWG	**Pinlang**	**3.53**	**241**		**Pn**	**14 21 32.5**	**-1.2**
TPUB	**Ta-pu**	**3.69**	**250**	P	**Pn**	**14 21 37.4**	**+1.5**
TPUB	**Ta-pu**	**3.69**	**250**		**Pn**	**14 21 35.5**	**-0.4**
JOW	**Kunigami**	**4.14**	**56**	P	**Pn**	**14 21 41.6**	**-0.4**
	comp=E,6.0nm,0.3s,baz=120,slow=22,SNR=11						
JOW				S	**Sn**	**14 22 28.2**	**-1.0**
	comp=E,56nm,0.5s,baz=199,slow=9.7,SNR=5.1						
	comp=E,18nm,0.2s						
JOW				AML	AML		
JOW	**Kunigami**	**4.14**	**56**	Pn	**Pn**	**14 21 41.8**	**-0.3**
KNMB	**Chin-men Tao**	**5.49**	**270**	Pn	**Pn**	**14 21 58.8**	**-1.7**
PACPP	**Pamplona Cagay**	**6.73**	**206**	*i* P	**Pn**	**14 22 14.8**	**-2.8**
PACPP				*i* S	**Sn**	**14 23 26.2**	**-6.6**
CAAP	**Casiguran, Aur**	**8.63**	**195**	*e*P	**Pn**	**14 22 44.0**	**+0.4**
JNU	**Nakatsue**	**10.22**	**32**	LR	LR	14 27 05.9	
	comp=E,143nm,18.8s,baz=194,slow=38						
WHN	**Wuhan**	**10.72**	**306**	P	**Pn**	**14 23 09.0**	**-3.0**
KSRS	**Korea Array**	**13.17**	**12**	P	**Pn**	**14 23 44.9**	**-0.7**
	comp=E,0.2nm,0.3s,baz=188,slow=12,SNR=6.1						
KSRS				LR	LR	14 28 42.3	
	comp=E,40nm,20.6s,baz=170,slow=37						
	comp=E,2.6nm,1.0s						
KSRS				AML	AML		
JHJ	**Hachijo jima 2**	**15.91**	**54**	LR	LR	14 29 43.6	
	comp=E,96nm,19.4s,baz=280,slow=34						
MJAR	**Matsushiro Arr**	**16.80**	**42**	P	**Pn**	**14 24 33.3**	**+0.6**
	baz=226,slow=9.9,SNR=5.2						
MJAR				LR	LR	14 30 43.4	
	comp=E,54nm,21.4s,baz=204,slow=36						
	comp=E,0.7nm,0.5s						
DAV	**Davao City (W)**	**17.45**	**176**	LR	LR	14 30 55.7	
	comp=E,49nm,21.0s,baz=15,slow=35						
CN2	**Changchun**	**19.19**	**2**	*e*P	**Pn**	**14 25 01.8**	**+0.3**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
HHC	**Hu-ho-hao-te**	**19.45**	**330**	*e*P	**Pn**	**14 25 05.7**	**+0.9**
HHC				pmax	pmax		
	comp=Z,17nm,0.6s						
HHC				pmax	pmax		
	comp=Z,180nm,4.4s						
BNX	**BinXian**	**21.24**	**6**	⇑P	**P**	**14 25 20.8**	**-1.5**
BNX				pmax	pmax		
	comp=Z,9.0nm,1.0s						
TOLI2	**Tolitoli**	**23.60**	**189**	P	**P**	**14 25 48.5**	**+1.6**
TNTI	**Ternate**	**23.85**	**173**	P	**P**	**14 25 48.2**	**-1.0**
TNTI				IAmb	IAmb	14 25 53.0	
	comp=Z,13nm,1.1s						
CMAR	**Chiang Mai Arr**	**24.45**	**261**	P	**P**	**14 25 54.6**	**-0.1**
	comp=Z,0.9nm,0.8s,baz=59,slow=7.9,SNR=8.0						
CMAR				LR	LR	14 36 13.9	
	comp=Z,31nm,18.2s,baz=90,slow=38						
	comp=Z,0.9nm,0.8s						
CMAR	**Chiang Mai Arr**	**24.45**	**261**	P	**P**	**14 25 52.3**	**-2.4**
ASAJ	**Asahikawa**	**24.50**	**33**	LR	LR	14 34 27.7	
	comp=Z,50nm,21.7s,baz=192,slow=34						
SBUM	**Sibu**	**24.96**	**210**	P	**P**	**14 25 58.1**	**-1.2**
KLR	**Kul'dur**	**25.26**	**11**	LR	LR	14 34 31.3	
	comp=Z,38nm,21.6s,baz=184,slow=33						
GTA2	**Gaotai**	**25.53**	**311**	*e*P	**P**	**14 26 04.6**	**+0.1**
GTA2				pmax	pmax		
	comp=Z,4.0nm,1.1s						
SONM	**Songino Array**	**27.25**	**333**	P	**P**	**14 26 19.5**	**-0.4**
	comp=Z,0.4nm,0.5s,baz=154,slow=10,SNR=2.1						
SONM				LR	LR	14 36 52.8	
	comp=Z,62nm,19.8s,baz=150,slow=36						
	comp=Z,0.4nm,0.5s						
FAKI	**Fak Fak**	**28.38**	**163**	P	**P**	**14 26 30.9**	**+0.7**
FAKI				IAmb	IAmb	14 27 04.8	
	comp=Z,30nm,1.3s						
YAK	**Yakutsk**	**37.60**	**4**	LR	LR	14 43 25.2	
	comp=Z,30nm,19.0s,baz=168,slow=36						
PETK	**Petropavlovsk-**	**37.91**	**33**	LR	LR	14 42 38.9	
	comp=Z,17nm,21.3s,baz=261,slow=35						
MA2	**Magadan**	**39.53**	**21**	LR	LR	14 46 23.6	
	comp=Z,18nm,18.4s,baz=215,slow=39						
H11N1	**WAKE ISLAND Hy**	**39.53**	**88**	T	T	15 10 00.5	
	baz=284,slow=74,SNR=4.4						
H11N2	**WAKE ISLAND Hy**	**39.53**	**88**	T	T	15 10 05.8	
	baz=284,slow=74,SNR=3.3						
H11N3	**WAKE ISLAND Hy**	**39.54**	**88**	T	T	15 10 00.4	
	baz=284,slow=74,SNR=3.4						
MK31	**Makanchi Array**	**40.13**	**314**	P	**P**	**14 28 10.1**	**-1.3**
MKAR	**Makanchi Array**	**40.13**	**314**	P	**P**	**14 28 11.0**	**-0.3**
	comp=Z,3.9nm,0.7s,baz=101,slow=10,SNR=25						
MKAR				PcP	**PcP**	**14 30 14.8**	**0.0**
	comp=Z,0.5nm,0.7s,baz=98,slow=2.9,SNR=2.7						
	comp=Z,3.9nm,0.7s						
MKAR	**Makanchi Array**	**40.13**	**314**		**P**	**14 28 10.2**	**-1.1**
MAKZ	**Makanchi**	**40.34**	**314**	P	**P**	**14 28 11.6**	**-1.5**
MAKZ				IAmb	IAmb	14 28 13.5	
	comp=Z,4.0nm,0.6s						
PDGK	**Podgornoye**	**41.12**	**308**	P	**P**	**14 28 17.8**	**-1.9**
ZAA0	**Zalesovo Array**	**41.55**	**325**	P	**P**	**14 28 21.1**	**-1.8**
ZALV	**Zalesovo Beam**	**41.55**	**325**	P	**P**	**14 28 21.9**	**-0.9**
	comp=Z,4.1nm,0.7s,baz=110,slow=7.6,SNR=15						
ZALV				PcP	**PcP**	**14 30 19.3**	**+0.1**
	comp=Z,0.6nm,0.6s,baz=116,slow=3.4,SNR=1.6						
ZALV				LR	LR	14 45 52.0	
	comp=Z,28nm,18.0s,baz=53,slow=36						
	comp=Z,4.1nm,0.7s						
ZALV	**Zalesovo Beam**	**41.55**	**325**		**P**	**14 28 21.1**	**-1.7**
FITZ	**Fitzroy Crossi**	**42.44**	**178**	P	**P**	**14 28 30.2**	**-0.3**
KURK	**Kurchatov**	**43.70**	**319**		**P**	**14 28 39.4**	**-1.0**
KURBB	**Kurchatov Arra**	**43.73**	**319**	P	**P**	**14 28 39.8**	**-0.7**
	comp=Z,2.0nm,0.8s,baz=111,slow=8.2,SNR=6.3						
	comp=Z,2.0nm,0.8s						
WRA	**Warramunga Arr**	**45.30**	**167**	P	**P**	**14 28 54.1**	**+0.7**
	comp=Z,4.1nm,0.7s,baz=350,slow=8.7,SNR=26						
	comp=Z,4.1nm,0.7s						
WRA	**Warramunga Arr**	**45.30**	**167**	P	**P**	**14 28 52.9**	**-0.6**
WR8	**Warramunga Arr**	**45.35**	**167**		**P**	**14 28 53.7**	**-0.1**
WR8				IAmb	IAmb	14 29 11.3	
	comp=Z,4.3nm,0.8s						
MBWA	**Marble Bar**	**45.70**	**186**	P	**P**	**14 28 56.0**	**-0.4**
MBWA				IAmb	IAmb	14 29 00.6	
	comp=Z,10nm,1.1s						
AS31	**Alice Springs**	**48.84**	**168**		**P**	**14 29 20.9**	**-0.1**
ASAR	**Alice Springs**	**48.84**	**168**	P	**P**	**14 29 21.9**	**+0.9**
	comp=Z,1.5nm,0.6s,baz=351,slow=8.4,SNR=58						
ASAR				PcP	**PcP**	**14 30 45.1**	**+0.2**
	comp=Z,0.9nm,0.8s,baz=343,slow=4.4,SNR=6.1						
	comp=Z,1.5nm,0.6s						
ASAR	**Alice Springs**	**48.84**	**168**	P	**P**	**14 29 20.7**	**-0.3**
ASAR					**PcP**	**14 30 45.0**	**+0.2**
CTA	**Charters Tower**	**49.23**	**153**	LR	LR	14 50 42.4	
	comp=Z,22nm,19.9s,baz=276,slow=36						
BVAR	**Borovoye Array**	**49.25**	**320**	P	**P**	**14 29 23.3**	**-0.5**
	comp=Z,0.8nm,0.3s,baz=110,slow=8.1,SNR=5.5						
	comp=Z,0.8nm,0.3s						
MORW	**Morawa**	**53.95**	**189**	P	**P**	**14 29 59.0**	**0.0**
MORW				IAmb	IAmb	14 30 33.0	
	comp=Z,14nm,1.4s						
INKA	**Innaminka**	**54.35**	**162**	P	**P**	**14 30 03.0**	**+1.0**
INKA				IAmb	IAmb	14 30 04.6	
	comp=Z,3.4nm,0.8s						
FORT	**Forrest**	**55.16**	**176**	P	**P**	**14 30 08.5**	**+0.7**
AB31	**Akbulak array**	**55.27**	**314**		**P**	**14 30 08.4**	**-0.1**
AB31				IAmb	IAmb	14 30 10.1	
	comp=Z,3.6nm,0.8s						
ABKAR	**Akbulak array**	**55.27**	**314**	P	**P**	**14 30 08.9**	**+0.4**
EIDS	**Eidsvold**	**55.97**	**151**	P	**P**	**14 30 13.5**	**-0.2**
EIDS				IAmb	IAmb	14 30 55.7	
	comp=Z,9.6nm,1.2s						
AKTO	**Aktyubinsk**	**56.55**	**315**	P	**P**	**14 30 17.9**	**+0.3**
	comp=Z,1.3nm,0.5s,baz=120,slow=8.0,SNR=4.6						
	comp=Z,1.3nm,0.5s						
ARTI	**Arti**	**56.66**	**323**	P	**P**	**14 30 18.3**	**0.0**
	comp=Z,4.5nm,0.6s,baz=66,slow=5.2,SNR=6.8						
ARTI				LR	LR	14 59 24.9	
	comp=Z,18nm,18.3s,baz=128,slow=41						
	comp=Z,4.5nm,0.6s						
ARTI	**Arti**	**56.66**	**323**	P	**P**	**14 30 18.0**	**-0.3**
NWAO	**Narrogin (SRO)**	**57.60**	**187**	P	**P**	**14 30 26.0**	**+0.9**
BBOO	**Buckleboo**	**58.15**	**168**	P	**P**	**14 30 28.5**	**-0.4**
STKA	**Stephens Creek**	**58.50**	**163**	P	**P**	**14 30 32.2**	**+0.7**
	comp=Z,4.5nm,0.7s,baz=341,slow=8.5,SNR=6.9						
STKA				LR	LR	14 59 45.2	
	comp=Z,77nm,18.1s,baz=204,slow=40						
	comp=Z,4.5nm,0.7s						
MGBR	**Mount Gambier**	**63.82**	**166**	P	**P**	**14 31 09.3**	**+2.0**
CAN	**Canberra**	**63.97**	**158**	P	**P**	**14 31 09.7**	**+1.2**
TOO	**Toolangi**	**64.93**	**162**	P	**P**	**14 31 15.4**	**+0.8**
TOO				IAmb	IAmb	14 31 54.6	
	comp=Z,11nm,1.5s						
H22K	**Ishtalitna Cre**	**65.48**	**27**		**P**	**14 31 18.4**	**+0.5**
H22K				IAmb	IAmb	14 31 19.7	
	comp=Z,3.5nm,0.7s						
KDAK	**Kodiak Island**	**65.87**	**36**	P	**P**	**14 31 20.2**	**-0.3**
H23K	**Yukon River**	**66.24**	**27**	P	**P**	**14 31 23.4**	**+0.6**
H23K				IAmb	IAmb	14 31 25.1	
	comp=Z,4.5nm,1.0s						
E24K	**Your Creek**	**66.37**	**24**	IAmb	IAmb	14 31 25.6	
	comp=Z,3.5nm,0.8s						
F24K	**Squaw Lake**	**66.67**	**25**	IAmb	IAmb	14 31 27.5	
	comp=Z,5.2nm,0.8s						
G24K	**Hadweenzic Riv**	**66.95**	**26**	IAmb	IAmb	14 31 28.9	
	comp=Z,7.1nm,1.2s						
ILAR	**Eielson Array**	**67.50**	**28**	P	**P**	**14 31 30.7**	**-0.1**
	comp=Z,0.4nm,0.8s,baz=238,slow=5.4,SNR=6.6						
	comp=Z,0.4nm,0.8s						
ILAR	**Eielson Array**	**67.50**	**28**	P	**P**	**14 31 29.9**	**-0.9**
F25K	**Christian Rive**	**67.51**	**25**	IAmb	IAmb	14 31 33.6	
	comp=Z,4.4nm,0.9s						
BMAR	**Burnt Mountain**	**67.94**	**25**	P	**P**	**14 31 34.5**	**+0.9**
F26K	**Sheenjek River**	**68.06**	**24**	IAmb	IAmb	14 31 36.6	
	comp=Z,6.2nm,1.0s						
G26K	**Porcupine Rive**	**68.34**	**25**	IAmb	IAmb	14 31 38.2	
	comp=Z,3.1nm,0.8s						
I27K	**Kandik River**	**69.50**	**26**	IAmb	IAmb	14 31 45.3	
	comp=Z,6.5nm,0.8s						
E28M	**Babbage River**	**69.53**	**23**		**P**	**14 31 43.3**	**-0.1**
E29M	**Blow River**	**70.17**	**23**	P	**P**	**14 31 47.0**	**-0.3**
E29M				IAmb	IAmb	14 32 26.2	
	comp=Z,6.6nm,1.2s						
I28M	**Miner Creek**	**70.22**	**26**	IAmb	IAmb	14 31 49.7	
	comp=Z,7.0nm,0.9s						
F30M	**Barrier River**	**71.17**	**24**	IAmb	IAmb	14 31 54.9	
	comp=Z,6.2nm,0.8s						
G30M	**tAoh Zraii Nji**	**71.21**	**24**		**P**	**14 31 53.4**	**-0.3**
L29M	**L29M**	**71.65**	**28**		**P**	**14 31 57.7**	**+1.2**
L29M				IAmb	IAmb	14 31 58.8	
	comp=Z,6.4nm,0.8s						
I30M	**Mount Dempster**	**71.71**	**26**	IAmb	IAmb	14 31 58.2	
	comp=Z,5.2nm,0.6s						
H31M	**Peel River**	**72.31**	**25**	IAmb	IAmb	14 32 01.2	
	comp=Z,4.4nm,0.7s						
FINES	**FINESS Array B**	**72.58**	**330**	P	**P**	**14 32 02.7**	**+0.8**
	comp=Z,1.0nm,0.6s,baz=68,slow=5.9,SNR=4.2						
	comp=Z,1.0nm,0.6s						
FINES	**FINESS Array B**	**72.58**	**330**	P	**P**	**14 32 01.8**	**-0.1**
BRTR	**Keskin Array B**	**75.29**	**307**	P	**P**	**14 32 18.9**	**+0.4**
	comp=Z,2.4nm,0.8s,baz=101,slow=6.4,SNR=10						
	comp=Z,2.4nm,0.8s						
BRTR	**Keskin Array B**	**75.29**	**307**	P	**P**	**14 32 17.6**	**-0.8**
ASF	**Jabal al Asfar**	**75.36**	**299**	P	**P**	**14 32 19.6**	**+0.7**
	comp=Z,3.7nm,0.7s,baz=45,slow=4.1,SNR=7.8						
	comp=Z,3.7nm,0.7s						
Q32M	**Nakina River**	**75.81**	**31**	P	**P**	**14 32 21.9**	**+0.8**
Q32M				IAmb	IAmb	14 32 56.6	
	comp=Z,5.0nm,1.2s						
CY604	**RAF Akrotiri,**	**76.49**	**302**	P	**P**	**14 32 24.9**	**+0.2**
U33K	**Whale Pass**	**76.54**	**34**	P	**P**	**14 32 25.1**	**+0.2**
U33K				IAmb	IAmb	14 32 53.1	
	comp=Z,9.6nm,1.4s						
NOA	**NORSAR Array B**	**79.23**	**333**	P	**P**	**14 32 39.6**	**-0.3**
	comp=Z,0.5nm,0.7s,baz=46,slow=5.1,SNR=3.2						
NOA				LR	LR	15 09 47.4	
	comp=Z,14nm,20.1s,baz=70,slow=37						
	comp=Z,0.5nm,0.7s						
STHS	**Stebnicka Huta**	**79.75**	**320**	*e*P	**P**	**14 32 41.4**	**-1.6**
YKA	**Yellowknife Ar**	**81.44**	**24**	P	**P**	**14 32 51.7**	**+0.1**
	comp=Z,1.2nm,0.6s,baz=303,slow=5.4,SNR=14						
	comp=Z,1.2nm,0.6s						
VRAC	**Vranov**	**82.50**	**321**	LR	LR	15 13 11.4	
	comp=Z,19nm,18.2s,baz=301,slow=38						
GERES	**GERESS Array B**	**84.38**	**322**	P	**P**	**14 33 07.5**	**+0.2**
	comp=Z,1.6nm,0.6s,baz=60,slow=6.1,SNR=12						

	comp=Z,1.6nm,0.6s						
GERES	**GERESS Array B**	**84.38**	**322**	P	**P**	**14 33 07.3**	**0.0**
NVAR	**Mina Array Bea**	**94.11**	**44**	P	**P**	**14 33 55.4**	**+1.5**
	comp=Z,0.5nm,0.6s,baz=303,slow=6.1,SNR=2.6						
	comp=Z,0.5nm,0.6s						

*CNRM **04** 14:30:26.8,37°.16N×8°.70W,h30km,ML1.2*
*IGIL **04** 14:30:27.0,37°.31N×8°.82W,h26km,ML2.1*
*INMG **04** 14:30:27.1±2.0,37°.35N×8°.80W,h22km±3km,ML1.8,Error ellipse: s-maj=5.1km s-min=3.0km az=89.0, #DIST_RANGE: LOCAL #IPMA_REGION: N Aljezur*
*SFS **04** 14:30:27.2,37°.30N×8°.78W,h23km,ML2.6/8,ML2.5/8, MLv2.5/8*
*MDD **04** 14:30:27.2±0.7,37°.35N×8°.78W,h20km±1km,mb_Lg2.4/5, Error ellipse: s-maj=6.0km s-min=4.3km az=104.0*
ISC 04 14:30:25.3±1.1,**37°.29N**±0°.03×**8°.88W**±0°.04,**h34km**±2km, **n40**,σ**1s.24**/82,**1C-1D,Portugal**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALJ	**Aljezur**	**0.07**	**70**	*e*Pg	**Pb**	**14 30 31.2**	**+0.2**
PFVI	**Vila Bisbo**	**0.17**	**165**	Pg	**Pb**	**14 30 32.3**	**+0.6**
PFVI				Sg	**Sb**	**14 30 35.9**	**-0.1**
PFVI	**Vila Bisbo**	**0.17**	**165**	⇓*e*Pg	**Pb**	**14 30 32.2**	**+0.6**
PFVI				*e*Sg	**Sb**	**14 30 36.0**	**-0.1**
PFVI				*i* IAML		14 30 36.2	
PFVI				*i* IAML		14 30 36.3	
PFVI				*i* IAML		14 30 36.4	
PFVI	**Vila Bisbo**	**0.17**	**165**	P	**Pb**	**14 30 32.2**	**+0.5**
PFVI				S	**Sb**	**14 30 36.3**	**+0.3**
MORF	**Marmelete**	**0.18**	**87**	*e*P	**Pb**	**14 30 31.7**	**-0.2**
MORF				*e*S	**Sb**	**14 30 35.1**	**-1.3**
MORF				IAML		14 30 35.4	
	comp=E,210nm,0.2s						
MORF	**Marmelete**	**0.18**	**87**	⇑*e*Pg	**Pb**	**14 30 31.7**	**-0.2**
MORF				*e*Sg	**Sb**	**14 30 34.8**	**-1.5**
MORF				*i* IAML		14 30 35.4	
MORF				*i* IAML		14 30 35.5	
MORF				*i* IAML		14 30 36.4	
PTEO	**Sao Teotonio**	**0.28**	**26**	*e*Pg	**Pb**	**14 30 33.1**	**+0.2**
PTEO				*e*Sg	**Sb**	**14 30 37.6**	**-0.5**
PTEO				*i* IAML		14 30 38.1	
PTEO				*i* IAML		14 30 38.1	
PTEO				*i* IAML		14 30 38.1	
PCVE	**Castro Verde**	**0.75**	**63**	*e*Pg	**Pb**	**14 30 39.4**	**-0.7**
PCVE				*e*Sg	**Sn**	**14 30 48.9**	**-0.8**
PCVE				*i* IAML		14 30 49.6	
PCVE				*i* IAML		14 30 49.7	
PCVE				*i* IAML		14 30 50.3	
MESJ	**Messejana**	**0.76**	**44**	*e*P	**Pb**	**14 30 39.6**	**-0.5**
MESJ				*e*S	**Sb**	**14 30 49.1**	**-1.1**
MESJ				IAML		14 30 49.7	
	comp=N,72nm,0.2s						
MESJ	**Messejana**	**0.76**	**44**	*e*Pg	**Pb**	**14 30 39.6**	**-0.5**
MESJ				*e*Sg	**Sb**	**14 30 49.4**	**-0.8**
MESJ				*i* IAML		14 30 49.8	
MESJ				*i* IAML		14 30 49.9	
MESJ				*i* IAML		14 30 50.6	
PBDV	**Barranco-do-Ve**	**0.76**	**94**	Pg	**Pb**	**14 30 39.5**	**-0.7**
PBDV				Sg	**Sn**	**14 30 49.5**	**-0.5**
PBDV	**Barranco-do-Ve**	**0.76**	**94**	*e*Pg	**Pb**	**14 30 39.8**	**-0.4**
PBDV				*e*Sg	**Sn**	**14 30 49.7**	**-0.2**
PBDV				*i* IAML		14 30 50.5	
PBDV				*i* IAML		14 30 50.5	
PBDV				*i* IAML		14 30 50.7	
PLOUS	**Minas do Lousa**	**0.82**	**26**	*e*P	**Pb**	**14 30 40.4**	**-0.8**
PLOUS				*e*S	**Sb**	**14 30 51.4**	**-0.6**
PLOUS				*i* IAML		14 30 51.8	
PLOUS				*i* IAML		14 30 51.8	
PLOUS				*i* IAML		14 30 52.0	
PVAQ	**Vaqueiros**	**0.93**	**83**	*e*P	**Pb**	**14 30 42.2**	**-0.9**
PVAQ				*e*S	**Sn**	**14 30 54.0**	**-0.2**
PVAQ				*i* IAML		14 30 55.8	
PVAQ				*i* IAML		14 30 55.8	
PVAQ				*i* IAML		14 30 56.6	
PVAQ	**Vaqueiros**	**0.93**	**83**	P	**Pb**	**14 30 42.2**	**-0.9**
PVAQ				S	**Sn**	**14 30 53.8**	**-0.4**
PBEJ	**Beja**	**1.09**	**47**	*e*S	**Sn**	**14 30 58.8**	**+0.8**
PBEJ				*i* IAML		14 30 59.0	
PBEJ				*i* IAML		14 30 59.8	
PBEJ				*i* IAML		14 31 02.9	
EGRO	**El Granado**	**1.14**	**77**	Pg	**Pn**	**14 30 45.7**	**+0.9**
EGRO				Sg	**Sn**	**14 30 60.0**	**+0.7**
EGRO	**El Granado**	**1.14**	**77**	Pg	**Pn**	**14 30 45.9**	**+1.1**
EGRO				Pg	**Pn**	**14 30 46.0**	**+1.1**
EGRO				Sg	**Sn**	**14 31 00.2**	**+1.0**
EGRO				Sg	**Sn**	**14 31 00.3**	**+1.0**
EGRO				IVmb_Lg		14 31 02.1	
EXAYA	**Ayamonte**	**1.18**	**93**	Sg	**Sn**	**14 31 02.5**	**+2.3**
MOE	**Montemor**	**1.30**	**19**	*e*P	**Pn**	**14 30 47.5**	**+0.4**
MOE				*e*S	**Sb**	**14 31 05.2**	**-0.3**
MOE				*i* IAML		14 31 07.8	
MOE				*i* IAML		14 31 10.8	
MOE				*i* IAML		14 31 14.4	
EVO	**Evora**	**1.41**	**29**	*e*S	**Sb**	**14 31 08.5**	**-0.4**
EVO				*i* IAML		14 31 11.5	
EVO				*i* IAML		14 31 12.9	
EVO				*i* IAML		14 31 12.9	
PARRA	**Arraiolos**	**1.66**	**23**	*e*Pn	**Pn**	**14 30 51.8**	**-0.2**
PARRA				*e*Sg	**Sb**	**14 31 15.7**	**0.0**
PARRA				*i* IAML		14 31 22.2	
PARRA				*i* IAML		14 31 23.0	
PARRA				*i* IAML		14 31 23.3	
PMAFR	**Mafra**	**1.69**	**349**	Sn	**Sn**	**14 31 14.6**	**+1.7**
PBAR	**Barrancos**	**1.71**	**58**	Pn	**Pn**	**14 30 53.0**	**+0.4**
PBAR				Sn	**Sn**	**14 31 13.1**	**-0.1**
PBAR	**Barrancos**	**1.71**	**58**	*e*Pn	**Pn**	**14 30 52.6**	**0.0**
PBAR				*e*Sg	**Sb**	**14 31 16.2**	**-0.9**
PBAR				*i* IAML		14 31 17.4	
PBAR				*i* IAML		14 31 19.1	
PBAR				*i* IAML		14 31 20.6	
EMIN	**Mina Concepcio**	**1.82**	**74**	Pn	**Pn**	**14 30 54.7**	**+0.5**
EMIN				Sn	**Sn**	**14 31 16.7**	**+0.7**
PMTG	**Montargil**	**1.85**	**16**	*e*Pn	**Pn**	**14 30 54.8**	**+0.2**
PMTG				*e*Sn	**Sn**	**14 31 14.7**	**-2.1**
PMTG				*e*Sg	**Sb**	**14 31 21.4**	**+0.3**
PMTG				*i* IAML		14 31 27.7	
PMTG				*i* IAML		14 31 28.6	
PMTG				*i* IAML		14 31 28.8	
PESTR	**Estremoz**	**1.87**	**33**	Pn	**Pn**	**14 30 56.3**	**+1.4**
PESTR				Sn	**Sn**	**14 31 17.6**	**+0.2**
PESTR	**Estremoz**	**1.87**	**33**	*e*Sg	**Sb**	**14 31 21.8**	**-0.1**
PESTR				*i* IAML		14 31 27.6	
PESTR				*i* IAML		14 31 28.3	
PESTR	**Estremoz**	**1.87**	**33**	P	**Pn**	**14 30 57.3**	**+2.3**
PESTR				S	**Sb**	**14 31 21.2**	**-0.7**
EBAD	**Badajoz**	**2.08**	**45**	Pn	**Pn**	**14 30 59.2**	**+1.5**
EBAD				Sn	**Sn**	**14 31 23.6**	**+1.2**
EBAD	**Badajoz**	**2.08**	**45**	Pn	**Pn**	**14 30 58.7**	**+1.0**
EBAD				Pg	**Pb**	**14 31 02.8**	**+0.5**
EBAD				Sn	**Sn**	**14 31 21.7**	**-0.7**
EBAD				Sg	**Sb**	**14 31 27.8**	**+0.1**
EBAD				IVmb_Lg		14 31 31.9	
PSARD	**Sardoal**	**2.37**	**14**	*e*Pn	**Pn**	**14 31 02.2**	**+0.4**
PSARD				*e*Sn	**Sn**	**14 31 27.6**	**-2.1**
PSARD				*i* IAML		14 31 43.8	
PSARD				*i* IAML		14 31 46.9	
PSARD				*i* IAML		14 31 50.9	
PMRV	**Marv??o**	**2.43**	**28**	*e*Pn	**Pn**	**14 31 02.6**	**-0.1**
PMRV				*e*Sn	**Sn**	**14 31 30.3**	**-0.9**
PMRV				*e*Sg	**Sb**	**14 31 41.0**	**+3.0**
PMRV				*i* IAML		14 31 42.2	
PMRV				*i* IAML		14 31 43.3	
PMRV				*i* IAML		14 31 43.6	
ECAB	**El Cabril**	**2.85**	**73**	Pn	**Pn**	**14 31 08.4**	**0.0**
ECAB				Sn	**Sn**	**14 31 39.9**	**-1.7**
ECAB	**El Cabril**	**2.85**	**73**	Pn	**Pn**	**14 31 08.4**	**0.0**
ECAB				Sn	**Sn**	**14 31 40.3**	**-1.4**
ECAB				Sg	**Sb**	**14 31 51.8**	**+1.7**
ECAB				IVmb_Lg		14 32 01.9	
EADA	**Adamuz**	**3.52**	**74**	Pn	**Pn**	**14 31 17.1**	**-0.5**
EADA				Sn	**Sn**	**14 31 57.0**	**-1.2**
EADA	**Adamuz**	**3.52**	**74**	Pn	**Pn**	**14 31 17.7**	**+0.1**
EADA				Sn	**Sn**	**14 31 56.9**	**-1.2**
EADA				Sg	**Sb**	**14 32 12.3**	**+3.1**
EADA				IVmb_Lg		14 32 16.9	
PAB	**San Pablo**	**4.21**	**56**	Sn	**Sn**	**14 32 12.0**	**-3.2**
PAB				Sg	**Sb**	**14 32 33.9**	**+4.9**
PAB				IVmb_Lg		14 32 47.9	
MD31	**MD31**	**5.56**	**141**	P	**Pn**	**14 31 45.0**	**-0.7**
MD31				S	**Sn**	**14 32 46.7**	**-1.8**

*NEIC **04** 14:42:10.6±1.5,8°.4S±0°.1×114°.45E±0°.10,h157km±5km, mb4.0/10,Error ellipse: s-maj=21.2km s-min=12.1km az=205.0*
*DJA **04** 14:42:12.3±0.5,9°S±10°×11°4E±°,h139km±5km,M4.5/17, mB6.0/1,mb5.2/1,MLv4.1/17,Mw(mB)5.6/1,MwMwp5.2/1, Mwp5.4/1*
*IDC **04** 14:42:14.9±5.3,8°.02S×114°.98E,h198km±49km,mb3.2/5, mbtmp3.8/6,Error ellipse: s-maj=48.9km s-min=15.0km az=59.0*
ISC 04 14:42:09.6±0.6,**8°.60S**±0°.10×**114°.39E**±0°.06,**h150km,n50,** σ**2s.06**/53,**mb4.0**/11,**1C,Bali region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAGI	**Jajag, Banyuwa**	**0.27**	**299**	P	**Pn**	**14 42 32.4**	**+2.4**
JAGI	**Jajag, Banyuwa**	**0.27**	**299**	S	**Sn**	**14 42 48.1**	**+2.5**
JAGI	**Jajag, Banyuwa**	**0.27**	**299**		**Pn**	**14 42 32.4**	**+2.4**
JAGI					**Sn**	**14 42 47.8**	**+2.2**
JAGI	**Jajag, Banyuwa**	**0.27**	**299**	P	**Pn**	**14 42 32.4**	**+2.4**
JAGI				S	**Sn**	**14 42 47.6**	**+2.0**
IGBI	**Denpasar**	**0.77**	**106**	P	**Pn**	**14 42 35.0**	**+2.5**
IGBI				S	**Sn**	**14 42 53.3**	**+3.3**
IGBI				AML	AML		
ABJI	**Asem Bagus**	**0.82**	**349**	P	**Pn**	**14 42 36.0**	**+3.1**
BLJI	**Banyuglugur**	**1.16**	**317**	P	**Pn**	**14 42 38.5**	**+2.7**
BLJI				AML	AML		
KHKI	**Kahang-Kahang**	**1.23**	**79**	P	**Pn**	**14 42 40.0**	**+3.7**
SNJI	**Sawahan-Nganju**	**2.73**	**287**	P	**Pn**	**14 42 56.9**	**+3.2**
SNJI				AML	AML		
PCJI	**Pacitan**	**3.21**	**277**	P	**Pn**	**14 43 01.7**	**+2.1**
PLAI	**Plampang**	**3.35**	**94**	P	**Pn**	**14 43 03.6**	**+2.2**
PLAI	**Plampang**	**3.35**	**94**	S	**Sn**	**14 43 44.1**	**+2.5**
PLAI	**Plampang**	**3.35**	**94**	P	**Pn**	**14 43 03.0**	**+1.6**
PLAI				AML	AML		
UGM	**Wanagama**	**3.89**	**280**	P	**Pn**	**14 43 10.4**	**+1.9**
UGM	**Wanagama**	**3.89**	**280**	S	**Sn**	**14 43 55.3**	**+1.1**
UGM	**Wanagama**	**3.89**	**280**		**Pn**	**14 43 10.2**	**+1.8**
SMRI	**Semarang**	**4.21**	**291**	P	**Pn**	**14 43 15.3**	**+2.6**
SMRI	**Semarang**	**4.21**	**291**		**Pn**	**14 43 15.2**	**+2.6**
BBJI	**Bungbulang**	**6.77**	**279**	P	**Pn**	**14 43 47.0**	**+0.3**
BBJI	**Bungbulang**	**6.77**	**279**	Pn	**Pn**	**14 43 47.5**	**+0.7**
MMRI	**Maumere**	**7.76**	**91**	Pn	**Pn**	**14 44 00.1**	**+0.3**
SOEI	**Soe**	**9.81**	**97**	P	**Pn**	**14 44 28.2**	**+0.9**
SOEI	**Soe**	**9.81**	**97**	Pn	**Pn**	**14 44 26.8**	**-0.5**
MNAI	**Manna**	**12.12**	**290**	P	**Pn**	**14 44 57.5**	**0.0**
MNAI	**Manna**	**12.12**	**290**	Pn	**Pn**	**14 44 56.9**	**-0.6**
FITZ	**Fitzroy Crossi**	**14.44**	**132**	P	**P**	**14 45 29.8**	**+0.1**
	4.5nm,0.4s,baz=323,slow=13,SNR=40						
FITZ				S	**Sn**	**14 48 01.5**	**-5.9**
	5.4nm,0.6s,baz=180,slow=23,SNR=7.9						
FITZ	**Fitzroy Crossi**	**14.44**	**132**	Pn	**P**	**14 45 28.2**	**-1.5**
KNRA	**Kununurra**	**15.70**	**118**		**P**	**14 45 44.2**	**+0.5**
KNRA				IAmb	IAmb	14 45 47.5	
	comp=Z,3.9nm,0.5s						
MTN	**Manton Dam**	**16.98**	**106**		**Pn**	**14 45 58.5**	**+0.2**
MTN				IAmb	IAmb	14 46 28.9	
	comp=Z,12nm,1.4s						
FAKI	**Fak Fak**	**18.64**	**73**	P	**P**	**14 46 16.1**	**+0.2**
FAKI	**Fak Fak**	**18.64**	**73**	P	**P**	**14 46 14.9**	**-1.0**
WB0	**Warramunga Arr**	**22.31**	**122**	P	**P**	**14 46 54.2**	**-0.8**
WB0				IAmb	IAmb	14 47 30.9	
	comp=Z,11nm,1.4s						
WRA	**Warramunga Arr**	**22.35**	**122**	P	**P**	**14 46 55.1**	**-0.3**
	comp=Z,0.3nm,0.4s,baz=300,slow=11,SNR=16						
WRA				PcP	**PcP**	**14 50 44.6**	**-0.7**
	comp=Z,0.3nm,0.5s,baz=311,slow=2.7,SNR=2.3						
	comp=Z,0.3nm,0.4s						
WRA	**Warramunga Arr**	**22.35**	**122**	P	**P**	**14 46 55.0**	**-0.3**
AS31	**Alice Springs**	**23.94**	**131**	P	**P**	**14 47 10.7**	**+0.6**
ASAR	**Alice Springs**	**23.94**	**131**	P	**P**	**14 47 10.9**	**+0.9**
	comp=Z,0.9nm,0.6s,baz=309,slow=9.7,SNR=25						
ASAR				PcP	**PcP**	**14 50 48.2**	**-0.4**
	comp=Z,0.5nm,0.4s,baz=306,slow=1.6,SNR=8.6						
	comp=Z,0.9nm,0.6s						
ASAR	**Alice Springs**	**23.94**	**131**	P	**P**	**14 47 11.5**	**+1.4**
FORT	**Forrest**	**25.49**	**152**	P	**P**	**14 47 25.3**	**+1.4**
CMAR	**Chiang Mai Arr**	**30.91**	**331**	P	**P**	**14 48 11.9**	**-0.4**
	comp=Z,0.5nm,0.3s,baz=155,slow=7.5,SNR=5.9						
	comp=Z,0.5nm,0.3s						
STKA	**Stephens Creek**	**34.27**	**136**	P	**P**	**14 48 42.9**	**+1.4**
	comp=Z,2.6nm,0.4s,baz=315,slow=8.0,SNR=7.1						
	comp=Z,2.6nm,0.4s						
JOW	**Kunigami**	**37.71**	**21**	P	P	14 49 04.7	-6.1
	comp=Z,13nm,0.5s,baz=356,slow=6.4,SNR=1.5						
BNX	**BinXian**	**55.34**	**11**	⇑P	P	14 51 37.6	+10
BNX				pmax	pmax		
	comp=Z,9.0nm,0.7s						
CASY	**Casey**	**57.65**	**182**	P	**P**	**14 51 45.7**	**+1.9**
CASY				IAmb	IAmb	14 52 01.4	
	comp=Z,3.4nm,1.1s						
MK31	**Makanchi Array**	**62.12**	**336**	P	**P**	**14 52 13.2**	**-1.4**
MK31				IAmb	IAmb	14 52 14.1	
	comp=Z,2.5nm,1.2s						
MKAR	**Makanchi Array**	**62.12**	**336**	P	**P**	**14 52 12.8**	**-1.8**
	comp=Z,0.2nm,0.4s,baz=147,slow=7.3,SNR=2.1						
	comp=Z,0.2nm,0.4s						
MKAR	**Makanchi Array**	**62.12**	**336**	P	**P**	**14 52 12.5**	**-2.2**
AB31	**Akbulak array**	**74.67**	**326**	P	**P**	**14 53 29.3**	**-3.2**
AB31				IAmb	IAmb	14 53 39.2	
	comp=Z,2.5nm,1.4s						
ABKAR	**Akbulak array**	**74.67**	**326**	P	**P**	**14 53 29.4**	**-3.1**
CPUP	**Villa Florida**	**144.35**	**193**	PKPbc	PKPbc	15 01 27.8	+0.4
	comp=Z,2.9nm,0.8s,baz=132,slow=2.6,SNR=5.3						
BDFB	**Brasilia**	**150.27**	**216**	PKPbc	**PKiKP**	**15 01 44.7**	**-0.2**
	comp=Z,2.1nm,0.4s,baz=90,slow=4.0,SNR=3.4						

IDC 04 14:50:51.6±6.7,**23°.97S**×**175°.85W,h0km,mb3.9**/4, **mbtmp3.9**/4,**Error ellipse: s-maj=272.8km s-min=39.6km az=149.0,Tonga Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	**Charters Tower**	**35.27**	**269**	P	P	14 57 49.9	+1.4
	1.9nm,0.5s,baz=96,slow=10,SNR=2.1						
	1.9nm,0.5s						
ASAR	**Alice Springs**	**45.76**	**260**	P	P	14 59 14.2	-1.0
	1.0nm,0.7s,baz=97,slow=7.8,SNR=11						
	1.0nm,0.7s						
WRA	**Warramunga Arr**	**46.19**	**265**	P	P	14 59 18.4	-0.2
	1.1nm,0.7s,baz=100,slow=7.6,SNR=10						
	1.1nm,0.7s						
ILAR	**Eielson Array**	**91.26**	**12**	P	P	15 03 58.4	0.0
	0.4nm,1.1s,baz=202,slow=4.7,SNR=5.2						
	0.4nm,1.1s						

*IDC **04** 15:30:43.2±2.5,22°.01N×144°.29E,h0km,mb3.8/6, mbtmp3.8/6,Error ellipse: s-maj=108.7km s-min=22.3km az=80.0*
ISC 04 15:30:51.9±2.8,**22°.0N**±0°.2×**144°.3E**±0°.8,**h69km,n6,** σ**0s.22**/6,**mb3.8**/6,**Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**42.78**	**194**	P	**P**	**15 38 43.0**	**+0.1**
	0.3nm,0.2s,baz=12,slow=8.9,SNR=16						
	0.3nm,0.2s						
ASAR	**Alice Springs**	**46.48**	**193**	P	**P**	**15 39 12.2**	**-0.2**
	0.3nm,0.9s,baz=13,slow=6.9,SNR=2.4						
	0.3nm,0.9s						
MKAR	**Makanchi Array**	**55.30**	**312**	P	**P**	**15 40 18.2**	**-0.2**
	0.4nm,0.5s,baz=90,slow=8.3,SNR=5.3						
	0.4nm,0.5s						
KURBB	**Kurchatov Arra**	**58.06**	**317**	P	**P**	**15 40 37.7**	**-0.1**
	1.3nm,0.6s,baz=93,slow=7.3,SNR=16						
	1.3nm,0.6s						
BVAR	**Borovoye Array**	**63.16**	**319**	P	**P**	**15 41 12.8**	**+0.2**
	1.5nm,0.4s,baz=92,slow=6.3,SNR=7.9						
	1.5nm,0.4s						
ARCES	**ARCESS Array B**	**79.01**	**342**	P	**P**	**15 42 48.0**	**0.0**
	0.6nm,0.5s,baz=45,slow=7.3,SNR=5.7						
	0.6nm,0.5s						

*IDC **04** 15:35:47.9±1.4,2°.04N×128°.33E,h0km,mb3.9/8, mbtmp4.0/8,MS3.7/1,Error ellipse: s-maj=101.9km s-min=16.5km az=73.0*
*DJA **04** 15:35:59.6±1.0,2°N±3°×12°8E±°,h89km±7km,M4.0/7, mB4.7/1,mb4.6/2,MLv3.7/7,Mw(mB)3.9/1*
ISC 04 15:35:58.5±1.2,**1°.9N**±0°.1×**128°.4E**±0°.2,**h92km,n11,** σ**0s.66**/11,**mb3.9**/7,**Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TNTI	**Ternate**	**1.53**	**223**	P	**Pn**	**15 36 24.8**	**+0.1**
TNTI				S	**Sn**	**15 36 43.7**	**-0.9**
GTOI	**Gorontalo**	**5.54**	**257**	P	**Pn**	**15 37 19.3**	**+0.8**
GTOI				AML	AML		
FITZ	**Fitzroy Crossi**	**20.06**	**188**	P	**P**	**15 40 24.3**	**-0.2**
	3.7nm,1.1s,baz=6.7,slow=17,SNR=2.8						
	3.7nm,1.1s						
WRA	**Warramunga Arr**	**22.48**	**165**	P	**P**	**15 40 50.7**	**+0.4**
	1.8nm,0.6s,baz=345,slow=10,SNR=14						
	1.8nm,0.6s						
ASAR	**Alice Springs**	**25.97**	**168**	P	**P**	**15 41 23.5**	**+0.8**
	0.2nm,0.3s,baz=340,slow=9.1,SNR=18						
	0.2nm,0.3s						
LZDM	**Lanzhou Array**	**40.90**	**329**	LR	LR	16 01 35.3	
	comp=Z,100nm,20.1s,baz=80,slow=38						
SONM	**Songino Array**	**49.56**	**341**	P	**P**	**15 44 39.9**	**-0.3**
	1.1nm,0.7s,baz=156,slow=8.3,SNR=5.4						
	1.1nm,0.7s						
MKAR	**Makanchi Array**	**60.00**	**325**	P	**P**	**15 45 55.8**	**+0.2**
	3.4nm,0.4s,baz=115,slow=8.1,SNR=72						
	3.4nm,0.4s						
ZALV	**Zalesovo Beam**	**62.97**	**333**	P	**P**	**15 46 14.3**	**-1.0**
	0.4nm,0.4s,baz=116,slow=4.6,SNR=2.6						
	0.4nm,0.4s						
KURBB	**Kurchatov Arra**	**64.17**	**327**	P	**P**	**15 46 23.2**	**0.0**
	3.6nm,0.7s,baz=126,slow=6.0,SNR=27						
	3.6nm,0.7s						
BVAR	**Borovoye Array**	**69.76**	**327**	P	**P**	**15 46 59.0**	**+0.3**
	1.5nm,0.8s,baz=134,slow=6.4,SNR=5.4						
	1.5nm,0.8s						

*AFAD **04** 16:02:53.8,38°.46N×39°.29E,h11km±1km,MW3.7*
*ISK **04** 16:02:54.1,38°.51N×39°.29E,h5km,ML3.5/17*
ISC 04 16:02:53.9±0.8,**38°.49N**±0°.02×**39°.30E**±0°.02,**h13km**±5km, **n65,**σ**0s.69**/90,**Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ESIJ	**Sivrice-Elazig**	**0.04**	**163**	Pg	**Pg**	**16 02 56.3**	**-0.1**
SVRC	**Sivrice-ELAZID**	**0.11**	**175**	Pg	**Pg**	**16 02 57.0**	**-0.2**
SVRC				AML	AML		
ESGZ	**Sivrice-Elazig**	**0.19**	**251**	Pg	**Pg**	**16 02 58.4**	**+0.1**
ESGZ				Sg	**Sg**	**16 03 01.6**	**+0.2**
ESGZ				AML	AML		
ELZ	**Elazig**	**0.21**	**341**	P	**Pb**	**16 02 59.5**	**-0.2**
ELZ				S	**Sb**	**16 03 02.8**	**-0.7**
ELZG	**Elazig**	**0.24**	**271**	P	**Pg**	**16 02 59.5**	**+0.4**
ELZG				S	**Sg**	**16 03 03.1**	**+0.3**
CNGT	**ngs**	**0.28**	**179**	P	**Pg**	**16 02 59.7**	**0.0**
CNGT				S	**Sg**	**16 03 03.2**	**-0.4**
MDNT	**Maden**	**0.32**	**108**	P	**Pg**	**16 03 00.5**	**0.0**
MDNT				S	**Sg**	**16 03 04.8**	**0.0**
KOVA	**Elazig, Kovanc**	**0.46**	**62**	P	**Pb**	**16 03 03.7**	**-0.2**
TNCL	**Tunceli-Merkez**	**0.65**	**17**	P	**Pg**	**16 03 06.6**	**-0.1**
TNCL				S	**Sb**	**16 03 15.9**	**-0.3**
MAYA	**Malatya/Merkez**	**0.70**	**257**	P	**Pg**	**16 03 07.3**	**-0.3**
MAYA				S	**Sb**	**16 03 17.4**	**-0.3**
NARI	**Adyaman-Kaht**	**0.74**	**215**	P	**Pg**	**16 03 08.0**	**-0.3**
NARI				S	**Sg**	**16 03 17.5**	**-0.4**
DYBB	**Diyarbakir**	**0.86**	**129**	Pg	**Pb**	**16 03 11.2**	**+0.5**
DYBB				Sg	**Sn**	**16 03 23.6**	**-0.6**
DYBB				AML	AML		
DIYA	**Diyarbakir**	**0.86**	**131**	P	**Pn**	**16 03 11.6**	**-0.2**
DIYA				S	**Sb**	**16 03 22.4**	**+0.1**
ARPR	**Arapgir-MALATY**	**0.96**	**309**	Pg	**Pg**	**16 03 12.6**	**+0.1**
ARPR				Sg	**Sn**	**16 03 26.8**	**-0.1**
ARPR				AML	AML		
HANM	**anlurfa/Hi**	**0.97**	**200**	P	**Pn**	**16 03 13.1**	**-0.2**
HANM				S	**Sn**	**16 03 26.2**	**-0.7**
AZEY	**Adyaman-Merk**	**1.07**	**231**	P	**Pn**	**16 03 15.0**	**+0.3**
AZEY				S	**Sn**	**16 03 29.6**	**+0.1**
ILIC	**ilic-Erzincan**	**1.11**	**330**	Pn	**Pb**	**16 03 15.2**	**+0.1**
ILIC				Sn	**Sn**	**16 03 30.9**	**+0.2**
ILIC				AML	AML		
HEKM	**Malatya_Hekimh**	**1.11**	**291**	P	**Pb**	**16 03 14.9**	**-0.3**
HEKM				S	**Sn**	**16 03 31.1**	**+0.3**
ERZN	**Erzincan**	**1.14**	**17**	Pn	**Pg**	**16 03 15.9**	**0.0**
ERZN				AML	AML		
BNGB	**Bingl**	**1.19**	**65**	Pn	**Pg**	**16 03 17.1**	**+0.3**
BNGB				AML	AML		
EUZM	**Uzumlu**	**1.25**	**14**	P	**Pb**	**16 03 17.7**	**+0.2**
ATAB	**Bozova**	**1.29**	**218**	P	**Pg**	**16 03 18.6**	**-0.1**
ATAB				S	**Sg**	**16 03 35.4**	**-0.1**
SANL	**SANLIURFA_Merk**	**1.34**	**190**	P	**Pb**	**16 03 19.1**	**+0.2**
SANL				S	**Sg**	**16 03 37.0**	**0.0**
YEDI	**Yedisu-Bingol**	**1.36**	**45**	Pn	**Pg**	**16 03 20.5**	**+0.5**
YEDI				AML	AML		
SLHN	**Bingol, Solhan**	**1.43**	**71**	P	**Pg**	**16 03 21.5**	**+0.1**
AKCA	**Adyaman/G¶l**	**1.45**	**242**	P	**Pg**	**16 03 21.6**	**-0.1**
AKCA				S	**Sg**	**16 03 40.6**	**+0.1**
SVAN	**Silvan-Diyarba**	**1.54**	**102**	Pn	**Pb**	**16 03 21.9**	**-0.4**
SVAN				AML	AML		
SVAN	**Silvan-Diyarba**	**1.54**	**102**	P	**Pb**	**16 03 21.8**	**-0.5**
SVAN				S	**Sb**	**16 03 41.5**	**-0.1**
KARO	**Karliova-Bingo**	**1.59**	**59**	Pn	**Pb**	**16 03 23.7**	**+0.4**
KARO				AML	AML		
CUGUR	**Gurin_SVAS**	**1.60**	**279**	P	**Pg**	**16 03 24.2**	**-0.4**
CUGUR				S	**Sg**	**16 03 46.0**	**+0.6**
BTMN	**Batman**	**1.67**	**110**	P	**Pb**	**16 03 24.0**	**-0.6**
BTMN				S	**Sn**	**16 03 44.2**	**-0.1**
SURC	**SANLIURFA_SURC**	**1.70**	**199**	P	**Pn**	**16 03 24.1**	**+0.8**
SURC				S	**Sb**	**16 03 47.1**	**+0.8**
ELBS	**KAHRAMANMARAS**	**1.71**	**265**	P	**Pb**	**16 03 25.0**	**-0.3**
ECAT	**Cat-ERZURUM**	**1.72**	**49**	P	**Pg**	**16 03 26.9**	**0.0**
MUSM	**Mu-Merkez**	**1.75**	**82**	P	**Pb**	**16 03 25.7**	**-0.3**
MUSM				S	**Sb**	**16 03 48.8**	**+0.8**
GZT	**Gaziantep**	**1.78**	**231**	P	**Pb**	**16 03 25.6**	**-0.9**
GZT				S	**Sg**	**16 03 50.1**	**-1.0**
KOPT	**Kop Dagi**	**1.79**	**31**	P	**Pg**	**16 03 27.5**	**-0.7**
VRTB	**Varto-Mus**	**1.81**	**68**	Pn	**Pb**	**16 03 26.8**	**-0.3**
VRTB				AML	AML		
VRTB	**Varto-Mus**	**1.81**	**68**	P	**Pb**	**16 03 27.6**	**+0.5**
ALUC	**Giresun/Alucra**	**1.89**	**348**	P	**Pg**	**16 03 29.8**	**-0.4**
SUSE	**Susehri**	**1.91**	**334**	P	**Pg**	**16 03 30.4**	**-0.2**
BAYB	**BAYBURT**	**1.92**	**23**	P	**Pg**	**16 03 29.9**	**-0.7**
NZIP	**Nizip/Gaziante**	**1.93**	**222**	P	**Pn**	**16 03 27.8**	**+1.3**
NZIP				S	**Sb**	**16 03 53.3**	**+0.1**
MIDY	**Mardin/Midyat-**	**1.98**	**122**	S	**Sb**	**16 03 53.8**	**-0.8**
KHMN	**Narli-Kahraman**	**2.02**	**238**	Pn	**Pb**	**16 03 29.6**	**-0.8**
KHMN				AML	AML		
KHMN	**Narli-Kahraman**	**2.02**	**238**	P	**Pb**	**16 03 29.7**	**-0.7**
KAHM	**Kahramanmaras,**	**2.07**	**243**	P	**Pb**	**16 03 30.3**	**-1.0**
SRTM	**Siirt_Merkez**	**2.13**	**103**	P	**Pn**	**16 03 30.3**	**+1.0**
KMRS	**Kahramanmaras**	**2.13**	**243**	Pn	**Pb**	**16 03 31.3**	**-1.1**
KMRS				AML	AML		
CUAYA	**Sivas-Altinyay**	**2.13**	**292**	P	**Pb**	**16 03 32.7**	**+0.2**
ERZM	**Erzurum**	**2.14**	**48**	P	**Pb**	**16 03 33.0**	**+0.3**
GURO	**Guroymak-BITLI**	**2.15**	**88**	Pn	**Pb**	**16 03 31.9**	**-0.9**
GURO				AML	AML		
SCER	**sogukcermik**	**2.17**	**310**	P	**Pn**	**16 03 30.4**	**+0.5**
KHMR	**Kahramanmara**	**2.21**	**239**	P	**Pn**	**16 03 31.3**	**+1.0**
BLIS	**Bitlis-Merkez**	**2.22**	**91**	P	**Pn**	**16 03 31.9**	**+1.3**
KRIK	**Erzurum-spir**	**2.23**	**34**	P	**Pb**	**16 03 32.9**	**-1.4**
SARI	**SarD1z-Kayseri**	**2.26**	**269**	Pn	**Pn**	**16 03 32.9**	**+1.7**
SARI				AML	AML		
SVSK	**Karacayir**	**2.28**	**309**	Pn	**Pb**	**16 03 33.9**	**-1.0**
SVSK				AML	AML		
KAMA	**Osmaniye**	**2.46**	**239**	P	**Pn**	**16 03 34.8**	**+1.0**
KUZU	**Kuzuini**	**2.46**	**226**	P	**Pn**	**16 03 35.3**	**+1.5**
KOPR	**Koprukoy-ERZUR**	**2.49**	**52**	Pn	**Pb**	**16 03 36.7**	**-1.9**
KOPR				AML	AML		
IZDR	**Rize**	**2.49**	**23**	P	**Pb**	**16 03 37.6**	**-0.9**
ANDN	**Andirin**	**2.50**	**250**	P	**Pn**	**16 03 36.0**	**+1.6**
CUSAR	**Sarkisla-SIVAS**	**2.55**	**292**	P	**Pb**	**16 03 38.6**	**-1.1**
HOMI	**Horasan**	**2.55**	**52**	P	**Pb**	**16 03 38.0**	**-1.7**

*NNC **04** 16:05:14.3±4.8,41°.79N×80°.62E,h0km,mb3.2,mpv2.9, Error ellipse: s-maj=37.5km s-min=27.1km az=7.0*
*SOME **04** 16:05:21.0,42°.30N×80°.92E,h15km*
ISC 04 16:05:03.5±4.5,**41°.7N**±0°.2×**81°.8E**±0°.1,**h18km,n7,** σ**1s.12**/13,**4C-2D,Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC

SHLS	Shalkode	2.26	311	eP	Pb	16 05 42.5	-1.3
	3.8nm,0.2s						
SHLS				eS	Sn	16 05 58.3	-9.3
	10nm,0.3s						
PDGK	Podgornoye	2.36	315	⇑Pn	Pb	16 05 46.1	+0.6
	1.4nm,0.7s						
PDGK				⇑Sn	Sn	16 06 10.5	+0.5
	4.1nm,0.5s						
UZB	Uzynbulak	2.51	306	eP	Pg	16 05 52.2	+0.6
UZB				eS	Sn	16 06 14.8	+1.0
KPKS	Kokpek	2.90	309	eP	Pg	16 05 58.2	-0.8
	0.2nm,0.1s						
KPKS				eS	Sn	16 06 25.0	+1.7
	4.5nm,0.2s						
DJR	Jarkent	3.02	332	eP	Pg	16 06 02.1	+0.8
	1.8nm,0.3s						
DJR				eS	Sb	16 06 31.4	-1.8
	1.5nm,0.2s						
MK31	Makanchi Array	5.11	4	⇓Pn	Pb	16 06 31.3	-1.1
	3.7nm,1.4s,baz=194,slow=15,SNR=7.4						
MK31				⇓Sn	Sb	16 07 33.1	-0.3
	0.3nm,0.5s,baz=200,slow=25						
MAKZ	Makanchi	5.11	1	⇑Pn	Pb	16 06 32.7	+0.3
	12nm,2.3s						
MAKZ				⇑Sn	Sb	16 07 33.3	-0.2
	5.3nm,1.4s						

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*IDC **04** 16:23:25.8±1.1, 27°.32S×72°.01W, h0^{km}, mb4.3/3, mbtmp4.1/5, ML3.7/2, Error ellipse: s-maj=38.2km s-min=22.5km az=108.0*

*SJA **04** 16:23:26.7±0.7, 27°.48S×71°.56W, h19^{km}±3^{km}, ML3.8, MW4.1*

*GUC **04** 16:23:28.7±0.6, 27°.64S×71°.55W, h22^{km}±3^{km}, ML3.7*

ISC 04 16:23:26.8±0.8**, 27°.58S**±0°.03×**71°.65W**±0°.05**, h10**^{km}**, n42, σ1^{s}92**/66**, 5C-6D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.81	141	eS	Sg	16 23 39.3	-14
AC04				IAML		16 23 53.1	
	comp=Z,3µm,0.3s						
AC04	Llanos de Chal	0.81	141	⇓iP	Pb	16 23 42.0	-0.9
AC04				⇓eP	Pb	16 23 42.0	-0.9
AC04				eS	Sg	16 23 51.5	-1.4
AC04				IAML		16 23 54.0	
	comp=E,8µm,0.3s						
AC06	Mina Casimiro	1.17	80	⇓eP	Pb	16 23 47.8	-1.4
AC06				eS	Sb	16 24 03.1	-1.3
AC06				IAML		16 24 06.0	
	comp=N,2µm,0.1s						
GO03	Copiapo	1.25	91	eP	Pn	16 23 49.3	-1.2
GO03				eS	Sb	16 24 06.1	-0.7
GO03				IAML		16 24 07.0	
	comp=Z,2µm,0.6s						
GO03	Copiapo	1.25	91	⇓iP	Pn	16 23 49.2	-1.2
GO03				eS	Sb	16 24 04.5	-2.4
GO03				IAML		16 24 07.3	
	comp=N,1µm,0.4s						
LCO	Las Campanas	1.66	150	⇑iP	Pb	16 23 56.4	-1.2
LCO				eS	Sn	16 24 16.8	-0.8
AC01	Pan de Azucar	1.70	34	eP	Pn	16 23 56.0	-0.7
AC01				eS	Sn	16 24 17.5	-1.0
AC01	Pan de Azucar	1.70	34	⇑iP	Pn	16 23 55.9	-0.7
AC01				eS	Sg	16 24 22.5	+0.9
AC05	El Transito	1.75	136	eP	Pb	16 23 58.0	-1.0
AC05				IAML		16 24 29.7	
	comp=Z,1µm,0.6s						
AC05	El Transito	1.75	136	⇓eP	Pb	16 23 57.8	-1.3
AC05				eS	Sn	16 24 18.5	-1.1
AC05				IAML		16 24 25.5	
	comp=E,916nm,0.4s						
AC02	Maricunga	2.36	72	eP	Pb	16 24 07.6	-2.1
AC02				eS	Sn	16 24 35.0	-0.4
AC02				IAML		16 24 45.1	
	comp=Z,953nm,0.9s						
AC02	Maricunga	2.36	72	⇑eP	Pb	16 24 07.5	-2.3
AC02				eS	Sb	16 24 38.6	-0.5
AC02				IAML		16 24 45.9	
	comp=N,1µm,0.3s						
GO04	Tololo Observa	2.69	164	eP	Pn	16 24 11.2	+0.8
GO04				eS	Sn	16 24 44.2	+1.0
CO01	Juntas del Tor	2.75	151	eP	Pb	16 24 13.2	-3.1
CO01				eS	Sn	16 24 45.9	+1.1
CO01				IAML		16 24 54.6	
	comp=Z,313nm,0.8s						
CO01	Juntas del Tor	2.75	151	eP	Pb	16 24 13.1	-3.2
CO01				eS	Sn	16 24 45.3	+0.6
CO01				IAML		16 24 58.7	
	comp=N,674nm,0.9s						
CO06	Fray Jorge	3.09	180	eP	Pn	16 24 15.2	-0.4
CO06				IAML		16 25 18.6	
	comp=E,239nm,0.5s						
PB14	IPOC Station P	3.15	21	eP	Pn	16 24 16.1	-0.6
PB14				eS	Sg	16 25 08.5	+0.6
PB14				IAML		16 25 21.2	
	comp=Z,157nm,0.6s						
PB14	IPOC Station P	3.15	21	eP	Pn	16 24 15.8	-1.0
PB14				eS	Sn	16 24 52.5	-2.0
AROD	Rodeo	3.21	144	eP	Pb	16 24 21.2	-2.9
AROD				eS	Sb	16 25 00.0	-3.4
VCA	Vinchina	3.25	112	eP	Pn	16 24 17.0	-1.0
VCA				eS	Sb	16 25 06.0	+1.6
VCA				IAML		16 25 15.6	
	comp=Z,344nm,0.5s						
VCA	Vinchina	3.25	112	⇑eP	Pb	16 24 22.1	-2.6
VCA				eS	Sg	16 25 08.9	-2.4
CO03	El Pedregal	3.36	166	⇓eP	Pn	16 24 20.2	+0.8
CO03				eS	Sn	16 24 57.6	-1.8
TINO	Tinogasta	3.65	99	eP	Pn	16 24 25.5	+2.1
TINO				IAML		16 25 36.1	
	comp=Z,122nm,1.6s						
CO02	Combarbal	3.66	171	eP	Pn	16 24 23.9	+0.3
CO02				eS	Sn	16 25 04.0	-2.9
ACCO	Cerro Coronel	3.76	144	eP	Pb	16 24 29.1	-4.4
ACCO				eS	Sb	16 25 18.5	-0.6
ACCO				IAML		16 25 28.8	
	comp=Z,225nm,0.5s						
ACLC	CERRO LA CRUZ	4.52	115	eP	Pn	16 24 37.9	+2.4
ACLC				eS	Sb	16 25 41.2	+0.1
ACLC				IAML		16 25 58.8	
	comp=Z,54nm,1.1s						
RTLS	Leoncito	4.68	155	eP	Pn	16 24 41.9	+4.1
RTLS				eS	Sb	16 25 40.5	-5.1
PB05	IPOC Station P	4.88	16	eP	Pn	16 24 39.9	-0.6
PB05				IAML		16 26 25.1	
	comp=Z,56nm,0.8s						
CFA	Coronel Fontan	4.99	144	eP	Pn	16 24 45.2	+3.4
CFA				eS	Sb	16 25 54.5	+0.1
CFA				IAML		16 26 08.1	
	comp=Z,86nm,0.8s						
CYA	Choya	5.24	101	eP	Pn	16 24 47.4	+2.1
CYA				eS	Sb	16 26 01.3	-0.3
CYA				IAML		16 26 01.4	
	comp=Z,30nm,0.6s						
CYA	Choya	5.24	101	⇑eP	Pn	16 24 47.2	+1.9
AHML	Horco Molle	5.68	83	eP	Pn	16 24 50.8	-0.5
SLA	San Lorenzo	6.21	64	eP	Pb	16 25 07.1	-8.0
TCA	Tanti	7.20	123	eP	Pn	16 25 12.2	0.0
TCA				eS	Sn	16 26 37.5	+3.4
LPAZ	La Paz	11.70	17	Pn	Pn	16 26 12.9	-1.5
	comp=Z,0.3nm,0.3s,baz=204,slow=7.0,SNR=5.4						
	comp=Z,1.0nm,0.5s						
LPAZ				AML	AML		
CPUP	Villa Florida	12.83	88	Pn	Pn	16 26 33.0	+3.6
	comp=Z,0.1nm,0.3s,baz=206,slow=14,SNR=2.4						
	comp=Z,1.2nm,0.7s						
CPUP				AML	AML		
SNAA	Sanae	57.43	160	P	P	16 33 18.9	+3.5
	comp=Z,5.4nm,0.4s,baz=228,slow=12,SNR=2.0						
	comp=Z,5.4nm,0.4s						
QSPA	South Pole Qui	62.64	180	P	P	16 33 53.4	+2.1
	comp=Z,0.6nm,0.4s,baz=312,slow=1.4,SNR=9.0						
	comp=Z,0.6nm,0.4s						
TORD	Torodi Ar. Bea	81.73	71	P	P	16 35 46.6	+0.5
	comp=Z,1.3nm,0.6s,baz=271,slow=3.9,SNR=8.1						
	comp=Z,1.3nm,0.6s						
WRA	Warramunga Arr	126.48	211	PKP	PKiKP	16 42 31.9	+0.6
	comp=Z,0.1nm,0.3s,baz=126,slow=1.8,SNR=1.5						
ZALV	Zalesovo Beam	148.48	27	PKPbc	PKiKP	16 43 14.0	-0.9
	comp=Z,1.2nm,0.6s,baz=304,slow=2.7,SNR=6.3						
MKAR	Makanchi Array	151.94	40	PKPbc	PKiKP	16 43 22.6	+0.2
	comp=Z,0.6nm,0.6s,baz=316,slow=2.4,SNR=7.7						

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*IDC **04** 16:27:22.9±6.4, 9°.20S×67°.89E, h0^{km}, mb3.4/4, mbtmp3.4/4, MS3.4/12, Error ellipse: s-maj=164.7km s-min=43.1km az=76.0*

ISC 04 16:27:26.9±1.7**, 9°.1S**±0°.3×**68°.3E**±0°.2**, h10**^{km}**, n23, σ0^{s}94**/10**, mb3.4**/4**, MS3.4**/12**, Chagos Archipelago region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H08S1	Diego Carcia H	4.39	71	Pn	Pn	16 28 34.8	+1.3
	baz=278,slow=15						
H08S1				Sn	Sn	16 29 23.9	-0.7
H08S3	Diego Garcia H	4.41	71	Pn	Pn	16 28 34.5	+0.8
	baz=278,slow=15						
H08S3				Sn	Sn	16 29 24.4	-0.7
H08S2	Diego Garcia H	4.41	71	Pn	Pn	16 28 35.0	+1.3
	baz=278,slow=15						
H08S2				Sn	Sn	16 29 24.3	-0.8
PALK	Pallekele	20.43	38	LR	LR	16 37 58.0	
	comp=Z,39nm,20.4s,baz=220,slow=31						
MBAR	Mbarara	38.31	281	LR	LR	16 49 53.6	
	comp=Z,33nm,18.3s,baz=64,slow=36						
BRDH	Bariadhala	39.00	36	LR	LR	16 53 02.9	
	comp=Z,59nm,18.4s,baz=167,slow=39						
H04N2	CROZET ISLANDS	39.55	198	T	T	17 16 46.3	
	baz=27,slow=75,SNR=9.8						
H04N1	CROZET ISLANDS	39.55	198	T	T	17 16 47.3	
	baz=27,slow=75,SNR=10						
H04N3	CROZET ISLANDS	39.57	198	T	T	17 16 46.1	
	baz=27,slow=75,SNR=7.0						
LSZ	Lusaka	39.62	257	LR	LR	16 47 54.4	
	comp=Z,62nm,20.8s,baz=99,slow=31						
MATP	Matopo	39.98	249	LR	LR	16 49 41.7	
	comp=Z,34nm,18.7s,baz=76,slow=34						
CMAR	Chiang Mai Arr	40.80	48	P	P	16 35 09.1	+0.2
	0.2nm,0.3s,baz=251,slow=8.3,SNR=4.3						
	0.2nm,0.3s						
LBTB	Lobatse	43.55	243	LR	LR	16 51 45.2	
	comp=Z,44nm,18.6s,baz=90,slow=34						
BOSA	Boshof	44.80	238	LR	LR	16 52 11.7	
	comp=Z,42nm,19.4s,baz=31,slow=34						
H01W3	Cape Leeuwin H	49.09	129	T	T	17 29 44.2	
	baz=291,slow=75,SNR=40						
H01W2	Cape Leeuwin H	49.10	129	T	T	17 29 49.2	
	baz=291,slow=75,SNR=47						
H01W1	Cape Leeuwin H	49.11	129	T	T	17 29 48.8	
	baz=291,slow=75,SNR=45						
KAPI	Kappang	51.21	89	LR	LR	16 56 18.9	
	comp=Z,18nm,19.8s,baz=78,slow=34						
FITZ	Fitzroy Crossi	56.28	106	LR	LR	16 57 03.8	
	comp=Z,35nm,21.9s,baz=164,slow=32						
MAW	Mawson	58.55	182	LR	LR	16 58 21.4	
	comp=Z,34nm,18.1s,baz=350,slow=32						
ASAR	Alice Springs	64.13	112	P	P	16 38 01.7	-0.3
	0.2nm,0.9s,baz=274,slow=6.5,SNR=5.5						
	0.2nm,0.9s						
WRA	Warramunga Arr	64.52	108	P	P	16 38 04.3	-0.3
	0.3nm,0.8s,baz=270,slow=5.9,SNR=1.5						
WRA				LR	LR	17 04 39.9	
	comp=Z,77nm,20.9s,baz=90,slow=34						
	0.3nm,0.8s						
SONM	Songino Array	65.95	27	P	P	16 38 12.9	-0.5
	0.4nm,0.4s,baz=235,slow=5.2,SNR=4.0						
SONM				LR	LR	17 05 39.8	
	comp=Z,59nm,18.9s,baz=144,slow=35						
	0.4nm,0.4s						

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*RSNC **04** 16:33:33.5±0.0, 7°N±1°×7°3W±°, h145^{km}±1^{km}, M3.2, mB4.9, mb3.4, ML2.8, Mw(mB)4.1*

*FUNV **04** 16:33:35.2, 7°.14N×73°.11W, h17^{km}, MW3.6, Presumed earthquake*

ISC 04 16:33:30.8±1.4**, 6°.88N**±0°.03×**73°.07W**±0°.05**, h158**^{km}±9^{km}**, n36, σ1^{s}57**/67**, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BARC	Barichara	0.31	201	P	Pn	16 33 53.1	+0.5
BARC				S	Sn	16 34 07.9	-1.3
PAMC	Pamplona, Colo	0.58	39	P	Pn	16 33 55.9	+1.8
PAMC				S	Sn	16 34 12.8	+1.0
BRJC	Barrancabermej	0.68	278	P	Pn	16 33 54.9	+0.9
BRJC				S	Sn	16 34 11.9	+0.3
RUSC	La Rusia	0.98	181	P	Pn	16 33 57.1	+0.3
RUSC				S	Sn	16 34 15.2	-1.4
RUSC	La Rusia	0.98	181	eP	Pn	16 33 57.3	+0.6
RUSC				eS	Sn	16 34 14.6	-2.0
OCAC	Ocana	1.37	350	P	Pn	16 34 01.4	+1.5
OCAC				S	Sn	16 34 23.1	+0.9
PTBC	PUERTO BERRIO,	1.42	256	P	Pn	16 34 00.2	+0.1
PTBC				S	Sn	16 34 21.0	-1.6
SPBC	San Pablo de B	1.58	219	P	Pn	16 34 02.0	+0.1
SPBC				S	Sn	16 34 23.7	-2.0
NORC	Norcasia	2.22	234	P	Pn	16 34 09.7	+0.7
NORC				S	Sn	16 34 37.8	-0.6
CHIC	Chingaza	2.33	196	P	Pn	16 34 11.4	+0.7
CHIC				S	Sn	16 34 40.2	-1.3
ROSC	El Rosal	2.38	212	P	Pn	16 34 12.9	+1.6
ROSC				S	Sn	16 34 43.1	+0.7
HELC	Santa Helena	2.54	254	P	Pn	16 34 14.0	+0.9
HELC				S	Sn	16 34 45.0	-0.8
HELC	Santa Helena	2.54	254	eP	Pn	16 34 15.4	+2.3
HELC				eS	Sn	16 34 45.8	+0.1
CVER	Cruz Verde, Cu	2.55	203	P	Pn	16 34 14.3	+0.9
UREC	San Jos de Ur	2.59	290	P	Pn	16 34 13.7	+0.3
UREC				S	Sn	16 34 44.2	-2.2
GUY2C	Guyana, Caldas	2.81	234	P	Pn	16 34 17.3	+0.7
GUY2C				S	Sn	16 34 52.5	+0.5
VILC	Villavicencio,	2.82	193	P	Pn	16 34 16.9	+0.5
VILC				S	Sn	16 34 50.9	-0.8
CBOC	Ciudad Bolivar	3.09	251	P	Pn	16 34 21.3	+1.5
CBOC				S	Sn	16 34 57.8	0.0
DBBC	Dabeiba	3.12	273	P	Pn	16 34 21.2	+1.1
DBBC				S	Sn	16 34 57.2	-1.0
SDV	Santo Domingo	3.13	50	P	Pn	16 34 23.0	+2.7
SDV	Santo Domingo	3.13	50	eP	Pn	16 34 21.8	+1.5
SDV				eS	Sn	16 34 54.9	-3.8
APAC	Apartado, Choc	3.63	286	P	Pn	16 34 26.8	+0.4
APAC				S	Sn	16 35 09.1	-0.6
PRAC	Prado	3.63	210	P	Pn	16 34 26.8	+0.2
PRAC				S	Sn	16 35 08.9	-1.0
SJCC	San Jacinto, C	3.65	325	P	Pn	16 34 27.4	+0.6
SJCC				S	Sn	16 35 09.9	-0.5
SJCC	San Jacinto, C	3.65	325	eP	Pn	16 34 26.8	0.0
SJCC				eS	Sn	16 35 05.2	-5.3
ORTC	Ortega, Tolima	3.66	216	P	Pn	16 34 27.9	+0.9
ORTC				S	Sn	16 35 10.7	+0.1
LCBC	Los crdobas,	3.81	301	P	Pn	16 34 33.9	+5.1
LCBC				S	Sn	16 35 15.7	+1.7
GUVC	San Jose del G	4.33	174	P	Pn	16 34 35.6	0.0
GUVC				S	Sn	16 35 26.7	+0.5
SMRC	Santa Marta, M	4.41	345	P	Pn	16 34 37.8	+1.2
SMRC				S	Sn	16 35 26.7	-1.2
MACC	Macarena, Meta	4.77	189	P	Pn	16 34 39.9	-1.5
URIC	Uribia, Colomb	4.91	12	P	Pn	16 34 44.0	+0.9
URIC				S	Sn	16 35 40.2	+0.5
URIC	Uribia, Colomb	4.91	12	eP	Pn	16 34 44.1	+0.9
URIC				eS	Sn	16 35 34.1	-5.6
GARC	Garzon, Huila	5.25	207	P	Pn	16 34 47.4	-0.6
GARC				S	Sn	16 35 46.7	-1.5
GARC				AML	AML		
POPC	Popayan, Colom	5.61	220	P	Pn	16 34 53.6	+0.9
POPC				S	Sn	16 35 56.8	0.0
TURV	Turiamo	6.27	55	eP	Pn	16 35 02.9	+1.7
BBAC	Balboa, Cauca	6.37	221	P	Pn	16 35 04.5	+1.7
BBAC				S	Sn	16 36 13.5	-1.4

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*UPA **04** 16:33:29.4±0.7, 8°.22N×83°.13W, h20^{km}±2^{km}, MW3.9, Presumed earthquake*

*UCR **04** 16:33:31.5±0.6, 8°.34N×82°.99W, h4^{km}±5^{km}, MW4.0, Presumed earthquake*

ISC 04 16:33:30.8±1.4**, 8°.29N**±0°.05×**83°.01W**±0°.04**, h21**^{km}±1^{km}**, n34, σ0^{s}79**/40**, 1C-2D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTPM	Petroterminale	0.15	121	⇑iP	Pb	16 33 35.9	-0.6
PTPM				eS	Sb	16 33 40.2	-0.3
PTPA	Petro Terminal	0.17	121	eP	Pb	16 33 36.0	-0.5
PTPA				eS	Sb	16 33 40.1	-0.3
LMNES	Limones	0.24	140	eP	Pb	16 33 37.5	+0.8
PIRO	Carate, Puerto	0.34	290	eP	Pb	16 33 38.9	+0.8
FITO	Golfito	0.37	338	eP	Pb	16 33 38.1	-0.4
NELY	Ciudad Neily	0.37	10	eP	Pb	16 33 38.6	0.0
EDAD	Golfito	0.40	338	eP	Pb	16 33 38.6	-0.4
JIME	Puerto Jimenez	0.40	309	eP	Pb	16 33 40.3	+1.2
MLIR3	Monte Lirio, C	0.54	20	eP	Pb	16 33 42.3	+0.6
MLIR3				eS	Sn	16 33 51.2	-0.7
DVD	David	0.58	75	eP	Pb	16 33 41.5	-0.8
DVD				eS	Sn	16 33 52.2	-0.5
BRU2	Volcan	0.60	32	eP	Pb	16 33 42.9	+0.2
BRU2	Volcan	0.60	32	⇓iP	Pb	16 33 43.0	+0.2
BRU2				eS	Sn	16 33 53.9	+0.4
CLLRA	Cordillera,	0.60	41	eP	Pb	16 33 43.0	+0.2
BQTLY	Boquete Panama	0.72	49	eP	Pb	16 33 44.7	-0.1
EDP2	Potrero Grande	0.74	347	eP	Pb	16 33 45.5	+0.4
EDPE	Pejibaye, P	1.03	328	eP	Pb	16 33 49.8	-0.2
RBALA	Bur	1.04	55	eP	Pn	16 33 49.7	-0.4
KKNTU	Kakintº	1.31	65	eP	Pn	16 33 53.7	-0.3
CEUA	Cerro Uatsi, L	1.33	3	eP	Pb	16 33 56.6	+1.5
PIEC	Cerro El Cedra	1.62	325	eP	Pb	16 34 00.0	-0.2
LCR2	La Lucha 2	1.75	326	eP	Pb	16 34 02.7	+0.4
PICV	PH. Pirrs	1.77	319	eP	Pb	16 34 02.7	0.0
VERB	Verbena	1.78	338	eP	Pn	16 34 01.3	+0.8
VTCV	VTCV, Calle Va	1.83	337	eP	Pb	16 34 03.5	-0.1
GMAL	Guarumal, Vera	1.84	106	eP	Pb	16 34 03.8	+0.1
GMAL	Guarumal, Vera	1.84	106	eP	Pn	16 34 01.2	+0.1
GMAL				eS	Sn	16 34 23.8	0.0
ABRB	Las Abras (San	1.85	338	eP	Pb	16 34 03.9	-0.1
CVTQ	Turrialba Volc	1.86	337	eP	Pb	16 34 04.5	+0.1
VTR0	Volcan Turrial	1.87	337	eP	Pb	16 34 04.7	+0.1
CVTR	Volcan Turrial	1.88	337	eP	Pb	16 34 04.2	-0.4
VBV1	V. Barva	2.11	330	eP	Pb	16 34 08.8	+0.3
AZU	Azuero	2.76	100	⇓eP	Pn	16 34 13.3	-0.5
CUI	Cuipilapa	3.17	318	eP	Pb	16 34 24.1	-2.4
VMAR	Armenia, Volca	3.26	321	eP	Pb	16 34 25.3	-2.6

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*IDC **04** 16:42:32.4±0.7, 40°.35N×145°.37E, h0^{km}, mb3.9/15, mbtmp3.9/21, ML3.3/5, MS2.9/5, Error ellipse: s-maj=17.0km s-min=12.1km az=130.0*

*NIED **04** 16:42:35.3, 40°.38N×145°.21E, h24^{km}, MW3.9, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}-6.91; $M_{\theta\theta}$1.05; $M_{\phi\phi}$5.86; $M_{r\theta}$-0.32; $M_{\theta\phi}$1.03; $M_{\phi r}$5.12; Fault plane solution: $M_0$8.26000×10^{14} NP1:ϕ_s18.00000°, δ27.00000°, λ-76.00000°. NP2:ϕ_s183.00000°, δ64.00000°, λ-97.00000°.*

*JMA **04** 16:42:35.3±0.1, 40°.4N±0°.2×145°.2E±0°.5, h24^{km}±1^{km}, MV4.4/19, FAR E OFF NORTH HONSHU*

*NEIC **04** 16:42:38.0±1.8, 40°.38N±0°.07×145°.0E±0°.1, h39^{km}±3^{km}, mb4.6/9, Error ellipse: s-maj=14.8km s-min=10.2km az=108.0*

ISC 04 16:42:37.3±0.7**, 40°.37N**±0°.07×**145°.19E**±0°.08**, h36**^{km}**, n55, σ1^{s}10**/45**, mb4.0**/20**, Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ERM	Erimo	2.25	318		Pn	16 43 11.0	-0.9
ERM				Sn	Sn	16 43 37.5	-0.9
JTM	Tenmabayashi	3.17	279		Pn	16 43 23.2	-1.4
JKA	Kamikawa-asahi	4.21	334	Pn	Pn	16 43 38.7	-0.2
MJAR	Matsushiro Arr	6.68	237	Pn	Pn	16 44 12.0	-0.9
	0.3nm,0.3s,baz=54,slow=13,SNR=15						
MJAR				Sn	Sn	16 45 26.5	-1.3
	baz=317,slow=16						
MJAR				LR	LR	16 47 11.4	
	comp=Z,52nm,20.1s,baz=34,slow=41						
	3.0nm,0.4s						
MJAR				AML	AML		
MAJO	Matsushiro	6.68	237		Pn	16 44 12.2	-0.7
MJB9	Matsu-Tunnel	6.68	237		Pn	16 44 13.3	+0.3
JGF	Kuroka	7.81	235		Pn	16 44 28.8	+0.4
USRK	Ussuriysk Ar.	10.50	296	Pn	Pn	16 45 05.4	+0.2
	0.4nm,0.3s,baz=107,slow=14,SNR=12						
	9.2nm,0.9s						
USRK				AML	AML		
USRK	Ussuriysk Ar.	10.50	296		Pn	16 45 05.0	-0.2
KLR	Kul'dur	13.00	317	LR	LR	16 50 35.8	
	comp=Z,49nm,20.1s,baz=199,slow=37						
JNU	Nakatsue	13.56	242	Pn	Pn	16 45 46.9	-0.2
	0.2nm,0.3s,baz=255,slow=4.9,SNR=4.1						
JNU				LR	LR	16 51 03.7	
	comp=Z,122nm,20.0s,baz=72,slow=37						
	4.1nm,0.9s						
JNU				AML	AML		
KSRS	Korea Array	13.76	263	Pn	Pn	16 45 50.9	+1.1
	0.2nm,0.3s,baz=77,slow=12,SNR=2.3						
KSRS				LR	LR	16 50 21.1	
	comp=Z,28nm,21.3s,baz=100,slow=34						
	0.4nm,0.3s						
KSRS				AML	AML		
PETK	Petropavlovsk-	15.32	30	Pn	Pn	16 46 09.0	-1.7
	0.1nm,0.3s,baz=203,slow=9.7,SNR=4.8						
	0.5nm,0.5s						
PETK				AML	AML		
PETK	Petropavlovsk-	15.32	30		Pn	16 46 07.0	-3.7
MA2	Magadan	19.54	9	P	Pn	16 47 03.3	+0.3
	1.5nm,0.4s,baz=179,slow=12,SNR=4.3						
MA2	Magadan	19.54	9	P	Pn	16 47 02.3	-0.7
MA2				IAmb	IAmb	16 47 18.3	
	comp=Z,16nm,1.2s						
HILR	Hailar Array B	20.12	306	P	Pn	16 47 08.5	-1.6
	comp=Z,1.3nm,0.4s,baz=104,slow=11,SNR=6.6						
	comp=Z,1.3nm,0.4s						
SEY	Seymchan	23.00	8	P	P	16 47 38.4	-0.2
	comp=Z,4.6nm,0.8s,baz=182,slow=5.4,SNR=17						
	comp=Z,4.6nm,0.8s						
SHEM	Shemya Is, Ala	23.23	48	P	P	16 47 39.9	-1.1
	comp=Z,73nm,0.9s,baz=237,slow=5.8,SNR=5.1						
YAK	Yakutsk	23.64	342	P	P	16 47 44.8	0.0
	comp=Z,18nm,0.5s,baz=120,slow=1.4,SNR=9.9						
	comp=Z,18nm,0.5s						
YAK	Yakutsk	23.64	342		P	16 47 43.1	-1.8
H11N2	WAKE ISLAND Hy	27.73	132	T	T	17 17 23.8	
	baz=320,slow=75,SNR=5.2						
H11N1	WAKE ISLAND Hy	27.74	132	T	T	17 17 23.2	
	baz=320						
H11N3	WAKE ISLAND Hy	27.74	132	T	T	17 17 23.3	
	baz=320,slow=75,SNR=3.6						
H11S1	WAKE ISLAND Hy	28.59	133	T	T	17 18 28.6	
	baz=324,slow=76,SNR=6.4						
H11S3	WAKE ISLAND Hy	28.59	133	T	T	17 18 27.9	
	baz=324,slow=76,SNR=5.0						
SONM	Songino Array	28.60	298	P	P	16 48 33.2	+3.0
	comp=Z,0.6nm,0.5s,baz=91,slow=10,SNR=3.5						
	comp=Z,0.6nm,0.5s						
H11S2	WAKE ISLAND Hy	28.61	133	T	T	17 18 30.6	
	baz=324,slow=76,SNR=5.3						
C18K	Utukok River	39.97	27	P	P	16 50 09.4	+1.4
C18K				IAmb	IAmb	16 50 10.4	
	comp=Z,9.0nm,0.8s						
ZALV	Zalesovo Beam	41.95	310	P	P	16 50 25.3	+0.9
	comp=Z,1.1nm,0.8s,baz=81,slow=9.2,SNR=2.6						
	comp=Z,1.1nm,0.8s						
IMAR	Indian Mountai	42.27	32	P	P	16 50 27.9	+1.1
MKAR	Makanchi Array	44.93	300	P	P	16 50 49.7	+1.2
	comp=Z,0.5nm,0.7s,baz=86,slow=8.4,SNR=2.6						
	comp=Z,0.5nm,0.7s						
MKAR	Makanchi Array	44.93	300	P	P	16 50 47.1	-1.4
ILAR	Eielson Array	45.09	34	P	P	16 50 49.8	+0.3
	comp=Z,1.3nm,0.7s,baz=259,slow=6.8,SNR=10						
	comp=Z,1.3nm,0.7s						
ILAR	Eielson Array	45.09	34	P	P	16 50 50.0	+0.5
CMAR	Chiang Mai Arr	45.21	255	P	P	16 50 53.7	+2.7
	comp=Z,0.3nm,0.6s,baz=55,slow=7.6,SNR=4.7						
	comp=Z,0.3nm,0.6s						
BMAR	Burnt Mountain	45.97	30	P	P	16 50 56.8	+0.3
KURBB	Kurchatov Arra	46.35	306	P	P	16 51 00.4	+0.7
	comp=Z,0.5nm,0.3s,baz=78,slow=8.7,SNR=1.9						
I30M	Mount Dempster	49.48	33	P	P	16 51 24.9	+1.1
I30M				IAmb	IAmb	16 51 26.3	
	comp=Z,4.8nm,0.8s						
HYT	Haines Junctio	49.85	39		P	16 51 29.1	+2.4
HYT				IAmb	IAmb	16 51 30.0	
	comp=Z,5.8nm,0.9s						
BVAR	Borovoye Array	50.56	311	P	P	16 51 33.5	+1.4
	comp=Z,0.7nm,0.4s,baz=99,slow=9.2,SNR=4.3						
	comp=Z,0.7nm,0.4s						
WB0	Warramunga Arr	60.67	192	P	P	16 52 44.2	-0.7
WB0				IAmb	IAmb	16 52 59.8	
	comp=Z,8.9nm,1.4s						
WR8	Warramunga Arr	60.84	192	P	P	16 52 45.7	-0.3
WRA	Warramunga Arr	60.85	192	P	P	16 52 45.9	-0.2
	comp=Z,1.3nm,0.5s,baz=10,slow=6.9,SNR=22						
	comp=Z,1.3nm,0.5s						

WRA	Warramunga Arr	60.85	192	P	P	16 52 44.0	-2.1
AS31	Alice Springs	64.57	191	P	P	16 53 10.9	+0.1
ASAR	Alice Springs	64.57	191	P	P	16 53 11.1	+0.2
	comp=Z,0.4nm,0.8s,baz=14,slow=7.4,SNR=11						
	comp=Z,0.4nm,0.8s						
ASAR	Alice Springs	64.57	191	P	P	16 53 09.9	-0.9
FINES	FINESS Array B	67.22	333	P	P	16 53 28.3	+0.9
	comp=Z,1.6nm,0.7s,baz=54,slow=7.5,SNR=8.3						
	comp=Z,1.6nm,0.7s						
FINES	FINESS Array B	67.22	333	P	P	16 53 28.1	+0.6
AKASG	Malin Array Be	73.43	323	P	P	16 54 06.2	+0.7
	comp=Z,0.7nm,0.4s,baz=45,slow=6.4,SNR=8.7						
	comp=Z,0.7nm,0.4s						
BRTR	Keskin Array B	78.80	313	LR	LR	17 35 03.3	
	comp=Z,14nm,18.4s,baz=136,slow=40						
GERES	GERESS Array B	81.37	330	P	P	16 54 50.9	+0.7
	comp=Z,0.3nm,0.3s,baz=38,slow=8.9,SNR=3.5						
	comp=Z,0.3nm,0.3s						
TXAR	Lajitas Array	85.76	55	P	P	16 55 14.1	+0.9
	comp=Z,0.4nm,0.6s,baz=321,slow=1.8,SNR=5.6						
	comp=Z,0.4nm,0.6s						
TXAR	Lajitas Array	85.76	55	P	P	16 55 14.0	+0.9

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*NNC **04** 17:22:50.2±7.1, 41°.86N×80°.75E, h0^{km}, mb3.1, mpv2.8, Error ellipse: s-maj=54.4km s-min=35.9km az=0.0*

*SOME **04** 17:22:56.7, 42°.45N×81°.00E, h5^{km}*

ISC 04 17:22:55.9±4.0**, 42°.1N**±0°.2×**80°.7E**±0°.1**, h4^{km}**±21^{km}**, n7, σ3^{s}04**/14**, 4C-1D, Kyrgyzstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHLS	Shalkode	1.38	320	*e*P	Pn	17 23 18.3	-3.7
	4.0nm,0.2s						
SHLS				*e*S	Sg	17 23 34.1	-6.2
	9.7nm,0.3s						
PDGK	Podgornoye	1.50	325	⇑Pn	Pn	17 23 21.9	-1.8
	5.0nm,1.8s						
PDGK				⇑Sn	Sg	17 23 45.4	+1.2
	5.8nm,0.7s						
UZB	Uzynbulak	1.60	311	*e*P	Pg	17 23 27.5	+0.8
UZB				*e*S	Sg	17 23 49.6	+2.2
SATY	Saty	1.93	300	*e*P	Pg	17 23 34.4	+1.6
	3.0nm,0.3s						
SATY				*e*S	Sg	17 24 01.4	+3.6
	8.8nm,0.2s						
KPKS	Kokpek	2.00	314	*e*P	Pg	17 23 33.6	-0.6
	0.3nm,0.2s						
KPKS				*e*S	Sg	17 24 00.2	+0.1
	4.0nm,0.2s						
MAKZ	Makanchi	4.80	11	⇓Pn	Pn	17 24 07.5	-1.3
	14nm,2.5s						
MAKZ				⇑Sn	Sn	17 25 07.5	+2.7
	3.0nm,1.1s						
MK31	Makanchi Array	4.83	13	Pn	Pn	17 24 08.1	-1.2
	0.9nm,0.8s,baz=184,slow=14,SNR=6.0						
MK31				⇑Sn	Sn	17 25 07.8	+2.1
	1.4nm,1.0s,baz=184,slow=22						

IDC 04 17:24:40.5±6.9**, 5°.37S×148°.02E, h0^{km}, mb3.0**/1**, mbtmp3.1**/2**, ML3.3**/1**, Error ellipse: s-maj=291.0km s-min=53.0km az=111.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	19.67	221	P	P	17 29 11.3	0.0
	0.1nm,0.3s,baz=41,slow=11,SNR=2.4						
	0.3nm,0.5s						
WRA				AML	AML		
ASAR	Alice Springs	22.71	215	P	P	17 29 44.1	-0.1
	0.7nm,1.1s,baz=50,slow=9.1,SNR=8.4						
	0.7nm,1.1s						
TORD	Torodi Ar. Bea	145.91	285	PKPbc	PKPdf	17 44 22.3	-0.2
	0.7nm,0.7s,baz=62,slow=5.0,SNR=2.3						

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*IDC **04** 17:45:19.3±0.4, 8°.37N×82°.91W, h0^{km}, mb4.9/28, mbtmp4.9/34, ML3.7/5, MS4.9/9, Error ellipse: s-maj=16.1km s-min=7.9km az=41.0*

*UPA **04** 17:45:20.3±1.2, 8°.34N×82°.97W, h5^{km}±2^{km}, MW5.8, Fault plane solution: NP1:ϕ_s44.80000°, δ58.30000°, λ56.00000°., Presumed earthquake*

*CATAC **04** 17:45:20.6±0.4, 8°N±3°×8°3W±°, h6^{km}±1^{km}, M5.6/19, MLv5.6/19, Error ellipse: s-maj=6.6km s-min=3.0km az=13.8, confirmed*

*MOS **04** 17:45:20.8±1.1, 8°.41N×82°.93W, h17^{km}, mb5.5/42, MS4.8/12, Error ellipse: s-maj=8.1km s-min=5.0km az=108.4*

*UCR **04** 17:45:20.1±0.7, 8°.29N×83°.00W, h7^{km}±3^{km}, MW5.7, Fault plane solution: NP1:ϕ_s120.88000°, δ20.10000°, λ84.17000°., Presumed earthquake*

*ISC-PP **04** 17:45:21, 8°.36N×82°.97W, h16^{km}, Mwppsm5.9, Moment Tensor Solution. s28 Moment tensor: Scale 10^{17}Nm; M_{rr}0.59±.24; $M_{\theta\theta}$-0.29±.25; $M_{\phi\phi}$-0.31±.20; $M_{r\theta}$0.01±.23; $M_{\theta\phi}$-0.33±.26; $M_{\phi r}$-0.36±.20; Fault plane solution: $M_0$9.12000$\times10^{17}$ NP1:ϕ_s205.20000°, δ58.10000°, λ67.90000°. NP2:ϕ_s62.80000°, δ38.10000°, λ121.20000°.*

*IPGP **04** 17:45:21.0, 8°.34N×82°.98W, h12^{km}, Mw5.5, Fault plane solution: NP1:ϕ_s314.00000°, δ43.00000°, λ113.00000°. NP2:ϕ_s104.00000°, δ51.00000°, λ71.00000°.*

*GFZ **04** 17:45:21.9, 8°.36N×82°.96W, h10^{km}, Mw5.5/17, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}2.11; $M_{\theta\theta}$-1.71; $M_{\phi\phi}$-0.40; $M_{r\theta}$0.43; $M_{\theta\phi}$1.05; $M_{\phi r}$0.25; Fault plane solution: $M_0$2.25888$\times10^{17}$ NP1: ϕ_s107.54008°, δ49.49364°, λ74.49769°. NP2: ϕ_s310.66387°, δ42.88907°, λ107.37339°. Principal axes: T 2.2091, Plg77.7866°, Azm314.2410°; N 0.0965, Plg11.7253°, Azm117.7529°; P -2.3056, Plg3.3703°, Azm208.4532°;*

*NEIC **04** 17:45:21.4, 8°.35N×82°.98W, h10^{km}*

*NEIC **04** 17:45:21.8±1.8, 8°.36N±0°.04×82°.97W±0°.05, h13^{km}±2^{km}, mb5.5/872, Ms_20 4.9/441, Mww5.6/71, Error ellipse: s-maj=7.0km s-min=6.1km az=48.0*

*GFZ **04** 17:45:22.7±0.2, 8°N±2°×8°3W±°, h10^{km}, M5.4/36, mb5.3/36*

*PTWC **04** 17:45:22, 8°.40N×82°.90W, h10^{km}, Mwp5.7/9, PANAMA-COSTA RICA BORDER REGION*

*BGR **04** 17:45:23.1, 7°.50N×82°.50W, h14^{km}, mb5.5, Ms5.2*

*GCMT **04** 17:45:24.8±0.1, 8°.32N±0°.01×82°.99W±0°.01, h13^{km}, MW5.6/169, Moment Tensor Solution. s139,c270; s169,c354; Duration: 1^{s}5 Moment tensor: Scale 10^{17} Nm; M_{rr}2.71±.03; $M_{\theta\theta}$-2.15±.03; $M_{\phi\phi}$-0.55±.03; $M_{r\theta}$-0.02±.06; $M_{\theta\phi}$1.34±.02; $M_{\phi r}$0.06±.07; Best double couple: $M_0$2.81200$\times10^{17}$ NP1:ϕ_s119.00000°, δ45.00000°, λ89.00000°. NP2:ϕ_s301.00000°, δ45.00000°, λ91.00000°. Principal axes: T 2.7110, Plg89.0000°, Azm273.0000°; N 0.2050, Plg1.0000°, Azm120.0000°; P -2.9130, Plg0.0000°, Azm30.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*NEIC **04** 17:45:30.8, 8°.45N×82°.87W, h20^{km}, Moment Tensor Solution. Duration: 3^{s}1 Moment tensor: Scale 10^{17}Nm; M_{rr}3.44; $M_{\theta\theta}$-2.37; $M_{\phi\phi}$-1.07; $M_{r\theta}$-0.01; $M_{\theta\phi}$1.53; $M_{\phi r}$0.08; Fault plane solution: $M_0$3.41000$\times10^{17}$ NP1: ϕ_s122.49000°, δ44.60000°, λ88.50000°. NP2: ϕ_s304.59000°, δ45.42000°, λ91.47000°. Principal axes: T 3.4401, Plg89.0000°, Azm282.0000°; N -0.0587, Plg1.0000°, Azm124.0000°; P -3.3814, Plg0.0000°, Azm34.0000°;*

ISC 04 17:45:20.9±0.6**, 8°.33N**±0°.02×**82°.98W**±0°.02**, h13^{km}**±3^{km}**, n1461, σ1^{s}52**/1066**, mb5.5**/522**, MS5.0**/259**, 39C-61D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTPM	Petroterminale	0.16	140	⇑*i*P	Pg	17 45 24.7	+0.1
PTPM				*e*S	Sg	17 45 27.6	+0.3
PTPA	Petro Terminal	0.17	138	⇑*e*P	Pg	17 45 24.7	-0.1
LMNES	Limones	0.26	152	⇑*e*P	Pg	17 45 26.3	+0.1
LMNES	Limones	0.26	152	⇓*e*P	Pg	17 45 26.4	+0.2
LMNES				*e*S	Sg	17 45 30.4	+0.6
CDITO	Canoas	0.27	24	P	Pg	17 45 26.4	-0.1
CDITO				S	Sb	17 45 32.3	+0.2
NELY	Ciudad Neily	0.32	6	⇓*e*P	Pg	17 45 27.4	0.0
NELY				*e*S	Sb	17 45 33.9	+0.2
NELY	Ciudad Neily	0.32	6	⇓*i*P	Pg	17 45 27.5	0.0
NELY				*e*S	Sb	17 45 33.5	-0.2
FITO	Golfito	0.34	330	⇓*e*P	Pg	17 45 26.8	-1.0
FITO				*e*S	Sg	17 45 32.9	+0.4
FITO	Golfito	0.34	330	⇓*e*P	Pg	17 45 27.0	-0.9
FITO				*e*S	Sb	17 45 33.5	-0.7
PIRO	Carate, Puerto	0.36	283		Pg	17 45 27.4	-0.7
PIRO				Sg	Sb	17 45 34.0	-0.6
PIRO	Carate, Puerto	0.36	283	P	Pg	17 45 27.7	-0.4
PIRO				S	Sb	17 45 35.3	+0.6
PIRO	Carate, Puerto	0.36	283	⇓*e*P	Pg	17 45 27.4	-0.7
PIRO	Carate, Puerto	0.36	283	⇑*e*P	Pg	17 45 27.8	-0.3
PIRO				*e*S	Sg	17 45 33.2	+0.3
EDAD	Golfito	0.37	331	⇓*e*P	Pg	17 45 27.4	-1.0
JIME	Puerto Jimenez	0.40	302	⇓*e*P	Pg	17 45 28.1	-0.7
MLIR3	Monte Lirio, C	0.49	19	⇓*i*P	Pg	17 45 31.0	+0.4
MLIR3				*e*S	Sb	17 45 38.3	-0.3
VITO	San Vito	0.49	1	*e*P	Pg	17 45 30.6	+0.1
VITO				*e*S	Sb	17 45 39.6	+1.0
VITO	San Vito	0.49	1	⇓*e*P	Pg	17 45 30.8	+0.2
VITO				*e*S	Sn	17 45 40.5	-1.7
DVD	David	0.54	78	*e*P	Pg	17 45 31.1	-0.3
DVD				*e*S	Sb	17 45 39.5	-0.3
SCLRA	Santa Clara, W	0.54	21	⇓*e*P	Pg	17 45 31.7	+0.1
SCLRA	Santa Clara, W	0.54	21	⇓*e*P	Pb	17 45 32.4	+0.1
BRU2	Volcan	0.55	32		Pg	17 45 31.5	-0.1
BRU2				Sg	Sb	17 45 41.1	+0.8
BRU2	Volcan	0.55	32	P	Pg	17 45 31.7	+0.1
BRU2	Volcan	0.55	32	P	Pg	17 45 31.8	+0.1
BRU2	Volcan	0.55	32	⇓*e*P	Pg	17 45 31.6	-0.1
BRU2				*e*S	Sb	17 45 41.6	+1.3
BRU2	Volcan	0.55	32	P	Pg	17 45 31.7	+0.1
BRU2	Volcan	0.55	32	⇓*e*P	Pg	17 45 31.8	+0.2
BRU2				*e*S	Sb	17 45 41.0	+0.8
CLLRA	Cordillera,	0.55	41	⇓*e*P	Pg	17 45 31.8	0.0
CLLRA	Cordillera,	0.55	41	⇓*e*P	Pg	17 45 31.9	+0.1
CLLRA				*e*S	Sb	17 45 41.5	+1.0
LOMA3	Las Lomas, Chi	0.59	80	⇓*i*P	Pg	17 45 31.9	-0.5
LOMA3				*e*S	Sb	17 45 41.3	-0.2
PTAR3	Potrerillos Ar	0.60	53	⇑*i*P	Pg	17 45 32.9	+0.2
PTAR3				*e*S	Sb	17 45 42.5	+0.6
CHIR3	Chiriqui UPA,	0.65	84	⇓*i*P	Pg	17 45 32.8	-0.7
CHIR3				*e*S	Sb	17 45 42.8	-0.3
BGUAL	Bijagual, Pana	0.67	74	⇓*e*P	Pg	17 45 33.4	-0.5
BGUAL				*e*S	Sg	17 45 37.3	-5.4
BQTLY	Boquete Panama	0.67	50	⇓*e*P	Pg	17 45 33.4	-0.6
BQTLY	Boquete Panama	0.67	50	⇓*e*P	Pg	17 45 33.5	-0.4
BQSF3	Alto Boquete,	0.68	53	*i* P	Pg	17 45 33.6	-0.6
BQSF3				*e*S	Sb	17 45 44.4	+0.3
LNBQ3	Los Naranjos,	0.71	49	⇓*i*P	Pg	17 45 33.8	-0.9
LNBQ3				*e*S	Sb	17 45 44.5	-0.3
EDP2	Potrero Grande	0.71	344	⇓*e*P	Pg	17 45 34.2	-0.5
PANP	Palmar Norte	0.79	323	*e*P	Pg	17 45 35.0	-1.1
BURE	Buenos Aires	0.91	337	*e*P	Pg	17 45 37.2	-1.3
RBALA	Bur	0.99	56	⇓*e*P	Pb	17 45 38.4	-1.4
RBALA	Bur	0.99	56	⇑*e*P	Pb	17 45 38.8	-1.1
RBALA				*e*S	Sb	17 45 52.5	-0.3
ISECA	Islas Secas	1.00	110	*e*P	Pb	17 45 37.9	-2.2
ISECA	Islas Secas	1.00	110	⇑*e*P	Pb	17 45 38.6	-1.5
ISECA				*e*S	Sb	17 45 52.3	-0.9
OCHAL	Ojochal	1.01	320	P	Pb	17 45 38.5	-1.7
OCHAL				S	Sn	17 45 55.5	+0.6
EDPE	Pejibaye, P	1.01	325	*e*P	Pb	17 45 37.9	-2.4
CHGR2	Aguacate	1.03	54	*i* P	Pb	17 45 39.0	-1.6
CHGR2				*e*S	Sb	17 45 53.1	-0.9
CNI2	El Empalme, Bo	1.20	25	*i* P	Pn	17 45 42.2	-1.2
CNI2				*e*S	Sb	17 45 56.9	-2.1
ZEDO	Perez Zeledon	1.23	326	*e*P	Pn	17 45 43.5	-0.5
KKNTU	Kakintº	1.27	66	⇓*e*P	Pn	17 45 42.5	-1.9
KKNTU	Kakintº	1.27	66	⇓*e*P	Pn	17 45 42.6	-1.8
KKNTU				*e*S	Sb	17 45 59.9	-1.0
CEUA	Cerro Uatsi, L	1.29	2	⇓*e*P	Pn	17 45 44.5	-0.2
RGM0	Gandoca	1.31	16		Pb	17 45 45.3	0.0
RGM0				Sn	Sg	17 46 04.0	+0.9
RGM0	Gandoca	1.31	16	P	Pb	17 45 45.7	+0.3
RGM0				S	Sg	17 46 04.5	+1.3
RGM0	Gandoca	1.31	16	⇓*e*P	Pb	17 45 45.4	0.0
BUS1	Rivas	1.44	328	*e*P	Pn	17 45 45.7	-1.4
QUEP	Quepos	1.60	313	P	Pn	17 45 48.9	0.0
QUEP				S	Sb	17 46 11.3	+0.7
QUEP	Quepos	1.60	313	*e*P	Pn	17 45 48.4	-0.5
SVQ2	Quepos	1.60	313	*e*P	Pn	17 45 48.8	-0.1
PIEC	Cerro El Cedra	1.61	323	*e*P	Pn	17 45 48.8	-0.5
RAZU	San Marcos de	1.68	322	*e*P	Pn	17 45 50.6	+0.5
PITB	Pirrs, San	1.68	322	*e*P	Pn	17 45 50.8	+0.6
REPA	Paraso	1.73	330	*e*P	Pn	17 45 50.3	-0.6
ABE2	San Pablo	1.73	322	*e*P	Pn	17 45 50.7	-0.2
LCR2	La Lucha 2	1.73	324		Pn	17 45 50.2	-0.7
LCR2				Sn	Sb	17 46 14.2	-0.3
LCR2	La Lucha 2	1.73	324	P	Pn	17 45 50.8	-0.1
LCR2				S	Sb	17 46 15.1	+0.7
LCR2	La Lucha 2	1.73	324	⇓*e*P	Pn	17 45 50.1	-0.8
LCR2	La Lucha 2	1.73	324	*e*P	Pn	17 45 49.8	-1.1
LCR2				⇑*e*P	Pb	17 45 50.6	-2.1
LCR2				*e*S	Sg	17 46 16.5	-0.2
VINA	Juan Vinas	1.73	334	*e*P	Pn	17 45 51.1	+0.3
VERB	Verbena	1.76	336	*e*P	Pn	17 45 49.8	-1.4
PICV	PH. Pirrs	1.76	317	*e*P	Pn	17 45 51.3	+0.1
PCAYA	Pacayas	1.78	333	⇓*e*P	Pn	17 45 51.7	+0.2
RITA	Parrita	1.79	312	*e*P	Pn	17 45 52.2	+0.8
TAAN	Batan	1.79	348	*e*P	Pn	17 45 52.2	+0.8
TAGO	Cartago	1.79	329	*e*P	Pn	17 45 51.6	-0.1
VTCV	VTCV, Calle Va	1.80	336	⇓*e*P	Pn	17 45 51.8	0.0
RAFA	San Farael, Vo	1.82	333		Pn	17 45 52.4	+0.2
RAFA	San Farael, Vo	1.82	333	⇓*e*P	Pn	17 45 52.2	+0.1
ABRB	Las Abras (San	1.82	337	*e*P	Pn	17 45 52.5	+0.4
GMAL	Guarumal, Vera	1.82	108	P	Pn	17 45 49.7	-2.3
GMAL	Guarumal, Vera	1.82	108	P	Pn	17 45 50.3	-1.6
GMAL				S	Sb	17 46 17.1	+0.3
GMAL	Guarumal, Vera	1.82	108	⇓*e*P	Pn	17 45 49.6	-2.3
GMAL	Guarumal, Vera	1.82	108	⇓*i*P	Pn	17 45 50.3	-1.6
GMAL				*e*S	Sn	17 46 15.2	+0.3
IRES	Siquirres	1.83	344	⇓*e*P	Pn	17 45 53.0	+0.9
RSUS3	Rio de Jesus,	1.84	101	*e*P	Pn	17 45 50.5	-1.7
RSUS3				*e*S	Sn	17 46 16.1	+0.8
LCOCO	El Coco	1.84	342	⇓*e*P	Pn	17 45 52.5	+0.4
CVTQ	Turrialba Volc	1.84	335	⇓*e*P	Pn	17 45 52.4	-0.1
VTR0	Volcan Turrial	1.85	336	⇓*e*P	Pn	17 45 52.5	-0.1
CVTR	Volcan Turrial	1.85	336	⇓*e*P	Pn	17 45 52.4	-0.3
VICA	Volcano Irazu	1.85	333	⇓*e*P	Pn	17 45 52.4	-0.4
TRIO	Tres Rios	1.86	328	*e*P	Pn	17 45 52.7	+0.1
ACOS	Acosta	1.87	321	*e*P	Pn	17 45 53.0	+0.3
RVLA	Villa Bonita	1.87	341	*e*P	Pn	17 45 52.7	+0.1
AMPA	Desamparados	1.89	326	*e*P	Pn	17 45 53.4	+0.4
SAFE3	Santa Fe, Vera	1.89	84	*e*P	Pn	17 45 52.6	-0.3
SAFE3				*e*S	Sn	17 46 17.2	+0.4
LUJA	Lujan	1.92	326	*e*P	Pn	17 45 53.4	0.0
SJS	Escuela Geolog	1.92	327	*e*P	Pn	17 45 53.7	+0.2
CORON	Coronado	1.92	328	*e*P	Pn	17 45 53.4	-0.1
CVIMO	Finca Echandi	1.94	331	⇓*e*P	Pg	17 45 58.2	+0.1
MEXI	Barrio Mexico	1.94	326	*e*P	Pn	17 45 53.8	+0.1
TIBA	Tibas	1.95	327	*e*P	Pb	17 45 55.4	-1.0
PAVB	Pavas, San Jos	1.96	325	*e*P	Pb	17 45 55.2	-1.3
DOMI	Santo Domingo	1.98	326	*e*P	Pn	17 45 54.9	+0.7
SANTA	Santa Ana	1.99	323	*e*P	Pn	17 45 53.0	-1.3
PURI	Puriscal	2.00	319	*e*P	Pn	17 45 55.1	+0.5
STIA3	Santiago, Vera	2.00	96	*e*P	Pn	17 45 53.5	-0.9
HDC	Heredia	2.00	326		Pn	17 45 54.8	+0.2
HDC				Sn	Sb	17 46 22.0	-0.3
HDC	Heredia	2.00	326	P	Pn	17 45 55.2	+0.7
HDC	Heredia	2.00	326	⇓*e*P	Pn	17 45 54.5	-0.1
HDC	Heredia	2.00	326	*e*P	Pn	17 45 54.3	-0.3
HDC	Heredia	2.00	326	P	Pn	17 45 55.3	+0.7
HEME	Heredia, Merce	2.01	326	*e*P	Pn	17 45 55.2	+0.5
BELE	Belen	2.03	324	⇑*e*P	Pn	17 45 55.2	+0.4
PILE	Guapiles	2.04	337	*e*P	Pn	17 45 56.0	+1.0
VBV1	V. Barva	2.09	328	*e*P	Pn	17 45 55.9	0.0
CALO3	Calobre, Verag	2.12	90	*e*P	Pn	17 45 55.7	-0.3
CALO3				*e*S	Sb	17 46 24.5	-1.0
POAS	San Pedro de P	2.14	325	*e*P	Pb	17 45 58.1	-1.5
TRB2	Turrubares	2.14	318	P	Pn	17 45 56.9	+0.5
TRB2	Turrubares	2.14	318	*e*P	Pn	17 45 56.9	+0.5
TCS1	Tacares	2.15	323	P	Pn	17 45 57.6	+1.1
TCS1	Tacares	2.15	323	*e*P	Pn	17 45 56.9	+0.4
ATEO	Atenas	2.15	320	*e*P	Pn	17 45 57.3	+0.8
GREC	Grecia	2.17	323	*e*P	Pn	17 45 58.0	+1.1
OROT	Orotina	2.19	316	*e*P	Pn	17 45 58.2	+1.1
SARCI	Sarchi	2.21	323	*e*P	Pb	17 45 59.3	-1.5
VPS5	V. Poas	2.23	326	⇓*e*P	Pn	17 45 58.4	+0.6
NARAN	Naranjo de Ala	2.23	322	*e*P	Pn	17 45 59.3	+1.6
PALD	Palmares	2.24	320	*e*P	Pn	17 45 58.2	+0.5
RAMO	San Ramon	2.28	320	*e*P	Pn	17 45 59.3	+0.9
SRA1	San Ramn	2.29	320	⇑*e*P	Pn	17 45 58.5	0.0
ZARE	Zarcero	2.31	323	*e*P	Pn	17 45 59.7	+0.8
CACAO	El Cacao, Vera	2.32	115	P	Pn	17 45 59.2	+0.5
CACAO				S	Sn	17 46 07.9	-19
CACAO	El Cacao, Vera	2.32	115	*e*P	Pn	17 45 58.6	-0.2
CACAO				*e*S	Sn	17 46 28.2	+1.1
ARTO	Ro Cuarto	2.34	329	*e*P	Pn	17 46 00.4	+1.2
VPL1	V. Platanar	2.35	325	*e*P	Pn	17 45 59.6	+0.1
PESE3	Pese, Herrera	2.38	100	*e*P	Pn	17 45 59.7	0.0
VPL3	V. Platanar	2.40	327	⇓*e*P	Pn	17 46 00.3	+0.4
VPL2	V. Platanar	2.40	325	*e*P	Pn	17 46 00.9	+0.8
LAFE	Finca La Fe, P	2.41	308	⇑*e*P	Pn	17 45 58.5	-1.4
PAQE	Paquera	2.43	308	*e*P	Pn	17 45 59.9	-0.4
QUEU	Ciudad Quesada	2.45	324	*e*P	Pb	17 46 02.9	-1.9
CHIT3	Chitre	2.57	98	⇓*i*P	Pn	17 46 02.3	+0.2
CHIT3				*e*S	Sn	17 46 34.2	+0.9
PNME	Penonome	2.63	86	P	Pn	17 46 03.7	+0.6
PNME				S	Sb	17 46 40.3	+0.1
PNME	Penonome	2.63	86	⇓*i*P	Pn	17 46 03.8	+0.7
PNME				*e*S	Sn	17 46 35.6	+0.6
TOSI3	Tonosi	2.68	110	*e*P	Pn	17 46 03.9	+0.2
TOSI3				*e*S	Sn	17 46 36.1	0.0
MTEVE	Monteverde	2.69	318	*e*P	Pn	17 46 04.8	+0.8
FORC	Fortuna	2.70	322	*e*P	Pn	17 46 05.7	+1.6
VACR	Volcan Arenal	2.71	322	⇑*e*P	Pn	17 46 04.9	+0.7
ARE1	Arenal 1	2.73	321	⇑*e*P	Pn	17 46 05.4	+0.9
VARE2	V. Arenal	2.73	321	⇑*e*P	Pn	17 46 05.5	+1.1
AZU	Azuero	2.73	101	P	Pn	17 46 04.4	-0.1
AZU	Azuero	2.73	101	P	Pn	17 46 04.3	-0.2
AZU				S	Sn	17 46 40.2	+2.8
AZU	Azuero	2.73	101	⇓*e*P	Pn	17 46 04.3	-0.2
AZU	Azuero	2.73	101	⇓*i*P	Pn	17 46 04.7	+0.2
AZU				*e*S	Sn	17 46 38.2	+0.8
CEDE	Laguna Cedeo	2.74	322	⇑*e*P	Pn	17 46 05.8	+1.2
JUNT	Juntas	2.75	315	*e*P	Pn	17 46 05.4	+0.6
JTS	Las Juntas de	2.75	315	Pn	Pn	17 46 05.3	+0.5
	1µm,0.5s,baz=134,slow=4.8,SNR=197						
JTS				Sn	Sn	17 46 40.5	+2.4
	236nm,0.3s,baz=110,slow=19,SNR=5.4						
JTS	Las Juntas de	2.75	315	*i* P	Pn	17 46 05.0	+0.2
JTS	Las Juntas de	2.75	315		Pn	17 46 04.3	-0.5
JTS	Las Juntas de	2.75	315	P	Pn	17 46 05.2	+0.4
JTS	Las Juntas de	2.75	315	P	Pn	17 46 04.3	-0.5
JTS				S	Sb	17 46 45.3	+1.5
JTS	Las Juntas de	2.75	315	P	Pn	17 46 05.7	+0.9
JTS				S	Sb	17 46 41.7	-2.1
JTS	Las Juntas de	2.75	315	⇑*e*P	Pn	17 46 03.7	-1.1
JTS	Las Juntas de	2.75	315	P	Pn	17 46 05.3	+0.5
JTS	Las Juntas de	2.75	315	⇑*i*P	Pn	17 46 04.5	-0.3
COVE	Coope Vega, Sa	2.76	330	P	Pn	17 46 05.8	+0.9
REZ	Monterrey de S	2.77	322	*e*P	Pb	17 46 07.7	-2.6
TABAC	Tabacon	2.79	321	*e*P	Pn	17 46 07.1	+1.8
NYURE	Nandayure	2.79	307	*e*P	Pn	17 46 05.6	+0.4
VTON	El Valle, Cocl	2.85	84	⇑*e*P	Pn	17 46 08.3	+2.2
VTON				*e*S	Sb	17 46 49.5	+2.9
TILA	Tilaran	2.90	318	*e*P	Pn	17 46 07.7	+0.9
ACHO3	Achotines, Los	2.93	108	*e*P	Pn	17 46 07.7	+0.6
CMARA	Lajas Hojancha	2.94	305	P	Pn	17 46 07.6	+0.2
CMARA	Lajas Hojancha	2.94	305	⇑*e*P	Pn	17 46 06.5	-0.9
CMARA	Lajas Hojancha	2.94	305	⇑*e*P	Pn	17 46 06.5	-0.9
COTE	Lago Cote	2.94	320	*e*P	Pn	17 46 08.9	+1.5
QUEB	Quebradon, Cot	2.96	321	*e*P	Pn	17 46 08.6	+0.9
TIMP	Tierras Morena	3.01	318	*e*P	Pn	17 46 08.8	+0.4
PEDA3	Pedasi	3.04	105	*e*P	Pn	17 46 08.6	0.0
TENO	El Achiote	3.08	320	*e*P	Pn	17 46 10.3	+1.0
JUD3	Juan Diaz 3	3.12	306		Pn	17 46 09.5	-0.3
JUD3	Juan Diaz 3	3.12	306	⇑*e*P	Pn	17 46 07.8	-2.1
ZANG	Zanguenga, Cho	3.14	78	*e*P	Pn	17 46 09.2	-0.9
CUI	Cuipilapa	3.16	317	⇑*e*P	Pn	17 46 11.0	+0.5
LCHIL	Los Chiles	3.19	328	*e*P	Pn	17 46 11.9	+1.2
HORNC	Hornillas	3.21	318	*e*P	Pn	17 46 13.0	+1.8
BCIP	Isla Barro Col	3.22	75	P	Pn	17 46 11.2	+0.1
BCIP	Isla Barro Col	3.22	75		Pn	17 46 11.2	+0.1
BCIP	Isla Barro Col	3.22	75	P	Pn	17 46 11.7	+0.5
BCIP	Isla Barro Col	3.22	75	P	Pn	17 46 10.9	-0.3
BCIP				S	Sb	17 46 58.5	+1.4
BCIP	Isla Barro Col	3.22	75	P	Pn	17 46 11.3	+0.1
BCIP	Isla Barro Col	3.22	75	⇓*e*P	Pn	17 46 11.0	-0.1
BCIP	Isla Barro Col	3.22	75	P	Pn	17 46 11.5	+0.2
BCIP	Isla Barro Col	3.22	75	⇑*i*P	Pn	17 46 11.4	+0.2
BCIP				*e*S	Sn	17 46 49.9	+0.5
CANAL	Canalete	3.22	321	*e*P	Pn	17 46 12.3	+1.1
MLIR	Monte Lirio	3.22	73	*e*P	Pn	17 46 11.0	-0.2
CHOR3	La Chorrera	3.23	80	*e*P	Pn	17 46 12.0	+0.6
MESS	Mesas	3.24	318	⇑*e*P	Pn	17 46 12.0	+0.4
VMAR	Armenia, Volca	3.24	320	*e*P	Pn	17 46 12.6	+1.0
UPAL	Upala	3.25	322	P	Pn	17 46 12.5	+0.9
UPAL	Upala	3.25	322	*e*P	Pn	17 46 13.4	+1.9
CLARA	Aguas Claras	3.26	319	*e*P	Pn	17 46 14.0	+2.2
GAMB1	Gamboa	3.33	76	*e*P	Pn	17 46 12.5	-0.2
ERIA	Liberia	3.34	314	*e*P	Pn	17 46 14.4	+1.6
FRIJ	El Hiral	3.34	74	*e*P	Pn	17 46 13.6	+0.8
ARRA3	Arraijan, Pana	3.35	79	*e*P	Pn	17 46 13.0	0.0
GPS2	Hotel Rincn d	3.36	316	*e*P	Pn	17 46 15.0	+1.9
ALIBA	Liberia Airpor	3.39	312	*e*P	Pn	17 46 15.2	+1.8
VRLE	La Escondida,	3.39	316	⇑*e*P	Pn	17 46 13.8	+0.1
VORI	VORI	3.40	317	⇑*e*P	Pn	17 46 13.7	-0.1
LAPC	Finca la Perla	3.42	315	*e*P	Pn	17 46 14.4	+0.4
PEJA	Penjamo Buenos	3.44	318	*e*P	Pn	17 46 16.1	+1.9
FLAM	Flamenco Islan	3.46	80	*e*P	Pn	17 46 14.1	-0.4
UPA	Univ. de Panam	3.47	79	P	Pn	17 46 14.6	0.0
UPA				S	Sb	17 47 05.4	+1.0
UPA	Univ. de Panam	3.47	79	⇓*i*P	Pn	17 46 14.7	0.0
BLUN	Bluefields	3.74	348	P	Pn	17 46 18.7	+0.4
BLUN				S	Sn	17 47 06.1	+3.8
CARN	Rivas	3.79	319		Pn	17 46 19.3	+0.3
CARN	Rivas	3.79	319	⇑*e*P	Pn	17 46 19.4	+0.4
CHPO	Chepo, Panama	3.91	77	*e*P	Pn	17 46 21.5	+0.7
CNTA3	Canitas, Panam	4.14	77	*e*P	Pn	17 46 23.9	0.0
JAPN	Al SSO del Vol	4.14	320	*e*P	Pn	17 46 25.6	+1.7
ACON	Acoyapa	4.21	329	*e*P	Pn	17 46 25.7	+0.9
BOAB	BOACO BROADBAN	4.87	327		Pn	17 46 34.1	+0.2
BOAB	BOACO BROADBAN	4.87	327	P	Pn	17 46 35.1	+1.2
BOAB	BOACO BROADBAN	4.87	327	P	Pn	17 46 35.1	+1.2
MGAN	Managua	4.97	320		Pn	17 46 36.4	+1.0
MGAN	Managua	4.97	320	P	Pn	17 46 38.0	+2.7
MGAN	Managua	4.97	320	P	Pn	17 46 38.2	+2.8
	comp=Z,1µm,1.1s						
PTAC	Punta Ardita,	5.26	103	P	Pn	17 46 38.7	-0.6
	comp=Z,9µmcomp=Z,851nm,1.2s						
PTAC				S	Sn	17 47 40.0	+0.2
	comp=Z,9µmcomp=Z,851nm,1.2s						
PTAC				AML	AML		
PRVC	Isla de Provid	5.26	17	P	Pn	17 46 38.9	-0.4
PRVC	Isla de Provid	5.26	17	P	Pn	17 46 38.4	-0.9
	comp=Z,50µmcomp=Z,23µmcomp=Z,2µm,1.1s						
PRVC				S	Sn	17 47 41.2	+1.3
	comp=Z,50µmcomp=Z,23µmcomp=Z,2µm,1.1s						
PRVC				AML	AML		
PRVC	Isla de Provid	5.26	17	⇓*e*P	Pn	17 46 38.4	-0.9
CNGN	Cerro Negro	5.53	319	P	Pn	17 46 44.3	+1.3
CNGN	Cerro Negro	5.53	319	P	Pn	17 46 43.9	+0.9
	comp=Z,660µmcomp=Z,158µmcomp=Z,8µm,1.3s						
CNGN				S	Sn	17 47 51.9	+5.4
	comp=Z,660µmcomp=Z,158µmcomp=Z,8µm,1.3s						
CNGN				AML	AML		
CNGN	Cerro Negro	5.53	319	P	Pn	17 46 45.3	+2.3
	comp=Z,12µm,1.0s						
SIUN	Universidad Ur	5.64	342		Pn	17 46 44.7	+0.2
HERN	Volcan Telica	5.70	319		Pn	17 46 46.6	+1.3
BILN	Bilwi Airport	5.70	356		Pn	17 46 45.3	0.0
CRIN	San Cristobal	5.91	318		Pn	17 46 49.3	+1.0
CRIN	San Cristobal	5.91	318	P	Pn	17 46 49.2	+1.0
CRIN	San Cristobal	5.91	318	P	Pn	17 46 51.0	+2.8
	comp=Z,2µm,0.9s						
SOLC	Bahia Solano	5.91	110	P	Pn	17 46 47.4	-0.8
SOLC				S	Sn	17 47 59.9	+4.1
APAC	Apartado, Choc	6.35	93	P	Pn	17 46 56.1	+1.8
	comp=Z,25µmcomp=Z,12µmcomp=Z,717nm,1.4s						
APAC				S	Sb	17 48 25.2	-2.2
	comp=Z,25µmcomp=Z,12µmcomp=Z,717nm,1.4s						
APAC				AML	AML		
PIZC	Pizarro, Choco	6.51	121	P	Pn	17 46 54.0	-2.4
	comp=Z,22µmcomp=Z,6µmcomp=Z,167nm,0.7s						
LCBC	Los crdobas,	6.56	85	P	Pn	17 46 59.2	+2.0
	comp=Z,31µmcomp=Z,13µmcomp=Z,343nm,1.4s						
DBBC	Dabeiba	6.84	100	P	Pn	17 47 02.5	+1.5
TGUH	Tegucigalpa,Un	7.08	324		Pn	17 47 05.8	+1.4

TGUH	Tegucigalpa,Un	7.08	324	P	Pn	17 47 07.5	+3.1
TGUH	Tegucigalpa,Un	7.08	324	P	Pn	17 47 07.6	+3.1
	comp=Z,693nm,1.3s						
CBOC	Ciudad Bolivar	7.34	109	P	Pn	17 47 07.9	-0.1
	comp=Z,16µmcomp=Z,84nm,1.2s						
UREC	San Jos de Ur	7.40	94	P	Pn	17 47 10.2	+1.5
	comp=Z,17µmcomp=Z,3µmcomp=Z,146nm,0.8s						
HELC	Santa Helena	7.69	106	P	Pn	17 47 14.0	+1.0
HELC	Santa Helena	7.69	106	P	Pn	17 47 14.9	+1.9
	comp=Z,11µmcomp=Z,2µmcomp=Z,232nm,1.1s						
SJCC	San Jacinto, C	7.86	78	P	Pn	17 47 16.3	+1.2
SJCC	San Jacinto, C	7.86	78	P	Pn	17 47 15.7	+0.6
	comp=Z,29µmcomp=Z,5µmcomp=Z,349nm,0.8s						
GUY2C	Guyana, Caldas	8.17	112	P	Pn	17 47 22.0	+2.4
	comp=Z,8µmcomp=Z,3µmcomp=Z,159nm,1.1s						
BBAC	Balboa, Cauca	8.47	137	P	Pn	17 47 26.0	+2.4
	comp=Z,12µmcomp=Z,3µmcomp=Z,247nm,1.3s						
NORC	Norcasia	8.51	108	P	Pn	17 47 27.7	+3.7
	comp=Z,9µmcomp=Z,2µmcomp=Z,86nm,1.2s						
POPC	Popayan, Colom	8.51	132	P	Pn	17 47 26.6	+2.5
	comp=Z,8µmcomp=Z,4µmcomp=Z,147nm,1.1s						
PTBC	PUERTO BERRIO,	8.64	101	P	Pn	17 47 27.2	+1.5
	comp=Z,2µmcomp=Z,79nm,1.2s						
MTO3	Montecristo	8.69	315		Pn	17 47 27.6	+1.0
ESQI	Esquipulas	8.79	315		Pn	17 47 29.7	+1.9
ORTC	Ortega, Tolima	8.86	119	P	Pn	17 47 32.2	+3.5
	comp=Z,7µmcomp=Z,3µmcomp=Z,333nm,1.1s						
PAC1	Pacto, Paraso	9.03	152	P	Pn	17 47 33.7	+2.5
	comp=Z,3µmcomp=Z,125nm,1.2s						
TULM	Tulcn-Chalpat	9.16	145	P	Pn	17 47 38.4	+5.1
	comp=Z,23µmcomp=Z,6µmcomp=Z,395nm,1.1s						
CUSE	Cuicocha Este	9.18	150	P	Pn	17 47 36.6	+3.0
	comp=Z,5µmcomp=Z,99nm,0.8s						
OTAV	Otavalo	9.22	150	P	Pn	17 47 35.5	+1.5
OTAV	Otavalo	9.22	150		Pn	17 47 35.5	+1.5
OTAV	Otavalo	9.22	150	P	Pn	17 47 35.8	+1.8
OTAV	Otavalo	9.22	150	P	Pn	17 47 36.0	+2.0
	comp=Z,16µmcomp=Z,2µmcomp=Z,107nm,1.3s						
OTAV	Otavalo	9.22	150	eP	Pn	17 47 34.3	+0.2
OTAV	Otavalo	9.22	150	P	Pn	17 47 36.8	+2.8
	comp=Z,135nm,1.4s						
SPBC	San Pablo de B	9.23	106	P	Pn	17 47 37.5	+3.5
	comp=Z,7µmcomp=Z,2µmcomp=Z,85nm,1.1s						
BRJC	Barrancabermej	9.26	98	P	Pn	17 47 37.5	+3.3
	comp=Z,11µmcomp=Z,3µmcomp=Z,171nm,1.7s						
PRAC	Prado	9.26	119	P	Pn	17 47 37.4	+3.1
PRAC	Prado	9.26	119	P	Pn	17 47 37.0	+2.7
	comp=Z,6µmcomp=Z,2µmcomp=Z,146nm,0.9s						
ROSC	El Rosal	9.28	111	Pn	Pn	17 47 38.4	+3.6
	comp=Z,7.4nm,0.3s,baz=0.5,slow=4.3,SNR=24						
	comp=Z,74nm,0.8s						
ROSC				AML	AML		
ROSC	El Rosal	9.28	111	P	Pn	17 47 37.6	+2.8
ROSC	El Rosal	9.28	111		Pn	17 47 37.5	+2.8
ROSC	El Rosal	9.28	111	P	Pn	17 47 40.2	+5.4
	comp=Z,4µmcomp=Z,201nm,0.9s						
CVER	Cruz Verde, Cu	9.62	113	P	Pn	17 47 45.2	+5.5
	comp=Z,4µmcomp=Z,173nm,2.0s						
GARC	Garzon, Huila	9.63	129	P	Pn	17 47 42.8	+3.3
	comp=Z,2µmcomp=Z,123nm,1.3s						
APG	El Apazote	9.88	313	Pn	Pn	17 47 45.6	+2.7
	comp=Z,0.5nm,0.3s,baz=146,slow=10.0,SNR=71						
	comp=Z,40nm,1.1s						
APG				AML	AML		
CASC	Dorado de Casc	9.89	145	P	Pn	17 47 47.1	+4.1
	comp=Z,14µmcomp=Z,5µmcomp=Z,388nm,1.9s						
CHIC	Chingaza	9.90	111	P	Pn	17 47 50.1	+6.8
SLOR	San Lorenzo -	10.05	153		Pn	17 47 49.1	+3.6
RUSC	La Rusia	10.12	103	P	Pn	17 47 49.6	+3.1
RUSC	La Rusia	10.12	103	P	Pn	17 47 49.5	+3.1
	comp=Z,7µmcomp=Z,3µmcomp=Z,155nm,0.9s						
VILC	Villavicencio,	10.14	114	P	Pn	17 47 50.9	+4.5
PAMC	Pamplona, Colo	10.23	95	P	Pn	17 47 50.4	+2.4
PIAT	Ana Tenorio	10.39	153	P	Pn	17 47 54.3	+4.3
	comp=Z,24µmcomp=Z,4µmcomp=Z,105nm,1.2s						
RTAL	Retalhuleu	10.53	307	Pn	Pn	17 47 52.8	+1.2
HUEH	Huehuetenango	10.85	311	Pn	Pn	17 47 57.1	+0.9
MACC	Macarena, Meta	10.97	124	P	Pn	17 48 01.2	+3.5
	comp=Z,6µmcomp=Z,2µmcomp=Z,126nm,0.9s						
MTDJ	Mount Denham	11.18	28	P	Pn	17 48 02.1	+1.5
	comp=Z,6µmcomp=Z,317nm,1.3s						
URIC	Uribia, Colomb	11.33	72	P	Pn	17 48 04.4	+1.8
PTLC	Puerto Leguiza	11.50	134	P	Pn	17 48 11.4	+6.5
	comp=Z,8µmcomp=Z,102nm,1.5s						
PAYG	Puerto Ayora	11.53	219	Pn	Pn	17 48 05.5	+0.2
SDV	Santo Domingo	12.22	86	Pn	Pn	17 48 17.1	+2.1
	comp=Z,2.2nm,0.3s,baz=275,slow=7.5,SNR=10						
SDV				Sn	Sn	17 50 34.2	+2.8
	comp=Z,2.5nm,0.3s,baz=280,slow=22,SNR=3.2						
SDV				LR	LR	17 53 56.9	
	comp=Z,9µm,20.1s,baz=266,slow=43						
	comp=Z,45nm,0.8s						
SDV				AML	AML		
SDV	Santo Domingo	12.22	86	P	Pn	17 48 17.8	+2.8
	comp=Z,483nm,0.8s						
SDV	Santo Domingo	12.22	86	P	Pn	17 48 17.9	+2.8
	comp=Z,525nm,0.8s						
TEIG	Tepich	12.89	337		Pn	17 48 24.2	+0.3
TEIG	Tepich	12.89	337	P	P	17 48 29.5	-5.2
	comp=Z,77nm,1.7s						
MCRA	Macar, Loja	12.97	166	P	Pn	17 48 27.5	+2.4
CHIV	Chivirico	13.21	28		Pn	17 48 28.4	+0.1
YAR	Yar	13.58	27	eP	Pn	17 48 35.0	+1.7
GTBY	Guantanamo Bay	13.82	33		Pn	17 48 36.5	-0.1
GTBY	Guantanamo Bay	13.82	33	P	P	17 48 41.6	-3.5
GTBY	Guantanamo Bay	13.82	33	eP	Pn	17 48 39.2	+2.5
GTBY	Guantanamo Bay	13.82	33	P	P	17 48 41.8	-3.2
	comp=Z,486nm,1.8s						
PINC	Pinares de May	13.95	29	eP	Pn	17 48 41.3	+3.0
MGV	Manicaragua	14.01	12	eP	Pn	17 48 41.6	+2.5
HLGC	Holguin	14.17	27	eP	Pn	17 48 41.8	+0.4
QMBU	Quimbuelo	14.21	33	eP	Pn	17 48 45.6	+3.7
SOR	Soroa	14.38	360	P	Pn	17 48 43.4	-0.9
SOR	Soroa	14.38	360		Pn	17 48 43.4	-0.9
SOR	Soroa	14.38	360	eP	P	17 48 50.2	-1.1
SOR	Soroa	14.38	360	P	P	17 48 49.6	-1.7
	comp=Z,202nm,1.4s						
NMDO	Nuevo Mundo	14.41	32		Pn	17 48 44.3	-0.4
NMDO	Nuevo Mundo	14.41	32	eP	Pn	17 48 44.8	+0.1
CAIB	Caibarien	14.48	13		Pn	17 48 45.7	0.0
CMIG	Matias Romero	14.51	308	Pn	Pn	17 48 48.1	+2.1
	comp=Z,2.2nm,0.3s,baz=145,slow=12,SNR=19						
	comp=Z,21nm,0.7s						
CMIG				AML	AML		
MASC	Masc	14.51	35	eP	P	17 48 50.1	-2.6
MASC	Masc	14.51	35	P	P	17 48 50.7	-1.9
	comp=Z,212nm,1.6s						
MOAC	Moa	14.51	31	eP	P	17 48 50.7	-2.0
CAMR	Camarioca	14.73	6		Pn	17 48 47.6	-1.5
CAMR	Camarioca	14.73	6	eP	P	17 48 52.2	-2.9
SDDR	Presa de Saban	15.52	46	IAmb	IAmb	17 49 06.5	
	comp=Z,217nm,1.1s						
SDDR	Presa de Saban	15.52	46	P	Pn	17 49 00.2	+0.5
BANI	BANI	15.83	50		Pn	17 49 00.7	-3.1
ATAH	Atahualpa	16.02	163	Pn	P	17 49 09.0	-1.0
	comp=Z,0.5nm,0.3s,baz=6.8,slow=8.7,SNR=20						
	comp=Z,76nm,0.9s						
ATAH				AML	AML		
SDD	Santo Domingo	16.21	50	Pn	Pn	17 49 05.5	-3.0
SDD				IAmb	IAmb	17 49 08.4	
	comp=Z,452nm,1.1s						
SC01	Santiago de lo	16.21	46		Pn	17 49 07.1	-1.5
GRTK	Grand Turk	17.39	40		Pn	17 49 20.1	-3.3
GRTK				IAmb	IAmb	17 49 30.1	
	comp=Z,420nm,1.1s						
GRTK	Grand Turk	17.39	40	P	P	17 49 29.3	+4.6
	comp=Z,12µmcomp=Z,316nm,1.4s						
PCDR	Punta Cana, DR	17.43	53		Pn	17 49 21.4	-2.5
PCDR				IAmb	IAmb	17 49 33.7	
	comp=Z,269nm,0.9s						
TLIG	Tlapa	17.73	303	P	Pn	17 49 27.9	+0.1
SGC2	Sao Gabriel da	18.04	117	P	P	17 49 33.1	+1.2
	comp=Z,66nm,2.2s						
SGC2	Sao Gabriel da	18.04	117	eP	Pn	17 49 30.8	-0.7
CRPR	Cabo Rojo, PR	18.19	56	P	P	17 49 34.5	+0.9
MLPR	Magueyes Islan	18.23	57	P	P	17 49 34.8	+0.8
PRSN	Puerto Rico Se	18.27	56	P	P	17 49 35.1	+0.7
CELP	Cerrillos	18.66	57	P	P	17 49 38.1	-0.7
060A	Indiantown	18.77	7	P	P	17 49 38.9	-1.0
060A				IAmb	IAmb	17 49 48.1	
	comp=Z,484nm,1.2s						
CZSB	Cruzeiro do Su	18.96	147	P	P	17 49 41.6	-0.4
CZSB				IAmb	IAmb	17 49 56.0	
	comp=Z,392nm,1.3s						
ECPR	Experimental S	18.96	57	P	P	17 49 40.5	-1.5
SJG	San Juan	19.04	58	P	Pn	17 49 45.0	+1.4
	comp=Z,117nm,0.7s,baz=230,slow=12,SNR=34						
SJG				LR	LR	17 57 51.1	
	comp=Z,4µm,19.8s,baz=232,slow=40						
SJG	San Juan	19.04	58	P	Pn	17 49 45.0	+1.4
SJG				pmax	pmax		
	comp=Z,585nm,1.5s						
SJG	San Juan	19.04	58	IAmb	IAmb	17 49 53.4	
	comp=Z,585nm,1.4s						
SJG	San Juan	19.04	58	P	Pn	17 49 45.5	+1.8
	comp=Z,273nm,1.5s						
SJG	San Juan	19.04	58	eP	P	17 49 40.6	-2.3
SJG				x	x	17 53 21.0	
SJG	San Juan	19.04	58	P	Pn	17 49 45.4	+1.8
	comp=Z,222nm,1.0s						
PDPR	Patillas Dam,	19.10	58	P	P	17 49 42.5	-1.0
HUMP	Col San Antoni	19.30	58	P	Pn	17 49 46.9	0.0
HUMP				IAmb	IAmb	17 49 56.1	
	comp=Z,479nm,1.5s						
DWPF	Disney Wildern	19.73	4	P	Pn	17 49 52.0	+0.2
DWPF				IAmb	IAmb	17 49 59.7	
	comp=Z,299nm,1.2s						
DWPF	Disney Wildern	19.73	4	P	Pn	17 49 54.8	+2.9
	comp=Z,201nm,1.6s						
MOIG	Morelia	20.94	305	P	Pn	17 50 05.3	-1.1
656A	Willston	20.94	1	P	P	17 50 04.4	+1.0
656A				IAmb	IAmb	17 50 11.5	
	comp=Z,357nm,1.0s						
NNA	Nana	21.08	163	P	P	17 50 06.5	+1.3
	comp=Z,206nm,1.0s,baz=339,slow=9.6,SNR=41						
	comp=Z,206nm,1.0s						
NNA	Nana	21.08	163	i P	P	17 50 07.0	+1.8
NNA				pmax	pmax		
	comp=Z,303nm,1.0s						
NNA				MLR	MLR		
	comp=Z,2µm,15.0s						
NNA	Nana	21.08	163	P	P	17 50 05.5	+0.3
NNA				IAmb	IAmb	17 50 08.4	
	comp=Z,276nm,1.1s						
NNA	Nana	21.08	163	P	P	17 50 06.2	+0.9
	comp=Z,275nm,1.1s						
SABA	Saba	21.32	62	P	P	17 50 08.4	+0.7
GRW	Mount Saint Ca	21.32	78	eP	P	17 50 11.2	+3.4
GRW				x	x	17 54 06.9	
GRGR	Grenville	21.32	78	P	P	17 50 08.4	+0.6
GRGR	Grenville	21.32	78	P	P	17 50 11.3	+3.5
	comp=Z,557nm,1.1s						
GRGR	Grenville	21.32	78	eP	P	17 50 07.8	0.0
GRGR				x	x	17 54 04.4	
GRGR	Grenville	21.32	78	P	P	17 50 11.0	+3.2
	comp=Z,778nm,0.8s						
TPP	Pointe-a-Pierr	21.34	83	eP	P	17 50 10.2	+2.3
GRSS	Sisters	21.39	78	eP	P	17 50 11.2	+2.8
GRSS				x	x	17 54 17.3	
TRN	Trinidad (W)	21.41	82	eP	P	17 50 09.4	+0.7
TRN				x	x	17 54 04.2	
SEUS	St. Eustatius	21.50	63	P	P	17 50 10.4	+0.7
SEUS	St. Eustatius	21.50	63	eP	P	17 50 11.2	+1.5
SEUS				x	x	17 54 11.8	
SMRT	St. Maarten	21.64	61	P	P	17 50 09.8	-1.3
SMRT	St. Maarten	21.64	61	eP	P	17 50 10.1	-1.1
SMRT	St. Maarten	21.64	61	P	P	17 50 12.2	+1.1
	comp=Z,289nm,1.6s						
TEFE	Tefe	21.75	122	eP	P	17 50 12.6	+0.3
MLYT	Lee's Yard	21.93	66	eP	P	17 50 14.4	+0.1
TBG	Guadaloupe-3	22.15	68	eP	P	17 50 06.0	-11
TDBA	Terre de Bas,	22.16	68	P	P	17 50 15.4	-1.4
TDBA	Terre de Bas,	22.16	68	P	P	17 50 18.9	+2.1
	comp=Z,355nm,1.6s						
DHSZ	Broadband at M	22.17	67	eP	P	17 50 16.3	-0.5
DHSZ				x	x	17 54 08.8	
GDHS	Morne Mazeau,	22.17	67	P	P	17 50 16.9	0.0
GDHS	Morne Mazeau,	22.17	67	P	P	17 50 19.4	+2.5
	comp=Z,424nm,1.1s						
MMLZ	Guadeloupe Bro	22.18	68	eP	P	17 50 08.6	-8.4
MMLZ				x	x	17 54 13.5	
DSLB	Salisbury	22.24	69	eP	P	17 50 18.4	+0.7
DSLB				x	x	17 54 36.7	
CBE	Ff, Capester	22.25	68	P	P	17 50 17.0	-0.8
CBE	Ff, Capester	22.25	68	P	P	17 50 20.6	+2.8
	comp=Z,726nm,1.3s						
FDFM	Morne la Roset	22.30	71	IAmb	IAmb	17 50 22.2	
	comp=Z,130nm,0.9s						
456A	Hilliard	22.30	2	P	P	17 50 17.4	-0.8
456A				IAmb	IAmb	17 50 26.9	
	comp=Z,352nm,1.3s						
CXM	Morne La Croix	22.31	71	P	P	17 50 18.1	-0.5
CXM				IAmb	IAmb	17 50 30.5	
	comp=Z,234nm,1.4s						
SLBI	Saint Lucia, B	22.31	73	eP	P	17 50 15.7	-2.7
SLBI				x	x	17 54 30.5	
SVN	Savane Anatole	22.32	71	eP	P	17 50 13.9	-4.6
SVN				x	x	17 54 35.4	
451A	Vernon	22.33	354	P	P	17 50 17.7	-0.7
BIM	Bigot	22.33	72	eP	P	17 50 19.9	+1.3
BIM				x	x	17 54 36.2	
BIM	Bigot	22.33	72	P	P	17 50 20.1	+1.4
	comp=Z,213nm,1.5s						
DWS	Wesley	22.38	69	eP	P	17 50 20.8	+1.7
DWS				x	x	17 54 35.4	
ABD	La Joyeuse, An	22.48	67	P	P	17 50 18.6	-1.6
MPOM	Morne Pois Mar	22.51	72	P	P	17 50 18.9	-1.6
MPOM	Morne Pois Mar	22.51	72	P	P	17 50 23.1	+2.5
	comp=Z,229nm,1.0s						
ILAM	Ilet Lapin Mar	22.58	71	P	P	17 50 20.5	-0.7
ILAM	Ilet Lapin Mar	22.58	71	P	P	17 50 23.9	+2.6
	comp=Z,413nm,1.5s						
ANWB	Willy Bob	22.62	64	eP	P	17 50 18.4	-3.3
ANWB				x	x	17 54 32.1	
ANWB	Willy Bob	22.62	64	P	P	17 50 23.1	+1.4
	comp=Z,175nm,0.9s						
DSDZ	La Diserade, G	22.82	68	eP	P	17 50 20.9	-2.8
DSDZ				x	x	17 54 46.0	
GDSD	La Dsirade Is	22.82	68	P	P	17 50 23.3	-0.5
GDSD				IAmb	IAmb	17 50 46.1	
	comp=Z,139nm,1.1s						
GDSD	La Dsirade Is	22.82	68	P	P	17 50 26.8	+3.0
	comp=Z,83nm,0.9s						
352A	Blakely	23.11	356	P	P	17 50 26.9	+0.3
BOAV	Boa Vista	23.11	104	P	P	17 50 26.8	-0.1
BOAV	Boa Vista	23.11	104	P	P	17 50 27.9	+1.0
BOAV	Boa Vista	23.11	104	eP	P	17 50 27.1	+0.2
BBGH	Gun Hill	23.50	76		P	17 50 32.0	+1.3
BBGH				IAMs_20	IAMs_20	17 55 58.9	
	comp=Z,5µm,19.0s						
257A	Skidaway Islan	23.60	4	IAMs_20	IAMs_20	18 01 09.1	
	comp=Z,5µm,18.0s						
ZAIG	Zacatecas	23.66	310	P	P	17 50 33.0	+0.3
ZAIG				IAmb	IAmb	17 50 40.1	
	comp=Z,144nm,1.4s						
ZAIG	Zacatecas	23.66	310	P	P	17 50 35.3	+2.6
	comp=Z,71nm,1.6s						
KVTX	Kingsville	23.76	325	IAMs_20	IAMs_20	18 00 51.4	
	comp=Z,3µm,19.0s						
154A	Montrose	24.17	360	IAMs_20	IAMs_20	18 00 12.1	
	comp=Z,3µm,19.0s						
152A	Waverly Hall	24.28	356	IAmb	IAmb	17 50 49.4	
	comp=Z,103nm,0.9s						
152A				IAMs_20	IAMs_20	18 01 12.0	
	comp=Z,4µm,18.0s						
HKT	Hockley	24.66	332	i P	P	17 50 42.8	+1.4
HKT				pmax	pmax		
	comp=Z,174nm,1.5s						
HKT	Hockley	24.66	332		P	17 50 42.0	+0.6
HKT	Hockley	24.66	332	P	P	17 50 41.8	+0.5
HKT				IAmb	IAmb	17 50 48.8	
	comp=Z,515nm,1.9s						
HKT	Hockley	24.66	332	P	P	17 50 43.0	+1.6
	comp=Z,108nm,1.5s						
CSU	Charleston Sou	24.69	6	P	P	17 50 42.4	+0.8
146A	Union	24.84	348	P	P	17 50 43.5	+0.4
GOGA	Godfrey	24.97	359	P	P	17 50 45.4	+1.2
GOGA	Godfrey	24.97	359	P	P	17 50 45.5	+1.3
	comp=Z,286nm,1.2s						
MACA	Manacapuru-AM	25.00	116	P	P	17 50 44.2	-0.5
MACA	Manacapuru-AM	25.00	116	eP	P	17 50 45.2	+0.5
Z47A	Carrollton	25.20	350	IAmb	IAmb	17 50 50.8	
	comp=Z,157nm,1.0s						
833A	Chaparral WMA,	25.20	324	IAmb	IAmb	17 50 53.4	
	comp=Z,181nm,1.5s						
Y49A	Blount Mountai	25.61	353	P	P	17 50 50.5	+0.5
Y49A				IAmb	IAmb	17 50 54.9	
	comp=Z,202nm,1.5s						
Y58A	Scranton	25.64	6	IAMs_20	IAMs_20	18 00 21.1	
	comp=Z,4µm,22.0s						
Y57A	Sumter	25.68	5	P	P	17 50 50.7	+0.1
NATX	Nacogdoches	25.73	337	IAmb	IAmb	17 50 56.0	
	comp=Z,197nm,1.1s						
HODGE	Hodges	25.79	1	IAmb	IAmb	17 50 59.0	
	comp=Z,184nm,1.2s						
JSC	Jenkinsville	25.88	3	IAmb	IAmb	17 50 59.4	
	comp=Z,128nm,1.1s						
Y60A	Bolivia	25.93	9	P	P	17 50 53.1	+0.2
Y60A				IAmb	IAmb	17 51 01.5	
	comp=Z,120nm,0.9s						
X51A	Calhoun	26.17	356	IAmb	IAmb	17 51 01.6	
	comp=Z,86nm,0.9s						
435B	Jarrell	26.18	331	IAmb	IAmb	17 51 04.8	
	comp=Z,259nm,1.4s						
FPAL	Fort Paine	26.20	355	IAmb	IAmb	17 50 58.7	
	comp=Z,93nm,1.3s						
X48A	Hartselle	26.27	352	IAmb	IAmb	17 51 02.0	
	comp=Z,194nm,1.1s						
BIRD	Birdtown, Kers	26.30	5	IAmb	IAmb	17 51 10.2	
	comp=Z,128nm,1.2s						
PAULI	Pauline	26.39	2	IAmb	IAmb	17 51 02.9	
	comp=Z,211nm,1.4s						
BG3	Lake Jocassee	26.54	0	IAmb	IAmb	17 51 04.3	
	comp=Z,294nm,1.6s						
KMSC	Kings Mountain	26.73	3	IAmb	IAmb	17 51 06.9	
	comp=Z,200nm,1.5s						
W50A	Signal Mountai	26.83	356	IAmb	IAmb	17 51 08.0	
	comp=Z,114nm,1.1s						
SWET	Sewanee	26.90	355	P	P	17 51 02.2	+0.4
SWET				IAmb	IAmb	17 51 08.3	
	comp=Z,98nm,1.0s						
CPCT	Cooper Cave	27.03	357	IAmb	IAmb	17 51 09.7	
	comp=Z,217nm,1.4s						
JCT	Junction City	27.08	327	P	P	17 51 05.9	+2.5
Z38A	Mt. Pleasant	27.18	338	IAmb	IAmb	17 51 10.9	
	comp=Z,187nm,1.1s						
TKL	Tuckaleechee C	27.21	359	IAmb	IAmb	17 51 11.8	
	comp=Z,146nm,1.3s						
V53A	Saluda	27.22	0	IAMs_20	IAMs_20	18 01 58.0	
	comp=Z,3µm,18.0s						
FW13	Cleburne	27.41	333	P	P	17 51 06.4	0.0
V55A	Taylorsville	27.45	3	IAmb	IAmb	17 51 18.2	
	comp=Z,110nm,1.4s						
V55A				IAMs_20	IAMs_20	18 02 24.0	
	comp=Z,3µm,19.0s						
V48A	Smith Brothers	27.51	353	IAmb	IAmb	17 51 13.1	
	comp=Z,165nm,1.2s						
V58A	Windy Hill, Pi	27.57	7	IAmb	IAmb	17 51 14.8	
	comp=Z,231nm,1.8s						
X40A	Basin Creek Fa	27.57	342	IAmb	IAmb	17 51 14.1	
	comp=Z,120nm,1.6s						
UALR	University of	27.69	343	P	P	17 51 08.1	-0.7
UALR				IAmb	IAmb	17 51 14.4	
	comp=Z,110nm,0.9s						
MIAR	Mount Ida	27.85	341	IAmb	IAmb	17 51 21.7	
	comp=Z,64nm,1.0s						
MIAR	Mount Ida	27.85	341	P	P	17 51 10.8	+0.5
	comp=Z,70nm,1.1s						
V61A	Roper	27.96	11	P	P	17 51 11.6	+0.5
FW06	Azle	27.99	333	IAmb	IAmb	17 51 15.6	
	comp=Z,67nm,0.9s						
U56A	King	27.99	4	IAmb	IAmb	17 51 19.3	
	comp=Z,160nm,1.3s						
U56A				IAMs_20	IAMs_20	18 02 42.5	
	comp=Z,3µm,18.0s						
WVT	Waverly	28.03	352	P	P	17 51 12.4	+0.6
WVT				pmax	pmax		
	comp=Z,189nm,1.6s						
WVT	Waverly	28.03	352	P	P	17 51 12.4	+0.6
WVT				IAmb	IAmb	17 51 18.5	
	comp=Z,189nm,1.6s						
WVT	Waverly	28.03	352	P	P	17 51 12.6	+0.8
	comp=Z,67nm,1.3s						
U54A	Nelsons Funny	28.09	2	IAmb	IAmb	17 51 19.0	
	comp=Z,185nm,1.5s						
TZTN	Tazewell	28.09	359	IAmb	IAmb	17 51 18.9	
	comp=Z,174nm,1.4s						
TZTN				IAMs_20	IAMs_20	18 02 32.2	
	comp=Z,2µm,19.0s						
TZTN	Tazewell	28.09	359	P	P	17 51 13.4	+1.0
	comp=Z,85nm,1.4s						
WHAR	Wooly Hollow	28.16	344	IAmb	IAmb	17 51 16.2	
	comp=Z,97nm,0.8s						
Z35A	Perchaven, San	28.16	334	IAmb	IAmb	17 51 18.4	
	comp=Z,55nm,0.8s						
U49A	Red Boiling Sp	28.17	355	P	P	17 51 13.6	+0.5
U49A				IAmb	IAmb	17 51 19.1	
	comp=Z,165nm,1.4s						
PLPT	Palo Pinto	28.20	332	IAmb	IAmb	17 51 17.6	
	comp=Z,99nm,1.1s						
PEBM	Pemiscott Bayo	28.36	348	IAmb	IAmb	17 51 18.5	
	comp=Z,108nm,0.9s						
HPIG		28.36	314	P	P	17 51 17.7	+2.5
	comp=Z,27nm,1.6s						
LPAZ	La Paz	28.53	149	P	P	17 51 18.6	+1.4
	comp=Z,8.9nm,1.1s,baz=334,slow=11,SNR=12						
LPAZ				LR	LR	18 03 24.9	
	comp=Z,4µm,20.6s,baz=312,slow=38						
	comp=Z,8.9nm,1.1s						
LPAZ	La Paz	28.53	149	eP	P	17 51 16.9	-0.3
LPAZ	La Paz	28.53	149	P	P	17 51 17.5	+0.3
	comp=Z,16nm,1.2s						
TX31	Lajitas Ar. Si	28.54	320	P	P	17 51 16.1	-0.5
TXAR	Lajitas Array	28.54	320	P	P	17 51 18.5	+1.9
	comp=Z,3.0nm,0.9s,baz=133,slow=11,SNR=21						
TXAR				PcP	PcP	17 54 28.4	+0.2
	comp=Z,3.2nm,0.9s,baz=139,slow=5.9,SNR=4.7						
TXAR				LR	LR	18 05 19.8	
	comp=Z,1µm,18.5s,baz=106,slow=42						
	comp=Z,3.0nm,0.9s						
TXAR	Lajitas Array	28.54	320	P	P	17 51 16.3	-0.3
TXAR						17 54 28.4	
TXAR	Lajitas Array	28.54	320	P	P	17 51 16.3	-0.3
LOOK	Love County	28.70	335	P	P	17 51 17.4	-0.4
LOOK				IAmb	IAmb	17 51 22.1	
	comp=Z,136nm,1.0s						
BLA	Blacksburg	28.85	4	IAmb	IAmb	17 51 26.8	
	comp=Z,65nm,1.1s						
T59A	Double "B" Far	28.94	9	IAmb	IAmb	17 51 26.4	
	comp=Z,147nm,1.7s						
PB18	Visviri	29.00	153	P	P	17 51 25.2	+4.0
	comp=Z,129nm,1.7s						
PBMO	Poplar Bluff	29.12	348	IAmb	IAmb	17 51 26.9	
	comp=Z,51nm,0.9s						
S51A	Beattyville	29.19	359	IAmb	IAmb	17 51 28.4	
	comp=Z,185nm,1.6s						
BBSR	BB Station	29.33	33	P	P	17 51 23.3	-0.2
X34A	Smith Ranch, M	29.50	335	P	P	17 51 24.5	-0.4
X34A				IAmb	IAmb	17 51 29.0	
	comp=Z,54nm,1.0s						
T42A	Van Buren	29.51	347	IAmb	IAmb	17 51 28.0	
	comp=Z,94nm,0.9s						
PB12	IPOC Station P	29.54	155	IAmb	IAmb	17 51 31.9	
	comp=Z,104nm,1.8s						
PB12	IPOC Station P	29.54	155	P	P	17 51 27.6	+2.2
	comp=Z,28nm,1.9s						
PB16	IPOC Station P	29.64	153	IAmb	IAmb	17 51 36.6	
	comp=Z,45nm,0.9s						
PB16	IPOC Station P	29.64	153	P	P	17 51 29.3	+2.3
	comp=Z,67nm,2.2s						
S44A	Carbondale	29.78	350	IAmb	IAmb	17 51 33.4	
	comp=Z,121nm,1.2s						
TUL3	Leonard	29.85	339	IAmb	IAmb	17 51 30.5	
	comp=Z,60nm,1.0s						
R50A	Paris	29.85	358	IAmb	IAmb	17 51 34.1	
	comp=Z,178nm,1.4s						
U38A	Gravette	29.85	341	P	P	17 51 27.7	-0.4
FNO	Franklin	29.88	336	IAmb	IAmb	17 51 31.5	
	comp=Z,85nm,1.2s						
WCI	Wyandotte Cave	29.92	355	P	P	17 51 28.3	-0.3
WCI				pmax	pmax		
	comp=Z,489nm,1.7s						
WCI				MLR	MLR		
	comp=Z,2µm,19.0s						
WCI	Wyandotte Cave	29.92	355	P	P	17 51 28.3	-0.3
WCI	Wyandotte Cave	29.92	355	P	P	17 51 29.9	+1.3
	comp=Z,137nm,1.3s						
R55A	Marlinton	29.94	5	IAmb	IAmb	17 51 36.5	
	comp=Z,114nm,1.4s						
ITTB	Itaituba	29.96	114	eP	P	17 51 28.7	-0.5
WMOK	Wichita Mounta	30.03	333	P	P	17 51 30.4	+0.8
WMOK	Wichita Mounta	30.03	333	P	P	17 51 29.2	-0.5
	comp=Z,25nm,1.1s						
DEOK	Depew	30.05	338	IAmb	IAmb	17 51 33.0	
	comp=Z,82nm,0.9s						
FVM	French Village	30.28	348	IAmb	IAmb	17 51 35.8	

	comp=Z,90nm,1.1s						
MDP	**Montagnes des**	**30.30**	**94**	LR	LR	18 04 12.2	
	comp=Z,4µm,20.1s,baz=280,slow=38						
OK029	**Liberty Lake**	**30.37**	**336**	IAmb	IAmb	17 51 35.2	
	comp=Z,43nm,0.9s						
PSGCX	**Pisagua**	**30.50**	**156**	P	**P**	**17 51 34.2**	**+0.2**
PSGCX				IAmb	IAmb	17 51 44.1	
	comp=Z,144nm,1.9s						
PSGCX	**Pisagua**	**30.50**	**156**	P	**P**	**17 51 36.5**	**+2.5**
	comp=Z,29nm,1.4s						
CCM	**Cathedral Cave**	**30.53**	**347**	P	**P**	**17 51 33.9**	**-0.1**
CCM				pmax	pmax		
	comp=Z,125nm,0.9s						
CCM	**Cathedral Cave**	**30.53**	**347**	P	**P**	**17 51 33.9**	**-0.1**
CCM	**Cathedral Cave**	**30.53**	**347**	P	**P**	**17 51 34.1**	**+0.2**
	comp=Z,153nm,1.0s						
Q51A	**Peebles**	**30.57**	**359**	IAMs_20	IAMs_20	18 04 10.7	
	comp=Z,3µm,18.0s						
Q54A	**Coxs Mills**	**30.59**	**3**	IAMs_20	IAMs_20	18 04 21.1	
	comp=Z,3µm,18.0s						
S39A	**Bolivar**	**30.70**	**344**	IAmb	IAmb	17 51 38.5	
	comp=Z,93nm,1.0s						
PB11	**IPOC Station P**	**30.84**	**155**	P	**P**	**17 51 38.0**	**+0.9**
PB11				IAmb	IAmb	17 51 45.8	
	comp=Z,43nm,0.9s						
PB11				IAMs_20	IAMs_20	18 05 15.1	
	comp=Z,2µm,19.0s						
PB11	**IPOC Station P**	**30.84**	**155**	P	**P**	**17 51 38.8**	**+1.7**
	comp=Z,50nm,1.0s						
Q44A	**Meyer Farm, Va**	**30.93**	**351**	IAmb	IAmb	17 51 43.7	
	comp=Z,122nm,1.1s						
GO01	**Chusmiza**	**30.96**	**154**	IAmb	IAmb	17 51 47.4	
	comp=Z,48nm,1.1s						
GO01	**Chusmiza**	**30.96**	**154**	P	**P**	**17 51 40.9**	**+2.4**
	comp=Z,47nm,1.3s						
VILB	**Vilhena**	**30.97**	**133**	IAmb	IAmb	17 51 42.8	
	comp=Z,61nm,1.1s						
VILB	**Vilhena**	**30.97**	**133**	*e*P	**P**	**17 51 38.5**	**+0.3**
R40A	**Maddies Statio**	**30.99**	**346**	IAmb	IAmb	17 51 44.0	
	comp=Z,76nm,1.2s						
SMWD	**Samnorwood**	**31.00**	**332**	IAmb	IAmb	17 51 44.7	
	comp=Z,91nm,1.7s						
T35A	**Sooner Cattle**	**31.00**	**339**	IAmb	IAmb	17 51 41.3	
	comp=Z,78nm,0.9s						
P51A	**Williamsport**	**31.02**	**360**	IAmb	IAmb	17 51 44.8	
	comp=Z,130nm,1.3s						
P53A	**Whipple**	**31.06**	**2**	IAMs_20	IAMs_20	18 04 35.7	
	comp=Z,3µm,18.0s						
P52A	**Corning**	**31.18**	**1**	IAmb	IAmb	17 51 45.9	
	comp=Z,118nm,1.2s						
CROK	**Carrier**	**31.20**	**336**	IAmb	IAmb	17 51 42.4	
	comp=Z,56nm,0.9s						
MNTX	**Cornudas Mount**	**31.23**	**321**	P	**P**	**17 51 40.6**	**+0.3**
	comp=Z,31nm,1.3s						
MCWV	**Mont Chateau**	**31.32**	**5**	P	**P**	**17 51 41.4**	**+0.4**
MCWV				IAmb	IAmb	17 51 48.5	
	comp=Z,112nm,1.2s						
TA01	**Diego Aracena**	**31.35**	**156**	IAmb	IAmb	17 51 44.9	
	comp=Z,54nm,1.2s						
TA01	**Diego Aracena**	**31.35**	**156**	P	**P**	**17 51 44.2**	**+2.8**
	comp=Z,31nm,1.1s						
P46A	**Rosedale**	**31.39**	**354**	IAmb	IAmb	17 51 47.1	
	comp=Z,70nm,0.9s						
PB08	**IPOC Station P**	**31.39**	**154**	IAmb	IAmb	17 51 54.7	
	comp=Z,55nm,1.3s						
ELIS	**Ellis County**	**31.42**	**334**	IAmb	IAmb	17 51 45.8	
	comp=Z,99nm,0.9s						
NPGB	**Novo Progresso**	**31.49**	**118**	*e*P	**P**	**17 51 42.5**	**-0.3**
O52A	**Adamsville**	**31.67**	**2**	IAmb	IAmb	17 51 50.9	
	comp=Z,114nm,1.2s						
O52A				IAMs_20	IAMs_20	18 04 45.9	
	comp=Z,3µm,20.0s						
KAN01	**Argonia South**	**31.68**	**337**	IAmb	IAmb	17 51 47.0	
	comp=Z,41nm,1.0s						
ACSO	**Alum Creek Sta**	**31.77**	**0**	IAMs_20	IAMs_20	18 04 37.4	
	comp=Z,2µm,19.0s						
O54A	**Avella**	**31.81**	**4**	IAMs_20	IAMs_20	18 05 02.3	
	comp=Z,3µm,18.0s						
KAN08	**Anthony NE Sta**	**31.82**	**337**	IAmb	IAmb	17 51 48.3	
	comp=Z,49nm,0.9s						
P61A	**Hammonton**	**32.06**	**12**	IAMs_20	IAMs_20	18 05 50.1	
	comp=Z,3µm,18.0s						
P40A	**Paris**	**32.12**	**347**	IAmb	IAmb	17 51 50.8	
	comp=Z,90nm,1.0s						
N53A	**Lisbon**	**32.40**	**3**	IAmb	IAmb	17 51 56.3	
	comp=Z,131nm,1.5s						
N49A	**Columbus Grove**	**32.48**	**358**	IAmb	IAmb	17 51 56.4	
	comp=Z,84nm,1.2s						
N49A				IAMs_20	IAMs_20	18 05 10.1	
	comp=Z,2µm,21.0s						
PB07	**IPOC Station P**	**32.51**	**157**	IAmb	IAmb	17 51 55.3	
	comp=Z,47nm,1.1s						
PB07	**IPOC Station P**	**32.51**	**157**	P	**P**	**17 51 54.7**	**+2.9**
	comp=Z,41nm,1.2s						
P38A	**Dawn**	**32.57**	**345**	IAmb	IAmb	17 51 55.2	
	comp=Z,56nm,0.8s						
PAMR	**Moraine State**	**32.58**	**4**	IAmb	IAmb	17 51 58.1	
	comp=Z,141nm,1.5s						
PB09	**IPOC Station P**	**32.83**	**156**	IAmb	IAmb	17 52 08.2	
	comp=Z,72nm,1.2s						
PB09	**IPOC Station P**	**32.83**	**156**	P	**P**	**17 51 58.0**	**+3.4**
	comp=Z,56nm,1.3s						
N58A	**Sunbury**	**32.86**	**9**	P	**P**	**17 51 54.6**	**+0.2**
PB03	**IPOC Station P**	**32.86**	**157**	P	**P**	**17 51 55.0**	**+0.1**
PB03				IAmb	IAmb	17 51 58.3	
	comp=Z,45nm,1.1s						
PB03	**IPOC Station P**	**32.86**	**157**	P	**P**	**17 51 56.9**	**+2.1**
	comp=Z,44nm,1.8s						
BRNJ	**Basking Ridge**	**33.08**	**12**	IAmb	IAmb	17 52 03.5	
	comp=Z,123nm,1.2s						
CLDB	**Colider**	**33.10**	**125**	*e*P	**P**	**17 51 55.9**	**-1.0**
CLDB	**Colider**	**33.10**	**125**	P	**P**	**17 51 56.2**	**-0.7**
	comp=Z,33nm,1.1s						
M52A	**Chesterland**	**33.11**	**2**	IAMs_20	IAMs_20	18 04 56.8	
	comp=Z,2µm,21.0s						
PAOC	**Oil Creek Stat**	**33.18**	**5**	IAmb	IAmb	17 52 03.4	
	comp=Z,114nm,1.5s						
M44A	**Midewin, Midew**	**33.23**	**353**	IAMs_20	IAMs_20	18 06 04.1	
	comp=Z,2µm,18.0s						
ALLY	**Alegheny Colle**	**33.28**	**4**	IAmb	IAmb	17 52 04.1	
	comp=Z,124nm,1.3s						
121A	**Cookes Peak, D**	**33.30**	**320**	P	**P**	**17 51 58.4**	**-0.2**
121A				IAmb	IAmb	17 52 06.6	
	comp=Z,44nm,1.1s						
PTLB	**Pontes e Lacer**	**33.41**	**135**	*e*P	**P**	**17 51 59.5**	**0.0**
PB05	**IPOC Station P**	**33.42**	**158**	IAmb	IAmb	17 52 07.4	
	comp=Z,66nm,1.3s						
PB05	**IPOC Station P**	**33.42**	**158**	P	**P**	**17 52 01.1**	**+1.5**
	comp=Z,42nm,1.6s						
ODNJ	**Ogdensburg**	**33.46**	**12**	IAmb	IAmb	17 52 06.2	
	comp=Z,92nm,1.7s						
PB06	**IPOC Station P**	**33.52**	**157**	IAmb	IAmb	17 52 08.4	
	comp=Z,44nm,1.1s						
PAL	**Palisades**	**33.53**	**12**	IAmb	IAmb	17 52 06.8	
	comp=Z,155nm,1.6s						
PAL				IAMs_20	IAMs_20	18 04 32.9	
	comp=Z,2µm,22.0s						
N62A	**Caumsett State**	**33.55**	**13**	IAMs_20	IAMs_20	18 05 42.6	
	comp=Z,2µm,18.0s						
CRNM	**Carthage**	**33.60**	**323**	P	**P**	**17 52 00.8**	**-0.4**
KSPA	**Keystone Colle**	**33.71**	**10**	IAmb	IAmb	17 52 10.4	
	comp=Z,159nm,1.5s						
Y22A	**Socorro**	**33.73**	**323**	IAmb	IAmb	17 52 10.8	
	comp=Z,64nm,1.2s						
ERPA	**Erie**	**33.76**	**4**	IAMs_20	IAMs_20	18 06 12.1	
	comp=Z,2µm,19.0s						
WSPT	**Westport, CT**	**33.81**	**13**	IAMs_20	IAMs_20	18 05 50.5	
	comp=Z,2µm,19.0s						
AAM	**Ann Arbor**	**33.84**	**359**	IAMs_20	IAMs_20	18 05 52.3	
	comp=Z,2µm,19.0s						
CBKS	**Cedar Bluff**	**33.89**	**336**	IAmb	IAmb	17 52 09.7	
	comp=Z,46nm,0.9s						
L44A	**Lake County Fo**	**34.00**	**353**	IAmb	IAmb	17 52 08.9	
	comp=Z,133nm,1.3s						
L44A				IAMs_20	IAMs_20	18 06 39.3	
	comp=Z,2µm,19.0s						
ALQ	**Albuquerque**	**34.13**	**324**	IAmb	IAmb	17 52 14.8	
	comp=Z,15nm,1.0s						
ANMO	**Albuquerque**	**34.14**	**324**	P	**P**	**17 52 07.3**	**+1.4**
	comp=Z,9.4nm,1.0s,baz=142,slow=8.4,SNR=16						
	comp=Z,9.4nm,1.0s						
ANMO	**Albuquerque**	**34.14**	**324**	*ce*P	**P**	**17 52 07.1**	**+1.2**
ANMO				pmax	pmax		
	comp=Z,18nm,1.0s						
ANMO	**Albuquerque**	**34.14**	**324**	P	**P**	**17 52 06.0**	**0.0**
NPNY	**Mohonk Preserv**	**34.20**	**12**	IAmb	IAmb	17 52 12.9	
	comp=Z,124nm,1.2s						
M63A	**Gales Ferry**	**34.34**	**15**	IAmb	IAmb	17 52 14.3	
	comp=Z,141nm,1.3s						
M63A				IAMs_20	IAMs_20	18 07 20.4	
	comp=Z,2µm,18.0s						
L59A	**Walton**	**34.45**	**10**	IAmb	IAmb	17 52 17.0	
	comp=Z,154nm,1.5s						
L59A				IAMs_20	IAMs_20	18 07 01.2	
	comp=Z,3µm,18.0s						
K43A	**Burlington**	**34.56**	**353**	IAmb	IAmb	17 52 10.4	
	comp=Z,138nm,1.4s						
PB14	**IPOC Station P**	**34.97**	**160**	P	**P**	**17 52 13.0**	**-0.4**
PB14				IAmb	IAmb	17 52 21.2	
	comp=Z,185nm,1.7s						
PB14	**IPOC Station P**	**34.97**	**160**	P	**P**	**17 52 15.4**	**+2.1**
	comp=Z,59nm,1.4s						
TUC	**Tucson**	**35.14**	**317**	IAMs_20	IAMs_20	18 07 21.0	
	comp=Z,2µm,18.0s						
L64A	**Middleborough**	**35.15**	**16**	IAMs_20	IAMs_20	18 05 55.9	
	comp=Z,2µm,20.0s						
L61B	**Northampton**	**35.18**	**13**	IAMs_20	IAMs_20	18 07 51.6	
	comp=Z,2µm,18.0s						
TRY	**Troy**	**35.23**	**12**	IAMs_20	IAMs_20	18 07 38.1	
	comp=Z,3µm,18.0s						
WES	**Weston**	**35.45**	**15**	IAmb	IAmb	17 52 23.6	
	comp=Z,90nm,1.4s						
WES				IAMs_20	IAMs_20	18 08 00.6	
	comp=Z,2µm,19.0s						
J57A	**Williamstown**	**35.48**	**9**	IAmb	IAmb	17 52 23.9	
	comp=Z,160nm,1.6s						
K62A	**Royalston**	**35.49**	**14**	IAmb	IAmb	17 52 24.6	
	comp=Z,140nm,1.5s						
K62A				IAMs_20	IAMs_20	18 06 12.7	
	comp=Z,1µm,19.0s						
HRV	**Adam Dziewonsk**	**35.50**	**15**	P	**P**	**17 52 21.7**	**+4.4**
HRV	**Adam Dziewonsk**	**35.50**	**15**	IAMs_20	IAMs_20	18 04 59.1	
	comp=Z,2µm,20.0s						
L34A	**Svendsen Farm,**	**35.53**	**343**	IAmb	IAmb	17 52 22.2	
	comp=Z,68nm,1.0s						
BGNE	**Belgrade**	**35.59**	**340**	IAmb	IAmb	17 52 21.0	
	comp=Z,81nm,0.8s						
J59A	**Piesco**	**35.78**	**11**	IAMs_20	IAMs_20	18 06 51.6	
	comp=Z,2µm,21.0s						
I42A	**Draeger Farm,**	**35.80**	**353**	IAMs_20	IAMs_20	18 06 26.2	
	comp=Z,2µm,20.0s						
I40A	**Norwalk**	**36.05**	**351**	IAmb	IAmb	17 52 26.8	
	comp=Z,137nm,1.2s						
J61A	**Chester**	**36.06**	**13**	IAmb	IAmb	17 52 29.0	
	comp=Z,124nm,1.5s						
J61A				IAMs_20	IAMs_20	18 07 05.9	
	comp=Z,2µm,19.0s						
SALV	**Santo Antonio**	**36.19**	**132**	*e*P	**P**	**17 52 23.6**	**0.0**
H43A	**Windswept, Lux**	**36.25**	**354**	IAMs_20	IAMs_20	18 07 55.9	
	comp=Z,2µm,19.0s						
NCB	**Newcomb**	**36.32**	**11**	IAmb	IAmb	17 52 31.5	
	comp=Z,164nm,1.9s						
DELO	**Deloro Mine**	**36.35**	**6**	IAmb	IAmb	17 52 30.9	
	comp=Z,129nm,1.5s						
CFNY	**Clifton-Fine,**	**36.37**	**10**	IAmb	IAmb	17 52 30.6	
	comp=Z,130nm,1.9s						
HNH	**Hanover**	**36.46**	**13**	IAmb	IAmb	17 52 32.4	
	comp=Z,74nm,1.4s						
HNH				IAMs_20	IAMs_20	18 08 48.5	
	comp=Z,2µm,18.0s						
MCVT	**Middlebury Col**	**36.55**	**12**	IAmb	IAmb	17 52 34.8	
	comp=Z,176nm,1.8s						
PIX	**Pinacate**	**36.59**	**313**	IAmb	IAmb	17 52 34.6	
	comp=Z,147nm,1.8s						
I37A	**Lemond, Waseca**	**36.70**	**347**	IAmb	IAmb	17 52 29.6	
	comp=Z,53nm,0.9s						
I62A	**Tamworth**	**36.84**	**14**	IAmb	IAmb	17 52 35.6	
	comp=Z,107nm,1.5s						
I62A				IAMs_20	IAMs_20	18 07 01.6	
	comp=Z,2µm,19.0s						
LONY	**Lake Ozonia**	**36.89**	**10**	P	**P**	**17 52 29.9**	**+0.7**
LONY				IAmb	IAmb	17 52 37.0	
	comp=Z,177nm,1.6s						
MVCO	**Mesa Verde**	**36.91**	**325**	IAMs_20	IAMs_20	18 08 03.4	
	comp=Z,2µm,19.0s						
LBNH	**Lisbon**	**37.05**	**13**	IAmb	IAmb	17 52 37.4	
	comp=Z,186nm,1.6s						
LBNH				IAMs_20	IAMs_20	18 09 24.1	
	comp=Z,2µm,18.0s						
BUKO	**Buck Lake**	**37.11**	**4**	IAmb	IAmb	17 52 36.1	
	comp=Z,129nm,1.4s						
WBO	**Williamsburg**	**37.14**	**9**	IAmb	IAmb	17 52 38.1	
	comp=Z,203nm,1.6s						
I63A	**Otisfield**	**37.20**	**15**	IAmb	IAmb	17 52 39.4	
	comp=Z,143nm,1.6s						
I63A				IAMs_20	IAMs_20	18 09 20.9	
	comp=Z,2µm,18.0s						
ECSD	**EROS Data Cent**	**37.23**	**344**	IAmb	IAmb	17 52 37.6	
	comp=Z,119nm,1.4s						
FLET	**Fletcher**	**37.29**	**12**	IAmb	IAmb	17 52 40.8	
	comp=Z,132nm,1.6s						
G40A	**Rib Lake**	**37.33**	**352**	IAmb	IAmb	17 52 37.7	
	comp=Z,80nm,1.1s						
SNDB	**Serra Nova Dou**	**37.41**	**122**	*e*P	**P**	**17 52 34.1**	**+0.1**
AC02	**Maricunga**	**37.45**	**159**	IAmb	IAmb	17 52 43.4	
	comp=Z,111nm,1.4s						
COIM	**Forte Coimbra**	**37.45**	**139**	*e*P	**P**	**17 52 33.9**	**-0.3**
113A	**Mohawk Valley,**	**37.46**	**315**	IAmb	IAmb	17 52 42.5	
	comp=Z,209nm,1.6s						
AC06	**Mina Casimiro**	**37.52**	**161**	P	**P**	**17 52 35.6**	**+0.8**
AC06				IAmb	IAmb	17 52 42.5	
	comp=Z,127nm,1.7s						
H62A	**Milan**	**37.55**	**14**	P	**P**	**17 52 35.3**	**+0.5**
H62A				IAmb	IAmb	17 52 42.4	
	comp=Z,104nm,1.6s						
H62A				IAMs_20	IAMs_20	18 07 24.2	
	comp=Z,2µm,20.0s						
F42A	**Maple Grove Fa**	**37.56**	**354**	IAmb	IAmb	17 52 38.9	
	comp=Z,118nm,1.5s						
F42A				IAMs_20	IAMs_20	18 10 37.6	
	comp=Z,2µm,19.0s						
PV02	**Paradox Valley**	**37.74**	**326**	IAmb	IAmb	17 52 47.0	
	comp=Z,73nm,1.0s						
GO03	**Copiapo**	**37.78**	**161**	P	**P**	**17 52 37.3**	**+0.3**
PV03	**Paradox Valley**	**37.84**	**326**	P	**P**	**17 52 37.9**	**+0.3**
PV05	**Paradox Valley**	**37.85**	**326**	P	**P**	**17 52 38.3**	**+0.5**
PV12	**Saucer Basin,**	**37.86**	**326**	IAmb	IAmb	17 52 50.6	
	comp=Z,143nm,1.2s						
PV18	**Skein Mesa, Pa**	**37.87**	**326**	IAmb	IAmb	17 52 48.3	
	comp=Z,68nm,1.0s						
PP1B	**Ponte de Pedra**	**37.88**	**133**	*e*P	**P**	**17 52 37.8**	**-0.1**
MNTQ	**Montreal, Queb**	**37.91**	**11**	IAmb	IAmb	17 52 45.8	
	comp=Z,71nm,1.2s						
WVL	**Waterville**	**37.91**	**16**	P	**P**	**17 52 38.2**	**+0.3**
WVL				IAmb	IAmb	17 52 45.9	
	comp=Z,156nm,1.5s						
WVL				IAMs_20	IAMs_20	18 11 03.9	
	comp=Z,2µm,18.0s						
PV19	**Morning Glory**	**37.95**	**326**	IAmb	IAmb	17 52 49.0	
	comp=Z,71nm,1.2s						
PV20	**West Nyswonger**	**37.97**	**326**	IAmb	IAmb	17 52 48.5	
	comp=Z,83nm,1.2s						
PV10	**Paradox Valley**	**38.03**	**326**	IAmb	IAmb	17 52 49.1	
	comp=Z,59nm,1.1s						
G62A	**West of Eustis**	**38.30**	**14**	IAMs_20	IAMs_20	18 07 56.2	
	comp=Z,2µm,20.0s						
BDQN	**Bodoquena, MS**	**38.51**	**138**	*e*P	**P**	**17 52 43.3**	**+0.1**
BLYC	**Blythe**	**38.53**	**316**	IAmb	IAmb	17 52 51.6	
	comp=Z,148nm,1.5s						
SUSD	**Miller**	**38.57**	**342**	IAmb	IAmb	17 52 59.8	
	comp=Z,138nm,1.2s						
PKME	**Peaks-Kenny Pk**	**38.66**	**16**	P	**P**	**17 52 44.5**	**+0.4**
PKME				IAMs_20	IAMs_20	18 10 14.7	
	comp=Z,2µm,19.0s						
EMMW	**East Machias**	**38.67**	**18**	IAMs_20	IAMs_20	18 09 48.0	
	comp=Z,2µm,19.0s						
MURT	**Porto Murtinho**	**38.83**	**141**	*e*P	**P**	**17 52 45.1**	**-0.8**
E38A	**The Farm, Brul**	**38.84**	**351**	IAmb	IAmb	17 52 50.7	
	comp=Z,74nm,1.1s						
W13A	**Hualapai Mount**	**38.87**	**318**	IAmb	IAmb	17 52 55.0	
	comp=Z,106nm,1.5s						
AC05	**El Transito**	**38.93**	**162**	P	**P**	**17 52 46.9**	**+0.1**
AC05				IAmb	IAmb	17 52 50.1	
	comp=Z,80nm,1.1s						
YUH	**Yuha Desert**	**38.93**	**313**	IAmb	IAmb	17 52 54.5	
	comp=Z,129nm,1.5s						
LCO	**Las Campanas**	**38.96**	**163**	P	**P**	**17 52 47.1**	**-0.1**
LCO				pmax	pmax		
	comp=Z,44nm,1.1s						
LCO	**Las Campanas**	**38.96**	**163**	P	**P**	**17 52 47.0**	**-0.1**
ARAG	**Araguaiana, MT**	**39.03**	**128**	*e*P	**P**	**17 52 46.7**	**-1.0**
G65A	**Princeton**	**39.09**	**17**	IAMs_20	IAMs_20	18 07 49.0	
	comp=Z,2µm,22.0s						
F33A	**5 Mile Ranch,**	**39.10**	**345**	IAmb	IAmb	17 52 49.8	
	comp=Z,94nm,1.0s						
BC3	**Big Chuckawall**	**39.13**	**315**	IAmb	IAmb	17 52 56.9	
	comp=Z,251nm,1.8s						
BC3				IAMs_20	IAMs_20	18 10 36.7	
	comp=Z,1µm,21.0s						
SMTB	**Santa Maria do**	**39.18**	**115**	*e*P	**P**	**17 52 49.3**	**+0.4**
IRM	**Iron Mountain**	**39.19**	**316**	IAmb	IAmb	17 52 57.3	
	comp=Z,124nm,1.5s						
IRM				IAMs_20	IAMs_20	18 09 26.3	
	comp=Z,1µm,20.0s						
GGN	**Saint George**	**39.23**	**18**	IAmb	IAmb	17 52 56.5	
	comp=Z,182nm,1.7s						
AQDB	**Aquidauana**	**39.23**	**137**	*e*P	**P**	**17 52 49.4**	**+0.2**
F64A	**Sherman**	**39.47**	**16**	IAMs_20	IAMs_20	18 08 33.1	
	comp=Z,2µm,20.0s						
BELC	**Belle Mtn. Jos**	**39.70**	**315**	IAmb	IAmb	17 53 01.4	
	comp=Z,139nm,1.5s						
BELC				IAMs_20	IAMs_20	18 10 42.8	
	comp=Z,1µm,21.0s						
PFO	**Pinyon Flats O**	**39.82**	**314**	P	**P**	**17 52 56.7**	**+2.5**
	comp=Z,24nm,1.0s,baz=116,slow=9.0,SNR=20						
	comp=Z,24nm,1.0s						
PFO	**Pinyon Flats O**	**39.82**	**314**	*i* P	**P**	**17 52 55.7**	**+1.5**
PFO				pmax	pmax		
	comp=Z,103nm,1.3s						
PFO	**Pinyon Flats O**	**39.82**	**314**	P	**P**	**17 52 54.9**	**+0.7**
VLDQ	**Val d'Or**	**39.93**	**6**	IAmb	IAmb	17 53 00.7	
	comp=Z,118nm,1.4s						
GO04	**Tololo Observa**	**40.03**	**163**	IAmb	IAmb	17 53 03.7	
	comp=Z,131nm,1.2s						
RSSD	**Black Hills**	**40.10**	**336**	P	**P**	**17 52 56.4**	**-0.1**
RSSD				pmax	pmax		
	comp=Z,115nm,1.7s						
RSSD				MLR	MLR		
	comp=Z,900nm,19.0s						
RSSD	**Black Hills**	**40.10**	**336**	P	**P**	**17 52 56.4**	**-0.1**
RSSD				IAmb	IAmb	17 53 06.0	
	comp=Z,115nm,1.7s						
CO06	**Fray Jorge**	**40.28**	**165**	P	**P**	**17 52 58.0**	**+0.2**
CO06				IAmb	IAmb	17 53 00.3	
	comp=Z,59nm,0.8s						
D62A	**Allapoint, All**	**40.41**	**15**	P	**P**	**17 52 59.0**	**+0.3**
D62A				IAMs_20	IAMs_20	18 09 18.0	
	comp=Z,2µm,19.0s						
SHPR	**Sheep Range**	**40.53**	**319**	IAmb	IAmb	17 53 08.6	
	comp=Z,103nm,1.6s						
LMQ	**La Malbaie**	**40.54**	**13**	P	**P**	**17 52 59.9**	**0.0**
LMQ				IAmb	IAmb	17 53 06.7	
	comp=Z,143nm,1.5s						
TBO	**Thunder Bay**	**40.55**	**353**	IAmb	IAmb	17 53 05.1	
	comp=Z,101nm,1.0s						
CO03	**El Pedregal**	**40.69**	**164**	IAmb	IAmb	17 53 04.5	
	comp=Z,68nm,1.1s						
LDAQ	**Lac Daran**	**40.74**	**12**	P	**P**	**17 53 02.0**	**+0.5**
LDAQ				IAmb	IAmb	17 53 07.2	
	comp=Z,72nm,1.1s						
SHOC	**Shoshone, Teco**	**40.92**	**317**	IAmb	IAmb	17 53 11.4	
	comp=Z,208nm,1.5s						
SHOC				IAMs_20	IAMs_20	18 13 17.2	
	comp=Z,1µm,20.0s						
CO02	**Combarbal**	**40.95**	**164**	IAmb	IAmb	17 53 11.7	
	comp=Z,139nm,1.1s						
GSC	**Goldstone, Bar**	**40.96**	**316**	IAmb	IAmb	17 53 11.9	
	comp=Z,141nm,1.4s						
E28A	**Huff**	**41.02**	**341**	IAmb	IAmb	17 53 10.7	
	comp=Z,161nm,1.2s						
TCUT	**Toone Canyon**	**41.26**	**327**	IAmb	IAmb	17 53 14.2	
	comp=Z,70nm,1.0s						
AGMN	**Agassiz Nation**	**41.30**	**347**	IAmb	IAmb	17 53 08.4	
	comp=Z,94nm,1.1s						
PASC	**Pasadena Art C**	**41.34**	**314**	IAMs_20	IAMs_20	18 13 34.2	
	comp=Z,1µm,19.0s						
QSM	**Queen of Sheba**	**41.36**	**317**	P	**P**	**17 53 07.8**	**+0.9**
QSM				IAmb	IAmb	17 53 15.0	
	comp=Z,159nm,1.4s						
BATG	**Bathurst New B**	**41.41**	**17**	IAmb	IAmb	17 53 13.6	
	comp=Z,97nm,1.3s						
CCCA	**Chr Cany lake**	**41.46**	**316**	P	**P**	**17 53 08.9**	**+1.2**
PDAR	**Pinedale Array**	**41.49**	**330**	P	**P**	**17 53 08.3**	**+0.3**
	comp=Z,4.5nm,0.8s,baz=137,slow=11,SNR=17						
	comp=Z,4.5nm,0.8s						
PDAR	**Pinedale Array**	**41.49**	**330**	P	**P**	**17 53 07.8**	**-0.3**
TPNV	**Topopah Spring**	**41.50**	**318**	IAmb	IAmb	17 53 16.1	
	comp=Z,129nm,1.4s						
TPNV				IAMs_20	IAMs_20	18 13 36.4	
	comp=Z,2µm,21.0s						
FURC	**Furnace Creek,**	**41.63**	**317**	IAMs_20	IAMs_20	18 11 09.0	
	comp=Z,2µm,21.0s						
WCT	**Wildcat Mounta**	**41.66**	**318**	IAmb	IAmb	17 53 18.0	
	comp=Z,85nm,1.4s						
H03N2	**Juan Fernandez**	**41.71**	**175**	T	T	18 37 34.1	
	baz=353,slow=74,SNR=58						
H03N1	**Juan Fernandez**	**41.72**	**175**	T	T	18 37 36.9	
	baz=269,slow=74,SNR=89						
CO04	**Los Peladeros**	**41.75**	**165**	IAmb	IAmb	17 53 18.2	
	comp=Z,100nm,1.2s						
CLC	**China Lake**	**41.78**	**316**	IAmb	IAmb	17 53 18.3	
	comp=Z,236nm,1.7s						
MPMC	**Manual Prospec**	**41.83**	**317**	IAmb	IAmb	17 53 19.6	
	comp=Z,155nm,1.8s						
MPMC				IAMs_20	IAMs_20	18 12 15.3	
	comp=Z,2µm,21.0s						
MDND	**Maddock**	**41.84**	**343**	IAMs_20	IAMs_20	18 13 24.9	
	comp=Z,1µm,19.0s						
ZON	**Zonda**	**41.94**	**162**	P	**P**	**17 53 12.5**	**+0.9**
ZON				pmax	pmax		
	comp=Z,71nm,1.2s						
ZON	**Zonda**	**41.94**	**162**	P	**P**	**17 53 12.5**	**+0.9**
BDFB	**Brasilia**	**42.03**	**124**	P	**P**	**17 53 12.5**	**-0.2**
	comp=Z,11nm,0.7s,baz=285,slow=7.4,SNR=3.8						
	comp=Z,11nm,0.7s						
BDFB	**Brasilia**	**42.03**	**124**	P	**P**	**17 53 12.1**	**-0.5**
EPLO	**Experimental L**	**42.18**	**350**	IAmb	IAmb	17 53 15.2	
	comp=Z,98nm,0.9s						
SJPY	**San Joaquin**	**42.23**	**142**	*e*P	**P**	**17 53 12.2**	**-1.8**
ISA	**Isabella, Lake**	**42.30**	**315**	IAmb	IAmb	17 53 23.0	
	comp=Z,196nm,1.8s						
CWC	**Cottonwood Cre**	**42.44**	**317**	IAmb	IAmb	17 53 24.9	
	comp=Z,97nm,1.5s						
CWC				IAMs_20	IAMs_20	18 12 34.4	
	comp=Z,1µm,21.0s						
VA01	**Torpederas**	**42.51**	**166**	IAmb	IAmb	17 53 23.9	
	comp=Z,142nm,1.3s						
CPUP	**Villa Florida**	**42.52**	**145**	P	**P**	**17 53 15.8**	**-0.5**
	comp=Z,4.5nm,0.9s,baz=332,slow=10.0,SNR=7.0						
	comp=Z,4.5nm,0.9s						
CPUP	**Villa Florida**	**42.52**	**145**	P	**P**	**17 53 16.1**	**-0.2**
CPUP				pmax	pmax		
	comp=Z,26nm,1.3s						
CPUP	**Villa Florida**	**42.52**	**145**	P	**P**	**17 53 16.1**	**-0.2**
VA03	**San Esteban**	**42.54**	**164**	P	**P**	**17 53 17.3**	**+0.8**
VA03				IAmb	IAmb	17 53 24.8	
	comp=Z,108nm,1.1s						
TPH	**Tonopah**	**42.78**	**319**	IAmb	IAmb	17 53 26.4	
	comp=Z,132nm,1.4s						
MT02	**Curacav**	**42.86**	**165**	IAmb	IAmb	17 53 31.3	
	comp=Z,127nm,1.7s						
PEL	**Peldehue**	**42.87**	**165**	P	**P**	**17 53 21.3**	**+2.2**
PEL				pmax	pmax		
	comp=Z,61nm,1.4s						
PEL	**Peldehue**	**42.87**	**165**	IAmb	IAmb	17 53 27.1	
	comp=Z,102nm,1.4s						
DSP	**Deep Springs**	**42.87**	**318**	IAmb	IAmb	17 53 27.6	
	comp=Z,137nm,1.6s						
TIN	**Tinemaha, Big**	**42.87**	**317**	IAMs_20	IAMs_20	18 13 01.8	
	comp=Z,2µm,22.0s						
LAO	**LASA Array**	**43.09**	**337**	IAmb	IAmb	17 53 26.5	
	comp=Z,95nm,1.1s						
LAO				IAMs_20	IAMs_20	18 13 29.1	
	comp=Z,1µm,21.0s						
SDBA	**SAO DESIDERIO**	**43.09**	**118**	*e*P	**P**	**17 53 21.1**	**-0.1**
MT05	**Renca**	**43.09**	**165**	IAmb	IAmb	17 53 28.9	
	comp=Z,143nm,1.1s						
RLMT	**Red Lodge**	**43.13**	**333**	IAMs_20	IAMs_20	18 13 49.4	
	comp=Z,1µm,21.0s						
ULM	**Lac du Bonnet**	**43.15**	**348**	P	**P**	**17 53 20.1**	**-1.0**
	comp=Z,125nm,0.9s,baz=157,slow=8.1,SNR=64						
	comp=Z,125nm,0.9s						
IPMB	**Ipameri, GO**	**43.15**	**127**	*e*P	**P**	**17 53 20.2**	**-1.5**
ELK	**Elko**	**43.17**	**324**	P	**P**	**17 53 22.8**	**+1.1**
	comp=Z,11nm,0.9s,baz=132,slow=6.5,SNR=29						
ELK				PcP	**PcP**	**17 55 13.1**	**+1.8**
	comp=Z,7.8nm,1.0s,baz=125,slow=2.7,SNR=3.7						
	comp=Z,11nm,0.9s						
ELK	**Elko**	**43.17**	**324**	P	**P**	**17 53 22.8**	**+1.1**
ELK						17 55 13.1	
ELK				pmax	pmax		
	comp=Z,20nm,1.1s						

ELK				MLR	MLR		
	comp=Z,700nm,19.0s						
ELK	**Elko**	**43.17**	**324**	IAmb	IAmb	17 53 25.9	
	comp=Z,20nm,1.1s						
MT03	**Universidad Ad**	**43.24**	**165**	IAmb	IAmb	17 53 35.3	
	comp=Z,109nm,1.2s						
NBPS	**Pedro II - PI**	**43.31**	**105**	*e*P	**P**	**17 53 22.8**	**-0.3**
MT08	**Bocatoma Ro**	**43.33**	**164**	IAmb	IAmb	17 53 27.0	
	comp=Z,106nm,1.0s						
MT09	**Talagante**	**43.39**	**165**	IAmb	IAmb	17 53 30.6	
	comp=Z,164nm,1.4s						
MT13	**San Alfonso**	**43.54**	**165**	IAmb	IAmb	17 53 32.5	
	comp=Z,138nm,1.3s						
YMR	**Madison River**	**43.59**	**331**	IAmb	IAmb	17 53 56.8	
	comp=Z,37nm,0.4s						
NVAR	**Mina Array Bea**	**43.68**	**319**	P	**P**	**17 53 27.0**	**+1.1**
	comp=Z,13nm,1.0s,baz=148,slow=3.5,SNR=46						
	comp=Z,13nm,1.0s						
LHV	**Little Huntoon**	**43.71**	**319**	IAmb	IAmb	17 53 34.6	
	comp=Z,114nm,1.4s						
MDPB	**Devils Postpil**	**43.76**	**317**	IAmb	IAmb	17 53 34.6	
	comp=Z,107nm,1.3s						
YHL	**Hebgen Lake**	**43.82**	**331**	IAmb	IAmb	17 53 35.0	
	comp=Z,89nm,1.4s						
GCMT	**Greycliff**	**43.83**	**333**	P	**P**	**17 53 27.2**	**+0.4**
PKD	**Bear Valley Ra**	**43.89**	**314**	IAmb	IAmb	17 53 34.2	
	comp=Z,111nm,1.6s						
KVN	**Kaiserville**	**43.90**	**320**	P	**P**	**17 53 27.2**	**-0.4**
KVN				pmax	pmax		
	comp=Z,37nm,1.4s						
KVN	**Kaiserville**	**43.90**	**320**	P	**P**	**17 53 27.2**	**-0.4**
BO01	**Tunca**	**43.95**	**166**	P	**P**	**17 53 28.1**	**+0.3**
BO01				IAmb	IAmb	17 53 35.6	
	comp=Z,108nm,1.3s						
BMN	**Battle Mountai**	**44.16**	**322**	P	**P**	**17 53 30.1**	**+0.5**
BMN				pmax	pmax		
	comp=Z,65nm,1.0s						
BMN	**Battle Mountai**	**44.16**	**322**	P	**P**	**17 53 30.1**	**+0.5**
BMN				IAmb	IAmb	17 53 36.3	
	comp=Z,65nm,1.0s						
GO05	**Hualane**	**44.35**	**167**	IAmb	IAmb	17 53 38.4	
	comp=Z,52nm,1.0s						
BO02	**Sierra Bellavi**	**44.41**	**166**	P	**P**	**17 53 32.2**	**+0.7**
HULI	**Fort Hunter Li**	**44.42**	**314**	IAmb	IAmb	17 53 41.4	
	comp=Z,114nm,1.1s						
HULI				IAMs_20	IAMs_20	18 11 49.9	
	comp=Z,1µm,20.0s						
WAKR	**Walker**	**44.46**	**318**	IAmb	IAmb	17 53 40.3	
	comp=Z,144nm,1.4s						
BOZ	**Bozeman (W)**	**44.59**	**331**	P	**P**	**17 53 34.2**	**+1.2**
BOZ	**Bozeman (W)**	**44.59**	**331**	IAmb	IAmb	17 53 40.3	
	comp=Z,86nm,1.4s						
YERR	**Yerington**	**44.60**	**319**	IAmb	IAmb	17 53 40.3	
	comp=Z,130nm,1.5s						
JANB	**Januaria**	**44.82**	**121**	*e*P	**P**	**17 53 35.0**	**-0.1**
CMB	**Columbia Colle**	**44.85**	**317**	IAmb	IAmb	17 53 42.5	
	comp=Z,73nm,1.5s						
PMNB	**Patos De Minas**	**44.86**	**127**	*e*P	**P**	**17 53 35.4**	**0.0**
DLMT	**Dillon**	**44.88**	**330**	IAmb	IAmb	17 53 42.0	
	comp=Z,55nm,1.2s						
PNTR	**Pine Nut**	**44.89**	**319**	IAmb	IAmb	17 53 42.8	
	comp=Z,97nm,1.5s						
SAO	**San Andreas Ge**	**44.93**	**315**	P	**P**	**17 53 38.9**	**+3.2**
SAO	**San Andreas Ge**	**44.93**	**315**	IAmb	IAmb	17 53 42.4	
	comp=Z,66nm,1.4s						
ML02	**Panimavida**	**45.19**	**167**	P	**P**	**17 53 38.2**	**+0.6**
ML02				IAmb	IAmb	17 53 45.1	
	comp=Z,95nm,1.1s						
MHC	**Mount Hamilton**	**45.35**	**316**	IAMs_20	IAMs_20	18 15 41.5	
	comp=Z,1µm,20.0s						
EGMT	**Eagleton**	**45.59**	**335**	IAMs_20	IAMs_20	18 15 58.4	
	comp=Z,986nm,18.0s						
BI05	**Punta Hualpn**	**45.77**	**169**	IAmb	IAmb	17 53 49.0	
	comp=Z,40nm,1.0s						
JRSC	**Jasper Ridge**	**45.80**	**315**	IAMs_20	IAMs_20	18 12 02.2	
	comp=Z,927nm,18.0s						
BEKR	**Beckworth**	**45.81**	**319**	IAmb	IAmb	17 53 49.5	
	comp=Z,54nm,1.3s						
MC01	**Montes Claros**	**45.94**	**123**	*e*P	**P**	**17 53 43.9**	**-0.1**
BI02	**San Fabin de**	**46.08**	**167**	IAmb	IAmb	17 53 51.9	
	comp=Z,56nm,1.4s						
PSAL	**Palomas, Salto**	**46.12**	**149**	*e*P	**P**	**17 53 45.0**	**0.0**
WVOR	**Wild Horse Val**	**46.21**	**323**	P	**P**	**17 53 46.8**	**+0.9**
WVOR	**Wild Horse Val**	**46.21**	**323**	IAmb	IAmb	17 53 49.7	
	comp=Z,81nm,1.0s						
SUTB	**Sutter Butte**	**46.40**	**318**	IAmb	IAmb	17 53 54.5	
	comp=Z,48nm,1.1s						
MSO	**Missoula**	**46.59**	**331**	IAmb	IAmb	17 53 55.5	
	comp=Z,39nm,1.1s						
MCCM	**Marconi Confer**	**46.60**	**316**	IAmb	IAmb	17 53 56.5	
	comp=Z,90nm,1.1s						
NBPN	**Ponto Novo - B**	**46.64**	**113**	*e*P	**P**	**17 53 49.1**	**-0.4**
J08A	**Circle Bar Ran**	**46.68**	**324**	P	**P**	**17 53 50.1**	**+0.6**
MOD	**Modoc Plateau**	**46.91**	**322**	IAmb	IAmb	17 53 57.7	
	comp=Z,49nm,1.4s						
MOD				IAMs_20	IAMs_20	18 15 15.4	
	comp=Z,1µm,20.0s						
DIAM	**Diamantina, MG**	**46.96**	**125**	*e*P	**P**	**17 53 51.8**	**-0.2**
BMO	**Blue Mountains**	**46.97**	**327**	P	**P**	**17 53 51.8**	**+0.1**
HATC	**Hat Creek Radi**	**47.03**	**320**	IAmb	IAmb	17 54 04.4	
	comp=Z,75nm,1.1s						
HATC				IAMs_20	IAMs_20	18 14 44.7	
	comp=Z,1µm,22.0s						
SPB	**Sao Paulo**	**47.05**	**133**	IAMs_20	IAMs_20	18 15 49.7	
	comp=Z,2µm,18.0s						
O02D	**Mt. Diablo Mer**	**47.55**	**318**	IAmb	IAmb	17 54 01.1	
	comp=Z,43nm,1.4s						
ARCA	**Ara§uai, MG**	**47.66**	**122**	*e*P	**P**	**17 53 57.5**	**+0.2**
M03C	**McCloud**	**47.70**	**320**	IAmb	IAmb	17 54 03.0	
	comp=Z,92nm,1.6s						
K05A	**Summer Lake**	**47.73**	**322**	IAmb	IAmb	17 54 09.4	
	comp=Z,35nm,1.3s						
CPSB	**Cacapava Do Su**	**47.83**	**145**	P	**P**	**17 53 58.8**	**+0.3**
CPSB				IAmb	IAmb	17 54 03.6	
	comp=Z,91nm,1.3s						
CPSB	**Cacapava Do Su**	**47.83**	**145**	*e*P	**P**	**17 53 58.0**	**-0.4**
NBTA	**Tacaratu-PE**	**47.98**	**110**	*e*P	**P**	**17 53 59.9**	**-0.1**
SCHQ	**Schefferville**	**48.14**	**12**	P	**P**	**17 54 00.0**	**-0.6**
	comp=Z,35nm,1.0s,baz=185,slow=6.6,SNR=14						
SCHQ				LR	LR	18 16 05.0	
	comp=Z,2µm,18.4s,baz=200,slow=38						
	comp=Z,35nm,1.0s						
M02C	**Callahan**	**48.23**	**320**	IAMs_20	IAMs_20	18 15 09.4	
	comp=Z,1µm,22.0s						
J05D	**Fort Rock, OR**	**48.26**	**323**	IAmb	IAmb	17 55 06.0	
	comp=Z,75nm,1.6s						
YBH	**Yreka Blue Hor**	**48.31**	**320**	P	**P**	**17 54 02.6**	**+0.3**
	comp=Z,7.5nm,1.0s,baz=111,slow=4.4,SNR=14						
YBH				PcP	**PcP**	**17 55 28.8**	**-0.1**
	comp=Z,2.0nm,0.7s,baz=147,slow=3.3,SNR=3.6						
	comp=Z,7.5nm,1.0s						
YBH	**Yreka Blue Hor**	**48.31**	**320**	IAmb	IAmb	17 54 06.7	
	comp=Z,26nm,1.4s						
LDM	**Libby Dam**	**48.40**	**332**	IAmb	IAmb	17 54 09.6	
	comp=Z,45nm,1.1s						
E09A	**Wood Farm, Sta**	**48.49**	**328**	IAmb	IAmb	17 54 06.5	
	comp=Z,33nm,1.0s						
KHMM	**Horse Mountain**	**48.53**	**319**	IAMs_20	IAMs_20	18 15 26.4	
	comp=Z,1µm,19.0s						
ANCO	**Parque Anchore**	**48.55**	**152**	*e*P	**P**	**17 54 04.8**	**+0.9**
KMPM	**Mount Pierce**	**48.55**	**318**	IAmb	IAmb	17 54 09.2	
	comp=Z,58nm,1.0s						
JCC	**Jacoby Creek,**	**48.69**	**318**	P	**P**	**17 54 05.6**	**+0.6**
FFC	**Flin Flon**	**48.70**	**345**	P	**P**	**17 54 04.6**	**-0.3**
FFC				pmax	pmax		
	comp=Z,72nm,1.1s						
FFC	**Flin Flon**	**48.70**	**345**	P	**P**	**17 54 04.6**	**-0.3**
FFC				IAmb	IAmb	17 54 10.6	
	comp=Z,72nm,1.1s						
BBOR	**Butler Butte**	**48.91**	**321**	IAmb	IAmb	17 54 12.7	
	comp=Z,71nm,1.7s						
I05D	**Terrebonne, OR**	**48.93**	**324**	IAmb	IAmb	17 54 15.8	
	comp=Z,68nm,1.4s						
E08A	**Dider Farm, El**	**48.96**	**327**	IAmb	IAmb	17 55 38.9	
	comp=Z,68nm,1.8s						
NBIT	**Itapeh - BA**	**48.97**	**118**	*e*P	**P**	**17 54 06.9**	**-0.6**
KRMB	**Red Mountain**	**48.97**	**319**	IAMs_20	IAMs_20	18 18 45.1	
	comp=Z,2µm,19.0s						
WIFE	**Three Sisters-**	**49.05**	**323**	IAmb	IAmb	17 54 15.2	
	comp=Z,61nm,1.2s						
G06A	**Carlson Farm,**	**49.05**	**325**	IAmb	IAmb	17 54 15.4	
	comp=Z,120nm,1.5s						
F07A	**Phinny Hill Vi**	**49.06**	**326**	IAmb	IAmb	17 54 11.9	
	comp=Z,36nm,1.1s						
L02F	**Cave Junction**	**49.06**	**320**	IAmb	IAmb	17 54 35.2	
	comp=Z,63nm,2.0s						
CMC01	**Camacan, BA**	**49.08**	**119**	*e*P	**P**	**17 54 08.3**	**0.0**
KSXB	**Camp Six Broad**	**49.11**	**320**	IAmb	IAmb	17 54 15.9	
	comp=Z,84nm,1.2s						
NEW	**Newport**	**49.13**	**330**	P	**P**	**17 54 08.7**	**+0.4**
	comp=Z,16nm,1.0s,baz=158,slow=7.7,SNR=12						
	comp=Z,16nm,1.0s						
NEW	**Newport**	**49.13**	**330**	P	**P**	**17 54 08.7**	**+0.4**
NEW				pmax	pmax		
	comp=Z,46nm,1.4s						
NEW				MLR	MLR		
	comp=Z,1µm,22.0s						
NEW	**Newport**	**49.13**	**330**	IAMs_20	IAMs_20	18 15 23.1	
	comp=Z,1µm,22.0s						
NEW	**Newport**	**49.13**	**330**	IAmb	IAmb	17 54 13.9	
	comp=Z,46nm,1.4s						
SJMB	**Sao Joao De Ma**	**49.20**	**123**	*e*P	**P**	**17 54 09.3**	**0.0**
I04A	**Tendick Farm,**	**49.25**	**323**	IAmb	IAmb	17 54 15.5	
	comp=Z,102nm,1.6s						
C09A	**Chrisman Ranch**	**49.40**	**329**	IAmb	IAmb	17 54 17.1	
	comp=Z,67nm,1.9s						
BSFB	**Barra de Sao F**	**49.54**	**123**	*e*P	**P**	**17 54 10.5**	**-1.4**
H04A	**Detroit Lake**	**49.62**	**324**	IAmb	IAmb	17 54 14.7	
	comp=Z,141nm,2.0s						
I03D	**Drain, OR**	**49.77**	**322**	IAmb	IAmb	17 54 19.6	
	comp=Z,85nm,1.5s						
BUCK	**Buck Mountain**	**49.82**	**323**	IAmb	IAmb	17 54 20.4	
	comp=Z,66nm,1.2s						
H04D	**Lebanon**	**49.85**	**323**	IAmb	IAmb	17 54 34.0	
	comp=Z,90nm,1.7s						
PLCA	**Paso Flores**	**50.14**	**168**	P	**P**	**17 54 16.5**	**+0.3**
	comp=Z,23nm,0.8s,baz=337,slow=8.4,SNR=54						
PLCA				LR	LR	18 12 29.6	
	comp=Z,491nm,18.2s,baz=1.0,slow=32						
PLCA				PKKP	**PKKPdf**	**18 16 50.9**	**+1.5**
	comp=Z,1.4nm,0.9s,baz=307,slow=0.8,SNR=3.5						
	comp=Z,23nm,0.8s						
PLCA	**Paso Flores**	**50.14**	**168**	IAmb	IAmb	17 54 23.0	
	comp=Z,53nm,1.1s						
PLCA	**Paso Flores**	**50.14**	**168**	*e*P	**P**	**17 54 16.4**	**+0.3**
RIB01	**Linhares ES**	**50.15**	**124**	*e*P	**P**	**17 54 16.5**	**0.0**
B08A	**Colville Reser**	**50.30**	**329**	P	**P**	**17 54 17.1**	**-0.2**
CAM01	**Campos-RJ**	**50.41**	**127**	*e*P	**P**	**17 54 18.5**	**+0.2**
D05A	**Enumclaw**	**50.97**	**326**	IAmb	IAmb	17 54 30.3	
	comp=Z,203nm,2.0s						
FCC	**Fort Churchill**	**51.03**	**353**	IAmb	IAmb	17 54 27.2	
	comp=Z,105nm,1.1s						
GO07	**Milladeo Hill,**	**51.89**	**171**	IAmb	IAmb	17 54 31.0	
	comp=Z,68nm,0.7s						
NLWA	**Neilton Lookou**	**52.13**	**326**	IAmb	IAmb	17 54 38.8	
	comp=Z,47nm,1.1s						
NLWA				IAMs_20	IAMs_20	18 20 31.6	
	comp=Z,1µm,19.0s						
LL02	**Futaleuf**	**52.26**	**170**	IAmb	IAmb	17 54 34.2	
	comp=Z,68nm,1.0s						
B04A	**Port Angeles**	**52.31**	**327**	IAmb	IAmb	17 54 41.0	
	comp=Z,43nm,1.1s						
LLLB	**Lillooet**	**53.02**	**330**	IAmb	IAmb	17 54 44.0	
	comp=Z,69nm,1.3s						
COYC	**Coyhaique**	**54.54**	**171**	IAmb	IAmb	17 54 54.0	
	comp=Z,28nm,0.9s						
FRB	**Frobisher Bay**	**56.29**	**8**	P	**P**	**17 55 00.1**	**-0.8**
GO08	**Villa O'Higgin**	**57.29**	**172**	P	**P**	**17 55 08.2**	**0.0**
GO08				IAmb	IAmb	17 55 24.7	
	comp=Z,81nm,1.9s						
YKAW1	**Yellowknife Wh**	**58.72**	**344**	IAmb	IAmb	17 55 24.3	
	comp=Z,87nm,1.2s						
YKA	**Yellowknife Ar**	**58.76**	**343**	P	**P**	**17 55 17.9**	**-0.5**
	comp=Z,45nm,0.9s,baz=139,slow=7.3,SNR=66						
	comp=Z,45nm,0.9s						
YKA	**Yellowknife Ar**	**58.76**	**343**	P	**P**	**17 55 17.8**	**-0.6**
NRS	**Narsarsuaq**	**59.59**	**20**	*i* P	**P**	**17 55 22.1**	**-2.1**
NRS				IAmb	IAmb	17 55 24.6	
	comp=Z,43nm,1.0s						
MOBC	**Moresby Island**	**59.60**	**328**	IAmb	IAmb	17 55 32.0	
	comp=Z,60nm,1.5s						
DIB	**Dawson Inlet,**	**59.90**	**328**	IAmb	IAmb	17 55 31.1	
	comp=Z,33nm,1.2s						
NUUK	**Nuuk**	**60.01**	**15**	*i* P	**P**	**17 55 25.7**	**-1.3**
NUUK				IAmb	IAmb	17 55 27.8	
	comp=Z,36nm,0.9s						
V35K	**Ketchikan**	**60.54**	**330**	IAmb	IAmb	17 55 37.1	
	comp=Z,42nm,1.6s						
V35K				IAMs_20	IAMs_20	18 26 34.2	
	comp=Z,915nm,22.0s						
T35M	**Bob Quinn**	**60.79**	**333**	P	**P**	**17 55 32.5**	**0.0**
T35M				IAMs_20	IAMs_20	18 26 18.7	
	comp=Z,942nm,19.0s						
CRAG	**Craig**	**61.35**	**330**	IAmb	IAmb	17 55 42.0	
	comp=Z,31nm,1.3s						
WRAK	**Wrangell Islan**	**61.46**	**331**	IAmb	IAmb	17 55 47.2	
	comp=Z,52nm,1.8s						
WRAK	**Wrangell Islan**	**61.46**	**331**	IAMs_20	IAMs_20	18 24 11.6	
	comp=Z,803nm,21.0s						
U33K	**Whale Pass**	**61.68**	**331**	IAmb	IAmb	17 55 44.7	
	comp=Z,34nm,1.4s						
U33K				IAMs_20	IAMs_20	18 27 28.3	
	comp=Z,735nm,20.0s						
S34M	**Telegraph Cree**	**61.70**	**333**	P	**P**	**17 55 39.2**	**+0.6**
S34M				IAMs_20	IAMs_20	18 26 25.8	
	comp=Z,1µm,19.0s						
WTLY	**Watson Lake, Y**	**61.97**	**336**	IAmb	IAmb	17 55 46.8	
	comp=Z,60nm,1.1s						
WRGLY	**Wrigley**	**62.02**	**341**	IAmb	IAmb	17 55 44.7	
	comp=Z,30nm,0.8s						
R33M	**Jennings River**	**62.45**	**335**	IAmb	IAmb	17 55 49.9	
	comp=Z,92nm,1.7s						
R33M				IAMs_20	IAMs_20	18 24 22.6	
	comp=Z,1µm,22.0s						
SFJD	**Kangerlussuaq**	**62.56**	**14**	P	**P**	**17 55 42.4**	**-1.9**
SFJD				IAmb	IAmb	17 55 43.7	
	comp=Z,74nm,1.4s						
SFJD	**Kangerlussuaq**	**62.56**	**14**	*i* P	**P**	**17 55 42.3**	**-1.9**
SFJD				IAmb	IAmb	17 55 44.0	
	comp=Z,39nm,1.0s						
Q32M	**Nakina River**	**62.77**	**334**	IAmb	IAmb	17 55 49.8	
	comp=Z,23nm,1.1s						
Q32M				IAMs_20	IAMs_20	18 26 02.1	
	comp=Z,927nm,19.0s						
S32K	**Killisnoo**	**63.05**	**332**	IAmb	IAmb	17 55 53.7	
	comp=Z,30nm,1.4s						
S32K				IAMs_20	IAMs_20	18 25 56.5	
	comp=Z,832nm,20.0s						
R32K	**Eaglecrest**	**63.42**	**332**	IAmb	IAmb	17 55 58.9	
	comp=Z,33nm,1.6s						
R32K				IAMs_20	IAMs_20	18 26 49.4	
	comp=Z,1µm,19.0s						
BESE	**Bessie Mountai**	**63.73**	**333**	IAmb	IAmb	17 55 57.5	
	comp=Z,43nm,1.4s						
BESE				IAMs_20	IAMs_20	18 26 27.5	
	comp=Z,984nm,19.0s						
P32M	**Atlin**	**63.74**	**334**	IAmb	IAmb	17 55 58.3	
	comp=Z,85nm,1.9s						
P32M				IAMs_20	IAMs_20	18 28 35.6	
	comp=Z,987nm,19.0s						
GDH	**Godhavn**	**63.80**	**11**	*i* P	**P**	**17 55 50.1**	**-2.3**
GDH				IAmb	IAmb	17 55 51.4	
	comp=Z,98nm,1.4s						
USHA	**Ushuaia**	**64.10**	**171**	LR	LR	18 21 16.9	
	comp=Z,466nm,18.1s,baz=332,slow=34						
ILULI	**Ilulissat**	**64.25**	**12**	P	**P**	**17 55 53.7**	**-1.7**
ILULI				pmax	pmax		
	comp=Z,282nm,1.9s						
ILULI	**Ilulissat**	**64.25**	**12**	P	**P**	**17 55 53.7**	**-1.7**
ILULI	**Ilulissat**	**64.25**	**12**	*i* P	**P**	**17 55 53.7**	**-1.7**
ILULI				IAmb	IAmb	17 55 55.6	
	comp=Z,38nm,0.8s						
N32M	**Quiet Lake**	**64.30**	**336**	IAmb	IAmb	17 56 04.1	
	comp=Z,46nm,0.9s						
N32M				IAMs_20	IAMs_20	18 28 28.1	
	comp=Z,790nm,18.0s						
POIN	**Pond Inlet**	**64.39**	**2**	IAmb	IAmb	17 56 02.1	
	comp=Z,38nm,1.0s						
MMPY	**Sheldon Lake,**	**64.40**	**338**	IAmb	IAmb	17 56 03.3	
	comp=Z,39nm,1.0s						
ISOG	**Isortoq, Green**	**64.72**	**19**	*i* P	**P**	**17 55 56.1**	**-2.4**
ISOG				IAmb	IAmb	17 55 57.8	
	comp=Z,70nm,1.1s						
WHY	**Whitehorse**	**64.79**	**335**	IAmb	IAmb	17 56 03.8	
	comp=Z,84nm,2.0s						
ANGG	**Ammassalik, Gr**	**65.19**	**19**	*i* P	**P**	**17 55 59.7**	**-1.8**
ANGG				IAmb	IAmb	17 56 01.0	
	comp=Z,56nm,1.1s						
PMOZ	**Porto Moniz, M**	**65.21**	**58**	*e*S	S	18 04 59.2	+13
PMOZ				*e*LR	LR	18 15 44.9	
PMOZ				*i* IAMs_20	IAMs_20	18 23 06.7	
	comp=Z,349nm,20.0s						
M31M	**Drury Creek, Y**	**65.39**	**336**	IAmb	IAmb	17 56 09.0	
	comp=Z,22nm,1.1s						
M31M				IAMs_20	IAMs_20	18 27 34.2	
	comp=Z,743nm,20.0s						
FUL	**Funchal**	**65.44**	**58**	*e*P	**P**	**17 56 06.0**	**+2.1**
SAATT	**Saattut**	**65.47**	**11**	*i* P	**P**	**17 56 02.5**	**-0.8**
SAATT				IAmb	IAmb	17 56 07.1	
	comp=Z,118nm,1.3s						
P29M	**Windy Craggy**	**65.54**	**333**	IAmb	IAmb	17 56 08.2	
	comp=Z,30nm,0.9s						
N31M	**Braeburn, Yuko**	**65.59**	**335**	P	**P**	**17 56 05.1**	**+0.8**
N31M				IAmb	IAmb	17 56 10.1	
	comp=Z,25nm,1.0s						
N31M				IAMs_20	IAMs_20	18 26 31.4	
	comp=Z,987nm,22.0s						
NUUG	**Nuugaatsiaq**	**65.80**	**10**	*i* P	**P**	**17 56 03.5**	**-1.9**
NUUG				IAmb	IAmb	17 56 05.8	
	comp=Z,38nm,1.0s						
N30M	**Aishikik Lake**	**66.12**	**335**	IAmb	IAmb	17 56 14.8	
	comp=Z,23nm,1.0s						
N30M				IAMs_20	IAMs_20	18 30 21.3	
	comp=Z,902nm,21.0s						
O29M	**Mount Kennedy**	**66.22**	**333**	IAMs_20	IAMs_20	18 28 48.3	
	comp=Z,951nm,20.0s						
RES	**Resolute Bay**	**66.67**	**357**	P	**P**	**17 56 11.0**	**0.0**
PCA	**Pinnacle**	**66.89**	**333**	IAMs_20	IAMs_20	18 31 00.9	
	comp=Z,866nm,19.0s						
O28M	**Mount Upton**	**67.15**	**333**	IAMs_20	IAMs_20	18 31 01.8	
	comp=Z,885nm,19.0s						
M29M	**Somme Creek**	**67.16**	**335**	IAmb	IAmb	17 56 23.2	
	comp=Z,55nm,1.1s						
M29M				IAMs_20	IAMs_20	18 28 50.7	
	comp=Z,783nm,20.0s						
H31M	**Peel River**	**67.31**	**340**	IAMs_20	IAMs_20	18 28 25.5	
	comp=Z,844nm,20.0s						
L29M	**L29M**	**67.34**	**336**	IAmb	IAmb	17 56 22.1	
	comp=Z,43nm,1.1s						
L29M				IAMs_20	IAMs_20	18 28 51.4	
	comp=Z,853nm,20.0s						
J30M	**Hart River**	**67.37**	**338**	IAmb	IAmb	17 56 24.6	
	comp=Z,70nm,1.5s						
J30M				IAMs_20	IAMs_20	18 28 08.5	
	comp=Z,1µm,21.0s						
K29M	**Barlow Dome**	**67.45**	**337**	IAmb	IAmb	17 56 22.1	
	comp=Z,29nm,0.9s						
LOGN	**Logan Glacier**	**67.53**	**333**	IAmb	IAmb	17 56 26.5	
	comp=Z,36nm,1.1s						
LOGN				IAMs_20	IAMs_20	18 28 52.9	
	comp=Z,844nm,20.0s						
YAH	**Yahtse**	**67.67**	**333**	IAMs_20	IAMs_20	18 27 40.5	
	comp=Z,869nm,19.0s						
I30M	**Mount Dempster**	**67.72**	**339**	IAmb	IAmb	17 56 26.5	
	comp=Z,65nm,1.1s						
I30M				IAMs_20	IAMs_20	18 29 29.7	
	comp=Z,984nm,20.0s						
GRNC	**Granite Creek**	**67.83**	**333**	IAmb	IAmb	17 56 28.6	
	comp=Z,30nm,1.1s						
GRNC				IAMs_20	IAMs_20	18 31 38.8	
	comp=Z,842nm,19.0s						
KULLO	**Kullorsuaq**	**67.85**	**7**	*i* P	**P**	**17 56 18.4**	**0.0**
KULLO				IAmb	IAmb	17 56 19.2	
	comp=Z,92nm,1.2s						
BARN	**Barnard Glacie**	**67.92**	**333**	IAmb	IAmb	17 56 29.2	
	comp=Z,38nm,1.2s						
BARN				IAMs_20	IAMs_20	18 31 17.2	
	comp=Z,710nm,20.0s						
J29N	**Klondike Camp**	**68.02**	**337**	IAmb	IAmb	17 56 28.4	
	comp=Z,59nm,1.1s						
DAWY	**Dawson**	**68.29**	**337**	IAmb	IAmb	17 56 25.0	
	comp=Z,115nm,2.0s						
TGL	**Tana Glacier**	**68.32**	**333**	IAmb	IAmb	17 56 30.1	
	comp=Z,44nm,1.0s						
TGL				IAMs_20	IAMs_20	18 28 07.8	
	comp=Z,722nm,21.0s						
EPYK	**Eagle Plains**	**68.43**	**340**	IAmb	IAmb	17 56 30.8	
	comp=Z,69nm,1.2s						
INK	**Inuvik**	**68.45**	**342**	P	**P**	**17 56 23.7**	**+1.4**
CRQM	**Cirque**	**68.46**	**333**	IAmb	IAmb	17 56 25.4	
	comp=Z,28nm,1.1s						
I29M	**Ogilvie Camp,**	**68.49**	**338**	IAmb	IAmb	17 56 29.3	
	comp=Z,68nm,1.2s						
I29M				IAMs_20	IAMs_20	18 27 55.1	
	comp=Z,756nm,20.0s						
M27K	**Edge Creek, AK**	**68.55**	**335**	IAmb	IAmb	17 56 29.7	
	comp=Z,50nm,1.2s						
BERG	**Berg Lake**	**68.58**	**332**	IAMs_20	IAMs_20	18 28 36.7	
	comp=Z,1µm,20.0s						
VRDI	**Verde Repeater**	**68.78**	**333**	IAmb	IAmb	17 56 33.7	
	comp=Z,42nm,1.2s						
VRDI				IAMs_20	IAMs_20	18 27 44.1	
	comp=Z,715nm,21.0s						
BCAR	**Beaver Creek A**	**68.81**	**335**	P	**P**	**17 56 25.2**	**+0.4**
L27K	**Beaver Creek,**	**68.82**	**335**	IAMs_20	IAMs_20	18 27 58.0	
	comp=Z,630nm,18.0s						
H29M	**Whitestone**	**68.93**	**339**	IAmb	IAmb	17 56 36.9	
	comp=Z,66nm,1.1s						
GLB	**Gilahina Butte**	**69.03**	**333**	IAmb	IAmb	17 56 35.1	
	comp=Z,64nm,1.2s						
GLB				IAMs_20	IAMs_20	18 31 54.5	
	comp=Z,811nm,20.0s						
RAGM	**Ragged Mountai**	**69.03**	**332**	IAmb	IAmb	17 56 34.8	
	comp=Z,62nm,1.2s						
M26K	**Nabesna, AK**	**69.05**	**334**	IAmb	IAmb	17 56 34.4	
	comp=Z,34nm,1.2s						
I28M	**Miner Creek**	**69.13**	**338**	IAmb	IAmb	17 56 32.8	
	comp=Z,69nm,1.4s						
K27K	**Chicken**	**69.33**	**336**	IAmb	IAmb	17 56 37.7	
	comp=Z,34nm,1.1s						
K27K				IAMs_20	IAMs_20	18 32 31.2	
	comp=Z,758nm,20.0s						
L26K	**Log Cabin Wild**	**69.44**	**335**	IAmb	IAmb	17 56 37.6	
	comp=Z,81nm,1.4s						
L26K				IAMs_20	IAMs_20	18 30 22.4	
	comp=Z,967nm,20.0s						
SUMG	**Summit**	**69.53**	**13**	P	**P**	**17 56 29.5**	**0.0**
SUMG				pmax	pmax		
	comp=Z,116nm,1.4s						
SUMG	**Summit**	**69.53**	**13**	*i* P	**P**	**17 56 29.2**	**-0.2**
SUMG				IAmb	IAmb	17 56 30.7	
	comp=Z,132nm,1.1s						
MENT	**Mentasta**	**69.56**	**335**	IAmb	IAmb	17 56 38.0	
	comp=Z,61nm,1.5s						
DIV	**Divide**	**69.80**	**333**	IAmb	IAmb	17 56 37.2	
	comp=Z,43nm,1.2s						
I27K	**Kandik River**	**69.83**	**338**	IAMs_20	IAMs_20	18 32 59.5	
	comp=Z,819nm,19.0s						
KLU	**Klutina**	**69.99**	**333**	IAmb	IAmb	17 56 40.7	
	comp=Z,40nm,1.0s						
KLU				IAMs_20	IAMs_20	18 32 38.9	
	comp=Z,635nm,20.0s						
SCRK	**Sand Creek**	**70.08**	**336**	IAMs_20	IAMs_20	18 29 42.3	
	comp=Z,935nm,21.0s						
F28M	**Old Crow**	**70.13**	**340**	IAmb	IAmb	17 56 38.8	
	comp=Z,39nm,1.0s						
F28M				IAMs_20	IAMs_20	18 30 44.3	
	comp=Z,915nm,22.0s						
P23K	**Montague Islan**	**70.18**	**331**	IAMs_20	IAMs_20	18 29 00.0	
	comp=Z,771nm,19.0s						
I26K	**Coal Creek Min**	**70.29**	**337**	IAMs_20	IAMs_20	18 29 48.3	
	comp=Z,942nm,22.0s						
GLI	**Glacier Island**	**70.32**	**332**	IAMs_20	IAMs_20	18 29 38.7	
	comp=Z,1µm,22.0s						
RIDG	**Independent Ri**	**70.34**	**335**	IAMs_20	IAMs_20	18 31 12.1	
	comp=Z,820nm,20.0s						
E28M	**Babbage River**	**70.49**	**341**	IAmb	IAmb	17 56 40.4	
	comp=Z,45nm,1.1s						
SCM	**Sheep Creek Mo**	**70.74**	**333**	IAmb	IAmb	17 56 44.5	
	comp=Z,71nm,1.1s						
SCM				IAMs_20	IAMs_20	18 31 49.7	
	comp=Z,582nm,19.0s						
J25K	**Salcha River,**	**70.88**	**336**	IAMs_20	IAMs_20	18 32 05.4	
	comp=Z,669nm,19.0s						
PWL	**Port Wells**	**70.89**	**332**	IAmb	IAmb	17 56 43.2	
	comp=Z,81nm,1.4s						
PWL				IAMs_20	IAMs_20	18 30 08.7	
	comp=Z,995nm,21.0s						
E27K	**Coleen River**	**70.97**	**340**	IAmb	IAmb	17 56 46.3	
	comp=Z,57nm,1.3s						
E27K				IAMs_20	IAMs_20	18 30 56.2	
	comp=Z,976nm,20.0s						
NEEM	**North Greenlan**	**71.09**	**7**	*i* P	**P**	**17 56 38.1**	**-0.7**
NEEM				IAmb	IAmb	17 56 40.0	
	comp=Z,161nm,1.0s						
KNK	**Knik Glacier**	**71.11**	**332**	IAmb	IAmb	17 56 45.6	
	comp=Z,64nm,1.0s						
DHY	**Denali Highway**	**71.17**	**334**	IAmb	IAmb	17 56 53.7	
	comp=Z,29nm,1.2s						
DHY				IAMs_20	IAMs_20	18 33 27.1	
	comp=Z,928nm,20.0s						
SEW	**Seward**	**71.19**	**331**	IAmb	IAmb	17 56 45.0	

	comp=Z,64nm,1.1s						
SEW				IAMs_20	IAMs_20	18 29 42.8	
	comp=Z,638nm,21.0s						
G26K	Porcupine Rive	71.20	339	IAmb	IAmb	17 56 47.5	
	comp=Z,34nm,1.2s						
G26K				IAMs_20	IAMs_20	18 31 21.6	
	comp=Z,922nm,21.0s						
D27M	Malcolm River	71.25	341	IAmb	IAmb	17 56 48.9	
	comp=Z,33nm,1.1s						
PRP	Porcupine Dome	71.28	337	IAmb	IAmb	17 56 48.3	
	comp=Z,51nm,1.1s						
PRP				IAMs_20	IAMs_20	18 29 55.9	
	comp=Z,781nm,21.0s						
O22K	Cooper Landing	71.43	331	IAmb	IAmb	17 56 51.5	
	comp=Z,48nm,0.9s						
O22K				IAMs_20	IAMs_20	18 33 38.7	
	comp=Z,727nm,20.0s						
HDA	Harding Lake	71.44	336	IAMs_20	IAMs_20	18 34 07.3	
	comp=Z,849nm,18.0s						
PMR	Palmer	71.48	333	IAmb	IAmb	17 56 58.9	
	comp=Z,29nm,1.2s						
IL31		71.55	336	IAmb	IAmb	17 56 49.6	
	comp=Z,77nm,1.2s						
ILAR	Eielson Array	71.55	336	P	P	17 56 42.1	+0.7
	comp=Z,20nm,0.8s,baz=112,slow=4.3,SNR=68						
ILAR				PP	PP	17 59 18.0	-2.1
	comp=Z,11nm,1.2s,baz=111,slow=7.1,SNR=5.0						
	comp=Z,20nm,0.8s						
ILAR	Eielson Array	71.55	336	P	P	17 56 41.0	-0.4
ILAR	Eielson Array	71.55	336	P	P	17 56 41.0	-0.4
RC01	Rabbit Creek A	71.61	332	IAMs_20	IAMs_20	18 30 29.8	
	comp=Z,737nm,20.0s						
F26K	Sheenjek River	71.63	339	IAmb	IAmb	17 56 46.3	
	comp=Z,83nm,1.8s						
BMAR	Burnt Mountain	71.67	339	P	P	17 56 42.1	-0.1
CCB	Clear Creek Bu	71.88	336	IAMs_20	IAMs_20	18 31 34.6	
	comp=Z,530nm,20.0s						
CNPM	China Poot	71.90	330	IAmb	IAmb	17 56 49.8	
	comp=Z,68nm,1.1s						
CNPM				IAMs_20	IAMs_20	18 33 30.7	
	comp=Z,668nm,18.0s						
COLA	College	71.97	336	*i* P	P	17 56 44.9	+1.0
COLA				pmax	pmax		
	comp=Z,54nm,1.1s						
COLA	College	71.97	336	P	P	17 56 44.2	+0.3
COLA				IAmb	IAmb	17 56 49.4	
	comp=Z,44nm,0.9s						
COLA	College	71.97	336	IAMs_20	IAMs_20	18 32 56.3	
	comp=Z,805nm,18.0s						
MCK	McKinley	72.05	335	IAmb	IAmb	17 56 49.3	
	comp=Z,64nm,1.1s						
MCK				IAMs_20	IAMs_20	18 32 02.2	
	comp=Z,858nm,20.0s						
F25K	Christian Rive	72.12	339	IAmb	IAmb	17 56 53.8	
	comp=Z,46nm,1.2s						
KDAK	Kodiak Island	72.17	328	*i* P	P	17 56 45.7	+0.5
KDAK				pmax	pmax		
	comp=Z,27nm,0.9s						
KDAK	Kodiak Island	72.17	328	P	P	17 56 45.4	+0.1
KDAK				IAmb	IAmb	17 56 51.4	
	comp=Z,60nm,1.1s						
KDAK	Kodiak Island	72.17	328	IAMs_20	IAMs_20	18 30 48.7	
	comp=Z,698nm,21.0s						
CUT	Chulitna	72.23	333	IAMs_20	IAMs_20	18 32 44.0	
	comp=Z,832nm,18.0s						
LIS	Lisbon	72.23	52	*e*P	P	17 56 46.5	+0.5
LIS				IAMs_20	IAMs_20	18 20 39.7	
	comp=Z,3µm,38.6s						
LIS	Lisbon	72.23	52	*e*P	P	17 56 46.5	+0.5
C27K	Jago River	72.29	341	IAmb	IAmb	17 56 54.4	
	comp=Z,126nm,1.9s						
E25K	Arctic Village	72.29	340	IAmb	IAmb	17 56 54.1	
	comp=Z,40nm,1.1s						
H24K	Noodor Dome	72.31	337	IAmb	IAmb	17 56 54.6	
	comp=Z,68nm,1.2s						
H24K				IAMs_20	IAMs_20	18 34 23.0	
	comp=Z,684nm,20.0s						
BWN	Browne	72.41	335	IAMs_20	IAMs_20	18 32 30.9	
	comp=Z,591nm,20.0s						
OHAK	Old Harbor	72.42	328	IAmb	IAmb	17 56 53.7	
	comp=Z,71nm,1.1s						
G24K	Hadweenzic Riv	72.45	338	IAmb	IAmb	17 56 55.9	
	comp=Z,94nm,1.3s						
TRF	Thorofare Moun	72.54	334	IAmb	IAmb	17 56 55.2	
	comp=Z,72nm,1.1s						
MORF	Marmelete	72.55	54	*e*P	P	17 56 48.4	+0.3
MORF				*e*S	S	18 06 14.2	+1.6
MORF				IAMs_20	IAMs_20	18 23 00.6	
	comp=Z,2µm,12.6s						
MORF	Marmelete	72.55	54	*e*P	P	17 56 50.5	+2.4
MORF	Marmelete	72.55	54	*e*P	P	17 56 48.3	+0.3
MORF				*e*S	S	18 06 14.1	+1.6
SKT	Skwentna	72.68	333	IAMs_20	IAMs_20	18 30 49.1	
	comp=Z,898nm,20.0s						
STLK	Strandline Lak	72.69	332	IAmb	IAmb	17 56 54.3	
	comp=Z,30nm,1.1s						
PCAS	Casmilo, Conde	72.82	51	*e*P	P	17 56 50.7	+1.2
PCAS				*i* IAmb	IAmb	17 56 56.1	
	comp=Z,79nm,1.5s						
MOE	Montemor	72.85	52	*e*P	P	17 56 50.6	+0.9
F24K	Squaw Lake	72.89	339	P	P	17 56 50.0	+0.5
F24K				IAmb	IAmb	17 56 58.6	
	comp=Z,51nm,1.3s						
MESJ	Messejana	72.92	53	*e*P	P	17 56 50.6	+0.4
MESJ				*e*S	S	18 06 18.1	+1.4
MESJ				IAMs_20	IAMs_20	18 21 10.3	
	comp=Z,1µm,22.0s						
MESJ	Messejana	72.92	53	*e*P	P	17 56 50.6	+0.4
MESJ				*e*S	S	18 06 18.1	+1.4
ILSW	Iliamna Southw	72.95	330	IAmb	IAmb	17 56 55.7	
	comp=Z,84nm,1.1s						
H23K	Yukon River	72.95	337	IAmb	IAmb	17 56 57.7	
	comp=Z,55nm,1.1s						
H23K				IAMs_20	IAMs_20	18 32 30.8	
	comp=Z,872nm,20.0s						
Q19K	Cape Douglas,	72.97	329	IAMs_20	IAMs_20	18 34 29.8	
	comp=Z,851nm,18.0s						
PMTG	Montargil	72.97	52	*e*P	P	17 56 55.5	+5.0
PMTG				*i* IAmb	IAmb	17 56 56.6	
	comp=Z,42nm,1.7s						
D25K	Kavik River	73.03	341	IAmb	IAmb	17 56 58.6	
	comp=Z,76nm,1.1s						
PSARD	Sardoal	73.05	51	P	P	17 56 57.1	+6.2
PARRA	Arraiolos	73.10	52	*e*P	P	17 56 51.6	+0.3
PARRA				*i* IAmb	IAmb	17 56 57.7	
	comp=Z,44nm,2.3s						
EVO	Evora	73.11	52	*e*P	P	17 56 52.5	+1.2
EVO				*i* IAmb	IAmb	17 56 57.7	
	comp=Z,28nm,2.2s						
PGAV	Gavieira, Arco	73.12	49	P	P	17 56 56.9	+5.5
PGAV				*i* IAmb	IAmb	17 56 57.7	
	comp=Z,54nm,1.5s						
PGAV				*e*S	SKiKP	18 06 25.8	+2.0
KIP	Kipapa	73.12	290	*i* P	P	17 56 51.9	+0.3
KIP				pmax	pmax		
	comp=Z,65nm,1.2s						
MLY	Manley	73.19	336	IAmb	IAmb	17 56 56.0	
	comp=Z,44nm,0.9s						
MLY				IAMs_20	IAMs_20	18 33 52.4	
	comp=Z,743nm,18.0s						
PBEJ	Beja	73.20	53	*e*P	P	17 56 53.7	+1.9
PVAQ	Vaqueiros	73.30	54	*e*S	SKiKP	18 06 26.8	+2.6
PVAQ				*e*LR	LR	18 19 40.4	
PVAQ				*i* IAMs_20	IAMs_20	18 24 01.5	
	comp=Z,1µm,22.0s						
E24K	Your Creek	73.30	339	IAmb	IAmb	17 57 21.8	
	comp=Z,36nm,1.3s						
PVIS	Viseu	73.32	50	*e*P	P	17 56 53.8	+1.2
M20K	Styx River	73.39	332	IAmb	IAmb	17 56 58.2	
	comp=Z,96nm,1.4s						
G23K	Bananza Creek	73.41	338	IAmb	IAmb	17 57 01.0	
	comp=Z,60nm,1.1s						
G23K				IAMs_20	IAMs_20	18 35 13.9	
	comp=Z,711nm,19.0s						
AVE	Averroes	73.43	58	IAMs_20	IAMs_20	18 23 33.3	
	comp=Z,852nm,22.0s						
POLO	Lamas de Olo	73.43	49	*e*P	P	17 56 54.2	+0.9
POLO				*i* IAmb	IAmb	17 56 59.4	
	comp=Z,20nm,1.5s						
PESTR	Estremoz	73.46	52	*e*P	P	17 56 55.7	+2.3
PESTR				*i* IAmb	IAmb	17 56 59.8	
	comp=Z,32nm,1.6s						
MTE	Manteigas	73.57	50	*e*P	P	17 56 55.3	+1.2
MTE				*i* IAmb	IAmb	17 57 00.2	
	comp=Z,41nm,1.4s						
MTE				*e*S	SKiKP	18 06 32.9	+8.3
MTE				*e*LR	LR	18 19 53.2	
MTE				*i* IAMs_20	IAMs_20	18 26 24.6	
	comp=Z,842nm,20.0s						
MTE	Manteigas	73.57	50	IAmb	IAmb	17 56 59.4	
	comp=Z,41nm,1.3s						
MTE				IAMs_20	IAMs_20	18 25 50.5	
	comp=Z,920nm,20.0s						
O19K	Port Alsworth	73.57	330	IAmb	IAmb	17 56 58.9	
	comp=Z,52nm,1.1s						
O19K				IAMs_20	IAMs_20	18 33 52.8	
	comp=Z,520nm,18.0s						
PCBR	Castelo Branco	73.59	51	*e*P	P	17 56 55.2	+1.1
PCBR				*i* IAmb	IAmb	17 57 00.3	
	comp=Z,41nm,1.4s						
PMRV	Marv??o	73.64	51	P	P	17 56 59.7	+5.3
PMRV				*e*S	S	18 06 27.4	+2.6
PMRV				*e*LR	LR	18 19 46.3	
PMRV				*i* IAMs_20	IAMs_20	18 22 37.3	
	comp=Z,748nm,24.0s						
COLD	Coldfoot	73.64	338	IAmb	IAmb	17 57 03.2	
	comp=Z,77nm,1.1s						
ACHA	Angle Creek He	73.68	328	IAmb	IAmb	17 56 59.4	
	comp=Z,111nm,1.9s						
E23K	Chandalar	73.69	339	IAmb	IAmb	17 56 59.5	
	comp=Z,64nm,1.0s						
H22K	Ishtalitna Cre	73.69	337	IAmb	IAmb	17 57 02.4	
	comp=Z,69nm,1.4s						
H22K				IAMs_20	IAMs_20	18 31 41.6	
	comp=Z,949nm,21.0s						
N19K	Bonanza Creek	73.78	331	IAmb	IAmb	17 57 00.4	
	comp=Z,52nm,1.1s						
N19K				IAMs_20	IAMs_20	18 35 02.3	
	comp=Z,753nm,19.0s						
PBAR	Barrancos	73.86	53	*e*P	P	17 56 57.1	+1.4
PBAR				*i* IAmb	IAmb	17 57 02.9	
	comp=Z,39nm,1.9s						
K20K	Telida	74.16	334	IAmb	IAmb	17 57 02.5	
	comp=Z,89nm,1.3s						
H21K	Melozitna Rive	74.19	336	IAMs_20	IAMs_20	18 32 41.9	
	comp=Z,604nm,21.0s						
L19K	White Mountain	74.25	332	IAmb	IAmb	17 57 02.9	
	comp=Z,36nm,1.2s						
L19K				IAMs_20	IAMs_20	18 31 48.5	
	comp=Z,756nm,20.0s						
PBRG	Braganca	74.25	49	*e*P	P	17 56 59.0	+1.0
PBRG				*i* IAmb	IAmb	17 57 04.3	
	comp=Z,40nm,1.4s						
PMSA	Palmer Station	74.27	172	P	P	17 56 57.9	+0.5
PMSA	Palmer Station	74.27	172	*e*P	P	17 56 57.9	+0.5
D23K	Nanushuk River	74.35	340	IAmb	IAmb	17 57 06.4	
	comp=Z,90nm,1.2s						
J20K	Nowinta River	74.38	335	IAmb	IAmb	17 57 03.8	
	comp=Z,71nm,1.1s						
J20K				IAMs_20	IAMs_20	18 31 10.9	
	comp=Z,685nm,22.0s						
N18K	Kilae Creek	74.43	331	IAMs_20	IAMs_20	18 36 04.5	
	comp=Z,730nm,20.0s						
P17K	Kvichak River	74.43	329	IAMs_20	IAMs_20	18 34 55.6	
	comp=Z,619nm,19.0s						
E22K	Anaktuvuk Pass	74.50	339	IAmb	IAmb	17 57 07.3	
	comp=Z,46nm,1.1s						
IMAR	Indian Mountai	74.65	336	P	P	17 56 59.8	0.0
I20K	Naaghedeneel	74.66	335	IAMs_20	IAMs_20	18 33 42.1	
	comp=Z,730nm,18.0s						
ALE	Alert	74.68	3	P	P	17 56 59.3	-0.4
G21K	Allakaket	74.69	337	IAMs_20	IAMs_20	18 32 24.7	
	comp=Z,938nm,22.0s						
R16K	Pilot Point	74.76	327	IAMs_20	IAMs_20	18 30 03.3	
	comp=Z,570nm,21.0s						
F21K	Alatna River	74.86	338	IAmb	IAmb	17 57 10.0	
	comp=Z,91nm,1.1s						
F21K				IAMs_20	IAMs_20	18 36 21.2	
	comp=Z,474nm,19.0s						
J19K	Poorman	74.97	334	IAMs_20	IAMs_20	18 35 32.6	
	comp=Z,623nm,18.0s						
D22K	Ayikyak River	75.02	339	IAmb	IAmb	17 57 11.4	
	comp=Z,30nm,0.9s						
N17K	Nushagak Hills	75.03	330	IAmb	IAmb	17 57 10.3	
	comp=Z,102nm,1.4s						
N17K				IAMs_20	IAMs_20	18 36 25.1	
	comp=Z,698nm,19.0s						
L18K	Granite Mounta	75.10	332	IAmb	IAmb	17 57 10.3	
	comp=Z,43nm,1.3s						
ORCD	Orcadas	75.14	162	P	P	17 57 01.9	-0.6
P16K	Nushagak River	75.20	329	IAMs_20	IAMs_20	18 35 40.8	
	comp=Z,600nm,19.0s						
M17K	Holitna River	75.30	331	IAmb	IAmb	17 57 09.2	
	comp=Z,35nm,1.0s						
M17K				IAMs_20	IAMs_20	18 32 40.2	
	comp=Z,669nm,20.0s						
O16K	Kokwok River B	75.33	329	IAmb	IAmb	17 57 11.8	
	comp=Z,77nm,1.4s						
O16K				IAMs_20	IAMs_20	18 35 43.1	
	comp=Z,548nm,18.0s						
J18K	Innoko River	75.34	334	IAmb	IAmb	17 57 09.3	
	comp=Z,31nm,1.1s						
J18K				IAMs_20	IAMs_20	18 30 52.1	
	comp=Z,842nm,21.0s						
E21K	Killik River	75.36	339	IAmb	IAmb	17 57 11.4	
	comp=Z,63nm,1.2s						
CNBA	Chernabura Isl	75.52	324	IAMs_20	IAMs_20	18 36 26.8	
	comp=Z,442nm,19.0s						
MD01	Midelt array s	75.66	58	P	P	17 57 05.3	-1.1
MD31	MD31	75.66	58	P	P	17 57 05.2	-1.2
F20K	Avaraart Lake	75.67	337	IAmb	IAmb	17 57 14.2	
	comp=Z,50nm,1.3s						
F20K				IAMs_20	IAMs_20	18 33 07.6	
	comp=Z,773nm,21.0s						
K17K	Iditarod	75.92	333	IAmb	IAmb	17 57 12.8	
	comp=Z,41nm,1.1s						
K17K				IAMs_20	IAMs_20	18 34 51.5	
	comp=Z,856nm,21.0s						
M16K	Timber Creek	75.97	331	IAmb	IAmb	17 57 14.6	
	comp=Z,46nm,1.4s						
M16K				IAMs_20	IAMs_20	18 33 15.8	
	comp=Z,754nm,19.0s						
PAB	San Pablo	76.00	51	P	P	17 57 08.2	+0.1
PAB				pmax	pmax		
	comp=Z,35nm,1.4s						
PAB				MLR	MLR		
	comp=Z,1µm,21.0s						
PAB	San Pablo	76.00	51	P	P	17 57 08.2	+0.1
G19K	Purcell Mounta	76.02	336	IAMs_20	IAMs_20	18 36 26.8	
	comp=Z,581nm,20.0s						
O15K	Ungalikthiuk R	76.15	329	IAMs_20	IAMs_20	18 36 31.8	
	comp=Z,561nm,19.0s						
DAG	Danmarks Havn	76.19	12	*i* P	P	17 57 07.0	-1.4
DAG				IAmb	IAmb	17 57 08.6	
	comp=Z,32nm,0.9s						
ESDC	Sonseca Array	76.29	51	P	P	17 57 10.2	+0.4
	comp=Z,14nm,1.0s,baz=278,slow=5.7,SNR=43						
	comp=Z,14nm,1.0s						
ESDC	Sonseca Array	76.29	51	P	P	17 57 09.6	-0.2
ESBB	Sonseca Array	76.30	51	IAmb	IAmb	17 57 15.7	
	comp=Z,48nm,1.3s						
L16K	Owhat River	76.31	332	IAmb	IAmb	17 57 15.9	
	comp=Z,60nm,1.0s						
L16K				IAMs_20	IAMs_20	18 33 19.9	
	comp=Z,636nm,20.0s						
E19K	Redstone River	76.33	338	IAmb	IAmb	17 57 17.6	
	comp=Z,85nm,1.8s						
E19K				IAMs_20	IAMs_20	18 33 40.0	
	comp=Z,726nm,22.0s						
D20K	Etivluk River	76.36	339	IAmb	IAmb	17 57 14.6	
	comp=Z,58nm,0.9s						
J17K	VABM Dome	76.38	333	IAmb	IAmb	17 57 16.1	
	comp=Z,71nm,1.2s						
J17K				IAMs_20	IAMs_20	18 31 32.5	
	comp=Z,692nm,22.0s						
N15K	Kwethluk River	76.41	330	IAmb	IAmb	17 57 17.7	
	comp=Z,44nm,1.4s						
N15K				IAMs_20	IAMs_20	18 36 49.5	
	comp=Z,723nm,20.0s						
F19K	Shaleruckik Mo	76.42	337	IAmb	IAmb	17 57 18.1	
	comp=Z,66nm,1.2s						
F19K				IAMs_20	IAMs_20	18 31 21.4	
	comp=Z,547nm,21.0s						
G18K	Tagagawik	76.60	336	IAmb	IAmb	17 57 19.8	
	comp=Z,87nm,1.2s						
G18K				IAMs_20	IAMs_20	18 37 14.2	
	comp=Z,639nm,18.0s						
D19K	Kuna River	76.86	339	IAmb	IAmb	17 57 21.0	
	comp=Z,59nm,1.1s						
D19K				IAMs_20	IAMs_20	18 37 39.0	
	comp=Z,890nm,20.0s						
O14K	Tigyukauivet M	76.90	329	IAMs_20	IAMs_20	18 32 28.5	
	comp=Z,575nm,22.0s						
H17K	Granite Mounta	76.97	335	IAmb	IAmb	17 57 22.8	
	comp=Z,93nm,1.8s						
H17K				IAMs_20	IAMs_20	18 32 14.0	
	comp=Z,714nm,21.0s						
J16K	Anvik River	77.04	333	IAmb	IAmb	17 57 20.4	
	comp=Z,105nm,1.4s						
J16K				IAMs_20	IAMs_20	18 37 16.1	
	comp=Z,761nm,19.0s						
SMAI	San Martin Ant	77.10	174	P	P	17 57 14.3	+0.8
I17K	Unalakleet	77.16	334	IAMs_20	IAMs_20	18 37 29.2	
	comp=Z,651nm,18.0s						
N14K	Kuskokwak Cree	77.18	330	IAMs_20	IAMs_20	18 38 06.8	
	comp=Z,621nm,19.0s						
K15K	Wolf Creek Mou	77.35	332	IAmb	IAmb	17 57 22.1	
	comp=Z,55nm,1.1s						
K15K				IAMs_20	IAMs_20	18 35 14.2	
	comp=Z,527nm,20.0s						
DBIC	Dimbokro	77.36	85	P	P	17 57 16.4	+0.2
	comp=Z,31nm,1.0s,baz=277,slow=6.8,SNR=14						
	comp=Z,31nm,1.0s						
DBIC	Dimbokro	77.36	85	P	P	17 57 16.0	-0.2
DBIC				pmax	pmax		
	comp=Z,85nm,1.2s						
DBIC	Dimbokro	77.36	85	P	P	17 57 16.0	-0.2
DBIC				IAmb	IAmb	17 57 21.9	
	comp=Z,85nm,1.2s						
EKA	Eskdalemuir Ar	77.41	35	P	P	17 57 15.5	-0.2
	comp=Z,2.7nm,0.7s,baz=262,slow=5.7,SNR=6.4						
	comp=Z,2.7nm,0.7s						
L14K	Kuka Creek	77.80	331	IAMs_20	IAMs_20	18 34 09.2	
	comp=Z,565nm,20.0s						
C18K	Utukok River	78.00	338	IAmb	IAmb	17 57 28.6	
	comp=Z,88nm,1.3s						
G16K	Koyuk River	78.05	335	IAmb	IAmb	17 57 28.9	
	comp=Z,77nm,1.4s						
G16K				IAMs_20	IAMs_20	18 32 48.6	
	comp=Z,700nm,20.0s						
J14K	Nanvaranak Lak	78.33	332	IAMs_20	IAMs_20	18 37 57.0	
	comp=Z,701nm,19.0s						
NOR	Nord	78.42	8	*i* P	P	17 57 20.6	-0.2
NOR				IAmb	IAmb	17 57 22.6	
	comp=Z,68nm,1.5s						
RDOG	Red Dog Mine	78.56	338	IAmb	IAmb	17 57 30.9	
	comp=Z,102nm,1.4s						
RDOG				IAMs_20	IAMs_20	18 36 37.9	
	comp=Z,788nm,20.0s						
CART	Cartagena	78.64	53	IAMs_20	IAMs_20	18 30 25.6	
	comp=Z,560nm,20.0s						
K13K	Kusilvak Mount	78.78	332	IAmb	IAmb	17 57 29.7	
	comp=Z,48nm,1.2s						
K13K				IAMs_20	IAMs_20	18 33 06.1	
	comp=Z,594nm,22.0s						
F15K	North Star Dit	79.03	335	IAMs_20	IAMs_20	18 33 21.5	
	comp=Z,748nm,20.0s						
LVA	Lava Point	79.24	324	IAmb	IAmb	17 57 38.6	
	comp=Z,91nm,1.1s						
ANM	Nome	79.26	334	IAMs_20	IAMs_20	18 36 41.6	
	comp=Z,616nm,20.0s						
TNA	Tin City	80.38	335	IAMs_20	IAMs_20	18 34 10.2	
	comp=Z,744nm,21.0s						
CLF	Chambon-Foret	80.69	43	IAmb	IAmb	17 57 39.1	
	comp=Z,55nm,1.2s						
CORI	Orista	80.81	49	IAmb	IAmb	17 57 40.1	
	comp=Z,35nm,1.1s						
BER	Bergen	81.99	30	*e*P	P	17 57 40.5	+0.1
DOU	Dourbes	82.13	41	*d*P	P	17 57 41.5	+0.1
DOU				*d*pP	pP	17 57 45.4	-0.2
BMRD	Maredsous	82.22	40	*d*P	P	17 57 41.5	-0.4
HYA	Hoyanger	82.37	29	*e*P	P	17 57 41.2	-1.2
RCHB	Rochefort	82.53	40	*d*P	P	17 57 43.2	-0.3
BCLA	Clavier	82.56	40	*d*P	P	17 57 46.9	+3.3
MAHO	Mahon	82.62	51	IAMs_20	IAMs_20	18 31 07.9	
	comp=Z,774nm,20.0s						
KBS	Kingsbay	82.84	11	P	P	17 57 45.8	+1.2
KBS				pmax	pmax		
	comp=Z,189nm,1.6s						
KBS				MLR	MLR		
	comp=Z,2µm,21.0s						
KBS	Kingsbay	82.84	11	*e*P	P	17 57 45.0	+0.4
KBS	Kingsbay	82.84	11	P	P	17 57 45.8	+1.2
MEM	Membach	83.00	40	*d*P	P	17 57 46.3	+0.4
MEM				*d*x	x	17 57 50.2	
TORD	Torodi Ar. Bea	83.00	78	P	P	17 57 47.0	+0.3
	comp=Z,14nm,0.9s,baz=296,slow=6.5,SNR=45						
	comp=Z,14nm,0.9s						
TORD	Torodi Ar. Bea	83.00	78	P	P	17 57 46.5	-0.1
TORD				IAmb	IAmb	17 58 29.2	
	comp=Z,32nm,0.7s						
WLF	Walferdange	83.16	41	P	P	17 57 52.0	+5.2
WLF				pmax	pmax		
	comp=Z,25nm,2.1s						
WLF	Walferdange	83.16	41	*d*P	P	17 57 46.9	+0.1
WLF	Walferdange	83.16	41	*e*P	P	17 57 47.1	+0.3
	comp=Z,61nm,1.5s,baz=278,slow=5.0						
ORIF	Oris-en-Rattie	83.39	46	P	P	17 57 49.6	+1.4
ORIF				pmax	pmax		
	comp=Z,17nm,2.1s						
BUG	Bochum--Univer	83.72	39	*e*P	P	17 57 49.5	0.0
	comp=Z,32nm,1.3s,baz=278,slow=5.0						
BUG				*e*SS	SS	18 13 46.8	+8.1
	baz=276,slow=15						
HOMB	Homborsund	83.77	32	*e*P	P	17 57 49.7	0.0
SPA0	Spitsbergen Ar	83.82	12	*e*P	P	17 57 49.5	-0.2
SPITS	Spitsbergen Ar	83.82	12	P	P	17 57 49.8	+0.1
	comp=Z,19nm,0.8s,baz=211,slow=1.0,SNR=9.2						
SPITS				LR	LR	18 37 23.4	
	comp=Z,972nm,19.3s,baz=269,slow=37						
	comp=Z,19nm,0.8s						
IBBN	Ibbenburen	83.93	38	*e*P	P	17 57 50.7	0.0
	comp=Z,29nm,1.2s,baz=278,slow=5.0						
ECH	Echery	83.95	42	P	P	17 57 51.2	+0.2
ECH	Echery	83.95	42	IAmb	IAmb	17 57 55.9	
	comp=Z,39nm,1.6s						
KONO	Kongsberg	84.19	31	P	P	17 57 56.8	+5.0
SENIN	Lac Senin/Sane	84.24	44	IAmb	IAmb	17 57 57.4	
	comp=Z,38nm,1.7s						
KASTN	Kahler Asten	84.46	39	*e*P	P	17 57 53.5	+0.1
	comp=Z,23nm,1.4s,baz=278,slow=5.0						
NSS	Namsos	84.68	26	*e*P	P	17 57 53.9	-0.3
BFO	Black Forest	84.72	42	P	P	17 57 54.2	-0.7
BFO				pmax	pmax		
	comp=Z,19nm,1.5s						
BFO				MLR	MLR		
	comp=Z,800nm,20.0s						
BFO	Black Forest	84.72	42	P	P	17 57 54.2	-0.7
BFO	Black Forest	84.72	42	*e*P	P	17 57 54.4	-0.5
	comp=Z,11nm,1.2s,baz=278,slow=5.0						
BFO				*e*SS	SS	18 14 00.9	+7.1
	baz=276,slow=15						
LOF	Lofoten	84.77	22	*e*P	P	17 57 54.1	-0.5
NB2	NORSAR Subarra	84.81	29	P	P	17 57 55.2	+0.1
	comp=Z,163nm,1.7s,baz=278,slow=5.1						
NB2	NORSAR Subarra	84.81	29	P	P	17 57 55.2	+0.1
NOA	NORSAR Array B	84.81	29	P	P	17 57 55.0	0.0
	comp=Z,3.9nm,0.8s,baz=276,slow=4.9,SNR=10						
	comp=Z,3.9nm,0.8s						
STOK	Stokkvaagen	84.84	24	*e*P	P	17 57 54.8	-0.2
KONS	Konsvik	84.86	24	*e*P	P	17 57 55.5	+0.5
RETH	Rethem/Aller,	84.86	38	*e*P	P	17 57 55.9	+0.6
	comp=Z,140nm,2.0s,baz=278,slow=5.0						
VAGH	Vaagaholmen	84.88	23	*e*P	P	17 57 55.5	+0.3
SLE	Schleitheim	84.89	43	P	P	17 57 55.5	-0.2
LEIR	Leirfjorden	84.92	24	*e*P	P	17 57 56.5	+1.2
NC602	NORSAR Array S	85.01	29	*e*P	P	17 57 56.3	+0.3
BJO1	Bjornoya	85.22	15	*e*P	P	17 57 56.1	-0.7
RAUS	Rausandaksla	85.24	24	*e*P	P	17 57 57.0	0.0
STU	Stuttgart	85.24	42	P	P	17 57 57.1	-0.3
STU	Stuttgart	85.24	42	*e*P	P	17 57 57.3	-0.1
	comp=Z,36nm,0.7s,baz=278,slow=5.0						
STU				*e*SS	SS	18 14 08.6	+7.2
	baz=276,slow=15						
BSEG	Bad Segeberg	85.28	36	*e*P	P	17 57 57.7	+0.3
	comp=Z,71nm,2.1s,baz=278,slow=5.0						
BSEG				*e*SS	SS	18 14 10.3	+8.7
	baz=276,slow=15						
GTTG	Gottingen	85.38	39	*e*P	P	17 57 58.4	+0.4
	comp=Z,40nm,1.7s,baz=278,slow=5.0						
STEI	Steigen	85.43	22	*e*P	P	17 57 57.8	-0.1
MOR8	Moi Rana	85.44	24	*e*P	P	17 57 59.6	+1.5
TAM	Tamanrasset	85.46	68	P	P	17 58 00.7	+1.5
TAM				pmax	pmax		
	comp=Z,36nm,1.4s						
TAM	Tamanrasset	85.46	68	IAMs_20	IAMs_20	18 31 53.2	
	comp=Z,496nm,22.0s						
UBBA	Unterbreizbach	85.50	39	*e*SS	SS	18 14 12.8	+8.0
	baz=276,slow=15						

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FAUS  Fauske            85.55  23 eP      P       17 57 58.2 -0.3
CLZ   Clausthal         85.59  38 eP      P       17 57 59.5 +0.4
      comp=Z,62nm,1.5s,baz=278,slow=5.0
CLZ                               eSS     SS      18 14 30.8  +24
      baz=276,slow=15
TUE   Stuetta           85.63  44  IAmb   IAmb    17 58 05.2
      comp=Z,59nm,1.8s
ASSE  Asse, Remlinge    85.73  38 eP      P       17 58 00.3 +0.7
      comp=Z,110nm,1.7s,baz=278,slow=5.0
ADK   Adak              85.80 322  P      P       17 58 01.0 +0.9
ADK                                pmax   pmax
      comp=Z,370nm,1.5s
ADK   Adak              85.80 322  P      P       17 58 01.0 +0.9
DAVA  Damuels           85.89  43 i P     P       17 58 00.7 -0.2
      comp=Z,15nm,1.1s
UBR   Ueberruh          85.99  43 eP      P       17 58 01.5 +0.3
      comp=Z,165nm,2.4s,baz=278,slow=5.0
GORT1 Trebel            86.00  37 eP      P       17 58 01.5 +0.5
      comp=Z,132nm,1.9s,baz=278,slow=5.0
FLTG  Flechtingen       86.05  38 eP      P       17 58 01.2 -0.1
      comp=Z,36nm,1.3s,baz=278,slow=5.0
HOPEN Hopen             86.10  13 eP      P       17 58 01.2 +0.1
HFS   Hagfors           86.16  30  P      P       17 58 01.8 +0.1
      comp=Z,7.9nm,0.8s,baz=236,slow=1.6,SNR=7.7
      comp=Z,7.9nm,0.8s
FUORN Ofenpass-Fuorn    86.24  44  IAmb   IAmb    17 58 08.2
      comp=Z,27nm,1.2s
TRO   Tromso            86.37  20 eP      P       17 58 02.7 +0.1
GRFO  Grafenberg        86.43  40  P      P       17 58 08.5 +5.2
GRFO                               pmax   pmax
      comp=Z,21nm,1.2s
GRF   Grafenberg Arr    86.43  40 eP      P       17 58 03.6 +0.3
      comp=Z,46nm,1.4s,baz=278,slow=5.0
GRF                               epP     pP      17 58 07.8 +0.2
GRF                               eSS     SS      18 14 26.3 +7.4
      baz=276,slow=15
GRF                               eL      L       18 31 50.3
      comp=Z,1µm,21.1s
RETA  Reutte            86.45  43 i P     P       17 58 03.5  0.0
      comp=Z,23nm,1.4s,SNR=12
FETA  Feichten          86.50  43 i P     P       17 58 04.1 +0.2
      comp=Z,15nm,1.2s
MOX   Moxa              86.54  39 eP      P       17 58 04.0 +0.2
      comp=Z,35nm,1.4s,baz=278,slow=5.0
MOX                               eSS     SS      18 14 39.9  +20
      baz=276,slow=15
MOX                               eL      L       18 32 15.6
      comp=Z,868nm,20.0s
NEUB  Neuenburg         86.55  39 eP      P       17 58 04.1 +0.3
      comp=Z,42nm,1.3s,baz=278,slow=5.0
VSL   Villasalto        86.58  51  P      P       17 58 04.3 +0.1
VSL                                IAmb   IAmb    17 58 10.0
      comp=Z,32nm,1.0s
VSL                                IAMs_20 IAMs_20 18 30 27.8
      comp=Z,704nm,22.0s
FUR   Furstenfeldbru    86.69  42 eP      P       17 58 04.9 +0.2
      comp=Z,151nm,2.0s,baz=278,slow=5.0
MOTA  Moosalm           86.70  43 i P     P       17 58 04.4 -0.5
      comp=Z,17nm,1.3s
SQTA  Sankt Quirin      86.79  43 eP      P       17 58 04.9 -0.4
      comp=Z,16nm,1.3s
JETT  Jettan, Norway    86.90  20 eP      P       17 58 04.6 -0.6
PLN   Plauen            86.90  40 eP      P       17 58 05.8 +0.2
      comp=Z,13nm,1.3s,baz=278,slow=5.0
RGN   Rugen             86.93  35 eP      P       17 58 05.9 +0.4
      comp=Z,55nm,0.8s,baz=278,slow=5.0
WATA  Walderalm         87.02  43 eP      P       17 58 06.2 -0.2
      comp=Z,18nm,2.0s
ZCCA  Zocca             87.07  46  IAmb   IAmb    17 58 11.7
      comp=Z,36nm,1.3s
WTTA  Wattenberg        87.07  43 i P     P       17 58 06.7  0.0
      comp=Z,13nm,1.5s
TANN  Tannenbergstha    87.11  40 eP      P       17 58 07.0 +0.4
      comp=Z,53nm,1.4s,baz=278,slow=5.0
NKC   Novy Kostel       87.13  40  AMS    AMS     18 33 00.0
      comp=Z,1µm,19.5s
CTI   Castel Tesino     87.27  44  P      P       17 58 07.4 -0.2
CTI   Castel Tesino     87.27  44  IAmb   IAmb    17 58 12.4
      comp=Z,46nm,1.5s
CLL   Collm             87.29  39 i P     P       17 58 07.2 -0.3
CLL                               eS      S       18 08 47.0 -0.4
CLL                               eSP     SPn     18 09 45.0 -0.9
CLL                                pmax   pmax
      comp=Z,48nm,1.4s
CLL   Collm             87.29  39  IAmb   IAmb    17 58 12.7
      comp=Z,40nm,1.3s
CLL                                IAMs_20 IAMs_20 18 31 54.6
      comp=Z,481nm,20.0s
CLL   Collm             87.29  39 eP      P       17 58 07.6 +0.1
      comp=Z,42nm,1.3s,baz=278,slow=5.0
CLL                               eSS     SS      18 14 39.2 +7.9
      baz=276,slow=15
CLL   Collm             87.29  39  P      P       17 58 07.7 +0.2
      comp=Z,24nm,1.9s
CLL   Collm             87.29  39 i P     P       17 58 07.2 -0.3
      comp=Z,48nm,1.4s
CLL                               ePlp            17 58 13.0
CLL                               i x     x       17 59 30.8
CLL                               eS      S       18 08 47.0 -0.4
CLL                               eSP     SPn     18 09 45.0 -0.9
CLL                               ePS             18 09 48.0
CLL                               ex      x       18 11 18.0
CLL                               eSS     SS      18 14 36.0 +4.7
CLL                               eSSS    SSS     18 18 06.0
CLL                                LH             18 21 00.0
CLL                                AMS    AMS     18 26 00.0
      comp=E,600nm,37.3s
CLL                                AMS    AMS     18 26 00.0
      comp=Z,900nm,39.3s
RUE   Ruedersdorf       87.56  37 eP      P       17 58 08.7  0.0
      comp=Z,45nm,1.3s,baz=278,slow=5.0
WET   Wettzell          87.58  41 eP      P       17 58 09.4 +0.4
      comp=Z,71nm,1.5s,baz=278,slow=5.0
WET                               eSS     SS      18 14 57.5  +22
      baz=276,slow=15
HAMF  Hammerfest        87.65  19 eP      P       17 58 07.7 -1.1
HSKC  Hora Svate Kat    87.68  39  AMS    AMS     18 33 30.0
      comp=Z,1µm,20.0s
LESA  Schwarzleotal     87.75  43 eP      P       17 58 09.4 -0.4
      comp=Z,9.8nm,1.4s,SNR=9.4
ABTA  Abfaltersbach     87.75  43 i P     P       17 58 09.8 -0.1
      comp=Z,12nm,1.3s,SNR=9.0
BRG   Berggiesshubel    87.95  39 eP      P       17 58 11.0 +0.4
      comp=Z,42nm,1.4s,baz=278,slow=5.0
BRG                               eSS     SS      18 14 48.7 +7.7
      baz=276,slow=15
BRG   Berggiesshubel    87.95  39 eP      P       17 58 11.1 +0.4
BRG                                Amp            17 58 12.3
      comp=Z,25nm,1.5s
BRG   Berggiesshubel    87.95  39  P      P       17 58 15.6 +4.9
BRG                                Amp            17 58 16.8
      comp=Z,42nm,1.4s
BRG   Berggiesshubel    87.95  39  S      S       18 08 53.0 -0.8
BRG   Berggiesshubel    87.95  39  SS     SS      18 14 43.0 +2.0
STAL  STALIGIAL         87.97  44  IAmb   IAmb    17 58 15.7
      comp=Z,66nm,1.8s
KTK1  Kautokeino        88.02  20 eP      P       17 58 10.2 -0.3
KHC   Kasperske Hory    88.04  41 i P     P       17 58 11.6 +0.4
KHC                                pmax   pmax
      comp=Z,34nm,1.6s
KHC   Kasperske Hory    88.04  41 eP      P       17 58 12.6 +1.4
KHC                               eSKS    SKSac   18 08 38.5 -1.1
KHC                                AMS    AMS     18 32 10.0
      comp=Z,1µm,21.2s
KHC   Kasperske Hory    88.04  41  IAmb   IAmb    17 58 16.6
      comp=Z,50nm,1.6s
KHC   Kasperske Hory    88.04  41  P      P       17 58 11.3 +0.1
      comp=Z,639nmcomp=Z,18nm,2.0s
GEC2  GERESS Array S    88.17  41 eP      P       17 58 11.9  0.0
      comp=Z,28nm,1.4s,baz=278,slow=5.0
GEC2                              eSS     SS      18 14 51.5 +7.0
      baz=276,slow=15
GERES GERESS Array B    88.17  41  P      P       17 58 12.1 +0.2
      comp=Z,6.0nm,1.0s,baz=253,slow=4.1,SNR=21
      comp=Z,6.0nm,1.0s
GERES GERESS Array B    88.17  41  P      P       17 58 10.7 -1.2
GERES GERESS Array B    88.17  41  P      P       17 58 10.7 -1.2
KBA   Koelnbreinsper    88.25  43 eP      P       17 58 11.6 -0.8
      baz=278,slow=5.0
KBA   Koelnbreinsper    88.25  43 eP      P       17 58 12.1 -0.2
      comp=Z,26nm,1.6s,SNR=13
BIOA  Bad Ischl, Aus    88.34  42 eP      P       17 58 12.8 +0.2
      comp=Z,14nm,1.1s,SNR=9.3
ZVC   Zvikov            88.38  40 eP      P       17 58 15.3 +2.6
ZVC                               ex      x       18 08 58.9
ZVC                                AMS    AMS     18 33 30.0
      comp=Z,1µm,19.5s
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PRU   Pruhonice         88.50  40  AMS    AMS     18 34 20.0
      comp=Z,1µm,20.0s
ROBS  Robic             88.52  44 i P     P       17 58 13.1 -0.3
MYKA  Terra Mystica     88.53  43 i P     P       17 58 13.4 -0.2
      comp=Z,9.8nm,1.1s
CKRC  Cesky Krumlov     88.57  41  AMS    AMS     18 32 30.0
      comp=Z,1µm,20.5s
ARA0  ARCESS Array S    88.61  19 eP      P       17 58 11.9 -1.4
ARCES ARCESS Array B    88.61  19  P      P       17 58 12.9 -0.5
      comp=Z,17nm,1.0s,baz=289,slow=3.7,SNR=18
      comp=Z,17nm,1.0s
ARCES ARCESS Array B    88.61  19  P      P       17 58 12.3 -1.1
ARCES                              pmax   pmax
      comp=Z,44nm,1.3s
ARCES ARCESS Array B    88.61  19  P      P       17 58 12.2 -1.1
ARCES                              IAmb   IAmb    17 58 17.6
      comp=Z,44nm,1.2s
MOA   Molln             88.73  42 i P     P       17 58 13.6 -0.8
      comp=Z,6.0nm,0.9s
KEV   Kevo              89.02  19  P      P       17 58 14.4 -0.9
KEV                                pmax   pmax
      comp=Z,44nm,1.2s
KEV                                MLR    MLR
      comp=Z,500nm,20.0s
KEV   Kevo              89.02  19  P      P       17 58 14.4 -0.9
KEV                                IAmb   IAmb    17 58 19.6
      comp=Z,44nm,1.2s
KEV                                IAMs_20 IAMs_20 18 38 07.0
      comp=Z,478nm,20.0s
MOZS  Mozjanca          89.14  43 eP      P       17 58 16.0 -0.4
OBKA  Obir              89.17  43 eP      P       17 58 15.4 -1.3
      baz=278,slow=5.0
OBKA  Obir              89.17  43 i P     P       17 58 16.1 -0.6
      comp=Z,20nm,2.2s
TREC  Trest             89.24  40  AMS    AMS     18 32 50.0
      comp=Z,1µm,21.4s
UPC   Upice             89.32  39  AMS    AMS     18 34 40.0
      comp=Z,800nm,18.0s
KSP   Ksiaz             89.42  39 eP      P       17 58 17.4 -0.1
OSTC  Ostas             89.43  39 eP      P       17 58 18.8 +1.1
OSTC                               AMS    AMS     18 34 40.0
      comp=Z,700nm,20.5s
SOKA  Soboth            89.47  43 i P     P       17 58 17.2 -0.8
      comp=Z,8.4nm,1.4s
DPC   Dobruska-Polom    89.55  39 eP      P       17 58 19.4 +1.2
DPC                                AMS    AMS     18 34 50.0
      comp=Z,800nm,19.4s
PDKS  Podkum            89.57  44 eP      P       17 58 18.5 +0.1
VADS  Vadso             89.63  18 eP      P       17 58 17.9 -0.2
ARSA  Arzberg           89.68  42 eP      P       17 58 18.3 -0.6
      baz=278,slow=5.0
ARSA  Arzberg           89.68  42 i P     P       17 58 18.4 -0.6
      comp=Z,13nm,1.3s
CONA  Conrad Observa    89.76  42 eP      P       17 58 19.3 -0.1
      comp=Z,20nm,1.2s,SNR=11
KRUC  Moravsky          89.87  40 eP      P       17 58 19.4 -0.3
KRLC  Kraliky           89.89  39 eP      P       17 58 21.0 +1.1
BILL  Bilibino          89.92 339ceP      P       17 58 21.2 +1.7
BILL                               pmax   pmax
      comp=Z,132nm,1.5s
BILL  Bilibino          89.92 339  P      P       17 58 20.5 +1.0
BILL                               IAMs_20 IAMs_20 18 43 16.1
      comp=Z,471nm,18.0s
VRAC  Vranov            89.94  40 eP      P       17 58 19.8 -0.3
BELA  Belgrano 2        90.09 171  P      P       17 58 19.5 -0.5
BELA                               IAmb   IAmb    17 58 25.7
      comp=Z,57nm,1.6s
RONA  Rosalia, Austr    90.10  42 i P     P       17 58 21.0 +0.1
      comp=Z,14nm,1.2s
MORC  Moravsky Berou    90.44  40  P      P       17 58 23.6 +1.2
MORC                               pmax   pmax
      comp=Z,15nm,2.5s
MORC  Moravsky Berou    90.44  40  IAmb   IAmb    17 58 28.2
      comp=Z,35nm,1.5s
MORC  Moravsky Berou    90.44  40 eP      P       17 58 22.3 -0.1
STEB  Steborice         90.55  39 eP      P       17 58 24.8 +1.9
MODS  Modra-Piesok      90.59  41 eP      P       17 58 23.6 +0.5
MODS                              e               17 58 27.9
JAVC  Velka Javorina    90.73  40 eP      P       17 58 24.0 +0.2
OKC   Ostrava-Krasne    90.81  39  AMS    AMS     18 35 40.0
      comp=Z,1µm,19.1s
WDD   Wied Dalam        91.22  54  IAMs_20 IAMs_20 18 34 12.6
      comp=Z,355nm,19.0s
SRO   Srobarova         91.40  41 eP      P       17 58 27.5 +0.7
SRO                               e               17 58 31.8
VYHS  Vyhne             91.57  41 eP      P       17 58 29.2 +1.5
VYHS                              e               17 58 32.7
FINES FINESS Array B    91.67  27  P      P       17 58 27.3 -0.5
      comp=Z,10nm,1.0s,baz=268,slow=4.2,SNR=6.8
      comp=Z,10nm,1.0s
OJC   Ojcow             91.74  39 eP      P       17 58 28.5 +0.1
OJC   Ojcow             91.74  39  P      P       17 58 29.4 +1.0
CEL   Celeste           91.81  51  IAMs_20 IAMs_20 18 35 39.0
      comp=Z,419nm,21.0s
LANS  Liptovska Anna    91.81  40 eP      P       17 58 30.9 +2.1
LANS                              e               17 58 34.8
BEL   Belsk             91.91  37 eP      P       17 58 29.4 +0.3
APA   Apatity           92.06  20 eP      P       17 58 27.2 -2.3
APA                               e               18 02 11.7
APA                               eS      S       18 09 22.4 -8.8
APA                               ePS     PS      18 10 36.7 -5.8
APA                               eSS     SS      18 15 40.5 +1.1
APA                                pmax   pmax
      comp=Z,9.0nm,1.1s
APA                                MLR    MLR
      comp=Z,645nm,25.6s
NIE   Niedzica          92.27  40 eP      P       17 58 32.4 +1.5
LVZ   Lovozero          92.32  20 i P     P       17 58 30.3 -0.5
LVZ                                pmax   pmax
      comp=Z,14nm,0.9s
LVZ   Lovozero          92.32  20  IAMs_20 IAMs_20 18 40 03.4
      comp=Z,410nm,20.0s
PSZ   Piszkesteto       92.40  41  P      P       17 58 33.7 +2.1
PSZ                                pmax   pmax
      comp=Z,22nm,2.3s
VNA3  Neumayer Olymp    92.53 162 ⇑P      P       17 58 31.9 +0.4
      comp=Z,12nm,0.8s
VNA1  Neumayer--Stat    92.79 161 ⇑P      P       17 58 33.7 +1.0
      comp=Z,12nm,1.0s
STHS  Stebnicka Huta    92.86  39 eP      P       17 58 33.5 -0.1
VSU   Vasula            93.05  30 i P     P       17 58 36.0 +1.8
VSU                                pmax   pmax
      comp=Z,16nm,1.1s
VNA2  Neumayer--Watz    93.15 161 ⇑P      P       17 58 33.9 -0.4
      comp=Z,5.1nm,0.8s,baz=312,slow=4.6
PDG   Podgorica         93.36  46  IAMs_20 IAMs_20 18 37 34.9
      comp=Z,650nm,21.0s
BZS   Buzias            94.16  43  P      P       17 58 44.2 +4.5
BZS                                pmax   pmax
      comp=Z,14nm,1.9s
SNAA  Sanae             94.75 162 i P     P       17 58 42.2 +0.4
SNAA                               pmax   pmax
      comp=Z,30nm,1.9s
SNAA  Sanae             94.75 162  IAMs_20 IAMs_20 18 43 49.2
      comp=Z,317nm,19.0s
MNK   Minsk             95.09  33 i P     P       17 58 44.0 +0.3
MNK                               i               18 02 28.1
MNK                               i PPP   PPP     18 04 33.8
MNK                               i S     SKSac   18 09 19.5 +0.3
MNK                               i PS    PS      18 11 17.5 +1.1
MNK                               i SS    SS      18 16 25.9 +2.6
MNK                               i SSS   SSS     18 20 08.6
MNK                                pmax   pmax
      comp=N,6.0nm,1.3s
MNK                                pmax   pmax
      comp=Z,12nm,0.7s
MNK                                pmax   pmax
      comp=E,4.0nm,0.6s
MNK                                MLR    MLR
      comp=Z,315nm,17.0s
MNK                                MLR    MLR
      comp=E,243nm,18.0s
MNK   Minsk             95.09  33 i P     P       17 58 44.0 +0.3
      comp=E,4.0nm,0.6s
MNK                               i P     P       17 58 44.0 +0.3
      comp=N,6.0nm,1.3s
MNK                               i P     P       17 58 44.0 +0.3
      comp=Z,12nm,0.7s,baz=292
MNK                               i PP    PP      18 02 28.2 -4.7
MNK                               i PPP   PPP     18 04 33.9
MNK                               i SKS   SKSac   18 09 10.3 -8.9
MNK                               i S     SKSac   18 09 19.6 +0.3
MNK                               i PS    PS      18 11 17.6 +1.1
MNK                               i SS    SS      18 16 26.0 +2.6
MNK                               i SSS   SSS     18 20 08.7
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MNK                               i LQ    LQ      18 35 41.6
MNK                               i LRM   MLR     18 43 44.0
      comp=E,243nm,17.8s
MNK                               i LRM   MLR     18 43 44.0
      comp=Z,315nm,17.4s
MNK                               i LRM   MLR     18 43 47.9
TROLL Troll, Antarti    96.47 162  P      P       17 58 50.2 +0.5
      comp=Z,415nm,0.9s
AKASG Malin Array Be    97.29  36  P      P       17 58 52.9 -0.9
      comp=Z,0.1nm,0.3s,baz=10,slow=6.0,SNR=4.4
AKASG                              PP     PP      18 02 48.1 -1.8
      comp=Z,0.1nm,0.2s,baz=295,slow=7.9,SNR=4.3
SEY   Seymchan          97.43 338 eP      Pdif    17 58 54.7 +0.5
SEY                                pmax   pmax
      comp=Z,9.0nm,1.4s
TIXI  Tiksi             97.46 350ceP      P       17 58 53.4 -0.7
TIXI                               pmax   pmax
      comp=Z,9.0nm,0.8s
TIXI  Tiksi             97.46 350  P      P       17 58 53.6 -0.5
TIXI                               IAmb   IAmb    17 59 00.4
      comp=Z,29nm,1.4s
KLMR  Klimovskoe        97.75  25 eP      P       17 58 53.2 -2.4
KLMR                              e               18 02 49.3
KLMR                               pmax   pmax
      comp=Z,40nm,1.2s
QSPA  South Pole Qui    98.32 180  P      Pdif    17 58 58.8 +0.6
      comp=Z,5.6nm,1.0s,baz=163,slow=1.5,SNR=12
      comp=Z,5.6nm,1.0s
QSPA  South Pole Qui    98.32 180  P      P       17 58 56.9 -1.2
QSPA                               IAmb   IAmb    17 59 05.7
      comp=Z,29nm,1.4s
TIRR  Tirgusor          99.10  42  IAMs_20 IAMs_20 18 41 42.2
      comp=Z,582nm,20.0s
OBN   Obninsk           99.36  30deP      Pdif    17 59 02.1 -0.8
OBN                               e               18 03 06.3
OBN                               ePPP    PPP     18 05 13.3
OBN                               eS      SKSac   18 09 40.9 -0.3
OBN                               eSS     SS      18 17 24.3 +0.9
OBN                               eSSS    SSS     18 21 12.8
OBN                                pmax   pmax
      comp=Z,49nm,2.4s
OBN                                MLR    MLR
      comp=Z,311nm,19.0s
OBN   Obninsk           99.36  30  IAMs_20 IAMs_20 18 41 35.1
      comp=Z,497nm,20.0s
PET   Petropavlovsk     99.75 327 eP      Pdif    17 59 09.6 +4.9
PET                               e               18 03 13.6
PET                               ePS     PS      18 12 12.7 +5.6
PET                               eSS     SS      18 17 35.2 +6.2
PET                                pmax   pmax
      comp=Z,100nm,8.8s
PET                                pmax   pmax
      comp=Z,200nm,9.8s
ISP   Isparta          102.99  48  IAMs_20 IAMs_20 18 45 04.3
      comp=Z,360nm,20.0s
CSS   Mathiatis        106.16  50  IAMs_20 IAMs_20 18 57 45.9
      comp=Z,276nm,21.0s
H11S2 WAKE ISLAND Hy106.30 292     T      T       19 58 15.5
      baz=78,SNR=11
H11S1 WAKE ISLAND Hy106.30 292     T      T       19 58 13.8
      baz=78,slow=74,SNR=8.7
H11S3 WAKE ISLAND Hy106.31 292     T      T       19 58 11.1
      baz=78,slow=74,SNR=11
ARTI  Arti             108.08  21  IAMs_20 IAMs_20 18 54 53.2
      comp=Z,418nm,20.0s
KIV   Kislovodsk       108.50  38  IAMs_20 IAMs_20 18 54 32.6
      comp=Z,417nm,18.0s
GNI   Garni            111.82  41  IAMs_20 IAMs_20 18 50 09.9
      comp=Z,310nm,21.0s
MAK   Makhachkala      111.96  37d iP     Pdif    17 59 54.5 -4.8
MAK                               ePPP    PPP     18 06 59.1
MAK                               ePS     PS      18 14 12.0 -0.4
MAK                               eSS     SS      18 20 17.6 +1.8
MAK                               eSSS    SSS     18 24 25.5
MAK                                pmax   pmax
      comp=Z,234nm,1.4s
MBAR  Mbarara          113.55  87  IAMs_20 IAMs_20 18 52 12.7
      comp=Z,432nm,21.0s
BVAR  Borovoye Array   114.82  17  PP     PP      18 04 52.3 -6.3
      comp=Z,1.8nm,0.9s,baz=336,slow=3.3,SNR=4.9
ZALV  Zalesovo Beam    117.11   8  PKP    PKPdf   18 04 04.8 -0.9
      comp=Z,1.8nm,0.8s,baz=299,slow=1.5,SNR=5.9
ZALV                               PP     PP      18 05 12.0 -2.5
      comp=Z,2.7nm,0.9s,baz=339,slow=7.9,SNR=8.2
ZALV  Zalesovo Beam    117.11   8  PKIKP  PKPdf   18 04 02.8 -2.9
ZALV  Zalesovo Beam    117.11   8         PKPdf   18 04 02.8 -2.9
LODK  Lodwar           117.42  82  IAMs_20 IAMs_20 18 59 57.0
      comp=Z,389nm,18.0s
HILR  Hailar Array B   119.03 343  PKP    PKiKP   18 04 09.8 +0.1
      comp=Z,0.2nm,0.3s,baz=204,slow=2.9,SNR=4.0
HILR                               PP     PP      18 05 25.8 -2.3
      comp=Z,0.3nm,0.3s,baz=58,slow=3.7,SNR=5.1
KURK  Kurchatov        119.07  13c iPKIKP PKiKP   18 04 10.8 +1.1
KURK                               pmax   pmax
      comp=Z,8.0nm,1.3s
KURK  Kurchatov        119.07  13         PKPdf   18 04 08.1 -1.5
KURBB Kurchatov Arra   119.14  13  PKP    PKiKP   18 04 10.3 +0.5
      comp=Z,0.8nm,0.3s,baz=339,slow=2.3,SNR=12
KURBB                              PP     PP      18 05 26.2 -2.5
      comp=Z,1.1nm,0.9s,baz=339,slow=6.5,SNR=6.1
KURBB                              PKKPbc PKKPbc  18 14 25.7 +0.7
      comp=Z,0.6nm,0.7s,baz=150,slow=3.4,SNR=5.1
FURI  Furi             119.42  75  IAMs_20 IAMs_20 18 53 10.6
      comp=Z,415nm,20.0s
RAYN  Ar Rayn          120.54  57  IAMs_20 IAMs_20 19 04 13.6
      comp=Z,288nm,20.0s
MJAR  Matsushiro Arr   120.96 322  PKP    PKiKP   18 04 14.6 +0.8
      comp=Z,1.3nm,0.7s,baz=88,slow=0.9,SNR=5.3
MJAR  Matsushiro Arr   120.96 322         PKiKP   18 04 15.0 +1.2
KIBK  Kibwezi          121.03  88  IAMs_20 IAMs_20 19 07 44.0
      comp=Z,361nm,19.0s
ZAK   Zakamensk        121.28 355 ePKIKP  PKiKP   18 04 18.0 +3.8
ZAK                                pmax   pmax
      comp=Z,5.0nm,1.6s
ATD   Arta Tunnel      122.63  71  IAMs_20 IAMs_20 18 54 01.3
      comp=Z,272nm,19.0s
BRLS  Borolday         123.21  24 ePKIKP  PKiKP   18 04 18.6 +0.5
BRLS  Borolday         123.21  24 ePKP    PKiKP   18 04 18.6 +0.5
ULN   Ulaanbaatar      123.35 352c iPKIKP PKiKP   18 04 19.6 +1.2
ULN                                pmax   pmax
      comp=Z,7.0nm,1.3s
ULN   Ulaanbaatar      123.35 352         PKPdf   18 04 17.9 -0.3
ULN   Ulaanbaatar      123.35 352  PKP    PKiKP   18 04 18.4  0.0
ULN                                PKP    pPKPdf  18 04 22.3 -0.3
KKAR  Karatay Array    123.41  23  PKIKP  PKPdf   18 04 17.3 -1.0
KKAR  Karatay Array    123.41  23         PKPdf   18 04 17.3 -1.0
ZSN   Zaisan           123.43  10 ePKIKP  PKiKP   18 04 18.7 +0.3
ZSN   Zaisan           123.43  10 ePKP    PKiKP   18 04 18.7 +0.3
SONM  Songino Array    123.47 352  PKP    PKPdf   18 04 18.3  0.0
      comp=Z,4.1nm,1.0s,baz=350,slow=0.4,SNR=12
SONM                               PP     PP      18 05 52.2 -6.1
      comp=Z,5.4nm,1.2s,baz=4.3,slow=3.9,SNR=7.7
SONM                               PKKPbc PKKPab  18 14 06.4 -2.0
      comp=Z,0.6nm,0.8s,baz=220,slow=3.6,SNR=4.6
SONM  Songino Array    123.47 352  PKIKP  PKPdf   18 04 16.8 -1.6
SONM  Songino Array    123.47 352         PKPdf   18 04 16.8 -1.6
MAKZ  Makanchi         123.50  12  PKIKP  PKPdf   18 04 17.0 -1.3
MAKZ                               MLR    MLR
      comp=Z,500nm,20.0s
MAKZ  Makanchi         123.50  12         PKPdf   18 04 17.0 -1.3
MK31  Makanchi Array   123.58  12c iPKIKP PKiKP   18 04 19.7 +1.0
MKAR  Makanchi Array   123.58  12  PKP    PKPdf   18 04 17.9 -0.6
      comp=Z,1.6nm,0.8s,baz=22,slow=3.9,SNR=9.2
MKAR  Makanchi Array   123.58  12  PKIKP  PKPdf   18 04 16.9 -1.6
MKAR  Makanchi Array   123.58  12         PKPdf   18 04 16.9 -1.6
IUG   Iuzhnay          124.03  24 ePKIKP  PKiKP   18 04 19.8 -0.1
IUG   Iuzhnay          124.03  24 ePKP    PKiKP   18 04 19.9  0.0
TDK   Taldyqorghan     124.33  16 ePKIKP  PKiKP   18 04 20.4 +0.2
TDK   Taldyqorghan     124.33  16 ePKP    PKiKP   18 04 20.4 +0.2
SGDS  Sogindy          124.60  20 ePKP    PKiKP   18 04 20.9  0.0
AAK   Ala-Archa        125.27  20c iPKIKP PKiKP   18 04 23.7 +1.3
AAK                                pmax   pmax
      comp=Z,13nm,1.3s
AAK   Ala-Archa        125.27  20         PKPdf   18 04 20.4 -1.6
MDOK  Medeo            125.63  18 ePKIKP  PKiKP   18 04 22.9 -0.2
MDOK  Medeo            125.63  18 ePKP    PKiKP   18 04 22.9 -0.2
TNSS  Tian-Shan        125.71  18 ePKIKP  PKPdf   18 04 23.0 -0.1
TNSS  Tian-Shan        125.71  18 ePKP    PKPdf   18 04 23.1 -0.1
KSRS  Korea Array      126.06 330  PKP    PKiKP   18 04 23.7 -0.1
      comp=Z,6.9nm,0.8s,baz=15,slow=1.7,SNR=26
KSAR  Wonju Array Be   126.09 330  PKIKP  PKPdf   18 04 22.1 -1.4
KSAR  Wonju Array Be   126.09 330         PKPdf   18 04 22.1 -1.4
SATY  Saty             126.12  17 ePKIKP  PKiKP   18 04 23.9 -0.1
SATY  Saty             126.12  17 ePKP    PKiKP   18 04 23.9 -0.1
UZB   Uzynbulak        126.22  16 ePKIKP  PKPdf   18 04 24.0 +0.2
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UZB	Uzynbulak	126.22	16	*e*PKP	PKPdf	18 04 24.1	+0.2
SHLS	Shalkode	126.33	16	*e*PKIKP	PKiKP	18 04 24.4	0.0
SHLS				*e*		18 06 19.4	
SHLS	Shalkode	126.33	16	*e*PKP	PKiKP	18 04 24.5	0.0
SHLS				*e*PP	PP	18 06 19.5	+1.9
WMQ	Urumqi	127.42	8	PKP	PKiKP	18 04 26.6	+0.1
WMQ				PP	PP	18 06 26.4	+1.8
WMQ				PPMZ			
	comp=Z,160nm,6.3s						
WMQ				L	L		
	comp=Z,370nm,20.5s						
WMQ				L	L		
	comp=Z,250nm,23.7s						
WMQ				L	L		
	comp=Z,460nm,24.0s						
DL2	Dalian	127.73	336	PKP	PKPdf	18 04 22.0	-4.6
DL2				SS	SS	18 23 38.9	+0.9
DL2				PPMZ			
	comp=Z,440nm,6.5s						
DL2				L	L		
	comp=Z,470nm,16.1s						
DL2				L	L		
	comp=Z,430nm,17.0s						
DL2				L	L		
	comp=Z,440nm,23.3s						
UOSS	Minazif	128.28	49		PKPdf	18 04 26.0	-2.0
UOSS	Minazif	128.28	49	IAMs_20	IAMs_20	19 01 41.8	
	comp=Z,311nm,22.0s						
KSH2	Kashi	128.74	21	PKP	PKiKP	18 04 29.9	+0.5
KSH2				PPMZ			
	comp=Z,210nm,10.8s						
KSH2				L	L		
	comp=Z,500nm,18.6s						
KSH2				L	L		
	comp=Z,440nm,20.1s						
KSH2				L	L		
	comp=Z,450nm,21.8s						
HHC	Hu-ho-hao-te	129.27	346	*e*PKP	PKPdf	18 04 25.7	-3.9
BTO2	Baotou	129.75	347	*e*PKP	PKiKP	18 04 32.1	+0.7
BTO2				PP	PP	18 06 45.2	+5.1
BTO2				PPMZ			
	comp=Z,400nm,5.6s						
BTO2				L	L		
	comp=Z,1µm,15.5s						
BTO2				L	L		
	comp=Z,770nm,13.0s						
BTO2				L	L		
	comp=Z,1µm,19.7s						
ARPS	Mount Arapiles	130.49	228	P	PKiKP	18 04 36.7	+4.0
HNS	HongShan	131.59	341	⇑PKP	PKiKP	18 04 35.5	+0.6
TIA	Tai'an	131.83	338	PKP	PKiKP	18 04 35.9	+0.4
GTA2	Gaotai	132.36	357	PKP	PKPdf	18 04 35.6	0.0
GTA2				PPMZ			
	comp=Z,400nm,10.2s						
GTA2				L	L		
	comp=Z,440nm,22.9s						
GTA2				L	L		
	comp=Z,410nm,22.2s						
GTA2				L	L		
	comp=Z,560nm,24.8s						
STKA	Stephens Creek	132.48	234	P	PKPdf	18 04 35.9	+0.1
STKA	Stephens Creek	132.48	234	PKP	PKPdf	18 04 36.0	+0.2
	comp=Z,2.6nm,0.8s,baz=68,slow=4.8,SNR=4.1						
STKA	Stephens Creek	132.48	234	PKIKP	PKPdf	18 04 36.0	+0.2
SRNI	Srinagar	132.88	25	*e*P	PKPdf	18 04 35.0	-1.7
ALCI	Alchi Leh	133.70	23	*e*P	PKPdf	18 04 36.3	-2.2
ALCI				IAmb	IAmb	18 05 39.4	
	comp=Z,269nm,0.4s						
TSSA	Tissa	134.50	25	*e*P	PKPdf	18 04 38.2	-1.6
NJ2	Nanjing	134.75	334	*e*PKP	PKiKP	18 04 41.2	-0.3
LZH	Lanzhou	135.36	352	PKP	PKPdf	18 04 39.9	-1.4
LZH				sPKP	sPKPdf	18 04 49.7	+2.4
LZH				L	L		
	comp=Z,540nm,15.2s						
LZH				L	L		
	comp=Z,520nm,17.5s						
LZH				L	L		
	comp=Z,690nm,17.8s						
GOMU	GeErMu	135.67	3	PKP	PKPdf	18 04 40.7	-1.5
GOMU				PPMZ			
	comp=Z,290nm,6.6s						
GOMU				L	L		
	comp=Z,560nm,19.4s						
GOMU				L	L		
	comp=Z,340nm,18.9s						
GOMU				L	L		
	comp=Z,800nm,18.6s						
BHK	Bhakra	135.84	26	*e*P	PKPdf	18 04 41.2	-0.9
SRGN	SRI GANGA NAGA	135.94	29	*e*P	PKPdf	18 04 40.8	-1.6
XAN	Xi'an	136.38	346	PKP	PKPdf	18 04 43.5	+0.4
XAN				L	L		
	comp=Z,710nm,19.8s						
XAN				L	L		
	comp=Z,750nm,19.4s						
XAN				L	L		
	comp=Z,1µm,21.6s						
SMLA	Simla	136.40	25	*e*P	PKPdf	18 04 41.7	-1.5
KLP	Kalpa	136.49	24	*e*P	PKPdf	18 04 41.6	-2.2
CGRH	CHANDIGARH	136.58	26	*e*P	PKPdf	18 04 42.1	-1.5
BKNR	BIKANER	137.19	32	*e*P	PKPdf	18 04 41.6	-3.2
UTK	UTTARKASHI	137.28	24	*e*P	PKPdf	18 04 43.5	-1.5
JOSI	Joshimath	137.86	23	*e*P	PKPdf	18 04 44.3	-1.9
GNR	GANAUR	138.06	27	*e*P	PKPdf	18 04 44.5	-1.8
MERT	Meerut	138.51	26	*e*P	PKPdf	18 04 45.6	-1.6
NDI	New Delhi	138.54	27	*e*P	PKPdf	18 04 45.6	-1.6
NPLP	NPLP New Delhi	138.56	27	*e*P	PKPdf	18 04 45.8	-1.5
KUDL	Kundal	138.67	28	*e*P	PKPdf	18 04 45.8	-1.6
JMIU	JAMIA UNIVERSI	138.67	27	*e*P	PKPdf	18 04 44.5	-2.9
ASOR	Ausora	138.72	26	*e*P	PKPdf	18 04 45.8	-1.7
BISR	Bishrakh	138.73	27	*e*P	PKPdf	18 04 45.7	-1.8
BHUJ	Bhuj	138.75	40	*e*P	PKPdf	18 04 46.1	-1.6
PTH	Pithoragarh	138.98	23	*e*P	PKPdf	18 04 46.4	-1.8
AJM	Ajmer	139.19	32	*e*P	PKPdf	18 04 46.7	-1.8
AJM				IAmb	IAmb	18 04 54.5	
	comp=Z,7.6nm,0.8s						
AGRA	Agra	140.11	27	*e*P	PKPdf	18 04 48.8	-1.3
UDPR	Udaipur	140.17	34	*e*P	PKPdf	18 04 48.5	-1.9
CD2	Chengdu	140.46	351	PKP	PKPdf	18 04 50.0	-0.7
AS17	Alice Springs	141.47	242	P	PKPdf	18 04 53.2	+0.6
AS09	Alice Springs	141.51	242	P	PKPdf	18 04 52.4	-0.3
AS31	Alice Springs	141.55	242	P	PKPdf	18 04 50.2	-2.6
ASAR	Alice Springs	141.55	242	PKhKP	PKPpre	18 04 46.8	
	comp=Z,1.3nm,0.7s,baz=110,slow=3.2,SNR=14						
ASAR	Alice Springs	141.55	242	PKHKP	PKPpre	18 04 47.1	
ASAR	Alice Springs	141.55	242		PKPpre	18 04 47.0	
AS15	Alice Springs	141.55	242	P	PKPdf	18 04 53.2	+0.4
JHNI	Jhansi	141.94	28	*e*P	PKPdf	18 04 51.6	-1.8
WRA	Warramunga Arr	142.10	248	PKhKP	PKPpre	18 04 48.5	
	comp=Z,4.8nm,1.0s,baz=98,slow=2.9,SNR=20						
WRA	Warramunga Arr	142.10	248	PKIKP	PKPpre	18 04 49.9	
WRA	Warramunga Arr	142.10	248		PKPpre	18 04 49.9	
EVN	Everest	142.61	15		PKPpre	18 04 51.5	
BHPL	Bhopal	143.24	31	*e*P	PKPbc	18 04 53.9	+1.2
FORT	Forrest	143.41	228	P	PKPbc	18 04 53.5	+0.5
GULI	GuiLin	144.15	339	PKP	PKPab	18 04 54.8	-0.1
GYA	Guiyang	144.18	345	PKP	PKPab	18 04 55.3	+0.2
ZIRO	ZIRO	144.23	5	*e*P	PKPbc	18 04 55.7	0.0
JPG	JALPAIGURI	144.41	13	*e*P	PKPdf	18 04 58.8	+1.0
COBR	COOCHBEHAR	144.81	12	*e*P	PKPab	18 04 56.8	-0.5
KDU	Kakadu	144.89	260	P	PKPdf	18 04 58.9	0.0
TEZP	TEZPUR	145.03	7	*e*P	PKPab	18 04 57.0	-1.0
PZH	PanZhiHua	145.08	353	PKPbc	PKPbc	18 04 58.2	-0.2
GAYA	Gaya	145.12	19	*e*P	PKPbc	18 04 57.3	-1.2
DHUB	DHUBRI	145.19	11	*e*P	PKPbc	18 04 57.6	-1.0
GUWA	GUWAHATI	145.30	8	*e*P	PKPbc	18 04 58.0	-1.0
JMUI	Jamui	145.31	17	*e*P	PKPbc	18 04 58.0	-1.0
SHBG	Sahibganj	145.41	15	*e*P	PKPbc	18 04 58.7	-0.7
MOKO	MOKOCHONG	145.47	4	*e*P	PKPbc	18 04 58.7	-1.1
NGP	Nagpur	145.78	31	*e*P	PKPdf	18 04 58.4	-1.9
WRKA	Warakurna	145.87	237	P	PKPab	18 05 01.2	-0.2
SHL	Shillong	145.94	8	PKIKP	PKPdf	18 04 59.3	-1.4
SHL	Shillong	145.94	8		PKPdf	18 04 59.3	-1.4
SHL	Shillong	145.94	8	*e*P	PKPdf	18 04 58.5	-2.2
KAD	Karad	145.97	41	*e*P	PKPdf	18 04 58.2	-2.5
KOHI	KOHIMA	146.04	5	*e*P	PKPdf	18 04 59.0	-1.8
MTN	Manton Dam	146.19	259	P	PKiKP	18 05 05.3	0.0
KMI2	Kunming	146.26	351	⇑PKPbc	PKPdf	18 05 01.2	-0.1
KMI2				L	L		
	comp=Z,500nm,25.0s						
KMI2				L	L		
	comp=Z,340nm,15.8s						
KMI2				L	L		
	comp=Z,620nm,24.4s						
BOK	Bokaro	146.27	19	*e*P	PKPdf	18 04 59.0	-2.0
TNCH	TengChong	146.81	358	PKPbc	PKPdf	18 05 01.3	-0.9
TNCH				PP	PP	18 08 30.8	+4.9
TNCH				PPMZ			
	comp=Z,420nm,6.1s						
TNCH				L	L		
	comp=Z,940nm,23.2s						
IMP	Imphal	146.91	5	*e*P	PKPdf	18 05 00.2	-2.0
GOA	Goa	147.01	44	*e*P	PKPdf	18 05 01.1	-1.4
KMBL	Kambalda	147.41	222	P	PKPbc	18 05 05.0	-0.2
MORE	Moreh	147.53	5		PKPdf	18 05 03.2	0.0
AZL	Aizawl	147.85	7	*e*P	PKPdf	18 05 01.9	-1.9
KNRA	Kununurra	148.13	254	P	PKiKP	18 05 08.8	-0.5
TNTI	Ternate	148.43	285	PKP	PKPab	18 05 18.0	+6.3
HYB	Hyderabad	148.58	35	*e*P	PKPdf	18 05 03.4	-1.7
HYB	Hyderabad	148.58	35	*e*PKiKP	PKiKP	18 05 09.8	-0.4
HYB				*e*SKKSac	SKKSac	18 15 28.1	-1.7
SAIH	SAIHA	149.12	7	*e*P	PKPdf	18 05 04.0	-2.0
NWAO	Narrogin (SRO)	149.19	215	P	PKPbc	18 05 09.9	+0.1
NWAO	Narrogin (SRO)	149.19	215	PKIKP	PKPbc	18 05 08.2	-1.6
NWAO	Narrogin (SRO)	149.19	215		PKPbc	18 05 08.2	-1.6
H01W1	Cape Leeuwin H	149.24	208	T	T	20 52 44.2	
	baz=146,slow=76,SNR=6.6						
H01W2	Cape Leeuwin H	149.24	208	T	T	20 52 43.3	
	baz=146,slow=76,SNR=8.9						
H01W3	Cape Leeuwin H	149.25	208	T	T	20 52 42.6	
	baz=146,slow=76,SNR=7.8						
RAGD	RAYAGADA	149.52	26	*e*P	PKPdf	18 05 05.0	-1.5
MNGI	Mangalore	149.53	46	*e*P	PKPdf	18 05 04.8	-1.8
BWNR	Bhubaneshwar	149.54	21	*e*P	PKPdf	18 05 04.8	-1.7
NLAI	Namlea	149.66	278	PKP	PKPab	18 05 16.8	+0.2
KLBR	Kellerberrin	149.86	217	P	PKPbc	18 05 11.3	-0.2
QIZ	Qiongzhong	150.02	335	PKPbc	PKPdf	18 05 07.1	-0.2
QIZ				PP	PP	18 08 46.4	+1.5
QIZ				SS	SS	18 28 05.8	+4.8
QIZ				PPMZ			
	comp=Z,500nm,6.1s						
QIZ				L	L		
	comp=Z,310nm,16.2s						
QIZ				L	L		
	comp=Z,280nm,14.7s						
QIZ				L	L		
	comp=Z,400nm,17.7s						
MUN	Mundaring	150.47	215	P	PKPab	18 05 17.4	-1.9
VJD	Vijayawada	150.48	33	*e*P	PKPdf	18 05 06.5	-1.5
FITZ	Fitzroy Crossi	150.53	248	P	PKiKP	18 05 14.7	+0.5
VIS	Vishakhapatnam	150.80	28	*e*P	PKPdf	18 05 06.2	-2.3
BLDU	Ballidu	151.18	217	P	PKPbc	18 05 14.1	-0.6
SALM	Salem	152.69	44	*e*P	PKPdf	18 05 09.2	-2.3
MORW	Morawa	152.69	218	P	PKPbc	18 05 16.7	-1.4
CHTO	Chiang Mai	152.97	356	PKP	PKPdf	18 05 12.4	+0.6
CMAR	Chiang Mai Arr	153.32	356	PKP	PKPdf	18 05 12.7	+0.4
	comp=Z,2.8nm,0.8s,baz=15,slow=0.8,SNR=18						
CMAR				PKPbc	PKPbc	18 05 19.6	-0.3
	comp=Z,3.1nm,0.9s,baz=304,slow=2.0,SNR=24						
CMAR	Chiang Mai Arr	153.32	356	PKIKP	PKPdf	18 05 12.6	+0.3
TRD	Trivandrum	153.94	51	*e*P	PKPdf	18 05 10.7	-2.6
KULM	Kulim	166.00	345	PKPdf	PKPdf	18 05 26.4	-0.5
KULM					PKPab	18 06 25.6	-1.0

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*IDC **04** 17:46:42.5±0.7, 8.°40N×82.°76W, h0^{km}, mb4.7/17, mbtmp4.7/20, ML4.2/3, MS4.8/4, Error ellipse: s-maj=26.6km s-min=14.2km az=47.0*

*UPA **04** 17:46:43.0±1.0, 8.°34N×82.°98W, h2^{km}±4^{km}, MW3.8, Presumed earthquake*

*UCR **04** 17:46:43.2±0.4, 8.°31N×82.°98W, h3^{km}±3^{km}, MW5.0, Presumed earthquake*

*NEIC **04** 17:46:44.0±1.5, 8.°35N±0.°06×82.°81W±0.°08, h10^{km}±1^{km}, mb5.3/110, Error ellipse: s-maj=16.0km s-min=6.6km az=236.0*

ISC 04 17:46:43.8±0.8**, 8.°33N**±0.°02×**82.°92W**±0.°03**, h14**^{km}±5^{km}**,**
n212, σ1.^{s}**02**/214**, mb5.2**/64**, MS4.7**/5**, 4C-2D,**
Panama-Costa Rica border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTPM	Petroterminale	0.13	163	*e*P	Pg	17 46 47.6	+0.2
PTPM				*e*S	Sg	17 46 49.5	-0.3
PTPA	Petro Terminal	0.14	160	*e*P	Pg	17 46 47.3	-0.2
LIMO3	Limones	0.23	167	⇓*i*P	Pg	17 46 48.7	-0.2
LIMO3				*e*S	Sb	17 46 53.4	-0.5
LMNES	Limones	0.24	166	*e*P	Pg	17 46 49.2	+0.2
NELY	Ciudad Neily	0.32	355	*e*P	Pg	17 46 50.8	+0.4
FITO	Golfito	0.37	321	*e*P	Pg	17 46 50.2	-1.2
FITO				*e*S	Sg	17 46 55.7	-0.9
EDAD	Golfito	0.40	322	*e*P	Pg	17 46 50.6	-1.3
PIRO	Carate, Puerto	0.42	280		Pg	17 46 51.0	-1.2
PIRO					Sb	17 47 00.7	+1.5
PIRO	Carate, Puerto	0.42	280	*e*P	Pg	17 46 51.0	-1.2
JIME	Puerto Jimenez	0.45	297	*e*P	Pg	17 46 52.9	+0.1
MLIR3	Monte Lirio, C	0.47	11	*e*P	Pg	17 46 53.1	0.0
MLIR3				*e*S	Sb	17 47 01.5	+0.8
VITO	San Vito	0.49	354	*e*P	Pb	17 46 54.1	-0.2
CLLRA	Cordillera,	0.51	36	*e*P	Pb	17 46 55.1	+0.5
BRU2	Volcan	0.51	26		Pg	17 46 53.2	-0.7
BRU2	Volcan	0.51	26	*e*P	Pb	17 46 54.9	+0.2
BRU2	Volcan	0.51	26	*e*P	Pb	17 46 54.7	0.0
BRU2				*e*S	Sn	17 47 04.3	-1.2
SCLRA	Santa Clara, W	0.52	15	*e*P	Pb	17 46 54.7	-0.1
BQTLY	Boquete Panama	0.62	47	*e*P	Pb	17 46 56.9	+0.4
BQSF3	Alto Boquete,	0.63	50	⇓*e*P	Pb	17 46 57.3	+0.7
BQSF3				*e*S	Sn	17 47 07.8	-0.6
LNBQ3	Los Naranjos,	0.66	46	*e*P	Pb	17 46 57.8	+0.6
LNBQ3				*e*S	Sn	17 47 08.8	-0.2
EDP2	Potrero Grande	0.73	339	*e*P	Pg	17 46 58.0	0.0
PANP	Palmar Norte	0.82	319	*e*P	Pg	17 46 59.1	-0.7
RBALA	Bur	0.93	54	*e*P	Pb	17 47 01.6	-0.2
BURE	Buenos Aires	0.93	334	*e*P	Pg	17 47 01.2	-0.7
DRK0	Durika	0.98	341	*e*P	Pb	17 46 48.7	-14
DRK0				*e*S	Sg	17 47 02.6	-13
EDPE	Pejibaye, P	1.04	322	*e*P	Pb	17 47 02.4	-1.3
KKNTU	Kakintº	1.21	65	*e*P	Pn	17 47 05.7	-0.6
CEUA	Cerro Uatsi, L	1.28	359	*e*P	Pg	17 47 08.7	+0.2
RGM0	Gandoca	1.29	14		Pn	17 47 07.5	+0.1
RGM0				Sg	Sg	17 47 25.9	+0.5
PIEC	Cerro El Cedra	1.64	321	*e*P	Pn	17 47 12.7	+0.2
RAZU	San Marcos de	1.71	320	*e*P	Pn	17 47 13.6	+0.2
PITB	Pirrs, San	1.71	320	*e*P	Pn	17 47 13.5	+0.1
LCR2	La Lucha 2	1.77	323	Pn	Pn	17 47 14.6	+0.4
LCR2				Sn	Sg	17 47 40.1	-0.7
LCR2	La Lucha 2	1.77	323	*e*P	Pn	17 47 14.6	+0.4
VERB	Verbena	1.78	334	*e*P	Pn	17 47 14.0	-0.3
PCAYA	Pacayas	1.81	331	*e*P	Pn	17 47 15.9	+1.2
VTCV	VTCV, Calle Va	1.82	334	*e*P	Pn	17 47 15.8	+0.8
ABRB	Las Abras (San	1.84	335	*e*P	Pn	17 47 16.4	+1.2
RAFA	San Farael, Vo	1.84	331	Pn	Pn	17 47 15.6	+0.3
IRES	Siquirres	1.85	342	*e*P	Pb	17 47 16.8	-0.6
LCOCO	El Coco	1.85	340	*e*P	Pn	17 47 16.4	+1.2
CVTQ	Turrialba Volc	1.86	333	*e*P	Pb	17 47 17.0	-0.9
VTR0	Volcan Turrial	1.87	334	*e*P	Pn	17 47 16.4	+0.5
CORON	Coronado	1.95	327	*e*P	Pn	17 47 17.6	+0.9
HDC	Heredia	2.04	325	Pn	Pn	17 47 19.5	+1.7
BELE	Belen	2.06	323	*e*P	Pn	17 47 19.5	+1.3
PILE	Guapiles	2.06	335	*e*P	Pb	17 47 19.9	-1.1
TRB2	Turrubares	2.18	316	*e*P	Pn	17 47 19.9	+0.2
CACAO	El Cacao, Vera	2.26	116	*e*P	Pn	17 47 22.2	+1.4
CACAO				*e*S	Sb	17 47 51.2	-1.1
JTS	Las Juntas de	2.80	314	Pn	Pn	17 47 30.3	+2.1
	250nm,0.3s,baz=137,slow=19,SNR=1.5						
JTS				Sn	Sn	17 48 02.8	+1.0
	33nm,0.3s,baz=322,slow=19,SNR=1.2						
	3µm,0.7s						
JTS				AML	AML		
JTS	Las Juntas de	2.80	314	Pn	Pn	17 47 29.3	+1.1
JUD3	Juan Diaz 3	3.17	305	Pn	Pn	17 47 34.7	+1.4
ALIBA	Liberia Airpor	3.43	311	*e*P	Pn	17 47 38.8	+1.9
BOAB	BOACO BROADBAN	4.90	327	Pn	Pn	17 47 55.0	-2.2
MGAN	Managua	5.01	319	Pn	Pn	17 47 59.3	+0.6
SIUN	Universidad Ur	5.65	341	Pn	Pn	17 48 06.2	-1.3
CRIN	San Cristobal	5.95	317	Pn	Pn	17 48 10.9	-0.7
MTO3	Montecristo	8.73	314	Pn	Pn	17 48 51.1	+1.1
APG	El Apazote	9.93	313	Pn	Pn	17 49 09.7	+3.3
	0.4nm,0.3s,baz=130,slow=10,SNR=6.3						
	20nm,0.9s						
APG				AML	AML		
SLOR	San Lorenzo -	10.02	154	Pn	Pn	17 49 07.0	-1.0
RTAL	Retalhuleu	10.58	306		Pn	17 49 15.8	+0.7
HUEH	Huehuetenango	10.90	310	Pn	Pn	17 49 20.5	+0.8
CAIB	Caibarien	14.46	13	Pn	Pn	17 50 09.3	+1.0
CMIG	Matias Romero	14.55	308	Pn	Pn	17 50 12.3	+2.8
	0.9nm,0.3s,baz=139,slow=13,SNR=1.4						
	24nm,0.9s						
CMIG				AML	AML		
CAMR	Camarioca	14.72	6	Pn	Pn	17 50 12.9	+1.2
BANI	BANI	15.78	49		Pn	17 50 25.3	-0.6
CRPR	Cabo Rojo, PR	18.13	56	P	Pn	17 50 53.7	-1.7
MLPR	Magueyes Islan	18.17	57	P	Pn	17 50 53.3	-2.6
OBIP	Obispado Ponce	18.57	57	P	P	17 50 59.3	-1.2
CELP	Cerrillos	18.61	57	P	P	17 50 59.4	-1.6
ECPR	Experimental S	18.90	57	P	P	17 51 02.4	-1.8
ECPR				IAmb	IAmb	17 51 16.6	
	comp=Z,173nm,1.3s						
SJG	San Juan	18.98	58	P	Pn	17 51 09.4	+3.7
	comp=Z,30nm,0.6s,baz=242,slow=11,SNR=1.8						
SJG	San Juan	18.98	58	P	P	17 51 03.5	-1.5
HUMP	Col San Antoni	19.25	58	P	P	17 51 07.3	-0.6
656A	Willston	20.93	1	P	P	17 51 25.7	-0.5
656A				IAmb	IAmb	17 51 36.0	
	comp=Z,171nm,1.1s						
MOIG	Morelia	20.99	304	P	P	17 51 27.3	+0.1
MOIG				IAmb	IAmb	17 51 33.8	
	comp=Z,114nm,1.3s						
NNA	Nana	21.07	163	P	P	17 51 29.3	+1.4
	comp=Z,58nm,1.0s,baz=355,slow=11,SNR=3.5						
	comp=Z,58nm,1.0s						
NNA	Nana	21.07	163	P	P	17 51 27.9	+0.1
GRGR	Grenville	21.26	78	P	P	17 51 28.5	-1.4
SEUS	St. Eustatius	21.44	63	P	P	17 51 30.1	-1.7
TDBA	Terre de Bas,	22.09	68	P	P	17 51 37.2	-1.7
TDBA				IAmb	IAmb	17 51 43.4	
	comp=Z,245nm,1.4s						
451A	Vernon	22.33	354	P	P	17 51 40.6	-0.6
BRAL	Brewton	23.05	351	P	P	17 51 49.4	+0.6
352A	Blakely	23.11	356	P	P	17 51 49.7	+0.3
352A				IAmb	IAmb	17 51 54.9	
	comp=Z,116nm,0.9s						
154A	Montrose	24.16	360		P	17 52 00.0	+0.3
152A	Waverly Hall	24.27	356	P	P	17 52 01.3	+0.6
152A				IAmb	IAmb	17 52 05.0	
	comp=Z,51nm,1.0s						
441A	DeRidder	24.28	338	P	P	17 52 01.0	+0.2
HKT	Hockley	24.68	332	P	P	17 52 05.2	+0.9
HKT				IAmb	IAmb	17 52 12.4	
	comp=Z,79nm,1.4s						
146A	Union	24.85	348	P	P	17 52 06.8	+0.9
LRAL	Lakeview Retre	24.87	352	P	P	17 52 06.5	+0.4
LRAL				IAmb	IAmb	17 52 11.6	
	comp=Z,125nm,1.1s						
MACA	Manacapuru-AM	24.94	116	P	P	17 52 06.7	-0.2
MACA				IAmb	IAmb	17 52 11.9	
	comp=Z,55nm,0.8s						
GOGA	Godfrey	24.96	359	P	P	17 52 07.1	+0.2
GOGA				IAmb	IAmb	17 52 11.9	
	comp=Z,97nm,0.9s						
Z47A	Carrollton	25.20	350	P	P	17 52 10.0	+0.9
Z47A				IAmb	IAmb	17 52 13.8	
	comp=Z,79nm,0.9s						
HNVL	Huntsville, TX	25.20	334	P	P	17 52 09.2	+0.1
833A	Chaparral WMA,	25.24	324	P	P	17 52 10.0	+0.5
Y52A	Lilburn	25.43	358	P	P	17 52 11.4	+0.2
HODGE	Hodges	25.78	1	P	P	17 52 14.7	+0.3
HODGE				IAmb	IAmb	17 52 18.1	
	comp=Z,63nm,1.0s						
JSC	Jenkinsville	25.87	3	P	P	17 52 15.7	+0.5
JSC				IAmb	IAmb	17 52 24.7	
	comp=Z,63nm,1.1s						
X51A	Calhoun	26.17	356	P	P	17 52 19.0	+1.1
X51A				IAmb	IAmb	17 52 23.4	
	comp=Z,55nm,1.0s						
X48A	Hartselle	26.27	352		P	17 52 18.7	-0.1
X48A				IAmb	IAmb	17 52 25.6	
	comp=Z,45nm,1.0s						
BIRD	Birdtown, Kers	26.29	5	P	P	17 52 19.2	+0.2
BIRD				IAmb	IAmb	17 52 34.2	
	comp=Z,52nm,1.2s						
Z41A	Richland Creek	26.44	341	P	P	17 52 20.4	+0.1
Z41A				IAmb	IAmb	17 52 26.7	
	comp=Z,129nm,1.3s						
KMSC	Kings Mountain	26.72	3	P	P	17 52 23.7	+0.8
W50A	Signal Mountai	26.83	356	P	P	17 52 23.4	-0.5
W50A				IAmb	IAmb	17 52 32.0	
	comp=Z,47nm,0.9s						
TKL	Tuckaleechee C	27.21	358	LR	LR	18 02 24.8	
	comp=Z,3µm,18.4s,baz=186,slow=35						
R49A	Shelbyville	29.90	356		P	17 52 52.3	+1.2
R49A				IAmb	IAmb	17 52 55.5	
	comp=Z,34nm,0.8s						
WCI	Wyandotte Cave	29.92	355	P	P	17 52 51.5	+0.2
WCI				IAmb	IAmb	17 52 58.6	
	comp=Z,43nm,1.0s						
CBN	Corbin Frederi	30.16	9	P	P	17 52 53.1	-0.4
QUOK	Quay	30.43	338	P	P	17 52 55.6	-0.4
OLIL	Olney	30.63	352	P	P	17 52 58.1	+0.5
OLIL				IAmb	IAmb	17 53 01.7	
	comp=Z,55nm,0.9s						
SLM	Saint Louis	30.88	349		P	17 52 59.2	-0.7
NOKA	Waynoka	31.72	335	P	P	17 53 08.3	+1.0
NOKA				IAmb	IAmb	17 53 11.5	
	comp=Z,52nm,0.9s						
P43A	Skaggs, Pawnee	31.73	350	P	P	17 53 07.6	+0.2
ACSO	Alum Creek Sta	31.77	360		P	17 53 08.2	+0.5
ACSO				IAmb	IAmb	17 53 13.9	
	comp=Z,60nm,1.0s						
O48B	Farmland	31.85	357		P	17 53 08.3	-0.1
O48B				IAmb	IAmb	17 53 14.0	
	comp=Z,70nm,1.1s						
SIV	San Ignacio	32.43	138	LR	LR	18 07 47.2	
	comp=Z,2µm,20.9s,baz=331,slow=39						
N51A	Ashland	32.45	1	P	P	17 53 14.1	+0.4
N49A	Columbus Grove	32.47	358	P	P	17 53 13.0	-0.8
N49A				IAmb	IAmb	17 53 16.5	
	comp=Z,23nm,0.8s						
PB07	IPOC Station P	32.49	157	P	P	17 53 12.4	-2.0
PB07				IAmb	IAmb	17 53 18.2	
	comp=Z,29nm,1.1s						
N41A	Harden Midland	33.01	349		P	17 53 17.4	-1.1
KSU1	Kansas State U	33.01	340		P	17 53 18.4	-0.2
R32A	Long Quarter,	33.17	337	P	P	17 53 19.8	-0.3
PTLB	Pontes e Lacer	33.37	135	P	P	17 53 20.7	-1.2
L42A	Oliver, Polo	34.06	351		P	17 53 27.4	-0.3
L42A				IAmb	IAmb	17 53 34.4	
	comp=Z,70nm,1.1s						
ANMO	Albuquerque	34.17	324	P	P	17 53 31.4	+2.4
	comp=Z,8.6nm,1.0s,baz=136,slow=13,SNR=5.2						
ANMO				LR	LR	18 11 30.3	
	comp=Z,1µm,18.5s,baz=124,slow=44						
	comp=Z,8.6nm,1.0s						
ANMO	Albuquerque	34.17	324	P	P	17 53 29.9	+0.9
L40A	Anamosa	34.39	349		P	17 53 29.9	-0.6
I42A	Draeger Farm,	35.81	353		P	17 53 42.2	-0.6
I42A				IAmb	IAmb	17 53 48.2	
	comp=Z,87nm,1.2s						
I40A	Norwalk	36.05	351	P	P	17 53 45.5	+0.6
I40A				IAmb	IAmb	17 53 49.4	
	comp=Z,59nm,1.3s						
AC06	Mina Casimiro	37.51	161	P	P	17 53 57.0	-0.4
SPMN	Marine on St.	37.74	349		P	17 53 58.1	-1.1
SPMN				IAmb	IAmb	17 54 02.3	
	comp=Z,62nm,1.1s						
PFO	Pinyon Flats O	39.86	314	P	P	17 54 18.9	+1.6
	comp=Z,7.0nm,1.0s,baz=110,slow=10,SNR=1.6						
PFO				LR	LR	18 11 44.8	
	comp=Z,1µm,18.6s,baz=118,slow=38						
	comp=Z,7.0nm,1.0s						
PFO	Pinyon Flats O	39.86	314	P	P	17 54 18.1	+0.8
GO04	Tololo Observa	40.02	164	P	P	17 54 18.8	+0.1
CO03	El Pedregal	40.67	164	P	P	17 54 24.5	+0.5
CO02	Combarbal	40.94	164	P	P	17 54 26.8	+0.6
CO02				IAmb	IAmb	17 54 30.0	
	comp=Z,37nm,0.9s						
PDAR	Pinedale Array	41.52	330	P	P	17 54 31.9	+0.9
	comp=Z,2.5nm,1.0s,baz=141,slow=9.6,SNR=3.6						
	comp=Z,2.5nm,1.0s						
PDAR	Pinedale Array	41.52	330	P	P	17 54 31.2	+0.2
LRMC	Laurel Mtn Rad	41.70	316	P	P	17 54 33.4	+0.9
CO04	Los Peladeros	41.74	165	P	P	17 54 32.8	-0.2
ZON	Zonda	41.93	162		P	17 54 34.3	0.0
EPLO	Experimental L	42.19	350		P	17 54 35.2	-0.9
EPLO				IAmb	IAmb	17 54 39.8	
	comp=Z,41nm,1.0s						
VA01	Torpederas	42.50	166	P	P	17 54 39.5	+0.7
ULM	Lac du Bonnet	43.16	348	P	P	17 54 43.1	-0.8
	comp=Z,49nm,0.9s,baz=153,slow=8.0,SNR=5.6						
	comp=Z,49nm,0.9s						

ULM	Lac du Bonnet	43.16	348		P	17 54 43.2	-0.8
ULM				IAmb	IAmb	17 54 46.4	
	comp=Z,70nm,1.1s						
MT08	Bocatoma Ro	43.32	164	P	P	17 54 44.6	-1.1
MT08				IAmb	IAmb	17 54 53.0	
	comp=Z,48nm,1.1s						
MT13	San Alfonso	43.53	165	P	P	17 54 47.7	+0.4
NVAR	Mina Array Bea	43.72	319	P	P	17 54 50.3	+1.4
	comp=Z,5.0nm,1.0s,baz=144,slow=6.7,SNR=4.5						
	comp=Z,5.0nm,1.0s						
ORV	Oroville	46.42	318		P	17 55 10.6	+0.4
ORV				IAmb	IAmb	17 55 18.2	
	comp=Z,41nm,1.4s						
CPSB	Cacapava Do Su	47.80	145	P	P	17 55 21.6	+0.6
CPSB				IAmb	IAmb	17 55 25.6	
	comp=Z,29nm,1.1s						
KCPM	Cahto Peak	47.87	317	P	P	17 55 21.3	-0.3
KCPM				IAmb	IAmb	17 55 34.1	
	comp=Z,42nm,1.2s						
SCHQ	Schefferville	48.12	12	P	P	17 55 23.6	+0.4
	comp=Z,14nm,0.9s,baz=251,slow=5.6,SNR=4.7						
	comp=Z,14nm,0.9s						
SCHQ	Schefferville	48.12	12	P	P	17 55 22.6	-0.6
SCHQ				IAmb	IAmb	17 55 38.4	
	comp=Z,29nm,1.2s						
GO06	Curarrehue	48.84	168	P	P	17 55 29.9	+0.9
PLCA	Paso Flores	50.13	168	P	P	17 55 39.7	+0.9
	comp=Z,10nm,0.9s,baz=346,slow=11,SNR=4.2						
	comp=Z,10nm,0.9s						
PLCA	Paso Flores	50.13	168	P	P	17 55 39.4	+0.6
EDM	Edmonton	51.09	337		P	17 55 46.2	+0.3
EDM				IAmb	IAmb	17 55 47.3	
	comp=Z,46nm,1.0s						
LL02	Futaleuf	52.26	170		P	17 55 54.9	+0.2
LL02				IAmb	IAmb	17 56 00.9	
	comp=Z,35nm,1.1s						
YKA	Yellowknife Ar	58.77	343	P	P	17 56 41.9	+0.7
	comp=Z,11nm,1.0s,baz=137,slow=7.9,SNR=5.7						
	comp=Z,11nm,1.0s						
YKA	Yellowknife Ar	58.77	343	P	P	17 56 41.5	+0.3
P29M	Windy Craggy	65.56	333		P	17 57 27.4	+0.4
P29M				IAmb	IAmb	17 57 34.8	
	comp=Z,27nm,1.1s						
INK	Inuvik	68.46	342	P	P	17 57 46.2	+1.1
INK				IAmb	IAmb	17 57 49.3	
	comp=Z,39nm,1.3s						
ILAR	Eielson Array	71.57	336	P	P	17 58 05.5	+1.2
	comp=Z,9.4nm,1.0s,baz=115,slow=4.6,SNR=6.5						
	comp=Z,9.4nm,1.0s						
ILAR	Eielson Array	71.57	336	P	P	17 58 04.6	+0.3
BRLK	Bradley Lake	71.82	330	IAmb	IAmb	17 58 12.1	
	comp=Z,45nm,1.3s						
MCK	McKinley	72.07	335	IAmb	IAmb	17 58 13.6	
	comp=Z,39nm,1.2s						
MLY	Manley	73.21	336		P	17 58 15.2	+1.0
MLY				IAmb	IAmb	17 58 20.3	
	comp=Z,21nm,1.0s						
IMAR	Indian Mountai	74.67	336	P	P	17 58 23.2	+0.5
CHGN	Chignik	75.07	326		P	17 58 25.2	+0.1
ORCD	Orcadas	75.12	162	P	P	17 58 24.7	-0.5
MD01	Midelt array s	75.60	58	P	P	17 58 27.8	-1.1
B22K	Teshekpuk Lake	75.69	341	IAmb	IAmb	17 58 32.9	
	comp=Z,36nm,1.0s						
ESDC	Sonseca Array	76.24	51	P	P	17 58 32.8	+0.5
	comp=Z,6.3nm,1.0s,baz=266,slow=5.8,SNR=2.7						
	comp=Z,6.3nm,1.0s						
ESDC	Sonseca Array	76.24	51	P	P	17 58 31.9	-0.4
ESDC				IAmb	IAmb	17 58 35.2	
	comp=Z,40nm,1.3s						
L16K	Owhat River	76.34	332	IAmb	IAmb	17 58 41.0	
	comp=Z,22nm,1.2s						
SMAI	San Martin Ant	77.10	174	P	P	17 58 37.2	+0.9
DBIC	Dimbokro	77.29	85	P	P	17 58 39.0	+0.4
	comp=Z,14nm,1.0s,baz=266,slow=5.0,SNR=3.2						
	comp=Z,14nm,1.0s						
DBIC	Dimbokro	77.29	85	P	P	17 58 38.3	-0.3
DBIC				IAmb	IAmb	17 58 47.1	
	comp=Z,56nm,1.4s						
C18K	Utukok River	78.02	338	IAmb	IAmb	17 58 47.3	
	comp=Z,30nm,1.2s						
J14K	Nanvaranak Lak	78.35	332	P	P	17 58 44.4	+0.9
J14K				IAmb	IAmb	17 58 52.9	
	comp=Z,37nm,1.0s						
TORD	Torodi Ar. Bea	82.93	78	P	P	17 59 09.3	+0.3
	comp=Z,4.5nm,0.8s,baz=297,slow=5.8,SNR=3.8						
	comp=Z,4.5nm,0.8s						
TORD	Torodi Ar. Bea	82.93	78	P	P	17 59 08.1	-1.0
NOA	NORSAR Array B	84.78	29	P	P	17 59 18.0	+0.4
	comp=Z,4.5nm,1.0s,baz=280,slow=4.9,SNR=3.3						
	comp=Z,4.5nm,1.0s						
TAM	Tamanrasset	85.39	68	P	P	17 59 21.2	-0.5
CLL	Collm	87.25	39	*i* P	P	17 59 30.1	+0.1
	comp=Z,20nm,1.6s						
CLL				*i* x	x	17 59 34.1	
	comp=Z,12nm,1.2s						
BRG	Berggiesshubel	87.91	39	*e*P	P	17 59 34.8	+1.6
BRG				Amp		17 59 39.3	
	comp=Z,15nm,1.4s						
GERES	GERESS Array B	88.12	41	P	P	17 59 34.8	+0.4
	comp=Z,2.8nm,0.9s,baz=242,slow=2.9,SNR=4.2						
	comp=Z,2.8nm,0.9s						
GERES	GERESS Array B	88.12	41	P	P	17 59 33.8	-0.6
ARCES	ARCESS Array B	88.58	19	P	P	17 59 36.0	0.0
	comp=Z,5.3nm,0.8s,baz=268,slow=6.1,SNR=4.2						
	comp=Z,5.3nm,0.8s						
ARCES	ARCESS Array B	88.58	19	P	P	17 59 35.0	-1.0
VNA3	Neumayer Olymp	92.52	162	⇑P	P	17 59 54.9	+0.7
	comp=Z,6.9nm,0.8s						
VNA1	Neumayer--Stat	92.78	161	⇑P	P	17 59 56.4	+1.1
	comp=Z,7.1nm,1.0s						
VNA2	Neumayer--Watz	93.13	161	⇑P	P	17 59 57.7	+0.6
	comp=Z,3.9nm,0.9s,baz=291,slow=4.8						
TROLL	Troll, Antarti	96.45	162	⇑P	P	18 00 13.3	+0.9
	comp=Z,400nm,1.0s						
QSPA	South Pole Qui	98.33	180	P	Pdif	18 00 21.9	+0.9
	comp=Z,5.7nm,1.0s,baz=181,slow=2.2,SNR=6.1						
	comp=Z,5.7nm,1.0s						
QSPA	South Pole Qui	98.33	180	P	Pdif	18 00 22.6	+1.7
QSPA				IAmb	IAmb	18 00 28.2	
	comp=Z,9.2nm,1.1s						
SONM	Songino Array	123.47	352	PKP	PKiKP	18 05 41.8	+0.4
	comp=Z,1.2nm,0.9s,baz=325,slow=2.3,SNR=2.5						
SONM	Songino Array	123.47	352		PKPdf	18 05 39.2	-2.0
MKAR	Makanchi Array	123.56	12	PKP	PKPdf	18 05 41.4	+0.2
	comp=Z,2.2nm,1.0s,baz=250,slow=2.9,SNR=3.8						
MKAR	Makanchi Array	123.56	12		PKPdf	18 05 39.4	-1.8
KSRS	Korea Array	126.08	330	PKP	PKiKP	18 05 46.7	0.0
	comp=Z,3.5nm,0.8s,baz=4.3,slow=1.7,SNR=6.2						
KSAR	Wonju Array Be	126.11	330		PKPdf	18 05 45.2	-1.1
WMQ	Urumqi	127.40	9	*e*PKP	PKiKP	18 05 49.4	+0.2
WMQ				LR	LR		
	comp=N,480nm,18.3s						
WMQ				LR	LR		
	comp=E,540nm,18.3s						
WMQ				LR	LR		
	comp=Z,520nm,24.1s						
HHC	Hu-ho-hao-te	129.28	346	*e*P	PKPdf	18 05 47.2	-5.2
NJ2	Nanjing	134.78	334	*e*P	PKPdf	18 06 03.1	+0.2
NJ2				pmax	pmax		
	comp=Z,33nm,0.5s						
ASAR	Alice Springs	141.61	242	PKP	PKPdf	18 06 15.6	-0.1
	comp=Z,3.0nm,0.9s,baz=121,slow=3.6,SNR=4.4						
WRA	Warramunga Arr	142.17	248	PKP	PKPdf	18 06 16.8	0.0
	comp=Z,5.7nm,1.1s,baz=96,slow=1.8,SNR=2.8						
PZH	PanZhiHua	145.08	353	PKPbc	PKPab	18 06 21.4	+0.2
KMI2	Kunming	146.27	351	PKPbc	PKPab	18 06 26.2	+0.4
HYB	Hyderabad	148.54	36	*e*PKiKP	PKiKP	18 06 32.3	-0.6
HYB				*e*SKKSac	SKKSac	18 16 50.6	-1.6
CMAR	Chiang Mai Arr	153.32	356	PKPbc	PKiKP	18 06 44.1	+1.4
	comp=Z,3.1nm,1.0s,baz=3.0,slow=1.7,SNR=1.7						
CMAR	Chiang Mai Arr	153.32	356		PKPdf	18 06 33.8	-1.2

IDC ***04*** *17:48:50.6±0.9, 8°.45N×82°.72W, h0^{km}, mb4.4/9, mbtmp4.4/13, ML4.7/3, Error ellipse: s-maj=29.2km s-min=16.4km az=42.0*

UCR ***04*** *17:48:51.9±0.6, 8°.33N×83°.00W, h4^{km}±4^{km}, MW4.8, Presumed earthquake*

UPA ***04*** *17:48:52.3±1.9, 8°.37N×82°.95W, h0^{km}±3^{km}, MW4.9, Fault plane solution: NP1:φ$_{s}$25.27000°, δ56.17000°, λ22.76000°., Presumed earthquake*

NEIC ***04*** *17:48:53.1±1.5, 8°.37N±0°.04×83°.01W±0°.05, h10^{km}±1^{km}, mb4.9/52, Error ellipse: s-maj=8.2km s-min=6.6km az=247.0*

ISC 04 17:48:52.4±0.8, 8°.35N±0°.02×82°.99W±0°.02, h13^{km}±5^{km}, n184, σ1^{s}.19/219, mb4.8/23, 2C-20D, Panama-Costa Rica border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTPM	Petroterminale	0.18	143	⇓*e*P	Pg	17 48 56.5	-0.1
PTPM				*i* S	Sg	17 48 59.7	+0.3
PTPA	Petro Terminal	0.19	142	*e*P	Pg	17 48 56.2	-0.6
PTPA				*e*S	Sg	17 49 00.6	+0.8
LIMO3	Limones	0.28	154	⇓*i*P	Pg	17 48 58.0	-0.3
LIMO3				*i* S	Sg	17 49 02.4	+0.2
LMNES	Limones	0.28	153	*e*P	Pg	17 48 58.0	-0.3
LMNES	Limones	0.28	153	⇓*e*P	Pg	17 48 58.0	-0.3
NELY	Ciudad Neily	0.30	8	*e*P	Pb	17 48 59.2	-0.4
NELY	Ciudad Neily	0.30	8	*e*P	Pb	17 48 59.4	-0.3
NELY				*e*S	Sb	17 49 05.7	+1.2
FITO	Golfito	0.31	329	*e*P	Pg	17 48 58.5	-0.3
FITO	Golfito	0.31	329	*e*P	Pg	17 48 58.6	-0.3
FITO				*e*S	Sb	17 49 04.5	-0.5
EDAD	Golfito	0.34	330	*e*P	Pg	17 48 59.0	-0.4
PIRO	Carate, Puerto	0.35	278	Pg	Pg	17 48 58.6	-0.8
PIRO				Sg	Sg	17 49 03.4	-0.8
PIRO	Carate, Puerto	0.35	278	*e*P	Pg	17 48 59.1	-0.3
PIRO	Carate, Puerto	0.35	278	⇓*e*P	Pg	17 48 59.0	-0.4
PIRO				*i* S	Sb	17 49 07.0	+1.1
JIME	Puerto Jimenez	0.38	299	*e*P	Pg	17 49 00.2	+0.2
JIME				*e*S	Sg	17 49 05.7	+0.5
VITO	San Vito	0.46	2	*e*P	Pb	17 49 02.5	0.0
VITO	San Vito	0.46	2	⇓*e*P	Pb	17 49 02.6	+0.1
VITO				*e*S	Sn	17 49 11.3	-1.8
MLIR3	Monte Lirio, C	0.47	21	⇓*i*P	Pb	17 49 02.7	+0.2
MLIR3				*i* S	Sb	17 49 09.1	-0.3
SCLRA	Santa Clara, W	0.52	23	*e*P	Pb	17 49 03.2	-0.3
SCLRA	Santa Clara, W	0.52	23	*i* P	Pb	17 49 03.6	+0.1
BRU2	Volcan	0.53	34	Pg	Pg	17 49 03.1	+0.3
BRU2				Sg	Sb	17 49 10.7	-0.6
BRU2	Volcan	0.53	34	*e*P	Pb	17 49 03.2	-0.4
BRU2	Volcan	0.53	34	⇓*i*P	Pb	17 49 03.6	-0.1
BRU2				*e*S	Sb	17 49 12.5	+1.2
CLLRA	Cordillera,	0.54	44	*e*P	Pb	17 49 03.6	-0.2
CLLRA	Cordillera,	0.54	44	⇓*e*P	Pb	17 49 03.7	-0.1
CLLRA				*e*S	Sb	17 49 12.6	+1.1
DVD	David	0.54	81	⇓*i*P	Pg	17 49 03.0	0.0
DVD				*i* S	Sb	17 49 12.3	+0.8
PTAR3	Potrerillos Ar	0.59	55	⇓*i*P	Pb	17 49 04.5	-0.3
PTAR3				*i* S	Sb	17 49 14.1	+1.0
LOMA3	Las Lomas, Chi	0.60	83	⇑*i*P	Pg	17 49 04.1	0.0
LOMA3				*e*S	Sb	17 49 14.1	+1.0
CHIR3	Chiriqui UPA,	0.66	86	⇓*i*P	Pg	17 49 04.7	-0.4
CHIR3				*i* S	Sb	17 49 15.1	+0.4
BQTLY	Boquete Panama	0.66	52	*e*P	Pg	17 49 05.3	0.0
BQTLY	Boquete Panama	0.66	52	⇓*i*P	Pg	17 49 05.4	+0.1
BQTLY				*e*S	Sn	17 49 17.1	-0.9
BQSF3	Alto Boquete,	0.67	55	⇓*i*P	Pg	17 49 05.4	-0.1
BQSF3				*i* S	Sb	17 49 15.8	+0.4
EDP2	Potrero Grande	0.68	344	*e*P	Pb	17 49 06.1	-0.1
LNBQ3	Los Naranjos,	0.70	51	⇓*e*P	Pg	17 49 05.7	-0.3
LNBQ3				*e*S	Sn	17 49 17.4	-1.4
PANP	Palmar Norte	0.76	322	*e*P	Pg	17 49 06.6	-0.6
BURE	Buenos Aires	0.88	337	*e*P	Pg	17 49 09.1	-0.5
DRK0	Durika	0.94	344	*e*P	Pg	17 48 56.6	-14
DRK0	Durika	0.94	344	⇑*e*P	Pg	17 48 56.6	-14
DRK0				*e*S	Sg	17 49 08.4	-14
RBALA	Bur	0.98	58	*e*P	Pb	17 49 10.4	-0.9
RBALA	Bur	0.98	58	⇓*i*P	Pb	17 49 10.5	-0.8
RBALA				*e*S	Sg	17 49 23.7	-0.4
EDPE	Pejibaye, P	0.98	324	*e*P	Pb	17 49 11.1	-0.3
CHGR2	Aguacate	1.02	55	⇓*i*P	Pb	17 49 10.9	-1.1
CHGR2				*i* S	Sn	17 49 26.1	-0.6
ISECA	Islas Secas	1.02	111	*e*S	Sb	17 49 23.9	-1.3
CNI2	El Empalme, Bo	1.18	26	⇓*e*P	Pn	17 49 14.0	-0.6
CNI2				*e*S	Sg	17 49 30.1	-0.5
ZEDO	Perez Zeledon	1.21	326	*e*P	Pn	17 49 14.9	-0.2
CEUA	Cerro Uatsi, L	1.26	2	*e*P	Pg	17 49 17.2	+0.5
KKNTU	Kakintº	1.27	67	*e*P	Pn	17 49 14.4	-1.4
KKNTU	Kakintº	1.27	67	*i* P	Pn	17 49 14.5	-1.3
KKNTU				*e*S	Sb	17 49 32.2	-0.2
RGM0	Gandoca	1.29	17	Pn	Pg	17 49 17.1	-0.1
RGM0					Sg	17 49 34.7	+0.8
SVQ2	Quepos	1.58	313	*e*P	Pb	17 49 21.0	-0.5
PIEC	Cerro El Cedra	1.58	323	*e*P	Pn	17 49 20.7	+0.3
RAZU	San Marcos de	1.65	322	*e*P	Pb	17 49 22.2	-0.6
PITB	Pirrs, San	1.65	322	*e*P	Pb	17 49 22.0	-0.8
LCR2	La Lucha 2	1.71	324	Pn	Pn	17 49 22.6	+0.4
LCR2				Sn	Sb	17 49 45.5	+0.3
LCR2	La Lucha 2	1.71	324	*e*P	Pn	17 49 22.3	+0.3
LCR2	La Lucha 2	1.71	324	*e*P	Pn	17 49 22.4	+0.3
LCR2				⇓*e*P	Pn	17 49 22.5	+0.4
LCR2				*e*S	Sg	17 49 48.4	+1.0
VERB	Verbena	1.73	336	*e*P	Pn	17 49 21.9	-0.5
PCAYA	Pacayas	1.75	333	*e*P	Pb	17 49 23.7	-0.9
RAFA	San Farael, Vo	1.79	333	Pn	Pn	17 49 23.9	+0.6
RAFA				Sn	Sb	17 49 47.3	-0.4
ABRB	Las Abras (San	1.79	336	*e*P	Pn	17 49 24.1	+0.8
IRES	Siquirres	1.80	344	*e*P	Pb	17 49 24.8	-0.6
LCOCO	El Coco	1.81	342	*e*P	Pb	17 49 24.9	-0.5
CVTQ	Turrialba Volc	1.81	335	*e*P	Pb	17 49 25.1	-0.5
VTR0	Volcan Turrial	1.82	335	*e*P	Pb	17 49 25.0	-0.9
GMAL	Guarumal, Vera	1.84	109	*i* P	Pb	17 49 24.9	-1.0
GMAL				*i* S	Sb	17 49 48.0	-0.9
RVLA	Villa Bonita	1.84	341	*e*P	Pb	17 49 25.4	-0.6
ACOS	Acosta	1.84	321	*e*P	Pn	17 49 24.9	+1.0
RSUS3	Rio de Jesus,	1.85	101	*e*P	Pn	17 49 24.8	+0.9
RSUS3				*e*S	Sb	17 49 49.2	0.0
SAFE3	Santa Fe, Vera	1.90	85	*e*P	Pn	17 49 25.0	+0.4
SAFE3				*e*S	Sn	17 49 49.2	+0.8
SANTA	Santa Ana	1.96	323	*e*P	Pn	17 49 26.2	+0.7
HDC	Heredia	1.98	326	Pn	Pn	17 49 26.6	+0.9
HDC				Sn	Sb	17 49 52.6	-0.4
HDC	Heredia	1.98	326	*e*P	Pb	17 49 27.2	-1.2
HEME	Heredia, Merce	1.98	325	*e*P	Pb	17 49 27.5	-1.0
BELE	Belen	2.00	324	*e*P	Pb	17 49 27.3	-1.4
STIA3	Santiago, Vera	2.01	97	⇓*i*P	Pn	17 49 26.4	+0.3
STIA3				*e*S	Sb	17 49 53.9	0.0
ATEO	Atenas	2.12	320	*e*P	Pn	17 49 28.7	+1.0
CALO3	Calobre, Verag	2.13	91	*e*P	Pn	17 49 28.4	+0.7
CALO3				*i* S	Sb	17 49 57.1	0.0
ARTO	Ro Cuarto	2.32	329	*e*P	Pb	17 49 32.3	-1.9
CACAO	El Cacao, Vera	2.34	115	⇓*e*P	Pn	17 49 31.8	+1.2
LAFE	Finca La Fe, P	2.38	307	*e*P	Pn	17 49 31.2	0.0
PESE3	Pese, Herrera	2.40	100	*e*P	Pn	17 49 32.8	+1.5
PESE3				*i* S	Sb	17 50 03.1	-1.8
CHIT3	Chitre	2.58	99	*e*P	Pn	17 49 35.0	+1.1
PNME	Penonome	2.64	87	*e*P	Pn	17 49 36.9	+2.2
TOSI3	Tonosi	2.69	110	*e*P	Pb	17 49 38.2	-2.4
JTS	Las Juntas de	2.73	315	Pn	Pn	17 49 38.2	+2.2
	237nm,0.3s,baz=96,slow=22,SNR=5.0						
JTS				Sn	Sb	17 50 12.3	-2.2
	86nm,0.3s,baz=316,slow=21,SNR=1.9						
	740nm,0.6s						
JTS				AML	AML		
JTS	Las Juntas de	2.73	315	Pn	Pn	17 49 37.5	+1.5
JTS	Las Juntas de	2.73	315	*e*P	Pn	17 49 38.5	+2.5
AZU	Azuero	2.75	102	*e*P	Pn	17 49 37.5	+1.3
AZU				*e*S	Sn	17 50 10.2	+0.9
CMARA	Lajas Hojancha	2.92	305	*e*P	Pn	17 49 39.5	+0.9
ACHO3	Achotines, Los	2.94	108	*e*P	Pn	17 49 41.1	+2.2
ACHO3				*e*S	Sn	17 50 17.2	+3.1
PEDA3	Pedasi	3.05	105	*e*P	Pn	17 49 40.6	+0.3
JUD3	Juan Diaz 3	3.09	306	Pn	Pn	17 49 42.1	+1.1
JUD3				Sn	Sn	17 50 17.3	-0.6
ZANG	Zanguenga, Cho	3.15	79	*e*P	Pn	17 49 42.9	+1.2
BCIP	Isla Barro Col	3.22	75	Pn	Pn	17 49 43.7	+1.0
BCIP	Isla Barro Col	3.22	75	*e*P	Pn	17 49 44.4	+1.7
MLIR	Monte Lirio	3.22	74	*e*P	Pn	17 49 43.8	+1.1
CHOR3	La Chorrera	3.23	80	*e*P	Pn	17 49 43.9	+0.9
GAMB1	Gamboa	3.33	77	*e*P	Pn	17 49 45.6	+1.3
FRIJ	El Hiral	3.34	75	*e*P	Pn	17 49 45.9	+1.6
ARRA3	Arraijan, Pana	3.35	79	*e*P	Pn	17 49 46.2	+1.6
ARRA3				*e*S	Sn	17 50 24.7	+0.5
FLAM	Flamenco Islan	3.46	81	*e*P	Pb	17 49 50.3	-3.3
CARN	Rivas	3.76	319	Pn	Pn	17 49 50.6	+0.4
BOAB	BOACO BROADBAN	4.85	327	Pn	Pn	17 50 05.4	+0.3
MGAN	Managua	4.95	320	Pn	Pn	17 50 07.0	+0.5
HERN	Volcan Telica	5.67	319	Pn	Pn	17 50 17.0	+0.5
BILN	Bilwi Airport	5.67	356	Pn	Pn	17 50 16.1	-0.3
CRIN	San Cristobal	5.88	318	Pn	Pn	17 50 19.2	-0.2
TGUH	Tegucigalpa,Un	7.05	324	Pn	Pn	17 50 36.4	+0.8
MTO3	Montecristo	8.66	314	Pn	Pn	17 50 58.4	+0.6
APG	El Apazote	9.86	313	Pn	Pn	17 51 17.1	+2.9
	3.1nm,0.9s,baz=93,slow=15,SNR=2.7						
SLOR	San Lorenzo -	10.07	153	Pn	Pn	17 51 18.3	+0.9
RTAL	Retalhuleu	10.51	306	Pn	Pn	17 51 20.4	-2.4
TEIG	Tepich	12.86	337	Pn	Pn	17 51 53.2	-1.9
CHIV	Chivirico	13.19	28	Pn	Pn	17 51 58.1	-1.4
SOR	Soroa	14.36	360		Pn	17 52 16.5	+1.0
CAIB	Caibarien	14.46	13	Pn	Pn	17 52 17.1	+0.2
CMIG	Matias Romero	14.48	308	Pn	Pn	17 52 20.2	+3.0
	1.2nm,0.3s,baz=140,slow=11,SNR=2.3						
	12nm,0.8s						
CMIG				AML	AML		
CAMR	Camarioca	14.71	6		Pn	17 52 21.1	+0.9
SDDR	Presa de Saban	15.51	46	Pn	Pn	17 52 29.3	-1.8
SDDR				IAmb	IAmb	17 52 40.7	
	comp=Z,81nm,1.2s						
BANI	BANI	15.82	50	Pn	Pn	17 52 34.2	-0.9
MLPR	Magueyes Islan	18.22	57		Pn	17 53 03.4	-1.8
AGPR	Aguadilla, PR	18.41	55	P	Pn	17 53 08.9	+1.3
OBIP	Obispado Ponce	18.62	57	P	P	17 53 09.4	-0.4
SJG	San Juan	19.03	58	P	P	17 53 10.3	-4.0
	comp=Z,3.3nm,0.3s,baz=235,slow=7.6,SNR=5.6						
	comp=Z,8.2nm,0.3s						
SJG				AML	AML		
SJG	San Juan	19.03	58	P	Pn	17 53 14.7	-0.3
SJG				IAmb	IAmb	17 53 20.2	
	comp=Z,47nm,0.8s						
PDPR	Patillas Dam,	19.09	58	P	P	17 53 15.1	+0.1
HUMP	Col San Antoni	19.30	58	P	Pn	17 53 17.8	-0.5
HUMP				IAmb	IAmb	17 53 29.4	
	comp=Z,68nm,1.2s						
656A	Willston	20.91	1	P	P	17 53 35.5	+0.7
656A				IAmb	IAmb	17 53 43.7	
	comp=Z,113nm,1.4s						
NNA	Nana	21.11	163	P	P	17 53 37.4	+0.3
	comp=Z,17nm,0.7s,baz=315,slow=14,SNR=2.8						
	comp=Z,17nm,0.7s						
NNA	Nana	21.11	163	P	P	17 53 38.4	+1.3
MAGL	Barre de l’ile	22.51	68	P	P	17 53 51.2	-0.9
152A	Waverly Hall	24.25	356	P	P	17 54 10.1	+0.8
152A				IAmb	IAmb	17 54 12.0	
	comp=Z,14nm,0.6s						
LRAL	Lakeview Retre	24.84	352	P	P	17 54 15.2	+0.6
LRAL				IAmb	IAmb	17 54 21.5	
	comp=Z,20nm,0.9s						
GOGA	Godfrey	24.94	359	P	P	17 54 16.6	+1.1
GOGA				IAmb	IAmb	17 54 19.5	
	comp=Z,16nm,0.7s						
Y52A	Lilburn	25.41	358	P	P	17 54 21.1	+1.4
Y52A				IAmb	IAmb	17 54 25.7	
	comp=Z,23nm,0.7s						
MNHN	Monahans	29.37	324		P	17 54 56.9	+1.5
T42A	Van Buren	29.48	347	P	P	17 54 56.0	-0.2
T42A				IAmb	IAmb	17 55 03.4	
	comp=Z,14nm,0.9s						
R49A	Shelbyville	29.87	357		P	17 55 00.3	+0.6
R49A				IAmb	IAmb	17 55 03.8	
	comp=Z,11nm,0.7s						
KSU1	Kansas State U	32.97	340		P	17 55 27.4	+0.4
N41A	Harden Midland	32.97	349	P	P	17 55 26.6	-0.3
L40A	Anamosa	34.35	349		P	17 55 39.0	+0.1
PIX	Pinacate	36.56	313	P	P	17 55 58.7	+0.5
SPMN	Marine on St.	37.70	349		P	17 56 07.4	-0.2
SPMN				IAmb	IAmb	17 56 11.8	
	comp=Z,16nm,0.8s						
PFO	Pinyon Flats O	39.79	314	P	P	17 56 26.7	+1.2
	comp=Z,7.8nm,1.0s,baz=126,slow=8.9,SNR=3.3						
	comp=Z,7.8nm,1.0s						
PFO	Pinyon Flats O	39.79	314	P	P	17 56 25.7	+0.2
TMUT	Trail Mountain	39.86	325	P	P	17 56 25.9	-0.4
CO03	El Pedregal	40.72	164	P	P	17 56 34.0	+0.9
CO02	Combarbal	40.98	164	P	P	17 56 36.2	+1.0
CO02				IAmb	IAmb	17 56 39.1	
	comp=Z,15nm,1.0s						
LRMC	Laurel Mtn Rad	41.63	316	P	P	17 56 41.6	+0.9
CLC	China Lake	41.75	316	P	P	17 56 42.4	+0.8
ZON	Zonda	41.97	162	P	P	17 56 44.4	+1.0
ULM	Lac du Bonnet	43.12	348	P	P	17 56 52.0	-0.5
	comp=Z,19nm,0.8s,baz=157,slow=7.7,SNR=6.7						
	comp=Z,19nm,0.8s						
ULM	Lac du Bonnet	43.12	348	P	P	17 56 52.4	0.0
ULM				IAmb	IAmb	17 56 55.9	
	comp=Z,21nm,0.8s						
BMN	Battle Mountai	44.13	322	P	P	17 57 00.8	-0.1
ORV	Oroville	46.36	318	P	P	17 57 19.0	+0.6
ORV				IAmb	IAmb	17 57 23.8	
	comp=Z,10nm,1.2s						
PLCA	Paso Flores	50.17	168	P	P	17 57 48.1	+0.2
	comp=Z,2.1nm,0.8s,baz=350,slow=11,SNR=2.0						
	comp=Z,2.1nm,0.8s						
PLCA	Paso Flores	50.17	168	P	P	17 57 47.9	0.0
PLCA				IAmb	IAmb	17 57 58.6	
	comp=Z,12nm,1.4s						
EDM	Edmonton	51.04	337	P	P	17 57 55.0	+0.7
EDM				IAmb	IAmb	17 57 56.9	
	comp=Z,25nm,1.1s						
YKA	Yellowknife Ar	58.73	343	P	P	17 58 49.8	+0.1
	comp=Z,3.2nm,0.8s,baz=140,slow=6.8,SNR=5.7						
	comp=Z,3.2nm,0.8s						
M29M	Somme Creek	67.13	335	IAmb	IAmb	17 59 54.6	
	comp=Z,7.1nm,1.1s						
I30M	Mount Dempster	67.69	339	IAmb	IAmb	17 59 54.7	
	comp=Z,8.1nm,0.9s						
BCAR	Beaver Creek A	68.78	335		P	17 59 55.9	-0.2
L27K	Beaver Creek,	68.80	335		P	17 59 55.7	-0.4
L27K				IAmb	IAmb	18 00 01.4	
	comp=Z,12nm,1.1s						
SUMG	Summit	69.50	13	P	P	18 00 00.1	-0.8
ILAR	Eielson Array	71.52	336	P	P	18 00 13.4	+0.6
	comp=Z,2.5nm,0.8s,baz=112,slow=3.5,SNR=5.7						
	comp=Z,2.5nm,0.8s						
HOPE	Hope Point	73.59	154	P	P	18 00 25.5	+0.3
G21K	Allakaket	74.66	337	P	P	18 00 31.9	+0.5
G21K				IAmb	IAmb	18 00 42.4	
	comp=Z,9.9nm,1.1s						
ORCD	Orcadas	75.16	162	P	P	18 00 35.5	+1.3
ESDC	Sonseca Array	76.28	51	P	P	18 00 40.7	-0.6
	comp=Z,2.3nm,0.9s,baz=269,slow=5.4,SNR=4.8						
	comp=Z,2.3nm,0.9s						
DBIC	Dimbokro	77.36	85	P	P	18 00 48.9	+1.1
DBIC				IAmb	IAmb	18 00 52.4	
	comp=Z,25nm,1.4s						
TORD	Torodi Ar. Bea	83.00	78	P	P	18 01 17.0	-1.2
	comp=Z,2.6nm,1.0s,baz=249,slow=6.9,SNR=3.3						
	comp=Z,2.6nm,1.0s						
CLL	Collm	87.28	39	*e*P	P	18 01 40.0	+1.1
ARCES	ARCESS Array B	88.58	19	P	P	18 01 44.3	-0.5
	comp=Z,1.4nm,0.6s,baz=284,slow=3.6,SNR=5.5						
	comp=Z,1.4nm,0.6s						
ARCES	ARCESS Array B	88.58	19	IAmb	IAmb	18 01 49.6	
	comp=Z,7.8nm,1.1s						
WMQ	Urumqi	127.39	8	*e*PKP	PKiKP	18 07 58.4	+0.4
WMQ				LR	LR		
	comp=N,510nm,21.9s						
WMQ				LR	LR		
	comp=E,540nm,16.1s						
WMQ				LR	LR		
	comp=Z,550nm,22.5s						
HHC	Hu-ho-hao-te	129.24	346	*e*P	PKPdf	18 07 57.0	-4.1
NJ2	Nanjing	134.73	334	*e*P	PKPdf	18 08 11.5	-0.1
NJ2				pmax	pmax		
	comp=Z,19nm,0.5s						
LYN	LuoYang	134.89	342	P	Pdif	18 05 05.1	-7.9
LYN				pmax	pmax		
	comp=Z,20nm,0.6s						
ASAR	Alice Springs	141.56	242	PKP	PKPdf	18 08 23.8	-0.6
	comp=Z,0.6nm,0.7s,baz=118,slow=3.4,SNR=4.4						
ASAR	Alice Springs	141.56	242	PKPdf	PKPdf	18 08 22.4	-2.0
WRA	Warramunga Arr	142.11	248	PKhKP	PKPpre	18 08 21.2	
	comp=Z,1.4nm,1.0s,baz=96,slow=3.2,SNR=2.5						
PZH	PanZhiHua	145.05	353	PKPbc	PKPdf	18 08 30.5	-0.1
MTN	Manton Dam	146.18	259	PKPdf	PKPdf	18 08 31.2	-1.4
FITZ	Fitzroy Crossi	150.54	248	PKPdf	PKPdf	18 08 38.3	-1.3
CMAR	Chiang Mai Arr	153.29	356	PKPbc	PKiKP	18 08 51.6	+0.2
	comp=Z,0.6nm,0.8s,baz=27,slow=1.8,SNR=1.8						

IDC ***04*** *17:54:58.9±1.1, 8°.37N×82°.96W, h0^{km}, mb4.1/10, mbtmp4.1/13, ML3.8/3, Error ellipse: s-maj=34.3km s-min=16.9km az=39.0*

UCR ***04*** *17:54:58.1±0.5, 8°.29N×83°.00W, h5^{km}±2^{km}, MW4.9, Presumed earthquake*

UPA ***04*** *17:54:58.2±1.4, 8°.36N×83°.06W, h0^{km}±3^{km}, MW4.8, Presumed earthquake*

*NEIC **04** 17:55:00.4±2.3, 8°.37N±0°.05×83°.01W±0°.04, h10^{km}±1^{km}, mb4.5/40, Error ellipse: s-maj=7.9km s-min=6.1km az=179.0*

*CATAC **04** 17:55:01.4, 8°N±3°×8°3W±°, h4^{km}±4^{km}, M4.6/19, MLv4.6/19, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}7.39; $M_{\theta\theta}$-2.81; $M_{\phi\phi}$-4.58; $M_{r\theta}$3.57; $M_{\theta\phi}$1.93; $M_{\phi r}$1.13; Fault plane solution: $M_0$7.71104×10^{15} NP1:ϕ_s126.13130°, δ53.19922°, λ66.17696°. NP2: ϕ_s342.52427°, δ42.90366°, λ118.36490°. Principal axes: T 8.7214, Plg70.3112°, Azm338.1655°; N -2.8071, Plg18.8700°, Azm140.9464°; P -5.9143, Plg5.4153°, Azm232.8032°; confirmed*

ISC 04 17:54:59.5±0.9, 8°.33N±0°.02×83°.01W±0°.02, h9^{km}±5^{km}, n193, σ1^{s}07/240, mb4.4/24, 2C-1D, Costa Rica

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTPM	Petroterminale	0.18	135	⇑iP	Pg	17 55 02.7	-0.6
PTPM				eS	Sg	17 55 07.6	+1.7
PTPM	Petroterminale	0.18	135	⇑iP	Pg	17 55 02.7	-0.6
PTPM				eS	Sg	17 55 07.6	+1.7
PTPA	Petro Terminal	0.19	134	eP	Pg	17 55 02.2	-1.2
PTPA				eS	Sg	17 55 05.6	-0.6
CDITO	Canoas	0.27	29	P	Pg	17 55 05.4	+0.4
CDITO				S	Sb	17 55 10.4	-1.0
LMNES	Limones	0.28	148	eP	Pg	17 55 03.8	-1.1
NELY	Ciudad Neily	0.32	11	eP	Pg	17 55 05.6	-0.3
FITO	Golfito	0.32	334	eP	Pg	17 55 05.3	-0.6
FITO				eS	Sg	17 55 10.8	+0.6
PIRO	Carate, Puerto	0.33	282		Pg	17 55 05.2	-0.9
PIRO				Sg	Sg	17 55 09.2	-1.3
PIRO	Carate, Puerto	0.33	282	eP	Pg	17 55 05.2	-0.9
PIRO	Carate, Puerto	0.33	282	eP	Pg	17 55 04.8	-1.2
EDAD	Golfito	0.35	334	eP	Pg	17 55 05.3	-1.1
JIME	Puerto Jimenez	0.37	303	eP	Pg	17 55 06.6	-0.3
MLIR3	Monte Lirio, C	0.49	22	eP	Pg	17 55 09.2	+0.2
MLIR3				eS	Sb	17 55 18.3	+0.5
MLIR3	Monte Lirio, C	0.49	22	eP	Pg	17 55 09.2	+0.2
MLIR3				eS	Sb	17 55 18.3	+0.5
SCLRA	Santa Clara, W	0.54	24	eP	Pg	17 55 10.1	0.0
SCLRA	Santa Clara, W	0.54	24	i P	Pg	17 55 10.1	0.0
SCLRA	Santa Clara, W	0.54	24	i P	Pg	17 55 10.1	0.0
BRU2	Volcan	0.56	34		Pg	17 55 09.9	-0.4
BRU2				Sg	Sg	17 55 18.2	+0.5
BRU2	Volcan	0.56	34	eP	Pg	17 55 09.9	-0.4
BRU2	Volcan	0.56	34	⇓iP	Pg	17 55 09.5	-0.8
BRU2				eS	Sb	17 55 20.7	+1.0
BRU2	Volcan	0.56	34	eP	Pg	17 55 09.9	-0.4
BRU2				eS	Sb	17 55 20.5	+0.9
DVD	David	0.56	80	eP	Pg	17 55 09.3	-1.1
DVD				eS	Sn	17 55 22.3	-0.9
DVD	David	0.56	80	eP	Pg	17 55 09.3	-1.1
DVD				eS	Sn	17 55 22.3	-0.9
CLLRA	Cordillera,	0.56	44	eP	Pg	17 55 10.1	-0.4
CLLRA	Cordillera,	0.56	44	i P	Pg	17 55 10.2	-0.2
CLLRA				eS	Sn	17 55 22.2	-1.3
CLLRA	Cordillera,	0.56	44	i P	Pg	17 55 10.2	-0.2
CLLRA				eS	Sn	17 55 22.2	-1.3
PTAR3	Potrerillos Ar	0.62	55	eP	Pb	17 55 12.7	+0.1
PTAR3				eS	Sn	17 55 23.8	-1.0
PTAR3	Potrerillos Ar	0.62	55	eP	Pb	17 55 12.7	+0.1
PTAR3				eS	Sn	17 55 23.8	-1.0
BQTLY	Boquete Panama	0.69	52	eP	Pg	17 55 11.7	-1.1
BQTLY	Boquete Panama	0.69	52	i P	Pg	17 55 12.2	-0.6
BQTLY	Boquete Panama	0.69	52	i P	Pg	17 55 12.2	-0.6
BGUAL	Bijagual, Pana	0.69	75	i P	Pg	17 55 11.6	-1.3
BGUAL	Bijagual, Pana	0.69	75	i P	Pg	17 55 11.6	-1.3
EDP2	Potrero Grande	0.70	346	eP	Pg	17 55 12.8	-0.2
BQSF3	Alto Boquete,	0.70	54	eP	Pg	17 55 11.9	-1.1
BQSF3				eS	Sn	17 55 25.9	-0.8
BQSF3	Alto Boquete,	0.70	54	eP	Pg	17 55 11.9	-1.1
BQSF3				eS	Sn	17 55 25.9	-0.8
PANP	Palmar Norte	0.77	324	eP	Pg	17 55 13.1	-1.1
BURE	Buenos Aires	0.90	339	eP	Pg	17 55 15.7	-1.0
DRK0	Durika	0.95	346	eP	Pg	17 55 02.9	-15
OCHAL	Ojochal	0.99	320	P	Pg	17 55 16.5	-1.9
OCHAL				S	Sn	17 55 35.0	+1.3
EDPE	Pejibaye, P	0.99	326	eP	Pg	17 55 16.9	-1.7
RBALA	Bur	1.00	57	eP	Pg	17 55 16.6	-2.2
RBALA	Bur	1.00	57	i P	Pg	17 55 17.0	-1.8
RBALA				eS	Sg	17 55 31.2	-0.7
RBALA	Bur	1.00	57	i P	Pg	17 55 17.0	-1.8
RBALA				eS	Sg	17 55 31.2	-0.7
CHGR2	Aguacate	1.04	55	eP	Pg	17 55 18.0	-1.6
CHGR2				eS	Sn	17 55 34.9	-0.2
CHGR2	Aguacate	1.04	55	eP	Pg	17 55 18.0	-1.6
CHGR2				eS	Sn	17 55 34.9	-0.2
CEUA	Cerro Uatsi, L	1.28	3	eP	Pn	17 55 23.7	0.0
KKNTU	Kakintº	1.29	67	eP	Pn	17 55 21.0	-2.7
RGM0	Gandoca	1.31	18		Pb	17 55 24.3	-0.1
RGM0				Sn	Sg	17 55 42.7	+1.0
RGM0	Gandoca	1.31	18	P	Pb	17 55 24.2	-0.1
RGM0				S	Sg	17 55 41.7	0.0
RGM0	Gandoca	1.31	18	eP	Pn	17 55 24.1	+0.1
RGM0	Gandoca	1.31	18	eP	Pn	17 55 23.2	-0.8
RGM0				eS	Sb	17 55 40.6	-0.6
RGM0	Gandoca	1.31	18	eP	Pn	17 55 23.2	-0.8
RGM0				eS	Sb	17 55 40.6	-0.6
QUEP	Quepos	1.58	314	P	Pn	17 55 27.1	-0.6
PIEC	Cerro El Cedra	1.59	324	eP	Pn	17 55 27.4	-0.7
ABE2	San Pablo	1.71	323	eP	Pn	17 55 29.5	-0.2
LCR2	La Lucha 2	1.71	325		Pn	17 55 29.2	-0.5
LCR2				Sn	Sb	17 55 53.2	+0.2
LCR2	La Lucha 2	1.71	325	P	Pn	17 55 29.1	-0.7
LCR2				S	Sg	17 55 54.1	-0.5
LCR2	La Lucha 2	1.71	325	eP	Pn	17 55 28.9	-0.9
REPA	Paraso	1.71	330	eP	Pn	17 55 29.0	-0.7
VTCV	VTCV, Calle Va	1.79	337	eP	Pn	17 55 30.4	-0.3
RAFA	San Farael, Vo	1.80	334		Pn	17 55 30.8	-0.2
RAFA				Sn	Sb	17 55 56.2	+0.5
RAFA	San Farael, Vo	1.80	334	eP	Pn	17 55 30.8	-0.2
ABRB	Las Abras (San	1.80	337	eP	Pn	17 55 30.9	-0.1
IRES	Siquirres	1.82	344	eP	Pn	17 55 31.4	+0.4
CVTQ	Turrialba Volc	1.82	336	eP	Pn	17 55 31.3	-0.1
LCOCO	El Coco	1.82	343	eP	Pn	17 55 31.2	+0.1
VTR0	Volcan Turrial	1.83	336	eP	Pn	17 55 31.4	-0.2
CVTR	Volcan Turrial	1.83	336	eP	Pn	17 55 31.4	-0.2
VICA	Volcano Irazu	1.84	333	eP	Pn	17 55 31.1	-0.6
GMAL	Guarumal, Vera	1.85	108	eP	Pn	17 55 31.7	+0.3
GMAL				eS	Sb	17 55 56.9	+0.2
GMAL	Guarumal, Vera	1.85	108	eP	Pn	17 55 31.7	+0.3
GMAL				eS	Sb	17 55 56.9	+0.2
CVIMO	Finca Echandi	1.92	331	eP	Pg	17 55 37.0	+0.7
HDC	Heredia	1.98	327		Pn	17 55 33.9	+0.5
HDC				Sn	Sb	17 55 59.8	-1.0
HDC	Heredia	1.98	327	eP	Pn	17 55 34.0	+0.5
VBV1	V. Barva	2.07	329	eP	Pn	17 55 34.6	-0.2
TCS1	Tacares	2.12	323	P	Pn	17 55 36.2	+0.8
CALO3	Calobre, Verag	2.15	90	eP	Pn	17 55 35.7	+0.1
CALO3				eS	Sb	17 56 05.0	-0.3
CALO3	Calobre, Verag	2.15	90	eP	Pn	17 55 35.7	+0.1
CALO3				eS	Sb	17 56 05.0	-0.3
CACAO	El Cacao, Vera	2.34	115	eP	Pn	17 55 39.0	+0.7
CACAO				eS	Sb	17 56 09.7	-1.3
CACAO	El Cacao, Vera	2.34	115	eP	Pn	17 55 39.0	+0.7
CACAO				eS	Sb	17 56 09.7	-1.3
LAFE	Finca La Fe, P	2.38	308	eP	Pn	17 55 38.0	-0.8
ARE1	Arenal 1	2.71	322	eP	Pn	17 55 44.3	+1.1
JTS	Las Juntas de	2.73	316	Pn	Pn	17 55 44.9	+1.3
	61nm,0.3s,baz=197,slow=3.6,SNR=18						
JTS				Sn	Sn	17 56 16.9	+0.1
	47nm,0.3s,baz=153,slow=16,SNR=3.8						
	322nm,0.5s						
JTS				AML	AML		
JTS	Las Juntas de	2.73	316		Pn	17 55 44.7	+1.1
JTS				Sn	Sn	17 56 15.5	-1.3
JTS	Las Juntas de	2.73	316	P	Pn	17 55 45.0	+1.4
JTS	Las Juntas de	2.73	316	eP	Pn	17 55 44.6	+0.9
JTS	Las Juntas de	2.73	316	eP	Pn	17 55 44.8	+1.1
JTS				eS	Sn	17 56 15.2	-1.7
JTS	Las Juntas de	2.73	316	eP	Pn	17 55 44.8	+1.1
JTS				eS	Sn	17 56 15.2	-1.7
AZU	Azuero	2.76	101	eP	Pn	17 55 44.2	+0.2
AZU				eS	Sn	17 56 19.2	+1.7
AZU	Azuero	2.76	101	eP	Pn	17 55 44.2	+0.2
AZU				eS	Sn	17 56 19.2	+1.7
QUEB	Quebradon, Cot	2.94	321	eP	Pn	17 55 49.0	+2.5
ACHO3	Achotines, Los	2.95	108	eP	Pn	17 55 47.7	+1.1
ACHO3				eS	Sn	17 56 23.9	+1.6
ACHO3	Achotines, Los	2.95	108	eP	Pn	17 55 47.7	+1.1
ACHO3				eS	Sn	17 56 23.9	+1.6
ZANG	Zanguenga, Cho	3.17	79	eP	Pn	17 55 49.4	-0.2
ZANG				eS	Sn	17 56 27.3	-0.2
ZANG	Zanguenga, Cho	3.17	79	eP	Pn	17 55 49.4	-0.2
ZANG				eS	Sn	17 56 27.3	-0.2
BCIP	Isla Barro Col	3.24	75	Pn	Pn	17 55 51.1	+0.5
BCIP					Pb	17 55 53.5	-3.8
BCIP	Isla Barro Col	3.24	75	P	Pn	17 55 52.9	+2.3
BCIP	Isla Barro Col	3.24	75	eP	Pn	17 55 50.1	-0.5
BCIP				eS	Sn	17 56 30.1	+0.7
BCIP	Isla Barro Col	3.24	75	eP	Pn	17 55 50.1	-0.5
BCIP				eS	Sn	17 56 30.1	+0.7
MLIR	Monte Lirio	3.25	74	eP	Pn	17 55 52.0	+1.3
MLIR				eS	Sn	17 56 30.6	+1.1
MLIR	Monte Lirio	3.25	74	eP	Pn	17 55 52.0	+1.3
MLIR				eS	Sn	17 56 30.6	+1.1
ALIBA	Liberia Airpor	3.36	312	eP	Pn	17 55 53.5	+1.3
FRIJ	El Hiral	3.36	75	eP	Pn	17 55 52.3	0.0
FRIJ	El Hiral	3.36	75	eP	Pn	17 55 52.3	0.0
ARRA3	Arraijan, Pana	3.37	79	eP	Pn	17 55 53.3	+0.9
ARRA3				eS	Sn	17 56 34.4	+1.8
ARRA3	Arraijan, Pana	3.37	79	eP	Pn	17 55 53.3	+0.9
ARRA3				eS	Sn	17 56 34.4	+1.8
LAPC	Finca la Perla	3.40	316	eP	Pn	17 55 53.0	+0.2
FLAM	Flamenco Islan	3.48	80	eP	Pn	17 55 53.6	-0.3
FLAM	Flamenco Islan	3.48	80	eP	Pn	17 55 53.6	-0.3
BLUN	Bluefields	3.73	348	P	Pn	17 55 58.6	+1.4
CARN	Rivas	3.77	319		Pn	17 55 59.1	+1.2
CARN	Rivas	3.77	319	P	Pn	17 55 58.6	+0.8
OMEN	Al SSO del Vol	4.08	321	P	Pn	17 56 02.0	-0.1
JAPN	Al SSO del Vol	4.12	321	P	Pn	17 56 02.8	+0.1
ACON	Acoyapa	4.19	330	P	Pn	17 56 05.8	+2.1
BOAB	BOACO BROADBAN	4.85	328		Pn	17 56 13.5	+0.7
BOAB	BOACO BROADBAN	4.85	328	P	Pn	17 56 14.6	+1.8
AERN	Aeropuerto Man	4.90	321	P	Pn	17 56 15.0	+1.6
WILN	Americas 2	4.92	321	P	Pn	17 56 16.0	+2.2
MGAN	Managua	4.95	320	Pn	Pn	17 56 15.1	+0.9
MGAN	Managua	4.95	320	P	Pn	17 56 16.2	+2.1
TISN	Laguna Tiscapa	4.96	320	P	Pn	17 56 16.3	+2.0
SIUN	Universidad Ur	5.62	342		Pn	17 56 23.4	0.0
HERN	Volcan Telica	5.67	319	Pn	Pn	17 56 24.2	+0.1
BILN	Bilwi Airport	5.69	356	Pn	Pn	17 56 25.0	+0.7
CRIN	San Cristobal	5.88	318		Pn	17 56 26.9	-0.1
TGUH	Tegucigalpa,Un	7.06	324	Pn	Pn	17 56 44.1	+0.8
MTO3	Montecristo	8.67	315		Pn	17 57 06.0	+0.6
ESQI	Esquipulas	8.76	315	Pn	Pn	17 57 07.5	+0.8
OTAV	Otavalo	9.24	150	Pn	Pn	17 57 13.8	+0.4
APG	El Apazote	9.86	313	Pn	Pn	17 57 24.4	+2.6
	0.1nm,0.3s,baz=167,slow=12,SNR=13						
	1.9nm,0.7s						
APG				AML	AML		
SLOR	San Lorenzo -	10.06	153	Pn	Pn	17 57 24.9	+0.1
MTDJ	Mount Denham	11.18	28	Pn	Pn	17 57 38.3	-1.4
SOR	Soroa	14.38	0	Pn	Pn	17 58 26.7	+3.3
CMIG	Matias Romero	14.48	308	Pn	Pn	17 58 26.2	+1.4
	0.8nm,0.3s,baz=151,slow=9.5,SNR=4.6						
	2.6nm,0.5s						
CMIG				AML	AML		
CELP	Cerrillos	18.68	57	P	P	17 59 18.3	+0.1
BOAV	Boa Vista	23.14	104	P	P	18 00 07.0	+0.6
154A	Montrose	24.16	360	P	P	18 00 16.6	+0.5
152A	Waverly Hall	24.27	356	P	P	18 00 17.3	+0.2
152A				IAmb	IAmb	18 00 22.1	
	comp=Z,11nm,0.8s						
735A	Kenedy	24.71	328	P	P	18 00 19.9	-1.3
LRAL	Lakeview Retre	24.86	352		P	18 00 22.3	-0.2
LRAL				IAmb	IAmb	18 00 26.6	
	comp=Z,12nm,1.1s						
GOGA	Godfrey	24.96	359	P	P	18 00 23.3	-0.1
MLDN	Muldoon	25.09	330	P	P	18 00 22.9	-1.6
HNVL	Huntsville, TX	25.16	334	P	P	18 00 24.9	-0.3
Y52A	Lilburn	25.43	358		P	18 00 28.7	+1.0
HODGE	Hodges	25.78	1	P	P	18 00 30.6	-0.3
HODGE				IAmb	IAmb	18 00 36.0	
	comp=Z,7.7nm,0.9s						
X48A	Hartselle	26.26	352	P	P	18 00 33.1	-2.1
BG3	Lake Jocassee	26.53	0	P	P	18 00 38.4	+0.7
TKL	Tuckaleechee C	27.21	359	P	P	18 00 45.4	+1.7
	comp=Z,3.5nm,0.8s,baz=198,slow=9.6,SNR=3.6						
	comp=Z,3.5nm,0.8s						
TKL	Tuckaleechee C	27.21	359	P	P	18 00 43.2	-0.5
V48A	Smith Brothers	27.50	353	P	P	18 00 45.7	-0.6
V48A				IAmb	IAmb	18 00 51.0	
	comp=Z,19nm,1.4s						
MIAR	Mount Ida	27.84	341	P	P	18 00 49.5	+0.1
WVT	Waverly	28.02	352	P	P	18 00 50.3	-0.6
WHAR	Wooly Hollow	28.15	344	P	P	18 00 52.1	0.0
WHAR				IAmb	IAmb	18 00 59.4	
	comp=Z,7.6nm,0.9s						
LCAR	Lake Charles	28.59	346	P	P	18 00 54.9	-1.2
S51A	Beattyville	29.18	359	P	P	18 00 59.3	-2.0
T42A	Van Buren	29.50	347	P	P	18 01 02.5	-1.6
T42A				IAmb	IAmb	18 01 11.8	
	comp=Z,5.1nm,0.9s						
CCM	Cathedral Cave	30.51	347	P	P	18 01 11.8	-1.3
CCM				IAmb	IAmb	18 01 20.6	
	comp=Z,4.6nm,0.7s						
PV18	Skein Mesa, Pa	37.84	326	P	P	18 02 15.5	-1.5
PV18				IAmb	IAmb	18 02 25.6	
	comp=Z,11nm,1.4s						
PFO	Pinyon Flats O	39.79	314	P	P	18 02 35.4	+2.1
	comp=Z,2.0nm,0.8s,baz=142,slow=17,SNR=1.9						
	comp=Z,2.0nm,0.8s						
PFO	Pinyon Flats O	39.79	314	P	P	18 02 34.5	+1.2
H03N2	Juan Fernandez	41.72	175	T	T	18 47 07.6	
	baz=353,slow=74,SNR=5.5						
H03N1	Juan Fernandez	41.73	175	T	T	18 47 08.0	
	baz=269,slow=74,SNR=6.8						
EPLO	Experimental L	42.17	350	P	P	18 02 51.0	-1.4
EPLO				IAmb	IAmb	18 02 58.1	
	comp=Z,7.6nm,0.8s						
ULM	Lac du Bonnet	43.14	348	P	P	18 02 59.8	-0.5
	comp=Z,5.5nm,0.6s,baz=149,slow=7.9,SNR=9.6						
	comp=Z,5.5nm,0.6s						
ULM	Lac du Bonnet	43.14	348	P	P	18 02 59.0	-1.3
ULM				IAmb	IAmb	18 03 05.1	
	comp=Z,7.2nm,0.7s						
NVAR	Mina Array Bea	43.66	319	P	P	18 03 05.8	+0.8
	comp=Z,0.8nm,0.6s,baz=125,slow=6.8,SNR=5.1						
	comp=Z,0.8nm,0.6s						
K05A	Summer Lake	47.71	322	P	P	18 03 34.8	-2.2
K05A				IAmb	IAmb	18 04 13.6	
	comp=Z,6.8nm,1.4s						
PLCA	Paso Flores	50.16	168	P	P	18 03 56.8	+1.3
	comp=Z,1.9nm,1.0s,baz=313,slow=9.0,SNR=4.0						
	comp=Z,1.9nm,1.0s						
PLCA	Paso Flores	50.16	168	P	P	18 03 55.5	0.0
PLCA				IAmb	IAmb	18 04 09.6	
	comp=Z,8.8nm,1.5s						
YKA	Yellowknife Ar	58.74	343	P	P	18 04 57.2	-0.4
	comp=Z,1.1nm,0.6s,baz=143,slow=6.9,SNR=11						
	comp=Z,1.1nm,0.6s						
HG4B	Hotspring	58.75	328	P	P	18 04 58.9	+1.0
YKAW3	Yellowknife Wh	58.80	344	P	P	18 04 58.1	+0.1
YKAW3				IAmb	IAmb	18 05 13.5	
	comp=Z,7.4nm,1.2s						
G31M	Satah River	67.89	341	P	P	18 05 57.8	-0.3
G31M				IAmb	IAmb	18 06 02.0	
	comp=Z,3.2nm,0.8s						
F30M	Barrier River	68.76	341	P	P	18 06 04.0	+0.4
I27K	Kandik River	69.81	338	P	P	18 06 10.2	0.0
J25K	Salcha River,	70.86	336	P	P	18 06 16.9	+0.2
J25K				IAmb	IAmb	18 06 20.4	
	comp=Z,4.7nm,1.2s						
IL31		71.53	336	IAmb	IAmb	18 06 24.5	
	comp=Z,2.0nm,0.7s						
ILAR	Eielson Array	71.53	336	P	P	18 06 20.8	+0.1
	comp=Z,1.0nm,0.6s,baz=111,slow=3.8,SNR=13						
	comp=Z,1.0nm,0.6s						
MLY	Manley	73.17	336	P	P	18 06 31.1	+0.6
MLY				IAmb	IAmb	18 06 38.1	
	comp=Z,3.8nm,1.1s						
ESDC	Sonseca Array	76.31	51	P	P	18 06 51.1	+1.9
	comp=Z,0.5nm,0.6s,baz=272,slow=5.2,SNR=5.5						
	comp=Z,0.5nm,0.6s						
ESDC	Sonseca Array	76.31	51	P	P	18 06 48.0	-1.2
D20K	Etivluk River	76.35	339		P	18 06 48.4	-0.5
TORD	Torodi Ar. Bea	83.02	78	P	P	18 07 25.9	-0.1
	comp=Z,0.9nm,0.8s,baz=265,slow=2.8,SNR=4.2						
	comp=Z,0.9nm,0.8s						
ARCES	ARCESS Array B	88.61	19	P	P	18 07 53.1	+0.4
	comp=Z,1.2nm,0.6s,baz=316,slow=3.3,SNR=5.8						
	comp=Z,1.2nm,0.6s						
ARCES	ARCESS Array B	88.61	19	IAmb	IAmb	18 07 56.3	
	comp=Z,14nm,1.4s						
ASAR	Alice Springs	141.53	242	PKP	PKPdf	18 14 31.5	-0.6
	comp=Z,0.6nm,0.9s,baz=122,slow=3.5,SNR=5.4						
WRA	Warramunga Arr	142.08	248	PKP	PKPdf	18 14 33.2	0.0
	comp=Z,0.7nm,0.9s,baz=102,slow=3.2,SNR=2.9						
H01W1	Cape Leeuwin H	149.23	208	T	T	21 02 13.2	
	baz=146						
H01W2	Cape Leeuwin H	149.24	208	T	T	21 02 14.0	
	baz=146						
H01W3	Cape Leeuwin H	149.25	208	T	T	21 02 14.5	
	baz=146						
CMAR	Chiang Mai Arr	153.31	356	PKPbc	PKiKP	18 14 59.5	+0.2
	comp=Z,0.5nm,0.7s,baz=352,slow=0.7,SNR=2.9						

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*NNC **04** 17:55:09.2±7.3, 42°.00N×80°.61E, h0^{km}, mb3.0, mpv2.8, Error ellipse: s-maj=58.2km s-min=37.9km az=8.0*

*SOME **04** 17:55:11.6, 42°.47N×81°.02E, h5^{km}*

ISC 04 17:55:08.8±3.0, 42°.6N±0°.1×81°.30E±0°.10, h10^{km}, n7, σ2^{s}07/14, 3C-2D, Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHLS	Shalkode	1.45	293	eP	Pn	17 55 33.6	-1.6
	2.0nm,0.2s						
SHLS				eS	Sn	17 55 49.6	-4.8
	3.7nm,0.1s						
PDGK	Podgornoye	1.51	299	⇑Pn	Pg	17 55 38.6	+0.9
	1.7nm,1.1s						
PDGK				⇑Sn	Sg	17 55 59.9	+2.6
	3.7nm,0.7s						
UZB	Uzynbulak	1.75	288	eP	Pg	17 55 43.3	+0.9
UZB				eS	Sg	17 56 06.0	+0.9
KPKS	Kokpek	2.10	295	eP	Pg	17 55 49.5	+0.6
	0.2nm,0.1s						
KPKS				eS	Sg	17 56 16.8	+0.7
	7.3nm,0.3s						
SATY	Saty	2.17	283	eP	Pb	17 55 50.1	+1.8
	1.3nm,0.1s						
SATY				eS	Sg	17 56 17.7	-0.8
	4.2nm,0.1s						
MAKZ	Makanchi	4.22	6	⇓Pn	Pb	17 56 24.5	+1.4
	11nm,2.4s						
MAKZ				⇑Sn	Sg	17 57 23.6	-0.7
	3.9nm,1.6s						
MK31	Makanchi Array	4.24	9	Pn	Pb	17 56 25.5	+2.1
	2.1nm,1.0s,baz=190,slow=15,SNR=6.2						
MK31				⇓Sn	Sg	17 57 24.3	-0.5
	0.7nm,0.7s,baz=186,slow=25						

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*UCR **04** 17:58:59.0±0.6, 8°.30N×83°.00W, h13^{km}±15^{km}, MW4.1, Presumed earthquake*

*UPA **04** 17:58:59.7±1.1, 8°.35N×82°.92W, h4^{km}±3^{km}, MW4.0, Presumed earthquake*

ISC 04 17:58:59.5±0.9, 8°.33N±0°.03×82°.96W±0°.02, h14^{km}±7^{km}, n39, σ0^{s}77/61, 2C-4D, Panama-Costa Rica border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTPM	Petroterminale	0.15	147	⇑iP	Pg	17 59 03.5	+0.3
PTPM				eS	Sg	17 59 06.1	+0.3
PTPA	Petro Terminal	0.16	145	eP	Pg	17 59 03.3	0.0
PTPA				eS	Sb	17 59 07.1	-0.3
LMNES	Limones	0.25	156	eP	Pg	17 59 05.0	+0.2
LMNES	Limones	0.25	156	⇑iP	Pg	17 59 05.1	+0.2
LMNES				eS	Sg	17 59 08.4	0.0
NELY	Ciudad Neily	0.32	3	eP	Pg	17 59 06.1	0.0
NELY				eS	Sb	17 59 12.0	0.0
NELY	Ciudad Neily	0.32	3	⇓iP	Pg	17 59 06.2	+0.1
NELY				eS	Sb	17 59 13.2	+1.1
FITO	Golfito	0.35	327	eP	Pg	17 59 05.5	-1.1
EDAD	Golfito	0.38	328	eP	Pg	17 59 06.1	-1.1
PIRO	Carate, Puerto	0.38	281	eP	Pg	17 59 06.1	-1.0
PIRO	Carate, Puerto	0.38	281	eP	Pg	17 59 06.3	-0.8
PIRO				eS	Sb	17 59 14.2	+0.4
JIME	Puerto Jimenez	0.41	300	eP	Pg	17 59 07.3	-0.5
MLIR3	Monte Lirio, C	0.48	16	eP	Pb	17 59 09.7	-0.1
MLIR3				eS	Sb	17 59 17.2	+0.4
DVD	David	0.52	78	⇓iP	Pg	17 59 09.8	+0.1
DVD				eS	Sb	17 59 17.7	0.0
BRU2	Volcan	0.53	30	eP	Pg	17 59 10.3	+0.4
BRU2	Volcan	0.53	30	⇓iP	Pg	17 59 10.4	+0.4
BRU2				eS	Sb	17 59 19.6	+1.3
BRU2	Volcan	0.53	30	eP	Pg	17 59 10.4	+0.4
BRU2				eS	Sb	17 59 19.7	+1.3
CLLRA	Cordillera,	0.54	40	eP	Pg	17 59 10.5	+0.4
CLLRA	Cordillera,	0.54	40	⇓iP	Pg	17 59 10.6	+0.4
CLLRA				eS	Sn	17 59 20.3	-1.6
LOMA3	Las Lomas, Chi	0.57	80	eP	Pg	17 59 10.6	-0.2
PTAR3	Potrerillos Ar	0.58	52	eP	Pg	17 59 11.3	+0.3
PTAR3				eS	Sb	17 59 20.8	+0.9
BQTLY	Boquete Panama	0.65	49	eP	Pg	17 59 11.9	-0.4
BQTLY	Boquete Panama	0.65	49	eP	Pg	17 59 12.2	-0.1
BQTLY				eS	Sn	17 59 24.5	-0.2
BQSF3	Alto Boquete,	0.66	52	eP	Pg	17 59 12.3	-0.2
BQSF3				eS	Sb	17 59 22.5	+0.4
LNBQ3	Los Naranjos,	0.69	48	eP	Pg	17 59 12.7	-0.3
LNBQ3				eS	Sg	17 59 22.5	+0.4
EDP2	Potrero Grande	0.71	343	eP	Pg	17 59 12.8	-0.6
RBALA	Bur	0.97	56	eP	Pb	17 59 17.0	-1.1
RBALA	Bur	0.97	56	eP	Pb	17 59 17.2	-0.9
RBALA				eS	Sb	17 59 30.8	0.0
CHGR2	Aguacate	1.01	53	i P	Pb	17 59 17.7	-1.1
CHGR2				eS	Sg	17 59 32.3	+0.1
CNI2	El Empalme, Bo	1.19	24	eP	Pn	17 59 21.0	-0.7
KKNTU	Kakintº	1.25	66	eP	Pn	17 59 21.0	-1.6
KKNTU	Kakintº	1.25	66	eP	Pn	17 59 21.3	-1.3
KKNTU				eS	Sb	17 59 37.9	-1.0
CEUA	Cerro Uatsi, L	1.28	1	eP	Pg	17 59 24.0	-0.2
RGM0	Gandoca	1.30	16	eP	Pb	17 59 23.8	0.0
LCR2	La Lucha 2	1.74	324	eP	Pn	17 59 29.3	-0.3
LCR2				eS	Sg	17 59 55.3	-0.3
ABRB	Las Abras (San	1.82	336	eP	Pn	17 59 31.3	+0.6
CALO3	Calobre, Verag	2.10	90	eP	Pn	17 59 34.7	+0.4
CACAO	El Cacao, Vera	2.30	115	eP	Pn	17 59 36.7	-0.3
CACAO				eS	Sn	18 00 06.0	+0.8
AZU	Azuero	2.71	101	eP	Pn	17 59 43.3	+0.5
AZU				eS	Sn	18 00 16.0	+0.6
JTS	Las Juntas de	2.77	315	eP	Pn	17 59 45.2	+1.7
JTS				eS	Sn	18 00 19.1	+2.3

IDC 04 18:00:59.8±63.0, 16°.98S×177°.93W, h0^{km}, mb4.1/3, mbtmp4.1/3, Error ellipse: s-maj=1158.0km s-min=173.6km az=78.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	39.48	240	P	P	18 08 33.1	+0.9
	3.9nm,1.1s,baz=95,slow=8.7,SNR=4.4						
	3.9nm,1.1s						
WRA	Warramunga Arr	45.26	259	P	P	18 09 19.0	-0.5
	0.5nm,0.6s,baz=97,slow=7.6,SNR=6.7						
	0.5nm,0.6s						
ASAR	Alice Springs	45.49	253	P	P	18 09 20.7	-0.6
	4.0nm,0.6s,baz=94,slow=7.6,SNR=94						
	4.0nm,0.6s						

NDI 04 18:11:55.7±1.1, 19°.96N×72°.83E, h5^{km}, ML4.1, MW3.9, Presumed earthquake, Southern India

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOM	Bombay	1.05	181	eP	Pg	18 12 15.8	-0.2
BOM				eS	Sb	18 12 30.4	-0.1
BOM				IAML		18 12 31.3	
	comp=E,10µm,0.1s						
BOM				IAML		18 12 32.1	
	comp=N,12µm,0.1s						
POO	Poona	1.71	146	eP	Pb	18 12 27.6	-0.1
POO				IAML		18 12 49.6	
	comp=E,516nm,0.4s						
POO				IAML		18 12 50.0	
	comp=N,406nm,0.2s						
BHUJ	Bhuj	4.42	319	eP	Pn	18 13 03.7	+0.3
BHUJ				eS	Sn	18 13 52.9	-2.4
BHPL	Bhopal	5.38	52	eP	Pn	18 13 16.0	-0.7
BHPL				eS	Sn	18 14 14.6	-4.4
HYB	Hyderabad	5.98	114	eP	Pn	18 13 24.9	-0.1
HYB				eS	Sn	18 14 30.1	-3.8
HYB				IAML		18 15 02.3	

	comp=N,357nm,0.8s						
HYB				IAML		18 15 02.3	
	comp=E,155nm,1.2s						
AJM	Ajmer	6.65	14	eP	Pn	18 13 33.7	-0.4
AJM				eS	Sn	18 14 45.5	-4.7
AJM				IAML		18 15 23.9	
	comp=E,906nm,0.5s						
AJM				IAML		18 15 28.3	
	comp=N,318nm,0.1s						

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*CATAC **04** 18:19:39.1, 8°N±3°×8°3W±°, h7km±2km, M3.5/6, MLv3.5/6, confirmed*
*UCR **04** 18:19:41.3±0.4, 8°.28N×82°.98W, h5km±2km, MW3.7, Presumed earthquake*
*UPA **04** 18:19:42.2±1.3, 8°.33N×82°.91W, h0km±3km, MW3.3, Presumed earthquake*
ISC 04 18:19:42.1±0.9, **8°.32N**±0°.03×**82°.97W**±0°.02, **h10**km±7km, **n46**, σ**0^{s}83**/63, **4C-1D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTPM	Petroterminale	0.14	140	⇑iP	Pg	18 19 45.4	-0.1
PTPM				eS	Sg	18 19 47.8	0.0
PTPA	Petro Terminal	0.15	138	⇑eP	Pg	18 19 45.3	-0.3
PTPA				eS	Sg	18 19 47.7	-0.3
LIMO3	Limones	0.24	153	⇑iP	Pg	18 19 46.8	-0.2
LIMO3				eS	Sg	18 19 51.4	+1.1
LMNES	Limones	0.24	152	eP	Pg	18 19 46.7	-0.4
CDITO	Canoas	0.28	21	P	Pg	18 19 47.9	+0.2
CDITO				S	Sb	18 19 54.6	+0.7
NELY	Ciudad Neily	0.33	5	eP	Pg	18 19 49.1	+0.3
FITO	Golfito	0.36	330	eP	Pg	18 19 48.6	-0.7
FITO				eS	Sg	18 19 54.5	+0.5
PIRO	Carate, Puerto	0.37	284	P	Pg	18 19 49.0	-0.5
PIRO	Carate, Puerto	0.37	284	eP	Pg	18 19 48.8	-0.7
PIRO	Carate, Puerto	0.37	284	eP	Pg	18 19 49.6	+0.1
PIRO				eS	Sb	18 19 58.7	+2.0
EDAD	Golfito	0.39	330	eP	Pg	18 19 49.1	-0.7
JIME	Puerto Jimenez	0.41	302	eP	Pg	18 19 50.2	-0.1
MLIR3	Monte Lirio, C	0.50	17	eP	Pb	18 19 53.0	0.0
MLIR3				eS	Sb	18 20 01.6	+1.2
DVD	David	0.53	77	eP	Pg	18 19 52.3	-0.2
DVD				eS	Sb	18 20 00.6	-0.6
BRU2	Volcan	0.55	30	P	Pg	18 19 53.1	+0.2
BRU2				S	Sb	18 20 02.9	+0.9
BRU2	Volcan	0.55	30	eP	Pg	18 19 53.1	+0.2
BRU2	Volcan	0.55	30	⇓iP	Pg	18 19 53.2	+0.3
BRU2				eS	Sb	18 20 02.3	+0.3
CLLRA	Cordillera,	0.56	40	eP	Pg	18 19 53.2	+0.2
CLLRA	Cordillera,	0.56	40	i P	Pg	18 19 52.8	-0.2
LOMA3	Las Lomas, Chi	0.59	79	eP	Pg	18 19 53.2	-0.4
LOMA3				eS	Sb	18 20 02.5	-0.3
PTAR3	Potrerillos Ar	0.60	51	eP	Pg	18 19 53.9	0.0
PTAR3				eS	Sb	18 20 03.8	+0.3
CHIR3	Chiriqui UPA,	0.64	83	eP	Pg	18 19 54.2	-0.4
CHIR3				eS	Sb	18 20 04.5	+0.1
BQTLY	Boquete Panama	0.67	49	eP	Pg	18 19 54.8	-0.4
BQTLY	Boquete Panama	0.67	49	i P	Pg	18 19 54.7	-0.5
BQSF3	Alto Boquete,	0.68	51	eP	Pg	18 19 54.8	-0.6
BQSF3				eS	Sb	18 20 06.8	+1.1
DRK0	Durika	0.98	344	⇑eP	Pg	18 19 46.4	-15
DRK0	Durika	0.98	344	eP	Pg	18 19 46.5	-15
DRK0				eS	Sg	18 20 03.2	-11
RBALA	Bur	0.98	55	eP	Pg	18 19 59.8	-1.3
RBALA	Bur	0.98	55	i P	Pg	18 19 59.8	-1.4
RBALA				eS	Sg	18 20 13.6	-0.4
OCHAL	Ojochal	1.02	320	P	Pg	18 20 00.4	-1.4
OCHAL				S	Sn	18 20 18.2	+1.2
CHGR2	Aguacate	1.03	53	eP	Pg	18 20 00.3	-1.6
CHGR2				eS	Sg	18 20 14.9	-0.4
EDPE	Pejibaye, P	1.03	325	eP	Pg	18 20 01.0	-0.9
CNI2	El Empalme, Bo	1.21	24	eS	Sn	18 20 21.4	-0.1
CEUA	Cerro Uatsi, L	1.30	1	eP	Pb	18 20 06.8	+0.1
RGM0	Gandoca	1.32	16	eP	Pg	18 20 07.3	-0.2
SVQ2	Quepos	1.62	313	eP	Pb	18 20 12.1	-0.1
PIEC	Cerro El Cedra	1.62	323	eP	Pn	18 20 10.9	-0.2
LCR2	La Lucha 2	1.75	324	P	Pn	18 20 12.4	-0.2
LCR2	La Lucha 2	1.75	324	eP	Pn	18 20 12.3	-0.4
GMAL	Guarumal, Vera	1.81	108	eP	Pn	18 20 13.1	-0.3
GMAL				eS	Sn	18 20 36.4	+0.1
ABRB	Las Abras (San	1.83	336	eP	Pn	18 20 14.7	+0.8
CVTQ	Turrialba Volc	1.85	335	eP	Pn	18 20 14.9	+0.6
VBV1	V. Barva	2.10	328	eP	Pn	18 20 18.1	+0.4
FORC	Fortuna	2.72	322	eP	Pb	18 20 28.9	-2.0
AZU	Azuero	2.72	101	eP4		18 20 27.4	
AZU				eS	Sn	18 20 59.9	+1.0
JTS	Las Juntas de	2.77	315	eP	Pn	18 20 28.4	+1.8
JTS				eS	Sb	18 21 03.3	-2.5

IDC 04 18:26:36.8±279.0, **52°.95N×33°.13E, h0km, Error ellipse: s-maj=116.3km s-min=87.8km az=15.0, Baltic States-Belarus-Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I43RU	DUBNA INFRASON	4.46	30	I	I	18 53 10.0	
	baz=214,slow=307,SNR=6.3						
I26DE	FREYUNG INFRAS	12.91	259	I	I	19 43 40.0	
	baz=65,slow=328,SNR=0.9						
I31KZ	AKTYUBINSK INF	15.64	89	I	I	19 57 50.0	
	baz=291,slow=329,SNR=1.8						
I48TN	KESRA INFRASON	23.97	234	I	I	20 54 40.0	
	baz=38,slow=318,SNR=1.1						
I46RU	ZALESOVO INFRA	30.24	67	I	I	21 35 10.0	
	baz=286,slow=322,SNR=0.9						

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*SJA **04** 18:33:22.7±0.8, 22°.18S×68°.82W, h123km±5km, ML3.4, MW3.5*
*GUC **04** 18:33:22.3±0.8, 22°.21S×68°.88W, h128km±4km, ML3.6*
ISC 04 18:33:21.6±1.4, **22°.24S**±0°.03×**68°.79W**±0°.07, **h134**km±9km, **n28**, σ**1^{s}60**/50, **Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PB09	IPOC Station P	0.61	317	eP	Pn	18 33 42.5	+0.5
PB09				eS	Sn	18 33 56.1	-1.4
PB09				IAML		18 33 57.5	
	comp=Z,706nm,0.3s						
PB09	IPOC Station P	0.61	317	eP	Pn	18 33 42.5	+0.5
PB09				i S	Sn	18 33 56.8	-0.7
PB09				IAML		18 33 58.2	
	comp=E,848nm,0.2s						
PB06	IPOC Station P	0.86	237	eP	Pn	18 33 44.5	+0.7
PB06				eS	Sn	18 34 00.5	-0.2
PB06				IAML		18 34 01.6	
	comp=Z,1µm,0.3s						
PB06	IPOC Station P	0.86	237	eP	Pn	18 33 44.2	+0.4
PB06				i S	Sn	18 34 00.2	-0.5
PB06				IAML		18 34 01.2	
	comp=N,3µm,0.2s						
AF01	San Pedro de A	0.90	141	eP	Pn	18 33 45.8	+1.4
AF01				IAML		18 34 18.8	
	comp=Z,761nm,0.4s						
PB03	IPOC Station P	0.91	282	eP	Pn	18 33 45.1	+0.8
PB03				eS	Sn	18 34 01.2	-0.3
PB03				IAML		18 34 01.4	
	comp=Z,1µm,0.3s						
PB03	IPOC Station P	0.91	282	eP	Pn	18 33 44.9	+0.6
PB03				i S	Sn	18 34 00.6	-0.9
PB03				IAML		18 34 01.9	
	comp=E,2µm,0.4s						
PB07	IPOC Station P	1.14	297	eP	Pn	18 33 47.1	+0.7
PB07				eS	Sn	18 34 05.0	-0.3
PB07				IAML		18 34 05.4	
	comp=Z,603nm,0.1s						
PB07	IPOC Station P	1.14	297	eP	Pn	18 33 47.2	+0.8
PB07				i S	Sn	18 34 04.4	-0.8
PB07				IAML		18 34 05.2	
	comp=N,1µm,0.3s						
PB02	IPOC Station P	1.38	312	eP	Pn	18 33 49.6	+0.8
PB02				eS	Sn	18 34 08.8	-0.7
PB02				IAML		18 34 13.1	
	comp=Z,799nm,0.3s						
PB02	IPOC Station P	1.38	312	eP	Pn	18 33 49.4	+0.6
PB02				i S	Sn	18 34 08.6	-0.9
PB02				IAML		18 34 09.8	
	comp=E,975nm,0.2s						
PB05	IPOC Station P	1.44	245	eP	Pn	18 33 50.5	+1.1
PB05				eS	Sn	18 34 11.8	+1.1
PB05				IAML		18 34 16.5	
	comp=Z,320nm,0.5s						
PB05	IPOC Station P	1.44	245	eP	Pn	18 33 50.0	+0.6
PB05				i S	Sn	18 34 10.3	-0.3
PB05				IAML		18 34 15.1	
	comp=N,752nm,0.4s						
TA01	Diego Aracena	2.11	322	eP	Pn	18 33 57.6	+0.5
TA01				eS	Sn	18 34 23.6	-0.8
TA01				IAML		18 34 30.4	
	comp=Z,99nm,0.6s						
TA01	Diego Aracena	2.11	322	eP	Pn	18 33 57.3	+0.2
TA01				i S	Sn	18 34 23.8	-0.6
TA01				IAML		18 34 25.3	
	comp=N,367nm,0.4s						
TA02	Huaiquique	2.33	327	eP	Pn	18 34 02.7	+2.9
TA02				eS	Sn	18 34 27.3	-1.9
TA02				IAML		18 34 37.5	
	comp=Z,150nm,0.1s						
GO01	Chusmiza	2.59	352	eP	Pn	18 34 04.8	+1.2
GO01				eS	Sn	18 34 36.4	+0.6
GO01				IAML		18 34 40.9	
	comp=Z,116nm,0.6s						
PB11	IPOC Station P	2.60	342	eP	Pn	18 34 04.0	+0.6
PB11				eS	Sn	18 34 29.2	-6.3
PB11				IAML		18 34 39.7	
	comp=Z,134nm,0.3s						
PB11	IPOC Station P	2.60	342	eP	Pn	18 34 03.9	+0.6
PB11				i S	Sn	18 34 34.8	-0.8
PB11				IAML		18 34 36.1	
	comp=E,280nm,0.4s						
PB14	IPOC Station P	2.80	212	eP	Pn	18 34 07.4	+1.4
PB14				eS	Sn	18 34 37.2	-3.0
PB14				IAML		18 34 41.4	
	comp=Z,203nm,0.3s						
PB14	IPOC Station P	2.80	212	eP	Pn	18 34 07.4	+1.4
PB14				i S	Sn	18 34 38.4	-1.8
PB14				IAML		18 34 41.2	
	comp=E,165nm,0.4s						
PSGCX	Pisagua	2.91	334	eP	Pn	18 34 07.5	+0.2
PSGCX				eS	Sn	18 34 30.1	-13
PSGCX				IAML		18 34 39.2	
	comp=Z,57nm,0.7s						
SALTA		3.00	132	eP	Pn	18 34 08.8	+0.1
SALTA				eP		18 34 17.2	
PB12	IPOC Station P	3.89	338	eP	Pn	18 34 20.3	+0.2
PB12				eS	Sn	18 35 02.7	-2.7
PB12				IAML		18 35 03.9	
	comp=Z,56nm,0.4s						
PB16	IPOC Station P	3.95	350	eP	Pn	18 34 23.4	+2.0
PB16				eS	Sn	18 34 55.7	-12
PB16				IAML		18 35 11.6	
	comp=Z,20nm,0.6s						
PB16	IPOC Station P	3.95	350	eP	Pn	18 34 23.3	+2.0
PB16				i S	Sn	18 35 09.3	+1.8
AC01	Pan de Azucar	4.22	203	eS	Sn	18 34 59.8	-13
AC01				IAML		18 35 15.7	
	comp=Z,49nm,0.5s						
AC02	Maricunga	4.58	184	eP	Pn	18 34 31.6	+2.0
AC02				eS	Sn	18 35 19.8	-2.6
AC02				IAML		18 35 31.3	
	comp=Z,34nm,0.2s						

NDI 04 18:35:13.4±1.2, **19°.96N×72°.88E, h5km, ML3.6, MW3.5, Presumed earthquake, Southern India**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BOM	Bombay	1.06	183	eP	Pg	18 35 33.1	-0.6
BOM				eS	Sn	18 35 49.7	-0.3
BOM				IAML		18 35 51.7	
	comp=N,3µm,0.2s						
BOM				IAML		18 35 52.1	
	comp=E,2µm,0.1s						
POO	Poona	1.69	147	eP	Pn	18 35 43.5	-0.1
POO				eS	Sb	18 36 06.5	-0.1
POO				IAML		18 36 08.0	
	comp=N,400nm,0.5s						
POO				IAML		18 36 08.0	
	comp=E,457nm,0.5s						
KAD	Karad	2.91	155	eP	Pn	18 36 00.5	+0.1
KAD				eS	Sn	18 36 35.3	-0.6
KAD				IAML		18 36 45.8	
	comp=E,379nm,0.4s						
KAD				IAML		18 36 47.8	
	comp=N,353nm,0.1s						
BHPL	Bhopal	5.34	51	eS	Sn	18 37 33.1	-2.8
HYB	Hyderabad	5.94	114	eP	Pn	18 36 41.4	-0.7
HYB				eS	Sn	18 37 46.0	-4.6
HYB				IAML		18 38 19.5	
	comp=N,115nm,0.5s						
HYB				IAML		18 38 20.0	
	comp=E,82nm,0.6s						

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*NNC **04** 18:51:00.7±6.3, 41°.98N×80°.70E, h0km, mb3.1, mpv2.8, Error ellipse: s-maj=49.8km s-min=31.8km az=6.0*
*SOME **04** 18:51:02.3, 42°.27N×81°.05E, h20km*
ISC 04 18:50:55.2±2.8, **42°.1N**±0°.1×**81°.30E**±0°.08, **h16**km, **n9**, σ**1^{s}90**/18, **3C-2D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SHLS	Shalkode	1.70	308	eP	Pn	18 51 24.6	+0.3
	2.7nm,0.2s						
SHLS				eS	Sn	18 51 40.8	-4.9
	7.8nm,0.2s						
PDGK	Podgornoye	1.79	313	⇑Pn	Pg	18 51 30.4	+0.8
	0.9nm,0.4s						
PDGK				⇑Sn	Sg	18 51 52.8	0.0
	5.1nm,0.7s						
UZB	Uzynbulak	1.96	302	eP	Pg	18 51 34.1	+1.2
UZB				eS	Sb	18 51 56.8	+1.9
SATY	Saty	2.33	294	eP	Pg	18 51 40.3	+0.5
	1.7nm,0.2s						
SATY				eS	Sb	18 52 07.6	+2.2
	8.7nm,0.2s						
KPKS	Kokpek	2.34	306	eP	Pg	18 51 40.2	+0.1
	0.4nm,0.2s						
KPKS				eS	Sb	18 52 07.4	+1.7
	7.0nm,0.3s						
DJR	Jarkent	2.46	334	eP	Pg	18 51 43.9	+1.5
	0.6nm,0.2s						
DJR				eS	Sg	18 52 13.7	-0.5
	1.5nm,0.3s						
ARXS	Arharly	3.28	311	eP	Pg	18 51 56.3	-1.7
	0.8nm,0.4s						
ARXS				eS	Sb	18 52 35.1	+2.3
	3.6nm,0.6s						
MAKZ	Makanchi	4.70	6	⇓Pn	Pb	18 52 16.2	-1.1
	8.8nm,2.2s						
MAKZ				⇓Sn	Sb	18 53 14.0	+0.4
	5.4nm,1.7s						
MK31	Makanchi Array	4.71	8	Pn	Pb	18 52 18.2	+0.7
	1.8nm,1.1s,baz=182,slow=13,SNR=7.2						
MK31				⇑Sn	Sb	18 53 15.8	+1.8
	0.5nm,0.6s,baz=186,slow=24						

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*NOU **04** 19:16:22.1, 41°.92S×173°.50E, h55km, MLv3.5/13, South Island, New Zealand*
*WEL **04** 19:16:23.0±0.9, 42°S±4°×17°4E±°, h52km±9km, M2.8/7, ML2.8/6, MLv2.8/7, Error ellipse: s-maj=6.6km s-min=4.5km az=128.0, confirmed*
ISC 04 19:16:21.0±1.3, **41°.94S**±0°.03×**173°.59E**±0°.04, **h83**km±6km, **n91**, σ**0^{s}91**/96, **South Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LOKS	Mount Lookout	0.11	228	P	Pn	19 16 33.3	+0.3
GLOS	29 km south-we	0.19	65	P	Pn	19 16 33.4	+0.3
MOLW	Molesworth Sta	0.29	239	P	Pn	19 16 34.0	+0.4
MOLW				S	Sn	19 16 42.1	-0.8
KEKS	Kekerengu Vall	0.29	93	P	Pn	19 16 34.3	+0.8
KEKS				S	Sn	19 16 42.9	+0.1
BSWZ	Blackbirch Sta	0.31	44	P	Pn	19 16 34.0	+0.4
BSWZ				S	Sn	19 16 42.5	-0.5
BSWZ				AML	AML		
BSWZ				AML	AML		
KHZ	Kahutara	0.48	185	P	Pn	19 16 35.7	+1.0
KHZ	Kahutara	0.48	185	P	Pn	19 16 44.8	+10
KHZ	Kahutara	0.48	185	P	Pn	19 16 35.7	+1.0
KHZ				S	Sn	19 16 45.4	+0.4
KHZ				AML	AML		
KHZ				AML	AML		
KIKS	Kaikoura	0.49	172	P	Pn	19 16 36.1	+1.2
CMWZ	Cape Campbell	0.50	68	P	Pn	19 16 36.3	+1.3
CMWZ				AML	AML		
CMWZ				AML	AML		
THZ	Tophouse	0.54	289	P	Pn	19 16 35.2	-0.2
THZ				AML	AML		
THZ				AML	AML		
BWRS	Waikakaho Road	0.55	25	P	Pn	19 16 35.6	+0.1
TUWZ	Tuamarina	0.57	27	P	Pn	19 16 35.8	+0.2
TUWZ				AML	AML		
HAVS	Havelock	0.68	12	P	Pn	19 16 36.7	0.0
NNZ	Nelson	0.74	348	P	Pn	19 16 36.9	-0.3
NNZ				S	Sn	19 16 47.9	-1.4
NNZ				AML	AML		
NNZ				AML	AML		
WTMC	Te Mara Farm W	0.79	210	P	Pn	19 16 39.1	+1.3
MRNZ	Matariki Terra	0.82	311	P	Pn	19 16 38.1	-0.1
MRNZ				AML	AML		
MRNZ				AML	AML		
TCW	Tory Channel	0.89	35	P	Pn	19 16 39.3	+0.4
TCW				S	Sn	19 16 50.9	-1.4
TCW				AML	AML		
TCW				AML	AML		
MOTS	Motueka DOC wo	0.92	332	P	Pn	19 16 39.5	+0.3
MCASZ	Murchison	0.95	278	P	Pn	19 16 40.8	+1.2
TKNZ	Takaka Hill	1.02	332	P	Pn	19 16 40.7	+0.3
TKNZ				S	Sn	19 16 54.1	-0.9
TKNZ				AML	AML		
TKNZ				AML	AML		
SNZO	South Karori	1.05	53	P	Pn	19 16 41.0	+0.3
SNZO	South Karori	1.05	53	S	Sn	19 16 55.1	-0.3
WEL	Wellington	1.10	54	P	Pn	19 16 42.1	+0.7
GVZ	Greta Valley S	1.11	202	P	Pn	19 16 42.4	+1.0
DUWZ	D’Urville Isla	1.16	12	P	Pn	19 16 42.7	+0.5
LTZ	Lake Taylor	1.29	229	P	Pn	19 16 44.3	+0.6
PLWZ	Palliser	1.30	74	P	Pn	19 16 44.2	+0.3
DSZ	Denniston Nort	1.35	278	P	Pn	19 16 44.9	+0.4
MSWZ	Moikau Station	1.35	68	P	Pn	19 16 44.9	+0.4
QRZ	Quartz Range	1.37	324	P	Pn	19 16 44.6	-0.1
QRZ	Quartz Range	1.37	324	S	Sn	19 17 01.0	-1.6
QRZ	Quartz Range	1.37	324	P	Pn	19 16 44.9	+0.1
CAW	Cannon Point	1.39	54	P	Pn	19 16 45.4	+0.5
KIW	Kapiti Island	1.47	43	P	Pn	19 16 46.8	+0.8
PAWZ	Paruwai Farm	1.48	69	P	Pn	19 16 46.4	+0.1
MTW	Mount Morrison	1.63	62	P	Pn	19 16 48.1	0.0
OGWZ	Otaki Gorge	1.64	47	P	Pn	19 16 48.5	+0.4
TRWZ	Traveller	1.66	72	P	Pn	19 16 48.6	+0.1
INZ	Inchbonnie	1.77	243	P	Pn	19 16 50.3	+0.4
OXZ	Oxford	1.80	219	P	Pn	19 16 50.2	-0.1
OKCZ	Okains Bay	1.82	192	P	Pn	19 16 51.3	+0.7
MQZ	McQueen’s Vall	1.90	201	P	Pn	19 16 51.3	-0.2
TMWZ	Te Maipa	1.92	65	P	Pn	19 16 51.8	-0.1
MRZ	Mangatainoka R	1.97	50	P	Pn	19 16 52.7	+0.2
AKCZ	Akaroa Harbour	2.00	194	P	Pn	19 16 53.1	+0.3
TIWZ	Tintock	2.08	57	P	Pn	19 16 54.0	-0.1
MHCZ	Mount Hutt	2.18	222	P	Pn	19 16 55.0	-0.4
POWZ	Post Office Ro	2.26	47	P	Pn	19 16 56.6	+0.2
PRWZ	Pori Road	2.27	53	P	Pn	19 16 56.4	-0.1
BFZ	Birch Farm	2.36	59	P	Pn	19 16 52.0	-5.7
WVZ	Waitaha Valley	2.40	241	P	Pn	19 16 58.0	-0.1
RPZ	Rata Peaks	2.57	226	P	Pn	19 17 00.7	+0.1
RPZ	Rata Peaks	2.57	226	S	Sn	19 17 30.3	-0.7
RPZ	Rata Peaks	2.57	226	P	Pn	19 17 00.6	+0.1
TSZ	Takapari Road	2.60	44	P	Pn	19 17 00.8	-0.2
PREZ	Palmer Road	2.63	10	P	Pn	19 17 03.5	+2.1
KHEZ	Kahui Hut	2.66	7	P	Pn	19 17 03.2	+1.3
KHEZ	Kahui Hut	2.66	7	S	Sn	19 17 33.1	-0.2
KHEZ	Kahui Hut	2.66	7	P	Pn	19 17 03.5	+1.6
ARCZ	Arundel	2.68	221	P	Pn	19 17 02.2	+0.2
NBEZ	Newall Road No	2.68	5	P	Pn	19 17 03.7	+1.7
NEZ	North Egmont	2.69	8	P	Pn	19 17 04.4	+2.1
PKE	Pukeiti	2.76	6	P	Pn	19 17 04.9	+1.7
GCSZ	Gaunt Creek Bo	2.77	239	P	Pn	19 17 03.9	+0.7
PNHZ	Pukenui	2.83	45	P	Pn	19 17 03.6	-0.5
VRZ	Vera Road	2.95	18	P	Pn	19 17 07.5	+1.8
PKVZ	Pokaka	2.97	27	P	Pn	19 17 07.3	+1.3
MOVZ	Moawhango	3.02	34	P	Pn	19 17 07.3	+0.6
WHVZ	Whangaehu Hut	3.06	30	P	Pn	19 17 08.9	+1.5
TMZ	Timaru	3.09	217	P	Pn	19 17 07.7	+0.2
PXZ	Pawanui	3.13	53	P	Pn	19 17 07.1	-0.9
FOZ	Fox Glacier	3.20	239	P	Pn	19 17 09.1	+0.1
ETVZ	East Tongariro	3.23	31	P	Pn	19 17 11.0	+1.3
KAHZ	Kahuranaki	3.29	50	P	Pn	19 17 09.3	-1.0
KWHZ	Kaweka Forest	3.31	42	P	Pn	19 17 08.8	-1.9
LBZ	Lake Benmore	3.49	224	P	Pn	19 17 13.1	+0.1
HIZ	Hauiti	3.56	16	P	Pn	19 17 15.3	+1.3
HIZ	Hauiti	3.56	16	P	Pn	19 17 15.2	+1.3
ODZ	Otahua Downs	3.77	214	P	Pn	19 17 16.9	+0.1
ODZ	Otahua Downs	3.77	214	P	Pn	19 17 16.8	0.0
TLZ	Tolley Road	3.90	23	P	Pn	19 17 20.7	+2.0
JCZ	Jackson Bay	4.12	237	P	Pn	19 17 22.2	+0.6
JCZ	Jackson Bay	4.12	237	P	Pn	19 17 22.1	+0.5
TOZ	Tahuroa Road	4.45	20	P	Pn	19 17 27.1	+1.0
EAZ	Earnscleugh	4.53	222	P	Pn	19 17 27.0	-0.1
AWAZ	Awhitu Peninsu	4.94	10	P	Pn	19 17 33.9	+1.3
MKAZ	Moumakai	4.98	15	P	Pn	19 17 34.3	+1.0
MBAZ	Motutapu North	5.26	12	P	Pn	19 17 38.5	+1.4
WIAZ	Waiheke Island	5.28	14	P	Pn	19 17 38.9	+1.6
ABAZ	Army Bay	5.42	11	P	Pn	19 17 40.6	+1.4

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*GFZ **04** 19:36:21.8±0.2, 29°N±4°×13°1E±°, h10km, M5.1/28, mb4.7/28*
*NEIC **04** 19:36:23.0±1.3, 29°.30N±0°.04×130°.54E±0°.08, h20km±3km, mb4.6/66, Error ellipse: s-maj=10.7km s-min=5.4km az=103.0*
*NIED **04** 19:36:24.5, 29°.30N×130°.64E, h64km, MW4.4, Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M_{rr}-0.40; $M_{\theta\theta}$-1.22; $M_{\phi\phi}$1.62; $M_{r\theta}$0.46; $M_{\theta\phi}$3.95; $M_{\phi r}$0.13; Fault plane solution: $M_0$4.23000×10^{15} NP1: ϕ_s350.00000°, δ83.00000°, λ-180.00000°. NP2: ϕ_s260.00000°, δ90.00000°, λ-7.00000°.*
*IDC **04** 19:36:24.6±1.8, 29°.42N×130°.66E, h35km±15km, mb3.9/21, mbtmp4.1/26, ML4.2/5, MS3.5/9 Error ellipse: s-maj=15.7km s-min=10.7km az=114.0*
*JMA **04** 19:36:24.5±0.1, 29°.3N±0°.4×130°.6E±0°.7, h64km±2km, MD4.2/33, MV4.4/33, NEAR AMAMI-OSHIMA ISLAND*
ISC 04 19:36:22.4±0.8, **29°.24N**±0°.03×**130°.69E**±0°.04, **h22**km±5km, **n226**, σ**1^{s}34**/229, **mb4.5**/82, **MS3.5**/7, **1D, Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JNN	Nakanoshima	0.93	310	P	Pb	19 36 41.1	+1.2
JNN				A	A	19 36 41.1	
	comp=N,19nm,1.1s,comp=E,16nm,1.1s						
JYAK	Yakushimahirau	1.00	351	P	Pb	19 36 42.3	+1.2
JYAK				A	A	19 36 42.3	
	comp=N,16nm,0.4s,comp=E,13nm,0.5s						
JYAK				eS	Sb	19 36 55.1	+1.3
JMTN	Minamitane	1.16	9	P	Pb	19 36 44.4	+0.6
JMTN				eS	Sb	19 36 59.3	+0.8
JAM	Amami Oshima	1.27	229	P	Pn	19 36 46.3	+1.6
JAM				eS	Sb	19 37 02.6	+1.3
JKC	Kuchinoerabu	1.29	341	eP	Pn	19 36 46.0	+1.0
JKC				eS	Sn	19 37 01.7	+0.1
JTAJ	Takarajima	1.31	266	eP	Pb	19 36 47.0	+0.7
JTN	Tanegashima 3	1.43	10	P	Pn	19 36 48.1	+1.1
JAMN	Amaminishikomi	1.67	234	P	Pn	19 36 51.8	+1.6
JAMN				eS	Sb	19 37 13.1	+0.2
JTSR	Tashiro 2	1.93	6	eP	Pn	19 36 55.3	+1.5
JTK	Tokunoshima	2.11	227	eP	Pn	19 36 58.1	+1.8
JSU	Suzuyama	2.27	355	P	Pn	19 36 59.9	+1.4
JSU	Suzuyama	2.27	355	S	Sn	19 37 25.9	+0.2
JSU	Suzuyama	2.27	355		Pn	19 36 59.2	+0.7
JSU				Sn	Sn	19 37 25.1	-0.7
JSU	Suzuyama	2.27	355	P	Pn	19 36 59.6	+1.2
JSU	Suzuyama	2.27	355	eP	Pn	19 36 59.4	+0.9
JSU				eS	Sn	19 37 25.4	-0.3
JNAR	Kushima--Naru	2.33	12	eP	Pn	19 37 01.0	+1.6
JNKG	Nichinankitago	2.48	14	eP	Pn	19 37 03.2	+1.8
JOW	Kunigami	3.22	222	Pn	Pn	19 37 12.6	+1.0
	comp=E,103nm,0.3s,baz=32,slow=9.5,SNR=305						
JOW				Sn	Sn	19 37 48.6	-0.6
	comp=E,69nm,0.3s,baz=78,slow=24,SNR=4.5						
JOW				AML	AML		
JOW	Kunigami	3.22	222	P	Pn	19 37 12.5	+1.0
JOW	Kunigami	3.22	222		Pn	19 37 12.4	+0.8

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JOW                              Sn     Sn     19 37 49.0  -0.2
JOW   Kunigami          3.22 222 P      Pn     19 37 12.8 +1.3
JMZ   Minamidaito 2     3.44 172 Pn     Pn     19 37 15.8 +1.2
JMZ                              Sn     Sn     19 37 51.2  -3.5
JNU   Nakatsue          3.87   2 Pn     Pn     19 37 22.3 +1.7
      comp=E,12nm,0.3s,baz=292,slow=3.8,SNR=105
JNU                              Sn     Sn     19 38 04.7  -0.7
      comp=E,24nm,0.3s,baz=63,slow=18,SNR=11
      comp=E,138nm,0.9s
JNU                              AML    AML
JMN   Monobe            5.23  31 P      Pn     19 37 40.2 +0.9
JMN   Monobe            5.23  31        Pn     19 37 40.1 +0.8
JMN                              Sn     Sn     19 38 33.8  -5.2
JMN   Monobe            5.23  31 P      Pn     19 37 40.7 +1.4
      comp=Z,134nm,0.9s
JTU   Tsushima          5.38 349 P      Pn     19 37 43.3 +2.0
JTU   Tsushima          5.38 349 P      Pn     19 37 41.6 +0.3
      comp=Z,34nm,1.0s
TJN   Taejon            7.65 339 Pn     Pn     19 38 11.4  -0.9
INU   Inuyama           8.10  40 P      Pn     19 38 21.1 +2.4
INU   Inuyama           8.10  40        Pn     19 38 19.6 +0.9
INU   Inuyama           8.10  40 P      Pn     19 38 20.8 +2.1
      comp=Z,107nm,0.5s
YOJ   Yonaguni jima     8.35 237 P      Pn     19 38 21.7  -0.4
YOJ   Yonaguni jima     8.35 237 Pn     Pn     19 38 21.7  -0.4
JSG   Sagara            8.35  48 Pn     Pn     19 38 23.6 +1.5
JSG   Sagara            8.35  48 P      Pn     19 38 23.8 +1.7
      comp=Z,215nm,0.9s
JGF   Kuroka            8.48  40 P      Pn     19 38 25.1 +1.2
JGF   Kuroka            8.48  40        Pn     19 38 25.0 +1.2
JGF   Kuroka            8.48  40 P      Pn     19 38 25.8 +2.0
      comp=Z,46nm,0.7s
KSAR  Wonju Array Be    8.51 345 Pn     Pn     19 38 23.3  -0.9
KSRS  Korea Array       8.51 345 Pn     Pn     19 38 24.7 +0.4
      comp=Z,1.3nm,0.5s,baz=151,slow=15,SNR=6.9
JHJ   Hachijo jima 2    8.69  61 Pn     Pn     19 38 29.7 +3.0
      comp=Z,48nm,0.3s,baz=229,slow=20,SNR=8.9
JHJ                              LR     LR     19 41 39.5
      comp=Z,161nm,18.4s,baz=296,slow=36
      comp=Z,84nm,0.3s
JHJ                              AML    AML
JHJ2  Mitsune           8.71  61 P      Pn     19 38 29.1 +2.1
JHJ2  Mitsune           8.71  61 Pn     Pn     19 38 28.1 +1.1
JHJ2  Mitsune           8.71  61 P      Pn     19 38 28.4 +1.3
      comp=Z,267nm,1.4s
YHNB  Yeheng            9.48 243 Pn     Pn     19 38 30.9  -6.7
YHNB  Yeheng            9.48 243 P      Pn     19 38 35.7  -2.0
      comp=Z,25nm,1.0s
NACB  Ninganchiao       9.57 240 Pn     Pn     19 38 32.5  -6.4
NACB  Ninganchiao       9.57 240 P      Pn     19 38 38.7  -0.2
      comp=Z,23nm,1.6s
MAJO  Matsushiro        9.63  39        Pn     19 38 40.1 +0.4
MAJO  Matsushiro        9.63  39 P      Pn     19 38 41.6 +1.9
      comp=Z,18nm,0.4s
MJAR  Matsushiro Arr    9.63  39 Pn     Pn     19 38 41.0 +1.3
      comp=Z,0.8nm,0.3s,baz=236,slow=14,SNR=36
      comp=Z,4.6nm,0.4s
MJAR                             AML    AML
MJAR  Matsushiro Arr    9.63  39        Pn     19 38 37.9  -1.8
MJB9  Matsu-Tunnel      9.63  39        Pn     19 38 40.0 +0.3
YULB  Yu-li            10.24 238 Pn     Pn     19 38 44.3  -3.8
SSLB  Suanglung        10.27 240 P      Pn     19 38 47.4  -1.1
SSLB  Suanglung        10.27 240 Pn     Pn     19 38 45.3  -3.2
SSLB  Suanglung        10.27 240 P      Pn     19 38 46.8  -1.7
      comp=Z,18nm,1.3s
NJ2   Nanjing          10.57 288 eP     Pn     19 38 49.4  -3.1
NJ2                              pmax   pmax
      comp=Z,18nm,0.5s
JTM   Tenmabayashi     14.30  34        P      19 39 48.6  -1.8
JTM   Tenmabayashi     14.30  34 P      Pn     19 39 44.8 +1.4
      comp=Z,41nm,1.3s
USRK  Ussuriysk Ar.    14.96   4 Pn     P      19 39 57.2  -0.6
      comp=Z,0.3nm,0.3s,baz=189,slow=8.5,SNR=5.9
USRK  Ussuriysk Ar.    14.96   4 P      P      19 39 55.9  -1.8
CN2   Changchun        15.12 345 eP     P      19 40 01.3 +1.7
CN2                              pmax   pmax
      comp=Z,10.0nm,0.5s
HNS   HongShan         15.63 306 ⇓P     P      19 40 06.3 +1.1
HNS                              PP     pP     19 40 14.4 +3.5
HNS                              pmax   pmax
      comp=Z,16nm,0.7s
BJI2  Beijing          16.05 316 P      Pn     19 40 05.5  -1.2
BJI2                             pP     P      19 40 08.8  -1.1
BJI2                             sP     pP     19 40 12.4  -3.4
BJI2                             pmax   pmax
      comp=Z,2.0nm,0.5s
ASAJ  Asahikawa        17.62  29 LR     LR     19 47 11.9
      comp=Z,129nm,20.8s,baz=229,slow=37
JKA   Kamikawa-asahi   17.62  29 P      Pn     19 40 25.5  -0.8
      comp=Z,11nm,1.2s
ENH   Enshi            18.44 278        P      19 40 33.6  -2.8
ENH                              IAmb   IAmb   19 40 44.4
      comp=Z,12nm,0.4s
ENH   Enshi            18.44 278 P      P      19 40 35.6  -0.9
      comp=Z,11nm,0.9s
XLT   XiLinHaoTe       18.71 325 eP     Pn     19 40 40.9 +1.1
XLT                              sP     pP     19 40 47.3 +2.3
XLT                              S      S      19 44 18.1 +7.1
XLT                              pmax   pmax
      comp=Z,11nm,0.6s
XAN   Xi'an            19.14 290 P      P      19 40 43.9  -0.2
XAN                              pmax   pmax
      comp=Z,20nm,0.6s
HHC   Hu-ho-hao-te     19.43 312 eP     Pn     19 40 49.1 +0.5
HHC                              pmax   pmax
      comp=Z,11nm,0.6s
HHC                              pmax   pmax
      comp=Z,92nm,4.9s
KLR   Kul'dur          19.98   2 P      P      19 40 52.5  -0.5
      comp=Z,0.3nm,0.3s,baz=185,slow=11,SNR=10
      comp=Z,3.0nm,0.7s
KLR                              AML    AML
HILR  Hailar Array B   21.93 341 P      P      19 41 13.3  -0.9
      comp=Z,2.5nm,0.5s,baz=148,slow=11,SNR=14
      comp=Z,2.5nm,0.5s
LZDM  Lanzhou Array    23.66 293 P      P      19 41 32.7   0.0
      comp=Z,2.1nm,0.3s,baz=196,slow=8.6,SNR=3.8
      comp=Z,2.1nm,0.3s
KMI2  Kunming          25.16 267 P      P      19 41 47.6 +1.2
KMI2                             pmax   pmax
      comp=Z,19nm,0.7s
PZH   PanZhiHua        25.71 271 P      P      19 41 52.1 +0.9
ULN   Ulaanbaatar      26.05 322 P      P      19 41 52.1  -2.1
ULN   Ulaanbaatar      26.05 322 P      P      19 41 52.1  -2.1
      comp=Z,6.5nm,1.4s
SONM  Songino Array    26.39 321 P      P      19 41 56.3  -0.9
      comp=Z,1.8nm,0.5s,baz=142,slow=10,SNR=15
      comp=Z,1.8nm,0.5s
SONM  Songino Array    26.39 321 P      P      19 41 55.2  -1.9
GTA2  Gaotai           27.39 300 eP     P      19 42 07.3 +1.0
GTA2                             pmax   pmax
      comp=Z,4.0nm,0.9s
CHTO  Chiang Mai       30.71 257 P      P      19 42 34.9  -1.0
CHTO  Chiang Mai       30.71 257 P      P      19 42 35.5  -0.4
      comp=Z,3.1nm,1.9s
CMAR  Chiang Mai Arr   30.87 257 P      P      19 42 37.2  -0.1
      comp=Z,0.4nm,0.4s,baz=56,slow=7.0,SNR=4.1
      comp=Z,0.4nm,0.4s
PETK  Petropavlovsk-   31.00  32 LR     LR     19 55 20.5
      comp=Z,61nm,20.4s,baz=197,slow=37
NLAI  Namlea           32.48 187 P      P      19 42 54.1 +2.8
      comp=Z,8.5nm,0.8s
NPW   Naypyitaw        32.72 261 P      P      19 42 53.6 +0.1
      comp=Z,4.9nm,1.3s
MORE  Moreh            32.80 270        P      19 42 52.5  -1.7
YAK   Yakutsk          32.80 359 P      P      19 42 53.7 +0.1
YAK                              IAmb   IAmb   19 43 16.3
      comp=Z,13nm,1.4s
MMSI  Mamuju           33.70 202 P      P      19 43 02.8 +0.8
      comp=Z,350nm,1.2s
H11N2 WAKE ISLAND Hy   34.16  98 T      T      20 19 39.8
      baz=297,slow=74,SNR=3.2
H11N1 WAKE ISLAND Hy   34.17  98 T      T      20 19 36.6
      baz=297
H11N3 WAKE ISLAND Hy   34.18  98 T      T      20 19 40.0
      baz=297,slow=74,SNR=2.6
LSA   Lhasa            34.32 281 P      P      19 43 07.3  -0.6
LSA                              IAmb   IAmb   19 43 09.7
      comp=Z,4.5nm,0.9s
LSA   Lhasa            34.32 281 P      P      19 43 07.2  -0.7
      comp=Z,7.6nm,0.9s
SHL   Shillong         34.55 273        P      19 43 08.3  -1.2
KAPI  Kappang          35.65 199 LR     LR     19 58 44.5
      comp=Z,46nm,20.4s,baz=282,slow=37
SAUI  Saumlaki         37.01 179 P      P      19 43 31.8 +1.3
EVN   Everest          38.38 279 P      P      19 43 42.1  -0.7
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EVN   Everest          38.38 279 P      P      19 43 42.3  -0.5
      comp=Z,4.8nm,0.6s
MKAR  Makanchi Array   41.26 309 P      P      19 44 05.4  -0.4
      comp=Z,1.3nm,0.5s,baz=90,slow=11,SNR=38
MKAR                             PcP    PcP    19 46 04.2  -0.1
      comp=Z,0.3nm,0.5s,baz=86,slow=2.1,SNR=3.3
      comp=Z,1.3nm,0.5s
MKAR  Makanchi Array   41.26 309 P      P      19 44 05.0  -0.7
ZAA0  Zalesovo Array   41.26 320 P      P      19 44 04.6  -1.1
ZALV  Zalesovo Beam    41.26 320 P      P      19 44 05.1  -0.6
      comp=Z,1.1nm,0.3s,baz=113,slow=8.2,SNR=7.9
      comp=Z,1.1nm,0.3s
MAKZ  Makanchi         41.47 309 P      P      19 44 07.2  -0.4
TIXI  Tiksi            42.47 359        P      19 44 14.8  -0.5
PDGK  Podgornoye       42.95 303        P      19 44 18.4  -1.4
TARG  Taragay, Kyrgy   44.19 301        P      19 44 28.6  -1.6
TARG  Taragay, Kyrgy   44.19 301 P      P      19 44 30.2 +0.1
      comp=Z,4.6nm,0.8s
KURK  Kurchatov        44.22 314        P      19 44 28.4  -1.3
KURK                             IAmb   IAmb   19 44 30.4
      comp=Z,12nm,1.0s
KURK  Kurchatov        44.22 314        PcP    19 46 13.3  -0.7
KURK  Kurchatov        44.22 314 P      P      19 44 29.8 +0.1
      comp=Z,13nm,0.9s
KURBB Kurchatov Arra   44.26 314 P      P      19 44 29.0  -1.1
      comp=Z,5.9nm,0.6s,baz=96,slow=8.7,SNR=48
KURBB                            PcP    PP     19 46 13.3 +0.1
      comp=Z,0.6nm,0.8s,baz=93,slow=2.3,SNR=3.0
KURBB                            LR     LR     20 04 05.4
      comp=Z,119nm,19.1s,baz=190,slow=38
      comp=Z,5.9nm,0.6s
ASAI  AK-SAY(Kyrgyzs   45.19 300 P      P      19 44 36.3  -1.7
      comp=Z,1.3nm,0.8s
NRN   Naryn            45.56 301 P      P      19 44 40.0  -0.9
ATKA  Atka Island      46.31  44 P      P      19 44 46.9 +0.7
AAK   Ala-Archa        46.62 302 LR     LR     20 06 25.6
      comp=Z,57nm,21.3s,baz=120,slow=39
NRIK  Noril'sk         47.10 341 P      P      19 44 51.5  -0.8
      comp=Z,6.1nm,0.5s,baz=108,slow=8.4,SNR=5.4
      comp=Z,6.1nm,0.5s
NRIK  Noril'sk         47.10 341 P      P      19 44 50.9  -1.3
FITZ  Fitzroy Crossi   47.32 187 P      P      19 44 55.4 +0.9
ARSB  Arslanbob        47.83 301 P      P      19 44 57.1  -1.4
ARK   Arkit            48.55 302 P      P      19 45 04.7 +0.7
      comp=Z,7.1nm,1.4s
NIL   Nilore           48.67 291        P      19 45 04.3  -0.6
NIL   Nilore           48.67 291 P      P      19 45 04.5  -0.4
      comp=Z,20nm,0.8s
WB0   Warramunga Arr   48.85 175 P      P      19 45 06.9 +0.6
WB0                              IAmb   IAmb   19 45 22.9
      comp=Z,4.8nm,1.1s
WRA   Warramunga Arr   49.02 175 P      P      19 45 08.8 +1.2
      comp=Z,0.7nm,0.8s,baz=355,slow=7.8,SNR=2.5
      comp=Z,0.7nm,0.8s
WRA   Warramunga Arr   49.02 175 P      P      19 45 08.5 +0.9
WR8   Warramunga Arr   49.05 175 P      P      19 45 08.5 +0.7
WR8                              IAmb   IAmb   19 45 29.2
      comp=Z,5.0nm,1.1s
KK31  Karatay Array    49.52 303        P      19 45 11.1  -0.2
KK31                             IAmb   IAmb   19 45 13.0
      comp=Z,5.9nm,0.8s
KKAR  Karatay Array    49.52 303        P      19 45 10.3  -1.0
BVAR  Borovoye Array   49.55 316 P      P      19 45 10.8  -0.5
      comp=Z,9.2nm,0.6s,baz=100,slow=9.2,SNR=32
      comp=Z,9.2nm,0.6s
BORK  Borovoye         49.59 316        P      19 45 10.8  -0.9
ASAR  Alice Springs    52.70 176 P      P      19 45 37.6 +2.3
      comp=Z,0.6nm,0.8s,baz=9.9,slow=13,SNR=7.4
      comp=Z,0.6nm,0.8s
ASAR  Alice Springs    52.70 176 P      P      19 45 36.9 +1.6
N15K  Kwethluk River   54.83  35 P      P      19 45 51.5 +1.0
N15K                             IAmb   IAmb   19 46 04.2
      comp=Z,15nm,1.5s
O15K  Ungalikthiuk R   54.94  36 P      P      19 45 51.9 +0.6
O15K                             IAmb   IAmb   19 46 25.9
      comp=Z,16nm,1.5s
CNBA  Chernabura Isl   55.13  41 P      P      19 45 52.5  -0.2
C18K  Utukok River     55.14  24 P      P      19 45 52.8 +0.1
C18K                             IAmb   IAmb   19 46 21.2
      comp=Z,16nm,1.4s
H17K  Granite Mounta   55.20  29 P      P      19 45 53.5 +0.4
H17K                             IAmb   IAmb   19 46 04.1
      comp=Z,4.2nm,1.0s
J17K  VABM Dome        55.45  31 P      P      19 45 55.7 +0.8
J17K                             IAmb   IAmb   19 46 15.7
      comp=Z,12nm,1.5s
K17K  Iditarod         55.78  32 P      P      19 45 58.7 +1.4
K17K                             IAmb   IAmb   19 46 01.2
      comp=Z,7.8nm,1.3s
C19K  Lookout Ridge    55.78  24 P      P      19 45 59.0 +1.7
C19K                             IAmb   IAmb   19 46 36.9
      comp=Z,10nm,1.4s
G18K  Tagagawik        55.80  28 P      P      19 45 58.4 +1.0
G18K                             IAmb   IAmb   19 45 59.5
      comp=Z,8.3nm,1.2s
AB31  Akbulak array    56.22 312        P      19 46 00.2  -0.5
ABKAR Akbulak array    56.22 312        P      19 46 00.1  -0.6
D19K  Kuna River       56.24  25 P      P      19 46 01.4 +0.9
D19K                             IAmb   IAmb   19 46 13.6
      comp=Z,16nm,1.5s
N17K  Nushagak Hills   56.28  34 P      P      19 46 01.2 +0.3
N17K                             IAmb   IAmb   19 46 40.0
      comp=Z,6.4nm,1.3s
G19K  Purcell Mounta   56.46  28 P      P      19 46 02.5 +0.5
ARTI  Arti             56.52 321 LR     LR     20 11 04.2
      comp=Z,68nm,18.3s,baz=102,slow=37
ARTI  Arti             56.52 321        P      19 46 02.0  -0.7
J19K  Poorman          57.01  30 P      P      19 46 07.2 +1.2
J19K                             IAmb   IAmb   19 46 37.1
      comp=Z,5.8nm,1.3s
AKTO  Aktyubinsk       57.31 314 LR     LR     20 12 52.0
      comp=Z,103nm,18.1s,baz=44,slow=38
HRA   Herat            57.40 294 IAmb   IAmb   19 46 11.2
      comp=Z,4.3nm,0.8s
E21K  Killik River     57.77  25 IAmb   IAmb   19 46 13.3
      comp=Z,3.5nm,0.8s
OHAK  Old Harbor       58.49  38 P      P      19 46 17.0 +0.5
OHAK                             IAmb   IAmb   19 47 00.3
      comp=Z,13nm,1.4s
H22K  Ishtalitna Cre   58.79  28        P      19 46 19.7 +1.1
H22K                             IAmb   IAmb   19 46 21.4
      comp=Z,4.3nm,0.9s
SUA   Susitna One      59.37  33 IAmb   IAmb   19 46 25.9
      comp=Z,7.8nm,0.8s
ILAR  Eielson Array    60.76  29 P      P      19 46 31.7  -0.3
      comp=Z,0.6nm,0.7s,baz=274,slow=6.0,SNR=7.1
      comp=Z,0.6nm,0.7s
ARMA  Armidale         62.60 160 P      P      19 46 46.6 +1.7
UOSS  Minazif          65.42 286 P      P      19 47 04.4 +0.7
UOSS                             IAmb   IAmb   19 47 20.7
      comp=Z,7.2nm,1.1s
ARCES ARCESS Array B   68.01 339 P      P      19 47 18.7  -0.8
      comp=Z,2.8nm,1.0s,baz=61,slow=6.8,SNR=5.7
      comp=Z,2.8nm,1.0s
ARCES ARCESS Array B   68.01 339 IAmb   IAmb   19 48 01.4
      comp=Z,13nm,1.4s
KBZ   Khabaz           68.95 309 P      P      19 47 26.0 +0.3
      comp=Z,13nm,0.9s,baz=94,slow=4.5,SNR=26
KVAR  Kislovodsk Arr   69.01 309 LR     LR     20 21 12.6
      comp=Z,23nm,18.3s,baz=322,slow=39
KIV   Kislovodsk       69.02 309 P      P      19 47 26.3   0.0
      comp=Z,13nm,1.1s
HAKT  HAKKARI          70.64 303 P      P      19 47 36.8 +0.2
      comp=Z,53nm,0.7s
GEVA  Gevas            70.83 304        P      19 47 37.9 +0.3
DIB   Dawson Inlet,    70.99  39 P      P      19 47 38.8 +0.7
FIA1  FINESS Array S   71.32 331 P      P      19 47 38.8  -1.1
FINES FINESS Array B   71.32 331 P      P      19 47 38.9  -1.0
      comp=Z,1.4nm,0.4s,baz=63,slow=5.6,SNR=24
      comp=Z,1.4nm,0.4s
FINES FINESS Array B   71.32 331 P      P      19 47 38.7  -1.2
RES   Resolute Bay     72.18  12 P      P      19 47 46.0 +1.1
AK03  Malin Array Si   74.65 320 P      P      19 47 59.0  -0.9
AKASG Malin Array Be   74.66 320 P      P      19 47 59.1  -0.8
      comp=Z,1.1nm,0.3s,baz=54,slow=6.2,SNR=11
      comp=Z,1.1nm,0.3s
AKASG Malin Array Be   74.66 320 P      P      19 47 60.0   0.0
AKBB  Malin Array Si   74.66 320 P      P      19 48 00.0 +0.1
AKBB                             IAmb   IAmb   19 48 00.5
      comp=Z,8.3nm,1.2s
AKBB  Malin Array Si   74.66 320 P      P      19 47 59.2  -0.7
AK09  Malin Array Si   74.66 320 P      P      19 47 59.3  -0.6
AK01  Malin Array Si   74.67 320 P      P      19 47 59.4  -0.6
KIEV  Kiev             74.67 320 P      P      19 48 00.0   0.0
KIEV                             IAmb   IAmb   19 48 00.5
      comp=Z,6.8nm,1.1s
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KIEV  Kiev             74.67 320 P      P      19 47 59.1  -0.9
      comp=Z,21nm,0.9s
AK08  Malin Array Si   74.67 320 P      P      19 47 59.4  -0.6
AK08                             pP     pP     19 48 05.4  -1.2
AK04  Malin Array Si   74.68 320 P      P      19 47 59.6  -0.4
RAYN  Ar Rayn          74.92 289        P      19 48 01.9  -0.1
RAYN                             IAmb   IAmb   19 48 03.5
      comp=Z,4.0nm,0.9s
RAYN  Ar Rayn          74.92 289 P      P      19 48 02.5 +0.4
      comp=Z,6.0nm,1.4s
PABE  Paberze          75.13 326 P      P      19 48 03.2 +0.7
LUBAR Lubar, Ukraine   75.86 319 P      P      19 48 06.9 +0.1
RNPP5 Staryi Chortor   76.26 321 P      P      19 48 09.1   0.0
SORM  Soroca           76.37 318 P      P      19 48 09.1  -0.6
      comp=Z,6.4nm,1.4s
BRTR  Keskin Array B   76.90 308 P      P      19 48 13.3 +0.1
      comp=Z,2.0nm,0.8s,baz=87,slow=4.9,SNR=8.4
      comp=Z,2.0nm,0.8s
BRTR  Keskin Array B   76.90 308 P      P      19 48 11.9  -1.2
BR104 Keskin Array S   76.91 308 P      P      19 48 13.2   0.0
      comp=Z,2.8nm,1.4s
BR106 Keskin Array S   76.91 308 P      P      19 48 12.7  -0.5
      comp=Z,2.2nm,0.9s
BR105 Keskin Array S   76.92 308 P      P      19 48 12.8  -0.5
      comp=Z,3.8nm,1.0s
HFS   Hagfors          77.16 333 P      P      19 48 13.3  -0.7
      comp=Z,1.4nm,0.4s,baz=90,slow=1.5,SNR=8.6
      comp=Z,1.4nm,0.4s
KMPD  K-Podol'skiy     77.26 319 P      P      19 48 14.2  -0.6
NC405 NORSAR Array S   77.33 334 P      P      19 48 14.0  -1.0
NB2   NORSAR Subarra   77.57 334 P      P      19 48 14.8  -1.5
      comp=Z,0.6nm,0.4s,baz=47,slow=5.9
NOA   NORSAR Array B   77.57 334 P      P      19 48 14.9  -1.5
      comp=Z,0.8nm,0.4s,baz=50,slow=5.5,SNR=6.7
      comp=Z,0.8nm,0.4s
NC204 NORSAR Array S   77.59 335 P      P      19 48 15.4  -1.1
SUMG  Summit           78.18 357 P      P      19 48 20.5 +0.5
SUMG                             IAmb   IAmb   19 48 25.1
      comp=Z,10nm,1.5s
BUR08 Bucovina Ar. S   78.45 318 P      P      19 48 22.3 +0.7
BUR08                            IAmb   IAmb   19 48 53.2
      comp=Z,8.6nm,1.5s
BURAR Bucovina Array   78.46 318 P      P      19 48 22.2 +0.6
BISRR Bisoca           78.62 316 P      P      19 48 22.4  -0.1
      comp=Z,280nm,1.1s
CY604 RAF Akrotiri,    78.75 303 P      P      19 48 23.4 +0.4
OJC   Ojcow            80.08 322        P      19 48 30.7 +0.3
OJC   Ojcow            80.08 322 P      P      19 48 30.5 +0.2
      comp=Z,9.3nm,1.1s
OJC   Ojcow            80.08 322 P      P      19 48 31.0 +0.7
      comp=Z,9.3nm,1.1s
NIE   Niedzica         80.26 322 P      P      19 48 31.9 +0.5
      comp=Z,2.4nm,0.7s
ELL   Elmali           80.90 307 P      P      19 48 35.4 +0.3
ELL                              IAmb   IAmb   19 48 59.8
      comp=Z,12nm,1.2s
VYHS  Vyhne            81.58 321 eP     P      19 48 40.0 +1.6
MORH  Mrgy, Hungar     83.00 320 P      P      19 48 46.1 +0.3
      comp=Z,2.1nm,1.0s
RONA  Rosalia, Austr   83.42 322 ePcP   P      19 48 49.4 +1.3
      comp=Z,2.1nm,1.0s
CONA  Conrad Observa   83.52 322 i PcP  P      19 48 50.3 +1.7
      comp=Z,4.1nm,1.0s
GERES GERESS Array B   84.10 324 P      P      19 48 51.7 +0.2
      comp=Z,0.4nm,0.3s,baz=49,slow=4.1,SNR=4.7
      comp=Z,0.4nm,0.3s
ARSA  Arzberg          84.11 322 i PcP  P      19 48 52.7 +1.1
      comp=Z,2.5nm,1.0s
SOKA  Soboth           84.73 321 i PcP  P      19 48 55.8 +1.0
      comp=Z,3.9nm,1.0s
BIOA  Bad Ischl, Aus   84.85 323 ePcP   P      19 48 56.1 +0.8
      comp=Z,3.6nm,1.1s
OBKA  Obir             85.09 322 i PcP  P      19 48 57.1 +0.4
      comp=Z,1.2nm,0.5s
KBA   Koelnbreinsper   85.39 322 i PcP  P      19 48 59.1 +0.9
      comp=Z,1.7nm,0.5s
LESA  Schwarzleotal    85.52 323 i P    P      19 48 58.9 +0.1
      comp=Z,2.2nm,0.5s
ABTA  Abfaltersbach    86.04 323 ePcP   P      19 49 01.7 +0.3
      comp=Z,2.2nm,0.5s
NVAR  Mina Array Bea   86.86  47 P      P      19 49 07.1 +1.4
      comp=Z,0.8nm,0.8s,baz=312,slow=8.7,SNR=3.6
      comp=Z,0.8nm,0.8s
EKA   Eskdalemuir Ar   86.97 336 P      P      19 49 05.2  -0.4
      comp=Z,0.5nm,0.4s,baz=48,slow=4.9,SNR=5.1
      comp=Z,0.5nm,0.4s
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*SJA **04** 19:45:02.7±0.7, 27°.81S×71°.64W, h9^{km}±2^{km}, ML3.6, MW3.4*

*GUC **04** 19:45:07.2±0.6, 27°.93S×71°.43W, h24^{km}±2^{km}, ML3.5*

ISC 04 19:45:03.0±1.0**, 27°.89S**±0°.02×**71°.62W**±0°.04**, h10^{km}, n40, σ2^{s}34**/70**, 3C-4D, Near coast of northern Chile**

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Code  Station Name       Δ°  AZ°   Phase ID        Time      Res
                                   Op     ISC    h  m  s    ISC
AC04  Llanos de Chal    0.57 123  eP     Pb     19 45 15.1  -0.1
AC04                              eS     Sg     19 45 15.7  -6.0
AC04                               IAML         19 45 22.6
      comp=Z,2µm,0.3s
AC04  Llanos de Chal    0.57 123⇑ eP     Pb     19 45 15.9 +0.7
AC04                              eS     Sg     19 45 21.8 +0.1
AC04                               IAML         19 45 22.4
      comp=E,6µm,0.2s
AC06  Mina Casimiro     1.24  65⇓ eP     Pg     19 45 26.6  -0.3
AC06                              eS     Sb     19 45 40.9  -1.8
AC06                               IAML         19 45 47.4
      comp=E,2µm,0.8s
GO03  Copiapo           1.26  77  eP     Pg     19 45 27.1  -0.2
GO03                              eS     Sn     19 45 47.4 +3.5
GO03                               IAML         19 45 47.8
      comp=Z,2µm,0.4s
GO03  Copiapo           1.26  77⇓ eP     Pg     19 45 26.9  -0.4
GO03                              eS     Sb     19 45 41.7  -1.6
GO03                               IAML         19 45 48.6
      comp=E,3µm,0.6s
LCO   Las Campanas      1.38 144  eP     Pn     19 45 18.8   -10
LCO                               eS     Sg     19 45 47.8 +0.4
LCO                                IAML         19 45 49.9
      comp=Z,1µm,0.2s
LCO   Las Campanas      1.38 144⇓ eP     Pg     19 45 29.4  -0.1
LCO                               eS     Sb     19 45 46.5  -0.3
AC05  El Transito       1.51 129  eP     Pg     19 45 31.9  -0.1
AC05                              eS     Sg     19 45 51.1  -0.6
AC05                               IAML         19 45 51.4
      comp=Z,639nm,0.4s
AC05  El Transito       1.51 129  eP     Pg     19 45 31.5  -0.6
AC05                              eS     Sn     19 45 49.2  -0.9
AC01  Pan de Azucar     1.96  28  eP     Pb     19 45 37.5  -1.4
AC01                              eS     Sb     19 46 03.2  -0.3
AC01                               IAML         19 46 10.6
      comp=Z,366nm,0.7s
AC01  Pan de Azucar     1.96  28⇑ eP     Pb     19 45 37.3  -1.6
AC01                              eS     Sg     19 46 05.7  -0.4
GO04  Tololo Observa    2.38 163  eP     Pb     19 45 45.5  -0.7
GO04                              eS     Sn     19 46 14.0 +2.2
GO04                               IAML         19 46 21.4
      comp=Z,527nm,0.3s
GO04  Tololo Observa    2.38 163  eP     Pb     19 45 45.2  -0.9
GO04                              eS     Sb     19 46 15.2  -0.5
AC02  Maricunga         2.45  65  eP     Pb     19 45 46.7  -0.8
AC02                              eS     Sb     19 46 17.2  -0.8
AC02                               IAML         19 46 23.3
      comp=Z,504nm,0.3s
AC02  Maricunga         2.45  65⇑ eP     Pb     19 45 46.5  -1.0
AC02                              eS     Sb     19 46 16.2  -1.8
CO01  Juntas del Tor    2.47 148  eP     Pb     19 45 47.3  -0.4
CO01                              eS     Sb     19 46 18.0  -0.3
CO01                               IAML         19 46 22.9
      comp=Z,222nm,0.3s
CO01  Juntas del Tor    2.47 148  eP     Pb     19 45 47.1  -0.6
CO01                              eS     Sb     19 46 16.1  -2.2
CO01                               IAML         19 46 21.7
      comp=N,423nm,0.4s
CO06  Fray Jorge        2.77 180  eP     Pn     19 45 49.4 +1.9
CO06                              eS     Sn     19 46 21.9 +0.9
CO06                               IAML         19 46 40.9
      comp=E,136nm,0.6s
AROD  Rodeo             2.94 141  eP     Pb     19 45 56.1 +0.3
AROD                              eS     Sn     19 46 28.6 +2.8
CO03  El Pedregal       3.04 165  eP     Pb     19 45 54.9  -2.5
CO03                              eS     Sb     19 46 33.8  -0.9
CO03                               IAML         19 46 40.8
      comp=Z,134nm,0.6s
CO03  El Pedregal       3.04 165  eP     Pn     19 45 54.1 +2.7
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CO03				*e*S	**Sn**	**19 46 29.8**	**+1.8**
CO03				IAML		19 46 47.5	
	comp=E,281nm,0.4s						
VCA	**Vinchina**	**3.12**	**106**	*e*P	**Pb**	**19 45 55.5**	**-3.3**
VCA				*e*S	**Sb**	**19 46 36.1**	**-0.9**
VCA				IAML		19 46 46.3	
	comp=Z,282nm,0.5s						
VCA	**Vinchina**	**3.12**	**106**	*e*P	**Pb**	**19 45 58.1**	**-0.7**
VCA				*e*S	**Sg**	**19 46 40.3**	**-3.1**
ACDV	**Cuesta del Vie**	**3.15**	**137**	*e*P	Pn	19 45 42.5	-10
ACDV				IAML		19 46 47.0	
	comp=Z,92nm,1.2s						
CO02	**Combarbal**	**3.34**	**171**	*e*P	**Pn**	**19 45 58.3**	**+2.8**
CO02				*e*S	**Sb**	**19 46 41.3**	**-2.0**
CO02				IAML		19 46 53.8	
	comp=Z,305nm,0.5s						
CO02	**Combarbal**	**3.34**	**171**	⇓*e*P	**Pn**	**19 45 58.1**	**+2.6**
CO02				*e*S	**Sn**	**19 46 38.1**	**+2.7**
PB14	**IPOC Station P**	**3.43**	**19**	*e*P	**Pn**	**19 45 57.8**	**+0.9**
PB14				*e*S	**Sb**	**19 46 48.3**	**+2.3**
PB14				IAML		19 46 59.8	
	comp=Z,93nm,0.6s						
PB14	**IPOC Station P**	**3.43**	**19**	*e*P	**Pn**	**19 45 57.3**	**+0.4**
PB14				*e*S	**Sg**	**19 46 50.7**	**-2.7**
ACCO	**Cerro Coronel**	**3.49**	**141**	*e*P	**Pb**	**19 46 03.3**	**-1.8**
ACCO				*e*S	**Sb**	**19 46 46.9**	**-0.9**
ACCO				IAML		19 46 57.2	
	comp=Z,111nm,1.1s						
TINO	**Tinogasta**	**3.58**	**94**	*e*P	**Pb**	**19 46 02.5**	**-4.2**
TINO				*e*S	**Sb**	**19 46 49.1**	**-1.2**
TINO				IAML		19 46 59.9	
	comp=Z,133nm,1.6s						
ACLC	**CERRO LA CRUZ**	**4.38**	**112**	*e*P	**Pn**	**19 46 13.9**	**+4.2**
ACLC				*e*S	**Sb**	**19 47 16.2**	**+3.2**
ACLC				IAML		19 47 16.3	
	comp=Z,61nm,0.4s						
RTLS	**Leoncito**	**4.38**	**153**	*e*P	**Pb**	**19 46 16.3**	**-4.1**
RTLS				*e*S	**Sb**	**19 47 08.3**	**-5.1**
CFA	**Coronel Fontan**	**4.72**	**142**	*e*P	**Pn**	**19 46 13.9**	**-0.5**
CFA				*e*P	Pb	19 46 19.5	-6.5
CFA				*e*S	**Sn**	**19 47 14.9**	**+5.6**
CFA				IAML		19 47 28.8	
	comp=Z,45nm,0.5s						
VA03	**San Esteban**	**4.94**	**170**	*e*P	Pb	19 46 24.0	-5.8
CYA	**Choya**	**5.16**	**97**	*e*P	**Pn**	**19 46 24.6**	**+4.1**
CYA				*e*S	**Sn**	**19 47 24.3**	**+4.2**
CYA				IAML		19 47 33.1	
	comp=Z,45nm,0.5s						
CYA	**Choya**	**5.16**	**97**	*e*P	**Pn**	**19 46 24.3**	**+3.9**
CYA				*e*S	**Sn**	**19 47 24.4**	**+4.3**
PB05	**IPOC Station P**	**5.18**	**15**	*e*P	Pn	19 46 10.9	-10
PB05				IAML		19 47 49.2	
	comp=Z,21nm,0.5s						
AHML	**Horco Molle**	**5.70**	**80**	*e*P	**Pn**	**19 46 27.7**	**-0.1**
SLA	**San Lorenzo**	**6.33**	**61**	*e*P	Pb	19 46 46.7	-6.8
TCA	**Tanti**	**7.01**	**121**	*e*P	**Pn**	**19 46 47.5**	**+1.7**
TCA				*e*S	**Sn**	**19 48 04.8**	**-0.9**

TAP 04 19:51:04.7,23°.20N×120°.82E,h7km,ML2.8,2C-2D,B, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STYH	**Taoyuan**	**0.05**	**232**	*i*P	Pg	19 51 06.6	+0.3
STYH				*i*S	Sg	19 51 07.8	+0.4
STYT	**Tauyuan**	**0.07**	**236**	⇑*i*P	Pg	19 51 07.0	+0.4
STYT				S	Sg	19 51 08.4	+0.5
ELDTW	**Lidau**	**0.18**	**93**	⇑*i*P	Pg	19 51 09.5	+0.9
WTP	**Ta-pu**	**0.19**	**284**	*i*P	Pg	19 51 09.5	+0.9
SGST	**Jiashian**	**0.24**	**241**	*i*P	Pg	19 51 09.7	+0.1
SGST				S	Sg	19 51 14.6	+1.7
SLGT	**Liugui**	**0.26**	**217**	*i*P	Pb	19 51 10.8	-0.9
SLGT				S	Sb	19 51 15.1	-1.3
CHN1	**Nanshi**	**0.27**	**267**	*i*P	Pb	19 51 11.4	-0.5
CHN1				S	Sb	19 51 15.7	-0.9
WCKO	**Fanlu**	**0.31**	**321**	*e*P	Pb	19 51 12.1	-0.5
WCKO				*e*S	Sb	19 51 17.1	-0.6
ALS	**Alishan**	**0.31**	**358**	*i*P	Pg	19 51 11.7	+0.7
ALS				*i*S	Sg	19 51 16.4	+1.3
YUS	**Yu-Shan**	**0.31**	**23**	*e*P	Pg	19 51 11.9	+0.8
EHD	**Haiduan**	**0.36**	**98**	*e*P	Pb	19 51 12.7	-0.8
EHD				*e*S	Sg	19 51 17.9	+1.3
ECS	**Chishang**	**0.39**	**106**	*e*P	Pb	19 51 13.4	-0.5
ECS				*e*S	Sb	19 51 19.6	-0.4
LONT	**Longtian**	**0.41**	**135**	*i*P	Pb	19 51 13.6	-0.7
LONT				*i*S	Sg	19 51 19.4	+1.2
CHN5	**Tsauling**	**0.41**	**342**	*i*P	Pb	19 51 13.8	-0.7
CHN5				S	Sb	19 51 20.6	-0.4
SCST	**Cishan**	**0.43**	**224**	*i*P	Pb	19 51 15.1	+0.4
SCST				*e*S	Sb	19 51 22.4	+1.1
FULB	**Fuli**	**0.44**	**90**	*i*P	Pb	19 51 14.7	-0.1
FULB				*i*S	Sb	19 51 21.6	0.0
TWG	**Pinlang**	**0.45**	**148**	⇓*i*P	Pb	19 51 14.3	-0.5
TWG				S	Sb	19 51 21.7	-0.1
TWGBT	**Beinan**	**0.45**	**147**	⇓P	Pb	19 51 14.3	-0.7
TWGBT				*i*S	Sb	19 51 21.3	-0.6
CHY	**Chiayi**	**0.47**	**310**	*e*P	Pb	19 51 15.5	+0.2
CHY				*i*S	Sb	19 51 23.3	+0.9
TWF1	**Yuli**	**0.47**	**71**	*i*P	Pb	19 51 14.6	-0.6
TWF1				S	Sg	19 51 20.7	+0.7
YULB	**Yu-li**	**0.48**	**67**	*e*P	Pg	19 51 14.7	+0.6
SSD	**Sandimen**	**0.48**	**201**	*e*P	Pg	19 51 14.8	+0.7
SSD				*i*S	Sg	19 51 21.0	+0.6
EYUL	**Yuli**	**0.48**	**72**	*i*P	Pb	19 51 14.9	-0.7
EYUL				*i*S	Sg	19 51 21.2	+0.7
WHYT	**Xinyi Township**	**0.49**	**4**	P	Pb	19 51 15.2	-0.6
WHYT				*i*S	Sg	19 51 21.9	+1.1
EDH	**Donghe**	**0.50**	**117**	*e*P	Pb	19 51 15.9	0.0
EDH				S	Sb	19 51 22.4	-0.9
CHKT	**Chengkung**	**0.52**	**101**	*e*S	Sb	19 51 25.3	+1.5
TSMG	**Majia**	**0.52**	**198**	*e*P	Pg	19 51 15.2	+0.5
TSMG				*e*S	Sg	19 51 21.8	+0.3
ICHU	**Yijhu**	**0.52**	**288**	*e*P	Pb	19 51 16.1	0.0
ICHU				*e*S	Sn	19 51 26.1	-1.5
CHKH	**Chenggong**	**0.53**	**91**	*e*S	Sb	19 51 25.6	+1.3
WDLH	**Douliu**	**0.55**	**332**	P	Pb	19 51 17.6	+0.9
WDLH				*e*S	Sn	19 51 26.7	-1.7
EHY	**Hungye**	**0.56**	**57**	*e*P	Pb	19 51 16.5	-0.3
EHYH	**Wanrong**	**0.57**	**59**	*e*P	Pg	19 51 15.9	+0.2
WDL	**Douliou City**	**0.57**	**334**	*e*P	Pn	19 51 18.3	-1.0
SCLT	**Jiali**	**0.57**	**268**	*e*S	Sn	19 51 28.4	-0.6
CHN8	**Yiju**	**0.57**	**285**	*e*P	Pb	19 51 17.6	+0.5
ECBN	**Changbin**	**0.60**	**79**	*e*P	Pb	19 51 18.4	+0.9
SSLB	**Suanglung**	**0.60**	**12**	*i*P	Pg	19 51 16.7	+0.4
SSLB				*e*S	Sg	19 51 25.1	+0.9
MASBT	**Mashibuluo**	**0.61**	**196**	*e*P	Pg	19 51 17.1	+0.6
MASBT				S	Sg	19 51 24.8	+0.4
ECL	**Taimali**	**0.61**	**168**	*e*P	Pg	19 51 17.1	+0.5
WJS	**Zhushan**	**0.62**	**353**	*e*P	Pb	19 51 18.9	+0.9
WTK	**Tuku**	**0.62**	**321**	*e*P	Pb	19 51 18.6	+0.6
WSL	**Shuilin Townsh**	**0.63**	**301**	*e*P	Pn	19 51 19.1	-0.9
WSL				*e*S	Sb	19 51 28.3	+1.3
HGSD	**Ruisui**	**0.63**	**62**	*e*P	Pb	19 51 18.3	+0.2
TSCK	**Chigu Township**	**0.67**	**266**	*e*P	Pb	19 51 19.6	+0.8
TSCK				*e*S	Sn	19 51 30.0	-1.4
SMLT	**Sun Moon Lake**	**0.68**	**6**	*e*P	Pb	19 51 18.9	-0.2
SMLT				*e*S	Sb	19 51 29.4	+0.7
WNT	**Mingjian**	**0.69**	**350**	*e*P	Pb	19 51 19.8	+0.8
WNT				*e*S	Sn	19 51 30.7	-1.0
WSF	**Szhu**	**0.70**	**309**	*e*P	Pb	19 51 19.7	+0.5
TYC	**Yuchr**	**0.70**	**3**	*e*P	Pn	19 51 20.2	-0.9
TYC				*e*S	Sb	19 51 30.2	+1.0
WARBT	**Fenglin Townsh**	**0.73**	**45**	*e*P	Pg	19 51 19.4	+0.5
WRL	**Guolierlin Hig**	**0.81**	**330**	*e*S	Sn	19 51 34.0	-0.7
EAST	**Anshuo**	**0.81**	**178**	*e*P	Pn	19 51 21.9	-0.7
OWD	**Renai**	**0.82**	**24**	*e*P	Pg	19 51 20.4	-0.1
ESL	**Shilin**	**0.83**	**43**	*i*P	Pb	19 51 21.6	+0.1
ESL				S	Sb	19 51 33.6	+0.7
WUSB	**Renai**	**0.83**	**19**	*e*P	Pg	19 51 20.9	+0.1
SCZT	**Fangliau**	**0.84**	**192**	*e*P	Pb	19 51 22.3	+0.6
WCS	**Beigang Elemen**	**0.86**	**6**	*e*P	Pn	19 51 22.6	-0.6
WCS				S	Sn	19 51 34.9	-1.1
SHUL	**Shoufeng**	**0.90**	**49**	*e*P	Pn	19 51 23.9	+0.1
TWP	**Hsiaoliuchiu**	**0.95**	**206**	*e*P	Pn	19 51 27.6	+3.2
TWP				*e*S	Sn	19 51 43.9	+5.7
LXIB	**Xiulin Townshi**	**0.98**	**34**	*e*P	Pg	19 51 23.9	+0.3
LXIB				S	Sn	19 51 38.6	-0.7
WHF	**Hehuan Shan**	**1.03**	**24**	P	Pg	19 51 24.4	-0.2
HWA	**Hwalien**	**1.06**	**43**	*e*P	Pn	19 51 26.2	+0.3
HWA				*e*S	Sn	19 51 41.7	+0.8
ETLH	**Xiulin Townshi**	**1.17**	**31**	*e*P	Pg	19 51 27.1	-0.2
ETLH				*e*S	Sn	19 51 43.4	-0.5
NACB	**Ninganchiao**	**1.20**	**36**	*e*P	Pn	19 51 27.9	0.0
NACB				S	Sn	19 51 45.1	+0.5
LIOB	**Emei**	**1.45**	**7**	*e*P	Pg	19 51 33.4	+0.8
LIOB				*e*S	Sg	19 51 54.0	+2.6
NFF	**Wufeng Townshi**	**1.45**	**11**	*e*P	Pg	19 51 33.1	+0.5
NFF				*i*S	Sg	19 51 53.0	+1.6
YHNB	**Yeheng**	**1.55**	**19**	*e*P	Pb	19 51 33.7	-0.1
NDS	**Dongshan**	**1.65**	**30**	*e*P	Pg	19 51 36.8	+0.5
NDS				S	Sg	19 51 59.6	+1.9

TAP 04 19:51:07.3,23°.19N×120°.83E,h6km,ML2.9,A,Taiwan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STYH	**Taoyuan**	**0.06**	**255**	P	Pg	19 51 09.4	+0.6
STYH				*i*S	Sg	19 51 10.5	+0.6
STYT	**Tauyuan**	**0.07**	**253**	*i*P	Pg	19 51 09.7	+0.5
STYT				*i*S	Sg	19 51 11.0	+0.5
ELDTW	**Lidau**	**0.17**	**89**	*i*P	Pg	19 51 12.1	+1.3
ELDTW				*i*S	Sg	19 51 15.0	+1.9
ELDTW	**Lidau**	**0.17**	**89**	*i*S	Pg	19 51 12.1	+1.3
WTP	**Ta-pu**	**0.21**	**287**	*i*P	Pg	19 51 12.4	+0.9
WTP				*i*S	Sg	19 51 15.7	+1.3
WTP	**Ta-pu**	**0.21**	**287**	*i*S	Pg	19 51 12.5	+1.0
SGST	**Jiashian**	**0.25**	**246**	P	Pb	19 51 13.5	-0.8
SLGT	**Liugui**	**0.26**	**222**	*i*P	Pb	19 51 13.7	-0.7
CHN1	**Nanshi**	**0.28**	**270**	*i*P	Pb	19 51 14.2	-0.6
CHN1				*i*S	Sb	19 51 18.7	-1.0
YUS	**Yu-Shan**	**0.32**	**20**	*e*P	Pg	19 51 14.5	+0.7
ALS	**Alishan**	**0.33**	**355**	*i*P	Pg	19 51 14.6	+0.7
ALS				*i*S	Sb	19 51 20.6	-0.7
WCKO	**Fanlu**	**0.33**	**320**	*e*P	Pb	19 51 15.2	-0.4
WCKO				S	Sb	19 51 20.4	-0.7
EHD	**Haiduan**	**0.34**	**96**	*e*P	Pb	19 51 15.5	-0.4
ECS	**Chishang**	**0.37**	**104**	P	Pb	19 51 16.1	-0.2
ECS				S	Sb	19 51 21.2	-0.9
LONT	**Longtian**	**0.39**	**135**	P	Pb	19 51 16.5	-0.1
LONT				*e*S	Sb	19 51 22.1	-0.7
TWG	**Pinlang**	**0.42**	**149**	P	Pb	19 51 17.2	0.0
TWGBT	**Beinan**	**0.43**	**148**	*e*P	Pb	19 51 17.8	+0.5
SCST	**Cishan**	**0.43**	**226**	P	Pb	19 51 18.4	+1.1
CHN3	**Shinhua**	**0.44**	**256**	P	Pg	19 51 16.6	+0.7
CHN3				S	Sb	19 51 24.6	+0.2
CHN3	**Shinhua**	**0.44**	**256**	*i*P	Pg	19 51 16.3	+0.3
CHN3				S	Sb	19 51 24.8	+0.4
TWF1	**Yuli**	**0.46**	**69**	*e*P	Pb	19 51 17.4	-0.4
TWF1				S	Sg	19 51 23.4	+1.1
SSD	**Sandimen**	**0.47**	**203**	*i*P	Pb	19 51 17.5	-0.6
SSD				S	Sb	19 51 24.8	-0.5
EDH	**Donghe**	**0.48**	**116**	*e*P	Pb	19 51 18.0	-0.2
CHY	**Chiayi**	**0.49**	**310**	*e*P	Pb	19 51 18.1	-0.2
CHY				S	Sb	19 51 26.4	+0.7
TSMG	**Majia**	**0.51**	**200**	*e*P	Pb	19 51 18.1	-0.6
TSMG				*e*S	Sb	19 51 25.0	-1.2
WHYT	**Xinyi Township**	**0.51**	**2**	P	Pg	19 51 17.8	+0.7
CHKH	**Chenggong**	**0.52**	**89**	*e*P	Pb	19 51 19.2	+0.4
ICHU	**Yijhu**	**0.54**	**289**	*e*P	Pb	19 51 19.6	+0.5
ICHU				*e*S	Sb	19 51 26.8	-0.4
ECBN	**Changbin**	**0.58**	**77**	*e*P	Pn	19 51 21.7	-0.4
WDL	**Douliou City**	**0.59**	**333**	*e*P	Pb	19 51 20.7	+0.6
CHN8	**Yiju**	**0.59**	**286**	*e*P	Pb	19 51 20.2	+0.2
MASBT	**Mashibuluo**	**0.60**	**198**	*e*P	Pb	19 51 19.6	-0.6
SSLB	**Suanglung**	**0.61**	**10**	P	Pg	19 51 19.4	+0.3
TSCK	**Chigu Township**	**0.69**	**267**	*e*P	Pn	19 51 22.7	-0.8
SMLT	**Sun Moon Lake**	**0.70**	**5**	P	Pb	19 51 21.6	-0.4
WNT	**Mingjian**	**0.70**	**349**	P	Pb	19 51 22.1	+0.1
WARBT	**Fenglin Townsh**	**0.73**	**44**	*e*P	Pg	19 51 20.7	-0.8
SSPT	**Xinbi**	**0.74**	**199**	*e*P	Pb	19 51 22.9	+0.3

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*TAP **04** 19:52:10.7,23°.20N×120°.82E,h7km,ML4.2,B*

*JMA **04** 19:52:11.3±0.2,23°.2N±0°.4×12°1E±°,h7km,MV3.7/12, TAIWAN REGION*

ISC 04 19:52:11.6±0.8,23°.20N±0°.01×120°.83E±0°.01,h11km±4km, n173,σ1^{s}.02/285,8C-6D,Taiwan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STYH	**Taoyuan**	**0.06**	**234**	⇑*i*P	**Pg**	**19 52 12.7**	**-1.1**
STYH				*i*S	**Sg**	**19 52 13.7**	**-1.6**
ELDTW	**Lidau**	**0.18**	**95**	⇓*i*P	**Pg**	**19 52 15.4**	**-0.2**
ELDTW				*i*S	**Sg**	**19 52 18.1**	**-0.2**
WTP	**Ta-pu**	**0.20**	**282**	⇓*i*P	**Pg**	**19 52 15.5**	**-0.4**
WTP				*i*S	**Sg**	**19 52 18.8**	**0.0**
SGST	**Jiashian**	**0.25**	**241**	⇑*e*P	**Pg**	**19 52 15.6**	**-1.2**
SGST				*e*S	**Sg**	**19 52 19.5**	**-0.8**
SLGT	**Liugui**	**0.27**	**218**	*i*P	**Pg**	**19 52 16.8**	**-0.3**
SLGT				*i*S	**Sg**	**19 52 20.8**	**+0.1**
CHN1	**Nanshi**	**0.27**	**266**	⇑*i*P	**Pg**	**19 52 17.3**	**+0.1**
CHN1				*i*S	**Sb**	**19 52 21.8**	**-1.5**
ALS	**Alishan**	**0.31**	**357**	*i*P	**Pg**	**19 52 17.7**	**-0.2**
ALS				*i*S	**Sg**	**19 52 22.3**	**+0.2**
YUS	**Yu-Shan**	**0.31**	**22**	*i*P	**Pg**	**19 52 17.8**	**-0.3**
YUS				*i*S	**Sg**	**19 52 22.4**	**+0.2**
WCKO	**Fanlu**	**0.31**	**319**	*i*P	**Pg**	**19 52 17.9**	**0.0**
WCKO				S	**Sb**	**19 52 23.0**	**-1.3**
EHD	**Haiduan**	**0.35**	**99**	*i*P	**Pg**	**19 52 18.5**	**-0.2**
EHD				S	**Sg**	**19 52 23.5**	**+0.1**
ECS	**Chishang**	**0.38**	**107**	⇓*i*P	**Pb**	**19 52 19.2**	**-1.1**
ECS				*i*S	**Sb**	**19 52 25.2**	**-1.0**
LONT	**Longtian**	**0.41**	**136**	*i*P	**Pg**	**19 52 19.6**	**-0.1**
LONT				S	**Sg**	**19 52 25.5**	**+0.4**
CHN5	**Tsauling**	**0.41**	**341**	⇓*i*P	**Pg**	**19 52 19.7**	**-0.1**
FULB	**Fuli**	**0.43**	**91**	*i*P	**Pb**	**19 52 20.6**	**-0.7**
FULB				*i*S	**Sb**	**19 52 26.9**	**-0.9**
SCST	**Cishan**	**0.44**	**224**	⇑*i*P	**Pb**	**19 52 20.7**	**-0.7**
SCST				S	**Sb**	**19 52 29.1**	**+1.1**
CHN3	**Shinhua**	**0.44**	**253**	*e*P	**Pb**	**19 52 21.8**	**+0.4**
CHN3				S	**Sb**	**19 52 30.3**	**+2.2**
TWG	**Pinlang**	**0.44**	**149**	⇓*i*P	**Pg**	**19 52 20.2**	**-0.1**
TWG				S	**Sg**	**19 52 26.7**	**+0.5**
TWGBT	**Beinan**	**0.45**	**149**	P	**Pg**	**19 52 20.1**	**-0.3**
TWGBT	**Beinan**	**0.45**	**149**	S	**Sg**	**19 52 26.3**	**-0.1**
TWGBT	**Beinan**	**0.45**	**149**	⇓*i*P	**Pg**	**19 52 20.1**	**-0.3**
TWGBT				S	**Sg**	**19 52 26.6**	**+0.2**
TWF1	**Yuli**	**0.46**	**71**	*i*P	**Pg**	**19 52 20.5**	**-0.1**
TWF1				*i*S	**Sg**	**19 52 26.3**	**-0.4**
CHY	**Chiayi**	**0.47**	**309**	*i*P	**Pb**	**19 52 21.4**	**-0.5**
CHY				*i*S	**Sb**	**19 52 29.6**	**+0.7**
YULB	**Yu-li**	**0.47**	**67**	P	**Pg**	**19 52 20.5**	**-0.4**
YULB	**Yu-li**	**0.47**	**67**	S	**Sg**	**19 52 27.3**	**+0.1**
YULB	**Yu-li**	**0.47**	**67**	⇑*i*P	**Pg**	**19 52 20.5**	**-0.4**
YULB				S	**Sg**	**19 52 26.5**	**-0.7**
EYUL	**Yuli**	**0.48**	**72**	⇑*i*P	**Pg**	**19 52 20.8**	**-0.2**
EYUL				*i*S	**Sg**	**19 52 27.0**	**-0.3**
SSD	**Sandimen**	**0.49**	**201**	*i*P	**Pg**	**19 52 20.6**	**-0.5**
SSD				S	**Sg**	**19 52 26.8**	**-0.8**
WHYT	**Xinyi Township**	**0.49**	**3**	*e*P	**Pg**	**19 52 21.2**	**-0.1**
WHYT				*i*S	**Sg**	**19 52 27.8**	**0.0**
EDH	**Donghe**	**0.50**	**117**	*e*P	**Pb**	**19 52 21.7**	**-0.7**
EDH				S	**Sb**	**19 52 29.4**	**-0.3**
SSHA	**Shanhua**	**0.50**	**262**	*e*P	**Pb**	**19 52 22.5**	**+0.1**
SSHA				*e*S	**Sn**	**19 52 32.1**	**+4.1**
CHKT	**Chengkung**	**0.51**	**102**	P	**Pb**	**19 52 22.3**	**-0.2**
CHKT				S	**Sb**	**19 52 30.9**	**+0.9**
TSMG	**Majia**	**0.52**	**199**	⇑*i*P	**Pg**	**19 52 21.2**	**-0.6**
TSMG				S	**Sg**	**19 52 27.6**	**-1.1**
CHKH	**Chenggong**	**0.53**	**91**	*e*P	**Pb**	**19 52 22.4**	**-0.4**
CHKH				S	**Sb**	**19 52 30.5**	**+0.1**
ICHU	**Yijhu**	**0.53**	**287**	P	**Pb**	**19 52 22.7**	**-0.2**
ICHU				S	**Sb**	**19 52 31.9**	**+1.4**
TWM1	**Shoushan**	**0.53**	**224**	*e*P	**Pb**	**19 52 23.3**	**+0.3**
TWM1				S	**Sn**	**19 52 33.3**	**-0.9**
TTN	**Taitung**	**0.54**	**146**	*e*P	**Pb**	**19 52 22.9**	**-0.2**
TTN				*e*S	**Sn**	**19 52 32.5**	**-1.7**
EHY	**Hungye**	**0.55**	**57**	*e*P	**Pg**	**19 52 22.0**	**-0.3**
WDLH	**Douliu**	**0.55**	**331**	*i*P	**Pb**	**19 52 23.1**	**-0.2**
WDLH				S	**Sb**	**19 52 32.1**	**+0.9**
EHYH	**Wanrong**	**0.56**	**59**	*e*P	**Pg**	**19 52 22.3**	**-0.2**
EHYH				S	**Sg**	**19 52 29.4**	**-0.5**
SGLT	**Jiouru**	**0.57**	**213**	P	**Pb**	**19 52 23.7**	**+0.1**
SGLT				*e*S	**Sn**	**19 52 34.3**	**-0.8**
TAI1	**Yung-k'ang**	**0.57**	**254**	*e*P	**Pn**	**19 52 25.0**	**-0.7**
TAI1				*e*S	**Sn**	**19 52 34.7**	**-0.4**
WDL	**Douliou City**	**0.57**	**333**	P	**Pb**	**19 52 23.9**	**+0.2**
WDL				S	**Sb**	**19 52 33.5**	**+1.7**
SCLT	**Jiali**	**0.58**	**267**	*e*P	**Pb**	**19 52 24.0**	**+0.2**
SCLT				*i*S	**Sn**	**19 52 34.1**	**-1.3**
CHN8	**Yiju**	**0.58**	**284**	P	**Pb**	**19 52 23.5**	**-0.4**
CHN8				*i*S	**Sb**	**19 52 33.3**	**+1.2**
ECBN	**Changbin**	**0.59**	**79**	P	**Pb**	**19 52 24.0**	**+0.1**
SSLB	**Suanglung**	**0.59**	**11**	P	**Pg**	**19 52 22.5**	**-0.7**
SSLB	**Suanglung**	**0.59**	**11**	S	**Sg**	**19 52 30.8**	**-0.2**
SSLB	**Suanglung**	**0.59**	**11**	*i*P	**Pg**	**19 52 22.5**	**-0.7**
SSLB				S	**Sg**	**19 52 30.9**	**-0.2**
MASBT	**Mashibuluo**	**0.61**	**197**	⇑*i*P	**Pg**	**19 52 22.9**	**-0.6**
MASBT				*e*S	**Sg**	**19 52 30.6**	**-1.1**
ECL	**Taimali**	**0.62**	**169**	*i*P	**Pg**	**19 52 23.0**	**-0.6**
ECL				*e*S	**Sb**	**19 52 32.0**	**-1.1**
HGSD	**Ruisui**	**0.62**	**62**	*e*P	**Pb**	**19 52 24.1**	**-0.4**
WJS	**Zhushan**	**0.62**	**352**	P	**Pb**	**19 52 24.3**	**-0.2**
WJS				S	**Sb**	**19 52 34.5**	**+1.1**
WTK	**Tuku**	**0.63**	**320**	*e*P	**Pb**	**19 52 24.5**	**-0.1**
WTK				S	**Sb**	**19 52 34.8**	**+1.4**
WSL	**Shuilin Townsh**	**0.63**	**300**	P	**Pb**	**19 52 24.4**	**-0.3**
WSL				S	**Sb**	**19 52 35.0**	**+1.4**
SNJT	**Kaohsiung City**	**0.64**	**225**	*e*P	**Pn**	**19 52 26.2**	**-0.4**
SMLT	**Sun Moon Lake**	**0.68**	**6**	*i*P	**Pb**	**19 52 24.8**	**-0.8**
SMLT				*e*S	**Sb**	**19 52 35.2**	**+0.1**
TSCK	**Chigu Township**	**0.68**	**265**	*e*P	**Pb**	**19 52 25.5**	**0.0**
TSCK				S	**Sn**	**19 52 37.0**	**-0.8**
WNT	**Mingjian**	**0.68**	**349**	*e*P	**Pb**	**19 52 25.8**	**+0.2**
WNT				S	**Sb**	**19 52 36.3**	**+1.2**
TYC	**Yuchr**	**0.70**	**2**	P	**Pb**	**19 52 25.2**	**-0.6**
TYC				S	**Sb**	**19 52 36.5**	**+1.0**
WSF	**Szhu**	**0.70**	**308**	*i*P	**Pb**	**19 52 25.4**	**-0.5**
WSF				S	**Sb**	**19 52 36.6**	**+1.0**
WARBT	**Fenglin Townsh**	**0.73**	**45**	*e*P	**Pg**	**19 52 25.1**	**-0.5**
SSPT	**Xinbi**	**0.76**	**198**	*i*P	**Pb**	**19 52 26.2**	**-0.6**
SSPT				S	**Sb**	**19 52 38.2**	**+1.1**
WSSB	**Gushan**	**0.76**	**223**	P	**Pn**	**19 52 28.1**	**-0.3**
WSSB				*e*S	**Sn**	**19 52 42.2**	**+2.2**
LDUT	**Ludao**	**0.80**	**132**	P	**Pg**	**19 52 26.5**	**-0.4**
LDUT				*e*S	**Sb**	**19 52 38.9**	**+0.7**
RLNB	**Erlin**	**0.81**	**328**	*i*P	**Pb**	**19 52 27.5**	**-0.1**
RLNB				*e*S	**Sb**	**19 52 39.8**	**+1.2**
WRL	**Guolierlin Hig**	**0.81**	**329**	*i*P	**Pb**	**19 52 27.4**	**-0.3**
WRL				S	**Sb**	**19 52 39.5**	**+0.9**
OWD	**Renai**	**0.81**	**23**	*e*P	**Pg**	**19 52 26.4**	**-1.0**
OWD				S	**Sn**	**19 52 40.7**	**-0.6**
EAST	**Anshuo**	**0.82**	**179**	*i*P	**Pg**	**19 52 27.0**	**-0.4**
EAST				*e*S	**Sn**	**19 52 40.5**	**-0.8**
ESL	**Shilin**	**0.82**	**42**	*e*P	**Pg**	**19 52 26.9**	**-0.7**
ESL				S	**Sb**	**19 52 39.7**	**+0.6**
WTCT	**Ta-ch'eng**	**0.82**	**323**	*e*P	**Pg**	**19 52 27.0**	**-0.5**
WTCT				S	**Sb**	**19 52 39.8**	**+0.7**
TEGC	**Jichi Village**	**0.83**	**52**	*e*P	**Pb**	**19 52 28.4**	**+0.3**
WUSB	**Renai**	**0.83**	**19**	*e*P	**Pg**	**19 52 26.7**	**-1.0**
WUSB				*e*S	**Sn**	**19 52 40.9**	**-0.9**
TAW	**Tawu**	**0.84**	**176**	*e*P	**Pg**	**19 52 27.5**	**-0.4**
TAW				S	**Sb**	**19 52 39.5**	**-0.2**
SCZT	**Fangliau**	**0.85**	**193**	P	**Pg**	**19 52 27.0**	**-1.0**
SCZT				S	**Sn**	**19 52 41.2**	**-0.8**
WCS	**Beigang Elemen**	**0.85**	**5**	P	**Pb**	**19 52 27.9**	**-0.6**
WCS				S	**Sb**	**19 52 40.9**	**+0.9**
SHUL	**Shoufeng**	**0.89**	**49**	*e*P	**Pb**	**19 52 29.0**	**-0.1**
WCH1	**Changhua City**	**0.90**	**344**	*e*P	**Pb**	**19 52 29.4**	**+0.1**
WCH1				S	**Sn**	**19 52 42.9**	**-0.4**
WCHH	**Zhanghua**	**0.91**	**344**	P	**Pb**	**19 52 29.5**	**+0.1**
WCHH				S	**Sn**	**19 52 43.2**	**-0.2**
WLCH	**Liuqiu**	**0.94**	**206**	*e*P	**Pn**	**19 52 33.0**	**+2.2**
WLCH				*e*S	**Sn**	**19 52 49.9**	**+5.5**
TCU	**Taichung**	**0.95**	**352**	*e*P	**Pn**	**19 52 30.7**	**-0.3**
TCU				S	**Sn**	**19 52 44.2**	**-0.3**
TWP	**Hsiaoliuchiu**	**0.95**	**207**	*e*P	**Pn**	**19 52 32.2**	**+1.2**
TWP				*e*S	**Sn**	**19 52 49.4**	**+4.8**
TEYL	**Yanliau Villag**	**0.97**	**47**	*e*P	**Pn**	**19 52 31.1**	**-0.1**
ETM	**Tongmen**	**0.97**	**39**	*e*P	**Pg**	**19 52 29.8**	**-0.6**
ETM				S	**Sb**	**19 52 43.8**	**+0.3**
LXIB	**Xiulin Townshi**	**0.98**	**33**	P	**Pg**	**19 52 29.6**	**-0.9**
LXIB				S	**Sn**	**19 52 44.6**	**-0.8**
SLIU	**Shizi**	**0.98**	**181**	*e*P	**Pb**	**19 52 30.4**	**-0.3**
WHF	**Hehuan Shan**	**1.02**	**23**	*i*P	**Pg**	**19 52 30.2**	**-1.1**
HWA	**Hwalien**	**1.05**	**43**	*e*P	**Pn**	**19 52 31.9**	**-0.4**
HWA				*e*S	**Sn**	**19 52 47.2**	**+0.2**
WDGT	**Dungji**	**1.07**	**273**	*e*P	**Pg**	**19 52 31.4**	**-0.9**
WDGT				*e*S	**Sg**	**19 52 45.5**	**-0.7**
WHP	**Taichung City**	**1.07**	**6**	*e*P	**Pn**	**19 52 32.5**	**-0.3**
WHP				*e*S	**Sn**	**19 52 48.5**	**+0.7**
TDCB	**Techi**	**1.09**	**16**	*e*P	**Pg**	**19 52 31.7**	**-0.9**
TWT	**Tachien**	**1.09**	**17**	*e*P	**Pg**	**19 52 31.9**	**-0.8**
TWT				*e*S	**Sb**	**19 52 47.0**	**-0.1**
FUSS	**Fushou**	**1.11**	**20**	*e*P	**Pg**	**19 52 31.7**	**-1.3**
TWD	**Chiawan**	**1.12**	**39**	P	**Pg**	**19 52 32.5**	**-0.8**
TWD				*e*S	**Sn**	**19 52 48.9**	**+0.1**
TWQ1	**Liyutan**	**1.14**	**358**	*e*P	**Pn**	**19 52 33.8**	**+0.2**
TWQ1				S	**Sn**	**19 52 50.2**	**+1.0**
WDJ	**Dajia District**	**1.15**	**352**	P	**Pn**	**19 52 34.5**	**+0.7**
WDJ				S	**Sn**	**19 52 50.9**	**+1.4**
ETLH	**Xiulin Townshi**	**1.17**	**31**	*e*P	**Pg**	**19 52 33.1**	**-0.9**
ETLH				*e*S	**Sn**	**19 52 50.4**	**+0.4**
SMST	**Manzhou Townsh**	**1.18**	**179**	*e*P	**Pn**	**19 52 34.5**	**+0.4**
SMST				*e*S	**Sn**	**19 52 53.9**	**+3.8**
PHUB	**P'eng-hu**	**1.19**	**285**	P	**Pg**	**19 52 32.9**	**-1.6**
PHUB				S	**Sg**	**19 52 48.6**	**-1.5**
HEN	**Hengchun**	**1.20**	**184**	*e*P	**Pn**	**19 52 35.1**	**+0.8**
HEN				S	**Sn**	**19 52 53.8**	**+3.2**
NACB	**Ninganchiao**	**1.20**	**36**	P	**Pg**	**19 52 33.6**	**-1.0**
NACB	**Ninganchiao**	**1.20**	**36**	S	**Sn**	**19 52 51.2**	**+0.6**
NACB	**Ninganchiao**	**1.20**	**36**	P	**Pg**	**19 52 33.6**	**-1.0**
NACB				*e*S	**Sn**	**19 52 50.6**	**0.0**
ETL	**Fush Village**	**1.20**	**37**	*e*P	**Pg**	**19 52 34.0**	**-0.7**
PNG	**Penghu**	**1.22**	**287**	*e*P	**Pb**	**19 52 33.6**	**-1.2**
PNG				S	**Sg**	**19 52 49.9**	**-1.1**
TWK1	**Hengchun**	**1.25**	**181**	P	**Pg**	**19 52 35.6**	**-0.1**
TWK1				S	**Sn**	**19 52 53.9**	**+1.9**
TWKBT	**Hengchun**	**1.26**	**181**	P	**Pg**	**19 52 35.3**	**-0.5**
TWKBT				*e*S	**Sn**	**19 52 54.4**	**+2.3**
VCHM	**Qimei**	**1.28**	**270**	*e*P	**Pn**	**19 52 34.2**	**-1.4**
VCHM				*e*S	**Sb**	**19 52 51.2**	**-1.2**
TSEB	**Hengchuen, Pin**	**1.30**	**177**	P	**Pg**	**19 52 36.9**	**+0.4**
TSEB				S	**Sn**	**19 52 55.7**	**+2.6**
NNSB	**Datong**	**1.32**	**23**	P	**Pn**	**19 52 35.4**	**-0.8**
NNSB				S	**Sn**	**19 52 55.5**	**+1.6**
NMLH	**Miaoli**	**1.33**	**359**	*e*P	**Pg**	**19 52 37.9**	**+0.7**
NNS	**Nan Shan**	**1.33**	**22**	*e*P	**Pn**	**19 52 36.0**	**-0.3**
NNS				*e*S	**Sn**	**19 52 55.0**	**+1.0**
LAY	**Lan-yu**	**1.34**	**150**	P	**Pn**	**19 52 34.9**	**-1.4**
LYUB	**Lan-yu**	**1.39**	**149**	P	**Pn**	**19 52 35.1**	**-1.9**
LYUB				S	**Sg**	**19 52 55.8**	**-0.5**
EAHA	**Aohua**	**1.40**	**37**	*e*P	**Pn**	**19 52 37.1**	**0.0**
EAHA				S	**Sg**	**19 52 58.5**	**+1.8**
NSTT	**Nanjuang**	**1.43**	**6**	P	**Pb**	**19 52 38.1**	**-0.2**
NSTT				*e*S	**Sg**	**19 52 58.1**	**+0.5**
LIOB	**Emei**	**1.45**	**7**	*e*P	**Pg**	**19 52 38.6**	**-0.8**
LIOB				*e*S	**Sg**	**19 52 58.9**	**+0.7**
NFF	**Wufeng Townshi**	**1.45**	**11**	*e*P	**Pg**	**19 52 38.8**	**-0.6**
NFF				*e*S	**Sg**	**19 52 58.6**	**+0.4**
LATG	**Datong**	**1.47**	**26**	*e*P	**Pb**	**19 52 39.0**	**-0.1**
ENA	**Nanau**	**1.48**	**34**	*e*P	**Pn**	**19 52 36.0**	**-2.3**
ENA				*e*S	**Sn**	**19 52 57.1**	**-0.5**
EWUT	**Wuta**	**1.51**	**35**	P	**Pb**	**19 52 39.7**	**0.0**
NDT	**Datong Townshi**	**1.53**	**24**	*e*P	**Pg**	**19 52 40.2**	**-0.8**
NDT				*e*S	**Sg**	**19 53 01.3**	**+0.5**
YHNB	**Yeheng**	**1.54**	**19**	P	**Pb**	**19 52 40.2**	**-0.1**
YHNB	**Yeheng**	**1.54**	**19**	S	**Sg**	**19 53 01.5**	**+0.2**
YHNB	**Yeheng**	**1.54**	**19**	P	**Pb**	**19 52 39.8**	**-0.5**
YHNB				S	**Sg**	**19 53 01.8**	**+0.5**
NSK	**Sanguang**	**1.54**	**18**	*e*P	**Pb**	**19 52 39.8**	**-0.5**
NSK				S	**Sg**	**19 53 02.0**	**+0.6**
SBCB	**Hsinchu**	**1.59**	**5**	*e*P	**Pg**	**19 52 41.2**	**-0.9**
SBCB				*e*S	**Sg**	**19 53 04.5**	**+1.7**
HSN	**Hsinchu**	**1.60**	**5**	*e*P	**Pg**	**19 52 43.3**	**+1.1**
HSN				*e*S	**Sg**	**19 53 04.9**	**+1.9**
KSHI	**Guanxi Townshi**	**1.60**	**12**	*e*P	**Pg**	**19 52 41.5**	**-0.8**
KSHI				*e*S	**Sg**	**19 53 03.7**	**+0.6**
NDS	**Dongshan**	**1.64**	**30**	*e*P	**Pb**	**19 52 42.0**	**+0.1**
NDS				*e*S	**Sg**	**19 53 05.6**	**+1.2**
EOS4	**EOS4**	**1.65**	**56**	*e*P	**Pn**	**19 52 40.0**	**-0.1**
EOS4				*e*S	**Sb**	**19 53 02.9**	**+0.5**
NWLT	**Wulai**	**1.68**	**21**	*e*P	**Pg**	**19 52 43.0**	**-0.9**
NWLT				*e*S	**Sg**	**19 53 06.2**	**+0.4**
TWE	**Neicheng**	**1.70**	**27**	*e*P	**Pb**	**19 52 43.0**	**+0.2**
TWE				*e*S	**Sg**	**19 53 08.2**	**+2.0**
FUSB	**Fushanzhiwuyua**	**1.70**	**24**	*e*P	**Pg**	**19 52 43.3**	**-0.9**
FUSB				*e*S	**Sg**	**19 53 07.3**	**+1.0**

EOS3	EOS3	1.74	51	*e*P	Pb	19 52 43.2	-0.3
EOS2	EOS2	1.77	47	*e*P	Pb	19 52 42.9	-1.1
ILA	Ilan	1.77	28	*e*P	Pg	19 52 45.2	-0.4
NCUH	Zhongli	1.79	11	*e*P	Pb	19 52 43.4	-1.1
NCUH				*i* S	Sg	19 53 08.8	-0.3
NHDH	Xindian Distri	1.86	20	*e*P	Pg	19 52 46.3	-1.1
NTC	Toucheng	1.88	29	*e*P	Pg	19 52 48.3	+0.6
TWA	Mucha	1.90	21	*e*P	Pg	19 52 47.3	-0.8
EGS		1.92	32	*e*P	Pg	19 52 47.5	-1.0
TAP	Taipei	1.93	19	*e*P	Pg	19 52 48.6	-0.1
TWS1	Kuangyinshan	1.96	16	*e*P	Pg	19 52 48.9	-0.4
TWS1				*e*S	Sg	19 53 13.2	-1.6
TIPB	Shuangxi	1.98	27	*e*P	Pb	19 52 47.8	0.0
TIPB				*e*S	Sg	19 53 15.8	+0.3
NTST	Danshui	2.03	16	*e*P	Pg	19 52 50.1	-0.5
YM01	YM01	2.05	19	*e*P	Pb	19 52 48.8	-0.1
WFSB	Wu-fen Shan	2.05	25	*e*P	Pb	19 52 49.0	+0.1
ZUZH	Zhuzihu	2.06	18	*e*P	Pn	19 52 47.3	+1.1
ANP	Anpu	2.07	18	*e*P	Pb	19 52 49.5	+0.2
TWB1	Santiao Chiao	2.09	30	*e*P	Pb	19 52 49.4	-0.2
TWB1				*e*S	Sg	19 53 19.0	+0.3
YM08	YM08	2.10	19	*e*P	Pb	19 52 49.3	-0.3
SXI1	Grass Mountain	2.11	27	*e*P	Pb	19 52 49.9	-0.1
TNOU	National Taiwa	2.12	24	*e*P	Pg	19 52 51.5	-0.8
TNOU				*e*S	Sg	19 53 19.8	-0.1
VWUC	VWUC	2.18	325	*e*P	Pn	19 52 46.6	-1.2
TWY	Chenhua	2.18	19	*e*P	Pg	19 52 52.3	-1.1
JYNG	Yonagunijimaku	2.31	57	*e*P	Pn	19 52 50.2	+0.7
JYNG				*e*S	Sn	19 53 19.7	+1.8
YOJ	Yonaguni jima	2.36	58	P	Pn	19 52 50.9	+0.6
YOJ	Yonaguni jima	2.36	58	*e*P	Pn	19 52 51.0	+0.6
YOJ				*e*S	Sb	19 53 21.9	-1.5
YOJ	Yonaguni jima	2.36	58	*e*P	Pn	19 52 51.0	+0.7
PTMZ	Houxiangcun	2.40	320	*e*P	Pn	19 52 50.3	-0.6
KNM	Kinmen	2.50	299	*e*P	Pn	19 52 52.4	+0.2
KNMB	Chin-men Tao	2.56	300	*e*P	Pn	19 52 52.3	-0.8
IRIF	Iriomote-Funau	2.89	66	*e*P	Pn	19 52 58.7	+1.1
ZPLA	Ao Xicun	2.91	285	*e*P	Pn	19 52 57.4	-0.6
MATB	Ma-tsu	3.04	345	*e*P	Pn	19 52 58.3	-1.4
AXDP	Jialang	3.11	303	*e*P	Pn	19 52 59.6	-1.1
DSXP	Dongshan	3.16	280	*e*P	Pn	19 53 00.6	-0.8
JIJ	Ishigaki jima	3.25	69	*e*P	Pn	19 53 01.9	-0.6
MHZQ	Yeshan	3.31	331	*e*P	Pn	19 53 03.6	+0.2
LYJJ	Jianjiangzhen	3.47	344	*e*P	Pn	19 53 05.7	+0.1
JISG	Ishigakijimahi	3.48	66	*e*P	Pn	19 53 05.9	+0.2
XPSS	Dashiqiu	3.75	351	*e*P	Pn	19 53 08.5	-1.0
SXFK	Yanhouchang	4.30	318	*e*P	Pn	19 53 16.0	-1.0

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*NOU **04** 19:53:09.3, 38°.60S×175°.91E, h165^{km}, MLv3.5/17, North Island, New Zealand*

*WEL **04** 19:53:12.2±0.8, 38°S±5°×17°6E±°, h143^{km}±7^{km}, M2.7/21, ML1.8/6, MLv2.7/21, Error ellipse: s-maj=6.9km s-min=4.3km az=144.9, confirmed*

ISC 04 19:53:06.0±1.6**, 38°.44S**±0°.05×**175°.82E**±0°.05**, h190**^{km}±8^{km}**, n121, σ1^{s}89**/137**, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GRRZ	Galatos Road	0.25	68	P	Pn	19 53 31.6	+0.3
GRRZ				AML	AML		
GRRZ				AML	AML		
HSRZ	Hossack Road	0.36	69	P	Pn	19 53 33.0	+1.5
HSRZ				AML	AML		
HSRZ				AML	AML		
ALRZ	Allen Road	0.43	106	P	Pn	19 53 33.0	+1.3
ALRZ				AML	AML		
ALRZ				AML	AML		
KARZ	Kaharoa	0.54	39	P	Pn	19 53 33.5	+1.4
KARZ				AML	AML		
RRRZ	Republican Roa	0.56	79	P	Pn	19 53 33.6	+1.3
RRRZ				AML	AML		
MRHZ	Matea Rd	0.61	130	P	Pn	19 53 33.7	+1.2
MRHZ				P	Sn	19 53 50.1	-2.9
MRHZ				AML	AML		
TMVZ	Te Maari	0.68	187	P	Pn	19 53 34.9	+2.1
TMVZ				S	Sn	19 53 52.3	-1.5
TMVZ				AML	AML		
TMVZ				AML	AML		
TWVZ	Taurewa	0.69	205	P	Pn	19 53 34.8	+1.9
TWVZ				AML	AML		
WTVZ	West Tongariro	0.69	195	P	Pn	19 53 34.9	+2.0
ETVZ	East Tongariro	0.70	187	P	Pn	19 53 35.0	+2.0
OTVZ	Oturere	0.73	189	P	Pn	19 53 35.4	+2.2
MUGZ	Murupara	0.75	93	P	Pn	19 53 34.1	+1.0
MUGZ				AML	AML		
NGZ	Ngauruhoe	0.75	193	P	Pn	19 53 35.4	+2.1
SNVZ	South Ngauruho	0.75	191	P	Pn	19 53 35.5	+2.2
TOZ	Tahuroa Road	0.75	341	P	Pn	19 53 35.2	+2.0
HIZ	Hauiti	0.76	264	P	Pn	19 53 35.2	+2.0
HIZ	Hauiti	0.76	264	P	Pn	19 53 35.3	+2.2
HIZ				AML	AML		
HIZ				AML	AML		
COVZ	Chateau Observ	0.79	196	P	Pn	19 53 35.4	+1.9
COVZ				S	Sn	19 53 53.7	-1.1
COVZ				AML	AML		
MARZ	Manawahe	0.82	56	P	Pn	19 53 35.0	+1.4
MARZ				AML	AML		
MARZ				AML	AML		
TUVZ	Tukino	0.83	189	P	Pn	19 53 35.8	+2.0
FWVZ	Far West T-bar	0.84	194	P	Pn	19 53 35.7	+1.8
MAVZ	Matarangi	0.85	194	P	Pn	19 53 36.6	+2.5
WHVZ	Whangaehu Hut	0.86	192	P	Pn	19 53 36.1	+2.1
BKZ	Black Stump Fm	0.89	144	P	Pn	19 53 35.5	+1.5
BKZ	Black Stump Fm	0.89	144	S	Sn	19 53 53.4	-2.4
WNVZ	Wahianoa	0.90	191	P	Pn	19 53 36.2	+2.0
MTHZ	Maungataniwha	0.90	117	P	Pn	19 53 35.7	+1.6
MTHZ				S	Sn	19 53 53.7	-2.1
MTHZ				AML	AML		
PKVZ	Pokaka	0.92	203	P	Pn	19 53 36.3	+2.1
PKVZ				AML	AML		
RTZ	Ruatahuna	0.93	101	P	Pn	19 53 35.7	+1.4
RTZ				S	Sn	19 53 54.4	-1.8
RTZ				AML	AML		
MOVZ	Moawhango	0.96	183	P	Pn	19 53 36.3	+1.7
MOVZ				S	Sn	19 53 54.4	-2.4
MOVZ				AML	AML		
MTVZ	Mangateitei	0.98	196	P	Pn	19 53 36.8	+2.2
MTVZ				AML	AML		
NMHZ	Naumai	1.01	130	P	Pn	19 53 37.3	+2.5
NMHZ				S	Sn	19 53 57.2	-0.1
NMHZ				AML	AML		
URZ	Urewera	1.03	80	P	Pn	19 53 35.7	+0.8
URZ	Urewera	1.03	80	S	Sn	19 53 54.8	-2.4
URZ	Urewera	1.03	80	P	Pn	19 53 35.9	+1.0
URZ				S	Sn	19 53 54.6	-2.6
URZ				AML	AML		
BHHZ	Black Hill Sta	1.06	170	P	Pn	19 53 37.0	+1.8
BHHZ				S	Sn	19 53 55.6	-2.4
BHHZ				AML	AML		
VRZ	Vera Road	1.07	230	P	Pn	19 53 37.7	+2.5
KWHZ	Kaweka Forest	1.09	154	P	Pn	19 53 37.7	+2.3
KWHZ				AML	AML		
RAHZ	Arahi	1.10	116	P	Pn	19 53 37.7	+2.2
RAHZ				AML	AML		
MCHZ	McNeill Hill	1.21	146	P	Pn	19 53 39.0	+2.7
MCHZ				AML	AML		
ARHZ	Aropaoanui	1.23	132	P	Pn	19 53 38.9	+2.5
THHS	Taihape Hospit	1.23	181	P	Pn	19 53 38.6	+2.1
RAGZ	Rawiri	1.25	93	P	Pn	19 53 38.6	+1.8
RAGZ				AML	AML		
KRHZ	Kereru	1.27	160	P	Pn	19 53 39.0	+2.2
KRHZ				AML	AML		
WHHZ	Waihua	1.27	120	P	Pn	19 53 39.1	+2.3
MWZ	Matawai	1.35	86	P	Pn	19 53 38.9	+1.4
WAZ	Wanganui	1.46	206	P	Pn	19 53 41.1	+2.7
PNHZ	Pukenui	1.50	169	P	Pn	19 53 40.9	+2.1
RUGZ	Raukumara Rang	1.54	72	P	Pn	19 53 40.1	+0.8
RIGZ	Rimuhau	1.55	100	P	Pn	19 53 41.4	+2.1
CKHZ	Cape Kidnapper	1.56	141	P	Pn	19 53 41.9	+2.6
KNZ	Kokohu	1.56	112	P	Pn	19 53 41.4	+2.0
PREZ	Palmer Road	1.57	235	P	Pn	19 53 42.9	+3.4
NEZ	North Egmont	1.58	238	P	Pn	19 53 42.8	+3.2
NEZ				AML	AML		
KAHZ	Kahuranaki	1.58	149	P	Pn	19 53 42.2	+2.7
KAHZ				S	Sn	19 54 04.5	-1.3
TKGZ	Te Karaka	1.59	90	P	Pn	19 53 41.8	+2.1
PKE	Pukeiti	1.61	242	P	Pn	19 53 43.1	+3.2
TSZ	Takapari Road	1.62	176	P	Pn	19 53 42.1	+2.2
KHEZ	Kahui Hut	1.64	238	P	Pn	19 53 42.9	+2.7
KHEZ	Kahui Hut	1.64	238	P	Pn	19 53 43.4	+3.2
KHEZ				AML	AML		
PRGZ	Paritu Road	1.69	107	P	Pn	19 53 42.7	+2.1
PRGZ				S	Sn	19 54 07.7	+0.3
HAZ	Te Kaha	1.70	67	P	Pn	19 53 41.7	+1.1
HAZ				S	Sn	19 54 03.9	-3.6
TWGZ	Tauwhareparae	1.72	82	P	Pn	19 53 43.3	+2.3
TWGZ				S	Sn	19 54 08.2	+0.1
MHGZ	Mahia Peninsul	1.78	114	P	Pn	19 53 43.9	+2.4
PXZ	Pawanui	1.78	153	P	Pn	19 53 44.0	+2.5
PXZ				S	Sn	19 54 07.7	-1.5
DVHZ	Dannevirke	1.87	172	P	Pn	19 53 44.4	+2.0
PKGZ	Pakihiroa	1.88	73	P	Pn	19 53 44.3	+1.8
PKGZ				S	Sn	19 54 08.9	-1.9
CNGZ	Carnagh Statio	1.88	92	P	Pn	19 53 45.0	+2.6
POWZ	Post Office Ro	1.94	181	P	Pn	19 53 45.2	+2.1
PUZ	Puketiti	1.96	80	P	Pn	19 53 44.9	+1.6
PUZ				S	Sn	19 54 09.9	-2.4
PRWZ	Pori Road	2.11	177	P	Pn	19 53 47.2	+2.2
WMGZ	Waiomatatini S	2.14	74	P	Pn	19 53 47.1	+1.9
MXZ	Matakaoa Point	2.15	67	P	Pn	19 53 47.8	+2.4
MXZ	Matakaoa Point	2.15	67	P	Sn	19 54 15.8	-0.2
MXZ	Matakaoa Point	2.15	67	P	Pn	19 53 47.6	+2.2
MRZ	Mangatainoka R	2.22	185	P	Pn	19 53 48.0	+1.9
BFZ	Birch Farm	2.26	172	S	Sn	19 54 15.9	-2.3
BFZ	Birch Farm	2.26	172	P	Pn	19 53 48.2	+1.7
BFZ	Birch Farm	2.26	172	P	Pn	19 53 48.6	+2.0
TIWZ	Tintock	2.33	179	P	Pn	19 53 49.4	+2.1
OGWZ	Otaki Gorge	2.42	192	P	Pn	19 53 50.3	+2.0
HOWZ	Holdsworth Sta	2.46	185	P	Pn	19 53 50.4	+1.6
KIW	Kapiti Island	2.51	196	P	Pn	19 53 51.0	+1.6
TMWZ	Te Maipa	2.66	179	P	Pn	19 53 52.8	+1.7
MTW	Mount Morrison	2.72	185	P	Pn	19 53 53.2	+1.4
CAW	Cannon Point	2.72	192	P	Pn	19 53 53.5	+1.7
DUWZ	D’Urville Isla	2.77	211	P	Pn	19 53 54.2	+1.8
PAWZ	Paruwai Farm	2.95	186	P	Pn	19 53 55.9	+1.4
TRWZ	Traveller	2.95	182	P	Pn	19 53 56.0	+1.5
SNZO	South Karori	2.99	196	P	Pn	19 53 55.5	+0.6
SNZO	South Karori	2.99	196	S	Sn	19 54 31.1	-2.1
MSWZ	Moikau Station	3.00	188	P	Pn	19 53 56.4	+1.3
TCW	Tory Channel	3.01	203	P	Pn	19 53 56.7	+1.6
PLWZ	Palliser	3.15	188	P	Pn	19 53 58.1	+1.2
TUWZ	Tuamarina	3.31	205	P	Pn	19 54 00.5	+1.7
NNZ	Nelson	3.35	213	P	Pn	19 54 00.6	+1.3
TKNZ	Takaka Hill	3.40	220	P	Pn	19 54 01.0	+1.1
QRZ	Quartz Range	3.48	226	P	Pn	19 54 02.0	+1.1
QRZ	Quartz Range	3.48	226	P	Pn	19 54 02.0	+1.1
BSWZ	Blackbirch Sta	3.59	204	P	Pn	19 54 04.0	+1.7
MRNZ	Matariki Terra	3.77	218	P	Pn	19 54 05.6	+1.1
THZ	Tophouse	4.00	213	P	Pn	19 54 08.5	+1.1
KHZ	Kahutara	4.33	203	P	Pn	19 54 12.8	+1.3
KHZ	Kahutara	4.33	203	S	Sn	19 55 02.4	-0.7
KHZ	Kahutara	4.33	203	P	Pn	19 54 13.0	+1.5
GVZ	Greta Valley S	4.99	204	P	Pn	19 54 21.0	+1.0
LTZ	Lake Taylor	5.10	211	P	Pn	19 54 22.2	+0.7
INZ	Inchbonnie	5.42	217	P	Pn	19 54 26.0	+0.5
OXZ	Oxford	5.66	209	P	Pn	19 54 28.8	+0.2
OKCZ	Okains Bay	5.67	201	P	Pn	19 54 29.7	+0.9
MQZ	McQueen’s Vall	5.77	203	P	Pn	19 54 30.0	-0.1
AKCZ	Akaroa Harbour	5.85	201	P	Pn	19 54 31.6	+0.5
RACZ	Rakaia	5.96	207	P	Pn	19 54 32.7	+0.1
MHCZ	Mount Hutt	6.01	211	P	Pn	19 54 33.8	+0.6
WACZ	Wakanui South	6.26	207	P	Pn	19 54 36.8	+0.4
RPZ	Rata Peaks	6.38	213	P	Pn	19 54 38.9	+0.9
RPZ	Rata Peaks	6.38	213	P	Pn	19 54 38.7	+0.7
ARCZ	Arundel	6.52	211	P	Pn	19 54 40.7	+0.9
TMZ	Timaru	6.95	210	P	Pn	19 54 46.0	+0.6
ODZ	Otahua Downs	7.64	209	P	Pn	19 54 55.4	+0.9
ODZ	Otahua Downs	7.64	209	P	Pn	19 54 55.2	+0.7

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*NIED **04** 19:54:56.6, 29°.31N×130°.64E, h64^{km}, MW3.9, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M$_{rr}$-0.84; M$_{\theta\theta}$-3.78; M$_{\phi\phi}$4.62; M$_{r\theta}$-4.80; M$_{\theta\phi}$4.12; M$_{\phi r}$1.40; Fault plane solution: M$_0$7.50000×10^{14} NP1: φ$_s$163.00000°, δ63.00000°, λ-160.00000°. NP2: φ$_s$63.00000°, δ72.00000°, λ-28.00000°.*

*JMA **04** 19:54:56.6±0.1, 29°.3N±0°.3×130°.6E±0°.6, h64^{km}±1^{km}, MV4.0/32, NEAR AMAMI-OSHIMA ISLAND*

*IDC **04** 19:54:57.7±2.2, 29°.31N×130°.71E, h52^{km}±20^{km}, mb3.5/12, mbtmp3.7/17, ML3.5/5, Error ellipse: s-maj=27.2km s-min=18.8km az=102.0*

ISC 04 19:54:57.3±1.2**, 29°.28N**±0°.05×**130°.67E**±0°.08**, h48**^{km}±12^{km}**, n41, σ0^{s}79**/45**, mb3.6**/12**, Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JNN	Nakanoshima	0.89	309	*e*P	Pn	19 55 13.2	-0.3
JYAK	Yakushimahirau	0.96	352	P	Pn	19 55 14.2	-0.2
JYAK				*e*S	Sn	19 55 27.1	+0.1
JMTN	Minamitane	1.13	10	P	Pn	19 55 16.5	-0.2
JKC	Kuchinoerabu	1.24	341	P	Pn	19 55 18.1	-0.2
JKC				S	Sn	19 55 33.7	-0.2
JAM	Amami Oshima	1.28	227	P	Pn	19 55 18.6	-0.1
JAM				S	Sn	19 55 34.9	+0.2
JTAJ	Takarajima	1.29	265	P	Pn	19 55 18.8	0.0
JTN	Tanegashima 3	1.39	11	*i* P	Pn	19 55 20.0	-0.3
JAMN	Amaminishikomi	1.67	232	P	Pn	19 55 24.1	0.0
JAMN				*e*S	Sn	19 55 45.1	+0.7
JTSR	Tashiro 2	1.89	7	*e*P	Pn	19 55 27.1	0.0
JTK	Tokunoshima	2.13	226	*e*P	Pn	19 55 30.6	+0.2
JSU	Suzuyama	2.22	355	P	Pn	19 55 31.3	-0.4
JSU	Suzuyama	2.22	355	P	Pn	19 55 31.3	-0.4
JNAR	Kushima--Naru	2.29	13	*e*P	Pn	19 55 33.0	+0.4
JNKG	Nichinankitago	2.45	14	P	Pn	19 55 35.3	+0.6
JNKG				*e*S	Sn	19 56 03.9	+0.5
JOW	Kunigami	3.23	221	P	Pn	19 55 45.4	-0.2
	11nm,0.3s,baz=97,slow=26,SNR=16						
JOW				S	Sn	19 56 20.9	-1.9
	71nm,0.3s,baz=107,slow=27,SNR=10 17nm,0.3s						
JOW				AML	AML		
JOW	Kunigami	3.23	221	P	Pn	19 55 45.8	+0.3
JNU	Nakatsue	3.83	3	P	Pn	19 55 54.4	+0.6
	7.3nm,0.3s,baz=188,slow=15,SNR=132						
JNU				S	Sn	19 56 35.2	-2.3
	22nm,0.5s,baz=166,slow=21,SNR=5.9 25nm,0.4s						
JNU				AML	AML		
JMN	Monobe	5.21	31	P	Pn	19 56 12.3	-0.4
JTU	Tsushima	5.33	349	P	Pn	19 56 16.2	+1.9
INU	Inuyama	8.09	40	P	Pn	19 56 54.1	+2.0
JGF	Kuroka	8.46	40	P	Pn	19 56 58.3	+1.1
KSRS	Korea Array	8.46	345	P	Pn	19 56 58.1	+0.9
	0.2nm,0.3s,baz=159,slow=14,SNR=5.3 1.6nm,0.6s						
KSRS				AML	AML		
MAJO	Matsushiro	9.61	39	P	Pn	19 57 13.8	+0.8
MJAR	Matsushiro Arr	9.62	39	P	Pn	19 57 13.6	+0.5
	0.2nm,0.3s,baz=239,slow=14,SNR=8.0 0.6nm,0.3s						
MJAR				AML	AML		
USRK	Ussuriysk Ar.	14.92	4	P	P	19 58 29.9	+0.1
	1.5nm,0.5s,baz=185,slow=10,SNR=8.5						
KLR	Kul'dur	19.94	2	P	P	19 59 25.1	0.0
	0.5nm,0.3s,baz=209,slow=6.9,SNR=10 3.5nm,0.6s						
KLR				AML	AML		
HILR	Hailar Array B	21.89	341	P	P	19 59 45.3	-0.8
	1.7nm,0.6s,baz=158,slow=11,SNR=8.4 1.7nm,0.6s						
SONM	Songino Array	26.34	321	P	P	20 00 28.6	-0.2
	0.2nm,0.3s,baz=136,slow=7.0,SNR=4.1 0.2nm,0.3s						
H11N2	WAKE ISLAND Hy	34.19	98	T	T	20 38 05.7	
	baz=294						
H11N1	WAKE ISLAND Hy	34.19	98	T	T	20 38 16.4	
	baz=294						
H11N3	WAKE ISLAND Hy	34.21	98	T	T	20 38 20.3	
	baz=294						
MKAR	Makanchi Array	41.21	309	P	P	20 02 37.7	+0.3
	0.2nm,0.5s,baz=86,slow=11,SNR=6.0 0.2nm,0.5s						
ZALV	Zalesovo Beam	41.22	320	P	P	20 02 37.6	+0.4
	0.3nm,0.3s,baz=110,slow=8.3,SNR=3.0 0.3nm,0.3s						
KURBB	Kurchatov Arra	44.22	314	P	P	20 03 01.7	+0.1
	0.8nm,0.4s,baz=95,slow=9.2,SNR=14 0.8nm,0.4s						
BVAR	Borovoye Array	49.50	316	P	P	20 03 42.8	-0.1
	2.3nm,0.6s,baz=92,slow=10,SNR=12 2.3nm,0.6s						
ASAR	Alice Springs	52.74	176	P	P	20 04 08.1	+0.7
	0.1nm,0.5s,baz=1.6,slow=6.9,SNR=1.2 0.1nm,0.5s						
ILAR	Eielson Array	60.73	29	P	P	20 05 02.8	-0.8
	0.4nm,0.8s,baz=284,slow=8.0,SNR=4.5 0.4nm,0.8s						
KBZ	Khabaz	68.91	309	P	P	20 05 58.0	+0.9
	1.9nm,0.8s,baz=76,slow=4.2,SNR=4.2 1.9nm,0.8s						
FINES	FINESS Array B	71.28	331	P	P	20 06 10.7	-0.6
	3.1nm,1.0s,baz=35,slow=7.0,SNR=6.3 3.1nm,1.0s						
AKASG	Malin Array Be	74.61	320	P	P	20 06 31.4	+0.1
	0.6nm,0.4s,baz=59,slow=6.5,SNR=5.4 0.6nm,0.4s						
NOA	NORSAR Array B	77.52	334	P	P	20 06 47.2	-0.5
	0.3nm,0.5s,baz=52,slow=5.4,SNR=1.4 0.3nm,0.5s						

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*CATAC **04** 20:03:17.6±0.7, 8°N±5°×8°3W±°, h2^{km}±3^{km}, M4.0/10, MLv4.0/10, Error ellipse: s-maj=9.8km s-min=5.6km az=7.0, confirmed*

*UCR **04** 20:03:18.5±0.8, 8°.30N×82°.99W, h10^{km}±3^{km}, MW4.3, Presumed earthquake*

*UPA **04** 20:03:18.8±1.3, 8°.34N×82°.93W, h6^{km}±2^{km}, MW4.3, Presumed earthquake*

ISC 04 20:03:18.3±0.9**, 8°.31N**±0°.03×**82°.99W**±0°.02**, h16**^{km}±6^{km}**, n66, σ0^{s}87**/87**, 2C-13D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTPM	Petroterminale	0.15	132	⇑*i*P	Pg	20 03 22.5	0.0
PTPM				*e*S	Sg	20 03 25.5	+0.4
PTPA	Petro Terminal	0.16	131	⇑*e*P	Pg	20 03 22.4	-0.1
PTPA				*e*S	Sg	20 03 26.0	+0.6
LMNES	Limones	0.24	147	*e*P	Pb	20 03 23.9	-0.5
CDITO	Canoas	0.29	24	P	Pg	20 03 24.7	+0.1
NELY	Ciudad Neily	0.34	8	*e*P	Pg	20 03 25.7	+0.1
NELY				*e*S	Sb	20 03 31.9	+0.6
FITO	Golfito	0.35	333	*e*P	Pg	20 03 25.2	-0.4
PIRO	Carate, Puerto	0.35	286	P	Pb	20 03 26.0	-0.3
PIRO	Carate, Puerto	0.35	286	*e*P	Pb	20 03 25.9	-0.3
PIRO	Carate, Puerto	0.35	286	*e*P	Pb	20 03 26.5	+0.3
EDAD	Golfito	0.38	333	*e*P	Pg	20 03 25.7	-0.5
JIME	Puerto Jimenez	0.40	305	*e*P	Pb	20 03 27.5	+0.4
VITO	San Vito	0.51	3	*e*P	Pb	20 03 28.9	0.0
MLIR3	Monte Lirio, C	0.51	19	⇓*i*P	Pb	20 03 29.1	+0.1
MLIR3				*e*S	Sb	20 03 36.2	0.0
DVD	David	0.55	77	⇓*i*P	Pg	20 03 28.9	-0.3
DVD				*e*S	Sg	20 03 36.7	0.0
SCLRA	Santa Clara, W	0.56	22	*e*P	Pb	20 03 29.9	0.0
BRU2	Volcan	0.57	32	P	Pg	20 03 29.7	+0.1
BRU2				S	Sb	20 03 39.2	+1.3
BRU2	Volcan	0.57	32	*e*P	Pg	20 03 29.8	+0.1
BRU2	Volcan	0.57	32	⇓*i*P	Pg	20 03 29.8	+0.1
BRU2				*e*S	Sb	20 03 38.9	+1.0
CLLRA	Cordillera,	0.57	41	*e*P	Pg	20 03 29.9	+0.1
CLLRA	Cordillera,	0.57	41	*i* P	Pg	20 03 29.6	-0.2
LOMA3	Las Lomas, Chi	0.61	78	⇓*i*P	Pb	20 03 29.8	-0.8
LOMA3				*e*S	Sb	20 03 38.4	-0.5
PTAR3	Potrerillos Ar	0.62	52	⇓*i*P	Pb	20 03 30.6	-0.3
PTAR3				*e*S	Sb	20 03 40.1	+0.6
CHIR3	Chiriqui UPA,	0.66	82	⇓*i*P	Pb	20 03 30.6	-0.9
CHIR3				*e*S	Sb	20 03 39.7	-0.7
BQTLY	Boquete Panama	0.69	50	*e*P	Pb	20 03 31.4	-0.7
BQTLY	Boquete Panama	0.69	50	*i* P	Pb	20 03 30.9	-1.1
BQSF3	Alto Boquete,	0.70	52	⇓*i*P	Pb	20 03 31.6	-0.7
BQSF3				*e*S	Sg	20 03 42.1	+0.6
GUAL3	Gualaca, Chiri	0.72	72	*e*P	Pb	20 03 31.9	-0.6
EDP2	Potrero Grande	0.73	346	*e*P	Pb	20 03 32.5	-0.1
LNBQ3	Los Naranjos,	0.73	49	⇓*i*P	Pb	20 03 31.8	-0.9
LNBQ3				*e*S	Sg	20 03 43.1	+0.8
PANP	Palmar Norte	0.80	325	*e*P	Pb	20 03 32.9	-0.9
DRK0	Durika	0.98	345	*e*P	Pb	20 03 22.8	-14
DRK0	Durika	0.98	345	⇓*i*P	Pb	20 03 22.9	-14
DRK0				*e*S	Sb	20 03 37.4	-12
RBALA	Bur	1.01	56	*e*P	Pb	20 03 36.5	-0.9
RBALA	Bur	1.01	56	*i* P	Pb	20 03 36.1	-1.3
RBALA				*e*S	Sb	20 03 50.0	-0.4
OCHAL	Ojochal	1.02	321	P	Pb	20 03 36.7	-0.9
OCHAL				S	Sn	20 03 53.7	+1.8
EDPE	Pejibaye, P	1.02	326	*e*P	Pb	20 03 36.9	-0.8
CHGR2	Aguacate	1.05	53	⇓*i*P	Pb	20 03 36.9	-1.2
CHGR2				*e*S	Sb	20 03 51.4	-0.2
CNI2	El Empalme, Bo	1.22	25	⇓*i*P	Pn	20 03 40.3	-0.5
CNI2				*e*S	Sb	20 03 56.0	-0.6
KKNTU	Kakintº	1.29	66	*e*P	Pn	20 03 40.4	-1.2
RGM0	Gandoca	1.33	17	P	Pg	20 03 43.6	-0.4
RGM0				S	Sg	20 04 01.7	+0.3
RGM0	Gandoca	1.33	17	*e*P	Pg	20 03 43.6	-0.4
RGM0	Gandoca	1.33	17	⇓*i*P	Pg	20 03 43.7	-0.4
ABE2	San Pablo	1.74	323	*e*P	Pb	20 03 49.5	-0.6
LCR2	La Lucha 2	1.74	325	P	Pn	20 03 48.7	+0.6
LCR2	La Lucha 2	1.74	325	*e*P	Pb	20 03 48.9	-1.1
ABRB	Las Abras (San	1.83	337	*e*P	Pb	20 03 50.7	-1.0
LCOCO	El Coco	1.85	343	*e*P	Pb	20 03 51.0	-0.8
VTR0	Volcan Turrial	1.86	336	*e*P	Pb	20 03 51.3	-1.0
CVTR	Volcan Turrial	1.86	336	*e*P	Pn	20 03 50.7	+0.8
SAFE3	Santa Fe, Vera	1.91	84	*e*P	Pn	20 03 50.6	+0.4
SAFE3				*e*S	Sb	20 04 15.2	-1.2
STIA3	Santiago, Vera	2.01	96	*e*P	Pn	20 03 52.3	+0.7
STIA3				*e*S	Sn	20 04 16.5	+0.1
CALO3	Calobre, Verag	2.13	89	*e*P	Pn	20 03 53.8	+0.5
CACAO	El Cacao, Vera	2.32	114	*e*P	Pn	20 03 56.4	+0.6
CACAO				*e*S	Sn	20 04 24.9	+0.9
CHIT3	Chitre	2.57	98	*e*P	Pn	20 03 59.5	+0.1
CHIT3				*e*S	Sn	20 04 31.7	+1.3
PNME	Penonome	2.64	86	*e*P	Pn	20 04 00.5	+0.2
AZU	Azuero	2.74	101	*e*P	Pn	20 04 02.5	+0.9
AZU				*e*S	Sn	20 04 35.1	+0.7
JTS	Las Juntas de	2.76	316	P	Pb	20 04 04.7	-2.7
JTS	Las Juntas de	2.76	316	⇓*i*P	Pb	20 04 05.1	-2.3
JTS				*e*S	Sb	20 04 37.8	-3.2
CMARA	Lajas Hojancha	2.94	306	P	Pn	20 04 05.9	+1.4
ZANG	Zanguenga, Cho	3.16	78	*e*P	Pn	20 04 06.8	-0.6
BCIP	Isla Barro Col	3.23	74	P	Pn	20 04 08.9	+0.5
BCIP	Isla Barro Col	3.23	74	*e*P	Pn	20 04 09.3	+0.9
CHOR3	La Chorrera	3.25	79	*e*P	Pn	20 04 09.2	+0.6
GAMB1	Gamboa	3.34	76	*e*P	Pn	20 04 10.4	+0.5
FRIJ	El Hiral	3.35	74	*e*P	Pn	20 04 10.8	+0.7
UPA	Univ. de Panam	3.48	79	*e*P	Pn	20 04 11.8	-0.1

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*NEIC **04** 20:05:40.4±1.2, 18°.3N±0°.1×65°.40W±0°.02, h121^{km}±8^{km}, ML3.1/35, Md3.7/13(RSPR), Error ellipse: s-maj=21.5km s-min=2.8km az=182.0*

*RSPR **04** 20:05:42.2, 18°.28N×65°.46W, h116^{km}±1^{km}, MD3.7/13*

ISC 04 20:05:39.2±2.0**, 18°.3N**±0°.2×**65°.38W**±0°.06**, h129**^{km}±12^{km}**, n38, σ0^{s}84**/53**, 12C-2D, Puerto Rico region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HUMP	Col San Antoni	0.48	247		Pn	20 05 58.4	+0.4
HUMP				Sn	Sn	20 06 11.1	-1.2
HUMP				IAML		20 06 12.6	
	342nm,0.2s						
HUMP				IAML		20 06 12.8	
	506nm,0.2s						
HUMP	Col San Antoni	0.48	247	⇓*e*P	Pn	20 05 58.7	+0.6
PDPR	Patillas Dam,	0.68	243		Sn	20 06 14.0	-0.6
PDPR	Patillas Dam,	0.68	243		Pn	20 05 59.9	+0.6
PDPR	Patillas Dam,	0.68	243	IAML		20 06 15.9	
	325nm,0.2s						
PDPR				IAML		20 06 16.5	
	324nm,0.2s						
PDPR	Patillas Dam,	0.68	243	⇑*e*P	Pn	20 06 00.2	+0.9
SJG	San Juan	0.76	253	Pn	Pn	20 05 59.2	-0.7
SJG				Sn	Sn	20 06 14.4	-1.2
IGPR	InterUniversit	0.78	242		Pn	20 06 00.7	+0.6
IGPR					Sn	20 06 15.3	-0.5
IGPR	InterUniversit	0.78	242	⇑*e*P	Pn	20 06 00.7	+0.6
ECPR	Experimental S	0.93	269		Pn	20 06 01.7	+0.4
ECPR				Sn	Sn	20 06 17.3	-0.9
ECPR	Experimental S	0.93	269	⇑*e*P	Pn	20 06 01.9	+0.6
EMPR	Esperanza - Ma	1.10	278		Pn	20 06 03.9	+0.9
EMPR					Sn	20 06 21.2	+0.2
EMPR	Esperanza - Ma	1.10	278	⇓*e*P	Pn	20 06 03.9	+0.9

EMPR				eS	Sn	20 06 21.2	+0.2
CELP	Cerrillos	1.17	258		Pn	20 06 04.2	+0.6
CELP					Sn	20 06 21.6	-0.6
CELP				IAML		20 06 23.6	
	127nm,0.4s						
CELP	Cerrillos	1.17	258	⇑eP	Pn	20 06 04.5	+0.9
OBIP	Obispado Ponce	1.20	256		Pn	20 06 04.7	+0.7
OBIP					Sn	20 06 22.6	-0.2
OBIP	Obispado Ponce	1.20	256	⇑eP	Pn	20 06 05.1	+1.1
OBIP				eS	Sn	20 06 23.1	+0.4
AOPR	Arecibo Observ	1.30	271		Pn	20 06 05.5	+0.4
AOPR					Sn	20 06 23.7	-1.0
AOPR				IAML		20 06 28.4	
	376nm,0.3s						
AOPR	Arecibo Observ	1.30	271	⇑eP	Pn	20 06 05.6	+0.4
GBPR	Guanica, Bosqu	1.47	256		Pn	20 06 07.9	+1.0
GBPR					Sn	20 06 27.5	-0.4
GBPR	Guanica, Bosqu	1.47	256	⇑eP	Pn	20 06 07.9	+1.0
GBPR				eS	Sn	20 06 27.5	-0.4
MLPR	Magueyes Islan	1.62	257		Pn	20 06 09.0	+0.5
MLPR				Sn	Sn	20 06 29.9	-1.1
MLPR	Magueyes Islan	1.62	257	⇑eP	Pn	20 06 09.2	+0.6
LSP	Las Mesas	1.63	265		Pn	20 06 10.3	+1.6
LSP					Sn	20 06 31.0	-0.2
LSP	Las Mesas	1.63	265	⇑eP	Pn	20 06 10.3	+1.6
LSP				eS	Sn	20 06 31.0	-0.2
AGPR	Aguadilla, PR	1.65	275		Sn	20 06 31.4	-0.2
AGPR	Aguadilla, PR	1.65	275		Pn	20 06 09.2	+0.3
AGPR	Aguadilla, PR	1.65	275	IAML		20 06 31.8	
	141nm,0.4s						
AGPR				IAML		20 06 32.6	
	210nm,0.3s						
AGPR	Aguadilla, PR	1.65	275	⇑eP	Pn	20 06 10.5	+1.6
CRPR	Cabo Rojo, PR	1.68	259		Sn	20 06 32.2	+0.1
CRPR	Cabo Rojo, PR	1.68	259		Pn	20 06 09.8	+0.6
CRPR	Cabo Rojo, PR	1.68	259	IAML		20 06 33.5	
	77nm,0.5s						
CRPR				IAML		20 06 37.2	
	91nm,0.8s						
CRPR	Cabo Rojo, PR	1.68	259	⇑eP	Pn	20 06 09.9	+0.7
PRSN	Puerto Rico Se	1.68	266	Pn	Pn	20 06 10.2	+0.9
PRSN					Sn	20 06 31.4	-0.8
IDE	Isla Desecheo	1.99	272		Pn	20 06 14.0	+1.0
IDE					Sn	20 06 39.0	+0.1
IDE	Isla Desecheo	1.99	272	⇑eP	Pn	20 06 14.0	+1.0
IDE				eS	Sn	20 06 39.0	+0.1
SMRT	St. Maarten	2.21	97	Pn	Pn	20 06 16.2	+0.5
SDDR	Presa de Saban	5.64	278	Pn	Pn	20 06 59.3	-1.6

CNRM ***04*** *20:07:42.8, 36.°58N×4.°59W, h73^{km}, ML3.2*
SFS ***04*** *20:07:43.9, 36.°57N×4.°52W, h72^{km}, ML3.6/24, ML3.7/25, MLv3.5/25*
IGIL ***04*** *20:07:44.6, 36.°55N×4.°54W, h60^{km}, ML2.8*
MDD ***04*** *20:07:44.1±0.2, 36.°55N×4.°54W, h64^{km}±3^{km}, Mb3.9/87, Error ellipse: s-maj=1.8km s-min=1.3km az=160.0*
INMG ***04*** *20:07:45.5±1.5, 36.°69N×4.°63W, h47^{km}±5^{km}, ML3.3, Error ellipse: s-maj=2.5km s-min=2.0km az=160.0, #DIST_RANGE: REGIONAL #IPMA_REGION: SW Malaga (ESP)*
ISC 04 20:07:42.0±1.1**, 36.°59N**±0.°02×**4.°53W**±0.°02**, h79**^{km}±5^{km}**, n150, σ1.^{s}64**/281**, 45C-6D, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EMIJ	Mijas	0.19	264	P	Pn	20 07 53.7	0.0
EMIJ				S	Sn	20 08 00.6	-1.8
EMIJ	Mijas	0.19	264	⇑Pn	Pn	20 07 53.7	0.0
EMIJ				Pn	Pn	20 07 53.7	0.0
EMIJ				Sn	Sn	20 08 00.5	-1.8
EMIJ				Sn	Sn	20 08 00.5	-1.8
EMAL	Malaga-Limoner	0.20	25	P	Pn	20 07 54.0	+0.3
EMAL				S	Sn	20 08 01.0	-1.3
EGOR	Sierra Gorda,	0.62	33	P	Pn	20 07 58.1	+1.1
EGOR				S	Sn	20 08 09.2	+1.1
EGOR	Sierra Gorda,	0.62	33	⇓Pn	Pn	20 07 58.1	+1.1
EGOR				Sn	Sn	20 08 07.1	-1.0
EXAGR	Agron	0.71	51	Pn	Pn	20 07 58.9	+1.1
EXAGR				Sn	Sn	20 08 09.5	-0.1
EJIF	Jimena Fronter	0.77	260	Pn	Pn	20 08 00.2	+1.9
EJIF				Sn	Sn	20 08 09.6	-0.8
ELGU	Los Guajares,	0.78	69	P	Pn	20 07 58.6	0.0
ELGU				S	Sn	20 08 11.4	+0.5
ELGU	Los Guajares,	0.78	69	Pn	Pn	20 07 58.6	0.0
ELGU				⇑IVmb_VC		20 08 05.1	
	4μm,SNR=251						
ELGU				Sn	Sn	20 08 10.9	0.0
EXMOR	Moron de la Fr	0.91	306	Pn	Pn	20 08 01.0	+1.0
EXMOR				Sn	Sn	20 08 13.6	+0.2
EXCAB	Granada	0.96	52	Pn	Pn	20 08 00.6	+0.1
EXCAB				Sn	Sn	20 08 13.3	-1.1
EXGRA	Granada	0.96	51	Sn	Sn	20 08 15.9	+1.4
ECEU	Ceuta	0.97	225	P	Pn	20 08 02.0	+1.4
ECEU				S	Sn	20 08 15.6	+1.1
ECEU	Ceuta	0.97	225	Pn	Pn	20 08 00.8	+0.1
ECEU				Sn	Sn	20 08 13.8	-0.8
EQTA	Presa de Quent	1.07	54	P	Pn	20 08 03.5	+1.6
EQTA				S	Sn	20 08 18.2	+1.3
EQUE	Quentar	1.07	54	Pn	Pn	20 08 03.4	+1.4
EQUE				⇑IVmb_VC		20 08 12.0	
	806nm,SNR=67						
EQUE				Sn	Sn	20 08 17.5	+0.6
ESPR	Espera	1.10	285	P	Pn	20 08 04.0	+1.8
ESPR				S	Sn	20 08 18.6	+1.2
ESPR	Espera	1.10	285	Pn	Pn	20 08 03.9	+1.8
ESPR				⇑IVmb_VC		20 08 05.5	
	1μm,SNR=64						
ESPR				Sn	Sn	20 08 18.2	+0.8
SMIR	Smir Dam	1.13	218	P	Pn	20 08 02.7	+0.1
SMIR				S	Sn	20 08 17.5	-0.6
CNIL	Conil	1.25	260	P	Pn	20 08 05.3	+1.3
CNIL				S	Sn	20 08 21.9	+1.3
EBER	Berja	1.36	76	P	Pn	20 08 05.6	0.0
EBER				S	Sn	20 08 23.9	+0.5
EBER	Berja	1.36	76	Pn	Pn	20 08 05.7	+0.1
EBER				⇑IVmb_VC		20 08 12.1	
	838nm,SNR=51						
EBER				Sn	Sn	20 08 23.7	+0.3
PALE	Palemas	1.45	160	P	Pn	20 08 07.1	+0.5
PALE				S	Sn	20 08 25.9	+0.7
EADA	Adamuz	1.58	359	P	Pn	20 08 09.6	+1.2
EADA				S	Sn	20 08 28.7	+0.4
EADA	Adamuz	1.58	359	⇓Pn	Pn	20 08 09.6	+1.2
EADA				⇑IVmb_VC		20 08 10.0	
	2μm,SNR=449						
EADA				Sn	Sn	20 08 28.9	+0.7
CHEFC	Chefchaouen	1.61	204	P	Pn	20 08 09.3	+0.4
CHEFC				S	Sn	20 08 29.4	+0.2
EXCBR	El Cabril	1.64	335	Pn	Pn	20 08 10.2	+1.1
EXCBR				Sn	Sn	20 08 29.0	-0.7
ECAB	El Cabril	1.65	335	P	Pn	20 08 10.0	+0.8
ECAB				S	Sn	20 08 28.9	-0.9
ECAB	El Cabril	1.65	335	⇓Pn	Pn	20 08 10.1	+0.8
ECAB				⇑IVmb_VC		20 08 11.1	
	827nm,SNR=13						
ECAB				Sn	Sn	20 08 29.3	-0.5
EQES	Quesada	1.69	43	⇓Pn	Pn	20 08 11.2	+1.4
EQES				⇑IVmb_VC		20 08 11.6	
	853nm,SNR=12						
EQES				Sn	Sn	20 08 31.1	+0.3
E0802	Ubeda,Jaen	1.71	32	Pn	Pn	20 08 11.4	+1.3
E0802				Sn	Sn	20 08 31.1	-0.2
WMELI	Melilla	1.80	134	P	Pn	20 08 11.5	+0.2
WMELI				S	Sn	20 08 32.7	-0.7
EMEL	Melilla	1.81	135	Pn	Pn	20 08 11.9	+0.6
EMEL				⇑IVmb_VC		20 08 14.6	
	8μm,SNR=2.2						
EMEL				Sn	Sn	20 08 32.7	-0.9
ARNO	Arenosillo	1.84	287	P	Pn	20 08 13.2	+1.5
ARNO				S	Sn	20 08 36.0	+1.7
ENIJ	Nijar	1.91	78	P	Pn	20 08 13.3	+0.7
ENIJ				S	Sn	20 08 35.1	-0.9
ENIJ	Nijar	1.91	78	Pn	Pn	20 08 13.4	+0.7
ENIJ				⇑IVmb_VC		20 08 18.5	
	433nm,SNR=2.1						
ENIJ				Sn	Sn	20 08 36.3	+0.3
EXHU	Huelva	2.04	290	Sn	Sn	20 08 38.6	-0.6
EMIN	Mina Concepcio	2.08	305	P	Pn	20 08 15.8	+1.0
EMIN				S	Sn	20 08 38.6	-1.4
EMIN	Mina Concepcio	2.08	305	⇓Pn	Pn	20 08 15.9	+1.0
EMIN				⇑IVmb_VC		20 08 16.3	
	2μm,SNR=18						
EMIN				Sn	Sn	20 08 38.8	-1.1
AKLM	AKL	2.14	165	P	Pn	20 08 15.2	-0.6
AKLM				S	Sn	20 08 40.1	-1.6
PSIM	Granatula de C	2.31	15	Pn	Pn	20 08 19.2	+1.1
PSIM				Sn	Sn	20 08 44.6	-1.1
EXAYA	Ayamonte	2.39	286	Sn	Sn	20 08 46.1	-1.3
TAF	Taforalt	2.47	135	P	Pn	20 08 21.3	+1.1
TAF				S	Sn	20 08 51.3	+1.8
EGRO	El Granado	2.54	293	P	Pn	20 08 22.1	+1.1
EGRO				S	Sn	20 08 50.3	-0.8
EGRO	El Granado	2.54	293	Pn	Pn	20 08 22.2	+1.1
EGRO				Pn	Pn	20 08 22.3	+1.2
EGRO				Sn	Sn	20 08 50.2	-0.9
EGRO				Sn	Sn	20 08 50.5	-0.7
PBAR	Barrancos	2.55	309	P	Pn	20 08 22.2	+1.0
PBAR				S	Sn	20 08 50.3	-1.1
PBAR	Barrancos	2.55	309	eP	Pn	20 08 22.2	+1.0
PBAR				eS	Sn	20 08 50.2	-1.1
PBAR				i IAML		20 08 52.5	
PBAR				i IAML		20 08 52.7	
PBAR				i IAML		20 08 52.9	
SICH	Sidi Chahed	2.56	195	P	Pn	20 08 22.0	+0.7
SICH				S	Sn	20 08 52.3	+0.8
PVAQ	Vaqueiros	2.68	289	⇑eP	Pn	20 08 23.9	+1.0
PVAQ				eS	Sn	20 08 53.0	-1.4
PVAQ				i IAML		20 08 54.3	
PVAQ				i IAML		20 08 54.6	
PVAQ				i IAML		20 08 54.6	
PVAQ	Vaqueiros	2.68	289	P	Pn	20 08 23.1	+0.2
PVAQ				S	Sn	20 08 53.3	-1.1
EXBUL	Bullas, Murcia	2.71	57	Sn	Sn	20 08 56.3	+1.0
JBK	JBK	2.76	144	P	Pn	20 08 25.0	+0.7
JBK				S	Sn	20 08 57.2	+0.4
PBDV	Barranco-do-Ve	2.80	285	P	Pn	20 08 25.8	+1.2
PBDV				S	Sn	20 08 57.1	-0.4
PBDV	Barranco-do-Ve	2.80	285	eP	Pn	20 08 26.0	+1.3
PBDV				eS	Sn	20 08 56.7	-0.8
PBDV				i IAML		20 08 59.1	
PBDV				i IAML		20 09 01.7	
PBDV				i IAML		20 09 02.3	
EMUR	La Murta	2.91	64	P	Pn	20 08 27.6	+1.5
EMUR	La Murta	2.91	64	Pn	Pn	20 08 27.4	+1.2
EMUR				⇑IVmb_VC		20 08 32.7	
	127nm,SNR=9.4						
EMUR				Sn	Sn	20 09 00.1	-0.1
EBAD	Badajoz	2.93	318	P	Pn	20 08 27.7	+1.4
EBAD				S	Sn	20 08 59.7	-0.8
EBAD	Badajoz	2.93	318	⇓Pn	Pn	20 08 27.7	+1.4
EBAD				Sn	Sn	20 08 59.6	-0.8
PAB	San Pablo	2.96	3	P	Pn	20 08 28.1	+1.3
PAB				P		20 08 28.2	
PAB	San Pablo	2.96	3	Pn	Pn	20 08 28.1	+1.3
PAB				⇑IVmb_VC		20 08 29.6	
	845nm,SNR=197						
PAB				Sn	Sn	20 09 00.5	-0.8
PCVE	Castro Verde	2.99	291	P	Pn	20 08 28.1	+1.0
PCVE				S	Sn	20 09 01.3	-0.7
PCVE	Castro Verde	2.99	291	eP	Pn	20 08 28.3	+1.1
PCVE				eS	Sn	20 09 01.0	-1.0
PCVE				i IAML		20 09 04.8	
PCVE				i IAML		20 09 05.1	
PCVE				i IAML		20 09 05.8	
CART	Cartagena	3.00	69	P	Pn	20 08 28.4	+1.2
PBEJ	Beja	3.02	299	eP	Pn	20 08 29.0	+1.4
PBEJ				eS	Sn	20 09 01.4	-1.4
PBEJ				i IAML		20 09 03.1	
PBEJ				i IAML		20 09 03.6	
PBEJ				i IAML		20 09 03.9	
IFR	Ifrane	3.10	189	P	Pn	20 08 29.6	+0.7
IFR				S	Sn	20 09 02.6	-2.4
ESDC	Sonseca Array	3.12	8	Pn	Pn	20 08 30.8	+1.9
ESDC				⇑IVmb_VC		20 08 31.4	
	712nm,SNR=30						
ESDC				Sn	Sn	20 09 04.7	-0.5
ESBB	Sonseca Array	3.12	8	Pn	Pn	20 08 30.7	+1.8
ESBB				⇑IVmb_VC		20 08 31.4	
	590nm,SNR=27						
ESBB				Sn	Sn	20 09 04.5	-0.7
CIBOR	Castaar de Ib	3.12	347	Pn	Pn	20 08 30.4	+1.4
CIBOR				Sn	Sn	20 09 04.2	-1.1
ETOB	Tobarra	3.14	48	P	Pn	20 08 30.3	+1.1
ETOB				S	Sn	20 09 04.2	-1.5
ETOB	Tobarra	3.14	48	Pn	Pn	20 08 30.3	+1.1
ETOB				⇑IVmb_VC		20 08 34.0	
	541nm,SNR=72						
ETOB				Sn	Sn	20 09 03.7	-1.9
MESJ	Messejana	3.20	294	eP	Pn	20 08 31.2	+1.2
MESJ				eS	Sn	20 09 05.5	-1.6
MESJ				IAML		20 09 08.2	
	comp=N,29nm,0.2s						
MESJ	Messejana	3.20	294	eP	Pn	20 08 31.2	+1.2
MESJ				eS	Sn	20 09 05.7	-1.3
MESJ				i IAML		20 09 07.4	
MESJ				i IAML		20 09 08.3	
MESJ				i IAML		20 09 11.8	
PESTR	Estremoz	3.33	314	eP	Pn	20 08 33.2	+1.5
PESTR				eS	Sn	20 09 08.9	-1.3
PESTR				i IAML		20 09 09.7	
PESTR				i IAML		20 09 10.7	
PESTR				i IAML		20 09 11.4	
PESTR	Estremoz	3.33	314	P	Pn	20 08 32.3	+0.5
PESTR				S	Sn	20 09 09.9	-0.3
MORF	Marmelete	3.38	283	eP	Pn	20 08 33.9	+1.5
MORF	Marmelete	3.38	283	eP	Pn	20 08 34.0	+1.5
MORF				eS	Sn	20 09 10.5	-1.0
MORF				i IAML		20 09 14.2	
MORF				i IAML		20 09 14.4	
MORF				i IAML		20 09 14.5	
EVO	Evora	3.38	306	P	Pn	20 08 34.0	+1.6
EVO				S	Sn	20 09 09.5	-1.9
EVO	Evora	3.38	306	eP	Pn	20 08 34.0	+1.6
EVO				eS	Sn	20 09 10.2	-1.2
EVO				i IAML		20 09 11.1	
EVO				i IAML		20 09 12.1	
EVO				i IAML		20 09 12.4	
PLOUS	Minas do Lousa	3.42	296	eP	Pn	20 08 34.4	+1.4
PLOUS				eS	Sn	20 09 10.8	-1.5
PLOUS				i IAML		20 09 12.7	
PLOUS				i IAML		20 09 12.9	
PLOUS				i IAML		20 09 13.1	
PTEO	Sao Teotonio	3.49	287	eP	Pn	20 08 35.8	+1.9
PTEO				eS	Sn	20 09 13.8	-0.2
PTEO				i IAML		20 09 17.3	
PTEO				i IAML		20 09 18.1	
PTEO				i IAML		20 09 18.3	
PFVI	Vila Bisbo	3.49	280	P	Pn	20 08 35.1	+1.2
PFVI				S	Sn	20 09 12.3	-1.8
PFVI	Vila Bisbo	3.49	280	eP	Pn	20 08 35.2	+1.2
PFVI				eS	Sn	20 09 12.0	-2.1
PFVI				i IAML		20 09 15.7	
PFVI				i IAML		20 09 16.4	
PFVI				i IAML		20 09 16.8	
PFVI	Vila Bisbo	3.49	280	P	Pn	20 08 34.1	+0.3
PFVI				S	Sn	20 09 14.1	+0.1
PARRA	Arraiolos	3.56	310	eP	Pn	20 08 36.4	+1.5
PARRA				eS	Sn	20 09 14.2	-1.7
PARRA				i IAML		20 09 15.8	
PARRA				i IAML		20 09 16.8	
PARRA				i IAML		20 09 17.3	
ZHG	ZHG	3.58	210	P	Pn	20 08 35.9	+0.7
MOE	Montemor	3.60	304	eP	Pn	20 08 37.2	+1.8
MOE				eS	Sn	20 09 15.5	-1.3
MOE				i IAML		20 09 17.5	
MOE				i IAML		20 09 17.5	
MOE				i IAML		20 09 17.8	
PMRV	Marv??o	3.63	322	eP	Pn	20 08 37.3	+1.5
PMRV				eS	Sn	20 09 15.8	-1.6
PMRV				i IAML		20 09 17.0	
PMRV				i IAML		20 09 17.1	
PMRV				i IAML		20 09 17.4	
EPLA	Plasencia	3.68	341	Pn	Pn	20 08 38.2	+1.6
EPLA				⇑IVmb_VC		20 08 39.3	
	comp=N,598nm,SNR=90						
EPLA				Sn	Sn	20 09 17.8	-1.0
MD31	MD31	3.71	183	P	Pn	20 08 38.5	+1.4
MDT	Midelt	3.76	181	P	Pn	20 08 39.4	+1.7
AFON	Font Roja	3.79	56	Pn	Pn	20 08 39.4	+1.3
AFON				⇑IVmb_VC		20 08 42.1	
	comp=N,290nm,SNR=15						
AFON				Sn	Sn	20 09 20.4	-1.2
EVIV	Cofrentes, Val	3.80	44	Pn	Pn	20 08 39.2	+1.0
EVIV				⇑IVmb_VC		20 08 39.4	
	comp=N,505nm,SNR=45						
EVIV				Sn	Sn	20 09 19.1	-2.7
PMTG	Montargil	3.83	311	eP	Pn	20 08 40.0	+1.4
PMTG				eS	Sn	20 09 20.4	-2.1
PMTG				i IAML		20 09 22.0	
PMTG				i IAML		20 09 22.5	
PMTG				i IAML		20 09 23.0	
UCM	Universidad Co	3.85	15	P	Pn	20 08 40.7	+1.8
UCM				S	Sn	20 09 21.8	-1.2
PCBR	Castelo Branco	3.99	325	eP	Pn	20 08 42.5	+1.7
PCBR				eS	Sn	20 09 24.3	-2.0
PCBR				i IAML		20 09 25.6	
PCBR				i IAML		20 09 26.3	
PCBR				i IAML		20 09 26.7	
EBEN2	Beniarda presa	4.03	58	Pn	Pn	20 08 42.5	+1.2
EBEN2				⇑IVmb_VC		20 08 47.8	
	comp=N,193nm,SNR=6.0						
EBEN2				Sn	Sn	20 09 26.9	-0.4
AVE	Averroes	4.04	217	S	Sn	20 09 25.9	-1.7
AVE	Averroes	4.04	217	P	Pn	20 08 39.8	-1.8
GUD	Guadarrama	4.06	4	Pn	Pn	20 08 43.7	+1.9
GUD				⇑IVmb_VC		20 08 44.4	
	comp=N,439nm,SNR=103						
GUD				Sn	Sn	20 09 26.9	-1.3
YEBES	Yebes (Guadala	4.09	16	Pn	Pn	20 08 44.1	+1.9
YEBES				Sn	Sn	20 09 28.9	+0.1
ECHE	Chera	4.11	42	P	Pn	20 08 43.4	+0.9
ECHE				S	Sn	20 09 27.5	-1.9
ECHE	Chera	4.11	42	Pn	Pn	20 08 43.5	+1.1
ECHE				⇑IVmb_VC		20 08 43.8	
	comp=N,223nm,SNR=25						
ECHE				Sn	Sn	20 09 28.0	-1.4
PSARD	Sardoal	4.15	318	eP	Pn	20 08 44.6	+1.6
PSARD				eS	Sn	20 09 28.3	-2.0
PSARD				i IAML		20 09 30.7	
PSARD				i IAML		20 09 31.6	
PSARD				i IAML		20 09 31.9	
PMAFR	Mafra	4.45	304	P	Pn	20 08 48.9	+2.0
PMAFR				S	Sn	20 09 36.6	-0.8
PMAFR	Mafra	4.45	304	eP	Pn	20 08 48.9	+2.0
PMAFR				eS	Sn	20 09 35.7	-1.7
PMAFR				i IAML		20 09 38.2	
PMAFR				i IAML		20 09 38.9	
PMAFR				i IAML		20 09 39.3	
PSBE	So Bento	4.46	312	eP	Pn	20 08 49.0	+1.8
PSBE				eS	Sn	20 09 35.6	-2.2
PSBE				i IAML		20 09 38.4	
PSBE				i IAML		20 09 39.8	
PSBE				i IAML		20 09 41.3	
MTE	Manteigas	4.48	329	eP	Pn	20 08 49.4	+1.9
MTE				eS	Sn	20 09 37.2	-1.2
MTE				i IAML		20 09 39.7	
MTE				i IAML		20 09 40.0	
MTE				i IAML		20 09 40.1	
EJUZ	Juzbado, Salam	4.62	347	Pn	Pn	20 08 51.0	+1.7
EJUZ				Sn	Sn	20 09 39.1	-2.6
ETOR	Torete	4.65	24	Pn	Pn	20 08 51.3	+1.5
ETOR				⇑IVmb_VC		20 08 51.9	
	comp=N,880nm,SNR=200						
ETOR				Sn	Sn	20 09 39.7	-2.8
PCAS	Casmilo, Conde	4.66	319	eP	Pn	20 08 51.4	+1.6
PCAS				eS	Sn	20 09 40.1	-2.6
PCAS				i IAML		20 09 43.2	
PCAS				i IAML		20 09 43.6	
PCAS				i IAML		20 09 44.9	
E0901	Celadas (Terue	4.72	33	Pn	Pn	20 08 52.9	+2.1
E0901				⇑IVmb_VC		20 08 56.9	
	comp=N,665nm,SNR=8.0						
E0901				Sn	Sn	20 09 42.4	-1.8
COI	Coimbra	4.73	321	i IAML		20 13 19.0	
COI				i IAML		20 13 19.8	
COI				i IAML		20 13 20.4	
PVIS	Viseu	4.89	328	eP	Pn	20 08 55.0	+1.9
PVIS				eS	Sn	20 09 46.8	-1.5
EMOS	Mosqueruela	4.94	39	Pn	Pn	20 08 55.4	+1.5
EMOS				⇑IVmb_VC		20 09 00.1	
	comp=N,92nm,SNR=17						
EMOS				Sn	Sn	20 09 46.3	-3.4
TISM	Timmit	5.10	199	P	Pn	20 08 55.2	-0.7
EIBI	Ibiza	5.25	61	P	Pn	20 08 58.6	+0.6
EIBI				S	Sn	20 09 53.9	-3.2
EIBI	Ibiza	5.25	61	Pn	Pn	20 08 59.2	+1.3
EIBI				⇑IVmb_VC		20 08 59.8	
	comp=N,63nm,SNR=3.8						
EIBI				Sn	Sn	20 09 53.8	-3.3
ECOL	Islas Columbre	5.27	50	Pn	Pn	20 08 58.6	+0.4
ECOL				Sn	Sn	20 09 53.3	-4.3
PVRL	Vila Real	5.30	333	eP	Pn	20 09 00.5	+1.8
PVRL				eS	Sn	20 09 56.1	-2.2
PVRL				i IAML		20 09 59.6	
PVRL				i IAML		20 09 59.6	
PVRL				i IAML		20 10 00.2	
POLO	Lamas de Olo	5.41	333	eP	Pn	20 09 02.0	+1.8
POLO				eS	Sn	20 09 58.8	-2.4
POLO				i IAML		20 10 01.9	
POLO				i IAML		20 10 02.3	
POLO				i IAML		20 10 02.4	
PBRG	Braganca	5.49	342	eP	Pn	20 09 03.1	+1.9
PBRG				eS	Sn	20 10 00.7	-2.2
PBRG				i IAML		20 10 04.1	
PBRG				i IAML		20 10 04.3	
PBRG				i IAML		20 10 04.7	
PTO	Porto	5.54	326	eP	Pn	20 09 03.9	+2.0
PTO				eS	Sn	20 10 01.4	-2.9
PTO				i IAML		20 10 05.5	
PTO				i IAML		20 10 05.7	
PTO				i IAML		20 10 06.3	
ECAL	Calabor	5.62	343	P	Pn	20 09 04.7	+1.8
ECAL				S	Sn	20 10 04.6	-1.5
ECAL	Calabor	5.62	343	Pn	Pn	20 09 04.9	+2.0
ECAL				Sn	Sn	20 10 05.1	-1.0
ERTA	Horta de San J	5.79	40	Pn	Pn	20 09 07.4	+2.1
ERTA				⇑IVmb_VC		20 09 08.1	
	comp=N,67nm,SNR=6.8						
ERTA				Sn	Sn	20 10 08.3	-1.9
PCAB	Cabril	5.79	333	eP	Pn	20 09 07.2	+1.9
PCAB				eS	Sn	20 10 08.0	-2.4
PCAB				i IAML		20 10 08.3	
PCAB				i IAML		20 10 11.4	
PCAB				i IAML		20 10 12.3	
E1202	Enciso (La Rio	5.84	17	Pn	Pn	20 09 07.8	+1.8
E1202				Sn	Sn	20 10 09.4	-2.1
ELOB	Lobios	5.94	334	Pn	Pn	20 09 09.1	+1.7
ELOB				⇑IVmb_VC		20 09 10.2	
	comp=N,317nm,SNR=38						
ELOB				Sn	Sn	20 10 10.5	-3.6
OUZM	OUZ	5.96	199	P	Pn	20 09 09.1	+1.3
ESAC	San Caprasio	6.02	30	Pn	Pn	20 09 10.3	+1.8
ESAC				⇑IVmb_VC		20 09 13.8	
	comp=N,272nm,SNR=5.9						
ESAC				Sn	Sn	20 10 14.9	-1.2
OUK	Oukaimeden	6.04	208	P	Pn	20 09 09.9	+0.9
TIO	Tiouine	6.08	203	P	Pn	20 09 10.2	+0.8
TIO				S	Sn	20 10 13.9	-3.8
TIO	Tiouine	6.08	203	P	Pn	20 09 10.6	+1.2
PGAV	Gavieira, Arco	6.10	333	eP	Pn	20 09 11.2	+1.6
PGAV				eS	Sn	20 10 15.1	-2.9
PGAV				i IAML		20 10 15.6	
PGAV				i IAML		20 10 17.9	
PGAV				i IAML		20 10 18.1	
EZAM	Zamans	6.42	331	Pn	Pn	20 09 16.1	+2.2
EZAM				⇑IVmb_VC		20 09 16.3	
	comp=N,256nm,SNR=5.1						
EZAM				Sn	Sn	20 10 22.5	-3.2
EPOB	Poblet	6.46	41	Pn	Pn	20 09 16.0	+1.5
EPOB				⇑IVmb_VC		20 09 17.1	
	comp=N,57nm,SNR=6.2						
EPOB				Sn	Sn	20 10 22.1	-4.7
EARA	Aranguren	6.58	19	Pn	Pn	20 09 18.9	+2.8
EARA				⇑IVmb_VC		20 09 19.9	
	comp=N,301nm,SNR=2.7						
EARA				Sn	Sn	20 10 28.6	-1.1
ETOS	Mallorca	6.60	59	Pn	Pn	20 09 18.3	+1.9
ETOS				⇑IVmb_VC		20 09 18.8	
	comp=N,15nm,SNR=2.1						
ETOS				Sn	Sn	20 10 25.4	-4.7
ELAN	Lanestosa	6.69	7	Pn	Pn	20 09 19.2	+1.6

ELAN				⇑IVmb_VC		20 09 21.5	
	comp=N,228nm,SNR=35						
ELAN				Sn	Sn	20 10 30.2	-2.1
EARI	Arriondas	6.73	356	Pn	Pn	20 09 20.2	+2.1
EARI				⇑IVmb_VC		20 09 22.3	
	comp=N,230nm,SNR=38						
EARI				Sn	Sn	20 10 29.4	-3.8
EAGO	Agolada(Pontev	6.79	337	Pn	Pn	20 09 20.8	+2.0
EAGO				⇑IVmb_VC		20 09 21.8	
	comp=N,234nm,SNR=25						
EAGO				Sn	Sn	20 10 31.8	-2.8
ALT03	Santillana del	6.79	3	Pn	Pn	20 09 21.7	+2.9
ALT03				⇑IVmb_VC		20 09 23.5	
	comp=N,282nm,SNR=6.8						
ALT03				Sn	Sn	20 10 32.8	-1.8
ALT04	Santillana del	6.79	3	Pn	Pn	20 09 21.6	+2.7
ALT04				⇑IVmb_VC		20 09 23.5	
	comp=N,175nm,SNR=5.1						
ALT04				Sn	Sn	20 10 32.9	-1.8
ALT01	Santillana del	6.79	3	Pn	Pn	20 09 21.7	+2.8
ALT01				⇑IVmb_VC		20 09 23.5	
	comp=N,251nm,SNR=7.4						
ALT01				Sn	Sn	20 10 32.8	-1.9
ALT02	Santillana del	6.79	3	Pn	Pn	20 09 21.8	+2.9
ALT02				Sn	Sn	20 10 33.2	-1.5
EALK	Alkurruntz	7.02	18	Pn	Pn	20 09 24.2	+2.0
EALK				⇑IVmb_VC		20 09 25.6	
	comp=N,506nm,SNR=61						
EALK				Sn	Sn	20 10 37.5	-2.9
EPON	Pontenova	7.03	344	Pn	Pn	20 09 24.3	+2.1
EPON				⇑IVmb_VC		20 09 25.3	
	comp=N,372nm,SNR=37						
EPON				Sn	Sn	20 10 36.4	-4.1
ECHI	Chisagues Biel	7.08	30	Pn	Pn	20 09 24.2	+1.2
ECHI				⇑IVmb_VC		20 09 26.7	
	comp=N,97nm,SNR=18						
ECHI				Sn	Sn	20 10 39.6	-2.5
EMIR	Miracle	7.10	40	Pn	Pn	20 09 25.1	+1.9
EMIR				⇑IVmb_VC		20 09 25.5	
	comp=N,252nm,SNR=3.9						
EMAZ	Mazaricos	7.22	333	Pn	Pn	20 09 27.1	+2.4
EMAZ				⇑IVmb_VC		20 09 28.5	
	comp=N,111nm,SNR=4.3						
EMAZ				Sn	Sn	20 10 41.5	-3.7

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*CATAC **04** 20:26:31.7±0.6, 8°N±4°×8°3W±°, h1^{km}, M3.8/7, MLv3.8/7, Error ellipse: s-maj=7.9km s-min=4.6km az=7.5, confirmed*
*UCR **04** 20:26:31.7±0.7, 8°.31N×83°.00W, h13^{km}±4^{km}, MW4.3, Presumed earthquake*
*UPA **04** 20:26:31.7±1.1, 8°.35N×82°.96W, h10^{km}±2^{km}, MW4.0, Presumed earthquake*
ISC 04 20:26:31.9±0.9, **8°.32N**±0°.03×**82°.98W**±0°.02, **h17**^{km}±6^{km}, **n53, σ0^{s}81**/78, **8D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTPM	Petroterminale	0.15	138	⇓iP	Pg	20 26 36.0	0.0
PTPM				eS	Sb	20 26 39.9	+0.7
PTPA	Petro Terminal	0.16	137	eP	Pg	20 26 36.0	-0.2
PTPA				eS	Sb	20 26 40.1	+0.6
LIMO3	Limones	0.24	152	i P	Pg	20 26 37.6	+0.2
LIMO3				eS	Sg	20 26 41.2	0.0
LMNES	Limones	0.25	151	eP	Pg	20 26 37.4	-0.1
CDITO	Canoas	0.27	23	P	Pg	20 26 37.9	-0.1
CDITO				S	Sg	20 26 42.3	+0.2
NELY	Ciudad Neily	0.33	6	eP	Pg	20 26 38.6	-0.3
NELY				eS	Sg	20 26 44.4	+0.7
FITO	Golfito	0.35	331	eP	Pg	20 26 38.2	-1.0
PIRO	Carate, Puerto	0.36	284	eP	Pg	20 26 38.9	-0.5
PIRO	Carate, Puerto	0.36	284	i P	Pg	20 26 39.1	-0.3
PIRO				eS	Sb	20 26 44.9	-0.3
EDAD	Golfito	0.38	331	eP	Pg	20 26 38.6	-1.1
JIME	Puerto Jimenez	0.40	303	eP	Pg	20 26 39.4	-0.7
MLIR3	Monte Lirio, C	0.50	18	⇓iP	Pg	20 26 42.3	+0.4
MLIR3				eS	Sg	20 26 48.4	-0.2
VITO	San Vito	0.50	1	eP	Pg	20 26 42.1	+0.2
DVD	David	0.54	78	⇓iP	Pg	20 26 42.3	-0.3
DVD				eS	Sg	20 26 50.9	+1.0
BRU2	Volcan	0.55	31	P	Pg	20 26 42.9	-0.1
BRU2				S	Sg	20 26 51.5	+1.1
BRU2	Volcan	0.55	31	eP	Pg	20 26 42.9	-0.1
BRU2	Volcan	0.55	31	⇓iP	Pg	20 26 43.0	+0.1
BRU2				eS	Sg	20 26 51.2	+0.8
CLLRA	Cordillera,	0.56	41	eP	Pg	20 26 43.0	0.0
CLLRA	Cordillera,	0.56	41	i P	Pg	20 26 43.0	0.0
LOMA3	Las Lomas, Chi	0.59	79	eP	Pg	20 26 42.8	-0.8
LOMA3				eS	Sg	20 26 51.5	-0.2
PTAR3	Potrerillos Ar	0.61	52	⇓iP	Pg	20 26 43.8	-0.2
PTAR3				eS	Sg	20 26 52.8	+0.7
CHIR3	Chiriqui UPA,	0.65	83	⇓iP	Pg	20 26 44.0	-0.7
CHIR3				eS	Sg	20 26 53.9	+0.5
BQTLY	Boquete Panama	0.67	50	i P	Pg	20 26 44.4	-0.9
BQSF3	Alto Boquete,	0.69	52	⇓iP	Pg	20 26 44.8	-0.6
BQSF3				eS	Sg	20 26 54.4	-0.1
LNBQ3	Los Naranjos,	0.71	49	⇓iP	Pg	20 26 45.0	-0.8
LNBQ3				eS	Sg	20 26 55.8	+0.5
EDP2	Potrero Grande	0.72	344	eP	Pg	20 26 45.5	-0.5
DRK0	Durika	0.97	344	eP	Pb	20 26 35.7	-15
DRK0				eS	Sb	20 26 49.2	-14
RBALA	Bur	0.99	56	eP	Pb	20 26 49.7	-0.9
RBALA	Bur	0.99	56	i P	Pb	20 26 49.4	-1.2
RBALA				eS	Sb	20 27 02.4	-0.9
OCHAL	Ojochal	1.01	320	P	Pb	20 26 50.2	-0.7
OCHAL				S	Sn	20 27 05.2	+0.1
EDPE	Pejibaye, P	1.02	325	eP	Pb	20 26 49.8	-1.3
CHGR2	Aguacate	1.03	53	i P	Pb	20 26 50.1	-1.1
CHGR2				eS	Sb	20 27 04.6	+0.1
CNI2	El Empalme, Bo	1.21	25	eP	Pn	20 26 52.7	-1.3
KKNTU	Kakintº	1.27	66	eP	Pn	20 26 53.7	-1.2
CEUA	Cerro Uatsi, L	1.29	2	eP	Pb	20 26 56.4	+0.6
RGM0	Gandoca	1.32	16	P	Pb	20 26 57.0	+0.9
RGM0				S	Sg	20 27 18.0	+3.5
RGM0	Gandoca	1.32	16	eP	Pn	20 26 54.5	-1.0
LCR2	La Lucha 2	1.74	324	P	Pn	20 27 02.1	+0.6
LCR2				S	Sg	20 27 26.7	-1.3
LCR2	La Lucha 2	1.74	324	eP	Pn	20 27 01.9	+0.5
LCR2	La Lucha 2	1.74	324	eP	Pn	20 27 02.2	+0.8
GMAL	Guarumal, Vera	1.82	108	eP	Pn	20 27 01.1	-1.2
GMAL				eS	Sb	20 27 27.3	+0.1
CVTR	Volcan Turrial	1.86	336	eP	Pn	20 27 04.0	+0.8
SAFE3	Santa Fe, Vera	1.89	84	eP	Pn	20 27 03.7	+0.3
SAFE3				eS	Sn	20 27 27.3	+0.4
STIA3	Santiago, Vera	2.00	96	eP	Pn	20 27 04.1	-0.8
STIA3				eS	Sn	20 27 29.9	+0.3
CALO3	Calobre, Verag	2.12	90	eP	Pn	20 27 05.6	-0.9
CACAO	El Cacao, Vera	2.31	115	eP	Pn	20 27 10.2	+1.0
CACAO				eS	Sn	20 27 37.9	+0.7
AZU	Azuero	2.73	101	eP	Pn	20 27 14.7	-0.2
AZU				eS	Sn	20 27 48.0	+0.4
JTS	Las Juntas de	2.76	315	S	Sn	20 27 50.0	+1.6
JTS	Las Juntas de	2.76	315	eP	Pn	20 27 15.6	+0.2
ZANG	Zanguenga, Cho	3.14	78	eP	Pn	20 27 20.1	-0.5
BCIP	Isla Barro Col	3.22	75	eP	Pn	20 27 22.6	+1.0
BCIP				eS	Sn	20 27 59.5	-0.1
GAMB1	Gamboa	3.33	76	eP	Pn	20 27 22.8	-0.4
FRIJ	El Hiral	3.34	74	eP	Pn	20 27 23.4	+0.1

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*MDD **04** 20:55:36.8±0.6, 36°.37N×8°.09W, h8^{km}±3^{km}, mb_Lg3.0/20, Error ellipse: s-maj=4.7km s-min=3.0km az=55.0*
*CNRM **04** 20:55:37.4, 36°.32N×8°.12W, h64^{km}, ML2.9*
*SFS **04** 20:55:38.0, 36°.33N×8°.15W, h28^{km}, ML3.1/18, ML3.5/18, MLv3.0/18*
*IGIL **04** 20:55:39.1, 36°.34N×8°.12W, h32^{km}, ML2.6*
*INMG **04** 20:55:39.1±1.4, 36°.33N×8°.13W, h30^{km}±7^{km}, ML2.6, Error ellipse: s-maj=3.7km s-min=2.1km az=79.0, #DIST_RANGE: REGIONAL #IPMA_REGION: SW Faro*
ISC 04 20:55:36.7±1.3, **36°.37N**±0°.03×**8°.08W**±0°.03, **h28**^{km}±13^{km}, **n90, σ1^{s}30**/158, **1C-7D, West of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PBDV	Barranco-do-Ve	0.88	8	P	Pn	20 55 54.3	+1.1
PBDV				S	Sn	20 56 05.8	+0.6
PBDV	Barranco-do-Ve	0.88	8	eP	Pn	20 55 54.4	+1.1
PBDV				eS	Sn	20 56 06.2	+1.0
PBDV				i IAML		20 56 10.2	
PBDV				i IAML		20 56 11.5	
PBDV				i IAML		20 56 11.7	
PFVI	Vila Bisbo	0.97	322	P	Pn	20 55 55.1	+0.7
PFVI				S	Sn	20 56 07.5	+0.2
PFVI	Vila Bisbo	0.97	322	⇓iP	Pn	20 55 55.1	+0.7
PFVI				eS	Sn	20 56 07.8	+0.5
PFVI				i IAML		20 56 11.4	
PFVI				i IAML		20 56 12.6	
PFVI				i IAML		20 56 12.7	
PFVI	Vila Bisbo	0.97	322	P	Pn	20 55 55.2	+0.7
PFVI				S	Sn	20 56 10.7	+3.4
MORF	Marmelete	1.04	334	eP	Pn	20 55 56.3	+0.9
MORF				eS	Sb	20 56 09.1	-0.2
MORF				IAML		20 56 09.9	
	comp=E,131nm,0.2s						
MORF	Marmelete	1.04	334	⇓iP	Pn	20 55 56.4	+0.9
MORF				eS	Sb	20 56 09.2	-0.2
MORF				i IAML		20 56 10.2	
MORF				i IAML		20 56 10.2	
MORF				i IAML		20 56 10.3	
PVAQ	Vaqueiros	1.07	16	⇓eP	Pb	20 55 57.0	+0.4
PVAQ				eS	Sb	20 56 10.0	-0.2
PVAQ				i IAML		20 56 11.1	
PVAQ				i IAML		20 56 12.3	
PVAQ				i IAML		20 56 12.3	
PVAQ	Vaqueiros	1.07	16	P	Pb	20 55 57.1	+0.5
PVAQ				S	Sn	20 56 11.4	+1.5
EGRO	El Granado	1.26	22	P	Pb	20 55 59.7	0.0
EGRO				S	Sn	20 56 14.8	+0.4
EGRO	El Granado	1.26	22	Pg	Pb	20 55 59.5	-0.2
EGRO				Sg	Sb	20 56 15.1	-0.5
EGRO				IVmb_Lg		20 56 16.0	
PCVE	Castro Verde	1.26	2	P	Pb	20 55 59.7	0.0
PCVE				S	Sn	20 56 14.4	-0.1
PCVE	Castro Verde	1.26	2	⇓iP	Pb	20 55 59.8	0.0
PCVE				eS	Sb	20 56 15.3	-0.3
PCVE				i IAML		20 56 15.6	
PCVE				i IAML		20 56 15.6	
PCVE				i IAML		20 56 15.8	
PTEO	Sao Teotonio	1.28	337	⇑iP	Pb	20 55 60.0	-0.2
PTEO				eS	Sn	20 56 15.2	+0.2
PTEO				i IAML		20 56 16.7	
PTEO				i IAML		20 56 17.0	
PTEO				i IAML		20 56 18.3	
ARNO	Arenosillo	1.31	56	P	Pb	20 56 00.3	-0.2
ARNO				S	Sn	20 56 16.1	+0.5
MESJ	Messejana	1.47	356	eP	Pb	20 56 02.6	-0.8
MESJ				eS	Sn	20 56 19.7	0.0
MESJ				IAML		20 56 21.1	
	comp=N,44nm,0.1s						
MESJ	Messejana	1.47	356	⇓eP	Pb	20 56 02.6	-0.8
MESJ				eS	Sn	20 56 20.2	+0.5
MESJ				i IAML		20 56 20.4	
MESJ				i IAML		20 56 20.7	
MESJ				i IAML		20 56 21.2	
SFS	San Fernando	1.52	86	P	Pn	20 56 02.3	+0.3
PBEJ	Beja	1.66	6	eP	Pn	20 56 05.2	+1.2
PBEJ				eS	Sn	20 56 25.2	+0.7
PBEJ				i IAML		20 56 27.2	
PBEJ				i IAML		20 56 27.6	
PBEJ				i IAML		20 56 28.0	
PLOUS	Minas do Lousa	1.68	351	⇓iP	Pn	20 56 05.2	+1.0
PLOUS				eS	Sn	20 56 24.5	-0.3
PLOUS				i IAML		20 56 29.7	
PLOUS				i IAML		20 56 35.4	
PLOUS				i IAML		20 56 38.0	
EMIN	Mina Concepcio	1.79	39	P	Pn	20 56 06.7	+0.9
EMIN				S	Sn	20 56 26.8	-0.9
EMIN	Mina Concepcio	1.79	39	Pn	Pn	20 56 07.2	+1.4
EMIN				Sn	Sn	20 56 28.2	+0.6
EMIN				IVmb_Lg		20 56 30.8	
ESPR	Espera	1.86	74	P	Pn	20 56 08.0	+1.3
ESPR				S	Sn	20 56 30.0	+0.7
ESPR	Espera	1.86	74	Pn	Pn	20 56 08.0	+1.3
ESPR				Sn	Sn	20 56 30.6	+1.4
ESPR				IVmb_Lg		20 56 31.3	
PBAR	Barrancos	1.98	24	P	Pn	20 56 09.4	+1.0
PBAR				S	Sn	20 56 32.3	0.0
PBAR	Barrancos	1.98	24	eP	Pn	20 56 09.5	+1.1
PBAR				eS	Sn	20 56 31.9	-0.5
PBAR				i IAML		20 56 33.7	
PBAR				i IAML		20 56 34.3	
PBAR				i IAML		20 56 34.3	
EVO	Evora	2.16	1	P	Pn	20 56 11.8	+1.1
EVO				S	Sn	20 56 35.9	-0.7
EVO	Evora	2.16	1	eP	Pn	20 56 11.9	+1.1
EVO				eS	Sn	20 56 36.6	0.0
EVO				i IAML		20 56 39.3	
EVO				i IAML		20 56 39.7	
EVO				i IAML		20 56 40.4	
MOE	Montemor	2.16	354	eP	Pn	20 56 12.1	+1.2
MOE				eS	Sn	20 56 36.3	-0.4
MOE				i IAML		20 56 37.6	
MOE				i IAML		20 56 37.7	
MOE				i IAML		20 56 37.8	
ECEU	Ceuta	2.24	101	P	Pn	20 56 13.7	+1.8
ECEU				S	Sn	20 56 40.5	+1.8
SMIR	Smir Dam	2.29	107	P	Pn	20 56 14.3	+1.6
SMIR				S	Sn	20 56 39.9	-0.1
PARRA	Arraiolos	2.44	1	eP	Pn	20 56 15.7	+1.0
PARRA				eS	Sn	20 56 43.5	-0.2
PARRA				i IAML		20 56 44.6	
PARRA				i IAML		20 56 45.4	
PARRA				i IAML		20 56 45.9	
PESTR	Estremoz	2.52	9	P	Pn	20 56 16.9	+1.1
PESTR				S	Sn	20 56 45.5	-0.2
PESTR	Estremoz	2.52	9	eP	Pn	20 56 17.0	+1.1
PESTR				eS	Sn	20 56 45.5	-0.2
PESTR				i IAML		20 56 47.3	
PESTR				i IAML		20 56 47.8	
PESTR				i IAML		20 56 49.6	
PESTR	Estremoz	2.52	9	P	Pn	20 56 17.7	+1.8
PESTR				S	Sn	20 56 46.8	+1.1
EMIJ	Mijas	2.67	85	P	Pn	20 56 18.9	+0.9
EMIJ				S	Sn	20 56 49.8	+0.3
EMIJ	Mijas	2.67	85	Pn	Pn	20 56 19.0	+1.0
EMIJ				Sn	Sn	20 56 50.7	+1.2
EMIJ				IVmb_Lg		20 56 54.7	
PMTG	Montargil	2.70	358	⇓eP	Pn	20 56 19.2	+1.0
PMTG				eS	Sn	20 56 49.8	-0.1
PMTG				i IAML		20 56 50.3	
PMTG				i IAML		20 56 50.4	
PMTG				i IAML		20 56 50.4	
ECAB	El Cabril	2.72	51	P	Pn	20 56 19.5	+0.9
ECAB				S	Sn	20 56 49.3	-1.3
ECAB	El Cabril	2.72	51	Pn	Pn	20 56 19.9	+1.3
ECAB				IVmb_Lg		20 56 53.3	
PMAFR	Mafra	2.75	340	P	Pn	20 56 19.9	+1.0
PMAFR				S	Sn	20 56 51.8	+0.5
PMAFR	Mafra	2.75	340	eP	Pn	20 56 20.6	+1.6
PMAFR				eS	Sn	20 56 51.5	+0.2
PMAFR				i IAML		20 56 52.4	
PMAFR				i IAML		20 56 52.5	
PMAFR				i IAML		20 56 52.5	
EMAL	Malaga-Limoner	2.97	81	P	Pn	20 56 23.4	+1.5
PMRV	Marv??o	3.10	10	eP	Pn	20 56 24.8	+1.0
PMRV				eS	Sn	20 56 59.7	-0.2
PMRV				i IAML		20 57 00.7	
PMRV				i IAML		20 57 01.5	
PMRV				i IAML		20 57 01.9	
AVE	Averroes	3.11	170	P	Pn	20 56 23.9	0.0
AVE				S	Sn	20 56 58.3	-1.9
AVE	Averroes	3.11	170	P	Pn	20 56 24.7	+0.8
AVE				S	Sn	20 57 00.8	+0.6
ZHG	ZHG	3.15	157	P	Pn	20 56 24.5	0.0
ZHG				S	Sn	20 57 01.1	-0.1
PSBE	So Bento	3.19	350	eP	Pn	20 56 26.4	+1.4
PSBE				eS	Sn	20 57 02.4	+0.3
PSBE				i IAML		20 57 02.6	
PSBE				i IAML		20 57 03.3	
PSBE				i IAML		20 57 03.5	
PSARD	Sardoal	3.23	359	eP	Pn	20 56 26.7	+1.2
PSARD				eS	Sn	20 57 03.0	0.0
PSARD				i IAML		20 57 03.8	
PSARD				i IAML		20 57 04.0	
PSARD				i IAML		20 57 04.7	
EGOR	Sierra Gorda,	3.28	76	P	Pn	20 56 28.1	+1.8
EGOR				S	Sn	20 57 04.5	0.0
EGOR	Sierra Gorda,	3.28	76	Pn	Pn	20 56 28.5	+2.2
EGOR				Sn	Sn	20 57 05.8	+1.4
EGOR				IVmb_Lg		20 57 14.8	
EADA	Adamuz	3.32	56	P	Pn	20 56 28.1	+1.2
EADA				S	Sn	20 57 03.9	-1.5
EADA	Adamuz	3.32	56	Pn	Pn	20 56 27.8	+0.9
EADA				Sn	Sn	20 57 04.0	-1.5
EADA				IVmb_Lg		20 57 06.8	
PCBR	Castelo Branco	3.50	8	eP	Pn	20 56 30.3	+1.1
PCBR				eS	Sn	20 57 09.1	-0.6
PCBR				i IAML		20 57 10.4	
PCBR				i IAML		20 57 10.7	
PCBR				i IAML		20 57 11.2	
ELGU	Los Guajares,	3.62	81	P	Pn	20 56 31.3	+0.4
ELGU				S	Sn	20 57 13.6	+0.8
ELGU	Los Guajares,	3.62	81	Pn	Pn	20 56 32.2	+1.3
ELGU				IVmb_Lg		20 57 18.7	
PCAS	Casmilo, Conde	3.69	355	eP	Pn	20 56 33.1	+1.2
PCAS				eS	Sn	20 57 13.8	-0.7
PCAS				i IAML		20 57 15.2	
PCAS				i IAML		20 57 15.3	
PCAS				i IAML		20 57 15.4	
IFR	Ifrane	3.74	139	P	Pn	20 56 33.1	+0.3
IFR				S	Sn	20 57 11.1	-4.9
EQTA	Presa de Quent	3.82	76	P	Pn	20 56 34.0	+0.3
EQTA				S	Sn	20 57 18.6	+0.9
EQUE	Quentar	3.82	76	Pn	Pn	20 56 35.4	+1.6
EQUE				Sn	Sn	20 57 19.0	+1.3
EQUE				IVmb_Lg		20 57 26.4	
CIBOR	Castaar de Ib	3.88	32	Pn	Pn	20 56 35.9	+1.4
CIBOR				Sn	Sn	20 57 18.3	-0.8
SRHM	Skhour des Reh	3.89	178	P	Pn	20 56 35.1	+0.4
AKLM	AKL	3.91	117	P	Pn	20 56 34.6	-0.4
EPLA	Plasencia	4.01	23	Pn	Pn	20 56 36.9	+0.6
EPLA				Sn	Sn	20 57 21.4	-1.0
EPLA				IVmb_Lg		20 57 23.9	
MTE	Manteigas	4.05	6	eS	Sn	20 57 22.1	-1.3
MTE				i IAML		20 57 24.8	
MTE				i IAML		20 57 25.3	
MTE				i IAML		20 58 02.3	
EBER	Berja	4.21	81	S	Sn	20 57 29.4	+1.9
PSIM	Granatula de C	4.22	53	Pn	Pn	20 56 39.5	+0.4
PSIM				Sn	Sn	20 57 26.5	-1.0
EQES	Quesada	4.25	69	Sn	Sn	20 57 29.0	+0.4
EQES				IVmb_Lg		20 57 36.6	
PAB	San Pablo	4.33	42	Pn	Pn	20 56 41.8	+1.0
PAB				IVmb_Lg		20 57 28.9	
PVIS	Viseu	4.34	2	eS	Sn	20 57 29.9	-0.7
MD31	MD31	4.44	141	P	Pn	20 56 42.2	-0.1
MDT	Midelt	4.56	140	P	Pn	20 56 44.0	+0.1
ESDC	Sonseca Array	4.63	43	Pn	Pn	20 56 45.4	+0.5
ESDC				IVmb_Lg		20 57 37.6	
PTO	Porto	4.78	355	eS	Sn	20 57 39.0	-2.3
PTO				i IAML		20 57 41.1	
PTO				i IAML		20 57 41.6	
PTO				i IAML		20 57 42.0	
TISM	Timmit	4.83	163	P	Pn	20 56 45.2	-2.4
PVRL	Vila Real	4.91	3	eS	Sn	20 57 42.0	-2.5
PVRL				i IAML		20 57 44.5	
PVRL				i IAML		20 57 45.3	
PVRL				i IAML		20 57 45.6	
POLO	Lamas de Olo	5.00	2	eP	Pn	20 56 50.9	+0.9
POLO				eS	Sn	20 57 44.3	-2.6
POLO				i IAML		20 57 46.2	
POLO				i IAML		20 57 46.6	
POLO				i IAML		20 57 47.1	
OUK	Oukaimeden	5.15	178	P	Pn	20 56 52.2	-0.1
GUD	Guadarrama	5.26	35	Pn	Pn	20 56 53.7	+0.1
GUD				Sn	Sn	20 57 51.4	-2.0
GUD				IVmb_Lg		20 57 54.2	
PCAB	Cabril	5.33	0	eP	Pn	20 56 55.4	+1.0
PCAB				eS	Sn	20 57 52.2	-2.8
PCAB				i IAML		20 57 54.9	
PCAB				i IAML		20 57 55.0	
PCAB				i IAML		20 57 55.2	
UCM	Universidad Co	5.47	43	P	Pn	20 56 57.9	+1.5
UCM				S	Sn	20 57 55.3	-3.1
TIO	Tiouine	5.47	173	P	Pn	20 56 56.1	-0.4
TIO				S	Sn	20 57 53.5	-5.1
TIO	Tiouine	5.47	173	P	Pn	20 56 56.3	-0.2
ELOB	Lobios	5.49	0	Pn	Pn	20 56 56.9	+0.2
ELOB				Sn	Sn	20 57 57.1	-1.8
ELOB				IVmb_Lg		20 57 58.7	
PBRG	Braganca	5.53	10	eS	Sn	20 57 57.0	-2.8
PBRG				i IAML		20 57 58.9	
PBRG				i IAML		20 57 59.0	
PBRG				i IAML		20 57 59.5	
OUZM	OUZ	5.56	168	P	Pn	20 56 58.0	+0.4
PGAV	Gavieira, Arco	5.59	359	eP	Pn	20 56 59.2	+1.1
PGAV				eS	Sn	20 57 58.0	-3.4
PGAV				i IAML		20 57 59.4	
PGAV				i IAML		20 58 01.6	
PGAV				i IAML		20 58 03.3	
TZRR	Tazzarine	5.95	159	P	Pn	20 57 03.6	+0.5
EAGO	Agolada(Pontev	6.42	360	Pn	Pn	20 57 09.9	+0.5
EAGO				Sn	Sn	20 58 19.2	-2.6
EAGO				IVmb_Lg		20 58 19.3	
ETOR	Torete	6.48	45	Pn	Pn	20 57 10.8	+0.5
ETOR				Sn	Sn	20 58 21.2	-2.2
ETOR				IVmb_Lg		20 58 23.2	

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*SNET **04** 21:06:25.0±1.1, 14°.18N×90°.25W, h170^{km}, ML2.9, Presumed earthquake*
*GCG **04** 21:06:25.9±0.8, 14°.20N×90°.34W, h156^{km}±8^{km}, MD4.0, Presumed earthquake*
ISC 04 21:06:22.7±3.7, **14°.3N**±0°.1×**90°.19W**±0°.09, **h190**^{km}±25^{km}, **n14, σ1^{s}52**/19, **Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FG16	Alotenango, Sa	0.31	266	i P	Pn	21 06 49.0	+0.7
FG8	Yepocapa, Chim	0.36	264	i P	Pn	21 06 49.2	+0.9
JUAM	Asuncion Mita	0.47	85	i P	Pn	21 06 49.1	+0.5
SNJE	San Jose	0.71	127	eP	Pn	21 06 50.4	+0.5
CEVE	Cerro Verde	0.72	130	eP	Pn	21 06 50.6	+0.7
APG	El Apazote	0.75	339	i P	Pn	21 06 50.8	+0.6
APG				i S	Sn	21 07 10.1	-1.4
MTO3	Montecristo	0.81	83	i P	Pn	21 06 51.5	+1.1
MTO3	Montecristo	0.81	83	eP	Pn	21 06 51.3	+0.9
ZAFR2	Estanzuela, Za	0.86	71	i P	Pn	21 06 52.0	+1.6
JAYA	Jayaque - finc	0.96	132	i P	Pn	21 06 52.0	+0.6
JAYA				i S	Sn	21 07 10.7	-2.8
JAYA	Jayaque - finc	0.96	132	eP	Pn	21 06 51.9	+0.6
JAYA				eS	Sn	21 07 12.8	-0.7
STG8	El Palmar, Qui	1.14	278	i P	Pn	21 06 54.7	+2.0
STG8				eS	Sn	21 07 18.5	+2.6
SOKI	Kika Raxquin	1.29	294	eP	Pn	21 06 53.5	-0.6
SMCA	Catarina	1.91	287	i P	Pn	21 06 59.5	-0.1
SMCA				i S	Sn	21 07 25.7	-2.4

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*BJI **04** 21:10:11.3, 52°.61N×160°.03E, h9^{km}, mB5.1/16, mb4.8/59, Ms5.3/48, Ms7 5.1/48*
*KRSC **04** 21:10:12.9±1.4, 52°.08N×160°.56E, h49^{km}±19^{km}, Mc5.0, Ml5.6, Felt [II-III] at Petropavlovsk, Ribachiy, Viluchinsk; [II] at lighthouse Petropavlovskiy.*
*MOS **04** 21:10:16.7±0.9, 52°.22N×160°.17E, h59^{km}, mb5.2/93, MS4.7/10, Error ellipse: s-maj=5.4km s-min=3.1km az=101.3*
*IDC **04** 21:10:17.5±2.5, 52°.36N×160°.01E, h32^{km}±17^{km}, mb4.7/37, mbtmp4.9/41, ML4.9/3, MS4.5/77, Error ellipse: s-maj=13.3km s-min=9.7km az=139.0*
*NEIC **04** 21:10:17.1±1.6, 52°.18N±0°.07×160°.31E±0°.09, h35^{km}±1^{km}, mb4.7/407, Error ellipse: s-maj=12.4km s-min=9.0km az=193.0*
*GFZ **04** 21:10:18.8±0.2, 52°N±4°×16°0E±°, h34^{km}, M5.1/134, mb5.2/134, Mw5.0/55*
*GCMT **04** 21:10:19.1±0.2, 52°.08N±0°.01×160°.52E±0°.02, h29^{km}, MW5.1/115, Moment Tensor Solution. s80,c119; s115,c188; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}4.10±.13; $M_{\theta\theta}$-2.22±.09; $M_{\phi\phi}$-1.88±.09; $M_{r\theta}$2.44±.15; $M_{\theta\phi}$-1.85±.06; $M_{\phi r}$2.26±.13; Best double couple: $M_0$5.20500×10^{16} NP1:ϕ_s228.00000°, δ25.00000°, λ90.00000°. NP2:ϕ_s47.00000°, δ65.00000°, λ90.00000°. Principal axes: T 5.3010, Plg70.0000°, Azm317.0000°; N -0.1920, Plg0.0000°, Azm47.0000°; P -5.1090, Plg20.0000°, Azm138.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

Triangular moment-rate function
*BGR **04** 21:10:20.2, 52°.52N×159°.12E, h40^{km}, mb5.1, Ms4.6*
ISC 04 21:10:17.7±0.4,**52°.21N**±0°.04×**160°.33E**±0°.03,**h46**^{km}±3^{km},
h46^{km}**:pP-P,n1395,**σ**1**^{s}**35**/1408,**mb4.9**/496,**MS4.8**/104,
68C-50D,Off east coast of Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SPN	Mys Shipunski	0.91	348	PN	Pn	21 10 32.8	-1.3
SPN				S	Sn	21 10 46.5	+0.3
SPN	Mys Shipunski	0.91	348	*e*P	Pn	21 10 32.9	-1.3
SPN				*e*S	Sn	21 10 46.6	+0.3
RUS	Russkaya	1.14	282	PN	Pn	21 10 36.0	-1.1
RUS				S	Sn	21 10 52.9	+1.3
RUS	Russkaya	1.14	282	*e*P	Pn	21 10 36.1	-1.1
RUS				*e*S	Sn	21 10 52.9	+1.3
NLC	Nalytchevo	1.14	329	PN	Pn	21 10 36.1	-1.1
NLC				S	Sn	21 10 53.0	+1.4
NLC	Nalytchevo	1.14	329	*e*P	Pn	21 10 36.2	-1.1
NLC				*e*S	Sn	21 10 53.0	+1.4
DALK	Dalny	1.27	311	PN	Pn	21 10 38.1	-0.8
DALK				S	Sn	21 10 55.2	+0.4
DALK	Dalny	1.27	311	*e*P	Pn	21 10 38.2	-0.8
DALK				*e*S	Sn	21 10 55.2	+0.4
PET	Petropavlovsk	1.31	309	α *i*PN	Pn	21 10 38.7	-0.8
PET				*e*S	Sn	21 10 56.7	+0.9
PET				pmax	pmax		
	comp=Z,11µm,0.7s						
PET				smax	smax		
	comp=E,69µm,2.2s						
PET				smax	smax		
	comp=E,19µm,3.4s						
PET				smax	smax		
	comp=N,21µm,1.4s						
PET				smax	smax		
	comp=E,13µm,0.7s						
PET				smax	smax		
	comp=N,17µm,0.5s						
PET	Petropavlovsk	1.31	309		Pn	21 10 38.8	-0.8
PET				Sn	Sn	21 10 55.8	0.0
PET	Petropavlovsk	1.31	309	P	Pn	21 10 37.6	-1.9
PET				AML	AML		
PET	Petropavlovsk	1.31	309	P	Pn	21 10 38.9	-0.7
MTVR	Mutnovka	1.34	283	PN	Pn	21 10 39.4	-0.7
MTVR	Mutnovka	1.34	283	*e*P	Pn	21 10 39.5	-0.7
INSR	Institute	1.36	310	PN	Pn	21 10 39.2	-1.0
INSR				S	Sn	21 10 57.9	+0.9
INSR	Institute	1.36	310	*e*P	Pn	21 10 39.3	-1.0
INSR				*e*S	Sn	21 10 57.9	+0.9
UGLR	Uglovaya	1.36	318	PN	Pn	21 10 39.9	-0.4
UGLR	Uglovaya	1.36	318	*e*P	Pn	21 10 39.9	-0.4
SDLR	Sedlovina	1.39	321	PN	Pn	21 10 39.9	-0.8
SDLR	Sedlovina	1.39	321	*e*P	Pn	21 10 40.0	-0.8
SMAR	Somma	1.41	319	PN	Pn	21 10 40.2	-0.9
SMAR	Somma	1.41	319	*e*P	Pn	21 10 40.3	-0.9
GRL	Gorelyy	1.42	285	PN	Pn	21 10 41.1	-0.1
GRL	Gorelyy	1.42	285	*e*P	Pn	21 10 41.1	-0.1
AVH	Avacha	1.44	318	PN	Pn	21 10 41.1	-0.3
AVH	Avacha	1.44	318	*e*P	Pn	21 10 41.1	-0.3
KDTR	Khodutka, Kamc	1.45	255	PN	Pn	21 10 40.2	-1.2
KDTR				S	Sn	21 10 59.1	0.0
KDTR	Khodutka, Kamc	1.45	255	*e*P	Pn	21 10 40.2	-1.2
KDTR				*e*S	Sn	21 10 59.1	0.0
KRER	Koryakskii	1.46	320	PN	Pn	21 10 41.4	-0.4
KRER	Koryakskii	1.46	320	*e*P	Pn	21 10 41.5	-0.4
KRMR	Karymshinskiy	1.48	296	PN	Pn	21 10 41.4	-0.5
KRMR	Karymshinskiy	1.48	296	*e*P	Pn	21 10 41.4	-0.5
KRMR				*e*S	Sn	21 11 02.7	+2.7
KOK	Koryaka	1.50	317	PN	Pn	21 10 41.8	-0.4
KOK	Koryaka	1.50	317	*e*P	Pn	21 10 41.9	-0.4
ASAK	Asacha	1.50	278	PN	Pn	21 10 42.0	-0.2
ASAK	Asacha	1.50	278	*e*P	Pn	21 10 42.0	-0.2
KRX	Arik	1.54	319	PN	Pn	21 10 42.3	-0.5
KRX	Arik	1.54	319	*e*P	Pn	21 10 42.3	-0.5
I44RU	PETROPAVLOVSK-	1.83	301	Pg	Pn	21 10 47.9	+1.2
	baz=108,slow=27						
PEA0B	Petropavlovsk-	1.84	301	*c i*PN	Pn	21 10 46.9	+0.1
PEA0B	Petropavlovsk-	1.84	301		Pn	21 10 46.4	-0.4
PEA0B				Sn	Sn	21 11 08.8	-0.1
PETK	Petropavlovsk-	1.84	301	Pg	Pn	21 10 47.0	+0.2
	comp=N,430nm,0.3s,baz=108,slow=19,SNR=1782						
PETK				Lg	Lg	21 11 11.0	
	comp=N,411nm,0.3s,baz=101,slow=19,SNR=3.0						
PETK				LR	LR	21 11 42.7	
	comp=N,29µm,18.6s,baz=55,slow=54						
PETK	Petropavlovsk-	1.84	301	PN	Pn	21 10 47.0	+0.2
PETK	Petropavlovsk-	1.84	301		Pn	21 10 45.9	-0.9
PETK				Sn	Sn	21 11 11.1	+2.3
KII	Karymskiy	1.91	344	PN	Pn	21 10 47.2	-0.6
KII	Karymskiy	1.91	344	*e*P	Pn	21 10 47.3	-0.6
APC	Apacha	2.06	292	PN	Pn	21 10 50.6	+0.8
APC	Apacha	2.06	292	*e*P	Pn	21 10 50.7	+0.8
APC				*e*S	Sn	21 11 19.8	+5.4
GNL	Ganaly	2.08	317	PN	Pn	21 10 50.7	+0.5
GNL	Ganaly	2.08	317	*e*P	Pn	21 10 50.7	+0.5
MIPR	Malaya Ipel'ka	2.19	273	PN	Pn	21 10 51.9	+0.2
MIPR	Malaya Ipel'ka	2.19	273	*e*P	Pn	21 10 52.0	+0.2
PAU	Pauzhetka	2.30	253	PN	Pn	21 10 52.7	-0.4
PAU	Pauzhetka	2.30	253	*e*P	Pn	21 10 52.8	-0.4
MKZ	Mys Kozlova	2.50	19	PN	Pn	21 10 53.9	-1.9
MKZ	Mys Kozlova	2.50	19	*e*P	Pn	21 10 54.0	-1.9
SKR	Severo-Kuril’s	3.04	242	*i* PN	Pn	21 11 02.4	-0.9
SKR	Severo-Kuril’s	3.04	242	*e*P	Pn	21 11 02.4	-0.9
KMNR	Kamenistaya	3.56	359	PN	Pn	21 11 13.0	+2.5
KMNR	Kamenistaya	3.56	359	*e*P	Pn	21 11 13.0	+2.5
BZP	Bezymyannyi-Pe	3.72	2	PN	Pn	21 11 13.0	+0.3
BZP	Bezymyannyi-Pe	3.72	2	*e*P	Pn	21 11 13.0	+0.3
BZMR	Bezymyannaya	3.74	1	PN	Pn	21 11 13.1	+0.2
BZMR	Bezymyannaya	3.74	1	*e*P	Pn	21 11 13.2	+0.2
BZGR	Bezymyannyi-Gr	3.75	3	PN	Pn	21 11 14.3	+1.2
BZGR	Bezymyannyi-Gr	3.75	3	*e*P	Pn	21 11 14.4	+1.2
KIRR	Kirishev	3.76	0	PN	Pn	21 11 13.2	0.0
KIRR	Kirishev	3.76	0	*e*P	Pn	21 11 13.3	0.0
BZWR	Bezymyannyi-We	3.77	1	PN	Pn	21 11 14.3	+0.9
BZWR	Bezymyannyi-We	3.77	1	*e*P	Pn	21 11 14.4	+0.9
KPT	Kopyto	3.77	359	PN	Pn	21 11 13.6	+0.3
KPT	Kopyto	3.77	359	*e*P	Pn	21 11 13.6	+0.3
ZLN	Zelenaya	3.83	4	PN	Pn	21 11 15.8	+1.6
ZLN	Zelenaya	3.83	4	*e*P	Pn	21 11 15.8	+1.6
ESO	Esso	3.85	346	PN	Pn	21 11 14.4	+0.1
ESO	Esso	3.85	346	*e*P	Pn	21 11 14.5	+0.1
KOZ	Kozyrevsk	3.87	356	PN	Pn	21 11 14.8	+0.1
KOZ	Kozyrevsk	3.87	356	*e*P	Pn	21 11 14.8	+0.1
LGNR	Loginova	3.89	3	PN	Pn	21 11 16.0	+0.8
LGNR	Loginova	3.89	3	*e*P	Pn	21 11 16.1	+0.8
CIRR	Tsirk	3.93	3	PN	Pn	21 11 17.4	+1.9
CIRR	Tsirk	3.93	3	*e*P	Pn	21 11 17.5	+1.9
KLY	Klyuchi	4.12	3	PN	Pn	21 11 18.5	+0.4
KLY	Klyuchi	4.12	3	*e*P	Pn	21 11 18.5	+0.4
SRDR	Sredinnyy	4.14	355	PN	Pn	21 11 18.2	-0.1
SRDR	Sredinnyy	4.14	355	*e*P	Pn	21 11 18.2	-0.1
KBTR	Krutoberegovo	4.27	19	PN	Pn	21 11 19.6	-0.5
KBTR	Krutoberegovo	4.27	19	*e*P	Pn	21 11 19.6	-0.5
BKI	Bering	4.50	46	PN	Pn	21 11 21.9	-1.4
BKI	Bering	4.50	46	*e*P	Pn	21 11 21.9	-1.4
TIGL	Tigil	5.65	351	PN	Pn	21 11 39.4	+0.4
TIGL	Tigil	5.65	351	*e*P	Pn	21 11 39.4	+0.4
PALN	Palana	6.90	358	PN	Pn	21 11 59.4	+3.2
PALN	Palana	6.90	358	*e*P	Pn	21 11 59.4	+3.2
SHEM	Shemya Is, Ala	8.43	81	Pn	Pn	21 12 16.8	-0.3
	comp=N,21nm,0.3s,baz=355,slow=2.0,SNR=10						
SHEM				Sn	Sn	21 13 43.3	-7.5
	comp=N,24nm,0.3s,baz=319,slow=18,SNR=10						
SHEM				LR	LR	21 15 24.8	
	comp=N,2µm,21.5s,baz=277,slow=36						
SHEM	Shemya Is, Ala	8.43	81		Pn	21 12 15.8	-1.3
SMY	Shemya	8.43	81	PN	Pn	21 12 15.7	-1.4
SMY	Shemya	8.43	81		Pn	21 12 15.7	-1.4
MA2	Magadan	9.12	328	Pn	Pn	21 12 27.3	+0.7
	comp=N,0.4nm,0.3s,baz=181,slow=11,SNR=4.4						
MA2				LR	LR	21 16 33.3	
	comp=N,7µm,18.6s,baz=138,slow=42						
	comp=N,7.1nm,0.6s						
MA2				AML	AML		
MA2	Magadan	9.12	328	*i* PN	Pn	21 12 25.4	-1.2
MA2	Magadan	9.12	328		Pn	21 12 25.3	-1.2
MA2	Magadan	9.12	328	P	Pn	21 12 25.3	-1.3
	comp=N,643nmcomp=N,32nm,1.1s						
TYV	Tymovskoe	11.09	270	*e*PN	Pn	21 12 56.7	+3.2
TYV				*e*S	Sn	21 15 03.0	+7.0
TYV				pmax	pmax		
	comp=Z,19nm,1.3s						
TYV				pmax	pmax		
	comp=Z,400nm,2.8s						
TYV				smax	smax		
	comp=N,10.0nm,1.4s						
TYV				smax	smax		
	comp=E,13nm,1.4s						
TYV				smax	smax		
	comp=N,300nm,4.6s						
TYV				smax	smax		
	comp=E,400nm,4.6s						
SEY	Seymchan	11.56	342	Pn	Pn	21 13 00.9	+1.1
	comp=E,5.7nm,1.0s,baz=150,slow=12,SNR=10						
SEY				LR	LR	21 17 52.9	
	comp=E,4µm,19.6s,baz=148,slow=40						
SEY	Seymchan	11.56	342	*e*PN	Pn	21 12 59.9	+0.1
SEY				pmax	pmax		
	comp=Z,18nm,0.9s						
AMKA	Amchitka	11.78	87	Pn	Pn	21 13 01.2	-1.7
NKL	Nikolayevsk	11.96	282	*e*PN	Pn	21 13 03.4	-2.0
NKL				pmax	pmax		
	comp=E,55nm,1.3s						
NKL				pmax	pmax		
	comp=N,59nm,1.5s						
NKL				pmax	pmax		
	comp=Z,73nm,1.2s						
NKL				MLR	MLR		
	comp=E,13µm,16.0s						
NKL				MLR	MLR		
	comp=N,12µm,17.0s						
NKL				MLR	MLR		
	comp=Z,24µm,15.0s						
UGL	Uglegorsk	12.00	262	*e*PN	Pn	21 13 08.3	+2.3
UGL				S	Sn	21 15 29.4	+11
UGL				pmax	pmax		
	comp=Z,900nm,5.1s						
UGL				MLR	MLR		
	comp=Z,4µm,16.0s						
UGL				MLR	MLR		
	comp=N,3µm,15.0s						
UGL				MLR	MLR		
	comp=E,3µm,12.0s						
YSS	Yuzhno-Sakhali	12.54	252	*ce*PN	Pn	21 13 14.2	+0.8
YSS				*e*S	Sn	21 15 33.1	+1.6
YSS				pmax	pmax		
	comp=Z,300nm,3.4s						
YSS				pmax	pmax		
	comp=Z,30nm,1.0s						
YSS				MLR	MLR		
	comp=Z,4µm,14.0s						
YSS				MLR	MLR		
	comp=E,3µm,15.0s						
YSS	Yuzhno-Sakhali	12.54	252		Pn	21 13 09.5	-3.9
YSS	Yuzhno-Sakhali	12.54	252	P	Pn	21 13 13.0	-0.4
	comp=Z,34nm,1.8s						
YUK	Yuzh-Kuril'sk	12.64	235	*e*PN	P	21 13 21.5	-3.4
YUK				S	Sn	21 15 39.3	+5.5
YUK				MLR	MLR		
	comp=Z,4µm,18.0s						
YUK				MLR	MLR		
	comp=N,2µm,17.0s						
JKA	Kamikawa-asahi	14.30	243		Pn	21 13 35.4	-2.0
JKA	Kamikawa-asahi	14.30	243	P	Pn	21 13 36.0	-1.4
	comp=Z,67nm,0.9s						
ASAJ	Asahikawa	14.31	243	LR	LR	21 19 46.6	
	comp=Z,2µm,19.0s,baz=54,slow=40						
ASAJ	Asahikawa	14.31	243	P	Pn	21 13 35.4	-2.0
GRNR	Gornyy	14.95	274	⇓*i*P	Pn	21 13 47.5	+1.7
GRNR				pmax	pmax		
	comp=Z,10.0nm,0.9s						
GRNR				MLR	MLR		
	comp=E,2µm,15.0s						
GRNR				MLR	MLR		
	comp=N,860nm,16.0s						
GRNR				MLR	MLR		
	comp=Z,3µm,13.0s						
ERM	Erimo	15.47	236	P	Pn	21 13 49.4	-3.2
ERM				pmax	pmax		
	comp=Z,56nm,0.5s						
ERM	Erimo	15.47	236		Pn	21 13 49.4	-3.2
ERM				IAmb	IAmb	21 14 04.5	
	comp=Z,56nm,0.5s						
ERM	Erimo	15.47	236	P	Pn	21 13 49.7	-2.9
	comp=Z,69nm,0.5s						
BILL	Bilibino	16.14	8	*ce*P	Pn	21 14 00.2	-0.9
BILL				pmax	pmax		
	comp=Z,70nm,1.0s						
BILL	Bilibino	16.14	8		P	21 14 02.5	-1.2
BILL				IAmb	IAmb	21 14 07.0	
	comp=Z,50nm,0.7s						
BILI	Bilibino, Chuk	16.18	8	P	Pn	21 14 02.1	+0.6
	comp=Z,69nm,0.9s						
JTM	Tenmabayashi	17.44	237		Pn	21 14 14.0	-3.4
JTM				IAmb	IAmb	21 14 27.1	
	comp=Z,34nm,0.7s						
KLR	Kul'dur	18.29	272	P	P	21 14 27.3	-0.1
	comp=Z,1.5nm,0.3s,baz=72,slow=10,SNR=51						
KLR				LR	LR	21 22 25.2	
	comp=Z,4µm,18.1s,baz=78,slow=40						
	comp=Z,22nm,0.7s						
KLR				AML	AML		
KLR	Kul'dur	18.29	272	*ce*P	Pn	21 14 28.0	+0.3
KLR				pmax	pmax		
	comp=Z,118nm,2.5s						
GAMB	Gambell	18.63	41	P	Pn	21 14 32.1	+0.4
YAK	Yakutsk	19.14	313	P	P	21 14 34.5	-2.1
	comp=Z,16nm,0.3s,baz=290,slow=1.4,SNR=60						
YAK				LR	LR	21 22 50.1	
	comp=Z,1µm,18.8s,baz=100,slow=40						
	comp=Z,164nm,0.7s						
YAK				AML	AML		
YAK	Yakutsk	19.14	313	*e*P	P	21 14 34.0	-2.6
YAK				*e*S	Sn	21 18 02.5	-8.6
YAK				pmax	pmax		
	comp=Z,205nm,1.0s						
YAK				pmax	pmax		
	comp=N,20nm,0.9s						
YAK				pmax	pmax		
	comp=E,47nm,1.0s						
YAK				smax	smax		
	comp=N,187nm,5.6s						
YAK				smax	smax		
	comp=E,134nm,3.3s						
YAK				MLR	MLR		
	comp=N,2µm,18.0s						
YAK				MLR	MLR		
	comp=E,2µm,16.0s						
YAK				MLR	MLR		
	comp=Z,2µm,17.0s						
YAK	Yakutsk	19.14	313		P	21 14 34.4	-2.3
YAK	Yakutsk	19.14	313	P	P	21 14 34.3	-2.3
	comp=Z,245nm,0.9s						
ZEA	Zeya	19.88	288	*e*P	P	21 14 43.1	-1.7
ZEA				pmax	pmax		
	comp=N,10.0nm,0.5s						
ZEA				pmax	pmax		
	comp=Z,10.0nm,0.7s						
ZEA				MLR	MLR		
	comp=E,2µm,15.0s						
ZEA				MLR	MLR		
	comp=N,500nm,14.0s						
ZEA				MLR	MLR		
	comp=Z,2µm,16.0s						
UNV	Unalaska Valle	19.92	72		Pn	21 14 46.2	-1.0
UNV				IAmb	IAmb	21 14 50.9	
	comp=Z,44nm,1.1s						
LVA	Lava Point	20.15	71	P	P	21 14 47.6	-0.1
LVA				IAmb	IAmb	21 15 02.4	
	comp=Z,40nm,0.8s						
USA0B	Ussuriysk Arra	20.41	258	*i* P	P	21 14 49.2	-1.5
USA0B	Ussuriysk Arra	20.41	258		P	21 14 48.7	-2.0
USA0B				IAmb	IAmb	21 14 50.3	
	comp=Z,32nm,0.9s						
USRK	Ussuriysk Ar.	20.41	258	P	P	21 14 49.5	-1.2
	comp=Z,33nm,1.0s,baz=57,slow=11,SNR=22						
USRK				LR	LR	21 22 39.0	
	comp=Z,2µm,21.0s,baz=63,slow=37						
	comp=Z,33nm,1.0s						
USRK	Ussuriysk Ar.	20.41	258	P	P	21 14 47.8	-2.9
HEH	HeiHe	20.61	278	*e*P	P	21 14 50.2	-2.5
HEH				pP	Pn	21 14 55.6	+0.2
HEH				pmax	pmax		
	comp=Z,25nm,1.1s						
HEH				L	L		
	comp=Z,3µm,15.7s						
HEH				L	L		
	comp=Z,3µm,17.8s						
HEH				L	L		
	comp=Z,8µm,14.3s						
K13K	Kusilvak Mount	21.12	49	P	P	21 15 00.0	+1.9
JYT	Yasato	21.41	230	P	P	21 14 56.9	-4.5
M13K	Dall Lake	21.51	53		P	21 15 03.9	+1.6
M13K				IAmb	IAmb	21 15 10.9	
	comp=Z,28nm,1.1s						
MDJ	Mudanjiang	21.64	262	P	P	21 15 01.8	-2.1
MDJ				pmax	pmax		
	comp=Z,33nm,0.8s						
MDJ	Mudanjiang	21.64	262		P	21 15 01.1	-2.8
MDJ				IAmb	IAmb	21 15 03.1	
	comp=Z,22nm,0.8s						
MDJ	Mudanjiang	21.64	262	P	P	21 15 02.4	-1.5
	comp=Z,28nm,0.9s						
J14K	Nanvaranak Lak	21.79	47	P	P	21 15 07.0	+1.8
L14K	Kuka Creek	21.95	51	P	P	21 15 07.5	+0.5
PSTR	Posyet	22.00	256	*i* P	P	21 15 04.8	-2.9
MJB9	Matsu-Tunnel	22.12	234	P	P	21 15 07.7	-1.3
MAJO	Matsushiro	22.12	234	⇑*i*P	P	21 15 09.4	+0.3
MAJO				pmax	pmax		
	comp=Z,54nm,0.6s						
MAJO	Matsushiro	22.12	234	P	P	21 15 07.9	-1.2
MAJO	Matsushiro	22.12	234	P	P	21 15 09.9	+0.8
	comp=Z,82nm,0.8s						
MJAR	Matsushiro Arr	22.12	234	P	P	21 15 10.3	+1.2
	comp=Z,45nm,1.1s,baz=23,slow=10,SNR=95						
MJAR				LR	LR	21 24 08.8	
	comp=Z,3µm,21.8s,baz=50,slow=38						
	comp=Z,45nm,1.1s						
MJAR	Matsushiro Arr	22.12	234	P	P	21 15 07.6	-1.5
MJAR				pmax	pmax		
	comp=Z,35nm,0.9s						
MJAR	Matsushiro Arr	22.12	234	P	P	21 15 07.6	-1.5
MJAR				IAmb	IAmb	21 15 14.4	
	comp=Z,35nm,0.9s						
F15K	North Star Dit	22.17	39	P	P	21 15 10.4	+1.0
M14K	Bethel	22.23	53		P	21 15 10.5	+0.6
M14K				IAmb	IAmb	21 15 19.8	
	comp=Z,25nm,1.1s						
N14K	Kuskokwak Cree	22.30	55	P	P	21 15 10.8	+0.1
N14K				IAmb	IAmb	21 15 29.1	
	comp=Z,20nm,0.8s						
BNX	BinXian	22.42	266	⇓P	P	21 15 10.8	-1.4
BNX				pmax	pmax		
	comp=Z,46nm,0.8s						
O14K	Tigyukauivet M	22.48	57	P	P	21 15 12.5	-0.3
K15K	Wolf Creek Mou	22.63	49	P	P	21 15 13.8	-0.4
C16K	Lisburne Hills	22.96	33	P	P	21 15 17.2	-0.5
C16K				IAmb	IAmb	21 15 27.9	
	comp=Z,28nm,0.9s						
N15K	Kwethluk River	23.11	54		P	21 15 19.8	+0.6
N15K				IAmb	IAmb	21 15 30.5	
	comp=Z,16nm,0.8s						
J16K	Anvik River	23.21	46		P	21 15 20.5	+0.3
O15K	Ungalikthiuk R	23.23	57	P	P	21 15 19.9	-0.5
O15K				IAmb	IAmb	21 15 30.9	
	comp=Z,18nm,0.9s						
JGF	Kuroka	23.28	234		P	21 15 19.8	-1.4
JGF				IAmb	IAmb	21 15 24.8	
	comp=Z,53nm,1.1s						
JGF	Kuroka	23.28	234	P	P	21 15 22.8	+1.5
	comp=Z,38nm,0.8s						
L16K	Owhat River	23.52	50	P	P	21 15 24.2	+1.0
INU	Inuyama	23.65	234	P	P	21 15 24.5	-0.2
INU				IAmb	IAmb	21 15 40.5	
	comp=Z,50nm,0.9s						
INU	Inuyama	23.65	234	P	P	21 15 25.8	+1.2
	comp=Z,62nm,0.7s						
RDOG	Red Dog Mine	23.69	34	P	P	21 15 25.1	+0.3
RDOG				IAmb	IAmb	21 15 34.2	
	comp=Z,16nm,0.9s						
M16K	Timber Creek	23.71	52	P	P	21 15 25.9	+0.8
CNBA	Chernabura Isl	23.75	68	P	P	21 15 25.9	+0.5
CNBA				IAmb	IAmb	21 15 28.0	
	comp=Z,62nm,1.1s						
H17K	Granite Mounta	23.85	42		P	21 15 26.4	+0.1
J17K	VABM Dome	23.91	46		P	21 15 27.6	+0.8
J17K				IAmb	IAmb	21 15 46.3	
	comp=Z,18nm,1.2s						
TIXI	Tiksi	23.95	336	P	P	21 15 26.0	-1.0
	comp=Z,74nm,0.7s,baz=137,slow=9.0,SNR=112						
TIXI				LR	LR	21 25 49.5	
	comp=Z,3µm,18.8s,baz=144,slow=39						
	comp=Z,74nm,0.7s						
TIXI	Tiksi	23.95	336	*ce*P	P	21 15 25.6	-1.5
TIXI				pmax	pmax		
	comp=Z,79nm,0.7s						
TIXI	Tiksi	23.95	336		P	21 15 25.7	-1.4
K17K	Iditarod	24.17	48	P	P	21 15 29.4	+0.2
JHJ	Hachijo jima 2	24.18	226	LR	LR	21 28 39.5	
	comp=Z,403nm,18.3s,baz=60,slow=46						
M17K	Holitna River	24.47	51		P	21 15 33.2	+1.2
M17K				IAmb	IAmb	21 15 42.4	
	comp=Z,20nm,0.8s						
C18K	Utukok River	24.51	33	P	P	21 15 33.0	+0.6
C18K				IAmb	IAmb	21 15 42.9	
	comp=Z,18nm,0.8s						
H18K	Honhosa River	24.54	42	P	P	21 15 34.7	+2.1
N17K	Nushagak Hills	24.56	53		P	21 15 33.6	+0.8
G18K	Tagagawik	24.58	40		P	21 15 34.1	+1.2
CN2	Changchun	24.60	264	*e*P	P	21 15 30.6	-2.7
CN2				*e*S	S	21 19 49.2	-1.9
CN2				pmax	pmax		
	comp=Z,10.0nm,0.9s						
CN2				pmax	pmax		
	comp=Z,200nm,8.5s						
CN2				L	L		
	comp=Z,900nm,15.0s						
CN2				L	L		
	comp=Z,1µm,15.0s						
CN2				L	L		
	comp=Z,2µm,14.1s						
L18K	Granite Mounta	24.87	49	P	P	21 15 37.2	+1.6
P17K	Kvichak River	24.97	57	P	P	21 15 37.8	+1.4
P17K				IAmb	IAmb	21 15 47.7	
	comp=Z,39nm,1.0s						
J18K	Innoko River	24.97	46	P	P	21 15 37.3	+0.8
N18K	Kilae Creek	25.20	53	P	P	21 15 39.3	+0.7
N18K				IAmb	IAmb	21 15 52.1	
	comp=Z,11nm,0.8s						
C19K	Lookout Ridge	25.22	33	P	P	21 15 39.5	+0.7
C19K				IAmb	IAmb	21 15 51.8	
	comp=Z,30nm,1.1s						
G19K	Purcell Mounta	25.26	40	P	P	21 15 40.1	+1.0
HILR	Hailar Array B	25.50	280	P	P	21 15 39.7	-1.8
	comp=Z,11nm,0.4s,baz=82,slow=11,SNR=38						
HILR				LR	LR	21 26 59.9	
	comp=Z,2µm,18.1s,baz=65,slow=40						
	comp=Z,11nm,0.4s						
D19K	Kuna River	25.52	35	P	P	21 15 42.5	+1.1
D19K				IAmb	IAmb	21 15 51.8	
	comp=Z,21nm,1.1s						
J19K	Poorman	25.52	45	P	P	21 15 42.3	+0.9
E19K	Redstone River	25.53	37	P	P	21 15 42.5	+1.0
E19K				IAmb	IAmb	21 15 57.9	
	comp=Z,20nm,0.9s						
HIA	Hailar	25.62	280	P	P	21 15 40.2	-2.3
HIA				pmax	pmax		
	comp=Z,62nm,0.7s						
HIA	Hailar	25.62	280		P	21 15 40.2	-2.3
HIA	Hailar	25.62	280	P	P	21 15 41.0	-1.5
	comp=Z,97nm,0.8s						
ACHA	Angle Creek He	25.62	59	P	P	21 15 44.0	+1.5
L19K	White Mountain	25.73	50	P	P	21 15 45.2	+1.9
N19K	Bonanza Creek	25.89	53	P	P	21 15 46.7	+1.8
N19K				IAmb	IAmb	21 15 55.8	
	comp=Z,11nm,0.9s						
O19K	Port Alsworth	25.99	54	P	P	21 15 47.2	+1.5
F20K	Avaraart Lake	26.00	38	P	P	21 15 46.7	+1.0
K20K	Telida	26.15	47		P	21 15 48.2	+1.0
J20K	Nowinta River	26.18	45	P	P	21 15 48.9	+1.5
B20K	Meade River	26.34	32	P	P	21 15 49.7	+0.9
B20K				IAmb	IAmb	21 16 07.1	
	comp=Z,21nm,0.8s						
M20K	Styx River	26.53	50	P	P	21 15 50.9	+0.2
IMAR	Indian Mountai	26.57	41	P	P	21 15 50.9	-0.1
IMAR					PcP	21 19 15.7	+1.7
ILSW	Iliamna Southw	26.59	55	P	P	21 15 51.7	+0.4
ILSW				IAmb	IAmb	21 16 08.4	
	comp=Z,16nm,1.2s						
G21K	Allakaket	26.75	40	P	P	21 15 53.7	+1.1
OHAK	Old Harbor	26.84	61	P	P	21 15 54.2	+0.8
OHAK				IAmb	IAmb	21 16 02.5	
	comp=Z,16nm,1.0s						
F21K	Alatna River	26.89	38	P	P	21 15 54.6	+0.8

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H21K  Melozitna Rive    26.91  42  P        P        21 15 54.5 +0.4
E21K  Killik River      26.97  36  P        P        21 15 55.3 +0.8
KSRS  Korea Array       27.03 250  P        P        21 15 56.0 +0.7
      comp=Z,8.8nm,0.8s,baz=41,slow=9.8,SNR=25
KSRS                               LR       LR       21 27 34.2
      comp=Z,2µm,18.1s,baz=50,slow=38
      comp=Z,8.8nm,0.8s
KSAR  Wonju Array Be    27.06 250  P        P        21 15 54.6 -1.0
KSAR  Wonju Array Be    27.06 250  P        P        21 15 54.6 -1.0
KDAK  Kodiak Island     27.12  59  P        P        21 15 55.8 -0.1
KDAK                               pmax     pmax
      comp=Z,10.0nm,0.9s
KDAK  Kodiak Island     27.12  59  P        P        21 15 55.8 -0.1
STLK  Strandline Lak    27.16  51  P        P        21 15 57.6 +1.2
H22K  Ishtalitna Cre    27.52  42  P        P        21 16 00.3 +0.8
COLD  Coldfoot          28.15  39  P        P        21 16 06.0 +1.0
BWN   Browne            28.23  45  P        P        21 16 06.1 +0.3
BWN                                IAmb     IAmb     21 16 25.3
      comp=Z,36nm,1.2s
H23K  Yukon River       28.27  42  P        P        21 16 07.9 +1.7
I23K  Minto, Yukon-K    28.30  43  P        P        21 16 07.5 +1.1
CIT   Chita             28.34 288 eP        P        21 16 04.0 -3.0
CIT                               e                  21 16 20.0
CIT                               e                  21 16 55.0
CIT                               e                  21 17 17.2
CIT                               e                  21 19 13.4
CIT                                pmax     pmax
      comp=Z,37nm,1.8s
SEW   Seward            28.43  54  P        P        21 16 08.4 +0.8
SEW                                IAmb     IAmb     21 16 18.1
      comp=Z,32nm,1.2s
MCK   McKinley          28.46  46  P        P        21 16 08.7 +0.8
MCK                                pmax     pmax
      comp=Z,7.0nm,1.1s
MCK   McKinley          28.46  46  P        P        21 16 08.7 +0.8
E23K  Chandalar         28.49  37  P        P        21 16 10.0 +1.8
RND   Reindeer          28.50  47  P        P        21 16 09.4 +1.1
RND                                pmax     pmax
      comp=Z,9.0nm,1.1s
RND   Reindeer          28.50  47  P        P        21 16 09.4 +1.1
JNU   Nakatsue          28.55 240  P        P        21 16 09.9 +0.9
      comp=Z,25nm,0.8s,baz=51,slow=10,SNR=13
JNU                                LR       LR       21 29 31.8
      comp=Z,877nm,18.8s,baz=42,slow=41
      comp=Z,25nm,0.8s
KNK   Knik Glacier      28.78  51  P        P        21 16 11.7 +0.9
KNK                                IAmb     IAmb     21 16 27.8
      comp=Z,12nm,1.0s
SML   Sawmill           28.81  50  P        P        21 16 11.8 +0.7
SML                                pmax     pmax
      comp=Z,14nm,0.8s
SML   Sawmill           28.81  50  P        P        21 16 11.8 +0.7
SML                                IAmb     IAmb     21 16 21.4
      comp=Z,14nm,0.8s
WRH   Wood River Hil    28.83  45  P        P        21 16 13.2 +2.0
WRH                                IAmb     IAmb     21 16 16.8
      comp=Z,10nm,0.6s
E24K  Your Creek        28.91  37  P        P        21 16 13.6 +1.7
D24K  Happy Valley      28.95  35  P        P        21 16 12.3 +0.2
CCB   Clear Creek Bu    28.95  44  P        P        21 16 13.7 +1.5
H24K  Noodor Dome       28.95  42  P        P        21 16 13.5 +1.2
H24K                                        PcP      21 19 21.6 +1.8
G24K  Hadweenzic Riv    29.17  40  P        P        21 16 15.5 +1.4
DHY   Denali Highway    29.18  48  P        P        21 16 14.5 +0.1
IL31                    29.35  44  P        P        21 16 17.0 +1.3
ILAR  Eielson Array     29.35  44  P        P        21 16 17.2 +1.5
      comp=Z,1.2nm,0.8s,baz=263,slow=8.5,SNR=12
ILAR                               PcP      PcP      21 19 21.1 +0.3
      comp=Z,1.6nm,0.6s,baz=281,slow=3.4,SNR=8.0
ILAR                               LR       LR       21 29 34.6
      comp=Z,715nm,18.0s,baz=260,slow=39
      comp=Z,1.2nm,0.8s
ILAR  Eielson Array     29.35  44  P        P        21 16 16.3 +0.6
ILAR                                                 21 19 20.6
ILAR  Eielson Array     29.35  44  P        P        21 16 16.3 +0.6
ILAR                                        PcP      21 19 20.6 -0.2
D25K  Kavik River       29.84  35  P        P        21 16 21.0 +0.9
D25K                               IAmb     IAmb     21 16 32.3
      comp=Z,11nm,0.6s
K24K  Donnelly Dome     29.86  46  P        P        21 16 21.6 +1.3
PRP   Porcupine Dome    29.92  43  P        P        21 16 22.0 +1.1
J25K  Salcha River,     30.00  44  P        P        21 16 22.6 +1.0
E25K  Arctic Village    30.00  37  P        P        21 16 22.2 +0.7
RIDG  Independent Ri    30.27  46  P        P        21 16 25.7 +1.7
XLT   XiLinHaoTe        30.31 272 eP        P        21 16 23.4 -1.1
XLT                                pP       pP       21 16 27.8 -8.2
XLT                                pmax     pmax
      comp=Z,10.0nm,0.7s
XLT                                pmax     pmax
      comp=Z,210nm,5.1s
XLT                                L        L
      comp=Z,290nm,15.7s
XLT                                L        L
      comp=Z,2µm,16.2s
XLT                                L        L
      comp=Z,4µm,15.7s
BMAR  Burnt Mountain    30.34  39  P        P        21 16 26.0 +1.5
G26K  Porcupine Rive    30.64  40  P        P        21 16 27.9 +0.9
SCRK  Sand Creek        30.64  46  P        P        21 16 28.2 +0.9
H27K  Steamboat Moun    31.55  41  P        P        21 16 36.8 +1.6
L27K  Beaver Creek,     31.69  47  P        P        21 16 37.0 +0.5
L27K                               IAmb     IAmb     21 16 53.7
      comp=Z,6.0nm,0.8s
BCAR  Beaver Creek A    31.71  47           P        21 16 37.3 +0.6
I28M  Miner Creek       32.25  43           P        21 16 42.2 +0.8
E28M  Babbage River     32.26  37  P        P        21 16 39.6 -1.7
LOGN  Logan Glacier     32.45  51  P        P        21 16 43.7 +0.4
LOGN                               IAmb     IAmb     21 16 58.9
      comp=Z,12nm,1.1s
H11N2 WAKE ISLAND Hy    32.81 169  T        T        21 52 33.8
      baz=349,SNR=771
H29M  Whitestone        32.83  41  P        P        21 16 46.4 +0.1
H29M                               IAmb     IAmb     21 17 00.8
      comp=Z,7.5nm,1.0s
H11N3 WAKE ISLAND Hy    32.83 169  T        T        21 52 50.3
      baz=349,slow=74
H11N1 WAKE ISLAND Hy    32.83 169  T        T        21 52 44.3
      baz=349,slow=74
O28M  Mount Upton       32.85  51  P        P        21 16 48.2 +1.3
O28M                               IAmb     IAmb     21 17 00.3
      comp=Z,6.0nm,0.9s
E29M  Blow River        32.87  37  P        P        21 16 46.5 -0.1
G29M  Pine Creek        32.91  40  P        P        21 16 47.5 +0.5
G29M                               IAmb     IAmb     21 16 58.1
      comp=Z,8.3nm,0.8s
PCA   Pinnacle          32.96  52  P        P        21 16 48.0 +0.3
PCA                                IAmb     IAmb     21 17 01.4
      comp=Z,20nm,0.8s
M29M  Somme Creek       33.32  48  P        P        21 16 52.8 +2.0
L29M  L29M              33.35  47           P        21 16 52.4 +1.4
L29M                               IAmb     IAmb     21 17 05.8
      comp=Z,7.2nm,0.7s
G30M  tAoh Zraii Nji    33.61  39  P        P        21 16 53.6 +0.5
G30M                               IAmb     IAmb     21 17 05.0
      comp=Z,7.2nm,0.9s
F30M  Barrier River     33.71  38  P        P        21 16 55.1 +1.1
F30M                               IAmb     IAmb     21 17 10.5
      comp=Z,5.7nm,0.7s
I30M  Mount Dempster    33.76  43           P        21 16 55.0 +0.3
I30M                               IAmb     IAmb     21 17 09.5
      comp=Z,6.8nm,1.1s
ULN   Ulaanbaatar       33.84 284  P        P        21 16 50.8 -4.8
ULN   Ulaanbaatar       33.84 284ceP        P        21 16 53.6 -2.0
ULN                                pmax     pmax
      comp=Z,23nm,2.3s
ULN   Ulaanbaatar       33.84 284           P        21 16 53.4 -2.2
ULN                                IAmb     IAmb     21 16 55.2
      comp=Z,6.2nm,0.8s
ULN   Ulaanbaatar       33.84 284  P        P        21 16 54.4 -1.2
      comp=Z,33nm,0.8s
ULN   Ulaanbaatar       33.84 284  P        P        21 16 54.7 -0.9
      comp=Z,8.3nm,0.8s
H11S1 WAKE ISLAND Hy    34.00 169  T        T        21 54 19.3
      baz=352,slow=76,SNR=42
H11S3 WAKE ISLAND Hy    34.01 169  T        T        21 54 14.1
      baz=352,slow=76,SNR=222
H11S2 WAKE ISLAND Hy    34.02 169  T        T        21 54 15.0
      baz=352,slow=76,SNR=25
HYT   Haines Junctio    34.12  51           P        21 16 59.6 +1.8
HYT                                IAmb     IAmb     21 17 14.3
      comp=Z,6.6nm,1.1s
SONM  Songino Array     34.25 285  P        P        21 16 58.0 -1.0
      comp=Z,3.9nm,0.4s,baz=64,slow=8.0,SNR=43
SONM                               PcP      PcP      21 19 35.8 +1.2
      comp=Z,1.4nm,0.6s,baz=82,slow=3.1,SNR=3.6
SONM                               LR       LR       21 32 25.4
      comp=Z,4µm,18.5s,baz=67,slow=39
      comp=Z,3.9nm,0.4s
SONM  Songino Array     34.25 285           P        21 16 57.8 -1.3
SONM                               IAmb     IAmb     21 17 03.9
      comp=Z,5.3nm,0.7s
SONM                                        PcP      21 19 35.4 +0.9
TIA   Tai'an            34.27 259  P        P        21 16 58.6 -0.6
TIA                                pmax     pmax
      comp=Z,37nm,0.8s
TIA                                L        L
      comp=Z,1µm,16.3s
TIA                                L        L
      comp=Z,800nm,13.7s
TIA                                L        L
      comp=Z,2µm,14.9s
INK   Inuvik            34.49  37  P        P        21 17 01.6 +0.9
INK                                pmax     pmax
      comp=Z,8.0nm,1.2s
INK   Inuvik            34.49  37  P        P        21 17 01.6 +0.9
INK                                IAmb     IAmb     21 17 08.0
      comp=Z,7.6nm,1.1s
F31M  Tsiigehtchic      34.51  38  P        P        21 17 01.9 +1.0
F31M                               IAmb     IAmb     21 17 11.3
      comp=Z,7.2nm,0.9s
HHC   Hu-ho-hao-te      34.78 271 eP        P        21 17 06.9 +3.2
HHC                                pmax     pmax
      comp=Z,10.0nm,0.6s
HHC                                pmax     pmax
      comp=Z,230nm,5.6s
HHC                                L        L
      comp=Z,2µm,16.8s
HHC                                L        L
      comp=Z,1µm,16.8s
HHC                                L        L
      comp=Z,2µm,17.6s
ZAK   Zakamensk         34.93 290 eP        P        21 17 03.1 -1.8
ZAK                                pmax     pmax
      comp=Z,15nm,1.0s
HNS   HongShan          34.97 263 ⇓P        P        21 17 05.5 +0.4
HNS                                pmax     pmax
      comp=Z,26nm,0.8s
HNS                                L        L
      comp=Z,2µm,13.9s
HNS                                L        L
      comp=Z,1µm,16.1s
HNS                                L        L
      comp=Z,2µm,15.9s
M31M  Drury Creek, Y    35.23  48  P        P        21 17 08.6 +1.3
M31M                               IAmb     IAmb     21 17 18.4
      comp=Z,5.2nm,0.8s
WHY   Whitehorse        35.41  50  P        P        21 17 10.2 +1.3
WHY                                IAmb     IAmb     21 17 25.8
      comp=Z,8.8nm,0.9s
SKAG  Skagway           35.54  52  P        P        21 17 10.5 +0.7
SKAG                               IAmb     IAmb     21 17 22.3
      comp=Z,9.6nm,0.8s
MOY   Mondy             35.69 293 eP        P        21 17 10.2 -1.2
NJ2   Nanjing           36.12 253 ⇓P        P        21 17 16.8 +1.8
NJ2                                pmax     pmax
      comp=Z,32nm,0.5s
NJ2                                L        L
      comp=Z,4µm,16.9s
NJ2                                L        L
      comp=Z,3µm,11.6s
NJ2                                L        L
      comp=Z,4µm,16.3s
P33M  Teslin, Yukon     36.52  50  P        P        21 17 19.2 +0.9
MMPY  Sheldon Lake,     36.52  46  P        P        21 17 19.0 +0.7
NRIK  Noril'sk          36.72 325  P        P        21 17 19.0 -0.8
      comp=Z,10nm,0.6s,baz=94,slow=9.3,SNR=12
NRIK                               LR       LR       21 33 42.7
      comp=Z,3µm,21.6s,baz=76,slow=38
      comp=Z,10nm,0.6s
NRIK  Noril'sk          36.72 325 i P       P        21 17 18.3 -1.5
NRIK                               pmax     pmax
      comp=Z,12nm,0.7s
NRIK  Noril'sk          36.72 325           P        21 17 18.2 -1.5
NRIK                               IAmb     IAmb     21 17 19.7
      comp=Z,14nm,0.8s
R33M  Jennings River    37.67  51           P        21 17 29.9 +1.8
R33M                               IAmb     IAmb     21 17 46.1
      comp=Z,8.4nm,0.8s
WTLY  Watson Lake, Y    38.45  50  P        P        21 17 36.0 +1.5
WTLY                               IAmb     IAmb     21 17 51.8
      comp=Z,7.5nm,0.9s
DLBC  Dease Lake        38.47  52  LR       LR       21 35 54.0
      comp=Z,356nm,18.1s,baz=284,slow=40
T35M  Bob Quinn         38.92  55           P        21 17 40.9 +2.3
T35M                               IAmb     IAmb     21 17 50.8
      comp=Z,9.7nm,0.9s
WHN   Wuhan             39.87 255 ⇑P        P        21 17 48.4 +1.7
WHN                                pmax     pmax
      comp=Z,46nm,0.7s
RUBB  Prince Rupert     40.05  58  P        P        21 17 45.4 -2.5
RUBB                               IAmb     IAmb     21 17 48.3
      comp=Z,16nm,0.6s
BBB   Bella Bella       42.19  60  LR       LR       21 36 01.3
      comp=Z,240nm,18.1s,baz=300,slow=36
LZH   Lanzhou           42.48 271 eP        P        21 18 07.8 -0.5
LZH                                pP       pP       21 18 11.5 -8.7
LZH                                pmax     pmax
      comp=Z,24nm,1.1s
LZH                                L        L
      comp=Z,2µm,14.9s
LZH                                L        L
      comp=Z,2µm,14.9s
LZH                                L        L
      comp=Z,3µm,16.5s
LZDM  Lanzhou Array     42.66 271  P        P        21 18 09.4 -0.6
      comp=Z,7.0nm,0.6s,baz=90,slow=1.8,SNR=4.8
LZDM                               LR       LR       21 37 41.1
      comp=Z,2µm,18.2s,baz=20,slow=39
      comp=Z,7.0nm,0.6s
GTA2  Gaotai            42.84 278  P        P        21 18 10.3 -0.9
GTA2                               S        S        21 24 38.3 +6.1
GTA2                               pmax     pmax
      comp=Z,16nm,1.0s
GTA2                               L        L
      comp=Z,2µm,19.4s
GTA2                               L        L
      comp=Z,2µm,16.2s
GTA2                               L        L
      comp=Z,2µm,20.3s
ENH   Enshi             42.98 260  P        P        21 18 11.2 -1.0
ENH                                IAmb     IAmb     21 18 15.1
      comp=Z,15nm,0.8s
ENH   Enshi             42.98 260  P        P        21 18 11.7 -0.6
      comp=Z,21nm,0.7s
ZAA0  Zalesovo Array    43.38 304           P        21 18 11.6 -3.5
ZAA0                               IAmb     IAmb     21 18 13.9
      comp=Z,8.5nm,0.8s
ZALV  Zalesovo Beam     43.38 304  P        P        21 18 13.3 -1.9
      comp=Z,7.6nm,0.6s,baz=57,slow=7.3,SNR=47
ZALV                               PcP      PcP      21 20 04.2 +1.3
      comp=Z,2.4nm,0.5s,baz=71,slow=4.9,SNR=4.5
ZALV                               LR       LR       21 37 36.0
      comp=Z,2µm,18.8s,baz=62,slow=38
      comp=Z,7.6nm,0.6s
ZALV  Zalesovo Beam     43.38 304 i P       P        21 18 12.8 -2.4
ZALV                               pmax     pmax
      comp=Z,8.0nm,0.6s
ZALV  Zalesovo Beam     43.38 304           P        21 18 12.9 -2.2
YKAW3 Yellowknife Wh    43.69  42  P        P        21 18 18.6 +1.0
YKA   Yellowknife Ar    43.73  42  P        P        21 18 18.7 +0.9
      comp=Z,2.9nm,0.8s,baz=300,slow=7.8,SNR=9.7
      comp=Z,2.9nm,0.8s
YKA   Yellowknife Ar    43.73  42ceP        P        21 18 19.5 +1.7
YKA                                pmax     pmax
      comp=Z,3.0nm,0.8s
RES   Resolute Bay      44.10  22  LR       LR       21 38 32.7
      comp=Z,217nm,19.8s,baz=332,slow=38
NOR   Nord              46.43 359 i P       P        21 18 40.1 +1.1
NOR                                IAmb     IAmb     21 18 41.5
      comp=Z,5.2nm,1.0s
SZP   Santa             46.62 237  P        P        21 18 39.7 -1.5
SZP   Santa             46.62 237  P        P        21 18 42.5 +1.3
      comp=Z,65nm,1.0s
ZSN   Zaisan            46.86 296c iP       P        21 18 41.5 -1.4
ZSN   Zaisan            46.86 296⇑iP        P        21 18 41.5 -1.4
WMQ   Urumqi            47.40 290 eP        P        21 18 47.4 +0.2
WMQ                                pmax     pmax
      comp=Z,36nm,0.9s
WMQ                                pmax     pmax
      comp=Z,180nm,3.9s
WMQ                                L        L
      comp=Z,2µm,14.3s
WMQ                                L        L
      comp=Z,2µm,14.7s
WMQ                                L        L
      comp=Z,2µm,16.3s
KBS   Kingsbay          47.78 352 eP        P        21 18 51.2 +1.6
KBS   Kingsbay          47.78 352 i P       P        21 18 51.0 +1.4
GOMU  GeErMu            47.95 278  P        P        21 18 50.1 -1.8
GOMU                               pP       pP       21 18 53.6  -10
GOMU                               sP       pwP      21 18 57.4  -10
GOMU                               S        S        21 25 41.1 -5.3
GOMU                               pmax     pmax
      comp=Z,8.0nm,0.8s
GOMU                               L        L
      comp=Z,3µm,14.9s
GOMU                               L        L
      comp=Z,2µm,15.3s
GOMU                               L        L
      comp=Z,4µm,15.1s
SPA0  Spitsbergen Ar    48.04 351 eP        P        21 18 52.1 +0.5
SPA0                               IAmb     IAmb     21 18 53.1
      comp=Z,94nm,1.0s
SPITS Spitsbergen Ar    48.04 351  P        P        21 18 51.8 +0.2
      comp=Z,39nm,0.5s,baz=58,slow=9.4,SNR=122
SPITS                              LR       LR       21 41 15.3
      comp=Z,636nm,18.2s,baz=27,slow=39
      comp=Z,39nm,0.5s
SPITS Spitsbergen Ar    48.04 351  P        P        21 18 51.4 -0.2
SPITS                              pmax     pmax
      comp=Z,111nm,1.1s
SPB2  Spitsbergen Ar    48.04 351  P        P        21 18 52.1 +0.5
KURK  Kurchatov         48.33 303  P        P        21 18 52.3 -1.8
KURK  Kurchatov         48.33 303c iP       P        21 18 52.3 -1.8
KURK                               pmax     pmax
      comp=Z,42nm,0.8s
KURK  Kurchatov         48.33 303           P        21 18 52.6 -1.6
KURK  Kurchatov         48.33 303  P        P        21 18 52.4 -1.8
      comp=Z,52nm,0.9s
KURBB Kurchatov Arra    48.43 303  P        P        21 18 53.0 -2.0
      comp=Z,30nm,0.8s,baz=60,slow=7.6,SNR=142
KURBB                              PcP      PcP      21 20 21.6 +1.0
      comp=Z,3.3nm,0.7s,baz=54,slow=2.9,SNR=5.3
KURBB                              LR       LR       21 40 46.3
      comp=Z,2µm,18.9s,baz=66,slow=38
      comp=Z,30nm,0.8s
HOPEN Hopen             48.44 347 eP        P        21 18 55.7 +1.1
HOPEN                              IAmb     IAmb     21 18 56.4
      comp=Z,33nm,0.7s
MK31  Makanchi Array    48.67 296ceP        P        21 18 55.0 -1.9
MKAR  Makanchi Array    48.67 296  P        P        21 18 55.2 -1.7
      comp=Z,8.1nm,0.5s,baz=55,slow=6.5,SNR=142
MKAR                               LR       LR       21 40 46.1
      comp=Z,1µm,18.9s,baz=40,slow=38
      comp=Z,8.1nm,0.5s
MKAR  Makanchi Array    48.67 296ceP        P        21 18 55.0 -1.9
MKAR                               pmax     pmax
      comp=Z,8.0nm,0.4s
MKAR  Makanchi Array    48.67 296           P        21 18 55.5 -1.4
MAKZ  Makanchi          48.84 297  P        P        21 18 56.5 -1.7
MAKZ  Makanchi          48.84 297  P        P        21 18 56.3 -1.8
MAKZ  Makanchi          48.84 297  P        P        21 18 55.9 -2.3
      comp=Z,27nm,0.8s
NEEM  North Greenlan    49.14   9 i P       P        21 19 01.1 +0.6
NEEM                               IAmb     IAmb     21 19 02.5
      comp=Z,30nm,0.9s
BLKN  Baker Lake        49.75  34  P        P        21 19 05.5 +0.6
NEW   Newport           50.23  60  LR       LR       21 40 53.9
      comp=Z,154nm,19.1s,baz=311,slow=36
PZH   PanZhiHua         50.41 263  P        P        21 19 09.8 -0.7
KMI2  Kunming           50.79 261  P        P        21 19 15.0 +1.5
KMI2                               pmax     pmax
      comp=Z,13nm,0.9s
KMI2                               L        L
      comp=Z,1µm,18.7s
KMI2                               L        L
      comp=Z,980nm,18.8s
KMI2                               L        L
      comp=Z,740nm,22.9s
BJO1  Bjornoya          50.95 348 eP        P        21 19 14.9 +1.1
KULLO Kullorsuaq        51.03  12 i P       P        21 19 14.2 -0.2
KULLO                              IAmb     IAmb     21 19 16.0
      comp=Z,13nm,0.5s
BVAR  Borovoye Array    51.05 309  P        P        21 19 13.3 -1.6
      comp=Z,28nm,0.6s,baz=57,slow=7.6,SNR=91
BVAR                               PcP      PcP      21 20 31.6 +1.4
      comp=Z,2.5nm,0.4s,baz=64,slow=3.4,SNR=1.7
      comp=Z,28nm,0.6s
J05D  Fort Rock, OR     51.06  67  P        P        21 19 16.0 +0.8
J05D                               IAmb     IAmb     21 19 30.2
      comp=Z,4.5nm,0.8s
J05D                               PcP      PcP      21 20 31.8 +1.3
BORK  Borovoye          51.08 309c iP       P        21 19 13.4 -1.7
BORK                               pmax     pmax
      comp=Z,21nm,0.8s
BORK  Borovoye          51.08 309  P        P        21 19 13.3 -1.7
KHMM  Horse Mountain    51.16  71  P        P        21 19 15.9 -0.1
KHMM                               IAmb     IAmb     21 19 29.0
      comp=Z,8.7nm,1.2s
YBH   Yreka Blue Hor    51.20  69  LR       LR       21 40 46.9
      comp=Z,215nm,18.3s,baz=306,slow=36
YBH   Yreka Blue Hor    51.20  69  P        P        21 19 17.1 +0.8
YBH                                pmax     pmax
      comp=Z,4.0nm,0.9s
YBH   Yreka Blue Hor    51.20  69  P        P        21 19 17.1 +0.8
KMPM  Mount Pierce      51.23  72  P        P        21 19 17.3 +0.8
KMPM                               IAmb     IAmb     21 19 30.5
      comp=Z,9.1nm,1.1s
QIZ   Qiongzhong        51.25 249  P        P        21 19 16.2 -0.5
QIZ                                S        S        21 26 36.0 +3.9
QIZ                                L        L
      comp=Z,580nm,12.9s
QIZ                                L        L
      comp=Z,620nm,11.6s
QIZ                                L        L
      comp=Z,680nm,13.5s
DAG   Danmarks Havn     51.30 360  P        P        21 19 17.2 +0.9
DAG                                pmax     pmax
      comp=Z,19nm,1.3s
DAG   Danmarks Havn     51.30 360 i P       P        21 19 16.3  0.0
DAG                                IAmb     IAmb     21 19 20.0
      comp=Z,13nm,0.8s
DAG   Danmarks Havn     51.30 360  P        P        21 19 16.6 +0.3
      comp=Z,19nm,1.3s
M02C  Callahan          51.34  70  P        P        21 19 17.3 +0.1
TDK   Taldyqorghan      51.91 297c iP       P        21 19 20.1 -1.3
TDK                                pmax     pmax
      comp=Z,13nm,0.8s
TDK   Taldyqorghan      51.91 297⇑iP        P        21 19 20.2 -1.3
      comp=Z,13nm,0.8s
KCPM  Cahto Peak        52.01  72  P        P        21 19 22.8 +0.4
JTMT  Jette             52.05  59  P        P        21 19 23.4 +0.9
O02D  Mt. Diablo Mer    52.16  71  P        P        21 19 23.1 -0.3
PDGK  Podgornoye        52.38 295  P        P        21 19 23.4 -1.7
PDGK  Podgornoye        52.38 295           P        21 19 23.4 -1.7
MOD   Modoc Plateau     52.47  68           P        21 19 26.3 +0.5
MOD                                IAmb     IAmb     21 19 38.2
      comp=Z,6.8nm,0.9s
SHLS  Shalkode          52.50 294 eP        P        21 19 22.7 -3.2
SHLS                               pmax     pmax
      comp=Z,8.0nm,0.5s
SHLS  Shalkode          52.50 294 eP        P        21 19 22.8 -3.2
      comp=Z,7.7nm,0.5s
HATC  Hat Creek Radi    52.51  69  P        P        21 19 26.7 +0.7
HATC                               IAmb     IAmb     21 19 43.6
      comp=Z,8.3nm,1.0s
O03E  Paynes Creek      52.65  70           P        21 19 27.9 +0.8
O03E                               IAmb     IAmb     21 19 38.9
      comp=Z,10.0nm,1.0s
KPKS  Kokpek            52.74 295 eP        P        21 19 26.4 -1.3
KPKS  Kokpek            52.74 295 eP        P        21 19 26.5 -1.3
UZB   Uzynbulak         52.76 295 eP        P        21 19 26.3 -1.5
UZB   Uzynbulak         52.76 295 eP        P        21 19 26.4 -1.5
UPNV  Upernavik         52.77  13 i P       P        21 19 28.0 +0.7
UPNV                               IAmb     IAmb     21 19 28.6
      comp=Z,17nm,0.7s
MSO   Missoula          52.81  59  P        P        21 19 29.8 +1.6
MSO                                IAmb     IAmb     21 19 38.5
      comp=Z,5.8nm,1.0s
PLID  Pearl Lake        52.82  62  P        P        21 19 29.9 +1.5
VADS  Vadso             52.94 341 eP        P        21 19 28.2 -0.4
VADS                               IAmb     IAmb     21 19 29.3
      comp=Z,30nm,0.8s
SLVN  Son La            52.96 257  P        P        21 19 29.0 -0.5
SLVN                               IAmb     IAmb     21 19 31.7
      comp=Z,8.2nm,0.8s
SLVN  Son La            52.96 257  P        P        21 19 30.4 +0.9
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      comp=Z,9.4nm,0.9s
SVE   Sverdlovsk      53.02 317 eP       P        21 19 28.4 -1.0
SVE                             pmax     pmax
      comp=Z,9.0nm,0.6s
SVE                             MLR      MLR
      comp=Z,2µm,20.0s
WVOR  Wild Horse Val  53.07  66 P        P        21 19 30.6 +0.4
WVOR                            pmax     pmax
      comp=Z,3.0nm,1.2s
WVOR  Wild Horse Val  53.07  66 P        P        21 19 30.6 +0.4
WVOR  Wild Horse Val  53.07  66 P        P        21 19 34.3 +4.2
      comp=Z,3.6nm,1.0s
SATY  Saty            53.16 295c iP      P        21 19 29.4 -1.4
SATY  Saty            53.16 295⇑iP       P        21 19 29.4 -1.4
ORV   Oroville        53.31  71 P        P        21 19 31.9 +0.1
ORV                             pmax     pmax
      comp=Z,3.0nm,0.9s
ORV   Oroville        53.31  71 P        P        21 19 31.9 +0.1
HAMF  Hammerfest      53.57 343 eP       P        21 19 32.9 -0.4
LVZ   Lovozero        53.58 338ceP       P        21 19 32.9 -0.5
LVZ                             pmax     pmax
      comp=Z,53nm,0.8s
LVZ   Lovozero        53.58 338 P        P        21 19 32.3 -1.1
LVZ   Lovozero        53.58 338 P        P        21 19 33.1 -0.3
      comp=Z,80nm,0.8s
LVZ   Lovozero        53.58 338 P        P        21 19 33.5 +0.1
      comp=Z,73nm,0.8s
LYMT  Lyon Mountain   53.59  58 P        P        21 19 34.4 +0.4
KEV   Kevo            53.70 342 P        P        21 19 33.1 -1.1
KEV                             pmax     pmax
      comp=Z,24nm,0.8s
KEV   Kevo            53.70 342 P        P        21 19 33.1 -1.1
KEV   Kevo            53.70 342 P        P        21 19 33.2 -1.1
      comp=Z,38nm,0.8s
BEKR  Beckworth       53.77  70 P        P        21 19 35.9 +0.5
BEKR                            IAmb     IAmb     21 19 51.5
      comp=Z,5.5nm,1.0s
DBG   Daneborg        53.77   0 i P      P        21 19 35.3 +0.6
DBG                             IAmb     IAmb     21 19 36.6
      comp=Z,7.7nm,0.6s
MDOK  Medeo           53.84 296 eP       P        21 19 34.4 -1.5
MDOK  Medeo           53.84 296 eP       P        21 19 34.5 -1.5
AAA   Alma-Ata        53.89 296 eP       P        21 19 34.8 -1.3
AAA                             pmax     pmax
      comp=Z,11nm,0.6s
AAA   Alma-Ata        53.89 296 eP       P        21 19 34.8 -1.3
      comp=Z,11nm,0.6s
WUS   Wushi           53.91 293 P        P        21 19 34.8 -1.6
WUS                             IAmb     IAmb     21 19 36.3
      comp=Z,12nm,0.8s
WUS   Wushi           53.91 293 P        P        21 19 35.5 -0.9
      comp=Z,16nm,1.0s
TNSS  Tian-Shan       53.98 296 eP       P        21 19 35.4 -1.8
TNSS  Tian-Shan       53.98 296 eP       P        21 19 35.4 -1.8
AFDM  Forest Hills D  54.02  71 P        P        21 19 38.1 +1.0
APA   Apatity         54.13 338 eP       P        21 19 34.4 -3.0
APA                             e                 21 20 39.8
APA                             e                 21 21 36.4
APA                             eS       S        21 27 03.8 -6.4
APA                             e                 21 29 11.0
ARA0  ARCESS Array S  54.18 342 eP       P        21 19 37.7  0.0
ARCES ARCESS Array B  54.18 342 P        P        21 19 37.2 -0.5
      comp=Z,33nm,0.8s,baz=35,slow=8.9,SNR=65
ARCES                           LR       LR       21 49 35.9
      comp=Z,551nm,18.0s,baz=28,slow=44
      comp=Z,33nm,0.8s
ARCES ARCESS Array B  54.18 342 P        P        21 19 36.7 -1.0
ARTI  Arti            54.25 318 LR       LR       21 46 19.8
      comp=Z,776nm,18.4s,baz=36,slow=40
ARTI  Arti            54.25 318c iP      P        21 19 37.3 -1.1
ARTI                            *PP      pP       21 19 50.8 +0.2
ARTI                                              21 20 38.7
ARTI                                              21 21 34.6
ARTI                            S        S        21 27 12.5 +0.4
ARTI                            SS       SS       21 30 54.3 +0.6
ARTI                            pmax     pmax
      comp=Z,15nm,0.6s
ARTI                            MLR      MLR
      comp=Z,964nm,17.0s
ARTI  Arti            54.25 318 P        P        21 19 37.2 -1.2
TARG  Taragay, Kyrgy  54.36 294 P        P        21 19 38.6 -1.4
TARG                            pmax     pmax
      comp=Z,7.0nm,1.0s
TARG  Taragay, Kyrgy  54.36 294 P        P        21 19 38.6 -1.4
TARG                            IAmb     IAmb     21 19 50.9
      comp=Z,7.0nm,1.0s
TARG  Taragay, Kyrgy  54.36 294 P        P        21 19 40.4 +0.4
      comp=Z,7.9nm,0.8s
KDJ   Kajisay         54.45 295 P        P        21 19 39.1 -1.3
KDJ                             pmax     pmax
      comp=Z,23nm,0.7s
KDJ   Kajisay         54.45 295 P        P        21 19 39.0 -1.3
KDJ   Kajisay         54.45 295 P        P        21 19 39.3 -1.0
      comp=Z,32nm,0.7s
LSA   Lhasa           54.63 274 P        P        21 19 42.5 +0.5
LSA   Lhasa           54.63 274 P        P        21 19 42.7 +0.6
LSA   Lhasa           54.63 274 P        P        21 19 42.6 +0.5
LSA   Lhasa           54.63 274 P        P        21 19 42.7 +0.6
      comp=Z,22nm,0.8s
TKM2  Tokmak 2        54.81 296 P        P        21 19 41.7 -1.2
      SNR=17
SUMG  Summit          54.83   7 P        P        21 19 42.8 -0.1
SUMG  Summit          54.83   7 i P      P        21 19 43.9 +1.0
SUMG                            IAmb     IAmb     21 19 48.7
      comp=Z,41nm,1.0s
SUMG  Summit          54.83   7 P        P        21 19 44.2 +1.3
      comp=Z,43nm,1.0s
BOZ   Bozeman (W)     54.83  59 P        P        21 19 43.8 +0.8
BOZ                             pmax     pmax
      comp=Z,3.0nm,0.9s
BOZ   Bozeman (W)     54.83  59 P        P        21 19 43.8 +0.8
BOOM  Boomskoye usch  54.90 296 P        P        21 19 42.4 -1.2
BOOM  Boomskoye usch  54.90 296 P        P        21 19 42.4 -1.2
BOOM  Boomskoye usch  54.90 296 P        P        21 19 42.7 -0.8
      comp=Z,22nm,0.9s
CMB   Columbia Colle  54.97  71 P        P        21 19 45.2 +1.2
CMB                             pmax     pmax
      comp=Z,4.0nm,1.1s
CMB   Columbia Colle  54.97  71          P        21 19 45.2 +1.2
SGDS  Sogindy         54.98 298⇑iP       P        21 19 42.7 -1.3
YERR  Yerington       55.00  70 P        P        21 19 44.9 +0.5
YERR                            IAmb     IAmb     21 19 56.8
      comp=Z,5.5nm,0.9s
KTK1  Kautokeino      55.05 343 eP       P        21 19 43.8 -0.3
KTK1                            IAmb     IAmb     21 19 44.6
      comp=Z,43nm,0.9s
FORD  Fort Ord Natur  55.07  73 P        P        21 19 45.0 +0.4
JETT  Jettan, Norway  55.07 344 eP       P        21 19 44.6 +0.4
USP   Ospenovka       55.18 297 P        P        21 19 44.5 -0.9
      SNR=27
BMN   Battle Mountai  55.19  67 P        P        21 19 45.7 +0.1
BMN                             pmax     pmax
      comp=Z,9.0nm,1.0s
BMN   Battle Mountai  55.19  67 P        P        21 19 45.7 +0.1
BMN                             IAmb     IAmb     21 20 02.2
      comp=Z,8.8nm,1.0s
WAKR  Walker          55.21  70 P        P        21 19 46.3 +0.4
WAKR                            IAmb     IAmb     21 20 02.5
      comp=Z,6.9nm,1.0s
TRO   Tromso          55.25 345 P        P        21 19 45.0 -0.5
TRO   Tromso          55.25 345 eP       P        21 19 45.5  0.0
TRO                             IAmb     IAmb     21 19 47.0
      comp=Z,15nm,0.7s
KBK   Karagaybulak    55.34 297 P        P        21 19 46.0 -0.7
      SNR=10.0
FRU1  Bishkek         55.41 297 P        P        21 19 46.1 -1.0
FRU1                            pmax     pmax
      comp=Z,28nm,0.7s
FRU1  Bishkek         55.41 297 P        P        21 19 46.1 -1.0
QLMT  Earthquake Lak  55.44  60 P        P        21 19 48.3 +0.8
YHL   Hebgen Lake     55.56  60 P        P        21 19 49.1 +0.7
NRN   Naryn           55.57 295 P        P        21 19 47.6 -1.0
NRN                             pmax     pmax
      comp=Z,4.0nm,0.8s
NRN   Naryn           55.57 295 P        P        21 19 47.6 -1.0
NRN                             IAmb     IAmb     21 19 49.5
      comp=Z,4.0nm,0.8s
AAK   Ala-Archa       55.60 297 LR       LR       21 44 58.5
      comp=Z,1µm,18.7s,baz=54,slow=38
AAK   Ala-Archa       55.60 297 P        P        21 19 48.1 -0.5
      SNR=12
AAK   Ala-Archa       55.60 297 P        P        21 19 45.3 -3.3
AAK   Ala-Archa       55.60 297c iP      P        21 19 47.7 -0.9
AAK                             pmax     pmax
      comp=Z,17nm,0.8s
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AAK   Ala-Archa       55.60 297 P        P        21 19 47.0 -1.6
AAK   Ala-Archa       55.60 297 i P      P        21 19 47.7 -0.9
      SNR=12
AAK   Ala-Archa       55.60 297 P        P        21 19 47.8 -0.9
      comp=Z,21nm,0.9s
KVN   Kaiserville     55.61  69 P        P        21 19 49.2 +0.4
KVN                             pmax     pmax
      comp=Z,7.0nm,1.1s
KVN   Kaiserville     55.61  69 P        P        21 19 49.2 +0.4
KVN                             IAmb     IAmb     21 20 02.0
      comp=Z,6.9nm,1.1s
ASAI  AK-SAY(Kyrgyzs  55.62 294 P        P        21 19 48.4 -0.6
      comp=Z,19nm,0.9s
SGF   Sodankyl        55.75 340 P        P        21 19 49.5 +0.5
SGF                             pmax     pmax
      comp=Z,32nm,1.3s
SGF   Sodankyl        55.75 340 P        P        21 19 49.7 +0.6
      comp=Z,32nm,1.3s
YHH   Holmes Hill     55.78  59 P        P        21 19 50.1  0.0
NVAR  Mina Array Bea  55.92  70 P        P        21 19 53.5 +2.5
      comp=Z,1.9nm,0.8s,baz=298,slow=7.7,SNR=5.9
NVAR                            LR       LR       21 40 57.8
      comp=Z,113nm,21.1s,baz=286,slow=33
      comp=Z,1.9nm,0.8s
NVAR  Mina Array Bea  55.92  70 P        P        21 19 50.6 -0.4
LHV   Little Huntoon  55.92  70 P        P        21 19 50.6 -0.1
LHV                             IAmb     IAmb     21 20 04.6
      comp=Z,11nm,1.2s
EKS2  Erkin-Say       55.98 297 P        P        21 19 50.5 -0.7
      SNR=32
NV11  Mina Array Sit  56.00  70 P        P        21 19 50.4 -1.1
NV11                            IAmb     IAmb     21 20 05.2
      comp=Z,5.2nm,1.1s
ELK   Elko            56.09  66 P        P        21 19 52.7 +0.4
ELK                             pmax     pmax
      comp=Z,2.0nm,0.8s
ELK   Elko            56.09  66 P        P        21 19 52.7 +0.4
YPP   Pitchstone Pla  56.15  60 P        P        21 19 53.9 +1.2
YMP   Mirror Lake Pl  56.18  59 P        P        21 19 53.2 +0.3
KIRV  Kirov           56.19 324 LR       LR       21 47 08.5
      comp=Z,2µm,18.9s,baz=32,slow=40
KIRV  Kirov           56.19 324ceP       P        21 19 52.0 -0.3
RLMT  Red Lodge       56.39  58 P        P        21 19 55.2 +0.9
RLMT                            IAmb     IAmb     21 20 04.0
      comp=Z,6.4nm,1.1s
FXWY  Fox Creek       56.46  61 P        P        21 19 55.4 +0.6
MSF   Maaselka        56.49 338 P        P        21 19 54.0 -0.4
MSF   Maaselka        56.49 338 P        P        21 19 55.0 +0.6
      comp=Z,123nm,0.8s
MORE  Moreh           56.63 267 P        P        21 19 54.9 -1.0
MORE                            IAmb     IAmb     21 19 57.2
      comp=Z,5.4nm,0.8s
KRVT  Keravat (AS076  56.74 190 LR       LR       21 40 10.6
      comp=Z,207nm,21.4s,baz=346,slow=32
HVU   Hansel Valley   56.76  63 P        P        21 19 57.8 +0.9
HVU                             pmax     pmax
      comp=Z,3.0nm,0.8s
HVU   Hansel Valley   56.76  63 P        P        21 19 57.8 +0.9
TPH   Tonopah         56.78  69 P        P        21 19 57.6 +0.5
TPH                             pmax     pmax
      comp=Z,7.0nm,0.9s
TPH   Tonopah         56.78  69 P        P        21 19 57.6 +0.5
TPH                             IAmb     IAmb     21 20 13.5
      comp=Z,7.5nm,0.9s
DSP   Deep Springs    56.83  70 P        P        21 19 58.1 +0.9
DSP                             IAmb     IAmb     21 20 11.4
      comp=Z,5.7nm,1.2s
AHID  Auburn Hatcher  57.01  61 P        P        21 19 59.5 +0.9
AHID                            IAmb     IAmb     21 20 03.8
      comp=Z,4.3nm,0.8s
AHID  Auburn Hatcher  57.01  61 P        P        21 20 02.5 +3.8
      comp=Z,8.8nm,0.9s
SHL   Shillong        57.14 270 P        P        21 19 59.2 -0.6
SHL   Shillong        57.14 270 P        P        21 19 58.3 -1.5
SHL                             pmax     pmax
      comp=Z,12nm,0.6s
SHL   Shillong        57.14 270          P        21 19 58.3 -1.5
SPUT  South Promonto  57.26  63 P        P        21 20 01.8 +1.3
ARSB  Arslanbob       57.32 297 P        P        21 19 58.9 -1.9
ARSB                            pmax     pmax
      comp=Z,13nm,0.7s
ARSB  Arslanbob       57.32 297 P        P        21 19 58.9 -1.9
KSH2  Kashi           57.37 293 P        P        21 20 00.5 -0.7
KSH2                            pmax     pmax
      comp=Z,7.0nm,0.8s
KSH2                            L        L
      comp=Z,2µm,14.7s
KSH2                            L        L
      comp=Z,700nm,15.7s
KSH2                            L        L
      comp=Z,1µm,14.3s
STEI  Steigen         57.38 345 eP       P        21 20 01.6 +1.0
CWC   Cottonwood Cre  57.41  71 P        P        21 20 02.1 +0.5
KK31  Karatay Array   57.44 300 P        P        21 19 59.6 -1.9
KK31                            pmax     pmax
      comp=Z,12nm,0.8s
KK31  Karatay Array   57.44 300 P        P        21 19 59.6 -1.9
KK31                            IAmb     IAmb     21 20 01.0
      comp=Z,12nm,0.8s
KKAR  Karatay Array   57.44 300 P        P        21 20 00.0 -1.5
KKAR  Karatay Array   57.44 300 P        P        21 20 00.0 -1.5
LOF   Lofoten         57.46 346 eP       P        21 20 01.1 -0.1
LOF                             IAmb     IAmb     21 20 01.8
      comp=Z,44nm,0.8s
HWUT  Hardware Ranch  57.55  63 P        P        21 20 03.8 +1.3
HWUT                            IAmb     IAmb     21 20 11.9
      comp=Z,5.0nm,1.0s
HWUT  Hardware Ranch  57.55  63 P        P        21 20 06.0 +3.5
      comp=Z,8.9nm,0.9s
ARK   Arkit           57.55 298 P        P        21 20 01.9 -0.5
ARK   Arkit           57.55 298 P        P        21 20 01.9 -0.5
      comp=Z,8.1nm,0.8s
DLV    Lat            57.71 246 P        P        21 20 03.7 -0.1
DLV                             IAmb     IAmb     21 20 11.2
      comp=Z,6.2nm,0.9s
KLMR  Klimovskoe      57.79 330 eP       P        21 20 02.1 -1.5
KLMR                            pmax     pmax
      comp=Z,58nm,0.9s
DUG   Dugway, Tooele  57.82  65 P        P        21 20 04.7 +0.3
DUG                             pmax     pmax
      comp=Z,3.0nm,0.9s
DUG   Dugway, Tooele  57.82  65 P        P        21 20 04.7 +0.3
DUG   Dugway, Tooele  57.82  65 P        P        21 20 08.2 +3.8
      comp=Z,9.1nm,1.9s
BW06  Boulder Array   57.84  60 P        P        21 20 04.2 -0.3
BW06                            IAmb     IAmb     21 20 16.0
      comp=Z,4.5nm,0.8s
PD31  Pinedale Array  57.84  60          P        21 20 04.2 -0.3
PD31                            IAmb     IAmb     21 20 16.0
      comp=Z,3.7nm,0.8s
PDAR  Pinedale Array  57.84  60 P        P        21 20 06.4 +1.9
      comp=Z,3.6nm,0.8s,baz=321,slow=3.8,SNR=16
PDAR                            LR       LR       21 42 10.0
      comp=Z,120nm,21.9s,baz=320,slow=33
      comp=Z,3.6nm,0.8s
PDAR  Pinedale Array  57.84  60 P        P        21 20 04.2 -0.3
CHTO  Chiang Mai      57.87 259 P        P        21 20 06.0 +1.2
CHTO  Chiang Mai      57.87 259 P        P        21 20 04.3 -0.5
CHTO                            pmax     pmax
      comp=Z,21nm,0.9s
CHTO  Chiang Mai      57.87 259 P        P        21 20 04.3 -0.5
CHTO  Chiang Mai      57.87 259 P        P        21 20 05.9 +1.2
      comp=Z,28nm,0.8s
CHTO  Chiang Mai      57.87 259 P        P        21 20 06.1 +1.2
      comp=Z,28nm,0.8s
FAUS  Fauske          57.87 345 eP       P        21 20 03.9 -0.2
FAUS                            IAmb     IAmb     21 20 05.7
      comp=Z,41nm,1.2s
OUL   Oulu            57.89 339 P        P        21 20 04.3  0.0
OUL                             pmax     pmax
      comp=Z,105nm,0.8s
OUL   Oulu            57.89 339 P        P        21 20 04.5 +0.2
      comp=Z,104nm,0.8s
TCUT  Toone Canyon    57.97  63 P        P        21 20 06.0 +0.5
TCUT                            IAmb     IAmb     21 20 21.3
      comp=Z,4.9nm,0.9s
OHH   Osh             57.98 296 P        P        21 20 03.5 -1.9
OHH   Osh             57.98 296 P        P        21 20 03.5 -1.9
      comp=Z,24nm,0.8s
WCT   Wildcat Mounta  58.01  70 P        P        21 20 05.8 +0.1
MPMC  Manual Prospec  58.01  71 P        P        21 20 07.4 +1.6
TPNV  Topopah Spring  58.12  70 P        P        21 20 06.4 -0.1
TPNV                            pmax     pmax
      comp=Z,3.0nm,0.8s
TPNV  Topopah Spring  58.12  70 P        P        21 20 06.4 -0.1
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TPNV                            IAmb     IAmb     21 20 25.6
      comp=Z,3.4nm,0.8s
CLC   China Lake      58.12  71 P        P        21 20 06.6 +0.2
CLC                             pmax     pmax
      comp=Z,4.0nm,1.0s
CLC   China Lake      58.12  71 P        P        21 20 06.5 +0.2
CM31  Chiang Mai Arr  58.14 259 P        P        21 20 08.1 +1.5
      SNR=7.3
CM31  Chiang Mai Arr  58.14 259 P        P        21 20 06.6 -0.1
CMAR  Chiang Mai Arr  58.14 259 P        P        21 20 08.1 +1.4
      comp=Z,11nm,0.7s,baz=26,slow=7.0,SNR=84
CMAR                            LR       LR       21 48 12.5
      comp=Z,698nm,18.8s,baz=35,slow=39
      comp=Z,11nm,0.7s
CMAR  Chiang Mai Arr  58.14 259 P        P        21 20 05.7 -1.0
CMAR  Chiang Mai Arr  58.14 259 P        P        21 20 05.7 -1.0
TRKS  Terek-Say       58.18 298 P        P        21 20 06.1 -0.8
FRB   Frobisher Bay   58.27  23 LR       LR       21 49 41.6
      comp=Z,376nm,18.5s,baz=326,slow=41
IUG   Iuzhnay         58.36 299 eP       P        21 20 06.7 -1.3
IUG                             pmax     pmax
      comp=Z,15nm,0.7s
IUG   Iuzhnay         58.36 299 eP       P        21 20 06.7 -1.3
      comp=Z,14nm,0.7s
PSUT  Pine Spring     58.39  67 P        P        21 20 08.3 -0.1
NLU   North Lily Min  58.40  64 P        P        21 20 08.7 +0.2
NLU                             IAmb     IAmb     21 20 21.1
      comp=Z,2.7nm,0.7s
GWY   Greenwater Val  58.40  71 P        P        21 20 09.1 +0.5
GWY                             IAmb     IAmb     21 20 20.8
      comp=Z,7.0nm,1.1s
TPO   Tropico Hills   58.40  73 P        P        21 20 08.1 -0.3
TPO                             IAmb     IAmb     21 20 24.8
      comp=Z,11nm,1.1s
QSM   Queen of Sheba  58.44  71 P        P        21 20 08.8 +0.2
CCCA  Chr Cany lake   58.46  72 P        P        21 20 09.0 +0.3
CCCA                            IAmb     IAmb     21 20 27.4
      comp=Z,9.2nm,0.8s
CHM   Chimkent        58.47 300 eP       P        21 20 07.4 -1.3
CHM                             pmax     pmax
      comp=Z,11nm,0.8s
CHM   Chimkent        58.47 300 eP       P        21 20 07.4 -1.3
      comp=Z,11nm,0.8s
AB31  Akbulak array   58.48 311 P        P        21 20 07.1 -1.5
ABKAR Akbulak array   58.48 311          P        21 20 07.1 -1.5
PRN   Pahroc Range    58.49  68 P        P        21 20 09.8 +0.7
PRN                             IAmb     IAmb     21 20 25.0
      comp=Z,4.0nm,0.9s
EVN   Everest         58.53 276 P        P        21 20 08.7 -1.4
EVN   Everest         58.53 276 P        P        21 20 09.8 -0.2
      comp=Z,34nm,0.7s
AKTO  Aktyubinsk      58.53 313 LR       LR       21 48 07.8
      comp=Z,2µm,18.1s,baz=72,slow=39
VAGH  Vaagaholmen     58.79 345 eP       P        21 20 11.7 +1.2
SHOC  Shoshone, Teco  58.83  70 P        P        21 20 12.0 +0.7
SHOC                            IAmb     IAmb     21 20 30.4
      comp=Z,4.8nm,0.4s
NPW   Naypyitaw       58.84 262 P        P        21 20 12.7 +1.2
      comp=Z,45nm,0.9s
SFJD  Kangerlussuaq   58.85  14 LR       LR       21 46 52.5
      comp=Z,433nm,21.0s,baz=345,slow=37
SFJD  Kangerlussuaq   58.85  14 i P      P        21 20 10.6 -0.2
SFJD                            IAmb     IAmb     21 20 14.4
      comp=Z,25nm,1.1s
RAUS  Rausandaksla    58.94 345 eP       P        21 20 11.8 +0.2
RAUS                            IAmb     IAmb     21 20 13.2
      comp=Z,19nm,0.8s
KONS  Konsvik         59.03 345 eP       P        21 20 12.7 +0.6
MOR8  Moi Rana        59.12 345 eP       P        21 20 12.0 -0.9
MOR8                            IAmb     IAmb     21 20 13.6
      comp=Z,40nm,1.3s
STOK  Stokkvaagen     59.20 345 eP       P        21 20 14.0 +0.7
DRK   Karamyk         59.24 296 P        P        21 20 13.2 -1.3
DRK                             pmax     pmax
      comp=Z,28nm,0.6s
DRK   Karamyk         59.24 296 P        P        21 20 13.2 -1.3
DRK   Karamyk         59.24 296 P        P        21 20 13.8 -0.6
      comp=Z,47nm,0.7s
ULM   Lac du Bonnet   59.33  46 P        P        21 20 16.2 +1.7
      comp=Z,3.5nm,0.5s,baz=314,slow=6.4,SNR=8.6
      comp=Z,3.5nm,0.5s
ULM   Lac du Bonnet   59.33  46 P        P        21 20 16.0 +1.5
ULM                             pmax     pmax
      comp=Z,7.0nm,0.9s
ULM   Lac du Bonnet   59.33  46 P        P        21 20 16.0 +1.5
ULM                             IAmb     IAmb     21 20 26.9
      comp=Z,7.2nm,0.9s
TMUT  Trail Mountain  59.34  64 P        P        21 20 16.2 +1.1
TMUT                            IAmb     IAmb     21 20 28.5
      comp=Z,4.7nm,0.7s
CCUT  Cedar City      59.35  67 P        P        21 20 15.9 +0.8
RDMU  Red Mountain    59.35  62 P        P        21 20 16.5 +1.4
RDMU                            IAmb     IAmb     21 20 28.9
      comp=Z,7.7nm,0.8s
BTK   Batken          59.38 297 P        P        21 20 14.2 -0.9
BTK   Batken          59.38 297 P        P        21 20 14.2 -0.9
      comp=Z,46nm,0.8s
BRDH  Bariadhala      59.42 268 LR       LR       21 48 07.1
      comp=Z,529nm,19.0s,baz=38,slow=38
SOEG  Soedalen        59.59   5 i P      P        21 20 18.0 +1.9
SOEG                            IAmb     IAmb     21 20 18.4
      comp=Z,8.8nm,0.6s
RSSD  Black Hills     59.78  56 P        P        21 20 19.1 +1.1
RSSD                            pmax     pmax
      comp=Z,8.0nm,0.6s
RSSD  Black Hills     59.78  56 P        P        21 20 19.1 +1.1
RSSD  Black Hills     59.78  56 P        P        21 20 18.9 +0.9
      comp=Z,11nm,0.7s
LCMT  Little Creek M  59.79  68 P        P        21 20 18.4 +0.3
LCMT                            IAmb     IAmb     21 20 31.4
      comp=Z,4.7nm,0.9s
FAKI  Fak Fak         59.84 213 P        P        21 20 04.7  -14
SRU   San Rafael Swe  59.85  64 P        P        21 20 18.9 +0.4
SRU                             pmax     pmax
      comp=Z,8.0nm,0.9s
SRU   San Rafael Swe  59.85  64 P        P        21 20 18.9 +0.4
SRU                             IAmb     IAmb     21 20 31.4
      comp=Z,7.7nm,0.9s
PFO   Pinyon Flats O  60.33  72 LR       LR       21 42 33.0
      comp=Z,118nm,21.8s,baz=298,slow=32
VAF   Ylistaro        60.38 339 P        P        21 20 22.5 +1.0
VAF                             pmax     pmax
      comp=Z,77nm,1.0s
HMU   Henry Mountain  60.55  65 P        P        21 20 24.0 +0.6
AGMN  Agassiz Nation  60.75  48 P        P        21 20 25.1 +0.8
AGMN                            IAmb     IAmb     21 20 36.4
      comp=Z,7.2nm,1.1s
W13A  Hualapai Mount  60.78  70 P        P        21 20 25.7 +0.8
FIA1  FINESS Array S  60.99 337          P        21 20 25.7  0.0
FINES FINESS Array B  60.99 337 P        P        21 20 25.9 +0.2
      comp=Z,60nm,0.7s,baz=32,slow=8.5,SNR=293
FINES                           LR       LR       21 50 32.9
      comp=Z,672nm,18.1s,baz=32,slow=40
      comp=Z,60nm,0.7s
FINES FINESS Array B  60.99 337          P        21 20 26.0 +0.4
NSS   Namsos          61.04 345 eP       P        21 20 26.6 +0.7
NSS                             IAmb     IAmb     21 20 29.7
      comp=Z,12nm,0.6s
PV21  Cone Mtn., Par  61.09  64 P        P        21 20 27.1  0.0
PV21                            IAmb     IAmb     21 20 44.1
      comp=Z,5.8nm,0.8s
PV10  Paradox Valley  61.19  64 P        P        21 20 29.1 +1.4
PV10                            IAmb     IAmb     21 20 38.1
      comp=Z,12nm,0.9s
PV22  Blue Mesa, Par  61.21  63 P        P        21 20 27.8  0.0
PV22                            IAmb     IAmb     21 20 32.6
      comp=Z,4.2nm,0.8s
PV04  Paradox Valley  61.25  64 P        P        21 20 29.2 +1.2
PV04                            IAmb     IAmb     21 20 40.1
      comp=Z,7.2nm,0.9s
PV20  West Nyswonger  61.25  64 P        P        21 20 27.7 -0.4
PV20                            IAmb     IAmb     21 20 40.4
      comp=Z,10nm,0.8s
PV19  Morning Glory   61.27  64 P        P        21 20 28.4 +0.2
PV17  East Wray Mesa  61.30  64 P        P        21 20 28.0 -0.5
PV17                            IAmb     IAmb     21 20 39.3
      comp=Z,8.3nm,0.7s
NUUK  Nuuk            61.30  15 i P      P        21 20 27.3 -0.4
PV16  Nyswonger Mesa  61.30  64 P        P        21 20 28.3 -0.2
PV16                            IAmb     IAmb     21 20 41.2
      comp=Z,4.2nm,0.7s
PV18  Skein Mesa, Pa  61.35  64          P        21 20 30.1 +1.3
PV07  Paradox Valley  61.36  63 P        P        21 20 29.0 +0.2
PV07                            IAmb     IAmb     21 20 34.8
      comp=Z,4.2nm,1.0s
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PV12	Saucer Basin,	61.36	64	P	P	21 20 29.3	+0.5
PV12				IAmb	IAmb	21 20 41.1	
	comp=Z,10nm,0.8s						
PV05	Paradox Valley	61.37	64		P	21 20 29.1	+0.2
PV05				IAmb	IAmb	21 20 40.4	
	comp=Z,8.8nm,0.7s						
PV03	Paradox Valley	61.38	64	P	P	21 20 30.4	+1.4
PV03				IAmb	IAmb	21 20 41.7	
	comp=Z,6.5nm,0.9s						
HNR	Honiara	61.39	180	LR	LR	21 43 51.8	
	comp=Z,311nm,21.3s,baz=84,slow=33						
PV13	Radium Mtn., P	61.46	64	P	P	21 20 30.2	+0.7
PV13				IAmb	IAmb	21 20 42.8	
	comp=Z,7.7nm,0.9s						
BELG	Belogornoye	61.49	320	LR	LR	21 50 58.9	
	comp=Z,2µm,18.0s,baz=323,slow=40						
BELG	Belogornoye	61.49	320	i P	P	21 20 28.7	-0.5
BELG				pmax	pmax		
	comp=Z,5.0nm,0.9s						
PV15	Paradox Valley	61.52	63	P	P	21 20 29.7	-0.3
PV15				IAmb	IAmb	21 20 35.1	
	comp=Z,11nm,1.0s						
PV01	Paradox Valley	61.62	64	P	P	21 20 31.5	+0.9
ISOG	Isortoq, Green	61.65	9	i P	P	21 20 30.7	+0.7
ISOG				IAmb	IAmb	21 20 31.2	
	comp=Z,13nm,0.7s						
WUAZ	Wupatki	61.92	68		P	21 20 34.2	+1.6
WUAZ				IAmb	IAmb	21 20 45.2	
	comp=Z,6.2nm,1.1s						
ISCO	Idaho Springs	62.03	60	P	P	21 20 34.5	+1.0
ISCO	Idaho Springs	62.03	60	P	P	21 20 34.5	+1.0
	comp=Z,5.2nm,1.1s						
MVCO	Mesa Verde	62.32	64		P	21 20 36.1	+0.8
MVCO				IAmb	IAmb	21 20 48.0	
	comp=Z,5.5nm,0.9s						
F33A	5 Mile Ranch,	62.35	50	P	P	21 20 35.0	-0.1
F33A				IAmb	IAmb	21 20 38.4	
	comp=Z,13nm,1.2s						
MOS	Moscow	62.48	328	eP	P	21 20 35.0	-0.8
MOS				pmax	pmax		
	comp=Z,41nm,0.8s						
NIL	Nilore	62.55	290	P	P	21 20 36.8	+0.1
NIL	Nilore	62.55	290	P	P	21 20 36.6	-0.1
NIL				pmax	pmax		
	comp=Z,44nm,0.7s						
NIL	Nilore	62.55	290		P	21 20 35.3	-1.4
NIL	Nilore	62.55	290	P	P	21 20 36.5	-0.1
	comp=Z,67nm,1.0s						
X16A	Lo Mia Camp, P	62.67	68	P	P	21 20 38.3	+0.7
ARBE	Arbavere	62.76	336	P	P	21 20 38.3	+0.8
	comp=Z,300nm,0.7s						
S22A	4UR Ranch, Cre	62.85	63	P	P	21 20 39.6	+0.6
W18A	Petrified Fore	63.13	67	P	P	21 20 41.7	+1.0
W18A				IAmb	IAmb	21 20 52.0	
	comp=Z,4.7nm,0.8s						
OBN	Obninsk	63.34	328	LR	LR	21 51 45.1	
	comp=Z,666nm,18.1s,baz=9.0,slow=39						
OBN	Obninsk	63.34	328	d iP	P	21 20 40.2	-1.3
OBN				e*PP	pwP	21 20 55.0	-1.9
OBN				e*SP	sP	21 21 04.1	+5.1
OBN				e		21 21 17.0	
OBN				e		21 23 00.6	
OBN				ePPP	PPP	21 24 30.1	
OBN				eS	S	21 29 08.7	-1.3
OBN				eSS	SS	21 33 17.3	+1.2
OBN				pmax	pmax		
	comp=Z,28nm,0.9s						
OBN				MLR	MLR		
	comp=Z,851nm,21.0s						
OBN	Obninsk	63.34	328	P	P	21 20 40.7	-0.7
OBN	Obninsk	63.34	328	⇓P	P	21 20 41.4	-0.1
OBN	Obninsk	63.34	328	P	P	21 20 40.8	-0.7
	comp=Z,32nm,0.8s						
OBN	Obninsk	63.34	328	P	P	21 20 41.1	-0.4
	comp=Z,32nm,0.8s						
BORG	Borgarnes	63.38	1	LR	LR	21 49 33.3	
	comp=Z,114nm,18.3s,baz=354,slow=37						
VSU	Vasula	63.42	335	c iP	P	21 20 41.1	-0.8
VSU				pmax	pmax		
	comp=Z,32nm,0.6s						
VSU	Vasula	63.42	335	P	P	21 20 41.8	-0.1
	comp=Z,51nm,0.8s						
MOL	Molde	63.57	346	eP	P	21 20 43.9	+1.1
ECSD	EROS Data Cent	63.76	52	P	P	21 20 45.4	+0.9
ECSD				IAmb	IAmb	21 20 47.0	
	comp=Z,6.3nm,1.1s						
DOMB	Dombas	63.84	345	eP	P	21 20 45.1	+0.3
DOMB				IAmb	IAmb	21 20 47.1	
	comp=Z,25nm,0.8s						
MTSE	Matsula	63.94	336	P	P	21 20 46.5	+1.2
	comp=Z,276nm,0.8s						
AKN	Aaknes	64.02	346	eP	P	21 20 46.8	+0.9
AKN				IAmb	IAmb	21 20 48.5	
	comp=Z,39nm,0.7s						
NC303	NORSAR Array S	64.23	344	P	P	21 20 47.7	+0.4
NC405	NORSAR Array S	64.28	344		P	21 20 48.0	+0.4
NC204	NORSAR Array S	64.29	344	P	P	21 20 48.1	+0.3
KBL	Kabul	64.31	294	P	P	21 20 46.5	-2.0
	SNR=6.6						
KBL	Kabul	64.31	294	P	P	21 20 46.1	-2.4
KBL				pmax	pmax		
	comp=Z,13nm,0.7s						
KBL	Kabul	64.31	294		P	21 20 46.1	-2.4
KBL	Kabul	64.31	294	P	P	21 20 46.6	-2.0
	comp=Z,18nm,0.9s						
NB201	NORSAR Array S	64.41	344	P	P	21 20 48.4	-0.1
NB2	NORSAR Subarra	64.44	344	P	P	21 20 49.1	+0.4
	comp=Z,9.2nm,0.6s,baz=23,slow=6.9						
NB2	NORSAR Subarra	64.44	344	P	P	21 20 51.5	+2.8
NB2				pmax	pmax		
	comp=Z,5.0nm,0.4s						
NB2	NORSAR Subarra	64.44	344	P	P	21 20 49.1	+0.4
NOA	NORSAR Array B	64.44	344	P	P	21 20 49.0	+0.4
	comp=Z,8.3nm,0.6s,baz=22,slow=6.7,SNR=50						
NOA				LR	LR	21 54 59.5	
	comp=Z,448nm,18.3s,baz=15,slow=42						
	comp=Z,8.3nm,0.6s						
NBO00	NORSAR Array S	64.52	344	P	P	21 20 49.0	-0.2
LPSR	Galich'ya Gora	64.59	325	eP	P	21 20 49.3	-0.4
LPSR				pmax	pmax		
	comp=Z,30nm,0.8s						
NC602	NORSAR Array S	64.67	344	eP	P	21 20 50.5	+0.4
NC602	NORSAR Array S	64.67	344	P	P	21 20 51.2	+1.0
NC602				IAmb	IAmb	21 20 56.4	
	comp=Z,8.4nm,0.8s						
NORES	NORESS Array B	64.67	344	P	P	21 20 50.6	+0.5
NORES				pmax	pmax		
	comp=Z,1.0nm,0.3s						
IVI	Ivigtut	64.67	15	i P	P	21 20 51.6	+1.5
IVI				IAmb	IAmb	21 20 54.3	
	comp=Z,234nm,1.9s						
NAO01	NORSAR Array S	64.67	344	P	P	21 20 51.1	+0.9
VRH	Novokhopyorsk	64.70	322	P	P	21 20 49.8	-0.7
VRH				pmax	pmax		
	comp=Z,24nm,0.7s						
HFS	Hagfors	64.84	342	P	P	21 20 51.4	+0.2
	comp=Z,14nm,0.4s,baz=7.4,slow=3.4,SNR=66						
HFS				LR	LR	21 54 21.9	
	comp=Z,689nm,18.2s,baz=25,slow=41						
	comp=Z,14nm,0.4s						
I37A	Lemond, Waseca	65.08	50	P	P	21 20 53.5	+0.4
ANMO	Albuquerque	65.10	65	LR	LR	21 49 09.2	
	comp=Z,109nm,18.9s,baz=336,slow=36						
ANMO	Albuquerque	65.10	65	i P	P	21 20 55.3	+1.7
ANMO				pmax	pmax		
	comp=Z,1.0nm,0.9s						
HYA	Hoyanger	65.11	347	eP	P	21 20 53.8	+0.9
HYA				IAmb	IAmb	21 20 55.2	
	comp=Z,15nm,0.7s						
NRS	Narsarsuaq	65.13	13	i P	P	21 20 55.9	+2.8
VORR	Voronezh	65.25	324	eP	P	21 20 55.1	+1.1
VORR				pmax	pmax		
	comp=Z,9.0nm,0.6s						
SKAR	Skarslia	65.25	345	eP	P	21 20 55.1	+1.1
SBM	South Baldy	65.41	66	P	P	21 20 57.3	+1.4
SUE	Sulen	65.41	347	eP	P	21 20 55.6	+0.7
VSR	Storozhevoye	65.64	324	eP	P	21 20 56.4	-0.2
VSR				pmax	pmax		
	comp=Z,16nm,0.9s						
VORD	Divnogorie	65.80	324	eP	P	21 20 54.3	-3.3
VORD				pmax	pmax		
	comp=Z,10.0nm,0.9s						
ASK	Askoy	65.90	347	eP	P	21 21 00.0	+2.0
BER	Bergen	65.98	347	eP	P	21 20 60.0	+1.4
KONO	Kongsberg	66.02	344	eP	P	21 21 00.3	+1.4
319A	Douglas	66.12	69	P	P	21 21 00.6	+0.4
319A				IAmb	IAmb	21 21 05.7	
	comp=Z,5.1nm,0.9s						
STRU	Stroemstad	66.33	343	i P	P	21 21 02.6	+1.8
SCHQ	Schefferville	66.37	28	P	P	21 21 02.3	+1.0
	comp=Z,4.9nm,0.7s,baz=6.7,slow=11,SNR=3.6						
SCHQ				LR	LR	21 54 32.8	
	comp=Z,186nm,19.0s,baz=28,slow=40						
	comp=Z,4.9nm,0.7s						
SCHQ	Schefferville	66.37	28	P	P	21 21 01.9	+0.7
SCHQ				IAmb	IAmb	21 21 11.4	
	comp=Z,14nm,1.1s						
MNK	Minsk	66.55	332	c iP	P	21 21 03.0	+0.7
MNK	Minsk	66.55	332	i P	P	21 21 03.1	+0.7
	comp=E,18nm,0.9s						
MNK				i P	P	21 21 03.1	+0.7
	comp=N,11nm,0.8s						
MNK				i P	P	21 21 03.1	+0.7
	comp=Z,54nm,1.3s,baz=30						
MNK				i pP	sP	21 21 19.1	-0.9
MNK				i sP	PcP	21 21 25.8	-5.6
MNK				i PP	PP	21 23 29.2	+0.6
MNK				i PPP	PPP	21 25 04.2	
MNK				i S	S	21 29 53.1	+3.8
MNK				i sS	sS	21 30 15.8	+5.2
MNK				i SS	SS	21 34 05.5	-0.4
MNK				i SSS	SSS	21 37 15.3	
MNK				i LQ	LQ	21 45 23.9	
MNK				i LR	LR	21 49 48.3	
MNK				i LRM	MLR	21 53 27.7	
	comp=N,709nm,17.3s						
MNK				i LRM	MLR	21 54 05.0	
	comp=Z,1µm,16.9s						
MNK				i LRM	MLR	21 54 06.9	
	comp=E,1µm,17.2s						
BLS5	Blasjo	66.74	346	eP	P	21 21 04.8	+1.3
BLS5				IAmb	IAmb	21 21 13.4	
	comp=Z,484nm,2.6s						
PABE	Paberze	66.74	335		P	21 21 02.9	-0.6
PABE	Paberze	66.74	335	P	P	21 21 04.1	+0.5
	comp=Z,64nm,1.4s						
PBA	Port Blair	67.16	259	P	P	21 21 09.1	+2.4
TJOU	Tjoern	67.19	343	i P	P	21 21 08.2	+1.8
HOMB	Homborsund	67.51	344	eP	P	21 21 10.0	+1.7
SNART	Snartemo	67.66	345	eP	P	21 21 11.8	+2.5
SNART	Snartemo	67.66	345	i P	P	21 21 12.0	+2.7
KHAM	Kharkiv	67.69	325	P	P	21 21 09.9	+0.2
ONAU	Onsala	67.73	342	i P	P	21 21 11.6	+1.8
FABU	Falkenberg	67.95	342	i P	P	21 21 12.1	+1.0
BLEU	Blekinge	67.97	340	i P	P	21 21 12.9	+1.6
IPM	Ipoh	68.01	248		P	21 21 12.4	+0.2
IPM				IAmb	IAmb	21 21 27.5	
	comp=Z,7.8nm,0.7s						
HRA	Herat	68.19	298		P	21 21 12.3	-1.0
DEL	Delary	68.22	341	i P	P	21 21 14.7	+1.8
SUW	Suwalki	68.28	334	P	P	21 21 12.4	-0.9
SUW	Suwalki	68.28	334	P	P	21 21 12.4	-0.9
GDL2	Guadalupe Moun	68.30	65	P	P	21 21 14.5	+0.6
VLDQ	Val d'Or	68.58	38		P	21 21 14.8	-0.5
VLDQ				IAmb	IAmb	21 21 16.2	
	comp=Z,12nm,0.9s						
N41A	Harden Midland	68.83	51		P	21 21 17.0	+0.1
MAK	Makhachkala	68.90	314	c iP	P	21 21 14.4	-2.9
MAK				e		21 23 51.3	
MAK				ePPP	PPP	21 25 27.9	
MAK				eS	S	21 30 16.4	-1.5
MAK				eSS	SS	21 34 41.3	-1.5
MAK				pmax	pmax		
	comp=Z,88nm,1.0s						
MAK				MLR	MLR		
	comp=Z,956nm,14.0s						
LUNU	Lund	69.09	341	i P	P	21 21 20.1	+1.8
P40A	Paris	69.17	52		P	21 21 19.8	+0.7
P40A				IAmb	IAmb	21 21 31.1	
	comp=Z,16nm,1.2s						
COP	Copenhagen	69.24	341	i P	P	21 21 21.0	+1.8
COP				IAmb	IAmb	21 21 22.2	
	comp=Z,64nm,1.0s						
BSD	Bornholm Skovb	69.26	340	i P	P	21 21 21.3	+1.9
BSD				IAmb	IAmb	21 21 22.5	
	comp=Z,12nm,0.5s						
AK23	Malin Array Si	69.43	329	P	P	21 21 20.4	-0.1
AK03	Malin Array Si	69.43	329	P	P	21 21 19.9	-0.6
WMOK	Wichita Mounta	69.43	60	P	P	21 21 21.9	+1.1
WMOK				pmax	pmax		
	comp=Z,5.0nm,1.0s						
WMOK	Wichita Mounta	69.43	60		P	21 21 21.9	+1.1
WMOK				IAmb	IAmb	21 21 34.0	
	comp=Z,5.0nm,0.9s						
AK21	Malin Array Si	69.44	329	P	P	21 21 19.9	-0.7
AK22	Malin Array Si	69.44	329	P	P	21 21 19.9	-0.7
AK04	Malin Array Si	69.45	329	P	P	21 21 20.0	-0.6
AKASG	Malin Array Be	69.45	329	P	P	21 21 20.1	-0.5
	comp=Z,19nm,0.4s,baz=32,slow=6.9,SNR=96						
AKASG				LR	LR	21 56 55.8	
	comp=Z,1µm,18.6s,baz=30,slow=40						
	comp=Z,19nm,0.4s						
AKASG	Malin Array Be	69.45	329	P	P	21 21 19.8	-0.8
AKBB	Malin Array Si	69.45	329	P	P	21 21 19.8	-0.8
AKBB				pmax	pmax		
	comp=Z,19nm,0.8s						
AKBB	Malin Array Si	69.45	329		P	21 21 19.8	-0.8
AKBB	Malin Array Si	69.45	329	P	P	21 21 20.0	-0.6
KIEV	Kiev	69.46	329	P	P	21 21 20.3	-0.4
KIEV	Kiev	69.46	329		P	21 21 19.8	-0.9
KIEV	Kiev	69.46	329	i P	P	21 21 20.2	-0.4
	SNR=14						
KIEV	Kiev	69.46	329	⇑P	P	21 21 21.1	+0.4
KIEV	Kiev	69.46	329	P	P	21 21 20.0	-0.7
	comp=Z,91nm,1.0s						
KIEV	Kiev	69.46	329	P	P	21 21 20.3	-0.4
	comp=Z,23nm,1.0s						
AK01	Malin Array Si	69.46	329	P	P	21 21 20.0	-0.7
AK18	Malin Array Si	69.48	329	P	P	21 21 20.2	-0.6
AK15	Malin Array Si	69.49	329	P	P	21 21 20.2	-0.6
AK11	Malin Array Si	69.49	329	P	P	21 21 20.2	-0.6
RNPP9	Sopachiv	69.84	332	P	P	21 21 22.9	-0.1
MNHN	Monahans	69.84	65		P	21 21 24.9	+1.4
MNHN				IAmb	IAmb	21 21 34.4	
	comp=Z,6.0nm,0.6s						
RNPP8	Varash	69.92	332	P	P	21 21 23.8	+0.3
AKT	Akhty	69.97	312	eP	P	21 21 23.6	-0.6
AKT				e		21 21 46.7	
AKT				pmax	pmax		
	comp=Z,20nm,0.6s						
R40A	Maddies Statio	70.03	53		P	21 21 24.6	+0.2
R40A				IAmb	IAmb	21 21 25.9	
	comp=Z,6.9nm,0.9s						
X34A	Smith Ranch, M	70.04	59	P	P	21 21 24.6	+0.1
X34A				IAmb	IAmb	21 21 41.0	
	comp=Z,9.8nm,1.2s						
AFI	Afiamalu	70.13	151	LR	LR	21 47 36.7	
	comp=Z,266nm,19.8s,baz=329,slow=32						
KIV	Kislovodsk	70.18	317	eP	P	21 21 24.8	-0.6
KIV				pmax	pmax		
	comp=Z,14nm,1.0s						
KIV				MLR	MLR		
	comp=Z,443nm,17.0s						
KIV	Kislovodsk	70.18	317		P	21 21 25.0	-0.4
KIV	Kislovodsk	70.18	317	P	P	21 21 26.7	+1.3
KIV	Kislovodsk	70.18	317	P	P	21 21 25.6	+0.2
	comp=Z,22nm,0.6s						
KBZ	Khabaz	70.28	317	P	P	21 21 26.1	+0.3
	comp=Z,8.6nm,0.8s,baz=60,slow=4.0,SNR=20						
KBZ				LR	LR	21 57 03.9	
	comp=Z,638nm,18.4s,baz=14,slow=40						
	comp=Z,8.6nm,0.8s						
KBZ	Khabaz	70.28	317	c iP	P	21 21 26.4	+0.6
KBZ				pmax	pmax		
	comp=Z,8.0nm,0.9s						
SEKA	Sheki	70.43	313	P	P	21 21 27.2	+0.3
LUBAR	Lubar, Ukraine	70.59	330	P	P	21 21 26.6	-1.0
CCM	Cathedral Cave	70.72	53	P	P	21 21 29.4	+0.8
CCM				pmax	pmax		
	comp=Z,7.0nm,1.1s						
CCM	Cathedral Cave	70.72	53	P	P	21 21 29.4	+0.8
CCM				IAmb	IAmb	21 21 40.4	
	comp=Z,7.5nm,1.1s						
MNGR	Mingechevir, A	70.83	312	P	P	21 21 30.1	+0.9
TX31	Lajitas Ar. Si	70.86	67		P	21 21 30.8	+1.1
TX31				IAmb	IAmb	21 21 34.4	
	comp=Z,3.9nm,0.7s						
TXAR	Lajitas Array	70.86	67	P	P	21 21 31.4	+1.7
	comp=Z,2.6nm,0.5s,baz=296,slow=4.4,SNR=36						
	comp=Z,2.6nm,0.5s						
TXAR	Lajitas Array	70.86	67	P	P	21 21 30.9	+1.2
TXAR	Lajitas Array	70.86	67		P	21 21 30.9	+1.2
LPIG	La Paz	70.96	75	LR	LR	21 47 50.7	
	comp=Z,54nm,19.6s,baz=251,slow=32						
TRQ	Mont Tremblant	71.25	37		P	21 21 32.5	+0.7
TRQ				IAmb	IAmb	21 21 33.2	
	comp=Z,9.7nm,0.8s						
GANJ	Ganja	71.28	313	P	P	21 21 32.9	+0.9
BSEG	Bad Segeberg	71.31	342	P	P	21 21 33.1	+1.2
BSEG	Bad Segeberg	71.31	342	eP	P	21 21 33.0	+1.2
	comp=Z,12nm,0.9s,baz=20,slow=5.8						
BSEG	Bad Segeberg	71.31	342	P	P	21 21 33.1	+1.2
	comp=Z,14nm,1.0s						
MSVF	Nonsavu	71.33	162	LR	LR	21 54 21.8	
	comp=Z,131nm,18.3s,baz=182,slow=37						
T42A	Van Buren	71.60	53	P	P	21 21 34.9	+0.9
LMQ	La Malbaie	71.61	34	P	P	21 21 33.6	-0.3
VSLR	Vesyoloye	71.69	319	i P	P	21 21 34.6	+0.2
VSLR				pmax	pmax		
	comp=Z,31nm,0.9s						
LKRN	Lenkeran, Azer	71.69	310	P	P	21 21 35.0	+0.5
SOC	Sochi	71.71	319	eP	P	21 21 26.9	-7.6
SOC				e		21 24 13.0	
SOC				ePPP	PPP	21 25 57.8	
SOC				eS	S	21 30 36.5	-14
SOC				eSS	SS	21 35 22.6	-3.4
SOC				MLR	MLR		
	comp=Z,1µm,17.0s						
EKA	Eskdalemuir Ar	71.96	350	P	P	21 21 36.4	+0.6
	comp=Z,4.8nm,0.5s,baz=15,slow=5.0,SNR=31						
	comp=Z,4.8nm,0.5s						
EKB	Eskdalemuir	71.96	350	P	P	21 21 36.8	+1.0
S44A	Carbondale	71.97	51	P	P	21 21 37.6	+1.5
S44A				IAmb	IAmb	21 21 38.5	
	comp=Z,13nm,1.1s						
RUE	Ruedersdorf	71.97	339	eP	P	21 21 36.7	+0.9
	comp=Z,23nm,0.6s,baz=20,slow=5.8						
SORM	Soroca	71.97	328	P	P	21 21 35.5	-0.5
SORM	Soroca	71.97	328	⇑P	P	21 21 35.6	-0.5
SORM	Soroca	71.97	328	P	P	21 21 35.4	-0.5
	comp=Z,42nm,0.9s						
GORT1	Trebel	72.01	341	eP	P	21 21 37.5	+1.4
	comp=Z,32nm,1.3s,baz=20,slow=5.8						
KMPD	K-Podol'skiy	72.19	330	P	P	21 21 36.6	-0.7
MIAR	Mount Ida	72.30	56	P	P	21 21 39.2	+1.0
MIAR				pmax	pmax		
	comp=Z,5.0nm,1.1s						
MIAR	Mount Ida	72.30	56	P	P	21 21 39.2	+1.0
KWP	Kalwaria Pacla	72.35	333	eP	P	21 21 39.2	+0.9
KWP	Kalwaria Pacla	72.35	333	P	P	21 21 39.3	+1.0
KWP	Kalwaria Pacla	72.35	333	P	P	21 21 38.7	+0.4
	comp=Z,44nm,1.3s						
GNI	Garni	72.39	314	LR	LR	21 58 23.6	
	comp=Z,801nm,18.2s,baz=33,slow=40						
GNI	Garni	72.39	314	P	P	21 21 40.3	+1.4
GNI	Garni	72.39	314	i P	P	21 21 38.7	-0.2
GNI				pmax	pmax		
	comp=Z,8.0nm,0.8s						
GNI	Garni	72.39	314		P	21 21 39.0	+0.1
GNI				IAmb	IAmb	21 21 49.7	
	comp=Z,9.8nm,0.7s						
GNI	Garni	72.39	314	P	P	21 21 40.0	+1.1
GNI	Garni	72.39	314	P	P	21 21 39.2	+0.3
	comp=Z,455nmcomp=Z,14nm,0.8s						
GNI	Garni	72.39	314	P	P	21 21 40.6	+1.7
	comp=Z,14nm,0.8s						
D62A	Allapoint, All	72.45	33		P	21 21 40.0	+1.1
D62A				IAmb	IAmb	21 21 41.5	
	comp=Z,10nm,0.8s						
MORS	Morshin	72.45	332	P	P	21 21 40.1	+1.2
N51A	Ashland	72.52	45	P	P	21 21 40.1	+0.7
OJC	Ojcow	72.61	335	eP	P	21 21 40.6	+0.9
OJC	Ojcow	72.61	335	P	P	21 21 40.9	+1.1
OJC	Ojcow	72.61	335		P	21 21 40.9	+1.1
OJC	Ojcow	72.61	335	P	P	21 21 39.7	-0.1
	comp=Z,16nm,1.0s						
OJC	Ojcow	72.61	335	P	P	21 21 40.7	+0.9
	comp=Z,16nm,1.0s						
RETH	Rethem/Aller,	72.63	342	eP	P	21 21 40.8	+1.0
	comp=Z,14nm,1.0s,baz=20,slow=5.8						
RETH	Rethem/Aller,	72.63	342	P	P	21 21 40.5	+0.8
	comp=Z,20nm,1.0s						
RETH				pP	pP	21 21 52.2	-0.3
FLTG	Flechtingen	72.64	341	eP	P	21 21 40.3	+0.4
	comp=Z,18nm,0.8s,baz=20,slow=5.8						
FLTG				epP	pP	21 21 51.7	-0.9
FLTG	Flechtingen	72.64	341	P	P	21 21 40.6	+0.7
	comp=Z,24nm,0.9s						
FLTG				pP	pP	21 21 51.9	-0.7
KSP	Ksiaz	72.92	337	eP	P	21 21 42.3	+0.7
KSP	Ksiaz	72.92	337	P	P	21 21 41.9	+0.3
	comp=Z,15nm,1.0s						
ASSE	Asse, Remlinge	72.95	341	eP	P	21 21 42.7	+1.0
	comp=Z,9.9nm,0.9s,baz=20,slow=5.8						
ASSE	Asse, Remlinge	72.95	341	P	P	21 21 43.3	+1.7
	comp=Z,14nm,1.2s						
STHS	Stebnicka Huta	72.95	333	eP	P	21 21 42.5	+0.7
CTA	Charters Tower	73.03	194	LR	LR	21 47 44.4	
	comp=Z,98nm,20.1s,baz=36,slow=31						
KOLS	Kolonicke sedl	73.10	333	eP	P	21 21 43.4	+0.7
KOLS	Kolonicke sedl	73.10	333	P	P	21 21 43.9	+1.2
	comp=Z,21nm,0.6s						
OSTC	Ostas	73.20	337	eP	P	21 21 44.7	+1.4
OSTC				AMS	AMS	22 00 00.0	
	comp=Z,1µm,17.4s						
NIE	Niedzica	73.21	334	eP	P	21 21 44.5	+1.1
NIE	Niedzica	73.21	334	P	P	21 21 43.6	+0.2
	comp=Z,3.8nm,0.9s						
CHVC	Chvalec	73.21	337	eP	P	21 21 44.4	+1.0
CHVC				AMS	AMS	22 00 00.0	
	comp=Z,1µm,16.2s						
CLL	Collm	73.23	339	i P	P	21 21 43.7	+0.2
CLL				pmax	pmax		
	comp=Z,22nm,0.9s						
CLL				MLR	MLR		
	comp=Z,400nm,25.1s						
CLL	Collm	73.23	339		P	21 21 44.9	+1.5
CLL	Collm	73.23	339	eP	P	21 21 43.8	+0.4
	comp=Z,21nm,0.9s,baz=20,slow=5.8						
CLL				epP	pP	21 21 55.2	-1.0
CLL	Collm	73.23	339	P	P	21 21 44.0	+0.5
	comp=Z,27nm,1.0s						
CLL	Collm	73.23	339	P	P	21 21 44.0	+0.5
	comp=Z,27nm,1.0s						
CLL	Collm	73.23	339	i P	P	21 21 43.7	+0.2
	comp=Z,22nm,0.9s						
CLL				i pP	pP	21 21 55.6	-0.6
	comp=Z,18nm,1.0s						
CLL				eS	SKiKP	21 31 24.0	+14
CLL				ePS	PnS	21 31 54.0	+10
CLL				eSS	SS	21 35 54.0	+5.3
CLL				LH		21 44 00.0	
CLL				AMS	AMS	21 57 00.0	
	comp=N,400nm,19.2s						
CLL				AMS	AMS	21 57 00.0	
	comp=E,400nm,18.1s						
CLL				AMS	AMS	21 59 00.0	
	comp=Z,500nm,19.2s						
BATG	Bathurst New B	73.25	31	P	P	21 21 44.7	+1.1
BATG				IAmb	IAmb	21 21 46.4	
	comp=Z,8.3nm,0.9s						
N53A	Lisbon	73.27	44	P	P	21 21 44.5	+0.6
N53A				IAmb	IAmb	21 21 59.2	
	comp=Z,12nm,1.1s						
CLZ	Clausthal	73.28	341	eP	P	21 21 45.1	+1.3
	comp=Z,22nm,0.9s,baz=20,slow=5.8						
CLZ	Clausthal	73.28	341	P	P	21 21 45.2	+1.4
	comp=Z,23nm,0.8s						
NCB	Newcomb	73.28	38	P	P	21 21 43.0	-0.9
NCB				IAmb	IAmb	21 21 47.5	
	comp=Z,7.5nm,1.0s						
UPC	Upice	73.30	337	eP	P	21 21 45.0	+1.2
UPC				ex	x	21 21 54.4	
UPC				AMS	AMS	22 00 10.0	
	comp=Z,1µm,17.9s						
UPC	Upice	73.30	337	P	P	21 21 44.8	+1.0
	comp=Z,13nm,1.0s						
PRAR	RASCA	73.33	329	⇓P	P	21 21 44.2	+0.1
IBBN	Ibbenburen	73.34	343	eP	P	21 21 45.0	+1.0
	comp=Z,23nm,0.8s,baz=20,slow=5.8						
IBBN	Ibbenburen	73.34	343	P	P	21 21 45.2	+1.2
	comp=Z,32nm,0.7s						
WIMM	Wimmelburg	73.35	340	P	P	21 21 44.8	+0.7
	comp=Z,41nm,1.1s						

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DPC   Dobruska-Polom   73.37 337 eP    P     21 21 45.8 +1.5
DPC                              AMS   AMS   22 00 00.0
      comp=Z,900nm,16.0s
DPC   Dobruska-Polom   73.37 337 P     P     21 21 44.7 +0.4
      comp=Z,11nm,1.1s
DPC   Dobruska-Polom   73.37 337 P     P     21 21 45.6 +1.3
      comp=Z,11nm,1.1s
OKC   Ostrava-Krasne   73.39 336 AMS   AMS   21 57 50.0
      comp=Z,1µm,15.5s
OKC   Ostrava-Krasne   73.39 336 P     P     21 21 46.0 +1.6
      comp=Z,16nm,1.1s
STEB  Steborice        73.39 336 eP    P     21 21 45.8 +1.4
STEB                             ex    x     21 21 56.5
BUR08 Bucovina Ar. S   73.39 330       P     21 21 46.1 +1.4
BURAR Bucovina Array   73.42 330 P     P     21 21 45.0 +0.3
BURAR Bucovina Array   73.42 330       P     21 21 45.9 +1.2
BURAR Bucovina Array   73.42 330 ⇑P    P     21 21 45.9 +1.2
BRG   Berggiesshubel   73.44 339 P     P     21 21 45.8 +1.1
BRG   Berggiesshubel   73.44 339 eP    P     21 21 45.1 +0.5
      comp=Z,14nm,1.3s,baz=20,slow=5.8
BRG   Berggiesshubel   73.44 339 P     P     21 21 45.8 +1.1
      comp=Z,5.2nm,0.9s
BRG   Berggiesshubel   73.44 339 eP    P     21 21 45.6 +0.9
BRG                              Amp         21 21 46.4
      comp=Z,4.8nm,0.8s
KRLC  Kraliky          73.51 336 P     P     21 21 46.3 +1.1
KRLC  Kraliky          73.51 336 eP    P     21 21 45.8 +0.6
KRLC                             AMS   AMS   21 58 00.0
      comp=Z,1µm,16.5s
KRLC  Kraliky          73.51 336 P     P     21 21 46.3 +1.1
      comp=Z,12nm,1.0s
G62A  West of Eustis   73.56  35       P     21 21 46.5 +1.0
G62A                             IAmb  IAmb  21 21 48.7
      comp=Z,19nm,1.0s
O53A  New Philadelph   73.57  45 P     P     21 21 46.5 +0.8
O53A                             IAmb  IAmb  21 21 57.4
      comp=Z,8.2nm,0.9s
NEUB  Neuenburg        73.59 340 eP    P     21 21 46.6 +1.1
      comp=Z,51nm,1.6s,baz=20,slow=5.8
NEUB  Neuenburg        73.59 340 P     P     21 21 46.9 +1.4
      comp=Z,18nm,1.2s
MORC  Moravsky Berou   73.59 336 P     P     21 21 45.9 +0.2
MORC                             pmax  pmax
      comp=Z,19nm,1.0s
MORC  Moravsky Berou   73.59 336       P     21 21 45.9 +0.2
MORC                             IAmb  IAmb  21 21 48.7
      comp=Z,19nm,1.0s
MORC  Moravsky Berou   73.59 336 eP    P     21 21 46.3 +0.6
MORC  Moravsky Berou   73.59 336 ⇑P    P     21 21 46.6 +0.9
MORC  Moravsky Berou   73.59 336 P     P     21 21 46.9 +1.2
      comp=Z,20nm,1.1s
GIRR  Girov            73.60 329 ⇑P    P     21 21 45.9 +0.2
GTTG  Gottingen        73.64 341 eP    P     21 21 47.3 +1.4
      comp=Z,7.9nm,0.8s,baz=20,slow=5.8
LANS  Liptovska Anna   73.67 334 eP    P     21 21 47.7 +1.6
RICC  Richard          73.71 338 eP    P     21 21 48.1 +1.9
HOMI  Horasan          73.72 315 ⇑P    P     21 21 46.6 -0.2
BIZ   Bicaz            73.74 329 ⇓P    P     21 21 47.3 +0.8
F64A  Sherman          73.75  33       P     21 21 47.4 +0.8
F64A                             IAmb  IAmb  21 21 49.1
      comp=Z,19nm,1.1s
TRPA  Tarpa            73.75 332 P     P     21 21 47.6 +1.1
      comp=Z,42nm,0.7s
HSKC  Hora Svate Kat   73.80 339 eP    P     21 21 47.8 +1.0
HSKC                             AMS   AMS   21 58 30.0
      comp=Z,600nm,16.7s
HSKC  Hora Svate Kat   73.80 339 P     P     21 21 47.8 +1.0
      comp=Z,14nm,0.9s
WTSB  Winterswijk      73.83 343 P     P     21 21 48.4 +1.5
      comp=Z,29nm,0.7s
BIR   Birlad           73.85 328 P     P     21 21 48.0 +0.9
BIR   Birlad           73.85 328 ⇓P    P     21 21 48.1 +0.9
BMR   Baia Mare        73.88 331 P     P     21 21 48.7 +1.4
BMR   Baia Mare        73.88 331 ⇓P    P     21 21 48.8 +1.4
BMR   Baia Mare        73.88 331 P     P     21 21 48.5 +1.1
H62A  Milan            73.89  36 P     P     21 21 49.2 +1.7
H62A                             IAmb  IAmb  21 21 50.1
      comp=Z,14nm,0.8s
WVT   Waverly          73.90  51 P     P     21 21 48.3 +0.7
WVT                              pmax  pmax
      comp=Z,6.0nm,0.9s
WVT   Waverly          73.90  51 P     P     21 21 48.3 +0.7
WVT                              IAmb  IAmb  21 21 50.6
      comp=Z,5.8nm,0.8s
MAUC  Maruska          73.90 336 eP    P     21 21 48.7 +1.2
LBNH  Lisbon           73.91  36 P     P     21 21 49.6 +2.1
LBNH                             pmax  pmax
      comp=Z,8.0nm,1.0s
LBNH  Lisbon           73.91  36 P     P     21 21 49.6 +2.1
LBNH                             IAmb  IAmb  21 21 50.0
      comp=Z,8.2nm,0.9s
TESR  Tescani          73.95 329 ⇓P    P     21 21 48.2 +0.4
TESR  Tescani          73.95 329 P     P     21 21 47.5 -0.2
      comp=Z,27nm,0.7s
TESR  Tescani          73.95 329 P     P     21 21 47.9 +0.2
      comp=Z,27nm,0.7s
ABAH  Abaujker         73.97 333 P     P     21 21 48.9 +1.1
      comp=Z,15nm,1.5s
O54A  Avella           73.99  44 P     P     21 21 48.4 +0.3
O54A                             IAmb  IAmb  21 21 50.8
      comp=Z,14nm,1.1s
VLDR  Vladesti         74.07 327 ⇑P    P     21 21 49.5 +1.0
GHRR                   74.10 328 ⇑P    P     21 21 49.3 +0.7
GHRR                   74.10 328 P     P     21 21 49.0 +0.4
GHRR                   74.10 328 P     P     21 21 49.7 +1.1
      comp=Z,90nm,0.8s
PRU   Pruhonice        74.12 338 P     P     21 21 49.8 +1.1
PRU   Pruhonice        74.12 338 eP    P     21 21 49.6 +0.9
PRU                              AMS   AMS   21 58 30.0
      comp=Z,1µm,15.4s
PRU   Pruhonice        74.12 338 P     P     21 21 49.9 +1.1
      comp=Z,12nm,0.9s
ARCR  ARCALIA          74.15 330 ⇑P    P     21 21 49.4 +0.5
MOX   Moxa             74.16 340 P     P     21 21 49.4 +0.5
MOX   Moxa             74.16 340 eP    P     21 21 49.7 +0.8
      comp=Z,14nm,1.0s,baz=20,slow=5.8
MOX                              eL    L     21 56 19.6
      comp=Z,315nm,20.7s
MOX   Moxa             74.16 340 P     P     21 21 49.4 +0.5
      comp=Z,12nm,0.9s
ONER  Baraj Valea Uz   74.19 329 ⇑P    P     21 21 50.3 +1.1
PLN   Plauen           74.19 340 eP    P     21 21 50.0 +0.9
      comp=Z,3.2nm,1.0s,baz=20,slow=5.8
TANN  Tannenbergstha   74.19 339 eP    P     21 21 49.8 +0.7
      comp=Z,16nm,1.7s,baz=20,slow=5.8
BUG   Bochum--Univer   74.25 343 eP    P     21 21 50.2 +0.8
      comp=Z,14nm,1.0s,baz=20,slow=5.8
VRAC  Vranov           74.27 336 LR    LR    21 58 49.2
      comp=Z,1µm,18.3s,baz=18,slow=39
VRAC  Vranov           74.27 336 P     P     21 21 51.1 +1.6
VRAC  Vranov           74.27 336 eP    P     21 21 50.5 +0.9
VRAC  Vranov           74.27 336 ⇓P    P     21 21 51.1 +1.6
VRAC  Vranov           74.27 336 P     P     21 21 50.9 +1.3
      comp=Z,6.0nm,1.0s
KASTN Kahler Asten     74.27 342 eP    P     21 21 50.6 +1.0
      comp=Z,16nm,1.0s,baz=20,slow=5.8
DSB   Dublin           74.33 352 P     P     21 21 49.6 -0.3
KOPT  Kop Dagi         74.35 316       P     21 21 52.2 +1.6
NKC   Novy Kostel      74.37 339 P     P     21 21 51.1 +0.9
NKC   Novy Kostel      74.37 339 eP    P     21 21 51.7 +1.6
NKC                              AMS   AMS   21 59 10.0
      comp=Z,500nm,17.1s
NKC   Novy Kostel      74.37 339 P     P     21 21 51.1 +0.9
      comp=Z,11nm,1.0s
M57A  Sunshine Farm,   74.38  41 P     P     21 21 51.2 +0.8
M57A                             IAmb  IAmb  21 22 03.4
      comp=Z,10nm,0.9s
TLCR                   74.40 327 P     P     21 21 50.5 +0.1
TLCR                   74.40 327 ⇑P    P     21 21 50.5 +0.1
JAVC  Velka Javorina   74.41 335 eP    P     21 21 52.3 +1.8
JAVC  Velka Javorina   74.41 335 P     P     21 21 52.2 +1.8
      comp=Z,21nm,1.0s
WVL   Waterville       74.43  35 P     P     21 21 51.7 +1.2
WVL                              IAmb  IAmb  21 21 53.6
      comp=Z,12nm,0.8s
VYHS  Vyhne            74.44 335 eP    P     21 21 51.9 +1.3
VYHS  Vyhne            74.44 335 P     P     21 21 52.4 +1.8
      comp=Z,5.7nm,0.9s
ODBI  Odobesti         74.48 328 ⇑P    P     21 21 52.4 +1.6
VRI   Vrincioaia       74.50 328 P     P     21 21 52.2 +1.3
VRI   Vrincioaia       74.50 328 ⇑P    P     21 21 52.2 +1.3
VRI   Vrincioaia       74.50 328 P     P     21 21 51.5 +0.5
      comp=Z,9.3nm,1.1s
MESR  Meseseni         74.52 331 ⇓P    P     21 21 52.4 +1.4
PLOR  Plostina         74.53 328 P     P     21 21 52.5 +1.3
PLOR  Plostina         74.53 328 ⇑P    P     21 21 52.5 +1.3
KRUC  Moravsky         74.54 336 P     P     21 21 52.3 +1.2
KRUC  Moravsky         74.54 336 eP    P     21 21 51.9 +0.7
KRUC  Moravsky         74.54 336 P     P     21 21 52.3 +1.2
      comp=Z,21nm,1.0s
TREC  Trest            74.55 337 P     P     21 21 52.4 +1.2
TREC  Trest            74.55 337 eP    P     21 21 51.6 +0.4
TREC                             AMS   AMS   22 00 50.0
      comp=Z,1µm,16.5s
TREC  Trest            74.55 337 P     P     21 21 52.4 +1.2
      comp=Z,13nm,1.0s
I63A  Otisfield        74.56  35       P     21 21 53.3 +2.0
TURR  Turia            74.56 329 ⇓P    P     21 21 52.2 +0.9
U49A  Red Boiling Sp   74.57  50 P     P     21 21 53.8 +2.3
OZUR                   74.59 329 ⇓P    P     21 21 52.8 +1.3
G65A  Princeton        74.59  33 P     P     21 21 52.2 +0.7
SAHR  Sahastru         74.63 328 ⇓P    P     21 21 52.7 +0.9
CFR   Carcaliu         74.64 327 P     P     21 21 52.8 +1.1
CFR   Carcaliu         74.64 327 ⇑P    P     21 21 52.8 +1.1
COVR  Voineasa-Covas   74.68 329 ⇓P    P     21 21 53.2 +1.1
PSZ   Piszkesteto      74.69 334 P     P     21 21 53.5 +1.4
PSZ                              pmax  pmax
      comp=Z,14nm,0.9s
PSZ   Piszkesteto      74.69 334       P     21 21 53.5 +1.4
PSZ                              IAmb  IAmb  21 21 55.3
      comp=Z,14nm,0.9s
PSZ   Piszkesteto      74.69 334 ⇓P    P     21 21 53.6 +1.5
PSZ   Piszkesteto      74.69 334 P     P     21 21 53.4 +1.4
      comp=Z,18nm,0.9s
CJR   Cluj-Napoca      74.71 331 P     P     21 21 53.1 +0.9
CJR   Cluj-Napoca      74.71 331 ⇓P    P     21 21 53.2 +0.9
ZVC   Zvikov           74.72 338 eP    P     21 21 53.3 +1.1
ZVC                              ex    x     21 22 03.9
ZVC                              AMS   AMS   21 59 00.0
      comp=Z,800nm,15.2s
KELT  Kelkit           74.77 317 P     P     21 21 54.0 +1.1
      comp=Z,103nm,1.1s
TPGR  Topolog          74.83 327 ⇓P    P     21 21 53.7 +0.8
DOPR  Dopca            74.83 329 ⇓P    P     21 21 53.5 +0.6
BOPT  Opiter           74.86 344 dP    P     21 21 53.8 +0.9
BOPT                             dPcP  PcP   21 22 07.0 +0.3
MARR  Marisel-Cluj     74.89 331 ⇓P    P     21 21 54.2 +0.9
GURO  Guroymak-BITLI   74.90 314 P     P     21 21 53.4 -0.2
GURO                             IAmb  IAmb  21 21 57.0
      comp=Z,9.4nm,0.6s
DRGR                   74.91 331 P     P     21 21 53.8 +0.4
DRGR                   74.91 331 ⇑P    P     21 21 53.9 +0.5
DRGR                   74.91 331 P     P     21 21 54.0 +0.6
      comp=Z,12nm,0.9s
MODS  Modra-Piesok     74.96 335 eP    P     21 21 55.0 +1.4
MODS  Modra-Piesok     74.96 335 P     P     21 21 55.3 +1.7
      comp=Z,29nm,0.9s
N58A  Sunbury          74.96  41 P     P     21 21 54.3 +0.6
N58A                             IAmb  IAmb  21 21 55.1
      comp=Z,12nm,1.1s
HAKT  HAKKARI          74.97 313 P     P     21 21 54.8 +0.7
      comp=Z,113nm,0.8s
MDB   Medias           74.99 330 P     P     21 21 54.2 +0.4
MDB   Medias           74.99 330 ⇑P    P     21 21 54.3 +0.4
GRA3  Grafenberg Arr   75.05 340 P     P     21 21 56.1 +2.0
      comp=Z,17nm,1.2s
MLR   Muntele Rosu     75.08 329 LR    LR    22 00 24.7
      comp=Z,844nm,18.7s,baz=24,slow=40
MLR   Muntele Rosu     75.08 329 P     P     21 21 54.8 +0.3
MLR                              pmax  pmax
      comp=Z,19nm,0.7s
MLR   Muntele Rosu     75.08 329       P     21 21 54.8 +0.3
MLR   Muntele Rosu     75.08 329 ⇑P    P     21 21 55.6 +1.1
MLR   Muntele Rosu     75.08 329 P     P     21 21 55.1 +0.6
      comp=Z,28nm,0.7s
MLR   Muntele Rosu     75.08 329 P     P     21 21 55.6 +1.1
      comp=Z,28nm,0.6s
HARR  Harsova          75.14 327 P     P     21 21 55.0 +0.4
HARR  Harsova          75.14 327 ⇑P    P     21 21 55.0 +0.4
GRA1  Grafenberg Arr   75.14 340       P     21 21 55.2 +0.6
GRA1  Grafenberg Arr   75.14 340 P     P     21 21 56.0 +1.4
      comp=Z,24nm,0.9s
GRF   Grafenberg Arr   75.14 340 P     P     21 21 55.2 +0.6
GRF                              pmax  pmax
      comp=Z,27nm,1.1s
GRF   Grafenberg Arr   75.14 340 eP    P     21 21 55.9 +1.2
      comp=Z,26nm,1.1s,baz=20,slow=5.8
GRF                              eL    L     21 56 58.5
      comp=Z,370nm,20.8s
HGN   Heimansgroeve    75.14 344 P     P     21 21 55.8 +1.2
      comp=Z,23nm,1.0s
GRFO  Grafenberg       75.14 340 P     P     21 21 56.3 +1.7
GRFO  Grafenberg       75.14 340 P     P     21 21 56.3 +1.7
GRA2  Grafenberg Arr   75.15 340 P     P     21 21 56.2 +1.6
      comp=Z,24nm,0.9s
KHC   Kasperske Hory   75.15 338ceP    P     21 21 55.0 +0.3
KHC                              pmax  pmax
      comp=Z,16nm,1.0s
KHC   Kasperske Hory   75.15 338 eP    P     21 21 55.8 +1.1
KHC                              ex    x     21 22 07.0
KHC                              AMS   AMS   22 00 00.0
      comp=Z,900nm,17.1s
KHC   Kasperske Hory   75.15 338       P     21 21 55.3 +0.6
KHC                              IAmb  IAmb  21 21 58.0
      comp=Z,16nm,1.0s
KHC   Kasperske Hory   75.15 338 P     P     21 21 55.5 +0.8
      comp=Z,343nmcomp=Z,17nm,1.0s
KHC   Kasperske Hory   75.15 338 P     P     21 21 56.0 +1.3
      comp=Z,17nm,1.0s
WB0   Warramunga Arr   75.15 205       P     21 21 55.6 +0.7
WB0                              IAmb  IAmb  21 21 56.7
      comp=Z,7.3nm,0.8s
ZST   Bratislava       75.17 336 eP    P     21 21 57.1 +2.3
WB9   Warramunga Arr   75.18 205 P     P     21 21 55.6 +0.6
TIRR  Tirgusor         75.18 327 P     P     21 21 55.4 +0.5
TIRR  Tirgusor         75.18 327 ⇓P    P     21 21 55.5 +0.5
TIRR  Tirgusor         75.18 327 P     P     21 21 55.7 +0.8
      comp=Z,26nm,1.2s
SRO   Srobarova        75.21 335 P     P     21 21 57.1 +2.1
SRO   Srobarova        75.21 335 eP    P     21 21 56.8 +1.8
SRO   Srobarova        75.21 335 P     P     21 21 57.1 +2.1
      comp=Z,19nm,0.9s
ISR   Istrita          75.22 328 P     P     21 21 56.1 +0.9
ISR   Istrita          75.22 328 ⇓P    P     21 21 56.2 +0.9
WB6   Warramunga Arr   75.24 205 P     P     21 21 57.0 +1.6
WB5   Warramunga Arr   75.27 205 P     P     21 21 58.3 +2.7
CKRC  Cesky Krumlov    75.27 338 AMS   AMS   21 59 10.0
      comp=Z,900nm,16.4s
MEM   Membach          75.28 343 P     P     21 21 56.6 +1.2
MEM   Membach          75.28 343 dP    P     21 21 56.2 +0.9
      comp=Z,35nm,0.9s
MEM                              dx    x     21 22 07.2
MEM   Membach          75.28 343 P     P     21 21 56.6 +1.2
      comp=Z,50nm,1.1s
GRB4  Grafenberg Arr   75.28 340 P     P     21 21 57.2 +1.8
      comp=Z,20nm,1.0s
UNH   University of    75.28  36 P     P     21 21 56.0 +0.5
UNH                              IAmb  IAmb  21 22 08.3
      comp=Z,11nm,1.1s
WET   Wettzell         75.30 339 P     P     21 21 56.9 +1.4
WET   Wettzell         75.30 339 eP    P     21 21 56.7 +1.2
      comp=Z,11nm,1.0s,baz=20,slow=5.8
WET   Wettzell         75.30 339 P     P     21 21 56.9 +1.4
      comp=Z,13nm,1.0s
WR8   Warramunga Arr   75.31 205 P     P     21 21 56.1 +0.3
WR8                              IAmb  IAmb  21 21 57.9
      comp=Z,5.2nm,0.8s
WR7   Warramunga Arr   75.31 205 P     P     21 21 58.0 +2.2
BUD   Budapest         75.32 334 P     P     21 21 56.7 +1.1
BUD   Budapest         75.32 334 P     P     21 21 56.7 +1.1
      comp=Z,16nm,1.0s
WB2   Warramunga Arr   75.33 205 P     P     21 21 56.5 +0.6
GRB1  Grafenberg Arr   75.33 339 P     P     21 21 57.5 +1.8
GRB1  Grafenberg Arr   75.33 339 P     P     21 21 57.5 +1.8
      comp=Z,18nm,1.1s
BZK   Bozkurt          75.33 322 P     P     21 21 56.0 +0.2
WRA   Warramunga Arr   75.33 205 P     P     21 21 56.7 +0.8
      comp=Z,4.8nm,0.8s,baz=20,slow=6.1,SNR=20
      comp=Z,4.8nm,0.8s
WRA   Warramunga Arr   75.33 205 P     P     21 21 55.9 -0.1
WRA   Warramunga Arr   75.33 205       P     21 21 55.9 -0.1
GRB3  Grafenberg Arr   75.34 339 P     P     21 21 57.1 +1.3
      comp=Z,19nm,1.1s
WC4   Warramunga Arr   75.35 205 P     P     21 21 56.4 +0.3
UCC   Uccle            75.38 345 P     P     21 21 56.5 +0.6
UCC                              pmax  pmax
      comp=Z,8.0nm,0.9s
UCC   Uccle            75.38 345 P     P     21 21 56.5 +0.6
UCC                              IAmb  IAmb  21 21 59.4
      comp=Z,8.0nm,0.9s
UCC   Uccle            75.38 345 dP    P     21 21 57.3 +1.4
UCC                              dpP   pP    21 21 59.1  -10
UCC                              dPcP  PcP   21 22 09.1 +0.2
GEC2  GERESS Array S   75.39 338 eP    P     21 21 56.9 +0.7
      comp=Z,18nm,1.4s,baz=20,slow=5.8
GEC2  GERESS Array S   75.39 338 P     P     21 21 57.1 +0.9
      comp=Z,6.5nm,1.0s
GERES GERESS Array B   75.39 338 P     P     21 21 57.0 +0.8
      comp=Z,6.7nm,0.8s,baz=28,slow=3.6,SNR=44
      comp=Z,6.7nm,0.8s
GERES GERESS Array B   75.39 338 P     P     21 21 56.4 +0.2
GERES GERESS Array B   75.39 338       P     21 21 56.4 +0.2
VOIR                   75.41 329 P     P     21 21 57.2 +0.9
VOIR                   75.41 329 ⇓P    P     21 21 57.5 +1.2
VOIR                   75.41 329 P     P     21 21 57.4 +1.0
      comp=Z,20nm,0.8s
GRB2  Grafenberg Arr   75.44 339 P     P     21 21 57.7 +1.3
      comp=Z,11nm,0.9s
PAGS  Pennsylvania G   75.48  42 P     P     21 21 57.0 +0.3
PAGS                             IAmb  IAmb  21 21 58.1
      comp=Z,14nm,0.9s
WINA  Alland / Wiene   75.51 336 i pP  P     21 21 58.3 +1.5
      comp=Z,9.2nm,0.8s,SNR=5.7
TZTN  Tazewell         75.58  48 P     P     21 21 58.4 +1.0
TZTN                             IAmb  IAmb  21 22 11.0
      comp=Z,8.1nm,1.1s
BCLA  Clavier          75.58 344 dP    P     21 21 57.8 +0.7
      comp=Z,7.9nm,0.9s
BCLA                             dPcP  pP    21 22 08.9 -1.0
GRB5  Grafenberg Arr   75.59 339 P     P     21 21 58.4 +1.2
      comp=Z,12nm,0.8s
ODNJ  Ogdensburg       75.60  40 P     P     21 21 57.6 +0.2
ODNJ                             IAmb  IAmb  21 21 59.1
      comp=Z,12nm,1.1s
ARR   Arges            75.61 329 ⇓P    P     21 21 59.0 +1.6
ARR   Arges            75.61 329 P     P     21 21 58.9 +1.4
      comp=Z,16nm,0.8s
GRC4  Grafenberg Arr   75.65 339 P     P     21 21 58.6 +1.1
      comp=Z,14nm,0.9s
R55A  Marlinton        75.68  45 P     P     21 21 58.1 +0.2
R55A                             IAmb  IAmb  21 22 13.6
      comp=Z,12nm,1.1s
CONA  Conrad Observa   75.73 336 i pP  P     21 21 59.7 +1.6
      comp=Z,12nm,0.9s,SNR=10
WES   Weston           75.73  37 P     P     21 21 58.7 +0.6
WES                              pmax  pmax
      comp=Z,11nm,0.8s
WES   Weston           75.73  37 P     P     21 21 58.7 +0.6
WES                              IAmb  IAmb  21 22 00.4
      comp=Z,11nm,0.8s
GRC1  Grafenberg Arr   75.73 339 P     P     21 21 59.5 +1.5
      comp=Z,11nm,0.8s
TOKA  Tokat            75.76 319 P     P     21 21 57.8 -0.6
TOKA                             IAmb  IAmb  21 22 01.3
      comp=Z,16nm,1.0s
SOP   Sopron           75.78 336 P     P     21 22 00.1 +1.8
SOP   Sopron           75.78 336 P     P     21 22 00.1 +1.8
      comp=Z,15nm,1.2s
BMRD  Maredsous        75.79 344 dP    P     21 21 59.0 +0.7
      comp=Z,12nm,0.9s
LOT   Lotru            75.80 330 ⇑P    P     21 22 00.1 +1.5
LOT   Lotru            75.80 330 P     P     21 21 58.6  0.0
      comp=Z,7.4nm,0.8s
GRC3  Grafenberg Arr   75.82 339 P     P     21 21 59.7 +1.2
      comp=Z,14nm,0.9s
RONA  Rosalia, Austr   75.83 336 i pP  P     21 22 00.4 +1.7
      comp=Z,7.2nm,0.8s,SNR=7.1
RCHB  Rochefort        75.85 344 dP    P     21 21 59.1 +0.5
      comp=Z,8.8nm,1.0s
RCHB                             dPcP  PcP   21 22 11.2 +0.2
RCHB  Rochefort        75.85 344 P     P     21 21 59.4 +0.8
      comp=Z,13nm,1.1s
W50A  Signal Mountai   75.85  50 P     P     21 21 60.0 +1.0
W50A                             IAmb  IAmb  21 22 01.7
      comp=Z,6.8nm,0.8s
GRC2  Grafenberg Arr   75.89 339 P     P     21 22 00.3 +1.4
      comp=Z,22nm,0.9s
PAL   Palisades        75.94  39 P     P     21 21 59.1 -0.2
PAL                              pmax  pmax
      comp=Z,19nm,0.7s
PAL   Palisades        75.94  39 P     P     21 21 59.1 -0.2
BRNJ  Basking Ridge    75.96  40 P     P     21 21 59.4  0.0
BRNJ                             IAmb  IAmb  21 22 01.3
      comp=Z,16nm,0.9s
GIVF  Givet            75.97 344 eP    P     21 21 59.8 +0.5
GIVF                             pmax  pmax
      comp=Z,12nm,0.9s
MPLH  Magyarpolny      76.00 335 P     P     21 22 00.1 +0.5
      comp=Z,981nmcomp=Z,88nm,1.0s
MPLH  Magyarpolny      76.00 335 P     P     21 22 01.2 +1.7
      comp=Z,34nm,0.9s
ARPR  Arapgir-MALATY   76.04 317       P     21 21 59.8 -0.3
ARPR                             IAmb  IAmb  21 22 01.8
      comp=Z,16nm,1.0s
ARPR  Arapgir-MALATY   76.04 317 P     P     21 22 01.4 +1.2
      comp=Z,22nm,2.0s
BAIF  Baives           76.12 344 eP    P     21 22 00.7 +0.6
BAIF                             pmax  pmax
      comp=Z,9.0nm,0.8s
Z47A  Carrollton       76.14  53 P     P     21 22 00.9 +0.4
Z47A                             IAmb  IAmb  21 22 03.3
      comp=Z,12nm,0.8s
GZR   Gura Zlata       76.15 331 P     P     21 22 00.8 +0.3
GZR   Gura Zlata       76.15 331 ⇓P    P     21 22 01.4 +0.8
WLF   Walferdange      76.16 343 P     P     21 22 01.1 +0.7
WLF                              pmax  pmax
      comp=Z,5.0nm,0.8s
WLF   Walferdange      76.16 343 P     P     21 22 01.1 +0.7
WLF                              IAmb  IAmb  21 22 13.8
      comp=Z,5.4nm,0.8s
MOA   Molln            76.19 337 epP   P     21 22 01.7 +1.0
      comp=Z,8.5nm,1.0s
MOA   Molln            76.19 337 P     P     21 22 01.6 +1.0
      comp=Z,13nm,0.9s
TKL   Tuckaleechee C   76.20  49 LR    LR    21 56 06.9
      comp=Z,286nm,20.9s,baz=333,slow=36
ILGA  Ilgaz            76.22 321 P     P     21 22 02.3 +1.0
FITZ  Fitzroy Crossi   76.23 214 P     P     21 22 03.1 +2.0
      comp=Z,3.9nm,0.9s
FITZ  Fitzroy Crossi   76.23 214 LR    LR    21 54 53.1
      comp=Z,59nm,21.3s,baz=2.5,slow=35
FITZ  Fitzroy Crossi   76.23 214       P     21 22 01.6 +0.6
FITZ  Fitzroy Crossi   76.23 214 P     P     21 22 03.6 +2.6
      comp=Z,3.9nm,0.9s
BZS   Buzias           76.30 332 P     P     21 22 01.6 +0.4
BZS   Buzias           76.30 332 ⇓P    P     21 22 02.0 +0.8
BZS   Buzias           76.30 332 P     P     21 22 01.3 +0.1
      comp=Z,17nm,0.9s
L64A  Middleborough    76.30  37 P     P     21 22 01.3  0.0
L64A                             IAmb  IAmb  21 22 03.5
      comp=Z,17nm,0.9s
Y49A  Blount Mountai   76.42  52 P     P     21 22 02.4 +0.2
STU   Stuttgart        76.44 341 eP    P     21 22 02.9 +0.9
      comp=Z,29nm,0.8s,baz=20,slow=5.8
ARSA  Arzberg          76.44 336       P     21 22 02.4 +0.3
ARSA                             IAmb  IAmb  21 22 05.5
      comp=Z,13nm,1.1s
ARSA  Arzberg          76.44 336 i pP  P     21 22 03.4 +1.3
      comp=Z,8.9nm,1.0s,SNR=6.4
ARSA  Arzberg          76.44 336 P     P     21 22 03.7 +1.6
      comp=Z,14nm,1.0s
BIOA  Bad Ischl, Aus   76.49 338 epP   P     21 22 03.6 +1.3
      comp=Z,4.9nm,0.9s
COPA  Copaceanca       76.52 328 ⇑P    P     21 22 03.4 +0.8
FUR   Furstenfeldbru   76.57 339 P     P     21 22 03.8 +1.0
FUR   Furstenfeldbru   76.57 339 eP    P     21 22 03.8 +1.0
      comp=Z,24nm,1.0s,baz=20,slow=5.8
FUR   Furstenfeldbru   76.57 339 P     P     21 22 03.8 +1.0
      comp=Z,22nm,1.0s
MORH  Mrgy, Hungar     76.59 334 ⇓P    P     21 22 03.5 +0.6
MORH  Mrgy, Hungar     76.59 334⇑iP    P     21 22 02.8 -0.1
MORH  Mrgy, Hungar     76.59 334 P     P     21 22 02.9  0.0
      comp=Z,7.2nm,1.0s
MORH  Mrgy, Hungar     76.59 334 P     P     21 22 03.2 +0.3
      comp=Z,8.0nm,1.0s
RJOB  Jochberg         76.64 338 P     P     21 22 05.1 +1.9
      comp=Z,8.6nm,0.8s
HERR  Herculane        76.72 331 ⇓P    P     21 22 04.9 +1.2
SESA  Seetaler Alpe,   76.81 337 i pP  P     21 22 05.9 +1.5
      comp=Z,33nm,0.7s,SNR=14
BEHE  Becsehely        76.85 335 P     P     21 22 05.1 +0.7
BEHE                             IAmb  IAmb  21 22 07.6
      comp=Z,10nm,0.9s
BEHE  Becsehely        76.85 335⇑iP    P     21 22 05.5 +1.1
BEHE  Becsehely        76.85 335 P     P     21 22 06.4 +2.0
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      comp=Z,13nm,0.9s
VLAD  Vladila           76.91 329 ⇑P      P        21 22 05.5 +0.8
LESA  Schwarzleotal     76.96 338 i pP    P        21 22 06.2 +1.1
      comp=Z,7.0nm,0.8s,SNR=5.7
MDVR  Moldovita         77.03 331 ⇑P      P        21 22 05.6 +0.1
BFO   Black Forest      77.03 341  P      P        21 22 05.5 +0.1
BFO                                pmax   pmax
      comp=Z,7.0nm,1.0s
BFO   Black Forest      77.03 341         P        21 22 05.5 +0.1
BFO                                IAmb   IAmb     21 22 09.3
      comp=Z,7.5nm,1.0s
BFO   Black Forest      77.03 341 eP      P        21 22 06.3 +0.9
      comp=Z,8.2nm,1.2s,baz=20,slow=5.8
SOKA  Soboth            77.10 336 i pP    P        21 22 07.0 +1.1
      comp=Z,14nm,1.0s,SNR=11
PUNG  Punghina          77.11 330 ⇓P      P        21 22 06.0 +0.2
PERS  Pernice           77.12 336 i P     P        21 22 07.0 +1.1
KBA   Koelnbreinsper    77.13 338  P      P        21 22 08.0 +1.8
KBA   Koelnbreinsper    77.13 338 i pP    P        21 22 07.8 +1.6
      comp=Z,42nm,0.8s,SNR=36
KBA   Koelnbreinsper    77.13 338  P      P        21 22 08.0 +1.8
      comp=Z,79nm,0.9s
BG3   Lake Jocassee     77.14  49  P      P        21 22 06.8 +0.6
BG3                                IAmb   IAmb     21 22 09.4
      comp=Z,5.0nm,0.6s
CDF   Champ du Feu      77.16 342 eP      P        21 22 06.8 +0.6
CDF                                pmax   pmax
      comp=Z,10.0nm,0.8s
FRGS  Fruska Gora       77.23 333⇑iP      P        21 22 06.6  0.0
BNN   Bunyan            77.27 319         P        21 22 07.3 +0.3
BNN                                IAmb   IAmb     21 22 08.1
      comp=Z,11nm,0.9s
UBR   Ueberruh          77.28 340 eP      P        21 22 07.9 +1.0
      comp=Z,11nm,0.9s,baz=20,slow=5.8
UBR   Ueberruh          77.28 340  P      P        21 22 08.6 +1.7
      comp=Z,13nm,2.4s
WATA  Walderalm         77.29 339 i pP    P        21 22 08.2 +1.2
      comp=Z,11nm,1.0s,SNR=5.5
ZAVS  Zavodnje          77.33 336 i P     P        21 22 07.8 +0.7
RETA  Reutte            77.33 339 epP     P        21 22 08.2 +1.0
      comp=Z,8.5nm,1.0s
WTTA  Wattenberg        77.35 339 i pP    P        21 22 08.9 +1.5
      comp=Z,14nm,0.9s,SNR=8.3
WTTA  Wattenberg        77.35 339  P      P        21 22 09.0 +1.6
      comp=Z,20nm,1.1s
ECH   Echery            77.37 342  P      P        21 22 08.3 +1.0
ECH   Echery            77.37 342         P        21 22 07.2 -0.1
ECH                                IAmb   IAmb     21 22 09.3
      comp=Z,9.7nm,0.9s
ECH   Echery            77.37 342  P      P        21 22 08.3 +1.0
      comp=Z,14nm,1.1s
OBKA  Obir              77.38 337 i pP    P        21 22 08.5 +1.1
      comp=Z,8.8nm,0.7s,SNR=5.5
OBKA  Obir              77.38 337  P      P        21 22 08.7 +1.3
      comp=Z,20nm,1.1s
PLVB  Pleven            77.39 329 ⇓P      P        21 22 08.2 +0.8
MOTA  Moosalm           77.39 339 i pP    P        21 22 08.6 +1.0
      comp=Z,16nm,0.9s,SNR=12
BR131 Keskin Array S    77.40 321  P      P        21 22 08.3 +0.6
BR131 Keskin Array S    77.40 321c iP     P        21 22 07.9 +0.1
BR131 Keskin Array S    77.40 321         P        21 22 07.5 -0.2
BR131                              IAmb   IAmb     21 22 11.4
      comp=Z,7.3nm,0.8s
BRTR  Keskin Array B    77.40 321  P      P        21 22 08.1 +0.3
      comp=Z,4.0nm,0.5s,baz=26,slow=3.2,SNR=30
BRTR                               PP     PP       21 25 00.6 -1.3
      comp=Z,1.1nm,0.8s,baz=37,slow=6.1,SNR=4.4
BRTR                               LR     LR       22 03 16.4
      comp=Z,434nm,18.0s,baz=34,slow=41
      comp=Z,4.0nm,0.5s
BRTR  Keskin Array B    77.40 321  P      P        21 22 07.0 -0.8
BRTR  Keskin Array B    77.40 321         P        21 22 07.0 -0.8
BR106 Keskin Array S    77.40 321  P      P        21 22 08.1 +0.3
      comp=Z,63nmcomp=Z,5.7nm,1.2s
BR104 Keskin Array S    77.41 321  P      P        21 22 08.1 +0.3
      comp=Z,67nmcomp=Z,8.8nm,0.9s
BR105 Keskin Array S    77.41 321  P      P        21 22 08.1 +0.3
      comp=Z,87nmcomp=Z,9.5nm,0.7s
MYKA  Terra Mystica     77.48 337 eP      P        21 22 07.8 -0.2
      comp=Z,5.2nm,1.0s
SQTA  Sankt Quirin      77.48 339 i pP    P        21 22 09.5 +1.4
      comp=Z,16nm,0.8s,SNR=8.2
ACOM  Acomizza, Ital    77.59 337  P      P        21 22 09.9 +1.2
      comp=Z,22nm,1.0s
ABTA  Abfaltersbach     77.64 338 i P     P        21 22 09.8 +0.9
      comp=Z,16nm,0.9s,SNR=14
PRED  Cave del Predi    77.68 337         P        21 22 08.9 -0.2
PRED                               IAmb   IAmb     21 22 11.0
      comp=Z,8.8nm,0.7s
PRED  Cave del Predi    77.68 337  P      P        21 22 09.8 +0.7
      comp=Z,13nm,0.8s
GCIS  Gornji Cirnik     77.70 336 eP      P        21 22 09.9 +0.8
DAVA  Damuels           77.71 340 epP     P        21 22 10.4 +1.0
      comp=Z,12nm,1.0s
DAVA  Damuels           77.71 340  P      P        21 22 11.1 +1.7
      comp=Z,18nm,1.0s
HAU   Haudompre         77.72 342 eP      P        21 22 09.8 +0.5
HAU                                pmax   pmax
      comp=Z,6.0nm,0.4s
FETA  Feichten          77.78 339 i pP    P        21 22 11.1 +1.3
      comp=Z,12nm,0.9s,SNR=8.3
KIRS  Kirsehir-Merke    77.80 320 ⇓P      P        21 22 10.3 +0.4
HINF  Hinteralfeld      77.81 342 eP      P        21 22 10.0 +0.2
HINF                               pmax   pmax
      comp=Z,4.0nm,0.8s
LJU   Ljubljana         77.82 336 i P     P        21 22 10.1 +0.3
TEKS  Tekeris           77.87 332⇑iP      P        21 22 10.2  0.0
DRE   Drenchia          77.91 337  P      P        21 22 11.9 +1.5
      comp=Z,9.9nm,0.8s
PALK  Pallekele         77.93 266  LR     LR       21 59 32.3
      comp=Z,278nm,20.9s,baz=44,slow=38
PALK  Pallekele         77.93 266  P      P        21 22 11.8 +0.9
PALK  Pallekele         77.93 266  P      P        21 22 11.4 +0.5
PALK  Pallekele         77.93 266  P      P        21 22 11.3 +0.4
SHME  Shamm             77.96 297  P      P        21 22 10.9  0.0
      SNR=7.3
SHME  Shamm             77.96 297 i P     P        21 22 10.5 -0.4
      SNR=18
BANOM Banah             77.97 297  P      P        21 22 11.2 +0.2
BANOM Banah             77.97 297 i P     P        21 22 10.9 -0.1
      SNR=6.9
STAL  STALIGIAL         78.05 338  P      P        21 22 10.9 -0.2
STAL                               IAmb   IAmb     21 22 15.3
      comp=Z,5.3nm,0.8s
BOVS  Bovan             78.07 331 ⇓P      P        21 22 11.1 -0.2
FLN   La Foliniere      78.09 347 eP      P        21 22 11.5 +0.3
FLN                                pmax   pmax
      comp=Z,23nm,1.1s
SABO  M.te Sabotino     78.10 337  P      P        21 22 11.6 +0.2
SABO                               IAmb   IAmb     21 22 17.6
      comp=Z,8.1nm,1.1s
GAZ   Gaziantep         78.13 317  P      P        21 22 12.1 +0.3
BOURR Bourrignon        78.14 342  P      P        21 22 13.2 +1.6
      comp=Z,22nm,0.9s
ANDN  Andirin           78.15 318  P      P        21 22 13.0 +1.1
      comp=Z,78nm,0.9s
DAVOX Davos/Dischmat    78.19 340  LR     LR       22 02 05.2
      comp=Z,521nm,18.5s,baz=12,slow=40
LDF   La Druitiere      78.20 347 eP      P        21 22 15.9 +4.0
LDF                                pmax   pmax
      comp=Z,16nm,1.2s
FUORN Ofenpass-Fuorn    78.26 339  P      P        21 22 14.4 +1.8
      comp=Z,12nm,0.9s
BLY   Banja Luka        78.34 334⇑iP      P        21 22 09.8 -2.9
BNALP Bannalp           78.41 341  P      P        21 22 14.2 +0.9
      comp=Z,13nm,0.9s
MDH   Madha             78.47 296  P      P        21 22 14.0 +0.3
MASF  Masafi            78.48 296  P      P        21 22 14.3 +0.4
CTI   Castel Tesino     78.49 338  P      P        21 22 13.9 +0.2
CTI                                pmax   pmax
      comp=Z,9.0nm,0.6s
CTI   Castel Tesino     78.49 338         P        21 22 13.9 +0.2
CTI                                IAmb   IAmb     21 22 28.3
      comp=Z,9.2nm,0.6s
MSFE  Esma-Masafi       78.49 296 i P     P        21 22 13.8 -0.1
      SNR=6.6
GRR   Gorron            78.50 347 eP      P        21 22 14.0 +0.5
GRR                                pmax   pmax
      comp=Z,41nm,1.3s
BBLS  Lazi&#263i        78.53 332⇑iP      P        21 22 14.4 +0.5
TUE   Stuetta           78.60 340         P        21 22 14.8 +0.5
TUE   Stuetta           78.60 340  P      P        21 22 15.0 +0.6
      comp=Z,89nm,0.8s
TUE   Stuetta           78.60 340  P      P        21 22 15.9 +1.5
      comp=Z,22nm,0.8s
CGRP  Cima Grappa       78.62 338  P      P        21 22 15.2 +0.8
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      comp=Z,16nm,0.8s
WSAR  Wadi Sarin        78.78 293  P      P        21 22 16.1 +0.5
      SNR=5.5
UOSS  Minazif           78.80 296  P      P        21 22 15.3 -0.3
UOSS  Minazif           78.80 296  P      P        21 22 14.2 -1.3
UOSS  Minazif           78.80 296 i P     P        21 22 15.3 -0.3
      SNR=5.9
UOSS  Minazif           78.80 296  P      P        21 22 15.1 -0.5
      comp=Z,43nm,0.8s
SGMF  Saint Gilles      78.86 348 eP      P        21 22 16.0 +0.5
SGMF                               pmax   pmax
      comp=Z,18nm,0.7s
ROSF  Rostrenen         78.86 349 eP      P        21 22 16.2 +0.7
ROSF                               pmax   pmax
      comp=Z,44nm,1.1s
LOR   Lormes            78.88 344 eP      P        21 22 16.2 +0.5
LOR                                pmax   pmax
      comp=Z,8.0nm,0.6s
LOR   Lormes            78.88 344  P      P        21 22 16.7 +1.0
      comp=Z,14nm,0.6s
SJES  Sjenica           78.92 332⇑iP      P        21 22 16.6 +0.5
HATD  Hatta, Dubai      78.93 296  P      P        21 22 17.0 +0.7
      SNR=12
HATD  Hatta, Dubai      78.93 296 i P     P        21 22 16.2 -0.1
      SNR=24
AS06  Alice Springs     78.97 205  P      P        21 22 17.5 +1.2
      comp=Z,7.9nm,0.7s
AS16  Alice Springs     78.97 205  P      P        21 22 18.3 +1.9
      comp=Z,8.7nm,0.7s
AS15  Alice Springs     78.97 205  P      P        21 22 18.0 +1.7
      comp=Z,8.5nm,0.7s
AS17  Alice Springs     78.98 204  P      P        21 22 17.9 +1.6
      comp=Z,6.8nm,0.7s
AS14  Alice Springs     78.99 205  P      P        21 22 18.2 +1.8
      comp=Z,7.7nm,0.7s
AS01  Alice Springs     78.99 205  P      P        21 22 17.9 +1.5
      comp=Z,9.1nm,0.8s
AS31  Alice Springs     79.00 205  P      P        21 22 15.9 -0.6
ASAR  Alice Springs     79.01 205  P      P        21 22 18.3 +1.8
      comp=Z,4.8nm,0.6s,baz=17,slow=5.3,SNR=75
ASAR                               LR     LR       21 55 41.9
      comp=Z,82nm,21.7s,baz=15,slow=34
      comp=Z,4.8nm,0.6s
ASAR  Alice Springs     79.01 205  P      P        21 22 16.2 -0.3
ASAR  Alice Springs     79.01 205  P      P        21 22 16.2 -0.3
AS03  Alice Springs     79.01 205  P      P        21 22 18.0 +1.5
      comp=Z,9.2nm,0.8s
AS09  Alice Springs     79.03 205  P      P        21 22 18.5 +1.9
      comp=Z,9.8nm,0.8s
NAZ   Nazwa, Dubai      79.06 297 i P     P        21 22 16.4 -0.6
      SNR=7.0
ASHO  Ashiyiah          79.08 296  P      P        21 22 18.0 +0.8
      SNR=8.3
ASHO  Ashiyiah          79.08 296 i P     P        21 22 17.1 -0.1
      SNR=17
WBK   Wadi Bani Khal    79.09 293  P      P        21 22 17.9 +0.7
CABF  La Chapelle       79.11 342 eP      P        21 22 18.0 +1.0
CABF                               pmax   pmax
      comp=Z,12nm,1.0s
SENIN Lac Senin/Sane    79.12 341         P        21 22 18.2 +1.0
SENIN                              IAmb   IAmb     21 22 22.1
      comp=Z,5.2nm,0.9s
TEOL  Teolo             79.14 338         P        21 22 17.4 +0.3
ALN   Alexandroupoli    79.14 326  P      P        21 22 17.4 +0.3
ALN                                pmax   pmax
      comp=Z,16nm,0.9s
ALN   Alexandroupoli    79.14 326  P      P        21 22 17.4 +0.3
ALN                                IAmb   IAmb     21 22 18.6
      comp=Z,16nm,0.9s
JLN   Jalan Bani Buh    79.20 292  P      P        21 22 18.5 +0.7
      SNR=5.7
SOHO  SOHO              79.25 295 i P     P        21 22 18.0 -0.1
      SNR=34
HOQ   Hoqain            79.26 295  P      P        21 22 18.1  0.0
      SNR=6.2
PEHC  Pehcevo           79.38 329 i P     P        21 22 20.8 +2.2
AVF   Avril sur Loir    79.42 344 eP      P        21 22 19.3 +0.7
AVF                                pmax   pmax
      comp=Z,17nm,0.8s
BALB  Balikesir         79.62 325         P        21 22 20.1 +0.3
BRY   Bratogost         79.67 332 eP      P        21 22 18.8 -1.4
ALNE  Al Ain            79.75 296  P      P        21 22 20.9 +0.1
      SNR=9.1
ALNE  Al Ain            79.75 296 i P     P        21 22 20.6 -0.2
      SNR=14
SRS   Serrai            79.76 328  P      P        21 22 21.4 +0.8
SRS   Serrai            79.76 328  P      P        21 22 21.4 +0.8
      comp=Z,40nm,0.9s
JMDO  Jabal Madar       79.77 293  P      P        21 22 21.2 +0.4
      SNR=12
ARQ   Araqi             79.89 295  P      P        21 22 22.0 +0.4
      SNR=8.3
TREB  Trebinje          79.89 333 eP      P        21 22 20.8 -0.4
PDG   Podgorica         79.90 332         P        21 22 21.1 -0.1
PDG   Podgorica         79.90 332 ⇑P      P        21 22 22.0 +0.8
PDG   Podgorica         79.90 332⇑iP      P        21 22 21.9 +0.7
VAY   Valandovo         79.90 329 i P     P        21 22 21.9 +0.6
KNT   Kendrikon         79.94 329  P      P        21 22 25.3 +3.7
NHSC  New Hope          79.97  48  P      P        21 22 22.6 +0.8
BSY   Bisya             79.98 294  P      P        21 22 22.6 +0.5
      SNR=12
PRMA  PARMA             80.01 339  P      P        21 22 23.0 +1.2
LPL   La Plagne         80.04 341 eP      P        21 22 23.7 +1.4
LPL                                pmax   pmax
      comp=Z,16nm,0.6s
LPG   La Plagne         80.06 341 eP      P        21 22 24.0 +1.6
LPG                                pmax   pmax
      comp=Z,17nm,0.7s
Y60A  Bolivia           80.10  46  P      P        21 22 23.1 +0.7
HCY   Herceg Novi       80.10 332 eP      P        21 22 21.7 -0.7
DRME  Dracevica, Mon    80.14 332⇑iP      P        21 22 24.7 +2.1
MFF   Saint Martin d    80.16 346 eP      P        21 22 23.5 +0.9
MFF                                pmax   pmax
      comp=Z,35nm,0.8s
ZCCA  Zocca             80.25 338  P      P        21 22 24.0 +0.8
ZCCA                               IAmb   IAmb     21 22 31.9
      comp=Z,10nm,0.8s
GRG   Griva             80.29 329  P      P        21 22 24.5 +1.0
GRG   Griva             80.29 329  P      P        21 22 24.5 +1.0
      comp=Z,70nm,1.0s
MANT  Manisa            80.39 324         P        21 22 23.8 -0.5
VLC   Villacollemand    80.57 339  P      P        21 22 26.8 +1.9
      comp=Z,15nm,0.8s
KEPZ  Antalya-Kepez     80.64 321 ⇓P      P        21 22 25.3 -0.1
OHR   Ohrid             80.64 330 i P     P        21 22 25.9 +0.5
SSB   Saint Sauveur     80.68 343  P      P        21 22 26.0 +0.5
SSB                                pmax   pmax
      comp=Z,12nm,0.5s
SSB   Saint Sauveur     80.68 343         P        21 22 26.0 +0.5
SSB   Saint Sauveur     80.68 343  P      P        21 22 27.1 +1.6
      comp=Z,18nm,0.7s
ORIF  Oris-en-Rattie    80.78 342 eP      P        21 22 27.6 +1.5
ORIF                               pmax   pmax
      comp=Z,14nm,0.8s
ORIF  Oris-en-Rattie    80.78 342  P      P        21 22 28.0 +1.9
      comp=Z,19nm,0.8s
GUMA  Gualdo di Mace    80.91 336  P      P        21 22 27.4 +0.6
MURB  Monte Urbino      80.92 337  P      P        21 22 28.1 +1.3
MHTO  MHTO              80.93 292  P      P        21 22 27.8 +0.6
      SNR=12
RAR   Rarotonga         80.97 143  LR     LR       21 57 08.3
      comp=Z,160nm,18.7s,baz=306,slow=35
FDMO  Fiordimonte       80.99 336         P        21 22 27.0 -0.2
FDMO                               IAmb   IAmb     21 22 36.0
      comp=Z,13nm,0.7s
MZWR  Madinat Zayed     81.02 297  P      P        21 22 27.6 +0.1
SAKB  Bahrain           81.03 301  P      P        21 22 27.9 +0.3
LIT   Litokhoron        81.03 329  P      P        21 22 28.4 +1.0
LIT                                pmax   pmax
      comp=Z,17nm,1.0s
LIT   Litokhoron        81.03 329  P      P        21 22 28.4 +1.0
LIT                                IAmb   IAmb     21 22 38.6
      comp=Z,17nm,1.0s
VIVF  Saint-Julien-l    81.07 343 eP      P        21 22 28.9 +1.4
VIVF                               pmax   pmax
      comp=Z,19nm,0.8s
KBN   Korca             81.09 330  P      P        21 22 28.6 +0.8
KBN   Korca             81.09 330  P      P        21 22 28.6 +0.8
      comp=Z,26nm,0.9s
UMZA  Um Al Zommool     81.14 296  P      P        21 22 28.0 -0.3
TAVA  DENIZLI_Tavas     81.17 323 ⇑P      P        21 22 29.5 +1.2
RJF   Les Rejaudoux     81.17 345 eP      P        21 22 29.2 +1.1
RJF                                pmax   pmax
      comp=Z,22nm,0.7s
NRCA  Norcia            81.18 336  P      P        21 22 29.1 +0.9
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MBWA  Marble Bar        81.18 218  P      P        21 22 28.5 +0.3
MBWA                               IAmb   IAmb     21 22 30.0
      comp=Z,10nm,0.9s
ISO   Isola             81.26 341  P      P        21 22 30.1 +1.5
ISO   Isola             81.26 341  P      P        21 22 30.1 +1.5
      comp=Z,10nm,0.8s
AYDN  Tasoluk           81.38 324  P      P        21 22 30.2 +0.8
      comp=Z,185nm,0.8s
ELL   Elmali            81.43 322  P      P        21 22 29.1 -0.6
ELL                                pmax   pmax
      comp=Z,18nm,0.9s
ELL   Elmali            81.43 322  P      P        21 22 29.1 -0.6
INKA  Innaminka         81.43 197  P      P        21 22 29.5 +0.1
CAF   Calviac           81.45 345 eP      P        21 22 31.1 +1.5
CAF                                pmax   pmax
      comp=Z,11nm,0.7s
CESX  Cesi              81.52 337  P      P        21 22 28.4 -1.6
CESX                               IAmb   IAmb     21 22 35.8
      comp=Z,6.7nm,0.6s
ESCA  l'Escarene        81.53 341  P      P        21 22 31.0 +1.0
      comp=Z,19nm,0.8s
AQU   L'Aquila          81.56 336  P      P        21 22 32.9 +2.7
AQU   L'Aquila          81.56 336 eP      P        21 22 31.1 +0.9
AQU   L'Aquila          81.56 336  P      P        21 22 32.9 +2.7
      comp=Z,26nm,1.0s
MON   Monaco            81.62 341  P      P        21 22 32.7 +2.3
      comp=Z,29nm,0.8s
CSS   Mathiatis         81.64 318  P      P        21 22 30.3 -0.4
CSS   Mathiatis         81.64 318  P      P        21 22 30.8 +0.1
      comp=Z,513nmcomp=Z,32nm,0.9s
CSS   Mathiatis         81.64 318  P      P        21 22 30.9 +0.2
      comp=Z,32nm,0.9s
LFF   La Frestale       81.65 346 eP      P        21 22 31.9 +1.3
LFF                                pmax   pmax
      comp=Z,28nm,0.6s
CY602 RAF Akrotiri,     81.68 317  P      P        21 22 30.4 -0.1
CY606 RAF Akrotiri,     81.68 317         P        21 22 29.3 -1.3
CY601 RAF Akrotiri,     81.68 317  P      P        21 22 29.0 -1.5
CY604 RAF Akrotiri,     81.69 317  P      P        21 22 30.2 -0.4
CY603 RAF Akrotiri,     81.69 317  P      P        21 22 30.7 +0.1
CALF  Calern            81.70 341  P      P        21 22 32.5 +1.5
      comp=Z,14nm,0.8s
INTR  Introdacqua       81.75 335  P      P        21 22 30.6 -0.6
MZR   Muzera            81.84 297  P      P        21 22 31.8 -0.1
      SNR=6.0
MZR   Muzera            81.84 297 i P     P        21 22 32.1 +0.1
      SNR=20
WRKA  Warakurna         81.86 209  P      P        21 22 33.3 +1.5
      comp=Z,3.7nm,0.7s
PPT   Papeete           81.94 132  LR     LR       21 52 32.9
      comp=Z,236nm,18.9s,baz=338,slow=31
MMAI  Mount Meron Ar    82.45 316  P      P        21 22 35.8 +0.8
      comp=Z,19nm,0.7s,baz=27,slow=10,SNR=43
MMAI                               LR     LR       22 06 20.1
      comp=Z,343nm,18.2s,baz=42,slow=41
      comp=Z,19nm,0.7s
ASF   Jabal al Asfar    82.52 314  LR     LR       22 06 48.6
      comp=Z,387nm,18.1s,baz=22,slow=41
MMLI  Mount Malkishu    82.94 316  P      P        21 22 38.4 +0.9
      comp=Z,75nm,0.8s
MTLF  Montolieu         82.97 344 eP      P        21 22 39.0 +1.5
MTLF                               pmax   pmax
      comp=Z,13nm,0.8s
MTLF  Montolieu         82.97 344  P      P        21 22 39.5 +2.0
      comp=Z,20nm,1.2s
UJAP  Al Uja            83.33 315  P      P        21 22 40.2 +0.7
      comp=Z,49nm,1.0s
EPF   Esparros          83.57 345 eP      P        21 22 40.6 -0.1
EPF                                pmax   pmax
      comp=Z,39nm,0.7s
TIP   Timpagrande       83.62 332  P      P        21 22 41.3 +0.3
TIP                                IAmb   IAmb     21 22 47.2
      comp=Z,8.3nm,0.6s
TIP   Timpagrande       83.62 332 ⇓P      P        21 22 41.1  0.0
GHAJ  Ghor Haditha      83.85 315         P        21 22 42.8 +0.6
GHAJ  Ghor Haditha      83.85 315  P      P        21 22 43.2 +1.0
      comp=Z,23nm,0.8s
CEST  Esterri de Car    83.85 345         P        21 22 43.2 +1.0
ITM   Ithomi            83.87 328  P      P        21 22 42.0 -0.2
MSBI  Mazada            83.93 315  P      P        21 22 43.3 +0.8
      comp=Z,27nm,0.9s
COCO  West Island       84.08 242  P      P        21 22 43.8 +0.4
COCO                               pmax   pmax
      comp=Z,118nm,1.2s
COCO  West Island       84.08 242  P      P        21 22 43.8 +0.4
KZIT  Kziot             84.69 316  P      P        21 22 46.9 +0.4
      comp=Z,61nm,0.9s
IMMV  Iera Moni Meta    84.73 326  P      P        21 22 46.8 +0.2
      comp=Z,78nm,0.9s
HRFI  Mount Harif       85.17 315  P      P        21 22 49.5 +0.6
STKA  Stephens Creek    85.32 196  P      P        21 22 51.2 +2.0
      comp=Z,2.8nm,0.8s,baz=353,slow=8.1,SNR=5.0
STKA                               LR     LR       21 58 24.9
      comp=Z,130nm,21.1s,baz=18,slow=34
      comp=Z,2.8nm,0.8s
EIL   Elat              85.52 315  LR     LR       22 05 53.4
      comp=Z,238nm,20.7s,baz=55,slow=39
EIL   Elat              85.52 315  P      P        21 22 51.2 +0.6
      comp=Z,19nm,0.9s
RAYN  Ar Rayn           85.66 303  P      P        21 22 51.5  0.0
RAYN  Ar Rayn           85.66 303  P      P        21 22 50.7 -0.8
RAYN                               pmax   pmax
      comp=Z,9.0nm,0.7s
RAYN  Ar Rayn           85.66 303         P        21 22 50.7 -0.8
RAYN  Ar Rayn           85.66 303 i P     P        21 22 51.5  0.0
      SNR=22
RAYN  Ar Rayn           85.66 303  P      P        21 22 51.6 +0.1
      comp=Z,18nm,1.4s
PGAV  Gavieira, Arco    85.69 351 eP      P        21 22 53.9 +2.5
PGAV                              eLR     LR       22 01 59.5
PGAV                              i IAMs_20 IAMs_20 22 11 08.2
      comp=Z,213nm,18.0s
PBRG  Braganca          85.70 350 eP      P        21 22 53.1 +1.6
PBRG                              i IAmb  IAmb     21 23 16.8
      comp=Z,19nm,1.4s
EBR   Ebro Roquetas     85.71 345  P      P        21 22 51.9 +0.5
EBR   Ebro Roquetas     85.71 345  P      P        21 22 51.9 +0.5
WHFO  Wadi Hawf         85.75 294  P      P        21 22 51.1 -0.9
VAE   Valguarnera       85.87 333  LR     LR       22 06 55.6
      comp=Z,442nm,18.0s,baz=10,slow=40
PCAB  Cabril            85.92 351 eP      P        21 22 54.6 +2.1
PCAB                              i IAmb  IAmb     21 23 04.4
      comp=Z,27nm,1.3s
RAFF  Raffo Rosso       86.12 333  P      P        21 22 53.7 +0.2
POLO  Lamas de Olo      86.23 351 eP      P        21 22 56.0 +1.9
PVRL  Vila Real         86.32 351 eP      P        21 22 56.5 +2.0
PVRL                              i IAmb  IAmb     21 22 57.3
      comp=Z,30nm,0.8s
MEEK  Meekatharra       86.58 217  P      P        21 22 56.3 +0.7
      comp=Z,22nm,0.9s
UCM   Universidad Co    86.76 347  P      P        21 22 58.5 +1.9
      comp=Z,22nm,1.0s
PVIS  Viseu             86.89 351 eP      P        21 22 59.1 +1.8
MTE   Manteigas         87.17 351 eP      P        21 23 01.2 +2.5
MTE                               eS      S        21 33 49.0  +14
MTE                               eLR     LR       22 02 28.6
MTE                               i IAMs_20 IAMs_20 22 09 34.5
      comp=Z,278nm,18.0s
MTE   Manteigas         87.17 351  P      P        21 22 59.0 +0.3
ESBB  Sonseca Array     87.48 348  P      P        21 23 00.0 -0.1
ESBB                               IAmb   IAmb     21 23 02.1
      comp=Z,7.2nm,1.0s
ESDC  Sonseca Array     87.48 348  P      P        21 23 01.0 +0.8
      comp=Z,7.1nm,0.9s,baz=5.0,slow=4.6,SNR=30
ESDC                               LR     LR       22 07 06.6
      comp=Z,183nm,18.1s,baz=22,slow=39
      comp=Z,7.1nm,0.9s
ESDC  Sonseca Array     87.48 348  P      P        21 23 00.1 -0.1
PCAS  Casmilo, Conde    87.61 351 eP      P        21 23 00.9 +0.2
PCBR  Castelo Branco    87.72 351 eP      P        21 23 02.6 +1.4
PMRV  Marv??o           88.12 351 eS      S        21 34 00.5  +17
PMRV                              eLR     LR       22 02 57.5
PMRV                              i IAMs_20 IAMs_20 22 10 12.2
      comp=Z,298nm,20.0s
KEST  Kesra             88.83 337  P      P        21 23 07.2 +0.5
      comp=Z,9.3nm,0.8s,baz=352,slow=5.3,SNR=13
KEST                               LR     LR       22 08 36.2
      comp=Z,552nm,18.7s,baz=48,slow=40
      comp=Z,9.3nm,0.8s
KEST  Kesra             88.83 337  P      P        21 23 07.7 +1.1
KEST  Kesra             88.83 337  P      P        21 23 05.7 -1.0
MOE   Montemor          89.11 351 eP      P        21 23 08.8 +1.0
PVAQ  Vaqueiros         90.15 351 eS      S        21 34 05.2 +2.6
PVAQ                              eLR     LR       22 03 13.8
PVAQ                              i IAMs_20 IAMs_20 22 11 32.6
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       comp=Z,370nm,20.0s
URZ    Urewera           91.27 167   LR        LR        21 58 43.8
       comp=Z,107nm,20.5s,baz=356,slow=32
MDT    Midelt            94.32 347   LR        LR        22 09 43.0
       comp=Z,80nm,20.9s,baz=42,slow=38
PMOZ   Porto Moniz, M    95.31 358 i IAMs_20   IAMs_20   22 10 47.3
       comp=Z,90nm,22.0s
RPZ    Rata Peaks        95.99 172   LR        LR        22 04 09.7
       comp=Z,36nm,18.3s,baz=112,slow=34
JTS    Las Juntas de     96.51  64   LR        LR        22 11 40.0
       comp=Z,50nm,18.3s,baz=328,slow=38
ATD    Arta Tunnel       96.99 299   LR        LR        22 13 27.7
       comp=Z,32nm,18.2s,baz=17,slow=39
TORD   Torodi Ar. Bea   112.34 337   PP        PP        21 29 27.9  -5.5
       comp=Z,2.5nm,0.8s,baz=2.8,slow=7.9,SNR=8.0
LPAZ   La Paz           127.71  65   PKP       PKiKP     21 29 20.4  +1.2
       comp=Z,1.8nm,0.8s,baz=80,slow=0.4,SNR=5.7
PSGCX  Pisagua          129.22  70⇑eP        PKPdf     21 29 19.9  -0.9
PSGCX                              eS        sPKPdf    21 29 37.0  -2.0
PSGCX  Pisagua          129.22  70   PKPdf     PKiKP     21 29 21.4  -0.1
VNDA   Vanda            129.46 180   PKP       PKiKP     21 29 21.4  +1.2
       comp=Z,0.8nm,1.0s,baz=249,slow=2.9,SNR=4.1
PB05   IPOC Station P   131.70  72             PKPdf     21 29 24.6  -0.8
PTLB   Pontes e Lacer   131.82  55   PKPdf     PKiKP     21 29 27.1  +0.4
QSPA   South Pole Qui   141.95 180   PKhKP     PKPpre    21 29 37.8
       comp=Z,2.5nm,0.6s,baz=302,slow=0.8,SNR=35
QSPA   South Pole Qui   141.95 180             PKPpre    21 29 38.3
QSPA                                 PKPdf     PKPdf     21 29 42.9   0.0
PLCA   Paso Flores      143.85  92   PKP       PKiKP     21 29 49.2  -1.4
       comp=Z,3.1nm,0.9s,baz=268,slow=2.8,SNR=6.1
LL02   Futaleuf         144.45  97   PKPdf     PKPdf     21 29 49.1  +1.0
CPSB   Cacapava Do Su   147.03  62             PKPab     21 29 56.0  -0.5
SMAI   San Martin Ant   152.47 143             PKiKP     21 30 09.7  +2.3
BELA   Belgrano 2       153.65 173   PKPbc     PKiKP     21 30 10.0  +0.3
TROLL  Troll, Antarti   157.86 198 ⇓PKPab     PKPab     21 30 41.6  +0.7
       comp=Z,99nm,0.5s
VNA3   Neumayer Olymp   160.37 190 ⇓PKPab     PKPab     21 30 52.4  +0.7
       comp=Z,5.4nm,0.7s
VNA2   Neumayer--Watz   160.41 192 ⇑PKPab     PKPab     21 30 52.6  +0.8
       comp=Z,1.5nm,0.6s,baz=159,slow=1.4
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*KRSC **04** 21:14:22.4±1.8, 52.°08N×160.°43E, h18km±25km, Ml5.2*

*BJI **04** 21:14:23.4, 52.°58N×160.°15E, h34km, mB4.9/5, mb4.7/39, Ms5.2/11, Ms7 5.1/11*

*MOS **04** 21:14:25.6±1.0, 52.°10N×160.°25E, h48km, mb4.8/45, Error ellipse: s-maj=7.5km s-min=4.1km az=99.7*

*IDC **04** 21:14:26.9±2.9, 52.°36N×159.°94E, h33km±19km, mb4.2/32, mbtmp4.4/34, ML5.0/2, Error ellipse: s-maj=17.2km s-min=12.0km az=131.0*

*NEIC **04** 21:14:26.1±2.3, 52.°21N±0.°07×160.°11E±0.°09, h35km±1km, mb4.7/91, Error ellipse: s-maj=12.9km s-min=9.3km az=198.0*

*GFZ **04** 21:14:28.0±0.5, 52°N±5°×16°0E±°, h38km, M4.9/32, mb4.9/32*

ISC 04 21:14:27.4±0.7**, 52.°21N**±0.°04×**160.°20E**±0.°04**, h49**km±5km**, n484, σ1.°44**/510**, mb4.7**/150**, MS5.0**/6**, 17C-16D, Off east coast of Kamchatka Peninsula**

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Code   Station Name       Δ°   AZ°     Phase ID               Time     Res
                                     Op        ISC        h  m  s     ISC
SPN    Mys Shipunski      0.89 353   PN        Pn        21 14 42.2  -1.4
SPN                                  S         Sn        21 14 54.9  -0.6
SPN    Mys Shipunski      0.89 353  eP         Pn        21 14 42.3  -1.4
SPN                                 eS         Sn        21 14 55.0  -0.6
RUS    Russkaya           1.06 283   PN        Pn        21 14 45.0  -0.8
RUS                                  S         Sn        21 15 00.8  +1.4
RUS    Russkaya           1.06 283  eP         Pn        21 14 45.0  -0.8
RUS                                 eS         Sn        21 15 00.9  +1.4
NLC    Nalytchevo         1.09 332   PN        Pn        21 14 45.6  -0.6
NLC                                  S         Sn        21 15 02.0  +1.8
NLC    Nalytchevo         1.09 332  eP         Pn        21 14 45.7  -0.6
NLC                                 eS         Sn        21 15 02.0  +1.8
DALK   Dalny              1.20 314   PN        Pn        21 14 47.2  -0.6
DALK                                 S         Sn        21 15 04.2  +1.3
DALK   Dalny              1.20 314  eP         Pn        21 14 47.2  -0.6
DALK                                eS         Sn        21 15 04.2  +1.3
PET    Petropavlovsk      1.24 311α iPN        Pn        21 14 47.9  -0.4
PET                                 eS         Sn        21 15 05.5  +1.6
PET                                  pmax      pmax
       comp=Z,3µm,0.7s
PET                                  smax      smax
       comp=E,9µm,0.7s
PET                                  smax      smax
       comp=N,7µm,0.5s
PET    Petropavlovsk      1.24 311   Pn        Pn        21 14 47.2  -1.1
PET                                  Sn        Sn        21 15 04.8  +0.9
PET    Petropavlovsk      1.24 311   P         Pn        21 14 43.8  -4.5
PET                                  AML       AML
PET    Petropavlovsk      1.24 311   P         Pn        21 14 48.1  -0.2
MTVR   Mutnovka           1.26 283   PN        Pn        21 14 48.4  -0.3
MTVR   Mutnovka           1.26 283  eP         Pn        21 14 48.5  -0.3
INSR   Institute          1.29 312   PN        Pn        21 14 48.6  -0.4
INSR                                 S         Sn        21 15 06.6  +1.5
INSR   Institute          1.29 312  eP         Pn        21 14 48.7  -0.4
INSR                                eS         Sn        21 15 06.6  +1.5
UGLR   Uglovaya           1.30 321   PN        Pn        21 14 49.1  -0.1
UGLR   Uglovaya           1.30 321  eP         Pn        21 14 49.1  -0.1
SDLR   Sedlovina          1.33 324   PN        Pn        21 14 49.3  -0.4
SDLR   Sedlovina          1.33 324  eP         Pn        21 14 49.3  -0.4
GRL    Gorelyy            1.34 285   PN        Pn        21 14 50.2  +0.4
GRL    Gorelyy            1.34 285  eP         Pn        21 14 50.3  +0.4
SMAR   Somma              1.35 322   PN        Pn        21 14 50.0   0.0
SMAR   Somma              1.35 322  eP         Pn        21 14 50.1   0.0
KDTR   Khodutka, Kamc     1.37 254   PN        Pn        21 14 49.2  -0.8
KDTR                                 S         Sn        21 15 08.0  +1.0
KDTR   Khodutka, Kamc     1.37 254  eP         Pn        21 14 49.2  -0.8
KDTR                                eS         Sn        21 15 08.1  +1.0
AVH    Avacha             1.38 321   PN        Pn        21 14 50.2   0.0
AVH    Avacha             1.38 321  eP         Pn        21 14 50.3   0.0
KRER   Koryakskii         1.40 322   PN        Pn        21 14 51.0  +0.3
KRER   Koryakskii         1.40 322  eP         Pn        21 14 51.0  +0.3
KRMR   Karymshinskiy      1.41 297   PN        Pn        21 14 50.4  -0.1
KRMR                                 S         Sn        21 15 11.6  +3.7
KRMR   Karymshinskiy      1.41 297  eP         Pn        21 14 50.4  -0.1
KRMR                                eS         Sn        21 15 11.6  +3.7
ASAK   Asacha             1.42 278   PN        Pn        21 14 51.1  +0.3
ASAK   Asacha             1.42 278  eP         Pn        21 14 51.1  +0.3
KOK    Koryaka            1.44 319   PN        Pn        21 14 51.5  +0.4
KOK    Koryaka            1.44 319  eP         Pn        21 14 51.6  +0.4
KRX    Arik               1.48 321   PN        Pn        21 14 51.3  -0.4
KRX    Arik               1.48 321  eP         Pn        21 14 51.4  -0.4
I44RU  PETROPAVLOVSK-     1.76 302   Pg        Pn        21 14 57.0  +1.6
       baz=81,slow=23
PEA0B  Petropavlovsk-     1.77 302 i PN        Pn        21 14 54.6  -0.9
PEA0B  Petropavlovsk-     1.77 302   Pn        Pn        21 14 54.5  -1.0
PEA0B                                Sn        Sn        21 15 20.3  +3.5
PETK   Petropavlovsk-     1.77 302   Pg        Pn        21 14 56.0  +0.5
       comp=N,191nm,0.3s,baz=103,slow=19,SNR=46
PETK                                 Lg        Lg        21 15 18.0
       comp=N,136nm,0.3s,baz=115,slow=20,SNR=5.4
PETK   Petropavlovsk-     1.77 302   PN        Pn        21 14 56.0  +0.5
PETK   Petropavlovsk-     1.77 302   Pn        Pn        21 14 55.8  +0.3
PETK                                 Sn        Sn        21 15 19.5  +2.7
KII    Karymskiy          1.88 346   PN        Pn        21 14 57.1   0.0
KII    Karymskiy          1.88 346  eP         Pn        21 14 57.1   0.0
APC    Apacha             1.99 292   PN        Pn        21 14 59.5  +1.0
APC                                  S         Sn        21 15 28.8  +6.7
APC    Apacha             1.99 292  eP         Pn        21 14 59.5  +1.0
APC                                 eS         Sn        21 15 28.8  +6.7
GNL    Ganaly             2.02 318   PN        Pn        21 15 00.7  +1.7
GNL    Ganaly             2.02 318  eP         Pn        21 15 00.7  +1.7
MIPR   Malaya Ipel'ka     2.11 273   PN        Pn        21 15 01.4  +1.2
MIPR   Malaya Ipel'ka     2.11 273  eP         Pn        21 15 01.4  +1.2
PAU    Pauzhetka          2.23 252   PN        Pn        21 15 01.8   0.0
PAU    Pauzhetka          2.23 252  eP         Pn        21 15 01.9   0.0
MKZ    Mys Kozlova        2.52  21   PN        Pn        21 15 03.8  -2.0
MKZ    Mys Kozlova        2.52  21  eP         Pn        21 15 03.8  -2.0
SKR    Severo-Kuril's     2.98 241  ePN        Pn        21 15 11.2  -0.8
SKR                                 eS         Sn        21 15 49.7  +3.3
SKR                                  pmax      pmax
       comp=Z,145nm,0.8s
SKR                                  smax      smax
       comp=E,2µm,0.7s
SKR                                  smax      smax
       comp=N,2µm,0.6s
SKR    Severo-Kuril's     2.98 241  eP         Pn        21 15 11.0  -1.1
KMNR   Kamenistaya        3.55   0   PN        Pn        21 15 22.8  +2.8
KMNR   Kamenistaya        3.55   0  eP         Pn        21 15 22.9  +2.8
BZP    Bezymyannyi-Pe     3.71   3   PN        Pn        21 15 26.6  +4.4
BZP    Bezymyannyi-Pe     3.71   3  eP         Pn        21 15 26.7  +4.4
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BZMR   Bezymyannaya       3.73   3   PN        Pn        21 15 26.6  +4.1
BZMR   Bezymyannaya       3.73   3  eP         Pn        21 15 26.7  +4.1
BZGR   Bezymyannyi-Gr     3.75   4   PN        Pn        21 15 26.3  +3.6
BZGR   Bezymyannyi-Gr     3.75   4  eP         Pn        21 15 26.3  +3.6
KIRR   Kirishev           3.75   1   PN        Pn        21 15 26.5  +3.7
KIRR   Kirishev           3.75   1  eP         Pn        21 15 26.5  +3.7
KPT    Kopyto             3.76   0   PN        Pn        21 15 25.2  +2.3
KPT    Kopyto             3.76   0  eP         Pn        21 15 25.2  +2.3
BZWR   Bezymyannyi-We     3.76   3   PN        Pn        21 15 25.6  +2.6
BZWR   Bezymyannyi-We     3.76   3  eP         Pn        21 15 25.7  +2.6
ESO    Esso               3.82 347   PN        Pn        21 15 25.4  +1.8
ESO    Esso               3.82 347  eP         Pn        21 15 25.5  +1.8
ZLN    Zelenaya           3.83   5   PN        Pn        21 15 26.2  +2.4
ZLN    Zelenaya           3.83   5  eP         Pn        21 15 26.2  +2.4
KOZ    Kozyrevsk          3.86 357   PN        Pn        21 15 26.3  +2.1
KOZ    Kozyrevsk          3.86 357  eP         Pn        21 15 26.3  +2.1
SRDR   Sredinnyy          4.12 356   PN        Pn        21 15 28.7  +0.9
SRDR   Sredinnyy          4.12 356  eP         Pn        21 15 28.7  +0.9
KBTR   Krutoberegovo      4.29  20   PN        Pn        21 15 28.4  -1.6
KBTR   Krutoberegovo      4.29  20  eP         Pn        21 15 28.4  -1.6
SHEM   Shemya Is, Ala     8.51  81   Pn        Pn        21 16 26.3  -1.5
       comp=N,5.6nm,0.3s,baz=286,slow=7.4,SNR=1.6
SHEM                                 Sn        Sn        21 17 53.3  -9.0
       comp=N,11nm,0.3s,baz=306,slow=20,SNR=6.2
SMY    Shemya             8.51  81   PN        Pn        21 16 27.5  -0.3
SMY    Shemya             8.51  81   Pn        Pn        21 16 27.5  -0.3
SEY    Seymchan          11.53 342   Pn        Pn        21 17 05.1  -3.9
       comp=N,0.1nm,0.3s,baz=148,slow=15,SNR=1.2
YSS    Yuzhno-Sakhali    12.47 252  ePN        Pn        21 17 24.3  +2.3
YSS                                  pmax      pmax
       comp=Z,20nm,1.0s
YSS    Yuzhno-Sakhali    12.47 252   P         Pn        21 17 20.8  -1.2
       comp=Z,15nm,1.1s
JKA    Kamikawa-asahi    14.24 242             Pn        21 17 45.2  -0.8
JKA    Kamikawa-asahi    14.24 242   P         Pn        21 17 45.9  -0.2
       comp=Z,33nm,0.8s
ASAJ   Asahikawa         14.24 242   P         Pn        21 17 45.2  -0.9
ERM    Erimo             15.41 235   P         Pn        21 17 59.1  -2.2
ERM                                  pmax      pmax
       comp=Z,34nm,1.0s
ERM    Erimo             15.41 235   Pn        Pn        21 17 59.1  -2.2
ERM                                  IAmb      IAmb      21 18 04.8
       comp=Z,34nm,1.0s
BILL   Bilibino          16.15   8 i P         Pn        21 18 11.4  +0.7
BILL                                 pmax      pmax
       comp=Z,20nm,0.9s
BILI   Bilibino, Chuk    16.18   8   P         Pn        21 18 12.6  +1.5
       comp=Z,51nm,1.1s
JTM    Tenmabayashi      17.37 236   Pn        Pn        21 18 21.1  -5.1
KLR    Kul'dur           18.20 272   P         Pn        21 18 36.0  -0.3
       comp=Z,0.5nm,0.3s,baz=77,slow=11,SNR=7.2
       comp=Z,6.0nm,0.7s
KLR                                  AML       AML
KLR    Kul'dur           18.20 272  eP         Pn        21 18 36.1  -0.2
KLR                                  pmax      pmax
       comp=Z,3.0nm,0.9s
YAK    Yakutsk           19.07 313   P         P         21 18 43.5  -1.9
       comp=Z,7.8nm,0.3s,baz=95,slow=6.6,SNR=11
       comp=Z,33nm,0.3s
YAK                                  AML       AML
YAK    Yakutsk           19.07 313  eP         P         21 18 43.5  -1.9
YAK                                 eS         S         21 22 16.2  -2.7
YAK                                  pmax      pmax
       comp=Z,98nm,1.1s
YAK                                  pmax      pmax
       comp=N,5.0nm,0.8s
YAK                                  pmax      pmax
       comp=E,42nm,2.0s
YAK                                  pmax      pmax
       comp=Z,331nm,8.0s
YAK                                  pmax      pmax
       comp=E,191nm,4.0s
YAK                                  pmax      pmax
       comp=N,258nm,4.8s
YAK                                  smax      smax
       comp=N,348nm,5.7s
YAK                                  smax      smax
       comp=E,230nm,3.5s
YAK    Yakutsk           19.07 313             P         21 18 44.0  -1.4
YAK                                  IAmb      IAmb      21 18 44.7
       comp=Z,115nm,1.1s
YAK    Yakutsk           19.07 313   P         P         21 18 43.7  -1.8
       comp=Z,99nm,1.0s
ZEA    Zeya              19.80 288  eP         P         21 18 51.0  -2.5
ZEA                                  pmax      pmax
       comp=Z,10.0nm,1.1s
USA0B  Ussuriysk Arra    20.34 258   P         P         21 18 57.9  -1.4
USA0B                                pmax      pmax
       comp=Z,17nm,1.0s
USA0B  Ussuriysk Arra    20.34 258   P         P         21 18 57.9  -1.4
USRK   Ussuriysk Ar.     20.34 258   P         P         21 18 58.5  -0.8
       comp=Z,14nm,1.0s,baz=59,slow=10.0,SNR=6.8
       comp=Z,14nm,1.0s
USRK   Ussuriysk Ar.     20.34 258   P         P         21 18 57.1  -2.2
HEH    HeiHe             20.53 278  eP         P         21 19 01.4  +0.1
HEH                                  pmax      pmax
       comp=Z,13nm,0.8s
MJA0   Matsu Arr-Jizo    22.04 233  eP         P         21 19 19.2  +1.5
MJA0                                 pmax      pmax
       comp=Z,21nm,1.1s
MJB9   Matsu-Tunnel      22.06 233             P         21 19 20.0  +2.1
MJB9                                 IAmb      IAmb      21 19 22.8
       comp=Z,23nm,0.9s
MAJO   Matsushiro        22.06 233 i P         P         21 19 18.6  +0.7
MAJO                                 pmax      pmax
       comp=Z,29nm,1.0s
MAJO   Matsushiro        22.06 233   P         P         21 19 18.2  +0.3
MAJO                                 IAmb      IAmb      21 19 22.4
       comp=Z,25nm,0.9s
MAJO   Matsushiro        22.06 233   P         P         21 19 18.4  +0.5
       comp=Z,31nm,1.0s
MJAR   Matsushiro Arr    22.06 233   P         P         21 19 19.3  +1.4
       comp=Z,13nm,0.9s,baz=22,slow=10,SNR=16
       comp=Z,13nm,0.9s
MJAR   Matsushiro Arr    22.06 233   P         P         21 19 17.7  -0.2
MJAR                                 pmax      pmax
       comp=Z,20nm,1.1s
MJAR   Matsushiro Arr    22.06 233             P         21 19 17.7  -0.2
MJAR                                 IAmb      IAmb      21 19 21.4
       comp=Z,20nm,1.1s
BNX    BinXian           22.34 266 ⇓P         P         21 19 20.0  -0.8
BNX                                  pmax      pmax
       comp=Z,19nm,0.8s
C16K   Lisburne Hills    23.00  33   P         P         21 19 27.1  -0.4
N15K   Kwethluk River    23.17  54   P         P         21 19 29.8  +0.5
JGF    Kuroka            23.22 233             P         21 19 29.9  -0.2
JGF    Kuroka            23.22 233   P         P         21 19 30.4  +0.3
       comp=Z,14nm,1.0s
INU    Inuyama           23.59 234   P         P         21 19 34.1  +0.6
INU    Inuyama           23.59 234   P         P         21 19 32.5  -1.0
       comp=Z,22nm,0.9s
TIXI   Tiksi             23.91 336   P         P         21 19 35.3  -0.9
       comp=Z,16nm,0.5s,baz=132,slow=8.1,SNR=14
       comp=Z,16nm,0.5s
TIXI   Tiksi             23.91 336 i P         P         21 19 35.4  -0.8
TIXI                                 pmax      pmax
       comp=Z,27nm,0.9s
TIXI   Tiksi             23.91 336             P         21 19 34.5  -1.7
TIXI                                 IAmb      IAmb      21 19 36.1
       comp=Z,25nm,0.8s
CN2    Changchun         24.52 264  eP         P         21 19 40.1  -2.0
CN2                                  pmax      pmax
       comp=Z,10.0nm,0.7s
M17K   Holitna River     24.52  51   P         P         21 19 43.3  +1.4
C18K   Utukok River      24.55  33   P         P         21 19 42.6  +0.5
H18K   Honhosa River     24.58  42   P         P         21 19 44.2  +1.8
G18K   Tagagawik         24.63  40   P         P         21 19 44.3  +1.4
P17K   Kvichak River     25.03  57   P         P         21 19 47.7  +1.2
P17K                                 IAmb      IAmb      21 19 58.5
       comp=Z,20nm,1.1s
C19K   Lookout Ridge     25.26  33   P         P         21 19 49.5  +1.0
HILR   Hailar Array B    25.42 280   P         P         21 19 48.8  -1.4
       comp=Z,3.6nm,0.4s,baz=71,slow=8.8,SNR=7.9
       comp=Z,3.6nm,0.4s
HIA    Hailar            25.54 280 i P         P         21 19 50.1  -1.2
HIA                                  pmax      pmax
       comp=Z,27nm,0.9s
HIA    Hailar            25.54 280             P         21 19 48.7  -2.5
HIA                                  IAmb      IAmb      21 19 52.3
       comp=Z,24nm,0.9s
HIA    Hailar            25.54 280   P         P         21 19 50.1  -1.2
       comp=Z,30nm,0.9s
KSRS   Korea Array       26.95 250   P         P         21 20 05.2  +1.1
       comp=Z,3.8nm,0.9s,baz=51,slow=8.6,SNR=8.0
       comp=Z,3.8nm,0.9s
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KSAR   Wonju Array Be    26.98 250   P         P         21 20 03.9  -0.4
KSAR   Wonju Array Be    26.98 250   P         P         21 20 03.9  -0.4
TJN    Taejon            28.02 249   P         P         21 20 14.9  +1.2
       comp=Z,62nm,0.7s
JNU    Nakatsue          28.49 239   P         P         21 20 18.4  +0.6
       comp=Z,4.4nm,0.8s,baz=20,slow=6.5,SNR=5.8
       comp=Z,4.4nm,0.8s
ILAR   Eielson Array     29.40  44   P         P         21 20 26.9  +1.3
       comp=Z,0.5nm,0.8s,baz=275,slow=9.2,SNR=2.0
       comp=Z,0.5nm,0.8s
H11N2  WAKE ISLAND Hy    32.84 168   T         T         21 56 15.3
       baz=351,slow=76,SNR=11
H11N3  WAKE ISLAND Hy    32.85 168   T         T         21 56 21.3
       baz=351,slow=76,SNR=8.4
H11N1  WAKE ISLAND Hy    32.85 168   T         T         21 56 15.8
       baz=351,slow=76,SNR=8.2
ULN    Ulaanbaatar       33.77 284 i P         P         21 21 03.5  -0.8
ULN                                  pmax      pmax
       comp=Z,5.0nm,1.1s
ULN    Ulaanbaatar       33.77 284   P         P         21 21 03.1  -1.2
       comp=Z,4.4nm,1.0s
H11S1  WAKE ISLAND Hy    34.02 169   T         T         21 57 34.6
       baz=350
H11S3  WAKE ISLAND Hy    34.03 169   T         T         21 57 35.1
       baz=350
H11S2  WAKE ISLAND Hy    34.04 169   T         T         21 57 35.1
       baz=350
SONM   Songino Array     34.17 285   P         P         21 21 07.5  -0.3
       comp=Z,1.9nm,0.3s,baz=62,slow=7.8,SNR=18
SONM                                 PcP       PcP       21 23 43.0  -0.7
       comp=Z,1.1nm,0.8s,baz=47,slow=2.6,SNR=3.9
       comp=Z,1.9nm,0.3s
SONM   Songino Array     34.17 285   IAmb      IAmb      21 21 11.4
       comp=Z,2.8nm,1.2s
TIA    Tai'an            34.19 259   P         P         21 21 08.9  +1.0
TIA                                  pmax      pmax
       comp=Z,14nm,0.9s
HHC    Hu-ho-hao-te      34.70 271  eP         P         21 21 12.9  +0.4
HHC                                  pmax      pmax
       comp=Z,12nm,0.6s
HHC                                  pmax      pmax
       comp=Z,85nm,5.1s
HHC                                  L         L
       comp=Z,2µm,16.8s
HHC                                  L         L
       comp=Z,1µm,17.7s
HHC                                  L         L
       comp=Z,2µm,17.7s
ZAK    Zakamensk         34.85 290  eP         P         21 21 12.8  -0.9
ZAK                                  pmax      pmax
       comp=Z,8.0nm,1.3s
JOW    Kunigami          34.86 236   P         P         21 21 12.9  -0.8
       comp=Z,82nm,2.2s
HNS    HongShan          34.89 263 ⇓P         P         21 21 16.1  +2.2
HNS                                  pmax      pmax
       comp=Z,12nm,1.0s
NJ2    Nanjing           36.04 252  eP         P         21 21 23.5  -0.4
NJ2                                  pmax      pmax
       comp=Z,21nm,0.5s
NRIK   Noril'sk          36.67 325 i P         P         21 21 27.7  -1.1
NRIK                                 pmax      pmax
       comp=Z,9.0nm,0.9s
WHN    Wuhan             39.79 255   P         P         21 21 57.1  +1.6
LZH    Lanzhou           42.40 271  eP         P         21 22 16.8  -0.3
LZH                                  pP        pP        21 22 21.8  -7.5
LZH                                  pmax      pmax
       comp=Z,16nm,1.2s
GTA2   Gaotai            42.76 278  eP         P         21 22 19.5  -0.4
GTA2                                 pmax      pmax
       comp=Z,8.0nm,1.0s
GTA2                                 L         L
       comp=Z,2µm,19.7s
GTA2                                 L         L
       comp=Z,2µm,16.2s
GTA2                                 L         L
       comp=Z,3µm,19.7s
ENH    Enshi             42.91 260   P         P         21 22 21.2  +0.1
       comp=Z,7.0nm,1.0s
ZAA0   Zalesovo Array    43.31 304   P         P         21 22 21.4  -2.7
ZALV   Zalesovo Beam     43.31 304   P         P         21 22 21.9  -2.1
       comp=Z,2.7nm,0.6s,baz=60,slow=7.0,SNR=6.3
ZALV                                 PcP       PcP       21 24 13.1  +1.1
       comp=Z,0.8nm,0.5s,baz=68,slow=3.9,SNR=2.8
       comp=Z,2.7nm,0.6s
ZALV   Zalesovo Beam     43.31 304   P         P         21 22 21.3  -2.7
YKA    Yellowknife Ar    43.77  42   P         P         21 22 28.2  +0.6
       comp=Z,0.7nm,0.7s,baz=298,slow=8.0,SNR=2.7
       comp=Z,0.7nm,0.7s
WMQ    Urumqi            47.33 290  eP         P         21 22 55.6  -0.4
WMQ                                  pmax      pmax
       comp=Z,14nm,1.1s
WMQ                                  L         L
       comp=Z,2µm,13.3s
WMQ                                  L         L
       comp=Z,2µm,20.5s
GOMU   GeErMu            47.87 277   P         P         21 22 58.5  -2.2
GOMU                                 S         S         21 29 55.2  +0.7
GOMU                                 pmax      pmax
       comp=Z,3.0nm,0.7s
GOMU                                 L         L
       comp=Z,2µm,14.9s
GOMU                                 L         L
       comp=Z,4µm,14.5s
SPA0   Spitsbergen Ar    48.02 351  eP         P         21 23 01.1  +0.2
SPITS  Spitsbergen Ar    48.02 351   P         P         21 23 01.2  +0.3
       comp=Z,17nm,0.5s,baz=60,slow=8.9,SNR=41
       comp=Z,17nm,0.5s
SPITS  Spitsbergen Ar    48.02 351   P         P         21 23 00.8  -0.1
SPITS                                pmax      pmax
       comp=Z,34nm,0.8s
SPB2   Spitsbergen Ar    48.02 351   P         P         21 23 01.2  +0.3
KURK   Kurchatov         48.26 303 i P         P         21 23 01.3  -1.7
KURK                                 pmax      pmax
       comp=Z,24nm,1.0s
KURK   Kurchatov         48.26 303   P         P         21 23 02.3  -0.7
KURK   Kurchatov         48.26 303   IAmb      IAmb      21 23 02.8
       comp=Z,16nm,0.8s
KURK   Kurchatov         48.26 303   P         P         21 23 01.6  -1.4
       comp=Z,23nm,0.9s
KURBB  Kurchatov Arra    48.36 303   P         P         21 23 02.3  -1.5
       comp=Z,9.5nm,0.7s,baz=60,slow=7.7,SNR=14
       comp=Z,9.5nm,0.7s
HOPEN  Hopen             48.41 347  eP         P         21 23 04.0  +0.1
MK31   Makanchi Array    48.60 296 i P         P         21 23 04.1  -1.7
MKAR   Makanchi Array    48.60 296   P         P         21 23 04.3  -1.4
       comp=Z,2.9nm,0.5s,baz=55,slow=7.0,SNR=23
       comp=Z,2.9nm,0.5s
MKAR   Makanchi Array    48.60 296             P         21 23 04.0  -1.8
MAKZ   Makanchi          48.76 297   P         P         21 23 05.2  -1.8
MAKZ                                 pmax      pmax
       comp=Z,8.0nm,0.9s
MAKZ   Makanchi          48.76 297             P         21 23 05.2  -1.8
MAKZ                                 IAmb      IAmb      21 23 06.7
       comp=Z,7.7nm,0.9s
MAKZ   Makanchi          48.76 297   P         P         21 23 05.4  -1.6
       comp=Z,8.6nm,0.9s
PZH    PanZhiHua         50.33 263   P         P         21 23 19.5  +0.2
BVAR   Borovoye Array    50.99 309   P         P         21 23 22.4  -1.4
       comp=Z,7.4nm,0.5s,baz=58,slow=8.3,SNR=14
BVAR                                 PcP       PcP       21 24 39.5  +0.2
       comp=Z,1.3nm,0.3s,baz=62,slow=2.9,SNR=5.1
       comp=Z,7.4nm,0.5s
BORK   Borovoye          51.01 309 i P         P         21 23 22.4  -1.6
BORK                                 pmax      pmax
       comp=Z,12nm,0.7s
BORK   Borovoye          51.01 309             P         21 23 22.3  -1.7
BORK                                 IAmb      IAmb      21 23 24.2
       comp=Z,10nm,0.8s
PDGK   Podgornoye        52.30 294   P         P         21 23 32.1  -1.8
PDGK   Podgornoye        52.30 294             P         21 23 32.1  -1.8
VADS   Vadso             52.91 341  eP         P         21 23 37.7  -0.1
HAMF   Hammerfest        53.54 343  eP         P         21 23 42.5  +0.1
LVZ    Lovozero          53.54 337   P         P         21 23 41.9  -0.6
LVZ                                  pmax      pmax
       comp=Z,17nm,0.9s
LVZ    Lovozero          53.54 337   P         P         21 23 41.9  -0.6
LVZ    Lovozero          53.54 337   P         P         21 23 41.3  -1.2
       comp=Z,26nm,1.8s
FARB   Farallon Islan    53.74  73   P         P         21 23 46.8  +2.4
FCC    Fort Churchill    54.13  38   P         P         21 23 48.6  +1.7
FCC                                  pmax      pmax
       comp=Z,23nm,1.0s
FCC    Fort Churchill    54.13  38   P         P         21 23 48.6  +1.7
ARA0   ARCESS Array S    54.15 342  eP         P         21 23 46.7  -0.2
ARCES  ARCESS Array B    54.15 342   P         P         21 23 46.2  -0.7
       comp=Z,10nm,0.8s,baz=38,slow=8.1,SNR=14
       comp=Z,10nm,0.8s
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ARCES	ARCESS Array B	54.15	342	eP	P	21 23 46.9	0.0
ARCES				pmax	pmax		
	comp=Z,10.0nm,0.8s						
ARCES	ARCESS Array B	54.15	342		P	21 23 46.1	-0.7
ARTI	Arti	54.19	318	c iP	P	21 23 46.4	-1.0
ARTI						21 24 51.2	
ARTI				S	S	21 31 22.8	+2.2
ARTI				SS	SS	21 35 01.5	-0.5
ARTI				pmax	pmax		
	comp=Z,10.0nm,1.1s						
ARTI	Arti	54.19	318		P	21 23 46.0	-1.4
TARG	Taragay, Kyrgy	54.29	294	P	P	21 23 47.3	-1.6
TARG				pmax	pmax		
	comp=Z,3.0nm,0.9s						
TARG	Taragay, Kyrgy	54.29	294	P	P	21 23 47.3	-1.6
BOOM	Boomskoye usch	54.83	296	P	P	21 23 50.7	-1.8
BOOM				pmax	pmax		
	comp=Z,7.0nm,1.0s						
BOOM	Boomskoye usch	54.83	296	P	P	21 23 50.7	-1.8
BOOM				IAmb	IAmb	21 23 53.9	
	comp=Z,7.5nm,1.0s						
SUMG	Summit	54.83	7	P	P	21 23 52.6	+0.3
SUMG				pmax	pmax		
	comp=Z,13nm,0.9s						
SUMG	Summit	54.83	7		P	21 23 52.6	+0.3
SUMG				IAmb	IAmb	21 23 57.7	
	comp=Z,13nm,0.9s						
SUMG	Summit	54.83	7	P	P	21 23 53.6	+1.3
	comp=Z,18nm,1.0s						
KTK1	Kautokeino	55.02	343	eP	P	21 23 53.4	+0.2
JETT	Jettan, Norway	55.05	344	eP	P	21 23 53.4	0.0
TRO	Tromso	55.23	345	eP	P	21 23 54.9	+0.2
FRU1	Bishkek	55.34	297	P	P	21 23 54.5	-1.5
FRU1				pmax	pmax		
	comp=Z,14nm,0.8s						
FRU1	Bishkek	55.34	297	P	P	21 23 54.5	-1.5
AAK	Ala-Archa	55.52	297	i P	P	21 23 56.5	-1.0
AAK				pmax	pmax		
	comp=Z,10.0nm,1.1s						
AAK	Ala-Archa	55.52	297		P	21 23 55.9	-1.6
AAK				IAmb	IAmb	21 23 57.6	
	comp=Z,8.8nm,1.1s						
AAK	Ala-Archa	55.52	297	P	P	21 23 56.8	-0.7
	comp=Z,8.9nm,0.9s						
ASAI	AK-SAY(Kyrgyzs	55.55	294	P	P	21 23 57.7	-0.2
	comp=Z,8.9nm,1.1s						
KIRV	Kirov	56.14	324	i P	P	21 24 01.2	-0.2
MSF	Maaselka	56.45	338	P	P	21 24 04.5	+0.9
MSF	Maaselka	56.45	338	P	P	21 24 04.5	+0.9
	comp=Z,50nm,1.3s						
ARSB	Arslanbob	57.24	297	P	P	21 24 08.2	-1.5
ARSB				pmax	pmax		
	comp=Z,5.0nm,1.0s						
ARSB	Arslanbob	57.24	297		P	21 24 08.2	-1.5
ARSB				IAmb	IAmb	21 24 17.7	
	comp=Z,5.4nm,1.0s						
KSH2	Kashi	57.29	293	P	P	21 24 09.6	-0.5
KSH2				S	S	21 32 02.5	-0.1
KSH2				pmax	pmax		
	comp=Z,4.0nm,1.0s						
KSH2				L	L		
	comp=Z,710nm,16.0s						
KSH2				L	L		
	comp=Z,1µm,14.7s						
STEI	Steigen	57.35	345	eP	P	21 24 10.1	+0.2
STEI				IAmb	IAmb	21 24 10.8	
	comp=Z,46nm,1.6s						
KK31	Karatay Array	57.37	300	P	P	21 24 08.4	-2.0
KK31				pmax	pmax		
	comp=Z,6.0nm,0.8s						
KK31	Karatay Array	57.37	300		P	21 24 08.4	-2.0
KK31				IAmb	IAmb	21 24 10.1	
	comp=Z,5.5nm,0.8s						
KKAR	Karatay Array	57.37	300	P	P	21 24 08.2	-2.2
KKAR	Karatay Array	57.37	300		P	21 24 08.2	-2.2
LOF	Lofoten	57.43	346	eP	P	21 24 10.1	-0.3
LOF				IAmb	IAmb	21 24 11.1	
	comp=Z,30nm,0.9s						
KLMR	Klimovskoe	57.74	330	eP	P	21 24 11.3	-1.4
KLMR				pmax	pmax		
	comp=Z,31nm,1.2s						
CHTO	Chiang Mai	57.79	259	P	P	21 24 13.3	-0.3
CHTO				pmax	pmax		
	comp=Z,13nm,1.1s						
CHTO	Chiang Mai	57.79	259		P	21 24 13.3	-0.3
CHTO				IAmb	IAmb	21 24 15.9	
	comp=Z,13nm,1.1s						
CHTO	Chiang Mai	57.79	259	P	P	21 24 14.2	+0.6
	comp=Z,12nm,1.0s						
FAUS	Fauske	57.84	345	eP	P	21 24 13.6	+0.3
FAUS				IAmb	IAmb	21 24 14.1	
	comp=Z,31nm,1.2s						
OUL	Oulu	57.86	339	P	P	21 24 13.8	+0.4
OUL	Oulu	57.86	339	P	P	21 24 13.8	+0.4
	comp=Z,41nm,1.0s						
PD31	Pinedale Array	57.90	60	P	P	21 24 16.0	+1.6
PDAR	Pinedale Array	57.90	60	P	P	21 24 16.0	+1.6
	comp=Z,0.5nm,0.5s,baz=310,slow=7.6,SNR=3.3						
	comp=Z,0.5nm,0.5s						
TCUT	Toone Canyon	58.03	63	P	P	21 24 19.9	+4.5
CMAR	Chiang Mai Arr	58.06	259	P	P	21 24 16.8	+1.3
	comp=Z,4.4nm,0.8s,baz=25,slow=7.0,SNR=16						
	comp=Z,4.4nm,0.8s						
CMAR	Chiang Mai Arr	58.06	259	eP	P	21 24 17.2	+1.7
CMAR				pmax	pmax		
	comp=Z,6.0nm,0.9s						
CMAR	Chiang Mai Arr	58.06	259		P	21 24 16.6	+1.0
AB31	Akbulak array	58.41	311		P	21 24 16.3	-1.3
AB31				IAmb	IAmb	21 24 18.1	
	comp=Z,5.8nm,0.8s						
ABKAR	Akbulak array	58.41	311		P	21 24 15.8	-1.8
EVN	Everest	58.45	276		P	21 24 17.7	-1.2
EVN				IAmb	IAmb	21 24 19.5	
	comp=Z,5.3nm,0.6s						
NPW	Naypyitaw	58.76	262	P	P	21 24 20.5	+0.2
	comp=Z,22nm,1.0s						
VAGH	Vaagaholmen	58.76	345	eP	P	21 24 20.2	+0.5
VAGH				IAmb	IAmb	21 24 22.2	
	comp=Z,12nm,0.8s						
MOR8	Moi Rana	59.09	345	eP	P	21 24 21.4	-0.7
DRK	Karamyk	59.17	296	P	P	21 24 22.3	-1.0
DRK				pmax	pmax		
	comp=Z,11nm,0.8s						
DRK	Karamyk	59.17	296		P	21 24 22.3	-1.0
DRK	Karamyk	59.17	296	P	P	21 24 22.8	-0.5
	comp=Z,12nm,0.9s						
BTK	Batken	59.31	297	P	P	21 24 22.7	-1.3
BTK				pmax	pmax		
	comp=Z,13nm,0.7s						
BTK	Batken	59.31	297	P	P	21 24 22.7	-1.3
BTK	Batken	59.31	297	P	P	21 24 23.4	-0.6
	comp=Z,20nm,1.0s						
ULM	Lac du Bonnet	59.38	46	P	P	21 24 25.6	+1.4
	comp=Z,4.0nm,1.0s,baz=319,slow=11,SNR=2.1						
	comp=Z,4.0nm,1.0s						
ULM	Lac du Bonnet	59.38	46	P	P	21 24 25.7	+1.4
ULM				pmax	pmax		
	comp=Z,7.0nm,1.1s						
ULM	Lac du Bonnet	59.38	46	IAmb	IAmb	21 24 30.9	
	comp=Z,7.1nm,1.1s						
FIA1	FINESS Array S	60.95	337		P	21 24 34.5	-0.4
FINES	FINESS Array B	60.95	337	P	P	21 24 35.2	+0.4
	comp=Z,10nm,0.4s,baz=36,slow=7.8,SNR=42						
	comp=Z,10nm,0.4s						
FINES	FINESS Array B	60.95	337		P	21 24 34.4	-0.4
NSS	Namsos	61.01	345	eP	P	21 24 35.2	+0.1
NSS				IAmb	IAmb	21 24 37.0	
	comp=Z,14nm,1.1s						
NIL	Nilore	62.48	290	P	P	21 24 45.2	-0.4
NIL				pmax	pmax		
	comp=Z,25nm,1.1s						
NIL	Nilore	62.48	290		P	21 24 45.2	-0.4
NIL	Nilore	62.48	290	P	P	21 24 46.0	+0.4
	comp=Z,26nm,1.0s						
OBN	Obninsk	63.29	328	d iP	P	21 24 50.4	-0.2
OBN				e*PP	pP	21 25 03.8	+0.4
OBN				e*SP	pwP	21 25 08.3	+1.5
OBN				e		21 25 26.8	
OBN				e		21 27 10.6	
OBN				ePPP	PPP	21 28 38.5	
OBN				eS	S	21 33 19.4	+0.8
OBN				eSSS	SSS	21 40 21.6	
OBN				pmax	pmax		
	comp=Z,15nm,1.2s						
OBN				MLR	MLR		
	comp=Z,450nm,16.0s						
OBN	Obninsk	63.29	328	P	P	21 24 49.7	-0.9
OBN	Obninsk	63.29	328	P	P	21 24 49.6	-1.0
	comp=Z,11nm,0.6s						
MOL	Molde	63.54	346	eP	P	21 24 53.0	+0.9
MOL				IAmb	IAmb	21 24 54.5	
	comp=Z,1µm,4.2s						
DOMB	Dombas	63.81	345	eP	P	21 24 54.1	+0.1
AKN	Aaknes	63.99	346	eP	P	21 24 55.3	+0.2
NC303	NORSAR Array S	64.21	344	P	P	21 24 56.9	+0.3
NC303				IAmb	IAmb	21 24 59.1	
	comp=Z,13nm,1.0s						
KBL	Kabul	64.23	294	P	P	21 24 55.4	-2.0
KBL				pmax	pmax		
	comp=Z,5.0nm,0.9s						
KBL	Kabul	64.23	294	P	P	21 24 55.4	-2.0
KBL				IAmb	IAmb	21 24 56.8	
	comp=Z,5.0nm,0.8s						
NB2	NORSAR Subarra	64.41	344	P	P	21 24 58.3	+0.4
	comp=Z,1.3nm,0.4s,baz=20,slow=6.9						
NB2	NORSAR Subarra	64.41	344	P	P	21 24 55.5	-2.4
NB2				pmax	pmax		
	comp=Z,2.0nm,0.4s						
NB2	NORSAR Subarra	64.41	344	P	P	21 24 58.3	+0.4
NOA	NORSAR Array B	64.41	344	P	P	21 24 58.3	+0.4
	comp=Z,1.5nm,0.3s,baz=28,slow=6.0,SNR=32						
	comp=Z,1.5nm,0.3s						
NC602	NORSAR Array S	64.64	344	eP	P	21 24 59.6	+0.2
NORES	NORESS Array B	64.64	344	P	P	21 25 00.6	+1.3
NORES				pmax	pmax		
	comp=Z,1.0nm,0.3s						
HFS	Hagfors	64.81	342	P	P	21 25 01.1	+0.7
	comp=Z,5.2nm,0.4s,baz=32,slow=5.9,SNR=29						
	comp=Z,5.2nm,0.4s						
HYA	Hoyanger	65.08	346	eP	P	21 25 02.7	+0.5
SKAR	Skarslia	65.22	345	eP	P	21 25 03.0	-0.2
ASK	Askoy	65.88	347	eP	P	21 25 07.8	+0.5
BER	Bergen	65.95	347	eP	P	21 25 07.1	-0.7
KONO	Kongsberg	65.99	344	eP	P	21 25 08.1	0.0
STRU	Stroemstad	66.30	343	i P	P	21 25 13.2	+3.1
MNK	Minsk	66.50	332	i P	P	21 25 11.1	-0.3
MNK				i		21 27 37.6	
MNK				i PPP	PPP	21 29 13.0	
MNK				i S	S	21 34 00.2	+2.1
MNK				pmax	pmax		
	comp=E,16nm,0.8s						
MNK				pmax	pmax		
	comp=N,2.0nm,0.7s						
MNK				pmax	pmax		
	comp=Z,24nm,0.9s						
MNK	Minsk	66.50	332	i P	P	21 25 11.1	-0.3
	comp=E,16nm,0.8s						
MNK				i P	P	21 25 11.1	-0.3
	comp=N,2.0nm,0.7s						
MNK				i P	P	21 25 11.1	-0.3
	comp=Z,24nm,0.9s,baz=30						
MNK				i PP	PP	21 27 37.6	-0.1
MNK				i PPP	PPP	21 29 13.1	
MNK				i S	S	21 34 00.2	+2.1
MNK				i SS	SS	21 38 06.5	-8.0
MNK				i SSS	SSS	21 41 27.9	
MNK				i LQ	LQ	21 49 37.0	
MNK				i LR	LR	21 54 40.5	
PABE	Paberze	66.70	335	P	P	21 25 12.7	0.0
TJOU	Tjoern	67.16	342	i P	P	21 25 17.5	+2.0
HOMB	Homborsund	67.48	344	i P	P	21 25 20.2	+2.6
SNART	Snartemo	67.63	345	i P	P	21 25 20.8	+2.2
ONAU	Onsala	67.70	342	i P	P	21 25 20.7	+1.7
FABU	Falkenberg	67.92	341	i P	P	21 25 22.0	+1.6
BLEU	Blekinge	67.93	339	i P	P	21 25 21.1	+0.7
OVD	Ostervraa, Den	68.09	343	i P	P	21 25 23.5	+2.1
HRA	Herat	68.11	298		P	21 25 21.6	-0.7
HRA				IAmb	IAmb	21 25 23.7	
	comp=Z,3.2nm,0.8s						
DEL	Delary	68.19	341	i P	P	21 25 23.6	+1.6
SUW	Suwalki	68.24	334	P	P	21 25 22.7	+0.3
SUW	Suwalki	68.24	334		P	21 25 22.7	+0.3
LUNU	Lund	69.05	341	i P	P	21 25 28.5	+1.0
GOF	Gofitskoye	69.08	318	ceP	P	21 25 29.3	+1.4
BSD	Bornholm Skovb	69.23	340	i P	P	21 25 30.3	+1.7
BSD				IAmb	IAmb	21 25 30.6	
	comp=Z,7.6nm,0.5s						
AK23	Malin Array Si	69.38	329	P	P	21 25 28.8	-0.8
AK03	Malin Array Si	69.38	329	P	P	21 25 28.8	-0.8
AK21	Malin Array Si	69.39	329	P	P	21 25 28.9	-0.8
AK22	Malin Array Si	69.40	329	P	P	21 25 28.9	-0.8
AK04	Malin Array Si	69.40	329	P	P	21 25 28.9	-0.8
AKASG	Malin Array Be	69.40	329	P	P	21 25 29.6	-0.2
	comp=Z,5.4nm,0.4s,baz=32,slow=6.8,SNR=28						
	comp=Z,5.4nm,0.4s						
AKASG	Malin Array Be	69.40	329	eP	P	21 25 29.3	-0.4
AKASG				pmax	pmax		
	comp=Z,6.0nm,0.4s						
AKASG	Malin Array Be	69.40	329	P	P	21 25 24.9	-4.9
AKBB	Malin Array Si	69.40	329	i P	P	21 25 29.8	+0.1
AKBB				pmax	pmax		
	comp=Z,11nm,1.0s						
AKBB	Malin Array Si	69.40	329		P	21 25 28.3	-1.4
AKBB				IAmb	IAmb	21 25 29.9	
	comp=Z,6.9nm,0.8s						
AKBB	Malin Array Si	69.40	329	P	P	21 25 28.6	-1.1
KIEV	Kiev	69.41	329	P	P	21 25 29.6	-0.2
KIEV	Kiev	69.41	329		P	21 25 28.8	-1.0
KIEV				IAmb	IAmb	21 25 29.9	
	comp=Z,6.2nm,0.8s						
KIEV	Kiev	69.41	329	⇓P	P	21 25 29.6	-0.2
KIEV	Kiev	69.41	329	P	P	21 25 28.3	-1.5
	comp=Z,38nm,1.1s						
KIEV	Kiev	69.41	329	P	P	21 25 29.5	-0.2
	comp=Z,9.7nm,1.1s						
WMOK	Wichita Mounta	69.50	60	P	P	21 25 32.1	+1.5
WMOK				pmax	pmax		
	comp=Z,3.0nm,0.9s						
WMOK	Wichita Mounta	69.50	60		P	21 25 32.1	+1.5
RNPP9	Sopachiv	69.79	331	P	P	21 25 31.7	-0.4
AKT	Akhty	69.91	312	eP	P	21 25 33.1	-0.1
AKT				e		21 25 56.2	
AKT				pmax	pmax		
	comp=Z,7.0nm,0.7s						
KBZ	Khabaz	70.22	317	P	P	21 25 34.9	+0.1
	comp=Z,3.5nm,0.8s,baz=20,slow=6.0,SNR=4.0						
	comp=Z,3.5nm,0.8s						
KBZ	Khabaz	70.22	317	eP	P	21 25 35.1	+0.3
KBZ				pmax	pmax		
	comp=Z,3.0nm,0.9s						
LUBAR	Lubar, Ukraine	70.54	330	P	P	21 25 35.7	-1.1
TXAR	Lajitas Array	70.93	67	P	P	21 25 40.9	+1.3
	comp=Z,0.5nm,0.5s,baz=301,slow=5.1,SNR=5.6						
	comp=Z,0.5nm,0.5s						
TXAR	Lajitas Array	70.93	67	P	P	21 25 40.2	+0.7
TXAR	Lajitas Array	70.93	67	P	P	21 25 40.2	+0.7
SORM	Soroca	71.92	328	P	P	21 25 45.0	-0.1
SORM	Soroca	71.92	328	⇓P	P	21 25 45.1	-0.1
SORM	Soroca	71.92	328	P	P	21 25 44.0	-1.1
	comp=Z,15nm,1.2s						
EKA	Eskdalemuir Ar	71.94	350	P	P	21 25 45.7	+0.7
	comp=Z,1.1nm,0.4s,baz=16,slow=5.1,SNR=4.1						
	comp=Z,1.1nm,0.4s						
KMPD	K-Podol'skiy	72.14	330	P	P	21 25 45.1	-1.3
KWP	Kalwaria Pacla	72.30	333	P	P	21 25 46.5	-0.9
	comp=Z,19nm,1.2s						
KOLS	Kolonicke sedl	73.06	332	eP	P	21 25 52.9	+1.0
NIE	Niedzica	73.16	334	P	P	21 25 51.6	-0.9
	comp=Z,3.0nm,1.1s						
CLL	Collm	73.20	339	i P	P	21 25 53.6	+1.0
CLL				pmax	pmax		
	comp=Z,9.0nm,0.9s						
CLL	Collm	73.20	339		P	21 25 52.7	+0.1
CLL				IAmb	IAmb	21 25 54.2	
	comp=Z,7.3nm,0.9s						
CLL	Collm	73.20	339	P	P	21 25 52.1	-0.5
	comp=Z,11nm,1.0s						
CLL	Collm	73.20	339	P	P	21 25 53.7	+1.0
	comp=Z,10nm,1.0s						
CLL	Collm	73.20	339	i P	P	21 25 53.6	+1.0
	comp=Z,9.0nm,0.9s						
UPC	Upice	73.26	337	eP	P	21 25 55.0	+2.0
BUR08	Bucovina Ar. S	73.35	330		P	21 25 53.8	+0.1
BUR08				IAmb	IAmb	21 25 56.0	
	comp=Z,5.5nm,0.6s						
STEB	Steborice	73.35	336	eP	P	21 25 54.8	+1.2
BURAR	Bucovina Array	73.37	330	P	P	21 25 54.6	+0.8
BURAR	Bucovina Array	73.37	330		P	21 25 53.7	-0.1
BURAR				IAmb	IAmb	21 25 56.3	
	comp=Z,8.8nm,0.6s						
BURAR	Bucovina Array	73.37	330	⇓P	P	21 25 54.7	+0.8
BRG	Berggiesshubel	73.40	338	eP	P	21 25 53.9	0.0
BRG				Amp		21 25 56.1	
	comp=Z,3.2nm,1.0s						
MORC	Moravsky Berou	73.56	336	P	P	21 25 55.2	+0.3
MORC				pmax	pmax		
	comp=Z,5.0nm,1.0s						
MORC	Moravsky Berou	73.56	336		P	21 25 55.2	+0.3
MORC	Moravsky Berou	73.56	336	eP	P	21 25 55.6	+0.7
MORC	Moravsky Berou	73.56	336	⇑P	P	21 25 56.2	+1.3
LANS	Liptovska Anna	73.63	334	eP	P	21 25 57.4	+2.1
HOMI	Horasan	73.66	315	⇑P	P	21 25 56.9	+1.0
BIZ	Bicaz	73.69	329	⇓P	P	21 25 56.5	+0.9
TRPA	Tarpa	73.70	332	P	P	21 25 56.6	+1.0
	comp=Z,17nm,0.7s						
OZAP	Van, Ozalp-Mer	73.87	313	⇑P	P	21 25 58.4	+1.3
ARCR	ARCALIA	74.11	330	⇑P	P	21 25 59.6	+1.6
VRAC	Vranov	74.23	336	P	P	21 25 59.9	+1.2
VRAC	Vranov	74.23	336	eP	P	21 25 59.8	+1.1
VRAC	Vranov	74.23	336	⇓P	P	21 25 59.9	+1.2
VRAC	Vranov	74.23	336	P	P	21 26 00.5	+1.8
	comp=Z,2.2nm,1.8s						
VRAC				pP	pP	21 26 10.6	-1.4
KOPT	Kop Dagi	74.29	316		P	21 26 00.8	+1.2
KOPT				IAmb	IAmb	21 26 02.9	
	comp=Z,8.8nm,0.9s						
VYHS	Vyhne	74.40	334	eP	P	21 25 59.7	-0.1
VRI	Vrincioaia	74.45	328	P	P	21 26 01.4	+1.3
VRI	Vrincioaia	74.45	328	⇓P	P	21 26 01.4	+1.3
KRUC	Moravsky	74.50	336	P	P	21 26 01.0	+0.7
KRUC	Moravsky	74.50	336	eP	P	21 26 01.5	+1.2
KRUC	Moravsky	74.50	336	P	P	21 26 02.0	+1.6
	comp=Z,6.0nm,0.9s						
COVR	Voineasa-Covas	74.63	329	⇓P	P	21 26 01.3	+0.1
CJR	Cluj-Napoca	74.67	331	P	P	21 26 03.1	+1.7
CJR	Cluj-Napoca	74.67	331	⇑P	P	21 26 03.1	+1.7
ZVC	Zvikov	74.68	338	eP	P	21 26 02.4	+1.0
TPGR	Topolog	74.78	327	⇓P	P	21 26 03.5	+1.5
DOPR	Dopca	74.78	329	⇓P	P	21 26 03.1	+1.1
GURO	Guroymak-BITLI	74.84	314	P	P	21 26 03.0	+0.4
MARR	Marisel-Cluj	74.85	331	⇑P	P	21 26 03.0	+0.5
DRGR		74.86	331	P	P	21 26 03.1	+0.6
DRGR		74.86	331	⇑P	P	21 26 03.1	+0.6
HAKT	HAKKARI	74.91	313	P	P	21 26 03.8	+0.7
	comp=Z,36nm,0.8s						
MODS	Modra-Piesok	74.92	335	eP	P	21 26 05.0	+2.2
MLR	Muntele Rosu	75.03	329	P	P	21 26 03.4	-0.2
MLR				pmax	pmax		
	comp=Z,6.0nm,0.8s						
MLR	Muntele Rosu	75.03	329		P	21 26 03.4	-0.2
MLR				IAmb	IAmb	21 26 08.1	
	comp=Z,5.8nm,0.8s						
MLR	Muntele Rosu	75.03	329	⇑P	P	21 26 05.3	+1.7
GRA1	Grafenberg Arr	75.11	340	P	P	21 26 04.0	+0.2
GRA1				IAmb	IAmb	21 26 07.3	
	comp=Z,8.9nm,1.0s						
GRF	Grafenberg Arr	75.11	340	P	P	21 26 04.0	+0.2
GRF				pmax	pmax		
	comp=Z,9.0nm,1.0s						
HGN	Heimansgroeve	75.11	343	P	P	21 26 05.2	+1.4
	comp=Z,13nm,1.1s						
KHC	Kasperske Hory	75.11	338	P	P	21 26 04.1	+0.2
KHC	Kasperske Hory	75.11	338	eP	P	21 26 05.4	+1.5
KHC	Kasperske Hory	75.11	338		P	21 26 04.1	+0.2
KHC				IAmb	IAmb	21 26 06.3	
	comp=Z,5.7nm,1.0s						
KHC	Kasperske Hory	75.11	338	P	P	21 26 05.7	+1.8
	comp=Z,6.9nm,1.4s						
CKRC	Cesky Krumlov	75.23	337	eP	P	21 26 05.4	+0.8
MEM	Membach	75.25	343	P	P	21 26 06.1	+1.5
MEM	Membach	75.25	343	dP	P	21 26 05.9	+1.3
	comp=Z,14nm,1.0s						
MEM	Membach	75.25	343	P	P	21 26 06.1	+1.5
	comp=Z,24nm,1.0s						
WR8	Warramunga Arr	75.28	205	P	P	21 26 06.1	+1.1
WRA	Warramunga Arr	75.31	205	P	P	21 26 06.1	+0.9
	comp=Z,1.7nm,1.0s,baz=21,slow=6.0,SNR=4.6						
	comp=Z,1.7nm,1.0s						
WRA	Warramunga Arr	75.31	205	P	P	21 26 04.8	-0.4
WRA	Warramunga Arr	75.31	205	P	P	21 26 04.8	-0.4
GERES	GERESS Array B	75.35	338	P	P	21 26 05.9	+0.5
	comp=Z,2.2nm,0.8s,baz=20,slow=4.3,SNR=8.4						
	comp=Z,2.2nm,0.8s						
GERES	GERESS Array B	75.35	338	P	P	21 26 05.7	+0.4
GERES	GERESS Array B	75.35	338	P	P	21 26 05.7	+0.4
VOIR		75.36	329	P	P	21 26 05.6	+0.2
VOIR		75.36	329	⇑P	P	21 26 05.7	+0.2
WINA	Alland / Wiene	75.47	336	i P	P	21 26 07.1	+1.2
	comp=Z,3.0nm,0.6s						
ARR	Arges	75.56	329	⇓P	P	21 26 08.2	+1.6
CONA	Conrad Observa	75.69	336	i P	P	21 26 08.7	+1.4
	comp=Z,6.7nm,1.1s						
BMRD	Maredsous	75.76	344	dP	P	21 26 07.3	-0.2
	comp=Z,5.6nm,1.1s						
RONA	Rosalia, Austr	75.79	336	i P	P	21 26 09.6	+1.8
	comp=Z,6.0nm,1.2s						
MPLH	Magyarpolny	75.96	335	P	P	21 26 08.6	-0.1
	comp=Z,19nm,1.2s						
GZR	Gura Zlata	76.11	331	P	P	21 26 10.0	+0.3
GZR	Gura Zlata	76.11	331	⇑P	P	21 26 10.1	+0.3
MOA	Molln	76.15	337	i P	P	21 26 09.4	-0.4
	comp=Z,4.4nm,1.2s						
BZS	Buzias	76.25	331	P	P	21 26 11.4	+1.0
BZS	Buzias	76.25	331	⇑P	P	21 26 11.4	+1.0
ARSA	Arzberg	76.40	336	P	P	21 26 11.2	-0.1
ARSA	Arzberg	76.40	336	i P	P	21 26 12.1	+0.8
	comp=Z,4.1nm,1.0s						
MORH	Mrgy, Hungar	76.55	334	⇑P	P	21 26 12.1	+0.1
MORH	Mrgy, Hungar	76.55	334	P	P	21 26 11.6	-0.4
	comp=Z,3.9nm,1.8s						
SESA	Seetaler Alpe,	76.77	337	i P	P	21 26 15.1	+1.5
	comp=Z,17nm,0.9s,SNR=6.7						
LESA	Schwarzleotal	76.92	338	i P	P	21 26 15.1	+0.8
	comp=Z,5.7nm,1.1s						
SOKA	Soboth	77.06	336	i P	P	21 26 16.3	+1.3
	comp=Z,8.7nm,1.3s,SNR=4.8						
KBA	Koelnbreinsper	77.09	337	P	P	21 26 17.3	+1.9
KBA	Koelnbreinsper	77.09	337	i P	P	21 26 17.0	+1.7
	comp=Z,18nm,0.9s,SNR=23						
KBA	Koelnbreinsper	77.09	337	P	P	21 26 17.3	+1.9
	comp=Z,30nm,1.0s						
BNN	Bunyan	77.21	319	P	P	21 26 15.7	-0.4
BNN				IAmb	IAmb	21 26 19.4	
	comp=Z,3.9nm,0.8s						
WATA	Walderalm	77.26	339	i P	P	21 26 17.4	+1.1
	comp=Z,4.5nm,0.9s						
RETA	Reutte	77.29	339	i P	P	21 26 16.4	0.0
	comp=Z,2.5nm,0.8s						
WTTA	Wattenberg	77.31	339	i P	P	21 26 18.0	+1.4
	comp=Z,9.4nm,1.1s,SNR=5.1						
ECH	Echery	77.33	342	P	P	21 26 16.1	-0.4
ECH				pmax	pmax		
	comp=Z,4.0nm,0.9s						
ECH	Echery	77.33	342		P	21 26 16.1	-0.4
OBKA	Obir	77.34	336	i P	P	21 26 16.3	-0.3
	comp=Z,5.5nm,1.0s						
PLVB	Pleven	77.34	328	⇓P	P	21 26 17.2	+0.6
BRTR	Keskin Array B	77.34	321	P	P	21 26 16.7	-0.2
	comp=Z,2.1nm,0.8s,baz=54,slow=2.1,SNR=6.7						
	comp=Z,2.1nm,0.8s						
BRTR	Keskin Array B	77.34	321		P	21 26 16.6	-0.3
MOTA	Moosalm	77.35	339	i P	P	21 26 18.0	+1.2
	comp=Z,7.9nm,1.0s,SNR=4.2						
BR104	Keskin Array S	77.36	321	P	P	21 26 16.1	-0.8
	comp=Z,4.2nm,1.0s						
MYKA	Terra Mystica	77.44	337	eP	P	21 26 17.8	+0.6
	comp=Z,5.1nm,1.3s						
SQTA	Sankt Quirin	77.45	339	eP	P	21 26 18.7	+1.4
	comp=Z,7.5nm,1.0s,SNR=4.0						
ABTA	Abfaltersbach	77.60	338	eP	P	21 26 19.0	+0.9
	comp=Z,8.5nm,1.1s,SNR=5.4						
DAVA	Damuels	77.67	340	eP	P	21 26 18.5	-0.1
	comp=Z,5.2nm,1.2s						
FETA	Feichten	77.74	339	eP	P	21 26 19.7	+0.7
	comp=Z,5.4nm,1.0s,SNR=4.5						
BOVS	Bovan	78.02	331	⇑P	P	21 26 20.4	0.0
CTI	Castel Tesino	78.46	338	P	P	21 26 22.8	-0.1
CTI				pmax	pmax		
	comp=Z,5.0nm,1.0s						
CTI	Castel Tesino	78.46	338	P	P	21 26 22.8	-0.1
CTI				IAmb	IAmb	21 26 28.1	
	comp=Z,4.8nm,1.0s						
TUE	Stuetta	78.56	340		P	21 26 24.5	+0.9
TUE				IAmb	IAmb	21 26 39.3	

	comp=Z,8.8nm,1.1s						
TUE	Stuetta	78.56	340	P	P	21 26 23.0	-0.6
	comp=Z,35nm,1.0s						
TUE	Stuetta	78.56	340	P	P	21 26 25.0	+1.4
	comp=Z,6.3nm,0.8s						
UOSS	Minazif	78.72	296		P	21 26 23.7	-0.9
UOSS	Minazif	78.72	296	P	P	21 26 23.5	-1.1
	comp=Z,27nm,1.1s						
ASAR	Alice Springs	78.98	204	P	P	21 26 27.1	+1.4
	comp=Z,1.2nm,0.6s,baz=15,slow=5.2,SNR=9.1						
	comp=Z,1.2nm,0.6s						
ASAR	Alice Springs	78.98	204	P	P	21 26 26.5	+0.8
ASAR	Alice Springs	78.98	204	P	P	21 26 26.5	+0.8
257A	Skidaway Islan	80.58	49	P	P	21 26 35.5	+1.1
SSB	Saint Sauveur	80.65	343	P	P	21 26 34.6	-0.1
SSB				pmax	pmax		
	comp=Z,4.0nm,0.6s						
SSB	Saint Sauveur	80.65	343	P	P	21 26 34.6	-0.1
SSB				IAmb	IAmb	21 26 36.6	
	comp=Z,4.3nm,0.6s						
MURB	Monte Urbino	80.88	337	P	P	21 26 35.9	-0.2
FDMO	Fiordimonte	80.95	336		P	21 26 35.8	-0.6
FDMO				IAmb	IAmb	21 26 38.2	
	comp=Z,7.7nm,0.8s						
NRCA	Norcia	81.14	336	P	P	21 26 37.0	-0.4
CSS	Mathiatis	81.58	318	P	P	21 26 40.1	+0.3
CSS				IAmb	IAmb	21 26 43.4	
	comp=Z,10nm,0.9s						
CY604	RAF Akrotiri,	81.62	317	P	P	21 26 39.9	+0.2
CY604				IAmb	IAmb	21 26 43.8	
	comp=Z,8.6nm,0.8s						
MMAI	Mount Meron Ar	82.39	316	P	P	21 26 45.0	+0.9
	comp=Z,6.2nm,0.7s,baz=22,slow=10,SNR=12						
	comp=Z,6.2nm,0.7s						
MMLI	Mount Malkishu	82.87	316	P	P	21 26 48.1	+1.4
	comp=Z,32nm,1.0s						
UJAP	Al Uja	83.27	315	P	P	21 26 49.6	+1.0
	comp=Z,18nm,0.9s						
CEST	Esterri de Car	83.82	345	P	P	21 26 52.4	+0.9
CEST				IAmb	IAmb	21 26 54.4	
	comp=Z,7.1nm,1.1s						
KZIT	Kziot	84.63	316	P	P	21 26 56.2	+0.6
	comp=Z,20nm,1.0s						
CEL	Celeste	84.68	333	P	P	21 26 56.4	+0.6
EIL	Elat	85.46	315	P	P	21 27 00.8	+1.0
	comp=Z,9.7nm,2.3s						
RAYN	Ar Rayn	85.59	303	P	P	21 26 59.9	-0.7
RAYN				pmax	pmax		
	comp=Z,5.0nm,1.0s						
RAYN	Ar Rayn	85.59	303		P	21 26 59.9	-0.7
RAYN				IAmb	IAmb	21 27 01.5	
	comp=Z,4.7nm,0.9s						
RAYN	Ar Rayn	85.59	303	P	P	21 27 00.1	-0.5
	comp=Z,4.5nm,0.7s						
ESBB	Sonseca Array	87.45	348	P	P	21 27 09.7	+0.3
ESBB				IAmb	IAmb	21 27 13.4	
	comp=Z,5.0nm,1.1s						
ESDC	Sonseca Array	87.45	348	P	P	21 27 10.0	+0.5
	comp=Z,2.5nm,1.0s,baz=354,slow=4.3,SNR=7.7						
	comp=Z,2.5nm,1.0s						
ESDC	Sonseca Array	87.45	348		P	21 27 09.5	0.0
ESDC				IAmb	IAmb	21 27 10.9	
	comp=Z,4.2nm,0.9s						
KEST	Kesra	88.79	337	P	P	21 27 16.4	+0.6
	comp=Z,2.8nm,0.8s,baz=2.2,slow=4.1,SNR=5.5						
	comp=Z,2.8nm,0.8s						
KEST	Kesra	88.79	337	IAmb	IAmb	21 27 19.0	
	comp=Z,5.0nm,1.1s						
BILN	Bilwi Airport	94.34	61	P	P	21 27 41.8	+0.1
QSPA	South Pole Qui	141.96	180	PKhKP	PKPpre	21 33 47.6	
	comp=Z,0.7nm,0.6s,baz=0.4,slow=1.8,SNR=1.8						

IDC 04 21:18:55.1±3.4**, 9°.99S**×**161°.29E, h0**^{km}**, mb3.7**/4**, mbtmp3.7**/4**, Error ellipse: s-maj=110.9km s-min=41.3km az=136.0, Bougainville-Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	Honiara	1.43	293	LR	LR	21 19 30.0	
	comp=Z,41nm,21.0s,baz=171,slow=24						
WRA	Warramunga Arr	27.81	246	P	P	21 24 46.3	0.0
	0.2nm,0.5s,baz=74,slow=9.1,SNR=1.9						
	0.2nm,0.5s						
SONM	Songino Array	75.27	325	P	P	21 30 40.9	+0.8
	0.8nm,0.6s,baz=133,slow=6.0,SNR=7.7						
	0.8nm,0.6s						
ILAR	Eielson Array	83.96	20	P	P	21 31 26.8	-0.1
	0.2nm,0.4s,baz=236,slow=5.2,SNR=4.8						
	0.2nm,0.4s						
MKAR	Makanchi Array	89.77	318	P	P	21 31 54.4	-1.2
	0.3nm,0.7s,baz=86,slow=7.2,SNR=1.8						
	0.3nm,0.7s						

UPA ***04*** *21:24:53.9±1.1, 8°.34N×82°.93W, h10^{km}±2^{km}, MW3.7, Presumed earthquake*
UCR ***04*** *21:24:53.9±0.7, 8°.32N×82°.97W, h6^{km}±3^{km}, MW3.9, Presumed earthquake*
CATAC ***04*** *21:24:55.0±0.5, 8°N±3°×8°3W±°, h7^{km}±1^{km}, M3.4/8, MLv3.4/8, Error ellipse: s-maj=6.9km s-min=4.0km az=174.7, confirmed*
ISC 04 21:24:53.1±1.0**, 8°.31N**±0°.03×**82°.99W**±0°.02**, h18**^{km}±2^{km}**, n62,** σ**0ˢ.67**/83**, 4C-21D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTPM	Petroterminale	0.15	134	⇑*i*P	Pg	21 24 57.7	+0.2
PTPM				*e*S	Sg	21 25 01.1	+0.7
PTPA	Petro Terminal	0.16	133	⇑*e*P	Pg	21 24 57.7	+0.1
PTPA				*e*S	Sg	21 25 01.4	+0.8
LMNES	Limones	0.24	148	⇓*e*P	Pb	21 24 59.3	+0.5
CDITO	Canoas	0.29	24	P	Pb	21 24 59.9	+0.2
CDITO				S	Sg	21 25 03.3	-0.5
NELY	Ciudad Neily	0.34	7	⇓*e*P	Pb	21 25 00.9	+0.2
FITO	Golfito	0.35	333	*e*P	Pg	21 25 00.6	0.0
FITO				*e*S	Sb	21 25 05.8	-0.4
PIRO	Carate, Puerto	0.36	285	P	Pb	21 25 01.4	+0.4
PIRO				S	Sn	21 25 09.6	-0.4
PIRO	Carate, Puerto	0.36	285	⇓*e*P	Pb	21 25 01.4	+0.4
PIRO	Carate, Puerto	0.36	285	⇓*i*P	Pb	21 25 01.4	+0.4
PIRO				*e*S	Sn	21 25 08.0	-1.9
EDAD	Golfito	0.38	333	⇓*e*P	Pg	21 25 01.1	0.0
EDAD				*e*S	Sb	21 25 06.9	-0.2
JIME	Puerto Jimenez	0.40	304	*e*P	Pb	21 25 02.8	+1.0
VITO	San Vito	0.51	2	*e*P	Pb	21 25 04.3	+0.8
MLIR3	Monte Lirio, C	0.51	19	⇓*i*P	Pb	21 25 04.4	+0.8
MLIR3				*e*S	Sg	21 25 10.3	0.0
DVD	David	0.55	77	⇓*i*P	Pg	21 25 04.0	-0.1
DVD				*e*S	Sg	21 25 11.1	-0.4
SCLRA	Santa Clara, W	0.56	22	⇓*e*P	Pb	21 25 05.1	+0.7
BRU2	Volcan	0.56	31	P	Pb	21 25 05.0	+0.5
BRU2				S	Sb	21 25 12.3	+0.1
BRU2	Volcan	0.56	31	⇓*e*P	Pb	21 25 05.0	+0.5
BRU2	Volcan	0.56	31	⇓*i*P	Pb	21 25 05.0	+0.5
BRU2				*e*S	Sb	21 25 13.3	+1.1
CLLRA	Cordillera,	0.57	41	⇓*e*P	Pb	21 25 05.0	+0.5
CLLRA	Cordillera,	0.57	41	*i* P	Pb	21 25 04.8	+0.3
LOMA3	Las Lomas, Chi	0.60	78	⇓*i*P	Pb	21 25 04.9	-0.2
LOMA3				*e*S	Sg	21 25 12.7	-0.5
PTAR3	Potrerillos Ar	0.62	52	⇓*i*P	Pg	21 25 05.7	+0.2
PTAR3				*e*S	Sb	21 25 14.6	+0.9
CHIR3	Chiriqui UPA,	0.66	83	⇓*i*P	Pb	21 25 05.7	-0.3
CHIR3				*e*S	Sb	21 25 15.0	+0.2
BQTLY	Boquete Panama	0.69	50	⇓*e*P	Pb	21 25 06.6	0.0
BQSF3	Alto Boquete,	0.70	52	*i* P	Pb	21 25 06.7	-0.1
BQSF3				*e*S	Sb	21 25 15.7	-0.3
LNBQ3	Los Naranjos,	0.72	49	*i* P	Pb	21 25 06.9	-0.3
LNBQ3				*e*S	Sb	21 25 16.8	0.0
EDP2	Potrero Grande	0.73	345	*e*P	Pn	21 25 08.0	-0.5
DRK0	Durika	0.98	345	⇓*e*P	Pb	21 24 58.2	-13
DRK0	Durika	0.98	345	⇓*i*P	Pb	21 24 58.2	-13
DRK0				*e*S	Sb	21 25 12.4	-12
RBALA	Bur	1.00	56	⇓*e*P	Pb	21 25 11.6	-0.3
RBALA	Bur	1.00	56	*i* P	Pb	21 25 11.5	-0.5
RBALA				*i* P	Pb	21 25 11.5	-0.5
RBALA				*e*S	Sb	21 25 25.1	+0.3
OCHAL	Ojochal	1.02	320	P	Pg	21 25 12.9	0.0
OCHAL				S	Sn	21 25 26.8	+0.5
EDPE	Pejibaye, P	1.02	326	⇑*e*P	Pb	21 25 12.2	0.0
CHGR2	Aguacate	1.04	53	⇓*i*P	Pb	21 25 12.0	-0.7
CHGR2				*e*S	Sb	21 25 25.4	-0.5
SAJE	San Jernim	1.15	334	*e*P	Pn	21 25 14.1	-0.3
CNI2	El Empalme, Bo	1.22	25	⇓*i*P	Pn	21 25 15.4	+0.2
KKNTU	Kakintº	1.28	66	⇓*e*P	Pn	21 25 15.4	-0.7
CEUA	Cerro Uatsi, L	1.30	2	*e*P	Pg	21 25 18.7	+0.4
RGM0	Gandoca	1.33	16	P	Pg	21 25 18.7	-0.1
SVQ2	Quepos	1.61	314	*e*P	Pg	21 25 23.5	-0.7
PIEC	Cerro El Cedra	1.62	324	*e*P	Pb	21 25 22.6	0.0
LCR2	La Lucha 2	1.74	325	P	Pb	21 25 24.3	-0.4
LCR2				S	Sg	21 25 48.8	-0.6
LCR2	La Lucha 2	1.74	325	⇑*e*P	Pb	21 25 24.2	-0.4
LCR2	La Lucha 2	1.74	325	*e*P	Pb	21 25 24.2	-0.4
VINA	Juan Vinas	1.74	335	*e*P	Pb	21 25 24.7	0.0
VERB	Verbena	1.77	337	*e*P	Pn	21 25 23.5	+0.6
PICV	PH. Pirrs	1.77	318	*e*P	Pb	21 25 25.2	+0.1
VTCV	VTCV, Calle Va	1.81	336	*e*P	Pb	21 25 26.7	+0.7
GMAL	Guarumal, Vera	1.82	107	*e*P	Pn	21 25 22.9	-0.7
GMAL	Guarumal, Vera	1.82	107	*e*P	Pn	21 25 22.7	-0.8
GMAL				*e*S	Sn	21 25 45.6	-0.6
ABRB	Las Abras (San	1.83	337	*e*P	Pb	21 25 26.2	0.0
RSUS3	Rio de Jesus,	1.84	100	*e*P	Pn	21 25 23.2	-0.6
CVTQ	Turrialba Volc	1.85	336	*e*P	Pb	21 25 26.8	+0.1
VTR0	Volcan Turrial	1.86	336	*e*P	Pb	21 25 26.6	-0.3
CVTR	Volcan Turrial	1.86	336	*e*P	Pb	21 25 26.6	-0.3
SAFE3	Santa Fe, Vera	1.90	84	*e*P	Pn	21 25 25.1	+0.4
STIA3	Santiago, Vera	2.01	96	*e*P	Pn	21 25 26.7	+0.6
CACAO	El Cacao, Vera	2.32	114	*e*P	Pn	21 25 31.0	+0.7
AZU	Azuero	2.74	101	*e*P	Pn	21 25 34.8	-1.3
JTS	Las Juntas de	2.76	316	P	Pb	21 25 39.8	-2.2
JTS	Las Juntas de	2.76	316	*e*P	Pn	21 25 37.9	+1.3
JTS				*e*S	Sn	21 26 10.9	+1.5
BCIP	Isla Barro Col	3.23	74	P	Pn	21 25 44.8	+1.9

UCR ***04*** *21:31:38.3±0.5, 8°.30N×82°.96W, h8^{km}±2^{km}, MW3.5, Presumed earthquake*
UPA ***04*** *21:31:38.5±1.1, 8°.34N×82°.93W, h8^{km}±6^{km}, MW3.6, Presumed earthquake*
ISC 04 21:31:38.2±1.0**, 8°.30N**±0°.03×**82°.95W**±0°.03**, h15**^{km}±8^{km}**, n32,** σ**0ˢ.62**/42**, 3C-5D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTPM	Petroterminale	0.12	144	⇑*i*P	Pg	21 31 41.8	0.0
PTPM				*e*S	Sb	21 31 45.5	+0.7
PTPA	Petro Terminal	0.13	142	*e*P	Pg	21 31 41.8	-0.1
PTPA				*e*S	Sb	21 31 45.3	+0.3
NELY	Ciudad Neily	0.35	0	*e*P	Pg	21 31 45.6	+0.2
NELY				*e*S	Sb	21 31 51.6	+0.2
PIRO	Carate, Puerto	0.40	285	*e*P	Pg	21 31 46.0	-0.3
PIRO	Carate, Puerto	0.40	285	⇑*i*P	Pg	21 31 46.0	-0.3
PIRO				*e*S	Sb	21 31 52.8	0.0
EDAD	Golfito	0.41	328	*e*P	Pg	21 31 45.9	-0.6
JIME	Puerto Jimenez	0.44	302	*e*P	Pg	21 31 47.5	+0.4
MLIR3	Monte Lirio, C	0.51	14	*e*P	Pg	21 31 48.7	+0.4
MLIR3				*e*S	Sg	21 31 55.2	+0.1
DVD	David	0.51	75	⇓*i*P	Pg	21 31 48.5	+0.1
DVD				*e*S	Sg	21 31 55.5	+0.3
VITO	San Vito	0.52	358	*e*P	Pb	21 31 49.4	+0.3
CLLRA	Cordillera,	0.55	37	*e*P	Pb	21 31 49.5	-0.1
BRU2	Volcan	0.55	27	*e*P	Pg	21 31 49.5	+0.3
BRU2	Volcan	0.55	27	⇓*i*P	Pb	21 31 49.6	-0.1
BRU2				*e*S	Sb	21 31 58.1	+0.6
SCLRA	Santa Clara, W	0.55	17	*e*P	Pb	21 31 49.6	-0.1
LOMA3	Las Lomas, Chi	0.57	77	*e*P	Pb	21 31 50.1	+0.3
PTAR3	Potrerillos Ar	0.59	49	⇓*i*P	Pg	21 31 50.2	+0.3
PTAR3				*e*S	Sg	21 31 57.9	0.0
CHIR3	Chiriqui UPA,	0.62	81	⇑*i*P	Pg	21 31 50.2	-0.2
CHIR3				*e*S	Sb	21 31 59.9	+0.6
BQTLY	Boquete Panama	0.66	47	*e*P	Pg	21 31 51.1	-0.2
BQSF3	Alto Boquete,	0.67	49	⇓*i*P	Pg	21 31 51.2	-0.2
BQSF3				*e*S	Sb	21 32 00.6	-0.3
EDP2	Potrero Grande	0.75	342	*e*P	Pb	21 31 52.8	-0.1
RBALA	Bur	0.97	54	*e*P	Pb	21 31 56.0	-0.8
CHGR2	Aguacate	1.02	51	⇓*i*P	Pb	21 31 56.5	-1.0
EDPE	Pejibaye, P	1.05	324	*e*P	Pb	21 31 57.0	-1.1
SAJE	San Jernim	1.18	332	*e*P	Pn	21 31 59.1	-1.2
KKNTU	Kakintº	1.25	65	*e*P	Pn	21 31 60.0	-1.2
CEUA	Cerro Uatsi, L	1.31	0	*e*P	Pg	21 32 03.2	-0.4
PIEC	Cerro El Cedra	1.65	323	*e*P	Pn	21 32 07.3	+0.5
LCR2	La Lucha 2	1.77	324	*e*P	Pb	21 32 09.8	-0.7
VERB	Verbena	1.79	336	*e*P	Pn	21 32 08.6	-0.2
VTCV	VTCV, Calle Va	1.84	335	*e*P	Pn	21 32 10.2	+0.8
ARE1	Arenal 1	2.77	321	*e*P	Pn	21 32 23.6	+1.6
VARE2	V. Arenal	2.77	321	*e*P	Pn	21 32 23.6	+1.5

JMA 04 21:43:55.7±0.4**, 25°N**±2°×**123°.5E**±0°.5**, h20**^{km}**, MV1.4**/6**, NW OFF ISHIGAKIJIMA IS, Southwestern Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IRIF	Iriomote-Funau	0.61	159	*e*P	Pb	21 44 07.4	-0.3
JYNG	Yonagunijimaku	0.67	228	*e*P	Pb	21 44 08.4	-0.2
JYNG				*e*S	Sb	21 44 18.1	+0.7
JIJ	Ishigaki jima	0.80	132	*e*P	Pb	21 44 10.5	-0.5
JIJ				*e*S	Sb	21 44 20.1	-1.2
JKRS	Kuro-shima	0.81	144	*e*P	Pb	21 44 11.0	-0.1
JKRS				S	Sb	21 44 21.7	0.0

TAP 04 21:44:24.8, 24°.41N×121°.92E, h17^{km}**, ML1.8, B, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EWUT	Wuta	0.13	287	P	Pb	21 44 29.4	+0.5
EWUT				*i* S	Sb	21 44 32.4	+0.8
EAHA	Aohua	0.18	245	*e*S	Sb	21 44 33.6	+0.6
EOS2	EOS2	0.29	88	*i* P	Pb	21 44 31.5	0.0
EOS2				*i* S	Sb	21 44 36.8	+0.9
NDS	Dongshan	0.29	321	*e*P	Pb	21 44 31.9	+0.3
NDS				*i* S	Sb	21 44 36.5	+0.3
ETL	Fush Village	0.36	228	*e*P	Pn	21 44 34.5	-0.9
NACB	Ninganchiao	0.38	232	*e*P	Pb	21 44 33.1	+0.1
NACB				*e*S	Sb	21 44 38.7	+0.1
LATG	Datong	0.38	290	*i* P	Pb	21 44 33.5	+0.3
LATG				S	Sb	21 44 39.3	+0.5
EOS3	EOS3	0.38	108	*e*P	Pb	21 44 33.0	-0.1
EOS3				*e*S	Sb	21 44 39.4	+0.7
TWE	Neicheng	0.39	324	*e*P	Pg	21 44 33.0	+0.2
TWE				S	Sb	21 44 39.0	0.0
ETLH	Xiulin Townshi	0.45	243	*e*P	Pb	21 44 34.2	-0.1
ETLH				S	Sb	21 44 41.3	+0.6
FUSB	Fushanzhiwuyua	0.46	319	*i* P	Pb	21 44 35.2	+0.6
FUSB				*e*S	Sb	21 44 41.9	+0.7
EOS4	EOS4	0.46	128	*e*P	Pb	21 44 34.4	+0.1
NNSB	Datong	0.49	273	*e*P	Pb	21 44 35.4	+0.3
NNSB				*e*S	Sb	21 44 42.1	+0.1
NNS	Nan Shan	0.50	274	S	Sb	21 44 42.4	+0.1
YHNB	Yeheng	0.56	298	*e*P	Pb	21 44 36.3	0.0
YHNB				*e*S	Sb	21 44 44.9	+0.9
TIPB	Shuangxi	0.57	352	*e*P	Pb	21 44 36.8	+0.4
NSK	Sanguang	0.58	298	*e*P	Pn	21 44 37.5	-0.8
FUSS	Fushou	0.64	256	*e*P	Pn	21 44 39.0	-0.3

KRSC ***04*** *21:50:15.5±1.4, 52°.12N×160°.45E, h31^{km}±22^{km}, Ml4.6*
MOS ***04*** *21:50:18.0±1.0, 52°.15N×160°.31E, h46^{km}, mb4.5/7, Error ellipse: s-maj=9.2km s-min=4.2km az=105.3*
IDC ***04*** *21:50:19.2±3.5, 52°.36N×160°.02E, h33^{km}±23^{km}, mb3.8/22, mbtmp4.0/24, ML4.5/2, MS3.5/1, Error ellipse: s-maj=23.1km s-min=16.8km az=126.0*
NEIC ***04*** *21:50:20.2±1.9, 52°.5N±0°.1×159°.9E±0°.1, h35^{km}±2^{km}, mb4.4/18, Error ellipse: s-maj=18.0km s-min=12.3km az=197.0*
ISC 04 21:50:20.6±1.0**, 52°.25N**±0°.04×**160°.22E**±0°.04**, h52**^{km}±9^{km}**, n143,** σ**1ˢ.48**/158**, mb4.2**/33**, 5C, Off east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SPN	Mys Shipunski	0.86	352	PN	Pn	21 50 34.9	-1.5
SPN				S	Sn	21 50 47.7	-0.3
SPN	Mys Shipunski	0.86	352	*e*P	Pn	21 50 34.9	-1.5
SPN				*e*S	Sn	21 50 47.7	-0.3
RUS	Russkaya	1.06	281	PN	Pn	21 50 37.5	-1.6
RUS				S	Sn	21 50 53.7	+0.9
RUS	Russkaya	1.06	281	*e*P	Pn	21 50 37.5	-1.6
RUS				*e*S	Sn	21 50 53.7	+0.9
NLC	Nalytchevo	1.06	330	PN	Pn	21 50 38.2	-0.9
NLC				S	Sn	21 50 54.5	+1.6
NLC	Nalytchevo	1.06	330	*e*P	Pn	21 50 38.2	-0.9
NLC				*e*S	Sn	21 50 54.6	+1.6
DALK	Dalny	1.19	312	PN	Pn	21 50 39.6	-1.2
DALK				S	Sn	21 50 56.8	+1.0
DALK	Dalny	1.19	312	*e*P	Pn	21 50 39.6	-1.2
DALK				*e*S	Sn	21 50 56.9	+1.0
PET	Petropavlovsk	1.23	310	α*i*PN	Pn	21 50 40.5	-0.9
PET				*e*S	Sn	21 50 58.0	+1.1
PET				pmax	pmax		
	comp=Z,832nm,0.5s						
PET				smax	smax		
	comp=N,3μm,0.8s						
PET				smax	smax		
	comp=E,2μm,0.8s						
PET	Petropavlovsk	1.23	310		Pn	21 50 37.8	-3.6
MTVR	Mutnovka	1.27	281	PN	Pn	21 50 40.9	-1.1
MTVR				S	Sn	21 50 59.7	+1.6
MTVR	Mutnovka	1.27	281	*e*P	Pn	21 50 41.0	-1.1
MTVR				*e*S	Sn	21 50 59.7	+1.6
INSR	Institute	1.28	310	PN	Pn	21 50 41.1	-0.9
INSR				S	Sn	21 50 59.5	+1.4
INSR	Institute	1.28	310	*e*P	Pn	21 50 41.1	-0.9
INSR				*e*S	Sn	21 50 59.5	+1.4
UGLR	Uglovaya	1.28	319	PN	Pn	21 50 41.6	-0.6
UGLR				S	Sn	21 51 01.1	+2.8
UGLR	Uglovaya	1.28	319	*e*P	Pn	21 50 41.7	-0.6
UGLR				*e*S	Sn	21 51 01.1	+2.8
SDLR	Sedlovina	1.31	322	PN	Pn	21 50 41.9	-0.7
SDLR				S	Sn	21 51 01.4	+2.3
SDLR	Sedlovina	1.31	322	*e*P	Pn	21 50 42.0	-0.7
SDLR				*e*S	Sn	21 51 01.4	+2.3
SMAR	Somma	1.33	320	PN	Pn	21 50 42.3	-0.6
SMAR	Somma	1.33	320	*e*P	Pn	21 50 42.4	-0.6
GRL	Gorelyy	1.35	284	PN	Pn	21 50 43.0	-0.1
GRL	Gorelyy	1.35	284	*e*P	Pn	21 50 43.1	-0.1
AVH	Avacha	1.36	319	PN	Pn	21 50 42.7	-0.5
AVH	Avacha	1.36	319	*e*P	Pn	21 50 42.8	-0.5
KRER	Koryakskii	1.38	320	PN	Pn	21 50 43.0	-0.6
KRER	Koryakskii	1.38	320	*e*P	Pn	21 50 43.1	-0.6
KDTR	Khodutka, Kamc	1.39	252	PN	Pn	21 50 41.7	-1.9
KDTR				S	Sn	21 51 00.0	-0.8
KDTR	Khodutka, Kamc	1.39	252	*e*P	Pn	21 50 41.8	-1.9
KDTR				*e*S	Sn	21 51 00.1	-0.8
KRMR	Karymshinskiy	1.40	295	PN	Pn	21 50 42.7	-1.0
KRMR				S	Sn	21 51 03.7	+2.7
KRMR	Karymshinskiy	1.40	295	*e*P	Pn	21 50 42.8	-1.0
KRMR				*e*S	Sn	21 51 03.8	+2.7
KOK	Koryaka	1.42	318	PN	Pn	21 50 43.8	-0.2
KOK	Koryaka	1.42	318	*e*P	Pn	21 50 43.9	-0.2
ASAK	Asacha	1.43	276	PN	Pn	21 50 43.6	-0.6
ASAK				S	Sn	21 51 04.5	+2.6
ASAK	Asacha	1.43	276	*e*P	Pn	21 50 43.6	-0.6
ASAK				*e*S	Sn	21 51 04.5	+2.6
KRX	Arik	1.46	320	PN	Pn	21 50 44.1	-0.6
KRX	Arik	1.46	320	*e*P	Pn	21 50 44.2	-0.6
PEA0B	Petropavlovsk-	1.76	300	*ce*PN	Pn	21 50 48.3	-0.3
PEA0B	Petropavlovsk-	1.76	300		Pn	21 50 44.8	-3.8
PETK	Petropavlovsk-	1.76	300	Pg	Pn	21 50 49.0	+0.4
	comp=E,39nm,0.3s,baz=52,slow=15,SNR=91						
PETK				LR	LR	21 51 09.4	
	comp=E,115nm,21.5s,baz=50,slow=31						
PETK				Lg	Lg	21 51 13.4	
	comp=E,80nm,0.3s,baz=104,slow=19,SNR=5.8						
PETK	Petropavlovsk-	1.76	300		Pn	21 50 43.6	-5.0
KII	Karymskiy	1.85	346	PN	Pn	21 50 49.5	-0.4
KII	Karymskiy	1.85	346	*e*P	Pn	21 50 49.6	-0.4
APC	Apacha	1.98	291	PN	Pn	21 50 52.0	+0.4
APC	Apacha	1.98	291	*e*P	Pn	21 50 52.1	+0.4
GNL	Ganaly	2.00	317	PN	Pn	21 50 52.3	+0.4
GNL	Ganaly	2.00	317	*e*P	Pn	21 50 52.4	+0.4
MIPR	Malaya Ipel'ka	2.13	272	PN	Pn	21 50 53.8	+0.2
MIPR	Malaya Ipel'ka	2.13	272	*e*P	Pn	21 50 53.8	+0.2
MKZ	Mys Kozlova	2.48	21	PN	Pn	21 50 56.3	-2.1
MKZ				S	Sn	21 51 25.6	-1.8
MKZ	Mys Kozlova	2.48	21	*e*P	Pn	21 50 56.3	-2.1
MKZ				*e*S	Sn	21 51 25.7	-1.8
SKR	Severo-Kuril’s	3.01	240	*e*PN	Pn	21 51 06.4	+0.8
SKR				*e*S	Sn	21 51 43.3	+2.9
SKR				pmax	pmax		
	comp=Z,89nm,0.6s						
SKR				smax	smax		
	comp=E,352nm,0.8s						
SKR				smax	smax		
	comp=N,649nm,0.7s						
SKR				MLR	MLR		
	comp=Z,600nm,15.0s						
SKR	Severo-Kuril’s	3.01	240	*e*P	Pn	21 51 04.3	-1.4
KMNR	Kamenistaya	3.51	0	PN	Pn	21 51 14.1	+1.5
KMNR	Kamenistaya	3.51	0	*e*P	Pn	21 51 14.2	+1.5
BZP	Bezymyannyi-Pe	3.67	3	PN	Pn	21 51 16.0	+1.1
BZP	Bezymyannyi-Pe	3.67	3	*e*P	Pn	21 51 16.0	+1.1
BZGR	Bezymyannyi-Gr	3.71	4	PN	Pn	21 51 16.1	+0.8
BZGR	Bezymyannyi-Gr	3.71	4	*e*P	Pn	21 51 16.2	+0.8
KIRR	Kirishev	3.71	1	PN	Pn	21 51 18.5	+3.1
KIRR	Kirishev	3.71	1	*e*P	Pn	21 51 18.6	+3.1
BZWR	Bezymyannyi-We	3.73	2	PN	Pn	21 51 18.6	+3.0
BZWR	Bezymyannyi-We	3.73	2	*e*P	Pn	21 51 18.7	+3.0
ESO	Esso	3.79	347	PN	Pn	21 51 17.2	+0.8
ESO	Esso	3.79	347	*e*P	Pn	21 51 17.2	+0.8
ZLN	Zelenaya	3.79	5	PN	Pn	21 51 18.0	+1.5
ZLN	Zelenaya	3.79	5	*e*P	Pn	21 51 18.1	+1.5
CIRR	Tsirk	3.89	4	PN	Pn	21 51 21.4	+3.6
CIRR	Tsirk	3.89	4	*e*P	Pn	21 51 21.4	+3.6
KBTR	Krutoberegovo	4.25	20	PN	Pn	21 51 21.8	-0.9
KBTR	Krutoberegovo	4.25	20	*e*P	Pn	21 51 21.8	-0.9
SHEM	Shemya Is, Ala	8.49	81	Sn	Sn	21 53 44.9	-10
	comp=Z,9.1nm,0.3s,baz=270,slow=18,SNR=5.6						
AMKA	Amchitka	11.85	87	Pn	Pn	21 53 10.1	+3.5
JKA	Kamikawa-asahi	14.27	242	Pn	Pn	21 53 38.9	-0.6
BILL	Bilibino	16.11	8	*i* P	Pn	21 54 02.4	-0.8
KLR	Kul'dur	18.22	272	P	P	21 54 28.7	-0.4
	comp=Z,0.1nm,0.3s,baz=60,slow=8.5,SNR=8.4						
	comp=Z,2.4nm,0.8s						
KLR				AML	AML		
KLR	Kul'dur	18.22	272	*i* P	Pn	21 54 29.3	-0.1
KLR				pmax	pmax		
	comp=Z,10.0nm,2.3s						
YAK	Yakutsk	19.06	313	P	P	21 54 36.2	-2.0
	comp=Z,2.7nm,0.3s,baz=352,slow=7.8,SNR=5.2						
	comp=Z,20nm,0.7s						
YAK				AML	AML		
YAK	Yakutsk	19.06	313	*e*P	P	21 54 36.0	-2.2
YAK				pmax	pmax		
	comp=Z,22nm,1.2s						
YAK				pmax	pmax		
	comp=N,3.0nm,1.5s						
YAK				pmax	pmax		
	comp=E,7.0nm,1.1s						
MAJO	Matsushiro	22.09	233	P	P	21 55 11.8	+0.6
MAJO				IAmb	IAmb	21 55 14.7	
	comp=Z,8.3nm,0.9s						
MJAR	Matsushiro Arr	22.09	233	P	P	21 55 11.6	+0.4
	comp=Z,3.0nm,0.8s,baz=21,slow=9.7,SNR=9.6						
	comp=Z,3.0nm,0.8s						
MJAR	Matsushiro Arr	22.09	233	P	P	21 55 11.9	+0.6
MJB9	Matsu-Tunnel	22.09	233		P	21 55 12.6	+1.4
MJB9				IAmb	IAmb	21 55 16.4	
	comp=Z,16nm,1.2s						
TIXI	Tiksi	23.88	336	LR	LR	22 06 36.0	
	comp=Z,99nm,18.4s,baz=230,slow=41						
TIXI	Tiksi	23.88	336	*ce*P	P	21 55 27.4	-1.4
TIXI				pmax	pmax		
	comp=Z,6.0nm,0.5s						
TIXI	Tiksi	23.88	336		P	21 55 26.8	-2.0
TIXI				IAmb	IAmb	21 55 28.7	
	comp=Z,8.9nm,0.8s						
N18K	Kilae Creek	25.23	53	P	P	21 55 42.5	+1.3
HILR	Hailar Array B	25.43	280	P	P	21 55 41.2	-2.0
	comp=Z,0.8nm,0.4s,baz=81,slow=9.3,SNR=4.7						
	comp=Z,0.8nm,0.4s						
ILAR	Eielson Array	29.36	44	P	P	21 56 17.1	-1.1
	comp=Z,0.3nm,0.7s,baz=269,slow=7.3,SNR=2.8						
	comp=Z,0.3nm,0.7s						
ILAR	Eielson Array	29.36	44	P	P	21 56 17.8	-0.4
H11N2	WAKE ISLAND Hy	32.87	168	T	T	22 32 33.6	
	baz=352,slow=76,SNR=52						
H11N3	WAKE ISLAND Hy	32.89	168	T	T	22 32 45.7	
	baz=352,slow=76,SNR=42						
H11N1	WAKE ISLAND Hy	32.89	168	T	T	22 32 45.9	
	baz=352,slow=76,SNR=64						
H11S1	WAKE ISLAND Hy	34.05	169	T	T	22 34 19.5	

	baz=352						
H11S3	**WAKE ISLAND Hy**	**34.07**	**169**	T	T	22 34 13.1	
	baz=352,SNR=2.0						
H11S2	**WAKE ISLAND Hy**	**34.07**	**169**	T	T	22 34 12.0	
	baz=352						
SONM	**Songino Array**	**34.17**	**284**	P	**P**	**21 56 59.0**	**-1.7**
	comp=Z,0.4nm,0.4s,baz=60,slow=9.0,SNR=3.6						
	comp=Z,0.4nm,0.4s						
SONM	**Songino Array**	**34.17**	**284**	*e*P	**P**	**21 57 00.7**	**0.0**
SONM				pmax	pmax		
	comp=Z,1.0nm,0.3s						
SONM	**Songino Array**	**34.17**	**284**	IAmb	IAmb	21 57 08.2	
	comp=Z,1.1nm,1.0s						
ZALV	**Zalesovo Beam**	**43.30**	**303**	P	**P**	**21 58 14.6**	**-2.2**
	comp=Z,0.7nm,0.5s,baz=59,slow=5.2,SNR=4.5						
	comp=Z,0.7nm,0.5s						
ZALV	**Zalesovo Beam**	**43.30**	**303**	P	**P**	**21 58 14.5**	**-2.3**
SPITS	**Spitsbergen Ar**	**47.98**	**351**	P	**P**	**21 58 53.9**	**+0.4**
	comp=Z,6.3nm,0.5s,baz=60,slow=10,SNR=19						
	comp=Z,6.3nm,0.5s						
SPB2	**Spitsbergen Ar**	**47.98**	**351**	P	**P**	**21 58 53.5**	**+0.1**
KURK	**Kurchatov**	**48.25**	**303**	P	**P**	**21 58 54.9**	**-0.9**
KURK	**Kurchatov**	**48.25**	**303**		**P**	**21 58 53.6**	**-2.2**
KURK				IAmb	IAmb	21 58 54.8	
	comp=Z,3.0nm,0.7s						
KURBB	**Kurchatov Arra**	**48.35**	**302**	P	**P**	**21 58 54.9**	**-1.7**
	comp=Z,3.1nm,0.8s,baz=59,slow=7.5,SNR=15						
	comp=Z,3.1nm,0.8s						
MKAR	**Makanchi Array**	**48.59**	**296**	P	**P**	**21 58 56.9**	**-1.7**
	comp=Z,0.9nm,0.5s,baz=57,slow=7.1,SNR=17						
	comp=Z,0.9nm,0.5s						
MKAR	**Makanchi Array**	**48.59**	**296**	P	**P**	**21 58 56.5**	**-2.1**
BVAR	**Borovoye Array**	**50.98**	**309**	P	**P**	**21 59 15.0**	**-1.6**
	comp=Z,2.7nm,0.6s,baz=60,slow=8.8,SNR=17						
	comp=Z,2.7nm,0.6s						
BORK	**Borovoye**	**50.99**	**309**		**P**	**21 59 15.2**	**-1.6**
BORK				IAmb	IAmb	21 59 16.8	
	comp=Z,3.0nm,0.8s						
ARCES	**ARCESS Array B**	**54.11**	**342**	P	**P**	**21 59 39.3**	**-0.2**
	comp=Z,3.0nm,0.7s,baz=27,slow=11,SNR=8.9						
	comp=Z,3.0nm,0.7s						
ARCES	**ARCESS Array B**	**54.11**	**342**	P	**P**	**21 59 39.1**	**-0.4**
ARCES				IAmb	IAmb	21 59 40.2	
	comp=Z,3.1nm,0.8s						
CMAR	**Chiang Mai Arr**	**58.09**	**259**	P	**P**	**22 00 09.7**	**+1.1**
	comp=Z,0.8nm,0.6s,baz=23,slow=7.8,SNR=6.8						
	comp=Z,0.8nm,0.6s						
AB31	**Akbulak array**	**58.40**	**311**	P	**P**	**22 00 08.8**	**-1.5**
ABKAR	**Akbulak array**	**58.40**	**311**	P	**P**	**22 00 09.2**	**-1.1**
PASC	**Pasadena Art C**	**58.97**	**73**	P	**P**	**22 00 16.4**	**+1.8**
BTK	**Batken**	**59.30**	**297**	P	**P**	**22 00 15.4**	**-1.4**
BTK				IAmb	IAmb	22 00 16.7	
	comp=Z,3.4nm,0.6s						
FIA1	**FINESS Array S**	**60.92**	**337**	P	**P**	**22 00 27.4**	**0.0**
FINES	**FINESS Array B**	**60.92**	**337**	P	**P**	**22 00 27.9**	**+0.4**
	comp=Z,4.6nm,0.5s,baz=33,slow=8.2,SNR=49						
	comp=Z,4.6nm,0.5s						
OBN	**Obninsk**	**63.27**	**328**	*e*P	**P**	**22 00 42.8**	**-0.5**
OBN				*e*		22 01 18.9	
OBN				*e*		22 02 59.9	
OBN				*e*PPP	PPP	22 04 32.4	
OBN				pmax	pmax		
	comp=Z,3.0nm,0.7s						
OBN				MLR	MLR		
	comp=Z,51nm,16.0s						
NB2	**NORSAR Subarra**	**64.37**	**344**	P	**P**	**22 00 51.7**	**+1.2**
	comp=Z,2.7nm,1.0s,baz=20,slow=6.9						
NOA	**NORSAR Array B**	**64.37**	**344**	P	**P**	**22 00 50.6**	**0.0**
	comp=Z,0.7nm,0.5s,baz=28,slow=6.0,SNR=13						
	comp=Z,0.7nm,0.5s						
NBO00	**NORSAR Array S**	**64.46**	**344**	P	**P**	**22 00 49.5**	**-1.5**
NORES	**NORESS Array B**	**64.60**	**344**	P	**P**	**22 00 53.0**	**+1.0**
NAO01	**NORSAR Array S**	**64.61**	**344**	P	**P**	**22 00 52.2**	**+0.2**
NAO01				IAmb	IAmb	22 01 00.3	
	comp=Z,7.4nm,0.9s						
HFS	**Hagfors**	**64.78**	**342**	P	**P**	**22 00 53.5**	**+0.4**
	comp=Z,3.7nm,0.8s,baz=20,slow=4.9,SNR=8.2						
	comp=Z,3.7nm,0.8s						
AKASG	**Malin Array Be**	**69.38**	**329**	P	**P**	**22 01 22.2**	**-0.2**
	comp=Z,1.7nm,0.4s,baz=32,slow=6.8,SNR=10						
	comp=Z,1.7nm,0.4s						
TXAR	**Lajitas Array**	**70.90**	**67**	P	**P**	**22 01 33.2**	**+0.9**
	comp=Z,0.2nm,0.5s,baz=322,slow=7.4,SNR=2.4						
	comp=Z,0.2nm,0.5s						
TXAR	**Lajitas Array**	**70.90**	**67**	P	**P**	**22 01 33.0**	**+0.8**
EKA	**Eskdalemuir Ar**	**71.90**	**350**	P	**P**	**22 01 38.3**	**+0.6**
	comp=Z,0.6nm,0.5s,baz=15,slow=5.9,SNR=4.4						
	comp=Z,0.6nm,0.5s						
BUR08	**Bucovina Ar. S**	**73.32**	**330**	P	**P**	**22 01 47.1**	**+0.7**
BUR08				IAmb	IAmb	22 01 58.7	
	comp=Z,3.2nm,1.1s						
BURAR	**Bucovina Array**	**73.34**	**330**	P	**P**	**22 01 46.9**	**+0.4**
BURAR				IAmb	IAmb	22 01 48.8	
	comp=Z,1.8nm,0.7s						
KHC	**Kasperske Hory**	**75.08**	**338**	*ce*P	**P**	**22 01 57.9**	**+1.3**
KHC				pmax	pmax		
	comp=Z,5.0nm,1.7s						
GERES	**GERESS Array B**	**75.32**	**338**	P	**P**	**22 01 58.2**	**+0.2**
	comp=Z,0.4nm,0.4s,baz=31,slow=3.1,SNR=5.1						
	comp=Z,0.4nm,0.4s						
GERES	**GERESS Array B**	**75.32**	**338**	*e*P	**P**	**22 01 57.8**	**-0.2**
GERES	**GERESS Array B**	**75.32**	**338**	P	**P**	**22 01 57.9**	**-0.2**
BRTR	**Keskin Array B**	**77.32**	**321**	P	**P**	**22 02 09.8**	**+0.2**
	comp=Z,0.7nm,0.7s,baz=34,slow=3.9,SNR=2.7						
	comp=Z,0.7nm,0.7s						
BRTR	**Keskin Array B**	**77.32**	**321**	P	**P**	**22 02 09.9**	**+0.3**
ASAR	**Alice Springs**	**79.02**	**204**	P	**P**	**22 02 20.1**	**+1.2**
	comp=Z,0.4nm,0.6s,baz=14,slow=5.2,SNR=8.8						
	comp=Z,0.4nm,0.6s						
ASAR	**Alice Springs**	**79.02**	**204**	P	**P**	**22 02 20.2**	**+1.4**
MMAI	**Mount Meron Ar**	**82.37**	**316**	P	**P**	**22 02 37.5**	**+0.6**
	comp=Z,2.3nm,0.7s,baz=13,slow=8.0,SNR=5.4						
	comp=Z,2.3nm,0.7s						
ESDC	**Sonseca Array**	**87.42**	**348**	P	**P**	**22 03 02.5**	**+0.3**
	comp=Z,0.7nm,0.9s,baz=355,slow=5.5,SNR=5.1						
	comp=Z,0.7nm,0.9s						
ESDC	**Sonseca Array**	**87.42**	**348**	P	**P**	**22 03 02.6**	**+0.5**
QSPA	**South Pole Qui**	**141.99**	**180**	PKhKP	PKPpre	22 09 39.9	
	comp=Z,0.8nm,0.8s,baz=60,slow=3.1,SNR=1.3						

IDC 04 22:06:54.6±2.0**, 6°.76S**×**127°.85E, h0^{km}, mb3.3**/1**, mbtmp3.9**/4**, ML4.0**/3**, MS3.2**/2**, Error ellipse: s-maj=59.8km s-min=24.0km az=74.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	**11.48**	**191**	Pn	Pn	22 09 35.9	-4.0
	0.9nm,0.3s,baz=14,slow=12,SNR=24						
FITZ				Sn	Sn	22 11 28.9	-20
	1.3nm,0.3s,baz=120,slow=20,SNR=7.6						
	2.1nm,0.3s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**14.54**	**155**	Pn	Pn	22 10 14.2	-7.6
	0.6nm,0.3s,baz=330,slow=11,SNR=17						
WRA				Sn	Sn	22 12 35.8	-28
	1.0nm,0.3s,baz=330,slow=22,SNR=11						
	1.3nm,0.7s						
WRA				AML	AML		
ASAR	**Alice Springs**	**17.79**	**162**	Pn	Pn	22 10 57.4	-6.4
	0.8nm,0.3s,baz=339,slow=11,SNR=101						
ASAR				Sn	Sn	22 13 56.2	-27
	0.4nm,0.3s,baz=318,slow=18,SNR=6.0						
	3.4nm,0.5s						
ASAR				AML	AML		
CTA	**Charters Tower**	**22.23**	**128**	LR	LR	22 21 59.6	
	comp=Z,33nm,21.2s,baz=52,slow=41						
STKA	**Stephens Creek**	**28.09**	**155**	LR	LR	22 25 26.0	
	comp=Z,89nm,21.5s,baz=269,slow=40						
MKAR	**Makanchi Array**	**66.87**	**328**	P	P	22 17 48.5	-0.1
	0.1nm,0.3s,baz=119,slow=8.2,SNR=1.7						
	0.1nm,0.3s						

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*NNC **04** 22:08:04.6±4.7, 41°.86N×80°.69E, h0^{km}, mb3.2, mpv2.8, Error ellipse: s-maj=37.0km s-min=25.3km az=6.0*

*SOME **04** 22:08:08.2, 42°.27N×81°.02E, h20^{km}*

ISC 04 22:07:60.0±3.2**, 42°.1N**±0°.1×**81°.59E**±0°.10**, h10^{km}, n10, σ1^s.47**/19**, 1C-5D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SHLS	**Shalkode**	**1.89**	**305**	*e*P	**Pn**	**22 08 30.4**	**-2.0**
	2.9nm,0.2s						
SHLS				*e*S	Sn	22 08 46.5	-10
	5.5nm,0.3s						
PDGK	**Podgornoye**	**1.97**	**309**	⇓Pn	**Pb**	**22 08 35.3**	**-0.7**
	1.8nm,0.8s						
PDGK				⇑Sn	**Sb**	**22 08 59.9**	**-0.8**
	2.7nm,0.5s						
UZB	**Uzynbulak**	**2.16**	**300**	*e*P	**Pb**	**22 08 40.5**	**+1.2**
UZB				*e*S	**Sn**	**22 09 03.8**	**+0.8**
KPKS	**Kokpek**	**2.53**	**303**	*e*P	**Pb**	**22 08 46.0**	**+0.4**
	0.3nm,0.1s						
KPKS				*e*S	**Sn**	**22 09 13.3**	**+1.1**
	5.7nm,0.2s						
SATY	**Saty**	**2.53**	**293**	*e*P	**Pb**	**22 08 46.5**	**+0.8**
	1.7nm,0.2s						
SATY				*e*S	**Sn**	**22 09 14.2**	**+1.9**
	4.7nm,0.2s						
DJR	**Jarkent**	**2.58**	**330**	*e*P	**Pg**	**22 08 49.6**	**+0.1**
DJR				*e*S	**Sb**	**22 09 19.3**	**+1.0**
ARXS	**Arharly**	**3.46**	**309**	*e*P	**Pb**	**22 09 02.0**	**+0.6**
	0.8nm,0.3s						
ARXS				*e*S	**Sb**	**22 09 40.7**	**-2.9**
	2.5nm,0.3s						
KOTS	**Kotyrbulak**	**3.49**	**290**	*e*P	**Pb**	**22 09 04.0**	**+2.1**
	1.8nm,0.2s						
KOTS				*e*S	**Sb**	**22 09 43.8**	**-0.5**
	8.7nm,0.8s						
MAKZ	**Makanchi**	**4.71**	**3**	⇓Pn	**Pb**	**22 09 22.4**	**-0.3**
	6.7nm,1.5s						
MAKZ				⇓Sn	**Sb**	**22 10 19.7**	**+0.3**
	2.7nm,1.2s						
MK31	**Makanchi Array**	**4.71**	**6**	⇓Pn	**Pb**	**22 09 22.3**	**-0.4**
	2.9nm,1.2s,baz=192,slow=14,SNR=7.5						
MK31				⇓Sn	**Sb**	**22 10 22.2**	**+2.7**
	2.4nm,1.2s,baz=199,slow=23						

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*NNC **04** 22:14:53.1±3.8, 36°.91N×70°.72E, h0^{km}, mb3.9, mpv3.7, Error ellipse: s-maj=30.0km s-min=24.3km az=0.0*

*IDC **04** 22:14:53.6±6.9, 36°.50N×71°.22E, h119^{km}±63^{km}, mb3.1/2, mbtmp3.6/6, Error ellipse: s-maj=80.7km s-min=46.5km az=130.0*

ISC 04 22:14:52.0±3.4**, 36°.6N**±0°.2×**70°.7E**±0°.2**, h150^{km}, n16, σ1^s.60**/16**, 3C-2D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EKS2	**Erkin-Say**	**6.50**	**20**	P	**Pn**	**22 16 25.5**	**+0.2**
	SNR=12						
KK31	**Karatay Array**	**6.50**	**359**	P	**Pn**	**22 16 26.4**	**+1.2**
	3.3nm,0.3s,baz=176,slow=12,SNR=108						
KK31				⇑S	**Sn**	**22 17 39.2**	**+0.9**
	18nm,0.5s,baz=180,slow=24						
AAK	**Ala-Archa**	**6.70**	**25**	P	**Pn**	**22 16 28.3**	**+0.3**
	10nm,0.3s,baz=181,slow=7.6,SNR=14						
AAK				S	**Sn**	**22 17 43.5**	**+0.2**
	4.9nm,0.5s,baz=351,slow=21,SNR=8.3						
AAK	**Ala-Archa**	**6.70**	**25**	P	**Pn**	**22 16 28.4**	**+0.3**
	SNR=6.3						
AAK	**Ala-Archa**	**6.70**	**25**	⇑P	**Pn**	**22 16 28.0**	**0.0**
	2.0nm,0.4s,baz=180,slow=24						
AAK				⇓S	**Sn**	**22 17 42.9**	**-0.4**
	3.0nm,0.6s,baz=180,slow=24						
KBK	**Karagaybulak**	**6.87**	**27**	P	**Pn**	**22 16 31.4**	**+1.0**
	SNR=5.2						
CHMS	**Chumysh**	**7.10**	**25**	P	**Pn**	**22 16 33.6**	**+0.3**
	SNR=17						
USP	**Ospenovka**	**7.26**	**22**	P	**Pn**	**22 16 34.9**	**-0.6**
	SNR=14						
TKM2	**Tokmak 2**	**7.34**	**29**	P	**Pn**	**22 16 36.9**	**+0.1**
	SNR=10.0						
MK31	**Makanchi Array**	**13.34**	**37**	⇓P	**P**	**22 18 01.9**	**+2.2**
	1.3nm,0.9s,baz=180,slow=24,SNR=14						
MKAR	**Makanchi Array**	**13.34**	**37**	P	**P**	**22 17 56.5**	**-3.1**
	0.2nm,0.6s,baz=211,slow=9.2,SNR=15						
AB31	**Akbulak array**	**14.89**	**332**	P	P	22 18 20.0	+3.3
	0.3nm,0.2s,baz=180,slow=24,SNR=28						
AB31				⇑S	**S**	**22 21 03.6**	**-3.1**
	1.1nm,0.5s,baz=180,slow=24						
KURBB	**Kurchatov Arra**	**15.10**	**19**	P	**P**	**22 18 21.4**	**+2.3**
	0.6nm,0.5s,baz=209,slow=10,SNR=6.8						
ZALV	**Zalesovo Beam**	**19.92**	**25**	P	Pn	22 19 14.4	-0.5
	0.7nm,0.3s,baz=230,slow=11,SNR=5.8						
NOA	**NORSAR Array B**	**44.16**	**323**	P	P	22 22 52.5	+7.1
	0.4nm,0.7s,baz=98,slow=7.9,SNR=1.6						
	0.4nm,0.7s						
TORD	**Torodi Ar. Bea**	**65.49**	**268**	P	P	22 25 27.1	+7.7
	0.6nm,0.8s,baz=60,slow=8.4,SNR=2.4						
	0.6nm,0.8s						

IDC 04 22:21:29.9±3.2**, 32°.72S**×**178°.27W, h0^{km}, mb3.5**/2**, mbtmp3.5**/3**, ML3.3**/1**, Error ellipse: s-maj=74.8km s-min=37.2km az=115.0, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	**6.69**	**213**	Pn	Pn	22 23 09.5	+0.1
	0.7nm,0.3s,baz=252,slow=5.2,SNR=6.9						
URZ				Sn	Sn	22 24 26.6	+0.3
	1.4nm,0.3s,baz=107,slow=17,SNR=9.1						
	1.5nm,0.4s						
URZ				AML	AML		
ASAR	**Alice Springs**	**42.81**	**270**	P	P	22 29 29.6	-0.1
	0.3nm,0.6s,baz=110,slow=7.9,SNR=6.1						
	0.3nm,0.6s						
WRA	**Warramunga Arr**	**44.01**	**275**	P	P	22 29 39.3	-0.1
	0.5nm,0.3s,baz=112,slow=8.1,SNR=8.5						
	0.5nm,0.3s						
FINES	**FINESS Array B**	**147.23**	**339**	PKPbc	PKPbc	22 41 13.5	-0.8
	1.8nm,0.8s,baz=345,slow=1.6,SNR=4.2						

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*IDC **04** 22:26:58.5±1.4, 34°.76N×25°.14E, h0^{km}, mb3.8/7, mbtmp3.8/9, ML3.1/3, Error ellipse: s-maj=28.5km s-min=20.2km az=170.0*

*ISK **04** 22:27:01.9, 34°.87N×25°.29E, h8^{km}, ML3.0/19*

*ATH **04** 22:27:01.9, 34°.76N×25°.26E, h10^{km}±2^{km}, ML3.3/10, Latitude uncertainty: 1 km; Longitude uncertainty: 2 km*

*THE **04** 22:27:02.4, 35°N±1°×25°.3E±0°.7, h4^{km}±2^{km}, M3.1/11, MLh3.1/11*

*GII **04** 22:27:05.6±0.0, 34°.437N±0°.002×25°.830E±0°.001, h0^{km}, Mws3.2, confirmed*

*AFAD **04** 22:27:13.4, 35°.38N×25°.92E, h8^{km}±3^{km}, ML2.7*

ISC 04 22:27:00.2±1.1**, 34°.91N**±0°.04×**25°.46E**±0°.02**, h15^{km}**±7^{km}**, n89, σ2^s.42**/126**, mb3.8**/6**, Crete**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NPS	**Neapolis**	**0.38**	**20**	P	**Pn**	**22 27 11.6**	**+0.4**
NPS				S	**Sb**	**22 27 18.5**	**+4.2**
NPS				AML	AML		
NPS	**Neapolis**	**0.38**	**20**	P	**Pn**	**22 27 12.0**	**+0.8**
NPS				S	**Sb**	**22 27 20.9**	**+6.6**
NPS				AML	AML		
IACM	**Heraklion**	**0.51**	**321**	P	**Pb**	**22 27 11.7**	**+0.8**
IACM				S	**Sb**	**22 27 18.4**	**+0.4**
IACM	**Heraklion**	**0.51**	**321**	P	**Pn**	**22 27 12.5**	**-0.5**
IACM				S	**Sn**	**22 27 20.3**	**-1.1**
SIVA	**Sivas**	**0.54**	**282**	P	**Pb**	**22 27 10.7**	**-0.8**
SIVA				S	**Sg**	**22 27 16.5**	**-1.7**
SIVA				AML	AML		
SIVA	**Sivas**	**0.54**	**282**	P	**Pb**	**22 27 10.7**	**-0.8**
SIVA				S	**Sg**	**22 27 17.1**	**-1.2**
SIVA				AML	AML		
IDI	**Anoyia**	**0.60**	**309**	P	**Pb**	**22 27 12.5**	**+0.1**
IDI				S	**Sb**	**22 27 20.9**	**+0.1**
IDI				AML	AML		
IDI	**Anoyia**	**0.60**	**309**	Pg	**Pb**	**22 27 12.6**	**+0.1**
IDI				AML	AML		
IDI	**Anoyia**	**0.60**	**309**	P	**Pb**	**22 27 12.6**	**+0.1**
IDI				S	**Sb**	**22 27 22.0**	**+1.2**
SIT2	**Siteia**	**0.61**	**61**	P	**Pn**	**22 27 17.8**	**+3.5**
ZKR	**Zakros**	**0.66**	**72**	P	**Pn**	**22 27 17.3**	**+2.3**
ZKR				S	**Sn**	**22 27 29.4**	**+4.3**
ZKR	**Zakros**	**0.66**	**72**	Pg	**Pn**	**22 27 17.1**	**+2.1**
ZKR				Sg	**Sn**	**22 27 29.8**	**+4.7**
ZKR				AML	AML		
ZKR	**Zakros**	**0.66**	**72**	P	**Pn**	**22 27 17.1**	**+2.1**
ZKR				S	**Sn**	**22 27 30.1**	**+5.0**
ZKR				AML	AML		
GVD	**Gavdhos**	**1.13**	**267**	P	**Pg**	**22 27 20.7**	**-1.3**
GVD				S	**Sg**	**22 27 35.7**	**-1.1**
GVD				AML	AML		
GVD	**Gavdhos**	**1.13**	**267**	Pg	**Pg**	**22 27 20.9**	**-1.1**
GVD				Sg	**Sg**	**22 27 36.1**	**-0.7**
GVD				AML	AML		
GVD	**Gavdhos**	**1.13**	**267**	P	**Pg**	**22 27 20.4**	**-1.6**
GVD				AML	AML		
VAM	**Vamos**	**1.15**	**296**	P	**Pn**	**22 27 22.3**	**+0.6**
VAM				S	**Sb**	**22 27 37.5**	**+1.0**
VAM				AML	AML		
GVDS	**Gavdos**	**1.15**	**267**	P	**Pg**	**22 27 21.0**	**-1.5**
GVDS				S	**Sg**	**22 27 36.1**	**-1.4**
GVDS				AML	AML		
GVDS	**Gavdos**	**1.15**	**267**	P	**Pg**	**22 27 20.9**	**-1.6**
CHAN	**Chania**	**1.31**	**298**	P	**Pb**	**22 27 25.4**	**+0.8**
IMMV	**Iera Moni Meta**	**1.33**	**295**	P	**Pb**	**22 27 24.8**	**-0.1**
IMMV				S	**Sn**	**22 27 43.1**	**+1.4**
IMMV				AML	AML		
IMMV	**Iera Moni Meta**	**1.33**	**295**	Pn	**Pb**	**22 27 25.7**	**+0.8**
IMMV				AML	AML		
IMMV	**Iera Moni Meta**	**1.33**	**295**	P	**Pb**	**22 27 24.9**	**-0.1**
IMMV				AML	AML		
THERA	**Ancient Thera,**	**1.46**	**1**	P	**Pg**	**22 27 29.7**	**+1.5**
THERA				S	**Sn**	**22 27 50.1**	**+5.3**
THERA				AML	AML		
THERA	**Ancient Thera,**	**1.46**	**1**	P	**Pg**	**22 27 30.4**	**+2.2**
THERA				AML	AML		
SNT5	**Nea Kammeni, S**	**1.49**	**358**	P	**Pg**	**22 27 30.2**	**+1.3**
SNT5				AML	AML		
SAP3	**Santorini-Thir**	**1.53**	**357**	P	**Pg**	**22 27 30.4**	**+0.8**
KARP	**Karpathos**	**1.53**	**65**	Pn	**Pg**	**22 27 32.4**	**+2.7**
KARP				AML	AML		
KARP	**Karpathos**	**1.53**	**65**	P	**Pg**	**22 27 32.6**	**+2.9**
KARP				AML	AML		
KNDR	**Palaiochora Ch**	**1.54**	**283**	P	**Pb**	**22 27 28.0**	**-0.5**
KNDR				S	**Sn**	**22 27 47.4**	**+0.5**
KNDR				AML	AML		
KNDR	**Palaiochora Ch**	**1.54**	**283**	P	**Pb**	**22 27 28.1**	**-0.3**
KNDR				AML	AML		
MHLO	**Agia Marina, M**	**1.97**	**335**	P	**Pg**	**22 27 36.5**	**-1.6**
ANKY	**Antikythira Is**	**2.00**	**299**	P	**Pn**	**22 27 34.5**	**+1.0**
KTHA	**Kythira Island**	**2.37**	**305**	Pn	**Pb**	**22 27 41.2**	**-1.5**
KTHA				AML	AML		
YAZI	**Mula-Dat§a-**	**2.40**	**42**	P	**Pg**	**22 27 44.3**	**-1.9**
DAT	**Datca**	**2.50**	**43**	Pn	**Pg**	**22 27 45.9**	**-2.4**
ARG	**Arkhangelos**	**2.54**	**58**	Pn	**Pg**	**22 27 46.7**	**-2.2**
ARG				AML	AML		
BODT	**Bodrum**	**2.62**	**34**	Pn	**Pg**	**22 27 47.8**	**-2.7**
BODT				AML	AML		
VLI	**Veliai**	**2.73**	**312**	P	**Pn**	**22 27 45.7**	**+2.1**
VLI				AML	AML		
TURN	**Turunc**	**2.93**	**50**	Pn	**Pb**	**22 27 52.2**	**0.0**
TURN				AML	AML		
TURN	**Turunc**	**2.93**	**50**	P	**Pb**	**22 27 49.4**	**-2.8**
TURN				S	**Sn**	**22 28 14.6**	**-6.6**
MLSB	**Milas**	**3.03**	**38**	Pn	**Pb**	**22 27 53.3**	**-0.6**
MLSB				AML	AML		
YER	**Yerkesik**	**3.19**	**45**	Pn	**Pb**	**22 27 56.1**	**-0.5**
DALY	**Dalyan (Mula)**	**3.22**	**53**	Pn	**Pb**	**22 27 56.5**	**-0.6**
DALY	**Dalyan (Mula)**	**3.22**	**53**	P	**Pb**	**22 27 55.9**	**-1.2**
DALY				S	**Sn**	**22 28 28.5**	**+0.2**
DALY				IAML		22 29 13.0	
	comp=N,35nm,1.2s						
MULA	**Mugla, Merkez-**	**3.30**	**44**	P	**Pb**	**22 27 57.2**	**-1.3**
AYDN	**Tasoluk**	**3.37**	**35**	P	**Pb**	**22 27 58.8**	**-0.9**
AYDN				S	**Sn**	**22 28 31.5**	**-0.7**
SABU	**Mula-Dalaman**	**3.43**	**55**	P	**Pb**	**22 27 58.8**	**-1.9**
SABU				S	**Sn**	**22 28 33.7**	**+0.1**
SABU				IAML		22 29 05.0	
	comp=N,32nm,1.7s						
AKAS	**Kas**	**3.63**	**67**	Pn	**Pb**	**22 28 02.2**	**-2.0**
AKAS				AML	AML		
ESEN	**Aydn-Nazilli**	**3.71**	**38**	P	**Pb**	**22 28 03.7**	**-1.7**
ESEN				S	**Sn**	**22 28 39.6**	**-0.8**
CAME	**Cameli-Denizli**	**3.72**	**56**	Pn	**Pb**	**22 28 03.5**	**-2.3**
CAME				AML	AML		
TAVA	**DENIZLI_Tavas**	**3.78**	**47**	P	**Pb**	**22 28 03.7**	**-3.1**
TAVA				S	**Sn**	**22 28 40.9**	**-1.5**
IZMR	**zmir-demi**	**3.80**	**31**	P	**Pb**	**22 28 03.4**	**-3.5**
IZMR				IAML		22 29 27.0	
	comp=E,16nm,3.1s						
NAZL	**Nazilli-Aydin**	**3.81**	**36**	Pn	**Pb**	**22 28 04.7**	**-2.5**
CAEL	**Denizli, Camel**	**3.83**	**54**	P	**Pb**	**22 28 05.6**	**-2.0**
CAEL				S	**Sn**	**22 28 39.5**	**-4.2**
KNIK	**Mula-Seydike**	**3.86**	**59**	P	**Pn**	**22 28 02.4**	**+3.2**
KNIK				IAML		22 29 42.0	
	comp=E,20nm,2.7s						
ODEM	**Odemis-Izmir**	**3.96**	**31**	Pn	**Pb**	**22 28 06.6**	**-3.3**
APMY	**Acipayam-Deniz**	**4.03**	**49**	Pn	**Pb**	**22 28 07.9**	**-3.0**
KIRA	**zmir-Kiraz**	**4.05**	**35**	P	Pb	22 28 06.1	-5.2
KIRA				S	**Sn**	**22 28 43.4**	**-5.5**
KIRA				IAML		22 29 10.0	
	comp=N,14nm,3.0s						
KIRA				IAML		22 29 53.0	
	comp=E,18nm,2.4s						
ELL	**Elmali**	**4.05**	**62**	Pn	**Pb**	**22 28 08.1**	**-3.3**
GOLH	**Golhisar**	**4.05**	**54**	P	**Pb**	**22 28 07.7**	**-3.7**
GOLH				S	**Sn**	**22 28 43.7**	**-5.4**
GOLH				IAML		22 29 17.0	
	comp=N,26nm,1.1s						
SULTU	**Buldan**	**4.12**	**39**	P	**Pb**	**22 28 08.7**	**-3.8**
SULTU				IAML		22 29 07.0	
	comp=N,25nm,2.6s						
SULTU				IAML		22 29 08.0	
	comp=E,15nm,1.7s						
KTTT	**Salihli**	**4.32**	**29**	P	Pb	22 28 11.1	-4.9
HARTU	**Esme**	**4.35**	**37**	P	**Pn**	**22 28 09.9**	**+4.0**
PASA	**Karahalli, USA**	**4.72**	**42**	P	**Pn**	**22 28 13.3**	**+2.3**
USAK	**Uak-Merkez**	**4.75**	**36**	P	Pn	22 28 16.9	+5.5
USAK				IAML		22 30 09.0	
	comp=E,9.0nm,3.5s						
CSS	**Mathiatis**	**6.47**	**87**	P	**Pn**	**22 28 37.9**	**+3.0**
CSS				S	**Sn**	**22 29 51.4**	**+2.9**
BRTR	**Keskin Array B**	**8.10**	**51**	Pn	Pn	22 29 02.3	+4.9
	baz=223,slow=15,SNR=1.7						
MMA0B	**Mount Meron ar**	**8.47**	**100**	P	**Pn**	**22 29 04.8**	**+2.3**
MMA0B				S	**Sn**	**22 30 38.2**	**+0.2**
MMAI	**Mount Meron Ar**	**8.47**	**100**	Pn	**Pn**	**22 29 03.8**	**+1.3**
	0.8nm,0.3s,baz=303,slow=11,SNR=6.8						
MMAI				Sn	**Sn**	**22 30 37.0**	**-1.0**
	0.9nm,0.3s,baz=323,slow=25,SNR=4.6						
	0.3nm,0.3s						
MMAI				AML	AML		
KZIT	**Kziot**	**8.51**	**115**	P	**Pn**	**22 29 03.9**	**+1.0**
KZIT				S	**Sn**	**22 30 35.2**	**-3.5**
AMAZ	**Amatzia**	**8.61**	**110**	P	**Pn**	**22 29 05.7**	**+1.4**
AMAZ				S	**Sn**	**22 30 38.9**	**-2.2**
GEM	**Giv'at Ha'Em**	**8.64**	**98**	P	**Pn**	**22 29 07.4**	**+2.7**
GEM				S	**Sn**	**22 30 41.7**	**-0.1**
MMLI	**Mount Malkishu**	**8.66**	**104**	P	**Pn**	**22 29 06.9**	**+1.8**
MMLI				S	**Sn**	**22 30 40.9**	**-1.6**
RMNI	**Mount Ramon**	**8.94**	**116**	P	**Pn**	**22 29 10.0**	**+1.1**
RMNI				S	**Sn**	**22 30 46.6**	**-2.7**
MZS	**Mizpe Shalem**	**8.97**	**109**	P	**Pn**	**22 29 10.1**	**+0.9**
MZS				S	**Sn**	**22 30 48.4**	**-1.5**
MSBI	**Mazada**	**9.04**	**111**	P	**Pn**	**22 29 11.6**	**+1.4**
MSBI				S	**Sn**	**22 30 49.7**	**-2.1**
GHAJ	**Ghor Haditha**	**9.21**	**110**	P	**Pn**	**22 29 14.1**	**+1.6**
GHAJ				S	**Sn**	**22 30 54.1**	**-1.7**
ZFRI	**Zfri**	**9.27**	**115**	P	**Pn**	**22 29 14.4**	**+1.1**
ZFRI				S	**Sn**	**22 30 54.1**	**-3.2**
HRFI	**Mount Harif**	**9.44**	**118**	P	**Pn**	**22 29 16.7**	**+1.0**
HRFI				S	**Sn**	**22 30 58.4**	**-3.1**
EIL	**Elat**	**9.58**	**120**	P	**Pn**	**22 29 18.9**	**+1.2**
EIL				S	**Sn**	**22 31 01.7**	**-3.4**
KBZ	**Khabaz**	**16.09**	**52**	Pn	**P**	**22 30 52.3**	**+3.2**
	0.1nm,0.3s,baz=254,slow=7.2,SNR=7.5						
	3.6nm,0.8s						
KBZ				AML	AML		
FINES	**FINESS Array B**	**26.56**	**1**	P	**P**	**22 32 38.5**	**+1.2**
	3.4nm,1.0s,baz=182,slow=10.0,SNR=2.0						
	3.4nm,1.0s						
TORD	**Torodi Ar. Bea**	**30.52**	**231**	P	**P**	**22 33 11.1**	**-1.9**
	0.4nm,0.6s,baz=32,slow=8.6,SNR=4.1						
	0.4nm,0.6s						
BVAR	**Borovoye Array**	**36.34**	**46**	P	**P**	**22 34 06.8**	**+3.4**
	0.7nm,0.7s,baz=235,slow=10,SNR=2.4						
	0.7nm,0.7s						
KURBB	**Kurchatov Arra**	**41.09**	**51**	P	**P**	**22 34 46.1**	**+2.9**
	2.1nm,0.3s,baz=267,slow=4.6,SNR=1.6						
	2.1nm,0.3s						
MKAR	**Makanchi Array**	**43.71**	**56**	P	**P**	**22 35 07.5**	**+2.9**
	0.3nm,0.5s,baz=269,slow=8.4,SNR=5.0						
	0.3nm,0.5s						
ZALV	**Zalesovo Beam**	**45.00**	**46**	P	**P**	**22 35 17.0**	**+2.2**
	0.7nm,0.5s,baz=270,slow=8.3,SNR=5.0						
	0.7nm,0.5s						
SONM	**Songino Array**	**59.46**	**51**	P	**P**	**22 37 05.4**	**+2.9**
	0.4nm,0.6s,baz=280,slow=6.5,SNR=2.2						

0.4nm,0.6s

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*IDC **04** 22:33:33.8±1.4, 20°.90N×122°.55E, h0^{km}, mb3.6/7, mbtmp3.6/7, Error ellipse: s-maj=59.3km s-min=21.5km az=62.0*

*MAN **04** 22:33:37.0, 20°.57N×121°.78E, h1^{km}, MS3.3*

MAN INTENSITY IV - ITBAYAT BATANES.

ISC 04 22:33:41.3±1.2, **20°.58N**±0°.09×**121°.9E**±0°.2, **h40**^{km}, **n17**, σ**2^s.09**/13, **mb3.6**/7, **Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CICP	Calayan Island	1.37	197	*i* P	Pn	22 34 02.6	-1.3
CICP				*i* S	Sn	22 34 17.7	-3.1
PACPP	Pamplona Cagay	2.18	194	*i* P	Pn	22 34 15.1	+0.1
PACPP				*i* S	Sn	22 34 42.1	+1.4
CAAP	Casiguran, Aur	4.35	178	*e*P	Pn	22 34 46.4	+1.5
MMPH	Masbate	8.34	168	*e*P	Pn	22 35 41.1	+1.4
MMPH				*i* S		22 35 53.4	
CMAR	Chiang Mai Arr	21.75	268	P	P	22 38 33.7	+4.3
	0.4nm,0.3s,baz=87,slow=9.1,SNR=1.2						
	0.4nm,0.3s						
MKAR	Makanchi Array	41.42	319	P	P	22 41 23.2	-0.7
	0.5nm,0.4s,baz=119,slow=9.0,SNR=3.9						
	0.5nm,0.4s						
WRA	Warramunga Arr	42.08	162	P	P	22 41 27.7	-1.7
	0.3nm,0.5s,baz=343,slow=8.1,SNR=2.2						
	0.3nm,0.5s						
H11N1	WAKE ISLAND Hy	42.14	83	T	T	23 26 29.1	
	baz=274,slow=75,SNR=28						
H11N2	WAKE ISLAND Hy	42.14	83	T	T	23 26 27.1	
	baz=274,slow=75,SNR=42						
H11N3	WAKE ISLAND Hy	42.16	83	T	T	23 26 25.4	
	baz=274,slow=75,SNR=44						
H11S3	WAKE ISLAND Hy	42.16	85	T	T	23 26 21.6	
	baz=281,slow=75,SNR=159						
H11S1	WAKE ISLAND Hy	42.16	85	T	T	23 26 22.6	
	baz=281,slow=75,SNR=128						
H11S2	WAKE ISLAND Hy	42.17	85	T	T	23 26 23.0	
	baz=281,slow=75,SNR=212						
ZALV	Zalesovo Beam	43.64	329	P	P	22 41 40.0	-1.7
	0.8nm,0.5s,baz=113,slow=8.4,SNR=5.6						
	0.8nm,0.5s						
KURBB	Kurchatov Arra	45.31	322	P	P	22 41 54.1	-1.1
	0.7nm,0.3s,baz=119,slow=7.4,SNR=4.9						
	0.7nm,0.3s						
ASAR	Alice Springs	45.51	165	P	P	22 41 57.1	+0.1
	0.2nm,0.4s,baz=345,slow=7.7,SNR=1.8						
	0.2nm,0.4s						
BVAR	Borovoye Array	50.90	322	P	P	22 42 37.7	-0.6
	0.6nm,0.5s,baz=106,slow=8.4,SNR=5.2						
	0.6nm,0.5s						

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*NEIC **04** 22:53:01.2±2.7, 19°.52S±0°.06×175°.56W±0°.08, h207^{km}±8^{km}, mb4.8/34, Error ellipse: s-maj=11.5km s-min=8.0km az=109.0*

*IDC **04** 22:53:04.0±2.8, 19°.53S×175°.86W, h240^{km}±25^{km}, mb3.7/10, mbtmp4.4/12, Error ellipse: s-maj=20.0km s-min=15.9km az=94.0*

*NOU **04** 22:53:06.3, 19°.56S×175°.99W, h241^{km}, mb4.7/24, Tonga Islands*

ISC 04 22:53:01.5±0.4, **19°.60S**±0°.06×**175°.57W**±0°.05, **h223**^{km}, **n138**, σ**1^s.89**/140, **mb4.6**/42, **3D**, **Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LKBA	Tubou, Lakemba	3.36	293	P	Pn	22 53 58.1	+1.5
TAVE	Taveuni	5.03	304	P	Pn	22 54 17.7	+0.8
NIUE	Niue	5.35	85		Pn	22 54 20.4	-0.5
NIUE				Sn	S	22 55 22.1	-1.7
NIUE	Niue	5.35	85	P	Pn	22 54 20.8	-0.1
NIUE				S	S	22 55 20.1	-3.7
DGTI	Dogotuki	5.54	306	P	Pn	22 54 23.6	+0.1
	181nm,1.1s						
DGTI				AML	AML		
MSVF	Nonsavu	6.33	286	P	Pn	22 54 34.4	+0.9
	40nm,0.6s,baz=105,slow=13,SNR=33						
MSVF	Nonsavu	6.33	286	P	Pn	22 54 34.1	+0.6
	91nm,0.7s						
MSVF				AML	AML		
MSVF	Nonsavu	6.33	286		Pn	22 54 35.3	+1.8
AFI	Afiamalu	6.72	33	P	Pn	22 54 33.2	-5.3
	27nm,0.3s,baz=172,slow=3.1,SNR=7.6						
AFI				S	S	22 55 40.8	-15
	46nm,0.2s,baz=40,slow=23,SNR=10.0						
AFI	Afiamalu	6.72	33		Pn	22 54 34.0	-4.5
AFI	Afiamalu	6.72	33	P	Pn	22 54 33.0	-5.5
AFI				S	S	22 55 41.3	-14
RAR	Rarotonga	14.89	99		Pn	22 56 19.4	-2.2
RAR	Rarotonga	14.89	99	P	Pn	22 56 19.5	-2.0
MARNC	Mare, Loyalty	15.48	260	P	Pn	22 56 29.4	+0.8
OUENC	Ouen Island, N	16.67	257	P	Pn	22 56 42.4	-0.4
	69nm,0.8s						
OUENC	Ouen Island, N	16.67	257		Pn	22 56 43.8	+1.0
OUENC				IAmb	IAmb	22 56 44.6	
	comp=Z,57nm,0.8s						
DZM	Mont Dzumac	17.00	259	P	Pn	22 56 47.3	+0.4
	comp=Z,58nm,0.7s,baz=78,slow=18,SNR=59						
ONTNC	Ouen Toro	17.01	258	P	P	22 56 45.0	-0.1
ONTNC				IAmb	IAmb	22 57 25.1	
	comp=Z,80nm,1.2s						
NOUC	Port Laguerre	17.13	258	P	P	22 56 46.1	-0.4
	comp=Z,76nm,0.9s						
OUZ	Omahuta	18.27	209	P	Pn	22 57 00.5	-1.0
MXZ	Matakaoa Point	18.68	195	P	Pn	22 57 04.9	-1.4
MXZ	Matakaoa Point	18.68	195	P	Pn	22 57 06.2	-0.2
WMGZ	Waiomatatini S	18.90	195	P	Pn	22 57 09.3	+0.4
WMGZ				S	S	23 00 22.4	-5.8
WIAZ	Waiheke Island	18.97	204	P	Pn	22 57 08.5	-1.3
HAZ	Te Kaha	19.00	196	P	Pn	22 57 08.5	-1.6
HAZ				S	S	23 00 28.1	-2.0
PKGZ	Pakihiroa	19.03	196	P	Pn	22 57 10.2	-0.2
PUZ	Puketiti	19.18	195	P	P	22 57 09.8	+1.3
PUZ				S	S	23 00 27.9	-5.9
RUGZ	Raukumara Rang	19.23	196	P	P	22 57 10.8	+1.6
RUGZ				S	S	23 00 31.4	-3.4
MKAZ	Moumakai	19.24	203	P	Pn	22 57 11.3	-1.6
WHRZ	Whale Island	19.32	198	P	Pn	22 57 13.8	-0.1
TWGZ	Tauwhareparae	19.35	196	P	Pn	22 57 13.3	-0.9
MWZ	Matawai	19.61	196	P	P	22 57 14.8	+1.7
URZ	Urewera	19.66	197	P	P	22 57 13.4	-0.1
	comp=Z,26nm,0.3s,baz=294,slow=2.6,SNR=56						
URZ				S	S	23 00 39.0	-4.1
	comp=Z,9.0nm,0.5s,baz=53,slow=23,SNR=11						
URZ	Urewera	19.66	197	P	P	22 57 15.4	+1.8
TOZ	Tahuroa Road	19.68	201	P	P	22 57 15.3	+1.5
TOZ				IAmb	IAmb	22 57 19.5	
	comp=Z,24nm,1.3s						
TOZ	Tahuroa Road	19.68	201	P	P	22 57 15.6	+1.8
RAGZ	Rawiri	19.79	196	P	P	22 57 15.8	+0.7
MUGZ	Murupara	19.95	198	P	P	22 57 18.7	+1.9
RTZ	Ruatahuna	20.02	197	P	P	22 57 19.1	+1.4
RTZ				IAmb	IAmb	22 57 20.0	
	comp=Z,27nm,0.9s						
RTZ	Ruatahuna	20.02	197	P	P	22 57 19.4	+1.8
PRGZ	Paritu Road	20.08	195	P	Pn	22 57 21.1	-1.9
KNZ	Kokohu	20.22	195	P	P	22 57 21.8	+2.2
RAHZ	Arahi	20.28	197	P	P	22 57 21.4	+1.1
NMHZ	Naumai	20.52	197	P	P	22 57 25.3	+2.3
HIZ	Hauiti	20.60	202	P	P	22 57 25.9	+2.2
HIZ				IAmb	IAmb	22 57 50.6	
	comp=Z,87nm,1.4s						
HIZ	Hauiti	20.60	202	P	P	22 57 22.3	-1.4
ARHZ	Aropaoanui	20.63	197	P	P	22 57 26.4	+2.5
BFZ	Birch Farm	22.15	197	P	P	22 57 41.2	+2.1
BFZ				IAmb	IAmb	22 57 54.2	
	comp=Z,35nm,0.8s						
MRZ	Mangatainoka R	22.32	198	P	P	22 57 41.2	+0.5
MRZ				IAmb	IAmb	22 57 49.8	
	comp=Z,36nm,1.3s						
MRZ	Mangatainoka R	22.32	198	P	P	22 57 41.3	+0.5
MSWZ	Moikau Station	23.11	198	P	P	22 57 50.0	+2.1
SNZO	South Karori	23.18	199	P	P	22 57 50.0	+1.6
TCW	Tory Channel	23.22	200	P	P	22 57 49.0	+0.2
PLWZ	Palliser	23.25	198	P	P	22 57 49.8	+0.6
QRZ	Quartz Range	23.48	203	P	P	22 57 53.4	+2.2
QRZ	Quartz Range	23.48	203	P	P	22 57 53.3	+2.2
TKNZ	Takaka Hill	23.51	202	P	P	22 57 53.8	+2.3
NNZ	Nelson	23.52	201	P	P	22 57 54.2	+2.7
THZ	Tophouse	24.17	201	P	P	22 57 59.4	+1.9
THZ				IAmb	IAmb	22 58 14.6	
	comp=Z,64nm,1.5s						
THZ	Tophouse	24.17	201	P	P	22 57 59.4	+1.9
KHZ	Kahutara	24.55	200	P	P	22 58 02.6	+1.8
	comp=Z,38nm,3.0s						
KHZ	Kahutara	24.55	200	P	P	22 58 02.1	+1.3
KHZ				IAmb	IAmb	22 58 06.8	
	comp=Z,32nm,1.2s						
KHZ	Kahutara	24.55	200	P	P	22 58 02.5	+1.8
DSZ	Denniston Nort	24.55	203	P	P	22 58 02.5	+1.6
GVZ	Greta Valley S	25.20	200	P	P	22 58 07.8	+1.0
GVZ				IAmb	IAmb	22 58 38.4	
	comp=Z,63nm,1.3s						
GVZ	Greta Valley S	25.20	200	P	P	22 58 09.2	+2.4
LTZ	Lake Taylor	25.29	201	P	P	22 58 10.8	+3.2
INZ	Inchbonnie	25.53	203	P	P	22 58 09.9	+0.2
HNR	Honiara	25.73	290	P	P	22 58 14.0	+2.2
OXZ	Oxford	25.85	201	P	P	22 58 13.2	+0.6
MQZ	McQueen's Vall	25.99	200	P	P	22 58 21.0	+7.2
WVZ	Waitaha Valley	26.10	203	P	P	22 58 15.4	+0.6
FOZ	Fox Glacier	26.84	204	P	P	22 58 23.0	+1.6
LBZ	Lake Benmore	27.43	203	P	P	22 58 26.3	-0.4
LBZ				IAmb	IAmb	22 58 59.5	
	comp=Z,35nm,1.4s						
TW1H	Toowoomba 1 Ha	30.72	249	P	P	22 58 56.8	+0.8
	comp=Z,44nm,0.8s						
AUTOO	Toowoomba Stat	30.72	249	P	P	22 58 57.0	+1.0
	comp=Z,59nm,0.9s						
EIDS	Eidsvold	31.30	253	P	P	22 59 01.1	+0.1
EIDS				IAmb	IAmb	22 59 33.2	
	comp=Z,10nm,1.3s						
ARMA	Armidale	31.52	244	P	P	22 59 04.5	+1.4
ARMA				IAmb	IAmb	22 59 32.2	
	comp=Z,32nm,1.5s						
CTA	Charters Tower	35.87	263	P	P	22 59 39.8	-0.7
	comp=Z,2.4nm,0.9s						
CTAO	Charters Tower	35.87	263	P	P	22 59 39.8	-0.7
	comp=Z,30nm,0.8s						
CTAO	Charters Tower	35.87	263	P	P	22 59 40.0	-0.5
CTAO	Charters Tower	35.87	263	P	P	22 59 39.7	-0.8
BULU	Kimbe	36.02	288	P	P	22 59 41.8	0.0
	comp=Z,80µm,0.5s						
CMSA	Cobar Meteorol	36.73	243	P	P	22 59 47.3	-0.4
	comp=Z,9.6nm,0.8s						
QLP	Quilpie	37.51	252	P	P	22 59 53.3	-1.0
	comp=Z,47nm,0.7s						
MTSU	Mount Surprise	37.93	265	P	P	22 59 56.5	-1.4
	comp=Z,22nm,0.8s						
STKA	Stephens Creek	40.24	244	P	P	23 00 15.9	-0.9
	comp=Z,5.6nm,0.7s,baz=97,slow=12,SNR=9.6						
	comp=Z,5.6nm,0.7s						
STKA	Stephens Creek	40.24	244	P	P	23 00 16.7	-0.1
	comp=Z,2.7nm,0.9s						
QIS	Mount Isa	42.02	261	P	P	23 00 32.6	+1.1
	comp=Z,10nm,0.8s						
WR8	Warramunga Arr	46.85	261		P	23 01 07.9	-1.7
AS01	Alice Springs	46.91	256	P	P	23 01 08.7	-1.4
	comp=Z,39nm,1.0s						
AS31	Alice Springs	46.95	256		P	23 01 09.4	-1.1
ASAR	Alice Springs	46.96	256	P	P	23 01 09.1	-1.4
	comp=Z,26nm,0.9s,baz=85,slow=8.6,SNR=139						
ASAR				PcP	PcP	23 02 38.2	-1.0
	comp=Z,0.9nm,0.5s,baz=118,slow=4.1,SNR=4.1						
ASAR				S	S	23 07 38.2	-6.5
	comp=Z,0.7nm,0.8s,baz=96,slow=15,SNR=4.4						
	comp=Z,26nm,0.9s						
ASAR	Alice Springs	46.96	256		P	23 01 09.3	-1.2
AUALC	St Philip's Co	46.97	256	P	P	23 01 09.8	-0.8
	comp=Z,29nm,0.9s						
WB0	Warramunga Arr	46.98	261		P	23 01 09.3	-1.3
WB0				IAmb	IAmb	23 01 10.5	
	comp=Z,26nm,0.7s						
WRAB	Tennant Creek	46.99	261	P	P	23 01 09.0	-1.7
	comp=Z,14nm,0.7s						
WRAB	Tennant Creek	46.99	261	P	P	23 01 09.2	-1.6
WRA	Warramunga Arr	47.00	261	P	P	23 01 09.2	-1.6
	comp=Z,14nm,0.6s,baz=95,slow=7.6,SNR=100						
WRA				PcP	PcP	23 02 38.7	-0.7
	comp=Z,1.0nm,0.8s,baz=92,slow=3.6,SNR=3.0						
	comp=Z,14nm,0.6s						
WRA	Warramunga Arr	47.00	261		P	23 01 08.6	-2.3
MTN	Manton Dam	51.45	269		P	23 01 43.3	-1.2
FORT	Forrest	51.75	246	P	P	23 01 46.3	-0.3
KNRA	Kununurra	53.01	265		P	23 01 55.5	-0.5
KNRA				IAmb	IAmb	23 01 56.5	
	comp=Z,13nm,0.8s						
FITZ	Fitzroy Crossi	55.42	261	P	P	23 02 12.7	-0.7
SOEI	Soe	58.77	270	P	P	23 02 37.6	+0.6
	comp=Z,51nm,1.1s						
SOEI	Soe	58.77	270		P	23 02 37.0	0.0
SOEI				IAmb	IAmb	23 02 39.7	
	comp=Z,32nm,0.8s						
VNDA	Vanda	59.02	186	P	P	23 02 40.9	+3.4
	comp=Z,0.6nm,0.8s,baz=15,slow=9.2,SNR=5.0						
VNDA	Vanda	59.02	186	P	P	23 02 40.8	+3.3
MBWA	Marble Bar	60.29	256	P	P	23 02 45.8	-1.3
MBWA				IAmb	IAmb	23 02 53.2	
	comp=Z,19nm,1.3s						
MORW	Morawa	62.29	247	P	P	23 02 59.2	-1.2
MORW				IAmb	IAmb	23 03 00.5	
	comp=Z,20nm,1.4s						
CCD	Concordia, Ant	63.91	195	P	P	23 03 13.4	+2.7
QSPA	South Pole Qui	70.47	180	P	P	23 03 54.1	+2.4
	comp=Z,3.6nm,0.9s,baz=8.0,slow=1.0,SNR=10						
	comp=Z,3.6nm,0.9s						
QSPA	South Pole Qui	70.47	180	P	P	23 03 54.6	+2.9
QSPA	South Pole Qui	70.47	180	P	P	23 03 54.5	+2.8
MJAR	Matsushiro Arr	70.88	322	P	P	23 03 53.1	-1.2
	comp=Z,2.5nm,0.8s,baz=156,slow=7.1,SNR=8.6						
	comp=Z,2.5nm,0.8s						
NVAR	Mina Array Bea	78.81	42	P	P	23 04 40.5	+0.4
	comp=Z,0.6nm,0.7s,baz=230,slow=5.2,SNR=4.3						
	comp=Z,0.6nm,0.7s						
NJ2	Nanjing	81.09	308	*e*P	P	23 04 50.3	-1.8
NJ2				pmax	pmax		
	comp=Z,27nm,0.5s						
BNX	BinXian	83.03	324	⇓P	P	23 05 00.6	-1.2
BNX				pmax	pmax		
	comp=Z,10.0nm,0.9s						
MAW	Mawson	83.17	199	P	P	23 05 04.2	+1.9
	comp=Z,0.9nm,0.8s,baz=143,slow=5.1,SNR=2.2						
	comp=Z,0.9nm,0.8s						
MAW	Mawson	83.17	199	P	P	23 05 04.0	+1.8
H03S2	Juan Fernandez	84.60	124	T	T	00 38 22.1	
	baz=248,slow=75,SNR=33						
H03S1	Juan Fernandez	84.62	124	T	T	00 38 28.2	
	baz=248,slow=75,SNR=32						
H03S3	Juan Fernandez	84.62	124	T	T	00 38 29.6	
	baz=248,slow=75,SNR=36						
TXAR	Lajitas Array	84.65	56	P	P	23 05 12.6	+2.0
	comp=Z,1.3nm,1.0s,baz=219,slow=5.8,SNR=6.5						
	comp=Z,1.3nm,1.0s						
TXAR	Lajitas Array	84.65	56	P	P	23 05 12.9	+2.3
MENT	Mentasta	86.00	14	P	P	23 05 20.0	+3.7
	comp=Z,8.6nm,1.0s						
ILAR	Eielson Array	86.95	12	P	P	23 05 21.3	+0.4
	comp=Z,0.2nm,0.7s,baz=194,slow=8.4,SNR=1.7						
	comp=Z,0.2nm,0.7s						
VNA3	Neumayer Olymp	88.87	175	⇓P	P	23 05 31.6	+1.5
	comp=Z,2.6nm,0.8s						
VNA2	Neumayer--Watz	89.34	176	⇓P	P	23 05 32.6	+0.3
	comp=Z,2.6nm,0.8s,baz=166,slow=4.5						
XAN	Xi'an	89.42	306	P	P	23 05 34.0	+0.7
XAN				pmax	pmax		
	comp=Z,11nm,0.9s						
HHC	Hu-ho-hao-te	90.38	314	*e*P	P	23 05 30.8	-6.9
HHC				pmax	pmax		
	comp=Z,5.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,150nm,4.9s						
CMAR	Chiang Mai Arr	91.98	289	P	P	23 05 46.0	+0.5
	comp=Z,0.7nm,0.3s,baz=130,slow=2.6,SNR=9.1						
	comp=Z,0.7nm,0.3s						
PZH	PanZhiHua	92.32	297	P	P	23 05 44.4	-2.7
WMQ	Urumqi	108.07	311	Pdif	Pdif	23 06 54.0	-3.2
CLL	Collm	147.64	350	*i* PKP	PKPab	23 12 23.1	+0.8
	comp=Z,3.0nm,0.9s						
BRTR	Keskin Array B	147.88	315	PKPbc	PKPdf	23 12 18.9	+1.5
	comp=Z,0.5nm,0.7s,baz=43,slow=2.3,SNR=2.4						
BRTR	Keskin Array B	147.88	315		PKPbc	23 12 20.0	-0.7
GERES	GERESS Array B	149.88	348	PKPbc	PKPbc	23 12 25.5	+0.1
	comp=Z,0.3nm,0.8s,baz=20,slow=3.3,SNR=2.4						

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*NEIC **04** 23:01:46.2±1.3, 51°.8N±0°.1×160°.1E±0°.2, h10^{km}±2^{km}, mb4.2/11, Error ellipse: s-maj=24.4km s-min=12.8km az=229.0*

*KRSC **04** 23:01:48.4±1.1, 52°.10N×160°.55E, h40^{km}±16^{km}, Ml4.4*

*MOS **04** 23:01:49.9±0.8, 52°.06N×160°.42E, h51^{km}, mb4.4/7, Error ellipse: s-maj=10.0km s-min=4.5km az=110.4*

*IDC **04** 23:01:52.6±5.2, 52°.26N×159°.87E, h33^{km}±31^{km}, mb3.8/15, mbtmp4.0/15, MS3.2/3, Error ellipse: s-maj=37.9km s-min=21.0km az=108.0*

ISC 04 23:01:48.1±1.4, **52°.11N**±0°.04×**160°.37E**±0°.05, **h16**^{km}±7^{km}, **n113**, σ**1^s.32**/129, **mb4.2**/24, **MS3.3**/4, **9C**, **Off east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SPN	Mys Shipunski	1.01	348	PN	Pn	23 02 08.1	+0.4
SPN				S	Sn	23 02 20.9	-0.7
SPN	Mys Shipunski	1.01	348	*e*P	Pn	23 02 08.2	+0.4
SPN				*e*S	Sn	23 02 21.0	-0.7
RUS	Russkaya	1.19	287	PN	Pg	23 02 11.1	+0.2
RUS				S	Sn	23 02 26.6	+0.8
RUS	Russkaya	1.19	287	*e*P	Pg	23 02 11.2	+0.2
RUS				*e*S	Sn	23 02 26.7	+0.8
NLC	Nalytchevo	1.23	330	PN	Pg	23 02 11.5	-0.4
NLC				S	Sn	23 02 28.3	+1.3
NLC	Nalytchevo	1.23	330	*e*P	Pg	23 02 11.6	-0.4
NLC				*e*S	Sn	23 02 28.3	+1.3
DALK	Dalny	1.35	314	PN	Pg	23 02 13.3	-0.8
DALK				S	Sg	23 02 30.9	-0.8
DALK	Dalny	1.35	314	*e*P	Pg	23 02 13.4	-0.8
DALK				*e*S	Sg	23 02 31.0	-0.8
PET	Petropavlovsk	1.39	312α	*i*PN	Pb	23 02 13.9	+0.1
PET				*e*S	Sn	23 02 31.6	+0.6
PET				pmax	pmax		
	comp=Z,640nm,0.6s						
PET				smax	smax		
	comp=E,903nm,0.7s						
PET				smax	smax		
	comp=N,1µm,0.7s						
PET	Petropavlovsk	1.39	312		Pb	23 02 13.7	0.0
PET				Sn	Sb	23 02 31.9	+0.6
MTVR	Mutnovka	1.40	287	PN	Pg	23 02 14.6	-0.4
MTVR				S	Sg	23 02 33.3	+0.2
MTVR	Mutnovka	1.40	287	*e*P	Pg	23 02 14.6	-0.4
MTVR				*e*S	Sg	23 02 33.4	+0.2
INSR	Institute	1.44	312	PN	Pb	23 02 14.6	0.0
INSR				S	Sg	23 02 34.1	-0.5
INSR	Institute	1.44	312	*e*P	Pb	23 02 14.7	0.0
INSR				*e*S	Sg	23 02 34.2	-0.5
KDTR	Khodutka, Kamc	1.45	259	PN	Pb	23 02 15.3	+0.6
KDTR				S	Sg	23 02 34.7	-0.1
KDTR	Khodutka, Kamc	1.45	259	*e*P	Pb	23 02 15.3	+0.6
KDTR				*e*S	Sg	23 02 34.7	-0.1
UGLR	Uglovaya	1.45	320	PN	Pg	23 02 15.3	-0.7
UGLR	Uglovaya	1.45	320	*e*P	Pg	23 02 15.3	-0.7
GRL	Gorelyy	1.48	288	PN	Pg	23 02 16.4	-0.1
GRL	Gorelyy	1.48	288	*e*P	Pg	23 02 16.5	-0.1
SDLR	Sedlovina	1.48	323	PN	Pg	23 02 15.5	-1.1
SDLR	Sedlovina	1.48	323	*e*P	Pg	23 02 15.6	-1.1
SMAR	Somma	1.50	321	PN	Pb	23 02 15.3	-0.4
SMAR	Somma	1.50	321	*e*P	Pb	23 02 15.4	-0.4
AVH	Avacha	1.53	320	PN	Pg	23 02 16.4	-1.0
AVH	Avacha	1.53	320	*e*P	Pg	23 02 16.5	-1.0
ASAK	Asacha	1.54	281	PN	Pg	23 02 17.1	-0.7
ASAK	Asacha	1.54	281	*e*P	Pg	23 02 17.1	-0.7
KRMR	Karymshinskiy	1.55	299	PN	Pb	23 02 16.4	0.0
KRMR				S	Sb	23 02 36.9	+1.1
KRMR	Karymshinskiy	1.55	299	*e*P	Pb	23 02 16.4	0.0
KRMR				*e*S	Sb	23 02 37.0	+1.1
KRER	Koryakskii	1.55	321	PN	Pg	23 02 17.1	-0.8
KRER	Koryakskii	1.55	321	*e*P	Pg	23 02 17.1	-0.8
KOK	Koryaka	1.59	319	PN	Pb	23 02 17.3	+0.2
KOK	Koryaka	1.59	319	*e*P	Pb	23 02 17.3	+0.2
KRX	Arik	1.63	321	PN	Pb	23 02 17.6	-0.3
KRX	Arik	1.63	321	*e*P	Pb	23 02 17.7	-0.3
PEA0B	Petropavlovsk-	1.91	303*c*	*e*PN	Pb	23 02 21.8	-0.8
PEA0B	Petropavlovsk-	1.91	303		Pn	23 02 20.8	+0.7
PEA0B				Sn	Sb	23 02 46.2	-0.1
PETK	Petropavlovsk-	1.91	303	Pg	Pb	23 02 22.1	-0.5
	comp=N,39nm,0.3s,baz=107,slow=19,SNR=306						
PETK				Lg	Lg	23 02 46.4	
	comp=N,28nm,0.3s,baz=105,slow=20,SNR=6.9						
PETK				LR	LR	23 03 17.4	
	comp=N,342nm,18.6s,baz=90,slow=54						
PETK	Petropavlovsk-	1.91	303		Pn	23 02 20.9	+0.8
PETK				Sn	Sn	23 02 44.9	+1.1
KII	Karymskiy	2.01	344	PN	Pb	23 02 22.8	-1.5
KII	Karymskiy	2.01	344	*e*P	Pb	23 02 22.9	-1.5
APC	Apacha	2.13	294	PN	Pb	23 02 25.6	-0.6
APC	Apacha	2.13	294	*e*P	Pb	23 02 25.7	-0.6
GNL	Ganaly	2.17	318	PN	Pb	23 02 26.0	-1.0
GNL	Ganaly	2.17	318	*e*P	Pb	23 02 26.0	-1.0
MIPR	Malaya Ipel'ka	2.23	276	PN	Pb	23 02 27.9	-0.1
MIPR	Malaya Ipel'ka	2.23	276	*e*P	Pb	23 02 28.0	-0.1
PAU	Pauzhetka	2.30	255	PN	Pb	23 02 27.7	-1.5
PAU	Pauzhetka	2.30	255	*e*P	Pb	23 02 27.8	-1.5
MKZ	Mys Kozlova	2.58	18	PN	Pn	23 02 29.3	+0.1
MKZ				S	Sn	23 02 58.3	-2.0
MKZ	Mys Kozlova	2.58	18	*e*P	Pn	23 02 29.4	+0.1
MKZ				*e*S	Sn	23 02 58.4	-2.0
SKR	Severo-Kuril's	3.02	244	*e*PN	Pn	23 02 34.8	-0.5
SKR				*e*S	Sn	23 03 09.5	-1.6
SKR				pmax	pmax		
	comp=Z,52nm,0.8s						
SKR				smax	smax		
	comp=N,293nm,0.6s						
SKR				smax	smax		
	comp=E,300nm,0.6s						
KMNR	Kamenistaya	3.66	359	PN	Pn	23 02 47.1	+3.0
KMNR	Kamenistaya	3.66	359	*e*P	Pn	23 02 47.2	+3.0
BZP	Bezymyannyi-Pe	3.81	1	PN	Pn	23 02 49.1	+2.8
BZP	Bezymyannyi-Pe	3.81	1	*e*P	Pn	23 02 49.2	+2.8
BZMR	Bezymyannaya	3.84	1	PN	Pn	23 02 49.1	+2.5
BZMR	Bezymyannaya	3.84	1	*e*P	Pn	23 02 49.2	+2.5
BZGR	Bezymyannyi-Gr	3.84	3	PN	Pn	23 02 48.8	+2.1
BZGR	Bezymyannyi-Gr	3.84	3	*e*P	Pn	23 02 48.8	+2.1
BZWR	Bezymyannyi-We	3.87	1	PN	Pn	23 02 49.8	+2.8
BZWR	Bezymyannyi-We	3.87	1	*e*P	Pn	23 02 49.8	+2.8
ZLN	Zelenaya	3.93	4	PN	Pn	23 02 50.9	+3.1
ZLN	Zelenaya	3.93	4	*e*P	Pn	23 02 51.0	+3.1
YAK	Yakutsk	19.23	313*c*	*e*P	P	23 06 09.9	-1.3
YAK				pmax	pmax		
	comp=Z,10.0nm,0.9s						
MJAR	Matsushiro Arr	22.08	234	P	P	23 06 43.5	+1.1
	comp=Z,0.9nm,0.4s,baz=16,slow=10.0,SNR=5.4						
	comp=Z,0.9nm,0.4s						
BNX	BinXian	22.44	267	⇑P	P	23 06 46.3	+0.2
BNX				pmax	pmax		
	comp=Z,6.0nm,0.7s						
TIXI	Tiksi	24.05	336	LR	LR	23 16 42.1	
	comp=Z,43nm,19.6s,baz=164,slow=37						
TIXI	Tiksi	24.05	336*c*	*e*P	P	23 07 01.2	-0.9
TIXI				pmax	pmax		
	comp=Z,4.0nm,0.9s						
N18K	Kilae Creek	25.24	53	P	P	23 07 16.8	+3.7
C19K	Lookout Ridge	25.29	33	P	P	23 07 16.1	+2.6
C19K				IAmb	IAmb	23 07 26.9	
	comp=Z,7.1nm,1.1s						
HILR	Hailar Array B	25.55	281	P	P	23 07 15.0	-0.9
	comp=Z,0.7nm,0.4s,baz=72,slow=9.7,SNR=4.3						
	comp=Z,0.7nm,0.4s						
KSRS	Korea Array	27.02	250	LR	LR	23 18 41.6	
	comp=Z,23nm,18.4s,baz=150,slow=38						
H11N2	WAKE ISLAND Hy	32.71	169	T	T	23 44 14.8	
	baz=352,slow=76,SNR=33						
H11N3	WAKE ISLAND Hy	32.73	169	T	T	23 44 10.7	
	baz=352,slow=76,SNR=39						
H11N1	WAKE ISLAND Hy	32.73	169	T	T	23 44 21.8	
	baz=352,slow=76,SNR=51						
H11S1	WAKE ISLAND Hy	33.90	169	T	T	23 45 50.4	
	baz=355,slow=74						
H11S3	WAKE ISLAND Hy	33.91	169	T	T	23 45 57.2	
	baz=355,slow=74						
H11S2	WAKE ISLAND Hy	33.91	169	T	T	23 46 02.8	
	baz=355						
SONM	Songino Array	34.30	285	P	P	23 08 33.1	-0.5
	comp=Z,0.3nm,0.3s,baz=64,slow=7.5,SNR=3.0						
SONM				LR	LR	23 23 50.5	
	comp=Z,103nm,18.1s,baz=98,slow=39						
	comp=Z,0.3nm,0.3s						
ZALV	Zalesovo Beam	43.46	304	P	P	23 09 48.3	-1.7
	comp=Z,0.5nm,0.5s,baz=57,slow=8.8,SNR=2.2						
	comp=Z,0.5nm,0.5s						
SPITS	Spitsbergen Ar	48.14	351	P	P	23 10 27.5	+0.8
	comp=Z,11nm,0.9s,baz=54,slow=8.4,SNR=10						
	comp=Z,11nm,0.9s						

SPB2	Spitsbergen Ar	48.14	351	P	P	23 10 28.1	+1.4
KURK	Kurchatov	48.40	303	*ce*P	P	23 10 27.1	-2.0
KURK				pmax	pmax		
	comp=Z,3.0nm,0.9s						
KURK	Kurchatov	48.40	303	P	P	23 10 27.4	-1.7
KURK				IAmb	IAmb	23 10 29.2	
	comp=Z,2.9nm,0.9s						
KURBB	Kurchatov Arra	48.50	303	P	P	23 10 28.4	-1.5
	comp=Z,1.5nm,0.7s,baz=60,slow=7.6,SNR=10						
	comp=Z,1.5nm,0.7s						
MK31	Makanchi Array	48.74	297	*i* P	P	23 10 30.1	-1.7
MKAR	Makanchi Array	48.74	297	P	P	23 10 30.2	-1.5
	comp=Z,0.5nm,0.4s,baz=56,slow=6.3,SNR=18						
	comp=Z,0.5nm,0.4s						
MKAR	Makanchi Array	48.74	297	P	P	23 10 30.6	-1.2
MAKZ	Makanchi	48.91	297	P	P	23 10 31.5	-1.5
MAKZ				IAmb	IAmb	23 10 32.3	
	comp=Z,2.4nm,1.1s						
BVAR	Borovoye Array	51.14	309	P	P	23 10 48.8	-1.1
	comp=Z,2.2nm,0.6s,baz=56,slow=7.6,SNR=6.1						
	comp=Z,2.2nm,0.6s						
BORK	Borovoye	51.16	309	P	P	23 10 48.7	-1.3
BORK				pmax	pmax		
	comp=Z,2.0nm,0.7s						
BORK	Borovoye	51.16	309	P	P	23 10 48.7	-1.3
ARCES	ARCESS Array B	54.28	342	P	P	23 11 12.8	0.0
	comp=Z,3.7nm,1.0s,baz=40,slow=7.9,SNR=6.9						
	comp=Z,3.7nm,1.0s						
ARCES	ARCESS Array B	54.28	342	P	P	23 11 12.6	-0.2
ARCES				IAmb	IAmb	23 11 32.5	
	comp=Z,1.9nm,0.8s						
FINES	FINESS Array B	61.09	337	P	P	23 12 01.2	+0.4
	comp=Z,2.2nm,0.4s,baz=30,slow=6.9,SNR=22						
	comp=Z,2.2nm,0.4s						
FINES	FINESS Array B	61.09	337	P	P	23 12 01.3	+0.5
OBN	Obninsk	63.44	328	*e*P	P	23 12 15.9	-0.7
OBN				*e**SP	pwP	23 12 31.1	+6.6
OBN				*e*		23 12 51.5	
OBN				*e*		23 14 36.0	
OBN				*e*S	S	23 20 46.1	-2.4
OBN				*e*SS	SS	23 24 53.7	-0.7
OBN				pmax	pmax		
	comp=Z,3.0nm,0.7s						
OBN				MLR	MLR		
	comp=Z,37nm,15.0s						
NB2	NORSAR Subarra	64.54	344	P	P	23 12 24.5	+0.6
	comp=Z,0.3nm,0.4s,baz=20,slow=6.9						
NOA	NORSAR Array B	64.54	344	P	P	23 12 24.4	+0.6
	comp=Z,0.8nm,0.6s,baz=28,slow=6.0,SNR=7.7						
	comp=Z,0.8nm,0.6s						
HFS	Hagfors	64.94	342	P	P	23 12 27.4	+1.0
	comp=Z,1.1nm,0.3s,baz=37,slow=3.7,SNR=11						
	comp=Z,1.1nm,0.3s						
AKASG	Malin Array Be	69.55	329	P	P	23 12 55.5	-0.2
	comp=Z,1.7nm,0.4s,baz=31,slow=6.9,SNR=8.8						
	comp=Z,1.7nm,0.4s						
AKASG	Malin Array Be	69.55	329	*ce*P	P	23 12 56.0	+0.2
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.4s						
AKASG	Malin Array Be	69.55	329	P	P	23 12 56.0	+0.2
AKASG				IAmb	IAmb	23 13 01.2	
	comp=Z,1.6nm,1.1s						
AKBB	Malin Array Si	69.55	329	P	P	23 12 55.5	-0.2
AKBB				pmax	pmax		
	comp=Z,3.0nm,1.0s						
AKBB	Malin Array Si	69.55	329	P	P	23 12 55.5	-0.2
AKBB				IAmb	IAmb	23 13 13.7	
	comp=Z,2.8nm,1.0s						
KIEV	Kiev	69.56	329	P	P	23 12 55.8	0.0
KIEV				pmax	pmax		
	comp=Z,3.0nm,1.0s						
KIEV	Kiev	69.56	329	P	P	23 12 55.8	0.0
KIEV				IAmb	IAmb	23 13 13.7	
	comp=Z,2.5nm,1.0s						
EKA	Eskdalemuir Ar	72.06	350	P	P	23 13 11.8	+0.9
	comp=Z,0.5nm,0.5s,baz=21,slow=6.2,SNR=1.4						
	comp=Z,0.5nm,0.5s						
CLL	Collm	73.34	339	*i* Px	Px	23 13 22.9	
ASAR	Alice Springs	78.93	205	P	P	23 13 53.2	+2.6
	comp=Z,0.3nm,0.8s,baz=22,slow=5.5,SNR=4.6						
	comp=Z,0.3nm,0.8s						
DGAR	Diego Garcia	94.51	264	*ce*P	P	23 15 04.7	-3.1

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*UCR **04** 23:29:51.5±0.5, 8°.25N×83°.01W, h14^{km}±6^{km}, MW4.0, Presumed earthquake*
*UPA **04** 23:29:52.0±1.2, 8°.31N×82°.94W, h6^{km}±3^{km}, MW3.8, Presumed earthquake*
ISC 04 23:29:51.8±0.9, **8°.30N**±0°.03×**82°.97W**±0°.02, **h13**^{km}±7^{km}, **n35**, σ**0^{s}.72**/50, **3C-3D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTPM	Petroterminale	0.13	135	⇑*i*P	Pg	23 29 55.5	+0.3
PTPM				*e*S	Sg	23 29 57.8	+0.2
PTPA	Petro Terminal	0.14	134	⇑*e*P	Pg	23 29 55.5	+0.1
PTPA				*e*S	Sb	23 29 59.2	-0.2
LIMO3	Limones	0.22	151	⇓*i*P	Pg	23 29 57.1	+0.5
LIMO3				*e*S	Sg	23 30 00.1	+0.2
LMNES	Limones	0.23	151	*e*P	Pg	23 29 57.0	+0.2
FITO	Golfito	0.37	331	*e*P	Pg	23 29 58.4	-0.9
FITO				*e*S	Sg	23 30 04.1	-0.2
PIRO	Carate, Puerto	0.38	286	*e*P	Pg	23 29 58.8	-0.6
PIRO	Carate, Puerto	0.38	286	⇑*i*P	Pg	23 29 58.8	-0.6
PIRO				*e*S	Sb	23 30 06.7	+0.5
MLIR3	Monte Lirio, C	0.51	17	*e*P	Pg	23 30 02.5	+0.5
MLIR3				*e*S	Sb	23 30 10.3	+0.1
DVD	David	0.53	75	*e*P	Pg	23 30 02.2	-0.1
DVD				*e*S	Sb	23 30 10.6	-0.1
BRU2	Volcan	0.57	29	*e*P	Pg	23 30 03.4	+0.4
BRU2	Volcan	0.57	29	*e*P	Pg	23 30 03.2	+0.2
BRU2				*e*S	Sb	23 30 12.6	+0.8
CLLRA	Cordillera,	0.57	39	*e*P	Pg	23 30 03.6	+0.6
LOMA3	Las Lomas, Chi	0.59	77	*e*P	Pg	23 30 03.6	+0.2
PTAR3	Potrerillos Ar	0.61	50	*e*P	Pg	23 30 04.1	+0.3
PTAR3				*e*S	Sb	23 30 13.0	-0.2
CHIR3	Chiriqui UPA,	0.64	81	*e*P	Pg	23 30 04.7	+0.3
CHIR3				*e*S	Sb	23 30 14.4	+0.5
BQTLY	Boquete Panama	0.68	48	*e*P	Pg	23 30 05.1	0.0
BQSF3	Alto Boquete,	0.69	50	*e*P	Pg	23 30 04.9	-0.4
BQSF3				*e*S	Sb	23 30 15.8	+0.4
LNBQ3	Los Naranjos,	0.72	47	*e*P	Pb	23 30 06.3	0.0
EDP2	Potrero Grande	0.74	344	*e*P	Pg	23 30 05.9	-0.4
RBALA	Bur	0.99	54	*e*P	Pb	23 30 10.1	-0.8
CHGR2	Aguacate	1.04	52	⇓*i*P	Pb	23 30 10.6	-1.1
CHGR2				*e*S	Sg	23 30 25.6	+0.2
EDPE	Pejibaye, P	1.04	325	*e*P	Pb	23 30 10.2	-1.5
KKNTU	Kakintº	1.27	65	*e*P	Pn	23 30 14.1	-1.3
LCR2	La Lucha 2	1.76	325	⇓*i*P	Pb	23 30 23.5	-0.7
VERB	Verbena	1.79	336	*e*P	Pn	23 30 21.9	-0.6
GMAL	Guarumal, Vera	1.80	107	*e*P	Pn	23 30 21.1	-1.6
RSUS3	Rio de Jesus,	1.82	100	*e*P	Pn	23 30 22.8	-0.2
ABRB	Las Abras (San	1.85	337	*e*P	Pn	23 30 24.8	+1.3
CVTQ	Turrialba Volc	1.87	335	*e*P	Pn	23 30 24.8	+0.9
SAFE3	Santa Fe, Vera	1.89	83	*e*P	Pn	23 30 22.9	-0.9
STIA3	Santiago, Vera	1.99	96	*e*P	Pn	23 30 24.9	-0.4
CACAO	El Cacao, Vera	2.30	114	*e*P	Pn	23 30 30.1	+0.6
CACAO				*e*S	Sn	23 30 57.9	+0.2
AZU	Azuero	2.72	100	*e*P	Pn	23 30 35.5	+0.2
AZU				*e*S	Sn	23 31 08.4	+0.3
JTS	Las Juntas de	2.78	316	*e*P	Pn	23 30 37.7	+1.6
JTS				*e*S	Sn	23 31 11.3	+1.7
ZANG	Zanguenga, Cho	3.14	78	*e*P	Pn	23 30 40.6	-0.5

VIE 04 23:38:58.2±0.3, **47°.56N**×**15°.64E**, **h13**^{km}±3^{km}, **ml1.0**/4, **Error ellipse: s-maj=1.7km s-min=1.0km az=137.0 6 km E of Krieglach, Austria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ARSA	Arzberg	0.32	195	*i* Pg	Pg	23 39 04.9	+0.1
	0.7nm,0.1s						
ARSA				*i* Sg	Sg	23 39 09.0	0.0
	2.9nm,0.1s						
CONA	Conrad Observa	0.40	22	*e*Pg	Pg	23 39 06.2	0.0
	0.2nm,0.1s						
RONA	Rosalia, Austr	0.47	72	*i* Pg	Pg	23 39 07.3	-0.1
	0.2nm,0.1s						
RONA				*i* Sg	Sb	23 39 14.7	-0.5
	0.8nm,0.1s						
WINA	Alland / Wiene	0.62	28	*i* Pg	Pb	23 39 10.8	-0.3
WINA				*i* Sg	Sg	23 39 18.9	+0.2

VIE 04 23:39:02.0±0.3, **47°.55N**×**15°.65E**, **h11**^{km}±3^{km}, **mb0.5**/2, **ml1.0**/4, **Error ellipse: s-maj=1.8km s-min=1.1km az=139.0 6 km E of Krieglach, Austria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ARSA	Arzberg	0.31	195	*i* Pg	Pg	23 39 08.5	+0.1
	1.1nm,0.1s						
ARSA				*i* Sg	Sg	23 39 12.6	+0.1
	1.5nm,0.1s						
CONA	Conrad Observa	0.40	21	*i* Pg	Pg	23 39 09.8	-0.2
	0.1nm,0.0s						
RONA	Rosalia, Austr	0.46	71	*i* Pg	Pg	23 39 10.8	-0.3
	0.3nm,0.1s						
RONA				*i* Sg	Sb	23 39 18.3	-0.8
	1.3nm,0.1s						
WINA	Alland / Wiene	0.62	27	*i* Pg	Pg	23 39 14.4	+0.2

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*SDD **04** 23:47:00.6±3.9, 19°.75N×71°.12W, h20^{km}±10^{km}, MD3.3, ML2.3, MW3.2, Presumed earthquake*
*OSPL **04** 23:47:04.8±1.5, 19°.76N×71°.26W, h3^{km}±5^{km}, ML1.9, Presumed earthquake*
ISC 04 23:47:03.4±0.9, **19°.77N**±0°.03×**71°.18W**±0°.04, **h14**^{km}±6^{km}, **n15**, σ**0^{s}.67**/25, **15C, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LOPP1	Punta Rusia, P	0.09	346	*i* P	Pg	23 47 06.4	0.0
LOPP1				*e*S	Sg	23 47 09.1	+0.7
LOPP1				IAML		23 47 11.4	
	comp=Z,363nm,1.6s						
LUDR	Luperon	0.24	60	⇑*i*P	Pg	23 47 07.6	-1.0
LUDR				⇑*i*S	Sg	23 47 11.4	-0.8
MCDR	Montecristi	0.47	285	⇑*i*P	Pb	23 47 13.7	+0.4
MCDR				IAML		23 47 26.8	
	comp=N,80nm,0.2s						
SC01	Santiago de lo	0.54	129	*i* P	Pb	23 47 15.4	+0.7
SC01				*e*S	Sb	23 47 23.3	+1.0
SC01				IAML		23 47 25.7	
	comp=Z,53nm,0.3s						
SC01	Santiago de lo	0.54	129	⇑*i*S	Sb	23 47 22.9	+0.5
SC01				IAML		23 47 32.1	
	comp=N,62nm,0.2s						
SODR	Sosua Marina B	0.57	92	⇑*i*S	Sb	23 47 24.2	+1.3
SODR				IAML		23 47 36.8	
	comp=N,98nm,1.4s						
REDR	Restauracion	0.64	199	⇑*i*P	Pb	23 47 16.6	+0.4
REDR				⇑*i*S	Sb	23 47 25.7	+0.7
REDR				IAML		23 47 28.2	
	comp=N,133nm,0.3s						
SDDR	Presa de Saban	0.79	188	*i* P	Pg	23 47 18.2	-0.6
SDDR				*e*S	Sb	23 47 29.4	-0.1
SDDR	Presa de Saban	0.79	188	*i* P	Pg	23 47 17.3	-1.4
SDDR				⇑*i*S	Sb	23 47 29.6	+0.1
SDDR				IAML		23 47 33.7	
	comp=N,28nm,0.8s						
ABDR	Alto Bandera	1.09	151	⇑*i*S	Sb	23 47 37.9	-0.3
ABDR				IAML		23 47 52.6	
	comp=N,265nm,2.4s						
JIDR	Jimani	1.42	207	⇑*i*P	Pn	23 47 28.8	0.0
JIDR				⇑*i*S	Sg	23 47 49.5	+0.3
LODU1	El Espartillar	1.44	191	*i* P	Pb	23 47 30.0	+0.1
LODU1				IAML		23 47 53.7	
	comp=Z,46nm,1.8s						
BANI	BANI	1.57	150	⇑*i*P	Pb	23 47 32.4	+0.1
BANI				⇑*i*S	Sn	23 47 51.3	+0.1
BANI				IAML		23 48 05.9	
	comp=N,94nm,3.5s						
GRTK	Grand Turk	1.73	1	*i* P	Pn	23 47 33.2	+0.2
GRTK				*e*S	Sb	23 47 56.2	-0.4
GRTK	Grand Turk	1.73	1	⇑*i*P	Pn	23 47 33.0	0.0
GRTK				⇑*i*S	Sb	23 47 56.2	-0.4
GRTK				IAML		23 48 40.1	
	comp=N,64nm,1.2s						

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*SOME **04** 23:48:34.1, 41°.82N×83°.45E, h5^{km}*
NNC 04 23:48:34.8±1.3, **44°.95N**×**83°.15E**, **h0**^{km}, **mb3.2**, **mpv2.9**, **1C-1D, Error ellipse: s-maj=52.4km s-min=9.4km az=147.0, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PDGK	Podgornoye	3.10	240	⇓Pn	Pn	23 49 24.7	-0.3
	1.7nm,0.9s						
PDGK				⇑Lg	Lg	23 50 13.8	
	3.5nm,0.6s						
SHLS	Shalkode	3.21	237	Pg	Pn	23 49 29.2	+2.6
	2.2nm,0.3s						
SHLS				Lg	Lg	23 50 08.8	
	7.0nm,0.5s						
SHLS	Shalkode	3.21	237	*e*P	Pn	23 49 29.2	+2.6
	2.2nm,0.3s						
SHLS				*e*S	Sn	23 50 08.8	+3.2
	7.0nm,0.5s						
UZB	Uzynbulak	3.48	240	Pg	Pb	23 49 38.4	+1.0
	1.9nm,0.3s						
UZB				Lg	Lg	23 50 24.9	
	1.9nm,0.3s						
UZB	Uzynbulak	3.48	240	*e*P	Pb	23 49 38.4	+1.0
UZB				*e*S	Sg	23 50 24.9	-1.7
SATY	Saty	3.91	243	Pg	Pb	23 49 46.8	+2.1
	0.6nm,0.2s						
SATY				Lg	Lg	23 50 38.9	
	2.5nm,0.2s						
SATY	Saty	3.91	243	*e*P	Pb	23 49 46.8	+2.1
	0.6nm,0.2s						
SATY				*e*S	Sg	23 50 39.0	-1.5
	2.5nm,0.2s						

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*SDD **04** 23:54:31.2±5.5, 19°.74N×71°.10W, h20^{km}±12^{km}, MD3.5, ML3.3, MW3.2, Presumed earthquake*
*SSNC **04** 23:54:34.3±1.9, 19°.77N×71°.15W, h0^{km}±12^{km}, MD3.4, ML3.0, Presumed earthquake*
*OSPL **04** 23:54:35.4±2.2, 19°.77N×71°.21W, h7^{km}±6^{km}, ML3.1, Presumed earthquake*
ISC 04 23:54:33.3±0.9, **19°.79N**±0°.02×**71°.16W**±0°.02, **h18**^{km}±3^{km}, **n30**, σ**0^{s}.98**/48, **24C, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LOPP1	Punta Rusia, P	0.08	329	*i* P	Pg	23 54 36.8	0.0
LOPP1				*e*S	Sg	23 54 39.9	+0.8
LOPP1				IAML		23 54 42.8	
	comp=Z,7μm,0.2s						
LUDR	Luperon	0.22	61	⇑*i*P	Pb	23 54 38.5	+0.1
LUDR				⇑*i*S	Sg	23 54 41.6	-0.5
MCDR	Montecristi	0.48	283	⇑*i*P	Pb	23 54 43.4	+0.2
MCDR				IAML		23 54 53.1	
	comp=N,1μm,0.5s						
SC01	Santiago de lo	0.54	131	*i* P	Pb	23 54 44.5	+0.3
SC01				*e*S	Sn	23 54 53.9	-0.8
SC01				IAML		23 54 56.4	
	comp=Z,1μm,0.2s						
SC01	Santiago de lo	0.54	131	⇑*i*P	Pb	23 54 44.2	0.0
SC01				*i* S	Sg	23 54 49.3	-2.1
SC01				IAML		23 54 54.6	
	comp=N,1μm,0.2s						
SODR	Sosua Marina B	0.55	94	⇑*i*P	Pn	23 54 45.3	-0.9
SODR				⇑*i*S	Sg	23 54 50.5	-1.2
SODR				IAML		23 55 12.0	
	comp=N,1μm,0.7s						
LODA1	ITESIL, Dajabo	0.57	245	*i* P	Pg	23 54 44.5	-0.1
LODA1				IAML		23 54 52.6	
	comp=Z,2μm,2.7s						
LODA1	ITESIL, Dajabo	0.57	245	⇑*i*P	Pb	23 54 45.1	+0.5
LODA1				IAML		23 54 55.7	
	comp=N,3μm,0.4s						
SDDR	Presa de Saban	0.81	189	*e*P	Pb	23 54 48.4	-0.5
SDDR				*e*S	Sg	23 55 00.4	+0.5
SDDR				IAML		23 55 03.1	
	comp=N,363nm,0.2s						
SDDR				IAML		23 55 03.2	
	comp=N,377nm,0.2s						
SDDR	Presa de Saban	0.81	189	*i* P	Pb	23 54 48.7	-0.2
SDDR				*e*S	Sg	23 55 00.4	+0.5
SDDR	Presa de Saban	0.81	189	⇑*i*P	Pb	23 54 48.5	-0.4
SDDR				⇑*i*S	Sb	23 54 56.9	-2.6
SDDR				IAML		23 55 01.1	
	comp=N,957nm,0.4s						
ABDR	Alto Bandera	1.09	153	⇑*i*P	Pb	23 54 53.1	-0.8
ABDR				⇑*i*S	Sb	23 55 07.6	-0.3
ABDR				IAML		23 55 09.8	
	comp=N,538nm,0.3s						
NADR	Nagua	1.30	109	⇑*i*P	Pb	23 54 57.1	0.0
NADR				⇑*i*S	Sg	23 55 16.6	+1.1
NADR				IAML		23 55 21.1	
	comp=N,2μm,0.3s						
NEDR	Neiba UASD	1.32	191	⇑*i*P	Pb	23 54 57.5	0.0
NEDR				⇑*i*S	Sn	23 55 14.0	0.0
NEDR				IAML		23 55 17.6	
	comp=N,318nm,0.2s						
JIDR	Jimani	1.45	207	⇑*i*P	Pb	23 54 60.0	+0.3
JIDR				IAML		23 55 22.7	
	comp=N,336nm,0.7s						
LODU1	El Espartillar	1.46	192	*i* P	Pb	23 55 00.5	+0.6
LODU1				IAML		23 55 23.1	
	comp=Z,559nm,0.3s						
BANI	BANI	1.58	151	⇑*i*P	Pb	23 55 01.6	-0.4
BANI				IAML		23 55 30.2	
	comp=N,462nm,0.3s						
GRTK	Grand Turk	1.71	1	*e*P	Pn	23 55 02.5	+0.2
GRTK				*e*S	Sb	23 55 25.1	-0.4
GRTK				IAML		23 55 29.0	
	comp=N,300nm,0.2s						
GRTK				IAML		23 55 29.1	
	comp=N,234nm,0.2s						
GRTK	Grand Turk	1.71	1	*i* P	Pb	23 55 03.3	-0.9
GRTK				*e*S	Sb	23 55 25.8	+0.4
GRTK	Grand Turk	1.71	1	⇑*i*P	Pn	23 55 02.7	+0.5
GRTK				⇑*i*S	Sb	23 55 25.8	+0.4
GRTK				IAML		23 55 27.7	
	comp=N,340nm,0.3s						
SDD	Santo Domingo	1.77	138	*i* P	Pb	23 55 04.6	-0.6
SDD				IAML		23 55 31.9	
	comp=Z,242nm,0.6s						
SMDR	Samana, DR	1.92	105	⇑*i*P	Pb	23 55 06.6	-1.2
SMDR				⇑*i*S	Sb	23 55 31.7	+0.3
SMDR				IAML		23 55 45.3	
	comp=N,157nm,0.4s						
LOBH	Bahia de las A	1.97	193	*i* P	Pb	23 55 08.5	-0.1
LOBH				IAML		23 55 38.1	
	comp=Z,114nm,1.6s						
HIDR	Higuey Centro	2.60	117	⇑*i*P	Pn	23 55 15.6	+1.3
HIDR				⇑*i*S	Sn	23 55 45.5	+0.1
HIDR				IAML		23 55 57.9	
	comp=N,275nm,0.2s						
PCDR	Punta Cana, DR	2.91	115	*i* P	Pn	23 55 20.8	+2.1
PCDR	Punta Cana, DR	2.91	115	⇑*i*S	Sn	23 55 55.5	+2.3
PCDR				IAML		23 56 23.4	
	comp=N,102nm,1.9s						
MASC	Masc	2.92	278	*e*P	Pn	23 55 19.3	+0.6
MASC				*e*S	Sn	23 55 54.5	+1.2
QMBU	Quimbuelo	3.46	277	*e*P	Pn	23 55 27.3	+1.1
QMBU				*e*S	Sn	23 56 06.4	-0.5
GTBY	Guantanamo Bay	3.72	273	*e*P	Pb	23 55 36.1	-2.4
PINC	Pinares de May	4.41	280	*e*P	Pn	23 55 39.4	+0.1

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*RSNC **04** 23:56:08.9±0.5, 8°N±5°×8°3W±°, h0^{km}, ML3.1, MLv4.0*
*IDC **04** 23:56:09.7±3.5, 8°.36N×82°.89W, h0^{km}, mb3.9/4, mbtmp3.8/7, ML3.9/2, MS2.9/2, Error ellipse: s-maj=114.0km s-min=21.3km az=29.0*
*UCR **04** 23:56:11.2±0.7, 8°.32N×82°.97W, h8^{km}±3^{km}, MW4.6, Presumed earthquake*
*UPA **04** 23:56:11.3±1.2, 8°.35N×82°.94W, h5^{km}±2^{km}, MW4.4, Presumed earthquake*
*CATAC **04** 23:56:12.3±0.5, 8°N±3°×8°3W±°, h5^{km}±1^{km}, M3.8/6, MLv3.8/6, Error ellipse: s-maj=7.5km s-min=3.7km az=176.1, confirmed*
ISC 04 23:56:11.6±0.8, **8°.33N**±0°.02×**82°.96W**±0°.02, **h12**^{km}±5^{km}, **n77**, σ**1^{s}.00**/111, **mb4.0**/3, **2C-9D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTPM	Petroterminale	0.15	147	⇑*i*P	Pg	23 56 15.1	-0.1
PTPM				*e*S	Sg	23 56 18.0	+0.3
PTPA	Petro Terminal	0.16	145	*e*P	Pg	23 56 15.0	-0.3
PTPA				*e*S	Sg	23 56 18.9	+1.0
LMNES	Limones	0.25	156	*e*P	Pg	23 56 16.5	-0.4
CDITO	Canoas	0.26	20	P	Pg	23 56 17.2	+0.2
CDITO				S	Sg	23 56 20.2	-0.4
NELY	Ciudad Neily	0.32	3	*e*P	Pg	23 56 18.3	+0.3
NELY				*e*S	Sb	23 56 24.1	-0.2
FITO	Golfito	0.35	327	*e*P	Pg	23 56 17.9	-0.7
PIRO	Carate, Puerto	0.38	281	P	Pg	23 56 18.9	-0.2
PIRO				S	Sg	23 56 23.1	-1.1
PIRO	Carate, Puerto	0.38	281	*e*P	Pg	23 56 18.7	-0.4
PIRO	Carate, Puerto	0.38	281	⇑*i*P	Pg	23 56 18.5	-0.6
JIME	Puerto Jimenez	0.41	300	*e*P	Pg	23 56 20.2	+0.4
MLIR3	Monte Lirio, C	0.48	17	⇓*i*P	Pb	23 56 21.8	-0.2
MLIR3				*e*S	Sb	23 56 29.4	+0.4
VITO	San Vito	0.48	359	*e*P	Pb	23 56 21.7	-0.4
DVD	David	0.52	78	⇓*i*P	Pg	23 56 21.6	-0.2
DVD				*e*S	Sg	23 56 29.3	+0.7
SCLRA	Santa Clara, W	0.53	20	*e*P	Pb	23 56 22.5	-0.4
BRU2	Volcan	0.53	30	P	Pg	23 56 22.3	+0.2
BRU2				S	Sb	23 56 31.8	+1.2
BRU2	Volcan	0.53	30	*e*P	Pg	23 56 22.4	+0.4
BRU2	Volcan	0.53	30	⇓*i*P	Pg	23 56 22.5	+0.4
BRU2				*e*S	Sb	23 56 30.7	+0.1
CLLRA	Cordillera,	0.54	40	*e*P	Pg	23 56 22.5	+0.3
LOMA3	Las Lomas, Chi	0.57	80	⇓*i*P	Pg	23 56 22.4	-0.4
LOMA3				*e*S	Sb	23 56 31.1	-0.6
PTAR3	Potrerillos Ar	0.58	52	⇓*i*P	Pg	23 56 23.1	+0.1
CHIR3	Chiriqui UPA,	0.63	84	*i* P	Pg	23 56 23.2	-0.6
CHIR3				*e*S	Sg	23 56 32.6	+0.4
BQTLY	Boquete Panama	0.65	49	*e*P	Pg	23 56 23.9	-0.4
BQSF3	Alto Boquete,	0.66	52	⇓*i*P	Pg	23 56 24.2	-0.3
BQSF3				*e*S	Sg	23 56 33.8	+0.4
LNBQ3	Los Naranjos,	0.69	48	⇓*i*P	Pg	23 56 24.5	-0.5
LNBQ3				*e*S	Sb	23 56 35.9	+0.7
EDP2	Potrero Grande	0.71	343	*e*P	Pg	23 56 25.2	-0.2
RBALA	Bur	0.97	56	*e*P	Pg	23 56 29.0	-1.3
CHGR2	Aguacate	1.01	53	⇓*i*P	Pb	23 56 29.5	-1.5
CHGR2				*e*S	Sg	23 56 43.6	-0.7
SAJE	San Jernim	1.14	332	*e*P	Pb	23 56 31.6	-1.8
CNI2	El Empalme, Bo	1.19	24	⇓*i*P	Pn	23 56 32.9	-1.1
CNI2				*e*S	Sb	23 56 47.7	-1.7
KKNTU	Kakintº	1.25	66	*e*P	Pn	23 56 32.9	-2.0
RGM0	Gandoca	1.30	16	*e*P	Pb	23 56 36.0	+0.1
SVQ2	Quepos	1.61	313	*e*P	Pn	23 56 40.1	+0.2
PIEC	Cerro El Cedra	1.62	323	*e*P	Pn	23 56 39.7	-0.4
LCR2	La Lucha 2	1.74	324	P	Pn	23 56 41.4	-0.4
LCR2				S	Sb	23 57 06.4	+0.9
LCR2	La Lucha 2	1.74	324	*e*P	Pn	23 56 41.0	-0.8
LCR2	La Lucha 2	1.74	324	*e*P	Pn	23 56 41.3	-0.4
GMAL	Guarumal, Vera	1.80	108	P	Pn	23 56 40.5	-2.0
GMAL				S	Sn	23 57 05.0	-0.3
GMAL				AML	AML		
GMAL				AML	AML		
GMAL	Guarumal, Vera	1.80	108	*e*P	Pn	23 56 40.7	-1.8
GMAL				*e*S	Sn	23 57 04.2	-1.1
RSUS3	Rio de Jesus,	1.82	101	*e*P	Pn	23 56 42.2	-0.5
RSUS3				*e*S	Sn	23 57 05.8	+0.1
ABRB	Las Abras (San	1.82	336	*e*P	Pn	23 56 42.9	-0.1
LCOCO	El Coco	1.84	341	*e*P	Pn	23 56 43.6	+0.6
VTR0	Volcan Turrial	1.85	335	*e*P	Pn	23 56 43.7	+0.2
SAFE3	Santa Fe, Vera	1.87	84	*e*P	Pn	23 56 43.2	-0.3
SAFE3				*e*S	Sn	23 57 07.5	+0.4
STIA3	Santiago, Vera	1.98	97	*e*P	Pn	23 56 43.9	-1.1
STIA3				*e*S	Sn	23 57 09.5	-0.3
VBV1	V. Barva	2.10	328	*e*P	Pn	23 56 46.7	-0.1
CALO3	Calobre, Verag	2.10	90	*e*P	Pn	23 56 45.6	-1.0
CACAO	El Cacao, Vera	2.30	115	P	Pn	23 56 49.8	+0.5
CACAO				S	Sb	23 57 22.3	+0.8
CACAO				AML	AML		
CACAO				AML	AML		
CACAO	El Cacao, Vera	2.30	115	*e*P	Pn	23 56 49.3	0.0
CACAO				*e*S	Sn	23 57 17.8	+0.2
CHIT3	Chitre	2.55	98	*e*P	Pn	23 56 52.1	-0.6
CHIT3				*e*S	Sn	23 57 24.3	+0.6
PNME	Penonome	2.61	86	P	Pn	23 56 54.1	+0.5
PNME				S	Sb	23 57 29.5	-0.9
PNME				AML	AML		
PNME				AML	AML		
PNME	Penonome	2.61	86	*e*P	Pn	23 56 54.4	+0.7
TOSI3	Tonosi	2.66	110	*e*P	Pn	23 56 54.6	+0.3
AZU	Azuero	2.72	101	P	Pn	23 56 56.0	+1.0
AZU				S	Sb	23 57 35.5	+2.1

AZU				AML	AML		
AZU				AML	AML		
AZU	Azuero	2.72	101	eP	Pn	23 56 55.6	+0.6
AZU				eS	Sn	23 57 27.2	-0.7
JTS	Las Juntas de	2.77	315	Pn	Pn	23 56 55.8	0.0
	22nm,0.3s,baz=127,slow=9.1,SNR=86						
JTS				Sn	Sb	23 57 32.1	-2.7
	16nm,0.3s,baz=183,slow=14,SNR=3.8						
	83nm,0.5s						
JTS				AML	AML		
JTS	Las Juntas de	2.77	315	P	Pn	23 56 57.3	+1.5
JTS				S	Sn	23 57 31.7	+2.6
JTS	Las Juntas de	2.77	315	P	Pn	23 56 56.5	+0.8
JTS				S	Sn	23 57 29.4	+0.3
JTS	Las Juntas de	2.77	315	eP	Pn	23 56 56.6	+0.8
JTS				eS	Sn	23 57 30.5	+1.3
CMARA	Lajas Hojancha	2.95	305	eP	Pn	23 56 58.6	+0.2
ZANG	Zanguenga, Cho	3.12	78	eP	Pn	23 56 59.6	-1.0
BCIP	Isla Barro Col	3.20	75	P	Pn	23 57 01.8	+0.1
BCIP				S	Sb	23 57 48.9	+1.6
BCIP				AML	AML		
BCIP				AML	AML		
BCIP	Isla Barro Col	3.20	75	eP	Pn	23 57 01.4	-0.3
BCIP				eS	Sn	23 57 39.8	0.0
MLIR	Monte Lirio	3.20	73	eP	Pn	23 57 01.7	-0.1
GAMB1	Gamboa	3.31	76	eP	Pn	23 57 03.0	-0.2
FRIJ	El Hiral	3.32	74	eP	Pn	23 57 04.0	+0.6
FLAM	Flamenco Islan	3.44	80	eP	Pn	23 57 04.7	-0.2
UPA	Univ. de Panam	3.45	79	P	Pn	23 57 07.6	+2.4
UPA				S	Sb	23 57 54.2	-0.4
UPA				AML	AML		
UPA				AML	AML		
BLUN	Bluefields	3.74	348	P	Pn	23 57 08.1	-1.0
BLUN				S	Sg	23 58 09.7	-2.0
BLUN				AML	AML		
BLUN				AML	AML		
PRVC	Isla de Provid	5.25	17	P	Pn	23 57 28.7	-1.3
PRVC				S	Sn	23 58 33.8	+3.3
APG	El Apazote	9.89	313	Pn	Pn	23 58 37.0	+3.1
	0.7nm,0.9s,baz=179,slow=8.3,SNR=4.7						
SDV	Santo Domingo	12.20	87	LR	LR	00 04 55.6	
	comp=Z,77nm,18.2s,baz=260,slow=43						
CMIG	Matias Romero	14.52	308	Pn	Pn	23 59 38.0	+1.0
	0.5nm,0.3s,baz=205,slow=9.6,SNR=4.6						
	4.4nm,0.6s						
CMIG				AML	AML		
SJG	San Juan	19.02	58	LR	LR	00 08 30.6	
	comp=Z,23nm,19.1s,baz=130,slow=39						
ULM	Lac du Bonnet	43.15	348	P	P	00 04 11.8	-0.1
	3.7nm,0.7s,baz=148,slow=8.1,SNR=4.6						
	3.7nm,0.7s						
YKA	Yellowknife Ar	58.76	343	P	P	00 06 08.9	-0.3
	0.9nm,0.7s,baz=142,slow=7.1,SNR=5.4						
	0.9nm,0.7s						
ILAR	Eielson Array	71.55	336	P	P	00 07 32.3	+0.1
	0.5nm,0.7s,baz=113,slow=4.3,SNR=5.6						
	0.5nm,0.7s						
TORD	Torodi Ar. Bea	82.98	78	P	P	00 08 37.3	-0.1
	0.4nm,0.7s,baz=281,slow=4.7,SNR=2.4						
	0.4nm,0.7s						

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*IDC **05** 00:08:46.3±0.6, 16.°24S×178.°19E, h0^{km}, mb4.1/17, mbtmp4.1/17, MS3.9/33, Error ellipse: s-maj=22.1km s-min=13.7km az=107.0*

*NEIC **05** 00:08:47.2±2.0, 16.°24S±0.°04×178.°6E±0.°1, h10^{km}±2^{km}, mb4.4/5, Error ellipse: s-maj=22.9km s-min=3.6km az=108.0*

*NOU **05** 00:08:50.6, 16.°39S×178.°49E, h0^{km}, mb4.9/15, Fiji Islands*

*GCMT **05** 00:08:52.2±0.2, 16.°14S±0.°01×178.°09E±0.°01, h17^{km}±1^{km}, MW4.8/110, Moment Tensor Solution. s39,c53; s110,c157; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-1.63±.12; M$_{\theta\theta}$-0.45±.08; M$_{\phi\phi}$2.08±.09; M$_{r\theta}$0.11±.20; M$_{\theta\phi}$1.96±.06; M$_{\phi r}$0.11±.21; Best double couple: M$_0$2.40200×10^{16} NP1:ϕ_s9.00000°,δ47.00000°, λ-118.00000°. NP2:ϕ_s227.00000°,δ50.00000°, λ-63.00000°. Principal axes: T 3.1510, Plg2.0000°, Azm299.0000°; N -1.5030, Plg20.0000°, Azm29.0000°; P -1.6530, Plg70.0000°, Azm204.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 05 00:08:48.6±0.4**, 16.°26S**±0.°05×**178.°38E**±0.°06**, h10^{km}, n88, σ1^{s}.81**/67**, mb4.1**/19**, MS4.0**/30**, Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DGTI	Dogotuki	1.30	92	P	Pn	00 09 12.2	-0.6
DGTI	Dogotuki	1.30	92	S	Sb	00 09 29.4	-0.5
MSVF	Nonsavu	1.50	192	Pn	Pn	00 09 14.1	-1.6
	76nm,0.3s,baz=237,slow=2.2,SNR=139						
MSVF				Sn	Sn	00 09 33.5	-1.8
	270nm,0.3s,baz=104,slow=22,SNR=6.9						
MSVF	Nonsavu	1.50	192	P	Pn	00 09 15.0	-0.6
MSVF	Nonsavu	1.50	192	S	Sb	00 09 35.9	+0.2
MSVF	Nonsavu	1.50	192		Pn	00 09 14.3	-1.3
MSVF				Sg	Sg	00 09 37.1	+0.3
TAVE	Taveuni	1.70	105	P	Pn	00 09 19.1	+0.8
LKBA	Tubou, Lakemba	3.32	127	P	Pn	00 09 41.5	+0.9
AFI	Afiamalu	9.79	77	LR	LR	00 14 16.8	
	comp=Z,738nm,19.9s,baz=254,slow=33						
SANVU	Saraoutou	10.79	273	P	Pn	00 11 27.7	+4.5
SANVU	Saraoutou	10.79	273	Pn	Pn	00 11 23.3	+0.1
MARNC	Mare, Loyalty	11.09	240	Pn	Pn	00 11 28.4	+1.1
DZM	Mont Dzumac	12.67	241	LR	LR	00 15 34.4	
	comp=Z,540nm,21.9s,baz=63,slow=33						
ONTNC	Ouen Toro	12.77	240	Pn	Pn	00 11 50.3	+0.1
KOUNC	Koumac, New Ca	14.04	250	P	P	00 12 14.4	-1.2
HNR	Honiara	19.20	288	LR	LR	00 19 24.1	
	comp=Z,671nm,18.7s,baz=196,slow=34						
RAR	Rarotonga	21.26	107	LR	LR	00 20 15.2	
	comp=Z,270nm,19.6s,baz=280,slow=32						
URZ	Urewera	21.94	183	LR	LR	00 21 00.5	
	comp=Z,528nm,19.0s,baz=3.0,slow=33						
TW1H	Toowoomba 1 Ha	26.89	241	P	P	00 14 34.5	+4.5
KRVT	Keravat (AS076	28.48	292	LR	LR	00 25 18.7	
	comp=Z,518nm,18.7s,baz=125,slow=35						
ODZ	Otahua Downs	29.43	191	P	P	00 14 55.7	+3.4
PPT	Papeete	30.66	97	LR	LR	00 24 45.0	
	comp=Z,137nm,21.9s,baz=266,slow=31						
CTA	Charters Tower	30.74	258	LR	LR	00 26 48.9	
	comp=Z,223nm,18.2s,baz=56,slow=35						
PMG	Port Moresby	31.17	279	LR	LR	00 26 45.3	
	comp=Z,303nm,18.1s,baz=82,slow=35						
H11S2	WAKE ISLAND Hy	36.40	341	T	T	00 54 20.1	
	baz=162,slow=76,SNR=5.6						
H11S3	WAKE ISLAND Hy	36.41	341	T	T	00 54 05.7	
	baz=162,slow=76,SNR=6.8						
H11S1	WAKE ISLAND Hy	36.41	341	T	T	00 54 04.4	
	baz=162,slow=76,SNR=6.0						
STKA	Stephens Creek	36.81	238	P	P	00 15 54.5	-2.3
	3.9nm,0.8s,baz=66,slow=9.1,SNR=5.8						
STKA				LR	LR	00 29 08.5	
	comp=Z,212nm,19.8s,baz=61,slow=33						
	3.9nm,0.8s						
STKA	Stephens Creek	36.81	238	P	P	00 15 59.1	+2.2
TAOE	Nuku Hiva Isla	41.08	85	eLR	LR	00 27 58.5	
	604nm,26.5s						
WR8	Warramunga Arr	41.79	258		P	00 16 38.9	+0.3
WR8				IAmb	IAmb	00 16 43.6	
	comp=Z,5.5nm,1.0s						
WB0	Warramunga Arr	41.90	258		P	00 16 39.0	-0.6
WB0				IAmb	IAmb	00 16 43.8	
	comp=Z,8.8nm,0.9s						
WB2	Warramunga Arr	41.93	258	P	P	00 16 40.4	+0.5
WRAB	Tennant Creek	41.93	258	P	P	00 16 43.5	+3.7
WRA	Warramunga Arr	41.94	258	P	P	00 16 37.1	-2.8
	comp=Z,2.2nm,0.9s,baz=91,slow=8.0,SNR=9.9						
	comp=Z,2.2nm,0.9s						
WRA	Warramunga Arr	41.94	258	P	P	00 16 38.8	-1.1
AS01	Alice Springs	42.27	253	P	P	00 16 46.1	+3.5
ASAR	Alice Springs	42.32	253	P	P	00 16 40.6	-2.4
	comp=Z,3.1nm,0.9s,baz=80,slow=9.3,SNR=23						
ASAR				LR	LR	00 32 49.1	
	comp=Z,208nm,19.1s,baz=96,slow=34						
	comp=Z,3.1nm,0.9s						
AUALC	St Philip's Co	42.34	253	P	P	00 16 47.3	+4.2
GUMO	Guam	44.46	310	LR	LR	00 32 54.6	
	comp=Z,93nm,19.7s,baz=120,slow=33						
FITZ	Fitzroy Crossi	50.28	260	LR	LR	00 37 13.4	
	comp=Z,312nm,21.0s,baz=90,slow=34						
DAV	Davao City (W)	57.16	290	LR	LR	00 42 09.3	
	comp=Z,56nm,18.1s,baz=126,slow=35						
KAPI	Kappang	58.52	274	LR	LR	00 43 30.9	
	comp=Z,53nm,20.4s,baz=90,slow=36						
VNDA	Vanda	61.84	184	P	P	00 19 06.8	-0.6
	comp=Z,0.4nm,0.7s,baz=13,slow=9.1,SNR=2.2						
VNDA				LR	LR	00 43 05.2	
	comp=Z,61nm,18.6s,baz=15,slow=33						
	comp=Z,0.4nm,0.7s						
MJAR	Matsushiro Arr	64.78	325	P	P	00 19 26.0	-1.5
	comp=Z,1.4nm,0.5s,baz=152,slow=6.4,SNR=7.0						
	comp=Z,1.4nm,0.5s						
ASAJ	Asahikawa	68.40	333	LR	LR	00 46 42.9	
	comp=Z,187nm,18.9s,baz=176,slow=33						
SHEM	Shemya Is, Ala	68.80	357	LR	LR	00 42 58.1	
	comp=Z,89nm,21.3s,baz=6.0,slow=30						
PETK	Petropavlovsk-	71.35	347	LR	LR	00 47 33.3	
	comp=Z,54nm,19.1s,baz=170,slow=33						
KSRS	Korea Array	71.45	320	LR	LR	00 46 02.4	
	comp=Z,122nm,21.3s,baz=130,slow=31						
USRK	Ussuriysk Ar.	73.55	327	LR	LR	00 47 09.5	
	comp=Z,140nm,20.4s,baz=163,slow=31						
QSPA	South Pole Qui	73.78	180	P	P	00 20 22.5	-0.5
	comp=Z,3.2nm,1.0s,baz=339,slow=0.7,SNR=11						
QSPA				LR	LR	00 50 07.9	
	comp=Z,114nm,18.3s,baz=46,slow=34						
	comp=Z,3.2nm,1.0s						
QSPA	South Pole Qui	73.78	180	P	P	00 20 20.9	-2.1
QSPA				IAmb	IAmb	00 20 32.0	
	comp=Z,3.6nm,1.0s						
KLR	Kul'dur	77.16	331	P	P	00 20 41.8	-0.6
	comp=Z,0.5nm,0.3s,baz=180,slow=2.0,SNR=2.7						
KLR				LR	LR	00 49 09.2	
	comp=Z,102nm,20.7s,baz=192,slow=31						
	comp=Z,0.5nm,0.3s						
MA2	Magadan	78.84	346	LR	LR	00 55 26.3	
	comp=Z,55nm,18.1s,baz=167,slow=36						
NVAR	Mina Array Bea	80.41	45	P	P	00 21 01.1	+0.3
	comp=Z,0.4nm,0.6s,baz=236,slow=8.0,SNR=4.4						
NVAR				LR	LR	00 50 03.8	
	comp=Z,87nm,21.7s,baz=270,slow=31						
	comp=Z,0.4nm,0.6s						
SEY	Seymchan	81.52	348	P	P	00 21 04.8	-1.0
	comp=Z,1.2nm,0.4s,baz=175,slow=8.9,SNR=3.8						
	comp=Z,1.2nm,0.4s						
ELK	Elko	83.60	44	P	P	00 21 17.3	-0.2
	comp=Z,0.8nm,0.8s,baz=220,slow=8.5,SNR=5.7						
	comp=Z,0.8nm,0.8s						
MAW	Mawson	84.35	200	P	P	00 21 19.5	-1.1
	comp=Z,3.1nm,1.0s,baz=114,slow=10,SNR=5.6						
MAW				LR	LR	00 56 23.1	
	comp=Z,43nm,18.4s,baz=90,slow=34						
	comp=Z,3.1nm,1.0s						
ILAR	Eielson Array	85.02	14	P	P	00 21 23.1	-0.8
	comp=Z,3.0nm,0.9s,baz=237,slow=6.3,SNR=18						
ILAR				LR	LR	00 52 20.6	
	comp=Z,55nm,21.4s,baz=262,slow=31						
	comp=Z,3.0nm,0.9s						
CMAR	Chiang Mai Arr	85.44	291	P	P	00 21 26.6	-0.5
	comp=Z,0.5nm,0.3s,baz=122,slow=2.8,SNR=6.0						
	comp=Z,0.5nm,0.3s						
DLBC	Dease Lake	85.57	24	P	P	00 21 27.2	+0.3
	comp=Z,0.7nm,0.6s,baz=249,slow=8.6,SNR=4.5						
	comp=Z,0.7nm,0.6s						
PMSA	Palmer Station	86.50	158	LR	LR	00 52 03.9	
	comp=Z,107nm,21.9s,baz=299,slow=30						
YAK	Yakutsk	86.94	339	LR	LR	00 59 59.5	
	comp=Z,54nm,18.1s,baz=144,slow=35						
TXAR	Lajitas Array	87.74	59	P	P	00 21 38.2	-0.1
	comp=Z,0.2nm,0.5s,baz=216,slow=4.0,SNR=3.8						
	comp=Z,0.2nm,0.5s						
PDAR	Pinedale Array	88.30	44	P	P	00 21 40.0	-0.8
	comp=Z,0.2nm,0.4s,baz=222,slow=4.0,SNR=5.5						
	comp=Z,0.2nm,0.4s						
SONM	Songino Array	90.32	320	P	P	00 21 48.2	-1.8
	comp=Z,0.4nm,0.5s,baz=141,slow=5.0,SNR=4.3						
	comp=Z,0.4nm,0.5s						
SNAA	Sanae	92.28	180	LR	LR	01 01 47.0	
	comp=Z,57nm,18.2s,baz=162,slow=34						
TIXI	Tiksi	93.81	346	LR	LR	01 05 46.8	
	comp=Z,43nm,18.1s,baz=152,slow=36						
PLCA	Paso Flores	94.67	135	LR	LR	00 55 12.0	
	comp=Z,69nm,21.9s,baz=296,slow=29						
PALK	Pallekele	99.34	275	LR	LR	01 08 13.1	
	comp=Z,30nm,18.6s,baz=70,slow=36						
GERES	GERESS Array B	145.17	342	PKPbc	PKPbc	00 28 24.8	-1.3
	comp=Z,0.3nm,0.3s,baz=40,slow=2.3,SNR=7.8						
CONA	Conrad Observa	145.30	339	ePKP	PKPbc	00 28 26.2	-0.3
	comp=Z,3.1nm,1.0s						
CONA				ePKiKP	PKiKP	00 28 33.0	+2.3
	comp=Z,6.6nm,1.3s						
RONA	Rosalia, Austr	145.34	339	ePKP	PKPbc	00 28 26.2	-0.4
	comp=Z,4.2nm,1.2s						
RONA				ePKiKP	PKiKP	00 28 33.2	+2.4
	comp=Z,7.7nm,1.4s						
MOA	Molln	145.89	341	ePKP	PKPdf	00 28 27.6	-0.2
	comp=Z,1.5nm,0.6s						
MOA				ePKiKP	PKiKP	00 28 34.3	+2.4
	comp=Z,11nm,1.5s						
ARSA	Arzberg	146.00	339	ePKP	PKPdf	00 28 28.0	+0.1
	comp=Z,4.8nm,1.7s						
BIOA	Bad Ischl, Aus	146.22	341	ePKP	PKPdf	00 28 28.2	-0.2
	comp=Z,1.7nm,0.8s						
SESA	Seetaler Alpe,	146.44	340	ePKP	PKPdf	00 28 29.3	+0.3
	comp=Z,6.0nm,0.9s						
SOKA	Soboth	146.66	339	ePKP	PKPdf	00 28 28.8	-0.4
	comp=Z,1.6nm,1.0s						
SOKA				ePKiKP	PKiKP	00 28 36.5	+2.9
	comp=Z,3.2nm,1.3s						
LESA	Schwarzleotal	146.75	342	ePKP	PKPdf	00 28 28.6	-0.7
	comp=Z,1.9nm,0.9s						
LESA				ePKiKP	PKiKP	00 28 36.7	+3.0
	comp=Z,4.1nm,1.1s						
KBA	Koelnbreinsper	146.86	341	ePKiKP	PKiKP	00 28 37.0	+2.9
	comp=Z,2.8nm,1.0s						
OBKA	Obir	146.97	339	ePKiKP	PKiKP	00 28 37.1	+2.9
	comp=Z,4.3nm,1.6s						
WATA	Walderalm	147.15	343	ePKP	PKPdf	00 28 29.6	-0.5
	comp=Z,1.0nm,0.4s						
MYKA	Terra Mystica	147.17	340	ePKP	PKPdf	00 28 29.4	-0.6
	comp=Z,0.8nm,0.4s						
MYKA				ePKiKP	PKiKP	00 28 37.0	+2.4
	comp=Z,0.4nm,0.4s						
RETA	Reutte	147.22	344	ePKP	PKPdf	00 28 29.7	-0.4
	comp=Z,1.6nm,0.6s						
MOTA	Moosalm	147.26	344	ePKP	PKPdf	00 28 29.7	-0.6
	comp=Z,6.1nm,1.8s						
SQTA	Sankt Quirin	147.35	344	ePKP	PKPdf	00 28 29.9	-0.5
	comp=Z,3.3nm,1.3s						
ABTA	Abfaltersbach	147.41	342	ePKP	PKPdf	00 28 29.9	-0.6
	comp=Z,0.7nm,0.6s						
FETA	Feichten	147.66	344	ePKP	PKPdf	00 28 30.4	-0.5
	comp=Z,2.2nm,1.1s						

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*KRSC **05** 00:21:21.0±1.1, 52.°09N×160.°59E, h46^{km}±15^{km}, Ml5.2*

*BJI **05** 00:21:23.7, 52.°50N×159.°93E, h33^{km}, mB4.8/6, mb4.5/29, Ms4.7/20, Ms7 4.6/20*

*IDC **05** 00:21:25.3±2.7, 52.°38N×159.°94E, h28^{km}±17^{km}, mb4.2/33, mbtmp4.4/37, ML4.7/3, MS4.0/32, Error ellipse: s-maj=14.9km s-min=10.7km az=137.0*

*MOS **05** 00:21:25.4±1.2, 52.°25N×160.°17E, h53^{km}, mb5.0/43, MS4.2/10, Error ellipse: s-maj=6.5km s-min=3.1km az=104.5*

*NEIC **05** 00:21:26.4±1.8, 52.°32N±0.°09×160.°0E±0.°1, h35^{km}±1^{km}, mb4.7/154, Error ellipse: s-maj=15.1km s-min=12.1km az=184.0*

*GFZ **05** 00:21:27.0±0.6, 52°N±5°×16°0E±°, h37^{km}±3^{km}, M4.7/49, mb4.8/49, Mw4.7/19, Error ellipse: s-maj=13.4km s-min=7.8km az=137.7, confirmed*

*BGR **05** 00:21:30.4, 52.°68N×159.°76E, h33^{km}, mb4.6, Ms4.1*

ISC 05 00:21:26.6±0.5**, 52.°23N**±0.°04×**160.°26E**±0.°03**, h46^{km}**±3^{km}**, h46^{km}:pP-P, n647, σ1^{s}.42**/662**, mb4.7**/200**, MS4.3**/49**, 28C-17D, Off east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SPN	Mys Shipunski	0.88	351	PN	Pn	00 21 41.2	-1.3
SPN				S	Sn	00 21 53.7	-0.5
SPN	Mys Shipunski	0.88	351	eP	Pn	00 21 41.3	-1.3
SPN				eS	Sn	00 21 53.8	-0.5
RUS	Russkaya	1.09	281	PN	Pn	00 21 44.4	-1.0
RUS				S	Sn	00 22 00.7	+1.4
RUS	Russkaya	1.09	281	eP	Pn	00 21 44.5	-1.0
RUS				eS	Sn	00 22 00.7	+1.4
NLC	Nalytchevo	1.09	330	PN	Pn	00 21 44.6	-0.8
NLC				S	Sn	00 22 01.0	+1.6
NLC	Nalytchevo	1.09	330	eP	Pn	00 21 44.6	-0.8
NLC				eS	Sn	00 22 01.1	+1.6
DALK	Dalny	1.22	312	PN	Pn	00 21 46.5	-0.6
DALK				S	Sn	00 22 03.9	+1.5
DALK	Dalny	1.22	312	eP	Pn	00 21 46.5	-0.6
DALK				eS	Sn	00 22 03.9	+1.5
PET	Petropavlovsk	1.26	310	αiPN	Pn	00 21 47.2	-0.5
PET				eS	Sn	00 22 04.7	+1.2
PET				pmax	pmax		
	comp=Z,4µm,0.5s						
PET				smax	smax		
	comp=N,13µm,0.4s						
PET	Petropavlovsk	1.26	310		Pn	00 21 47.1	-0.6
PET	Petropavlovsk	1.26	310	P	Pn	00 21 45.1	-2.6
PET				AML	AML		
PET	Petropavlovsk	1.26	310	P	Pn	00 21 47.3	-0.5
MTVR	Mutnovka	1.30	282	PN	Pn	00 21 47.8	-0.6
MTVR	Mutnovka	1.30	282	eP	Pn	00 21 47.9	-0.6
INSR	Institute	1.31	310	PN	Pn	00 21 47.9	-0.5
INSR				S	Sn	00 22 07.2	+2.5
INSR	Institute	1.31	310	eP	Pn	00 21 47.9	-0.5
INSR				eS	Sn	00 22 07.3	+2.5
UGLR	Uglovaya	1.31	319	PN	Pn	00 21 48.3	-0.2
UGLR	Uglovaya	1.31	319	eP	Pn	00 21 48.4	-0.2
SDLR	Sedlovina	1.34	322	PN	Pn	00 21 48.4	-0.5
SDLR	Sedlovina	1.34	322	eP	Pn	00 21 48.5	-0.5
SMAR	Somma	1.36	320	PN	Pn	00 21 48.6	-0.7
SMAR	Somma	1.36	320	eP	Pn	00 21 48.6	-0.7
GRL	Gorelyy	1.38	284	PN	Pn	00 21 49.6	+0.2
GRL	Gorelyy	1.38	284	eP	Pn	00 21 49.7	+0.2
AVH	Avacha	1.39	319	PN	Pn	00 21 49.4	-0.2
AVH	Avacha	1.39	319	eP	Pn	00 21 49.4	-0.2
KRER	Koryakskii	1.41	320	PN	Pn	00 21 49.8	-0.2
KRER	Koryakskii	1.41	320	eP	Pn	00 21 49.9	-0.2
KDTR	Khodutka, Kamc	1.42	253	PN	Pn	00 21 48.7	-1.1
KDTR				S	Sn	00 22 07.9	+0.7
KDTR	Khodutka, Kamc	1.42	253	eP	Pn	00 21 48.7	-1.1
KDTR				eS	Sn	00 22 07.9	+0.7
KRMR	Karymshinskiy	1.43	296	PN	Pn	00 21 49.7	-0.4
KRMR				S	Sn	00 22 11.1	+3.4
KRMR	Karymshinskiy	1.43	296	eP	Pn	00 21 49.7	-0.4
KRMR				eS	Sn	00 22 11.2	+3.4
KOK	Koryaka	1.45	318	PN	Pn	00 21 50.3	-0.1
KOK	Koryaka	1.45	318	eP	Pn	00 21 50.3	-0.1
ASAK	Asacha	1.46	277	PN	Pn	00 21 50.5	0.0
ASAK	Asacha	1.46	277	eP	Pn	00 21 50.5	0.0
KRX	Arik	1.49	320	PN	Pn	00 21 50.6	-0.4
KRX	Arik	1.49	320	eP	Pn	00 21 50.7	-0.4
I44RU	PETROPAVLOVSK-	1.78	300	Pg	Pn	00 21 55.0	+0.1
	baz=97,slow=19						
PEA0B	Petropavlovsk-	1.79	300	cePN	Pn	00 21 55.1	+0.1
PEA0B	Petropavlovsk-	1.79	300		Pn	00 21 54.9	-0.1
PETK	Petropavlovsk-	1.79	300	Pg	Pn	00 21 55.4	+0.4
	comp=N,188nm,0.3s,baz=106,slow=20,SNR=527						
PETK				Lg	Lg	00 22 16.5	
	comp=N,284nm,0.3s,baz=86,slow=39,SNR=14						
PETK				LR	LR	00 22 51.2	
	comp=N,6µm,18.7s,baz=44,slow=56						
PETK	Petropavlovsk-	1.79	300		Pn	00 21 55.2	+0.2
KII	Karymskiy	1.87	345	PN	Pn	00 21 55.7	-0.4
KII	Karymskiy	1.87	345	eP	Pn	00 21 55.8	-0.4
APC	Apacha	2.02	291	PN	Pn	00 21 58.9	+0.8
APC	Apacha	2.02	291	eP	Pn	00 21 58.9	+0.8
APC				eS	Sn	00 22 26.3	+4.2
GNL	Ganaly	2.03	317	PN	Pn	00 21 59.2	+0.8
GNL	Ganaly	2.03	317	eP	Pn	00 21 59.2	+0.8
MIPR	Malaya Ipel'ka	2.15	273	PN	Pn	00 22 01.4	+1.5
MIPR	Malaya Ipel'ka	2.15	273	eP	Pn	00 22 01.5	+1.5
PAU	Pauzhetka	2.27	252	PN	Pn	00 22 00.9	-0.7
PAU	Pauzhetka	2.27	252	eP	Pn	00 22 00.9	-0.7
MKZ	Mys Kozlova	2.49	20	PN	Pn	00 22 02.6	-1.9
MKZ	Mys Kozlova	2.49	20	eP	Pn	00 22 02.6	-1.9
SKR	Severo-Kuril's	3.02	241	ePN	Pn	00 22 10.9	-1.0
SKR				eS	Sn	00 22 46.0	-0.7
SKR				pmax	pmax		
	comp=Z,134nm,0.7s						
SKR				smax	smax		
	comp=E,2µm,0.6s						
SKR				smax	smax		
	comp=N,1µm,0.6s						
SKR	Severo-Kuril's	3.02	241	eP	Pn	00 22 10.8	-1.0
SKR				eS	Sn	00 22 47.2	+0.4
TUMR	Tumrok	3.06	359	PN	Pn	00 22 12.7	+0.3
TUMR	Tumrok	3.06	359	eP	Pn	00 22 12.8	+0.3
KMNR	Kamenistaya	3.53	360	PN	Pn	00 22 20.0	+1.1
KMNR	Kamenistaya	3.53	360	eP	Pn	00 22 20.1	+1.1
BZP	Bezymyannyi-Pe	3.69	2	PN	Pn	00 22 21.4	+0.2
BZP	Bezymyannyi-Pe	3.69	2	eP	Pn	00 22 21.4	+0.2
BZMR	Bezymyannaya	3.71	2	PN	Pn	00 22 22.2	+0.8
BZMR	Bezymyannaya	3.71	2	eP	Pn	00 22 22.3	+0.8
BZGR	Bezymyannyi-Gr	3.72	4	PN	Pn	00 22 20.8	-0.8
BZGR	Bezymyannyi-Gr	3.72	4	eP	Pn	00 22 20.9	-0.8
KIRR	Kirishev	3.73	1	PN	Pn	00 22 22.2	+0.5
KIRR	Kirishev	3.73	1	eP	Pn	00 22 22.3	+0.5
KPT	Kopyto	3.74	360	PN	Pn	00 22 22.8	+1.0
KPT	Kopyto	3.74	360	eP	Pn	00 22 22.8	+1.0
ZLN	Zelenaya	3.81	5	PN	Pn	00 22 23.7	+1.0
ZLN	Zelenaya	3.81	5	eP	Pn	00 22 23.7	+1.0
ESO	Esso	3.81	347	PN	Pn	00 22 23.3	+0.6
ESO	Esso	3.81	347	eP	Pn	00 22 23.4	+0.6
KOZ	Kozyrevsk	3.84	357	PN	Pn	00 22 23.1	0.0
KOZ	Kozyrevsk	3.84	357	eP	Pn	00 22 23.2	0.0
CIRR	Tsirk	3.90	4	PN	Pn	00 22 25.2	+1.2
CIRR	Tsirk	3.90	4	eP	Pn	00 22 25.3	+1.2
SRDR	Sredinnyy	4.11	356	PN	Pn	00 22 26.4	-0.4
SRDR	Sredinnyy	4.11	356	eP	Pn	00 22 26.5	-0.4
KBTR	Krutoberegovo	4.26	20	PN	Pn	00 22 27.7	-1.1
KBTR	Krutoberegovo	4.26	20	eP	Pn	00 22 27.8	-1.1
BKI	Bering	4.51	46	PN	Pn	00 22 29.6	-2.7
BKI	Bering	4.51	46	eP	Pn	00 22 29.6	-2.7
TIGL	Tigil	5.62	351	PN	Pn	00 22 50.0	+2.5
TIGL	Tigil	5.62	351	eP	Pn	00 22 50.0	+2.5
SHEM	Shemya Is, Ala	8.46	81	LR	LR	00 26 52.2	
	comp=N,508nm,19.8s,baz=274,slow=38						
MA2	Magadan	9.08	328	LR	LR	00 27 41.6	
	comp=N,2µm,18.7s,baz=136,slow=42						
MA2	Magadan	9.08	328	P	Pn	00 23 32.2	-2.7
	comp=N,19nm,1.1s						
OKH	Okha	10.55	284	dePN	Pn	00 23 46.5	-8.5
OKH				pmax	pmax		
	comp=Z,100nm,9.3s						
OKH				MLR	MLR		
	comp=E,2µm,15.0s						
OKH				MLR	MLR		
	comp=N,500nm,15.0s						
OKH				MLR	MLR		
	comp=Z,2µm,15.0s						
TYV	Tymovskoe	11.05	270	ePN	Pn	00 24 09.9	+8.1
TYV				pmax	pmax		
	comp=Z,15nm,1.3s						
TYV				pmax	pmax		
	comp=Z,100nm,2.6s						
SEY	Seymchan	11.52	342	Pn	Pn	00 24 06.6	-1.5
	comp=Z,1.4nm,0.7s,baz=140,slow=15,SNR=6.4						
SEY	Seymchan	11.52	342	ePN	Pn	00 24 07.5	-0.7
SEY				pmax	pmax		
	comp=Z,9.0nm,1.4s						
YSS	Yuzhno-Sakhali	12.52	252	ePN	Pn	00 24 24.1	+2.3
YSS				eS	Sn	00 26 42.9	+3.2
YSS				pmax	pmax		
	comp=Z,100nm,3.6s						
YSS				pmax	pmax		
	comp=Z,20nm,1.1s						
YSS				MLR	MLR		
	comp=Z,1µm,14.0s						
YSS	Yuzhno-Sakhali	12.52	252	Pn	Pn	00 24 19.7	-2.2
ADK	Adak	14.18	82	Pn	Pn	00 24 47.5	+3.0
JKA	Kamikawa-asahi	14.28	242	Pn	Pn	00 24 45.3	-0.6
JKA	Kamikawa-asahi	14.28	242	P	Pn	00 24 46.1	+0.2
	comp=Z,38nm,0.8s						
ASAJ	Asahikawa	14.28	242	Pn	Pn	00 24 45.2	-0.7
	comp=Z,2.3nm,0.3s,baz=77,slow=17,SNR=6.8						
ASAJ				LR	LR	00 30 55.2	
	comp=Z,347nm,18.9s,baz=48,slow=40						
	comp=Z,7.1nm,0.6s						
ASAJ				AML	AML		
GRNR	Gornyy	14.90	274	⇑iP	P	00 24 59.3	+0.3
GRNR				pmax	pmax		
	comp=Z,10.0nm,1.2s						
GRNR				MLR	MLR		
	comp=E,620nm,16.0s						
GRNR				MLR	MLR		

	comp=N,320nm,14.0s						
GRNR				MLR	MLR		
	comp=Z,680nm,15.0s						
ERM	Erimo	15.45	235	Pn	Pn	00 24 56.1	-5.1
ERM				IAmb	IAmb	00 25 13.0	
	comp=Z,80nm,1.5s						
BILL	Bilibino	16.12	8	*ce*P	Pn	00 25 07.8	-1.9
BILL				pmax	pmax		
	comp=Z,23nm,1.0s						
KLR	Kul'dur	18.25	272	P	P	00 25 34.6	-1.3
	comp=Z,1.0nm,0.3s,baz=72,slow=8.2,SNR=18						
KLR				LR	LR	00 33 33.7	
	comp=Z,969nm,18.1s,baz=67,slow=40						
	comp=Z,5.1nm,0.5s						
KLR				AML	AML		
KLR	Kul'dur	18.25	272	*e*P	Pn	00 25 35.3	-0.8
KLR				pmax	pmax		
	comp=Z,3.0nm,1.1s						
YAK	Yakutsk	19.09	313	P	P	00 25 41.0	-4.0
	comp=Z,4.4nm,0.3s,baz=296,slow=9.9,SNR=11						
YAK				LR	LR	00 33 58.6	
	comp=Z,325nm,19.0s,baz=98,slow=40						
	comp=Z,29nm,0.5s						
YAK				AML	AML		
YAK	Yakutsk	19.09	313	*e*P	P	00 25 42.7	-2.4
YAK				*e*S	S	00 29 17.5	-1.4
YAK				pmax	pmax		
	comp=Z,89nm,1.6s						
YAK				pmax	pmax		
	comp=N,23nm,1.6s						
YAK				pmax	pmax		
	comp=E,52nm,1.9s						
YAK				smax	smax		
	comp=N,246nm,5.3s						
YAK				smax	smax		
	comp=E,46nm,2.8s						
YAK				MLR	MLR		
	comp=N,413nm,15.0s						
YAK				MLR	MLR		
	comp=E,446nm,17.0s						
YAK				MLR	MLR		
	comp=Z,607nm,23.0s						
YAK	Yakutsk	19.09	313		P	00 25 42.6	-2.4
YAK				IAmb	IAmb	00 25 52.4	
	comp=Z,78nm,1.1s						
YAK	Yakutsk	19.09	313	P	P	00 25 43.1	-2.0
	comp=Z,74nm,0.7s						
ZEA	Zeya	19.84	287	*e*P	P	00 25 50.6	-2.7
ZEA				pmax	pmax		
	comp=Z,10.0nm,1.6s						
ZEA				MLR	MLR		
	comp=E,400nm,15.0s						
ZEA				MLR	MLR		
	comp=Z,600nm,16.0s						
LVA	Lava Point	20.18	71	P	P	00 25 57.8	+0.8
LVA				IAmb	IAmb	00 26 21.3	
	comp=Z,68nm,1.2s						
USA0B	Ussuriysk Arra	20.38	258	*i* P	P	00 25 56.9	-2.3
USA0B	Ussuriysk Arra	20.38	258		P	00 25 57.5	-1.7
USA0B				IAmb	IAmb	00 25 59.5	
	comp=Z,24nm,1.1s						
USRK	Ussuriysk Ar.	20.38	258	P	P	00 25 56.1	-3.1
	comp=Z,23nm,1.1s,baz=66,slow=9.2,SNR=11						
USRK				LR	LR	00 33 57.5	
	comp=Z,422nm,19.7s,baz=65,slow=37						
	comp=Z,23nm,1.1s						
USRK	Ussuriysk Ar.	20.38	258	P	P	00 25 57.9	-1.4
HEH	HeiHe	20.57	278	*e*P	P	00 26 00.3	-0.9
HEH				pmax	pmax		
	comp=Z,15nm,1.0s						
HEH				L	L		
	comp=Z,670nm,15.2s						
HEH				L	L		
	comp=Z,1µm,17.1s						
HEH				L	L		
	comp=Z,2µm,15.1s						
K13K	Kusilvak Mount	21.13	49	P	P	00 26 09.0	+1.8
M13K	Dall Lake	21.52	53	P	P	00 26 13.0	+1.7
M13K				IAmb	IAmb	00 26 34.7	
	comp=Z,29nm,1.2s						
J14K	Nanvaranak Lak	21.80	47	P	P	00 26 15.2	+1.0
L14K	Kuka Creek	21.96	51	P	P	00 26 17.3	+1.3
MJAR	Matsushiro Arr	22.10	233	P	P	00 26 18.4	+0.5
	comp=Z,16nm,0.9s,baz=21,slow=11,SNR=34						
	comp=Z,16nm,0.9s						
MJAR	Matsushiro Arr	22.10	233	P	P	00 26 18.4	+0.5
MJB9	Matsu-Tunnel	22.10	233		P	00 26 18.7	+0.9
MJB9				IAmb	IAmb	00 26 23.0	
	comp=Z,40nm,1.0s						
MAJO	Matsushiro	22.10	233	*i* P	P	00 26 18.3	+0.5
MAJO				pmax	pmax		
	comp=Z,19nm,0.6s						
MAJO	Matsushiro	22.10	233	P	P	00 26 18.1	+0.3
MAJO				IAmb	IAmb	00 26 22.0	
	comp=Z,40nm,1.0s						
MAJO	Matsushiro	22.10	233	P	P	00 26 19.0	+1.1
	comp=Z,29nm,1.1s						
M14K	Bethel	22.24	53		P	00 26 20.6	+1.6
M14K				IAmb	IAmb	00 26 45.1	
	comp=Z,16nm,0.9s						
N14K	Kuskokwak Cree	22.32	55	P	P	00 26 21.8	+1.9
N14K				IAmb	IAmb	00 26 38.4	
	comp=Z,30nm,1.0s						
BNX	BinXian	22.38	266	⇓P	P	00 26 19.3	-1.4
BNX				pmax	pmax		
	comp=Z,19nm,1.2s						
O14K	Tigyukauivet M	22.50	57	P	P	00 26 23.5	+1.6
K15K	Wolf Creek Mou	22.64	49	P	P	00 26 24.3	+1.0
K15K				IAmb	IAmb	00 26 39.4	
	comp=Z,21nm,1.4s						
C16K	Lisburne Hills	22.96	33	P	P	00 26 26.6	0.0
C16K				IAmb	IAmb	00 26 32.9	
	comp=Z,43nm,1.5s						
N15K	Kwethluk River	23.12	54		P	00 26 28.9	+0.6
N15K				IAmb	IAmb	00 26 59.6	
	comp=Z,17nm,1.0s						
J16K	Anvik River	23.22	46	P	P	00 26 29.9	+0.6
O15K	Ungalikthiuk R	23.24	57	P	P	00 26 31.5	+2.0
O15K				IAmb	IAmb	00 27 02.5	
	comp=Z,22nm,1.4s						
JGF	Kuroka	23.27	233		P	00 26 30.4	+0.4
JGF				IAmb	IAmb	00 27 09.6	
	comp=Z,20nm,1.1s						
JGF	Kuroka	23.27	233	P	P	00 26 30.0	0.0
	comp=Z,29nm,1.8s						
L16K	Owhat River	23.53	50	P	P	00 26 32.8	+0.6
M16K	Timber Creek	23.73	52	P	P	00 26 34.7	+0.6
M16K				IAmb	IAmb	00 27 06.3	
	comp=Z,18nm,1.1s						
CNBA	Chernabura Isl	23.78	68	P	P	00 26 38.2	+3.6
CNBA				IAmb	IAmb	00 26 42.4	
	comp=Z,22nm,1.0s						
TIXI	Tiksi	23.91	336	LR	LR	00 36 57.6	
	comp=Z,721nm,18.8s,baz=144,slow=39						
TIXI	Tiksi	23.91	336	*ce*P	P	00 26 33.7	-1.9
TIXI				pmax	pmax		
	comp=Z,17nm,0.5s						
TIXI	Tiksi	23.91	336		P	00 26 34.1	-1.6
TIXI				IAmb	IAmb	00 26 36.9	
	comp=Z,20nm,0.6s						
J17K	VABM Dome	23.92	46	P	P	00 26 36.6	+0.8
O16K	Kokwok River B	24.13	56	P	P	00 26 38.8	+1.0
CHGN	Chignik	24.20	64	P	P	00 26 38.6	+0.1
M17K	Holitna River	24.48	51		P	00 26 42.5	+1.5
M17K				IAmb	IAmb	00 26 59.8	
	comp=Z,15nm,0.9s						
C18K	Utukok River	24.51	33	P	P	00 26 41.8	+0.5
C18K				IAmb	IAmb	00 27 04.1	
	comp=Z,12nm,0.9s						
N17K	Nushagak Hills	24.58	54	P	P	00 26 42.9	+1.0
G18K	Tagagawik	24.59	40	P	P	00 26 44.0	+2.1
L18K	Granite Mounta	24.88	49	P	P	00 26 46.0	+1.4
J18K	Innoko River	24.98	47		P	00 26 47.0	+1.5
N18K	Kilae Creek	25.22	53	P	P	00 26 49.3	+1.5
C19K	Lookout Ridge	25.22	33	P	P	00 26 48.3	+0.6
C19K				IAmb	IAmb	00 27 13.4	
	comp=Z,15nm,0.8s						
G19K	Purcell Mounta	25.27	40	P	P	00 26 49.4	+1.3
HILR	Hailar Array B	25.46	280	P	P	00 26 47.8	-2.2
	comp=Z,3.5nm,0.4s,baz=68,slow=8.3,SNR=17						
	comp=Z,3.5nm,0.4s						
D19K	Kuna River	25.52	35	P	P	00 26 52.3	+1.9
D19K				IAmb	IAmb	00 27 12.0	
	comp=Z,13nm,0.9s						
J19K	Poorman	25.52	45	P	P	00 26 51.5	+1.0
E19K	Redstone River	25.53	37	P	P	00 26 51.6	+1.1
E19K				IAmb	IAmb	00 27 30.7	
	comp=Z,13nm,0.9s						
HIA	Hailar	25.57	280	P	P	00 26 49.3	-1.7
HIA				pmax	pmax		
	comp=Z,36nm,1.3s						
HIA	Hailar	25.57	280	P	P	00 26 49.4	-1.7
HIA				IAmb	IAmb	00 26 51.2	
	comp=Z,36nm,1.3s						
HIA	Hailar	25.57	280	P	P	00 26 49.4	-1.7
	comp=Z,22nm,1.0s						
L19K	White Mountain	25.74	50	P	P	00 26 54.6	+2.1
CHIR	Chirikof Islan	25.83	64	P	P	00 26 54.8	+1.6
N19K	Bonanza Creek	25.91	53	P	P	00 26 55.6	+1.6
D20K	Etivluk River	26.11	35	P	P	00 26 56.0	+0.3
D20K				IAmb	IAmb	00 27 20.4	
	comp=Z,13nm,1.1s						
K20K	Telida	26.16	47	P	P	00 26 57.8	+1.6
J20K	Nowinta River	26.19	45	P	P	00 26 57.1	+0.6
SII	Sitkinak Islan	26.48	62	P	P	00 27 01.7	+2.5
OHAK	Old Harbor	26.86	61	P	P	00 27 04.3	+1.8
F21K	Alatna River	26.89	38	P	P	00 27 05.4	+2.6
KSRS	Korea Array	27.00	250	P	P	00 27 03.2	-0.7
	comp=Z,3.0nm,0.8s,baz=41,slow=11,SNR=12						
	comp=Z,3.0nm,0.8s						
KSAR	Wonju Array Be	27.03	250	P	P	00 27 04.7	+0.5
JNU	Nakatsue	28.53	240	P	P	00 27 18.5	+0.7
	comp=Z,6.2nm,0.8s,baz=28,slow=12,SNR=4.1						
	comp=Z,6.2nm,0.8s						
ILAR	Eielson Array	29.36	44	P	P	00 27 24.9	+0.1
	comp=Z,0.5nm,0.7s,baz=267,slow=8.0,SNR=6.1						
ILAR				PcP	PcP	00 30 29.2	-0.6
	comp=Z,0.5nm,0.6s,baz=286,slow=3.7,SNR=4.8						
ILAR				LR	LR	00 40 33.1	
	comp=Z,135nm,18.1s,baz=276,slow=39						
	comp=Z,0.5nm,0.7s						
DL2	Dalian	29.77	259	*e*P	P	00 27 26.3	-2.3
DL2				pmax	pmax		
	comp=Z,13nm,0.6s						
L27K	Beaver Creek,	31.70	47	P	P	00 27 46.5	+1.0
BCAR	Beaver Creek A	31.72	47	P	P	00 27 47.5	+1.8
M27K	Edge Creek, AK	31.78	49	P	P	00 27 48.2	+1.9
F28M	Old Crow	32.15	38		P	00 27 50.7	+1.3
H11N2	WAKE ISLAND Hy	32.85	168	T	T	01 03 54.7	
	baz=352,slow=76,SNR=474						
H11N3	WAKE ISLAND Hy	32.86	168	T	T	01 03 39.0	
	baz=352,slow=76,SNR=496						
H11N1	WAKE ISLAND Hy	32.87	168	T	T	01 03 59.2	
	baz=352,slow=76,SNR=463						
G29M	Pine Creek	32.91	40	P	P	00 27 57.4	+1.4
M29M	Somme Creek	33.33	48	P	P	00 28 01.5	+1.6
L29M	L29M	33.36	47	P	P	00 28 01.2	+1.2
L29M				IAmb	IAmb	00 28 37.6	
	comp=Z,4.3nm,0.8s						
F30M	Barrier River	33.72	38	P	P	00 28 05.9	+2.9
F30M				IAmb	IAmb	00 28 47.1	
	comp=Z,7.0nm,1.1s						
I30M	Mount Dempster	33.77	43	P	P	00 28 06.1	+2.4
ULN	Ulaanbaatar	33.80	284	P	P	00 28 02.4	-1.7
ULN	Ulaanbaatar	33.80	284	*ce*P	P	00 28 02.1	-2.0
ULN				pmax	pmax		
	comp=Z,4.0nm,1.1s						
H11S1	WAKE ISLAND Hy	34.03	169	T	T	01 05 24.3	
	baz=352,slow=76,SNR=19						
H11S3	WAKE ISLAND Hy	34.04	169	T	T	01 05 25.1	
	baz=352,slow=76,SNR=28						
H11S2	WAKE ISLAND Hy	34.05	169	T	T	01 05 25.7	
	baz=352,slow=76,SNR=9.3						
SONM	Songino Array	34.21	285	P	P	00 28 05.1	-2.5
	comp=Z,1.1nm,0.3s,baz=73,slow=7.1,SNR=8.4						
	comp=Z,1.1nm,0.3s						
SONM	Songino Array	34.21	285	P	P	00 28 06.5	-1.1
G31M	Satah River	34.38	39	P	P	00 28 09.2	+0.5
HHC	Hu-ho-hao-te	34.74	271	*e*P	P	00 28 13.7	+1.4
HHC				pmax	pmax		
	comp=Z,8.0nm,0.5s						
HHC				pmax	pmax		
	comp=Z,56nm,3.9s						
HHC				L	L		
	comp=Z,530nm,14.3s						
HHC				L	L		
	comp=Z,460nm,14.3s						
HHC				L	L		
	comp=Z,490nm,14.5s						
ZAK	Zakamensk	34.89	290	*e*P	P	00 28 12.1	-1.3
ZAK				pmax	pmax		
	comp=Z,6.0nm,1.3s						
HNS	HongShan	34.93	263	⇓P	P	00 28 15.5	+1.7
HNS				pmax	pmax		
	comp=Z,14nm,1.2s						
HNS				L	L		
	comp=Z,540nm,12.4s						
HNS				L	L		
	comp=Z,480nm,12.2s						
HNS				L	L		
	comp=Z,710nm,12.7s						
NJ2	Nanjing	36.09	252	*e*P	P	00 28 24.3	+0.6
NJ2				pmax	pmax		
	comp=Z,19nm,0.6s						
NRIK	Noril'sk	36.67	325	P	P	00 28 26.4	-1.9
	comp=Z,3.3nm,0.6s,baz=114,slow=12,SNR=4.8						
NRIK				LR	LR	00 44 50.8	
	comp=Z,706nm,21.5s,baz=78,slow=39						
	comp=Z,3.3nm,0.6s						
NRIK	Noril'sk	36.67	325	*i* P	P	00 28 27.7	-0.7
NRIK				pmax	pmax		
	comp=Z,8.0nm,1.3s						
R33M	Jennings River	37.68	51		P	00 28 39.0	+1.8
GTA2	Gaotai	42.80	278	P	P	00 29 19.3	-0.5
GTA2				sP	pwP	00 29 35.0	-0.2
GTA2				pmax	pmax		
	comp=Z,9.0nm,1.3s						
GTA2				L	L		
	comp=Z,570nm,19.4s						
GTA2				L	L		
	comp=Z,610nm,16.8s						
GTA2				L	L		
	comp=Z,800nm,18.4s						
ZALV	Zalesovo Beam	43.33	304	P	P	00 29 21.3	-2.4
	comp=Z,2.1nm,0.5s,baz=66,slow=7.4,SNR=10						
ZALV				LR	LR	00 48 44.6	
	comp=Z,408nm,18.7s,baz=54,slow=38						
	comp=Z,2.1nm,0.5s						
ZALV	Zalesovo Beam	43.33	304		P	00 29 21.1	-2.6
YKA	Yellowknife Ar	43.73	42	P	P	00 29 27.2	+0.4
	comp=Z,0.9nm,0.6s,baz=301,slow=8.6,SNR=3.6						
	comp=Z,0.9nm,0.6s						
RES	Resolute Bay	44.09	22	LR	LR	00 49 30.6	
	comp=Z,64nm,20.0s,baz=336,slow=38						
ZSN	Zaisan	46.82	296	*e*P	P	00 29 49.2	-2.3
ZSN	Zaisan	46.82	296	*e*P	P	00 29 49.2	-2.3
WMQ	Urumqi	47.36	290	*e*P	P	00 29 55.7	-0.1
WMQ				sP	sP	00 30 12.0	-0.6
WMQ				pmax	pmax		
	comp=Z,12nm,0.9s						
WMQ				L	L		
	comp=Z,410nm,14.5s						
WMQ				L	L		
	comp=Z,550nm,15.7s						
WMQ				L	L		
	comp=Z,340nm,18.1s						
KBS	Kingsbay	47.74	352	*i* P	P	00 29 56.1	-2.1
SPITS	Spitsbergen Ar	48.00	351	P	P	00 30 00.5	+0.2
	comp=Z,12nm,0.4s,baz=60,slow=8.8,SNR=86						
SPITS				LR	LR	00 49 56.3	
	comp=Z,115nm,20.6s,baz=28,slow=36						
	comp=Z,12nm,0.4s						
SPB2	Spitsbergen Ar	48.00	351	P	P	00 30 00.5	+0.2
KURK	Kurchatov	48.28	303	P	P	00 30 00.8	-1.9
KURK	Kurchatov	48.28	303	*ce*P	P	00 30 00.9	-1.9
KURK				pmax	pmax		
	comp=Z,18nm,1.2s						
KURK	Kurchatov	48.28	303	P	P	00 30 00.9	-1.9
	comp=Z,28nm,1.0s						
KURBB	Kurchatov Arra	48.38	303	P	P	00 30 01.5	-2.0
	comp=Z,5.9nm,0.5s,baz=62,slow=7.9,SNR=28						
	comp=Z,5.9nm,0.5s						
MK31	Makanchi Array	48.62	296	*ce*P	P	00 30 03.1	-2.4
MKAR	Makanchi Array	48.62	296	P	P	00 30 03.8	-1.8
	comp=Z,4.9nm,0.4s,baz=59,slow=6.3,SNR=22						
	comp=Z,4.9nm,0.4s						
MKAR	Makanchi Array	48.62	296	P	P	00 30 04.2	-1.4
MAKZ	Makanchi	48.79	297	P	P	00 30 04.7	-2.0
MAKZ				IAmb	IAmb	00 30 06.3	
	comp=Z,9.5nm,0.8s						
MAKZ	Makanchi	48.79	297	P	P	00 30 05.0	-1.8
	comp=Z,14nm,1.0s						
NEEM	North Greenlan	49.12	9	*i* P	P	00 30 08.8	-0.4
NEEM				IAmb	IAmb	00 30 09.9	
	comp=Z,16nm,1.0s						
PZH	PanZhiHua	50.37	263	P	P	00 30 22.0	+2.8
BVAR	Borovoye Array	51.01	309	P	P	00 30 21.8	-1.7
	comp=Z,6.7nm,0.5s,baz=58,slow=7.4,SNR=45						
BVAR				PcP	PcP	00 31 40.9	+1.9
	comp=Z,2.2nm,0.5s,baz=72,slow=2.0,SNR=5.1						
	comp=Z,6.7nm,0.5s						
BORK	Borovoye	51.03	309	*i* P	P	00 30 22.0	-1.6
BORK				pmax	pmax		
	comp=Z,22nm,1.5s						
BORK	Borovoye	51.03	309		P	00 30 22.0	-1.6
BORK				IAmb	IAmb	00 30 23.1	
	comp=Z,7.5nm,0.6s						
DAG	Danmarks Havn	51.27	360	P	P	00 30 27.3	+2.2
DAG				pmax	pmax		
	comp=Z,12nm,1.1s						
DAG	Danmarks Havn	51.27	360	*i* P	P	00 30 25.0	-0.1
DAG				IAmb	IAmb	00 30 27.0	
	comp=Z,6.3nm,0.8s						
DAG	Danmarks Havn	51.27	360	P	P	00 30 26.0	+0.9
	comp=Z,11nm,1.1s						
TDK	Taldyqorghan	51.87	297	*e*P	P	00 30 27.8	-2.2
TDK				pmax	pmax		
	comp=Z,7.0nm,0.5s						
TDK	Taldyqorghan	51.87	297	*e*P	P	00 30 27.9	-2.2
	comp=Z,6.9nm,0.5s						
SHLS	Shalkode	52.46	294	*e*P	P	00 30 30.4	-4.1
SHLS	Shalkode	52.46	294	*e*P	P	00 30 30.5	-4.1
UZB	Uzynbulak	52.71	295	*e*P	P	00 30 34.1	-2.4
UZB	Uzynbulak	52.71	295	*e*P	P	00 30 34.1	-2.4
VADS	Vadso	52.90	341	*e*P	P	00 30 35.5	-1.8
SLVN	Son La	52.92	257	P	P	00 30 38.7	+0.5
	comp=Z,6.8nm,1.4s						
SATY	Saty	53.11	295	*e*P	P	00 30 36.8	-2.6
SATY				pmax	pmax		
	comp=Z,6.0nm,1.1s						
SATY	Saty	53.11	295	*e*P	P	00 30 36.8	-2.6
	comp=Z,6.4nm,1.1s						
HAMF	Hammerfest	53.53	343	*e*P	P	00 30 41.9	0.0
MDOK	Medeo	53.80	296	*e*P	P	00 30 42.2	-2.3
MDOK	Medeo	53.80	296	*e*P	P	00 30 42.2	-2.3
AAA	Alma-Ata	53.84	296	*e*P	P	00 30 42.2	-2.5
AAA				pmax	pmax		
	comp=Z,9.0nm,0.7s						
AAA	Alma-Ata	53.84	296	*e*P	P	00 30 42.3	-2.5
	comp=Z,8.8nm,0.7s						
TNSS	Tian-Shan	53.94	296	*e*P	P	00 30 42.9	-2.9
TNSS	Tian-Shan	53.94	296	*e*P	P	00 30 43.0	-2.9
APA	Apatity	54.09	338	*e*P	P	00 30 42.0	-4.0
APA				*e*		00 31 48.3	
APA				*e*		00 32 52.6	
APA				pmax	pmax		
	comp=Z,10.0nm,1.1s						
APA				MLR	MLR		
	comp=Z,349nm,19.8s						
ARA0	ARCESS Array S	54.14	342	*e*P	P	00 30 45.6	-0.8
ARCES	ARCESS Array B	54.14	342	P	P	00 30 45.8	-0.6
	comp=Z,5.6nm,0.6s,baz=47,slow=9.0,SNR=26						
	comp=Z,5.6nm,0.6s						
ARCES	ARCESS Array B	54.14	342		P	00 30 45.4	-1.0
ARTI	Arti	54.20	318	LR	LR	00 57 37.0	
	comp=Z,234nm,18.2s,baz=40,slow=40						
ARTI	Arti	54.20	318	*c i*P	P	00 30 45.9	-1.2
ARTI						00 31 48.7	
ARTI				S	S	00 38 20.1	-0.4
ARTI				pmax	pmax		
	comp=Z,5.0nm,0.5s						
ARTI	Arti	54.20	318		P	00 30 45.8	-1.2
SUMG	Summit	54.80	7	P	P	00 30 52.1	+0.4
SUMG				pmax	pmax		
	comp=Z,23nm,1.2s						
SUMG	Summit	54.80	7		P	00 30 52.8	+1.1
SUMG	Summit	54.80	7	*i* P	P	00 30 52.0	+0.4
SUMG				IAmb	IAmb	00 30 53.7	
	comp=Z,19nm,1.1s						
SUMG	Summit	54.80	7	P	P	00 30 52.7	+1.1
SGDS	Sogindy	54.94	297	*e*P	P	00 30 50.3	-2.4
KTK1	Kautokeino	55.01	343	*e*P	P	00 30 51.7	-1.0
JETT	Jettan, Norway	55.04	344	*e*P	P	00 30 52.5	-0.4
TRO	Tromso	55.22	345	*e*P	P	00 30 53.5	-0.6
AAK	Ala-Archa	55.55	297	P	P	00 30 55.5	-1.7
AAK	Ala-Archa	55.55	297	*ce*P	P	00 30 56.1	-1.1
AAK				pmax	pmax		
	comp=Z,14nm,1.2s						
AAK	Ala-Archa	55.55	297		P	00 30 56.2	-1.1
AAK				IAmb	IAmb	00 30 57.6	
	comp=Z,14nm,1.2s						
AAK	Ala-Archa	55.55	297	P	P	00 30 56.1	-1.1
	comp=Z,11nm,1.1s						
KVN	Kaiserville	55.64	69	P	P	00 30 57.0	-0.9
KVN				pmax	pmax		
	comp=Z,4.0nm,1.0s						
SGF	Sodankyl	55.71	340	P	P	00 30 58.7	+1.0
SGF				pmax	pmax		
	comp=Z,14nm,1.3s						
SGF	Sodankyl	55.71	340	P	P	00 30 57.6	-0.1
	comp=Z,14nm,1.3s						
NVAR	Mina Array Bea	55.94	70	P	P	00 31 02.3	+2.1
	comp=Z,0.8nm,0.8s,baz=303,slow=5.5,SNR=4.8						
	comp=Z,0.8nm,0.8s						
KIRV	Kirov	56.15	324	LR	LR	00 58 16.8	
	comp=Z,515nm,18.5s,baz=32,slow=40						
KIRV	Kirov	56.15	324	*ce*P	P	00 31 00.6	-0.3
MSF	Maaselka	56.45	338	P	P	00 31 03.5	+0.4
MSF	Maaselka	56.45	338	P	P	00 31 03.5	+0.4
	comp=Z,41nm,1.1s						
DZA	Taraz	57.10	299	*e*P	P	00 31 05.7	-2.3
DZA	Taraz	57.10	299	*e*P	P	00 31 05.8	-2.3
ARSB	Arslanbob	57.27	297		P	00 31 08.7	-0.7
ARSB				IAmb	IAmb	00 31 10.9	
	comp=Z,3.9nm,0.6s						
STEI	Steigen	57.34	345	*e*P	P	00 31 08.4	-0.9
KK31	Karatay Array	57.40	300		P	00 31 09.1	-1.1
KK31				IAmb	IAmb	00 31 09.4	
	comp=Z,12nm,1.4s						
KKAR	Karatay Array	57.40	300		P	00 31 08.9	-1.3
LOF	Lofoten	57.42	346	*e*P	P	00 31 09.8	-0.1
ARK	Arkit	57.50	298	P	P	00 31 10.8	-0.2
ARK	Arkit	57.50	298	P	P	00 31 10.8	-0.2
	comp=Z,4.1nm,1.2s						
KLMR	Klimovskoe	57.75	330	*e*P	P	00 31 09.1	-3.2
KLMR				pmax	pmax		
	comp=Z,48nm,1.5s						
KLMR				MLR	MLR		
	comp=Z,593nm,18.0s						
BRLS	Borolday	57.81	300	*e*P	P	00 31 12.5	-0.5
BRLS	Borolday	57.81	300	*e*P	P	00 31 12.6	-0.5
CHTO	Chiang Mai	57.83	259	P	P	00 31 14.3	+0.9
CHTO	Chiang Mai	57.83	259	P	P	00 31 14.4	+0.9
CHTO				pmax	pmax		
	comp=Z,1.0nm,1.4s						
CHTO	Chiang Mai	57.83	259		P	00 31 13.6	+0.2
CHTO	Chiang Mai	57.83	259	P	P	00 31 14.5	+1.1
	comp=Z,12nm,1.4s						
FAUS	Fauske	57.84	345	*e*P	P	00 31 12.7	-0.1
DUG	Dugway, Tooele	57.85	65	P	P	00 31 14.9	+1.4
DUG	Dugway, Tooele	57.85	65	P	P	00 31 13.5	0.0
DUG	Dugway, Tooele	57.85	65	P	P	00 31 14.9	+1.4
	comp=Z,3.5nm,1.4s						
OUL	Oulu	57.85	339	P	P	00 31 13.0	+0.1
OUL				pmax	pmax		
	comp=Z,33nm,1.2s						
OUL	Oulu	57.85	339	P	P	00 31 12.8	-0.1
	comp=Z,33nm,1.2s						
BW06	Boulder Array	57.86	60	P	P	00 31 14.8	+1.2
BW06				IAmb	IAmb	00 31 43.5	
	comp=Z,3.2nm,0.9s						
PD31	Pinedale Array	57.86	60		P	00 31 15.4	+1.8
PDAR	Pinedale Array	57.86	60	P	P	00 31 15.6	+1.9
	comp=Z,0.6nm,0.4s,baz=308,slow=4.9,SNR=4.3						
PDAR				LR	LR	00 53 51.2	
	comp=Z,54nm,21.7s,baz=304,slow=34						
	comp=Z,0.6nm,0.4s						
PDAR	Pinedale Array	57.86	60	P	P	00 31 14.9	+1.3
NOQ	North Oquirrh	57.92	64	P	P	00 31 14.5	+0.5
CMAR	Chiang Mai Arr	58.11	259	P	P	00 31 16.0	+0.6
	comp=Z,2.1nm,0.4s,baz=25,slow=7.5,SNR=20						
	comp=Z,2.1nm,0.4s						
CMAR	Chiang Mai Arr	58.11	259		P	00 31 15.7	+0.3
FURC	Furnace Creek,	58.12	70	P	P	00 31 16.6	+1.3
FURC				IAmb	IAmb	00 31 37.8	
	comp=Z,8.4nm,1.0s						
TPNV	Topopah Spring	58.14	70		P	00 31 15.7	+0.1

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TPNV                           IAmb   IAmb     00 31 38.6
       comp=Z,6.0nm,1.0s
IUG    Iuzhnay          58.31 299 eP    P        00 31 14.4 -2.3
IUG                            pmax   pmax
       comp=Z,10.0nm,1.4s
IUG    Iuzhnay          58.31 299 eP    P        00 31 14.4 -2.3
       comp=Z,9.8nm,1.4s
CHM    Chimkent         58.42 299 eP    P        00 31 15.1 -2.2
CHM    Chimkent         58.42 299 eP    P        00 31 15.1 -2.2
AB31   Akbulak array    58.43 311       P        00 31 15.3 -1.9
AB31                           IAmb   IAmb     00 31 18.1
       comp=Z,4.3nm,0.8s
ABKAR  Akbulak array    58.43 311       P        00 31 15.6 -1.7
EVN    Everest          58.48 276       P        00 31 17.3 -1.3
EVN                            IAmb   IAmb     00 31 18.6
       comp=Z,5.0nm,0.6s
EVN    Everest          58.48 276 P     P        00 31 18.1 -0.5
       comp=Z,7.2nm,1.1s
VAGH   Vaagaholmen      58.76 345 eP    P        00 31 19.6 +0.4
NPW    Naypyitaw        58.80 262 P     P        00 31 21.0 +0.8
       comp=Z,23nm,0.9s
SFJD   Kangerlussuaq    58.83  14 LR    LR       00 57 49.5
       comp=Z,128nm,21.0s,baz=344,slow=37
STOK   Stokkvaagen      59.16 345 eP    P        00 31 22.0  0.0
BTK    Batken           59.33 297 P     P        00 31 22.7 -1.1
BTK    Batken           59.33 297 P     P        00 31 22.7 -1.1
       comp=Z,20nm,0.8s
ULM    Lac du Bonnet    59.34  46 P     P        00 31 24.3 +0.8
       comp=Z,2.0nm,0.4s,baz=320,slow=7.9,SNR=6.3
       comp=Z,2.0nm,0.4s
ULM    Lac du Bonnet    59.34  46 IAmb  IAmb     00 31 56.6
       comp=Z,9.0nm,1.3s
LEIR   Leirfjorden      59.35 345 eP    P        00 31 22.2 -1.1
RDMU   Red Mountain     59.37  62 P     P        00 31 26.2 +2.0
RDMU                           IAmb   IAmb     00 31 37.8
       comp=Z,5.0nm,0.8s
RSSD   Black Hills      59.80  56 P     P        00 31 28.7 +1.6
RSSD                           pmax   pmax
       comp=Z,6.0nm,0.7s
RSSD   Black Hills      59.80  56       P        00 31 28.3 +1.2
RSSD                           IAmb   IAmb     00 31 47.8
       comp=Z,5.7nm,0.7s
RSSD   Black Hills      59.80  56 P     P        00 31 28.3 +1.2
       comp=Z,9.1nm,0.7s
LCMT   Little Creek M   59.82  68 P     P        00 31 30.0 +2.7
LCMT                           IAmb   IAmb     00 31 48.1
       comp=Z,4.2nm,1.1s
SRU    San Rafael Swe   59.87  64 P     P        00 31 29.0 +1.4
SRU                            IAmb   IAmb     00 31 48.2
       comp=Z,5.1nm,0.9s
VAF    Ylistaro         60.34 339 P     P        00 31 31.5 +1.4
VAF                            pmax   pmax
       comp=Z,45nm,1.5s
PFO    Pinyon Flats O   60.36  72 LR    LR       00 52 55.6
       comp=Z,60nm,21.8s,baz=252,slow=31
HMU    Henry Mountain   60.58  65 P     P        00 31 34.3 +1.8
HMU                            IAmb   IAmb     00 31 53.1
       comp=Z,7.0nm,0.8s
IRM    Iron Mountain    60.74  71 P     P        00 31 35.0 +1.5
IRM                            IAmb   IAmb     00 31 54.5
       comp=Z,4.5nm,1.1s
FIA1   FINESS Array S   60.95 337       P        00 31 33.9 -0.4
FINES  FINESS Array B   60.95 337 P     P        00 31 34.3  0.0
       comp=Z,12nm,0.6s,baz=32,slow=8.0,SNR=118
FINES                          LR     LR       01 01 30.5
       comp=Z,173nm,18.1s,baz=42,slow=40
       comp=Z,12nm,0.6s
FINES  FINESS Array B   60.95 337 i P   P        00 31 34.2 -0.2
FINES                          pmax   pmax
       comp=Z,12nm,0.6s
FINES  FINESS Array B   60.95 337       P        00 31 33.8 -0.6
CBX    Cerro Bola       61.17  74 P     P        00 31 38.7 +2.2
PV10   Paradox Valley   61.21  64 P     P        00 31 38.8 +2.0
PV10                           IAmb   IAmb     00 31 57.7
       comp=Z,9.8nm,1.0s
PV22   Blue Mesa, Par   61.24  63 P     P        00 31 37.9 +0.9
PV22                           IAmb   IAmb     00 32 13.6
       comp=Z,4.2nm,1.1s
PV19   Morning Glory    61.29  64 P     P        00 31 38.4 +1.0
PV19                           IAmb   IAmb     00 31 57.9
       comp=Z,11nm,1.1s
PV17   East Wray Mesa   61.32  64 P     P        00 31 38.7 +1.2
PV17                           IAmb   IAmb     00 31 57.4
       comp=Z,5.8nm,0.8s
PV16   Nyswonger Mesa   61.33  64 P     P        00 31 38.6 +1.1
PV16                           IAmb   IAmb     00 31 57.5
       comp=Z,5.7nm,1.0s
PV18   Skein Mesa, Pa   61.38  64       P        00 31 39.9 +2.0
PV12   Saucer Basin,    61.38  64 P     P        00 31 39.9 +2.0
PV05   Paradox Valley   61.39  64       P        00 31 39.6 +1.6
PV05                           IAmb   IAmb     00 31 58.6
       comp=Z,8.7nm,1.1s
PV03   Paradox Valley   61.40  64 P     P        00 31 40.0 +1.9
PV03                           IAmb   IAmb     00 31 58.5
       comp=Z,4.8nm,1.0s
HNR    Honiara          61.42 180 LR    LR       00 55 20.9
       comp=Z,77nm,20.9s,baz=74,slow=33
PV13   Radium Mtn., P   61.49  64 P     P        00 31 39.4 +0.8
PV13                           IAmb   IAmb     00 31 51.8
       comp=Z,5.4nm,0.9s
MOS    Moscow           62.44 328 eP    P        00 31 44.3 -0.1
MOS                            pmax   pmax
       comp=Z,24nm,0.6s
NIL    Nilore           62.51 290 P     P        00 31 44.8 -0.5
NIL    Nilore           62.51 290 P     P        00 31 45.2 -0.1
NIL                            pmax   pmax
       comp=Z,20nm,1.2s
NIL    Nilore           62.51 290       P        00 31 44.2 -1.2
NIL    Nilore           62.51 290 P     P        00 31 45.0 -0.3
       comp=Z,18nm,0.9s
OBN    Obninsk          63.30 328 eP    P        00 31 49.9 -0.2
OBN                               e*PP  pP       00 32 03.2 +0.8
OBN                               e*SP  sP       00 32 09.3 +1.9
OBN                               e              00 32 24.8
OBN                               ePPP  PPP      00 35 36.4
OBN                               eS    S        00 40 17.8 -0.6
OBN                            pmax   pmax
       comp=Z,17nm,1.2s
OBN                            MLR    MLR
       comp=Z,198nm,20.0s
BORG   Borgarnes        63.35   1 LR    LR       01 01 53.2
       comp=Z,34nm,18.1s,baz=10,slow=38
KBL    Kabul            64.26 294 P     P        00 31 54.9 -2.2
NB2    NORSAR Subarra   64.40 344 P     P        00 31 57.5 +0.1
       comp=Z,1.4nm,0.5s,baz=23,slow=6.9
NB2    NORSAR Subarra   64.40 344 P     P        00 31 55.0 -2.4
NB2                            pmax   pmax
       comp=Z,1.0nm,0.4s
NB2    NORSAR Subarra   64.40 344 P     P        00 31 57.5 +0.1
NOA    NORSAR Array B   64.40 344 P     P        00 31 57.2 -0.2
       comp=Z,1.3nm,0.5s,baz=28,slow=6.0,SNR=15
NOA                            LR     LR       01 06 07.6
       comp=Z,109nm,18.1s,baz=0.0,slow=42
       comp=Z,1.3nm,0.5s
NBO00  NORSAR Array S   64.48 344 P     P        00 31 58.3 +0.4
LPSR   Galich'ya Gora   64.55 325 P     P        00 31 57.7 -0.7
LPSR                           pmax   pmax
       comp=Z,20nm,1.1s
NC602  NORSAR Array S   64.63 344 eP    P        00 31 59.2 +0.4
NORES  NORESS Array B   64.63 344 P     P        00 31 59.6 +0.8
NORES                          pmax   pmax
       comp=Z,1.0nm,0.2s
VRH    Novokhopyorsk    64.66 322 P     P        00 31 57.9 -1.2
VRH                            pmax   pmax
       comp=Z,9.0nm,0.8s
HFS    Hagfors          64.80 342 P     P        00 32 00.4 +0.4
       comp=Z,4.6nm,0.4s,baz=42,slow=4.6,SNR=35
       comp=Z,4.6nm,0.4s
VORR   Voronezh         65.20 324 P     P        00 32 02.7  0.0
VORR                           pmax   pmax
       comp=Z,17nm,1.2s
SKAR   Skarslia         65.21 345 eP    P        00 32 04.2 +1.5
VSR    Storozhevoye     65.59 324 eP    P        00 32 04.3 -0.9
VSR                            pmax   pmax
       comp=Z,17nm,1.3s
MNK    Minsk            66.50 332 i P   P        00 32 10.7 -0.3
MNK                               i *PP pwP      00 32 25.7 -0.7
MNK                               i              00 34 36.1
MNK                               i PPP PPP      00 36 09.5
MNK                               i S   S        00 40 57.9  0.0
MNK                               i SS  SS       00 45 18.0 +3.8
MNK                            pmax   pmax
       comp=Z,30nm,1.1s
MNK                            pmax   pmax
       comp=E,25nm,1.1s
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MNK                            pmax   pmax
       comp=N,11nm,1.2s
MNK                            MLR    MLR
       comp=N,218nm,18.0s
MNK                            MLR    MLR
       comp=E,243nm,17.0s
MNK                            MLR    MLR
       comp=Z,338nm,16.0s
MNK    Minsk            66.50 332 i P   P        00 32 10.7 -0.3
       comp=E,25nm,1.1s
MNK                               i P   P        00 32 10.7 -0.3
       comp=N,11nm,1.2s
MNK                               i P   P        00 32 10.7 -0.3
       comp=Z,30nm,1.1s,baz=30
MNK                               i pP  pwP      00 32 25.8 -0.7
MNK                               i PP  PP       00 34 36.2 -1.0
MNK                               i PPP PPP      00 36 09.6
MNK                               i S   S        00 40 57.9  0.0
MNK                               i SS  SS       00 45 18.1 +3.8
MNK                               i SSS SSS      00 48 26.6
MNK                               i LQ  LQ       00 56 39.7
MNK                               i LR  LR       01 01 43.6
MNK                               i LRM MLR      01 04 54.4
       comp=N,218nm,17.7s
MNK                               i LRM MLR      01 05 32.4
       comp=E,243nm,17.4s
PABE   Paberze          66.70 335       P        00 32 11.8 -0.4
PABE   Paberze          66.70 335 P     P        00 32 12.8 +0.6
       comp=Z,37nm,1.3s
TJOU   Tjoern           67.15 343 i P   P        00 32 14.2 -0.8
HOMB   Homborsund       67.48 344 i P   P        00 32 15.4 -1.7
ONAU   Onsala           67.70 342 i P   P        00 32 18.1 -0.3
MSTX   Muleshoe         67.88  63 P     P        00 32 21.5 +1.2
MSTX                           IAmb   IAmb     00 32 57.0
       comp=Z,8.8nm,1.4s
FABU   Falkenberg       67.91 342 i P   P        00 32 21.1 +1.2
BLEU   Blekinge         67.93 340 i P   P        00 32 20.4 +0.4
HRA    Herat            68.14 298       P        00 32 20.7 -1.3
DEL    Delary           68.18 341 i P   P        00 32 22.2 +0.6
MAK    Makhachkala      68.85 313c iP   P        00 32 26.4 +0.4
MAK                               e              00 35 02.7
MAK                               eS    S        00 41 28.8 +2.5
MAK                               eSS   SS       00 45 58.7 +7.6
MAK                            pmax   pmax
       comp=Z,103nm,0.9s
MAK                            MLR    MLR
       comp=Z,405nm,17.0s
LUNU   Lund             69.05 341 i P   P        00 32 26.6 -0.4
P40A   Paris            69.19  52 P     P        00 32 29.6 +1.5
P40A                           IAmb   IAmb     00 32 38.8
       comp=Z,6.7nm,1.1s
COP    Copenhagen       69.20 341 i P   P        00 32 30.8 +2.9
COP                            IAmb   IAmb     00 32 31.4
       comp=Z,57nm,0.6s
BSD    Bornholm Skovb   69.22 340 i P   P        00 32 28.9 +0.9
BSD                            IAmb   IAmb     00 32 29.9
       comp=Z,6.1nm,0.6s
AK23   Malin Array Si   69.38 329 P     P        00 32 28.7 -0.4
AK03   Malin Array Si   69.38 329 P     P        00 32 28.7 -0.5
AK04   Malin Array Si   69.41 329 P     P        00 32 28.4 -0.9
AKASG  Malin Array Be   69.41 329 P     P        00 32 28.6 -0.7
       comp=Z,11nm,0.5s,baz=32,slow=6.8,SNR=56
AKASG                          LR     LR       01 08 03.6
       comp=Z,260nm,18.3s,baz=30,slow=40
       comp=Z,11nm,0.5s
AKASG  Malin Array Be   69.41 329 i P   P        00 32 28.6 -0.7
AKASG                          pmax   pmax
       comp=Z,12nm,0.5s
AKASG  Malin Array Be   69.41 329 P     P        00 32 28.0 -1.3
AKBB   Malin Array Si   69.41 329ceP    P        00 32 28.3 -1.0
AKBB                           pmax   pmax
       comp=Z,31nm,1.4s
AKBB   Malin Array Si   69.41 329       P        00 32 28.0 -1.3
AKBB   Malin Array Si   69.41 329 P     P        00 32 28.4 -0.9
KIEV   Kiev             69.42 329 P     P        00 32 28.6 -0.7
KIEV                           pmax   pmax
       comp=Z,32nm,1.4s
KIEV   Kiev             69.42 329       P        00 32 27.4 -1.9
KIEV   Kiev             69.42 329 P     P        00 32 28.4 -0.9
       comp=Z,79nm,1.3s
KIEV   Kiev             69.42 329 P     P        00 32 28.7 -0.6
       comp=Z,20nm,1.3s
WMOK   Wichita Mounta   69.45  60 P     P        00 32 30.0 +0.1
WMOK   Wichita Mounta   69.45  60       P        00 32 31.3 +1.4
WMOK                           IAmb   IAmb     00 32 57.5
       comp=Z,4.7nm,1.0s
WMOK   Wichita Mounta   69.45  60 P     P        00 32 31.0 +1.1
       comp=Z,6.7nm,1.0s
ERBR   Yeremizino-Bor   69.60 320 eP    P        00 32 27.9 -2.7
ERBR                              e*PP  pP       00 32 42.3 -0.7
ERBR                              eS    S        00 41 30.9 -4.2
ERBR                           pmax   pmax
       comp=Z,13nm,1.2s
AKT    Akhty            69.93 312 eP    P        00 32 31.9 -0.9
AKT                               e              00 32 54.1
AKT                            pmax   pmax
       comp=Z,9.0nm,0.7s
NCK    Nalchik          70.13 316 i P   P        00 32 33.8 -0.1
NCK                            pmax   pmax
       comp=Z,4.0nm,0.8s
KIV    Kislovodsk       70.14 317 P     P        00 32 33.7 -0.4
KIV    Kislovodsk       70.14 317 eP    P        00 32 34.1  0.0
KIV                            pmax   pmax
       comp=Z,11nm,1.1s
KIV                            MLR    MLR
       comp=Z,121nm,18.0s
KIV    Kislovodsk       70.14 317 ⇓P    P        00 32 33.7 -0.4
KIV    Kislovodsk       70.14 317 P     P        00 32 33.2 -0.9
       comp=Z,9.4nm,1.2s
AFI    Afiamalu         70.17 151 LR    LR       00 58 44.4
       comp=Z,75nm,19.3s,baz=355,slow=32
KBZ    Khabaz           70.23 317 P     P        00 32 34.0 -0.5
       comp=Z,2.2nm,0.6s,baz=180,slow=2.0,SNR=9.8
       comp=Z,2.2nm,0.6s
KBZ    Khabaz           70.23 317ceP    P        00 32 35.1 +0.6
KBZ                            pmax   pmax
       comp=Z,7.0nm,1.3s
LABN   Labinsk          70.38 319 eP    P        00 32 34.0 -1.4
LABN                              e*PP  pP       00 32 48.7 +0.8
LABN                              eS    S        00 41 42.4 -1.9
LABN                           pmax   pmax
       comp=Z,14nm,0.9s
SEKA   Sheki            70.38 313 P     P        00 32 34.6 -1.0
LUBAR  Lubar, Ukraine   70.55 330 P     P        00 32 35.8 -0.5
MNGR   Mingechevir, A   70.78 312 P     P        00 32 37.3 -0.6
TX31   Lajitas Ar. Si   70.88  67       P        00 32 40.0 +1.2
TXAR   Lajitas Array    70.88  67 P     P        00 32 40.0 +1.2
       comp=Z,0.8nm,0.6s,baz=299,slow=4.7,SNR=10
       comp=Z,0.8nm,0.6s
TXAR   Lajitas Array    70.88  67 P     P        00 32 39.6 +0.7
GANJ   Ganja            71.23 313 P     P        00 32 40.0 -0.7
MSVF   Nonsavu          71.37 162 LR    LR       00 56 39.4
       comp=Z,67nm,21.3s,baz=190,slow=30
ANN    Anapa            71.56 321 eP    P        00 32 39.0 -3.5
ANN                               e*PP  pP       00 32 55.0  0.0
ANN                               e              00 35 24.0
ANN                               eS    S        00 41 51.8 -6.1
ANN                            pmax   pmax
       comp=Z,11nm,0.9s
LKRN   Lenkeran, Azer   71.65 310 P     P        00 32 42.8 -0.3
SOC    Sochi            71.67 319 eP    P        00 32 41.8 -1.4
SOC                               e              00 35 24.4
SOC                               eS    S        00 41 57.3 -1.9
SOC                               eSS   SS       00 46 41.0 +6.7
SOC                               eSSS  SSS      00 49 45.8
SOC                            MLR    MLR
       comp=Z,283nm,16.0s
EKA    Eskdalemuir Ar   71.92 350 P     P        00 32 44.0 -0.5
       comp=Z,1.9nm,0.5s,baz=14,slow=5.0,SNR=18
       comp=Z,1.9nm,0.5s
EKB    Eskdalemuir      71.92 350 P     P        00 32 45.3 +0.7
SORM   Soroca           71.92 328 P     P        00 32 44.6  0.0
SORM   Soroca           71.92 328 ⇑P    P        00 32 44.7  0.0
ESK    Eskdalemuir      71.94 350 P     P        00 32 45.2 +0.6
KMPD   K-Podol'skiy     72.15 330 P     P        00 32 45.1 -0.9
KWP    Kalwaria Pacla   72.30 333 eP    P        00 32 47.1 +0.1
KWP    Kalwaria Pacla   72.30 333 P     P        00 32 47.0 +0.1
       comp=Z,30nm,1.5s
KWP                            pP     pP       00 32 56.8 -2.6
       comp=Z,30nm,1.5s
GNI    Garni            72.34 313 P     P        00 32 47.6 +0.1
GNI    Garni            72.34 313 P     P        00 32 47.1 -0.5
GNI                            IAmb   IAmb     00 33 24.8
       comp=Z,8.4nm,0.9s
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OJC    Ojcow            72.57 335 eP    P        00 32 48.9 +0.4
OJC    Ojcow            72.57 335 P     P        00 32 49.1 +0.6
OJC    Ojcow            72.57 335       P        00 32 47.9 -0.6
OJC    Ojcow            72.57 335 P     P        00 32 49.1 +0.6
       comp=Z,7.9nm,1.8s
NAX    Nakhchivan       72.79 312 P     P        00 32 49.4 -0.7
KOLS   Kolonicke sedl   73.06 333 eP    P        00 32 52.8 +1.4
KOLS   Kolonicke sedl   73.06 333 P     P        00 32 52.4 +1.0
       comp=Z,6.3nm,0.6s
J57A   Williamstown     73.08  39 P     P        00 32 53.8 +2.1
OSTC   Ostas            73.16 337 eP    P        00 32 52.7 +0.7
OSTC                           AMS    AMS      01 11 00.0
       comp=Z,300nm,16.0s
CHVC   Chvalec          73.17 337 eP    P        00 32 52.5 +0.4
CHVC                           AMS    AMS      01 11 10.0
       comp=Z,300nm,16.6s
CLL    Collm            73.20 339 i P   P        00 32 52.6 +0.4
CLL                            pmax   pmax
       comp=Z,9.0nm,1.1s
CLL    Collm            73.20 339       P        00 32 51.8 -0.4
CLL                            IAmb   IAmb     00 32 57.1
       comp=Z,7.8nm,1.0s
CLL    Collm            73.20 339 P     P        00 32 52.9 +0.7
       comp=Z,7.1nm,0.9s
CLL                               pP    pP       00 33 04.0 -0.7
CLL    Collm            73.20 339 i P   P        00 32 52.6 +0.4
       comp=Z,9.0nm,1.1s
CLL                               ePP   PP       00 35 32.0 -2.8
CLL                            AMS    AMS      01 04 00.0
       comp=Z,100nm,22.8s
CLZ    Clausthal        73.24 341 P     P        00 32 53.6 +1.1
       comp=Z,8.4nm,1.1s
UPC    Upice            73.25 337 AMS   AMS      01 11 10.0
       comp=Z,300nm,17.9s
DPC    Dobruska-Polom   73.33 337 P     P        00 32 54.5 +1.4
DPC    Dobruska-Polom   73.33 337 eP    P        00 32 54.2 +1.2
DPC                            AMS    AMS      01 11 10.0
       comp=Z,200nm,16.2s
DPC    Dobruska-Polom   73.33 337 P     P        00 32 54.5 +1.4
       comp=Z,2.8nm,1.1s
OKC    Ostrava-Krasne   73.34 335 AMS   AMS      01 08 40.0
       comp=Z,300nm,19.2s
BUR08  Bucovina Ar. S   73.35 330       P        00 32 52.8 -0.5
STEB   Steborice        73.35 336 eP    P        00 32 54.5 +1.4
BURAR  Bucovina Array   73.37 330 P     P        00 32 54.0 +0.6
BURAR  Bucovina Array   73.37 330       P        00 32 53.4  0.0
BURAR  Bucovina Array   73.37 330 ⇑P    P        00 32 54.0 +0.6
KRLC   Kraliky          73.47 336 P     P        00 32 54.6 +0.7
KRLC   Kraliky          73.47 336 AMS   AMS      01 09 00.0
       comp=Z,200nm,15.6s
KRLC   Kraliky          73.47 336 P     P        00 32 54.6 +0.7
       comp=Z,4.4nm,0.8s
MORC   Moravsky Berou   73.55 336 P     P        00 32 54.9 +0.5
MORC   Moravsky Berou   73.55 336       P        00 32 54.1 -0.2
MORC                           IAmb   IAmb     00 32 56.3
       comp=Z,14nm,1.5s
MORC   Moravsky Berou   73.55 336 eP    P        00 32 54.8 +0.4
MORC   Moravsky Berou   73.55 336 ⇑P    P        00 32 54.9 +0.5
MORC   Moravsky Berou   73.55 336 P     P        00 32 55.2 +0.9
       comp=Z,5.7nm,0.8s
LANS   Liptovska Anna   73.63 334 eP    P        00 32 56.8 +2.0
HOMI   Horasan          73.67 315 ⇑P    P        00 32 55.0 -0.5
BIZ    Bicaz            73.70 329 ⇓P    P        00 32 56.2 +1.0
TRPA   Tarpa            73.71 332 P     P        00 32 55.9 +0.7
       comp=Z,22nm,1.1s
BMR    Baia Mare        73.84 331 P     P        00 32 57.1 +1.1
BMR    Baia Mare        73.84 331 ⇑P    P        00 32 57.1 +1.1
BMR    Baia Mare        73.84 331 P     P        00 32 57.1 +1.1
       comp=Z,8.0nm,0.5s
MAUC   Maruska          73.86 335 eP    P        00 32 57.5 +1.3
TESR   Tescani          73.90 329 ⇓P    P        00 32 57.1 +0.7
TESR   Tescani          73.90 329 P     P        00 32 57.0 +0.6
       comp=Z,17nm,1.4s
ABAH   Abaujker         73.93 333 P     P        00 32 56.5  0.0
       comp=Z,6.9nm,1.4s
PRU    Pruhonice        74.08 338 AMS   AMS      01 11 50.0
       comp=Z,300nm,15.6s
MOX    Moxa             74.12 340 eL    L        01 07 27.4
       comp=Z,95nm,21.1s
VRAC   Vranov           74.22 336 LR    LR       01 09 57.5
       comp=Z,341nm,18.1s,baz=18,slow=39
VRAC   Vranov           74.22 336 P     P        00 32 59.9 +1.7
VRAC   Vranov           74.22 336 eP    P        00 32 59.0 +0.7
VRAC   Vranov           74.22 336 ⇑P    P        00 32 60.0 +1.7
VRAC   Vranov           74.22 336 P     P        00 32 59.3 +1.0
       comp=Z,2.3nm,1.1s
TLCR                    74.36 327 P     P        00 32 59.3 +0.2
TLCR                    74.36 327 ⇓P    P        00 32 59.3 +0.2
JAVC   Velka Javorina   74.37 335 eP    P        00 33 00.5 +1.3
VYHS   Vyhne            74.40 334 eP    P        00 33 00.7 +1.4
VRI    Vrincioaia       74.45 328 P     P        00 32 59.6  0.0
VRI    Vrincioaia       74.45 328 ⇑P    P        00 32 59.7  0.0
KRUC   Moravsky         74.50 336 P     P        00 33 00.8 +0.9
KRUC   Moravsky         74.50 336 eP    P        00 33 00.2 +0.3
KRUC   Moravsky         74.50 336 P     P        00 33 00.8 +0.9
       comp=Z,6.7nm,1.0s
TREC   Trest            74.51 337 P     P        00 33 00.7 +0.8
TREC   Trest            74.51 337 P     P        00 33 00.7 +0.8
       comp=Z,5.3nm,2.3s
TURR   Turia            74.51 329 ⇑P    P        00 33 00.9 +0.9
OZUR                    74.55 329 ⇑P    P        00 32 59.6 -0.7
SAHR   Sahastru         74.59 328 ⇓P    P        00 33 01.1 +0.6
COVR   Voineasa-Covas   74.64 329 ⇓P    P        00 33 01.5 +0.8
CLTN   Cedars of Leba   74.66  50 P     P        00 33 02.5 +1.6
GURO   Guroymak-BITLI   74.85 314 P     P        00 33 01.8 -0.5
GURO                           IAmb   IAmb     00 33 04.2
       comp=Z,11nm,1.3s
DRGR                    74.86 331 P     P        00 33 02.4 +0.3
DRGR                    74.86 331 ⇑P    P        00 33 02.5 +0.3
DRGR                    74.86 331 P     P        00 33 02.4 +0.3
       comp=Z,3.8nm,1.2s
MODS   Modra-Piesok     74.92 335 eP    P        00 33 04.3 +2.0
HAKT   HAKKARI          74.92 313 P     P        00 33 03.2 +0.4
       comp=Z,24nm,0.7s
MLR    Muntele Rosu     75.04 329 LR    LR       01 12 31.5
       comp=Z,205nm,18.3s,baz=74,slow=41
MLR    Muntele Rosu     75.04 329 P     P        00 33 03.6 +0.5
MLR    Muntele Rosu     75.04 329       P        00 33 03.2  0.0
MLR                            IAmb   IAmb     00 33 05.8
       comp=Z,8.2nm,0.6s
MLR    Muntele Rosu     75.04 329 ⇓P    P        00 33 03.7 +0.5
GRF    Grafenberg Arr   75.10 340 eP    P        00 33 04.5 +1.1
       comp=Z,6.9nm,1.1s,baz=20,slow=5.0
GRF                               eL    L        01 05 38.0
       comp=Z,105nm,20.8s
KHC    Kasperske Hory   75.11 338ceP    P        00 33 03.4  0.0
KHC                            pmax   pmax
       comp=Z,6.0nm,1.3s
KHC    Kasperske Hory   75.11 338 eP    P        00 33 04.6 +1.2
       comp=Z,1.7nm,0.7s
KHC                            AMS    AMS      01 11 20.0
       comp=Z,300nm,16.1s
KHC    Kasperske Hory   75.11 338       P        00 33 02.9 -0.5
KHC                            IAmb   IAmb     00 33 05.7
       comp=Z,8.1nm,1.2s
KHC    Kasperske Hory   75.11 338 P     P        00 33 05.0 +1.5
       comp=Z,7.0nm,1.4s
ZST    Bratislava       75.13 335 eP    P        00 33 06.1 +2.6
SRO    Srobarova        75.16 335 eP    P        00 33 05.4 +1.7
CKRC   Cesky Krumlov    75.23 337 eP    P        00 33 05.2 +1.1
CKRC                           AMS    AMS      01 10 30.0
       comp=Z,200nm,17.5s
MEM    Membach          75.24 343 P     P        00 33 05.3 +1.2
MEM    Membach          75.24 343 dP    P        00 33 03.6 -0.5
       comp=Z,11nm,0.9s
MEM    Membach          75.24 343 P     P        00 33 05.2 +1.2
       comp=Z,20nm,1.1s
WET    Wettzell         75.26 339 P     P        00 33 05.8 +1.5
WET    Wettzell         75.26 339 P     P        00 33 05.8 +1.5
       comp=Z,4.5nm,0.9s
WRA    Warramunga Arr   75.34 205 P     P        00 33 05.2 +0.2
       comp=Z,0.9nm,0.7s,baz=22,slow=6.1,SNR=4.9
       comp=Z,0.9nm,0.7s
WRA    Warramunga Arr   75.34 205 P     P        00 33 05.3 +0.4
GERES  GERESS Array B   75.35 338 P     P        00 33 05.0 +0.1
       comp=Z,1.6nm,0.5s,baz=29,slow=3.0,SNR=16
       comp=Z,1.6nm,0.5s
GERES  GERESS Array B   75.35 338       P        00 33 04.6 -0.3
VOIR                    75.37 329 P     P        00 33 04.9 -0.1
VOIR                    75.37 329 ⇓P    P        00 33 04.9 -0.1
VOIR                    75.37 329 P     P        00 33 05.8 +0.7
       comp=Z,7.1nm,1.0s
ARR    Arges            75.56 329 P     P        00 33 06.5 +0.4
CONA   Conrad Observa   75.69 336 eP    P        00 33 06.1 -0.7
       comp=Z,6.8nm,1.2s
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TOKA	Tokat	75.71	319	P	P	00 33 06.7	-0.4
TOKA				IAmb	IAmb	00 33 08.9	
	comp=Z,12nm,1.3s						
SOP	Sopron	75.74	336	P	P	00 33 08.4	+1.4
SOP	Sopron	75.74	336	P	P	00 33 08.4	+1.4
	comp=Z,5.4nm,0.7s						
BMRD	Maredsous	75.75	344	*d*P	P	00 33 07.2	+0.2
RONA	Rosalia, Austr	75.79	336	*e*P	P	00 33 07.2	-0.1
	comp=Z,7.0nm,1.2s						
MPLH	Magyarpolny	75.96	335	P	P	00 33 09.6	+1.3
	comp=Z,12nm,1.1s						
ARPR	Arapgir-MALATY	75.99	317	P	P	00 33 10.2	+1.4
	comp=Z,14nm,1.5s						
GZR	Gura Zlata	76.11	331	P	P	00 33 09.3	+0.1
GZR	Gura Zlata	76.11	331	⇑P	P	00 33 09.3	+0.1
MOA	Molln	76.15	337	*e*P	P	00 33 08.6	-0.8
	comp=Z,6.9nm,1.5s						
BZS	Buzias	76.25	331	P	P	00 33 09.9	0.0
BZS	Buzias	76.25	331	⇓P	P	00 33 10.0	0.0
BZS	Buzias	76.25	331	P	P	00 33 10.4	+0.4
	comp=Z,8.4nm,1.6s						
ARSA	Arzberg	76.40	336	*e*P	P	00 33 10.4	-0.5
	comp=Z,4.0nm,0.9s						
BIOA	Bad Ischl, Aus	76.45	338	*e*P	P	00 33 10.8	-0.3
	comp=Z,0.4nm,0.4s						
MORH	Mrgy, Hungar	76.55	334	⇓P	P	00 33 11.9	+0.3
SESA	Seetaler Alpe,	76.77	337	*i* P	P	00 33 14.1	+1.0
	comp=Z,12nm,1.2s,SNR=5.9						
LESA	Schwarzleotal	76.92	338	*e*P	P	00 33 13.9	+0.1
	comp=Z,3.5nm,1.0s						
SOKA	Soboth	77.06	336	*e*P	P	00 33 14.4	-0.2
	comp=Z,2.9nm,0.9s						
KBA	Koelnbreinsper	77.09	337	P	P	00 33 16.5	+1.6
KBA	Koelnbreinsper	77.09	337	*i* P	P	00 33 14.2	-0.7
	comp=Z,19nm,1.0s,SNR=12						
KBA	Koelnbreinsper	77.09	337	P	P	00 33 16.5	+1.6
	comp=Z,17nm,0.8s						
BNN	Bunyan	77.22	319		P	00 33 14.6	-1.1
BNN				IAmb	IAmb	00 33 17.3	
	comp=Z,5.7nm,1.0s						
WATA	Walderalm	77.25	339	*e*P	P	00 33 15.8	0.0
	comp=Z,11nm,1.4s						
WTTA	Wattenberg	77.31	339	P	P	00 33 17.8	+1.7
WTTA	Wattenberg	77.31	339	*i* P	P	00 33 16.0	-0.1
	comp=Z,7.9nm,1.0s,SNR=5.4						
WTTA	Wattenberg	77.31	339	P	P	00 33 17.8	+1.7
	comp=Z,8.8nm,1.3s						
ECH	Echery	77.33	342		P	00 33 15.7	-0.3
ECH				IAmb	IAmb	00 33 18.4	
	comp=Z,6.3nm,1.0s						
OBKA	Obir	77.33	336	*e*P	P	00 33 16.0	-0.2
	comp=Z,7.7nm,1.3s						
OBKA	Obir	77.33	336	P	P	00 33 17.1	+0.9
	comp=Z,7.0nm,1.3s						
PLVB	Pleven	77.34	329	⇓P	P	00 33 17.5	+1.4
MOTA	Moosalm	77.35	339	*i* P	P	00 33 17.0	+0.7
	comp=Z,11nm,1.1s,SNR=5.7						
BR131	Keskin Array S	77.35	321	*i* P	P	00 33 16.7	+0.3
BR131	Keskin Array S	77.35	321		P	00 33 14.7	-1.7
BR131				IAmb	IAmb	00 33 17.9	
	comp=Z,11nm,1.4s						
BR106	Keskin Array S	77.35	321	P	P	00 33 15.8	-0.6
	comp=Z,47nmcomp=Z,3.7nm,1.3s						
BRTR	Keskin Array B	77.35	321	P	P	00 33 15.9	-0.6
	comp=Z,1.6nm,0.5s,baz=24,slow=3.1,SNR=15						
BRTR				LR	LR	01 12 38.4	
	comp=Z,125nm,19.9s,baz=99,slow=40						
	comp=Z,1.6nm,0.5s						
BRTR	Keskin Array B	77.35	321	*i* P	P	00 33 16.7	+0.2
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
BRTR	Keskin Array B	77.35	321		P	00 33 15.5	-1.0
BR104	Keskin Array S	77.36	321	P	P	00 33 15.9	-0.6
	comp=Z,4.6nm,1.1s						
BR105	Keskin Array S	77.36	321	P	P	00 33 15.9	-0.6
MYKA	Terra Mystica	77.44	337	*e*P	P	00 33 16.7	-0.1
	comp=Z,1.0nm,0.4s						
SQTA	Sankt Quirin	77.44	339	*e*P	P	00 33 17.1	+0.3
	comp=Z,9.7nm,1.0s						
ABTA	Abfaltersbach	77.60	338	*i* P	P	00 33 17.4	-0.2
	comp=Z,7.9nm,1.0s,SNR=5.5						
DAVA	Damuels	77.67	340	*e*P	P	00 33 18.1	0.0
	comp=Z,4.2nm,0.9s						
FETA	Feichten	77.74	339	*e*P	P	00 33 19.2	+0.7
	comp=Z,2.0nm,0.8s						
SHME	Shamm	77.91	297	P	P	00 33 19.2	-0.4
BANOM	Banah	77.92	297	P	P	00 33 20.0	+0.3
ANDN	Andirin	78.10	318	P	P	00 33 21.3	+0.7
	comp=Z,38nm,1.4s						
DAVOX	Davos/Dischmat	78.15	340	LR	LR	01 13 13.6	
	comp=Z,112nm,18.4s,baz=40,slow=40						
MASF	Masafi	78.44	296	P	P	00 33 21.9	-0.6
CTI	Castel Tesino	78.45	338		P	00 33 21.8	-0.7
CTI				IAmb	IAmb	00 33 27.0	
	comp=Z,12nm,1.3s						
TUE	Stuetta	78.56	340		P	00 33 23.1	0.0
TUE				IAmb	IAmb	00 33 35.0	
	comp=Z,5.5nm,0.9s						
TUE	Stuetta	78.56	340	P	P	00 33 24.2	+1.1
	comp=Z,7.3nm,0.8s						
CGRP	Cima Grappa	78.58	338	P	P	00 33 23.6	+0.4
	comp=Z,8.1nm,1.2s						
WSAR	Wadi Sarin	78.74	293	P	P	00 33 24.1	-0.1
UOSS	Minazif	78.75	296	P	P	00 33 23.6	-0.6
UOSS	Minazif	78.75	296		P	00 33 22.5	-1.7
UOSS	Minazif	78.75	296	P	P	00 33 23.5	-0.7
	comp=Z,21nm,1.2s						
BIDO	Bidbid	78.80	294	P	P	00 33 24.9	+0.4
HATD	Hatta, Dubai	78.88	296	P	P	00 33 24.9	-0.1
	SNR=6.3						
ASAR	Alice Springs	79.02	204	P	P	00 33 26.8	+1.3
	comp=Z,0.7nm,0.5s,baz=16,slow=5.2,SNR=14						
	comp=Z,0.7nm,0.5s						
ASHO	Ashiyiah	79.04	296	P	P	00 33 25.6	-0.2
	SNR=6.6						
WBK	Wadi Bani Khal	79.04	293	P	P	00 33 26.6	+0.7
TEOL	Teolo	79.10	338	P	P	00 33 25.9	+0.1
TEOL				IAmb	IAmb	00 33 28.1	
	comp=Z,11nm,0.8s						
JLN	Jalan Bani Buh	79.15	292	P	P	00 33 26.4	0.0
SMDO	Samad	79.21	294	P	P	00 33 26.6	-0.3
SOHO	SOHO	79.21	295	P	P	00 33 25.7	-1.0
HOQ	Hoqain	79.21	294	P	P	00 33 26.2	-0.6
ALNE	Al Ain	79.70	296	P	P	00 33 29.1	-0.4
	SNR=5.4						
JMDO	Jabal Madar	79.72	293	P	P	00 33 29.6	0.0
AJN	Ajban	79.72	297	P	P	00 33 28.7	-0.8
ARQ	Araqi	79.84	295	P	P	00 33 30.3	0.0
PDG	Podgorica	79.85	332	⇓P	P	00 33 30.7	+0.7
BSY	Bisya	79.93	294	P	P	00 33 30.4	-0.3
ZCCA	Zocca	80.21	338	P	P	00 33 31.5	-0.5
MANT	Manisa	80.35	324	P	P	00 33 31.9	-1.1
MANT				IAmb	IAmb	00 33 33.3	
	comp=Z,7.8nm,1.0s						
SSB	Saint Sauveur	80.64	343		P	00 33 33.7	-0.5
SSB				IAmb	IAmb	00 33 45.2	
	comp=Z,15nm,1.5s						
ORIF	Oris-en-Rattie	80.74	342	P	P	00 33 35.0	+0.2
ORIF	Oris-en-Rattie	80.74	342	P	P	00 33 36.0	+1.1
	comp=Z,7.2nm,1.3s						
MURB	Monte Urbino	80.88	337	P	P	00 33 35.8	+0.3
MHTO	MHTO	80.89	292	P	P	00 33 36.3	+0.4
FDMO	Fiordimonte	80.95	336		P	00 33 33.9	-2.1
RAR	Rarotonga	81.02	143	LR	LR	01 08 37.6	
	comp=Z,72nm,18.6s,baz=318,slow=35						
NRCA	Norcia	81.14	336	P	P	00 33 36.2	-0.8
ISO	Isola	81.22	341	P	P	00 33 35.0	-2.4
ISO	Isola	81.22	341	P	P	00 33 36.0	-1.4
	comp=Z,3.6nm,1.4s						
AQU	L'Aquila	81.52	336	P	P	00 33 39.0	0.0
CSS	Mathiatis	81.59	318	P	P	00 33 38.2	-1.2
CY604	RAF Akrotiri,	81.64	317	P	P	00 33 37.7	-1.6
CY604				IAmb	IAmb	00 34 06.1	
	comp=Z,8.5nm,1.0s						
MZR	Muzera	81.79	297	P	P	00 33 40.6	0.0
MMAI	Mount Meron Ar	82.40	316	P	P	00 33 44.1	+0.3
	comp=Z,2.8nm,0.5s,baz=25,slow=11,SNR=29						
	comp=Z,2.8nm,0.5s						
ARG	Arkhangelos	82.52	323	P	P	00 33 44.0	-0.3
KARP	Karpathos	83.47	323	P	P	00 33 49.0	-0.2
TIP	Timpagrande	83.58	332	P	P	00 33 48.3	-1.5
TIP	Timpagrande	83.58	332	⇑P	P	00 33 51.8	+2.0
CEST	Esterri de Car	83.81	345		P	00 33 50.4	-0.6
CEST				IAmb	IAmb	00 33 53.6	
	comp=Z,14nm,1.2s						
COCO	West Island	84.06	242	P	P	00 33 54.0	+1.8
HRFI	Mount Harif	85.12	315	P	P	00 33 57.1	-0.6
	comp=Z,8.9nm,1.2s						
STKA	Stephens Creek	85.33	196	LR	LR	01 10 26.6	
	comp=Z,35nm,20.1s,baz=25,slow=34						
EIL	Elat	85.47	315	LR	LR	01 19 52.7	
	comp=Z,76nm,18.2s,baz=56,slow=41						
EIL	Elat	85.47	315	P	P	00 33 59.7	+0.3
	comp=Z,11nm,1.1s						
RAYN	Ar Rayn	85.61	303	P	P	00 33 59.0	-1.2
RAYN	Ar Rayn	85.61	303		P	00 33 58.7	-1.6
RAYN				IAmb	IAmb	00 34 00.3	
	comp=Z,2.8nm,0.7s						
RAYN	Ar Rayn	85.61	303	P	P	00 33 60.0	-0.3
	comp=Z,5.6nm,0.6s						
WHFO	Wadi Hawf	85.70	294	P	P	00 33 59.5	-1.3
	SNR=21						
RAFF	Raffo Rosso	86.08	333	P	P	00 34 02.3	+0.1
ESDC	Sonseca Array	87.44	348	P	P	00 34 09.3	+0.4
	comp=Z,3.5nm,1.1s,baz=2.0,slow=4.7,SNR=24						
	comp=Z,3.5nm,1.1s						
ESDC	Sonseca Array	87.44	348		P	00 34 08.1	-0.8
ESDC				IAmb	IAmb	00 34 10.5	
	comp=Z,7.8nm,1.1s						
KEST	Kesra	88.79	337	P	P	00 34 17.1	+1.6
	comp=Z,2.3nm,0.5s,baz=352,slow=7.1,SNR=5.6						
	comp=Z,2.3nm,0.5s						
KEST	Kesra	88.79	337	P	P	00 34 17.4	+1.9
KEST				IAmb	IAmb	00 34 27.2	
	comp=Z,8.8nm,1.2s						
CHIV	Chivirico	92.87	52	P	P	00 34 33.8	-0.7
NMDO	Nuevo Mundo	93.05	50	P	P	00 34 36.7	+1.4
ATD	Arta Tunnel	96.95	299	LR	LR	01 24 35.9	
	comp=Z,9.1nm,18.2s,baz=20,slow=39						

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*IDC **05** 00:27:54.5±2.7, 51°.39N×160°.44E, h0^{km}, mb3.6/3, mbtmp3.6/4, ML2.9/1, Error ellipse: s-maj=94.1km s-min=35.2km az=46.0*

*KRSC **05** 00:28:01.5±1.2, 52°.10N×160°.48E, h16^{km}±20^{km}, Ml4.1*

ISC 05 00:28:00.2±2.1**, 52°.02N**±0°.09×**160°.45E**±0°.07**, h14**^{km}±12^{km}**, n28,** σ**1^{s}.42**/38**, mb3.7**/3**, Off east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SPN	Mys Shipunski	1.11	347	*e*P	Pn	00 28 21.4	0.0
SPN				*e*S	Sb	00 28 34.4	-1.3
RUS	Russkaya	1.26	290	*e*P	Pg	00 28 24.4	-0.1
RUS				*e*S	Sb	00 28 39.8	-0.2
NLC	Nalytchevo	1.34	330	*e*P	Pn	00 28 24.8	+0.3
NLC				*e*S	Sn	00 28 41.9	-0.2
DALK	Dalny	1.45	315	*e*P	Pn	00 28 26.6	+0.5
DALK				*e*S	Sn	00 28 44.0	-0.9
MTVR	Mutnovka	1.47	289	*e*P	Pb	00 28 27.9	+0.5
MTVR				*e*S	Sn	00 28 46.4	+0.8
KDTR	Khodutka, Kamc	1.49	263	*e*P	Pg	00 28 28.6	-0.2
INSR	Institute	1.54	314	*e*P	Pn	00 28 28.0	+0.7
INSR				*e*S	Sn	00 28 46.3	-0.8
UGLR	Uglovaya	1.55	321	*e*P	Pn	00 28 28.8	+1.2
UGLR				*e*S	Sn	00 28 47.6	0.0
GRL	Gorelyy	1.56	291	*e*P	Pg	00 28 29.8	-0.3
SDLR	Sedlovina	1.58	324	*e*P	Pn	00 28 29.0	+1.0
SMAR	Somma	1.60	322	*e*P	Pn	00 28 29.2	+0.9
ASAK	Asacha	1.61	284	*e*P	Pg	00 28 30.5	-0.7
AVH	Avacha	1.63	321	*e*P	Pn	00 28 30.1	+1.5
KRMR	Karymshinskiy	1.64	301	*e*P	Pn	00 28 29.7	+1.1
KRMR				*e*S	Sn	00 28 49.8	+0.2
KRER	Koryakskii	1.66	322	*e*P	Pn	00 28 30.4	+1.3
KOK	Koryaka	1.69	320	*e*P	Pn	00 28 30.8	+1.3
KRX	Arik	1.74	321	*e*P	Pn	00 28 31.1	+0.9
PETK	Petropavlovsk-	2.01	304	Pn	Pn	00 28 35.2	+1.5
	15nm,0.3s,baz=111,slow=19,SNR=40						
PETK				Sn	Sn	00 29 00.5	+1.9
	21nm,0.3s,baz=208,slow=22,SNR=9.6						
	28nm,0.5s						
PETK				AML	AML		
KII	Karymskiy	2.11	344	*e*P	Pn	00 28 36.8	+1.5
APC	Apacha	2.21	296	*e*P	Pb	00 28 38.7	-1.2
APC				*e*S	Sb	00 29 08.6	+1.4
GNL	Ganaly	2.27	319	*e*P	Pn	00 28 39.3	+1.9
MIPR	Malaya Ipel'ka	2.29	278	*e*P	Pb	00 28 41.5	+0.1
MKZ	Mys Kozlova	2.66	16	*e*P	Pn	00 28 42.7	+0.1
BZGR	Bezymyannyi-Gr	3.94	2	*e*P	Pn	00 29 04.4	+4.1
BZWR	Bezymyannyi-We	3.96	0	*e*P	Pn	00 29 04.3	+3.7
KURBB	Kurchatov Arra	48.60	303	P	P	00 36 41.1	-1.9
	0.2nm,0.4s,baz=60,slow=7.7,SNR=2.5						
	0.2nm,0.4s						
MKAR	Makanchi Array	48.83	297	P	P	00 36 43.4	-1.4
	0.6nm,0.8s,baz=49,slow=6.3,SNR=2.0						
	0.6nm,0.8s						
FINES	FINESS Array B	61.20	337	P	P	00 38 14.0	0.0
	1.1nm,0.7s,baz=45,slow=7.2,SNR=5.7						
	1.1nm,0.7s						

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*CATAC **05** 00:35:35.7±0.5, 11°N±2°×8°7W±°, h12^{km}±3^{km}, M3.3/24, MLv3.3/24, Error ellipse: s-maj=5.9km s-min=3.2km az=49.1, confirmed*

*UCR **05** 00:35:36.7±1.2, 11°.21N×86°.84W, h17^{km}±22^{km}, MW3.8, Presumed earthquake*

ISC 05 00:35:35.6±1.9**, 11°.23N**±0°.05×**86°.81W**±0°.07**, h16**^{km}±10^{km}**, n33,** σ**0^{s}.51**/46**, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NADN	Granada	0.92	56	P	Pg	00 35 53.4	-0.1
SABN	Sabanita	0.96	41	P	Pb	00 35 53.5	-0.3
NANN	Nandasmo	0.97	44	P	Pn	00 35 55.3	+0.6
MAS3	Al N del Volca	1.00	38	P	Pb	00 35 54.7	+0.1
ABCN	Banco Central	1.01	29	P	Pg	00 35 55.4	+0.2
TISN	Laguna Tiscapa	1.05	30	P	Pb	00 35 55.1	-0.3
ALLN	Telcor Managua	1.06	30	S	Sn	00 36 10.3	+0.2
MGAN	Managua	1.06	31	P	Pn	00 35 55.8	-0.1
MGAN				S	Sn	00 36 10.3	0.0
AMTN	Mateare	1.07	20	S	Sn	00 36 10.5	+0.1
APQ2	Apoyeque	1.07	26	P	Pn	00 35 56.0	0.0
APYN	Apoyeque	1.09	24	P	Pb	00 35 55.9	-0.3
APYN				S	Sn	00 36 11.3	+0.2
AERN	Aeropuerto Man	1.10	35	S	Sg	00 36 11.5	+0.1
WILN	Americas 2	1.11	33	P	Pn	00 35 56.4	0.0
WILN				S	Sg	00 36 11.5	-0.1
JAPN	Al SSO del Vol	1.15	75	P	Pg	00 35 58.0	+0.2
JAPN	Al SSO del Vol	1.15	75	*e*P	Pg	00 35 58.0	+0.2
LCRUZ	La Cruz	1.17	97	*e*P	Pb	00 35 57.6	+0.3
LCRUZ				*e*S	Sg	00 36 14.9	+1.6
MORN	Al O del Volca	1.18	74	P	Pg	00 35 58.0	-0.4
MORN				S	Sg	00 36 13.7	-0.2
OMEN	Al SSO del Vol	1.19	76	P	Pn	00 35 56.9	-0.7
OMEN				S	Sg	00 36 14.8	+0.6
MOMN	Momotombo	1.20	13	P	Pn	00 35 57.9	+0.1
MOMN				S	Sn	00 36 14.0	+0.2
MOM2	El Cardon	1.24	15	P	Pn	00 35 58.3	+0.1
MOM2				S	Sg	00 36 15.3	-0.5
CARN	Rivas	1.26	92	P	Pb	00 35 59.1	+0.2
CARN				S	Sg	00 36 16.8	+0.4
CARN	Rivas	1.26	92	*e*P	Pb	00 35 59.3	+0.3
CARN				*e*S	Sg	00 36 16.6	+0.1
CNGA	Al SSO del Vol	1.26	5	P	Pn	00 35 57.9	-0.7
CNGN	Cerro Negro	1.27	5	P	Pn	00 35 58.6	0.0
CNGN				S	Sg	00 36 16.9	+0.2
ILCN	San Idelfonso	1.34	4	S	Sg	00 36 18.2	-0.9
PLRN	Geotermica Pol	1.35	2	P	Pn	00 35 59.4	-0.3
PLRN				S	Sb	00 36 17.8	+0.3
VRLE	La Escondida,	1.48	107	*e*P	Pb	00 36 02.3	-0.5
BOAB	BOACO BROADBAN	1.65	43	P	Pn	00 36 03.9	0.0
CUI	Cuipilapa	1.71	109	*e*P	Pb	00 36 06.5	-0.1
ACON	Acoyapa	1.76	65	S	Sb	00 36 28.5	-0.9
CSGN	Cosiguina Volc	1.89	337	P	Pn	00 36 07.5	+0.3
CSGN				S	Sn	00 36 31.9	+1.2
MATN	Matagalpa	1.90	27	P	Pn	00 36 07.5	+0.1
JTS	Las Juntas de	2.05	117	P	Pb	00 36 11.1	-1.3

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*UCR **05** 00:39:51.9±0.8, 8°.29N×82°.97W, h14^{km}±8^{km}, MW3.7, Presumed earthquake*

*UPA **05** 00:39:52.4±0.8, 8°.34N×82°.91W, h12^{km}±1^{km}, MW3.6, Presumed earthquake*

ISC 05 00:39:51.7±0.9**, 8°.32N**±0°.02×**82°.94W**±0°.02**, h17**^{km}±7^{km}**, n32,** σ**0^{s}.67**/51**, 8D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTPM	Petroterminale	0.13	151	⇓*i*P	Pb	00 39 55.8	0.0
PTPM				*e*S	Sb	00 39 59.4	+0.9
PTPA	Petro Terminal	0.14	149	*e*P	Pg	00 39 55.8	+0.1
PTPA				*e*S	Sb	00 39 59.5	+0.8
LIMO3	Limones	0.23	160	⇓*i*P	Pb	00 39 57.3	-0.1
LIMO3				*e*S	Sb	00 40 02.5	+1.2
LMNES	Limones	0.23	159	*e*P	Pg	00 39 57.1	+0.1
NELY	Ciudad Neily	0.33	359	*e*P	Pg	00 39 59.0	+0.4
NELY				*e*S	Sb	00 40 05.0	+0.7
FITO	Golfito	0.37	326	*e*P	Pg	00 39 58.7	-0.7
FITO				*e*S	Sg	00 40 04.2	-0.4
PIRO	Carate, Puerto	0.40	282	*e*P	Pg	00 39 59.5	-0.4
PIRO	Carate, Puerto	0.40	282	⇓*i*P	Pg	00 39 59.6	-0.3
PIRO				*e*S	Sb	00 40 07.2	+0.9
MLIR3	Monte Lirio, C	0.49	14	*i* P	Pb	00 40 02.5	+0.6
MLIR3				*e*S	Sb	00 40 09.7	+0.8
DVD	David	0.50	76	⇓*i*P	Pb	00 40 02.1	0.0
DVD				*e*S	Sb	00 40 10.7	+1.5
CLLRA	Cordillera,	0.53	37	*e*P	Pb	00 40 03.1	+0.3
BRU2	Volcan	0.53	28	*e*P	Pb	00 40 03.1	+0.4
BRU2	Volcan	0.53	28	⇓*i*P	Pb	00 40 03.2	+0.4
BRU2				*i* P	Pb	00 40 03.2	+0.4
BRU2				*e*S	Sb	00 40 11.2	+0.9
SCLRA	Santa Clara, W	0.54	17	*e*P	Pb	00 40 03.3	+0.5
LOMA3	Las Lomas, Chi	0.56	78	*e*P	Pg	00 40 02.7	-0.1
LOMA3				*e*S	Sb	00 40 10.8	0.0
PTAR3	Potrerillos Ar	0.58	50	⇓*i*P	Pb	00 40 03.8	+0.3
PTAR3				*e*S	Sb	00 40 12.4	+0.9
CHIR3	Chiriqui UPA,	0.61	83	⇓*i*P	Pg	00 40 03.8	0.0
CHIR3				*e*S	Sb	00 40 12.6	+0.2
BQTLY	Boquete Panama	0.65	47	*e*P	Pg	00 40 04.6	+0.1
BQSF3	Alto Boquete,	0.66	50	*i* P	Pg	00 40 04.8	+0.1
BQSF3				*e*S	Sb	00 40 14.7	+0.9
LNBQ3	Los Naranjos,	0.68	46	⇓*i*P	Pg	00 40 05.1	-0.1
LNBQ3				*e*S	Sg	00 40 14.5	+0.2
RBALA	Bur	0.96	54	*e*P	Pb	00 40 09.7	-0.3
RBALA	Bur	0.96	54	*i* P	Pb	00 40 09.5	-0.5
RBALA				*e*S	Sb	00 40 22.6	+0.3
CHGR2	Aguacate	1.00	52	*e*P	Pb	00 40 10.2	-0.5
CHGR2				*e*S	Sb	00 40 23.7	+0.1
SAJE	San Jernim	1.17	331	*e*P	Pn	00 40 12.7	-0.7
CNI2	El Empalme, Bo	1.19	23	*e*P	Pn	00 40 12.5	-1.2
KKNTU	Kakintº	1.24	65	*e*P	Pn	00 40 13.3	-1.0
PIEC	Cerro El Cedra	1.64	322	*e*P	Pn	00 40 20.9	+0.8
GMAL	Guarumal, Vera	1.78	108	*e*P	Pn	00 40 20.6	-1.2
GMAL				*e*S	Sn	00 40 43.8	-0.3
ABRB	Las Abras (San	1.84	336	*e*P	Pb	00 40 24.5	-0.7
VBV1	V. Barva	2.12	327	*e*P	Pn	00 40 28.4	+1.6
AZU	Azuero	2.69	101	*e*P	Pn	00 40 34.8	+0.4
JTS	Las Juntas de	2.79	315	*e*P	Pn	00 40 35.3	-0.5
JTS				*e*S	Sn	00 41 08.4	-0.7

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*BGR **05** 00:57:38.8, 10°.73N×62°.94W, h33^{km}, mb4.5*

*INMG **05** 00:57:40.0±3.5, 10°.56N×62°.02W, h10^{km}, mb5.0, MW5.0, #DIST_RANGE: DISTANT*

*VAO **05** 00:57:41.4±0.2, 10°.23N×61°.97W, h12^{km}±1^{km}, mb4.9, Presumed earthquake*

*NEIC **05** 00:57:43.7±1.9, 10°.66N±0°.05×62°.15W±0°.07, h50^{km}±4^{km}, mb4.9/773, Mwr4.7/17, Error ellipse: s-maj=9.9km s-min=7.7km az=101.0, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}-1.39; $M_{\theta\theta}$0.50; $M_{\phi\phi}$0.89; $M_{r\theta}$0.16; $M_{\theta\phi}$0.52; $M_{\phi r}$0.84; Fault plane solution: $M_0$1.58000×10^{16} NP1:ϕ_s43.95000°, δ30.41000°, λ-71.77000°. NP2:ϕ_s203.06000°, δ61.26000°, λ-100.40000°. Principal axes: T 1.4715, Plg16.0000°, Azm301.0000°; N 0.1952, Plg9.0000°, Azm208.0000°; P -1.6667, Plg72.0000°, Azm89.0000°;*

*IDC **05** 00:57:45.1±1.1, 10°.85N×62°.25W, h62^{km}±9^{km}, mb4.4/28, mbtmp4.7/31, MS3.5/34 Error ellipse: s-maj=10.5km s-min=7.3km az=111.0*

*TRN **05** 00:57:45.8, 10°.70N×61°.99W, h47^{km}, MD5.4, Paria peninsula. Felt widely in Trinidad, MMI IV, V, VI.*

*CATAC **05** 00:57:45.7±0.3, 11°N±2°×6°2W±°, h70^{km}±14^{km}, M5.1/13, mB5.4/13, mb5.3/13, MLv5.6/6, Mw(mB)4.8/13, MwMwp4.3/1, Mwp4.7/1, Error ellipse: s-maj=7.4km s-min=3.9km az=116.0, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}-0.82; $M_{\theta\theta}$1.53; $M_{\phi\phi}$-0.70; $M_{r\theta}$-0.05; $M_{\theta\phi}$0.50; $M_{\phi r}$-0.60; Fault plane solution: $M_0$1.53625×10^{16} NP1:ϕ_s43.35938°, δ63.12878°, λ-141.20763°. NP2:ϕ_s293.39292°, δ56.02346°, λ-33.02767°. Principal axes: T 1.6450, Plg4.3338°, Azm166.9128°; N -0.2476, Plg44.0482°, Azm72.7089°; P -1.3974, Plg45.6245°, Azm261.3550°; confirmed*

*FUNV **05** 00:57:45.2, 10°.89N×62°.13W, h4^{km}, MW4.7, Presumed earthquake*

*GCMT **05** 00:57:46.7±0.4, 10°.67N±0°.02×61°.92W±0°.03, h42^{km}±3^{km}, MW4.7/71, Moment Tensor Solution. s7,c8; s71,c92; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}0.27±.14; $M_{\theta\theta}$1.02±.09; $M_{\phi\phi}$-1.29±.09; $M_{r\theta}$0.93±.08; $M_{\theta\phi}$-0.23±.07; $M_{\phi r}$0.62±.08; Best double couple: $M_0$1.63800×10^{16} NP1:ϕ_s144.00000°, δ47.00000°, λ10.00000°. NP2: ϕ_s48.00000°, δ83.00000°, λ136.00000°. Principal axes: T 1.6530, Plg35.0000°, Azm356.0000°; N -0.0280, Plg46.0000°, Azm220.0000°; P -1.6230, Plg23.0000°, Azm104.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*NEIC **05** 00:57:46.2, 10°.73N×62°.18W, h65^{km}*

*GFZ **05** 00:57:46.4±0.1, 11°N±2°×6°2W±°, h70^{km}, M5.4/70, mb4.9/70, Mw4.7/21*

ISC 05 00:57:43.7±0.5**, 10°.64N**±0°.03×**62°.14W**±0°.03**, h55**^{km}±4^{km}**, n1162,** σ**1^{s}.36**/1221**, mb4.9**/440**, MS3.5**/32**, 14C-14D, Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DMDM	Guralp CMG5TDE	0.58	84	⇓*e*P	Pn	00 57 56.6	+0.3
DMDM				*e*S	Sn	00 58 03.8	-1.5
PSMG	Mucurapo Girls	0.60	87	⇓*e*P	Pn	00 57 56.7	+0.3
PSMG				*e*S	Sn	00 58 04.0	-1.7
PSKH	Kent House, Po	0.61	86	*e*P	Pn	00 57 56.9	+0.3
PSKH				*e*S	Sn	00 58 04.2	-1.7
PSWS	West Secondary	0.61	88	⇓*i*P	Pn	00 57 56.9	+0.3
PSWS				*e*S	Sn	00 58 04.1	-1.8
PSQC	Port of Spain	0.61	87	*e*P	Pn	00 57 56.8	+0.2
PSQC				*e*S	Sn	00 58 04.3	-1.7
TRN	Trinidad (W)	0.72	89	⇓*i*P	Pn	00 57 58.2	+0.2
TRN				*e*S	Sn	00 58 07.0	-1.5
TPP	Pointe-a-Pierr	0.75	115	⇓*i*P	Pn	00 58 00.2	+1.9
GRGR	Grenville	1.56	18		Pn	00 58 09.5	+0.4
GRGR				Sn	Sn	00 58 27.8	-0.5
GRGR	Grenville	1.56	18	P	Pn	00 58 09.2	+0.1
GRGR	Grenville	1.56	18	⇑*e*P	Pn	00 58 09.7	+0.5
GRGR				*e*S	Sn	00 58 27.6	-0.7
GRGR	Grenville	1.56	18	⇑*i*P	Pn	00 58 09.1	-0.1
GRGR				*e*S	Sn	00 58 28.2	-0.1
GRGR	Grenville	1.56	18	P	Pn	00 58 09.3	+0.1
GRGR				S	Sn	00 58 28.0	-0.4
GRGR	Grenville	1.56	18	P	Pn	00 58 09.5	+0.4
GRW	Mount Saint Ca	1.59	17	⇑*i*P	Pn	00 58 09.8	+0.2
GRW				*e*S	Sn	00 58 29.1	+0.1
GRHS	Sauteurs	1.65	17	⇑*i*P	Pn	00 58 10.5	+0.1
GRHS				*e*S	Sn	00 58 30.1	-0.5
GRSS	Sisters	1.73	17	⇓*i*P	Pn	00 58 11.9	+0.5
GRSS				*e*S	Sn	00 58 31.7	-0.7
SLAC	Saint Lucia, A	3.46	20	⇑*i*P	Pn	00 58 36.0	+0.9
SLAC				*e*S	Sn	00 59 13.7	-1.2
SLCP	Castries, St.	3.54	18	*e*P	Pn	00 58 37.2	+1.0
SLCP				*e*S	Sn	00 59 16.9	+0.2
BBGH	Gun Hill	3.55	45		Pn	00 58 37.8	+1.5
BBGH	Gun Hill	3.55	45	P	Pn	00 58 39.7	+3.4
BBGH	Gun Hill	3.55	45	⇑*e*P	Pn	00 58 37.7	+1.3
BBGH				*e*S	Sn	00 59 16.3	-0.8
BBGH	Gun Hill	3.55	45	P	Pn	00 58 38.5	+2.2
BBGH				S	Sn	00 59 16.2	-0.8
BBGH	Gun Hill	3.55	45	P	Pn	00 58 39.3	+2.9
SLBI	Saint Lucia, B	3.55	19	⇑*i*P	Pn	00 58 37.0	+0.6
SLBI				*e*S	Sn	00 59 16.1	-1.1
H05S1	Guadeloupe/Mar	3.98	19	P	Pn	00 58 43.2	+1.0
H05S1				S	Sn	00 59 25.0	-2.5
	SNR=1252						

MPOM	Morne Pois Mar	3.99	18		Pn	00 58 43.0	+0.7
MPOM				Sn	Sn	00 59 26.9	-0.9
MPOM	Morne Pois Mar	3.99	18	P	Pn	00 58 43.4	+1.0
BIM	Bigot	4.00	15		Pn	00 58 42.8	+0.3
BIM				Sn	Sn	00 59 28.6	+0.5
BIM	Bigot	4.00	15	⇑eP	Pn	00 58 43.3	+0.8
BIM				eS	Sn	00 59 25.3	-2.8
BIM	Bigot	4.00	15	⇑iP	Pn	00 58 43.3	+0.8
BIM				eS	Sn	00 59 26.6	-1.5
BIM	Bigot	4.00	15	P	Pn	00 58 43.5	+1.0
FDFM	Morne la Roset	4.18	13		Pn	00 58 45.8	+0.7
CXM	Morne La Croix	4.26	13		Pn	00 58 46.9	+0.7
SVN	Savane Anatole	4.29	13		Pn	00 58 47.1	+0.6
SVN	Savane Anatole	4.29	13	⇑iP	Pn	00 58 47.3	+0.8
SVN				eS	Sn	00 59 31.7	-3.6
SVN	Savane Anatole	4.29	13	P	Pn	00 58 47.6	+1.1
ILAM	Ilet Lapin Mar	4.29	17		Pn	00 58 47.6	+1.1
ILAM	Ilet Lapin Mar	4.29	17	⇑iP	Pn	00 58 47.5	+0.9
ILAM				eS	Sn	00 59 32.4	-3.0
ILAM	Ilet Lapin Mar	4.29	17	P	Pn	00 58 47.8	+1.2
FUNV	FUNVISIS	4.59	268	⇓eP	Pn	00 58 54.8	+4.0
FUNV				eS	Sn	00 59 45.5	+2.6
DSLB	Salisbury	4.82	8	eP	Pn	00 58 55.2	+1.4
DSLB				eS	Sn	00 59 47.7	-0.7
TACV	Tcata	4.83	265	⇓eP	Pn	00 58 57.5	+3.6
TACV				eS	Sn	00 59 51.7	+2.9
DWS	Wesley	4.97	9	eP	Pn	00 58 57.3	+1.5
DWS				eS	Sn	00 59 49.5	-2.4
TDBA	Terre de Bas,	5.21	5		Pn	00 59 00.4	+1.4
TDBA	Terre de Bas,	5.21	5	P	Pn	00 59 00.8	+1.8
	comp=Z,1µm,0.5s						
TBG	Guadaloupe-3	5.21	5	eP	Pn	00 58 59.9	+0.8
TBG				eS	Sn	00 59 59.4	+1.5
MAGL	Barre de l'ile	5.35	9		Pn	00 59 02.5	+1.5
MAGL	Barre de l'ile	5.35	9	P	Pn	00 59 03.2	+2.2
	comp=Z,5µm,0.7s						
MMLZ	Guadeloupe Bro	5.39	5	⇑eP	Pn	00 59 02.9	+1.3
MMLZ				eS	Sn	01 00 01.6	-0.8
BENV	Beln	5.41	263	eP	Pn	00 59 04.8	+2.8
BENV				eS	Sn	01 00 04.9	+1.9
CBE	Ff, Capester	5.43	5		Pn	00 59 03.7	+1.6
CBE	Ff, Capester	5.43	5	P	Pn	00 59 04.1	+2.0
CBE				S	Sn	01 00 03.0	-0.3
CBE	Ff, Capester	5.43	5	P	Pn	00 59 04.0	+1.9
	comp=Z,4µm,0.5s						
TURV	Turiamo	5.61	269	eP	Pn	00 59 07.8	+3.3
TURV				eS	Sn	01 00 09.3	+1.6
DHSZ	Broadband at M	5.62	4	⇑eP	Pn	00 59 05.9	+1.3
DHSZ				eS	Sn	01 00 05.4	-2.4
GDHS	Morne Mazeau,	5.62	4		Pn	00 59 06.0	+1.2
GDHS	Morne Mazeau,	5.62	4	P	Pn	00 59 06.9	+2.1
	comp=Z,2µm,0.8s						
DSDZ	La Diserade, G	5.74	10	⇓eP	Pn	00 59 07.7	+1.3
DSDZ				eS	Sn	01 00 08.8	-2.1
GDSD	La Dsirade Is	5.74	10		Pn	00 59 07.0	+0.6
GDSD	La Dsirade Is	5.74	10	P	Pn	00 59 07.8	+1.4
	comp=Z,927nm,0.8s						
H05N1	Guadeloupe/Mar	5.74	10	P	Pn	00 59 07.3	+0.8
	SNR=406						
H05N1				S	Sn	01 00 07.0	-4.0
ABD	La Joyeuse, An	5.84	6		Pn	00 59 08.9	+1.2
ABD	La Joyeuse, An	5.84	6	P	Pn	00 59 10.6	+2.8
	comp=Z,2µm,0.6s						
SKI	Saint Kitts	6.68	355	eP	Pn	00 59 21.4	+2.1
SKI				eS	Sn	01 00 34.7	+0.6
SEUS	St. Eustatius	6.87	353		Pn	00 59 23.1	+1.4
SEUS	St. Eustatius	6.87	353	eP	Pn	00 59 24.2	+2.4
SEUS	St. Eustatius	6.87	353	P	Pn	00 59 23.3	+1.5
SEUS				S	Sn	01 00 37.0	-1.6
SEUS	St. Eustatius	6.87	353	P	Pn	00 59 24.2	+2.4
	comp=Z,2µm,0.7s						
ANWB	Willy Bob	7.00	3		Pn	00 59 24.9	+1.2
ANWB	Willy Bob	7.00	3	P	Pn	00 59 25.6	+2.0
	comp=Z,9µmcomp=Z,558nm,0.8s						
ANWB	Willy Bob	7.00	3	⇓iP	Pn	00 59 25.8	+2.2
ANWB				eS	Sn	01 00 42.9	+1.0
ANWB	Willy Bob	7.00	3	P	Pn	00 59 25.2	+1.5
ANWB				S	Sn	01 00 40.4	-1.5
ANWB	Willy Bob	7.00	3	P	Pn	00 59 25.8	+2.2
	comp=Z,564nm,0.8s						
SABA	Saba	7.03	351		Pn	00 59 24.9	+0.9
SABA	Saba	7.03	351	eP	Pn	00 59 26.2	+2.2
SABA	Saba	7.03	351	P	Pn	00 59 25.8	+1.8
SABA	Saba	7.03	351	P	Pn	00 59 26.3	+2.3
	comp=Z,517nm,0.7s						
SMRT	St. Maarten	7.43	353		Pn	00 59 30.8	+1.3
SMRT	St. Maarten	7.43	353	⇓iP	Pn	00 59 31.5	+2.1
SMRT	St. Maarten	7.43	353	P	Pn	00 59 31.6	+2.1
	comp=Z,2µm,0.5s						
PDPR	Patillas Dam,	8.24	333		Pn	00 59 40.6	-0.1
HUMP	Col San Antoni	8.28	335		Pn	00 59 41.2	0.0
BOAV	Boa Vista	8.34	169		Pn	00 59 41.4	-0.7
BOAV	Boa Vista	8.34	169	P	Pn	00 59 40.0	-2.1
	comp=Z,2µmcomp=Z,80nm,0.6s						
BOAV	Boa Vista	8.34	169	eP	Pn	00 59 36.5	-5.6
BOAV				eS	Sn	01 01 06.2	-8.8
SJG	San Juan	8.38	333	P	Pn	00 59 40.7	-1.9
	comp=Z,20nm,0.4s,baz=139,slow=16,SNR=14						
SJG				S	Sn	01 01 09.1	-6.8
	comp=Z,99nm,0.5s,baz=179,slow=14,SNR=6.9						
SJG				LR	LR	01 03 00.9	
	comp=Z,224nm,20.7s,baz=152,slow=39						
SJG	San Juan	8.38	333	Pn	Pn	00 59 42.7	+0.1
SJG	San Juan	8.38	333	P	Pn	00 59 43.1	+0.5
	comp=Z,820nmcomp=Z,1µmcomp=Z,63nm,0.5s						
SJG	San Juan	8.38	333	P	Pn	00 59 42.8	+0.2
SJG				S	Sn	01 01 09.1	-6.8
SJG	San Juan	8.38	333	P	Pn	00 59 43.4	+0.8
	comp=Z,64nm,0.5s						
OBIP	Obispado Ponce	8.54	330		Pn	00 59 45.2	+0.4
SDV	Santo Domingo	8.55	259	P	Pn	00 59 46.4	+1.4
	comp=Z,57nm,0.4s,baz=72,slow=6.2,SNR=14						
SDV				S	Sn	01 01 17.2	-3.1
	comp=Z,124nm,0.5s,baz=43,slow=19,SNR=12						
SDV				LR	LR	01 03 47.6	
	comp=Z,453nm,21.5s,baz=86,slow=43						
SDV	Santo Domingo	8.55	259		Pn	00 59 46.2	+1.2
SDV	Santo Domingo	8.55	259	P	Pn	00 59 46.3	+1.2
	comp=Z,9µmcomp=Z,1µm,0.8s						
SDV	Santo Domingo	8.55	259	eP	Pn	00 59 46.0	+0.9
SDV	Santo Domingo	8.55	259	P	Pn	00 59 46.5	+1.4
	comp=Z,1µm,0.8s						
CELP	Cerrillos	8.55	330		Pn	00 59 45.6	+0.7
ECPR	Experimental S	8.66	332		Pn	00 59 47.2	+0.7
MLPR	Magueyes Islan	8.70	327		Pn	00 59 48.5	+1.6
CRPR	Cabo Rojo, PR	8.77	327		Pn	00 59 49.1	+1.3
AOPR	Arecibo Observ	8.87	330		Pn	00 59 50.2	+0.9
PRSN	Puerto Rico Se	8.96	328		Pn	00 59 52.2	+1.7
AGPR	Aguadilla, PR	9.15	329		Pn	00 59 55.5	+2.4
URI	Uribia	9.72	277	P	Pn	01 00 02.6	+1.6
URI				S	Sn	01 01 47.5	-1.3
URIC	Uribia, Colomb	9.72	277	P	Pn	01 00 02.3	+1.3
	comp=Z,724nmcomp=Z,69nm,0.8s						
URIC	Uribia, Colomb	9.72	277	eP	Pn	01 00 02.6	+1.6
URIC				eS	Sn	01 01 44.5	-4.3
PCDR	Punta Cana, DR	9.89	323		Pn	01 00 05.0	+1.8
SDD	Santo Domingo	10.82	317	P	Pn	01 00 17.8	+1.9
SDD				S	Sn	01 02 08.8	-6.7
MDP	Montagnes des	10.90	120	P	Pn	01 00 12.1	-4.9
	comp=Z,45nm,0.4s,baz=317,slow=15,SNR=265						
MDP				S	Sn	01 02 05.1	-12
	comp=Z,393nm,0.5s,baz=241,slow=21,SNR=24						
MDP				LR	LR	01 05 26.6	
	comp=Z,477nm,20.4s,baz=302,slow=42						
PAMC	Pamplona, Colo	10.93	253	P	Pn	01 00 19.0	+1.1
BANI	BANI	11.08	315		Pn	01 00 21.4	+1.8
OCAC	Ocana	11.28	259	P	Pn	01 00 23.2	+0.8
	comp=Z,2µmcomp=Z,167nm,0.6s						
BARC	Barichara	11.63	251	P	Pn	01 00 27.6	+0.3
	comp=Z,1µmcomp=Z,94nm,0.7s						
RUSC	La Rusia	11.81	247	P	Pn	01 00 30.1	+0.2
	comp=Z,854nmcomp=Z,79nm,1.0s						
RUSC	La Rusia	11.81	247	P	Pn	01 00 29.5	-0.5
RUSC				S	Sn	01 02 40.2	-0.3
SC01	Santiago de lo	12.04	318		Pn	01 00 35.6	+2.9
SC01	Santiago de lo	12.04	318	P	Pn	01 00 38.3	+5.6
SC01				S	Sn	01 02 43.6	-1.9
SDDR	Presa de Saban	12.12	314		Pn	01 00 35.8	+2.0
SDDR	Presa de Saban	12.12	314	P	Pn	01 00 37.9	+4.1
	comp=Z,2µmcomp=Z,172nm,0.9s						
SDDR	Presa de Saban	12.12	314	eP	Pn	01 00 38.3	+4.5
SDDR				x	x	01 02 39.3	
SDDR	Presa de Saban	12.12	314	P	Pn	01 00 37.2	+3.4
SDDR				S	Sn	01 02 42.8	-4.7
SDDR	Presa de Saban	12.12	314	P	Pn	01 00 36.7	+2.9
	comp=Z,173nm,0.9s						
SPBC	San Pablo de B	12.80	248	P	Pn	01 00 43.7	+0.5
	comp=Z,801nmcomp=Z,39nm,0.8s						
PTBC	PUERTO BERRIO,	12.84	253	P	Pn	01 00 43.7	+0.1
	comp=Z,463nmcomp=Z,16nm,0.6s						
SJCC	San Jacinto, C	12.85	268	P	Pn	01 00 45.6	+1.8
	comp=Z,780nmcomp=Z,65nm,0.7s						
SJCC	San Jacinto, C	12.85	268	eP	Pn	01 00 44.6	+0.8
SJCC	San Jacinto, C	12.85	268	P	Pn	01 00 44.2	+0.4
SJCC				S	Sn	01 03 05.7	+0.3
CHIC	Chingaza	12.94	243	P	Pn	01 00 47.5	+2.2
	comp=Z,734nmcomp=Z,43nm,0.8s						
VILC	Villavicencio,	13.16	241	P	Pn	01 00 49.9	+1.8
CVER	Cruz Verde, Cu	13.29	244	P	Pn	01 00 51.3	+1.1
	comp=Z,93nm,0.7s						
ROSC	El Rosal	13.37	245	P	Pn	01 00 53.6	+2.4
	comp=Z,27nm,0.3s,baz=78,slow=17,SNR=11						
ROSC				LR	LR	01 07 20.8	
	comp=Z,827nm,19.2s,baz=62,slow=43						
ROSC	El Rosal	13.37	245		Pn	01 00 52.9	+1.8
ROSC	El Rosal	13.37	245	P	Pn	01 00 53.0	+1.8
	comp=Z,68nm,0.7s						
UREC	San Jos de Ur	13.53	259	P	Pn	01 00 52.5	-0.5
NORC	Norcasia	13.57	249	P	Pn	01 00 52.4	-1.2
MACA	Manacapuru-AM	13.78	174		Pn	01 00 54.4	-2.0
MACA	Manacapuru-AM	13.78	174	eP	Pn	01 00 50.7	-5.7
MACA				eS	Sn	01 03 18.2	-10
HELC	Santa Helena	13.96	253	P	P	01 01 02.5	-3.1
HELC	Santa Helena	13.96	253	eP	Pn	01 01 01.1	+1.9
HELC				eS	Sn	01 03 24.3	-8.5
GUY2C	Guyana, Caldas	14.15	249	P	Pn	01 01 02.6	+0.7
	comp=Z,811nmcomp=Z,70nm,0.6s						
TEFE	Tefe	14.27	190	eP	Pn	01 00 58.5	-4.4
TEFE				eS	Sn	01 03 32.1	-7.8
DBBC	Dabeiba	14.36	257	P	P	01 01 07.9	-1.9
MACC	Macarena, Meta	14.36	235	P	Pn	01 01 06.9	+2.7
	comp=Z,575nmcomp=Z,45nm,0.9s						
PRAC	Prado	14.39	242	P	Pn	01 01 05.1	+0.5
	comp=Z,831nmcomp=Z,32nm,0.6s						
PRAC	Prado	14.39	242	P	Pn	01 01 04.2	-0.3
PRAC				S	Sn	01 03 41.3	-1.5
APAC	Apartado, Choc	14.51	260	P	P	01 01 14.2	+2.9
CBOC	Ciudad Bolivar	14.52	252	P	Pn	01 01 07.5	+1.1
	comp=Z,566nmcomp=Z,33nm,0.7s						
ORTC	Ortega, Tolima	14.61	244	P	Pn	01 01 08.5	+1.0
	comp=Z,589nmcomp=Z,40nm,0.9s						
MASC	Masc	15.02	311	eP	P	01 01 19.2	+2.3
QMBU	Quimbuelo	15.47	309	eP	P	01 01 22.0	0.0
GTBY	Guantanamo Bay	15.54	308	eP	P	01 01 24.1	+1.3
GARC	Garzon, Huila	15.69	239	P	Pn	01 01 21.1	-0.5
NMDO	Nuevo Mundo	15.81	310		Pn	01 01 22.4	-0.4
ITTB	Itaituba	16.21	157	eP	Pn	01 01 23.0	-5.0
PINC	Pinares de May	16.38	308	eP	P	01 01 36.5	+4.4
POPC	Popayan, Colom	16.52	242	P	P	01 01 34.8	+0.9
	comp=Z,328nmcomp=Z,20nm,0.8s						
CHIV	Chivirico	16.59	306	Pn	Pn	01 01 31.4	-1.3
MTDJ	Mount Denham	16.70	299	Pn	Pn	01 01 33.5	-0.6
MTDJ				IAmb	IAmb	01 01 37.5	
	comp=Z,106nm,1.3s						
YAR	Yar	16.76	307	eP	P	01 01 38.8	+2.5
HLGC	Holguin	16.82	309	eP	P	01 01 43.4	+6.4
BBAC	Balboa, Cauca	17.27	241	P	P	01 01 44.6	+2.4
	comp=Z,14nm,0.8s						
BCIP	Isla Barro Col	17.50	267		P	01 01 47.7	+3.3
BCIP	Isla Barro Col	17.50	267	P	P	01 01 47.2	+2.7
	comp=Z,36nm,1.9s						
BCIP	Isla Barro Col	17.50	267	P	P	01 01 45.2	+0.7
	comp=Z,27nm,0.7s						
CCCC	Cccc	18.32	307	eP	P	01 01 53.5	+0.1
OTAV	Otavalo	19.23	239		P	01 02 03.9	-0.1
OTAV	Otavalo	19.23	239	P	Pn	01 02 07.6	+2.2
	comp=Z,21nm,1.3s						
OTAV	Otavalo	19.23	239	eP	P	01 02 04.5	+0.6
OTAV				epP	Pn	01 02 08.3	+2.9
OTAV				eS	Sn	01 05 42.1	+1.6
OTAV	Otavalo	19.23	239	P	Pn	01 02 06.1	+0.7
	comp=Z,21nm,1.4s						
PAC1	Pacto, Paraso	19.50	239	P	Pn	01 02 10.5	+2.2
	comp=Z,27nm,0.4s						
PIAT	Ana Tenorio	19.77	235	P	Pn	01 02 14.0	+2.3
	comp=Z,53nm,0.6s						
SLOR	San Lorenzo -	19.80	236	P	P	01 02 10.3	0.0
BRU2	Volcan	20.34	267	P	P	01 02 15.9	+0.1
CAIB	Caibarien	20.34	308		P	01 02 16.0	+0.4
CAIB				IAmb	IAmb	01 02 18.4	
	comp=Z,74nm,0.8s						
CAIB	Caibarien	20.34	308	eP	Pn	01 02 17.7	-0.4
MGV	Manicaragua	20.54	306	eP	Pn	01 02 21.4	+1.0
CZSB	Cruzeiro do Su	21.06	210		P	01 02 26.1	+2.7
CZSB				IAmb	IAmb	01 02 30.2	
	comp=Z,42nm,0.9s						
CZSB	Cruzeiro do Su	21.06	210	P	P	01 02 27.5	+4.1
	comp=Z,55nm,1.3s						
CZSB	Cruzeiro do Su	21.06	210	eP	P	01 02 23.0	-0.4
CZSB				eS	S	01 06 16.3	+1.3
LCR2	La Lucha 2	21.54	270		P	01 02 30.6	+1.8
HDC	Heredia	21.63	270	eP	P	01 02 34.1	+4.5
BBSR	BB Station	21.76	354	P	P	01 02 31.0	+0.3
BBSR				IAmb	IAmb	01 02 45.2	
	comp=Z,52nm,1.1s						
BBSR	BB Station	21.76	354	P	P	01 02 30.0	-0.7
	comp=Z,53nm,1.1s						
CLDB	Colider	22.28	163	eP	P	01 02 32.5	-4.0
CLDB				epP	P	01 02 37.2	+0.8
CLDB				eS	S	01 06 33.1	-5.2
CLDB	Colider	22.28	163	P	P	01 02 37.9	+1.4
	comp=Z,40nm,1.1s						
SIUN	Universidad Ur	22.33	280	P	P	01 02 38.9	+1.8
JTS	Las Juntas de	22.43	271	LR	LR	01 14 25.3	
	comp=Z,59nm,18.3s,baz=87,slow=45						
BOAB	BOACO BROADBAN	23.12	277		P	01 02 46.1	+0.8
BOAB				IAmb	IAmb	01 03 09.2	
	comp=Z,86nm,1.3s						
BOAB	BOACO BROADBAN	23.12	277	P	P	01 02 47.1	+1.9
	comp=Z,47nm,1.1s						
MCRA	Macar, Loja	23.17	231	P	P	01 02 47.2	+1.4
VILB	Vilhena	23.52	175		P	01 02 50.7	+1.7
VILB				IAmb	IAmb	01 02 53.9	
	comp=Z,64nm,0.9s						
VILB	Vilhena	23.52	175	eP	P	01 02 47.6	-1.4
VILB				eS	S	01 06 59.4	+0.4
ATAH	Atahualpa	23.95	223	P	P	01 02 55.9	+2.4
	comp=Z,13nm,0.7s,baz=25,slow=5.5,SNR=10						
ATAH				LR	LR	01 13 35.9	
	comp=Z,139nm,20.6s,baz=44,slow=40						
	comp=Z,13nm,0.7s						
SMTB	Santa Maria do	24.18	143	eP	P	01 02 54.5	-0.6
CRIN	San Cristobal	24.48	277	P	P	01 02 59.6	+1.6
TGUH	Tegucigalpa,Un	24.78	280		P	01 03 02.5	+1.8
TGUH				IAmb	IAmb	01 03 03.7	
	comp=Z,36nm,0.8s						
TGUH	Tegucigalpa,Un	24.78	280	P	P	01 03 02.8	+2.0
	comp=Z,59nm,0.9s						
SNDB	Serra Nova Dou	24.91	154	eP	P	01 03 00.8	-1.0
SNDB				epP	P	01 03 03.9	+2.1
SNDB				eS	S	01 07 21.9	+0.5
DWPF	Disney Wildern	25.10	317	P	P	01 03 04.0	+0.6
DWPF	Disney Wildern	25.10	317	P	P	01 03 04.8	+1.4
	comp=Z,82nm,0.8s						
DWPF				pP	pP	01 03 19.6	+2.5
NBPS	Pedro II - PI	25.45	125	eP	P	01 03 05.8	-0.9
NBPS				eS	S	01 07 31.5	+1.3
NBMO	Morrinhos-CE	26.00	121	eP	P	01 03 11.4	-0.3
PTLB	Pontes e Lacer	26.09	173		P	01 03 13.1	+0.7
PTLB	Pontes e Lacer	26.09	173	eP	P	01 03 10.8	-1.6
PTLB				eS	S	01 07 40.8	+0.9
SIV	San Ignacio	26.48	178	LR	LR	01 13 36.2	
	comp=Z,192nm,21.6s,baz=304,slow=36						
NNA	Nana	26.80	213	P	P	01 03 20.7	+1.8
	comp=Z,2.7nm,0.3s,baz=35,slow=16,SNR=1.5						
NNA				LR	LR	01 14 53.7	
	comp=Z,220nm,18.6s,baz=20,slow=38						
	comp=Z,2.7nm,0.3s						
NNA	Nana	26.80	213	IAmb	IAmb	01 03 43.8	
	comp=Z,32nm,1.3s						
ESQI	Esquipulas	26.82	281	P	P	01 03 20.1	+0.9
ESQI				IAmb	IAmb	01 03 27.0	
	comp=Z,24nm,0.7s						
MTO3	Montecristo	26.83	281	P	P	01 03 20.3	+0.9
456A	Hilliard	27.21	320	P	P	01 03 23.2	+0.8
456A				IAmb	IAmb	01 03 24.7	
	comp=Z,25nm,1.0s						
LPAZ	La Paz	27.40	193	P	P	01 03 27.6	+2.7
	comp=Z,4.4nm,0.8s,baz=356,slow=8.2,SNR=21						
LPAZ				LR	LR	01 15 14.8	
	comp=Z,184nm,20.3s,baz=356,slow=38						
	comp=Z,4.4nm,0.8s						
LPAZ	La Paz	27.40	193		P	01 03 26.7	+1.8
LPAZ	La Paz	27.40	193	eP	P	01 03 24.1	-0.7
LPAZ				eS	S	01 08 03.3	+1.5
LPAZ	La Paz	27.40	193	P	P	01 03 27.8	+2.9
	comp=Z,9.0nm,0.8s						
257A	Skidaway Islan	27.49	323	P	P	01 03 25.6	+0.7
CSU	Charleston Sou	27.69	326	P	P	01 03 28.0	+1.4
NHSC	New Hope	27.84	326		P	01 03 28.7	+0.7
NHSC				IAmb	IAmb	01 03 30.6	
	comp=Z,67nm,1.1s						
APG	El Apazote	27.94	282	P	P	01 03 29.8	+0.4
	comp=Z,0.6nm,0.7s,baz=117,slow=14,SNR=6.4						
APG				LR	LR	01 16 41.2	
	comp=Z,5.0nm,19.9s,baz=352,slow=41						
ARAG	Araguaiana, MT	28.10	158	eP	P	01 03 29.0	-1.4
553A	Crawfordville	28.44	316	P	P	01 03 34.0	+0.6
X58A	Rowland	28.52	329	P	P	01 03 34.3	+0.2
X58A				IAmb	IAmb	01 03 35.1	
	comp=Z,16nm,0.6s						
W59A	Clinton	28.58	331	P	P	01 03 35.3	+0.7
W59A				IAmb	IAmb	01 03 35.9	
	comp=Z,16nm,0.7s						
SDBA	SAO DESIDERIO	28.59	143	eP	P	01 03 34.2	-0.6
SDBA				eS	S	01 08 21.2	+1.7
Y57A	Sumter	28.65	327	P	P	01 03 35.7	+0.5
Y57A				IAmb	IAmb	01 03 37.4	
	comp=Z,61nm,1.2s						
TIGA	Tifton	28.69	319	P	P	01 03 36.4	+0.8
TIGA				IAmb	IAmb	01 03 37.5	
	comp=Z,11nm,0.6s						
BIRD	Birdtown, Kers	29.17	328	P	P	01 03 40.5	+0.7
BIRD				IAmb	IAmb	01 03 41.4	
	comp=Z,38nm,1.1s						
154A	Montrose	29.18	322	P	P	01 03 41.0	+1.0
JSC	Jenkinsville	29.32	326	P	P	01 03 41.4	+0.3
NBMA	Muriti-CE	29.35	127	eP	P	01 03 41.0	-0.7
V58A	Windy Hill, Pi	29.41	331	P	P	01 03 42.2	+0.3
352A	Blakely	29.58	318	P	P	01 03 44.3	+0.8
352A				IAmb	IAmb	01 03 45.4	
	comp=Z,25nm,0.8s						
451A	Vernon	29.60	316	P	P	01 03 44.5	+0.9
451A				IAmb	IAmb	01 03 45.9	
	comp=Z,31nm,0.8s						
BDFB	Brasilia	29.62	152	P	P	01 03 46.8	+2.7
	comp=Z,15nm,0.5s,baz=314,slow=9.3,SNR=27						
BDFB				LR	LR	01 16 16.0	
	comp=Z,343nm,19.2s,baz=318,slow=37						
	comp=Z,15nm,0.5s						
BDFB	Brasilia	29.62	152		P	01 03 45.3	+1.2
BDFB				IAmb	IAmb	01 03 47.3	
	comp=Z,19nm,0.6s						
T59A	Double "B" Far	29.68	335	P	P	01 03 43.3	-1.0
PB16	IPOC Station P	29.69	194		P	01 03 46.6	+1.3
PB16	IPOC Station P	29.69	194	P	P	01 03 46.9	+1.7
	comp=Z,13nm,0.5s						
HODGE	Hodges	29.84	325	P	P	01 03 46.8	+1.1
GOGA	Godfrey	29.95	322	P	P	01 03 47.4	+0.6
GOGA	Godfrey	29.95	322	P	P	01 03 47.9	+1.1
	comp=Z,16nm,1.0s						
KMSC	Kings Mountain	30.01	327	P	P	01 03 47.8	+0.5
KMSC				IAmb	IAmb	01 03 48.7	
	comp=Z,16nm,1.0s						
PAULI	Pauline	30.02	326	P	P	01 03 47.9	+0.5
PAULI				IAmb	IAmb	01 03 49.1	
	comp=Z,30nm,1.4s						
152A	Waverly Hall	30.22	320	P	P	01 03 49.8	+0.6
152A				IAmb	IAmb	01 03 51.4	
	comp=Z,19nm,0.8s						
U56A	King	30.46	330	P	P	01 03 51.8	+0.6
U56A				IAmb	IAmb	01 03 52.9	
	comp=Z,44nm,1.3s						
V55A	Taylorsville	30.49	328		P	01 03 52.1	+0.6
V55A				IAmb	IAmb	01 03 53.4	
	comp=Z,16nm,1.0s						
NBPN	Ponto Novo - B	30.52	134	eP	P	01 03 52.0	0.0
Y52A	Lilburn	30.62	322		P	01 03 53.4	+0.7
Y52A				IAmb	IAmb	01 03 54.5	
	comp=Z,36nm,1.5s						
COIM	Forte Coimbra	30.65	172	eP	P	01 03 52.6	-0.5
CBN	Corbin Frederi	30.66	336	P	P	01 03 53.2	+0.3
CBN				IAmb	IAmb	01 03 54.0	
	comp=Z,14nm,0.7s						
250A	Grady	30.79	317		P	01 03 55.1	+0.9
250A				IAmb	IAmb	01 03 56.0	
	comp=Z,40nm,0.9s						
BRAL	Brewton	30.83	315	P	P	01 03 55.9	+1.4
GO01	Chusmiza	30.91	193	P	P	01 03 56.6	+0.8
S57A	Dark Hollow, R	30.95	334		P	01 03 55.6	+0.1
NBTA	Tacaratu-PE	30.97	128	eP	P	01 03 55.1	-0.9
JANB	Januaria	31.05	145	eP	P	01 03 56.1	-0.5
PSGCX	Pisagua	31.05	195	P	P	01 03 56.6	-0.1
PSGCX				IAmb	IAmb	01 03 57.6	
	comp=Z,11nm,0.7s						
PB11	IPOC Station P	31.10	194		P	01 03 56.7	-0.4
PB11				IAmb	IAmb	01 03 58.3	
	comp=Z,26nm,1.0s						
PB11	IPOC Station P	31.10	194	P	P	01 03 57.8	+0.6
	comp=Z,29nm,0.8s						
BLA	Blacksburg	31.17	331		P	01 03 57.5	0.0
BLA				IAmb	IAmb	01 03 59.4	
	comp=Z,31nm,1.2s						
V53A	Saluda	31.20	326		P	01 03 57.8	0.0
V53A				IAmb	IAmb	01 03 59.9	
	comp=Z,24nm,1.1s						
U54A	Nelsons Funny	31.32	329	P	P	01 03 59.2	+0.3
U54A				IAmb	IAmb	01 04 00.5	
	comp=Z,40nm,1.2s						
BDQN	Bodoquena, MS	31.34	170	eP	P	01 03 58.0	-1.1
PB08	IPOC Station P	31.35	193		P	01 03 59.3	-0.3
PB08				IAmb	IAmb	01 04 01.5	
	comp=Z,12nm,0.7s						
PB08	IPOC Station P	31.35	193	P	P	01 04 00.8	+1.1
	comp=Z,17nm,0.9s						
W52A	Murphy	31.41	324	P	P	01 03 59.1	-0.6
SDMD	Soldier's Deli	31.50	338	P	P	01 03 58.6	-1.8
AQDB	Aquidauana	31.56	168		P	01 04 03.0	+2.0
AQDB	Aquidauana	31.56	168	eP	P	01 04 00.3	-0.7
AQDB				epP	P	01 04 03.3	+2.3
AQDB	Aquidauana	31.56	168	P	P	01 04 04.3	+3.3
	comp=Z,15nm,1.6s						
X51A	Calhoun	31.58	323	P	P	01 04 00.5	-0.7
IPMB	Ipameri, GO	31.59	154	eP	P	01 04 01.3	-0.1
TKL	Tuckaleechee C	31.73	325	LR	LR	01 17 23.3	
	comp=Z,46nm,19.6s,baz=130,slow=37						
TKL	Tuckaleechee C	31.73	325		P	01 04 01.1	-1.3
LRAL	Lakeview Retre	31.92	318		P	01 04 04.6	+0.5
LRAL				IAmb	IAmb	01 04 06.0	
	comp=Z,17nm,0.7s						
CPCT	Cooper Cave	32.00	324		P	01 04 05.1	+0.3
FPAL	Fort Paine	32.02	322		P	01 04 05.2	+0.1
S54A	Dingess, Beckl	32.06	331	P	P	01 04 05.6	+0.2
S54A				IAmb	IAmb	01 04 07.1	
	comp=Z,20nm,0.7s						
Y49A	Blount Mountai	32.07	320		P	01 04 05.7	+0.3
Y49A				IAmb	IAmb	01 04 07.1	
	comp=Z,25nm,1.1s						
Q56A	Snyder Ridge,	32.12	335	P	P	01 04 05.8	0.0
TZTN	Tazewell	32.25	327		P	01 04 06.5	-0.5
TZTN				IAmb	IAmb	01 04 08.9	
	comp=Z,32nm,1.3s						
TZTN	Tazewell	32.25	327	P	P	01 04 07.9	+0.9
	comp=Z,22nm,1.1s						
ODNJ	Ogdensburg	32.26	342	P	P	01 04 07.7	+0.7
ODNJ				IAmb	IAmb	01 04 10.7	
	comp=Z,30nm,1.5s						
W50A	Signal Mountai	32.29	323	P	P	01 04 07.8	+0.4
W50A				IAmb	IAmb	01 04 09.3	
	comp=Z,17nm,1.0s						
MC01	Montes Claros	32.59	146	eP	P	01 04 09.5	-0.7
PB02	IPOC Station P	32.66	193	P	P	01 04 12.0	+1.2
PB02	IPOC Station P	32.66	193	P	P	01 04 12.4	+1.6
	comp=Z,59nm,0.8s						
SWET	Sewanee	32.67	322	P	P	01 04 11.0	+0.2
N58A	Sunbury	32.72	339	P	P	01 04 11.3	+0.3
Z47A	Carrollton	32.73	317	P	P	01 04 11.3	0.0
NPNY	Mohonk Preserv	32.74	343	P	P	01 04 11.4	+0.2
Q54A	Coxs Mills	32.79	333	P	P	01 04 12.2	+0.5
Q54A				IAmb	IAmb	01 04 13.3	
	comp=Z,11nm,0.8s						

X48A	Hartselle	32.85	320		P	01 04 12.3	0.0
X48A				IAmb	IAmb	01 04 14.5	
	comp=Z,23nm,1.0s						
PMNB	Patos De Minas	32.87	152	*e*P	P	01 04 11.7	-1.0
PMNB				*e*S	S	01 09 26.7	+0.1
MCWV	Mont Chateau	32.91	334	P	P	01 04 13.4	+0.7
PB09	IPOC Station P	32.98	192	P	P	01 04 15.1	+1.4
PB09				IAmb	IAmb	01 04 16.2	
	comp=Z,13nm,0.9s						
L61B	Northampton	33.01	346	P	P	01 04 14.3	+0.8
L61B				IAmb	IAmb	01 04 26.5	
	comp=Z,20nm,1.4s						
PB07	IPOC Station P	33.05	193	P	P	01 04 15.0	+0.7
PB07				IAmb	IAmb	01 04 16.1	
	comp=Z,26nm,0.7s						
PB07	IPOC Station P	33.05	193	P	P	01 04 15.6	+1.4
	comp=Z,41nm,0.7s						
S51A	Beattyville	33.09	328		P	01 04 15.2	+0.9
K62A	Royalston	33.10	346	P	P	01 04 15.1	+0.7
K62A				IAmb	IAmb	01 04 39.1	
	comp=Z,24nm,1.4s						
M57A	Sunshine Farm,	33.31	339		P	01 04 17.1	+0.9
M57A				IAmb	IAmb	01 04 18.8	
	comp=Z,12nm,0.7s						
PB03	IPOC Station P	33.33	193	P	P	01 04 17.3	+0.6
PB03				IAmb	IAmb	01 04 18.4	
	comp=Z,30nm,1.5s						
L59A	Walton	33.40	342	P	P	01 04 17.1	+0.1
Q52A	Bidwell	33.44	331	P	P	01 04 17.5	+0.2
Q52A				IAmb	IAmb	01 04 19.6	
	comp=Z,16nm,0.9s						
P53A	Whipple	33.45	332	P	P	01 04 18.1	+0.7
P53A				IAmb	IAmb	01 04 38.1	
	comp=Z,18nm,1.4s						
U49A	Red Boiling Sp	33.47	324	P	P	01 04 18.0	+0.3
U49A				IAmb	IAmb	01 04 19.3	
	comp=Z,11nm,1.0s						
CLTN	Cedars of Leba	33.50	323		P	01 04 18.2	+0.3
V48A	Smith Brothers	33.56	322	P	P	01 04 19.3	+0.9
V48A				IAmb	IAmb	01 04 20.4	
	comp=Z,14nm,0.9s						
O54A	Avella	33.58	334	P	P	01 04 18.7	+0.2
O54A				IAmb	IAmb	01 04 20.2	
	comp=Z,37nm,1.4s						
ARCA	Ara§uai, MG	33.82	144	*e*P	P	01 04 20.2	-0.7
ARCA				*e*S	S	01 09 41.6	+0.4
VBMS	Vicksburg	33.86	314	P	P	01 04 21.8	+0.7
AF01	San Pedro de A	33.90	190		P	01 04 23.6	+1.8
NBIT	Itapeh - BA	33.94	138	*e*P	P	01 04 21.5	-0.4
R50A	Paris	33.95	328	P	P	01 04 22.6	+0.8
Q51A	Peebles	34.02	330	P	P	01 04 22.7	+0.3
Q51A				IAmb	IAmb	01 04 24.2	
	comp=Z,10nm,0.6s						
PAMR	Moraine State	34.09	335	P	P	01 04 22.8	-0.2
Y45A	Yeager Farm, C	34.12	317	P	P	01 04 23.9	+0.6
O52A	Adamsville	34.16	333	P	P	01 04 24.2	+0.6
O52A				IAmb	IAmb	01 04 25.0	
	comp=Z,11nm,0.7s						
L56A	Greenwood	34.16	339		P	01 04 23.8	+0.1
L56A				IAmb	IAmb	01 04 24.8	
	comp=Z,16nm,0.7s						
CMC01	Camacan, BA	34.19	139	*e*P	P	01 04 22.8	-1.3
BB19B	Bebedouro	34.23	157	*e*P	P	01 04 23.9	-0.5
BB19B				*e*pP	P	01 04 26.9	+2.5
N53A	Lisbon	34.29	334	P	P	01 04 25.5	+0.8
N53A				IAmb	IAmb	01 04 25.9	
	comp=Z,11nm,0.7s						
R49A	Shelbyville	34.41	327		P	01 04 26.5	+0.7
R49A				IAmb	IAmb	01 04 27.6	
	comp=Z,22nm,1.3s						
PAOC	Oil Creek Stat	34.41	336	P	P	01 04 26.4	+0.7
PAOC				IAmb	IAmb	01 04 35.8	
	comp=Z,25nm,1.5s						
CANS	Sao Roque de M	34.42	153	*e*P	P	01 04 25.6	-0.6
WVT	Waverly	34.43	322		P	01 04 25.6	-0.3
WVT				IAmb	IAmb	01 04 26.9	
	comp=Z,21nm,0.8s						
WVT	Waverly	34.43	322	P	P	01 04 26.3	+0.3
	comp=Z,26nm,0.9s						
TRCB	Terra Rica	34.51	164	P	P	01 04 28.8	+2.1
TRCB				IAmb	IAmb	01 04 30.4	
	comp=Z,20nm,0.7s						
TRCB	Terra Rica	34.51	164	*e*P	P	01 04 26.1	-0.7
TRCB				*e*pP	P	01 04 29.1	+2.4
143A	Socs Landing,	34.75	314	P	P	01 04 29.4	+0.6
ACSO	Alum Creek Sta	34.78	331		P	01 04 29.6	+0.6
ACSO				IAmb	IAmb	01 04 30.7	
	comp=Z,40nm,1.4s						
SALTA		34.89	187	P	P	01 04 32.3	+1.7
	comp=Z,7.9nm,0.8s						
GUA01	Guaratinga, BA	34.92	140	*e*P	P	01 04 30.3	-0.1
WCI	Wyandotte Cave	34.97	326		P	01 04 30.7	+0.1
WCI				IAmb	IAmb	01 04 33.0	
	comp=Z,21nm,1.1s						
WCI	Wyandotte Cave	34.97	326	P	P	01 04 31.4	+0.8
	comp=Z,19nm,1.3s						
LMN	Caledonia Moun	35.17	357	P	P	01 04 32.5	+0.3
LMN				IAmb	IAmb	01 04 33.8	
	comp=Z,31nm,1.1s						
UTMT	University of	35.20	321	P	P	01 04 32.2	-0.4
G62A	West of Eustis	35.21	350	IAmb	IAmb	01 04 37.0	
	comp=Z,9.3nm,0.9s						
HALT	Halls	35.23	320	P	P	01 04 32.8	-0.1
O49A	Covington	35.40	330		P	01 04 34.5	+0.2
P48A	Milroy	35.40	328		P	01 04 34.0	-0.4
P48A				IAmb	IAmb	01 04 35.2	
	comp=Z,20nm,0.9s						
LNXT	Lenox	35.44	320	P	P	01 04 35.2	+0.5
LDASE	Londrina, Braz	35.50	162	*e*P	P	01 04 34.7	-0.7
USIN	University of	35.56	324	P	P	01 04 36.0	+0.3
USIN				IAmb	IAmb	01 04 36.4	
	comp=Z,17nm,0.7s						
CCAR	Cane Creek	35.67	315	P	P	01 04 37.4	+0.7
PEBM	Pemiscott Bayo	35.69	320	P	P	01 04 37.4	+0.6
GNAR	Gosnell	35.69	319	P	P	01 04 36.8	-0.1
SJMB	Sao Joao De Ma	35.74	145	*e*P	P	01 04 36.7	-0.7
BLO	Bloomington	35.77	327	P	P	01 04 37.8	+0.3
BSCB	Bom Sucesso	35.77	152	*e*P	P	01 04 37.3	-0.5
O48B	Farmland	35.86	329		P	01 04 38.3	+0.1
O48B				IAmb	IAmb	01 04 39.2	
	comp=Z,19nm,0.9s						
SJPY	San Joaquin	35.90	171	*e*P	P	01 04 38.1	-0.7
FRTB	Fartura	35.94	160	*e*P	P	01 04 38.2	-0.9
FRTB				*e*pP	P	01 04 41.8	+2.7
FRTB	Fartura	35.94	160	P	P	01 04 42.1	+2.9
	comp=Z,62nm,1.2s						
PARMO	Parma	35.96	321	P	P	01 04 39.2	+0.1
BSFB	Barra de Sao F	36.03	144	*e*P	P	01 04 39.9	0.0
BSFB				*e*pP	P	01 04 42.3	+2.4
Z41A	Richland Creek	36.04	313	P	P	01 04 40.2	+0.3
S44A	Carbondale	36.31	322		P	01 04 42.5	+0.3
OLIL	Olney	36.34	325		P	01 04 42.8	+0.5
PBMO	Poplar Bluff	36.46	320	P	P	01 04 42.5	-0.9
PBMO				IAmb	IAmb	01 04 43.9	
	comp=Z,23nm,0.8s						
P46A	Rosedale	36.46	327	P	P	01 04 43.8	+0.5
WLAR	White Oak Lake	36.48	314	P	P	01 04 44.1	+0.5
PTGB	Pitanga	36.49	164	*e*P	P	01 04 43.6	-0.2
PTGB				*e*pP	P	01 04 46.0	+2.1
LCAR	Lake Charles	36.49	319	P	P	01 04 43.2	-0.5
UALR	University of	36.53	316	P	P	01 04 43.3	-0.7
UALR				IAmb	IAmb	01 04 45.4	
	comp=Z,13nm,0.7s						
VAO	Valinhos	36.59	156	P	P	01 04 46.4	+1.7
VAO	Valinhos	36.59	156	*e*P	P	01 04 44.5	-0.2
VAO				*e*pP	P	01 04 47.4	+2.7
N47A	Urbana	36.60	329	P	P	01 04 44.6	+0.1
NATX	Nacogdoches	36.66	310		P	01 04 45.8	+0.6
RIB01	Linhares ES	36.67	144	*e*P	P	01 04 45.3	-0.1
X40A	Basin Creek Fa	36.72	315	P	P	01 04 45.5	-0.1
X40A				IAmb	IAmb	01 04 47.4	
	comp=Z,11nm,0.7s						
HKT	Hockley	36.78	306	P	P	01 04 45.1	-1.1
HKT				IAmb	IAmb	01 04 47.5	
	comp=Z,22nm,0.8s						
HKT	Hockley	36.78	306		P	01 04 45.8	-0.3
HKT	Hockley	36.78	306	P	P	01 04 46.8	+0.7
	comp=Z,30nm,0.7s						
WHAR	Wooly Hollow	36.79	317	P	P	01 04 45.5	-0.7
WHAR				IAmb	IAmb	01 04 46.9	
	comp=Z,14nm,0.8s						
HNVL	Huntsville, TX	36.83	308	P	P	01 04 46.4	-0.2
Q44A	Meyer Farm, Va	36.98	324		P	01 04 47.5	-0.3
TRQ	Mont Tremblant	37.01	346	P	P	01 04 48.0	0.0
TRQ				IAmb	IAmb	01 04 50.9	
	comp=Z,21nm,1.3s						
T42A	Van Buren	37.03	320	P	P	01 04 47.8	-0.5
T42A				IAmb	IAmb	01 04 48.6	
	comp=Z,12nm,1.0s						
CPUP	Villa Florida	37.04	173	P	P	01 04 49.7	+1.3
	comp=Z,8.2nm,0.7s,baz=350,slow=9.6,SNR=24						
CPUP				LR	LR	01 20 31.8	
	comp=Z,91nm,19.6s,baz=22,slow=37						
	comp=Z,8.2nm,0.7s						
CPUP	Villa Florida	37.04	173	IAmb	IAmb	01 04 50.3	
	comp=Z,10nm,0.8s						
CPUP	Villa Florida	37.04	173	*e*P	P	01 04 48.2	-0.2
CPUP	Villa Florida	37.04	173	P	P	01 04 49.2	+0.8
	comp=Z,16nm,1.1s						
FVM	French Village	37.21	322	P	P	01 04 49.0	-0.8
FVM				IAmb	IAmb	01 04 50.1	
	comp=Z,12nm,0.6s						
MIAR	Mount Ida	37.26	315	P	P	01 04 49.4	-0.9
MIAR				IAmb	IAmb	01 04 50.6	
	comp=Z,8.4nm,0.8s						
MIAR	Mount Ida	37.26	315	P	P	01 04 50.1	-0.2
	comp=Z,11nm,0.8s						
ALF01	Guarapari-ES	37.53	146	*e*P	P	01 04 51.1	-1.5
Z38A	Mt. Pleasant	37.62	312	P	P	01 04 53.4	+0.1
PET01	Itanhaem-SP	37.63	157	*e*P	P	01 04 53.2	-0.1
MLDN	Muldoon	37.69	306	P	P	01 04 54.8	+0.8
CCM	Cathedral Cave	37.76	321	P	P	01 04 53.5	-0.9
CCM				IAmb	IAmb	01 04 54.7	
	comp=Z,13nm,0.7s						
CCM	Cathedral Cave	37.76	321	P	P	01 04 54.0	-0.4
	comp=Z,23nm,1.0s						
P43A	Skaggs, Pawnee	37.76	325	P	P	01 04 54.2	-0.2
AC02	Maricunga	37.86	190	P	P	01 04 57.0	+1.1
AC02				IAmb	IAmb	01 04 58.6	
	comp=Z,11nm,0.8s						
AC02	Maricunga	37.86	190	P	P	01 04 57.2	+1.3
	comp=Z,20nm,2.5s						
AC02				pP	pP	01 05 12.5	+2.4
735A	Kenedy	37.94	304	P	P	01 04 56.3	+0.2
CAM01	Campos-RJ	38.01	148	*e*P	P	01 04 56.5	-0.2
HBVL	Hebbronville	38.06	301	P	P	01 04 57.5	+0.4
M44A	Midewin, Midew	38.17	328	P	P	01 04 57.7	-0.2
TREL	Terrell	38.19	310	P	P	01 04 57.7	-0.4
HHAR	Hobbs	38.45	317	P	P	01 04 59.2	-1.2
HHAR				IAmb	IAmb	01 05 00.6	
	comp=Z,19nm,0.8s						
435B	Jarrell	38.50	307	P	P	01 05 00.8	0.0
R40A	Maddies Statio	38.54	321	P	P	01 05 00.2	-0.7
L44A	Lake County Fo	38.68	329	P	P	01 05 02.3	+0.2
DRLN	Deer Lake	38.69	5	P	P	01 05 02.3	+0.3
U38A	Gravette	38.84	317	P	P	01 05 02.3	-1.3
U38A				IAmb	IAmb	01 05 03.3	
	comp=Z,7.5nm,0.6s						
S39A	Bolivar	38.85	319	P	P	01 05 02.6	-1.0
WHTX	Lake Whitney,	38.90	309	P	P	01 05 03.2	-0.9
FW13	Cleburne	39.03	309	P	P	01 05 05.2	0.0
833A	Chaparral WMA,	39.07	302	P	P	01 05 05.1	-0.5
833A				IAmb	IAmb	01 05 07.6	
	comp=Z,12nm,0.8s						
N41A	Harden Midland	39.24	325	P	P	01 05 06.3	-0.5
I45A	Fountain	39.26	332	P	P	01 05 07.5	+0.6
K43A	Burlington	39.27	329	P	P	01 05 06.6	-0.4
HNDO	Hondo	39.39	304	P	P	01 05 07.8	-0.4
HNDO				IAmb	IAmb	01 05 09.0	
	comp=Z,31nm,1.1s						
FW06	Azle	39.40	310	P	P	01 05 08.2	-0.1
L42A	Oliver, Polo	39.47	327	P	P	01 05 08.1	-0.6
VLDQ	Val d'Or	39.51	344	P	P	01 05 10.8	+1.9
TUL3	Leonard	39.52	315	P	P	01 05 08.9	-0.3
AC04	Llanos de Chal	39.57	192	P	P	01 05 10.6	+0.9
AC04				IAmb	IAmb	01 05 11.9	
	comp=Z,11nm,0.7s						
LOOK	Love County	39.58	312	P	P	01 05 09.2	-0.5
BRDY	Brady	39.81	307	P	P	01 05 11.4	-0.4
PLPT	Palo Pinto	39.90	309	P	P	01 05 12.1	-0.3
W35A	Tecumseh	39.91	313	P	P	01 05 11.3	-1.1
DEOK	Depew	39.98	314	P	P	01 05 12.6	-0.4
DEOK				IAmb	IAmb	01 05 12.8	
	comp=Z,20nm,0.8s						
AC05	El Transito	40.02	191	P	P	01 05 14.6	+1.1
AC05				IAmb	IAmb	01 05 15.9	
	comp=Z,15nm,1.1s						
P38A	Dawn	40.13	321	IAmb	IAmb	01 05 14.4	
	comp=Z,15nm,0.9s						
JCT	Junction City	40.15	305	IAmb	IAmb	01 05 15.6	
	comp=Z,19nm,0.7s						
LCO	Las Campanas	40.27	192	P	P	01 05 16.8	+1.0
QUOK	Quay	40.29	315	P	P	01 05 14.3	-1.4
QUOK				IAmb	IAmb	01 05 15.3	
	comp=Z,37nm,1.0s						
E46A	Sault Ste Mari	40.30	336	P	P	01 05 15.1	-0.4
E46A				IAmb	IAmb	01 05 16.8	
	comp=Z,16nm,0.9s						
H43A	Windswept, Lux	40.31	331	P	P	01 05 15.0	-0.6
H43A				IAmb	IAmb	01 05 16.5	
	comp=Z,30nm,0.8s						
FNO	Franklin	40.33	313	P	P	01 05 14.7	-1.3
FNO				IAmb	IAmb	01 05 15.7	
	comp=Z,22nm,0.6s						
ZAIG	Zacatecas	40.42	293	P	P	01 05 16.7	-0.6
I42A	Draeger Farm,	40.43	330	P	P	01 05 16.4	-0.2
WTFS	Witchita Falls	40.43	310	P	P	01 05 15.9	-0.9
WTFS				IAmb	IAmb	01 05 16.8	
	comp=Z,18nm,0.6s						
OKCSW	OKLAHOMA CITY	40.43	313	P	P	01 05 15.2	-1.6
T35A	Sooner Cattle	40.54	316	P	P	01 05 16.5	-1.2
OK051	E0350 and S346	40.55	315	P	P	01 05 16.8	-0.9
OK051				IAmb	IAmb	01 05 18.3	
	comp=Z,11nm,0.8s						
OK048	Pawnee Station	40.58	315	IAmb	IAmb	01 05 17.8	
	comp=Z,21nm,0.6s						
WMOK	Wichita Mounta	41.09	312	P	P	01 05 20.7	-1.6
WMOK				IAmb	IAmb	01 05 22.2	
	comp=Z,16nm,0.7s						
WMOK	Wichita Mounta	41.09	312	P	P	01 05 21.2	-1.1
	comp=Z,22nm,0.8s						
CO01	Juntas del Tor	41.10	191	P	P	01 05 22.8	+0.2
CROK	Carrier	41.35	314	IAmb	IAmb	01 05 24.3	
	comp=Z,24nm,0.8s						
GC02	Grant County #	41.44	315	P	P	01 05 24.3	-0.8
F42A	Maple Grove Fa	41.45	332	P	P	01 05 24.5	-0.5
F42A				IAmb	IAmb	01 05 25.8	
	comp=Z,16nm,0.6s						
KAN01	Argonia South	41.52	315	P	P	01 05 24.8	-0.9
KAN01				IAmb	IAmb	01 05 25.8	
	comp=Z,28nm,0.7s						
CPSB	Cacapava Do Su	41.65	169	P	P	01 05 27.1	+0.3
CPSB				IAmb	IAmb	01 05 28.1	
	comp=Z,16nm,0.8s						
CPSB	Cacapava Do Su	41.65	169	*e*P	P	01 05 26.6	-0.2
CPSB	Cacapava Do Su	41.65	169	P	P	01 05 28.1	+1.3
	comp=Z,28nm,1.2s						
KAN08	Anthony NE Sta	41.70	315	P	P	01 05 27.0	-0.2
KAN08				IAmb	IAmb	01 05 27.3	
	comp=Z,19nm,0.7s						
PSAL	Palomas, Salto	41.71	174	*e*P	P	01 05 27.5	+0.3
SGCY	Sterling City	41.73	307	P	P	01 05 26.9	-0.7
SGCY				IAmb	IAmb	01 05 28.0	
	comp=Z,20nm,0.7s						
KSU1	Kansas State U	41.77	319	P	P	01 05 25.9	-1.8
KSU1				IAmb	IAmb	01 05 27.3	
	comp=Z,26nm,0.7s						
SAND	Sanderson	41.86	303	P	P	01 05 28.0	-0.7
OK038	West end E0370	41.87	314	P	P	01 05 27.8	-0.8
SN07	Snyder 07	41.99	308	P	P	01 05 28.9	-0.9
SN07				IAmb	IAmb	01 05 30.0	
	comp=Z,28nm,0.7s						
G40A	Rib Lake	42.06	330	P	P	01 05 29.7	-0.3
G40A				IAmb	IAmb	01 05 30.5	
	comp=Z,21nm,1.3s						
NOKA	Waynoka	42.08	314	P	P	01 05 29.9	-0.4
ELIS	Ellis County	42.16	313	P	P	01 05 30.5	-0.6
DKNS	Dickens	42.24	309	P	P	01 05 31.3	-0.5
229A	Bryant Ranch,	42.29	306	P	P	01 05 32.2	0.0
SMWD	Samnorwood	42.33	311	P	P	01 05 31.3	-1.1
SMWD				IAmb	IAmb	01 05 31.9	
	comp=Z,24nm,0.6s						
TMB01	Midkiff	42.40	306	P	P	01 05 32.3	-0.8
CFA	Coronel Fontan	42.41	188	P	P	01 05 34.0	+1.0
	comp=Z,4.1nm,0.7s,baz=7.2,slow=8.3,SNR=16						
	comp=Z,4.1nm,0.7s						
ZON	Zonda	42.41	188	*e*P	P	01 05 33.4	+0.3
ZON	Zonda	42.41	188	P	P	01 05 33.3	+0.3
POST	Post	42.45	308	P	P	01 05 33.0	-0.5
129A	Stewart Farms,	42.58	307	P	P	01 05 33.7	-0.8
129A				IAmb	IAmb	01 05 35.0	
	comp=Z,29nm,0.7s						
RTLS	Leoncito	42.75	189	*e*P	P	01 05 38.0	+1.9
R32A	Long Quarter,	42.81	316	P	P	01 05 35.7	-0.5
MNHN	Monahans	42.83	305	P	P	01 05 36.2	-0.4
MNHN				IAmb	IAmb	01 05 37.0	
	comp=Z,16nm,1.1s						
I37A	Lemond, Waseca	42.84	327	P	P	01 05 35.8	-0.6
ODSA	Odessa	42.93	306	P	P	01 05 36.2	-1.2
ODSA				IAmb	IAmb	01 05 37.7	
	comp=Z,16nm,0.9s						
ACAN	Cantantal	42.94	186	*e*P	P	01 05 36.5	-0.8
ACAN				*e*P	P	01 05 38.3	+1.0
ACAN				⇓*e*P	P	01 05 39.8	+2.5
TXAR	Lajitas Array	42.95	302	P	P	01 05 37.2	-0.3
	comp=Z,1.6nm,0.3s,baz=119,slow=9.4,SNR=57						
TXAR				PcP	PcP	01 07 27.9	+0.4
	comp=Z,2.8nm,0.7s,baz=127,slow=5.7,SNR=8.6						
TXAR				ScP	ScP	01 11 11.6	-2.5
	comp=Z,0.5nm,0.6s,baz=121,slow=6.3,SNR=4.8						
	comp=Z,1.6nm,0.3s						
TXAR	Lajitas Array	42.95	302	P	P	01 05 37.5	-0.1
TXAR					PcP	01 07 27.3	-0.2
TX31	Lajitas Ar. Si	42.95	302	P	P	01 05 37.5	-0.1
128A	Castleberry Fa	43.06	307	P	P	01 05 37.9	-0.5
TPB05	Hovey Rd	43.15	304	P	P	01 05 38.5	-0.7
AUSP	Uspallata	43.18	189	*e*P	P	01 05 40.8	+1.2
ALPN	Alpine	43.23	303	P	P	01 05 39.4	-0.6
L34A	Svendsen Farm,	43.26	322	P	P	01 05 38.7	-1.1
L34A				IAmb	IAmb	01 05 39.3	
	comp=Z,24nm,0.8s						
TPB06	Permian Basin	43.30	305	P	P	01 05 39.7	-0.7
AMTX	Amarillo	43.31	310	P	P	01 05 39.2	-1.2
AMTX				IAmb	IAmb	01 05 40.3	
	comp=Z,17nm,0.8s						
SPMN	Marine on St.	43.34	328	P	P	01 05 39.4	-0.9
SPMN				IAmb	IAmb	01 05 40.7	
	comp=Z,11nm,0.6s						
ASAL	Salagasta	43.46	188	⇑*e*P	P	01 05 44.6	+3.1
TPB01	Permian Basin	43.53	304	P	P	01 05 41.7	-0.6
CBKS	Cedar Bluff	43.70	316	P	P	01 05 42.2	-1.2
CBKS				IAmb	IAmb	01 05 43.0	
	comp=Z,28nm,0.7s						
PH02	Texas Public H	43.72	311	P	P	01 05 42.8	-0.9
PECS	Pecos	43.73	305	P	P	01 05 43.5	-0.4
PECS				IAmb	IAmb	01 05 45.2	
	comp=Z,13nm,0.7s						
MSTX	Muleshoe	43.78	309	P	P	01 05 43.7	-0.6
VA03	San Esteban	43.90	190	*e*P	P	01 05 45.9	+0.9
HTMS	Hat Mesa	43.91	306	P	P	01 05 44.8	-0.6
BGNE	Belgrade	44.03	320	P	P	01 05 45.4	-0.6
BGNE				IAmb	IAmb	01 05 48.3	
	comp=Z,29nm,0.7s						
HPIG		44.03	298	P	P	01 05 45.4	-1.1
CLNB	Carlsbad	44.04	306	P	P	01 05 45.1	-1.2
TPB11	China Draw	44.05	305	P	P	01 05 47.0	+0.5
TBO	Thunder Bay	44.21	334	P	P	01 05 46.6	-0.8
TBO				IAmb	IAmb	01 05 48.5	
	comp=Z,19nm,0.6s						
SCHQ	Schefferville	44.24	356	P	P	01 05 47.5	0.0
	comp=Z,12nm,0.5s,baz=181,slow=7.0,SNR=30						
SCHQ				LR	LR	01 22 24.5	
	comp=Z,97nm,21.6s,baz=256,slow=34						
	comp=Z,12nm,0.5s						
SCHQ	Schefferville	44.24	356	P	P	01 05 47.5	0.0
SCHQ				IAmb	IAmb	01 05 49.4	
	comp=Z,40nm,1.4s						
CPRX	Cap Rock	44.29	307	P	P	01 05 47.8	-0.6
TPB28		44.34	305	P	P	01 05 48.5	-0.3
TPB28				IAmb	IAmb	01 05 51.1	
	comp=Z,19nm,1.0s						
GDL2	Guadalupe Moun	44.40	305	P	P	01 05 48.7	-0.6
ECSD	EROS Data Cent	44.46	324	P	P	01 05 48.4	-1.0
ECSD				IAmb	IAmb	01 05 50.2	
	comp=Z,17nm,0.7s						
ECSD	EROS Data Cent	44.46	324	P	P	01 05 48.9	-0.5
	comp=Z,29nm,0.9s						
VHRN	Van Horn	44.47	303	P	P	01 05 49.5	-0.3
VHRN				IAmb	IAmb	01 05 51.7	
	comp=Z,22nm,1.5s						
MT08	Bocatoma Ro	44.47	189	P	P	01 05 50.1	+0.2
MT02	Curacav	44.48	191	P	P	01 05 50.2	+0.5
MT16	CCHEN	44.54	190	P	P	01 05 50.4	+0.2
MT16				IAmb	IAmb	01 06 02.9	
	comp=Z,16nm,0.9s						
MT05	Renca	44.54	190	P	P	01 05 50.8	+0.6
MT05				IAmb	IAmb	01 05 53.1	
	comp=Z,20nm,1.0s						
MT03	Universidad Ad	44.60	190	P	P	01 05 51.0	+0.3
MT03				IAmb	IAmb	01 05 53.1	
	comp=Z,26nm,1.1s						
EYMN	Ely	44.62	332	P	P	01 05 49.7	-0.9
MT13	San Alfonso	44.81	190	P	P	01 05 52.0	-0.4
MT13				IAmb	IAmb	01 05 55.0	
	comp=Z,18nm,0.9s						
ANCO	Parque Anchore	44.84	175	*e*P	P	01 05 52.8	+0.4
MT09	Talagante	44.96	190	P	P	01 05 53.6	0.0
MNTX	Cornudas Mount	45.06	304	P	P	01 05 54.5	0.0
	comp=Z,11nm,1.1s						
BO04	La Punta	45.10	190	P	P	01 05 54.4	-0.2
BO04				IAmb	IAmb	01 05 56.2	
	comp=Z,12nm,0.7s						
BO01	Tunca	45.58	190	P	P	01 05 58.3	0.0
BO01				IAmb	IAmb	01 06 00.3	
	comp=Z,20nm,1.1s						
BO01	Tunca	45.58	190	P	P	01 05 59.6	+1.3
	comp=Z,19nm,2.1s						
F33A	5 Mile Ranch,	45.59	327	P	P	01 05 57.2	-1.1
F33A				IAmb	IAmb	01 05 59.1	
	comp=Z,10nm,0.7s						
K30B	Basset	45.63	321	P	P	01 05 57.2	-1.6
KSCO	Kaye Shedlock’	45.78	315	P	P	01 05 58.2	-1.9
BO02	Sierra Bellavi	45.92	190	P	P	01 06 01.3	+0.2
BO02				IAmb	IAmb	01 06 03.5	
	comp=Z,23nm,0.9s						
BO02	Sierra Bellavi	45.92	190	P	P	01 06 03.0	+1.9
	comp=Z,29nm,1.2s						
EPT	El Paso	46.00	304		P	01 06 01.1	-0.8
EPT				IAmb	IAmb	01 06 02.8	
	comp=Z,9.5nm,0.7s						
SUSD	Miller	46.24	324	P	P	01 06 02.6	-0.9
T25A	Trinidad	46.25	312	P	P	01 06 03.3	-0.7
OGNE	Ogallala	46.29	318	P	P	01 06 02.4	-1.6
EPLO	Experimental L	46.89	332	IAmb	IAmb	01 06 08.0	
	comp=Z,18nm,0.8s						
AGMN	Agassiz Nation	46.96	330	P	P	01 06 07.8	-1.3
AGMN				IAmb	IAmb	01 06 08.5	
	comp=Z,16nm,0.6s						
AGMN	Agassiz Nation	46.96	330	P	P	01 06 07.3	-1.8
	comp=Z,23nm,0.7s						
ALQ	Albuquerque	46.97	308	P	P	01 06 09.5	-0.1
ALQ				IAmb	IAmb	01 06 11.0	
	comp=Z,13nm,1.1s						
ALQ	Albuquerque	46.97	308	P	P	01 06 09.1	-0.5
ALQ				IAmb	IAmb	01 06 10.9	
	comp=Z,14nm,1.1s						
ANMO	Albuquerque	46.97	308	LR	LR	01 26 50.1	
	comp=Z,65nm,21.7s,baz=108,slow=37						
ANMO	Albuquerque	46.97	308	P	P	01 06 09.8	+0.1
ANMO				IAmb	IAmb	01 06 10.9	
	comp=Z,6.3nm,0.6s						
ANMO	Albuquerque	46.97	308	P	P	01 06 10.1	+0.5
	comp=Z,14nm,1.3s						
ML02	Panimavida	46.97	190	P	P	01 06 10.3	+1.1
ML02				IAmb	IAmb	01 06 33.7	
	comp=Z,36nm,1.4s						
TASM	ASL Pad, Albuq	46.97	308	P	P	01 06 09.4	-0.3
TASM				IAmb	IAmb	01 06 11.0	
	comp=Z,13nm,1.1s						
Y22A	Socorro	47.03	307	P	P	01 06 09.4	-0.6
LENM	Lemitar	47.11	307	P	P	01 06 11.3	+0.6
SBM	South Baldy	47.22	307	P	P	01 06 12.2	+0.4
121A	Cookes Peak, D	47.26	305	P	P	01 06 11.9	0.0
SLBS	Sierra La Lagu	47.27	292	P	P	01 06 11.8	-0.1
SLBS				IAmb	IAmb	01 06 13.5	
	comp=Z,17nm,1.4s						
SDCO	Great Sand Dun	47.28	312	P	P	01 06 11.5	-0.6
Q24A	Divide	47.53	314	P	P	01 06 12.6	-1.4
Q24A				IAmb	IAmb	01 06 14.4	
	comp=Z,6.5nm,0.7s						
PMPST	Porto Santo, M	47.55	55	*e*P	P	01 06 13.9	0.0

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LPIG  La Paz           47.65 293   LR     LR     01 27 06.2
      comp=Z,28nm,21.6s,baz=100,slow=37
319A  Douglas          48.17 303   P      P      01 06 18.5 -0.3
ISCO  Idaho Springs    48.20 315   P      P      01 06 18.2 -1.0
ISCO                               IAmb   IAmb   01 06 19.4
      comp=Z,15nm,0.8s
ISCO  Idaho Springs    48.20 315   P      P      01 06 18.7 -0.5
      comp=Z,23nm,0.8s
S22A  4UR Ranch, Cre   48.26 312   P      P      01 06 19.2 -0.5
S22A                               IAmb   IAmb   01 06 20.3
      comp=Z,12nm,1.0s
ULM   Lac du Bonnet    48.28 331   P      P      01 06 17.4 -2.0
      comp=Z,11nm,0.7s,baz=128,slow=8.7,SNR=13
ULM                                PcP    PcP    01 07 44.4 -1.1
      comp=Z,3.4nm,0.4s,baz=89,slow=4.9,SNR=3.0
ULM                                LR     LR     01 27 28.1
      comp=Z,31nm,19.6s,baz=118,slow=37
      comp=Z,11nm,0.7s
ULM   Lac du Bonnet    48.28 331   P      P      01 06 17.3 -2.0
ULM                                IAmb   IAmb   01 06 18.1
      comp=Z,17nm,1.0s
ULM                                PcP    PcP    01 07 44.8 -0.7
DUN6  Lazy B Ranch     48.32 304   P      P      01 06 19.9 -0.1
E28A  Huff             48.46 325   P      P      01 06 20.1 -0.7
RSSD  Black Hills      49.14 321   P      P      01 06 25.2 -1.1
RSSD  Black Hills      49.14 321   P      P      01 06 24.7 -1.5
      comp=Z,6.4nm,0.7s
MVCO  Mesa Verde       49.30 310   P      P      01 06 27.0 -0.6
MVCO                               IAmb   IAmb   01 06 28.0
      comp=Z,6.2nm,0.6s
MVCO  Mesa Verde       49.30 310   P      P      01 06 27.7 +0.1
      comp=Z,10nm,1.1s
X18A  Snowflake        49.57 307   P      P      01 06 29.6  0.0
X18A                               IAmb   IAmb   01 06 31.4
      comp=Z,12nm,1.3s
TUC   Tucson           49.64 303   P      P      01 06 29.9 -0.2
TUC   Tucson           49.64 303   P      P      01 06 30.2 +0.1
      comp=Z,6.3nm,1.1s
HAYD  Hayden           49.65 315   P      P      01 06 30.0 -0.2
PV01  Paradox Valley   49.68 311   P      P      01 06 30.2 -0.3
PV15  Paradox Valley   49.69 312   P      P      01 06 30.5  0.0
PV02  Paradox Valley   49.83 311   P      P      01 06 31.7 +0.1
PV07  Paradox Valley   49.84 312   P      P      01 06 31.6 -0.1
SRIG  Santa Rosalia    49.85 297   P      P      01 06 31.4 -0.3
SRIG                               IAmb   IAmb   01 06 31.9
      comp=Z,23nm,1.4s
PV13  Radium Mtn., P   49.87 311   P      P      01 06 31.1 -0.8
PV12  Saucer Basin,    49.91 312   P      P      01 06 32.1 -0.1
PV03  Paradox Valley   49.93 312   P      P      01 06 32.1 -0.2
PV11  David Mesa, Pa   49.96 312   P      P      01 06 32.5 -0.1
PV18  Skein Mesa, Pa   49.97 311   P      P      01 06 32.4 -0.2
PV22  Blue Mesa, Par   49.98 312   P      P      01 06 32.4 -0.4
PV22                               IAmb   IAmb   01 06 34.5
      comp=Z,9.8nm,0.8s
PV16  Nyswonger Mesa   50.00 312   P      P      01 06 32.5 -0.4
PV04  Paradox Valley   50.02 312   P      P      01 06 32.5 -0.5
PV04                               IAmb   IAmb   01 06 33.4
      comp=Z,15nm,1.0s
PV17  East Wray Mesa   50.02 311   P      P      01 06 32.9 -0.1
PV19  Morning Glory    50.05 312   P      P      01 06 32.9 -0.4
PV20  West Nyswonger   50.05 312   P      P      01 06 33.0 -0.2
PV05  Paradox Valley   50.05 311   P      P      01 06 32.5 -0.8
K22A  Casper           50.05 318   P      P      01 06 32.4 -0.8
PV10  Paradox Valley   50.11 312   P      P      01 06 33.1 -0.6
PV10                               IAmb   IAmb   01 06 33.8
      comp=Z,12nm,0.7s
PV23  Carpenter Ridg   50.12 312   P      P      01 06 33.4 -0.4
PV21  Cone Mtn., Par   50.13 312   P      P      01 06 33.5 -0.4
PV21                               IAmb   IAmb   01 06 34.4
      comp=Z,8.4nm,0.8s
O20A  White River Ci   50.19 314   P      P      01 06 33.2 -1.0
O20A                               IAmb   IAmb   01 06 36.7
      comp=Z,8.9nm,0.6s
GO06  Curarrehue       50.71 189   P      P      01 06 38.8 +0.8
GO06                               IAmb   IAmb   01 06 40.2
      comp=Z,7.5nm,0.9s
GO06  Curarrehue       50.71 189   P      P      01 06 39.0 +1.0
      comp=Z,10nm,1.8s
X16A  Lo Mia Camp, P   50.72 306   P      P      01 06 38.4  0.0
WUAZ  Wupatki          50.97 307   P      P      01 06 40.0 -0.2
WUAZ                               IAmb   IAmb   01 06 41.7
      comp=Z,9.7nm,0.9s
HMU   Henry Mountain   51.22 310   P      P      01 06 42.0 -0.2
HMU                                IAmb   IAmb   01 06 43.1
      comp=Z,9.8nm,0.7s
RDMU  Red Mountain     51.29 314   P      P      01 06 41.6 -1.0
RDMU                               IAmb   IAmb   01 06 42.7
      comp=Z,14nm,0.7s
P18A  Preston Nutter   51.43 313   P      P      01 06 43.5 -0.2
SRU   San Rafael Swe   51.45 312   P      P      01 06 43.3 -0.5
IVI   Ivigtut          51.51   9 i P      P      01 06 45.0 +1.4
IVI                                IAmb   IAmb   01 06 45.3
      comp=Z,265nm,1.7s
PLCA  Paso Flores      51.70 188   P      P      01 06 47.0 +1.6
      comp=Z,5.8nm,0.8s,baz=11,slow=7.9,SNR=14
PLCA                               LR     LR     01 30 31.4
      comp=Z,46nm,21.8s,baz=359,slow=38
      comp=Z,5.8nm,0.8s
PLCA  Paso Flores      51.70 188   P      P      01 06 46.4 +1.1
PLCA                               IAmb   IAmb   01 06 47.4
      comp=Z,6.8nm,0.8s
PLCA  Paso Flores      51.70 188  eP      P      01 06 46.1 +0.8
PLCA  Paso Flores      51.70 188   P      P      01 06 47.1 +1.8
      comp=Z,14nm,1.3s
PLCA                               pP     sP     01 07 05.3 -1.1
P17A  Butcher Ranch,   51.73 312   P      P      01 06 45.3 -0.6
LAO   LASA Array       51.75 322   P      P      01 06 45.0 -0.7
LAO                                IAmb   IAmb   01 06 47.3
      comp=Z,13nm,0.7s
Q16A  Castle Valley    51.86 312   P      P      01 06 46.5 -0.3
Q16A                               IAmb   IAmb   01 06 50.4
      comp=Z,7.5nm,0.7s
NRS   Narsarsuaq       51.91  10   P      P      01 06 47.3 +0.7
NRS   Narsarsuaq       51.91  10 i P      P      01 06 47.3 +0.7
NRS                                IAmb   IAmb   01 06 49.0
      comp=Z,93nm,0.9s
NRS   Narsarsuaq       51.91  10   P      P      01 06 47.5 +1.0
      comp=Z,160nm,0.9s
U15A  North Rim        51.94 308   P      P      01 06 48.0 +0.4
TMUT  Trail Mountain   52.02 312   P      P      01 06 47.5 -0.6
TMUT                               IAmb   IAmb   01 06 48.7
      comp=Z,14nm,0.7s
BSUT  Blindstream Ca   52.12 314   P      P      01 06 48.2 -0.8
BSUT                               IAmb   IAmb   01 06 50.2
      comp=Z,17nm,1.0s
BW06  Boulder Array    52.13 317   P      P      01 06 47.8 -1.1
PD31  Pinedale Array   52.13 317   P      P      01 06 47.9 -0.9
PDAR  Pinedale Array   52.13 317   P      P      01 06 47.6 -1.2
      comp=Z,23nm,0.5s,baz=117,slow=9.2,SNR=198
PDAR                               PcP    PcP    01 07 59.2 -0.9
      comp=Z,4.7nm,0.8s,baz=112,slow=6.7,SNR=5.1
PDAR                               ScP    ScP    01 11 49.4 -3.2
      comp=Z,1.6nm,0.7s,baz=119,slow=5.8,SNR=5.4
PDAR                               LR     LR     01 30 07.6
      comp=Z,32nm,21.1s,baz=110,slow=37
      comp=Z,23nm,0.5s
113A  Mohawk Valley,   52.20 303   P      P      01 06 48.5 -0.7
PKCU  Pink Cliffs      52.25 309   P      P      01 06 49.7 -0.2
KNB   Kanab            52.52 309   P      P      01 06 52.0 +0.2
KNB                                IAmb   IAmb   01 06 53.7
      comp=Z,8.9nm,0.9s
MPU   Maple Canyon     52.57 313   P      P      01 06 51.6 -0.5
TCRU  Three Creeks R   52.71 311   P      P      01 06 53.3 +0.1
TCRU                               IAmb   IAmb   01 07 10.7
      comp=Z,4.3nm,0.4s
TCUT  Toone Canyon     52.79 314   P      P      01 06 53.1 -0.6
W13A  Hualapai Mount   52.84 306   P      P      01 06 54.1 -0.1
LCMT  Little Creek M   52.84 309   P      P      01 06 53.8 -0.3
NLU   North Lily Min   52.87 312   P      P      01 06 53.7 -0.6
NLU                                IAmb   IAmb   01 06 54.8
      comp=Z,7.2nm,0.8s
CTU   Camp Tracy       52.88 313   P      P      01 06 53.9 -0.4
CTU                                IAmb   IAmb   01 06 54.7
      comp=Z,6.5nm,0.7s
SZCU  Shurtz Canyon    52.89 309   P      P      01 06 54.0 -0.5
RLMT  Red Lodge        52.91 319   P      P      01 06 53.4 -1.2
RLMT                               IAmb   IAmb   01 06 55.3
      comp=Z,16nm,0.8s
BLYC  Blythe           53.03 304          P      01 06 55.3  0.0
HWUT  Hardware Ranch   53.07 315   P      P      01 06 54.4 -1.3
HWUT                               IAmb   IAmb   01 06 56.0
      comp=Z,19nm,0.9s
HWUT  Hardware Ranch   53.07 315   P      P      01 06 54.8 -1.0
      comp=Z,26nm,0.8s
CCUT  Cedar City       53.09 309   P      P      01 06 54.6 -1.3
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LOHW  Long Hollow      53.17 317   P      P      01 06 55.2 -1.2
LOHW                               IAmb   IAmb   01 06 56.8
      comp=Z,10nm,1.0s
AHID  Auburn Hatcher   53.17 316   P      P      01 06 54.9 -1.6
AHID  Auburn Hatcher   53.17 316   P      P      01 06 55.5 -1.1
      comp=Z,31nm,0.8s
SNOW  Snow King Moun   53.21 317   P      P      01 06 56.1 -0.7
FRB   Frobisher Bay    53.22 356   LR     LR     01 28 00.2
      comp=Z,47nm,21.3s,baz=116,slow=34
YMP   Mirror Lake Pl   53.33 319   P      P      01 06 56.4 -1.3
YMP                                IAmb   IAmb   01 06 59.1
      comp=Z,9.4nm,0.9s
YNE   Yellowstone No   53.34 319   P      P      01 06 56.4 -1.4
YNE                                IAmb   IAmb   01 06 58.2
      comp=Z,12nm,0.6s
GCMT  Greycliff        53.45 320   P      P      01 06 57.6 -0.8
FXWY  Fox Creek        53.46 317   P      P      01 06 57.6 -1.0
FXWY                               IAmb   IAmb   01 06 58.5
      comp=Z,9.9nm,0.9s
DUG   Dugway, Tooele   53.48 312   P      P      01 06 58.2 -0.5
DUG                                IAmb   IAmb   01 06 59.2
      comp=Z,17nm,0.7s
DUG   Dugway, Tooele   53.48 312   P      P      01 06 58.5 -0.2
      comp=Z,24nm,0.8s
YPP   Pitchstone Pla   53.56 318   P      P      01 06 58.8 -0.6
IRM   Iron Mountain    53.63 305   P      P      01 06 59.6 -0.2
YFT   Old Faithful     53.65 318   P      P      01 06 59.9 -0.2
YFT                                IAmb   IAmb   01 07 01.6
      comp=Z,13nm,0.7s
YNR   Norris Junctio   53.66 318   P      P      01 06 59.4 -0.7
YNR                                IAmb   IAmb   01 07 01.0
      comp=Z,5.6nm,0.7s
PSUT  Pine Spring      53.74 310   P      P      01 07 00.5 -0.2
PSUT                               IAmb   IAmb   01 07 02.1
      comp=Z,14nm,0.9s
BC3   Big Chuckawall   53.77 304   P      P      01 07 00.5 -0.4
YHH   Holmes Hill      53.80 318   P      P      01 07 00.5 -0.6
YMR   Madison River    53.82 318   P      P      01 07 01.6 +0.3
YMR                                IAmb   IAmb   01 07 03.3
      comp=Z,13nm,0.6s
BGU   Big Grassy Mou   53.88 313   P      P      01 07 00.9 -0.7
HVU   Hansel Valley    53.98 314   P      P      01 07 00.7 -1.7
HVU                                IAmb   IAmb   01 07 02.0
      comp=Z,12nm,0.8s
YHB   Horse Butte      54.01 318   P      P      01 07 02.4 -0.2
YHL   Hebgen Lake      54.04 318   P      P      01 07 03.2 +0.3
QLMT  Earthquake Lak   54.19 318   P      P      01 07 04.2 +0.3
LL02  Futaleuf         54.30 189   P      P      01 07 05.2 +0.9
      comp=Z,12nm,1.4s
PRN   Pahroc Range     54.34 309   P      P      01 07 03.8 -1.2
EGMT  Eagleton         54.49 322   P      P      01 07 05.1 -0.8
CBX   Cerro Bola       54.50 302   P      P      01 07 05.8 -0.5
CBX                                IAmb   IAmb   01 07 11.4
      comp=Z,24nm,1.4s
PFO   Pinyon Flats O   54.58 304   LR     LR     01 34 04.5
      comp=Z,18nm,18.0s,baz=81,slow=40
BOZ   Bozeman (W)      54.62 319   P      P      01 07 06.2 -0.8
BOZ                                IAmb   IAmb   01 07 07.2
      comp=Z,10nm,0.7s
AVE   Averroes         54.86  57   P      P      01 07 09.1 +0.4
AVE                                IAmb   IAmb   01 07 12.5
      comp=Z,15nm,0.7s
SHOC  Shoshone, Teco   54.92 306   P      P      01 07 09.0 -0.1
MCMT  McKenzie Canyo   55.12 318   P      P      01 07 10.3 -0.4
TPNV  Topopah Spring   55.15 308   P      P      01 07 10.9 -0.1
DLMT  Dillon           55.16 319   P      P      01 07 10.4 -0.4
DLMT                               IAmb   IAmb   01 07 11.1
      comp=Z,12nm,0.6s
PSBE  So Bento         55.24  49  eP      P      01 07 13.8 +2.4
GWY   Greenwater Val   55.30 307   P      P      01 07 11.9 -0.1
BCYI  Bear Canyon      55.30 317   P      P      01 07 12.2 +0.2
PCVE  Castro Verde     55.31  51  eP      P      01 07 15.6 +3.8
BUT   Butte            55.39 319   P      P      01 07 11.8 -0.8
WCT   Wildcat Mounta   55.41 307   P      P      01 07 12.7  0.0
QSM   Queen of Sheba   55.41 306   P      P      01 07 12.1 -0.5
ELK   Elko             55.41 312   P      P      01 07 12.1 -0.8
PVAQ  Vaqueiros        55.50  52  eP      P      01 07 17.0 +3.7
FURC  Furnace Creek,   55.52 307   P      P      01 07 13.8 +0.5
PMTG  Montargil        55.54  50  eP      P      01 07 16.1 +2.7
PMTG                             i IAmb   IAmb   01 07 17.0
      comp=Z,31nm,1.1s
PBEJ  Beja             55.54  51  eP      P      01 07 16.7 +3.2
LYMT  Lyon Mountain    55.60 320   P      P      01 07 13.2 -0.9
PCAS  Casmilo, Conde   55.61  49  eP      P      01 07 16.2 +2.2
PARRA Arraiolos        55.61  50  eP      P      01 07 16.4 +2.3
HLID  Hailey           55.72 316   IAmb   IAmb   01 07 15.4
      comp=Z,14nm,0.7s
HLID  Hailey           55.72 316   P      P      01 07 14.6 -0.4
      comp=Z,23nm,0.9s
PSARD Sardoal          55.73  49  eP      P      01 07 17.2 +2.4
LRMC  Laurel Mtn Rad   55.95 306   P      P      01 07 16.4 -0.3
PESTR Estremoz         55.97  50  eP      P      01 07 20.6 +4.1
GRAC  Grapevine Rang   56.03 308   P      P      01 07 17.2 +0.1
GRAC                               IAmb   IAmb   01 07 24.0
      comp=Z,7.4nm,0.7s
TPH   Tonopah          56.17 309   P      P      01 07 17.9 -0.4
PBAR  Barrancos        56.21  51  eP      P      01 07 21.4 +3.1
PVIS  Viseu            56.24  48  eP      P      01 07 20.2 +1.7
PCBR  Castelo Branco   56.30  49  eP      P      01 07 21.1 +2.2
PGAV  Gavieira, Arco   56.33  46  eP      P      01 07 21.2 +2.0
MTE   Manteigas        56.41  48  eP      P      01 07 22.0 +2.3
MTE   Manteigas        56.41  48   P      P      01 07 20.7 +1.0
MTE                                IAmb   IAmb   01 07 40.0
      comp=Z,25nm,1.3s
PCAB  Cabril           56.43  47  eP      P      01 07 22.1 +2.3
PCAB                             i IAmb   IAmb   01 07 24.1
      comp=Z,35nm,1.7s
POLO  Lamas de Olo     56.50  47  eP      P      01 07 22.8 +2.4
PVRL  Vila Real        56.52  47  eP      P      01 07 22.9 +2.3
MSO   Missoula         56.58 320   P      P      01 07 20.2 -0.8
DSP   Deep Springs     56.58 308   P      P      01 07 20.9 -0.1
DSP                                IAmb   IAmb   01 07 22.4
      comp=Z,9.1nm,1.2s
MFID  Camas Ranch      56.65 315   P      P      01 07 20.1 -1.4
MFID                               IAmb   IAmb   01 07 22.4
      comp=Z,6.5nm,0.5s
COYC  Coyhaique        56.66 188   P      P      01 07 22.4 +1.2
COYC                               IAmb   IAmb   01 07 40.6
      comp=Z,14nm,1.3s
DBIC  Dimbokro         56.71  89   P      P      01 07 23.3 +1.1
      comp=Z,2.7nm,0.4s,baz=292,slow=6.8,SNR=8.4
      comp=Z,2.7nm,0.4s
DBIC  Dimbokro         56.71  89   P      P      01 07 22.7 +0.5
DBIC                               IAmb   IAmb   01 07 45.7
      comp=Z,10nm,1.0s
BMN   Battle Mountai   56.77 312   P      P      01 07 21.7 -0.8
SFJD  Kangerlussuaq    56.83   5   LR     LR     01 29 50.8
      comp=Z,44nm,21.3s,baz=197,slow=34
SFJD  Kangerlussuaq    56.83   5   P      P      01 07 21.8 -0.3
SFJD                               IAmb   IAmb   01 07 23.1
      comp=Z,18nm,0.8s
SFJD  Kangerlussuaq    56.83   5 i P      P      01 07 22.0 -0.1
SFJD                               IAmb   IAmb   01 07 23.3
      comp=Z,19nm,0.7s
NV11  Mina Array Sit   56.97 309   P      P      01 07 23.9  0.0
MD01  Midelt array s   56.98  58   P      P      01 07 25.0 +0.9
MD31  MD31             56.98  58   P      P      01 07 24.4 +0.5
MD31                               IAmb   IAmb   01 07 48.2
      comp=Z,9.3nm,1.1s
KVN   Kaiserville      57.08 310   P      P      01 07 24.1 -0.6
NVAR  Mina Array Bea   57.08 309   P      P      01 07 24.7 -0.1
      comp=Z,1.9nm,0.6s,baz=99,slow=6.6,SNR=30
NVAR                               PcP    PcP    01 08 19.4 +0.2
      comp=Z,2.0nm,0.8s,baz=139,slow=4.9,SNR=5.4
NVAR                               LR     LR     01 33 16.9
      comp=Z,41nm,22.0s,baz=100,slow=38
      comp=Z,1.9nm,0.6s
NVAR  Mina Array Bea   57.08 309   P      P      01 07 24.0 -0.8
ISOG  Isortoq, Green   57.12  11 i P      P      01 07 24.5 +0.3
ISOG                               IAmb   IAmb   01 07 25.8
      comp=Z,77nm,1.0s
VES   Vestal, Richgr   57.14 306   P      P      01 07 24.6 -0.4
VES                                IAmb   IAmb   01 07 27.6
      comp=Z,11nm,1.0s
JTMT  Jette            57.15 321   P      P      01 07 23.8 -1.2
LHV   Little Huntoon   57.20 309   P      P      01 07 25.4 +0.1
PLID  Pearl Lake       57.31 317   P      P      01 07 24.7 -1.6
PLID                               IAmb   IAmb   01 07 25.8
      comp=Z,10nm,0.7s
PBRG  Braganca         57.38  47  eP      P      01 07 29.2 +2.7
ANGG  Ammassalik, Gr   57.44  12   P      P      01 07 26.4 -0.1
ANGG  Ammassalik, Gr   57.44  12 i P      P      01 07 26.6 +0.1
ANGG                               IAmb   IAmb   01 07 27.9
      comp=Z,26nm,0.8s
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MDPB  Devils Postpil   57.50 308   P      P      01 07 27.4 -0.4
YERR  Yerington        57.92 309   P      P      01 07 30.7 +0.1
YERR                               IAmb   IAmb   01 07 32.4
      comp=Z,22nm,1.3s
WAKR  Walker           57.97 309   P      P      01 07 30.6 -0.3
LDM   Libby Dam        58.06 321   P      P      01 07 30.3 -0.9
LDM                                IAmb   IAmb   01 07 31.3
      comp=Z,7.7nm,0.8s
BMO   Blue Mountains   58.11 317   P      P      01 07 30.2 -1.6
BMO                                IAmb   IAmb   01 07 31.9
      comp=Z,4.9nm,0.8s
PNTR  Pine Nut         58.22 309   P      P      01 07 32.1 -0.7
PNTR                               IAmb   IAmb   01 07 54.7
      comp=Z,8.9nm,1.1s
WVOR  Wild Horse Val   58.33 314   P      P      01 07 32.3 -1.1
F10A  Beach Ranch, E   58.41 318   P      P      01 07 32.3 -1.5
F10A                               IAmb   IAmb   01 07 32.6
      comp=Z,5.1nm,0.6s
J08A  Circle Bar Ran   58.47 315   P      P      01 07 33.9 -0.4
J08A                               IAmb   IAmb   01 07 34.8
      comp=Z,6.6nm,0.6s
EDM   Edmonton         58.88 327   P      P      01 07 35.4 -1.4
ESDC  Sonseca Array    58.89  50   P      P      01 07 38.5 +1.3
      comp=Z,7.9nm,0.9s,baz=259,slow=7.2,SNR=30
      comp=Z,7.9nm,0.9s
ESDC  Sonseca Array    58.89  50   P      P      01 07 38.6 +1.3
ESBB  Sonseca Array    58.89  50   P      P      01 07 38.2 +1.0
ESBB                               IAmb   IAmb   01 07 43.9
      comp=Z,8.7nm,1.0s
ILULI Ilulissat        58.95   5   P      P      01 07 37.2 +0.2
ILULI Ilulissat        58.95   5 i P      P      01 07 37.1 +0.1
ILULI                              IAmb   IAmb   01 07 37.8
      comp=Z,39nm,0.8s
LNOR  Lincton Mounta   59.08 317   P      P      01 07 37.3 -1.1
NEW   Newport          59.11 320   LR     LR     01 32 56.7
      comp=Z,31nm,20.4s,baz=110,slow=36
NEW   Newport          59.11 320   P      P      01 07 37.0 -1.6
NEW   Newport          59.11 320   P      P      01 07 37.4 -1.2
      comp=Z,27nm,0.9s
E09A  Wood Farm, Sta   59.19 318   P      P      01 07 38.1 -1.0
AFDM  Forest Hills D   59.23 309   P      P      01 07 38.6 -0.9
G08A  Pilot Rock       59.36 317   P      P      01 07 39.4 -1.1
G08A                               IAmb   IAmb   01 07 43.3
      comp=Z,4.0nm,0.6s
I07A  Izee             59.39 315   P      P      01 07 39.3 -1.3
MOD   Modoc Plateau    59.39 313   P      P      01 07 39.1 -1.7
YPT   Yellepit         59.59 317   P      P      01 07 40.8 -1.0
ORV   Oroville         59.76 310   P      P      01 07 42.3 -0.8
E08A  Dider Farm, El   59.78 318   P      P      01 07 42.4 -0.8
E08A                               IAmb   IAmb   01 07 42.6
      comp=Z,4.3nm,0.6s
D08A  Wollman Farm,    59.87 319   P      P      01 07 42.9 -0.9
SUTB  Sutter Butte     59.91 309   P      P      01 07 42.4 -1.8
HATC  Hat Creek Radi   59.99 311   P      P      01 07 43.9 -1.0
HATC                               IAmb   IAmb   01 07 45.8
      comp=Z,8.0nm,0.8s
K05A  Summer Lake      60.02 313   P      P      01 07 43.9 -1.2
ILON  Igloolik, Nuna   60.03 352   P      P      01 07 43.8 -0.6
ILON                               IAmb   IAmb   01 07 44.9
      comp=Z,19nm,1.1s
HAWA  Hanford          60.06 318   P      P      01 07 43.7 -1.4
HAWA                               IAmb   IAmb   01 07 44.9
      comp=Z,9.2nm,0.7s
O03E  Paynes Creek     60.14 310   P      P      01 07 44.5 -1.3
F07A  Phinny Hill Vi   60.18 317   P      P      01 07 45.5 -0.5
F07A                               IAmb   IAmb   01 07 45.8
      comp=Z,9.8nm,0.6s
WAH2  Wahluke Slope    60.19 318   P      P      01 07 45.4 -0.6
WAH2                               IAmb   IAmb   01 07 45.9
      comp=Z,13nm,0.7s
PINE  Pine Mountain    60.31 315   P      P      01 07 46.5 -0.6
PINE                               IAmb   IAmb   01 07 48.5
      comp=Z,9.2nm,0.8s
E07A  Sunnyside        60.33 318   P      P      01 07 46.0 -0.9
E07A                               IAmb   IAmb   01 07 46.6
      comp=Z,9.2nm,1.0s
EPH   Ephrata          60.39 319   P      P      01 07 46.5 -0.9
EPH                                IAmb   IAmb   01 07 47.2
      comp=Z,8.2nm,0.6s
G06A  Carlson Farm,    60.48 316   P      P      01 07 47.8 -0.2
G06A                               IAmb   IAmb   01 07 48.8
      comp=Z,12nm,1.2s
SAATT Saattut          60.48   4 i P      P      01 07 47.0 -0.4
SAATT                              IAmb   IAmb   01 07 48.6
      comp=Z,43nm,1.3s
B08A  Colville Reser   60.54 320   P      P      01 07 46.9 -1.4
B08A                               IAmb   IAmb   01 08 00.1
      comp=Z,8.4nm,0.7s
FARB  Farallon Islan   60.57 307   P      P      01 07 48.2 -0.5
M03C  McCloud          60.58 311   P      P      01 07 47.8 -1.1
M03C                               IAmb   IAmb   01 07 48.8
      comp=Z,7.9nm,0.6s
K04D  Chiloquin, OR    60.61 313   P      P      01 07 48.0 -1.1
MXC   Moxie City       60.62 318   P      P      01 07 48.3 -0.7
MXC                                IAmb   IAmb   01 07 49.4
      comp=Z,9.3nm,0.6s
G05A  Wamic            60.95 316   P      P      01 07 51.0 -0.1
G05A                               IAmb   IAmb   01 07 52.0
      comp=Z,7.9nm,0.8s
WIFE  Three Sisters-   60.99 315   P      P      01 07 51.6 -0.2
WIFE                               IAmb   IAmb   01 07 53.1
      comp=Z,15nm,0.8s
J04A  Umpqua Nationa   61.01 314   P      P      01 07 51.3 -0.5
LTY   Liberty          61.06 318   P      P      01 07 51.2 -0.8
YBH   Yreka Blue Hor   61.11 312   LR     LR     01 35 34.6
      comp=Z,24nm,21.8s,baz=82,slow=37
YBH   Yreka Blue Hor   61.11 312   P      P      01 07 50.3 -2.1
YBH                                IAmb   IAmb   01 07 51.3
      comp=Z,4.2nm,0.7s
DCMP  DeCamp, Califo   61.14 309   P      P      01 07 52.5 -0.1
DCMP                               IAmb   IAmb   01 07 54.0
      comp=Z,7.2nm,0.8s
M02C  Callahan         61.14 311   P      P      01 07 51.1 -1.6
M02C                               IAmb   IAmb   01 07 51.6
      comp=Z,3.7nm,0.6s
HOOD  Mount Hood Mea   61.19 316   P      P      01 07 51.9 -1.1
HOOD                               IAmb   IAmb   01 07 56.7
      comp=Z,13nm,0.9s
KHBM  Hayfork Bally    61.27 311   P      P      01 07 52.2 -1.5
KHBM                               IAmb   IAmb   01 07 53.1
      comp=Z,4.5nm,0.6s
BBOR  Butler Butte     61.33 313   P      P      01 07 52.4 -1.7
I04A  Tendick Farm,    61.35 314   P      P      01 07 52.6 -1.4
I04A                               IAmb   IAmb   01 07 55.1
      comp=Z,5.3nm,0.7s
KCPM  Cahto Peak       61.36 309   P      P      01 07 52.9 -1.3
KCPM                               IAmb   IAmb   01 07 55.4
      comp=Z,10nm,0.9s
H04A  Detroit Lake     61.40 315   P      P      01 07 53.3 -1.0
H04A                               IAmb   IAmb   01 07 54.1
      comp=Z,8.6nm,0.7s
KMRM  Mail Ridge       61.55 310   P      P      01 07 55.4 -0.1
LON   Longmire         61.67 318   P      P      01 07 55.3 -0.8
LON                                IAmb   IAmb   01 07 55.7
      comp=Z,5.8nm,0.7s
KHMM  Horse Mountain   61.69 311   P      P      01 07 56.0 -0.5
KHMM                               IAmb   IAmb   01 07 57.5
      comp=Z,8.6nm,0.9s
H04D  Lebanon          61.75 315   P      P      01 07 55.7 -0.9
H04D                               IAmb   IAmb   01 07 56.0
      comp=Z,8.3nm,0.8s
STD   Studebaker Rid   61.81 317   IAmb   IAmb   01 08 03.3
      comp=Z,9.6nm,1.2s
L02F  Cave Junction    61.82 312   P      P      01 07 56.5 -0.6
KMPM  Mount Pierce     61.90 310   P      P      01 07 57.2 -0.6
JCC   Jacoby Creek,    61.90 311   P      P      01 07 57.1 -0.5
JCC                                IAmb   IAmb   01 07 58.6
      comp=Z,15nm,0.8s
KRMB  Red Mountain     61.95 311   P      P      01 07 57.4 -0.7
KRMB                               IAmb   IAmb   01 07 58.9
      comp=Z,6.8nm,0.4s
KSXB  Camp Six Broad   61.98 312   P      P      01 07 57.6 -0.7
KSXB                               IAmb   IAmb   01 07 58.4
      comp=Z,11nm,0.6s
G03D  McMinnville, O   62.27 316   P      P      01 07 59.6 -0.5
TORD  Torodi Ar. Bea   62.37  81   P      P      01 08 01.6 +0.4
      comp=Z,4.0nm,0.7s,baz=293,slow=6.8,SNR=32
      comp=Z,4.0nm,0.7s
I02E  Swisshome, OR    62.43 314   P      P      01 08 00.8 -0.3
A05A  Maple Falls      62.47 320   P      P      01 07 60.0 -1.3
A05A                               IAmb   IAmb   01 08 01.2
      comp=Z,9.0nm,0.7s
E03A  Lebam            62.79 317   P      P      01 08 02.8 -0.7
LLLB  Lillooet         62.81 322   P      P      01 08 02.8 -0.8
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RADR	Rader Ridge	62.92	317	P	P	01 08 03.5	-0.9
B04A	Port Angeles	63.12	319	P	P	01 08 06.5	+0.8
NLWA	Neilton Lookou	63.20	318	P	P	01 08 06.1	-0.1
NLWA				IAmb	IAmb	01 08 06.8	
	comp=Z,18nm,1.1s						
PGC	Sidney	63.24	319	P	P	01 08 05.7	-0.7
SUMG	Summit	63.51	8	P	P	01 08 08.7	+0.4
SUMG	Summit	63.51	8	*i* P	P	01 08 08.9	+0.7
SUMG				IAmb	IAmb	01 08 10.0	
	comp=Z,65nm,0.9s						
SUMG	Summit	63.51	8	P	P	01 08 08.4	+0.1
	comp=Z,80nm,0.9s						
CLRS	Cowichan Lake	63.72	319	P	P	01 08 08.4	-1.2
CLRS				IAmb	IAmb	01 08 10.3	
	comp=Z,17nm,0.9s						
YKA	Yellowknife Ar	63.87	336	P	P	01 08 08.0	-2.3
	comp=Z,3.8nm,0.6s,baz=112,slow=7.3,SNR=24						
YKA				LR	LR	01 34 29.0	
	comp=Z,58nm,21.9s,baz=114,slow=35						
	comp=Z,3.8nm,0.6s						
YKA	Yellowknife Ar	63.87	336	P	P	01 08 08.4	-1.8
EKA	Eskdalemuir Ar	63.90	33	P	P	01 08 09.6	-1.1
	comp=Z,2.0nm,0.7s,baz=288,slow=2.9,SNR=8.6						
	comp=Z,2.0nm,0.7s						
CBB	Campbell River	64.80	320	P	P	01 08 15.9	-0.8
CLF	Chambon-Foret	65.10	42	P	P	01 08 19.5	+0.9
CLF				IAmb	IAmb	01 08 22.0	
	comp=Z,19nm,1.0s						
TAM	Tamanrasset	65.45	70	P	P	01 08 21.7	+0.1
TAM	Tamanrasset	65.45	70	P	P	01 08 22.5	+0.9
	comp=Z,4.0nm,0.9s						
RES	Resolute Bay	66.64	351	LR	LR	01 36 12.9	
	comp=Z,44nm,21.4s,baz=342,slow=35						
HOLB	Holberg	66.67	321	P	P	01 08 28.3	-0.4
BBB	Bella Bella	66.99	322	LR	LR	01 38 26.7	
	comp=Z,23nm,19.3s,baz=98,slow=37						
BBB	Bella Bella	66.99	322	P	P	01 08 30.5	-0.1
NEEM	North Greenlan	67.05	3	*i* P	P	01 08 30.3	-0.7
NEEM				IAmb	IAmb	01 08 31.4	
	comp=Z,25nm,0.7s						
BMRD	Maredsous	67.17	40	*d*P	P	01 08 32.5	+0.7
	comp=Z,5.8nm,0.9s						
ISO	Isola	67.75	47	P	P	01 08 37.5	+1.8
	comp=Z,4.3nm,1.3s						
WRGLY	Wrigley	67.84	335	IAmb	IAmb	01 08 35.5	
	comp=Z,12nm,1.0s						
WRGLY				P	P	01 08 35.6	-0.2
WLF	Walferdange	67.94	41	P	P	01 08 37.1	+0.4
WLF				IAmb	IAmb	01 08 40.1	
	comp=Z,12nm,1.0s						
WLF	Walferdange	67.94	41	*d*P	P	01 08 37.7	+1.0
	comp=Z,6.8nm,1.0s						
DBG	Daneborg	67.94	11	*i* P	P	01 08 37.5	+1.2
DBG				IAmb	IAmb	01 08 38.2	
	comp=Z,21nm,0.6s						
SENIN	Lac Senin/Sane	68.20	44	P	P	01 08 39.2	+0.5
ECH	Echery	68.36	42	P	P	01 08 39.9	+0.5
RUBB	Prince Rupert	68.70	324	P	P	01 08 41.5	+0.2
HG4B	Hotspring	68.87	322	P	P	01 08 42.6	+0.1
VSL	Villasalto	69.07	52	P	P	01 08 44.1	+0.1
BFO	Black Forest	69.15	42	P	P	01 08 43.4	-1.0
T35M	Bob Quinn	69.26	327	P	P	01 08 44.7	-0.1
WTLY	Watson Lake, Y	69.28	331	P	P	01 08 44.7	-0.3
IBBN	Ibbenburen	69.38	38	P	P	01 08 45.4	-0.2
	comp=Z,29nm,0.9s						
DLBC	Dease Lake	69.47	329	LR	LR	01 38 42.2	
	comp=Z,33nm,21.9s,baz=65,slow=36						
TUE	Stuetta	69.62	44	P	P	01 08 48.1	+0.6
TUE	Stuetta	69.62	44	P	P	01 08 46.7	-0.8
	comp=Z,22nm,0.8s						
V35K	Ketchikan	69.67	325	P	P	01 08 47.4	0.0
STU	Stuttgart	69.78	42	P	P	01 08 48.8	+0.6
STU				IAmb	IAmb	01 08 50.4	
	comp=Z,12nm,0.6s						
DIB	Dawson Inlet,	69.79	323	P	P	01 08 48.1	0.0
DIB				IAmb	IAmb	01 08 49.1	
	comp=Z,18nm,1.3s						
S34M	Telegraph Cree	69.93	328	P	P	01 08 48.9	0.0
DAG	Danmarks Havn	69.96	10	*i* P	P	01 08 48.5	-0.3
DAG				IAmb	IAmb	01 08 49.4	
	comp=Z,14nm,1.0s						
DAG	Danmarks Havn	69.96	10	P	P	01 08 48.9	+0.1
	comp=Z,19nm,0.9s						
DAVA	Damuels	70.07	44	*e*P	P	01 08 51.3	+1.1
	comp=Z,3.0nm,0.6s						
DAVA	Damuels	70.07	44	P	P	01 08 51.5	+1.2
	comp=Z,17nm,0.8s						
R33M	Jennings River	70.17	330	P	P	01 08 50.1	-0.4
R33M				IAmb	IAmb	01 08 51.5	
	comp=Z,12nm,1.1s						
FUORN	Ofenpass-Fuorn	70.26	44	P	P	01 08 52.1	+0.5
WRAK	Wrangell Islan	70.28	326	P	P	01 08 51.4	+0.3
SALO	Salr	70.35	45	P	P	01 08 52.1	+0.3
SALO				IAmb	IAmb	01 08 56.0	
	comp=Z,7.9nm,0.8s						
CASP	Castiglione de	70.39	48	P	P	01 08 52.1	0.0
CASP				IAmb	IAmb	01 09 15.0	
	comp=Z,11nm,0.9s						
C36M	Paulatuk	70.39	341	P	P	01 08 52.0	+0.5
C36M				IAmb	IAmb	01 08 58.5	
	comp=Z,43nm,1.4s						
CRAG	Craig	70.54	325	P	P	01 08 53.0	+0.3
CRAG				IAmb	IAmb	01 08 58.6	
	comp=Z,12nm,1.2s						
ZCCA	Zocca	70.58	47		P	01 08 53.5	+0.2
ZCCA				IAmb	IAmb	01 09 03.0	
	comp=Z,7.2nm,0.7s						
FETA	Feichten	70.62	44	*e*P	P	01 08 54.4	+0.8
	comp=Z,9.6nm,1.0s						
RETA	Reutte	70.69	43	*e*P	P	01 08 54.7	+0.9
	comp=Z,1.3nm,0.4s						
Q32M	Nakina River	70.73	329	P	P	01 08 53.6	-0.5
MOTA	Moosalm	70.90	44	*e*P	P	01 08 55.9	+0.6
	comp=Z,1.6nm,0.5s						
SQTA	Sankt Quirin	70.96	44	*e*P	P	01 08 56.3	+0.7
	comp=Z,2.4nm,0.6s						
TEOL	Teolo	71.14	46	P	P	01 08 56.4	-0.2
TEOL				IAmb	IAmb	01 08 59.2	
	comp=Z,9.7nm,0.7s						
CTI	Castel Tesino	71.17	45	P	P	01 08 56.7	-0.2
GRF	Grafenberg Arr	71.20	41	*e*P	P	01 08 57.4	+0.5
	comp=Z,3.7nm,0.9s,baz=259,slow=6.3						
WATA	Walderalm	71.22	44	*e*P	P	01 08 57.7	+0.5
	comp=Z,0.9nm,0.5s						
SKAR	Skarslia	71.24	29	*e*P	P	01 09 00.6	+3.7
WTTA	Wattenberg	71.26	44	*e*P	P	01 08 57.7	+0.2
	comp=Z,0.1nm,0.3s						
P33M	Teslin, Yukon	71.26	330	P	P	01 08 56.2	-0.9
GRC3	Grafenberg Arr	71.36	42	P	P	01 08 58.6	+0.8
	comp=Z,9.9nm,0.9s						
N32M	Quiet Lake	71.58	331	P	P	01 08 58.2	-0.7
P32M	Atlin	71.58	329	P	P	01 08 58.9	-0.1
MURB	Monte Urbino	71.63	48	P	P	01 08 59.1	-0.6
MURB				IAmb	IAmb	01 09 09.1	
	comp=Z,14nm,1.1s						
S32K	Killisnoo	71.66	327	P	P	01 08 59.5	+0.1
S32K				IAmb	IAmb	01 09 01.2	
	comp=Z,22nm,1.3s						
R32K	Eaglecrest	71.76	328	P	P	01 09 00.7	+0.6
A36M	Sachs Harbour	71.78	343	P	P	01 09 00.7	+0.8
A36M				IAmb	IAmb	01 09 06.8	
	comp=Z,24nm,1.1s						
ABTA	Abfaltersbach	71.82	44	*e*P	P	01 09 01.5	+0.8
	comp=Z,5.2nm,0.8s						
LESA	Schwarzleotal	71.97	44	*e*P	P	01 09 02.1	+0.5
	comp=Z,0.4nm,0.3s						
BESE	Bessie Mountai	71.99	328	P	P	01 09 01.4	-0.1
SIT	Sitka	72.00	327	P	P	01 09 01.8	+0.4
SIT				IAmb	IAmb	01 09 02.1	
	comp=Z,14nm,0.9s						
FDMO	Fiordimonte	72.03	48	P	P	01 09 02.3	+0.2
RJOB	Jochberg	72.08	43	P	P	01 09 01.2	-1.1
	comp=Z,4.3nm,1.0s						
FUSE	Fusea	72.13	45	P	P	01 09 02.8	+0.3
	comp=Z,7.5nm,0.8s						
GUMA	Gualdo di Mace	72.22	48	P	P	01 09 04.3	+1.1
M31M	Drury Creek, Y	72.39	332	P	P	01 09 03.6	-0.2
M31M				IAmb	IAmb	01 09 04.5	
	comp=Z,9.9nm,0.9s						
KBA	Koelnbreinsper	72.41	44	*e*P	P	01 09 04.9	+0.6
	comp=Z,1.1nm,0.5s						
KBA	Koelnbreinsper	72.41	44	P	P	01 09 05.0	+0.6
	comp=Z,12nm,0.9s						
CLL	Collm	72.48	40	P	P	01 09 05.3	+0.8
NC204	NORSAR Array S	72.53	29	P	P	01 09 05.2	+0.5
NC204				IAmb	IAmb	01 09 07.6	
	comp=Z,20nm,1.1s						
MYKA	Terra Mystica	72.59	44	*e*P	P	01 09 05.9	+0.6
	comp=Z,1.4nm,0.4s						
S31K	Pelican	72.61	328	P	P	01 09 05.6	+0.5
S31K				IAmb	IAmb	01 09 07.6	
	comp=Z,23nm,1.1s						
BIOA	Bad Ischl, Aus	72.64	43	*e*P	P	01 09 06.0	+0.5
	comp=Z,6.8nm,1.4s						
KHC	Kasperske Hory	72.69	42	*e*P	P	01 09 07.6	+1.8
	comp=Z,0.7nm,0.5s						
NB2	NORSAR Subarra	72.71	29	P	P	01 09 07.1	+1.4
	comp=Z,9.7nm,0.9s,baz=263,slow=6.2						
NB2	NORSAR Subarra	72.71	29	P	P	01 09 07.1	+1.4
NOA	NORSAR Array B	72.71	29	P	P	01 09 06.0	+0.2
	comp=Z,7.4nm,0.9s,baz=262,slow=6.0,SNR=19						
NOA				LR	LR	01 36 26.7	
	comp=Z,9.1nm,21.7s,baz=65,slow=32						
	comp=Z,7.4nm,0.9s						
GEC2	GERESS Array S	72.75	42	P	P	01 09 06.9	+0.6
GEC2	GERESS Array S	72.75	42	P	P	01 09 07.2	+0.9
	comp=Z,7.4nm,1.0s						
GERES	GERESS Array B	72.75	42	P	P	01 09 06.1	-0.2
	comp=Z,5.9nm,0.8s,baz=260,slow=5.3,SNR=31						
	comp=Z,5.9nm,0.8s						
GERES	GERESS Array B	72.75	42	P	P	01 09 06.9	+0.6
NC602	NORSAR Array S	72.82	30	*e*P	P	01 09 08.3	+2.1
NC602	NORSAR Array S	72.82	30	P	P	01 09 07.7	+1.4
NC602				IAmb	IAmb	01 09 09.4	
	comp=Z,24nm,1.2s						
N31M	Braeburn, Yuko	72.92	331	P	P	01 09 06.3	-0.6
N31M				IAmb	IAmb	01 09 07.4	
	comp=Z,14nm,0.8s						
NC405	NORSAR Array S	72.96	29	P	P	01 09 08.0	+0.8
NC405				IAmb	IAmb	01 09 09.7	
	comp=Z,13nm,0.8s						
BRG	Berggiesshubel	73.04	40	P	P	01 09 09.7	+1.9
	comp=Z,4.3nm,1.1s						
BRG	Berggiesshubel	73.04	40	*e*P	P	01 09 08.4	+0.6
BRG				Amp		01 09 14.3	
	comp=Z,5.1nm,1.1s						
MOA	Molln	73.07	43	*e*P	P	01 09 08.3	+0.2
	comp=Z,2.0nm,0.7s						
MOA	Molln	73.07	43	P	P	01 09 07.7	-0.5
	comp=Z,5.3nm,1.1s						
H31M	Peel River	73.09	336	P	P	01 09 06.8	-1.0
H31M				IAmb	IAmb	01 09 08.2	
	comp=Z,15nm,1.1s						
CKRC	Cesky Krumlov	73.15	42	*e*P	P	01 09 09.0	+0.4
OBKA	Obir	73.21	45	*e*P	P	01 09 09.7	+0.6
	comp=Z,1.0nm,0.6s						
F31M	Tsiigehtchic	73.21	338	P	P	01 09 08.6	+0.2
G31M	Satah River	73.30	337	P	P	01 09 07.4	-1.6
G31M				IAmb	IAmb	01 09 08.6	
	comp=Z,8.8nm,0.8s						
INK	Inuvik	73.33	338	LR	LR	01 42 02.1	
	comp=Z,24nm,20.7s,baz=68,slow=36						
INK	Inuvik	73.33	338	P	P	01 09 06.9	-2.2
INK				IAmb	IAmb	01 09 08.6	
	comp=Z,12nm,1.1s						
INK	Inuvik	73.33	338	P	P	01 09 07.2	-1.9
	comp=Z,15nm,1.1s						
PRU	Pruhonice	73.37	41	P	P	01 09 11.3	+1.6
	comp=Z,6.8nm,0.9s						
SOKA	Soboth	73.55	44	*e*P	P	01 09 11.2	+0.2
	comp=Z,0.9nm,0.5s						
NOR	Nord	73.57	6	*i* P	P	01 09 09.8	-0.6
NOR				IAmb	IAmb	01 09 11.1	
	comp=Z,15nm,1.1s						
NOR	Nord	73.57	6	P	P	01 09 09.9	-0.5
	comp=Z,13nm,1.0s						
HYT	Haines Junctio	73.65	330	P	P	01 09 11.1	-0.3
J30M	Hart River	73.68	334	P	P	01 09 11.3	-0.2
HFS	Hagfors	73.79	30	P	P	01 09 11.7	-0.3
	comp=Z,14nm,0.8s,baz=252,slow=4.2,SNR=12						
	comp=Z,14nm,0.8s						
I30M	Mount Dempster	73.81	335	P	P	01 09 11.6	-0.7
I30M				IAmb	IAmb	01 09 12.3	
	comp=Z,9.4nm,0.8s						
ARSA	Arzberg	73.90	44		P	01 09 13.2	+0.2
ARSA	Arzberg	73.90	44	*e*P	P	01 09 13.4	+0.4
	comp=Z,1.7nm,0.8s						
ESPZ	Base Esperanza	73.92	178	P	P	01 09 13.3	+0.8
ESPZ				IAmb	IAmb	01 09 37.2	
	comp=Z,28nm,1.3s						
TREC	Trest	73.95	42	P	P	01 09 14.6	+1.3
	comp=Z,7.7nm,0.9s						
F30M	Barrier River	74.01	338	P	P	01 09 12.3	-0.9
F30M				IAmb	IAmb	01 09 12.4	
	comp=Z,7.9nm,0.8s						
G30M	tAoh Zraii Nji	74.06	337	P	P	01 09 12.0	-1.5
K29M	Barlow Dome	74.08	334	P	P	01 09 13.8	0.0
K29M				IAmb	IAmb	01 09 14.4	
	comp=Z,19nm,1.5s						
O29M	Mount Kennedy	74.11	330	P	P	01 09 14.0	-0.1
EPYK	Eagle Plains	74.15	336	P	P	01 09 13.0	-1.0
EPYK				IAmb	IAmb	01 09 13.7	
	comp=Z,16nm,1.2s						
CONA	Conrad Observa	74.15	43	*e*P	P	01 09 14.7	+0.2
	comp=Z,0.6nm,0.5s						
L29M	L29M	74.24	333	P	P	01 09 13.9	-0.8
M29M	Somme Creek	74.31	332	P	P	01 09 14.3	-0.8
UPC	Upice	74.34	40	P	P	01 09 15.0	-0.4
	comp=Z,8.0nm,1.0s						
CHVC	Chvalec	74.37	40	*e*P	P	01 09 16.4	+0.8
RONA	Rosalia, Austr	74.44	43	*e*P	P	01 09 16.2	+0.1
	comp=Z,2.2nm,1.1s						
J29N	Klondike Camp	74.47	334	P	P	01 09 15.6	-0.4
J29N				IAmb	IAmb	01 09 17.0	
	comp=Z,14nm,0.8s						
OSTC	Ostas	74.47	40	*e*P	P	01 09 16.0	-0.2
DPC	Dobruska-Polom	74.53	41	*e*P	P	01 09 15.4	-1.2
DPC	Dobruska-Polom	74.53	41	P	P	01 09 15.9	-0.7
	comp=Z,4.2nm,0.8s						
DPC	Dobruska-Polom	74.53	41	P	P	01 09 16.9	+0.3
	comp=Z,6.2nm,1.2s						
VAGH	Vaagaholmen	74.53	24	*e*P	P	01 09 17.5	+1.3
KRUC	Moravsky	74.53	42	*e*P	P	01 09 17.1	+0.5
KRUC	Moravsky	74.53	42	P	P	01 09 17.6	+0.9
	comp=Z,5.1nm,1.6s						
I29M	Ogilvie Camp,	74.63	335	P	P	01 09 15.3	-1.5
VRAC	Vranov	74.67	42	*e*P	P	01 09 17.6	+0.2
VRAC	Vranov	74.67	42	P	P	01 09 18.8	+1.4
	comp=Z,2.3nm,0.8s						
G29M	Pine Creek	74.75	337	P	P	01 09 16.2	-1.3
G29M				IAmb	IAmb	01 09 17.1	
	comp=Z,13nm,0.8s						
H29M	Whitestone	74.78	336	P	P	01 09 16.9	-0.8
H29M				IAmb	IAmb	01 09 17.6	
	comp=Z,16nm,0.8s						
KRLC	Kraliky	74.81	41	*e*P	P	01 09 18.7	+0.4
KRLC	Kraliky	74.81	41	P	P	01 09 20.0	+1.8
	comp=Z,6.1nm,1.5s						
LOF	Lofoten	74.86	22	*e*P	P	01 09 19.3	+1.2
DAWY	Dawson	74.92	334	P	P	01 09 17.7	-0.9
DAWY				IAmb	IAmb	01 09 19.8	
	comp=Z,8.1nm,0.8s						
E29M	Blow River	74.93	338	P	P	01 09 16.6	-1.9
E29M				IAmb	IAmb	01 09 17.7	
	comp=Z,9.0nm,0.9s						
O28M	Mount Upton	74.95	330	P	P	01 09 18.4	-0.8
MODS	Modra-Piesok	75.11	43	*e*P	P	01 09 20.9	+0.9
MODS	Modra-Piesok	75.11	43	P	P	01 09 21.6	+1.6
	comp=Z,16nm,0.9s						
PMSA	Palmer Station	75.21	181	*e*P	P	01 09 21.4	+1.5
MORC	Moravsky Berou	75.30	41	P	P	01 09 21.4	+0.3
MORC	Moravsky Berou	75.30	41	*e*P	P	01 09 20.4	-0.7
MORC	Moravsky Berou	75.30	41	P	P	01 09 22.8	+1.7
	comp=Z,5.6nm,1.1s						
I28M	Miner Creek	75.32	335	P	P	01 09 19.8	-1.1
LOGN	Logan Glacier	75.35	330	P	P	01 09 21.4	+0.1
LOGN				IAmb	IAmb	01 09 22.6	
	comp=Z,11nm,0.8s						
FAUS	Fauske	75.41	23	*e*P	P	01 09 22.8	+1.6
STEI	Steigen	75.47	22	*e*P	P	01 09 22.8	+1.3
F28M	Old Crow	75.56	337	P	P	01 09 20.8	-1.4
E28M	Babbage River	75.56	338	P	P	01 09 20.3	-1.9
M27K	Edge Creek, AK	75.88	332	P	P	01 09 24.3	0.0
M27K				IAmb	IAmb	01 09 24.9	
	comp=Z,15nm,0.9s						
BCAR	Beaver Creek A	75.89	332	P	P	01 09 23.7	-0.5
L27K	Beaver Creek,	75.91	332	P	P	01 09 24.1	-0.3
L27K				IAmb	IAmb	01 09 25.4	
	comp=Z,11nm,0.9s						
I27K	Kandik River	76.03	335	P	P	01 09 23.9	-1.0
I27K				IAmb	IAmb	01 09 25.2	
	comp=Z,14nm,1.0s						
MORH	Mrgy, Hungar	76.04	45	P	P	01 09 27.0	+1.7
H27K	Steamboat Moun	76.05	336	P	P	01 09 22.9	-2.2
K27K	Chicken	76.10	333	P	P	01 09 24.7	-0.5
K27K				IAmb	IAmb	01 09 26.3	
	comp=Z,21nm,1.0s						
VYHS	Vyhne	76.14	43	*e*P	P	01 09 26.1	+0.2
D27M	Malcolm River	76.16	339	P	P	01 09 25.3	-0.3
G27K	Doyon Strip	76.16	336	P	P	01 09 24.3	-1.4
E27K	Coleen River	76.27	338	P	P	01 09 24.9	-1.4
M26K	Nabesna, AK	76.41	332	P	P	01 09 26.8	-0.3
LANS	Liptovska Anna	76.56	42	*e*P	P	01 09 31.7	+3.5
VRDI	Verde Repeater	76.57	331	P	P	01 09 27.5	-0.8
VRDI				IAmb	IAmb	01 09 28.8	
	comp=Z,10.0nm,1.0s						
L26K	Log Cabin Wild	76.60	332	P	P	01 09 28.3	+0.1
GLB	Gilahina Butte	76.75	331	P	P	01 09 28.0	-1.1
GLB				IAmb	IAmb	01 09 30.6	
	comp=Z,9.1nm,1.0s						
OJC	Ojcow	76.76	41	P	P	01 09 28.9	-0.4
OJC	Ojcow	76.76	41	P	P	01 09 31.1	+1.8
	comp=Z,10nm,1.2s						
MENT	Mentasta	76.77	332	P	P	01 09 28.6	-0.5
MENT				IAmb	IAmb	01 09 29.6	
	comp=Z,11nm,0.8s						
SCRK	Sand Creek	76.93	333	P	P	01 09 29.2	-1.0
SCRK				IAmb	IAmb	01 09 30.6	
	comp=Z,13nm,1.0s						
TRO	Tromso	76.98	21	*e*P	P	01 09 31.5	+1.3
G26K	Porcupine Rive	77.01	336	P	P	01 09 28.8	-1.6
KEK	Kerkira	77.11	52	P	P	01 09 30.7	-0.9
BMRM	Bremner River	77.12	330	P	P	01 09 31.0	-0.2
BMRM				IAmb	IAmb	01 09 31.8	
	comp=Z,11nm,0.7s						
C27K	Jago River	77.16	339	P	P	01 09 30.1	-1.1
C27K				IAmb	IAmb	01 09 31.1	
	comp=Z,10nm,0.9s						
F26K	Sheenjek River	77.19	337	P	P	01 09 30.9	-0.6
SPA0	Spitsbergen Ar	77.30	12	*e*P	P	01 09 32.6	+0.8
SPITS	Spitsbergen Ar	77.30	12	P	P	01 09 31.5	-0.4
	comp=Z,5.2nm,0.4s,baz=174,slow=1.7,SNR=18						
	comp=Z,5.2nm,0.4s						
SPB2	Spitsbergen Ar	77.30	12	P	P	01 09 31.7	-0.1
RIDG	Independent Ri	77.31	333	P	P	01 09 31.1	-1.1
RIDG				IAmb	IAmb	01 09 32.6	
	comp=Z,8.3nm,0.9s						
BMAR	Burnt Mountain	77.34	337	P	P	01 09 31.3	-1.0
HARP	HAARP	77.41	332	P	P	01 09 32.0	-0.8
HARP				IAmb	IAmb	01 09 44.3	
	comp=Z,12nm,0.9s						
AMBH	Ambrzfalva	77.48	45	P	P	01 09 35.9	+2.5
	comp=Z,18nm,1.6s						
JETT	Jettan, Norway	77.50	21	*e*P	P	01 09 34.5	+1.4
J25K	Salcha River,	77.56	334	P	P	01 09 32.1	-1.5
FYU	Fort Yukon	77.56	336	P	P	01 09 32.2	-1.3
FYU				IAmb	IAmb	01 09 34.0	
	comp=Z,21nm,1.3s						
PRP	Porcupine Dome	77.65	335	P	P	01 09 32.5	-1.7
PRP				IAmb	IAmb	01 09 33.9	
	comp=Z,8.2nm,0.8s						
EYAK	Cordova Ski Ar	77.67	330	P	P	01 09 34.1	-0.1
EYAK				IAmb	IAmb	01 09 37.0	
	comp=Z,19nm,1.4s						
DIV	Divide	77.69	330	P	P	01 09 32.7	-1.7
DIV				IAmb	IAmb	01 09 44.5	
	comp=Z,9.8nm,1.2s						
K24K	Donnelly Dome	77.72	333	P	P	01 09 33.3	-1.2
K24K				IAmb	IAmb	01 09 34.4	
	comp=Z,11nm,0.8s						
ABAH	Abaujker	77.75	43	P	P	01 09 36.4	+1.5
	comp=Z,8.0nm,1.0s						
F25K	Christian Rive	77.76	337	P	P	01 09 33.9	-0.7
F25K				IAmb	IAmb	01 09 34.9	
	comp=Z,8.7nm,0.8s						
KLU	Klutina	77.76	331	P	P	01 09 33.5	-1.3
KLU				IAmb	IAmb	01 09 35.1	
	comp=Z,9.4nm,0.8s						
D25K	Kavik River	78.08	339	P	P	01 09 34.9	-1.5
D25K				IAmb	IAmb	01 09 36.3	
	comp=Z,11nm,0.8s						
IL31		78.21	334	IAmb	IAmb	01 09 36.5	
	comp=Z,6.2nm,0.8s						
ILAR	Eielson Array	78.21	334	P	P	01 09 35.5	-1.6
	comp=Z,4.3nm,0.7s,baz=111,slow=4.2,SNR=40						
ILAR				LR	LR	01 43 29.5	
	comp=Z,56nm,21.9s,baz=82,slow=35						
	comp=Z,4.3nm,0.7s						
ILAR	Eielson Array	78.21	334	P	P	01 09 36.0	-1.1
HDA	Harding Lake	78.24	334	P	P	01 09 35.8	-1.5
GLI	Glacier Island	78.33	330	P	P	01 09 37.1	-0.8
GLI				IAmb	IAmb	01 09 39.0	
	comp=Z,14nm,1.0s						
SCM	Sheep Creek Mo	78.43	331	P	P	01 09 36.8	-1.7
SCM				IAmb	IAmb	01 09 39.2	
	comp=Z,19nm,0.9s						
G24K	Hadweenzic Riv	78.46	336	P	P	01 09 37.4	-1.1
G24K				IAmb	IAmb	01 09 38.7	
	comp=Z,13nm,1.2s						
KTK1	Kautokeino	78.49	21	*e*P	P	01 09 39.4	+0.9
CCB	Clear Creek Bu	78.61	334	P	P	01 09 37.4	-1.9
F24K	Squaw Lake	78.62	337	P	P	01 09 38.7	-0.7
COLA	College	78.63	334	P	P	01 09 38.2	-1.2
TRPA	Tarpa	78.63	43	P	P	01 09 41.4	+1.6
	comp=Z,5.9nm,1.1s						
H24K	Noodor Dome	78.63	335	P	P	01 09 38.2	-1.3
SMAI	San Martin Ant	78.64	182	P	P	01 09 40.8	+1.5
HAMF	Hammerfest	78.65	20	*e*P	P	01 09 40.8	+1.4
SUW	Suwalki	78.73	37	P	P	01 09 39.9	-0.3
WRH	Wood River Hil	78.73	334	P	P	01 09 39.2	-0.8
WRH				IAmb	IAmb	01 09 40.1	
	comp=Z,11nm,0.8s						
DRGR		78.82	44	P	P	01 09 41.5	+0.6
	comp=Z,5.3nm,1.2s						
E24K	Your Creek	78.84	338	P	P	01 09 40.0	-0.6
C24K	Franklin Bluff	78.91	339	P	P	01 09 40.4	-0.4
C24K				IAmb	IAmb	01 09 41.1	
	comp=Z,13nm,0.8s						
SML	Sawmill	78.91	331	P	P	01 09 40.1	-1.0
PWL	Port Wells	78.94	330	P	P	01 09 40.4	-0.8
PWL				IAmb	IAmb	01 09 41.7	
	comp=Z,9.9nm,0.8s						
KNK	Knik Glacier	78.98	331	P	P	01 09 40.8	-0.7
KNK				IAmb	IAmb	01 09 42.2	
	comp=Z,9.3nm,0.9s						
RND	Reindeer	79.10	333	P	P	01 09 41.2	-0.9
RND				IAmb	IAmb	01 09 42.5	
	comp=Z,8.2nm,0.8s						
PABE	Paberze	79.12	35	P	P	01 09 41.7	-0.5
PABE				IAmb	IAmb	01 09 45.7	
	comp=Z,22nm,1.1s						
MCK	McKinley	79.12	333	P	P	01 09 41.4	-0.8
NEA2	Nenana	79.16	334	P	P	01 09 41.2	-1.1
GHO	Glory Hole Cre	79.19	331	P	P	01 09 41.8	-0.9
GHO				IAmb	IAmb	01 09 43.0	
	comp=Z,13nm,0.8s						
I23K	Minto, Yukon-K	79.26	335	P	P	01 09 41.8	-1.1
I23K				IAmb	IAmb	01 09 43.7	
	comp=Z,19nm,1.5s						
E23K	Chandalar	79.27	338	P	P	01 09 42.8	-0.2
ARA0	ARCESS Array S	79.29	21	*e*P	P	01 09 43.9	+0.9
ARCES	ARCESS Array B	79.29	21	P	P	01 09 43.1	+0.1
	comp=Z,12nm,0.7s,baz=284,slow=4.9,SNR=44						
	comp=Z,12nm,0.7s						
ARCES	ARCESS Array B	79.29	21	P	P	01 09 44.0	+1.1
ARCES				IAmb	IAmb	01 09 44.3	
	comp=Z,17nm,0.8s						
H23K	Yukon River	79.31	335	P	P	01 09 42.1	-1.1
G23K	Bananza Creek	79.47	336	P	P	01 09 43.4	-0.7
COLD	Coldfoot	79.52	337	P	P	01 09 42.6	-1.7
SEW	Seward	79.53	329	P	P	01 09 43.9	-0.5
SEW				IAmb	IAmb	01 09 44.9	
	comp=Z,17nm,1.0s						
C23K	Itkillik River	79.57	339	P	P	01 09 43.7	-0.7
C23K				IAmb	IAmb	01 09 45.2	
	comp=Z,13nm,0.9s						
OUL	Oulu	79.61	25	P	P	01 09 46.1	+1.4
	comp=Z,27nm,1.0s						
RC01	Rabbit Creek A	79.61	330	P	P	01 09 44.1	-0.8
M22K	Willow	79.76	331	P	P	01 09 44.5	-1.1
M22K				IAmb	IAmb	01 09 47.4	
	comp=Z,16nm,0.8s						
CUT	Chulitna	79.79	332	P	P	01 09 44.7	-1.1
CUT				IAmb	IAmb	01 10 10.2	

	comp=Z,14nm,0.6s						
KEV	Kevo	79.81	21	P	P	01 09 45.9	+0.2
KEV				IAmb	IAmb	01 10 06.5	
	comp=Z,26nm,1.4s						
MLY	Manley	79.85	334	P	P	01 09 44.9	-1.3
SLKM	Skilak Lake	79.88	330	P	P	01 09 45.4	-1.0
SLKM				IAmb	IAmb	01 09 47.0	
	comp=Z,23nm,0.9s						
FINES	FINESS Array B	79.89	29	P	P	01 09 46.9	+0.5
	comp=Z,6.6nm,0.7s,baz=296,slow=4.7,SNR=36						
	comp=Z,6.6nm,0.7s						
FINES	FINESS Array B	79.89	29	P	P	01 09 46.7	+0.4
H22K	Ishtalitna Cre	80.06	335	P	P	01 09 47.1	-0.2
SUA	Susitna One	80.08	331	P	P	01 09 46.6	-0.9
BRLK	Bradley Lake	80.27	329	P	P	01 09 48.1	-0.4
BRLK				IAmb	IAmb	01 09 49.2	
	comp=Z,15nm,0.8s						
D22K	Ayikyak River	80.36	338	P	P	01 09 48.6	-0.1
SKT	Skwentna	80.41	331	P	P	01 09 47.8	-1.5
SKT				IAmb	IAmb	01 09 49.3	
	comp=Z,8.4nm,0.8s						
BUR08	Bucovina Ar. S	80.45	43	P	P	01 09 50.0	+0.2
BURAR	Bucovina Array	80.46	43	P	P	01 09 50.4	+0.5
RNPP9	Sopachiv	80.55	39	P	P	01 09 49.7	-0.4
VADS	Vadso	80.59	20	*e*P	P	01 09 51.6	+1.6
STLK	Strandline Lak	80.59	331	P	P	01 09 49.0	-1.2
STLK				IAmb	IAmb	01 09 50.6	
	comp=Z,7.8nm,0.8s						
G21K	Allakaket	80.87	336	P	P	01 09 51.3	-0.3
IMAR	Indian Mountai	81.02	336	P	P	01 09 51.3	-1.1
MLR	Muntele Rosu	81.17	45	P	P	01 09 53.0	-0.8
MLR	Muntele Rosu	81.17	45	P	P	01 09 52.9	-0.8
	comp=Z,10nm,1.0s						
M20K	Styx River	81.17	331	P	P	01 09 52.2	-1.1
M20K				IAmb	IAmb	01 09 53.5	
	comp=Z,12nm,0.8s						
KDAK	Kodiak Island	81.33	327	P	P	01 09 53.7	-0.4
KDAK				IAmb	IAmb	01 09 54.7	
	comp=Z,13nm,0.7s						
ILSW	Iliamna Southw	81.38	329	P	P	01 09 53.9	-0.7
J20K	Nowinta River	81.39	334	P	P	01 09 53.2	-1.1
K20K	Telida	81.44	333	P	P	01 09 53.3	-1.4
K20K				IAmb	IAmb	01 09 55.1	
	comp=Z,15nm,1.2s						
IDI	Anoyia	81.54	56	P	P	01 09 55.3	-0.5
F20K	Avaraart Lake	81.69	337	P	P	01 09 56.0	+0.2
Q19K	Cape Douglas,	81.75	328	P	P	01 09 55.6	-0.9
OHAK	Old Harbor	81.77	327	P	P	01 09 55.8	-0.7
OHAK				IAmb	IAmb	01 09 57.0	
	comp=Z,17nm,1.2s						
D20K	Etivluk River	81.80	338	P	P	01 09 55.9	-0.5
LUBAR	Lubar, Ukraine	81.89	41	P	P	01 09 56.4	-0.9
O19K	Port Alsworth	81.94	330	P	P	01 09 56.3	-1.0
N19K	Bonanza Creek	81.94	330	P	P	01 09 56.5	-0.9
L19K	White Mountain	81.95	332	P	P	01 09 56.6	-0.8
L19K				IAmb	IAmb	01 09 57.6	
	comp=Z,14nm,0.9s						
MI30	MI30,Zelenitsa	82.07	40	P	P	01 09 56.8	-1.4
	comp=Z,10.0nm,1.2s						
E19K	Redstone River	82.21	337	P	P	01 09 57.5	-1.1
E19K				IAmb	IAmb	01 09 59.6	
	comp=Z,13nm,1.1s						
G19K	Purcell Mounta	82.35	336	P	P	01 09 58.6	-0.8
G19K				IAmb	IAmb	01 09 59.8	
	comp=Z,11nm,1.2s						
D19K	Kuna River	82.37	338	P	P	01 09 58.6	-0.9
D19K				IAmb	IAmb	01 10 01.4	
	comp=Z,16nm,1.2s						
SORM	Soroca	82.50	43	P	P	01 09 59.5	-1.0
	comp=Z,6.7nm,0.9s						
F19K	Shaleruckik Mo	82.52	337	P	P	01 09 59.3	-0.9
F19K				IAmb	IAmb	01 10 00.5	
	comp=Z,8.2nm,0.9s						
J18K	Innoko River	82.61	333	P	P	01 10 00.4	-0.3
N18K	Kilae Creek	82.65	330	P	P	01 10 00.1	-0.9
KIEV	Kiev	82.72	40	P	P	01 10 01.3	-0.2
	comp=Z,17nm,3.0s						
ACHA	Angle Creek He	82.72	328	P	P	01 10 01.0	-0.5
ACHA				IAmb	IAmb	01 10 04.2	
	comp=Z,9.2nm,1.1s						
AKASG	Malin Array Be	82.72	40	P	P	01 10 01.8	+0.2
	comp=Z,1.1nm,0.7s,baz=272,slow=4.0,SNR=5.2						
	comp=Z,1.1nm,0.7s						
AKBB	Malin Array Si	82.72	40	P	P	01 10 00.1	-1.5
LVZ	Lovozero	82.78	22	P	P	01 10 01.3	-0.3
LVZ				IAmb	IAmb	01 10 03.3	
	comp=Z,17nm,0.8s						
L18K	Granite Mounta	82.79	332	P	P	01 10 00.8	-0.9
L18K				IAmb	IAmb	01 10 02.2	
	comp=Z,10nm,0.8s						
C19K	Lookout Ridge	82.79	339	P	P	01 10 00.2	-1.5
C19K				IAmb	IAmb	01 10 02.7	
	comp=Z,16nm,0.8s						
G18K	Tagagawik	83.03	336	P	P	01 10 02.1	-0.8
G18K				IAmb	IAmb	01 10 04.1	
	comp=Z,24nm,1.0s						
H18K	Honhosa River	83.04	335	P	P	01 10 02.5	-0.4
H18K				IAmb	IAmb	01 10 05.4	
	comp=Z,7.5nm,0.9s						
P17K	Kvichak River	83.15	329	P	P	01 10 02.8	-0.8
M17K	Holitna River	83.28	331	P	P	01 10 03.6	-0.6
M17K				IAmb	IAmb	01 10 05.0	
	comp=Z,12nm,0.8s						
N17K	Nushagak Hills	83.30	330	P	P	01 10 03.6	-0.8
N17K				IAmb	IAmb	01 10 04.6	
	comp=Z,6.8nm,0.7s						
K17K	Iditarod	83.45	333	P	P	01 10 04.5	-0.6
C18K	Utukok River	83.45	339	P	P	01 10 05.3	+0.2
C18K				IAmb	IAmb	01 10 18.8	
	comp=Z,10nm,1.1s						
E18K	Tukpahlearik C	83.50	337	P	P	01 10 04.0	-1.3
E18K				IAmb	IAmb	01 10 05.8	
	comp=Z,9.9nm,0.7s						
J17K	VABM Dome	83.67	333	P	P	01 10 05.8	-0.4
J17K				IAmb	IAmb	01 10 07.5	
	comp=Z,14nm,1.0s						
H17K	Granite Mounta	83.73	335	P	P	01 10 05.9	-0.6
H17K				IAmb	IAmb	01 10 07.5	
	comp=Z,15nm,0.8s						
O16K	Kokwok River B	83.91	329	P	P	01 10 06.4	-1.2
O16K				IAmb	IAmb	01 10 07.4	
	comp=Z,9.1nm,0.7s						
P16K	Nushagak River	83.97	329	P	P	01 10 07.4	-0.4
M16K	Timber Creek	84.07	331	P	P	01 10 08.2	-0.1
L16K	Owhat River	84.18	332	P	P	01 10 09.0	+0.2
L16K				IAmb	IAmb	01 10 10.6	
	comp=Z,19nm,0.8s						
RDOG	Red Dog Mine	84.21	338	P	P	01 10 08.3	-0.6
RDOG				IAmb	IAmb	01 10 09.3	
	comp=Z,14nm,0.8s						
I17K	Unalakleet	84.28	334	P	P	01 10 08.6	-0.7
I17K				IAmb	IAmb	01 10 10.3	
	comp=Z,12nm,0.7s						
WIN	Windhoek	84.28	114	P	P	01 10 10.2	-0.2
WIN				IAmb	IAmb	01 10 13.2	
	comp=Z,27nm,1.5s						
J16K	Anvik River	84.36	333	P	P	01 10 10.2	+0.4
J16K				IAmb	IAmb	01 10 11.4	
	comp=Z,8.2nm,1.0s						
G16K	Koyuk River	84.63	336	P	P	01 10 11.1	+0.1
G16K				IAmb	IAmb	01 10 12.2	
	comp=Z,12nm,0.8s						
CHGN	Chignik	84.70	326	P	P	01 10 10.9	-0.6
N15K	Kwethluk River	84.79	330	P	P	01 10 12.6	+0.6
N15K				IAmb	IAmb	01 10 13.5	
	comp=Z,11nm,0.8s						
O15K	Ungalikthiuk R	84.86	329	P	P	01 10 10.2	-2.2
O15K				IAmb	IAmb	01 10 19.1	
	comp=Z,8.2nm,1.1s						
K15K	Wolf Creek Mou	85.00	332	P	P	01 10 13.8	+0.8
K15K				IAmb	IAmb	01 10 14.8	
	comp=Z,9.2nm,0.9s						
C16K	Lisburne Hills	85.03	339	P	P	01 10 12.9	-0.1
C16K				IAmb	IAmb	01 10 13.6	
	comp=Z,13nm,0.8s						
VNFG	Fog Glacier, M	85.33	326	P	P	01 10 14.2	-0.7
F15K	North Star Dit	85.48	336	P	P	01 10 15.4	+0.1
F15K				IAmb	IAmb	01 10 16.3	
	comp=Z,6.4nm,0.7s						
M14K	Bethel	85.56	331	P	P	01 10 15.7	0.0
M14K				IAmb	IAmb	01 10 17.3	
	comp=Z,13nm,0.9s						
N14K	Kuskokwak Cree	85.62	330	P	P	01 10 16.2	+0.1
N14K				IAmb	IAmb	01 10 17.3	
	comp=Z,15nm,0.9s						
L14K	Kuka Creek	85.76	332	P	P	01 10 16.3	-0.4
L14K				IAmb	IAmb	01 10 17.9	
	comp=Z,6.1nm,0.8s						
J14K	Nanvaranak Lak	85.80	333	P	P	01 10 16.7	-0.2
OBN	Obninsk	86.30	35	P	P	01 10 19.5	0.0
M13K	Dall Lake	86.31	331	P	P	01 10 19.6	+0.1
K13K	Kusilvak Mount	86.51	332	P	P	01 10 19.9	-0.6
K13K				IAmb	IAmb	01 10 21.9	
	comp=Z,14nm,1.1s						
BR105	Keskin Array S	87.67	50	P	P	01 10 27.2	+0.4
BR131	Keskin Array S	87.69	50	P	P	01 10 25.9	-0.9
BR131				IAmb	IAmb	01 10 28.8	
	comp=Z,4.7nm,0.8s						
BRTR	Keskin Array B	87.69	50	P	P	01 10 28.1	+1.2
	comp=Z,2.8nm,0.8s,baz=270,slow=3.5,SNR=14						
	comp=Z,2.8nm,0.8s						
BRTR	Keskin Array B	87.69	50	P	P	01 10 26.4	-0.4
BELA	Belgrano 2	89.71	174	P	P	01 10 37.0	+1.8
BELA				IAmb	IAmb	01 10 38.4	
	comp=Z,11nm,1.4s						
SUR	Sutherland	89.75	123	LR	LR	01 48 22.0	
	comp=Z,47nm,18.2s,baz=328,slow=34						
LBTB	Lobatse	92.40	115	LR	LR	01 50 13.5	
	comp=Z,35nm,18.7s,baz=338,slow=34						
BOSA	Boshof	92.76	118	P	P	01 10 52.2	+1.6
	comp=Z,6.5nm,0.8s,baz=278,slow=5.4,SNR=9.3						
	comp=Z,6.5nm,0.8s						
GURO	Guroymak-BITLI	94.30	50	P	P	01 10 58.2	+0.5
GURO				IAmb	IAmb	01 11 00.7	
	comp=Z,5.4nm,0.8s						
ARTI	Arti	97.20	29	P	Pdif	01 11 10.5	+0.2
ARTI				IAmb	IAmb	01 11 11.8	
	comp=Z,3.4nm,0.8s						
NRIK	Noril'sk	97.46	10	P	P	01 11 11.1	0.0
	comp=Z,1.1nm,0.4s,baz=326,slow=3.6,SNR=1.6						
	comp=Z,1.1nm,0.4s						
TIXI	Tiksi	97.57	357	LR	LR	01 56 55.1	
	comp=Z,61nm,20.2s,baz=202,slow=36						
AMKA	Amchitka	98.72	326	P	P	01 11 16.5	-0.6
JOHN	Johnston Islan	103.24	290	Pdif	Pdif	01 11 37.4	-0.5
ZALV	Zalesovo Beam	109.83	20	Pdif	Pdif	01 12 09.2	+2.6
WMQ	Urumqi	119.25	25	*e*PKP	PKiKP	01 16 27.8	+0.7
WMQ				LR	LR		
	comp=Z,160nm,22.7s						
SONM	Songino Array	120.90	9	PKP	PKPdf	01 16 29.7	-0.6
	comp=Z,0.8nm,0.4s,baz=341,slow=1.0,SNR=4.9						
SONM				PP	PP	01 17 55.4	-2.9
	comp=Z,0.3nm,0.4s,baz=351,slow=7.3,SNR=3.5						
SONM	Songino Array	120.90	9		PKPdf	01 16 29.4	-0.8
CN2	Changchun	125.39	353	PKP	PKPdf	01 16 32.9	-5.8
HHC	Hu-ho-hao-te	128.44	6	*e*P	PKiKP	01 16 47.4	+1.9
MJAR	Matsushiro Arr	129.31	339	PKP	PKPdf	01 16 45.9	-0.7
	comp=Z,2.2nm,0.6s,baz=70,slow=1.1,SNR=9.0						
MJAR	Matsushiro Arr	129.31	339		PKPdf	01 16 46.4	-0.1
KSRS	Korea Array	131.24	349	PKP	PKPdf	01 16 49.6	-0.4
	comp=Z,2.0nm,0.8s,baz=43,slow=2.1,SNR=7.7						
KSRS				SKPbc	SKPbc	01 20 08.3	-2.1
	comp=Z,1.4nm,0.6s,baz=356,slow=4.4,SNR=5.1						
NJ2	Nanjing	137.54	359	*e*P	PKiKP	01 17 03.8	-0.2
NJ2				pmax	pmax		
	comp=Z,33nm,0.6s						
CMAR	Chiang Mai Arr	145.59	33	PKPbc	PKPab	01 17 17.8	+0.5
	comp=Z,32nm,0.9s,baz=316,slow=5.1,SNR=109						
CMAR				SKPbc	SKPbc	01 20 51.5	-0.7
	comp=Z,1.2nm,0.3s,baz=280,slow=3.1,SNR=5.2						
SSLB	Suanglung	145.65	355	PKPdf	PKPdf	01 17 16.7	-0.1
CMSA	Cobar Meteorol	146.90	227	P	PKPbc	01 17 20.8	+0.3
STKA	Stephens Creek	149.54	222	PKP	PKPdf	01 17 23.8	+0.9
	comp=Z,2.5nm,0.4s,baz=27,slow=3.8,SNR=5.2						
STKA				PKPbc	PKiKP	01 17 28.9	+0.3
	comp=Z,2.0nm,0.3s,baz=99,slow=2.5,SNR=7.3						
CTAO	Charters Tower	151.09	248	PKPbc	PKiKP	01 17 32.5	+0.3
ASAR	Alice Springs	159.96	228	PKP	PKPdf	01 17 37.9	+0.4
	comp=Z,0.5nm,0.5s,baz=107,slow=1.4,SNR=7.6						
WRA	Warramunga Arr	161.62	238	PKP	PKPdf	01 17 39.1	-0.3
	comp=Z,2.2nm,0.9s,baz=100,slow=0.8,SNR=11						
WRA				PKPab	PKPab	01 18 24.8	+0.3
	comp=Z,1.9nm,0.8s,baz=112,slow=4.1,SNR=9.3						
WRA	Warramunga Arr	161.62	238		PKPdf	01 17 39.6	+0.3
WB0	Warramunga Arr	161.66	238	PKPdf	PKPdf	01 17 39.5	0.0
SMRI	Semarang	171.85	65	PKPdf	PKPdf	01 17 46.0	-1.3
SOEI	Soe	173.63	277	PKPdf	PKPdf	01 17 49.1	+0.9
JAGI	Jajag, Banyuwa	175.76	60	PKPdf	PKPdf	01 17 47.4	-1.3

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*ASRS **05** 01:30:00.0±1.0, 52°.72N×87°.93E, h0^{km}, M3.1(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

NNC 05 01:30:06.6±1.8**, 52°.67N×87°.45E, h0**^{km}**, mb3.6, mpv3.2, 12C-2D, Error ellipse: s-maj=16.6km s-min=7.5km az=88.0, Suspected Mining explosion., Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAA0	Zalesovo Array	2.03	310	⇑Pn	Pn	01 30 41.3	-0.8
	3.9nm,0.4s						
ZAA0				⇑Sn	Sb	01 31 10.5	+0.4
	15nm,0.5s						
KURK	Kurchatov	5.83	254	⇑Pn	Pn	01 31 32.8	-1.3
	0.8nm,0.8s						
KURK				⇓Sn	Sn	01 32 41.5	-0.2
	1.6nm,0.7s						
KURK				⇑Lg	Lg	01 33 13.1	
	2.8nm,0.6s						
KURBB	Kurchatov Arra	5.92	253	⇑Pn	Pn	01 31 36.1	+0.7
	1.8nm,0.5s						
KURBB				⇑Sn	Sn	01 32 44.6	+0.8
	8.0nm,0.7s						
KURBB				⇑Lg	Lg	01 33 16.2	
	16nm,0.7s						
MK31	Makanchi Array	6.76	212	⇑Pn	Pn	01 31 47.9	+0.8
	1.1nm,0.5s,baz=31,slow=13,SNR=54						
MK31				⇑Sn	Sn	01 33 06.6	+1.8
	1.1nm,0.6s,baz=37,slow=26,SNR=4.9						
MK31				⇑Lg	Lg	01 33 39.0	
	5.6nm,0.8s,baz=40,slow=33,SNR=4.4						
MAKZ	Makanchi	6.85	213	⇑Pn	Pn	01 31 49.5	+1.3
	2.9nm,0.6s						
MAKZ				⇑Sn	Sn	01 33 08.4	+1.5
	2.1nm,0.5s						
MAKZ				⇓Lg	Lg	01 33 42.6	
	8.1nm,1.2s						

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*NEIC **05** 01:34:35.9±2.2, 36°.63N±0°.03×141°.62E±0°.07, h27^{km}±4^{km}, mb4.6/46, Mwr4.4/21, Error ellipse: s-maj=8.6km s-min=2.4km az=60.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}-0.00; $M_{\theta\theta}$-1.53; $M_{\phi\phi}$1.53; $M_{r\theta}$1.75; $M_{\theta\phi}$-0.21; $M_{\phi r}$3.74; Fault plane solution: $M_0$4.41000×10^{15} NP1:ϕ_s209.16000°, δ88.22000°, λ-71.18000°. NP2:ϕ_s304.38000°, δ18.91000°, λ-174.49000°. Principal axes: T 4.7288, Plg40.0000°, Azm282.0000°; N -0.7365, Plg19.0000°, Azm29.0000°; P -3.9923, Plg44.0000°, Azm138.0000°;*

*NEIC **05** 01:34:36.5, 36°.64N×141°.62E, h31^{km}*

*NIED **05** 01:34:36.0, 36°.69N×141°.48E, h38^{km}, MW4.5, Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M_{rr}0.76; $M_{\theta\theta}$0.89; $M_{\phi\phi}$-1.65; $M_{r\theta}$1.55; $M_{\theta\phi}$-2.29; $M_{\phi r}$5.91; Fault plane solution: $M_0$6.50000×10^{15} NP1: ϕ_s256.00000°, δ16.00000°, λ154.00000°. NP2: ϕ_s10.00000°, δ83.00000°, λ76.00000°.*

*JMA **05** 01:34:36.0±0.1, 36°.7N±0°.3×141°.5E±0°.4, h38^{km}, MD4.6/40, MV4.5/40, E OFF IBARAKI PREF*

JMA Felt II J1 at E OFF IBARAKI PREF .

*IDC **05** 01:34:38.1±1.4, 36°.65N×141°.46E, h48^{km}±13^{km}, mb3.9/26, mbtmp4.2/31, ML4.1/5, MS3.8/55, Error ellipse: s-maj=12.4km s-min=9.4km az=96.0*

*GFZ **05** 01:34:39.4±0.9, 37°N±8°×14°1E±1°2, h38^{km}, M4.6/13, mb4.6/13*

ISC 05 01:34:36.0±1.2**, 36°.67N**±0°.05×**141°.53E**±0°.05**, h31**^{km}±8^{km}**, n204,** σ1^{s}.**30**/141**, mb4.5**/63**, MS3.9**/50**, 8D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ONAJ	Iwakimizuishiy	0.73	306	⇓P	Pn	01 34 49.0	-1.2
ONAJ				A	A	01 34 49.0	
	comp=N,22nm,2.1s,comp=E,38nm,2.6s						
ONAJ				⇓*e*S	Sn	01 34 58.3	-2.0
JHO	Hitachi	0.78	266	⇓P	Pn	01 34 49.7	-1.1
JHO				A	A	01 34 49.7	
	comp=N,14nm,3.6s,comp=E,15nm,5.6s						
JHO				⇓*e*S	Sn	01 34 58.8	-2.6
JHYU	Hitachinakayam	0.83	247	A	A	01 34 50.9	
	comp=N,25nm,0.7s,comp=E,29nm,2.5s						
JFK	Kawauchi	0.87	323	⇓P	Pn	01 34 51.1	-1.1
JFK				A	A	01 34 51.1	
	comp=N,14nm,0.5s,comp=E,11nm,0.6s						
JIHU	Itakohorinouch	1.07	229	A	A	01 34 54.8	
	comp=N,62nm,2.0s,comp=E,77nm,0.9s						
JCAJ	Choshiashikaji	1.09	210	A	A	01 34 55.3	
	comp=N,39nm,2.4s,comp=E,33nm,3.8s						
JYT	Yasato	1.16	248	P	Pn	01 34 55.4	-0.8
JYT				A	A	01 34 55.4	
	comp=N,19nm,0.8s,comp=E,17nm,0.4s						
JMST	Minamisoumatoc	1.17	334	A	A	01 34 55.9	
	comp=N,13nm,0.4s,comp=E,10.0nm,0.4s						
JOTO	OTAMA OYAMA	1.30	313	*i* P	Pn	01 34 58.5	+0.3
JOTO				A	A	01 34 58.5	
	comp=N,35nm,0.8s,comp=E,29nm,0.8s						
JSB	Shiboa	1.33	283	A	A	01 34 58.2	
	comp=N,24nm,3.2s,comp=E,42nm,3.0s						
JMM	Marumori	1.33	334	⇓*i*P	Pn	01 34 57.8	-0.7
JMM				⇓*e*S	Sn	01 35 13.6	-1.6
JSMT	Sammumatsuo	1.35	221	A	A	01 34 58.9	
	comp=N,39nm,2.3s,comp=E,49nm,4.0s						
JFY	Yanaizu	1.64	297	A	A	01 35 02.7	
	comp=N,6.0nm,3.4s,comp=E,7.0nm,1.3s						
JCCN	Chibachonan	1.66	220	A	A	01 35 03.5	
	comp=N,28nm,3.3s,comp=E,41nm,2.6s						
JYAR	Yonezawaarcadi	1.66	319	A	A	01 35 03.0	
	comp=N,29nm,1.9s,comp=E,31nm,0.9s						
JAG	Ashikaga	1.69	262	A	A	01 35 03.6	
	comp=N,6.0nm,2.5s,comp=E,4.0nm,5.1s						
TOK	Tokyo	1.74	236	A	A	01 35 04.4	
	comp=N,26nm,1.3s,comp=E,39nm,4.4s						
JOU	Okura	1.83	338	A	A	01 35 05.6	
	comp=N,18nm,2.8s,comp=E,15nm,2.2s						
JKUC	kamogawauchiur	1.85	216	A	A	01 35 06.3	
	comp=N,17nm,2.2s,comp=E,14nm,1.7s						
JYS	Shirataka	1.94	323	A	A	01 35 07.1	
	comp=N,17nm,1.8s,comp=E,14nm,1.7s						
JOFO	Osakifurukawao	1.99	346	A	A	01 35 07.9	
	comp=N,40nm,1.8s,comp=E,56nm,2.1s						
JNS	Sasagawa	2.10	304	A	A	01 35 09.4	
	comp=N,3.0nm,2.6s,comp=E,4.0nm,3.4s						
TATJ	Tateyama 2	2.11	220	A	A	01 35 09.9	
	comp=N,21nm,2.6s,comp=E,23nm,3.5s						
JSGW	Sagamiharawaka	2.16	241	A	A	01 35 10.5	
	comp=N,8.0nm,1.5s,comp=E,6.0nm,1.4s						
JGK	Kuni	2.33	268	A	A	01 35 12.8	
	comp=N,7.0nm,3.6s,comp=E,8.0nm,2.8s						
JYA	Atsumi	2.40	324	A	A	01 35 13.7	
	comp=N,7.0nm,0.8s,comp=E,8.0nm,0.6s						
JIZZ	Izumozaki	2.41	292	A	A	01 35 13.8	
	comp=N,14nm,3.4s,comp=E,16nm,3.2s						
JYYZ	Yamagatayuza	2.66	332	A	A	01 35 17.4	
	comp=N,13nm,3.9s,comp=E,17nm,2.6s						
MJAR	Matsushiro Arr	2.68	268	P	Pn	01 35 18.6	+1.6
	comp=E,16nm,0.3s,baz=84,slow=12,SNR=212						
MJAR				S	Sn	01 35 49.1	+0.7
	comp=E,89nm,0.6s,baz=310,slow=40,SNR=2.9						
MJAR				LR	LR	01 36 41.6	
	comp=E,2µm,19.5s,baz=102,slow=47						
	comp=E,178nm,0.4s						
MJAR				AML	AML		
MJAR	Matsushiro Arr	2.68	268	Pn	Pn	01 35 18.3	+1.3
MAJO	Matsushiro	2.68	268		Pn	01 35 18.7	+1.7
MAJO				Sn	Sn	01 35 50.8	+2.3
MAJO	Matsushiro	2.68	268	P	Pn	01 35 18.8	+1.7
MJB9	Matsu-Tunnel	2.68	268		Pn	01 35 19.6	+2.5
MJB9				Sn	Sn	01 35 51.5	+3.0
JSG	Sagara	3.37	235	Pn	Pn	01 35 26.1	-0.5
JSG	Sagara	3.37	235	P	Pb	01 35 31.9	-3.2
JGF	Kuroka	3.54	254		Pn	01 35 31.5	+2.5
JGF				Sn	Sn	01 36 10.6	+0.8
JGF	Kuroka	3.54	254	P	Pn	01 35 32.3	+3.4
JHJ2	Mitsune	3.82	202		Pn	01 35 32.9	+0.2
JHJ	Hachijo jima 2	3.82	203	P	Pn	01 35 34.3	+1.5
	comp=E,64nm,0.3s,baz=239,slow=20,SNR=30						
JHJ				S	Sn	01 36 16.7	+0.1
	comp=E,572nm,0.3s,baz=229,slow=23,SNR=9.9						
	comp=E,274nm,0.2s						
JHJ				AML	AML		
INU	Inuyama	3.89	252		Pn	01 35 35.9	+2.3
INU	Inuyama	3.89	252	P	Pn	01 35 36.5	+2.9
JTM	Tenmabayashi	4.13	355		Pn	01 35 38.8	+1.9
JTM	Tenmabayashi	4.13	355	P	Pn	01 35 37.4	+0.5
ERM	Erimo	5.48	13		Pn	01 35 55.3	-0.3
JMN	Monobe	6.92	247	Pn	Pn	01 36 16.8	+1.5
JKA	Kamikawa-asahi	7.48	6		Pn	01 36 22.3	-0.7
JKA	Kamikawa-asahi	7.48	6	P	Pn	01 36 22.1	-0.9
	comp=Z,28nm,0.9s						
ASAJ	Asahikawa	7.48	6	P	Pn	01 36 24.4	+1.5
	comp=Z,5.2nm,0.3s,baz=227,slow=11,SNR=14						
ASAJ				S	Sn	01 37 46.4	-0.4
	comp=Z,14nm,0.5s,baz=276,slow=13,SNR=3.9						
ASAJ				LR	LR	01 39 54.2	
	comp=Z,236nm,18.7s,baz=184,slow=42						
	comp=Z,8.8nm,0.4s						
ASAJ				AML	AML		
JNU	Nakatsue	9.44	251	P	Pn	01 36 51.4	+1.5
	comp=Z,1.0nm,0.3s,baz=67,slow=9.0,SNR=5.6						
JNU				LR	LR	01 40 53.3	
	comp=Z,547nm,18.5s,baz=66,slow=40						
	comp=Z,6.9nm,0.8s						
JNU				AML	AML		
YSS	Yuzhno-Sakhali	10.32	5	Pn	Pn	01 37 01.6	-0.2
USA0B	Ussuriysk Arra	10.46	319		Pn	01 37 05.8	+2.1
USRK	Ussuriysk Ar.	10.46	319	P	Pn	01 37 06.7	+3.0
	comp=Z,2.1nm,0.3s,baz=112,slow=11,SNR=22						
USRK				LR	LR	01 40 52.0	
	comp=Z,600nm,19.6s,baz=135,slow=36						
	comp=Z,11nm,0.5s						
USRK				AML	AML		
USRK	Ussuriysk Ar.	10.46	319		Pn	01 37 05.2	+1.5
KSRS	Korea Array	10.90	278	P	Pn	01 37 13.7	+3.8
	comp=Z,18nm,1.0s,baz=87,slow=14,SNR=45						
KSRS				LR	LR	01 41 19.0	
	comp=Z,660nm,18.5s,baz=85,slow=37						
KSAR	Wonju Array Be	10.93	278		Pn	01 37 11.4	+1.1
KS19	Wonju Array Si	10.95	278		Pn	01 37 12.2	+1.6
KLR	Kul'dur	14.44	333	P	P	01 38 02.5	-2.0
	comp=Z,3.9nm,0.8s,baz=134,slow=12,SNR=10.0						
KLR				LR	LR	01 43 28.5	
	comp=Z,313nm,18.3s,baz=180,slow=37						
HEH	HeiHe	16.97	328	*e*P	Pn	01 38 21.2	-10
HEH				LR	LR		
	comp=N,290nm,11.7s						
HEH				LR	LR		
	comp=E,340nm,11.4s						
HEH				LR	LR		
	comp=Z,550nm,10.8s						
PEA0B	Petropavlovsk-	19.96	29	P	P	01 39 05.4	0.0
PETK	Petropavlovsk-	19.96	29	P	Pn	01 39 06.7	-0.5
	comp=Z,1.8nm,0.5s,baz=221,slow=8.8,SNR=5.9						
PETK				LR	LR	01 46 16.6	
	comp=Z,146nm,21.4s,baz=214,slow=35						
	comp=Z,1.8nm,0.5s						
BJT	Baijiatuau	20.15	287		Pn	01 39 09.1	-0.5
BJT				IAmb	IAmb	01 39 12.6	
	comp=Z,35nm,1.4s						
BJT	Baijiatuau	20.15	287	P	P	01 39 08.6	+1.0
	comp=Z,19nm,1.4s						
HILR	Hailar Array B	20.37	316	P	P	01 39 06.2	-3.8
	comp=Z,2.1nm,0.4s,baz=119,slow=12,SNR=8.7						
XLT	XiLinHaoTe	20.66	298	*e*P	P	01 39 13.9	+0.6
XLT				pmax	pmax		
	comp=Z,16nm,1.1s						
XLT				pmax	pmax		
	comp=Z,260nm,6.6s						
XLT				LR	LR		
	comp=E,560nm,14.0s						
XLT				LR	LR		
	comp=Z,590nm,14.7s						
NACB	Ninganchiao	21.18	240	P	P	01 39 17.4	-1.5
HNS	HongShan	21.41	280	⇓P	P	01 39 19.2	-2.0
HNS				pmax	pmax		
	comp=Z,19nm,0.5s						
YULB	Yu-li	21.90	238	P	P	01 39 25.8	-0.8
GUMO	Guam	23.18	172	LR	LR	01 47 02.8	
	comp=Z,47nm,21.3s,baz=3.0,slow=32						
HHC	Hu-ho-hao-te	23.68	289	*e*P	P	01 39 44.1	-0.9
HHC				pmax	pmax		
	comp=Z,11nm,0.7s						
HHC				pmax	pmax		
	comp=Z,120nm,4.4s						
YAK	Yakutsk	26.44	347	LR	LR	01 51 04.5	

	comp=Z,148nm,18.3s,baz=118,slow=37						
SEY	**Seymchan**	**27.13**	**11**	P	**P**	**01 40 16.8**	**+0.8**
	comp=Z,1.8nm,0.3s,baz=175,slow=7.6,SNR=9.6						
	comp=Z,1.8nm,0.3s						
ULN	**Ulaanbaatar**	**27.64**	**305**		**P**	**01 40 20.0**	**-1.0**
ULN	**Ulaanbaatar**	**27.64**	**305**	P	**P**	**01 40 21.7**	**+0.8**
	comp=Z,6.8nm,1.1s						
SHEM	**Shemya Is, Ala**	**27.86**	**44**	LR	LR	01 49 00.5	
	comp=Z,78nm,21.2s,baz=92,slow=31						
H11N2	**WAKE ISLAND Hy**	**27.88**	**120**	T	T	02 09 41.0	
	baz=313,slow=75,SNR=383						
H11N1	**WAKE ISLAND Hy**	**27.89**	**120**	T	T	02 09 41.2	
	baz=313,slow=75,SNR=280						
H11N3	**WAKE ISLAND Hy**	**27.90**	**120**	T	T	02 09 42.3	
	baz=313,slow=75,SNR=245						
SONM	**Songino Array**	**28.07**	**305**	P	**P**	**01 40 24.3**	**-0.5**
	comp=Z,5.0nm,0.9s,baz=107,slow=8.6,SNR=21						
SONM				LR	LR	01 51 40.1	
	comp=Z,126nm,18.8s,baz=116,slow=36						
	comp=Z,5.0nm,0.9s						
SONM	**Songino Array**	**28.07**	**305**		**P**	**01 40 23.9**	**-0.9**
H11S1	**WAKE ISLAND Hy**	**28.58**	**122**	T	T	02 10 33.0	
	baz=315,slow=75,SNR=206						
H11S3	**WAKE ISLAND Hy**	**28.59**	**123**	T	T	02 10 33.0	
	baz=315,slow=75,SNR=132						
H11S2	**WAKE ISLAND Hy**	**28.60**	**123**	T	T	02 10 34.8	
	baz=315,slow=75,SNR=145						
LZH	**Lanzhou**	**30.22**	**280**	*e*P	P	01 40 49.6	+5.6
LZH				sP	sP	01 40 55.6	-0.9
LZH				pmax	pmax		
	comp=Z,28nm,1.7s						
LZDM	**Lanzhou Array**	**30.37**	**280**	P	**P**	**01 40 45.2**	**-0.3**
	comp=Z,3.5nm,0.5s,baz=80,slow=12,SNR=1.5						
LZDM				LR	LR	01 53 50.5	
	comp=Z,280nm,19.0s,baz=205,slow=38						
	comp=Z,3.5nm,0.5s						
GTA2	**Gaotai**	**32.79**	**288**	*e*P	**P**	**01 41 06.9**	**+0.3**
GTA2				pmax	pmax		
	comp=Z,2.0nm,1.1s						
DAV	**Davao City (W)**	**32.87**	**210**	LR	LR	01 52 02.3	
	comp=Z,103nm,21.8s,baz=340,slow=32						
SLVN	**Son La**	**36.03**	**255**	P	**P**	**01 41 33.6**	**-1.1**
GOMU	**GeErMu**	**37.30**	**284**	P	**P**	**01 41 44.9**	**-0.8**
GOMU				pP	pP	01 41 48.3	-6.3
GOMU				sP	sP	01 41 52.4	-5.8
GOMU				pmax	pmax		
	comp=Z,11nm,0.9s						
FAKI	**Fak Fak**	**40.33**	**194**	P	**P**	**01 42 09.9**	**-0.8**
WMQ	**Urumqi**	**41.09**	**297**	*e*P	**P**	**01 42 20.2**	**+3.3**
WMQ				pP	sP	01 42 29.3	-0.2
WMQ				pmax	pmax		
	comp=Z,24nm,0.7s						
WMQ				LR	LR		
	comp=Z,130nm,24.7s						
CHTO	**Chiang Mai**	**41.30**	**256**	P	**P**	**01 42 18.6**	**-0.3**
CMAR	**Chiang Mai Arr**	**41.50**	**256**	P	**P**	**01 42 18.4**	**-2.0**
	comp=Z,1.1nm,0.3s,baz=61,slow=7.5,SNR=4.1						
CMAR				LR	LR	02 02 04.9	
	comp=Z,147nm,18.9s,baz=60,slow=40						
	comp=Z,1.1nm,0.3s						
CMAR	**Chiang Mai Arr**	**41.50**	**256**	P	**P**	**01 42 21.2**	**+0.7**
ZAA0	**Zalesovo Array**	**42.23**	**313**		**P**	**01 42 25.8**	**-0.2**
ZAA0				IAmb	IAmb	01 42 37.4	
	comp=Z,11nm,1.0s						
ZALV	**Zalesovo Beam**	**42.23**	**313**	P	**P**	**01 42 25.9**	**-0.1**
	comp=Z,2.7nm,0.5s,baz=98,slow=8.1,SNR=14						
ZALV				LR	LR	02 00 50.2	
	comp=Z,136nm,18.1s,baz=30,slow=37						
	comp=Z,2.7nm,0.5s						
ZALV	**Zalesovo Beam**	**42.23**	**313**		**P**	**01 42 25.7**	**-0.3**
M14K	**Bethel**	**42.62**	**37**	P	**P**	**01 42 29.9**	**+0.8**
M14K				IAmb	IAmb	01 42 46.5	
	comp=Z,17nm,1.4s						
N14K	**Kuskokwak Cree**	**42.65**	**38**	P	**P**	**01 42 28.5**	**-0.8**
N14K				IAmb	IAmb	01 43 11.2	
	comp=Z,20nm,1.4s						
C16K	**Lisburne Hills**	**42.99**	**26**	P	**P**	**01 42 32.4**	**+0.4**
C16K				IAmb	IAmb	01 43 15.5	
	comp=Z,28nm,1.4s						
N15K	**Kwethluk River**	**43.47**	**38**	P	**P**	**01 42 35.7**	**-0.3**
N15K				IAmb	IAmb	01 42 38.5	
	comp=Z,8.3nm,1.1s						
O15K	**Ungalikthiuk R**	**43.52**	**40**	P	**P**	**01 42 37.2**	**+0.8**
O15K				IAmb	IAmb	01 42 50.3	
	comp=Z,11nm,1.2s						
M16K	**Timber Creek**	**44.11**	**37**	P	**P**	**01 42 42.0**	**+0.8**
M16K				IAmb	IAmb	01 43 12.2	
	comp=Z,15nm,1.4s						
MKAR	**Makanchi Array**	**44.39**	**302**	P	**P**	**01 42 43.3**	**-0.3**
	comp=Z,1.2nm,0.5s,baz=85,slow=9.7,SNR=14						
MKAR				LR	LR	02 01 39.0	
	comp=Z,140nm,19.8s,baz=76,slow=36						
	comp=Z,1.2nm,0.5s						
MKAR	**Makanchi Array**	**44.39**	**302**		**P**	**01 42 43.5**	**-0.1**
C18K	**Utukok River**	**44.56**	**26**	P	**P**	**01 42 45.4**	**+0.6**
BRDH	**Bariadhala**	**45.06**	**266**	LR	LR	02 04 40.6	
	comp=Z,257nm,18.5s,baz=70,slow=40						
KURK	**Kurchatov**	**46.23**	**308**		**P**	**01 42 57.7**	**-0.4**
KURK	**Kurchatov**	**46.23**	**308**	P	**P**	**01 42 57.7**	**-0.4**
	comp=Z,19nm,1.0s						
KURBB	**Kurchatov Arra**	**46.30**	**308**	P	**P**	**01 42 58.1**	**-0.5**
	comp=Z,3.3nm,0.5s,baz=82,slow=7.9,SNR=48						
KURBB				LR	LR	02 03 12.0	
	comp=Z,158nm,20.1s,baz=173,slow=37						
	comp=Z,3.3nm,0.5s						
EVN	**Everest**	**46.52**	**276**		**P**	**01 43 01.0**	**-0.5**
EVN	**Everest**	**46.52**	**276**	P	**P**	**01 43 01.5**	**0.0**
	comp=Z,6.4nm,1.4s						
PDGK	**Podgornoye**	**47.03**	**298**		**P**	**01 43 04.3**	**-0.3**
KDAK	**Kodiak Island**	**47.31**	**42**	LR	LR	02 02 27.0	
	comp=Z,92nm,21.8s,baz=219,slow=35						
WUS	**Wushi**	**47.77**	**296**	P	**P**	**01 43 11.8**	**+1.4**
	comp=Z,16nm,1.2s						
E22K	**Anaktuvuk Pass**	**47.88**	**28**	IAmb	IAmb	01 43 13.4	
	comp=Z,15nm,1.4s						
PRZ	**Przheval'sk**	**48.02**	**297**	P	**P**	**01 43 12.7**	**+0.3**
TARG	**Taragay, Kyrgy**	**48.65**	**297**		**P**	**01 43 17.3**	**-0.2**
TARG				IAmb	IAmb	01 43 25.8	
	comp=Z,5.4nm,0.7s						
TARG	**Taragay, Kyrgy**	**48.65**	**297**	P	**P**	**01 43 18.8**	**+1.3**
	comp=Z,7.5nm,0.7s						
KDJ	**Kajisay**	**48.98**	**297**	P	**P**	**01 43 19.9**	**0.0**
KDJ				IAmb	IAmb	01 43 34.8	
	comp=Z,5.5nm,1.0s						
HNR	**Honiara**	**49.02**	**156**	LR	LR	02 03 59.3	
	comp=Z,61nm,19.5s,baz=90,slow=36						
SCM	**Sheep Creek Mo**	**49.70**	**36**	P	**P**	**01 43 25.9**	**+1.0**
SCM				IAmb	IAmb	01 43 25.9	
	comp=Z,12nm,1.3s						
IL31		**49.75**	**32**	P	**P**	**01 43 25.2**	**+0.1**
IL31				IAmb	IAmb	01 44 06.2	
	comp=Z,6.0nm,1.4s						
ILAR	**Eielson Array**	**49.75**	**32**	P	**P**	**01 43 25.4**	**+0.3**
	comp=Z,1.2nm,0.8s,baz=259,slow=5.8,SNR=11						
	comp=Z,1.2nm,0.8s						
BOOM	**Boomskoye usch**	**49.76**	**298**	P	**P**	**01 43 26.2**	**+0.4**
BOOM				IAmb	IAmb	01 43 56.5	
	comp=Z,5.8nm,0.9s						
ASAI	**AK-SAY(Kyrgyzs**	**49.81**	**296**	P	**P**	**01 43 25.9**	**-0.4**
	comp=Z,3.8nm,1.1s						
FID	**Port Fidalgo**	**50.20**	**37**	P	**P**	**01 43 29.2**	**+0.6**
BMAR	**Burnt Mountain**	**50.60**	**29**	P	**P**	**01 43 33.2**	**+1.5**
AAK	**Ala-Archa**	**50.74**	**299**	LR	LR	02 06 19.8	
	comp=Z,351nm,19.2s,baz=80,slow=38						
C27K	**Jago River**	**50.88**	**26**	P	**P**	**01 43 34.5**	**+0.8**
C27K				IAmb	IAmb	01 43 57.3	
	comp=Z,7.7nm,1.2s						
BVAR	**Borovoye Array**	**50.89**	**313**	P	**P**	**01 43 33.7**	**-0.2**
	comp=Z,1.5nm,0.5s,baz=76,slow=8.0,SNR=7.0						
	comp=Z,1.5nm,0.5s						
KSH2	**Kashi**	**51.06**	**294**	P	**P**	**01 43 36.1**	**+0.5**
KSH2				pmax	pmax		
	comp=Z,4.0nm,0.9s						
RPSI	**Rantau Prapat**	**51.77**	**239**	P	**P**	**01 43 44.5**	**+3.6**
	comp=Z,12nm,0.8s						
ARSB	**Arslanbob**	**52.22**	**298**	P	**P**	**01 43 44.5**	**+0.2**
I28M	**Miner Creek**	**52.63**	**31**		**P**	**01 43 47.1**	**+0.3**
ARK	**Arkit**	**52.79**	**298**	P	**P**	**01 43 48.5**	**+0.1**
	comp=Z,9.7nm,1.1s						
G29M	**Pine Creek**	**53.20**	**29**	IAmb	IAmb	01 43 54.2	
	comp=Z,14nm,1.2s						
KK31	**Karatay Array**	**53.39**	**300**		**P**	**01 43 53.1**	**+0.4**
KK31				IAmb	IAmb	01 44 02.0	
	comp=Z,8.2nm,1.2s						
KKAR	**Karatay Array**	**53.39**	**300**		**P**	**01 43 52.0**	**-0.7**
KNRA	**Kununurra**	**53.44**	**195**	P	**P**	**01 43 53.3**	**+0.1**
KNRA				IAmb	IAmb	01 43 55.3	
	comp=Z,8.4nm,1.1s						
HYT	**Haines Junctio**	**54.53**	**36**	P	**P**	**01 44 01.8**	**+0.9**
HYT				IAmb	IAmb	01 44 19.1	
	comp=Z,5.0nm,1.1s						
H31M	**Peel River**	**54.85**	**30**		**P**	**01 44 03.9**	**+0.9**
H31M				IAmb	IAmb	01 44 05.6	
	comp=Z,11nm,1.1s						
FITZ	**Fitzroy Crossi**	**56.50**	**198**	P	**P**	**01 44 15.5**	**+0.2**
WB0	**Warramunga Arr**	**56.53**	**188**	P	**P**	**01 44 15.2**	**-0.3**
WB0				IAmb	IAmb	01 44 16.8	
	comp=Z,9.8nm,1.0s						
WR8	**Warramunga Arr**	**56.71**	**188**	P	**P**	**01 44 16.7**	**0.0**
WRA	**Warramunga Arr**	**56.71**	**188**	P	**P**	**01 44 16.4**	**-0.4**
	comp=Z,5.0nm,0.8s,baz=5.2,slow=7.1,SNR=20						
	comp=Z,5.0nm,0.8s						
WRA	**Warramunga Arr**	**56.71**	**188**		**P**	**01 44 16.1**	**-0.7**
ARTI	**Arti**	**56.80**	**319**	P	**P**	**01 44 16.5**	**-0.5**
	comp=Z,3.5nm,0.5s,baz=46,slow=1.3,SNR=8.0						
ARTI				LR	LR	02 10 53.8	
	comp=Z,89nm,19.6s,baz=78,slow=38						
	comp=Z,3.5nm,0.5s						
ARTI	**Arti**	**56.80**	**319**	P	**P**	**01 44 16.4**	**-0.7**
P33M	**Teslin, Yukon**	**56.93**	**36**	IAmb	IAmb	01 44 21.1	
	comp=Z,8.0nm,1.3s						
KBL	**Kabul**	**57.63**	**291**	P	**P**	**01 44 23.0**	**-0.6**
	comp=Z,7.2nm,1.2s						
AB31	**Akbulak array**	**58.24**	**310**		**P**	**01 44 26.8**	**-0.5**
AB31				IAmb	IAmb	01 44 38.0	
	comp=Z,3.1nm,0.5s						
ABKAR	**Akbulak array**	**58.24**	**310**		**P**	**01 44 27.0**	**-0.3**
AKTO	**Aktyubinsk**	**58.99**	**312**	P	**P**	**01 44 32.0**	**-0.5**
	comp=Z,1.2nm,0.7s,baz=84,slow=8.5,SNR=5.2						
AKTO				LR	LR	02 10 35.5	
	comp=Z,95nm,20.1s,baz=37,slow=37						
	comp=Z,1.2nm,0.7s						
ASAR	**Alice Springs**	**60.44**	**188**	P	**P**	**01 44 42.2**	**-0.5**
	comp=Z,2.6nm,0.9s,baz=11,slow=5.7,SNR=19						
	comp=Z,2.6nm,0.9s						
ASAR	**Alice Springs**	**60.44**	**188**	P	**P**	**01 44 41.3**	**-1.5**
KIRV	**Kirov**	**60.59**	**323**	LR	LR	02 13 17.0	
	comp=Z,69nm,18.1s,baz=66,slow=38						
SPITS	**Spitsbergen Ar**	**60.90**	**349**	LR	LR	02 12 20.8	
	comp=Z,48nm,19.1s,baz=41,slow=37						
BBB	**Bella Bella**	**62.26**	**44**	LR	LR	02 07 17.3	
	comp=Z,27nm,21.4s,baz=235,slow=31						
PALK	**Pallekele**	**62.38**	**258**	LR	LR	02 14 30.0	
	comp=Z,79nm,19.5s,baz=56,slow=38						
RES	**Resolute Bay**	**62.93**	**14**	LR	LR	02 16 17.3	
	comp=Z,29nm,18.0s,baz=360,slow=40						
YKA	**Yellowknife Ar**	**64.08**	**30**	P	**P**	**01 45 06.0**	**-0.6**
	comp=Z,1.0nm,0.8s,baz=305,slow=6.6,SNR=4.0						
	comp=Z,1.0nm,0.8s						
ARCES	**ARCESS Array B**	**64.37**	**339**	P	**P**	**01 45 08.3**	**-0.2**
	comp=Z,1.0nm,0.7s,baz=58,slow=6.4,SNR=7.7						
ARCES				LR	LR	02 17 18.4	
	comp=Z,71nm,18.2s,baz=60,slow=40						
	comp=Z,1.0nm,0.7s						
ARCES	**ARCESS Array B**	**64.37**	**339**	IAmb	IAmb	01 45 15.8	
	comp=Z,16nm,1.5s						
AFI	**Afiamalu**	**66.83**	**130**	LR	LR	02 08 47.1	
	comp=Z,57nm,21.9s,baz=334,slow=31						
FINES	**FINESS Array B**	**69.18**	**332**	P	**P**	**01 45 39.3**	**+0.1**
	comp=Z,1.7nm,0.8s,baz=69,slow=6.5,SNR=4.9						
FINES				LR	LR	02 18 13.0	
	comp=Z,93nm,19.2s,baz=58,slow=38						
	comp=Z,1.7nm,0.8s						
NEW	**Newport**	**70.32**	**44**	LR	LR	02 11 42.8	
	comp=Z,16nm,22.0s,baz=312,slow=32						
YBH	**Yreka Blue Hor**	**70.49**	**52**	LR	LR	02 12 00.8	
	comp=Z,21nm,20.7s,baz=0.0,slow=32						
KBZ	**Khabaz**	**71.21**	**311**	P	**P**	**01 45 51.3**	**-0.6**
	comp=Z,2.0nm,0.9s,baz=41,slow=9.3,SNR=3.0						
KBZ				LR	LR	02 21 42.5	
	comp=Z,86nm,19.0s,baz=56,slow=40						
	comp=Z,2.0nm,0.9s						
GNI	**Garni**	**72.00**	**307**	LR	LR	02 20 52.1	
	comp=Z,40nm,19.7s,baz=66,slow=38						
HFS	**Hagfors**	**74.46**	**336**	P	**P**	**01 46 11.1**	**+0.1**
	comp=Z,0.9nm,0.6s,baz=28,slow=9.8,SNR=0.9						
HFS				LR	LR	02 21 25.1	
	comp=Z,110nm,19.8s,baz=38,slow=38						
	comp=Z,0.9nm,0.6s						
NB2	**NORSAR Subarra**	**74.56**	**337**	P	**P**	**01 46 12.1**	**+0.5**
	comp=Z,5.1nm,1.0s,baz=40,slow=5.9						
NOA	**NORSAR Array B**	**74.56**	**337**	P	**P**	**01 46 11.5**	**0.0**
	comp=Z,1.3nm,0.8s,baz=39,slow=5.7,SNR=4.7						
NOA				LR	LR	02 22 20.0	
	comp=Z,85nm,19.5s,baz=40,slow=38						
	comp=Z,1.3nm,0.8s						
AKASG	**Malin Array Be**	**74.64**	**322**	P	**P**	**01 46 11.9**	**-0.2**
	comp=Z,1.1nm,0.4s,baz=48,slow=6.2,SNR=16						
	comp=Z,1.1nm,0.4s						
AKASG	**Malin Array Be**	**74.64**	**322**	IAmb	IAmb	01 46 32.2	
	comp=Z,6.2nm,1.4s						
NVAR	**Mina Array Bea**	**75.13**	**53**	P	**P**	**01 46 16.2**	**+0.7**
	comp=Z,2.1nm,0.8s,baz=287,slow=5.7,SNR=15						
	comp=Z,2.1nm,0.8s						
NVAR	**Mina Array Bea**	**75.13**	**53**	P	**P**	**01 46 16.6**	**+1.1**
FRB	**Frobisher Bay**	**77.11**	**13**	LR	LR	02 25 08.8	
	comp=Z,39nm,18.6s,baz=40,slow=39						
PDAR	**Pinedale Array**	**77.85**	**45**	P	**P**	**01 46 31.4**	**+0.5**
	comp=Z,0.4nm,0.5s,baz=317,slow=0.4,SNR=5.7						
	comp=Z,0.4nm,0.5s						
BRTR	**Keskin Array B**	**79.16**	**312**	P	**P**	**01 46 38.8**	**+0.8**
	comp=Z,1.7nm,1.1s,baz=91,slow=7.2,SNR=3.7						
BRTR				LR	LR	02 26 00.6	
	comp=Z,33nm,19.6s,baz=68,slow=39						
	comp=Z,1.7nm,1.1s						
PFO	**Pinyon Flats O**	**79.16**	**56**	LR	LR	02 13 57.4	
	comp=Z,70nm,20.8s,baz=249,slow=30						
TRPA	**Tarpa**	**79.61**	**323**	P	**P**	**01 46 41.3**	**+1.2**
	comp=Z,7.8nm,1.2s						
TRPA				pP	**pP**	**01 46 51.9**	**+2.3**
MLR	**Muntele Rosu**	**79.72**	**320**	LR	LR	02 24 22.1	
	comp=Z,138nm,19.1s,baz=78,slow=37						
ULM	**Lac du Bonnet**	**79.75**	**33**	LR	LR	02 24 39.8	
	comp=Z,21nm,18.4s,baz=304,slow=38						
RAR	**Rarotonga**	**79.87**	**126**	LR	LR	02 17 31.7	
	comp=Z,112nm,19.6s,baz=299,slow=32						
CLL	**Collm**	**81.46**	**330**	*i* P	**P**	**01 46 50.5**	**+0.5**
VRAC	**Vranov**	**81.48**	**327**	LR	LR	02 25 59.3	
	comp=Z,68nm,18.7s,baz=38,slow=38						
ASF	**Jabal al Asfar**	**81.79**	**304**	LR	LR	02 27 05.2	
	comp=Z,39nm,20.9s,baz=27,slow=38						
MMAI	**Mount Meron Ar**	**82.25**	**305**	LR	LR	02 26 27.8	
	comp=Z,60nm,21.6s,baz=36,slow=38						
GERES	**GERESS Array B**	**83.07**	**328**	P	**P**	**01 46 58.6**	**0.0**
	comp=Z,0.5nm,0.4s,baz=35,slow=4.9,SNR=5.2						
	comp=Z,0.5nm,0.4s						
EKA	**Eskdalemuir Ar**	**83.50**	**341**	LR	LR	02 27 43.1	
	comp=Z,68nm,19.3s,baz=2.5,slow=38						
PPT	**Papeete**	**84.39**	**117**	LR	LR	02 18 18.8	
	comp=Z,71nm,20.9s,baz=244,slow=31						
EIL	**Elat**	**84.65**	**303**	LR	LR	02 28 03.1	
	comp=Z,41nm,19.3s,baz=75,slow=38						
DAVOX	**Davos/Dischmat**	**86.29**	**329**	LR	LR	02 29 05.3	
	comp=Z,103nm,18.6s,baz=34,slow=38						
LPIG	**La Paz**	**89.29**	**60**	LR	LR	02 19 00.5	
	comp=Z,31nm,21.9s,baz=170,slow=30						
TXAR	**Lajitas Array**	**90.27**	**52**	P	**P**	**01 47 34.5**	**+0.3**
	comp=Z,0.5nm,0.8s,baz=311,slow=4.3,SNR=5.0						
	comp=Z,0.5nm,0.8s						
VAE	**Valguarnera**	**91.47**	**321**	LR	LR	02 34 04.3	
	comp=Z,112nm,18.3s,baz=134,slow=39						
KEST	**Kesra**	**95.37**	**323**	LR	LR	02 34 59.2	
	comp=Z,52nm,18.1s,baz=356,slow=38						
TKL	**Tuckaleechee C**	**96.63**	**36**	LR	LR	02 33 36.8	
	comp=Z,8.2nm,19.6s,baz=346,slow=37						
ESDC	**Sonseca Array**	**97.66**	**334**	LR	LR	02 36 12.7	
	comp=Z,69nm,20.8s,baz=16,slow=38						
LPAZ	**La Paz**	**146.79**	**60**	PKPbc	**PKPbc**	**01 54 16.6**	**+0.4**
	comp=Z,3.4nm,0.5s,baz=335,slow=1.9,SNR=21						
LPAZ	**La Paz**	**146.79**	**60**		**PKPbc**	**01 54 16.4**	**+0.1**
H03N2	**Juan Fernandez**	**146.89**	**97**	T	T	04 38 36.2	
	baz=293,slow=74						
H03N3	**Juan Fernandez**	**146.90**	**97**	T	T	04 38 34.6	
	baz=293,SNR=5.3						
H03N1	**Juan Fernandez**	**146.91**	**97**	T	T	04 38 37.4	
	baz=293,slow=74						

*SDD **05** 01:38:41.0±3.1, 19°.77N×71°.21W, h20^{km}±7^{km}, MD3.2,*
ML2.2, MW2.4, Presumed earthquake
*OSPL **05** 01:38:44.8±2.0, 19°.76N×71°.23W, h7^{km}±6^{km}, ML2.0,*
Presumed earthquake
ISC 05 01:38:43.3±0.9, **19°.77N**±0°.03×**71°.22W**±0°.03, **h15**^{km}±6^{km},
n15, σ**0ˢ.79**/28, **18C-1D**, **Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LOPP1	**Punta Rusia, P**	**0.09**	**11**	*i* P	**Pg**	**01 38 46.4**	**-0.1**
LOPP1				*e*S	**Sg**	**01 38 49.5**	**+1.0**
LOPP1				IAML		01 38 50.4	
	comp=Z,394nm,0.2s						
LUDR	**Luperon**	**0.28**	**63**	⇑*i*P	**Pg**	**01 38 48.0**	**-1.2**
LUDR				⇑*i*S	**Sg**	**01 38 52.6**	**-0.6**
MCDR	**Montecristi**	**0.43**	**287**	⇑*i*P	**Pb**	**01 38 52.8**	**+0.2**
MCDR				⇑*i*S	**Sg**	**01 38 57.7**	**-0.2**
MCDR				IAML		01 39 40.7	
	comp=N,96nm,1.0s						
SC01	**Santiago de lo**	**0.57**	**126**	*i* P	**Pg**	**01 38 54.0**	**-0.6**
SC01				*e*S	**Sb**	**01 39 03.5**	**+0.5**
SC01				IAML		01 39 05.7	
	comp=Z,71nm,0.3s						
SC01	**Santiago de lo**	**0.57**	**126**	⇑*i*P	**Pg**	**01 38 53.9**	**-0.6**
SC01				⇑*i*S	**Sb**	**01 39 02.9**	**-0.1**
SC01				IAML		01 39 03.9	
	comp=N,88nm,0.2s						
REDR	**Restauracion**	**0.62**	**196**	⇓*i*P	**Pn**	**01 38 56.6**	**-0.9**
REDR				⇑*i*S	**Sn**	**01 39 06.3**	**-0.9**
REDR				IAML		01 39 07.7	
	comp=N,134nm,0.2s						
SDDR	**Presa de Saban**	**0.78**	**185**	*i* P	**Pg**	**01 38 57.9**	**-0.7**
SDDR				*e*S	**Sb**	**01 39 09.8**	**+0.7**
SDDR	**Presa de Saban**	**0.78**	**185**	⇑*i*P	**Pg**	**01 38 58.1**	**-0.4**
SDDR				⇑*i*S	**Sb**	**01 39 09.3**	**+0.2**
SDDR				IAML		01 39 10.4	
	comp=N,64nm,0.3s						
NEDR	**Neiba UASD**	**1.29**	**188**	⇑*i*P	**Pb**	**01 39 07.3**	**0.0**
NEDR				⇑*i*S	**Sg**	**01 39 27.0**	**+2.0**
NEDR				IAML		01 39 53.4	
	comp=N,33nm,1.4s						
NADR	**Nagua**	**1.35**	**108**	⇑*i*P	**Pg**	**01 39 09.0**	**-0.2**
NADR				⇑*i*S	**Sg**	**01 39 27.7**	**+0.9**
NADR				IAML		01 39 30.4	
	comp=N,122nm,0.3s						
JIDR	**Jimani**	**1.40**	**205**	⇑*i*P	**Pb**	**01 39 09.0**	**-0.1**
JIDR				⇑*i*S	**Sb**	**01 39 27.2**	**+0.3**
JIDR				IAML		01 39 47.8	
	comp=N,34nm,3.5s						
LODU1	**El Espartillar**	**1.43**	**190**	*i* P	**Pg**	**01 39 10.0**	**-0.7**
LODU1				IAML		01 39 31.7	
	comp=Z,49nm,1.7s						
GRTK	**Grand Turk**	**1.74**	**3**	*i* P	**Pn**	**01 39 13.1**	**+0.1**
GRTK				*e*S	**Sn**	**01 39 35.5**	**+0.7**
GRTK	**Grand Turk**	**1.74**	**3**	⇑*i*P	**Pb**	**01 39 14.3**	**-0.6**
GRTK				⇑*i*S	**Sn**	**01 39 35.5**	**+0.7**
GRTK				IAML		01 39 54.7	
	comp=N,71nm,0.1s						
SMDR	**Samana, DR**	**1.97**	**104**	⇑*i*S	**Sn**	**01 39 41.8**	**+1.2**
SMDR				IAML		01 39 58.2	
	comp=N,25nm,0.8s						

*SNET **05** 01:40:47.7±0.9, 13°.86N×90°.91W, h76^{km}, ML4.2,*
Presumed earthquake
*CATAC **05** 01:40:47.8±0.5, 14°N±3°×9°1W±°, h27^{km}±4^{km}, M4.4/33,*
MLv4.4/33, Error ellipse: s-maj=6.3km s-min=2.3km
az=30.2, confirmed
*GCG **05** 01:40:48.6±1.3, 13°.99N×90°.84W, h76^{km}±6^{km}, MD4.5,*
ML4.6, Presumed earthquake
*UCR **05** 01:40:51.4±0.9, 14°.16N×90°.42W, h94^{km}±442^{km}, MW3.8,*
Presumed earthquake
ISC 05 01:40:49.1±1.3, **13°.95N**±0°.07×**90°.85W**±0°.04, **h81**^{km}±9^{km},
n76, σ**0ˢ.85**/110, **Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FG8	**Yepocapa, Chim**	**0.41**	**42**	*i* P	**Pn**	**01 41 02.3**	**-0.1**
FG8				*i* S	**Sn**	**01 41 11.9**	**-0.4**
FG16	**Alotenango, Sa**	**0.46**	**46**	*i* P	**Pn**	**01 41 02.6**	**-0.3**
FG16				*i* S	**Sn**	**01 41 13.5**	**+0.5**
PCG5	**San Vicente Pa**	**0.53**	**60**	*i* P	**Pn**	**01 41 02.0**	**-1.3**
STG8	**El Palmar, Qui**	**0.69**	**315**	*i* P	**Pn**	**01 41 08.5**	**+3.4**
STG8				IAML		01 41 26.1	
	comp=N,20µm,0.1s						
GCG4	**OSOP**	**0.70**	**26**	*i* P	**Pn**	**01 41 04.4**	**-0.7**
FAME	**Alcaldia de Sa**	**0.82**	**98**	P	**Pn**	**01 41 05.3**	**-0.8**
FAME				S	**Sn**	**01 41 18.5**	**-0.2**
RTAL	**Retalhuleu**	**1.00**	**305**	*e*P	**Pn**	**01 41 07.4**	**-0.8**
RTAL	**Retalhuleu**	**1.00**	**305**	P	**Pn**	**01 41 07.4**	**-0.8**
RTAL				S	**Sn**	**01 41 22.3**	**-0.2**
SOKI	**Kika Raxquin**	**1.02**	**328**	*i* P	**Pn**	**01 41 08.6**	**-0.3**
SOKI				*i* S	**Sn**	**01 41 23.6**	**+0.1**
SOKI				IAML		01 41 27.4	
	comp=E,7µm,0.3s						
SLOZ	**Alcaldia de Sa**	**1.04**	**86**	P	**Pn**	**01 41 07.9**	**-0.8**
NUBE	**Las Nubes**	**1.04**	**93**	*i* P	**Pn**	**01 41 08.1**	**-0.7**
NUBE				*i* S	**Sn**	**01 41 22.5**	**-1.0**
NUBE	**Las Nubes**	**1.04**	**93**	P	**Pn**	**01 41 07.9**	**-0.9**
NUBE				S	**Sn**	**01 41 23.3**	**-0.2**
APG	**El Apazote**	**1.11**	**20**	*i* P	**Pn**	**01 41 09.6**	**-0.2**
APG				*i* S	**Sn**	**01 41 24.8**	**-0.4**
RTR	**El Retiro**	**1.17**	**93**	*e*P	**Pn**	**01 41 10.0**	**-0.5**
JUAM	**Asuncion Mita**	**1.17**	**71**	*i* P	**Pn**	**01 41 09.6**	**-0.8**
CEVE	**Cerro Verde**	**1.20**	**96**	*e*P	**Pn**	**01 41 10.3**	**-0.5**
CEVE				*e*S	**Sn**	**01 41 28.2**	**+1.0**
CEVE	**Cerro Verde**	**1.20**	**96**	P	**Pn**	**01 41 10.3**	**-0.5**
CEVE				S	**Sn**	**01 41 28.7**	**+1.5**
SBLS	**San Blas**	**1.20**	**95**	*e*P	**Pn**	**01 41 10.4**	**-0.5**
SBLS				*e*S	**Sn**	**01 41 28.3**	**+1.2**
SNJE	**San Jose**	**1.21**	**94**	*e*P	**Pn**	**01 41 10.2**	**-0.8**
SNJE				*e*S	**Sn**	**01 41 28.2**	**+0.8**
UNIC	**Universidad Ca**	**1.26**	**89**	P	**Pn**	**01 41 10.7**	**-0.8**
UNIC				S	**Sn**	**01 41 28.7**	**+0.3**
JAYA	**Jayaque - finc**	**1.39**	**102**	*i* P	**Pn**	**01 41 12.4**	**-0.8**
JAYA				IAML		01 41 41.0	
	comp=N,12µm,0.3s						
JAYA	**Jayaque - finc**	**1.39**	**102**	*i* P	**Pn**	**01 41 12.4**	**-0.8**
JAYA	**Jayaque - finc**	**1.39**	**102**	P	**Pn**	**01 41 12.4**	**-0.8**
JAYA				S	**Sn**	**01 41 30.9**	**-0.5**
CEDA	**San Andres**	**1.42**	**96**	P	**Pn**	**01 41 12.9**	**-0.6**
CEDA				S	**Sn**	**01 41 32.9**	**+1.1**
SMCA	**Catarina**	**1.49**	**307**	*i* P	**Pn**	**01 41 13.7**	**-0.6**
SMCA				*i* S	**Sn**	**01 41 31.2**	**-2.2**
HUEH	**Huehuetenango**	**1.50**	**335**	*i* P	**Pn**	**01 41 14.9**	**+0.2**
HUEH	**Huehuetenango**	**1.50**	**335**	P	**Pn**	**01 41 14.7**	**0.0**
HUEH				S	**Sn**	**01 41 35.4**	**+1.4**
MTO3	**Montecristo**	**1.51**	**73**	*i* P	**Pn**	**01 41 13.9**	**-1.0**
MTO3	**Montecristo**	**1.51**	**73**	P	**Pn**	**01 41 13.8**	**-1.0**
MTO3				S	**Sn**	**01 41 35.3**	**+1.1**
PMON	**Piamonte**	**1.51**	**99**	*e*P	**Pn**	**01 41 13.9**	**-0.7**
PMON	**Piamonte**	**1.51**	**99**	P	**Pn**	**01 41 14.0**	**-0.7**
LALI	**Alcalda de L**	**1.55**	**107**	*i* P	**Pn**	**01 41 14.8**	**-0.3**
LALI	**Alcalda de L**	**1.55**	**107**	P	**Pn**	**01 41 14.9**	**-0.3**
LALI				S	**Sn**	**01 41 35.7**	**+0.8**
UEES	**Universidad Ev**	**1.58**	**98**	*e*P	**Pn**	**01 41 15.0**	**-0.6**
UEES				*e*S	**Sn**	**01 41 37.0**	**+1.3**
UEES	**Universidad Ev**	**1.58**	**98**	P	**Pn**	**01 41 15.0**	**-0.6**
UEES				S	**Sn**	**01 41 37.3**	**+1.7**
ZAFR2	**Estanzuela, Za**	**1.58**	**67**	*i* P	**Pn**	**01 41 15.3**	**-0.3**
SEMO	**Seminario San**	**1.60**	**99**	P	**Pn**	**01 41 15.2**	**-0.6**
SEMO				S	**Sn**	**01 41 37.7**	**+1.7**
PANCS	**Alcalda de**	**1.66**	**102**	*e*P	**Pn**	**01 41 15.8**	**-0.7**
PANCS	**Alcalda de**	**1.66**	**102**	P	**Pn**	**01 41 16.0**	**-0.5**
PANCS				S	**Sn**	**01 41 37.5**	**+0.2**
LOMA	**Loma Larga**	**1.66**	**100**	*e*P	**Pn**	**01 41 15.8**	**-0.9**
LOMA	**Loma Larga**	**1.66**	**100**	P	**Pn**	**01 41 15.9**	**-0.7**
LOMA				S	**Sn**	**01 41 38.7**	**+1.2**
THIG		**1.67**	**305**	*i* P	**Pn**	**01 41 16.7**	**0.0**
LFRS	**El Faro**	**1.77**	**100**	*e*P	**Pn**	**01 41 17.9**	**-0.1**
PAVA	**Las Pavas**	**1.87**	**97**	*e*P	**Pn**	**01 41 18.7**	**-0.7**
PAVA	**Las Pavas**	**1.87**	**97**	P	**Pn**	**01 41 18.9**	**-0.6**
PAVA				S	**Sn**	**01 41 42.3**	**-0.2**
COEG	**Centro de Oper**	**1.94**	**100**	P	**Pn**	**01 41 20.1**	**-0.2**
COEG				S	**Sn**	**01 41 45.0**	**+0.9**
P5NO	**Presa 5 de nov**	**2.03**	**89**	P	**Pn**	**01 41 20.3**	**-1.1**
TECO	**Alcaldia de Te**	**2.05**	**101**	*e*P	**Pn**	**01 41 21.0**	**-0.7**
TECO	**Alcaldia de Te**	**2.05**	**101**	P	**Pn**	**01 41 21.0**	**-0.7**
TECO				S	**Sn**	**01 41 46.9**	**+0.3**
SARH	**Santa Rosa de**	**2.18**	**68**	*i* P	**Pn**	**01 41 23.3**	**-0.2**
SARH	**Santa Rosa de**	**2.18**	**68**	P	**Pn**	**01 41 23.5**	**0.0**
ALJI	**Alcalda de J**	**2.30**	**105**	*e*P	**Pn**	**01 41 24.7**	**-0.3**
ALJI				*e*S	**Sn**	**01 41 51.8**	**-0.7**
ALJI	**Alcalda de J**	**2.30**	**105**	P	**Pn**	**01 41 24.7**	**-0.3**
ALJI				S	**Sn**	**01 41 53.1**	**+0.6**
PACA	**Pacayal**	**2.50**	**101**	P	**Pn**	**01 41 27.2**	**-0.7**
RANC	**El Ranchito**	**2.54**	**101**	P	**Pn**	**01 41 28.0**	**-0.4**

JUCU	Jucuar¡n	2.62	105	eP	Pn	01 41 29.0	-0.4
LCND	La Caada	2.95	102	P	Pn	01 41 33.5	-0.3
CNCH	Conchagua	3.01	103	P	Pn	01 41 34.1	-0.6
CSGN	Cosiguina Volc	3.34	106	P	Pn	01 41 39.0	-0.2
TGIG		3.56	322	iP	Pn	01 41 41.1	-1.1
CRIN	San Cristobal	3.90	108	P	Pn	01 41 47.1	+0.3
CRIN				S	Sn	01 42 33.0	+1.5
TEL3	Telica 3	4.13	109	P	Pn	01 41 49.3	-0.7
HERN	Volcan Telica	4.13	108	P	Pn	01 41 49.5	-0.5
HERN				S	Sn	01 42 37.8	+0.6
PLRN	Geotermica Pol	4.20	108	P	Pn	01 41 50.7	-0.1
PLRN				S	Sn	01 42 39.6	+0.9
ILCN	San Idelfonso	4.26	108	S	Sn	01 42 41.1	+0.8
CNGA	Al SSO del Vol	4.29	109	P	Pn	01 41 51.1	-1.0
CNGN	Cerro Negro	4.29	109	P	Pn	01 41 51.8	-0.3
MOMN	Momotombo	4.47	110	P	Pn	01 41 54.4	-0.1
MOM2	El Cardon	4.51	109	P	Pn	01 41 54.6	-0.4
MOM2				S	Sn	01 42 46.8	+0.5
RCVN	Varillal2	4.54	94	P	Pn	01 41 55.3	-0.2
LCRUZ	La Cruz	5.84	119	eP	Pn	01 42 13.0	-0.2
LCRUZ				eS	Sn	01 43 16.8	-2.0
ALIBA	Liberia Airpor	6.17	122	eP	Pn	01 42 18.6	+1.0
VRLE	La Escondida,	6.21	120	eP	Pn	01 42 18.0	-0.3
JUD3	Juan Diaz 3	6.41	125	iP	Pn	01 42 21.4	+0.4
CUI	Cuipilapa	6.45	120	eP	Pn	01 42 22.0	+0.5
JTS	Las Juntas de	6.82	122	eP	Pn	01 42 26.3	-0.2

*IDC **05** 01:43:42.7±1.6, 33°.37N×75°.36E, h0^{km}, mb3.5/5, mbtmp3.5/8, ML3.0/3, MS3.4/1, Error ellipse: s-maj=49.8km s-min=21.8km az=70.0*

ISC 05 01:43:46.4±1.6, **33°.5N**±0°.2×**75°.4E**±0°.3, **h22**^{km}, **n9**, σ**0^{s}82**/8, **mb3.5**/5, **Eastern Kashmir**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MKAR	Makanchi Array	14.31	19	Pn	Pn	01 47 07.4	-0.2
	0.1nm,0.3s,baz=206,slow=11,SNR=5.2						
	0.6nm,0.8s						
MKAR				AML	AML		
KURBB	Kurchatov Arra	17.30	7	P	Pn	01 47 45.6	-0.8
	baz=195,slow=11,SNR=4.1						
	0.5nm,0.5s						
BVAR	Borovoye Array	19.89	351	P	P	01 48 15.2	-0.9
	baz=141,slow=7.8,SNR=3.1						
	0.5nm,0.6s						
AKTO	Aktyubinsk	21.25	328	P	P	01 48 30.6	-0.3
	1.0nm,0.4s,baz=131,slow=7.9,SNR=2.8						
	1.0nm,0.4s						
ZALV	Zalesovo Beam	21.54	15	P	P	01 48 34.8	+0.8
	0.8nm,0.4s,baz=198,slow=9.1,SNR=3.2						
	0.8nm,0.4s						
BELG	Belogornoye	27.53	322	LR	LR	02 02 32.0	
	comp=Z,70nm,19.4s,baz=88,slow=41						
ARCES	ARCESS Array B	45.33	338	P	P	01 52 03.1	+0.8
	0.5nm,0.5s,baz=119,slow=7.8,SNR=5.5						
	0.5nm,0.5s						
WRA	Warramunga Arr	77.29	124	P	P	01 55 39.5	+0.2
	0.2nm,0.4s,baz=320,slow=6.1,SNR=5.4						
	0.2nm,0.4s						
ASAR	Alice Springs	79.53	127	P	P	01 55 51.1	-0.6
	0.1nm,0.3s,baz=308,slow=4.1,SNR=1.5						
	0.1nm,0.3s						

IDC 05 01:51:51.3±1.6, **4°.67S**×**150°.71E**, **h0**^{km}, **mb3.5**/2, **mbtmp3.6**/2, **Error ellipse: s-maj=71.0km s-min=17.5km az=155.0**, **New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRVT	Keravat (AS076	1.36	75	Pn	Pb	01 52 17.9	+0.2
	451nm,0.3s,baz=320,slow=1.3,SNR=17						
KRVT				Sn	Sb	01 52 35.6	0.0
	834nm,0.3s,baz=280,slow=23,SNR=22						
KRVT				LR	LR	01 52 53.5	
	comp=Z,264nm,19.2s,baz=326,slow=46						
WRA	Warramunga Arr	22.02	225	P	P	01 56 48.8	+1.3
	1.0nm,0.8s,baz=53,slow=10,SNR=7.2						
	1.0nm,0.8s						
ASAR	Alice Springs	24.89	219	P	P	01 57 15.5	-0.6
	1.8nm,0.7s,baz=55,slow=9.0,SNR=22						
	1.8nm,0.7s						
TORD	Torodi Ar. Bea	148.28	287	PKPbc	PKPbc	02 11 39.3	-1.3
	0.7nm,0.6s,baz=90,slow=2.9,SNR=6.0						

*IDC **05** 02:05:49.2±2.0, 10°.93S×119°.56E, h0^{km}, mb3.6/1, mbtmp3.7/5, ML3.8/4, Error ellipse: s-maj=55.4km s-min=13.4km az=67.0*

*DJA **05** 02:05:53.0±0.9, 11°S±10°×12°0E±°, h10^{km}, M3.9/5, MLv3.9/5*

ISC 05 02:05:52.4±1.1, **11°.10S**±0°.09×**119°.8E**±0°.1, **h35**^{km}, **n7**, σ**2^{s}93**/10, **South of Sumba**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WSI	Waingapu	1.49	18	P	Pn	02 06 18.8	+2.1
WSI				AML	AML		
PLAI	Plampang	3.02	318	P	Pn	02 06 37.1	-0.7
KAPI	Kappang	6.04	359	Pn	Pn	02 07 20.5	+1.1
	2.7nm,0.3s,baz=170,slow=6.7,SNR=8.0						
KAPI				Sn	Sn	02 08 24.4	-2.9
	0.5nm,0.3s,baz=194,slow=24,SNR=1.1						
	6.5nm,0.4s						
KAPI				AML	AML		
FITZ	Fitzroy Crossi	8.95	142	Pn	Pn	02 08 00.2	+0.9
	0.7nm,0.3s,baz=341,slow=9.6,SNR=16						
FITZ				Sn	Sn	02 09 37.4	-1.6
	1.2nm,0.3s,baz=166,slow=16,SNR=6.9						
	1.9nm,0.4s						
FITZ				AML	AML		
WRA	Warramunga Arr	16.52	124	Pn	Pn	02 09 40.7	-0.8
	0.3nm,0.3s,baz=297,slow=13,SNR=13						
WRA				Sn	Sn	02 12 38.0	-5.8
	0.1nm,0.3s,baz=288,slow=25,SNR=3.8						
	0.6nm,0.4s						
WRA				AML	AML		
ASAR	Alice Springs	18.34	135	P	Pn	02 10 06.8	+2.7
	0.3nm,0.3s,baz=314,slow=12,SNR=23						
	1.5nm,0.6s						
ASAR				AML	AML		
MKAR	Makanchi Array	66.68	333	P	P	02 16 40.2	+0.5
	0.7nm,0.9s,baz=136,slow=7.4,SNR=2.6						
	0.7nm,0.9s						

*UCR **05** 02:28:09.8±0.7, 8°.31N×82°.97W, h8^{km}±3^{km}, MW3.5, Presumed earthquake*

*UPA **05** 02:28:10.1±0.8, 8°.31N×82°.92W, h13^{km}±1^{km}, MW3.4, Presumed earthquake*

ISC 05 02:28:09.9±0.9, **8°.32N**±0°.03×**82°.97W**±0°.03, **h17**^{km}±7^{km}, **n38**, σ**0^{s}74**/52, **1C-8D**, **Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PTPM	Petroterminale	0.14	143	iP	Pg	02 28 13.8	-0.1
PTPM				⇑iP		02 28 13.8	
PTPM				eS	Sg	02 28 16.1	-0.5
PTPA	Petro Terminal	0.15	142	eP	Pg	02 28 13.8	-0.3
PTPA				eS	Sg	02 28 16.4	-0.3
LIMO3	Limones	0.24	155	eP	Pg	02 28 15.3	0.0
LIMO3				eS	Sg	02 28 18.5	-0.5
LMNES	Limones	0.24	155	eP	Pg	02 28 15.3	-0.2
LMNES	Limones	0.24	155	iP	Pg	02 28 15.2	-0.2
NELY	Ciudad Neily	0.33	3	eP	Pg	02 28 17.0	+0.1
NELY	Ciudad Neily	0.33	3	iP	Pg	02 28 16.8	0.0
FITO	Golfito	0.36	328	eP	Pg	02 28 16.6	-0.8
FITO				eS	Sg	02 28 22.0	-0.4
PIRO	Carate, Puerto	0.38	283	eP	Pg	02 28 17.5	-0.2
PIRO	Carate, Puerto	0.38	283	eP	Pg	02 28 17.5	-0.2
MLIR3	Monte Lirio, C	0.49	17	⇓iP	Pb	02 28 20.5	+0.3
MLIR3				eS	Sb	02 28 28.3	+1.1
VITO	San Vito	0.50	359	eP	Pg	02 28 20.3	+0.3
DVD	David	0.52	77	iP	Pg	02 28 19.9	-0.4
DVD				⇓iP	Pb	02 28 20.2	-0.4
DVD				eS	Sg	02 28 26.9	-0.4
SCLRA	Santa Clara, W	0.54	20	eP	Pg	02 28 21.2	+0.5
SCLRA	Santa Clara, W	0.54	20	iP	Pg	02 28 21.1	+0.3
BRU2	Volcan	0.54	30	eP	Pg	02 28 21.0	+0.2
BRU2	Volcan	0.54	30	iP	Pg	02 28 20.7	-0.1
BRU2				⇓iP	Pb	02 28 21.2	0.0
BRU2				eS	Sb	02 28 30.2	+1.4
CLLRA	Cordillera,	0.55	39	eP	Pg	02 28 21.1	+0.3
CLLRA	Cordillera,	0.55	39	iP	Pg	02 28 20.9	0.0
LOMA3	Las Lomas, Chi	0.58	79	⇓iP	Pg	02 28 21.1	-0.3
LOMA3				eS	Sg	02 28 29.8	+0.6
PTAR3	Potrerillos Ar	0.59	51	⇓iP	Pg	02 28 21.9	+0.1
CHIR3	Chiriqui UPA,	0.63	83	⇓iP	Pg	02 28 21.9	-0.5
CHIR3				eS	Sg	02 28 31.2	+0.3
BGUAL	Bijagual, Pana	0.65	73	iP	Pg	02 28 22.4	-0.4
BQTLY	Boquete Panama	0.66	49	eP	Pg	02 28 22.6	-0.4
BQTLY	Boquete Panama	0.66	49	iP	Pg	02 28 22.5	-0.4
BQSF3	Alto Boquete,	0.67	51	⇓iP	Pg	02 28 22.9	-0.3
BQSF3				eS	Sg	02 28 32.9	+0.7
LNBQ3	Los Naranjos,	0.70	48	⇓iP	Pg	02 28 23.1	-0.6
LNBQ3				eS	Sb	02 28 34.0	+0.7
EDP2	Potrero Grande	0.72	343	eP	Pg	02 28 23.8	-0.3
RBALA	Bur	0.98	55	eP	Pg	02 28 27.7	-1.2
RBALA	Bur	0.98	55	iP	Pg	02 28 27.6	-1.2
RBALA				eS	Sg	02 28 40.2	-1.6
CHGR2	Aguacate	1.02	53	eP	Pg	02 28 28.4	-1.3
EDPE	Pejibaye, P	1.03	324	eP	Pg	02 28 28.4	-1.4
SAJE	San Jernim	1.15	332	eP	Pg	02 28 30.5	-1.8
CNI2	El Empalme, Bo	1.20	24	eP	Pb	02 28 31.6	-0.7
KKNTU	Kakintº	1.26	66	eP	Pn	02 28 31.5	-1.3
LCR2	La Lucha 2	1.75	324	eP	Pn	02 28 41.0	+1.3
GMAL	Guarumal, Vera	1.80	108	eP	Pn	02 28 41.3	+1.0
ABRB	Las Abras (San	1.83	336	eP	Pb	02 28 43.1	-0.1

*WEL **05** 02:44:30.7±0.7, 33°S±5°×17°8W±1°3, h12^{km}, M4.3/11, mB4.8/6, ML4.2/13, MLv4.5/11, Mw(mB)4.0/6, Error ellipse: s-maj=18.1km s-min=3.5km az=109.7, confirmed*

*IDC **05** 02:44:45.5±2.1, 33°.44S×179°.85E, h0^{km}, mb3.8/3, mbtmp3.8/4, ML3.3/1, Error ellipse: s-maj=49.5km s-min=21.6km az=95.0*

ISC 05 02:44:33.6±1.3, **33°.33S**±0°.10×**178°.1W**±0°.2, **h35**^{km}, **n25**, σ**1^{s}15**/31, **mb4.1**/6, **3C**, **South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GLKZ	Green Lake	4.05	2	P	Pn	02 45 32.9	-0.3
GLKZ				S	Sn	02 46 18.9	-0.5
GLKZ				AML	AML		
GLKZ				AML	AML		
RIZ	Raoul Island	4.07	2	S	Sn	02 46 19.7	-0.1
MXZ	Matakaoa Point	5.14	214	P	Pn	02 45 47.7	-0.4
MXZ				S	Sn	02 46 45.3	-0.8
MXZ				AML	AML		
WMGZ	Waiomatatini S	5.30	211	P	Pn	02 45 50.1	-0.2
WMGZ				S	Sn	02 46 49.3	-0.8
WMGZ				AML	AML		
WMGZ				AML	AML		
PKGZ	Pakihiroa	5.49	213	P	Pn	02 45 52.9	0.0
PKGZ				S	Sn	02 46 54.2	-0.6
PKGZ				AML	AML		
PKGZ				AML	AML		
HAZ	Te Kaha	5.54	216	P	Pn	02 45 55.0	+1.4
HAZ				S	Sn	02 46 58.2	+2.1
HAZ				AML	AML		
HAZ				AML	AML		
PUZ	Puketiti	5.58	211	P	Pn	02 45 52.8	-1.3
PUZ				S	Sn	02 46 56.9	-0.2
PUZ				AML	AML		
RUGZ	Raukumara Rang	5.76	215	P	Pn	02 45 56.8	+0.1
RUGZ				S	Sn	02 47 03.4	+1.8
RUGZ				AML	AML		
RUGZ				AML	AML		
TWGZ	Tauwhareparae	5.79	212	P	Pn	02 45 56.9	-0.1
TWGZ				S	Sn	02 47 02.6	+0.4
TWGZ				AML	AML		
TWGZ				AML	AML		
CNGZ	Carnagh Statio	5.95	209	P	Pn	02 45 58.3	-0.9
CNGZ				AML	AML		
CNGZ				AML	AML		
MWZ	Matawai	6.12	214	P	Pn	02 46 01.0	-0.6
MWZ				S	Sn	02 47 09.8	-0.7
MWZ				AML	AML		
MWZ				AML	AML		
URZ	Urewera	6.27	217	Pn	Pn	02 46 03.4	-0.2
	0.9nm,0.3s,baz=265,slow=4.0,SNR=18						
URZ				Sn	Sn	02 47 03.1	-11
	1.3nm,0.3s,baz=28,slow=4.6,SNR=3.5						
	3.4nm,0.4s						
URZ				AML	AML		
URZ	Urewera	6.27	217	P	Pn	02 46 02.6	-0.9
URZ				S	Sn	02 47 12.3	-1.6
URZ				AML	AML		
URZ				AML	AML		
RIGZ	Rimuhau	6.32	211	P	Pn	02 46 02.4	-2.0
RIGZ				AML	AML		
RIGZ				AML	AML		
PRGZ	Paritu Road	6.46	209	P	Pn	02 46 04.1	-2.1
PRGZ				AML	AML		
PRGZ				AML	AML		
MUGZ	Murupara	6.61	217	P	Pn	02 46 08.1	-0.1
MUGZ				S	Sn	02 47 21.4	-0.9
MUGZ				AML	AML		
MUGZ				AML	AML		
MHGZ	Mahia Peninsul	6.64	208	P	Pn	02 46 06.8	-1.9
MHGZ				AML	AML		
MHGZ				AML	AML		
CTZ	Chatham Island	10.46	174	P	Pn	02 46 59.7	-1.3
ASAR	Alice Springs	42.94	270	P	P	02 52 33.3	+4.0
	0.4nm,0.6s,baz=107,slow=7.2,SNR=6.8						
	0.4nm,0.6s						
WRA	Warramunga Arr	44.19	275	P	P	02 52 42.0	+2.7
	1.1nm,0.5s,baz=117,slow=7.6,SNR=11						
	1.1nm,0.5s						
MAW	Mawson	69.55	201	P	P	02 55 52.5	+14
	1.1nm,0.7s,baz=186,slow=3.1,SNR=4.1						
	1.1nm,0.7s						
VNA3	Neumayer Olymp	75.40	176	⇑P	P	02 56 14.3	+1.1
	comp=Z,1.5nm,0.6s						
VNA2	Neumayer--Watz	75.83	177	⇑P	P	02 56 17.2	+1.5
	comp=Z,1.4nm,0.6s,baz=190,slow=5.1						
VNA1	Neumayer--Stat	76.06	177	⇑P	P	02 56 18.5	+1.6
	comp=Z,1.7nm,0.7s						
FINES	FINESS Array B	147.84	338	PKPbc	PKiKP	03 04 28.4	+12
	comp=Z,1.8nm,0.8s,baz=56,slow=3.5,SNR=8.0						

*ISU **05** 02:47:27, 40°.64N×70°.50E, h17^{km}*

*KRNET **05** 02:47:32.3±0.1, 40°.65N×70°.77E, h12^{km}, mb2.9*

*SOME **05** 02:47:32.0, 40°.77N×70°.67E, h5^{km}*

*NNC **05** 02:47:33.5±1.0, 40°.75N×70°.71E, h0^{km}, mb3.5, mpv3.1, Error ellipse: s-maj=7.9km s-min=3.5km az=20.0*

ISC 05 02:47:31.2±1.2, **40°.68N**±0°.02×**70°.73E**±0°.03, **h5**^{km}±11^{km}, **n34**, σ**1^{s}62**/58, **15C-9D**, **Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MINT	Mingtut	0.29	139	S	Sg	02 47 41.4	+0.8
MINT				S		02 47 47.9	
BTK	Batken	0.63	174	⇓iP	Pg	02 47 44.0	+0.7
BTK				⇓iS	Sb	02 47 52.5	-1.3
KSNS	Kasansay	0.77	51	S	Sn	02 48 03.8	+3.1
TRKS	Terek-Say	0.90	20	⇑iP	Pg	02 47 48.9	+0.3
TRKS				⇑iS	Sg	02 48 01.1	+0.8
CHMG	Chimgan	1.02	328	P	Pb	02 47 50.0	-1.5
CHMG				S	Sb	02 48 03.8	-1.5
CHRV	Charvak	1.12	329	P	Pb	02 47 51.6	-1.5
CHRV				S	Sb	02 48 06.8	-1.3
TVKS	Tavaksay	1.21	318	P	Pn	02 47 53.5	-1.3
TVKS				S	Sb	02 48 09.3	-1.2
PSK	Pskem	1.27	348	P	Pn	02 47 56.5	+0.8
PSK				S	Sg	02 48 14.3	+2.2
NZBK	Nazarbek	1.33	294	P	Pn	02 47 56.4	-0.1
NZBK				S	Sn	02 48 14.2	-0.4
ARK	Arkit	1.45	39	⇑iP	Pg	02 47 59.9	+0.8
ARK				⇑iS	Sg	02 48 20.2	+2.3
DRK	Karamyk	1.46	145	⇓iP	Pg	02 47 59.3	+0.2
DRK				⇓iS	Sg	02 48 18.7	+0.7
IUG	Iuzhnay	1.56	341	P	Pn	02 48 01.0	+1.3
	127nm,0.2s						
IUG				S	Sb	02 48 21.4	+0.8
	88nm,0.3s						
IUG	Iuzhnay	1.56	341	eP	Pn	02 48 01.0	+1.3
	127nm,0.2s						
IUG				eS	Sb	02 48 21.4	+0.8
	88nm,0.3s						
OHH	Osh	1.57	95	⇓iP	Pb	02 48 01.3	+0.5
OHH				⇓iS	Sg	02 48 22.5	+0.7
ARSB	Arslanbob	1.82	69	⇑iP	Pg	02 48 06.1	0.0
ARSB				⇑iS	Sg	02 48 30.6	+0.8
SFK	Sufi-Kurgan	2.22	107	⇑iP	Pb	02 48 12.2	+0.2
SFK				⇑iS	Sg	02 48 41.1	-1.5
SALK	Salom-Alik	2.36	84	⇑iP	Pb	02 48 14.0	-0.2
SALK				⇑iS	Sb	02 48 44.6	+0.9
KK31	Karatay Array	2.42	356	Pn	Pn	02 48 13.7	+2.2
	0.3nm,0.1s,baz=173,slow=12,SNR=74						
KK31				⇑Pg	Pb	02 48 16.5	+1.2
	2.8nm,0.3s,baz=183,slow=17,SNR=8.5						
KK31				⇓Lg	Lg	02 48 48.5	
	4.0nm,0.2s,baz=195,slow=32,SNR=5.6						
BRLS	Borolday	2.44	344	Pg	Pn	02 48 12.9	+1.2
	7.1nm,0.3s						
BRLS				Lg	Lg	02 48 42.3	
	31nm,0.2s						
BRLS	Borolday	2.44	344	eP	Pn	02 48 12.8	+1.2
	7.1nm,0.3s						
BRLS				eS	Sn	02 48 42.3	+0.4
	31nm,0.2s						
MRKS	Merke	2.78	41	Pg	Pg	02 48 24.3	-0.2
	11nm,0.5s						
MRKS				Lg	Lg	02 49 01.7	
	31nm,0.3s						
MRKS	Merke	2.78	41	eP	Pg	02 48 24.3	-0.2
	11nm,0.5s						
MRKS				eS	Sg	02 49 01.7	+1.1
	31nm,0.3s						
EKS2	Erkin-Say	3.02	48	⇓iP	Pb	02 48 23.5	-2.0
EKS2				⇓iS	Sb	02 49 00.9	-1.9
UCH	Uchtor	3.24	60	⇑iP	Pb	02 48 26.7	-2.7
UCH				⇑iS	Sb	02 49 06.4	-2.9
AAK	Ala-Archa	3.43	54	⇑Pg	Pb	02 48 33.9	+1.4
	0.8nm,0.5s						
AAK				⇑Lg	Lg	02 49 22.2	
	1.7nm,0.5s						
SGDS	Sogindy	4.01	45	Pg	Pb	02 48 45.8	+3.4
	2.6nm,0.5s						
SGDS				Lg	Lg	02 49 38.4	
DGS	Degeres	4.55	54	Pg	Pg	02 48 56.7	-1.7
	1.5nm,0.5s						
DGS				Lg	Lg	02 49 57.4	
	2.9nm,0.3s						
DGS	Degeres	4.55	54	eP	Pg	02 48 56.7	-1.7
	1.5nm,0.5s						
DGS				eS	Sg	02 49 57.4	+0.1
	2.9nm,0.3s						
KST	Kastek	4.57	57	Pg	Pg	02 48 56.7	-1.9
	1.1nm,0.9s						
KST				Lg	Lg	02 49 57.4	
	5.1nm,0.6s						
KST	Kastek	4.57	57	eP	Pg	02 48 56.7	-1.9
	1.1nm,0.9s						
KST				eS	Sg	02 49 57.4	-0.4
	5.1nm,0.6s						
KRBS	Karabastau	4.75	49	Pg	Pg	02 49 00.3	-2.0
	2.2nm,0.6s						
KRBS				Lg	Lg	02 50 03.1	
	5.0nm,0.5s						
KRBS	Karabastau	4.75	49	eP	Pg	02 49 00.3	-2.0
	2.2nm,0.6s						
KRBS				eS	Sg	02 50 03.1	-0.7
	5.0nm,0.5s						
KTBS	Karatobe	5.36	54	Pg	Pg	02 49 10.7	-3.2
	0.7nm,0.4s						
KTBS				Lg	Lg	02 50 20.8	
	3.4nm,0.8s						
KTBS	Karatobe	5.36	54	eP	Pg	02 49 10.7	-3.2
	0.7nm,0.4s						
KTBS				eS	Sg	02 50 20.8	-2.5
	3.4nm,0.8s						

*IDC **05** 03:09:34.4±0.9, 13°.61N×87°.92W, h0^{km}, mb3.7/6, mbtmp3.7/8, ML2.9/3, MS2.9/2, Error ellipse: s-maj=40.2km s-min=14.0km az=47.0*

*SNET **05** 03:09:37.8±0.9, 12°.64N×88°.77W, h31^{km}, ML4.2, Presumed earthquake*

*NEIC **05** 03:09:37.3±1.6, 12°.52N±0°.10×88°.79W±0°.08, h62^{km}±12^{km}, mb4.1/38, Error ellipse: s-maj=16.5km s-min=8.2km az=213.0*

*CATAC **05** 03:09:38.2±0.5, 13°N±2°×8°9W±°, h32^{km}±6^{km}, M4.3/38, mb4.4/1, mB4.9/1, MLv4.2/38, Mw(mB)4.2/1, Error ellipse: s-maj=5.6km s-min=2.2km az=41.4, confirmed*

*GCG **05** 03:09:43.4±0.7, 12°.94N×88°.95W, h37^{km}±79^{km}, MD4.6, ML4.4, Presumed earthquake*

ISC 05 03:09:37.9±1.0, **12°.64N**±0°.06×**88°.75W**±0°.04, **h59**^{km}±9^{km}, **n139**, σ**1^{s}27**/163, **mb4.1**/21, **Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ALJI	Alcalda de J	0.71	14	P	Pn	03 09 52.4	+0.1
ALJI				S	Sn	03 10 02.7	-0.1
JUCU	Jucuar¡n	0.78	38	iP	Pn	03 09 53.1	-0.2
JUCU				eS	Sn	03 10 04.6	+0.1
INTP	Intipuca	0.88	50	eP	Pn	03 09 54.2	-0.2
INTP				eS	Sn	03 10 06.1	-0.3
TECO	Alcaldia de Te	0.90	358	eP	Pn	03 09 54.7	0.0
TECO				eS	Sn	03 10 07.1	+0.1
TECO	Alcaldia de Te	0.90	358	P	Pn	03 09 54.9	+0.2
TECO				S	Sn	03 10 07.2	+0.2
LCY	Lacayo	0.90	29	eP	Pn	03 09 54.9	+0.1
RANC	El Ranchito	0.91	29	eP	Pn	03 09 55.2	+0.2
RANC				eS	Sn	03 10 08.2	+0.7
PACA	Pacayal	0.93	26	eP	Pn	03 09 55.4	+0.3
PACA				eS	Sn	03 10 08.4	+0.6
PACA	Pacayal	0.93	26	P	Pn	03 09 55.4	+0.3
PACA				S	Sn	03 10 08.7	+0.9
COEG	Centro de Oper	0.99	352	eP	Pn	03 09 55.9	0.0
COEG				eS	Sn	03 10 09.2	0.0
COEG	Centro de Oper	0.99	352	P	Pn	03 09 55.9	0.0
COEG				S	Sn	03 10 09.5	+0.4
SJTE	Alcalda de S	1.01	345	eP	Pn	03 09 55.8	-0.3
SJTE				eS	Sn	03 10 09.2	-0.4
LALI	Alcalda de L	1.02	327	iP	Pn	03 09 56.0	-0.2
LALI	Alcalda de L	1.02	327	P	Pn	03 09 56.2	0.0
LALI				S	Sn	03 10 09.0	-0.7
LCND	La Caada	1.07	51	eP	Pn	03 09 56.8	-0.1
LCND	La Caada	1.07	51	P	Pn	03 09 56.8	-0.1
LOMA	Loma Larga	1.08	338	eP	Pn	03 09 57.2	0.0
LOMA	Loma Larga	1.08	338	P	Pn	03 09 57.2	0.0
LOMA				S	Sn	03 10 12.0	+0.5
PAVA	Las Pavas	1.09	350	P	Pn	03 09 57.7	+0.4
PAVA				S	Sn	03 10 12.4	+0.8
CNCH	Conchagua	1.09	54	P	Pn	03 09 57.1	-0.2
CNCH				S	Sn	03 10 11.8	+0.2
SEMO	Seminario San	1.16	336	P	Pn	03 09 58.4	+0.2
SEMO				S	Sn	03 10 13.2	0.0
LFU	La Fuente	1.16	342	eP	Pn	03 09 58.5	+0.3
UEES	Universidad Ev	1.18	336	eP	Pn	03 09 58.3	-0.1
UEES				eS	Sn	03 10 13.4	-0.3
UEES	Universidad Ev	1.18	336	P	Pn	03 09 58.5	+0.1
UEES				S	Sn	03 10 14.3	+0.6
PMON	Piamonte	1.21	333	P	Pn	03 09 58.9	+0.1
PMON				S	Sn	03 10 14.8	+0.5
JAYA	Jayaque - finc	1.22	326	iP	Pn	03 09 58.9	-0.2
JAYA				iS	Sn	03 10 10.8	-4.0
JAYA				IAML		03 10 15.6	
	comp=E,11μm,0.3s						
JAYA	Jayaque - finc	1.22	326	P	Pn	03 09 59.0	-0.2
JAYA				S	Sn	03 10 14.7	-0.2
CEDA	San Andres	1.32	331	P	Pn	03 10 00.4	+0.1
CEDA				S	Sn	03 10 17.8	+0.8
P5NO	Presa 5 de nov	1.34	359	P	Pn	03 10 01.2	+0.6
CEVE	Cerro Verde	1.46	324	eP	Pn	03 10 02.8	+0.4
CEVE	Cerro Verde	1.46	324	P	Pn	03 10 02.9	+0.6
SBLS	San Blas	1.47	325	eP	Pn	03 10 03.2	+0.7
UNIC	Universidad Ca	1.55	330	eP	Pn	03 10 03.8	+0.4
UNIC	Universidad Ca	1.55	330	S	Sn	03 10 23.7	+1.2
NUBE	Las Nubes	1.61	321	iP	Pn	03 10 04.5	+0.3
NUBE	Las Nubes	1.61	321	P	Pn	03 10 04.6	+0.3
NUBE				S	Sn	03 10 24.7	+0.6
CRIN	San Cristobal	1.66	88		Pn	03 10 05.2	+0.4
CRIN				Sn	Sn	03 10 25.2	+0.1
CRIN	San Cristobal	1.66	88	P	Pn	03 10 05.4	+0.6
SLOZ	Alcaldia de Sa	1.71	324	P	Pn	03 10 07.1	+1.5
FAME	Alcaldia de Sa	1.72	314	P	Pn	03 10 05.9	+0.2
MTO3	Montecristo	1.85	341		Pn	03 10 08.2	+0.6
MTO3				Sn	Sn	03 10 29.9	-0.2
MTO3	Montecristo	1.85	341	iP	Pn	03 10 08.2	+0.6
MTO3	Montecristo	1.85	341	P	Pn	03 10 08.2	+0.6
TEL3	Telica 3	1.86	92	P	Pn	03 10 07.5	+0.1
HERN	Volcan Telica	1.87	91		Pn	03 10 07.7	0.0

HERN				Sn	Sn	03 10 28.6	-1.7
HERN	Volcan Telica	1.87	91	P	Pn	03 10 07.8	+0.1
ILCN	San Idelfonso	2.00	91	P	Pn	03 10 07.5	-1.9
ESQI	Esquipulas	2.00	343		Pn	03 10 10.4	+0.9
ESQI	Esquipulas	2.00	343	P	Pn	03 10 10.7	+1.2
CNGA	Al SSO del Vol	2.00	94	P	Pn	03 10 08.8	-0.6
CNGN	Cerro Negro	2.00	94	P	Pn	03 10 09.5	0.0
TGUH	Tegucigalpa,Un	2.01	45		Pn	03 10 10.2	+0.5
TGUH				Sn	Sn	03 10 34.5	+0.7
TGUH	Tegucigalpa,Un	2.01	45	P	Pn	03 10 10.6	+0.9
ZAFR2	Estanzuela, Za	2.02	343	*i* P	Pn	03 10 16.9	+7.2
SARH	Santa Rosa de	2.13	360	*i* P	Pn	03 10 12.5	+1.3
SARH	Santa Rosa de	2.13	360	P	Pn	03 10 12.8	+1.5
MOMN	Momotombo	2.17	96	P	Pn	03 10 11.8	0.0
MOM2	El Cardon	2.22	95	P	Pn	03 10 12.4	0.0
FG16	Alotenango, Sa	2.37	314	*i* P	Pn	03 10 20.8	+6.2
APYN	Apoyeque	2.37	99	P	Pn	03 10 14.8	+0.3
APQ2	Apoyeque	2.40	100	P	Pn	03 10 15.1	+0.2
TISN	Laguna Tiscapa	2.47	101	P	Pn	03 10 15.0	-0.8
MGAN	Managua	2.49	101		Pn	03 10 15.7	-0.4
MAS3	Al N del Volca	2.58	103	P	Pn	03 10 17.4	-0.1
NANN	Nandasmo	2.66	105	P	Pn	03 10 19.6	+1.2
RCVN	Varillal2	2.66	69	P	Pn	03 10 20.0	+1.4
RCPN	Sur Rio San Ju	2.73	71	P	Pn	03 10 20.5	+1.0
MATN	Matagalpa	2.77	84	P	Pn	03 10 20.1	+0.1
APG	El Apazote	2.89	325	Pn	Pn	03 10 22.9	+1.2
	comp=E,0.2nm,0.3s,baz=132,slow=11,SNR=9.0						
APG				AML	AML		
APG	El Apazote	2.89	325	*i* P	Pn	03 10 22.6	+0.9
BOAB	BOACO BROADBAN	3.01	93		Pn	03 10 22.5	-0.7
BOAB	BOACO BROADBAN	3.01	93	P	Pn	03 10 23.0	-0.2
JAPN	Al SSO del Vol	3.20	110	P	Pn	03 10 26.7	+0.9
MORN	Al O del Volca	3.22	109	P	Pn	03 10 26.5	+0.4
OMEN	Al SSO del Vol	3.25	110	P	Pn	03 10 25.4	-1.0
RTAL	Retalhuleu	3.43	304	Pn	Pn	03 10 30.4	+1.5
CARN	Rivas	3.47	114	Pn	Pn	03 10 31.0	+1.6
HUEH	Huehuetenango	3.78	315	Pn	Pn	03 10 35.5	+1.5
JUD3	Juan Diaz 3	3.99	128		Pn	03 10 37.9	+1.2
SIUN	Universidad Ur	4.01	74		Pn	03 10 37.9	+0.9
CMARA	Lajas Hojancha	4.17	128	P	Pn	03 10 40.6	+1.4
COTE	Lago Cote	4.27	118	*e*P	Pn	03 10 42.4	+1.8
COTE				*e*S	Sn	03 11 30.4	+1.2
JTS	Las Juntas de	4.39	122	Pn	Pn	03 10 43.6	+1.5
	comp=E,2.1nm,0.3s,baz=294,slow=10,SNR=11						
JTS				Sn	Sn	03 11 26.1	-5.9
	comp=E,1.3nm,0.3s,baz=255,slow=9.9,SNR=4.1						
	comp=E,4.6nm,0.3s						
JTS				AML	AML		
JTS	Las Juntas de	4.39	122		Pn	03 10 42.9	+0.8
ARE1	Arenal 1	4.50	118	*e*P	Pn	03 10 45.7	+2.1
CASO	Castillo	4.50	119	*e*P	Pn	03 10 45.0	+1.3
VARE2	V. Arenal	4.50	118	*e*P	Pn	03 10 45.4	+1.7
LAFE	Finca La Fe, P	4.70	126	*e*P	Pn	03 10 47.3	+1.0
LAFE				*e*S	Sn	03 11 35.9	-3.6
LCR2	La Lucha 2	5.47	121		Pn	03 10 58.4	+1.3
LCR2	La Lucha 2	5.47	121	P	Pn	03 10 59.5	+2.4
SVQ2	Quepos	5.51	125	*e*P	Pn	03 11 00.6	+3.2
PIEC	Cerro El Cedra	5.57	122	*e*P	Pn	03 11 01.0	+2.4
EDPE	Pejibaye, P	6.14	124	*e*P	Pn	03 11 08.7	+2.5
PIRO	Carate, Puerto	6.78	128		Pn	03 11 16.4	+1.5
BRU2	Volcan	7.07	122	Pn	Pn	03 11 18.8	-0.2
CMIG	Matias Romero	7.41	307	Pn	Pn	03 11 26.1	+2.7
	comp=E,0.5nm,0.3s,baz=94,slow=15,SNR=4.0						
CMIG				Sn	Sn	03 12 41.5	-4.5
	comp=E,1.0nm,0.3s,baz=288,slow=17,SNR=4.3						
CMIG				LR	LR	03 14 45.3	
	comp=E,33nm,20.4s,baz=44,slow=41						
	comp=E,1.5nm,0.4s						
CMIG				AML	AML		
TEIG	Tepich	7.56	3		Pn	03 11 27.2	+1.6
SOR	Soroa	11.48	28	Pn	Pn	03 12 20.9	+1.7
HBVL	Hebbronville	17.11	329		P	03 13 33.7	-0.4
656A	Willston	17.62	18		P	03 13 40.7	+1.0
656A				IAmb	IAmb	03 13 49.1	
	comp=Z,28nm,1.3s						
833A	Chaparral WMA,	18.50	329	P	Pn	03 13 50.3	+0.1
833A				IAmb	IAmb	03 13 52.0	
	comp=Z,7.8nm,0.7s						
HNDO	Hondo	19.45	331		P	03 13 58.6	-1.2
HNDO				IAmb	IAmb	03 14 03.7	
	comp=Z,9.1nm,0.8s						
JCT	Junction City	20.49	332	P	P	03 14 10.4	-0.8
BRDY	Brady	20.83	335		P	03 14 13.7	-1.1
BRDY				IAmb	IAmb	03 14 15.4	
	comp=Z,6.5nm,0.7s						
Y49A	Blount Mountai	21.23	5	P	P	03 14 18.2	-0.8
Y49A				IAmb	IAmb	03 14 22.1	
	comp=Z,14nm,1.5s						
OZNA	Ozona	21.49	330		P	03 14 21.5	-0.4
OZNA				IAmb	IAmb	03 14 24.4	
	comp=Z,9.6nm,0.8s						
TXAR	Lajitas Array	21.64	322	P	P	03 14 25.1	+1.5
	comp=Z,1.8nm,0.7s,baz=142,slow=11,SNR=26						
	comp=Z,1.8nm,0.7s						
TXAR	Lajitas Array	21.64	322	P	P	03 14 24.1	+0.6
TX31	Lajitas Ar. Si	21.64	322		P	03 14 24.2	+0.6
PLPT	Palo Pinto	21.91	338	P	P	03 14 25.5	-0.9
PLPT				IAmb	IAmb	03 14 28.8	
	comp=Z,7.2nm,1.1s						
MIAR	Mount Ida	22.25	349		P	03 14 29.7	-0.2
MIAR				IAmb	IAmb	03 14 32.3	
	comp=Z,10nm,1.4s						
MNHN	Monahans	22.66	327		P	03 14 33.8	-0.6
MNHN				IAmb	IAmb	03 14 36.5	
	comp=Z,5.2nm,0.7s						
WHAR	Wooly Hollow	22.78	352	P	P	03 14 34.8	-0.8
WHAR				IAmb	IAmb	03 14 36.6	
	comp=Z,6.3nm,1.1s						
CPCT	Cooper Cave	23.03	9	P	P	03 14 37.0	-1.1
FCAR	Ozark Folk Cen	23.35	353	IAmb	IAmb	03 14 42.0	
	comp=Z,5.9nm,0.7s						
TKL	Tuckaleechee C	23.36	10	P	P	03 14 40.5	-0.8
X34A	Smith Ranch, M	23.37	341	P	P	03 14 42.0	+0.6
LCAR	Lake Charles	23.43	355	P	P	03 14 40.6	-1.3
V53A	Saluda	23.55	12		P	03 14 42.9	-0.2
V53A				IAmb	IAmb	03 14 44.7	
	comp=Z,4.0nm,0.7s						
DKNS	Dickens	23.70	334	P	P	03 14 44.8	+0.2
DKNS				IAmb	IAmb	03 14 46.2	
	comp=Z,5.5nm,0.8s						
WMOK	Wichita Mounta	23.82	339	P	P	03 14 45.0	-0.6
HHAR	Hobbs	24.00	350	P	P	03 14 47.2	0.0
HHAR				IAmb	IAmb	03 14 48.6	
	comp=Z,4.2nm,0.6s						
U38A	Gravette	24.24	349	P	P	03 14 49.6	+0.3
TZTN	Tazewell	24.26	10	P	P	03 14 48.3	-1.2
TZTN				IAmb	IAmb	03 15 19.8	
	comp=Z,12nm,1.4s						
MSTX	Muleshoe	24.78	331	IAmb	IAmb	03 14 55.0	
	comp=Z,10nm,1.3s						
CCM	Cathedral Cave	25.41	355	P	P	03 14 58.4	-1.5
CCM				IAmb	IAmb	03 15 00.5	
	comp=Z,8.0nm,1.1s						
RTBA	Rita Blanca	26.84	334	IAmb	IAmb	03 15 16.4	
	comp=Z,4.6nm,0.8s						
CBX	Cerro Bola	32.23	312		P	03 15 59.0	-1.9
SPMN	Marine on St.	32.66	355		P	03 16 02.8	-1.6
PDAR	Pinedale Array	35.02	333	P	P	03 16 25.8	+0.7
	comp=Z,0.2nm,0.3s,baz=143,slow=8.9,SNR=1.7						
	comp=Z,0.2nm,0.3s						
LPAZ	La Paz	35.23	144	P	P	03 16 34.6	+6.9
	comp=Z,0.2nm,0.3s,baz=315,slow=13,SNR=1.5						
	comp=Z,0.2nm,0.3s						
MDND	Maddock	36.26	348	P	P	03 16 34.7	-0.7
ULM	Lac du Bonnet	37.96	353	P	P	03 16 47.1	-2.7
	comp=Z,4.2nm,0.7s,baz=167,slow=10,SNR=9.3						
	comp=Z,4.2nm,0.7s						
FFC	Flin Flon	43.26	349	P	P	03 17 31.9	-1.5
FFC				IAmb	IAmb	03 17 49.1	
	comp=Z,4.5nm,1.1s						
YKA	Yellowknife Ar	53.11	345	P	P	03 18 47.3	-1.9
	comp=Z,0.9nm,0.4s,baz=152,slow=7.6,SNR=9.9						
	comp=Z,0.9nm,0.4s						
INK	Inuvik	62.65	343	LR	LR	03 49 52.1	
	comp=Z,21nm,18.8s,baz=198,slow=39						
ILAR	Eielson Array	65.34	336	P	P	03 20 13.4	-0.3
	comp=Z,0.5nm,0.8s,baz=171,slow=4.2,SNR=7.1						
	comp=Z,0.5nm,0.8s						
WRA	Warramunga Arr	138.10	254	PKP	PKiKP	03 29 02.6	+3.5
	comp=Z,0.6nm,0.6s,baz=91,slow=2.2,SNR=8.9						
ASAR	Alice Springs	138.16	249	PKP	PKiKP	03 29 02.4	+3.2
	comp=Z,0.3nm,0.6s,baz=81,slow=1.9,SNR=2.5						

IDC ***05*** *03:11:32.4±1.4, 45°.68N×148°.68E, h0^{km}, mb3.8/6, mbtmp3.8/6, Error ellipse: s-maj=49.8km s-min=32.3km az=98.0*
SKHL ***05*** *03:11:49.9±0.2, 44°.70N×149°.90E, h50^{km}±3^{km}, mb4.1/4*
NEIC ***05*** *03:11:52.1±2.1, 45°.9N±0°.1×148°.8E±0°.2, h151^{km}±9^{km}, mb4.2/14, Error ellipse: s-maj=20.9km s-min=14.1km az=144.0*
JMA ***05*** *03:11:53.9±0.6, 45°N±3°×14°9E±°, h158^{km}, MV3.2/15, NEAR ETOROFU ISLAND*
ISC 05 03:11:49.3±0.8**, 45°.5N**±0°.1×**149°.1E**±0°.1**, h150**^{km}**, n42,** σ**1^{s}61**/46**, mb4.1**/13**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
REI	Reidovoe	0.82	255	*e*P	Pn	03 12 13.1	+0.5
REI				AMB	AMB	03 12 14.1	
	50nm,0.3s						
REI				*e*S	Sn	03 12 30.4	0.0
REI				A	A	03 12 32.4	
	110nm,0.4s						
REI				A	A	03 12 32.4	
	70nm,0.4s						
KUR	Kuril'sk	0.94	255	*e*P	Pn	03 12 14.4	+0.9
KUR				AMB	AMB	03 12 17.4	
	60nm,0.4s						
KUR				*e*S	Sn	03 12 32.9	+1.0
KUR				A	A	03 12 36.9	
	310nm,0.4s						
KUR				A	A	03 12 36.9	
	70nm,0.4s						
YUK	Yuzh-Kuril'sk	2.75	239	*e*P	Pn	03 12 35.5	+2.0
YUK				AMB	AMB	03 12 37.4	
	90nm,0.5s						
YUK				*e*S	Sn	03 13 08.1	+0.5
YUK				A	A	03 13 12.5	
	130nm,0.5s						
YUK				A	A	03 13 12.5	
	180nm,0.5s						
NEM2	Nemuro 2	3.23	230	*e*P	Pn	03 12 39.5	-0.1
NEM2				*e*S	Sn	03 13 15.3	-3.1
NMR	Nemuro--Hokkai	3.24	230	*e*P	Pn	03 12 39.3	-0.3
NMR				*e*S	Sn	03 13 15.5	-3.1
JRA	Rausu	3.26	243	*e*P	Pn	03 12 42.5	+2.6
JNK	Nakash	3.69	241	*e*P	Pn	03 12 47.0	+1.5
JNK				*e*S	Sn	03 13 30.0	+0.9
AKK	Akkeshi	3.96	233	*e*P	Pn	03 12 50.1	+1.2
AKK				*e*S	Sn	03 13 32.2	-3.0
JAK	Akkeshi	4.05	234	*e*P	Pn	03 12 50.3	+0.2
JAK				*e*S	Sn	03 13 34.5	-3.0
JAR	Ashorobuto	4.43	242	*e*P	Pn	03 12 57.3	+2.1
JAR				*e*S	Sn	03 13 47.0	+0.6
JOB	Onbets	4.61	238	*e*P	Pn	03 12 58.8	+1.2
JOB				*e*S	Sn	03 13 48.6	-1.9
JKA	Kamikawa-asahi	4.85	256	Pn	Pn	03 13 01.4	+0.6
JCH	Churui	5.06	237	*e*P	Pn	03 13 04.3	+0.8
JCH				*e*S	Sn	03 13 58.8	-2.5
ERM	Erimo	5.55	233	Pn	Pn	03 13 12.9	+2.9
PETK	Petropavlovsk-	9.45	33	Pn	Pn	03 13 59.1	-2.7
YAK	Yakutsk	20.03	333	P	P	03 16 08.9	-1.3
H11N2	WAKE ISLAND Hy	29.59	144	T	T	03 48 51.6	
	baz=334,slow=76,SNR=30						
H11N1	WAKE ISLAND Hy	29.60	144	T	T	03 49 01.2	
	baz=334,slow=76,SNR=20						
H11N3	WAKE ISLAND Hy	29.60	144	T	T	03 48 56.2	
	baz=334,slow=76,SNR=29						
H11S1	WAKE ISLAND Hy	30.61	146	T	T	03 50 14.8	
	baz=336,slow=76,SNR=44						
H11S3	WAKE ISLAND Hy	30.61	146	T	T	03 50 11.1	
	baz=336,slow=76,SNR=23						
H11S2	WAKE ISLAND Hy	30.63	146	T	T	03 50 13.5	
	baz=336,slow=76,SNR=26						
G18K	Tagagawik	34.40	35	P	P	03 18 23.0	+1.3
G18K				IAmb	IAmb	03 18 58.8	
	comp=Z,7.5nm,1.5s						
G19K	Purcell Mounta	35.08	35	P	P	03 18 27.5	0.0
G19K				IAmb	IAmb	03 18 55.4	
	comp=Z,5.3nm,1.4s						
D19K	Kuna River	35.15	31	P	P	03 18 28.2	+0.1
B20K	Meade River	35.84	28	P	P	03 18 35.0	+1.0
ILAR	Eielson Array	39.24	38	P	P	03 19 02.5	-0.1
	comp=Z,0.3nm,0.7s,baz=280,slow=8.2,SNR=6.5						
	comp=Z,0.3nm,0.7s						
D25K	Kavik River	39.46	30	P	P	03 19 04.9	+0.4
D25K				IAmb	IAmb	03 19 20.7	
	comp=Z,7.2nm,1.4s						
K27K	Chicken	41.39	38	P	P	03 19 21.8	+1.5
BCAR	Beaver Creek A	41.65	40	P	P	03 19 24.7	+2.2
I28M	Miner Creek	42.12	36	P	P	03 19 28.0	+1.7
INK	Inuvik	44.18	31	P	P	03 19 43.8	+1.2
INK				IAmb	IAmb	03 20 21.5	
	comp=Z,8.8nm,1.4s						
AB31	Akbulak array	57.09	309	P	P	03 21 19.2	-0.4
ABKAR	Akbulak array	57.09	309	P	P	03 21 19.1	-0.4
FINES	FINESS Array B	63.97	333	P	P	03 22 04.9	-1.1
	comp=Z,1.9nm,0.8s,baz=12,slow=7.4,SNR=8.2						
	comp=Z,1.9nm,0.8s						
WRA	Warramunga Arr	66.50	195	P	P	03 22 24.3	+1.6
	comp=Z,0.3nm,0.6s,baz=8.4,slow=6.5,SNR=1.8						
	comp=Z,0.3nm,0.6s						
NOA	NORSAR Array B	68.48	339	P	P	03 22 34.1	-0.7
	comp=Z,0.7nm,0.7s,baz=29,slow=6.7,SNR=4.7						
	comp=Z,0.7nm,0.7s						
HFS	Hagfors	68.63	338	P	P	03 22 34.7	-0.9
	comp=Z,0.8nm,0.4s,baz=22,slow=5.3,SNR=6.8						
	comp=Z,0.8nm,0.4s						
INKA	Innaminka	73.28	188	P	P	03 23 08.7	+4.8
INKA				IAmb	IAmb	03 23 42.2	
	comp=Z,2.4nm,0.6s						
BUR08	Bucovina Ar. S	75.05	325	P	P	03 23 15.6	+1.3
BUR08				IAmb	IAmb	03 23 20.2	
	comp=Z,7.5nm,1.5s						
GERES	GERESS Array B	78.32	332	P	P	03 23 33.0	+0.3
	comp=Z,0.4nm,0.3s,baz=22,slow=3.4,SNR=3.1						
	comp=Z,0.4nm,0.3s						
HNDO	Hondo	82.93	55	P	P	03 23 58.0	+0.5
HNDO				IAmb	IAmb	03 24 11.2	
	comp=Z,2.8nm,0.7s						

IDC 05 03:19:38.4±1.8**, 2°.42N**×**126°.81E, h0**^{km}**, mb3.5**/5**, mbtmp3.5**/5**, Error ellipse: s-maj=182.4km s-min=21.5km az=66.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	23.42	162	P	P	03 24 48.4	-1.0
	0.5nm,0.5s,baz=341,slow=10,SNR=6.5						
	0.5nm,0.5s						
ASAR	Alice Springs	26.83	165	P	P	03 25 21.2	+0.5
	0.1nm,0.3s,baz=347,slow=10.0,SNR=1.8						
	0.1nm,0.3s						
STKA	Stephens Creek	36.88	159	P	P	03 26 49.2	+0.4
	0.8nm,0.4s,baz=334,slow=9.1,SNR=3.2						
	0.8nm,0.4s						
MKAR	Makanchi Array	58.67	326	P	P	03 29 37.4	-0.4
	0.5nm,0.8s,baz=105,slow=10,SNR=2.6						
	0.5nm,0.8s						
KURBB	Kurchatov Arra	62.88	328	P	P	03 30 06.6	+0.3
	0.4nm,0.5s,baz=130,slow=6.5,SNR=4.6						
	0.4nm,0.5s						

NOU ***05*** *03:35:01.3, 38°.08S×175°.11E, h0^{km}, MLv3.5/7, North Island, New Zealand*
WEL ***05*** *03:35:06.6±1.2, 38°S±9°×17°6E±°, h137^{km}±11^{km}, M2.6/35, MLv2.6/35, Error ellipse: s-maj=11.5km s-min=7.9km az=2.8, confirmed*
ISC 05 03:35:05.7±1.3**, 38°.23S**±0°.05×**176°.20E**±0°.05**, h150**^{km}**, n76,** σ**0^{s}80**/82**, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GRRZ	Galatos Road	0.14	211	P	Pn	03 35 27.0	+1.1
GRRZ				AML	AML		
RRRZ	Republican Roa	0.27	114	P	Pn	03 35 26.8	+0.6
RRRZ				AML	AML		
ALRZ	Allen Road	0.35	161	P	Pn	03 35 27.2	+0.7
ALRZ				AML	AML		
KUTZ	Kaahu Road	0.39	229	P	Pn	03 35 27.7	+1.0
KUTZ				AML	AML		
KMRZ	Kaimai	0.43	332	P	Pn	03 35 27.6	+0.7
KMRZ				AML	AML		
MARZ	Manawahe	0.45	57	P	Pn	03 35 27.4	+0.6
MARZ				AML	AML		
MUGZ	Murupara	0.51	119	P	Pn	03 35 27.3	+0.2
MUGZ				AML	AML		
TLZ	Tolley Road	0.53	259	P	Pn	03 35 28.3	+1.0
MRHZ	Matea Rd	0.63	164	P	Pn	03 35 28.4	+0.5
MRHZ				S	Sn	03 35 45.8	+1.0
MRHZ				AML	AML		
URZ	Urewera	0.72	93	P	Pn	03 35 28.1	-0.2
URZ	Urewera	0.72	93	P	Pn	03 35 28.2	-0.2
URZ				S	Sn	03 35 45.2	-0.3
URZ				AML	AML		
RATZ	Rangitukua	0.72	208	P	Pn	03 35 28.9	+0.4
RTZ	Ruatahuna	0.72	122	P	Pn	03 35 28.8	+0.3
RTZ				S	Sn	03 35 46.7	+0.9
RTZ				AML	AML		
RITZ	Rihia Road	0.79	200	P	Pn	03 35 30.0	+1.0
RITZ				AML	AML		
MTHZ	Maungataniwha	0.80	141	P	Pn	03 35 29.5	+0.5
MTHZ				S	Sn	03 35 47.4	+0.6
MTHZ				AML	AML		
NTVZ	North Tongarir	0.96	205	P	Pn	03 35 31.0	+0.7
BKZ	Black Stump Fm	0.96	166	P	Pn	03 35 30.5	+0.2
BKZ	Black Stump Fm	0.96	166	S	Sn	03 35 49.8	+0.8
TMVZ	Te Maari	0.97	204	P	Pn	03 35 31.0	+0.6
RAHZ	Arahi	0.97	135	P	Pn	03 35 31.1	+0.8
RAHZ				S	Sn	03 35 50.2	+1.1
RAHZ				AML	AML		
ETVZ	East Tongariro	0.98	203	P	Pn	03 35 31.2	+0.7
NMHZ	Naumai	0.99	152	P	Pn	03 35 31.7	+1.2
NMHZ				S	Sn	03 35 51.3	+1.9
NMHZ				AML	AML		
RAGZ	Rawiri	0.99	106	P	Pn	03 35 31.0	+0.5
RAGZ				S	Sn	03 35 49.6	+0.2
RAGZ				AML	AML		
WTVZ	West Tongariro	1.01	208	P	Pn	03 35 31.2	+0.5
WTVZ				AML	AML		
OTVZ	Oturere	1.02	204	P	Pn	03 35 31.8	+0.9
TWVZ	Taurewa	1.03	215	P	Pn	03 35 31.4	+0.5
TWVZ				AML	AML		
MWZ	Matawai	1.05	96	P	Pn	03 35 31.0	0.0
MWZ				S	Sn	03 35 49.9	-0.3
MWZ				AML	AML		
SNVZ	South Ngauruho	1.05	205	P	Pn	03 35 31.2	0.0
SNVZ				AML	AML		
NGZ	Ngauruhoe	1.05	206	P	Pn	03 35 32.0	+0.9
NGZ				AML	AML		
HIZ	Hauiti	1.09	255	P	Pn	03 35 32.2	+0.8
COVZ	Chateau Observ	1.10	208	P	Pn	03 35 32.0	+0.6
TUVZ	Tukino	1.12	202	P	Pn	03 35 32.4	+0.6
TUVZ				AML	AML		
FWVZ	Far West T-bar	1.14	206	P	Pn	03 35 32.4	+0.4
MAVZ	Matarangi	1.15	206	P	Pn	03 35 33.0	+0.8
WHVZ	Whangaehu Hut	1.16	204	P	Pn	03 35 32.6	+0.4
WHHZ	Waihua	1.17	137	P	Pn	03 35 32.7	+0.7
WHHZ				AML	AML		
WNVZ	Wahianoa	1.19	203	P	Pn	03 35 32.9	+0.4
WNVZ				AML	AML		
RUGZ	Raukumara Rang	1.19	78	P	Pn	03 35 31.3	-1.1
RUGZ				AML	AML		
ARHZ	Aropaoanui	1.21	149	P	Pn	03 35 33.2	+0.8
KWHZ	Kaweka Forest	1.21	172	P	Pn	03 35 33.0	+0.6
KWHZ				AML	AML		
MOVZ	Moawhango	1.23	196	P	Pn	03 35 32.7	0.0
MOVZ				AML	AML		
PKVZ	Pokaka	1.25	212	P	Pn	03 35 33.3	+0.4
PKVZ				AML	AML		
BHHZ	Black Hill Sta	1.26	185	P	Pn	03 35 33.1	+0.2
BHHZ				AML	AML		
MCHZ	McNeill Hill	1.27	162	P	Pn	03 35 34.0	+1.1
MCHZ				AML	AML		
MTVZ	Mangateitei	1.29	206	P	Pn	03 35 33.7	+0.5
MTVZ				AML	AML		
TKGZ	Te Karaka	1.31	100	P	Pn	03 35 33.6	+0.2
TKGZ				AML	AML		
RIGZ	Rimuhau	1.31	112	P	Pn	03 35 33.8	+0.3
RIGZ				AML	AML		
HAZ	Te Kaha	1.34	70	P	Pn	03 35 32.8	-0.8
MKAZ	Moumakai	1.39	323	P	Pn	03 35 34.6	+0.4
KNZ	Kokohu	1.40	125	P	Pn	03 35 34.4	+0.2
KRHZ	Kereru	1.42	175	P	Pn	03 35 34.7	+0.3
KRHZ				AML	AML		
VRZ	Vera Road	1.44	231	P	Pn	03 35 35.4	+0.8
PRGZ	Paritu Road	1.49	118	P	Pn	03 35 35.4	+0.2
PRGZ				AML	AML		
PKGZ	Pakihiroa	1.53	77	P	Pn	03 35 35.1	-0.5
PKGZ				AML	AML		
CKHZ	Cape Kidnapper	1.58	155	P	Pn	03 35 36.7	+0.6
CKHZ				AML	AML		
CNGZ	Carnagh Statio	1.60	100	P	Pn	03 35 36.8	+0.5
MHGZ	Mahia Peninsul	1.62	125	P	Pn	03 35 36.9	+0.3
MHGZ				AML	AML		
ETAZ	East Tamaki Re	1.63	321	P	Pn	03 35 35.1	-1.6
ETAZ				AML	AML		
KAHZ	Kahuranaki	1.65	162	P	Pn	03 35 37.4	+0.4
KAHZ				AML	AML		
WIAZ	Waiheke Island	1.67	329	P	Pn	03 35 37.3	+0.2
PNHZ	Pukenui	1.68	180	P	Pn	03 35 37.1	-0.2
PNHZ				AML	AML		
AWAZ	Awhitu Peninsu	1.70	313	P	Pn	03 35 37.2	-0.3
WAZ	Wanganui	1.79	212	P	Pn	03 35 38.7	+0.2
WMGZ	Waiomatatini S	1.80	77	P	Pn	03 35 38.0	-0.5
WMGZ				AML	AML		
TSZ	Takapari Road	1.84	186	P	Pn	03 35 38.7	-0.3
WPHZ	Waipukurau	1.84	174	P	Pn	03 35 38.9	-0.1
PXZ	Pawanui	1.87	164	P	Pn	03 35 39.1	-0.2
KHEZ	Kahui Hut	2.01	237	P	Pn	03 35 42.0	+0.9
PRHZ	Porangahau	2.06	171	P	Pn	03 35 41.1	-0.5
PRHZ				AML	AML		
DVHZ	Dannevirke	2.07	181	P	Pn	03 35 41.0	-0.7
DVHZ				AML	AML		
ANWZ	Angora Road	2.24	175	P	Pn	03 35 43.3	-0.4
ANWZ				AML	AML		
BFZ	Birch Farm	2.45	179	P	Pn	03 35 45.1	-1.1
SNZO	South Karori	3.29	200	P	Pn	03 35 54.8	-1.9
SNZO	South Karori	3.29	200	S	Sn	03 36 32.8	-3.4
KHZ	Kahutara	4.65	205	P	Pn	03 36 11.1	-3.3
KHZ	Kahutara	4.65	205	S	Sn	03 37 02.6	-5.4

SNET ***05*** *03:50:29.0±2.3, 12°.77N×86°.90W, h7^{km}, ML4.0, Presumed earthquake*
NEIC ***05*** *03:50:29.8±2.0, 12°.69N±0°.02×87°.09W±0°.03, h10^{km}±1^{km}, ML3.8/24, Error ellipse: s-maj=5.6km s-min=2.7km az=134.0*
CATAC ***05*** *03:50:30.2±0.2, 13°N±2°×8°7W±°, h6^{km}±1^{km}, M3.9/36, MLv3.9/36, Error ellipse: s-maj=3.6km s-min=2.0km az=23.5, confirmed*
ISC 05 03:50:29.9±0.8**, 12°.74N**±0°.03×**87°.01W**±0°.02**, h12**^{km}±5^{km}**, n64,** σ**0^{s}70**/83**, 6C-8D, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CRIN	San Cristobal	0.06	226	Pg	Pg	03 50 32.7	+0.3
CRIN				Sg	Sg	03 50 34.6	+0.4
CRIN	San Cristobal	0.06	226	⇓P	Pg	03 50 32.7	+0.3
CRIN				S	Sg	03 50 34.0	-0.2
HERN	Volcan Telica	0.21	128		Pb	03 50 35.4	-0.5
HERN	Volcan Telica	0.21	128	⇓P	Pb	03 50 35.6	-0.3
TELN	Telica	0.22	129	⇓P	Pg	03 50 32.6	-2.1
TEL3	Telica 3	0.23	137	⇓P	Pb	03 50 35.9	-0.2
PLRN	Geotermica Pol	0.28	124	⇓P	Pb	03 50 36.6	-0.4
PLRN				S	Sg	03 50 39.4	-0.2
ILCN	San Idelfonso	0.34	119	⇑P	Pg	03 50 35.9	-0.9
CNGN	Cerro Negro	0.38	129	⇓P	Pb	03 50 38.6	-0.1
CNGA	Al SSO del Vol	0.39	130	⇓P	Pg	03 50 38.0	+0.3
AESN	El Sauce Leon	0.48	72	⇑P	Pb	03 50 40.1	-0.2
MOM2	El Cardon	0.59	121	⇑P	Pb	03 50 42.5	+0.2
AMTN	Mateare	0.75	132	P	Pb	03 50 45.4	+0.3
AMTN				S	Sg	03 50 54.6	+0.2
APYN	Apoyeque	0.81	128	P	Pb	03 50 46.1	0.0
APQ2	Apoyeque	0.86	129	P	Pg	03 50 46.8	+0.2
APQ2	Apoyeque	0.86	129	P	Pb	03 50 47.4	+0.6
APQ2				S	Sb	03 50 58.5	+0.3
APQ2				S	Sg	03 50 58.7	+1.0
ABCN	Banco Central	0.92	132	P	Pg	03 50 47.5	-0.2
ALLN	Telcor Managua	0.92	129	P	Pg	03 50 45.7	-2.1
TISN	Laguna Tiscapa	0.93	130	P	Pg	03 50 47.3	-0.7
MGAN	Managua	0.95	129		Pg	03 50 48.0	-0.3
MGAN				Sg	Sg	03 51 00.8	+0.2
MGAN				IAML		03 51 02.2	

	comp=E,2µm,0.5s						
MGAN				IAML		03 51 02.3	
	comp=N,3µm,0.4s						
MGAN	Managua	0.95	129	P	Pb	03 50 48.7	+0.3
MGAN				S	Sb	03 51 01.4	+0.5
CNCH	Conchagua	0.97	303	*e*P	Pg	03 50 48.5	-0.1
CNCH	Conchagua	0.97	303	P	Pb	03 50 48.8	0.0
CNCH				S	Sb	03 51 02.4	+0.9
WILN	Americas 2	0.99	126	P	Pg	03 50 48.9	0.0
WILN				S	Sb	03 51 02.5	+0.6
LCND	La Caada	1.03	303	⇑P	Pb	03 50 49.7	-0.1
MATN	Matagalpa	1.07	80	⇑P	Pb	03 50 50.4	-0.1
MATN				S	Sg	03 51 05.2	+0.7
MAS3	Al N del Volca	1.08	131	P	Pb	03 50 50.4	-0.3
MAS3				S	Sn	03 51 05.7	-0.2
INTP	Intipuca	1.12	294	*e*P	Pb	03 50 50.9	-0.4
INTP				*e*S	Sg	03 51 06.3	+0.2
MASN	Masaya	1.12	132	P	Pb	03 50 51.0	-0.3
SABN	Sabanita	1.14	133	P	Pb	03 50 50.2	-1.3
RCVN	Varillal2	1.15	43	⇓P	Pb	03 50 51.8	-0.1
RCVN				S	Sg	03 51 07.4	+0.2
NANN	Nandasmo	1.18	133	P	Pg	03 50 52.8	+0.2
RCPN	Sur Rio San Ju	1.18	49	P	Pb	03 50 52.2	-0.2
JUCU	Jucuar¡n	1.31	293	*e*P	Pn	03 50 53.7	-0.6
JUCU				*e*S	Sb	03 51 11.7	+0.1
TGUH	Tegucigalpa,Un	1.33	349		Pb	03 50 54.9	-0.1
TGUH				Sn	Sn	03 51 12.5	+0.2
TGUH				IAML		03 51 19.0	
	comp=N,2µm,0.6s						
BOAB	BOACO BROADBAN	1.34	102		Pn	03 50 54.2	-0.2
BOAB				IAML		03 51 16.7	
	comp=E,2µm,0.6s						
BOAB	BOACO BROADBAN	1.34	102	⇑P	Pn	03 50 54.3	-0.2
BOAB				S	Sg	03 51 13.1	-0.1
NADN	Granada	1.37	136	P	Pn	03 50 54.2	-0.8
NADN				S	Sb	03 51 13.5	+0.4
LCY	Lacayo	1.43	298	*e*P	Pn	03 50 56.1	+0.3
RANC	El Ranchito	1.43	299	*e*P	Pn	03 50 56.2	+0.3
RANC				*e*S	Sg	03 51 16.1	+0.1
RANC	El Ranchito	1.43	299	P	Pb	03 50 56.4	-0.2
PACA	Pacayal	1.47	299	*e*P	Pb	03 50 57.1	-0.3
PACA	Pacayal	1.47	299	P	Pb	03 50 57.2	-0.2
ALJI	Alcalda de J	1.63	291	P	Pn	03 50 59.3	+0.8
TECA	Tecapa	1.64	297	*e*P	Pn	03 50 59.0	+0.2
JAPN	Al SSO del Vol	1.77	133	P	Pb	03 51 02.0	-0.5
MORN	Al O del Volca	1.78	132	P	Pn	03 51 01.5	+0.8
OMEN	Al SSO del Vol	1.82	132	P	Pn	03 51 00.5	-0.7
TECO	Alcaldia de Te	1.90	295	*e*P	Pn	03 51 03.1	+0.8
TECO				*e*S	Sb	03 51 28.7	+0.3
TECO	Alcaldia de Te	1.90	295	P	Pb	03 51 03.9	-0.7
ACON	Acoyapa	1.95	113	P	Pb	03 51 04.8	-0.6
CARN	Rivas	2.12	137		Pn	03 51 04.9	-0.3
CARN				IAML		03 51 46.3	
	comp=E,388nm,0.8s						
CARN				IAML		03 51 50.0	
	comp=N,455nm,0.8s						
SIUN	Universidad Ur	2.38	66		Pb	03 51 11.2	-1.6
SIUN				IAML		03 51 47.3	
	comp=N,468nm,0.5s						
SIUN				IAML		03 51 47.4	
	comp=E,433nm,0.6s						
PIC2	El Picacho	2.41	295	*e*P	Pb	03 51 12.2	-1.2
BOQS	Boqueron	2.42	294	*e*P	Pb	03 51 12.2	-1.5
JAYA	Jayaque - finc	2.55	291	P	Pn	03 51 06.4	-4.9
MTO3	Montecristo	2.82	306	Pn	Pn	03 51 14.9	-0.2
MTO3				IAML		03 52 05.4	
	comp=E,223nm,0.9s						
ESQI	Esquipulas	2.90	309	Pn	Pn	03 51 15.6	-0.5
ESQI				IAML		03 52 17.9	
	comp=N,200nm,1.5s						
JUD3	Juan Diaz 3	2.94	151	Pn	Pn	03 51 18.0	+1.4
JTS	Las Juntas de	3.16	140		Pn	03 51 20.6	+1.0
BILN	Bilwi Airport	3.76	69		Pn	03 51 29.8	+1.9
HDC	Heredia	3.93	134	Pn	Pn	03 51 30.3	0.0
LCR2	La Lucha 2	4.19	135	Pn	Pn	03 51 35.2	+1.3
HUEH	Huehuetenango	5.06	301	Pn	Pn	03 51 44.8	-1.2

*ISU **05** 04:02:03, 40°.22N×71°.65E, h18^{km}*
*KRNET **05** 04:02:05.5±0.1, 40°.26N×71°.72E, h12^{km}, mb2.6*
*SOME **05** 04:02:06.7, 40°.28N×71°.70E, h5^{km}*
ISC 05 04:02:05.6±1.0, **40°.25N**±0°.03×**71°.75E**±0°.02, **h9**^{km}±9^{km}, **n21**, σ1^{s}.**18**/37, **14C-5D, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FRG	Fergana	0.13	13	S	Sg	04 02 11.9	+1.2
FRG				S		04 02 15.5	
MINT	Mingtut	0.63	291	S	Sb	04 02 28.6	+0.8
TSTA	Tashata	0.65	59	P	Pb	04 02 19.9	+0.7
TSTA				S	Sn	04 02 30.7	-0.9
BTK	Batken	0.73	256	⇓*i*P	Pg	04 02 19.3	-0.5
BTK				⇓*i*S	Sg	04 02 29.2	-0.2
DRK	Karamyk	0.77	177	⇑*i*P	Pg	04 02 20.5	+0.1
DRK				⇑*i*S	Sb	04 02 31.3	-0.7
OHH	Osh	0.84	70	⇑*i*P	Pg	04 02 21.7	-0.1
OHH				⇑*i*S	Sg	04 02 33.4	+0.6
KSNS	Kasansay	0.93	349	S	Sn	04 02 42.8	+4.3
TRKS	Terek-Say	1.36	341	⇑*i*P	Pn	04 02 29.5	-1.6
TRKS				⇑*i*S	Sb	04 02 46.9	-2.2
SFK	Sufi-Kurgan	1.37	99	⇓*i*P	Pb	04 02 31.6	0.0
SFK				⇓*i*S	Sg	04 02 50.5	+0.9
ARSB	Arslanbob	1.43	41	⇑*i*P	Pb	04 02 32.2	-0.4
ARSB				⇑*i*S	Sg	04 02 51.8	+0.2
ARK	Arkit	1.56	6	⇑*i*P	Pb	04 02 34.4	-0.4
ARK				⇑*i*S	Sg	04 02 55.4	-0.4
SALK	Salom-Alik	1.71	67	⇑*i*P	Pb	04 02 37.4	+0.1
SALK				⇑*i*S	Sg	04 03 00.6	+0.1
CHMG	Chimgan	1.85	315	P	Pg	04 02 40.9	-0.2
CHMG				S	Sg	04 03 05.5	+0.4
CHRV	Charvak	1.95	316	S	Sg	04 03 08.0	-0.2
PSK	Pskem	1.97	329	P	Pg	04 02 42.9	-0.6
PSK				S	Sg	04 03 10.0	+0.9
TVKS	Tavaksay	2.07	311	P	Pg	04 02 44.2	-1.1
TVKS				S	Sg	04 03 11.8	-0.3
NZBK	Nazarbek	2.22	297	S	Sg	04 03 19.3	+2.3
IUG	Iuzhnay	2.30	326	*e*P	Pg	04 02 49.2	-0.5
	16nm,0.2s						
IUG				*e*S	Sg	04 03 19.9	+0.5
	19nm,0.4s						
MRKS	Merke	2.73	24	*e*P	Pg	04 02 57.8	-0.2
	2.7nm,0.3s						
MRKS				*e*S	Sg	04 03 34.6	+1.1
	9.4nm,0.3s						
KK31	Karatay Array	3.00	342	⇑Pn	Pg	04 03 02.2	-1.0
	1.3nm,0.3s,baz=160,slow=13,SNR=5.8						
KK31				⇓Sn	Sn	04 03 31.3	+1.7
	0.6nm,0.3s,baz=152,slow=28,SNR=4.3						
KK31				⇑Lg	Lg	04 03 37.3	
	1.2nm,0.3s,baz=157,slow=26,SNR=5.5						
BRLS	Borolday	3.13	333	*e*P	Pb	04 03 01.4	0.0
	2.1nm,0.2s						
BRLS				*e*S	Sb	04 03 40.7	+1.0
	4.3nm,0.2s						

*DNK **05** 04:03:00.7±2.2, 51°.54N×16°.52E, h0^{km}±82^{km}, ML2.7,*
Presumed earthquake
*IDC **05** 04:03:02.2±1.4, 51°.44N×16°.21E, h0^{km}, mbtmp3.0/5,*
ML2.5/5, Error ellipse: s-maj=22.1km s-min=11.2km
az=126.0
*IPEC **05** 04:03:02.2±0.2, 51°.45N×16°.28E, h1^{km}, ML2.3/9, Error*
ellipse: s-maj=1.4km s-min=1.0km az=51.0
*PRU **05** 04:03:04.4, 51°.38N×16°.17E, h0^{km}*
ISC 05 04:03:00.9±0.7, **51°.51N**±0°.03×**16°.23E**±0°.02, **h0**^{km}, **n52**,
σ1^{s}.**01**/101, **Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSP	Ksiaz	0.67	177	*e*Pg	Pg	04 03 14.3	+0.6
KSP				*e*Sg	Sg	04 03 22.4	+0.1
CHVC	Chvalec	0.93	187	*e*PG	Pg	04 03 19.2	+0.5
CHVC				*e*SG	Sg	04 03 30.5	-0.2
OSTC	Ostas	0.95	181	*e*PG	Pg	04 03 19.7	+0.5
OSTC				*e*SG	Sg	04 03 31.4	-0.1
	comp=Z,37nm,0.5s						
OSTC				AML	AML		
UPC	Upice	1.01	188	*e*PG	Pg	04 03 20.4	+0.1
UPC				*e*SG	Sg	04 03 33.2	-0.2
	comp=Z,74nm,0.4s						
UPC				AML	AML		
DPC	Dobruska-Polom	1.16	177	*e*PG	Pg	04 03 23.1	-0.1
DPC				*e*SG	Sg	04 03 37.5	-0.7
	comp=Z,19nm,0.4s						
DPC				AML	AML		
PIVO	Bartosovice	1.34	171	*e*Pg	Pg	04 03 26.5	-0.1
	baz=352						
PIVO				*e*Sg	Sg	04 03 42.2	-1.7
	43nm,0.3s,baz=352						
PIVO				AML	AML		
KRLC	Kraliky	1.48	166	*e*PG	Pn	04 03 28.6	-0.2
KRLC				*e*SG	Sg	04 03 48.0	-0.3
	comp=Z,21nm,0.5s						
KRLC				AML	AML		
BRG	Berggiesshubel	1.57	247	Pn	Pn	04 03 30.5	+0.4
BRG				Pg	Pg	04 03 31.7	+0.6
BRG				Sg	Sg	04 03 52.1	+0.6
BRG				Amp		04 03 52.9	
	comp=Z,33nm,0.4s						
ANAC	Anensky vrch	1.61	153	*e*Pn	Pn	04 03 30.5	-0.1
	baz=334						
ANAC				*e*Sg	Sn	04 03 50.6	-1.5
	comp=Z,16nm,0.2s,baz=334						
ANAC				AML	AML		
RICC	Richard	1.66	235	*e*SG	Sg	04 03 54.3	+0.2
RYBC	Ceska Rybna	1.71	184	*e*Pn	Pn	04 03 32.1	+0.2
	baz=4.6						
RYBC				*e*Sg	Sn	04 03 53.8	-0.6
	comp=Z,28nm,0.2s,baz=4.6						
RYBC				AML	AML		
STEB	Steborice	1.86	148	*e*PG	Pb	04 03 35.6	-0.1
STEB				*e*SG	Sb	04 03 59.9	+0.5
	comp=Z,38nm,0.6s						
STEB				AML	AML		
PRU	Pruhonice	1.86	216	*e*PG	Pb	04 03 35.8	0.0
PRU				*e*SG	Sb	04 03 59.6	0.0
	comp=Z,27nm,0.4s						
PRU				AML	AML		
MORC	Moravsky Berou	1.92	154	*e*Pn	Pn	04 03 34.9	0.0
	baz=335						
MORC				*e*Sg	Sn	04 04 00.1	+0.2
	comp=Z,17nm,0.6s,baz=335						
MORC				AML	AML		
MORC	Moravsky Berou	1.92	154	*e*PN	Pn	04 03 35.0	0.0
MORC				*e*SG	Sn	04 04 00.2	+0.3
HSKC	Hora Svate Kat	1.98	244	*e*PG	Pb	04 03 37.9	0.0
HSKC				*e*SG	Sb	04 04 03.6	+0.4
	comp=Z,18nm,0.3s						
HSKC				AML	AML		
CLL	Collm	2.03	266	*i* Pn	Pn	04 03 36.8	+0.4
CLL				*i* Pg	Pb	04 03 39.3	+0.6
CLL				*i* x	x	04 03 40.8	
CLL				*e*Sg	Sg	04 04 07.0	+0.8
	comp=Z,16nm,0.3s						
OKC	Ostrava-Krasne	2.07	143	*e*PG	Pg	04 03 40.6	0.0
OKC				*e*SG	Sb	04 04 05.8	+0.2
VRAC	Vranov	2.21	174	Pn	Pn	04 03 39.4	+0.5
	comp=Z,1.4nm,0.3s,baz=341,slow=18,SNR=11						
VRAC				Lg	Lg	04 04 08.4	
	comp=Z,2.4nm,0.3s,baz=252,slow=17,SNR=11						
	comp=Z,2.4nm,0.3s						
VRAC				AML	AML		
VRAC	Vranov	2.21	174	*e*Pn	Pn	04 03 39.4	+0.5
	baz=355						
VRAC				*e*Sg	Sb	04 04 09.6	-0.2
	comp=Z,13nm,0.4s,baz=355						
VRAC				AML	AML		
MAUC	Maruska	2.38	154	*e*PG	Pg	04 03 46.1	-0.3
KRUC	Moravsky	2.45	177	*e*Pn	Pn	04 03 42.6	+0.4
	baz=358						
KRUC				*e*Sg	Sb	04 04 17.0	+0.4
	comp=Z,13nm,0.6s,baz=358						
KRUC				AML	AML		
STAC	Stalkov	2.55	194	*e*Pn	Pn	04 03 43.6	0.0
	baz=14						
STAC				*e*Sg	Sb	04 04 20.2	+0.7
	comp=Z,18nm,0.4s,baz=14						
STAC				AML	AML		
OJC	Ojcow	2.60	118	*e*Pg	Pg	04 03 51.8	+1.0
OJC				*e*Sg	Sg	04 04 25.5	+1.0
NKC	Novy Kostel	2.72	243	*e*PN	Pn	04 03 46.5	+0.7
NKC				*e*PG	Pg	04 03 51.9	-1.0
NKC				*e*SG	Sg	04 04 27.0	-1.1
	comp=Z,24nm,0.4s						
NKC				AML	AML		
JAVC	Velka Javorina	2.81	160	*e*Pn	Pn	04 03 47.2	+0.1
	baz=342						
JAVC	Velka Javorina	2.81	160	*e*PN	Pn	04 03 47.3	+0.1
KHC	Kasperske Hory	2.92	217	*e*PN	Pn	04 03 48.9	+0.2
KHC				*e*PG	Pb	04 03 54.8	+0.9
KHC				*e*SG	Sb	04 04 32.6	+2.3
	comp=Z,9.4nm,0.5s						
KHC				AML	AML		
CKRC	Cesky Krumlov	2.96	205	*e*PN	Pn	04 03 50.1	+0.9
CKRC				*e*PG	Pb	04 03 55.9	+1.3
CKRC				*e*SN	Sn	04 04 22.0	-3.4
CKRC				*e*SG	Sb	04 04 33.0	+1.7
	comp=Z,14nm,0.4s						
CKRC				AML	AML		
GERES	GERESS Array B	3.12	212	Pn	Pn	04 03 52.3	+0.8
	comp=Z,0.1nm,0.3s,baz=27,slow=12,SNR=15						
GERES				Pg	Pb	04 03 57.8	+0.4
	comp=Z,0.7nm,0.3s,baz=29,slow=17,SNR=58						
GERES				Lg	Lg	04 04 37.8	
	comp=Z,0.6nm,0.3s,baz=36,slow=26,SNR=7.4						
	comp=Z,1.4nm,0.4s						
GERES				AML	AML		
LANS	Liptovska Anna	3.14	137	*e*PG	Pg	04 04 00.8	-0.3
LANS				*e*SG	Sg	04 04 43.4	+1.6
MODS	Modra-Piesok	3.21	167	*e*PG	Pg	04 04 02.6	+0.2
MODS				*e*SG	Sg	04 04 44.7	+0.7
NIE	Niedzica	3.34	127	*e*Pg	Pg	04 04 05.5	+0.6
NIE				*e*Sg	Sg	04 04 47.0	-1.1
VYHS	Vyhne	3.45	150	*e*PG	Pg	04 04 05.6	-1.5
CONA	Conrad Observa	3.59	184	*i* Pn	Pn	04 03 57.1	-0.8
	comp=Z,0.4nm,0.2s						
CONA				*i* Sn	Sn	04 04 39.5	-1.5
	comp=Z,1.6nm,0.4s						
BSD	Bornholm Skovb	3.70	348	*i* P	Pn	04 03 59.3	+0.1
BSD				*i* S	Sn	04 04 42.6	-0.9
BSD				IAML		04 04 43.2	
	comp=Z,9.0nm,0.6s						
RONA	Rosalia, Austr	3.81	179	*i* Pn	Pn	04 04 01.1	+0.1
	comp=Z,0.1nm,0.2s						
RONA				*i* Sn	Sn	04 04 43.0	-3.4
	comp=Z,1.4nm,0.4s						
STHS	Stebnicka Huta	3.83	121	*e*PG	Pg	04 04 15.3	+1.1
STHS				*e*SG	Sg	04 05 03.5	-0.3
MOA	Molln	3.88	200	*i* Pn	Pn	04 04 02.6	+0.8
	comp=Z,1.0nm,0.2s						
MOA				*i* Sn	Sn	04 04 46.2	-1.8
	comp=Z,0.1nm,0.1s						
BIOA	Bad Ischl, Aus	4.18	205	*e*Pn	Pn	04 04 07.1	+1.2
	comp=Z,0.1nm,0.2s						
BIOA				*e*Sn	Sn	04 04 54.5	-0.9
	comp=Z,0.2nm,0.2s						
ARSA	Arzberg	4.29	186	*i* Pn	Pn	04 04 08.9	+1.5
	comp=Z,0.5nm,0.4s						
ARSA				*e*Sg	Sg	04 05 18.9	+0.3
	comp=Z,5.7nm,1.0s						
LUNU	Lund	4.45	339	*i* P	Pn	04 04 10.0	+0.4
LUNU				*i* S	Sn	04 05 01.1	-0.9
LESA	Schwarzleotal	4.70	211	*i* Pn	Pn	04 04 13.0	-0.1
	comp=Z,0.3nm,0.2s						
LESA				*e*Sn	Sn	04 05 08.4	0.0
	comp=Z,0.4nm,0.2s						
BLEU	Blekinge	4.81	357	*i* P	Pn	04 04 15.7	+1.1
BLEU				*i* S	Sn	04 05 08.3	-2.6
KBA	Koelnbreinsper	4.82	204	*i* Pn	Pn	04 04 15.6	+0.7
	comp=Z,1.2nm,0.5s						
KBA				*i* Sn	Sn	04 05 10.1	-1.4
	comp=Z,0.8nm,0.4s						
DEL	Delary	5.16	345	*i* P	Pn	04 04 19.0	-0.4
DEL				*i* S	Sn	04 05 16.4	-3.1
MOTA	Moosalm	5.34	221	*i* Pn	Pn	04 04 22.4	+0.4
	comp=Z,0.1nm,0.1s						
MOTA				*e*Sn	Sn	04 05 24.2	-0.1
	comp=Z,0.1nm,0.1s						
SQTA	Sankt Quirin	5.40	219	*i* Pn	Pn	04 04 24.1	+1.3
	comp=Z,0.6nm,0.1s						
SQTA				*i* Sn	Sn	04 05 25.0	-0.7
	comp=Z,0.1nm,0.1s						
FABU	Falkenberg	5.88	341	*i* P	Pn	04 04 29.9	+0.8
FABU				*i* S	Sn	04 05 36.0	-1.1
DAVOX	Davos/Dischmat	6.30	224	Pn	Pn	04 04 34.8	-0.5
	comp=Z,0.1nm,0.3s,baz=37,slow=15,SNR=1.5						
DAVOX				Lg	Lg	04 06 22.1	
	comp=Z,0.2nm,0.3s,baz=260,slow=20,SNR=4.0						
	comp=Z,0.4nm,0.3s						
DAVOX				AML	AML		
AKASG	Malin Array Be	8.22	91	Pn	Pn	04 05 01.4	+0.1
	comp=Z,0.4nm,0.3s,baz=283,slow=12,SNR=4.2						
	comp=Z,0.4nm,0.4s						
AKASG				AML	AML		
FINES	FINESS Array B	11.33	25	Pn	Pn	04 05 43.8	-0.1
	comp=Z,0.1nm,0.3s,baz=212,slow=11,SNR=8.4						
	comp=Z,2.1nm,0.8s						
FINES				AML	AML		

*IDC **05** 04:08:05.0±3.6, 17°.24N×67°.46W, h0^{km}, mb3.6/4,*
mbtmp3.6/4, Error ellipse: s-maj=149.6km s-min=26.5km
az=7.0
*NEIC **05** 04:08:11.0±2.3, 17°.76N±0°.03×67°.65W±0°.02, h10^{km}±1^{km},*
ML3.8/39, Md3.6/15(RSPR), Error ellipse: s-maj=5.2km
s-min=3.6km az=26.0
*SDD **05** 04:08:12.1±3.1, 18°.12N×67°.53W, h40^{km}±20^{km}, MD3.8,*
ML3.4, MW3.3, Presumed earthquake
*OSPL **05** 04:08:13.6±2.6, 17°.85N×67°.60W, h10^{km}±46^{km}, ML3.3,*
Presumed earthquake
*RSPR **05** 04:08:14.9, 17°.97N×67°.60W, h10^{km}, MD3.6/15*
*TRN **05** 04:08:15.1, 17°.32N×67°.05W, h0^{km}, MD0.0, South of*
Puerto Rico.
*PTWC **05** 04:08:17, 18°.10N×67°.50W, h15^{km}, Ml3.7/14*
ISC 05 04:08:11.2±1.2, **17°.91N**±0°.05×**67°.58W**±0°.02, **h17**^{km}±8^{km},
n101, σ1^{s}.**75**/125, **mb3.8**/3, **20C-9D, Mona Passage**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CRPR	Cabo Rojo, PR	0.46	77		Pn	04 08 23.9	+0.9
CRPR				Sg	Sb	04 08 31.2	+3.9
CRPR				IAML		04 08 31.7	
	8µm,0.3s						
CRPR	Cabo Rojo, PR	0.46	77	P	Pb	04 08 23.0	+2.2
CRPR	Cabo Rojo, PR	0.46	77	⇑*i*P	Pn	04 08 24.0	+0.9
CRPR	Cabo Rojo, PR	0.46	77	⇑*i*P	Pn	04 08 23.9	+0.9
CRPR				⇑*i*S	Sb	04 08 31.0	+3.7
CRPR				IAML		04 08 31.6	
	comp=N,9µm,0.3s						
IDE	Isla Desecheo	0.49	11		Pb	04 08 23.1	+1.7
IDE					Sb	04 08 30.1	+1.8
IDE	Isla Desecheo	0.49	11	⇓*i*P	Pb	04 08 23.1	+1.7
IDE				*e*S	Sb	04 08 30.1	+1.8
MLPR	Magueyes Islan	0.51	83		Pn	04 08 24.5	+0.8
MLPR	Magueyes Islan	0.51	83		Sn	04 08 32.6	+0.5
MLPR	Magueyes Islan	0.51	83	IAML		04 08 33.5	
	comp=N,4µm,0.7s						
MLPR				IAML		04 08 33.8	
	comp=N,3µm,0.6s						
MLPR	Magueyes Islan	0.51	83	P	Pn	04 08 24.6	+0.8
MLPR	Magueyes Islan	0.51	83	⇑*i*P	Pn	04 08 24.6	+0.8
MLPR	Magueyes Islan	0.51	83	⇑*i*P	Pn	04 08 24.5	+0.8
MLPR				⇑*i*S	Sb	04 08 30.9	+2.0
MLPR				IAML		04 08 35.1	
	comp=N,1µm,0.4s						
PRSN	Puerto Rico Se	0.51	53		Pb	04 08 23.9	+2.1
PRSN					Sb	04 08 31.5	+2.5
PRSN				IAML		04 08 36.3	
	comp=N,6µm,0.3s						
PRSN	Puerto Rico Se	0.51	53	P	Pb	04 08 23.0	+1.2
PRSN	Puerto Rico Se	0.51	53	⇑*i*P	Pb	04 08 24.1	+2.3
PRSN	Puerto Rico Se	0.51	53	⇑*i*P	Pb	04 08 24.0	+2.1
PRSN				⇑*i*S	Sb	04 08 30.6	+1.5
PRSN				IAML		04 08 36.7	
	comp=N,6µm,0.2s						
LSP	Las Mesas	0.54	60		Pn	04 08 24.7	+0.5
LSP					Sn	04 08 33.1	+0.2
LSP	Las Mesas	0.54	60	⇓*i*P	Pn	04 08 24.7	+0.5
LSP				*e*S	Sn	04 08 33.1	+0.2
GBPR	Guanica, Bosqu	0.67	84		Pn	04 08 27.0	+1.1
GBPR					Sn	04 08 36.9	+0.9
GBPR	Guanica, Bosqu	0.67	84	⇓*i*P	Pn	04 08 27.0	+1.1
GBPR				*e*S	Sn	04 08 36.9	+0.9
AGPR	Aguadilla, PR	0.71	38		Pb	04 08 26.3	+1.1
AGPR				Sn	Sb	04 08 35.3	+0.5
AGPR				IAML		04 08 35.9	
	comp=N,4µm,0.3s						
AGPR				IAML		04 08 36.0	
	comp=N,3µm,0.2s						
AGPR	Aguadilla, PR	0.71	38	P	Pb	04 08 26.4	+1.2
AGPR	Aguadilla, PR	0.71	38	⇓*i*P	Pb	04 08 26.3	+1.1
AGPR	Aguadilla, PR	0.71	38	⇓*i*P	Pb	04 08 26.3	+1.1
AGPR				⇑*i*S	Sg	04 08 32.6	-2.1
AGPR				IAML		04 08 35.9	
	comp=N,3µm,0.2s						
QBPR	Quebradillas	0.83	47	P	Pb	04 08 28.4	+1.2
AOPR	Arecibo Observ	0.90	61		Pg	04 08 29.4	+0.7
AOPR	Arecibo Observ	0.90	61		Sb	04 08 41.5	+1.4
AOPR	Arecibo Observ	0.90	61	IAML		04 08 42.1	
	comp=N,5µm,0.3s						
AOPR				IAML		04 08 47.3	
	comp=N,5µm,0.3s						
AOPR	Arecibo Observ	0.90	61	P	Pg	04 08 28.9	+0.2
AOPR	Arecibo Observ	0.90	61	⇑*e*P	Pg	04 08 29.4	+0.7
AOPR	Arecibo Observ	0.90	61	⇓*i*P	Pg	04 08 29.1	+0.5
AOPR				⇑*i*S	Sg	04 08 39.0	-1.5
AOPR				IAML		04 08 42.1	
	comp=N,4µm,0.2s						
OBIP	Obispado Ponce	0.93	81		Pb	04 08 30.5	+1.5
OBIP	Obispado Ponce	0.93	81		Sb	04 08 43.1	+2.0
OBIP	Obispado Ponce	0.93	81	IAML		04 08 44.9	
	comp=N,343nm,0.3s						
OBIP	Obispado Ponce	0.93	81	P	Pb	04 08 30.7	+1.7
OBIP	Obispado Ponce	0.93	81	⇑*i*P	Pb	04 08 30.8	+1.8
OBIP				*e*S	Sb	04 08 43.1	+2.0
OBIP	Obispado Ponce	0.93	81	*i* P	Pb	04 08 30.7	+1.7
OBIP				*e*S	Sb	04 08 43.0	+1.9
OBIP				IAML		04 08 44.9	
	comp=Z,704nm,0.7s						
CELP	Cerrillos	0.96	80		Pb	04 08 31.2	+1.7
CELP				IAML		04 08 46.2	
	comp=Z,1µm,0.3s						
CELP				IAML		04 08 46.4	
	comp=Z,2µm,0.3s						
CELP	Cerrillos	0.96	80		Sb	04 08 43.8	+1.8
CELP	Cerrillos	0.96	80	P	Pg	04 08 27.8	-2.1
CELP	Cerrillos	0.96	80	⇑*i*P	Pb	04 08 31.2	+1.7
CELP	Cerrillos	0.96	80	⇑*i*P	Pb	04 08 31.1	+1.5
CELP				⇑*i*S	Sb	04 08 43.8	+1.8
CELP				IAML		04 08 46.3	
	comp=N,654nm,0.3s						
PCDR	Punta Cana, DR	0.98	308		Pb	04 08 31.1	+1.3
PCDR	Punta Cana, DR	0.98	308		Sg	04 08 42.2	-0.8
PCDR	Punta Cana, DR	0.98	308	⇓*i*P	Pb	04 08 31.2	+1.4
PCDR				*e*S	Sg	04 08 42.2	-0.8
PCDR	Punta Cana, DR	0.98	308	*i* P	Pb	04 08 30.8	+1.1
PCDR				*e*S	Sb	04 08 44.1	+1.8
PCDR				IAML		04 08 50.8	
	comp=Z,322nm,0.5s						
PCDR	Punta Cana, DR	0.98	308	⇑*i*P	Pb	04 08 30.8	+1.1
PCDR				⇑*i*S	Sg	04 08 42.3	-0.8
PCDR				IAML		04 08 56.8	
	comp=N,575nm,0.5s						
EMPR	Esperanza - Ma	1.15	60		Pb	04 08 33.8	+1.2
EMPR					Sb	04 08 48.3	+1.1
EMPR	Esperanza - Ma	1.15	60	P	Pb	04 08 33.6	+1.0
EMPR	Esperanza - Ma	1.15	60	⇓*i*P	Pb	04 08 33.8	+1.2
EMPR				*e*S	Sb	04 08 48.3	+1.1
ECPR	Experimental S	1.22	70		Pn	04 08 34.4	+0.7
ECPR				Sn	Sb	04 08 47.5	-2.1
ECPR	Experimental S	1.22	70	P	Pn	04 08 34.5	+0.9
ECPR	Experimental S	1.22	70	⇓*e*P	Pn	04 08 34.6	+0.9
HIDR	Higuey Centro	1.28	302	⇑*i*P	Pn	04 08 35.1	+0.7
HIDR				⇑*i*S	Sb	04 08 51.8	+0.6
HIDR				IAML		04 08 52.1	
	comp=N,1µm,0.2s						
IGPR	InterUniversit	1.40	87		Pn	04 08 38.1	+2.1
IGPR					Sn	04 08 55.9	+1.7
IGPR	InterUniversit	1.40	87	P	Pn	04 08 37.0	+1.0
IGPR	InterUniversit	1.40	87	⇑*i*P	Pn	04 08 38.1	+2.1
PDPR	Patillas Dam,	1.48	85		Pn	04 08 37.9	+0.8
PDPR	Patillas Dam,	1.48	85		Sn	04 08 57.0	+0.8
PDPR	Patillas Dam,	1.48	85	P	Pn	04 08 39.1	+1.9
PDPR	Patillas Dam,	1.48	85	⇑*e*P	Pn	04 08 38.4	+1.2
HUMP	Col San Antoni	1.66	82		Pn	04 08 40.5	+0.9
HUMP				IAML		04 09 05.0	
	comp=N,608nm,0.2s						

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HUMP                             IAML              04 09 05.0
      comp=N,675nm,0.3s
HUMP  Col San Antoni    1.66  82         Sn        04 09 02.2 +1.6
HUMP  Col San Antoni    1.66  82  P      Pn        04 08 39.2 -0.4
HUMP  Col San Antoni    1.66  82⇑eP      Pn        04 08 41.4 +1.7
SMDR  Samana, DR        2.06 312  P      Pn        04 08 47.5 +2.4
SMDR  Samana, DR        2.06 312⇑iS      Sn        04 09 11.3 +0.9
SMDR                             IAML              04 09 29.0
      comp=N,121nm,0.9s
SDD   Santo Domingo     2.29 284  Pn     Pn        04 08 49.0 +0.7
SDD   Santo Domingo     2.29 284⇑iP      Pn        04 08 50.8 +2.5
SDD                             ⇑iS      Sn        04 09 16.8 +0.7
SDD                              IAML              04 09 30.6
      comp=N,86nm,1.1s
BANI  BANI              2.69 281         Pn        04 08 54.3 +0.4
SC01  Santiago de lo    3.35 297         Pn        04 09 04.2 +1.3
SC01                             IAML              04 10 00.0
      comp=N,161nm,0.5s
SC01                             IAML              04 10 06.4
      comp=E,230nm,0.7s
LOVI  El Cajuil, Ovi    3.61 269  i P    Pn        04 09 06.9 +0.4
LOVI                             IAML              04 09 49.2
      comp=Z,117nm,0.1s
SDDR  Presa de Saban    3.68 287         Pn        04 09 09.1 +1.6
LODU1 El Espartillar    3.73 277  i P    Pn        04 09 10.0 +1.9
LODU1                            IAML              04 09 56.3
      comp=Z,57nm,0.2s
LOBH  Bahia de las A    3.87 270  i P    Pn        04 09 10.8 +0.8
LOBH                             IAML              04 09 57.2
      comp=Z,62nm,0.5s
LOPP1 Punta Rusia, P    3.94 300  i P    Pn        04 09 12.9 +1.9
LOPP1                            IAML              04 10 16.0
      comp=Z,66nm,1.1s
LGNH  Logne             4.82 278  P      Pn        04 09 25.6 +2.5
GRTK  Grand Turk        4.91 318  i P    Pn        04 09 23.9 -0.4
ANWB  Willy Bob         5.52  92  eP     Pn        04 09 34.5 +1.8
DHSZ  Broadband at M    5.79 105  eP     Pn        04 09 38.0 +1.6
DHSZ                              eS     Sn        04 10 38.3 -4.2
DHSZ  Broadband at M    5.79 105  eS     Sn        04 10 38.3 -4.2
MMLZ  Guadeloupe Bro    5.95 107  eP     Pn        04 09 39.2 +0.6
MMLZ                              eS     Sn        04 10 39.9 -6.5
MMLZ  Guadeloupe Bro    5.95 107  eS     Sn        04 10 39.9 -6.5
TBG   Guadaloupe-3      6.03 109  eP     Pn        04 09 40.3 +0.5
DSLB  Salisbury         6.39 112  eP     Pn        04 09 45.0 +0.3
DSLB                              eS     Sn        04 10 51.3 -6.1
DSLB  Salisbury         6.39 112  eS     Sn        04 10 51.3 -6.1
DSDZ  La Diserade, G    6.42 103  eP     Pn        04 09 45.6 +0.4
MASC  Masc              6.69 291  eP     Pn        04 09 49.5 +0.7
MASC                              eS     Sn        04 11 02.6 -2.0
MASC                             IAML              04 11 14.8
      comp=N,36nm,1.1s
MASC                             IAML              04 11 18.3
      comp=E,22nm,1.2s
BIM   Bigot             7.10 117  eP     Pn        04 09 53.6 -0.9
BIM                               eS     Sn        04 11 05.0  -10
BIM   Bigot             7.10 117  eS     Sn        04 11 05.0  -10
QMBU  Quimbuelo         7.21 290  eP     Pn        04 09 56.0  0.0
QMBU                              eS     Sn        04 11 13.8 -3.9
QMBU                             IAML              04 11 20.4
      comp=N,5.7nm,0.4s
QMBU                             IAML              04 11 20.8
      comp=E,5.8nm,0.4s
GTBY  Guantanamo Bay    7.41 287  eP     Pn        04 09 58.7  0.0
GRGR  Grenville         8.10 134  eP     Pn        04 10 06.5 -1.8
TRN   Trinidad (W)      9.37 140  eP     Pn        04 10 25.8 +0.1
BBSR  BB Station       14.64  10  Pn     Pn        04 11 36.2 -1.4
TXAR  Lajitas Array    34.84 296  P      P         04 15 01.4 -0.3
      comp=E,1.0nm,0.7s,baz=107,slow=10,SNR=17
      comp=E,1.0nm,0.7s
TXAR  Lajitas Array    34.84 296  P      P         04 15 01.2 -0.5
TX31  Lajitas Ar. Si   34.84 296         P         04 15 01.0 -0.7
NVAR  Mina Array Bea   48.51 306  P      P         04 16 53.7  0.0
      comp=E,0.2nm,0.5s,baz=72,slow=8.9,SNR=4.6
      comp=E,0.2nm,0.5s
ESDC  Sonseca Array    58.61  54  P      P         04 18 06.1 -1.5
      comp=E,0.8nm,0.8s,baz=274,slow=7.3,SNR=4.8
      comp=E,0.8nm,0.8s
TORD  Torodi Ar. Bea   66.59  83  P      P         04 18 57.4 -3.8
      comp=E,0.6nm,0.9s,baz=295,slow=8.4,SNR=2.0
      comp=E,0.6nm,0.9s
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*IDC **05** 04:11:45.0±0.8, 41°.03S×44°.32E, h0^{km}, mb4.1/7, mbtmp4.1/7, MS3.5/20, Error ellipse: s-maj=30.9km s-min=25.4km az=21.0*

*NEIC **05** 04:11:47.9±1.7, 41°.2S±0°.1×44°.4E±0°.2, h10^{km}±1^{km}, mb4.2/7, Error ellipse: s-maj=28.7km s-min=19.0km az=45.0*

ISC 05 04:11:46.7±0.6**, 41°.0S**±0°.1×**44°.3E**±0°.1**, h12^{km}, n52,** σ0^s.**80**/31**, mb4.1**/12**, MS3.5**/19**, 2C, Crozet Islands region**

```
Code  Station Name       Δ°  AZ°    Phase ID            Time     Res
                                  Op     ISC         h  m  s    ISC
CRZF  Crozet Islands    7.67 137  Pn     Pn        04 13 36.4 -1.7
BOSA  Boshof           19.91 303  LR     LR        04 22 33.5
      comp=Z,103nm,20.6s,baz=159,slow=33
SUR   Sutherland       20.69 287  LR     LR        04 23 33.5
      comp=Z,46nm,18.6s,baz=128,slow=34
LBTB  Lobatse          22.33 310  LR     LR        04 23 59.2
      comp=Z,86nm,21.1s,baz=130,slow=33
LBTB  Lobatse          22.33 310  P      P         04 16 42.2 -2.2
LBTB                              IAmb   IAmb      04 17 11.6
      comp=Z,10nm,1.2s
MATP  Matopo           24.57 322  LR     LR        04 25 14.1
      comp=Z,67nm,19.9s,baz=68,slow=33
MAW   Mawson           28.48 165  LR     LR        04 26 29.8
      comp=Z,83nm,19.0s,baz=326,slow=31
LSZ   Lusaka           29.24 327  LR     LR        04 28 09.7
      comp=Z,167nm,20.7s,baz=174,slow=34
TSUM  Tsumeb           31.54 306  LR     LR        04 29 36.0
      comp=Z,94nm,20.4s,baz=152,slow=34
VNA2  Neumayer--Watz   39.48 204 ⇑P      P         04 19 17.8 +1.2
      comp=Z,3.4nm,0.8s,baz=65,slow=9.1
VNA3  Neumayer Olymp   40.29 204 ⇑P      P         04 19 24.1 +0.9
      comp=Z,4.0nm,0.8s
MBAR  Mbarara          42.09 339  LR     LR        04 35 10.4
      comp=Z,65nm,21.3s,baz=146,slow=33
QSPA  South Pole Qui   49.16 180  P      P         04 20 34.2  0.0
      comp=Z,1.7nm,0.7s,baz=239,slow=2.3,SNR=11
      comp=Z,1.7nm,0.7s
QSPA  South Pole Qui   49.16 180  P      P         04 20 34.2  0.0
QSPA                              IAmb   IAmb      04 20 41.5
      comp=Z,5.7nm,1.2s
H01W2 Cape Leeuwin H   54.05 108  T      T         05 18 50.0
      baz=242,slow=74,SNR=841
H01W3 Cape Leeuwin H   54.06 108  T      T         05 18 50.0
      baz=242,slow=74,SNR=827
H01W1 Cape Leeuwin H   54.07 108  T      T         05 18 50.0
      baz=242,slow=74,SNR=803
VNDA  Vanda            55.78 167  P      P         04 21 22.4 -0.5
VNDA                              IAmb   IAmb      04 21 32.5
      comp=Z,1.6nm,1.1s
DBIC  Dimbokro         65.44 304  LR     LR        04 47 54.4
      comp=Z,28nm,20.1s,baz=144,slow=33
TORD  Torodi Ar. Bea   66.78 314  P      P         04 22 37.9 -0.3
      comp=Z,0.3nm,0.6s,baz=144,slow=5.9,SNR=5.0
      comp=Z,0.3nm,0.6s
BBOO  Buckleboo        70.52 117  P      P         04 23 02.1 +0.7
EIL   Elat             70.89 351  LR     LR        04 53 56.8
      comp=Z,26nm,18.1s,baz=190,slow=36
FITZ  Fitzroy Crossi   71.91  98  P      P         04 23 10.7 +0.7
FITZ                              IAmb   IAmb      04 23 16.5
      comp=Z,1.9nm,1.4s
ASAR  Alice Springs    74.56 108  P      P         04 23 25.8 +0.1
      comp=Z,0.5nm,0.8s,baz=231,slow=5.9,SNR=5.6
ASAR                              LR     LR        04 50 52.4
      comp=Z,34nm,19.9s,baz=305,slow=32
      comp=Z,0.5nm,0.8s
ASAR  Alice Springs    74.56 108  P      P         04 23 25.7  0.0
STKA  Stephens Creek   74.80 119  P      P         04 23 27.9 +1.1
      comp=Z,4.2nm,0.6s,baz=209,slow=3.8,SNR=18
      comp=Z,4.2nm,0.6s
WRA   Warramunga Arr   77.20 105  P      P         04 23 40.7 -0.1
      comp=Z,1.1nm,0.8s,baz=229,slow=5.0,SNR=8.1
      comp=Z,1.1nm,0.8s
WRA   Warramunga Arr   77.20 105  P      P         04 23 40.3 -0.5
WR8   Warramunga Arr   77.31 105  P      P         04 23 41.8 +0.5
WR8                               IAmb   IAmb      04 23 55.2
      comp=Z,5.5nm,1.4s
CMAR  Chiang Mai Arr   77.89  52  P      P         04 23 44.2 -0.2
      comp=Z,1.0nm,0.3s,baz=202,slow=5.1,SNR=9.9
CMAR                              LR     LR        04 53 20.3
      comp=Z,18nm,19.4s,baz=225,slow=32
      comp=Z,1.0nm,0.3s
CMAR  Chiang Mai Arr   77.89  52  P      P         04 23 43.9 -0.5
PLCA  Paso Flores      79.43 225  P      P         04 23 52.1 -0.8
      comp=Z,1.4nm,0.8s,baz=137,slow=8.1,SNR=3.2
      comp=Z,1.4nm,0.8s
GNI   Garni            80.81   0  LR     LR        04 57 59.5
      comp=Z,21nm,21.8s,baz=172,slow=34
VAE   Valguarnera      82.80 336  LR     LR        05 01 31.0
      comp=Z,53nm,19.1s,baz=140,slow=36
MDT   Midelt           86.23 320  LR     LR        05 02 25.4
      comp=Z,28nm,20.9s,baz=177,slow=35
AAK   Ala-Archa        87.64  22  LR     LR        05 03 05.6
      comp=Z,18nm,18.9s,baz=118,slow=35
ESDC  Sonseca Array    91.57 325  LR     LR        05 07 56.4
      comp=Z,34nm,18.3s,baz=139,slow=37
DAVOX Davos/Dischmat   92.66 337  LR     LR        05 09 46.3
      comp=Z,21nm,18.4s,baz=84,slow=38
VRAC  Vranov           93.23 342  LR     LR        05 08 16.6
      comp=Z,37nm,18.2s,baz=72,slow=36
KIRV  Kirov            99.35   3  LR     LR        05 11 53.2
      comp=Z,33nm,19.2s,baz=142,slow=36
T42A  Van Buren       145.42 278         PKPdf     04 31 23.8 -0.5
CCM   Cathedral Cave  145.88 280         PKPbc     04 31 26.5 +0.7
R40A  Maddies Statio  146.72 280         PKPbc     04 31 28.2  0.0
C19K  Lookout Ridge   149.16  16  PKPbc  PKPbc     04 31 35.0 +1.1
C24K  Franklin Bluff  150.46   9  PKPbc  PKiKP     04 31 38.6 +1.0
L34A  Svendsen Farm,  150.72 285         PKPbc     04 31 38.7 +0.3
APMT  Aspermont       150.80 266         PKiKP     04 31 39.9 +0.4
ULM   Lac du Bonnet   150.99 302  PKPbc  PKiKP     04 31 39.8 +0.5
      comp=Z,2.2nm,0.7s,baz=91,slow=7.0,SNR=3.9
D25K  Kavik River     151.10   8         PKiKP     04 31 39.6 +0.5
TX31  Lajitas Ar. Si  151.51 256         PKiKP     04 31 41.8 +0.6
TXAR  Lajitas Array   151.51 256  PKPbc  PKiKP     04 31 41.6 +0.4
      comp=Z,2.1nm,0.8s,baz=135,slow=5.7,SNR=24
TXAR  Lajitas Array   151.51 256         PKiKP     04 31 41.8 +0.5
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*GUC **05** 04:13:07.9±0.7, 22°.15S×67°.86W, h200^{km}±8^{km}, ML3.1*

*SCB **05** 04:13:07.5±1.5, 22°.18S×67°.61W, h156^{km}±26^{km}, MB5.8, ML3.5/2, Error ellipse: s-maj=7.9km s-min=5.8km az=1.0*

ISC 05 04:13:06.2±1.9**, 22°.19S**±0°.07×**67°.64W**±0°.08**, h183^{km}**±20^{km}**, n24,** σ1^s.**16**/35**, 1C, Chile-Bolivia border region**

```
Code  Station Name       Δ°  AZ°    Phase ID            Time     Res
                                  Op     ISC         h  m  s    ISC
PB09  IPOC Station P    1.54 284  eP     Pn        04 13 40.2 +1.2
PB09                              eS     Sn        04 14 04.6 +0.3
PB09                              IAML             04 14 08.5
      comp=N,105nm,0.2s
PB09  IPOC Station P    1.54 284  P      Pn        04 13 39.6 +0.6
PB06  IPOC Station P    1.86 254  eP     Pn        04 13 43.0 +0.8
PB06                              eS     Sn        04 14 10.3 +0.2
PB06                              IAML             04 14 12.0
      comp=N,177nm,0.1s
PB06  IPOC Station P    1.86 254  P      Pn        04 13 43.1 +0.9
PB03  IPOC Station P    1.97 274  eP     Pn        04 13 44.2 +0.9
PB03                              eS     Sn        04 14 10.7 -1.3
PB03                              IAML             04 14 13.0
      comp=N,156nm,0.1s
PB07  IPOC Station P    2.14 282  eP     Pn        04 13 46.0 +0.8
PB07                              eS     Sn        04 14 14.1 -1.3
PB02  IPOC Station P    2.27 292  eP     Pn        04 13 47.2 +0.6
PB02                              eS     Sn        04 14 16.3 -1.6
PB02  IPOC Station P    2.27 292  P      Pn        04 13 47.4 +0.8
PB02                              S      Sn        04 14 16.5 -1.4
PB02                              IAML             04 14 17.6
      comp=N,266nm,0.2s
PB05  IPOC Station P    2.46 254  eP     Pn        04 13 49.6 +0.9
PB05                              eS     Sn        04 14 20.4 -1.5
PB05                              IAML             04 14 21.0
      comp=N,49nm,0.3s
PB08  IPOC Station P    2.48 325⇑eP      Pn        04 13 50.7 +1.5
PB08                              eS     Sn        04 14 23.5 +0.7
PB08                              IAML             04 14 25.7
      comp=N,36nm,0.4s
PB08  IPOC Station P    2.48 325  P      Pn        04 13 50.5 +1.2
AOVT  TarijaAcel        2.80  77  P      Pn        04 13 53.3 +0.5
TA01  Diego Aracena     2.87 304  eP     Pn        04 13 53.4  0.0
TA01                              eS     Sn        04 14 28.1 -2.1
GO01  Chusmiza          2.90 330  eP     Pn        04 13 55.4 +1.1
GO01                              eS     Sn        04 14 31.5 -0.2
GO01  Chusmiza          2.90 330  P      Pn        04 13 55.5 +1.2
PB11  IPOC Station P    3.07 322  eP     Pn        04 13 56.1 +0.1
PB11  IPOC Station P    3.07 322  P      Pn        04 13 56.5 +0.5
PB11                              S      Sn        04 14 33.2 -1.6
PB11                              IAML             04 14 35.6
      comp=N,89nm,0.2s
PB14  IPOC Station P    3.51 226  P      Pn        04 14 02.2 +0.6
PB16  IPOC Station P    4.22 335  P      Pn        04 14 11.4 +0.6
AOEA  Aiquile           4.58  30  P      Pn        04 14 15.7 +0.5
BBOJ  La Paz, Jacaqu    5.21 354  P      Pn        04 14 25.1 +1.6
BBOD  La Paz, Gloria    5.60 350  P      Pn        04 14 30.0 +1.5
BBOB  La Paz, Bander    6.04 355  P      Pn        04 14 35.7 +1.5
SIV   San Ignacio       8.75  46  P      Pn        04 15 07.7 -1.7
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*MOS **05** 04:14:03.0±0.7, 44°.34N×148°.44E, h33^{km}, mb4.2/1, Error ellipse: s-maj=28.7km s-min=22.3km az=157.6*

MOS Felt (II-III) at Gornyy, Goryachiye Klyuchi.

*SKHL **05** 04:14:05.4±0.6, 44°.40N×148°.40E, h42^{km}±5^{km}, mb4.9/7*

SKHL Felt (II-III) at Gornyi, Goryachie Klyuchi.

*JMA **05** 04:14:05.8±0.5, 44°N±2°×14°8E±°, h0^{km}, MV4.4/32, SE OFF ETOROFU*

ISC 05 04:14:03.1±2.2**, 44°.29N**±0°.07×**148°.31E**±0°.08**, h7^{km}**±12^{km}**, n29,** σ1^s.**55**/47**, 2D, Kuril Islands**

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Code  Station Name       Δ°  AZ°    Phase ID            Time     Res
                                  Op     ISC         h  m  s    ISC
KUR   Kuril'sk          0.99 341 d iPN   Pg        04 14 22.0 -0.2
KUR                              i S     Sg        04 14 33.5 -1.6
KUR                               pmax   pmax
      comp=Z,936nm,0.3s
KUR                               pmax   pmax
      comp=E,312nm,0.1s
KUR                               pmax   pmax
      comp=N,246nm,0.1s
KUR                               smax   smax
      comp=N,2μm,0.2s
KUR                               smax   smax
      comp=E,969nm,0.3s
KUR   Kuril'sk          0.99 341 i P     Pg        04 14 22.0 -0.2
KUR                               AMB    AMB       04 14 22.6
      comp=E,940nm,0.3s
KUR                              i S     Sg        04 14 33.5 -1.6
KUR                               A      A         04 14 35.6
      comp=E,2μm,0.3s
KUR                               A      A         04 14 35.6
      comp=E,970nm,0.3s
REI   Reidovoe          1.00 348  eP     Pg        04 14 22.5 +0.2
REI                               AMB    AMB       04 14 23.0
      comp=E,530nm,0.3s
REI                               eS     Sg        04 14 33.8 -1.4
REI                               A      A         04 14 34.3
      comp=E,2μm,0.2s
REI                               A      A         04 14 34.3
      comp=E,2μm,0.2s
SHO   Shikotan          1.15 249  eP     Pn        04 14 41.3  +16
SHO                               AMB    AMB       04 14 41.8
      comp=E,190nm,0.2s
SHO                               eS     Sn        04 14 54.2  +13
SHO                               A      A         04 14 55.7
      comp=E,560nm,0.3s
SHO                               A      A         04 14 55.7
      comp=E,1μm,0.3s
YUK   Yuzh-Kuril'sk     1.78 263  ePN    Pn        04 14 34.4 +0.1
YUK                               eS     Sn        04 14 55.0 -2.2
YUK                               pmax   pmax
      comp=Z,634nm,0.1s
YUK                               pmax   pmax
      comp=N,87nm,0.2s
YUK                               pmax   pmax
      comp=E,216nm,0.1s
YUK                               smax   smax
      comp=N,1.0nm,0.2s
YUK                               smax   smax
      comp=E,867nm,0.3s
YUK   Yuzh-Kuril'sk     1.78 263  eP     Pn        04 14 34.8 +0.5
YUK                               AMB    AMB       04 14 36.3
      comp=E,270nm,0.3s
YUK                               eS     Sn        04 14 57.1 -0.1
YUK                               A      A         04 15 03.4
      comp=E,1μm,0.3s
YUK                               A      A         04 15 03.4
      comp=E,920nm,0.3s
NEM2  Nemuro 2          2.08 244  eP     Pn        04 14 38.2 -0.2
NEM2                              eS     Sn        04 15 02.1 -2.4
NMR   Nemuro--Hokkai    2.09 245⇓iPN     Pn        04 14 38.4 -0.1
NMR                               eS     Sn        04 15 02.2 -2.4
NMR   Nemuro--Hokkai    2.09 245  i P    Pn        04 14 38.4 -0.1
NMR                               eS     Sn        04 15 02.2 -2.4
RUSJ  Misakicho         2.21 266  ePN    Pn        04 14 41.7 +1.5
RUSJ                              eS     Sn        04 15 08.6 +0.8
JRA   Rausu             2.33 262  eP     Pn        04 14 43.2 +1.5
JRA                               eS     Sn        04 15 10.7 +0.2
JNSB  Nemuroshibetsu    2.44 259  eP     Pn        04 14 44.7 +1.3
JNSB                              eS     Sn        04 15 13.1 -0.3
JKHN  Kushirohamanak    2.59 243  P      Pn        04 14 45.9 +0.6
JKHN                              eS     Sn        04 15 15.5 -1.5
JNK   Nakash            2.69 256  eP     Pn        04 14 47.9 +1.1
JNK                               eS     Sn        04 15 19.1 -0.5
JAK   Akkeshi           2.93 245  eP     Pn        04 14 50.4 +0.4
JAK                               eS     Sn        04 15 23.9 -1.5
JTKR  Abashiri--Toko    3.19 266  eP     Pn        04 14 56.4 +2.8
JTKR                              eS     Sn        04 15 33.5 +1.6
JAR   Ashorobuto        3.44 255  eP     Pn        04 14 58.9 +1.9
JAR                               eS     Sn        04 15 38.1 +0.1
JOB   Onbets            3.54 248  eP     Pn        04 14 59.8 +1.4
JMP   Maruseppu         3.58 267  eP     Pn        04 15 00.5 +1.5
JCH   Churui            3.98 247  eP     Pn        04 15 05.3 +0.9
JCH                               eS     Sn        04 15 50.2 -1.1
JKK2  Kamakawa 2        4.03 266  eP     Pn        04 15 07.9 +2.7
ERM   Erimo             4.41 241  i PN   Pn        04 15 13.1 +2.8
JNBK  Urakawa-nobuka    4.53 246  eP     Pn        04 15 13.1 +1.1
JNBK                              eS     Sn        04 16 04.2 -0.7
YSS   Yuzhno-Sakhali    4.72 306  ePN    Pn        04 15 15.0 +0.3
YSS                               pmax   pmax
      comp=Z,10.0nm,0.2s
YSS   Yuzhno-Sakhali    4.72 306  eP     Pn        04 15 15.0 +0.3
YSS                               eS     Sn        04 16 07.9 -1.7
TYV   Tymovskoe         7.60 332  eP     Pn        04 15 53.6 -0.6
SKR   Severo-Kuril’s    8.29  37  eP     Pn        04 16 05.0 +1.4
SKR                               AMB    AMB       04 16 14.3
      comp=Z,40nm,0.9s
SKR                               eS     Sn        04 17 30.5 -6.9
PAU   Pauzhetka         9.17  35  eP     Pn        04 16 18.1 +2.5
PAU                               eS     Sn        04 17 55.7 -3.2
NKL   Nikolayevsk      10.19 333  eP     Pn        04 16 31.4 +1.7
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*NEIC **05** 04:43:12.2±1.4, 62°.34S±0°.05×58°.40W±0°.10, h8^{km}±3^{km}, mb4.9/50, Error ellipse: s-maj=8.1km s-min=5.6km az=214.0*

*GFZ **05** 04:43:15.5±0.2, 62°S±4°×5°8W±°, h10^{km}, M4.8/26, mb4.8/26*

*GCMT **05** 04:43:16.2±0.4, 62°.33S±0°.03×58°.0W±0°.1, h14^{km}±1^{km}, MW4.8/67, Moment Tensor Solution. s23,c24; s67,c83; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.96±.17; $M_{\theta\theta}$1.01±.11; $M_{\phi\phi}$0.95±.15; $M_{r\theta}$-0.52±.27; $M_{\theta\phi}$0.54±.07; $M_{\phi r}$-1.06±.33; Best double couple: $M_0$2.09400×10^{16} NP1:ϕ_s231.00000°,δ29.00000°,λ-77.00000°. NP2: ϕ_s36.00000°,δ62.00000°,λ-97.00000°. Principal axes: T 1.8510, Plg17.0000°, Azm131.0000°; N 0.4930, Plg6.0000°, Azm40.0000°; P -2.3380, Plg72.0000°, Azm289.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*IDC **05** 04:43:17.6±2.2, 62°.19S×58°.38W, h48^{km}±21^{km}, mb4.1/12, mbtmp4.3/14, ML4.0/2, MS3.7/22 Error ellipse: s-maj=22.2km s-min=10.8km az=90.0*

ISC 05 04:43:12.9±0.3**, 62°.27S**±0°.05×**58°.24W**±0°.07**, h10^{km}, n152,** σ1^s.**64**/129**, mb4.8**/50**, MS3.7**/22**, 2C-4D, South Shetland Islands**

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Code  Station Name       Δ°  AZ°    Phase ID            Time     Res
                                  Op     ISC         h  m  s    ISC
ESPZ  Base Esperanza    1.27 154  Pn     Pn        04 43 35.4 -1.3
ESPZ                              Sn     Sb        04 43 52.2 -1.0
PMSA  Palmer Station    3.62 223  P      Pn        04 44 09.5 +0.7
      6.7nm,0.3s,baz=58,slow=9.3,SNR=49
PMSA                              S      Sn        04 44 54.2 +2.7
      402nm,0.7s,baz=292,slow=6.7,SNR=8.2
      28nm,0.5s
PMSA                              AML    AML
PMSA  Palmer Station    3.62 223         Pn        04 44 08.8  0.0
PMSA  Palmer Station    3.62 223  P      Pn        04 44 09.7 +0.8
ORCD  Orcadas           6.64  83         Pn        04 44 51.0 +0.5
SMAI  San Martin Ant    6.96 208         Pn        04 44 53.9 -0.8
USHA  Ushuaia           9.15 320  P      Pn        04 45 24.7 -0.2
      2.6nm,0.3s,baz=100,slow=1.5,SNR=4.7
USHA                              S      Sn        04 47 06.7 -1.2
      6.9nm,0.5s,baz=176,slow=10,SNR=1.5
      13nm,0.5s
USHA                              AML    AML
EFI   East Falkland    10.62   1  Pn     Pn        04 45 46.9 +1.8
MG02  Cerro Sombrero   11.18 323  Pn     Pn        04 45 51.5 -1.0
GO08  Villa O’Higgin   15.99 323         Pn        04 46 57.3 -0.4
GO08  Villa O’Higgin   15.99 323  P      P         04 47 02.7 +1.5
      comp=Z,17nm,1.3s
BELA  Belgrano 2       17.35 164         Pn        04 47 14.2 -0.6
COYC  Coyhaique        18.54 328         Pn        04 47 29.8 +0.3
COYC  Coyhaique        18.54 328  P      Pn        04 47 33.9 +4.3
      comp=Z,32nm,0.8s
VNA3  Neumayer Olymp   20.54 136 ⇓P      Pn        04 47 54.1 +0.9
      comp=Z,32nm,0.7s
VNA3                             ⇑PcP    PcP       04 52 02.9 +1.3
      comp=Z,2.6nm,0.7s
VNA3  Neumayer Olymp   20.54 136  P      Pn        04 47 54.2 +1.0
      comp=Z,55nm,0.8s
LL02  Futaleuf         20.73 331         P         04 47 52.7 -0.6
LL02                              IAmb   IAmb      04 48 00.0
      comp=Z,113nm,1.9s
LL02  Futaleuf         20.73 331  P      Pn        04 47 56.2 +0.5
      comp=Z,29nm,0.8s
VNA1  Neumayer--Stat   21.00 135 ⇓P                04 47 59.8
      comp=Z,28nm,1.0s
GO07  Milladeo Hill,   21.23 327  P      P         04 47 59.5 +0.8
GO07                              IAmb   IAmb      04 48 04.0
      comp=Z,37nm,0.8s
VNA2  Neumayer--Watz   21.28 135 ⇓P      P         04 48 02.3 +3.3
      comp=Z,15nm,0.7s,baz=264,slow=11
VNA2                             ⇑PcP    PcP       04 52 04.4 +1.4
      comp=Z,1.7nm,0.6s,baz=295,slow=3.1
VNA2  Neumayer--Watz   21.28 135  P      P         04 48 02.1 +3.0
      comp=Z,35nm,0.8s
SNAA  Sanae            22.71 138  P      P         04 48 16.1 +1.7
      comp=Z,28nm,1.0s,baz=257,slow=8.3,SNR=18
SNAA                              LR     LR        04 55 41.5
      comp=Z,295nm,21.2s,baz=234,slow=33
      comp=Z,28nm,1.0s
SNAA  Sanae            22.71 138         P         04 48 15.1 +0.7
SNAA                              IAmb   IAmb      04 48 19.7
      comp=Z,61nm,1.2s
SNAA  Sanae            22.71 138  P      P         04 48 17.1 +2.7
      comp=Z,43nm,1.5s
LL05  Los Muermos      22.80 329  P      P         04 48 15.8 +0.3
LL05  Los Muermos      22.80 329  P      P         04 48 15.3 -0.2
      comp=Z,122nm,1.1s
LL03  Petrohue         22.81 332  P      P         04 48 15.7 +0.1
PLCA  Paso Flores      22.81 335  P      P         04 48 14.1 -1.7
      comp=Z,4.2nm,0.8s,baz=155,slow=6.4,SNR=12
PLCA                              LR     LR        04 56 00.2
      comp=Z,232nm,21.9s,baz=170,slow=34
      comp=Z,4.2nm,0.8s
PLCA  Paso Flores      22.81 335         P         04 48 16.6 +0.9
PLCA                              IAmb   IAmb      04 48 22.2
      comp=Z,37nm,1.1s
PLCA  Paso Flores      22.81 335  P      P         04 48 18.0 +2.3
      comp=Z,33nm,1.3s
GO06  Curarrehue       24.10 334         P         04 48 28.8 +0.2
GO06  Curarrehue       24.10 334  P      P         04 48 29.9 +1.4
      comp=Z,76nm,1.1s
LR03  Panguipulli      24.24 333  P      P         04 48 29.2 -0.5
LR03                              IAmb   IAmb      04 48 35.1
      comp=Z,15nm,0.6s
TROLL Troll, Antarti   24.34 139  P      P         04 48 33.6 +3.0
      comp=Z,480nm,0.8s
BI02  San Fabin de     26.89 336  P      P         04 48 53.1 -0.7
BI02  San Fabin de     26.89 336  P      P         04 48 57.1 +3.3
      comp=Z,20nm,1.1s
ML02  Panimavida       27.79 337  P      P         04 49 01.6 -0.2
ML02                              IAmb   IAmb      04 49 09.5
      comp=Z,22nm,0.8s
ML02  Panimavida       27.79 337  P      P         04 49 06.3 +4.5
      comp=Z,31nm,0.9s
QSPA  South Pole Qui   27.95 180  P      P         04 49 03.1 -0.1
      comp=Z,4.5nm,0.7s,baz=161,slow=2.4,SNR=21
      comp=Z,4.5nm,0.7s
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QSPA	South Pole Qui	27.95	180	P	P	04 49 05.3	+2.0
QSPA				IAmb	IAmb	04 49 14.4	
	comp=Z,32nm,1.6s						
GO05	Hualane	28.62	336	P	P	04 49 08.6	-0.6
GO05				IAmb	IAmb	04 49 15.0	
	comp=Z,29nm,1.0s						
GO05	Hualane	28.62	336	P	P	04 49 13.1	+3.9
	comp=Z,33nm,1.1s						
BO02	Sierra Bellavi	28.62	338	P	P	04 49 07.9	-1.4
BO02				IAmb	IAmb	04 49 17.7	
	comp=Z,24nm,1.2s						
BO02	Sierra Bellavi	28.62	338	P	P	04 49 12.3	+3.0
	comp=Z,19nm,1.1s						
BO01	Tunca	29.06	338	P	P	04 49 11.9	-1.3
BO01				IAmb	IAmb	04 49 22.3	
	comp=Z,23nm,1.4s						
BO01	Tunca	29.06	338	P	P	04 49 16.5	+3.4
	comp=Z,13nm,1.9s						
BO04	La Punta	29.37	339	P	P	04 49 14.9	-1.1
BO04				IAmb	IAmb	04 49 20.3	
	comp=Z,16nm,0.9s						
MT09	Talagante	29.65	338	P	P	04 49 17.0	-1.5
MT08	Bocatoma Ro	29.81	340	P	P	04 49 19.5	-0.5
MT08				IAmb	IAmb	04 49 28.4	
	comp=Z,19nm,0.9s						
MT03	Universidad Ad	29.84	339	P	P	04 49 19.1	-1.0
MT03				IAmb	IAmb	04 49 31.0	
	comp=Z,34nm,1.1s						
MT02	Curacav	30.18	338	P	P	04 49 21.9	-1.1
MT02				IAmb	IAmb	04 49 35.8	
	comp=Z,15nm,0.9s						
PEL	Peldehue	30.21	339	P	P	04 49 27.4	+4.1
	comp=Z,30nm,1.1s						
ELIB	Princess Elisa	30.56	143	*d*P	P	04 49 28.5	+2.3
	comp=Z,3.6nm,0.9s						
VA03	San Esteban	30.56	339	P	P	04 49 24.6	-1.9
VA03	San Esteban	30.56	339	P	P	04 49 30.1	+3.5
	comp=Z,47nm,1.1s						
CO04	Los Peladeros	31.34	339	IAmb	IAmb	04 49 38.7	
	comp=Z,14nm,0.8s						
CO04	Los Peladeros	31.34	339	P	P	04 49 35.2	+1.6
	comp=Z,20nm,1.1s						
ZON	Zonda	31.47	343	P	P	04 49 34.0	-0.5
ZON				IAmb	IAmb	04 49 47.3	
	comp=Z,19nm,1.2s						
ZON	Zonda	31.47	343	P	P	04 49 36.1	+1.6
	comp=E,11nm,1.0s						
CO02	Combarbal	32.16	339	P	P	04 49 42.4	+1.8
	comp=Z,46nm,0.9s						
CO03	El Pedregal	32.47	340	IAmb	IAmb	04 49 48.7	
	comp=Z,23nm,0.9s						
CO03	El Pedregal	32.47	340	P	P	04 49 44.8	+1.4
	comp=Z,36nm,1.0s						
GO04	Tololo Observa	33.14	340	IAmb	IAmb	04 49 55.7	
	comp=Z,23nm,0.9s						
GO04	Tololo Observa	33.14	340	P	P	04 49 50.7	+1.3
	comp=Z,28nm,1.0s						
CO01	Juntas del Tor	33.22	341	P	P	04 49 49.9	-0.2
CO01				IAmb	IAmb	04 50 05.2	
	comp=Z,27nm,1.1s						
CO01	Juntas del Tor	33.22	341	P	P	04 49 52.8	+2.7
	comp=Z,26nm,1.1s						
LCO	Las Campanas	34.26	340	P	P	04 49 58.5	-0.6
LCO				IAmb	IAmb	04 50 03.4	
	comp=Z,18nm,0.9s						
AC05	El Transito	34.36	341	P	P	04 50 02.6	+2.7
	comp=Z,22nm,1.5s						
AC04	Llanos de Chal	35.11	340	P	P	04 50 05.5	-0.7
AC04	Llanos de Chal	35.11	340	P	P	04 50 08.0	+1.8
	comp=Z,49nm,1.3s						
CPUP	Villa Florida	35.94	1	P	P	04 50 13.0	-0.3
	comp=Z,2.5nm,0.9s,baz=177,slow=11,SNR=5.9						
CPUP				LR	LR	05 03 33.6	
	comp=Z,56nm,20.9s,baz=207,slow=34						
	comp=Z,2.5nm,0.9s						
CPUP	Villa Florida	35.94	1	P	P	04 50 12.8	-0.5
AC02	Maricunga	36.17	343	P	P	04 50 20.7	+4.9
	comp=Z,14nm,1.4s						
VNDA	Vanda	38.29	193	P	P	04 50 32.8	0.0
	comp=Z,0.4nm,0.3s,baz=171,slow=9.2,SNR=12						
VNDA				PcP	PcP	04 52 47.0	+0.7
	comp=Z,1.0nm,0.7s,baz=176,slow=3.8,SNR=4.4						
VNDA				LR	LR	05 06 11.6	
	comp=Z,112nm,18.1s,baz=150,slow=36						
SALTA		38.43	348	P	P	04 50 37.1	+2.1
	comp=Z,7.7nm,1.0s						
PB08	IPOC Station P	42.77	345	P	P	04 51 11.8	+1.0
	comp=Z,11nm,1.2s						
GO01	Chusmiza	43.24	345	P	P	04 51 15.6	+0.8
	comp=Z,11nm,1.4s						
MAW	Mawson	43.63	152	P	P	04 51 17.1	+0.3
	comp=Z,6.1nm,0.9s,baz=253,slow=8.5,SNR=16						
MAW				PcP	PcP	04 53 04.5	+0.6
	comp=Z,2.8nm,0.8s,baz=243,slow=5.2,SNR=4.3						
MAW				LR	LR	05 09 29.0	
	comp=Z,294nm,19.2s,baz=221,slow=36						
	comp=Z,6.1nm,0.9s						
MAW	Mawson	43.63	152	P	P	04 51 16.9	+0.1
MAW	Mawson	43.63	152	P	P	04 51 19.1	+2.3
	comp=Z,1.7nm,1.0s						
PB16	IPOC Station P	44.59	345	P	P	04 51 25.0	-0.8
PB16	IPOC Station P	44.59	345	P	P	04 51 28.1	+2.4
	comp=Z,12nm,1.2s						
SIV	San Ignacio	46.27	356	LR	LR	05 11 44.5	
	comp=Z,129nm,21.2s,baz=123,slow=37						
LPAZ	La Paz	46.46	347	P	P	04 51 39.5	-1.1
	comp=Z,0.6nm,0.5s,baz=132,slow=6.1,SNR=5.8						
LPAZ				LR	LR	05 11 50.3	
	comp=Z,61nm,19.1s,baz=154,slow=37						
	comp=Z,0.6nm,0.5s						
LPAZ	La Paz	46.46	347	P	P	04 51 40.1	-0.4
BDFB	Brasilia	47.13	14	P	P	04 51 45.1	-0.1
	comp=Z,3.9nm,0.7s,baz=138,slow=8.6,SNR=6.5						
BDFB				LR	LR	05 11 54.8	
	comp=Z,40nm,19.1s,baz=160,slow=36						
	comp=Z,3.9nm,0.7s						
BDFB	Brasilia	47.13	14	P	P	04 51 45.2	-0.1
BDFB				IAmb	IAmb	04 53 06.5	
	comp=Z,38nm,1.9s						
VILB	Vilhena	49.26	357	P	P	04 52 01.1	-0.5
CLDB	Colider	51.34	3	P	P	04 52 17.5	+0.2
	comp=Z,9.7nm,1.6s						
CASY	Casey	51.49	174	P	P	04 52 17.4	-0.4
NNA	Nana	51.96	337	LR	LR	05 12 41.9	
	comp=Z,38nm,20.0s,baz=149,slow=34						
CZSB	Cruzeiro do Su	55.46	343	P	P	04 52 46.9	-0.7
CZSB				IAmb	IAmb	04 53 01.8	
	comp=Z,25nm,1.1s						
SUR	Sutherland	56.89	97	LR	LR	05 12 14.2	
	comp=Z,89nm,20.0s,baz=195,slow=30						
SUR	Sutherland	56.89	97	P	P	04 52 58.0	+0.1
ATAH	Atahualpa	56.99	336	LR	LR	05 15 12.2	
	comp=Z,41nm,19.3s,baz=179,slow=34						
BOSA	Boshof	62.12	99	P	P	04 53 33.2	-0.8
	comp=Z,3.8nm,0.8s,baz=38,slow=2.4,SNR=3.6						
BOSA				LR	LR	05 15 16.6	
	comp=Z,33nm,20.4s,baz=205,slow=31						
	comp=Z,3.8nm,0.8s						
BOSA	Boshof	62.12	99	P	P	04 53 32.9	-1.0
H10N3	ASCENSION HYDR	62.96	50	T	T	06 02 05.4	
	baz=202,slow=74,SNR=50						
H10N1	ASCENSION HYDR	62.97	50	T	T	06 02 08.0	
	baz=202,slow=74,SNR=55						
H10N2	ASCENSION HYDR	62.98	50	T	T	06 02 05.3	
	baz=202,slow=74,SNR=60						
OTAV	Otavalo	64.19	337	P	P	04 53 47.9	-0.3
OTAV				IAmb	IAmb	04 53 53.1	
	comp=Z,6.4nm,1.0s						
OTAV	Otavalo	64.19	337	P	P	04 53 49.9	+1.7
	comp=Z,7.1nm,1.9s						
BOAV	Boa Vista	64.52	357	P	P	04 53 49.3	-0.4
BOAV				IAmb	IAmb	04 53 52.5	
	comp=Z,14nm,1.6s						
LBTB	Lobatse	65.34	97	LR	LR	05 16 52.7	
	comp=Z,79nm,21.6s,baz=210,slow=31						
LBTB	Lobatse	65.34	97	P	P	04 53 55.0	-0.2
MDP	Montagnes des	67.32	6	LR	LR	05 26 04.0	
	comp=Z,28nm,18.0s,baz=182,slow=38						
ROSC	El Rosal	68.05	343	LR	LR	05 26 41.0	
	comp=Z,108nm,18.2s,baz=67,slow=38						
MATP	Matopo	70.64	97	LR	LR	05 20 14.4	
	comp=Z,80nm,21.5s,baz=186,slow=31						
LSZ	Lusaka	74.96	94	LR	LR	05 23 53.6	
	comp=Z,32nm,18.5s,baz=164,slow=32						
PPT2	Papeete2	75.22	260	*e*LR	LR	05 17 58.2	
	comp=Z,68nm,22.5s						
DBIC	Dimbokro	79.92	54	LR	LR	05 24 09.1	
	comp=Z,27nm,18.5s,baz=130,slow=31						
CMIG	Matias Romero	84.22	325	LR	LR	05 25 00.6	
	comp=Z,51nm,18.2s,baz=136,slow=30						
STKA	Stephens Creek	84.83	197	P	P	04 55 45.1	-2.3
	comp=Z,1.8nm,0.7s,baz=170,slow=5.5,SNR=4.0						
STKA				LR	LR	05 30 57.1	
	comp=Z,51nm,18.1s,baz=192,slow=34						
	comp=Z,1.8nm,0.7s						
NWAO	Narrogin (SRO)	85.06	176	LR	LR	05 32 30.7	
	comp=Z,127nm,20.7s,baz=296,slow=35						
FORT	Forrest	87.14	185	P	P	04 55 57.6	-1.2
FORT				IAmb	IAmb	04 55 59.5	
	comp=Z,6.4nm,1.1s						
TORD	Torodi Ar. Bea	88.37	58	P	P	04 56 04.3	-0.4
	comp=Z,0.9nm,0.9s,baz=218,slow=2.6,SNR=4.4						
	comp=Z,0.9nm,0.9s						
MBAR	Mbarara	89.00	89	P	P	04 56 07.4	-0.7
MBAR				IAmb	IAmb	04 56 15.0	
	comp=Z,9.8nm,1.2s						
INKA	Innaminka	89.01	197	P	P	04 56 06.1	-1.7
QLP	Quilpie	89.64	200	P	P	04 56 11.5	+0.8
	comp=Z,30nm,0.9s						
ASAR	Alice Springs	93.81	191	P	P	04 56 28.4	-1.8
	comp=Z,1.9nm,1.0s,baz=170,slow=4.6,SNR=7.9						
ASAR				LR	LR	05 37 54.7	
	comp=Z,31nm,19.5s,baz=126,slow=35						
	comp=Z,1.9nm,1.0s						
ASAR	Alice Springs	93.81	191	P	P	04 56 28.7	-1.5
WRA	Warramunga Arr	97.46	192	P	P	04 56 45.3	-1.5
	comp=Z,0.9nm,0.7s,baz=175,slow=4.2,SNR=7.0						
	comp=Z,0.9nm,0.7s						
GERES	GERESS Array B	124.60	50	PKP	PKPdf	05 02 10.1	-1.3
	comp=Z,1.5nm,0.7s,baz=174,slow=2.4,SNR=8.3						
VYHS	Vyhne	126.19	53	*e*PKP	PKPdf	05 02 14.4	+0.1
YKA	Yellowknife Ar	131.49	329	PKP	PKPdf	05 02 22.2	-1.7
	comp=Z,0.3nm,0.5s,baz=158,slow=2.3,SNR=5.1						
CMAR	Chiang Mai Arr	133.42	150	PKP	PKPdf	05 02 29.8	+0.7
	comp=Z,1.7nm,0.3s,baz=166,slow=2.3,SNR=4.6						
PZH	PanZhiHua	141.83	150	PKP	PKPdf	05 02 43.5	-0.9
ILAR	Eielson Array	142.54	315	PKhKP	PKPpre	05 02 39.4	
	comp=Z,0.3nm,0.7s,baz=195,slow=4.0,SNR=4.8						
GYA	Guiyang	142.80	157	PKP	PKPdf	05 02 44.3	-1.8
KSH2	Kashi	143.85	108	PKP	PKPbc	05 02 46.1	+0.7
ARCES	ARCESS Array B	144.05	37	PKP	PKPab	05 02 43.1	-1.3
	comp=Z,7.4nm,0.8s,baz=245,slow=2.3,SNR=19						
ARCES	ARCESS Array B	144.05	37		PKPab	05 02 43.6	-0.7
M16K	Timber Creek	144.52	304		PKPbc	05 02 47.0	+0.4
KK31	Karatay Array	144.71	99		PKPbc	05 02 48.0	+0.2
KKAR	Karatay Array	144.71	99		PKPab	05 02 47.5	-0.1
G23K	Bananza Creek	144.76	316		PKPbc	05 02 47.6	+0.3
GOMU	GeErMu	148.98	135	PKPbc	PKPdf	05 02 55.9	-0.8
NJ2	Nanjing	149.71	175	*e*P	PKPdf	05 02 57.2	-0.3
NJ2				pmax	pmax		
	comp=Z,13nm,0.6s						
XAN	Xi'an	150.59	158	P	PKPbc	05 03 04.7	+0.4
XAN				pmax	pmax		
	comp=Z,19nm,1.3s						
LZDM	Lanzhou Array	151.34	148	PKPbc	PKPbc	05 03 04.4	-2.0
	comp=Z,4.7nm,0.6s,baz=130,slow=5.8,SNR=5.2						
LZH	Lanzhou	151.50	149	pPKP	PKPab	05 03 18.9	+3.9
LZH	Lanzhou	151.50	149	*e*PKPbc	PKPbc	05 03 06.7	+0.2
BVAR	Borovoye Array	151.74	85	PKPbc	PKPbc	05 03 04.7	-1.6
	comp=Z,13nm,0.9s,baz=248,slow=2.4,SNR=20						
MJAR	Matsushiro Arr	152.28	209	PKPbc	PKPbc	05 03 07.1	-1.0
	comp=Z,1.1nm,0.5s,baz=169,slow=3.7,SNR=2.2						
MKAR	Makanchi Array	152.91	106	PKPbc	PKPbc	05 03 08.8	-0.4
	comp=Z,2.7nm,0.8s,baz=235,slow=1.7,SNR=9.6						
MKAR	Makanchi Array	152.91	106		PKPdf	05 03 04.5	+2.6
GTA2	Gaotai	153.56	139	PKPbc	PKiKP	05 03 11.7	+0.6
KURBB	Kurchatov Arra	153.96	96	PKPbc	PKPbc	05 03 10.5	-0.7
	comp=Z,1.2nm,0.7s,baz=233,slow=3.0,SNR=8.4						
KSRS	Korea Array	154.86	192	PKPbc	PKiKP	05 03 13.9	+0.3
	comp=Z,0.8nm,0.6s,baz=149,slow=0.7,SNR=2.4						
HHC	Hu-ho-hao-te	157.69	159	*e*P	PKPdf	05 03 04.1	-4.6
SONM	Songino Array	163.14	142	PKPab	PKPab	05 04 05.4	+0.7
	comp=Z,2.4nm,1.0s,baz=197,slow=4.6,SNR=4.6						

MAN 05 04:56:08.0,6°.70N×124°.98E,h16^{km},MS3.7,Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KCP	Kidapawan	0.33	20	*i* P	Pg	04 56 15.0	+0.1
KCP				*i* S	Sb	04 56 20.1	-0.4
GSPH	General Santos	0.61	183	*i* P	Pn	04 56 22.3	+0.1
GSPH				*i* S	Sn	04 56 34.8	+3.1
DMPH	Davao City--Mi	0.65	54	*e*P	Pb	04 56 21.0	0.0
DMPH				*i* S	Sb	04 56 30.6	+0.8
DDMP	Don Marcelino,	0.94	129	*i* P	Pn	04 56 26.5	0.0
DDMP				*e*S	Sn	04 56 40.0	+0.4
CGP	Cagayan de Oro	1.77	351	*i* P	Pn	04 56 38.6	+0.6
CGP				*i* S	Sn	04 56 58.7	-1.4
CDOP	Cateel, Davao	1.80	53	*e*P	Pb	04 56 40.1	-0.5
CDOP				*i* S	Sb	04 57 02.7	-0.4
BIPH	Bislig	2.01	43	*i* P	Pn	04 56 42.0	+0.7
BIPH				*i* S	Sn	04 57 06.9	+0.7
LSIP	Lazi, Siquijor	2.76	331	*i* P	Pb	04 56 56.0	-1.0
LSIP				*i* S	Sb	04 57 33.2	+2.6

NNC ***05*** *04:58:42.3±0.6,42°.97N×79°.52E,h3^{km}±2^{km},mb3.4,
mpv3.1,Error ellipse: s-maj=4.5km s-min=2.4km az=160.0*

KRNET ***05*** *04:58:42.4±0.1,43°.01N×79°.54E,h30^{km},mb3.0*

SOME ***05*** *04:58:42.4,42°.92N×79°.45E,h15^{km}*

ISC 05 04:58:43.6±1.1,42°.95N±0°.03×79°.54E±0°.03,h24^{km}±7^{km}, n48,σ1^{s}18/87,16C-9D,Lake Issyk-Kul region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHLS	Shalkode	0.21	345	P	Pb	04 58 49.7	+0.2
	435nm,0.1s						
SHLS				S	Sb	04 58 54.8	+1.3
	966nm,0.2s						
SHLS	Shalkode	0.21	345	*e*P	Pb	04 58 49.7	+0.2
	435nm,0.1s						
SHLS				*e*S	Sb	04 58 54.8	+1.3
	966nm,0.2s						
PDGK	Podgornoye	0.38	355	⇑P	Pb	04 58 50.0	-1.9
	32nm,0.3s						
PDGK				⇑S	Sb	04 58 55.4	-2.2
	56nm,0.3s						
UZB	Uzynbulak	0.43	298	P	Pb	04 58 50.8	-1.9
	29nm,0.1s						
UZB				S	Sb	04 58 56.7	-2.1
	124nm,0.1s						
UZB	Uzynbulak	0.43	298	*e*P	Pb	04 58 50.8	-1.9
	29nm,0.1s						
UZB				*e*S	Sb	04 58 56.7	-2.1
	124nm,0.1s						
KTMS	Ketmen	0.78	50	P	Pb	04 58 56.7	-1.9
	24nm,0.2s						
KTMS				S	Sb	04 59 07.0	-1.7
	26nm,0.2s						
KTMS	Ketmen	0.78	50	*e*P	Pb	04 58 56.7	-1.9
	24nm,0.2s						
KTMS				*e*S	Sb	04 59 07.0	-1.7
	26nm,0.1s						
KPKS	Kokpek	0.81	310	P	Pb	04 58 57.4	-1.6
	0.2nm,0.1s						
KPKS				S	Sb	04 59 08.4	-1.2
	157nm,0.2s						
KPKS	Kokpek	0.81	310	*e*P	Pb	04 58 57.4	-1.6
	0.2nm,0.1s						
KPKS				*e*S	Sb	04 59 08.4	-1.2
	157nm,0.2s						
SATY	Saty	0.84	278	P	Pb	04 58 57.9	-1.7
	15nm,0.2s						
SATY				S	Sb	04 59 09.4	-1.1
	99nm,0.1s						
SATY	Saty	0.84	278	*e*P	Pb	04 58 57.9	-1.7
	15nm,0.2s						
SATY				*e*S	Sb	04 59 09.4	-1.1
	99nm,0.1s						
PRZ	Przheval'sk	0.96	241	⇑*i*P	Pb	04 59 00.7	-0.9
PRZ				⇑*i*S	Sn	04 59 14.2	-0.5
KURS	Kuram	1.14	299	P	Pn	04 59 03.5	-0.6
	3.3nm,0.3s						
KURS				S	Sn	04 59 18.5	-0.4
	17nm,0.6s						
KURS	Kuram	1.14	299	*e*P	Pn	04 59 03.5	-0.6
	3.3nm,0.3s						
KURS				*e*S	Sn	04 59 18.5	-0.4
	17nm,0.6s						
ANVS	Anan'yevo	1.38	264	⇑*i*P	Pn	04 59 07.4	-0.2
ANVS				⇑*i*S	Sb	04 59 26.1	-0.1
DJR	Jarkent	1.40	8	P	Pb	04 59 08.0	-1.0
	14nm,0.2s						
DJR				S	Sb	04 59 26.3	-0.1
	14nm,0.3s						
DJR	Jarkent	1.40	8	*e*P	Pb	04 59 08.0	-1.0
	14nm,0.2s						
DJR				*e*S	Sb	04 59 26.3	-0.1
	14nm,0.3s						
KNOS	Konyrlen	1.43	350	P	Pb	04 59 08.7	-1.0
	13nm,0.2s						
KNOS				S	Sb	04 59 27.7	+0.1
	12nm,0.4s						
TARG	Taragay, Kyrgy	1.77	227	⇑*i*P	Pb	04 59 14.1	-1.5
TARG				⇑*i*S	Sb	04 59 37.2	-0.3
ARXS	Arharly	1.77	316	P	Pb	04 59 14.6	-0.8
	2.7nm,0.3s						
ARXS				S	Sb	04 59 37.7	+0.4
	28nm,0.2s						
ARXS	Arharly	1.77	316	*e*P	Pb	04 59 14.6	-0.8
	2.7nm,0.3s						
ARXS				*e*S	Sb	04 59 37.7	+0.4
	28nm,0.2s						
KOTS	Kotyrbulak	1.80	280	P	Pb	04 59 15.4	-0.5
	9.1nm,0.1s						
KOTS				S	Sb	04 59 39.4	+1.3
	15nm,0.3s						
KOTS	Kotyrbulak	1.80	280	*e*P	Pb	04 59 15.4	-0.5
	9.1nm,0.1s						
KOTS				*e*S	Sb	04 59 39.4	+1.3
	15nm,0.3s						
MDOK	Medeo	1.84	278	Pg	Pb	04 59 15.9	-0.7
	25nm,0.3s						
MDOK				Lg	Lg	04 59 39.8	
	13nm,0.6s						
MDOK	Medeo	1.84	278	*e*P	Pb	04 59 15.9	-0.7
	25nm,0.3s						
MDOK				*e*S	Sb	04 59 39.8	+0.6
	13nm,0.6s						
TNSS	Tian-Shan	1.90	274	P	Pb	04 59 17.1	-0.7
	1.5nm,0.3s						
TNSS				S	Sb	04 59 42.2	+0.9
	2.8nm,0.5s						
TNSS	Tian-Shan	1.90	274	*e*P	Pb	04 59 17.1	-0.7
	1.5nm,0.3s						
TNSS				*e*S	Sb	04 59 42.2	+0.9
	2.8nm,0.5s						
KDJ	Kajisay	1.92	246	⇑*i*P	Pn	04 59 15.7	+0.7
KDJ				⇑*i*S	Sb	04 59 40.0	-1.7
IZV	Izvestkoviy	2.15	273	Pg	Pb	04 59 21.3	-0.5
	6.1nm,0.2s						
IZV				Lg	Lg	04 59 49.3	
	17nm,0.2s						
IZV	Izvestkoviy	2.15	273	*e*P	Pb	04 59 21.3	-0.5
	6.1nm,0.2s						
IZV				*e*S	Sb	04 59 49.4	+1.2
	17nm,0.2s						
KTBS	Karatobe	2.22	291	Pg	Pb	04 59 20.9	-2.1
	2.8nm,0.3s						
KTBS				Lg	Lg	04 59 48.8	
	39nm,0.5s						
KTBS	Karatobe	2.22	291	*e*P	Pb	04 59 20.9	-2.1
	2.8nm,0.3s						
KTBS				*e*S	Sb	04 59 48.8	-1.3
	39nm,0.5s						
KAPS	Kapalarasan	2.34	357	Pg	Pb	04 59 24.6	-0.5
	10nm,0.3s						
KAPS				Lg	Lg	04 59 54.7	
	21nm,0.2s						
KAPS	Kapalarasan	2.34	357	*e*P	Pb	04 59 24.6	-0.5
	10nm,0.3s						
KAPS				*e*S	Sb	04 59 54.7	+1.1
	21nm,0.2s						
KUU	Kurty	2.51	293	Pg	Pb	04 59 27.2	-0.8
	2.0nm,0.1s						
KUU				Lg	Lg	04 59 59.2	
	31nm,0.5s						
KUU	Kurty	2.51	293	*e*P	Pb	04 59 27.2	-0.8
	2.0nm,0.1s						
KUU				*e*S	Sb	04 59 59.2	+0.7
	31nm,0.5s						
ULHL	Ulahol	2.53	255	⇓*i*P	Pn	04 59 23.9	+0.5
ULHL				⇓*i*S	Sn	04 59 54.4	+0.9
KST	Kastek	2.62	273	Pg	Pb	04 59 29.6	-0.3
	4.2nm,0.3s						
KST				Lg	Lg	05 00 03.5	
	8.0nm,0.9s						
KST	Kastek	2.62	273	*e*P	Pb	04 59 29.6	-0.3
	4.2nm,0.3s						
KST				*e*S	Sb	05 00 03.5	+1.7
	8.0nm,0.9s						
BOOM	Boomskoye usch	2.69	261	⇓*i*P	Pn	04 59 25.9	+0.4
BOOM				⇓*i*S	Sn	04 59 58.2	+0.8
TKM2	Tokmak 2	2.89	271	⇑*i*P	Pn	04 59 28.8	+0.5
TKM2				⇑*i*S	Sn	05 00 02.7	+0.2
KRBS	Karabastau	2.92	286	Pg	Pb	04 59 33.9	-0.9
	1.3nm,0.4s						
KRBS				Lg	Lg	05 00 11.0	
	2.4nm,0.8s						
KRBS	Karabastau	2.92	286	*e*P	Pb	04 59 33.9	-0.9
	1.3nm,0.4s						
KRBS				*e*S	Sb	05 00 11.0	+0.9
	2.4nm,0.8s						
NRN	Naryn	3.03	241	⇑*i*P	Pn	04 59 31.7	+1.4
NRN				⇑*i*S	Sn	05 00 07.6	+1.5
CHMS	Chumysh	3.51	272	⇓*i*P	Pn	04 59 37.2	+0.5
CHMS				⇓*i*S	Sn	05 00 17.1	-0.4
SGDS	Sogindy	3.62	280	Pg	Pb	04 59 46.9	-0.1
	0.9nm,0.5s						
SGDS				Lg	Lg	05 00 33.1	
	3.0nm,0.8s						
MAKZ	Makanchi	4.23	23	⇓Pn	Pn	04 59 49.0	+2.5
	0.9nm,0.6s						
MAKZ				⇑Lg	Lg	05 00 53.8	
	1.1nm,0.6s						
MK31	Makanchi Array	4.31	26	⇓Pn	Pn	04 59 48.5	+0.9
	0.1nm,0.3s,baz=211,slow=14,SNR=5.4						
MK31				⇓Sn	Sn	05 00 39.0	+1.7
	1.0nm,0.8s						
MK31				⇑Lg	Lg	05 00 56.0	
	0.6nm,0.4s,baz=207,slow=30,SNR=5.8						

TRN 05 05:13:13.4,16°.24N×61°.62W,h152^{km},MD4.0, Basse-Terre, Guadeloupe.,Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DHSZ	Broadband at M	0.14	285	*e*P	Pn	05 13 35.1	+1.3
DHSZ				*e*S	Sn	05 13 50.3	+1.0
MMLZ	Guadeloupe Bro	0.20	194	*e*P	Pn	05 13 35.6	+1.6
MMLZ				*e*S	Sn	05 13 51.8	+2.2
TBG	Guadaloupe-3	0.38	184	*e*P	Pn	05 13 35.7	+1.1
TBG				*e*S	Sn	05 13 51.9	+1.3
DSDZ	La Diserade, G	0.54	82	*e*P	Pn	05 13 36.8	+1.6
DSDZ				*e*S	Sn	05 13 52.9	+1.2
DWS	Wesley	0.73	156	*e*P	Pn	05 13 37.2	+0.9
DWS				*e*S	Sn	05 13 54.4	+0.6
DSLB	Salisbury	0.82	166	*e*P	Pn	05 13 38.3	+1.3
DSLB				*e*S	Sn	05 13 55.5	+0.5
ANWB	Willy Bob	1.43	354	*e*P	Pn	05 13 43.5	+1.1
ANWB				*e*S	Sn	05 14 05.1	+0.3
SKI	Saint Kitts	1.53	316	*e*P	Pn	05 13 44.3	+0.8
SKI				*e*S	Sn	05 14 07.2	+0.6
BIM	Bigot	1.79	163	*e*P	Pn	05 13 47.3	+0.9
BIM				*e*S	Sn	05 14 13.4	+1.8
SLBI	Saint Lucia, B	2.29	164	*e*P	Pn	05 13 52.6	+0.5
SLBI				*e*S	Sn	05 14 21.0	-0.9
SLCP	Castries, St.	2.30	165	*e*P	Pn	05 13 53.2	+1.0
SLCP				*e*S	Sn	05 14 22.5	+0.5
SLAC	Saint Lucia, A	2.43	163	*e*P	Pn	05 13 54.4	+0.5
SLAC				*e*S	Sn	05 14 25.4	+0.5
GRGR	Grenville	4.08	180	*e*P	Pn	05 14 15.3	+0.4
GRGR				*e*S	Sn	05 15 00.4	-2.2
DMDM	Guralp CMG5TDE	5.51	179	*e*P	Pn	05 14 36.0	+2.4
DMDM				*e*S	Sn	05 15 35.3	-1.0
TRN	Trinidad (W)	5.56	178	*e*P	Pn	05 14 35.7	+1.4
TRN				*e*S	Sn	05 15 34.2	-3.4

GFZ ***05*** *05:14:51.6±0.3,52°N±8°×17°9W±°,h10^{km},M4.7/19,
mb4.7/19*

AEIC ***05*** *05:14:52.0±1.8,51°.84N±0°.10×178°.47W±0°.04,h14^{km}±3^{km},
Error ellipse: s-maj=14.4km s-min=3.2km az=171.0*

IDC ***05*** *05:14:53.1±3.2,51°.93N×178°.58W,h22^{km}±20^{km},mb4.1/26,
mbtmp4.3/31,ML4.6/4,MS3.6/38,Error ellipse:
s-maj=16.0km s-min=10.9km az=172.0*

*NEIC **05** 05:14:53.3±1.8, 51.°8N±0.°1×178.°45W±0.°01, h18^{km}±2^{km}, mb4.6/81, ML4.7/14, ML4.3(AEIC), Error ellipse: s-maj=16.5km s-min=0.6km az=178.0*

ISC 05 05:14:52.7±0.6, **51.°82N**±0.°05×**178.°47W**±0.°02, **h17**^{km}±3^{km}, **n277**, σ1.^{s}12/258, **mb4.6**/72, **MS3.6**/35, **3D, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GAEA	Gareloi East	0.17	258		Pg	05 14 57.2	0.0
GAEA					Sb	05 15 00.6	0.0
GANE	Gareloi Northe	0.19	270		Pg	05 14 57.2	-0.2
GANE					Sb	05 15 01.0	0.0
GALAA	Gareloi Lava P	0.19	252		Pg	05 14 57.4	-0.1
GALAA					Sb	05 15 01.1	0.0
GANO	Gareloi North	0.20	270		Pg	05 14 57.2	-0.4
TACS	Tanaga Cape Sa	0.21	78		Pb	05 14 58.0	-0.1
TACS					Sb	05 15 02.3	+0.5
TANO	Tanaga North	0.24	66		Pg	05 14 58.1	-0.1
TANO	Tanaga North	0.24	66		Sb	05 15 02.3	-0.1
GASW	Gareloi Southw	0.24	260		Pg	05 14 57.9	-0.3
TAFP	Tanaga Falls P	0.31	75		Pg	05 14 59.1	-0.3
GAKI	Gareloi-Kavalg	0.34	218		Pg	05 15 00.1	+0.2
GAKI					Sb	05 15 05.6	+0.3
TAFL	Tanaga Flats	0.36	100		Pg	05 15 00.3	0.0
TAFL	Tanaga Flats	0.36	100		Sb	05 15 06.5	+0.5
TAPA	Tanaga Point A	0.41	90		Pg	05 15 01.1	0.0
TAPA	Tanaga Point A	0.41	90		Sb	05 15 08.2	+0.7
KIMD	Kanaga Island	0.77	94		Pb	05 15 07.0	-0.6
KIMD	Kanaga Island	0.77	94		Sg	05 15 18.0	0.0
KICM	Kanaga Island	0.80	82		Pb	05 15 07.6	-0.4
KICM	Kanaga Island	0.80	82		Sg	05 15 19.1	+0.3
KIKV	Kanaga Island	0.81	85		Pb	05 15 07.4	-0.9
KIWB	Kanaga Island	0.82	87		Pb	05 15 07.3	-1.2
KIWB				Sg	Sb	05 15 18.8	-0.4
KINC	Kanaga Island	0.84	82		Pb	05 15 08.1	-0.7
KIRH	Kanaga Island	0.86	84		Pb	05 15 08.6	-0.6
ADK	Adak	1.11	86	P	Pn	05 15 12.1	-1.3
ADK	Adak	1.11	86	S	Sn	05 15 28.0	-0.3
ADK	Adak	1.11	86		Pn	05 15 12.1	-1.3
ADK				Sg	Sb	05 15 27.4	-0.2
ADK				IAML		05 15 28.4	
	12µm,0.9s						
ADK				IAML		05 15 30.5	
	17µm,1.0s						
ADK	Adak	1.11	86	P	Pn	05 15 12.2	-1.2
ADAG	Mount Adagdak	1.17	81		Pn	05 15 13.2	-1.1
CEPE	Semis' Perret	1.17	278		Pn	05 15 13.2	-1.0
CERB	Semis' Cerberu	1.18	276		Pn	05 15 13.4	-0.9
CESW	Semis' Southwe	1.22	275		Pn	05 15 13.7	-1.2
ETKA	Kagalaska Isla	1.28	87		Pn	05 15 15.0	-0.8
GSSP	Great Sitkin S	1.45	78		Pn	05 15 16.7	-1.3
AMKA	Amchitka	1.46	253		Pn	05 15 17.8	-0.3
AMKA				Sn	Sn	05 15 37.0	+0.2
GSTD	Great Sitkin T	1.46	80		Pn	05 15 17.2	-1.1
GSMY	Great Sitkin M	1.51	81		Pn	05 15 17.8	-1.1
GSTR	Great Sitkin T	1.52	79		Pn	05 15 18.1	-0.9
GSTR				IAML		05 15 53.4	
	comp=E,12µm,1.1s						
LSPA	Little Sitkin	1.83	275		Pn	05 15 23.0	-0.4
LSSE	Little Sitkin	1.84	275		Pn	05 15 23.0	-0.4
LSNW	Little Sitkin	1.87	276		Pn	05 15 23.3	-0.5
KOWE	Korovin West	2.66	77		Pn	05 15 34.0	-0.8
ATKA	Atka Island	2.67	80	P	Pn	05 15 34.2	-0.6
ATKA	Atka Island	2.67	80	S	Sn	05 16 06.7	0.0
ATKA	Atka Island	2.67	80		Pn	05 15 34.3	-0.6
ATKA				IAML		05 16 17.7	
	comp=E,2µm,0.7s						
ATKA				IAML		05 16 20.6	
	comp=N,2µm,0.7s						
KOKL	Mount Kliuchef	2.69	78		Pn	05 15 34.4	-0.7
KOFP	Korovin Flat P	2.74	79		Pn	05 15 35.9	+0.1
KOSE	Korovin Southe	2.78	77		Pn	05 15 36.4	0.0
SHEM	Shemya Is, Ala	4.65	284	Pn	Pn	05 16 01.4	-0.6
	comp=N,14nm,0.3s,baz=79,slow=4.7,SNR=5.9						
SHEM				Sn	Sn	05 16 50.8	-4.7
	comp=N,10nm,0.3s,baz=87,slow=22,SNR=1.1						
	comp=N,45nm,0.4s						
SHEM				AML	AML		
SMY	Shemya	4.65	284	P	Pn	05 16 04.7	+2.7
SMY	Shemya	4.65	284		Pn	05 16 03.6	+1.6
SMY				IAML		05 17 21.7	
	comp=E,517nm,1.1s						
CLES	Cleveland East	5.36	76	Pn	Pn	05 16 12.7	+1.0
CLES				IAML		05 17 50.0	
	comp=N,600nm,1.3s						
CLES				IAML		05 18 03.3	
	comp=E,519nm,2.5s						
OKSP	Okmok Steeple	6.38	73		Pn	05 16 26.9	+1.1
SPIA	Saint Paul Isl	7.19	39	P	Pn	05 16 39.6	+2.8
SPIA	Saint Paul Isl	7.19	39		Pn	05 16 36.9	0.0
MSW	Makushin Switc	7.38	69		Pn	05 16 39.8	+0.3
MNAT	Makushin Natee	7.43	69		Pn	05 16 40.2	0.0
UNV	Unalaska Valle	7.53	70	P	Pn	05 16 41.1	-0.4
UNV	Unalaska Valle	7.53	70		Pn	05 16 41.7	+0.2
LVA	Lava Point	7.87	68		Pn	05 16 47.0	+0.9
AKGG	Akutan Green G	7.90	68		Pn	05 16 47.5	+0.9
AKLV	Akutan Long Va	7.91	68		Pn	05 16 47.6	+0.8
AKBBA	Akutan Broad B	7.91	68		Pn	05 16 47.6	+0.8
AKUT	Akutan	8.01	68	P	Pn	05 16 48.4	+0.3
AKUT	Akutan	8.01	68	Pn	Pn	05 16 49.5	+1.4
SDPT	Sand Point	11.26	65	P	Pn	05 17 33.1	+0.5
SDPT	Sand Point	11.26	65	Pn	Pn	05 17 33.1	+0.5
CNBA	Chernabura Isl	11.68	68	Pn	Pn	05 17 38.5	+0.1
CHNA	Chernabura Isl	11.68	68	P	Pn	05 17 38.4	0.0
M13K	Dall Lake	12.03	38		Pn	05 17 45.2	+2.2
N14K	Kuskokwak Cree	12.41	43		Pn	05 17 49.9	+1.7
CHGN	Chignik	12.59	61	Pn	Pn	05 17 51.9	+1.1
M14K	Bethel	12.78	39		Pn	05 17 55.7	+2.4
O15K	Ungalikthiuk R	12.85	48		Pn	05 17 56.0	+1.7
L14K	Kuka Creek	12.87	36		Pn	05 17 56.1	+1.5
N15K	Kwethluk River	13.21	44		Pn	05 18 01.0	+1.7
P16K	Nushagak River	13.65	50		Pn	05 18 07.3	+2.1
O16K	Kokwok River B	13.83	48	Pn	Pn	05 18 09.7	+2.0
K15K	Wolf Creek Mou	13.91	35		Pn	05 18 11.6	+2.8
M16K	Timber Creek	14.14	42		Pn	05 18 13.8	+1.9
L16K	Owhat River	14.31	39		Pn	05 18 16.5	+2.2
P17K	Kvichak River	14.45	51	Pn	Pn	05 18 18.4	+2.2
PEA0B	Petropavlovsk-	14.57	284		Pn	05 18 19.0	+1.2
PETK	Petropavlovsk-	14.57	284	Pn	Pn	05 18 17.0	-0.8
	comp=E,3.2nm,0.8s,baz=85,slow=16,SNR=4.9						
PETK				LR	LR	05 23 23.6	
	comp=E,232nm,21.7s,baz=120,slow=35						
PETK	Petropavlovsk-	14.57	284		Pn	05 18 18.9	+1.1
ACHA	Angle Creek He	14.69	55		Pn	05 18 20.6	+1.0
J16K	Anvik River	14.89	33		P	05 18 25.0	-2.7
SII	Sitkinak Islan	14.95	62	P	Pn	05 18 22.8	-0.2
M17K	Holitna River	14.97	42		Pn	05 18 25.0	+1.9
J17K	VABM Dome	15.49	34		Pn	05 18 31.1	+1.1
J17K				IAmb	IAmb	05 18 43.4	
	comp=Z,26nm,0.9s						
OHAK	Old Harbor	15.54	60	P	Pn	05 18 31.2	+0.5
OHAK	Old Harbor	15.54	60		Pn	05 18 31.1	+0.5
L18K	Granite Mounta	15.70	40		P	05 18 34.8	-1.9
N19K	Bonanza Creek	15.98	46	Pn	Pn	05 18 38.0	+1.6
N19K				IAmb	IAmb	05 18 52.3	
	comp=Z,74nm,1.0s						
KDAK	Kodiak Island	16.01	58	Pn	Pn	05 18 35.6	-1.2
	comp=Z,0.6nm,0.3s,baz=262,slow=8.1,SNR=22						
KDAK				LR	LR	05 25 37.9	
	comp=Z,352nm,18.1s,baz=236,slow=40						
	comp=Z,2.7nm,0.5s						
KDAK				AML	AML		
KDAK	Kodiak Island	16.01	58	P	Pn	05 18 38.2	+1.4
	comp=Z,17nm,0.8s						
H17K	Granite Mounta	16.26	29	P	P	05 18 43.2	+0.3
J18K	Innoko River	16.37	36	P	P	05 18 44.1	-0.1
L19K	White Mountain	16.42	42	P	P	05 18 44.4	-0.3
H18K	Honhosa River	16.88	30	P	P	05 18 51.1	+1.2
J19K	Poorman	17.08	36	P	P	05 18 53.0	+1.0
CNPM	China Poot	17.09	53	P	P	05 18 51.6	-0.5
G18K	Tagagawik	17.31	28	P	P	05 18 55.8	+1.3
STLK	Strandline Lak	17.43	46	P	P	05 18 57.0	+1.1
STLK				IAmb	IAmb	05 19 06.8	
	comp=Z,41nm,0.9s						
RDOG	Red Dog Mine	17.95	19	P	P	05 19 04.1	+2.5
SEW	Seward	18.11	51	P	P	05 19 04.5	+1.1
SEW				IAmb	IAmb	05 19 12.7	
	comp=Z,49nm,1.3s						
CUT	Chulitna	18.45	44	P	Pn	05 19 08.1	+0.9
CUT				IAmb	IAmb	05 19 15.3	
	comp=Z,43nm,0.8s						
MA2	Magadan	18.85	306	P	P	05 19 11.4	-0.1
	comp=Z,1.0nm,0.3s,baz=91,slow=9.0,SNR=8.0						
MA2				LR	LR	05 25 40.1	
	comp=Z,142nm,20.0s,baz=104,slow=34						
	comp=Z,12nm,0.7s						
MA2				AML	AML		
MA2	Magadan	18.85	306	P	Pn	05 19 13.4	+1.3
	comp=Z,25nm,1.1s						
MA2	Magadan	18.85	306	P	Pn	05 19 12.7	+0.6
	comp=Z,22nm,1.1s						
KNK	Knik Glacier	18.93	48	P	Pn	05 19 12.9	-0.1
SEY	Seymchan	19.06	317	P	P	05 19 13.3	-0.4
	comp=Z,0.3nm,0.3s,baz=116,slow=12,SNR=24						
	comp=Z,15nm,0.9s						
SEY				AML	AML		
G21K	Allakaket	19.29	31	P	Pn	05 19 17.8	+0.4
G21K				IAmb	IAmb	05 19 30.2	
	comp=Z,27nm,0.9s						
SCM	Sheep Creek Mo	19.57	47	P	Pn	05 19 20.6	-0.3
SCM				IAmb	IAmb	05 19 29.1	
	comp=Z,26nm,0.8s						
FID	Port Fidalgo	19.69	51	P	P	05 19 21.1	+0.4
FID				IAmb	IAmb	05 19 28.0	
	comp=Z,35nm,1.0s						
NEA2	Nenana	19.84	39	P	P	05 19 23.1	+0.7
NEA2				IAmb	IAmb	05 19 32.1	
	comp=Z,61nm,1.0s						
DHY	Denali Highway	19.94	44	P	Pn	05 19 24.6	-0.7
COLA	College	20.44	39	P	Pn	05 19 31.3	+0.4
	comp=Z,40nm,1.0s						
HARP	HAARP	20.71	46	P	P	05 19 32.5	+0.8
ILAR	Eielson Array	20.77	39	P	P	05 19 30.7	-1.7
	comp=Z,1.9nm,0.8s,baz=241,slow=10,SNR=20						
	comp=Z,1.9nm,0.8s						
H24K	Noodor Dome	20.86	36		P	05 19 33.9	+0.6
H24K				IAmb	IAmb	05 19 41.4	
	comp=Z,23nm,0.8s						
D22K	Ayikyak River	21.05	26	P	P	05 19 36.3	+0.9
GLB	Gilahina Butte	21.11	49		P	05 19 36.3	+0.3
GLB				IAmb	IAmb	05 19 46.4	
	comp=Z,26nm,0.8s						
RIDG	Independent Ri	21.23	43	P	P	05 19 37.0	-0.5
VRDI	Verde Repeater	21.23	50	P	P	05 19 38.0	+0.3
VRDI				IAmb	IAmb	05 19 48.8	
	comp=Z,30nm,1.0s						
J25K	Salcha River,	21.31	40	P	P	05 19 38.4	+0.1
G24K	Hadweenzic Riv	21.41	34		P	05 19 39.9	+0.7
TGL	Tana Glacier	21.45	51	P	P	05 19 41.4	+1.4
TGL				IAmb	IAmb	05 19 53.9	
	comp=Z,17nm,0.9s						
MENT	Mentasta	21.49	45	P	P	05 19 41.3	+1.1
MENT				IAmb	IAmb	05 19 59.2	
	comp=Z,24nm,0.9s						
PRP	Porcupine Dome	21.60	38	P	P	05 19 42.1	+0.7
PRP				IAmb	IAmb	05 19 50.5	
	comp=Z,16nm,0.9s						
SCRK	Sand Creek	21.67	43		P	05 19 41.5	-0.7
SCRK				IAmb	IAmb	05 19 56.1	
	comp=Z,19nm,0.9s						
L26K	Log Cabin Wild	21.68	45	P	P	05 19 43.2	+1.0
F24K	Squaw Lake	21.68	32	P	P	05 19 43.0	+0.8
M26K	Nabesna, AK	21.68	47	P	P	05 19 42.4	+0.1
M26K				IAmb	IAmb	05 19 53.2	
	comp=Z,34nm,1.0s						
GRNC	Granite Creek	21.98	52	P	P	05 19 46.3	+0.7
GRNC				IAmb	IAmb	05 19 59.6	
	comp=Z,34nm,1.0s						
BARN	Barnard Glacie	22.07	51	P	P	05 19 47.4	+0.9
FYU	Fort Yukon	22.14	36	P	P	05 19 47.8	+0.7
M27K	Edge Creek, AK	22.18	47	P	P	05 19 48.4	+0.7
C23K	Itkillik River	22.23	25	P	P	05 19 48.4	+0.4
LOGN	Logan Glacier	22.35	52	P	P	05 19 49.9	+0.3
L27K	Beaver Creek,	22.36	46		P	05 19 50.1	+0.6
L27K				IAmb	IAmb	05 20 09.9	
	comp=Z,15nm,0.8s						
BCAR	Beaver Creek A	22.38	46		P	05 19 50.1	+0.3
F25K	Christian Rive	22.47	33	P	P	05 19 50.7	0.0
F25K				IAmb	IAmb	05 20 02.6	
	comp=Z,18nm,0.9s						
PCA	Pinnacle	22.65	54	P	P	05 19 53.0	+0.4
O28M	Mount Upton	22.74	52	P	P	05 19 55.2	+1.3
O28M				IAmb	IAmb	05 19 57.7	
	comp=Z,16nm,1.0s						
E25K	Arctic Village	22.75	32	P	P	05 19 53.6	0.0
E25K				IAmb	IAmb	05 20 05.1	
	comp=Z,22nm,0.9s						
BMAR	Burnt Mountain	22.75	34		P	05 19 54.4	+0.7
G26K	Porcupine Rive	22.83	35		P	05 19 54.7	+0.3
F26K	Sheenjek River	23.02	33	P	P	05 19 57.2	+0.8
F26K				IAmb	IAmb	05 20 09.1	
	comp=Z,29nm,1.1s						
K29M	Barlow Dome	24.41	45		P	05 20 10.3	+0.3
F28M	Old Crow	24.49	35	P	P	05 20 11.1	+0.6
H29M	Whitestone	24.60	39	P	P	05 20 12.0	+0.5
H29M				IAmb	IAmb	05 20 29.4	
	comp=Z,33nm,1.1s						
WHY	Whitehorse	25.34	53	P	P	05 20 21.0	+2.6
	comp=Z,12nm,0.9s						
E29M	Blow River	25.46	34		P	05 20 20.3	+1.1
E29M				IAmb	IAmb	05 20 27.0	
	comp=Z,19nm,0.8s						
YSS	Yuzhno-Sakhali	25.48	274	P	P	05 20 20.1	+0.5
	comp=Z,19nm,1.4s						
M31M	Drury Creek, Y	25.63	49	P	P	05 20 22.4	+1.4
M31M				IAmb	IAmb	05 20 30.6	
	comp=Z,11nm,0.9s						
G30M	tAoh Zraii Nji	25.64	38		P	05 20 22.4	+1.4
G30M				IAmb	IAmb	05 20 24.2	
	comp=Z,12nm,1.1s						
H31M	Peel River	26.11	41		P	05 20 25.2	0.0
H31M				IAmb	IAmb	05 20 35.6	
	comp=Z,19nm,1.0s						
JKA	Kamikawa-asahi	26.91	269	P	P	05 20 33.0	+0.4
JKA				IAmb	IAmb	05 20 42.4	
	comp=Z,14nm,1.0s						
JKA	Kamikawa-asahi	26.91	269	P	P	05 20 32.6	0.0
	comp=Z,12nm,1.0s						
ASAJ	Asahikawa	26.91	269	LR	LR	05 30 46.1	
	comp=Z,61nm,21.2s,baz=132,slow=36						
INK	Inuvik	26.98	35	LR	LR	05 31 48.7	
	comp=Z,89nm,19.0s,baz=234,slow=38						
INK	Inuvik	26.98	35		P	05 20 33.8	+0.9
INK				IAmb	IAmb	05 20 47.2	
	comp=Z,15nm,1.0s						
INK	Inuvik	26.98	35	P	P	05 20 34.3	+1.3
	comp=Z,16nm,1.2s						
DLBC	Dease Lake	27.95	57	LR	LR	05 32 47.2	
	comp=Z,132nm,20.3s,baz=261,slow=38						
YAK	Yakutsk	29.28	311	LR	LR	05 32 28.0	
	comp=Z,96nm,19.7s,baz=86,slow=36						
TIXI	Tiksi	30.35	330	LR	LR	05 33 48.5	
	comp=Z,131nm,18.2s,baz=126,slow=38						
BBB	Bella Bella	30.50	69	LR	LR	05 33 12.0	
	comp=Z,113nm,18.1s,baz=263,slow=36						
KLR	Kul'dur	31.26	285	LR	LR	05 33 43.8	
	comp=Z,96nm,20.6s,baz=40,slow=36						
USRK	Ussuriysk Ar.	33.44	277	P	P	05 21 28.5	-1.9
	comp=Z,1.1nm,0.4s,baz=64,slow=10,SNR=1.7						
USRK				LR	LR	05 33 44.9	
	comp=Z,67nm,21.5s,baz=74,slow=34						
	comp=Z,1.1nm,0.4s						
H11N2	WAKE ISLAND Hy	34.02	205	T	T	05 57 23.2	
	baz=18,slow=76,SNR=1169						
H11N3	WAKE ISLAND Hy	34.03	205	T	T	05 57 22.2	
	baz=18,slow=76,SNR=1047						
H11N1	WAKE ISLAND Hy	34.04	205	T	T	05 57 19.4	
	baz=18,slow=76,SNR=954						
MJAR	Matsushiro Arr	34.06	261	P	P	05 21 35.3	-0.5
	comp=Z,2.4nm,0.6s,baz=51,slow=7.3,SNR=8.5						
	comp=Z,2.4nm,0.6s						
MAJO	Matsushiro	34.06	261	P	P	05 21 35.9	+0.1
	comp=Z,13nm,1.3s						
YKA	Yellowknife Ar	34.78	47	P	P	05 21 41.7	0.0
	comp=Z,6.7nm,0.9s,baz=284,slow=8.6,SNR=18						
YKA				LR	LR	05 37 16.1	
	comp=Z,285nm,18.1s,baz=293,slow=39						
	comp=Z,6.7nm,0.9s						
H11S1	WAKE ISLAND Hy	35.24	205	T	T	05 58 55.9	
	baz=17,slow=76,SNR=1181						
H11S2	WAKE ISLAND Hy	35.25	205	T	T	05 58 58.5	
	baz=17,slow=76,SNR=730						
H11S3	WAKE ISLAND Hy	35.25	205	T	T	05 58 58.1	
	baz=17,slow=76,SNR=481						
JHJ	Hachijo jima 2	35.41	255	LR	LR	05 38 01.7	
	comp=Z,74nm,18.7s,baz=334,slow=39						
H04A	Detroit Lake	37.32	78		P	05 22 04.8	+1.0
H04A				IAmb	IAmb	05 22 09.5	
	comp=Z,18nm,0.9s						
I05D	Terrebonne, OR	38.02	78	P	P	05 22 09.8	+0.1
I05D				IAmb	IAmb	05 22 19.3	
	comp=Z,9.8nm,0.9s						
HAWA	Hanford	38.04	74		P	05 22 09.7	-0.1
HAWA				IAmb	IAmb	05 22 35.5	
	comp=Z,7.8nm,0.8s						
KHMM	Horse Mountain	38.48	84	P	P	05 22 15.3	+1.6
KHMM				IAmb	IAmb	05 22 28.6	
	comp=Z,9.0nm,0.8s						
NEW	Newport	38.54	70	P	P	05 22 15.9	+1.9
	comp=Z,11nm,0.9s						
YBH	Yreka Blue Hor	38.62	83	LR	LR	05 35 03.6	
	comp=Z,68nm,21.1s,baz=296,slow=31						
O02D	Mt. Diablo Mer	39.47	85	P	P	05 22 23.4	+1.4
KSRS	Korea Array	39.84	271	P	P	05 22 23.2	-1.7
	comp=Z,1.8nm,0.8s,baz=54,slow=8.6,SNR=7.1						
KSRS				LR	LR	05 38 01.6	
	comp=Z,31nm,21.8s,baz=60,slow=35						
	comp=Z,1.8nm,0.8s						
HATC	Hat Creek Radi	39.91	83	P	P	05 22 26.6	+1.0
WVOR	Wild Horse Val	40.71	79	P	P	05 22 33.6	+1.3
	comp=Z,10nm,1.1s						
MSO	Missoula	41.12	70	P	P	05 22 35.7	+0.1
WAKR	Walker	42.55	84	P	P	05 22 47.9	+0.5
HLID	Hailey	42.63	75	P	P	05 22 48.1	+0.1
HLID	Hailey	42.63	75	P	P	05 22 47.7	-0.3
	comp=Z,8.2nm,2.0s						
MCMT	McKenzie Canyo	42.85	72	P	P	05 22 49.8	-0.1
NVAR	Mina Array Bea	43.30	83	P	P	05 22 53.9	+0.3
	comp=Z,2.0nm,0.7s,baz=295,slow=8.3,SNR=20						
NVAR				PcP	PcP	05 24 42.5	+0.3
	comp=Z,2.0nm,0.8s,baz=287,slow=3.4,SNR=5.4						
NVAR				ScP	ScP	05 28 31.5	-0.9
	comp=Z,1.9nm,1.0s,baz=293,slow=4.0,SNR=8.2						
NVAR				LR	LR	05 39 25.1	
	comp=Z,51nm,19.9s,baz=260,slow=34						
	comp=Z,2.0nm,0.7s						
NRIK	Noril'sk	44.13	329	P	P	05 22 59.2	-0.3
	comp=Z,4.3nm,0.8s,baz=69,slow=6.8,SNR=4.9						
NRIK				LR	LR	05 42 29.8	
	comp=Z,92nm,18.3s,baz=86,slow=38						
	comp=Z,4.3nm,0.8s						
DUG	Dugway, Tooele	45.57	78	P	P	05 23 10.5	-1.1
	comp=Z,13nm,1.2s						
PDAR	Pinedale Array	45.98	73	P	P	05 23 14.4	-0.5
	comp=Z,1.9nm,0.6s,baz=308,slow=3.3,SNR=25						
PDAR				ScP	ScP	05 28 42.2	-1.3
	comp=Z,0.4nm,0.8s,baz=309,slow=1.9,SNR=3.2						
PDAR				LR	LR	05 40 43.2	
	comp=Z,40nm,19.9s,baz=266,slow=34						
	comp=Z,1.9nm,0.6s						
SONM	Songino Array	46.63	296	P	P	05 23 19.9	+0.1
	comp=Z,0.4nm,0.5s,baz=50,slow=9.0,SNR=2.6						
SONM				LR	LR	05 43 38.2	
	comp=Z,89nm,18.0s,baz=78,slow=37						
	comp=Z,0.4nm,0.5s						
PFO	Pinyon Flats O	47.54	87	LR	LR	05 41 13.5	
	comp=Z,57nm,19.2s,baz=288,slow=33						
HHC	Hu-ho-hao-te	47.76	286	*e*P	P	05 23 28.1	-0.6
HHC				pmax	pmax		
	comp=Z,16nm,0.6s						
HHC				pmax	pmax		
	comp=Z,140nm,5.4s						
BTO2	Baotou	48.83	287	*e*P	P	05 23 36.7	-0.3
BTO2				pP	pP	05 23 41.3	-0.5
BTO2				sP	sP	05 23 43.7	-0.4
BTO2				pmax	pmax		
	comp=Z,12nm,0.6s						
BTO2				pmax	pmax		
	comp=Z,310nm,8.3s						
NJ2	Nanjing	49.00	272	*e*P	P	05 23 39.1	+0.9
NJ2				pmax	pmax		
	comp=Z,23nm,0.6s						
ULM	Lac du Bonnet	49.27	57	LR	LR	05 44 52.8	
	comp=Z,95nm,19.2s,baz=306,slow=36						
SPITS	Spitsbergen Ar	49.95	356	P	P	05 23 44.7	-0.1
	comp=Z,17nm,0.7s,baz=46,slow=7.1,SNR=16						
	comp=Z,17nm,0.7s						
SPB2	Spitsbergen Ar	49.95	356	P	P	05 23 44.5	-0.4
MVCO	Mesa Verde	50.07	78	P	P	05 23 45.8	-0.9
	comp=Z,7.4nm,0.9s						
TUC	Tucson	51.93	84	P	P	05 24 01.2	+0.7
	comp=Z,9.6nm,0.8s						
T25A	Trinidad	52.59	75	P	P	05 24 05.8	+0.4
T25A				IAmb	IAmb	05 24 12.5	
	comp=Z,12nm,1.2s						
ANMO	Albuquerque	52.81	79	P	P	05 24 06.9	-0.2
	comp=Z,4.9nm,1.1s						
SUMG	Summit	52.82	14	P	P	05 24 07.5	+0.6
WHN	Wuhan	52.83	274	P	P	05 24 10.3	+3.3
XAN	Xi'an	53.77	281	P	P	05 24 05.8	-8.2
XAN				pmax	pmax		
	comp=Z,6.0nm,1.1s						
ZALV	Zalesovo Beam	53.87	313	LR	LR	05 48 16.9	
	comp=Z,72nm,18.3s,baz=61,slow=37						
MNTX	Cornudas Mount	55.68	81	P	P	05 24 28.7	+0.9
	comp=Z,12nm,0.9s						
ARCES	ARCESS Array B	57.69	350	P	P	05 24 40.2	-1.3
	comp=Z,3.4nm,0.7s,baz=25,slow=9.3,SNR=9.8						
	comp=Z,3.4nm,0.7s						
LPIG	La Paz	58.04	91	LR	LR	05 45 09.4	
	comp=Z,31nm,20.2s,baz=292,slow=31						
TXAR	Lajitas Array	58.39	82	P	P	05 24 46.8	-0.3
	comp=Z,4.0nm,0.8s,baz=299,slow=4.8,SNR=41						
TXAR				PcP	PcP	05 25 37.9	+0.1
	comp=Z,2.9nm,0.8s,baz=308,slow=3.3,SNR=6.2						
TXAR				LR	LR	05 48 32.5	
	comp=Z,31nm,18.2s,baz=296,slow=35						
	comp=Z,4.0nm,0.8s						
TXAR	Lajitas Array	58.39	82	P	P	05 24 47.0	-0.1
KURBB	Kurchatov Arra	58.97	314	P	P	05 24 49.4	-1.3
	comp=Z,0.6nm,0.6s,baz=41,slow=6.7,SNR=5.4						
KURBB				LR	LR	05 52 07.6	
	comp=Z,62nm,18.2s,baz=178,slow=38						
	comp=Z,0.6nm,0.6s						
WMQ	Urumqi	59.27	303	*e*P	P	05 24 56.7	+3.7
MKAR	Makanchi Array	59.92	308	P	P	05 24 54.6	-2.8
	comp=Z,0.4nm,0.6s,baz=35,slow=7.9,SNR=3.1						
MKAR				LR	LR	05 50 44.0	
	comp=Z,83nm,21.2s,baz=137,slow=36						
	comp=Z,0.4nm,0.6s						
JCT	Junction City	59.94	78	P	P	05 24 58.0	+0.2
JCT				IAmb	IAmb	05 25 04.0	
	comp=Z,6.3nm,0.7s						
BVAR	Borovoye Array	60.68	320	P	P	05 25 01.3	-1.2
	comp=Z,0.9nm,0.5s,baz=46,slow=6.4,SNR=4.6						
	comp=Z,0.9nm,0.5s						
BORG	Borgarnes	62.42	11	LR	LR	05 52 30.6	
	comp=Z,18nm,20.1s,baz=291,slow=36						
ARTI	Arti	62.43	328	LR	LR	05 56 13.8	
	comp=Z,77nm,18.3s,baz=71,slow=40						
KIRV	Kirov	63.26	334	LR	LR	05 55 32.4	
	comp=Z,36nm,19.0s,baz=27,slow=39						
PZH	PanZhiHua	63.47	280	P	P	05 25 23.3	+1.6
FINES	FINESS Array B	65.40	347	P	P	05 25 32.2	-1.4
	comp=Z,2.2nm,0.7s,baz=35,slow=7.0,SNR=7.8						
	comp=Z,2.2nm,0.7s						
TKL	Tuckaleechee C	65.57	63	LR	LR	05 55 09.1	
	comp=Z,81nm,18.4s,baz=82,slow=37						
SLVN	Son La	65.94	274	P	P	05 25 37.3	-0.5
SLVN				IAmb	IAmb	05 25 38.5	
	comp=Z,7.1nm,1.1s						
SLVN	Son La	65.94	274	P	P	05 25 37.5	-0.3
	comp=Z,6.2nm,1.1s						
NB2	NORSAR Subarra	67.22	355	P	P	05 25 44.3	-1.1
	comp=Z,10nm,1.2s,baz=7.1,slow=6.5						
NOA	NORSAR Array B	67.22	355	P	P	05 25 44.1	-1.3
	comp=Z,2.0nm,0.9s,baz=6.4,slow=6.3,SNR=3.9						
	comp=Z,2.0nm,0.9s						
AKTO	Aktyubinsk	67.44	325	LR	LR	05 57 12.4	
	comp=Z,37nm,19.3s,baz=190,slow=38						
CMAR	Chiang Mai Arr	71.17	276	P	P	05 26 09.3	-1.2
	comp=Z,4.1nm,0.8s,baz=28,slow=6.9,SNR=21						
	comp=Z,4.1nm,0.8s						
CMAR	Chiang Mai Arr	71.17	276	P	P	05 26 09.7	-0.8
BRDH	Bariadhala	72.44	284	LR	LR	06 00 08.5	
	comp=Z,55nm,18.2s,baz=144,slow=38						
EKA	Eskdalemuir Ar	73.14	3	P	P	05 26 22.3	+0.6
	comp=Z,1.1nm,0.8s,baz=356,slow=6.1,SNR=4.2						
	comp=Z,1.1nm,0.8s						
AK22	Malin Array Si	75.16	342	P	P	05 26 33.1	-0.4
RNPP2	Kostyukhnivka	75.18	344	P	P	05 26 34.3	+0.6
AKASG	Malin Array Be	75.19	342	P	P	05 26 32.2	-1.5
	comp=Z,1.6nm,0.6s,baz=22,slow=5.9,SNR=10.0						
	comp=Z,1.6nm,0.6s						
AK08	Malin Array Si	75.25	342	P	P	05 26 35.0	+1.0

AK12	Malin Array Si	75.26	342	P	P	05 26 35.3	+1.2
AK09	Malin Array Si	75.26	342	P	P	05 26 35.1	+1.0
LUBAR	Lubar, Ukraine	76.21	343	P	P	05 26 40.9	+1.3
UPC	Upice	77.31	351	P	P	05 26 47.6	+1.8
	comp=Z,6.9nm,0.6s						
MTN	Manton Dam	77.72	230	P	P	05 26 48.1	-0.3
KMPD	K-Podol'skiy	77.75	343	P	P	05 26 49.5	+1.3
KBZ	Khabaz	78.32	331	P	P	05 26 50.0	-1.5
	comp=Z,1.4nm,0.5s,baz=53,slow=2.8,SNR=4.5						
KBZ				LR	LR	06 06 11.8	
	comp=Z,54nm,18.1s,baz=18,slow=39						
	comp=Z,1.4nm,0.5s						
BUR08	Bucovina Ar. S	78.86	344	P	P	05 26 53.4	-1.2
BUR08				IAmb	IAmb	05 27 20.1	
	comp=Z,3.9nm,0.9s						
VYHS	Vyhne	78.97	348	eP	P	05 26 58.5	+3.4
GERES	GERESS Array B	79.17	352	P	P	05 26 54.5	-1.7
	comp=Z,0.4nm,0.2s,baz=8.5,slow=5.7,SNR=3.2						
	comp=Z,0.4nm,0.2s						
KBA	Koelnbreinsper	80.96	352	P	P	05 27 05.7	-0.4
	comp=Z,8.9nm,1.0s						
GNI	Garni	80.98	328	LR	LR	06 07 02.0	
	comp=Z,34nm,20.2s,baz=6.5,slow=39						
WB0	Warramunga Arr	82.29	224	P	P	05 27 12.5	-0.6
WB0				IAmb	IAmb	05 27 13.2	
	comp=Z,6.3nm,0.8s						
WRA	Warramunga Arr	82.47	224	P	P	05 27 13.7	-0.3
	comp=Z,3.8nm,0.7s,baz=35,slow=5.9,SNR=28						
	comp=Z,3.8nm,0.7s						
TEOL	Teolo	82.80	353	P	P	05 27 16.4	+0.8
JTS	Las Juntas de	84.17	81	LR	LR	06 05 13.5	
	comp=Z,21nm,19.6s,baz=333,slow=36						
BRTR	Keskin Array B	84.63	336	P	P	05 27 23.8	-1.4
	comp=Z,2.4nm,0.9s,baz=33,slow=2.9,SNR=6.9						
BRTR				LR	LR	06 08 35.4	
	comp=Z,11nm,18.4s,baz=126,slow=38						
	comp=Z,2.4nm,0.9s						
QLP	Quilpie	84.65	213	P	P	05 27 25.7	+0.7
	comp=Z,28nm,1.4s						
AS31	Alice Springs	85.95	223	P	P	05 27 32.0	+0.4
ASAR	Alice Springs	85.95	223	P	P	05 27 31.9	+0.3
	comp=Z,4.8nm,0.8s,baz=26,slow=5.7,SNR=62						
	comp=Z,4.8nm,0.8s						
ARMA	Armidale	86.00	206	P	P	05 27 33.3	+1.5
STKA	Stephens Creek	90.41	213	P	P	05 27 52.2	-0.4
	comp=Z,8.2nm,1.0s,baz=341,slow=6.0,SNR=13						
	comp=Z,8.2nm,1.0s						
ASF	Jabal al Asfar	90.79	331	LR	LR	06 14 38.7	
	comp=Z,22nm,18.2s,baz=26,slow=40						
EIL	Elat	93.71	331	LR	LR	06 14 40.6	
	comp=Z,34nm,19.9s,baz=92,slow=38						
H03N2	Juan Fernandez	121.07	106	T	T	07 45 47.4	
	baz=316,slow=78,SNR=43						
H03N1	Juan Fernandez	121.08	106	T	T	07 45 47.7	
	baz=316,slow=78,SNR=46						
H03N3	Juan Fernandez	121.08	106	T	T	07 45 26.7	
	baz=316,slow=78,SNR=49						
CPUP	Villa Florida	129.34	83	PKP	PKPdf	05 33 59.1	-0.7
	comp=Z,1.9nm,0.8s,baz=345,slow=7.9,SNR=6.3						
PLCA	Paso Flores	130.91	107	PKP	PKPdf	05 34 02.1	-0.4
	comp=Z,3.4nm,1.1s,baz=326,slow=2.6,SNR=6.5						
QSPA	South Pole Qui	141.57	180	PKhKP	PKPpre	05 34 15.0	
	comp=Z,4.2nm,0.8s,baz=315,slow=1.4,SNR=18						
QSPA				PKP	PKPdf	05 34 21.1	-0.3
	comp=Z,3.2nm,0.7s,baz=87,slow=1.3,SNR=9.3						
MAW	Mawson	146.96	218	PKPbc	PKPbc	05 34 32.6	0.0
	comp=Z,4.2nm,0.6s,baz=105,slow=2.8,SNR=22						
BOSA	Boshof	150.82	313	PKPbc	PKPbc	05 34 42.4	-1.6
	comp=Z,3.4nm,0.8s,baz=66,slow=1.7,SNR=5.6						
VNA3	Neumayer Olymp	159.86	169	⇓PKPab	PKPab	05 35 28.6	+0.1
	comp=Z,5.3nm,0.9s						
VNA2	Neumayer--Watz	160.40	171	⇓PKPab	PKPab	05 35 31.2	+0.4
	comp=Z,7.8nm,0.7s,baz=198,slow=2.7						
VNA1	Neumayer--Stat	160.58	170	⇓PKPab	PKPab	05 35 32.0	+0.5
	comp=Z,7.1nm,1.0s						

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*UCR **05** 05:21:37.7±0.7, 8°.33N×83°.02W, h8^{km}±3^{km}, MW4.1, Presumed earthquake*

*UPA **05** 05:21:37.9±1.0, 8°.34N×82°.97W, h11^{km}±1^{km}, MW4.0, Presumed earthquake*

*CATAC **05** 05:21:38.7±0.5, 8°N±3°×8°3W±°, h5^{km}±2^{km}, M3.7/11, MLv3.7/11, Error ellipse: s-maj=7.5km s-min=4.8km az=9.1, confirmed*

ISC 05 05:21:35.3±1.2**, 8°.25N**±0°.04×**83°.10W**±0°.02**, h17**^{km}±8^{km}**,**
n72, σ0^{s}.89/92**, 3C-15D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTPM	Petroterminale	0.22	100	⇑iP	Pb	05 21 42.4	+1.4
PTPM				eS	Sb	05 21 45.8	+1.1
PTPA	Petro Terminal	0.23	101	eP	Pb	05 21 42.3	+1.2
PTPA				eS	Sb	05 21 46.9	+1.9
LIMO3	Limones	0.27	121	⇓iP	Pn	05 21 43.9	-0.7
LIMO3				eS	Sb	05 21 47.3	+1.1
LMNES	Limones	0.28	121	eP	Pn	05 21 43.9	-0.8
PIRO	Carate, Puerto	0.28	304	P	Pn	05 21 44.5	-0.3
PIRO	Carate, Puerto	0.28	304	eP	Pn	05 21 44.4	-0.3
PIRO	Carate, Puerto	0.28	304	⇓iP	Pn	05 21 44.5	-0.3
PIRO				eS	Sn	05 21 51.1	+0.4
JIME	Puerto Jimenez	0.37	323	eP	Pn	05 21 45.2	-0.7
CDITO	Canoas	0.40	35	P	Pg	05 21 43.6	+0.2
CDITO				S	Sg	05 21 49.2	+0.3
NELY	Ciudad Neily	0.43	21	eP	Pb	05 21 44.6	+0.1
VITO	San Vito	0.58	13	eP	Pb	05 21 47.8	+0.6
VITO				eS	Sb	05 21 56.3	+1.0
VITO	San Vito	0.58	13	⇓iP	Pb	05 21 47.9	+0.6
MLIR3	Monte Lirio, C	0.61	27	⇓iP	Pb	05 21 48.2	+0.6
MLIR3				eS	Sg	05 21 55.4	-0.2
SCLRA	Santa Clara, W	0.66	28	eP	Pb	05 21 49.0	+0.4
SCLRA	Santa Clara, W	0.66	28	⇓iP	Pb	05 21 49.0	+0.4
DVD	David	0.67	73	⇓iP	Pb	05 21 48.6	+0.1
DVD				eS	Sg	05 21 56.4	-1.0
BRU2	Volcan	0.68	37	P	Pg	05 21 49.0	+0.3
BRU2	Volcan	0.68	37	eP	Pg	05 21 49.0	+0.3
BRU2	Volcan	0.68	37	⇓iP	Pg	05 21 49.0	+0.3
BRU2				eS	Sg	05 21 57.8	0.0
CLLRA	Cordillera,	0.69	44	eP	Pg	05 21 49.2	+0.3
CLLRA	Cordillera,	0.69	44	⇓iP	Pg	05 21 49.2	+0.3
LOMA3	Las Lomas, Chi	0.73	75	⇑iP	Pb	05 21 49.8	+0.3
PTAR3	Potrerillos Ar	0.74	53	⇑iP	Pg	05 21 50.1	+0.2
PTAR3				eS	Sg	05 21 58.6	-1.2
EDP2	Potrero Grande	0.77	354	eP	Pn	05 21 51.3	-0.2
CHIR3	Chiriqui UPA,	0.78	79	eP	Pb	05 21 50.6	+0.2
CHIR3				eS	Sg	05 21 59.9	-0.9
PANP	Palmar Norte	0.80	333	eP	Pn	05 21 51.7	-0.1
BQTLY	Boquete Panama	0.81	51	eP	Pb	05 21 50.9	-0.2
BQTLY	Boquete Panama	0.81	51	⇓iP	Pb	05 21 50.9	-0.2
BQSF3	Alto Boquete,	0.82	53	⇓iP	Pb	05 21 51.0	-0.3
BQSF3				eS	Sg	05 22 01.5	-0.8
LNBQ3	Los Naranjos,	0.85	50	⇓iP	Pb	05 21 51.2	-0.5
LNBQ3				eS	Sb	05 22 02.6	-0.3
BURE	Buenos Aires	0.95	346	eP	Pn	05 21 54.2	+0.2
EDPE	Pejibaye, P	1.02	333	eP	Pg	05 21 55.4	+0.3
DRK0	Durika	1.02	352	S	Pn	05 21 55.6	+0.5
DRK0	Durika	1.02	352	⇓iP	Pb	05 21 41.6	-13
DRK0				eS	Sb	05 21 55.5	-12
RBALA	Bur	1.13	56	eP	Pn	05 21 55.9	-0.5
RBALA	Bur	1.13	56	⇓iP	Pn	05 21 56.0	-0.4
RBALA				eS	Sb	05 22 09.9	-1.0
SAJE	San Jernim	1.17	340	eP	Pg	05 21 57.8	-0.1
CHGR2	Aguacate	1.17	54	eP	Pn	05 21 56.5	-0.5
CHGR2				eS	Sb	05 22 10.6	-1.4
CNI2	El Empalme, Bo	1.33	28	i P	Pn	05 21 59.3	+0.2
CNI2				eS	Sn	05 22 15.1	-1.3
CEUA	Cerro Uatsi, L	1.38	7	eP	Pg	05 22 02.5	+0.7
KKNTU	Kakintº	1.41	65	eP	Pn	05 22 00.1	-0.2
KKNTU	Kakintº	1.41	65	⇓iP	Pn	05 22 00.1	-0.2
RGM0	Gandoca	1.42	20	P	Pg	05 22 03.1	+0.3
RGM0				S	Sn	05 22 19.3	+0.4
RGM0	Gandoca	1.42	20	eP	Pn	05 22 00.8	+0.3
QUEP	Quepos	1.58	318	P	Pg	05 22 05.9	+0.2
QUEP				S	Sg	05 22 28.6	+2.2
PIEC	Cerro El Cedra	1.61	328	eP	Pg	05 22 06.0	-0.3
LCR2	La Lucha 2	1.74	329	P	Pb	05 22 07.4	+0.5
LCR2				S	Sg	05 22 32.1	+0.8
LCR2	La Lucha 2	1.74	329	eP	Pb	05 22 07.4	+0.5
LCR2	La Lucha 2	1.74	329	⇓eP	Pb	05 22 07.4	+0.5
PCAYA	Pacayas	1.80	337	eP	Pb	05 22 08.5	+0.4
VTCV	VTCV, Calle Va	1.83	340	eP	Pb	05 22 09.2	+0.6
ABRB	Las Abras (San	1.85	341	eP	Pb	05 22 09.6	+0.7
ACOS	Acosta	1.87	326	eP	Pb	05 22 09.9	+0.8
LCOCO	El Coco	1.88	346	eP	Pb	05 22 10.0	+0.7
GMAL	Guarumal, Vera	1.91	104	eP	Pn	05 22 07.6	+0.5
GMAL	Guarumal, Vera	1.91	104	eP	Pn	05 22 07.6	+0.4
RSUS3	Rio de Jesus,	1.94	98	eP	Pb	05 22 09.3	-1.0
SAFE3	Santa Fe, Vera	2.02	82	eP	Pn	05 22 09.3	+0.6
BELE	Belen	2.03	328	eP	Pb	05 22 12.7	+0.9
STIA3	Santiago, Vera	2.11	94	eP	Pn	05 22 10.6	+0.7
TRB2	Turrubares	2.13	321	P	Pb	05 22 14.3	+0.8
TRB2				S	Sg	05 22 42.1	-1.7
TCS1	Tacares	2.14	327	P	Pb	05 22 14.8	+1.0
CACAO	El Cacao, Vera	2.39	112	eP	Pn	05 22 15.1	+1.3
CHIT3	Chitre	2.67	96	eP	Pn	05 22 18.5	+0.9
ARE1	Arenal 1	2.72	324	eP	Pb	05 22 23.8	+0.2
VARE2	V. Arenal	2.72	324	eP	Pb	05 22 23.7	0.0
JTS	Las Juntas de	2.73	318	eP	Pb	05 22 21.6	-2.2
AZU	Azuero	2.83	99	eP	Pb	05 22 23.4	-2.1
AZU	Azuero	2.83	99	eP	Pn	05 22 21.4	+1.6
JUD3	Juan Diaz 3	3.07	309	eP	Pb	05 22 27.0	-2.6
VMAR	Armenia, Volca	3.23	322	eP	Pb	05 22 30.6	-1.7
BCIP	Isla Barro Col	3.35	74	eP	Pn	05 22 28.5	+1.5
BCIP				eS	Sn	05 23 05.4	-1.1

BER 05 05:25:42.5±3.3**, 75°.26N**×**7°.95E, h10**^{km}**, Mw3.7,**
Confirmed Earthquake, Greenland Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BJO1	Bjornoya	2.99	99	eP	Pn	05 26 29.3	-0.6
BJO1				i		05 27 00.7	
BJO1				IAML		05 27 03.7	
	comp=Z,8.9nm,0.7s						
BEA1	Bear Island, N	3.00	99	eP	Pn	05 26 29.6	-0.3
BEA1				eS	Sn	05 27 00.9	-4.9
BEA1				IAML		05 27 11.2	
	comp=Z,9.2nm,0.8s						
BRBA	Barentsburg A	3.17	24	eP	Pn	05 26 31.5	-0.8
BRBA				eS	Sn	05 27 05.3	-4.7
BRBA				IAML		05 27 08.4	
	comp=Z,4.3nm,0.6s						
BRBB	Barentsburg B	3.20	24	eP	Pn	05 26 31.8	-0.8
SPA0	Spitsbergen Ar	3.52	29	eP	Pn	05 26 37.4	+0.3
SPA0				eS	Sn	05 27 14.5	-4.2
SPA0				IAML		05 27 17.3	
	comp=Z,4.6nm,0.4s						
KBS	Kingsbay	3.79	12	eP	Pn	05 26 40.7	-0.2
KBS				eS	Sn	05 27 19.5	-6.0
KBS				IAML		05 27 24.4	
	comp=Z,3.5nm,0.5s						
HOPEN	Hopen	4.36	65	eP	Pn	05 26 48.1	-0.4
HOPEN				eS	Sn	05 27 33.1	-6.1
HOPEN				IAML		05 27 40.5	
	comp=Z,13nm,0.7s						
DAG	Danmarks Havn	6.58	296	eS	Sn	05 28 24.0	-10
DBG	Daneborg	7.43	276	eP	Pn	05 27 27.4	-3.3
DBG				eS	Sn	05 28 44.4	-10

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*IDC **05** 05:38:12.6±0.7, 8°.38N×82°.74W, h0^{km}, mb3.9/9, mbtmp3.9/15, ML3.0/5, MS3.3/5, Error ellipse: s-maj=27.1km s-min=11.5km az=48.0*

*UCR **05** 05:38:13.7±0.8, 8°.28N×82°.97W, h14^{km}±7^{km}, MW4.6, Presumed earthquake*

*UPA **05** 05:38:14.1±1.0, 8°.33N×82°.92W, h7^{km}±2^{km}, MW4.6, Presumed earthquake*

*CATAC **05** 05:38:15.3±0.4, 8°N±3°×8°3W±°, h4^{km}±1^{km}, M4.9/19, mB5.4/4, mb5.6/4, MLv4.6/19, Mw(mB)4.9/4, Error ellipse: s-maj=6.1km s-min=3.0km az=5.6, confirmed*

*NEIC **05** 05:38:15.1±2.0, 8°.37N±0°.07×82°.92W±0°.04, h5^{km}±2^{km}, mb4.5/18, Error ellipse: s-maj=10.8km s-min=6.0km az=191.0*

ISC 05 05:38:14.7±0.7**, 8°.30N**±0°.02×**82°.94W**±0°.02**, h14**^{km}±5^{km}**,**
n135, σ1^{s}.29/162**, mb4.4**/16**, MS3.4**/4**, 2C-11D,**
Panama-Costa Rica border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTPM	Petroterminale	0.11	146	⇑iP	Pg	05 38 17.4	-0.5
PTPM				eS	Sg	05 38 20.2	0.0
PTPA	Petro Terminal	0.12	144	eP	Pg	05 38 17.4	-0.7
PTPA				eS	Sg	05 38 21.1	+0.8
LIMO3	Limones	0.21	159	⇑iP	Pg	05 38 18.9	-0.5
LIMO3				eS	Sg	05 38 23.4	+0.9
LMNES	Limones	0.21	158	eP	Pg	05 38 18.9	-0.5
CDITO	Canoas	0.28	14	P	Pg	05 38 20.1	-0.6
CDITO				S	Sb	05 38 25.8	-0.4
NELY	Ciudad Neily	0.35	359	eP	Pg	05 38 21.1	-0.8
NELY				eS	Sg	05 38 27.2	+0.4
PIRO	Carate, Puerto	0.41	286		Pg	05 38 21.4	-1.4
PIRO				Sg	Sg	05 38 28.0	-0.4
PIRO	Carate, Puerto	0.41	286	P	Pg	05 38 21.5	-1.3
PIRO				S	Sg	05 38 27.4	-1.0
PIRO	Carate, Puerto	0.41	286	eP	Pg	05 38 21.5	-1.3
PIRO	Carate, Puerto	0.41	286	⇓iP	Pg	05 38 21.5	-1.3
PIRO				eS	Sb	05 38 29.1	-0.6
JIME	Puerto Jimenez	0.45	302	eP	Pg	05 38 22.4	-1.3
DVD	David	0.50	74	⇓iP	Pg	05 38 24.0	-0.7
DVD				eS	Sg	05 38 31.0	-0.4
MLIR3	Monte Lirio, C	0.51	13	⇓iP	Pg	05 38 24.5	-0.3
MLIR3				eS	Sg	05 38 31.3	-0.4
VITO	San Vito	0.52	357	eP	Pg	05 38 24.4	-0.7
CLLRA	Cordillera,	0.55	36	eP	Pg	05 38 25.1	-0.5
BRU2	Volcan	0.55	26		Pg	05 38 24.9	-0.7
BRU2	Volcan	0.55	26	P	Pg	05 38 25.2	-0.5
BRU2				S	Sb	05 38 34.7	+0.5
BRU2	Volcan	0.55	26	eP	Pg	05 38 25.1	-0.5
BRU2	Volcan	0.55	26	⇓iP	Pg	05 38 25.1	-0.5
BRU2				eS	Sg	05 38 33.2	+0.1
SCLRA	Santa Clara, W	0.56	16	eP	Pg	05 38 25.3	-0.4
LOMA3	Las Lomas, Chi	0.56	76	⇓iP	Pg	05 38 24.8	-0.9
LOMA3				eS	Sg	05 38 33.7	+0.5
PTAR3	Potrerillos Ar	0.59	48	⇓iP	Pg	05 38 25.7	-0.6
PTAR3				eS	Sg	05 38 34.4	+0.1
CHIR3	Chiriqui UPA,	0.61	81	⇓iP	Pg	05 38 25.7	-1.0
CHIR3				eS	Sg	05 38 34.7	-0.2
BQTLY	Boquete Panama	0.66	46	eP	Pg	05 38 26.6	-1.0
BQSF3	Alto Boquete,	0.67	48	⇓iP	Pg	05 38 26.7	-1.1
BQSF3				eS	Sg	05 38 36.5	-0.2
LNBQ3	Los Naranjos,	0.70	45	i P	Pg	05 38 27.0	-1.4
LNBQ3				eS	Sg	05 38 37.5	-0.1
EDP2	Potrero Grande	0.75	342	eP	Pg	05 38 28.0	-1.4
PANP	Palmar Norte	0.84	322	eP	Pg	05 38 28.5	-2.4
BURE	Buenos Aires	0.96	336	eP	Pb	05 38 31.0	-2.1
RBALA	Bur	0.97	53	eP	Pb	05 38 31.6	-1.7
DRK0	Durika	1.01	343	⇓iP	Pb	05 38 18.4	-16
DRK0				eS	Sb	05 38 32.7	-14
CHGR2	Aguacate	1.01	51	eP	Pb	05 38 32.0	-2.0
EDPE	Pejibaye, P	1.06	324	eP	Pb	05 38 32.4	-2.5
SAJE	San Jernim	1.19	332	eP	Pb	05 38 34.4	-2.6
CNI2	El Empalme, Bo	1.21	22	⇓iP	Pn	05 38 35.6	-1.6
CNI2				eS	Sb	05 38 51.0	-2.0
KKNTU	Kakintº	1.25	64	eP	Pn	05 38 35.4	-2.2
CEUA	Cerro Uatsi, L	1.32	0	eP	Pb	05 38 39.1	-0.1
RGM0	Gandoca	1.33	14		Pn	05 38 38.8	0.0
RGM0	Gandoca	1.33	14	P	Pn	05 38 39.0	+0.2
RGM0				S	Sg	05 38 57.8	+0.2
RGM0	Gandoca	1.33	14	eP	Pn	05 38 39.0	+0.2
RGM0	Gandoca	1.33	14	⇓iP	Pn	05 38 39.0	+0.2
RGM0				eS	Sb	05 38 54.6	-1.6
PVID3	Puerto Vidal,	1.34	100	eP	Pn	05 38 37.3	-1.6
PVID3				eS	Sn	05 38 56.0	-0.6
QUEP	Quepos	1.65	313	P	Pn	05 38 42.5	-0.8
QUEP				S	Sb	05 39 05.2	-0.4
GMAL	Guarumal, Vera	1.77	107	eP	Pn	05 38 44.1	-0.8
ABE2	San Pablo	1.78	322	eP	Pn	05 38 45.0	-0.2
LCR2	La Lucha 2	1.78	324		Pn	05 38 44.2	-1.0
LCR2	La Lucha 2	1.78	324	P	Pn	05 38 44.8	-0.5
LCR2				S	Sb	05 39 09.2	-0.3
LCR2	La Lucha 2	1.78	324	eP	Pn	05 38 44.1	-1.1
RSUS3	Rio de Jesus,	1.79	100	eP	Pn	05 38 43.8	-1.3
PCAYA	Pacayas	1.83	332	eP	Pn	05 38 45.7	-0.2
SAFE3	Santa Fe, Vera	1.86	83	eP	Pn	05 38 45.1	-0.9
RAFA	San Farael, Vo	1.86	333	Pn	Pb	05 38 48.8	+0.1
ABRB	Las Abras (San	1.86	336	eP	Pn	05 38 46.3	-0.1
ACOS	Acosta	1.92	321	eP	Pn	05 38 46.7	-0.4
STIA3	Santiago, Vera	1.96	96	eP	Pn	05 38 46.6	-0.9
HDC	Heredia	2.05	326		Pn	05 38 48.7	-0.2
CALO3	Calobre, Verag	2.08	89	eP	Pn	05 38 48.7	-0.4
TCS1	Tacares	2.19	322	P	Pn	05 38 52.3	+1.5
CACAO	El Cacao, Vera	2.27	114	eP	Pn	05 38 51.7	0.0
CACAO				eS	Sn	05 39 19.6	+0.1
CHIT3	Chitre	2.52	97	eP	Pn	05 38 54.9	-0.3
CHIT3				eS	Sn	05 39 26.2	+0.5
PNME	Penonome	2.59	86	eP	Pn	05 38 55.7	-0.5
TOSI3	Tonosi	2.63	109	eP	Pn	05 38 56.5	-0.2
AZU	Azuero	2.69	101	eP	Pn	05 38 58.0	+0.5
AZU				eS	Sn	05 39 29.8	-0.1
JTS	Las Juntas de	2.81	315	Pn	Pn	05 38 59.8	+0.6
	314nm,0.5s,baz=163,slow=11,SNR=351						
JTS				Sn	Sn	05 39 31.9	-1.0
	31nm,0.3s,baz=41,slow=19,SNR=6.4						
JTS	Las Juntas de	2.81	315		Pn	05 38 59.1	-0.1
JTS	Las Juntas de	2.81	315	S	Sn	05 39 34.9	+2.1
JTS	Las Juntas de	2.81	315	eP	Pn	05 38 58.6	-0.6
JTS				eS	Sn	05 39 33.6	+0.7
COVE	Coope Vega, Sa	2.81	329	P	Pn	05 39 00.9	+1.7
ACHO3	Achotines, Los	2.88	107	eP	Pn	05 39 00.2	+0.1
CMARA	Lajas Hojancha	2.99	305	P	Pn	05 39 01.1	-0.6
CMARA	Lajas Hojancha	2.99	305	eP	Pn	05 39 01.5	-0.3
JUD3	Juan Diaz 3	3.17	306		Pn	05 39 03.8	-0.4
BCIP	Isla Barro Col	3.19	74		Pn	05 39 04.7	+0.3
BCIP	Isla Barro Col	3.19	74	eP	Pn	05 39 04.0	-0.3
BCIP				eS	Sn	05 39 41.5	-0.7
GAMB1	Gamboa	3.30	75	eP	Pn	05 39 06.0	+0.1
FRIJ	El Hiral	3.31	74	eP	Pn	05 39 06.1	+0.1
FLAM	Flamenco Islan	3.42	79	eP	Pn	05 39 07.2	-0.4
UPA	Univ. de Panam	3.44	78	eP	Pn	05 39 07.1	-0.7
CARN	Rivas	3.84	319		Pn	05 39 15.2	+1.9
CARN	Rivas	3.84	319	P	Pn	05 39 15.4	+2.1
CARN				S	Sn	05 40 01.0	+2.7
OMEN	Al SSO del Vol	4.15	321	P	Pn	05 39 18.0	+0.4
ACON	Acoyapa	4.26	329	P	Pn	05 39 21.7	+2.6
ACON				S	Sn	05 40 11.0	+2.3
NANN	Nandasmo	4.79	319	P	Pn	05 39 28.1	+1.7
BOAB	BOACO BROADBAN	4.92	327		Pn	05 39 29.0	+0.7
BOAB	BOACO BROADBAN	4.92	327	P	Pn	05 39 29.1	+0.9
BOAB				S	Sn	05 40 26.6	+1.6
MGAN	Managua	5.02	320		Pn	05 39 31.5	+1.8
PRVC	Isla de Provid	5.28	17	P	Pn	05 39 34.1	+0.9
PRVC				S	Sn	05 40 36.6	+2.7
MATN	Matagalpa	5.46	328	P	Pn	05 39 37.0	+1.3
CNGA	Al SSO del Vol	5.58	319	P	Pn	05 39 39.5	+2.2
CNGN	Cerro Negro	5.58	319	P	Pn	05 39 39.1	+1.8
SIUN	Universidad Ur	5.68	342		Pn	05 39 39.4	+0.7
CRIN	San Cristobal	5.96	318		Pn	05 39 42.4	-0.1
RCVN	Varillal2	6.15	329	P	Pn	05 39 47.8	+2.6
MTO3	Montecristo	8.74	315		Pn	05 40 22.1	+1.1
OTAV	Otavalo	9.17	151		Pn	05 40 28.4	+1.4
ROSC	El Rosal	9.22	111	Pn	Pn	05 40 30.1	+2.4
	1.0nm,0.3s,baz=322,slow=24,SNR=1.5						
	3.6nm,0.3s						
ROSC				AML	AML		
APG	El Apazote	9.94	313	Pn	Pn	05 40 40.0	+2.7
	0.1nm,0.3s,baz=122,slow=11,SNR=6.4						
APG				LR	LR	05 44 21.8	
	comp=Z,7.3nm,21.2s,baz=329,slow=37						
	0.9nm,0.7s						
APG				AML	AML		
SLOR	San Lorenzo -	10.00	154		Pn	05 40 42.4	+3.9
SDV	Santo Domingo	12.18	86	Pn	Pn	05 41 05.2	-2.9
	0.2nm,0.3s,baz=8.3,slow=20,SNR=1.3						
SDV				LR	LR	05 46 24.7	
	comp=Z,54nm,19.8s,baz=262,slow=41						
	0.9nm,0.4s						
SDV				AML	AML		
CMIG	Matias Romero	14.56	308	Pn	Pn	05 41 43.0	+2.6
	0.4nm,0.3s,baz=143,slow=8.0,SNR=4.5						
	1.4nm,0.4s						
CMIG				AML	AML		
ATAH	Atahualpa	15.98	163	Pn	P	05 42 02.4	-0.8
	0.3nm,0.3s,baz=323,slow=15,SNR=1.3						
	4.0nm,0.7s						
ATAH				AML	AML		
CELP	Cerrillos	18.64	57	P	P	05 42 32.3	+0.1
CELP				IAmb	IAmb	05 42 40.8	
	comp=Z,33nm,1.3s						
NNA	Nana	21.04	163	P	P	05 42 59.1	+0.8
	comp=Z,11nm,0.8s,baz=340,slow=11,SNR=4.5						
	comp=Z,11nm,0.8s						
152A	Waverly Hall	24.31	356	P	P	05 43 32.9	+1.0
LRAL	Lakeview Retre	24.90	352	P	P	05 43 37.7	+0.5
LRAL				IAmb	IAmb	05 43 42.1	
	comp=Z,11nm,1.1s						
GOGA	Godfrey	25.00	359	P	P	05 43 38.8	+0.7
GOGA				IAmb	IAmb	05 43 42.2	
	comp=Z,10nm,1.2s						
V48A	Smith Brothers	27.55	353	P	P	05 44 02.2	+1.1
MIAR	Mount Ida	27.90	341	P	P	05 44 05.8	+1.6
WHAR	Wooly Hollow	28.20	344		P	05 44 06.7	-0.3
WHAR				IAmb	IAmb	05 44 10.9	
	comp=Z,6.8nm,0.7s						
LPAZ	La Paz	28.49	149	P	P	05 44 10.9	+0.5
	comp=Z,0.9nm,0.9s,baz=354,slow=7.6,SNR=1.9						
	comp=Z,0.9nm,0.9s						
TXAR	Lajitas Array	28.59	320	P	P	05 44 12.8	+2.1
	comp=Z,0.3nm,1.0s,baz=150,slow=4.9,SNR=1.9						
	comp=Z,0.3nm,1.0s						
T42A	Van Buren	29.55	347		P	05 44 18.3	-0.6
T42A				IAmb	IAmb	05 44 21.1	
	comp=Z,7.9nm,0.9s						
CCM	Cathedral Cave	30.57	347	P	P	05 44 28.2	+0.3
N41A	Harden Midland	33.04	349	P	P	05 44 50.3	+0.7
L40A	Anamosa	34.42	349	P	P	05 45 01.2	-0.5
PFO	Pinyon Flats O	39.87	314	LR	LR	06 05 04.4	
	comp=Z,35nm,18.4s,baz=156,slow=40						
PDAR	Pinedale Array	41.54	330	P	P	05 46 01.8	-0.2
	comp=Z,0.5nm,0.7s,baz=126,slow=9.3,SNR=6.3						
	comp=Z,0.5nm,0.7s						
ULM	Lac du Bonnet	43.19	348	P	P	05 46 14.0	-1.0
	comp=Z,6.1nm,0.7s,baz=151,slow=7.2,SNR=12						
	comp=Z,6.1nm,0.7s						
NVAR	Mina Array Bea	43.73	319	P	P	05 46 21.1	+1.2
	comp=Z,0.6nm,0.7s,baz=92,slow=7.2,SNR=9.3						
	comp=Z,0.6nm,0.7s						
BCYI	Bear Canyon	44.59	329	P	P	05 46 27.5	+0.8
NEW	Newport	49.18	330	LR	LR	06 13 10.7	
	comp=Z,25nm,18.6s,baz=132,slow=43						
PLCA	Paso Flores	50.10	168	P	P	05 47 09.3	-0.1
	comp=Z,1.8nm,0.7s,baz=330,slow=8.4,SNR=9.8						
	comp=Z,1.8nm,0.7s						
FRB	Frobisher Bay	56.31	8	LR	LR	06 12 46.4	
	comp=Z,51nm,18.1s,baz=133,slow=37						
YKA	Yellowknife Ar	58.80	343	P	P	05 48 12.6	+0.3
	comp=Z,1.9nm,0.7s,baz=143,slow=7.1,SNR=14						
	comp=Z,1.9nm,0.7s						
I30M	Mount Dempster	67.76	339	P	P	05 49 12.5	+0.7
I30M				IAmb	IAmb	05 49 15.9	
	comp=Z,2.0nm,0.8s						
G31M	Satah River	67.95	341	P	P	05 49 14.8	+2.0
I27K	Kandik River	69.87	338	P	P	05 49 27.1	+2.3
I27K				IAmb	IAmb	05 49 36.5	
	comp=Z,4.5nm,0.9s						
J25K	Salcha River,	70.93	336	P	P	05 49 32.1	+0.7
J25K				IAmb	IAmb	05 49 41.4	
	comp=Z,3.1nm,1.0s						
ILAR	Eielson Array	71.59	336	P	P	05 49 35.7	+0.4
	comp=Z,1.2nm,0.7s,baz=113,slow=4.3,SNR=14						
	comp=Z,1.2nm,0.7s						
VRAC	Vranov	89.94	40	LR	LR	06 25 55.0	
	comp=Z,17nm,19.7s,baz=10.0,slow=32						
HHC	Hu-ho-hao-te	129.31	346	eP	PKPdf	05 57 18.7	-4.6
NJ2	Nanjing	134.80	334	eP	PKiKP	05 57 34.8	-0.4
NJ2				pmax	pmax		
	comp=Z,23nm,0.6s						
ASAR	Alice Springs	141.57	242	PKhKP	PKPpre	05 57 43.3	
	comp=Z,0.5nm,0.6s,baz=102,slow=3.0,SNR=6.5						
WRA	Warramunga Arr	142.13	248	PKP	PKPdf	05 57 45.4	-2.1
	comp=Z,0.3nm,0.7s,baz=106,slow=3.1,SNR=4.7						
PZH	PanZhiHua	145.11	353	P	PKPbc	05 57 49.7	-2.4

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*UPA **05** 06:03:33.9±1.0, 8°.35N×82°.99W, h1^{km}±6^{km}, MW3.4, Presumed earthquake*

*UCR **05** 06:03:34.2±0.6, 8°.29N×83°.00W, h5^{km}±4^{km}, MW3.6, Presumed earthquake*

ISC 05 06:03:34.6±1.2**, 8°.37N**±0°.04×**82°.97W**±0°.03**, h3**^{km}±16^{km}**,**
n26, σ0^{s}.59/30**, 2C, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTPM	Petroterminale	0.19	150	⇑iP	Pg	06 03 38.4	+0.2
PTPM				eS	Sg	06 03 41.4	+0.7
PTPA	Petro Terminal	0.20	148	eP	Pg	06 03 38.5	+0.1
NELY	Ciudad Neily	0.28	6	eP	Pb	06 03 41.6	-0.7

NELY				eS	Sb	06 03 48.1	+0.6
LIMO3	Limones	0.29	158	eP	Pg	06 03 40.0	-0.1
LMNES	Limones	0.29	157	eP	Pg	06 03 40.0	-0.2
PIRO	Carate, Puerto	0.36	276	eP	Pg	06 03 41.1	-0.4
PIRO	Carate, Puerto	0.36	276	⇑iP	Pg	06 03 41.2	-0.4
PIRO				eS	Sg	06 03 46.5	+0.2
MLIR3	Monte Lirio, C	0.45	19	eP	Pb	06 03 44.7	-0.6
BRU2	Volcan	0.51	33	eP	Pb	06 03 45.9	-0.4
BRU2	Volcan	0.51	33	eP	Pb	06 03 45.8	-0.5
BRU2				eS	Sb	06 03 55.3	+1.2
CLLRA	Cordillera,	0.52	44	eP	Pb	06 03 46.0	-0.4
DVD	David	0.52	83	eP	Pb	06 03 45.6	-0.8
PTAR3	Potrerillos Ar	0.57	56	eP	Pb	06 03 46.9	-0.4
LOMA3	Las Lomas, Chi	0.58	84	eP	Pb	06 03 47.2	-0.3
BQTLY	Boquete Panama	0.64	53	eP	Pb	06 03 48.1	-0.4
BQSF3	Alto Boquete,	0.65	55	eP	Pg	06 03 47.9	+0.8
LNBQ3	Los Naranjos,	0.67	51	eP	Pb	06 03 49.4	+0.3
PANP	Palmar Norte	0.76	321	eP	Pb	06 03 50.0	-0.5
BURE	Buenos Aires	0.88	336	eP	Pb	06 03 52.8	+0.3
RBALA	Bur	0.96	58	eP	Pg	06 03 53.0	+0.1
EDPE	Pejibaye, P	0.98	323	eP	Pg	06 03 53.7	+0.2
SAJE	San Jernim	1.11	331	eP	Pg	06 03 55.8	0.0
CNI2	El Empalme, Bo	1.16	25	eP	Pg	06 03 56.5	-0.4
KKNTU	Kakintº	1.25	68	eP	Pg	06 03 56.8	-1.7
PIEC	Cerro El Cedra	1.58	322	eP	Pn	06 04 03.6	-0.2
LCR2	La Lucha 2	1.70	323	eP	Pn	06 04 05.3	-0.2

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*UCR **05** 06:10:28.0±0.6, 8°.27N×83°.02W, h17^{km}±6^{km}, MW3.5, Presumed earthquake*
*UPA **05** 06:10:28.1±0.6, 8°.31N×83°.00W, h13^{km}±2^{km}, MW3.2, Presumed earthquake*
ISC 05 06:10:27.7±0.9**, 8°.30N**±0°.03×**83°.01W**±0°.03**, h13^{km}, n25, σ0^{s}.50**/32**, 1D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTPM	Petroterminale	0.16	125	iP	Pb	06 10 32.2	-0.4
PTPM				⇓iP	Pg	06 10 32.5	+1.0
PTPM				eS	Sb	06 10 35.8	0.0
PTPA	Petro Terminal	0.17	124	eP	Pb	06 10 32.5	-0.3
PTPA				eS	Sb	06 10 36.5	+0.4
LIMO3	Limones	0.24	143	eP	Pb	06 10 33.9	-0.1
LIMO3				eS	Sg	06 10 37.1	+0.7
LMNES	Limones	0.25	143	eP	Pb	06 10 33.7	-0.3
LMNES	Limones	0.25	143	iP	Pb	06 10 33.8	-0.2
PIRO	Carate, Puerto	0.34	288	eP	Pg	06 10 35.2	+0.6
PIRO	Carate, Puerto	0.34	288	eP	Pg	06 10 35.1	+0.4
PIRO				eS	Sb	06 10 40.7	-0.2
NELY	Ciudad Neily	0.36	10	eP	Pg	06 10 35.6	+0.7
NELY				eS	Sb	06 10 42.1	+0.6
VITO	San Vito	0.52	4	eP	Pb	06 10 39.3	+0.5
MLIR3	Monte Lirio, C	0.53	21	eP	Pb	06 10 39.1	+0.2
DVD	David	0.57	76	iP	Pg	06 10 39.2	+0.3
BRU2	Volcan	0.59	33	eP	Pg	06 10 39.8	+0.5
BRU2	Volcan	0.59	33	iP	Pb	06 10 40.0	0.0
BRU2				eS	Sb	06 10 48.8	+0.5
CLLRA	Cordillera,	0.59	41	iP	Pb	06 10 40.0	-0.1
LOMA3	Las Lomas, Chi	0.63	78	eP	Pg	06 10 40.0	+0.1
BQTLY	Boquete Panama	0.71	50	eP	Pg	06 10 41.6	0.0
BQTLY	Boquete Panama	0.71	50	iP	Pb	06 10 42.2	+0.1
EDP2	Potrero Grande	0.73	347	eP	Pg	06 10 42.3	+0.3
LNBQ3	Los Naranjos,	0.75	49	eP	Pg	06 10 42.5	+0.2
EDPE	Pejibaye, P	1.02	327	eP	Pb	06 10 46.6	-0.7
RBALA	Bur	1.03	56	eP	Pb	06 10 46.7	-0.7
RBALA	Bur	1.03	56	iP	Pb	06 10 46.8	-0.6
SAJE	San Jernim	1.15	335	eP	Pb	06 10 48.9	-0.8
KKNTU	Kakintº	1.31	66	eP	Pn	06 10 50.7	-1.0
LCR2	La Lucha 2	1.74	326	eP	Pn	06 10 57.6	-0.3

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*ISK **05** 06:18:22.1, 38°.14N×42°.62E, h3^{km}, ML2.9/9*
*AFAD **05** 06:18:23.1, 38°.12N×42°.63E, h7^{km}±2^{km}, ML2.9*
ISC 05 06:18:23.3±0.9**, 38°.14N**±0°.03×**42°.62E**±0°.02**, h12^{km}**±8^{km}**, n17, σ0^{s}.72**/28**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PERV	Siirt/Pervari-	0.20	197	P	Pg	06 18 27.5	-0.3
PERV				S	Sg	06 18 32.3	+1.4
PERV				IAML		06 18 34.0	
	comp=E,6µm,0.4s						
PERV				IAML		06 18 36.0	
	comp=N,3µm,0.4s						
AKDM	Akdamar-Van	0.34	57	Pg	Pg	06 18 29.6	-0.6
AKDM				Sg	Sg	06 18 35.2	+0.3
AKDM				AML	AML		
GEVA	Gevas	0.39	64	P	Pg	06 18 30.5	-0.6
GEVA				S	Sg	06 18 36.8	+0.5
GEVA				IAML		06 18 38.0	
	comp=N,3µm,0.3s						
GEVA				IAML		06 18 38.0	
	comp=E,3µm,0.3s						
BLIS	Bitlis-Merkez	0.48	305	P	Pg	06 18 32.1	-0.7
BLIS				S	Sg	06 18 39.7	+0.5
BLIS				IAML		06 18 41.0	
	comp=N,821nm,0.2s						
BLIS				IAML		06 18 41.0	
	comp=E,868nm,0.5s						
SRTM	Siirt_Merkez	0.57	255	P	Pb	06 18 34.8	-0.6
SRTM				S	Sb	06 18 43.1	-0.3
SRTM				IAML		06 18 44.0	
	comp=N,1µm,0.6s						
SRTM				IAML		06 18 46.0	
	comp=E,718nm,0.6s						
GURO	Guroymak-BITLI	0.61	312	Pg	Pg	06 18 34.7	-0.6
GURO				Sg	Sg	06 18 43.7	+0.2
GURO				AML	AML		
ADCV	BITLIS_Adilcev	0.67	7	P	Pg	06 18 36.2	-0.2
ADCV				S	Sb	06 18 46.5	0.0
ADCV				IAML		06 18 47.0	
	comp=N,494nm,0.2s						
ADCV				IAML		06 18 47.0	
	comp=E,550nm,0.4s						
HAKT	HAKKARI	1.04	124	P	Pb	06 18 42.8	-0.7
HAKT				S	Sn	06 18 59.9	+1.3
HAKT				IAML		06 19 03.0	
	comp=N,219nm,0.9s						
HAKT				IAML		06 19 08.0	
	comp=E,258nm,0.5s						
BTMN	Batman	1.09	257	P	Pb	06 18 44.3	+0.1
BTMN				S	Sn	06 18 60.0	+0.3
BTMN				IAML		06 19 01.0	
	comp=N,410nm,0.5s						
BTMN				IAML		06 19 01.0	
	comp=E,574nm,0.6s						
SVAN	Silvan-Diyarba	1.12	271	Pn	Pg	06 18 44.2	-0.6
SVAN				Sn	Sn	06 19 00.4	+0.1
SVAN				AML	AML		
CUKT	Cukurca	1.19	138	Pn	Pg	06 18 44.8	-1.4
CUKT				AML	AML		
MIDY	Mardin/Midyat-	1.21	233	P	Pn	06 18 46.6	+0.4
MIDY				S	Sn	06 19 03.5	+0.9
MIDY				IAML		06 19 08.0	
	comp=E,211nm,0.3s						
MIDY				IAML		06 19 10.0	
	comp=N,262nm,0.6s						
CLDR	Caldiran	1.43	45	Pn	Pb	06 18 49.8	-0.2
CLDR				AML	AML		
AGRB	Hanur-Agry	1.46	11	Pn	Pn	06 18 50.0	+0.3
AGRB				AML	AML		
BNGB	Bingl	1.74	300	Pn	Pb	06 18 54.5	-0.8
BNGB				AML	AML		
KOPR	Koprukoy-ERZUR	1.94	342	Pn	Pn	06 18 56.9	+0.6
KOPR				AML	AML		
DYBB	Diyarbakir	1.96	265	Pn	Pb	06 18 58.1	-1.0
DYBB				AML	AML		

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*RSPR **05** 06:31:47.9, 19°.14N×64°.33W, h33^{km}±24^{km}, MD3.7/15*
*NEIC **05** 06:31:50.1±1.3, 19°.0N±0°.1×64°.67W±0°.03, h20^{km}±5^{km}, ML3.4/41, Md3.7/15(RSPR), Error ellipse: s-maj=16.3km s-min=4.5km az=180.0*
ISC 05 06:31:51.6±1.8**, 19°.0N**±0°.1×**64°.57W**±0°.05**, h35^{km}, n45, σ1^{s}.61**/53**, 8C-5D, Virgin Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HUMP	Col San Antoni	1.49	235		Pn	06 32 14.4	-1.5
HUMP				Sn	Sn	06 32 32.7	-1.4
HUMP	Col San Antoni	1.49	235	⇓eP	Pn	06 32 14.3	-1.5
PDPR	Patillas Dam,	1.69	235		Pn	06 32 17.2	-1.5
PDPR				Sn	Sn	06 32 37.6	-1.5
PDPR	Patillas Dam,	1.69	235	⇑eP	Pn	06 32 17.9	-0.8
SMRT	St. Maarten	1.71	124		Pn	06 32 17.9	-0.9
SMRT				Sn	Sn	06 32 40.9	+1.4
SMRT				IAML		06 32 51.1	
	comp=N,303nm,0.6s						
SMRT				IAML		06 32 51.6	
	comp=E,294nm,0.3s						
IGPR	InterUniversit	1.79	235		Pn	06 32 19.1	-0.9
IGPR					Sn	06 32 43.4	+1.9
IGPR	InterUniversit	1.79	235	⇓eP	Pn	06 32 19.1	-0.9
ECPR	Experimental S	1.83	248		Pn	06 32 18.7	-1.9
ECPR				Sn	Sn	06 32 40.2	-2.4
ECPR				IAML		06 32 50.1	
	comp=E,324nm,0.3s						
ECPR				IAML		06 32 50.8	
	comp=E,451nm,0.3s						
ECPR	Experimental S	1.83	248	⇓eP	Pn	06 32 19.5	-1.1
SABA	Saba	1.87	137		Pn	06 32 20.8	-0.2
SABA				IAML		06 32 56.6	
	comp=N,294nm,0.7s						
EMPR	Esperanza - Ma	1.93	255		Pn	06 32 20.6	-1.3
EMPR					Sn	06 32 46.1	+1.1
EMPR	Esperanza - Ma	1.93	255	⇑eP	Pn	06 32 20.6	-1.3
EMPR				eS	Sn	06 32 46.1	+1.1
CELP	Cerrillos	2.12	244		Pn	06 32 23.3	-1.3
CELP				IAML		06 32 54.3	
	comp=N,286nm,0.7s						
CELP	Cerrillos	2.12	244		Sn	06 32 51.3	+1.6
CELP	Cerrillos	2.12	244	⇑eP	Pn	06 32 23.8	-0.8
OBIP	Obispado Ponce	2.16	244	Pn	Pn	06 32 23.6	-1.4
OBIP	Obispado Ponce	2.16	244		Sn	06 32 52.1	+1.5
OBIP	Obispado Ponce	2.16	244	IAML		06 32 54.5	
	comp=N,75nm,0.7s						
OBIP	Obispado Ponce	2.16	244	⇑eP	Pn	06 32 24.4	-0.7
OBIP				eS	Sn	06 32 52.1	+1.5
AOPR	Arecibo Observ	2.17	253		Pn	06 32 23.3	-2.0
AOPR				IAML		06 33 04.9	
	comp=N,307nm,0.8s						
AOPR	Arecibo Observ	2.17	253		Sn	06 32 53.2	+2.2
AOPR	Arecibo Observ	2.17	253	⇓eP	Pn	06 32 24.3	-1.0
GBPR	Guanica, Bosqu	2.42	245		Sn	06 32 59.7	+2.6
GBPR	Guanica, Bosqu	2.42	245	eS	Sn	06 32 59.7	+2.6
AGPR	Aguadilla, PR	2.47	258		Pn	06 32 27.1	-2.3
AGPR				IAML		06 33 19.9	
	comp=N,187nm,0.9s						
AGPR	Aguadilla, PR	2.47	258		Sn	06 33 00.4	+2.1
AGPR	Aguadilla, PR	2.47	258	⇓eP	Pn	06 32 27.6	-1.8
LSP	Las Mesas	2.53	251		Pn	06 32 29.7	-0.5
LSP					Sn	06 33 01.9	+2.1
LSP	Las Mesas	2.53	251	⇑eP	Pn	06 32 29.7	-0.5
LSP				eS	Sn	06 33 01.9	+2.1
MLPR	Magueyes Islan	2.57	247		Pn	06 32 29.4	-1.3
MLPR				IAML		06 33 07.0	
	comp=N,121nm,0.6s						
MLPR	Magueyes Islan	2.57	247		Sn	06 33 02.4	+1.7
MLPR	Magueyes Islan	2.57	247	⇑eP	Pn	06 32 29.8	-0.9
PRSN	Puerto Rico Se	2.57	253		Pn	06 32 28.9	-1.8
PRSN				IAML		06 33 15.7	
	comp=N,324nm,0.3s						
PRSN	Puerto Rico Se	2.57	253		Sn	06 33 02.6	+2.0
CRPR	Cabo Rojo, PR	2.61	248		Pn	06 32 30.2	-1.0
CRPR				IAML		06 33 12.6	
	comp=N,123nm,0.9s						
CRPR	Cabo Rojo, PR	2.61	248		Sn	06 33 03.6	+1.9
CRPR	Cabo Rojo, PR	2.61	248	⇑eP	Pn	06 32 30.2	-1.0
IDE	Isla Desecheo	2.82	258		Pn	06 32 32.6	-1.6
IDE					Sn	06 33 09.0	+2.0
IDE	Isla Desecheo	2.82	258	⇑eP	Pn	06 32 32.6	-1.6
IDE				eS	Sn	06 33 09.0	+2.0
ABD	La Joyeuse, An	3.87	130	Pn	Pn	06 32 49.2	+0.7
CBE	Ff, Capester	4.06	135	Pn	Pn	06 32 50.6	-0.7
MAGL	Barre de l'ile	4.37	134	Pn	Pn	06 32 56.9	+1.5
BANI	BANI	5.52	265	Pn	Pn	06 33 11.2	-0.2
SC01	Santiago de lo	5.84	275	Pn	Pn	06 33 14.2	-1.5
SDDR	Presa de Saban	6.36	271		Pn	06 33 21.2	-1.7

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*VAO **05** 06:39:37.3±0.3, 28°.11S×72°.10W, h10^{km}, mb4.9, Presumed earthquake*
*SJA **05** 06:39:38.4±1.3, 27°.95S×71°.83W, h20^{km}±5^{km}, ML4.9, MW5.1*
*NEIC **05** 06:39:40.7, 27°.95S×71°.68W, h10^{km}*
*GFZ **05** 06:39:40.5±0.2, 28°S±2°×7°2W±°, h10^{km}, M4.7/24, mb4.9/24*
*IDC **05** 06:39:40.7±0.5, 27°.88S×71°.51W, h0^{km}, mb4.5/14, mbtmp4.4/20, ML4.0/6, MS4.0/37, Error ellipse: s-maj=13.3km s-min=9.4km az=80.0*
*GUC **05** 06:39:41.7±0.8, 28°.01S×71°.71W, h29^{km}±4^{km}, ML4.6*
*NEIC **05** 06:39:42.0±1.4, 27°.94S±0°.03×71°.59W±0°.04, h11^{km}±2^{km}, mb4.9/46, Mwr4.8/31, Mwr4.9(GUC), Error ellipse: s-maj=5.3km s-min=3.8km az=63.0, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M$_{rr}$1.18; M$_{\theta\theta}$0.31; M$_{\phi\phi}$-1.49; M$_{r\theta}$-0.13; M$_{\theta\phi}$-0.47; M$_{\phi r}$-1.35; Fault plane solution: M$_0$1.98000×10^{16} NP1:ϕ_s186.68000°, δ67.39000°, λ82.91000°. NP2:ϕ_s24.60000°, δ23.64000°, λ106.50000°. Principal axes: T 1.7476, Plg67.0000°, Azm84.0000°; N 0.4038, Plg7.0000°, Azm189.0000°; P -2.1514, Plg22.0000°, Azm282.0000°;*
*GCMT **05** 06:39:46.0±0.3, 28°.09S±0°.02×71°.73W±0°.02, h18^{km}±1^{km}, MW5.0/105, Moment Tensor Solution. s34,c40; s105,c138; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$2.54±.13; M$_{\theta\theta}$-0.37±.07; M$_{\phi\phi}$-2.17±.10; M$_{r\theta}$-0.23±.15; M$_{\theta\phi}$-0.03±.04; M$_{\phi r}$-2.90±.22; Best double couple: M$_0$3.74300×10^{16} NP1:ϕ_s359.00000°, δ20.00000°, λ86.00000°. NP2:ϕ_s184.00000°, δ71.00000°, λ91.00000°. Principal axes: T 3.9300, Plg64.0000°, Azm96.0000°; N -0.3730, Plg1.0000°, Azm3.0000°; P -3.5560, Plg25.0000°, Azm273.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
ISC 05 06:39:39.9±0.7**, 27°.93S**±0°.03×**71°.74W**±0°.03**, h2^{km}**±4^{km}**, n278, σ1^{s}.76**/301**, mb4.9**/39**, MS4.1**/32**, 16C-2D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	Llanos de Chal	0.64	115	eP	Pg	06 39 52.6	+0.3
AC04				eS	Sb	06 40 02.8	-0.6
AC04				IAML		06 40 03.4	
	comp=Z,24µm,0.7s						
AC04	Llanos de Chal	0.64	115	⇓iP	Pg	06 39 52.5	+0.3
AC04				eS	Sg	06 40 01.2	+0.5
AC04				IAML		06 40 04.0	
	comp=E,70µm,0.6s						
AC04	Llanos de Chal	0.64	115		Pg	06 39 52.7	+0.4
AC04				Sg	Sg	06 39 58.4	-2.3
AC04	Llanos de Chal	0.64	115	P	Pg	06 39 52.8	+0.4
AC06	Mina Casimiro	1.35	65	⇑iP	Pn	06 40 04.8	-1.1
AC06				iS	Sb	06 40 21.8	-2.0
AC06				IAML		06 40 31.0	
	comp=N,10µm,0.5s						
AC06	Mina Casimiro	1.35	65		Pn	06 40 04.4	-1.4
AC06				Sn	Sb	06 40 21.4	-2.4
GO03	Copiapo	1.37	76	eP	Pn	06 40 05.6	-0.5
GO03	Copiapo	1.37	76	⇑iP	Pn	06 40 05.2	-0.9
GO03				eS	Sb	06 40 23.4	-1.0
GO03				IAML		06 40 34.6	
	comp=N,6µm,0.6s						
GO03	Copiapo	1.37	76		Pn	06 40 04.9	-1.2
GO03	Copiapo	1.37	76	P	Pn	06 40 05.4	-0.7
LCO	Las Campanas	1.41	140	eP	Pn	06 40 05.8	-1.1
LCO				eS	Sb	06 40 23.9	-1.8
LCO				IAML		06 40 27.7	
	comp=Z,30µm,0.7s						
LCO	Las Campanas	1.41	140	⇑iP	Pn	06 40 05.5	-1.4
LCO				iS	Sb	06 40 22.2	-3.4
LCO				IAML		06 40 31.0	
	comp=Z,82µm,0.3s						
LCO	Las Campanas	1.41	140		Pn	06 40 05.3	-1.5
LCO				Sn	Sb	06 40 24.0	-1.6
AC05	El Transito	1.57	125	eP	Pn	06 40 08.4	-0.6
AC05				eS	Sb	06 40 30.2	0.0
AC05				IAML		06 40 41.4	
	comp=Z,8µm,1.0s						
AC05	El Transito	1.57	125	⇑iP	Pn	06 40 08.3	-0.6
AC05				iS	Sn	06 40 27.0	-2.9
AC05				IAML		06 40 37.8	
	comp=N,12µm,0.9s						
AC05	El Transito	1.57	125		Pn	06 40 08.1	-0.9
AC05	El Transito	1.57	125	P	Pn	06 40 08.4	-0.6
AC01	Pan de Azucar	2.05	30	eP	Pn	06 40 14.3	-1.0
AC01				eS	Sn	06 40 42.4	+0.8
AC01	Pan de Azucar	2.05	30	⇑iP	Pn	06 40 14.4	-1.0
AC01				IAML		06 40 54.9	
	comp=E,5µm,0.5s						
AC01	Pan de Azucar	2.05	30		Pn	06 40 14.3	-1.0
AC01	Pan de Azucar	2.05	30	P	Pn	06 40 14.6	-0.8
GO04	Tololo Observa	2.38	160	⇑iP	Pn	06 40 19.4	-0.8
GO04				iS	Sn	06 40 47.0	-3.0
GO04				IAML		06 41 00.4	
	comp=E,33µm,0.5s						
GO04	Tololo Observa	2.38	160		Pn	06 40 19.0	-1.1
GO04	Tololo Observa	2.38	160	P	Pn	06 40 19.6	-0.6
CO01	Juntas del Tor	2.49	145	eP	Pn	06 40 22.7	+0.9
CO01				eS	Sn	06 40 52.9	0.0
CO01				IAML		06 41 08.0	
	comp=Z,7µm,1.4s						
CO01	Juntas del Tor	2.49	145	⇑iP	Pn	06 40 22.1	+0.4
CO01				iS	Sn	06 40 51.8	-1.0
CO01	Juntas del Tor	2.49	145		Pn	06 40 21.5	-0.3
CO01	Juntas del Tor	2.49	145	P	Pn	06 40 22.4	+0.6
AC02	Maricunga	2.56	65	eP	Pn	06 40 24.5	+1.5
AC02				IAML		06 41 14.8	
	comp=Z,3µm,0.9s						
AC02	Maricunga	2.56	65	⇑iP	Pn	06 40 24.2	+1.3
AC02				iS	Sn	06 40 56.2	+1.2
AC02				IAML		06 41 06.0	
	comp=N,5µm,0.8s						
AC02	Maricunga	2.56	65		Pn	06 40 23.3	+0.3
AC02	Maricunga	2.56	65	P	Pn	06 40 24.4	+1.4
CO06	Fray Jorge	2.73	178	⇓iP	Pn	06 40 22.9	-1.8
CO06				IAML		06 41 13.6	
	comp=E,2µm,0.5s						
CO06	Fray Jorge	2.73	178		Pn	06 40 23.0	-1.8
AROD	Rodeo	2.98	139	eP	Pn	06 40 30.7	+2.2
AROD				eS	Sb	06 41 09.3	-1.6
CO03	El Pedregal	3.04	163		Pn	06 40 28.2	-0.9
ACDV	Cuesta del Vie	3.20	135	eP	Pn	06 40 34.0	+2.7
ACDV				eS	Sn	06 41 12.6	+2.5
ACDV				IAML		06 41 23.0	
	comp=Z,3µm,0.7s						
VCA	Vinchina	3.21	105	⇑eP	Pb	06 40 35.0	-2.8
CO02	Combarbal	3.32	169	eP	Pn	06 40 32.1	-1.0
CO02	Combarbal	3.32	169		Pn	06 40 31.8	-1.2
CO02	Combarbal	3.32	169	P	Pn	06 40 32.3	-0.8
PB14	IPOC Station P	3.50	20	eP	Pn	06 40 34.7	-1.0
PB14				eS	Sn	06 41 15.5	-2.4
PB14				IAML		06 41 44.8	
	comp=Z,1µm,0.7s						
PB14	IPOC Station P	3.50	20	⇑iP	Pn	06 40 34.2	-1.5
PB14				IAML		06 41 44.9	
	comp=N,647nm,0.4s						
PB14	IPOC Station P	3.50	20		Pn	06 40 34.0	-1.7
PB14	IPOC Station P	3.50	20	P	Pn	06 40 34.4	-1.3
ACCO	Cerro Coronel	3.53	139	eP	Pn	06 40 39.1	+3.1
ACCO				eS	Sn	06 41 20.6	+2.1
ACCO				IAML		06 41 40.5	
	comp=Z,2µm,0.9s						
CO04	Los Peladeros	4.15	171		Pn	06 40 43.7	-0.9
CO04	Los Peladeros	4.15	171	P	Pn	06 40 44.2	-0.3
RTLS	Leoncito	4.40	152	eP	Pn	06 40 50.9	+2.9
RTLS				eS	Sn	06 41 44.9	+5.0
RTLL	Cerro Villicun	4.42	141	eP	Pn	06 40 51.1	+3.1
ACLC	CERRO LA CRUZ	4.46	111	eP	Pn	06 40 50.6	+1.8
ACLC				eP	P	06 40 50.9	
ACLC				eS	Sb	06 41 48.1	-5.2
ACLC				IAML		06 42 06.4	
	comp=Z,1µm,1.8s						
ZON	Zonda	4.47	144	P	Pn	06 40 51.4	+2.6
CFA	Coronel Fontan	4.76	141	Pn	Pn	06 40 54.8	+2.1
	comp=Z,11nm,0.3s,baz=320,slow=14,SNR=116						
CFA				Sn	Sn	06 41 48.1	-0.3
	comp=Z,22nm,0.3s,baz=240,slow=22,SNR=3.7						
CFA				LR	LR	06 42 42.1	
	comp=Z,2µm,18.2s,baz=291,slow=39						
	comp=Z,44nm,0.4s						
CFA				AML	AML		
CFA	Coronel Fontan	4.76	141	eP	Pn	06 40 54.9	+2.2
VA03	San Esteban	4.92	168	eP	Pn	06 40 55.1	+0.1
VA03				eS	Sn	06 41 57.6	+5.0
VA03				IAML		06 42 27.8	
	comp=Z,2µm,1.6s						
VA03	San Esteban	4.92	168	eP	Pn	06 40 55.0	-0.1
VA03				iS	Sn	06 41 49.7	-2.9
VA03	San Esteban	4.92	168		Pn	06 40 55.0	-0.1
VA03	San Esteban	4.92	168	P	Pn	06 40 55.4	+0.3
	comp=Z,797nm,0.8s						
VA01	Torpederas	5.07	179	P	Pn	06 40 55.2	-1.8
	comp=Z,340nm,1.0s						
PB05	IPOC Station P	5.25	16	eP	Pn	06 40 57.8	-1.7
PB05	IPOC Station P	5.25	16		Pn	06 40 57.5	-2.0
PB05	IPOC Station P	5.25	16	P	Pn	06 40 57.7	-1.8
	comp=Z,153nm,0.8s						
CYA	Choya	5.26	97	eP	Pn	06 41 01.1	+1.5
CYA	Choya	5.26	97	⇑eP	Pn	06 41 00.6	+0.9
PEL	Peldehue	5.27	170		Pn	06 40 59.0	-0.7
PEL	Peldehue	5.27	170	P	Pn	06 41 00.3	+0.5
	comp=Z,452nm,1.0s						
MT02	Curacav	5.33	175		Pn	06 40 59.0	-1.6
MT05	Renca	5.51	171		Pn	06 41 01.7	-1.4
PB06	IPOC Station P	5.56	21		Pn	06 41 02.4	-1.5
PB06	IPOC Station P	5.56	21	P	Pn	06 41 02.5	-1.5
	comp=Z,233nm,0.8s						
MT16	CCHEN	5.58	170		Pn	06 41 03.5	-0.5
MT03	Universidad Ad	5.64	170		Pn	06 41 04.6	-0.3
MT09	Talagante	5.86	174		Pn	06 41 07.0	-0.9
AF01	San Pedro de A	5.91	34		Pn	06 41 07.7	-1.1
MT13	San Alfonso	5.92	168		Pn	06 41 08.7	-0.1
MT01	Popeta	5.93	176		Pn	06 41 07.3	-1.4
BO04	La Punta	6.11	171		Pn	06 41 09.8	-1.6
PB03	IPOC Station P	6.13	17		Pn	06 41 10.2	-1.5
PB03	IPOC Station P	6.13	17	P	Pn	06 41 09.9	-1.8
	comp=Z,125nm,0.8s						
PB07	IPOC Station P	6.40	16		Pn	06 41 13.2	-2.2
PB07	IPOC Station P	6.40	16	P	Pn	06 41 13.7	-1.7
	comp=Z,109nm,0.7s						
SLA	San Lorenzo	6.44	62	eP	Pn	06 41 18.4	+2.4
BO01	Tunca	6.46	175		Pn	06 41 14.4	-1.6
BO01	Tunca	6.46	175	P	Pn	06 41 15.9	-0.2
	comp=Z,166nm,1.1s						
PB09	IPOC Station P	6.52	21		Pn	06 41 15.5	-1.5
PB09	IPOC Station P	6.52	21	P	Pn	06 41 16.4	-0.6
BO03	Pichilemu	6.54	182	P	Pn	06 41 21.1	+3.9
	comp=Z,115nm,0.9s						
PB02	IPOC Station P	6.79	15		Pn	06 41 18.7	-2.1
PB02	IPOC Station P	6.79	15	P	Pn	06 41 18.7	-2.1
	comp=Z,112nm,0.6s						
BO02	Sierra Bellavi	6.89	173		Pn	06 41 21.0	-1.0
BO02	Sierra Bellavi	6.89	173	P	Pn	06 41 22.5	+0.5
	comp=Z,155nm,0.7s						
GO05	Hualane	7.06	181		Pn	06 41 21.6	-2.6
GO05	Hualane	7.06	181	P	Pn	06 41 21.9	-2.4
	comp=Z,125nm,0.9s						
TCA	Tanti	7.08	120	⇑eP	Pn	06 41 24.1	-0.6
TA01	Diego Aracena	7.47	11		Pn	06 41 27.1	-2.9
PB08	IPOC Station P	8.11	17		Pn	06 41 36.4	-2.6
PB08	IPOC Station P	8.11	17	P	Pn	06 41 37.1	-2.0
	comp=Z,37nm,1.0s						
VA04	Juan Fernndez	8.34	225		Pn	06 41 38.7	-3.1
PB11	IPOC Station P	8.36	14		Pn	06 41 38.8	-3.4
PB11	IPOC Station P	8.36	14	P	Pn	06 41 39.6	-2.6
	comp=Z,39nm,0.6s						
GO01	Chusmiza	8.55	16		Pn	06 41 42.5	-2.7
GO01	Chusmiza	8.55	16	P	Pn	06 41 42.9	-2.3
	comp=Z,56nm,0.8s						
BI02	San Fabin de	8.71	178		Pn	06 41 44.8	-2.2
BI02	San Fabin de	8.71	178	P	Pn	06 41 45.4	-1.7
	comp=Z,87nm,0.7s						
PB12	IPOC Station P	9.37	8		Pn	06 41 53.6	-2.5
PB16	IPOC Station P	9.77	13		Pn	06 42 00.1	-1.9
PB16	IPOC Station P	9.77	13	P	Pn	06 42 03.0	+1.0
	comp=Z,21nm,0.8s						
PB18	Visviri	10.50	12		Pn	06 42 12.5	+0.4
PB18	Visviri	10.50	12	P	Pn	06 42 13.2	+1.2
	comp=Z,57nm,0.9s						
GO06	Curarrehue	11.62	179		Pn	06 42 24.8	-2.1
GO06	Curarrehue	11.62	179	P	Pn	06 42 28.4	+1.4
	comp=Z,13nm,0.9s						
LR03	Panguipulli	11.68	182		Pn	06 42 24.0	-3.6

LPAZ	La Paz	12.06	17	Pn	Pn	06 42 32.5	-1.0
	comp=Z,0.7nm,0.3s,baz=198,slow=6.3,SNR=27						
LPAZ				Sn	Sn	06 44 50.3	+1.4
	comp=Z,0.1nm,0.3s,baz=24,slow=22,SNR=1.2						
LPAZ				Lg	Lg	06 46 02.5	
	baz=231,slow=21,SNR=1.2						
LPAZ				LR	LR	06 47 14.3	
	comp=Z,753nm,18.0s,baz=184,slow=38						
	comp=Z,2.3nm,0.4s						
LPAZ				AML	AML		
LPAZ	La Paz	12.06	17		Pn	06 42 31.9	-1.5
LPAZ	La Paz	12.06	17	eP	Pn	06 42 32.1	-1.4
LPAZ	La Paz	12.06	17	P	Pn	06 42 32.5	-1.0
	comp=Z,20nm,0.8s						
PSAL	Palomas, Salto	12.70	108	eP	Pn	06 42 42.6	+1.1
PSAL				eS	Sn	06 45 05.7	+2.1
PLCA	Paso Flores	12.80	176	Pn	Pn	06 42 43.3	+0.2
	comp=Z,0.2nm,0.3s,baz=350,slow=12,SNR=6.7						
PLCA				Sn	Sn	06 45 09.9	+3.7
	comp=Z,0.1nm,0.3s,baz=19,slow=7.1,SNR=1.4						
PLCA				Lg	Lg	06 46 24.8	
	comp=Z,0.1nm,0.3s,baz=288,slow=22,SNR=2.4						
PLCA				LR	LR	06 47 27.0	
	comp=Z,1μm,20.6s,baz=351,slow=36						
	comp=Z,1.7nm,0.8s						
PLCA				AML	AML		
CPUP	Villa Florida	12.93	86	Pn	Pn	06 42 44.5	-0.3
	comp=Z,0.2nm,0.3s,baz=268,slow=13,SNR=13						
CPUP				Sn	Sn	06 45 02.4	-6.9
	comp=Z,0.2nm,0.3s,baz=189,slow=19,SNR=1.5						
CPUP				Lg	Lg	06 46 22.6	
	comp=Z,0.3nm,0.3s,baz=157,slow=19,SNR=1.9						
CPUP				LR	LR	06 47 48.2	
	comp=Z,375nm,20.7s,baz=260,slow=38						
	comp=Z,6.8nm,1.0s						
CPUP				AML	AML		
CPUP	Villa Florida	12.93	86		Pn	06 42 43.7	-1.0
CPUP	Villa Florida	12.93	86	P	Pn	06 42 44.9	+0.2
	comp=Z,25nm,0.9s						
ANCO	Parque Anchore	13.38	122	eP	Pn	06 42 49.3	-1.5
ANCO				eS	Sn	06 45 21.8	+1.7
SJPY	San Joaquin	14.30	82	eP	Pn	06 43 06.1	+2.5
COIM	Forte Coimbra	15.04	61	eP	Pn	06 43 15.0	+1.5
COIM				eS	Sn	06 46 06.8	+6.0
SIV	San Ignacio	15.45	42	Pn	Pn	06 43 15.5	-3.6
	baz=240,slow=9.3,SNR=14						
	comp=Z,3.5nm,0.7s						
BDQN	Bodoquena, MS	15.56	65	eP	P	06 43 22.6	-2.4
CPSB	Cacapava Do Su	16.17	103	Pn	Pn	06 43 28.3	-0.1
CPSB	Cacapava Do Su	16.17	103	eP	Pn	06 43 28.6	+0.3
CPSB	Cacapava Do Su	16.17	103	P	Pn	06 43 29.5	+1.2
	comp=Z,75nm,1.0s						
AQDB	Aquidauana	16.39	67	Pn	Pn	06 43 31.1	-0.1
AQDB	Aquidauana	16.39	67	eP	P	06 43 33.2	-1.0
AQDB				eS	S	06 46 39.8	-6.6
AQDB	Aquidauana	16.39	67	P	P	06 43 34.4	+0.2
	comp=Z,19nm,1.3s						
NNA	Nana	16.57	342	Pn	Pn	06 43 33.8	+0.3
	comp=Z,0.3nm,0.3s,baz=243,slow=17,SNR=2.1						
NNA				LR	LR	06 48 39.0	
	comp=Z,656nm,18.7s,baz=168,slow=32						
	comp=Z,3.3nm,0.7s						
NNA				AML	AML		
PTLB	Pontes e Lacer	17.05	46	P	Pn	06 43 40.3	+0.7
PTLB	Pontes e Lacer	17.05	46	eP	P	06 43 41.2	-0.2
PTLB				eS	S	06 46 55.2	-4.6
COYC	Coyhaique	17.61	181	P	P	06 43 47.4	0.0
	comp=Z,42nm,1.4s						
PTGB	Pitanga	17.92	84	eP	P	06 43 51.6	+0.5
PTGB				eS	S	06 47 17.1	-0.6
TRCB	Terra Rica	18.00	78	eP	P	06 43 52.7	+0.7
TRCB	Terra Rica	18.00	78	P	P	06 43 52.4	+0.4
	comp=Z,113nm,0.7s						
VILB	Vilhena	18.39	38	P	P	06 43 54.9	-1.4
VILB	Vilhena	18.39	38	eP	P	06 43 56.1	-0.2
PP1B	Ponte de Pedra	18.62	60	eP	P	06 43 58.0	-0.8
SALV	Santo Antonio	19.08	54	eP	P	06 44 03.6	-0.2
SALV				eS	S	06 47 43.7	+2.7
LDASE	Londrina, Braz	19.12	81	eP	P	06 44 03.6	-0.8
LDASE				eS	S	06 47 44.5	+2.5
C2SB	Chapadao do Su	19.58	66	eP	Pn	06 44 10.3	-0.3
C2SB	Chapadao do Su	19.58	66	P	Pn	06 44 10.9	+0.3
	comp=Z,104nm,1.1s						
CZSB	Cruzeiro do Su	20.12	357	eP	P	06 44 13.3	-1.9
FRTB	Fartura	20.50	82	eP	P	06 44 18.9	-0.5
GO08	Villa O'Higgin	20.51	182	P	Pn	06 44 21.4	+0.1
	comp=Z,46nm,1.5s						
ATAH	Atahualpa	21.63	342	P	P	06 44 34.7	+2.7
	comp=Z,8.5nm,1.0s,baz=153,slow=10,SNR=7.9						
ATAH				LR	LR	06 51 36.6	
	comp=Z,293nm,18.3s,baz=166,slow=33						
	comp=Z,8.5nm,1.0s						
ARAG	Araguaiana, MT	22.10	61	eP	P	06 44 34.8	-1.8
ARAG				eS	S	06 48 44.1	+3.1
BB19B	Bebedouro	22.18	77	eP	P	06 44 36.2	-1.3
PET01	Itanhaem-SP	22.25	86	eP	P	06 44 38.0	-0.2
SPB	Sao Paulo	22.30	84	eP	P	06 44 37.4	-1.3
SPB	Sao Paulo	22.30	84	P	P	06 44 38.0	-0.7
	comp=Z,30nm,1.1s						
CLDB	Colider	22.63	45	eP	P	06 44 40.2	-2.1
CLDB				eS	S	06 48 53.7	+2.7
CLDB	Colider	22.63	45	P	P	06 44 41.3	-0.9
	comp=Z,30nm,1.9s						
VAO	Valinhos	22.88	83	P	P	06 44 43.2	-1.8
IPMB	Ipameri, GO	23.78	70	eP	P	06 44 52.0	-2.1
IPMB				eS	S	06 49 12.4	+1.8
CANS	Sao Roque de M	24.32	77	eP	P	06 44 57.1	-2.2
CANS				eS	S	06 49 21.1	+1.8
SNDB	Serra Nova Dou	24.86	54	eP	P	06 45 02.1	-1.9
PMNB	Patos De Minas	25.01	73	eP	P	06 45 04.7	-0.8
PMNB	Patos De Minas	25.01	73	P	P	06 45 04.8	-0.7
	comp=Z,54nm,1.5s						
BDFB	Brasilia	25.14	66	P	P	06 45 05.0	-1.6
	comp=Z,21nm,1.0s,baz=240,slow=10,SNR=23						
BDFB				LR	LR	06 56 16.6	
	comp=Z,2μm,18.3s,baz=235,slow=40						
	comp=Z,21nm,1.0s						
BDFB	Brasilia	25.14	66	P	P	06 45 05.4	-1.3
BDFB				IAmb	IAmb	06 45 07.3	
	comp=Z,29nm,1.0s						
TEFE	Tefe	25.22	17	eP	P	06 45 05.8	-1.4
BSCB	Bom Sucesso	25.46	80	eP	P	06 45 09.3	-0.2
BSCB	Bom Sucesso	25.46	80	P	P	06 45 10.2	+0.7
	comp=Z,34nm,1.1s						
MACA	Manacapuru-AM	26.80	25	P	P	06 45 20.7	-0.8
MACA				IAmb	IAmb	06 45 40.3	
	comp=Z,30nm,0.8s						
MACA	Manacapuru-AM	26.80	25	eP	P	06 45 20.8	-0.8
DIAM	Diamantina, MG	27.48	76	eP	P	06 45 27.7	-0.1
ITTB	Itaituba	27.95	36	eP	P	06 45 31.2	-0.7
OTAV	Otavalo	28.74	346	eP	P	06 45 35.9	-3.6
SDBA	SAO DESIDERIO	29.45	64	eP	P	06 45 44.5	-0.9
SJMB	Sao Joao De Ma	29.45	78	eP	P	06 45 44.8	-0.5
SMTB	Santa Maria do	29.64	55	eP	P	06 45 46.7	-0.2
SMTB				eS	S	06 50 45.0	+1.7
BSFB	Barra de Sao F	29.70	79	eP	P	06 45 46.9	-0.5
GUA01	Guaratinga, BA	31.54	76	eP	P	06 46 02.9	-0.9
BOAV	Boa Vista	32.03	21	P	P	06 46 08.1	+0.2
BOAV	Boa Vista	32.03	21	eP	P	06 46 07.0	-1.0
NBIT	Itapeh - BA	32.62	73	eP	P	06 46 13.0	-0.3
NBPN	Ponto Novo - B	34.11	66	eP	P	06 46 25.6	-0.8
NBPN				eS	S	06 51 53.9	+0.6
SDV	Santo Domingo	36.62	2	P	P	06 46 47.5	-0.5
NBTA	Tacaratu-PE	36.82	66	eP	P	06 46 48.5	-1.2
NBPS	Pedro II - PI	37.13	56	eP	P	06 46 51.8	-0.6
PMSA	Palmer Station	37.17	175	LR	LR	07 02 54.5	
	comp=Z,256nm,18.9s,baz=338,slow=38						
NBMA	Muriti-CE	37.29	63	eP	P	06 46 53.5	-0.1
NBMA				eS	S	06 52 43.2	+1.2
ORCD	Orcadas	37.51	159	P	P	06 46 54.0	-0.9
MDP	Montagnes des	37.66	32	LR	LR	07 02 33.9	
	comp=Z,197nm,20.8s,baz=192,slow=37						
JTS	Las Juntas de	40.10	340	LR	LR	07 01 28.0	
	comp=Z,98nm,18.4s,baz=164,slow=33						
NBPV	Pedro Velho	40.62	65	eP	P	06 47 20.9	-0.6
CMIG	Matias Romero	50.06	331	LR	LR	07 04 42.1	
	comp=Z,103nm,21.4s,baz=162,slow=30						
VNA3	Neumayer Olymp	54.90	160	⇑P	P	06 49 11.7	+0.1
	comp=Z,11nm,0.9s						
VNA1	Neumayer--Stat	55.18	159	⇑P	P	06 49 13.8	+0.2
	comp=Z,13nm,1.0s						
VNA2	Neumayer--Watz	55.52	159	⇑P	P	06 49 16.1	0.0
	comp=Z,12nm,0.6s,baz=286,slow=7.1						
SNAA	Sanae	57.12	159	P	P	06 49 27.3	-0.3
	comp=Z,17nm,0.6s,baz=265,slow=4.7,SNR=8.7						
	comp=Z,17nm,0.6s						
SNAA	Sanae	57.12	159	P	P	06 49 27.1	-0.5
TROLL	Troll, Antarti	58.84	160	⇑P	P	06 49 39.8	+0.1
	comp=Z,670nm,0.8s						
QSPA	South Pole Qui	62.28	180	P	P	06 50 04.5	+1.2
	comp=Z,10nm,0.7s,baz=153,slow=2.3,SNR=91						
QSPA				LR	LR	07 17 24.8	
	comp=Z,119nm,19.5s,baz=166,slow=36						
	comp=Z,10nm,0.7s						
QSPA	South Pole Qui	62.28	180	P	P	06 50 03.9	+0.6
HNDO	Hondo	62.92	333		P	06 50 09.8	+2.0
HNDO				IAmb	IAmb	06 50 15.1	
	comp=Z,7.8nm,0.8s						
X51A	Calhoun	63.39	348	P	P	06 50 11.5	+0.8
X51A				IAmb	IAmb	06 50 23.5	
	comp=Z,9.3nm,0.8s						
LPIG	La Paz	63.71	321	LR	LR	07 12 27.1	
	comp=Z,70nm,21.5s,baz=195,slow=31						
W52A	Murphy	63.74	349	P	P	06 50 13.8	+0.7
W52A				IAmb	IAmb	06 50 28.7	
	comp=Z,10.0nm,1.0s						
V58A	Windy Hill, Pi	63.77	353	P	P	06 50 13.7	+0.5
V58A				IAmb	IAmb	06 50 26.3	
	comp=Z,6.9nm,0.9s						
W50A	Signal Mountai	64.09	348	P	P	06 50 16.2	+0.7
W50A				IAmb	IAmb	06 50 29.0	
	comp=Z,7.2nm,0.8s						
V53A	Saluda	64.12	350	P	P	06 50 16.5	+0.9
V53A				IAmb	IAmb	06 50 30.5	
	comp=Z,8.6nm,1.2s						
SWET	Sewanee	64.23	347	P	P	06 50 17.0	+0.7
SWET				IAmb	IAmb	06 50 31.1	
	comp=Z,9.2nm,0.9s						
TKL	Tuckaleechee C	64.26	349	P	P	06 50 16.9	+0.4
TKL				IAmb	IAmb	06 50 31.2	
	comp=Z,8.4nm,0.9s						
TXAR	Lajitas Array	64.62	329	P	P	06 50 21.0	+1.9
	comp=Z,1.9nm,0.9s,baz=155,slow=7.3,SNR=10						
TXAR				LR	LR	07 14 43.8	
	comp=Z,65nm,20.0s,baz=150,slow=32						
	comp=Z,1.9nm,0.9s						
WVT	Waverly	65.50	346	P	P	06 50 25.1	+0.6
WVT				IAmb	IAmb	06 51 01.6	
	comp=Z,5.3nm,0.8s						
ABTX	Abilene, Hawle	65.81	334		P	06 50 29.0	+2.3
MNHN	Monahans	65.95	331	P	P	06 50 28.6	+0.9
MNHN				IAmb	IAmb	06 50 34.7	
	comp=Z,6.8nm,0.8s						
LCAR	Lake Charles	66.24	343	P	P	06 50 29.4	+0.1
LCAR				IAmb	IAmb	06 50 35.3	
	comp=Z,7.5nm,0.8s						
APMT	Aspermont	66.61	334		P	06 50 33.8	+2.0
APMT				IAmb	IAmb	06 50 38.7	
	comp=Z,11nm,1.0s						
PBMO	Poplar Bluff	66.73	344	P	P	06 50 33.2	+0.8
PBMO				IAmb	IAmb	06 50 49.1	
	comp=Z,10nm,1.0s						
P57A	Homestead Farm	67.33	355	P	P	06 50 37.1	+0.9
P57A				IAmb	IAmb	06 50 50.9	
	comp=Z,12nm,1.1s						
FVM	French Village	67.87	344	P	P	06 50 40.9	+1.2
CCM	Cathedral Cave	68.14	343	P	P	06 50 42.7	+1.3
CCM				IAmb	IAmb	06 50 58.3	
	comp=Z,7.4nm,0.8s						
S39A	Bolivar	68.35	342	P	P	06 50 44.0	+1.3
S39A				IAmb	IAmb	06 50 59.7	
	comp=Z,7.5nm,0.8s						
ACSO	Alum Creek Sta	68.62	351	P	P	06 50 45.2	+0.9
R40A	Maddies Statio	68.63	343	P	P	06 50 45.1	+0.7
VNDA	Vanda	70.09	191	P	P	06 50 55.4	+2.4
	comp=Z,1.1nm,1.0s,baz=128,slow=4.1,SNR=3.8						
	comp=Z,1.1nm,1.0s						
ANMO	Albuquerque	70.63	330	LR	LR	07 18 39.1	
	comp=Z,156nm,18.4s,baz=158,slow=33						
PPT	Papeete	71.48	260	LR	LR	07 15 07.7	
	comp=Z,159nm,21.7s,baz=121,slow=30						
L40A	Anamosa	71.94	345	P	P	06 51 05.1	+0.5
X16A	Lo Mia Camp, P	72.51	326		P	06 51 09.1	+0.7
DBIC	Dimbokro	73.06	73	P	P	06 51 12.1	+0.2
	comp=Z,21nm,0.8s,baz=234,slow=7.0,SNR=14						
DBIC				LR	LR	07 23 27.1	
	comp=Z,87nm,18.2s,baz=216,slow=36						
	comp=Z,21nm,0.8s						
PFO	Pinyon Flats O	74.46	322	LR	LR	07 19 00.2	
	comp=Z,65nm,18.4s,baz=152,slow=32						
ECSD	EROS Data Cent	74.88	342	P	P	06 51 22.7	+0.7
KNB	Kanab	75.26	327		P	06 51 25.1	+0.6
CCUT	Cedar City	75.95	327		P	06 51 29.8	+1.3
SUR	Sutherland	77.58	120	LR	LR	07 22 23.4	
	comp=Z,198nm,18.7s,baz=231,slow=33						
HWUT	Hardware Ranch	78.39	331	P	P	06 51 43.4	+1.3
HWUT				IAmb	IAmb	06 52 09.0	
	comp=Z,8.2nm,0.9s						
PDAR	Pinedale Array	78.50	333	P	P	06 51 44.7	+1.9
	comp=Z,0.3nm,0.5s,baz=133,slow=8.5,SNR=4.0						
PDAR				LR	LR	07 22 45.2	
	comp=Z,38nm,21.6s,baz=150,slow=33						
	comp=Z,0.3nm,0.5s						
PDAR	Pinedale Array	78.50	333	P	P	06 51 43.0	+0.2
RAR	Rarotonga	78.70	252	LR	LR	07 17 21.6	
	comp=Z,124nm,22.0s,baz=130,slow=29						
MAW	Mawson	78.91	164	P	P	06 51 44.9	+0.4
	comp=Z,5.3nm,1.0s,baz=228,slow=4.3,SNR=11						
MAW				LR	LR	07 26 45.4	
	comp=Z,157nm,18.7s,baz=234,slow=36						
	comp=Z,5.3nm,1.0s						
MAW	Mawson	78.91	164		P	06 51 45.0	+0.6
NVAR	Mina Array Bea	79.09	324	P	P	06 51 48.6	+2.6
	comp=Z,1.0nm,1.0s,baz=157,slow=4.4,SNR=4.4						
NVAR				LR	LR	07 20 28.1	
	comp=Z,37nm,20.7s,baz=158,slow=31						
	comp=Z,1.0nm,1.0s						
TSUM	Tsumeb	80.66	107	LR	LR	07 24 44.8	
	comp=Z,258nm,18.8s,baz=153,slow=34						
ULM	Lac du Bonnet	80.73	345	P	P	06 51 56.5	+2.1
	comp=Z,9.7nm,1.2s,baz=140,slow=7.9,SNR=3.0						
	comp=Z,9.7nm,1.2s						
ULM	Lac du Bonnet	80.73	345	P	P	06 51 56.4	+2.1
ULM				IAmb	IAmb	06 52 00.4	
	comp=Z,20nm,1.4s						
HLID	Hailey	81.21	330		P	06 51 59.5	+2.2
TORD	Torodi Ar. Bea	81.92	71	P	P	06 52 01.6	+0.1
	comp=Z,13nm,0.9s,baz=258,slow=4.6,SNR=42						
	comp=Z,13nm,0.9s						
SCHQ	Schefferville	82.53	3	LR	LR	07 29 28.7	
	comp=Z,28nm,20.5s,baz=52,slow=36						
BOSA	Boshof	82.69	118	P	P	06 52 05.5	-0.1
	comp=Z,6.8nm,0.8s,baz=266,slow=4.6,SNR=8.2						
BOSA				LR	LR	07 24 26.0	
	comp=Z,215nm,18.6s,baz=212,slow=32						
	comp=Z,6.8nm,0.8s						
BOSA	Boshof	82.69	118	P	P	06 52 05.1	-0.5
PLID	Pearl Lake	83.11	330		P	06 52 09.2	+1.9
PLID				IAmb	IAmb	06 52 14.2	
	comp=Z,6.2nm,0.9s						
YBH	Yreka Blue Hor	83.80	324	LR	LR	07 23 49.6	
	comp=Z,46nm,19.3s,baz=154,slow=32						
LBTB	Lobatse	84.64	115	LR	LR	07 28 40.9	
	comp=Z,287nm,18.1s,baz=232,slow=35						
CASY	Casey	86.07	181		P	06 52 22.3	+0.4
NEW	Newport	86.07	332	LR	LR	07 28 14.9	
	comp=Z,99nm,18.1s,baz=143,slow=34						
MDT	Midelt	87.81	51	LR	LR	07 28 29.6	
	comp=Z,56nm,21.0s,baz=230,slow=33						
URZ	Urewera	87.94	227	LR	LR	07 23 40.5	
	comp=Z,99nm,19.1s,baz=126,slow=30						
RPZ	Rata Peaks	88.42	220	LR	LR	07 23 38.6	
	comp=Z,18nm,19.4s,baz=342,slow=30						
LSZ	Lusaka	91.44	108	LR	LR	07 30 04.6	
	comp=Z,281nm,19.2s,baz=249,slow=33						
ESDC	Sonseca Array	92.18	46	LR	LR	07 32 30.0	
	comp=Z,59nm,18.5s,baz=242,slow=34						
AFI	Afiamalu	92.21	253	LR	LR	07 25 44.0	
	comp=Z,70nm,18.1s,baz=103,slow=30						
BBB	Bella Bella	93.76	329	LR	LR	07 32 09.5	
	comp=Z,28nm,18.1s,baz=172,slow=34						
YKA	Yellowknife Ar	96.41	341	P	P	06 53 09.9	0.0
	comp=Z,0.6nm,0.8s,baz=154,slow=3.9,SNR=2.7						
	comp=Z,0.6nm,0.8s						
KEST	Kesra	99.17	55	LR	LR	07 40 46.1	
	comp=Z,140nm,19.2s,baz=284,slow=37						
AKASG	Malin Array Be	117.81	45	PKP	PKiKP	06 58 27.6	0.0
	comp=Z,0.4nm,0.5s,baz=272,slow=2.4,SNR=4.8						
ASAR	Alice Springs	123.05	208	PKP	PKiKP	06 58 38.4	-0.5
	comp=Z,0.9nm,0.8s,baz=140,slow=2.5,SNR=8.8						
WRA	Warramunga Arr	126.13	211	PKP	PKiKP	06 58 44.5	-0.5
	comp=Z,1.7nm,0.8s,baz=160,slow=1.7,SNR=12						
BVAR	Borovoye Array	142.49	38	PKP	PKPdf	06 59 14.3	+0.2
	comp=Z,1.0nm,0.5s,baz=276,slow=2.8,SNR=2.6						
KURBB	Kurchatov Arra	148.06	37	PKPbc	PKPbc	06 59 27.1	+0.3
	comp=Z,5.5nm,0.8s,baz=302,slow=3.0,SNR=17						
ZALV	Zalesovo Beam	148.84	27	PKP	PKPdf	06 59 25.6	+0.8
	comp=Z,22nm,0.8s,baz=303,slow=3.0,SNR=43						
ZALV				PKPbc	PKiKP	06 59 29.2	-0.9
	comp=Z,22nm,0.8s,baz=296,slow=2.2,SNR=48						
KSH2	Kashi	150.69	59	PKPbc	PKiKP	06 59 35.2	+0.6
MKAR	Makanchi Array	152.26	40	PKP	PKPdf	06 59 31.4	+1.0
	comp=Z,0.5nm,0.6s,baz=58,slow=4.7,SNR=3.7						
MKAR				PKPbc	pPKPbc	06 59 38.0	+1.3
	comp=Z,5.3nm,0.7s,baz=338,slow=1.9,SNR=34						
MJAR	Matsushiro Arr	153.34	296	PKPbc	PKiKP	06 59 40.9	+0.9
	comp=Z,0.5nm,0.3s,baz=100,slow=3.0,SNR=2.1						
MJAR				PKPab	sPKPab	06 59 54.9	+3.5
	comp=Z,3.5nm,0.8s,baz=118,slow=2.8,SNR=6.3						
HEH	HeiHe	153.36	332	PKPbc	PKPdf	06 59 34.2	+2.3
WMQ	Urumqi	157.09	41	ePKP	PKPdf	06 59 39.0	+1.7
WMQ				PKPab	pPKPab	07 00 08.4	+1.1
SONM	Songino Array	160.08	4	PKP	PKPdf	06 59 39.1	-1.7
	comp=Z,0.6nm,0.7s,baz=4.4,slow=1.9,SNR=3.7						
SONM				PKPab	PKPab	07 00 19.8	-0.7
	comp=Z,0.7nm,0.6s,baz=0.0,slow=1.4,SNR=3.7						
GTA2	Gaotai	166.49	29	PKP	PKPdf	06 59 57.4	+10
HHC	Hu-ho-hao-te	166.83	349	eP	PKPdf	06 59 42.3	-5.0
NJ2	Nanjing	169.94	297	eP	PKPdf	06 59 49.5	0.0
NJ2				pmax	pmax		
	comp=Z,25nm,0.7s						
PZH	PanZhiHua	174.02	102	PKP	PKPdf	06 59 50.6	-1.2

SJA ***05*** *06:53:52.9±0.7, 27°.95S×72°.01W, h13^{km}, ML3.3, MW3.5*
GUC ***05*** *06:53:58.5±0.5, 27°.95S×71°.80W, h39^{km}±7^{km}, ML3.0*
ISC 05 06:53:57.1±1.9**, 27°.94S**±0°.03×**71°.70W**±0°.07**, h3**^{km}±12^{km}**,**
n24, σ**1^{s}73**/40**, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.61	115	eP	Pg	06 54 07.7	-1.1
AC04				eS	Sn	06 54 22.3	-0.6
AC04				IAML		06 54 23.8	
	comp=Z,614nm,0.8s						
AC04	Llanos de Chal	0.61	115	eP	Pb	06 54 10.8	+0.4
AC04				IAML		06 54 21.0	
	comp=E,1μm,0.3s						
AC06	Mina Casimiro	1.33	64	eP	Pn	06 54 22.5	0.0
GO03	Copiapo	1.34	75	eP	Pg	06 54 23.4	+0.6
GO03				eS	Sg	06 54 36.2	-4.0
GO03				IAML		06 54 48.0	
	comp=Z,198nm,0.4s						
GO03	Copiapo	1.34	75	eP	Pn	06 54 23.1	+0.4
GO03				IAML		06 54 49.9	
	comp=N,328nm,0.6s						
LCO	Las Campanas	1.38	141	eP	Pn	06 54 21.2	-2.2
LCO				eS	Sn	06 54 43.2	+0.9
LCO				IAML		06 54 50.2	
	comp=Z,476nm,0.5s						
LCO	Las Campanas	1.38	141	eP	Pn	06 54 23.2	-0.2
AC05	El Transito	1.54	126	eP	Pn	06 54 21.2	-4.3
AC05				eP	Pb	06 54 24.3	-2.0
AC05				eS	Sg	06 54 48.2	+1.7
AC05				IAML		06 55 01.2	
	comp=Z,167nm,0.6s						
AC05	El Transito	1.54	126	eP	Pn	06 54 26.3	+0.8
AC05				IAML		06 54 51.6	
	comp=E,180nm,0.4s						
AC01	Pan de Azucar	2.04	29	eP	Pn	06 54 31.7	-0.6
AC01				eS	Sg	06 55 13.0	+10
GO04	Tololo Observa	2.36	161	eP	Pn	06 54 35.9	-1.0
GO04				eS	Sn	06 55 07.7	+1.3
GO04				IAML		06 55 22.2	
	comp=Z,319nm,0.6s						
GO04	Tololo Observa	2.36	161	eP	Pn	06 54 37.3	+0.4
CO01	Juntas del Tor	2.47	146	eP	Pn	06 54 37.5	-0.9
CO01				eS	Sn	06 55 07.7	-1.4
CO01				eS	Sb	06 55 11.6	-1.5
CO01				IAML		06 55 17.7	
	comp=Z,120nm,0.8s						
CO01	Juntas del Tor	2.47	146	IAML		06 55 19.6	
	comp=N,130nm,0.5s						
AC02	Maricunga	2.54	65	eP	Pb	06 54 42.1	-1.4
AC02				eS	Sb	06 55 15.3	0.0
AC02				IAML		06 55 23.5	
	comp=Z,97nm,0.6s						
AC02	Maricunga	2.54	65	eP	Pn	06 54 41.7	+2.2
AC02				IAML		06 55 25.9	
	comp=E,149nm,0.3s						
AROD	Rodeo	2.95	139	eP	Pn	06 54 43.7	-1.4
AROD				eP	Pb	06 54 49.2	-1.3
AROD				eS	Sn	06 55 21.2	0.0
AROD				eS	Sb	06 55 26.8	-0.3
ACDV	Cuesta del Vie	3.17	135	eP	Pn	06 54 49.2	+1.3
ACDV				eS	Sb	06 55 32.7	-0.4
ACDV				IAML		06 55 41.4	
	comp=Z,35nm,0.7s						
VCA	Vinchina	3.18	105	eP	Pn	06 54 49.7	+1.6
VCA				eS	Sg	06 55 41.2	+2.0
VCA				IAML		06 55 52.7	
	comp=Z,103nm,0.7s						
CO02	Combarbal	3.31	170	eP	Pn	06 54 50.0	+0.2
CO02				eS	Sb	06 55 39.7	+2.6
CO02				IAML		06 55 48.2	
	comp=Z,154nm,0.5s						
CO02	Combarbal	3.31	170	eP	Pn	06 54 50.0	+0.2
ACCO	Cerro Coronel	3.50	140	eP	Pn	06 54 53.2	+0.6
ACCO				eS	Sn	06 55 38.2	+3.5
ACCO				IAML		06 55 55.2	
	comp=Z,60nm,0.6s						
PB14	IPOC Station P	3.50	20	eP	Pn	06 54 52.0	-0.7
PB14				eS	Sg	06 55 54.7	+5.1
PB14				IAML		06 56 04.6	
	comp=Z,35nm,0.7s						
PB05	IPOC Station P	5.25	15	eP	Pn	06 55 15.2	-1.3
PB05				eS	Sn	06 56 16.4	-1.2
PB05				IAML		06 56 58.2	
	comp=Z,14nm,4.3s						

UCR ***05*** *07:13:49.7±0.6, 8°.32N×82°.99W, h5^{km}±5^{km}, MW3.7,*
Presumed earthquake
UPA ***05*** *07:13:50.0±1.1, 8°.33N×82°.95W, h7^{km}±3^{km}, MW3.4,*
Presumed earthquake
ISC 05 07:13:49.8±1.0**, 8°.31N**±0°.04×**82°.98W**±0°.03**, h18**^{km}±3^{km}**,**
n39, σ**0^{s}60**/48**, 1C-3D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTPM	Petroterminale	0.14	139	⇓iP	Pg	07 13 54.2	+0.2
PTPM				eS	Sg	07 13 56.1	-0.8
PTPA	Petro Terminal	0.15	137	eP	Pg	07 13 54.2	0.0
PTPA				eS	Sg	07 13 57.4	+0.3
LIMO3	Limones	0.24	153	⇓iP	Pg	07 13 55.8	+0.4
LIMO3				eS	Sg	07 13 59.7	+0.5
LMNES	Limones	0.24	152	eP	Pg	07 13 55.8	+0.3
NELY	Ciudad Neily	0.34	5	eP	Pg	07 13 57.1	0.0
NELY				eS	Sb	07 14 02.8	+0.4
PIRO	Carate, Puerto	0.37	284	eP	Pg	07 13 57.4	-0.2
PIRO	Carate, Puerto	0.37	284	eP	Pg	07 13 57.4	-0.2
JIME	Puerto Jimenez	0.41	303	eP	Pg	07 13 58.0	-0.3
MLIR3	Monte Lirio, C	0.50	17	⇓iP	Pb	07 14 00.5	+0.4
MLIR3				eS	Sb	07 14 07.0	-0.1
VITO	San Vito	0.50	1	eP	Pb	07 14 00.3	+0.2
DVD	David	0.53	77	⇑iP	Pg	07 14 00.5	-0.1
DVD				eS	Sg	07 14 07.9	+0.1
SCLRA	Santa Clara, W	0.55	20	eP	Pb	07 14 01.4	+0.4
BRU2	Volcan	0.55	30	eP	Pb	07 14 01.3	+0.3
BRU2				eS	Sb	07 14 09.8	+1.1
BRU2	Volcan	0.55	30	i P	Pb	07 14 01.3	+0.3
BRU2				eS	Sb	07 14 09.9	+1.3
CLLRA	Cordillera,	0.56	40	eP	Pg	07 14 01.2	+0.2
LOMA3	Las Lomas, Chi	0.59	79	eP	Pn	07 14 09.6	+6.3
PTAR3	Potrerillos Ar	0.60	52	eP	Pb	07 14 02.1	+0.3
CHIR3	Chiriqui UPA,	0.64	83	eP	Pg	07 14 02.6	0.0
BQTLY	Boquete Panama	0.67	49	eP	Pg	07 14 02.8	-0.4
BQSF3	Alto Boquete,	0.68	52	i P	Pg	07 14 03.1	-0.3
BQSF3				eS	Sb	07 14 12.8	+0.4
LNBQ3	Los Naranjos,	0.71	48	eP	Pg	07 14 03.2	-0.7
LNBQ3				eS	Sn	07 14 14.6	-1.0
EDP2	Potrero Grande	0.72	344	eP	Pb	07 14 04.0	0.0
PANP	Palmar Norte	0.80	323	eP	Pb	07 14 04.4	-0.8
BURE	Buenos Aires	0.93	337	eP	Pb	07 14 07.1	-0.3

RBALA	Bur	0.99	55	eP	Pb	07 14 07.9	-0.5
EDPE	Pejibaye, P	1.02	325	eP	Pb	07 14 08.3	-0.8
SAJE	San Jernim	1.15	333	eP	Pn	07 14 10.6	-0.6
CNI2	El Empalme, Bo	1.21	24	eP	Pn	07 14 11.7	-0.1
ZEDO	Perez Zeledon	1.25	326	eP	Pb	07 14 13.1	+0.2
KKNTU	Kakintº	1.27	66	eP	Pn	07 14 11.9	-0.7
CEUA	Cerro Uatsi, L	1.30	2	eP	Pg	07 14 15.0	0.0
RAZU	San Marcos de	1.69	322	eP	Pb	07 14 20.1	-0.3
ABE2	San Pablo	1.75	322	eP	Pn	07 14 20.8	+1.4
LCR2	La Lucha 2	1.75	324	eP	Pn	07 14 20.2	+0.8
PCAYA	Pacayas	1.79	333	eP	Pb	07 14 21.7	-0.6
GMAL	Guarumal, Vera	1.81	107	eP	Pn	07 14 19.6	-0.5
ABRB	Las Abras (San	1.83	337	eP	Pb	07 14 22.5	-0.5
CVTQ	Turrialba Volc	1.85	335	eP	Pb	07 14 22.7	-0.7
VTR0	Volcan Turrial	1.86	335	eP	Pn	07 14 22.7	+1.6

*IDC **05** 07:26:30.6±1.1, 36°.22N×22°.24E, h0^{km}, mb3.8/9, mbtmp3.7/13, ML1.4/2, Error ellipse: s-maj=24.8km s-min=11.0km az=26.0*

*ATH **05** 07:26:32.8, 35°.95N×22°.17E, h5^{km}±1^{km}, ML3.5/21, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*

*THE **05** 07:26:35.0, 36°N±2°×2°2E±°, h11^{km}±2^{km}, M3.3/14, MLh3.3/14*

ISC 05 07:26:31.8±1.1, **35°.91N**±0°.03×**22°.15E**±0°.03, **h16**^{km}±8^{km}, **n59**, σ**1.^{s}57**/93, **mb4.0**/8, **Central Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KTHA	Kythira Island	0.81	65	P	Pb	07 26 48.0	+0.4
KTHA				S	Sb	07 26 58.4	+0.1
KTHA				AML	AML		
KTHA	Kythira Island	0.81	65	P	Pb	07 26 48.0	+0.4
KTHA				S	Sb	07 26 57.9	-0.5
KTHA				AML	AML		
ANKY	Antikythira Is	0.93	92	P	Pb	07 26 50.3	+0.7
ANKY				S	Sb	07 27 02.4	+0.6
ANKY				AML	AML		
ANKY	Antikythira Is	0.93	92	P	Pb	07 26 50.1	+0.4
ANKY				S	Sb	07 27 02.7	+0.9
ANKY				AML	AML		
NPS1	Neapolis Lacon	0.95	50	P	Pb	07 26 50.8	+0.8
NPS1				S	Sb	07 27 02.5	+0.3
NPS1				AML	AML		
MTHA	Methoni	0.98	338	P	Pg	07 26 50.8	0.0
MTHA				S	Sg	07 27 04.0	+0.4
VLI	Veliai	1.03	38	P	Pb	07 26 52.2	+1.0
VLI				S	Sn	07 27 05.9	+0.3
VLI				AML	AML		
VLI	Veliai	1.03	38	P	Pb	07 26 51.7	+0.5
VLI				S	Sb	07 27 05.1	+0.6
VLI				AML	AML		
MNVA	Monemvasia	1.05	42	P	Pn	07 26 52.9	+1.0
MNVA				S	Sb	07 27 05.4	+0.2
MNVA				AML	AML		
PYL1	Pylos	1.07	340	P	Pg	07 26 52.7	+0.2
PYL1				S	Sg	07 27 06.5	+0.1
PYL1				AML	AML		
VALY	Valyra	1.26	354	P	Pg	07 26 56.1	0.0
VALY				S	Sn	07 27 14.7	+3.3
VALY	Valyra	1.26	354	P	Pg	07 26 55.7	-0.4
VALY				S	Sg	07 27 11.8	-0.7
VALY				AML	AML		
ITM	Ithomi	1.28	352	P	Pg	07 26 56.3	-0.2
ITM				S	Sn	07 27 15.4	+3.4
KNDR	Palaiochora Ch	1.38	119	P	Pn	07 26 58.1	+1.8
KNDR				S	Sb	07 27 16.1	+1.6
KNDR				AML	AML		
KNDR	Palaiochora Ch	1.38	119	P	Pg	07 26 58.9	+0.6
KNDR				S	Sn	07 27 17.0	+2.8
KNDR				AML	AML		
VLX	Vlachokerasia	1.47	7	P	Pb	07 26 59.6	+0.7
VLX				S	Sn	07 27 19.5	+2.8
VLX				AML	AML		
IMMV	Iera Moni Meta	1.55	106	P	Pn	07 27 00.7	+1.9
IMMV				S	Sn	07 27 19.8	+1.1
IMMV				AML	AML		
IMMV	Iera Moni Meta	1.55	106	P	Pn	07 27 00.6	+1.8
IMMV				S	Sg	07 27 20.9	-1.0
IMMV				AML	AML		
CH01	Chania	1.57	104	P	Pb	07 27 01.3	+0.9
CH01				S	Sg	07 27 21.8	-0.6
CH01				AML	AML		
CHAN	Chania	1.59	104	P	Pb	07 27 01.7	+0.9
CHAN				S	Sg	07 27 22.3	-0.7
CHNB	Souda	1.61	105	P	Pb	07 27 02.1	+0.9
CHNB				S	Sg	07 27 23.2	-0.6
AMT	Artemida-Makis	1.66	348	P	Pb	07 27 03.5	+1.5
AMT				S	Sb	07 27 24.5	+1.8
AMT				AML	AML		
AMT	Artemida-Makis	1.66	348	P	Pn	07 27 02.1	+1.8
AMT				S	Sn	07 27 23.7	+2.4
AMT				AML	AML		
VAM	Vamos	1.74	106	P	Pn	07 27 03.1	+1.7
VAM				S	Sn	07 27 24.6	+1.3
VAM				AML	AML		
VAM	Vamos	1.74	106	P	Pb	07 27 04.4	+1.0
VAM				S	Sb	07 27 26.5	+1.5
VAM				AML	AML		
ARS1	Argos	1.78	15	P	Pn	07 27 03.6	+1.7
ARS1				S	Sn	07 27 25.9	+1.6
ARS1				AML	AML		
GVDS	Gavdos	1.89	124	P	Pb	07 27 06.5	+0.6
GVD	Gavdhos	1.91	123	P	Pn	07 27 06.1	+2.4
GVD				AML	AML		
MET6	Megalochori,Me	1.94	30	P	Pn	07 27 05.9	+1.9
MET1	Methana Town,	1.94	30	P	Pn	07 27 05.7	+1.6
MET1				AML	AML		
MET2	Kameni Chora,	1.94	29	P	Pn	07 27 05.9	+1.7
MHLO	Agia Marina, M	1.98	66	P	Pn	07 27 05.9	+1.3
MHLO				S	Sn	07 27 30.7	+1.6
MHLO				AML	AML		
MHLO	Agia Marina, M	1.98	66	P	Pn	07 27 06.7	+2.1
MET4	Agioi Theodoro	1.98	30	P	Pb	07 27 07.5	0.0
GUR	Goura	2.03	4	P	Pb	07 27 08.6	+0.2
GUR				S	Sb	07 27 33.7	+0.2
GUR				AML	AML		
GUR	Goura	2.03	4	P	Pn	07 27 08.2	+2.7
GUR				AML	AML		
ACOR	Acrocorinthos	2.06	16	P	Pn	07 27 08.0	+2.2
ACOR				AML	AML		
DRO	Drossia	2.07	350	P	Pn	07 27 09.0	+3.1
DRO				S	Sb	07 27 34.8	+0.3
DRO				AML	AML		
DRO	Drossia	2.07	350	P	Pn	07 27 09.0	+3.1
DRO				AML	AML		
LTHK	Lithakia	2.08	330	P	Pn	07 27 09.1	+3.0
LTHK				AML	AML		
KLV	Kalavryta, Ach	2.13	360	P	Pn	07 27 09.8	+3.0
KLV				S	Sb	07 27 36.5	+0.2
KLV				AML	AML		
KLV	Kalavryta, Ach	2.13	360	P	Pn	07 27 08.7	+1.9
THAL	Thalero	2.16	11	P	Pn	07 27 09.2	+2.0
THAL				AML	AML		
LOUT	Loutraki	2.18	17	P	Pn	07 27 09.3	+1.9
LOUT				AML	AML		
IDI	Anoyia	2.31	105	Pn	Pn	07 27 11.0	+1.6
	2.6nm,0.3s,baz=266,slow=11,SNR=13						
IDI				Sn	Sb	07 27 42.7	+1.1
	14nm,0.3s,baz=39,slow=22,SNR=4.1						
	14nm,0.6s						
IDI				AML	AML		
IDI	Anoyia	2.31	105	P	Pn	07 27 11.3	+2.0
IDI				S	Sn	07 27 39.8	+2.3
IDI				AML	AML		
VLY	Voula,Athens	2.34	34	P	Pn	07 27 11.2	+1.5
VLY				S	Sn	07 27 40.1	+2.0
VAE	Valguarnera	6.41	286	Pn	Pn	07 28 06.0	+0.3
	0.9nm,0.3s,baz=83,slow=9.0,SNR=1.5						
VAE				Sn	Sn	07 29 18.7	+0.1
	0.3nm,0.3s,baz=313,slow=7.1,SNR=2.1						
	5.3nm,0.4s						
VAE				AML	AML		
EIL	Elat	12.43	116	Pn	Pn	07 29 27.7	-0.4
	1.3nm,0.4s,baz=304,slow=18,SNR=1.3						
EIL				Sn	Sn	07 31 38.2	-8.1
	0.3nm,0.3s,baz=175,slow=22,SNR=1.2						
AKASG	Malin Array Be	15.64	17	Pn	Pn	07 30 08.4	-3.1
	0.1nm,0.3s,baz=214,slow=10,SNR=5.2						
ESDC	Sonseca Array	20.95	288	P	P	07 31 13.4	-0.6
	0.9nm,0.8s,baz=91,slow=12,SNR=4.7						
	0.9nm,0.8s						
HFS	Hagfors	24.85	350	P	P	07 31 51.8	-1.4
	2.8nm,0.5s,baz=163,slow=11,SNR=12						
	2.8nm,0.5s						
FINES	FINESS Array B	25.68	4	P	P	07 31 59.3	-1.4
	2.6nm,0.8s,baz=163,slow=13,SNR=6.8						
	2.6nm,0.8s						
EKA	Eskdalemuir Ar	26.03	326	P	P	07 32 02.9	-1.1
	0.7nm,0.5s,baz=126,slow=9.4,SNR=4.8						
	0.7nm,0.5s						
NOA	NORSAR Array B	26.10	348	P	P	07 32 04.5	-0.1
	0.7nm,0.8s,baz=151,slow=9.7,SNR=4.4						
	0.7nm,0.8s						
ARCES	ARCESS Array B	33.73	2	P	P	07 33 10.9	-1.2
	1.1nm,0.5s,baz=183,slow=9.1,SNR=8.7						
	1.1nm,0.5s						
KURBB	Kurchatov Arra	42.57	52	P	P	07 34 25.3	-1.4
	0.5nm,0.6s,baz=277,slow=7.4,SNR=5.0						
	0.5nm,0.6s						
MKAR	Makanchi Array	45.41	57	P	P	07 34 48.4	-1.3
	0.8nm,0.3s,baz=276,slow=7.7,SNR=10						
	0.8nm,0.3s						
ZALV	Zalesovo Beam	46.26	47	P	P	07 34 54.5	-1.8
	0.6nm,0.3s,baz=255,slow=9.7,SNR=3.7						
	0.6nm,0.3s						

*IDC **05** 07:26:56.9±1.2, 38°.82N×142°.69E, h0^{km}, mb3.6/4, mbtmp3.6/5, ML2.7/1, MS3.1/1, Error ellipse: s-maj=34.9km s-min=22.3km az=127.0*

*JMA **05** 07:27:01.0±0.1, 38°.9N±0°.2×142°.4E±0°.3, h30^{km}, MV3.9/32, E OFF MIYAGI PREF*

JMA Felt I J1 at E OFF MIYAGI PREF .

ISC 05 07:27:02.4±1.5, **38°.89N**±0°.07×**142°.3E**±0°.1, **h37**^{km}±3^{km}, **n18**, σ**0.^{s}90**/17, **mb3.8**/4, **Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OFUJ	Ofunato	0.56	290	iP	Pn	07 27 13.2	-0.7
OFUJ				S	Sn	07 27 21.7	-0.3
JKMT	Kesennumamotoy	0.68	264	iP	Pn	07 27 14.9	-0.7
JKMT				S	Sn	07 27 24.4	-0.6
JMK	Ichinoseki	0.88	274	iP	Pn	07 27 18.1	-0.1
JMK				S	Sn	07 27 30.3	+0.5
JIO	Ouri	0.89	241	iP	Pn	07 27 17.5	-0.9
JIO				eS	Sn	07 27 29.1	-1.0
JOM	Ohasama	1.00	306	iP	Pn	07 27 20.1	+0.1
JOM				S	Sn	07 27 33.6	+0.8
JTH	Tanohata	1.11	341	P	Pn	07 27 21.0	-0.4
JTH				eS	Sn	07 27 35.8	+0.3
MJAR	Matsushiro Arr	4.03	236	Pn	Pn	07 28 03.7	+2.2
	0.4nm,0.3s,baz=38,slow=13,SNR=16						
	3.2nm,0.5s						
MJAR				AML	AML		
SHEM	Shemya Is, Ala	25.86	47	LR	LR	07 41 36.7	
	comp=Z,48nm,21.9s,baz=118,slow=34						
H11N2	WAKE ISLAND Hy	28.54	125	T	T	08 03 17.5	
	baz=317,slow=76,SNR=111						
H11N1	WAKE ISLAND Hy	28.55	125	T	T	08 03 19.6	
	baz=317,slow=76,SNR=136						
H11N3	WAKE ISLAND Hy	28.55	125	T	T	08 03 20.2	
	baz=317,slow=76,SNR=105						
H11S1	WAKE ISLAND Hy	29.32	127	T	T	08 04 16.3	
	baz=318,slow=76,SNR=16						
H11S3	WAKE ISLAND Hy	29.32	127	T	T	08 04 17.5	
	baz=318,slow=76,SNR=23						
H11S2	WAKE ISLAND Hy	29.33	127	T	T	08 04 17.8	
	baz=318,slow=76,SNR=16						
KURBB	Kurchatov Arra	45.46	307	P	P	07 35 18.5	+0.8
	0.7nm,0.4s,baz=82,slow=8.5,SNR=5.1						
	0.7nm,0.4s						
ILAR	Eielson Array	47.54	33	P	P	07 35 33.6	-0.2
	0.5nm,0.7s,baz=268,slow=6.8,SNR=6.6						
	0.5nm,0.7s						
WRA	Warramunga Arr	59.00	189	P	P	07 36 57.7	-0.7
	0.5nm,0.5s,baz=8.2,slow=6.9,SNR=5.3						
	0.5nm,0.5s						
ASAR	Alice Springs	62.73	189	P	P	07 37 23.4	-0.3
	0.2nm,0.5s,baz=18,slow=9.7,SNR=4.7						
	0.2nm,0.5s						

*IDC **05** 07:27:53.9±1.8, 17°.34S×178°.97W, h592^{km}±18^{km}, mb3.2/7, mbtmp4.2/9, Error ellipse: s-maj=77.8km s-min=15.6km az=149.0*

*NEIC **05** 07:27:53.5±1.1, 17°.5S±0°.2×178°.84W±0°.09, h590^{km}±9^{km}, mb4.0/16, Error ellipse: s-maj=23.0km s-min=12.1km az=194.0*

ISC 05 07:27:53.9±0.7, **17°.5S**±0°.2×**178°.9W**±0°.1, **h600**^{km}, **n28**, σ**1.^{s}03**/28, **mb3.9**/15, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	2.88	265	P	P	07 29 11.6	-0.9
	47nm,0.6s,baz=125,slow=10,SNR=28						
MSVF	Nonsavu	2.88	265	P	P	07 29 11.5	-1.0
MARNC	Mare, Loyalty	12.91	250	P	P	07 30 39.8	-2.0
DZM	Mont Dzumac	14.49	249	P	P	07 30 59.1	+1.6
	8.5nm,1.0s,baz=90,slow=20,SNR=7.6						
ARMA	Armidale	29.71	239	P	P	07 33 13.7	+0.4
CTAO	Charters Tower	33.02	260	P	P	07 33 41.9	+0.5
CTAO				IAmb	IAmb	07 33 43.1	
	comp=Z,5.2nm,0.9s						
TOO	Toolangi	37.04	230	P	P	07 34 14.6	+0.1
STKA	Stephens Creek	38.39	241	P	P	07 34 26.1	+0.6
	comp=Z,3.4nm,0.5s,baz=80,slow=9.3,SNR=17						
	comp=Z,3.4nm,0.5s						
WRA	Warramunga Arr	44.21	259	P	P	07 35 11.8	+0.3
	comp=Z,1.7nm,0.5s,baz=96,slow=7.1,SNR=51						
	comp=Z,1.7nm,0.5s						
WRA	Warramunga Arr	44.21	259	IAmb	IAmb	07 35 12.6	
	comp=Z,0.2nm,0.7s						
AS31	Alice Springs	44.41	254	P	P	07 35 13.6	+0.5
AS31				IAmb	IAmb	07 35 14.3	
	comp=Z,5.4nm,0.8s						
ASAR	Alice Springs	44.42	254	P	P	07 35 13.8	+0.7
	comp=Z,16nm,0.6s,baz=89,slow=8.4,SNR=395						
ASAR				PcP	PcP	07 36 44.0	+0.6
	comp=Z,0.3nm,0.5s,baz=108,slow=3.7,SNR=2.4						
	comp=Z,16nm,0.6s						
ASAR	Alice Springs	44.42	254	P	P	07 35 13.6	+0.5
KNRA	Kununurra	50.03	264	P	P	07 35 55.8	+0.7
KNRA				IAmb	IAmb	07 36 09.2	
	comp=Z,9.7nm,1.4s						
MBWA	Marble Bar	57.68	256	P	P	07 36 48.8	0.0
MBWA				IAmb	IAmb	07 36 49.2	
	comp=Z,15nm,1.4s						
VA02	Isla de Pascua	64.32	112	P	P	07 37 31.1	-1.0
MAJO	Matsushiro	67.28	324	P	P	07 37 48.1	-2.1
MAJO				IAmb	IAmb	07 38 30.6	
	comp=Z,3.5nm,0.8s						
MJB9	Matsu-Tunnel	67.28	324	P	P	07 37 48.9	-1.3
MJB9				IAmb	IAmb	07 38 31.6	
	comp=Z,3.4nm,0.8s						
R16K	Pilot Point	76.86	12	P	P	07 38 47.5	+2.6
OHAK	Old Harbor	77.45	14	P	P	07 38 48.2	+0.1
OHAK				IAmb	IAmb	07 38 59.1	
	comp=Z,6.5nm,1.4s						
KDAK	Kodiak Island	78.12	14	P	P	07 38 51.3	-0.4
KDAK				IAmb	IAmb	07 39 04.3	
	comp=Z,7.2nm,1.1s						
N14K	Kuskokwak Cree	78.41	9	P	P	07 38 54.3	+1.1
YBH	Yreka Blue Hor	78.53	39	P	P	07 38 54.9	+0.5
BEKR	Beckworth	78.92	42	P	P	07 38 56.7	+0.1
NVAR	Mina Array Bea	79.48	44	P	P	07 39 00.1	+0.4
	comp=Z,0.5nm,0.6s,baz=220,slow=8.8,SNR=6.4						
	comp=Z,0.5nm,0.6s						
ILAR	Eielson Array	85.60	13	P	P	07 39 29.5	0.0
	comp=Z,0.3nm,0.4s,baz=221,slow=5.3,SNR=7.3						
	comp=Z,0.3nm,0.4s						
TXAR	Lajitas Array	86.20	58	P	P	07 39 33.9	+0.6
	comp=Z,0.6nm,0.7s,baz=210,slow=6.7,SNR=8.2						
	comp=Z,0.6nm,0.7s						
PDAR	Pinedale Array	87.40	44	P	P	07 39 38.8	0.0
	comp=Z,0.5nm,0.5s,baz=227,slow=4.0,SNR=6.7						
	comp=Z,0.5nm,0.5s						

*IDC **05** 07:39:02.9±2.9, 9°.65S×114°.12E, h0^{km}, mb3.3/4, mbtmp3.4/5, ML3.0/1, MS2.3/1, Error ellipse: s-maj=169.1km s-min=17.7km az=46.0*

*DJA **05** 07:39:04.7±0.9, 10°S±9°×11°4E±°, h10^{km}, M3.9/13, MLv3.9/13*

ISC 05 07:39:06.1±1.0, **10°.2S**±0°.1×**113°.80E**±0°.07, **h35**^{km}, **n15**, σ**1.^{s}71**/14, **mb3.2**/4, **South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAGI	Jajag, Banyuwa	1.74	12	P	Pn	07 39 32.7	-1.2
JAGI				AML	AML		
IGBI	Denpasar	1.90	44	P	Pn	07 39 36.1	+0.1
ABJI	Asem Bagus	2.41	10	P	Pn	07 39 44.7	+1.6
ABJI				AML	AML		
BLJI	Banyuglugur	2.43	355	P	Pn	07 39 44.2	+0.8
BLJI				AML	AML		
KHKI	Kahang-Kahang	2.54	45	P	Pn	07 39 46.5	+1.6
SNJI	Sawahan-Nganju	3.12	320	P	Pn	07 39 54.1	+1.0
SNJI				AML	AML		
PCJI	Pacitan	3.26	307	P	Pn	07 39 55.1	+0.4
PCJI				AML	AML		
UGM	Wanagama	3.95	305	P	Pn	07 40 05.2	+1.0
PLAI	Plampang	4.15	71	P	Pn	07 40 07.8	+0.8
KAPI	Kappang	7.82	49	LR	LR	07 43 23.2	
	comp=Z,26nm,21.6s,baz=169,slow=36						
FITZ	Fitzroy Crossi	13.91	126	Pn	Pn	07 42 18.5	-2.4
	0.1nm,0.3s,baz=308,slow=17,SNR=2.5						
FITZ				Sn	Sn	07 44 40.9	-13
	0.1nm,0.3s,baz=78,slow=19,SNR=1.3						
	2.0nm,0.9s						
FITZ				AML	AML		
WRA	Warramunga Arr	22.05	118	P	P	07 44 00.5	+2.5
	0.5nm,1.1s,baz=294,slow=11,SNR=1.6						
	0.5nm,1.1s						
ASAR	Alice Springs	23.40	127	P	P	07 44 14.9	+2.8
	0.2nm,0.6s,baz=309,slow=9.7,SNR=5.7						
	0.2nm,0.6s						
CMAR	Chiang Mai Arr	32.02	333	P	P	07 45 29.4	-0.1
	1.2nm,0.3s,baz=173,slow=9.4,SNR=6.0						
	1.2nm,0.3s						
MKAR	Makanchi Array	63.32	336	P	P	07 49 30.0	-1.6
	0.2nm,0.5s,baz=134,slow=7.8,SNR=2.1						
	0.2nm,0.5s						

*IDC **05** 08:20:26.8±2.7, 57°.06N×157°.18W, h61^{km}±22^{km}, mb3.7/22, mbtmp4.0/26, ML4.1/4, Error ellipse: s-maj=22.3km s-min=15.0km az=15.0*

*NEIC **05** 08:20:28.2±1.1, 56°.79N±0°.04×156°.94W±0°.05, h80^{km}±3^{km}, mb4.1/6, ML3.9/72, ML3.7(AEIC), Error ellipse: s-maj=5.6km s-min=3.6km az=150.0*

*AEIC **05** 08:20:29.6±1.4, 56°.80N±0°.02×156°.92W±0°.06, h69^{km}±6^{km}, Error ellipse: s-maj=5.2km s-min=1.3km az=118.0*

ISC 05 08:20:28.4±0.7, **56°.83N**±0°.05×**156°.95W**±0°.04, **h84**^{km}±6^{km}, **n255**, σ**0.^{s}91**/264, **mb4.0**/26, **Alaska Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ANPK	Aniakchak Peak	0.65	272		Pn	08 20 43.6	-0.4
ANPK					Sn	08 20 54.3	-1.2
ANNW	Aniakchak Nort	0.71	282		Pn	08 20 44.4	-0.1
ANPB	Aniakchak Plen	0.73	269		Pn	08 20 44.3	-0.4
ANPB					Sn	08 20 55.9	-1.0
R16K	Pilot Point	0.82	336		Pn	08 20 45.3	-0.3
R16K	Pilot Point	0.82	336		Sn	08 20 58.3	-0.1
R16K	Pilot Point	0.82	336	IAML		08 20 58.5	
	comp=N,2µm,0.6s						
R16K				IAML		08 20 58.5	
	comp=E,4µm,1.0s						
BPBCA	Veniaminof	0.86	255		Pn	08 20 45.8	-0.3
R17L	Mt. Peulik Vol	0.87	21		Pn	08 20 46.5	+0.3
R17L					Sn	08 20 58.8	-0.7
PLBL	Peulik Blue Cr	0.88	5		Pn	08 20 46.4	+0.1
PLBL					Sn	08 20 59.4	-0.3
CHGN	Chignik	0.97	238		Pn	08 20 46.6	-0.6
CHGN	Chignik	0.97	238		Sn	08 21 00.1	-1.2
PLK1	Peulik 1	1.00	11		Pn	08 20 47.8	+0.2
PLK1					Sn	08 21 02.4	+0.5
PLK2	Peulik 2	1.00	20		Pn	08 20 47.9	+0.2
PLK2					Sn	08 21 02.6	+0.5
PLK5	Peulik 5	1.18	2		Pn	08 20 50.0	+0.3
PLK5					Sn	08 21 05.6	-0.2
CHIR	Chirikof Islan	1.25	143	P	Pn	08 20 49.8	-0.9
CHIR	Chirikof Islan	1.25	143		Pn	08 20 49.9	-0.7
CHIR					Sn	08 21 06.2	-1.2
CHIR	Chirikof Islan	1.25	143	IAML		08 21 16.2	
	comp=E,1µm,0.8s						
CHIR				IAML		08 21 17.9	
	comp=N,1µm,0.7s						
VNSG	Veniaminof 6	1.38	240		Pn	08 20 52.3	-0.1
KJL	Kejulik	1.44	31		Pn	08 20 53.2	+0.1
VNSS	Veniaminof 8	1.51	248		Pn	08 20 54.1	-0.1
CAHL	Cahill	1.52	35		Pn	08 20 54.2	+0.1
VNFG	Fog Glacier, M	1.54	250		Pn	08 20 54.6	+0.2
VNFG				IAML		08 21 29.9	
	comp=E,2µm,0.6s						
VNFG	Fog Glacier, M	1.54	250		Pn	08 20 54.7	+0.2
SII	Sitkinak Islan	1.55	99	P	Pn	08 20 54.1	-0.4
SII	Sitkinak Islan	1.55	99		Pn	08 20 53.8	-0.7
SII	Sitkinak Islan	1.55	99		Sn	08 21 13.4	-0.8
Q17K	Contact Creek	1.55	21		Pn	08 20 54.6	0.0
Q17K					Sn	08 21 14.0	-0.4
VNKR	Veniaminof 5	1.56	240		Pn	08 20 54.9	+0.2
ANCK	Angle Creek	1.58	29		Pn	08 20 54.9	-0.1
MGLS	Mageik Landsli	1.63	36		Pn	08 20 55.5	0.0
ACHA	Angle Creek He	1.64	32		Pn	08 20 56.0	+0.2
ACHA	Angle Creek He	1.64	32		Sn	08 21 16.4	-0.1
ACHA	Angle Creek He	1.64	32	IAML		08 21 17.7	
	comp=E,161nm,0.7s						
ACHA				IAML		08 21 18.2	
	comp=N,174nm,0.8s						
KABU	Katmai Buttres	1.71	31		Pn	08 20 56.9	+0.4
KAKN	Katmai Knife C	1.79	34		Pn	08 20 57.9	+0.2
Q16K	King Salmon	1.86	5		Pn	08 20 58.8	+0.3
Q16K					Sn	08 21 21.4	0.0
KAWH	Katmai	1.94	36		Pn	08 20 59.6	-0.1
OHAK	Old Harbor	2.04	77	P	Pn	08 21 00.5	-0.4
OHAK	Old Harbor	2.04	77		Pn	08 21 00.5	-0.4
OHAK				IAML		08 21 25.1	
	comp=N,1µm,0.4s						
OHAK				IAML		08 21 25.4	
	comp=E,992nm,0.3s						
KARR	Katmai Rainbow	2.07	35		Pn	08 21 01.5	+0.3
Q18K	Katmai Hardscr	2.10	29		Pn	08 21 02.0	+0.2
KAHG	Katmai Hook Gl	2.11	37		Pn	08 21 02.2	+0.3
P16K	Nushagak River	2.28	346		Pn	08 21 04.4	+0.4
P16K	Nushagak River	2.28	346		Sn	08 21 32.0	+0.7
P16K	Nushagak River	2.28	346	IAML		08 21 46.4	
	comp=N,814nm,1.0s						
P17K	Kvichak River	2.39	6		Pn	08 21 05.8	+0.3
P17K				IAML		08 21 43.5	
	comp=E,820nm,0.6s						
SDPT	Sand Point	2.47	235	P	Pn	08 21 06.7	+0.1
SDPT	Sand Point	2.47	235		Pn	08 21 07.0	+0.4
SDPT				IAML		08 21 39.4	
	comp=N,770nm,0.7s						
SDPT				IAML		08 21 47.5	
	comp=E,552nm,0.9s						
CHNA	Chernabura Isl	2.49	218	P	Pn	08 21 06.2	-0.7
CNBA	Chernabura Isl	2.50	218		Pn	08 21 05.9	-1.1
CNBA				IAML		08 21 46.2	
	comp=E,495nm,0.5s						
CNBA				IAML		08 21 48.8	
	comp=N,396nm,0.5s						
KDAK	Kodiak Island	2.56	66	P	Pn	08 21 07.5	-0.3
	comp=N,105nm,0.3s,baz=218,slow=5.2,SNR=6786						
KDAK				S	Sn	08 21 36.6	-1.3
	comp=N,190nm,0.4s,baz=45,slow=18,SNR=22						
	comp=N,296nm,0.3s						
KDAK				AML	AML		
KDAK	Kodiak Island	2.56	66		Pn	08 21 07.4	-0.3
KDAK				IAML		08 21 37.5	
	comp=N,572nm,0.3s						
KDAK				IAML		08 21 38.0	
	comp=N,516nm,0.4s						
KDAK	Kodiak Island	2.56	66		Sn	08 21 36.4	-1.5
P18K	Big Mountain,	2.73	19		Pn	08 21 10.1	0.0
Q19K	Cape Douglas,	2.75	39		Pn	08 21 10.7	+0.3
O15K	Ungalikthiuk R	2.81	328		Pn	08 21 11.7	+0.5
O15K				IAML		08 21 44.1	
	comp=N,347nm,0.8s						
O15K				IAML		08 21 45.3	
	comp=E,376nm,0.8s						
O16K	Kokwok River B	2.84	348		Pn	08 21 11.4	-0.1
O16K				IAML		08 22 02.6	
	comp=E,272nm,0.7s						
O17K	Koliganek Bris	2.96	359		Pn	08 21 13.3	+0.2

PS1A	Pavlof South-1	3.03	244		Pn	08 21 14.6	+0.5
PS4A	Pavlof South-4	3.12	244		Pn	08 21 15.8	+0.4
AUI	Augustine Isla	3.13	35		Pn	08 21 16.5	+0.9
PN7A	Pavlof North-7	3.15	246		Pn	08 21 16.5	+0.6
AUJK	Augustine Jueg	3.15	35		Pn	08 21 16.8	+1.0
AGU	Augustine-Summ	3.15	35		Pn	08 21 16.8	+0.9
O18K	Koktuh Hills	3.17	16		Pn	08 21 16.3	+0.2
AU22	Augustine Moun	3.19	35		Pn	08 21 17.3	+1.1
DOL	Dolgoi Island	3.23	241		Pn	08 21 16.8	-0.1
O14K	Tigyukauivet M	3.34	319		Pn	08 21 18.5	+0.2
DTNA	Dutton South F	3.42	243		Pn	08 21 19.6	+0.2
P19K	Oil Pt	3.45	33		Pn	08 21 20.9	+1.0
DT1	Dutton Round H	3.46	242		Pn	08 21 19.9	+0.1
O19K	Port Alsworth	3.65	21		Pn	08 21 22.9	+0.4
N17K	Nushagak Hills	3.71	358		Pn	08 21 23.3	0.0
N15K	Kwethluk River	3.73	335		Pn	08 21 24.1	+0.4
N15K				IAML		08 22 07.7	
	comp=N,196nm,1.0s						
N15K				IAML		08 22 08.1	
	comp=E,245nm,0.8s						
ILS	Iliamna Low So	3.75	31		Pn	08 21 24.9	+0.9
ILSW	Iliamna Southw	3.75	31		Pn	08 21 24.5	+0.6
N16K	Nishlik Lake	3.78	346		Pn	08 21 24.9	+0.6
IVE	Iliamna Volcan	3.81	31		Pn	08 21 25.8	+1.0
N18K	Kilae Creek	3.91	8		Pn	08 21 26.3	+0.3
O20K	Slope Mountain	3.98	33		Pn	08 21 28.2	+1.2
N14K	Kuskokwak Cree	3.98	323		Pn	08 21 27.4	+0.5
N14K				IAML		08 22 14.0	
	comp=E,192nm,0.9s						
N14K				IAML		08 22 14.1	
	comp=N,215nm,0.8s						
HOM	Homer	3.99	42		Pn	08 21 27.9	+0.8
CNPM	China Poot	4.06	46		Pn	08 21 28.3	+0.2
CNPM				IAML		08 22 27.2	
	comp=E,152nm,0.7s						
CNPM				IAML		08 22 27.5	
	comp=N,112nm,1.0s						
N19K	Bonanza Creek	4.20	17		Pn	08 21 30.8	+0.8
N19K				IAML		08 22 34.8	
	comp=E,87nm,0.6s						
RDSO	Redoubt South	4.25	29		Pn	08 21 31.9	+1.1
NCT	North Crescent	4.29	28		Pn	08 21 32.3	+1.0
M16K	Timber Creek	4.33	347		Pn	08 21 32.4	+0.6
M16K				IAML		08 22 22.2	
	comp=E,94nm,0.7s						
M15K	Kasigluk River	4.34	335		Pn	08 21 32.0	+0.1
RDJH	Redoubt Jeurge	4.35	28		Pn	08 21 33.1	+1.0
DFR	Drift River	4.38	29		Pn	08 21 32.9	+0.3
BRSE	Bradley Lake S	4.39	46		Pn	08 21 32.5	-0.1
RDT	Redoubt	4.44	30		Pn	08 21 34.2	+0.9
M17K	Holitna River	4.60	357		Pn	08 21 35.6	+0.3
M17K				IAML		08 23 01.9	
	comp=N,150nm,1.2s						
M17K				IAML		08 23 05.0	
	comp=E,137nm,0.9s						
M18K	Stony River	4.71	7		Pn	08 21 37.5	+0.5
M14K	Bethel	4.72	329		Pn	08 21 37.7	+0.7
M14K				IAML		08 23 03.3	
	comp=E,122nm,1.1s						
M14K				IAML		08 23 08.9	
	comp=N,124nm,1.1s						
M13K	Dall Lake	4.91	320		Pn	08 21 40.8	+1.2
M13K				IAML		08 23 11.5	
	comp=N,68nm,1.1s						
M13K				IAML		08 23 13.8	
	comp=E,95nm,1.4s						
CAPN	Captain Cook N	4.97	35		Pn	08 21 42.3	+1.9
CKL	Chakachamna La	4.99	27		Pn	08 21 42.0	+1.3
SPWE	Spurr West	5.00	25		Pn	08 21 42.2	+1.2
SPNN	North Nagishla	5.05	24		Pn	08 21 42.6	+0.9
L16K	Owhat River	5.07	346		Pn	08 21 41.9	+0.1
SLKM	Skilak Lake	5.09	41		Pn	08 21 42.2	0.0
SLKM				IAML		08 22 42.0	
	comp=N,55nm,0.3s						
SLKM				IAML		08 22 42.6	
	comp=E,47nm,0.2s						
SEW	Seward	5.13	47		Pn	08 21 41.3	-1.2
SEW				IAML		08 22 45.3	
	comp=E,45nm,0.7s						
SEW				IAML		08 22 51.2	
	comp=N,49nm,1.5s						
M19K	Big River Lodg	5.26	13		Pn	08 21 45.1	+0.7
M19K				IAML		08 23 24.1	
	comp=E,41nm,0.9s						
O22K	Cooper Landing	5.26	43		Pn	08 21 44.1	-0.2
L17K	Donlin	5.37	353		Pn	08 21 46.0	+0.2
STLK	Strandline Lak	5.37	27		Pn	08 21 47.3	+1.3
L15K	Ungalak Mounta	5.39	336		Pn	08 21 46.2	0.0
L14K	Kuka Creek	5.41	329		Pn	08 21 46.3	0.0
L18K	Granite Mounta	5.41	1		Pn	08 21 46.7	+0.3
M20K	Styx River	5.43	19		Pn	08 21 48.5	+1.6
L19K	White Mountain	5.48	10		Pn	08 21 48.0	+0.7
RC01	Rabbit Creek A	5.67	38		Pn	08 21 49.5	-0.5
AKUT	Akutan	5.69	245	P	Pn	08 21 50.3	0.0
AKBBA	Akutan Broad B	5.79	246		Pn	08 21 51.7	0.0
SKT	Skwentna	5.86	26		Pn	08 21 53.4	+0.8
P23K	Montague Islan	5.94	54		Pn	08 21 52.8	-0.9
K17K	Iditarod	5.95	354		Pn	08 21 54.0	+0.3
K15K	Wolf Creek Mou	5.96	339		Pn	08 21 55.4	+1.5
M11K	Mekoryuk	6.01	310		Pn	08 21 54.9	+0.4
PWL	Port Wells	6.03	44		Pn	08 21 54.1	-0.8
M22K	Willow	6.05	32		Pn	08 21 55.0	-0.2
UNV	Unalaska Valle	6.21	245	P	Pn	08 21 56.9	-0.5
UNV	Unalaska Valle	6.21	245		Pn	08 21 56.7	-0.7
PMR	Palmer	6.24	37	P	Pn	08 21 57.1	-0.6
PMR	Palmer	6.24	37		Pn	08 21 56.5	-1.2
MNAT	Makushin Natee	6.28	246		Pn	08 21 58.0	-0.3
MSW	Makushin Switc	6.32	247		Pn	08 21 58.7	-0.1
KNK	Knik Glacier	6.34	40		Pn	08 21 58.2	-1.0
GHO	Glory Hole Cre	6.44	36		Pn	08 21 59.3	-1.2
K13K	Kusilvak Mount	6.46	326		Pn	08 22 01.5	+0.8
HIN	Hinchinbrook I	6.53	52		Pn	08 22 01.0	-0.6
GLI	Glacier Island	6.53	47		Pn	08 22 00.6	-1.1
CUT	Chulitna	6.54	28		Pn	08 22 01.6	-0.2
SML	Sawmill	6.66	38		Pn	08 22 02.7	-0.8
J18K	Innoko River	6.66	1		Pn	08 22 03.8	+0.3
J17K	VABM Dome	6.68	352		Pn	08 22 03.3	-0.3
K20K	Telida	6.71	11		Pn	08 22 04.4	+0.3
FID	Port Fidalgo	6.71	50		Pn	08 22 02.5	-1.7
J16K	Anvik River	6.73	346		Pn	08 22 04.4	0.0
J14K	Nanvaranak Lak	6.81	333		Pn	08 22 06.2	+0.8
M23K	Glacier View	6.86	40		Pn	08 22 05.5	-0.7
EYAK	Cordova Ski Ar	6.93	53	P	Pn	08 22 06.3	-0.7
EYAK	Cordova Ski Ar	6.93	53		Pn	08 22 06.2	-0.9
SCM	Sheep Creek Mo	7.03	40		Pn	08 22 07.9	-0.7
OKFG	Magazine Ridge	7.16	246		Pn	08 22 09.8	-0.4
DIV	Divide	7.21	49		Pn	08 22 10.8	-0.1
J19K	Poorman	7.22	5		Pn	08 22 11.5	+0.4
OKTU	Okmok Mt. Tuli	7.24	246		Pn	08 22 11.3	-0.1
SPIA	Saint Paul Isl	7.27	278	P	Pn	08 22 10.9	-0.9
WAT7	Susitna Watana	7.27	31		Pn	08 22 10.8	-1.1
KAIM	Kayak Island	7.28	60		Pn	08 22 12.0	0.0
RAGM	Ragged Mountai	7.34	56		Pn	08 22 12.0	-0.7
KLU	Klutina	7.34	46		Pn	08 22 12.0	-0.8
WAT1	Susitna Watana	7.36	32		Pn	08 22 11.8	-1.1
GOAT	Goat Mountain	7.39	54		Pn	08 22 13.2	-0.4
WAT6	Susitna Watana	7.41	35		Pn	08 22 12.4	-1.5
J20K	Nowinta River	7.50	9		Pn	08 22 15.2	+0.3
BMRM	Bremner River	7.62	52		Pn	08 22 15.4	-1.2
RND	Reindeer	7.74	28		Pn	08 22 16.7	-1.4
BERG	Berg Lake	7.78	57		Pn	08 22 18.0	-0.8
PS11	TAPS Pump St11	7.86	43		Pn	08 22 20.0	+0.1
DHY	Denali Highway	7.89	33		Pn	08 22 18.8	-1.6
N25K	Chitina, Valde	7.94	48		Pn	08 22 20.2	-0.8
HARP	HAARP	8.18	42		Pn	08 22 24.5	+0.4
GLB	Gilahina Butte	8.18	50		Pn	08 22 23.5	-0.8
VRDI	Verde Repeater	8.24	52		Pn	08 22 24.1	-1.1
H17K	Granite Mounta	8.26	351		Pn	08 22 26.2	+0.9
TGL	Tana Glacier	8.32	56		Pn	08 22 25.8	-0.3
BARK	Barkley Ridge	8.35	59		Pn	08 22 26.3	-0.3
H18K	Honhosa River	8.38	356		Pn	08 22 27.8	+0.9
CLCO	Concord Point,	8.41	247		Pn	08 22 26.7	-0.6
MCARA	McCarthy VSAT	8.49	52		Pn	08 22 28.1	-0.4
KIAG	Kiagna River	8.60	55		Pn	08 22 29.4	-0.6
BALM	Baldy	8.65	55		Pn	08 22 30.1	-0.5
PTPK	Patty Peak	8.65	54		Pn	08 22 30.4	-0.3
NEA2	Nenana	8.69	23		Pn	08 22 29.6	-1.4
YAH	Yahtse	8.69	60		Pn	08 22 31.1	-0.3
H20K	Anotleneega Mo	8.75	6		Pn	08 22 32.5	+0.6
ANM	Nome	8.78	336		Pn	08 22 33.7	+1.3
GRNC	Granite Creek	8.80	57		Pn	08 22 32.8	0.0
WRH	Wood River Hil	8.81	26		Pn	08 22 31.0	-1.7
G15K	Niukluk	8.88	340		Pn	08 22 35.2	+1.5
CHX	Chaix Hills	8.91	62		Pn	08 22 33.9	-0.3
K24K	Donnelly Dome	8.91	34		Pn	08 22 34.5	+0.3
BARN	Barnard Glacie	8.96	55		Pn	08 22 34.6	-0.4
M26K	Nabesna, AK	9.00	46		Pn	08 22 35.5	+0.1
CCB	Clear Creek Bu	9.02	26		Pn	08 22 33.6	-2.0
HDA	Harding Lake	9.04	29		Pn	08 22 33.9	-2.0
SAMH	Samovar Hills	9.09	62		Pn	08 22 36.6	0.0
I23K	Minto, Yukon-K	9.12	21		Pn	08 22 35.9	-1.0
G18K	Tagagawik	9.14	356		Pn	08 22 37.9	+0.7
RIDG	Independent Ri	9.16	36		Pn	08 22 37.2	-0.3
LOGN	Logan Glacier	9.18	58		Pn	08 22 37.6	-0.4
COLA	College	9.20	25	P	Pn	08 22 36.3	-1.7
IM04	Indian Mountai	9.30	8		Pn	08 22 40.0	+0.6
G19K	Purcell Mounta	9.35	360		Pn	08 22 40.6	+0.5
IL31		9.35	27		Pn	08 22 37.9	-2.1
ILAR	Eielson Array	9.35	27	P	Pn	08 22 37.7	-2.4
	comp=E,1.9nm,0.3s,baz=215,slow=13,SNR=98						
ILAR				S	Sn	08 24 18.8	-4.5
	comp=E,1.9nm,0.4s,baz=215,slow=22,SNR=9.9						
	comp=E,5.6nm,0.4s						
ILAR				AML	AML		
ILAR	Eielson Array	9.35	27		Pn	08 22 38.2	-1.9
M27K	Edge Creek, AK	9.43	48		Pn	08 22 41.2	-0.1
H22K	Ishtalitna Cre	9.48	14		Pn	08 22 42.8	+1.0
POKR	Poker Plat Res	9.50	25		Pn	08 22 40.4	-1.8
O28M	Mount Upton	9.55	59		Pn	08 22 43.2	+0.2
YUK2	White River	9.61	52		Pn	08 22 44.0	+0.3
J25K	Salcha River,	9.64	31		Pn	08 22 42.5	-1.5
F15K	North Star Dit	9.64	341		Pn	08 22 45.8	+1.8
PNL	Peninsula	9.68	66	P	Pn	08 22 43.9	-0.7
PNL	Peninsula	9.68	66		Pn	08 22 43.6	-0.9
H23K	Yukon River	9.70	18		Pn	08 22 43.1	-1.7
YUK3	Moose Creek	9.77	53		Pn	08 22 46.3	+0.3
BC01	Beaver Creek A	9.81	44		Pn	08 22 46.3	-0.1
L27K	Beaver Creek,	9.81	44		Pn	08 22 46.5	+0.1
BCAR	Beaver Creek A	9.83	44		Pn	08 22 46.7	0.0
G21K	Allakaket	9.86	8		Pn	08 22 48.0	+1.0
YUK8	Steele Glacier	9.90	56		Pn	08 22 48.9	+1.0
HYT	Haines Junctio	10.83	60		Pn	08 23 00.8	+0.5
M29M	Somme Creek	10.90	51		Pn	08 23 01.3	+0.1
SIT	Sitka	11.81	80	P	Pn	08 23 12.6	-0.8
K29M	Barlow Dome	11.88	46		Pn	08 23 14.3	-0.3
JIS	Juneau Island	12.20	74	P	Pn	08 23 18.7	0.0
ADK	Adak	12.51	255	P	Pn	08 23 22.3	-0.7
CRAG	Craig	13.34	86	P	Pn	08 23 33.1	-0.9
DLBC	Dease Lake	14.47	72	P	Pn	08 23 49.7	+0.9
	comp=E,0.3nm,0.3s,baz=259,slow=13,SNR=7.7						
	comp=E,1.2nm,0.4s						
DLBC				AML	AML		
MOBC	Moresby Island	14.77	94	Pn	Pn	08 23 53.1	+0.4
INK	Inuvik	15.64	33	P	Pn	08 24 01.9	-1.5
	comp=E,0.4nm,0.3s,baz=220,slow=17,SNR=11						
INK				S	Sn	08 26 59.0	+3.3
	comp=E,1.8nm,0.7s,baz=219,slow=29,SNR=7.3						
	comp=E,0.9nm,0.3s						
INK				AML	AML		
INK	Inuvik	15.64	33	Pn	Pn	08 24 02.8	-0.7
C36M	Paulatuk	19.13	36	P	P	08 24 44.7	+0.4
C36M				IAmb	IAmb	08 24 51.0	
	comp=Z,17nm,1.1s						
YKAW3	Yellowknife Wh	21.79	57	P	P	08 25 13.4	+0.4
YKAW3				IAmb	IAmb	08 25 46.7	
	comp=Z,5.0nm,1.1s						
YKA	Yellowknife Ar	21.80	57	P	P	08 25 13.2	+0.1
	comp=Z,1.1nm,0.5s,baz=277,slow=10,SNR=12						
	comp=Z,1.1nm,0.5s						
WAH2	Wahluke Slope	24.92	98	P	P	08 25 43.9	+0.6
WAH2				IAmb	IAmb	08 25 46.7	
	comp=Z,5.0nm,0.5s						
EDM	Edmonton	24.93	80	P	P	08 25 45.2	+1.8
EDM				IAmb	IAmb	08 25 45.9	
	comp=Z,3.6nm,0.5s						
PEA0B	Petropavlovsk-	25.92	281	P	P	08 25 51.6	-0.7
PETK	Petropavlovsk-	25.92	281	P	P	08 25 52.0	-0.3
	comp=Z,0.9nm,0.5s,baz=72,slow=14,SNR=9.1						
	comp=Z,0.9nm,0.5s						
NVAR	Mina Array Bea	31.32	109	P	P	08 26 43.7	+3.0
	comp=Z,0.2nm,0.4s,baz=319,slow=8.8,SNR=2.6						
	comp=Z,0.2nm,0.4s						
PDAR	Pinedale Array	32.94	95	P	P	08 26 57.1	+2.2
	comp=Z,0.1nm,0.3s,baz=334,slow=4.1,SNR=2.1						
	comp=Z,0.1nm,0.3s						
SPITS	Spitsbergen Ar	45.19	2	P	P	08 28 35.6	-0.5
	comp=Z,6.6nm,1.0s,baz=28,slow=6.0,SNR=6.3						
	comp=Z,6.6nm,1.0s						
NRIK	Noril'sk	45.81	333	P	P	08 28 40.3	-0.8
	comp=Z,4.8nm,0.5s,baz=69,slow=8.4,SNR=6.1						
	comp=Z,4.8nm,0.5s						
TXAR	Lajitas Array	46.04	104	P	P	08 28 45.1	+1.6
	comp=Z,0.2nm,0.7s,baz=311,slow=5.1,SNR=4.5						
	comp=Z,0.2nm,0.7s						
ARCES	ARCESS Array B	53.93	359	P	P	08 29 41.4	-1.2
	comp=Z,2.1nm,0.9s,baz=19,slow=7.7,SNR=7.3						
	comp=Z,2.1nm,0.9s						
SONM	Songino Array	54.95	305	P	P	08 29 48.9	-1.5
	comp=Z,1.0nm,0.5s,baz=52,slow=9.6,SNR=4.0						
	comp=Z,1.0nm,0.5s						
HHC	Hu-ho-hao-te	57.76	296	eP	P	08 30 11.2	+0.8
HHC				pmax	pmax		
	comp=Z,6.0nm,0.5s						
HHC				pmax	pmax		
	comp=Z,120nm,4.2s						
FINES	FINESS Array B	62.04	358	P	P	08 30 38.0	-1.2
	comp=Z,3.0nm,0.9s,baz=21,slow=11,SNR=6.2						
	comp=Z,3.0nm,0.9s						
NOA	NORSAR Array B	62.10	6	P	P	08 30 39.5	-0.3
	comp=Z,1.0nm,0.8s,baz=347,slow=6.4,SNR=3.4						
	comp=Z,1.0nm,0.8s						
HFS	Hagfors	63.15	5	P	P	08 30 46.0	-0.7
	comp=Z,0.9nm,0.3s,baz=316,slow=4.0,SNR=1.8						
	comp=Z,0.9nm,0.3s						
KURBB	Kurchatov Arra	63.54	324	P	P	08 30 48.1	-1.3
	comp=Z,0.3nm,0.3s,baz=26,slow=6.4,SNR=5.1						
	comp=Z,0.3nm,0.3s						
BVAR	Borovoye Array	63.85	330	P	P	08 30 51.1	-0.3
	comp=Z,3.2nm,0.7s,baz=34,slow=7.2,SNR=9.9						
	comp=Z,3.2nm,0.7s						
LZDM	Lanzhou Array	65.43	298	P	P	08 31 01.0	-1.3
	comp=Z,2.3nm,0.3s,baz=48,slow=8.6,SNR=2.1						
	comp=Z,2.3nm,0.3s						
MKAR	Makanchi Array	65.56	320	P	P	08 31 01.0	-1.6
	comp=Z,0.4nm,0.6s,baz=34,slow=7.3,SNR=4.4						
	comp=Z,0.4nm,0.6s						
EKA	Eskdalemuir Ar	66.19	16	P	P	08 31 06.8	+0.4
	comp=Z,3.7nm,0.6s,baz=335,slow=4.6,SNR=15						
	comp=Z,3.7nm,0.6s						
AKASG	Malin Array Be	72.72	356	P	P	08 31 45.8	-0.9
	comp=Z,0.9nm,0.4s,baz=8.0,slow=5.8,SNR=5.2						
	comp=Z,0.9nm,0.4s						
GERES	GERESS Array B	74.41	6	P	P	08 31 57.3	+0.5
	comp=Z,0.5nm,0.2s,baz=337,slow=5.8,SNR=4.1						
	comp=Z,0.5nm,0.2s						
ESDC	Sonseca Array	81.19	21	P	P	08 32 35.4	+0.8
	comp=Z,0.4nm,0.5s,baz=349,slow=5.3,SNR=2.7						
	comp=Z,0.4nm,0.5s						
CMAR	Chiang Mai Arr	82.20	292	P	P	08 32 40.0	-0.2
	comp=Z,1.1nm,0.5s,baz=8.9,slow=5.7,SNR=7.0						
	comp=Z,1.1nm,0.5s						
BRTR	Keskin Array B	83.40	352	P	P	08 32 45.8	-0.5
	comp=Z,0.7nm,0.6s,baz=18,slow=5.0,SNR=2.3						
	comp=Z,0.7nm,0.6s						

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*UCR **05** 08:26:03.2±0.8, 8°.31N×82°.96W, h7^{km}±4^{km}, MW3.5, Presumed earthquake*

*UPA **05** 08:26:03.1±0.9, 8°.30N×82°.93W, h15^{km}±1^{km}, MW3.4, Presumed earthquake*

*CATAC **05** 08:26:04.8±0.6, 8°N±4°×8°3W±°, h2^{km}±2^{km}, M3.1/6, MLv3.1/6, Error ellipse: s-maj=9.5km s-min=4.0km az=12.5, confirmed*

ISC 05 08:26:03.3±0.9**, 8°.29N**±0°.03×**82°.93W**±0°.02**, h15**^{km}±6^{km}**, n42,** σ**0^{s}.91**/55**, 1C-5D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTPM	Petroterminale	0.10	152	⇑iP	Pg	08 26 07.0	+0.4
PTPM				eS	Sg	08 26 09.1	+0.3
PTPA	Petro Terminal	0.11	149	eP	Pg	08 26 07.0	+0.3
PTPA				eS	Sb	08 26 10.3	+0.6
LIMO3	Limones	0.20	162	eP	Pg	08 26 07.9	-0.1
LMNES	Limones	0.20	161	eP	Pg	08 26 08.3	+0.3
CDITO	Canoas	0.28	11	S	Sb	08 26 14.9	+0.2
NELY	Ciudad Neily	0.35	357	eP	Pg	08 26 10.4	-0.2
NELY				eS	Sg	08 26 15.6	0.0
PIRO	Carate, Puerto	0.42	285	P	Pg	08 26 10.5	-1.3
PIRO	Carate, Puerto	0.42	285	eP	Pg	08 26 10.9	-0.9
PIRO	Carate, Puerto	0.42	285	eP	Pg	08 26 10.8	-0.9
JIME	Puerto Jimenez	0.46	302	eP	Pg	08 26 12.7	+0.2
DVD	David	0.49	73	⇓iP	Pg	08 26 13.4	+0.4
DVD				eS	Sb	08 26 20.9	+0.2
MLIR3	Monte Lirio, C	0.51	12	⇓iP	Pg	08 26 13.8	+0.4
MLIR3				eS	Sb	08 26 21.6	+0.4
CLLRA	Cordillera,	0.54	35	eP	Pg	08 26 14.3	+0.2
LOMA3	Las Lomas, Chi	0.55	76	i P	Pg	08 26 14.3	+0.1
LOMA3				eS	Sb	08 26 22.6	+0.3
BRU2	Volcan	0.55	25	S	Sb	08 26 23.4	+0.9
BRU2	Volcan	0.55	25	eP	Pg	08 26 14.4	+0.2
BRU2	Volcan	0.55	25	⇓iP	Pg	08 26 14.5	+0.3
BRU2				eS	Sb	08 26 22.8	+0.3
SCLRA	Santa Clara, W	0.55	15	eP	Pg	08 26 14.6	+0.3
PTAR3	Potrerillos Ar	0.58	47	⇓iP	Pg	08 26 15.1	+0.3
PTAR3				eS	Sb	08 26 23.4	-0.1
CHIR3	Chiriqui UPA,	0.60	80	eP	Pg	08 26 15.1	0.0
BQTLY	Boquete Panama	0.65	45	eP	Pg	08 26 16.0	-0.1
BQSF3	Alto Boquete,	0.66	48	⇓iP	Pg	08 26 16.1	-0.2
BQSF3				eS	Sb	08 26 25.9	+0.2
LNBQ3	Los Naranjos,	0.69	44	eP	Pg	08 26 16.3	-0.5
EDP2	Potrero Grande	0.76	341	eP	Pg	08 26 17.4	-0.7
RBALA	Bur	0.96	53	eP	Pb	08 26 20.9	-0.7
CHGR2	Aguacate	1.00	50	eP	Pb	08 26 21.3	-1.1
CHGR2				eS	Sb	08 26 34.9	-0.7
EDPE	Pejibaye, P	1.07	324	eP	Pb	08 26 21.9	-1.7
SAJE	San Jernim	1.19	331	eP	Pn	08 26 24.2	-1.4
CNI2	El Empalme, Bo	1.21	22	eP	Pn	08 26 24.0	-1.7
KKNTU	Kakintº	1.23	64	eP	Pn	08 26 24.8	-1.3
RGM0	Gandoca	1.33	14	S	Sg	08 26 46.6	+0.4
QUEP	Quepos	1.66	313	P	Pn	08 26 33.0	+1.0
QUEP				S	Sb	08 26 54.4	-0.1
GMAL	Guarumal, Vera	1.76	107	eP	Pn	08 26 31.4	-1.8
LCR2	La Lucha 2	1.79	324	P	Pn	08 26 34.3	+0.4
LCR2				S	Sb	08 26 58.5	+0.2
LCR2	La Lucha 2	1.79	324	eP	Pn	08 26 33.7	-0.2
SAFE3	Santa Fe, Vera	1.84	83	eP	Pn	08 26 34.2	-0.3
TCS1	Tacares	2.20	322	P	Pb	08 26 42.1	-0.8
JTS	Las Juntas de	2.82	315	P	Pn	08 26 48.3	+0.4
JTS				S	Sn	08 27 23.0	+1.4
CMARA	Lajas Hojancha	3.00	305	S	Sn	08 27 28.1	+1.8
AERN	Aeropuerto Man	4.98	320	S	Sn	08 28 16.4	+1.4
ALLN	Telcor Managua	5.06	320	S	Sn	08 28 19.5	+2.6
AMTN	Mateare	5.22	319	S	Sn	08 28 22.9	+2.0

IDC 05 08:36:52.3±1.7**, 2°.46N**×**126°.90E, h0**^{km}**, mb3.5**/5**, mbtmp3.6**/5**, MS3.2**/1**, Error ellipse: s-maj=112.6km s-min=24.3km az=69.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	20.47	183	P	Pn	08 41 32.8	-1.0
	0.7nm,0.6s,baz=10,slow=11,SNR=1.2						
	0.7nm,0.6s						
WRA	Warramunga Arr	23.43	162	P	P	08 42 02.7	-0.7
	0.5nm,0.4s,baz=340,slow=11,SNR=15						
	0.5nm,0.4s						
ASAR	Alice Springs	26.85	166	P	P	08 42 35.0	+0.1
	0.2nm,0.5s,baz=349,slow=9.0,SNR=4.3						
	0.2nm,0.5s						
KSRS	Korea Array	34.84	1	LR	LR	08 59 40.9	
	comp=Z,34nm,19.1s,baz=175,slow=39						
STKA	Stephens Creek	36.89	159	P	P	08 44 02.9	+0.1
	1.1nm,0.4s,baz=332,slow=7.0,SNR=7.0						
	1.1nm,0.4s						
KURBB	Kurchatov Arra	62.89	328	P	P	08 47 20.1	-0.2
	0.4nm,0.3s,baz=131,slow=5.8,SNR=4.6						
	0.4nm,0.3s						

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*KRSC **05** 08:48:57.2±0.2, 58°.91N×158°.78E, h12^{km}±5^{km}, Ml3.7*

*NERS **05** 08:49:05.9, 58°.95N×158°.14E, h33^{km}*

ISC 05 08:48:57.9±1.0**, 58°.87N**±0°.05×**158°.80E**±0°.04**, h10**^{km}**, n9,** σ**1^{s}.75**/16**, Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALN	Palana	0.64	69	eP	Pb	08 49 10.1	-1.1
PALN				eS	Sb	08 49 19.7	-0.5
TIGL	Tigil	1.11	184	eP	Pb	08 49 18.5	-0.7
TIGL				eS	Sb	08 49 33.6	0.0
OSSR	Ossora	2.23	78	eP	Pn	08 49 36.0	+1.1
GADL	Gadlja	3.92	285	e	Pb	08 50 04.3	-2.8
GADL				e		08 50 14.6	
GADL				Sgmax		08 50 18.6	
	130nm,0.7s						
GADL				eSg	Sb	08 50 57.4	+2.9
TLAR	Talaya	3.93	308	eP	Pn	08 50 00.8	+2.5
TLAR				ePg	Pg	08 50 11.9	-1.3
TLAR				Pgmax		08 50 22.3	
	10.0nm,0.6s						
TLAR				eSg	Sg	08 51 02.4	-1.7
TLAR				Sgmax		08 51 16.4	
	60nm,0.7s						
MA2	Magadan	4.19	283	ePg	Pg	08 50 19.2	+1.1
MA2				Pgmax		08 50 19.7	
MA2				eSg	Sg	08 51 10.0	-2.3
MA2				Sgmax		08 51 22.4	
	40nm,0.7s						
MGD	Magadan 1	4.28	289	eSg	Sg	08 51 13.7	-1.6
MGD				Sgmax		08 51 28.0	
	40nm,0.4s						
SEY	Seymchan	5.14	325	ePg	Pg	08 50 37.1	+0.9
SEY				Pgmax		08 50 41.3	
SEY				eSg	Sg	08 51 43.1	+0.4
SEY				Sgmax		08 52 31.3	
	10.0nm,0.5s						
SUUS	Susuman	6.51	312	eSg	Sg	08 52 26.2	-0.4
SUUS				Sgmax		08 52 44.9	
	10.0nm,0.9s						

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*IDC **05** 08:59:55.6±0.6, 36°.28N×137°.04E, h258^{km}±5^{km}, mb3.2/11, mbtmp3.9/14, Error ellipse: s-maj=18.4km s-min=12.2km az=68.0*

*JMA **05** 08:59:55.9±0.1, 36°.3N±0°.6×137°.2E±0°.7, h260^{km}±1^{km}, MV3.5/34, TOYAMA GIFU BORDER REG*

ISC 05 08:59:55.5±0.7**, 36°.29N**±0°.06×**137°.18E**±0°.06**, h259**^{km}±5^{km}**, n43,** σ**0^{s}.98**/56**, mb3.4**/11**, Eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JGN	Niukaw	0.13	120	i P	Pn	09 00 29.4	+0.5
JGN				S	S	09 00 55.3	+0.1
JKG	Kaga	0.69	269	i P	Pn	09 00 31.1	+1.0
JKG				S	S	09 00 58.1	+0.8
JGF	Kuroka	0.70	168	P	Pn	09 00 30.5	+0.2
JGF	Kuroka	0.70	168	S	S	09 00 57.3	-0.4
JYTA	Yamagatataniai	0.78	208	i P	Pn	09 00 31.1	+0.5
JYTA				S	S	09 00 57.5	-0.6
MAJO	Matsushiro	0.87	73	P	Pn	09 00 31.2	+0.3
MAT	Matsushiro	0.87	73	i P	Pn	09 00 31.6	+0.7
MAT				S	S	09 00 59.5	+0.8
MJAR	Matsushiro Arr	0.87	73	P	Pn	09 00 31.0	+0.1
	19nm,0.4s,baz=255,slow=5.7,SNR=4.6						
MJAR				S	S	09 01 00.1	+1.3
	18nm,0.7s,baz=231,slow=25,SNR=24						
INU	Inuyama	0.95	188	P	Pn	09 00 31.6	+0.3
INU	Inuyama	0.95	188	S	S	09 00 59.4	-0.1
JSZ	Suzu	1.17	7	eP	Pn	09 00 33.1	+0.7
JSZ				S	S	09 01 01.9	+0.3
JYN	Shimob	1.36	125	P	Pn	09 00 33.9	0.0
JRY	Ryogami san	1.42	100	P	Pn	09 00 34.7	+0.5
JRY				S	S	09 01 04.7	0.0
JHG	Hegura jima	1.57	352	eP	Pn	09 00 36.3	+1.1
JHG				S	S	09 01 07.1	+0.5
JWT	Wachi	1.76	236	i P	Pn	09 00 37.3	+0.6
JAG	Ashikaga	1.84	85	P	Pn	09 00 37.5	+0.1
JAG				S	S	09 01 09.1	-1.4
JOD2	Odawara 2	1.86	123	P	Pn	09 00 38.3	+0.7
JOD2				S	S	09 01 11.6	+0.8
JIE	Ise	1.93	192	i P	Pn	09 00 39.2	+1.0
JIE				S	S	09 01 12.5	+0.5
JNS	Sasagawa	2.29	48	P	Pn	09 00 41.8	+0.5
JNS				S	S	09 01 18.2	+0.5
JWY	Kouya	2.44	213	P	Pn	09 00 44.0	+1.0
JWY				S	S	09 01 20.7	+0.2
JTNC	Tanabenakahech	2.78	208	P	Pn	09 00 47.0	+0.7

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
JOTO	OTAMA OYAMA	2.83	62	P	Pn	09 00 47.5	+0.7
JMN	Monobe	3.72	228	P	Pn	09 00 57.6	+1.0
JTM	Tenmabayashi	5.43	33	P	Pn	09 01 16.6	-0.1
JTM	Tenmabayashi	5.43	33	S	S	09 02 24.8	+3.2
ERM	Erimo	7.37	37	P	Pn	09 01 38.5	-2.2
JEM	Erimo	7.37	37	P	Pn	09 01 38.7	-2.0
USRK	Ussuriysk Ar.	8.84	335	P	Pn	09 02 00.1	+0.9
	7.2nm,0.7s,baz=148,slow=12,SNR=14						
ASAJ	Asahikawa	8.85	26	P	Pn	09 01 57.5	-1.8
	39nm,0.4s,baz=230,slow=9.6,SNR=138						
KLR	Kul'dur	13.53	345	P	Pn	09 02 55.9	-1.5
	5.3nm,0.7s,baz=155,slow=9.9,SNR=19						
HILR	Hailar Array B	18.35	322	P	P	09 03 48.7	-2.4
	0.4nm,0.3s,baz=148,slow=9.7,SNR=1.5						
ZALV	Zalesovo Beam	39.92	313	P	P	09 07 03.8	-0.6
	0.5nm,0.3s,baz=116,slow=10.0,SNR=3.0 0.5nm,0.3s						
MKAR	Makanchi Array	41.63	302	P	P	09 07 18.4	-0.1
	0.3nm,0.6s,baz=85,slow=11,SNR=4.0 0.3nm,0.6s						
KURBB	Kurchatov Arra	43.78	308	P	P	09 07 35.3	-0.2
	1.3nm,0.7s,baz=85,slow=7.5,SNR=15 1.3nm,0.7s						
ILAR	Eielson Array	51.94	32	P	P	09 08 38.0	+0.4
	0.7nm,0.9s,baz=272,slow=5.1,SNR=5.6 0.7nm,0.9s						
WRA	Warramunga Arr	55.99	183	P	P	09 09 07.1	-0.2
	1.5nm,0.4s,baz=0.3,slow=7.6,SNR=40 1.5nm,0.4s						
ASAR	Alice Springs	59.71	183	P	P	09 09 33.2	+0.1
	0.2nm,0.3s,baz=358,slow=5.8,SNR=8.2 0.2nm,0.3s						
ARCES	ARCESS Array B	63.47	339	P	P	09 09 57.4	-0.2
	1.4nm,0.9s,baz=70,slow=7.9,SNR=5.3 1.4nm,0.9s						
FINES	FINESS Array B	67.85	331	P	P	09 10 25.3	-0.2
	5.2nm,1.1s,baz=47,slow=7.3,SNR=6.5 5.2nm,1.1s						
NVAR	Mina Array Bea	78.13	51	P	P	09 11 27.4	+1.0
	0.3nm,0.5s,baz=311,slow=5.7,SNR=2.4 0.3nm,0.5s						
PDAR	Pinedale Array	80.58	43	P	P	09 11 39.8	+0.3
	0.4nm,0.7s,baz=285,slow=3.3,SNR=5.4 0.4nm,0.7s						
TXAR	Lajitas Array	93.24	50	P	P	09 12 41.8	+0.8
	0.4nm,0.6s,baz=306,slow=3.6,SNR=7.0 0.4nm,0.6s						
LPAZ	La Paz	149.96	55	PKPbc	PKiKP	09 19 17.4	+0.3
	0.3nm,0.3s,baz=274,slow=3.4,SNR=3.7						

JMA 05 09:02:05.8±0.1**, 37.°8N**±0.°4×**143.°6E**±0.°4**, h14**km±1km**,**
MV3.6/18**, FAR E OFF MIYAGI PREF, Off east coast of Honshu**

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*NEIC **05** 09:10:32.0±2.0, 23.°9S±0.°1×179.°8W±0.°1, h520km±10km, mb4.1/23, Error ellipse: s-maj=17.9km s-min=13.9km az=66.0*

*IDC **05** 09:10:32.3±1.8, 23.°85S×179.°91W, h520km±20km, mb3.2/9, mbtmp4.1/11, Error ellipse: s-maj=23.5km s-min=17.6km az=148.0*

ISC 05 09:10:31.8±0.6**, 23.°88S**±0.°10×**179.°9W**±0.°1**, h518**km**, n41, σ0.s84**/42**, mb4.0**/22**, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
MSVF	Nonsavu	6.41	342	P	P	09 12 14.5	+1.4
	7.8nm,0.5s,baz=173,slow=16,SNR=7.1						
MSVF	Nonsavu	6.41	342	P	P	09 12 14.2	+1.1
URZ	Urewera	14.57	189	P	P	09 13 37.5	+0.4
	8.2nm,0.7s,baz=250,slow=5.3,SNR=8.4						
RTZ	Ruatahuna	14.94	190	P	P	09 13 40.1	-0.9
MRZ	Mangatainoka R	17.17	192	P	P	09 14 02.0	-1.5
QRZ	Quartz Range	18.07	199	P	P	09 14 12.4	+0.7
LTZ	Lake Taylor	19.95	197	P	P	09 14 27.9	-0.9
WHZ	Wether Hill Ro	24.07	201	P	P	09 15 07.1	+1.2
EIDS	Eidsvold	26.42	261	P	P	09 15 27.7	+0.8
EIDS				IAmb	IAmb	09 15 43.8	
	comp=Z,13nm,1.5s						
CTAO	Charters Tower	31.59	270	P	P	09 16 12.2	+0.2
STKA	Stephens Creek	34.84	248	P	P	09 16 39.9	+0.7
	comp=Z,1.6nm,0.7s,baz=58,slow=5.7,SNR=3.9 comp=Z,1.6nm,0.7s						
BBOO	Buckleboo	39.56	247	P	P	09 17 16.9	-1.1
BBOO				IAmb	IAmb	09 17 48.2	
	comp=Z,13nm,1.3s						
AS31	Alice Springs	42.15	261	P	P	09 17 38.3	-0.5
ASAR	Alice Springs	42.15	261	P	P	09 17 38.5	-0.3
	comp=Z,4.1nm,0.8s,baz=103,slow=7.1,SNR=37						
ASAR				ScP	ScP	09 22 22.9	+0.4
	comp=Z,0.8nm,0.8s,baz=112,slow=4.1,SNR=6.4 comp=Z,4.1nm,0.8s						
ASAR	Alice Springs	42.15	261	P	P	09 17 38.2	-0.6
WR8	Warramunga Arr	42.37	266	P	P	09 17 39.6	-1.0
WR8				IAmb	IAmb	09 17 40.4	
	comp=Z,6.8nm,0.8s						
WB0	Warramunga Arr	42.51	266	P	P	09 17 40.7	-1.0
WB0				IAmb	IAmb	09 17 41.6	
	comp=Z,7.7nm,0.8s						
WRAB	Tennant Creek	42.51	266	P	P	09 17 40.6	-1.1
WRAB				IAmb	IAmb	09 17 41.6	
	comp=Z,7.4nm,0.8s						
WRA	Warramunga Arr	42.52	266	P	P	09 17 40.9	-0.8
	comp=Z,6.4nm,0.7s,baz=97,slow=8.3,SNR=85 comp=Z,6.4nm,0.7s						
WRA	Warramunga Arr	42.52	266	P	P	09 17 40.0	-1.7
FORT	Forrest	46.43	250	P	P	09 18 10.8	-0.9
FORT				IAmb	IAmb	09 18 49.9	
	comp=Z,6.2nm,1.1s						
KNRA	Kununurra	48.80	270	P	P	09 18 28.9	-0.8
KNRA				IAmb	IAmb	09 18 30.2	
	comp=Z,3.8nm,0.9s						
KNHH	Kane Nui o Ham	49.28	31	P	P	09 18 32.6	-0.6
FITZ	Fitzroy Crossi	50.94	266	P	P	09 18 45.1	-0.4
MORW	Morawa	56.99	250	P	P	09 19 27.3	-0.8
MORW				IAmb	IAmb	09 19 34.6	
	comp=Z,19nm,1.4s						
QSPA	South Pole Qui	66.21	180	P	P	09 20 28.6	+0.8
	comp=Z,1.6nm,1.1s,baz=33,slow=1.5,SNR=6.2 comp=Z,1.6nm,1.1s						
QSPA	South Pole Qui	66.21	180	P	P	09 20 28.6	+0.8
MAW	Mawson	77.81	200	P	P	09 21 35.4	+0.4
	comp=Z,0.7nm,0.7s,baz=129,slow=8.1,SNR=2.0 comp=Z,0.7nm,0.7s						
MAW	Mawson	77.81	200	P	P	09 21 34.9	-0.1
KHMM	Horse Mountain	82.86	39	P	P	09 22 02.5	+0.7
KHMM				IAmb	IAmb	09 22 40.5	
	comp=Z,6.5nm,1.2s						
O02D	Mt. Diablo Mer	82.97	40	P	P	09 22 02.2	-0.2
O02D				IAmb	IAmb	09 22 15.8	
	comp=Z,6.5nm,1.4s						
KRMB	Red Mountain	83.17	39	P	P	09 22 04.2	+0.8
KRMB				IAmb	IAmb	09 22 09.8	
	comp=Z,4.5nm,1.3s						
KSXB	Camp Six Broad	83.39	39	P	P	09 22 04.2	-0.3
KSXB				IAmb	IAmb	09 22 26.5	
	comp=Z,5.5nm,1.4s						
M02C	Callahan	83.70	39	P	P	09 22 06.5	+0.5
M02C				IAmb	IAmb	09 22 19.9	
	comp=Z,4.2nm,1.4s						
NVAR	Mina Array Bea	84.66	44	P	P	09 22 10.8	-0.2
	comp=Z,0.3nm,0.6s,baz=256,slow=7.5,SNR=3.1 comp=Z,0.3nm,0.6s						
CMAR	Chiang Mai Arr	89.62	290	P	P	09 22 34.6	0.0
	comp=Z,0.6nm,0.3s,baz=109,slow=4.7,SNR=1.5 comp=Z,0.6nm,0.3s						
TXAR	Lajitas Array	90.32	58	P	P	09 22 37.6	-0.1
	comp=Z,0.6nm,0.7s,baz=214,slow=6.6,SNR=10 comp=Z,0.6nm,0.7s						
TXAR	Lajitas Array	90.32	58	P	P	09 22 37.9	+0.1
PDAR	Pinedale Array	92.59	44	P	P	09 22 47.1	-0.9
	comp=Z,0.3nm,0.8s,baz=170,slow=2.2,SNR=2.7 comp=Z,0.3nm,0.8s						
PDAR	Pinedale Array	92.59	44	P	P	09 22 46.8	-1.2
BRTR	Keskin Array B	147.65	307	PKPbc	PKiKP	09 29 19.1	-0.6
	comp=Z,0.7nm,0.9s,baz=28,slow=5.6,SNR=4.3						

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*NIED **05** 09:40:39.0, 39.°85N×139.°62E, h10km, MW3.6, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}-0.35; $M_{\theta\theta}$1.54; $M_{\phi\phi}$-1.19; $M_{r\theta}$0.03; $M_{\theta\phi}$1.93; $M_{\phi r}$0.33; Fault plane solution: $M_0$2.39000×10^{14} NP1: ϕ_s107.00000°, δ81.00000°, λ-4.00000°. NP2: ϕ_s198.00000°, δ87.00000°, λ-171.00000°.*

*IDC **05** 09:40:39.1±1.1, 39.°84N×139.°49E, h0km, mb3.5/2, mbtmp3.3/6, ML2.7/4, MS3.4/1 Error ellipse: s-maj=17.9km s-min=11.5km az=111.0*

*JMA **05** 09:40:39.0±0.1, 39.°9N±0.°2×139.°6E±0.°5, h10km, MV3.6/40, OGA PENINSULA REGION*

JMA Felt I J1 at OGA PENINSULA REGION .

ISC 05 09:40:39.2±0.7**, 39.°83N**±0.°04×**139.°51E**±0.°03**, h10**km**, n15, σ2.s49**/24**, 2D, Near west coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
JOG3	Oga3	0.34	286	⇓iP	Pg	09 40 42.6	-3.4
JOG3				⇓eS	Sg	09 40 45.2	-5.4
JYW	Yuwa	0.61	118	P	Pg	09 40 49.5	-1.6
JYW				eS	Sg	09 40 57.1	-2.0
JTB	Tobi-shima	0.63	176	P	Pb	09 40 51.6	-0.8
JTB				eS	Sb	09 41 00.9	-0.4
JNTW	Noshirotokiwa	0.67	48	i P	Pg	09 40 50.9	-1.3
JIW	Iwasaki	0.85	26	P	Pg	09 40 54.3	-1.4
JIW				S	Sg	09 41 05.5	-1.3
JAH	Hinai	0.94	67	P	Pg	09 40 54.8	-2.5
JAH				S	Sg	09 41 06.2	-3.4
JRG	Rokugo	0.97	116	P	Pg	09 40 55.8	-2.1
JRG				eS	Sg	09 41 08.4	-2.2
JYK	Kaneyama	1.12	144	P	Pb	09 40 58.7	-2.1
JYK				eS	Sb	09 41 13.8	-1.7
MJAR	Matsushiro Arr	3.44	198	Pn	Pn	09 41 34.5	+1.6
	0.2nm,0.3s,baz=8.1,slow=14,SNR=8.6						
MJAR				Sn	Sn	09 42 15.5	+1.8
	0.1nm,0.3s,baz=31,slow=16,SNR=1.8						
MJAR				Lg	Lg	09 42 25.7	
	0.2nm,0.3s,baz=271,slow=9.2,SNR=5.1 5.0nm,0.8s						
MJAR				AML	AML		
ASAJ	Asahikawa	4.86	27	Pn	Pn	09 41 54.8	+2.4
	0.3nm,0.3s,baz=171,slow=19,SNR=4.7 1.8nm,0.7s						
ASAJ				AML	AML		
USRK	Ussuriysk Ar.	7.10	310	Pn	Pn	09 42 23.0	-0.1
	0.2nm,0.3s,baz=129,slow=13,SNR=4.3						
USRK				Sn	Sn	09 43 44.8	+1.0
	0.2nm,0.3s,baz=118,slow=25,SNR=2.1 1.5nm,0.6s						
USRK				AML	AML		
KSRS	Korea Array	9.37	259	Pn	Pn	09 42 57.7	+3.5
	0.1nm,0.3s,baz=68,slow=14,SNR=1.3						
KSRS				Sn	Sn	09 44 43.3	+3.7
	0.1nm,0.3s,baz=71,slow=26,SNR=4.1 0.8nm,0.6s						
KSRS				AML	AML		
CMAR	Chiang Mai Arr	40.88	251	LR	LR	10 07 13.2	
	comp=Z,49nm,18.4s,baz=195,slow=39						
ILAR	Eielson Array	47.97	34	P	P	09 49 18.6	+0.9
	0.4nm,0.8s,baz=270,slow=7.3,SNR=4.8 0.4nm,0.8s						
PDAR	Pinedale Array	76.76	45	P	P	09 52 33.5	+2.3
	0.3nm,0.6s,baz=315,slow=1.0,SNR=4.1 0.3nm,0.6s						

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*IDC **05** 09:45:33.1±0.7, 3.°55N×126.°59E, h0km, mb4.2/15, mbtmp4.2/15, Error ellipse: s-maj=39.2km s-min=13.0km az=73.0*

*DJA **05** 09:45:37.9±2.2, 4 °N±21 °×12 °7E± °, h10km, M4.2/7, mb4.4/1, MLv4.1/7*

*NEIC **05** 09:45:40.8±2.1, 3.°54N±0.°09×126.°73E±0.°09, h52km±7km, mb4.5/30, Error ellipse: s-maj=15.0km s-min=10.3km az=48.0*

ISC 05 09:45:39.7±0.4**, 3.°55N**±0.°05×**126.°79E**±0.°09**, h48**km**, n59, σ1.s33**/61**, mb4.4**/28**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
DDMP	Don Marcelino,	2.76	337	eP	Pn	09 46 21.9	+0.4
DDMP				eS	Sn	09 46 56.8	+3.1
TNTI	Ternate	2.81	168		Pn	09 46 23.8	+1.5
TNTI	Ternate	2.81	168	P	Pn	09 46 24.2	+1.9
KCP	Kidapawan	3.83	334	i P	Pn	09 46 38.1	+1.7
CDOP	Cateel, Davao	4.22	355	eP	Pn	09 46 43.0	+1.3
CDOP				i S	Sn	09 47 31.1	+1.3
BIPH	Bislig	4.63	355	i P	Pn	09 46 47.5	+0.3
SANI	Sanana	5.62	188	P	Pn	09 47 00.4	-0.4
TOLI2	Tolitoli	6.47	248		Pn	09 47 13.7	+1.2
MYLDM	Lahad Datu	8.42	281	Pn	Pn	09 47 42.1	+2.8
FAKI	Fak Fak	8.43	140	Pn	Pn	09 47 40.8	+1.5
MTN	Manton Dam	16.84	165	Pn	Pn	09 49 29.7	-2.6
KNRA	Kununurra	19.20	174	P	P	09 49 59.7	-0.1
YULB	Yu-li	20.43	345	P	P	09 50 09.6	-3.6
YULB				IAmb	IAmb	09 50 09.8	
	comp=Z,30nm,1.2s						
SSLB	Suanglung	20.90	345	P	P	09 50 16.6	-1.7
SSLB				IAmb	IAmb	09 50 20.4	
	comp=Z,12nm,0.6s						
FITZ	Fitzroy Crossi	21.54	183	P	P	09 50 24.7	-0.4
	comp=Z,1.9nm,0.4s,baz=6.5,slow=9.9,SNR=11 comp=Z,1.9nm,0.4s						
FITZ	Fitzroy Crossi	21.54	183	P	P	09 50 24.5	-0.5
YHNB	Yeheng	21.64	347	P	P	09 50 24.3	-2.0
YHNB				IAmb	IAmb	09 50 33.6	
	comp=Z,21nm,0.8s						
WB0	Warramunga Arr	24.34	162	P	P	09 50 52.7	-0.6
WB0				IAmb	IAmb	09 50 54.2	
	comp=Z,17nm,0.8s						
WRAB	Tennant Creek	24.49	163	P	P	09 50 54.5	-0.1
WRAB				IAmb	IAmb	09 50 55.8	
	comp=Z,16nm,0.8s						
WRA	Warramunga Arr	24.49	163	P	P	09 50 54.5	-0.1
	comp=Z,11nm,0.7s,baz=345,slow=10,SNR=66 comp=Z,11nm,0.7s						
WRA	Warramunga Arr	24.49	163	P	P	09 50 53.1	-1.6
WR8	Warramunga Arr	24.55	162	P	P	09 50 54.7	-0.5
WR8				IAmb	IAmb	09 50 56.3	
	comp=Z,10nm,0.8s						
MBWA	Marble Bar	25.51	195	P	P	09 51 04.9	+1.1
AS31	Alice Springs	27.92	166	P	P	09 51 25.3	-0.4
ASAR	Alice Springs	27.92	166	P	P	09 51 26.0	+0.4
	comp=Z,0.6nm,0.4s,baz=345,slow=10,SNR=16 comp=Z,0.6nm,0.4s						
ASAR	Alice Springs	27.92	166	P	P	09 51 25.4	-0.3
CMAR	Chiang Mai Arr	31.02	301	P	P	09 51 51.6	-1.5
	comp=Z,0.5nm,0.3s,baz=97,slow=6.7,SNR=4.1 comp=Z,0.5nm,0.3s						
KSRS	Korea Array	33.76	2	P	P	09 52 17.0	+0.1
	comp=Z,2.0nm,0.8s,baz=179,slow=9.3,SNR=5.6 comp=Z,2.0nm,0.8s						
INKA	Innaminka	33.89	157	P	P	09 52 18.7	+0.6
INKA				IAmb	IAmb	09 52 37.2	
	comp=Z,3.6nm,1.4s						
FORT	Forrest	34.15	178	P	P	09 52 20.4	0.0
FORT				IAmb	IAmb	09 52 29.3	
	comp=Z,5.7nm,0.8s						
EIDS	Eidsvold	37.17	142	P	P	09 52 46.5	+0.1
EIDS				IAmb	IAmb	09 52 51.0	
	comp=Z,9.8nm,1.4s						
BBOO	Buckleboo	37.21	167	P	P	09 52 46.5	-0.1
STKA	Stephens Creek	37.94	159	P	P	09 52 52.9	+0.2
	comp=Z,5.7nm,0.7s,baz=350,slow=6.2,SNR=16 comp=Z,5.7nm,0.7s						
ARMA	Armidale	41.28	147	P	P	09 53 21.6	+0.8
JKA	Kamikawa-asahi	42.75	17	P	P	09 53 32.1	-0.3
JKA				IAmb	IAmb	09 54 06.2	
	comp=Z,14nm,1.5s						
EVN	Everest	45.15	307	P	P	09 53 51.6	-1.1
HILR	Hailar Array B	46.23	354	P	P	09 54 01.1	+1.0
	comp=Z,3.0nm,0.6s,baz=171,slow=10,SNR=6.5 comp=Z,3.0nm,0.6s						
SONM	Songino Array	47.49	341	P	P	09 54 09.6	-0.6
	comp=Z,0.6nm,0.4s,baz=144,slow=5.9,SNR=2.9 comp=Z,0.6nm,0.4s						
PETK	Petropavlovsk-	55.58	22	P	P	09 55 10.4	+0.1
	comp=Z,0.8nm,0.6s,baz=221,slow=7.3,SNR=5.1 comp=Z,0.8nm,0.6s						
PETK	Petropavlovsk-	55.58	22	P	P	09 55 10.9	+0.6
PDGK	Podgornoye	57.59	321	P	P	09 55 24.1	-1.0
MKAR	Makanchi Array	57.74	325	P	P	09 55 24.9	-1.0
	comp=Z,2.2nm,0.4s,baz=122,slow=8.7,SNR=24 comp=Z,2.2nm,0.4s						
MAKZ	Makanchi	57.93	325	P	P	09 55 27.7	+0.6
MAKZ				IAmb	IAmb	09 55 28.2	
	comp=Z,2.1nm,0.6s						
KDJ	Kajisay	58.52	318	P	P	09 55 30.9	-0.7
KDJ				IAmb	IAmb	09 56 15.5	
	comp=Z,4.9nm,1.0s						
ZALV	Zalesovo Beam	60.78	333	P	P	09 55 45.9	-0.8
	comp=Z,0.7nm,0.4s,baz=123,slow=7.9,SNR=2.9 comp=Z,0.7nm,0.4s						
LBZ	Lake Benmore	61.50	146	P	P	09 55 52.7	+1.0
KURBB	Kurchatov Arra	61.92	327	P	P	09 55 53.7	-0.8
	comp=Z,4.0nm,0.6s,baz=130,slow=6.4,SNR=39 comp=Z,4.0nm,0.6s						
KURK	Kurchatov	61.93	328	P	P	09 55 53.4	-1.1
BVAR	Borovoye Array	67.51	327	P	P	09 56 30.2	-0.6
	comp=Z,0.7nm,0.4s,baz=95,slow=3.6,SNR=6.3 comp=Z,0.7nm,0.4s						
AB31	Akbulak array	72.33	321	P	P	09 56 59.4	-1.1
ABKAR	Akbulak array	72.33	321	P	P	09 56 59.6	-0.9
PUH	Pauahi	77.51	71	P	P	09 57 29.0	-2.1
L16K	Owhat River	79.21	28	P	P	09 57 41.6	+2.1
L16K				IAmb	IAmb	09 57 49.2	
	comp=Z,3.5nm,1.1s						
C19K	Lookout Ridge	80.89	20	P	P	09 57 49.8	+1.3
KDAK	Kodiak Island	82.01	32	P	P	09 57 56.8	+2.2
KDAK				IAmb	IAmb	09 57 58.5	
	comp=Z,3.4nm,0.8s						
D22K	Ayikyak River	83.29	21	P	P	09 58 03.3	+2.2
D22K				IAmb	IAmb	09 58 38.7	
	comp=Z,5.5nm,1.2s						
ARCES	ARCESS Array B	90.64	340	P	P	09 58 36.1	-0.7
	comp=Z,1.6nm,0.6s,baz=83,slow=6.9,SNR=12 comp=Z,1.6nm,0.6s						
ARCES	ARCESS Array B	90.64	340	P	P	09 58 35.5	-1.3
ARCES				IAmb	IAmb	09 58 54.4	
	comp=Z,3.2nm,1.1s						
FINES	FINESS Array B	92.02	332	P	P	09 58 43.6	+0.3
	comp=Z,1.3nm,0.9s,baz=96,slow=7.2,SNR=3.7 comp=Z,1.3nm,0.9s						

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*UCR **05** 09:57:34.6±0.3, 8.°29N×83.°01W, h5km±5km, MW3.9, Presumed earthquake*

*CATAC **05** 09:57:35.1±0.8, 8 °N±5 °×8 °3W± °, h5km±1km, M3.3/9, MLv3.3/9, Error ellipse: s-maj=10.1km s-min=5.1km az=164.7, confirmed*

*UPA **05** 09:57:35.5±1.1, 8.°31N×82.°95W, h16km±4km, MW3.7, Presumed earthquake*

ISC 05 09:57:35.8±0.8**, 8.°30N**±0.°03×**82.°98W**±0.°02**, h16**km±7km**, n38, σ1.s29**/52**, 2C, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
PTPM	Petroterminale	0.14	134	⇑iP	Pg	09 57 39.0	-0.6
PTPM				eS	Sg	09 57 42.8	+0.6
PTPA	Petro Terminal	0.15	132	eP	Pg	09 57 38.9	-0.8
PTPA				eS	Sg	09 57 42.1	-0.3
LIMO3	Limones	0.23	150	eP	Pg	09 57 40.6	-0.4
LIMO3				eS	Sg	09 57 45.7	+1.2
LMNES	Limones	0.24	149	eP	Pg	09 57 40.4	-0.6
CDITO	Canoas	0.29	22	P	Pg	09 57 41.5	-0.4
CDITO				S	Sg	09 57 46.7	+0.5
NELY	Ciudad Neily	0.35	6	eP	Pg	09 57 42.5	-0.5
PIRO	Carate, Puerto	0.36	286	P	Pg	09 57 41.2	-2.0
PIRO				S	Sb	09 57 49.5	+0.1
PIRO	Carate, Puerto	0.36	286	eP	Pg	09 57 41.9	-1.4
PIRO	Carate, Puerto	0.36	286	eP	Pb	09 57 43.3	-0.6
PIRO				eS	Sb	09 57 50.2	+0.8
VITO	San Vito	0.51	1	eP	Pg	09 57 45.6	-0.4
DVD	David	0.54	76	eP	Pg	09 57 46.0	-0.5
DVD				eS	Sg	09 57 53.4	-0.4
SCLRA	Santa Clara, W	0.56	21	eP	Pg	09 57 46.4	-0.6
BRU2	Volcan	0.57	31	P	Pg	09 57 46.3	-0.8
BRU2	Volcan	0.57	31	eP	Pg	09 57 46.6	-0.5
BRU2	Volcan	0.57	31	⇑iP	Pg	09 57 46.7	-0.3
BRU2				eS	Sb	09 57 57.1	+1.7
CLLRA	Cordillera,	0.57	40	eP	Pg	09 57 46.8	-0.3
LOMA3	Las Lomas, Chi	0.60	78	eP	Pg	09 57 46.8	-0.8
CHIR3	Chiriqui UPA,	0.65	82	eP	Pg	09 57 47.2	-1.3
BQTLY	Boquete Panama	0.69	49	eP	Pg	09 57 48.5	-0.7
BQSF3	Alto Boquete,	0.70	51	eP	Pg	09 57 48.2	-1.2
LNBQ3	Los Naranjos,	0.72	48	eP	Pg	09 57 49.8	-0.1
EDP2	Potrero Grande	0.73	345	eP	Pg	09 57 49.2	-0.9
PANP	Palmar Norte	0.81	324	eP	Pg	09 57 49.3	-2.1
RBALA	Bur	1.00	55	eP	Pg	09 57 53.5	-1.7
EDPE	Pejibaye, P	1.03	326	eP	Pg	09 57 53.2	-2.5
CHGR2	Aguacate	1.04	53	eP	Pg	09 57 53.7	-2.3
SAJE	San Jernim	1.16	333	eP	Pg	09 57 55.7	-2.5
CNI2	El Empalme, Bo	1.22	24	eP	Pn	09 57 56.3	-1.9
CNI2				eS	Sb	09 58 12.2	-2.0
KKNTU	Kakintº	1.28	65	eP	Pn	09 57 57.5	-1.5
RGM0	Gandoca	1.33	16	P	Pb	09 58 00.8	+0.4
RGM0				S	Sg	09 58 20.1	+1.3
QUEP	Quepos	1.62	314	P	Pb	09 58 05.6	+0.3
QUEP				S	Sg	09 58 27.1	-0.8
PIEC	Cerro El Cedra	1.63	324	eP	Pn	09 58 03.9	-0.2
LCR2	La Lucha 2	1.75	325	P	Pn	09 58 06.4	+0.7
LCR2				S	Sb	09 58 30.1	+0.6
LCR2	La Lucha 2	1.75	325	eP	Pn	09 58 04.8	-0.9
GMAL	Guarumal, Vera	1.81	107	eP	Pn	09 58 05.0	-1.4
JTS	Las Juntas de	2.77	316	P	Pn	09 58 21.4	+1.8
JTS				S	Sn	09 58 55.1	+2.3
CMARA	Lajas Hojancha	2.95	305	P	Pn	09 58 21.7	-0.4
CMARA				S	Sn	09 58 59.9	+2.6
OMEN	Al SSO del Vol	4.12	321	P	Pn	09 58 39.5	+1.4

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*GUC **05** 09:58:18.3±0.7, 21.°00S×68.°00W, h182km±6km, ML3.5*

*SCB **05** 09:58:18.0±1.4, 21.°07S×67.°84W, h152km±20km, ML3.7/2, Error ellipse: s-maj=7.2km s-min=5.1km az=1.0*

ISC 05 09:58:17.0±1.8**, 21.°02S**±0.°04×**67.°92W**±0.°07**, h178**km±17km**, n29, σ1.s12**/42**, 7C-3D, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
PB08	IPOC Station P	1.45	307	⇓iP	Pn	09 58 49.6	+0.7
PB08				i S	Sn	09 59 13.3	-0.1
PB08	IPOC Station P	1.45	307	P	Pn	09 58 49.6	+0.7
PB09	IPOC Station P	1.46	238	⇑iP	Pn	09 58 49.9	+1.3
PB09	IPOC Station P	1.46	238	P	Pn	09 58 49.1	+0.5
GO01	Chusmiza	1.80	318	⇓iP	Pn	09 58 52.9	+0.4
GO01	Chusmiza	1.80	318	P	Pn	09 58 52.9	+0.4
PB02	IPOC Station P	1.87	261	⇑iP	Pn	09 58 53.4	+0.7
PB02				i S	Sn	09 59 19.6	-0.7
PB02				IAML		09 59 21.2	
	comp=N,589nm,0.3s						
PB02	IPOC Station P	1.87	261	P	Pn	09 58 53.7	+1.0
PB02				S	Sn	09 59 20.0	-0.3
PB02				IAML		09 59 25.3	
	comp=N,327nm,0.3s						
PB07	IPOC Station P	1.97	249	⇑iP	Pn	09 58 54.5	+0.7
PB07				i S	Sn	09 59 22.0	-0.3
PB07				IAML		09 59 22.8	
	comp=N,226nm,0.4s						
PB03	IPOC Station P	1.99	239	⇑iP	Pn	09 58 55.0	+0.9
PB03				i S	Sn	09 59 22.9	+0.1
PB03				IAML		09 59 23.9	
	comp=E,234nm,0.3s						
PB11	IPOC Station P	2.06	307	⇓iP	Pn	09 58 55.1	+0.3
PB11				i S	Sn	09 59 23.2	-0.9
PB11				IAML		09 59 25.1	
	comp=N,452nm,0.2s						
PB11	IPOC Station P	2.06	307	P	Pn	09 58 55.4	+0.6
PB11				S	Sn	09 59 23.9	-0.2
PB11				IAML		09 59 25.1	
	comp=N,335nm,0.2s						
TA01	Diego Aracena	2.17	282	⇑iP	Pn	09 58 55.9	+0.1
TA01				i S	Sn	09 59 24.4	-1.5
TA01				IAML		09 59 26.3	
	comp=E,269nm,0.4s						
PB06	IPOC Station P	2.27	222	⇑iP	Pn	09 58 58.2	+1.0
PB06				i S	Sn	09 59 28.9	+0.5
PB06				IAML		09 59 31.0	
	comp=N,111nm,0.2s						
PB06	IPOC Station P	2.27	222	P	Pn	09 58 58.2	+1.0
SOEO	Opoqueri	2.45	1	P	Pn	09 59 00.4	+0.8
PSGCX	Pisagua	2.51	304	i P	Pn	09 58 59.4	-0.4
PSGCX				i S	Sn	09 59 31.2	-1.9
YJA	Yavi	2.51	118	P	Pn	09 58 59.6	-0.6
PB05	IPOC Station P	2.80	229	⇑iP	Pn	09 59 04.1	+0.8
PB05				i S	Sn	09 59 38.6	-0.7
PB05				IAML		09 59 43.0	
	comp=E,46nm,0.5s						
PB16	IPOC Station P	3.06	330	i P	Pn	09 59 08.1	+1.0
PB16				i S	Sn	09 59 45.5	-0.4
PB16	IPOC Station P	3.06	330	P	Pn	09 59 08.4	+1.4
PB12	IPOC Station P	3.30	316	i P	Pn	09 59 08.6	-0.9

PB12				*i* S	Sn	09 59 47.2	-3.0
PB12				IAML		09 59 54.9	
	comp=N,70nm,0.2s						
AOEA	Aiquile	3.79	42	P	Pn	09 59 15.7	-0.1
BBOJ	La Paz, Jacaqu	4.03	356	P	Pn	09 59 21.5	+2.4
SOEJ	Jacaque	4.03	356	P	Pn	09 59 20.7	+1.6
PB14	IPOC Station P	4.26	212	P	Pn	09 59 21.6	-0.1
BBOD	La Paz, Gloria	4.41	351	P	Pn	09 59 26.2	+2.3
LPAZ	La Paz	4.71	357	P	Pn	09 59 28.6	+0.7
BBOB	La Paz, Bander	4.86	358	P	Pn	09 59 30.9	+1.2

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*DJA **05** 10:26:32.8±0.4, 9°S±3°×10°9E±°, h10^{km}, M4.0/18, MLv4.0/18*

*IDC **05** 10:26:42.7±14.0, 8°.49S×108°.81E, h138^{km}±139^{km}, mb3.5/8, mbtmp3.9/9, ML3.2/1, Error ellipse: s-maj=78.0km s-min=27.5km az=49.0*

ISC 05 10:26:34.0±0.9, **8°.6S**±0°.1×**108°.67E**±0°.09, **h55^{km}, n17, σ1^{s}.12**/15, **mb4.1**/8, **Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMJI	Cimerak	0.85	345	P	Pn	10 26 50.9	+1.0
CMJI				S	Sn	10 27 03.0	+1.4
CMJI				AML	AML		
BBJI	Bungbulang	1.53	318	P	Pn	10 26 59.9	+0.9
CNJI	Cibinong	2.00	310	P	Pn	10 27 06.2	+0.8
CNJI				AML	AML		
PCJI	Pacitan	2.51	81	P	Pn	10 27 12.0	-0.4
SNJI	Sawahan-Nganju	3.17	75	P	Pn	10 27 23.1	+1.6
FITZ	Fitzroy Crossi	19.00	121	P	Pn	10 30 53.8	+1.4
	0.1nm,0.3s,baz=298,slow=10,SNR=1.4						
	2.3nm,0.8s						
FITZ				AML	AML		
WRA	Warramunga Arr	27.26	117	P	P	10 32 13.3	0.0
	0.7nm,0.8s,baz=291,slow=9.6,SNR=8.0						
	0.7nm,0.8s						
ASAR	Alice Springs	28.41	125	P	P	10 32 23.8	+0.2
	0.2nm,0.5s,baz=302,slow=9.3,SNR=4.2						
	0.2nm,0.5s						
STKA	Stephens Creek	38.34	132	P	P	10 33 50.4	+0.6
	3.3nm,0.8s,baz=319,slow=5.0,SNR=4.3						
	3.3nm,0.8s						
SONM	Songino Array	56.24	358	P	P	10 36 07.8	-0.9
	0.7nm,0.4s,baz=169,slow=8.5,SNR=3.6						
	0.7nm,0.4s						
MKAR	Makanchi Array	59.96	339	P	P	10 36 33.8	-0.8
	0.8nm,0.4s,baz=153,slow=7.7,SNR=11						
	0.8nm,0.4s						
H04N2	CROZET ISLANDS	61.14	222	T	T	11 43 48.2	
	baz=70,slow=74,SNR=11						
H04N1	CROZET ISLANDS	61.16	222	T	T	11 43 49.1	
	baz=70,slow=74,SNR=11						
H04N3	CROZET ISLANDS	61.16	222	T	T	11 43 50.3	
	baz=70,slow=74,SNR=11						
ZALV	Zalesovo Beam	65.51	345	P	P	10 37 10.0	-1.4
	0.8nm,0.3s,baz=147,slow=6.3,SNR=5.4						
	0.8nm,0.3s						
BVAR	Borovoye Array	69.50	336	P	P	10 37 36.1	-0.5
	1.1nm,0.4s,baz=129,slow=9.3,SNR=5.2						
	1.1nm,0.4s						
PETK	Petropavlovsk-	74.20	28	P	P	10 38 03.4	-1.4
	0.5nm,0.3s,baz=241,slow=4.8,SNR=5.1						
	0.5nm,0.3s						

TAP 05 10:28:14.3, 23°.19N×120°.78E, h1^{km}±1^{km}, ML1.1, A, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STYH	Taoyuan	0.01	181	*i* P	Pg	10 28 14.0	-0.7
STYH				*i* S	Sg	10 28 15.1	+0.1
STYT	Tauyuan	0.03	219	*i* P	Pg	10 28 14.3	-0.6
STYT				S	Sg	10 28 15.6	+0.2
WTP	Ta-pu	0.16	292	*e*P	Pg	10 28 17.1	-0.4
WTP				S	Sg	10 28 20.0	+0.5
SGST	Jiashian	0.20	240	*e*P	Pg	10 28 19.4	+1.1
ELDTW	Lidau	0.22	89	*e*P	Pg	10 28 19.3	+0.7
CHN1	Nanshi	0.23	270	*e*P	Pg	10 28 19.4	+0.7
CHN1				*e*S	Sg	10 28 23.7	+2.0
ALS	Alishan	0.33	5	*e*P	Pb	10 28 22.0	-1.1

TAP 05 10:28:19.9, 23°.20N×120°.83E, h5^{km}±1^{km}, ML1.3, D, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STYH	Taoyuan	0.06	240	*i* P	Pg	10 28 21.4	0.0
STYH				S	Sg	10 28 22.5	+0.1
STYT	Tauyuan	0.08	241	*i* P	Pg	10 28 21.7	0.0
STYT				*i* S	Sg	10 28 23.1	+0.1
ELDTW	Lidau	0.17	94	*e*P	Pg	10 28 23.9	+0.6
ELDTW				*e*S	Sg	10 28 26.7	+1.0
ELDTW	Lidau	0.17	94	*e*S	Pg	10 28 23.7	+0.3
WTP	Ta-pu	0.20	283	*e*P	Pg	10 28 24.6	+0.6
ALS	Alishan	0.31	355	*e*P	Pg	10 28 26.4	+0.3
ALS	Alishan	0.31	355	*e*S	Pg	10 28 26.4	+0.3

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*IDC **05** 11:04:25.3±0.8, 52°.09N×163°.18W, h0^{km}, mb3.8/16, mbtmp3.7/18, ML3.8/3, MS3.3/3, Error ellipse: s-maj=24.4km s-min=12.2km az=169.0*

*NEIC **05** 11:04:27.4±1.5, 52°.39N±0°.08×163°.16W±0°.06, h10^{km}±1^{km}, mb3.8/31, ML3.7/16, ML3.6(AEIC), Error ellipse: s-maj=14.1km s-min=4.9km az=163.0*

*AEIC **05** 11:04:30.5±1.9, 52°.33N±0°.09×163°.08W±0°.10, h6^{km}±5^{km}, Error ellipse: s-maj=13.1km s-min=8.6km az=177.0*

ISC 05 11:04:27.1±0.6, **52°.35N**±0°.08×**163°.15W**±0°.04, **h10^{km}, n120, σ1^{s}.17**/113, **mb3.8**/16, **MS3.3**/3, **South of Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AKUT	Akutan	2.39	320	Pn	Pn	11 05 06.3	+0.1
AKUT				IAML		11 05 37.8	
	comp=E,459nm,0.4s						
AKUT	Akutan	2.39	320		Sn	11 05 34.2	-1.2
SSLS	Shishaldin Sou	2.42	348		Pn	11 05 06.2	-0.6
SSLS					Sn	11 05 34.0	-2.6
AKBBA	Akutan Broad B	2.42	317		Pn	11 05 06.4	-0.3
AKBBA					Sn	11 05 34.4	-2.0
AKLV	Akutan Long Va	2.48	318		Pn	11 05 07.3	-0.3
AKLV					Sn	11 05 36.1	-1.7
LVA	Lava Point	2.51	317		Pn	11 05 07.8	-0.2
LVA	Lava Point	2.51	317	IAML		11 05 42.6	
	comp=N,546nm,0.6s						
LVA				IAML		11 05 45.5	
	comp=E,306nm,0.6s						
UNV	Unalaska Valle	2.52	308	P	Pn	11 05 07.8	-0.2
UNV	Unalaska Valle	2.52	308	S	Sn	11 05 36.7	-2.1
UNV	Unalaska Valle	2.52	308		Pn	11 05 07.6	-0.5
UNV					Sn	11 05 36.9	-1.9
UNV	Unalaska Valle	2.52	308	IAML		11 05 39.3	
	comp=N,321nm,0.3s						
MNAT	Makushin Natee	2.63	307		Pn	11 05 09.3	-0.3
MNAT					Sn	11 05 39.2	-2.3
MSW	Makushin Switc	2.69	307		Pn	11 05 10.0	-0.5
MSW					Pb	11 05 10.1	-5.3
MSW					Sn	11 05 40.7	-2.4
DT1	Dutton Round H	2.81	10		Pn	11 05 10.8	-1.3
DT1					Sn	11 05 43.0	-3.0
DTNA	Dutton South F	2.86	10		Pn	11 05 11.5	-1.2
DTNA					Pb	11 05 11.8	-6.4
DTNA					Sn	11 05 45.0	-2.2
DOL	Dolgoi Island	2.91	15		Pn	11 05 12.7	-0.8
PS4A	Pavlof South-4	3.10	14		Pn	11 05 15.2	-0.9
PS1A	Pavlof South-1	3.19	15		Pn	11 05 17.1	-0.2
OKNC	Okmok New Cone	3.21	292		Pn	11 05 17.2	-0.3
OKNC					Sn	11 05 54.0	-1.8
CNBA	Chernabura Isl	3.26	39		Pn	11 05 17.9	-0.3
CHNA	Chernabura Isl	3.27	39	P	Pn	11 05 18.3	0.0
SDPT	Sand Point	3.40	27	P	Pn	11 05 20.9	+0.8
SDPT	Sand Point	3.40	27	S	Sn	11 06 01.3	+0.9
SDPT	Sand Point	3.40	27		Pn	11 05 19.7	-0.4
SDPT					Sn	11 05 58.4	-2.1
SDPT	Sand Point	3.40	27	IAML		11 06 04.3	
	comp=N,128nm,0.7s						
SDPT				IAML		11 06 06.8	
	comp=E,154nm,0.4s						
CLCO	Concord Point,	4.04	279		Pn	11 05 28.3	-0.6
CLES	Cleveland East	4.14	279		Pn	11 05 30.0	-0.4
VNKR	Veniaminof 5	4.31	30		Pn	11 05 32.0	-0.7
VNFG	Fog Glacier, M	4.47	27	Pn	Pn	11 05 37.5	+2.5
CHGN	Chignik	4.83	33	Pn	Pn	11 05 40.2	+0.4
CHGN				IAML		11 06 42.3	
	comp=E,63nm,0.5s						
CHGN				IAML		11 06 44.1	
	comp=N,60nm,0.5s						
ANPB	Aniakchak Plen	5.28	30		Pn	11 05 45.7	-0.4
CHIR	Chirikof Islan	5.63	49	P	Pn	11 05 50.2	-0.6
CHIR	Chirikof Islan	5.63	49	Pn	Pn	11 05 50.1	-0.6
R17L	Mt. Peulik Vol	6.58	34		Pn	11 06 03.7	-0.1
KOSE	Korovin Southe	6.68	274		Pn	11 06 05.8	+0.5
SII	Sitkinak Islan	6.71	48	P	Pn	11 06 06.3	+0.6
KOFP	Korovin Flat P	6.72	274		Pn	11 06 05.4	-0.4
KOKL	Mount Kliuchef	6.78	274		Pn	11 06 07.0	+0.5
ATKA	Atka Island	6.78	273	P	Pn	11 06 06.6	0.0
ATKA	Atka Island	6.78	273		Pn	11 06 06.8	+0.2
KOWE	Korovin West	6.80	275		Pn	11 06 07.3	+0.4
ANCK	Angle Creek	7.31	34		Pn	11 06 13.2	-0.7
ACHA	Angle Creek He	7.38	34	Pn	Pn	11 06 15.7	+0.9
MGLS	Mageik Landsli	7.38	35		Pn	11 06 14.1	-0.6
KABU	Katmai Buttres	7.44	34		Pn	11 06 14.9	-0.8
OHAK	Old Harbor	7.50	46	P	Pn	11 06 15.8	-0.6
OHAK	Old Harbor	7.50	46	Pn	Pn	11 06 14.7	-1.7
P17K	Kvichak River	7.83	26	Pn	Pn	11 06 22.2	+1.2
GSIG	Igitkin Island	7.87	272		Pn	11 06 21.2	-0.3
GSMY	Great Sitkin M	7.94	273		Pn	11 06 22.4	-0.1
KDAK	Kodiak Island	8.14	44	Pn	Pn	11 06 24.1	-1.1
	comp=N,0.8nm,0.3s,baz=193,slow=4.5,SNR=21						
KDAK				Sn	Sn	11 07 54.1	-3.1
	comp=N,0.4nm,0.3s,baz=47,slow=6.8,SNR=4.2						
	comp=N,1.7nm,0.3s						
KDAK				AML	AML		
KDAK	Kodiak Island	8.14	44	Pn	Pn	11 06 23.5	-1.7
ADAG	Mount Adagdak	8.28	273		Pn	11 06 27.1	-0.1
ADK	Adak	8.35	272	P	Pn	11 06 28.1	+0.1
ADK	Adak	8.35	272		Pn	11 06 28.5	+0.4
KINC	Kanaga Island	8.61	273		Pn	11 06 32.4	+0.7
KIWB	Kanaga Island	8.64	272		Pn	11 06 32.7	+0.6
KIMD	Kanaga Island	8.71	272		Pn	11 06 33.2	+0.3
L14K	Kuka Creek	9.02	1		Pn	11 06 38.0	+0.8
TAFL	Tanaga Flats	9.11	272		Pn	11 06 38.8	+0.3
SLKM	Skilak Lake	10.85	36	Pn	Pn	11 07 03.4	+1.1
SEW	Seward	10.87	39	Pn	Pn	11 07 02.9	+0.5
AMKA	Amchitka	10.90	272	Pn	Pn	11 07 02.5	-0.5
M20K	Styx River	10.98	26		Pn	11 07 05.8	+1.6
O22K	Cooper Landing	11.01	37	Pn	Pn	11 07 03.2	-1.2
PWL	Port Wells	11.78	38	Pn	Pn	11 07 13.9	-1.1
PMR	Palmer	11.98	34	P	Pn	11 07 18.9	+1.2
HIN	Hinchinbrook I	12.22	42		Pn	11 07 20.5	-0.6
EYAK	Cordova Ski Ar	12.62	43	P	Pn	11 07 26.4	0.0
KLU	Klutina	13.09	39		Pn	11 07 32.1	-0.8
SHEM	Shemya Is, Ala	13.85	281	Pn	Pn	11 07 41.5	-1.6
	comp=N,1.5nm,0.3s,baz=85,slow=23,SNR=1.2						
SHEM				AML	AML		
ILAR	Eielson Array	15.00	28	Pn	Pn	11 07 56.9	-2.0
	comp=N,0.1nm,0.3s,baz=220,slow=13,SNR=5.2						
O28M	Mount Upton	15.13	47	IAmb	IAmb	11 08 17.5	
	comp=Z,4.0nm,0.7s						
SCRK	Sand Creek	15.34	33	IAmb	IAmb	11 08 19.5	
	comp=Z,4.8nm,0.8s						
I26K	Coal Creek Min	16.50	30	IAmb	IAmb	11 08 33.9	
	comp=Z,4.5nm,0.6s						
M29M	Somme Creek	16.59	43	IAmb	IAmb	11 08 34.0	
	comp=Z,4.6nm,0.8s						
DAWY	Dawson	17.02	37	IAmb	IAmb	11 08 49.3	
	comp=Z,4.7nm,0.9s						
L29M	L29M	17.03	41		Pn	11 08 23.7	-1.4
L29M				IAmb	IAmb	11 08 56.8	
	comp=Z,4.4nm,0.9s						
I28M	Miner Creek	17.62	33	IAmb	IAmb	11 08 46.6	
	comp=Z,4.7nm,0.8s						
CRAG	Craig	17.89	68	P	P	11 08 36.4	0.0
I29M	Ogilvie Camp,	18.13	34	IAmb	IAmb	11 08 53.0	
	comp=Z,12nm,1.2s						
M31M	Drury Creek, Y	18.25	46	IAmb	IAmb	11 08 52.9	
	comp=Z,5.7nm,0.8s						
J30M	Hart River	18.43	38	IAmb	IAmb	11 08 58.0	
	comp=Z,3.5nm,0.8s						
P33M	Teslin, Yukon	18.45	53	P	Pn	11 08 45.2	+2.5
H29M	Whitestone	18.60	32	IAmb	IAmb	11 09 03.6	
	comp=Z,8.1nm,1.1s						
I30M	Mount Dempster	18.74	36	IAmb	IAmb	11 08 59.6	
	comp=Z,5.6nm,0.6s						
R33M	Jennings River	19.23	56	P	P	11 08 50.2	-1.1
R33M				IAmb	IAmb	11 09 03.2	
	comp=Z,5.3nm,1.1s						
DLBC	Dease Lake	19.62	59	P	Pn	11 08 57.0	+0.2
	comp=Z,0.1nm,0.3s,baz=260,slow=18,SNR=1.9						
	comp=Z,0.7nm,0.6s						
DLBC				AML	AML		
MMPY	Sheldon Lake,	19.76	46	P	Pn	11 09 01.2	+2.7
MMPY				IAmb	IAmb	11 09 10.1	
	comp=Z,5.5nm,0.8s						
G31M	Satah River	20.36	33	P	Pn	11 09 05.0	-0.3
INK	Inuvik	21.35	30	P	P	11 09 15.9	+2.0
	comp=Z,0.7nm,0.4s,baz=231,slow=16,SNR=7.1						
	comp=Z,0.7nm,0.4s						
INK	Inuvik	21.35	30	P	P	11 09 16.0	+2.0
INK				IAmb	IAmb	11 09 42.3	
	comp=Z,3.4nm,0.8s						
PEA0B	Petropavlovsk-	23.53	288	P	P	11 09 38.4	+1.2
PETK	Petropavlovsk-	23.53	288	P	P	11 09 38.4	+1.3
	comp=Z,4.0nm,0.5s,baz=80,slow=12,SNR=50						
	comp=Z,4.0nm,0.5s						
PETK	Petropavlovsk-	23.53	288	P	P	11 09 38.1	+1.0
NVAR	Mina Array Bea	33.85	96	P	P	11 11 10.1	+0.3
	comp=Z,0.3nm,0.6s,baz=306,slow=9.4,SNR=4.8						
	comp=Z,0.3nm,0.6s						
NVAR	Mina Array Bea	33.85	96	P	P	11 11 08.3	-1.5
TIXI	Tiksi	34.72	329	LR	LR	11 25 30.8	
	comp=Z,25nm,19.3s,baz=147,slow=36						
PDAR	Pinedale Array	36.64	83	P	P	11 11 33.9	+0.2
	comp=Z,0.3nm,0.5s,baz=327,slow=2.5,SNR=5.8						
	comp=Z,0.3nm,0.5s						
PDAR	Pinedale Array	36.64	83	P	P	11 11 33.0	-0.7
ULM	Lac du Bonnet	40.74	65	P	P	11 12 07.0	-0.8
	comp=Z,1.4nm,0.7s,baz=291,slow=9.6,SNR=4.3						
	comp=Z,1.4nm,0.7s						
MJAR	Matsushiro Arr	43.51	273	P	P	11 12 30.6	0.0
	comp=Z,1.3nm,0.7s,baz=42,slow=6.5,SNR=3.1						
	comp=Z,1.3nm,0.7s						
MJAR	Matsushiro Arr	43.51	273	P	P	11 12 30.1	-0.5
MJAR				IAmb	IAmb	11 13 01.6	
	comp=Z,1.4nm,1.1s						
HILR	Hailar Array B	46.49	299	P	P	11 12 53.5	-0.6
	comp=Z,0.6nm,0.3s,baz=35,slow=9.4,SNR=2.0						
	comp=Z,0.6nm,0.3s						
TXAR	Lajitas Array	48.93	94	P	P	11 13 13.2	-0.2
	comp=Z,0.9nm,0.9s,baz=308,slow=6.2,SNR=6.4						
	comp=Z,0.9nm,0.9s						
TXAR	Lajitas Array	48.93	94	P	P	11 13 12.9	-0.5
KSRS	Korea Array	49.18	281	P	P	11 13 15.8	+0.8
	comp=Z,1.2nm,0.7s,baz=63,slow=7.7,SNR=4.9						
	comp=Z,1.2nm,0.7s						
SONM	Songino Array	54.53	304	P	P	11 13 55.8	+0.8
	comp=Z,0.3nm,0.3s,baz=77,slow=6.2,SNR=1.7						
	comp=Z,0.3nm,0.3s						
SONM	Songino Array	54.53	304	P	P	11 13 55.3	+0.3
SONM				IAmb	IAmb	11 14 18.6	
	comp=Z,1.7nm,1.2s						
KURBB	Kurchatov Arra	64.95	322	P	P	11 15 07.2	+0.7
	comp=Z,0.4nm,0.8s,baz=46,slow=7.9,SNR=3.2						
	comp=Z,0.4nm,0.8s						
BVAR	Borovoye Array	65.85	328	P	P	11 15 13.8	+1.5
	comp=Z,1.4nm,0.7s,baz=40,slow=5.6,SNR=2.3						
	comp=Z,1.4nm,0.7s						
FINES	FINESS Array B	66.32	355	LR	LR	11 45 39.2	
	comp=Z,18nm,18.0s,baz=34,slow=37						
MKAR	Makanchi Array	66.51	317	P	P	11 15 17.3	+0.6
	comp=Z,0.3nm,0.6s,baz=46,slow=5.2,SNR=3.8						
	comp=Z,0.3nm,0.6s						
MKAR	Makanchi Array	66.51	317	P	P	11 15 17.0	+0.3
AB31	Akbulak array	72.36	332	P	P	11 15 53.4	+0.6
ABKAR	Akbulak array	72.36	332	P	P	11 15 53.1	+0.3
AAK	Ala-Archa	73.10	319	LR	LR	11 48 25.4	
	comp=Z,40nm,18.7s,baz=90,slow=36						
CMAR	Chiang Mai Arr	80.31	287	P	P	11 16 38.3	-0.1
	comp=Z,0.4nm,0.3s,baz=348,slow=4.5,SNR=4.1						
	comp=Z,0.4nm,0.3s						
WRA	Warramunga Arr	90.08	237	P	P	11 17 26.3	-0.8
	comp=Z,0.3nm,0.7s,baz=40,slow=5.5,SNR=2.6						
	comp=Z,0.3nm,0.7s						
ASAR	Alice Springs	93.41	235	P	P	11 17 41.4	-1.1
	comp=Z,0.4nm,0.8s,baz=35,slow=4.5,SNR=5.3						
	comp=Z,0.4nm,0.8s						

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*BER **05** 11:46:01.5±1.8, 67°.42N×31°.02E, h0^{km}, ML1.6, Suspected explosion*

KOLA 05 11:45:59.8, 67°.66N×30°.16E, h0^{km}, ML2.2, Error ellipse: s-maj=5.5km s-min=2.7km az=40.0, Murmansk region, Kola district, Baltic States-Belarus-Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APA0	Apatity Array	1.09	92	P	Pg	11 46 19.5	-1.0
APA0				S	Sg	11 46 33.2	-1.4
APA	Apatity	1.25	93	S	Sg	11 46 37.7	-2.1
KVDA	Kovda	1.44	131	P	Pn	11 46 24.8	-2.2
KVDA				S	Sg	11 46 44.6	-1.3
LVZ	Lovozero	1.73	80	S	Sn	11 46 53.0	-0.8
VADS	Vadso	2.48	354	*e*P	Pb	11 46 45.7	+0.5
VADS				*e*S	Sg	11 47 18.2	-1.3
VADS				IAML		11 47 25.8	
	comp=Z,4.4nm,0.5s						
VADS	Vadso	2.48	354	S	Sn	11 47 11.5	-0.8
ARA0	ARCESS Array S	2.54	320	*e*P	Pb	11 46 46.0	-0.2
ARA0				*e*S	Sg	11 47 22.2	+1.1
ARA0				IAML		11 47 27.1	
	comp=Z,6.4nm,0.2s						
ARCES	ARCESS Array B	2.54	320	S	Sn	11 47 13.0	-0.7
HEF	Hetta	2.55	290	*e*P	Pb	11 46 47.4	+1.0
HEF				*e*S	Sg	11 47 22.5	+0.8
KTK1	Kautokeino	2.90	301	*e*P	Pb	11 46 52.3	0.0
KTK1				*e*S	Sb	11 47 29.6	+1.3
KTK1				IAML		11 47 35.0	
	comp=Z,4.1nm,0.2s						
SALU	Saltoluokta	4.48	272	*e*P	Pb	11 47 14.4	-4.8
FAUS	Fauske	5.71	274	*e*P	Pn	11 47 30.0	+4.4

KOLA 05 11:46:38.0±0.6, **67°.52N**±0°.03×**30°.44E**±0°.07, **h0^{km}, M2.4**(MOS), **The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Baltic States-Belarus-Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APA0	Apatity Array	0.99	84	P	Pg	11 46 56.1	-0.8
APA0				S	Sg	11 47 07.9	-1.7
APA	Apatity	1.14	86	P	Pg	11 47 00.1	+0.2
APA				S	Sg	11 47 13.8	-0.8
KVDA	Kovda	1.26	130	P	Pg	11 47 01.5	-0.7
KVDA				S	Sg	11 47 17.8	-0.7
LVZ	Lovozero	1.65	75	P	Pn	11 47 07.5	-0.8
LVZ				S	Sn	11 47 29.2	-1.0
TERR	Teriberka	2.42	44	S	Sn	11 47 50.4	+1.4
VADS	Vadso	2.65	352	S	Sn	11 47 53.3	-1.3
ARCES	ARCESS Array B	2.72	320	P	Pn	11 47 23.4	+0.5
ARCES				S	Sn	11 47 56.4	0.0
FAUS	Fauske	5.83	276	P	Pn	11 48 05.6	+0.1
FAUS				S	Sn	11 49 08.0	-5.0

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*DJA **05** 11:53:00.1±0.8, 10°S±8°×11°9E±°, h10^{km}, M3.8/6, MLv3.8/6*

*IDC **05** 11:53:02.4±1.2, 9°.33S×119°.80E, h0^{km}, mb3.4/2, mbtmp3.3/6, ML3.0/4, Error ellipse: s-maj=39.0km s-min=11.8km az=64.0*

ISC 05 11:53:02.8±0.9, **9°.78S**±0°.07×**119°.10E**±0°.06, **h33^{km}, n13, σ2^{s}.72**/15, **Sumba region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WSI	Waingapu	1.19	85	P	Pb	11 53 24.8	-0.1
WSI				S	Sb	11 53 41.6	+1.6
WSI				AML	AML		
LBFI	Labuhan Bajo,	1.51	31	P	Pb	11 53 29.8	-0.5
PLAI	Plampang	1.61	306	P	Pn	11 53 28.8	-0.1
PLAI				S	Sb	11 53 51.0	-0.9
PLAI				AML	AML		
KAPI	Kappang	4.78	8	Pn	Pn	11 54 12.4	-0.1
	1.7nm,0.3s,baz=176,slow=15,SNR=9.6						
KAPI				Sn	Sn	11 55 02.2	-4.7
	2.8nm,0.3s,baz=217,slow=18,SNR=6.7						
	12nm,1.1s						
KAPI				AML	AML		
KAPI	Kappang	4.78	8	P	Pn	11 54 14.4	+1.8
FITZ	Fitzroy Crossi	10.43	143	Pn	Pn	11 55 31.9	+1.9
	baz=339,slow=9.2,SNR=1.5						
FITZ				Sn	Sn	11 57 20.0	-5.8
	0.3nm,0.3s,baz=201,slow=21,SNR=6.6						
	1.4nm,0.9s						
WRA	Warramunga Arr	17.85	126	P	Pn	11 57 08.1	-0.7
	0.1nm,0.3s,baz=301,slow=13,SNR=6.2						
WRA				S	Sn	12 00 24.9	-2.0
	0.2nm,0.7s,baz=306,slow=24,SNR=2.4						
	0.4nm,0.7s						
WRA				AML	AML		
ASAR	Alice Springs	19.77	136	P	Pn	11 57 31.5	-0.5
	baz=309,slow=10,SNR=4.5						
	0.2nm,0.5s						
MKAR	Makanchi Array	65.19	333	P	P	12 03 43.1	+2.2
	0.2nm,0.4s,baz=138,slow=5.7,SNR=3.9						
	0.2nm,0.4s						
H04N2	CROZET ISLANDS	67.31	224	T	T	13 17 24.0	
	baz=82,slow=76,SNR=11						
H04N1	CROZET ISLANDS	67.32	224	T	T	13 17 22.8	
	baz=82,slow=76,SNR=18						
H04N3	CROZET ISLANDS	67.32	224	T	T	13 17 22.9	
	baz=82,slow=76,SNR=12						
KURBB	Kurchatov Arra	69.70	334	P	P	12 04 12.8	+3.6
	0.2nm,0.5s,baz=140,slow=7.3,SNR=2.6						
	0.2nm,0.5s						

KRSC 05 11:56:54.4±1.9, **49°.48N×156°.53E, h48^{km}**±25^{km}, **Ml3.6, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril’s	1.24	348	*e*P	Pn	11 57 15.8	+0.5
SKR				*e*S	Sn	11 57 31.6	+0.8
PAU	Pauzhetka	2.00	5	*e*P	Pn	11 57 28.1	+2.4
PAU				*e*S	Sn	11 57 52.2	+2.7
KDTR	Khodutka, Kamc	2.54	22	*e*P	Pn	11 57 36.4	+3.4
KDTR				*e*S	Sn	11 58 06.8	+4.2
ASAK	Asacha	3.04	16	*e*P	Pn	11 57 43.9	+3.9
MTVR	Mutnovka	3.19	19	*e*P	Pn	11 57 45.7	+3.6
RUS	Russkaya	3.22	22	*e*P	Pn	11 57 45.6	+3.2
RUS				*e*S	Sn	11 58 23.5	+4.2
GRL	Gorelyy	3.23	17	*e*P	Pn	11 57 47.0	+4.3
UGLR	Uglovaya	4.01	20	*e*P	Pn	11 57 58.1	+4.8
AVH	Avacha	4.04	19	*e*P	Pn	11 57 58.6	+4.8
KOK	Koryaka	4.04	18	*e*P	Pn	11 57 58.3	+4.5
SDLR	Sedlovina	4.08	20	*e*P	Pn	11 57 58.1	+3.7
KRX	Arik	4.11	18	*e*P	Pn	11 57 59.2	+4.5
SPN	Mys Shipunski	4.24	30	*e*P	Pn	11 58 01.1	+4.8
GNL	Ganaly	4.32	11	*e*P	Pn	11 58 00.5	+2.9
MKZ	Mys Kozlova	6.02	30	*e*P	Pn	11 58 22.9	+2.2

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*IDC **05** 11:58:29.7±1.0, 17°.10S×167°.83E, h0^{km}, mb4.1/11, mbtmp4.1/12, ML4.0/1, MS3.4/12, Error ellipse: s-maj=26.5km s-min=17.3km az=92.0*

*NOU **05** 11:58:30.9, 17°.18S×167°.91E, h12^{km}, MLv4.8/30, Vanuatu Islands*

*NEIC **05** 11:58:30.4±0.7, 17°.08S±0°.06×168°.0E±0°.1, h10^{km}±1^{km}, mb4.5/13, Error ellipse: s-maj=21.4km s-min=7.5km az=71.0*

ISC 05 11:58:32.4±0.6, **17°.17S**±0°.06×**167°.89E**±0°.09, **h21^{km}, n61, σ0^{s}.81**/58, **mb4.3**/15, **MS3.6**/9, **1C, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DVP	Devils Point	0.63	153	P	Pb	11 58 43.9	-0.8
DVP	Devils Point	0.63	153	S	Sb	11 58 51.7	-1.4
RTV	Rentapao	0.81	141	P	Pb	11 58 46.8	-0.9
RTV	Rentapao	0.81	141	S	Sb	11 58 58.0	-0.2
SANVU	Saraoutou	1.83	339	P	Pn	11 59 01.8	-0.8
SANVU	Saraoutou	1.83	339	S	Sb	11 59 25.9	-1.7
SANVU	Saraoutou	1.83	339		Pn	11 59 00.9	-1.7
MARNC	Mare, Loyalty	4.29	178	P	Pn	11 59 35.5	-1.0
MARNC	Mare, Loyalty	4.29	178	Pn	Pn	11 59 35.7	-0.8
KOUNC	Koumac, New Ca	4.79	225	P	Pn	11 59 43.3	-0.1
KOUNC	Koumac, New Ca	4.79	225		Pn	11 59 43.2	-0.2
YATNC	Mamie plateau,	4.96	191	P	Pn	11 59 45.2	-0.4

DZM	Mont Dzumac	5.07	195	Pn	Pn	11 59 47.0	-0.2
	5.3nm,0.3s,baz=85,slow=8.6,SNR=120						
DZM				Sn	Sn	12 00 44.3	-0.9
	6.5nm,0.3s,baz=310,slow=23,SNR=7.3						
DZM				LR	LR	12 01 41.0	
	comp=Z,331nm,19.1s,baz=98,slow=37						
	23nm,0.6s						
DZM				AML	AML		
NOUC	Port Laguerre	5.13	197	P	Pn	11 59 48.1	+0.1
ONTNC	Ouen Toro	5.29	195	P	Pn	11 59 50.0	-0.2
ONTNC	Ouen Toro	5.29	195		Pn	11 59 49.9	-0.3
OUENC	Ouen Island, N	5.32	191	P	Pn	11 59 50.6	+0.1
OUENC	Ouen Island, N	5.32	191	Pn	Pn	11 59 50.7	+0.1
NGOA	Tingoa Renbel	9.41	305	P	Pn	12 00 46.7	-0.1
HNR	Honiara	10.90	314	LR	LR	12 04 52.7	
	comp=Z,53nm,21.4s,baz=250,slow=35						
AFI	Afiamalu	19.86	83	LR	LR	12 08 57.5	
	comp=Z,53nm,18.7s,baz=249,slow=32						
CTA	Charters Tower	20.70	259	P	P	12 03 11.9	+0.5
	2.3nm,0.5s,baz=101,slow=11,SNR=5.3						
	2.3nm,0.5s						
PMG	Port Moresby	21.58	288	LR	LR	12 10 58.8	
	comp=Z,98nm,18.4s,baz=118,slow=35						
MTSU	Mount Surprise	22.48	264	P	P	12 03 31.4	+0.8
URZ	Urewera	22.52	161	LR	LR	12 11 37.4	
	comp=Z,176nm,18.6s,baz=352,slow=35						
RTZ	Ruatahuna	22.80	161	P	P	12 03 33.3	-0.6
RTZ				IAmb	IAmb	12 03 45.5	
	comp=Z,29nm,1.2s						
BKZ	Black Stump Fm	23.17	163	P	P	12 03 37.8	+0.2
CMSA	Cobar Meteorol	24.70	231	P	P	12 03 52.3	+0.1
THZ	Tophouse	24.89	171	P	P	12 03 53.5	-0.3
KHZ	Kahutara	25.63	170	P	P	12 04 00.3	0.0
RPZ	Rata Peaks	26.60	175	LR	LR	12 13 54.2	
	comp=Z,30nm,18.3s,baz=283,slow=35						
STKA	Stephens Creek	27.95	234	P	P	12 04 21.9	+0.4
	comp=Z,2.0nm,0.5s,baz=63,slow=9.3,SNR=7.7						
STKA				PcP	PcP	12 07 36.4	-0.2
	comp=Z,0.6nm,0.6s,baz=80,slow=8.8,SNR=2.9						
	comp=Z,2.0nm,0.5s						
STKA	Stephens Creek	27.95	234	P	P	12 04 22.2	+0.7
WRAB	Tennant Creek	31.89	260	P	P	12 04 56.4	-0.1
WRA	Warramunga Arr	31.90	260	P	P	12 04 56.1	-0.4
	comp=Z,1.1nm,0.5s,baz=80,slow=6.1,SNR=25						
WRA				PcP	PcP	12 07 46.8	-0.2
	comp=Z,0.3nm,0.6s,baz=85,slow=3.3,SNR=1.4						
	comp=Z,1.1nm,0.5s						
WRA	Warramunga Arr	31.90	260	P	P	12 04 55.1	-1.5
AS01	Alice Springs	32.40	253	P	P	12 05 00.6	-0.4
AS31	Alice Springs	32.44	253	P	P	12 05 00.9	-0.4
AS31				IAmb	IAmb	12 05 12.2	
	comp=Z,2.9nm,0.5s						
ASAR	Alice Springs	32.45	253	P	P	12 05 00.7	-0.7
	comp=Z,4.1nm,0.4s,baz=78,slow=8.6,SNR=119						
ASAR				PcP	PcP	12 07 48.7	+0.2
	comp=Z,0.5nm,0.8s,baz=79,slow=2.9,SNR=2.8						
ASAR				LR	LR	12 17 43.6	
	comp=Z,83nm,18.1s,baz=77,slow=36						
	comp=Z,4.1nm,0.4s						
ASAR	Alice Springs	32.45	253	P	P	12 05 00.7	-0.7
ASAR				PcP	PcP	12 07 48.0	-0.5
BBOO	Buckleboo	32.63	235	P	P	12 05 02.6	-0.2
KNRA	Kununurra	37.52	266	P	P	12 05 44.4	-0.8
KNRA				IAmb	IAmb	12 05 55.5	
	comp=Z,3.4nm,0.7s						
FITZ	Fitzroy Crossi	40.21	262	P	P	12 06 08.2	+0.5
VNDA	Vanda	60.45	182	P	P	12 08 39.2	-0.9
	comp=Z,0.5nm,0.7s,baz=353,slow=6.2,SNR=3.8						
	comp=Z,0.5nm,0.7s						
VNDA	Vanda	60.45	182	P	P	12 08 40.5	+0.4
VNDA				IAmb	IAmb	12 08 58.5	
	comp=Z,2.5nm,1.3s						
SBA	Scott Base	60.72	180	P	P	12 08 42.8	+0.9
SBA				IAmb	IAmb	12 08 43.9	
	comp=Z,5.4nm,1.0s						
PETK	Petropavlovsk-	70.53	354	LR	LR	12 36 45.1	
	comp=Z,38nm,18.8s,baz=190,slow=33						
QSPA	South Pole Qui	72.88	180	P	P	12 10 00.9	+1.3
	comp=Z,8.8nm,1.1s,baz=3.4,slow=3.7,SNR=20						
QSPA				LR	LR	12 39 23.4	
	comp=Z,29nm,19.0s,baz=348,slow=34						
	comp=Z,8.8nm,1.1s						
QSPA	South Pole Qui	72.88	180	P	P	12 10 00.2	+0.6
QSPA				IAmb	IAmb	12 10 01.2	
	comp=Z,12nm,1.1s						
CM31	Chiang Mai Arr	76.48	294	P	P	12 10 20.1	-1.2
CM31				IAmb	IAmb	12 10 26.5	
	comp=Z,5.7nm,1.3s						
CMAR	Chiang Mai Arr	76.48	294	P	P	12 10 23.0	+1.8
	comp=Z,0.6nm,0.5s,baz=138,slow=5.3,SNR=5.0						
	comp=Z,0.6nm,0.5s						
CMAR	Chiang Mai Arr	76.48	294	P	P	12 10 20.3	-0.9
MAW	Mawson	79.86	202	P	P	12 10 40.1	+1.0
	comp=Z,2.9nm,0.9s,baz=102,slow=6.8,SNR=6.7						
	comp=Z,2.9nm,0.9s						
MAW	Mawson	79.86	202	P	P	12 10 40.3	+1.2
BELA	Belgrano 2	84.26	175	P	P	12 11 01.5	-0.6
SONM	Songino Array	84.80	324	P	P	12 11 05.9	+0.5
	comp=Z,0.4nm,0.4s,baz=123,slow=3.5,SNR=2.1						
	comp=Z,0.4nm,0.4s						
NVAR	Mina Array Bea	88.41	49	P	P	12 11 25.2	+1.9
	comp=Z,0.2nm,0.8s,baz=302,slow=3.9,SNR=2.1						
NVAR				LR	LR	12 44 44.7	
	comp=Z,28nm,18.7s,baz=232,slow=31						
	comp=Z,0.2nm,0.8s						
ILAR	Eielson Array	88.65	18	LR	LR	12 48 23.6	
	comp=Z,39nm,18.0s,baz=266,slow=34						
DLBC	Dease Lake	90.81	28	LR	LR	12 46 13.5	
	comp=Z,28nm,19.4s,baz=248,slow=32						
VNA3	Neumayer Olymp	91.80	181	⇑P	P	12 11 38.2	-0.2
	comp=Z,1.9nm,0.6s						
MKAR	Makanchi Array	99.36	316	P	Pdif	12 12 13.9	+0.7
	comp=Z,0.1nm,0.4s,baz=106,slow=4.3,SNR=2.0						
	comp=Z,0.1nm,0.4s						

JMA 05 12:02:36.9±0.4,31˚N±2˚×14˚0E±˚,h211^{km},MV3.5/25, NEAR TORISHIMA IS,Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BSO1	Boso 1	3.57	11	*e*P	Pn	12 03 33.9	+0.6
BSO1				*e*S	S	12 04 19.1	+1.6
BSO3	Boso 3	3.66	5	P	Pn	12 03 35.6	+0.9
BSO3				*e*S	S	12 04 20.8	+1.0
BSO4	Boso 4	3.84	2	*e*S	S	12 04 26.9	+2.9
JYT	Yasato	5.08	0	*e*S	S	12 04 52.0	0.0
JAG	Ashikaga	5.30	354	*e*S	S	12 04 56.9	-0.4
JHO	Hitachi	5.47	4	P	Pn	12 03 57.4	-0.1
JHO				S	S	12 05 01.3	+0.2
JFK	Kawauchi	6.24	5	S	S	12 05 18.7	-0.4
JMK	Ichinoseki	7.84	6	S	S	12 05 56.6	-0.1

IDC ***05*** *12:06:43.7±0.6,43°.64N×147°.14E,h0^{km},mb4.1/24, mbtmp4.0/32,ML3.5/8,MS3.2/16,Error ellipse: s-maj=15.9km s-min=11.1km az=158.0*

SKHL ***05*** *12:06:48.0±0.3,43°.40N×147°.20E,h48^{km}±7^{km},mb5.6/5*

SKHL Felt (III-IV) at Malokuril`skoe.

MOS ***05*** *12:06:48.9±1.0,43°.51N×147°.09E,h55^{km},mb4.7/24,Error ellipse: s-maj=8.8km s-min=6.5km az=111.8*

MOS Felt (III-IV) at Malokuril'skoye.

NIED ***05*** *12:06:49.8,43°.57N×147°.00E,h37^{km},MW4.2,Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M_{rr}0.68; $M_{\theta\theta}$0.84; $M_{\phi\phi}$-1.51; $M_{r\theta}$1.79; $M_{\theta\phi}$-0.80; $M_{\phi r}$0.45; Fault plane solution: $M_0$2.38000×10^{15} NP1: ϕ_s162.00000°,δ40.00000°,λ17.00000°. NP2:ϕ_s58.00000°, δ79.00000°,λ129.00000°.*

JMA ***05*** *12:06:49.8±0.3,43°.6N±0°.9×14˚7E±˚,h37^{km},MD4.0/40, MV4.5/40,E OFF HOKKAIDO*

JMA Felt I J1 at E OFF HOKKAIDO .

GFZ ***05*** *12:06:50.7±0.6,44˚N±4˚×14˚7E±˚,h54^{km}±6^{km},M4.2/13, mb4.6/13,Error ellipse: s-maj=14.7km s-min=6.4km az=119.6,confirmed*

NEIC ***05*** *12:06:51.6±0.8,43°.63N±0°.09×147°.0E±0°.1,h52^{km}±8^{km}, mb4.5/85,Error ellipse: s-maj=15.0km s-min=11.6km az=119.0*

ISC 05 12:06:50.1±0.8,43°.56N±0°.05×147°.11E±0°.05,h46^{km}±7^{km}, n253,σ1^{s}.16/239,mb4.5/94,MS3.4/9,11C-7D,Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SHO	Shikotan	0.37	327	*e*P	Pn	12 07 14.4	+15
SHO				AMB	AMB	12 07 15.3	
	7μm,0.3s						
SHO				*e*S	Sn	12 07 20.8	+15
SHO				A	A	12 07 21.4	
	32μm,0.3s						
SHO				A	A	12 07 21.4	
	31μm,0.3s						
NEM2	Nemuro 2	1.01	259	*i* P	Pn	12 07 06.4	-1.4
NEM2				S	Sn	12 07 19.1	-1.9
YUK	Yuzh-Kuril'sk	1.02	298	*d i*PN	Pn	12 07 07.1	-0.8
YUK				*e*S	Sn	12 07 21.6	+0.5
YUK				pmax	pmax		
	comp=Z,6μm,0.2s						
YUK				pmax	pmax		
	comp=N,865nm,0.1s						
YUK				pmax	pmax		
	comp=E,1μm,0.1s						
YUK				smax	smax		
	comp=N,8μm,0.5s						
YUK				smax	smax		
	comp=E,9μm,0.4s						
YUK	Yuzh-Kuril'sk	1.02	298	*i* P	Pn	12 07 07.1	-0.8
YUK				AMB	AMB	12 07 08.2	
	comp=E,4μm,0.2s						
YUK				*e*S	Sn	12 07 20.1	-1.0
YUK				A	A	12 07 25.0	
	comp=E,9μm,0.5s						
YUK				A	A	12 07 25.0	
	comp=E,10μm,0.5s						
NMR	Nemuro--Hokkai	1.02	260	⇓*i*PN	Pn	12 07 06.4	-1.6
NMR				*e*S	Sn	12 07 18.6	-2.6
NMR	Nemuro--Hokkai	1.02	260	*i* P	Pn	12 07 06.4	-1.6
NMR				*e*S	Sn	12 07 18.6	-2.6
RUSJ	Misakicho	1.45	293	⇓*i*PN	Pn	12 07 13.7	-0.1
RUSJ				*e*S	Sn	12 07 33.2	+1.5
JRA	Rausu	1.49	285	*i* P	Pn	12 07 14.0	-0.3
JRA				A	A	12 07 14.0	
	comp=N,3.0nm,0.8s,comp=E,4.0nm,5.9s						
JKHN	Kushirohamanak	1.50	252	P	Pn	12 07 13.7	-0.7
JKHN				A	A	12 07 13.7	
	comp=N,5.0nm,1.6s,comp=E,4.0nm,3.6s						
JKHN				S	Sn	12 07 33.7	+0.9
JNSB	Nemuroshibetsu	1.54	279	*i* P	Pn	12 07 14.7	-0.4
JNSB				A	A	12 07 14.7	
	comp=N,5.0nm,1.0s,comp=E,5.0nm,2.0s						
JNSB				*e*S	Sn	12 07 34.5	+0.6
JNK	Nakash	1.74	272	*i* P	Pn	12 07 16.9	-0.8
JNK				*e*S	Sn	12 07 37.3	-1.4
KUR	Kuril'sk	1.76	18	*e*PN	Pn	12 07 18.1	0.0
KUR				*e*S	Sn	12 07 39.3	0.0
KUR				pmax	pmax		
	comp=E,254nm,0.3s						
KUR				pmax	pmax		
	comp=Z,298nm,0.3s						
KUR				pmax	pmax		
	comp=N,125nm,0.2s						
KUR				smax	smax		
	comp=E,2μm,0.3s						
KUR				smax	smax		
	comp=N,949nm,0.2s						
KUR	Kuril'sk	1.76	18	*e*P	Pn	12 07 18.1	0.0
KUR				*e*S	Sn	12 07 39.3	0.0
KUR				A	A	12 07 44.5	
	comp=N,950nm,0.3s						
KUR				A	A	12 07 44.5	
	comp=N,2μm,0.3s						
REI	Reidovoe	1.83	21	*e*P	Pn	12 07 18.9	-0.1
REI				*e*S	Sn	12 07 40.9	0.0
JAK	Akkeshi	1.85	253	*i* P	Pn	12 07 18.1	-1.2
JAK				A	A	12 07 18.1	
	comp=N,4.0nm,1.1s,comp=E,4.0nm,0.6s						
JAK				*e*S	Sn	12 07 40.1	-1.3
JTKR	Abashiri--Toko	2.35	281	*i* P	Pn	12 07 26.8	+0.6
JTKR				*e*S	Sn	12 07 56.4	+2.6
JAR	Ashorobuto	2.44	265	*i* P	Pn	12 07 27.4	-0.1
JAR				A	A	12 07 27.4	
	comp=N,2.0nm,0.9s,comp=E,3.0nm,5.2s						
JAR				*e*S	Sn	12 07 57.3	+1.1
JOB	Onbets	2.48	256	P	Pn	12 07 27.6	-0.4
JOB				S	Sn	12 07 56.3	-0.7
JMP	Maruseppu	2.75	281	*i* P	Pn	12 07 32.4	+0.7
JCH	Churui	2.90	252	P	Pn	12 07 33.9	+0.2
ERM	Erimo	3.29	243	*d i*PN	Pn	12 07 41.1	+2.0
ERM	Erimo	3.29	243	Pn	Pn	12 07 40.2	+1.1
ERM	Erimo	3.29	243	P	Pn	12 07 41.0	+2.0
JKA	Kamikawa-asahi	3.31	281		Pn	12 07 40.4	+1.1
JKA	Kamikawa-asahi	3.31	281	*e*P	Pn	12 07 40.7	+1.4
JKA	Kamikawa-asahi	3.31	281	P	Pn	12 07 40.1	+0.8
ASAJ	Asahikawa	3.31	281	Pn	Pn	12 07 40.7	+1.3
	comp=E,5.0nm,0.3s,baz=93,slow=14,SNR=63						
ASAJ				Sn	Sn	12 08 19.6	+2.1
	comp=E,17nm,0.3s,baz=353,slow=20,SNR=4.0						
ASAJ				LR	LR	12 09 09.4	
	comp=E,351nm,19.1s,baz=122,slow=44						
	comp=E,41nm,0.3s						
ASAJ				AML	AML		
JNBK	Urakawa-nobuka	3.44	250	A	A	12 07 41.9	
	comp=N,2.0nm,6.6s,comp=E,3.0nm,2.3s						
YSS	Yuzhno-Sakhali	4.58	319	*e*PN	Pn	12 07 57.8	+1.1
YSS				*e*S	Sn	12 08 49.7	+1.1
YSS				pmax	pmax		
	comp=Z,40nm,0.7s						
YSS				pmax	pmax		
	comp=Z,100nm,4.6s						
YSS				smax	smax		
	comp=E,40nm,0.8s						
YSS	Yuzhno-Sakhali	4.58	319		Pn	12 07 57.1	+0.3
YSS	Yuzhno-Sakhali	4.58	319	*e*P	Pn	12 07 57.0	+0.3
YSS				*e*S	Sn	12 08 48.5	-0.1
YSS	Yuzhno-Sakhali	4.58	319	P	Pn	12 07 57.5	+0.8
JTM	Tenmabayashi	5.27	240		Pn	12 08 06.5	+0.2
JTM	Tenmabayashi	5.27	240	P	Pn	12 08 06.6	+0.3
	comp=Z,93nm,0.6s						
TYV	Tymovskoe	7.91	339	*e*S	Sn	12 10 10.0	-0.4
JYT	Yasato	9.04	218	P	Pn	12 09 00.0	+2.1
	comp=Z,0.5nm,0.9s						
SKR	Severo-Kuril's	9.40	38	*e*PN	Pn	12 08 59.6	-3.2
SKR				pmax	pmax		
	comp=Z,78nm,0.6s						
SKR				pmax	pmax		
	comp=Z,300nm,3.7s						
SKR				MLR	MLR		
	comp=Z,400nm,12.0s						
SKR	Severo-Kuril's	9.40	38	*e*P	Pn	12 09 02.6	-0.2
SKR				AMB	AMB	12 09 12.2	
	comp=Z,70nm,0.7s						
SKR				*e*S	Sn	12 10 46.7	-0.3
MAJO	Matsushiro	9.78	227	P	Pn	12 09 09.2	+1.1
	comp=Z,14nm,0.8s						
MJAR	Matsushiro Arr	9.78	227	Pn	Pn	12 09 07.3	-0.8
	comp=Z,0.1nm,0.3s,baz=28,slow=12,SNR=6.4						
MJAR				Sn	Sn	12 10 55.1	-1.3
	baz=16,slow=8.4,SNR=1.6						
MJAR				LR	LR	12 13 16.0	
	comp=Z,84nm,19.4s,baz=97,slow=40						
	comp=Z,1.1nm,0.4s						
MJAR				AML	AML		
PAU	Pauzhetka	10.27	36	*e*P	Pn	12 09 14.4	-0.3
PAU				AMB	AMB	12 09 18.5	
	comp=Z,40nm,0.4s						
PAU				*e*S	Sn	12 11 06.2	-2.2
PAU				A	A	12 11 11.6	
	comp=Z,20nm,0.2s						
PAU				A	A	12 11 11.6	
	comp=Z,30nm,0.2s						
JGF	Kuroka	10.94	227	Pn	Pn	12 09 25.0	+1.1
JGF	Kuroka	10.94	227	P	Pn	12 09 25.1	+1.1
	comp=Z,11nm,0.7s						
USRK	Ussuriysk Ar.	10.94	279	Pn	Pn	12 09 23.4	-0.4
	comp=Z,0.2nm,0.3s,baz=84,slow=13,SNR=4.6						
USRK				LR	LR	12 13 22.4	
	comp=Z,62nm,20.4s,baz=30,slow=36						
	comp=Z,1.6nm,0.6s						
USRK				AML	AML		
PEA0B	Petropavlovsk-	11.86	33	⇑*i*PN	Pn	12 09 36.1	-0.3
PEA0B	Petropavlovsk-	11.86	33		Pn	12 09 35.9	-0.6
PETK	Petropavlovsk-	11.86	33	Pn	Pn	12 09 35.5	-0.9
	comp=Z,0.7nm,0.3s,baz=200,slow=9.1,SNR=28						
PETK				LR	LR	12 14 01.8	
	comp=Z,42nm,21.8s,baz=197,slow=37						
	comp=Z,3.6nm,0.5s						
PETK				AML	AML		
PETK	Petropavlovsk-	11.86	33	Pn	Pn	12 09 34.9	-1.5
JHJ	Hachijo jima 2	11.90	211	Sn	Sn	12 11 34.3	-14
	comp=Z,4.4nm,0.3s,baz=4.9,slow=18,SNR=1.3						
PSTR	Posyet	11.96	271	⇑*e*PN	Pn	12 09 41.8	+4.1
KLR	Kul'dur	12.02	304	Pn	Pn	12 09 38.2	-0.3
	comp=Z,0.2nm,0.3s,baz=112,slow=18,SNR=6.8						
KLR				LR	LR	12 14 54.3	
	comp=Z,106nm,18.1s,baz=86,slow=41						
	comp=Z,0.6nm,0.2s						
KLR				AML	AML		
KLR	Kul'dur	12.02	304	*e*PN	Pn	12 09 40.5	+1.9
KLR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
KLR	Kul'dur	12.02	304	*e*P	Pn	12 09 40.5	+1.9
PET	Petropavlovsk	12.18	35	Pn	Pn	12 09 40.1	-0.7
PET	Petropavlovsk	12.18	35	P	Pn	12 09 39.6	-1.2
	comp=Z,11nm,2.2s						
KSRS	Korea Array	15.80	254	Pn	Pn	12 10 27.4	-1.9
	comp=Z,0.1nm,0.3s,baz=61,slow=12,SNR=2.2						
KSRS				LR	LR	12 16 44.8	
	comp=Z,54nm,18.4s,baz=80,slow=38						
	comp=Z,0.6nm,0.6s						
KSRS				AML	AML		
MA2	Magadan	16.20	7	LR	LR	12 16 17.3	
	comp=Z,37nm,21.1s,baz=226,slow=36						
MA2	Magadan	16.20	7	P	Pn	12 10 33.4	-0.8
	comp=Z,13nm,1.5s						
ZEA	Zeya	16.55	315	*e*P	P	12 10 41.1	+0.4
SEY	Seymchan	19.65	7	P	P	12 11 13.3	-1.4
	comp=Z,0.5nm,0.3s,baz=192,slow=8.7,SNR=9.1						
	comp=Z,4.9nm,0.7s						
SEY				AML	AML		
SEY	Seymchan	19.65	7	*e*P	P	12 11 12.9	-1.8
SEY				pmax	pmax		
	comp=Z,7.0nm,1.1s						
HILR	Hailar Array B	19.68	297	P	P	12 11 14.5	-0.7
	baz=110,slow=12						
	comp=Z,1.3nm,0.3s						
YAK	Yakutsk	21.16	337	LR	LR	12 19 27.7	
	comp=Z,77nm,18.2s,baz=158,slow=36						
YAK	Yakutsk	21.16	337	*e*P	P	12 11 33.7	+2.7
YAK				pmax	pmax		
	comp=Z,6.0nm,0.9s						
YAK				pmax	pmax		
	comp=N,4.0nm,1.1s						
YAK				pmax	pmax		
	comp=E,7.0nm,1.6s						
YAK	Yakutsk	21.16	337	*e*P	P	12 11 33.7	+2.7
NJ2	Nanjing	24.98	252	*e*P	P	12 12 09.9	+0.5
NJ2				pmax	pmax		
	comp=Z,27nm,0.6s						
HHC	Hu-ho-hao-te	26.35	276	*e*P	P	12 12 23.0	+1.2
HHC				pmax	pmax		
	comp=Z,17nm,0.6s						
HHC				pmax	pmax		
	comp=Z,100nm,5.4s						
BILL	Bilibino	26.55	16	⇑*e*P	P	12 12 25.7	+2.5
BILL				pmax	pmax		
	comp=Z,9.0nm,1.9s						
BILL	Bilibino	26.55	16	*e*P	P	12 12 25.7	+2.5
ULN	Ulaanbaatar	28.07	293	⇓*e*P	P	12 12 37.9	+0.6
ULN				pmax	pmax		
	comp=Z,2.0nm,0.5s						
ULN	Ulaanbaatar	28.07	293	*e*P	P	12 12 37.9	+0.6
SONM	Songino Array	28.52	293	P	P	12 12 41.3	+0.1
	comp=Z,0.7nm,0.3s,baz=69,slow=7.9,SNR=4.2						
SONM				LR	LR	12 25 10.2	
	comp=Z,82nm,19.1s,baz=94,slow=39						
	comp=Z,0.7nm,0.3s						
H11N2	WAKE ISLAND Hy	28.98	139	T	T	12 43 23.4	
	baz=330,slow=76,SNR=3688						
H11N1	WAKE ISLAND Hy	28.99	139	T	T	12 43 31.9	
	baz=330,slow=76,SNR=2655						
H11N3	WAKE ISLAND Hy	29.00	139	T	T	12 43 24.1	
	baz=330,slow=76,SNR=3133						
TIXI	Tiksi	29.54	348	LR	LR	12 25 44.9	
	comp=Z,45nm,18.5s,baz=194,slow=39						
H11S1	WAKE ISLAND Hy	29.94	140	T	T	12 44 39.4	
	baz=331,slow=76,SNR=8219						
H11S3	WAKE ISLAND Hy	29.95	140	T	T	12 44 39.7	
	baz=331,slow=76,SNR=6084						
H11S2	WAKE ISLAND Hy	29.96	140	T	T	12 44 40.7	
	baz=331,slow=76,SNR=4891						
J14K	Nanvaranak Lak	34.14	38	P	P	12 13 30.7	+0.5
L14K	Kuka Creek	34.32	41	P	P	12 13 32.4	+0.6
L14K				IAmb	IAmb	12 13 35.3	
	comp=Z,7.8nm,1.1s						
M14K	Bethel	34.60	42	P	P	12 13 35.4	+1.2
K15K	Wolf Creek Mou	34.99	40	P	P	12 13 38.8	+1.1
N15K	Kwethluk River	35.47	43	P	P	12 13 43.5	+1.7
N15K				IAmb	IAmb	12 13 59.4	
	comp=Z,11nm,1.2s						
L16K	Owhat River	35.89	41	P	P	12 13 45.9	+0.6
L16K				IAmb	IAmb	12 13 47.0	
	comp=Z,10nm,1.4s						
M16K	Timber Creek	36.08	42	P	P	12 13 47.9	+0.9
M16K				IAmb	IAmb	12 13 50.2	
	comp=Z,8.5nm,1.3s						
J17K	VABM Dome	36.26	38		P	12 13 49.4	+1.0
J17K				IAmb	IAmb	12 13 50.6	
	comp=Z,7.8nm,1.1s						
C18K	Utukok River	36.49	29	P	P	12 13 49.6	-0.9
C18K				IAmb	IAmb	12 13 50.8	
	comp=Z,5.2nm,0.7s						
G18K	Tagagawik	36.82	34		P	12 13 53.6	+0.4
M17K	Holitna River	36.84	41	P	P	12 13 55.0	+1.5
M17K				IAmb	IAmb	12 13 56.3	
	comp=Z,7.4nm,0.9s						
C19K	Lookout Ridge	37.17	28		P	12 13 56.0	-0.3
J18K	Innoko River	37.32	38		P	12 13 58.1	+0.6
J18K				IAmb	IAmb	12 13 59.2	
	comp=Z,5.5nm,0.8s						
F19K	Shaleruckik Mo	37.33	32		P	12 13 57.6	+0.1
F19K				IAmb	IAmb	12 13 58.4	
	comp=Z,6.0nm,0.8s						
G19K	Purcell Mounta	37.49	34		P	12 13 59.0	+0.1
G19K				IAmb	IAmb	12 14 00.4	
	comp=Z,5.5nm,0.8s						
J19K	Poorman	37.85	37		P	12 14 02.5	+0.5
Q19K	Cape Douglas,	38.75	45	P	P	12 14 09.8	+0.2
E21K	Killik River	39.04	30	IAmb	IAmb	12 14 13.3	
	comp=Z,8.5nm,1.4s						
F21K	Alatna River	39.06	32	IAmb	IAmb	12 14 13.2	
	comp=Z,5.8nm,1.0s						
KDAK	Kodiak Island	39.40	47	P	P	12 14 14.8	-0.2
KDAK				pmax	pmax		
	comp=Z,6.0nm,0.7s						
KDAK	Kodiak Island	39.40	47	P	P	12 14 14.8	-0.2
KDAK				IAmb	IAmb	12 14 16.0	
	comp=Z,5.5nm,0.7s						
KDAK	Kodiak Island	39.40	47	P	P	12 14 14.1	-0.9
	comp=Z,7.9nm,0.8s						
NRIK	Noril'sk	39.40	331	LR	LR	12 33 24.7	
	comp=Z,44nm,18.4s,baz=120,slow=41						
NRIK	Noril'sk	39.40	331	⇓*e*P	P	12 14 18.0	+3.1
NRIK				pmax	pmax		
	comp=Z,4.0nm,0.6s						
H22K	Ishtalitna Cre	39.78	34	IAmb	IAmb	12 14 20.2	
	comp=Z,7.6nm,1.1s						
PZH	PanZhiHua	40.32	260	P	P	12 14 23.4	+0.2
COLD	Coldfoot	40.33	32	IAmb	IAmb	12 14 23.9	
	comp=Z,5.0nm,0.8s						
G23K	Bananza Creek	40.37	33		P	12 14 23.7	+0.6
G23K				IAmb	IAmb	12 14 24.8	
	comp=Z,7.2nm,0.9s						
E23K	Chandalar	40.61	31		P	12 14 25.8	+0.7
E23K				IAmb	IAmb	12 14 26.3	
	comp=Z,6.7nm,0.6s						
NEA2	Nenana	40.73	36	IAmb	IAmb	12 14 27.5	
	comp=Z,8.1nm,0.7s						
DAV	Davao City (W)	40.96	214	P	P	12 14 29.2	+0.9
	comp=Z,388nm,0.5s						
E24K	Your Creek	41.03	31	IAmb	IAmb	12 14 29.8	
	comp=Z,7.3nm,0.7s						
ZALV	Zalesovo Beam	41.09	307	P	P	12 14 29.2	+0.2
	comp=Z,0.4nm,0.4s,baz=58,slow=14,SNR=2.1						
	comp=Z,0.4nm,0.4s						
ZALV	Zalesovo Beam	41.09	307	P	P	12 14 28.6	-0.4
ZALV	Zalesovo Beam	41.09	307	P	P	12 14 28.6	-0.4
SML	Sawmill	41.19	41	P	P	12 14 30.3	+0.5
SML				pmax	pmax		
	comp=Z,7.0nm,1.0s						
SML	Sawmill	41.19	41	P	P	12 14 30.3	+0.5
SML				IAmb	IAmb	12 14 34.5	
	comp=Z,7.0nm,1.0s						
F24K	Squaw Lake	41.24	32	IAmb	IAmb	12 14 31.3	
	comp=Z,4.2nm,0.5s						
COLA	College	41.24	36	⇑*i*P	P	12 14 30.8	+0.7

COLA				pmax	pmax		
	comp=Z,8.0nm,0.9s						
COLA	College	41.24	36	P	P	12 14 30.5	+0.4
COLA				IAmb	IAmb	12 14 31.8	
	comp=Z,7.2nm,0.8s						
COLA	College	41.24	36	P	P	12 14 30.4	+0.3
	comp=Z,8.3nm,0.9s						
G24K	Hadweenzic Riv	41.38	33	IAmb	IAmb	12 14 33.5	
	comp=Z,14nm,1.1s						
HDA	Harding Lake	41.65	37	IAmb	IAmb	12 14 34.8	
	comp=Z,5.3nm,0.7s						
ILAR	Eielson Array	41.66	36	P	P	12 14 33.4	-0.3
	comp=Z,2.0nm,0.6s,baz=272,slow=6.3,SNR=22						
	comp=Z,2.0nm,0.6s						
ILAR	Eielson Array	41.66	36	P	P	12 14 34.2	+0.6
D25K	Kavik River	41.86	29	IAmb	IAmb	12 14 35.8	
	comp=Z,5.9nm,0.6s						
WMQ	Urumqi	42.14	292	eP	P	12 14 40.8	+3.0
WMQ				pmax	pmax		
	comp=Z,18nm,0.7s						
K24K	Donnelly Dome	42.20	37	IAmb	IAmb	12 14 39.0	
	comp=Z,7.3nm,0.8s						
PRP	Porcupine Dome	42.20	35	IAmb	IAmb	12 14 39.9	
	comp=Z,6.3nm,0.8s						
BMAR	Burnt Mountain	42.51	32		P	12 14 41.3	+0.8
F26K	Sheenjek River	42.67	32	IAmb	IAmb	12 14 43.9	
	comp=Z,5.8nm,0.7s						
G26K	Porcupine Rive	42.84	33	IAmb	IAmb	12 14 45.5	
	comp=Z,15nm,1.1s						
L26K	Log Cabin Wild	43.37	38	IAmb	IAmb	12 14 49.6	
	comp=Z,11nm,1.4s						
BCAR	Beaver Creek A	44.07	38		P	12 14 53.9	+0.7
F28M	Old Crow	44.31	32	IAmb	IAmb	12 14 57.0	
	comp=Z,8.6nm,0.8s						
I28M	Miner Creek	44.53	35	IAmb	IAmb	12 15 01.6	
	comp=Z,5.7nm,0.6s						
MK31	Makanchi Array	44.65	298	ceP	P	12 14 57.8	-0.2
MKAR	Makanchi Array	44.65	298	P	P	12 14 57.9	-0.1
	comp=Z,1.6nm,0.5s,baz=80,slow=9.5,SNR=24						
MKAR				LR	LR	12 35 06.8	
	comp=Z,35nm,18.8s,baz=132,slow=38						
	comp=Z,1.6nm,0.5s						
MKAR	Makanchi Array	44.65	298	P	P	12 14 58.0	0.0
MAKZ	Makanchi	44.84	298	P	P	12 14 59.5	-0.1
MAKZ				pmax	pmax		
	comp=Z,2.0nm,0.6s						
MAKZ	Makanchi	44.84	298	P	P	12 14 59.5	-0.1
E29M	Blow River	44.97	30	IAmb	IAmb	12 15 02.9	
	comp=Z,4.7nm,0.8s						
KURK	Kurchatov	45.61	304	⇑eP	P	12 15 06.0	+0.5
KURK				pmax	pmax		
	comp=Z,8.0nm,2.8s						
KURK	Kurchatov	45.61	304	P	P	12 15 05.1	-0.4
KURK	Kurchatov	45.61	304	eP	P	12 15 06.0	+0.5
KURBB	Kurchatov Arra	45.70	304	P	P	12 15 05.6	-0.6
	comp=Z,0.8nm,0.4s,baz=78,slow=9.4,SNR=7.6						
	comp=Z,0.8nm,0.4s						
L29M	L29M	45.70	38	IAmb	IAmb	12 15 13.6	
	comp=Z,7.0nm,1.3s						
MWPI	Manokwari, Pap	45.81	198	P	P	12 15 07.1	-0.3
	comp=Z,480nm,0.8s						
I30M	Mount Dempster	46.04	35	IAmb	IAmb	12 15 10.7	
	comp=Z,11nm,1.4s						
HYT	Haines Junctio	46.49	41		P	12 15 13.3	+0.8
HYT				IAmb	IAmb	12 15 26.6	
	comp=Z,8.6nm,1.1s						
INK	Inuvik	46.58	30	P	P	12 15 13.1	+0.2
INK	Inuvik	46.58	30	IAmb	IAmb	12 15 14.9	
	comp=Z,4.8nm,0.7s						
INK	Inuvik	46.58	30	P	P	12 15 13.1	+0.2
	comp=Z,12nm,1.2s						
P29M	Windy Craggy	46.68	42		P	12 15 15.4	+1.5
H31M	Peel River	46.76	34	IAmb	IAmb	12 15 17.3	
	comp=Z,7.8nm,1.0s						
CMAR	Chiang Mai Arr	47.44	254	P	P	12 15 20.0	-0.2
	comp=Z,0.4nm,0.3s,baz=52,slow=8.2,SNR=1.8						
	comp=Z,0.4nm,0.3s						
TOLI2	Tolitoli	48.34	216	P	P	12 15 26.5	-0.7
	comp=Z,9.3nm,1.1s						
WUS	Wushi	48.92	292	P	P	12 15 30.9	-0.8
	comp=Z,8.0nm,0.7s						
BVAR	Borovoye Array	49.60	309	P	P	12 15 35.8	-0.6
	comp=Z,0.7nm,0.3s,baz=95,slow=9.4,SNR=2.7						
	comp=Z,0.7nm,0.3s						
AAK	Ala-Archa	51.41	296	⇓eP	P	12 15 51.8	+1.3
AAK				pmax	pmax		
	comp=Z,1.0nm,0.5s						
AAK	Ala-Archa	51.41	296	eP	P	12 15 51.8	+1.3
ARTI	Arti	54.57	317	c iP	P	12 16 12.5	-0.8
ARTI				*PP	pP	12 16 25.1	-1.0
ARTI						12 17 12.1	
ARTI				S	S	12 23 46.8	-2.4
ARTI				SS	SS	12 27 25.6	-6.0
ARTI				pmax	pmax		
	comp=Z,6.0nm,1.2s						
NOR	Nord	54.79	357	P	P	12 16 13.3	-1.3
NOR	Nord	54.79	357	P	P	12 16 13.3	-1.3
	comp=Z,6.6nm,2.7s						
YKA	Yellowknife Ar	55.98	34	P	P	12 16 23.6	+0.3
	comp=Z,2.0nm,0.8s,baz=303,slow=6.8,SNR=4.2						
	comp=Z,2.0nm,0.8s						
YKA	Yellowknife Ar	55.98	34	i P	P	12 16 24.7	+1.4
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	Yellowknife Ar	55.98	34	P	P	12 16 23.2	-0.1
AB31	Akbulak array	57.16	309		P	12 16 31.8	-0.1
ABKAR	Akbulak array	57.16	309		P	12 16 31.7	-0.2
AKTO	Aktyubinsk	57.64	311	LR	LR	12 43 20.7	
	comp=Z,34nm,18.5s,baz=235,slow=38						
VADS	Vadso	58.03	339	eP	P	12 16 37.5	-0.2
ARA0	ARCESS Array S	59.41	340	eP	P	12 16 46.9	-0.5
ARCES	ARCESS Array B	59.41	340	P	P	12 16 46.2	-1.1
	comp=Z,0.5nm,0.3s,baz=48,slow=6.6,SNR=9.8						
	comp=Z,0.5nm,0.3s						
ARCES	ARCESS Array B	59.41	340	P	P	12 16 46.5	-0.9
VRF	Varrio	59.53	337	P	P	12 16 47.3	-0.9
	comp=Z,14nm,0.5s						
KTK1	Kautokeino	60.36	340	eP	P	12 16 53.0	-0.8
JETT	Jettan, Norway	60.64	341	eP	P	12 16 54.9	-0.9
TRO	Tromso	60.93	342	eP	P	12 16 56.5	-1.2
BELG	Belogornoye	62.02	317	⇑eP	P	12 17 04.6	-0.7
BELG				pmax	pmax		
	comp=Z,1.0nm,0.6s						
STEI	Steigen	63.10	342	eP	P	12 17 11.0	-1.3
FAUS	Fauske	63.53	341	eP	P	12 17 14.5	-0.6
SUMG	Summit	64.10	2	P	P	12 17 18.9	-0.4
SUMG				pmax	pmax		
	comp=Z,9.0nm,1.2s						
SUMG	Summit	64.10	2	P	P	12 17 18.9	-0.4
SUMG				IAmb	IAmb	12 17 31.0	
	comp=Z,8.8nm,1.2s						
WR8	Warramunga Arr	64.25	193	P	P	12 17 21.3	+0.9
WR8				IAmb	IAmb	12 17 44.8	
	comp=Z,6.8nm,1.2s						
WRA	Warramunga Arr	64.27	193	P	P	12 17 20.2	-0.3
	comp=Z,0.6nm,0.7s,baz=9.7,slow=6.8,SNR=4.4						
	comp=Z,0.6nm,0.7s						
WRA	Warramunga Arr	64.27	193	P	P	12 17 21.7	+1.2
RAUS	Rausandaksla	64.59	341	eP	P	12 17 21.5	-0.6
FINES	FINESS Array B	65.03	333	P	P	12 17 24.3	-0.7
	comp=Z,9.6nm,0.5s,baz=43,slow=7.7,SNR=96						
	comp=Z,9.6nm,0.5s						
FINES	FINESS Array B	65.03	333	P	P	12 17 24.4	-0.6
LEIR	Leirfjorden	65.07	341	eP	P	12 17 24.0	-1.2
OBN	Obninsk	65.45	324	eP	P	12 17 28.4	+0.6
OBN				pmax	pmax		
	comp=Z,8.0nm,1.0s						
OBN	Obninsk	65.45	324	eP	P	12 17 28.4	+0.6
NVAR	Mina Array Bea	67.71	58	P	P	12 17 43.3	+0.5
	comp=Z,0.5nm,0.5s,baz=296,slow=6.8,SNR=8.0						
	comp=Z,0.5nm,0.5s						
ASAR	Alice Springs	67.98	193	P	P	12 17 45.1	+0.8
	comp=Z,0.5nm,0.8s,baz=5.3,slow=6.1,SNR=5.8						
	comp=Z,0.5nm,0.8s						
ASAR	Alice Springs	67.98	193	P	P	12 17 44.8	+0.5
ASAR	Alice Springs	67.98	193	P	P	12 17 44.8	+0.5
MOL	Molde	69.37	341	eP	P	12 17 52.7	+0.2
DOMB	Dombas	69.46	340	eP	P	12 17 52.7	-0.5
NB2	NORSAR Subarra	69.77	339	P	P	12 17 54.3	-0.8
	comp=Z,3.7nm,0.5s,baz=31,slow=6.5						
NB2	NORSAR Subarra	69.77	339	P	P	12 17 51.2	-3.9
NB2				pmax	pmax		
	comp=Z,3.0nm,0.5s						
NB2	NORSAR Subarra	69.77	339	P	P	12 17 54.3	-0.8
NOA	NORSAR Array B	69.77	339	P	P	12 17 54.4	-0.6
	comp=Z,5.5nm,0.7s,baz=40,slow=7.6,SNR=32						
	comp=Z,5.5nm,0.7s						
AKN	Aaknes	69.84	341	eP	P	12 17 54.0	-1.5
HFS	Hagfors	69.85	337	P	P	12 17 54.8	-0.7
	comp=Z,12nm,0.4s,baz=20,slow=4.7,SNR=53						
KIV	Kislovodsk	69.87	312	eP	P	12 17 56.5	+0.5
KIV				pmax	pmax		
	comp=Z,18nm,1.1s						
KIV	Kislovodsk	69.87	312	P	P	12 17 56.5	+0.5
	comp=Z,18nm,0.6s						
KBZ	Khabaz	69.90	312	P	P	12 17 56.3	+0.2
	comp=Z,6.7nm,0.7s,baz=56,slow=5.8,SNR=13						
	comp=Z,6.7nm,0.7s						
KBZ	Khabaz	69.90	312	ceP	P	12 17 56.8	+0.7
KBZ				pmax	pmax		
	comp=Z,8.0nm,0.8s						
KBZ	Khabaz	69.90	312	eP	P	12 17 56.8	+0.7
NC602	NORSAR Array S	69.94	339	eP	P	12 17 55.0	-1.0
NORES	NORESS Array B	69.94	339	P	P	12 17 54.5	-1.5
NORES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
PDAR	Pinedale Array	70.06	50	P	P	12 17 57.0	-0.5
	comp=Z,0.3nm,0.6s,baz=259,slow=1.5,SNR=4.4						
	comp=Z,0.3nm,0.6s						
PDAR	Pinedale Array	70.06	50	P	P	12 17 57.2	-0.2
SKAR	Skarslia	70.82	340	eP	P	12 18 01.7	+0.2
AK03	Malin Array Si	71.70	324	P	P	12 18 05.6	-1.3
AK23	Malin Array Si	71.71	324	P	P	12 18 06.2	-0.8
AKASG	Malin Array Be	71.72	324	P	P	12 18 06.5	-0.5
	comp=Z,2.5nm,0.4s,baz=42,slow=6.4,SNR=24						
	comp=Z,2.5nm,0.4s						
AKASG	Malin Array Be	71.72	324	i P	P	12 18 06.3	-0.7
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.4s						
AKASG	Malin Array Be	71.72	324	P	P	12 18 07.3	+0.3
AKBB	Malin Array Si	71.72	324	⇑eP	P	12 18 06.2	-0.8
AKBB				pmax	pmax		
	comp=Z,7.0nm,0.7s						
AKBB	Malin Array Si	71.72	324		P	12 18 06.6	-0.4
AKBB	Malin Array Si	71.72	324	P	P	12 18 06.1	-0.9
AK04	Malin Array Si	71.72	324	P	P	12 18 06.2	-0.8
KIEV	Kiev	71.73	324	P	P	12 18 06.6	-0.5
KIEV				pmax	pmax		
	comp=Z,6.0nm,0.7s						
KIEV	Kiev	71.73	324		P	12 18 06.6	-0.5
KIEV				IAmb	IAmb	12 18 07.1	
	comp=Z,6.4nm,0.7s						
KIEV	Kiev	71.73	324	P	P	12 18 06.2	-0.8
	comp=Z,41nm,0.9s						
AK22	Malin Array Si	71.74	324	P	P	12 18 06.5	-0.6
AK09	Malin Array Si	71.75	324	P	P	12 18 06.5	-0.7
AK02	Malin Array Si	71.75	324	P	P	12 18 06.4	-0.8
RNPP9	Sopachiv	72.58	326	P	P	12 18 11.1	-1.0
RNPP5	Staryi Chortor	72.72	326	P	P	12 18 12.7	-0.3
LUBAR	Lubar, Ukraine	72.92	324	P	P	12 18 13.3	-0.9
SORM	Soroca	74.00	322	P	P	12 18 19.8	-0.8
	comp=Z,7.2nm,2.4s						
KMPD	K-Podol'skiy	74.51	324	P	P	12 18 22.5	-1.0
BUR08	Bucovina Ar. S	75.76	324		P	12 18 31.1	+0.3
BUR08				IAmb	IAmb	12 18 50.5	
	comp=Z,6.5nm,1.2s						
BURAR	Bucovina Array	75.77	324	P	P	12 18 31.3	+0.3
BURAR				pmax	pmax		
	comp=Z,3.0nm,0.7s						
BURAR	Bucovina Array	75.77	324	P	P	12 18 31.3	+0.3
KSP	Ksiaz	76.72	330	P	P	12 18 35.9	-0.2
	comp=Z,4.7nm,1.2s						
MLR	Muntele Rosu	77.09	322	LR	LR	12 55 39.8	
	comp=Z,26nm,18.3s,baz=225,slow=38						
CLL	Collm	77.47	333	i P	P	12 18 39.8	-0.5
CLL				pmax	pmax		
	comp=Z,4.0nm,0.7s						
CLL	Collm	77.47	333	i P	P	12 18 39.8	-0.5
	comp=Z,4.0nm,0.7s						
BRTR	Keskin Array B	77.65	314	P	P	12 18 41.8	+0.1
	comp=Z,0.5nm,0.8s,baz=83,slow=4.5,SNR=1.4						
	comp=Z,0.5nm,0.8s						
SCHQ	Schefferville	77.81	19	P	P	12 18 41.9	-0.3
	comp=Z,2.6nm,0.7s,baz=344,slow=7.4,SNR=1.8						
	comp=Z,2.6nm,0.7s						
SCHQ	Schefferville	77.81	19	P	P	12 18 42.5	+0.3
SCHQ				IAmb	IAmb	12 18 50.2	
	comp=Z,7.3nm,1.2s						
VRAC	Vranov	77.87	329	LR	LR	12 58 00.6	
	comp=Z,29nm,18.3s,baz=34,slow=40						
EKA	Eskdalemuir Ar	78.30	343	P	P	12 18 44.4	-0.4
	comp=Z,0.5nm,0.4s,baz=15,slow=5.1,SNR=5.9						
	comp=Z,0.5nm,0.4s						
KHC	Kasperske Hory	79.11	331	ceP	P	12 18 50.5	+1.0
KHC				pmax	pmax		
	comp=Z,8.0nm,2.5s						
GERES	GERESS Array B	79.31	331	P	P	12 18 50.0	-0.7
	comp=Z,0.7nm,0.4s,baz=38,slow=6.8,SNR=5.7						
	comp=Z,0.7nm,0.4s						
GERES	GERESS Array B	79.31	331	P	P	12 18 50.3	-0.4
MMAI	Mount Meron Ar	81.58	308	P	P	12 19 03.6	+0.5
	comp=Z,1.8nm,0.7s,baz=3.6,slow=4.6,SNR=2.0						
	comp=Z,1.8nm,0.7s						
TXAR	Lajitas Array	82.78	56	P	P	12 19 09.8	+0.3
	comp=Z,0.5nm,0.6s,baz=307,slow=4.2,SNR=10						
	comp=Z,0.5nm,0.6s						
PPT	Papeete	83.95	121	LR	LR	12 49 14.6	
	comp=Z,24nm,19.7s,baz=26,slow=30						
ESDC	Sonseca Array	93.12	338	P	P	12 19 57.8	-1.3
	comp=Z,0.4nm,0.8s,baz=20,slow=2.2,SNR=2.0						
	comp=Z,0.4nm,0.8s						
PLCA	Paso Flores	152.09	97	PKPbc	PKiKP	12 26 41.3	+0.9
	comp=Z,0.7nm,1.0s,baz=243,slow=2.3,SNR=3.3						

NOU ***05*** *12:11:29.7, 39°.19S×173°.72E, h0^{km}, MLv3.7/10, Off W. Coast of N. Island, N.Z.*

WEL ***05*** *12:11:30.9±0.4, 39°S±3°×17°4E±°, h13^{km}±1^{km}, M3.0/18, ML3.0/19, MLv3.0/18, Error ellipse: s-maj=3.8km s-min=2.6km az=135.4, confirmed*

ISC 05 12:11:31.2±0.9**, 39°.23S**±0°.03×**173°.91E**±0°.03**, h17**^{km}±5^{km}**, n57,** σ0^{s}.56/71**, Off west coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NBEZ	Newall Road No	0.05	220	P	Pg	12 11 34.3	-0.1
NBEZ				S	Sg	12 11 36.9	+0.4
NBEZ				AML	AML		
NBEZ				AML	AML		
PKE	Pukeiti	0.07	59	P	Pg	12 11 34.6	0.0
PKE				S	Sg	12 11 37.1	+0.3
PKE				AML	AML		
PKE				AML	AML		
KHEZ	Kahui Hut	0.10	128	P	Pg	12 11 34.4	-0.5
KHEZ	Kahui Hut	0.10	128	P	Pg	12 11 34.6	-0.4
KHEZ				S	Sb	12 11 37.4	+0.2
KHEZ				AML	AML		
KHEZ				AML	AML		
NEZ	North Egmont	0.15	105	P	Pg	12 11 35.0	-0.4
NEZ				S	Sg	12 11 38.1	-0.2
NEZ				AML	AML		
NEZ				AML	AML		
NMEZ	Namu Road	0.18	187	P	Pg	12 11 35.6	-0.2
NMEZ				S	Sb	12 11 39.5	+0.1
NMEZ				AML	AML		
NMEZ				AML	AML		
NPCS	New Plymouth C	0.21	38	P	Pb	12 11 36.6	+0.1
NPCS				S	Sb	12 11 41.0	+0.9
OPSS	Opunake Primar	0.22	191	P	Pg	12 11 36.3	-0.1
OPSS				S	Sb	12 11 40.7	+0.2
PREZ	Palmer Road	0.22	120	P	Pg	12 11 36.2	-0.2
PREZ				S	Sb	12 11 40.4	-0.2
PREZ				AML	AML		
PREZ				AML	AML		
DREZ	Durham Road	0.23	80	P	Pg	12 11 36.6	0.0
DREZ				S	Sb	12 11 41.0	+0.3
DREZ				AML	AML		
DREZ				AML	AML		
MHEZ	Mangahewa	0.36	65	P	Pb	12 11 39.2	+0.2
MHEZ				AML	AML		
MHEZ				AML	AML		
LREZ	Lake Rotokare	0.45	121	P	Pg	12 11 40.2	-0.1
LREZ				AML	AML		
LREZ				AML	AML		
HUKS	Huiakama Schoo	0.51	94	P	Pg	12 11 41.0	-0.5
VRZ	Vera Road	0.67	81	P	Pg	12 11 44.0	-0.3
VRZ				AML	AML		
VRZ				AML	AML		
WAZ	Wanganui	0.98	122	P	Pb	12 11 49.2	-0.5
WAZ				S	Sg	12 12 03.2	0.0
WAZ				AML	AML		
HIZ	Hauiti	1.03	46	P	Pb	12 11 49.9	-0.6
HIZ	Hauiti	1.03	46	P	Pb	12 11 49.7	-0.8
HIZ				S	Sb	12 12 03.9	+0.2
HIZ				AML	AML		
HIZ				AML	AML		
PKVZ	Pokaka	1.12	93	P	Pb	12 11 51.4	-0.7
PKVZ				AML	AML		
PKVZ				AML	AML		
TWVZ	Taurewa	1.20	83	P	Pn	12 11 52.5	-0.8
COVZ	Chateau Observ	1.27	89	P	Pn	12 11 53.6	-0.6
COVZ				S	Sb	12 12 10.3	-0.5
COVZ				AML	AML		
COVZ				AML	AML		
TRVZ	Turoa	1.27	94	P	Pn	12 11 54.3	-0.1
FWVZ	Far West T-bar	1.28	92	P	Pn	12 11 54.1	-0.3
FWVZ				S	Sb	12 12 10.9	-0.2
MAVZ	Matarangi	1.28	92	P	Pn	12 11 55.1	+0.5
MAVZ				S	Sb	12 12 11.7	+0.4
WHVZ	Whangaehu Hut	1.31	93	P	Pn	12 11 54.8	0.0
WTVZ	West Tongariro	1.31	85	P	Pn	12 11 55.3	+0.5
WNVZ	Wahianoa	1.31	95	P	Pn	12 11 54.6	-0.2
NGZ	Ngauruhoe	1.32	88	P	Pn	12 11 55.2	+0.3
SNVZ	South Ngauruho	1.35	89	P	Pn	12 11 55.2	-0.1
SNVZ				AML	AML		
SNVZ				AML	AML		
KRVZ	Karewarewa	1.35	85	P	Pn	12 11 55.5	+0.2
TUVZ	Tukino	1.36	92	P	Pn	12 11 55.6	+0.2
OTVZ	Oturere	1.37	88	P	Pn	12 11 55.4	-0.2
OTVZ				AML	AML		
OTVZ				AML	AML		
NTVZ	North Tongarir	1.38	85	P	Pn	12 11 55.5	-0.2
TMVZ	Te Maari	1.40	86	P	Pn	12 11 56.2	+0.1
ETVZ	East Tongariro	1.40	87	P	Pn	12 11 56.4	+0.3
KATZ	Kakaramea	1.41	80	P	Pn	12 11 56.8	+0.6
KATZ				AML	AML		
KATZ				AML	AML		
MOVZ	Moawhango	1.44	98	P	Pn	12 11 56.8	+0.3
OHWZ	Ohakea	1.46	132	P	Pn	12 11 57.3	+0.6
OHWZ				AML	AML		
RATZ	Rangitukua	1.50	77	P	Pn	12 11 58.2	+0.9
RITZ	Rihia Road	1.54	81	P	Pb	12 11 59.1	-0.2
TLZ	Tolley Road	1.56	55	P	Pn	12 11 58.2	+0.1
DUWZ	D'Urville Isla	1.57	180	P	Pn	12 11 58.1	-0.1
DUWZ				AML	AML		
DUWZ				AML	AML		
KUTZ	Kaahu Road	1.67	64	P	Pb	12 12 01.4	0.0
KIW	Kapiti Island	1.80	155	P	Pn	12 12 02.3	+0.9
KIW				AML	AML		
KIW				AML	AML		
POWZ	Post Office Ro	1.84	130	P	Pb	12 12 03.8	-0.6
OGWZ	Otaki Gorge	1.86	149	P	Pn	12 12 03.6	+1.5
QRZ	Quartz Range	1.91	213	P	Pn	12 12 01.9	-1.0
QRZ	Quartz Range	1.91	213	P	Pn	12 12 02.0	-0.9
QRZ				AML	AML		
QRZ				AML	AML		
TKNZ	Takaka Hill	1.94	202	P	Pn	12 12 03.3	-0.1
TKNZ				AML	AML		
TKNZ				AML	AML		
BKZ	Black Stump Fm	2.01	89	P	Pb	12 12 07.4	+0.1
SNZO	South Karori	2.17	164	P	Pn	12 12 08.4	+2.0
MKAZ	Moumakai	2.34	25	P	Pn	12 12 08.6	-0.2
MKAZ				AML	AML		
MKAZ				AML	AML		
KHZ	Kahutara	3.19	185	P	Pn	12 12 21.5	+1.0
OUZ	Omahuta	4.01	356	P	Pn	12 12 31.9	+0.1
OUZ	Omahuta	4.01	356	P	Pn	12 12 32.0	+0.2
OUZ				AML	AML		
RPZ	Rata Peaks	4.97	205	P	Pn	12 12 45.9	+1.0
JCZ	Jackson Bay	6.17	217	P	Pn	12 13 01.9	+0.3
ODZ	Otahua Downs	6.29	202	P	Pn	12 13 02.2	-0.9

SCB 05 12:12:33.5±1.0**, 17°.51S**×**69°.30W, h156**^{km}±14^{km}**, ML2.0**/1**, Error ellipse: s-maj=11.9km s-min=9.6km az=2.0, Peru-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB16	IPOC Station P	0.84	194	P	Pn	12 12 59.4	+1.1
BBOD	La Paz, Gloria	1.10	38	P	Pn	12 13 00.6	+0.3
BBOJ	La Paz, Jacaqu	1.18	63	P	Pn	12 13 01.8	+0.8
SOEJ	Jacaque	1.18	63	P	Pn	12 13 02.0	+1.0
LPAZ	La Paz	1.65	43	PKPbc	Pn	12 13 05.9	+0.2
	2.7nm,0.3s,baz=227,slow=4.0,SNR=22						
LPAZ	La Paz	1.65	43	P	Pn	12 13 06.0	+0.2
BBOB	La Paz, Bander	1.76	39	P	Pn	12 13 07.3	+0.5
PB11	IPOC Station P	2.26	189	P	Pn	12 13 13.3	+1.1
PB11				S	Sn	12 13 41.9	-0.2
PB11				IAML		12 13 45.8	
	5.5nm,0.2s						
AOEA	Aiquile	3.93	100	P	Pn	12 13 33.9	+0.7
PB06	IPOC Station P	5.17	183	P	Pn	12 13 49.7	+0.2

AFAD ***05*** *12:33:41.5, 35°.10N×27°.54E, h8^{km}±4^{km}, ML2.7*

ISK ***05*** *12:33:48.5, 35°.37N×27°.73E, h17^{km}, ML2.8/16*

ATH ***05*** *12:33:48.3, 35°.36N×27°.75E, h18^{km}±5^{km}, ML3.0/2, Latitude uncertainty: 6 km; Longitude uncertainty: 3 km*

THE ***05*** *12:33:49.5, 35°N±4°×2°8E±°, h10^{km}±6^{km}, M2.9/8, MLh2.9/8*

ISC 05 12:33:48.4±1.3**, 35°.34N**±0°.04×**27°.76E**±0°.03**, h17**^{km}±10^{km}**, n40,** σ1^{s}.12/62**, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KARP	Karpathos	0.53	293	P	Pb	12 33 59.0	-0.2
KARP				S	Sb	12 34 07.0	+0.2
KARP				AML	AML		
KARP	Karpathos	0.53	293	Pg	Pb	12 33 58.9	-0.4
KARP				Sg	Sb	12 34 06.4	-0.3
KARP				AML	AML		
KARP	Karpathos	0.53	293	P	Pb	12 33 58.8	-0.4
KARP				S	Sb	12 34 05.9	-0.8
KARP				AML	AML		
ARG	Arkhangelos	0.92	18	P	Pn	12 34 06.3	-0.3
ARG				S	Sn	12 34 19.3	0.0
ARG				AML	AML		
ARG	Arkhangelos	0.92	18	Pg	Pg	12 34 06.1	-0.2
ARG				Sg	Sn	12 34 19.6	+0.2
ARG				AML	AML		
ARG	Arkhangelos	0.92	18	P	Pg	12 34 06.1	-0.2
ARG				S	Sb	12 34 17.2	-0.7
ARG				AML	AML		
ZKR	Zakros	1.29	260	P	Pb	12 34 12.5	+0.4
ZKR				S	Sg	12 34 30.1	+0.1
ZKR	Zakros	1.29	260	Pn	Pb	12 34 12.1	0.0
ZKR				AML	AML		
ZKR	Zakros	1.29	260	P	Pn	12 34 11.3	-0.2
ZKR				S	Sn	12 34 28.3	0.0
YAZI	Mula-Dat§a-	1.36	349	P	Pb	12 34 13.0	-0.4
YAZI				S	Sg	12 34 31.2	-1.2
DAT	Datca	1.40	354	P	Pb	12 34 13.5	-0.5
DAT				S	Sg	12 34 33.0	-0.5
DAT				AML	AML		
DAT	Datca	1.40	354	Pn	Pn	12 34 13.2	+0.1
DAT				AML	AML		
DAT	Datca	1.40	354	P	Pn	12 34 13.2	+0.1
DAT				S	Sg	12 34 34.2	+0.7
DAT				IAML		12 34 42.0	
	comp=N,118nm,0.3s						
TURN	Turunc	1.48	15	Pn	Pb	12 34 15.1	-0.4
TURN				AML	AML		
TURN	Turunc	1.48	15	P	Pb	12 34 15.3	-0.2
TURN				S	Sg	12 34 39.8	+3.5
TURN				IAML		12 34 43.0	
	comp=N,125nm,0.5s						
TURN				IAML		12 34 43.0	
	comp=E,131nm,0.7s						
IZZE	Mula-Seydike	1.61	47	P	Pn	12 34 15.8	-0.3
IZZE				S	Sg	12 34 39.9	-0.6
IZZE				IAML		12 34 44.0	
	comp=E,79nm,0.4s						
IZZE				IAML		12 34 58.0	
	comp=N,88nm,0.5s						
DALY	Dalyan (Mula)	1.64	26	Pn	Pb	12 34 17.3	-0.8
DALY				AML	AML		
DALY	Dalyan (Mula)	1.64	26	P	Pn	12 34 15.9	-0.5
DALY				S	Sg	12 34 45.4	+4.1
DALY				IAML		12 34 49.0	

	comp=N,73nm,0.7s						
DALY				IAML		12 34 56.0	
	comp=E,68nm,0.7s						
FETY	**Fethiye**	**1.68**	**39**	Pn	**Pb**	**12 34 17.9**	**-0.9**
FETY				AML	AML		
AKAS	**Kas**	**1.74**	**59**	Pn	**Pn**	**12 34 19.0**	**+1.1**
AKAS				AML	AML		
BDRM	**Kayabasi**	**1.74**	**352**	P	**Pn**	**12 34 17.1**	**-0.7**
BDRM				S	**Sg**	**12 34 44.5**	**0.0**
BDRM				IAML		12 34 46.0	
	comp=E,60nm,0.4s						
BDRM				IAML		12 34 52.0	
	comp=N,78nm,0.4s						
BODT	**Bodrum**	**1.76**	**348**	P	**Pb**	**12 34 19.5**	**-0.6**
BODT				S	**Sb**	**12 34 41.0**	**-0.9**
BODT				AML	AML		
BODT	**Bodrum**	**1.76**	**348**	Pn	**Pn**	**12 34 18.4**	**+0.4**
BODT				AML	AML		
NPS	**Neapolis**	**1.76**	**268**	P	**Pb**	**12 34 19.7**	**-0.5**
NPS				S	**Sb**	**12 34 42.3**	**+0.3**
NPS				AML	AML		
NPS	**Neapolis**	**1.76**	**268**	P	**Pn**	**12 34 18.5**	**+0.4**
YER	**Yerkesik**	**1.84**	**13**	P	**Pb**	**12 34 20.2**	**-1.3**
YER				S	**Sb**	**12 34 44.4**	**+0.1**
YER				AML	AML		
YER	**Yerkesik**	**1.84**	**13**	Pn	**Pn**	**12 34 19.8**	**+0.6**
YER				AML	AML		
MLSB	**Milas**	**1.95**	**0**	Pn	**Pn**	**12 34 21.3**	**+0.6**
MLSB				AML	AML		
CAME	**Cameli-Denizli**	**2.03**	**37**	Pn	**Pn**	**12 34 22.8**	**+0.9**
ELL	**Elmali**	**2.23**	**50**	Pn	**Pn**	**12 34 25.9**	**+1.2**
ELL				AML	AML		
AYDN	**Tasoluk**	**2.32**	**2**	P	**Pn**	**12 34 25.8**	**+0.1**
AYDN				S	**Sg**	**12 35 01.9**	**-1.1**
AYDN				IAML		12 35 03.0	
	comp=E,36nm,1.0s						
AYDN				IAML		12 35 05.0	
	comp=N,36nm,0.4s						
IDI	**Anoyia**	**2.35**	**270**	P	**Pn**	**12 34 27.6**	**+1.4**
IDI				S	**Sb**	**12 34 56.8**	**-2.3**
IDI				AML	AML		
IDI	**Anoyia**	**2.35**	**270**	P	**Pn**	**12 34 26.2**	**0.0**
APMY	**Acipayam-Deniz**	**2.46**	**30**	Pn	**Pn**	**12 34 28.5**	**+0.7**
APMY				AML	AML		
ESEN	**Aydn-Nazilli**	**2.50**	**11**	P	**Pn**	**12 34 28.6**	**+0.5**
ESEN				S	**Sb**	**12 35 00.6**	**-2.5**
ESEN				IAML		12 35 14.0	
	comp=E,31nm,0.5s						
AYDB	**Zeytinkoy-Aydi**	**2.60**	**2**	Pn	**Pn**	**12 34 30.3**	**+0.5**
AYDB				AML	AML		
KORT	**Korkueli**	**2.67**	**51**	Pn	**Pn**	**12 34 32.6**	**+1.9**
KORT				AML	AML		
ODEM	**Odemis-Izmir**	**2.94**	**5**	Pn	**Pn**	**12 34 35.0**	**+0.7**
CHOS	**Chios island**	**3.34**	**336**	P	**Pn**	**12 34 40.5**	**+0.7**
CHOS				S	**Sn**	**12 35 21.6**	**+2.6**
ALFC	**Alefka**	**3.96**	**91**	P	**Pn**	**12 34 47.3**	**-1.1**

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*IDC **05** 13:02:30.3±1.2, 62°.07S×57°.44W, h0^{km}, mb3.9/5, mbtmp3.9/5, MS3.3/5, Error ellipse: s-maj=54.9km s-min=25.7km az=73.0*

ISC 05 13:02:31.6±1.0, **62°.1S**±0°.2×**57°.5W**±0°.3, **h10**^{km}, **n17**, σ**1^{s}37**/7, **mb3.8**/4, **MS3.2**/5, **South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMSA	**Palmer Station**	**4.02**	**225**	LR	LR	13 04 29.7	
	comp=Z,45nm,21.2s,baz=54,slow=30						
SNAA	**Sanae**	**22.61**	**138**	P	**P**	**13 07 32.7**	**+0.6**
	5.2nm,0.4s,baz=257,slow=14,SNR=2.4						
	5.2nm,0.4s						
PLCA	**Paso Flores**	**22.78**	**334**	P	**P**	**13 07 35.2**	**+1.1**
	1.6nm,0.8s,baz=161,slow=7.2,SNR=5.6						
PLCA				LR	LR	13 15 41.5	
	comp=Z,70nm,18.6s,baz=184,slow=35						
	1.6nm,0.8s						
QSPA	**South Pole Qui**	**28.16**	**180**	P	**P**	**13 08 24.8**	**+1.1**
	1.1nm,0.8s,baz=167,slow=3.1,SNR=6.7						
	1.1nm,0.8s						
VNDA	**Vanda**	**38.58**	**193**	LR	LR	13 26 52.5	
	comp=Z,34nm,20.0s,baz=264,slow=38						
SIV	**San Ignacio**	**46.09**	**355**	LR	LR	13 30 07.4	
	comp=Z,39nm,21.5s,baz=113,slow=36						
LPAZ	**La Paz**	**46.34**	**346**	LR	LR	13 32 19.2	
	comp=Z,27nm,18.1s,baz=193,slow=39						
H10S2	**ASCENSION HYDR**	**61.46**	**50**	T	T	14 20 07.7	
	baz=17,slow=74,SNR=5.6						
H10S3	**ASCENSION HYDR**	**61.46**	**50**	T	T	14 20 01.3	
	baz=203,slow=74,SNR=6.3						
H10N3	**ASCENSION HYDR**	**62.55**	**50**	T	T	14 21 28.0	
	baz=202,slow=75,SNR=15						
H10N1	**ASCENSION HYDR**	**62.55**	**50**	T	T	14 21 28.4	
	baz=202,slow=75,SNR=23						
H10N2	**ASCENSION HYDR**	**62.56**	**50**	T	T	14 21 24.5	
	baz=202,slow=75,SNR=51						
MDP	**Montagnes des**	**67.08**	**5**	LR	LR	13 45 31.5	
	comp=Z,23nm,18.7s,baz=150,slow=38						
TORD	**Torodi Ar. Bea**	**87.95**	**57**	P	**P**	**13 15 21.2**	**-0.2**
	0.6nm,0.8s,baz=209,slow=4.8,SNR=2.6						
	0.6nm,0.8s						
ASAR	**Alice Springs**	**94.08**	**190**	P	**P**	**13 15 48.5**	**-1.6**
	0.5nm,1.0s,baz=155,slow=4.6,SNR=2.5						
	0.5nm,1.0s						
ARCES	**ARCESS Array B**	**143.66**	**36**	PKP	**PKPdf**	**13 22 03.5**	**-1.3**
	2.5nm,0.8s,baz=236,slow=2.2,SNR=7.1						
MKAR	**Makanchi Array**	**152.62**	**105**	PKPbc	**PKiKP**	**13 22 28.0**	**+0.6**
	0.5nm,0.8s,baz=207,slow=2.9,SNR=4.1						

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*KRSC **05** 13:14:43.7±0.7, 58°.92N×158°.75E, h8^{km}±5^{km}, Ml4.0*
*NERS **05** 13:14:55.0, 58°.96N×158°.08E, h33^{km}*

ISC 05 13:14:44.4±0.9, **58°.90N**±0°.05×**158°.69E**±0°.04, **h10**^{km}, **n9**, σ**2^{s}24**/15, **Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALN	**Palana**	**0.69**	**73**	*e*P	**Pb**	**13 14 57.5**	**-0.9**
PALN				*e*S	**Sb**	**13 15 06.6**	**-1.4**
TIGL	**Tigil**	**1.14**	**180**	*e*P	**Pb**	**13 15 05.4**	**-0.7**
TIGL				*e*S	**Sg**	**13 15 21.0**	**+0.2**
OSSR	**Ossora**	**2.29**	**79**	*e*P	**Pn**	**13 15 22.4**	**+0.3**
OSSR				*e*S	**Sb**	**13 15 51.9**	**-1.9**
GADL	**Gadlja**	**3.86**	**285**	*e*Pg	Pg	13 16 03.6	+5.4
GADL				*e*Sg	**Sg**	**13 16 45.8**	**-2.4**
GADL				Sgmax		13 17 10.5	
	380nm,0.9s						
TLAR	**Talaya**	**3.87**	**308**	*e*P	**Pb**	**13 15 48.1**	**-4.6**
TLAR				*e*Pg	**Pg**	**13 16 00.9**	**+2.4**
TLAR				Pgmax		13 16 08.6	
	20nm,0.4s						
TLAR				*e*Sg	**Sg**	**13 16 50.4**	**+1.9**
TLAR				Sgmax		13 16 53.1	
	80nm,0.5s						
MA2	**Magadan**	**4.12**	**283**	*e*Pg	**Pg**	**13 16 05.9**	**+2.6**
MA2				Pgmax		13 16 10.5	
MA2				*e*Sg	**Sg**	**13 16 56.4**	**-0.3**
MA2				Sgmax		13 17 10.4	
	40nm,0.7s						
MGD	**Magadan 1**	**4.22**	**289**	*e*Sg	**Sg**	**13 17 00.4**	**+0.7**
MGD				Sgmax		13 17 10.0	
	60nm,0.4s						
SEY	**Seymchan**	**5.08**	**325**	*e*Pg	Pg	13 16 26.4	+4.8
SEY				Pgmax		13 16 32.5	
SEY				*e*Sg	**Sg**	**13 17 29.7**	**+2.3**
SEY				Sgmax		13 17 39.1	
	10.0nm,0.5s						
SUUS	**Susuman**	**6.45**	**312**	*e*Sg	**Sg**	**13 18 13.2**	**+2.1**
SUUS				Sgmax		13 18 29.5	
	30nm,0.9s						

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*IDC **05** 13:21:06.7±0.6, 36°.88S×52°.38E, h0^{km}, mb4.1/18, mbtmp4.1/19, ML4.9/1, MS3.7/30, Error ellipse: s-maj=21.4km s-min=11.8km az=68.0*
*NEIC **05** 13:21:08.0±1.7, 36°.8S±0°.1×52°.4E±0°.1, h10^{km}±1^{km}, mb4.6/11, Error ellipse: s-maj=21.3km s-min=16.0km az=234.0*
*GCMT **05** 13:21:11.0±0.3, 36°.83S±0°.02×52°.32E±0°.02, h26^{km}±1^{km}, MW4.9/95, Moment Tensor Solution. s33,c38; s95,c128; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-0.08±.12; M$_{\theta\theta}$0.65±.09; M$_{\phi\phi}$-0.56±.11; M$_{r\theta}$0.40±.18; M$_{\theta\phi}$2.81±.08; M$_{\phi r}$0.07±.21; Best double couple: M$_0$2.90200×10^{16} NP1: φ$_s$6.00000°, δ82.00000°, λ178.00000°. NP2: φ$_s$96.00000°, δ88.00000°, λ8.00000°. Principal axes: T 2.9580, Plg7.0000°, Azm321.0000°; N -0.1120, Plg82.0000°, Azm110.0000°; P -2.8470, Plg4.0000°, Azm231.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 05 13:21:08.0±0.5, **36°.89S**±0°.08×**52°.4E**±0°.1, **h10**^{km}, **n68**, σ**0^{s}95**/38, **mb4.2**/23, **MS3.8**/30, **1C**, **Southwest Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
H04N1	**CROZET ISLANDS**	**9.28**	**183**	T	T	13 33 25.3	
	baz=5.5,slow=74,SNR=9581						
H04N2	**CROZET ISLANDS**	**9.28**	**183**	T	T	13 33 24.1	
	baz=5.5,slow=74						
H04N3	**CROZET ISLANDS**	**9.29**	**183**	T	T	13 33 24.5	
	baz=5.5,slow=74						
FOMA	**Nahampoana Res**	**12.75**	**337**		**Pn**	**13 24 09.2**	**-0.2**
OPO	**Ambohidratompo**	**18.82**	**344**	P	**Pn**	**13 25 29.7**	**+1.3**
	0.4nm,0.3s,baz=169,slow=12,SNR=25						
OPO				S	**Sn**	**13 28 58.3**	**-0.9**
	9.9nm,1.0s,baz=255,slow=20,SNR=2.7						
	12nm,0.5s						
OPO				AML	AML		
BOSA	**Boshof**	**24.22**	**282**	P	**P**	**13 26 24.8**	**-0.3**
	10nm,0.9s,baz=131,slow=9.8,SNR=9.3						
	10nm,0.9s						
BOSA	**Boshof**	**24.22**	**282**	P	**P**	**13 26 24.9**	**-0.2**
BOSA				IAmb	IAmb	13 26 27.2	
	comp=Z,12nm,1.0s						
SUR	**Sutherland**	**26.31**	**270**	LR	LR	13 34 54.1	
	comp=Z,195nm,21.1s,baz=118,slow=32						
MATP	**Matopo**	**26.52**	**302**	LR	LR	13 35 24.0	
	comp=Z,362nm,21.2s,baz=122,slow=32						
LSZ	**Lusaka**	**30.44**	**309**	LR	LR	13 37 50.3	
	comp=Z,144nm,18.6s,baz=160,slow=33						
MAW	**Mawson**	**31.33**	**172**	P	**P**	**13 27 28.4**	**+0.2**
	comp=Z,1.3nm,0.9s,baz=305,slow=12,SNR=2.8						
MAW				LR	LR	13 36 50.8	
	comp=Z,187nm,19.6s,baz=342,slow=30						
	comp=Z,1.3nm,0.9s						
MAW	**Mawson**	**31.33**	**172**	P	**P**	**13 27 28.2**	**+0.2**
MSEY	**Mahe Island**	**32.19**	**6**	P	**P**	**13 27 35.3**	**-0.9**
H08S1	**Diego Carcia H**	**34.37**	**37**	T	T	14 04 06.7	
	baz=208,slow=76,SNR=11						
H08S2	**Diego Garcia H**	**34.38**	**37**	T	T	14 04 04.6	
	baz=208,slow=76,SNR=15						
H08S3	**Diego Garcia H**	**34.39**	**37**	T	T	14 04 05.4	
	baz=208,slow=76,SNR=104						
TSUM	**Tsumeb**	**35.17**	**290**	LR	LR	13 41 04.4	
	comp=Z,126nm,19.3s,baz=154,slow=34						
TSUM	**Tsumeb**	**35.17**	**290**	P	**P**	**13 28 01.1**	**-1.2**
TSUM				IAmb	IAmb	13 28 03.7	
	comp=Z,8.7nm,1.1s						
MBAR	**Mbarara**	**41.30**	**326**	LR	LR	13 43 41.6	
	comp=Z,95nm,18.8s,baz=136,slow=33						
SNAA	**Sanae**	**44.64**	**202**	LR	LR	13 43 20.2	
	comp=Z,85nm,21.1s,baz=54,slow=30						
SNAA	**Sanae**	**44.64**	**202**	P	**P**	**13 29 19.6**	**-0.7**
SNAA				IAmb	IAmb	13 29 47.0	
	comp=Z,8.9nm,0.8s						
VNA3	**Neumayer Olymp**	**46.61**	**203**	⇑P	**P**	**13 29 36.4**	**+0.6**
	comp=Z,6.3nm,0.8s						
H01W2	**Cape Leeuwin H**	**49.27**	**107**	T	T	14 22 59.5	
	baz=248,slow=75,SNR=653						
H01W3	**Cape Leeuwin H**	**49.28**	**107**	T	T	14 23 07.5	
	baz=248,slow=75,SNR=741						
H01W1	**Cape Leeuwin H**	**49.29**	**107**	T	T	14 22 59.9	
	baz=248,slow=75,SNR=644						
PALK	**Pallekele**	**51.31**	**37**	LR	LR	13 46 12.4	
	comp=Z,67nm,20.4s,baz=212,slow=29						
QSPA	**South Pole Qui**	**53.30**	**180**	P	**P**	**13 30 26.3**	**-0.5**
	comp=Z,6.5nm,1.0s,baz=267,slow=2.5,SNR=12						
QSPA				LR	LR	13 50 50.5	
	comp=Z,88nm,21.7s,baz=267,slow=34						
	comp=Z,6.5nm,1.0s						
QSPA	**South Pole Qui**	**53.30**	**180**	P	**P**	**13 30 27.0**	**+0.1**
QSPA				IAmb	IAmb	13 30 38.3	
	comp=Z,9.9nm,1.1s						
VNDA	**Vanda**	**58.31**	**166**	P	**P**	**13 31 01.8**	**-0.6**
	comp=Z,0.5nm,0.9s,baz=270,slow=7.5,SNR=5.5						
VNDA				LR	LR	13 53 07.6	
	comp=Z,100nm,21.1s,baz=244,slow=33						
	comp=Z,0.5nm,0.9s						
FITZ	**Fitzroy Crossi**	**66.14**	**95**	LR	LR	13 57 33.4	
	comp=Z,48nm,18.2s,baz=232,slow=33						
PMSA	**Palmer Station**	**67.23**	**205**	LR	LR	13 58 30.5	
	comp=Z,14nm,18.9s,baz=108,slow=33						
DBIC	**Dimbokro**	**68.79**	**296**	LR	LR	13 59 11.8	
	comp=Z,65nm,21.9s,baz=152,slow=33						
TORD	**Torodi Ar. Bea**	**68.93**	**306**	P	**P**	**13 32 14.2**	**+0.8**
	comp=Z,2.0nm,0.9s,baz=120,slow=7.5,SNR=9.4						
	comp=Z,2.0nm,0.9s						
ASAR	**Alice Springs**	**69.68**	**105**	P	**P**	**13 32 18.9**	**+0.8**
	comp=Z,1.2nm,0.6s,baz=229,slow=5.0,SNR=8.6						
	comp=Z,1.2nm,0.6s						
ASAR	**Alice Springs**	**69.68**	**105**	P	**P**	**13 32 18.1**	**0.0**
AS31	**Alice Springs**	**69.69**	**105**	P	**P**	**13 32 18.3**	**+0.2**
AS31				IAmb	IAmb	13 32 29.9	
	comp=Z,1.7nm,0.6s						
BRDH	**Bariadhala**	**69.85**	**38**	LR	LR	13 57 55.6	
	comp=Z,61nm,19.4s,baz=234,slow=32						
CMAR	**Chiang Mai Arr**	**70.40**	**47**	P	**P**	**13 32 22.8**	**+0.4**
	comp=Z,1.0nm,0.3s,baz=231,slow=7.1,SNR=15						
CMAR				LR	LR	13 57 06.7	
	comp=Z,25nm,21.0s,baz=235,slow=31						
	comp=Z,1.0nm,0.3s						
CMAR	**Chiang Mai Arr**	**70.40**	**47**	P	**P**	**13 32 21.6**	**-0.9**
CHTO	**Chiang Mai**	**70.68**	**47**	P	**P**	**13 32 21.0**	**-3.1**
CHTO				IAmb	IAmb	13 32 28.5	
	comp=Z,1.9nm,0.9s						
STKA	**Stephens Creek**	**71.11**	**116**	P	**P**	**13 32 26.4**	**-0.4**
	comp=Z,2.2nm,0.9s,baz=187,slow=3.6,SNR=3.9						
STKA				LR	LR	13 56 25.8	
	comp=Z,110nm,20.9s,baz=208,slow=30						
	comp=Z,2.2nm,0.9s						
MMAI	**Mount Meron Ar**	**71.33**	**345**	LR	LR	14 02 54.1	
	comp=Z,23nm,18.2s,baz=168,slow=35						
WRA	**Warramunga Arr**	**72.03**	**102**	P	**P**	**13 32 32.8**	**+0.3**
	comp=Z,1.2nm,0.6s,baz=231,slow=5.4,SNR=16						
	comp=Z,1.2nm,0.6s						
WRA	**Warramunga Arr**	**72.03**	**102**	P	**P**	**13 32 32.8**	**+0.3**
BRTR	**Keskin Array B**	**78.17**	**345**	P	**P**	**13 33 08.3**	**+0.9**
	comp=Z,0.4nm,0.4s,baz=176,slow=2.3,SNR=1.9						
	comp=Z,0.4nm,0.4s						
CTA	**Charters Tower**	**81.17**	**108**	LR	LR	14 06 46.3	
	comp=Z,41nm,18.1s,baz=220,slow=34						
KKAR	**Karatay Array**	**81.30**	**13**		**P**	**13 33 24.1**	**0.0**
KDJ	**Kajisay**	**81.83**	**18**	P	**P**	**13 33 28.5**	**+1.3**
KDJ				IAmb	IAmb	13 33 51.2	
	comp=Z,8.7nm,1.1s						
VAE	**Valguarnera**	**81.92**	**330**	LR	LR	14 08 26.5	
	comp=Z,70nm,21.3s,baz=149,slow=35						
RPZ	**Rata Peaks**	**82.37**	**140**	LR	LR	14 01 34.8	
	comp=Z,23nm,20.7s,baz=202,slow=30						
KEST	**Kesra**	**82.58**	**326**	LR	LR	14 11 23.3	
	comp=Z,48nm,19.0s,baz=322,slow=36						
MLR	**Muntele Rosu**	**85.41**	**342**	LR	LR	14 10 40.7	
	comp=Z,18nm,21.6s,baz=241,slow=35						
PLCA	**Paso Flores**	**86.73**	**220**	P	**P**	**13 33 52.4**	**+0.1**
	comp=Z,1.0nm,0.9s,baz=128,slow=4.3,SNR=3.9						
PLCA				LR	LR	14 05 31.4	
	comp=Z,41nm,19.9s,baz=150,slow=31						
	comp=Z,1.0nm,0.9s						
MDT	**Midelt**	**87.41**	**315**	LR	LR	14 12 44.9	
	comp=Z,103nm,20.2s,baz=175,slow=36						
MKAR	**Makanchi Array**	**87.52**	**20**	P	**P**	**13 33 55.9**	**+0.3**
	comp=Z,0.2nm,0.6s,baz=222,slow=5.6,SNR=1.9						
MKAR				LR	LR	14 08 47.0	
	comp=Z,23nm,20.8s,baz=126,slow=33						
	comp=Z,0.2nm,0.6s						
URZ	**Urewera**	**89.47**	**140**	LR	LR	14 07 22.2	
	comp=Z,59nm,18.8s,baz=215,slow=31						
AKASG	**Malin Array Be**	**89.58**	**346**	P	**P**	**13 34 05.7**	**+0.5**
	comp=Z,0.3nm,0.4s,baz=168,slow=4.7,SNR=4.2						
	comp=Z,0.3nm,0.4s						
KURBB	**Kurchatov Arra**	**90.13**	**16**	P	**P**	**13 34 08.4**	**+0.7**
	comp=Z,2.0nm,0.2s,baz=227,slow=4.9,SNR=1.0						
	comp=Z,2.0nm,0.2s						
BVAR	**Borovoye Array**	**90.90**	**11**	P	**P**	**13 34 12.0**	**+0.7**
	comp=Z,0.7nm,0.6s,baz=178,slow=4.5,SNR=4.0						
	comp=Z,0.7nm,0.6s						
VRAC	**Vranov**	**91.51**	**337**	LR	LR	14 17 44.0	
	comp=Z,21nm,18.4s,baz=91,slow=37						
DAVOX	**Davos/Dischmat**	**91.61**	**332**	LR	LR	14 18 14.0	
	comp=Z,27nm,18.4s,baz=250,slow=37						
GERES	**GERESS Array B**	**92.03**	**336**	P	**P**	**13 34 16.4**	**-0.4**
	comp=Z,0.5nm,0.2s,baz=123,slow=3.6,SNR=1.1						
	comp=Z,0.5nm,0.2s						
GERES	**GERESS Array B**	**92.03**	**336**	P	**P**	**13 34 14.6**	**-2.2**
ESDC	**Sonseca Array**	**92.14**	**320**	P	**P**	**13 34 19.0**	**+1.5**
	comp=Z,0.5nm,0.9s,baz=129,slow=4.5,SNR=2.0						
ESDC				LR	LR	14 17 23.4	
	comp=Z,40nm,18.6s,baz=147,slow=37						
	comp=Z,0.5nm,0.9s						
ZALV	**Zalesovo Beam**	**94.70**	**19**	P	**P**	**13 34 29.4**	**+0.6**
	comp=Z,0.5nm,0.5s,baz=162,slow=5.6,SNR=4.2						
	comp=Z,0.5nm,0.5s						
HNR	**Honiara**	**98.11**	**108**	LR	LR	14 13 55.0	
	comp=Z,44nm,18.1s,baz=339,slow=32						
ILAR	**Eielson Array**	**149.81**	**16**	PKPbc	**PKPbc**	**13 40 57.5**	**+0.2**
	comp=Z,1.8nm,0.7s,baz=323,slow=3.6,SNR=11						
YKA	**Yellowknife Ar**	**153.13**	**347**	PKPbc	**PKiKP**	**13 41 06.5**	**+1.3**
	comp=Z,1.9nm,0.8s,baz=5.7,slow=1.2,SNR=4.1						

PRE 05 13:23:53.4±1.2, **25°.92S**×**28°.08E**, **h5**^{km}, **ML1.6**, **Presumed earthquake**, **South Africa**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HRAO	**HartRAO**	**0.35**	**275**	*e*P	Pg	13 24 00.0	-0.3
HRAO				*e*S	Sg	13 24 05.0	0.0
RUST	**Rust De Winter**	**0.79**	**31**	*e*P	Pg	13 24 07.9	-0.8
RUST				*e*S	Sg	13 24 19.3	+0.4
RUST				IAML		13 24 22.4	
	comp=Z,5.0nm,0.2s						
WTBG	**Waterberg Wild**	**1.85**	**23**	*e*P	Pn	13 24 26.9	+0.9
WTBG				*e*S	Sb	13 24 51.1	-0.4
WTBG				IAML		13 25 05.0	
	comp=Z,2.2nm,0.4s						
LBTB	**Lobatse**	**2.42**	**291**	*e*P	Pn	13 24 34.5	+0.8
LBTB				*e*S	Sn	13 25 05.3	+1.6
LBTB				IAML		13 27 19.2	
	comp=Z,1.7nm,0.6s						
HOED	**Hoedspruit, Li**	**2.99**	**60**	*e*P	Pn	13 24 42.8	+1.2
HOED				*e*S	Sn	13 25 18.3	+0.4
HOED				IAML		13 26 07.8	
	comp=Z,2.2nm,0.7s						
CRAIL	**Swartwater, Li**	**3.11**	**3**	*e*P	Pn	13 24 43.5	+0.3
CRAIL				*e*S	Sn	13 25 21.7	+0.8
CRAIL				IAML		13 26 41.5	
	comp=Z,98nm,0.5s						
BOSA	**Boshof**	**3.67**	**223**	*e*P	Pn	13 24 52.4	+1.4
BOSA				*e*S	Sn	13 25 35.3	+0.5

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*KRNET **05** 13:33:47.2±0.1, 41°.36N×71°.86E, h23^{km}, mb2.3*
*ISU **05** 13:33:47, 41°.39N×71°.86E, h15^{km}*
*SOME **05** 13:33:48.7, 41°.53N×71°.83E, h5^{km}*
*NNC **05** 13:33:49.9±1.6, 41°.47N×71°.85E, h0^{km}, mb2.7, mpv2.5, Error ellipse: s-maj=14.5km s-min=4.4km az=170.0*

ISC 05 13:33:47.1±1.2, **41°.37N**±0°.03×**71°.88E**±0°.02, **h6**^{km}±11^{km}, **n19**, σ**0^{s}78**/35, **15C-4D**, **Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ARK	**Arkit**	**0.43**	**8**	⇓*i*P	**Pb**	**13 33 56.3**	**-0.9**
ARK				⇓*i*S	**Sb**	**13 34 02.3**	**-1.6**
TRKS	**Terek-Say**	**0.58**	**286**	⇑*i*P	**Pg**	**13 33 57.8**	**-0.4**
TRKS				⇑*i*S	**Sg**	**13 34 05.2**	**-0.6**
ARSB	**Arslanbob**	**0.83**	**93**	⇑*e*P	**Pg**	**13 34 03.3**	**+0.2**
ARSB				⇑*e*S	**Sg**	**13 34 15.1**	**+1.2**
FRG	**Fergana**	**1.00**	**184**	S	**Sb**	**13 34 20.1**	**-0.2**
OHH	**Osh**	**1.09**	**141**	⇓*i*P	**Pn**	**13 34 07.3**	**-1.7**
OHH				⇓*i*S	**Sb**	**13 34 22.1**	**-0.8**
CHMG	**Chimgan**	**1.42**	**278**	S	**Sb**	**13 34 32.1**	**-0.2**
BTK	**Batken**	**1.54**	**212**	⇑*i*P	**Pn**	**13 34 15.1**	**-0.1**
BTK				⇑*i*S	**Sn**	**13 34 35.4**	**-0.2**
SALK	**Salom-Alik**	**1.55**	**108**	⇑*i*P	**Pn**	**13 34 15.6**	**+0.3**
SALK				⇑*i*S	**Sn**	**13 34 36.3**	**+0.5**
IUG	**Iuzhnay**	**1.58**	**300**	P	**Pg**	**13 34 18.0**	**+0.5**
	11nm,0.5s						
IUG				S	**Sg**	**13 34 38.4**	**+0.4**
	35nm,0.3s						
IUG	**Iuzhnay**	**1.58**	**300**	*e*P	**Pg**	**13 34 18.0**	**+0.5**
	11nm,0.5s						
IUG				*e*S	**Sg**	**13 34 38.4**	**+0.4**
	35nm,0.3s						
TVKS	**Tavaksay**	**1.69**	**278**	P	**Pn**	**13 34 18.1**	**+1.0**
TVKS				S	**Sb**	**13 34 40.5**	**+0.5**
MRKS	**Merke**	**1.70**	**36**	P	**Pg**	**13 34 19.9**	**+0.3**
	1.7nm,0.2s						
MRKS				S	**Sg**	**13 34 41.7**	**+0.1**
	3.3nm,0.3s						
MRKS	**Merke**	**1.70**	**36**	*e*P	**Pg**	**13 34 19.9**	**+0.3**
	1.7nm,0.2s						
MRKS				*e*S	**Sg**	**13 34 41.7**	**+0.1**
	3.3nm,0.3s						
SFK	**Sufi-Kurgan**	**1.84**	**137**	⇑*i*P	**Pn**	**13 34 20.2**	**+0.8**
SFK				⇑*i*S	**Sn**	**13 34 43.9**	**+0.9**
EKS2	**Erkin-Say**	**1.91**	**47**	⇑*i*P	**Pn**	**13 34 21.3**	**+1.0**
EKS2				⇑*i*S	**Sb**	**13 34 46.1**	**-0.5**
KK31	**Karatay Array**	**2.00**	**330**	⇑Pn	**Pb**	**13 34 23.9**	**-0.1**
	0.2nm,0.2s,baz=157,slow=17,SNR=3.9						
KK31				Sn	**Sg**	**13 34 50.9**	**-0.6**
	0.8nm,0.2s,baz=150,slow=30,SNR=13						
UCH	**Uchtor**	**2.15**	**66**	⇑*i*P	**Pn**	**13 34 24.7**	**+0.9**
UCH				⇑*i*S	**Sb**	**13 34 52.0**	**-1.7**
BRLS	**Borolday**	**2.25**	**318**	Pg	**Pb**	**13 34 27.8**	**-0.3**
	1.1nm,0.5s						
BRLS				Lg	Lg	13 34 55.4	
	3.6nm,0.2s						
BRLS	**Borolday**	**2.25**	**318**	*e*P	**Pb**	**13 34 27.8**	**-0.3**
	1.1nm,0.5s						
BRLS				*e*S	**Sb**	**13 34 55.4**	**-0.7**
	3.6nm,0.2s						

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*SOME **05** 13:39:55.6, 42°.15N×81°.10E, h15^{km}*
*NNC **05** 13:39:57.3±1.2, 42°.13N×80°.95E, h0^{km}, mb3.6, mpv3.3, Error ellipse: s-maj=8.9km s-min=5.9km az=160.0*
*KRNET **05** 13:40:00.1±0.1, 42°.39N×80°.93E, mb3.2*

ISC 05 13:39:57.9±2.7, **42°.11N**±0°.08×**80°.87E**±0°.09, **h17**^{km}±11^{km}, **n36**, σ**2^{s}09**/57, **16C-2D**, **Kyrgyzstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SHLS	**Shalkode**	**1.47**	**316**	P	**Pn**	**13 40 21.7**	**-2.1**
	50nm,0.2s						
SHLS				S	**Sn**	**13 40 40.2**	**-2.7**
	204nm,0.3s						
SHLS	**Shalkode**	**1.47**	**316**	*e*P	**Pn**	**13 40 20.8**	**-3.0**
	50nm,0.2s						
SHLS				*e*S	**Sn**	**13 40 38.9**	**-3.9**
	204nm,0.3s						
PDGK	**Podgornoye**	**1.59**	**321**	⇑P	**Pb**	**13 40 26.8**	**-0.1**
	7.1nm,0.4s						
PDGK				⇑S	**Sg**	**13 40 49.1**	**0.0**
	34nm,0.8s						
UZB	**Uzynbulak**	**1.71**	**308**	P	**Pg**	**13 40 29.8**	**-1.0**
	26nm,0.4s						
UZB				S	**Sg**	**13 40 54.5**	**+1.4**
	29nm,0.1s						
UZB	**Uzynbulak**	**1.71**	**308**	*e*P	**Pg**	**13 40 29.8**	**-1.0**
UZB				*e*S	**Sg**	**13 40 54.5**	**+1.4**
PRZ	**Przheval'sk**	**1.87**	**282**	⇑*e*P	**Pg**	**13 40 34.9**	**+1.1**
PRZ				⇑*e*S	**Sg**	**13 41 00.7**	**+2.6**
SATY	**Saty**	**2.05**	**298**	Pg	**Pg**	**13 40 36.3**	**-1.0**
	8.9nm,0.3s						
SATY				Lg	Lg	13 41 05.9	
	73nm,0.1s						
SATY	**Saty**	**2.05**	**298**	*e*P	**Pg**	**13 40 36.3**	**-1.0**
	8.9nm,0.3s						
SATY				*e*S	**Sg**	**13 41 05.9**	**+1.9**
	73nm,0.1s						
KPKS	**Kokpek**	**2.10**	**311**	Pg	**Pb**	**13 40 36.6**	**+0.9**
	0.4nm,0.2s						
KPKS				Lg	Lg	13 41 05.8	
	57nm,0.3s						
KPKS	**Kokpek**	**2.10**	**311**	*e*P	**Pb**	**13 40 36.2**	**+0.6**
	0.1nm,0.1s						
KPKS				*e*S	**Sg**	**13 41 05.3**	**-0.2**
	139nm,0.4s						
KURS	**Kuram**	**2.42**	**306**	Pg	**Pb**	**13 40 41.8**	**+0.8**
	16nm,0.6s						
KURS				Lg	Lg	13 41 15.5	
	18nm,0.7s						
KURS	**Kuram**	**2.42**	**306**	*e*P	**Pb**	**13 40 41.8**	**+0.8**
	16nm,0.6s						

KURS				eS	Sg	13 41 15.5	-0.1
	18nm,0.7s						
ANVS	Anan'yevo	2.46	287	⇑eP	Pb	13 40 43.6	+1.7
ANVS				⇑eS	Sb	13 41 15.1	+3.1
KDJ	Kajisay	2.74	272	⇑eP	Pb	13 40 48.3	+1.7
KDJ				⇑eS	Sb	13 41 23.4	+3.3
KOTS	Kotyrbulak	2.99	293	Pg	Pb	13 40 51.2	+0.4
	3.7nm,0.2s						
KOTS				Lg	Lg	13 41 31.6	
	23nm,0.3s						
KOTS	Kotyrbulak	2.99	293	eP	Pb	13 40 52.4	+1.6
	5.4nm,0.2s						
KOTS				eS	Sg	13 41 33.1	-0.8
	26nm,0.4s						
MDOK	Medeo	3.01	292	Pg	Pb	13 40 52.8	+1.7
	7.5nm,0.3s						
MDOK				Lg	Lg	13 41 34.8	
	18nm,0.6s						
MDOK	Medeo	3.01	292	eP	Pb	13 40 52.8	+1.7
	7.5nm,0.3s						
MDOK				eS	Sg	13 41 34.8	+0.2
	18nm,0.6s						
TNSS	Tian-Shan	3.04	289	Pg	Pb	13 40 53.3	+1.4
	0.9nm,0.2s						
TNSS				Lg	Lg	13 41 35.5	
	2.9nm,0.4s						
TNSS	Tian-Shan	3.04	289	eP	Pb	13 40 53.3	+1.4
	0.9nm,0.2s						
TNSS				eS	Sg	13 41 35.5	-0.1
	2.9nm,0.4s						
KAPS	Kapalarasan	3.36	341	Pg	Pb	13 40 56.8	-0.2
	5.1nm,0.2s						
KAPS				Lg	Lg	13 41 40.1	
	70nm,0.4s						
KAPS	Kapalarasan	3.36	341	eP	Pb	13 40 56.8	-0.2
	5.1nm,0.2s						
KAPS				eS	Sb	13 41 40.1	+2.5
	70nm,0.4s						
KTBS	Karatobe	3.47	299	Pg	Pb	13 40 59.5	+0.6
	0.3nm,0.2s						
KTBS				Lg	Lg	13 41 45.4	
	9.1nm,0.4s						
KTBS	Karatobe	3.47	299	eP	Pb	13 41 00.3	+1.4
	0.4nm,0.1s						
KTBS				eS	Sb	13 41 46.6	+5.9
	14nm,0.3s						
BOOM	Boomskoye usch	3.68	278	⇑eP	Pb	13 41 00.7	-1.8
BOOM				⇑eS	Sb	13 41 44.8	-2.1
KST	Kastek	3.74	286	Pg	Pb	13 41 06.0	+2.4
	2.0nm,0.2s						
KST				Lg	Lg	13 41 56.7	
	7.8nm,0.4s						
KST	Kastek	3.74	286	eP	Pb	13 41 06.0	+2.4
	2.0nm,0.2s						
KST				eS	Sg	13 41 56.7	-1.3
	7.8nm,0.4s						
KUU	Kurty	3.77	300	Pg	Pb	13 41 06.1	+2.1
	1.6nm,0.1s						
KUU				Lg	Lg	13 41 57.2	
	5.9nm,0.1s						
KUU	Kurty	3.77	300	eP	Pb	13 41 06.1	+2.1
	1.6nm,0.1s						
KUU				eS	Sg	13 41 57.2	-1.8
	5.9nm,0.1s						
DGS	Degeres	3.92	288	Pg	Pb	13 41 09.5	+2.8
	3.4nm,0.3s						
DGS				Lg	Lg	13 42 02.8	
	7.7nm,0.5s						
DGS	Degeres	3.92	288	eP	Pb	13 41 09.5	+2.8
	3.4nm,0.3s						
DGS				eS	Sg	13 42 02.8	-1.1
	7.7nm,0.5s						
KRBS	Karabastau	4.13	294	Pg	Pb	13 41 12.8	+2.6
	0.9nm,0.3s						
KRBS				Lg	Lg	13 42 07.6	
	0.9nm,0.4s						
KRBS	Karabastau	4.13	294	eP	Pb	13 41 12.8	+2.6
	0.9nm,0.3s						
KRBS				eS	Sg	13 42 07.6	-3.0
	0.9nm,0.4s						
AAK	Ala-Archa	4.75	278	⇑Pg	Pg	13 41 26.6	-2.3
	4.1nm,1.2s						
AAK				⇑Lg	Lg	13 42 30.7	
	2.7nm,0.8s						
MAKZ	Makanchi	4.76	9	⇑Pn	Pb	13 41 11.9	-9.0
	1.5nm,0.3s						
MAKZ				⇑Sn	Sn	13 42 06.8	+3.1
	1.1nm,0.5s						
MAKZ				⇓Lg	Lg	13 42 25.3	
	11nm,1.2s						
MK31	Makanchi Array	4.79	12	⇑Pn	Pn	13 41 11.5	+2.1
	baz=202,slow=14,SNR=14						
MK31				⇑Sn	Sn	13 42 06.6	+2.2
	0.9nm,0.6s,baz=175,slow=24,SNR=3.9						
MK31				⇓Lg	Lg	13 42 26.0	
	4.0nm,0.8s,baz=192,slow=26,SNR=7.2						

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*IDC **05** 13:40:15.0±2.9, 5°.33S×145°.75E, h156^{km}±32^{km}, mb3.3/6, mbtmp3.8/8, Error ellipse: s-maj=32.6km s-min=18.4km az=125.0*

ISC 05 13:40:14.8±0.9, **5°.36S**±0°.09×**145°.7E**±0°.1, **h150**^{km}, **n9**, σ**1^s.21**/10, **mb3.4**/6, **Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	4.28	160	P	Pn	13 41 17.4	-1.3
	11nm,0.4s,baz=15,slow=11,SNR=10						
PMG				S	Sn	13 42 10.0	+1.5
	41nm,0.5s,baz=12,slow=20,SNR=10						
KRVT	Keravat (AS076	6.41	81	P	Pn	13 41 47.1	+0.1
	80nm,0.3s,baz=284,slow=19,SNR=1.0						
WRA	Warramunga Arr	18.22	216	P	P	13 44 16.7	+0.1
	4.0nm,1.0s,baz=40,slow=12,SNR=15						
ASAR	Alice Springs	21.45	211	P	P	13 44 52.2	+0.8
	0.5nm,0.6s,baz=37,slow=9.4,SNR=6.7						
	0.5nm,0.6s						
FITZ	Fitzroy Crossi	23.32	235	P	P	13 45 09.5	-0.1
	6.7nm,0.7s,baz=62,slow=9.9,SNR=9.0						
	6.7nm,0.7s						
CMAR	Chiang Mai Arr	51.79	298	P	P	13 49 09.4	+1.8
	0.3nm,0.5s,baz=102,slow=8.1,SNR=1.7						
	0.3nm,0.5s						
MKAR	Makanchi Array	76.17	321	P	P	13 51 45.2	-1.2
	0.4nm,0.7s,baz=129,slow=5.2,SNR=4.6						
	0.4nm,0.7s						
QSPA	South Pole Qui	84.61	180	P	P	13 52 31.1	-0.1
	0.3nm,0.4s,baz=306,slow=0.9,SNR=1.4						
	0.3nm,0.4s						
ILAR	Eielson Array	85.41	23	P	P	13 52 34.2	-0.8
	0.8nm,0.8s,baz=260,slow=6.1,SNR=7.9						
	0.8nm,0.8s						

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*IDC **05** 13:43:08.7±0.9, 56°.14S×26°.72W, h0^{km}, mb4.0/4, mbtmp4.0/4, MS3.5/3, Error ellipse: s-maj=43.0km s-min=25.6km az=78.0*

ISC 05 13:43:13.9±0.9, **56°.2S**±0°.2×**26°.7W**±0°.3, **h35**^{km}, **n13**, σ**1^s.15**/7, **mb4.0**/3, **MS3.5**/3, **South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
QSPA	South Pole Qui	34.09	180	P	P	13 49 55.2	+0.3
	1.6nm,0.5s,baz=239,slow=1.3,SNR=28						
	1.6nm,0.5s						
MAW	Mawson	39.91	143	P	P	13 50 44.0	+0.2
	0.3nm,0.3s,baz=258,slow=9.3,SNR=1.6						
	0.3nm,0.3s						
H10S2	ASCENSION HYDR	48.03	16	T	T	14 43 57.5	
	baz=190,slow=74,SNR=8.4						
H10S3	ASCENSION HYDR	48.03	16	T	T	14 44 08.3	
	baz=30,slow=74,SNR=10						
H10N1	ASCENSION HYDR	49.15	16	T	T	14 45 32.1	
	baz=195,slow=76						
H10N3	ASCENSION HYDR	49.15	16	T	T	14 45 30.6	
	baz=195,slow=76						
H10N2	ASCENSION HYDR	49.16	16	T	T	14 45 33.2	
	baz=195,slow=76						
LPAZ	La Paz	50.65	305	P	P	13 52 10.3	+0.1
	0.6nm,0.3s,baz=141,slow=9.8,SNR=3.0						
LPAZ				LR	LR	14 16 29.7	
	comp=Z,45nm,18.9s,baz=109,slow=40						
	0.6nm,0.3s						
TORD	Torodi Ar. Bea	73.02	29	P	P	13 54 40.8	+0.8
	1.1nm,0.4s,baz=199,slow=6.5,SNR=13						
	1.1nm,0.4s						
SDV	Santo Domingo	74.26	315	LR	LR	14 25 40.0	
	comp=Z,30nm,22.0s,baz=95,slow=34						
JTS	Las Juntas de	81.78	302	LR	LR	14 34 04.4	
	comp=Z,29nm,20.3s,baz=183,slow=37						
ILAR	Eielson Array	150.38	311	PKP	PKPdf	14 02 55.0	+0.3
	0.2nm,0.5s,baz=85,slow=1.1,SNR=2.8						
ILAR				PKPbc	PKPbc	14 02 59.4	-0.5
	1.1nm,0.9s,baz=120,slow=2.0,SNR=8.6						
SONM	Songino Array	150.48	86	PKPbc	PKPbc	14 02 58.9	-2.0
	0.5nm,0.4s,baz=214,slow=4.0,SNR=3.8						

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*IDC **05** 13:47:00.7±7.8, 6°.35S×130°.27E, h132^{km}±85^{km}, mb3.4/7, mbtmp3.9/10, Error ellipse: s-maj=48.8km s-min=41.2km az=57.0*

ISC 05 13:46:56.6±0.8, **6°.54S**±0°.07×**130°.1E**±0°.2, **h100**^{km}, **n10**, σ**2^s.16**/13, **mb3.6**/7, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	12.29	200	P	P	13 49 53.6	-2.7
	3.0nm,0.3s,baz=30,slow=8.4,SNR=51						
FITZ				S	Sn	13 52 04.1	+0.5
	4.1nm,0.4s,baz=53,slow=20,SNR=8.1						
WRA	Warramunga Arr	13.94	163	P	P	13 50 13.4	-1.3
	3.0nm,0.6s,baz=357,slow=13,SNR=32						
WRA				S	Sn	13 52 42.0	-1.5
	2.3nm,0.5s,baz=337,slow=22,SNR=8.5						
ASAR	Alice Springs	17.41	168	P	Pn	13 50 58.6	+5.2
	6.2nm,0.6s,baz=344,slow=9.7,SNR=93						
ASAR				S	S	13 54 08.7	-0.6
	0.8nm,0.5s,baz=353,slow=25,SNR=7.3						
CMAR	Chiang Mai Arr	39.53	309	P	P	13 54 19.6	+1.5
	0.6nm,0.6s,baz=136,slow=7.3,SNR=6.2						
	0.6nm,0.6s						
MJAR	Matsushiro Arr	43.52	9	P	P	13 54 49.6	-0.7
	0.6nm,0.8s,baz=206,slow=4.6,SNR=1.8						
	0.6nm,0.8s						
SONM	Songino Array	58.04	341	P	P	13 56 39.6	+0.3
	0.2nm,0.3s,baz=143,slow=3.6,SNR=1.5						
	0.2nm,0.3s						
MKAR	Makanchi Array	67.91	327	P	P	13 57 45.4	+0.8
	1.3nm,0.4s,baz=115,slow=8.2,SNR=25						
	1.3nm,0.4s						
ZALV	Zalesovo Beam	71.22	334	P	P	13 58 04.2	-0.6
	0.8nm,0.7s,baz=107,slow=5.1,SNR=2.4						
	0.8nm,0.7s						
KURBB	Kurchatov Arra	72.18	328	P	P	13 58 08.8	-1.8
	0.4nm,0.3s,baz=133,slow=5.5,SNR=5.6						
	0.4nm,0.3s						
BVAR	Borovoye Array	77.74	328	P	P	13 58 41.7	-0.8
	0.3nm,0.4s,baz=80,slow=1.6,SNR=1.6						
	0.3nm,0.4s						

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*IDC **05** 13:54:54.9±0.7, 1°.79S×122°.57E, h0^{km}, mb3.7/12, mbtmp3.8/14, ML4.2/1, Error ellipse: s-maj=22.0km s-min=12.8km az=92.0*

*DJA **05** 13:54:57.5±0.3, 2°S±2°×12°3E±°, h11^{km}±2^{km}, M4.4/29, mB5.3/3, mb4.6/6, MLv4.3/29, Mw(mB)4.7/3*

ISC 05 13:54:56.6±0.6, **1°.89S**±0°.04×**122°.54E**±0°.06, **h10**^{km}, **n24**, σ**1^s.48**/32, **mb3.8**/12, **Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LUWI	Luwuk	0.87	16	P	Pg	13 55 13.2	-0.2
LUWI				S	Sb	13 55 27.4	+1.8
LUWI				AML	AML		
KDI	Kendari	2.06	178	P	Pn	13 55 31.6	+0.4
KDI				S	Sn	13 55 58.4	+1.5
GTOI	Gorontalo	2.55	11	P	Pn	13 55 39.5	+1.5
GTOI				S	Sn	13 56 12.5	+3.3
GTOI				AML	AML		
PCI	Palu	2.87	290	P	Pn	13 55 43.7	+1.3
SANI	Sanana	3.46	93	P	Pn	13 55 49.6	-0.9
SANI				AML	AML		
MMSI	Mamuju	3.71	258	P	Pn	13 55 54.6	+0.6
MMSI				AML	AML		
KAPI	Kappang	4.17	222	Pn	Pn	13 56 02.5	+2.2
	14nm,0.3s,baz=11,slow=5.2,SNR=16						
KAPI				Sn	Sn	13 56 50.6	+1.6
	6.3nm,0.3s,baz=30,slow=20,SNR=7.9						
	47nm,0.4s						
KAPI				AML	AML		
KAPI	Kappang	4.17	222	P	Pn	13 56 02.6	+2.4
KAPI				S	Sn	13 56 50.4	+1.4
NLAI	Namlea	4.75	106	P	Pn	13 56 10.9	+2.6
NLAI				AML	AML		
PLAI	Plampang	8.36	214	P	Pn	13 56 56.9	-1.1
	27nm,1.1s						
FAKI	Fak Fak	9.76	96	P	Pn	13 57 17.7	+0.6
FITZ	Fitzroy Crossi	16.39	169	Pn	Pn	13 58 47.2	+0.3
	1.9nm,0.8s,baz=345,slow=10,SNR=3.2						
WRA	Warramunga Arr	21.33	148	P	P	13 59 44.3	+0.3
	4.5nm,0.8s,baz=334,slow=9.8,SNR=29						
	4.5nm,0.8s						
ASAR	Alice Springs	24.29	154	P	P	14 00 15.2	+0.8
	3.1nm,0.7s,baz=324,slow=7.2,SNR=32						
ASAR				PcP	PcP	14 03 54.9	+0.5
	0.2nm,0.5s,baz=0.0,slow=3.5,SNR=2.5						
	3.1nm,0.7s						
CMAR	Chiang Mai Arr	30.79	312	P	P	14 01 13.9	+1.3
	0.8nm,0.7s,baz=137,slow=7.4,SNR=8.5						
	0.8nm,0.7s						
KSRS	Korea Array	39.46	7	P	P	14 02 24.7	-2.4
	0.5nm,0.7s,baz=192,slow=8.7,SNR=2.0						
	0.5nm,0.7s						
HILR	Hailar Array B	51.30	358	P	P	14 03 59.3	-1.6
	0.5nm,0.4s,baz=176,slow=8.7,SNR=1.9						
	0.5nm,0.4s						
SONM	Songino Array	51.49	346	P	P	14 04 01.2	-1.3
	0.3nm,0.5s,baz=138,slow=6.7,SNR=2.2						
SONM				PcP	PcP	14 05 16.1	-0.6
	0.6nm,0.3s,baz=164,slow=5.7,SNR=2.3						
	0.3nm,0.5s						
MKAR	Makanchi Array	59.98	329	P	P	14 05 02.5	-0.8
	0.4nm,0.7s,baz=122,slow=6.3,SNR=4.8						
MKAR				PcP	PcP	14 05 48.4	-1.0
	0.7nm,0.6s,baz=125,slow=5.1,SNR=6.7						
	0.4nm,0.7s						
PETK	Petropavlovsk-	62.19	23	P	P	14 05 18.9	+0.7
	1.7nm,1.0s,baz=230,slow=7.1,SNR=1.8						
	1.7nm,1.0s						
ZALV	Zalesovo Beam	63.84	336	P	P	14 05 29.9	+0.8
	0.4nm,0.5s,baz=142,slow=12,SNR=1.9						
	0.4nm,0.5s						
KURBB	Kurchatov Arra	64.36	331	P	P	14 05 31.4	-1.2
	0.2nm,0.4s,baz=134,slow=5.3,SNR=4.3						
	0.2nm,0.4s						
BVAR	Borovoye Array	69.86	329	P	P	14 06 06.2	-1.3
	1.1nm,1.0s,baz=116,slow=6.6,SNR=2.1						
	1.1nm,1.0s						
VNDA	Vanda	78.45	172	P	P	14 06 57.0	-0.2
	0.7nm,0.9s,baz=320,slow=8.3,SNR=3.8						
	0.7nm,0.9s						

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*IDC **05** 13:59:01.4±3.4, 24°.64N×141°.89E, h165^{km}±35^{km}, mb3.4/7, mbtmp3.9/10, MS3.9/1, Error ellipse: s-maj=51.1km s-min=16.9km az=77.0*

*JMA **05** 13:59:05.7±0.2, 25°N±2°×14°1E±°, h112^{km}, MV4.1/14, IOTO ISLANDS REGION*

ISC 05 13:59:01.9±1.2, **24°.5N**±0°.1×**141°.3E**±0°.2, **h150**^{km}, **n15**, σ**1^s.78**/16, **mb3.6**/7, **Volcano Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHH2	Haha-jima-NKT2	2.23	20	eP	Pn	13 59 41.9	+2.2
JHH2				eS	Sn	14 00 09.5	+0.5
CBIJ	Chichi jima	2.67	17	eP	Pn	13 59 47.1	+2.0
CBIJ				eS	Sn	14 00 18.8	+0.2
JHJ	Hachijo jima 2	8.66	351	P	Pn	14 01 03.4	-0.6
	66nm,0.7s,baz=233,slow=20,SNR=1.4						
BSO3	Boso 3	10.26	356	eP	Pn	14 01 22.6	-2.3
BSO4	Boso 4	10.46	356	eP	Pn	14 01 25.0	-2.8
MJAR	Matsushiro Arr	12.27	348	P	Pn	14 01 49.3	-2.2
	0.5nm,0.4s,baz=156,slow=9.6,SNR=5.5						
KSRS	Korea Array	17.23	322	P	Pn	14 02 55.8	+2.4
	1.2nm,0.8s,baz=134,slow=12,SNR=4.2						
MMRI	Maumere	37.85	212	P	P	14 06 13.1	+8.8
CMAR	Chiang Mai Arr	39.77	270	P	P	14 06 21.9	+1.6
	0.5nm,0.5s,baz=74,slow=7.7,SNR=5.2						
	0.5nm,0.5s						
WRA	Warramunga Arr	44.72	189	P	P	14 06 59.7	-0.6
	1.3nm,0.6s,baz=10,slow=8.6,SNR=15						
WRA				LR	LR	14 25 18.0	
	comp=Z,160nm,21.5s,baz=270,slow=35						
	1.3nm,0.6s						
ASAR	Alice Springs	48.45	189	P	P	14 07 28.6	-0.6
	0.2nm,0.5s,baz=18,slow=11,SNR=4.4						
	0.2nm,0.5s						
MKAR	Makanchi Array	51.53	311	P	P	14 07 52.7	+0.3
	0.5nm,0.4s,baz=87,slow=10,SNR=13						
	0.5nm,0.4s						
BVAR	Borovoye Array	59.41	318	P	P	14 08 48.0	-0.5
	0.3nm,0.4s,baz=78,slow=7.7,SNR=2.7						
	0.3nm,0.4s						
FINES	FINESS Array B	79.89	334	P	P	14 10 51.5	-2.1
	3.1nm,1.0s,baz=45,slow=3.0,SNR=3.6						
	3.1nm,1.0s						
MMAI	Mount Meron Ar	89.19	306	P	P	14 11 41.1	+0.1
	3.2nm,0.8s,baz=38,slow=7.3,SNR=3.5						
	3.2nm,0.8s						

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*IDC **05** 14:05:26.6±3.6, 8°.79S×121°.18E, h145^{km}±34^{km}, mb3.4/7, mbtmp3.9/10, Error ellipse: s-maj=48.8km s-min=11.5km az=59.0*

*DJA **05** 14:05:27.2±0.3, 9°S±3°×12°1E±°, h134^{km}±3^{km}, M4.4/18, mb4.5/10, mB5.4/5, MLv4.1/18, Mw(mB)4.9/5*

ISC 05 14:05:26.8±0.6, **9°.12S**±0°.05×**120°.97E**±0°.04, **h150**^{km}, **n38**, σ**2^s.23**/46, **mb3.6**/7, **Sumba region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WSI	Waingapu	0.86	230	P	Pn	14 05 50.1	-0.3
WSI				S	Sn	14 06 07.3	-1.1
WSI				AML	AML		
LBFI	Labuhan Bajo,	1.24	301	P	Pn	14 05 53.0	-0.7
MMRI	Maumere	1.35	69	P	Pn	14 05 53.6	-1.2
MMRI	Maumere	1.35	69	P	Pn	14 05 53.5	-1.2
MMRI				S	Sn	14 06 15.2	-1.0
MMRI				AML	AML		
PLAI	Plampang	3.16	275	P	Pn	14 06 16.5	+0.3
PLAI	Plampang	3.16	275	S	Sn	14 06 53.3	-1.2
PLAI	Plampang	3.16	275	P	Pn	14 06 16.9	+0.7
PLAI				S	Sn	14 06 53.9	-0.6
PLAI				AML	AML		
SOEI	Soe	3.32	101	P	Pn	14 06 18.6	+0.2
SOEI	Soe	3.32	101	S	Sn	14 06 57.9	-0.4
SOEI	Soe	3.32	101	P	Pn	14 06 18.9	+0.5
SOEI				S	Sn	14 06 58.3	0.0
SOEI				AML	AML		
KAPI	Kappang	4.25	343	P	Pn	14 06 30.9	+0.5
KAPI	Kappang	4.25	343	S	Sn	14 07 23.0	+3.1
KAPI	Kappang	4.25	343	P	Pn	14 06 30.0	-0.4
KAPI				AML	AML		
KHKI	Kahang-Kahang	5.35	278	P	Pn	14 06 44.9	+0.1
	0.2nm44nm,0.6s						
KHKI				S	Sn	14 07 44.2	-1.6
	0.2nm44nm,0.6s						
KHKI				AML	AML		
KDI	Kendari	5.38	18	P	Pn	14 06 44.3	-1.1
	0.1nm40nm,0.9s						
KDI				S	Sn	14 07 45.7	-1.0
	0.1nm40nm,0.9s						
KDI				AML	AML		
IGBI	Denpasar	5.76	273	P	Pn	14 06 49.6	-0.7
	4µm172nm,0.8s						
JAGI	Jajag, Banyuwa	6.76	275	P	Pn	14 07 01.1	-2.6
	0.4nm30nm,0.6s						
JAGI				AML	AML		
SNJI	Sawahan-Nganju	9.20	278	P	Pn	14 07 38.1	+1.6
	27nm,0.5s						
PCJI	Pacitan	9.72	275	P	Pn	14 07 42.5	-0.7
FITZ	Fitzroy Crossi	10.01	154	P	Pn	14 07 47.8	+0.7
	2.7nm,0.3s,baz=334,slow=11,SNR=34						
FITZ				S	Sn	14 09 33.0	-4.9
	12nm,0.5s,baz=315,slow=19,SNR=10						
DRS	Darwin Rock St	10.30	110	P	Pn	14 07 52.2	+1.4
UGM	Wanagama	10.40	276	P	Pn	14 07 54.6	+2.4
MBWA	Marble Bar	12.03	186	P	Pn	14 08 14.3	+0.8
FAKI	Fak Fak	12.80	62	P	P	14 08 28.7	+0.1
BBJI	Bungbulang	13.28	276	P	P	14 08 32.6	-1.5
WRA	Warramunga Arr	16.82	131	P	Pn	14 09 15.1	+1.5
	0.4nm,0.3s,baz=303,slow=14,SNR=21						
WRA				S	S	14 12 11.9	-8.8
	4.1nm,0.6s,baz=308,slow=25,SNR=14						
WRAB	Tennant Creek	16.82	131	P	Pn	14 09 16.6	+3.0
MEEK	Meekatharra	17.57	187	P	Pn	14 09 25.6	+3.1
ASAR	Alice Springs	19.04	141	P	Pn	14 09 39.8	-0.1
	3.6nm,0.7s,baz=309,slow=9.8,SNR=34						
ASAR				S	S	14 13 07.5	+1.8
	2.1nm,0.6s,baz=326,slow=22,SNR=9.0						
MORW	Morawa	20.38	192	P	Pn	14 09 55.5	-0.1
BLDU	Ballidu	21.75	190	P	P	14 10 09.1	+2.6
STKA	Stephens Creek	29.65	143	P	P	14 11 21.2	+2.9
	0.9nm,0.7s,baz=325,slow=13,SNR=1.8						
	0.9nm,0.7s						
SONM	Songino Array	58.16	348	P	P	14 15 02.6	-2.3
	0.2nm,0.3s,baz=146,slow=10,SNR=1.6						
	0.2nm,0.3s						
MKAR	Makanchi Array	65.46	332	P	P	14 15 52.2	-1.5
	0.3nm,0.4s,baz=139,slow=8.3,SNR=7.3						
	0.3nm,0.4s						
PETK	Petropavlovsk-	69.42	23	P	P	14 16 18.4	0.0
	1.3nm,0.9s,baz=215,slow=7.0,SNR=2.1						
	1.3nm,0.9s						
ZALV	Zalesovo Beam	69.86	338	P	P	14 16 18.9	-2.1
	0.9nm,0.4s,baz=134,slow=4.4,SNR=4.5						
	0.9nm,0.4s						
KURBB	Kurchatov Arra	69.95	333	P	P	14 16 20.4	-1.3
	0.3nm,0.2s,baz=140,slow=4.2,SNR=1.2						
	0.3nm,0.2s						
QSPA	South Pole Qui	80.88	180	P	P	14 17 27.7	+3.7
	0.7nm,0.6s,baz=325,slow=1.2,SNR=6.1						
	0.7nm,0.6s						

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*SOME **05** 14:16:13.5, 48°.85N×81°.63E, h15^{km}*

*NNC **05** 14:16:14.5±1.6, 48°.90N×81°.60E, h1^{km}±11^{km}, mb3.5, mpv3.2, Error ellipse: s-maj=17.2km s-min=6.7km az=63.0, Suspected Mining explosion.*

ISC 05 14:16:12.5±1.1, **48°.81N**±0°.05×**81°.55E**±0°.06, **h0**^{km}, **n13**, σ**0^s.65**/19, **6C-3D**, **Eastern Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SEM	Semipalatinsk	1.81	333	P	Pb	14 16 46.3	-0.2
	69nm,0.3s						
SEM				S	Sb	14 17 10.1	+0.3
	65nm,0.2s						
SEM	Semipalatinsk	1.81	333	eP	Pb	14 16 46.4	-0.2
	69nm,0.3s						
SEM				eS	Sb	14 17 10.1	+0.3
	65nm,0.2s						
MAKZ	Makanchi	2.03	172	⇓Pn	Pg	14 16 51.4	+0.1
	3.5nm,0.4s						
MAKZ				⇑Sn	Sg	14 17 18.2	+0.7
	33nm,0.5s						
MK31	Makanchi Array	2.08	166	⇓Pn	Pg	14 16 51.8	-0.5
	0.9nm,0.2s,baz=356,slow=13,SNR=237						
MK31				⇑Sn	Sg	14 17 19.7	+0.4
	26nm,0.4s,baz=355,slow=25,SNR=35						
ZSN	Zaisan	2.61	120	Pg	Pb	14 16 59.9	-0.2
	12nm,0.3s						
ZSN				Lg	Lg	14 17 32.9	
	75nm,0.3s						
ZSN	Zaisan	2.61	120	eP	Pb	14 16 59.9	-0.2
	12nm,0.3s						
ZSN				eS	Sb	14 17 32.9	+0.3
	75nm,0.3s						
KURBB	Kurchatov Arra	2.67	314	⇓Pg	Pb	14 17 01.5	+0.5
	2.8nm,0.3s						
KURBB				⇑Lg	Lg	14 17 37.5	
	69nm,0.5s						
KURK	Kurchatov	2.69	316	⇑Pg	Pb	14 17 01.7	+0.2
	1.2nm,0.4s						
KURK				⇑Lg	Lg	14 17 36.8	
	7.5nm,0.3s						
KAPS	Kapalarasan	3.83	204	Pg	Pg	14 17 25.1	-0.8
	1.9nm,0.1s						
KAPS				Lg	Lg	14 18 16.3	
	18nm,0.1s						
KAPS	Kapalarasan	3.83	204	eP	Pg	14 17 25.1	-0.8
	1.9nm,0.1s						
KAPS				eS	Sg	14 18 16.3	+0.7
	18nm,0.1s						
ARXS	Arharly	5.27	211	Pg	Pg	14 17 52.3	-1.1
	1.2nm,0.5s						
ARXS				Lg	Lg	14 19 02.6	
	8.6nm,0.4s						
ARXS	Arharly	5.27	211	eP	Pg	14 17 52.3	-1.1
	1.2nm,0.5s						

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
ARXS				eS	Sg	14 19 02.6	+1.0
	8.6nm,0.4s						
PDGK	Podgornoye	5.67	195	⇑Lg	Lg	14 19 19.8	
	7.6nm,0.7s						

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*UCR **05** 14:32:19.9±0.4, 8.°32N×83.°01W, h6^{km}±2^{km}, MW4.3, Presumed earthquake*
*UPA **05** 14:32:19.9±1.9, 8.°34N×83.°00W, h5^{km}±5^{km}, MW4.0, Presumed earthquake*
*CATAC **05** 14:32:22.5±0.3, 9°N±3°×8°3W±°, h10^{km}±1^{km}, M3.8/17, MLv3.8/17, Error ellipse: s-maj=6.5km s-min=3.0km az=14.7, confirmed*
ISC 05 14:32:20.2±0.9, **8.°36N**±0.°03×**83.°01W**±0.°02, **h12**^{km}±8^{km}, **n72**, σ**1^{s}03**/99, **2C-4D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTPM	Petroterminale	0.20	139	⇑iP	Pg	14 32 24.5	-0.1
PTPM				eS	Sg	14 32 28.0	+0.4
PTPA	Petro Terminal	0.21	138	eP	Pg	14 32 24.4	-0.4
PTPA				eS	Sg	14 32 27.7	-0.1
CDITO	Canoas	0.25	33	P	Pb	14 32 26.4	-0.5
CDITO				S	Sb	14 32 32.0	+0.7
LIMO3	Limones	0.29	150	⇓iP	Pg	14 32 26.2	-0.1
LIMO3				eS	Sg	14 32 31.1	+0.8
NELY	Ciudad Neily	0.30	13	eP	Pb	14 32 27.1	-0.5
NELY	Ciudad Neily	0.30	13	eS	Sb	14 32 33.3	+0.8
LMNES	Limones	0.30	150	eP	Pg	14 32 26.1	-0.2
PIRO	Carate, Puerto	0.32	278	P	Pb	14 32 27.4	-0.6
PIRO	Carate, Puerto	0.32	278	eP	Pg	14 32 26.7	0.0
PIRO	Carate, Puerto	0.32	278	eP	Pg	14 32 26.8	0.0
PIRO				eS	Sg	14 32 31.8	+0.6
JIME	Puerto Jimenez	0.36	300	eP	Pg	14 32 27.6	+0.2
VITO	San Vito	0.46	5	eP	Pb	14 32 30.4	0.0
VITO	San Vito	0.46	5	eS	Sb	14 32 36.5	-0.8
MLIR3	Monte Lirio, C	0.47	23	⇓iP	Pb	14 32 30.7	+0.1
MLIR3				eS	Sb	14 32 38.1	+0.6
SCLRA	Santa Clara, W	0.52	26	eP	Pb	14 32 31.3	-0.2
SCLRA	Santa Clara, W	0.52	26	iP	Pb	14 32 31.5	0.0
BRU2	Volcan	0.54	36	P	Pb	14 32 31.6	-0.2
BRU2				S	Sg	14 32 38.7	+0.7
BRU2	Volcan	0.54	36	eP	Pb	14 32 31.4	-0.3
BRU2	Volcan	0.54	36	⇓iP	Pb	14 32 31.5	-0.3
BRU2				eS	Sb	14 32 41.4	+1.8
CLLRA	Cordillera,	0.55	46	eP	Pb	14 32 31.6	-0.4
CLLRA	Cordillera,	0.55	46	iP	Pb	14 32 31.5	-0.4
CLLRA				eS	Sb	14 32 40.7	+0.8
DVD	David	0.56	82	eP	Pg	14 32 31.0	-0.2
DVD				eS	Sb	14 32 40.5	+0.4
PTAR3	Potrerillos Ar	0.61	57	iP	Pg	14 32 32.5	+0.3
PTAR3				eS	Sb	14 32 42.9	+1.4
LOMA3	Las Lomas, Chi	0.62	83	eP	Pg	14 32 31.9	-0.4
LOMA3				eS	Sb	14 32 42.4	+0.7
EDP2	Potrero Grande	0.67	346	eP	Pb	14 32 33.7	-0.2
BQTLY	Boquete Panama	0.68	54	eP	Pg	14 32 33.3	-0.1
BQTLY	Boquete Panama	0.68	54	iP	Pb	14 32 35.0	+0.9
BQSF3	Alto Boquete,	0.69	56	eP	Pg	14 32 33.6	-0.1
BQSF3				eS	Sb	14 32 44.3	+0.5
BGUAL	Bijagual, Pana	0.69	77	iP	Pg	14 32 32.7	-0.9
BGUAL				eS	Sb	14 32 43.5	-0.2
PANP	Palmar Norte	0.74	324	eP	Pg	14 32 34.2	-0.5
BURE	Buenos Aires	0.87	338	eP	Pg	14 32 37.0	-0.1
DRK0	Durika	0.93	346	eP	Pg	14 32 24.1	-14
DRK0	Durika	0.93	346	iP	Pg	14 32 24.1	-14
DRK0				eS	Sg	14 32 38.7	-12
OCHAL	Ojochal	0.96	320	P	Pg	14 32 38.3	-0.6
OCHAL				S	Sg	14 32 49.7	-1.8
EDPE	Pejibaye, P	0.97	325	eP	Pg	14 32 38.1	-0.9
RBALA	Bur	0.99	59	eP	Pg	14 32 38.4	-1.1
RBALA	Bur	0.99	59	eP	Pg	14 32 38.4	-1.1
RBALA				eS	Sg	14 32 52.4	-0.1
CHGR2	Aguacate	1.03	56	eP	Pg	14 32 39.1	-1.0
SAJE	San Jernim	1.10	333	eP	Pg	14 32 40.3	-1.2
CNI2	El Empalme, Bo	1.19	27	eP	Pb	14 32 41.6	-1.1
CNI2				eS	Sb	14 32 57.5	-0.5
KKNTU	Kakintº	1.28	68	eP	Pn	14 32 42.5	-1.6
KKNTU	Kakintº	1.28	68	iP	Pn	14 32 42.1	-1.9
RGM0	Gandoca	1.29	18	P	Pg	14 32 45.4	+0.4
RGM0				S	Sn	14 33 01.6	+0.3
RGM0	Gandoca	1.29	18	eP	Pg	14 32 45.3	+0.3
QUEP	Quepos	1.56	313	P	Pn	14 32 48.3	+0.5
QUEP				S	Sn	14 33 08.3	+0.3
PIEC	Cerro El Cedra	1.56	323	eP	Pn	14 32 48.8	+0.6
PITB	Pirrs, San	1.64	322	eP	Pb	14 32 50.7	+0.2
LCR2	La Lucha 2	1.69	325	P	Pn	14 32 50.6	+0.7
LCR2				S	Sg	14 33 15.3	+0.6
LCR2	La Lucha 2	1.69	325	eP	Pn	14 32 50.4	+0.6
LCR2	La Lucha 2	1.69	325	⇑iP	Pn	14 32 50.4	+0.6
LCR2				eS	Sg	14 33 13.8	-0.9
VINA	Juan Vinas	1.69	335	eP	Pn	14 32 50.5	+0.8
ABRB	Las Abras (San	1.78	337	eP	Pn	14 32 51.9	+0.8
CVTQ	Turrialba Volc	1.80	336	eP	Pn	14 32 52.5	+1.0
LCOCO	El Coco	1.80	343	eP	Pb	14 32 52.4	-0.8
VTR0	Volcan Turrial	1.81	336	eP	Pn	14 32 52.3	+0.7
CVTR	Volcan Turrial	1.81	336	eP	Pn	14 32 52.5	+0.8
GMAL	Guarumal, Vera	1.86	108	eP	Pn	14 32 51.2	-0.8
SAFE3	Santa Fe, Vera	1.92	85	eP	Pn	14 32 52.5	-0.4
TCS1	Tacares	2.10	323	P	Pn	14 32 56.9	+1.5
TCS1				S	Sg	14 33 26.9	-1.0
CALO3	Calobre, Verag	2.15	91	eP	Pn	14 32 56.4	+0.5
CACAO	El Cacao, Vera	2.36	115	eP	Pn	14 32 58.7	-0.1
CHIT3	Chitre	2.60	99	eP	Pn	14 33 02.6	+0.4
JTS	Las Juntas de	2.71	315	P	Pb	14 33 06.8	-2.0
JTS				S	Sn	14 33 38.0	+1.5
COVE	Coope Vega, Sa	2.72	330	P	Pn	14 33 05.5	+1.7
COVE				S	Sn	14 33 37.9	+1.2
AZU	Azuero	2.77	102	eP	Pn	14 33 04.6	+0.1
CMARA	Lajas Hojancha	2.90	305	P	Pn	14 33 07.4	+1.1
CMARA				S	Sn	14 33 42.1	+0.9
CMARA	Lajas Hojancha	2.90	305	⇓iP	Pn	14 33 07.3	+1.0
ZANG	Zanguenga, Cho	3.17	79	eP	Pn	14 33 08.6	-1.4
BCIP	Isla Barro Col	3.24	75	P	Pn	14 33 14.2	+3.2
BCIP				S	Sb	14 33 54.7	-2.5
BLUN	Bluefields	3.70	348	P	Pn	14 33 18.8	+1.4
BLUN				S	Sn	14 34 02.4	+1.4
CARN	Rivas	3.74	319	P	Pn	14 33 19.2	+1.2
CARN				S	Sn	14 34 03.2	+1.2
MASN	Masaya	4.75	320	P	Pn	14 33 33.2	+1.4
MASN				S	Pg	14 33 47.3	-3.9

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*AZER **05** 14:32:48.0, 41.°79N×46.°23E, h6^{km}, ml2.2*
*MOS **05** 14:32:51.0, 41.°89N×46.°34E, h22^{km}, MPVA3.4*
*NORS **05** 14:32:51.4, 41.°89N×46.°27E, h8^{km}, MPVA3.1*
*DRS **05** 14:32:52.2, 41.°86N×46.°27E, h24^{km}*
ISC 05 14:32:51.9±1.2, **41.°86N**±0.°02×**46.°25E**±0.°04, **h21**^{km}±3^{km}, **n26**, σ**1^{s}59**/50, **Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZKTA	Zakatala	0.35	129	P	Pb	14 32 57.3	-2.1
ZKTA				S	Sb	14 33 02.8	-1.8
KMKR	Kumukh	0.69	67	ePg	Pb	14 33 04.3	-1.1
KMKR				eSg	Sb	14 33 14.1	-0.4
GNBR	Gunib	0.75	45	ePg	Pb	14 33 05.6	-0.6
GNBR				eSg	Sn	14 33 16.3	-1.7
XNZR	Khunzakh	0.76	26	ePg	Pn	14 33 06.4	-1.1
XNZR				eSg	Sn	14 33 17.4	-1.0
BTLR	Botlikh	0.80	358	ePg	Pn	14 33 07.2	-0.8
BTLR				eSg	Sn	14 33 17.9	-1.5
ARKR	Arakani	0.93	36	ePg	Pn	14 33 09.0	-0.7
ARKR				eSg	Sn	14 33 21.5	-0.8
UNCR	Uncukul	0.94	25	ePg	Pn	14 33 09.3	-0.6
UNCR				eSg	Sn	14 33 22.4	-0.4
SEKA	Sheki	0.96	132	P	Pb	14 33 09.1	-0.8
SEKA				S	Sn	14 33 23.2	-0.1
QZX	Qazax, Azerbai	1.04	220	P	Pn	14 33 09.6	-1.6
QZX				S	Sn	14 33 26.3	+1.2
URKR	Urkarakh	1.07	73	ePg	Pb	14 33 11.6	-0.2
URKR				eSg	Sn	14 33 26.4	+0.2
KRNR	Karanay	1.08	26	ePg	Pb	14 33 11.8	-0.2
KRNR				eSg	Sn	14 33 26.5	+0.2
BUJR	Buynaksk	1.16	33	ePg	Pb	14 33 13.0	-0.1
BUJR				eSg	Sn	14 33 28.7	+0.7
AKT	Akhty	1.17	108	ePg	Pb	14 33 13.1	-0.4
AKT				eSg	Sn	14 33 29.0	+0.5
GDB	GEDABAY	1.20	198	P	Pn	14 33 11.5	-2.1
GDB				S	Sn	14 33 27.7	-1.6
SGKR	Sergokala	1.21	60	ePg	Pb	14 33 13.8	-0.2
SGKR				eSg	Sn	14 33 30.1	+0.9
GANJ	Ganja	1.21	177	P	Pn	14 33 12.4	-1.3
GANJ				S	Sn	14 33 28.8	-0.7
DBC	Dubki	1.24	20	ePg	Pb	14 33 14.5	-0.1
DBC				eSg	Sn	14 33 31.3	+1.2
DLMR	Dylym	1.24	13	ePg	Pb	14 33 14.6	-0.1
DLMR				eSg	Sb	14 33 31.4	+1.2
MNGR	Mingechevir, A	1.25	150	P	Pb	14 33 15.7	+0.9
MNGR				S	Sb	14 33 33.3	+2.9
KSMR	Kasumkent	1.43	100	ePg	Pb	14 33 17.5	-0.4
KSMR				eSg	Sb	14 33 36.8	+1.2
MAK	Makhachkala	1.44	40	ePg	Pb	14 33 17.3	-0.6
MAK				eSg	Sb	14 33 37.0	+1.2
XNQ	Khinaliq	1.58	115	Pn	Pb	14 33 19.7	-0.7
XNQ				Sn	Sb	14 33 44.5	+4.5
LACR	Lac	1.74	304	ePg	Pb	14 33 27.7	+4.5
LACR				eSg	Sb	14 33 47.9	+3.2
BRDA	Brd	1.74	156	Sn	Sb	14 33 48.6	+4.0
IML	Ismayilli	1.80	126	Pn	Pb	14 33 24.1	-0.1
IML				Sn	Sb	14 33 50.1	+3.8
AGDM	Agdam	1.87	159	Pn	Pb	14 33 24.3	-1.0
AGDM				Sn	Sb	14 33 50.2	+2.0

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*KRSC **05** 14:40:45.0±1.3, 50.°74N×158.°60E, h49^{km}±22^{km}, Ml4.6*
*MOS **05** 14:40:48.3±1.0, 50.°87N×158.°33E, h63^{km}, mb4.6/3, Error ellipse: s-maj=14.2km s-min=4.1km az=87.9*
*IDC **05** 14:40:52.3±2.5, 50.°92N×158.°09E, h75^{km}±20^{km}, mb3.3/11, mbtmp3.6/13, Error ellipse: s-maj=25.6km s-min=16.6km az=117.0*
ISC 05 14:40:48.0±1.4, **50.°79N**±0.°07×**158.°43E**±0.°06, **h42**^{km}±13^{km}, **n81**, σ**1^{s}19**/90, **mb3.8**/13, **2C-2D, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KDTR	Khodutka, Kamc	1.05	348	PN	Pn	14 41 05.6	-0.6
KDTR				S	Sn	14 41 18.8	-0.8
KDTR	Khodutka, Kamc	1.05	348	eP	Pn	14 41 05.7	-0.6
KDTR				eS	Sn	14 41 18.9	-0.8
PAU	Pauzhetka	1.23	304	PN	Pn	14 41 08.5	-0.2
PAU	Pauzhetka	1.23	304	eP	Pn	14 41 08.5	-0.2
SKR	Severo-Kuril's	1.47	267	ePN	Pn	14 41 12.4	+0.4
SKR				eS	Sn	14 41 30.5	+0.5
SKR				pmax	pmax		
	comp=Z,352nm,0.6s						
SKR				smax	smax		
	comp=E,3µm,0.5s						
SKR				smax	smax		
	comp=N,5µm,0.7s						
SKR	Severo-Kuril's	1.47	267	eP	Pn	14 41 12.4	+0.4
SKR				eS	Sn	14 41 30.7	+0.6
ASAK	Asacha	1.63	349	PN	Pn	14 41 14.2	-0.1
ASAK	Asacha	1.63	349	eP	Pn	14 41 14.3	-0.1
RUS	Russkaya	1.65	2	PN	Pn	14 41 13.8	-0.6
RUS				S	Sn	14 41 34.6	+0.2
RUS	Russkaya	1.65	2	eP	Pn	14 41 13.9	-0.6
RUS				eS	Sn	14 41 34.6	+0.2
MTVR	Mutnovka	1.71	355	PN	Pn	14 41 15.4	0.0
MTVR				S	Sn	14 41 35.8	-0.2
MTVR	Mutnovka	1.71	355	eP	Pn	14 41 15.4	0.0
MTVR				eS	Sn	14 41 35.9	-0.2
GRL	Gorelyy	1.78	353	PN	Pn	14 41 16.8	+0.4
GRL				S	Sn	14 41 38.4	+0.5
GRL	Gorelyy	1.78	353	eP	Pn	14 41 16.8	+0.4
GRL				eS	Sn	14 41 38.4	+0.5
MIPR	Malaya Ipel'ka	1.82	326	PN	Pn	14 41 17.5	+0.7
MIPR	Malaya Ipel'ka	1.82	326	eP	Pn	14 41 17.5	+0.7
KRMR	Karymshinskiy	2.06	355	PN	Pn	14 41 20.6	+0.6
KRMR	Karymshinskiy	2.06	355	eP	Pn	14 41 20.6	+0.6
PET	Petropavlovsk	2.25	3	ePN	Pn	14 41 22.7	+0.1
PET				eS	Sn	14 41 49.0	-0.1
PET				pmax	pmax		
	comp=Z,62nm,0.4s						
PET				smax	smax		
	comp=E,636nm,0.6s						
PET				smax	smax		
	comp=N,805nm,0.5s						
DALK	Dalny	2.26	5	PN	Pn	14 41 22.9	+0.1
DALK				S	Sn	14 41 50.2	+0.8
DALK	Dalny	2.26	5	eP	Pn	14 41 22.9	+0.1
DALK				eS	Sn	14 41 50.3	+0.8
APC	Apacha	2.28	340	PN	Pn	14 41 23.9	+0.8
APC	Apacha	2.28	340	eP	Pn	14 41 24.0	+0.8
INSR	Institute	2.29	3	PN	Pn	14 41 23.7	+0.5
INSR				S	Sn	14 41 51.9	+1.8
INSR	Institute	2.29	3	eP	Pn	14 41 23.7	+0.5
INSR				eS	Sn	14 41 51.9	+1.8
PEA0B	Petropavlovsk-	2.37	349	c iPN	Pn	14 41 25.4	+1.0
PEA0B				eS	Sn	14 41 55.5	+3.3
PETK	Petropavlovsk-	2.37	349	P	Pn	14 41 25.4	+1.0
	comp=N,17nm,0.4s,baz=127,slow=18,SNR=266						
PETK				S	Sn	14 41 54.6	+2.4
	comp=N,27nm,0.5s,baz=158,slow=14,SNR=5.2						
UGLR	Uglovaya	2.44	6	PN	Pn	14 41 27.0	+1.6
UGLR	Uglovaya	2.44	6	eP	Pn	14 41 27.0	+1.6
AVH	Avacha	2.49	4	PN	Pn	14 41 27.4	+1.3
AVH	Avacha	2.49	4	eP	Pn	14 41 27.4	+1.3
SMAR	Somma	2.49	5	PN	Pn	14 41 27.7	+1.5
SMAR	Somma	2.49	5	eP	Pn	14 41 27.8	+1.5
SDLR	Sedlovina	2.51	6	PN	Pn	14 41 26.7	+0.3
SDLR	Sedlovina	2.51	6	eP	Pn	14 41 26.8	+0.3
KOK	Koryaka	2.51	3	PN	Pn	14 41 27.7	+1.3
KOK	Koryaka	2.51	3	eP	Pn	14 41 27.7	+1.3
SPN	Mys Shipunski	2.52	22	PN	Pn	14 41 26.9	+0.5
SPN	Mys Shipunski	2.52	22	eP	Pn	14 41 26.9	+0.5
KRER	Koryakskii	2.53	4	PN	Pn	14 41 27.8	+1.1
KRER	Koryakskii	2.53	4	eP	Pn	14 41 27.9	+1.1
KRX	Arik	2.58	3	PN	Pn	14 41 28.0	+0.6
KRX	Arik	2.58	3	eP	Pn	14 41 28.1	+0.6
GNL	Ganaly	2.93	354	PN	Pn	14 41 33.1	+1.0
GNL	Ganaly	2.93	354	eP	Pn	14 41 33.2	+1.0
KII	Karymskiy	3.31	10	PN	Pn	14 41 39.0	+1.6
KII	Karymskiy	3.31	10	eP	Pn	14 41 39.1	+1.6
MKZ	Mys Kozlova	4.28	27	PN	Pn	14 41 49.7	-0.8
MKZ	Mys Kozlova	4.28	27	eP	Pn	14 41 49.8	-0.8
KPT	Kopyto	5.30	11	PN	Pn	14 42 06.6	+2.0
KPT	Kopyto	5.30	11	eP	Pn	14 42 06.7	+2.0
KBTR	Krutoberegovo	6.03	24	PN	Pn	14 42 14.9	+0.3
KBTR	Krutoberegovo	6.03	24	eP	Pn	14 42 14.9	+0.3
BKI	Bering	6.35	43	PN	Pn	14 42 17.8	-1.1
BKI	Bering	6.35	43	eP	Pn	14 42 17.9	-1.1
YSS	Yuzhno-Sakhali	11.01	256	ePN	Pn	14 43 20.1	-2.7
YSS				pmax	pmax		
	comp=Z,10.0nm,1.4s						
ASAJ	Asahikawa	12.61	244	P	Pn	14 43 45.9	+1.2
	comp=Z,1.9nm,0.8s,baz=63,slow=15,SNR=4.3						
MJAR	Matsushiro Arr	20.32	233	P	P	14 45 22.2	+1.8
	comp=Z,1.5nm,0.9s,baz=37,slow=8.4,SNR=2.5						
	comp=Z,1.5nm,0.9s						
ILAR	Eielson Array	31.20	42	P	P	14 47 03.2	+0.5
	comp=Z,0.4nm,0.8s,baz=261,slow=6.7,SNR=4.0						
	comp=Z,0.4nm,0.8s						
H11N2	WAKE ISLAND Hy	31.71	165	T	T	15 21 08.7	
	baz=350,slow=76,SNR=252						
H11N3	WAKE ISLAND Hy	31.72	165	T	T	15 21 05.9	
	baz=350,slow=76,SNR=152						
H11N1	WAKE ISLAND Hy	31.72	165	T	T	15 21 06.2	
	baz=350,slow=76,SNR=181						
H11S1	WAKE ISLAND Hy	32.87	165	T	T	15 22 31.1	
	baz=350,slow=76,SNR=61						
H11S3	WAKE ISLAND Hy	32.88	165	T	T	15 22 28.6	
	baz=350,slow=76,SNR=62						
H11S2	WAKE ISLAND Hy	32.89	165	T	T	15 22 28.9	
	baz=350,slow=76,SNR=42						
KURK	Kurchatov	48.10	303	⇑eP	P	14 49 21.1	-2.1
KURK				pmax	pmax		
	comp=Z,4.0nm,1.5s						
KURBB	Kurchatov Arra	48.20	303	P	P	14 49 22.1	-1.8
	comp=Z,0.6nm,0.5s,baz=61,slow=7.5,SNR=4.8						
	comp=Z,0.6nm,0.5s						
MK31	Makanchi Array	48.25	297	⇓eP	P	14 49 23.2	-1.2
MKAR	Makanchi Array	48.25	297	P	P	14 49 22.7	-1.7
	comp=Z,0.2nm,0.4s,baz=61,slow=6.6,SNR=6.4						
	comp=Z,0.2nm,0.4s						
MKAR	Makanchi Array	48.25	297	iP	P	14 49 23.3	-1.1
BVAR	Borovoye Array	51.03	309	P	P	14 49 43.4	-2.1
	comp=Z,0.8nm,0.4s,baz=52,slow=6.9,SNR=5.2						
	comp=Z,0.8nm,0.4s						
OBN	Obninsk	63.90	327	eP	P	14 51 14.3	-1.7
OBN				e		14 51 50.5	
OBN				e		14 53 35.3	
OBN				pmax	pmax		
	comp=Z,3.0nm,0.6s						
VSU	Vasula	64.19	334	⇓eP	P	14 51 15.0	-2.8
VSU				pmax	pmax		
	comp=Z,24nm,1.2s						
TXAR	Lajitas Array	72.52	65	P	P	14 52 12.2	+1.7
	comp=Z,0.2nm,0.5s,baz=296,slow=5.3,SNR=3.6						
	comp=Z,0.2nm,0.5s						
EKA	Eskdalemuir Ar	73.14	349	P	P	14 52 13.4	-0.2
	comp=Z,0.4nm,0.3s,baz=17,slow=5.2,SNR=4.6						
	comp=Z,0.4nm,0.3s						
WRA	Warramunga Arr	73.55	204	P	P	14 52 17.5	+1.1
	comp=Z,0.3nm,0.8s,baz=18,slow=6.0,SNR=1.6						
	comp=Z,0.3nm,0.8s						
GERES	GERESS Array B	76.25	337	P	P	14 52 31.8	0.0
	comp=Z,0.4nm,0.3s,baz=6.5,slow=6.7,SNR=2.6						
	comp=Z,0.4nm,0.3s						
ASAR	Alice Springs	77.23	203	P	P	14 52 39.0	+1.6
	comp=Z,0.1nm,0.7s,baz=20,slow=4.8,SNR=1.1						
	comp=Z,0.1nm,0.7s						
MMAI	Mount Meron Ar	82.62	315	P	P	14 53 07.6	+0.8
	comp=Z,1.3nm,0.6s,baz=325,slow=7.0,SNR=2.3						
	comp=Z,1.3nm,0.6s						
H03N2	Juan Fernandez	135.24	90	T	T	17 30 38.1	
	baz=313,slow=76,SNR=187						
H03N1	Juan Fernandez	135.26	90	T	T	17 30 39.6	
	baz=309,slow=76,SNR=141						

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*UCR **05** 14:59:13.6±0.7, 8.°34N×83.°00W, h6^{km}±6^{km}, MW4.0, Presumed earthquake*
*UPA **05** 14:59:13.5±1.1, 8.°31N×82.°97W, h20^{km}±2^{km}, MW3.8, Presumed earthquake*
ISC 05 14:59:13.2±1.1, **8.°32N**±0.°02×**82.°98W**±0.°02, **h16**^{km}±10^{km}, **n44**, σ**0^{s}66**/58, **2C-7D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTPM	Petroterminale	0.15	138	⇑iP	Pb	14 59 17.7	+0.1
PTPM				eS	Sb	14 59 21.9	+1.4
PTPA	Petro Terminal	0.16	136	eP	Pb	14 59 17.8	+0.1
PTPA				eS	Sb	14 59 22.1	+1.3
LIMO3	Limones	0.24	152	iP	Pb	14 59 19.3	+0.1
LIMO3				eS	Sb	14 59 23.4	+0.1
LMNES	Limones	0.24	151	eP	Pb	14 59 19.3	0.0
LMNES	Limones	0.24	151	eP	Pb	14 59 19.3	0.0
LMNES				eS	Sb	14 59 23.8	+0.5
NELY	Ciudad Neily	0.34	6	eP	Pg	14 59 20.4	+0.3
NELY	Ciudad Neily	0.34	6	⇓iP	Pg	14 59 20.5	+0.3
NELY				eS	Sb	14 59 26.6	+0.6
PIRO	Carate, Puerto	0.36	284	eP	Pg	14 59 20.5	-0.2
PIRO	Carate, Puerto	0.36	284	eP	Pg	14 59 20.2	-0.5
PIRO				eS	Sb	14 59 27.6	+0.8
JIME	Puerto Jimenez	0.41	303	eP	Pb	14 59 22.2	+0.1
MLIR3	Monte Lirio, C	0.50	18	⇓iP	Pb	14 59 24.0	+0.3
MLIR3				eS	Sb	14 59 31.5	+0.7
VITO	San Vito	0.50	1	eP	Pb	14 59 23.8	0.0
VITO	San Vito	0.50	1	⇑iP	Pb	14 59 23.8	0.0
DVD	David	0.54	77	iP	Pb	14 59 24.3	0.0
DVD				eS	Sg	14 59 31.2	+0.2
SCLRA	Santa Clara, W	0.55	21	eP	Pb	14 59 24.9	+0.3
SCLRA	Santa Clara, W	0.55	21	eP	Pb	14 59 24.9	+0.3
BRU2	Volcan	0.56	31	eP	Pb	14 59 24.7	+0.1
BRU2	Volcan	0.56	31	⇓iP	Pb	14 59 24.8	+0.1
BRU2				eS	Sb	14 59 34.1	+1.7
CLLRA	Cordillera,	0.56	40	eP	Pb	14 59 24.9	+0.2
CLLRA	Cordillera,	0.56	40	⇓iP	Pb	14 59 25.0	+0.2
CLLRA				eS	Sb	14 59 33.8	+1.2
LOMA3	Las Lomas, Chi	0.59	79	eP	Pg	14 59 25.1	+0.2
PTAR3	Potrerillos Ar	0.61	52	eP	Pb	14 59 25.8	+0.2
PTAR3				eS	Sb	14 59 34.1	+0.1
BQTLY	Boquete Panama	0.68	49	eP	Pb	14 59 26.7	0.0
BQTLY	Boquete Panama	0.68	49	eP	Pb	14 59 26.7	0.0
BQSF3	Alto Boquete,	0.69	52	⇓iP	Pg	14 59 26.7	0.0
BQSF3				eS	Sb	14 59 36.7	+0.4
EDP2	Potrero Grande	0.72	344	eP	Pg	14 59 27.2	-0.2
BURE	Buenos Aires	0.92	337	eP	Pg	14 59 30.3	-0.8
RBALA	Bur	0.99	55	eP	Pb	14 59 31.6	-0.4
RBALA	Bur	0.99	55	⇓iP	Pb	14 59 31.7	-0.4
RBALA				eS	Sb	14 59 44.3	-0.6
EDPE	Pejibaye, P	1.02	325	eP	Pb	14 59 31.4	-1.2
SAJE	San Jernim	1.15	333	eP	Pb	14 59 33.7	-1.1
KKNTU	Kakintº	1.27	66	eP	Pn	14 59 35.7	-0.6
KKNTU	Kakintº	1.27	66	⇓iP	Pn	14 59 35.7	-0.6
KKNTU				eS	Sb	14 59 51.9	-1.0
RGM0	Gandoca	1.32	16	eP	Pg	14 59 38.6	0.0
PIEC	Cerro El Cedra	1.62	323	eP	Pn	14 59 41.8	+0.4
LCR2	La Lucha 2	1.74	325	eP	Pn	14 59 43.6	+0.5
LCR2	La Lucha 2	1.74	325	eP	Pn	14 59 43.5	+0.4
VERB	Verbena	1.77	336	eP	Pn	14 59 42.9	-0.4
PICV	PH. Pirrs	1.77	317	eP	Pn	14 59 44.4	+1.1
VTR0	Volcan Turrial	1.86	336	eP	Pb	14 59 46.4	-0.7
CVTR	Volcan Turrial	1.86	336	eP	Pb	14 59 46.3	-0.8
VICA	Volcano Irazu	1.87	333	eP	Pn	14 59 46.1	+1.2
SAFE3	Santa Fe, Vera	1.89	84	eP	Pn	14 59 43.8	-1.1
CACAO	El Cacao, Vera	2.31	115	eP	Pn	14 59 49.6	-1.0

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*MOS **05** 15:02:32.2±0.8, 49.°04N×155.°92E, h79^{km}, mb4.2/9, Error ellipse: s-maj=16.9km s-min=4.5km az=80.5*
*KRSC **05** 15:02:35.0±1.9, 49.°34N×156.°90E, h16^{km}±31^{km}, Ml4.4*
*IDC **05** 15:02:40.6±2.9, 49.°47N×155.°95E, h88^{km}±21^{km}, mb3.5/12, mbtmp3.8/16, Error ellipse: s-maj=27.2km s-min=14.4km az=153.0*
ISC 05 15:02:35.6±0.8, **49.°26N**±0.°09×**156.°04E**±0.°08, **h54**^{km}, **n76**, σ**1^{s}72**/85, **mb4.0**/18, **2C-5D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	1.42	2	ePN	Pn	15 03 00.2	+1.1
SKR				eS	Sn	15 03 17.6	+0.9
SKR				pmax	pmax		
	comp=Z,282nm,0.5s						
SKR				smax	smax		
	comp=E,2µm,0.4s						
SKR				smax	smax		
	comp=N,2µm,0.3s						
SKR	Severo-Kuril's	1.42	2	eP	Pn	15 03 00.6	+1.5
SKR				eS	Sn	15 03 18.4	+1.7
PAU	Pauzhetka	2.26	12	PN	Pn	15 03 11.9	+1.4
PAU				S	Sn	15 03 38.4	+1.2
PAU	Pauzhetka	2.26	12	eP	Pn	15 03 12.0	+1.4
PAU				eS	Sn	15 03 38.4	+1.2
KDTR	Khodutka, Kamc	2.86	26	PN	Pn	15 03 18.8	+0.1
KDTR	Khodutka, Kamc	2.86	26	eP	Pn	15 03 18.9	+0.1
KDTR				eS	Sn	15 03 49.6	-2.3
MIPR	Malaya Ipel'ka	3.05	8	PN	Pn	15 03 22.3	+1.0
MIPR	Malaya Ipel'ka	3.05	8	eP	Pn	15 03 22.4	+1.0
ASAK	Asacha	3.34	20	PN	Pn	15 03 27.2	+1.8
ASAK	Asacha	3.34	20	eP	Pn	15 03 27.2	+1.8
MTVR	Mutnovka	3.50	22	PN	Pn	15 03 28.5	+0.9
MTVR	Mutnovka	3.50	22	eP	Pn	15 03 28.6	+0.9
MTVR				eS	Sn	15 04 06.5	-1.3
GRL	Gorelyy	3.54	21	PN	Pn	15 03 29.4	+1.3
GRL	Gorelyy	3.54	21	eP	Pn	15 03 29.5	+1.3
GRL				eS	Sn	15 04 08.2	-0.5
RUS	Russkaya	3.54	25	PN	Pn	15 03 28.0	0.0
RUS	Russkaya	3.54	25	eP	Pn	15 03 28.0	0.0
RUS				eS	Sn	15 04 05.8	-2.8
APC	Apacha	3.73	10	PN	Pn	15 03 32.9	+2.2
APC	Apacha	3.73	10	eP	Pn	15 03 32.9	+2.2
KRMR	Karymshinskiy	3.81	19	eS	Sn	15 04 18.6	+3.4
PEA0B	Petropavlovsk-	3.99	15	c iPN	Pn	15 03 36.5	+2.3
PETK	Petropavlovsk-	3.99	15	P	Pn	15 03 36.2	+2.0
	comp=N,7.4nm,0.3s,baz=200,slow=13,SNR=211						
PETK				S	Sn	15 04 21.4	+1.7
	comp=N,4.0nm,0.5s,baz=127,slow=16,SNR=4.3						
PET	Petropavlovsk	4.11	23	ePN	Pn	15 03 37.0	+1.2
PET				pmax	pmax		
	comp=Z,12nm,0.6s						
INSR	Institute	4.14	22	eS	Sn	15 04 24.7	+1.5
DALK	Dalny	4.14	23	PN	Pn	15 03 37.8	+1.6
DALK	Dalny	4.14	23	eP	Pn	15 03 37.9	+1.6
UGLR	Uglovaya	4.32	23	PN	Pn	15 03 40.7	+1.9
UGLR	Uglovaya	4.32	23	eP	Pn	15 03 40.8	+1.9
AVH	Avacha	4.35	22	PN	Pn	15 03 41.7	+2.5
AVH	Avacha	4.35	22	eP	Pn	15 03 41.7	+2.5
KOK	Koryaka	4.35	21	PN	Pn	15 03 41.7	+2.5
KOK	Koryaka	4.35	21	eP	Pn	15 03 41.7	+2.5
SMAR	Somma	4.37	22	PN	Pn	15 03 42.1	+2.6
SMAR	Somma	4.37	22	eP	Pn	15 03 42.1	+2.6
KRER	Koryakskii	4.39	22	PN	Pn	15 03 41.9	+2.0

KRER	**Koryakskii**	**4.39**	**22**	*e*P	**Pn**	**15 03 41.9**	**+2.0**
KRER				*e*S	**Sn**	**15 04 30.4**	**+0.6**
SDLR	**Sedlovina**	**4.40**	**23**	PN	**Pn**	**15 03 40.9**	**+1.0**
SDLR	**Sedlovina**	**4.40**	**23**	*e*P	**Pn**	**15 03 41.0**	**+1.0**
KRX	**Arik**	**4.42**	**21**	PN	**Pn**	**15 03 42.1**	**+1.9**
KRX	**Arik**	**4.42**	**21**	*e*P	**Pn**	**15 03 42.2**	**+1.9**
SPN	**Mys Shipunski**	**4.58**	**32**	PN	**Pn**	**15 03 42.8**	**+0.5**
SPN	**Mys Shipunski**	**4.58**	**32**	*e*P	**Pn**	**15 03 42.8**	**+0.5**
SPN				*e*S	**Sn**	**15 04 31.6**	**-2.7**
GNL	**Ganaly**	**4.59**	**14**	PN	**Pn**	**15 03 45.1**	**+2.5**
GNL	**Ganaly**	**4.59**	**14**	*e*P	**Pn**	**15 03 45.2**	**+2.5**
KUR	**Kuril'sk**	**6.87**	**237**	PN	Pn	15 04 18.9	+5.3
KUR				S	Sn	15 05 37.6	+7.2
ASAJ	**Asahikawa**	**10.57**	**246**	P	Pn	15 05 09.7	+5.4
	comp=Z,2.1nm,0.8s,baz=325,slow=28,SNR=4.7						
KLR	**Kul'dur**	**15.85**	**279**	P	**P**	**15 06 18.9**	**+1.0**
	comp=Z,1.1nm,0.7s,baz=93,slow=12,SNR=3.8						
YAK	**Yakutsk**	**19.43**	**321**	P	**P**	**15 06 56.5**	**-0.7**
	comp=Z,7.7nm,0.5s,baz=47,slow=1.1,SNR=2.8						
YAK	**Yakutsk**	**19.43**	**321**	*e*P	**P**	**15 06 56.3**	**-0.9**
YAK				pmax	pmax		
	comp=Z,10.0nm,1.5s						
YAK				pmax	pmax		
	comp=N,4.0nm,1.9s						
YAK				pmax	pmax		
	comp=E,6.0nm,1.5s						
TIXI	**Tiksi**	**25.68**	**340**	⇓*e*P	**P**	**15 07 59.7**	**-0.3**
TIXI				pmax	pmax		
	comp=Z,3.0nm,0.6s						
H11N2	**WAKE ISLAND Hy**	**30.72**	**160**	T	T	15 41 45.8	
	baz=347,slow=76,SNR=7.0						
H11N1	**WAKE ISLAND Hy**	**30.74**	**160**	T	T	15 41 46.5	
	baz=347,slow=76,SNR=8.8						
H11N3	**WAKE ISLAND Hy**	**30.74**	**160**	T	T	15 41 43.1	
	baz=347,slow=76,SNR=9.7						
H11S1	**WAKE ISLAND Hy**	**31.86**	**161**	T	T	15 43 09.8	
	baz=347,slow=76,SNR=95						
H11S3	**WAKE ISLAND Hy**	**31.87**	**161**	T	T	15 43 11.1	
	baz=347,slow=76,SNR=97						
H11S2	**WAKE ISLAND Hy**	**31.88**	**161**	T	T	15 43 13.9	
	baz=347,slow=76,SNR=53						
ULN	**Ulaanbaatar**	**32.00**	**286**	⇓*e*P	**P**	**15 08 57.9**	**+1.2**
ULN				pmax	pmax		
	comp=Z,5.0nm,2.2s						
ILAR	**Eielson Array**	**33.36**	**41**	P	**P**	**15 09 08.4**	**+0.2**
	comp=Z,0.2nm,0.7s,baz=267,slow=8.7,SNR=4.6						
	comp=Z,0.2nm,0.7s						
ZALV	**Zalesovo Beam**	**42.77**	**305**	P	**P**	**15 10 26.9**	**-0.6**
	comp=Z,0.6nm,0.3s,baz=57,slow=7.1,SNR=3.9						
	comp=Z,0.6nm,0.3s						
ZALV	**Zalesovo Beam**	**42.77**	**305**	*e*P	**P**	**15 10 26.4**	**-1.0**
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.4s						
MK31	**Makanchi Array**	**47.55**	**297**	⇓*e*P	**P**	**15 11 05.5**	**0.0**
MKAR	**Makanchi Array**	**47.55**	**297**	P	**P**	**15 11 05.7**	**+0.2**
	comp=Z,0.6nm,0.6s,baz=69,slow=6.1,SNR=8.1						
MKAR				PcP	**PcP**	**15 12 34.8**	**+0.2**
	comp=Z,0.1nm,0.6s,baz=104,slow=4.6,SNR=1.5						
	comp=Z,0.6nm,0.6s						
KURK	**Kurchatov**	**47.63**	**303**	⇓*i*P	**P**	**15 11 05.9**	**-0.1**
KURK				pmax	pmax		
	comp=Z,7.0nm,2.3s						
KURBB	**Kurchatov Arra**	**47.73**	**303**	P	**P**	**15 11 06.5**	**-0.2**
	comp=Z,0.6nm,0.3s,baz=64,slow=8.2,SNR=7.7						
KURBB				PcP	**PcP**	**15 12 34.9**	**-0.2**
	comp=Z,0.3nm,0.3s,baz=64,slow=3.0,SNR=4.2						
	comp=Z,0.6nm,0.3s						
BVAR	**Borovoye Array**	**50.79**	**309**	P	**P**	**15 11 29.8**	**-0.3**
	comp=Z,1.0nm,0.3s,baz=61,slow=8.6,SNR=12						
	comp=Z,1.0nm,0.3s						
BORK	**Borovoye**	**50.82**	**309**	⇓*i*P	**P**	**15 11 29.4**	**-0.9**
BORK				pmax	pmax		
	comp=Z,4.0nm,2.0s						
ARTI	**Arti**	**54.59**	**317**	*c i*P	**P**	**15 11 57.6**	**-0.5**
ARTI				*PP	**sP**	**15 12 16.2**	**-2.5**
ARTI				S	**S**	**15 19 30.3**	**-3.1**
ARTI				SS	**SS**	**15 23 09.4**	**-6.5**
ARTI				pmax	pmax		
	comp=Z,2.0nm,0.8s						
CMAR	**Chiang Mai Arr**	**54.86**	**257**	P	**P**	**15 12 02.1**	**+1.6**
	comp=Z,0.4nm,0.8s,baz=34,slow=5.5,SNR=2.5						
	comp=Z,0.4nm,0.8s						
NVAR	**Mina Array Bea**	**59.56**	**65**	P	**P**	**15 12 34.6**	**+0.9**
	comp=Z,0.6nm,0.7s,baz=315,slow=7.4,SNR=2.7						
	comp=Z,0.6nm,0.7s						
FINES	**FINESS Array B**	**62.59**	**335**	P	**P**	**15 12 53.4**	**-0.1**
	comp=Z,0.6nm,0.3s,baz=37,slow=6.8,SNR=8.0						
	comp=Z,0.6nm,0.3s						
FINES	**FINESS Array B**	**62.59**	**335**	*e*P	**P**	**15 12 53.3**	**-0.2**
FINES				pmax	pmax		
	comp=Z,1.0nm,0.3s						
OBN	**Obninsk**	**64.33**	**326**	*e*P	**P**	**15 13 04.2**	**-0.9**
OBN				*e**PP	**sP**	**15 13 24.0**	**-1.9**
OBN				*e*		15 13 37.6	
OBN				*e*		15 15 27.5	
OBN				*e*PPP	PPP	15 16 58.7	
OBN				pmax	pmax		
	comp=Z,5.0nm,0.7s						
SCHQ	**Schefferville**	**70.22**	**25**	P	**P**	**15 13 43.6**	**+1.2**
	comp=Z,3.4nm,0.8s,baz=21,slow=9.6,SNR=2.5						
	comp=Z,3.4nm,0.8s						
EKA	**Eskdalemuir Ar**	**74.33**	**348**	P	**P**	**15 14 07.1**	**+0.2**
	comp=Z,0.5nm,0.3s,baz=20,slow=5.3,SNR=7.6						
	comp=Z,0.5nm,0.3s						
TXAR	**Lajitas Array**	**74.57**	**63**	P	**P**	**15 14 09.4**	**+0.5**
	comp=Z,0.2nm,0.4s,baz=291,slow=4.5,SNR=5.0						
	comp=Z,0.2nm,0.4s						
GERES	**GERESS Array B**	**77.02**	**336**	P	**P**	**15 14 23.0**	**+0.4**
	comp=Z,0.6nm,0.4s,baz=5.7,slow=5.4,SNR=5.3						
	comp=Z,0.6nm,0.4s						
GERES	**GERESS Array B**	**77.02**	**336**	*e*P	**P**	**15 14 23.0**	**+0.4**
GERES				pmax	pmax		
	comp=Z,1.0nm,0.4s						

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*NIED **05** 15:13:16.9,39°.85N×139°.61E,h9^{km},MW3.6,Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M$_{rr}$-0.73; M$_{\theta\theta}$1.92; M$_{\phi\phi}$-1.19; M$_{r\theta}$0.37; M$_{\theta\phi}$2.18; M$_{\phi r}$0.15; Fault plane solution: M$_0$2.70000×10^{14} NP1:ϕ_s18.00000°, δ85.00000°,λ177.00000°. NP2:ϕ_s108.00000°,δ87.00000°, λ5.00000°.*

*JMA **05** 15:13:16.9±0.1,39°.9N±0°.2×139°.6E±0°.5,h9^{km},MV3.5/40, OGA PENINSULA REGION*

JMA Felt I J1 at OGA PENINSULA REGION .

*IDC **05** 15:13:17.5±1.1,39°.86N×139°.41E,h0^{km},mb3.4/2, mbtmp3.3/6,ML3.0/3,MS3.0/1,Error ellipse: s-maj=20.9km s-min=13.5km az=117.0*

ISC 05 15:13:17.4±0.7**,39°.85N**±0°.03×**139°.51E**±0°.03**,h10^{km},n15, σ2^{s}43**/24**,6D,Near west coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JOG3	**Oga3**	**0.34**	**282**	⇓*i*P	**Pg**	**15 13 20.6**	**-3.5**
JOG3				⇓*e*S	**Sg**	**15 13 23.4**	**-5.2**
JYW	**Yuwa**	**0.62**	**120**	*i* P	**Pg**	**15 13 27.8**	**-1.7**
JYW				S	**Sg**	**15 13 35.9**	**-1.7**
JNTW	**Noshirotokiwa**	**0.65**	**50**	⇓*i*P	**Pg**	**15 13 29.0**	**-1.1**
JNTW				⇓S	**Sg**	**15 13 38.1**	**-0.6**
JTB	**Tobi-shima**	**0.66**	**177**	*i* P	**Pg**	**15 13 29.6**	**-0.5**
JTB				S	**Sg**	**15 13 38.7**	**-0.1**
JIW	**Iwasaki**	**0.83**	**27**	*i* P	**Pg**	**15 13 32.3**	**-1.2**
JIW				S	**Sg**	**15 13 43.5**	**-0.9**
JAH	**Hinai**	**0.93**	**68**	⇓*i*P	**Pg**	**15 13 32.9**	**-2.4**
JAH				⇓S	**Sg**	**15 13 44.3**	**-3.1**
JRG	**Rokugo**	**0.98**	**117**	*i* P	**Pg**	**15 13 33.9**	**-2.4**
JRG				S	**Sg**	**15 13 46.4**	**-2.6**
JYK	**Kaneyama**	**1.14**	**145**	*i* P	**Pb**	**15 13 36.7**	**-2.5**
JYK				S	**Sb**	**15 13 51.9**	**-2.2**
MJAR	**Matsushiro Arr**	**3.46**	**198**	Pn	**Pn**	**15 14 12.6**	**+1.2**
	5.0nm,0.8s,baz=12,slow=14,SNR=14						
MJAR				Sn	**Sn**	**15 14 53.1**	**+0.7**
	0.1nm,0.3s,baz=13,slow=13,SNR=1.6						
ASAJ	**Asahikawa**	**4.84**	**27**	Pn	**Pn**	**15 14 32.9**	**+2.6**
	0.4nm,0.3s,baz=180,slow=16,SNR=6.6						
	0.9nm,0.3s						
ASAJ				AML	AML		
USRK	**Ussuriysk Ar.**	**7.09**	**310**	Pn	**Pn**	**15 15 01.3**	**+0.2**
	0.3nm,0.3s,baz=122,slow=13,SNR=4.8						
	1.2nm,0.4s						
USRK				AML	AML		
KSRS	**Korea Array**	**9.38**	**259**	Pn	**Pn**	**15 15 35.3**	**+2.8**
	0.2nm,0.3s,baz=71,slow=14,SNR=2.0						
KSRS				Sn	**Sn**	**15 17 21.0**	**+3.0**
	0.2nm,0.3s,baz=71,slow=22,SNR=4.9						
	0.7nm,0.4s						
KSRS				AML	AML		
KLR	**Kul'dur**	**10.88**	**332**	LR	LR	15 19 31.4	
	comp=Z,64nm,18.0s,baz=174,slow=34						
ILAR	**Eielson Array**	**47.95**	**34**	P	**P**	**15 21 58.3**	**+2.6**
	0.3nm,0.6s,baz=275,slow=6.0,SNR=5.3						
	0.3nm,0.6s						
WRA	**Warramunga Arr**	**59.68**	**186**	P	**P**	**15 23 23.8**	**+1.8**
	0.3nm,0.6s,baz=9.9,slow=6.4,SNR=1.8						
	0.3nm,0.6s						

IDC 05 15:25:00.1±9.3**,19°.81S**×**177°.20W,h0^{km},mb4.1**/4**, mbtmp4.1**/4**,Error ellipse: s-maj=216.6km s-min=40.8km az=36.0,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	**38.77**	**244**	P	P	15 32 26.3	-0.2
	1.1nm,0.5s,baz=82,slow=13,SNR=4.7						
	1.1nm,0.5s						
ASAR	**Alice Springs**	**45.42**	**256**	P	P	15 33 21.3	+0.3
	3.8nm,0.5s,baz=99,slow=8.1,SNR=73						
	3.8nm,0.5s						
WRA	**Warramunga Arr**	**45.45**	**261**	P	P	15 33 20.8	-0.5
	1.0nm,0.4s,baz=96,slow=8.3,SNR=37						
	1.0nm,0.4s						
VNDA	**Vanda**	**58.66**	**185**	P	P	15 34 58.8	-0.1
	0.7nm,0.5s,baz=18,slow=3.2,SNR=9.8						
	0.7nm,0.5s						

IDC 05 15:25:31.4±11.0**,30°.37S**×**179°.05W,h176^{km}**±105^{km}**, mb3.1**/4**,mbtmp3.6**/5**,Error ellipse: s-maj=53.2km s-min=38.7km az=62.0,Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	**Mont Dzumac**	**15.41**	**299**	P	Pn	15 28 59.9	+0.1
	4.3nm,0.8s,baz=125,slow=16,SNR=1.4						
ASAR	**Alice Springs**	**42.21**	**267**	P	P	15 33 07.1	-0.2
	0.2nm,0.6s,baz=108,slow=7.9,SNR=1.8						
	0.2nm,0.6s						
WRA	**Warramunga Arr**	**43.19**	**273**	P	P	15 33 15.1	-0.1
	0.2nm,0.3s,baz=110,slow=8.2,SNR=8.5						
	0.2nm,0.3s						
QSPA	**South Pole Qui**	**59.74**	**180**	P	P	15 35 17.4	0.0
	0.4nm,0.8s,baz=34,slow=3.6,SNR=1.3						
	0.4nm,0.8s						
ILAR	**Eielson Array**	**98.10**	**13**	P	P	15 38 47.0	-0.3
	0.4nm,0.8s,baz=210,slow=4.3,SNR=2.2						
	0.4nm,0.8s						

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*IDC **05** 15:31:01.2±1.9,31°.69N×142°.61E,h0^{km},mb3.4/6, mbtmp3.4/8,ML2.7/2,Error ellipse: s-maj=59.4km s-min=15.4km az=61.0*

ISC 05 15:31:10.5±1.8**,31°.6N**±0°.2×**141°.7E**±0°.3**,h50^{km},n8, σ1^{s}23**/10**,mb3.5**/6**,Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHJ	**Hachijo jima 2**	**2.22**	**313**	Pn	**Pn**	**15 31 44.0**	**-0.9**
	5.5nm,0.3s,baz=218,slow=17,SNR=6.7						
JHJ				Sn	**Sn**	**15 32 12.1**	**+1.0**
	16nm,0.3s,baz=205,slow=22,SNR=1.7						
	104nm,0.9s						
JHJ				AML	AML		
MJAR	**Matsushiro Arr**	**5.71**	**330**	Pn	**Pn**	**15 32 33.8**	**+1.0**
	0.1nm,0.3s,baz=155,slow=12,SNR=9.5						
MJAR				Sn	**Sn**	**15 33 34.5**	**-2.5**
	0.1nm,0.3s,baz=160,slow=24,SNR=1.8						
	0.8nm,0.3s						
MJAR				AML	AML		
SONM	**Songino Array**	**31.30**	**311**	P	**P**	**15 37 26.3**	**+0.5**
	0.2nm,0.4s,baz=88,slow=10,SNR=1.8						
	0.2nm,0.4s						
ZALV	**Zalesovo Beam**	**45.88**	**316**	P	**P**	**15 39 28.1**	**+0.3**
	0.2nm,0.2s,baz=81,slow=5.5,SNR=1.6						
	0.2nm,0.2s						
MKAR	**Makanchi Array**	**47.37**	**306**	P	**P**	**15 39 40.4**	**+0.8**
	0.1nm,0.5s,baz=77,slow=9.2,SNR=2.4						
	0.1nm,0.5s						
KURBB	**Kurchatov Arra**	**49.66**	**312**	P	**P**	**15 39 57.4**	**+0.4**
	0.4nm,0.7s,baz=84,slow=7.2,SNR=4.5						
	0.4nm,0.7s						
WRA	**Warramunga Arr**	**51.75**	**189**	P	**P**	**15 40 12.3**	**-0.8**
	0.6nm,0.7s,baz=4.0,slow=7.5,SNR=6.4						
	0.6nm,0.7s						
ASAR	**Alice Springs**	**55.48**	**189**	P	**P**	**15 40 40.0**	**-0.3**
	0.3nm,0.6s,baz=5.7,slow=5.4,SNR=4.7						
	0.3nm,0.6s						

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*IDC **05** 15:32:41.6±1.5,19°.47S×177°.69W,h584^{km}±16^{km},mb3.2/5, mbtmp4.2/8,Error ellipse: s-maj=19.4km s-min=15.2km az=36.0*

ISC 05 15:32:42.2±1.1**,19°.4S**±0°.2×**177°.7W**±0°.2**,h600^{km},n12, σ1^{s}35**/16**,mb3.9**/6**,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**4.39**	**291**	P	**P**	**15 34 08.1**	**-2.6**
	13nm,0.4s,baz=140,slow=16,SNR=17						
DZM	**Mont Dzumac**	**15.10**	**257**	P	**P**	**15 35 51.8**	**+0.3**
	5.4nm,0.9s,baz=90,slow=17,SNR=1.7						
URZ	**Urewera**	**19.34**	**193**	P	**P**	**15 36 28.0**	**-1.7**
	7.0nm,0.5s,baz=296,slow=1.6,SNR=19						
STKA	**Stephens Creek**	**38.56**	**243**	P	**P**	**15 39 15.6**	**+0.4**
	3.2nm,0.6s,baz=85,slow=9.2,SNR=12						
	3.2nm,0.6s						
WRA	**Warramunga Arr**	**45.08**	**261**	P	**P**	**15 40 06.2**	**-0.3**
	0.8nm,0.3s,baz=98,slow=7.3,SNR=36						
WRA				PcP	**PcP**	**15 41 34.6**	**+0.5**
	0.2nm,0.4s,baz=98,slow=3.5,SNR=1.7						
WRA				S	**S**	**15 46 03.1**	**-0.1**
	0.8nm,1.0s,baz=94,slow=13,SNR=2.4						
	0.8nm,0.3s						
ASAR	**Alice Springs**	**45.09**	**256**	P	**P**	**15 40 06.8**	**+0.3**
	3.9nm,0.9s,baz=88,slow=8.4,SNR=65						
ASAR				PcP	**PcP**	**15 41 34.4**	**+0.3**
	0.7nm,0.6s,baz=102,slow=3.9,SNR=7.1						
ASAR				S	**S**	**15 46 04.4**	**+1.1**
	0.6nm,0.7s,baz=92,slow=16,SNR=8.8						
	3.9nm,0.9s						
VNDA	**Vanda**	**59.03**	**185**	P	**P**	**15 41 46.6**	**+1.4**
	0.5nm,0.3s,baz=30,slow=1.7,SNR=10						
	0.5nm,0.3s						
JHJ	**Hachijo jima 2**	**66.17**	**322**	P	**P**	**15 42 34.4**	**+2.7**
	100nm,0.9s,baz=187,slow=19,SNR=1.8						
QSPA	**South Pole Qui**	**70.66**	**180**	P	**P**	**15 42 58.5**	**0.0**
	2.0nm,0.7s,baz=11,slow=5.2,SNR=14						
	2.0nm,0.7s						
BRTR	**Keskin Array B**	**146.32**	**314**	PKPbc	**PKPbc**	**15 51 16.2**	**-0.9**
	0.6nm,0.5s,baz=56,slow=3.6,SNR=2.1						
MMAI	**Mount Meron Ar**	**147.53**	**301**	PKPbc	**PKiKP**	**15 51 20.8**	**-1.2**
	0.7nm,0.5s,baz=38,slow=7.3,SNR=1.6						
GERES	**GERESS Array B**	**149.23**	**345**	PKPbc	**PKPbc**	**15 51 23.5**	**-0.7**
	0.1nm,0.3s,baz=303,slow=2.0,SNR=2.6						

NOU 05 15:43:08.2,14°.78S×**167°.05E,h25^{km},MLv4.8**/21**, Vanuatu Islands,Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SANVU	**Saraoutou**	**0.68**	**167**	P	Pn	15 43 24.0	+1.7
SANVU	**Saraoutou**	**0.68**	**167**	S	Sb	15 43 31.1	+0.6
DVP	**Devils Point**	**3.13**	**160**	P	Pn	15 43 57.6	+1.7
DVP	**Devils Point**	**3.13**	**160**	S	Sn	15 44 33.4	+1.0
KOUNC	**Koumac, New Ca**	**6.32**	**204**	P	Pn	15 44 40.2	+0.4
MARNC	**Mare, Loyalty**	**6.73**	**172**	P	Pn	15 44 44.8	-0.7
YATNC	**Mamie plateau,**	**7.24**	**181**	P	Pn	15 44 52.1	-0.4
NOUC	**Port Laguerre**	**7.32**	**185**	P	Pn	15 44 53.3	-0.2
ONTNC	**Ouen Toro**	**7.51**	**184**	P	Pn	15 44 56.2	0.0
NGOA	**Tingoa Renbel**	**7.52**	**294**	P	Pn	15 44 56.1	-0.3
OUENC	**Ouen Island, N**	**7.60**	**181**	P	Pn	15 44 58.7	+1.3
TATA	**Tatamba Isabel**	**9.53**	**311**	P	Pn	15 45 23.8	-0.1

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*IDC **05** 15:50:21.9±0.8,35°.07N×141°.57E,h0^{km},mb3.8/9, mbtmp3.8/12,ML3.3/3,Error ellipse: s-maj=19.2km s-min=12.6km az=88.0*

*JMA **05** 15:50:26.3±0.1,35°.1N±0°.3×141°.3E±0°.4,h15^{km}±1^{km}, MV3.1/32,E OFF BOSO PENINSULA*

ISC 05 15:50:26.1±0.8**,35°.05N**±0°.05×**141°.34E**±0°.08**,h27^{km},n24, σ0^{s}89**/24**,mb3.8**/9**,Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BSO1	**Boso 1**	**0.49**	**218**	*e*P	**Pb**	**15 50 35.7**	**-0.1**
BSO3	**Boso 3**	**0.72**	**251**	P	**Pb**	**15 50 39.6**	**-0.3**
BSO4	**Boso 4**	**0.83**	**266**	*e*P	**Pn**	**15 50 41.4**	**-0.4**
KTR	**Katsuura**	**0.85**	**277**	*e*P	**Pn**	**15 50 41.6**	**-0.6**
JSMT	**Sammumatsuo**	**0.94**	**309**	*e*P	**Pb**	**15 50 43.8**	**0.0**
JKUC	**kamogawauchiur**	**0.94**	**277**	*e*P	**Pn**	**15 50 42.7**	**-0.8**
JKUC				*e*S	**Sb**	**15 50 55.4**	**-0.6**
JHJ	**Hachijo jima 2**	**2.32**	**214**	Pn	**Pn**	**15 51 02.4**	**0.0**
	11nm,0.3s,baz=47,slow=19,SNR=15						
JHJ				Sn	**Sn**	**15 51 29.6**	**-0.5**
	39nm,0.3s,baz=41,slow=20,SNR=8.6						
	40nm,0.3s						
JHJ				AML	AML		
MJAR	**Matsushiro Arr**	**2.95**	**301**	Pn	**Pn**	**15 51 11.9**	**+0.7**
	0.6nm,0.3s,baz=102,slow=19,SNR=50						
MJAR				Sn	**Sn**	**15 51 47.7**	**+2.0**
	0.3nm,0.3s,baz=142,slow=14,SNR=4.6						
	1.8nm,0.3s						
MJAR				AML	AML		
ASAJ	**Asahikawa**	**9.11**	**6**	Pn	**Pn**	**15 52 34.4**	**-1.3**
	0.8nm,0.3s,baz=185,slow=18,SNR=5.6						
	2.3nm,0.3s						
ASAJ				AML	AML		
H11N2	**WAKE ISLAND Hy**	**27.23**	**117**	T	T	16 24 42.2	
	baz=309,slow=75,SNR=4.2						
H11N1	**WAKE ISLAND Hy**	**27.24**	**117**	T	T	16 24 41.0	
	baz=309,slow=75,SNR=3.8						
H11N3	**WAKE ISLAND Hy**	**27.25**	**117**	T	T	16 24 47.9	
	baz=309,slow=75,SNR=3.4						
H11S3	**WAKE ISLAND Hy**	**27.88**	**120**	T	T	16 26 01.2	
	baz=310						
H11S1	**WAKE ISLAND Hy**	**27.88**	**120**	T	T	16 25 47.1	
	baz=310						
H11S2	**WAKE ISLAND Hy**	**27.89**	**120**	T	T	16 25 58.1	
	baz=310						
TIXI	**Tiksi**	**37.25**	**354**	P	**P**	**15 57 34.7**	**-0.3**
	1.7nm,0.4s,baz=76,slow=4.2,SNR=5.0						
	1.7nm,0.4s						
ZALV	**Zalesovo Beam**	**43.23**	**314**	P	**P**	**15 58 24.6**	**-0.1**
	0.4nm,0.3s,baz=60,slow=6.0,SNR=3.9						
	0.4nm,0.3s						
MKAR	**Makanchi Array**	**45.15**	**304**	P	**P**	**15 58 40.2**	**0.0**
	0.4nm,0.7s,baz=97,slow=8.5,SNR=4.8						
	0.4nm,0.7s						
KURBB	**Kurchatov Arra**	**47.20**	**309**	P	**P**	**15 58 56.2**	**-0.1**
	1.1nm,0.6s,baz=84,slow=7.7,SNR=12						
KURBB				PcP	**PcP**	**16 00 26.9**	**-0.4**
	0.2nm,0.7s,baz=68,slow=3.7,SNR=2.0						
	1.1nm,0.6s						
ILAR	**Eielson Array**	**51.21**	**31**	P	**P**	**15 59 26.2**	**-0.5**
	0.2nm,0.7s,baz=256,slow=4.7,SNR=1.2						
	0.2nm,0.7s						
BVAR	**Borovoye Array**	**51.88**	**313**	P	**P**	**15 59 33.5**	**+1.6**
	0.3nm,0.6s,baz=94,slow=6.2,SNR=1.5						
	0.3nm,0.6s						
WRA	**Warramunga Arr**	**55.09**	**188**	P	**P**	**15 59 55.5**	**-0.2**
	3.3nm,0.6s,baz=6.3,slow=7.5,SNR=32						
WRA				PcP	**PcP**	**16 00 58.2**	**+1.2**
	0.6nm,0.9s,baz=6.5,slow=3.8,SNR=1.9						
	3.3nm,0.6s						
ASAR	**Alice Springs**	**58.81**	**188**	P	**P**	**16 00 22.1**	**-0.1**
	0.7nm,0.8s,baz=3.6,slow=6.1,SNR=14						
ASAR				PcP	**PcP**	**16 01 13.5**	**+2.0**
	0.2nm,0.8s,baz=15,slow=3.7,SNR=1.4						
	0.7nm,0.8s						
FINES	**FINESS Array B**	**70.55**	**333**	P	**P**	**16 01 38.0**	**-0.2**
	3.2nm,0.9s,baz=80,slow=3.2,SNR=1.9						
	3.2nm,0.9s						

HEL 05 16:02:48.6±0.4**,67°.17N**×**20°.54E,h0^{km},ML1.4, Suspected explosion,Sweden**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SALU	**Saltoluokta**	**0.82**	**286**	*e*P	Pg	16 03 04.9	+0.7
ERTU	**Ertsjaerv**	**0.90**	**133**	PG	Pg	16 03 04.8	-1.0
ERTU				SB	Sg	16 03 17.0	-0.5
LANU	**Lannavaara**	**1.04**	**32**	PG	Pg	16 03 07.0	-1.5
LANU				SB	Sg	16 03 22.6	+0.6
KLF	**Kolari**	**1.34**	**86**	PG	Pg	16 03 12.6	-1.6
	baz=270						
KLF				smax	smax	16 03 28.8	
	comp=Z,1.6nm,0.2s						
KLF				SG	Sg	16 03 29.9	-1.5
HEF	**Hetta**	**1.72**	**42**	*e*P	Pn	16 03 19.3	-0.4
HEF	**Hetta**	**1.72**	**42**	PG	Pn	16 03 19.1	-0.6
HEF				smax	smax	16 03 39.9	
	comp=Z,3.4nm,0.2s						
HEF				SN	Sn	16 03 41.0	-1.4
KALU	**Kalix**	**1.74**	**138**	PG	Pn	16 03 20.2	+0.2
KALU				SN	Sg	16 03 44.9	+0.6
TOF	**Tornio**	**1.87**	**124**	PG	Pn	16 03 22.0	+0.3
TOF				smax	smax	16 03 44.3	
	comp=Z,2.4nm,0.2s						
TOF				SG	Sb	16 03 46.9	-0.4
KTK1	**Kautokeino**	**2.11**	**27**	PG	Pb	16 03 26.5	-1.1
RNF	**Rovaniemi**	**2.23**	**102**	PG	Pn	16 03 27.6	+0.8
RNF				SG	Sb	16 03 57.2	-0.7
TRO	**Tromso**	**2.54**	**347**	SG	Sb	16 04 06.8	+0.1
BURU	**Burvik**	**2.62**	**172**	PB	Pn	16 03 33.4	+1.3
	baz=352						
BURU				SG	Sg	16 04 11.8	-1.0
RANF	**Ranua**	**2.75**	**112**	PG	Pb	16 03 37.4	-1.3
RANF				SB	Sb	16 04 11.8	-1.1
ARA0	**ARCESS Array S**	**3.00**	**36**	PB	Pn	16 03 38.1	+0.8
ARA0				SB	Sb	16 04 18.4	-1.6
OUF	**Merijarvi**	**3.31**	**147**	SG	Sg	16 04 31.8	-2.9
UMAU	**Umeaa**	**3.31**	**179**	PN	Pn	16 03 42.7	+1.2
KEV	**Kevo**	**3.52**	**40**	PG	Pb	16 03 52.9	+1.2
KEV	**Kevo**	**3.52**	**40**	SG	Pb	16 03 52.9	+1.2
OLKF	**Oulanka, Finla**	**3.62**	**100**	PG	Pb	16 03 53.7	+0.3
OLKF				SG	Sb	16 04 40.5	+2.8
OLKF	**Oulanka, Finla**	**3.62**	**100**	SN	Sb	16 04 40.5	+2.8
OLKF				smax	smax	16 04 42.4	
	comp=Z,0.7nm,0.2s						
MSF	**Maaselka**	**3.63**	**107**	SG	Sb	16 04 39.8	+1.8

HEL 05 16:03:10.7±0.5**,69°.38N**×**30°.83E,h0^{km},ML1.3, Explosion,Norway-Murmansk border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAJF	**Raja-Jooseppi**	**1.29**	**226**	PG	Pg	16 03 33.8	-1.6
RAJF				SG	Sg	16 03 50.7	-1.3
KEV	**Kevo**	**1.39**	**287**	PG	Pn	16 03 35.9	-1.4
VRF	**Varrio**	**1.70**	**196**	smax	smax	16 04 01.5	
	comp=Z,1.1nm,0.2s						
VRF				SN	Sb	16 04 04.7	-0.1
ARA0	**ARCESS Array S**	**1.89**	**277**	PG	Pn	16 03 44.7	+0.6
ARA0				SG	Sn	16 04 08.0	-0.6
KTK1	**Kautokeino**	**2.74**	**266**	PN	Pn	16 03 54.1	-1.7
KTK1				SG	Sb	16 04 34.5	0.0
KTK1	**Kautokeino**	**2.74**	**266**	SG	Pn	16 03 54.1	-1.7
HEF	**Hetta**	**2.77**	**253**	smax	smax	16 04 32.3	
	comp=Z,1.0nm,0.2s						
HEF				SB	Sb	16 04 33.8	-1.8
RANF	**Ranua**	**3.72**	**206**	PB	Pn	16 04 12.6	+3.4

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*IDC **05** 16:04:34.3±1.8,6°.51S×147°.10E,h85^{km}±18^{km},mb3.5/14, mbtmp3.8/17,Error ellipse: s-maj=26.9km s-min=10.9km az=99.0*

ISC 05 16:04:31.2±0.7**,6°.41S**±0°.06×**146°.9E**±0°.1**,h49^{km},n19, σ1^{s}86**/23**,mb3.7**/14**,Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**2.99**	**174**	P	**Pn**	**16 05 18.2**	**+1.9**
	96nm,0.5s,baz=5.7,slow=10,SNR=132						
PMG				S	**Sn**	**16 05 52.1**	**+1.2**
	194nm,0.5s,baz=37,slow=20,SNR=7.6						
CTA	**Charters Tower**	**13.61**	**182**	P	**Pn**	**16 07 43.3**	**+1.5**
	4.9nm,0.9s,baz=358,slow=16,SNR=6.0						
CTA				S	**Sn**	**16 10 08.1**	**-3.4**
	2.7nm,0.9s,baz=81,slow=19,SNR=9.1						
WRA	**Warramunga Arr**	**18.13**	**221**	P	**Pn**	**16 08 41.6**	**+2.0**
	1.0nm,0.4s,baz=45,slow=11,SNR=16						
WRA				S	**Sn**	**16 11 57.1**	**-4.2**
	0.6nm,0.7s,baz=40,slow=24,SNR=2.2						
ASAR	**Alice Springs**	**21.20**	**215**	P	**P**	**16 09 14.8**	**+1.9**
	1.4nm,0.5s,baz=41,slow=9.9,SNR=50						
ASAR				S	**S**	**16 13 04.6**	**-1.5**

	2.3nm,0.9s,baz=37,slow=24,SNR=7.3						
	1.4nm,0.5s						
STKA	Stephens Creek	25.81	190	P	P	16 09 59.1	+1.1
	0.6nm,0.4s,baz=14,slow=12,SNR=1.7						
	0.6nm,0.4s						
KSRS	Korea Array	47.08	339	P	P	16 12 57.9	-0.3
	1.5nm,0.8s,baz=152,slow=8.1,SNR=6.2						
	1.5nm,0.8s						
USRK	Ussuriysk Ar.	52.13	346	P	P	16 13 36.8	+0.2
	0.7nm,0.5s,baz=168,slow=7.4,SNR=2.3						
	0.7nm,0.5s						
CMAR	Chiang Mai Arr	53.31	299	P	P	16 13 48.3	+2.5
	1.2nm,0.6s,baz=110,slow=7.2,SNR=14						
	1.2nm,0.6s						
HILR	Hailar Array B	60.53	340	P	P	16 14 37.3	+0.8
	0.7nm,0.5s,baz=141,slow=9.3,SNR=4.4						
	0.7nm,0.5s						
SONM	Songino Array	64.69	331	P	P	16 15 04.9	+0.5
	0.3nm,0.4s,baz=130,slow=2.3,SNR=2.5						
	0.3nm,0.4s						
VNDA	Vanda	71.52	177	P	P	16 15 45.3	-1.2
	0.5nm,0.5s,baz=333,slow=7.3,SNR=6.3						
	0.5nm,0.5s						
MKAR	Makanchi Array	77.72	321	P	P	16 16 22.3	-0.7
	0.3nm,0.6s,baz=108,slow=6.1,SNR=3.0						
	0.3nm,0.6s						
ZALV	Zalesovo Beam	79.28	328	P	P	16 16 30.1	-1.2
	0.3nm,0.4s,baz=90,slow=8.6,SNR=2.4						
	0.3nm,0.4s						
KURBB	Kurchatov Arra	81.47	323	P	P	16 16 42.3	-0.9
	0.2nm,0.6s,baz=108,slow=3.5,SNR=2.1						
	0.2nm,0.6s						
QSPA	South Pole Qui	83.56	180	P	P	16 16 52.9	-1.2
	1.2nm,0.5s,baz=332,slow=2.6,SNR=18						
	1.2nm,0.5s						
ILAR	Eielson Array	85.91	23	P	P	16 17 02.9	-2.8
	0.3nm,0.5s,baz=260,slow=5.9,SNR=4.4						
	0.3nm,0.5s						
BVAR	Borovoye Array	87.01	324	P	P	16 17 10.4	-0.9
	0.9nm,0.9s,baz=104,slow=4.6,SNR=4.3						
	0.9nm,0.9s						
GERES	GERESS Array B	122.16	325	PKP	PKPdf	16 23 20.1	-0.7
	0.2nm,0.5s,baz=45,slow=1.5,SNR=3.0						
TORD	Torodi Ar. Bea	145.05	284	PKPbc	PKPdf	16 24 04.6	+0.3
	2.7nm,0.6s,baz=73,slow=3.9,SNR=23						

IDC 05 16:10:50.0±6.5, 15°.90S×173°.01W, h0km, mb3.6/3, mbtmp3.6/3, Error ellipse: s-maj=494.0km s-min=33.5km az=150.0, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H11N3	WAKE ISLAND Hy	40.53	330	T	T	17 01 45.0	
	baz=142						
H11N1	WAKE ISLAND Hy	40.53	330	T	T	17 01 20.9	
	baz=142						
H11N2	WAKE ISLAND Hy	40.55	330	T	T	17 01 22.3	
	baz=142						
WRA	Warramunga Arr	50.10	257	P	P	16 19 46.1	-1.3
	0.4nm,0.6s,baz=96,slow=7.2,SNR=0.9						
	0.4nm,0.6s						
ASAR	Alice Springs	50.31	252	P	P	16 19 49.6	+0.6
	0.5nm,0.6s,baz=91,slow=7.4,SNR=11						
	0.5nm,0.6s						
NVAR	Mina Array Bea	74.45	42	P	P	16 22 30.6	0.0
	0.7nm,0.8s,baz=240,slow=7.3,SNR=3.5						
	0.7nm,0.8s						

*IDC **05** 16:17:47.0±1.7, 16°.12S×173°.15W, h0km, mb3.7/4, mbtmp3.8/5, ML4.8/1, MS3.6/34, Error ellipse: s-maj=86.8km s-min=19.7km az=143.0*

*NEIC **05** 16:17:49.2±1.3, 15°.35S±0°.09×173°.4W±0°.1, h10km±1km, mb4.1/6, Error ellipse: s-maj=23.0km s-min=12.0km az=301.0*

ISC 05 16:17:49.2±0.8, 15°.32S±0°.09×173°.3W±0°.1, h10km, n62, σ2s.00/17, mb4.0/8, MS3.7/31, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	2.01	46	Pn	Pn	16 18 24.6	+1.2
	205nm,0.3s,baz=223,slow=19,SNR=156						
AFI				Sn	Sn	16 18 44.9	-3.6
	237nm,0.3s,baz=193,slow=19,SNR=7.4						
AFI				LR	LR	16 19 08.6	
	comp=Z,1µm,20.3s,baz=186,slow=32						
	576nm,0.4s						
AFI				AML	AML		
AFI	Afiamalu	2.01	46		Pn	16 18 24.3	+1.0
AFI				Sn	Sn	16 18 45.7	-2.9
NIUE	Niue	4.91	140	Pn	Pn	16 19 03.4	+0.2
MSVF	Nonsavu	8.67	253	LR	LR	16 22 45.9	
	comp=Z,518nm,21.7s,baz=175,slow=35						
RAR	Rarotonga	14.09	117	LR	LR	16 25 13.9	
	comp=Z,61nm,18.9s,baz=285,slow=33						
RAO	Raoul Island	14.52	196	Pn	Pn	16 21 13.8	-1.0
DZM	Mont Dzumac	20.35	248	LR	LR	16 29 11.4	
	comp=Z,175nm,21.9s,baz=36,slow=34						
HNR	Honiara	26.80	279	LR	LR	16 32 08.6	
	comp=Z,88nm,20.3s,baz=204,slow=32						
RPZ	Rata Peaks	31.30	202	LR	LR	16 36 35.1	
	comp=Z,75nm,18.5s,baz=354,slow=37						
CTA	Charters Tower	38.79	257	LR	LR	16 37 39.1	
	comp=Z,54nm,19.7s,baz=59,slow=31						
H11S2	WAKE ISLAND Hy	38.96	329	T	T	17 06 17.5	
	baz=149,slow=76,SNR=7.5						
H11S3	WAKE ISLAND Hy	38.98	329	T	T	17 06 37.0	
	baz=149,slow=76,SNR=14						
H11S1	WAKE ISLAND Hy	38.98	329	T	T	17 06 42.0	
	baz=149,slow=76,SNR=11						
H11N3	WAKE ISLAND Hy	39.91	330	T	T	17 07 33.6	
	baz=150,slow=76,SNR=22						
H11N1	WAKE ISLAND Hy	39.91	330	T	T	17 07 31.3	
	baz=150,slow=76,SNR=12						
H11N2	WAKE ISLAND Hy	39.92	330	T	T	17 07 41.6	
	baz=150,slow=76,SNR=22						
STKA	Stephens Creek	44.19	240	LR	LR	16 43 37.5	
	comp=Z,69nm,18.2s,baz=23,slow=35						
WR8	Warramunga Arr	49.84	257	P	P	16 26 41.7	-1.3
WB0	Warramunga Arr	49.95	257	P	P	16 26 42.6	-1.2
WB0				IAmb	IAmb	16 27 00.4	
	comp=Z,2.6nm,0.9s						
WRA	Warramunga Arr	49.99	257	P	P	16 26 42.4	-1.7
	comp=Z,0.2nm,0.3s,baz=92,slow=8.0,SNR=14						
	comp=Z,0.2nm,0.3s						
WRA	Warramunga Arr	49.99	257	P	P	16 26 42.4	-1.7
AS31	Alice Springs	50.26	252	P	P	16 26 44.2	-1.9
AS31				IAmb	IAmb	16 27 04.6	
	comp=Z,1.1nm,0.7s						
ASAR	Alice Springs	50.26	252	P	P	16 26 43.9	-2.3
	comp=Z,2.3nm,0.7s,baz=91,slow=7.9,SNR=31						
ASAR				LR	LR	16 46 25.3	
	comp=Z,91nm,21.2s,baz=96,slow=34						
	comp=Z,2.3nm,0.7s						
GUMO	Guam	50.40	303	LR	LR	16 48 07.4	
	comp=Z,28nm,18.1s,baz=76,slow=36						
MTN	Manton Dam	53.87	265	P	P	16 27 07.4	-5.7
MTN				IAmb	IAmb	16 27 36.3	
	comp=Z,1.4nm,0.9s						
VNDA	Vanda	63.47	186	LR	LR	16 53 28.1	
	comp=Z,11nm,19.1s,baz=343,slow=34						
DAV	Davao City (W)	64.54	286	LR	LR	16 54 53.6	
	comp=Z,64nm,18.6s,baz=344,slow=34						
SHEM	Shemya Is, Ala	68.64	352	LR	LR	16 52 47.0	
	comp=Z,99nm,21.2s,baz=138,slow=30						
ASAJ	Asahikawa	71.54	328	LR	LR	16 53 39.1	
	comp=Z,37nm,21.5s,baz=182,slow=30						
PETK	Petropavlovsk-	72.59	342	LR	LR	17 02 19.6	
	comp=Z,15nm,18.6s,baz=177,slow=36						
LPIG	La Paz	72.89	58	LR	LR	16 52 27.7	
	comp=Z,60nm,20.6s,baz=238,slow=28						
QSPA	South Pole Qui	74.72	180	LR	LR	16 56 33.5	
	comp=Z,16nm,19.8s,baz=47,slow=32						
QSPA	South Pole Qui	74.72	180	P	P	16 29 31.1	+1.9
QSPA				IAmb	IAmb	16 29 50.8	
	comp=Z,1.8nm,0.8s						
KDAK	Kodiak Island	74.82	11	LR	LR	16 55 03.3	
	comp=Z,52nm,21.2s,baz=196,slow=30						
KSRS	Korea Array	76.19	315	LR	LR	17 01 45.7	
	comp=Z,32nm,18.1s,baz=175,slow=34						
BBB	Bella Bella	77.76	27	LR	LR	16 57 44.7	
	comp=Z,37nm,19.0s,baz=213,slow=31						
MA2	Magadan	80.13	342	LR	LR	17 00 10.0	
	comp=Z,24nm,20.9s,baz=138,slow=31						
TXAR	Lajitas Array	80.46	56	P	P	16 30 02.5	+0.6
	comp=Z,0.6nm,1.1s,baz=258,slow=4.8,SNR=4.6						
TXAR				LR	LR	16 59 49.5	
	comp=Z,36nm,20.2s,baz=226,slow=31						
	comp=Z,0.6nm,1.1s						
KLR	Kul'dur	80.52	327	LR	LR	16 59 51.1	
	comp=Z,29nm,21.5s,baz=208,slow=31						
ANMO	Albuquerque	80.65	50	LR	LR	16 57 04.5	
	comp=Z,74nm,21.3s,baz=232,slow=29						
DLBC	Dease Lake	81.58	21	LR	LR	17 01 45.3	
	comp=Z,30nm,18.1s,baz=217,slow=32						
PDAR	Pinedale Array	82.12	42	P	P	16 30 13.2	+2.6
	comp=Z,0.2nm,0.6s,baz=252,slow=5.0,SNR=2.4						
	comp=Z,0.2nm,0.6s						
ILAR	Eielson Array	82.34	11	LR	LR	16 59 33.1	
	comp=Z,42nm,21.8s,baz=223,slow=30						
PMSA	Palmer Station	84.19	156	LR	LR	16 58 58.2	
	comp=Z,27nm,21.9s,baz=304,slow=30						
H03S2	Juan Fernandez	85.14	124	T	T	18 05 08.5	
	baz=252,slow=75,SNR=4.5						
H03S1	Juan Fernandez	85.15	124	T	T	18 05 08.6	
	baz=252,slow=75,SNR=3.2						
H03S3	Juan Fernandez	85.15	124	T	T	18 05 06.7	
	baz=252,slow=75,SNR=3.2						
MAW	Mawson	87.91	199	LR	LR	17 07 23.0	
	comp=Z,87nm,19.4s,baz=104,slow=34						
INK	Inuvik	88.16	14	LR	LR	17 02 44.5	
	comp=Z,48nm,22.0s,baz=268,slow=30						
PLCA	Paso Flores	89.47	132	LR	LR	17 00 35.5	
	comp=Z,35nm,22.0s,baz=225,slow=29						
JTS	Las Juntas de	91.07	80	LR	LR	17 01 41.7	
	comp=Z,28nm,21.1s,baz=266,slow=29						
ULM	Lac du Bonnet	93.79	39	LR	LR	17 08 24.2	
	comp=Z,68nm,19.2s,baz=234,slow=32						
SONM	Songino Array	94.87	318	LR	LR	17 07 59.1	
	comp=Z,34nm,21.6s,baz=130,slow=32						
TIXI	Tiksi	94.96	344	LR	LR	17 10 20.3	
	comp=Z,31nm,19.8s,baz=177,slow=33						
GERES	GERESS Array B	146.08	352	PKPbc	PKiKP	16 37 32.2	-0.8
	comp=Z,0.4nm,0.7s,baz=25,slow=3.4,SNR=3.6						
BRTR	Keskin Array B	146.18	321	PKPbc	PKPab	16 37 31.9	+0.9
	comp=Z,0.5nm,0.8s,baz=59,slow=3.9,SNR=3.8						
KBA	Koelnbreinsper	147.86	351	*e*PKP	PKPab	16 37 49.0	+12
	comp=Z,4.4nm,1.5s						
SQTA	Sankt Quirin	147.98	354	*e*PKP	PKPab	16 37 50.3	+13
	comp=Z,1.4nm,0.9s						
DAVA	Damuels	148.02	356	*e*PKP	PKPab	16 37 50.2	+12
	comp=Z,6.1nm,1.4s						
FETA	Feichten	148.22	355	*e*PKP	PKPab	16 37 49.9	+11
	comp=Z,4.7nm,1.6s						
MYKA	Terra Mystica	148.25	351	*e*PKP	PKPab	16 37 50.8	+12
	comp=Z,0.5nm,0.4s						
ABTA	Abfaltersbach	148.30	352	*e*PKP	PKPab	16 37 51.2	+12
	comp=Z,2.9nm,0.9s						

*IDC **05** 16:17:56.6±1.2, 35°.08N×141°.72E, h0km, mb3.7/5, mbtmp3.6/9, ML3.1/4, MS2.5/2, Error ellipse: s-maj=22.2km s-min=13.4km az=88.0*

*JMA **05** 16:18:01.8±0.1, 35°.1N±0°.3×141°.3E±0°.3, h14km±1km, MV2.8/35, E OFF BOSO PENINSULA*

ISC 05 16:18:01.0±1.3, 35°.04N±0°.06×141°.5E±0°.1, h27km, n23, σ1s.46/18, mb3.6/5, Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BSO1	Boso 1	0.55	226	*e*P	Pb	16 18 11.2	-0.5
BSO3	Boso 3	0.81	253	P	Pb	16 18 15.1	-1.2
BSO4	Boso 4	0.92	267	*e*P	Pb	16 18 17.6	-0.6
KTR	Katsuura	0.94	277	*e*P	Pn	16 18 17.4	-0.9
JKUC	kamogawauchiur	1.03	277	*e*P	Pn	16 18 18.2	-1.5
JCCN	Chibachonan	1.05	290	*e*P	Pb	16 18 20.2	-0.4
JHJ	Hachijo jima 2	2.36	216	Pn	Pn	16 18 37.8	-0.1
	7.5nm,0.3s,baz=18,slow=20,SNR=10						
JHJ				Sn	Sn	16 19 03.4	-2.7
	16nm,0.3s,baz=32,slow=19,SNR=2.1						
	40nm,0.4s						
JHJ				AML	AML		
MJAR	Matsushiro Arr	3.03	301	Pn	Pn	16 18 47.5	+0.3
	0.4nm,0.3s,baz=97,slow=15,SNR=44						
MJAR				Sn	Sn	16 19 24.4	+1.7
	0.1nm,0.3s,baz=98,slow=32,SNR=4.3						
MJAR				LR	LR	16 19 59.8	
	comp=Z,73nm,21.0s,baz=240,slow=38						
	1.4nm,0.3s						
MJAR				AML	AML		
ASAJ	Asahikawa	9.11	5	Pn	Pn	16 20 08.0	-2.7
	0.6nm,0.3s,baz=197,slow=17,SNR=11						
	1.3nm,0.3s						
ASAJ				AML	AML		
KSRS	Korea Array	11.19	286	LR	LR	16 24 07.8	
	comp=Z,24nm,20.3s,baz=190,slow=32						
USRK	Ussuriysk Ar.	11.69	324	Pn	Pn	16 20 46.7	+0.7
	0.1nm,0.3s,baz=142,slow=14,SNR=2.3						
	0.4nm,0.5s						
USRK				AML	AML		
JOW	Kunigami	13.95	238	Pn	Pn	16 21 19.4	+2.6
	11nm,0.3s,baz=96,slow=5.3,SNR=3.8						
H11N2	WAKE ISLAND Hy	27.15	118	T	T	16 52 17.8	
	baz=310,slow=76,SNR=3.1						
H11N1	WAKE ISLAND Hy	27.16	118	T	T	16 52 16.6	
	baz=310,slow=76,SNR=3.9						
H11N3	WAKE ISLAND Hy	27.17	118	T	T	16 52 19.2	
	baz=310,slow=76,SNR=3.5						
H11S1	WAKE ISLAND Hy	27.80	120	T	T	16 53 12.7	
	baz=312,slow=74,SNR=5.9						
H11S3	WAKE ISLAND Hy	27.80	120	T	T	16 53 16.5	
	baz=312,slow=74,SNR=4.6						
H11S2	WAKE ISLAND Hy	27.81	120	T	T	16 53 15.4	
	baz=312						
ZALV	Zalesovo Beam	43.30	314	P	P	16 26 00.5	+0.2
	0.3nm,0.4s,baz=96,slow=7.8,SNR=2.2						
	0.3nm,0.4s						
MKAR	Makanchi Array	45.23	304	P	P	16 26 14.8	-1.0
	0.3nm,0.6s,baz=92,slow=7.3,SNR=3.9						
	0.3nm,0.6s						
KURBB	Kurchatov Arra	47.27	309	P	P	16 26 31.5	-0.2
	1.0nm,0.7s,baz=85,slow=7.9,SNR=9.4						
	1.0nm,0.7s						
WRA	Warramunga Arr	55.09	188	P	P	16 27 31.1	+0.4
	1.8nm,0.6s,baz=8.0,slow=7.4,SNR=10						
	1.8nm,0.6s						
ASAR	Alice Springs	58.82	188	P	P	16 27 57.8	+0.7
	0.4nm,0.7s,baz=20,slow=11,SNR=4.8						
	0.4nm,0.7s						

*IDC **05** 16:28:45.3±1.2, 8°.31N×82°.86W, h0km, mb4.0/6, mbtmp4.1/8, ML4.3/2, MS3.2/5, Error ellipse: s-maj=49.9km s-min=20.0km az=56.0*

*UPA **05** 16:28:46.4±1.1, 8°.32N×82°.93W, h6km±2km, MW4.5, Presumed earthquake*

*UCR **05** 16:28:46.5±1.0, 8°.27N×82°.93W, h14km±7km, MW4.7, Presumed earthquake*

*NEIC **05** 16:28:47.3±2.6, 8°.32N±0°.03×82°.96W±0°.05, h10km±1km, mb4.5/6, Error ellipse: s-maj=9.4km s-min=4.5km az=72.0*

*GFZ **05** 16:28:47.4±0.4, 8°N±4°×8°3W±°, h10km, M4.5/8, mb4.8/8, Error ellipse: s-maj=7.9km s-min=7.4km az=33.0, confirmed*

*CATAC **05** 16:28:49.0±0.3, 8°N±2°×8°3W±°, h8km±1km, M4.8/31, mb4.9/11, mB5.6/6, MLv4.5/31, Mw(mB)5.1/6, Error ellipse: s-maj=4.8km s-min=2.4km az=7.9, confirmed*

ISC 05 16:28:47.1±0.7, 8°.28N±0°.02×82°.94W±0°.02, h14km±5km, n152, σ1s.11/192, mb4.3/10, 3C-14D, Panama-Costa Rica border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTPM	Petroterminale	0.10	142	⇑*i*P	Pg	16 28 50.0	-0.3
PTPM				*e*S	Sg	16 28 52.8	+0.4
PTPA	Petro Terminal	0.10	140	*e*P	Pg	16 28 50.0	-0.4
PTPA				*e*S	Sg	16 28 52.8	+0.2
LIMO3	Limones	0.19	158	⇑*i*P	Pg	16 28 51.4	-0.2
LIMO3				*e*S	Sg	16 28 55.7	+1.1
LMNES	Limones	0.20	157	*e*P	Pg	16 28 51.4	-0.2
LMNES	Limones	0.20	157	⇑*i*P	Pg	16 28 51.4	-0.2
CDITO	Canoas	0.30	13	P	Pg	16 28 52.9	-0.5
CDITO				S	Sb	16 28 59.1	+0.1
NELY	Ciudad Neily	0.37	359	*e*P	Pg	16 28 53.8	-0.8
NELY				*e*S	Sb	16 28 60.0	-1.0
PIRO	Carate, Puerto	0.41	287	Pg	Pg	16 28 54.2	-1.2
PIRO	Carate, Puerto	0.41	287	P	Pg	16 28 54.6	-0.8
PIRO				S	Sg	16 29 00.9	-0.1
PIRO	Carate, Puerto	0.41	287	*e*P	Pg	16 28 54.2	-1.2
PIRO	Carate, Puerto	0.41	287	*i* P	Pg	16 28 54.4	-1.0
PIRO				*e*S	Sb	16 29 01.7	-0.6
JIME	Puerto Jimenez	0.46	304	*e*P	Pg	16 28 55.5	-0.8
JIME				*e*S	Sb	16 29 04.1	+0.4
DVD	David	0.51	72	⇓*i*P	Pg	16 28 56.6	-0.5
DVD				*e*S	Sg	16 29 04.2	+0.2
MLIR3	Monte Lirio, C	0.52	12	*i* P	Pg	16 28 57.3	-0.2
MLIR3				*e*S	Sg	16 29 04.2	-0.3
VITO	San Vito	0.54	357	*e*P	Pg	16 28 57.1	-0.6
VITO	San Vito	0.54	357	*e*P	Pg	16 28 57.4	-0.4
CLLRA	Cordillera,	0.56	35	*e*P	Pg	16 28 57.8	-0.5
CLLRA	Cordillera,	0.56	35	⇓*i*P	Pg	16 28 57.9	-0.4
CLLRA				*e*S	Sb	16 29 07.0	+0.2
LOMA3	Las Lomas, Chi	0.56	75	⇓*i*P	Pg	16 28 57.4	-0.8
LOMA3				*e*S	Sg	16 29 06.3	+0.6
BRU2	Volcan	0.57	26		Pg	16 28 57.6	-0.7
BRU2				Sg	Sb	16 29 07.4	+0.5
BRU2	Volcan	0.57	26	P	Pg	16 28 58.0	-0.4
BRU2				S	Sb	16 29 07.5	+0.5
BRU2	Volcan	0.57	26	*e*P	Pg	16 28 57.7	-0.7
BRU2	Volcan	0.57	26	P	Pg	16 28 57.8	-0.6
BRU2	Volcan	0.57	26	⇓*i*P	Pg	16 28 57.9	-0.5
BRU2				*e*S	Sb	16 29 07.2	+0.3
SCLRA	Santa Clara, W	0.57	16	*e*P	Pg	16 28 57.9	-0.5
SCLRA	Santa Clara, W	0.57	16	⇓*i*P	Pg	16 28 58.1	-0.3
PTAR3	Potrerillos Ar	0.60	47	*i* P	Pg	16 28 58.5	-0.4
PTAR3				*e*S	Sg	16 29 07.2	+0.3
CHIR3	Chiriqui UPA,	0.61	79	⇓*i*P	Pg	16 28 58.2	-0.9
CHIR3				*e*S	Sg	16 29 07.7	+0.4
BGUAL	Bijagual, Pana	0.64	69	⇓*i*P	Pg	16 28 58.9	-0.8
BGUAL				*e*S	Sb	16 29 09.7	+0.8
BQTLY	Boquete Panama	0.67	45	*e*P	Pg	16 28 59.3	-0.9
BQTLY	Boquete Panama	0.67	45	⇓*e*P	Pg	16 28 59.4	-0.9
BQTLY				*e*S	Sb	16 29 11.0	+1.1
BQSF3	Alto Boquete,	0.68	47	*i* P	Pg	16 28 59.4	-1.0
BQSF3				*e*S	Sg	16 29 09.7	+0.3
LNBQ3	Los Naranjos,	0.71	44	⇓*i*P	Pg	16 28 59.7	-1.3
LNBQ3				*e*S	Sg	16 29 09.7	-0.7
EDP2	Potrero Grande	0.77	342	*e*P	Pg	16 29 00.9	-1.2
PANP	Palmar Norte	0.85	323	*e*P	Pg	16 29 01.5	-2.1
BURE	Buenos Aires	0.97	336	*e*P	Pg	16 29 04.1	-1.9
RBALA	Bur	0.98	53	*e*P	Pg	16 29 04.2	-1.9
RBALA	Bur	0.98	53	⇓*i*P	Pg	16 29 04.3	-1.8
RBALA				*e*S	Sg	16 29 18.2	-0.7
CHGR2	Aguacate	1.02	50	*e*P	Pb	16 29 04.5	-2.1
CHGR2				*e*S	Sg	16 29 19.4	-0.8
DRK0	Durika	1.02	343	⇓*i*P	Pg	16 28 51.2	-16
DRK0				*e*S	Sg	16 29 05.2	-15
OCHAL	Ojochal	1.07	319	P	Pb	16 29 05.7	-1.7
OCHAL				S	Sg	16 29 21.5	-0.3
EDPE	Pejibaye, P	1.07	324	*e*P	Pb	16 29 05.3	-2.2
SAJE	San Jernim	1.20	332	*e*P	Pb	16 29 07.2	-2.5
CNI2	El Empalme, Bo	1.23	22	⇓*i*P	Pn	16 29 08.4	-1.5
CNI2				*e*S	Sb	16 29 23.8	-2.0
KKNTU	Kakintº	1.25	64	*e*P	Pn	16 29 08.1	-2.0
KKNTU	Kakintº	1.25	64	⇓*i*P	Pn	16 29 08.2	-2.0
KKNTU				*e*S	Sb	16 29 25.0	-1.5
RGM0	Gandoca	1.34	14	Pn	Pn	16 29 09.8	-1.6
RGM0	Gandoca	1.34	14	P	Pb	16 29 12.0	-0.1
RGM0				S	Sn	16 29 29.2	+0.2
RGM0	Gandoca	1.34	14	*e*P	Pn	16 29 11.6	+0.2
RGM0	Gandoca	1.34	14	⇓*i*P	Pn	16 29 11.7	+0.2
QUEP	Quepos	1.67	313	P	Pn	16 29 15.3	-0.5
QUEP	Quepos	1.67	313	*e*P	Pn	16 29 15.0	-0.9
PIEC	Cerro El Cedra	1.67	323	*e*P	Pn	16 29 15.3	-0.9
GMAL	Guarumal, Vera	1.77	107	*e*P	Pn	16 29 15.6	-1.7
GMAL	Guarumal, Vera	1.77	107	*e*P	Pn	16 29 16.2	-1.0
RSUS3	Rio de Jesus,	1.79	99	*e*P	Pn	16 29 16.6	-0.9
RSUS3				*e*S	Sn	16 29 40.2	+0.2
ABE2	San Pablo	1.79	322	*e*P	Pn	16 29 17.0	-0.8
LCR2	La Lucha 2	1.79	324		Pn	16 29 17.0	-0.9
LCR2	La Lucha 2	1.79	324	P	Pn	16 29 17.2	-0.6
LCR2	La Lucha 2	1.79	324	*e*P	Pn	16 29 16.5	-1.4
LCR2	La Lucha 2	1.79	324	*e*P	Pn	16 29 16.9	-1.0
VERB	Verbena	1.81	336	*e*P	Pn	16 29 16.7	-1.4
PCAYA	Pacayas	1.84	332	*e*P	Pn	16 29 18.1	-0.4
SAFE3	Santa Fe, Vera	1.85	83	*e*P	Pn	16 29 17.9	-0.7
VTCV	VTCV, Calle Va	1.86	335	*e*P	Pn	16 29 18.0	-0.8
RAFA	San Farael, Vo	1.88	333		Pn	16 29 19.1	0.0
ABRB	Las Abras (San	1.88	336	*e*P	Pn	16 29 18.8	-0.3
LCOCO	El Coco	1.89	341	*e*P	Pn	16 29 19.1	0.0
STIA3	Santiago, Vera	1.96	95	*e*P	Pn	16 29 19.6	-0.3
HDC	Heredia	2.07	326		Pn	16 29 22.1	+0.5
HDC	Heredia	2.07	326	P	Pn	16 29 22.0	+0.5
CALO3	Calobre, Verag	2.08	89	*e*P	Pn	16 29 21.5	0.0
TCS1	Tacares	2.21	323	P	Pn	16 29 23.9	+0.4
CACAO	El Cacao, Vera	2.26	114	*e*P	Pn	16 29 22.7	-1.3
CACAO				*e*P	Pb	16 29 23.8	-3.9
CACAO				*e*S	Sn	16 29 52.8	+1.2
CACAO				*e*S	Sb	16 29 55.8	+0.3
PESE3	Pese, Herrera	2.33	99	*e*P	Pn	16 29 25.7	+0.6
LAFE	Finca La Fe, P	2.47	308	*e*P	Pn	16 29 26.3	-0.6
CHIT3	Chitre	2.52	97	*e*P	Pn	16 29 27.7	+0.1
TOSI3	Tonosi	2.62	109	*e*P	Pn	16 29 28.6	-0.4
AZU	Azuero	2.68	100	*e*P	Pn	16 29 29.8	-0.1
AZU				*e*P	Pb	16 29 31.3	-3.7
AZU				*e*S	Sn	16 30 02.6	+0.4
JTS	Las Juntas de	2.82	315	Pn	Pn	16 29 31.5	-0.3
	99nm,0.3s,baz=123,slow=17,SNR=138						
JTS				Sn	Sn	16 30 05.7	+0.1
	55nm,0.3s,baz=90,slow=20,SNR=8.7						
	186nm,0.4s						
JTS				AML	AML		
JTS	Las Juntas de	2.82	315	P	Pn	16 29 32.3	+0.6
JTS				S	Sn	16 30 06.4	+0.8
JTS	Las Juntas de	2.82	315	P	Pn	16 29 31.4	-0.3
JTS	Las Juntas de	2.82	315	*e*P	Pn	16 29 30.7	-1.1
COVE	Coope Vega, Sa	2.82	329	P	Pn	16 29 34.2	+2.4
COVE				S	Sn	16 30 05.4	-0.2
ACHO3	Achotines, Los	2.87	107	*e*P	Pn	16 29 32.1	-0.3
PEDA3	Pedasi	2.98	104	*e*P	Pn	16 29 34.0	0.0
CMARA	Lajas Hojancha	3.00	305	P	Pn	16 29 34.5	+0.2
CMARA				S	Sn	16 30 09.8	-0.3
CMARA	Lajas Hojancha	3.00	305	*e*P	Pn	16 29 33.8	-0.5
ZANG	Zanguenga, Cho	3.11	77	*e*P	Pn	16 29 34.3	-1.5
JUD3	Juan Diaz 3	3.18	306		Pn	16 29 36.5	-0.2
BCIP	Isla Barro Col	3.19	74	P	Pn	16 29 40.1	+3.2
BCIP				S	Sb	16 30 19.9	-2.4
BCIP	Isla Barro Col	3.19	74	P	Pn	16 29 36.9	0.0
BCIP	Isla Barro Col	3.19	74	*e*P	Pn	16 29 36.9	0.0
MLIR	Monte Lirio	3.19	72	*e*P	Pn	16 29 35.8	-1.2
GAMB1	Gamboa	3.30	75	*e*P	Pn	16 29 37.6	-0.7
UPAL	Upala	3.31	322	P	Pn	16 29 39.1	+0.6
UPAL				S	Sn	16 30 17.6	0.0
BLUN	Bluefields	3.79	348	P	Pn	16 29 45.6	+0.5
BLUN				S	Sn	16 30 29.6	+0.1
CARN	Rivas	3.85	319	Pn	Pn	16 29 45.0	-1.0
CARN	Rivas	3.85	319	P	Pn	16 29 45.7	-0.2
OMEN	Al SSO del Vol	4.16	321	P	Pn	16 29 50.4	+0.2
OMEN				S	Sn	16 30 38.7	0.0
JAPN	Al SSO del Vol	4.21	320	P	Pn	16 29 51.7	+0.8
ACON	Acoyapa	4.27	329	P	Pn	16 29 54.0	+2.2
ACON				S	Sn	16 30 43.1	+1.6
BOAB	BOACO BROADBAN	4.94	327		Pn	16 30 01.7	+0.9
BOAB	BOACO BROADBAN	4.94	327	P	Pn	16 30 01.4	+0.5
BOAB				S	Sn	16 30 57.9	+0.1
BOAB	BOACO BROADBAN	4.94	327	P	Pn	16 30 00.8	-0.1
PRVC	Isla de Provid	5.29	17	P	Pn	16 30 07.1	+1.3
PRVC				S	Sn	16 31 07.9	+1.3
MOM2	El Cardon	5.41	320	P	Pn	16 30 08.8	+1.5
MATN	Matagalpa	5.47	328	P	Pn	16 30 08.8	+0.4
MATN				S	Sn	16 31 11.9	+0.7
CNGA	Al SSO del Vol	5.59	319	P	Pn	16 30 10.4	+0.4
CNGN	Cerro Negro	5.59	319	P	Pn	16 30 10.5	+0.6
CNGN	Cerro Negro	5.59	319	P	Pn	16 30 11.8	+1.9
	comp=Z,587nm,0.6s						
ROCN	Rota Cerro Neg	5.63	319	P	Pn	16 30 11.8	+1.3
ILCN	San Idelfonso	5.65	319	P	Pn	16 30 11.1	+0.4
SIUN	Universidad Ur	5.69	342	P	Pn	16 30 11.8	+0.5
CRIN	San Cristobal	5.97	318		Pn	16 30 16.8	+1.6
CRIN	San Cristobal	5.97	318	P	Pn	16 30 15.4	+0.2
CRIN	San Cristobal	5.97	318	P	Pn	16 30 16.2	+1.0
	comp=Z,130nm,0.6s						
RCVN	Varillal2	6.16	329	P	Pn	16 30 20.5	+2.6
RCVN				S	Sn	16 31 28.9	+0.6
OCON	Estacion meteo	6.35	327	P	Pn	16 30 21.4	+1.0
CNCH	Conchagua	6.91	316	P	Pn	16 30 29.2	+1.0
TGUH	Tegucigalpa,Un	7.14	324	P	Pn	16 30 32.4	+1.0
TGUH	Tegucigalpa,Un	7.14	324	P	Pn	16 30 31.4	0.0
	comp=Z,45nm,0.7s						
MTO3	Montecristo	8.75	315		Pn	16 30 53.5	0.0
OTAV	Otavalo	9.16	151	P	Pn	16 31 00.1	+0.8
	comp=Z,5.5nm,1.0s						

APG	El Apazote	9.95	313	Pn	Pn	16 31 12.2	+2.2
	comp=Z,0.1nm,0.3s,baz=125,slow=12,SNR=7.7						
SLOR	San Lorenzo -	9.99	153	Pn	Pn	16 31 12.5	+1.8
MTDJ	Mount Denham	11.20	27	P	Pn	16 31 28.6	+1.6
	comp=Z,60nm,1.6s						
PAYG	Puerto Ayora	11.52	220	Pn	Pn	16 31 28.8	-2.5
PAYG	Puerto Ayora	11.52	220	P	Pn	16 31 32.0	+0.6
	comp=Z,62nm,1.6s						
SDV	Santo Domingo	12.18	86	LR	LR	16 37 08.6	
	comp=Z,83nm,19.4s,baz=238,slow=42						
GTBY	Guantanamo Bay	13.84	32	P	Pn	16 32 04.4	+1.5
	comp=Z,38nm,1.0s						
SOR	Soroa	14.43	360	P	Pn	16 32 11.9	+0.9
	comp=Z,18nm,1.5s						
CMIG	Matias Romero	14.57	308	Pn	Pn	16 32 14.2	+1.2
	comp=Z,0.5nm,0.3s,baz=139,slow=11,SNR=3.0						
	comp=Z,1.4nm,0.3s						
CMIG				AML	AML		
ATAH	Atahualpa	15.97	163	LR	LR	16 38 26.8	
	comp=Z,41nm,18.9s,baz=327,slow=36						
CELP	Cerrillos	18.65	57	P	P	16 33 05.0	+0.3
CELP				IAmb	IAmb	16 33 38.0	
	comp=Z,34nm,1.1s						
SJG	San Juan	19.03	57	LR	LR	16 40 57.2	
	comp=Z,39nm,19.5s,baz=247,slow=39						
SEUS	St. Eustatius	21.48	63	P	P	16 33 36.5	+1.0
	comp=Z,142nm,1.0s						
TDBA	Terre de Bas,	22.13	68	P	P	16 33 42.0	-0.5
BOAV	Boa Vista	23.06	103	P	P	16 33 52.5	+0.1
NATX	Nacogdoches	25.79	337	P	P	16 34 15.9	-1.7
NATX				IAmb	IAmb	16 34 24.7	
	comp=Z,12nm,0.6s						
LCAR	Lake Charles	28.66	346	P	P	16 34 44.4	+0.9
LCAR				IAmb	IAmb	16 34 46.3	
	comp=Z,10nm,0.9s						
FCAR	Ozark Folk Cen	28.73	344	P	P	16 34 45.0	+0.9
FCAR				IAmb	IAmb	16 34 45.8	
	comp=Z,5.0nm,1.1s						
MDP	Montagnes des	30.25	94	LR	LR	16 47 35.7	
	comp=Z,35nm,19.5s,baz=108,slow=38						
PDAR	Pinedale Array	41.55	330	P	P	16 36 36.1	+1.5
	comp=Z,0.5nm,0.7s,baz=139,slow=5.0,SNR=5.3						
	comp=Z,0.5nm,0.7s						
ULM	Lac du Bonnet	43.20	348	P	P	16 36 46.8	-0.8
	comp=Z,5.6nm,0.8s,baz=167,slow=14,SNR=7.9						
	comp=Z,5.6nm,0.8s						
NVAR	Mina Array Bea	43.74	319	P	P	16 36 54.4	+2.0
	comp=Z,1.5nm,0.7s,baz=119,slow=5.3,SNR=7.5						
	comp=Z,1.5nm,0.7s						
PLCA	Paso Flores	50.09	168	P	P	16 37 41.9	+0.2
	comp=Z,1.7nm,0.8s,baz=344,slow=12,SNR=8.0						
	comp=Z,1.7nm,0.8s						
YKA	Yellowknife Ar	58.81	343	P	P	16 38 45.0	+0.2
	comp=Z,3.1nm,0.8s,baz=140,slow=6.3,SNR=6.1						
	comp=Z,3.1nm,0.8s						
RES	Resolute Bay	66.72	357	LR	LR	17 10 21.5	
	comp=Z,73nm,20.3s,baz=334,slow=37						
ILAR	Eielson Array	71.61	336	P	P	16 40 08.6	+0.8
	comp=Z,1.0nm,0.6s,baz=114,slow=6.2,SNR=11						
	comp=Z,1.0nm,0.6s						
ILAR	Eielson Array	71.61	336	P	P	16 40 08.3	+0.5
PZH	PanZhiHua	145.13	353	PKPbc	PKPbc	16 48 23.7	-0.9

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*IDC **05** 16:40:35.8±1.4, 37°.61S×176°.66E, h0^{km}, mb3.9/5, mbtmp3.9/5, Error ellipse: s-maj=46.6km s-min=24.2km az=46.0*

*NOU **05** 16:40:57.2, 38°.37S×175°.97E, h184^{km}, MLv4.7/20, North Island, New Zealand*

*WEL **05** 16:40:58.6±1.0, 38°S±8°×17°6E±1°0, h168^{km}±7^{km}, M4.3/116, ML2.9/12, MLv4.3/116, Error ellipse: s-maj=13.5km s-min=9.9km az=89.6, confirmed*

ISC 05 16:40:55.8±0.9, **38°.27S**±0°.05×**176°.14E**±0°.05, **h201**^{km}±6^{km}, **n196,** σ**1^{s}15**/195, **mb3.6**/6, **North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GRRZ	Galatos Road	0.08	196	P	Pn	16 41 21.9	-0.3
GRRZ				S	S	16 41 40.5	-2.5
GRRZ				AML	AML		
GRRZ				AML	AML		
HSRZ	Hossack Road	0.09	116	P	Pn	16 41 21.8	-0.4
HSRZ				AML	AML		
HSRZ				AML	AML		
UTU	Utuhina	0.10	25	P	Pn	16 41 21.9	-0.3
UTU				AML	AML		
UTU				AML	AML		
HRRZ	Handcock Road	0.17	136	P	Pn	16 41 21.8	-0.5
HRRZ				S	S	16 41 40.4	-2.7
HRRZ				AML	AML		
HLRZ	Highlands Stat	0.17	84	P	Pn	16 41 22.2	-0.1
HLRZ				AML	AML		
NGRZ	Ngongotaha	0.17	13	P	Pn	16 41 21.9	-0.5
NGRZ				AML	AML		
NGRZ				AML	AML		
KARZ	Kaharoa	0.26	18	P	Pn	16 41 21.7	-0.8
KARZ				AML	AML		
TARZ	Mount Tarawera	0.29	83	P	Pn	16 41 22.1	-0.5
TARZ				AML	AML		
TARZ				AML	AML		
RRRZ	Republican Roa	0.30	103	P	Pn	16 41 21.8	-0.7
RRRZ				AML	AML		
RRRZ				AML	AML		
KUTZ	Kaahu Road	0.33	229	P	Pn	16 41 22.4	-0.2
KUTZ				AML	AML		
KUTZ				AML	AML		
LIRZ	Lichensteins R	0.33	36	P	Pn	16 41 21.9	-0.7
LIRZ				AML	AML		
ALRZ	Allen Road	0.33	151	P	Pn	16 41 22.1	-0.4
ALRZ				S	S	16 41 40.5	-3.1
ALRZ				AML	AML		
ARAZ	Aratiatia Land	0.36	182	P	Pn	16 41 22.6	-0.1
ARAZ				AML	AML		
ARAZ				AML	AML		
POIZ	Poihipi	0.37	193	P	Pn	16 41 22.9	+0.2
POIZ				AML	AML		
WHTZ	Whakaora	0.42	200	P	Pn	16 41 23.0	+0.1
WHTZ				AML	AML		
WHTZ				AML	AML		
KMRZ	Kaimai	0.45	340	P	Pn	16 41 22.3	-0.7
KMRZ				S	S	16 41 40.5	-3.6
KMRZ				AML	AML		
TLZ	Tolley Road	0.48	263	P	Pn	16 41 23.0	0.0
TLZ				S	S	16 41 42.0	-2.2
TLZ				AML	AML		
EDRZ	Edgecumbe	0.50	71	P	Pn	16 41 22.4	-0.7
EDRZ				AML	AML		
EDRZ				AML	AML		
MARZ	Manawahe	0.51	56	P	Pn	16 41 22.7	-0.5
MARZ				AML	AML		
MARZ				AML	AML		
MUGZ	Murupara	0.54	113	P	Pn	16 41 22.3	-0.9
MUGZ				AML	AML		
MUGZ				AML	AML		
WATZ	Wairara	0.54	216	P	Pn	16 41 23.3	+0.1
WATZ				AML	AML		
TGRZ	Tauranga	0.55	10	P	Pn	16 41 22.3	-1.0
TGRZ				S	S	16 41 41.3	-3.3
TGRZ				AML	AML		
MRHZ	Matea Rd	0.60	159	P	Pn	16 41 23.3	-0.3
MRHZ				AML	AML		
MRHZ				AML	AML		
RATZ	Rangitukua	0.66	206	P	Pn	16 41 23.9	+0.1
RATZ				AML	AML		
TOZ	Tahuroa Road	0.74	317	P	Pn	16 41 23.7	-0.4
TOZ				AML	AML		
RITZ	Rihia Road	0.74	197	P	Pn	16 41 24.7	+0.6
RITZ				AML	AML		
RTZ	Ruatahuna	0.74	118	P	Pn	16 41 23.8	-0.4
RTZ				AML	AML		
URZ	Urewera	0.77	89	LR	LR	16 41 57.9	
	comp=Z,202nm,19.1s,baz=324,slow=64						
URZ	Urewera	0.77	89	P	Pn	16 41 23.4	-0.9
URZ	Urewera	0.77	89	P	Pn	16 41 23.1	-1.1
URZ				AML	AML		
URZ				AML	AML		
WHRZ	Whale Island	0.78	58	P	Pn	16 41 24.5	0.0
WHRZ				AML	AML		
KATZ	Kakaramea	0.79	206	P	Pn	16 41 24.9	+0.3
KATZ				AML	AML		
MTHZ	Maungataniwha	0.80	137	P	Pn	16 41 24.4	-0.1
MTHZ				AML	AML		
NTVZ	North Tongarir	0.90	204	P	Pn	16 41 25.6	+0.4
NTVZ				AML	AML		
KRVZ	Karewarewa	0.91	205	P	Pn	16 41 25.6	+0.3
KRVZ				AML	AML		
TMVZ	Te Maari	0.91	202	P	Pn	16 41 25.6	+0.3
TMVZ				AML	AML		
TUHS	Taumarunui Hig	0.92	229	P	Pn	16 41 25.5	+0.4
ETVZ	East Tongariro	0.93	201	P	Pn	16 41 25.8	+0.4
ETVZ				AML	AML		
BKZ	Black Stump Fm	0.94	163	P	Pn	16 41 24.7	-0.6
BKZ	Black Stump Fm	0.94	163	S	S	16 41 45.6	-2.7
WTVZ	West Tongariro	0.95	207	P	Pn	16 41 25.8	+0.3
WTVZ				AML	AML		
OTVZ	Oturere	0.96	202	P	Pn	16 41 26.3	+0.6
OTVZ				AML	AML		
TWVZ	Taurewa	0.97	214	P	Pn	16 41 26.1	+0.4
TWVZ				AML	AML		
NMHZ	Naumai	0.98	148	P	Pn	16 41 26.6	+1.0
NMHZ				AML	AML		
RAHZ	Arahi	0.98	131	P	Pn	16 41 26.1	+0.5
RAHZ				AML	AML		
MYRZ	Mayor Island	0.99	5	P	Pn	16 41 25.1	-0.6
MYRZ				AML	AML		
SNVZ	South Ngauruho	0.99	203	P	Pn	16 41 26.3	+0.5
SNVZ				AML	AML		
NGZ	Ngauruhoe	1.00	205	P	Pn	16 41 26.1	+0.3
NGZ				AML	AML		
RAGZ	Rawiri	1.03	103	P	Pn	16 41 25.9	-0.1
RAGZ				AML	AML		
HIZ	Hauiti	1.04	256	P	Pn	16 41 25.7	-0.2
HIZ	Hauiti	1.04	256	P	Pn	16 41 48.1	+22
HIZ	Hauiti	1.04	256	P	Pn	16 41 26.4	+0.5
HIZ				AML	AML		
COVZ	Chateau Observ	1.04	207	P	Pn	16 41 26.3	+0.2
COVZ				AML	AML		
TUVZ	Tukino	1.06	201	P	Pn	16 41 26.9	+0.5
TUVZ				AML	AML		
FWVZ	Far West T-bar	1.08	205	P	Pn	16 41 26.8	+0.2
FWVZ				AML	AML		
MAVZ	Matarangi	1.09	204	P	Pn	16 41 27.0	+0.3
MAVZ				AML	AML		
MWZ	Matawai	1.09	94	P	Pn	16 41 25.8	-0.6
MWZ				AML	AML		
WHVZ	Whangaehu Hut	1.10	203	P	Pn	16 41 27.0	+0.3
WHVZ				AML	AML		
WIZ	White Island	1.11	49	P	Pn	16 41 25.1	-1.4
WIZ				AML	AML		
TRVZ	Turoa	1.13	204	P	Pn	16 41 27.4	+0.5
TRVZ				AML	AML		
WNVZ	Wahianoa	1.14	202	P	Pn	16 41 27.4	+0.6
WNVZ				AML	AML		
KWHZ	Kaweka Forest	1.17	169	P	Pn	16 41 27.7	+0.7
KWHZ				AML	AML		
MOVZ	Moawhango	1.17	195	P	Pn	16 41 27.2	+0.2
MOVZ				AML	AML		
WHHZ	Waihua	1.18	134	P	Pn	16 41 27.6	+0.7
WHHZ				AML	AML		
PKVZ	Pokaka	1.19	211	P	Pn	16 41 27.7	+0.6
PKVZ				AML	AML		
ARHZ	Aropaoanui	1.20	146	P	Pn	16 41 28.1	+1.0
ARHZ				AML	AML		
BHHZ	Black Hill Sta	1.22	183	P	Pn	16 41 27.8	+0.4
BHHZ				AML	AML		
MTVZ	Mangateitei	1.23	205	P	Pn	16 41 28.1	+0.6
MTVZ				AML	AML		
MCHZ	McNeill Hill	1.25	160	P	Pn	16 41 28.8	+1.3
MCHZ				AML	AML		
RUGZ	Raukumara Rang	1.25	76	P	Pn	16 41 26.1	-1.6
RUGZ				AML	AML		
RIGZ	Rimuhau	1.35	109	P	Pn	16 41 28.6	+0.3
RIGZ				AML	AML		
TKGZ	Te Karaka	1.35	98	P	Pn	16 41 28.3	0.0
TKGZ				AML	AML		
VRZ	Vera Road	1.38	231	P	Pn	16 41 29.6	+1.1
VRZ				AML	AML		
KRHZ	Kereru	1.38	173	P	Pn	16 41 29.4	+0.8
KRHZ				AML	AML		
HAZ	Te Kaha	1.40	69	P	Pn	16 41 27.3	-1.4
HAZ				AML	AML		
MKAZ	Moumakai	1.40	326	P	Pn	16 41 28.5	-0.3
MKAZ				AML	AML		
KNZ	Kokohu	1.42	122	P	Pn	16 41 29.3	+0.5
KNZ				AML	AML		
TWGZ	Tauwhareparae	1.45	87	P	Pn	16 41 29.2	0.0
TWGZ				AML	AML		
PRGZ	Paritu Road	1.51	116	P	Pn	16 41 30.2	+0.4
PRGZ				AML	AML		
CKHZ	Cape Kidnapper	1.57	152	P	Pn	16 41 31.5	+1.3
CKHZ				AML	AML		
PKGZ	Pakihiroa	1.58	76	P	Pn	16 41 29.8	-0.6
PKGZ				AML	AML		
KAHZ	Kahuranaki	1.63	160	P	Pn	16 41 32.1	+1.3
KAHZ				AML	AML		
ETAZ	East Tamaki Re	1.63	323	P	Pn	16 41 30.6	-0.3
ETAZ				AML	AML		
MHEZ	Mangahewa	1.63	240	P	Pn	16 41 32.6	+1.8
MHEZ				AML	AML		
CNGZ	Carnagh Statio	1.64	98	P	Pn	16 41 31.5	+0.6
CNGZ				AML	AML		
MHGZ	Mahia Peninsul	1.64	123	P	Pn	16 41 31.8	+1.0
MHGZ				AML	AML		
PNHZ	Pukenui	1.64	178	P	Pn	16 41 31.7	+0.7
PNHZ				AML	AML		
WIAZ	Waiheke Island	1.68	331	P	Pn	16 41 31.1	-0.2
WIAZ				AML	AML		
PUZ	Puketiti	1.68	84	P	Pn	16 41 30.6	-0.7
PUZ				AML	AML		
AWAZ	Awhitu Peninsu	1.69	315	P	Pn	16 41 31.3	-0.1
AWAZ				AML	AML		
WAZ	Wanganui	1.73	211	P	Pn	16 41 32.7	+0.9
WAZ				AML	AML		
DREZ	Durham Road	1.77	238	P	Pn	16 41 33.8	+1.7
DREZ				AML	AML		
EPAZ	Eden Park BICE	1.78	321	P	Pn	16 41 32.1	-0.2
EPAZ				AML	AML		
TSZ	Takapari Road	1.79	184	P	Pn	16 41 33.2	+0.9
TSZ				AML	AML		
MBAZ	Motutapu North	1.79	326	P	Pn	16 41 32.2	-0.2
MBAZ				AML	AML		
LREZ	Lake Rotokare	1.80	228	P	Pn	16 41 33.9	+1.6
LREZ				AML	AML		
WPHZ	Waipukurau	1.81	173	P	Pn	16 41 33.4	+1.0
WPHZ				AML	AML		
HBAZ	Herne Bay Bore	1.81	321	P	Pn	16 41 32.2	-0.3
HBAZ				AML	AML		
WTAZ	Waiatarua	1.82	317	P	Pn	16 41 32.8	+0.1
WTAZ				AML	AML		
PXZ	Pawanui	1.84	162	P	Pn	16 41 33.9	+1.1
PXZ				AML	AML		
WMGZ	Waiomatatini S	1.85	77	P	Pn	16 41 32.4	-0.5
WMGZ				AML	AML		
MXZ	Matakaoa Point	1.85	68	P	Pn	16 41 32.4	-0.5
MXZ				AML	AML		
PREZ	Palmer Road	1.88	235	P	Pn	16 41 34.8	+1.6
PREZ				AML	AML		
NEZ	North Egmont	1.88	237	P	Pn	16 41 35.1	+1.8
NEZ				AML	AML		
PKE	Pukeiti	1.92	241	P	Pn	16 41 35.2	+1.6
PKE				AML	AML		
RVAZ	Riverhead Bore	1.94	320	P	Pn	16 41 33.6	-0.3
RVAZ				AML	AML		
KHEZ	Kahui Hut	1.95	238	P	Pn	16 41 35.4	+1.4
KHEZ				AML	AML		
ABAZ	Army Bay	1.96	328	P	Pn	16 41 34.2	+0.1
ABAZ				AML	AML		
DVHZ	Dannevirke	2.03	179	P	Pn	16 41 35.4	+0.7
DVHZ				AML	AML		
PRHZ	Porangahau	2.03	169	P	Pn	16 41 35.7	+1.0
PRHZ				AML	AML		
NBEZ	Newall Road No	2.04	240	P	Pn	16 41 36.2	+1.5
NBEZ				AML	AML		
OHWZ	Ohakea	2.04	198	P	Pn	16 41 36.0	+1.3
OHWZ				AML	AML		
GRZ	Great Barrier	2.09	345	P	Pn	16 41 35.0	-0.3
GRZ				AML	AML		
NMEZ	Namu Road	2.10	236	P	Pn	16 41 36.9	+1.4
POWZ	Post Office Ro	2.14	188	P	Pn	16 41 36.5	+0.7
POWZ				AML	AML		
ANWZ	Angora Road	2.20	173	P	Pn	16 41 37.6	+1.1
ANWZ				AML	AML		
PRWZ	Pori Road	2.29	183	P	Pn	16 41 38.3	+1.0
PRWZ				AML	AML		
BFZ	Birch Farm	2.41	178	P	Pn	16 41 38.6	-0.1
BFZ	Birch Farm	2.41	178	S	S	16 42 10.0	-1.8
BFZ	Birch Farm	2.41	178	P	Pn	16 41 39.3	+0.6
BFZ				AML	AML		
MRZ	Mangatainoka R	2.43	190	P	Pn	16 41 39.4	+0.5
MRZ				AML	AML		
TIWZ	Tintock	2.51	184	P	Pn	16 41 40.5	+0.6
TIWZ				AML	AML		
CPWZ	Castlepoint	2.64	179	P	Pn	16 41 42.3	+1.1
CPWZ				AML	AML		
OGWZ	Otaki Gorge	2.65	196	P	Pn	16 41 42.0	+0.6
OGWZ				AML	AML		
HOWZ	Holdsworth Sta	2.67	190	P	Pn	16 41 41.9	+0.2
HOWZ				AML	AML		
WCZ	Waipu Caves	2.73	328	P	Pn	16 41 42.7	+0.2
WCZ				AML	AML		
KIW	Kapiti Island	2.76	200	P	Pn	16 41 42.8	+0.1
KIW				AML	AML		
TMWZ	Te Maipa	2.84	184	P	Pn	16 41 43.8	+0.2
TMWZ				AML	AML		
MTW	Mount Morrison	2.92	189	P	Pn	16 41 44.6	0.0
MTW				AML	AML		
CAW	Cannon Point	2.95	196	P	Pn	16 41 45.1	+0.2
CAW				AML	AML		
DUWZ	D’Urville Isla	3.05	213	P	Pn	16 41 46.3	+0.2
DUWZ				AML	AML		
TRWZ	Traveller	3.14	186	P	Pn	16 41 47.2	0.0
TRWZ				AML	AML		
PAWZ	Paruwai Farm	3.15	190	P	Pn	16 41 47.2	-0.1
PAWZ				AML	AML		
WEL	Wellington	3.19	199	P	Pn	16 41 47.7	0.0
WEL				AML	AML		
MSWZ	Moikau Station	3.21	192	P	Pn	16 41 47.8	-0.2
MSWZ				AML	AML		
SNZO	South Karori	3.23	200	P	Pn	16 41 47.2	-0.9
SNZO	South Karori	3.23	200	S	S	16 42 26.3	-2.3
TCW	Tory Channel	3.27	205	P	Pn	16 41 48.4	-0.2
TCW				AML	AML		
PLWZ	Palliser	3.36	191	P	Pn	16 41 49.5	-0.4
PLWZ				AML	AML		
TUWZ	Tuamarina	3.58	207	P	Pn	16 41 52.2	-0.2
NNZ	Nelson	3.63	215	P	Pn	16 41 52.4	-0.6
NNZ				AML	AML		
OUZ	Omahuta	3.67	325	P	Pn	16 41 53.7	+0.2
OUZ	Omahuta	3.67	325	P	Pn	16 41 54.4	+0.8
OUZ				AML	AML		
CMWZ	Cape Campbell	3.78	202	P	Pn	16 41 55.6	+0.8
CMWZ				AML	AML		
QRZ	Quartz Range	3.78	226	P	Pn	16 41 53.7	-1.2
QRZ	Quartz Range	3.78	226	S	S	16 42 37.5	-3.2
QRZ	Quartz Range	3.78	226	P	Pn	16 41 54.3	-0.6
QRZ				AML	AML		
BSWZ	Blackbirch Sta	3.85	206	P	Pn	16 41 55.5	-0.2
BSWZ				AML	AML		
MRNZ	Matariki Terra	4.07	219	P	Pn	16 41 57.4	-1.0
MRNZ				AML	AML		
THZ	Tophouse	4.28	214	P	Pn	16 42 00.3	-0.8
THZ				AML	AML		
KHZ	Kahutara	4.59	205	P	Pn	16 42 04.2	-0.7
KHZ	Kahutara	4.59	205	S	S	16 42 56.0	-3.0
KHZ	Kahutara	4.59	205	P	Pn	16 42 04.7	-0.2
KHZ				AML	AML		
DSZ	Denniston Nort	4.81	222	P	Pn	16 42 07.3	-0.4
DSZ				AML	AML		
GVZ	Greta Valley S	5.25	206	P	Pn	16 42 12.8	-0.6
GVZ				AML	AML		
LTZ	Lake Taylor	5.38	212	P	Pn	16 42 13.7	-1.4
LTZ				AML	AML		
AMCZ	Amberley	5.57	207	P	Pn	16 42 14.3	-3.1
AMCZ				AML	AML		
INZ	Inchbonnie	5.71	217	P	Pn	16 42 18.2	-1.0
INZ				AML	AML		
OKCZ	Okains Bay	5.92	202	P	Pn	16 42 21.4	-0.6
OKCZ				AML	AML		
OXZ	Oxford	5.93	210	P	Pn	16 42 20.2	-1.9
OXZ				AML	AML		
MQZ	McQueen’s Vall	6.04	205	P	Pn	16 42 21.7	-1.7
MQZ				AML	AML		
AKCZ	Akaroa Harbour	6.10	203	P	Pn	16 42 23.3	-1.0
AKCZ				AML	AML		
RACZ	Rakaia	6.23	208	P	Pn	16 42 24.6	-1.4
RACZ				AML	AML		
MHCZ	Mount Hutt	6.29	212	P	Pn	16 42 25.5	-1.3
MHCZ				AML	AML		
WVZ	Waitaha Valley	6.32	219	P	Pn	16 42 25.5	-1.5
WVZ				AML	AML		
WACZ	Wakanui South	6.53	208	P	Pn	16 42 28.5	-1.3
WACZ				AML	AML		
RPZ	Rata Peaks	6.66	214	P	Pn	16 42 30.3	-1.2
RPZ	Rata Peaks	6.66	214	P	Pn	16 42 30.7	-0.8
RPZ				AML	AML		
GCSZ	Gaunt Creek Bo	6.70	219	P	Pn	16 42 30.9	-1.1
GCSZ				AML	AML		
ARCZ	Arundel	6.80	212	P	Pn	16 42 32.1	-1.2
ARCZ				AML	AML		
FOZ	Fox Glacier	7.11	220	P	Pn	16 42 35.8	-1.5
TMZ	Timaru	7.22	211	P	Pn	16 42 37.0	-1.9
TMZ				AML	AML		
LBZ	Lake Benmore	7.57	214	P	Pn	16 42 42.5	-0.9
CTZ	Chatham Island	7.73	137	P	Pn	16 42 47.9	+2.5
CTZ	Chatham Island	7.73	137	P	Pn	16 42 50.3	+4.9
ODZ	Otahua Downs	7.92	210	P	Pn	16 42 47.3	-0.5
ODZ	Otahua Downs	7.92	210	P	Pn	16 42 46.8	-1.1
JCZ	Jackson Bay	8.02	221	P	Pn	16 42 48.1	-1.2
JCZ	Jackson Bay	8.02	221	P	Pn	16 42 47.7	-1.6
WKZ	Wanaka	8.45	217	P	Pn	16 42 53.5	-1.3
EAZ	Earnscleugh	8.62	214	P	Pn	16 42 55.3	-1.8
HHSZ	Highcliff Hill	8.65	207	P	Pn	16 42 57.5	+0.1
TUZ	Tuapeka	9.07	210	P	Pn	16 43 03.1	+0.3
SYZ	Scrubby Hill	9.74	210	P	Pn	16 43 10.5	-1.0
PYZ	Puysegur Point	10.55	219	P	Pn	16 43 22.4	+0.4
ASAR	Alice Springs	38.69	280	P	P	16 48 04.2	+3.9
	0.5nm,0.5s,baz=127,slow=8.4,SNR=24						
	0.5nm,0.5s						
ASAR	Alice Springs	38.69	280	P	pP	16 48 44.6	+2.0
	2.2nm,1.0s,baz=125,slow=8.6,SNR=8.1						
	2.2nm,1.0s						
VNDA	Vanda	39.83	185	P	P	16 48 15.3	+6.4
	0.8nm,0.8s,baz=7.8,slow=8.7,SNR=6.4						
	0.8nm,0.8s						
WRA	Warramunga Arr	40.43	285	P	P	16 48 17.9	+3.2
	0.8nm,0.9s,baz=120,slow=8.4,SNR=4.7						
	0.8nm,0.9s						
WRA	Warramunga Arr	40.43	285	P	pP	16 48 59.1	+1.8
	1.6nm,0.8s,baz=121,slow=8.2,SNR=6.4						
	1.6nm,0.8s						
QSPA	South Pole Qui	51.85	180	P	P	16 49 50.5	+7.3
	3.4nm,0.6s,baz=78,slow=3.7,SNR=40						
	3.4nm,0.6s						
QSPA	South Pole Qui	51.85	180	P	pP	16 50 30.0	+1.9
	2.3nm,0.9s,baz=37,slow=5.1,SNR=1.8						
	2.3nm,0.9s						
MAW	Mawson	63.22	203	P	pP	16 51 50.2	+1.2
	1.1nm,0.7s,baz=159,slow=14,SNR=1.6						
	1.1nm,0.7s						
PLCA	Paso Flores	80.55	135	P	P	16 52 51.8	+6.0
	1.1nm,0.8s,baz=223,slow=8.4,SNR=5.2						
	1.1nm,0.8s						
ARCES	ARCESS Array B	144.95	343	PKP	PKiKP	17 00 10.8	-0.8
	2.2nm,1.0s,baz=41,slow=2.3,SNR=4.0						
FINES	FINESS Array B	150.31	331	PKPbc	PKPab	17 00 26.4	-2.7
	0.4nm,0.3s,baz=46,slow=4.0,SNR=7.9						

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*IDC **05** 16:43:18.6±0.6, 50°.86N×135°.10E, h0^{km}, mb3.7/11, mbtmp3.7/21, ML3.4/7, MS2.6/1, Error ellipse: s-maj=13.1km s-min=9.0km az=119.0*

*MOS **05** 16:43:18.5±1.4, 50°.97N×134°.92E, h9^{km}, mb4.3/7, Error ellipse: s-maj=11.5km s-min=6.3km az=99.1*

*SKHL **05** 16:43:20.7±0.5, 51°.00N×134°.80E, h8^{km}±2^{km}, mb4.5/5*

ISC 05 16:43:19.5±0.8, **50°.92N**±0°.03×**134°.99E**±0°.03, **h3**^{km}±5^{km}, **n58,** σ**1^{s}72**/75, **mb3.9**/15, **2C-6D, Southeastern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GRNR	Gornyy	0.92	99	⇓ *i*P	Pb	16 43 38.5	+0.4
GRNR				pmax	pmax		
	comp=N,170nm,0.3s						

GRNR				pmax	pmax		
	comp=Z,100nm,0.3s						
GRNR	**Gornyy**	**0.92**	**99**	ePg	**Pb**	**16 43 38.5**	**+0.4**
GRNR				AMB	AMB	16 43 43.8	
	comp=Z,450nm,0.3s						
GRNR				eSg	**Sb**	**16 43 52.0**	**+1.2**
GRNR				A	A	16 43 52.8	
	comp=Z,920nm,0.4s						
GRNR				A	A	16 43 52.8	
	comp=Z,2µm,0.4s						
KHBR	**Khabarovsk**	**2.45**	**179**	eP	**Pb**	**16 44 02.1**	**-2.0**
KHBR				ePg	**Pg**	**16 44 05.7**	**-0.6**
KHBR				eSg	**Sg**	**16 44 38.1**	**+0.1**
EKMR	**Ekimchan**	**2.50**	**331**	eP	**Pb**	**16 44 03.9**	**-1.0**
EKMR				e		16 44 35.1	
EKMR	**Ekimchan**	**2.50**	**331**	ePg	**Pb**	**16 44 03.8**	**-1.1**
EKMR				AMB	AMB	16 44 08.0	
	comp=Z,120nm,0.4s						
EKMR				eSg	**Sb**	**16 44 35.3**	**-0.8**
EKMR				A	A	16 44 39.4	
	comp=Z,500nm,0.4s						
EKMR				A	A	16 44 39.4	
	comp=Z,480nm,0.4s						
KLR	**Kul'dur**	**2.68**	**232**	Pn	**Pn**	**16 44 02.9**	**-0.6**
	comp=Z,7.6nm,0.3s,baz=41,slow=17,SNR=46						
KLR				Pg	**Pb**	**16 44 08.0**	**-0.1**
	comp=Z,91nm,0.3s,baz=49,slow=18,SNR=186						
KLR				Lg	Lg	16 44 42.1	
	comp=Z,123nm,0.3s,baz=0.0,slow=20,SNR=14						
KLR				LR	LR	16 45 14.9	
	comp=Z,117nm,21.7s,baz=22,slow=43						
	comp=Z,168nm,0.8s						
KLR				AML	AML		
KLR	**Kul'dur**	**2.68**	**232**	eP	**Pn**	**16 44 02.9**	**-0.6**
KLR				eS	**Sb**	**16 44 41.8**	**+0.4**
KLR				pmax	pmax		
	comp=Z,54nm,0.3s						
KLR				smax	smax		
	comp=E,148nm,0.3s						
KLR	**Kul'dur**	**2.68**	**232**	ePg	**Pb**	**16 44 08.0**	**-0.1**
KLR				eSg	**Sb**	**16 44 42.5**	**+1.1**
NKL	**Nikolayevsk**	**4.17**	**55**	ePg	**Pg**	**16 44 36.9**	**-2.3**
NKL				AMB	AMB	16 44 40.0	
	comp=E,10.0nm,0.5s						
NKL				eSg	**Sg**	**16 45 33.0**	**-0.2**
NKL				A	A	16 45 38.5	
	comp=E,200nm,0.6s						
OCTB	**Oktyabr'skiy**	**4.45**	**301**	ePg	**Pb**	**16 44 39.1**	**+0.9**
OCTB				AMB	AMB	16 44 45.7	
	comp=E,50nm,0.5s						
OCTB				eSg	**Sb**	**16 45 36.3**	**+4.1**
OCTB				A	A	16 45 39.5	
	comp=E,150nm,0.6s						
OCTB				A	A	16 45 39.5	
	comp=E,150nm,0.6s						
HEH	**HeiHe**	**4.87**	**265**	Pn	**Pn**	**16 44 30.5**	**-3.1**
HEH				Pg	**Pb**	**16 44 47.0**	**+1.6**
HEH				Sg	**Sb**	**16 45 46.7**	**+2.4**
HEH				smax	smax		
	comp=N,500nm,0.8s						
HEH				smax	smax		
	comp=E,150nm,0.9s						
UGL	**Uglegorsk**	**4.92**	**109**	eP	Pn	16 44 20.9	-13
UGL				e		16 45 32.7	
UGL				pmax	pmax		
	comp=Z,72nm,1.2s						
BMKR	**Bomnak**	**5.32**	**318**	eSg	**Sb**	**16 46 03.0**	**+5.8**
BMKR				A	A	16 46 07.2	
	comp=Z,100nm,0.5s						
ZEA	**Zeya**	**5.52**	**304**	eP	**Pn**	**16 44 42.6**	**+0.1**
ZEA				e		16 45 44.2	
ZEA				pmax	pmax		
	comp=Z,10.0nm,0.6s						
ZEA				smax	smax		
	comp=E,10.0nm,0.5s						
ZEA	**Zeya**	**5.52**	**304**	eP	**Pn**	**16 44 42.6**	**+0.1**
ZEA				ePg	**Pb**	**16 44 58.2**	**+1.8**
ZEA				AMB	AMB	16 45 04.6	
	comp=E,20nm,0.5s						
ZEA				eSg	**Sg**	**16 46 09.3**	**-7.3**
ZEA				A	A	16 46 13.6	
	comp=E,90nm,0.6s						
ZEA				A	A	16 46 13.6	
	comp=E,10.0nm,0.6s						
YSS	**Yuzhno-Sakhali**	**6.47**	**125**	eP	**Pn**	**16 44 57.8**	**+2.2**
YSS				eS	**Sn**	**16 46 10.9**	**+1.0**
YSS				pmax	pmax		
	comp=Z,10.0nm,1.1s						
YSS				smax	smax		
	comp=N,30nm,0.4s						
YSS				smax	smax		
	comp=E,20nm,0.5s						
USA0B	**Ussuriysk Arra**	**7.02**	**198⇓**	eP	**Pn**	**16 45 05.3**	**+2.2**
USRK	**Ussuriysk Ar.**	**7.02**	**198**	Pn	**Pn**	**16 45 02.7**	**-0.4**
	comp=E,0.2nm,0.3s,baz=7.1,slow=14,SNR=5.8						
USRK				Pg	Pb	16 45 27.1	+5.1
	comp=E,0.5nm,0.3s,baz=16,slow=16,SNR=5.5						
USRK				Lg	Lg	16 46 56.4	
	comp=E,1.9nm,0.3s,baz=16,slow=27,SNR=4.3						
	comp=E,0.8nm,0.4s						
USRK				AML	AML		
BNX	**BinXian**	**7.24**	**227 ⇓**	Pn	**Pn**	**16 45 07.4**	**+1.3**
BNX				Sg	**Sg**	**16 47 09.3**	**-2.4**
BNX				smax	smax		
	comp=N,160nm,1.1s						
BNX				smax	smax		
	comp=E,140nm,0.9s						
CGD	**Chagda**	**8.24**	**344**	eP	**Pn**	**16 45 18.0**	**-1.8**
CLNS	**Chul'man**	**8.40**	**319**	eP	**Pn**	**16 45 22.1**	**0.0**
ASAJ	**Asahikawa**	**8.53**	**140**	Pn	**Pn**	**16 45 22.2**	**-1.6**
	comp=E,0.3nm,0.3s,baz=55,slow=8.4,SNR=6.9						
	comp=E,1.8nm,0.9s						
ASAJ				AML	AML		
USMR	**Ust'-Maya**	**9.53**	**359**	eP	**Pn**	**16 45 35.7**	**-1.7**
CN2	**Changchun**	**9.62**	**226**	Pg	**Pn**	**16 45 39.0**	**+0.3**
CN2				Sg	**Sn**	**16 47 27.2**	**0.0**
CN2				smax	smax		
	comp=N,20nm,1.4s						
CN2				smax	smax		
	comp=E,20nm,1.4s						
YKLR	**Yuktali**	**9.72**	**311**	eP	**Pn**	**16 45 39.5**	**-0.6**
HILR	**Hailar Array B**	**9.86**	**268**	Pn	**Pn**	**16 45 41.1**	**-0.9**
	baz=78,slow=15						
HILR				Lg	Lg	16 48 27.1	
	baz=77,slow=31						
	comp=E,0.7nm,0.3s						
YAK	**Yakutsk**	**11.52**	**347**	Pn	**Pn**	**16 46 04.3**	**-0.3**
	comp=E,0.6nm,0.3s,baz=15,slow=23,SNR=2.0						
YAK				Lg	Lg	16 49 09.7	
	comp=E,0.4nm,0.3s,baz=157,slow=7.7,SNR=7.8						
	comp=E,4.0nm,0.6s						
YAK				AML	AML		
YAK	**Yakutsk**	**11.52**	**347**	eP	**Pn**	**16 46 04.5**	**-0.1**
YAK				eS	**Sn**	**16 48 13.6**	**+0.1**
YAK				pmax	pmax		
	comp=Z,3.0nm,1.1s						
YAK				pmax	pmax		
	comp=N,5.0nm,1.1s						
YAK				pmax	pmax		
	comp=E,2.0nm,1.3s						
YAK				smax	smax		
	comp=N,157nm,6.0s						
YAK				smax	smax		
	comp=E,71nm,2.8s						
YAK				MLR	MLR		
	comp=Z,48nm,20.0s						
YAK				MLR	MLR		
	comp=E,39nm,12.0s						
YAK				MLR	MLR		
	comp=N,83nm,17.0s						
MA2	**Magadan**	**12.47**	**40**	Pn	**Pn**	**16 46 18.1**	**+0.4**
	comp=N,4.8nm,0.8s,baz=223,slow=19,SNR=1.7						
PETK	**Petropavlovsk-**	**14.15**	**72**	Pn	**Pn**	**16 46 40.7**	**+0.1**
	comp=N,2.5nm,1.1s,baz=270,slow=8.6,SNR=2.1						
UNR	**Ust'-Nera**	**14.36**	**14**	eP	**Pn**	**16 46 42.6**	**-0.8**
KSRS	**Korea Array**	**14.37**	**203**	Pn	**P**	**16 46 48.0**	**-2.9**
	comp=N,0.1nm,0.3s,baz=18,slow=10,SNR=4.8						
	comp=N,0.6nm,0.6s						
KSRS				AML	AML		
MJAR	**Matsushiro Arr**	**14.56**	**170**	Pn	**Pn**	**16 46 46.5**	**+0.2**
	comp=N,2.1nm,0.9s,baz=359,slow=14,SNR=3.3						
ULN	**Ulaanbaatar**	**18.39**	**271⇑**	eP	**P**	**16 47 37.6**	**+2.0**
ULN				pmax	pmax		
	comp=Z,4.0nm,1.5s						
SONM	**Songino Array**	**18.82**	**272**	P	**Pn**	**16 47 41.0**	**+0.3**
	baz=72,slow=9.3,SNR=4.0						
SONM				Lg	Lg	16 53 06.8	
	comp=Z,0.1nm,0.3s,baz=78,slow=27,SNR=5.9						
	comp=Z,0.6nm,0.7s						
SONM	**Songino Array**	**18.82**	**272**	P	**Pn**	**16 47 41.0**	**+0.3**
HHC	**Hu-ho-hao-te**	**19.09**	**247**	eP	Pn	16 47 51.2	+7.3
TIXI	**Tiksi**	**20.99**	**355**	P	**P**	**16 48 04.1**	**+0.6**
	comp=Z,4.1nm,0.6s,baz=160,slow=11,SNR=5.9						
	comp=Z,4.1nm,0.6s						
TIXI	**Tiksi**	**20.99**	**355⇓**	iP	**P**	**16 48 04.6**	**+1.1**
TIXI				pmax	pmax		
	comp=Z,5.0nm,0.8s						
NJ2	**Nanjing**	**22.30**	**218**	eP	P	16 48 05.4	-12
NJ2				pmax	pmax		
	comp=Z,15nm,0.6s						
BILL	**Bilibino**	**22.96**	**30⇑**	eP	**P**	**16 48 26.7**	**+2.1**
BILL				pmax	pmax		
	comp=Z,12nm,1.9s						
LYN	**LuoYang**	**23.12**	**234**	P	**P**	**16 48 27.2**	**+0.7**
LYN				pmax	pmax		
	comp=Z,35nm,0.6s						
ZALV	**Zalesovo Beam**	**30.22**	**296**	P	**P**	**16 49 31.4**	**+0.4**
	comp=Z,0.5nm,0.4s,baz=82,slow=5.5,SNR=2.7						
ZALV				PcP	**PcP**	**16 52 30.4**	**-1.2**
	comp=Z,1.3nm,0.6s,baz=83,slow=3.3,SNR=6.7						
	comp=Z,0.5nm,0.4s						
MKAR	**Makanchi Array**	**34.30**	**284**	P	**P**	**16 50 07.8**	**+1.0**
	comp=Z,0.5nm,0.8s,baz=59,slow=4.8,SNR=4.0						
	comp=Z,0.5nm,0.8s						
KURK	**Kurchatov**	**34.87**	**292**	P	**P**	**16 50 12.4**	**+0.8**
KURK						16 52 43.2	
KURBB	**Kurchatov Arra**	**34.96**	**292**	P	**P**	**16 50 12.4**	**0.0**
	comp=Z,0.4nm,0.2s,baz=62,slow=8.6,SNR=4.1						
KURBB				PcP	**PcP**	**16 52 43.2**	**-1.4**
	comp=Z,0.4nm,0.3s,baz=72,slow=3.4,SNR=6.9						
	comp=Z,0.4nm,0.2s						
BORK	**Borovoye**	**38.68**	**299⇓**	eP	**P**	**16 50 42.7**	**-1.4**
ILAR	**Eielson Array**	**40.95**	**40**	P	**P**	**16 51 03.0**	**+0.2**
	comp=Z,0.6nm,0.5s,baz=281,slow=7.2,SNR=12						
	comp=Z,0.6nm,0.5s						
ILAR	**Eielson Array**	**40.95**	**40**	eP	**P**	**16 51 05.0**	**+2.1**
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
OBN	**Obninsk**	**54.52**	**316**	eP	**P**	**16 52 46.9**	**-1.2**
OBN				e*PP	**sP**	**16 52 52.0**	**+2.2**
OBN				e		16 53 51.1	
OBN				e		16 54 49.8	
OBN				ePPP	PPP	16 56 02.0	
OBN				pmax	pmax		
	comp=Z,3.0nm,0.7s						
OBN				MLR	MLR		
	comp=Z,38nm,17.0s						
FINES	**FINESS Array B**	**54.52**	**326**	P	**P**	**16 52 47.7**	**-0.4**
	comp=Z,0.6nm,0.7s,baz=51,slow=6.5,SNR=4.1						
	comp=Z,0.6nm,0.7s						
NOA	**NORSAR Array B**	**59.67**	**332**	P	**P**	**16 53 24.6**	**0.0**
	comp=Z,0.6nm,0.8s,baz=38,slow=6.5,SNR=1.6						
	comp=Z,0.6nm,0.8s						
AKASG	**Malin Array Be**	**60.78**	**315**	P	**P**	**16 53 32.2**	**-0.1**
	comp=Z,0.8nm,0.5s,baz=41,slow=7.9,SNR=6.2						
	comp=Z,0.8nm,0.5s						
AKBB	**Malin Array Si**	**60.78**	**315⇓**	eP	**P**	**16 53 31.0**	**-1.3**
AKBB				pmax	pmax		
	comp=Z,3.0nm,0.8s						
PDAR	**Pinedale Array**	**71.13**	**45**	P	**P**	**16 54 38.9**	**-0.4**
	comp=Z,0.2nm,0.6s,baz=306,slow=4.0,SNR=1.7						
	comp=Z,0.2nm,0.6s						
ASAR	**Alice Springs**	**74.26**	**181**	P	**P**	**16 54 57.2**	**-0.5**
	comp=Z,0.3nm,0.5s,baz=358,slow=5.8,SNR=9.2						
	comp=Z,0.3nm,0.5s						
ESDC	**Sonseca Array**	**82.89**	**329**	P	**P**	**16 55 45.7**	**+0.4**
	comp=Z,0.5nm,0.6s,baz=24,slow=3.9,SNR=4.5						
	comp=Z,0.5nm,0.6s						
QSPA	**South Pole Qui**	**140.66**	**180**	PKP	**PKPdf**	**17 02 49.4**	**+0.4**
	comp=Z,0.5nm,0.9s,baz=256,slow=3.2,SNR=3.2						

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*GRAL **05** 16:47:31.9±0.4, 35.°05N×33.°34E, h0^{km}±93^{km}, MD3.6*
*ISK **05** 16:47:33.3, 35.°25N×33.°21E, h61^{km}±1^{km}, ML3.3/36*
*NIC **05** 16:47:33.2, 35.°21N×33.°21E, h64^{km}±1^{km}, Ml3.0/9*
*AFAD **05** 16:47:33.2, 35.°40N×33.°21E, h20^{km}, MW3.2*
*GII **05** 16:47:34.7±0.0, 35.°059N±0.°002×33.°383E±0.°001, h0^{km}, Mws3.2, confirmed*
ISC 05 16:47:33.0±1.2**, 35.°15N**±0.°02×**33.°24E**±0.°03**, h70**^{km}±5^{km}**,**
n116, σ0^{s}98/167**, Cyprus region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ATHAL	**Athalassa**	**0.13**	**94**	P	**Pn**	**16 47 43.1**	**-0.1**
ATHAL				S	**Sn**	**16 47 50.8**	**0.0**
ATHAL				AML	AML	16 47 52.0	
	10nm,0.3s						
ATHAL				AML	AML	16 47 52.2	
	6.9nm,0.4s						
CSS	**Mathiatis**	**0.20**	**158**	Pg	**Pn**	**16 47 43.7**	**+0.1**
CSS				Sg	**Sn**	**16 47 51.8**	**+0.5**
CSS				AML	AML		
CSS	**Mathiatis**	**0.20**	**158**	P	**Pn**	**16 47 43.4**	**-0.2**
CSS				AML	AML		
CSS				AML	AML		
CSS	**Mathiatis**	**0.20**	**158**	P	**Pn**	**16 47 43.4**	**-0.2**
CSS				S	**Sn**	**16 47 50.9**	**-0.5**
XYLS	**Xyliatos**	**0.21**	**229**	AML	AML	16 47 52.2	
	5.8nm,0.2s						
XYLS	**Xyliatos**	**0.21**	**229**	P	**Pn**	**16 47 42.9**	**-0.7**
XYLS	**Xyliatos**	**0.21**	**229**	S	**Sn**	**16 47 50.1**	**-1.3**
XYLS	**Xyliatos**	**0.21**	**229**	AML	AML	16 47 51.9	
	7.7nm,0.2s						
LFK	**Lefkose**	**0.27**	**62**	Pg	**Pn**	**16 47 43.8**	**-0.2**
LFK				AML	AML		
MVOU	**Mavrovouni**	**0.35**	**112**	P	**Pn**	**16 47 44.5**	**+0.1**
MVOU				S	**Sn**	**16 47 53.5**	**+0.6**
MVOU				AML	AML	16 47 54.2	
	2.0nm,0.4s						
MVOU				AML	AML	16 47 56.1	
	2.7nm,0.3s						
ASGA	**Asgata**	**0.36**	**179**	P	**Pn**	**16 47 44.6**	**0.0**
ASGA				S	**Sn**	**16 47 54.1**	**+1.1**
ASGA				AML	AML	16 47 57.6	
	3.1nm,0.4s						
ASGA				AML	AML	16 47 59.1	
	2.6nm,0.3s						
TROD	**Troodos**	**0.37**	**236**	P	**Pn**	**16 47 44.9**	**+0.1**
TROD				S	**Sn**	**16 47 53.6**	**+0.1**
TROD				AML	AML	16 47 57.9	
	1.5nm,0.4s						
TROD				AML	AML	16 48 00.9	
	2.5nm,0.5s						
ALFC	**Alefka**	**0.52**	**271**	P	**Pn**	**16 47 45.3**	**-0.7**
ALFC				S	**Sn**	**16 47 54.8**	**-0.8**
ALFC				AML	AML	16 47 55.0	
	4.6nm,0.4s						
ALFC				AML	AML	16 47 57.3	
	1.3nm,0.4s						
APOL	**The Sanctuary**	**0.57**	**213**	P	**Pn**	**16 47 47.0**	**+0.5**
APOL				S	**Sn**	**16 47 57.0**	**+0.7**
APOL				AML	AML	16 48 01.5	
	4.3nm,0.3s						
NATA	**Nata**	**0.66**	**236**	P	**Pn**	**16 47 47.7**	**+0.2**
NATA				S	**Sn**	**16 47 58.4**	**+0.3**
NATA				AML	AML	16 48 04.4	
	2.5nm,0.7s						
NATA				AML	AML	16 48 06.1	
	3.2nm,0.6s						
AKMS	**Akamas**	**0.75**	**260**	P	**Pn**	**16 47 48.4**	**0.0**
AKMS				S	**Sn**	**16 48 00.6**	**+0.7**
AKMS				AML	AML	16 48 02.8	
	3.2nm,0.4s						
AKMS				AML	AML	16 48 03.6	
	1.3nm,0.4s						
EREN	**Erenkoy**	**0.85**	**63**	Pg	**Pn**	**16 47 50.0**	**+0.4**
EREN				Sg	**Sn**	**16 48 02.3**	**+0.4**
EREN				AML	AML		
EREN	**Erenkoy**	**0.85**	**63**	P	**Pn**	**16 47 50.7**	**+1.1**
EREN				S	**Sn**	**16 48 02.9**	**+1.0**
EREN				IAML		16 48 05.0	
	comp=N,631nm,0.4s						
EREN				IAML		16 48 06.0	
	comp=E,782nm,0.8s						
BOZY	**Bozyazi-Mersin**	**0.98**	**348**	Pg	**Pn**	**16 47 50.4**	**-0.7**
BOZY				AML	AML		
TEKE	**Tekeli-Mersin**	**0.99**	**354**	Pg	**Pn**	**16 47 50.5**	**-0.9**
TEKE				Sg	**Sn**	**16 48 03.5**	**-1.6**
TEKE				AML	AML		
YORU	**Yoruktepe-Mers**	**1.01**	**8**	Pg	**Pn**	**16 47 50.8**	**-0.8**
YORU				Sg	**Sn**	**16 48 03.9**	**-1.5**
YORU				AML	AML		
AKK2	**Akkuyu-Mersin**	**1.02**	**14**	Pg	**Pn**	**16 47 50.8**	**-0.8**
AKK2				Sg	**Sn**	**16 48 04.2**	**-1.3**
AKK2				AML	AML		
AKK1	**Akkuyu-Mersin**	**1.02**	**14**	Pg	**Pn**	**16 47 51.1**	**-0.6**
AKK1				AML	AML		
BECE	**Buyukeceli-Mer**	**1.04**	**15**	Pg	**Pn**	**16 47 51.3**	**-0.6**
BECE				AML	AML		
OREN	**Orenkoy-Mersin**	**1.07**	**10**	Pg	**Pn**	**16 47 51.7**	**-0.6**
OREN				AML	AML		
TISA	**Tisan-Mersin**	**1.07**	**19**	Pg	**Pn**	**16 47 51.9**	**-0.4**
TISA				AML	AML		
YESI	**Yesilovacik-Me**	**1.09**	**17**	Pg	**Pn**	**16 47 51.7**	**-0.9**
YESI				AML	AML		
TEPK	**Tepekoy-MERSIN**	**1.10**	**13**	Pg	**Pn**	**16 47 51.7**	**-1.1**
TEPK				AML	AML		
KARG	**Kargicak-Mersi**	**1.12**	**20**	Pg	**Pn**	**16 47 52.9**	**0.0**
KARG				AML	AML		
IKL	**Isikli**	**1.15**	**18**	Pg	**Pn**	**16 47 52.8**	**-0.5**
IKL				AML	AML		
BERE	**Bereket-Mersin**	**1.19**	**359**	Pn	**Pn**	**16 47 53.4**	**-0.7**
BERE				Sn	**Sn**	**16 48 08.2**	**-1.6**
BERE				AML	AML		
TEVE	**Tevekalti-Mers**	**1.29**	**7**	Pn	**Pn**	**16 47 54.8**	**-0.5**
TEVE				AML	AML		
GAZI	**Gazipasa**	**1.32**	**326**	Pn	**Pn**	**16 47 54.6**	**-0.9**
GAZI				AML	AML		
GAZI	**Gazipasa**	**1.32**	**326**	P	**Pn**	**16 47 54.5**	**-1.0**
GAZI				P	**Pn**	**16 47 54.5**	**-1.0**
GAZI				IAML		16 48 09.0	
	comp=N,5µm,6.2s						
GAZI				S	**Sn**	**16 48 10.0**	**-2.4**
GAZI				S		16 48 10.6	
GAZI				IAML		16 48 14.0	
	comp=N,545nm,0.5s						
GAZI				IAML		16 48 14.0	
	comp=E,368nm,0.4s						
SILI	**Silifke-Mersin**	**1.34**	**25**	Pn	**Pn**	**16 47 55.8**	**+0.1**
SILI				AML	AML		
KEBE	**Keben-Mersin**	**1.35**	**17**	Pn	**Pn**	**16 47 55.6**	**-0.4**
KEBE				AML	AML		
SLFK	**Silifke-Mersin**	**1.37**	**25**	Pn	**Pn**	**16 47 55.7**	**-0.4**
SLFK				AML	AML		
KIZK	**Mersin**	**1.52**	**29**	Pn	**Pn**	**16 47 58.2**	**+0.1**
KIZK				AML	AML		
KIZK	**Mersin**	**1.52**	**29**	P	**Pn**	**16 47 57.7**	**-0.5**
KIZK				S	**Sn**	**16 48 16.1**	**-1.0**
KIZK				IAML		16 48 18.0	
	comp=E,124nm,0.3s						
KIZK				IAML		16 48 20.0	
	comp=N,139nm,0.2s						
ALAN	**Alanya-ANTALYA**	**1.71**	**325**	Pn	**Pn**	**16 48 00.8**	**+0.1**
ALAN				AML	AML		
HDMB	**Hadim**	**1.91**	**342**	Pn	**Pn**	**16 48 03.8**	**+0.2**
HDMB				AML	AML		
KRMN	**Karaman**	**2.02**	**1**	Pn	**Pn**	**16 48 04.9**	**-0.1**
KRMN				AML	AML		
KKBE	**Karaman, Kazim**	**2.08**	**353**	P	**Pn**	**16 48 06.5**	**+0.7**
KKBE				S	**Sn**	**16 48 31.8**	**+1.1**
KKBE				IAML		16 48 34.0	
	comp=E,96nm,0.6s						
KKBE				IAML		16 48 35.0	
	comp=N,80nm,0.3s						
KEPZ	**Antalya-Kepez**	**2.19**	**323**	P	**Pn**	**16 48 07.9**	**+0.6**
KEPZ				S	**Sn**	**16 48 33.7**	**+0.3**
KEPZ				IAML		16 48 36.0	
	comp=E,76nm,0.5s						
KRTS	**Karatas**	**2.24**	**50**	Pn	**Pn**	**16 48 09.1**	**+1.3**
KRTS				AML	AML		
BHL	**Bhannes**	**2.35**	**121**	eP	**Pn**	**16 48 08.6**	**-0.8**
KERG	**Konya-Eregli**	**2.37**	**17**	P	**Pn**	**16 48 10.6**	**+0.9**
KERG				S	**Sn**	**16 48 38.5**	**+0.7**
KERG				IAML		16 48 41.0	
	comp=N,249nm,0.3s						
HWQ	**Hawqa**	**2.40**	**111**	eP	**Pn**	**16 48 09.6**	**-0.4**
HWQ				eS	**Sn**	**16 48 37.4**	**-1.1**
DQRL	**Deir Qamar**	**2.41**	**126**	eP	**Pn**	**16 48 09.2**	**-1.0**
GULE	**Gulek**	**2.47**	**30**	P	**Pn**	**16 48 12.1**	**+1.0**
GULE				S	**Sn**	**16 48 40.8**	**+0.6**
GULE				IAML		16 48 44.0	
	comp=N,92nm,0.3s						
BEIL	**Beino**	**2.50**	**103**	eP	**Pn**	**16 48 11.1**	**-0.3**
BEIL				eS	**Sn**	**16 48 40.0**	**-0.8**
YAYL	**Yayladag**	**2.50**	**69**	P	**Pn**	**16 48 11.4**	**0.0**
SEYD	**Seydisehir-KON**	**2.52**	**334**	Pn	**Pn**	**16 48 12.2**	**+0.5**
SEYD				AML	AML		
ZAHL	**Zahle**	**2.54**	**120**	eP	**Pn**	**16 48 11.5**	**-0.5**
SEDI	**Konya, Seydise**	**2.59**	**333**	P	**Pn**	**16 48 14.2**	**+1.5**
SEDI				S	**Sn**	**16 48 44.2**	**+1.0**
SEDI				IAML		16 48 47.0	
	comp=E,65nm,0.6s						
CAYT	**Sariam**	**2.63**	**39**	P	**Pn**	**16 48 13.4**	**+0.4**
AKUM	**Antalya-Kumluc**	**2.63**	**297**	P	**Pn**	**16 48 12.0**	**-1.1**
YESY	**Yesilyurt**	**2.66**	**9**	Pn	**Pn**	**16 48 13.9**	**+0.3**
YESY				AML	AML		
KMER	**Konya-Meram**	**2.71**	**345**	P	**Pn**	**16 48 15.2**	**+0.9**
RCY	**Rachaya**	**2.71**	**127**	eP	**Pn**	**16 48 13.8**	**-0.6**
RCY				eS	**Sn**	**16 48 44.7**	**-1.5**
ANTB	**Antalya**	**2.73**	**311**	Pn	**Pn**	**16 48 15.3**	**+0.9**
ANTB				AML	AML		
KIRY	**Kiryat Shemona**	**2.74**	**134**	P	**Pn**	**16 48 13.9**	**-0.6**
KIRY				S	**Sn**	**16 48 44.6**	**-1.9**
SHBL	**Chebaa**	**2.75**	**130**	eP	**Pn**	**16 48 14.4**	**-0.5**
MMA0B	**Mount Meron ar**	**2.79**	**139**	P	**Pn**	**16 48 15.1**	**-0.3**
MMA0B				S	**Sn**	**16 48 47.0**	**-0.9**
GEM	**Giv'at Ha'Em**	**2.79**	**133**	P	**Pn**	**16 48 15.5**	**+0.2**
GEM				S	**Sn**	**16 48 46.2**	**-1.7**
GEM				AML	AML		
GEM				AML	AML		
GEM	**Giv'at Ha'Em**	**2.79**	**133**	P	**Pn**	**16 48 15.0**	**-0.3**
GEM				S	**Sn**	**16 48 46.3**	**-1.6**
NATI	**Neve Ativ**	**2.80**	**132**	P	**Pn**	**16 48 14.9**	**-0.5**
NATI				S	**Sn**	**16 48 46.3**	**-1.7**
ZEFT	**Zefat**	**2.87**	**139**	P	**Pn**	**16 48 16.4**	**0.0**
ZEFT				S	**Sn**	**16 48 48.7**	**-1.3**
KONT	**Konya--Tatoy**	**2.88**	**346**	Pn	**Pn**	**16 48 17.2**	**+0.7**
KONT				AML	AML		
KONT	**Konya--Tatoy**	**2.88**	**346**	P	**Pn**	**16 48 17.5**	**+1.0**
CMRD	**Camardi-Nigde**	**2.88**	**29**	Pn	**Pn**	**16 48 17.5**	**+0.9**
CMRD				AML	AML		
OFRI	**`Ofer**	**2.91**	**150**	P	**Pn**	**16 48 16.8**	**-0.2**
OFRI				S	**Sn**	**16 48 49.7**	**-1.2**
KORT	**Korkueli**	**2.98**	**309**	Pn	**Pn**	**16 48 19.0**	**+1.0**
KORT				AML	AML		
KNHM	**Kefar Nahum**	**2.98**	**139**	P	**Pn**	**16 48 17.6**	**-0.3**
KNHM				S	**Sn**	**16 48 50.7**	**-1.9**
KSHT	**Keshet**	**3.04**	**135**	P	**Pn**	**16 48 18.8**	**0.0**
KSHT				S	**Sn**	**16 48 52.7**	**-1.3**
HASA	**Hatay-Hassa-Ha**	**3.08**	**58**	P	**Pn**	**16 48 21.0**	**+1.7**
NIDE	**Nigde/Merkez-G**	**3.10**	**23**	P	**Pn**	**16 48 21.3**	**+1.6**
LADK	**Ladik-KONYA**	**3.12**	**347**	Pn	**Pn**	**16 48 20.7**	**+0.8**
LADK				AML	AML		
KOZT	**Kozan**	**3.13**	**41**	Pn	**Pn**	**16 48 20.7**	**+0.8**
KOZT				AML	AML		
ELL	**Elmali**	**3.14**	**302**	Pn	**Pn**	**16 48 20.9**	**+0.8**
ELL				AML	AML		
AKAS	**Kas**	**3.15**	**291**	Pn	**Pn**	**16 48 21.8**	**+1.5**
AKAS				AML	AML		
AKAS	**Kas**	**3.15**	**291**	P	**Pn**	**16 48 18.4**	**-1.9**
MMLI	**Mount Malkishu**	**3.26**	**145**	P	**Pn**	**16 48 22.1**	**+0.3**
MMLI				S	**Sn**	**16 48 58.1**	**-1.3**
SLTI	**Sal'it**	**3.27**	**152**	P	**Pn**	**16 48 21.0**	**-0.8**
SLTI				S	**Sn**	**16 48 58.5**	**-1.1**
QRNJ	**Al-Qirein**	**3.42**	**145**	P	**Pn**	**16 48 24.9**	**+1.1**
QRNJ				S	**Sn**	**16 49 04.9**	**+1.8**
QRNJ				AML	AML		
QRNJ				AML	AML		
KNIK	**Mula-Seydike**	**3.42**	**301**	P	**Pn**	**16 48 23.2**	**-0.8**
KAMA	**Osmaniye**	**3.44**	**53**	P	**Pn**	**16 48 23.6**	**-0.6**
SALP	**Salfit**	**3.48**	**152**	P	**Pn**	**16 48 25.2**	**+0.5**
SALP				S	**Sn**	**16 49 05.1**	**+0.3**
SALP				AML	AML		
SALP				AML	AML		
YVAC	**Isparta, Yalva**	**3.50**	**333**	P	**Pn**	**16 48 25.8**	**+0.7**
IZZE	**Mula-Seydike**	**3.50**	**293**	P	**Pn**	**16 48 23.5**	**-1.6**
RGMN	**Argaman**	**3.53**	**147**	P	**Pn**	**16 48 25.4**	**0.0**
RGMN				S	**Sn**	**16 49 04.2**	**-1.7**
GOLH	**Golhisar**	**3.63**	**306**	P	**Pn**	**16 48 27.9**	**+1.1**
UJAP	**Al Uja**	**3.69**	**149**	P	**Pn**	**16 48 29.2**	**+1.6**
UJAP				AML	AML		

UJAP				AML	AML		
ALMO	Almog	3.83	150	P	Pn	16 48 29.4	-0.1
ALMO				S	Sn	16 49 12.3	-1.0
AMAZ	Amatzia	3.87	158	P	Pn	16 48 31.0	+0.9
AMAZ				S	Sn	16 49 14.8	+0.5
AMAZ				AML	AML		
AMAZ				AML	AML		
AMAZ	Amatzia	3.87	158	P	Pn	16 48 30.4	+0.3
AMAZ				S	Sn	16 49 13.6	-0.7
HSUJ	Al Zarqa	3.91	140	P	Pn	16 48 32.2	+1.5
HSUJ				AML	AML		
HSUJ				AML	AML		
MZS	Mizpe Shalem	4.00	153	P	Pn	16 48 32.5	+0.6
MZS				S	Sn	16 49 17.0	-0.5
YTIR	Yattir	4.09	157	P	Pn	16 48 34.3	+1.1
YTIR				S	Sn	16 49 20.7	+0.9
YTIR				AML	AML		
YTIR				AML	AML		
MSBI	Mazada	4.22	155	P	Pn	16 48 36.2	+1.4
MSBI				AML	AML		
MSBI				AML	AML		
MSBI	Mazada	4.22	155	P	Pn	16 48 35.2	+0.4
MSBI				S	Sn	16 49 22.1	-0.7
ASF	Jabal al Asfar	4.26	133	P	Pn	16 48 37.3	+1.9
ASF				AML	AML		
GHAJ	Ghor Haditha	4.30	152	P	Pn	16 48 37.3	+1.4
GHAJ				AML	AML		
GHAJ				AML	AML		
LISJ	El Lisan	4.33	154	P	Pn	16 48 38.4	+2.1
LISJ				AML	AML		
LISJ				AML	AML		
KZIT	Kziot	4.34	167	P	Pn	16 48 37.6	+1.1
KZIT				AML	AML		
KZIT				AML	AML		
KZIT	Kziot	4.34	167	P	Pn	16 48 37.1	+0.6
KZIT				S	Sn	16 49 25.1	-0.8
RMNI	Mount Ramon	4.72	164	P	Pn	16 48 42.2	+0.5
RMNI				S	Sn	16 49 34.2	-1.0
ZFRI	Zfri	4.87	160	P	Pn	16 48 44.4	+0.8
ZFRI				S	Sn	16 49 37.6	-1.0
PRNI	Paran	5.01	162	P	Pn	16 48 46.4	+0.7
PRNI				AML	AML		
PRNI				AML	AML		
HSNJ	Maan	5.30	156	P	Pn	16 48 51.6	+1.9
	0.3nm0.7nm91nm,0.7s						
HSNJ				AML	AML		
HSNJ				AML	AML		
HRFI	Mount Harif	5.32	163	P	Pn	16 48 50.7	+0.8
HRFI				AML	AML		
HRFI				AML	AML		
HRFI	Mount Harif	5.32	163	P	Pn	16 48 50.6	+0.7
HRFI				S	Sn	16 49 48.0	-1.8
YTVT	Yotvata	5.46	163	P	Pn	16 48 52.4	+0.6
YTVT				S	Sn	16 49 52.4	-0.9
AQBJ	Aqaba	5.62	164	P	Pn	16 48 55.8	+1.8
	0.3nm0.4nm32nm,0.7s						
AQBJ				AML	AML		
AQBJ				AML	AML		
EIL	Elat	5.65	165	P	Pn	16 48 55.7	+1.3
EIL				AML	AML		
EIL				AML	AML		
EIL	Elat	5.65	165	P	Pn	16 48 54.9	+0.5
EIL				S	Sn	16 49 56.8	-1.2

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*KRNET **05** 16:54:35.8±0.1, 42°.52N×78°.57E, h21^{km}, mb2.1*

*NNC **05** 16:54:36.5±1.6, 42°.56N×78°.62E, h0^{km}, mb2.5, mpv2.9, Error ellipse: s-maj=10.4km s-min=6.1km az=21.0*

*SOME **05** 16:54:36.0, 42°.53N×78°.52E, h20^{km}*

ISC 05 16:54:36.9±1.0, **42°.55N**±0°.04×**78°.51E**±0°.04, **h7**^{km}±8^{km}, **n17**, σ**1**^{s}.**12**/33, **6C-8D, Lake Issyk-Kul region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PRZ	Przheval'sk	0.10	232	⇓eP	Pg	16 54 39.8	+0.6
PRZ				⇓eS	Sg	16 54 42.2	+1.3
SATY	Saty	0.52	352	P	Pg	16 54 46.5	-0.4
	1.8nm,0.1s						
SATY				S	Sg	16 54 53.7	0.0
	6.2nm,0.1s						
SATY	Saty	0.52	352	eP	Pg	16 54 46.5	-0.4
	1.8nm,0.1s						
SATY				eS	Sg	16 54 53.7	0.0
	6.2nm,0.1s						
ANVS	Anan'yevo	0.66	291	⇓eP	Pg	16 54 49.7	0.0
ANVS				⇓eS	Sb	16 54 59.6	-0.9
UZB	Uzynbulak	0.71	32	P	Pg	16 54 49.2	-1.4
	2.0nm,0.2s						
UZB				S	Sg	16 54 58.6	-1.3
	7.0nm,0.1s						
UZB	Uzynbulak	0.71	32	eP	Pg	16 54 49.2	-1.4
	2.0nm,0.2s						
UZB				eS	Sg	16 54 58.6	-1.3
	7.0nm,0.1s						
SHLS	Shalkode	0.93	49	P	Pn	16 54 57.1	+0.5
	3.6nm,0.2s						
SHLS				S	Sn	16 55 12.8	+2.5
	2.6nm,0.2s						
SHLS	Shalkode	0.93	49	eP	Pn	16 54 57.0	+0.5
	3.6nm,0.2s						
SHLS				eS	Sn	16 55 12.8	+2.5
	2.6nm,0.2s						
TARG	Taragay, Kyrgy	0.97	213	⇓eP	Pg	16 54 54.0	-1.5
TARG				⇓eS	Sg	16 55 07.0	-1.1
KDJ	Kajisay	1.07	248	⇑eP	Pg	16 54 56.2	-1.2
KDJ				⇑eS	Sg	16 55 10.5	-0.7
BLB	Baldybastay	1.55	359	P	Pn	16 55 05.0	-0.1
	4.9nm,0.1s						
BLB				S	Sb	16 55 25.9	-0.1
	2.4nm,0.1s						
ULHL	Ulahol	1.70	261	⇑eP	Pn	16 55 07.7	+0.4
ULHL				⇑eS	Sb	16 55 30.6	+0.2
KNOS	Konyrlen	1.88	15	P	Pb	16 55 10.9	-0.7
	1.5nm,0.1s						
KNOS				S	Sb	16 55 35.8	+0.4
	1.9nm,0.3s						
BOOM	Boomskoye usch	1.90	269	⇓eP	Pn	16 55 10.5	+0.6
BOOM				⇓eS	Sb	16 55 35.4	-0.6
DJR	Jarkent	2.02	27	Pg	Pn	16 55 12.7	+1.3
	1.4nm,0.1s						
DJR				Lg	Lg	16 55 39.5	
	1.8nm,0.3s						
DJR	Jarkent	2.02	27	eP	Pn	16 55 12.7	+1.3
	1.4nm,0.1s						
DJR				eS	Sb	16 55 39.5	+0.1
	1.8nm,0.3s						
TKM2	Tokmak 2	2.18	281	⇑eP	Pn	16 55 14.5	+0.7
TKM2				⇑eS	Sb	16 55 42.4	-1.6

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*SNET **05** 16:56:39.6±1.7, 12°.72N×88°.65W, h42^{km}, ML3.6, Presumed earthquake*

*CATAC **05** 16:56:40.3±0.5, 13°N±4°×8°9W±°, h39^{km}±6^{km}, M3.9/18, MLv3.9/18, Error ellipse: s-maj=9.6km s-min=2.3km az=32.0, confirmed*

*GCG **05** 16:56:43.6±0.4, 13°.01N×88°.80W, h57^{km}±9^{km}, MD4.2, Presumed earthquake*

ISC 05 16:56:40.3±1.4, **12°.7N**±0°.1×**88°.65W**±0°.05, **h44**^{km}±33^{km}, **n42**, σ**1**^{s}.**15**/71, **Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ALJI	Alcalda de J	0.60	8	i P	Pn	16 56 52.7	+0.1
ALJI				eS	Sn	16 57 02.5	+1.1
ALJI	Alcalda de J	0.60	8	P	Pn	16 56 52.8	+0.1
ALJI				S	Sn	16 57 02.2	+0.8
JUCU	Jucuar¡n	0.66	37	i P	Pn	16 56 53.3	0.0
JUCU				eS	Sn	16 57 02.8	+0.1
INTP	Intipuca	0.75	51	i P	Pn	16 56 54.4	-0.1
INTP				eS	Sn	16 57 05.2	+0.4
PACA	Pacayal	0.81	24	S	Sn	16 57 06.9	+0.5
TECO	Alcaldia de Te	0.82	351	i P	Pn	16 56 55.2	-0.3
TECO				eS	Sn	16 57 06.2	-0.3
TECO	Alcaldia de Te	0.82	351	P	Pn	16 56 55.1	-0.3
TECO				S	Sn	16 57 06.4	-0.1
PQSS	Presa 15 de Se	0.90	6	P	Pn	16 56 56.4	-0.2
COEG	Centro de Oper	0.92	346	i P	Pn	16 56 56.2	-0.6
COEG				eS	Sn	16 57 08.9	-0.1
LCND	La Caada	0.94	52	i P	Pn	16 56 57.0	-0.1
LCND				eS	Sn	16 57 09.6	+0.1
SJTE	Alcalda de S	0.95	339	i P	Pn	16 56 56.9	-0.4
SJTE				eS	Sn	16 57 09.2	-0.5
CNCH	Conchagua	0.97	55	i P	Pn	16 56 57.5	-0.2
CNCH	Conchagua	0.97	55	P	Pn	16 56 57.4	-0.2
LFRS	El Faro	0.98	336	i P	Pn	16 56 57.6	-0.2
LFRS				eS	Sn	16 57 10.3	-0.2
LALI	Alcalda de L	1.00	320	eP	Pn	16 56 57.4	-0.5
LALI				eS	Sn	16 57 09.1	-1.7
LALI	Alcalda de L	1.00	320	i P	Pn	16 56 57.5	-0.3
LALI				eS	Sn	16 57 09.2	-1.6
LALI	Alcalda de L	1.00	320	P	Pn	16 56 57.4	-0.5
PANCS	Alcalda de	1.02	330	S	Sn	16 57 11.0	-0.5
PAVA	Las Pavas	1.02	344	i P	Pn	16 56 58.1	-0.2
PAVA				eS	Sn	16 57 11.9	+0.3
PAVA	Las Pavas	1.02	344	P	Pn	16 56 58.2	-0.2
LOMA	Loma Larga	1.04	331	i P	Pn	16 56 58.5	-0.1
LOMA				eS	Sn	16 57 12.2	+0.1
LOMA	Loma Larga	1.04	331	P	Pn	16 56 58.1	-0.5
LOMA				S	Sn	16 57 12.0	-0.1
CSGN	Cosiguina Volc	1.10	77	P	Pn	16 56 59.4	0.0
CSGN				S	Sn	16 57 13.5	+0.1
SEMO	Seminario San	1.12	330	S	Sn	16 57 13.9	0.0
UEES	Universidad Ev	1.14	330	S	Sn	16 57 14.0	-0.4
PMON	Piamonte	1.17	327	P	Pn	16 56 59.8	-0.6
PMON				S	Sn	16 57 15.4	+0.1
JAYA	Jayaque - finc	1.21	320	i P	Pn	16 57 00.4	-0.5
JAYA				i S	Sn	16 57 13.2	-3.0
CEVE	Cerro Verde	1.45	319	i P	Pn	16 57 03.8	-0.5
CEVE				eS	Sn	16 57 23.7	+1.5
SBLS	San Blas	1.46	320	i P	Pn	16 57 04.5	+0.1
SBLS				eS	Sn	16 57 21.7	-0.7
CRIN	San Cristobal	1.57	91	P	Pn	16 57 06.1	+0.4
CRIN				S	Sn	16 57 25.8	+1.0
NUBE	Las Nubes	1.60	317	i P	Pn	16 57 06.0	-0.3
NUBE				i S	Sn	16 57 23.6	-2.3
NUBE	Las Nubes	1.60	317	i P	Pn	16 57 06.2	-0.1
NUBE				eS	Sn	16 57 24.9	-1.0
RBDL	Robledal	1.71	324	i P	Pn	16 57 08.1	+0.3
QUEN	Al S del Volca	1.76	94	P	Pn	16 57 08.7	+0.3
QUEN				S	Sn	16 57 30.1	+0.4
HERN	Volcan Telica	1.78	94	P	Pn	16 57 07.7	-1.1
HERN				S	Sn	16 57 29.6	-0.6
MTO3	Montecristo	1.80	338	eP	Pn	16 57 08.9	-0.2
PLRN	Geotermica Pol	1.85	94	P	Pn	16 57 10.0	+0.5
PLRN				S	Sn	16 57 30.6	-1.1
CNGN	Cerro Negro	1.92	96	P	Pn	16 57 10.7	+0.1
CNGN				S	Sn	16 57 33.2	-0.5
SARH	Santa Rosa de	2.04	357	eP	Pn	16 57 12.1	-0.1
MOMN	Momotombo	2.09	98	P	Pn	16 57 12.7	-0.1
MOMN				S	Sn	16 57 36.6	-1.1
MOM2	El Cardon	2.14	97	P	Pn	16 57 13.5	0.0
MOM2				S	Sn	16 57 38.3	-0.5
STG8	El Palmar, Qui	3.13	303	eP	Pn	16 57 33.0	+5.6
STG8				eS	Sn	16 58 10.9	+7.2

NOU 05 16:58:25.0, 21°.90S×170°.11E, h0^{km}, **mb4.1**/16, **Southeast of Loyalty Islands, Southeast of Loyalty Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MARNC	Mare, Loyalty	1.98	282	P	Pn	16 59 00.0	+0.2
MARNC	Mare, Loyalty	1.98	282	S	Sb	16 59 27.4	+0.3
YATNC	Mamie plateau,	2.99	266	P	Pn	16 59 13.5	-0.2
YATNC	Mamie plateau,	2.99	266	S	Sn	16 59 50.5	+0.2
OUENC	Ouen Island, N	3.07	260	P	Pn	16 59 15.3	+0.5
OUENC	Ouen Island, N	3.07	260	S	Sn	16 59 52.8	+0.5
ONTNC	Ouen Toro	3.42	263	P	Pn	16 59 19.7	+0.2
ONTNC	Ouen Toro	3.42	263	S	Sn	17 00 01.1	+0.4
NOUC	Port Laguerre	3.54	266	P	Pn	16 59 21.4	+0.2
NOUC	Port Laguerre	3.54	266	S	Sn	17 00 04.0	+0.2
KOUNC	Koumac, New Ca	5.60	283	P	Pn	16 59 49.7	+0.2
KOUNC	Koumac, New Ca	5.60	283	S	Sn	17 00 54.6	0.0

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*IDC **05** 17:36:50.9±2.7, 17°.99S×174°.51W, h92^{km}±28^{km}, mb3.8/7, mbtmp4.2/8, Error ellipse: s-maj=30.8km s-min=17.3km az=115.0*

*NEIC **05** 17:36:51.1±1.2, 18°.02S±0°.09×174°.58W±0°.08, h90^{km}±9^{km}, mb4.4/16, Error ellipse: s-maj=13.2km s-min=10.8km az=192.0*

ISC 05 17:36:53.8±0.6, **17°.99S**±0°.07×**174°.35W**±0°.08, **h132**^{km}, **n32**, σ**1**^{s}.**52**/34, **mb4.3**/14, **Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NIUE	Niue	4.33	105		Pn	17 37 57.7	-0.3
NIUE				Sn	Sn	17 38 45.9	-2.0
AFI	Afiamalu	4.75	32	P	Pn	17 38 03.4	-0.3
	14nm,0.5s,baz=180,slow=2.0,SNR=5.7						
AFI				S	Sn	17 38 55.9	-2.2
	63nm,0.5s,baz=151,slow=19,SNR=10						
AFI	Afiamalu	4.75	32		Pn	17 38 03.0	-0.7
AFI				Sn	Sn	17 38 55.6	-2.4
MSVF	Nonsavu	7.24	271	Pn	Pn	17 38 30.9	-6.2
URZ	Urewera	21.53	199	P	P	17 41 31.9	-0.5
	3.8nm,0.3s,baz=63,slow=2.3,SNR=12 3.8nm,0.3s						
RTZ	Ruatahuna	21.90	198	P	P	17 41 33.5	-2.9
RTZ				IAmb	IAmb	17 42 13.3	
	comp=Z,26nm,1.4s						
LTZ	Lake Taylor	27.20	202	P	P	17 42 24.7	-0.4
EIDS	Eidsvold	32.88	251	P	P	17 43 13.6	-1.8
EIDS				IAmb	IAmb	17 43 56.6	
	comp=Z,9.2nm,1.4s						
ARMA	Armidale	33.27	242	P	P	17 43 17.1	-1.8
CTAO	Charters Tower	37.24	260	P	P	17 43 53.2	+0.3
INKA	Innaminka	42.30	248	P	P	17 44 34.4	-0.3
BBOO	Buckleboo	46.76	242	P	P	17 45 09.0	-1.0
WR8	Warramunga Arr	48.26	259	P	P	17 45 20.9	-0.9
WR8				IAmb	IAmb	17 45 60.0	
	comp=Z,6.0nm,1.4s						
WR8					PcP	17 46 47.1	+0.2
WRA	Warramunga Arr	48.41	259	P	P	17 45 22.6	-0.3
	comp=Z,0.9nm,0.3s,baz=97,slow=7.9,SNR=38						
WRA				PcP	PcP	17 46 48.4	+1.0
	comp=Z,0.3nm,0.3s,baz=95,slow=5.0,SNR=6.6 comp=Z,0.9nm,0.3s						
WRA	Warramunga Arr	48.41	259	P	P	17 45 22.1	-0.9
WRA					PcP	17 46 47.4	0.0
AS31	Alice Springs	48.48	254	P	P	17 45 23.1	-0.4
AS31				IAmb	IAmb	17 45 24.3	
	comp=Z,1.6nm,0.7s						
ASAR	Alice Springs	48.49	254	P	P	17 45 23.2	-0.3
	comp=Z,6.1nm,0.8s,baz=94,slow=8.1,SNR=80 comp=Z,6.1nm,0.8s						
ASAR	Alice Springs	48.49	254	P	P	17 45 22.8	-0.7
ASAR				PcP	PcP	17 46 48.1	+0.5
MTN	Manton Dam	52.66	267	P	P	17 45 53.6	-1.2
MTN				IAmb	IAmb	17 45 58.9	
	comp=Z,8.1nm,1.4s						
KNRA	Kununurra	54.32	263	P	P	17 46 06.6	-0.4
KNRA				IAmb	IAmb	17 46 23.9	
	comp=Z,6.6nm,1.3s						
FITZ	Fitzroy Crossi	56.82	260	P	P	17 46 24.0	-0.8
MORW	Morawa	63.98	246	P	P	17 47 12.0	-1.4
MORW				IAmb	IAmb	17 47 40.5	
	comp=Z,15nm,1.5s						
QSPA	South Pole Qui	72.07	180	P	P	17 48 05.4	+2.0
	comp=Z,0.9nm,0.7s,baz=78,slow=0.7,SNR=7.6 comp=Z,0.9nm,0.7s						
QSPA	South Pole Qui	72.07	180	P	P	17 48 05.5	+2.0
PETK	Petropavlovsk-	74.81	343	P	P	17 48 22.7	+3.4
	comp=Z,0.7nm,0.7s,baz=159,slow=4.9,SNR=4.4 comp=Z,0.7nm,0.7s						
H03S2	Juan Fernandez	84.53	124	T	T	19 22 05.3	
	baz=249,slow=75,SNR=5.7						
H03S1	Juan Fernandez	84.55	124	T	T	19 22 13.8	
	baz=249,slow=75,SNR=5.7						
H03S3	Juan Fernandez	84.55	124	T	T	19 22 03.0	
	baz=249,slow=75,SNR=5.9						
ILAR	Eielson Array	85.15	11	P	P	17 49 14.7	+0.1
	comp=Z,0.3nm,0.6s,baz=220,slow=6.3,SNR=5.1 comp=Z,0.3nm,0.6s						
ILAR	Eielson Array	85.15	11	P	P	17 49 17.1	+2.5
SNAA	Sanae	90.38	177	P	P	17 49 42.1	+2.3
	comp=Z,2.0nm,0.4s,baz=135,slow=4.3,SNR=1.6 comp=Z,2.0nm,0.4s						
SNAA	Sanae	90.38	177	IAmb	IAmb	17 50 24.4	
	comp=Z,3.6nm,0.9s						

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*SJA **05** 17:37:51.6±0.6, 27°.99S×71°.71W, h10^{km}±4^{km}, ML4.0, MW3.9*

*NEIC **05** 17:37:51.4, 27°.89S×71°.75W, h12^{km}*

*IDC **05** 17:37:52.4±0.9, 27°.70S×71°.40W, h0^{km}, mb4.1/3, mbtmp3.8/7, ML3.5/4, MS3.1/5, Error ellipse: s-maj=28.6km s-min=14.4km az=87.0*

*GUC **05** 17:37:53.8±0.8, 27°.97S×71°.58W, h25^{km}±13^{km}, ML3.8*

*NEIC **05** 17:37:53.0±1.8, 27°.92S±0°.03×71°.65W±0°.04, h12^{km}±4^{km}, mb4.4/4, Mwr4.0/26, ML3.8(GUC), Error ellipse: s-maj=5.4km s-min=3.6km az=62.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}1.25; $M_{\theta\theta}$0.06; $M_{\phi\phi}$-1.31; $M_{r\theta}$0.20; $M_{\theta\phi}$-0.41; $M_{\phi r}$-0.57; Fault plane solution: $M_0$1.47000×10^{15} NP1:ϕ_s30.60000°, δ36.71000°, λ114.55000°. NP2:ϕ_s180.93000°, δ57.06000°, λ72.79000°. Principal axes: T 1.4292, Plg72.0000°, Azm48.0000°; N 0.0874, Plg14.0000°, Azm190.0000°; P -1.5165, Plg11.0000°, Azm283.0000°;*

ISC 05 17:37:51.1±0.6, **27°.91S**±0°.03×**71°.72W**±0°.05, **h10**^{km}, **n106**, σ**1**^{s}.**54**/113, **mb4.2**/3, **5C-4D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.64	117	eP	Pb	17 38 03.6	-0.8
AC04				IAML		17 38 14.9	
	comp=Z,6µm,0.6s						
AC04	Llanos de Chal	0.64	117	⇓iP	Pn	17 38 04.8	-1.5
AC04				eS	Sg	17 38 11.9	0.0
AC04				IAML		17 38 14.3	
	comp=E,11µm,0.3s						
AC04	Llanos de Chal	0.64	117		Pn	17 38 04.7	-1.6
AC04				Sg	Sg	17 38 12.0	0.0
AC06	Mina Casimiro	1.33	66	⇑iP	Pg	17 38 16.6	-0.1
AC06				IAML		17 38 44.3	
	comp=N,3µm,0.6s						
AC06	Mina Casimiro	1.33	66		Pg	17 38 16.4	-0.2
AC06					Sg	17 38 32.8	-1.1
GO03	Copiapo	1.35	77	eP	Pg	17 38 17.4	+0.3
GO03				eS	Sg	17 38 38.2	+3.5
GO03				IAML		17 38 43.1	
	comp=Z,2µm,0.8s						
GO03	Copiapo	1.35	77	⇓eP	Pg	17 38 17.0	-0.1
GO03				IAML		17 38 41.3	
	comp=N,2µm,0.6s						
GO03	Copiapo	1.35	77		Pg	17 38 16.9	-0.1
GO03				Sn	Sg	17 38 34.1	-0.6
LCO	Las Campanas	1.42	141	eP	Pg	17 38 18.2	-0.1
LCO				eS	Sg	17 38 36.3	-0.4
LCO				IAML		17 38 42.1	
	comp=Z,3µm,0.4s						
LCO	Las Campanas	1.42	141	⇓iP	Pg	17 38 18.1	-0.3
LCO	Las Campanas	1.42	141		Pg	17 38 18.1	-0.3
LCO				Sn	Sn	17 38 35.1	-0.9
AC05	El Transito	1.57	126	eP	Pg	17 38 20.5	-0.8
AC05				eS	Sg	17 38 41.5	-0.2
AC05				IAML		17 38 48.8	
	comp=Z,922nm,0.5s						
AC05	El Transito	1.57	126	⇓iP	Pg	17 38 20.5	-0.8
AC05				IAML		17 38 46.2	
	comp=N,1µm,0.4s						
AC05	El Transito	1.57	126		Pg	17 38 20.4	-0.9
AC05				Sn	Sb	17 38 39.5	-0.9
AC01	Pan de Azucar	2.02	30	eP	Pb	17 38 26.0	-1.9
AC01				IAML		17 39 08.7	
	comp=N,647nm,0.8s						
AC01	Pan de Azucar	2.02	30		Pb	17 38 25.5	-2.4
GO04	Tololo Observa	2.39	161	eP	Pb	17 38 32.4	-2.1
GO04				eS	Sn	17 39 01.3	+1.2
GO04				IAML		17 39 12.4	
	comp=Z,2µm,0.8s						
GO04	Tololo Observa	2.39	161	⇑iP	Pb	17 38 32.0	-2.4
GO04	Tololo Observa	2.39	161		Pb	17 38 32.0	-2.4
GO04				Sn	Sn	17 38 58.8	-1.3
CO01	Juntas del Tor	2.50	146	eP	Pb	17 38 35.1	-1.2
CO01				eS	Sb	17 39 05.5	-1.8
CO01				IAML		17 39 13.4	
	comp=Z,515nm,1.1s						
CO01	Juntas del Tor	2.50	146	⇑eP	Pb	17 38 34.9	-1.5
CO01				IAML		17 39 13.1	
	comp=E,792nm,0.3s						
CO01	Juntas del Tor	2.50	146		Pb	17 38 34.8	-1.5
CO01				Sn	Sn	17 39 03.5	+0.7
AC02	Maricunga	2.54	66	eP	Pb	17 38 36.1	-1.0
AC02				eS	Sb	17 39 06.0	-2.6
AC02				IAML		17 39 17.0	
	comp=Z,847nm,0.8s						
AC02	Maricunga	2.54	66	⇑eP	Pb	17 38 35.9	-1.2
AC02				IAML		17 39 20.9	
	comp=N,1µm,0.3s						
AC02	Maricunga	2.54	66		Pb	17 38 35.4	-1.7
CO06	Fray Jorge	2.75	178	⇑eP	Pn	17 38 35.8	+0.4
CO06	Fray Jorge	2.75	178		Pn	17 38 35.7	+0.4
CO03	El Pedregal	3.05	163	eP	Pn	17 38 41.5	+2.0
CO03				eS	Sb	17 39 20.0	-2.9
CO03				IAML		17 39 36.2	
	comp=Z,477nm,0.5s						
CO03	El Pedregal	3.05	163	eP	Pb	17 38 42.2	-3.4
CO03				IAML		17 39 33.9	
	comp=N,597nm,0.3s						
CO03	El Pedregal	3.05	163		Pn	17 38 40.9	+1.3
VCA	Vinchina	3.21	106	eP	Pb	17 38 48.1	-0.1
VCA				IAML		17 39 40.5	
	comp=N,727nm,0.6s						
CO02	Combarbal	3.34	169	eP	Pn	17 38 45.0	+1.5
CO02				IAML		17 39 40.6	
	comp=Z,590nm,0.5s						
CO02	Combarbal	3.34	169	eP	Pn	17 38 44.8	+1.3
CO02	Combarbal	3.34	169		Pn	17 38 44.5	+1.0
PB14	IPOC Station P	3.48	20	eP	Pn	17 38 45.0	-0.6
PB14				eS	Sg	17 39 41.0	-1.9
PB14				IAML		17 39 51.5	
	comp=Z,228nm,1.5s						
PB14	IPOC Station P	3.48	20	eP	Pn	17 38 44.5	-1.1
PB14				IAML		17 39 51.8	
	comp=E,119nm,0.6s						
PB14	IPOC Station P	3.48	20		Pn	17 38 44.2	-1.4
CO04	Los Peladeros	4.17	171		Pn	17 38 56.6	+1.5
ACLC	CERRO LA CRUZ	4.45	111	eP	Pn	17 39 03.0	+4.1
ACLC				eS	Sg	17 40 08.0	-6.1
ACLC				IAML		17 40 13.3	
	comp=Z,104nm,1.8s						
ZON	Zonda	4.49	145		Pn	17 39 00.6	+1.5
CFA	Coronel Fontan	4.77	141	Pn	Pn	17 39 06.8	+3.7
	comp=Z,4.0nm,0.3s,baz=317,slow=12,SNR=28						
CFA				Sn	Sn	17 40 00.7	+2.3
	comp=Z,3.5nm,0.3s,baz=354,slow=10,SNR=4.1 comp=Z,11nm,0.4s						
CFA				AML	AML		
CFA	Coronel Fontan	4.77	141	eP	Pn	17 39 07.6	+4.5
VA03	San Esteban	4.94	168	eP	Pn	17 39 05.5	0.0
VA03				eP	Pb	17 39 08.5	-9.2
VA03	San Esteban	4.94	168	eP	Pn	17 39 08.0	+2.5
VA03	San Esteban	4.94	168		Pn	17 39 05.8	+0.4
VA01	Torpederas	5.09	179	Pn	Pn	17 39 07.9	+0.4
PB05	IPOC Station P	5.22	16		Pn	17 39 08.9	-0.4
CYA	Choya	5.25	97	eP	Pn	17 39 14.7	+5.0
PEL	Peldehue	5.29	171	Pn	Pn	17 39 10.1	-0.2
MT02	Curacav	5.35	175		Pn	17 39 10.9	-0.2
MT05	Renca	5.53	171	Pn	Pn	17 39 13.9	+0.4
PB06	IPOC Station P	5.54	21	Pn	Pn	17 39 13.5	-0.2
MT16	CCHEN	5.59	170		Pn	17 39 15.1	+0.6
MT03	Universidad Ad	5.66	170		Pn	17 39 15.2	-0.2
MT08	Bocatoma Ro	5.71	166		Pn	17 39 15.1	-1.0
MT09	Talagante	5.88	174		Pn	17 39 18.1	-0.3
AF01	San Pedro de A	5.88	34	Pn	Pn	17 39 17.9	-0.8
MT13	San Alfonso	5.94	168		Pn	17 39 20.3	+1.0
MT01	Popeta	5.95	176		Pn	17 39 20.1	+0.8
PB03	IPOC Station P	6.10	17		Pn	17 39 21.5	-0.1
BO04	La Punta	6.13	171		Pn	17 39 21.9	+0.1
PB07	IPOC Station P	6.38	16	Pn	Pn	17 39 25.2	-0.1
SLA	San Lorenzo	6.42	62	eP	Pb	17 39 34.8	-8.2
BO01	Tunca	6.48	175		Pn	17 39 26.2	-0.4
PB09	IPOC Station P	6.49	21		Pn	17 39 26.6	-0.3
PB02	IPOC Station P	6.77	15	Pn	Pn	17 39 29.6	-1.0
BO02	Sierra Bellavi	6.91	174		Pn	17 39 32.8	+0.3
TCA	Tanti	7.08	121	eP	Pn	17 39 36.5	+1.6
GO05	Hualane	7.08	181	Pn	Pn	17 39 33.6	-1.2
TA01	Diego Aracena	7.45	11	Pn	Pn	17 39 39.2	-0.6
H03N1	Juan Fernandez	8.29	227	T	T	17 48 33.5	
	baz=206,slow=74,SNR=744						
H03N2	Juan Fernandez	8.30	227	T	T	17 48 34.1	
	baz=56,slow=74,SNR=705						

PB11	IPOC Station P	8.33	14	Pn	Pn	17 39 51.3	-0.9
VA04	Juan Fernndez	8.37	225	Pn	Pn	17 39 51.3	-1.1
PSGCX	Pisagua	8.40	10	Pn	Pn	17 39 51.9	-1.2
GO01	Chusmiza	8.52	16	Pn	Pn	17 39 54.1	-1.0
H03S3	Juan Fernandez	8.54	225	Pn	Pn	17 39 54.5	0.0
H03S3				T	T	17 48 43.0	
	baz=56						
H03S1	Juan Fernandez	8.55	224	Pn	Pn	17 39 55.4	+0.7
H03S1				T	T	17 48 44.9	
	baz=56						
H03S2	Juan Fernandez	8.56	225	Pn	Pn	17 39 55.0	+0.2
H03S2				T	T	17 48 41.1	
	baz=56						
BI02	San Fabin de	8.73	178	Pn	Pn	17 39 57.1	-0.4
BI05	Punta Hualpn	8.90	188	Pn	Pn	17 40 00.3	+0.6
PB12	IPOC Station P	9.34	8	Pn	Pn	17 40 05.0	-1.0
PB16	IPOC Station P	9.75	13	Pn	Pn	17 40 10.9	-1.0
GO06	Curarrehue	11.64	179	Pn	Pn	17 40 37.4	0.0
LPAZ	La Paz	12.04	17	Pn	Pn	17 40 42.5	-0.9
	comp=Z,0.3nm,0.3s,baz=186,slow=4.4,SNR=6.6						
LPAZ				LR	LR	17 45 26.4	
	comp=Z,51nm,19.9s,baz=171,slow=39						
	comp=Z,0.5nm,0.4s						
LPAZ				AML	AML		
LPAZ	La Paz	12.04	17	Pn	Pn	17 40 41.9	-1.4
PLCA	Paso Flores	12.83	176	Pn	Pn	17 40 58.2	+4.7
	baz=336,slow=10.0,SNR=1.7						
PLCA				LR	LR	17 45 48.9	
	comp=Z,142nm,18.4s,baz=344,slow=37						
	comp=Z,0.7nm,0.9s						
CPUP	Villa Florida	12.91	86	Pn	Pn	17 40 56.9	+2.2
	comp=Z,0.1nm,0.3s,baz=240,slow=18,SNR=1.8						
CPUP				LR	LR	17 46 18.6	
	comp=Z,135nm,18.7s,baz=260,slow=40						
CPUP	Villa Florida	12.91	86	Pn	Pn	17 40 54.5	-0.3
SIV	San Ignacio	15.42	42	Pn	Pn	17 41 24.1	-4.8
	baz=240,slow=20,SNR=2.3						
	comp=Z,0.6nm,0.3s						
BDFB	Brasilia	25.12	66	P	P	17 43 15.3	-1.2
	comp=Z,2.6nm,0.6s,baz=252,slow=6.4,SNR=3.4						
	comp=Z,2.6nm,0.6s						
BDFB	Brasilia	25.12	66	IAmb	IAmb	17 43 26.9	
	comp=Z,6.0nm,1.1s						
ORCD	Orcadas	37.53	159	P	P	17 45 06.7	+1.7
JTS	Las Juntas de	40.08	340	LR	LR	18 00 59.6	
	comp=Z,16nm,18.7s,baz=310,slow=35						
QSPA	South Pole Qui	62.31	180	P	P	17 48 16.1	+2.7
	comp=Z,1.3nm,0.7s,baz=134,slow=3.0,SNR=8.7						
	comp=Z,1.3nm,0.7s						
QSPA	South Pole Qui	62.31	180	P	P	17 48 15.6	+2.2
QSPA				IAmb	IAmb	17 48 20.9	
	comp=Z,1.3nm,0.7s						
TSUM	Tsumeb	80.65	107	LR	LR	18 25 29.7	
	comp=Z,10nm,18.0s,baz=306,slow=36						
TORD	Torodi Ar. Bea	81.90	71	P	P	17 50 12.2	+0.9
	comp=Z,2.0nm,0.9s,baz=234,slow=6.8,SNR=7.2						
	comp=Z,2.0nm,0.9s						
TORD	Torodi Ar. Bea	81.90	71	IAmb	IAmb	17 50 19.3	
	comp=Z,18nm,0.8s						
ASAR	Alice Springs	123.08	208	PKP	PKiKP	17 56 50.8	+2.0
	comp=Z,0.2nm,0.5s,baz=144,slow=1.0,SNR=6.3						
WRA	Warramunga Arr	126.16	211	PKP	PKiKP	17 56 57.3	+2.4
	comp=Z,0.5nm,0.7s,baz=144,slow=1.9,SNR=7.1						
KURK	Kurchatov	148.03	36		PKPab	17 57 38.6	-0.7
KURBB	Kurchatov Arra	148.03	37	PKPbc	PKPab	17 57 38.6	-0.7
	comp=Z,0.5nm,0.3s,baz=300,slow=3.0,SNR=4.0						
ZALV	Zalesovo Beam	148.81	27	PKPbc	PKPab	17 57 41.8	-0.5
	comp=Z,3.6nm,0.8s,baz=304,slow=4.1,SNR=15						
ZALV	Zalesovo Beam	148.81	27		PKPab	17 57 41.4	-0.9
MKAR	Makanchi Array	152.24	40	PKPbc	PKiKP	17 57 49.8	+2.5
	comp=Z,0.7nm,0.6s,baz=318,slow=1.9,SNR=7.4						

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*IDC **05** 17:51:57.1±1.9, 46°.04N×143°.38E, h319^{km}±20^{km}, mb3.1/2, mbtmp3.6/4, Error ellipse: s-maj=48.6km s-min=26.6km az=128.0*

*JMA **05** 17:51:58.4±0.2, 46°N±2°×14°3E±°, h336^{km}, MV2.3/21, NE OFF HOKKAIDO*

*SKHL **05** 17:51:59.9±0.3, 45°.70N×143°.50E, h317^{km}±1^{km}, mb4.0/3, msh4.4/2*

ISC 05 17:51:57.1±1.1, **45°.67N**±0°.07×**143°.32E**±0°.09, **h331**^{km}±9^{km}, **n17**, σ**1^{s}65**/25, **Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JSE	Soyaes	0.88	216	P	Pn	17 52 41.7	+1.4
JSE				S	S	17 53 15.6	+0.6
JWK2	Keihoku	1.06	251	P	Pn	17 52 42.6	+1.6
YSS	Yuzhno-Sakhali	1.34	343	*e*P	Pn	17 52 43.1	+0.8
YSS				AMB	AMB	17 52 43.4	
	10.0nm,0.3s						
YSS				*e*S	S	17 53 17.0	-1.5
YSS				A	A	17 53 17.9	
	20nm,0.5s						
YSS				A	A	17 53 17.9	
	20nm,0.5s						
JRBN	Rebuntou	1.61	262	P	Pn	17 52 44.4	+0.5
JRBN				*e*S	S	17 53 19.4	-2.0
ASAJ	Asahikawa	1.64	199	P	Pn	17 52 46.4	+2.1
	1.8nm,0.6s,baz=340,slow=12,SNR=2.6						
YUK	Yuzh-Kuril'sk	2.44	131	*e*P	Pn	17 52 49.8	-0.2
YUK				AMB	AMB	17 52 51.4	
	80nm,0.5s						
JAK	Akkeshi	2.85	159	P	Pn	17 52 55.6	+1.9
JAK				S	S	17 53 38.9	-0.2
AKK	Akkeshi	2.87	157	*e*P	Pn	17 52 54.9	+1.0
NMR	Nemuro--Hokkai	2.87	142	*e*P	Pn	17 52 54.7	+0.8
NMR				*e*S	S	17 53 37.3	-2.1
NEM2	Nemuro 2	2.88	142	P	Pn	17 52 56.2	+2.2
NEM2				*e*S	S	17 53 37.9	-1.7
JCH	Churui	3.06	179	P	Pn	17 52 56.5	+0.9
JCH				S	S	17 53 40.9	-1.7
JNBK	Urakawa-nobuka	3.42	187	P	Pn	17 53 00.5	+1.4
JNBK				*e*S	S	17 53 48.6	-0.2
JOT	Ohata	4.59	202	P	Pn	17 53 12.4	+1.0
JOT				S	S	17 54 07.5	-3.8
USRK	Ussuriysk Ar.	8.18	264	P	Pn	17 53 54.0	+1.0
	1.4nm,0.4s,baz=70,slow=12,SNR=5.2						
MJAR	Matsushiro Arr	9.90	205	P	P	17 54 16.6	+0.3
	1.1nm,0.5s,baz=27,slow=11,SNR=5.3						
NVAR	Mina Array Bea	68.83	56	P	P	18 02 26.1	-0.3
	1.2nm,0.7s,baz=311,slow=6.2,SNR=6.0						
	1.2nm,0.7s						
ASAR	Alice Springs	69.53	189	P	P	18 02 34.5	+3.9
	0.3nm,0.6s,baz=8.4,slow=6.3,SNR=7.5						
	0.3nm,0.6s						

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*IDC **05** 17:53:30.1±0.7, 51°.31N×173°.35E, h0^{km}, mb4.0/22, mbtmp4.0/23, ML3.0/1, MS3.1/8, Error ellipse: s-maj=19.3km s-min=10.2km az=167.0*

*NEIC **05** 17:53:31.3±1.4, 51°.32N±0°.08×173°.3E±0°.1, h10^{km}±1^{km}, mb4.2/102, ML3.6/6, Error ellipse: s-maj=14.0km s-min=9.7km az=146.0*

ISC 05 17:53:33.7±0.5, **51°.29N**±0°.07×**173°.37E**±0°.04, **h28**^{km}, **n137**, σ**1^{s}41**/124, **mb4.2**/61, **MS3.1**/7, **Near Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHEM	Shemya Is, Ala	1.51	17	Pn	Pn	17 53 57.2	-1.6
	183nm,0.3s,baz=194,slow=8.0,SNR=97						
SHEM				Sn	Sn	17 54 15.4	-2.2
	179nm,0.3s,baz=306,slow=19,SNR=10						
SHEM	Shemya Is, Ala	1.51	17		Pn	17 53 57.2	-1.6
SHEM				Sn	Sn	17 54 15.2	-2.4
SHEM				IAML		17 54 16.0	
	comp=N,600nm,0.9s						
SHEM				IAML		17 54 19.1	
	comp=E,983nm,0.3s						
SMY	Shemya	1.51	17		Pn	17 53 57.4	-1.5
SMY				Sn	Sn	17 54 15.0	-2.5
SMY				IAML		17 54 20.1	
	comp=N,1μm,0.9s						
AMKA	Amchitka	3.72	86	Pn	Pn	17 54 27.4	-1.8
AMKA				Sn	Sn	17 55 06.1	-5.9
AMKA				IAML		17 55 11.9	
	comp=E,74nm,0.5s						
KIWB	Kanaga Island	5.94	81	Pn	Pn	17 54 57.2	-2.5
KIWB				Sn	Sn	17 56 02.3	-4.4
ADK	Adak	6.23	81	Pn	Pn	17 55 02.1	-1.5
ADK				Sn	Sn	17 56 09.6	-4.2
GSTR	Great Sitkin T	6.62	79	Pn	Pn	17 55 09.5	+0.4
ATKA	Atka Island	7.78	78	Pn	Pn	17 55 26.4	+1.5
PET	Petropavlovsk	9.21	287	Pn	Pn	17 55 42.7	-1.8
PEA0B	Petropavlovsk-	9.79	287	Pn	Pn	17 55 51.7	-0.8
PETK	Petropavlovsk-	9.79	287	Pn	Pn	17 55 52.4	-0.1
	comp=E,0.7nm,0.3s,baz=92,slow=18,SNR=8.0						
PETK				Sn	Sn	17 57 34.7	-6.8
	comp=E,0.7nm,0.3s,baz=91,slow=23,SNR=4.7						
	comp=E,3.3nm,0.6s						
PETK				AML	AML		
PETK	Petropavlovsk-	9.79	287		Pn	17 55 51.7	-0.8
SPIA	Saint Paul Isl	11.24	52	Pn	Pn	17 56 13.6	+1.3
M11K	Mekoryuk	14.59	43	Pn	Pn	17 56 58.3	+0.4
MA2	Magadan	15.21	312	LR	LR	18 02 41.9	
	comp=E,31nm,19.4s,baz=119,slow=36						
M13K	Dall Lake	15.87	46		P	17 57 17.4	-0.8
M13K				IAmb	IAmb	17 57 33.0	
	comp=Z,21nm,1.0s						
K13K	Kusilvak Mount	16.03	40		P	17 57 18.5	-1.5
L14K	Kuka Creek	16.56	43	P	P	17 57 27.1	+1.2
M14K	Bethel	16.63	46	P	P	17 57 26.1	-0.5
M14K				IAmb	IAmb	17 57 27.2	
	comp=Z,14nm,0.7s						
TNA	Tin City	17.22	27	P	Pn	17 57 32.4	+0.6
TNA				IAmb	IAmb	17 58 15.1	
	comp=Z,34nm,1.3s						
N15K	Kwethluk River	17.28	49	P	P	17 57 34.0	+0.1
K15K	Wolf Creek Mou	17.48	41		P	17 57 36.2	+0.1
K15K				IAmb	IAmb	17 57 57.0	
	comp=Z,22nm,1.5s						
M16K	Timber Creek	18.09	47		Pn	17 57 42.5	-0.1
M16K				IAmb	IAmb	17 57 51.3	
	comp=Z,20nm,1.4s						
L16K	Owhat River	18.11	44		Pn	17 57 42.6	-0.2
F15K	North Star Dit	18.30	30		P	17 57 44.7	-0.4
I17K	Unalakleet	18.59	37	P	P	17 57 48.3	0.0
I17K				IAmb	IAmb	17 58 17.7	
	comp=Z,24nm,0.9s						
M17K	Holitna River	18.91	46		Pn	17 57 52.8	+0.2
M17K				IAmb	IAmb	17 58 06.5	
	comp=Z,13nm,0.9s						
K17K	Iditarod	19.02	42	P	P	17 57 53.4	+0.4
L18K	Granite Mounta	19.53	44	P	P	17 57 59.0	+0.5
SII	Sitkinak Islan	19.70	62	P	P	17 58 00.3	-0.2
OHAK	Old Harbor	20.22	60	P	P	17 58 04.1	-2.0
OHAK				IAmb	IAmb	17 58 18.7	
	comp=Z,9.3nm,1.0s						
KDAK	Kodiak Island	20.63	58	P	P	17 58 09.4	-1.2
	comp=Z,5.4nm,0.4s,baz=282,slow=2.7,SNR=14						
KDAK				S	Sn	18 02 03.5	-1.0
	comp=Z,3.2nm,0.7s,baz=252,slow=20,SNR=1.9						
KDAK				LR	LR	18 05 01.9	
	comp=Z,51nm,22.0s,baz=238,slow=34						
	comp=Z,5.4nm,0.4s						
KDAK	Kodiak Island	20.63	58		P	17 58 09.2	-1.3
KDAK				IAmb	IAmb	17 58 18.2	
	comp=Z,12nm,0.9s						
M20K	Styx River	21.02	47	P	P	17 58 14.9	+0.1
J20K	Nowinta River	21.31	40		P	17 58 17.5	-0.3
J20K				IAmb	IAmb	17 58 22.4	
	comp=Z,10nm,1.3s						
STLK	Strandline Lak	21.53	48	P	P	17 58 21.0	+0.7
STLK				IAmb	IAmb	17 58 24.7	
	comp=Z,5.8nm,0.6s						
PPLA	Purkeypile	21.72	44	P	P	17 58 22.9	+0.5
PPLA				IAmb	IAmb	17 58 30.5	
	comp=Z,14nm,1.1s						
SKT	Skwentna	21.78	47		P	17 58 23.8	+0.8
SKT				IAmb	IAmb	17 58 30.2	
	comp=Z,12nm,1.2s						
JKA	Kamikawa-asahi	21.80	263	P	P	17 58 22.7	-0.5
ASAJ	Asahikawa	21.80	263	P	P	17 58 24.2	+0.9
	comp=Z,5.8nm,1.0s,baz=83,slow=8.1,SNR=6.2						
	comp=Z,5.8nm,1.0s						
CAST	Castle Rocks	21.91	43	P	P	17 58 24.0	-0.4
C19K	Lookout Ridge	22.01	26	P	P	17 58 25.2	-0.2
C19K				IAmb	IAmb	17 58 26.5	
	comp=Z,9.2nm,1.3s						
D19K	Kuna River	22.05	28	P	P	17 58 25.6	-0.2
KTH	Kantishna Hill	22.45	43	IAmb	IAmb	17 58 36.5	
	comp=Z,12nm,1.0s						
TRF	Thorofare Moun	22.70	44	IAmb	IAmb	17 58 49.8	
	comp=Z,8.6nm,1.2s						
F21K	Alatna River	22.85	33	P	P	17 58 33.7	-0.6
PWL	Port Wells	23.09	51	P	P	17 58 34.7	-2.1
PWL				IAmb	IAmb	17 58 50.2	
	comp=Z,8.3nm,1.0s						
KNK	Knik Glacier	23.11	49	IAmb	IAmb	17 58 50.8	
	comp=Z,7.7nm,1.1s						
B20K	Meade River	23.25	25	P	P	17 58 38.1	-0.1
B20K				IAmb	IAmb	17 58 59.8	
	comp=Z,6.5nm,0.7s						
MCK	McKinley	23.36	43	IAmb	IAmb	17 58 42.8	
	comp=Z,13nm,1.4s						
D22K	Ayikyak River	23.92	30	P	P	17 58 44.6	-0.2
D22K				IAmb	IAmb	17 59 19.9	
	comp=Z,6.2nm,1.2s						
HIN	Hinchinbrook I	23.95	52	P	P	17 58 44.3	-0.8
HIN				IAmb	IAmb	17 59 04.6	
	comp=Z,11nm,1.2s						
KLU	Klutina	24.33	49	IAmb	IAmb	17 58 49.5	
	comp=Z,3.5nm,0.5s						
H24K	Noodor Dome	24.38	39		P	17 58 48.5	-0.6
ILAR	Eielson Array	24.48	41	P	P	17 58 48.8	-1.2
	comp=Z,0.7nm,0.6s,baz=251,slow=9.5,SNR=14						
ILAR				LR	LR	18 10 03.2	
	comp=Z,22nm,18.1s,baz=75,slow=41						
	comp=Z,0.7nm,0.6s						
ILAR	Eielson Array	24.48	41	P	P	17 58 51.0	+1.0
PRP	Porcupine Dome	25.23	40	IAmb	IAmb	17 58 59.7	
	comp=Z,4.5nm,0.8s						
GLB	Gilahina Butte	25.33	50	IAmb	IAmb	17 59 12.6	
	comp=Z,4.7nm,0.9s						
MENT	Mentasta	25.52	46	IAmb	IAmb	17 59 11.7	
	comp=Z,4.2nm,0.6s						
L26K	Log Cabin Wild	25.70	46	IAmb	IAmb	17 59 18.1	
	comp=Z,3.9nm,0.8s						
YAK	Yakutsk	25.79	312	P	P	17 59 00.7	-1.1
	comp=Z,7.5nm,0.9s,baz=90,slow=2.0,SNR=4.4						
	comp=Z,7.5nm,0.9s						
YAK	Yakutsk	25.79	312		P	17 58 59.8	-2.0
M26K	Nabesna, AK	25.79	48	IAmb	IAmb	17 59 16.6	
	comp=Z,5.9nm,1.0s						
G26K	Porcupine Rive	26.28	37	P	P	17 59 06.5	+0.3
G26K				IAmb	IAmb	17 59 24.9	
	comp=Z,5.0nm,1.1s						
M27K	Edge Creek, AK	26.31	48	IAmb	IAmb	17 59 25.9	
	comp=Z,9.4nm,1.2s						
K27K	Chicken	26.39	44	IAmb	IAmb	17 59 21.9	
	comp=Z,3.9nm,0.8s						
L27K	Beaver Creek,	26.39	46	IAmb	IAmb	17 59 33.1	
	comp=Z,4.2nm,0.9s						
M29M	Somme Creek	27.90	48	IAmb	IAmb	17 59 35.9	
	comp=Z,4.0nm,0.9s						
L29M	L29M	28.07	46	IAmb	IAmb	17 59 53.9	
	comp=Z,4.5nm,1.1s						
P29M	Windy Craggy	28.35	54	P	P	17 59 25.3	+0.4
HYT	Haines Junctio	28.39	51	IAmb	IAmb	17 59 27.3	
	comp=Z,3.0nm,0.7s						
MJAR	Matsushiro Arr	28.98	253	P	P	17 59 29.0	-1.7
MAJO	Matsushiro	28.98	253	P	P	17 59 28.6	-2.1
MJB9	Matsu-Tunnel	28.98	253	P	P	17 59 28.8	-1.9
S32K	Killisnoo	30.29	58	P	P	17 59 42.2	+0.2
CRAG	Craig	31.53	61	P	P	17 59 53.6	+0.6
WRAK	Wrangell Islan	31.71	59	P	P	17 59 54.8	+0.3
R33M	Jennings River	31.80	53		P	17 59 55.3	-0.3
S34M	Telegraph Cree	32.01	56	P	P	17 59 56.9	-0.3
S34M				IAmb	IAmb	18 00 14.6	
	comp=Z,3.8nm,1.1s						
DLBC	Dease Lake	32.47	55	LR	LR	18 13 50.7	
	comp=Z,20nm,18.2s,baz=328,slow=38						
DIB	Dawson Inlet,	32.55	65	P	P	18 00 02.3	+0.3
T35M	Bob Quinn	32.69	58	P	P	18 00 04.0	+0.8
T35M				IAmb	IAmb	18 00 20.3	
	comp=Z,4.2nm,0.9s						
YKA	Yellowknife Ar	38.81	45	P	P	18 00 56.7	+1.2
	comp=Z,1.4nm,0.6s,baz=282,slow=8.5,SNR=3.1						
YKA				LR	LR	18 17 38.9	
	comp=Z,27nm,18.8s,baz=308,slow=37						
	comp=Z,1.4nm,0.6s						
SONM	Songino Array	42.22	293	P	P	18 01 25.6	+1.6
	comp=Z,0.4nm,0.5s,baz=64,slow=9.8,SNR=2.4						
SONM				PcP	PcP	18 03 18.5	+0.8
	comp=Z,0.3nm,0.4s,baz=46,slow=4.2,SNR=2.8						
SONM				LR	LR	18 19 34.7	
	comp=Z,38nm,18.4s,baz=143,slow=37						
	comp=Z,0.4nm,0.5s						
SONM	Songino Array	42.22	293	P	P	18 01 23.3	-0.7
WIFE	Three Sisters-	42.95	73	P	P	18 01 30.3	+0.2
WIFE				IAmb	IAmb	18 01 32.8	
	comp=Z,4.6nm,1.0s						
YBH	Yreka Blue Hor	43.72	77		P	18 01 37.5	+1.3
M02C	Callahan	43.83	77	P	P	18 01 37.2	+0.1
NVAR	Mina Array Bea	48.41	77	P	P	18 02 14.2	+0.9
	comp=Z,0.9nm,0.6s,baz=304,slow=7.8,SNR=6.0						
	comp=Z,0.9nm,0.6s						
ELK	Elko	48.84	73	IAmb	IAmb	18 02 19.2	
	comp=Z,1.8nm,0.9s						
DSP	Deep Springs	49.28	78	P	P	18 02 19.9	+0.2
SPITS	Spitsbergen Ar	50.03	354	P	P	18 02 27.0	+2.0
	comp=Z,1.4nm,0.5s,baz=76,slow=6.1,SNR=1.7						
	comp=Z,1.4nm,0.5s						
TPNV	Topopah Spring	50.60	78		P	18 02 30.2	+0.2
TPNV				IAmb	IAmb	18 02 43.6	
	comp=Z,4.2nm,0.9s						
DUG	Dugway, Tooele	50.63	72	IAmb	IAmb	18 02 32.5	
	comp=Z,3.3nm,0.8s						
GTA2	Gaotai	50.95	287	*e*P	P	18 02 34.3	+1.8
GTA2				sP	pwP	18 02 45.7	-1.5
GTA2				pmax	pmax		
	comp=Z,5.0nm,0.8s						
PD31	Pinedale Array	50.95	68	IAmb	IAmb	18 02 35.1	
	comp=Z,2.8nm,1.1s						
PDAR	Pinedale Array	50.95	68	P	P	18 02 33.0	+0.4
	comp=Z,0.8nm,0.8s,baz=311,slow=7.9,SNR=7.0						
	comp=Z,0.8nm,0.8s						
PRN	Pahroc Range	51.04	76	IAmb	IAmb	18 02 35.7	
	comp=Z,3.4nm,0.9s						
RDMU	Red Mountain	52.32	70	P	P	18 02 42.9	+0.1
KURK	Kurchatov	55.41	310		P	18 03 04.3	-0.7
KURK				IAmb	IAmb	18 03 06.6	
	comp=Z,3.4nm,0.8s						
KURK	Kurchatov	55.41	310		PcP	18 04 06.0	+1.0
KURBB	Kurchatov Arra	55.51	310	P	P	18 03 06.3	+0.5
	comp=Z,2.0nm,0.7s,baz=52,slow=7.3,SNR=13						
KURBB				PcP	PcP	18 04 06.0	+0.6
	comp=Z,0.3nm,0.6s,baz=46,slow=4.0,SNR=1.6						
	comp=Z,2.0nm,0.7s						
FRB	Frobisher Bay	55.56	28	LR	LR	18 29 19.9	
	comp=Z,28nm,19.1s,baz=172,slow=39						
S22A	4UR Ranch, Cre	55.77	71	P	P	18 03 07.5	-0.6
S22A				IAmb	IAmb	18 03 11.1	
	comp=Z,3.4nm,1.1s						
MKAR	Makanchi Array	56.13	304	P	P	18 03 10.5	+0.2
	comp=Z,0.9nm,0.7s,baz=49,slow=6.1,SNR=6.8						
MKAR				PcP	PcP	18 04 08.6	+0.7
	comp=Z,0.4nm,0.8s,baz=41,slow=4.6,SNR=2.3						
	comp=Z,0.9nm,0.7s						
MKAR	Makanchi Array	56.13	304	P	P	18 03 09.7	-0.5
MKAR					PcP	18 04 08.1	+0.1
MAKZ	Makanchi	56.28	304	P	P	18 03 10.7	-0.6
MAKZ				IAmb	IAmb	18 03 14.7	
	comp=Z,1.4nm,0.8s						
ARCES	ARCESS Array B	57.21	347	P	P	18 03 17.9	+0.2
EYMN	Ely	57.43	53	P	P	18 03 20.3	+0.8
BVAR	Borovoye Array	57.65	316	P	P	18 03 22.0	+1.0
	comp=Z,1.8nm,0.7s,baz=46,slow=10,SNR=4.6						
	comp=Z,1.8nm,0.7s						
BORK	Borovoye	57.67	316	P	P	18 03 21.6	+0.5
BORK				IAmb	IAmb	18 03 52.8	
	comp=Z,2.2nm,0.8s						
WMOK	Wichita Mounta	62.56	68	P	P	18 03 55.7	+0.8
WMOK				IAmb	IAmb	18 03 56.9	
	comp=Z,1.8nm,0.8s						
SCHQ	Schefferville	62.98	34	P	P	18 03 59.9	+2.5
	comp=Z,4.8nm,0.5s,baz=17,slow=18,SNR=6.2						
	comp=Z,4.8nm,0.5s						
SCHQ	Schefferville	62.98	34	P	P	18 03 57.8	+0.4
TX31	Lajitas Ar. Si	63.48	76	P	P	18 04 00.9	-0.3
TXAR	Lajitas Array	63.48	76	P	P	18 04 02.6	+1.4
	comp=Z,1.6nm,0.8s,baz=318,slow=6.6,SNR=16						
	comp=Z,1.6nm,0.8s						
TXAR	Lajitas Array	63.48	76	P	P	18 04 01.1	0.0
FINES	FINESS Array B	64.62	343	P	P	18 04 08.6	+0.6
	comp=Z,2.4nm,0.7s,baz=8.6,slow=6.6,SNR=7.2						
	comp=Z,2.4nm,0.7s						
KKAR	Karatay Array	64.69	308	P	P	18 04 09.4	+0.6
ABKAR	Akbulak array	64.89	318	P	P	18 04 10.1	+0.1
CMAR	Chiang Mai Arr	66.11	270	P	P	18 04 18.9	+0.6
	comp=Z,0.4nm,0.7s,baz=36,slow=6.8,SNR=4.7						
	comp=Z,0.4nm,0.7s						
NC204	NORSAR Array S	66.92	351	P	P	18 04 24.0	+1.0
HFS	Hagfors	67.72	349	P	P	18 04 28.5	+0.6
	comp=Z,1.9nm,0.8s,baz=359,slow=7.2,SNR=1.6						
HFS				LR	LR	18 35 07.9	
	comp=Z,21nm,19.9s,baz=45,slow=37						
	comp=Z,1.9nm,0.8s						
AKASG	Malin Array Be	73.92	337	P	P	18 05 06.4	+0.7
	comp=Z,0.7nm,0.5s,baz=26,slow=6.2,SNR=3.1						
	comp=Z,0.7nm,0.5s						
WR8	Warramunga Arr	78.70	217	P	P	18 05 33.2	0.0
GERES	GERESS Array B	78.74	346	P	P	18 05 33.7	+0.4
	comp=Z,0.3nm,0.3s,baz=23,slow=3.4,SNR=4.3						
	comp=Z,0.3nm,0.3s						
GERES	GERESS Array B	78.74	346	P	P	18 05 33.3	0.0
WRA	Warramunga Arr	78.75	217	P	P	18 05 33.3	-0.1
	comp=Z,1.3nm,1.0s,baz=24,slow=4.1,SNR=4.3						
	comp=Z,1.3nm,1.0s						
WRA	Warramunga Arr	78.75	217	P	P	18 05 32.7	-0.8
AS31	Alice Springs	82.31	216	P	P	18 05 52.5	+0.1
ASAR	Alice Springs	82.31	216	P	P	18 05 53.4	+0.9
	comp=Z,0.7nm,0.8s,baz=25,slow=5.3,SNR=14						
	comp=Z,0.7nm,0.8s						
ASAR	Alice Springs	82.31	216	P	P	18 05 52.2	-0.3
BRTR	Keskin Array B	82.77	330	P	P	18 05 56.1	+1.1
	comp=Z,0.8nm,0.8s,baz=24,slow=1.5,SNR=2.1						
	comp=Z,0.8nm,0.8s						
BRTR	Keskin Array B	82.77	330	P	P	18 05 54.8	-0.2
INKA	Innaminka	83.78	209	P	P	18 06 00.1	+0.3
INKA				IAmb	IAmb	18 06 00.8	
	comp=Z,3.6nm,1.5s						
QSPA	South Pole Qui	141.04	180	PKP	PKPdf	18 12 59.3	-0.4
	comp=Z,1.3nm,0.9s,baz=322,slow=2.5,SNR=2.6						
MAW	Mawson	143.43	217	PKhKP	PKPpre	18 13 01.4	
	comp=Z,2.1nm,0.9s,baz=90,slow=4.0,SNR=4.4						

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*IDC **05** 18:03:46.0±6.2, 7°.55S×129°.65E, h196^{km}±66^{km}, mb3.3/3, mbtmp3.7/6, Error ellipse: s-maj=55.6km s-min=32.1km az=62.0*

ISC 05 18:03:42.6±1.0, **7°.45S**±0°.09×**129°.95E**±0°.08, **h150**^{km}, **n16**, σ**2^{s}31**/18, **mb3.3**/3, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SAUI	Saumlaki	1.44	112	P	Pn	18 04 12.0	+0.5
SAUI	Saumlaki	1.44	112	S	Sn	18 04 36.0	+2.4
DRS	Darwin Rock St	5.04	169	P	Pn	18 05 01.9	+5.4
SOEI	Soe	6.07	247	P	Pn	18 05 12.4	+2.1
FITZ	Fitzroy Crossi	11.38	201	P	Pn	18 06 21.9	+1.1
	1.9nm,0.3s,baz=23,slow=12,SNR=8.8						
FITZ				S	Sn	18 08 24.8	-1.9
	4.7nm,0.3s,baz=337,slow=15,SNR=8.3						
FITZ	Fitzroy Crossi	11.38	201	P	Pn	18 06 24.0	+3.2
PLAI	Plampang	12.13	263	P	Pn	18 06 31.7	+1.1
WRAB	Tennant Creek	13.12	161	P	P	18 06 46.1	-1.9
WRA	Warramunga Arr	13.13	162	P	Pn	18 06 44.8	+1.4
	0.5nm,0.3s,baz=338,slow=13,SNR=20						
WRA				S	Sn	18 09 05.6	-3.1
	5.4nm,0.5s,baz=345,slow=23,SNR=11						
WB1	Warramunga Ar.	13.14	162	P	Pn	18 06 45.6	+1.9
QIS	Mount Isa	16.04	145	P	P	18 07 22.7	+2.4
ASAR	Alice Springs	16.56	167	P	Pn	18 07 26.6	+0.4
	0.3nm,0.5s,baz=344,slow=12,SNR=23						
ASAR				S	S	18 10 28.6	-1.9
	1.1nm,0.7s,baz=343,slow=25,SNR=6.5						
AS01	Alice Springs	16.57	167	P	Pn	18 07 30.0	+3.6
MKAR	Makanchi Array	68.57	327	P	P	18 14 27.0	-2.2
	1.1nm,0.4s,baz=121,slow=7.2,SNR=25						
	1.1nm,0.4s						
ZALV	Zalesovo Beam	71.96	334	P	P	18 14 47.5	-2.1
	0.3nm,0.5s,baz=137,slow=9.1,SNR=2.0						
	0.3nm,0.5s						
KURBB	Kurchatov Arra	72.87	329	P	P	18 14 53.2	-1.8
	0.3nm,0.4s,baz=124,slow=4.8,SNR=5.3						
	0.3nm,0.4s						

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*SJA **05** 18:33:24.4±0.7, 21°.30S×68°.95W, h126^{km}±4^{km}, ML3.6, MW3.6*

*GUC **05** 18:33:25.5±0.9, 21°.29S×68°.92W, h111^{km}±5^{km}, ML3.5*

*IDC **05** 18:33:26.7±3.2, 21°.31S×68°.50W, h108^{km}±36^{km}, mb3.6/2, mbtmp3.7/5, Error ellipse: s-maj=54.1km s-min=29.7km az=118.0*

ISC 05 18:33:25.4±0.9, 21°.28S±0°.03×68°.94W±0°.07, h122^{km}±8^{km}, n35, σ0^{s}.91/54, 5C, Chile-Bolivia border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB09	IPOC Station P	0.58	209	eP	Pn	18 33 44.2	-0.1
PB09				eS	Sn	18 33 58.5	0.0
PB09				IAML		18 33 59.6	
	comp=Z,614nm,0.2s						
PB09	IPOC Station P	0.58	209	⇑iP	Pn	18 33 44.0	-0.2
PB09				eS	Sn	18 33 57.8	-0.7
PB09				IAML		18 33 58.5	
	comp=N,860nm,0.6s						
PB02	IPOC Station P	0.89	268	eP	Pn	18 33 46.6	0.0
PB02				eS	Sn	18 34 03.8	+1.1
PB02				IAML		18 34 05.3	
	comp=Z,2µm,0.4s						
PB02	IPOC Station P	0.89	268	⇑iP	Pn	18 33 46.8	+0.2
PB02				eS	Sn	18 34 02.6	-0.1
PB02				IAML		18 34 06.5	
	comp=E,2µm,0.2s						
PB07	IPOC Station P	0.98	243	eP	Pn	18 33 47.6	0.0
PB07				eS	Sn	18 34 04.7	+0.3
PB07				IAML		18 34 06.2	
	comp=Z,662nm,0.4s						
PB07	IPOC Station P	0.98	243	⇑iP	Pn	18 33 47.7	+0.1
PB07				eS	Sn	18 34 03.9	-0.5
PB07				IAML		18 34 05.2	
	comp=N,1µm,0.2s						
PB03	IPOC Station P	1.07	225	eP	Pn	18 33 48.5	+0.1
PB03				eS	Sn	18 34 05.9	-0.1
PB03				IAML		18 34 07.8	
	comp=Z,952nm,0.2s						
PB03	IPOC Station P	1.07	225	⇑iP	Pn	18 33 48.5	+0.1
PB03				eS	Sn	18 34 05.2	-0.7
PB03				IAML		18 34 05.9	
	comp=N,2µm,0.2s						
TA01	Diego Aracena	1.36	301	eP	Pn	18 33 51.5	+0.2
TA01				eS	Sn	18 34 11.5	+0.5
TA01				IAML		18 34 12.2	
	comp=Z,429nm,0.2s						
TA01	Diego Aracena	1.36	301	i P	Pn	18 33 51.2	-0.2
TA02	Huaiquique	1.50	312	eP	Pn	18 33 53.0	+0.1
TA02				eS	Sn	18 34 14.7	+0.8
TA02				IAML		18 34 17.4	
	comp=Z,1µm,0.1s						
TA02	Huaiquique	1.50	312	eP	Pn	18 33 52.8	-0.1
PB06	IPOC Station P	1.53	202	eP	Pn	18 33 53.8	+0.4
PB06				eS	Sn	18 34 15.0	+0.2
PB06				IAML		18 34 15.7	
	comp=Z,539nm,0.3s						
PB06	IPOC Station P	1.53	202	⇑iP	Pn	18 33 53.7	+0.2
PB06				eS	Sn	18 34 14.6	-0.3
PB06				IAML		18 34 15.9	
	comp=N,699nm,0.2s						
GO01	Chusmiza	1.62	352	eP	Pn	18 33 55.5	+0.6
GO01				eS	Sn	18 34 18.5	+1.2
GO01				IAML		18 34 19.0	
	comp=Z,369nm,0.6s						
GO01	Chusmiza	1.62	352	eP	Pn	18 33 55.0	+0.1
GO01				eS	Sn	18 34 17.7	+0.4
GO01				IAML		18 34 20.0	
	comp=N,2µm,0.2s						
PB11	IPOC Station P	1.66	336	eP	Pn	18 33 55.1	+0.2
PB11				eS	Sn	18 34 17.9	+0.4
PB11				IAML		18 34 19.0	
	comp=Z,532nm,0.3s						
PB11	IPOC Station P	1.66	336	i P	Pn	18 33 54.9	0.0
PB11				eS	Sn	18 34 17.1	-0.3
PB11				IAML		18 34 18.5	
	comp=N,2µm,0.2s						
PB05	IPOC Station P	1.95	217	eP	Pn	18 33 58.5	+0.1
PB05				eS	Sn	18 34 23.7	0.0
PB05	IPOC Station P	1.95	217	i P	Pn	18 33 58.3	-0.1
PB05				IAML		18 34 24.9	
	comp=E,199nm,0.4s						
PSGCX	Pisagua	2.01	326	eP	Pn	18 33 58.5	-0.7
PSGCX				eP		18 33 58.8	
PSGCX				eS	Sn	18 34 24.6	-0.4
PSGCX				IAML		18 34 26.8	
	comp=Z,214nm,0.7s						
PSGCX	Pisagua	2.01	326	eP	Pn	18 33 58.5	-0.7
PB12	IPOC Station P	2.96	334	eP	Pn	18 34 10.8	-0.5
PB12				eS	Sn	18 34 45.6	-1.1
PB12				IAML		18 35 05.2	
	comp=Z,80nm,0.5s						
PB12	IPOC Station P	2.96	334	eP	Pn	18 34 10.1	-1.2
PB12				IAML		18 34 51.9	
	comp=N,141nm,0.4s						
PB16	IPOC Station P	2.98	350	eP	Pn	18 34 13.2	+1.2
PB16				eS	Sn	18 34 37.3	-11
PB16	IPOC Station P	2.98	350	eP	Pn	18 34 12.9	+0.8
PB16				IAML		18 34 56.0	
	comp=N,72nm,0.4s						
AP01	Chacalluta	3.18	335	IAML		18 35 02.8	
	comp=E,333nm,0.4s						
PB14	IPOC Station P	3.59	202	eP	Pn	18 34 19.9	+0.2
PB14				eS	Sn	18 35 00.6	-1.2
HJA	Humahuaca	3.79	121	eP	Pn	18 34 24.2	+1.6
HJA				eP		18 34 24.6	
LPAZ	La Paz	5.03	9	P	Pn	18 34 40.8	+1.4
	comp=E,1.5nm,0.3s,baz=184,slow=6.3,SNR=16						
LPAZ	La Paz	5.03	9	eP	Pn	18 34 41.2	+1.9
SIV	San Ignacio	9.13	56	P	Pn	18 35 29.9	-4.3
	comp=E,1.6nm,0.5s,baz=239,slow=15,SNR=7.4						
PLCA	Paso Flores	19.44	184	P	Pn	18 37 44.8	0.0
	comp=E,1.7nm,0.9s,baz=338,slow=11,SNR=3.6						
BDFB	Brasilia	20.62	78	P	P	18 37 54.6	-0.7
	comp=E,2.7nm,0.4s,baz=243,slow=14,SNR=4.7						
	comp=E,2.7nm,0.4s						
TORD	Torodi Ar. Bea	77.31	70	P	P	18 45 07.5	+0.5
	comp=E,0.9nm,0.8s,baz=242,slow=3.9,SNR=4.1						
	comp=E,0.9nm,0.8s						

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*NEIC **05** 18:43:52.2±1.7, 20°.9S±0°.1×178°.3W±0°.1, h556^{km}±7^{km}, mb4.2/36, Error ellipse: s-maj=18.6km s-min=15.3km az=118.0*

*IDC **05** 18:43:54.7±1.9, 20°.75S×178°.59W, h579^{km}±18^{km}, mb3.2/10, mbtmp4.1/12, Error ellipse: s-maj=24.4km s-min=18.5km az=113.0*

ISC 05 18:43:52.0±0.7, 20°.86S±0°.08×178°.30W±0°.08, h563^{km}±8^{km}, n71, σ1^{s}.13/76, mb4.0/25, 4D, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	4.65	311	P	P	18 45 21.7	+1.7
	8.7nm,0.6s,baz=120,slow=16,SNR=6.4						
MSVF	Nonsavu	4.65	311	P	P	18 45 20.8	+0.8
AFI	Afiamalu	9.30	43	P	P	18 46 03.3	0.0
AFI				S	S	18 47 48.3	-2.7
DZM	Mont Dzumac	14.26	262	P	P	18 46 55.9	+2.0
	5.7nm,0.7s,baz=94,slow=19,SNR=12						
KOUNC	Koumac, New Ca	16.30	268	P	P	18 47 14.9	+1.0
TOZ	Tahuroa Road	17.65	196	P	P	18 47 28.1	+2.3
URZ	Urewera	17.78	192	P	P	18 47 26.7	-0.5
	9.9nm,0.8s,baz=82,slow=17,SNR=7.0						
ARMA	Armidale	28.66	245	P	P	18 49 04.7	+0.3
CTAO	Charters Tower	33.18	265	P	P	18 49 42.3	-0.7
CTAO				IAmb	IAmb	18 49 56.9	
	comp=Z,16nm,1.3s						
PMG	Port Moresby	35.16	284	P	P	18 49 58.7	-0.9
TOO	Toolangi	35.46	234	P	P	18 50 01.7	-0.2
TOO				IAmb	IAmb	18 50 14.3	
	comp=Z,4.0nm,1.4s						
STKA	Stephens Creek	37.38	245	P	P	18 50 17.6	-0.1
	comp=Z,1.4nm,0.5s,baz=94,slow=19,SNR=3.2						
	comp=Z,1.4nm,0.5s						
INKA	Innaminka	37.82	251	P	P	18 50 21.7	+0.4
BBOO	Buckleboo	42.14	244	P	P	18 50 54.9	-0.9
BBOO				IAmb	IAmb	18 51 11.6	
	comp=Z,20nm,1.4s						
WR8	Warramunga Arr	44.12	262	P	P	18 51 09.8	-1.6
WR8				IAmb	IAmb	18 51 11.6	
	comp=Z,8.2nm,1.2s						
WR8				PcP	PcP	18 52 43.9	-0.2
AS31	Alice Springs	44.16	257	P	P	18 51 10.7	-1.0
AS31				PcP	PcP	18 52 43.9	-0.3
ASAR	Alice Springs	44.16	257	P	P	18 51 11.0	-0.8
	comp=Z,4.5nm,0.7s,baz=102,slow=8.0,SNR=98						
ASAR				PcP	PcP	18 52 44.3	+0.1
	comp=Z,1.1nm,0.6s,baz=95,slow=3.6,SNR=12						
ASAR				ScP	ScP	18 55 43.3	+0.4
	comp=Z,0.3nm,0.8s,baz=97,slow=4.9,SNR=2.2						
	comp=Z,4.5nm,0.7s						
ASAR	Alice Springs	44.16	257	P	P	18 51 10.8	-0.9
ASAR					PcP	18 52 43.9	-0.3
WRA	Warramunga Arr	44.27	262	P	P	18 51 11.4	-1.2
	comp=Z,1.5nm,0.3s,baz=99,slow=8.5,SNR=127						
WRA				PcP	PcP	18 52 44.9	+0.3
	comp=Z,0.4nm,0.6s,baz=94,slow=2.5,SNR=2.8						
	comp=Z,1.5nm,0.3s						
WRA	Warramunga Arr	44.27	262	P	P	18 51 10.7	-1.9
WRA					PcP	18 52 44.3	-0.3
MIDW	Midway	48.80	1	P	P	18 51 46.1	-0.3
MTN	Manton Dam	48.89	271	P	P	18 51 46.3	-1.1
MTN				IAmb	IAmb	18 51 51.3	
	comp=Z,8.6nm,1.2s						
FORT	Forrest	48.90	247	P	P	18 51 46.5	-0.8
FORT				IAmb	IAmb	18 51 59.9	
	comp=Z,6.8nm,0.9s						
KNRA	Kununurra	50.36	267	P	P	18 51 57.3	-0.9
KNRA				IAmb	IAmb	18 51 59.3	
	comp=Z,5.0nm,1.1s						
FAKI	Fak Fak	51.31	284	P	P	18 52 04.8	-0.4
FITZ	Fitzroy Crossi	52.70	263	P	P	18 52 14.2	-0.9
SOEI	Soe	56.23	272	P	P	18 52 39.9	-0.2
SBA	Scott Base	57.49	184	P	P	18 52 46.9	-0.5
MBWA	Marble Bar	57.50	258	P	P	18 52 47.5	-1.0
MBWA				IAmb	IAmb	18 52 48.2	
	comp=Z,7.4nm,0.8s						
NWAO	Narrogin (SRO)	57.96	244	P	P	18 52 50.8	-0.6
NWAO				IAmb	IAmb	18 53 04.4	
	comp=Z,41nm,1.5s						
MORW	Morawa	59.43	248	P	P	18 53 00.1	-1.2
MORW				IAmb	IAmb	18 53 03.2	
	comp=Z,17nm,1.4s						
GIRL	Giralia	62.19	255	P	P	18 53 18.8	-0.7
TOLI2	Tolitoli	63.41	282	P	P	18 53 27.7	+0.2
CASY	Casey	63.52	205	P	P	18 53 27.7	+0.5
CASY				IAmb	IAmb	18 53 29.2	
	comp=Z,7.0nm,1.4s						
QSPA	South Pole Qui	69.20	180	P	P	18 54 05.0	+2.4
	comp=Z,1.8nm,0.8s,baz=351,slow=0.5,SNR=12						
	comp=Z,1.8nm,0.8s						
QSPA	South Pole Qui	69.20	180	P	P	18 54 04.2	+1.6
MJAR	Matsushiro Arr	70.34	324	P	P	18 54 09.3	-0.4
	comp=Z,0.9nm,0.6s,baz=166,slow=6.1,SNR=4.5						
	comp=Z,0.9nm,0.6s						
MJAR	Matsushiro Arr	70.34	324	IAmb	IAmb	18 54 09.6	
	comp=Z,2.3nm,1.4s						
MAJO	Matsushiro	70.34	324	P	P	18 54 09.7	+0.1
MAJO				IAmb	IAmb	18 54 28.3	
	comp=Z,7.9nm,1.2s						
MJB9	Matsu-Tunnel	70.34	324	P	P	18 54 10.7	+1.0
MJB9				IAmb	IAmb	18 54 29.3	
	comp=Z,7.0nm,1.2s						
JKA	Kamikawa-asahi	73.91	332	P	P	18 54 31.2	+1.1
JKA				IAmb	IAmb	18 54 45.0	
	comp=Z,15nm,1.4s						
SSLB	Suanglung	73.94	304	P	P	18 54 29.4	-1.4
PETK	Petropavlovsk-	76.55	345	P	P	18 54 45.6	+1.0
	comp=Z,1.1nm,0.5s,baz=174,slow=6.6,SNR=4.6						
	comp=Z,1.1nm,0.5s						
PETK	Petropavlovsk-	76.55	345	P	P	18 54 45.4	+0.8
BELA	Belgrano 2	79.23	173	P	P	18 54 59.5	+0.7
N14K	Kuskokwak Cree	81.63	8	P	P	18 55 12.9	+1.6
KULM	Kulim	83.55	278	P	P	18 55 22.2	+0.2
GSI	Gunungsitoli	84.97	273	P	P	18 55 29.4	+0.4
ELIB	Princess Elisa	86.25	187	dP	P	18 55 35.1	+0.9
	comp=Z,1.5nm,0.7s						
ELIB				dpP	pP	18 57 35.0	-0.7
ELIB				dsP	sP	18 58 27.1	-5.4
ELIB				dPcP	PP	18 59 00.6	-4.2
HILR	Hailar Array B	88.99	325	P	P	18 55 47.6	+0.4
	comp=Z,0.4nm,0.4s,baz=132,slow=2.1,SNR=1.9						
	comp=Z,0.4nm,0.4s						
PDAR	Pinedale Array	89.42	43	P	P	18 55 51.9	+2.3
	comp=Z,0.1nm,0.3s,baz=256,slow=4.1,SNR=2.1						
	comp=Z,0.1nm,0.3s						
PDAR	Pinedale Array	89.42	43	P	P	18 55 49.6	0.0
CMAR	Chiang Mai Arr	89.97	290	P	P	18 55 53.4	+1.0
	comp=Z,0.9nm,0.7s,baz=113,slow=4.4,SNR=9.3						
	comp=Z,0.9nm,0.7s						
CMAR	Chiang Mai Arr	89.97	290	P	P	18 55 53.1	+0.7
SONM	Songino Array	95.84	319	P	P	18 56 18.7	-0.1
	comp=Z,0.1nm,0.3s,baz=90,slow=2.9,SNR=1.7						
	comp=Z,0.1nm,0.3s						
SONM	Songino Array	95.84	319	P	P	18 56 18.3	-0.4
SONM				IAmb	IAmb	18 56 21.4	
	comp=Z,1.2nm,1.4s						
ZALV	Zalesovo Beam	110.60	321	PKiKP	PKiKP	19 01 19.0	-1.7
	comp=Z,0.3nm,0.3s,baz=116,slow=3.4,SNR=1.9						
MKAR	Makanchi Array	111.24	313	PKiKP	PKiKP	19 01 21.8	-0.4
	comp=Z,0.2nm,0.6s,baz=90,slow=0.3,SNR=2.2						
KURK	Kurchatov	114.07	317		PKiKP	19 01 26.7	-0.7
KURBB	Kurchatov Arra	114.12	317	PKiKP	PKiKP	19 01 26.7	-0.8
	comp=Z,0.3nm,0.6s,baz=110,slow=1.7,SNR=3.1						
BVAR	Borovoye Array	119.18	320	PKP	PKPdf	19 01 36.6	-0.6
	comp=Z,1.0nm,0.4s,baz=114,slow=1.8,SNR=8.3						
FINES	FINESS Array B	136.04	343	PKP	PKiKP	19 02 10.4	-0.3
	comp=Z,5.4nm,1.1s,baz=86,slow=1.8,SNR=4.5						
HFS	Hagfors	139.85	351	PKhKP	PKPpre	19 02 09.2	
	comp=Z,12nm,1.2s,baz=29,slow=3.3,SNR=5.1						
AKASG	Malin Array Be	143.19	331	PKP	PKPab	19 02 19.9	-0.3
	comp=Z,4.1nm,0.5s,baz=44,slow=4.2,SNR=32						
AKBB	Malin Array Si	143.19	331		PKPab	19 02 19.8	-0.5
KIEV	Kiev	143.21	331		PKPab	19 02 19.8	-0.5
BRTR	Keskin Array B	146.88	312	PKPbc	PKPbc	19 02 31.7	-0.3
	comp=Z,1.0nm,0.6s,baz=46,slow=4.2,SNR=5.5						
BRTR	Keskin Array B	146.88	312		PKPbc	19 02 31.4	-0.7
MMAI	Mount Meron Ar	147.75	299	PKPbc	PKPbc	19 02 34.8	+0.4
	comp=Z,1.4nm,0.4s,baz=74,slow=6.4,SNR=6.4						
CLL	Collm	148.35	346	i PKPbc	PKiKP	19 02 36.0	-0.4
	comp=Z,5.0nm,0.9s						
GERES	GERESS Array B	150.47	344	PKPbc	PKPbc	19 02 40.0	-0.5
	comp=Z,1.1nm,0.7s,baz=24,slow=2.8,SNR=6.3						

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*JSN **05** 19:02:55.6±0.6, 17°.89N×76°.54W, h15^{km}±5^{km}, MD2.7, Confirmed Earthquake*

*SSNC **05** 19:02:57.1±1.9, 18°.08N×76°.58W, h12^{km}±11^{km}, MD3.2, ML2.3, MW3.3, Presumed earthquake*

ISC 05 19:02:52.5±1.3, 18°.19N±0°.05×76°.47W±0°.04, h10^{km}±11^{km}, n20, σ1^{s}.42/39, 4C-2D, Jamaica region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GWJ	Greenwich	0.27	245	i P	Pb	19 03 01.0	+1.5
GWJ				⇑iP	Pb	19 03 01.0	+1.5
HOJ	Hope	0.32	236	i P	Pb	19 03 00.7	+0.4
HOJ				⇑iP	Pb	19 03 00.7	+0.4
STH	Stony Hill	0.34	251	i P	Pb	19 03 01.7	+1.1
STH				⇑iP	Pb	19 03 01.7	+1.1
STH				i S	Sb	19 03 06.9	+0.7
PCJ	Portland Cotta	0.79	236	i P	Pg	19 03 06.7	-1.1
CVJ	Coleyville	1.01	272	⇑iP	Pn	19 03 13.1	+0.2
CVJ				⇓iS	Sg	19 03 26.6	+1.5
MTDJ	Mount Denham	1.01	272	eP	Pn	19 03 13.0	+0.1
MTDJ				eS	Sg	19 03 26.4	+1.2
MTDJ				IAML		19 03 27.0	
	comp=Z,313nm,0.4s						
MTDJ				IAML		19 03 27.2	
	370nm,0.3s						
MCJ	Malvern	1.19	257	i P	Pn	19 03 15.2	-0.1
MCJ				⇓iS	Sb	19 03 29.5	-1.1
CHIV	Chivirico	1.78	2	eP	Pg	19 03 26.5	-0.1
CHIV				eS	Sg	19 03 49.4	-0.4
CHIV				IAML		19 03 51.5	
	comp=N,7.3nm,0.1s						
CHIV				IAML		19 03 52.0	
	comp=E,8.2nm,0.2s						
LMGC	Las Mercedes	1.93	345	eP	Pb	19 03 28.4	+0.6
LMGC				eS	Sb	19 03 52.1	+0.1
LMGC				IAML		19 03 54.5	
	comp=E,28nm,0.1s						
RCC	Rio Carpintero	1.94	22	eP	Pg	19 03 29.5	-0.2
RCC				eS	Sb	19 03 53.2	+0.9
RCC				IAML		19 03 56.7	
	comp=N,12nm,0.7s						
RCC				IAML		19 04 01.5	
	comp=E,10.0nm,0.8s						
GTBY	Guantanamo Bay	2.16	36	eP	Pg	19 03 32.8	-1.1
GTBY				eS	Sg	19 04 01.0	-0.8
GTBY				IAML		19 04 03.0	
	comp=E,13nm,0.6s						
GTBY				IAML		19 04 03.6	
	comp=E,10nm,0.5s						
YAR	Yar	2.17	3	eP	Pb	19 03 32.9	+1.0
YAR				IAML		19 04 07.7	
	comp=N,34nm,1.1s						
YAR				IAML		19 04 11.6	
	comp=E,28nm,1.8s						
PINC	Pinares de May	2.38	16	eP	Pb	19 03 36.1	+0.8
PINC				eS	Sb	19 04 05.8	+1.0
PINC				IAML		19 04 07.3	
	comp=E,6.8nm,0.1s						
PINC				eSg	Sg	19 04 08.3	-0.6
PINC				IAML		19 04 08.8	
	comp=N,8.5nm,0.1s						
QMBU	Quimbuelo	2.54	38	eP	Pb	19 03 38.0	-0.3
QMBU				eS	Sb	19 04 08.5	-1.2
QMBU				IAML		19 04 11.2	
	comp=E,13nm,0.4s						
QMBU				IAML		19 04 16.9	
	comp=N,11nm,0.2s						
HLGC	Holguin	2.72	8	eP	Pg	19 03 44.5	0.0
HLGC				eS	Sb	19 04 16.3	+1.7
HLGC				IAML		19 04 18.1	
	comp=N,14nm,0.5s						
HLGC				IAML		19 04 19.8	
	comp=E,10nm,0.6s						
NMDO	Nuevo Mundo	2.75	31	eP	Pg	19 03 44.6	-0.6
MASC	Masc	2.90	47	eP	Pb	19 03 44.9	+0.6
MASC				eS	Sb	19 04 21.3	+1.5
MASC				IAML		19 04 23.1	
	comp=E,5.6nm,0.2s						
MASC				IAML		19 04 23.5	
	comp=N,6.0nm,0.7s						
CCCC	Cccc	3.24	338	eP	Pb	19 03 47.6	-2.5
CCCC				eS	Sn	19 04 25.7	+3.7
CBCY	The Bluff, Cay	3.47	297	eP	Pn	19 03 47.6	+1.0
CBCY				eS	Sn	19 04 24.2	-3.6
LCCY	Blossom Villag	3.72	294	eP	Pn	19 03 50.4	+0.4
LCCY				eS	Sn	19 04 30.8	-3.2

DJA 05 19:18:12.8±0.2, 0°S±2°×12°3E±°, h144^{km}±3^{km}, M3.9/31, mb4.0/7, MLv3.8/31, Minahassa Peninsula, Sulawesi

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GTOI	Gorontalo	0.75	15	P	Pn	19 18 36.8	+1.8
GTOI				S	Sn	19 18 54.8	+2.9
LUWI	Luwuk	0.95	183	P	Pn	19 18 36.6	0.0
LUWI				S	Sn	19 18 54.3	-0.4
LUWI				AML	AML		
MNI	Manado	2.53	53	P	Pn	19 18 54.9	+0.9
MNI				S	Sn	19 19 27.1	+1.3
PCI	Palu	3.09	255	P	Pn	19 19 02.0	+0.9
PCI				AML	AML		
SANI	Sanana	3.72	122	P	Pn	19 19 07.3	-1.9
SANI				AML	AML		
KDI	Kendari	3.85	183	P	Pn	19 19 10.4	-0.5
KDI				S	Sn	19 19 56.6	+0.5
KDI				AML	AML		
TNTI	Ternate	4.63	79	P	Pn	19 19 20.6	-0.6
TNTI				S	Sn	19 20 14.4	0.0
TNTI				AML	AML		
MMSI	Mamuju	4.69	237	P	Pn	19 19 21.9	-0.1
MMSI				AML	AML		
NLAI	Namlea	5.30	126	P	Pn	19 19 30.4	+0.3
	22nm,0.4s						
NLAI				S	Sn	19 20 30.7	+0.2
	22nm,0.4s						
BKB	Balikpapan	6.04	259	P	Pn	19 19 40.1	+0.1
	116nm,1.4s						
TARAI	Tarakan	6.25	303	P	Pn	19 19 42.5	-0.3
MYLDM	Lahad Datu	6.78	321	P	Pn	19 19 50.9	+0.9
	8.1nm,0.9s						

IDC 05 19:33:02.7±1.4, 5°.52S×154°.39E, h0^{km}, mb3.8/4, mbtmp4.0/6, ML2.4/1, MS3.0/4, Error ellipse: s-maj=25.6km s-min=24.0km az=162.0, Bougainville-Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KRVT	Keravat (AS076	2.64	297	Pn	Pn	19 33 45.9	-0.8
	221nm,0.3s,baz=112,slow=16,SNR=0.9						
KRVT				Sn	Sn	19 34 18.6	-0.8
	14nm,0.3s,baz=72,slow=23,SNR=1.2						
KRVT				LR	LR	19 35 06.6	
	comp=Z,105nm,19.9s,baz=131,slow=47						
PMG	Port Moresby	8.14	241	Pn	Pn	19 35 03.6	+1.4
	2.8nm,0.3s,baz=66,slow=11,SNR=18						
PMG				Sn	Sn	19 36 29.9	-5.2
	3.0nm,0.3s,baz=198,slow=20,SNR=6.7						
	11nm,0.3s						
PMG				AML	AML		
CTA	Charters Tower	16.50	208	LR	LR	19 42 26.4	
	comp=Z,47nm,18.6s,baz=36,slow=34						
WRA	Warramunga Arr	24.20	232	P	P	19 38 20.8	-0.5
	1.6nm,0.7s,baz=60,slow=9.1,SNR=11						
	1.6nm,0.7s						
ASAR	Alice Springs	26.73	225	P	P	19 38 43.8	-0.4
	0.8nm,0.6s,baz=52,slow=9.4,SNR=7.0						
ASAR				PcP	PcP	19 42 09.4	+1.5
	0.5nm,0.7s,baz=59,slow=2.5,SNR=2.2						
ASAR				LR	LR	19 48 59.7	
	comp=Z,39nm,18.5s,baz=344,slow=36						
	0.8nm,0.6s						
H11S3	WAKE ISLAND Hy	26.77	27	T	T	20 07 15.0	
	baz=208,slow=76,SNR=26						
H11S2	WAKE ISLAND Hy	26.77	27	T	T	20 07 14.6	
	baz=208,slow=76,SNR=27						
H11S1	WAKE ISLAND Hy	26.79	27	T	T	20 07 11.9	
	baz=208,slow=76,SNR=24						
H11N1	WAKE ISLAND Hy	27.93	26	T	T	20 08 43.8	
	baz=204						
H11N3	WAKE ISLAND Hy	27.94	26	T	T	20 08 42.5	
	baz=204						
H11N2	WAKE ISLAND Hy	27.95	26	T	T	20 08 48.8	
	baz=204						
FITZ	Fitzroy Crossi	30.73	244	P	P	19 39 19.1	-0.7
	2.6nm,0.6s,baz=65,slow=7.4,SNR=8.0						
	2.6nm,0.6s						
MKAR	Makanchi Array	81.90	319	LR	LR	20 21 10.9	
	comp=Z,19nm,20.4s,baz=106,slow=35						
ILAR	Eielson Array	82.23	22	P	P	19 45 25.0	-0.6
	0.2nm,0.5s,baz=239,slow=5.1,SNR=1.9						
	0.2nm,0.5s						
TORD	Torodi Ar. Bea	152.03	288	PKPbc	PKiKP	19 53 01.5	+0.1
	0.3nm,0.8s,baz=71,slow=1.7,SNR=1.8						

IDC 05 19:34:05.6±2.6, 5°.23S×135°.72E, h0^{km}, mb3.3/1, mbtmp3.2/4, ML3.2/3, Error ellipse: s-maj=70.3km s-min=24.3km az=86.0, Irian Jaya region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	14.69	185	Pn	Pn	19 37 32.1	-2.7
	0.1nm,0.3s,baz=7.6,slow=12,SNR=6.8						
WRA				Sn	Sn	19 40 06.4	-12
	0.2nm,0.3s,baz=6.9,slow=23,SNR=4.8						
	0.1nm,0.6s						
WRA				AML	AML		
FITZ	Fitzroy Crossi	16.14	217	Pn	Pn	19 37 47.9	-6.3
	0.2nm,0.3s,baz=35,slow=9.8,SNR=12						
FITZ				Sn	Sn	19 40 25.9	-28
	0.5nm,0.3s,baz=101,slow=16,SNR=6.5						
	0.5nm,0.3s						
FITZ				AML	AML		
ASAR	Alice Springs	18.41	185	P	Pn	19 38 22.5	-0.1
	baz=6.5,slow=11,SNR=2.2						
	0.3nm,0.9s						
MKAR	Makanchi Array	70.01	324	P	P	19 45 19.4	+0.1
	0.3nm,0.8s,baz=134,slow=6.2,SNR=2.4						
	0.3nm,0.8s						

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*IDC **05** 19:47:25.0±1.5, 15°.74S×177°.94W, h447^{km}±17^{km}, mb3.3/9, mbtmp4.1/12, Error ellipse: s-maj=27.4km s-min=15.1km az=157.0*

ISC 05 19:47:25.1±0.7, 15°.8S±0°.2×177°.9W±0°.1, h450^{km}, n12, σ1^{s}.08/12, mb3.7/9, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	4.38	243	P	P	19 48 44.5	+0.8
	89nm,0.5s,baz=96,slow=12,SNR=69						
AFI	Afiamalu	6.17	74	P	P	19 48 59.7	-1.6

	20nm,0.6s,baz=321,slow=17,SNR=4.7						
DZM	Mont Dzumac	16.11	245	P	P	19 50 48.8	+0.6
	6.3nm,1.0s,baz=90,slow=20						
STKA	Stephens Creek	40.15	239	P	P	19 54 19.6	-1.2
	1.1nm,0.4s,baz=90,slow=9.4,SNR=4.8						
	1.1nm,0.4s						
WRA	Warramunga Arr	45.56	257	P	P	19 55 02.6	-1.1
	1.2nm,0.4s,baz=74,slow=7.0,SNR=79						
	1.2nm,0.4s						
ASAR	Alice Springs	45.90	252	P	P	19 55 05.5	-0.7
	9.6nm,0.5s,baz=87,slow=8.4,SNR=202						
	9.6nm,0.5s						
FITZ	Fitzroy Crossi	53.92	259	P	P	19 56 05.7	+0.2
	0.8nm,0.6s,baz=92,slow=9.2,SNR=6.0						
	0.8nm,0.6s						
QSPA	South Pole Qui	74.29	180	P	P	19 58 15.3	+0.2
	2.7nm,0.8s,baz=300,slow=0.9,SNR=17						
	2.7nm,0.8s						
ILAR	Eielson Array	83.68	13	P	P	19 59 04.7	-0.2
	0.5nm,0.7s,baz=220,slow=5.8,SNR=6.1						
	0.5nm,0.7s						
TXAR	Lajitas Array	84.41	58	P	P	19 59 11.4	+1.8
	0.4nm,0.7s,baz=232,slow=6.2,SNR=5.0						
	0.4nm,0.7s						
PDAR	Pinedale Array	85.44	43	P	P	19 59 14.9	+0.5
	0.3nm,0.5s,baz=241,slow=4.6,SNR=2.1						
	0.3nm,0.5s						
MAW	Mawson	86.05	200	P	P	19 59 17.1	+0.5
	2.1nm,0.7s,baz=144,slow=5.1,SNR=9.6						
	2.1nm,0.7s						

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*TIR **05** 20:10:09.7, 39°.78N×20°.06E, h15km±1km, Ml3.0/5*
*THE **05** 20:10:09.8, 40°N±1°×2°0E±°, h17km±1km, M2.7/7, MLh2.7/7*
*ATH **05** 20:10:09.9±0.4, 39°.78N×20°.12E, h5km, ML2.9/8, Latitude uncertainty: 3 km; Longitude uncertainty: 1 km*
*BEO **05** 20:10:09.9±0.8, 39°.54N×19°.94E, h20km±6km, ML2.8/7*
*PDG **05** 20:10:10.4±0.6, 39°.83N×19°.99E, h10km±1km, ML3.0/11, Error ellipse: s-maj=0.9km s-min=1.9km az=0.0*
ISC 05 20:10:10.6±0.8**, 39°.81N**±0°.02×**20°.09E**±0°.02**, h9**km±6km**, n62, σ1ˢ.33**/104**, 2C-1D, Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SRN	Sarande	0.10	317	Pg	Pg	20 10 12.8	-0.2
SRN				Sg	Sg	20 10 15.2	+0.4
SRN				AML	AML	20 10 16.6	
	10nm,0.4s						
SRN	Sarande	0.10	317	P	Pg	20 10 12.8	-0.2
SRN				S	Sg	20 10 15.2	+0.4
SRN				AML	AML		
KRK1	kERKIRA	0.23	215	P	Pg	20 10 15.7	+0.4
KRK1				S	Sg	20 10 17.6	-0.9
KRK1				AML	AML		
KEK	Kerkira	0.24	247	Pg	Pg	20 10 15.0	-0.5
KEK				Sg	Sg	20 10 18.3	-0.5
KEK	Kerkira	0.24	247	P	Pg	20 10 15.1	-0.5
KEK				S	Sg	20 10 20.0	+1.2
KEK				AML	AML		
KEK	Kerkira	0.24	247	P	Pg	20 10 15.0	-0.5
KEK				S	Sg	20 10 19.0	+0.2
IGT	Igoumenitsa	0.33	145	Pg	Pg	20 10 16.6	-0.7
IGT				Sg	Sg	20 10 22.0	+0.4
IGT	Igoumenitsa	0.33	145	P	Pg	20 10 17.4	+0.2
IGT				S	Sg	20 10 24.2	+2.6
IGT	Igoumenitsa	0.33	145	ePg	Pg	20 10 16.5	-0.7
IGT				eSg	Sg	20 10 23.6	+2.0
IGT	Igoumenitsa	0.33	145	P	Pg	20 10 16.5	-0.7
IGT				S	Sg	20 10 19.8	-1.8
LFKM	Lefkimmi	0.36	183	P	Pb	20 10 18.9	-0.3
LFKM				S	Sb	20 10 26.0	+1.1
LFKM				AML	AML		
JAN	Janina	0.61	104	P	Pg	20 10 21.2	-1.1
JAN				S	Sg	20 10 30.9	+0.6
JAN	Janina	0.61	104	P	Pg	20 10 20.9	-1.5
JAN				S	Sg	20 10 29.6	-0.8
JAN				AML	AML		
VLO	Vlora	0.80	326	Pg	Pn	20 10 27.7	-0.4
VLO				Sg	Sn	20 10 38.4	-1.7
VLO				AML	AML	20 10 45.4	
	3.0nm,0.3s						
PRMD	Pramanda	0.83	109	P	Pg	20 10 26.0	-0.5
PRMD				S	Sb	20 10 40.0	+1.5
PRMD	Pramanda	0.83	109	P	Pg	20 10 25.4	-1.1
PRMD				S	Sg	20 10 36.2	-1.1
PRMD				AML	AML		
ART2	Arta	0.96	133	P	Pg	20 10 28.1	-1.0
ART2				S	Sg	20 10 39.7	-2.0
ART2				AML	AML		
KBN	Korca	0.98	33	Pg	Pg	20 10 28.4	-1.0
KBN				Sg	Sb	20 10 43.4	+0.6
KBN	Korca	0.98	33	P	Pg	20 10 27.3	-2.1
KBN				AML	AML		
KPRO	Kipourio	0.99	81	P	Pg	20 10 28.6	-1.1
KPRO				S	Sg	20 10 44.1	+1.5
KPRO				AML	AML		
KPRO	Kipourio	0.99	81	P	Pg	20 10 28.1	-1.6
KPRO				S	Sg	20 10 41.8	-0.8
TETR	Tetrakomo, Epi	1.03	116	P	Pg	20 10 28.7	-1.7
TETR				S	Sg	20 10 42.5	-1.2
TSLK	Tsoukalades, L	1.08	156	P	Pb	20 10 30.7	-0.6
TSLK				S	Sn	20 10 47.2	+0.3
TSLK				AML	AML		
TSLK	Tsoukalades, L	1.08	156	P	Pb	20 10 29.9	-1.5
TSLK				AML	AML		
LKD2	Lefkada island	1.11	156	Pg	Pb	20 10 31.2	-0.8
LKD2				Sg	Sb	20 10 46.5	0.0
LKD2				AML	AML	20 11 02.8	
	1.5nm,0.5s						
LKD2	Lefkada island	1.11	156	P	Pb	20 10 31.3	-0.6
LKD2				S	Sn	20 10 48.3	+0.5
LKD2	Lefkada island	1.11	156	P	Pb	20 10 30.8	-1.2
LKD2				AML	AML		
DRAG	Dragano-Lefkad	1.18	161	P	Pn	20 10 31.9	-1.5
NYDR	Nydri-Lefkada	1.19	156	P	Pn	20 10 32.2	-1.2
AMPL	Ampelaki	1.24	135	P	Pn	20 10 33.2	-1.0
AMPL				AML	AML		
EVGI	Lefkada island	1.27	159	P	Pn	20 10 33.8	-0.7
EVGI				AML	AML		
OHR	Ohrid	1.41	22	i Pn	Pg	20 10 37.9	+0.2
THL	Klokotos Trika	1.51	99	Pg	Pn	20 10 37.1	-0.6
THL				Sg	Sb	20 10 59.6	+1.7
TIR	Tirane	1.55	354	Pg	Pg	20 10 39.9	-0.4
TIR				Sg	Sg	20 11 02.4	+2.0
TIR				AML	AML	20 11 16.1	
	0.4nm,0.7s						
PHP	Peshkopia	1.89	8	Pn	Pb	20 10 45.1	-0.3
PHP				Sn	Sg	20 11 10.6	-0.8
PHP				AML	AML	20 11 24.4	
	0.5nm,1.0s						
ULC	Ulcinj	2.25	344	ePn	Pn	20 10 48.4	+0.4
ULC				eSn	Sb	20 11 16.9	-2.4
ULC				AML	AML		
KLV	Kalavryta, Ach	2.39	137	Pg	Pn	20 10 51.3	+1.4
KLV				Sg	Sn	20 11 22.6	+3.2
VAY	Valandovo	2.42	51	i Pn	Pb	20 10 53.6	-0.7
DRME	Dracevica, Mon	2.47	344	⇑iPn	Pn	20 10 51.8	+0.7
DRME				eSn	Sn	20 11 22.1	+0.7
DRME				AML	AML		
BUM	Brajici-Budva	2.65	340	ePn	Pn	20 10 54.3	+0.7
BUM				eSn	Sn	20 11 26.8	+0.9
BUM				AML	AML		
PDG	Podgorica	2.69	347	ePn	Pb	20 10 57.0	-2.0
PDG				eSn	Sb	20 11 30.8	-1.3
PDG	Podgorica	2.69	347	ePn	Pn	20 10 54.7	+0.6
PDG				eSn	Sn	20 11 28.2	+1.4
PDG				AML	AML		
PVY	Plav	2.79	358	⇑iPn	Pn	20 10 56.8	+1.3
PVY				eSn	Sn	20 11 30.8	+1.5
PVY				AML	AML		
CEME	Cevo	2.88	343	⇓iPn	Pn	20 10 57.2	+0.5
CEME				eSn	Sn	20 11 31.8	+0.4
CEME				AML	AML		
HCY	Herceg Novi	2.90	336	ePn	Pn	20 10 56.8	-0.1
HCY				i Sn	Sn	20 11 32.3	+0.4
HCY				AML	AML		
PEHC	Pehcevo	2.90	46	i Pn	Pn	20 10 59.1	+2.0
SRS	Serrai	2.98	63	ePn	Pn	20 11 00.0	+2.0
ITM	Ithomi	3.00	151	Pn	Pn	20 11 00.1	+1.8
KOME	Kolasin	3.07	352	ePn	Pn	20 11 00.2	+0.8
KOME				eSn	Sn	20 11 37.6	+1.3
KOME				AML	AML		
NKME	Niksic	3.08	344	ePn	Pn	20 11 00.1	+0.7
NKME				i Sn	Sn	20 11 37.9	+1.5
NKME				AML	AML		
BOSS	Bosilegrad	3.24	33	ePn	Pn	20 11 03.2	+1.6
BARS	Barje	3.28	23	ePn	Pn	20 11 04.4	+2.3
BARS				eSn	Sb	20 11 45.2	-3.7
BRY	Bratogost	3.30	340	ePn	Pn	20 11 02.8	+0.2
BRY				i Sn	Sn	20 11 43.0	+0.9
BRY				AML	AML		
SJES	Sjenica	3.45	359	ePn	Pn	20 11 06.1	+1.5
SELS	Selova	3.50	12	ePn	Pn	20 11 06.5	+1.3
SELS				eSn	Sn	20 11 50.3	+3.6
PLE	Pljevlja	3.56	352	ePn	Pn	20 11 06.7	+0.6
PLE				eSn	Sn	20 11 49.4	+1.1
PLE				AML	AML		
IVAS	Ivanjica	3.77	1	ePn	Pn	20 11 09.2	+0.3
ZAPS	Zavoj	3.96	28	ePn	Pn	20 11 14.2	+2.7
BBLS	Lazi&#263i	4.09	353	ePn	Pn	20 11 14.8	+1.5
DIVS	Divibare	4.29	359	ePn	Pn	20 11 16.6	+0.5
TRUS	Trudelj	4.42	3	ePn	Pn	20 11 18.2	+0.4
TEKS	Tekeris	4.76	355	ePn	Pn	20 11 24.6	+2.1

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*TEH **05** 20:12:13.4, 36°.73N×54°.62E, h6km±93km, ML3.3, Presumed earthquake*
ISC 05 20:12:14.3±0.8**, 36°.75N**±0°.05×**54°.62E**±0°.03**, h10km, n23, σ2ˢ.03**/25**, Northern and central Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IGLO	Ghaloghah	0.68	249	Pg	Pb	20 12 27.9	-0.5
IMND	Minoodasht	0.81	51	Pg	Pb	20 12 29.5	-1.0
IANJ	Anjilo	1.40	204	Pg	Pg	20 12 40.6	-0.6
ISHM	Shahmirzad	1.42	229	Pg	Pg	20 12 41.3	-0.4
MRVT	Maraveh tapeh	1.49	52	Pg	Pg	20 12 42.1	-0.7
IALA	Alasht	1.60	246	Pg	Pg	20 12 44.5	-0.5
IFIR	Firoozkooh	1.87	234	Pn	Pg	20 12 49.0	-1.2
IPRN	Peran	1.90	255	Pn	Pg	20 12 49.8	-1.0
ILAS	Lasjerd	1.91	225	Pn	Pg	20 12 49.7	-1.3
SBZV	Sabzevar	2.44	98	Pn	Pb	20 12 57.3	-1.1
MZPU	Pul - Mazandar	2.47	264	Pn	Pb	20 12 58.1	-0.8
ISFR	Sfrayin	2.73	83	Pn	Pb	20 13 01.5	-1.9
TAPT	Tabas- Tapeh t	2.78	131	Pn	Pb	20 13 01.3	-2.9
IEMG	Emamgholi	3.30	77	Pn	Pn	20 13 08.6	+2.3
IAKL	Akhelmad	3.33	91	Pn	Pn	20 13 09.0	+2.2
TSHB	Tabas_ShorAb	3.41	153	Pn	Pn	20 13 09.6	+2.0
IPAY	Payeh	3.54	94	Pn	Pn	20 13 12.0	+2.4
ANAR	Anarak	3.62	192	Pn	Pn	20 13 13.0	+2.4
TKDS	Koohdasht(Taba	3.74	146	Pn	Pn	20 13 14.5	+2.2
IKRD	Kardeh	3.93	88	Pn	Pn	20 13 17.7	+2.7
AFRZ	Afriz	4.90	131	Pn	Pn	20 13 30.6	+2.4
VSHL	Vashlovani	7.80	307	P	Pn	20 14 09.3	+1.3
VSHL				S	Sn	20 15 35.3	-1.1
CHRG	Chargali	9.33	310	P	Pn	20 14 30.5	+1.6
CHRG				S	Sn	20 16 09.4	-4.5

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*IDC **05** 20:49:32.0±1.1, 49°.36S×109°.39E, h0km, mb3.9/6, mbtmp3.9/6, MS3.5/17, Error ellipse: s-maj=46.9km s-min=19.2km az=104.0*
ISC 05 20:49:33.4±1.1**, 49°.3S**±0°.2×**109°.3E**±0°.3**, h10km, n23, σ0ˢ.78**/6**, mb4.0**/6**, MS3.6**/16**, Southeast Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H01W2	Cape Leeuwin H	14.87	16	T	T	21 08 11.6	
	baz=193,slow=74,SNR=193						
H01W1	Cape Leeuwin H	14.88	16	T	T	21 08 08.7	
	baz=193,slow=74,SNR=172						
H01W3	Cape Leeuwin H	14.89	16	T	T	21 08 13.4	
	baz=193,slow=74,SNR=180						
NWAO	Narrogin (SRO)	17.45	23	LR	LR	20 58 36.6	
	comp=Z,114nm,19.8s,baz=228,slow=31						
MAW	Mawson	29.36	214	LR	LR	21 05 22.4	
	comp=Z,76nm,18.8s,baz=54,slow=32						
STKA	Stephens Creek	29.80	66	LR	LR	21 05 23.5	
	comp=Z,129nm,21.9s,baz=205,slow=32						
ASAR	Alice Springs	32.11	46	P	P	20 56 00.6	-0.1
	1.3nm,0.7s,baz=209,slow=8.5,SNR=20						
ASAR				LR	LR	21 07 00.3	
	comp=Z,116nm,21.9s,baz=244,slow=33						
	1.3nm,0.7s						
FITZ	Fitzroy Crossi	33.86	29	LR	LR	21 09 02.0	
	comp=Z,112nm,19.1s,baz=184,slow=35						
VNDA	Vanda	34.43	162	P	P	20 56 21.2	+0.8
	1.4nm,0.7s,baz=300,slow=8.3,SNR=11						
VNDA				LR	LR	21 08 59.4	
	comp=Z,57nm,21.3s,baz=7.5,slow=34						
	1.4nm,0.7s						
WRA	Warramunga Arr	35.53	43	P	P	20 56 29.8	-0.7
	1.7nm,0.7s,baz=207,slow=8.3,SNR=8.4						
	1.7nm,0.7s						
QSPA	South Pole Qui	40.79	180	P	P	20 57 14.2	-0.3
	1.5nm,0.7s,baz=326,slow=8.2,SNR=8.6						
	1.5nm,0.7s						
CTA	Charters Tower	41.47	59	LR	LR	21 14 14.0	
	comp=Z,103nm,18.1s,baz=220,slow=36						
RPZ	Rata Peaks	41.83	107	LR	LR	21 11 36.3	
	comp=Z,16nm,19.1s,baz=224,slow=32						
URZ	Urewera	48.65	104	LR	LR	21 16 02.9	
	comp=Z,81nm,19.9s,baz=202,slow=33						
SNAA	Sanae	50.23	202	P	P	20 58 28.4	-0.6
	1.7nm,0.7s,baz=102,slow=8.3,SNR=2.4						
	1.7nm,0.7s						
PMG	Port Moresby	50.79	51	LR	LR	21 18 51.7	
	comp=Z,80nm,19.0s,baz=210,slow=35						
KRVT	Keravat (AS076	57.63	53	LR	LR	21 24 24.5	
	comp=Z,29nm,18.2s,baz=219,slow=36						
HNR	Honiara	57.85	64	LR	LR	21 23 53.5	
	comp=Z,32nm,18.1s,baz=294,slow=36						
BOSA	Boshof	65.14	255	LR	LR	21 22 30.6	
	comp=Z,60nm,21.7s,baz=146,slow=30						
LBTB	Lobatse	67.45	258	LR	LR	21 25 51.5	
	comp=Z,36nm,19.1s,baz=130,slow=32						
CMAR	Chiang Mai Arr	68.12	349	P	P	21 00 33.9	+0.6
	0.6nm,0.7s,baz=197,slow=5.2,SNR=5.6						
CMAR				LR	LR	21 29 32.1	
	comp=Z,16nm,18.2s,baz=85,slow=35						
	0.6nm,0.7s						
TSUM	Tsumeb	76.76	256	LR	LR	21 31 01.0	
	comp=Z,45nm,18.5s,baz=155,slow=32						
MBAR	Mbarara	82.08	278	LR	LR	21 34 03.5	
	comp=Z,58nm,18.9s,baz=276,slow=32						

IDC 05 20:55:17.0±7.1**, 6°.91S**×**131°.85E, h218**km±80km**, mb2.7**/1**, mbtmp3.4**/3**, MS3.3**/1**, Error ellipse: s-maj=174.9km s-min=32.9km az=76.0, Tanimbar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	13.18	170	P	Pn	20 58 14.3	-1.8
	0.5nm,0.4s,baz=351,slow=12,SNR=16						
WRA				S	S	21 00 36.0	-6.1
	0.6nm,0.3s,baz=342,slow=22,SNR=7.7						
ASAR	Alice Springs	16.77	173	P	Pn	20 59 00.3	+0.5
	0.5nm,0.5s,baz=360,slow=9.0,SNR=18						
ASAR				S	S	21 02 01.8	-0.7
	0.3nm,0.5s,baz=352,slow=25,SNR=5.1						
KRVT	Keravat (AS076	20.24	84	LR	LR	21 07 35.0	
	comp=Z,90nm,20.1s,baz=36,slow=36						
MKAR	Makanchi Array	69.17	326	P	P	21 05 59.9	-0.1
	0.1nm,0.4s,baz=134,slow=5.5,SNR=2.1						
	0.1nm,0.4s						

KRSC 05 20:56:14.4±1.6**, 49°.33N**×**158°.55E, h40**km±25km**, Ml3.7, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	2.08	312	eP	Pn	20 56 48.4	+1.6
SKR				eS	Sn	20 57 13.4	+2.1
PAU	Pauzhetka	2.42	333	eS	Sn	20 57 24.1	+4.4
KDTR	Khodutka, Kamc	2.50	353	eP	Pn	20 56 55.4	+2.8
KDTR				eS	Sn	20 57 24.7	+2.9
ASAK	Asacha	3.09	353	eP	Pn	20 57 04.8	+4.0
RUS	Russkaya	3.11	360	eP	Pn	20 57 04.4	+3.5
MTVR	Mutnovka	3.17	356	eP	Pn	20 57 06.1	+4.2
MTVR				eS	Sn	20 57 41.5	+3.0
GRL	Gorelyy	3.25	355	eP	Pn	20 57 07.7	+4.8
GRL				eS	Sn	20 57 44.5	+4.1
KRMR	Karymshinskiy	3.52	356	eS	Sn	20 57 51.6	+4.7
SPN	Mys Shipunski	3.89	13	eP	Pn	20 57 16.1	+4.5
SPN				eS	Sn	20 58 00.6	+4.6
UGLR	Uglovaya	3.89	2	eP	Pn	20 57 15.4	+3.7
SMAR	Somma	3.95	2	eP	Pn	20 57 18.0	+5.4
AVH	Avacha	3.95	2	eP	Pn	20 57 17.5	+5.0
KOK	Koryaka	3.97	1	eP	Pn	20 57 17.6	+4.7
KRX	Arik	4.04	1	eP	Pn	20 57 17.9	+4.0
GNL	Ganaly	4.39	355	eP	Pn	20 57 23.1	+4.4
MKZ	Mys Kozlova	5.59	19	eP	Pn	20 57 38.7	+3.7

IDC 05 21:06:01.7±3.1**, 0°.40S**×**133°.09E, h0km, mb3.7**/3**, mbtmp3.5**/4**, ML2.9**/1**, MS3.4**/2**, Error ellipse: s-maj=183.3km s-min=25.6km az=75.0, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	19.47	176	P	P	21 10 30.3	0.0
	baz=356,slow=11,SNR=1.1						
	0.2nm,0.5s						
ASAR	Alice Springs	23.15	178	P	P	21 11 09.9	0.0
	0.2nm,0.4s,baz=358,slow=9.9,SNR=4.1						
	0.2nm,0.4s						
JHJ	Hachijo jima 2	33.93	10	LR	LR	21 24 12.1	
	comp=Z,138nm,21.2s,baz=330,slow=32						
KLR	Kul'dur	49.45	359	LR	LR	21 35 48.0	
	comp=Z,21nm,18.0s,baz=220,slow=36						
MKAR	Makanchi Array	64.58	324	P	P	21 16 41.2	+0.3
	0.3nm,0.5s,baz=116,slow=8.5,SNR=5.9						
	0.3nm,0.5s						
KURBB	Kurchatov Arra	68.65	326	P	P	21 17 06.4	-0.4
	0.9nm,0.2s,baz=119,slow=6.3,SNR=1.7						
	0.9nm,0.2s						

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*TAP **05** 21:25:30.9, 23°.97N×121°.03E, h14km, ML3.6, B*
ISC 05 21:25:31.0±0.8**, 23°.97N**±0°.01×**121°.04E**±0°.01**, h13**km±4km**, n148, σ0ˢ.78**/261**, 4C-14D, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WUSB	Renai	0.07	76	⇓iP	Pg	21 25 34.4	+0.4
WUSB				i S	Sg	21 25 36.6	+0.6
WPL	Puli Township	0.08	297	⇑iP	Pg	21 25 34.0	+0.1
WPL				S	Sg	21 25 36.1	+0.1
DPDB	Guoxing	0.12	300	i P	Pg	21 25 34.5	+0.1
DPDB				S	Sg	21 25 37.0	+0.3
OWD	Renai	0.13	98	⇓iP	Pb	21 25 35.2	-0.2
OWD				i S	Sb	21 25 38.0	-0.3
WCS	Beigang Elemen	0.14	306	⇑iP	Pg	21 25 34.8	+0.1
WCS				i S	Sg	21 25 37.4	+0.3
SMLT	Sun Moon Lake	0.15	235	⇑iP	Pg	21 25 35.0	+0.1
SMLT				i S	Sb	21 25 38.0	-1.1
TYC	Yuchr	0.18	247	⇑iP	Pg	21 25 35.2	0.0
TYC				i S	Sg	21 25 38.2	+0.2
SSLB	Suanglung	0.20	203	P	Pg	21 25 35.1	-0.5
SSLB	Suanglung	0.20	203	S	Sg	21 25 38.4	-0.3
SSLB	Suanglung	0.20	203	i P	Pg	21 25 35.5	-0.1
SSLB				i S	Sg	21 25 38.2	-0.5
WHF	Hehuan Shan	0.27	50	⇓iP	Pb	21 25 37.6	-0.4
WHF				i S	Sb	21 25 41.9	-0.7
TDCB	Techi	0.30	22	⇓iP	Pg	21 25 37.3	0.0
TDCB				S	Sg	21 25 41.3	-0.3
TWT	Tachien	0.31	24	⇓iP	Pg	21 25 37.3	-0.2
TWT				S	Sg	21 25 41.0	-0.8
WHP	Taichung City	0.31	344	eP	Pg	21 25 37.6	0.0
WHP				i S	Sb	21 25 43.3	-0.4
WWF	Wufeng	0.32	283	P	Pb	21 25 38.8	+0.2
WWF				S	Sb	21 25 44.7	+1.0
WJS	Zhushan	0.32	242	⇓iP	Pb	21 25 38.5	-0.1
WJS				S	Sb	21 25 44.4	+0.7
WHYT	Xinyi Township	0.32	212	i P	Pg	21 25 37.8	+0.1
WHYT				eS	Sb	21 25 42.7	-1.1
FUSS	Fushou	0.33	35	⇓iP	Pg	21 25 37.9	-0.1
FUSS				S	Sg	21 25 42.2	-0.5
WNT	Mingjian	0.34	254	⇓iP	Pb	21 25 38.9	0.0
WNT				i S	Sb	21 25 44.9	+0.7
LXIB	Xiulin Townshi	0.35	82	⇓iP	Pg	21 25 38.6	+0.4
TCU	Taichung	0.37	298	⇓iP	Pb	21 25 39.7	+0.2
TCU				i S	Sb	21 25 46.2	+1.0
ESL	Shilin	0.40	114	⇓iP	Pb	21 25 39.5	-0.4
ESL				S	Sb	21 25 45.6	-0.2
WARBT	Fenglin Townsh	0.41	129	⇓iP	Pb	21 25 39.6	-0.5
WARBT				S	Sg	21 25 45.4	+0.7
ETM	Tongmen	0.42	91	⇓iP	Pg	21 25 39.7	+0.3
ETM				S	Sg	21 25 45.4	+0.4
WYL	Yuanlin Townsh	0.42	268	P	Pb	21 25 40.5	+0.2
WYL				S	Sb	21 25 47.8	+1.3
TWQ1	Liyutan	0.45	327	i P	Pb	21 25 40.8	+0.1
TWQ1				S	Sb	21 25 48.0	+0.7
WCHH	Zhanghua	0.45	284	i P	Pb	21 25 40.9	+0.1
WCHH				eS	Sb	21 25 48.4	+0.9
WCH1	Changhua City	0.46	282	P	Pb	21 25 41.0	0.0
WCH1				S	Sn	21 25 49.4	-2.0
ETLH	Xiulin Townshi	0.47	60	⇓iP	Pg	21 25 40.5	+0.2
ETLH				S	Sg	21 25 47.0	+0.3
YUS	Yu-Shan	0.49	189	eP	Pg	21 25 40.8	0.0
CHN5	Tsauling	0.50	221	P	Pb	21 25 41.6	-0.1
CHN5				i S	Sb	21 25 49.4	+0.4
ALS	Alishan	0.51	205	i P	Pb	21 25 41.5	-0.5
ALS				S	Sb	21 25 48.8	-0.6
NSY	Sanyi	0.51	330	P	Pb	21 25 42.6	+0.8
NSY				S	Sb	21 25 50.5	+1.3
SHUL	Shoufeng	0.52	111	i P	Pb	21 25 42.0	+0.1
SHUL				S	Sb	21 25 49.5	+0.3
HWA	Hwalien	0.52	89	i P	Pb	21 25 41.8	-0.1
HWA				i S	Sb	21 25 49.8	+0.4
WDJ	Dajia District	0.52	316	eP	Pb	21 25 42.7	+0.7
WDJ				S	Sn	21 25 51.8	-1.0
TWD	Chiawan	0.52	78	i P	Pg	21 25 41.5	+0.1
TWD				eS	Sb	21 25 49.6	+0.2
WGK	Gukeng	0.52	237	P	Pb	21 25 42.1	+0.1
WGK				S	Sb	21 25 50.4	+1.0
TEYL	Yanliau Villag	0.52	101	eP	Pb	21 25 42.0	-0.1
WDL	Douliou City	0.52	241	P	Pb	21 25 42.4	+0.3
WDL				S	Sn	21 25 50.8	-2.1
EHY	Hungye	0.53	151	i P	Pb	21 25 41.8	-0.4
EHY				S	Sg	21 25 48.8	+0.2
WDLH	Douliu	0.54	238	i P	Pb	21 25 42.5	+0.2
WDLH				S	Sb	21 25 50.7	+0.8
NACB	Ninganchiao	0.55	68	P	Pg	21 25 41.6	-0.2
NACB	Ninganchiao	0.55	68	S	Sg	21 25 49.6	+0.5
NACB	Ninganchiao	0.55	68	i P	Pg	21 25 41.8	0.0
NACB				i S	Sg	21 25 49.6	+0.5
NNSB	Datong	0.55	35	i P	Pg	21 25 41.5	-0.4
NNSB				S	Sg	21 25 48.9	-0.4
EHYH	Wanrong	0.55	149	i P	Pg	21 25 42.1	+0.2
EHYH				S	Sg	21 25 49.2	-0.1
NNS	Nan Shan	0.56	33	i P	Pg	21 25 41.7	-0.3
NNS				S	Sg	21 25 49.3	-0.2
ETL	Fush Village	0.57	71	eP	Pg	21 25 42.1	0.0
ETL				eS	Sg	21 25 49.6	-0.1
HGSD	Ruisui	0.60	143	eP	Pb	21 25 43.5	+0.2
HGSD				eS	Sb	21 25 52.8	+1.2
WRL	Guolierlin Hig	0.61	263	eP	Pb	21 25 43.3	-0.2
WRL				S	Sb	21 25 52.2	+0.2
YULB	Yu-li	0.62	158	P	Pg	21 25 43.1	-0.1
YULB	Yu-li	0.62	158	S	Sb	21 25 52.0	-0.5
YULB	Yu-li	0.62	158	P	Pg	21 25 43.2	-0.1
YULB				eS	Sg	21 25 51.2	-0.4
RLNB	Erlin	0.63	263	P	Pb	21 25 43.6	-0.2
RLNB				eS	Sb	21 25 53.4	+0.9
NSTT	Nanjuang	0.66	357	i P	Pb	21 25 44.4	0.0
NSTT				i S	Sb	21 25 53.1	-0.3
WTK	Tuku	0.66	245	i P	Pb	21 25 44.5	+0.1
WTK				S	Sn	21 25 54.4	-1.8
NFF	Wufeng Townshi	0.66	6	eP	Pg	21 25 43.9	0.0
NFF				eS	Sg	21 25 52.1	-0.6
TWF1	Yuli	0.66	159	i P	Pb	21 25 44.1	-0.4
TWF1				eS	Sb	21 25 53.1	-0.4
WCKO	Fanlu	0.66	217	eP	Pb	21 25 44.6	+0.2
WCKO				S	Sb	21 25 54.1	+0.5
LIOB	Emei	0.67	358	P	Pb	21 25 44.8	+0.2
LIOB				S	Sb	21 25 53.3	-0.5
EYUL	Yuli	0.68	157	i P	Pb	21 25 44.3	-0.4
EYUL				eS	Sb	21 25 53.3	-0.5
WTCT	Ta-ch'eng	0.70	261	eP	Pb	21 25 44.9	-0.2
WTCT				i S	Sb	21 25 55.1	+0.5
LATG	Datong	0.71	38	i P	Pg	21 25 44.5	-0.5
LATG				eS	Sg	21 25 53.6	-0.9
EAHA	Aohua	0.73	61	i P	Pg	21 25 45.1	-0.2

EAHA				eS	Sg	21 25 55.1	+0.2
CHY	Chiayi	0.73	230	eP	Pb	21 25 45.7	0.0
CHY				S	Sn	21 25 56.5	-1.6
NSK	Sanguang	0.76	23	iP	Pg	21 25 45.4	-0.4
NSK				eS	Sg	21 25 54.4	-1.4
YHNB	Yeheng	0.76	24	P	Pg	21 25 45.2	-0.6
YHNB	Yeheng	0.76	24	S	Sg	21 25 54.6	-1.2
YHNB	Yeheng	0.76	24	iP	Pg	21 25 45.4	-0.4
YHNB				eS	Sg	21 25 54.2	-1.6
NDT	Datong Townshi	0.76	35	eP	Pg	21 25 45.4	-0.4
ELDTW	Lidau	0.78	181	P	Pg	21 25 45.8	-0.4
ELDTW				eS	Sn	21 25 58.7	-0.7
ENA	Nanau	0.79	55	eP	Pg	21 25 43.9	-2.4
FULB	Fuli	0.81	163	iP	Pn	21 25 47.5	-0.6
FULB				eS	Sn	21 26 00.4	+0.5
KSHI	Guanxi Townshi	0.81	9	P	Pn	21 25 47.6	-0.6
KSHI				eS	Sb	21 25 58.7	+0.9
SBCB	Hsinchu	0.82	357	P	Pn	21 25 48.4	+0.2
SBCB				iS	Sn	21 26 00.8	+0.6
WSF	Szhu	0.82	246	eP	Pb	21 25 46.8	-0.3
WSF				S	Sn	21 25 58.6	-1.5
WTP	Ta-pu	0.82	208	eP	Pb	21 25 47.0	-0.2
WTP				iS	Sb	21 25 58.6	+0.5
EWUT	Wuta	0.82	55	iP	Pg	21 25 46.9	-0.1
EWUT				eS	Sg	21 25 57.5	-0.3
HSN	Hsinchu	0.83	356	eP	Pn	21 25 48.5	+0.2
HSN				S	Sn	21 26 01.0	+0.6
EHD	Haiduan	0.83	169	eP	Pb	21 25 47.4	0.0
EHD				S	Sn	21 25 59.5	-1.1
STYH	Taoyuan	0.83	197	P	Pb	21 25 47.3	0.0
STYH				S	Sb	21 25 58.5	+0.1
CHKH	Chenggong	0.84	157	eP	Pn	21 25 48.2	-0.4
CHKH				eS	Sn	21 26 01.7	+0.9
WSL	Shuilin Townsh	0.87	239	P	Pg	21 25 47.5	-0.4
WSL				eS	Sn	21 26 00.3	-1.0
ECS	Chishang	0.89	169	eP	Pn	21 25 48.7	-0.5
ECS				S	Sn	21 26 02.1	+0.1
NDS	Dongshan	0.90	43	eP	Pb	21 25 48.2	-0.3
NDS				eS	Sb	21 25 59.2	-1.3
NWLT	Wulai	0.91	28	iP	Pb	21 25 48.0	-0.6
NWLT				eS	Sb	21 25 59.0	-1.6
CHN1	Nanshi	0.91	211	eP	Pg	21 25 48.7	0.0
CHN1				S	Sn	21 26 01.4	-1.1
CHKT	Chengkung	0.92	161	eP	Pn	21 25 49.5	-0.1
CHKT				S	Sn	21 26 04.5	+1.8
ICHU	Yijhu	0.93	229	P	Pg	21 25 48.7	-0.3
ICHU				S	Sn	21 26 02.9	0.0
FUSB	Fushanzhiwuyua	0.93	33	eP	Pb	21 25 48.5	-0.5
FUSB				eS	Sb	21 26 00.7	-0.6
TWE	Neicheng	0.94	37	eP	Pb	21 25 49.0	-0.2
SGST	Jiashian	0.98	205	P	Pb	21 25 49.3	-0.6
SGST				iS	Sn	21 26 04.1	-0.1
CHN8	Yiju	0.98	231	eP	Pg	21 25 49.8	-0.2
CHN8				iS	Sn	21 26 04.0	-0.2
NCUH	Zhongli	1.00	8	P	Pn	21 25 51.6	+0.9
NCUH				eS	Sn	21 26 06.2	+1.5
EDH	Donghe	1.03	166	P	Pn	21 25 51.3	+0.2
EDH				eS	Sn	21 26 06.0	+0.7
SLGT	Liugui	1.04	200	P	Pn	21 25 51.7	+0.4
SLGT				S	Sn	21 26 05.9	+0.2
LONT	Longtian	1.07	175	eP	Pg	21 25 51.9	+0.3
LONT				eS	Sn	21 26 07.4	+1.1
TATO	Taipei	1.08	22	P	Pg	21 25 52.0	+0.1
SSHA	Shanhua	1.08	220	P	Pg	21 25 52.2	+0.3
SSHA				eS	Sn	21 26 08.8	+2.2
CHN3	Shinhua	1.09	215	eP	Pg	21 25 53.5	+1.5
CHN3				eS	Sn	21 26 09.3	+2.5
SCLT	Jiali	1.11	224	P	Pb	21 25 51.6	-0.5
SCLT				iS	Sn	21 26 08.2	+0.8
TWA	Mucha	1.12	26	P	Pg	21 25 53.2	+0.5
TWA				eS	Sn	21 26 09.0	+1.3
TWG	Pinlang	1.15	178	P	Pg	21 25 53.4	+0.2
TWG				eS	Sn	21 26 09.6	+1.3
TWGBT	Beinan	1.15	178	P	Pg	21 25 53.3	+0.1
TWGBT	Beinan	1.15	178	S	Sn	21 26 09.8	+1.4
TWGBT	Beinan	1.15	178	iP	Pg	21 25 53.4	+0.2
TWGBT				eS	Sn	21 26 10.0	+1.6
NHY	Taipei	1.17	24	eP	Pg	21 25 54.2	+0.7
NHY				eS	Sg	21 26 11.8	+3.1
TWS1	Kuangyinshan	1.17	17	P	Pg	21 25 54.2	+0.5
TWS1				eS	Sg	21 26 10.4	+1.3
EOS2	EOS2	1.18	68	eP	Pg	21 25 54.6	+0.9
EOS4	EOS4	1.18	83	eP	Pn	21 25 52.6	-0.3
EOS4				eS	Sg	21 26 09.5	+0.5
SCST	Cishan	1.19	205	P	Pg	21 25 54.6	+0.6
SCST				eS	Sg	21 26 11.5	+2.0
TSCK	Chigu Township	1.20	227	eP	Pb	21 25 53.3	-0.3
TSCK				eS	Sg	21 26 10.0	+0.2
EOS3	EOS3	1.21	75	eP	Pg	21 25 54.5	+0.1
TIPB	Shuangxi	1.23	36	eP	Pb	21 25 54.0	-0.1
TIPB				eS	Sg	21 26 10.8	+0.1
NTST	Danshui	1.24	17	eP	Pg	21 25 55.1	+0.1
YM01	YM01	1.26	22	eP	Pg	21 25 55.5	0.0
YM01				S	Sg	21 26 13.4	+1.5
ZUZH	Zhuzihu	1.27	21	eP	Pb	21 25 54.6	-0.2
ZUZH				iS	Sg	21 26 12.0	-0.1
TWM1	Shoushan	1.28	206	eP	Pg	21 25 56.0	+0.4
SSD	Sandimen	1.28	197	P	Pg	21 25 55.5	-0.1
SSD				S	Sg	21 26 14.2	+1.9
ANP	Anpu	1.28	20	eP	Pg	21 25 56.0	+0.2
ANP				eS	Sg	21 26 14.5	+2.0
WFSB	Wu-fen Shan	1.28	32	eP	Pg	21 25 55.7	-0.1
WFSB				eS	Sg	21 26 14.1	+1.6
YM08	YM08	1.31	22	eP	Pg	21 25 56.2	-0.1
YM08				eS	Sg	21 26 14.1	+0.8
TSMG	Majia	1.31	196	P	Pg	21 25 56.3	0.0
TSMG				S	Sg	21 26 13.8	+0.4
TWB1	Santiao Chiao	1.35	40	eP	Pb	21 25 56.4	+0.3
TWB1				eS	Sg	21 26 14.3	-0.2
TNOU	National Taiwa	1.35	30	eP	Pb	21 25 56.4	+0.3
SXI1	Grass Mountain	1.35	34	eP	Pg	21 25 56.9	-0.2
SXI1				eS	Sg	21 26 15.3	+0.7
LDUT	Ludao	1.35	163	eP	Pg	21 25 57.4	+0.3
ECL	Taimali	1.37	183	eP	Pg	21 25 56.8	-0.7
ECL				S	Sg	21 26 15.6	+0.3
MASBT	Mashibuluo	1.41	195	P	Pg	21 25 57.4	-0.7
MASBT				S	Sg	21 26 16.9	+0.5
PNG	Penghu	1.42	254	eP	Pn	21 25 56.4	-0.1
PNG				eS	Sn	21 26 14.1	-0.9
PHUB	P'eng-hu	1.42	251	P	Pn	21 25 55.4	-1.1
PHUB				S	Sn	21 26 14.5	-0.5
WDGT	Dungji	1.45	241	eP	Pn	21 25 56.6	-0.3
WDGT				eS	Sb	21 26 16.0	-0.2
SSPT	Xinbi	1.54	196	eP	Pg	21 26 01.7	+1.0
EAST	Anshuo	1.59	186	eP	Pb	21 26 00.4	+0.1
SCZT	Fangliau	1.64	194	eP	Pb	21 26 00.8	-0.3
SCZT				eS	Sg	21 26 22.4	-1.4
VCHM	Qimei	1.66	243	eP	Pn	21 25 59.4	-0.4
VCHM				eS	Sb	21 26 21.1	-1.2
SLIU	Shizi	1.76	187	eP	Pb	21 26 02.6	-0.7
VWUC	VWUC	1.77	305	eP	Pn	21 25 59.7	-1.6
LYUB	Lan-yu	2.03	166	eP	Pn	21 26 04.8	-0.1
LYUB				eS	Sn	21 26 30.0	0.0
PTMZ	Houxiangcun	2.04	302	eP	Pn	21 26 05.5	+0.4
KNM	Kinmen	2.42	281	eP	Pn	21 26 11.7	+1.5
KNMB	Chin-men Tao	2.47	282	eP	Pn	21 26 09.2	-1.7
MHZQ	Yeshan	2.79	320	eP	Pn	21 26 15.6	+0.2
LYJJ	Jianjiangzhen	2.81	336	eP	Pn	21 26 14.6	-1.1
AXDP	Jialang	2.94	289	eP	Pn	21 26 16.2	-1.3
ZPLA	Ao Xicun	3.01	270	eP	Pn	21 26 17.0	-1.3
DSXP	Dongshan	3.32	266	eP	Pn	21 26 22.4	-0.2

IDC 05 21:29:24.7±2.3, 8°.85S×163°.64E, h0^{km}, mb3.5/3, mbtmp3.6/4, ML4.3/1, Error ellipse: s-maj=88.9km s-min=25.3km az=149.0, Bougainville-Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	Honiara	3.69	261	Pn	Pn	21 30 22.3	-0.8
	25nm,0.3s,baz=90,slow=20,SNR=16						
HNR				Sn	Sn	21 30 48.6	-19
	70nm,0.3s,baz=81,slow=19,SNR=12						
	78nm,0.4s						
HNR				AML	AML		
H11S2	WAKE ISLAND Hy	27.34	6	T	T	22 04 45.8	
	baz=190						
H11S3	WAKE ISLAND Hy	27.34	6	T	T	22 04 47.8	
	baz=190						
H11S1	WAKE ISLAND Hy	27.36	6	T	T	22 04 57.4	
	baz=190						
H11N1	WAKE ISLAND Hy	28.57	6	T	T	22 06 53.9	
	baz=188						
H11N3	WAKE ISLAND Hy	28.57	6	T	T	22 06 33.6	
	baz=188						
H11N2	WAKE ISLAND Hy	28.59	6	T	T	22 06 38.4	
	baz=188						
WRA	Warramunga Arr	30.39	246	P	P	21 35 38.6	-0.3
	0.4nm,0.7s,baz=75,slow=9.0,SNR=1.9						
	0.4nm,0.7s						
ASAR	Alice Springs	32.03	239	P	P	21 35 53.5	+0.2
	0.1nm,0.6s,baz=66,slow=10,SNR=4.7						
	0.1nm,0.6s						
ILAR	Eielson Array	82.12	19	P	P	21 41 47.0	0.0
	0.6nm,0.6s,baz=227,slow=5.4,SNR=9.0						
	0.6nm,0.6s						

KRSC 05 21:32:07.8±2.0, 49°.41N×158°.53E, h40^{km}±26^{km}, Ml3.6, East of Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	Severo-Kuril's	2.01	310	eP	Pn	21 32 40.2	+1.0
PAU	Pauzhetka	2.33	333	eP	Pn	21 32 47.0	+3.4
KDTR	Khodutka, Kamc	2.42	353	eP	Pn	21 32 47.4	+2.6
KDTR				eS	Sn	21 33 16.6	+3.5
ASAK	Asacha	3.00	353	eP	Pn	21 32 56.7	+3.7
RUS	Russkaya	3.03	360	eP	Pn	21 32 56.1	+2.9
RUS				eS	Sn	21 33 31.6	+3.5
MTVR	Mutnovka	3.08	356	eP	Pn	21 32 58.1	+4.0
MTVR				eS	Sn	21 33 33.6	+3.8
GRL	Gorelyy	3.16	355	eP	Pn	21 32 59.5	+4.4
DALK	Dalny	3.63	2	eP	Pn	21 33 04.9	+3.5
UGLR	Uglovaya	3.81	3	eP	Pn	21 33 10.4	+6.4
SPN	Mys Shipunski	3.81	14	eP	Pn	21 33 09.1	+5.1
AVH	Avacha	3.86	2	eP	Pn	21 33 09.4	+4.6
SMAR	Somma	3.86	2	eP	Pn	21 33 09.4	+4.5
KOK	Koryaka	3.89	1	eP	Pn	21 33 09.4	+4.3
KRX	Arik	3.96	1	eP	Pn	21 33 10.2	+4.1
GNL	Ganaly	4.31	355	eP	Pn	21 33 15.7	+4.8
MKZ	Mys Kozlova	5.52	20	eP	Pn	21 33 30.0	+2.6

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*IDC **05** 22:18:47.3±1.3, 20°.76N×122°.48E, h0^{km}, mb3.4/7, mbtmp3.4/8, ML3.5/1, MS2.8/1, Error ellipse: s-maj=43.9km s-min=21.3km az=66.0*

*MAN **05** 22:18:53.0, 20°.07N×122°.06E, h1^{km}, MS3.5*

MAN INTENSITY III - SABTANG UYUGAN AND IVANA BATANES; .

ISC 05 22:18:50.9±1.0, 20°.51N±0°.05×122°.3E±0°.1, h31^{km}, n23, σ2^{s}.05/18, mb3.3/7, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CICP	Calayan Island	1.43	211	iP	Pn	22 19 12.8	-1.9
CICP				eS	Sn	22 19 28.8	-3.7
PACPP	Pamplona Cagay	2.21	203	eP	Pn	22 19 25.2	-0.2
PACPP				iS	Sn	22 19 50.1	-1.5
TWGBT	Beinan	2.55	335	P	Pn	22 19 29.1	-1.0
YULB	Yu-li	3.01	343	P	Pn	22 19 34.7	-1.7
SSLB	Suanglung	3.48	340	P	Pn	22 19 43.5	+0.5
NACB	Ninganchiao	3.70	351	P	Pn	22 19 44.8	-1.1
YOJ	Yonaguni jima	4.00	10	P	Pn	22 19 48.0	-2.0
YHNB	Yeheng	4.22	349	P	Pn	22 19 53.4	+0.2
CAAP	Casiguran, Aur	4.28	183	eP	Pn	22 19 56.9	+3.0
KSRS	Korea Array	17.59	15	P	Pn	22 22 51.2	-2.4
	0.2nm,0.3s,baz=185,slow=9.8,SNR=1.8						
	0.2nm,0.3s						
KSRS				AML	AML		
CMAR	Chiang Mai Arr	22.07	269	P	P	22 23 46.7	+3.2
	0.5nm,0.3s,baz=67,slow=9.6,SNR=5.8						
CMAR				LR	LR	22 31 56.3	
	comp=Z,23nm,18.1s,baz=225,slow=35						
	0.5nm,0.3s						
MKAR	Makanchi Array	41.70	318	P	P	22 26 38.3	+1.5
	0.3nm,0.5s,baz=107,slow=9.0,SNR=6.4						
	0.3nm,0.5s						
H11N1	WAKE ISLAND Hy	41.82	83	T	T	23 11 36.2	
	baz=278,slow=75,SNR=54						
H11N2	WAKE ISLAND Hy	41.83	83	T	T	23 11 39.4	
	baz=278,slow=75,SNR=30						
H11S3	WAKE ISLAND Hy	41.84	85	T	T	23 11 37.1	
	baz=280,slow=75,SNR=226						
H11N3	WAKE ISLAND Hy	41.84	83	T	T	23 11 38.2	
	baz=278,slow=75,SNR=34						
H11S1	WAKE ISLAND Hy	41.85	85	T	T	23 11 37.9	
	baz=280,slow=75,SNR=268						
H11S2	WAKE ISLAND Hy	41.85	85	T	T	23 11 38.5	
	baz=280,slow=75,SNR=278						
WRA	Warramunga Arr	41.91	163	P	P	22 26 41.3	+2.7
	0.5nm,0.8s,baz=342,slow=7.9,SNR=2.4						
	0.5nm,0.8s						
ZALV	Zalesovo Beam	43.87	329	P	P	22 26 53.0	-1.3
	0.2nm,0.3s,baz=110,slow=8.7,SNR=4.2						
	0.2nm,0.3s						
ASAR	Alice Springs	45.35	165	P	P	22 27 08.5	+2.1
	0.3nm,0.7s,baz=344,slow=9.4,SNR=2.5						
	0.3nm,0.7s						
KURBB	Kurchatov Arra	45.58	322	P	P	22 27 07.3	-0.6
	0.2nm,0.5s,baz=121,slow=8.1,SNR=1.7						
	0.2nm,0.5s						
BVAR	Borovoye Array	51.16	322	P	P	22 27 52.0	+1.1
	0.3nm,0.4s,baz=108,slow=7.5,SNR=2.6						
	0.3nm,0.4s						

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*UCR **05** 22:24:46.7±0.7, 8°.26N×82°.96W, h19^{km}±6^{km}, MW3.6, Presumed earthquake*

*UPA **05** 22:24:47.7±1.2, 8°.34N×82°.88W, h8^{km}±4^{km}, MW3.4, Presumed earthquake*

ISC 05 22:24:47.2±0.9, 8°.31N±0°.03×82°.92W±0°.03, h17^{km}±7^{km}, n32, σ0^{s}.64/50, 3C-7D, Panama-Costa Rica border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTPM	Petroterminale	0.11	160	⇑iP	Pg	22 24 50.7	-0.2
PTPM				eS	Sb	22 24 54.1	+0.8
PTPA	Petro Terminal	0.12	157	eP	Pg	22 24 50.7	-0.3
PTPA				eS	Sb	22 24 54.3	+0.8
LMNES	Limones	0.21	165	eP	Pg	22 24 52.2	-0.1
LMNES	Limones	0.21	165	⇑iP	Pg	22 24 52.3	-0.1
NELY	Ciudad Neily	0.34	355	eP	Pg	22 24 54.3	-0.1
NELY	Ciudad Neily	0.34	355	⇓iP	Pg	22 24 54.4	-0.1
NELY				eS	Sb	22 25 01.2	+1.3
PIRO	Carate, Puerto	0.43	283	eP	Pg	22 24 54.8	-1.1
PIRO	Carate, Puerto	0.43	283	eP	Pb	22 24 56.9	+0.7
DVD	David	0.48	75	iP	Pb	22 24 57.2	+0.1
DVD				eS	Sg	22 25 03.7	+0.3
MLIR3	Monte Lirio, C	0.49	11	eP	Pg	22 24 57.3	+0.2
MLIR3				eS	Sb	22 25 04.8	+0.5
VITO	San Vito	0.51	354	eS	Sb	22 25 06.0	+1.1
CLLRA	Cordillera,	0.53	35	⇓iP	Pb	22 24 58.4	+0.3
CLLRA				eS	Sb	22 25 05.9	+0.5
BRU2	Volcan	0.53	25	eP	Pb	22 24 58.3	+0.2
BRU2				eS	Sb	22 25 06.7	+1.2
BRU2	Volcan	0.53	25	⇓iP	Pb	22 24 58.4	+0.2
BRU2				eS	Sg	22 25 05.5	+0.4
BRU2				eS	Sn	22 25 07.7	-1.1
LOMA3	Las Lomas, Chi	0.53	77	eP	Pg	22 24 57.9	0.0
LOMA3				eS	Sg	22 25 05.2	+0.2
PTAR3	Potrerillos Ar	0.56	47	⇑iP	Pb	22 24 59.0	+0.3
PTAR3				eS	Sb	22 25 06.9	+0.4
CHIR3	Chiriqui UPA,	0.59	82	eP	Pg	22 24 58.9	0.0
CHIR3				eS	Sb	22 25 07.0	+0.1
BGUAL	Bijagual, Pana	0.61	71	eP	Pg	22 24 59.5	+0.2
BGUAL				eS	Sb	22 25 08.5	+0.9
BQTLY	Boquete Panama	0.63	45	eP	Pg	22 24 59.8	0.0
BQTLY	Boquete Panama	0.63	45	⇓iP	Pg	22 24 59.9	0.0
BQTLY				eS	Sn	22 25 10.4	-0.9
BQSF3	Alto Boquete,	0.64	48	⇓iP	Pg	22 24 60.0	0.0
BQSF3				eS	Sg	22 25 08.2	-0.4
LNBQ3	Los Naranjos,	0.67	44	iP	Pg	22 25 00.2	-0.3
LNBQ3				eS	Sg	22 25 09.1	-0.3
EDP2	Potrero Grande	0.75	340	eP	Pg	22 25 01.5	-0.4
RBALA	Bur	0.94	53	eP	Pb	22 25 04.8	-0.3
RBALA	Bur	0.94	53	⇓iP	Pb	22 25 04.8	-0.3
RBALA				eS	Sg	22 25 18.1	+0.1
EDPE	Pejibaye, P	1.06	323	eP	Pb	22 25 05.8	-1.3
SAJE	San Jernim	1.19	330	eP	Pn	22 25 08.4	-0.7
CNI2	El Empalme, Bo	1.19	22	eP	Pn	22 25 08.8	-0.3
KKNTU	Kakintº	1.22	64	eP	Pn	22 25 08.6	-0.7
KKNTU	Kakintº	1.22	64	⇓iP	Pn	22 25 08.7	-0.7
KKNTU				eS	Sb	22 25 25.4	+0.2
LCR2	La Lucha 2	1.78	323	eP	Pn	22 25 18.0	+0.6
JTS	Las Juntas de	2.81	315	eP	Pn	22 25 33.0	+1.6

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*IDC **05** 22:27:06.7±1.7, 2°.49N×128°.44E, h229^{km}±16^{km}, mb3.5/19, mbtmp4.1/19, Error ellipse: s-maj=23.2km s-min=8.2km az=80.0*

*NEIC **05** 22:27:07.6±1.0, 2°.48N±0°.10×128°.31E±0°.04, h237^{km}±7^{km}, mb4.2/23, Error ellipse: s-maj=15.3km s-min=3.2km az=200.0*

*DJA **05** 22:27:07.4±0.5, 3°N±5°×12°8E±°, h213^{km}±3^{km}, M4.2/14, mB4.9/5, mb4.3/8, MLv4.2/14, Mw(mB)4.2/5*

ISC 05 22:27:08.4±0.4, 2°.44N±0°.05×128°.36E±0°.07, h250^{km}, n72, σ1^{s}.35/79, mb4.0/29, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TNTI	Ternate	1.93	211	P	Pn	22 27 48.7	-1.6
TNTI	Ternate	1.93	211		Pn	22 27 48.5	-1.8
TNTI	Ternate	1.93	211	P	Pn	22 27 48.7	-1.6
TNTI				AML	AML		
MNI	Manado	3.65	254	P	Pn	22 28 07.3	-0.9
MNI				S	S	22 28 54.1	-1.5
MNI				AML	AML		
DDMP	Don Marcelino,	4.50	324	eP	Pn	22 28 14.8	-3.4
DDMP				eS	S	22 29 00.9	-13
SANI	Sanana	5.05	208	P	Pn	22 28 23.1	-1.8
SANI	Sanana	5.05	208	S	S	22 29 21.2	-4.6
SANI	Sanana	5.05	208	P	Pn	22 28 23.0	-1.8
GTOI	Gorontalo	5.63	252	P	Pn	22 28 32.9	+0.9
	0.3nm52nm,0.7s						
GTOI				S	S	22 29 40.0	+1.2
	0.3nm52nm,0.7s						
GTOI				AML	AML		
BIPH	Bislig	6.04	341	eP	Pn	22 28 32.0	-5.2
LUWI	Luwuk	6.56	238	P	Pn	22 28 44.3	+0.6
LUWI	Luwuk	6.56	238	Pn	Pn	22 28 41.8	-1.9
LUWI	Luwuk	6.56	238	P	Pn	22 28 42.9	-0.8
	0.3nm2µm76nm,0.6s						
LUWI				S	S	22 30 01.3	+1.3
	0.3nm2µm76nm,0.6s						
LUWI				AML	AML		
FAKI	Fak Fak	6.59	144	P	Pn	22 28 43.3	-0.7
FAKI	Fak Fak	6.59	144	Pn	Pn	22 28 42.7	-1.4
FAKI	Fak Fak	6.59	144	P	Pn	22 28 42.8	-1.2
	0.2nm25nm,0.9s						
FAKI				AML	AML		
TOLI2	Tolitoli	7.68	260	Pn	Pn	22 28 56.0	-1.7
KKM	Kota Kinabalu	12.62	287	Pn	Pn	22 29 55.9	-4.0
DRS	Darwin Rock St	14.99	170	P	Pn	22 30 29.1	+0.5
MTN	Manton Dam	15.43	170		Pn	22 30 32.5	-1.4
MTN				IAmb	IAmb	22 31 01.6	
	comp=Z,8.3nm,1.2s						
KNRA	Kununurra	18.00	179		Pn	22 31 01.9	-2.2
KNRA				IAmb	IAmb	22 31 02.9	
	comp=Z,8.0nm,0.8s						
FITZ	Fitzroy Crossi	20.58	187	P	P	22 31 28.3	-0.5
	comp=Z,2.0nm,0.3s,baz=17,slow=8.3,SNR=18						
	comp=Z,2.0nm,0.3s						
FITZ	Fitzroy Crossi	20.58	187	P	P	22 31 28.9	+0.1
FITZ	Fitzroy Crossi	20.58	187	P	P	22 31 27.8	-1.0
WB0	Warramunga Arr	22.85	165		P	22 31 50.2	-0.1
WRA	Warramunga Arr	23.00	165	P	P	22 31 51.7	0.0
	comp=Z,4.0nm,0.4s,baz=345,slow=9.8,SNR=53						
WRA				ScP	ScP	22 38 49.0	+1.4
	comp=Z,0.2nm,0.5s,baz=352,slow=3.2,SNR=1.4						
	comp=Z,4.0nm,0.4s						
WRA	Warramunga Arr	23.00	165	P	P	22 31 51.0	-0.7
QIS	Mount Isa	25.38	155	P	P	22 32 13.7	+0.5
AS31	Alice Springs	26.50	169		P	22 32 23.5	+0.2
AS31				IAmb	IAmb	22 32 24.3	
	comp=Z,1.9nm,0.6s						
ASAR	Alice Springs	26.50	169	P	P	22 32 23.5	+0.2
	comp=Z,2.8nm,0.5s,baz=355,slow=7.7,SNR=86						
ASAR				PcP	PcP	22 35 42.3	+1.0
	comp=Z,0.3nm,0.4s,baz=355,slow=2.5,SNR=2.6						
ASAR				ScP	ScP	22 38 59.0	+1.7
	comp=Z,0.7nm,0.8s,baz=338,slow=3.4,SNR=5.9						
	comp=Z,2.8nm,0.5s						
ASAR	Alice Springs	26.50	169	P	P	22 32 23.6	+0.4
ASAR					PcP	22 35 41.5	+0.3
ASAR					ScP	22 38 59.2	+1.9
MEEK	Meekatharra	30.40	197	P	P	22 32 58.5	+0.8
CMAR	Chiang Mai Arr	32.92	301	P	P	22 33 21.2	+1.4
	comp=Z,0.7nm,0.3s,baz=96,slow=6.3,SNR=5.4						
	comp=Z,0.7nm,0.3s						
MORW	Morawa	33.48	200	P	P	22 33 24.1	-0.3
KSRS	Korea Array	34.85	359	P	P	22 33 35.9	-0.2
	comp=Z,1.8nm,0.6s,baz=178,slow=9.4,SNR=8.5						
	comp=Z,1.8nm,0.6s						
MJAR	Matsushiro Arr	35.14	14	P	P	22 33 37.0	-1.6
	comp=Z,2.1nm,0.7s,baz=186,slow=9.9,SNR=7.3						
	comp=Z,2.1nm,0.7s						
BBOO	Buckleboo	35.81	169	P	P	22 33 44.7	+0.4
STKA	Stephens Creek	36.37	161	P	P	22 33 49.8	+0.8
	comp=Z,3.7nm,0.4s,baz=340,slow=8.5,SNR=21						
	comp=Z,3.7nm,0.4s						
ARMA	Armidale	39.51	148	P	P	22 34 15.0	-0.3
HHC	Hu-ho-hao-te	41.14	341	eP	P	22 34 31.5	+3.0
HHC				pmax	pmax		
	comp=Z,6.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,120nm,3.8s						
USRK	Ussuriysk Ar.	41.71	4	P	P	22 34 32.5	-0.4
	comp=Z,1.0nm,0.6s,baz=170,slow=9.6,SNR=2.6						
	comp=Z,1.0nm,0.6s						
SHL	Shillong	41.94	307		P	22 34 34.4	-0.9
SHL				IAmb	IAmb	22 34 37.6	
	comp=Z,5.2nm,0.5s						
ASAJ	Asahikawa	43.38	15	P	P	22 34 46.4	0.0
	comp=Z,1.2nm,0.5s,baz=204,slow=10.0,SNR=1.9						
	comp=Z,1.2nm,0.5s						
EVN	Everest	47.06	307	P	P	22 35 16.1	-0.2
HILR	Hailar Array B	47.52	352	P	P	22 35 18.1	-0.5
	comp=Z,0.3nm,0.3s,baz=173,slow=13,SNR=1.7						
	comp=Z,0.3nm,0.3s						
SONM	Songino Array	49.04	341	P	P	22 35 30.5	+0.1
	comp=Z,0.5nm,0.7s,baz=148,slow=7.4,SNR=2.6						
SONM				ScP	ScP	22 40 23.9	+2.7
	comp=Z,0.5nm,0.6s,baz=131,slow=4.4,SNR=2.3						
	comp=Z,0.5nm,0.7s						
WMQ	Urumqi	54.71	325	eP	P	22 36 16.1	+4.0
WMQ				PP	PP	22 38 21.1	+3.4
WMQ				pmax	pmax		
	comp=Z,23nm,0.9s						
PEA0B	Petropavlovsk-	56.03	21	P	P	22 36 20.2	-1.0
PEA0B				IAmb	IAmb	22 36 21.9	
	comp=Z,11nm,1.0s						
PETK	Petropavlovsk-	56.03	21	P	P	22 36 21.4	+0.1
	comp=Z,1.8nm,0.6s,baz=212,slow=6.5,SNR=5.9						
	comp=Z,1.8nm,0.6s						
PETK	Petropavlovsk-	56.03	21	P	P	22 36 20.9	-0.4
YAK	Yakutsk	59.46	1	P	P	22 36 44.5	-0.3
MKAR	Makanchi Array	59.54	325	P	P	22 36 46.2	+0.4
	comp=Z,0.8nm,0.4s,baz=113,slow=7.9,SNR=19						
	comp=Z,0.8nm,0.4s						
MKAR	Makanchi Array	59.54	325	P	P	22 36 45.9	+0.1
MAKZ	Makanchi	59.72	325	P	P	22 36 47.2	+0.1
ZALV	Zalesovo Beam	62.47	333	P	P	22 37 04.5	-0.7
	comp=Z,0.4nm,0.3s,baz=122,slow=7.0,SNR=3.2						
	comp=Z,0.4nm,0.3s						
ZALV	Zalesovo Beam	62.47	333	P	P	22 37 04.3	-0.9
KURBB	Kurchatov Arra	63.70	327	P	P	22 37 13.6	+0.2
	comp=Z,3.5nm,0.8s,baz=127,slow=6.1,SNR=12						
	comp=Z,3.5nm,0.8s						
KKAR	Karatay Array	65.28	317	P	P	22 37 23.4	-0.4
BVAR	Borovoye Array	69.28	327	P	P	22 37 49.1	+0.5
	comp=Z,1.0nm,0.7s,baz=120,slow=8.8,SNR=5.1						
	comp=Z,1.0nm,0.7s						
ABKAR	Akbulak array	74.17	321	P	P	22 38 17.1	-0.6
J17K	VABM Dome	80.07	26	P	P	22 38 50.9	+0.7
J17K				IAmb	IAmb	22 38 56.8	
	comp=Z,8.6nm,1.5s						
L18K	Granite Mounta	80.86	27	P	P	22 38 55.1	+0.7
L18K				IAmb	IAmb	22 39 02.7	
	comp=Z,5.3nm,1.4s						
C19K	Lookout Ridge	81.38	20	P	P	22 38 57.9	+0.8
C19K				IAmb	IAmb	22 39 06.4	
	comp=Z,9.5nm,1.4s						
E19K	Redstone River	81.81	22	P	P	22 38 59.6	+0.4
E19K				IAmb	IAmb	22 39 18.6	
	comp=Z,7.3nm,1.4s						
VNDA	Vanda	81.95	173	P	P	22 39 01.0	+1.2

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         comp=Z,1.1nm,0.8s,baz=307,slow=4.5,SNR=5.7
         comp=Z,1.1nm,0.8s
VNDA   Vanda              81.95 173  P      P        22 39 00.7 +0.9
I23K   Minto, Yukon-K     84.55  25  P      P        22 39 13.7 +0.5
I23K                                 IAmb   IAmb     22 39 56.9
         comp=Z,4.9nm,1.4s
C23K   Itkillik River     84.63  20  P      P        22 39 14.2 +0.6
C23K                                 IAmb   IAmb     22 39 54.0
         comp=Z,8.7nm,1.4s
ARCES  ARCESS Array B     92.21 340  P      P        22 39 48.2 -1.3
         comp=Z,0.4nm,0.6s,baz=79,slow=6.3,SNR=4.5
         comp=Z,0.4nm,0.6s
ARCES  ARCESS Array B     92.21 340  P      P        22 39 48.9 -0.6
ARCES                                IAmb   IAmb     22 40 09.5
         comp=Z,3.4nm,1.2s
QSPA   South Pole Qui     92.35 180  P      P        22 39 51.7 +1.3
         comp=Z,0.9nm,1.0s,baz=291,slow=2.5,SNR=9.3
         comp=Z,0.9nm,1.0s
QSPA   South Pole Qui     92.35 180  P      P        22 39 51.4 +1.1
QSPA                                 IAmb   IAmb     22 40 29.7
         comp=Z,4.8nm,1.5s
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*IDC **05** 22:43:31.3±0.8, 5.°40S×104.°89E, h0^{km}, mb3.7/11, mbtmp3.7/11, Error ellipse: s-maj=37.4km s-min=17.4km az=53.0*

ISC 05 22:43:44.9±0.7**, 5.°6S**±0.°2×**105.°2E**±0.°2**, h100**^{km}**, n19,** σ**2ˢ.42**/20**, mb3.5**/11**, Sunda Strait**

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Code   Station Name        Δ°   AZ°   Phase ID          Time     Res
                                      Op     ISC       h  m  s   ISC
MDSI   Maura Dua           1.49 316  P      Pn       22 44 14.4 +3.4
LHSI   Lahat               2.41 316  P      Pn       22 44 26.9 +4.0
MNAI   Manna               2.55 298  P      Pn       22 44 27.4 +2.8
KSI    Kapahiang           3.23 306  P      Pn       22 44 37.2 +3.4
MASI   Maura Aman, Be      3.82 309  P      Pn       22 44 45.3 +3.6
PPSI   Pulau Pagai         5.89 298  P      Pn       22 45 09.7  0.0
FITZ   Fitzroy Crossi     23.52 124  P      P        22 48 47.0 +0.9
         1.4nm,0.6s,baz=306,slow=8.3,SNR=5.8
         1.4nm,0.6s
WRA    Warramunga Arr     31.72 119  P      P        22 50 00.5 +1.0
         0.5nm,0.6s,baz=289,slow=9.6,SNR=8.6
         0.5nm,0.6s
ASAR   Alice Springs      32.96 126  P      P        22 50 11.1 +0.8
         1.0nm,0.6s,baz=301,slow=7.8,SNR=16
ASAR                                 PcP    PcP      22 52 52.8 +0.4
         0.4nm,0.5s,baz=332,slow=2.2,SNR=2.5
         1.0nm,0.6s
STKA   Stephens Creek     42.91 132  P      P        22 51 34.4 +0.5
         2.4nm,0.5s,baz=298,slow=8.0,SNR=5.7
         2.4nm,0.5s
MKAR   Makanchi Array     55.95 341  P      P        22 53 08.9 -3.8
         0.1nm,0.4s,baz=165,slow=10.0,SNR=1.7
         0.1nm,0.4s
KURBB  Kurchatov Arra     60.52 341  P      P        22 53 40.9 -3.5
         0.1nm,0.4s,baz=157,slow=6.1,SNR=1.3
         0.1nm,0.4s
ZALV   Zalesovo Beam      61.72 346  P      P        22 53 49.9 -2.5
         0.3nm,0.3s,baz=167,slow=7.0,SNR=2.0
         0.3nm,0.3s
MAW    Mawson             68.23 196  P      P        22 54 33.7 -0.7
         1.6nm,1.0s,baz=46,slow=6.5,SNR=1.3
         1.6nm,1.0s
VNDA   Vanda              77.69 169  P      P        22 55 30.3 +0.2
         0.4nm,0.5s,baz=287,slow=5.5,SNR=2.7
         0.4nm,0.5s
BRTR   Keskin Array B     79.56 312  P      P        22 55 39.7 -1.5
         0.6nm,0.7s,baz=96,slow=5.4,SNR=2.6
         0.6nm,0.7s
QSPA   South Pole Qui     84.41 180  P      P        22 56 06.7 +0.6
         0.8nm,0.9s,baz=321,slow=4.7,SNR=3.6
         0.8nm,0.9s
TXAR   Lajitas Array     143.90  46  PKP    PKPdf    23 03 09.2 -0.2
         0.4nm,0.6s,baz=325,slow=1.6,SNR=5.6
BDFB   Brasilia          146.13 231  PKPbc  PKPdf    23 03 13.3 -0.3
         1.1nm,0.3s,baz=117,slow=4.5,SNR=1.5
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*DJA **05** 22:43:55.1±0.2, 5°S±4°×10°5E±°, h87^{km}±3^{km}, M4.9/47, mB5.4/9, mb5.1/21, MLv4.9/47, Mw(mB)4.8/9*

*IDC **05** 22:44:00.7±0.5, 5.°46S×105.°17E, h105^{km}±3^{km}, mb3.9/21, mbtmp4.2/21, MS3.4/1, Error ellipse: s-maj=15.4km s-min=8.6km az=59.0*

*NEIC **05** 22:44:01.8±1.9, 5.°59S±0.°07×105.°17E±0.°07, h107^{km}±6^{km}, mb4.4/37, Error ellipse: s-maj=12.5km s-min=7.2km az=221.0*

ISC 05 22:44:00.7±0.5**, 5.°56S**±0.°05×**105.°03E**±0.°05**, h107**^{km}±3^{km}**, n131,** σ**1ˢ.77**/144**, mb4.3**/38**, 2C-1D, Sunda Strait**

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Code   Station Name        Δ°   AZ°   Phase ID          Time     Res
                                      Op     ISC       h  m  s   ISC
MDSI   Maura Dua           1.37 321  S      Pn       22 44 29.6 +3.8
TNG    Tangerang           1.71 111  P      Pn       22 44 31.0 +1.0
TNG                                  P      Pn       22 44 31.0 +1.0
TNG                                  AML    AML
MNAI   Manna               2.39 300  P      Pn       22 44 41.7 +3.1
MNAI   Manna               2.39 300  Pn     Pn       22 44 41.8 +3.1
MNAI                                 Sn     Sn       22 45 10.4 +2.7
MNAI   Manna               2.39 300  AML    AML
PMBI   Palembang           2.63 354  P      Pn       22 44 46.7 +4.9
PMBI   Palembang           2.63 354  Pn     Pn       22 44 45.5 +3.6
PMBI                                 Sn     Sn       22 45 14.3 +1.0
CNJI   Cibinong            2.71 130  P      Pn       22 44 41.8 -1.1
CNJI                                 AML    AML
KSI    Kapahiang           3.08 308  AML    AML
BBJI   Bungbulang          3.21 126  Pn     Pn       22 44 48.4 -1.2
BBJI                                 Sn     Sn       22 45 22.9 -4.4
BBJI   Bungbulang          3.21 126  P      Pn       22 44 49.2 -0.4
BBJI                                 AML    AML
MASI   Maura Aman, Be      3.68 311  AML    AML
CMJI   Cimerak             4.05 123  P      Pn       22 45 00.1 -0.6
CMJI                                 AML    AML
SMRI   Semarang            5.58 106  P      Pn       22 45 23.2 +1.8
SMRI   Semarang            5.58 106         Pn       22 45 21.9 +0.6
SMRI   Semarang            5.58 106  P      Pn       22 45 22.9 +1.5
         0.7nm126nm,0.8s
SMRI                                 S      Sn       22 46 31.9 +7.7
         0.7nm126nm,0.8s
SMRI                                 AML    AML
YOGI   Yogyakarta          5.69 113  P      Pn       22 45 24.6 +1.7
         1.2nm221nm,1.4s
YOGI                                 S      Sn       22 46 33.4 +6.5
         1.2nm221nm,1.4s
YOGI                                 AML    AML
UGM    Wanagama            5.93 113         Pn       22 45 26.8 +0.6
UGM    Wanagama            5.93 113  P      Pn       22 45 27.0 +0.8
         1.0nm137nm,0.6s
UGM                                  AML    AML
PCJI   Pacitan             6.64 114  P      Pn       22 45 36.0 +0.2
         159nm,0.4s
BTDF   Bukit Timah Da      6.99 350  P      Pn       22 45 45.7 +5.1
SNJI   Sawahan-Nganju      7.04 109  P      Pn       22 45 44.3 +3.0
         0.5nm98nm,0.5s
SNJI                                 AML    AML
BKNI   Bangkinang          7.08 326  Pn     Pn       22 45 42.6 +0.8
MYKOM  Kota Tinggi         7.40 351  P      Pn       22 45 51.2 +5.1
MYKOM  Kota Tinggi         7.40 351         Pn       22 45 49.7 +3.6
KSM    Kuching             8.75  37  P      Pn       22 46 01.0 -3.5
BLJI   Banyuglugur         8.78 105  P      Pn       22 46 07.0 +2.2
         185nm,0.6s
ABJI   Asem Bagus          9.40 104  P      Pn       22 46 17.1 +3.7
JAGI   Jajag, Banyuwa      9.50 108  P      Pn       22 46 16.1 +1.4
JAGI   Jajag, Banyuwa      9.50 108  Pn     Pn       22 46 15.3 +0.6
JAGI   Jajag, Banyuwa      9.50 108  P      Pn       22 46 15.7 +1.0
GSI    Gunungsitoli       10.10 312  P      Pn       22 46 24.2 +1.4
IPM    Ipoh               10.75 338  Pn     Pn       22 46 32.7 +1.0
KULM   Kulim              11.63 338  Pn     Pn       22 46 45.1 +1.6
LHMI   Lhok Sumawe        13.42 323  Pn     Pn       22 47 03.1 -3.8
TOLI2  Tolitoli           17.07  68  P      P        22 47 58.2 +5.2
TOLI2  Tolitoli           17.07  68  P      Pn       22 47 52.1 -0.9
MYLDM  Lahad Datu         17.17  52         P        22 47 53.6 -0.4
MMRI   Maumere            17.34 101  P      P        22 47 55.2 -0.8
MMRI                                 IAmb   IAmb     22 48 18.8
         comp=Z,31nm,1.0s
SOEI   Soe                19.51 103  P      P        22 48 20.4 +0.5
SOEI   Soe                19.51 103         P        22 48 17.9 -2.0
FITZ   Fitzroy Crossi     23.67 124  P      P        22 49 02.0 -0.7
         comp=Z,7.2nm,0.5s,baz=309,slow=5.7,SNR=32
FITZ                                 S      S        22 53 08.6 -1.2
         comp=Z,1.4nm,0.9s,baz=288,slow=17,SNR=1.5
         comp=Z,7.2nm,0.5s
FITZ   Fitzroy Crossi     23.67 124  P      P        22 49 02.0 -0.7
FITZ   Fitzroy Crossi     23.67 124         P        22 49 01.6 -1.1
CMAR   Chiang Mai Arr     24.61 346  P      P        22 49 11.3 +0.1
         comp=Z,0.5nm,0.4s,baz=180,slow=8.9,SNR=7.2
CMAR                                 pP     pP       22 49 33.6 -0.9
         comp=Z,0.9nm,0.3s,baz=178,slow=9.0,SNR=2.4
CMAR                                 PcP    PcP      22 52 47.1 +0.6
         comp=Z,0.3nm,0.4s,baz=203,slow=3.6,SNR=5.0
CMAR                                 ScP    ScP      22 56 15.7  0.0
         comp=Z,0.3nm,0.4s,baz=197,slow=3.9,SNR=4.2
         comp=Z,0.5nm,0.4s
CMAR   Chiang Mai Arr     24.61 346  P      P        22 49 12.0 +0.8
KNRA   Kununurra          25.37 115  P      P        22 49 16.8 -1.4
CRAI   Chiangrai          26.04 350  P      P        22 49 23.8 -0.3
CRAI                                 IAmb   IAmb     22 49 29.8
         comp=Z,9.7nm,1.0s
MTN    Manton Dam         26.74 108  P      P        22 49 30.1 -0.5
MTN                                  IAmb   IAmb     22 49 49.1
         comp=Z,8.2nm,1.1s
H01W3  Cape Leeuwin H     30.37 165  T      T        23 21 56.3
         baz=342,slow=76,SNR=6.3
H01W1  Cape Leeuwin H     30.38 165  T      T        23 21 57.4
         baz=342,slow=76,SNR=4.9
H01W2  Cape Leeuwin H     30.38 165  T      T        23 21 56.9
         baz=342,slow=76,SNR=6.8
BRDH   Bariadhala         30.97 335  LR     LR       23 04 35.1
         comp=Z,62nm,18.5s,baz=174,slow=40
WB0    Warramunga Arr     31.86 119  P      P        22 50 15.1 -0.8
WB0                                  IAmb   IAmb     22 50 16.0
         comp=Z,5.6nm,1.0s
WRA    Warramunga Arr     31.88 119  P      P        22 50 15.2 -0.9
         comp=Z,2.5nm,0.8s,baz=287,slow=10,SNR=16
WRA                                  pP     pP       22 50 39.3 -0.6
         comp=Z,1.0nm,0.5s,baz=308,slow=9.0,SNR=2.8
WRA                                  PcP    PcP      22 53 04.5 +0.1
         comp=Z,1.3nm,0.4s,baz=310,slow=1.9,SNR=7.2
WRA                                  S      S        22 55 15.8 -3.4
         comp=Z,1.2nm,0.8s,baz=294,slow=17,SNR=5.5
         comp=Z,2.5nm,0.8s
WRA    Warramunga Arr     31.88 119  P      P        22 50 14.6 -1.5
WRA                                         PcP      22 53 04.2 -0.3
H08S2  Diego Garcia H     32.38 265  T      T        23 24 16.1
         baz=89,slow=75,SNR=9.3
H08S3  Diego Garcia H     32.39 265  T      T        23 24 16.8
         baz=89,slow=75,SNR=20
H08S1  Diego Carcia H     32.40 265  T      T        23 24 17.5
         baz=89,slow=75,SNR=6.0
AS31   Alice Springs      33.11 126         P        22 50 26.6 -0.3
AS31                                 IAmb   IAmb     22 50 27.3
         comp=Z,2.8nm,0.6s
ASAR   Alice Springs      33.11 126  P      P        22 50 26.4 -0.4
         comp=Z,7.6nm,0.7s,baz=296,slow=7.8,SNR=65
ASAR                                 pP     pP       22 50 50.1 -0.7
         comp=Z,3.9nm,1.0s,baz=299,slow=8.5,SNR=3.5
ASAR                                 PcP    PcP      22 53 08.2 +0.3
         comp=Z,2.0nm,0.7s,baz=300,slow=2.7,SNR=12
ASAR                                 S      S        22 55 35.9 -2.5
         comp=Z,2.6nm,0.8s,baz=293,slow=15,SNR=15
ASAR                                 ScP    ScP      22 56 41.4 -1.2
         comp=Z,0.8nm,0.7s,baz=294,slow=3.3,SNR=6.4
         comp=Z,7.6nm,0.7s
AS01   Alice Springs      33.15 126  P      P        22 50 27.2  0.0
QIS    Mount Isa          36.71 117  P      P        22 50 58.2 +0.4
EVN    Everest            37.68 333  P      P        22 51 06.6  0.0
EVN                                  IAmb   IAmb     22 51 24.8
         comp=Z,4.8nm,1.2s
BBOO   Buckleboo          39.63 137  P      P        22 51 21.4 -0.7
BBOO                                 IAmb   IAmb     22 51 22.2
         comp=Z,8.7nm,0.8s
STKA   Stephens Creek     43.05 132  P      P        22 51 50.2 +0.1
         comp=Z,19nm,0.6s,baz=304,slow=7.5,SNR=35
STKA                                 pP     pP       22 52 13.5 -1.4
         comp=Z,5.4nm,0.6s,baz=295,slow=10,SNR=2.8
STKA                                 PcP    PcP      22 53 38.5 +0.1
         comp=Z,1.7nm,0.6s,baz=300,slow=3.4,SNR=3.7
         comp=Z,19nm,0.6s
CMSA   Cobar Meteorol     45.98 129  P      P        22 52 14.6 +1.1
KSRS   Korea Array        47.82  25  P      P        22 52 26.5 -1.1
         comp=Z,0.3nm,0.3s,baz=216,slow=7.6,SNR=1.8
KSRS                                 pP     pP       22 52 52.2 -0.6
         comp=Z,2.1nm,0.9s,baz=212,slow=6.9,SNR=4.1
         comp=Z,0.3nm,0.3s
EIDS   Eidsvold           48.24 119  P      P        22 52 31.0 -0.1
EIDS                                 IAmb   IAmb     22 53 09.6
         comp=Z,9.2nm,1.2s
TOO    Toolangi           48.68 137  P      P        22 52 35.5 +1.1
TOO                                  IAmb   IAmb     22 52 36.7
         comp=Z,5.8nm,1.4s
CAN    Canberra           50.11 132  P      P        22 52 45.0 -0.2
INU    Inuyama            50.60  34  P      P        22 52 49.3 +0.5
MJAR   Matsushiro Arr     52.13  34  P      P        22 52 59.9 -0.3
         comp=Z,0.6nm,0.7s,baz=210,slow=8.3,SNR=1.7
MJAR                                 pP     pP       22 53 25.2 -0.7
         comp=Z,2.3nm,1.0s,baz=212,slow=7.1,SNR=3.5
         comp=Z,0.6nm,0.7s
SONM   Songino Array      53.18   1  P      P        22 53 07.9  0.0
         comp=Z,0.2nm,0.3s,baz=187,slow=10,SNR=1.2
SONM                                 pP     pP       22 53 33.8 +0.3
         comp=Z,1.8nm,1.0s,baz=175,slow=9.7,SNR=3.5
SONM                                 PcP    PcP      22 54 15.3 +0.7
         comp=Z,0.8nm,0.4s,baz=193,slow=4.8,SNR=2.6
SONM                                 ScP    ScP      22 58 00.2 -2.3
         comp=Z,1.1nm,0.7s,baz=177,slow=5.2,SNR=3.9
         comp=Z,0.2nm,0.3s
USRK   Ussuriysk Ar.      55.16  23  P      P        22 53 19.5 -2.7
         comp=Z,1.5nm,0.8s,baz=213,slow=6.8,SNR=1.3
USRK                                 pP     pP       22 53 47.6 -0.4
         comp=Z,4.0nm,0.9s,baz=212,slow=7.0,SNR=3.0
         comp=Z,1.5nm,0.8s
BTK    Batken             55.25 328  P      P        22 53 22.7 -0.3
BTK                                  IAmb   IAmb     22 53 23.7
         comp=Z,1.6nm,0.5s
MK31   Makanchi Array     55.89 341  P      P        22 53 26.9 -0.6
MKAR   Makanchi Array     55.89 341  P      P        22 53 27.0 -0.4
         comp=Z,1.1nm,0.4s,baz=153,slow=8.8,SNR=27
MKAR                                 pP     pP       22 53 54.0 +0.7
         comp=Z,1.1nm,0.8s,baz=145,slow=8.7,SNR=3.3
         comp=Z,1.1nm,0.4s
MKAR   Makanchi Array     55.89 341  P      P        22 53 26.7 -0.7
UOSS   Minazif            56.33 305  P      P        22 53 31.7 +0.8
VOI    Vohitsoka          58.52 248  P      P        22 53 47.5 +1.0
KURBB  Kurchatov Arra     60.45 341  P      P        22 53 58.3 -0.7
         comp=Z,0.3nm,0.4s,baz=160,slow=5.8,SNR=4.2
KURBB                                pP     pP       22 54 23.7 -1.6
         comp=Z,0.4nm,0.6s,baz=160,slow=5.9,SNR=2.0
         comp=Z,0.3nm,0.4s
CASY   Casey              60.73 177  P      P        22 54 00.8 +0.1
CASY                                 IAmb   IAmb     22 54 02.2
         comp=Z,9.4nm,1.2s
H04N2  CROZET ISLANDS     61.10 219  T      T        00 00 08.9
         baz=66,slow=75,SNR=39
H04N1  CROZET ISLANDS     61.11 220  T      T        00 00 09.2
         baz=66,slow=75,SNR=39
H04N3  CROZET ISLANDS     61.11 219  T      T        00 00 07.9
         baz=66,slow=75,SNR=48
H04S1  CROZET ISLANDS     61.31 219  T      T        23 59 59.3
         baz=66,slow=74,SNR=7.2
H04S3  CROZET ISLANDS     61.32 219  T      T        00 00 14.4
         baz=66,slow=74,SNR=13
H04S2  CROZET ISLANDS     61.33 219  T      T        00 00 00.0
         baz=66,slow=74,SNR=6.5
ZAA0   Zalesovo Array     61.68 347  P      P        22 54 06.5 -0.8
ZALV   Zalesovo Beam      61.68 347  P      P        22 54 06.3 -0.9
         comp=Z,1.8nm,0.3s,baz=150,slow=5.8,SNR=15
ZALV                                 pP     pP       22 54 31.8 -1.8
         comp=Z,0.8nm,0.4s,baz=155,slow=4.9,SNR=2.6
         comp=Z,1.8nm,0.3s
ZALV   Zalesovo Beam      61.68 347         P        22 54 06.5 -0.8
BVAR   Borovoye Array     65.30 338  P      P        22 54 30.2 -0.9
         comp=Z,0.6nm,0.5s,baz=144,slow=11,SNR=4.4
BVAR                                 pP     pP       22 54 55.9 -1.8
         comp=Z,0.9nm,0.6s,baz=139,slow=7.3,SNR=2.5
         comp=Z,0.6nm,0.5s
DCZ    Deep Cove          66.67 137  P      P        22 54 39.4 -0.7
AB31   Akbulak array      67.19 330  P      P        22 54 42.6 -0.7
AB31                                 IAmb   IAmb     22 55 09.8
         comp=Z,3.0nm,0.6s
ABKAR  Akbulak array      67.19 330  P      P        22 54 42.6 -0.7
MAW    Mawson             68.18 196  P      P        22 54 50.4 +1.1
         comp=Z,3.3nm,0.6s,baz=51,slow=5.0,SNR=22
         comp=Z,3.3nm,0.6s
MAW    Mawson             68.18 196  P      P        22 54 50.3 +1.1
MRNZ   Matariki Terra     69.68 132  P      P        22 54 58.4 -0.6
POGA   Pongola            72.66 243  P      P        22 55 18.6 +1.3
POGA                                 IAmb   IAmb     22 55 20.6
         comp=Z,11nm,0.8s
GURO   Guroymak-BITLI     72.87 313  P      P        22 55 19.2 +0.7
GURO                                 IAmb   IAmb     22 55 20.6
         comp=Z,3.9nm,0.5s
VNDA   Vanda              77.73 169  P      P        22 55 46.0 +0.6
         comp=Z,3.4nm,0.9s,baz=315,slow=6.6,SNR=16
         comp=Z,3.4nm,0.9s
VNDA   Vanda              77.73 169         P        22 55 46.1 +0.7
VNDA                                 IAmb   IAmb     22 55 46.5
         comp=Z,3.0nm,0.7s
LBTB   Lobatse            78.11 246  P      P        22 55 49.8 +1.1
LBTB                                 IAmb   IAmb     22 55 51.5
         comp=Z,13nm,0.9s
BOSA   Boshof             78.39 242  P      P        22 55 51.1 +0.9
         comp=Z,6.2nm,0.6s,baz=107,slow=6.8,SNR=20
         comp=Z,6.2nm,0.6s
BOSA   Boshof             78.39 242  P      P        22 55 50.9 +0.7
BOSA                                 IAmb   IAmb     22 56 23.4
         comp=Z,17nm,1.4s
SBA    Scott Base         78.81 169  P      P        22 55 52.4 +1.1
MAKGR  Makgori            78.82 245  P      P        22 55 53.6 +1.0
BRTR   Keskin Array B     79.42 312  P      P        22 55 56.3 +0.8
         comp=Z,0.9nm,0.8s,baz=120,slow=7.3,SNR=5.1
BRTR                                 pP     pP       22 56 21.9 -1.2
         comp=Z,1.5nm,0.8s,baz=122,slow=5.1,SNR=5.4
         comp=Z,0.9nm,0.8s
BRTR   Keskin Array B     79.42 312  P      P        22 55 55.1 -0.4
SUR    Sutherland         82.18 238  P      P        22 56 12.2 +1.7
GRTLG  Ghanzi             82.25 249  P      P        22 56 12.1 +1.0
GRTLG                                IAmb   IAmb     22 56 13.3
         comp=Z,7.3nm,1.0s
QSPA   South Pole Qui     84.42 180  P      P        22 56 21.7 +0.5
         comp=Z,3.6nm,0.7s,baz=278,slow=2.3,SNR=5.7
         comp=Z,3.6nm,0.7s
QSPA   South Pole Qui     84.42 180  P      P        22 56 21.6 +0.4
QSPA                                 IAmb   IAmb     22 56 22.6
         comp=Z,7.0nm,1.0s
AKASG  Malin Array Be     85.36 322  P      P        22 56 26.1 +0.1
         comp=Z,0.1nm,0.3s,baz=85,slow=0.9,SNR=1.7
AKASG                                pP     pP       22 56 52.2 -1.7
         comp=Z,0.3nm,0.3s,baz=88,slow=4.7,SNR=3.0
         comp=Z,0.1nm,0.3s
TROLL  Troll, Antarti     88.59 198  P      P        22 56 44.0 +2.6
TROLL  Troll, Antarti     88.59 198 ⇓P      P        22 56 44.0 +2.6
         comp=Z,86nm,0.8s
FINES  FINESS Array B     89.59 332  P      P        22 56 46.5 +0.5
         comp=Z,2.9nm,1.1s,baz=90,slow=3.3,SNR=5.2
         comp=Z,2.9nm,1.1s
SNAA   Sanae              90.30 198  P      P        22 56 51.6 +2.2
         comp=Z,4.2nm,1.0s,baz=92,slow=8.4,SNR=5.6
         comp=Z,4.2nm,1.0s
VNA1   Neumayer--Stat     92.32 198  P      P        22 57 00.8 +2.2
VNA1   Neumayer--Stat     92.32 198 ⇑P      P        22 57 00.8 +2.2
         comp=Z,5.3nm,1.1s
VNA3   Neumayer Olymp     92.49 197  P      P        22 57 00.9 +1.5
VNA3   Neumayer Olymp     92.49 197 ⇑P      P        22 57 00.9 +1.5
         comp=Z,1.1nm,0.8s
PDAR   Pinedale Array    131.96  34  SKPbc  SKPbc    23 06 16.4 -2.4
         comp=Z,0.9nm,0.8s,baz=64,slow=6.8,SNR=6.9
ULM    Lac du Bonnet     132.12  18  SKPbc  SKPbc    23 06 16.7 -2.1
         comp=Z,1.1nm,0.4s,baz=329,slow=5.9,SNR=5.5
CPUP   Villa Florida     143.98 208  PKP    PKPdf    23 03 23.8 -0.7
         comp=Z,4.0nm,0.7s,baz=130,slow=2.7,SNR=12
CPUP   Villa Florida     143.98 208         PKPdf    23 03 23.6 -0.9
TXAR   Lajitas Array     144.03  46  PKP    PKPdf    23 03 24.1 -0.5
         comp=Z,2.0nm,0.6s,baz=269,slow=1.3,SNR=21
TXAR                                 SKPbc  SKPbc    23 06 52.4 -1.5
         comp=Z,0.6nm,0.7s,baz=249,slow=0.7,SNR=4.9
TXAR   Lajitas Array     144.03  46         PKPdf    23 03 23.9 -0.8
U38A   Gravette          144.48  27  PKPdf  PKPbc    23 03 23.8 -0.1
BDFB   Brasilia          146.00 231  PKPbc  PKPab    23 03 29.8 -0.1
         comp=Z,5.2nm,0.5s,baz=109,slow=3.2,SNR=8.7
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*NEIC **05** 22:55:21.3±1.9, 25.°3S±0.°1×13.°7W±0.°1, h10^{km}±1^{km}, mb4.5/11, Error ellipse: s-maj=24.4km s-min=13.7km az=323.0*

*IDC **05** 22:55:23.4±0.8, 25.°48S×14.°07W, h0^{km}, mb3.9/11, mbtmp3.9/11, MS3.9/46, Error ellipse: s-maj=32.0km s-min=19.8km az=119.0*

*GCMT **05** 22:55:27.3±0.2, 25.°72S±0.°01×13.°69W±0.°01, h17^{km}±1^{km}, MW4.9/114, Moment Tensor Solution. s36,c45; s114,c165; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.62±.09; $M_{\theta\theta}$-0.92±.07; $M_{\phi\phi}$1.54±.08; $M_{r\theta}$-1.73±.24; $M_{\theta\phi}$2.00±.06; $M_{\phi r}$-0.23±.17; Best double couple: $M_0$2.97400×10^{16} NP1:ϕ_s168.00000°, δ53.00000°, λ-168.00000°. NP2:ϕ_s70.00000°, δ80.00000°, λ-38.00000°. Principal axes: T 2.9970, Plg18.0000°, Azm124.0000°; N -0.0450, Plg51.0000°, Azm238.0000°; P -2.9520, Plg33.0000°, Azm22.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 05 22:55:21.8±0.6**, 25.°4S**±0.°1×**13.°7W**±0.°1**, h10**^{km}**, n76,** σ**1ˢ.95**/19**, mb4.3**/23**, MS4.0**/47**, Southern Mid-Atlantic Ridge**

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Code   Station Name        Δ°   AZ°   Phase ID          Time     Res
                                      Op     ISC       h  m  s   ISC
H10S2  ASCENSION HYDR     16.35 357  T      T        23 16 18.1
         baz=177,slow=74,SNR=110
H10S3  ASCENSION HYDR     16.36 357  T      T        23 16 18.7
         baz=43,slow=74,SNR=113
H10N1  ASCENSION HYDR     17.45 357  T      T        23 17 44.4
         baz=181,slow=76,SNR=10
H10N3  ASCENSION HYDR     17.45 357  T      T        23 17 43.7
         baz=181,slow=76,SNR=28
H10N2  ASCENSION HYDR     17.46 357  T      T        23 17 46.8
         baz=181,slow=76,SNR=8.4
TSUM   Tsumeb             29.56  84  LR     LR       23 10 53.0
         comp=Z,96nm,20.9s,baz=232,slow=31
SUR    Sutherland         30.93 111  LR     LR       23 11 08.5
         comp=Z,450nm,19.1s,baz=264,slow=30
GRTLG  Ghanzi             32.25  90  P      P        23 01 50.1 -0.7
GRTLG                                IAmb   IAmb     23 02 01.0
         comp=Z,6.0nm,1.2s
DBIC   Dimbokro           33.00  16  LR     LR       23 12 30.6
         comp=Z,237nm,19.0s,baz=190,slow=31
BDFB   Brasilia           33.47 280  P      P        23 02 02.6 +1.1
         comp=Z,2.4nm,0.6s,baz=96,slow=3.3,SNR=3.5
BDFB                                 LR     LR       23 13 57.1
         comp=Z,348nm,19.1s,baz=116,slow=34
         comp=Z,2.4nm,0.6s
BDFB   Brasilia           33.47 280  P      P        23 01 59.6 -1.9
BDFB                                 IAmb   IAmb     23 02 09.3
         comp=Z,12nm,1.4s
BOSA   Boshof             34.77 104  LR     LR       23 14 28.1
         comp=Z,250nm,18.1s,baz=264,slow=33
LBTB   Lobatse            35.48  98  LR     LR       23 14 47.5
         comp=Z,234nm,18.7s,baz=254,slow=32
LBTB   Lobatse            35.48  98  P      P        23 02 17.2 -1.7
LBTB                                 IAmb   IAmb     23 02 41.3
         comp=Z,7.2nm,1.1s
MATP   Matopo             39.08  92  LR     LR       23 17 24.1
         comp=Z,158nm,18.3s,baz=261,slow=34
CPUP   Villa Florida      39.13 259  LR     LR       23 16 41.8
         comp=Z,81nm,19.6s,baz=77,slow=33
LSZ    Lusaka             40.41  84  LR     LR       23 17 34.5
         comp=Z,185nm,21.8s,baz=258,slow=33
TORD   Torodi Ar. Bea     41.13  23  P      P        23 03 10.0 +3.8
         comp=Z,1.5nm,0.9s,baz=197,slow=9.0,SNR=4.8
         comp=Z,1.5nm,0.9s
PTLB   Pontes e Lacer     43.52 274  P      P        23 03 23.0 -2.9
PTLB                                 IAmb   IAmb     23 03 31.4
         comp=Z,11nm,1.4s
SIV    San Ignacio        45.09 272  LR     LR       23 21 11.6
         comp=Z,255nm,18.5s,baz=120,slow=35
VILB   Vilhena            45.40 277  P      P        23 03 39.2 -1.8
SNAA   Sanae              46.74 175  LR     LR       23 18 48.4
         comp=Z,55nm,19.8s,baz=39,slow=30
MDP    Montagnes des      48.45 303  LR     LR       23 23 48.1
         comp=Z,128nm,18.5s,baz=176,slow=35
PLCA   Paso Flores        49.23 237  P      P        23 04 11.2 +0.6
         comp=Z,0.7nm,0.4s,baz=69,slow=1.3,SNR=3.5
PLCA                                 LR     LR       23 21 42.9
         comp=Z,94nm,20.6s,baz=94,slow=32
         comp=Z,0.7nm,0.4s
PMSA   Palmer Station     50.77 205  LR     LR       23 21 08.2
         comp=Z,183nm,20.3s,baz=68,slow=31
LPAZ   La Paz             51.37 269  P      P        23 04 27.9 +0.2
         comp=Z,0.8nm,0.6s,baz=85,slow=7.5,SNR=4.0
LPAZ                                 LR     LR       23 24 37.3
         comp=Z,152nm,20.9s,baz=108,slow=34
         comp=Z,0.8nm,0.6s
LPAZ   La Paz             51.37 269  P      P        23 04 26.5 -1.2
BOAV   Boa Vista          53.06 294  P      P        23 04 39.2 -0.4
BOAV                                 IAmb   IAmb     23 04 44.8
         comp=Z,4.8nm,1.0s
BELA   Belgrano 2         53.47 185  P      P        23 04 41.7  0.0
BELA                                 IAmb   IAmb     23 04 52.9
         comp=Z,3.5nm,1.0s
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MDT	Midelt	58.51	9	LR	LR	23 28 02.3	
	comp=Z,149nm,19.9s,baz=194,slow=33						
NNA	Nana	60.79	270	LR	LR	23 31 54.2	
	comp=Z,133nm,18.2s,baz=137,slow=36						
MAW	Mawson	61.70	155	LR	LR	23 25 44.2	
	comp=Z,82nm,21.5s,baz=276,slow=30						
MAW	Mawson	61.70	155	P	P	23 05 37.0	-2.7
ATAH	Atahualpa	64.12	274	LR	LR	23 33 55.7	
	comp=Z,180nm,18.6s,baz=151,slow=36						
KEST	Kesra	64.57	21	LR	LR	23 31 34.1	
	comp=Z,128nm,21.2s,baz=254,slow=34						
QSPA	South Pole Qui	64.84	180	P	P	23 06 03.2	+2.4
	comp=Z,3.4nm,0.9s,baz=223,slow=3.7,SNR=8.3						
	comp=Z,3.4nm,0.9s						
QSPA	South Pole Qui	64.84	180	P	P	23 06 00.4	-0.4
QSPA				IAmb	IAmb	23 06 13.5	
	comp=Z,5.5nm,0.9s						
SDV	Santo Domingo	65.01	294	LR	LR	23 32 04.0	
	comp=Z,430nm,21.6s,baz=96,slow=34						
ESDC	Sonseca Array	65.35	8	LR	LR	23 32 31.9	
	comp=Z,49nm,18.7s,baz=170,slow=34						
ROSC	El Rosal	66.00	288	LR	LR	23 34 07.0	
	comp=Z,400nm,19.2s,baz=122,slow=35						
VAE	Valguarnera	67.88	24	LR	LR	23 32 38.6	
	comp=Z,102nm,21.6s,baz=146,slow=33						
TIP	Timpagrande	70.25	25	P	P	23 06 34.4	-0.8
EIL	Elat	71.93	43	LR	LR	23 36 11.7	
	comp=Z,73nm,19.6s,baz=266,slow=34						
MMAI	Mount Meron Ar	74.55	41	LR	LR	23 37 59.4	
	comp=Z,33nm,18.8s,baz=204,slow=34						
ASF	Jabal al Asfar	74.87	43	LR	LR	23 38 04.9	
	comp=Z,47nm,19.8s,baz=206,slow=34						
DAVOX	Davos/Dischmat	74.92	17	P	P	23 07 08.6	+5.7
	comp=Z,0.8nm,0.7s,baz=234,slow=15,SNR=2.1						
DAVOX				LR	LR	23 39 32.4	
	comp=Z,131nm,18.3s,baz=258,slow=35						
	comp=Z,0.8nm,0.7s						
DAVA	Damuels	75.39	16	iP	P	23 07 21.4	+16
	comp=Z,5.0nm,1.1s						
MYKA	Terra Mystica	75.82	19	iP	P	23 07 23.1	+15
	comp=Z,4.2nm,1.2s						
WATA	Walderalm	75.88	17	iP	P	23 07 23.1	+15
	comp=Z,2.6nm,1.2s						
OBKA	Obir	75.99	20	iP	P	23 07 23.6	+15
	comp=Z,3.6nm,1.3s						
LESA	Schwarzleotal	76.27	18	iP	P	23 07 25.0	+14
	comp=Z,3.1nm,1.2s						
SOKA	Soboth	76.29	20	iP	P	23 07 24.6	+14
	comp=Z,2.5nm,0.9s						
BIOA	Bad Ischl, Aus	76.78	19	iP	P	23 07 27.2	+14
	comp=Z,3.5nm,1.1s						
ARSA	Arzberg	76.95	20	eP	P	23 07 28.5	+14
	comp=Z,3.4nm,1.0s						
VNDA	Vanda	77.30	179	P	P	23 07 19.2	+3.2
	comp=Z,0.9nm,1.0s,baz=180,slow=2.5,SNR=4.7						
VNDA				LR	LR	23 36 19.6	
	comp=Z,104nm,21.8s,baz=176,slow=32						
	comp=Z,0.9nm,1.0s						
JTS	Las Juntas de	77.84	288	LR	LR	23 41 18.4	
	comp=Z,111nm,19.4s,baz=133,slow=36						
GERES	GERESS Array B	77.84	18	P	P	23 07 24.1	+4.7
	comp=Z,0.3nm,0.3s,baz=201,slow=5.2,SNR=2.7						
	comp=Z,0.3nm,0.3s						
BRTR	Keskin Array B	78.38	35	LR	LR	23 41 01.2	
	comp=Z,22nm,20.4s,baz=242,slow=35						
MLR	Muntele Rosu	79.22	27	P	P	23 07 32.3	+5.2
	comp=Z,1.4nm,0.8s,baz=292,slow=19,SNR=1.6						
MLR				LR	LR	23 41 54.1	
	comp=Z,26nm,21.8s,baz=226,slow=35						
	comp=Z,1.4nm,0.8s						
CLL	Collm	79.89	17	L	L	23 33 00.0	
CLL				AMS	AMS	23 42 00.0	
	comp=Z,100nm,17.3s						
EKA	Eskdalemuir Ar	80.89	6	P	P	23 07 39.1	+3.4
	comp=Z,2.7nm,1.1s,baz=197,slow=2.2,SNR=2.1						
EKA				LR	LR	23 43 26.7	
	comp=Z,33nm,18.2s,baz=194,slow=36						
	comp=Z,2.7nm,1.1s						
AKASG	Malin Array Be	84.71	26	P	P	23 08 00.5	+4.8
	comp=Z,0.1nm,0.3s,baz=219,slow=5.7,SNR=1.3						
AKASG				LR	LR	23 46 23.4	
	comp=Z,59nm,19.5s,baz=202,slow=36						
	comp=Z,0.1nm,0.3s						
APG	El Apazote	84.80	289	LR	LR	23 45 26.9	
	comp=Z,9.2nm,20.4s,baz=344,slow=36						
GNI	Garni	84.89	41	LR	LR	23 46 08.5	
	comp=Z,27nm,18.9s,baz=240,slow=36						
NOA	NORSAR Array B	88.45	12	LR	LR	23 47 49.8	
	comp=Z,17nm,19.1s,baz=200,slow=36						
CMIG	Matias Romero	89.53	289	LR	LR	23 48 53.9	
	comp=Z,80nm,19.9s,baz=114,slow=36						
TKL	Tuckaleechee C	89.78	310	LR	LR	23 41 47.4	
	comp=Z,32nm,20.8s,baz=230,slow=31						
BORG	Borgarnes	90.02	357	LR	LR	23 41 29.8	
	comp=Z,34nm,20.3s,baz=179,slow=31						
SCHQ	Schefferville	91.92	332	LR	LR	23 42 34.8	
	comp=Z,110nm,20.0s,baz=114,slow=31						
FINES	FINESS Array B	92.28	18	LR	LR	23 50 28.1	
	comp=Z,48nm,18.3s,baz=233,slow=36						
SFJD	Kangerlussuaq	96.18	346	LR	LR	23 42 28.1	
	comp=Z,37nm,21.7s,baz=172,slow=29						
PALK	Pallekele	97.05	85	LR	LR	23 47 42.6	
	comp=Z,97nm,20.6s,baz=231,slow=32						
FRB	Frobisher Bay	98.63	338	LR	LR	23 49 40.3	
	comp=Z,34nm,18.4s,baz=158,slow=33						
ARCES	ARCESS Array B	98.77	13	LR	LR	23 53 57.9	
	comp=Z,50nm,18.2s,baz=200,slow=36						
ILAR	Eielson Array	130.57	336	PKP	PKiKP	23 14 34.3	+1.2
	comp=Z,0.2nm,0.8s,baz=45,slow=1.5,SNR=1.8						
KSRS	Korea Array	145.34	60	PKPbc	PKiKP	23 15 02.8	-1.2
	comp=Z,1.0nm,0.8s,baz=298,slow=1.6,SNR=2.4						

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*SJA **05** 23:01:56.0±0.8, 27°.34S×71°.47W, h13^{km}±3^{km}, ML3.6, MW3.6*

*GUC **05** 23:02:00.2±0.8, 27°.37S×71°.36W, h15^{km}±6^{km}, ML3.4*

ISC 05 23:01:55.5±1.4**, 27°.36S**±0°.02×**71°.43W**±0°.05**, h9**^{km}±10^{km}**, n28, σ2^{s}.30**/48**, 1C, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.90	159	eP	Pn	23 02 14.3	0.0
AC04				eS	Sn	23 02 27.2	-0.3
AC04				IAML		23 02 29.1	
	comp=Z,879nm,0.7s						
AC04	Llanos de Chal	0.90	159	eP	Pn	23 02 14.4	0.0
AC04				eS	Sg	23 02 25.2	+0.7
AC04				IAML		23 02 28.4	
	comp=E,2µm,0.3s						
AC06	Mina Casimiro	0.96	90	eP	Pn	23 02 14.8	-0.5
AC06				eS	Sg	23 02 26.1	-0.3
AC06				IAML		23 02 28.8	
	comp=N,2µm,0.3s						
GO03	Copiapo	1.09	102	eP	Pn	23 02 17.3	+0.3
GO03				eS	Sn	23 02 31.6	-0.8
GO03				IAML		23 02 33.7	
	comp=Z,764nm,0.5s						
GO03	Copiapo	1.09	102	iP	Pn	23 02 17.1	0.0
GO03				eS	Sg	23 02 29.7	-0.9
GO03				IAML		23 02 32.3	
	comp=N,2µm,0.1s						
AC01	Pan de Azucar	1.42	32	eP	Pg	23 02 22.7	-0.1
AC01				eS	Pg	23 02 22.7	-0.1
AC01				eS	Pg	23 02 22.8	-0.1
AC01	Pan de Azucar	1.42	32	iP	Pg	23 02 22.6	-0.1
AC01				eS	Sb	23 02 39.8	-0.7
AC01				IAML		23 02 49.6	
	comp=N,637nm,0.3s						
LCO	Las Campanas	1.76	159	eP	Pb	23 02 28.8	+0.5
LCO				eS	Sn	23 02 44.6	-4.7
LCO				IAML		23 02 59.9	
	comp=Z,973nm,0.5s						
LCO	Las Campanas	1.76	159	eP	Pb	23 02 28.7	+0.5
LCO				eS	Sn	23 02 49.5	+0.2
LCO				IAML		23 02 58.6	
	comp=Z,5µm,0.3s						
AC05	El Transito	1.79	145	eP	Pb	23 02 29.3	+0.7
AC05				eS	Sg	23 02 53.9	+0.8
AC05				IAML		23 02 58.5	
	comp=Z,514nm,0.8s						
AC05	El Transito	1.79	145	⇑iP	Pb	23 02 29.3	+0.7
AC05				IAML		23 03 00.6	
	comp=N,512nm,0.7s						
AC02	Maricunga	2.12	76	eP	Pb	23 02 34.9	+0.4
AC02				eS	Sg	23 03 03.7	0.0
AC02				IAML		23 03 05.5	
	comp=Z,543nm,0.9s						
AC02	Maricunga	2.12	76	eP	Pb	23 02 34.8	+0.4
AC02				IAML		23 03 06.6	
	comp=N,1µm,0.6s						
GO04	Tololo Observa	2.85	169	eP	Pn	23 02 44.0	+2.5
GO04				eS	Sb	23 03 21.1	-0.9
GO04				IAML		23 03 35.1	
	comp=Z,197nm,0.3s						
GO04	Tololo Observa	2.85	169	eP	Pn	23 02 43.8	+2.3
CO01	Juntas del Tor	2.86	156	eP	Pb	23 02 44.8	-2.1
CO01				IAML		23 03 27.8	
	comp=N,179nm,0.4s						
PB14	IPOC Station P	2.88	19	eP	Pn	23 02 42.9	+1.0
PB14				eS	Sg	23 03 29.6	+1.5
PB14				IAML		23 03 36.5	
	comp=Z,230nm,0.6s						
PB14	IPOC Station P	2.88	19	IAML		23 03 35.7	
	comp=E,130nm,0.6s						
VCA	Vinchina	3.16	116	eP	Pn	23 02 46.6	+0.9
VCA				eS	Sn	23 03 18.9	-4.8
VCA				IAML		23 03 46.3	
	comp=Z,130nm,0.6s						
AROD	Rodeo	3.28	149	eP	Pb	23 02 53.0	-1.2
AROD				eS	Sb	23 03 34.6	+0.3
CO06	Fray Jorge	3.30	183	eP	Pn	23 02 48.1	+0.6
CO06				IAML		23 03 56.7	
	comp=E,84nm,0.3s						
TINO	Tinogasta	3.50	102	eP	Pb	23 02 55.3	-2.4
TINO				eS	Sg	23 03 47.3	-0.6
TINO				IAML		23 03 48.8	
	comp=Z,52nm,0.4s						
CO02	Combarbal	3.84	174	eP	Pn	23 02 56.5	+1.5
PB05	IPOC Station P	4.63	14	eP	Pn	23 03 06.2	+0.4
PB05				eS	Sn	23 03 57.5	-2.3
PB05				IAML		23 04 40.3	
	comp=Z,46nm,0.8s						
RTLS	Leoncito	4.79	158	eP	Pn	23 03 13.9	+5.6
RTLS				eS	Sb	23 04 11.6	-6.3
RTLS				IAML		23 04 33.3	
	comp=Z,165nm,0.8s						
PB06	IPOC Station P	4.94	20	eP	Pn	23 03 11.2	+1.1
PB06				eS	Sn	23 04 07.5	+0.1
PB06				IAML		23 04 45.2	
	comp=Z,100nm,0.8s						
CFA	Coronel Fontan	5.06	147	eP	Pn	23 03 16.3	+4.7
CFA				eS	Sn	23 04 15.1	+4.7
CFA				IAML		23 04 33.6	
	comp=Z,22nm,0.4s						
CYA	Choya	5.10	103	eP	Pn	23 03 16.7	+4.5
CYA				eS	Sn	23 04 17.6	+6.3
CYA				IAML		23 04 42.0	
	comp=Z,16nm,0.8s						

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*IDC **05** 23:06:17.4±0.9, 12°.51S×166°.24E, h0^{km}, mb4.0/8, mbtmp4.0/10, ML4.1/2, MS3.3/8, Error ellipse: s-maj=26.3km s-min=16.6km az=84.0*

*NEIC **05** 23:06:20.3±1.1, 12°.51S±0°.10×166°.4E±0°.1, h17^{km}±5^{km}, mb4.5/9, Error ellipse: s-maj=22.8km s-min=6.9km az=56.0*

*NOU **05** 23:06:25.0, 12°.86S×165°.88E, h50^{km}, MLv4.8/8, Santa Cruz Islands*

ISC 05 23:06:23.0±0.7**, 12°.61S**±0°.07×**166°.2E**±0°.1**, h40**^{km}**, n40, σ1^{s}.01**/38**, mb4.1**/12**, MS3.3**/6**, Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SANVU	Saraoutou	2.99	161	P	Pn	23 07 09.7	+1.8
SANVU	Saraoutou	2.99	161		Pn	23 07 07.6	-0.3
SANVU				Sn	Sn	23 07 40.5	-2.0
HURO	Huro Makira	4.72	296	P	Pn	23 07 30.7	-1.0
NGOA	Tingoa Renbel	6.10	279	P	Pn	23 07 47.9	-2.7
HNR	Honiara	6.91	297	Pn	Pn	23 08 02.0	+0.2
	21nm,0.3s,baz=263,slow=1.4,SNR=4.6						
HNR				LR	LR	23 10 51.7	
	comp=Z,101nm,21.0s,baz=179,slow=40						
	88nm,0.5s						
HNR				AML	AML		
HNR	Honiara	6.91	297	P	Pn	23 08 02.7	+0.9
HNR	Honiara	6.91	297		Pn	23 08 01.7	0.0
SAVO	Savo Central	7.16	298	P	Pn	23 08 05.7	+0.5
TATA	Tatamba Isabel	7.56	303	P	Pn	23 08 11.2	+0.4
TATA	Tatamba Isabel	7.56	303	S	Sn	23 09 34.6	-0.7
KOUNC	Koumac, New Ca	8.11	193	Pn	Pn	23 08 18.7	+0.4
DZM	Mont Dzumac	9.42	179	Pn	Pn	23 08 36.2	-0.1
	0.4nm,0.3s,baz=328,slow=24,SNR=1.8						
DZM				Sn	Sn	23 10 19.4	-1.5
	baz=313,slow=19						
DZM				LR	LR	23 11 51.0	
	comp=Z,94nm,18.9s,baz=48,slow=35						
	9.2nm,1.0s						
DZM				AML	AML		
EIDS	Eidsvold	19.10	226	P	P	23 10 42.5	0.0
CTA	Charters Tower	20.52	246	LR	LR	23 17 41.8	
	comp=Z,71nm,18.6s,baz=22,slow=33						
AFI	Afiamalu	21.47	96	LR	LR	23 18 06.5	
	comp=Z,67nm,18.9s,baz=270,slow=33						
STKA	Stephens Creek	29.65	226	P	P	23 12 26.7	+1.8
	2.7nm,0.8s,baz=40,slow=7.9,SNR=4.4						
STKA				LR	LR	23 22 40.9	
	comp=Z,71nm,20.3s,baz=23,slow=33						
	2.7nm,0.8s						
WRA	Warramunga Arr	31.41	252	P	P	23 12 39.4	-1.2
	0.7nm,0.7s,baz=70,slow=5.4,SNR=1.4						
	0.7nm,0.7s						
ASAR	Alice Springs	32.53	246	P	P	23 12 49.8	-0.6
	1.3nm,0.9s,baz=75,slow=9.0,SNR=9.8						
ASAR				LR	LR	23 25 42.8	
	comp=Z,64nm,18.8s,baz=100,slow=36						
	1.3nm,0.9s						
WHZ	Wether Hill Ro	33.21	178	P	P	23 12 56.6	+0.6
WHZ				IAmb	IAmb	23 13 05.8	
	comp=Z,10nm,0.9s						
BBOO	Buckleboo	34.12	229	P	P	23 13 04.5	+0.4
BBOO				IAmb	IAmb	23 13 09.2	
	comp=Z,10nm,1.1s						
KNRA	Kununurra	36.41	261	P	P	23 13 25.5	+1.5
KNRA				IAmb	IAmb	23 13 38.0	
	comp=Z,4.7nm,1.1s						
FITZ	Fitzroy Crossi	39.44	257	P	P	23 13 49.3	-0.3
TNTI	Ternate	40.76	286	P	P	23 14 00.2	-0.4
JTM	Tenmabayashi	58.00	338	P	P	23 16 11.3	-0.4
JKA	Kamikawa-asahi	60.41	341	P	P	23 16 27.6	-0.7
JKA				IAmb	IAmb	23 16 34.8	
	comp=Z,4.3nm,0.6s						
QSPA	South Pole Qui	77.41	180	P	P	23 18 14.9	+1.1
	comp=Z,1.7nm,0.8s,baz=22,slow=5.6,SNR=12						
	comp=Z,1.7nm,0.8s						
QSPA	South Pole Qui	77.41	180	P	P	23 18 14.9	+1.1
QSPA				IAmb	IAmb	23 18 32.4	
	comp=Z,3.0nm,1.1s						
SONM	Songino Array	80.18	324	P	P	23 18 28.8	-0.5
	comp=Z,0.3nm,0.4s,baz=122,slow=5.4,SNR=1.9						
	comp=Z,0.3nm,0.4s						
ILAR	Eielson Array	84.84	18	P	P	23 18 52.5	-0.6
	comp=Z,0.4nm,0.7s,baz=213,slow=4.7,SNR=6.9						
	comp=Z,0.4nm,0.7s						
PDAR	Pinedale Array	94.27	47	LR	LR	23 53 29.6	
	comp=Z,17nm,19.5s,baz=85,slow=30						
MKAR	Makanchi Array	94.96	317	P	P	23 19 42.2	+0.9
	comp=Z,0.6nm,0.8s,baz=99,slow=7.5,SNR=4.0						
	comp=Z,0.6nm,0.8s						
MKAR	Makanchi Array	94.96	317	P	P	23 19 41.2	-0.1
ZALV	Zalesovo Beam	95.08	324	P	P	23 19 40.5	-1.1
	comp=Z,0.3nm,0.4s,baz=96,slow=7.2,SNR=1.9						
	comp=Z,0.3nm,0.4s						
ZALV	Zalesovo Beam	95.08	324	P	P	23 19 41.1	-0.5
YKA	Yellowknife Ar	96.14	27	LR	LR	23 58 46.1	
	comp=Z,47nm,18.1s,baz=48,slow=33						
ARCES	ARCESS Array B	117.95	345	PKP	PKiKP	23 25 05.4	+0.5
	comp=Z,3.3nm,1.0s,baz=47,slow=5.4,SNR=7.1						
ARCES	ARCESS Array B	117.95	345		PKiKP	23 25 05.5	+0.7
FINES	FINESS Array B	123.38	338	PKP	PKiKP	23 25 15.9	+0.3
	comp=Z,3.8nm,1.1s,baz=44,slow=2.1,SNR=5.2						
GERES	GERESS Array B	137.29	333	PKP	PKiKP	23 25 44.2	0.0
	comp=Z,0.1nm,0.3s,baz=47,slow=4.5,SNR=3.3						
ESDC	Sonseca Array	151.67	344	PKPbc	PKiKP	23 26 14.9	+0.9
	comp=Z,0.9nm,0.9s,baz=63,slow=0.7,SNR=5.4						

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*SOF **05** 23:24:29.7, 38°.62N±0°.05×21°.18E±0°.05, h10^{km}±2^{km}, MD3.8/7*

*IDC **05** 23:24:29.4±0.7, 38°.85N×21°.14E, h0^{km}, mb3.8/10, mbtmp3.8/18, ML3.5/6, MS3.3/1, Error ellipse: s-maj=12.2km s-min=10.6km az=31.0*

*ATH **05** 23:24:30.7, 38°.83N×21°.10E, h19^{km}±1^{km}, ML3.7/31, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*

*NEIC **05** 23:24:31.4±2.7, 38°.87N±0°.04×21°.00E±0°.02, h10^{km}±1^{km}, mb4.3/9, Error ellipse: s-maj=6.2km s-min=3.1km az=188.0*

*THE **05** 23:24:31.4, 38°.8N±0°.5×21°.1E±0°.5, h12^{km}±1^{km}, M3.6/29, MLh3.6/29*

*GFZ **05** 23:24:31.7±0.3, 39°N±3°×2°1E±°, h10^{km}, M4.2/7, mb4.2/7*

*PDG **05** 23:24:33.6±0.5, 38°.92N×21°.00E, h36^{km}±4^{km}, ML3.7/12, Error ellipse: s-maj=1.2km s-min=1.2km az=90.0*

ISC 05 23:24:31.2±0.6**, 38°.84N**±0°.01×**21°.10E**±0°.01**, h18**^{km}±1^{km}**, n264, σ1^{s}.52**/341**, mb3.9**/13**, 15C-10D, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AMPL	Ampelaki	0.12	45	P	Pb	23 24 34.2	+0.8
AMPL				S	Sb	23 24 36.7	+2.0
AMPL				AML	AML		
PDO	Prodromos	0.24	165	P	Pg	23 24 36.6	-0.3
PDO				S	Sg	23 24 41.1	+0.3
PDO				AML	AML		
PDO	Prodromos	0.24	165	P	Pg	23 24 36.4	-0.5
PDO				S	Sg	23 24 40.8	+0.1
PDO				AML	AML		
AST1	Astakos	0.29	182	P	Pg	23 24 37.4	-0.3
AST1				S	Sg	23 24 42.7	+0.7
ART2	Arta	0.32	345	P	Pg	23 24 37.8	-0.3
ART2				S	Sb	23 24 43.4	+0.1
ARTB	Arta	0.34	343	P	Pg	23 24 38.1	-0.3
ARTB				S	Sb	23 24 43.9	+0.2
NYDR	Nydri-Lefkada	0.34	249	P	Pg	23 24 38.2	-0.1
NYDR				S	Sb	23 24 44.6	+0.9
NYDR				AML	AML		
NYDR	Nydri-Lefkada	0.34	249	P	Pg	23 24 37.9	-0.5
NYDR				S	Sb	23 24 44.3	+0.6
TSLK	Tsoukalades, L	0.35	268	P	Pg	23 24 38.8	+0.2
TSLK				S	Sb	23 24 45.0	+0.9
TSLK				AML	AML		
TSLK	Tsoukalades, L	0.35	268	P	Pg	23 24 38.6	+0.1
TSLK				S	Sg	23 24 44.1	+0.5
TSLK				AML	AML		
LKD2	Lefkada island	0.35	263	P	Pg	23 24 38.8	+0.2
LKD2				S	Sb	23 24 45.2	+1.0
LKD2				AML	AML		
LKD2	Lefkada island	0.35	263	P	Pg	23 24 38.7	0.0
LKD2				S	Sg	23 24 43.6	0.0
LKD2				AML	AML		
LKD2	Lefkada island	0.35	263	P	Pg	23 24 38.8	+0.2
PVO	Paravola	0.40	123	P	Pg	23 24 39.2	-0.2
PVO				S	Sg	23 24 44.3	-0.7
PVO				AML	AML		
PVO	Paravola	0.40	123	P	Pg	23 24 39.0	-0.4
PVO				S	Sg	23 24 45.2	+0.2
EVGI	Lefkada island	0.41	239	P	Pg	23 24 39.8	+0.2
EVGI				S	Sb	23 24 47.0	+1.2
EVGI				AML	AML		
EVGI	Lefkada island	0.41	239	P	Pg	23 24 39.4	-0.2
EVGI				S	Sb	23 24 46.4	+0.5
DRAG	Dragano-Lefkad	0.44	250	P	Pg	23 24 39.7	-0.4
DRAG				S	Sg	23 24 45.9	-0.3
PLEV	Plevrona-Mesol	0.48	150	P	Pg	23 24 40.7	-0.3
PLEV				S	Sg	23 24 47.9	+0.3
PLEV				AML	AML		
PLEV	Plevrona-Mesol	0.48	150	P	Pg	23 24 40.6	-0.4
PLEV				S	Sg	23 24 48.5	+0.8
PLEV				AML	AML		
TETR	Tetrakomo, Epi	0.53	15	P	Pg	23 24 41.2	-0.6
TETR				S	Sb	23 24 49.7	+0.5
TETR				AML	AML		
TETR	Tetrakomo, Epi	0.53	15	P	Pg	23 24 41.0	-0.9
TETR				S	Sb	23 24 49.9	+0.7
MSL1	Messolongi	0.53	151	P	Pg	23 24 41.6	-0.1
MSL1				S	Sg	23 24 49.4	+0.6
EVR	Evrytania	0.56	81	P	Pg	23 24 41.5	-0.9
EVR				S	Sg	23 24 50.0	0.0
EVR				AML	AML		
EVR	Evrytania	0.56	81	P	Pg	23 24 41.4	-1.0
EVR				S	Sg	23 24 50.0	0.0
EVR				AML	AML		
FSK	Fiskardo	0.56	229	P	Pg	23 24 42.1	-0.4
FSK				S	Sb	23 24 51.9	+1.8
FSK				AML	AML		
FSK	Fiskardo	0.56	229	P	Pg	23 24 41.8	-0.6
FSK				S	Sg	23 24 49.9	-0.2
VSK1	VASILIKIADES	0.60	225	P	Pg	23 24 42.6	-0.5
VSK1				S	Sb	23 24 52.5	+1.4
AGRP	Agrapidokambos	0.66	132	P	Pg	23 24 43.1	-1.0
AGRP				S	Sg	23 24 51.0	-1.9
AXS	Araxos	0.67	161	P	Pb	23 24 44.1	-0.2
AXS				S	Sb	23 24 54.1	+0.9
AXS				AML	AML		
AXS	Araxos	0.67	161	P	Pb	23 24 44.0	-0.3
AXS				S	Sb	23 24 53.3	+0.1
AXS				AML	AML		
ANX	Ano Chora	0.69	110	P	Pg	23 24 43.9	-0.8
ANX				S	Sb	23 24 54.4	+0.7
ANX				AML	AML		
ANX	Ano Chora	0.69	110	P	Pg	23 24 43.6	-1.1
ANX				S	Sg	23 24 53.9	0.0
VVK	Vomvokou	0.69	126	P	Pb	23 24 44.0	-0.7
VVK				S	Sg	23 24 53.6	-0.5
VVK				AML	AML		
PRMD	Pramanda	0.69	360	P	Pg	23 24 44.6	-0.3
PRMD				S	Sb	23 24 54.9	+0.9
PRMD				AML	AML		
PRMD	Pramanda	0.69	360	P	Pg	23 24 44.5	-0.4
PRMD				S	Sb	23 24 55.3	+1.4
PRMD				AML	AML		
PRGA	Parga	0.71	310	P	Pb	23 24 44.4	-0.5
PRGA				AML	AML		
EFP	Efpalio	0.75	123	P	Pb	23 24 45.1	-0.5
EFP				S	Sb	23 24 55.7	+0.2
EFP				AML	AML		
EFP	Efpalio	0.75	123	P	Pb	23 24 44.9	-0.8
EFP				S	Sb	23 24 55.5	0.0
EFP				AML	AML		
RIOA	Rio	0.76	135	P	Pb	23 24 46.0	+0.1
RIOA				AML	AML		
PATC	Patra C	0.77	137	P	Pb	23 24 46.5	+0.6
VLS	Valsamata	0.77	212	P	Pb	23 24 45.1	-0.9
VLS				S	Sb	23 24 56.8	+0.7
PATG	Patra B	0.77	140	P	Pb	23 24 46.6	+0.6
MG00	Magoula, Dorid	0.78	122	P	Pb	23 24 46.2	-0.1
RTZL	Ratzakli, Kefa	0.80	199	P	Pb	23 24 45.9	-0.6
RTZL				S	Sb	23 24 57.1	+0.2
RTZL				AML	AML		
RLS	Riolos of Patr	0.83	160	P	Pb	23 24 46.7	-0.3
RLS				S	Sg	23 24 59.3	+0.9
RLS				AML	AML		
RLS	Riolos of Patr	0.83	160	P	Pb	23 24 46.5	-0.5
RLS				S	Sb	23 24 58.5	+0.8
PYRG	Pyrgos, Dorida	0.83	120	P	Pb	23 24 46.1	-1.0
PYRG				S	Sb	23 24 58.4	+0.4
PYRG				AML	AML		
JAN	Janina	0.84	347	P	Pb	23 24 47.6	+0.2
JAN				S	Sg	23 24 59.5	+0.7
JAN				AML	AML		
JAN	Janina	0.84	347	P	Pb	23 24 47.5	+0.2
JAN				AML	AML		
SERG	Sergoula	0.86	119	P	Pb	23 24 47.0	-0.5
SERG				S	Sb	23 24 59.1	+0.4
SERG				AML	AML		
SERG	Sergoula	0.86	119	P	Pb	23 24 46.8	-0.8
LCHA	Lechaina	0.91	172	P	Pb	23 24 49.0	+0.7
LAKA	Lakka	0.91	131	P	Pb	23 24 48.3	-0.1
LAKA				S	Sg	23 25 01.7	+0.8
LAKA				AML	AML		
LAKA	Lakka	0.91	131	P	Pb	23 24 47.9	-0.6
LAKA				AML	AML		
IGT	Igoumenitsa	0.92	320	P	Pb	23 24 48.8	+0.3
IGT				S	Sn	23 25 02.0	+0.1
IGT				AML	AML		
IGT	Igoumenitsa	0.92	320	P	Pb	23 24 48.4	-0.2
SOFA	Sofades	0.92	57	P	Pn	23 24 49.5	+0.3
SOFA				AML	AML		
KALE	Kalithea	0.93	118	P	Pb	23 24 48.7	-0.1
KALE				S	Sb	23 25 01.5	+0.8
KALE				AML	AML		
KALE	Kalithea	0.93	118	P	Pb	23 24 47.6	-1.2

KALE				AML	AML		
MSVA	Metsovo	0.94	4	P	Pb	23 24 49.4	+0.4
MSVA				AML	AML		
CLEM	Kyllini,Ilia,G	0.94	178	P	Pb	23 24 48.6	-0.3
AGEO	AgiosGiorgios,	0.94	127	P	Pb	23 24 49.1	+0.1
AGG	Agios Georgios	0.98	79	P	Pb	23 24 49.7	+0.1
AGG				S	Sg	23 25 03.0	-0.1
AGG				AML	AML		
AGG	Agios Georgios	0.98	79	P	Pb	23 24 49.3	-0.3
AGG				AML	AML		
AGG	Agios Georgios	0.98	79	P	Pb	23 24 49.5	0.0
TEME	Temeni, Aigial	1.00	127	P	Pb	23 24 49.9	0.0
DRO	Drossia	1.00	151	P	Pb	23 24 49.6	-0.4
DRO				S	Sn	23 25 04.9	+0.9
DRO				AML	AML		
DRO	Drossia	1.00	151	P	Pb	23 24 49.1	-0.9
THL	Klokotos Trika	1.02	44	P	Pb	23 24 50.4	+0.1
THL				S	Sg	23 25 04.1	-0.2
THL				AML	AML		
THL	Klokotos Trika	1.02	44	P	Pb	23 24 50.1	-0.1
ORTH	Orthonies,Zaky	1.03	198	P	Pb	23 24 49.6	-0.9
ORTH				AML	AML		
KYPS	Kipseli, Zakin	1.04	192	P	Pb	23 24 50.2	-0.3
LAM2	Lamia	1.04	86	P	Pb	23 24 50.3	-0.3
KLV1	Kalavrita	1.13	135	P	Pn	23 24 51.1	-0.9
KLV1				AML	AML		
KPRO	Kipourio	1.14	10	P	Pb	23 24 52.8	+0.5
KPRO				AML	AML		
KLV	Kalavryta, Ach	1.14	133	P	Pn	23 24 51.6	-0.7
LTHK	Lithakia	1.14	191	P	Pn	23 24 51.4	-0.8
LTHK				AML	AML		
DLFA	Delphi	1.15	108	P	Pn	23 24 52.5	+0.2
DLFA				AML	AML		
KRK1	kERKIRA	1.21	311	P	Pb	23 24 54.2	+0.7
KRK1				AML	AML		
AXAR	Agios Charalam	1.22	93	P	Pn	23 24 53.8	+0.5
AXAR				S	Sb	23 25 09.1	0.0
AXAR				AML	AML		
AXAR	Agios Charalam	1.22	93	P	Pn	23 24 53.0	-0.3
AXAR				AML	AML		
TYRN	Tyrnavos	1.24	45	P	Pn	23 24 53.9	+0.3
GINA	Giannouli	1.30	50	P	Pn	23 24 54.8	+0.4
GINA				AML	AML		
GUR	Goura	1.32	132	P	Pn	23 24 54.7	-0.1
KEK	Kerkira	1.34	311		Pn	23 24 54.9	0.0
KEK				Sn	Sn	23 25 12.2	-0.1
KEK	Kerkira	1.34	311	P	Pn	23 24 54.8	-0.1
KEK	Kerkira	1.34	311	P	Pn	23 24 55.2	+0.3
SRN	Sarande	1.35	321	P	Pb	23 24 56.5	+0.6
AMT	Artemida-Makis	1.39	160	P	Pn	23 24 56.0	+0.4
THAL	Thalero	1.46	123	P	Pn	23 24 57.3	+0.7
THAL				S	Sn	23 25 16.2	+0.9
THAL				AML	AML		
THAL	Thalero	1.46	123	P	Pn	23 24 57.8	+1.1
LKR	Lokris	1.50	96	P	Pn	23 24 57.4	+0.3
LKR				S	Sn	23 25 16.6	+0.5
LKR				AML	AML		
LKR	Lokris	1.50	96	P	Pn	23 24 58.0	+1.0
ATAL	Atalanti	1.51	95	P	Pn	23 24 57.4	+0.1
ATAL				S	Sn	23 25 17.1	+0.7
ATAL				AML	AML		
ATAL	Atalanti	1.51	95	P	Pn	23 24 58.1	+0.8
KIAA	Kiato	1.53	122	P	Pn	23 24 57.6	0.0
LIT	Litokhoron	1.66	40	P	Pn	23 24 59.8	+0.4
LIT				S	Sn	23 25 20.9	+0.7
LIT	Litokhoron	1.66	40		Pb	23 25 01.3	+0.1
LIT				Sn	Sb	23 25 23.1	+1.3
LIT	Litokhoron	1.66	40	P	Pb	23 25 00.7	-0.5
LIT				AML	AML		
LIT	Litokhoron	1.66	40	P	Pb	23 25 00.9	-0.3
LTK	Loutraki	1.68	118	P	Pn	23 25 00.5	+0.9
LTK				S	Sn	23 25 21.7	+1.1
XOR	Xorichti	1.71	71	P	Pb	23 25 02.4	+0.3
ITM	Ithomi	1.78	158		Pb	23 25 03.0	-0.2
ITM				Sn	Sg	23 25 27.8	-0.7
ITM	Ithomi	1.78	158	P	Pb	23 25 02.9	-0.2
KBN	Korca	1.80	352	P	Pn	23 25 02.6	+1.2
VIL2	Platees	1.81	109	P	Pb	23 25 03.4	-0.4
VIL2				AML	AML		
VLO	Vlora	2.05	323	P	Pn	23 25 05.2	+0.5
PAIG	Paliouri	2.28	61	P	Pn	23 25 09.1	+1.3
OHR	Ohrid	2.29	354	*i* Pn	Pb	23 25 12.0	+0.1
THE	Thessaloniki	2.30	38	P	Pn	23 25 10.3	+2.2
HORT	Hortiatis	2.34	41	P	Pn	23 25 10.3	+1.5
GRG	Griva	2.34	25	P	Pb	23 25 11.2	-1.7
SOH	Sokhos	2.63	40	P	Pn	23 25 15.4	+2.6
KNT	Kendrikon	2.70	30	P	Pn	23 25 15.0	+1.3
VAY	Valandovo	2.73	24	*i* Pn	Pb	23 25 17.7	-1.7
PHP	Peshkopia	2.89	350	P	Pn	23 25 17.4	+1.1
SRS	Serrai	2.98	39	P	Pn	23 25 19.2	+1.8
PEHC	Pehcevo	3.25	24	*i* Pn	Pb	23 25 27.6	-0.7
KKB	Krupnik	3.38	27	P	Pn	23 25 26.5	+3.5
MMB	Musomishta	3.38	36	P	Pn	23 25 26.6	+3.5
TIP	Timpagrande	3.40	277		Pn	23 25 24.3	+0.9
TIP	Timpagrande	3.40	277	⇑P	Pn	23 25 24.9	+1.6
TIP	Timpagrande	3.40	277	P	Pn	23 25 23.8	+0.5
ULC	Ulcinj	3.43	336	*e*Pn	Pn	23 25 24.4	+0.7
ULC				*i* Sn	Sn	23 26 02.1	-1.8
ULC				AML	AML		
DRME	Dracevica, Mon	3.65	337	⇑*i*Pn	Pn	23 25 28.0	+1.3
DRME	Dracevica, Mon	3.65	337	*e*Pn	Pn	23 25 27.7	+1.0
DRME				*i* Sn	Sn	23 26 07.5	-1.8
DRME				AML	AML		
MATE	Matera	3.84	300	⇑P	Pn	23 25 30.3	+1.0
MATE	Matera	3.84	300	P	Pn	23 25 31.0	+1.7
BUM	Brajici-Budva	3.85	335	*e*Pn	Pn	23 25 30.0	+0.5
BUM				*e*Sn	Sn	23 26 12.4	-1.9
BUM				AML	AML		
PVY	Plav	3.85	347	*e*Pn	Pn	23 25 30.2	+0.6
PVY				*i* Sn	Sn	23 26 12.3	-2.2
PVY				AML	AML		
PDG	Podgorica	3.86	339		Pn	23 25 30.7	+1.2
PDG	Podgorica	3.86	339	⇓P	Pn	23 25 31.4	+1.9
PDG	Podgorica	3.86	339	⇑*i*Pn	Pn	23 25 31.0	+1.5
PDG	Podgorica	3.86	339	P	Pn	23 25 30.8	+1.2
PDG	Podgorica	3.86	339	*e*Pn	Pn	23 25 30.6	+1.1
PDG				*e*Sn	Sn	23 26 12.1	-2.2
PDG				AML	AML		
RZN	Rozhen	3.99	43	P	Pn	23 25 34.3	+2.8
PLNA	Plana	4.04	25	P	Pn	23 25 35.8	+3.6
CEME	Cevo	4.06	337	⇓*i*Pn	Pn	23 25 33.4	+1.0
CEME				*i* Sn	Sn	23 26 17.6	-1.9
CEME				AML	AML		
VTS	Vitosha	4.11	23	P	Pn	23 25 36.5	+3.3
HCY	Herceg Novi	4.12	332	*e*Pn	Pn	23 25 32.6	-0.5
HCY	Herceg Novi	4.12	332	*e*Pn	Pn	23 25 33.2	+0.1
HCY				*i* Sn	Sn	23 26 18.9	-1.9
HCY				AML	AML		
CEL	Celeste	4.12	264		Pn	23 25 34.2	+1.0
CEL	Celeste	4.12	264	P	Pn	23 25 33.8	+0.5
KOME	Kolasin	4.19	344	⇓*i*Pn	Pn	23 25 36.3	+2.1
KOME				*i* Sn	Sn	23 26 21.0	-1.7
KOME				AML	AML		
NKME	Niksic	4.25	338	*e*Pn	Pn	23 25 36.0	+1.0
NKME				*i* Sn	Sn	23 26 22.1	-2.1
NKME				AML	AML		
KDZ	Kurdzhali	4.28	48	P	Pn	23 25 38.4	+3.0
ALN	Alexandroupoli	4.33	60	Pn	Pn	23 25 37.5	+1.5
BLSH	Balsha	4.34	22	P	Pn	23 25 41.8	+5.5
MARCO	Tramutola	4.34	291	P	Pn	23 25 37.7	+1.4
TREB	Trebinje	4.40	333	⇑*i*Pn	Pn	23 25 37.4	+0.3
BRY	Bratogost	4.50	335	⇑*i*Pn	Pn	23 25 39.1	+0.5
BRY	Bratogost	4.50	335	*e*Pn	Pn	23 25 38.4	-0.2
BRY				*i* Sn	Sn	23 26 28.3	-2.2
BRY				AML	AML		
SJES	Sjenica	4.50	349	*e*Pn	Pn	23 25 40.9	+2.4
IDI	Anoyia	4.66	138	Pn	Pn	23 25 42.3	+1.7
	6.6nm,0.3s,baz=273,slow=8.9,SNR=18						
IDI				Sn	Sn	23 26 35.8	+1.5
	1.2nm,0.3s,baz=300,slow=20,SNR=1.7						
IDI	Anoyia	4.66	138	Pn	Pn	23 25 42.5	+1.8
UPM	Unac-Piva	4.67	340	*e*Pn	Pn	23 25 39.5	-1.4
UPM	Unac-Piva	4.67	340	*e*Pn	Pn	23 25 41.2	+0.3
UPM				*i* Sn	Sn	23 26 32.0	-2.7
UPM				AML	AML		
PLE	Pljevlja	4.67	344	*e*Pn	Pn	23 25 40.8	-0.1
PLE				*i* Sn	Sn	23 26 32.8	-1.9
PLE				AML	AML		
KLINJ	Klinje	4.73	337	*e*Pn	Pn	23 25 41.3	-0.3
SGRT	San Giovanni R	5.03	307		Pn	23 25 45.9	+0.1
BBLS	Lazi&#263i	5.19	346	*e*Pn	Pn	23 25 49.2	+1.3
PLVB	Pleven	5.27	29	⇑P	Pn	23 25 54.8	+5.9
BALB	Balikesir	5.32	79		Pn	23 25 51.9	+2.2
VAE	Valguarnera	5.44	258	Pn	Pn	23 25 54.3	+2.9
	4.9nm,0.7s,baz=276,slow=23,SNR=2.2						
VAE				Sn	Sn	23 26 54.8	+1.2
	1.1nm,0.3s,baz=27,slow=22,SNR=2.2						
PAOL	Paolisi	5.48	296		Pn	23 25 53.3	+1.4
RAFF	Raffo Rosso	5.56	255		Pn	23 25 53.0	+0.1
TEKS	Tekeris	5.83	349	*e*Pn	Pn	23 25 57.1	+0.4
MDVR	Moldovita	5.96	4	⇑P	Pn	23 26 02.4	+3.9
WDD	Wied Dalam	6.03	242	Pn	Pn	23 26 00.4	+0.9
HERR	Herculane	6.12	9	⇓P	Pn	23 26 04.2	+3.6
LOZB	Loznitsa	6.14	41	⇓P	Pn	23 26 06.2	+5.3
ARG	Arkhangelos	6.16	113	Pn	Pn	23 26 04.6	+3.3
INTR	Introdacqua	6.34	302		Pn	23 26 05.2	+1.5
FRGS	Fruska Gora	6.39	352	*e*Pn	Pn	23 26 00.5	-3.9
BLY	Banja Luka	6.59	335		Pn	23 26 07.5	+0.4
BLY	Banja Luka	6.59	335	⇑P	Pn	23 26 07.8	+0.7
BLY	Banja Luka	6.59	335	⇑*i*Pn	Pn	23 26 06.2	-0.9
BLY	Banja Luka	6.59	335	P	Pn	23 26 07.0	-0.1
	comp=Z,12nm,0.6s						
GZR	Gura Zlata	6.67	10	⇑P	Pn	23 26 12.5	+4.2
BZS	Buzias	6.79	3	⇑P	Pn	23 26 13.7	+3.9
AQU	L'Aquila	6.83	303		Pn	23 26 11.3	+0.8
AQU	L'Aquila	6.83	303	⇑*i*Pn	Pn	23 26 12.1	+1.6
AQU	L'Aquila	6.83	303	P	Pn	23 26 11.8	+1.3
	comp=Z,25nm,0.8s						
LOT	Lotru	6.90	16	⇓P	Pn	23 26 15.4	+4.0
ARR	Arges	7.04	21	⇓P	Pn	23 26 18.1	+4.8
VOIR		7.22	23	⇑P	Pn	23 26 20.4	+4.6
GUMA	Gualdo di Mace	7.24	308		Pn	23 26 16.9	+0.9
AKAS	Kas	7.24	108	Pn	Pn	23 26 20.1	+4.0
NRCA	Norcia	7.25	306		Pn	23 26 17.8	+1.6
BORA	Eskisehir	7.32	79		Pn	23 26 20.3	+3.0
FDMO	Fiordimonte	7.38	307		Pn	23 26 19.3	+1.4
CESX	Cesi	7.49	303		Pn	23 26 20.1	+0.7
MLR	Muntele Rosu	7.56	27	Pn	Pn	23 26 23.7	+3.2
	comp=Z,0.6nm,0.3s,baz=232,slow=8.9,SNR=11						
MLR				Sn	Sn	23 27 47.9	+2.2
	baz=266,slow=15						
	comp=Z,2.3nm,0.5s						
MLR				AML	AML		
MLR	Muntele Rosu	7.56	27		Pn	23 26 22.9	+2.3
MLR	Muntele Rosu	7.56	27	⇓P	Pn	23 26 25.3	+4.8
MLR	Muntele Rosu	7.56	27	P	Pn	23 26 23.2	+2.7
	comp=Z,9.4nm,1.3s						
MORH	Mrgy, Hungar	7.59	347	⇑P	Pn	23 26 22.6	+1.7
MORH	Mrgy, Hungar	7.59	347	*e*Pn	Pn	23 26 17.4	-3.4
MURB	Monte Urbino	7.84	307	Pn	Pn	23 26 26.0	+1.6
PLOR	Plostina	8.12	29	⇓P	Pn	23 26 33.4	+5.2
VRI	Vrincioaia	8.16	29	⇓P	Pn	23 26 34.0	+5.3
SOKA	Soboth	9.02	332	Pn	Pn	23 26 39.8	-0.7
	comp=Z,1.6nm,0.3s,SNR=11						
SOKA				*e*Sn	Sn	23 28 15.3	-6.2
	comp=Z,0.4nm,0.3s						
SABO	M.te Sabotino	9.04	325	Pn	Pn	23 26 40.5	-0.2
OBKA	Obir	9.06	330	*i* Pn	Pn	23 26 39.6	-1.4
	comp=Z,0.7nm,0.2s						
OBKA				*e*Sn	Sn	23 28 18.5	-4.0
	comp=Z,4.0nm,0.6s						
OBKA	Obir	9.06	330	P	Pn	23 26 40.2	-0.9
	comp=Z,6.0nm,1.3s						
DRE	Drenchia	9.17	326	P	Pn	23 26 42.8	+0.3
	comp=Z,10nm,0.7s						
ARSA	Arzberg	9.35	336	Pn	Pn	23 26 44.3	-0.6
ARSA	Arzberg	9.35	336	*i* Pn	Pn	23 26 44.6	-0.3
	comp=Z,0.6nm,0.5s						
ACOM	Acomizza, Ital	9.52	327	P	Pn	23 26 47.4	0.0
	comp=Z,8.1nm,0.8s						
MYKA	Terra Mystica	9.52	327	*e*Sn	Sn	23 28 29.3	-4.6
	comp=Z,1.3nm,0.3s						
SESA	Seetaler Alpe,	9.55	332	Pn	Pn	23 26 47.5	-0.5
	comp=Z,0.1nm,0.0s,SNR=6.9						
SESA				*e*Sn	Sn	23 28 31.7	-3.2
	comp=Z,5.7nm,1.0s						
TEOL	Teolo	9.57	316	Pn	Pn	23 26 46.9	-1.1
BR131	Keskin Array S	9.76	81	Pn	Pn	23 26 54.4	+3.6
BRTR	Keskin Array B	9.76	81	Pn	Pn	23 26 54.9	+4.1
	comp=Z,0.2nm,0.3s,baz=258,slow=11,SNR=8.2						
	comp=Z,0.9nm,0.5s						
BRTR				AML	AML		
BRTR	Keskin Array B	9.76	81		Pn	23 26 53.8	+3.0
VYHS	Vyhne	9.79	351	*e*SN	Sn	23 28 42.8	+2.4
KBA	Koelnbreinsper	10.00	328	*i* Pn	Pn	23 26 53.4	-0.7
	comp=Z,0.7nm,0.3s						
ABTA	Abfaltersbach	10.11	324	*e*Sn	Sn	23 28 46.1	-2.2
	comp=Z,1.6nm,0.4s						
MOA	Molln	10.29	333	*i* Pn	Pn	23 26 58.5	+0.7
	comp=Z,1.5nm,0.5s						
MOA				*e*Sn	Sn	23 28 49.9	-2.8
	comp=Z,0.2nm,0.3s						
BIOA	Bad Ischl, Aus	10.38	331	*i* Pn	Pn	23 26 59.5	+0.4
	comp=Z,1.5nm,0.4s						
BIOA				*e*Sn	Sn	23 28 53.8	-1.2
	comp=Z,1.6nm,0.3s						
LESA	Schwarzleotal	10.56	327	*i* Pn	Pn	23 27 00.4	-1.1
	comp=Z,0.6nm,0.3s						
LESA				*e*Sn	Sn	23 28 55.0	-4.3
	comp=Z,1.5nm,0.4s						
RJOB	Jochberg	10.76	328	P	Pn	23 27 05.2	+0.9
	comp=Z,5.1nm,0.6s						
WTTA	Wattenberg	10.90	324	*i* Pn	Pn	23 27 06.4	+0.1
	comp=Z,0.8nm,0.3s,SNR=5.0						
WATA	Walderalm	10.98	324	Pn	Pn	23 27 07.9	+0.5
	comp=Z,0.1nm,0.1s,SNR=4.5						
WATA				*e*Sn	Sn	23 29 05.6	-4.0
	comp=Z,4.2nm,1.0s						
SQTA	Sankt Quirin	11.07	322	*i* Pn	Pn	23 27 08.0	-0.5
	comp=Z,0.5nm,0.2s						
MOTA	Moosalm	11.21	323	Pn	Pn	23 27 09.8	-0.7
	comp=Z,0.4nm,0.2s,SNR=5.1						
MOTA				*e*Sn	Sn	23 29 13.2	-2.1
	comp=Z,1.4nm,0.6s						
GEC2	GERESS Array S	11.34	334	Pn	Pn	23 27 12.6	+0.4
GERES	GERESS Array B	11.34	334	Pn	Pn	23 27 12.1	-0.1
	baz=156,slow=15,SNR=8.2						
GERES				Sn	Sn	23 29 12.7	-5.7
	baz=143,slow=23,SNR=2.7						
	comp=Z,0.8nm,0.5s						
GERES	GERESS Array B	11.34	334		Pn	23 27 12.3	+0.1
DAVOX	Davos/Dischmat	11.44	318	Pn	Pn	23 27 15.7	+2.1
	comp=Z,0.6nm,0.3s,baz=119,slow=21,SNR=8.4						
DAVOX				Sn	Sn	23 29 14.5	-6.4
	comp=Z,0.1nm,0.3s,baz=17,slow=23,SNR=2.0						
	comp=Z,1.1nm,0.4s						
DAVOX				AML	AML		
RETA	Reutte	11.47	322	*i* Pn	Pn	23 27 14.0	-0.1
	comp=Z,0.2nm,0.1s						
RETA				*e*Sn	Sn	23 29 20.0	-1.6
	comp=Z,0.6nm,0.4s						
TUE	Stuetta	11.53	315	Pn	Pn	23 27 15.0	+0.1
KHC	Kasperske Hory	11.62	335	*e*PN	Pn	23 27 16.0	-0.1
KHC				*e*SN	Sn	23 29 20.9	-4.4
SENIN	Lac Senin/Sane	12.64	311	Pn	Pn	23 27 29.9	-0.2
BFO	Black Forest	13.24	320	Pn	Pn	23 27 36.8	-1.4
EIL	Elat	14.64	124	Pn	Pn	23 27 54.3	-3.0
	comp=Z,0.2nm,0.3s,baz=329,slow=15,SNR=1.5						
	comp=Z,1.1nm,0.4s						
EIL				AML	AML		
HAKT	HAKKARI	17.81	87	P	P	23 28 41.2	+2.2
	comp=Z,17nm,0.9s						
ESDC	Sonseca Array	19.42	280	P	P	23 28 56.8	+0.5
	baz=85,slow=12,SNR=5.4						
	comp=Z,0.8nm,0.8s						
HFS	Hagfors	21.83	350	P	P	23 29 22.6	+0.4
	comp=Z,3.8nm,0.9s,baz=159,slow=13,SNR=4.8						
	comp=Z,3.8nm,0.9s						
NC602	NORSAR Array S	22.73	348	P	P	23 29 31.7	-0.1
NC602				IAmb	IAmb	23 29 59.9	
	comp=Z,14nm,1.2s						
FINES	FINESS Array B	22.84	6	P	P	23 29 33.8	+0.7
	comp=Z,2.3nm,0.7s,baz=166,slow=11,SNR=7.5						
	comp=Z,2.3nm,0.7s						
FINES	FINESS Array B	22.84	6	P	P	23 29 33.1	+0.1
NC405	NORSAR Array S	23.06	348	P	P	23 29 34.7	-0.5
NC405				IAmb	IAmb	23 29 53.8	
	comp=Z,23nm,1.4s						
NOA	NORSAR Array B	23.07	348	P	P	23 29 36.1	+0.7
	comp=Z,0.5nm,0.6s,baz=162,slow=10,SNR=3.5						
	comp=Z,0.5nm,0.6s						
EKA	Eskdalemuir Ar	23.16	323	P	P	23 29 36.8	+0.4
	comp=Z,2.2nm,0.9s,baz=125,slow=8.8,SNR=2.6						
	comp=Z,2.2nm,0.9s						
KIRV	Kirov	26.86	33	LR	LR	23 41 10.2	
	comp=Z,64nm,18.0s,baz=75,slow=37						
ABKAR	Akbulak array	29.50	57	P	P	23 30 34.1	0.0
ARTI	Arti	30.16	42	P	P	23 30 39.4	-0.5
TORD	Torodi Ar. Bea	30.83	219	P	P	23 30 46.4	+0.3
	comp=Z,0.6nm,0.5s,baz=28,slow=8.6,SNR=5.7						
	comp=Z,0.6nm,0.5s						
ARCES	ARCESS Array B	30.85	3	P	P	23 30 47.0	+1.2
	comp=Z,1.3nm,0.7s,baz=187,slow=9.4,SNR=6.1						
	comp=Z,1.3nm,0.7s						
ARCES	ARCESS Array B	30.85	3	P	P	23 30 46.5	+0.7
ARCES				IAmb	IAmb	23 31 13.5	
	comp=Z,11nm,1.5s						
BVAR	Borovoye Array	36.35	51	P	P	23 31 34.2	+0.4
	comp=Z,0.8nm,0.4s,baz=274,slow=9.9,SNR=6.8						
	comp=Z,0.8nm,0.4s						
KK31	Karatay Array	37.12	67	P	P	23 31 40.7	+0.2
KK31				IAmb	IAmb	23 31 42.5	
	comp=Z,2.5nm,0.8s						
KKAR	Karatay Array	37.12	67	P	P	23 31 40.8	+0.3
ARSB	Arslanbob	39.29	69	P	P	23 31 59.4	+0.4
KURBB	Kurchatov Arra	41.47	54	P	P	23 32 16.7	0.0
	comp=Z,1.0nm,0.8s,baz=283,slow=9.0,SNR=6.1						
	comp=Z,1.0nm,0.8s						
KURK	Kurchatov	41.52	54	P	P	23 32 17.4	+0.2
KURK				IAmb	IAmb	23 32 17.9	
	comp=Z,3.9nm,1.4s						
PDGK	Podgornoye	43.47	65	P	P	23 32 33.1	-0.2
MKAR	Makanchi Array	44.57	59	P	P	23 32 41.4	-0.5
	comp=Z,0.7nm,0.4s,baz=274,slow=7.8,SNR=20						
	comp=Z,0.7nm,0.4s						
MKAR	Makanchi Array	44.57	59	P	P	23 32 41.2	-0.7
ZAA0	Zalesovo Array	44.91	49	P	P	23 32 44.5	0.0
ZALV	Zalesovo Beam	44.91	49	P	P	23 32 44.2	-0.3
	comp=Z,5.9nm,0.4s,baz=275,slow=8.4,SNR=35						
	comp=Z,5.9nm,0.4s						
ZALV	Zalesovo Beam	44.91	49	P	P	23 32 44.3	-0.2

IDC ***05*** *23:29:01.1±1.1, 13°.64N×93°.06E, h0km, mb3.7/8, mbtmp3.7/9, MS3.7/1, Error ellipse: s-maj=23.9km s-min=20.1km az=60.0*

ISC 05 23:29:05.9±1.2**, 13°.7N**±0°.1×**93°.2E**±0°.1**, h29km, n10,** σ**0s.99**/10**, mb3.6**/8**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	7.31	49	Pn	Pn	23 30 51.7	+0.9
	0.4nm,0.4s,baz=224,slow=13,SNR=1.3						
CMAR				Sn	Sn	23 32 11.2	-1.6
	0.2nm,0.3s,baz=224,slow=24,SNR=1.7						
MKAR	Makanchi Array	34.23	347	P	P	23 35 48.9	-0.3
	0.5nm,0.8s,baz=161,slow=8.7,SNR=2.7						
	0.5nm,0.8s						
SONM	Songino Array	35.78	15	P	P	23 36 04.1	+1.5
	0.3nm,0.4s,baz=186,slow=7.1,SNR=1.9						
	0.3nm,0.4s						
KURBB	Kurchatov Arra	38.70	345	P	P	23 36 27.0	-0.1
	0.4nm,0.3s,baz=166,slow=6.5,SNR=4.3						
	0.4nm,0.3s						
ZALV	Zalesovo Beam	40.69	352	P	P	23 36 43.9	+0.2
	0.3nm,0.4s,baz=179,slow=10,SNR=1.7						
	0.3nm,0.4s						
FITZ	Fitzroy Crossi	45.00	134	LR	LR	23 57 26.7	
	comp=Z,81nm,18.6s,baz=308,slow=38						
WRA	Warramunga Arr	52.53	129	P	P	23 38 16.8	-0.1
	0.4nm,0.6s,baz=319,slow=7.6,SNR=2.7						
	0.4nm,0.6s						
ASAR	Alice Springs	54.47	133	P	P	23 38 30.9	-0.2
	0.9nm,0.4s,baz=308,slow=6.8,SNR=23						
	0.9nm,0.4s						
FINES	FINESS Array B	67.15	331	P	P	23 39 55.9	-0.9
	2.6nm,0.9s,baz=112,slow=7.3,SNR=4.3						
	2.6nm,0.9s						
GERES	GERESS Array B	72.89	317	P	P	23 40 32.1	-0.3
	0.4nm,0.4s,baz=84,slow=6.7,SNR=4.3						
	0.4nm,0.4s						

NEIC ***05*** *23:35:49.2±1.3, 5°.9S±0°.1×155°.0E±0°.1, h157km±9km, mb4.2/14, Error ellipse: s-maj=20.9km s-min=16.4km az=68.0*

IDC ***05*** *23:35:50.5±2.3, 5°.97S×154°.92E, h168km±17km, mb3.5/9, mbtmp4.1/13, MS3.4/1, Error ellipse: s-maj=25.3km s-min=14.4km az=78.0*

ISC 05 23:35:48.3±0.7**, 5°.93S**±0°.08×**155°.07E**±0°.10**, h150km, n37,** σ**1s.14**/36**, mb4.0**/14**, Bougainville-Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RABL	Rabaul	3.38	301	Pn	Pn	23 36 40.6	+0.1
KRVT	Keravat (AS076	3.44	298	P	Pn	23 36 42.5	+1.3
	97nm,0.4s,baz=180,slow=5.1,SNR=1.5						
KRVT				S	Sn	23 37 22.6	+0.3
	532nm,0.4s,baz=74,slow=23,SNR=4.2						
PMG	Port Moresby	8.57	246	P	Pn	23 37 51.2	+1.9
	17nm,0.7s,baz=45,slow=16,SNR=4.1						
PMG	Port Moresby	8.57	246	Pn	Pn	23 37 50.7	+1.4
CTA	Charters Tower	16.48	211	P	P	23 39 32.3	+1.4
	3.4nm,0.5s,baz=29,slow=15,SNR=4.2						
CTAO	Charters Tower	16.48	211	P	Pn	23 39 30.6	-0.3
CTAO				IAmb	IAmb	23 39 49.0	
	comp=Z,28nm,1.4s						
DZM	Mont Dzumac	19.45	147	P	P	23 40 05.3	+1.8
	comp=Z,16nm,0.5s,baz=325,slow=11,SNR=14						
ONTNC	Ouen Toro	19.64	147	P	P	23 40 05.3	-0.2
EIDS	Eidsvold	19.70	191	P	P	23 40 07.1	+1.0
EIDS				IAmb	IAmb	23 40 15.4	
	comp=Z,5.8nm,1.0s						
WB0	Warramunga Arr	24.36	234	P	P	23 40 52.1	-0.5
WB0				IAmb	IAmb	23 40 52.9	
	comp=Z,3.5nm,0.6s						
WRA	Warramunga Arr	24.50	233	P	P	23 40 53.4	-0.5
	comp=Z,3.4nm,0.5s,baz=56,slow=10.0,SNR=30						
WRA				PcP	PcP	23 44 27.5	-1.1
	comp=Z,0.3nm,0.4s,baz=60,slow=2.3,SNR=2.0						
	comp=Z,3.4nm,0.5s						
WRA	Warramunga Arr	24.50	233	P	P	23 40 52.5	-1.3
ARMA	Armidale	24.57	187	P	P	23 40 54.1	-0.4
ARMA				IAmb	IAmb	23 41 21.8	
	comp=Z,31nm,1.5s						
H11S3	WAKE ISLAND Hy	26.84	25	T	T	00 09 28.2	
	baz=207,slow=74,SNR=15						
H11S2	WAKE ISLAND Hy	26.84	25	T	T	00 09 28.8	
	baz=207,slow=74,SNR=20						
H11S1	WAKE ISLAND Hy	26.86	25	T	T	00 09 29.4	
	baz=207,slow=74,SNR=14						
AS31	Alice Springs	26.94	227	P	P	23 41 14.8	-1.1
ASAR	Alice Springs	26.94	227	P	P	23 41 14.9	-1.0
	comp=Z,0.4nm,0.4s,baz=57,slow=9.5,SNR=11						
ASAR				PcP	PcP	23 44 33.8	-0.3
	comp=Z,0.2nm,0.5s,baz=55,slow=2.2,SNR=4.9						
	comp=Z,0.4nm,0.4s						
ASAR	Alice Springs	26.94	227	P	P	23 41 15.0	-0.9
FITZ	Fitzroy Crossi	31.16	245	P	P	23 41 51.6	-1.7
BBOO	Buckleboo	32.08	211	P	P	23 42 01.7	+0.5
KAPI	Kappang	35.17	270	LR	LR	23 59 57.4	
	comp=Z,59nm,18.2s,baz=248,slow=41						
RTZ	Ruatahuna	38.11	152	P	P	23 42 53.8	+0.9
SONM	Songino Array	68.49	327	P	P	23 46 36.1	+1.6
	comp=Z,0.5nm,0.4s,baz=136,slow=5.7,SNR=4.5						
	comp=Z,0.5nm,0.4s						
ILAR	Eielson Array	82.36	22	P	P	23 47 53.9	+0.8
	comp=Z,0.3nm,0.8s,baz=234,slow=5.1,SNR=2.7						
	comp=Z,0.3nm,0.8s						
MKAR	Makanchi Array	82.66	319	P	P	23 47 55.3	+0.2
	comp=Z,1.2nm,0.7s,baz=102,slow=5.0,SNR=9.2						
	comp=Z,1.2nm,0.7s						
MKAR	Makanchi Array	82.66	319	P	P	23 47 54.8	-0.3
J25K	Salcha River,	82.84	22	P	P	23 47 56.4	+0.8
J25K				IAmb	IAmb	23 48 01.1	
	comp=Z,2.9nm,1.3s						
MAKZ	Makanchi	82.87	319	P	P	23 47 55.2	-0.9
MAKZ				IAmb	IAmb	23 48 16.0	
	comp=Z,2.8nm,1.1s						
ZALV	Zalesovo Beam	83.35	326	P	P	23 47 57.8	-0.6
	comp=Z,0.6nm,0.4s,baz=101,slow=7.7,SNR=3.9						
	comp=Z,0.6nm,0.4s						
ZALV	Zalesovo Beam	83.35	326	P	P	23 47 57.7	-0.7
D23K	Nanushuk River	83.45	17	P	P	23 47 59.7	+1.1
D23K				IAmb	IAmb	23 48 20.3	
	comp=Z,7.2nm,1.5s						
QSPA	South Pole Qui	84.04	180	P	P	23 48 01.2	-0.6
	comp=Z,1.0nm,0.4s,baz=11,slow=5.0,SNR=10						
	comp=Z,1.0nm,0.4s						
QSPA	South Pole Qui	84.04	180	P	P	23 47 58.8	-3.0
QSPA				IAmb	IAmb	23 48 14.5	

	comp=Z,4.5nm,1.5s						
MAW	Mawson	85.40	203	P	P	23 48 07.9	-0.6
	comp=Z,1.7nm,0.6s,baz=95,slow=5.8,SNR=8.8						
	comp=Z,1.7nm,0.6s						
KURBB	Kurchatov Arra	86.08	322	P	P	23 48 11.7	-0.4
	comp=Z,0.2nm,0.7s,baz=119,slow=7.4,SNR=4.7						
	comp=Z,0.2nm,0.7s						
TORD	Torodi Ar. Bea	152.81	287	PKPbc	PKPbc	23 55 27.3	-1.2
	comp=Z,0.2nm,0.4s,baz=65,slow=2.6,SNR=6.5						

*IDC **05** 23:39:26.4±1.6, 15°.19N×121°.17E, h0km, mb3.4/5, mbtmp3.4/5, Error ellipse: s-maj=72.2km s-min=22.1km az=56.0*

*MAN **05** 23:39:30.0, 14°.37N×119°.31E, h25km, MS3.2*

ISC 05 23:39:29.9±1.3, 14°.2N±0°.2×119°.29E±0°.09, h10km, n8, σ0ˢ.53/8, mb3.4/4, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TIRP	Brgy. Gulod. B	1.87	86	eP	Pn	23 40 02.3	+0.4
TIRP				eS	Sb	23 40 26.9	-0.5
LQP	Lukban	2.18	93	eP	Pb	23 40 09.5	-0.1
CAAP	Casiguran, Aur	3.31	53	eP	Pn	23 40 22.2	+0.6
CMAR	Chiang Mai Arr	19.98	285	P	Pn	23 44 17.4	+13
	0.4nm,0.3s,baz=94,slow=8.9,SNR=5.7						
	0.4nm,0.3s						
WRA	Warramunga Arr	37.04	156	P	P	23 46 39.8	-0.4
	0.3nm,0.4s,baz=336,slow=9.5,SNR=4.5						
	0.3nm,0.4s						
ASAR	Alice Springs	40.27	159	P	P	23 47 07.9	+0.6
	0.6nm,0.7s,baz=343,slow=6.6,SNR=8.3						
	0.6nm,0.7s						
KURBB	Kurchatov Arra	49.00	327	P	P	23 48 16.4	-0.3
	0.1nm,0.4s,baz=113,slow=8.8,SNR=3.0						
	0.1nm,0.4s						
BVAR	Borovoye Array	54.58	326	P	P	23 48 58.0	-0.3
	0.3nm,0.5s,baz=128,slow=8.1,SNR=2.2						
	0.3nm,0.5s						

*UCR **05** 23:54:31.3±0.6, 8°.32N×82°.95W, h13km±8km, MW4.1, Presumed earthquake*

*UPA **05** 23:54:31.5±1.0, 8°.35N×82°.90W, h10km±2km, MW4.0, Fault plane solution: NP1:ϕs137.00000°, δ38.00000°, λ58.00000°., Presumed earthquake*

ISC 05 23:54:31.4±0.9, 8°.35N±0°.03×82°.93W±0°.02, h16km±7km, n46, σ0ˢ.54/64, 3C-12D, Panama-Costa Rica border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTPM	Petroterminale	0.15	162	⇑iP	Pg	23 54 35.3	0.0
PTPM				eS	Sg	23 54 38.2	+0.3
PTPA	Petro Terminal	0.15	159	eP	Pg	23 54 35.3	-0.1
PTPA				eS	Sb	23 54 39.0	+0.2
LMNES	Limones	0.25	165	eP	Pg	23 54 37.0	+0.1
LMNES	Limones	0.25	165	⇑eP	Pg	23 54 37.0	+0.1
NELY	Ciudad Neily	0.30	356	eP	Pg	23 54 37.9	+0.1
NELY				eS	Sb	23 54 43.4	+0.2
NELY	Ciudad Neily	0.30	356	⇓iP	Pg	23 54 38.0	+0.2
NELY				eS	Sb	23 54 43.4	+0.2
FITO	Golfito	0.36	321	⇓iP	Pg	23 54 37.8	-0.9
PIRO	Carate, Puerto	0.41	278	eP	Pg	23 54 39.0	-0.7
PIRO	Carate, Puerto	0.41	278	⇓iP	Pg	23 54 39.3	-0.4
PIRO				eS	Sb	23 54 46.9	+0.6
JIME	Puerto Jimenez	0.44	296	eP	Pg	23 54 40.2	0.0
MLIR3	Monte Lirio, C	0.46	13	i P	Pb	23 54 41.4	+0.2
MLIR3				eS	Sb	23 54 47.8	0.0
VITO	San Vito	0.47	355	eP	Pb	23 54 41.5	0.0
VITO	San Vito	0.47	355	⇑eP	Pb	23 54 41.4	0.0
DVD	David	0.48	79	⇓iP	Pg	23 54 41.1	+0.2
DVD				eS	Sg	23 54 47.3	-0.1
CLLRA	Cordillera,	0.50	38	eP	Pb	23 54 41.9	0.0
CLLRA	Cordillera,	0.50	38	⇓iP	Pb	23 54 42.1	+0.1
BRU2	Volcan	0.50	27	eP	Pb	23 54 41.9	0.0
BRU2	Volcan	0.50	27	⇓iP	Pb	23 54 42.0	+0.1
BRU2				eS	Sb	23 54 50.1	+1.0
LOMA3	Las Lomas, Chi	0.54	81	⇓iP	Pg	23 54 42.0	0.0
LOMA3				eS	Sg	23 54 49.4	+0.2
CHIR3	Chiriqui UPA,	0.59	85	⇓iP	Pg	23 54 42.8	-0.2
CHIR3				eS	Sb	23 54 51.9	+0.4
BQTLY	Boquete Panama	0.62	48	eP	Pg	23 54 43.4	-0.1
BQTLY	Boquete Panama	0.62	48	⇓iP	Pg	23 54 43.6	0.0
BQTLY				eS	Sn	23 54 55.6	+0.3
BQSF3	Alto Boquete,	0.63	51	⇓iP	Pg	23 54 43.7	-0.1
BQSF3				eS	Sb	23 54 52.6	0.0
LNBQ3	Los Naranjos,	0.65	47	i P	Pg	23 54 43.9	-0.3
LNBQ3				eS	Sb	23 54 54.1	+0.6
EDP2	Potrero Grande	0.71	340	eP	Pg	23 54 45.0	-0.3
RBALA	Bur	0.93	55	eP	Pb	23 54 48.6	-0.5
RBALA	Bur	0.93	55	⇓iP	Pb	23 54 48.6	-0.5
RBALA				eS	Sg	23 55 01.9	+0.2
CHGR2	Aguacate	0.97	53	eP	Pb	23 54 49.1	-0.8
CHGR2				eS	Sb	23 55 02.7	+0.2
EDPE	Pejibaye, P	1.03	322	eP	Pb	23 54 49.6	-1.3
CNI2	El Empalme, Bo	1.16	23	eP	Pn	23 54 52.3	-0.7
KKNTU	Kakintº	1.21	66	eP	Pn	23 54 52.5	-1.2
KKNTU	Kakintº	1.21	66	⇓iP	Pn	23 54 52.5	-1.2
KKNTU				eS	Sb	23 55 08.6	-0.8
CEUA	Cerro Uatsi, L	1.27	359	eP	Pg	23 54 55.7	-0.2
PIEC	Cerro El Cedra	1.63	321	eP	Pn	23 54 59.6	-0.1
LCR2	La Lucha 2	1.75	323	eP	Pn	23 55 01.2	-0.1
LCR2	La Lucha 2	1.75	323	eP	Pn	23 55 02.1	+0.8
LCR2				eS	Sn	23 55 23.9	+0.5
VERB	Verbena	1.76	335	eP	Pn	23 55 01.3	-0.1
GMAL	Guarumal, Vera	1.77	109	eP	Pn	23 55 00.8	-0.6
ABRB	Las Abras (San	1.83	335	eP	Pn	23 55 03.0	+0.6
SAFE3	Santa Fe, Vera	1.83	85	eP	Pn	23 55 01.8	-0.5
CVTQ	Turrialba Volc	1.85	333	eP	Pn	23 55 03.6	+0.9
VTR0	Volcan Turrial	1.85	334	eP	Pn	23 55 03.5	+0.5
CVTR	Volcan Turrial	1.86	334	eP	Pn	23 55 03.6	+0.7
CACAO	El Cacao, Vera	2.27	116	eP	Pn	23 55 08.3	0.0
AZU	Azuero	2.68	102	eP	Pn	23 55 15.5	+1.6
AZU	Azuero	2.68	102	eP	Pn	23 55 13.8	-0.1
AZU				eS	Sn	23 55 46.4	+0.3

*OSPL **06** 00:05:32.2±1.0, 17°.44N×71°.60W, h6km±7km, ML1.9, MW2.8, Presumed earthquake*

SDD 06 00:05:31.8±1.9, 17°.62N×71°.55W, h25km±8km, MD3.3, ML1.9, MW2.0, 8C, Presumed earthquake, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LOVI	El Cajuil, Ovi	0.25	45	i P	Pn	00 05 40.1	+0.2
LOVI				eS	Sn	00 05 45.1	+0.1
LOVI				IAML		00 05 48.2	
	comp=Z,85nm,0.8s						
LOBH	Bahia de las A	0.25	341	i P	Pn	00 05 40.2	+0.3
LOBH				eS	Sn	00 05 45.2	+0.1
LOBH				IAML		00 05 46.8	
	comp=Z,120nm,0.2s						
PODR	Polo	0.60	25	⇑iP	Pn	00 05 45.1	+0.1
PODR				⇑iS	Sn	00 05 56.0	+2.0
PODR				IAML		00 06 13.9	
	comp=N,68nm,1.9s						
LODU1	El Espartillar	0.73	6	i P	Pn	00 05 48.2	+1.6
LODU1				eS	Sn	00 06 01.4	+4.5
LODU1				IAML		00 06 04.9	
	comp=Z,47nm,1.0s						
JIDR	Jimani	0.91	342	⇑iP	Pn	00 05 49.7	+0.7
JIDR				⇑iS	Sn	00 06 05.5	+4.2
JIDR				IAML		00 06 05.7	
	comp=N,26nm,1.8s						
LONE3	El Aguacate, B	0.98	5	i P	Pb	00 05 52.7	+2.4
SDDR	Presa de Saban	1.38	10	⇑iS	Sb	00 06 16.8	+2.6
SDDR				IAML		00 06 56.0	
	comp=N,17nm,1.9s						
ABDR	Alto Bandera	1.48	36	⇑iP	Pb	00 06 00.9	+2.1
ABDR				⇑iS	Sb	00 06 21.0	+3.7
ABDR				IAML		00 06 52.5	
	comp=N,23nm,1.2s						
REDR	Restauracion	1.54	6	⇑iS	Sb	00 06 25.9	+7.0
REDR				IAML		00 06 28.1	
	comp=N,13nm,1.8s						

IDC 06 00:09:29.1±5.4, 16°.34S×176°.09W, h0km, mb4.3/3, mbtmp4.3/3, Error ellipse: s-maj=174.7km s-min=106.3km az=155.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H11S2	WAKE ISLAND Hy	38.53	333	T	T	00 57 20.6	
	baz=152						
H11S3	WAKE ISLAND Hy	38.54	333	T	T	00 57 21.7	
	baz=152						
H11S1	WAKE ISLAND Hy	38.55	333	T	T	00 57 21.9	
	baz=152						
H11N3	WAKE ISLAND Hy	39.53	334	T	T	00 58 37.9	
	baz=150,slow=76,SNR=5.5						
H11N1	WAKE ISLAND Hy	39.54	334	T	T	00 58 38.2	
	baz=150,slow=76,SNR=6.5						
H11N2	WAKE ISLAND Hy	39.55	334	T	T	00 58 39.3	
	baz=150,slow=76,SNR=5.1						
STKA	Stephens Creek	41.33	240	P	P	00 17 17.2	+0.4
	1.1nm,0.4s,baz=83,slow=8.1,SNR=3.8						
	1.1nm,0.4s						
WRA	Warramunga Arr	47.11	258	P	P	00 18 03.0	-0.4
	0.9nm,0.6s,baz=94,slow=7.6,SNR=13						
	0.9nm,0.6s						
ASAR	Alice Springs	47.36	253	P	P	00 18 05.0	-0.3
	9.5nm,0.6s,baz=90,slow=8.2,SNR=182						
ASAR				PcP	PcP	00 19 35.9	-0.3
	0.2nm,0.4s,baz=92,slow=4.1,SNR=1.9						
	9.5nm,0.6s						

*MOS **06** 00:21:08.5±1.0, 1°.70N×126°.51E, h30km, mb6.1/84, MS5.4/50, Error ellipse: s-maj=6.5km s-min=3.7km az=112.1*

*GFZ **06** 00:21:08.2, 1°.74N×126°.59E, h33km, Mw5.9/104, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; Mrr7.73; Mθθ-3.95; Mϕϕ-3.79; Mrθ-3.14; Mθϕ-2.79; Mϕr-1.23; Fault plane solution: $M_0$8.00367×10^{17} NP1: ϕs39.33747°, δ33.66566°, λ77.46993°. NP2:ϕs234.28831°, δ57.23855°, λ98.22239°. Principal axes: T 8.5479, Plg76.2064°, Azm169.3850°; N -1.2312, Plg6.9075°, Azm49.8171°; P -7.3167, Plg11.8804°, Azm318.3567°;*

*BJI **06** 00:21:08.1, 1°.38N×126°.47E, h42km, mB5.8/74, mb5.6/90, Ms5.7/95, Ms7 5.6/92*

*NEIC **06** 00:21:10.8, 1°.67N×126°.56E, h30km*

*GFZ **06** 00:21:11.0±0.1, 2°N±1°×12°7E±°, h32km, M5.8/171, mB6.2/101, mb5.8/171, Mw(mB)5.9/101, MwMwp5.6/78, Mwp5.8/78*

*ISC-PP **06** 00:21:10, 1°.67N×126°.56E, h23km, Mwppsm6.1, Moment Tensor Solution. s52 Moment tensor: Scale 10^{18}Nm; Mrr0.14±.11; Mθθ-0.51±.19; Mϕϕ0.40±.13; Mrθ-0.05±.15; Mθϕ0.11±.10; Mϕr-0.52±.12; Fault plane solution: $M_0$1.76000×10^{18} NP1:ϕs289.90000°, δ81.10000°, λ170.90000°. NP2:ϕs21.40000°, δ81.00000°, λ9.00000°.*

*IPGP **06** 00:21:10.0, 1°.68N×126°.59E, h36km, Mw6.1, Fault plane solution: NP1:ϕs17.00000°, δ27.00000°, λ56.00000°. NP2:ϕs234.00000°, δ68.00000°, λ106.00000°.*

*NEIC **06** 00:21:10.8±1.8, 1°.67N±0°.06×126°.56E±0°.04, h30km±1km, mb5.9/196, Ms_20 5.8/614, Mww5.9/18, Error ellipse: s-maj=9.9km s-min=6.8km az=25.0*

*IDC **06** 00:21:10.0±1.1, 1°.60N×126°.51E, h26km±6km, mb5.5/36, mbtmp5.6/38, ML5.5/2, MS5.2/46, Error ellipse: s-maj=11.8km s-min=5.3km az=80.0*

*PTWC **06** 00:21:11, 1°.50N×126°.60E, h10km, Mwp6.2/8*

*GCMT **06** 00:21:12.8±0.1, 1°.97N×126°.43E, h37km, MW6.0/172, Moment Tensor Solution. s172,c392; s163,c515; Duration: 2ˢ.4 Moment tensor: Scale 10^{18}Nm; Mrr0.96±.01; Mθθ-0.58±.01; Mϕϕ-0.38±.01; Mrθ-0.61±.01; Mθϕ-0.37±.00; Mϕr-0.40±.01; Best double couple: $M_0$1.16700×10^{18} NP1:ϕs51.00000°, δ26.00000°, λ86.00000°. NP2:ϕs235.00000°, δ64.00000°, λ92.00000°. Principal axes: T 1.2170, Plg71.0000°, Azm150.0000°; N -0.0990, Plg2.0000°, Azm54.0000°; P -1.1170, Plg19.0000°, Azm324.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s. Triangular moment-rate function*

*DJA **06** 00:21:13.3±0.2, 2°N±2°×12°7E±°, h60km±2km, M5.7/120, mB6.1/108, mb5.9/120, MLv6.1/31, Mw6.0/32, Mw(mB)5.8/108, MwMwp5.6/92, Mwp5.8/92*

*NEIC **06** 00:21:20.4, 1°.67N×126°.56E, h30km, Moment Tensor Solution. Duration: 4ˢ.7 Moment tensor: Scale 10^{17}Nm; Mrr7.68; Mθθ-2.47; Mϕϕ-5.21; Mrθ-2.70; Mθϕ-1.58; Mϕr-3.91; Fault plane solution: $M_0$8.44000×10^{17} NP1: ϕs22.06000°, δ27.78000°, λ83.07000°. NP2:ϕs209.88000°, δ62.44000°, λ93.64000°. Principal axes: T 9.1881, Plg72.0000°, Azm128.0000°; N -1.7948, Plg3.0000°, Azm28.0000°; P -7.3933, Plg17.0000°, Azm297.0000°;*

ISC 06 00:21:11.5±0.3, 1°.68N±0°.02×126°.55E±0°.03, h40km±2km, h40km:pP-P, n1995, σ1ˢ.67/1990, mb5.8/330, MS5.7/409, 90C-60D, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TNTI	Ternate	1.22	138	P	Pn	00 21 31.4	-0.6
TNTI	Ternate	1.22	138	P	Sn	00 21 47.1	-0.2
TNTI	Ternate	1.22	138		Pn	00 21 30.9	-1.1
TNTI					Sn	00 21 45.6	-1.7
TNTI	Ternate	1.22	138	P	Pn	00 21 31.1	-0.9
TNTI	Ternate	1.22	138	P	Pn	00 21 31.0	-1.1
TNTI	Ternate	1.22	138	P	Pn	00 21 31.1	-0.9
MNI	Manado	1.73	262	P	Pn	00 21 41.0	+1.9
MNI				S	Sn	00 22 03.9	+4.0
MNI				AML	AML		
GTOI	Gorontalo	3.69	254	P	Pn	00 22 09.5	+3.5
GTOI				S	Sn	00 22 55.6	+7.3
GTOI				AML	AML		
SANI	Sanana	3.75	189	P	Pn	00 22 07.2	+0.3
SANI	Sanana	3.75	189	P	Pn	00 22 08.3	+1.4
SANI	Sanana	3.75	189	P	Pn	00 22 07.9	+1.0
SANI	Sanana	3.75	189	P	Pn	00 22 08.2	+1.3
LUWI	Luwuk	4.65	234	P	Pn	00 22 23.1	+3.9
LUWI	Luwuk	4.65	234	P	Pn	00 22 22.4	+3.2
LUWI	Luwuk	4.65	234		Pn	00 22 19.8	+0.6
LUWI	Luwuk	4.65	234	P	Pn	00 22 23.5	+4.3
GSPH	General Santos	4.66	340	i P	Pn	00 22 38.5	+19
GSPH				i S	Sn	00 23 17.0	+4.5
NLAI	Namlea	4.92	174	P	Pn	00 22 24.4	+1.5
NLAI				AML	AML		
SWI	Sorong	5.34	118	P	Pn	00 22 29.6	+0.8
	22μm1μm,0.8s						
DAV	Davao City (W)	5.44	350	Pn	Pn	00 22 31.1	+1.0
	52nm,0.3s,baz=94,slow=3.1,SNR=15						
DAV				Sn	Sn	00 23 29.6	-2.0
	48nm,0.3s,baz=58,slow=20,SNR=3.7						
DAV	Davao City (W)	5.44	350	P	Pn	00 22 32.4	+2.3
DAV	Davao City (W)	5.44	350		Pn	00 22 30.7	+0.6
DAV	Davao City (W)	5.44	350	P	Pn	00 22 34.7	+4.6
DAV	Davao City (W)	5.44	350	P	Pn	00 22 31.6	+1.5
	22nm3μm,1.6s						
DAV				AML	AML		
DAV	Davao City (W)	5.44	350	P	Pn	00 22 32.0	+1.9
KCP	Kidapawan	5.49	345	eP	Pn	00 22 33.1	+2.2
KCP				i S	Sn	00 23 40.7	+7.8
MSAI	Masohi	5.53	155	P	Pn	00 22 34.2	+2.8
MSAI				AML	AML		
TOLI2	Tolitoli	5.79	264	P	Pn	00 22 36.6	+1.6
TOLI2	Tolitoli	5.79	264		Pn	00 22 34.9	-0.1
TOLI2	Tolitoli	5.79	264	P	Pn	00 22 35.7	+0.7
TOLI2	Tolitoli	5.79	264	P	Pn	00 22 36.1	+1.1
	comp=Z,14μmcomp=Z,1μm,0.7s,comp=Z,108μm						
BIPH	Bislig	6.46	358	i P	Pn	00 22 44.7	+0.5
BIPH				eS	Sn	00 23 57.2	+0.5
KDI	Kendari	6.84	215	P	Pn	00 22 52.2	+2.8
	comp=Z,4.2nmcomp=Z,33μmcomp=Z,14μmcomp=Z,1μm,1.0s						
KDI				AML	AML		
ZCP	Zamboanga City	6.87	320	i p	Pn	00 22 50.3	+0.6
ZCP				i s	Sn	00 24 04.0	-2.6
BNDI	Bandanaira	7.01	151	P	Pn	00 22 52.8	+1.1
PCI	Palu	7.19	249	P	Pn	00 22 58.3	+4.2
	comp=Z,4.9nmcomp=Z,62μmcomp=Z,16μmcomp=Z,1μm,1.4s						
PCI				AML	AML		
FAKI	Fak Fak	7.30	129	P	Pn	00 22 57.6	+1.9
FAKI	Fak Fak	7.30	129		Pn	00 22 55.2	-0.5
FAKI	Fak Fak	7.30	129	P	Pn	00 22 57.1	+1.4
FAKI	Fak Fak	7.30	129	P	Pn	00 22 57.7	+2.0
	comp=Z,4.2nmcomp=Z,15μmcomp=Z,1μm,1.1s						
FAKI				S	Sn	00 24 18.8	+1.4
	comp=Z,4.2nmcomp=Z,15μmcomp=Z,1μm,1.1s						
FAKI				AML	AML		
MWPI	Manokwari, Pap	7.92	109	P	Pn	00 23 08.5	+4.2
	comp=Z,6.5nmcomp=Z,62μmcomp=Z,25μmcomp=Z,2μm,0.9s						
MWPI				AML	AML		
LSIP	Lazi, Siquijor	7.95	339	eP	Pn	00 23 06.7	+2.1
LSIP				i S	Sn	00 23 44.6	-49
SNPH	Sibulan	8.29	337	eP	Pn	00 23 12.4	+3.0
TBP	Tagbilaran	8.39	342	eP	Pn	00 23 10.9	+0.2
MYLDM	Lahad Datu	8.76	294	P	Pn	00 23 18.0	+2.4
MYLDM	Lahad Datu	8.76	294		Pn	00 23 16.8	+1.1
MYLDM	Lahad Datu	8.76	294	P	Pn	00 23 18.6	+3.0
MYLDM	Lahad Datu	8.76	294	P	Pn	00 23 19.2	+3.6
MMSI	Mamuju	8.79	240	P	Pn	00 23 19.7	+3.6
SPSI	Sidrap Palu	8.80	230	P	Pn	00 23 19.9	+3.7
	comp=Z,30μmcomp=Z,11μmcomp=Z,851nm,0.5s						
KMPI	Kaimana, Papua	8.90	127	P	Pn	00 23 20.6	+2.9
	comp=Z,19μmcomp=Z,1μm,1.0s						
LLP	Lapu-Lapu	8.96	343	eP	Pn	00 23 17.7	-0.7
LLP				eS	Sn	00 25 08.7	+11
KAPI	Kappang	9.51	226	Pn	Pn	00 23 28.3	+2.4
	comp=Z,33nm,0.3s,baz=348,slow=2.6,SNR=73						
KAPI				Sn	Sn	00 25 07.2	-4.4
	baz=226,slow=24						
	comp=Z,263nm,0.6s						
KAPI				AML	AML		
KAPI	Kappang	9.51	226	P	Pn	00 23 29.0	+3.1
KAPI	Kappang	9.51	226	P	Pn	00 23 27.8	+1.9
KAPI	Kappang	9.51	226	P	Pn	00 23 26.9	+0.9
KAPI	Kappang	9.51	226		Pn	00 23 26.9	+0.9
KAPI	Kappang	9.51	226	P	Pn	00 23 28.7	+2.8
KAPI	Kappang	9.51	226	P	Pn	00 23 29.4	+3.5
	comp=Z,13μmcomp=Z,315nm,0.7s						
KAPI	Kappang	9.51	226	P	Pn	00 23 26.9	+0.9
	comp=Z,604nm,0.7s,comp=Z,6μmcomp=Z,25μm						
PLP	Palo	9.55	351	eP	Pn	00 23 27.2	+0.6
BAKI	Biak	9.97	107	P	Pn	00 23 37.1	+4.8
BKB	Balikpapan	10.09	253		Pn	00 23 34.0	+0.1
SAUI	Saumlaki	10.70	154	P	Pn	00 23 43.3	+0.9
SAUI	Saumlaki	10.70	154		Pn	00 23 41.0	-1.4
SAUI	Saumlaki	10.70	154	P	Pn	00 23 45.1	+2.7
	comp=Z,49μmcomp=Z,777nm,0.9s						
SAUI	Saumlaki	10.70	154	P	Pn	00 23 43.1	+0.7
	comp=Z,792nm,0.9s,comp=Z,49μm						
IBAJ	Ibajay, Aklan	10.97	337	eP	Pn	00 23 53.0	+7.0
MMRI	Maumere	11.11	203	P	Pn	00 23 49.7	+1.7
MMRI	Maumere	11.11	203		Pn	00 23 48.1	+0.1
MMRI	Maumere	11.11	203	P	Pn	00 23 51.7	+3.7
	comp=Z,26μmcomp=Z,6μmcomp=Z,498nm,1.0s						
MMRI	Maumere	11.11	203	P	Pn	00 23 45.6	-2.4
	comp=Z,499nm,1.2s,comp=Z,5μmcomp=Z,26μm						
KKM	Kota Kinabalu	11.18	293	P	Pn	00 23 51.8	+2.8
KKM	Kota Kinabalu	11.18	293	S	Sn	00 25 56.6	+3.7
KKM	Kota Kinabalu	11.18	293	Pn	Pn	00 23 51.1	+2.1
KKM	Kota Kinabalu	11.18	293	P	Pn	00 23 52.7	+3.7
KKM	Kota Kinabalu	11.18	293	P	Pn	00 23 52.7	+3.7
	comp=Z,15μmcomp=Z,811nm,1.0s						
KKM	Kota Kinabalu	11.18	293	P	Pn	00 23 49.9	+0.9
	comp=Z,811nm,1.0s,comp=Z,15μmcomp=Z,59μm						
SOEI	Soe	11.59	191	P	Pn	00 23 58.6	+4.1
SOEI	Soe	11.59	191	P	Pn	00 23 58.3	+3.8
SOEI	Soe	11.59	191	S	Sn	00 26 05.0	+2.2
SOEI	Soe	11.59	191		Pn	00 23 54.4	-0.2
SOEI	Soe	11.59	191	P	Pn	00 24 00.1	+5.6
SOEI	Soe	11.59	191	P	Pn	00 23 57.6	+3.0
	comp=Z,2μm,1.1s,comp=Z,28μmcomp=Z,43μm						
WSI	Waingapu	12.88	209	P	Pn	00 24 16.3	+4.2
	comp=Z,21μmcomp=Z,13μmcomp=Z,803nm,1.1s						
LQP	Lukban	13.31	338	eP	Pn	00 24 19.5	+1.3
PLAI	Plampang	13.62	220	P	Pn	00 24 24.9	+2.7
PLAI	Plampang	13.62	220	S	Sn	00 26 53.5	+1.2
PLAI	Plampang	13.62	220	P	P	00 24 26.7	-3.6
	comp=Z,17μmcomp=Z,10μmcomp=Z,1μm,1.0s						
PLAI	Plampang	13.62	220	P	Pn	00 24 23.6	+1.4
	comp=Z,1μm,1.0s,comp=Z,10μmcomp=Z,17μm						
GENI	Genyem	14.26	107	P	Pn	00 24 33.3	+2.3
GENI	Genyem	14.26	107	P	Pn	00 24 31.8	+0.8
	comp=Z,2μm,1.0s,comp=Z,29μmcomp=Z,65μm						
DRS	Darwin Rock St	14.67	163	P	Pn	00 24 37.5	+1.0
JAY	Jayapura	14.75	106	P	Pn	00 24 38.0	+0.4
KHKI	Kahang-Kahang	14.79	227	P	P	00 24 41.2	-2.1
	comp=Z,18μmcomp=Z,9μmcomp=Z,1μm,1.1s						
MTN	Manton Dam	15.13	163	P	Pn	00 24 42.6	0.0
	comp=Z,147nm,0.8s,comp=Z,0.0nm						
MTN	Manton Dam	15.13	163	P	Pn	00 24 41.1	-1.5
MTN	Manton Dam	15.13	163	Pn	Pn	00 24 39.9	-2.7
MTN	Manton Dam	15.13	163	P	Pn	00 24 41.1	-1.5
IGBI	Denpasar	15.43	227	P	Pn	00 24 47.2	+0.8
KDU	Kakadu	15.44	158	P	Pn	00 24 48.0	+1.4
	comp=Z,517nm,0.9s,comp=Z,0.0nm						
JAGI	Jajag, Banyuwa	15.95	231	P	P	00 24 56.6	+0.3
JAGI	Jajag, Banyuwa	15.95	231	Pn	Pn	00 24 53.0	-0.2
JAGI	Jajag, Banyuwa	15.95	231	P	P	00 24 56.8	+0.5
JAGI	Jajag, Banyuwa	15.95	231	P	P	00 24 57.1	+0.8
	comp=Z,18μmcomp=Z,10μmcomp=Z,935nm,1.1s						
JAGI	Jajag, Banyuwa	15.95	231	P	P	00 24 54.5	-1.8
	comp=Z,925nm,1.1s,comp=Z,10μmcomp=Z,18μm						
BLJI	Banyuglugur	15.96	234	P	P	00 24 56.5	+0.1
	comp=Z,17μmcomp=Z,8μmcomp=Z,570nm,0.7s						
SZP	Santa	16.87	340	P	P	00 25 05.9	-0.5
SZP	Santa	16.87	340		Pn	00 25 04.8	+0.1
SZP	Santa	16.87	340	P	Pn	00 25 04.9	+0.1
	comp=Z,648nm,1.2s,comp=Z,8μm						
SIPP	Brgy, Tapao	17.21	340	eP	Pn	00 25 07.4	-1.7
SIPP				eS	Sn	00 28 14.4	-5.2
KNRA	Kununurra	17.39	173	P	Pn	00 25 10.8	-0.4
	comp=Z,395nm,0.8s,comp=Z,0.0nm						
KNRA	Kununurra	17.39	173		Pn	00 25 10.2	-1.0
SNJI	Sawahan-Nganju	17.49	237	P	P	00 25 14.4	+0.8
	comp=Z,17μmcomp=Z,8μmcomp=Z,421nm,1.0s						
PCJI	Pacitan	18.20	237	P	Pn	00 25 21.8	+0.5
SMRI	Semarang	18.27	241	P	Pn	00 25 23.6	+1.5
SMRI	Semarang	18.27	241	P	P	00 25 21.5	-0.4
SMRI	Semarang	18.27	241	P	Pn	00 25 23.2	+1.1
	comp=Z,16μmcomp=Z,8μmcomp=Z,419nm,1.1s						
SMRI	Semarang	18.27	241	P	P	00 25 19.9	-2.0
	comp=Z,422nm,1.1s,comp=Z,8μmcomp=Z,16μm						
UGM	Wanagama	18.61	239	P	Pn	00 25 27.2	+1.0
UGM	Wanagama	18.61	239	P	Pn	00 25 26.4	+0.2
UGM	Wanagama	18.61	239	P	Pn	00 25 27.3	+1.0
	comp=Z,15μmcomp=Z,9μmcomp=Z,568nm,1.4s						
UGM	Wanagama	18.61	239	P	Pn	00 25 26.5	+0.2
	comp=Z,570nm,1.4s,comp=Z,9μmcomp=Z,15μm						
YOGI	Yogyakarta	18.76	240	P	Pn	00 25 29.8	+1.7
	comp=Z,15μmcomp=Z,11μmcomp=Z,839nm,0.7s						
TPI	Tanjungpandan	19.40	257	P	P	00 25 34.5	+0.1
FITZ	Fitzroy Crossi	19.68	183	P	P	00 25 37.1	-0.2
	comp=Z,75nm,0.7s						
FITZ	Fitzroy Crossi	19.68	183	P	P	00 25 36.6	-0.7
	comp=Z,12nm,0.3s,baz=16,slow=9.4,SNR=133						
FITZ				S	S	00 29 13.7	-3.5
	comp=Z,28nm,0.9s,baz=329,slow=22,SNR=3.7						
	comp=Z,172nm,0.9s						
FITZ				AML	AML		
FITZ	Fitzroy Crossi	19.68	183	P	P	00 25 37.0	-0.2
FITZ	Fitzroy Crossi	19.68	183	P	P	00 25 36.0	-1.2
FITZ	Fitzroy Crossi	19.68	183	P	P	00 25 36.9	-0.4
	comp=Z,6μmcomp=Z,2μmcomp=Z,75nm,0.7s						
CMJI	Cimerak	20.36	242	P	P	00 25 42.7	-2.1
	comp=Z,11μmcomp=Z,4μmcomp=Z,282nm,1.1s						
DLV	Lat	20.61	300	P	Pn	00 25 49.7	-0.5
DLV	Lat	20.61	300	P	P	00 25 47.7	0.0
DLV	Lat	20.61	300	P	P	00 25 48.0	+0.2
	comp=Z,164nm,0.9s,comp=Z,20μmcomp=Z,2757μm						
BBJI	Bungbulang	20.93	244	P	P	00 25 49.4	-1.7
BBJI	Bungbulang	20.93	244	P	P	00 25 48.7	-2.4
BBJI	Bungbulang	20.93	244	P	P	00 25 49.4	-1.7
MANU	Manus Island	21.14	100	P	P	00 25 52.8	-0.5
CNJI	Cibinong	21.34	245	P	P	00 25 55.9	+0.5
	comp=Z,6μmcomp=Z,281nm,0.9s						
GUMO	Guam	21.64	56	P	P	00 25 57.8	-0.8
	comp=Z,220nm,0.8s,baz=193,slow=10,SNR=7.6						
GUMO				LR	LR	00 34 10.3	
	comp=Z,7μm,19.1s,baz=232,slow=36						
	comp=Z,220nm,0.8s						
GUMO	Guam	21.64	56	P	P	00 26 00.7	+2.1
GUMO	Guam	21.64	56	P	P	00 25 56.2	-2.4
GUMO				IAmb	IAmb	00 26 06.7	
	comp=Z,2μm,1.8s						
GUMO	Guam	21.64	56	P	P	00 25 58.5	-0.1
	comp=Z,20μmcomp=Z,368nm,1.2s						
TWGBT	Beinan	21.67	346	P	P	00 25 56.8	-2.1
PMBI	Palembang	22.25	258	P	P	00 26 07.9	+2.7
PMBI	Palembang	22.25	258	P	P	00 26 05.0	-0.1
PMBI				IAmb	IAmb	00 26 13.2	
	comp=Z,488nm,0.7s						

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PMBI  Palembang        22.25 258    P        P        00 26 06.9 +1.7
      comp=Z,10µmcomp=Z,9µmcomp=Z,715nm,1.3s
SSLB  Suanglung        22.64 347    P        P        00 26 08.0 -1.2
SSLB  Suanglung        22.64 347    P        P        00 26 07.5 -1.7
SSLB  Suanglung        22.64 347    P        P        00 26 07.8 -1.4
      comp=Z,13µmcomp=Z,3µmcomp=Z,366nm,1.1s,comp=Z,3µm
WB0   Warramunga Arr   22.66 161    P        P        00 26 07.8 -1.8
WB9   Warramunga Arr   22.68 161    P        P        00 26 09.3 -0.4
MYKOM Kota Tinggi      22.69 271    P        P        00 26 11.1 +1.2
MYKOM Kota Tinggi      22.69 271    P        P        00 26 09.6 -0.3
MYKOM                               IAmb     IAmb     00 26 13.3
      comp=Z,319nm,1.1s
MYKOM Kota Tinggi      22.69 271    P        P        00 26 10.1 +0.2
      comp=Z,12µmcomp=Z,4µmcomp=Z,293nm,1.2s
MYKOM Kota Tinggi      22.69 271    P        P        00 26 10.3 +0.4
      comp=Z,12µmcomp=Z,4µmcomp=Z,293nm,1.2s,comp=Z,4µm
WB7   Warramunga Arr   22.73 161    P        P        00 26 09.6 -0.6
BTDF  Bukit Timah Da   22.77 270    P        P        00 26 11.7 +0.9
BTDF  Bukit Timah Da   22.77 270    P        P        00 26 11.9 +1.1
WRAB  Tennant Creek    22.80 161    P        P        00 26 09.7 -1.3
WRAB  Tennant Creek    22.80 161c iP        P        00 26 09.5 -1.5
WRAB                                pmax     pmax
      comp=Z,2µm,0.8s
WRAB                                MLR      MLR
      comp=Z,15µm,21.0s
WRAB  Tennant Creek    22.80 161    P        P        00 26 09.2 -1.8
WR1   Warramunga Arr   22.81 161    P        P        00 26 10.7 -0.4
WRA   Warramunga Arr   22.81 161    P        P        00 26 09.6 -1.5
      comp=Z,1µm,0.8s,baz=337,slow=11,SNR=382
WRA                                 PcP      PcP      00 30 02.7 +1.0
      comp=Z,21nm,0.6s,baz=326,slow=2.1,SNR=5.5
WRA                                 S        S        00 30 15.2 -2.4
      comp=Z,67nm,0.8s,baz=332,slow=20,SNR=7.0
WRA                                 ScP      ScP      00 33 36.8 +0.4
      comp=Z,4.5nm,0.6s,baz=322,slow=3.3,SNR=2.4
WRA                                 PKiKP    PKiKP    00 37 47.7 +1.0
      comp=Z,2.8nm,0.9s,baz=325,slow=1.1,SNR=2.9
WRA                                 P3KPbc            00 59 44.4
      comp=Z,2.1nm,1.0s,baz=155,slow=4.0,SNR=5.4
WRA   Warramunga Arr   22.81 161    P        P        00 26 09.3 -1.7
WRA                                 IAmb     IAmb     00 26 12.8
      comp=Z,367nm,1.2s
NACB  Ninganchiao      22.87 348    P        P        00 26 13.3 +1.7
NACB  Ninganchiao      22.87 348    P        P        00 26 10.6 -1.0
      comp=Z,14µmcomp=Z,114nm,1.0s
YOJ   Yonaguni jima    22.91 352    P        P        00 26 14.0 +2.0
YOJ   Yonaguni jima    22.91 352    P        P        00 26 10.8 -1.2
YOJ                                 pmax     pmax
      comp=Z,446nm,0.9s
YOJ   Yonaguni jima    22.91 352    P        P        00 26 10.8 -1.2
YOJ                                 IAmb     IAmb     00 26 32.5
      comp=Z,446nm,0.9s
YOJ   Yonaguni jima    22.91 352    P        P        00 26 11.6 -0.4
      comp=Z,17µmcomp=Z,627nm,1.2s
JMJ   Miyako jima 2    23.03 357    P        P        00 26 15.0 +1.7
MDSI  Maura Dua        23.18 255    P        P        00 26 13.2 -1.7
      comp=Z,175nm,1.1s
DPSS  Saipan           23.28  54    P        P        00 26 14.9 -0.9
DPSS                                IAmb     IAmb     00 26 18.0
      comp=Z,249nm,0.8s
PMG   Port Moresby     23.30 119    LR       LR       00 36 22.9
      comp=Z,23µm,21.0s,baz=323,slow=39
PMG   Port Moresby     23.30 119    P        P        00 26 16.6 +0.6
PMG   Port Moresby     23.30 119c iP        P        00 26 14.0 -2.0
PMG                                 pmax     pmax
      comp=Z,2µm,2.8s
PMG                                 MLR      MLR
      comp=Z,18µm,17.0s
PMG   Port Moresby     23.30 119    P        P        00 26 15.1 -0.9
PMG                                 IAmb     IAmb     00 26 21.0
      comp=Z,536nm,1.1s
PMG   Port Moresby     23.30 119    IAMs_20  IAMs_20  00 36 10.9
      comp=Z,21µm,20.0s
PMG   Port Moresby     23.30 119    P        P        00 26 16.4 +0.3
      comp=Z,18µmcomp=Z,10µmcomp=Z,638nm,1.1s
PMG   Port Moresby     23.30 119    P        P        00 26 16.2 +0.1
      comp=Z,19µmcomp=Z,10µmcomp=Z,652nm,1.1s,comp=Z,10µm
YHNB  Yeheng           23.39 348    P        P        00 26 16.8 -0.2
YHNB  Yeheng           23.39 348    P        P        00 26 16.4 -0.6
      comp=Z,12µmcomp=Z,271nm,1.4s
MBWA  Marble Bar       23.66 196    P        P        00 26 19.1 -0.4
      comp=Z,251nm,1.0s,comp=Z,0.0nm
MBWA  Marble Bar       23.66 196    P        P        00 26 19.1 -0.4
MBWA  Marble Bar       23.66 196    P        P        00 26 18.3 -1.1
MBWA                                S        S        00 30 38.3 +6.7
MBWA  Marble Bar       23.66 196    P        P        00 26 17.9 -1.5
MBWA  Marble Bar       23.66 196    P        P        00 26 18.9 -0.6
      comp=Z,14µmcomp=Z,5µmcomp=Z,251nm,1.0s
TATO  Taipei           23.67 348    P        P        00 26 21.5 +2.0
TATO  Taipei           23.67 348    P        P        00 26 18.8 -0.7
TATO                                IAmb     IAmb     00 26 29.5
      comp=Z,924nm,1.8s
HKPS  Hong Kong Po S   23.77 330    P        P        00 26 21.6 +1.2
HKPS  Hong Kong Po S   23.77 330    P        P        00 26 19.1 -1.3
HKPS                                IAmb     IAmb     00 26 24.8
      comp=Z,1µm,1.8s
HKPS  Hong Kong Po S   23.77 330    P        P        00 26 19.8 -0.6
      comp=Z,14µmcomp=Z,6µmcomp=Z,271nm,1.7s
HKC   Hong Kong Obse   23.77 330 ⇑P        P        00 26 20.0 -0.5
QIZ   Qiongzhong       23.77 318    P        P        00 26 20.1 -0.5
QIZ                                 sP       pP       00 26 30.6 -0.2
QIZ                                 S        S        00 30 33.6 +0.1
QIZ                                 SS       SnSn     00 31 18.9 +4.4
QIZ                                 pmax     pmax
      comp=Z,140nm,1.0s
QIZ                                 pmax     pmax
      comp=Z,2µm,3.4s
QIZ                                 L        L
      comp=Z,8µm,14.1s
QIZ                                 L        L
      comp=Z,8µm,17.1s
QIZ                                 L        L
      comp=Z,14µm,21.3s
QIZ   Qiongzhong       23.77 318    P        P        00 26 20.2 -0.4
QIZ   Qiongzhong       23.77 318    P        P        00 26 20.5 -0.1
      comp=Z,16µmcomp=Z,5µmcomp=Z,344nm,1.7s
MCO   Taipa Grande     23.93 329    P        P        00 26 21.0 -1.0
MNAI  Manna            24.33 256    P        P        00 26 27.2 +1.4
MNAI  Manna            24.33 256    P        P        00 26 25.2 -0.5
MNAI  Manna            24.33 256    P        P        00 26 27.8 +2.0
      comp=Z,658nm,1.5s
QZH2  Quanzhou         24.37 342⇓iP        P        00 26 24.2 -1.8
QZH2                                S        S        00 30 39.2 -3.7
QZH2                                pmax     pmax
      comp=Z,330nm,1.3s
QZH2                                pmax     pmax
      comp=Z,2µm,4.4s
QZH2                                L        L
      comp=Z,11µm,25.4s
QZH2                                L        L
      comp=Z,6µm,20.3s
QZH2                                L        L
      comp=Z,16µm,30.9s
JOW   Kunigami         25.06   4    P        P        00 26 32.8 +0.6
      comp=Z,719nm,0.8s,baz=209,slow=6.8,SNR=15
JOW                                 LR       LR       00 37 21.6
      comp=Z,5µm,19.4s,baz=196,slow=39
      comp=Z,719nm,0.8s
JOW   Kunigami         25.06   4    P        P        00 26 34.4 +2.1
JOW   Kunigami         25.06   4    P        P        00 26 32.4 +0.1
JOW   Kunigami         25.06   4    P        P        00 26 34.6 +2.3
      comp=Z,1µm,0.8s
SDSI  Sungai Dareh     25.25 264    P        P        00 26 35.2 +1.0
      comp=Z,9µmcomp=Z,4µmcomp=Z,372nm,1.3s
QIS   Mount Isa        25.54 151    P        P        00 26 36.2 -0.5
      comp=Z,558nm,0.8s,comp=Z,0.0nm
QIS   Mount Isa        25.54 151    P        P        00 26 36.9 +0.2
QIS   Mount Isa        25.54 151    P        P        00 26 36.2 -0.5
      comp=Z,16µmcomp=Z,8µmcomp=Z,558nm,0.8s,comp=Z,8µm
BKNI  Bangkinang       25.54 267    P        P        00 26 35.9 -0.9
BKNI  Bangkinang       25.54 267    P        P        00 26 39.1 +2.3
BKNI  Bangkinang       25.54 267    P        P        00 26 36.1 -0.7
BKNI                                IAmb     IAmb     00 27 04.1
      comp=Z,293nm,1.1s
BKNI  Bangkinang       25.54 267    P        P        00 26 37.7 +0.9
      comp=Z,8µmcomp=Z,4µmcomp=Z,302nm,1.3s,comp=Z,4µm
IPM   Ipoh             25.64 277    P        P        00 26 37.9 +0.2
IPM   Ipoh             25.64 277    P        P        00 26 36.4 -1.3
IPM   Ipoh             25.64 277    P        P        00 26 37.1 -0.6
      comp=Z,9µmcomp=Z,2µmcomp=Z,161nm,1.2s
IPM   Ipoh             25.64 277    P        P        00 26 37.5 -0.2
      comp=Z,9µmcomp=Z,2µmcomp=Z,161nm,1.2s
KULM  Kulim            26.10 279    P        P        00 26 42.8 +1.0
KULM  Kulim            26.10 279    P        P        00 26 41.2 -0.6
KULM  Kulim            26.10 279    P        P        00 26 41.6 -0.2
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KULM  Kulim            26.10 279    P        P        00 26 41.9 +0.1
      comp=Z,8µmcomp=Z,2µmcomp=Z,86nm,0.9s
KRVT  Keravat (AS076   26.14 103    LR       LR       00 35 29.5
      comp=Z,20µm,20.2s,baz=270,slow=33
AS15  Alice Springs    26.16 165    P        P        00 26 42.1 -0.2
      comp=Z,2µm,0.9s
AS14  Alice Springs    26.18 165    P        P        00 26 42.1 -0.4
      comp=Z,2µm,0.9s
AS31  Alice Springs    26.19 165    P        P        00 26 42.3 -0.3
      comp=Z,340nm,0.9s,comp=Z,0.0nm
AS31  Alice Springs    26.19 165    P        P        00 26 41.9 -0.7
AS31                                IAmb     IAmb     00 26 47.6
      comp=Z,283nm,0.9s
AS04  Alice Springs    26.19 165    P        P        00 26 43.0 +0.4
      comp=Z,1µm,0.9s
ASAR  Alice Springs    26.19 165    P        P        00 26 42.0 -0.6
      comp=Z,671nm,0.9s,baz=347,slow=7.3,SNR=572
ASAR                                PcP      PcP      00 30 09.9 +0.9
      comp=Z,24nm,0.7s,baz=357,slow=2.5,SNR=5.3
ASAR                                S        S        00 31 12.3 +0.3
      comp=Z,84nm,0.7s,baz=0.3,slow=18,SNR=7.2
ASAR                                ScP      ScP      00 33 47.6 +1.8
      comp=Z,4.8nm,0.8s,baz=355,slow=3.3,SNR=3.3
ASAR                                PKiKP    PKiKP    00 37 48.6 +0.1
      comp=Z,1.4nm,0.8s,baz=344,slow=1.4,SNR=2.8
ASAR                                P3KPbc            00 59 29.9
      comp=Z,0.6nm,0.7s,baz=153,slow=3.7,SNR=6.2
      comp=Z,671nm,0.9s
ASAR  Alice Springs    26.19 165    P        P        00 26 41.6 -0.9
ASAR                                PcP      PcP      00 30 09.0  0.0
AS01  Alice Springs    26.20 164    P        P        00 26 41.9 -0.7
      comp=Z,1µm,0.9s
AS01  Alice Springs    26.20 164    P        P        00 26 42.7  0.0
AS07  Alice Springs    26.21 164    P        P        00 26 42.2 -0.5
      comp=Z,1µm,0.9s
AUALC St Philip's Co   26.21 165    P        P        00 26 42.8 +0.1
AS17  Alice Springs    26.21 164    P        P        00 26 42.3 -0.5
      comp=Z,1µm,1.0s
AS09  Alice Springs    26.23 165    P        P        00 26 42.4 -0.5
      comp=Z,824nm,1.0s
PPI   Padang Panjang   26.24 266    P        P        00 26 43.7 +0.6
      comp=Z,7µmcomp=Z,2µmcomp=Z,145nm,1.2s
AS19  Alice Springs    26.24 164    P        P        00 26 43.1 +0.1
      comp=Z,562nm,0.8s
RABL  Rabaul           26.25 103    P        P        00 26 42.2 -1.0
MTSU  Mount Surprise   26.34 139    P        P        00 26 43.7 -0.2
      comp=Z,308nm,0.8s
MTSU  Mount Surprise   26.34 139    P        P        00 26 44.1 +0.2
MTSU  Mount Surprise   26.34 139    P        P        00 26 43.7 -0.2
      comp=Z,145nmcomp=Z,2µmcomp=Z,308nm,0.8s,comp=Z,2µm
WRKA  Warakurna        26.61 176    P        P        00 26 46.7 +0.3
      comp=Z,441nm,0.9s,comp=Z,0.0nm
PPSI  Pulau Pagai      26.90 261    P        P        00 26 48.5 -0.5
GIRL  Giralia          27.00 206    P        P        00 26 50.7 +1.0
      comp=Z,362nm,1.1s,comp=Z,0.0nm
GIRL  Giralia          27.00 206    P        P        00 26 50.2 +0.4
GIRL                                IAmb     IAmb     00 26 54.6
      comp=Z,452nm,1.2s
SISI  Saibi            27.62 264    P        P        00 26 55.4 -0.1
      comp=Z,3µmcomp=Z,181nm,0.9s
RPSI  Rantau Prapat    27.62 273    P        P        00 26 54.7 -0.9
RPSI  Rantau Prapat    27.62 273    P        P        00 26 55.1 -0.5
      comp=Z,6µmcomp=Z,2µmcomp=Z,138nm,1.1s,comp=Z,2µm
PSI   Prapat           27.63 273    P        P        00 26 57.1 +1.4
PSI   Prapat           27.63 273    P        P        00 26 54.7 -1.0
PSI                                 pmax     pmax
      comp=Z,156nm,1.1s
PSI                                 MLR      MLR
      comp=Z,9µm,22.0s
PSI   Prapat           27.63 273    P        P        00 26 54.9 -0.8
      comp=Z,6µmcomp=Z,2µmcomp=Z,138nm,1.1s
GULI  GuiLin           28.19 328    P        P        00 26 59.4 -1.1
GULI                                S        S        00 31 41.1 -2.4
GULI                                pmax     pmax
      comp=Z,35nm,1.5s
GULI                                pmax     pmax
      comp=Z,760nm,7.5s
GULI                                L        L
      comp=Z,3µm,16.2s
GULI                                L        L
      comp=Z,7µm,20.6s
GULI                                L        L
      comp=Z,9µm,25.5s
GSI   Gunungsitoli     28.97 270    P        P        00 27 08.6 +1.0
GSI   Gunungsitoli     28.97 270    P        P        00 27 06.6 -0.9
GSI                                 IAmb     IAmb     00 27 10.3
      comp=Z,167nm,0.9s
GSI   Gunungsitoli     28.97 270    P        P        00 27 06.9 -0.7
      comp=Z,6µmcomp=Z,208nm,0.9s
GSI   Gunungsitoli     28.97 270    P        P        00 27 07.1 -0.5
      comp=Z,6µmcomp=Z,210nm,0.9s
CTA   Charters Tower   29.01 139    P        P        00 27 08.2 +0.4
      comp=Z,105nm,1.1s,comp=Z,0.0nm
CTA   Charters Tower   29.01 139    LR       LR       00 41 34.7
      comp=Z,15µm,20.4s,baz=322,slow=42
CTA   Charters Tower   29.01 139    P        P        00 27 08.4 +0.6
CTA   Charters Tower   29.01 139    P        P        00 27 08.5 +0.6
CTA                                 pmax     pmax
      comp=Z,8.0nm,1.1s
CTAO  Charters Tower   29.01 139    P        P        00 27 08.3 +0.5
CTAO  Charters Tower   29.01 139    P        P        00 27 07.2 -0.6
CTAO                                pmax     pmax
      comp=Z,209nm,1.0s
CTAO  Charters Tower   29.01 139    P        P        00 27 07.2 -0.6
CTAO                                IAmb     IAmb     00 27 10.7
      comp=Z,209nm,1.0s
CTAO  Charters Tower   29.01 139    P        P        00 27 08.0 +0.2
      comp=Z,12µmcomp=Z,3µmcomp=Z,265nm,1.1s,comp=Z,3µm
MEEK  Meekatharra      29.18 195    P        P        00 27 09.2  0.0
      comp=Z,214nm,1.0s,comp=Z,0.0nm
MEEK  Meekatharra      29.18 195    P        P        00 27 09.4 +0.1
MEEK  Meekatharra      29.18 195    P        P        00 27 09.6 +0.4
      comp=Z,8µmcomp=Z,3µmcomp=Z,214nm,1.0s
CNSH  ChangSha         29.39 335    P        P        00 27 13.1 +2.0
CNSH                                S        S        00 32 04.6 +2.3
CNSH                                pmax     pmax
      comp=Z,48nm,1.5s
CNSH                                L        L
      comp=Z,5µm,21.6s
CNSH                                L        L
      comp=Z,5µm,21.6s
CNSH                                L        L
      comp=Z,7µm,27.0s
AUAYR Ayr State High   29.43 137    P        P        00 27 12.5 +1.0
SLVN  Son La           29.47 313    P        P        00 27 12.7 +0.7
SLVN  Son La           29.47 313    P        P        00 27 11.7 -0.3
      comp=Z,5µmcomp=Z,76nm,1.5s
SSE   Sheshan          29.69 351    P        P        00 27 13.5 -0.2
SSE                                 S        S        00 32 07.5 +0.5
SSE                                 pmax     pmax
      comp=Z,61nm,1.1s
SSE                                 pmax     pmax
      comp=Z,760nm,4.2s
SSE                                 L        L
      comp=Z,3µm,25.9s
SSE                                 L        L
      comp=Z,1µm,22.2s
LHMI  Lhok Sumawe      29.75 278    P        P        00 27 13.9 -0.6
LHMI                                IAmb     IAmb     00 27 27.2
      comp=Z,261nm,1.4s
JSU   Suzuyama         29.89   7    P        P        00 27 15.8 +0.2
JSU                                 IAmb     IAmb     00 27 24.4
      comp=Z,148nm,1.0s
WHN   Wuhan            30.95 339 ⇓P        P        00 27 26.0 +1.2
WHN                                 pP       pP       00 27 32.3 -3.1
WHN                                 S        S        00 32 28.7 +2.0
WHN                                 pmax     pmax
      comp=Z,330nm,1.1s
WHN                                 L        L
      comp=Z,39µm,29.1s
NJ2   Nanjing          31.07 347   eP        P        00 27 26.9 +1.0
NJ2                                 S        S        00 32 30.5 +2.0
NJ2                                 pmax     pmax
      comp=Z,200nm,1.2s
NJ2                                 pmax     pmax
      comp=Z,3µm,3.8s
NJ2                                 L        L
      comp=Z,13µm,23.2s
NJ2                                 L        L
      comp=Z,9µm,21.8s
NJ2                                 L        L
      comp=Z,27µm,21.8s
GYA   Guiyang          31.18 324 ⇑P        P        00 27 27.6 +0.5
GYA                                 PP       PP       00 28 34.2 -3.8
GYA                                 S        S        00 32 35.4 +4.7
GYA                                 SS       ScP      00 34 20.6  +19
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GYA                                 pmax     pmax
      comp=Z,56nm,0.9s
GYA                                 pmax     pmax
      comp=Z,810nm,5.0s
GYA                                 L        L
      comp=Z,3µm,17.1s
GYA                                 L        L
      comp=Z,6µm,22.2s
GYA                                 L        L
      comp=Z,9µm,22.4s
BSI   Banda Aceh       31.42 278    P        P        00 27 30.0 +0.8
      comp=Z,5µmcomp=Z,83nm,1.1s
JNU   Nakatsue         31.54   7    P        P        00 27 30.0 -0.1
      comp=Z,232nm,0.8s,baz=152,slow=3.3,SNR=31
JNU                                 S        S        00 32 30.7 -5.3
      comp=Z,3.3nm,0.3s,baz=81,slow=22,SNR=9.8
JNU                                 LR       LR       00 41 05.3
      comp=Z,5µm,21.7s,baz=180,slow=38
      comp=Z,232nm,0.8s
CM31  Chiang Mai Arr   31.80 303    P        P        00 27 31.4 -1.1
      SNR=31
CM31                                S        S        00 32 42.4 +2.1
CM31  Chiang Mai Arr   31.80 303    P        P        00 27 32.1 -0.4
CMAR  Chiang Mai Arr   31.80 303    P        P        00 27 31.8 -0.7
      comp=Z,20nm,0.9s,baz=121,slow=7.3,SNR=88
CMAR                                PcP      PcP      00 30 24.9 +1.7
      comp=Z,9.3nm,0.9s,baz=189,slow=1.9,SNR=5.6
CMAR                                ScP      ScP      00 34 07.7 +4.0
      comp=Z,2.3nm,0.8s,baz=123,slow=1.2,SNR=4.5
CMAR                                PKiKP    PKiKP    00 37 53.7 +1.5
      comp=Z,1.7nm,0.6s,baz=104,slow=0.6,SNR=6.5
CMAR                                LR       LR       00 39 13.3
      comp=Z,3µm,21.9s,baz=110,slow=34
      comp=Z,20nm,0.9s
CMAR  Chiang Mai Arr   31.80 303ceP        P        00 27 32.7 +0.2
CMAR                                pmax     pmax
      comp=Z,20nm,0.9s
CMAR  Chiang Mai Arr   31.80 303    P        P        00 27 32.1 -0.3
CMAR                                         ScP      00 34 01.5 -2.2
CHTO  Chiang Mai       31.96 304    P        P        00 27 34.4 +0.4
CHTO  Chiang Mai       31.96 304    P        P        00 27 32.5 -1.5
CHTO  Chiang Mai       31.96 304    P        P        00 27 33.2 -0.8
CHTO                                pmax     pmax
      comp=Z,53nm,0.8s
CHTO                                MLR      MLR
      comp=Z,8µm,22.0s
CHTO  Chiang Mai       31.96 304    P        P        00 27 33.2 -0.8
CHTO  Chiang Mai       31.96 304    P        P        00 27 34.7 +0.7
      comp=Z,6µmcomp=Z,80nm,0.8s
CHTO  Chiang Mai       31.96 304    P        P        00 27 33.3 -0.8
      comp=Z,6µmcomp=Z,868nmcomp=Z,80nm,0.8s,comp=Z,868nm
CHTO  Chiang Mai       31.96 304    P        P        00 27 33.9 -0.1
PATS  Pohnpei          32.07  80    P        P        00 27 34.5 -0.5
      comp=Z,115nm,1.0s
PATS  Pohnpei          32.07  80    P        P        00 27 35.6 +0.6
PATS  Pohnpei          32.07  80    P        P        00 27 33.9 -1.1
PATS                                IAMs_20  IAMs_20  00 37 28.1
      comp=Z,17µm,22.0s
PATS  Pohnpei          32.07  80    P        P        00 27 35.6 +0.6
      comp=Z,117nm,1.0s
MORW  Morawa           32.19 197    P        P        00 27 35.9 +0.1
      comp=Z,188nm,1.3s,comp=Z,0.0nm
MORW  Morawa           32.19 197    P        P        00 27 35.9 +0.1
MORW  Morawa           32.19 197    P        P        00 27 35.4 -0.4
MORW                                IAmb     IAmb     00 27 38.7
      comp=Z,241nm,1.3s
MORW  Morawa           32.19 197    P        P        00 27 36.2 +0.4
      comp=Z,7µmcomp=Z,4µmcomp=Z,188nm,1.3s,comp=Z,4µm
INKA  Innaminka        32.28 156    P        P        00 27 36.2 -0.4
FORT  Forrest          32.31 178    P        P        00 27 37.2 +0.4
      comp=Z,525nm,0.8s,comp=Z,0.0nm
FORT  Forrest          32.31 178    P        P        00 27 36.5 -0.3
COCO  West Island      32.58 244  i P        P        00 27 41.4 +2.1
JMN   Monobe           32.61  11    P        P        00 27 40.9 +1.4
JMN   Monobe           32.61  11    P        P        00 27 39.4 -0.1
JMN                                 IAmb     IAmb     00 27 44.4
      comp=Z,204nm,1.0s
JMN   Monobe           32.61  11    P        P        00 27 39.6 +0.1
      comp=Z,222nm,1.7s,comp=Z,11µm
ENH   Enshi            32.72 332    P        P        00 27 40.6 +0.1
ENH   Enshi            32.72 332             P        00 27 39.4 -1.1
ENH                                 IAmb     IAmb     00 27 51.3
      comp=Z,133nm,0.9s
ENH   Enshi            32.72 332    P        P        00 27 40.6 +0.1
      comp=Z,2µmcomp=Z,160nm,1.1s
KMI2  Kunming          32.74 317 ⇓P        P        00 27 41.0 +0.1
KMI2                                PP       PP       00 28 49.7 -5.7
KMI2                                sS       sS       00 33 14.9 +2.0
KMI2                                pmax     pmax
      comp=Z,70nm,1.1s
KMI2                                pmax     pmax
      comp=Z,710nm,4.4s
KMI2                                L        L
      comp=Z,4µm,23.8s
KMI2                                L        L
      comp=Z,8µm,19.7s
KMI2                                L        L
      comp=Z,13µm,23.4s
QLP   Quilpie          32.88 150    P        P        00 27 41.3 -0.6
      comp=Z,339nm,0.9s
QLP   Quilpie          32.88 150    P        P        00 27 42.2 +0.4
QLP   Quilpie          32.88 150    P        P        00 27 41.7 -0.2
      comp=Z,4µmcomp=Z,339nm,0.9s,comp=Z,4µm
KMBL  Kambalda         33.16 187    P        P        00 27 45.0 +0.7
      comp=Z,141nm,1.0s
BLDU  Ballidu          33.46 196    P        P        00 27 47.2 +0.3
      comp=Z,281nm,1.2s
BLDU  Ballidu          33.46 196    P        P        00 27 47.0 +0.1
BLDU  Ballidu          33.46 196    P        P        00 27 47.2 +0.3
      comp=Z,4µmcomp=Z,281nm,1.2s,comp=Z,4µm
AUNRC North Rockhamp   34.12 138    P        P        00 27 52.9 +0.2
KLBR  Kellerberrin     34.13 193    P        P        00 27 52.7  0.0
      comp=Z,471nm,1.0s
KLBR  Kellerberrin     34.13 193    P        P        00 27 52.7  0.0
KLBR  Kellerberrin     34.13 193    P        P        00 27 52.9 +0.2
      comp=Z,4µmcomp=Z,471nm,1.0s,comp=Z,4µm
PZH   PanZhiHua        34.31 318    P        P        00 27 54.6 +0.1
PZH                                 PP       PP       00 29 11.1 -1.7
PZH                                 S        S        00 33 14.2 -5.2
PZH                                 SS       SnSn     00 35 32.4 +1.1
PZH                                 pmax     pmax
      comp=Z,110nm,0.9s
PZH                                 pmax     pmax
      comp=Z,710nm,7.7s
PZH                                 L        L
      comp=Z,6µm,23.5s
PZH                                 L        L
      comp=Z,4µm,24.5s
PZH                                 L        L
      comp=Z,10µm,23.0s
TJN   Taejon           34.53   1    P        P        00 27 59.6 +3.5
TJN   Taejon           34.53   1c iP        P        00 27 54.2 -1.9
TJN   Taejon           34.53   1    P        P        00 27 56.8 +0.7
TJN   Taejon           34.53   1    P        P        00 27 57.6 +1.5
      comp=Z,12µmcomp=Z,476nm,1.1s
JSG   Sagara           34.57  17    P        P        00 27 58.3 +1.8
JSG   Sagara           34.57  17    P        P        00 27 56.5 +0.1
JSG   Sagara           34.57  17    P        P        00 27 56.9 +0.4
      comp=Z,576nm,1.1s
TATA  Tatamba Isabel   34.63 107    P        P        00 27 57.7 +0.4
NPW   Naypyitaw        34.76 303    P        P        00 27 58.3 +0.1
      comp=Z,94nm,1.1s,comp=Z,3µmcomp=Z,2µm
SAVO  Savo Central     34.84 109    P        P        00 27 59.0 -0.1
GD1S  Gladstone Soft   34.88 138    P        P        00 28 00.4 +1.1
MUN   Mundaring        34.88 195    P        P        00 27 59.1 -0.2
      comp=Z,154nm,1.0s
MUN   Mundaring        34.88 195    P        P        00 27 59.8 +0.6
MUN   Mundaring        34.88 195    P        P        00 27 59.0 -0.2
INU   Inuyama          34.88  15    P        P        00 28 00.8 +1.6
INU   Inuyama          34.88  15    P        P        00 27 59.1 -0.1
INU                                 IAMs_20  IAMs_20  00 40 09.2
      comp=Z,8µm,22.0s
INU   Inuyama          34.88  15    P        P        00 28 00.0 +0.8
      comp=Z,3µmcomp=Z,340nm,1.1s,comp=Z,3µm
INU   Inuyama          34.88  15    P        P        00 28 00.3 +1.1
INU                                 PcP      PcP      00 30 34.7 +3.2
PBA   Port Blair       34.97 288    P        P        00 28 03.8 +3.7
PBA   Port Blair       34.97 288    P        P        00 28 00.1 -0.1
PBA   Port Blair       34.97 288    P        P        00 28 00.1 -0.1
      comp=Z,70nm,1.5s,comp=Z,5µm
HNR   Honiara          35.05 109    LR       LR       00 41 35.6
      comp=Z,6µm,21.6s,baz=0.5,slow=35
HNR   Honiara          35.05 109    P        P        00 28 01.6 +0.7
HNR   Honiara          35.05 109    P        P        00 27 59.3 -1.6
HNR                                 pmax     pmax
      comp=Z,484nm,0.9s
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HNR                                 MLR      MLR
      comp=Z,7µm,20.0s
HNR   Honiara           35.05 109   P        P          00 27 59.3 -1.6
HNR   Honiara           35.05 109   IAMs_20  IAMs_20    00 44 38.7
      comp=Z,7µm,20.0s
HNR   Honiara           35.05 109   P        P          00 28 00.1 -0.8
      comp=Z,6µmcomp=Z,5µmcomp=Z,609nm,0.9s,comp=Z,5µm
JGF   Kuroka            35.21  15   P        P          00 28 03.4 +1.4
JGF   Kuroka            35.21  15   P        P          00 28 01.5 -0.6
JGF                                 IAmb     IAmb       00 28 05.9
      comp=Z,113nm,0.7s
JGF   Kuroka            35.21  15   P        P          00 28 02.4 +0.3
      comp=Z,160nm,1.5s
LYN   LuoYang           35.24 340   P        P          00 28 02.3  0.0
LYN                                 pP       pP         00 28 13.4 +0.5
LYN                                 sP       sP         00 28 19.1 +1.6
LYN                                 PP       PnPn       00 29 19.6 -1.5
LYN                                 PcP      PcP        00 30 34.3 +1.7
LYN                                 S        S          00 33 31.1 -2.2
LYN                                 pmax     pmax
      comp=Z,110nm,1.1s
LYN                                 pmax     pmax
      comp=Z,1µm,5.6s
LYN                                 L        L
      comp=Z,8µm,24.0s
LYN                                 L        L
      comp=Z,5µm,25.4s
LYN                                 L        L
      comp=Z,13µm,26.8s
TIA   Tai'an            35.45 347   P        P          00 28 04.1  0.0
TIA                                 PcP      PcP        00 30 34.6 +1.4
TIA                                 S        S          00 33 32.4 -4.1
TIA                                 pmax     pmax
      comp=Z,88nm,0.9s
TIA                                 pmax     pmax
      comp=Z,2µm,4.5s
TIA                                 L        L
      comp=Z,4µm,17.5s
TIA                                 L        L
      comp=Z,2µm,16.8s
TIA                                 L        L
      comp=Z,8µm,22.7s
BBOO  Buckleboo         35.46 166   P        P          00 28 03.6 -0.6
      comp=Z,210nm,0.6s,comp=Z,0.0nm
BBOO  Buckleboo         35.46 166   P        P          00 28 03.6 -0.6
BBOO  Buckleboo         35.46 166   P        P          00 28 03.4 -0.8
BBOO                                IAmb     IAmb       00 28 10.0
      comp=Z,348nm,1.2s
BBOO  Buckleboo         35.46 166   P        P          00 28 03.4 -0.8
      comp=Z,8µmcomp=Z,4µmcomp=Z,210nm,0.6s,comp=Z,4µm
NWAO  Narrogin (SRO)    35.53 194   P        P          00 28 05.4 +0.7
      comp=Z,332nm,1.3s
NWAO  Narrogin (SRO)    35.53 194   P        P          00 28 05.0 +0.3
      comp=Z,204nm,1.3s,comp=Z,0.0nm
NWAO  Narrogin (SRO)    35.53 194   P        P          00 28 05.8 +1.0
NWAO  Narrogin (SRO)    35.53 194   P        P          00 28 05.4 +0.7
NWAO  Narrogin (SRO)    35.53 194   P        P          00 28 04.2 -0.6
NWAO                                pmax     pmax
      comp=Z,212nm,1.2s
NWAO                                MLR      MLR
      comp=Z,3µm,22.0s
NWAO  Narrogin (SRO)    35.53 194   P        P          00 28 04.2 -0.6
NWAO                                IAmb     IAmb       00 28 07.8
      comp=Z,212nm,1.1s
NWAO  Narrogin (SRO)    35.53 194   P        P          00 28 05.5 +0.7
      comp=Z,6µmcomp=Z,193nm,1.3s
KSAR  Wonju Array Be    35.61   2   P        P          00 28 05.9 +0.6
KSAR                                                    00 30 34.2
KSAR  Wonju Array Be    35.61   2   P        P          00 28 05.9 +0.6
KSAR                                PcP      PcP        00 30 34.2 +0.7
KSRS  Korea Array       35.62   2   P        P          00 28 05.9 +0.4
      comp=Z,45nm,0.7s,baz=178,slow=8.6,SNR=67
KSRS                                PcP      PcP        00 30 35.2 +1.7
      comp=Z,14nm,0.7s,baz=184,slow=2.5,SNR=11
KSRS                                ScP      ScP        00 34 19.4 +2.8
      comp=Z,3.8nm,0.8s,baz=183,slow=3.9,SNR=4.6
KSRS                                LR       LR         00 46 22.1
      comp=Z,1µm,18.4s,baz=180,slow=42
      comp=Z,45nm,0.7s
INCN  Inchon            35.63   0   P        P          00 28 07.4 +1.8
INCN  Inchon            35.63   0   P        P          00 28 06.3 +0.7
INCN                                pmax     pmax
      comp=Z,128nm,1.3s
INCN                                MLR      MLR
      comp=Z,6µm,21.0s
INCN  Inchon            35.63   0   P        P          00 28 06.2 +0.7
INCN                                IAmb     IAmb       00 28 14.6
      comp=Z,128nm,1.2s
INCN  Inchon            35.63   0   P        P          00 28 06.0 +0.4
      comp=Z,82nm,0.9s
TNCH  TengChong         35.64 313⇓iP       P          00 28 05.8 -0.3
TNCH                                PP       PP         00 29 29.4 +1.8
TNCH                                S        S          00 33 33.2 -6.9
TNCH                                SS       SnSn       00 36 01.0 -2.6
TNCH                                pmax     pmax
      comp=Z,85nm,0.7s
TNCH                                L        L
      comp=Z,2µm,19.4s
TNCH                                L        L
      comp=Z,2µm,21.2s
TNCH                                L        L
      comp=Z,11µm,28.8s
KS19  Wonju Array Si    35.67   2   P        P          00 28 05.9  0.0
KS19                                IAmb     IAmb       00 28 13.4
      comp=Z,127nm,1.1s
NGOA  Tingoa Renbel     35.81 112   P        P          00 28 08.4 +1.0
EIDS  Eidsvold          35.88 140   P        P          00 28 07.8 -0.1
EIDS  Eidsvold          35.88 140   P        P          00 28 08.2 +0.3
EIDS  Eidsvold          35.88 140   P        P          00 28 07.3 -0.6
EIDS  Eidsvold          35.88 140   P        P          00 28 07.7 -0.1
XAN   Xi'an             36.17 335   P        P          00 28 09.6 -0.7
XAN                                 sP       sP         00 28 26.7 +1.2
XAN                                 PP       PP         00 29 34.1 +1.0
XAN                                 PcP      PcP        00 30 38.0 +2.6
XAN                                 S        S          00 33 44.6 -3.0
XAN                                 sS       sS         00 34 05.5 +0.1
XAN                                 pmax     pmax
      comp=Z,48nm,1.3s
XAN                                 L        L
      comp=Z,6µm,23.7s
XAN                                 L        L
      comp=Z,5µm,18.6s
XAN                                 L        L
      comp=Z,8µm,23.0s
XAN   Xi'an             36.17 335   P        P          00 28 08.5 -1.8
CD2   Chengdu           36.20 326   P        P          00 28 10.2 -0.4
CD2                                 S        S          00 33 44.8 -3.4
CD2                                 pmax     pmax
      comp=Z,210nm,1.0s
CD2                                 pmax     pmax
      comp=Z,1µm,8.3s
CD2                                 L        L
      comp=Z,9µm,25.7s
CD2                                 L        L
      comp=Z,10µm,22.9s
CD2                                 L        L
      comp=Z,7µm,23.5s
STKA  Stephens Creek    36.30 158   P        P          00 28 10.7 -0.6
      comp=Z,999nm,0.9s,comp=Z,0.0nm
STKA  Stephens Creek    36.30 158   P        P          00 28 10.5 -0.9
      comp=Z,181nm,0.8s,baz=331,slow=8.2,SNR=202
STKA                                PP       PnPn       00 29 34.3 +0.1
      comp=Z,53nm,0.6s,baz=329,slow=7.6,SNR=2.8
STKA                                PcP      PcP        00 30 37.1 +1.4
      comp=Z,53nm,0.7s,baz=315,slow=1.0,SNR=3.1
STKA                                S        S          00 33 46.4 -3.2
      comp=Z,13nm,0.9s,baz=95,slow=19,SNR=1.7
      comp=Z,181nm,0.8s
STKA  Stephens Creek    36.30 158   P        P          00 28 11.1 -0.3
STKA  Stephens Creek    36.30 158c iP       P          00 28 11.3 -0.1
STKA  Stephens Creek    36.30 158   P        P          00 28 10.7 -0.6
      comp=Z,32µmcomp=Z,12µmcomp=Z,999nm,0.9s
MJAR  Matsushiro Arr    36.33  16   P        P          00 28 10.8 -0.8
      comp=Z,55nm,0.6s,baz=187,slow=9.1,SNR=131
MJAR                                PcP      PcP        00 30 37.1 +1.3
      comp=Z,26nm,0.9s,baz=172,slow=2.8,SNR=5.7
MJAR                                S        S          00 33 54.7 +4.8
      comp=Z,1.5nm,0.8s,baz=142,slow=46,SNR=2.2
MJAR                                ScP      ScP        00 34 18.9 -0.4
      comp=Z,9.5nm,1.1s,baz=191,slow=4.1,SNR=5.4
MJAR                                LR       LR         00 41 47.3
      comp=Z,6µm,21.4s,baz=216,slow=34
      comp=Z,55nm,0.6s
MJAR  Matsushiro Arr    36.33  16   P        P          00 28 10.8 -0.8
MJAR                                IAmb     IAmb       00 28 17.8
      comp=Z,150nm,0.8s
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MJAR                                         PcP        00 30 36.1 +0.3
MJAR                                         ScP        00 34 17.9 -1.4
MAJO  Matsushiro        36.33  16   P        P          00 28 11.6  0.0
MAJO  Matsushiro        36.33  16d iP       P          00 28 10.8 -0.8
MAJO                                pmax     pmax
      comp=Z,280nm,0.9s
MAJO                                MLR      MLR
      comp=Z,7µm,24.0s
MAJO  Matsushiro        36.33  16   P        P          00 28 10.8 -0.8
MAJO  Matsushiro        36.33  16   P        P          00 28 11.2 -0.4
      comp=Z,3µmcomp=Z,322nm,0.8s,comp=Z,3µm
MJB9  Matsu-Tunnel      36.33  16   P        P          00 28 11.8 +0.2
MJB9                                IAmb     IAmb       00 28 18.8
      comp=Z,223nm,0.7s
AUCAS Cummins Area S    36.78 167   P        P          00 28 16.5 +1.1
HTT   Hallett           36.82 163   P        P          00 28 15.9  0.0
      comp=Z,44nm,1.1s
HTT   Hallett           36.82 163   P        P          00 28 16.4 +0.5
HTT   Hallett           36.82 163   P        P          00 28 15.9  0.0
AULRC Lightning Ridg    37.11 148   P        P          00 28 19.0 +0.7
HNS   HongShan          37.18 344 ⇓P        P          00 28 18.6 -0.2
HNS                                 PcP      PcP        00 30 41.4 +3.1
HNS                                 S        S          00 33 55.8 -7.0
HNS                                 pmax     pmax
      comp=Z,130nm,1.3s
HNS                                 L        L
      comp=Z,6µm,22.0s
HNS                                 L        L
      comp=Z,6µm,22.6s
HNS                                 L        L
      comp=Z,10µm,23.7s
PYAG  Pyongyang         37.20 359   P        P          00 28 20.5 +1.6
PYAG                                S        S          00 34 07.0 +3.9
PYAG                                AmB
      comp=Z,1µm,3.2s
RKGY  Rocky Gully       37.20 193   P        P          00 28 19.8 +0.8
      comp=Z,143nm,1.2s
DL2   Dalian            37.32 354   P        P          00 28 21.2 +1.3
DL2                                 S        S          00 34 08.2 +3.3
DL2                                 pmax     pmax
      comp=Z,180nm,0.9s
DL2                                 pmax     pmax
      comp=Z,2µm,8.6s
DL2                                 L        L
      comp=Z,7µm,20.5s
DL2                                 L        L
      comp=Z,6µm,16.1s
DL2                                 L        L
      comp=Z,12µm,18.8s
AUALB St Joseph's Co    37.38 192   P        P          00 28 21.3 +0.8
CMSA  Cobar Meteorol    37.71 153   P        P          00 28 23.7 +0.3
      comp=Z,162nm,1.2s,comp=Z,0.0nm
CMSA  Cobar Meteorol    37.71 153   P        P          00 28 23.6 +0.3
CMSA  Cobar Meteorol    37.71 153   P        P          00 28 23.7 +0.3
      comp=Z,7µmcomp=Z,3µmcomp=Z,162nm,1.2s,comp=Z,3µm
TW1H  Toowoomba 1 Ha    37.98 142   P        P          00 28 26.7 +0.9
AUTOO Toowoomba Stat    37.98 142   P        P          00 28 26.7 +0.9
HHU   Hamhung           38.08   1   P        P          00 28 27.5 +1.2
HHU                                 AmB
      comp=Z,1µm,2.7s
HHU                                 AMS      AMS
      comp=Z,5µm,18.1s
AUMAR Marden Senior     38.10 164   P        P          00 28 27.6 +1.0
AUBSH Beerwah State     38.12 140   P        P          00 28 26.7 -0.2
GHSS  Government Hou    38.12 164   P        P          00 28 27.9 +1.1
TIY   Taiyuan           38.14 342   P        P          00 28 27.2 +0.2
TIY                                 PP       PP         00 29 56.5 +1.8
TIY                                 S        S          00 34 12.0 -5.5
TIY                                 SS       SnSn       00 37 01.0 -2.5
TIY                                 pmax     pmax
      comp=Z,44nm,0.8s
TIY                                 pmax     pmax
      comp=Z,1µm,5.3s
TIY                                 L        L
      comp=Z,6µm,22.7s
TIY                                 L        L
      comp=Z,3µm,22.7s
TIY                                 L        L
      comp=Z,10µm,26.1s
H01W3 Cape Leeuwin H    38.19 197   P        P          00 28 25.5 -1.6
      baz=35,slow=6.6,SNR=4.5
H01W1 Cape Leeuwin H    38.19 197   P        P          00 28 27.7 +0.6
      baz=35,slow=6.6,SNR=7.1
H01W2 Cape Leeuwin H    38.20 197   P        P          00 28 27.0 -0.2
      baz=35,slow=6.6,SNR=4.5
SUJ   Sinuiju           38.29 357   P        P          00 28 29.6 +1.5
MORE  Moreh             38.41 308   P        P          00 28 28.0 -1.4
MORE                                PcP      PcP        00 30 42.5 +0.1
AUMBR Murray Bridge     38.52 163   P        P          00 28 31.0 +0.9
SAIH  SAIHA             38.61 305  eP        P          00 28 28.4 -2.8
SAIH                                IAmb     IAmb       00 28 41.9
      comp=Z,162nm,0.9s
IMP   Imphal            38.99 309  eP        P          00 28 31.5 -2.9
IMP                                 IAmb     IAmb       00 28 36.9
      comp=Z,145nm,1.2s
BJI2  Beijing           39.31 347   P        P          00 28 37.0 +0.3
BJI2                                pP       pP         00 28 44.3 -3.0
BJI2                                PP       PnPn       00 30 10.3 -0.1
BJI2                                S        S          00 34 31.4 -3.6
BJI2                                ScS      ScS        00 38 41.0 -1.2
BJI2                                pmax     pmax
      comp=Z,87nm,1.1s
BJI2                                pmax     pmax
      comp=Z,580nm,3.8s
BJI2                                L        L
      comp=Z,2µm,23.7s
BJI2                                L        L
      comp=Z,1µm,23.5s
BJI2                                L        L
      comp=Z,3µm,24.3s
BJT   Baijiatuau        39.31 347   P        P          00 28 37.9 +1.2
BJT   Baijiatuau        39.31 347   P        P          00 28 36.4 -0.3
BJT                                 pmax     pmax
      comp=Z,138nm,0.9s
BJT                                 MLR      MLR
      comp=Z,2µm,22.0s
BJT   Baijiatuau        39.31 347            P          00 28 36.4 -0.3
BJT                                 IAmb     IAmb       00 29 03.6
      comp=Z,138nm,0.9s
BJT   Baijiatuau        39.31 347   P        P          00 28 37.2 +0.5
      comp=Z,4µmcomp=Z,3µmcomp=Z,158nm,0.8s,comp=Z,3µm
BJT   Baijiatuau        39.31 347   P        P          00 28 36.9 +0.2
BJT                                 PcP      PcP        00 30 48.1 +3.2
KOHI  KOHIMA            39.33 310  eP        P          00 28 34.5 -2.8
KOHI                                IAmb     IAmb       00 28 40.3
      comp=Z,830nm,1.6s
MOKO  MOKOCHONG         39.34 311  eP        P          00 28 34.4 -3.0
MOKO                                IAmb     IAmb       00 28 41.4
      comp=Z,141nm,1.1s
GC1S  Gold Coast 1 S    39.38 141   P        P          00 28 38.3 +0.9
AZL   Aizawl            39.44 307  eP        P          00 28 36.2 -2.0
AZL                                 IAmb     IAmb       00 28 39.2
      comp=Z,54nm,1.0s
AUDCS Dubbo College     39.69 150   P        P          00 28 39.7 -0.2
JORH  JORHAT            39.77 312  eP        P          00 28 37.9 -2.9
JORH                                IAmb     IAmb       00 28 40.1
      comp=Z,539nm,0.2s
BRDH  Bariadhala        39.80 304   LR       LR         00 49 07.4
      comp=Z,2µm,18.1s,baz=90,slow=42
ARMA  Armidale          39.88 145   P        P          00 28 41.7  0.0
      comp=Z,364nm,0.9s,comp=Z,0.0nm
ARMA  Armidale          39.88 145   P        P          00 28 42.4 +0.7
ARMA  Armidale          39.88 145   P        P          00 28 41.5 -0.2
ARMA                                IAmb     IAmb       00 28 43.7
      comp=Z,382nm,1.1s
ARMA  Armidale          39.88 145   P        P          00 28 41.9 +0.2
      comp=Z,364nm,0.9s,comp=Z,5µmcomp=Z,7µm
AUPHS Peel High Scho    39.98 147   P        P          00 28 43.1 +0.7
SNY   Shenyang          40.06 357   P        P          00 28 44.0 +1.2
SNY                                 S        S          00 34 41.4 -4.7
SNY                                 pmax     pmax
      comp=Z,85nm,0.9s
SNY                                 pmax     pmax
      comp=Z,1µm,4.5s
SNY                                 L        L
      comp=Z,2µm,22.6s
SNY                                 L        L
      comp=Z,3µm,21.2s
SNY                                 L        L
      comp=Z,6µm,30.2s
LZDM  Lanzhou Array     40.15 331   P        P          00 28 44.5 +0.3
      comp=Z,47nm,1.0s,baz=156,slow=11,SNR=20
LZDM                                PcP      PcP        00 30 49.6 +1.5
      comp=Z,6.2nm,0.5s,baz=191,slow=6.0,SNR=3.7
      comp=Z,47nm,1.0s
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LZH   Lanzhou           40.18 331   P        P          00 28 45.0 +0.8
LZH                                 pP       pP         00 28 51.2 -3.7
LZH                                 PP       PP         00 30 24.4 +7.2
LZH                                 S        S          00 34 45.0 -3.5
LZH                                 SS       SS         00 37 46.1 -1.5
LZH                                 pmax     pmax
      comp=Z,250nm,1.7s
LZH                                 pmax     pmax
      comp=Z,1µm,4.8s
LZH                                 L        L
      comp=Z,8µm,17.5s
LZH                                 L        L
      comp=Z,6µm,17.1s
LZH                                 L        L
      comp=Z,13µm,18.4s
TEZP  TEZPUR            40.80 310  eP        P          00 28 46.2 -3.1
TEZP                                IAmb     IAmb       00 28 51.1
      comp=Z,125nm,0.2s
ARPS  Mount Arapiles    40.81 161   P        P          00 28 49.0 -0.2
      comp=Z,105nm,0.9s,comp=Z,0.0nm
PSTR  Posyet            40.97   5⇑iP       P          00 28 51.2 +0.9
SHL   Shillong          40.97 308   P        P          00 28 50.1 -0.8
      SNR=72
SHL   Shillong          40.97 308   P        P          00 28 49.4 -1.5
SHL   Shillong          40.97 308   P        P          00 28 49.4 -1.5
SHL   Shillong          40.97 308  eP        P          00 28 47.2 -3.8
JTM   Tenmabayashi      41.09  17   P        P          00 28 52.7 +1.3
JTM   Tenmabayashi      41.09  17   P        P          00 28 51.8 +0.4
JTM                                 IAmb     IAmb       00 28 58.0
      comp=Z,246nm,0.8s
JTM   Tenmabayashi      41.09  17   P        P          00 28 51.7 +0.4
      comp=Z,342nm,0.9s,comp=Z,4µm
AUMAG Moama Anglican    41.24 157   P        P          00 28 54.4 +1.7
HHC   Hu-ho-hao-te      41.28 343  eP        P          00 28 53.3 +0.2
HHC                                 S        S          00 35 01.6 -3.1
HHC                                 ScS      ScS        00 38 52.0 -2.2
HHC                                 pmax     pmax
      comp=Z,38nm,1.1s
HHC                                 pmax     pmax
      comp=Z,1µm,4.7s
HHC                                 L        L
      comp=Z,6µm,19.1s
HHC                                 L        L
      comp=Z,3µm,19.9s
HHC                                 L        L
      comp=Z,11µm,19.9s
MGBR  Mount Gambier     41.30 163   P        P          00 28 52.9 -0.3
KWJN  Gagan, Kwajale    41.45  78   P        P          00 28 55.4 +0.6
VLA   Vladivostok       41.53   6c iP       P          00 28 56.7 +1.7
VLA                                 pmax     pmax
      comp=Z,496nm,1.7s
VLA                                 MLR      MLR
      comp=Z,3µm,19.0s
BTO2  Baotou            41.71 341  eP        P          00 28 56.9 +0.2
BTO2                                pP       pwP        00 29 09.2 -0.6
BTO2                                sP       sP         00 29 14.8 +2.8
BTO2                                S        S          00 35 10.3 -0.8
BTO2                                sS       sS         00 35 31.9 +2.9
BTO2                                SS       SS         00 38 13.8 -4.0
BTO2                                pmax     pmax
      comp=Z,29nm,0.7s
BTO2                                pmax     pmax
      comp=Z,3µm,5.1s
BTO2                                L        L
      comp=Z,14µm,24.1s
BTO2                                L        L
      comp=Z,8µm,22.7s
BTO2                                L        L
      comp=Z,21µm,23.5s
MGCD  Mangrove Creek    41.73 148   P        P          00 28 57.2 +0.4
      comp=Z,121nm,0.8s
MGCD  Mangrove Creek    41.73 148   P        P          00 28 57.6 +0.8
MGCD  Mangrove Creek    41.73 148   P        P          00 28 58.1 +1.3
      comp=Z,1µmcomp=Z,121nm,0.8s
CN2   Changchun         41.95 359 ⇑P        P          00 28 59.7 +1.3
CN2                                epP      pwP        00 29 10.7 -0.8
CN2                                eS       S          00 35 15.7 +1.5
CN2                                 pmax     pmax
      comp=Z,10.0nm,0.9s
CN2                                 pmax     pmax
      comp=Z,300nm,5.0s
CN2                                 L        L
      comp=Z,800nm,11.0s
CN2                                 L        L
      comp=Z,1µm,11.0s
CN2                                 L        L
      comp=Z,900nm,12.0s
SYDH  Sydney Hard Ro    41.97 149   P        P          00 28 59.5 +0.8
AUKHS Kincumber High    42.06 148   P        P          00 29 00.5 +1.0
BRAT  Ballarat          42.23 159   P        P          00 29 01.4 +0.7
AUMTS Mt Stromlo        42.38 152   P        P          00 29 02.6 +0.5
CAN   Canberra          42.38 152   P        P          00 29 02.3 +0.1
      comp=Z,258nm,1.1s,comp=Z,0.0nm
CAN   Canberra          42.38 152   P        P          00 29 02.6 +0.5
CAN   Canberra          42.38 152   P        P          00 29 01.6 -0.5
CAN                                 pmax     pmax
      comp=Z,195nm,0.9s
CAN                                 MLR      MLR
      comp=Z,7µm,20.0s
CAN   Canberra          42.38 152   P        P          00 29 01.6 -0.5
CAN                                 IAmb     IAmb       00 29 04.4
      comp=Z,195nm,0.9s
CAN                                 IAMs_20  IAMs_20    00 49 36.4
      comp=Z,7µm,20.0s
CAN   Canberra          42.38 152   P        P          00 29 01.7 -0.5
      comp=Z,258nm,1.1s,comp=Z,4µmcomp=Z,7µm
AUMHS Melrose High S    42.45 152   P        P          00 29 03.6 +0.9
CAL   Calcutta          42.51 302  eP        P          00 29 00.1 -3.2
CNB   Canberra Magne    42.54 152   P        P          00 29 05.0 +1.5
      comp=Z,3.7nm,1.5s,comp=Z,0.0nm
WOLH  Wollongong Har    42.55 150   P        P          00 29 04.3 +0.9
USA0B Ussuriysk Arra    42.61   6d iP       P          00 29 04.3 +0.5
USA0B Ussuriysk Arra    42.61   6   P        P          00 29 04.3 +0.5
USA0B                               IAmb     IAmb       00 29 09.3
      comp=Z,390nm,1.6s
USRK  Ussuriysk Ar.     42.61   6   P        P          00 29 05.0 +1.2
      comp=Z,51nm,0.8s,baz=188,slow=7.9,SNR=49
USRK                                PP       PP         00 30 44.7 +1.5
      comp=Z,25nm,1.1s,baz=178,slow=7.1,SNR=1.3
USRK                                ScP      ScP        00 34 45.6 +2.3
      comp=Z,2.0nm,0.7s,baz=200,slow=3.8,SNR=2.4
USRK                                S        S          00 35 24.1 +0.2
      comp=Z,0.8nm,0.5s,baz=176,slow=29,SNR=1.9
USRK                                LR       LR         00 49 32.4
      comp=Z,693nm,19.5s,baz=193,slow=40
      comp=Z,51nm,0.8s
USRK  Ussuriysk Ar.     42.61   6   P        P          00 29 04.2 +0.4
DHUB  DHUBRI            42.68 308  eP        P          00 29 01.8 -2.8
DHUB                                IAmb     IAmb       00 29 05.2
      comp=Z,78nm,0.2s
TOO   Toolangi          42.82 158   P        P          00 29 07.2 +1.6
      comp=Z,47nm,1.4s,comp=Z,0.0nm
TOO   Toolangi          42.82 158   P        P          00 29 05.7 +0.1
TOO                                 pmax     pmax
      comp=Z,69nm,1.4s
TOO   Toolangi          42.82 158   P        P          00 29 05.7 +0.1
MLBS  Spotswood, Mel    42.82 158   P        P          00 29 06.9 +1.3
MDJ   Mudanjiang        42.84   3   P        P          00 29 06.9 +1.3
MDJ                                 PP       PP         00 30 45.1 -0.5
MDJ                                 S        S          00 35 28.2 +0.9
MDJ                                 SS       SS         00 38 37.7 -2.0
MDJ                                 pmax     pmax
      comp=Z,98nm,1.8s
MDJ                                 pmax     pmax
      comp=Z,2µm,8.6s
MDJ                                 L        L
      comp=Z,6µm,24.2s
MDJ                                 L        L
      comp=Z,2µm,24.7s
MDJ                                 L        L
      comp=Z,13µm,24.6s
MDJ   Mudanjiang        42.84   3   P        P          00 29 07.6 +2.0
MDJ   Mudanjiang        42.84   3            P          00 29 06.0 +0.4
MDJ                                 IAmb     IAmb       00 29 12.2
      comp=Z,164nm,1.0s
MDJ   Mudanjiang        42.84   3   P        P          00 29 07.1 +1.4
      comp=Z,5µmcomp=Z,3µmcomp=Z,186nm,0.9s
MDJ   Mudanjiang        42.84   3   P        P          00 29 07.3 +1.6
ERM   Erimo             42.84  18   P        P          00 29 08.2 +2.5
ERM   Erimo             42.84  18c iP       P          00 29 05.4 -0.3
ERM                                 pmax     pmax
      comp=Z,177nm,1.1s
ERM   Erimo             42.84  18   P        P          00 29 05.9 +0.3
ERM   Erimo             42.84  18   P        P          00 29 05.6  0.0
      comp=Z,141nm,1.2s,comp=Z,3µmcomp=Z,5µm
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JEM    Erimo             42.84  18   P         P         00 29 08.2 +2.5
WAKE   Wake Island       42.97  63   P         P         00 29 06.2 -0.8
WAKE                                 IAmb      IAmb      00 29 34.6
       comp=Z,205nm,1.0s
XLT    XiLinHaoTe        43.06 349  eP         P         00 29 07.4 -0.1
XLT                                  pP        pwP       00 29 19.7 -1.1
XLT                                  sP        sP        00 29 25.4 +2.6
XLT                                  S         S         00 35 26.8 -3.9
XLT                                  sS        sS        00 35 52.0 +3.3
XLT                                  SS        SS        00 38 45.1 +1.0
XLT                                  pmax      pmax
       comp=Z,74nm,0.9s
XLT                                  pmax      pmax
       comp=Z,1µm,4.0s
XLT                                  L         L
       comp=Z,520nm,22.8s
XLT                                  L         L
       comp=Z,2µm,24.5s
XLT                                  L         L
       comp=Z,8µm,22.6s
KOUNC  Koumac, New Ca    43.06 123   P         P         00 29 08.5 +0.7
KOUNC  Koumac, New Ca    43.06 123   P         P         00 29 07.0 -0.8
AUUHS  Ulladulla High    43.11 151   P         P         00 29 08.9 +1.0
AUSMG  Snowy Mountain    43.11 154   P         P         00 29 09.2 +1.1
COBR   COOCHBEHAR        43.23 308  eP         P         00 29 05.6 -3.5
SANVU  Saraoutou         43.65 114   P         P         00 29 13.7 +1.1
SANVU  Saraoutou         43.65 114   P         P         00 29 11.5 -1.1
SANVU                                IAMs_20   IAMs_20   00 46 34.3
       comp=Z,13µm,22.0s
SANVU  Saraoutou         43.65 114   P         P         00 29 13.5 +0.9
       comp=Z,8µmcomp=Z,13µmcomp=Z,1µm,0.9s
LSA    Lhasa             43.67 313   P         P         00 29 12.5 -0.7
LSA                                  pmax      pmax
       comp=Z,133nm,0.6s
LSA    Lhasa             43.67 313             P         00 29 12.4 -0.7
LSA                                  IAmb      IAmb      00 29 18.0
       comp=Z,133nm,0.6s
LSA    Lhasa             43.67 313   P         P         00 29 13.0 -0.3
LSA    Lhasa             43.67 313   P         P         00 29 13.4 +0.1
       comp=Z,5µmcomp=Z,2µmcomp=Z,201nm,0.6s
LSA    Lhasa             43.67 313   P         P         00 29 14.0 +0.8
BWNR   Bhubaneshwar      43.84 298  eP         P         00 29 11.2 -2.9
BNX    BinXian           43.88   1  ⇑P         P         00 29 14.6 +0.6
BNX                                  sP        sP        00 29 31.1 +1.7
BNX                                  PP        PP        00 30 57.9 +1.1
BNX                                  S         S         00 35 44.3 +1.8
BNX                                  sS        sS        00 36 04.5 +3.9
BNX                                  pmax      pmax
       comp=Z,86nm,0.8s
BNX                                  pmax      pmax
       comp=Z,2µm,9.5s
BNX                                  L         L
       comp=Z,4µm,20.6s
BNX                                  L         L
       comp=Z,2µm,19.0s
BNX                                  L         L
       comp=Z,7µm,22.6s
MILA   Mila              43.88 154   P         P         00 29 14.5 +0.3
       comp=Z,29nm,1.5s
JPG    JALPAIGURI        43.94 308  eP         P         00 29 11.5 -3.3
SHBG   Sahibganj         44.22 305  eP         P         00 29 14.3 -2.8
ASAJ   Asahikawa         44.59  16   P         P         00 29 20.3 +0.6
ASAJ                                 pmax      pmax
       comp=Z,198nm,0.8s
JKA    Kamikawa-asahi    44.59  16   P         P         00 29 20.3 +0.6
JKA                                  IAmb      IAmb      00 29 26.6
       comp=Z,198nm,0.8s
JKA    Kamikawa-asahi    44.59  16   P         P         00 29 20.9 +1.1
       comp=Z,5µmcomp=Z,2µmcomp=Z,305nm,0.9s
GTA2   Gaotai            44.85 330   P         P         00 29 21.4 -0.7
GTA2                                 S         S         00 35 52.5 -4.6
GTA2                                 ScS       ScS       00 39 16.3 -0.2
GTA2                                 pmax      pmax
       comp=Z,30nm,0.9s
GTA2                                 pmax      pmax
       comp=Z,760nm,7.2s
GTA2                                 L         L
       comp=Z,6µm,22.3s
GTA2                                 L         L
       comp=Z,7µm,21.6s
GTA2                                 L         L
       comp=Z,10µm,22.8s
BOK    Bokaro            45.07 303  eP         P         00 29 20.4 -3.6
GOMU   GeErMu            45.19 323   P         P         00 29 25.0 -0.1
GOMU                                 S         S         00 36 00.9 -1.7
GOMU                                 SS        ScS       00 39 13.5 -5.9
GOMU                                 pmax      pmax
       comp=Z,18nm,1.0s
GOMU                                 L         L
       comp=Z,5µm,19.3s
GOMU                                 L         L
       comp=Z,2µm,19.0s
GOMU                                 L         L
       comp=Z,7µm,19.3s
JMUI   Jamui             45.24 304  eP         P         00 29 21.8 -3.5
VIS    Vishakhapatnam    45.33 293  eP         P         00 29 23.2 -2.7
NOUC   Port Laguerre     45.43 124   P         P         00 29 27.5 +0.8
NOUC   Port Laguerre     45.43 124   P         P         00 29 26.6 -0.2
YUK    Yuzh-Kuril'sk     45.53  20ceP          P         00 29 28.9 +1.7
DZM    Mont Dzumac       45.53 124   LR        LR        00 49 45.3
       comp=Z,10µm,20.6s,baz=324,slow=38
RAGD   RAYAGADA          45.64 295  eP         P         00 29 25.1 -3.4
ONTNC  Ouen Toro         45.65 124   P         P         00 29 28.4 -0.1
ONTNC  Ouen Toro         45.65 124   P         P         00 29 27.8 -0.7
ONTNC                                IAmb      IAmb      00 29 29.9
       comp=Z,145nm,0.9s
ONTNC                                IAMs_20   IAMs_20   00 49 28.5
       comp=Z,8µm,21.0s
YATNC  Mamie plateau,    45.90 123   P         P         00 29 31.8 +1.3
HALK   Hakmana           45.96 277   P         P         00 29 30.8 -0.3
       comp=Z,3µmcomp=Z,50nm,1.0s
AUBRN  Burnie High Sc    46.02 160   P         P         00 29 31.9 +0.9
OUENC  Ouen Island, N    46.02 124   P         P         00 29 33.1 +1.7
OUENC  Ouen Island, N    46.02 124   P         P         00 29 31.2 -0.2
OUENC                                IAmb      IAmb      00 29 36.6
       comp=Z,123nm,1.0s
PALK   Pallekele         46.02 278   LR        LR        00 50 00.9
       comp=Z,4µm,21.5s,baz=103,slow=38
PALK   Pallekele         46.02 278   P         P         00 29 30.9 -0.7
PALK   Pallekele         46.02 278 i P         P         00 29 32.1 +0.5
PALK   Pallekele         46.02 278   P         P         00 29 30.9 -0.7
PALK   Pallekele         46.02 278   IAMs_20   IAMs_20   00 50 39.0
       comp=Z,5µm,22.0s
PALK   Pallekele         46.02 278   P         P         00 29 32.1 +0.5
PALK   Pallekele         46.02 278   P         P         00 29 31.1 -0.5
PALK   Pallekele         46.02 278   P         P         00 29 31.7 +0.1
       comp=Z,1µmcomp=Z,41nm,1.3s
PALK                                 pP        pP        00 29 40.3 -2.3
JHSG   JHARSUGUGA        46.15 299  eP         P         00 29 29.0 -3.5
MALK   Mahakanadarawa    46.28 280   P         P         00 29 33.2 -0.4
MALK   Mahakanadarawa    46.28 280   P         P         00 29 32.5 -1.1
       comp=Z,3µmcomp=Z,1µmcomp=Z,98nm,1.1s
TARA   Tarawa            46.36  90   IAMs_20   IAMs_20   00 50 30.7
       comp=Z,6µm,19.0s
MARNC  Mare, Loyalty     46.62 122   P         P         00 29 37.4 +1.3
MARNC  Mare, Loyalty     46.62 122   P         P         00 29 35.5 -0.7
GLAD   Gladstone         46.74 158   P         P         00 29 37.7 +0.9
CORO   Coronation Par    46.83 159   P         P         00 29 38.3 +0.9
MDRS   Chennai           47.20 286  eP         P         00 29 37.2 -3.6
YSS    Yuzhno-Sakhali    47.25  15   P         P         00 29 41.7 +1.0
YSS    Yuzhno-Sakhali    47.25  15c iP         P         00 29 40.8 +0.1
YSS                                  pmax      pmax
       comp=Z,235nm,1.1s
YSS                                  MLR       MLR
       comp=Z,4µm,23.0s
YSS    Yuzhno-Sakhali    47.25  15   P         P         00 29 40.7  0.0
YSS                                  IAmb      IAmb      00 29 46.8
       comp=Z,186nm,1.0s
YSS    Yuzhno-Sakhali    47.25  15   P         P         00 29 41.4 +0.7
       comp=Z,4µmcomp=Z,2µmcomp=Z,191nm,1.2s,comp=Z,2µm
YSS    Yuzhno-Sakhali    47.25  15   P         P         00 29 41.5 +0.8
YSS                                  PcP       PcP       00 31 11.5 +0.1
KUR    Kuril'sk          47.27  20  eP         P         00 29 42.0 +1.2
KUR                                 e                    00 31 32.7
KUR                                 ePPP       PPP       00 32 14.3
KUR                                 eS         S         00 36 29.7 -1.6
KUR                                 i                    00 39 32.6
KUR                                 eSS        SS        00 39 58.5 -0.7
KUR                                  pmax      pmax
       comp=Z,536nm,1.4s
KUR                                  pmax      pmax
       comp=Z,2µm,7.8s
KUR                                  MLR       MLR
       comp=Z,1µm,15.0s
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KLR    Kul'dur           47.58   5  eP         P         00 29 41.9 -1.3
KLR                                  pmax      pmax
       comp=Z,57nm,1.6s
MOO    Moorlands         47.72 159   P         P         00 29 44.9 +0.6
       comp=Z,85nm,1.1s,comp=Z,0.0nm
MOO    Moorlands         47.72 159   P         P         00 29 45.3 +1.0
MOO    Moorlands         47.72 159   P         P         00 29 43.1 -1.2
       comp=Z,66nm,1.0s,comp=Z,7µm
HIA    Hailar            47.77 354   P         P         00 29 46.5 +1.8
HIA    Hailar            47.77 354   P         P         00 29 45.5 +0.9
HIA                                  pmax      pmax
       comp=Z,286nm,1.6s
HIA    Hailar            47.77 354             P         00 29 45.5 +0.9
HIA                                  IAmb      IAmb      00 29 53.7
       comp=Z,285nm,1.6s
HIA    Hailar            47.77 354   P         P         00 29 46.3 +1.6
       comp=Z,5µmcomp=Z,3µmcomp=Z,117nm,1.8s
HILR   Hailar Array B    48.05 354   P         P         00 29 47.6 +0.7
       comp=Z,28nm,0.7s,baz=165,slow=12,SNR=43
HILR                                 PcP       PcP       00 31 15.6 +1.3
       comp=Z,22nm,0.6s,baz=156,slow=5.2,SNR=4.8
HILR                                 LR        LR        00 51 59.0
       comp=Z,3µm,21.8s,baz=80,slow=38
       comp=Z,28nm,0.7s
TAU    Tasmania Unive    48.17 160   P         P         00 29 48.9 +1.1
TAU    Tasmania Unive    48.17 160   P         P         00 29 47.8 -0.1
TAU                                  pmax      pmax
       comp=Z,66nm,1.1s
TAU                                  MLR       MLR
       comp=Z,10µm,18.0s
TAU    Tasmania Unive    48.17 160   P         P         00 29 47.8 -0.1
TAU    Tasmania Unive    48.17 160   IAMs_20   IAMs_20   00 53 56.1
       comp=Z,10µm,18.0s
TAU    Tasmania Unive    48.17 160   P         P         00 29 49.2 +1.3
HEH    HeiHe             48.40   1  eP         P         00 29 49.8 +0.3
HEH                                  S         S         00 36 44.7 -2.5
HEH                                  SS        SS        00 40 14.2 -3.2
HEH                                  pmax      pmax
       comp=Z,170nm,0.9s
HEH                                  pmax      pmax
       comp=Z,2µm,7.6s
HEH                                  L         L
       comp=Z,4µm,22.3s
HEH                                  L         L
       comp=Z,4µm,20.0s
HEH                                  L         L
       comp=Z,9µm,22.0s
SALM   Salem             49.00 284  eP         P         00 29 51.1 -3.6
ULN    Ulaanbaatar       49.00 343   P         P         00 29 54.6 +0.2
ULN    Ulaanbaatar       49.00 343d iP         P         00 29 53.9 -0.5
ULN                                  pmax      pmax
       comp=Z,178nm,1.8s
ULN                                  MLR       MLR
       comp=Z,12µm,26.0s
ULN    Ulaanbaatar       49.00 343   P         P         00 29 55.1 +0.7
ULN                                  IAmb      IAmb      00 30 21.4
       comp=Z,175nm,1.1s
ULN    Ulaanbaatar       49.00 343   P         P         00 29 54.8 +0.4
ULN    Ulaanbaatar       49.00 343   P         P         00 29 55.2 +0.7
       comp=Z,4µmcomp=Z,3µmcomp=Z,150nm,1.4s
ULN    Ulaanbaatar       49.00 343   P         P         00 29 55.1 +0.7
UGL    Uglegorsk         49.06  13  eP         P         00 29 56.0 +1.4
UGL                                 eS         S         00 36 57.0 +0.5
UGL                                  pmax      pmax
       comp=Z,500nm,1.0s
UGL                                  pmax      pmax
       comp=Z,2µm,5.7s
UGL                                  smax      smax
       comp=E,5µm,7.0s
UGL                                  smax      smax
       comp=N,2µm,9.6s
UGL                                  MLR       MLR
       comp=E,1µm,15.0s
UGL                                  MLR       MLR
       comp=N,1µm,16.0s
ALBI   Allahabad         49.08 303  eP         P         00 29 53.5 -1.6
SONM   Songino Array     49.17 342   P         P         00 29 56.0 +0.3
       comp=N,32nm,0.7s,baz=156,slow=8.1,SNR=80
SONM                                 S         S         00 37 00.0 +1.5
       comp=N,0.6nm,0.6s,baz=117,slow=39,SNR=1.2
SONM                                 LR        LR        00 53 56.7
       comp=N,1µm,19.4s,baz=154,slow=40
SONM                                 PKPPKP    P'P'df    01 00 57.9 +2.8
       comp=N,0.5nm,0.5s,baz=298,slow=3.2,SNR=4.3
SONM                                 PKP2ab    P'P'ab    01 01 46.2  0.0
       comp=N,1.2nm,0.7s,baz=349,slow=6.0,SNR=4.9
       comp=N,32nm,0.7s
SONM   Songino Array     49.17 342   P         P         00 29 55.4 -0.2
SONM                                 IAmb      IAmb      00 30 22.6
       comp=Z,97nm,1.1s
HYB    Hyderabad         49.66 291  eP         P         00 29 56.5 -3.3
HYB    Hyderabad         49.66 291  eP         P         00 29 59.6 -0.2
HYB                                 epP        pP        00 30 08.8 -2.0
HYB                                 ePcP       PcP       00 31 20.5 -0.4
HYB                                 ePP        PP        00 31 54.4 -0.2
HYB                                 eS         S         00 37 07.1 +1.0
HYB                                 eScS       ScS       00 39 49.3 +0.4
HYB                                  IAMs_20   IAMs_20   00 50 32.2
       comp=Z,8µm,24.8s
TRD    Trivandrum        49.82 280  eP         P         00 29 57.4 -3.5
NFK    Norfolk Island    50.02 131   P         P         00 30 03.7 +1.5
       comp=Z,286nm,0.9s
BRCI   Bahraich          50.10 305  eP         P         00 29 59.7 -3.2
NGP    Nagpur            50.15 296  eP         P         00 29 59.7 -3.8
LKN    LUCKNOW           50.39 304  eP         P         00 30 01.7 -3.4
BNDA   BANDA             50.39 302  eP         P         00 30 01.4 -3.7
TYV    Tymovskoe         50.87  13  eP         P         00 30 10.5 +2.2
TYV                                 eS         S         00 37 24.8 +3.1
TYV                                  pmax      pmax
       comp=Z,44nm,1.0s
TYV                                  pmax      pmax
       comp=Z,400nm,3.8s
TYV                                  smax      smax
       comp=N,16nm,2.1s
TYV                                  smax      smax
       comp=E,18nm,2.1s
TYV                                  smax      smax
       comp=N,1µm,7.5s
TYV                                  smax      smax
       comp=E,2µm,7.5s
CIT    Chita             51.34 350  eP         P         00 30 14.0 +2.1
CIT                                 e                    00 30 23.6
CIT                                 e                    00 30 30.6
CIT                                 e                    00 31 32.8
CIT                                  pmax      pmax
       comp=Z,478nm,2.8s
JHNI   Jhansi            51.84 301  eP         P         00 30 12.4 -3.6
AKL    Akola             51.86 295  eP         P         00 30 13.9 -2.4
ZEA    Zeya              51.89   1  eP         P         00 30 16.2 +0.3
ZEA                                 e                    00 31 30.7
ZEA                                 e                    00 32 16.4
ZEA                                 eS         S         00 37 33.3 -2.4
ZEA                                 e                    00 40 02.8
ZEA                                  pmax      pmax
       comp=N,20nm,0.7s
ZEA                                  pmax      pmax
       comp=Z,80nm,0.8s
ZEA                                  pmax      pmax
       comp=N,300nm,7.7s
ZEA                                  pmax      pmax
       comp=Z,800nm,10.5s
ZEA                                  pmax      pmax
       comp=N,300nm,6.4s
ZEA                                  pmax      pmax
       comp=Z,600nm,5.0s
PTH    Pithoragarh       52.02 307  eP         P         00 30 13.7 -3.9
LGTI   Lohaghat          52.04 307  eP         P         00 30 14.3 -3.5
ZAK    Zakamensk         52.39 341  eP         P         00 30 19.9 +0.1
ZAK                                  pmax      pmax
       comp=Z,62nm,1.9s
NKL    Nikolayevsk       52.62  11  eP         P         00 30 21.2 -0.1
NKL                                 eS         S         00 37 42.3 -3.4
NKL                                  pmax      pmax
       comp=N,188nm,1.0s
NKL                                  pmax      pmax
       comp=E,267nm,1.1s
NKL                                  pmax      pmax
       comp=Z,777nm,1.1s
NKL                                  smax      smax
       comp=E,699nm,3.0s
NKL                                  smax      smax
       comp=N,1µm,6.0s
GUNA   GUNA              52.69 300  eP         P         00 30 19.0 -3.4
JOSI   Joshimath         52.92 308  eP         P         00 30 20.1 -4.1
FUNA   Funafuti          53.45 102   P         P         00 30 29.0 +0.9
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FUNA   Funafuti          53.45 102   P         P         00 30 27.8 -0.3
FUNA   Funafuti          53.45 102   P         P         00 30 29.5 +1.4
       comp=Z,2µm,1.0s
FUNA   Funafuti          53.45 102   P         P         00 30 29.1 +1.1
ASOR   Ausora            53.68 305  eP         P         00 30 25.8 -3.8
IRK    Irkutsk           53.72 343  eP         P         00 30 30.2 +0.7
IRK                                 eS         S         00 38 06.5 +5.7
IRK                                  pmax      pmax
       comp=Z,269nm,1.6s
KAD    Karad             53.73 290  eP         P         00 30 26.2 -4.0
MERT   Meerut            53.79 305  eP         P         00 30 26.5 -3.9
UTK    UTTARKASHI        53.87 307  eP         P         00 30 27.1 -4.0
JMIU   JAMIA UNIVERSI    54.01 305  eP         P         00 30 28.1 -3.9
LDR    Lodi Road         54.08 305  eP         P         00 30 28.6 -3.8
NDI    New Delhi         54.11 305  eP         P         00 30 29.1 -3.7
NPLP   NPLP New Delhi    54.13 305  eP         P         00 30 29.2 -3.7
MOY    Mondy             54.24 341  eP         P         00 30 34.4 +1.0
MOY                                  pmax      pmax
       comp=Z,391nm,2.1s
MSVF   Nonsavu           54.25 113   LR        LR        00 54 24.6
       comp=Z,6µm,18.8s,baz=298,slow=37
MSVF   Nonsavu           54.25 113   P         P         00 30 36.6 +2.6
MSVF   Nonsavu           54.25 113   P         P         00 30 34.0  0.0
MSVF                                 pmax      pmax
       comp=Z,424nm,1.0s
MSVF   Nonsavu           54.25 113   P         P         00 30 34.0  0.0
MSVF   Nonsavu           54.25 113   IAMs_20   IAMs_20   00 52 31.8
       comp=Z,6µm,20.0s
MSVF   Nonsavu           54.25 113   P         P         00 30 36.2 +2.2
       comp=Z,8µmcomp=Z,607nm,1.0s
WMQ    Urumqi            54.30 326  eP         P         00 30 34.7 +0.8
WMQ                                  pP        pP        00 30 43.3 -1.9
WMQ                                  S         S         00 38 06.2 -2.9
WMQ                                  ScS       ScS       00 40 15.3 -4.9
WMQ                                  pmax      pmax
       comp=Z,65nm,0.9s
WMQ                                  pmax      pmax
       comp=Z,760nm,3.7s
WMQ                                  L         L
       comp=Z,6µm,21.3s
WMQ                                  L         L
       comp=Z,4µm,18.3s
WMQ                                  L         L
       comp=Z,8µm,22.3s
KLP    Kalpa             54.34 308  eP         P         00 30 30.7 -4.1
GNR    GANAUR            54.43 305  eP         P         00 30 31.2 -3.8
KUDL   Kundal            54.53 304  eP         P         00 30 32.0 -3.7
DGAR   Diego Garcia      54.72 260   IAMs_20   IAMs_20   00 54 08.4
       comp=Z,4µm,20.0s
SKR    Severo-Kuril’s    54.86  23  eP         P         00 30 36.1 -1.6
SKR                                 e                    00 31 37.6
SKR                                 eS         S         00 38 09.4 -6.7
SKR                                  pmax      pmax
       comp=Z,197nm,1.0s
SKR                                  pmax      pmax
       comp=Z,900nm,17.0s
SKR                                  MLR       MLR
       comp=Z,2µm,22.0s
RTK    Rohtak            54.89 305  eP         P         00 30 33.8 -4.6
SMLA   Simla             55.04 307  eP         P         00 30 35.9 -3.6
CGRH   CHANDIGARH        55.20 307  eP         P         00 30 36.9 -3.7
DGTI   Dogotuki          55.45 111   P         P         00 30 43.9 +1.2
AJM    Ajmer             55.55 301  eP         P         00 30 40.7 -2.5
BHK    Bhakra            55.76 307  eP         P         00 30 42.6 -2.1
UDPR   Udaipur           55.82 299  eP         P         00 30 41.1 -4.2
TAVE   Taveuni           55.88 111   P         P         00 30 47.2 +1.5
ALCI   Alchi Leh         56.24 311  eP         P         00 30 44.1 -4.4
TSSA   Tissa             56.49 309  eP         P         00 30 46.0 -4.1
THN    Thein Dam         56.64 308  eP         P         00 30 47.0 -4.0
BOD    Bodaibo           56.85 352  eP         P         00 30 52.6 +0.7
BOD                                  pmax      pmax
       comp=Z,186nm,1.4s
OUZ    Omahuta           57.25 135   IAMs_20   IAMs_20   00 56 54.7
       comp=Z,7µm,20.0s
OUZ    Omahuta           57.25 135   P         P         00 30 56.4 +1.3
OUZ    Omahuta           57.25 135   P         P         00 30 56.7 +1.5
       comp=Z,6µmcomp=Z,2µmcomp=Z,64nm,1.9s
LKBA   Tubou, Lakemba    57.26 113   P         P         00 30 56.5 +1.0
SRGN   SRI GANGA NAGA57.27 305      eP         P         00 30 51.4 -3.9
PEA0B  Petropavlovsk-    57.38  22c iP         P         00 30 55.6 -0.2
PEA0B  Petropavlovsk-    57.38  22   P         P         00 30 56.0 +0.2
PEA0B                                IAmb      IAmb      00 31 25.7
       comp=Z,78nm,0.9s
PETK   Petropavlovsk-    57.38  22   P         P         00 30 56.4 +0.6
       comp=Z,55nm,0.6s,baz=190,slow=4.3,SNR=65
PETK                                 S         S         00 38 54.3 +4.7
       comp=Z,0.7nm,0.5s,baz=230,slow=44,SNR=1.5
       comp=Z,55nm,0.6s
JMU    Jammu             57.50 308  eP         P         00 30 52.9 -4.0
PET    Petropavlovsk     57.68  22   P         P         00 30 59.9 +2.1
PET    Petropavlovsk     57.68  22  eP         P         00 30 59.1 +1.3
PET                                 e                    00 33 15.5
PET                                 eS         S         00 38 49.9 -3.5
PET                                 eSS        SS        00 42 42.8 -1.5
PET                                 eSSS       SSS       00 45 04.4
PET                                  pmax      pmax
       comp=Z,153nm,1.6s
PET                                  pmax      pmax
       comp=Z,900nm,12.1s
PET                                  pmax      pmax
       comp=Z,2µm,11.6s
PET                                  pmax      pmax
       comp=Z,600nm,6.2s
PET                                  pmax      pmax
       comp=Z,600nm,11.7s
PET                                  MLR       MLR
       comp=Z,2µm,20.0s
PET    Petropavlovsk     57.68  22   P         P         00 30 58.0 +0.2
PET    Petropavlovsk     57.68  22   P         P         00 30 58.2 +0.4
       comp=Z,2µmcomp=Z,129nm,1.7s
PET    Petropavlovsk     57.68  22   P         P         00 30 59.6 +1.8
       comp=Z,3µmcomp=Z,2µmcomp=Z,136nm,1.7s
WUS    Wushi             57.97 319             P         00 31 00.1 -0.2
WUS                                  IAmb      IAmb      00 31 05.5
       comp=Z,86nm,0.9s
WUS    Wushi             57.97 319   P         P         00 31 00.6 +0.3
       comp=Z,4µmcomp=Z,1µmcomp=Z,120nm,1.1s
WUS    Wushi             57.97 319   P         P         00 31 00.8 +0.4
SRNI   Srinagar          57.99 310  eP         P         00 30 56.7 -3.9
ZSN    Zaisan            58.13 328  eP         P         00 31 01.0 -0.1
ZSN                                 eS         S         00 39 00.6 +1.0
ZSN    Zaisan            58.13 328  eP         P         00 31 01.0 -0.1
ZSN                                 eS         S         00 39 00.7 +1.0
WCZ    Waipu Caves       58.14 135   P         P         00 31 02.0 +0.6
SHLS   Shalkode          58.81 321  eP         P         00 31 03.8 -2.3
SHLS                                eS         S         00 39 06.1 -2.8
SHLS                                 pmax      pmax
       comp=Z,57nm,1.0s
SHLS   Shalkode          58.81 321  eP         P         00 31 03.8 -2.3
       comp=Z,57nm,1.0s
SHLS                                eS         S         00 39 06.1 -2.8
PDGK   Podgornoye        58.88 321   P         P         00 31 05.6 -1.0
PDGK   Podgornoye        58.88 321   P         P         00 31 05.6 -1.0
MSZ    Milford Sound     59.02 147   P         P         00 31 07.8 +0.5
NIL    Nilore            59.04 309   P         P         00 31 08.6 +0.8
NIL    Nilore            59.04 309   P         P         00 31 07.0 -0.8
NIL                                  pmax      pmax
       comp=Z,73nm,0.8s
NIL                                  MLR       MLR
       comp=Z,2µm,20.0s
NIL    Nilore            59.04 309   P         P         00 31 07.0 -0.8
NIL                                  IAmb      IAmb      00 31 29.4
       comp=Z,73nm,0.8s
NIL    Nilore            59.04 309   P         P         00 31 07.4 -0.4
       comp=Z,4µmcomp=Z,1µmcomp=Z,91nm,1.0s,comp=Z,1µm
UZB    Uzynbulak         59.08 321  eP         P         00 31 07.6 -0.4
UZB    Uzynbulak         59.08 321  eP         P         00 31 07.6 -0.4
DCZ    Deep Cove         59.11 148   P         P         00 31 06.8 -1.2
DCZ                                  IAmb      IAmb      00 31 28.2
       comp=Z,117nm,1.3s
DCZ                                  IAMs_20   IAMs_20   00 59 33.7
       comp=Z,5µm,19.0s
JCZ    Jackson Bay       59.12 146   P         P         00 31 09.6 +1.4
JCZ    Jackson Bay       59.12 146   P         P         00 31 08.5 +0.3
MK31   Makanchi Array    59.13 326d iP         P         00 31 07.2 -1.0
MKAR   Makanchi Array    59.13 326   P         P         00 31 07.3 -0.8
       comp=Z,76nm,0.5s,baz=119,slow=7.4,SNR=206
MKAR                                 S         S         00 39 16.9 +4.2
       comp=Z,1.6nm,0.8s,baz=116,slow=8.2,SNR=5.0
MKAR                                 ScS       ScS       00 40 58.7 +3.6
       comp=Z,0.8nm,0.8s,baz=100,slow=5.1,SNR=1.7
MKAR                                 LR        LR        00 58 37.6
       comp=Z,2µm,18.6s,baz=114,slow=38
MKAR                                 PKPPKP    P'P'df    01 00 29.9  -12
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	comp=Z,3.9nm,1.1s,baz=251,slow=4.4,SNR=9.4						
	comp=Z,76nm,0.5s						
PRZ	**Przheval'sk**	**59.14**	**320**	P	**P**	**00 31 09.0**	**+0.5**
	comp=Z,3µmcomp=Z,180nm,0.7s						
TARG	**Taragay, Kyrgy**	**59.16**	**319**	P	**P**	**00 31 08.9**	**0.0**
TARG				pmax	pmax		
	comp=Z,79nm,0.7s						
TARG	**Taragay, Kyrgy**	**59.16**	**319**	P	**P**	**00 31 08.9**	**0.0**
TARG				IAmb	IAmb	00 31 19.2	
	comp=Z,79nm,0.7s						
TARG	**Taragay, Kyrgy**	**59.16**	**319**	P	**P**	**00 31 08.2**	**-0.7**
	comp=Z,110nm,0.8s,comp=Z,2µmcomp=Z,3µm						
MKAZ	**Moumakai**	**59.28**	**136**	P	**P**	**00 31 10.4**	**+1.2**
MAKZ	**Makanchi**	**59.32**	**326**	P	**P**	**00 31 08.7**	**-0.7**
MAKZ				pmax	pmax		
	comp=Z,304nm,1.5s						
MAKZ	**Makanchi**	**59.32**	**326**	P	**P**	**00 31 08.7**	**-0.7**
MAKZ				IAMs_20	IAMs_20	00 55 57.3	
	comp=Z,4µm,22.0s						
MAKZ	**Makanchi**	**59.32**	**326**	P	**P**	**00 31 08.8**	**-0.6**
	comp=Z,4µmcomp=Z,2µmcomp=Z,147nm,0.7s						
MAKZ	**Makanchi**	**59.32**	**326**	P	**P**	**00 31 09.0**	**-0.4**
PYZ	**Puysegur Point**	**59.32**	**149**	IAMs_20	IAMs_20	00 58 06.3	
	comp=Z,4µm,20.0s						
FOZ	**Fox Glacier**	**59.38**	**145**	P	**P**	**00 31 08.8**	**-1.0**
FOZ				IAmb	IAmb	00 31 36.8	
	comp=Z,163nm,1.5s						
FOZ				IAMs_20	IAMs_20	01 01 43.8	
	comp=Z,4µm,18.0s						
FOZ	**Fox Glacier**	**59.38**	**145**	P	**P**	**00 31 10.7**	**+0.9**
KPKS	**Kokpek**	**59.45**	**321**	*e*P	**P**	**00 31 10.2**	**-0.3**
KPKS	**Kokpek**	**59.45**	**321**	*e*P	**P**	**00 31 10.3**	**-0.3**
QRZ	**Quartz Range**	**59.46**	**141**	IAMs_20	IAMs_20	00 56 36.0	
	comp=Z,9µm,22.0s						
QRZ	**Quartz Range**	**59.46**	**141**	P	**P**	**00 31 10.3**	**-0.1**
KSH2	**Kashi**	**59.49**	**315**	P	**P**	**00 31 10.3**	**-0.7**
KSH2				pP	pP	00 31 19.5	-2.8
KSH2				S	S	00 39 06.4	-12
KSH2				ScS	**ScS**	**00 40 54.3**	**-4.1**
KSH2				pmax	pmax		
	comp=Z,56nm,0.9s						
KSH2				pmax	pmax		
	comp=Z,550nm,4.7s						
KSH2				L	L		
	comp=Z,2µm,22.4s						
KSH2				L	L		
	comp=Z,3µm,22.0s						
KSH2				L	L		
	comp=Z,6µm,21.8s						
DSZ	**Denniston Nort**	**59.52**	**142**	IAMs_20	IAMs_20	00 58 24.6	
	comp=Z,7µm,19.0s						
MLZ	**Mavora Lakes**	**59.57**	**147**	IAMs_20	IAMs_20	00 59 46.8	
	comp=Z,6µm,18.0s						
MLZ	**Mavora Lakes**	**59.57**	**147**	P	**P**	**00 31 11.5**	**+0.3**
MIDW	**Midway**	**59.60**	**58**	P	**P**	**00 31 12.1**	**+0.4**
ASAI	**AK-SAY(Kyrgyzs**	**59.63**	**318**	P	**P**	**00 31 11.8**	**-0.3**
	comp=Z,3µmcomp=Z,1µmcomp=Z,81nm,1.1s,comp=Z,1µm						
WKZ	**Wanaka**	**59.72**	**146**	IAMs_20	IAMs_20	00 58 42.8	
	comp=Z,6µm,20.0s						
KDJ	**Kajisay**	**59.76**	**319**	P	**P**	**00 31 12.5**	**-0.3**
KDJ	**Kajisay**	**59.76**	**319**	P	**P**	**00 31 12.5**	**-0.3**
KDJ				IAmb	IAmb	00 31 21.4	
	comp=Z,79nm,0.7s						
KDJ	**Kajisay**	**59.76**	**319**	P	**P**	**00 31 13.2**	**+0.5**
	comp=Z,3µmcomp=Z,2µmcomp=Z,113nm,0.7s						
HIZ	**Hauiti**	**59.77**	**137**	P	**P**	**00 31 12.1**	**-0.6**
HIZ				IAmb	IAmb	00 31 18.7	
	comp=Z,133nm,0.9s						
HIZ				IAMs_20	IAMs_20	00 56 04.2	
	comp=Z,4µm,21.0s						
HIZ	**Hauiti**	**59.77**	**137**	P	**P**	**00 31 12.6**	**0.0**
WHZ	**Wether Hill Ro**	**59.81**	**148**	IAMs_20	IAMs_20	00 56 40.2	
	comp=Z,5µm,21.0s						
WHZ	**Wether Hill Ro**	**59.81**	**148**	P	**P**	**00 31 12.8**	**0.0**
WHZ				PP	**PP**	**00 33 24.7**	**-0.5**
TOZ	**Tahuroa Road**	**59.82**	**136**	IAMs_20	IAMs_20	01 00 10.7	
	comp=Z,7µm,18.0s						
TOZ	**Tahuroa Road**	**59.82**	**136**	P	**P**	**00 31 14.3**	**+1.3**
INZ	**Inchbonnie**	**59.86**	**143**	IAMs_20	IAMs_20	00 59 17.6	
	comp=Z,6µm,20.0s						
INZ	**Inchbonnie**	**59.86**	**143**	P	**P**	**00 31 14.3**	**+1.1**
VRZ	**Vera Road**	**60.01**	**138**	P	**P**	**00 31 15.4**	**+1.1**
LBZ	**Lake Benmore**	**60.11**	**145**	IAMs_20	IAMs_20	01 00 02.1	
	comp=Z,3µm,18.0s						
LBZ	**Lake Benmore**	**60.11**	**145**	P	**P**	**00 31 14.5**	**-0.3**
EAZ	**Earnscleugh**	**60.13**	**146**	P	**P**	**00 31 15.6**	**+0.6**
RPZ	**Rata Peaks**	**60.21**	**144**	LR	LR	00 59 17.3	
	comp=Z,800nm,18.2s,baz=284,slow=38						
RPZ	**Rata Peaks**	**60.21**	**144**	P	**P**	**00 31 15.0**	**-0.6**
RPZ				IAmb	IAmb	00 31 28.6	
	comp=Z,113nm,0.9s						
RPZ	**Rata Peaks**	**60.21**	**144**	P	**P**	**00 31 15.3**	**-0.3**
NNZ	**Nelson**	**60.21**	**141**	IAMs_20	IAMs_20	00 59 44.9	
	comp=Z,7µm,19.0s						
NNZ	**Nelson**	**60.21**	**141**	P	**P**	**00 31 14.8**	**-0.8**
THZ	**Tophouse**	**60.21**	**141**	IAMs_20	IAMs_20	00 57 09.9	
	comp=Z,6µm,21.0s						
THZ	**Tophouse**	**60.21**	**141**	P	**P**	**00 31 15.0**	**-0.6**
YAK	**Yakutsk**	**60.25**	**2**	*e*P	**P**	**00 31 15.6**	**+0.2**
YAK				*e*		00 31 59.8	
YAK				*e*		00 33 28.8	
YAK				*e*S	**S**	**00 39 27.9**	**+1.5**
YAK				*e*		00 40 59.3	
YAK				*e*SS	**SS**	**00 43 25.4**	**+1.1**
YAK				pmax	pmax		
	comp=Z,323nm,0.9s						
YAK				pmax	pmax		
	comp=N,49nm,1.3s						
YAK				pmax	pmax		
	comp=E,18nm,1.1s						
YAK				pmax	pmax		
	comp=Z,146nm,2.0s						
YAK				pmax	pmax		
	comp=N,86nm,1.6s						
YAK				pmax	pmax		
	comp=E,62nm,1.8s						
YAK				smax	smax		
	comp=N,1µm,4.3s						
YAK				smax	smax		
	comp=E,916nm,4.0s						
YAK				MLR	MLR		
	comp=Z,6µm,24.0s						
YAK				MLR	MLR		
	comp=N,4µm,24.0s						
YAK				MLR	MLR		
	comp=E,2µm,24.0s						
YAK	**Yakutsk**	**60.25**	**2**	P	**P**	**00 31 15.6**	**+0.2**
YAK	**Yakutsk**	**60.25**	**2**	IAMs_20	IAMs_20	00 59 17.1	
	comp=Z,4µm,21.0s						
YAK	**Yakutsk**	**60.25**	**2**	P	**P**	**00 31 16.5**	**+1.0**
	comp=Z,4µmcomp=Z,456nm,0.8s						
YAK	**Yakutsk**	**60.25**	**2**	P	**P**	**00 31 16.1**	**+0.6**
MDOK	**Medeo**	**60.34**	**320**	*e*P	**P**	**00 31 16.3**	**-0.4**
MDOK				*e*S	**S**	**00 39 29.3**	**+0.6**
MDOK	**Medeo**	**60.34**	**320**	*e*P	**P**	**00 31 16.4**	**-0.4**
MDOK				*e*S	**S**	**00 39 29.3**	**+0.6**
MDOK				LR	LR	00 57 50.3	
TNSS	**Tian-Shan**	**60.34**	**320**	*e*P	**P**	**00 31 16.4**	**-0.6**
TNSS	**Tian-Shan**	**60.34**	**320**	*e*P	**P**	**00 31 16.4**	**-0.6**
LTZ	**Lake Taylor**	**60.39**	**143**	IAMs_20	IAMs_20	00 58 51.7	
	comp=Z,7µm,20.0s						
LTZ	**Lake Taylor**	**60.39**	**143**	P	**P**	**00 31 16.5**	**-0.4**
TDK	**Taldyqorghan**	**60.41**	**323**	*e*P	**P**	**00 31 16.8**	**-0.2**
TDK				pmax	pmax		
	comp=Z,94nm,0.8s						
TDK				MLR	MLR		
	comp=Z,2µm,21.0s						
TDK	**Taldyqorghan**	**60.41**	**323**	*e*P	**P**	**00 31 16.9**	**-0.2**
	comp=Z,94nm,0.8s						
TDK				LR	LR	00 57 52.0	
	comp=Z,2µm,21.4s						
ULHL	**Ulahol**	**60.43**	**319**	P	**P**	**00 31 19.9**	**+2.5**
	SNR=6.6						
OXZ	**Oxford**	**60.56**	**143**	IAMs_20	IAMs_20	00 58 56.2	
	comp=Z,5µm,21.0s						
OXZ	**Oxford**	**60.56**	**143**	P	**P**	**00 31 16.8**	**-1.2**
WTVZ	**West Tongariro**	**60.56**	**138**	P	**P**	**00 31 18.6**	**+0.4**
TMZ	**Timaru**	**60.58**	**145**	P	**P**	**00 31 19.5**	**+1.5**
FWVZ	**Far West T-bar**	**60.61**	**138**	P	**P**	**00 31 19.7**	**+1.1**
TMVZ	**Te Maari**	**60.64**	**138**	P	**P**	**00 31 19.0**	**+0.2**
ETVZ	**East Tongariro**	**60.66**	**138**	P	**P**	**00 31 19.8**	**+1.0**
MA2	**Magadan**	**60.72**	**14**	LR	LR	00 56 35.2	
	comp=Z,1µm,21.8s,baz=209,slow=35						
MA2	**Magadan**	**60.72**	**14**	P	**P**	**00 31 20.4**	**+1.6**
MA2	**Magadan**	**60.72**	**14⇓**	*e*P	**P**	**00 31 20.1**	**+1.3**
MA2				pmax	pmax		
	comp=Z,264nm,1.3s						
MA2				MLR	MLR		
	comp=Z,3µm,21.0s						
MA2	**Magadan**	**60.72**	**14**	P	**P**	**00 31 18.7**	**-0.1**
MA2	**Magadan**	**60.72**	**14**	P	**P**	**00 31 20.1**	**+1.3**
	comp=Z,3µmcomp=Z,203nm,1.0s						
MA2	**Magadan**	**60.72**	**14**	P	**P**	**00 31 18.3**	**-0.5**
	comp=Z,185nm,1.0s,comp=Z,3µm						
BOOM	**Boomskoye usch**	**60.74**	**319**	P	**P**	**00 31 18.9**	**-0.6**
BOOM				pmax	pmax		
	comp=Z,50nm,1.0s						
BOOM	**Boomskoye usch**	**60.74**	**319**	P	**P**	**00 31 18.9**	**-0.6**
BOOM	**Boomskoye usch**	**60.74**	**319**	P	**P**	**00 31 19.7**	**+0.3**
	comp=Z,1µmcomp=Z,57nm,1.2s						
ODZ	**Otahua Downs**	**60.77**	**146**	IAMs_20	IAMs_20	00 57 37.5	
	comp=Z,5µm,22.0s						
ODZ	**Otahua Downs**	**60.77**	**146**	P	**P**	**00 31 18.7**	**-0.6**
MOVZ	**Moawhango**	**60.82**	**138**	P	**P**	**00 31 19.1**	**-0.8**
GVZ	**Greta Valley S**	**60.96**	**142**	IAMs_20	IAMs_20	00 59 19.7	
	comp=Z,7µm,19.0s						
GVZ	**Greta Valley S**	**60.96**	**142**	P	**P**	**00 31 20.3**	**-0.4**
KHZ	**Kahutara**	**60.97**	**142**	IAMs_20	IAMs_20	01 00 32.9	
	comp=Z,7µm,20.0s						
KHZ	**Kahutara**	**60.97**	**142**	P	**P**	**00 31 19.5**	**-1.2**
KHZ	**Kahutara**	**60.97**	**142**	P	**P**	**00 31 20.0**	**-0.7**
	comp=Z,5µmcomp=Z,112nm,0.7s						
MUGZ	**Murupara**	**61.06**	**136**	P	**P**	**00 31 21.0**	**-0.5**
BHHZ	**Black Hill Sta**	**61.07**	**138**	P	**P**	**00 31 20.6**	**-0.9**
SNZO	**South Karori**	**61.11**	**140**	IAMs_20	IAMs_20	00 59 23.6	
	comp=Z,9µm,20.0s						
KUU	**Kurty**	**61.15**	**321**	*e*P	**P**	**00 31 21.7**	**-0.3**
KUU				pmax	pmax		
	comp=Z,89nm,0.9s						
KUU				MLR	MLR		
	comp=Z,1µm,21.0s						
KUU	**Kurty**	**61.15**	**321**	*e*P	**P**	**00 31 21.8**	**-0.3**
	comp=Z,89nm,0.9s						
KUU				LR	LR	00 58 24.9	
	comp=Z,1µm,21.0s						
MQZ	**McQueen’s Vall**	**61.15**	**143**	IAMs_20	IAMs_20	01 00 07.7	
	comp=Z,3µm,20.0s						
MQZ	**McQueen’s Vall**	**61.15**	**143**	P	**P**	**00 31 22.4**	**+0.5**
TKM2	**Tokmak 2**	**61.16**	**319**	P	**P**	**00 31 21.8**	**-0.6**
	SNR=73						
URZ	**Urewera**	**61.19**	**136**	LR	LR	00 58 00.8	
	comp=Z,6µm,21.6s,baz=307,slow=36						
URZ	**Urewera**	**61.19**	**136**	P	**P**	**00 31 21.2**	**-1.1**
URZ	**Urewera**	**61.19**	**136**	P	**P**	**00 31 21.8**	**-0.5**
	comp=Z,6µmcomp=Z,1µmcomp=Z,129nm,1.0s,comp=Z,1µm						
BKZ	**Black Stump Fm**	**61.20**	**137**	P	**P**	**00 31 21.4**	**-1.1**
RTZ	**Ruatahuna**	**61.27**	**136**	P	**P**	**00 31 21.6**	**-1.4**
RTZ				IAMs_20	IAMs_20	00 58 15.0	
	comp=Z,7µm,21.0s						
RTZ	**Ruatahuna**	**61.27**	**136**	P	**P**	**00 31 22.1**	**-0.9**
KWHZ	**Kaweka Forest**	**61.28**	**138**	P	**P**	**00 31 22.3**	**-0.7**
TSZ	**Takapari Road**	**61.28**	**138**	P	**P**	**00 31 21.8**	**-1.2**
RAO	**Raoul Island**	**61.30**	**125**	IAMs_20	IAMs_20	00 59 47.4	
	comp=Z,4µm,19.0s						
MRZ	**Mangatainoka R**	**61.34**	**139**	IAMs_20	IAMs_20	00 59 13.7	
	comp=Z,4µm,20.0s						
MRZ	**Mangatainoka R**	**61.34**	**139**	P	**P**	**00 31 21.8**	**-1.5**
KRHZ	**Kereru**	**61.35**	**138**	P	**P**	**00 31 21.9**	**-1.6**
NMHZ	**Naumai**	**61.38**	**137**	P	**P**	**00 31 23.4**	**-0.4**
HAZ	**Te Kaha**	**61.42**	**135**	P	**P**	**00 31 22.7**	**-1.2**
KBK	**Karagaybulak**	**61.47**	**319**	P	**P**	**00 31 28.2**	**+3.8**
	SNR=35						
MCHZ	**McNeill Hill**	**61.47**	**137**	P	**P**	**00 31 23.8**	**-0.5**
RAHZ	**Arahi**	**61.48**	**137**	P	**P**	**00 31 23.6**	**-0.8**
MWZ	**Matawai**	**61.51**	**136**	P	**P**	**00 31 23.7**	**-0.9**
ARHZ	**Aropaoanui**	**61.59**	**137**	P	**P**	**00 31 24.9**	**-0.1**
WHHZ	**Waihua**	**61.66**	**137**	P	**P**	**00 31 25.3**	**-0.2**
MXZ	**Matakaoa Point**	**61.70**	**135**	IAMs_20	IAMs_20	00 59 10.6	
	comp=Z,7µm,22.0s						
MXZ	**Matakaoa Point**	**61.70**	**135**	P	**P**	**00 31 24.8**	**-1.0**
FRU1	**Bishkek**	**61.74**	**319**	P	**P**	**00 31 25.3**	**-0.9**
FRU1				pmax	pmax		
	comp=Z,48nm,1.0s						
FRU1	**Bishkek**	**61.74**	**319**	P	**P**	**00 31 25.2**	**-0.9**
CHMS	**Chumysh**	**61.75**	**319**	P	**P**	**00 31 24.9**	**-1.3**
	SNR=26						
AAK	**Ala-Archa**	**61.76**	**319**	P	**P**	**00 31 27.1**	**+0.8**
	comp=Z,31nm,0.8s,baz=132,slow=7.0,SNR=31						
AAK				PKPPKP		01 00 30.4	
	comp=Z,0.9nm,0.3s,baz=293,slow=4.2,SNR=6.9						
	comp=Z,31nm,0.8s						
AAK	**Ala-Archa**	**61.76**	**319**	P	**P**	**00 31 27.4**	**+1.1**
	SNR=25						
AAK	**Ala-Archa**	**61.76**	**319**	P	**P**	**00 31 27.8**	**+1.5**
AAK	**Ala-Archa**	**61.76**	**319**	*d i*P	**P**	**00 31 26.4**	**+0.1**
AAK				pmax	pmax		
	comp=Z,96nm,1.4s						
AAK				MLR	MLR		
	comp=Z,5µm,24.0s						
AAK	**Ala-Archa**	**61.76**	**319**	P	**P**	**00 31 26.4**	**+0.1**
AAK				IAmb	IAmb	00 31 33.6	
	comp=Z,102nm,1.4s						
AAK	**Ala-Archa**	**61.76**	**319**	*i* P	**P**	**00 31 26.5**	**+0.1**
	SNR=26						
AAK	**Ala-Archa**	**61.76**	**319**	P	**P**	**00 31 27.5**	**+1.1**
	comp=Z,3µmcomp=Z,2µmcomp=Z,64nm,1.7s						
AAK	**Ala-Archa**	**61.76**	**319**	P	**P**	**00 31 26.7**	**+0.4**
KAHZ	**Kahuranaki**	**61.77**	**138**	P	**P**	**00 31 25.7**	**-0.6**
BFZ	**Birch Farm**	**61.78**	**139**	P	**P**	**00 31 27.5**	**+1.2**
BFZ	**Birch Farm**	**61.78**	**139**	IAMs_20	IAMs_20	00 57 45.6	
	comp=Z,7µm,22.0s						
BFZ	**Birch Farm**	**61.78**	**139**	P	**P**	**00 31 26.0**	**-0.3**
BFZ	**Birch Farm**	**61.78**	**139**	P	**P**	**00 31 25.6**	**-0.7**
	comp=Z,6µmcomp=Z,88nm,0.9s						
PRHZ	**Porangahau**	**61.84**	**138**	P	**P**	**00 31 25.5**	**-1.2**
RIGZ	**Rimuhau**	**61.85**	**136**	P	**P**	**00 31 26.3**	**-0.6**
PXZ	**Pawanui**	**61.87**	**138**	P	**P**	**00 31 26.2**	**-0.7**
PUZ	**Puketiti**	**61.90**	**135**	P	**P**	**00 31 25.9**	**-1.3**
KNZ	**Kokohu**	**61.94**	**137**	P	**P**	**00 31 26.1**	**-1.2**
OHH	**Osh**	**62.02**	**316**	P	**P**	**00 31 26.6**	**-1.4**
	comp=Z,2µmcomp=Z,78nm,1.1s						
PRGZ	**Paritu Road**	**62.03**	**136**	P	**P**	**00 31 30.7**	**+2.7**
SGDS	**Sogindy**	**62.03**	**320**	*e*P	**P**	**00 31 27.6**	**-0.5**
SGDS				*e*S	**S**	**00 39 50.8**	**+0.7**
USP	**Ospenovka**	**62.04**	**319**	P	**P**	**00 31 27.4**	**-0.7**
	SNR=101						
CNGZ	**Carnagh Statio**	**62.06**	**136**	P	**P**	**00 31 27.9**	**-0.3**
MHGZ	**Mahia Peninsul**	**62.16**	**137**	P	**P**	**00 31 28.6**	**-0.3**
ARSB	**Arslanbob**	**62.21**	**317**	P	**P**	**00 31 28.4**	**-1.0**
ARSB				pmax	pmax		
	comp=Z,80nm,0.9s						
ARSB	**Arslanbob**	**62.21**	**317**	P	**P**	**00 31 28.4**	**-1.0**
ARSB				IAmb	IAmb	00 31 33.7	
	comp=Z,80nm,0.9s						
EKS2	**Erkin-Say**	**62.24**	**318**	P	**P**	**00 31 29.4**	**-0.2**
	SNR=71						
DRK	**Karamyk**	**62.29**	**314**	P	**P**	**00 31 29.1**	**-1.1**
DRK				pmax	pmax		
	comp=Z,84nm,0.8s						
DRK	**Karamyk**	**62.29**	**314**	P	**P**	**00 31 29.1**	**-1.1**
DRK				IAmb	IAmb	00 31 34.9	
	comp=Z,84nm,0.8s						
DRK	**Karamyk**	**62.29**	**314**	P	**P**	**00 31 30.4**	**+0.2**
	comp=Z,3µmcomp=Z,106nm,0.8s						
ZAA0	**Zalesovo Array**	**62.33**	**334**	P	**P**	**00 31 28.4**	**-1.3**
ZAA0				IAmb	IAmb	00 31 34.8	
	comp=Z,113nm,1.1s						
ZALV	**Zalesovo Beam**	**62.33**	**334**	P	**P**	**00 31 28.8**	**-0.9**
	comp=Z,31nm,0.7s,baz=129,slow=6.4,SNR=54						
ZALV				S	**S**	**00 39 54.9**	**+1.7**
	comp=Z,2.4nm,0.9s,baz=135,slow=15,SNR=3.9						
ZALV				ScS	**ScS**	**00 41 24.0**	**+5.4**
	comp=Z,2.4nm,1.1s,baz=128,slow=2.4,SNR=4.6						
ZALV				PKPPKP	**P'P'df**	**01 00 30.3**	**-5.5**
	comp=Z,2.2nm,0.8s,baz=2.7,slow=3.1,SNR=3.7						
ZALV				PKP2bc		01 00 41.3	
	comp=Z,9.1nm,1.0s,baz=304,slow=3.4,SNR=9.4						
ZALV				LR	LR	01 02 09.1	
	comp=Z,861nm,18.1s,baz=134,slow=39						
	comp=Z,31nm,0.7s						
ZALV	**Zalesovo Beam**	**62.33**	**334**	P	**P**	**00 31 28.4**	**-1.3**
KBL	**Kabul**	**62.63**	**308**	P	**P**	**00 31 31.3**	**-1.1**
	SNR=43						
KBL	**Kabul**	**62.63**	**308**	P	**P**	**00 31 30.8**	**-1.6**
KBL				pmax	pmax		
	comp=Z,92nm,0.7s						
KBL	**Kabul**	**62.63**	**308**	P	**P**	**00 31 30.8**	**-1.6**
KBL				IAmb	IAmb	00 31 37.6	
	comp=Z,92nm,0.7s						
KBL	**Kabul**	**62.63**	**308**	P	**P**	**00 31 31.1**	**-1.3**
	comp=Z,3µmcomp=Z,1µmcomp=Z,130nm,0.8s						
AFI	**Afiamalu**	**63.02**	**106**	LR	LR	00 57 25.5	
	comp=Z,2µm,21.8s,baz=277,slow=34						
AFI	**Afiamalu**	**63.02**	**106**	P	**P**	**00 31 34.6**	**-0.6**
AFI				pmax	pmax		
	comp=Z,141nm,0.9s						
AFI				MLR	MLR		
	comp=Z,3µm,19.0s						
AFI	**Afiamalu**	**63.02**	**106**	P	**P**	**00 31 34.5**	**-0.6**
AFI				IAmb	IAmb	00 31 38.6	
	comp=Z,141nm,0.8s						
AFI	**Afiamalu**	**63.02**	**106**	IAMs_20	IAMs_20	00 59 24.1	
	comp=Z,3µm,19.0s						
ARK	**Arkit**	**63.10**	**317**	P	**P**	**00 31 35.0**	**-0.3**
	comp=Z,2µmcomp=Z,2µmcomp=Z,184nm,0.8s						
BTK	**Batken**	**63.22**	**315**	P	**P**	**00 31 35.5**	**-0.6**
BTK				pmax	pmax		
	comp=Z,248nm,1.6s						
BTK	**Batken**	**63.22**	**315**	P	**P**	**00 31 35.5**	**-0.6**
BTK				IAmb	IAmb	00 32 05.0	
	comp=Z,248nm,1.6s						
BTK	**Batken**	**63.22**	**315**	P	**P**	**00 31 35.4**	**-0.7**
	comp=Z,3µmcomp=Z,2µmcomp=Z,89nm,0.9s						
KURBB	**Kurchatov Arra**	**63.36**	**328**	P	**P**	**00 31 35.9**	**-0.8**
	comp=Z,69nm,0.5s,baz=131,slow=6.3,SNR=237						
KURBB				S	**S**	**00 40 08.9**	**+2.6**
	comp=Z,0.4nm,0.4s,baz=191,slow=15,SNR=1.8						
KURBB				ScS	**ScS**	**00 41 28.1**	**+1.5**
	comp=Z,0.3nm,0.3s,baz=123,slow=6.7,SNR=2.1						
KURBB				PKPPKP		01 00 28.4	
	comp=Z,1.8nm,0.8s,baz=285,slow=3.2,SNR=10						
	comp=Z,69nm,0.5s						
KURBB	**Kurchatov Arra**	**63.36**	**328**	P	**P**	**00 31 35.8**	**-0.9**
KURK	**Kurchatov**	**63.37**	**328**	P	**P**	**00 31 36.1**	**-0.5**
KURK	**Kurchatov**	**63.37**	**328**	*c i*P	**P**	**00 31 35.6**	**-1.1**
KURK				pmax	pmax		
	comp=Z,143nm,0.6s						
KURK				MLR	MLR		
	comp=Z,2µm,18.0s						
KURK	**Kurchatov**	**63.37**	**328**	P	**P**	**00 31 36.2**	**-0.5**
KURK	**Kurchatov**	**63.37**	**328**	P	**P**	**00 31 36.2**	**-0.5**
	comp=Z,3µmcomp=Z,4µmcomp=Z,235nm,0.9s						
KURK	**Kurchatov**	**63.37**	**328**	P	**P**	**00 31 36.2**	**-0.5**
SEY	**Seymchan**	**64.06**	**13**	LR	LR	00 58 43.8	
	comp=Z,1µm,21.7s,baz=204,slow=35						
SEY	**Seymchan**	**64.06**	**13**	*e*P	**P**	**00 31 40.7**	**-0.3**
SEY				pmax	pmax		
	comp=Z,232nm,1.6s						
SMY	**Shemya**	**64.31**	**30**	P	**P**	**00 31 44.7**	**+1.9**
SMY	**Shemya**	**64.31**	**30**	P	**P**	**00 31 43.7**	**+0.9**
SMY				pmax	pmax		
	comp=Z,349nm,1.1s						
SMY	**Shemya**	**64.31**	**30**	P	**P**	**00 31 43.7**	**+0.9**
JOHN	**Johnston Islan**	**64.57**	**72**	P	**P**	**00 31 46.7**	**+1.5**
JOHN	**Johnston Islan**	**64.57**	**72**	P	**P**	**00 31 45.2**	**0.0**
JOHN	**Johnston Islan**	**64.57**	**72**	IAMs_20	IAMs_20	00 55 51.3	
	comp=Z,7µm,20.0s						
JOHN	**Johnston Islan**	**64.57**	**72**	P	**P**	**00 31 44.8**	**-0.4**
	comp=Z,631nm,0.8s						
JOHN	**Johnston Islan**	**64.57**	**72**	P	**P**	**00 31 46.5**	**+1.3**
KK31	**Karatay Array**	**64.61**	**318**	*i* P	**P**	**00 31 44.0**	**-1.0**
KK31	**Karatay Array**	**64.61**	**318**	P	**P**	**00 31 44.2**	**-0.8**
KK31				IAmb	IAmb	00 31 49.2	
	comp=Z,67nm,0.9s						
KKAR	**Karatay Array**	**64.61**	**318**	P	**P**	**00 31 44.3**	**-0.8**
KKAR	**Karatay Array**	**64.61**	**318**	P	**P**	**00 31 44.3**	**-0.8**
CHM	**Chimkent**	**64.92**	**317**	*e*P	**P**	**00 31 46.8**	**-0.3**
CHM				pmax	pmax		
	comp=Z,43nm,0.6s						
CHM				MLR	MLR		
	comp=Z,2µm,22.0s						
CHM	**Chimkent**	**64.92**	**317**	*e*P	**P**	**00 31 46.9**	**-0.3**
	comp=Z,43nm,0.6s						
CHM				LR	LR	01 00 53.5	
	comp=Z,2µm,22.4s						
BRLS	**Borolday**	**65.03**	**317**	*e*P	**P**	**00 31 47.5**	**-0.3**
BRLS				*e*S	**S**	**00 40 28.2**	**+0.8**
BRLS	**Borolday**	**65.03**	**317**	*e*P	**P**	**00 31 47.5**	**-0.3**
BRLS				*e*S	**S**	**00 40 28.2**	**+0.8**
ROCAM	**Rodrigues Isla**	**65.48**	**247**	P	**P**	**00 31 50.7**	**-0.4**
AMKA	**Amchitka**	**66.30**	**33**	P	**P**	**00 31 55.9**	**+0.1**
CTZ	**Chatham Island**	**67.89**	**139**	IAMs_20	IAMs_20	01 03 29.3	
	comp=Z,6µm,21.0s						
HRA	**Herat**	**67.99**	**307**	P	**P**	**00 32 06.2**	**-1.0**
JLN	**Jalan Bani Buh**	**68.23**	**293**	P	**P**	**00 32 09.4**	**+0.8**
KIWB	**Kanaga Island**	**68.48**	**34**	P	**P**	**00 32 09.6**	**+0.1**
WBK	**Wadi Bani Khal**	**68.69**	**294**	P	**P**	**00 32 11.9**	**+0.4**
ADK	**Adak**	**68.75**	**34**	P	**P**	**00 32 13.0**	**+1.8**
ADK	**Adak**	**68.75**	**34**	P	**P**	**00 32 11.3**	**+0.1**
ADK				pmax	pmax		
	comp=Z,197nm,1.0s						
ADK	**Adak**	**68.75**	**34**	P	**P**	**00 32 11.2**	**+0.1**
ADK	**Adak**	**68.75**	**34**	IAMs_20	IAMs_20	00 58 05.0	
	comp=Z,4µm,22.0s						
ADK	**Adak**	**68.75**	**34**	P	**P**	**00 32 11.4**	**+0.2**
	comp=Z,247nm,1.0s,comp=Z,3µm						
CASY	**Casey**	**68.78**	**187**	P	**P**	**00 32 11.5**	**+0.4**
CASY				IAmb	IAmb	00 32 15.8	
	comp=Z,111nm,0.8s						
CASY	**Casey**	**68.78**	**187**	P	**P**	**00 32 11.1**	**0.0**
	comp=Z,158nm,0.8s,comp=Z,3µmcomp=Z,5µm						
CASY	**Casey**	**68.78**	**187**	P	**P**	**00 32 12.0**	**+0.9**
DRV	**Dumont d’Urvil**	**68.87**	**174**	P	**P**	**00 32 11.5**	**-0.1**
BVAR	**Borovoye Array**	**68.93**	**327**	P	**P**	**00 32 12.1**	**-0.3**
	comp=Z,40nm,0.6s,baz=130,slow=8.0,SNR=43						
BVAR				S	**S**	**00 41 16.7**	**+2.7**
	comp=Z,1.8nm,0.9s,baz=130,slow=11,SNR=1.7						
BVAR				ScS	**SKSac**	**00 42 06.3**	**-2.6**
	comp=Z,1.8nm,0.9s,baz=124,slow=7.7,SNR=1.9						
BVAR				PKPPKP	**P'P'df**	**01 00 19.5**	**-5.7**
	comp=Z,0.8nm,0.7s,baz=357,slow=3.0,SNR=4.3						
	comp=Z,40nm,0.6s						
BORK	**Borovoye**	**68.98**	**327**	*ce*P	**P**	**00 32 10.9**	**-1.8**
BORK				pmax	pmax		
	comp=Z,125nm,0.9s						
BORK				pmax	pmax		
	comp=Z,163nm,1.2s						
BORK				MLR	MLR		
	comp=Z,3µm,25.0s						
BORK	**Borovoye**	**68.98**	**327**	P	**P**	**00 32 12.0**	**-0.7**
BORK				IAmb	IAmb	00 32 38.1	
	comp=Z,117nm,0.8s						
WSAR	**Wadi Sarin**	**69.08**	**294**	LR	LR	01 03 24.2	
	comp=Z,5.9nm,22.0s,baz=130,slow=37						
WSAR	**Wadi Sarin**	**69.08**	**294**	P	**P**	**00 32 13.3**	**-0.6**
GSTR	**Great Sitkin T**	**69.19**	**34**	P	**P**	**00 32 15.0**	**+0.9**
MHTO	**MHTO**	**69.42**	**292**	P	**P**	**00 32 15.2**	**-0.8**
	SNR=15						
JMDO	**Jabal Madar**	**69.46**	**293**	P	**P**	**00 32 15.8**	**-0.4**
	SNR=7.0						
BIDO	**Bidbid**	**69.58**	**294**	P	**P**	**00 32 16.9**	**-0.1**
	SNR=6.8						
SMDO	**Samad**	**69.59**	**294**	P	**P**	**00 32 17.8**	**+0.6**
TIXI	**Tiksi**	**69.88**	**1**	*d i*P	**P**	**00 32 17.7**	**-0.1**
TIXI				pmax	pmax		
	comp=Z,86nm,0.9s						
TIXI				MLR	MLR		
	comp=Z,4µm,22.0s						
TIXI	**Tiksi**	**69.88**	**1**	P	**P**	**00 32 17.7**	**-0.1**
TIXI				IAmb	IAmb	00 32 24.6	
	comp=Z,64nm,0.9s						
TIXI				IAMs_20	IAMs_20	01 03 28.2	
	comp=Z,4µm,22.0s						
ATKA	**Atka Island**	**70.28**	**34**	P	**P**	**00 32 22.4**	**+1.8**
ATKA	**Atka Island**	**70.28**	**34**	P	**P**	**00 32 20.6**	**0.0**
ATKA				IAMs_20	IAMs_20	00 59 14.4	
	comp=Z,3µm,22.0s						
BSY	**Bisya**	**70.33**	**293**	P	**P**	**00 32 21.3**	**-0.4**
	SNR=7.4						
ARQ	**Araqi**	**71.02**	**294**	P	**P**	**00 32 26.0**	**+0.2**
	SNR=6.1						
SOHO	**SOHO**	**71.10**	**295**	P	**P**	**00 32 26.6**	**+0.3**
SOHO	**SOHO**	**71.10**	**295**	P	**P**	**00 32 27.3**	**+1.0**
UOSS	**Minazif**	**71.49**	**296**	P	**P**	**00 32 28.3**	**-0.3**
UOSS	**Minazif**	**71.49**	**296**	P	**P**	**00 32 28.5**	**-0.1**
UOSS	**Minazif**	**71.49**	**296**	P	**P**	**00 32 27.8**	**-0.8**
	comp=Z,37nm,0.8s,comp=Z,753nmcomp=Z,2µm						
HATD	**Hatta, Dubai**	**71.54**	**296**	*i* P	**P**	**00 32 28.7**	**-0.3**
	SNR=14						
BILL	**Bilibino**	**71.57**	**15**	*de*P	**P**	**00 32 29.0**	**+0.8**
BILL				pmax	pmax		
	comp=Z,78nm,1.5s						
BILL				MLR	MLR		
	comp=Z,1µm,19.0s						
BILL	**Bilibino**	**71.57**	**15**	P	**P**	**00 32 28.9**	**+0.7**
MSFE	**Esma-Masafi**	**71.58**	**296**	*i* P	**P**	**00 32 29.4**	**+0.2**

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      SNR=7.5
ASHO  Ashiyiah          71.59 295 i  P        P        00 32 28.8 -0.5
      SNR=12
BILI  Bilibino, Chuk    71.63  15    P        P        00 32 29.8 +1.2
      comp=Z,891nmcomp=Z,37nm,1.1s
SHME  Shamm             71.69 297 i  P        P        00 32 29.7  0.0
      SNR=6.6
ALNE  Al Ain            71.80 295    P        P        00 32 30.7 +0.2
      SNR=19
ALNE  Al Ain            71.80 295 i  P        P        00 32 30.5  0.0
      SNR=36
NAZ   Nazwa, Dubai      71.99 296    P        P        00 32 32.5 +0.9
UMZA  Um Al Zommool     72.20 293    P        P        00 32 32.5 -0.3
ASUD  Al Ashush, Dub    72.25 295    P        P        00 32 34.5 +1.4
      SNR=5.2
ASUD  Al Ashush, Dub    72.25 295 i  P        P        00 32 33.8 +0.7
      SNR=7.6
NRIK  Noril'sk          72.36 346    P        P        00 32 33.5 +0.5
      comp=Z,94nm,0.7s,baz=134,slow=6.6,SNR=60
NRIK                                 S        S        00 41 55.8 +2.5
      comp=Z,7.8nm,1.0s,baz=351,slow=22,SNR=10
      comp=Z,94nm,0.7s
NRIK  Noril'sk          72.36 346c i P        P        00 32 32.5 -0.4
NRIK                                 pmax     pmax
      comp=Z,364nm,1.6s
NRIK  Noril'sk          72.36 346    P        P        00 32 32.9  0.0
NRIK                                 IAmb     IAmb     00 32 39.7
      comp=Z,148nm,0.8s
AJN   Ajban             72.55 295    P        P        00 32 34.8 -0.1
      SNR=5.3
AJN   Ajban             72.55 295 i  P        P        00 32 35.2 +0.3
      SNR=9.7
RBK   Rabkut            72.66 288    P        P        00 32 35.6 -0.2
CLES  Cleveland East    72.94  35    P        P        00 32 36.3 -0.4
WHFO  Wadi Hawf         73.10 288    P        P        00 32 38.2 -0.2
      SNR=5.1
AB31  Akbulak array     73.62 321 i  P        P        00 32 40.3 -0.5
AB31  Akbulak array     73.62 321    P        P        00 32 39.9 -0.9
AB31                                 IAmb     IAmb     00 32 44.8
      comp=Z,157nm,1.4s
ABKAR Akbulak array     73.62 321    P        P        00 32 39.8 -0.9
MZR   Muzera            73.77 293    P        P        00 32 42.5 +0.3
      SNR=12
MZR   Muzera            73.77 293 i  P        P        00 32 42.4 +0.1
      SNR=36
SPIA  Saint Paul Isl    74.34  30    P        P        00 32 47.3 +2.5
AKTO  Aktyubinsk        75.15 322    LR       LR       01 10 23.0
      comp=Z,2µm,19.6s,baz=89,slow=39
UNV   Unalaska Valle    75.20  34    P        P        00 32 51.5 +1.7
UNV   Unalaska Valle    75.20  34    P        P        00 32 50.2 +0.4
UNV                                  IAMs_20  IAMs_20  01 03 02.7
      comp=Z,5µm,22.0s
RAR   Rarotonga         75.42 112    LR       LR       01 04 42.7
      comp=Z,1µm,21.1s,baz=268,slow=35
RAR   Rarotonga         75.42 112    P        P        00 32 53.5 +1.7
SVE   Sverdlovsk        75.61 329ce  P        P        00 32 52.0 -0.1
SVE                              e   S        S        00 42 26.0 -4.2
SVE                              e   SS       SS       00 47 22.2 +0.3
SVE                                  pmax     pmax
      comp=Z,288nm,0.8s
SVE                                  pmax     pmax
      comp=Z,501nm,10.3s
AKUT  Akutan            75.70  34    P        P        00 32 54.5 +1.8
AKUT  Akutan            75.70  34    P        P        00 32 52.6  0.0
KIP   Kipapa            75.83  68    P        P        00 32 56.6 +2.5
KIP   Kipapa            75.83  68    P        P        00 32 56.8 +2.7
KIP   Kipapa            75.83  68    P        P        00 32 54.2 +0.1
KIP                                  pmax     pmax
      comp=Z,192nm,1.2s
KIP   Kipapa            75.83  68    P        P        00 32 54.2 +0.1
KIP                                  IAmb     IAmb     00 33 01.0
      comp=Z,192nm,1.2s
KIP   Kipapa            75.83  68    P        P        00 32 54.5 +0.4
      comp=Z,224nm,1.6s
HON   Honolulu          75.84  69    P        P        00 32 53.6 -0.5
      comp=Z,408nm,1.9s
XMAS  Kiritimati        75.96  88    IAMs_20  IAMs_20  01 03 36.1
      comp=Z,5µm,21.0s
GAMB  Gambell           76.33  24    P        P        00 32 56.6 +0.5
GAMB                                 IAmb     IAmb     00 33 00.9
      comp=Z,162nm,1.2s
ARTI  Arti              76.65 328    P        P        00 32 57.3 -0.7
      comp=Z,90nm,0.7s,baz=101,slow=2.4,SNR=68
ARTI                                 LR       LR       01 10 16.8
      comp=Z,1µm,19.6s,baz=109,slow=38
      comp=Z,90nm,0.7s
ARTI  Arti              76.65 328d i P        P        00 32 57.3 -0.7
ARTI                                 PPP      PPP      00 37 32.4
ARTI                                 S        S        00 42 41.0 -0.6
ARTI                                 SSS      SSS      00 51 01.8
ARTI                                 pmax     pmax
      comp=Z,214nm,1.5s
ARTI                                 MLR      MLR
      comp=Z,2µm,20.0s
ARTI  Arti              76.65 328    P        P        00 32 57.1 -1.0
ARTI                                 IAMs_20  IAMs_20  01 10 04.5
      comp=Z,3µm,22.0s
ARTI  Arti              76.65 328    P        P        00 32 57.4 -0.7
KHLU  Kahalu`u          77.71  70    P        P        00 33 04.4 -0.5
KHLU  Kahalu`u          77.71  70    P        P        00 33 04.8 -0.2
      comp=Z,237nm,1.9s
MHA   Mahukona          77.73  70    P        P        00 33 04.7 -0.2
MHA   Mahukona          77.73  70    P        P        00 33 04.7 -0.2
MWH   Mokuaweoweo       77.99  71    P        P        00 33 06.6 -0.4
MLOA  Mauna Loa Obse    78.01  71    P        P        00 33 05.2 -1.7
      comp=Z,213nm,1.2s
POHA  Pohakuloa         78.06  70    P        P        00 33 09.1 +2.1
POHA  Pohakuloa         78.06  70    P        P        00 33 06.6 -0.4
POHA                                 IAmb     IAmb     00 33 12.4
      comp=Z,165nm,0.9s
POHA  Pohakuloa         78.06  70    IAMs_20  IAMs_20  01 06 20.6
      comp=Z,4µm,20.0s
POHA  Pohakuloa         78.06  70    P        P        00 33 08.0 +0.9
      comp=Z,204nm,1.0s
POHA  Pohakuloa         78.06  70    P        P        00 33 08.8 +1.8
UWE   Uwekahuna         78.27  71    P        P        00 33 08.2 +0.1
TNA   Tin City          78.53  23    P        P        00 33 09.3 +1.0
SDPT  Sand Point        78.98  34    P        P        00 33 12.9 +1.9
ANM   Nome              79.20  24    P        P        00 33 13.0 +0.9
ANM                                  pmax     pmax
      comp=Z,152nm,1.6s
ANM   Nome              79.20  24    P        P        00 33 13.0 +0.9
ANM                                  IAmb     IAmb     00 33 17.2
      comp=Z,152nm,1.6s
CHNA  Chernabura Isl    79.37  34    P        P        00 33 14.8 +1.7
N14K  Kuskokwak Cree    79.47  29    IAMs_20  IAMs_20  01 03 33.4
      comp=Z,2µm,22.0s
VNFG  Fog Glacier, M    79.70  33    IAMs_20  IAMs_20  01 02 06.6
      comp=Z,6µm,21.0s
N15K  Kwethluk River    80.31  29    IAMs_20  IAMs_20  01 08 19.5
      comp=Z,2µm,22.0s
ABPO  Ambohimpanom      80.46 251 i  P        P        00 33 21.2 +1.2
ABPO  Ambohimpanom      80.46 251    P        P        00 33 19.1 -1.0
ABPO  Ambohimpanom      80.46 251    P        P        00 33 19.3 -0.8
      comp=Z,63nm,0.8s
MAK   Makhachkala       80.84 313 e  P        P        00 33 18.1 -3.3
MAK                               e                    00 36 22.2
MAK                               e  PPP      PPP      00 38 11.5
MAK                               e  S        S        00 43 20.9 -6.0
MAK                               e  SS       SS       00 48 36.9 -4.3
MAK                                  pmax     pmax
      comp=Z,202nm,1.2s
R16K  Pilot Point       81.03  32    IAMs_20  IAMs_20  01 06 20.6
      comp=Z,4µm,22.0s
P16K  Nushagak River    81.10  30    IAMs_20  IAMs_20  01 05 00.5
      comp=Z,2µm,22.0s
RAYN  Ar Rayn           81.12 293    P        P        00 33 23.1 -0.3
RAYN  Ar Rayn           81.12 293    P        P        00 33 22.8 -0.6
RAYN                                 pmax     pmax
      comp=Z,61nm,0.8s
RAYN                                 MLR      MLR
      comp=Z,2µm,22.0s
RAYN  Ar Rayn           81.12 293    P        P        00 33 22.8 -0.6
RAYN  Ar Rayn           81.12 293 i  P        P        00 33 22.6 -0.7
      SNR=113
RAYN  Ar Rayn           81.12 293    P        P        00 33 22.8 -0.6
      comp=Z,3µmcomp=Z,1µmcomp=Z,92nm,0.8s
RAYN                                 pP       pP       00 33 33.3 -1.8
RAYN  Ar Rayn           81.12 293    P        P        00 33 22.9 -0.6
VOI   Vohitsoka         81.13 248    P        P        00 33 23.2 -0.3
VOI                                  IAMs_20  IAMs_20  01 06 13.8
      comp=Z,2µm,20.0s
VOI   Vohitsoka         81.13 248    P        P        00 33 24.2 +0.7
      comp=Z,91nm,0.9s
VNDA  Vanda             81.43 173    P        P        00 33 23.6 -0.2
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      comp=Z,44nm,0.5s,baz=317,slow=6.1,SNR=348
VNDA                                 S        S        00 43 32.5 +0.6
      comp=Z,1.0nm,0.5s,baz=14,slow=17,SNR=14
VNDA                                 PKKPbc   PKKPbc   00 51 58.9 -2.5
      comp=Z,0.8nm,0.9s,baz=282,slow=3.6,SNR=6.0
VNDA                                 LR       LR       01 09 14.8
      comp=Z,2µm,21.2s,baz=358,slow=36
      comp=Z,44nm,0.5s
VNDA  Vanda             81.43 173    P        P        00 33 23.8  0.0
VNDA                                 pmax     pmax
      comp=Z,226nm,1.4s
VNDA  Vanda             81.43 173    P        P        00 33 23.8  0.0
VNDA                                 IAmb     IAmb     00 33 28.7
      comp=Z,226nm,1.4s
VNDA  Vanda             81.43 173    P        P        00 33 23.9  0.0
      comp=Z,3µmcomp=Z,2µmcomp=Z,94nm,1.1s,comp=Z,2µm
VNDA  Vanda             81.43 173    P        P        00 33 23.8  0.0
CHIR  Chirikof Islan    81.78  34    P        P        00 33 28.0 +1.9
MAW   Mawson            81.78 200    P        P        00 33 26.6 +0.8
      comp=Z,17nm,1.6s
MAW   Mawson            81.78 200    P        P        00 33 26.1 +0.3
      comp=Z,33nm,0.6s,baz=81,slow=5.6,SNR=126
MAW                                  PKKPbc   PKKPbc   00 51 57.9 -2.5
      comp=Z,2.2nm,0.9s,baz=302,slow=9.8,SNR=5.0
MAW                                  LR       LR       01 08 25.1
      comp=Z,753nm,20.6s,baz=66,slow=35
      comp=Z,33nm,0.6s
MAW   Mawson            81.78 200    P        P        00 33 26.0 +0.1
MAW   Mawson            81.78 200    P        P        00 33 26.7 +0.8
      comp=Z,368nmcomp=Z,17nm,1.6s
KIRV  Kirov             81.87 329    P        P        00 33 27.1 +0.6
      comp=Z,63nm,0.7s,baz=93,slow=2.0,SNR=54
KIRV                                 LR       LR       01 13 53.2
      comp=Z,1µm,19.8s,baz=97,slow=39
      comp=Z,63nm,0.7s
KIRV  Kirov             81.87 329d i P        P        00 33 26.3 -0.2
BELG  Belogornoye       81.91 323    P        P        00 33 26.4 -0.4
      comp=Z,226nm,1.0s,baz=118,slow=1.5,SNR=41
BELG                                 LR       LR       01 10 44.3
      comp=Z,924nm,21.4s,baz=85,slow=36
      comp=Z,226nm,1.0s
BELG  Belogornoye       81.91 323ce  P        P        00 33 26.0 -0.8
BELG                                 pmax     pmax
      comp=Z,69nm,1.4s
BELG                                 MLR      MLR
      comp=Z,593nm,25.0s
P17K  Kvichak River     81.92  30    IAMs_20  IAMs_20  01 09 15.1
      comp=Z,2µm,22.0s
SBA   Scott Base        82.34 172    P        P        00 33 29.7 +1.0
SBA                                  pmax     pmax
      comp=Z,255nm,1.4s
SBA                                  MLR      MLR
      comp=Z,2µm,22.0s
SBA   Scott Base        82.34 172    P        P        00 33 29.7 +1.0
SBA                                  IAmb     IAmb     00 33 34.8
      comp=Z,255nm,1.4s
SBA   Scott Base        82.34 172    IAMs_20  IAMs_20  01 11 37.4
      comp=Z,3µm,22.0s
SBA   Scott Base        82.34 172    P        P        00 33 29.6 +1.0
      comp=Z,4µmcomp=Z,126nm,1.6s
GNI   Garni             82.65 310    P        P        00 33 33.2 +2.0
      comp=Z,26nm,0.8s,baz=19,slow=2.0,SNR=14
      comp=Z,26nm,0.8s
GNI   Garni             82.65 310    P        P        00 33 31.9 +0.7
GNI                                  S        S        00 43 46.4 +0.2
GNI   Garni             82.65 310d i P        P        00 33 32.4 +1.1
GNI                                  pmax     pmax
      comp=Z,210nm,1.2s
GNI   Garni             82.65 310    P        P        00 33 31.6 +0.3
GNI                                  IAmb     IAmb     00 34 16.9
      comp=Z,201nm,1.1s
GNI   Garni             82.65 310    P        P        00 33 33.0 +1.8
GNI   Garni             82.65 310    P        P        00 33 31.9 +0.7
      comp=Z,123nm,0.9s,comp=Z,2µmcomp=Z,3µm
SII   Sitkinak Islan    82.68  33    P        P        00 33 34.5 +3.7
SII   Sitkinak Islan    82.68  33    P        P        00 33 31.0 +0.1
SII                                  IAMs_20  IAMs_20  01 07 51.5
      comp=Z,4µm,22.0s
C19K  Lookout Ridge     82.71  20    IAMs_20  IAMs_20  01 12 04.2
      comp=Z,2µm,22.0s
OZAP  Van, Ozalp-Mer    83.14 309 ⇑  P        P        00 33 34.6 +0.8
OHAK  Old Harbor        83.26  33    P        P        00 33 35.5 +1.8
Q19K  Cape Douglas,     83.30  31    IAMs_20  IAMs_20  01 08 27.7
      comp=Z,2µm,22.0s
HAKT  HAKKARI           83.30 307    P        P        00 33 34.3 -0.5
      comp=Z,372nm,1.2s,comp=Z,5µm
ATD   Arta Tunnel       83.50 281    LR       LR       01 09 38.1
      comp=Z,37nm,21.4s,baz=81,slow=35
ATD   Arta Tunnel       83.50 281    P        P        00 33 37.8 +1.8
      SNR=19
ATD   Arta Tunnel       83.50 281    P        P        00 33 36.1 +0.2
ATD                                  IAmb     IAmb     00 33 42.4
      comp=Z,82nm,1.0s
ATD   Arta Tunnel       83.50 281    P        P        00 33 35.9 -0.1
      comp=Z,76nm,1.0s,comp=Z,1µmcomp=Z,3µm
KDAK  Kodiak Island     83.71  32    P        P        00 33 36.7 +0.7
KDAK                                 pmax     pmax
      comp=Z,651nm,1.7s
KDAK                                 MLR      MLR
      comp=Z,2µm,22.0s
KDAK  Kodiak Island     83.71  32    P        P        00 33 36.7 +0.7
KDAK  Kodiak Island     83.71  32    IAMs_20  IAMs_20  01 10 40.5
      comp=Z,3µm,22.0s
KDAK  Kodiak Island     83.71  32    P        P        00 33 37.4 +1.3
      comp=Z,4µmcomp=Z,3µmcomp=Z,196nm,1.8s,comp=Z,3µm
KDAK  Kodiak Island     83.71  32    P        P        00 33 37.4 +1.3
NCK   Nalchik           83.73 313⇓e  P        P        00 33 36.5 -0.1
NCK                                  pmax     pmax
      comp=Z,86nm,0.8s
GEVA  Gevas             83.85 308    P        P        00 33 37.4 -0.1
M20K  Styx River        83.95  28    IAMs_20  IAMs_20  01 10 29.2
      comp=Z,2µm,21.0s
GOF   Gofitskoye        84.22 315ce  P        P        00 33 38.3 -0.7
GOF                              e   S        SKSac    00 43 54.4 -5.1
KBZ   Khabaz            84.25 314    P        P        00 33 38.7 -0.4
      comp=Z,98nm,1.1s,baz=118,slow=5.3,SNR=28
KBZ                                  LR       LR       01 15 50.4
      comp=Z,1µm,21.9s,baz=69,slow=39
      comp=Z,98nm,1.1s
KBZ   Khabaz            84.25 314ce  P        P        00 33 39.4 +0.3
KBZ                                  pmax     pmax
      comp=Z,106nm,1.0s
EPOS  Posof             84.26 311    P        P        00 33 40.4 +0.9
      comp=Z,100nm,1.0s,comp=Z,2µm
NEUR  Neytrino          84.37 313d i P        P        00 33 41.4 +1.4
NEUR                                 pmax     pmax
      comp=Z,114nm,1.2s
NEUR                                 MLR      MLR
      comp=Z,2µm,23.0s
KIV   Kislovodsk        84.42 314    S        SKSac    00 43 59.8 -1.3
KIV   Kislovodsk        84.42 314 e  P        P        00 33 39.5 -0.6
KIV                               e                    00 43 59.3
KIV                                  pmax     pmax
      comp=Z,68nm,1.1s
KIV                                  pmax     pmax
      comp=Z,54nm,3.3s
KIV   Kislovodsk        84.42 314    P        P        00 33 40.2 +0.1
KIV                                  IAmb     IAmb     00 34 13.1
      comp=Z,118nm,1.0s
KIV   Kislovodsk        84.42 314 i  P        P        00 33 41.2 +1.0
      SNR=23
KIV   Kislovodsk        84.42 314 ⇓  P        P        00 33 42.0 +1.8
KIV   Kislovodsk        84.42 314    P        P        00 33 39.9 -0.3
      comp=Z,86nm,0.9s,comp=Z,2µmcomp=Z,3µm
SHA1  Shidzhatmaz       84.42 314d i P        P        00 33 41.1 +0.7
GURO  Guroymak-BITLI    84.67 308    P        P        00 33 42.0 +0.4
HOMI  Horasan           84.82 310 ⇑  P        P        00 33 43.7 +1.2
SUA   Susitna One       85.04  29    P        P        00 33 42.7 -0.2
BATM  Batumi            85.04 311 ⇑  P        P        00 33 45.0 +1.8
BATM  Batumi            85.04 311 ⇑  P        P        00 33 45.0 +1.8
D22K  Ayikyak River     85.11  21    IAMs_20  IAMs_20  01 11 36.6
      comp=Z,2µm,22.0s
SLKM  Skilak Lake       85.20  30    P        P        00 33 43.7 +0.1
VRH   Novokhopyorsk     85.45 321 e  P        P        00 33 42.2 -2.8
VRH                                  pmax     pmax
      comp=Z,220nm,0.6s
VRH                                  MLR      MLR
      comp=Z,3µm,23.0s
SEW   Seward            85.55  30    IAMs_20  IAMs_20  01 10 50.2
      comp=Z,3µm,22.0s
PMR   Palmer            85.82  28    P        P        00 33 47.8 +1.2
COLD  Coldfoot          85.84  23    P        P        00 33 47.3 +0.7
COLD                                 IAmb     IAmb     00 33 51.0
      comp=Z,69nm,0.9s
C23K  Itkillik River    85.95  20    IAMs_20  IAMs_20  01 13 46.0
      comp=Z,2µm,21.0s
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KNK   Knik Glacier      86.13  29    P        P        00 33 48.8 +0.6
PWL   Port Wells        86.15  29    IAMs_20  IAMs_20  01 10 05.1
      comp=Z,2µm,21.0s
KTUT  Trabzon           86.47 311 ⇓  P        P        00 33 51.2 +0.9
SOC   Sochi             86.55 313 e  P        P        00 33 48.1 -2.5
SOC                               e                    00 37 11.4
SOC                               e  PPP      PPP      00 39 09.0
SOC                               e  S        SKSac    00 44 10.7 -3.6
SOC                               e  SS       SS       00 50 02.6 -3.1
SOC                               e  SSS      SSS      00 53 42.5
SOC                                  pmax     pmax
      comp=Z,57nm,0.7s
SOC                                  MLR      MLR
      comp=Z,1µm,21.0s
P23K  Montague Islan    86.57  30    IAMs_20  IAMs_20  01 14 16.6
      comp=Z,2µm,22.0s
C24K  Franklin Bluff    86.61  20    P        P        00 33 50.8 +0.5
C24K                                 IAmb     IAmb     00 33 56.4
      comp=Z,254nm,1.8s
COLA  College           86.61  25    P        P        00 33 51.5 +1.1
COLA  College           86.61  25 ⇑  P        P        00 33 49.7 -0.7
COLA  College           86.61  25    P        P        00 33 49.1 -1.3
      comp=Z,22nm,0.9s,comp=Z,465nmcomp=Z,2µm
SCM   Sheep Creek Mo    86.69  28    P        P        00 33 51.4 +0.4
SCM                                  pmax     pmax
      comp=Z,309nm,1.6s
SCM   Sheep Creek Mo    86.69  28    P        P        00 33 51.4 +0.4
KELT  Kelkit            86.86 310    P        P        00 33 53.5 +1.1
      comp=Z,6µmcomp=Z,407nm,1.2s,comp=Z,6µm
KELT                                 pP       pP       00 34 01.6 -2.7
VORD  Divnogorie        86.97 321 e  P        P        00 33 52.1 -0.4
VORD                                 pmax     pmax
      comp=Z,140nm,1.0s
ILAR  Eielson Array     87.02  25    P        P        00 33 52.0 -0.5
      comp=Z,14nm,1.0s,baz=230,slow=4.5,SNR=45
ILAR                                 PP       PP       00 37 10.9 -5.0
      comp=Z,4.4nm,1.1s,baz=267,slow=6.5,SNR=5.1
ILAR                                 S        SKSac    00 44 14.7 -1.6
      comp=Z,0.2nm,0.9s,baz=86,slow=9.9,SNR=1.2
ILAR                                 PKKPbc   PKKPbc   00 51 45.7 -2.1
      comp=Z,1.2nm,0.8s,baz=65,slow=1.5,SNR=7.3
ILAR                                 PKPPKP   P'P'df   00 59 54.2 +1.7
      comp=Z,1.2nm,1.1s,baz=135,slow=0.1,SNR=5.1
      comp=Z,14nm,1.0s
ILAR  Eielson Array     87.02  25    P        P        00 33 51.0 -1.5
HIN   Hinchinbrook I    87.03  30    IAMs_20  IAMs_20  01 15 08.4
      comp=Z,2µm,21.0s
VORR  Voronezh          87.04 321 e  P        P        00 33 51.3 -1.5
VORR                                 pmax     pmax
      comp=Z,170nm,0.8s
VSR   Storozhevoye      87.06 321 e  P        P        00 33 51.9 -1.0
VSR                                  pmax     pmax
      comp=Z,130nm,0.8s
FID   Port Fidalgo      87.06  29    IAMs_20  IAMs_20  01 13 05.4
      comp=Z,2µm,21.0s
KLMR  Klimovskoe        87.09 331 e  P        P        00 33 51.3 -1.6
KLMR                                 S        SKSac    00 44 14.7 -2.2
KLMR                                 pmax     pmax
      comp=Z,211nm,1.1s
KLMR                                 MLR      MLR
      comp=Z,3µm,21.0s
LPSR  Galich'ya Gora    87.23 322 e  P        P        00 33 52.9 -0.8
LPSR                                 pmax     pmax
      comp=Z,160nm,0.8s
LPSR                                 MLR      MLR
      comp=Z,1µm,22.0s
KLU   Klutina           87.35  29    P        P        00 33 54.0 -0.3
KLU                                  IAmb     IAmb     00 34 04.8
      comp=Z,60nm,1.2s
KLU                                  IAMs_20  IAMs_20  01 10 56.6
      comp=Z,2µm,22.0s
EYAK  Cordova Ski Ar    87.41  30    P        P        00 33 56.6 +2.2
EYAK  Cordova Ski Ar    87.41  30    IAMs_20  IAMs_20  01 15 09.4
      comp=Z,2µm,21.0s
DIV   Divide            87.41  29    P        P        00 33 54.6 +0.1
DIV                                  IAMs_20  IAMs_20  01 13 41.3
      comp=Z,2µm,21.0s
K24K  Donnelly Dome     87.47  26    IAMs_20  IAMs_20  01 11 24.8
      comp=Z,2µm,22.0s
ARPR  Arapgir-MALATY    87.56 309    P        P        00 33 57.1 +1.3
      comp=Z,3µmcomp=Z,158nm,1.4s
FURI  Furi              87.64 279    P        P        00 33 56.2 -0.7
FURI                                 IAmb     IAmb     00 34 36.0
      comp=Z,65nm,0.9s
FURI                                 IAMs_20  IAMs_20  01 11 53.9
      comp=Z,2µm,22.0s
FURI  Furi              87.64 279    P        P        00 33 57.2 +0.2
      comp=Z,64nm,1.0s,comp=Z,2µmcomp=Z,3µm
FURI                                 pP       pP       00 34 06.3 -2.5
ADZR  Andozero          87.74 334 e  P        P        00 33 53.0 -2.9
ADZR                                 S        SKSac    00 44 18.5 -2.1
ADZR                                 pmax     pmax
      comp=Z,55nm,0.8s
ADZR                                 MLR      MLR
      comp=Z,5µm,22.0s
RAGM  Ragged Mountai    87.94  30    P        P        00 33 57.1  0.0
RAGM                                 IAmb     IAmb     00 34 03.0
      comp=Z,49nm,1.0s
BMRM  Bremner River     87.98  29    IAMs_20  IAMs_20  01 13 58.3
      comp=Z,2µm,22.0s
MOS   Moscow            88.02 326 e  P        P        00 33 57.1 -0.3
MOS                               e                    00 34 13.4
MOS                               e                    00 37 20.8
MOS                               e  S        SKSac    00 44 21.2 -1.5
MOS                                  pmax     pmax
      comp=Z,137nm,0.8s
MOS                                  smax     smax
      comp=N,2µm,6.0s
MOS                                  smax     smax
      comp=E,2µm,4.6s
MOS                                  MLR      MLR
      comp=Z,3µm,23.0s
BMAR  Burnt Mountain    88.02  23    P        P        00 33 57.7 +0.4
MENT  Mentasta          88.39  27    P        P        00 34 00.3 +1.2
BERG  Berg Lake         88.42  30    IAMs_20  IAMs_20  01 15 39.2
      comp=Z,2µm,22.0s
GAZ   Gaziantep         88.47 307    P        P        00 33 59.8 -0.3
GAZ                                  IAmb     IAmb     00 34 07.4
      comp=Z,82nm,0.9s
VRDI  Verde Repeater    88.54  29    IAMs_20  IAMs_20  01 14 06.1
      comp=Z,2µm,21.0s
KIBK  Kibwezi           88.57 268    P        P        00 34 01.6 +0.6
KIBK  Kibwezi           88.57 268    P        P        00 34 02.3 +1.2
      SNR=15
KIBK  Kibwezi           88.57 268    P        P        00 34 00.6 -0.5
KIBK                                 IAmb     IAmb     00 34 08.1
      comp=Z,109nm,1.3s
KIBK  Kibwezi           88.57 268    P        P        00 34 01.2 +0.2
      comp=Z,67nm,1.1s,comp=Z,1µmcomp=Z,3µm
OBN   Obninsk           88.62 325    P        P        00 34 00.0 -0.2
      comp=Z,64nm,0.5s,baz=198,slow=1.4,SNR=23
OBN                                  LR       LR       01 17 19.9
      comp=Z,761nm,21.1s,baz=82,slow=38
      comp=Z,64nm,0.5s
OBN   Obninsk           88.62 325d i P        P        00 33 59.3 -1.0
OBN                               e                    00 37 33.5
OBN                               e  PPP      PPP      00 39 31.3
OBN                               i  S        S        00 44 34.6 -9.2
OBN                               e  SS       SS       00 50 35.9 +0.7
OBN                                  pmax     pmax
      comp=Z,254nm,1.7s
OBN                                  MLR      MLR
      comp=Z,4µm,27.0s
OBN   Obninsk           88.62 325    P        P        00 33 59.3 -1.0
OBN                                  IAMs_20  IAMs_20  01 16 19.4
      comp=Z,2µm,22.0s
OBN   Obninsk           88.62 325 ⇑  P        P        00 34 01.3 +1.1
OBN   Obninsk           88.62 325    P        P        00 33 59.5 -0.7
      comp=Z,1µmcomp=Z,138nm,0.8s,comp=Z,1µm
OBN   Obninsk           88.62 325    P        P        00 33 59.6 -0.7
M26K  Nabesna, AK       88.73  28    IAMs_20  IAMs_20  01 13 20.2
      comp=Z,2µm,20.0s
ASF   Jabal al Asfar    88.82 302    LR       LR       01 17 27.6
      comp=Z,905nm,21.9s,baz=82,slow=38
ANDN  Andirin           89.15 307    P        P        00 34 03.7 +0.4
      comp=Z,3µmcomp=Z,243nm,1.1s
LVZ   Lovozero          89.17 338⇑e  P        P        00 34 01.9 -0.8
LVZ                                  pmax     pmax
      comp=Z,43nm,1.1s
LVZ                                  MLR      MLR
      comp=Z,3µm,26.0s
LVZ   Lovozero          89.17 338    P        P        00 34 01.7 -1.0
LVZ                                  IAMs_20  IAMs_20  01 21 47.1
      comp=Z,1µm,18.0s
LVZ   Lovozero          89.17 338    P        P        00 34 02.4 -0.3
      comp=Z,2µmcomp=Z,43nm,1.1s
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M27K	Edge Creek, AK	89.26	28	IAMs_20	IAMs_20	01 14 05.0	
	comp=Z,2µm,21.0s						
BCAR	Beaver Creek A	89.27	27	P	P	00 34 03.2	-0.1
KMBO	Kilima Mbogo	89.33	269	LR	LR	01 11 54.7	
	comp=Z,1µm,20.4s,baz=106,slow=34						
YAH	Yahtse	89.40	30	IAMs_20	IAMs_20	01 14 28.8	
	comp=Z,2µm,21.0s						
BNN	Bunyan	89.51	309	P	P	00 34 04.5	-0.5
HWQ	Hawqa	89.56	304	*e*P	P	00 34 03.6	-1.8
APA	Apatity	89.66	337	*e*P	P	00 34 03.1	-1.8
APA				*e*		00 37 37.2	
APA				*e*S	S	00 44 49.7	-3.4
APA				*e*PS	PnS	00 46 09.4	+6.2
APA				*e*SS	SS	00 50 55.1	+5.3
APA				pmax	pmax		
	comp=Z,21nm,1.1s						
APA				MLR	MLR		
	comp=Z,5µm,26.5s						
BHL	Bhannes	89.82	304	*e*P	P	00 34 05.1	-1.5
GHAJ	Ghor Haditha	89.98	301	P	P	00 34 07.2	0.0
GHAJ				IAmb	IAmb	00 34 15.8	
	comp=Z,111nm,1.1s						
GHAJ				IAMs_20	IAMs_20	01 15 57.9	
	comp=Z,2µm,22.0s						
GHAJ	Ghor Haditha	89.98	301	P	P	00 34 06.9	-0.3
	comp=Z,75nm,1.1s,comp=Z,1µm						
UJAP	Al Uja	90.04	302	P	P	00 34 07.8	+0.4
	comp=Z,2µmcomp=Z,1µmcomp=Z,65nm,1.3s,comp=Z,1µm						
MMAI	Mount Meron Ar	90.06	303	P	P	00 34 08.9	+1.3
	comp=Z,9.9nm,0.5s,baz=55,slow=7.2,SNR=33						
MMAI				LR	LR	01 21 03.8	
	comp=Z,326nm,19.9s,baz=82,slow=40						
	comp=Z,9.9nm,0.5s						
MMLI	Mount Malkishu	90.06	302	P	P	00 34 08.0	+0.3
	comp=Z,128nm,1.4s,comp=Z,1µm						
DAWY	Dawson	90.28	26	P	P	00 34 08.1	+0.1
DAWY				IAmb	IAmb	00 34 12.1	
	comp=Z,50nm,1.1s						
SYO	Syowa Base	90.46	201	⇑*i*P	P	00 34 09.3	+0.7
SYO	Syowa Base	90.46	201	⇓*e*PKIKP		00 40 29.2	
HRFI	Mount Harif	90.48	300	P	P	00 34 10.8	+1.2
	comp=Z,1µmcomp=Z,69nm,1.8s,comp=Z,1µm						
SIM	Simferopol'	90.55	315	*e*P	P	00 34 08.4	-1.2
SIM				*e*S	S	00 44 58.0	-4.3
SIM				pmax	pmax		
	comp=Z,125nm,0.7s						
EIL	Elat	90.57	300	LR	LR	01 18 38.9	
	comp=Z,1µm,21.3s,baz=106,slow=38						
EIL	Elat	90.57	300	P	P	00 34 10.4	+0.4
	comp=Z,2µmcomp=Z,775nmcomp=Z,47nm,0.9s,comp=Z,775nm						
PNL	Peninsula	90.62	30	P	P	00 34 11.2	+1.6
CY604	RAF Akrotiri,	90.75	304	P	P	00 34 10.8	+0.4
CY604				IAmb	IAmb	00 34 33.9	
	comp=Z,72nm,0.9s						
J29N	Klondike Camp	90.76	26	IAMs_20	IAMs_20	01 14 43.7	
	comp=Z,2µm,22.0s						
VADS	Vadso	90.88	340	*e*P	P	00 34 11.9	+1.3
VADS				IVmB		00 34 20.4	
	comp=Z,618nm,2.5s						
VADS				*e*PP	PP	00 37 47.9	+1.4
VADS				*e*SKSac	SKSac	00 44 38.5	-0.5
VADS				IVMs_BB	IVMs_BB	01 18 16.9	
	comp=Z,1µm,16.7s						
KZIT	Kziot	91.00	301	P	P	00 34 11.2	-0.8
	comp=Z,52nm,0.9s						
KZIT				pP	pP	00 34 22.3	-1.5
KIRS	Kirsehir-Merke	91.00	309	⇑P	P	00 34 12.3	+0.3
HOPEN	Hopen	91.07	347	*e*P	P	00 34 11.4	+0.1
HOPEN				IVmB		00 34 19.3	
	comp=Z,2µm,1.8s						
HOPEN				*e*PP	PP	00 37 48.5	+0.6
HOPEN				*e*SKSac	SKSac	00 44 40.0	+0.2
HOPEN				*e*SP	SP	00 46 15.5	+2.3
HOPEN				*e*SS	SS	00 51 11.6	+2.0
HOPEN				IVMs_BB	IVMs_BB	01 17 17.1	
	comp=Z,2µm,13.9s						
LODK	Lodwar	91.09	273	P	P	00 34 13.3	+0.4
LODK	Lodwar	91.09	273	P	P	00 34 10.8	-2.1
LODK				IAMs_20	IAMs_20	01 13 59.4	
	comp=Z,2µm,22.0s						
LODK	Lodwar	91.09	273	P	P	00 34 14.1	+1.2
	comp=Z,513nmcomp=Z,12nm,1.2s,comp=Z,513nm						
K29M	Barlow Dome	91.13	26	IAMs_20	IAMs_20	01 14 00.4	
	comp=Z,2µm,22.0s						
BR104	Keskin Array S	91.18	310	P	P	00 34 11.8	-1.0
	comp=Z,134nmcomp=Z,20nm,0.8s						
BR131	Keskin Array S	91.18	310	P	P	00 34 12.3	-0.6
	SNR=9.5						
BR131				S	SKSac	00 44 40.8	-1.6
BR131	Keskin Array S	91.18	310	P	P	00 34 11.5	-1.3
BR131				pmax	pmax		
	comp=Z,22nm,1.0s						
BR131	Keskin Array S	91.18	310	P	P	00 34 11.5	-1.3
BRTR	Keskin Array B	91.18	310	P	P	00 34 11.9	-0.9
	comp=Z,13nm,0.8s,baz=119,slow=5.0,SNR=46						
BRTR				PP	PP	00 37 51.3	+1.3
	comp=Z,2.6nm,0.9s,baz=94,slow=7.4,SNR=2.9						
BRTR				S	SKSac	00 44 47.4	+5.0
	comp=Z,0.5nm,0.8s,baz=295,slow=23,SNR=1.4						
BRTR				PKKPbc	PKKPbc	00 51 37.8	+1.1
	comp=Z,1.5nm,0.7s,baz=192,slow=3.2,SNR=7.2						
BRTR				PKPPKP	P'P'df	00 59 44.8	-1.6
	comp=Z,1.1nm,1.0s,baz=187,slow=2.0,SNR=4.1						
BRTR				LR	LR	01 22 10.1	
	comp=Z,500nm,20.6s,baz=82,slow=40						
	comp=Z,13nm,0.8s						
BRTR	Keskin Array B	91.18	310	*i* P	P	00 34 11.8	-1.0
BRTR				pmax	pmax		
	comp=Z,14nm,0.8s						
BR106	Keskin Array S	91.20	310	P	P	00 34 12.2	-0.7
	comp=Z,125nmcomp=Z,19nm,0.8s						
BR105	Keskin Array S	91.20	310	P	P	00 34 12.2	-0.7
	comp=Z,186nmcomp=Z,25nm,0.8s						
MSF	Maaselka	91.55	336	P	P	00 34 13.2	-0.6
	comp=Z,56nm,1.0s						
J30M	Hart River	91.56	25	IAMs_20	IAMs_20	01 18 23.8	
	comp=Z,2µm,21.0s						
N30M	Aishikik Lake	91.58	29	IAMs_20	IAMs_20	01 14 07.9	
	comp=Z,2µm,20.0s						
QSPA	South Pole Qui	91.60	180	P	P	00 34 13.9	-0.2
	comp=Z,11nm,0.5s,baz=215,slow=0.7,SNR=77						
QSPA				PKKPbc	PKKPbc	00 51 38.1	+0.8
	comp=Z,3.6nm,1.0s,baz=251,slow=2.4,SNR=4.9						
	comp=Z,11nm,0.5s						
QSPA	South Pole Qui	91.60	180	P	P	00 34 14.7	+0.5
QSPA	South Pole Qui	91.60	180	P	P	00 34 14.2	0.0
	comp=Z,5µmcomp=Z,150nm,2.0s,comp=Z,5µm						
CSS	Mathiatis	91.69	305	P	P	00 34 14.6	-0.6
CSS				IAmb	IAmb	00 34 27.8	
	comp=Z,52nm,0.8s						
CSS	Mathiatis	91.69	305	P	P	00 34 15.6	+0.4
	comp=Z,1µmcomp=Z,812nmcomp=Z,68nm,1.0s,comp=Z,812nm						
PUL	Pulkovo	91.70	330	⇑*e*P	P	00 34 15.7	+1.1
PUL				pmax	pmax		
	comp=Z,61nm,0.9s						
PUL				MLR	MLR		
	comp=Z,3µm,23.0s						
KEV	Kevo	91.74	340	P	P	00 34 13.4	-1.1
KEV				pmax	pmax		
	comp=Z,58nm,1.4s						
KEV	Kevo	91.74	340	P	P	00 34 13.4	-1.1
KEV				IAmb	IAmb	00 34 16.1	
	comp=Z,58nm,1.4s						
KEV				IAMs_20	IAMs_20	01 21 09.3	
	comp=Z,2µm,22.0s						
KEV	Kevo	91.74	340	P	P	00 34 14.1	-0.4
	comp=Z,24nm,0.9s						
KKUL	Konya-Kulu	91.77	309	P	P	00 34 15.3	-0.2
	comp=Z,1µmcomp=Z,92nm,1.2s,comp=Z,1µm						
INK	Inuvik	92.12	21	P	P	00 34 15.9	-0.4
INK				pmax	pmax		
	comp=Z,108nm,1.4s						
INK	Inuvik	92.12	21	P	P	00 34 15.9	-0.4
INK				IAmb	IAmb	00 34 19.7	
	comp=Z,108nm,1.4s						
N31M	Braeburn, Yuko	92.20	28	IAMs_20	IAMs_20	01 14 37.0	
	comp=Z,2µm,21.0s						
ARA0	ARCESS Array S	92.30	340	*e*P	P	00 34 15.8	-1.4
ARA0				*e*SKSac	SKSac	00 44 46.1	-1.0
ARCES	ARCESS Array B	92.30	340	P	P	00 34 16.3	-0.9
	comp=Z,22nm,0.7s,baz=76,slow=5.6,SNR=37						
ARCES				PKKP	PKKPdf	00 51 32.4	+0.5
	comp=Z,1.3nm,0.5s,baz=254,slow=2.8,SNR=12						
ARCES				LR	LR	01 21 46.2	
	comp=Z,1µm,19.4s,baz=87,slow=39						
	comp=Z,22nm,0.7s						
ARCES	ARCESS Array B	92.30	340	P	P	00 34 16.1	-1.1
ARCES				IAmb	IAmb	00 34 21.5	
	comp=Z,60nm,1.2s						
SGF	Sodankyl	92.31	338	P	P	00 34 16.6	-0.6
	comp=Z,21nm,0.8s						
S31K	Pelican	92.42	32	IAMs_20	IAMs_20	01 12 45.4	
	comp=Z,2µm,22.0s						
SPA0	Spitsbergen Ar	92.44	349	*e*P	P	00 34 17.7	0.0
SPA0				IVmB		00 34 24.9	
	comp=Z,671nm,2.9s						
SPA0				*e*PP	PP	00 38 00.2	+1.5
SPA0				*e*SKSac	SKSac	00 44 49.2	+1.6
SPA0				IVMs_BB	IVMs_BB	01 17 19.8	
	comp=Z,1µm,33.5s						
SPITS	Spitsbergen Ar	92.44	349	P	P	00 34 17.4	-0.3
	comp=Z,25nm,0.8s,baz=85,slow=8.8,SNR=14						
SPITS				LR	LR	01 20 25.8	
	comp=Z,835nm,21.0s,baz=59,slow=38						
	comp=Z,25nm,0.8s						
HAMF	Hammerfest	92.68	341	*e*P	P	00 34 19.4	+0.5
HAMF				IVmB		00 34 23.4	
	comp=Z,403nm,0.3s						
HAMF				IVMs_BB	IVMs_BB	01 19 02.4	
	comp=Z,1µm,17.3s						
M31M	Drury Creek, Y	92.75	28	IAMs_20	IAMs_20	01 14 44.5	
	comp=Z,2µm,21.0s						
KEPZ	Antalya-Kepez	92.96	307	⇑P	P	00 34 20.5	-0.5
KBS	Kingsbay	92.97	350	*e*P	P	00 34 20.6	+0.5
KBS				IVmB_BB		00 34 42.3	
	comp=Z,1µm,3.7s						
KBS				*e*PP	PP	00 38 03.4	+0.6
KBS				*e*SKSac	SKSac	00 44 51.0	+0.4
KBS				*e*SS	SS	00 51 39.4	+2.4
KBS				IVMs_BB	IVMs_BB	01 14 38.9	
	comp=Z,946nm,3.5s						
KBS	Kingsbay	92.97	350	IAMs_20	IAMs_20	01 23 24.6	
	comp=Z,2µm,20.0s						
KBS	Kingsbay	92.97	350	*i* P	P	00 34 20.8	+0.6
OUL	Oulu	92.97	335	P	P	00 34 20.7	+0.4
OUL				pmax	pmax		
	comp=Z,47nm,0.9s						
OUL	Oulu	92.97	335	P	P	00 34 20.2	-0.1
	comp=Z,47nm,0.9s						
BJO1	Bjornoya	93.04	345	*e*P	P	00 34 22.1	+1.7
BJO1				*e*SKSac	SKSac	00 44 52.6	+1.7
BJO1				IVMs_BB	IVMs_BB	01 14 33.7	
	comp=Z,791nm,13.7s						
BESE	Bessie Mountai	93.06	31	IAMs_20	IAMs_20	01 13 08.3	
	comp=Z,2µm,22.0s						
KTK1	Kautokeino	93.20	339	*e*P	P	00 34 20.8	-0.5
KTK1				IVmB		00 34 30.2	
	comp=Z,476nm,1.7s						
KTK1				*e*SKSac	SKSac	00 44 50.5	-1.6
KTK1				*e*SP	SP	00 46 38.3	+1.3
KTK1				IVMs_BB	IVMs_BB	01 10 41.3	
	comp=Z,908nm,19.7s						
SAHE	Sakarya_HENDEK	93.23	311	⇑P	P	00 34 21.9	-0.2
R32K	Eaglecrest	93.28	32	IAMs_20	IAMs_20	01 13 22.1	
	comp=Z,2µm,21.0s						
AKASG	Malin Array Be	93.36	321	P	P	00 34 21.6	-0.8
	comp=Z,3.9nm,0.6s,baz=71,slow=4.2,SNR=24						
AKASG				PKKP	PKKPdf	00 51 28.4	-1.1
	comp=Z,1.0nm,0.5s,baz=272,slow=3.3,SNR=6.4						
AKASG				PKPPKP		00 59 42.1	
	comp=Z,0.4nm,0.5s,baz=278,slow=2.3,SNR=4.0						
AKASG				LR	LR	01 21 20.2	
	comp=Z,1µm,20.9s,baz=76,slow=39						
	comp=Z,3.9nm,0.6s						
AKASG	Malin Array Be	93.36	321	*i* P	P	00 34 21.7	-0.8
AKASG				pmax	pmax		
	comp=Z,6.0nm,0.8s						
AKASG	Malin Array Be	93.36	321	P	P	00 34 21.4	-1.0
AKBB	Malin Array Si	93.36	321	⇓*i*P	P	00 34 21.7	-0.7
AKBB				pmax	pmax		
	comp=Z,38nm,1.1s						
AKBB	Malin Array Si	93.36	321	P	P	00 34 21.3	-1.1
AKBB	Malin Array Si	93.36	321	P	P	00 34 21.6	-0.8
KIEV	Kiev	93.37	321	⇓P	P	00 34 23.5	+1.0
KIEV	Kiev	93.37	321	IAMs_20	IAMs_20	01 20 01.3	
	comp=Z,2µm,22.0s						
KIEV	Kiev	93.37	321	P	P	00 34 21.5	-0.9
KIEV	Kiev	93.37	321	⇓P	P	00 34 23.5	+1.0
KIEV	Kiev	93.37	321	P	P	00 34 21.7	-0.8
	comp=Z,96nm,1.3s						
KIEV	Kiev	93.37	321	P	P	00 34 21.9	-0.6
	comp=Z,2µmcomp=Z,24nm,1.3s						
S32K	Killisnoo	93.37	32	IAMs_20	IAMs_20	01 13 32.5	
	comp=Z,2µm,22.0s						
PURM	Purcari	93.39	317	⇓P	P	00 34 22.7	0.0
BAL3X	Bal3x, Balta	93.43	318	P	P	00 34 21.6	-1.2
FIA1	FINESS Array S	93.54	332	P	P	00 34 21.8	-1.2
FIA1				IAmb	IAmb	00 34 27.8	
	comp=Z,60nm,0.9s						
FINES	FINESS Array B	93.54	332	P	P	00 34 22.2	-0.8
	comp=Z,11nm,0.6s,baz=58,slow=3.9,SNR=36						
FINES				PKKP	PKKPdf	00 51 29.1	-0.3
	comp=Z,3.0nm,0.8s,baz=274,slow=3.1,SNR=4.0						
FINES				LR	LR	01 20 01.3	
	comp=Z,2µm,21.4s,baz=66,slow=38						
	comp=Z,11nm,0.6s						
FINES	FINESS Array B	93.54	332	*i* P	P	00 34 22.1	-0.9
FINES				pmax	pmax		
	comp=Z,8.0nm,0.6s						
FINES	FINESS Array B	93.54	332	P	P	00 34 21.2	-1.8
BORA	Eskisehir	93.62	310	P	P	00 34 22.4	-1.6
MNK	Minsk	93.68	325	*i* P	P	00 34 23.7	-0.1
MNK				*i*		00 38 08.9	
MNK				*i* PPP	PPP	00 40 09.7	
MNK				*i* S	SKSac	00 44 55.3	+0.1
MNK				*i* PS	PS	00 46 49.4	+0.9
MNK				*i* SS	SS	00 51 50.7	+2.6
MNK				*i* SSS	SSS	00 55 32.0	
MNK				pmax	pmax		
	comp=Z,75nm,0.9s						
MNK				pmax	pmax		
	comp=E,13nm,0.9s						
MNK				pmax	pmax		
	comp=N,35nm,0.9s						
MNK				MLR	MLR		
	comp=N,3µm,23.0s						
MNK				MLR	MLR		
	comp=Z,3µm,24.0s						
MNK				MLR	MLR		
	comp=E,2µm,24.0s						
MNK	Minsk	93.68	325	*i* P	P	00 34 23.7	-0.1
	comp=E,13nm,0.9s						
MNK				*i* P	P	00 34 23.7	-0.1
	comp=N,35nm,0.9s						
MNK				*i* P	P	00 34 23.7	-0.1
	comp=Z,75nm,0.9s,baz=82						
MNK				*i* PP	PP	00 38 09.0	0.0
MNK				*i* PPP	PPP	00 40 09.8	
MNK				*i* S	SKSac	00 44 55.3	+0.1
MNK				*i* PS	PS	00 46 49.4	+0.9
MNK				*i* SS	SS	00 51 50.8	+2.6
MNK				*i* SSS	SSS	00 55 32.1	
MNK				*i* LQ	LQ	01 10 49.0	
MNK				*i* LRM	MLR	01 17 57.5	
	comp=N,3µm,22.9s						
MNK				*i* LRM	MLR	01 18 02.6	
	comp=Z,3µm,24.4s						
MNK				*i* LRM	MLR	01 18 27.0	
	comp=E,2µm,24.1s						
VSU	Vasula	93.71	329	*d* *i*P	P	00 34 21.8	-2.1
VSU				pmax	pmax		
	comp=Z,80nm,1.7s						
VSU				MLR	MLR		
	comp=Z,3µm,19.0s						
VSU	Vasula	93.71	329	P	P	00 34 23.8	-0.1
	comp=Z,55nm,1.2s						
ISP	Isparta	93.75	308	*d* *i*P	P	00 34 23.7	-1.0
ISP				pmax	pmax		
	comp=Z,15nm,0.8s						
ISP	Isparta	93.75	308	P	P	00 34 23.1	-1.6
P33M	Teslin, Yukon	93.83	29	IAMs_20	IAMs_20	01 17 18.1	
	comp=Z,2µm,22.0s						
ARBE	Arbavere	93.94	330	P	P	00 34 25.9	+1.1
	comp=Z,103nm,0.6s						
A36M	Sachs Harbour	93.98	17	P	P	00 34 24.6	-0.2
A36M				IAmb	IAmb	00 34 26.6	
	comp=Z,38nm,1.1s						
A36M				IAMs_20	IAMs_20	01 20 44.5	
	comp=Z,2µm,22.0s						
JETT	Jettan, Norway	94.03	340	*e*P	P	00 34 24.7	-0.5
SORM	Soroca	94.24	318	⇑P	P	00 34 26.7	+0.2
SORM	Soroca	94.24	318	⇑P	P	00 34 26.7	+0.2
SORM	Soroca	94.24	318	P	P	00 34 24.9	-1.6
	comp=Z,829nmcomp=Z,31nm,0.8s						
TLCR		94.28	315	⇑P	P	00 34 26.3	-0.4
TLCR		94.28	315	⇑P	P	00 34 26.3	-0.4
ELL	Elmali	94.33	307	P	P	00 34 28.5	+1.1
ELL				pmax	pmax		
	comp=Z,82nm,0.7s						
Q32M	Nakina River	94.33	31	IAMs_20	IAMs_20	01 14 35.8	
	comp=Z,2µm,22.0s						
LUBAR	Lubar, Ukraine	94.39	320	P	P	00 34 26.8	-0.4
CRAG	Craig	94.48	34	P	P	00 34 29.3	+1.9
TRO	Tromso	94.51	340	IVmB		00 34 28.0	
	comp=Z,670nm,3.5s						
TRO				*e*P	P	00 34 28.1	+0.8
TRO				*e*PP	PP	00 38 17.8	+2.8
TRO				*e*SKSac	SKSac	00 44 59.8	+0.7
TRO				*e*SS	SS	00 52 04.8	+5.7
TRO				IVMs_BB	IVMs_BB	01 15 02.1	
	comp=Z,724nm,16.9s						
LEOM	Leova	94.52	317	P	P	00 34 27.8	0.0
TPGR	Topolog	94.59	315	⇓P	P	00 34 28.2	-0.1
TIRR	Tirgusor	94.64	315	⇑P	P	00 34 28.5	0.0
TIRR	Tirgusor	94.64	315	⇑P	P	00 34 28.5	0.0
VLDR	Vladesti	94.71	316	⇓P	P	00 34 28.5	-0.2
CFR	Carcaliu	94.75	315	⇓P	P	00 34 28.7	-0.3
CFR	Carcaliu	94.75	315	⇓P	P	00 34 28.7	-0.3
VAF	Ylistaro	94.78	334	P	P	00 34 30.6	+1.9
VAF				pmax	pmax		
	comp=Z,44nm,1.1s						
BIR	Birlad	94.97	317	⇑P	P	00 34 30.1	+0.2
BIR	Birlad	94.97	317	⇑P	P	00 34 30.1	+0.2
POGA	Pongola	95.07	243	P	P	00 34 30.0	-0.8
POGA				IAmb	IAmb	00 34 43.9	
	comp=Z,75nm,1.6s						
NOR	Nord	95.10	355	*i* P	P	00 34 29.4	-0.4
NOR	Nord	95.10	355	P	P	00 34 30.1	+0.2
	comp=Z,29nm,1.6s						
S34M	Telegraph Cree	95.12	32	IAMs_20	IAMs_20	01 14 51.2	
	comp=Z,2µm,22.0s						
GHRR		95.14	316	P	P	00 34 31.5	+0.8
	comp=Z,63nm,0.7s						
H02S2	DAWSON INLET T	95.23	36	P	P	00 34 29.4	-1.5
	SNR=14						
H02S1	DAWSON INLET T	95.23	36	P	P	00 34 30.5	-0.4
	SNR=15						
RNPP9	Sopachiv	95.34	322	P	P	00 34 31.4	-0.1
PANC	Panciu	95.35	316	⇓P	P	00 34 31.8	+0.1
RNPP5	Staryi Chortor	95.37	322	P	P	00 34 31.5	-0.2
RNPP8	Varash	95.38	322	P	P	00 34 31.6	-0.1
KMPD	K-Podol'skiy	95.43	319	P	P	00 34 30.3	-1.7
YER	Yerkesik	95.59	307	P	P	00 34 37.3	+4.3
PGOR	Pogoanele	95.60	315	⇑P	P	00 34 33.9	+1.1
TESR	Tescani	95.60	317	⇑P	P	00 34 32.6	-0.2
TESR	Tescani	95.60	317	P	P	00 34 31.8	-1.1
	comp=Z,961nmcomp=Z,106nm,0.7s						
TESR	Tescani	95.60	317	P	P	00 34 32.4	-0.4
	comp=Z,949nmcomp=Z,108nm,0.7s,comp=Z,949nm						
GIRR	Girov	95.64	317	⇑P	P	00 34 32.4	-0.6
VRI	Vrincioaia	95.64	316	⇑P	P	00 34 33.2	+0.2
VRI	Vrincioaia	95.64	316	⇑P	P	00 34 33.2	+0.2
VRI	Vrincioaia	95.64	316	P	P	00 34 33.0	-0.1
	comp=Z,855nmcomp=Z,69nm,0.9s						
VRI	Vrincioaia	95.64	316	P	P	00 34 33.7	+0.7
	comp=Z,855nmcomp=Z,70nm,0.9s,comp=Z,855nm						
ELIB	Princess Elisa	95.67	198	*d*P	P	00 34 34.1	+1.3
	comp=Z,27nm,1.0s						
SAHR	Sahastru	95.69	316	⇑P	P	00 34 33.7	+0.3
PLOR	Plostina	95.70	316	⇑P	P	00 34 33.2	-0.2
PLOR	Plostina	95.70	316	⇑P	P	00 34 33.2	-0.2
PABE	Paberze	95.73	326	P	P	00 34 32.5	-0.7
PABE				IAmb	IAmb	00 34 49.3	
	comp=Z,46nm,0.8s						
PABE				IAMs_20	IAMs_20	01 22 23.8	
	comp=Z,2µm,21.0s						
PABE	Paberze	95.73	326	P	P	00 34 33.7	+0.6
	comp=Z,63nm,1.3s						
PRAR	RASCA	95.76	318	⇑P	P	00 34 33.7	+0.1
ALE	Alert	95.79	1	P	P	00 34 33.4	+0.4
BALY	Balya	95.80	310	P	P	00 34 32.8	-1.2
	comp=Z,113nm,0.9s						
ONER	Baraj Valea Uz	95.80	317	⇑P	P	00 34 33.9	+0.2
ARG	Arkhangelos	95.81	306	P	P	00 34 38.2	+4.2
MBAR	Mbarara	95.83	270	LR	LR	01 16 14.7	
	comp=Z,601nm,20.4s,baz=104,slow=34						
MBAR	Mbarara	95.83	270	P	P	00 34 34.7	-0.1
MBAR				pmax	pmax		
	comp=Z,46nm,0.3s						
MBAR				MLR	MLR		
	comp=Z,1µm,22.0s						
MBAR	Mbarara	95.83	270	P	P	00 34 34.7	-0.1
MBAR	Mbarara	95.83	270	P	P	00 34 37.0	+2.3
	comp=Z,11nm,1.1s						
ISR	Istrita	95.88	315	⇑P	P	00 34 34.6	+0.4
ISR	Istrita	95.88	315	⇑P	P	00 34 34.6	+0.4
BIZ	Bicaz	95.91	317	⇑P	P	00 34 34.1	-0.1
NEHR	Nehoiu	96.01	316	⇑P	P	00 34 34.8	0.0
COVR	Voineasa-Covas	96.01	316	⇑P	P	00 34 34.7	0.0
LOZB	Loznitsa	96.09	314	⇑P	P	00 34 34.8	-0.3
TURR	Turia	96.11	316	⇑P	P	00 34 35.1	-0.1
SULR		96.14	315	⇑P	P	00 34 36.3	+1.0
SULR		96.14	315	P	P	00 34 36.1	+0.8
	comp=Z,65nm,1.1s						
DAT	Datca	96.19	307	P	P	00 34 41.1	+5.2
MLR	Muntele Rosu	96.24	316	PKKP		00 51 23.9	
	comp=Z,3.0nm,0.8s,baz=352,slow=7.5,SNR=3.3						
MLR				LR	LR	01 25 49.7	
	comp=Z,924nm,19.4s,baz=76,slow=40						
MLR	Muntele Rosu	96.24	316	⇑P	P	00 34 35.6	-0.3
MLR	Muntele Rosu	96.24	316	P	P	00 34 35.5	-0.5
MLR				IAmb	IAmb	00 34 40.9	
	comp=Z,30nm,0.9s						
MLR	Muntele Rosu	96.24	316	⇑P	P	00 34 35.6	-0.3
MLR	Muntele Rosu	96.24	316	P	P	00 34 35.2	-0.7
MLR	Muntele Rosu	96.24	316	P	P	00 34 35.9	0.0
	comp=Z,1µmcomp=Z,37nm,1.0s						
JMB	Yambol	96.26	313	P	P	00 34 40.5	+4.6
JMB	Yambol	96.26	313	*e*P	P	00 34 35.6	-0.3
STEI	Steigen	96.33	339	*e*P	P	00 34 34.2	-1.5
BODT	Bodrum	96.37	307	P	P	00 34 40.9	+4.3
BURAR	Bucovina Array	96.40	318	⇓P	P	00 34 36.3	-0.3
BURAR	Bucovina Array	96.40	318	P	P	00 34 35.9	-0.7
BURAR				IAmb	IAmb	00 34 42.3	
	comp=Z,37nm,0.8s						
BURAR	Bucovina Array	96.40	318	⇓P	P	00 34 36.3	-0.3
SGRR	Singureni	96.41	315	⇓P	P	00 34 37.2	+0.6
BLCB	Balcova	96.42	309	P	P	00 34 41.6	+4.9
SUW	Suwalki	96.48	325	*e*P	P	00 34 35.9	-0.8
SUW				*e*L	L	01 22 01.1	
	comp=Z,3µm,24.2s						
SUW	Suwalki	96.48	325	P	P	00 34 35.3	-1.3
SUW	Suwalki	96.48	325	P	P	00 34 35.3	-1.3
SUW				IAMs_20	IAMs_20	01 23 57.1	
	comp=Z,2µm,22.0s						
FAUS	Fauske	96.51	339	*e*P	P	00 34 35.1	-1.3
FAUS				IVmB_BB		00 35 04.6	
	comp=Z,976nm,6.0s						
FAUS				*e*SKSac	SKSac	00 45 09.5	-0.3
FAUS				*e*SP	SP	00 47 17.2	+3.9
FAUS				*e*SS	SS	00 52 33.8	+6.3
FAUS				IVMs_BB	IVMs_BB	01 13 48.1	
	comp=Z,1µm,4.5s						
DOPR	Dopca	96.55	316	⇓P	P	00 34 37.4	+0.2
SZH	Strazhitsa	96.55	314	P	P	00 34 41.4	+4.1
KARP	Karpathos	96.67	306	P	P	00 34 42.4	+4.4
EZN	Ezine	96.78	310	P	P	00 34 43.2	+4.9
ENEZ	Enez	96.78	311	P	P	00 34 42.4	+4.1
ALN	Alexandroupoli	96.84	311	P	P	00 34 43.3	+4.8
ALN	Alexandroupoli	96.84	311	P	P	00 34 36.1	-2.5
ALN	Alexandroupoli	96.84	311	P	P	00 34 37.9	-0.7
	comp=Z,20nm,1.5s						
LOF	Lofoten	96.86	340	*e*P	P	00 34 37.1	-0.9
LOF				*e*SKSac	SKSac	00 45 13.3	+1.7
VOIR		96.87	316	⇑P	P	00 34 38.4	-0.3
VOIR		96.87	316	⇑P	P	00 34 38.4	-0.3
VOIR		96.87	316	P	P	00 34 39.8	+1.1
	comp=Z,9.8nm,1.1s						
PRK	Paraskevi	96.90	310	P	P	00 34 43.0	+4.1
DIM	Dimitrovgrad	97.02	313	P	Pdif	00 34 44.5	+5.0
STFAR	Stefanesti-Arg	97.03	315	⇑P	P	00 34 39.1	-0.3
GADA	Gvkgeada	97.05	311	P	Pdif	00 34 43.8	+4.1
HUMR	Humele	97.07	315	⇑P	P	00 34 38.6	-0.9
HUMR	Humele	97.07	315	P	P	00 34 39.3	-0.2
	comp=Z,7µmcomp=Z,78nm,1.3s,comp=Z,7µm						

ARCR	**ARCALIA**	**97.07**	**318**	⇑P	**P**	**00 34 39.4**	**0.0**
ARR	**Arges**	**97.17**	**316**	⇓P	**P**	**00 34 40.0**	**-0.1**
ARR	**Arges**	**97.17**	**316**	P	Pdif	00 34 40.2	0.0
	comp=Z,461nmcomp=Z,16nm,1.5s,comp=Z,461nm						
CHOS	**Chios island**	**97.19**	**309**	P	Pdif	00 34 44.7	+4.3
RDO	**Rodhopi**	**97.19**	**312**	P	Pdif	00 34 44.6	+4.3
MDB	**Medias**	**97.21**	**317**	⇑P	Pdif	00 34 40.5	+0.3
MDB	**Medias**	**97.21**	**317**	⇑P	Pdif	00 34 40.5	+0.3
MOR8	**Moi Rana**	**97.25**	**338**	*e*P	**P**	**00 34 38.7**	**-1.2**
MOR8				*e*PP	**PP**	**00 38 34.5**	**-1.9**
MOR8				*e*SKSac	**SKSac**	**00 45 12.7**	**-1.2**
KDZ	**Kurdzhali**	**97.26**	**312**	P	Pdif	00 34 45.4	+4.8
SMTH	**Samothraki Isl**	**97.29**	**311**	P	Pdif	00 34 44.9	+4.1
RAUS	**Rausandaksla**	**97.31**	**338**	*e*P	**P**	**00 34 38.1**	**-2.0**
RAUS				IVmB		00 34 55.8	
	comp=Z,854nm,3.2s						
RAUS				*e*PP	**PP**	**00 38 35.8**	**-0.9**
RAUS				*e*SKSac	**SKSac**	**00 45 16.6**	**+2.5**
RAUS				*e*SP	**SP**	**00 47 24.9**	**+2.8**
RAUS				*e*SS	**SS**	**00 52 45.7**	**+6.9**
RAUS				IVMs_BB	IVMs_BB	01 18 11.1	
	comp=Z,1µm,4.3s						
ZKR	**Zakros**	**97.49**	**306**	P	Pdif	00 34 46.1	+4.3
PLVB	**Pleven**	**97.51**	**314**	⇑P	**P**	**00 34 41.6**	**+0.1**
BMR	**Baia Mare**	**97.53**	**318**	⇑P	**P**	**00 34 41.4**	**-0.1**
BMR	**Baia Mare**	**97.53**	**318**	⇑P	**P**	**00 34 41.4**	**-0.1**
BMR	**Baia Mare**	**97.53**	**318**	P	Pdif	00 34 42.0	+0.3
	comp=Z,798nmcomp=Z,67nm,1.2s,comp=Z,798nm						
VLAD	**Vladila**	**97.56**	**315**	⇓P	Pdif	00 34 41.9	+0.1
PLD	**Plovdiv**	**97.62**	**313**	P	Pdif	00 34 46.8	+4.7
KONS	**Konsvik**	**97.63**	**338**	*e*P	Pdif	00 34 42.2	+0.6
KONS				IVmB		00 34 44.8	
	comp=Z,928nm,4.0s						
KONS				*e*PP	**PP**	**00 38 40.1**	**+1.0**
KONS				*e*SKSac	**SKSac**	**00 45 15.6**	**0.0**
KONS				*e*SS	**SS**	**00 52 49.0**	**+5.8**
KONS				IVMs_BB	IVMs_BB	01 13 27.2	
	comp=Z,2µm,4.6s						
LIA	**Limnos Island**	**97.64**	**310**	P	Pdif	00 34 46.6	+4.3
CJR	**Cluj-Napoca**	**97.64**	**317**	⇓P	Pdif	00 34 42.4	+0.2
CJR	**Cluj-Napoca**	**97.64**	**317**	⇓P	Pdif	00 34 42.4	+0.2
KWP	**Kalwaria Pacla**	**97.67**	**320**	*e*P	**P**	**00 34 41.6**	**-0.5**
RZN	**Rozhen**	**97.70**	**312**	P	Pdif	00 34 46.7	+3.9
RZN	**Rozhen**	**97.70**	**312**	P	**P**	**00 34 41.0**	**-1.7**
RZN	**Rozhen**	**97.70**	**312**	*e*P	**P**	**00 34 42.1**	**-0.6**
LOT	**Lotru**	**97.76**	**316**	⇑P	**P**	**00 34 42.7**	**-0.1**
LOT	**Lotru**	**97.76**	**316**	P	**P**	**00 34 42.8**	**0.0**
	comp=Z,35nm,0.8s						
LEIR	**Leirfjorden**	**97.78**	**338**	*e*P	Pdif	00 34 43.1	+0.9
LEIR				IVmB_BB		00 35 15.1	
	comp=Z,907nm,3.8s						
LEIR				*e*PP	**PP**	**00 38 41.1**	**+0.8**
LEIR				*e*SKSac	**SKSac**	**00 45 15.3**	**-1.1**
LEIR				*e*SP	**SP**	**00 47 31.1**	**+4.0**
LEIR				IVMs_BB	IVMs_BB	01 20 25.2	
	comp=Z,1µm,4.3s						
APE	**Apeiranthos**	**97.78**	**308**	P	Pdif	00 34 48.0	+5.0
THAS	**Thassos island**	**97.88**	**311**	P	Pdif	00 34 48.1	+4.8
THAS	**Thassos island**	**97.88**	**311**	P	**P**	**00 34 41.2**	**-2.1**
THERA	**Ancient Thera,**	**97.92**	**307**	P	Pdif	00 34 48.5	+4.9
THRA	**Thira**	**97.95**	**307**	P	Pdif	00 34 48.4	+4.7
SFIR	**Foira Santorin**	**97.95**	**307**	P	Pdif	00 34 48.0	+4.2
NPS	**Neapolis**	**97.96**	**306**	P	Pdif	00 34 47.5	+3.7
CMBO	**Columbo, Santo**	**97.96**	**307**	P	Pdif	00 34 47.7	+3.9
KAVA	**Kavala**	**97.97**	**312**	P	Pdif	00 34 47.8	+4.0
MARR	**Marisel-Cluj**	**97.97**	**317**	⇓P	**P**	**00 34 43.4**	**-0.3**
MESR	**Meseseni**	**98.00**	**318**	⇑P	**P**	**00 34 43.6**	**-0.1**
BBB	**Bella Bella**	**98.04**	**37**	P	Pdif	00 34 45.5	+1.8
	comp=Z,516nmcomp=Z,28nm,1.6s						
TRPA	**Tarpa**	**98.08**	**319**	P	Pdif	00 34 44.2	+0.2
	comp=Z,21nm,1.1s						
KOLS	**Kolonicke sedl**	**98.09**	**320**	P	Pdif	00 34 45.8	+1.7
	comp=Z,166nmcomp=Z,18nm,0.8s,comp=Z,166nm						
UZHM	**Uzhgorod**	**98.14**	**319**	P	**P**	**00 34 44.2**	**0.0**
MPEP	**Malo Peshtene**	**98.15**	**314**	*e*P	Pdif	00 34 46.9	+2.4
CEI	**Carei**	**98.22**	**319**	⇑P	**P**	**00 34 44.6**	**0.0**
CEI	**Carei**	**98.22**	**319**	⇑P	**P**	**00 34 44.6**	**0.0**
DRGR		**98.23**	**318**	⇓P	**P**	**00 34 44.5**	**-0.3**
DRGR		**98.23**	**318**	⇓P	**P**	**00 34 44.5**	**-0.3**
DRGR		**98.23**	**318**	P	**P**	**00 34 44.9**	**0.0**
	comp=Z,24nm,1.1s						
DEV	**Deva**	**98.27**	**317**	⇑P	**P**	**00 34 44.9**	**0.0**
DEV	**Deva**	**98.27**	**317**	⇑P	**P**	**00 34 44.9**	**0.0**
DEV	**Deva**	**98.27**	**317**	P	Pdif	00 34 45.4	+0.5
	comp=Z,28nm,1.2s						
BEL	**Belsk**	**98.37**	**323**	P	Pdif	00 34 46.3	+1.1
	comp=Z,101µmcomp=Z,5µm,1.4s						
IACM	**Heraklion**	**98.39**	**306**	P	Pdif	00 34 49.9	+4.2
NVR	**Nevrokopi**	**98.40**	**312**	P	Pdif	00 34 50.1	+4.4
NVR	**Nevrokopi**	**98.40**	**312**	P	**P**	**00 34 44.1**	**-1.5**
MMB	**Musomishta**	**98.45**	**312**	P	Pdif	00 34 50.5	+4.6
MMB	**Musomishta**	**98.45**	**312**	P	**P**	**00 34 44.6**	**-1.3**
MMB	**Musomishta**	**98.45**	**312**	*e*P	**P**	**00 34 45.5**	**-0.4**
GZR	**Gura Zlata**	**98.45**	**316**	⇓P	**P**	**00 34 45.4**	**-0.4**
GZR	**Gura Zlata**	**98.45**	**316**	⇓P	**P**	**00 34 45.4**	**-0.4**
OUR	**Ouranopolis**	**98.48**	**311**	P	Pdif	00 34 51.0	+5.0
OUR	**Ouranopolis**	**98.48**	**311**	P	**P**	**00 34 44.5**	**-1.5**
KARY	**Karystos**	**98.50**	**309**	P	Pdif	00 34 52.2	+6.0
LSZ	**Lusaka**	**98.51**	**255**	P	**P**	**00 34 44.7**	**-2.1**
LSZ				pmax	pmax		
	comp=Z,36nm,1.4s						
LSZ	**Lusaka**	**98.51**	**255**	P	**P**	**00 34 44.7**	**-2.1**
LSZ				IAmb	IAmb	00 34 50.1	
	comp=Z,36nm,1.4s						
LSZ	**Lusaka**	**98.51**	**255**	P	Pdif	00 34 47.1	+0.3
	comp=Z,21nm,1.6s						
PLNA	**Plana**	**98.53**	**313**	*e*P	Pdif	00 34 46.6	+0.3
IDI	**Anoyia**	**98.54**	**306**	P	Pdif	00 34 52.0	+5.6
VTS	**Vitosha**	**98.64**	**313**	P	**P**	**00 34 45.0**	**-1.9**
VTS	**Vitosha**	**98.64**	**313**	*e*P	Pdif	00 34 47.5	+0.6
SIVA	**Sivas**	**98.64**	**306**	P	Pdif	00 34 52.3	+5.5
RMGR	**Halanga-Turnu**	**98.65**	**316**	⇓P	Pdif	00 34 46.8	+0.2
KYMI	**Kymi, Euboea I**	**98.67**	**309**	P	Pdif	00 34 52.3	+5.4
MHLO	**Agia Marina, M**	**98.73**	**307**	P	Pdif	00 34 53.2	+6.0
AOS	**Alonnisos**	**98.75**	**310**	P	Pdif	00 34 52.8	+5.5
PAIG	**Paliouri**	**98.78**	**311**	P	Pdif	00 34 53.7	+6.4
PAIG	**Paliouri**	**98.78**	**311**	P	**P**	**00 34 45.6**	**-1.7**
PAIG	**Paliouri**	**98.78**	**311**	P	**P**	**00 34 46.4**	**-0.9**
	comp=Z,19nm,0.9s						
BORR	**Bors**	**98.79**	**318**	⇓P	Pdif	00 34 48.1	+0.9
HERR	**Herculane**	**98.80**	**316**	⇑P	**P**	**00 34 47.1**	**-0.3**
NSS	**Namsos**	**98.83**	**337**	*e*P	**P**	**00 34 45.8**	**-1.1**
NSS				IVmB		00 34 51.5	
	comp=Z,739nm,4.2s						
NSS				*e*SKSac	**SKSac**	**00 45 23.1**	**+1.3**
NSS				*e*SP	**SP**	**00 47 40.0**	**+1.4**
NSS				IVMs_BB	IVMs_BB	01 17 39.4	
	comp=Z,2µm,4.5s						
KKB	**Krupnik**	**98.86**	**313**	P	Pdif	00 34 52.8	+5.1
KKB	**Krupnik**	**98.86**	**313**	P	**P**	**00 34 46.1**	**-1.6**
SOH	**Sokhos**	**98.87**	**312**	P	**P**	**00 34 46.6**	**-1.2**
	comp=Z,431nmcomp=Z,13nm,1.3s,comp=Z,431nm						
PLG	**Polygyros**	**98.88**	**311**	P	**P**	**00 34 45.8**	**-2.0**
ABAH	**Abaujker**	**98.89**	**319**	P	Pdif	00 34 48.1	+0.5
	comp=Z,19nm,1.0s						
PEHC	**Pehcevo**	**99.04**	**313**	*i* P	**Pdif**	**00 34 49.6**	**+1.0**
HORT	**Hortiatis**	**99.10**	**311**	P	**Pdif**	**00 34 47.5**	**-1.4**
	comp=Z,11nm,0.7s						
KNT	**Kendrikon**	**99.15**	**312**	P	**Pdif**	**00 34 50.1**	**+1.1**
KNT	**Kendrikon**	**99.15**	**312**	P	**Pdif**	**00 34 51.0**	**+2.0**
	comp=Z,355nmcomp=Z,39nm,0.9s,comp=Z,355nm						
BZS	**Buzias**	**99.21**	**317**	⇓P	**Pdif**	**00 34 48.6**	**-0.5**
BZS	**Buzias**	**99.21**	**317**	⇓P	**Pdif**	**00 34 48.6**	**-0.5**
BZS	**Buzias**	**99.21**	**317**	P	**Pdif**	**00 34 49.0**	**-0.1**
	comp=Z,10nm,1.1s						
NEO	**Neokhori**	**99.23**	**310**	P	**Pdif**	**00 34 46.8**	**-2.7**
XOR	**Xorichti**	**99.24**	**310**	P	**Pdif**	**00 34 46.8**	**-2.7**
XOR	**Xorichti**	**99.24**	**310**	P	**Pdif**	**00 34 48.3**	**-1.2**
	comp=Z,18nm,1.5s						
DAG	**Danmarks Havn**	**99.25**	**352**	P	**Pdif**	**00 34 48.3**	**-0.3**
DAG	**Danmarks Havn**	**99.25**	**352**	*i* P	**Pdif**	**00 34 46.9**	**-1.7**
DAG	**Danmarks Havn**	**99.25**	**352**	P	**Pdif**	**00 34 48.3**	**-0.3**
	comp=Z,2µmcomp=Z,34nm,1.4s,comp=Z,2µm						
MDVR	**Moldovita**	**99.31**	**316**	⇓P	**Pdif**	**00 34 49.8**	**+0.1**
VAY	**Valandovo**	**99.36**	**312**	*i* P	**Pdif**	**00 34 48.6**	**-1.3**
OJC	**Ojcow**	**99.37**	**321**	P	**Pdif**	**00 34 48.9**	**-0.9**
OJC	**Ojcow**	**99.37**	**321**	P	**Pdif**	**00 34 48.9**	**-0.9**
OJC	**Ojcow**	**99.37**	**321**	P	**Pdif**	**00 34 50.1**	**+0.4**
	comp=Z,15nm,1.2s						
GRHM	**Grahamstown, E**	**99.43**	**237**	P	**Pdif**	**00 34 50.3**	**-0.2**
GRHM				IAmb	IAmb	00 35 58.2	
	comp=Z,47nm,1.3s						

ATAL	**Atalanti**	**99.49**	**310**	P	**Pdif**	**00 34 47.9**	**-2.6**
BOVS	**Bovan**	**99.55**	**315**	⇓P	**Pdif**	**00 34 50.7**	**0.0**
NVL	**N'lazarevskaya**	**99.56**	**198**	*e*P	**Pdif**	**00 34 52.7**	**+2.6**
NVL				*e*S	**SKSac**	**00 45 25.4**	**+0.3**
NVL				pmax	pmax		
	comp=Z,7.0nm,1.0s						
NVL				MLR	MLR		
	comp=Z,1µm,19.0s						
GRG	**Griva**	**99.56**	**312**	P	**Pdif**	**00 34 49.7**	**-1.2**
	comp=Z,45nm,0.7s						
LIT	**Litokhoron**	**99.65**	**311**	P	**Pdif**	**00 34 49.2**	**-2.0**
LIT	**Litokhoron**	**99.65**	**311**	P	**Pdif**	**00 34 50.1**	**-1.2**
	comp=Z,32nm,0.8s						
AMBH	**Ambrzfalva**	**99.66**	**317**	⇑P	**Pdif**	**00 34 51.7**	**+0.6**
AMBH	**Ambrzfalva**	**99.66**	**317**	P	**Pdif**	**00 34 52.0**	**+0.9**
	comp=Z,38nm,1.4s						
HFS	**Hagfors**	**99.73**	**332**	P	**Pdif**	**00 34 50.0**	**-1.1**
	comp=Z,5.8nm,0.7s,baz=90,slow=3.0,SNR=9.2						
HFS				LR	LR	01 25 02.2	
	comp=Z,980nm,21.4s,baz=64,slow=38						
	comp=Z,5.8nm,0.7s						
BSZH	**Besenyszg**	**99.75**	**318**	P	**Pdif**	**00 34 52.6**	**+1.1**
	comp=Z,19nm,1.2s						
RES	**Resolute Bay**	**99.85**	**10**	LR	LR	01 21 41.0	
	comp=Z,372nm,22.0s,baz=307,slow=36						
PSZ	**Piszkesteto**	**99.86**	**319**	⇑P	**Pdif**	**00 34 52.7**	**+0.6**
PSZ	**Piszkesteto**	**99.86**	**319**		**Pdif**	**00 34 51.2**	**-0.9**
PSZ				IAMs_20	IAMs_20	01 22 59.9	
	comp=Z,1µm,22.0s						
PSZ	**Piszkesteto**	**99.86**	**319**	⇑P	**Pdif**	**00 34 52.7**	**+0.6**
PSZ	**Piszkesteto**	**99.86**	**319**	P	**Pdif**	**00 34 52.4**	**+0.4**
	comp=Z,23nm,1.2s						
KLV	**Kalavryta, Ach**	**100.28**	**309**	P	**Pdif**	**00 34 51.7**	**-2.4**
SERG	**Sergoula**	**100.28**	**309**	P	**Pdif**	**00 34 52.1**	**-2.1**
ANX	**Ano Chora**	**100.36**	**310**	P	**Pdif**	**00 34 52.6**	**-1.9**
LAKA	**Lakka**	**100.37**	**309**	P	**Pdif**	**00 34 52.4**	**-2.2**
EFP	**Efpalio**	**100.40**	**309**	P	**Pdif**	**00 34 52.5**	**-2.1**
OKC	**Ostrava-Krasne**	**100.49**	**321**	AMS	AMS	01 21 00.0	
	comp=Z,1µm,23.9s						
NC602	**NORSAR Array S**	**100.50**	**333**	*e*PP	**PP**	**00 39 03.3**	**+2.1**
NC602				*e*SKSac	**SKSac**	**00 45 28.4**	**-1.9**
NC602				*e*SP	**SP**	**00 47 55.5**	**-1.2**
NC602				*i*		01 11 13.6	
NC602				IVMs_BB	IVMs_BB	01 19 30.3	
	comp=Z,1µm,4.5s						
NB2	**NORSAR Subarra**	**100.53**	**333**	P	**Pdif**	**00 34 53.3**	**-1.4**
	comp=Z,45nm,2.0s,baz=70,slow=4.4						
NB2				PKKP	**PKKPbc**	**00 51 11.6**	**-0.5**
	comp=Z,42nm,2.0s,baz=247,slow=2.5						
NB2	**NORSAR Subarra**	**100.53**	**333**	P	**Pdif**	**00 34 53.3**	**-1.4**
NOA	**NORSAR Array B**	**100.53**	**333**	P	**Pdif**	**00 34 53.4**	**-1.3**
	comp=Z,4.6nm,0.7s,baz=68,slow=4.6,SNR=19						
ITM	**Ithomi**	**100.61**	**308**	P	**Pdif**	**00 34 55.1**	**-0.4**
	comp=Z,32nm,0.9s						
DRO	**Drossia**	**100.63**	**309**	P	**Pdif**	**00 34 54.6**	**-1.1**
PVO	**Paravola**	**100.65**	**310**	P	**Pdif**	**00 34 54.7**	**-1.0**
STEB	**Steborice**	**100.70**	**321**	*e*PDIFF	**Pdif**	**00 34 53.3**	**-2.4**
TETR	**Tetrakomo, Epi**	**100.71**	**310**	P	**Pdif**	**00 34 54.9**	**-1.2**
AMT	**Artemida-Makis**	**100.71**	**309**	P	**Pdif**	**00 34 54.3**	**-1.8**
OHR	**Ohrid**	**100.72**	**312**	*i* P	**Pdif**	**00 34 55.5**	**-0.5**
BOSA	**Boshof**	**100.72**	**241**	P	**Pdif**	**00 34 56.2**	**-0.1**
	comp=Z,3.7nm,0.9s,baz=2.2,slow=2.5,SNR=4.4						
BOSA				PKKPbc	**PKKPbc**	**00 51 10.2**	**-0.4**
	comp=Z,5.8nm,1.0s,baz=175,slow=4.7,SNR=4.1						
BOSA	**Boshof**	**100.72**	**241**		**Pdif**	**00 34 53.9**	**-2.5**
PLEV	**Plevrona-Mesol**	**100.78**	**309**	P	**Pdif**	**00 34 55.0**	**-1.3**
RLS	**Riolos of Patr**	**100.80**	**309**	P	**Pdif**	**00 34 55.8**	**-0.6**
PRMD	**Pramanda**	**100.81**	**311**	P	**Pdif**	**00 34 55.1**	**-1.3**
MAUC	**Maruska**	**100.82**	**321**	*e*PDIFF	**Pdif**	**00 34 56.9**	**+0.6**
AMPL	**Ampelaki**	**100.84**	**310**	P	**Pdif**	**00 34 55.1**	**-1.5**
AXS	**Araxos**	**100.85**	**309**	P	**Pdif**	**00 34 55.3**	**-1.2**
PHP	**Peshkopia**	**100.86**	**313**	P	**Pdif**	**00 34 55.9**	**-0.8**
	comp=Z,12nm,0.9s						
MORC	**Moravsky Berou**	**100.89**	**321**	⇑P	**Pdif**	**00 34 57.4**	**+0.8**
MORC	**Moravsky Berou**	**100.89**	**321**	*e*PDIFF	**Pdif**	**00 34 56.8**	**+0.2**
MORC	**Moravsky Berou**	**100.89**	**321**	⇑P	**Pdif**	**00 34 57.4**	**+0.8**
MORC	**Moravsky Berou**	**100.89**	**321**	P	**Pdif**	**00 34 57.2**	**+0.7**
	comp=Z,438nmcomp=Z,7.4nm,1.0s						
SRO	**Srobarova**	**100.91**	**319**	*e*PDIFF	**Pdif**	**00 35 00.5**	**+3.9**
PDO	**Prodromos**	**100.92**	**310**	P	**Pdif**	**00 34 55.2**	**-1.7**
NEEM	**North Greenlan**	**100.96**	**359**	*i* P	**Pdif**	**00 34 57.2**	**+0.6**
JAVC	**Velka Javorina**	**101.05**	**320**	*e*PDIFF	**Pdif**	**00 34 57.2**	**-0.1**
MORH	**Mrgy, Hungar**	**101.10**	**318**	⇑P	**Pdif**	**00 34 57.2**	**-0.3**
MORH	**Mrgy, Hungar**	**101.10**	**318**	P	**Pdif**	**00 34 57.1**	**-0.4**
	comp=Z,6.4nm,0.8s						
NYDR	**Nydri-Lefkada**	**101.27**	**310**	P	**Pdif**	**00 34 56.8**	**-1.7**
KRLC	**Kraliky**	**101.28**	**322**	*e*PDIFF	**Pdif**	**00 34 59.6**	**+1.3**
KRLC				*e*SKS	**SKSac**	**00 45 31.6**	**-3.0**
KRLC	**Kraliky**	**101.28**	**322**	P	**Pdif**	**00 34 58.9**	**+0.6**
	comp=Z,10µmcomp=Z,379nmcomp=Z,7.5nm,1.2s						
LKD2	**Lefkada island**	**101.29**	**310**	P	**Pdif**	**00 34 58.0**	**-0.6**
	comp=Z,21nm,2.2s						
IGT	**Igoumenitsa**	**101.39**	**311**	P	**Pdif**	**00 34 57.3**	**-1.7**
TULEG	**Thule**	**101.39**	**4**	IAMs_20	IAMs_20	01 23 46.0	
	comp=Z,1µm,21.0s						
YKA	**Yellowknife Ar**	**101.42**	**25**	P	**Pdif**	**00 34 58.9**	**+0.3**
	comp=Z,6.5nm,1.0s,baz=302,slow=4.6,SNR=10						
YKA				PKiKP	**PKiKP**	**00 39 23.2**	**+0.7**
	comp=Z,2.4nm,0.7s,baz=299,slow=1.8,SNR=11						
YKA				PKKPbc	**PKKPbc**	**00 51 05.4**	**-4.1**
	comp=Z,2.7nm,0.8s,baz=125,slow=3.0,SNR=8.0						
YKA	**Yellowknife Ar**	**101.42**	**25**	*i* P	**Pdif**	**00 35 00.0**	**+1.4**
YKA				pmax	pmax		
	comp=Z,7.0nm,1.0s						
FSK	**Fiskardo**	**101.43**	**310**	P	**Pdif**	**00 34 57.4**	**-1.8**
VLS	**Valsamata**	**101.46**	**309**	P	**Pdif**	**00 34 56.7**	**-2.7**
DPC	**Dobruska-Polom**	**101.48**	**322**	*e*PDIFF	**Pdif**	**00 35 00.0**	**+0.8**
DPC				*e*SKS	**SKSac**	**00 45 33.7**	**-1.9**
DPC				AMS	AMS	01 24 40.0	
	comp=Z,2µm,29.1s						
DPC	**Dobruska-Polom**	**101.48**	**322**	P	**Pdif**	**00 35 00.1**	**+0.9**
	comp=Z,7.6nm,1.3s						
OSTC	**Ostas**	**101.49**	**322**	*e*PDIFF	**Pdif**	**00 35 00.9**	**+1.7**
OSTC				*e*SKS	**SKSac**	**00 45 33.6**	**-1.9**
OSTC				AMS	AMS	01 22 40.0	
	comp=Z,2µm,24.0s						
DBG	**Daneborg**	**101.51**	**351**	*i* P	**Pdif**	**00 34 58.2**	**-0.5**
DBG	**Daneborg**	**101.51**	**351**	P	**Pdif**	**00 35 00.6**	**+1.8**
	comp=Z,16nm,1.4s						
PDG	**Podgorica**	**101.56**	**314**	⇑P	**Pdif**	**00 34 59.4**	**-0.3**
PDG	**Podgorica**	**101.56**	**314**	P	**Pdif**	**00 34 59.4**	**-0.3**
	comp=Z,18nm,0.9s						
CHVC	**Chvalec**	**101.58**	**322**	*e*PDIFF	**Pdif**	**00 34 59.6**	**0.0**
MPLH	**Magyarpolny**	**101.59**	**319**	P	**Pdif**	**00 35 00.8**	**+1.1**
	comp=Z,18nm,1.2s						
ZST	**Bratislava**	**101.60**	**320**	*e*PDIFF	**Pdif**	**00 35 02.8**	**+3.1**
VRAC	**Vranov**	**101.61**	**321**	⇓P	**Pdif**	**00 35 00.0**	**+0.2**
VRAC	**Vranov**	**101.61**	**321**	*e*PDIFF	**Pdif**	**00 35 00.3**	**+0.5**
VRAC	**Vranov**	**101.61**	**321**	⇓P	**Pdif**	**00 34 60.0**	**+0.2**
VRAC	**Vranov**	**101.61**	**321**	P	**Pdif**	**00 35 00.7**	**+1.0**
	comp=Z,272nmcomp=Z,2.8nm,1.7s						
TROLL	**Troll, Antarti**	**101.62**	**195**	Pdiff	**Pdif**	**00 35 00.7**	**+1.2**
	comp=Z,436nm,1.0s						
TROLL				⇑PKKPbc	**PKKPbc**	**00 51 06.0**	**-3.4**
	comp=Z,135nm,0.8s						
UPC	**Upice**	**101.62**	**322**	P	**Pdif**	**00 34 59.8**	**0.0**
	comp=Z,8.6nm,0.9s						
JNE	**Jan Mayen East**	**101.74**	**346**	*e*SKSac	**SKSac**	**00 45 37.4**	**+1.6**
JNE				*e*SP	**SP**	**00 48 12.0**	**+2.6**
KRUC	**Moravsky**	**101.81**	**321**	*e*PDIFF	**Pdif**	**00 35 00.5**	**-0.1**
KRUC	**Moravsky**	**101.81**	**321**	P	**Pdif**	**00 35 01.4**	**+0.8**
	comp=Z,7.8nm,1.2s						
KONO	**Kongsberg**	**101.83**	**332**	*e*PP	**PP**	**00 39 14.2**	**+3.0**
KONO				*e*SKSac	**SKSac**	**00 45 37.3**	**+0.6**
KONO				*e*SP	**SP**	**00 48 12.6**	**+1.7**
KONO				IVMs_BB	IVMs_BB	01 19 36.9	
	comp=Z,2µm,4.2s						
KONO	**Kongsberg**	**101.83**	**332**	IAMs_20	IAMs_20	01 22 30.9	
	comp=Z,2µm,20.0s						
RGN	**Rugen**	**101.89**	**327**	IAMs_20	IAMs_20	01 28 21.0	
	comp=Z,2µm,22.0s						
NLWA	**Neilton Lookou**	**101.90**	**41**	IAMs_20	IAMs_20	01 30 14.2	
	comp=Z,3µm,20.0s						
SKAR	**Skarslia**	**101.97**	**334**	*e*SKSac	**SKSac**	**00 45 40.2**	**+2.7**
SKAR				*e*SP	**SP**	**00 48 14.3**	**+1.8**
RONA	**Rosalia, Austr**	**102.25**	**320**	*e*Pdiff	**Pdif**	**00 35 03.0**	**+0.3**
	comp=Z,6.4nm,1.0s						
RONA				*e*PKiKP	**PKiKP**	**00 39 22.0**	**-2.6**
	comp=Z,4.3nm,1.2s						
RONA				*i* PKKP	**PKKPbc**	**00 51 08.4**	**+1.7**
	comp=Z,3.0nm,0.9s						
RONA				*e*P'P'	**P'P'df**	**00 59 23.6**	**-1.2**
	comp=Z,1.4nm,0.8s						
TREC	**Trest**	**102.31**	**321**	P	**Pdif**	**00 35 03.2**	**+0.3**
	comp=Z,9.3nm,1.0s						

RUE	**Ruedersdorf**	**102.33**	**325**	*e*Pdiff	**Pdif**	**00 35 03.7**	**+0.9**
	baz=69,slow=4.1						
RUE	**Ruedersdorf**	**102.33**	**325**	P	**Pdif**	**00 35 03.8**	**+0.9**
	comp=Z,40nm,1.0s						
BLY	**Banja Luka**	**102.46**	**316**	IAMs_20	IAMs_20	01 29 14.1	
	comp=Z,2µm,21.0s						
CONA	**Conrad Observa**	**102.47**	**320**	*e*Pdiff	**Pdif**	**00 35 03.5**	**-0.2**
	comp=Z,9.2nm,1.3s						
CONA				*e*PKiKP	**PKiKP**	**00 39 26.7**	**+1.6**
	comp=Z,5.7nm,1.3s						
CONA				*i* PKKP	**PKKPbc**	**00 51 07.7**	**+1.6**
	comp=Z,7.8nm,1.1s						
CONA				*e*P'P'	**P'P'df**	**00 59 23.1**	**-1.3**
	comp=Z,4.0nm,1.4s						
PRU	**Pruhonice**	**102.68**	**322**	*e*PDIFF	**Pdif**	**00 35 06.0**	**+1.5**
	comp=Z,1.5nm,0.6s						
PRU				*e*PP	PP	00 39 05.4	-13
PRU				*e*SKS	**SKSac**	**00 45 39.1**	**-2.0**
PRU				AMS	AMS	01 25 20.0	
	comp=Z,3µm,22.9s						
PRU	**Pruhonice**	**102.68**	**322**	P	**Pdif**	**00 35 05.2**	**+0.8**
	comp=Z,6.2nm,1.2s						
BRG	**Berggiesshubel**	**102.76**	**323**	*e*Pdiff	**Pdif**	**00 35 05.1**	**+0.3**
	baz=69,slow=4.1						
BRG				*e*SKSac	**SKSac**	**00 45 41.0**	**-0.5**
	baz=73,slow=4.4						
BRG	**Berggiesshubel**	**102.76**	**323**	P	**Pdif**	**00 35 05.5**	**+0.7**
	comp=Z,9.5nm,0.8s						
BRG	**Berggiesshubel**	**102.76**	**323**	⇓*e*Pif		00 35 05.3	
BRG				Amp		00 35 06.1	
	comp=Z,8.4nm,0.9s						
BRG				⇓pPif		00 35 14.9	
BRG				Amp		00 35 19.3	
	comp=Z,7.0nm,0.8s						
BRG	**Berggiesshubel**	**102.76**	**323**	P	**PKiKP**	**00 39 28.0**	**+2.7**
BRG	**Berggiesshubel**	**102.76**	**323**	SP	SP	00 48 17.0	-4.3
BRG				PKKP		00 51 27.0	
BRG				Amp		00 51 28.9	
	comp=Z,5.6nm,1.2s						
ARSA	**Arzberg**	**102.89**	**319**	*e*Pdiff	**Pdif**	**00 35 06.0**	**+0.5**
	comp=Z,3.6nm,1.3s						
ARSA				*e*PKiKP	**PP**	**00 39 22.7**	**+3.1**
	comp=Z,4.4nm,1.2s						
ARSA				*i* PKKP	**PKKPbc**	**00 51 01.8**	**-3.0**
	comp=Z,3.4nm,1.1s						
ARSA				*e*P'P'	**P'P'df**	**00 59 23.5**	**0.0**
	comp=Z,2.9nm,1.1s						
ARSA	**Arzberg**	**102.89**	**319**	P	**Pdif**	**00 35 06.2**	**+0.7**
	comp=Z,5.4nm,1.0s						
COR	**Corvallis**	**103.04**	**44**	IAMs_20	IAMs_20	01 14 54.5	
	comp=Z,3µm,22.0s						
ZVC	**Zvikov**	**103.07**	**322**	*e*PDIFF	**Pdif**	**00 35 06.3**	**+0.1**
ZVC				*e*SKS	**SKSac**	**00 45 42.5**	**-0.5**
ZVC				AMS	AMS	01 25 30.0	
	comp=Z,3µm,25.5s						
CLL	**Collm**	**103.18**	**324**	*i* P	**Pdif**	**00 35 06.8**	**+0.2**
CLL				*e*		00 45 42.0	
CLL				pmax	pmax		
	comp=Z,9.0nm,1.1s						
CLL				MLR	MLR		
	comp=Z,2µm,25.3s						
CLL	**Collm**	**103.18**	**324**	IAMs_20	IAMs_20	01 27 22.4	
	comp=Z,2µm,19.0s						
CLL	**Collm**	**103.18**	**324**	P	**Pdif**	**00 35 06.9**	**+0.3**
	comp=Z,7.9nm,1.4s						
CLL	**Collm**	**103.18**	**324**	*i* Pdif	**Pdif**	**00 35 06.8**	**+0.2**
	comp=Z,9.0nm,1.1s						
CLL				*e*Pdifflp		00 35 17.0	
	comp=Z,300nm,8.7s						
CLL				*i* x	x	00 38 13.9	
CLL				*e*PP	**PP**	**00 39 24.0**	**+2.4**
	comp=Z,31nm,1.8s						
CLL				*e*PPlp		00 39 36.0	
	comp=Z,400nm,9.4s						
CLL				*i* sPKiKP	PKiKP	00 39 38.1	+12
CLL				*e*x	x	00 41 05.0	
CLL				*e*PPP	PPP	00 41 31.0	
CLL				*e*SKSac	**SKSac**	**00 45 42.0**	**-1.4**
CLL				*e*Sdif	**Sdif**	**00 46 49.0**	**-1.8**
	comp=N,400nm,8.5s						
CLL				*e*Sdif	**Sdif**	**00 46 49.0**	**-1.8**
	comp=E,300nm,7.5s						
CLL				*e*Sdif	**Sdif**	**00 46 49.0**	**-1.8**
	comp=Z,200nm,5.9s						
CLL				*e*SP	**SP**	**00 48 19.0**	**-6.7**
CLL				*e*SPP	SPP	00 49 14.0	
CLL				*e*sPKKPbc		00 51 14.0	
CLL				*e*SS	**SS**	**00 54 00.0**	**-1.4**
CLL				*e*x	x	00 58 48.0	
CLL				*e*x	x	01 02 42.0	
CLL				L	L	01 08 00.0	
CLL				AMS	AMS	01 25 00.0	
	comp=N,2µm,23.7s						
CLL				AMS	AMS	01 25 00.0	
	comp=E,2µm,24.2s						
CLL				AMS	AMS	01 30 00.0	
	comp=Z,3µm,23.2s						
SNAA	**Sanae**	**103.20**	**195**	Pdiff	**Pdif**	**00 35 07.6**	**+1.2**
	comp=Z,76nm,0.6s						
SNAA				PKKPbc	**PKKPbc**	**00 51 02.1**	**-2.6**
	comp=Z,139nm,0.9s						
SNAA	**Sanae**	**103.20**	**195**	Pdiff	**Pdif**	**00 35 07.1**	**+0.7**
	comp=Z,2.5nm,0.6s,baz=151,slow=8.1,SNR=6.1						
SNAA				PKKPbc	**PKKPbc**	**00 51 03.1**	**-1.6**
	comp=Z,4.3nm,0.8s,baz=21,slow=2.9,SNR=9.1						
SNAA	**Sanae**	**103.20**	**195**	P	**Pdif**	**00 35 04.3**	**-2.1**
SNAA	**Sanae**	**103.20**	**195**		**Pdif**	**00 35 04.2**	**-2.1**
SNAA				IAMs_20	IAMs_20	01 26 31.2	
	comp=Z,4µm,19.0s						
BELA	**Belgrano 2**	**103.21**	**184**	Pdif	**Pdif**	**00 35 05.4**	**-0.9**
CRES	**Cresnjevec Ost**	**103.34**	**318**	*i* P	**Pdif**	**00 35 07.7**	**+0.1**
KSXB	**Camp Six Broad**	**103.35**	**46**	IAMs_20	IAMs_20	01 23 17.0	
	comp=Z,2µm,20.0s						
SOKA	**Soboth**	**103.37**	**319**	*e*Pdiff	**Pdif**	**00 35 08.3**	**+0.5**
	comp=Z,3.2nm,1.0s						
SOKA				*e*PKiKP	**PKiKP**	**00 39 27.7**	**+1.0**
	comp=Z,12nm,1.2s						
SOKA				*i* PKKP	**PKKPbc**	**00 51 03.0**	**-0.4**
	comp=Z,5.5nm,1.1s						
SOKA				*e*P'P'	**P'P'df**	**00 59 22.1**	**-0.7**
	comp=Z,4.1nm,1.3s						
KRMB	**Red Mountain**	**103.40**	**47**	IAMs_20	IAMs_20	01 29 54.5	
	comp=Z,3µm,20.0s						
JCC	**Jacoby Creek,**	**103.49**	**47**	IAMs_20	IAMs_20	01 29 50.8	
	comp=Z,3µm,19.0s						
MOA	**Molln**	**103.52**	**320**	*e*Pdiff	**Pdif**	**00 35 07.2**	**-1.1**
	comp=Z,6.5nm,0.8s						
MOA				*e*PKiKP	**PKiKP**	**00 39 28.9**	**+2.0**
	comp=Z,11nm,1.4s						
MOA				*i* PKKP	**PKKPbc**	**00 51 02.7**	**-0.3**
	comp=Z,8.8nm,1.0s						
MOA				*e*P'P'	**P'P'df**	**00 59 21.7**	**-0.6**
	comp=Z,2.9nm,1.1s						
MOA	**Molln**	**103.52**	**320**	P	**Pdif**	**00 35 10.0**	**+1.7**
	comp=Z,11nm,0.9s						
KHC	**Kasperske Hory**	**103.55**	**322**	*e*PDIFF	**Pdif**	**00 35 06.2**	**-2.2**
	comp=Z,0.3nm,0.6s						
KHC				*e*pP	**pPdif**	**00 35 21.3**	**+1.1**
KHC				*e*PP	**PP**	**00 39 24.1**	**-0.5**
KHC				*e*SKS	**SKSac**	**00 45 45.0**	**-0.3**
KHC				*e*x	x	00 48 22.8	
KHC				AMS	AMS	01 25 20.0	
	comp=Z,3µm,26.5s						
GEC2	**GERESS Array S**	**103.56**	**321**	*e*SKSac	**SKSac**	**00 45 44.7**	**-0.9**
	baz=73,slow=4.4						
GERES	**GERESS Array B**	**103.56**	**321**	Pdiff	**Pdif**	**00 35 09.1**	**+0.5**
	comp=Z,1.3nm,0.6s,baz=77,slow=7.1,SNR=8.7						
GERES				PKiKP	**PKiKP**	**00 39 28.4**	**+1.4**
	comp=Z,1.6nm,0.6s,baz=95,slow=1.5,SNR=5.0						
GERES				PKKPbc	**PKKPbc**	**00 51 01.2**	**-1.7**
	comp=Z,3.1nm,1.1s,baz=241,slow=1.4,SNR=6.9						
GERES	**GERESS Array B**	**103.56**	**321**	P	**Pdif**	**00 35 08.0**	**-0.6**
GERES	**GERESS Array B**	**103.56**	**321**		**Pdif**	**00 35 08.0**	**-0.6**
KHMM	**Horse Mountain**	**103.69**	**47**	IAMs_20	IAMs_20	01 29 51.2	
	comp=Z,4µm,18.0s						
OBKA	**Obir**	**103.74**	**319**	*i* Pdiff	**Pdif**	**00 35 09.7**	**+0.2**
	comp=Z,4.0nm,1.2s						
OBKA				*e*PP	**PP**	**00 39 26.1**	**-0.1**
	comp=Z,9.9nm,1.7s						
OBKA				*e*PKKP	**PKKPbc**	**00 51 02.4**	**+0.1**
	comp=Z,7.3nm,0.9s						
OBKA				*e*P'P'	**P'P'df**	**00 59 21.6**	**-0.4**
	comp=Z,0.1nm,0.4s						
OBKA	**Obir**	**103.74**	**319**	P	**Pdif**	**00 35 10.1**	**+0.7**
	comp=Z,5.7nm,1.6s						
BSEG	**Bad Segeberg**	**103.75**	**327**	*e*Pdiff	**Pdif**	**00 35 09.2**	**+0.1**
	baz=69,slow=4.1						

BSEG				*e*SKSac	SKSac	00 45 46.1	+0.3
	baz=73,slow=4.4						
VISS	Visnje	103.76	318	*e*P	Pdif	00 35 09.3	0.0
TANN	Tannenbergstha	103.81	323	P	Pdif	00 35 10.2	+0.7
	comp=Z,12nm,1.1s						
FLTG	Flechtingen	103.84	325	*e*Pdiff	Pdif	00 35 10.1	+0.6
	baz=69,slow=4.1						
NKC	Novy Kostel	103.88	323	P	Pdif	00 35 11.0	+1.2
	comp=Z,6.8nm,1.1s						
NEUB	Neuenburg	103.94	324	*e*Pdiff	Pdif	00 35 11.0	+1.0
	baz=69,slow=4.1						
PLN	Plauen	103.96	323	*e*Pdiff	Pdif	00 35 10.4	+0.2
	baz=69,slow=4.1						
BIOA	Bad Ischl, Aus	103.97	320	*e*Pdiff	Pdif	00 35 10.6	+0.3
	comp=Z,2.4nm,1.0s						
BIOA				*e*PKiKP	PKiKP	00 39 29.2	+1.5
	comp=Z,8.9nm,1.2s						
BIOA				*i* PKKP	PKKPbc	00 51 01.4	-0.2
	comp=Z,11nm,0.9s						
BIOA				*e*P'P'	P'P'df	00 59 20.3	-1.1
	comp=Z,5.6nm,1.5s						
WET	Wettzell	103.98	322	*e*SKSac	SKSac	00 45 46.1	-1.2
	baz=73,slow=4.4						
CEY	Cerknica	104.05	318	*e*P	Pdif	00 35 10.6	-0.1
KCPM	Cahto Peak	104.10	48	IAMs_20	IAMs_20	01 29 47.0	
	comp=Z,4µm,18.0s						
KHBM	Hayfork Bally	104.12	47	IAMs_20	IAMs_20	01 29 48.6	
	comp=Z,3µm,19.0s						
M02C	Callahan	104.20	47	IAMs_20	IAMs_20	01 30 05.6	
	comp=Z,2µm,18.0s						
MOX	Moxa	104.23	323	*e*Pdiff	Pdif	00 35 12.2	+0.9
	baz=69,slow=4.1						
MOX				*e*SKSac	SKSac	00 45 47.9	-0.4
	baz=73,slow=4.4						
MOX				*e*L	L	01 27 17.5	
	comp=Z,2µm,21.5s						
MOX	Moxa	104.23	323	P	Pdif	00 35 12.9	+1.5
	comp=Z,6.4nm,1.1s						
MYKA	Terra Mystica	104.30	319	*e*Pdiff	Pdif	00 35 11.1	-0.8
	comp=Z,1.5nm,0.5s						
MYKA				*e*PKiKP	PKiKP	00 39 28.6	+0.2
	comp=Z,5.1nm,1.0s						
MYKA				*i* PKKP	PKKPbc	00 51 00.3	-0.3
	comp=Z,7.0nm,0.7s						
KBA	Koelnbreinsper	104.35	320	*e*PP	PKiKP	00 39 29.8	+1.2
	comp=Z,12nm,1.0s						
KBA				*e*PKKP	PKKPbc	00 51 00.1	-0.5
	comp=Z,1.4nm,0.7s						
DRE	Drenchia	104.44	319	P	Pdif	00 35 11.7	-0.8
	comp=Z,9.2nm,0.9s						
CLZ	Clausthal	104.52	325	*e*SKSac	SKSac	00 45 49.8	+0.2
	baz=73,slow=4.4						
CLZ	Clausthal	104.52	325	P	Pdif	00 35 14.3	+1.6
	comp=Z,13nm,1.4s						
O02D	Mt. Diablo Mer	104.57	48	IAMs_20	IAMs_20	01 15 30.3	
	comp=Z,4µm,22.0s						
LESA	Schwarzleotal	104.67	320	*i* Pdiff	Pdif	00 35 13.4	-0.1
	comp=Z,6.4nm,1.4s						
LESA				*e*PKiKP	PKiKP	00 39 28.9	-0.2
	comp=Z,16nm,1.7s						
LESA				*i* PKKP	PKKPbc	00 50 59.4	-0.2
	comp=Z,13nm,1.0s						
LESA				*e*P'P'	P'P'df	00 59 19.6	-0.6
	comp=Z,1.6nm,0.8s						
GRA1	Grafenberg Arr	104.81	323	IAMs_20	IAMs_20	01 24 52.6	
	comp=Z,2µm,22.0s						
GRF	Grafenberg Arr	104.81	323	*e*Pdiff	Pdif	00 35 13.1	-0.9
	baz=69,slow=4.1						
GRF				*e*SKSac	SKSac	00 45 50.5	-0.5
	baz=73,slow=4.4						
GRF				*e*L	L	01 34 40.7	
	comp=Z,1µm,21.1s						
VNA2	Neumayer--Watz	104.81	194	Pdiff	Pdif	00 35 13.4	-0.1
	comp=Z,5.0nm,0.6s,baz=144,slow=3.4						
VNA2				PKKPbc	PKKPbc	00 50 57.1	-2.6
	comp=Z,4.3nm,0.6s,baz=313,slow=5.5						
GRFO	Grafenberg	104.81	323	IAMs_20	IAMs_20	01 24 52.6	
	comp=Z,2µm,22.0s						
GRC4	Grafenberg Arr	104.83	322	P	Pdif	00 35 14.9	+0.8
	comp=Z,8.7nm,1.1s						
GRC1	Grafenberg Arr	104.87	322	P	Pdif	00 35 16.7	+2.4
	comp=Z,6.9nm,1.4s						
ABTA	Abfaltersbach	105.00	319	*e*Pdiff	Pdif	00 35 14.9	-0.1
	comp=Z,2.6nm,1.0s						
ABTA				*e*PKiKP	PKiKP	00 39 32.4	+2.7
	comp=Z,5.1nm,1.0s						
ABTA				*i* PKKP	PKKPbc	00 50 59.4	+0.9
	comp=Z,9.0nm,0.9s						
ABTA				*e*P'P'	P'P'df	00 59 19.7	0.0
	comp=Z,5.0nm,1.4s						
MCCM	Marconi Confer	105.01	50	IAMs_20	IAMs_20	01 29 38.2	
	comp=Z,4µm,19.0s						
SCO	Scoresbysund	105.01	350	IAMs_20	IAMs_20	01 31 19.9	
	comp=Z,1µm,20.0s						
FARB	Farallon Islan	105.03	50	IAMs_20	IAMs_20	01 29 36.7	
	comp=Z,4µm,19.0s						
HAWA	Hanford	105.04	41	IAMs_20	IAMs_20	01 30 01.2	
	comp=Z,3µm,19.0s						
CEL	Celeste	105.05	310	P	Pdif	00 35 15.9	+0.6
	comp=Z,14nm,0.9s						
UBBA	Unterbreizbach	105.12	324	*e*SKSac	SKSac	00 45 48.4	-3.7
	baz=73,slow=4.4						
VNA3	Neumayer Olymp	105.13	193	Pdiff	Pdif	00 35 18.4	+3.5
	comp=Z,6.8nm,0.8s						
VNA3				PKKPbc	PKKPbc	00 50 56.4	-2.4
	comp=Z,3.1nm,0.6s						
VNA1	Neumayer--Stat	105.21	194	Pdiff	Pdif	00 35 16.5	+1.3
	comp=Z,5.2nm,0.6s						
VNA1				PKKPbc	PKKPbc	00 50 56.3	-2.2
	comp=Z,9.8nm,1.1s						
SUMG	Summit	105.25	355	PKP	PKiKP	00 39 33.7	+3.8
SUMG	Summit	105.25	355	IAMs_20	IAMs_20	01 20 03.3	
	comp=Z,2µm,21.0s						
O03E	Paynes Creek	105.26	47	IAMs_20	IAMs_20	01 29 33.8	
	comp=Z,3µm,19.0s						
CVS	Carmenet Viney	105.28	50	IAMs_20	IAMs_20	01 29 38.4	
	comp=Z,3µm,20.0s						
FUR	Furstenfeldbru	105.31	321	*e*SKSac	SKSac	00 45 50.6	-2.8
	baz=73,slow=4.4						
HATC	Hat Creek Radi	105.37	47	IAMs_20	IAMs_20	01 24 12.6	
	comp=Z,1µm,21.0s						
WTTA	Wattenberg	105.39	320	*i* Pdiff	Pdif	00 35 16.3	-0.6
	comp=Z,4.3nm,0.7s						
WTTA				*e*PKiKP	PKiKP	00 39 30.7	+0.2
	comp=Z,16nm,1.3s						
WTTA				*i* PKKP	PKKPbc	00 50 58.2	+0.7
	comp=Z,9.8nm,1.2s						
WTTA				*e*P'P'	P'P'df	00 59 20.7	+1.8
	comp=Z,3.3nm,1.1s						
WATA	Walderalm	105.41	320	*e*Pdiff	Pdif	00 35 17.2	+0.3
	comp=Z,5.7nm,1.4s						
WATA				*e*PKiKP	PKiKP	00 39 30.7	+0.2
	comp=Z,14nm,1.1s						
WATA				*e*PKKP	PKKPbc	00 50 58.6	+1.2
	comp=Z,5.8nm,1.1s						
WATA				*e*P'P'	P'P'df	00 59 18.5	-0.3
	comp=Z,3.3nm,1.3s						
SUTB	Sutter Butte	105.56	49	IAMs_20	IAMs_20	01 29 38.7	
	comp=Z,3µm,20.0s						
SQTA	Sankt Quirin	105.68	320	*i* Pdiff	Pdif	00 35 18.7	+0.7
	comp=Z,7.1nm,0.9s						
SQTA				*e*PKiKP	PKiKP	00 39 31.5	+0.5
	comp=Z,21nm,1.4s						
SQTA				*i* PKKP	PKKPbc	00 50 57.4	+0.9
	comp=Z,6.6nm,1.1s						
SQTA				*e*P'P'	P'P'df	00 59 18.8	+0.5
	comp=Z,1.0nm,0.5s						
JRSC	Jasper Ridge	105.69	50	IAMs_20	IAMs_20	01 29 34.2	
	comp=Z,4µm,19.0s						
ORV	Oroville	105.69	48	IAMs_20	IAMs_20	01 29 40.0	
	comp=Z,3µm,20.0s						
MOTA	Moosalm	105.71	320	*e*Pdiff	Pdif	00 35 18.3	+0.1
	comp=Z,6.6nm,1.1s						
MOTA				*e*PKiKP	PKiKP	00 39 30.9	-0.2
	comp=Z,19nm,1.3s						
MOTA				*i* PKKP	PKKPbc	00 50 57.1	+0.6
	comp=Z,7.8nm,1.1s						
MOTA				*e*P'P'	P'P'df	00 59 18.3	0.0
	comp=Z,6.6nm,1.4s						
RETA	Reutte	105.87	321	*e*Pdiff	Pdif	00 35 18.9	0.0
	comp=Z,2.5nm,1.1s						
RETA				*e*PKiKP	PKiKP	00 39 31.8	+0.6
	comp=Z,12nm,1.0s						
RETA				*i* PKKP	PKKPbc	00 50 56.2	+0.3
	comp=Z,7.7nm,1.6s						
RETA				*e*P'P'	P'P'df	00 59 16.9	-1.0
	comp=Z,2.7nm,1.2s						
MOD	Modoc Plateau	105.90	46	IAMs_20	IAMs_20	01 25 14.4	
	comp=Z,1µm,20.0s						
NEW	Newport	105.93	39	IAMs_20	IAMs_20	01 30 01.7	
	comp=Z,2µm,20.0s						
FETA	Feichten	106.06	320	*e*Pdiff	Pdif	00 35 18.5	-1.3
	comp=Z,3.9nm,1.0s						
FETA				*e*PKiKP	PKiKP	00 39 31.8	0.0
	comp=Z,12nm,1.5s						
FETA				*e*PKKP	PKKPbc	00 50 57.0	+1.6
	comp=Z,8.0nm,1.2s						
FETA				*e*P'P'	P'P'df	00 59 17.1	-0.6
	comp=Z,3.8nm,1.7s						
MHC	Mount Hamilton	106.16	50	IAMs_20	IAMs_20	01 29 32.8	
	comp=Z,3µm,18.0s						
STU	Stuttgart	106.38	322	IAMs_20	IAMs_20	01 29 45.2	
	comp=Z,2µm,19.0s						
STU	Stuttgart	106.38	322	*e*SKSac	SKSac	00 45 56.1	-2.0
	baz=73,slow=4.4						
BUG	Bochum--Univer	106.45	325	*e*SKSac	SKSac	00 45 59.1	+0.9
	baz=73,slow=4.4						
SAO	San Andreas Ge	106.46	51	IAMs_20	IAMs_20	01 29 28.7	
	comp=Z,2µm,18.0s						
DAVA	Damuels	106.50	321	*e*Pdiff	Pdif	00 35 21.3	-0.5
	comp=Z,4.4nm,1.1s						
DAVA				*e*PKiKP	PKiKP	00 39 32.9	+0.3
	comp=Z,11nm,0.9s						
DAVA				*i* PKKP	PKKPbc	00 50 54.4	+0.4
	comp=Z,8.4nm,1.3s						
WELL	Weller Preserv	106.57	49	IAMs_20	IAMs_20	01 29 24.5	
	comp=Z,2µm,21.0s						
HULI	Fort Hunter Li	106.82	52	IAMs_20	IAMs_20	01 29 26.2	
	comp=Z,4µm,19.0s						
WVOR	Wild Horse Val	106.92	45	IAMs_20	IAMs_20	01 29 44.2	
	comp=Z,3µm,19.0s						
CMB	Columbia Colle	106.94	49	IAMs_20	IAMs_20	01 21 19.2	
	comp=Z,2µm,20.0s						
BMO	Blue Mountains	107.03	42	IAMs_20	IAMs_20	01 30 04.9	
	comp=Z,3µm,22.0s						
BFO	Black Forest	107.08	322	IAMs_20	IAMs_20	01 27 56.8	
	comp=Z,2µm,22.0s						
BFO	Black Forest	107.08	322	*e*SKSac	SKSac	00 45 59.8	-1.4
	baz=73,slow=4.4						
TUE	Stuetta	107.14	320	IAMs_20	IAMs_20	01 27 50.6	
	comp=Z,1µm,21.0s						
PKD	Bear Valley Ra	107.38	52	IAMs_20	IAMs_20	01 29 24.1	
	comp=Z,4µm,19.0s						
PLID	Pearl Lake	107.81	41	IAMs_20	IAMs_20	01 29 48.6	
	comp=Z,4µm,20.0s						
ECH	Echery	107.84	322	IAMs_20	IAMs_20	01 30 27.0	
	comp=Z,1µm,18.0s						
WLF	Walferdange	107.85	324	IAMs_20	IAMs_20	01 28 58.9	
	comp=Z,2µm,22.0s						
NVAR	Mina Array Bea	108.39	49	Pdiff	Pdif	00 35 32.0	+1.6
	comp=Z,3.8nm,1.0s,baz=274,slow=5.6,SNR=13						
NVAR				PKiKP	PKiKP	00 39 36.4	-0.1
	comp=Z,1.8nm,0.8s,baz=236,slow=1.6,SNR=4.9						
NVAR				PKKPbc	PKKPbc	00 50 46.2	-1.7
	comp=Z,0.8nm,0.6s,baz=128,slow=4.2,SNR=3.6						
NVAR				PKKP	PKKPab	00 51 01.4	+0.6
	comp=Z,2.7nm,0.8s,baz=126,slow=5.4,SNR=7.4						
TSUM	Tsumeb	108.45	250	IAMs_20	IAMs_20	01 29 11.1	
	comp=Z,4µm,22.0s						
MSO	Missoula	108.47	39	IAMs_20	IAMs_20	01 29 51.0	
	comp=Z,3µm,19.0s						
SENIN	Lac Senin/Sane	108.50	320	IAMs_20	IAMs_20	01 30 24.4	
	comp=Z,2µm,21.0s						
MFID	Camas Ranch	108.53	43	IAMs_20	IAMs_20	01 29 40.7	
	comp=Z,3µm,20.0s						
VES	Vestal, Richgr	108.55	51	IAMs_20	IAMs_20	01 29 18.0	
	comp=Z,4µm,20.0s						
WIN	Windhoek	108.59	247	IAMs_20	IAMs_20	01 29 12.6	
	comp=Z,5µm,22.0s						
TIN	Tinemaha, Big	108.86	50	IAMs_20	IAMs_20	01 29 22.1	
	comp=Z,4µm,19.0s						
ISA	Isabella, Lake	109.07	51	IAMs_20	IAMs_20	01 29 16.9	
	comp=Z,3µm,19.0s						
CWC	Cottonwood Cre	109.15	50	IAMs_20	IAMs_20	01 29 34.0	
	comp=Z,3µm,20.0s						
OSI	Osito Audit: C	109.17	52	IAMs_20	IAMs_20	01 23 21.6	
	comp=Z,3µm,20.0s						
ILULI	Ilulissat	109.23	359	IAMs_20	IAMs_20	01 22 14.1	
	comp=Z,2µm,22.0s						
HLID	Hailey	109.43	42	IAMs_20	IAMs_20	01 29 38.6	
	comp=Z,4µm,21.0s						
PASC	Pasadena Art C	109.72	53	IAMs_20	IAMs_20	01 29 25.2	
	comp=Z,3µm,21.0s						
MPMC	Manual Prospec	109.72	51	IAMs_20	IAMs_20	01 21 29.1	
	comp=Z,3µm,20.0s						
LRMC	Laurel Mtn Rad	109.74	51	IAMs_20	IAMs_20	01 29 27.7	
	comp=Z,4µm,22.0s						
MWC	Mount Wilson	109.81	53	IAMs_20	IAMs_20	01 23 30.5	
	comp=Z,3µm,20.0s						
ELK	Elko	109.88	45	IAMs_20	IAMs_20	01 29 28.8	
	comp=Z,3µm,19.0s						
DLMT	Dillon	109.92	40	IAMs_20	IAMs_20	01 19 46.4	
	comp=Z,2µm,22.0s						
EKA	Eskdalemuir Ar	109.94	332	PKiKP	PKiKP	00 39 38.5	+0.1
	comp=Z,1.2nm,0.6s,baz=23,slow=4.1,SNR=5.4						
EKA				PKKPbc	PKKPbc	00 50 41.2	-2.1
	comp=Z,3.8nm,0.7s,baz=244,slow=3.6,SNR=8.0						
EKA				PKKPab	PKKPab	00 50 54.1	+0.6
	comp=Z,2.3nm,0.7s,baz=248,slow=3.4,SNR=3.9						
ESK	Eskdalemuir	109.97	332	IAMs_20	IAMs_20	01 34 14.2	
	comp=Z,2µm,20.0s						
FURC	Furnace Creek,	110.08	50	IAMs_20	IAMs_20	01 20 28.5	
	comp=Z,2µm,21.0s						
BFSC	Mount Baldy Ra	110.12	53	IAMs_20	IAMs_20	01 29 08.7	
	comp=Z,4µm,20.0s						
TPNV	Topopah Spring	110.40	49	IAMs_20	IAMs_20	01 29 15.9	
	comp=Z,3µm,20.0s						
BOZ	Bozeman (W)	110.44	40	IAMs_20	IAMs_20	01 29 33.1	
	comp=Z,3µm,18.0s						
EGMT	Eagleton	110.53	37	IAMs_20	IAMs_20	01 33 04.1	
	comp=Z,2µm,19.0s						
SSB	Saint Sauveur	110.70	320	IAMs_20	IAMs_20	01 32 37.7	
	comp=Z,2µm,20.0s						
SHOC	Shoshone, Teco	110.71	51	IAMs_20	IAMs_20	01 29 27.2	
	comp=Z,2µm,21.0s						
KEST	Kesra	110.78	309	PKKPbc	PKKPbc	00 50 41.2	+1.3
	comp=Z,6.3nm,0.8s,baz=313,slow=5.3,SNR=5.3						
CLF	Chambon-Foret	110.88	324	IAMs_20	IAMs_20	01 30 19.2	
	comp=Z,2µm,21.0s						
FFC	Flin Flon	111.12	28	IAMs_20	IAMs_20	01 30 03.0	
	comp=Z,2µm,21.0s						
PFO	Pinyon Flats O	111.25	53	IAMs_20	IAMs_20	01 29 16.9	
	comp=Z,4µm,22.0s						
BAR	Barrett	111.35	54	IAMs_20	IAMs_20	01 28 59.5	
	comp=Z,4µm,19.0s						
BELC	Belle Mtn. Jos	111.51	52	IAMs_20	IAMs_20	01 29 03.4	
	comp=Z,4µm,19.0s						
FXWY	Fox Creek	111.66	41	IAMs_20	IAMs_20	01 29 32.4	
	comp=Z,4µm,21.0s						
DUG	Dugway, Tooele	111.80	45	IAMs_20	IAMs_20	01 29 20.7	
	comp=Z,3µm,20.0s						
ANGG	Ammassalik, Gr	111.89	353	IAMs_20	IAMs_20	01 28 58.5	
	comp=Z,2µm,21.0s						
SNOW	Snow King Moun	111.91	41	IAMs_20	IAMs_20	01 20 51.2	
	comp=Z,2µm,22.0s						
AHID	Auburn Hatcher	111.97	42	IAMs_20	IAMs_20	01 29 27.8	
	comp=Z,3µm,19.0s						
HWUT	Hardware Ranch	112.13	43	IAMs_20	IAMs_20	01 29 39.1	
	comp=Z,3µm,22.0s						
IRM	Iron Mountain	112.13	52	IAMs_20	IAMs_20	01 25 05.0	
	comp=Z,3µm,20.0s						
RLMT	Red Lodge	112.15	39	IAMs_20	IAMs_20	01 29 50.2	
	comp=Z,3µm,22.0s						
DSB	Dublin	112.70	332	IAMs_20	IAMs_20	01 35 49.4	
	comp=Z,1µm,18.0s						
BW06	Boulder Array	113.00	42	IAMs_20	IAMs_20	01 29 25.0	
	comp=Z,3µm,19.0s						
PDAR	Pinedale Array	113.00	42	Pdiff	Pdif	00 35 54.3	+3.5
	comp=Z,0.2nm,0.3s,baz=141,slow=0.9,SNR=3.7						
PDAR				PKiKP	PKiKP	00 39 46.2	+1.2
	comp=Z,1.5nm,0.6s,baz=276,slow=1.3,SNR=9.0						
PDAR				PP	PP	00 40 34.6	+0.8
	comp=Z,1.9nm,0.8s,baz=323,slow=3.9,SNR=3.9						
PDAR				PKKPbc	PKKPbc	00 50 31.9	-1.3
	comp=Z,1.6nm,0.5s,baz=88,slow=4.9,SNR=5.6						
PDAR				PKKPab	PKKPab	00 50 40.9	+0.5
	comp=Z,5.2nm,0.8s,baz=118,slow=5.4,SNR=9.1						
PDAR	Pinedale Array	113.00	42		PKiKP	00 39 43.7	-1.3
MAHO	Mahon	113.09	315	IAMs_20	IAMs_20	01 34 52.5	
	comp=Z,2µm,20.0s						
LAO	LASA Array	113.28	37	IAMs_20	IAMs_20	01 29 50.8	
	comp=Z,2µm,19.0s						
ETOS	Mallorca	114.16	315	PKP	PKPdf	00 39 46.6	-0.4
WUAZ	Wupatki	114.59	49	IAMs_20	IAMs_20	01 28 55.9	
	comp=Z,4µm,20.0s						
K22A	Casper	115.05	41	IAMs_20	IAMs_20	01 22 43.1	
	comp=Z,3µm,22.0s						
HAYD	Hayden	115.54	43	IAMs_20	IAMs_20	01 29 10.0	
	comp=Z,3µm,20.0s						
RSSD	Black Hills	115.90	38	PKIKP	PKiKP	00 39 50.7	+0.2
RSSD	Black Hills	115.90	38	IAMs_20	IAMs_20	01 39 17.5	
	comp=Z,2µm,21.0s						
MVCO	Mesa Verde	116.08	47	IAMs_20	IAMs_20	01 28 56.2	
	comp=Z,3µm,20.0s						
TUC	Tucson	116.19	53	IAMs_20	IAMs_20	01 28 39.5	
	comp=Z,4µm,21.0s						
EDA	Edea	116.20	275	IAMs_20	IAMs_20	01 29 50.1	
	comp=Z,4µm,21.0s						
MDND	Maddock	116.42	33	IAMs_20	IAMs_20	01 29 13.5	
	comp=Z,2µm,20.0s						
E28A	Huff	116.55	34	IAMs_20	IAMs_20	01 39 35.3	
	comp=Z,3µm,22.0s						
ULM	Lac du Bonnet	116.83	29	PKP	PKPdf	00 39 51.7	-0.1
	comp=Z,13nm,0.7s,baz=313,slow=0.9,SNR=15						
ULM				PKKPbc	PKKPbc	00 50 18.8	-1.1
	comp=Z,1.6nm,0.5s,baz=106,slow=8.0,SNR=5.3						
ULM	Lac du Bonnet	116.83	29		PKPdf	00 39 50.9	-0.9
ECHE	Chera	116.87	317	PKP	PKiKP	00 39 53.3	+1.0
ISCO	Idaho Springs	116.99	43	IAMs_20	IAMs_20	01 29 02.6	
	comp=Z,3µm,20.0s						
NRS	Narsarsuaq	117.03	356	PKIKP	PKPdf	00 39 51.3	-0.5
NRS				MLR	MLR		
	comp=Z,3µm,22.0s						
NRS	Narsarsuaq	117.03	356	PKPdf	PKPdf	00 39 51.3	-0.5
NRS				IAMs_20	IAMs_20	01 31 13.3	
	comp=Z,3µm,22.0s						
S22A	4UR Ranch, Cre	117.06	46	IAMs_20	IAMs_20	01 39 24.8	
	comp=Z,3µm,21.0s						
HSIG		117.15	56		PKPdf	00 39 52.5	-0.6
TAM	Tamanrasset	117.66	297	IAMs_20	IAMs_20	01 33 58.4	
	comp=Z,2µm,21.0s						
Q24A	Divide	117.69	44	IAMs_20	IAMs_20	01 38 45.7	
	comp=Z,2µm,19.0s						
ETOB	Tobarra	117.70	316	PKP	PKPdf	00 39 53.8	-0.1
CART	Cartagena	117.79	315	IAMs_20	IAMs_20	01 34 11.1	
	comp=Z,1µm,18.0s						
SDCO	Great Sand Dun	118.00	45	IAMs_20	IAMs_20	01 28 43.7	
	comp=Z,4µm,19.0s						
AGMN	Agassiz Nation	118.11	31	IAMs_20	IAMs_20	01 29 26.1	
	comp=Z,4µm,20.0s						
ESPZ	Base Esperanza	118.37	178		PKiKP	00 39 54.9	+0.5
TASM	ASL Pad, Albuq	118.52	48	IAMs_20	IAMs_20	01 28 56.2	
	comp=Z,3µm,21.0s						
TASM	ASL Pad, Albuq	118.52	48	IAMs_20	IAMs_20	01 28 56.2	
	comp=Z,3µm,21.0s						
TASM	ASL Pad, Albuq	118.52	48	IAMs_20	IAMs_20	01 28 56.2	
	comp=Z,3µm,21.0s						
TASM	ASL Pad, Albuq	118.52	48	IAMs_20	IAMs_20	01 28 56.2	
	comp=Z,3µm,21.0s						
ANMO	Albuquerque	118.52	48	IAMs_20	IAMs_20	01 28 55.8	
	comp=Z,3µm,21.0s						
ABQ	Albuquerque	118.52	48	IAMs_20	IAMs_20	01 28 56.3	
	comp=Z,3µm,21.0s						
ALQ	Albuquerque	118.52	48	IAMs_20	IAMs_20	01 28 55.8	
	comp=Z,3µm,21.0s						
ALQ	Albuquerque	118.52	48	IAMs_20	IAMs_20	01 28 55.8	
	comp=Z,3µm,21.0s						
SUSD	Miller	118.78	36	IAMs_20	IAMs_20	01 39 09.4	
	comp=Z,2µm,18.0s						
OGNE	Ogallala	118.81	40	IAMs_20	IAMs_20	01 28 51.6	
	comp=Z,3µm,18.0s						
ESDC	Sonseca Array	118.86	318	PKP	PKPdf	00 39 56.2	+0.1
	comp=Z,1.8nm,0.8s,baz=15,slow=3.2,SNR=8.4						
ESDC				PP	PP	00 41 13.3	-1.4
	comp=Z,1.9nm,0.9s,baz=54,slow=6.3,SNR=4.3						
ESDC				PKKPbc	PKKPbc	00 50 11.0	-1.4
	comp=Z,0.9nm,0.9s,baz=252,slow=4.7,SNR=4.9						
ESDC	Sonseca Array	118.86	318		PKPdf	00 39 55.5	-0.6
PAB	San Pablo	119.18	318	IAMs_20	IAMs_20	01 34 06.4	
	comp=Z,2µm,20.0s						
K30B	Basset	119.40	38	IAMs_20	IAMs_20	01 39 23.9	
	comp=Z,2µm,22.0s						
F33A	5 Mile Ranch,	119.44	33	IAMs_20	IAMs_20	01 29 05.6	
	comp=Z,3µm,19.0s						
EPT	El Paso	119.76	52	IAMs_20	IAMs_20	01 28 37.0	
	comp=Z,3µm,20.0s						
PCAB	Cabril	120.40	322	*e*PKP	PKiKP	00 40 01.6	+2.5
PGAV	Gavieira, Arco	120.40	322	*e*PKP	PKiKP	00 40 00.1	+0.9
PGAV				*e*PP	PP	00 41 31.9	+6.7
PGAV				*e*SS	SS	00 57 38.0	-13
POLO	Lamas de Olo	120.44	321	*e*PKP	PKiKP	00 40 00.3	+1.0
PVRL	Vila Real	120.45	321	*e*PKP	PKiKP	00 40 01.5	+2.3
ECSD	EROS Data Cent	120.56	35		PKPdf	00 39 58.7	-0.5
ECSD	EROS Data Cent	120.56	35	IAMs_20	IAMs_20	01 38 55.4	
	comp=Z,3µm,19.0s						
MNTX	Cornudas Mount	120.67	51	IAMs_20	IAMs_20	01 30 51.0	
	comp=Z,2µm,20.0s						
ORCD	Orcadas	120.72	185	PKPdf	PKPdf	00 39 58.2	-0.8
MTE	Manteigas	120.82	320	*e*PP	PP	00 41 44.2	+16
MTE				*e*SKSac	SKSac	00 47 00.5	+5.4
MTE				*e*SS	SS	00 58 58.1	+62
MTE	Manteigas	120.82	320	IAMs_20	IAMs_20	01 42 48.0	
	comp=Z,3µm,22.0s						
PVIS	Viseu	120.87	321	*e*PKP	PKiKP	00 40 01.3	+1.3
BGNE	Belgrade	121.01	38	IAMs_20	IAMs_20	01 38 38.2	
	comp=Z,2µm,22.0s						
PCBR	Castelo Branco	121.08	320	*e*PKP	PKiKP	00 40 01.3	+0.9
PMRV	Marv??o	121.25	319	*e*PKP	PKiKP	00 40 02.2	+1.4
PMRV				*e*PP	PP	00 41 48.7	+18
PMRV				*e*SKSac	SKSac	00 47 03.0	+6.5
PMRV				*e*SS	SS	00 58 07.0	+5.1
PCAS	Casmilo, Conde	121.62	320	*e*PKP	PKPdf	00 40 00.9	-0.5
PSARD	Sardoal	121.66	320	*e*PKP	PKiKP	00 40 04.8	+3.2
MSTX	Muleshoe	121.69	48	IAMs_20	IAMs_20	01 30 29.0	
	comp=Z,3µm,19.0s						
PBAR	Barrancos	121.69	318	*e*PKP	PKiKP	00 40 02.7	+1.0
SPMN	Marine on St.	121.71	32	IAMs_20	IAMs_20	01 38 60.0	
	comp=Z,2µm,18.0s						
AMTX	Amarillo	122.06	46	IAMs_20	IAMs_20	01 38 33.8	
	comp=Z,3µm,21.0s						
PSBE	So Bento	122.11	320	*e*PKP	PKiKP	00 40 03.8	+1.3
I37A	Lemond, Waseca	122.19	33	IAMs_20	IAMs_20	01 30 08.7	
	comp=Z,2µm,21.0s						
HPIG		122.25	57	PKPdf	PKPdf	00 40 02.8	-0.4
PBEJ	Beja	122.32	318	*e*PKP	PKiKP	00 40 04.5	+1.6
R32A	Long Quarter,	122.32	41	IAMs_20	IAMs_20	01 28 40.0	
	comp=Z,4µm,21.0s						
MOE	Montemor	122.37	319	*e*PKP	PKiKP	00 40 03.7	+0.7
PVAQ	Vaqueiros	122.55	317	*e*PP	PP	00 41 46.7	+6.8
PVAQ				*e*SKSac	SKSac	00 47 06.5	+5.6
PVAQ				*e*SS	SS	00 58 19.5	+1.1
SCHQ	Schefferville	122.61	9	PKP	PKiKP	00 40 03.2	+0.2
	comp=Z,14nm,0.6s,baz=13,slow=2.5,SNR=20						
PCVE	Castro Verde	122.64	318	*e*PKP	PKPdf	00 40 03.2	-0.1
MESJ	Messejana	122.65	318	*e*PKPdf	PKPdf	00 40 03.4	0.0
MESJ				*e*PP	PP	00 41 41.2	+0.6
MESJ	Messejana	122.65	318	*e*PKP	PKPdf	00 40 02.9	-0.5
PLOUS	Minas do Lousa	122.68	318	*e*PKP	PKPdf	00 40 01.8	-1.6
PBDV	Barranco-do-Ve	122.78	317	*e*PKP	PKiKP	00 40 06.0	+2.1
TXAR	Lajitas Array	122.98	53	PKP	PKiKP	00 40 05.2	+0.6
	comp=Z,4.7nm,0.8s,baz=317,slow=1.0,SNR=33						
TXAR				PKKPbc	PKKPbc	00 49 57.0	+0.3
	comp=Z,1.5nm,0.8s,baz=115,slow=6.0,SNR=9.9						
TXAR	Lajitas Array	122.98	53	PKIKP	PKPdf	00 40 04.2	-0.2
TXAR	Lajitas Array	122.98	53		PKPdf	00 40 04.2	-0.2
G40A	Rib Lake	123.02	30	IAMs_20	IAMs_20	01 28 55.5	
	comp=Z,4µm,22.0s						
MORF	Marmelete	123.23	318	*e*PKPdf	PKPdf	00 40 04.5	-0.1
MORF				*e*PP	PP	00 41 45.0	+0.5
MORF	Marmelete	123.23	318	*e*PKP	PKPdf	00 40 04.8	+0.2
KSU1	Kansas State U	123.30	40	IAMs_20	IAMs_20	01 29 03.9	
	comp=Z,3µm,21.0s						
TORD	Torodi Ar. Bea	123.36	287	PKP	PKiKP	00 40 05.6	0.0
	comp=Z,20nm,0.7s,baz=55,slow=1.9,SNR=50						
TORD				PP	PP	00 41 45.4	-1.1
	comp=Z,4.1nm,0.9s,baz=70,slow=4.7,SNR=3.9						
TORD				PKKPbc	PKKPab	00 49 55.1	+0.2
	comp=Z,8.3nm,0.7s,baz=304,slow=3.9,SNR=30						
PFVI	Vila Bisbo	123.44	318	*e*PKP	PKPdf	00 40 05.1	+0.1
F42A	Maple Grove Fa	123.69	29	IAMs_20	IAMs_20	01 29 28.9	
	comp=Z,3µm,22.0s						
I40A	Norwalk	123.76	32	IAMs_20	IAMs_20	01 38 31.3	
	comp=Z,4µm,20.0s						
SGCY	Sterling City	123.85	49		PKPdf	00 40 05.5	-0.4
WMOK	Wichita Mounta	124.21	45	IAMs_20	IAMs_20	01 28 19.5	
	comp=Z,2µm,19.0s						
AVE	Averroes	124.42	313	IAMs_20	IAMs_20	01 42 09.0	
	comp=Z,3µm,19.0s						
OK051	E0350 and S346	124.61	42	IAMs_20	IAMs_20	01 28 35.9	
	comp=Z,3µm,19.0s						
JFWS	Jewell Farm	124.63	32	IAMs_20	IAMs_20	01 38 19.3	
	comp=Z,3µm,22.0s						

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L40A  Anamosa          124.67  34  IAMs_20 IAMs_20  01 38 11.6
            comp=Z,2µm,19.0s
P38A  Dawn             124.90  37  IAMs_20 IAMs_20  01 38 04.0
            comp=Z,3µm,20.0s
OK052 Battle Ridge R   124.92  43  IAMs_20 IAMs_20  01 28 33.0
            comp=Z,3µm,19.0s
E46A  Sault Ste Mari   124.97  26  IAMs_20 IAMs_20  01 28 50.7
            comp=Z,2µm,18.0s
JCT   Junction City    125.51  50  PKIKP   PKPdf    00 40 09.0  -0.1
JCT   Junction City    125.51  50          PKPdf    00 40 09.0  -0.1
N41A  Harden Midland   125.78  35  IAMs_20 IAMs_20  01 38 07.0
            comp=Z,3µm,19.0s
P40A  Paris            125.85  37  IAMs_20 IAMs_20  01 37 48.1
            comp=Z,3µm,20.0s
I45A  Fountain         125.87  29  IAMs_20 IAMs_20  01 28 51.7
            comp=Z,3µm,20.0s
MG03  Isla Dawson      126.14 168  PKPdf   PKiKP    00 40 10.3  +0.4
S39A  Bolivar          126.22  39  IAMs_20 IAMs_20  01 37 34.0
            comp=Z,3µm,20.0s
U38A  Gravette         126.28  41  IAMs_20 IAMs_20  01 30 48.8
            comp=Z,2µm,21.0s
ZAIG  Zacatecas        126.34  60  PKPdf   PKPdf    00 40 11.0  -0.3
L44A  Lake County Fo   126.38  31  IAMs_20 IAMs_20  01 28 30.5
            comp=Z,3µm,18.0s
WHTX  Lake Whitney,    126.55  47  IAMs_20 IAMs_20  01 28 16.8
            comp=Z,3µm,20.0s
M44A  Midewin, Midew   126.87  32  IAMs_20 IAMs_20  01 28 53.5
            comp=Z,3µm,18.0s
P43A  Skaggs, Pawnee   127.25  35  IAMs_20 IAMs_20  01 28 30.7
            comp=Z,3µm,19.0s
I49A  Point Hope       127.52  27  IAMs_20 IAMs_20  01 28 49.3
            comp=Z,4µm,21.0s
MIAR  Mount Ida        127.91  42  IAMs_20 IAMs_20  01 28 34.3
            comp=Z,3µm,21.0s
Q44A  Meyer Farm, Va   128.04  35  IAMs_20 IAMs_20  01 38 26.8
            comp=Z,3µm,20.0s
AAM   Ann Arbor        128.41  28  IAMs_20 IAMs_20  01 28 40.0
            comp=Z,3µm,18.0s
N47A  Urbana           128.47  31  IAMs_20 IAMs_20  01 28 56.7
            comp=Z,3µm,20.0s
K50A  Casco            128.53  27  IAMs_20 IAMs_20  01 28 56.0
            comp=Z,3µm,21.0s
BLO   Bloomington      129.25  33  PKIKP   PKPdf    00 40 15.6  -0.4
BLO   Bloomington      129.25  33          PKPdf    00 40 15.6  -0.4
D62A  Allapoint, All   129.54  14  IAMs_20 IAMs_20  01 29 05.0
            comp=Z,3µm,20.0s
P48A  Milroy           129.64  32  IAMs_20 IAMs_20  01 28 08.9
            comp=Z,3µm,22.0s
EFI   East Falkland    130.03 176  PKIKP   PKiKP    00 40 17.8   0.0
EFI   East Falkland    130.03 176  PKPdf   PKiKP    00 40 17.8   0.0
WCI   Wyandotte Cave   130.05  34  IAMs_20 IAMs_20  01 44 30.9
            comp=Z,3µm,21.0s
M52A  Chesterland      130.08  27  IAMs_20 IAMs_20  01 38 44.1
            comp=Z,3µm,21.0s
N51A  Ashland          130.09  29  IAMs_20 IAMs_20  01 38 39.4
            comp=Z,3µm,21.0s
ERPA  Erie             130.23  26  IAMs_20 IAMs_20  01 28 50.9
            comp=Z,1µm,20.0s
ACSO  Alum Creek Sta   130.32  30          PKPdf    00 40 17.8  -0.2
ACSO                               IAMs_20 IAMs_20  01 28 42.7
            comp=Z,3µm,22.0s
GO08  Villa O'Higgin   130.57 163  PKPdf   PKPdf    00 40 18.5  +0.3
WVT   Waverly          130.60  37  PKIKP   PKPdf    00 40 16.3  -2.3
R49A  Shelbyville      130.62  33  IAMs_20 IAMs_20  01 28 18.0
            comp=Z,3µm,20.0s
DBIC  Dimbokro         130.79 280  PKP     PKiKP    00 40 21.6  +1.1
            comp=Z,16nm,0.9s,baz=69,slow=2.3,SNR=8.0
DBIC                               SKPbc   SKPab    00 43 42.0  +1.2
            comp=Z,20nm,1.0s,baz=291,slow=3.1,SNR=6.3
DBIC  Dimbokro         130.79 280          PKPdf    00 40 18.3  -1.3
F64A  Sherman          130.85  14  IAMs_20 IAMs_20  01 38 45.7
            comp=Z,2µm,19.0s
G62A  West of Eustis   130.90  16  IAMs_20 IAMs_20  01 49 05.9
            comp=Z,3µm,21.0s
O52A  Adamsville       130.97  29  IAMs_20 IAMs_20  01 50 21.8
            comp=Z,3µm,20.0s
Q51A  Peebles          131.05  31  IAMs_20 IAMs_20  01 49 37.9
            comp=Z,3µm,20.0s
R50A  Paris            131.09  32  IAMs_20 IAMs_20  01 48 44.2
            comp=Z,2µm,20.0s
K57A  Scipio Center    131.14  23  IAMs_20 IAMs_20  01 28 52.8
            comp=Z,3µm,19.0s
PKME  Peaks-Kenny Pk   131.18  15  IAMs_20 IAMs_20  01 50 23.5
            comp=Z,3µm,21.0s
H62A  Milan            131.31  17  IAMs_20 IAMs_20  01 29 04.0
            comp=Z,2µm,18.0s
PMAR  Madeira          131.40 318  ePKP    PKPdf    00 40 21.0  +0.5
PMOZ  Porto Moniz, M   131.53 318  ePP     PP       00 42 52.4  +13
Q52A  Bidwell          131.65  30  IAMs_20 IAMs_20  01 48 40.8
            comp=Z,3µm,20.0s
P53A  Whipple          131.68  29  IAMs_20 IAMs_20  01 42 25.5
            comp=Z,2µm,22.0s
WVL   Waterville       131.74  16  IAMs_20 IAMs_20  01 40 57.2
            comp=Z,2µm,22.0s
BINY  Binghamton       131.80  22  IAMs_20 IAMs_20  01 28 49.2
            comp=Z,3µm,18.0s
S51A  Beattyville      131.95  32  IAMs_20 IAMs_20  01 49 23.1
            comp=Z,2µm,19.0s
I63A  Otisfield        131.96  17  IAMs_20 IAMs_20  01 29 01.0
            comp=Z,3µm,22.0s
M57A  Sunshine Farm,   132.08  24  IAMs_20 IAMs_20  01 28 52.8
            comp=Z,3µm,21.0s
EMMW  East Machias     132.16  13  IAMs_20 IAMs_20  01 38 23.1
            comp=Z,2µm,19.0s
L59A  Walton           132.16  22  IAMs_20 IAMs_20  01 45 21.7
            comp=Z,2µm,21.0s
TRY   Troy             132.18  20  IAMs_20 IAMs_20  01 39 39.0
            comp=Z,3µm,22.0s
X48A  Hartselle        132.19  38  IAMs_20 IAMs_20  01 27 57.1
            comp=Z,3µm,20.0s
Q54A  Coxs Mills       132.34  29  IAMs_20 IAMs_20  01 48 38.0
            comp=Z,4µm,22.0s
KSPA  Keystone Colle   132.43  23  PKPdf   PKiKP    00 40 23.2  +0.2
N58A  Sunbury          132.67  24  IAMs_20 IAMs_20  01 28 42.3
            comp=Z,3µm,19.0s
W50A  Signal Mountai   132.73  36  IAMs_20 IAMs_20  01 47 18.1
            comp=Z,3µm,22.0s
TZTN  Tazewell         132.78  33  IAMs_20 IAMs_20  01 41 40.1
            comp=Z,2µm,20.0s
Y49A  Blount Mountai   132.98  38  IAMs_20 IAMs_20  01 45 17.0
            comp=Z,3µm,21.0s
S54A  Dingess, Beckl   133.02  30  IAMs_20 IAMs_20  01 49 00.1
            comp=Z,3µm,21.0s
WES   Weston           133.26  18  PKIKP   PKiKP    00 40 24.5  -0.2
WES   Weston           133.26  18  PKPdf   PKiKP    00 40 24.5  -0.2
X51A  Calhoun          133.44  36  IAMs_20 IAMs_20  01 44 15.9
            comp=Z,2µm,20.0s
PAL   Palisades        133.61  21  IAMs_20 IAMs_20  01 37 39.0
            comp=Z,3µm,21.0s
U54A  Nelsons Funny    133.73  32  IAMs_20 IAMs_20  01 44 24.1
            comp=Z,3µm,22.0s
S57A  Dark Hollow, R   134.21  28  IAMs_20 IAMs_20  01 37 03.4
            comp=Z,3µm,21.0s
GO07  Milladeo Hill,   134.97 159  PKPdf   PKPdf    00 40 27.4  +0.7
LL07  Hotel Espejo d   135.28 159  PKPdf   PKiKP    00 40 28.3  -0.5
V58A  Windy Hill, Pi   135.68  30  IAMs_20 IAMs_20  01 28 11.7
            comp=Z,2µm,21.0s
154A  Montrose         135.85  37  IAMs_20 IAMs_20  01 50 55.7
            comp=Z,3µm,21.0s
LL05  Los Muermos      136.52 158  PKPdf   PKPdf    00 40 30.4  +0.8
LR04  Corral           137.86 157  PKPdf   PKPdf    00 40 31.6  -0.5
PLCA  Paso Flores      138.16 160  PKhKP   PKPpre   00 40 22.5
            comp=Z,4.7nm,0.8s,baz=199,slow=4.7,SNR=11
PLCA                               PKP     PKiKP    00 40 34.2  -0.6
            comp=Z,24nm,1.0s,baz=235,slow=2.4,SNR=17
PLCA                               SKPbc   SKPbc    00 44 06.0  +2.0
            comp=Z,4.5nm,0.8s,baz=250,slow=5.3,SNR=3.2
PLCA                               SKPab   SKPab    00 44 16.7  +4.6
            comp=Z,8.1nm,0.9s,baz=219,slow=5.8,SNR=4.5
LR03  Panguipulli      138.49 158  PKPdf   PKPdf    00 40 32.9  -0.4
APG   El Apazote       139.80  64  SKPbc   SKPbc    00 44 09.9  +0.5
            comp=Z,0.6nm,0.8s,baz=178,slow=11,SNR=5.9
APG                                SKPab   SKPab    00 44 22.9  +2.5
            comp=Z,0.1nm,0.3s,baz=180,slow=8.8,SNR=3.9
SOR   Soroa            142.29  48  i P     PKPdf    00 40 39.5  -1.1
BO01  Tunca            143.53 155          PKPbc    00 40 40.1  +0.3
CRIN  San Cristobal    143.72  66          PKPbc    00 40 40.9  -0.1
BO04  La Punta         144.07 155          PKPbc    00 40 41.9  +0.4
MT09  Talagante        144.10 155          PKPab    00 40 41.5  +0.2
MT13  San Alfonso      144.42 155  i P     PKPdf    00 40 45.1  +0.8
MT13  San Alfonso      144.42 155          PKPbc    00 40 42.8  +0.1
VA01  Torpederas       144.45 153          PKPbc    00 40 42.9  +0.3
MT02  Curacav          144.47 154  i P     PKPdf    00 40 44.0  -0.2
MT02  Curacav          144.47 154          PKPab    00 40 42.6  +0.1
MT05  Renca            144.53 155          PKPbc    00 40 43.1  +0.1
MT03  Universidad Ad   144.54 155          PKPab    00 40 43.1  +0.2
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MT16  CCHEN            144.59 155          PKPbc    00 40 43.4  +0.2
PEL   Peldehue         144.77 154  PKIKP   PKPab    00 40 43.8  +0.1
PEL   Peldehue         144.77 154          PKPab    00 40 43.8  +0.1
MT04  Ro Olivares      144.78 155  i P     PKPdf    00 40 45.7  +0.7
MT08  Bocatoma Ro      144.79 156  i P     PKiKP    00 40 47.6  -1.2
MT08  Bocatoma Ro      144.79 156          PKPab    00 40 44.0  +0.1
MGV   Manicaragua      144.93  46  i P     PKPdf    00 40 45.9  +0.7
CAIB  Caibarien        145.05  45  i P     PKPdf    00 40 45.5   0.0
BOAB  BOACO BROADBAN145.07  65  PKPbc   PKPbc    00 40 43.7  -1.4
VA03  San Esteban      145.15 154  i P     PKPdf    00 40 46.5  +1.0
VA03  San Esteban      145.15 154  PKPbc   PKPbc    00 40 44.5  -0.5
AAGR  Agrelo           145.58 157  i P     PKPab    00 40 48.6  +1.8
FSCY  Frank Sound, G   145.69  51  i P     PKPab    00 40 48.8  +1.5
ARCO  CERRO ARCO       145.76 156  i P     PKPab    00 40 49.1  +1.6
JUD3  Juan Diaz 3      145.96  69  eP      PKPab    00 40 49.6  +1.0
CO02  Combarbal        146.27 152  i P     PKPab    00 40 49.8  +0.4
LCCY  Blossom Villag   146.33  50  i P     PKPab    00 40 50.6  +0.9
JTS   Las Juntas de    146.47  69  PKPbc   PKPbc    00 40 50.0  +0.5
            comp=Z,115nm,1.1s,baz=299,slow=2.3,SNR=20
JTS   Las Juntas de    146.47  69  PKP2    PKPbc    00 40 50.0  +0.5
JTS   Las Juntas de    146.47  69  eP      PKPab    00 40 50.5   0.0
RTLS  Leoncito         146.52 155  i P     PKPab    00 40 50.8  +0.2
CBCY  The Bluff, Cay   146.54  49  i P     PKPab    00 40 50.6  +0.1
VARE2 V. Arenal        146.63  68  eP      PKPab    00 40 51.9  +0.7
VACR  Volcan Arenal    146.66  68  eP      PKPab    00 40 51.1  -0.2
CO03  El Pedregal      146.72 152  i P     PKPbc    00 40 50.1  +0.2
CO03  El Pedregal      146.72 152          PKPdf    00 40 49.1  +0.9
CCCC  Cccc             147.09  45  i P     PKPab    00 40 52.1  -0.5
CFA   Coronel Fontan   147.12 156  PKPbc   PKPbc    00 40 51.7  +0.7
            comp=Z,89nm,0.6s,baz=228,slow=2.8,SNR=88
CFA   Coronel Fontan   147.12 156  i P     PKPab    00 40 52.0  -0.6
GO04  Tololo Observa   147.22 152  i P     PKiKP    00 40 54.0   0.0
GO04  Tololo Observa   147.22 152          PKPdf    00 40 50.2  +0.9
RTLL  Cerro Villicun   147.27 156  i P     PKPab    00 40 52.6  -0.5
ANCO  Parque Anchore   147.30 173  eP      PKPdf    00 40 48.0  -0.9
VBV1  V. Barva         147.32  68  eP      PKPbc    00 40 52.3   0.0
HDC   Heredia          147.34  69  eP      PKPbc    00 40 52.9  +0.8
HDC   Heredia          147.34  69  eP      PKPdf    00 40 47.9  -1.8
CVIMO Finca Echandi    147.49  68  eP      PKiKP    00 40 57.0  +2.1
LCR2  La Lucha 2       147.52  69          PKPdf    00 40 51.2  +1.0
PIEC  Cerro El Cedra   147.61  69  eP      PKPbc    00 40 53.5  +0.5
RAFA  San Farael, Vo   147.63  68  eP      PKPbc    00 40 54.0  +0.8
CVTQ  Turrialba Volc   147.66  68  eP      PKPbc    00 40 53.3   0.0
ACCO  Cerro Coronel    147.66 154  i P     PKiKP    00 40 54.5  -0.4
CVTR  Volcan Turrial   147.66  68  eP      PKPbc    00 40 53.6  +0.2
VTR0  Volcan Turrial   147.66  68  eP      PKPbc    00 40 53.3  -0.1
AROD  Rodeo            147.84 153  i P     PKPbc    00 40 54.3  +1.0
LCO   Las Campanas     148.23 150  PKIKP   PKPdf    00 40 49.7  -1.4
LCO   Las Campanas     148.23 150          PKPdf    00 40 49.7  -1.4
LMGC  Las Mercedes     148.37  46  i P     PKPdf    00 40 52.9  +1.8
HLGC  Holguin          148.48  43  i P     PKPbc    00 40 54.1  -0.8
YAR   Yar              148.62  45  i P     PKiKP    00 40 56.2  -0.5
AC04  Llanos de Chal   148.70 149          PKPbc    00 40 54.6  -0.7
CHIV  Chivirico        148.84  45  i P     PKiKP    00 40 58.0  +0.8
PINC  Pinares de May   148.94  44  i P     PKPbc    00 40 54.4  -1.6
BRU2  Volcan           149.05  70          PKPdf    00 40 54.3  +1.7
CVJ   Coleyville       149.12  49⇑iP     PKiKP    00 40 58.1  +0.1
MTDJ  Mount Denham     149.12  49          PKPdf    00 40 51.0  -1.5
MTDJ  Mount Denham     149.12  49  i P     PKPbc    00 40 56.5  -0.2
MCJ   Malvern          149.19  50  i P     PKPbc    00 40 57.3  +0.5
RCC   Rio Carpintero   149.34  44  i P     PKPbc    00 40 55.5  -1.5
MOAC  Moa              149.39  42  i P     PKPbc    00 40 56.8  -0.3
NMDO  Nuevo Mundo      149.44  43          PKPdf    00 40 55.1  +2.3
NMDO  Nuevo Mundo      149.44  43  i P     PKPbc    00 40 56.7  -0.6
GO03  Copiapo          149.63 150          PKPbc    00 40 56.4  -1.3
PCJ   Portland Cotta   149.70  49  i P     PKPbc    00 40 58.1  +0.1
STH   Stony Hill       149.76  48  i P     PKiKP    00 40 58.9  -0.2
STH                                ⇑iP     PKPbc    00 40 59.3  +1.2
GTBY  Guantanamo Bay   149.79  44  i P     PKiKP    00 40 59.0  -0.1
QMBU  Quimbuelo        149.81  43  i P     PKPbc    00 40 56.5  -1.7
GWJ   Greenwich        149.82  48⇑iP     PKPbc    00 40 59.1  +0.6
GWJ                                ⇓iP     PKiKP    00 40 59.2  -0.2
HOJ   Hope             149.85  49  i P     PKiKP    00 40 59.5  +0.2
MASC  Masc             150.22  42  i P     PKPbc    00 40 58.6  -0.6
PSAL  Palomas, Salto   150.49 173  eP      PKPdf    00 40 53.1  -1.2
GRTK  Grand Turk       151.19  36  i P     PKPbc    00 41 01.7  +0.3
CPSB  Cacapava Do Su   151.43 180  eP      PKPdf    00 40 54.1  -1.6
CNLB  Canela           152.41 185  eP      PKPdf    00 40 56.0  -1.3
SDDR  Presa de Saban   153.00  40⇓iP     PKPdf    00 40 58.3  -0.1
SDDR  Presa de Saban   153.00  40  i P     PKPdf    00 41 01.3  +2.9
ATAH  Atahualpa        154.56 103  PKP     PKPdf    00 41 02.3  +1.1
            comp=Z,61nm,0.8s,baz=92,slow=1.4,SNR=5.7
ATAH                               PKPbc   pPKPdf   00 41 11.8  -1.7
            comp=Z,51nm,1.3s,baz=245,slow=2.1,SNR=17
NNA   Nana             154.65 115  PKP     PKPdf    00 41 02.7  +1.9
            comp=Z,28nm,1.1s,baz=118,slow=0.9,SNR=5.0
NNA                                PKPbc   pPKPdf   00 41 11.4  -1.8
            comp=Z,77nm,1.0s,baz=270,slow=5.1,SNR=11
LCBC  Los crdobas,     154.87  65  P       PKPab    00 41 28.2  +3.1
OTAV  Otavalo          154.93  86  PKIKP   PKPdf    00 41 00.9  -0.9
OTAV  Otavalo          154.93  86          PKPdf    00 41 00.9  -0.9
OTAV  Otavalo          154.93  86  eP      PKPdf    00 40 59.4  -2.4
CPUP  Villa Florida    155.21 172  PKP     PKPdf    00 41 03.3  +2.1
            comp=Z,9.3nm,1.0s,baz=222,slow=0.8,SNR=13
CPUP                               PKPab   PKPab    00 41 26.4  +0.4
            comp=Z,24nm,0.8s,baz=178,slow=4.9,SNR=7.1
CPUP  Villa Florida    155.21 172  PKIKP   PKPdf    00 41 00.1  -1.2
CPUP  Villa Florida    155.21 172          PKPdf    00 41 00.1  -1.2
BBAC  Balboa, Cauca    155.92  81  P       PKPdf    00 41 12.3  +9.5
BBAC                               P       pPKPdf   00 41 15.6  +0.5
PB11  IPOC Station P   156.04 140  PKPdf   PKPdf    00 41 01.4  -1.3
CBOC  Ciudad Bolivar   156.25  71  P       PKPdf    00 41 07.6  +4.4
CBOC                               P       PKPdf    00 41 07.8  +4.6
CBOC                               P       pPKPdf   00 41 08.4  -7.1
SJPY  San Joaquin      156.68 174  eP      PKPdf    00 41 01.8  -1.4
SJG   San Juan         156.69  32  PP      PP       00 45 09.4  -0.2
            comp=Z,4.1nm,0.2s,baz=7.4,slow=4.1,SNR=5.4
PET01 Itanhaem-SP      156.74 194  eP      PKPdf    00 41 01.9  -1.4
PTGB  Pitanga          157.06 183  eP      PKPdf    00 41 02.4  -1.4
ORTC  Ortega, Tolima   157.52  76  P       PKPdf    00 41 03.5  -1.2
GARC  Garzon, Huila    157.63  80  P       PKPdf    00 41 03.4  -1.6
GARC                               P       PKPdf    00 41 03.5  -1.6
SPBC  San Pablo de B   158.15  70  P       PKPdf    00 41 05.4  -0.1
ROSC  El Rosal         158.17  73  PKP     PKPdf    00 41 07.3  +1.4
            comp=Z,24nm,0.9s,baz=6.6,slow=1.8,SNR=21
ROSC                               PKPab   PKPab    00 41 42.1  +2.3
            comp=Z,62nm,0.9s,baz=74,slow=11,SNR=7.9
ROSC                               PP      PP       00 45 21.1  +1.2
            comp=Z,3.5nm,0.3s,baz=253,slow=15,SNR=3.9
ROSC  El Rosal         158.17  73  PKIKP   PKPdf    00 41 04.9  -1.0
ROSC  El Rosal         158.17  73          PKPdf    00 41 04.9  -1.0
LDASE Londrina, Braz   158.30 186  eP      PKPdf    00 41 03.9  -1.5
RIB01 Linhares ES      158.31 215  eP      PKPdf    00 41 03.8  -1.7
BSFB  Barra de Sao F   158.95 215  eP      PKPdf    00 41 05.1  -1.1
VILC  Villavicencio,   158.97  74  P       PKPdf    00 41 08.3  +1.8
VILC                               P       PKPab    00 41 48.8  +5.9
VILC                               P       PKPab    00 41 48.8  +5.9
TRCB  Terra Rica       159.00 182  PKPdf   PKPdf    00 41 06.3  +0.1
TRCB  Terra Rica       159.00 182  eP      PKPdf    00 41 04.7  -1.5
BSCB  Bom Sucesso      159.02 203  eP      PKPdf    00 41 05.1  -1.2
SJMB  Sao Joao De Ma   159.25 215  eP      PKPdf    00 41 05.0  -1.5
LPAZ  La Paz           159.51 136  PKP     PKPdf    00 41 09.0  +1.3
            comp=Z,18nm,1.0s,baz=352,slow=1.4,SNR=38
LPAZ                               PKPab   PKPab    00 41 47.1  +1.5
            comp=Z,16nm,0.7s,baz=206,slow=8.1,SNR=7.0
LPAZ                               PP      PP       00 45 26.6  +0.3
            comp=Z,2.3nm,0.8s,baz=222,slow=4.2,SNR=2.1
LPAZ  La Paz           159.51 136  PKIKP   PKPdf    00 41 07.1  -0.6
LPAZ  La Paz           159.51 136          PKPdf    00 41 07.1  -0.6
LPAZ  La Paz           159.51 136  eP      PKPdf    00 41 04.9  -2.7
MURT  Porto Murtinho   159.73 169  eP      PKPdf    00 41 04.8  -2.2
CZSB  Cruzeiro do Su   159.90 108  PKPdf   PKPdf    00 41 06.8  -0.6
CZSB  Cruzeiro do Su   159.90 108  eP      PKPdf    00 41 05.7  -1.7
GUA01 Guaratinga, BA   160.01 221  eP      PKPdf    00 41 06.2  -1.3
BB19B Bebedouro        160.14 194  eP      PKPdf    00 41 06.2  -1.3
CANS  Sao Roque de M   160.26 200  eP      PKPdf    00 41 06.4  -1.4
CMC01 Camacan, BA      160.67 225  eP      PKPdf    00 41 06.9  -1.2
NBIT  Itapeh - BA      160.90 226  eP      PKPdf    00 41 06.7  -1.8
DIAM  Diamantina, MG   160.90 210  eP      PKPdf    00 41 06.7  -1.9
BDQN  Bodoquena, MS    161.07 170  eP      PKPdf    00 41 06.9  -1.6
ARCA  Ara§uai, MG      161.16 216  eP      PKPdf    00 41 07.3  -1.5
AQDB  Aquidauana       161.19 173  eP      PKPdf    00 41 07.2  -1.4
COIM  Forte Coimbra    161.39 167  eP      PKPdf    00 41 07.6  -1.3
PMNB  Patos De Minas   161.89 202  eP      PKPdf    00 41 08.2  -1.3
MC01  Montes Claros    162.38 212  eP      PKPdf    00 41 08.6  -1.4
NBTA  Tacaratu-PE      163.00 244  eP      PKPdf    00 41 09.1  -1.6
IPMB  Ipameri, GO      163.00 197  eP      PKPdf    00 41 09.1  -1.6
SIV   San Ignacio      163.92 153  PKP     PKPdf    00 41 12.7  +1.2
            comp=Z,14nm,0.9s,baz=218,slow=1.7,SNR=28
SIV                                PKPab   PKPab    00 42 04.8  +0.7
            comp=Z,39nm,0.8s,baz=211,slow=3.5,SNR=15
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SIV                                PP      PP       00 45 48.6  +0.2
            comp=Z,5.3nm,1.1s,baz=268,slow=4.1,SNR=3.8
JANB  Januaria         163.94 214  eP      PKPdf    00 41 10.0  -1.5
PP1B  Ponte de Pedra   164.12 175  eP      PKPdf    00 41 10.1  -1.5
NBMA  Muriti-CE        164.31 248  eP      PKPdf    00 41 10.4  -1.5
BDFB  Brasilia         165.13 201  PKP     PKPdf    00 41 13.3  +0.6
            comp=Z,13nm,0.9s,baz=344,slow=1.8,SNR=4.0
BDFB                               PKPab   PKPab    00 42 10.4  +0.9
            comp=Z,16nm,0.8s,baz=145,slow=3.7,SNR=7.8
BDFB                               PP      PP       00 45 53.9  -0.8
            comp=Z,4.1nm,0.9s,baz=81,slow=9.7,SNR=2.5
BDFB  Brasilia         165.13 201          PKPdf    00 41 11.2  -1.5
PTLB  Pontes e Lacer   165.21 158  eP      PKPdf    00 41 11.1  -1.4
SALV  Santo Antonio    165.70 171  eP      PKPdf    00 41 11.5  -1.4
ARAG  Araguaiana, MT   165.97 187  eP      PKPdf    00 41 11.8  -1.4
VILB  Vilhena          166.96 149  eP      PKPdf    00 41 12.6  -1.5
TEFE  Tefe             168.68  99  eP      PKPdf    00 41 13.8  -1.5
SNDB  Serra Nova Dou   169.55 192  eP      PKPdf    00 41 14.1  -1.7
CLDB  Colider          170.57 166  eP      PKPdf    00 41 14.9  -1.5
BOAV  Boa Vista        171.85  60  eP      PKPdf    00 41 15.6  -1.5
MACA  Manacapuru-AM    172.62 102  eP      PKPdf    00 41 15.8  -1.6
ITTB  Itaituba         176.49 140  eP      PKPdf    00 41 17.3  -1.4
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*AEIC **06** 00:30:20.4±1.7, 58°.35N±0°.01×133°.49W±0°.03, h1^{km}±6^{km},*
Error ellipse: s-maj=2.3km s-min=2.0km az=121.0

*NEIC **06** 00:30:20.3±1.7, 58°.35N±0°.02×133°.52W±0°.04, h3^{km}±7^{km},*
ML2.5/44, ML2.2(AEIC), Error ellipse: s-maj=3.3km
s-min=2.2km az=133.0

*PGC **06** 00:30:21.4, 58°.35N×133°.50W, h6^{km}, ML2.5/9, 53km east*
of Juneau, Alaska, Usa Southeastern Alaska

ISC 06 00:30:20.1±1.2, **58°.35N**±0°.02×**133°.50W**±0°.02, **h2**^{km}±11^{km},
n49, σ**0**^{s}**76**/60, **Southeastern Alaska**

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Code  Station Name       Δ°  AZ°     Phase ID            Time      Res
                                     Op      ISC        h  m  s    ISC
JIS   Juneau Island     0.47 262             Pg       00 30 29.5  +0.4
JIS                                          Sg       00 30 36.0  +0.8
R32K  Eaglecrest        0.54 263             Pg       00 30 30.7  +0.2
R32K                                 Sg      Sg       00 30 38.2  +0.7
BESE  Bessie Mountai    0.75 289     P       Pg       00 30 34.5  +0.1
BESE  Bessie Mountai    0.75 289             Pg       00 30 34.5  +0.1
BESE                                 Sg      Sg       00 30 44.9  +0.8
Q32M  Nakina River      0.89  46     P       Pg       00 30 37.0   0.0
Q32M                                 S       Sg       00 30 49.2  +0.6
Q32M  Nakina River      0.89  46             Pg       00 30 37.1  +0.1
Q32M                                 Sg      Sb       00 30 50.6  -0.1
S32K  Killisnoo         1.05 214             Pg       00 30 40.2   0.0
S32K                                 Sg      Sb       00 30 54.9  -0.3
S32K                                 IAML             00 30 57.3
            comp=N,100nm,0.6s
S32K                                 IAML             00 30 58.7
            comp=E,102nm,0.6s
P32M  Atlin             1.25 355     P       Pg       00 30 43.3  -0.7
P32M                                 S       Sg       00 31 00.3  +0.2
P32M  Atlin             1.25 355             Pg       00 30 43.6  -0.4
P32M                                 Sg      Sb       00 31 00.9   0.0
P32M                                 IAML             00 31 03.6
            comp=E,78nm,0.5s
S34M  Telegraph Cree    1.33 108     P       Pn       00 30 44.8  -0.8
S34M                                 S       Sg       00 31 02.9  +0.2
S34M  Telegraph Cree    1.33 108             Pn       00 30 44.6  -1.0
S34M                                 IAML             00 31 11.2
            comp=E,98nm,0.6s
S34M  Telegraph Cree    1.33 108             Sn       00 31 04.5  +0.6
SKAG  Skagway           1.47 320             Pn       00 30 47.6  +0.1
SKAG  Skagway           1.47 320             Sb       00 31 06.9  -0.2
SKAG  Skagway           1.47 320     IAML             00 31 10.4
            comp=N,76nm,0.7s
SKAG                                 IAML             00 31 11.5
            comp=E,101nm,0.6s
S31K  Pelican           1.50 256             Pn       00 30 47.4  -0.5
S31K  Pelican           1.50 256             Sn       00 31 07.8  -0.2
S31K  Pelican           1.50 256     IAML             00 31 12.3
            comp=E,39nm,0.8s
S31K                                 IAML             00 31 15.9
            comp=N,35nm,1.0s
SIT   Sitka             1.62 218             Pn       00 30 49.2  -0.4
SIT   Sitka             1.62 218             Sg       00 31 12.4  +0.3
SIT   Sitka             1.62 218     IAML             00 31 13.3
            comp=E,52nm,0.7s
SIT                                  IAML             00 31 13.4
            comp=N,52nm,0.6s
R33M  Jennings River    1.68  50     Pn      Pn       00 30 50.5  -0.1
R33M                                 Sn      Sb       00 31 13.4   0.0
R33M  Jennings River    1.68  50             Pn       00 30 50.5  -0.1
R33M                                 IAML             00 31 16.6
            comp=E,71nm,0.8s
DLBC  Dease Lake        1.83  86     Pn      Pn       00 30 52.6   0.0
DLBC                                 Sn      Sb       00 31 17.2  -0.4
DLBC  Dease Lake        1.83  86             Pn       00 30 52.6   0.0
PLBC  Pleasant Camp     1.86 308     Pn      Pb       00 30 54.1  -0.6
PLBC                                 Sn      Sb       00 31 18.0  -0.4
PLBC  Pleasant Camp     1.86 308             Pb       00 30 54.1  -0.6
PLBC                                         Sg       00 31 19.9  +0.2
P33M  Teslin, Yukon     1.90  10     Pn      Pn       00 30 53.9  +0.3
P33M  Teslin, Yukon     1.90  10             Pn       00 30 53.6  +0.1
P33M                                 IAML             00 31 22.5
            comp=N,28nm,0.5s
P33M                                 IAML             00 31 23.6
            comp=E,38nm,0.6s
WRAK  Wrangell Islan    2.03 162     Pn      Pn       00 30 55.3   0.0
WRAK  Wrangell Islan    2.03 162             Pn       00 30 54.7  -0.5
WRAK                                 IAML             00 31 28.1
            comp=E,38nm,0.6s
T35M  Bob Quinn         2.22 127     Pn      Pn       00 30 58.3  +0.3
T35M                                 Pg      Pb       00 31 01.5  +0.6
T35M                                 Sg      Sg       00 31 31.0  -0.3
T35M  Bob Quinn         2.22 127             Pn       00 30 58.2  +0.3
T35M  Bob Quinn         2.22 127             Sb       00 31 28.4  -0.4
T35M  Bob Quinn         2.22 127     IAML             00 31 32.7
            comp=E,60nm,0.7s
T35M                                 IAML             00 31 33.3
            comp=N,70nm,0.6s
U33K  Whale Pass        2.25 175             Pn       00 30 57.9  -0.3
U33K                                 IAML             00 31 47.2
            comp=E,19nm,1.0s
WHY   Whitehorse        2.42 344     Pn      Pn       00 31 01.2  +0.4
WHY   Whitehorse        2.42 344             Pn       00 31 01.6  +0.8
WHY                                  IAML             00 31 48.0
            comp=N,34nm,1.0s
P29M  Windy Craggy      2.54 302     Sg      Sg       00 31 40.6  -1.0
P29M  Windy Craggy      2.54 302             Pn       00 31 01.2  -1.1
P29M                                 IAML             00 31 42.6
            comp=E,35nm,0.6s
CRAG  Craig             2.90 176     Pn      Pn       00 31 06.7  -0.4
CRAG                                 IAML             00 32 06.6
            comp=E,11nm,0.7s
V35K  Ketchikan         3.20 160             Pn       00 31 10.8  -0.5
V35K                                 IAML             00 32 02.9
            comp=N,9.0nm,0.6s
V35K                                 IAML             00 32 06.1
            comp=E,12nm,0.7s
HYT   Haines Junctio    3.21 322     Sg      Sb       00 32 00.4  +2.9
HYT   Haines Junctio    3.21 322             Pn       00 31 11.8  +0.2
HYT                                  IAML             00 32 10.9
            comp=E,15nm,0.9s
N31M  Braeburn, Yuko    3.35 341             Pn       00 31 13.0  -0.4
N30M  Aishikik Lake     3.61 331     Sg      Sg       00 32 12.7  -3.1
N30M  Aishikik Lake     3.61 331     Pn      Pn       00 31 17.7  +0.7
N30M                                 IAML             00 32 26.4
            comp=E,13nm,0.8s
M31M  Drury Creek, Y    3.89 354             Pn       00 31 21.6  +0.8
M31M                                 IAML             00 32 28.5
            comp=E,10nm,1.2s
M31M                                 IAML             00 32 33.9
            comp=N,11nm,0.6s
MMPY  Sheldon Lake,     4.42  14             Pn       00 31 29.2  +1.0
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*NEIC **06** 00:33:05.8±1.5, 58°.34N±0°.02×133°.47W±0°.03, h4^{km}±6^{km},*
ML2.6/40, ML2.3(AEIC), Error ellipse: s-maj=2.9km
s-min=2.2km az=155.0

*AEIC **06** 00:33:06.1±2.1, 58°.35N±0°.02×133°.50W±0°.03, h1^{km}±1^{km},*
Error ellipse: s-maj=2.9km s-min=2.0km az=169.0

*PGC **06** 00:33:06.8±0.3, 58°.33N×133°.51W, h1^{km}, ML2.7/9, 52km*
east of Juneau, Alaska, Usa Southeastern Alaska

ISC 06 00:33:05.4±1.2, **58°.33N**±0°.03×**133°.46W**±0°.02, **h4**^{km}±11^{km},
n40, σ**0**^{s}**65**/50, **Southeastern Alaska**

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Code  Station Name       Δ°  AZ°     Phase ID            Time      Res
                                     Op      ISC        h  m  s    ISC
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JIS	Juneau Island	0.49	264		Pg	00 33 15.2	+0.3
JIS					Sg	00 33 21.7	+0.5
R32K	Eaglecrest	0.56	264	Pg	Pg	00 33 16.5	+0.3
R32K				Sg	Sg	00 33 23.9	+0.5
BESE	Bessie Mountai	0.77	289	P	Pg	00 33 19.8	-0.4
BESE	Bessie Mountai	0.77	289	Pg	Pg	00 33 20.1	-0.2
Q32M	Nakina River	0.88	44	P	Pg	00 33 22.8	+0.4
Q32M	Nakina River	0.88	44	Pg	Pg	00 33 22.8	+0.4
Q32M				Sg	Sb	00 33 35.7	0.0
S32K	Killisnoo	1.05	215		Pb	00 33 26.2	+0.1
S32K				Sg	Sb	00 33 41.0	+0.8
S32K				IAML		00 33 43.6	
	comp=N,137nm,0.6s						
S32K				IAML		00 33 44.4	
	comp=E,120nm,0.6s						
P32M	Atlin	1.27	354	P	Pg	00 33 29.1	-0.7
P32M				S	Sn	00 33 46.8	-0.7
P32M	Atlin	1.27	354	Pn	Pg	00 33 29.2	-0.5
P32M				IAML		00 33 49.3	
	comp=E,66nm,0.5s						
P32M	Atlin	1.27	354		Sn	00 33 47.2	-0.3
S34M	Telegraph Cree	1.30	108	P	Pn	00 33 29.9	-0.5
S34M	Telegraph Cree	1.30	108		Pn	00 33 30.3	-0.1
S34M				Sg	Sb	00 33 47.8	+0.2
S34M				IAML		00 33 52.7	
	comp=N,121nm,0.6s						
S34M				IAML		00 33 53.3	
	comp=E,142nm,0.6s						
SKAG	Skagway	1.49	320		Pn	00 33 33.1	+0.2
SKAG				IAML		00 33 56.1	
	comp=N,72nm,0.7s						
S31K	Pelican	1.52	257	Pn	Pn	00 33 33.0	-0.3
S31K	Pelican	1.52	257		Sb	00 33 53.6	0.0
SIT	Sitka	1.62	219		Pn	00 33 34.3	-0.5
SIT				IAML		00 33 59.1	
	comp=E,48nm,0.7s						
SIT				IAML		00 33 59.1	
	comp=N,68nm,0.6s						
R33M	Jennings River	1.68	50	Pn	Pb	00 33 36.9	0.0
R33M				Sn	Sb	00 33 58.8	+0.4
R33M	Jennings River	1.68	50		Pb	00 33 37.1	+0.2
R33M				IAML		00 34 01.3	
	comp=E,65nm,0.9s						
DLBC	Dease Lake	1.81	85	Pn	Pb	00 33 39.9	+0.7
DLBC				Sn	Sb	00 34 03.0	+0.8
DLBC	Dease Lake	1.81	85		Pb	00 33 39.0	-0.2
DLBC					Pg	00 33 39.4	-0.7
PLBC	Pleasant Camp	1.88	308	Pn	Pb	00 33 39.9	-0.4
PLBC				Sn	Sb	00 34 03.9	-0.3
PLBC	Pleasant Camp	1.88	308		Pb	00 33 40.0	-0.4
PLBC					Sg	00 34 04.9	-1.0
P33M	Teslin, Yukon	1.91	10	Sn	Sb	00 34 05.0	-0.2
P33M	Teslin, Yukon	1.91	10		Pn	00 33 39.3	+0.4
P33M	Teslin, Yukon	1.91	10		Sb	00 34 05.0	-0.2
P33M	Teslin, Yukon	1.91	10	IAML		00 34 08.2	
	comp=N,28nm,0.5s						
P33M				IAML		00 34 09.2	
	comp=E,33nm,0.6s						
WRAK	Wrangell Islan	2.01	162		Pn	00 33 40.4	+0.3
WRAK				IAML		00 34 23.8	
	comp=E,36nm,0.6s						
T35M	Bob Quinn	2.19	127	Pn	Pb	00 33 44.6	-1.1
T35M				Sg	Sg	00 34 16.3	+0.5
T35M	Bob Quinn	2.19	127		Pn	00 33 44.0	+1.3
T35M	Bob Quinn	2.19	127		Sg	00 34 15.7	-0.1
T35M	Bob Quinn	2.19	127	IAML		00 34 18.4	
	comp=E,67nm,0.6s						
T35M				IAML		00 34 19.0	
	comp=N,53nm,0.6s						
U33K	Whale Pass	2.23	175		Pn	00 33 42.9	-0.2
U33K				IAML		00 34 23.1	
	comp=E,23nm,0.7s						
WHY	Whitehorse	2.44	343		Pn	00 33 46.0	-0.2
WHY				IAML		00 34 34.1	
	comp=E,40nm,1.0s						
WHY				IAML		00 34 40.6	
	comp=N,36nm,1.1s						
P30M	Million Dollar	2.54	316	Pn	Pn	00 33 49.1	+1.6
P29M	Windy Craggy	2.57	302		Pn	00 33 47.8	0.0
CRAG	Craig	2.88	176		Pn	00 33 52.0	0.0
CRAG				IAML		00 34 42.4	
	comp=E,13nm,1.0s						
CRAG				IAML		00 34 53.6	
	comp=N,13nm,1.0s						
WTLY	Watson Lake, Y	2.99	51	Sg	Sg	00 34 40.7	-0.7
HYT	Haines Junctio	3.24	322		Pn	00 33 58.6	+1.5
HYT				IAML		00 34 49.8	
	comp=E,17nm,1.0s						
O29M	Mount Kennedy	3.28	309		Pn	00 33 58.8	+1.1
O29M				IAML		00 34 56.9	
	comp=E,19nm,1.1s						
N31M	Braeburn, Yuko	3.37	341		Pn	00 34 00.5	+1.6

UCR ***06*** *00:44:24.1±0.6, 7°.77N×83°.16W, h13^{km}±20^{km}, MW4.7, Presumed earthquake*

IDC ***06*** *00:44:24.7±0.9, 7°.97N×82°.93W, h0^{km}, mb4.2/8, mbtmp4.2/10, ML3.7/2, MS4.7/1, Error ellipse: s-maj=44.8km s-min=14.3km az=53.0*

UPA ***06*** *00:44:25.8±1.7, 7°.87N×83°.11W, h14^{km}±4^{km}, MW4.8, Presumed earthquake*

NEIC ***06*** *00:44:26.9±1.9, 7°.916N±0°.007×83°.15W±0°.04, h10^{km}±1^{km}, mb4.6/27, Error ellipse: s-maj=6.4km s-min=2.9km az=277.0*

RSNC ***06*** *00:44:27.1±0.7, 8° N±4°×8° 3W±°, h16^{km}±5^{km}, M4.5, mB5.8, mb4.5, ML3.6, Mw(mB)5.3*

CATAC ***06*** *00:44:28.6±0.5, 8° N±3°×8° 3W±°, h10^{km}±1^{km}, M4.7/17, mb5.2/6, mB5.3/3, MLv4.5/17, Mw(mB)4.7/3, Error ellipse: s-maj=6.5km s-min=3.1km az=14.1, confirmed*

ISC 06 00:44:24.7±1.4**, 7°.87N**±0°.04×**83°.11W**±0°.03**, h6**^{km}±8^{km}**, n167, σ1^{s}.17**/206**, mb4.6**/21**, 1C-13D, Off coast of Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LMNES	Limones	0.34	48	eP	Pb	00 44 33.1	-0.1
LMNES	Limones	0.34	48	⇓iP	Pb	00 44 33.2	-0.1
PTPM	Petroterminale	0.41	35	⇓iP	Pb	00 44 34.3	0.0
PTPM				eS	Sb	00 44 41.7	+0.9
PTPA	Petro Terminal	0.41	36	eP	Pb	00 44 34.2	-0.2
PTPA				eS	Sb	00 44 41.7	+0.9
PIRO	Carate, Puerto	0.57	338	Pg	Pb	00 44 36.3	-0.9
PIRO				Sg	Sb	00 44 43.8	-1.9
PIRO	Carate, Puerto	0.57	338	P	Pb	00 44 36.4	-0.9
PIRO				S	Sg	00 44 43.2	-0.1
PIRO	Carate, Puerto	0.57	338	eP	Pb	00 44 36.2	-1.1
PIRO	Carate, Puerto	0.57	338	⇓iP	Pb	00 44 36.3	-0.9
PIRO				eS	Sb	00 44 45.1	-0.6
JIME	Puerto Jimenez	0.70	343	eP	Pb	00 44 38.4	-0.9
CDITO	Canoas	0.74	19	P	Pb	00 44 39.3	-0.7
CDITO				S	Sg	00 44 47.5	-1.1
FITO	Golfito	0.75	357	eP	Pg	00 44 38.9	-0.3
FITO	Golfito	0.75	357	eS	Sb	00 44 50.6	-0.2
NELY	Ciudad Neily	0.79	12	eP	Pg	00 44 40.0	+0.1
NELY				eS	Sn	00 44 52.9	-1.8
NELY	Ciudad Neily	0.79	12	⇓iP	Pb	00 44 40.2	-0.7
DVD	David	0.86	49	⇓iP	Pg	00 44 41.5	+0.2
DVD				eS	Sg	00 44 53.0	+0.4
LOMA3	Las Lomas, Chi	0.91	52	⇓iP	Pg	00 44 42.2	+0.1
LOMA3				eS	Sb	00 44 55.1	-0.2
CHIR3	Chiriqui UPA,	0.94	56	⇓iP	Pg	00 44 42.7	0.0
CHIR3				eS	Sb	00 44 55.7	-0.4
VITO	San Vito	0.95	9	eP	Pb	00 44 43.3	-0.5
VITO	San Vito	0.95	9	eP	Pb	00 44 43.4	-0.4
VITO				eS	Sb	00 44 57.0	+0.2
MLIR3	Monte Lirio, C	0.96	17	i P	Pb	00 44 43.9	0.0
MLIR3				eS	Sn	00 44 58.5	-0.5
CLLRA	Cordillera,	1.00	30	eP	Pb	00 44 44.1	-0.4
CLLRA	Cordillera,	1.00	30	⇓iP	Pb	00 44 44.2	-0.4
CLLRA				eS	Sb	00 44 57.6	-0.5
BGUAL	Bijagual, Pana	1.00	51	⇓iP	Pg	00 44 43.9	-0.1
BGUAL				eS	Sb	00 44 57.6	-0.4
BRU2	Volcan	1.01	24	Pg	Pb	00 44 44.4	-0.4
BRU2				Sg	Sb	00 44 58.6	+0.3
BRU2	Volcan	1.01	24	P	Pb	00 44 44.5	-0.2
BRU2				S	Sg	00 44 55.8	-1.5
BRU2	Volcan	1.01	24	eP	Pg	00 44 44.2	0.0
BRU2	Volcan	1.01	24	⇓iP	Pb	00 44 44.4	-0.4
BRU2				eS	Sn	00 44 59.7	-0.6
SCLRA	Santa Clara, W	1.01	19	eP	Pb	00 44 44.6	-0.2
SCLRA	Santa Clara, W	1.01	19	⇓iP	Pb	00 44 44.7	-0.1
SCLRA				eS	Sn	00 45 01.1	+0.8
ISECA	Islas Secas	1.08	84	eP	Pg	00 44 45.8	+0.4
ISECA				eS	Sg	00 44 58.2	-1.2
BQTLY	Boquete Panama	1.09	36	eP	Pg	00 44 45.2	-0.6
BQTLY	Boquete Panama	1.09	36	⇓iP	Pg	00 44 45.4	-0.3
BQTLY				eS	Sn	00 45 02.1	-0.3
BQSF3	Alto Boquete,	1.10	38	i P	Pg	00 44 45.3	-0.5
BQSF3				eS	Sg	00 44 57.7	-2.4
LNBQ3	Los Naranjos,	1.13	36	i P	Pg	00 44 45.7	-0.8
LNBQ3				eS	Sg	00 45 01.0	-0.2
PANP	Palmar Norte	1.14	343	eP	Pg	00 44 45.5	-1.1
EDP2	Potrero Grande	1.14	357	eP	Pg	00 44 46.3	-0.3
BURE	Buenos Aires	1.31	350	eP	Pn	00 44 48.7	-1.0
EDPE	Pejibaye, P	1.36	341	eP	Pn	00 44 48.9	-1.4
RBALA	Bur	1.38	43	eP	Pn	00 44 49.4	-1.2
RBALA	Bur	1.38	43	eP	Pn	00 44 50.0	-0.6
RBALA				eS	Sb	00 45 07.2	-1.8
CHGR2	Aguacate	1.43	42	eP	Pn	00 44 50.4	-0.9
CHGR2				eS	Sb	00 45 08.6	-1.8
KKNTU	Kakintº	1.61	53	eP	Pn	00 44 52.4	-1.4
KKNTU	Kakintº	1.61	53	eP	Pn	00 44 52.5	-1.3
KKNTU				eS	Sn	00 45 13.9	-1.0
CNI2	El Empalme, Bo	1.67	22	i P	Pn	00 44 54.6	+0.1
CEUA	Cerro Uatsi, L	1.75	6	eP	Pb	00 44 56.7	-0.6
RGM0	Gandoca	1.78	16	Pn	Pb	00 44 57.8	0.0
RGM0					Sg	00 45 21.0	-1.0
RGM0	Gandoca	1.78	16	P	Pb	00 44 57.9	0.0
RGM0				S	Sn	00 45 17.6	-1.5
RGM0	Gandoca	1.78	16	eP	Pb	00 44 57.7	-0.1
RGM0	Gandoca	1.78	16	i P	Pb	00 44 57.8	0.0
GMAL	Guarumal, Vera	1.87	93	P	Pn	00 44 56.0	-1.3
GMAL	Guarumal, Vera	1.87	93	eP	Pn	00 44 55.6	-1.6
GMAL				eS	Sn	00 45 17.9	-3.3
QUEP	Quepos	1.87	326	P	Pn	00 44 57.6	+0.3
QUEP				S	Sn	00 45 19.7	-1.5
RSUS3	Rio de Jesus,	1.94	87	i P	Pn	00 44 58.1	-0.2
RSUS3				eS	Sn	00 45 21.4	-1.6
ABE2	San Pablo	2.05	333	eP	Pn	00 44 59.3	-0.7
LCR2	La Lucha 2	2.06	335		Pn	00 44 59.5	-0.7
LCR2	La Lucha 2	2.06	335	P	Pn	00 44 59.9	-0.2
LCR2				S	Sn	00 45 25.3	-1.0
LCR2	La Lucha 2	2.06	335	eP	Pn	00 44 59.2	-0.9
LCR2	La Lucha 2	2.06	335	eP	Pn	00 45 00.5	+0.4
SAFE3	Santa Fe, Vera	2.12	72	eP	Pn	00 45 01.0	+0.3
SAFE3				eS	Sn	00 45 26.6	-0.8
STIA3	Santiago, Vera	2.13	84	⇓iP	Pn	00 45 01.3	+0.4
STIA3				eS	Sn	00 45 27.4	-0.4
RAFA	San Farael, Vo	2.19	342		Pn	00 45 02.0	0.0
VTR0	Volcan Turrial	2.23	343	eP	Pn	00 45 02.6	-0.1
CVTR	Volcan Turrial	2.23	343	eP	Pn	00 45 02.6	-0.1
CACAO	El Cacao, Vera	2.29	103	P	Pn	00 44 59.4	-3.7
CACAO	El Cacao, Vera	2.29	103	eP	Pn	00 45 00.3	-2.8
CACAO				eS	Sn	00 45 30.2	-1.5
CALO3	Calobre, Verag	2.29	79	i P	Pn	00 45 03.4	+0.3
CALO3				eS	Sn	00 45 31.4	-0.4
HDC	Heredia	2.34	335		Pn	00 45 04.0	+0.1
TCS1	Tacares	2.46	332	P	Pn	00 45 06.5	+1.0
AZU	Azuero	2.81	91	P	Pn	00 45 10.2	-0.1
AZU	Azuero	2.81	91	⇑iP	Pn	00 45 10.4	+0.1
PNME	Penonome	2.83	77	P	Pn	00 45 11.2	+0.7
JTS	Las Juntas de	3.01	323	Pn	Pn	00 45 12.5	-0.6
	38nm,0.3s,baz=145,slow=2.3,SNR=108						
JTS				Sn	Sn	00 45 48.3	-1.3
	26nm,0.3s,baz=156,slow=22,SNR=6.6						
	116nm,0.4s						
JTS				AML	AML		
JTS	Las Juntas de	3.01	323	P	Pn	00 45 12.3	-0.8
JTS	Las Juntas de	3.01	323	P	Pn	00 45 12.7	-0.4
JTS				S	Sn	00 45 48.9	-0.7
JTS	Las Juntas de	3.01	323	eP	Pn	00 45 13.9	+0.8
JTS				eS	Sn	00 45 49.2	-0.4
COVE	Coope Vega, Sa	3.10	336	P	Pn	00 45 15.1	+0.8
COVE				S	Sn	00 45 51.8	+0.1
CMARA	Lajas Hojancha	3.13	313	P	Pn	00 45 14.5	-0.1
CMARA				S	Sn	00 45 51.6	-0.8
JUD3	Juan Diaz 3	3.31	314		Pn	00 45 16.8	-0.4
BCIP	Isla Barro Col	3.49	68	P	Pn	00 45 21.0	+1.4
BCIP	Isla Barro Col	3.49	68	eP	Pn	00 45 19.8	+0.2
BCIP				eS	Sn	00 45 59.8	-1.4
GAMB1	Gamboa	3.59	69	eP	Pn	00 45 22.3	+1.3
UPA	Univ. de Panam	3.71	72	P	Pn	00 45 24.8	+2.2
CARN	Rivas	4.06	324		Pn	00 45 27.6	+0.1
BLUN	Bluefields	4.16	351	P	Pn	00 45 27.4	-1.4
OMEN	Al SSO del Vol	4.38	326	P	Pn	00 45 31.5	-0.5
JAPN	Al SSO del Vol	4.43	325	P	Pn	00 45 34.0	+1.5
BOAB	BOACO BROADBAN	5.20	331		Pn	00 45 43.2	+0.1
BOAB	BOACO BROADBAN	5.20	331	P	Pn	00 45 44.1	+0.9
BOAB				S	Sn	00 46 42.0	-1.5
PTAC	Punta Ardita,	5.31	97	P	Pn	00 45 42.6	-2.1
	2µm56nm,0.8s						
PTAC				AML	AML		
PRVC	Isla de Provid	5.74	17	P	Pn	00 45 51.1	+0.6
	103nm,0.8s						
PRVC				AML	AML		
CNGN	Cerro Negro	5.80	323	P	Pn	00 45 50.9	-0.5
	671nm,0.8s						
CNGN				AML	AML		
CNGN	Cerro Negro	5.80	323	P	Pn	00 45 53.1	+1.7
CNGN				S	Sn	00 46 59.1	+0.8
SIUN	Universidad Ur	6.04	344	Pn	Pn	00 45 54.8	+0.2
BILN	Bilwi Airport	6.15	358	Pn	Pn	00 45 57.1	+1.0
CRIN	San Cristobal	6.17	321		Pn	00 45 57.7	+1.1
CRIN	San Cristobal	6.17	321	P	Pn	00 45 57.8	+1.3
	202nm,0.8s						
CRIN				AML	AML		
APAC	Apartado, Choc	6.47	89	P	Pn	00 46 06.4	+5.7
	20nm,1.0s						
DBBC	Dabeiba	6.90	97	P	Pn	00 46 07.2	+0.6
CBOC	Ciudad Bolivar	7.33	105	P	Pn	00 46 12.0	-0.6
	11nm,0.6s						
TGUH	Tegucigalpa,Un	7.38	327	Pn	Pn	00 46 14.5	+1.2
TGUH	Tegucigalpa,Un	7.38	327	P	Pn	00 46 14.5	+1.2
	58nm,0.7s						
UREC	San Jos de Ur	7.51	90	P	Pn	00 46 14.9	-0.1
	8.1nm,0.9s						
PACA	Pacayal	7.56	318	P	Pn	00 46 18.1	+2.4
HELC	Santa Helena	7.71	102	P	Pn	00 46 18.5	+0.5
	11nm,0.9s						
SJCC	San Jacinto, C	8.10	75	P	Pn	00 46 15.5	-7.5
	12nm,0.7s						
GUY2C	Guyana, Caldas	8.13	108	P	Pn	00 46 25.0	+1.1
	19nm,0.9s						
BBAC	Balboa, Cauca	8.24	135	P	Pn	00 46 23.0	-2.1
	19nm,0.8s						
POPC	Popayan, Colom	8.31	129	P	Pn	00 46 27.7	+1.5
	20nm,1.2s						
PMON	Piamonte	8.41	314	P	Pn	00 46 30.1	+2.7
PTBC	PUERTO BERRIO,	8.69	98	P	Pn	00 46 32.9	+1.7
	8.7nm,2.1s						
ORTC	Ortega, Tolima	8.76	116	P	Pn	00 46 34.5	+2.4
	22nm,1.0s						
NUBE	Las Nubes	8.88	313	P	Pn	00 46 35.7	+1.9
MTO3	Montecristo	8.93	317		Pn	00 46 35.0	+0.5
PRAC	Prado	9.17	116	P	Pn	00 46 39.3	+1.6
	20nm,0.4s						
BETC	Betania	9.21	124	P	Pn	00 46 40.2	+1.8
SPBC	San Pablo de B	9.25	103	P	Pn	00 46 39.1	+0.3
	6.3nm,1.1s						
GARC	Garzon, Huila	9.46	126	P	Pn	00 46 44.1	+2.2
	20nm,0.7s						
SLOR	San Lorenzo -	9.70	151		Pn	00 46 47.5	+2.0
CHIC	Chingaza	9.87	108	P	Pn	00 46 49.7	+2.1
VILC	Villavicencio,	10.08	111	P	Pn	00 46 54.1	+3.7
APG	El Apazote	10.11	315	Pn	Pn	00 46 53.8	+3.1
	0.2nm,0.3s,baz=156,slow=11,SNR=7.9						
	1.1nm,0.5s						
APG				AML	AML		
MTDJ	Mount Denham	11.64	27	Pn	Pn	00 47 11.6	0.0
CZSB	Cruzeiro do Su	18.65	146	P	P	00 48 43.7	+0.2
CZSB				IAmb	IAmb	00 48 53.1	
	comp=Z,18nm,0.4s						
CELP	Cerrillos	19.02	56	P	Pn	00 48 48.7	+0.5
ECPR	Experimental S	19.32	56	P	Pn	00 48 52.0	+0.1
NNA	Nana	20.69	162	P	Pn	00 49 07.7	-0.5
	comp=Z,15nm,0.7s,baz=336,slow=11,SNR=5.1						
	comp=Z,15nm,0.7s						
MACA	Manacapuru-AM	24.92	115	P	P	00 49 49.1	+0.2
MACA				IAmb	IAmb	00 49 50.1	
	comp=Z,15nm,0.8s						
146A	Union	25.25	348	P	P	00 49 51.9	+0.2
LRAL	Lakeview Retre	25.30	352	P	P	00 49 52.6	+0.5
GOGA	Godfrey	25.42	359	P	P	00 49 53.6	+0.3
GOGA				IAmb	IAmb	00 49 58.1	
	comp=Z,15nm,1.2s						
HODGE	Hodges	26.25	2	P	P	00 50 00.7	-0.1
HODGE				IAmb	IAmb	00 50 06.3	
	comp=Z,10nm,1.1s						
LPAZ	La Paz	28.21	148	P	P	00 50 19.6	+0.3
	comp=Z,1.9nm,0.8s,baz=349,slow=11,SNR=2.7						
	comp=Z,1.9nm,0.8s						
LPAZ	La Paz	28.21	148	P	P	00 50 18.7	-0.6
WHAR	Wooly Hollow	28.56	344	P	P	00 50 21.4	-0.1
WHAR				IAmb	IAmb	00 50 28.7	
	comp=Z,15nm,1.4s						
CCM	Cathedral Cave	30.94	347	P	P	00 50 41.9	-0.7
CCM				IAmb	IAmb	00 50 47.0	
	comp=Z,9.3nm,0.8s						
S39A	Bolivar	31.10	344	P	P	00 50 42.9	-1.1
S39A				IAmb	IAmb	00 50 48.5	
	comp=Z,6.9nm,0.9s						
SIV	San Ignacio	32.22	137	P	P	00 50 54.4	+0.2
	comp=Z,5.8nm,0.8s,baz=312,slow=8.4,SNR=14						
	comp=Z,5.8nm,0.8s						
121A	Cookes Peak, D	33.56	320	P	P	00 51 07.4	+1.5
121A				IAmb	IAmb	00 51 14.2	
	comp=Z,8.2nm,0.9s						
Y14A	Wickenburg	37.85	318	P	P	00 51 43.8	+1.2
VES	Vestal, Richgr	43.05	316	P	P	00 52 26.5	+1.0
VES				IAmb	IAmb	00 52 33.2	
	comp=Z,23nm,1.3s						
ULM	Lac du Bonnet	43.56	348	P	P	00 52 30.2	+0.7
	comp=Z,5.3nm,1.0s,baz=150,slow=11,SNR=3.5						
	comp=Z,5.3nm,1.0s						
NVAR	Mina Array Bea	43.94	319	P	P	00 52 35.2	+2.3
	comp=Z,1.9nm,0.8s,baz=139,slow=7.7,SNR=5.6						
	comp=Z,1.9nm,0.8s						
NVAR	Mina Array Bea	43.94	319	P	P	00 52 33.4	+0.5
BMN	Battle Mountai	44.44	322		P	00 52 37.8	+1.0
BMN				IAmb	IAmb	00 52 43.7	
	comp=Z,12nm,0.9s						
HLID	Hailey	44.87	328		P	00 52 40.5	+0.3
ORV	Oroville	46.64	319	P	P	00 52 55.0	+0.9
ORV				IAmb	IAmb	00 53 05.1	
	comp=Z,5.6nm,1.1s						
YBH	Yreka Blue Hor	48.58	320	LR	LR	01 17 14.0	
	comp=Z,881nm,21.5s,baz=279,slow=40						
YKA	Yellowknife Ar	59.16	344	P	P	00 54 25.7	-0.4
	comp=Z,2.0nm,0.8s,baz=141,slow=6.8,SNR=5.0						
	comp=Z,2.0nm,0.8s						
VRDI	Verde Repeater	69.13	333	P	P	00 55 32.8	+0.9
VRDI				IAmb	IAmb	00 55 39.8	
	comp=Z,4.3nm,0.8s						
BCAR	Beaver Creek A	69.17	335		P	00 55 33.5	+1.6
BMRM	Bremner River	69.55	333		P	00 55 36.1	+1.7
F28M	Old Crow	70.51	340	P	P	00 55 41.8	+1.6
F28M				IAmb	IAmb	00 55 49.1	
	comp=Z,3.2nm,0.8s						
SCM	Sheep Creek Mo	71.08	333	P	P	00 55 44.1	+0.3
ILAR	Eielson Array	71.91	336	P	P	00 55 50.0	+1.3
	comp=Z,3.3nm,0.7s,baz=114,slow=4.5,SNR=26						
	comp=Z,3.3nm,0.7s						
ILAR	Eielson Array	71.91	336		P	00 55 49.3	+0.7
RND	Reindeer	72.26	334		P	00 55 51.6	+0.8
SUA	Susitna One	72.52	332	P	P	00 55 53.2	+0.7
G24K	Hadweenzic Riv	72.82	338	P	P	00 55 54.6	+0.5
G24K				IAmb	IAmb	00 56 00.7	
	comp=Z,5.2nm,1.1s						
MLY	Manley	73.55	336		P	00 55 59.3	+0.9
MLY				IAmb	IAmb	00 56 04.2	
	comp=Z,4.7nm,0.9s						
ESDC	Sonseca Array	76.68	51	P	P	00 56 16.9	-0.1
	comp=Z,0.9nm,0.8s,baz=277,slow=5.5,SNR=4.9						
	comp=Z,0.9nm,0.8s						
HHC	Hu-ho-hao-te	129.67	346	eP	PKPdf	01 03 30.4	-5.1
NJ2	Nanjing	135.10	333	eP	PKPdf	01 03 45.0	-0.8
NJ2				pmax	pmax		
	comp=Z,34nm,1.0s						
ASAR	Alice Springs	141.22	242	PKhKP	PKPpre	01 03 50.5	
	comp=Z,0.4nm,0.6s,baz=120,slow=4.2,SNR=6.0						
ASAR				PKP	PKPdf	01 03 57.0	-0.3
	comp=Z,0.9nm,0.7s,baz=118,slow=2.6,SNR=6.6						
ASAR	Alice Springs	141.22	242		PKPdf	01 03 55.9	-1.4
WRA	Warramunga Arr	141.81	248	PKhKP	PKPpre	01 03 52.5	
	comp=Z,1.3nm,0.9s,baz=113,slow=2.6,SNR=5.3						
WRA				PKP	PKPdf	01 03 58.5	0.0
	comp=Z,1.0nm,0.7s,baz=103,slow=1.7,SNR=4.5						
MTN	Manton Dam	145.97	259	PKPdf	PKPdf	01 04 04.8	-1.0
FITZ	Fitzroy Crossi	150.24	247	PKPbc	PKPbc	01 04 16.9	-0.9

IDC ***06*** *00:53:57.4±1.3, 47°.68N×25°.24E, h0^{km}, mb3.1/1, mbtmp3.1/5, ML2.1/4, Error ellipse: s-maj=19.2km s-min=11.7km az=102.0*

BUC ***06*** *00:53:59.2±0.1, 47°.59N×25°.25E, h2^{km}, ml3.0/48, Error ellipse: s-maj=1.3km s-min=0.8km az=8.0*

SIGU ***06*** *00:53:59.2±0.1, 47°.6N±0°.4×25°.3E±0°.6, h3^{km}, mb2.5/5, MD2.9/15*

MCSM ***06*** *00:54:03.8±0.8, 47° N±2°×2° 5E±°, h15^{km}±7^{km}, mb3.9, MLv3.0*

ISC 06 00:53:59.7±0.8**, 47°.58N**±0°.02×**25°.26E**±0°.02**, h8**^{km}±6^{km}**, n100, σ0^{s}.91**/145**, 46C-39D, Romania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BURAR	Bucovina Array	0.04	322	⇓P	Pg	00 54 01.2	-0.2
BURAR				⇓S	Sg	00 54 03.3	+0.6
BURAR				AML	AML		
BURAR				AML	AML		
PRAR	RASCA	0.69	108	⇓P	Pg	00 54 12.0	-1.1
PRAR				⇓S	Sg	00 54 22.6	+0.5
PRAR				AML	AML		
PRAR				AML	AML		
KSV	Kosov	0.75	350	ePg	Pb	00 54 15.6	+0.6
ARCR	ARCALIA	0.79	232	⇑P	Pg	00 54 13.9	-1.0
ARCR				⇓S	Sg	00 54 24.8	-0.3
ARCR				AML	AML		
ARCR				AML	AML		
NSLU	Nyzhne Selyshc	0.82	319	ePg	Pn	00 54 25.2	+7.6
NSLU				pmax	pmax	00 54 31.7	
NSLU				eSg	Sn	00 54 44.2	+14
NSLU				smax	smax	00 54 50.1	
CHRU	Chernivtsi	0.85	32	ePg	Pb	00 54 16.4	-0.3
CHRU				pmax	pmax	00 54 18.1	
CHRU				eSg	Sb	00 54 28.0	-0.2
CHRU				smax	smax	00 54 29.5	
RAKU	Rahkiv	0.86	302	ePg	Pb	00 54 16.9	-0.1
BIZ	Bicaz	0.86	138	⇑P	Pg	00 54 15.4	-0.9
BIZ				⇑S	Sg	00 54 27.9	+0.4
BIZ				AML	AML		
BIZ				AML	AML		
GIRR	Girov	1.05	126	⇑P	Pg	00 54 19.2	-0.7
GIRR				⇓S	Sb	00 54 34.2	0.0
GIRR				AML	AML		
GIRR				AML	AML		
DRBR	Darabani	1.10	55	⇓P	Pg	00 54 20.1	-0.8
DRBR				⇑S	Sb	00 54 35.4	-0.3
DRBR				AML	AML		
DRBR				AML	AML		
TGMR	Targu Mures	1.17	206	⇑P	Pg	00 54 21.5	-0.6
TGMR				⇑S	Sn	00 54 38.2	-0.4
TGMR				AML	AML		
TGMR				AML	AML		
BMR	Baia Mare	1.20	275	⇑S	Sg	00 54 37.9	-0.3
BMR				AML	AML		
STNU	Starunia	1.24	336	ePg	Pg	00 54 23.5	0.0
KMPD	K-Podol'skiy	1.27	39	ePg	Pn	00 54 22.9	-0.9
KMPD				eSg	Sb	00 54 40.2	-0.3
KMPD	K-Podol'skiy	1.27	39	Pn	Pn	00 54 22.4	-1.4
CJR	Cluj-Napoca	1.43	233	⇑P	Pn	00 54 25.7	-0.3
CJR				⇓S	Sg	00 54 45.7	+0.2
CJR				AML	AML		
CJR				AML	AML		
TESR	Tescani	1.43	138	⇑P	Pn	00 54 25.9	-0.1
TESR				⇓S	Sg	00 54 46.3	+0.6
TESR				AML	AML		
TESR				AML	AML		
TESR	Tescani	1.43	138	Pn	Pn	00 54 26.3	+0.3
ONER	Baraj Valea Uz	1.47	148	⇑P	Pn	00 54 26.8	+0.2
ONER				⇓S	Sg	00 54 47.5	+0.6
ONER				AML	AML		
ONER				AML	AML		
MEZ	Mezhgor'ye	1.50	309	ePg	Pb	00 54 27.4	-0.4
MEZ				pmax	pmax	00 54 31.8	

MEZ				*e*Sg	Sg	00 54 48.0	+0.2
MEZ				smax	smax	00 54 58.2	
OZUR		1.53	166	⇑S	Sg	00 54 49.6	+0.7
OZUR				AML	AML		
BOSR	Bodos	1.53	169	⇑S	Sg	00 54 49.9	+1.0
BOSR				AML	AML		
KORU	Korolevo	1.54	293	*e*Pg	Pn	00 54 27.8	+0.2
KORU				pmax	pmax	00 54 35.0	
KORU				*e*Sg	Sg	00 54 49.0	-0.3
KORU				smax	smax	00 54 59.6	
MDB	Medias	1.56	203	⇓P	Pn	00 54 27.9	+0.1
MDB				⇓S	Sg	00 54 49.6	-0.3
MDB				AML	AML		
MDB				AML	AML		
TURR	Turia	1.61	161	⇓P	Pn	00 54 28.4	-0.1
TURR				⇓S	Sg	00 54 51.7	+0.2
TURR				AML	AML		
TURR				AML	AML		
DOPR	Dopca	1.62	177	⇑P	Pn	00 54 28.1	-0.5
DOPR				⇑S	Sb	00 54 51.1	+0.8
DOPR				AML	AML		
DOPR				AML	AML		
IASR	Iasi	1.62	103	⇓P	Pn	00 54 28.2	-0.5
IASR				AML	AML		
MESR	Meseseni	1.63	256	⇑P	Pn	00 54 29.3	+0.6
MESR				⇓S	Sg	00 54 52.1	+0.1
MESR				AML	AML		
MESR				AML	AML		
BRIU	Brid	1.68	298	*e*Pg	Pb	00 54 30.3	-0.7
MARR	Marisel-Cluj	1.72	239	⇓P	Pn	00 54 29.8	-0.3
MARR				⇑S	Sb	00 54 53.4	0.0
MARR				AML	AML		
MARR				AML	AML		
NDNU	Novodnistrovsk	1.74	54	*e*Pg	Pb	00 54 31.2	-0.8
MORS	Morshin	1.80	330	*e*Pg	Pn	00 54 31.9	+0.8
MORS				*e*Sg	Sb	00 54 55.8	+0.1
HORU	Horodok	1.81	25	*e*Pg	Pn	00 54 32.1	+0.8
HORU				pmax	pmax	00 54 35.4	
HORU				*e*Sg	Sb	00 54 56.0	0.0
HORU				smax	smax	00 55 02.0	
COVR	Voineasa-Covas	1.85	159	⇓P	Pn	00 54 32.6	+0.7
COVR				⇑S	Sb	00 54 57.9	+0.6
BERU	Beregovo	1.88	291	*e*Pg	Pn	00 54 32.7	+0.6
BERU				*e*Sg	Sb	00 54 57.6	-0.2
CEI	Carei	1.90	274	⇓P	Pn	00 54 32.9	+0.5
CEI				⇑S	Sb	00 54 57.6	-0.9
CEI				AML	AML		
CEI				AML	AML		
DRGR		1.91	247	⇑P	Pn	00 54 32.3	-0.4
DRGR				⇓S	Sb	00 54 59.3	+0.5
DRGR				AML	AML		
DRGR				AML	AML		
MUKU	Mukachevo	1.93	298	*e*Pg	Pn	00 54 33.5	+0.6
MUKU				*e*Sg	Sg	00 55 03.5	+1.7
VASR	Vaslui	1.97	118	⇑P	Pn	00 54 33.6	+0.2
VASR				⇑S	Sb	00 54 59.7	-0.9
VASR				AML	AML		
VASR				AML	AML		
PLOR	Plostina	1.98	151	⇑P	Pn	00 54 33.7	+0.2
VRI	Vrincioaia	1.99	149	⇑P	Pn	00 54 33.2	-0.6
VRI				⇑S	Sn	00 55 00.1	+1.2
VRI				AML	AML		
VRI				AML	AML		
VRI	Vrincioaia	1.99	149	Pn	Pn	00 54 33.4	-0.3
TNR	Turnu Rosu	2.04	200	⇑P	Pn	00 54 35.3	+0.8
TNR				⇑S	Sb	00 55 02.0	-0.7
TNR				AML	AML		
TNR				AML	AML		
SAHR	Sahastru	2.10	152	⇑P	Pn	00 54 35.1	-0.2
SAHR				AML	AML		
GHRR		2.12	135	⇓P	Pn	00 54 36.2	+0.7
GHRR				⇓S	Sb	00 55 04.1	-0.7
GHRR				AML	AML		
GHRR				AML	AML		
GHRR		2.12	135	Pn	Pb	00 54 38.5	+0.1
MLR	Muntele Rosu	2.14	167	Pn	Pn	00 54 35.4	-0.5
	1.0nm,0.3s,baz=271,slow=22,SNR=5.6						
MLR				Lg	Lg	00 55 13.4	
	0.9nm,0.3s,baz=120,slow=23,SNR=3.4						
	3.4nm,0.4s						
MLR				AML	AML		
MLR	Muntele Rosu	2.14	167	⇓P	Pn	00 54 35.5	-0.4
MLR				⇓S	Sb	00 55 05.1	-0.5
MLR				AML	AML		
MLR				AML	AML		
MLR	Muntele Rosu	2.14	167	Pn	Pn	00 54 36.6	+0.7
MLR				AML	AML		
VOIR		2.15	184	⇓P	Pn	00 54 35.9	-0.1
VOIR				⇑S	Sb	00 55 05.4	-0.4
VOIR				AML	AML		
VOIR				AML	AML		
VOIR		2.15	184	Pn	Pn	00 54 34.7	-1.3
VOIR				AML	AML		
SORM	Soroca	2.16	74	S	Sn	00 55 04.3	+1.4
SORM	Soroca	2.16	74	⇓S	Sn	00 55 04.4	+1.4
SORM				AML	AML		
ODBI	Odobesti	2.20	145	⇓S	Sb	00 55 06.4	-0.8
ODBI				AML	AML		
ARR	Arges	2.25	191	⇓P	Pn	00 54 38.2	+0.8
ARR				AML	AML		
NEHR	Nehoiu	2.27	161	⇓P	Pn	00 54 38.1	+0.5
NEHR				⇑S	Sb	00 55 07.9	-1.3
STZU	Stuzhytsa	2.27	310	*e*Pg	Pn	00 54 38.4	+0.8
DEV	Deva	2.35	225	⇑P	Pn	00 54 38.6	0.0
DEV				⇑S	Sb	00 55 09.7	-1.7
DEV				AML	AML		
DEV				AML	AML		
MTUR	Matau	2.36	183	⇑P	Pn	00 54 40.0	+1.1
LOT	Lotru	2.37	206	⇓S	Sn	00 55 09.6	+1.3
LOT				AML	AML		
KOLS	Kolonicke sedl	2.41	305	*e*PN	Pn	00 54 40.8	+1.3
BORR	Bors	2.41	260	⇓P	Pn	00 54 39.4	-0.2
BORR				⇓S	Sn	00 55 10.9	+1.7
BORR				AML	AML		
BORR				AML	AML		
VARL	Varlezi	2.45	132	⇑P	Pn	00 54 39.8	-0.2
VARL				⇑S	Sb	00 55 12.5	-1.9
VARL				AML	AML		
VARL				AML	AML		
KIS	Kishinev	2.49	102	S	Sn	00 55 12.9	+1.7
KIS	Kishinev	2.49	102	⇑S	Sn	00 55 13.0	+1.7
KIS				AML	AML		
KIS	Kishinev	2.49	102	Pn	Pg	00 54 48.0	+0.5
KIS				AML	AML		
VLDR	Vladesti	2.60	131	⇑P	Pn	00 54 42.7	+0.5
VLDR				⇑S	Sn	00 55 15.7	+1.7
VLDR				AML	AML		
VLDR				AML	AML		
KWP	Kalwaria Pacla	2.66	321	Pn	Pb	00 54 47.8	+0.2
KWP				AML	AML		
TATR	Tatarca	2.76	135	⇓S	Sn	00 55 19.6	+1.7
TATR				AML	AML		
GZR	Gura Zlata	2.78	219	⇓P	Pn	00 54 44.5	-0.1
GZR				⇓S	Sn	00 55 20.6	+2.2
GZR				AML	AML		
GZR				AML	AML		
LUBAR	Lubar, Ukraine	2.87	34	P	Pb	00 54 51.0	-0.1
LUBAR				Pn	Pb	00 54 51.1	-0.1
BAL3X	Bal3x, Balta	2.95	81	Pn	Pb	00 54 53.5	+0.9
BZS	Buzias	3.19	233	⇓P	Pn	00 54 49.4	-0.8
BZS				⇑S	Sn	00 55 29.8	+1.4
STHS	Stebnicka Huta	3.24	306	*e*PN	Pn	00 54 51.4	+0.5
KECS	Kecovo	3.33	288	*e*PN	Pn	00 54 51.9	-0.2
KECS				*e*SN	Sn	00 55 33.4	+1.6
AMBH	Ambrzfalva	3.34	250	⇑P	Pn	00 54 52.8	+0.5
AMBH				AML	AML		
HERR	Herculane	3.34	217	⇓P	Pn	00 54 52.7	+0.4
HERR				⇑S	Sn	00 55 33.7	+1.5
TLCR		3.43	133	⇑P	Pn	00 54 54.3	+0.7
TLCR				⇓S	Sn	00 55 36.6	+2.2
TPGR	Topolog	3.50	140	⇑P	Pn	00 54 55.5	+1.0
TPGR				⇑S	Sn	00 55 38.2	+2.2
PSZ	Piszkesteto	3.63	277	⇑P	Pn	00 54 56.5	+0.1
PSZ				⇓S	Sn	00 55 39.9	+0.4
RNPP5	Staryi Chortor	3.68	6	Pn	Pb	00 55 06.6	+1.7
MDVR	Moldovita	3.73	223	⇑P	Pn	00 54 57.5	-0.2
NIE	Niedzica	3.77	301	Pn	Pn	00 54 59.8	+1.5
NIE				AML	AML		
AK05	Malin Array Si	4.00	39	Pn	Pb	00 55 11.3	+0.9
AK20	Malin Array Si	4.01	36	Pn	Pb	00 55 10.5	-0.1
AK18	Malin Array Si	4.02	37	Pn	Pb	00 55 10.9	+0.2
AK02	Malin Array Si	4.03	39	Pn	Pb	00 55 11.9	+1.0
AK09	Malin Array Si	4.03	40	Pn	Pb	00 55 12.0	+1.1
AK08	Malin Array Si	4.03	39	Pn	Pb	00 55 11.3	+0.4
AK21	Malin Array Si	4.05	36	Pn	Pb	00 55 11.5	+0.2
AK22	Malin Array Si	4.05	37	Pn	Pb	00 55 11.4	+0.1
KIEV	Kiev	4.05	38	Pn	Pb	00 55 12.1	+0.7
KIEV				AML	AML		
AKASG	Malin Array Be	4.07	38	Pn	Pn	00 54 59.9	-2.4
	1.3nm,0.3s,baz=216,slow=13,SNR=5.1						
AKASG				Sn	Sn	00 55 48.5	-1.5
	5.4nm,0.3s,baz=227,slow=24,SNR=8.8						
AKASG				Lg	Lg	00 56 04.8	
	13nm,0.3s,baz=218,slow=30,SNR=15						
	0.3nm,0.3s						
AKASG				AML	AML		
AKBB	Malin Array Si	4.07	38	Pn	Pb	00 55 12.1	+0.5
VYHS	Vyhne	4.40	284	*e*PN	Pn	00 55 06.5	-0.4
VYHS				*e*SN	Sn	00 55 58.3	-0.1
KSP	Ksiaz	6.72	302	Pn	Pn	00 55 40.9	+2.2
KSP				AML	AML		
NACGM	Naroch	7.40	7	*e*P	Pn	00 55 48.8	+0.9
	comp=Z,5.0nm,0.8s,baz=188						
GERES	GERESS Array B	7.82	284	Pn	Pn	00 55 53.5	-0.5
	baz=100,slow=15,SNR=3.2						
	comp=Z,0.4nm,0.3s						
FINES	FINESS Array B	13.90	2	Pn	Pn	00 57 09.4	-7.4
	comp=Z,0.1nm,0.3s,baz=172,slow=10,SNR=5.2						
FINES				Sn	Sn	00 59 40.0	-11
	comp=Z,0.1nm,0.3s,baz=184,slow=18,SNR=2.1						
	comp=Z,1.3nm,0.7s						
FINES				AML	AML		
ARCES	ARCESS Array B	22.02	0	P	P	00 58 51.9	-2.3
	comp=Z,0.5nm,0.5s,baz=181,slow=12,SNR=4.3						
	comp=Z,0.5nm,0.5s						

CATAC ***06*** *01:00:38.8±1.1, 8°N±6°×8°3W±°, h5^{km}±2^{km}, M3.9/7, MLv3.9/7, Error ellipse: s-maj=13.3km s-min=5.9km az=173.3, confirmed*

UCR ***06*** *01:00:41.7±0.8, 8.°32N×83.°05W, h7^{km}±4^{km}, MW4.1, Presumed earthquake*

UPA ***06*** *01:00:41.1±1.3, 8.°26N×83.°06W, h16^{km}, MW4.0, Fault plane solution: NP1:ϕ_s82.00000°, δ58.00000°, λ-22.00000°., Presumed earthquake*

ISC 06 01:00:40.8±1.0, **8.°22N**±0.°04×**83.°07W**±0.°02, **h27**^{km}±6^{km}, **n56**, σ**1^{s}24**/82, **2C-10D**, **Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTPM	Petroterminale	0.19	96	⇑*i*P	Pb	01 00 46.8	+0.2
PTPM				*e*S	Sb	01 00 52.2	+1.7
PTPA	Petro Terminal	0.20	97	*e*P	Pb	01 00 46.7	0.0
PTPA				*e*S	Sb	01 00 51.6	+0.9
LMNES	Limones	0.24	120	*e*P	Pn	01 00 48.1	-0.6
LMNES	Limones	0.24	120	*e*P	Pn	01 00 48.1	-0.6
LMNES				*e*S	Sb	01 00 51.1	-0.4
PIRO	Carate, Puerto	0.32	304	P	Pb	01 00 48.0	-0.2
PIRO				S	Sb	01 00 53.9	+0.6
PIRO	Carate, Puerto	0.32	304	*e*P	Pb	01 00 47.8	-0.5
PIRO	Carate, Puerto	0.32	304	⇑*i*P	Pb	01 00 47.9	-0.3
PIRO				*e*S	Sb	01 00 53.2	-0.1
CDITO	Canoas	0.40	29	P	Pb	01 00 48.3	-1.2
CDITO				S	Sb	01 00 55.3	-0.1
JIME	Puerto Jimenez	0.40	321	*e*P	Pb	01 00 48.9	-0.7
FITO	Golfito	0.41	348	*e*P	Pb	01 00 47.9	-1.7
FITO				*e*S	Sb	01 00 53.0	-2.7
NELY	Ciudad Neily	0.44	16	*e*P	Pb	01 00 48.8	-1.4
NELY	Ciudad Neily	0.44	16	⇓*i*P	Pb	01 00 49.0	-1.2
NELY				*e*S	Sb	01 00 57.1	+0.6
VITO	San Vito	0.60	9	⇓*i*P	Pb	01 00 52.2	-0.7
VITO				*e*S	Sn	01 01 02.2	-0.5
MLIR3	Monte Lirio, C	0.62	23	*i* P	Pb	01 00 52.6	-0.5
MLIR3				*e*S	Sb	01 01 01.6	0.0
DVD	David	0.65	71	⇓*i*P	Pb	01 00 53.3	-0.3
DVD				*e*S	Sb	01 01 02.3	0.0
SCLRA	Santa Clara, W	0.67	25	*e*P	Pb	01 00 53.3	-0.8
SCLRA	Santa Clara, W	0.67	25	⇓*i*P	Pb	01 00 53.5	-0.6
BRU2	Volcan	0.68	33	P	Pb	01 00 53.3	-1.0
BRU2				S	Sb	01 01 03.3	0.0
BRU2	Volcan	0.68	33	*e*P	Pb	01 00 53.5	-0.7
BRU2	Volcan	0.68	33	⇓*i*P	Pb	01 00 53.5	-0.7
BRU2				*e*S	Sn	01 01 04.6	-0.1
CLLRA	Cordillera,	0.69	41	*e*P	Pb	01 00 53.7	-0.6
CLLRA	Cordillera,	0.69	41	⇓*i*P	Pb	01 00 53.8	-0.6
CLLRA				*e*S	Sn	01 01 04.8	-0.1
LOMA3	Las Lomas, Chi	0.70	73	*e*P	Pb	01 00 54.0	-0.5
LOMA3				*e*S	Sb	01 01 04.3	+0.5
CHIR3	Chiriqui UPA,	0.75	77	*e*P	Pb	01 00 54.8	-0.5
CHIR3				*e*S	Sb	01 01 05.1	-0.1
BGUAL	Bijagual, Pana	0.78	69	⇓*i*P	Pb	01 00 55.6	-0.3
BGUAL				*e*S	Sn	01 01 07.2	+0.2
EDP2	Potrero Grande	0.80	352	*e*P	Pb	01 00 55.4	-0.7
BQTLY	Boquete Panama	0.80	49	*e*P	Pb	01 00 55.5	-0.8
BQTLY	Boquete Panama	0.80	49	⇓*i*P	Pb	01 00 55.5	-0.8
BQSF3	Alto Boquete,	0.81	51	*i* P	Pb	01 00 55.7	-0.8
BQSF3				*e*S	Sb	01 01 07.5	+0.4
PANP	Palmar Norte	0.83	332	*e*P	Pb	01 00 55.8	-0.9
LNBQ3	Los Naranjos,	0.84	48	*i* P	Pb	01 00 55.8	-1.1
LNBQ3				*e*S	Sb	01 01 07.6	-0.3
BURE	Buenos Aires	0.98	344	*e*P	Pn	01 00 58.5	-0.4
EDPE	Pejibaye, P	1.05	332	*e*P	Pn	01 00 59.4	-0.6
RBALA	Bur	1.12	54	*e*P	Pn	01 01 00.6	-0.1
RBALA	Bur	1.12	54	⇓*i*P	Pn	01 01 00.7	-0.1
RBALA				*e*S	Sb	01 01 15.7	0.0
KKNTU	Kakintº	1.39	64	*e*P	Pn	01 01 04.7	+0.2
KKNTU	Kakintº	1.39	64	⇓*i*P	Pn	01 01 04.8	+0.2
KKNTU				*e*S	Sb	01 01 23.0	-0.6
RGM0	Gandoca	1.43	19	P	Pb	01 01 07.2	+0.2
RGM0				S	Sb	01 01 29.6	+4.8
QUEP	Quepos	1.62	318	S	Sb	01 01 31.4	+1.4
SVQ2	Quepos	1.62	318	*e*P	Pb	01 01 11.3	+1.3
PIEC	Cerro El Cedra	1.64	328	*e*P	Pb	01 01 10.0	-0.7
RAZU	San Marcos de	1.71	327	*e*P	Pb	01 01 11.9	+0.2
LCR2	La Lucha 2	1.77	329	P	Pb	01 01 11.5	-1.3
LCR2				S	Sb	01 01 36.2	+1.6
LCR2	La Lucha 2	1.77	329	*e*P	Pb	01 01 11.8	-1.0
PICV	PH. Pirrs	1.78	322	*e*P	Pb	01 01 12.2	-0.7
ABRB	Las Abras (San	1.88	340	*e*P	Pb	01 01 13.7	-1.0
ACOS	Acosta	1.90	325	*e*P	Pb	01 01 14.1	-0.8
VBV1	V. Barva	2.14	332	*e*P	Pb	01 01 17.6	-1.5
TCS1	Tacares	2.18	326	P	Pb	01 01 18.3	-1.4
CACAO	El Cacao, Vera	2.36	112	*e*P	Pn	01 01 17.7	-0.1
JTS	Las Juntas de	2.77	318	P	Pb	01 01 27.3	-2.4
JTS				S	Sb	01 02 01.2	-2.1
AZU	Azuero	2.80	99	*e*P	Pn	01 01 23.3	-0.7
COVE	Coope Vega, Sa	2.81	332	P	Pn	01 01 26.4	+2.4
COVE				S	Sb	01 02 08.5	+4.2
CMARA	Lajas Hojancha	2.93	308	P	Pn	01 01 27.0	+1.2
CMARA				S	Sb	01 02 06.4	-1.5
UPAL	Upala	3.28	324	S	Sb	01 02 19.5	+1.8
BCIP	Isla Barro Col	3.33	73	S	Sb	01 02 22.1	+2.7

NDI ***06*** *01:08:53.1±1.3, 9.°90N×94.°08E, h82^{km}, ML4.0, MW4.2, Presumed earthquake*

IDC ***06*** *01:08:54.6±1.4, 10.°67N×94.°32E, h0^{km}, mb3.8/7, mbtmp3.8/8, ML2.7/1, MS4.7/1, Error ellipse: s-maj=44.6km s-min=18.6km az=66.0*

BKK ***06*** *01:08:56.5±0.6, 11°N±6°×9°4E±°, h10^{km}, M4.0/7, mB5.0/3, mb4.1/6, Mjma4.1/7, MLv3.9/7, Mw(mB)4.3/3*

ISC 06 01:08:57.6±0.9, **10.°71N**±0.°10×**94.°27E**±0.°08, **h24**^{km}, **n16**, σ**1^{s}52**/16, **mb3.8**/7, **Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PBA	Port Blair	1.77	302	*e*P	Pb	01 09 28.4	-1.0
PBA				*e*S	Sb	01 09 53.1	+1.8
PBA				IAML		01 09 58.5	
	comp=E,1μm,0.7s						
PBA				IAML		01 09 58.5	
	comp=N,1μm,0.4s						
RNTT	Ranong	4.34	107	P	Pn	01 10 00.5	-1.7
RNTT				AML	AML		
KHLT	Khaolaem Dam	5.85	46	P	Pn	01 10 22.1	-0.9
	comp=N,0.0nmcomp=N,0.4nmcomp=N,11nm,0.7s						
KHLT				AML	AML		
UTHA	Uthaitani	6.97	46	P	Pn	01 10 37.4	-1.0
CMAR	Chiang Mai Arr	8.93	30	Pn	Pn	01 11 06.5	+1.2
	baz=218,slow=14,SNR=5.8						
	comp=N,0.7nm,0.3s						
SAIH	SAIHA	11.78	354	*e*S	Sn	01 13 54.1	-1.2
VIS	Vishakhapatnam	12.69	305	*e*P	Pn	01 11 53.4	-3.3
TRD	Trivandrum	17.21	264	*e*P	Pn	01 12 46.0	-11
POO	Poona	21.22	294	*e*P	P	01 13 43.7	+1.7
POO				*e*S	S	01 17 17.4	-20
MKAR	Makanchi Array	37.38	346	P	P	01 16 09.3	+0.8
	comp=N,1.2nm,0.9s,baz=147,slow=8.1,SNR=6.0						
	comp=N,1.2nm,0.9s						
SONM	Songino Array	38.39	13	P	P	01 16 17.9	+0.7
	comp=N,0.7nm,0.9s,baz=196,slow=9.1,SNR=4.4						
	comp=N,0.7nm,0.9s						
KURBB	Kurchatov Arra	41.85	345	P	P	01 16 46.9	+1.2
	comp=N,0.7nm,0.8s,baz=165,slow=7.4,SNR=7.6						
	comp=N,0.7nm,0.8s						
ZALV	Zalesovo Beam	43.78	352	P	P	01 17 02.2	+0.9
	comp=N,1.1nm,0.7s,baz=168,slow=10,SNR=6.5						
ZALV				LR	LR	01 37 01.5	
	comp=N,952nm,20.0s,baz=71,slow=38						
	comp=N,1.1nm,0.7s						
WRA	Warramunga Arr	49.84	128	P	P	01 17 49.0	-0.2
	comp=N,2.1nm,1.0s,baz=305,slow=8.3,SNR=9.1						
	comp=N,2.1nm,1.0s						
ASAR	Alice Springs	51.66	132	P	P	01 18 03.4	+0.5
	comp=N,2.5nm,0.8s,baz=309,slow=7.3,SNR=22						
	comp=N,2.5nm,0.8s						
ARCES	ARCESS Array B	72.66	340	P	P	01 20 23.9	+0.9
	comp=N,0.5nm,0.5s,baz=72,slow=5.2,SNR=3.7						
	comp=N,0.5nm,0.5s						

SJA ***06*** *01:16:52.4±0.6, 30.°26S×71.°99W, h14^{km}, ML6.2, MW6.0*

IDC ***06*** *01:16:53.8±0.3, 30.°41S×71.°33W, h0^{km}, mb5.5/20, mbtmp5.4/24, ML5.0/4, MS6.1/46, Error ellipse: s-maj=13.1km s-min=9.2km az=84.0*

PTWC ***06*** *01:16:56, 30.°40S×71.°80W, h10^{km}, Mwp6.4/17*

VAO ***06*** *01:16:56.2±0.2, 30.°35S×71.°39W, h10^{km}, mb5.9, Presumed earthquake*

BJI ***06*** *01:16:56.0, 30.°33S×71.°54W, h10^{km}, mB6.3/46, Ms6.5/88, Ms7 6.5/85*

ISC-PP ***06*** *01:16:58, 30.°34S×71.°49W, h48^{km}, Mwppsm6.7, Moment Tensor Solution. s31 Moment tensor: Scale 10^{19}Nm; M_{rr}0.27±.10; $M_{\theta\theta}$0.35±.16; $M_{\phi\phi}$-0.61±.16; $M_{r\theta}$0.23±.21; $M_{\theta\phi}$-0.40±.19; $M_{\phi r}$-0.08±.12; Fault plane solution: $M_0$1.50000×10^{19} NP1:ϕ_s151.00000°, δ75.80000°, λ51.20000°. NP2:ϕ_s44.00000°, δ40.90000°, λ157.90000°.*

GUC ***06*** *01:16:58.6±0.6, 30.°35S×71.°54W, h30^{km}±2^{km}, ML6.3*

GFZ ***06*** *01:16:58.4±0.8, 30°S±1°×7°2W±°, h25^{km}±7^{km}, M6.2/31, mb6.1/30*

GFZ ***06*** *01:16:58.1, 30.°36S×71.°51W, h23^{km}, Mw6.3/73, Moment Tensor Solution. Moment tensor: Scale 10^{18}Nm; M_{rr}2.71; $M_{\theta\theta}$0.03; $M_{\phi\phi}$-2.74; $M_{r\theta}$0.41; $M_{\theta\phi}$0.21; $M_{\phi r}$-1.75; Fault plane solution: $M_0$3.27219×10^{18} NP1: ϕ_s170.76963°, δ61.72686°, λ85.25021°. NP2:ϕ_s0.71896°, δ28.63684°, λ98.75240°. Principal axes: T 3.2570, Plg72.8525°, Azm69.3149°; N 0.0302, Plg4.1821°, Azm173.0235°; P -3.2872, Plg16.5990°, Azm264.2725°;*

NEIC ***06*** *01:16:58.9±2.2, 30.°34S±0.°04×71.°49W±0.°06, h30^{km}±1^{km}, mb6.1/653, Ms_20 6.1/632, Mwb6.3/73, Mwr6.2/84, Mww6.3/54, Mww6.3(GUC) Error ellipse: s-maj=8.9km s-min=6.5km az=274.0, Moment Tensor Solution. Moment tensor: Scale 10^{18}Nm; M_{rr}3.04; $M_{\theta\theta}$-0.13; $M_{\phi\phi}$-2.91; $M_{r\theta}$0.10; $M_{\theta\phi}$0.84; $M_{\phi r}$-0.71; Fault plane solution: $M_0$3.18000×10^{18} NP1:ϕ_s342.69000°, δ38.50000°, λ87.31000°. NP2:ϕ_s166.13000°, δ51.55000°, λ92.14000°. Principal axes: T 3.1245, Plg83.0000°, Azm89.0000°; N 0.1000, Plg2.0000°, Azm345.0000°; P -3.2244, Plg7.0000°, Azm255.0000°; Moment Tensor Solution. Moment tensor: Scale 10^{18} Nm; M_{rr}1.34; $M_{\theta\theta}$-0.41; $M_{\phi\phi}$-0.93; $M_{r\theta}$-0.05; $M_{\theta\phi}$0.39; $M_{\phi r}$-2.00; Fault plane solution: $M_0$2.35000×10^{18} NP1:ϕ_s323.34000°, δ17.91000°, λ58.62000°. NP2:ϕ_s176.00000°, δ74.78000°, λ99.55000°. Principal axes: T 2.5197, Plg59.0000°, Azm99.0000°; N -0.3756, Plg9.0000°, Azm353.0000°; P -2.1442, Plg29.0000°, Azm258.0000°;*

IPGP ***06*** *01:16:58.0, 30.°33S×71.°57W, h39^{km}, Mw6.4, Fault plane solution: NP1:ϕ_s8.00000°, δ34.00000°, λ103.00000°. NP2:ϕ_s172.00000°, δ57.00000°, λ81.00000°.*

NEIC ***06*** *01:16:59, 30.°34S×71.°56W, h32^{km}*

NEIC ***06*** *01:16:59, 30.°34S×71.°56W, h32^{km}*

CATAC ***06*** *01:16:59.4±3.0, 30°S±5°×7°1W±1°1, h20^{km}±26^{km}, M6.6/4, mb6.2/4, mB6.6/4, MLv6.9/4, Mw(mB)6.4/4, MwMwp6.1/2, Mwp6.1/2, Error ellipse: s-maj=24.2km s-min=9.7km az=84.4, confirmed*

NEIC ***06*** *01:16:59, 30.°34S×71.°56W, h32^{km}*

MOS ***06*** *01:17:00.3±1.0, 30.°29S×71.°49W, h29^{km}, mb6.2/40, MS6.1/22, Error ellipse: s-maj=10.7km s-min=6.6km az=90.8*

GCMT ***06*** *01:17:03.9±0.1, 30.°41S×71.°80W, h38^{km}, MW6.3/172, Moment Tensor Solution. s172,c412; s172,c690; Duration: 3^{s}6 Moment tensor: Scale 10^{18}Nm; M_{rr}3.34±.02; $M_{\theta\theta}$0.12±.01; $M_{\phi\phi}$-3.46±.02; $M_{r\theta}$0.38±.02; $M_{\theta\phi}$-0.05±.01; $M_{\phi r}$-2.26±.03; Best double couple: $M_0$4.10100×10^{18} NP1:ϕ_s7.00000°, δ28.00000°, λ100.00000°. NP2:ϕ_s175.00000°, δ62.00000°, λ84.00000°. Principal axes: T 4.0590, Plg72.0000°, Azm72.0000°; N 0.0850, Plg5.0000°, Azm178.0000°; P -4.1440, Plg17.0000°, Azm269.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s. Triangular moment-rate function*

NEIC ***06*** *01:17:07.4, 30.°34S×71.°56W, h36^{km}, Moment Tensor Solution. Duration: 7^{s}1 Moment tensor: Scale 10^{18}Nm; M_{rr}3.05; $M_{\theta\theta}$0.01; $M_{\phi\phi}$-3.06; $M_{r\theta}$0.55; $M_{\theta\phi}$0.08; $M_{\phi r}$-1.54; Fault plane solution: $M_0$3.47000×10^{18} NP1:ϕ_s6.49000°, δ32.02000°, λ103.92000°. NP2:ϕ_s170.19000°, δ59.03000°, λ81.44000°. Principal axes: T 3.4974, Plg74.0000°, Azm57.0000°; N -0.0579, Plg7.0000°, Azm175.0000°; P -3.4395, Plg14.0000°, Azm266.0000°;*

ISC 06 01:16:58.8±0.2, **30.°34S**±0.°02×**71.°64W**±0.°03, **h32**^{km}±1^{km}, **h32**^{km}**:pP-P**, **n1770**, σ**1^{s}94**/1355, **mb6.1**/418, **MS6.2**/378, **116C-54D**, **Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CO06	Fray Jorge	0.33	180	*i* P	Pb	01 17 06.6	-0.3
CO06				*e*S	Sb	01 17 12.0	-0.4
CO06				IAML		01 17 15.6	
	comp=N,1947μm,0.3s						
CO06	Fray Jorge	0.33	180		Pb	01 17 06.5	-0.4
GO04	Tololo Observa	0.74	77	*e*P	Pn	01 17 11.9	-1.4
GO04				IAML		01 17 29.1	
	comp=Z,523μm,0.7s						
GO04	Tololo Observa	0.74	77	*i* P	Pn	01 17 11.9	-1.4
GO04				*e*S	Sn	01 17 22.3	-1.3
GO04				IAML		01 17 26.4	
	comp=N,2280μm,0.5s						
GO04	Tololo Observa	0.74	77		Pn	01 17 11.9	-1.4
GO04	Tololo Observa	0.74	77	P	Pn	01 17 11.0	-2.3
GO04	Tololo Observa	0.74	77	⇑P	Pn	01 17 11.8	-1.5
GO04	Tololo Observa	0.74	77	P	Pn	01 17 12.0	-1.3
CO03	El Pedregal	0.95	122		Pn	01 17 14.5	-1.6
CO02	Combarbal	1.02	148	*e*P	Pn	01 17 16.4	-0.6
CO02				IAML		01 17 37.5	
	comp=Z,531μm,1.0s						
CO02	Combarbal	1.02	148	⇓*i*P	Pn	01 17 16.0	-1.0
CO02				*e*S	Sn	01 17 29.6	-0.7
CO02				IAML		01 17 34.8	
	comp=N,870μm,0.6s						
CO02	Combarbal	1.02	148		Pn	01 17 16.0	-1.0
CO02	Combarbal	1.02	148	P	Pn	01 17 16.0	-1.0
CO02	Combarbal	1.02	148	⇓P	Pn	01 17 15.9	-1.0
CO02	Combarbal	1.02	148	P	Pn	01 17 16.1	-0.9
CO01	Juntas del Tor	1.38	75	*e*P	Pn	01 17 22.0	-0.1
CO01				*e*S	Sn	01 17 39.2	-0.2
CO01				IAML		01 17 42.6	
	comp=Z,218μm,1.0s						
CO01	Juntas del Tor	1.38	75	*e*P	Pn	01 17 21.8	-0.3
CO01				*e*S	Sn	01 17 39.4	0.0
CO01	Juntas del Tor	1.38	75		Pn	01 17 21.8	-0.3
CO01	Juntas del Tor	1.38	75	P	Pn	01 17 21.9	-0.1
LCO	Las Campanas	1.55	32	*e*P	Pn	01 17 24.5	0.0
LCO				*e*S	Sb	01 17 46.7	+0.2
LCO				IAML		01 17 51.0	

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       comp=Z,234µm,0.8s
LCO    Las Campanas     1.55  32   P     Pn      01 17 24.4  0.0
LCO    Las Campanas     1.55  32  eP     Pn      01 17 24.4  0.0
LCO                               eS     Sb      01 17 45.9 -0.7
LCO                                IAML          01 17 48.1
       comp=Z,999µm,0.4s
LCO    Las Campanas     1.55  32         Pn      01 17 24.4  0.0
LCO    Las Campanas     1.55  32   P     Pn      01 17 24.5  0.0
LCO    Las Campanas     1.55  32  ⇑P     Pn      01 17 24.2 -0.3
LCO    Las Campanas     1.55  32   P     Pn      01 17 24.6 +0.2
CO04   Los Peladeros    1.79 162  eP     Pn      01 17 27.7  0.0
CO04   Los Peladeros    1.79 162         Pn      01 17 27.7  0.0
CO04   Los Peladeros    1.79 162   P     Pn      01 17 27.9 +0.2
AROD   Rodeo            1.88  85  eP     Pn      01 17 30.6 +1.7
AC05   El Transito      1.91  39  eP     Pn      01 17 30.2 +1.0
AC05                              eS     Sb      01 17 56.9 +0.3
AC05   El Transito      1.91  39⇑iP      Pn      01 17 30.4 +1.2
AC05                              eS     Sb      01 17 55.8 -0.8
AC05                               IAML          01 17 58.3
       comp=N,360µm,0.5s
AC05   El Transito      1.91  39         Pn      01 17 30.1 +1.0
AC05   El Transito      1.91  39   P     Pn      01 17 30.3 +1.0
AC05   El Transito      1.91  39   P     Pn      01 17 30.3 +1.1
ACDV   Cuesta del Vie   2.18  86  eP     Pb      01 17 35.6 -2.1
AC04   Llanos de Chal   2.18  13  eP     Pn      01 17 32.9  0.0
AC04                              eS     Sb      01 18 06.5 +2.2
AC04                               IAML          01 18 11.2
       comp=Z,93µm,0.7s
AC04   Llanos de Chal   2.18  13  i P    Pn      01 17 32.9  0.0
AC04   Llanos de Chal   2.18  13         Pn      01 17 32.9  0.0
AC04   Llanos de Chal   2.18  13   P     Pn      01 17 33.1 +0.2
AC04   Llanos de Chal   2.18  13   P     Pn      01 17 33.1 +0.2
ACCO   Cerro Coronel    2.23  97  eP     Pb      01 17 36.5 -2.2
RTLS   Leoncito         2.48 127  eP     Pn      01 17 39.4 +2.2
RTLS                               IAML          01 18 34.1
       comp=Z,93µm,1.4s
VA03   San Esteban      2.59 159  eP     Pn      01 17 39.2 +0.7
VA03                              eS     Sb      01 18 22.2 +6.2
VA03                               IAML          01 18 27.4
       comp=Z,91µm,0.9s
VA03   San Esteban      2.59 159  i P    Pn      01 17 39.4 +0.9
VA03                              eS     Sn      01 18 11.3 +2.4
VA03                               IAML          01 18 23.9
       comp=E,119µm,0.3s
VA03   San Esteban      2.59 159         Pn      01 17 39.5 +0.9
VA03   San Esteban      2.59 159   P     Pn      01 17 39.6 +1.1
VA01   Torpederas       2.67 180  eP     Pn      01 17 39.0 -0.6
VA01                              eS     Sb      01 18 23.0 +4.6
VA01   Torpederas       2.67 180  eP     Pn      01 17 39.3 -0.3
VA01                              eS     Sb      01 18 14.9 -3.4
VA01   Torpederas       2.67 180         Pn      01 17 39.3 -0.3
VA01   Torpederas       2.67 180   P     Pn      01 17 38.7 -0.9
VA01   Torpederas       2.67 180   P     Pn      01 17 39.4 -0.3
ROCH   El Roble         2.68 169  eP     Pn      01 17 39.9  0.0
ROCH                             ⇑iP     Pb      01 17 39.9 -6.3
ZON    Zonda            2.81 116  eP     Pn      01 17 44.3 +2.7
ZON                               eS     Sb      01 18 28.4 +6.0
ZON                                IAML          01 18 36.3
       comp=Z,32µm,1.4s
ZON    Zonda            2.81 116   P     Pn      01 17 43.7 +2.2
ZON    Zonda            2.81 116         Pn      01 17 43.7 +2.2
ZON    Zonda            2.81 116   P     Pn      01 17 43.5 +2.0
ZON    Zonda            2.81 116  ⇑P     Pn      01 17 43.3 +1.7
ZON    Zonda            2.81 116   P     Pn      01 17 44.1 +2.5
RTLL   Cerro Villicun   2.89 111  eP     Pn      01 17 44.8 +2.2
RTLL                              eS     Sb      01 18 26.9 +2.3
RTLL                               IAML          01 18 37.4
       comp=Z,73µm,1.0s
SJA    San Juan         2.90 115  eP     Pn      01 17 44.0 +1.3
SJA                                IAML          01 19 07.1
       comp=Z,39µm,1.7s
PEL    Peldehue         2.91 164  eP     Pn      01 17 43.5 +0.6
PEL                               eS     Sb      01 18 30.0 +4.8
PEL                                IAML          01 18 37.1
       comp=Z,84µm,1.0s
PEL    Peldehue         2.91 164   P     Pn      01 17 43.5 +0.6
PEL    Peldehue         2.91 164⇑iP      Pn      01 17 43.2 +0.3
PEL                               eS     Sb      01 18 22.1 -3.1
PEL    Peldehue         2.91 164         Pn      01 17 43.5 +0.6
PEL    Peldehue         2.91 164   P     Pn      01 17 43.5 +0.6
PEL    Peldehue         2.91 164  ⇑P     Pn      01 17 43.4 +0.6
PEL    Peldehue         2.91 164   P     Pn      01 17 44.0 +1.0
PEL    Peldehue         2.91 164   P     Pn      01 17 44.0 +1.0
MT02   Curacav          2.94 172  eP     Pn      01 17 43.1 -0.2
MT02                              eS     Sb      01 18 28.6 +2.6
MT02                               IAML          01 18 37.9
       comp=Z,51µm,1.2s
MT02   Curacav          2.94 172⇑eP      Pn      01 17 42.9 -0.4
MT02   Curacav          2.94 172         Pn      01 17 43.2 -0.1
GO03   Copiapo          3.00  24  eP     Pn      01 17 44.8 +0.6
GO03                              eS     Sb      01 18 28.6 +0.8
GO03   Copiapo          3.00  24  eP     Pn      01 17 44.7 +0.6
GO03   Copiapo          3.00  24         Pn      01 17 44.7 +0.6
GO03   Copiapo          3.00  24   P     Pn      01 17 44.8 +0.6
GO03   Copiapo          3.00  24  ⇑P     Pn      01 17 44.1  0.0
GO03   Copiapo          3.00  24   P     Pn      01 17 45.0 +0.8
MT10   Hacienda Santa   3.07 163⇑iP      Pn      01 17 45.7 +0.5
MT10                              eS     Sn      01 18 25.0 +4.1
MT05   Renca            3.14 166  eP     Pn      01 17 46.5 +0.5
MT05                              eS     Sb      01 18 34.5 +2.8
MT05                               IAML          01 18 48.4
       comp=Z,56µm,0.8s
MT05   Renca            3.14 166  eP     Pn      01 17 46.6 +0.5
MT05   Renca            3.14 166         Pn      01 17 46.6 +0.5
AC06   Mina Casimiro    3.18  21  eP     Pn      01 17 46.5  0.0
AC06   Mina Casimiro    3.18  21         Pn      01 17 46.7 +0.1
CFA    Coronel Fontan   3.18 114   Pn    Pn      01 17 48.0 +1.4
       comp=Z,373nm,0.3s,baz=305,slow=12,SNR=796
CFA                                Lg    Lg      01 18 27.4
       comp=Z,1µm,0.3s,baz=133,slow=12,SNR=5.2
CFA                                LR    LR      01 18 32.9
       comp=Z,78µm,18.0s,baz=286,slow=34
CFA    Coronel Fontan   3.18 114  eP     Pn      01 17 48.4 +1.8
CFA                               eS     Sb      01 18 34.7 +1.8
MT14   Cerro Cal¡n      3.19 163⇑iP      Pn      01 17 47.6 +0.9
MT14                              eS     Sb      01 18 29.6 -3.6
MT16   CCHEN            3.22 163⇑iP      Pn      01 17 48.1 +1.0
MT16                              eS     Sb      01 18 30.1 -4.0
MT16                               IAML          01 18 52.4
       comp=N,110µm,1.0s
MT16   CCHEN            3.22 163         Pn      01 17 48.2 +1.0
MT03   Universidad Ad   3.29 163  eP     Pn      01 17 49.1 +1.0
MT03                              eS     Sb      01 18 34.2 -1.8
MT03                               IAML          01 18 50.7
       comp=Z,81µm,1.2s
MT03   Universidad Ad   3.29 163         Pn      01 17 48.8 +0.6
MT04   Ro Olivares      3.31 158  eP     Pn      01 17 50.5 +1.9
MT04                              eS     Sb      01 18 35.7 -1.2
MT04                               IAML          01 18 44.1
       comp=Z,37µm,0.8s
MT04   Ro Olivares      3.31 158⇑iP      Pn      01 17 50.5 +1.9
MT08   Bocatoma Ro      3.39 156  eP     Pn      01 17 52.7 +3.1
MT08                               IAML          01 18 56.6
       comp=Z,39µm,0.9s
MT08   Bocatoma Ro      3.39 156⇑eP      Pn      01 17 52.3 +2.7
MT08   Bocatoma Ro      3.39 156         Pn      01 17 52.5 +2.8
MT15   Las Vizcachas    3.39 164  eP     Pn      01 17 50.0 +0.5
VCA    Vinchina         3.39  63  i P    Pn      01 17 53.2 +3.6
VCA                               eS     Sn      01 18 31.0 +2.2
VCA                                IAML          01 18 50.3
       comp=E,106µm,0.6s
MT09   Talagante        3.47 171⇑eP      Pn      01 17 50.8 +0.1
MT01   Popeta           3.53 175  eS     Sb      01 18 45.2 +2.3
MT01                               IAML          01 18 51.6
       comp=Z,27µm,0.9s
MT01   Popeta           3.53 175  eP     Pn      01 17 51.0 -0.4
MT13   San Alfonso      3.58 162  eP     Pn      01 17 53.5 +1.3
MT13                              eS     Sn      01 18 37.5 +4.1
LMEL   Las Melosas      3.70 161  eP     Pn      01 17 55.2 +1.3
LMEL                              eS     Sn      01 18 39.2 +2.7
LMEL                               IAML          01 18 59.2
       comp=N,29µm,0.4s
BO04   La Punta         3.74 167  eP     Pn      01 17 55.0 +0.6
BO01   Tunca            4.07 174   P     Pn      01 17 58.6 -0.2
AC02   Maricunga        4.13  33  i P    Pn      01 18 01.3 +1.2
AC02   Maricunga        4.13  33   P     Pn      01 18 00.0 -0.1
AC02   Maricunga        4.13  33   P     Pn      01 18 01.3 +1.2
BO03   Pichilemu        4.15 184   P     Pn      01 17 58.7 -1.2
AC01   Pan de Azucar    4.28  13  eS     Sb      01 19 08.7 +4.3
AC01                               IAML          01 19 11.4
       comp=Z,29µm,0.9s
AC01   Pan de Azucar    4.28  13   P     Pn      01 17 59.5 -2.2
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AC01   Pan de Azucar    4.28  13   P     Pn      01 18 01.4 -0.3
AC01   Pan de Azucar    4.28  13   P     Pn      01 18 00.9 -0.7
BO02   Sierra Bellavi   4.50 171  eP     Pn      01 18 05.1 +0.3
BO02                              eP     Pn      01 18 05.1 +0.3
BO02   Sierra Bellavi   4.50 171  ⇑P     Pn      01 18 04.7  0.0
BO02   Sierra Bellavi   4.50 171   P     Pn      01 18 05.0 +0.2
GO05   Hualane          4.66 183   P     Pn      01 18 05.5 -1.5
GO05   Hualane          4.66 183  ⇑P     Pn      01 18 05.2 -1.7
ML02   Panimavida       5.41 178   P     Pn      01 18 16.9 -0.3
       comp=Z,6µm,0.8s
CYA    Choya            5.43  71⇑iP      Pn      01 18 18.1 +0.5
CYA                               eS     Sn      01 19 19.0  0.0
PB14   IPOC Station P   5.80  11   P     Pn      01 18 21.0 -1.9
PB14   IPOC Station P   5.80  11   P     Pn      01 18 20.6 -2.2
       comp=Z,3µm,0.8s
TCA    Tanti            6.13 101  i P    Pn      01 18 26.6 -0.7
BI02   San Fabin de     6.31 177   P     Pn      01 18 29.5 -0.2
BI02   San Fabin de     6.31 177   P     Pn      01 18 29.9 +0.2
       comp=Z,2µm,0.8s
AHML   Horco Molle      6.58  59  eP     Pn      01 18 28.0 -5.3
H03N1  Juan Fernandez   6.92 242   Pn    Pn      01 18 36.4 -1.2
       baz=15,slow=25
H03N1                              Sn    Sn      01 19 48.8 -6.3
       baz=111,slow=74
H03N2  Juan Fernandez   6.93 242   Pn    Pn      01 18 36.5 -1.4
       baz=15,slow=25
H03N2                              Sn    Sn      01 19 49.1 -6.4
       baz=151,slow=74
H03N3  Juan Fernandez   6.93 242   Pn    Pn      01 18 36.1 -1.8
       baz=15,slow=25
VA04   Juan Fernndez    6.94 240⇓iP      Pn      01 18 35.5 -2.7
VA04                              eS     Sn      01 19 48.8 -7.3
VA04   Juan Fernndez    6.94 240         Pn      01 18 35.7 -2.5
VA04   Juan Fernndez    6.94 240   P     Pn      01 18 36.9 -1.3
       comp=Z,5µm,0.9s
H03S3  Juan Fernandez   7.08 239   Pn    Pn      01 18 38.6 -1.4
H03S3                              Sn    Sn      01 19 51.4 -7.8
       baz=224,slow=74
H03S1  Juan Fernandez   7.09 239   Pn    Pn      01 18 37.8 -2.2
H03S1                              Sn    Sn      01 19 50.4 -8.9
H03S2  Juan Fernandez   7.10 239   Pn    Pn      01 18 38.0 -2.2
H03S2                              Sn    Sn      01 19 51.3 -8.3
       baz=76,slow=74
PB05   IPOC Station P   7.57  10   P     Pn      01 18 44.7 -2.3
       comp=Z,3µm,0.7s
SALTA                   7.70  39   P     Pn      01 18 50.5 +1.4
       comp=Z,890nm,0.9s
PB06   IPOC Station P   7.83  14   P     Pn      01 18 59.2 +8.7
PB06   IPOC Station P   7.83  14   P     Pn      01 18 49.4 -1.2
       comp=Z,9µm,1.0s
PB03   IPOC Station P   8.43  12   P     Pn      01 18 58.5 -0.4
       comp=Z,4µm,0.8s
PB07   IPOC Station P   8.72  11   P     Pn      01 19 00.7 -2.1
       comp=Z,3µm,0.6s
PB09   IPOC Station P   8.78  15   P     Pn      01 19 03.3 -0.3
PB09   IPOC Station P   8.78  15   P     Pn      01 19 02.9 -0.7
       comp=Z,4µm,1.0s
PB02   IPOC Station P   9.12  10   P     Pn      01 19 08.8 +0.6
PB02   IPOC Station P   9.12  10   P     Pn      01 19 07.2 -1.1
       comp=Z,2µm,0.8s
GO06   Curarrehue       9.22 179  ⇓P     Pn      01 19 08.4 -1.2
GO06   Curarrehue       9.22 179   P     Pn      01 19 09.9 +0.2
       comp=Z,304nm,0.7s
TA01   Diego Aracena    9.82   8   P     Pn      01 19 19.2 +1.4
PB08   IPOC Station P  10.40  13   P     Pn      01 19 23.7 -2.4
PB08   IPOC Station P  10.40  13   P     Pn      01 19 24.8 -1.3
       comp=Z,999nm,1.2s
PLCA   Paso Flores     10.41 175   Pn    Pn      01 19 25.2 -0.5
       comp=Z,2.6nm,0.3s,baz=340,slow=12,SNR=47
PLCA                               LR    LR      01 24 04.1
       comp=Z,162µm,18.8s,baz=350,slow=42
       comp=Z,14nm,0.5s
PLCA                               AML   AML
PLCA   Paso Flores     10.41 175   P     Pn      01 19 26.6 +0.8
PLCA                               pmax  pmax
       comp=Z,267nm,1.3s
PLCA   Paso Flores     10.41 175         Pn      01 19 25.5 -0.3
PLCA   Paso Flores     10.41 175  ⇓P     Pn      01 19 25.3 -0.5
PLCA   Paso Flores     10.41 175  eP     Pn      01 19 25.5 -0.3
PLCA   Paso Flores     10.41 175   P     Pn      01 19 26.4 +0.5
       comp=Z,298nm,1.3s
PB11   IPOC Station P  10.69  10   P     Pn      01 19 33.4 +3.6
       comp=Z,4µm,0.8s
PSGCX  Pisagua         10.78   8   P     Pn      01 19 31.1  0.0
       comp=Z,548nm,0.7s
LL03   Petrohue        10.79 183   P     Pn      01 19 30.1 -0.9
       comp=Z,662nm,0.8s
GO01   Chusmiza        10.85  12   P     Pn      01 19 32.9 +0.5
       comp=Z,1µm,0.8s
LL05   Los Muermos     11.14 187   P     Pn      01 19 36.1 +0.3
       comp=Z,622nm,1.1s
PB12   IPOC Station P  11.73   6         Pn      01 19 41.3 -2.8
PB12   IPOC Station P  11.73   6   P     Pn      01 19 46.0 +1.9
       comp=Z,824nm,0.7s
AP01   Chacalluta      11.97   6   P     Pn      01 19 51.4 +4.1
       comp=Z,2µm,0.7s
PSAL   Palomas, Salto  12.10  97  eP     Pn      01 19 46.3 -2.6
PB16   IPOC Station P  12.11  10         Pn      01 19 47.5 -2.1
PB16   IPOC Station P  12.11  10   P     Pn      01 19 53.5 +3.9
       comp=Z,995nm,0.9s
ANCO   Parque Anchore  12.21 112  eP     Pn      01 19 48.1 -2.3
LPA    La Plata        12.41 115c iP     Pn      01 19 54.0 +0.8
LPA                                S     Sn      01 22 11.0 +0.6
LPA                                SS    SnSn    01 22 26.6 +4.1
LL07   Hotel Espejo d  12.55 186   P     Pn      01 19 53.3 -1.8
       comp=Z,523nm,1.2s
LL02   Futaleuf        12.83 181         Pn      01 19 57.5 -1.4
LL02   Futaleuf        12.83 181  ⇑P     Pn      01 19 58.9 +0.1
GO07   Milladeo Hill,  12.85 187   P     Pn      01 19 56.5 -2.7
       comp=Z,538nm,0.5s
CPUP   Villa Florida   13.22  76   Pn    Pn      01 20 00.2 -4.0
       comp=Z,2.5nm,0.3s,baz=254,slow=13,SNR=67
CPUP                               LR    LR      01 25 42.6
       comp=Z,176µm,18.5s,baz=254,slow=41
       comp=Z,35nm,0.8s
CPUP                               AML   AML
CPUP   Villa Florida   13.22  76   P     Pn      01 20 02.3 -1.9
CPUP                               pmax  pmax
       comp=Z,587nm,1.5s
CPUP   Villa Florida   13.22  76  ⇑P     Pn      01 20 01.0 -3.2
CPUP   Villa Florida   13.22  76  eP     Pn      01 20 00.2 -4.0
LPAZ   La Paz          14.35  14   Pn    Pn      01 20 17.6 -2.7
       comp=Z,1.4nm,0.3s,baz=180,slow=10,SNR=20
LPAZ   La Paz          14.35  14   P     Pn      01 20 21.2 +0.9
       comp=Z,66µmcomp=Z,15µmcomp=Z,386nm,1.1s
LPAZ   La Paz          14.35  14  ⇑P     Pn      01 20 17.5 -2.8
LPAZ   La Paz          14.35  14  eP     Pn      01 20 18.4 -1.9
LPAZ   La Paz          14.35  14   P     Pn      01 20 20.1 -0.2
       comp=Z,388nm,1.2s
SJPY   San Joaquin     14.75  73  eP     Pn      01 20 22.4 -2.8
COYC   Coyhaique       15.21 181         Pn      01 20 32.1 +1.0
COYC   Coyhaique       15.21 181  ⇑P     Pn      01 20 32.4 +1.2
COYC   Coyhaique       15.21 181   P     Pn      01 20 32.9 +1.8
       comp=Z,536nm,1.3s
MURT   Porto Murtinho  15.28  59  eP     Pn      01 20 28.2 -4.0
CPSB   Cacapava Do Su  15.71  95         Pn      01 20 34.6 -3.1
CPSB   Cacapava Do Su  15.71  95  eP     Pn      01 20 34.1 -3.6
CPSB   Cacapava Do Su  15.71  95   P     Pn      01 20 36.0 -1.7
       comp=Z,580nm,1.5s
COIM   Forte Coimbra   16.27  54  eP     Pn      01 20 42.5 -2.4
BDQN   Bodoquena, MS   16.65  57  eP     Pn      01 20 46.0 -3.8
SIV    San Ignacio     17.25  36   P     Pn      01 20 54.7 -2.7
       comp=Z,0.9nm,0.3s,baz=224,slow=12,SNR=75
       comp=Z,72nm,0.9s
SIV                                AML   AML
AQDB   Aquidauana      17.41  59   P     Pn      01 20 57.0 -2.3
AQDB   Aquidauana      17.41  59  eP     Pn      01 20 56.7 -2.6
AQDB   Aquidauana      17.41  59   P     Pn      01 20 56.8 -2.5
       comp=Z,297nm,1.0s
CNLB   Canela          18.06  92  eP     Pn      01 21 05.3 -2.1
CNLB   Canela          18.06  92   P     Pn      01 21 06.9 -0.5
       comp=Z,1µm,0.9s
GO08   Villa O'Higgin  18.11 182   P     P       01 21 11.1 +3.2
       comp=Z,561nm,2.9s
PTGB   Pitanga         18.23  77  eP     P       01 21 07.1 -2.4
TRCB   Terra Rica      18.57  71   P     P       01 21 12.5 -0.6
TRCB   Terra Rica      18.57  71  eP     P       01 21 10.5 -2.7
TRCB   Terra Rica      18.57  71   P     P       01 21 12.6 -0.6
       comp=Z,566nm,0.8s
PTLB   Pontes e Lacer  18.74  40   P     P       01 21 14.1 -0.9
PTLB   Pontes e Lacer  18.74  40  eP     P       01 21 13.9 -1.1
NNA    Nana            18.89 344   P     Pn      01 21 19.3 +1.8
       comp=Z,1.5nm,0.3s,baz=186,slow=12,SNR=9.9
NNA                                LR    LR      01 26 58.7
       comp=Z,56µm,21.5s,baz=170,slow=32
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       comp=Z,26nm,0.7s
NNA                                AML   AML
NNA    Nana            18.89 344   P     Pn      01 21 18.1 +0.6
NNA    Nana            18.89 344   P     P       01 21 16.8 +0.1
       comp=Z,88µmcomp=Z,20µmcomp=Z,243nm,1.3s
NNA    Nana            18.89 344  ⇑P     Pn      01 21 18.4 +0.9
NNA    Nana            18.89 344   P     Pn      01 21 19.9 +2.4
NNA    Nana            18.89 344   P     Pn      01 21 19.9 +2.4
       comp=Z,216nm,0.5s
LDASE  Londrina, Braz  19.55  74  eP     P       01 21 22.1 -1.9
PP1B   Ponte de Pedra  19.85  54  eP     P       01 21 26.1 -1.1
VILB   Vilhena         20.28  34   P     P       01 21 30.8 -1.1
VILB                               IAmb  IAmb    01 21 37.8
       comp=Z,1µm,1.0s
VILB   Vilhena         20.28  34  eP     P       01 21 30.8 -1.1
SALV   Santo Antonio   20.49  49  eP     P       01 21 32.4 -1.7
C2SB   Chapadao do Su  20.58  60  eP     P       01 21 34.6 -0.5
C2SB   Chapadao do Su  20.58  60   P     P       01 21 35.8 +0.6
       comp=Z,827nm,0.9s
FRTB   Fartura         20.87  76  eP     P       01 21 36.6 -1.6
PET01  Itanhaem-SP     22.45  80  eP     P       01 21 53.6 -1.5
CZSB   Cruzeiro do Su  22.52 357   P     P       01 21 55.9  0.0
CZSB   Cruzeiro do Su  22.52 357   P     P       01 21 56.3 +0.4
       comp=Z,81µmcomp=Z,31µmcomp=Z,2µm,1.4s
CZSB   Cruzeiro do Su  22.52 357  eP     P       01 21 56.6 +0.7
SPB    Sao Paulo       22.57  79   P     P       01 21 53.7 -2.8
SPB    Sao Paulo       22.57  79  ⇑P     P       01 21 54.1 -2.4
SPB    Sao Paulo       22.57  79   P     P       01 21 55.6 -0.8
SPB    Sao Paulo       22.57  79  eP     P       01 21 55.2 -1.3
SPB    Sao Paulo       22.57  79   P     P       01 21 55.6 -0.8
       comp=Z,387nm,0.9s
BB19B  Bebedouro       22.74  71  eP     P       01 21 56.6 -1.7
GO10   Punta Arenas    22.80 179   P     P       01 21 59.6 +0.9
GO10                               IAmb  IAmb    01 22 11.6
       comp=Z,1µm,1.1s
GO10   Punta Arenas    22.80 179  ⇑P     P       01 22 00.3 +1.7
GO10   Punta Arenas    22.80 179   P     P       01 22 00.5 +1.8
       comp=Z,880nm,2.0s
VAO    Valinhos        23.20  78   P     P       01 22 00.7 -2.4
VAO                                IAmb  IAmb    01 22 19.7
       comp=Z,479nm,0.9s
VAO    Valinhos        23.20  78  eP     P       01 22 01.4 -1.6
ARAG   Araguaiana, MT  23.29  56  eP     P       01 22 01.8 -2.1
MG03   Isla Dawson     23.51 178   P     P       01 22 05.4 -0.2
MG03                               IAMs_20 IAMs_20 01 31 52.0
       comp=Z,59µm,20.0s
EFI    East Falkland   23.57 159c iP     P       01 22 05.3 -1.0
EFI                                pmax  pmax
       comp=Z,844nm,1.4s
EFI                                MLR   MLR
       comp=Z,89µm,15.0s
EFI    East Falkland   23.57 159   P     P       01 22 04.8 -1.5
EFI                                IAmb  IAmb    01 22 24.0
       comp=Z,975nm,1.4s
EFI    East Falkland   23.57 159   IAMs_20 IAMs_20 01 32 29.6
       comp=Z,78µm,18.0s
EFI    East Falkland   23.57 159  ⇑P     P       01 22 04.0 -2.4
EFI    East Falkland   23.57 159   P     P       01 22 06.1 -0.2
       comp=Z,562nm,1.2s
DSPA   Despedida       23.72 175   P     P       01 22 07.5 -0.3
ATAH   Atahualpa       23.94 343   P     P       01 22 13.0 +2.4
       comp=Z,17nm,0.7s,baz=167,slow=7.3,SNR=24
ATAH                               S     S       01 26 32.2 +6.7
       comp=Z,18nm,1.1s,baz=142,slow=17,SNR=1.8
ATAH                               LR    LR      01 29 45.4
       comp=Z,40µm,20.9s,baz=179,slow=32
       comp=Z,17nm,0.7s
CLDB   Colider         24.34  41  eP     P       01 22 12.4 -1.4
CLDB   Colider         24.34  41   P     P       01 22 12.2 -1.6
       comp=Z,337nm,1.4s
USHA   Ushuaia         24.59 176   LR    LR      01 32 34.9
       comp=Z,113µm,19.0s,baz=358,slow=38
IPMB   Ipameri, GO     24.60  65  eP     P       01 22 13.8 -2.5
CANS   Sao Roque de M  24.87  72  eP     P       01 22 17.1 -1.6
PMNB   Patos De Minas  25.71  69  ⇑P     P       01 22 25.0 -1.4
PMNB   Patos De Minas  25.71  69  eP     P       01 22 25.7 -0.6
PMNB   Patos De Minas  25.71  69   P     P       01 22 25.8 -0.6
       comp=Z,338nm,1.0s
BSCB   Bom Sucesso     25.88  75  eP     P       01 22 27.3 -0.6
BSCB   Bom Sucesso     25.88  75   P     P       01 22 26.6 -1.3
       comp=Z,192nm,1.0s
BDFB   Brasilia        26.13  61   P     P       01 22 28.6 -1.6
       comp=Z,229nm,0.6s,baz=234,slow=8.7,SNR=261
BDFB                               S     S       01 27 00.9 +0.9
       comp=Z,20nm,0.7s,baz=240,slow=20,SNR=1.2
BDFB                               LR    LR      01 34 39.8
       comp=Z,15µm,20.4s,baz=233,slow=41
       comp=Z,229nm,0.6s
BDFB   Brasilia        26.13  61   P     P       01 22 28.7 -1.6
BDFB                               IAmb  IAmb    01 22 48.0
       comp=Z,726nm,1.3s
SNDB   Serra Nova Dou  26.26  50  eP     P       01 22 30.5 -0.7
MCRA   Macar, Loja     27.00 341   P     P       01 22 38.8 +0.8
       comp=Z,36µmcomp=Z,5µmcomp=Z,173nm,1.1s
TEFE   Tefe            27.50  15  eP     P       01 22 41.9 -0.5
DIAM   Diamantina, MG  28.08  71  eP     P       01 22 47.2 -0.5
CAM01  Campos-RJ       28.16  80  eP     P       01 22 48.1 -0.2
MC01   Montes Claros   28.70  68  eP     P       01 22 51.3 -1.9
MACA   Manacapuru-AM   28.95  23   P     P       01 22 54.4 -0.9
MACA   Manacapuru-AM   28.95  23  eP     P       01 22 54.5 -0.9
JANB   Januaria        29.33  65  eP     P       01 22 57.3 -1.5
ALF01  Guarapari-ES    29.45  78  eP     P       01 22 59.1 -0.7
PIAT   Ana Tenorio     29.85 347   P     P       01 23 05.9 +2.1
       comp=Z,31µmcomp=Z,6µmcomp=Z,140nm,1.6s
ITTB   Itaituba        29.88  33  eP     P       01 23 01.9 -1.6
PPLP   Puerto Lpez     29.92 341   P     P       01 23 05.1 +1.1
SJMB   Sao Joao De Ma  29.93  74  eP     P       01 23 02.5 -1.6
BSFB   Barra de Sao F  30.16  75  eP     P       01 23 04.3 -1.7
ARCA   Ara§uai, MG     30.22  70  eP     P       01 23 05.2 -1.5
RIB01  Linhares ES     30.31  76  eP     P       01 23 05.0 -2.4
PTLC   Puerto Leguiza  30.49 354   P     P       01 23 06.9 -2.1
       comp=Z,36µmcomp=Z,8µmcomp=Z,262nm,2.1s
SDBA   SAO DESIDERIO   30.50  60  eP     P       01 23 07.7 -1.4
CASC   Dorado de Casc  30.79 349   P     P       01 23 13.1 +1.3
       comp=Z,38µmcomp=Z,7µmcomp=Z,288nm,1.2s
SMTB   Santa Maria do  31.01  51  eP     P       01 23 12.9 -0.7
OTAV   Otavalo         31.09 347   P     P       01 23 19.0 +4.2
OTAV                               pmax  pmax
       comp=Z,97nm,2.1s
OTAV   Otavalo         31.09 347   P     P       01 23 16.2 +1.4
       comp=Z,32µmcomp=Z,5µmcomp=Z,89nm,1.2s
OTAV   Otavalo         31.09 347  ⇑P     P       01 23 17.0 +2.2
OTAV   Otavalo         31.09 347  eP     P       01 23 17.0 +2.2
OTAV   Otavalo         31.09 347   P     P       01 23 17.6 +2.8
OTAV                               ScP   ScP     01 29 52.2 +1.7
CUSE   Cuicocha Este   31.15 347   P     P       01 23 17.2 +1.9
       comp=Z,5µmcomp=Z,70nm,1.3s
PAC1   Pacto, Paraso   31.19 346   P     P       01 23 16.1 +0.8
       comp=Z,6µmcomp=Z,172nm,1.1s
TULM   Tulcn-Chalpat   31.43 348   P     P       01 23 19.7 +1.9
       comp=Z,5µmcomp=Z,122nm,1.3s
CMBC   Cumbal          31.66 348   P     P       01 23 21.8 +2.0
GUA01  Guaratinga, BA  32.12  72  eP     P       01 23 19.6 -3.8
CRUC   La Cruz         32.13 350   P     P       01 23 26.6 +2.8
MACC   Macarena, Meta  32.37 356   P     P       01 23 25.2 -0.3
       comp=Z,31µmcomp=Z,6µmcomp=Z,115nm,1.0s
GARC   Garzon, Huila   32.55 353   P     P       01 23 28.7 +1.3
       comp=Z,33µmcomp=Z,4µmcomp=Z,83nm,1.0s
BBAC   Balboa, Cauca   32.62 350   P     P       01 23 29.3 +1.3
       comp=Z,29µmcomp=Z,6µmcomp=Z,222nm,1.4s
CMC01  Camacan, BA     33.00  70  eP     P       01 23 29.0 -2.0
BETC   Betania         33.04 353   P     P       01 23 34.8 +3.4
POPC   Popayan, Colom  33.05 351   P     P       01 23 33.4 +1.7
       comp=Z,27µmcomp=Z,6µmcomp=Z,162nm,1.5s
RPN    Rapa Nui        33.11 266   LR    LR      01 33 20.5
       comp=Z,59µm,21.4s,baz=109,slow=30
RPN    Rapa Nui        33.11 266   IAMs_20 IAMs_20 01 33 09.2
       comp=Z,52µm,21.0s
VA02   Isla de Pascua  33.19 266   IAMs_20 IAMs_20 01 33 12.2
       comp=Z,47µm,19.0s
NBIT   Itapeh - BA     33.30  70  eP     P       01 23 32.7 -0.9
PRAC   Prado           34.00 354   P     P       01 23 41.6 +1.8
       comp=Z,32µmcomp=Z,13µmcomp=Z,270nm,1.1s
ORTC   Ortega, Tolima  34.23 354   P     P       01 23 42.8 +1.0
       comp=Z,32µmcomp=Z,12µmcomp=Z,444nm,1.3s
BOAV   Boa Vista       34.24  20   P     P       01 23 40.8 -1.0
BOAV                               IAmb  IAmb    01 23 45.9
       comp=Z,166nm,0.8s
BOAV   Boa Vista       34.24  20   P     P       01 23 41.0 -0.8
       comp=Z,29µmcomp=Z,6µmcomp=Z,215nm,0.8s
BOAV   Boa Vista       34.24  20  eP     P       01 23 41.2 -0.6
VILC   Villavicencio,  34.31 356   P     P       01 23 43.6 +1.0
ESPZ   Base Esperanza  34.38 168   IAmb  IAmb    01 23 58.9
       comp=Z,538nm,1.6s
PAYG   Puerto Ayora    34.42 326   IAMs_20 IAMs_20 01 34 03.7
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      comp=Z,50µm,20.0s
PAYG  Puerto Ayora     34.42 326   P        P         01 23 45.9 +2.5
      comp=Z,23µmcomp=Z,7µmcomp=Z,166nm,1.1s
PAYG  Puerto Ayora     34.42 326   P        P         01 23 46.3 +2.9
PAYG                               sP       sP        01 24 02.1 +5.7
CVER  Cruz Verde, Cu   34.74 356   P        P         01 23 48.3 +1.6
      comp=Z,9µmcomp=Z,166nm,1.8s
HOPE  Hope Point       34.75 144   IAMs_20  IAMs_20   01 37 20.7
      comp=Z,48µm,20.0s
HOPE  Hope Point       34.75 144  ⇑P        P         01 23 47.4 +1.5
PMSA  Palmer Station   34.78 174   LR       LR        01 37 52.4
      comp=Z,66µm,19.9s,baz=344,slow=36
PMSA  Palmer Station   34.78 174   P        P         01 23 46.3 +0.3
PMSA  Palmer Station   34.78 174   IAMs_20  IAMs_20   01 37 30.8
      comp=Z,64µm,21.0s
PMSA  Palmer Station   34.78 174  ⇑P        P         01 23 46.3 +0.3
PMSA  Palmer Station   34.78 174  eP        P         01 23 46.6 +0.7
PMSA  Palmer Station   34.78 174   P        P         01 23 46.8 +0.9
PMSA                               pP       sP        01 23 58.6 -0.7
CHIC  Chingaza         34.83 356   P        P         01 23 48.1 +0.7
      comp=Z,33µmcomp=Z,8µmcomp=Z,226nm,1.1s
ARMEC Armenia, Quind   34.91 353   P        P         01 23 50.4 +2.6
ROSC  El Rosal         35.08 355   P        P         01 23 52.1 +2.6
      comp=Z,17nm,0.7s,baz=189,slow=3.9,SNR=19
ROSC  El Rosal         35.08 355   P        P         01 23 51.7 +2.2
      comp=Z,33µmcomp=Z,11µmcomp=Z,227nm,1.1s
ORCD  Orcadas          35.26 157   P        P         01 23 48.8 -1.4
CMAN1 Manizales, Cal   35.41 353   P        P         01 23 51.6 -0.6
PIZC  Pizarro, Choco   35.53 350   P        P         01 23 56.1 +3.2
      comp=Z,31µmcomp=Z,10µmcomp=Z,376nm,1.0s
GUY2C Guyana, Caldas   35.54 354   P        P         01 23 54.9 +1.3
      comp=Z,33µmcomp=Z,8µmcomp=Z,94nm,0.9s
NORC  Norcasia         35.83 354   P        P         01 23 56.1 +0.5
      comp=Z,30µmcomp=Z,7µmcomp=Z,160nm,1.8s
SPBC  San Pablo de B   35.86 356   P        P         01 23 56.4 +0.5
      comp=Z,6µmcomp=Z,104nm,1.2s
RUSC  La Rusia         36.05 358   P        P         01 23 58.6 +0.6
      comp=Z,31µmcomp=Z,16µmcomp=Z,994nm,1.4s
CBOC  Ciudad Bolivar   36.24 353   P        P         01 24 00.1 +0.9
      comp=Z,31µmcomp=Z,6µmcomp=Z,270nm,1.2s
HELC  Santa Helena     36.51 353   P        P         01 24 02.5 +0.7
      comp=Z,30µmcomp=Z,9µmcomp=Z,163nm,0.8s
MEDEC Medelln, Ant     36.60 353   P        P         01 24 01.1 -1.2
BARC  Barichara        36.75 357   P        P         01 24 01.8 -1.8
      comp=Z,30µmcomp=Z,6µmcomp=Z,180nm,1.1s
PTBC  PUERTO BERRIO, 36.77 355     P        P         01 24 02.0 -1.5
      comp=Z,25µmcomp=Z,5µmcomp=Z,119nm,0.8s
SOLC  Bahia Solano     36.78 350   P        P         01 24 06.6 +3.0
BRJC  Barrancabermej   37.16 357   P        P         01 24 03.5 -3.3
      comp=Z,21µmcomp=Z,5µmcomp=Z,182nm,0.9s
DBBC  Dabeiba          37.40 353   P        P         01 24 10.6 +1.6
PAMC  Pamplona, Colo   37.48 358   P        P         01 24 10.3 +0.2
PTAC  Punta Ardita,    37.74 350   P        P         01 24 11.0 -0.8
      comp=Z,9µmcomp=Z,240nm,1.3s
NBTA  Tacaratu-PE      37.77  63  eP        P         01 24 10.6 -1.6
UREC  San Jos de Ur    38.06 354   P        P         01 24 14.5  0.0
      comp=Z,30µmcomp=Z,6µmcomp=Z,112nm,1.1s
APAC  Apartado, Choc   38.32 352   P        P         01 24 18.9 +2.3
      comp=Z,32µmcomp=Z,10µmcomp=Z,288nm,1.4s
NBMA  Muriti-CE        38.35  60  eP        P         01 24 16.2 -0.8
OCAC  Ocana            38.39 357   P        P         01 24 14.4 -3.0
      comp=Z,22µmcomp=Z,4µmcomp=Z,101nm,0.7s
NBPS  Pedro II - PI    38.43  54  eP        P         01 24 16.8 -1.0
CACAO El Cacao, Vera   38.50 345   P        P         01 24 17.2 -1.0
      comp=Z,24µmcomp=Z,5µmcomp=Z,164nm,1.6s
AZU   Azuero           38.81 346   P        P         01 24 21.5 +0.7
GMAL  Guarumal, Vera   38.99 345   P        P         01 24 23.4 +1.1
      comp=Z,8µmcomp=Z,231nm,1.4s
SDV   Santo Domingo    39.01   2   LR       LR        01 41 50.3
      comp=Z,26µm,18.3s,baz=176,slow=38
SDV   Santo Domingo    39.01   2   P        P         01 24 21.9 -0.8
SDV                                IAMs_20  IAMs_20   01 42 30.1
      comp=Z,40µm,18.0s
SDV   Santo Domingo    39.01   2   P        P         01 24 21.0 -1.7
      comp=Z,142µmcomp=Z,24µmcomp=Z,841nm,0.9s
LCBC  Los crdobas,     39.24 353   P        P         01 24 25.8 +1.5
      comp=Z,37µmcomp=Z,14µmcomp=Z,341nm,1.4s
PNME  Penonome         39.50 346   P        P         01 24 28.4 +1.9
MDP   Montagnes des    39.66  31   LR       LR        01 42 45.9
      comp=Z,45µm,18.3s,baz=202,slow=39
MPGF  Montagnes des    39.67  31  ⇑P        P         01 24 26.5 -1.5
MPGF  Montagnes des    39.67  31   P        P         01 24 28.0 +0.1
MPGF                               pP       pP        01 24 39.3 +2.0
MPGF                               sP       sP        01 24 44.0 +2.7
UPA   Univ. de Panam   39.83 348   P        P         01 24 29.6 +0.4
BCIP  Isla Barro Col   40.06 347   P        P         01 24 32.5 +1.3
BCIP  Isla Barro Col   40.06 347  ⇑P        P         01 24 32.9 +1.7
SJCC  San Jacinto, C   40.15 355   P        P         01 24 31.8 -0.2
      comp=Z,27µmcomp=Z,7µmcomp=Z,213nm,1.2s
NBMO  Morrinhos-CE     40.18  54  eP        P         01 24 31.2 -1.1
NBPV  Pedro Velho      41.60  63  eP        P         01 24 43.2 -0.8
URIC  Uribia, Colomb   41.80 359   P        P         01 24 42.5 -3.0
      comp=Z,21µmcomp=Z,3µmcomp=Z,67nm,1.3s
HDC   Heredia          41.87 341  eP        P         01 24 47.9 +1.7
TRN   Trinidad (W)     41.92  15  eP        P         01 24 44.2 -2.3
JTS   Las Juntas de    42.38 340c iP        P         01 24 52.8 +2.5
JTS                                pmax     pmax
      comp=Z,162nm,1.3s
JTS                                MLR      MLR
      comp=Z,17µm,21.0s
JTS   Las Juntas de    42.38 340   P        P         01 24 51.4 +1.2
JTS   Las Juntas de    42.38 340   P        P         01 24 49.2 -1.1
JTS   Las Juntas de    42.38 340  ⇑P        P         01 24 52.0 +1.7
JTS   Las Juntas de    42.38 340   P        P         01 24 52.4 +2.1
GRHS  Sauteurs         43.40  14  eP        P         01 24 56.7 -1.8
GRHS                               x        x         01 31 21.6
GRSS  Sisters          43.48  14  eP        P         01 24 59.1  0.0
GRSS                               x        x         01 31 40.8
PRVC  Isla de Provid   44.46 346   P        P         01 25 08.0 +1.0
      comp=Z,22µmcomp=Z,8µmcomp=Z,272nm,1.4s
MGAN  Managua          44.52 339   P        P         01 25 09.9 +2.4
      comp=Z,7µmcomp=Z,132nm,1.3s
BOAB  BOACO BROADBAN44.63 340      P        P         01 25 08.8 +0.4
BOAB                               IAmb     IAmb      01 25 47.5
      comp=Z,484nm,1.5s
BOAB  BOACO BROADBAN44.63 340     ⇑P        P         01 25 09.2 +0.8
BBGH  Gun Hill         44.77  17   P        P         01 25 09.9 +0.4
      comp=Z,43µmcomp=Z,13µmcomp=Z,331nm,1.9s
BBGH  Gun Hill         44.77  17  eP        P         01 25 09.2 -0.3
CNGN  Cerro Negro      44.99 339   P        P         01 25 11.1 -0.2
      comp=Z,207µmcomp=Z,36µmcomp=Z,1µm,1.4s
SLBI  Saint Lucia, B   45.28  15  eP        P         01 25 12.2 -1.3
SLBI                               x        x         01 31 33.0
SLBI                               x        x         01 35 21.6
CRIN  San Cristobal    45.29 339   P        P         01 25 14.9 +1.2
      comp=Z,19µmcomp=Z,8µmcomp=Z,263nm,1.2s
MPOM  Morne Pois Mar   45.72  15   IAMs_20  IAMs_20   01 46 45.2
      comp=Z,27µm,22.0s
BIM   Bigot            45.74  14   P        P         01 25 15.2 -2.0
BIM                                IAmb     IAmb      01 25 33.6
      comp=Z,444nm,1.1s
BIM                                IAMs_20  IAMs_20   01 46 34.8
      comp=Z,26µm,21.0s
BIM   Bigot            45.74  14  eP        P         01 25 14.5 -2.8
BIM                                x        x         01 31 53.6
FDFM  Morne la Roset   45.94  14   P        P         01 25 16.8 -1.9
FDFM                               IAmb     IAmb      01 25 37.3
      comp=Z,199nm,0.9s
FDFM  Morne la Roset   45.94  14   IAMs_20  IAMs_20   01 48 11.9
      comp=Z,33µm,20.0s
FDFM  Morne la Roset   45.94  14   P        P         01 25 18.1 -0.7
FDFM                               pP       pP        01 25 29.3 +1.1
CXM   Morne La Croix   46.01  14   P        P         01 25 17.6 -1.8
CXM                                IAmb     IAmb      01 25 38.4
      comp=Z,374nm,1.3s
ILAM  Ilet Lapin Mar   46.03  15   IAMs_20  IAMs_20   01 46 43.5
      comp=Z,25µm,22.0s
ILAM  Ilet Lapin Mar   46.03  15  eP        P         01 25 17.5 -2.0
ILAM                               x        x         01 35 43.8
SVN   Savane Anatole   46.04  14   IAMs_20  IAMs_20   01 48 13.6
      comp=Z,35µm,21.0s
DSLB  Salisbury        46.56  14  eP        P         01 25 19.8 -3.8
DSLB                               x        x         01 27 09.2
TGUH  Tegucigalpa,Un   46.64 339   P        P         01 25 25.0 +0.6
TGUH                               IAmb     IAmb      01 25 41.7
      comp=Z,325nm,1.1s
TGUH  Tegucigalpa,Un   46.64 339   P        P         01 25 24.1 -0.3
      comp=Z,19µmcomp=Z,5µmcomp=Z,342nm,1.1s
TGUH  Tegucigalpa,Un   46.64 339  ⇑P        P         01 25 25.3 +0.9
MAGL  Barre de l'ile   47.09  14   IAMs_20  IAMs_20   01 47 15.5
      comp=Z,29µm,22.0s
MMLZ  Guadeloupe Bro   47.10  13  eP        P         01 25 19.8 -8.0
MMLZ                               x        x         01 26 51.4
MMLZ                               x        x         01 36 01.2
CBE   Ff, Capester     47.14  13   IAMs_20  IAMs_20   01 48 18.5
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      comp=Z,28µm,20.0s
DHSZ  Broadband at M   47.31  13  eP        P         01 25 24.6 -4.8
DHSZ                               x        x         01 35 42.5
GDHS  Morne Mazeau,    47.31  13   IAMs_20  IAMs_20   01 47 12.7
      comp=Z,22µm,22.0s
DSDZ  La Diserade, G   47.49  14  eP        P         01 25 27.9 -3.0
DSDZ                               x        x         01 27 21.9
DSDZ                               x        x         01 32 16.9
GDSD  La Dsirade Is    47.49  14   IAMs_20  IAMs_20   01 49 07.0
      comp=Z,20µm,20.0s
ABD   La Joyeuse, An   47.56  13   IAMs_20  IAMs_20   01 48 29.9
      comp=Z,27µm,20.0s
MTO3  Montecristo      47.64 336   IAmb     IAmb      01 25 50.1
      comp=Z,363nm,1.4s
MLYT  Lee's Yard       47.66  12  eP        P         01 25 28.8 -3.4
MLYT                               x        x         01 36 04.1
SKI   Saint Kitts      48.16  11  eP        P         01 25 35.2 -0.9
SEUS  St. Eustatius    48.28  11   IAMs_20  IAMs_20   01 49 40.6
      comp=Z,23µm,19.0s
SEUS  St. Eustatius    48.28  11  eP        P         01 25 34.2 -2.7
SEUS                               x        x         01 35 37.7
OBIP  Obispado Ponce   48.35   6   IAmb     IAmb      01 25 42.3
      comp=Z,186nm,0.8s
SABA  Saba             48.36  11   IAmb     IAmb      01 25 54.4
      comp=Z,231nm,1.0s
SABA                               IAMs_20  IAMs_20   01 49 10.8
      comp=Z,25µm,22.0s
SABA  Saba             48.36  11  eP        P         01 25 35.9 -1.7
SABA                               x        x         01 36 24.1
PDPR  Patillas Dam,    48.38   7   IAmb     IAmb      01 25 40.9
      comp=Z,209nm,1.1s
SJG   San Juan         48.46   7   LR       LR        01 48 00.4
      comp=Z,17µm,20.0s,baz=184,slow=38
SJG   San Juan         48.46   7   P        P         01 25 37.3 -1.0
SJG                                pmax     pmax
      comp=Z,268nm,1.0s
SJG   San Juan         48.46   7   P        P         01 25 37.3 -1.0
SJG                                IAmb     IAmb      01 25 42.1
      comp=Z,268nm,0.9s
SJG   San Juan         48.46   7   P        P         01 25 37.3 -1.0
SJG                                ScP      ScP       01 30 51.6 -4.9
APG   El Apazote       48.59 335   LR       LR        01 42 13.6
      comp=Z,1µm,20.3s,baz=252,slow=31
MTDJ  Mount Denham     48.62 353   P        P         01 25 35.8 -3.9
      comp=Z,24µmcomp=Z,4µmcomp=Z,163nm,1.1s
MTDJ  Mount Denham     48.62 353  ⇑P        P         01 25 39.2 -0.5
ANWB  Willy Bob        48.66  13   IAMs_20  IAMs_20   01 47 50.7
      comp=Z,23µm,20.0s
ANWB  Willy Bob        48.66  13   P        P         01 25 35.6 -4.3
      comp=Z,20µmcomp=Z,6µmcomp=Z,378nm,1.2s
ANWB  Willy Bob        48.66  13  ⇑P        P         01 25 37.2 -2.7
ANWB  Willy Bob        48.66  13  eP        P         01 25 37.7 -2.2
ANWB                               x        x         01 40 40.0
SMRT  St. Maarten      48.81  11   IAMs_20  IAMs_20   01 48 11.7
      comp=Z,18µm,22.0s
SMRT  St. Maarten      48.81  11  eP        P         01 25 39.0 -2.1
SMRT                               x        x         01 36 13.2
SDDR  Presa de Saban   49.04   0   IAMs_20  IAMs_20   01 48 13.3
      comp=Z,25µm,20.0s
SDDR  Presa de Saban   49.04   0   P        P         01 25 41.9 -0.9
      comp=Z,25µmcomp=Z,5µmcomp=Z,58nm,1.5s
GTBY  Guantanamo Bay   50.09 356   P        P         01 25 51.0 +0.2
      comp=Z,19µmcomp=Z,6µmcomp=Z,129nm,0.8s
GTBY  Guantanamo Bay   50.09 356  ⇑P        P         01 25 51.5 +0.8
PTCN  Pitcairn Islan   51.54 261   IAMs_20  IAMs_20   01 41 48.2
      comp=Z,17µm,20.0s
GRTK  Grand Turk       51.56   1   IAMs_20  IAMs_20   01 49 42.5
      comp=Z,20µm,20.0s
GRTK  Grand Turk       51.56   1   P        P         01 26 01.3 -0.5
      comp=Z,27µmcomp=Z,12µmcomp=Z,289nm,1.5s
CMIG  Matias Romero    52.20 331   P        P         01 26 08.3 +1.6
      comp=Z,22nm,0.9s,baz=168,slow=3.8,SNR=14
CMIG                               S        S         01 33 29.3 -0.1
      comp=Z,0.6nm,0.3s,baz=138,slow=13,SNR=1.5
CMIG                               LR       LR        01 43 15.6
      comp=Z,15µm,21.4s,baz=160,slow=30
      comp=Z,22nm,0.9s
VNA3  Neumayer Olymp   52.62 159  ⇑P        P         01 26 08.7 -0.6
      comp=Z,86nm,0.7s
VNA3                              ⇑S        S         01 33 33.1 -1.0
      comp=E,2.2nm,0.8s
TEIG  Tepich           52.76 340   P        P         01 26 11.1 +0.3
TEIG  Tepich           52.76 340   P        P         01 26 10.1 -0.7
TEIG  Tepich           52.76 340  ⇓P        P         01 26 11.1 +0.3
TEIG  Tepich           52.76 340   P        P         01 26 11.4 +0.7
TEIG                               pP       sP        01 26 23.0 -1.3
VNA1  Neumayer--Stat   52.91 158  ⇑P        P         01 26 11.1 -0.3
      comp=Z,113nm,1.1s
CAIB  Caibarien        53.07 351   IAmb     IAmb      01 26 29.9
      comp=Z,588nm,1.7s
VNA2  Neumayer--Watz   53.26 158  ⇑P        P         01 26 13.4 -0.6
      comp=Z,114nm,0.7s,baz=291,slow=8.2
VNA2                              ⇑S        S         01 33 42.2 -0.5
      comp=E,1.9nm,0.8s,baz=217,slow=16
SNAA  Sanae            54.85 159  ⇑P        P         01 26 25.0 -0.6
      comp=Z,5µm,1.2s
SNAA  Sanae            54.85 159   P        P         01 26 25.0 -0.6
      comp=Z,251nm,1.0s,baz=279,slow=7.0,SNR=126
SNAA                               S        S         01 34 01.6 -2.8
      comp=Z,3.6nm,0.9s,baz=287,slow=11,SNR=2.1
SNAA                               LR       LR        01 50 11.2
      comp=Z,11µm,18.4s,baz=295,slow=36
SNAA                               PKPPKP             01 56 33.1
      comp=Z,2.8nm,0.8s,baz=26,slow=2.0,SNR=3.5
      comp=Z,251nm,1.0s
SNAA  Sanae            54.85 159c iP        P         01 26 24.8 -0.8
SNAA                               pmax     pmax
      comp=Z,344nm,1.2s
SNAA                               MLR      MLR
      comp=Z,12µm,19.0s
SNAA  Sanae            54.85 159   P        P         01 26 24.9 -0.6
SNAA  Sanae            54.85 159   IAMs_20  IAMs_20   01 47 08.3
      comp=Z,25µm,22.0s
UNM   Universidad Na   56.05 328   IAMs_20  IAMs_20   01 45 43.9
      comp=Z,36µm,19.0s
UNM   Universidad Na   56.05 328   P        P         01 26 37.9 +2.9
UNM                                pP       sP        01 26 49.7 +1.5
TROLL Troll, Antarti   56.56 159  ⇑P        P         01 26 37.3 -0.6
      comp=Z,4µm,0.6s
060A  Indiantown       57.66 351   IAMs_20  IAMs_20   01 51 56.3
      comp=Z,9µm,22.0s
ASCN  Ascension        57.87  80   IAMs_20  IAMs_20   01 50 03.8
      comp=Z,27µm,20.0s
DWPF  Disney Wildern   58.87 350   IAMs_20  IAMs_20   01 56 53.4
      comp=Z,5µm,20.0s
DWPF  Disney Wildern   58.87 350   P        P         01 26 54.7 +0.3
NVL   N'lazarevskaya   59.55 158  eP        P         01 26 57.6 -1.1
NVL                               eS        S         01 35 01.1 -4.9
NVL                               eSS       SS        01 39 09.5 +8.5
NVL                                pmax     pmax
      comp=Z,203nm,1.0s
NVL                                MLR      MLR
      comp=Z,9µm,19.0s
QSPA  South Pole Qui   59.88 180   P        P         01 27 01.4 +0.1
      comp=Z,302nm,1.0s,baz=158,slow=1.9,SNR=314
QSPA                               S        S         01 35 09.5 -1.3
      comp=Z,3.3nm,1.0s,baz=242,slow=16,SNR=1.9
QSPA                               LR       LR        01 52 42.2
      comp=Z,12µm,21.6s,baz=170,slow=36
QSPA                               PKP2bc             01 56 30.8
      comp=Z,5.5nm,1.1s,baz=268,slow=3.1,SNR=3.8
      comp=Z,302nm,1.0s
QSPA  South Pole Qui   59.88 180   P        P         01 27 01.4 +0.1
QSPA  South Pole Qui   59.88 180   P        P         01 27 01.8 +0.5
QSPA                               pP       sP        01 27 13.5 -1.4
656A  Willston         60.28 349   P        P         01 27 03.9 -0.2
ZAIG  Zacatecas        60.59 327   IAmb     IAmb      01 27 21.7
      comp=Z,246nm,1.6s
SHEL  Horse Pasture    61.51  93   IAMs_20  IAMs_20   01 49 38.8
      comp=Z,12µm,20.0s
H06S1 SOCORRO T        61.75 317   T        T         02 34 27.1
      SNR=14
451A  Vernon           62.09 346   P        P         01 27 16.3 -0.1
HBVL  Hebbronville     62.66 333   IAmb     IAmb      01 27 34.9
      comp=Z,291nm,1.2s
BBSR  BB Station       62.72   7   P        P         01 27 20.3 -0.2
BBSR  BB Station       62.72   7   IAMs_20  IAMs_20   01 56 01.3
      comp=Z,7µm,20.0s
BBSR  BB Station       62.72   7   P        P         01 27 20.8 +0.3
BBSR                               pP       sP        01 27 32.8 -1.3
250A  Grady            63.51 346   IAmb     IAmb      01 27 43.1
      comp=Z,263nm,1.2s
152A  Waverly Hall     63.88 348   IAmb     IAmb      01 27 44.7
      comp=Z,188nm,1.3s
441A  DeRidder         64.12 339   IAmb     IAmb      01 27 45.2
      comp=Z,398nm,1.4s
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HKT   Hockley          64.23 337c iP        P         01 27 31.9 +1.4
HKT                                pmax     pmax
      comp=Z,341nm,1.6s
HKT   Hockley          64.23 337   P        P         01 27 31.6 +1.1
HKT   Hockley          64.23 337   P        P         01 27 32.7 +2.2
HKT                                pP       sP        01 27 43.9 +0.1
Y58A  Scranton         64.35 353   IAmb     IAmb      01 27 45.4
      comp=Z,317nm,1.2s
GOGA  Godfrey          64.39 349   P        P         01 27 31.8 +0.3
GOGA  Godfrey          64.39 349   IAMs_20  IAMs_20   01 52 54.5
      comp=Z,8µm,21.0s
GOGA  Godfrey          64.39 349   IAmb     IAmb      01 27 45.1
      comp=Z,179nm,1.4s
Y57A  Sumter           64.54 352   IAmb     IAmb      01 27 46.4
      comp=Z,251nm,1.4s
SACV  Santiago Islan   64.55  53   P        P         01 27 32.9 -0.1
SACV  Santiago Islan   64.55  53   IAMs_20  IAMs_20   01 56 20.7
      comp=Z,13µm,18.0s
LRAL  Lakeview Retre   64.69 346   IAmb     IAmb      01 27 50.3
      comp=Z,190nm,1.3s
LRAL                               IAMs_20  IAMs_20   02 00 45.3
      comp=Z,5µm,20.0s
Y52A  Lilburn          64.93 349   IAmb     IAmb      01 27 52.4
      comp=Z,211nm,1.1s
Z47A  Carrollton       65.08 345   IAmb     IAmb      01 27 53.0
      comp=Z,383nm,1.4s
BIRD  Birdtown, Kers   65.17 352   IAmb     IAmb      01 27 50.6
      comp=Z,265nm,1.5s
Y49A  Blount Mountai   65.36 346   IAmb     IAmb      01 27 54.6
      comp=Z,227nm,1.4s
PAULI Pauline          65.52 351   IAmb     IAmb      01 27 52.9
      comp=Z,285nm,1.5s
HPIG                   65.60 327   IAmb     IAmb      01 27 54.8
      comp=Z,315nm,1.3s
435B  Jarrell          65.60 336   IAmb     IAmb      01 27 57.4
      comp=Z,262nm,1.2s
LPIG  La Paz           65.63 321   P        P         01 27 40.8 +1.0
      comp=Z,14nm,0.3s,baz=311,slow=3.4,SNR=3.5
LPIG                               LR       LR        01 50 09.3
      comp=Z,5µm,21.6s,baz=118,slow=30
      comp=Z,14nm,0.3s
KMSC  Kings Mountain   65.77 351   IAmb     IAmb      01 27 54.4
      comp=Z,212nm,1.4s
BG3   Lake Jocassee    65.85 350   IAmb     IAmb      01 27 58.2
      comp=Z,246nm,1.3s
Y45A  Yeager Farm, C   66.06 344   IAmb     IAmb      01 28 00.8
      comp=Z,737nm,1.2s
X48A  Hartselle        66.07 346   IAmb     IAmb      01 28 00.0
      comp=Z,382nm,1.2s
W52A  Murphy           66.11 349   IAmb     IAmb      01 28 00.5
      comp=Z,204nm,1.1s
JCT   Junction City    66.15 334   P        P         01 27 41.6 -1.5
V55A  Taylorsville     66.46 352   IAmb     IAmb      01 27 58.9
      comp=Z,330nm,1.4s
V53A  Saluda           66.50 350   IAmb     IAmb      01 27 59.1
      comp=Z,298nm,1.4s
V53A                               IAMs_20  IAMs_20   01 59 00.8
      comp=Z,11µm,21.0s
CPCT  Cooper Cave      66.56 349   IAmb     IAmb      01 28 03.2
      comp=Z,276nm,1.1s
BRDY  Brady            66.57 335   IAmb     IAmb      01 28 03.3
      comp=Z,303nm,1.2s
CCAR  Cane Creek       66.68 342   IAmb     IAmb      01 28 04.2
      comp=Z,313nm,1.2s
SBA   Scott Base       66.72 191   P        P         01 27 46.9 +0.8
SBA                                pmax     pmax
      comp=Z,466nm,1.6s
SBA   Scott Base       66.72 191   P        P         01 27 46.9 +0.8
SBA   Scott Base       66.72 191   P        P         01 27 47.4 +1.2
SBA                                pP       sP        01 28 00.2 +0.3
TXAR  Lajitas Array    66.73 330   P        P         01 27 48.0 +1.1
      comp=Z,8.5nm,0.7s,baz=152,slow=8.3,SNR=48
TXAR                               S        S         01 36 40.0 +3.1
      comp=Z,0.4nm,1.0s,baz=173,slow=12,SNR=1.0
TXAR                               LR       LR        01 52 56.9
      comp=Z,17µm,18.4s,baz=139,slow=32
TXAR                               PKP2bc   P'P'bc    01 56 14.8 -0.5
      comp=Z,1.7nm,1.1s,baz=321,slow=3.2,SNR=6.9
      comp=Z,8.5nm,0.7s
TX31  Lajitas Ar. Si   66.74 330   IAmb     IAmb      01 28 00.9
      comp=Z,324nm,1.6s
U56A  King             66.84 352   IAmb     IAmb      01 28 01.7
      comp=Z,299nm,1.5s
U56A                               IAMs_20  IAMs_20   01 56 17.9
      comp=Z,5µm,20.0s
TREL  Terrell          66.87 338   IAmb     IAmb      01 28 01.6
      comp=Z,347nm,1.3s
FW13  Cleburne         66.97 336   IAmb     IAmb      01 28 02.7
      comp=Z,247nm,1.2s
Z38A  Mt. Pleasant     67.00 339   IAmb     IAmb      01 28 02.4
      comp=Z,392nm,1.3s
V48A  Smith Brothers   67.27 347   IAmb     IAmb      01 28 07.8
      comp=Z,266nm,1.1s
V48A                               IAMs_20  IAMs_20   02 02 36.4
      comp=Z,5µm,19.0s
TZTN  Tazewell         67.47 350   IAmb     IAmb      01 28 05.1
      comp=Z,272nm,1.3s
CLTN  Cedars of Leba   67.51 347   IAmb     IAmb      01 28 05.6
      comp=Z,385nm,1.7s
X40A  Basin Creek Fa   67.51 341   IAmb     IAmb      01 28 04.7
      comp=Z,265nm,2.0s
FW06  Azle             67.58 337   IAmb     IAmb      01 28 05.7
      comp=Z,429nm,1.7s
ALPN  Alpine           67.62 330   IAmb     IAmb      01 28 06.5
      comp=Z,320nm,1.5s
UALR  University of    67.65 342   IAmb     IAmb      01 28 09.6
      comp=Z,180nm,1.3s
VNDA  Vanda            67.75 191   P        P         01 27 53.6 +1.0
      comp=Z,25nm,1.0s,baz=142,slow=3.9,SNR=40
VNDA                               S        S         01 36 52.5 +4.7
      comp=Z,2.1nm,1.2s,baz=112,slow=19,SNR=1.8
VNDA                               PKP2bc   P'P'bc    01 56 09.4  -12
      comp=Z,3.5nm,1.2s,baz=328,slow=5.6,SNR=6.1
VNDA                               LR       LR        01 56 21.9
      comp=Z,6µm,18.0s,baz=140,slow=35
      comp=Z,25nm,1.0s
VNDA  Vanda            67.75 191   P        P         01 27 53.3 +0.6
VNDA                               IAmb     IAmb      01 28 07.1
      comp=Z,249nm,1.4s
S61A  Accomac          67.77 357   IAMs_20  IAMs_20   01 58 17.2
      comp=Z,10µm,22.0s
MIAR  Mount Ida        67.78 341   IAmb     IAmb      01 28 07.5
      comp=Z,218nm,1.2s
Z35A  Perchaven, San   67.81 337   IAmb     IAmb      01 28 11.1
      comp=Z,690nm,1.1s
U49A  Red Boiling Sp   67.81 348   IAmb     IAmb      01 28 06.4
      comp=Z,451nm,1.7s
WVT   Waverly          67.85 346   P        P         01 27 53.2 -0.5
WVT                                pmax     pmax
      comp=Z,332nm,1.2s
WVT   Waverly          67.85 346   P        P         01 27 53.2 -0.5
WVT   Waverly          67.85 346   P        P         01 27 53.3 -0.4
WVT                                pP       sP        01 28 05.8 -1.6
SGCY  Sterling City    67.94 333   IAmb     IAmb      01 28 07.9
      comp=Z,271nm,1.2s
TPB05 Hovey Rd         67.96 331   IAmb     IAmb      01 28 08.7
      comp=Z,193nm,1.1s
MNHN  Monahans         68.09 332   IAmb     IAmb      01 28 09.2
      comp=Z,188nm,0.9s
TMB01 Midkiff          68.11 332   IAmb     IAmb      01 28 13.1
      comp=Z,283nm,1.3s
R58B  Mineral          68.20 355   IAMs_20  IAMs_20   02 00 52.7
      comp=Z,10µm,20.0s
229A  Bryant Ranch,    68.26 333   IAmb     IAmb      01 28 10.0
      comp=Z,178nm,1.3s
S54A  Dingess, Beckl   68.39 352   IAmb     IAmb      01 28 10.8
      comp=Z,182nm,1.2s
CBN   Corbin Frederi   68.40 355   IAmb     IAmb      01 28 21.9
      comp=Z,269nm,1.4s
TPB06 Permian Basin    68.55 331   IAmb     IAmb      01 28 12.1
      comp=Z,265nm,1.5s
LCAR  Lake Charles     68.56 343   IAmb     IAmb      01 28 15.1
      comp=Z,303nm,1.3s
PECS  Pecos            68.58 331   IAmb     IAmb      01 28 12.6
      comp=Z,445nm,1.6s
FCAR  Ozark Folk Cen   68.64 342   IAmb     IAmb      01 28 15.6
      comp=Z,203nm,1.3s
R55A  Marlinton        68.73 353   IAmb     IAmb      01 28 13.1
      comp=Z,183nm,1.2s
129A  Stewart Farms,   68.87 333   IAmb     IAmb      01 28 17.6
      comp=Z,225nm,1.4s
T45A  Paducah          68.88 345   IAmb     IAmb      01 28 18.3
      comp=Z,610nm,0.8s
SN07  Snyder 07        68.90 334   IAmb     IAmb      01 28 13.7
      comp=Z,284nm,1.3s
PBMO  Poplar Bluff     69.06 344   IAmb     IAmb      01 28 14.4
      comp=Z,195nm,1.0s
128A  Castleberry Fa   69.10 332   IAmb     IAmb      01 28 16.1
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      comp=Z,221nm,1.3s
POST  Post              69.11 333  IAmb     IAmb     01 28 15.0
      comp=Z,362nm,1.6s
TPB28                   69.11 330  IAmb     IAmb     01 28 17.0
      comp=Z,336nm,1.4s
SRIG  Santa Rosalia     69.24 322  IAmb     IAmb     01 28 16.8
      comp=Z,280nm,1.6s
R50A  Paris             69.29 349  IAmb     IAmb     01 28 16.4
      comp=Z,178nm,1.4s
R50A                               IAMs_20  IAMs_20  01 56 53.8
      comp=Z,9µm,22.0s
SOK   Sop, Niakhar      69.32  58  P        P        01 28 03.1  -0.3
SOK                                pP       pP       01 28 15.1 +1.8
W35A  Tecumseh          69.35 338  IAmb     IAmb     01 28 16.6
      comp=Z,271nm,1.4s
Q56A  Snyder Ridge,     69.38 354  IAmb     IAmb     01 28 17.4
      comp=Z,166nm,1.1s
R49A  Shelbyville       69.44 349  IAmb     IAmb     01 28 17.2
      comp=Z,466nm,1.8s
R49A                               IAMs_20  IAMs_20  01 55 37.8
      comp=Z,7µm,22.0s
T42A  Van Buren         69.46 343  IAmb     IAmb     01 28 20.6
      comp=Z,213nm,1.4s
HHAR  Hobbs             69.50 341  IAmb     IAmb     01 28 21.2
      comp=Z,299nm,1.1s
MNTX  Cornudas Mount    69.52 330  IAmb     IAmb     01 28 20.9
      comp=Z,231nm,1.4s
WCI   Wyandotte Cave    69.58 348  P        P        01 28 03.7  -0.7
WCI                                pmax     pmax
      comp=Z,279nm,1.5s
WCI                                MLR      MLR
      comp=Z,7µm,20.0s
WCI   Wyandotte Cave    69.58 348  P        P        01 28 03.7  -0.7
WCI                                IAmb     IAmb     01 28 17.0
      comp=Z,279nm,1.4s
WMOK  Wichita Mounta    69.61 336  P        P        01 28 05.2 +0.4
WMOK  Wichita Mounta    69.61 336  IAmb     IAmb     01 28 21.7
      comp=Z,202nm,1.3s
FNO   Franklin          69.61 338  IAmb     IAmb     01 28 18.7
      comp=Z,342nm,1.2s
Q52A  Bidwell           69.66 351  IAmb     IAmb     01 28 18.6
      comp=Z,231nm,1.1s
S44A  Carbondale        69.66 345  IAmb     IAmb     01 28 18.0
      comp=Z,191nm,0.8s
P61A  Hammonton         69.72 357  IAMs_20  IAMs_20  02 00 36.7
      comp=Z,10µm,20.0s
P57A  Homestead Farm    69.72 355  IAmb     IAmb     01 28 20.4
      comp=Z,247nm,1.2s
U38A  Gravette          69.78 341  IAmb     IAmb     01 28 22.9
      comp=Z,180nm,1.2s
Q51A  Peebles           69.87 350  IAmb     IAmb     01 28 19.9
      comp=Z,279nm,1.3s
MCWV  Mont Chateau      70.06 353  IAmb     IAmb     01 28 20.9
      comp=Z,137nm,1.1s
P53A  Whipple           70.06 352  IAmb     IAmb     01 28 21.4
      comp=Z,408nm,1.6s
OK052 Battle Ridge R    70.10 338  IAmb     IAmb     01 28 24.7
      comp=Z,559nm,1.2s
OK052                              IAMs_20  IAMs_20  01 50 23.8
      comp=Z,2µm,22.0s
MVL   Millersville      70.12 356  IAmb     IAmb     01 28 33.5
      comp=Z,262nm,1.5s
OK029 Liberty Lake      70.12 338  IAmb     IAmb     01 28 21.7
      comp=Z,746nm,1.5s
OK029                              IAMs_20  IAMs_20  01 57 53.6
      comp=Z,4µm,20.0s
P51A  Williamsport      70.28 351  IAmb     IAmb     01 28 22.2
      comp=Z,184nm,1.1s
P52A  Corning           70.30 351  IAmb     IAmb     01 28 22.4
      comp=Z,267nm,1.1s
PAGS  Pennsylvania G    70.37 356  IAmb     IAmb     01 28 23.2
      comp=Z,191nm,1.1s
CCM   Cathedral Cave    70.47 344  P        P        01 28 10.1 +0.2
CCM                                pmax     pmax
      comp=Z,325nm,1.1s
CCM   Cathedral Cave    70.47 344  P        P        01 28 10.1 +0.2
CCM   Cathedral Cave    70.47 344  P        P        01 28 10.7 +0.7
CCM                                pP       sP       01 28 22.6  -1.0
BLO   Bloomington       70.53 348  IAmb     IAmb     01 28 22.8
      comp=Z,474nm,1.8s
OK051 E0350 and S346    70.58 339  IAmb     IAmb     01 28 27.9
      comp=Z,430nm,1.2s
OK051                              IAMs_20  IAMs_20  01 58 27.5
      comp=Z,5µm,21.0s
P48A  Milroy            70.62 349  IAmb     IAmb     01 28 24.1
      comp=Z,256nm,1.2s
O54A  Avella            70.63 353  IAmb     IAmb     01 28 23.7
      comp=Z,56nm,1.0s
O54A                               IAMs_20  IAMs_20  02 02 33.2
      comp=Z,9µm,20.0s
S39A  Bolivar           70.65 342  IAmb     IAmb     01 28 24.4
      comp=Z,312nm,1.2s
BRNJ  Basking Ridge     70.72 358  IAmb     IAmb     01 28 26.5
      comp=Z,320nm,1.6s
O52A  Adamsville        70.74 352  IAmb     IAmb     01 28 24.4
      comp=Z,152nm,1.2s
Q44A  Meyer Farm, Va    70.77 346  IAmb     IAmb     01 28 25.1
      comp=Z,457nm,1.6s
O53A  New Philadelph    70.79 352  IAmb     IAmb     01 28 25.8
      comp=Z,360nm,1.5s
T35A  Sooner Cattle     70.85 339  IAmb     IAmb     01 28 29.7
      comp=Z,443nm,1.3s
T35A                               IAMs_20  IAMs_20  01 57 27.1
      comp=Z,3µm,21.0s
SSPA  Standing Stone    70.86 355  P        P        01 28 13.0 +0.7
R40A  Maddies Statio    70.94 343  IAmb     IAmb     01 28 29.9
      comp=Z,391nm,1.0s
N58A  Sunbury           70.98 356  IAmb     IAmb     01 28 40.5
      comp=Z,199nm,1.4s
N58A                               IAMs_20  IAMs_20  02 00 38.1
      comp=Z,10µm,20.0s
ACSO  Alum Creek Sta    71.00 351  IAmb     IAmb     01 28 26.8
      comp=Z,361nm,1.3s
P46A  Rosedale          71.09 347  IAmb     IAmb     01 28 26.9
      comp=Z,744nm,1.7s
P46A                               IAMs_20  IAMs_20  02 02 37.7
      comp=Z,9µm,22.0s
PPTF  Pamatai, Papee    71.13 260  P        P        01 28 20.6 +6.0
      comp=Z,249nm,2.9s
PPTF  Pamatai, Papee    71.13 260  IAMs_20  IAMs_20  01 51 12.1
      comp=Z,11µm,19.0s
PPT   Papeete           71.15 260  P        P        01 28 16.7 +2.0
      comp=Z,59nm,1.0s,baz=235,slow=18,SNR=3.7
PPT                                LR       LR       01 51 22.5
      comp=Z,13µm,21.0s,baz=120,slow=29
      comp=Z,59nm,1.0s
O49A  Covington         71.16 350  IAmb     IAmb     01 28 27.6
      comp=Z,450nm,1.4s
O49A                               IAMs_20  IAMs_20  01 58 21.2
      comp=Z,10µm,22.0s
WSPT  Westport, CT      71.17 359  IAmb     IAmb     01 28 29.0
      comp=Z,198nm,1.4s
WSPT                               IAMs_20  IAMs_20  01 58 25.1
      comp=Z,7µm,22.0s
N53A  Lisbon            71.30 353  IAMs_20  IAMs_20  02 02 53.9
      comp=Z,9µm,20.0s
O48B  Farmland          71.35 349  IAmb     IAmb     01 28 27.8
      comp=Z,543nm,1.7s
O48B                               IAMs_20  IAMs_20  01 58 07.4
      comp=Z,10µm,22.0s
PAMR  Moraine State     71.35 353  IAmb     IAmb     01 28 28.7
      comp=Z,255nm,1.4s
NOKA  Waynoka           71.38 337  IAmb     IAmb     01 28 29.1
      comp=Z,184nm,1.0s
M63A  Gales Ferry       71.39 360  IAmb     IAmb     01 28 30.5
      comp=Z,139nm,1.5s
M63A                               IAMs_20  IAMs_20  01 59 01.7
      comp=Z,5µm,22.0s
M57A  Sunshine Farm,    71.50 356  IAmb     IAmb     01 28 30.1
      comp=Z,207nm,1.4s
M57A                               IAMs_20  IAMs_20  02 00 34.0
      comp=Z,12µm,22.0s
M65A  Busby, Falmout    71.55   1  IAMs_20  IAMs_20  02 05 27.0
      comp=Z,8µm,19.0s
KSPA  Keystone Colle    71.64 357  IAmb     IAmb     01 28 32.1
      comp=Z,303nm,1.9s
NPNY  Mohonk Preserv    71.77 358  IAmb     IAmb     01 28 42.9
      comp=Z,233nm,1.2s
N49A  Columbus Grove    71.85 350  IAmb     IAmb     01 28 32.0
      comp=Z,1µm,1.5s
N49A                               IAMs_20  IAMs_20  02 02 42.6
      comp=Z,7µm,20.0s
L64A  Middleborough     71.92   1  IAmb     IAmb     01 28 43.6
      comp=Z,100nm,1.1s
L64A                               IAMs_20  IAMs_20  02 05 28.8
      comp=Z,8µm,20.0s
M52A  Chesterland       72.08 352  IAMs_20  IAMs_20  02 03 28.6
      comp=Z,9µm,21.0s
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M50A  Fremont           72.16 351  IAmb     IAmb     01 28 33.8
      comp=Z,616nm,1.6s
M50A                               IAMs_20  IAMs_20  02 02 13.7
      comp=Z,6µm,21.0s
L56A  Greenwood         72.32 355  IAmb     IAmb     01 28 45.6
      comp=Z,226nm,1.1s
L56A                               IAMs_20  IAMs_20  02 02 20.8
      comp=Z,9µm,20.0s
HDIL  Hopedale          72.41 346  IAmb     IAmb     01 28 34.4
      comp=Z,661nm,1.8s
L61B  Northampton       72.44 359  IAmb     IAmb     01 28 35.8
      comp=Z,115nm,0.9s
L61B                               IAMs_20  IAMs_20  01 59 32.6
      comp=Z,6µm,22.0s
HRV   Adam Dziewonsk    72.49   0  P        P        01 28 22.0   0.0
HRV                                pmax     pmax
      comp=Z,86nm,1.0s
HRV   Adam Dziewonsk    72.49   0  P        P        01 28 22.0   0.0
HRV   Adam Dziewonsk    72.49   0  P        P        01 28 23.1 +1.1
HRV                                pP       sP       01 28 35.6  -0.2
TUC   Tucson            72.52 326  P        P        01 28 23.6 +1.0
TUC                                pmax     pmax
      comp=Z,212nm,1.5s
TUC   Tucson            72.52 326  P        P        01 28 23.6 +1.0
TUC   Tucson            72.52 326  IAMs_20  IAMs_20  01 55 51.7
      comp=Z,13µm,20.0s
P38A  Dawn              72.53 342  IAmb     IAmb     01 28 35.3
      comp=Z,202nm,0.9s
RTBA  Rita Blanca       72.56 334  IAmb     IAmb     01 28 36.6
      comp=Z,513nm,1.8s
TRY   Troy              72.74 358  IAmb     IAmb     01 28 38.7
      comp=Z,367nm,1.4s
ALQ   Albuquerque       72.75 331  IAmb     IAmb     01 28 42.5
      comp=Z,202nm,1.2s
ALQ   Albuquerque       72.75 331  IAmb     IAmb     01 28 42.4
      comp=Z,200nm,1.2s
ALQ                                IAMs_20  IAMs_20  01 55 54.6
      comp=Z,18µm,20.0s
ANMO  Albuquerque       72.76 331  LR       LR       01 56 16.6
      comp=Z,18µm,19.9s,baz=160,slow=32
ANMO  Albuquerque       72.76 331c iP       P        01 28 25.1 +1.0
ANMO                               pmax     pmax
      comp=Z,216nm,1.3s
ANMO                               MLR      MLR
      comp=Z,4µm,14.0s
ANMO  Albuquerque       72.76 331  P        P        01 28 25.3 +1.2
ANMO  Albuquerque       72.76 331  P        P        01 28 26.4 +2.3
ANMO                               pP       sP       01 28 37.7 +0.4
TASM  ASL Pad, Albuq    72.76 331  IAMs_20  IAMs_20  01 55 54.7
      comp=Z,18µm,20.0s
TASM  ASL Pad, Albuq    72.76 331  IAMs_20  IAMs_20  01 55 54.7
      comp=Z,18µm,20.0s
TASM  ASL Pad, Albuq    72.76 331  IAMs_20  IAMs_20  01 55 54.7
      comp=Z,18µm,20.0s
TASM  ASL Pad, Albuq    72.76 331  IAmb     IAmb     01 28 42.5
      comp=Z,216nm,1.3s
TASM  ASL Pad, Albuq    72.76 331  IAmb     IAmb     01 28 42.5
      comp=Z,219nm,1.3s
K57A  Scipio Center     72.85 356  IAMs_20  IAMs_20  02 03 00.7
      comp=Z,11µm,20.0s
KSU1  Kansas State U    72.90 340  IAmb     IAmb     01 28 37.5
      comp=Z,254nm,1.3s
N41A  Harden Midland    72.90 345  IAmb     IAmb     01 28 37.3
      comp=Z,244nm,0.9s
R32A  Long Quarter,     72.93 338  IAmb     IAmb     01 28 39.3
      comp=Z,572nm,1.5s
MMNY  Mt. Morris Dam    72.94 355  IAmb     IAmb     01 28 39.1
      comp=Z,266nm,1.2s
M44A  Midewin, Midew    72.97 347  IAmb     IAmb     01 28 38.3
      comp=Z,344nm,1.3s
M44A                               IAMs_20  IAMs_20  02 04 06.2
      comp=Z,9µm,21.0s
AAM   Ann Arbor         73.13 351  IAMs_20  IAMs_20  01 58 58.3
      comp=Z,9µm,21.0s
PIX   Pinacate          73.25 324  IAmb     IAmb     01 28 40.9
      comp=Z,281nm,1.6s
K50A  Casco             73.45 352  IAmb     IAmb     01 28 40.4
      comp=Z,217nm,0.9s
J59A  Piesco            73.49 358  IAmb     IAmb     01 28 41.7
      comp=Z,115nm,1.1s
J59A                               IAMs_20  IAMs_20  02 00 13.6
      comp=Z,7µm,22.0s
J57A  Williamstown      73.50 357  IAmb     IAmb     01 28 41.5
      comp=Z,132nm,1.1s
J57A                               IAMs_20  IAMs_20  02 05 01.8
      comp=Z,6µm,19.0s
N38A  Joes South For    73.55 343  IAmb     IAmb     01 28 41.5
      comp=Z,272nm,0.8s
N38A                               IAMs_20  IAMs_20  02 02 40.9
      comp=Z,5µm,22.0s
SFX   San Felipe        73.56 322  IAmb     IAmb     01 28 42.8
      comp=Z,279nm,1.5s
CBKS  Cedar Bluff       73.62 337  IAmb     IAmb     01 28 46.6
      comp=Z,462nm,1.1s
CBKS                               IAMs_20  IAMs_20  02 07 26.1
      comp=Z,4µm,18.0s
HNH   Hanover           73.69 360  IAmb     IAmb     01 28 43.7
      comp=Z,102nm,1.1s
HNH                                IAMs_20  IAMs_20  02 03 30.6
      comp=Z,6µm,20.0s
DBIC  Dimbokro          73.70  72  P        P        01 28 28.9  -1.0
      comp=Z,120nm,1.0s,baz=231,slow=6.8,SNR=52
DBIC                               S        SKiKP    01 37 53.6  -3.8
      comp=Z,2.1nm,0.7s,baz=216,slow=12,SNR=1.0
DBIC                               LR       LR       01 58 45.0
      comp=Z,33µm,19.4s,baz=239,slow=34
      comp=Z,120nm,1.0s
DBIC  Dimbokro          73.70  72  P        P        01 28 29.0  -1.0
DBIC                               IAmb     IAmb     01 28 31.2
      comp=Z,173nm,1.1s
DBIC  Dimbokro          73.70  72  P        P        01 28 28.5  -1.4
T25A  Trinidad          73.82 333  IAmb     IAmb     01 28 45.7
      comp=Z,744nm,1.6s
T25A                               IAMs_20  IAMs_20  01 57 55.6
      comp=Z,8µm,19.0s
I62A  Tamworth          73.86   0  P        P        01 28 31.1 +1.1
L42A  Oliver, Polo      73.88 346  IAmb     IAmb     01 28 47.0
      comp=Z,218nm,1.3s
X18A  Snowflake         73.95 328  IAmb     IAmb     01 28 45.8
      comp=Z,283nm,1.5s
I63A  Otisfield         74.04   1  P        P        01 28 32.2 +1.1
J47A  Sunmer            74.21 350  IAmb     IAmb     01 28 45.7
      comp=Z,145nm,0.9s
J47A                               IAMs_20  IAMs_20  02 00 12.1
      comp=Z,6µm,21.0s
LBNH  Lisbon            74.22 360  IAmb     IAmb     01 28 46.5
      comp=Z,97nm,1.1s
LBNH                               IAMs_20  IAMs_20  02 01 29.7
      comp=Z,7µm,21.0s
L40A  Anamosa           74.27 345  IAmb     IAmb     01 28 45.5
      comp=Z,289nm,0.9s
K43A  Burlington        74.29 347  IAmb     IAmb     01 28 45.6
      comp=Z,253nm,1.4s
K43A                               IAMs_20  IAMs_20  02 03 03.3
      comp=Z,9µm,22.0s
113A  Mohawk Valley,    74.37 324  IAmb     IAmb     01 28 47.7
      comp=Z,280nm,1.8s
H62A  Milan             74.56   0  IAmb     IAmb     01 29 01.3
      comp=Z,46nm,1.2s
H62A                               IAMs_20  IAMs_20  02 06 18.6
      comp=Z,5µm,20.0s
X16A  Lo Mia Camp, P    74.56 327  IAmb     IAmb     01 28 49.3
      comp=Z,255nm,1.3s
LONY  Lake Ozonia       74.65 358  IAmb     IAmb     01 28 48.5
      comp=Z,119nm,1.2s
LONY                               IAMs_20  IAMs_20  02 00 59.2
      comp=Z,6µm,22.0s
FLET  Fletcher          74.71 359  IAmb     IAmb     01 28 49.8
      comp=Z,198nm,1.2s
SDCO  Great Sand Dun    74.77 333  IAmb     IAmb     01 28 50.3
      comp=Z,447nm,1.7s
SDCO                               IAMs_20  IAMs_20  01 58 14.9
      comp=Z,13µm,19.0s
KSCO  Kaye Shedlock'    74.80 335  IAmb     IAmb     01 28 51.0
      comp=Z,1µm,1.6s
KSCO                               IAMs_20  IAMs_20  01 58 46.3
      comp=Z,5µm,20.0s
JFWS  Jewell Farm       74.88 346  IAMs_20  IAMs_20  02 05 32.9
      comp=Z,9µm,22.0s
JFWS  Jewell Farm       74.88 346  IAmb     IAmb     01 28 50.2
      comp=Z,387nm,1.4s
I45A  Fountain          75.21 349  IAMs_20  IAMs_20  02 00 42.6
      comp=Z,9µm,22.0s
G65A  Princeton         75.27   3  IAmb     IAmb     01 28 53.5
      comp=Z,166nm,1.5s
G65A                               IAMs_20  IAMs_20  01 59 56.4
      comp=Z,8µm,21.0s
S22A  4UR Ranch, Cre    75.31 332  IAmb     IAmb     01 28 53.5
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      comp=Z,309nm,1.7s
YUH   Yuha Desert       75.39 322  IAmb     IAmb     01 28 53.8
      comp=Z,272nm,1.6s
WUAZ  Wupatki           75.43 327  IAmb     IAmb     01 28 55.2
      comp=Z,376nm,1.4s
WUAZ                               IAMs_20  IAMs_20  01 56 48.5
      comp=Z,13µm,22.0s
L34A  Svendsen Farm,    75.48 341  IAmb     IAmb     01 28 52.5
      comp=Z,260nm,0.8s
L34A                               IAMs_20  IAMs_20  02 06 29.2
      comp=Z,5µm,21.0s
BLYC  Blythe            75.53 324  IAmb     IAmb     01 28 54.7
      comp=Z,364nm,1.6s
I42A  Draeger Farm,     75.55 347  IAmb     IAmb     01 28 54.0
      comp=Z,254nm,1.4s
MVCO  Mesa Verde        75.55 330  IAmb     IAmb     01 28 54.8
      comp=Z,332nm,1.3s
MVCO                               IAMs_20  IAMs_20  01 57 55.3
      comp=Z,14µm,20.0s
Q24A  Divide            75.69 334  IAmb     IAmb     01 28 55.6
      comp=Z,253nm,0.9s
BUKO  Buck Lake         75.75 354  IAmb     IAmb     01 28 55.4
      comp=Z,291nm,1.3s
BAR   Barrett           75.81 322  IAmb     IAmb     01 28 56.1
      comp=Z,239nm,1.5s
BAR                                IAMs_20  IAMs_20  01 54 45.0
      comp=Z,11µm,22.0s
I40A  Norwalk           75.89 346  IAmb     IAmb     01 28 55.8
      comp=Z,445nm,1.6s
H43A  Windswept, Lux    75.89 348  IAmb     IAmb     01 28 55.0
      comp=Z,203nm,1.2s
H43A                               IAMs_20  IAMs_20  02 05 13.7
      comp=Z,5µm,20.0s
BC3   Big Chuckawall    75.93 323  IAmb     IAmb     01 28 57.0
      comp=Z,311nm,1.5s
BC3                                IAMs_20  IAMs_20  01 57 25.2
      comp=Z,11µm,19.0s
LMN   Caledonia Moun    76.09   5  IAmb     IAmb     01 29 03.5
      comp=Z,148nm,0.9s
IRM   Iron Mountain     76.17 324  IAMs_20  IAMs_20  01 58 02.4
      comp=Z,8µm,19.0s
OGNE  Ogallala          76.31 337  IAmb     IAmb     01 28 58.5
      comp=Z,472nm,1.6s
SUR   Sutherland        76.31 120  LR       LR       01 59 02.5
      comp=Z,17µm,19.8s,baz=240,slow=33
SUR   Sutherland        76.31 120  P        P        01 28 46.2 +1.2
SUR   Sutherland        76.31 120  P        P        01 28 45.2 +0.2
SUR   Sutherland        76.31 120  IAMs_20  IAMs_20  01 58 45.2
      comp=Z,15µm,20.0s
SUR   Sutherland        76.31 120  P        P        01 28 46.0 +1.0
SUR                                pP       PcP      01 28 57.0 +0.2
PV01  Paradox Valley    76.36 331  IAmb     IAmb     01 28 59.6
      comp=Z,422nm,1.6s
PFO   Pinyon Flats O    76.42 323  P        P        01 28 46.9 +1.6
      comp=Z,7.9nm,0.9s,baz=140,slow=7.5,SNR=14
PFO                                S        S        01 38 31.5 +2.9
      comp=Z,0.5nm,0.4s,baz=142,slow=18,SNR=1.5
PFO                                LR       LR       01 56 12.9
      comp=Z,13µm,19.9s,baz=140,slow=31
      comp=Z,7.9nm,0.9s
PFO   Pinyon Flats O    76.42 323c iP       P        01 28 46.6 +1.3
PFO                                pmax     pmax
      comp=Z,306nm,1.4s
PFO                                MLR      MLR
      comp=Z,5µm,14.0s
PFO   Pinyon Flats O    76.42 323  P        P        01 28 47.5 +2.2
PFO                                IAmb     IAmb     01 29 00.1
      comp=Z,240nm,1.4s
PFO   Pinyon Flats O    76.42 323  IAMs_20  IAMs_20  01 56 01.1
      comp=Z,13µm,20.0s
PFO   Pinyon Flats O    76.42 323  P        P        01 28 47.3 +2.1
PFO                                x        x        01 28 56.7
BELC  Belle Mtn. Jos    76.48 323  IAmb     IAmb     01 29 00.2
      comp=Z,182nm,1.6s
BELC                               IAMs_20  IAMs_20  01 57 30.8
      comp=Z,12µm,19.0s
PV13  Radium Mtn., P    76.48 331  IAmb     IAmb     01 28 60.0
      comp=Z,200nm,1.1s
PV15  Paradox Valley    76.50 331  IAmb     IAmb     01 29 00.5
      comp=Z,401nm,1.5s
PV05  Paradox Valley    76.54 330  IAmb     IAmb     01 29 00.1
      comp=Z,430nm,1.6s
PV03  Paradox Valley    76.58 331  IAmb     IAmb     01 29 00.4
      comp=Z,301nm,1.5s
MAW   Mawson            76.58 164  P        P        01 28 45.0  -0.5
      comp=Z,38nm,1.0s,comp=Z,0.0nm
MAW   Mawson            76.58 164  P        P        01 28 45.1  -0.5
      comp=Z,106nm,0.9s,baz=214,slow=7.6,SNR=104
MAW                                S        S        01 38 29.3 +0.1
      comp=Z,1.1nm,0.9s,baz=240,slow=20,SNR=1.4
MAW                                PKPPKP   P'P'df   01 55 53.1   -11
      comp=Z,2.2nm,1.0s,baz=15,slow=4.7,SNR=4.2
MAW                                LR       LR       02 04 31.5
      comp=Z,23µm,19.7s,baz=232,slow=37
      comp=Z,106nm,0.9s
MAW   Mawson            76.58 164  P        P        01 28 45.1  -0.5
ISCO  Idaho Springs     76.59 334  P        P        01 28 47.2 +0.9
ISCO  Idaho Springs     76.59 334  IAmb     IAmb     01 29 00.7
      comp=Z,188nm,1.2s
ISCO                               IAMs_20  IAMs_20  01 59 04.1
      comp=Z,11µm,21.0s
PV18  Skein Mesa, Pa    76.60 331  IAmb     IAmb     01 29 00.4
      comp=Z,255nm,1.1s
U15A  North Rim         76.60 327  IAmb     IAmb     01 29 01.3
      comp=Z,286nm,1.5s
PV12  Saucer Basin,     76.61 331  IAmb     IAmb     01 29 04.8
      comp=Z,399nm,1.3s
I37A  Lemond, Waseca    76.63 344  IAmb     IAmb     01 28 59.2
      comp=Z,182nm,0.8s
PV17  East Wray Mesa    76.65 331  IAmb     IAmb     01 29 00.6
      comp=Z,419nm,1.7s
PV07  Paradox Valley    76.65 331  IAmb     IAmb     01 29 01.0
      comp=Z,298nm,1.7s
PV16  Nyswonger Mesa    76.65 331  IAmb     IAmb     01 29 00.8
      comp=Z,450nm,1.8s
PV04  Paradox Valley    76.72 331  IAmb     IAmb     01 29 01.0
      comp=Z,358nm,1.6s
PV10  Paradox Valley    76.76 331  IAmb     IAmb     01 29 01.0
      comp=Z,209nm,1.0s
PV22  Blue Mesa, Par    76.79 331  IAmb     IAmb     01 29 01.7
      comp=Z,450nm,1.7s
PV23  Carpenter Ridg    76.81 331  IAmb     IAmb     01 29 01.9
      comp=Z,417nm,1.4s
PV21  Cone Mtn., Par    76.89 331  IAmb     IAmb     01 29 02.3
      comp=Z,422nm,1.7s
ELS   Elsinore Mount    76.96 322  IAmb     IAmb     01 29 02.8
      comp=Z,306nm,1.4s
ACRG  Accra             77.00  76  IAmb     IAmb     01 28 50.0
      comp=Z,148nm,0.9s
D62A  Allapoint, All    77.10   2  IAmb     IAmb     01 29 03.5
      comp=Z,268nm,1.3s
D62A                               IAMs_20  IAMs_20  02 06 56.7
      comp=Z,5µm,19.0s
G40A  Rib Lake          77.12 347  IAmb     IAmb     01 29 02.9
      comp=Z,244nm,1.5s
G40A                               IAMs_20  IAMs_20  02 04 52.3
      comp=Z,8µm,22.0s
ECSD  EROS Data Cent    77.19 342  IAmb     IAmb     01 29 02.6
      comp=Z,277nm,0.9s
E46A  Sault Ste Mari    77.20 351  IAmb     IAmb     01 29 03.0
      comp=Z,453nm,1.6s
E46A                               IAMs_20  IAMs_20  02 00 36.2
      comp=Z,9µm,22.0s
F42A  Maple Grove Fa    77.21 348  IAmb     IAmb     01 29 02.5
      comp=Z,438nm,1.7s
F42A                               IAMs_20  IAMs_20  02 01 58.4
      comp=Z,9µm,22.0s
KNB   Kanab             77.32 327  IAmb     IAmb     01 29 06.1
      comp=Z,362nm,1.4s
PKCU  Pink Cliffs       77.43 328  IAmb     IAmb     01 29 05.8
      comp=Z,224nm,1.3s
BFSC  Mount Baldy Ra    77.54 322  IAmb     IAmb     01 29 06.0
      comp=Z,227nm,1.4s
BFSC                               IAMs_20  IAMs_20  01 56 34.7
      comp=Z,7µm,21.0s
MWC   Mount Wilson      77.74 322  IAmb     IAmb     01 29 07.2
      comp=Z,262nm,1.4s
PASC  Pasadena Art C    77.76 322  IAmb     IAmb     01 29 07.3
      comp=Z,273nm,1.4s
HAYD  Hayden            77.85 333  IAmb     IAmb     01 29 09.1
      comp=Z,554nm,1.6s
HAYD                               IAMs_20  IAMs_20  02 00 18.7
      comp=Z,5µm,20.0s
WIN   Windhoek          77.91 109  P        P        01 28 54.3 +0.2
WIN                                pmax     pmax
      comp=Z,200nm,1.1s
WIN   Windhoek          77.91 109  P        P        01 28 54.3 +0.2
WIN                                IAmb     IAmb     01 29 07.9
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	comp=Z,200nm,1.1s						
WIN	**Windhoek**	**77.91**	**109**	P	**P**	**01 28 54.3**	**+0.2**
WIN				pP	**sP**	**01 29 06.8**	**-1.2**
GSC	**Goldstone, Bar**	**77.92**	**324**	IAmb	IAmb	01 29 08.3	
	comp=Z,210nm,1.4s						
O20A	**White River Ci**	**77.92**	**332**	IAmb	IAmb	01 29 30.0	
	comp=Z,348nm,1.2s						
O20A				IAMs_20	IAMs_20	01 59 04.2	
	comp=Z,15µm,21.0s						
SZCU	**Shurtz Canyon**	**77.92**	**327**	IAmb	IAmb	01 29 08.4	
	comp=Z,239nm,1.5s						
SHPR	**Sheep Range**	**78.03**	**325**	IAmb	IAmb	01 29 09.0	
	comp=Z,205nm,1.3s						
RAR	**Rarotonga**	**78.05**	**252**	LR	LR	01 54 26.3	
	comp=Z,15µm,20.5s,baz=158,slow=29						
SHOC	**Shoshone, Teco**	**78.11**	**324**	IAMs_20	IAMs_20	01 58 13.8	
	comp=Z,9µm,19.0s						
Q16A	**Castle Valley**	**78.13**	**330**	IAmb	IAmb	01 29 10.3	
	comp=Z,542nm,1.8s						
VLDQ	**Val d'Or**	**78.27**	**356**	IAmb	IAmb	01 29 09.4	
	comp=Z,189nm,1.3s						
P18A	**Preston Nutter**	**78.32**	**331**	IAmb	IAmb	01 29 11.3	
	comp=Z,294nm,1.2s						
TPO	**Tropico Hills**	**78.33**	**322**	IAmb	IAmb	01 29 10.1	
	comp=Z,224nm,1.5s						
CCCA	**Chr Cany lake**	**78.38**	**323**	IAmb	IAmb	01 29 10.8	
	comp=Z,378nm,1.4s						
OSI	**Osito Audit: C**	**78.39**	**322**	IAMs_20	IAMs_20	01 56 36.3	
	comp=Z,7µm,21.0s						
P17A	**Butcher Ranch,**	**78.40**	**330**	IAmb	IAmb	01 29 10.5	
	comp=Z,254nm,1.3s						
TCRU	**Three Creeks R**	**78.45**	**328**	IAmb	IAmb	01 29 11.3	
	comp=Z,431nm,1.9s						
TMUT	**Trail Mountain**	**78.46**	**330**	IAmb	IAmb	01 29 11.1	
	comp=Z,326nm,1.6s						
SUSD	**Miller**	**78.50**	**340**	IAmb	IAmb	01 29 09.6	
	comp=Z,154nm,0.8s						
MACI	**Morro de la Ar**	**78.50**	**48**	P	**P**	**01 28 57.7**	**+0.6**
LRMC	**Laurel Mtn Rad**	**78.50**	**323**	IAMs_20	IAMs_20	01 58 43.2	
	comp=Z,7µm,20.0s						
E38A	**The Farm, Brul**	**78.68**	**346**	IAmb	IAmb	01 29 10.3	
	comp=Z,107nm,1.1s						
E38A				IAMs_20	IAMs_20	02 08 55.5	
	comp=Z,4µm,19.0s						
PRN	**Pahroc Range**	**78.69**	**326**	IAmb	IAmb	01 29 12.8	
	comp=Z,210nm,1.1s						
RDMU	**Red Mountain**	**78.83**	**331**	IAmb	IAmb	01 29 12.7	
	comp=Z,169nm,1.0s						
FURC	**Furnace Creek,**	**78.85**	**324**	IAMs_20	IAMs_20	01 57 12.3	
	comp=Z,9µm,22.0s						
MPMC	**Manual Prospec**	**78.85**	**324**	IAMs_20	IAMs_20	01 56 41.4	
	comp=Z,10µm,22.0s						
TPNV	**Topopah Spring**	**78.92**	**325**	IAmb	IAmb	01 29 14.0	
	comp=Z,310nm,1.4s						
TPNV				IAMs_20	IAMs_20	01 59 05.2	
	comp=Z,9µm,18.0s						
F33A	**5 Mile Ranch,**	**79.06**	**343**	IAmb	IAmb	01 29 12.3	
	comp=Z,114nm,1.1s						
F33A				IAMs_20	IAMs_20	02 07 48.7	
	comp=Z,5µm,20.0s						
ISA	**Isabella, Lake**	**79.06**	**323**	IAmb	IAmb	01 29 14.6	
	comp=Z,181nm,1.3s						
ISA				IAMs_20	IAMs_20	01 57 33.9	
	comp=Z,8µm,21.0s						
BSUT	**Blindstream Ca**	**79.30**	**331**	IAmb	IAmb	01 29 15.9	
	comp=Z,275nm,1.2s						
NLU	**North Lily Min**	**79.38**	**330**	IAmb	IAmb	01 29 16.1	
	comp=Z,276nm,1.6s						
CTZ	**Chatham Island**	**79.38**	**225**	P	P	01 29 06.4	+4.8
	comp=Z,122nm,2.0s						
HOR	**Horta**	**79.39**	**33**	*e*P	**P**	**01 29 04.4**	**+2.9**
HOR				*i* IAmb	IAmb	01 29 05.3	
	comp=Z,161nm,0.7s						
CALA	**Caldeira**	**79.40**	**33**	*e*P	P	01 29 07.1	+5.4
CALA				*i* IAmb	IAmb	01 29 15.7	
	comp=Z,303nm,1.6s						
CALA				*e*LR	LR	01 55 52.3	
CALA				*i* IAMs_20	IAMs_20	02 02 12.6	
	comp=Z,12µm,22.0s						
K22A	**Casper**	**79.41**	**335**	IAMs_20	IAMs_20	02 01 53.4	
	comp=Z,8µm,20.0s						
PCAN	**Candelaria**	**79.41**	**33**	*e*P	**P**	**01 29 06.4**	**+4.7**
PCAN				*i* IAmb	IAmb	01 29 15.3	
	comp=Z,213nm,1.8s						
PCED	**Cedros**	**79.44**	**33**	*e*P	P	01 29 06.7	+5.0
PCED				*i* IAmb	IAmb	01 29 22.4	
	comp=Z,420nm,1.2s						
CWC	**Cottonwood Cre**	**79.45**	**324**	IAMs_20	IAMs_20	01 59 25.2	
	comp=Z,7µm,20.0s						
PICO	**Pico**	**79.47**	**33**	*e*P	**P**	**01 29 06.4**	**+4.4**
PICO				*i* IAmb	IAmb	01 29 09.0	
	comp=Z,363nm,1.3s						
PICO				*e*LR	LR	01 55 54.0	
VES	**Vestal, Richgr**	**79.51**	**323**	IAMs_20	IAMs_20	01 57 36.0	
	comp=Z,8µm,21.0s						
PPNO	**Prainha do Nor**	**79.52**	**33**	*e*P	P	01 29 08.8	+6.6
PPNO				*i* IAmb	IAmb	01 29 21.6	
	comp=Z,283nm,0.9s						
ICQ	**Pointe Anglais**	**79.60**	**3**	IAmb	IAmb	01 29 17.0	
	comp=Z,477nm,1.7s						
ROSA	**Rosais**	**79.73**	**33**	*e*P	**P**	**01 29 06.6**	**+3.3**
ROSA				*i* IAmb	IAmb	01 29 19.1	
	comp=Z,352nm,1.4s						
ROSA				*e*LR	LR	01 55 59.8	
ROSA				*i* IAMs_20	IAMs_20	02 02 47.0	
	comp=Z,15µm,20.0s						
PMAN	**Manadas**	**79.73**	**33**	*e*P	P	01 29 12.6	+9.3
PMAN				*i* IAmb	IAmb	01 29 19.2	
	comp=Z,534nm,1.3s						
RSSD	**Black Hills**	**79.81**	**337**	P	**P**	**01 29 04.3**	**+0.4**
RSSD				pmax	pmax		
	comp=Z,188nm,1.3s						
RSSD	**Black Hills**	**79.81**	**337**	P	**P**	**01 29 04.3**	**+0.4**
TSUM	**Tsumeb**	**79.89**	**106**	LR	LR	02 00 12.0	
	comp=Z,13µm,20.1s,baz=234,slow=33						
TSUM	**Tsumeb**	**79.89**	**106**	P	**P**	**01 29 04.1**	**-0.9**
TSUM				IAmb	IAmb	01 29 18.8	
	comp=Z,323nm,1.1s						
TSUM	**Tsumeb**	**79.89**	**106**	IAMs_20	IAMs_20	01 59 59.7	
	comp=Z,13µm,20.0s						
TSUM	**Tsumeb**	**79.89**	**106**	P	**P**	**01 29 05.6**	**+0.6**
TSUM				pP	**pP**	**01 29 16.9**	**+1.7**
TSUM	**Tsumeb**	**79.89**	**106**	P	**P**	**01 29 04.8**	**-0.2**
TSUM				pP	**pP**	**01 29 16.6**	**+1.4**
DUG	**Dugway, Tooele**	**79.90**	**329**	IAmb	IAmb	01 29 18.8	
	comp=Z,358nm,1.6s						
DUG				IAMs_20	IAMs_20	01 59 50.9	
	comp=Z,21µm,21.0s						
EYMN	**Ely**	**79.95**	**347**	IAmb	IAmb	01 29 18.2	
	comp=Z,236nm,1.5s						
PSMN	**Pico do Norte,**	**79.95**	**36**	*e*P	**P**	**01 29 06.4**	**+1.8**
PSMN				*i* IAmb	IAmb	01 29 07.4	
	comp=Z,230nm,1.1s						
PSMN				*e*LR	LR	01 55 45.3	
PSMN				*i* IAMs_20	IAMs_20	02 02 33.0	
	comp=Z,6µm,22.0s						
TIN	**Tinemaha, Big**	**80.00**	**324**	IAMs_20	IAMs_20	01 57 28.8	
	comp=Z,9µm,22.0s						
GRHM	**Grahamstown, E**	**80.01**	**123**	P	**P**	**01 29 04.5**	**-0.8**
GRHM				IAmb	IAmb	01 29 18.3	
	comp=Z,340nm,1.3s						
SRBC	**Serra Branca**	**80.08**	**33**	*e*P	**P**	**01 29 09.4**	**+4.2**
SRBC				*i* IAmb	IAmb	01 29 14.8	
	comp=Z,518nm,1.0s						
PGRA	**Graciosa**	**80.10**	**33**	*e*P	**P**	**01 29 09.8**	**+4.5**
PGRA				*i* IAmb	IAmb	01 29 13.1	
	comp=Z,285nm,1.4s						
PGRA				*e*LR	LR	01 55 45.5	
PGRA				*i* IAMs_20	IAMs_20	02 02 45.6	
	comp=Z,16µm,22.0s						
ADH	**Angra Heroismo**	**80.16**	**34**	*e*P	**P**	**01 29 08.4**	**+2.8**
ADH				*i* IAmb	IAmb	01 29 13.8	
	comp=Z,233nm,1.5s						
PSBA	**Serra de Santa**	**80.20**	**34**	*e*P	**P**	**01 29 08.9**	**+3.0**
PSBA				*i* IAmb	IAmb	01 29 12.6	
	comp=Z,469nm,1.4s						
PDA	**Ponta Delgada**	**80.22**	**35**	*e*P	**P**	**01 29 07.1**	**+1.1**
PDA				*i* IAmb	IAmb	01 29 09.4	
	comp=Z,242nm,1.1s						
PSET	**Sete Cidades**	**80.25**	**35**	*e*P	**P**	**01 29 07.5**	**+1.3**
PSET				*i* IAmb	IAmb	01 29 12.3	
	comp=Z,441nm,1.3s						
PSCM	**Serra do Cume**	**80.25**	**34**	*e*P	**P**	**01 29 10.4**	**+4.2**
PSCM				*i* IAmb	IAmb	01 29 11.0	
	comp=Z,312nm,0.6s						
PAGU	**Agualva, Azore**	**80.27**	**34**	*e*P	**P**	**01 29 09.4**	**+3.1**
PAGU				*i* IAmb	IAmb	01 29 14.5	
	comp=Z,253nm,1.3s						
PAGU				*e*LR	LR	01 56 00.3	
PAGU				*i* IAMs_20	IAMs_20	02 02 04.1	
	comp=Z,7µm,22.0s						
TPH	**Tonopah**	**80.28**	**325**	IAmb	IAmb	01 29 21.0	
	comp=Z,266nm,1.5s						
CMLA	**Cha da Macela**	**80.30**	**35**	*e*P	**P**	**01 29 08.9**	**+2.5**
CMLA				*i* IAmb	IAmb	01 29 10.0	
	comp=Z,323nm,1.4s						
CMLA				*e*LR	LR	01 54 56.0	
CMLA				*i* IAMs_20	IAMs_20	02 02 34.1	
	comp=Z,11µm,20.0s						
DRV	**Dumont d'Urvil**	**80.34**	**192**	P	**P**	**01 29 05.8**	**-0.5**
DRV	**Dumont d'Urvil**	**80.34**	**192**	P	**P**	**01 29 06.4**	**+0.1**
DRV				pP	**pP**	**01 29 18.3**	**+1.7**
PKD	**Bear Valley Ra**	**80.37**	**322**	IAmb	IAmb	01 29 21.4	
	comp=Z,232nm,1.4s						
PKD				IAMs_20	IAMs_20	01 57 33.6	
	comp=Z,7µm,20.0s						
BART	**Pico Bartolome**	**80.49**	**36**	*e*P	P	01 29 12.6	+5.1
BART				*i* IAmb	IAmb	01 29 21.5	
	comp=Z,413nm,1.3s						
LKGWB	**Lokgwabe**	**80.51**	**112**	IAmb	IAmb	01 29 23.2	
	comp=Z,346nm,1.1s						
HWUT	**Hardware Ranch**	**80.52**	**331**	IAmb	IAmb	01 29 21.6	
	comp=Z,148nm,0.9s						
SPUT	**South Promonto**	**80.65**	**330**	IAmb	IAmb	01 29 22.4	
	comp=Z,164nm,1.1s						
BW06	**Boulder Array**	**80.67**	**333**	IAmb	IAmb	01 29 22.3	
	comp=Z,254nm,1.7s						
BW06				IAMs_20	IAMs_20	02 01 26.0	
	comp=Z,13µm,21.0s						
PD31	**Pinedale Array**	**80.67**	**333**	IAmb	IAmb	01 29 22.3	
	comp=Z,274nm,1.8s						
PDAR	**Pinedale Array**	**80.67**	**333**	P	**P**	**01 29 09.0**	**+0.4**
	comp=Z,5.7nm,0.9s,baz=134,slow=6.4,SNR=22						
PDAR				S	**S**	**01 39 15.6**	**+1.7**
	comp=Z,0.3nm,0.7s,baz=100,slow=7.0,SNR=1.7						
PDAR				PKKPbc	**PKKPbc**	**01 47 47.5**	**-2.7**
	comp=Z,0.8nm,0.8s,baz=162,slow=0.5,SNR=5.2						
PDAR				LR	LR	02 01 47.4	
	comp=Z,7µm,20.1s,baz=142,slow=33						
	comp=Z,5.7nm,0.9s						
PDAR	**Pinedale Array**	**80.67**	**333**	P	**P**	**01 29 08.4**	**-0.2**
HULI	**Fort Hunter Li**	**80.80**	**321**	IAmb	IAmb	01 29 24.2	
	comp=Z,533nm,1.6s						
HULI				IAMs_20	IAMs_20	01 57 22.0	
	comp=Z,6µm,20.0s						
E28A	**Huff**	**80.94**	**340**	IAmb	IAmb	01 29 23.4	
	comp=Z,186nm,0.8s						
NVAR	**Mina Array Bea**	**81.09**	**325**	P	**P**	**01 29 12.2**	**+1.2**
	comp=Z,10nm,1.0s,baz=147,slow=5.9,SNR=29						
NVAR				S	**S**	**01 39 22.2**	**+3.7**
	comp=Z,0.9nm,1.0s,baz=82,slow=6.4,SNR=1.5						
NVAR				PKKPbc	**PKKPbc**	**01 47 48.2**	**-0.7**
	comp=Z,0.6nm,0.8s,baz=270,slow=3.0,SNR=4.0						
NVAR				LR	LR	01 58 54.0	
	comp=Z,8µm,21.2s,baz=134,slow=31						
	comp=Z,10nm,1.0s						
NVAR	**Mina Array Bea**	**81.09**	**325**	P	**P**	**01 29 11.5**	**+0.5**
AGMN	**Agassiz Nation**	**81.24**	**344**	IAmb	IAmb	01 29 24.4	
	comp=Z,118nm,0.8s						
AGMN				IAMs_20	IAMs_20	02 11 49.4	
	comp=Z,5µm,19.0s						
PMOZ	**Porto Moniz, M**	**81.25**	**44**	*e*P	**P**	**01 29 13.8**	**+2.1**
PMOZ				*i* IAmb	IAmb	01 29 18.5	
	comp=Z,235nm,1.3s						
PMOZ				*e*S	S	01 39 07.8	-12
PMOZ				*e*LR	LR	01 56 10.6	
PMOZ				*i* IAMs_20	IAMs_20	02 05 40.8	
	comp=Z,14µm,18.0s						
AHID	**Auburn Hatcher**	**81.29**	**332**	IAmb	IAmb	01 29 25.6	
	comp=Z,330nm,1.6s						
AHID				IAMs_20	IAMs_20	02 01 46.4	
	comp=Z,13µm,20.0s						
PMAR	**Madeira**	**81.35**	**44**	*e*P	**P**	**01 29 14.2**	**+1.8**
PMAR				*i* IAmb	IAmb	01 29 30.6	
	comp=Z,452nm,1.4s						
ELK	**Elko**	**81.44**	**328**	LR	LR	02 00 56.6	
	comp=Z,12µm,21.0s,baz=142,slow=32						
ELK	**Elko**	**81.44**	**328**	P	**P**	**01 29 13.2**	**+0.4**
ELK	**Elko**	**81.44**	**328**	IAmb	IAmb	01 29 26.7	
	comp=Z,86nm,1.0s						
ELK				IAMs_20	IAMs_20	02 00 44.7	
	comp=Z,11µm,20.0s						
SAO	**San Andreas Ge**	**81.46**	**322**	P	**P**	**01 29 15.0**	**+2.3**
SAO	**San Andreas Ge**	**81.46**	**322**	IAMs_20	IAMs_20	01 57 53.6	
	comp=Z,7µm,21.0s						
BOSA	**Boshof**	**81.47**	**118**	P	**P**	**01 29 12.6**	**-0.7**
	comp=Z,50nm,0.9s,baz=252,slow=3.2,SNR=37						
BOSA				LR	LR	02 04 03.3	
	comp=Z,12µm,18.3s,baz=248,slow=35						
	comp=Z,50nm,0.9s						
BOSA	**Boshof**	**81.47**	**118**	IAmb	IAmb	01 29 25.7	
	comp=Z,239nm,1.4s						
BOSA	**Boshof**	**81.47**	**118**	*e*P	**P**	**01 29 11.5**	**-1.8**
BOSA	**Boshof**	**81.47**	**118**	P	**P**	**01 29 12.9**	**-0.4**
BOSA				pP	**pP**	**01 29 24.4**	**+0.9**
WAKR	**Walker**	**81.72**	**324**	IAmb	IAmb	01 29 29.2	
	comp=Z,285nm,1.6s						
SNOW	**Snow King Moun**	**81.73**	**332**	IAMs_20	IAMs_20	02 01 59.0	
	comp=Z,12µm,21.0s						
GRTLG	**Ghanzi**	**81.84**	**110**	IAmb	IAmb	01 29 28.2	
	comp=Z,257nm,1.3s						
GRTLG	**Ghanzi**	**81.84**	**110**	P	**P**	**01 29 15.0**	**-0.4**
GRTLG				pP	**pP**	**01 29 26.4**	**+0.9**
FXWY	**Fox Creek**	**81.98**	**332**	IAmb	IAmb	01 29 29.3	
	comp=Z,164nm,1.7s						
FXWY				IAMs_20	IAMs_20	02 02 05.8	
	comp=Z,9µm,20.0s						
YERR	**Yerington**	**81.99**	**324**	IAmb	IAmb	01 29 30.2	
	comp=Z,241nm,1.4s						
MHC	**Mount Hamilton**	**82.00**	**322**	IAmb	IAmb	01 29 30.5	
	comp=Z,240nm,1.5s						
MHC				IAMs_20	IAMs_20	01 58 22.8	
	comp=Z,7µm,20.0s						
EPLO	**Experimental L**	**82.05**	**346**	IAmb	IAmb	01 29 28.4	
	comp=Z,229nm,1.4s						
PNTR	**Pine Nut**	**82.25**	**324**	IAmb	IAmb	01 29 31.7	
	comp=Z,176nm,1.1s						
SKOMA	**Sekoma**	**82.47**	**114**	P	**P**	**01 29 18.1**	**-0.5**
SKOMA				pP	**pP**	**01 29 29.4**	**+0.7**
SKOMA				sP	**sP**	**01 29 34.5**	**+2.0**
LKWY	**Lake**	**82.51**	**333**	IAMs_20	IAMs_20	02 06 05.7	
	comp=Z,10µm,18.0s						
MAKGR	**Makgori**	**82.51**	**115**	IAmb	IAmb	01 29 31.2	
	comp=Z,230nm,1.2s						
MAKGR	**Makgori**	**82.51**	**115**	P	**P**	**01 29 18.2**	**-0.6**
MAKGR				pP	**pP**	**01 29 29.7**	**+0.7**
RLMT	**Red Lodge**	**82.55**	**334**	IAmb	IAmb	01 29 32.3	
	comp=Z,409nm,1.9s						
RLMT				IAMs_20	IAMs_20	02 03 40.5	
	comp=Z,9µm,19.0s						
TORD	**Torodi Ar. Bea**	**82.65**	**70**	P	**P**	**01 29 18.2**	**-1.2**
	comp=Z,127nm,1.0s,baz=261,slow=2.3,SNR=196						
TORD				PKKPbc	**PKKPbc**	**01 47 43.9**	**+0.3**
	comp=Z,1.7nm,1.0s,baz=347,slow=2.7,SNR=3.8						
TORD				PKPPKP	**P'P'df**	**01 55 48.3**	**-0.5**
	comp=Z,2.8nm,1.2s,baz=29,slow=3.3,SNR=5.0						
TORD				LR	LR	02 04 28.5	
	comp=Z,30µm,18.9s,baz=232,slow=35						
	comp=Z,127nm,1.0s						
TORD	**Torodi Ar. Bea**	**82.65**	**70**	P	**P**	**01 29 18.8**	**-0.6**
TORD				IAmb	IAmb	01 29 36.2	
	comp=Z,307nm,1.6s						
YNE	**Yellowstone No**	**82.73**	**334**	IAmb	IAmb	01 29 33.1	
	comp=Z,217nm,1.7s						
LAO	**LASA Array**	**82.80**	**337**	IAmb	IAmb	01 29 33.1	
	comp=Z,358nm,1.5s						
YMR	**Madison River**	**82.82**	**333**	IAmb	IAmb	01 29 34.3	
	comp=Z,151nm,1.2s						
AFDM	**Forest Hills D**	**82.84**	**323**	IAmb	IAmb	01 29 33.9	
	comp=Z,175nm,1.4s						
YHL	**Hebgen Lake**	**83.06**	**333**	IAmb	IAmb	01 29 35.7	
	comp=Z,278nm,1.8s						
ULM	**Lac du Bonnet**	**83.07**	**345**	P	**P**	**01 29 20.1**	**-0.7**
	comp=Z,40nm,1.0s,baz=160,slow=4.8,SNR=18						
ULM				S	**S**	**01 39 36.0**	**-1.8**
	comp=Z,2.7nm,1.0s,baz=188,slow=7.1,SNR=2.0						
	comp=Z,40nm,1.0s						
ULM	**Lac du Bonnet**	**83.07**	**345***c*	*i*P	**P**	**01 29 20.7**	**0.0**
ULM	**Lac du Bonnet**	**83.07**	**345**	IAmb	IAmb	01 29 33.6	
	comp=Z,166nm,1.1s						
CVS	**Carmenet Viney**	**83.17**	**322**	IAmb	IAmb	01 29 39.8	
	comp=Z,250nm,1.2s						
BEKR	**Beckworth**	**83.22**	**324**	IAmb	IAmb	01 29 36.3	
	comp=Z,244nm,1.5s						
HLID	**Hailey**	**83.33**	**330**	IAmb	IAmb	01 29 36.9	
	comp=Z,169nm,1.3s						
HLID				IAMs_20	IAMs_20	02 01 41.6	
	comp=Z,12µm,21.0s						
SUTB	**Sutter Butte**	**83.47**	**323**	IAmb	IAmb	01 29 37.0	
	comp=Z,292nm,1.6s						
SUTB				IAMs_20	IAMs_20	01 59 47.8	
	comp=Z,6µm,20.0s						
LBTB	**Lobatse**	**83.53**	**115**	LR	LR	02 01 35.3	
	comp=Z,24µm,21.4s,baz=233,slow=32						
LBTB	**Lobatse**	**83.53**	**115**	IAmb	IAmb	01 29 37.1	
	comp=Z,236nm,0.9s						
LBTB	**Lobatse**	**83.53**	**115**	*e*P	**P**	**01 29 22.9**	**-1.2**
LBTB	**Lobatse**	**83.53**	**115**	P	**P**	**01 29 23.1**	**-0.9**
LBTB				pP	**pP**	**01 29 35.3**	**+1.0**
LBTB	**Lobatse**	**83.53**	**115**	P	**P**	**01 29 24.2**	**+0.1**
LBTB				pP	**pP**	**01 29 35.0**	**+0.7**
ORV	**Oroville**	**83.57**	**324**	IAmb	IAmb	01 29 38.1	
	comp=Z,258nm,1.3s						
ORV				IAMs_20	IAMs_20	02 00 04.3	
	comp=Z,6µm,19.0s						
CASY	**Casey**	**83.68**	**181**	P	**P**	**01 29 23.5**	**-0.3**
MFID	**Camas Ranch**	**83.83**	**329**	IAmb	IAmb	01 29 39.0	
	comp=Z,270nm,1.6s						
MFID				IAMs_20	IAMs_20	02 03 14.9	
	comp=Z,18µm,19.0s						
BOZ	**Bozeman (W)**	**83.85**	**333**	P	**P**	**01 29 26.8**	**+1.7**
BOZ	**Bozeman (W)**	**83.85**	**333**	IAmb	IAmb	01 29 38.8	
	comp=Z,149nm,1.8s						
BOZ				IAMs_20	IAMs_20	02 03 21.2	
	comp=Z,8µm,20.0s						
CKGRV	**CKGRV**	**83.89**	**111**	P	**P**	**01 29 25.3**	**-0.7**
CKGRV				pP	**pP**	**01 29 37.5**	**+1.4**
CKGRV				sP	**sP**	**01 29 41.8**	**+1.9**
DLMT	**Dillon**	**84.04**	**332**	IAmb	IAmb	01 29 40.2	
	comp=Z,179nm,1.4s						
DLMT				IAMs_20	IAMs_20	02 03 23.3	
	comp=Z,10µm,21.0s						
AONC	**Vina, CA USA**	**84.14**	**323**	IAMs_20	IAMs_20	02 00 10.1	
	comp=Z,7µm,21.0s						
O03E	**Paynes Creek**	**84.27**	**324**	IAmb	IAmb	01 29 58.9	
	comp=Z,254nm,1.5s						
O03E				IAMs_20	IAMs_20	02 01 30.9	
	comp=Z,7µm,19.0s						
WVOR	**Wild Horse Val**	**84.34**	**327**	P	**P**	**01 29 29.1**	**+1.5**
WVOR	**Wild Horse Val**	**84.34**	**327**	IAmb	IAmb	01 29 41.6	
	comp=Z,164nm,1.5s						
WVOR				IAMs_20	IAMs_20	02 01 26.6	
	comp=Z,13µm,22.0s						
HATC	**Hat Creek Radi**	**84.49**	**324**	IAmb	IAmb	01 29 42.3	
	comp=Z,251nm,1.2s						
BUT	**Butte**	**84.56**	**333**	IAmb	IAmb	01 29 42.8	
	comp=Z,218nm,1.4s						
O02D	**Mt. Diablo Mer**	**84.69**	**323**	IAmb	IAmb	01 29 43.3	
	comp=Z,266nm,1.9s						
O02D				IAMs_20	IAMs_20	02 00 28.1	
	comp=Z,10µm,21.0s						
HRAO	**HartRAO**	**84.71**	**117**	*e*P	**P**	**01 29 30.1**	**0.0**
MOD	**Modoc Plateau**	**84.73**	**326**	IAmb	IAmb	01 29 43.8	
	comp=Z,288nm,1.6s						
MOD				IAMs_20	IAMs_20	02 01 59.0	
	comp=Z,7µm,21.0s						
EDA	**Edea**	**84.82**	**83**	IAmb	IAmb	01 29 51.0	
	comp=Z,69nm,1.2s						
EDA	**Edea**	**84.82**	**83**	P	**P**	**01 29 31.3**	**+0.7**
SCHQ	**Schefferville**	**84.92**	**3**	P	**P**	**01 29 30.1**	**-0.1**
	comp=Z,95nm,1.2s,baz=157,slow=4.1,SNR=14						
SCHQ				S	**SKSac**	**01 39 55.0**	**+3.3**
	comp=Z,2.8nm,0.9s,baz=246,slow=18,SNR=1.6						
SCHQ				LR	LR	02 07 34.5	
	comp=Z,3µm,21.3s,baz=182,slow=36						
	comp=Z,95nm,1.2s						
SCHQ	**Schefferville**	**84.92**	**3**	IAmb	IAmb	01 29 44.2	
	comp=Z,229nm,1.3s						
J08A	**Circle Bar Ran**	**84.98**	**328**	IAmb	IAmb	01 29 45.1	
	comp=Z,219nm,1.1s						
M03C	**McCloud**	**85.16**	**324**	IAmb	IAmb	01 29 45.2	
	comp=Z,203nm,1.4s						
EGMT	**Eagleton**	**85.18**	**335**	IAMs_20	IAMs_20	02 12 58.1	
	comp=Z,7µm,19.0s						
PLID	**Pearl Lake**	**85.23**	**330**	IAmb	IAmb	01 29 45.9	
	comp=Z,129nm,1.1s						
PLID				IAMs_20	IAMs_20	02 04 23.0	
	comp=Z,11µm,18.0s						
KHBM	**Hayfork Bally**	**85.27**	**323**	IAmb	IAmb	01 29 57.9	
	comp=Z,144nm,1.5s						
KHBM				IAMs_20	IAMs_20	02 00 46.4	
	comp=Z,13µm,20.0s						
BFZ	**Birch Farm**	**85.48**	**225**	P	**P**	**01 29 37.1**	**+3.6**
	comp=Z,142nm,1.4s						
BFZ	**Birch Farm**	**85.48**	**225**	P	**P**	**01 29 35.6**	**+2.1**
PXZ	**Pawanui**	**85.49**	**226**	P	**P**	**01 29 38.1**	**+4.5**
KMPM	**Mount Pierce**	**85.56**	**323**	IAmb	IAmb	01 29 48.5	
	comp=Z,229nm,1.3s						
KNZ	**Kokohu**	**85.57**	**227**	P	**P**	**01 29 38.1**	**+4.1**
BMO	**Blue Mountains**	**85.62**	**329**	P	**P**	**01 29 35.6**	**+1.7**
BMO	**Blue Mountains**	**85.62**	**329**	IAmb	IAmb	01 29 47.6	
	comp=Z,209nm,1.8s						
KHMM	**Horse Mountain**	**85.69**	**323**	IAmb	IAmb	01 29 53.1	
	comp=Z,116nm,1.3s						
KHMM				IAMs_20	IAMs_20	02 00 34.6	
	comp=Z,6µm,22.0s						
RUST	**Rust De Winter**	**85.70**	**117**	*e*P	**P**	**01 29 33.5**	**-1.5**
MQZ	**McQueen's Vall**	**85.75**	**221**	IAMs_20	IAMs_20	01 57 38.5	
	comp=Z,11µm,22.0s						
MQZ	**McQueen's Vall**	**85.75**	**221**	P	P	01 29 41.6	+6.8
PUZ	**Puketiti**	**85.75**	**228**	P	**P**	**01 29 38.5**	**+3.5**
MSO	**Missoula**	**85.78**	**332**	IAmb	IAmb	01 29 48.9	
	comp=Z,276nm,1.9s						
MSO				IAMs_20	IAMs_20	02 05 05.2	
	comp=Z,14µm,19.0s						
YBH	**Yreka Blue Hor**	**85.80**	**324**	LR	LR	02 01 46.4	
	comp=Z,6µm,20.4s,baz=144,slow=31						
JCC	**Jacoby Creek,**	**85.81**	**323**	IAMs_20	IAMs_20	02 01 12.6	
	comp=Z,6µm,20.0s						
SYZ	**Scrubby Hill**	**85.86**	**217**	P	**P**	**01 29 37.4**	**+2.2**
	comp=Z,156nm,1.6s						
MRZ	**Mangatainoka R**	**85.90**	**225**	P	**P**	**01 29 36.9**	**+1.3**
L04D	**Klamath Falls**	**85.96**	**325**	IAmb	IAmb	01 29 49.2	
	comp=Z,184nm,1.4s						
GVZ	**Greta Valley S**	**86.00**	**222**	IAMs_20	IAMs_20	02 00 20.0	
	comp=Z,10µm,20.0s						
GVZ	**Greta Valley S**	**86.00**	**222**	P	P	01 29 43.2	+7.1
MXZ	**Matakaoa Point**	**86.02**	**228**	P	**P**	**01 29 39.6**	**+3.4**
ODZ	**Otahua Downs**	**86.02**	**219**	P	P	01 29 42.0	+5.9
TSZ	**Takapari Road**	**86.03**	**225**	P	P	01 29 43.2	+6.9
SNZO	**South Karori**	**86.03**	**224**	IAMs_20	IAMs_20	02 00 31.3	
	comp=Z,8µm,19.0s						
KHZ	**Kahutara**	**86.05**	**222**	IAmb	IAmb	01 29 50.5	
	comp=Z,149nm,1.1s						
KHZ				IAMs_20	IAMs_20	01 57 49.4	
	comp=Z,7µm,21.0s						
KHZ	**Kahutara**	**86.05**	**222**	P	P	01 29 41.7	+5.4
MWZ	**Matawai**	**86.07**	**227**	P	P	01 29 42.0	+5.5
BKZ	**Black Stump Fm**	**86.23**	**226**	P	**P**	**01 29 41.1**	**+3.8**
HAZ	**Te Kaha**	**86.24**	**228**	P	P	01 29 42.8	+5.5
TMZ	**Timaru**	**86.25**	**220**	P	**P**	**01 29 40.0**	**+2.8**
RTZ	**Ruatahuna**	**86.25**	**227**	P	**P**	**01 29 41.7**	**+4.2**
KRMB	**Red Mountain**	**86.26**	**323**	IAmb	IAmb	01 29 51.7	
	comp=Z,154nm,1.3s						
KRMB				IAMs_20	IAMs_20	02 01 27.4	
	comp=Z,8µm,21.0s						
SOOWA	**Sowa**	**86.28**	**112**	P	**P**	**01 29 37.6**	**-0.4**
SOOWA				pP	**pP**	**01 29 49.8**	**+1.6**
TIO	**Tiouine**	**86.31**	**51**	P	**P**	**01 29 37.9**	**+0.1**
OXZ	**Oxford**	**86.34**	**221**	IAMs_20	IAMs_20	01 58 27.0	
	comp=Z,9µm,22.0s						
OXZ	**Oxford**	**86.34**	**221**	P	**P**	**01 29 40.4**	**+2.7**
URZ	**Urewera**	**86.38**	**227**	LR	LR	01 58 50.6	
	comp=Z,16µm,21.6s,baz=157,slow=29						
URZ	**Urewera**	**86.38**	**227**	P	P	01 29 43.5	+5.6
KSXB	**Camp Six Broad**	**86.47**	**324**	IAmb	IAmb	01 29 52.6	
	comp=Z,205nm,1.5s						
KSXB				IAMs_20	IAMs_20	02 01 45.9	
	comp=Z,9µm,21.0s						
PINE	**Pine Mountain**	**86.47**	**327**	IAmb	IAmb	01 29 52.8	
	comp=Z,160nm,1.1s						
L02F	**Cave Junction**	**86.52**	**324**	IAmb	IAmb	01 29 52.7	
	comp=Z,168nm,1.4s						
LTZ	**Lake Taylor**	**86.55**	**221**	IAmb	IAmb	01 29 53.1	
	comp=Z,216nm,1.1s						
LTZ				IAMs_20	IAMs_20	02 00 46.6	
	comp=Z,10µm,20.0s						
LTZ	**Lake Taylor**	**86.55**	**221**	P	P	01 29 44.3	+5.5
J04A	**Umpqua Nationa**	**86.62**	**326**	IAmb	IAmb	01 29 53.0	
	comp=Z,195nm,1.2s						

RPZ	**Rata Peaks**	**86.65**	**220**	LR	LR	02 01 11.8	
	comp=Z,3µm,19.4s,baz=114,slow=31						
RPZ	**Rata Peaks**	**86.65**	**220**	P	**P**	**01 29 40.7**	**+1.4**
RPZ				IAmb	IAmb	01 29 53.3	
	comp=Z,259nm,1.3s						
RPZ	**Rata Peaks**	**86.65**	**220**	P	**P**	**01 29 43.3**	**+4.1**
G08A	**Pilot Rock**	**86.69**	**329**	IAmb	IAmb	01 29 53.2	
	comp=Z,179nm,1.6s						
LBZ	**Lake Benmore**	**86.70**	**219**	P	P	01 29 44.3	+4.9
CRAIL	**Swartwater, Li**	**86.74**	**114**	*e*P	**P**	**01 29 39.0**	**-1.1**
WIZ	**White Island**	**86.76**	**228**	P	P	01 29 44.7	+4.9
THZ	**Tophouse**	**86.82**	**223**	IAMs_20	IAMs_20	02 01 47.9	
	comp=Z,7µm,19.0s						
THZ	**Tophouse**	**86.82**	**223**	P	**P**	**01 29 42.1**	**+1.9**
KSANE	**Kasane**	**86.83**	**109**	IAmb	IAmb	01 29 54.0	
	comp=Z,193nm,1.2s						
NNZ	**Nelson**	**86.88**	**223**	IAMs_20	IAMs_20	01 58 27.6	
	comp=Z,7µm,21.0s						
NNZ	**Nelson**	**86.88**	**223**	P	**P**	**01 29 40.0**	**-0.4**
BROLN	**Tlhalogang**	**86.90**	**113**	P	**P**	**01 29 40.7**	**-0.3**
BROLN				pP	**pP**	**01 29 52.5**	**+1.2**
WKZ	**Wanaka**	**87.04**	**218**	P	**P**	**01 29 44.3**	**+3.2**
INZ	**Inchbonnie**	**87.06**	**221**	IAMs_20	IAMs_20	01 59 51.0	
	comp=Z,10µm,21.0s						
INZ	**Inchbonnie**	**87.06**	**221**	P	**P**	**01 29 44.3**	**+3.1**
I05D	**Terrebonne, OR**	**87.07**	**327**	IAmb	IAmb	01 29 55.4	
	comp=Z,214nm,1.2s						
WIFE	**Three Sisters-**	**87.09**	**326**	IAmb	IAmb	01 29 55.5	
	comp=Z,176nm,1.2s						
MLZ	**Mavora Lakes**	**87.16**	**218**	P	**P**	**01 29 39.2**	**-2.5**
I04A	**Tendick Farm,**	**87.18**	**326**	IAmb	IAmb	01 29 55.0	
	comp=Z,174nm,1.4s						
WVZ	**Waitaha Valley**	**87.23**	**221**	P	**P**	**01 29 43.9**	**+1.9**
TLZ	**Tolley Road**	**87.33**	**227**	P	**P**	**01 29 46.7**	**+4.0**
VRZ	**Vera Road**	**87.33**	**226**	P	**P**	**01 29 45.9**	**+3.3**
PYZ	**Puysegur Point**	**87.37**	**216**	IAMs_20	IAMs_20	01 59 00.8	
	comp=Z,10µm,22.0s						
G06A	**Carlson Farm,**	**87.42**	**328**	IAmb	IAmb	01 30 11.9	
	comp=Z,257nm,1.7s						
FOZ	**Fox Glacier**	**87.45**	**220**	IAMs_20	IAMs_20	02 01 14.3	
	comp=Z,9µm,19.0s						
FOZ	**Fox Glacier**	**87.45**	**220**	P	P	01 29 48.2	+5.1
DSZ	**Denniston Nort**	**87.47**	**222**	IAMs_20	IAMs_20	02 01 09.1	
	comp=Z,8µm,19.0s						
DSZ	**Denniston Nort**	**87.47**	**222**	P	**P**	**01 29 45.9**	**+2.6**
F07A	**Phinny Hill Vi**	**87.59**	**329**	IAmb	IAmb	01 29 57.9	
	comp=Z,218nm,1.6s						
QRZ	**Quartz Range**	**87.63**	**223**	P	P	01 29 53.3	+9.3
JCZ	**Jackson Bay**	**87.66**	**219**	P	**P**	**01 29 47.8**	**+3.5**
AVE	**Averroes**	**87.69**	**49**	P	**P**	**01 29 42.5**	**-1.7**
TOZ	**Tahuroa Road**	**87.71**	**227**	IAmb	IAmb	01 29 58.5	
	comp=Z,199nm,1.2s						
TOZ	**Tahuroa Road**	**87.71**	**227**	P	**P**	**01 29 45.9**	**+1.4**
MSZ	**Milford Sound**	**87.73**	**218**	P	**P**	**01 29 46.3**	**+1.9**
BUCK	**Buck Mountain**	**87.75**	**326**	IAmb	IAmb	01 29 58.3	
	comp=Z,209nm,1.2s						
HAWA	**Hanford**	**87.80**	**329**	IAmb	IAmb	01 29 59.4	
	comp=Z,350nm,1.8s						
HAWA				IAMs_20	IAMs_20	02 05 28.9	
	comp=Z,16µm,20.0s						
HOOD	**Mount Hood Mea**	**87.95**	**327**	IAmb	IAmb	01 29 59.5	
	comp=Z,181nm,1.3s						
HOED	**Hoedspruit, Li**	**87.99**	**117**	*e*P	**P**	**01 29 49.4**	**+3.3**
D08A	**Wollman Farm,**	**88.04**	**330**	IAmb	IAmb	01 29 59.2	
	comp=Z,252nm,1.8s						
E07A	**Sunnyside**	**88.07**	**329**	IAmb	IAmb	01 29 59.7	
	comp=Z,222nm,1.9s						
WAH2	**Wahluke Slope**	**88.09**	**329**	IAmb	IAmb	01 29 59.5	
	comp=Z,154nm,1.6s						
CRZF	**Crozet Islands**	**88.11**	**145**	IAMs_20	IAMs_20	02 06 41.5	
	comp=Z,11µm,19.0s						
RAO	**Raoul Island**	**88.14**	**237**	IAMs_20	IAMs_20	01 59 20.8	
	comp=Z,11µm,22.0s						
MATP	**Matopo**	**88.18**	**113**	LR	LR	02 06 25.5	
	comp=Z,18µm,19.0s,baz=236,slow=34						
COR	**Corvallis**	**88.19**	**326**	P	**P**	**01 29 48.1**	**+1.8**
COR				pmax	pmax		
	comp=Z,218nm,1.2s						
COR	**Corvallis**	**88.19**	**326**	P	**P**	**01 29 48.0**	**+1.8**
COR	**Corvallis**	**88.19**	**326**	P	**P**	**01 29 48.1**	**+1.8**
COR				pP	**sP**	**01 30 00.5**	**+0.7**
NEW	**Newport**	**88.22**	**332**	LR	LR	02 06 33.9	
	comp=Z,13µm,18.1s,baz=144,slow=34						
NEW	**Newport**	**88.22**	**332**	P	**P**	**01 29 46.7**	**+0.2**
NEW	**Newport**	**88.22**	**332**	IAmb	IAmb	01 29 59.2	
	comp=Z,106nm,1.6s						
MXC	**Moxie City**	**88.28**	**329**	IAmb	IAmb	01 30 00.9	
	comp=Z,129nm,1.5s						
C09A	**Chrisman Ranch**	**88.34**	**331**	IAmb	IAmb	01 30 00.5	
	comp=Z,194nm,1.6s						
RTC	**Rabat Centre**	**88.49**	**49**	P	**P**	**01 29 46.2**	**-1.8**
EPH	**Ephrata**	**88.56**	**330**	IAmb	IAmb	01 30 01.9	
	comp=Z,231nm,1.9s						
GRZ	**Great Barrier**	**88.63**	**228**	P	**P**	**01 29 52.5**	**+3.7**
FFC	**Flin Flon**	**88.66**	**343**	*i* P	**P**	**01 29 49.0**	**+0.7**
FFC	**Flin Flon**	**88.66**	**343**	P	**P**	**01 29 48.3**	**0.0**
FFC	**Flin Flon**	**88.66**	**343**	IAMs_20	IAMs_20	02 14 36.7	
	comp=Z,7µm,22.0s						
STD	**Studebaker Rid**	**88.90**	**328**	IAmb	IAmb	01 30 03.6	
	comp=Z,148nm,1.2s						
LTY	**Liberty**	**88.96**	**329**	IAmb	IAmb	01 30 03.4	
	comp=Z,133nm,1.6s						
MD01	**Midelt array s**	**89.18**	**51**	P	**P**	**01 29 51.2**	**-0.3**
PFVI	**Vila Bisbo**	**89.22**	**45**	P	**P**	**01 29 50.6**	**-0.7**
PFVI	**Vila Bisbo**	**89.22**	**45**	*e*P	**P**	**01 29 52.9**	**+1.5**
PFVI				*i* IAmb	IAmb	01 30 10.7	
	comp=Z,244nm,1.9s						
MDT	**Midelt**	**89.25**	**51**	LR	LR	02 07 14.3	
	comp=Z,13µm,21.8s,baz=232,slow=34						
IFR	**Ifrane**	**89.33**	**50**	P	**P**	**01 29 51.8**	**-0.5**
MORF	**Marmelete**	**89.44**	**45**	*e*P	**P**	**01 29 52.5**	**+0.1**
MORF				IAmb	IAmb	01 29 56.8	
	comp=Z,523nm,2.5s						
MORF				*e*SKSac	**SKSac**	**01 40 19.9**	**-0.4**
MORF	**Marmelete**	**89.44**	**45**	*e*P	**P**	**01 29 54.1**	**+1.6**
MORF	**Marmelete**	**89.44**	**45**	*e*P	**P**	**01 29 52.5**	**+0.1**
MORF				*e*		01 40 19.9	
D05A	**Enumclaw**	**89.50**	**328**	IAmb	IAmb	01 30 06.0	
	comp=Z,131nm,1.2s						
PTEO	**Sao Teotonio**	**89.55**	**45**	*e*P	**P**	**01 29 54.6**	**+1.7**
PTEO				*i* IAmb	IAmb	01 29 57.7	
	comp=Z,190nm,1.2s						
E03A	**Lebam**	**89.76**	**327**	IAmb	IAmb	01 30 07.5	
	comp=Z,120nm,1.2s						
PBDV	**Barranco-do-Ve**	**89.84**	**46**	*e*P	**P**	**01 29 55.6**	**+1.3**
PBDV				*i* IAmb	IAmb	01 30 08.4	
	comp=Z,181nm,1.3s						
PCVE	**Castro Verde**	**90.02**	**45**	P	**P**	**01 29 54.2**	**-0.9**
PCVE	**Castro Verde**	**90.02**	**45**	*e*P	**P**	**01 29 56.2**	**+1.1**
PCVE				*i* IAmb	IAmb	01 30 13.7	
	comp=Z,111nm,1.5s						
LIS	**Lisbon**	**90.04**	**44**	*e*P	**P**	**01 29 55.2**	**+0.1**
LIS				IAmb	IAmb	01 29 59.5	
	comp=Z,137nm,1.3s						
LIS	**Lisbon**	**90.04**	**44**	*e*P	**P**	**01 29 55.2**	**+0.1**
PLOUS	**Minas do Lousa**	**90.04**	**45**	*e*P	**P**	**01 29 55.8**	**+0.6**
PLOUS				*i* IAmb	IAmb	01 30 13.8	
	comp=Z,118nm,1.4s						
MESJ	**Messejana**	**90.04**	**45**	*e*P	**P**	**01 29 55.2**	**0.0**
MESJ				IAmb	IAmb	01 30 00.4	
	comp=Z,100nm,1.6s						
MESJ				*e*SKSac	**SKSac**	**01 40 23.2**	**-0.4**
MESJ	**Messejana**	**90.04**	**45**	*e*P	**P**	**01 29 55.5**	**+0.3**
MESJ				*i* IAmb	IAmb	01 30 09.2	
	comp=Z,110nm,1.4s						
MESJ	**Messejana**	**90.04**	**45**	*e*P	**P**	**01 29 55.2**	**0.0**
PVAQ	**Vaqueiros**	**90.08**	**46**	*e*P	**P**	**01 29 56.6**	**+1.2**
PVAQ				*i* IAmb	IAmb	01 30 14.2	
	comp=Z,147nm,1.5s						
PVAQ				*e*S	**S**	**01 40 45.9**	**-0.5**
PVAQ				*e*LR	LR	02 00 15.6	
PVAQ				*i* IAMs_20	IAMs_20	02 07 40.1	
	comp=Z,20µm,22.0s						
PMAFR	**Mafra**	**90.11**	**44**	P	**P**	**01 29 53.6**	**-1.9**
PMAFR	**Mafra**	**90.11**	**44**	*e*P	**P**	**01 29 56.9**	**+1.4**
EGRO	**El Granado**	**90.30**	**46**	P	**P**	**01 29 56.2**	**-0.2**
PBEJ	**Beja**	**90.38**	**45**	*e*P	**P**	**01 29 57.8**	**+1.0**
PBEJ				*i* IAmb	IAmb	01 30 10.0	
	comp=Z,75nm,1.2s						
MOE	**Montemor**	**90.39**	**44**	*e*P	**P**	**01 29 57.8**	**+1.0**
MOE				*i* IAmb	IAmb	01 30 11.3	
	comp=Z,158nm,1.4s						
SFS	**San Fernando**	**90.44**	**47**	P	**P**	**01 29 58.9**	**+1.8**
OUZ	**Omahuta**	**90.46**	**228**	IAMs_20	IAMs_20	02 01 31.9	
	comp=Z,10µm,20.0s						
OUZ	**Omahuta**	**90.46**	**228**	P	P	01 30 07.8	+10
NLWA	**Neilton Lookou**	**90.52**	**328**	IAmb	IAmb	01 30 11.3	
	comp=Z,127nm,1.6s						
NLWA				IAMs_20	IAMs_20	02 09 59.9	
	comp=Z,6µm,19.0s						
EVO	**Evora**	**90.61**	**45**	P	**P**	**01 29 57.2**	**-0.7**
EVO	**Evora**	**90.61**	**45**	*e*P	**P**	**01 29 58.8**	**+1.0**
EVO				*i* IAmb	IAmb	01 30 16.1	
	comp=Z,89nm,1.6s						
LSZ	**Lusaka**	**90.62**	**108**	LR	LR	02 07 56.8	
	comp=Z,10µm,18.7s,baz=240,slow=34						
LSZ	**Lusaka**	**90.62**	**108**	P	**P**	**01 29 59.3**	**+0.7**
LSZ	**Lusaka**	**90.62**	**108**	P	**P**	**01 29 59.0**	**+0.3**
LSZ				pmax	pmax		
	comp=Z,278nm,1.3s						
LSZ	**Lusaka**	**90.62**	**108**	P	**P**	**01 29 59.0**	**+0.3**
LSZ	**Lusaka**	**90.62**	**108**	P	**P**	**01 29 59.7**	**+1.1**
LSZ				pP	**pP**	**01 30 10.8**	**+1.9**
ECEU	**Ceuta**	**90.62**	**48**	P	**P**	**01 29 57.7**	**-0.2**
PSBE	**So Bento**	**90.76**	**43**	*e*P	**P**	**01 29 59.6**	**+1.1**
PSBE				*i* IAmb	IAmb	01 30 12.3	
	comp=Z,166nm,1.5s						
PARRA	**Arraiolos**	**90.77**	**44**	*e*P	**P**	**01 29 59.4**	**+0.8**
PARRA				*i* IAmb	IAmb	01 30 16.9	
	comp=Z,124nm,1.5s						
EDM	**Edmonton**	**90.78**	**336**	IAmb	IAmb	01 30 34.7	
	comp=Z,230nm,1.9s						
PMTG	**Montargil**	**90.82**	**44**	*e*P	**P**	**01 29 59.7**	**+0.9**
PMTG				*i* IAmb	IAmb	01 30 17.1	
	comp=Z,199nm,1.4s						
ESPR	**Espera**	**90.91**	**47**	P	**P**	**01 29 59.6**	**+0.3**
TAM	**Tamanrasset**	**90.93**	**64**	P	**P**	**01 30 00.1**	**+0.2**
TAM				pmax	pmax		
	comp=Z,28nm,1.6s						
EMIN	**Mina Concepcio**	**90.95**	**46**	P	**P**	**01 29 59.1**	**-0.3**
PBAR	**Barrancos**	**90.98**	**45**	P	**P**	**01 29 59.1**	**-0.4**
PBAR	**Barrancos**	**90.98**	**45**	*e*P	**P**	**01 30 00.2**	**+0.6**
PBAR				*i* IAmb	IAmb	01 30 17.9	
	comp=Z,102nm,1.5s						
PESTR	**Estremoz**	**91.07**	**45**	P	**P**	**01 30 01.4**	**+1.4**
PESTR	**Estremoz**	**91.07**	**45**	*e*P	**P**	**01 30 01.5**	**+1.4**
PESTR				*i* IAmb	IAmb	01 30 19.6	
	comp=Z,57nm,1.6s						
PSARD	**Sardoal**	**91.19**	**44**	*e*P	**P**	**01 30 01.3**	**+0.7**
PSARD				*i* IAmb	IAmb	01 30 18.4	
	comp=Z,100nm,1.5s						
PCAS	**Casmilo, Conde**	**91.28**	**43**	*e*P	**P**	**01 30 01.5**	**+0.6**
PCAS				*i* IAmb	IAmb	01 30 19.0	
	comp=Z,101nm,1.6s						
EBAD	**Badajoz**	**91.36**	**45**	P	**P**	**01 30 01.8**	**+0.6**
EMIJ	**Mijas**	**91.41**	**48**	P	**P**	**01 30 00.8**	**-0.8**
PMRV	**Marv??o**	**91.55**	**44**	*e*P	**P**	**01 30 02.8**	**+0.6**
PMRV				*i* IAmb	IAmb	01 30 19.9	
	comp=Z,98nm,1.4s						
PMRV				*e*S	**S**	**01 40 55.0**	**-4.8**
PMRV				*e*LR	LR	02 01 01.7	
PMRV				*i* IAMs_20	IAMs_20	02 09 05.2	
	comp=Z,12µm,22.0s						
AFI	**Afiamalu**	**91.59**	**253**	LR	LR	02 01 02.8	
	comp=Z,19µm,21.6s,baz=120,slow=29						
EMAL	**Malaga-Limoner**	**91.75**	**48**	P	**P**	**01 30 03.0**	**-0.2**
PCBR	**Castelo Branco**	**91.75**	**44**	*e*P	**P**	**01 30 04.0**	**+0.9**
PCBR				*i* IAmb	IAmb	01 30 20.9	
	comp=Z,89nm,1.5s						
PTO	**Porto**	**91.91**	**42**	*e*P	**P**	**01 30 04.4**	**+0.6**
PTO				*i* IAmb	IAmb	01 30 22.5	
	comp=Z,156nm,1.6s						
PVIS	**Viseu**	**92.05**	**43**	*e*P	**P**	**01 30 04.9**	**+0.3**
MTE	**Manteigas**	**92.06**	**43**	*e*P	**P**	**01 30 05.5**	**+0.9**
MTE				*i* IAmb	IAmb	01 30 17.8	
	comp=Z,109nm,1.3s						
MTE				*e*S	**S**	**01 41 01.2**	**-3.3**
MTE				*e*LR	LR	02 01 02.4	
MTE				*i* IAMs_20	IAMs_20	02 10 11.2	
	comp=Z,28µm,20.0s						
MTE	**Manteigas**	**92.06**	**43**	IAmb	IAmb	01 30 17.0	
	comp=Z,89nm,1.2s						
PVRL	**Vila Real**	**92.51**	**43**	*e*P	**P**	**01 30 07.8**	**+1.1**
PVRL				*i* IAmb	IAmb	01 30 12.2	
	comp=Z,76nm,1.9s						
PGAV	**Gavieira, Arco**	**92.62**	**42**	*e*S	S	01 40 60.0	-10
PGAV				*e*LR	LR	02 01 58.2	
PGAV				*i* IAMs_20	IAMs_20	02 11 28.0	
	comp=Z,10µm,20.0s						
PBRG	**Braganca**	**93.41**	**43**	*e*P	**P**	**01 30 11.9**	**+1.1**
PBRG				*i* IAmb	IAmb	01 30 29.6	
	comp=Z,91nm,1.6s						
PAB	**San Pablo**	**93.48**	**46**	P	**P**	**01 30 10.4**	**-0.8**
PAB				pmax	pmax		
	comp=Z,68nm,1.2s						
PAB	**San Pablo**	**93.48**	**46**	P	**P**	**01 30 10.4**	**-0.8**
ESDC	**Sonseca Array**	**93.79**	**46**	P	**P**	**01 30 12.5**	**-0.1**
	comp=Z,12nm,0.9s,baz=244,slow=4.1,SNR=40						
ESDC				LR	LR	02 09 30.2	
	comp=Z,19µm,21.8s,baz=212,slow=34						
	comp=Z,12nm,0.9s						
ESDC	**Sonseca Array**	**93.79**	**46**	P	**P**	**01 30 11.5**	**-1.1**
FRB	**Frobisher Bay**	**93.80**	**1**	LR	LR	02 15 08.5	
	comp=Z,6µm,20.3s,baz=167,slow=37						
CART	**Cartagena**	**94.45**	**49**	P	**P**	**01 30 13.8**	**-1.8**
CART	**Cartagena**	**94.45**	**49**	IAMs_20	IAMs_20	02 10 14.2	
	comp=Z,10µm,22.0s						
UCM	**Universidad Co**	**94.61**	**46**	P	**P**	**01 30 14.9**	**-1.4**
POHA	**Pohakuloa**	**94.72**	**290**	IAMs_20	IAMs_20	02 06 50.1	
	comp=Z,6µm,19.0s						
BBB	**Bella Bella**	**95.86**	**329**	LR	LR	02 08 38.6	
	comp=Z,5µm,21.9s,baz=131,slow=32						
SJPF	**Ste Jean**	**97.47**	**44**	*e*P	Pdif	01 30 29.8	+0.5
SJPF				pmax	pmax		
	comp=Z,21nm,0.8s						
KIP	**Kipapa**	**97.56**	**290**	IAMs_20	IAMs_20	02 03 34.3	
	comp=Z,9µm,21.0s						
MSVF	**Nonsavu**	**97.69**	**244**	LR	LR	02 07 23.0	
	comp=Z,5µm,19.7s,baz=141,slow=31						
MSVF	**Nonsavu**	**97.69**	**244**	IAMs_20	IAMs_20	02 04 42.3	
	comp=Z,7µm,22.0s						
ETSF	**Etsaut**	**97.75**	**45**	*e*P	**P**	**01 30 30.2**	**-0.4**
ETSF				pmax	pmax		
	comp=Z,242nm,1.0s						
SFJD	**Kangerlussuaq**	**98.34**	**8**	LR	LR	02 16 45.1	
	comp=Z,3µm,19.2s,baz=194,slow=36						
EPF	**Esparros**	**98.37**	**45**	*e*P	Pdif	01 30 33.8	+0.4
EPF				pmax	pmax		
	comp=Z,97nm,1.2s						
CEST	**Esterri de Car**	**98.69**	**46**	IAmb	IAmb	01 30 50.5	
	comp=Z,85nm,1.2s						
YKA	**Yellowknife Ar**	**98.71**	**341**	P	**P**	**01 30 33.7**	**-0.6**
	comp=Z,4.1nm,0.6s,baz=148,slow=4.6,SNR=15						
YKA				PP	**PP**	**01 34 33.8**	**-2.3**
	comp=Z,3.7nm,1.0s,baz=141,slow=6.3,SNR=3.9						
	comp=Z,4.1nm,0.6s						
YKA	**Yellowknife Ar**	**98.71**	**341**	P	**P**	**01 30 32.7**	**-1.5**
TAU	**Tasmania Unive**	**98.80**	**208**	IAMs_20	IAMs_20	02 06 48.1	
	comp=Z,9µm,19.0s						
CORI	**Orista**	**98.85**	**46**	IAmb	IAmb	01 30 53.7	
	comp=Z,86nm,1.5s						
QUIF	**Quistinic**	**99.12**	**39**	*e*P	**Pdif**	**01 30 36.0**	**-0.5**
QUIF				pmax	pmax		
	comp=Z,23nm,0.9s						
MAHO	**Mahon**	**99.15**	**49**	P	**Pdif**	**01 30 36.5**	**-0.3**
MAHO	**Mahon**	**99.15**	**49**	IAmb	IAmb	01 30 50.8	
	comp=Z,88nm,1.2s						
MAHO				IAMs_20	IAMs_20	02 17 27.8	
	comp=Z,10µm,19.0s						
ANGG	**Ammassalik, Gr**	**99.19**	**14**	IAMs_20	IAMs_20	02 13 42.3	
	comp=Z,10µm,20.0s						
ROSF	**Rostrenen**	**99.30**	**39**	*e*P	**Pdif**	**01 30 37.0**	**-0.3**
ROSF				pmax	pmax		
	comp=Z,78nm,1.2s						
LFF	**La Frestale**	**99.67**	**43**	*e*P	**Pdif**	**01 30 39.2**	**+0.2**
LFF				pmax	pmax		
	comp=Z,198nm,1.1s						
T35M	**Bob Quinn**	**100.03**	**332**	IAMs_20	IAMs_20	02 23 31.1	
	comp=Z,6µm,19.0s						
MFF	**Saint Martin d**	**100.07**	**42**	*e*P	**Pdif**	**01 30 40.8**	**+0.1**
MFF				pmax	pmax		
	comp=Z,182nm,1.1s						
RJF	**Les Rejaudoux**	**100.33**	**43**	*e*P	**Pdif**	**01 30 42.0**	**0.0**
RJF				pmax	pmax		
	comp=Z,187nm,1.4s						
KEST	**Kesra**	**100.48**	**55**	P	**Pdif**	**01 30 42.3**	**-0.7**
	comp=Z,5.5nm,0.9s,baz=208,slow=3.6,SNR=4.8						
KEST	**Kesra**	**100.48**	**55**	P	**Pdif**	**01 30 48.4**	**+5.4**
WRAK	**Wrangell Islan**	**100.54**	**330**	IAMs_20	IAMs_20	02 12 27.7	
	comp=Z,7µm,20.0s						
DSB	**Dublin**	**100.62**	**34**	IAMs_20	IAMs_20	02 17 11.7	
	comp=Z,9µm,18.0s						
GRR	**Gorron**	**100.66**	**40**	*e*P	**Pdif**	**01 30 42.8**	**-0.5**
GRR				pmax	pmax		
	comp=Z,33nm,1.0s						
S34M	**Telegraph Cree**	**101.00**	**332**	IAMs_20	IAMs_20	02 13 26.8	
	comp=Z,9µm,21.0s						
FLN	**La Foliniere**	**101.07**	**40**	*e*P	**Pdif**	**01 30 45.0**	**-0.2**
FLN				pmax	pmax		
	comp=Z,26nm,1.0s						
LDF	**La Druitiere**	**101.18**	**40**	*e*P	**Pdif**	**01 30 45.3**	**-0.3**
LDF				pmax	pmax		
	comp=Z,20nm,0.8s						
VOI	**Vohitsoka**	**101.29**	**124**	IAMs_20	IAMs_20	02 16 03.5	
	comp=Z,7µm,20.0s						
R33M	**Jennings River**	**101.90**	**333**	IAMs_20	IAMs_20	02 15 03.5	
	comp=Z,8µm,19.0s						
SSB	**Saint Sauveur**	**102.13**	**45**	P	**Pdif**	**01 30 55.1**	**+5.1**
S32K	**Killisnoo**	**102.15**	**331**	IAMs_20	IAMs_20	02 22 30.3	
	comp=Z,5µm,19.0s						
AVF	**Avril sur Loir**	**102.20**	**43**	*e*P	**Pdif**	**01 30 50.2**	**0.0**
AVF				pmax	pmax		
	comp=Z,20nm,1.2s						
BORG	**Borgarnes**	**102.54**	**20**	IAMs_20	IAMs_20	02 15 23.8	
	comp=Z,9µm,21.0s						
R32K	**Eaglecrest**	**102.62**	**331**	IAMs_20	IAMs_20	02 14 35.7	
	comp=Z,7µm,20.0s						
LOR	**Lormes**	**102.74**	**43**	*e*P	**Pdif**	**01 30 52.4**	**-0.3**
LOR				pmax	pmax		
	comp=Z,30nm,1.4s						
BESE	**Bessie Mountai**	**102.95**	**331**	IAMs_20	IAMs_20	02 14 56.4	
	comp=Z,7µm,20.0s						
P33M	**Teslin, Yukon**	**103.14**	**333**	IAMs_20	IAMs_20	02 15 52.4	
	comp=Z,5µm,19.0s						
S31K	**Pelican**	**103.15**	**330**	IAMs_20	IAMs_20	02 23 00.9	
	comp=Z,5µm,20.0s						
EKA	**Eskdalemuir Ar**	**103.37**	**33**	Pdiff	**Pdif**	**01 30 54.1**	**-1.1**
	comp=Z,4.3nm,1.0s,baz=242,slow=5.4,SNR=5.0						
LPL	**La Plagne**	**103.58**	**45**	*e*P	**Pdif**	**01 30 57.8**	**+1.1**
LPL				pmax	pmax		
	comp=Z,15nm,1.0s						
LPG	**La Plagne**	**103.58**	**45**	*e*P	**Pdif**	**01 30 57.0**	**+0.2**
LPG				pmax	pmax		
	comp=Z,34nm,1.2s						
CAN	**Canberra**	**104.31**	**213**	IAMs_20	IAMs_20	02 07 12.8	
	comp=Z,6µm,21.0s						
BAIF	**Baives**	**104.36**	**40**	*e*P	**Pdif**	**01 30 59.7**	**0.0**
BAIF				pmax	pmax		
	comp=Z,10.0nm,1.0s						
HAU	**Haudompre**	**104.57**	**43**	*e*P	**Pdif**	**01 31 00.6**	**-0.2**
DOU	**Dourbes**	**104.59**	**40**	*d*P	**Pdif**	**01 31 01.3**	**+0.5**
	comp=Z,11nm,1.3s						
DOU				*d*x	x	01 31 12.8	
GIVF	**Givet**	**104.72**	**40**	*e*P	**Pdif**	**01 31 01.6**	**+0.2**
GIVF				pmax	pmax		
	comp=Z,37nm,1.4s						
P29M	**Windy Craggy**	**104.77**	**331**	IAMs_20	IAMs_20	02 16 41.3	
	comp=Z,5µm,20.0s						
BMRD	**Maredsous**	**104.79**	**40**	*d*Pdif	**Pdif**	**01 31 02.2**	**+0.5**
	comp=Z,17nm,1.1s						
UCC	**Uccle**	**104.81**	**40**	*d*Pdif	**Pdif**	**01 31 02.5**	**+0.8**
	comp=Z,11nm,1.1s						
UCC				*d*x	x	01 31 13.6	
RCHB	**Rochefort**	**104.98**	**40**	*d*Pdif	**Pdif**	**01 31 02.9**	**+0.4**
	comp=Z,6.5nm,1.3s						
N31M	**Braeburn, Yuko**	**105.07**	**333**	IAMs_20	IAMs_20	02 16 27.4	
	comp=Z,7µm,19.0s						
ECH	**Echery**	**105.15**	**43**	IAMs_20	IAMs_20	02 16 01.4	
	comp=Z,8µm,21.0s						
SUMG	**Summit**	**105.15**	**10**	IAMs_20	IAMs_20	02 20 19.8	
	comp=Z,8µm,20.0s						
SUMG	**Summit**	**105.15**	**10**	*i* P	**PKiKP**	**01 35 17.0**	**-0.4**
WLF	**Walferdange**	**105.26**	**41**	*d*Pdif	**Pdif**	**01 31 04.0**	**+0.2**
	comp=Z,18nm,1.1s						
WLF				*d*x	x	01 31 16.3	
WLF	**Walferdange**	**105.26**	**41**	*e*Pdiff	**Pdif**	**01 31 04.2**	**+0.5**
	baz=245,slow=4.6						
BMOL	**Mol**	**105.42**	**39**	*d*Pdif	**Pdif**	**01 31 05.7**	**+1.3**
	comp=Z,28nm,1.4s						
O29M	**Mount Kennedy**	**105.50**	**332**	IAMs_20	IAMs_20	02 17 56.9	
	comp=Z,6µm,20.0s						
MEM	**Membach**	**105.64**	**40**	*d*Pdif	**Pdif**	**01 31 06.3**	**+0.9**
	comp=Z,7.7nm,1.4s						
BFO	**Black Forest**	**105.89**	**43**	IAMs_20	IAMs_20	02 17 04.1	
	comp=Z,5µm,20.0s						
BFO	**Black Forest**	**105.89**	**43**	*e*Pdiff	**Pdif**	**01 31 07.2**	**+0.6**
	baz=245,slow=4.6						
BFO				*e*SKSac	SKSac	01 42 02.1	+18
	baz=244,slow=4.3						
BFO				*e*PS	**PS**	**01 44 52.8**	**+5.2**
	baz=233,slow=8.1						
PCA	**Pinnacle**	**106.08**	**331**	IAMs_20	IAMs_20	02 17 23.3	
	comp=Z,5µm,20.0s						
DAVA	**Damuels**	**106.34**	**45**	*i* Pdiff	**Pdif**	**01 31 10.4**	**+1.6**
	comp=Z,28nm,1.2s						
DAVA				*e*PKiKP	**PKiKP**	**01 35 21.4**	**+1.4**
	comp=Z,18nm,1.2s						
DAVA				*e*PKKP	**PKKPbc**	**01 46 39.7**	**-2.0**
	comp=Z,7.4nm,1.4s						
O28M	**Mount Upton**	**106.43**	**332**	IAMs_20	IAMs_20	02 14 52.3	
	comp=Z,6µm,22.0s						
C36M	**Paulatuk**	**106.44**	**343**	IAMs_20	IAMs_20	02 19 46.6	
	comp=Z,7µm,22.0s						
SCO	**Scoresbysund**	**106.58**	**16**	IAMs_20	IAMs_20	02 15 54.7	
	comp=Z,10µm,22.0s						
STU	**Stuttgart**	**106.60**	**43**	IAMs_20	IAMs_20	02 17 26.0	
	comp=Z,7µm,20.0s						
STU	**Stuttgart**	**106.60**	**43**	*e*Pdiff	**Pdif**	**01 31 11.1**	**+1.3**
	baz=245,slow=4.6						
STU				*e*SKSac	SKSac	01 42 06.5	+19
	baz=244,slow=4.3						
STU				*e*PS	**PS**	**01 44 56.0**	**+1.0**
	baz=233,slow=8.1						
TULEG	**Thule**	**106.64**	**1**	IAMs_20	IAMs_20	02 21 09.7	
	comp=Z,8µm,21.0s						
UBR	**Ueberruh**	**106.66**	**44**	*e*Pdiff	**Pdif**	**01 31 10.7**	**+0.6**
	baz=245,slow=4.6						
BUG	**Bochum--Univer**	**106.73**	**40**	*e*Pdiff	**Pdif**	**01 31 10.7**	**+0.5**
	baz=245,slow=4.6						
BUG				*e*SKSac	SKSac	01 42 07.8	+20
	baz=244,slow=4.3						
BUG				*e*PS	**PS**	**01 45 08.5**	**+12**
	baz=233,slow=8.1						
FETA	**Feichten**	**106.74**	**45**	*i* Pdiff	**Pdif**	**01 31 11.1**	**+0.5**
	comp=Z,25nm,1.4s,SNR=5.7						
FETA				*e*PKiKP	**PKiKP**	**01 35 20.9**	**+0.1**
	comp=Z,12nm,1.4s						
FETA				*e*PKKP	**PKKPbc**	**01 46 38.5**	**-1.9**
	comp=Z,4.1nm,1.1s						
LOGN	**Logan Glacier**	**106.79**	**331**	IAMs_20	IAMs_20	02 14 50.0	
	comp=Z,6µm,22.0s						
YAH	**Yahtse**	**106.86**	**331**	IAMs_20	IAMs_20	02 17 06.7	
	comp=Z,7µm,21.0s						
L29M	**L29M**	**106.91**	**334**	IAMs_20	IAMs_20	02 18 43.9	
	comp=Z,8µm,20.0s						
RETA	**Reutte**	**106.96**	**45**	*i* Pdiff	**Pdif**	**01 31 11.6**	**+0.1**
	comp=Z,25nm,1.3s						
RETA				*e*PKiKP	**PKiKP**	**01 35 20.1**	**-1.0**
	comp=Z,9.8nm,1.2s						
RETA				*e*PKKP	**PKKPbc**	**01 46 37.5**	**-2.1**
	comp=Z,3.9nm,1.4s						
GRNC	**Granite Creek**	**107.05**	**331**	IAMs_20	IAMs_20	02 18 02.0	
	comp=Z,6µm,20.0s						
J30M	**Hart River**	**107.09**	**336**	IAMs_20	IAMs_20	02 18 29.5	
	comp=Z,5µm,20.0s						
K29M	**Barlow Dome**	**107.10**	**335**	IAMs_20	IAMs_20	02 18 27.8	
	comp=Z,8µm,20.0s						
MOTA	**Moosalm**	**107.11**	**45**	*i* Pdiff	**Pdif**	**01 31 13.5**	**+1.3**
	comp=Z,25nm,1.2s						
MOTA				*e*PKiKP	**PKiKP**	**01 35 24.4**	**+2.9**
	comp=Z,15nm,1.4s						
MOTA				*e*PKKP	**PKKPbc**	**01 46 36.9**	**-2.3**
	comp=Z,6.4nm,1.5s						
SQTA	**Sankt Quirin**	**107.12**	**45**	*i* Pdiff	**Pdif**	**01 31 13.3**	**+1.1**
	comp=Z,26nm,1.7s,SNR=5.2						
SQTA				*e*PKiKP	**PKiKP**	**01 35 24.1**	**+2.7**
	comp=Z,20nm,1.4s						
SQTA				*e*PKKP	**PKKPbc**	**01 46 34.8**	**-4.4**
	comp=Z,9.2nm,1.5s						
BARN	**Barnard Glacie**	**107.19**	**331**	IAMs_20	IAMs_20	02 18 19.5	
	comp=Z,5µm,19.0s						
SANVU	**Saraoutou**	**107.36**	**240**	IAMs_20	IAMs_20	02 10 06.0	
	comp=Z,7µm,21.0s						
WATA	**Walderalm**	**107.39**	**45**	*i* Pdiff	**Pdif**	**01 31 14.6**	**+1.1**
	comp=Z,30nm,1.3s						
WATA				*e*PKiKP	**PKiKP**	**01 35 23.4**	**+1.4**
	comp=Z,11nm,1.1s						
WATA				*e*PKKP	**PKKPbc**	**01 46 35.6**	**-2.7**

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      comp=Z,4.6nm,1.5s
IBBN  Ibbenburen         107.40  39 ePdiff     Pdif      01 31 14.6 +1.4
      baz=245,slow=4.6
WTTA  Wattenberg         107.40  45 i Pdiff    Pdif      01 31 14.6 +1.0
      comp=Z,37nm,1.2s,SNR=6.1
WTTA                                ePKiKP     PKiKP     01 35 24.2 +2.2
      comp=Z,24nm,2.2s
WTTA                                ePKKP      PKKPbc    01 46 33.7 -4.6
      comp=Z,6.1nm,1.3s
I30M  Mount Dempster     107.48 336  IAMs_20   IAMs_20   02 19 01.7
      comp=Z,5µm,21.0s
TGL   Tana Glacier       107.52 331  IAMs_20   IAMs_20   02 15 17.2
      comp=Z,7µm,22.0s
FUR   Furstenfeldbru     107.57  44 eSKSac     SKSac     01 42 12.4  +21
      baz=244,slow=4.3
FUR                                 ePS        PS        01 45 08.5 +3.6
      baz=233,slow=8.1
CRQM  Cirque             107.65 331  IAMs_20   IAMs_20   02 15 31.1
      comp=Z,7µm,22.0s
J29N  Klondike Camp      107.69 335  IAMs_20   IAMs_20   02 18 20.5
      comp=Z,7µm,21.0s
BERG  Berg Lake          107.70 330  IAMs_20   IAMs_20   02 14 29.2
      comp=Z,6µm,22.0s
ABTA  Abfaltersbach      107.72  46 i Pdiff    Pdif      01 31 16.2 +1.4
      comp=Z,16nm,1.4s
ABTA                                ePKiKP     PKiKP     01 35 23.3 +0.8
      comp=Z,10nm,1.3s
ABTA                                ePKKP      PKKPbc    01 46 34.6 -2.6
      comp=Z,1.8nm,0.9s
G31M  Satah River        107.77 338  IAMs_20   IAMs_20   02 19 38.4
      comp=Z,8µm,20.0s
KAIM  Kayak Island       107.78 330  IAMs_20   IAMs_20   02 28 25.3
      comp=Z,5µm,20.0s
MCARA McCarthy VSAT      107.92 331  IAMs_20   IAMs_20   02 18 02.9
      comp=Z,6µm,20.0s
M27K  Edge Creek, AK     107.96 333  IAMs_20   IAMs_20   02 16 37.7
      comp=Z,6µm,22.0s
UBBA  Unterbreizbach     107.99  41 ePdiff     Pdif      01 31 15.8 +0.1
      baz=245,slow=4.6
UBBA                                eSKSac     SKSac     01 42 13.0  +20
      baz=244,slow=4.3
UBBA                                ePS        PS        01 45 02.3 -6.5
      baz=233,slow=8.1
VRDI  Verde Repeater     108.02 331  IAMs_20   IAMs_20   02 16 17.5
      comp=Z,6µm,22.0s
LESA  Schwarzleotal      108.11  45 i Pdiff    Pdif      01 31 17.9 +1.3
      comp=Z,12nm,1.0s
LESA                                ePKiKP     PKiKP     01 35 24.9 +1.7
      comp=Z,13nm,1.2s
LESA                                ePKKP      PKKPbc    01 46 34.9 -1.1
      comp=Z,7.2nm,1.9s
RAGM  Ragged Mountai     108.12 330  IAMs_20   IAMs_20   02 15 03.2
      comp=Z,7µm,22.0s
GRFO  Grafenberg         108.20  43  IAMs_20   IAMs_20   02 17 52.2
      comp=Z,9µm,22.0s
GRA1  Grafenberg Arr     108.20  43  IAMs_20   IAMs_20   02 17 52.3
      comp=Z,8µm,22.0s
GRF   Grafenberg Arr     108.20  43 eSKSac     SKSac     01 42 14.6  +20
      baz=244,slow=4.3
GRF                                 ePS        PS        01 45 11.7 +0.3
      baz=233,slow=8.1
GRF                                 eL         L         02 17 51.9
      comp=Z,9µm,22.0s
I29M  Ogilvie Camp,      108.23 336  IAMs_20   IAMs_20   02 25 57.5
      comp=Z,6µm,20.0s
GLB   Gilahina Butte     108.28 331  IAMs_20   IAMs_20   02 15 56.3
      comp=Z,6µm,21.0s
MYKA  Terra Mystica      108.37  46 i Pdiff    Pdif      01 31 19.2 +1.5
      comp=Z,20nm,1.7s
MYKA                                ePKiKP     PKiKP     01 35 25.8 +2.0
      comp=Z,7.5nm,1.1s
KBA   Koelnbreinsper     108.37  46 i Pdiff    Pdif      01 31 18.9 +1.0
      comp=Z,8.4nm,1.3s
KBA                                 ePKiKP     PKiKP     01 35 24.6 +0.8
      comp=Z,9.8nm,1.2s
KBA                                 ePKKP      PKKPbc    01 46 32.9 -2.3
      comp=Z,3.6nm,1.2s
BMRM  Bremner River      108.38 331  IAMs_20   IAMs_20   02 29 51.0
      comp=Z,5µm,20.0s
M26K  Nabesna, AK        108.43 332  IAMs_20   IAMs_20   02 17 29.2
      comp=Z,7µm,21.0s
RETH  Rethem/Aller,      108.47  39 ePdiff     Pdif      01 31 19.3 +1.4
      baz=245,slow=4.6
A36M  Sachs Harbour      108.55 345  IAMs_20   IAMs_20   02 21 20.3
      comp=Z,9µm,21.0s
CLZ   Clausthal          108.64  40 ePdiff     Pdif      01 31 19.3 +0.5
      baz=245,slow=4.6
CLZ                                 eSKSac     SKSac     01 42 14.3  +18
      baz=244,slow=4.3
CLZ                                 ePS        PS        01 45 27.4  +12
      baz=233,slow=8.1
EYAK  Cordova Ski Ar     108.66 330  IAMs_20   IAMs_20   02 16 18.6
      comp=Z,6µm,20.0s
H29M  Whitestone         108.72 337  IAMs_20   IAMs_20   02 27 49.5
      comp=Z,5µm,20.0s
BIOA  Bad Ischl, Aus     108.81  45 i Pdiff    Pdif      01 31 21.1 +1.4
      comp=Z,12nm,1.5s
BIOA                                ePKiKP     PKiKP     01 35 25.7 +1.3
      comp=Z,12nm,1.1s
BIOA                                ePKKP      PKKPbc    01 46 30.8 -2.9
      comp=Z,1.7nm,0.9s
MOX   Moxa               108.84  42 ePS        PS        01 45 14.8 -2.9
      baz=233,slow=8.1
MOX                                 eL         L         02 21 45.4
      comp=Z,12µm,19.0s
I28M  Miner Creek        108.85 336  IAMs_20   IAMs_20   02 19 58.0
      comp=Z,8µm,20.0s
L26K  Log Cabin Wild     108.88 333  IAMs_20   IAMs_20   02 19 01.1
      comp=Z,6µm,19.0s
OBKA  Obir               108.89  47 i Pdiff    Pdif      01 31 22.3 +2.2
      comp=Z,14nm,1.4s
OBKA                                ePKiKP     PKiKP     01 35 24.7  0.0
      comp=Z,11nm,1.2s
OBKA                                ePKKP      PKKPbc    01 46 30.2 -3.3
      comp=Z,3.6nm,1.2s
HIN   Hinchinbrook I     108.92 330  IAMs_20   IAMs_20   02 18 20.4
      comp=Z,5µm,20.0s
DIV   Divide             108.95 330  IAMs_20   IAMs_20   02 30 18.2
      comp=Z,5µm,20.0s
WET   Wettzell           108.95  44 ePdiff     Pdif      01 31 21.0 +0.7
      baz=245,slow=4.6
WET                                 eSKSac     SKSac     01 42 14.9  +17
      baz=244,slow=4.3
WET                                 ePS        PS        01 45 14.8 -4.2
      baz=233,slow=8.1
FID   Port Fidalgo       109.08 330  IAMs_20   IAMs_20   02 30 44.6
      comp=Z,5µm,20.0s
P23K  Montague Islan     109.13 329  IAMs_20   IAMs_20   02 14 21.0
      comp=Z,5µm,21.0s
KLU   Klutina            109.19 331  IAMs_20   IAMs_20   02 15 54.4
      comp=Z,4µm,21.0s
TANN  Tannenbergstha     109.23  42 ePdiff     Pdif      01 31 23.0 +1.5
      baz=245,slow=4.6
MOA   Molln              109.26  45 i Pdiff    Pdif      01 31 22.7 +1.0
      comp=Z,13nm,1.1s
MOA                                 ePKiKP     PKiKP     01 35 25.9 +0.6
      comp=Z,9.7nm,1.2s
MOA                                 ePKKP      PKKPbc    01 46 30.8 -1.4
      comp=Z,4.9nm,1.2s
SOKA  Soboth             109.26  47 i Pdiff    Pdif      01 31 22.7 +1.0
      comp=Z,5.2nm,1.4s
SOKA                                ePKiKP     PKiKP     01 35 25.7 +0.3
      comp=Z,11nm,1.3s
SOKA                                ePKKP      PKKPbc    01 46 30.0 -2.3
      comp=Z,3.7nm,1.4s
HARP  HAARP              109.30 332  IAMs_20   IAMs_20   02 20 15.3
      comp=Z,4µm,20.0s
GEC2  GERESS Array S     109.32  44 eSKSac     SKSac     01 42 17.5  +18
      baz=244,slow=4.3
GEC2                                ePS        PS        01 45 21.1 -1.9
      baz=233,slow=8.1
GERES GERESS Array B     109.32  44  Pdiff     Pdif      01 31 21.2 -0.8
      comp=Z,0.3nm,0.2s,baz=251,slow=4.1,SNR=6.1
GERES                                PKiKP     PKiKP     01 35 24.8 -0.7
      comp=Z,4.2nm,0.7s,baz=222,slow=1.8,SNR=18
GERES                                PKKPbc    PKKPbc    01 46 30.9 -1.3
      comp=Z,0.2nm,0.2s,baz=4.8,slow=3.2,SNR=3.5
KHC   Kasperske Hory     109.37  44 ePDIFF     Pdif      01 31 20.0 -2.1
KHC                                 ex         x         01 34 54.0
KHC                                 ePKP       PKiKP     01 35 25.4 -0.1
KHC                                 eSP        SP        01 45 15.2 -3.6
KHC                                  AMS       AMS       02 15 10.0
      comp=Z,10µm,24.3s
GLI   Glacier Island     109.40 330  IAMs_20   IAMs_20   02 21 27.2
      comp=Z,4µm,19.0s
BSEG  Bad Segeberg       109.50  38 ePS        PS        01 45 27.4 +3.1
      baz=233,slow=8.1
I27K  Kandik River       109.53 336  IAMs_20   IAMs_20   02 20 06.0

      comp=Z,8µm,20.0s
ARSA  Arzberg            109.80  46 i Pdiff    Pdif      01 31 24.9 +0.9
      comp=Z,5.5nm,1.4s
ARSA                                ePKiKP     PKiKP     01 35 26.7 +0.4
      comp=Z,5.9nm,1.1s
ARSA                                ePKKP      PKKPbc    01 46 28.7 -1.8
      comp=Z,5.5nm,1.2s
H27K  Steamboat Moun     109.82 336  IAMs_20   IAMs_20   02 20 47.5
      comp=Z,6µm,21.0s
RIDG  Independent Ri     109.82 333  IAMs_20   IAMs_20   02 19 40.9
      comp=Z,8µm,19.0s
ZVC   Zvikov             109.86  44 ePKP       PKiKP     01 35 24.7 -1.6
ZVC                                 eSP        SP        01 45 18.5 -5.2
ZVC                                  AMS       AMS       02 15 30.0
      comp=Z,10µm,24.5s
BLY   Banja Luka         109.87  49 ⇓P         PKiKP     01 35 27.5 +1.0
CLL   Collm              109.91  42 eP         Pdif      01 31 26.0 +1.6
CLL                                 ePS        PS        01 45 29.0 +0.5
CLL                                  pmax      pmax
      comp=Z,21nm,1.7s
CLL                                  MLR       MLR
      comp=Z,13µm,19.1s
CLL   Collm              109.91  42 ePdiff     Pdif      01 31 25.5 +1.1
      baz=245,slow=4.6
CLL                                 eSKSac     SKSac     01 42 19.6  +18
      baz=244,slow=4.3
CLL                                 ePS        PKKPbc    01 45 30.5  -60
      baz=233,slow=8.1
CLL   Collm              109.91  42 ePdif      Pdif      01 31 26.0 +1.6
      comp=Z,21nm,1.7s
CLL                                 esPdif     sPdif     01 31 37.0 -1.3
CLL                                 i PKiKP    PKiKP     01 35 27.2 +0.9
      comp=Z,17nm,1.5s
CLL                                 i sPKiKP   PP        01 35 39.8  -20
CLL                                 ePP        PP        01 35 56.0 -3.7
CLL                                 i pPP                01 36 06.7
CLL                                 i sPP                01 36 11.1
CLL                                 esSKSac    sSKSac    01 42 21.0 +2.1
CLL                                 e(SKKSac)            01 43 04.0
CLL                                 esSdif     sSdif     01 43 51.0 -1.3
CLL                                 ePS        PS        01 45 29.0 +0.5
CLL                                 ex         x         01 46 23.0
CLL                                 esPPS                01 46 45.0
CLL                                 eSS        SS        01 51 24.0 +1.6
CLL                                 ex         x         01 52 06.0
CLL                                 eSSS       SSS       01 55 30.0
CLL                                 ex         x         01 59 42.0
CLL                                  L         L         02 02 00.0
CLL                                  L         L         02 12 00.0
CLL                                  AMS       AMS       02 21 00.0
      comp=N,4µm,19.3s
CLL                                  AMS       AMS       02 21 00.0
      comp=E,11µm,19.2s
CLL                                  AMS       AMS       02 21 00.0
      comp=Z,13µm,19.1s
CLL                                  AMS       AMS       02 21 00.0
      comp=Z,0.0nm,17.7s
PWL   Port Wells         109.94 330  IAMs_20   IAMs_20   02 15 11.2
      comp=Z,4µm,20.0s
I26K  Coal Creek Min     109.94 335  IAMs_20   IAMs_20   02 27 19.8
      comp=Z,6µm,18.0s
SEW   Seward             110.10 329  IAMs_20   IAMs_20   02 25 56.6
      comp=Z,5µm,22.0s
K24K  Donnelly Dome      110.22 333  IAMs_20   IAMs_20   02 19 55.4
      comp=Z,8µm,20.0s
KNK   Knik Glacier       110.23 330  IAMs_20   IAMs_20   02 30 27.1
      comp=Z,6µm,20.0s
CONA  Conrad Observa     110.28  46 i Pdiff    Pdif      01 31 27.9 +1.7
      comp=Z,7.9nm,1.4s
CONA                                ePKiKP     PKiKP     01 35 26.6 -0.6
      comp=Z,22nm,1.8s
CONA                                ePKKP      PKKPbc    01 46 28.6 -0.5
      comp=Z,5.9nm,1.8s
BRG   Berggiesshubel     110.28  42 ePdiff     Pdif      01 31 27.7 +1.7
      baz=245,slow=4.6
BRG                                 eSKSac     SKSac     01 42 23.7  +21
      baz=244,slow=4.3
BRG                                 ePS        PS        01 45 26.2 -5.9
      baz=233,slow=8.1
BRG   Berggiesshubel     110.28  42  P         PKiKP     01 35 28.4 +1.4
BRG                                  Amp                 01 35 31.2
      comp=Z,5.2nm,0.9s
BRG   Berggiesshubel     110.28  42  PS        PS        01 45 29.0 -3.1
BRG                                  PKKP      PKKPdf    01 46 47.2 +0.8
BRG                                  Amp                 01 46 53.1
      comp=Z,9.1nm,1.3s
PRU   Pruhonice          110.28  43 ePKP       PKiKP     01 35 29.2 +2.1
PRU                                 eSP        SP        01 45 25.4 -2.4
PRU                                  AMS       AMS       02 23 20.0
      comp=Z,10µm,20.0s
O22K  Cooper Landing     110.38 329  IAMs_20   IAMs_20   02 21 16.2
      comp=Z,4µm,20.0s
RONA  Rosalia, Austr     110.46  46 ePdiff     Pdif      01 31 28.5 +1.5
      comp=Z,6.7nm,1.5s
RONA                                ePKiKP     PKiKP     01 35 27.8 +0.3
      comp=Z,15nm,1.4s
RONA                                ePKKP      PKKPbc    01 46 27.3 -1.0
      comp=Z,5.7nm,1.4s
DHY   Denali Highway     110.52 332  IAMs_20   IAMs_20   02 20 48.6
      comp=Z,5µm,22.0s
STKA  Stephens Creek     110.55 210  PKKPbc    PKKPbc    01 46 32.1 +4.6
      comp=Z,4.7nm,0.8s,baz=322,slow=4.1,SNR=6.4
KDAK  Kodiak Island      110.58 326  IAMs_20   IAMs_20   02 18 34.7
      comp=Z,5µm,20.0s
GHO   Glory Hole Cre     110.59 330  IAMs_20   IAMs_20   02 31 16.6
      comp=Z,5µm,20.0s
SLKM  Skilak Lake        110.62 329  IAMs_20   IAMs_20   02 21 23.4
      comp=Z,4µm,20.0s
RC01  Rabbit Creek A     110.65 329  IAMs_20   IAMs_20   02 32 26.2
      comp=Z,5µm,20.0s
CNPM  China Poot         110.66 328  IAMs_20   IAMs_20   02 14 05.7
      comp=Z,4µm,22.0s
SII   Sitkinak Islan     110.88 324  IAMs_20   IAMs_20   02 11 33.9
      comp=Z,5µm,20.0s
HOM   Homer              110.91 328  IAMs_20   IAMs_20   02 14 14.3
      comp=Z,4µm,20.0s
PRP   Porcupine Dome     110.91 335  IAMs_20   IAMs_20   02 19 42.6
      comp=Z,7µm,21.0s
HDA   Harding Lake       110.95 333  IAMs_20   IAMs_20   02 20 25.7
      comp=Z,7µm,21.0s
G26K  Porcupine Rive     110.96 336  IAMs_20   IAMs_20   02 22 08.6
      comp=Z,6µm,20.0s
KRUC  Moravsky           111.04  45 ePDIFF     Pdif      01 31 29.9 +0.4
KRUC                                e                    01 35 38.9
ILAR  Eielson Array      111.09 334  Pdiff     Pdif      01 31 30.7 +1.3
      comp=Z,0.3nm,0.9s,baz=117,slow=5.6,SNR=3.0
ILAR                                 PKiKP     PKiKP     01 35 28.6 +0.4
      comp=Z,3.9nm,1.0s,baz=214,slow=0.9,SNR=10
ILAR                                 PP        PP        01 36 07.9 +0.1
      comp=Z,2.5nm,0.8s,baz=114,slow=7.0,SNR=5.4
M22K  Willow             111.10 330  IAMs_20   IAMs_20   02 31 12.0
      comp=Z,5µm,20.0s
CAPN  Captain Cook N     111.14 329  IAMs_20   IAMs_20   02 29 44.0
      comp=Z,5µm,20.0s
SUA   Susitna One        111.25 330  IAMs_20   IAMs_20   02 31 22.0
      comp=Z,5µm,21.0s
VRAC  Vranov             111.25  45 ⇑PKIKP     PKiKP     01 35 30.2 +1.2
VRAC  Vranov             111.25  45 ePDIFF     Pdif      01 31 31.3 +0.8
VRAC                                e                    01 35 36.3
VRAC  Vranov             111.25  45 ⇑P         PKiKP     01 35 30.2 +1.2
FYU   Fort Yukon         111.29 336  IAMs_20   IAMs_20   02 29 26.4
      comp=Z,5µm,20.0s
MODS  Modra-Piesok       111.32  46 ePKP       PKiKP     01 35 29.8 +0.7
MODS                                e                    01 36 19.0
CHIR  Chirikof Islan     111.33 323  IAMs_20   IAMs_20   02 13 10.9
      comp=Z,5µm,19.0s
UPC   Upice              111.36  43  AMS       AMS       02 24 10.0
      comp=Z,10µm,20.1s
CCB   Clear Creek Bu     111.39 333  IAMs_20   IAMs_20   02 20 50.3
      comp=Z,7µm,20.0s
CHVC  Chvalec            111.41  43 ePKP       PKiKP     01 35 29.6 +0.4
WRH   Wood River Hil     111.42 333  IAMs_20   IAMs_20   02 20 41.3
      comp=Z,8µm,20.0s
CUT   Chulitna           111.44 331  IAMs_20   IAMs_20   02 31 16.8
      comp=Z,6µm,20.0s
MCK   McKinley           111.44 332  IAMs_20   IAMs_20   02 17 38.9
      comp=Z,6µm,22.0s
KONO  Kongsberg          111.47  33  IAMs_20   IAMs_20   02 19 29.7
      comp=Z,5µm,21.0s
DPC   Dobruska-Polom     111.48  43 ePKP       PKiKP     01 35 30.4 +1.0
DPC                                 eSP        SP        01 45 42.2 +3.4
DPC                                  AMS       AMS       02 19 20.0
      comp=Z,8µm,21.4s
OSTC  Ostas              111.49  43 ePKP       PKiKP     01 35 28.6 -0.8
OSTC                                 AMS       AMS       02 24 20.0
      comp=Z,10µm,20.0s

COLA  College            111.50 334 ⇓iPKIKP    PKiKP     01 35 30.0 +1.1
COLA  College            111.50 334  IAMs_20   IAMs_20   02 21 55.5
      comp=Z,7µm,19.0s
KRLC  Kraliky            111.65  44 ePKP       PKiKP     01 35 28.1 -1.7
KRLC                                 AMS       AMS       02 16 40.0
      comp=Z,8µm,24.5s
DAG   Danmarks Havn      111.67  11 i P        PKiKP     01 35 30.0 +1.0
SRO   Srobarova          111.76  47 ePKP       PKiKP     01 35 30.1 +0.2
SRO                                 ePP        PP        01 36 08.4 -4.7
BWN   Browne             111.84 333  IAMs_20   IAMs_20   02 20 42.6
      comp=Z,7µm,20.0s
NEA2  Nenana             111.86 333  IAMs_20   IAMs_20   02 20 54.8
      comp=Z,8µm,20.0s
TRF   Thorofare Moun     111.87 332  IAMs_20   IAMs_20   02 21 54.3
      comp=Z,6µm,21.0s
F25K  Christian Rive     111.89 337  IAMs_20   IAMs_20   02 28 14.4
      comp=Z,6µm,18.0s
MORC  Moravsky Berou     112.00  44 ⇑PKIKP     PKiKP     01 35 31.6 +1.2
MORC  Moravsky Berou     112.00  44 ePDIFF     Pdif      01 31 34.8 +1.0
MORC                                e                    01 35 40.3
MORC  Moravsky Berou     112.00  44 ⇑P         PKiKP     01 35 31.6 +1.2
MAUC  Maruska            112.03  45 ePKP       PKiKP     01 35 29.8 -0.7
G24K  Hadweenzic Riv     112.15 335  IAMs_20   IAMs_20   02 29 51.2
      comp=Z,4µm,19.0s
KTH   Kantishna Hill     112.18 332  IAMs_20   IAMs_20   02 19 52.3
      comp=Z,6µm,22.0s
STEB  Steborice          112.20  44 ePKP       PKiKP     01 35 30.5 -0.2
I23K  Minto, Yukon-K     112.20 334  IAMs_20   IAMs_20   02 22 26.8
      comp=Z,6µm,19.0s
VYHS  Vyhne              112.33  46 ePKP       PKiKP     01 35 32.2 +1.1
VYHS                                ePP        PP        01 36 12.9 -4.4
VYHS                                e                    01 36 26.7
VYHS  Vyhne              112.33  46 ePDIFF     Pdif      01 31 40.6 +5.3
M20K  Styx River         112.46 330  IAMs_20   IAMs_20   02 20 44.1
      comp=Z,4µm,20.0s
BOVS  Bovan              112.47  52 ⇑P         PKiKP     01 35 34.6 +3.1
CAST  Castle Rocks       112.60 331  IAMs_20   IAMs_20   02 23 59.6
      comp=Z,4µm,19.0s
F24K  Squaw Lake         112.64 336  IAMs_20   IAMs_20   02 22 58.2
      comp=Z,6µm,20.0s
N19K  Bonanza Creek      112.67 328  IAMs_20   IAMs_20   02 32 56.6
      comp=Z,5µm,21.0s
NB2   NORSAR Subarra112.75  32  PKPdf     PKiKP     01 35 31.6 +0.1
      comp=Z,6.2nm,1.2s,baz=248,slow=1.9
NB2   NORSAR Subarra112.75  32  PKPdf     PKiKP     01 35 31.6 +0.1
NOA   NORSAR Array B 112.75  32  PKiKP     PKiKP     01 35 31.5 +0.1
      comp=Z,2.2nm,0.9s,baz=256,slow=2.0,SNR=3.7
KKB   Krupnik            112.81  54 eP         PP        01 36 19.6 -1.2
APE   Apeiranthos        112.83  59 ⇓P         PKiKP     01 35 50.8  +18
R16K  Pilot Point        112.98 324  IAMs_20   IAMs_20   02 14 43.3
      comp=Z,5µm,20.0s
GKP   Gorka Klasztor     113.06  41 ePKiKP     PKiKP     01 35 32.7 +0.5
GKP                                 eL         L         02 22 50.8
      comp=Z,20µm,20.1s
E24K  Your Creek         113.08 337  IAMs_20   IAMs_20   02 31 36.7
      comp=Z,5µm,20.0s
BZS   Buzias             113.11  50 ⇓PKIKP     PKiKP     01 35 33.2 +0.6
BZS   Buzias             113.11  50 ⇓P         PKiKP     01 35 33.2 +0.6
MMB   Musomishta         113.14  54 eP         PP        01 36 20.8 -2.4
PLNA  Plana              113.24  53 eP         PP        01 36 21.4 -2.6
N18K  Kilae Creek        113.26 328  IAMs_20   IAMs_20   02 33 18.4
      comp=Z,5µm,20.0s
H22K  Ishtalitna Cre     113.27 334  IAMs_20   IAMs_20   02 22 35.0
      comp=Z,6µm,19.0s
L19K  White Mountain     113.33 330  IAMs_20   IAMs_20   02 21 09.9
      comp=Z,5µm,22.0s
COLD  Coldfoot           113.34 335  IAMs_20   IAMs_20   02 30 36.9
      comp=Z,6µm,22.0s
HERR  Herculane          113.38  51 ⇑P         PKiKP     01 35 32.8 -0.3
E23K  Chandalar          113.46 336  IAMs_20   IAMs_20   02 23 33.8
      comp=Z,6µm,19.0s
OJC   Ojcow              113.52  44 ePKiKP     PKiKP     01 35 36.2 +2.9
OJC                                 ePP        PP        01 36 22.5 -3.2
OJC                                 eL         L         02 18 05.6
      comp=Z,8µm,24.6s
NIE   Niedzica           113.56  45 ePKiKP     PKiKP     01 35 34.8 +1.4
NIE                                 ePP        PP        01 36 23.4 -2.6
NIE                                 eL         L         02 20 37.5
      comp=Z,8µm,24.0s
HFS   Hagfors            113.57  33  PKiKP     PKiKP     01 35 32.2 -0.8
      comp=Z,4.1nm,0.8s,baz=216,slow=7.1,SNR=4.2
HFS                                  PP        PP        01 36 23.4 -2.3
      comp=Z,10nm,0.9s,baz=177,slow=5.8,SNR=5.7
P16K  Nushagak River     113.69 326  IAMs_20   IAMs_20   02 15 39.9
      comp=Z,5µm,20.0s
J20K  Nowinta River      113.73 332  IAMs_20   IAMs_20   02 20 47.5
      comp=Z,5µm,21.0s
GZR   Gura Zlata         113.80  50 ⇓PKIKP     PKiKP     01 35 34.4 +0.4
GZR   Gura Zlata         113.80  50 ⇓P         PKiKP     01 35 34.4 +0.4
C24K  Franklin Bluff     113.80 338  IAMs_20   IAMs_20   02 25 32.7
      comp=Z,6µm,20.0s
N17K  Nushagak Hills     113.81 327  IAMs_20   IAMs_20   02 33 26.9
      comp=Z,5µm,20.0s
RZN   Rozhen             113.89  54 eP         PP        01 36 26.3 -2.4
O16K  Kokwok River B     113.93 326  IAMs_20   IAMs_20   02 18 52.1
      comp=Z,4µm,21.0s
DEV   Deva               114.04  50 ⇑PKIKP     PKiKP     01 35 35.2 +0.8
DEV   Deva               114.04  50 ⇑P         PKiKP     01 35 35.2 +0.8
PLD   Plovdiv            114.05  54 eP         PP        01 36 26.6 -3.0
I20K  Naaghedeneel       114.08 332  IAMs_20   IAMs_20   02 22 04.7
      comp=Z,5µm,20.0s
STHS  Stebnicka Huta     114.14  46 ePP        PP        01 36 30.9 +0.8
STHS                                e                    01 36 42.3
DRGR                     114.22  49 ⇑PKIKP     PKPdf     01 35 34.6 -0.2
DRGR                     114.22  49 ⇑P         PKPdf     01 35 34.6 -0.1
E22K  Anaktuvuk Pass     114.25 336  IAMs_20   IAMs_20   02 21 49.8
      comp=Z,5µm,20.0s
KDZ   Kurdzhali          114.29  55 eP         PP        01 36 30.2 -1.1
G21K  Allakaket          114.30 334  IAMs_20   IAMs_20   02 23 26.2
      comp=Z,5µm,19.0s
MARR  Marisel-Cluj       114.44  49 ⇑P         PKPdf     01 35 35.0 -0.2
C23K  Itkillik River     114.46 338  IAMs_20   IAMs_20   02 24 23.2
      comp=Z,7µm,21.0s
F21K  Alatna River       114.53 335  IAMs_20   IAMs_20   02 22 34.3
      comp=Z,7µm,20.0s
J18K  Innoko River       114.57 331  IAMs_20   IAMs_20   02 21 08.6
      comp=Z,6µm,22.0s
KOLS  Kolonicke sedl     114.63  46 ePKP       PKiKP     01 35 37.0 +1.6
CJR   Cluj-Napoca        114.77  49 ⇑PKIKP     PKiKP     01 35 37.0 +1.2
CJR   Cluj-Napoca        114.77  49 ⇑P         PKiKP     01 35 37.0 +1.2
D22K  Ayikyak River      114.81 337  IAMs_20   IAMs_20   02 24 36.6
      comp=Z,7µm,20.0s
R9F13 Warsaw-Wawer       114.96  43 ePKiKP     PKiKP     01 35 37.1 +1.2
BMR   Baia Mare          115.01  48 ⇑PKIKP     PKPdf     01 35 36.1  0.0
BMR   Baia Mare          115.01  48 ⇑P         PKPdf     01 35 36.1  0.0
K17K  Iditarod           115.02 329  IAMs_20   IAMs_20   02 22 13.6
      comp=Z,4µm,19.0s
ARR   Arges              115.03  51 ⇓P         PKiKP     01 35 36.7 +0.3
N15K  Kwethluk River     115.06 327  IAMs_20   IAMs_20   02 34 23.2
      comp=Z,6µm,20.0s
NOR   Nord               115.10   8 i P        PKPdf     01 35 36.9 +1.5
MDB   Medias             115.10  50 ⇑PKIKP     PKiKP     01 35 37.6 +1.2
MDB   Medias             115.10  50 ⇑P         PKiKP     01 35 37.6 +1.2
E21K  Killik River       115.11 336  IAMs_20   IAMs_20   02 30 17.5
      comp=Z,5µm,21.0s
KWP   Kalwaria Pacla     115.11  46 ePKiKP     PKiKP     01 35 37.1 +0.7
KWP                                 ePP        PP        01 36 34.0 -2.9
KWP                                 eL         L         02 21 51.8
      comp=Z,12µm,24.1s
F20K  Avaraart Lake      115.31 334  IAMs_20   IAMs_20   02 23 25.7
      comp=Z,6µm,19.0s
VOIR                     115.33  51 ⇑PKIKP     PKiKP     01 35 37.7 +0.7
VOIR                     115.33  51 ⇑P         PKiKP     01 35 37.7 +0.7
O14K  Tigyukauivet M     115.36 325  IAMs_20   IAMs_20   02 35 13.1
      comp=Z,4µm,20.0s
JMB   Yambol             115.41  54 eP         PP        01 36 36.6 -2.6
TAVA  DENIZLI_Tavas      115.49  60 ⇑P         PKiKP     01 35 38.3 +0.8
G19K  Purcell Mounta     115.55 333  IAMs_20   IAMs_20   02 23 56.3
      comp=Z,6µm,20.0s
J17K  VABM Dome          115.56 330            PKiKP     01 35 38.8 +2.1
J17K                                 IAMs_20   IAMs_20   02 21 38.9
      comp=Z,4µm,22.0s
SGRR  Singureni          115.57  52 ⇑P         PKiKP     01 35 37.7 +0.4
DOPR  Dopca              115.72  50 ⇓P         PKiKP     01 35 38.0 +0.4
N14K  Kuskokwak Cree     115.76 326  IAMs_20   IAMs_20   02 17 46.6
      comp=Z,4µm,21.0s
H18K  Honhosa River      115.77 332  IAMs_20   IAMs_20   02 22 29.2
      comp=Z,4µm,20.0s
MLR   Muntele Rosu       115.94  51 ⇓PKIKP     PKPdf     01 35 37.8 -0.4
MLR   Muntele Rosu       115.94  51 ⇓P         PKPdf     01 35 37.8 -0.4
E19K  Redstone River     115.99 335  IAMs_20   IAMs_20   02 23 57.7
      comp=Z,6µm,18.0s
F19K  Shaleruckik Mo     116.01 334  IAMs_20   IAMs_20   02 23 35.5
      comp=Z,6µm,20.0s
G18K  Tagagawik          116.09 333  IAMs_20   IAMs_20   02 24 13.7
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      comp=Z,5µm,20.0s
BURAR Bucovina Array   116.10  48 ⇑PKIKP   PKiKP    01 35 39.3 +0.9
BURAR Bucovina Array   116.10  48          PKPdf    01 35 38.3 -0.1
BURAR Bucovina Array   116.10  48 ⇑P       PKiKP    01 35 39.3 +0.9
D20K  Etivluk River    116.12 336  IAMs_20 IAMs_20  02 24 39.2
      comp=Z,7µm,21.0s
NEHR  Nehoiu           116.16  51 ⇓P       PKiKP    01 35 39.1 +0.6
J16K  Anvik River      116.19 330  IAMs_20 IAMs_20  02 22 59.5
      comp=Z,4µm,20.0s
MIDW  Midway           116.31 289  IAMs_20 IAMs_20  02 14 47.1
      comp=Z,6µm,20.0s
H17K  Granite Mounta   116.34 332          PKiKP    01 35 39.0 +0.8
H17K                               IAMs_20 IAMs_20  02 22 17.3
      comp=Z,4µm,21.0s
I17K  Unalakleet       116.39 330  IAMs_20 IAMs_20  02 22 25.8
      comp=Z,4µm,21.0s
BIZ   Bicaz            116.48  49 ⇓P       PKiKP    01 35 39.1  0.0
SAHR  Sahastru         116.51  51 ⇑P       PKPdf    01 35 38.5 -0.7
NWAO  Narrogin (SRO)   116.52 188  IAMs_20 IAMs_20  02 25 04.0
      comp=Z,7µm,19.0s
PLOR  Plostina         116.52  51 ⇑PKIKP   PKiKP    01 35 39.2  0.0
PLOR  Plostina         116.52  51 ⇑P       PKiKP    01 35 39.2  0.0
VRI   Vrincioaia       116.58  51 ⇑PKIKP   PKiKP    01 35 39.3  0.0
VRI   Vrincioaia       116.58  51 ⇑P       PKiKP    01 35 39.3  0.0
D19K  Kuna River       116.59 336  IAMs_20 IAMs_20  02 24 41.6
      comp=Z,7µm,20.0s
HNR   Honiara          116.63 240  IAMs_20 IAMs_20  02 14 49.6
      comp=Z,5µm,22.0s
UNV   Unalaska Valle   116.64 319  IAMs_20 IAMs_20  02 15 35.5
      comp=Z,5µm,20.0s
SUW   Suwalki          116.65  41 ePKiKP   PKiKP    01 35 39.3 +0.2
SUW                               ePP      PP       01 36 45.3 -2.3
SUW                               eL       L        02 25 24.8
      comp=Z,13µm,20.8s
B20K  Meade River      116.66 337  IAMs_20 IAMs_20  02 27 13.4
      comp=Z,5µm,20.0s
M13K  Dall Lake        116.69 326  IAMs_20 IAMs_20  02 19 48.2
      comp=Z,4µm,20.0s
TESR  Tescani          116.71  50 ⇓P       PKPdf    01 35 38.6 -0.9
ODBI  Odobesti         116.77  51 ⇑P       PKiKP    01 35 40.2 +0.6
KMPD  K-Podol'skiy     117.17  48  PKPdf   PKPdf    01 35 38.7 -1.6
E18K  Tukpahlearik C   117.23 334  IAMs_20 IAMs_20  02 26 26.7
      comp=Z,6µm,21.0s
BIR   Birlad           117.29  50 ⇓PKIKP   PKiKP    01 35 41.5 +0.9
BIR   Birlad           117.29  50 ⇓P       PKiKP    01 35 41.5 +0.9
CFR   Carcaliu         117.33  52 ⇑PKIKP   PKPdf    01 35 40.1 -0.6
CFR   Carcaliu         117.33  52 ⇑P       PKPdf    01 35 40.1 -0.6
KEPZ  Antalya-Kepez    117.33  61 ⇑P       PKiKP    01 35 41.2 +0.1
J14K  Nanvaranak Lak   117.36 329  IAMs_20 IAMs_20  02 21 03.5
      comp=Z,4µm,21.0s
TATR  Tatarca          117.39  51 ⇑P       PKiKP    01 35 41.4 +0.6
G16K  Koyuk River      117.45 332  IAMs_20 IAMs_20  02 23 00.7
      comp=Z,4µm,20.0s
VLDR  Vladesti         117.48  51 ⇑P       PKPdf    01 35 40.8 -0.2
RNPP5 Staryi Chortor   117.51  45  PKPdf   PKPdf    01 35 40.5 -0.4
RNPP8 Varash           117.52  45  PKPdf   PKPdf    01 35 40.1 -0.8
RNPP9 Sopachiv         117.56  44  PKPdf   PKPdf    01 35 40.9  0.0
K13K  Kusilvak Mount   117.67 328  IAMs_20 IAMs_20  02 33 40.9
      comp=Z,3µm,19.0s
TLCR                   117.79  52 ⇑PKIKP   PKPdf    01 35 41.1 -0.5
TLCR                   117.79  52 ⇑P       PKPdf    01 35 41.1 -0.5
CTA   Charters Tower   118.01 221  PKKPbc  PKKPbc   01 45 59.6 -2.4
      comp=Z,6.1nm,0.9s,baz=281,slow=5.7,SNR=4.7
CTAO  Charters Tower   118.01 221  IAMs_20 IAMs_20  02 16 49.7
      comp=Z,5µm,21.0s
M11K  Mekoryuk         118.06 326  IAMs_20 IAMs_20  02 20 29.5
      comp=Z,4µm,20.0s
RDOG  Red Dog Mine     118.23 335  IAMs_20 IAMs_20  02 26 46.9
      comp=Z,6µm,21.0s
SORM  Soroca           118.27  49 ⇑P       PKPdf    01 35 41.1 -1.3
SORM  Soroca           118.27  49  PKPdf   PKPdf    01 35 42.0 -0.4
KBS   Kingsbay         118.32  13  IAMs_20 IAMs_20  02 24 20.9
      comp=Z,4µm,22.0s
LUBAR Lubar, Ukraine   118.34  46  PKPdf   PKPdf    01 35 41.4 -1.1
F15K  North Star Dit   118.45 332  IAMs_20 IAMs_20  02 23 30.1
      comp=Z,4µm,21.0s
ANM   Nome             118.53 331  IAMs_20 IAMs_20  02 28 35.4
      comp=Z,5µm,21.0s
PURM  Purcari          118.86  51 ⇓P       PKiKP    01 35 43.8 +0.1
PURM  Purcari          118.86  51  PKPdf   PKPdf    01 35 43.3 -0.3
NACGM Naroch           118.91  41 ePKP     PKiKP    01 35 43.9 +0.4
      comp=Z,51nm,0.9s,baz=258
BAL3X Bal3x, Balta     119.03  49  PKPdf   PKPdf    01 35 43.2 -0.7
MMAI  Mount Meron Ar   119.04  67  PKP     PKPdf    01 35 44.4 -0.1
      comp=Z,1.9nm,0.4s,baz=20,slow=4.6,SNR=13
SPITS Spitsbergen Ar   119.05  14  PKP     PKPdf    01 35 43.1 -0.1
      comp=Z,15nm,1.0s,baz=78,slow=3.8,SNR=4.9
C16K  Lisburne Hills   119.16 335  IAMs_20 IAMs_20  02 28 01.7
      comp=Z,6µm,21.0s
AK19  Malin Array Si   119.31  46  PKPdf   PKPdf    01 35 43.9 -0.4
AK20  Malin Array Si   119.31  46  PKPdf   PKPdf    01 35 43.7 -0.6
KIEV  Kiev             119.43  46 ⇑PKIKP   PKPdf    01 35 43.5 -1.0
KIEV  Kiev             119.43  46          PKPdf    01 35 43.2 -1.4
KIEV  Kiev             119.43  46  IAMs_20 IAMs_20  02 25 47.5
      comp=Z,6µm,20.0s
KIEV  Kiev             119.43  46 i PKPdf  PKPdf    01 35 43.1 -1.4
      SNR=26
KIEV  Kiev             119.43  46 ⇑P       PKPdf    01 35 43.5 -1.0
KIEV  Kiev             119.43  46  PKPdf   PKPdf    01 35 44.2 -0.3
AKASG Malin Array Be   119.44  46  PKP     PKPdf    01 35 43.0 -1.5
      comp=Z,18nm,0.8s,baz=264,slow=2.9,SNR=56
AKASG                              PKKPbc  PKKPab   01 45 56.8  0.0
      comp=Z,0.1nm,0.3s,baz=58,slow=2.3,SNR=1.6
AKBB  Malin Array Si   119.44  46c iPKIKP  PKPdf    01 35 43.6 -1.0
AKBB                               MLR     MLR
      comp=Z,8µm,22.0s
AKBB  Malin Array Si   119.44  46  PKPdf   PKPdf    01 35 44.1 -0.5
MNK   Minsk            119.45  41 i PKIKP  PKPdf    01 35 44.4 -0.1
MNK                               i                 01 35 55.2
MNK                               i                 01 37 05.6
MNK                               i PPP    PPP      01 39 37.4
MNK                               i                 01 42 53.7
MNK                               i PS     PS       01 46 54.2 -1.4
MNK                               i SS     SS       01 53 26.7 -1.0
MNK                               i SSS    SSS      01 57 51.9
MNK                                pmax    pmax
      comp=Z,82nm,1.0s
MNK                                pmax    pmax
      comp=E,11nm,0.8s
MNK                                pmax    pmax
      comp=N,7.0nm,0.8s
MNK                                MLR     MLR
      comp=N,6µm,19.0s
MNK                                MLR     MLR
      comp=Z,8µm,19.0s
MNK                                MLR     MLR
      comp=E,6µm,19.0s
MNK   Minsk            119.45  41 i PKP    PKPdf    01 35 44.4 -0.1
      comp=E,11nm,0.8s
MNK                               i PKP    PKPdf    01 35 44.4 -0.1
      comp=N,7.0nm,0.8s
MNK                               i PKP    PKPdf    01 35 44.4 -0.1
      comp=Z,82nm,1.0s,baz=258
MNK                               i pPKP   pPKPdf   01 35 55.2 +0.2
MNK                               i PP     PP       01 37 05.6 -1.3
MNK                               i PPP    PPP      01 39 37.4
MNK                               i SKS    SKSdf    01 42 53.8 -0.1
MNK                               i PS     PKKPdf   01 46 54.3 +25
MNK                               i SS     SS       01 53 26.8 -0.9
MNK                               i SSS    SSS      01 57 51.9
SPIA  Saint Paul Isl   119.47 322  IAMs_20 IAMs_20  02 16 48.2
      comp=Z,7µm,20.0s
VSU   Vasula           119.59  37d iPKIKP  PKPdf    01 35 43.8 -0.8
VSU                                pmax    pmax
      comp=Z,68nm,1.3s
VSU                                MLR     MLR
      comp=Z,13µm,18.0s
BR105 Keskin Array S   119.69  59  PKPdf   PKiKP    01 35 45.7  0.0
BR106 Keskin Array S   119.69  59  PKPdf   PKPdf    01 35 45.5 -0.1
BR131 Keskin Array S   119.71  59d iPKIKP  PKPdf    01 35 45.6 -0.1
BRTR  Keskin Array B   119.71  59  PKP     PKPdf    01 35 44.8 -0.9
      comp=Z,6.5nm,0.8s,baz=182,slow=3.3,SNR=26
BRTR  Keskin Array B   119.71  59          PKPdf    01 35 44.2 -1.4
KIRS  Kirsehir-Merke   119.75  60 ⇓P       PKiKP    01 35 45.9 +0.1
TNA   Tin City         119.77 332  IAMs_20 IAMs_20  02 26 11.9
      comp=Z,4µm,19.0s
FINES FINESS Array B   119.77  33  PKP     PKPdf    01 35 44.8  0.0
      comp=Z,6.9nm,0.9s,baz=149,slow=1.9,SNR=12
FINES                              PP      PP       01 37 07.0 -2.0
      comp=Z,7.4nm,1.0s,baz=266,slow=9.5,SNR=2.2
ARCES ARCESS Array B   120.55  24  PKP     PKPdf    01 35 45.8 -0.4
      comp=Z,5.2nm,0.9s,baz=255,slow=3.0,SNR=8.3
ARCES                              PKKPbc  PKKPbc   01 45 55.4 +1.8
      comp=Z,1.0nm,0.6s,baz=88,slow=4.0,SNR=5.8
MTSU  Mount Surprise   120.67 220  P       PKiKP    01 35 49.3 +1.1
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ATKA  Atka Island      120.79 316  IAMs_20 IAMs_20  02 16 03.6
      comp=Z,6µm,22.0s
AS09  Alice Springs    120.93 207  P       PKPdf    01 35 48.0 -0.6
AS17  Alice Springs    120.94 208  P       PKPdf    01 35 47.9 -0.6
ASAR  Alice Springs    120.97 207  PKP     PKPdf    01 35 47.6 -1.0
      comp=Z,3.2nm,0.5s,baz=127,slow=1.7,SNR=50
ASAR                               PP      PP       01 37 16.8 +0.2
      comp=Z,9.4nm,1.2s,baz=151,slow=5.7,SNR=5.2
ASAR                               PKKPbc  PKKPbc   01 45 51.5 +0.2
      comp=Z,4.8nm,0.7s,baz=335,slow=3.0,SNR=31
ASAR                               SKKPbc  SKKPbc   01 49 36.0 +1.3
      comp=Z,3.6nm,1.0s,baz=4.6,slow=4.9,SNR=4.6
ASAR  Alice Springs    120.97 207          PKPdf    01 35 46.8 -1.8
AS31  Alice Springs    120.97 207  P       PKPdf    01 35 48.6  0.0
AS15  Alice Springs    121.00 207  P       PKiKP    01 35 48.7 -0.1
QIS   Mount Isa        121.14 215  P       PKiKP    01 35 49.1  0.0
SIM   Simferopol'      121.37  53 i PKIKP  PKPdf    01 35 47.1 -1.4
SIM                                pmax    pmax
      comp=Z,75nm,1.2s
PUL   Pulkovo          121.61  36⇓iPKIKP   PKiKP    01 35 48.9 +0.3
PUL                                MLR     MLR
      comp=Z,11µm,20.0s
ARPR  Arapgir-MALATY   123.05  61  IAMs_20 IAMs_20  02 34 16.5
      comp=Z,7µm,21.0s
APA   Apatity          123.38  26 i PKIKP  PKPdf    01 35 51.0 -0.7
APA                               e                 01 37 32.8
APA                               e                 01 42 43.1
APA                               ePS      PS       01 47 24.7 -5.5
APA                               eSS      SS       01 54 12.0 -5.2
APA                                pmax    pmax
      comp=Z,19nm,1.0s
LVZ   Lovozero         123.85  26⇓ePKIKP   PKPdf    01 35 52.3 -0.3
LVZ   Lovozero         123.85  26  IAMs_20 IAMs_20  02 28 12.8
      comp=Z,7µm,21.0s
WRA   Warramunga Arr   124.11 210  PKP     PKPdf    01 35 53.9 -0.7
      comp=Z,12nm,0.9s,baz=154,slow=1.8,SNR=62
WRA                                PKKPab  PKKPbc   01 45 40.2 +1.0
      comp=Z,7.2nm,0.9s,baz=342,slow=4.3,SNR=22
WRA                                SKKPbc  SKKPbc   01 49 27.2 +2.7
      comp=Z,4.3nm,1.0s,baz=344,slow=4.7,SNR=4.9
WRAB  Tennant Creek    124.11 210⇓ePKIKP   PKPdf    01 35 52.0 -2.7
WRAB                               MLR     MLR
      comp=Z,3µm,16.0s
RAYN  Ar Rayn          124.15  81 ⇓PKIKP   PKiKP    01 35 55.2 +0.3
RAYN  Ar Rayn          124.15  81  IAMs_20 IAMs_20  02 35 17.7
      comp=Z,6µm,19.0s
RAYN  Ar Rayn          124.15  81 i PKPdf  PKPdf    01 35 54.7 +0.1
      SNR=8.0
OBN   Obninsk          124.51  41c iPKIKP  PKPdf    01 35 53.7 -0.4
OBN                               e                 01 37 41.6
OBN                                pmax    pmax
      comp=Z,101nm,1.2s
OBN                                MLR     MLR
      comp=Z,12µm,20.0s
OBN   Obninsk          124.51  41 ⇓P       PKPdf    01 35 54.2 +0.1
SOC   Sochi            125.03  56 i PKIKP  PKPdf    01 35 55.6  0.0
SOC                               e                 01 37 45.1
SOC                               eSS      SS       01 54 36.4 -3.0
SOC                                pmax    pmax
      comp=Z,44nm,0.9s
SOC                                MLR     MLR
      comp=Z,2µm,20.0s
MOS   Moscow           125.15  41 i PKIKP  PKiKP    01 35 56.0 +0.3
MOS                               e                 01 37 43.7
MOS                               e                 01 42 56.0
MOS                               eSS      SS       01 54 35.3 -4.9
MOS                               eSSS     SSS      01 59 17.6
MOS                                pmax    pmax
      comp=Z,57nm,1.0s
MOS                                MLR     MLR
      comp=Z,9µm,19.0s
MOS                                MLR     MLR
      comp=E,8µm,18.0s
ADZR  Andozero         125.52  31 ePKIKP   PKPdf    01 35 55.4 -0.4
ADZR                               pmax    pmax
      comp=Z,70nm,0.8s
PMG   Port Moresby     125.68 230c iPKIKP  PKiKP    01 35 58.1  0.0
PMG   Port Moresby     125.68 230  PKP     PKiKP    01 35 58.5 +0.4
LPSR  Galich'ya Gora   125.70  45 i PKIKP  PKPdf    01 35 54.7 -1.8
LPSR                               pmax    pmax
      comp=Z,100nm,0.9s
VSR   Storozhevoye     125.72  46 i PKIKP  PKPdf    01 35 54.6 -2.0
VSR                                pmax    pmax
      comp=Z,40nm,1.0s
VORD  Divnogorie       125.78  47 ePKIKP   PKPdf    01 35 55.6 -1.1
VORD                               pmax    pmax
      comp=Z,40nm,1.0s
VORR  Voronezh         125.79  46 ePKIKP   PKPdf    01 35 56.2 -0.5
VORR                               pmax    pmax
      comp=Z,60nm,1.0s
HOMI  Horasan          125.96  60 ⇑P       PKiKP    01 35 59.3 +1.1
H11S2 WAKE ISLAND Hy   126.09 272  T       T        03 54 41.2
      baz=115,slow=75
H11S1 WAKE ISLAND Hy   126.10 272  T       T        03 54 42.2
      baz=115,slow=75
H11S3 WAKE ISLAND Hy   126.11 272  T       T        03 54 46.1
      baz=115,slow=75
KLMR  Klimovskoe       126.23  34 ePKIKP   PKPdf    01 35 55.7 -1.6
KLMR                               pmax    pmax
      comp=Z,136nm,1.1s
KLMR                               MLR     MLR
      comp=Z,8µm,20.0s
H11N3 WAKE ISLAND Hy   126.41 273  T       T        03 55 07.0
      baz=116,slow=75,SNR=377
H11N1 WAKE ISLAND Hy   126.42 273  T       T        03 55 13.1
      baz=116,slow=75,SNR=112
H11N2 WAKE ISLAND Hy   126.43 273  T       T        03 55 09.9
      baz=116,slow=75,SNR=638
WAKE  Wake Island      126.46 272  IAMs_20 IAMs_20  02 22 21.9
      comp=Z,6µm,19.0s
NEUR  Neytrino         127.12  57⇓iPKIKP   PKiKP    01 36 00.3  0.0
NEUR                               MLR     MLR
      comp=Z,10µm,23.0s
SHA1  Shidzhatmaz      127.16  56c iPKIKP  PKPdf    01 35 59.7 -0.3
KIV   Kislovodsk       127.21  56  P       PKPdf    01 35 58.8 -1.1
KIV   Kislovodsk       127.21  56 i PKIKP  PKPdf    01 35 58.8 -1.1
KIV                               e                 01 37 56.9
KIV                               ePS      PS       01 47 58.8 -6.2
KIV                               eSS      SS       01 55 02.3 -4.7
KIV                                pmax    pmax
      comp=Z,46nm,1.1s
KIV   Kislovodsk       127.21  56  IAMs_20 IAMs_20  02 33 28.4
      comp=Z,4µm,22.0s
KIV   Kislovodsk       127.21  56 i PKPdf  PKPdf    01 35 59.4 -0.4
      SNR=6.7
KIV   Kislovodsk       127.21  56 ⇑P       PKPdf    01 35 59.3 -0.6
OZAP  Van, Ozalp-Mer   127.26  62 ⇑P       PKiKP    01 36 01.4 +0.5
VRH   Novokhopyorsk    127.32  47 i PKIKP  PKPdf    01 35 58.1 -1.6
VRH                                pmax    pmax
      comp=Z,50nm,0.9s
KBZ   Khabaz           127.33  56  PKP     PKiKP    01 36 00.3 -0.1
      comp=Z,17nm,0.9s,baz=257,slow=2.5,SNR=20
KBZ                                PKPPKP           01 54 24.3
      comp=Z,2.5nm,1.1s,baz=162,slow=3.2,SNR=3.5
KBZ   Khabaz           127.33  56c iPKIKP  PKPdf    01 36 00.0 +0.1
KBZ                                MLR     MLR
      comp=Z,3µm,20.0s
GOF   Gofitskoye       127.62  54cePKIKP   PKiKP    01 36 10.7  +10
MBWA  Marble Bar       127.64 193  P       PKPdf    01 36 01.5 +0.2
PATS  Pohnpei          127.72 254  P       PKiKP    01 36 04.1 +1.9
NCK   Nalchik          127.80  56⇓ePKIKP   PKPdf    01 35 59.4 -1.5
GNI   Garni            128.11  61  P       PKPdf    01 35 57.7 -4.1
GNI   Garni            128.11  61c iPKIKP  PKiKP    01 36 02.3 -0.1
GNI                                MLR     MLR
      comp=Z,4µm,21.0s
GNI   Garni            128.11  61  IAMs_20 IAMs_20  02 32 59.3
      comp=Z,4µm,22.0s
GNI   Garni            128.11  61  PKPdf   PKPdf    01 36 01.2 -0.6
ABTO  Aybut            128.44  91  P       PKPdf    01 36 01.9 -1.0
FITZ  Fitzroy Crossi   129.05 201  P       PKiKP    01 36 04.9 +0.1
BILL  Bilibino         129.68 336⇓ePKIKP   PKPdf    01 36 02.9 -0.8
BILL                               MLR     MLR
      comp=Z,7µm,20.0s
BILL  Bilibino         129.68 336  IAMs_20 IAMs_20  02 34 51.5
      comp=Z,4µm,20.0s
KNRA  Kununurra        130.21 206  P       PKiKP    01 36 08.9 +1.7
MAK   Makhachkala      130.57  58 i P      Pdif     01 32 41.9  -15
MAK                               i                 01 36 05.6
MAK                               e                 01 38 19.4
MAK                               ePPP     PPP      01 41 09.3
MAK                               e                 01 43 04.4
MAK                               ePS      PS       01 48 24.4  -10
MAK                               eSSS     SSS      02 00 31.7
MAK                                pmax    pmax
      comp=Z,155nm,1.3s
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MZR   Muzera           130.81  85  P       PKPdf    01 36 06.4 -0.8
      SNR=5.9
MZR   Muzera           130.81  85 i PKPdf  PKPdf    01 36 07.0 -0.2
      SNR=7.6
BELG  Belogornoye      131.00  45d iPKIKP  PKPdf    01 36 06.8 +0.2
KIRV  Kirov            131.43  37  PKP     PKPdf    01 36 07.6 +0.3
      comp=Z,18nm,0.7s,baz=267,slow=0.7,SNR=18
KIRV  Kirov            131.43  37c iPKIKP  PKPdf    01 36 06.8 -0.4
MTN   Manton Dam       131.79 210  P       PKiKP    01 36 10.3  0.0
ASUD  Al Ashush, Dub   132.95  83  PKPdf   PKPdf    01 36 11.1 -0.1
ALNE  Al Ain           133.12  84  P       PKPdf    01 36 10.8 -0.8
FAQ   Al Faqa, Dubai   133.22  83  P       PKPdf    01 36 11.9 +0.2
FAQ   Al Faqa, Dubai   133.22  83  PKPdf   PKPdf    01 36 10.9 -0.8
NAZ   Nazwa, Dubai     133.36  83  PKPdf   PKPdf    01 36 11.3 -0.7
ASHO  Ashiyiah         133.60  84  PKPdf   PKPdf    01 36 11.5 -1.0
HATD  Hatta, Dubai     133.71  84  PKPdf   PKPdf    01 36 11.7 -1.0
UOSS  Minazif          133.81  83  PKPdf   PKPdf    01 36 11.5 -1.4
SOHO  SOHO             133.82  85  P       PKPdf    01 36 11.4 -1.4
SOHO  SOHO             133.82  85 i PKPdf  PKPdf    01 36 11.4 -1.4
      SNR=5.2
MSFE  Esma-Masafi      133.90  83  PKPdf   PKPdf    01 36 12.7 -0.4
MHTO  MHTO             133.94  89  P       PKPdf    01 36 12.1 -1.1
      SNR=6.2
SHME  Shamm            134.10  82  PKPdf   PKPdf    01 36 12.6 -0.7
SMDO  Samad            134.76  87  P       PKPdf    01 36 13.6 -1.2
BIDO  Bidbid           134.99  86  P       PKPdf    01 36 14.2 -0.9
WSAR  Wadi Sarin       135.33  87  P       PKPdf    01 36 14.5 -1.2
GENI  Genyem           135.35 229  PKP     PKiKP    01 36 17.7 +0.1
JLN   Jalan Bani Buh   135.62  89  P       PKPdf    01 36 15.5 -0.8
      SNR=5.8
ARTI  Arti             136.63  38  PKhKP   PKPpre   01 36 06.3
      comp=Z,1.2nm,0.4s,baz=292,slow=4.0,SNR=3.4
ARTI                               PKP     PKPdf    01 36 17.0 -0.1
      comp=Z,32nm,0.9s,baz=273,slow=1.5,SNR=20
ARTI  Arti             136.63  38 i PKIKP  PKPdf    01 36 16.8 -0.3
ARTI                               MLR     MLR
      comp=Z,9µm,20.0s
SEY   Seymchan         137.00 332  PKP     PKPdf    01 36 17.9 +0.3
      comp=Z,39nm,0.9s,baz=93,slow=3.0,SNR=31
SEY   Seymchan         137.00 332 i PKIKP  PKPdf    01 36 17.6  0.0
SEY                                pmax    pmax
      comp=Z,55nm,1.1s
TIXI  Tiksi            137.16 351  PKP     PKPdf    01 36 17.9 +0.3
      comp=Z,28nm,0.8s,baz=44,slow=3.9,SNR=7.5
TIXI  Tiksi            137.16 351cePKIKP   PKPdf    01 36 17.4 -0.2
TIXI                               MLR     MLR
      comp=Z,3µm,20.0s
TIXI  Tiksi            137.16 351  IAMs_20 IAMs_20  02 37 44.0
      comp=Z,3µm,21.0s
PET   Petropavlovsk    137.24 317c iPKIKP  PKPdf    01 36 18.5 +0.2
PET   Petropavlovsk    137.24 317  IAMs_20 IAMs_20  02 27 05.6
      comp=Z,6µm,22.0s
SOEI  Soe              137.30 203  PKP     PKiKP    01 36 21.3 -0.5
SOEI  Soe              137.30 203  PKP     PKPdf    01 36 20.1 +0.2
AKTO  Aktyubinsk       137.66  47  PKhKP   PKPpre   01 36 13.4
      comp=Z,5.0nm,0.8s,baz=270,slow=4.0,SNR=11
SVE   Sverdlovsk       137.69  37 i PKIKP  PKiKP    01 36 20.2 -0.8
SVE                               e                 01 39 04.1
SVE                               ePPP     PPP      01 42 16.5
SVE                                pmax    pmax
      comp=Z,45nm,1.3s
SVE                                MLR     MLR
      comp=E,5µm,21.0s
SVE                                MLR     MLR
      comp=N,3µm,19.0s
SVE                                MLR     MLR
      comp=Z,9µm,21.0s
PEA0B Petropavlovsk-   137.79 317c iPKIKP  PKPdf    01 36 18.8 -0.6
PETK  Petropavlovsk-   137.79 317  PKP     PKPdf    01 36 18.1 -1.2
      comp=Z,24nm,0.9s,baz=72,slow=4.7,SNR=10
MMRI  Maumere          139.02 201  IAMs_20 IAMs_20  02 34 53.5
      comp=Z,4µm,21.0s
AB31  Akbulak array    139.08  48 i PKIKP  PKPdf    01 36 22.0 +0.2
NRIK  Noril'sk         139.17  11  PKP     PKPdf    01 36 19.9 -1.5
      comp=Z,28nm,1.1s,baz=4.3,slow=1.2,SNR=4.1
NRIK  Noril'sk         139.17  11⇓ePKIKP   PKPdf    01 36 22.3 +0.9
MA2   Magadan          139.25 328  PKP     PKPdf    01 36 21.6 -0.2
      comp=Z,41nm,1.1s,baz=111,slow=7.7,SNR=3.7
MA2   Magadan          139.25 328c iPKIKP  PKPdf    01 36 22.3 +0.5
MA2   Magadan          139.25 328  IAMs_20 IAMs_20  02 41 59.2
      comp=Z,5µm,22.0s
SKR   Severo-Kuril’s   139.25 314⇓ePKIKP   PKPdf    01 36 21.5 -0.6
MWPI  Manokwari, Pap   140.44 223  PKP     PKPdf    01 36 24.5 -1.0
JAGI  Jajag, Banyuwa   141.01 189  IAMs_20 IAMs_20  02 36 58.1
      comp=Z,4µm,21.0s
UGM   Wanagama         141.91 183  IAMs_20 IAMs_20  02 39 48.4
      comp=Z,4µm,19.0s
BBJI  Bungbulang       142.41 179  IAMs_20 IAMs_20  02 35 46.3
      comp=Z,3µm,21.0s
BBJI  Bungbulang       142.41 179  PKP     PKPdf    01 36 30.0 +0.9
GUMO  Guam             142.47 252  IAMs_20 IAMs_20  02 33 46.0
      comp=Z,5µm,20.0s
KAPI  Kappang          143.19 199  P       PKPab    01 36 21.4 -4.5
SANI  Sanana           143.66 211  PKP     PKPab    01 36 26.4 -1.4
BORK  Borovoye         144.26  40c iPKIKP  PKPbc    01 36 29.2 -0.1
BVAR  Borovoye Array   144.31  40  PKP     PKPbc    01 36 29.9 +0.4
      comp=Z,45nm,0.8s,baz=297,slow=2.8,SNR=90
KOD   Kodaikanal       144.97 118 eP       PKPab    01 36 29.7 -3.4
GOA   Goa              145.08 107 eP       PKPbc    01 36 31.6 -1.4
MDSI  Maura Dua        145.14 173  PKP     PKPbc    01 36 32.5 -0.7
PALK  Pallekele        145.37 126 ⇑PKIKP   PKPab    01 36 34.5 +0.3
YAK   Yakutsk          145.38 342  PKPbc   PKPbc    01 36 32.5  0.0
      comp=Z,281nm,0.8s,baz=38,slow=0.5,SNR=62
YAK   Yakutsk          145.38 342c iPKP2   PKPbc    01 36 31.7 -0.9
YAK                               e                 01 39 52.8
YAK                               e                 01 43 39.1
YAK                               eSS      SS       01 58 48.7 +7.3
YAK                                pmax    pmax
      comp=Z,351nm,0.9s
YAK                                pmax    pmax
      comp=E,38nm,1.2s
YAK                                pmax    pmax
      comp=N,44nm,1.3s
YAK                                pmax    pmax
      comp=Z,1µm,3.2s
YAK                                pmax    pmax
      comp=E,557nm,4.0s
YAK                                pmax    pmax
      comp=N,615nm,3.2s
YAK   Yakutsk          145.38 342          PKPbc    01 36 31.6 -1.0
TNTI  Ternate          145.49 215          PKPdf    01 36 32.5 -1.8
MMSI  Mamuju           145.65 199  PKP     PKPab    01 36 35.6 +0.4
LHSI  Lahat            145.71 171  PKP     PKPbc    01 36 35.1  0.0
KUR   Kuril'sk         145.79 307c iPKHKP  PKPpre   01 36 31.5
KUR                               e                 01 40 05.4
KUR                               eSS      SS       01 58 46.3 -1.6
KUR                                pmax    pmax
      comp=Z,973nm,1.3s
KUR                                pmax    pmax
      comp=Z,12µm,5.8s
BOM   Bombay           145.87 101 eP       PKPdf    01 36 32.1 -2.7
LUWI  Luwuk            145.91 206  PKP     PKPdf    01 36 34.6 -0.5
LUWI  Luwuk            145.91 206  IAMs_20 IAMs_20  02 40 51.7
      comp=Z,5µm,20.0s
LUWI  Luwuk            145.91 206  PKP     PKPab    01 36 36.3 +0.2
MALK  Mahakanadarawa   146.04 124  PKP     PKPdf    01 36 34.8 -0.5
KAD   Karad            146.29 105 eP       PKPdf    01 36 35.8 +0.2
SALM  Salem            146.39 117 eP       PKPdf    01 36 33.8 -2.1
BHV   Bhavnagar        146.47  96 eP       PKPdf    01 36 33.3 -2.4
POO   Poona            146.58 103 eP       PKPdf    01 36 33.6 -2.5
KBL   Kabul            146.69  72  P       PKPdf    01 36 36.2 +0.1
      SNR=40
KBL   Kabul            146.69  72  PKIKP   PKPdf    01 36 35.1 -1.0
KBL   Kabul            146.69  72          PKPdf    01 36 35.1 -1.0
CHM   Chimkent         146.84  58 ePKIKP   PKPdf    01 36 35.0 -0.8
CHM   Chimkent         146.84  58 ePKP     PKPdf    01 36 35.1 -0.8
CHM                                LR      LR       02 46 23.9
      comp=Z,3µm,20.0s
BRLS  Borolday         146.89  57 ePKIKP   PKPdf    01 36 35.0 -0.8
BRLS                              e                 01 40 06.5
BRLS  Borolday         146.89  57 ePKP     PKPdf    01 36 35.1 -0.8
BRLS                              eSKP     SKPdf    01 40 06.5 -1.1
PCI   Palu             147.06 201  PKP     PKPbc    01 36 39.2 +0.1
TPI   Tanjungpandan    147.08 179  PKP     PKPbc    01 36 38.5 -0.6
NKL   Nikolayevsk      147.28 323 i PKP2   PKPbc    01 36 38.9 +0.4
NKL                               e                 01 40 05.1
MNI   Manado           147.28 212  PKP     PKPbc    01 36 39.0 -0.7
SISI  Saibi            147.29 163  PKP     PKPbc    01 36 40.0 +0.3
TYV   Tymovskoe        147.29 319 ePKP2    PKPbc    01 36 38.9 +0.3
TYV                                pmax    pmax
      comp=Z,3µm,5.1s
TYV                                pmax    pmax
      comp=Z,70nm,1.4s
GTOI  Gorontalo        147.34 208  PKP     PKPbc    01 36 39.6 -0.3
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KK31	**Karatay Array**	**147.37**	**56**	*i* PKIKP	**PKPdf**	**01 36 36.8**	**+0.1**
KKAR	**Karatay Array**	**147.37**	**56**	PKIKP	**PKPdf**	**01 36 36.1**	**-0.6**
KKAR	**Karatay Array**	**147.37**	**56**		**PKPdf**	**01 36 36.1**	**-0.6**
YUK	**Yuzh-Kuril'sk**	**147.44**	**305**	*d i*PKIKP	**PKPdf**	**01 36 37.5**	**+0.8**
YUK				*e*		01 40 08.1	
YUK				*e*PPP	PPP	01 43 25.0	
YUK				*i* SS	SS	01 59 11.1	+4.4
YUK				*e*SSS	SSS	02 04 44.1	
DZA	**Taraz**	**148.00**	**57**	*e*PKIKP	**PKPdf**	**01 36 37.0**	**-0.7**
DZA	**Taraz**	**148.00**	**57**	*e*PKP	**PKPdf**	**01 36 37.0**	**-0.7**
SDSI	**Sungai Dareh**	**148.21**	**167**	PKP	**PKPdf**	**01 36 40.0**	**+1.1**
UGL	**Uglegorsk**	**148.39**	**316**	*e*PKIKP	**PKPdf**	**01 36 37.4**	**-0.7**
UGL				pmax	pmax		
	comp=Z,7µm,16.0s						
TOLI2	**Tolitoli**	**148.63**	**204**	IAMs_20	IAMs_20	02 44 16.6	
	comp=Z,3µm,20.0s						
YSS	**Yuzhno-Sakhali**	**148.75**	**312**	*c i*PKIKP	**PKPdf**	**01 36 39.0**	**+0.3**
YSS	**Yuzhno-Sakhali**	**148.75**	**312**		**PKPdf**	**01 36 38.3**	**-0.5**
YSS				IAMs_20	IAMs_20	02 56 56.4	
	comp=Z,5µm,20.0s						
LATR	**Latur**	**148.78**	**105**	*e*P	**PKPdf**	**01 36 37.9**	**-1.9**
UDPR	**Udaipur**	**148.80**	**92**	*e*P	**PKPdf**	**01 36 35.8**	**-3.8**
MDRS	**Chennai**	**148.86**	**117**	*e*P	**PKiKP**	**01 36 45.7**	**+0.5**
BKNI	**Bangkinang**	**149.35**	**166**	PKP	**PKPdf**	**01 36 41.9**	**+1.1**
ERM	**Erimo**	**149.79**	**302**	PKP2	**PKPbc**	**01 36 45.8**	**+0.4**
ERM	**Erimo**	**149.79**	**302**		**PKPbc**	**01 36 45.8**	**+0.4**
EKS2	**Erkin-Say**	**149.81**	**56**	P	**PKPdf**	**01 36 42.5**	**+1.7**
	SNR=22						
KURBB	**Kurchatov Arra**	**149.90**	**39**	PKP	**PKPdf**	**01 36 40.5**	**0.0**
	comp=Z,25nm,0.4s,baz=305,slow=3.1,SNR=54						
KURBB				PKPbc	**PKPbc**	**01 36 45.1**	**-0.2**
	comp=Z,73nm,0.8s,baz=301,slow=3.1,SNR=62						
KURBB	**Kurchatov Arra**	**149.90**	**39**	PKHKP	PKPpre	01 36 41.3	
KURK	**Kurchatov**	**149.90**	**39**	P	**PKPdf**	**01 36 41.2**	**+0.8**
KURK	**Kurchatov**	**149.90**	**39**	*c i*PKIKP	**PKPdf**	**01 36 39.9**	**-0.6**
KURK	**Kurchatov**	**149.90**	**39**		**PKPbc**	**01 36 45.1**	**-0.2**
HYB	**Hyderabad**	**149.96**	**109**	*e*P	**PKPdf**	**01 36 39.1**	**-2.6**
HYB	**Hyderabad**	**149.96**	**109**	*e*PKiKP	**PKPbc**	**01 36 46.8**	**+0.3**
HYB				IAMs_20	IAMs_20	01 36 54.9	
	comp=Z,6µm,22.1s						
NIL	**Nilore**	**150.12**	**74**	P	**PKPdf**	**01 36 41.3**	**-0.2**
NIL	**Nilore**	**150.12**	**74**	IAMs_20	IAMs_20	02 48 58.8	
	comp=Z,4µm,20.0s						
AJM	**Ajmer**	**150.13**	**89**	*e*P	**PKPdf**	**01 36 39.9**	**-1.8**
AJM				IAmb	IAmb	01 37 22.9	
	comp=Z,287nm,1.7s						
USP	**Ospenovka**	**150.18**	**55**	P	**PKPdf**	**01 36 42.7**	**+1.4**
	SNR=25						
AKL	**Akola**	**150.21**	**101**	*e*P	**PKPdf**	**01 36 39.9**	**-2.0**
AKL				IAmb	IAmb	01 37 39.2	
	comp=Z,101nm,0.9s						
SGDS	**Sogindy**	**150.23**	**55**	*e*PKP	**PKPdf**	**01 36 40.6**	**-0.7**
SGDS				*e*SKP	**SKPdf**	**01 40 11.5**	**-1.1**
SRGN	**SRI GANGA NAGA**	**150.24**	**82**	*e*P	**PKPdf**	**01 36 39.9**	**-1.8**
AAK	**Ala-Archa**	**150.33**	**56**	P	**PKPdf**	**01 36 43.0**	**+1.3**
	SNR=46						
AAK	**Ala-Archa**	**150.33**	**56**	P	**PKPdf**	**01 36 42.2**	**+0.5**
AAK	**Ala-Archa**	**150.33**	**56**	*c i*PKIKP	**PKPdf**	**01 36 41.4**	**-0.3**
AAK	**Ala-Archa**	**150.33**	**56**		**PKPdf**	**01 36 43.0**	**+1.3**
AAK	**Ala-Archa**	**150.33**	**56**	*i* PKPdf	**PKPdf**	**01 36 42.2**	**+0.5**
	SNR=90						
CHMS	**Chumysh**	**150.43**	**55**	P	**PKPbc**	**01 36 47.1**	**+0.1**
	SNR=58						
KBK	**Karagaybulak**	**150.65**	**56**	P	**PKiKP**	**01 36 49.3**	**+1.0**
	SNR=20						
GRNR	**Gornyy**	**150.78**	**322**	⇓*i*PKIKP	**PKPdf**	**01 36 43.4**	**+1.5**
GRNR				pmax	pmax		
	comp=Z,10.0nm,1.0s						
ZALV	**Zalesovo Beam**	**150.91**	**29**	PKP	**PKPdf**	**01 36 41.3**	**-0.7**
	comp=Z,16nm,0.7s,baz=282,slow=2.7,SNR=54						
ZALV				PKPbc	**PKPbc**	**01 36 47.5**	**-0.2**
	comp=Z,284nm,0.8s,baz=308,slow=1.9,SNR=126						
ZALV	**Zalesovo Beam**	**150.91**	**29**		**PKPdf**	**01 36 40.4**	**-1.6**
SEM	**Semipalatinsk**	**150.94**	**38**	*e*PKIKP	**PKPdf**	**01 36 41.7**	**-0.7**
SEM	**Semipalatinsk**	**150.94**	**38**	*e*PKP	**PKPdf**	**01 36 41.7**	**-0.7**
SEM				LR	LR	02 48 51.8	
	comp=Z,4µm,19.1s						
TKM2	**Tokmak 2**	**151.05**	**55**	P	**PKPdf**	**01 36 43.9**	**+1.0**
	SNR=24						
VJD	**Vijayawada**	**151.18**	**112**	*e*P	**PKiKP**	**01 36 52.1**	**+2.2**
JMU	**Jammu**	**151.39**	**76**	*e*P	**PKiKP**	**01 36 52.0**	**+2.0**
SRNI	**Srinagar**	**151.43**	**74**	*e*P	**PKPdf**	**01 36 41.9**	**-1.7**
ULHL	**Ulahol**	**151.68**	**56**	P	**PKPdf**	**01 36 45.4**	**+1.6**
	SNR=9.2						
DAV	**Davao City (W)**	**151.77**	**218**	IAMs_20	IAMs_20	02 44 31.8	
	comp=Z,4µm,21.0s						
KSH2	**Kashi**	**151.78**	**63**	PKPbc	**PKPdf**	**01 36 45.0**	**+1.0**
KSH2				PP	**PP**	**01 40 30.1**	**-1.2**
KSH2				SS	SS	01 59 52.3	-3.6
KSH2				PPMZ			
	comp=Z,4µm,7.5s						
KSH2				L	L		
	comp=Z,6µm,22.7s						
KSH2				L	L		
	comp=Z,8µm,21.0s						
KSH2				L	L		
	comp=Z,15µm,22.7s						
AAA	**Alma-Ata**	**151.90**	**54**	*e*PKIKP	**PKPdf**	**01 36 43.2**	**-0.7**
AAA	**Alma-Ata**	**151.90**	**54**	*e*PKP	**PKPdf**	**01 36 43.2**	**-0.7**
AAA				LR	LR	02 49 19.1	
	comp=Z,8µm,22.2s						
GUNA	**GUNA**	**151.95**	**94**	*e*P	**PKPdf**	**01 36 42.1**	**-2.5**
TNSS	**Tian-Shan**	**151.97**	**54**	*e*PKIKP	**PKPdf**	**01 36 43.3**	**-1.2**
TNSS				*e*		01 40 31.0	
TNSS	**Tian-Shan**	**151.97**	**54**	*e*PKP	**PKPdf**	**01 36 43.3**	**-1.2**
TNSS				*e*PP	**PP**	**01 40 31.1**	**-1.4**
KCP	**Kidapawan**	**151.98**	**217**	*e*P	**PKPdf**	**01 36 48.0**	**+3.1**
MDOK	**Medeo**	**152.01**	**54**	*e*PKIKP	**PKPdf**	**01 36 43.3**	**-0.9**
MDOK				*e*		01 40 31.3	
MDOK	**Medeo**	**152.01**	**54**	*e*PKP	**PKPdf**	**01 36 43.4**	**-0.9**
MDOK				*e*PP	**PP**	**01 40 31.3**	**-1.0**
MDOK				LR	LR	02 49 19.1	
BOD	**Bodaibo**	**152.25**	**354**	*e*PKIKP	**PKPdf**	**01 36 43.9**	**0.0**
BOD				pmax	pmax		
	comp=Z,285nm,1.6s						
TDK	**Taldyqorghan**	**152.32**	**50**	*e*PKIKP	**PKPdf**	**01 36 43.8**	**-0.6**
TDK				*e*		01 40 33.3	
TDK	**Taldyqorghan**	**152.32**	**50**	*e*PKP	**PKPdf**	**01 36 43.9**	**-0.6**
TDK				*e*PP	**PP**	**01 40 33.3**	**-0.6**
TDK				LR	LR	02 49 32.8	
	comp=Z,4µm,18.5s						
BHK	**Bhakra**	**152.57**	**80**	*e*P	**PKPdf**	**01 36 44.3**	**-1.0**
AYAN	**Aya Nagar**	**152.76**	**86**	*e*P	**PKPdf**	**01 36 43.0**	**-2.6**
GNR	**GANAUR**	**152.79**	**85**	*e*P	**PKPdf**	**01 36 43.5**	**-2.1**
NPLP	**NPLP New Delhi**	**152.83**	**86**	*e*P	**PKPdf**	**01 36 46.0**	**+0.3**
CGRH	**CHANDIGARH**	**152.84**	**81**	*e*P	**PKPdf**	**01 36 43.9**	**-1.8**
LDR	**Lodi Road**	**152.86**	**86**	*e*P	**PKPdf**	**01 36 44.0**	**-1.7**
ZEA	**Zeya**	**152.90**	**335**	*i* PKIKP	**PKPdf**	**01 36 44.7**	**-0.3**
ZEA				*e*		01 37 04.9	
ZEA				*e*		01 44 14.7	
ZEA				*e*		02 00 02.4	
ZEA				pmax	pmax		
	comp=E,10.0nm,1.2s						
ZEA				pmax	pmax		
	comp=N,20nm,1.5s						
ZEA				pmax	pmax		
	comp=Z,50nm,1.3s						
ZEA				pmax	pmax		
	comp=E,200nm,7.3s						
ZEA				pmax	pmax		
	comp=Z,1µm,4.7s						
ZEA				pmax	pmax		
	comp=N,400nm,14.5s						
ZEA				pmax	pmax		
	comp=Z,1µm,15.6s						
JMIU	**JAMIA UNIVERSI**	**152.93**	**86**	*e*P	**PKPdf**	**01 36 43.8**	**-2.0**
KPKS	**Kokpek**	**153.05**	**53**	*e*PKIKP	**PKPdf**	**01 36 44.8**	**-0.8**
KPKS	**Kokpek**	**153.05**	**53**	*e*PKP	**PKPdf**	**01 36 44.9**	**-0.8**
BISR	**Bishrakh**	**153.05**	**86**	*e*P	**PKPdf**	**01 36 43.6**	**-2.3**
AGRA	**Agra**	**153.20**	**89**	*e*P	**PKPdf**	**01 36 44.1**	**-2.1**
MYLDM	**Lahad Datu**	**153.21**	**203**		**PKPdf**	**01 36 47.4**	**+0.7**
MYLDM	**Lahad Datu**	**153.21**	**203**	PKP	**PKPdf**	**01 36 48.7**	**+2.0**
SMLA	**Simla**	**153.21**	**80**	*e*P	**PKPdf**	**01 36 43.7**	**-2.4**
JHNI	**Jhansi**	**153.30**	**93**	*e*P	**PKPdf**	**01 36 45.9**	**-0.6**
ASOR	**Ausora**	**153.38**	**86**	*e*P	**PKPdf**	**01 36 42.7**	**-3.7**
MERT	**Meerut**	**153.38**	**85**	*e*P	PKPdf	01 36 37.9	-8.6
UZB	**Uzynbulak**	**153.38**	**53**	*e*PKIKP	**PKPdf**	**01 36 45.4**	**-0.8**
UZB				*e*		01 40 39.0	
UZB	**Uzynbulak**	**153.38**	**53**	*e*PKP	**PKPdf**	**01 36 45.5**	**-0.8**
UZB				*e*PP	**PP**	**01 40 39.1**	**-1.1**
ALCI	**Alchi Leh**	**153.41**	**73**	*e*P	**PKPdf**	**01 36 45.1**	**-1.7**
ALCI				IAmb	IAmb	01 37 25.4	
	comp=Z,66nm,1.0s						
SHLS	**Shalkode**	**153.69**	**53**	*e*PKIKP	**PKPdf**	**01 36 46.2**	**-0.4**
SHLS				*e*		01 40 42.6	
SHLS	**Shalkode**	**153.69**	**53**	*e*PKP	**PKPdf**	**01 36 46.2**	**-0.4**
SHLS				*e*PP	**PP**	**01 40 42.6**	**+0.8**
MAKZ	**Makanchi**	**153.80**	**44**	PKIKP	**PKPdf**	**01 36 45.3**	**-1.2**
MAKZ	**Makanchi**	**153.80**	**44**		**PKPdf**	**01 36 45.3**	**-1.2**
MK31	**Makanchi Array**	**153.99**	**44**	*c i*PKIKP	**PKPdf**	**01 36 46.3**	**-0.5**
MKAR	**Makanchi Array**	**153.99**	**44**	PKP	**PKPdf**	**01 36 46.0**	**-0.8**
	comp=Z,11nm,0.9s,baz=316,slow=0.6,SNR=35						
MKAR				PKPbc	**PKiKP**	**01 36 54.9**	**0.0**
	comp=Z,38nm,1.0s,baz=314,slow=2.2,SNR=30						
MKAR	**Makanchi Array**	**153.99**	**44**		**PKPdf**	**01 36 45.2**	**-1.6**
KULM	**Kulim**	**154.04**	**162**		**PKPdf**	**01 36 47.0**	**-0.9**
KLR	**Kul'dur**	**154.12**	**323**	PKP	**PKPdf**	**01 36 46.7**	**-0.1**
	comp=Z,26nm,1.1s,baz=9.1,slow=2.5,SNR=18						
KLR	**Kul'dur**	**154.12**	**323**	*i* PKIKP	**PKPdf**	**01 36 45.4**	**-1.5**
KLR				pmax	pmax		
	comp=Z,11nm,1.0s						
KLP	**Kalpa**	**154.18**	**80**	*e*P	**PKPdf**	**01 36 44.0**	**-4.0**
TKRD	**Thakurdwara**	**154.38**	**85**	*e*P	**PKPdf**	**01 36 44.0**	**-3.9**
MJAR	**Matsushiro Arr**	**154.40**	**292**	PKP	**PKPdf**	**01 36 48.0**	**+0.3**
	comp=Z,12nm,1.0s,baz=109,slow=1.3,SNR=16						
MJAR				PKPbc	**pPKPdf**	**01 36 57.5**	**-0.8**
	comp=Z,39nm,1.2s,baz=85,slow=1.8,SNR=12						
MJAR	**Matsushiro Arr**	**154.40**	**292**	PKIKP	**PKPdf**	**01 36 47.8**	**+0.1**
MJAR	**Matsushiro Arr**	**154.40**	**292**		**PKPdf**	**01 36 47.8**	**+0.1**
MAJO	**Matsushiro**	**154.40**	**292**	PKIKP	**PKPdf**	**01 36 47.2**	**-0.5**
MAJO	**Matsushiro**	**154.40**	**292**		**PKPdf**	**01 36 47.2**	**-0.5**
MAJO	**Matsushiro**	**154.40**	**292**	IAMs_20	IAMs_20	03 00 52.4	
	comp=Z,4µm,19.0s						
KKM	**Kota Kinabalu**	**154.73**	**199**	PKP	**PKPdf**	**01 36 49.6**	**+0.7**
BNDA	**BANDA**	**154.79**	**94**	*e*P	**PKPdf**	**01 36 46.8**	**-1.7**
HNLY	**HANLEY**	**154.87**	**77**	*e*P	**PKPdf**	**01 36 46.4**	**-2.8**
TBP	**Tagbilaran**	**154.88**	**218**	*e*P	**PKPdf**	**01 36 49.0**	**0.0**
RAGD	**RAYAGADA**	**154.89**	**110**	*e*P	**PKPdf**	**01 36 44.0**	**-4.9**
ZSN	**Zaisan**	**155.12**	**40**	*e*PKIKP	**PKPdf**	**01 36 47.8**	**-0.5**
ZSN				*e*		01 40 49.2	
ZSN	**Zaisan**	**155.12**	**40**	*e*PKP	**PKPdf**	**01 36 47.8**	**-0.5**
ZSN				*e*PP	**PP**	**01 40 49.3**	**0.0**
INU	**Inuyama**	**155.46**	**289**	IAMs_20	IAMs_20	02 36 04.3	
	comp=Z,5µm,22.0s						
HEH	**HeiHe**	**155.50**	**330**	PKP	**PKPdf**	**01 36 48.1**	**-0.6**
HEH				pPKP	**pPKPdf**	**01 36 52.3**	**-7.0**
HEH				PPMZ			
	comp=Z,2µm,8.5s						
HEH				L	L		
	comp=Z,4µm,20.7s						
HEH				L	L		
	comp=Z,5µm,20.8s						
HEH				L	L		
	comp=Z,9µm,21.2s						
PTH	**Pithoragarh**	**155.61**	**85**	*e*P	**PKPdf**	**01 36 44.0**	**-5.8**
ALBI	**Allahabad**	**156.01**	**96**	*e*P	**PKPdf**	**01 36 47.8**	**-2.4**
JHSG	**JHARSUGUGA**	**156.35**	**105**	*e*P	**PKPdf**	**01 36 45.9**	**-4.9**
PBA	**Port Blair**	**156.42**	**139**	*e*P	**PKPdf**	**01 36 49.8**	**-1.3**
BRCI	**Bahraich**	**156.44**	**90**	*e*P	**PKPdf**	**01 36 48.5**	**-2.2**
USRK	**Ussuriysk Ar.**	**156.76**	**313**	PKP	**PKPdf**	**01 36 49.9**	**-0.7**
	comp=Z,6.2nm,1.0s,baz=329,slow=2.2,SNR=16						
USRK	**Ussuriysk Ar.**	**156.76**	**313**		**PKPdf**	**01 36 49.8**	**-0.8**
BWNR	**Bhubaneshwar**	**157.31**	**111**	*e*P	**PKPdf**	**01 36 50.7**	**-1.3**
IRK	**Irkutsk**	**157.91**	**7**	*e*PKIKP	**PKPdf**	**01 36 51.7**	**-0.1**
IRK				*e*		01 41 03.2	
IRK				pmax	pmax		
	comp=Z,295nm,3.4s						
CIT	**Chita**	**158.00**	**351**	*e*PKIKP	**PKPdf**	**01 36 45.4**	**-6.6**
CIT				*e*		01 37 01.4	
CIT				*e*		01 37 27.0	
CIT				*e*		01 41 02.0	
MDJ	**Mudanjiang**	**158.02**	**316**	PKP	**PKPdf**	**01 36 52.4**	**+0.2**
MDJ				PP	**PP**	**01 41 09.3**	**+3.9**
MDJ				SS	SS	02 01 09.9	+7.7
MDJ				PPMZ			
	comp=Z,1µm,11.1s						
MDJ				L	L		
	comp=Z,1µm,24.8s						
MDJ				L	L		
	comp=Z,4µm,18.5s						
MDJ				L	L		
	comp=Z,9µm,22.0s						
BNX	**BinXian**	**158.61**	**321**	⇓PKP	**PKPdf**	**01 36 51.9**	**-0.9**
BNX				pPKP	**pPKPdf**	**01 36 59.3**	**-4.1**
BNX				sPKP	**sPKPdf**	**01 37 01.0**	**-6.0**
BNX				PP	**PP**	**01 41 08.6**	**+0.2**
BNX				SS	SS	02 01 12.2	+4.1
BNX				PPMZ			
	comp=Z,2µm,6.5s						
BNX				L	L		
	comp=Z,2µm,21.2s						
BNX				L	L		
	comp=Z,3µm,21.8s						
BNX				L	L		
	comp=Z,3µm,24.0s						
GAYA	**Gaya**	**158.78**	**99**	*e*P	**PKPdf**	**01 36 51.3**	**-2.4**
WMQ	**Urumqi**	**158.79**	**45**	PKP	**PKPdf**	**01 36 53.2**	**0.0**
WMQ				PKPab	**PKPab**	**01 37 31.0**	**+1.9**
WMQ				PP	**PP**	**01 41 14.2**	**+4.4**
WMQ				PPMZ			
	comp=Z,2µm,11.8s						
WMQ				L	L		
	comp=Z,6µm,21.9s						
WMQ				L	L		
	comp=Z,6µm,24.0s						
WMQ				L	L		
	comp=Z,7µm,24.1s						
HILR	**Hailar Array B**	**158.96**	**339**	PKP	**PKPdf**	**01 36 52.9**	**-0.3**
	comp=Z,8.3nm,0.8s,baz=103,slow=4.7,SNR=9.2						
HILR				PP	**PP**	**01 41 11.2**	**+1.3**
	comp=Z,0.8nm,0.3s,baz=69,slow=8.0,SNR=1.8						
BOK	**Bokaro**	**158.97**	**103**	*e*P	**PKPdf**	**01 36 52.0**	**-1.9**
ZAK	**Zakamensk**	**159.62**	**9**	*e*PKIKP	**PKPdf**	**01 36 53.9**	**-0.1**
ZAK				pmax	pmax		
	comp=Z,16nm,1.8s						
JMUI	**Jamui**	**159.67**	**100**	*e*P	**PKPdf**	**01 36 50.0**	**-4.7**
LQP	**Lukban**	**159.79**	**220**	*e*P	**PKPdf**	**01 36 58.1**	**+2.8**
CAL	**Calcutta**	**160.47**	**109**	*e*P	**PKPdf**	**01 36 54.1**	**-1.6**
CN2	**Changchun**	**160.91**	**319**	PKP	PKPdf	01 36 43.9	-12
CN2				*e*pPKP	pPKPdf	01 36 53.9	-12
CN2				*e*PP	PP	01 41 09.0	-12
SHBG	**Sahibganj**	**160.97**	**100**	*e*P	**PKPdf**	**01 36 54.2**	**-1.9**
KSRS	**Korea Array**	**162.30**	**299**	PKP	**PKPdf**	**01 36 57.8**	**+0.7**
	comp=Z,11nm,0.9s,baz=69,slow=0.6,SNR=22						
KSAR	**Wonju Array Be**	**162.33**	**299**	PKIKP	**PKPdf**	**01 36 57.3**	**+0.1**
KSAR	**Wonju Array Be**	**162.33**	**299**		**PKPdf**	**01 36 57.2**	**+0.1**
SONM	**Songino Array**	**162.46**	**4**	PKP	**PKPdf**	**01 36 58.1**	**+0.9**
	comp=Z,8.4nm,0.9s,baz=302,slow=0.6,SNR=26						
SONM				PKPab	**PKPab**	**01 37 45.0**	**0.0**
	comp=Z,14nm,0.9s,baz=323,slow=4.6,SNR=8.1						
SONM				PP	**PP**	**01 41 28.2**	**-0.5**
	comp=Z,5.9nm,1.1s,baz=333,slow=1.8,SNR=4.4						
SONM	**Songino Array**	**162.46**	**4**	PKIKP	**PKPdf**	**01 36 56.7**	**-0.5**
SONM	**Songino Array**	**162.46**	**4**		**PKPdf**	**01 36 56.7**	**-0.5**
ULN	**Ulaanbaatar**	**162.47**	**3**	PKIKP	**PKPdf**	**01 36 57.2**	**0.0**
ULN	**Ulaanbaatar**	**162.47**	**3**		**PKPdf**	**01 36 57.2**	**0.0**
COBR	**COOCHBEHAR**	**162.88**	**99**	*e*P	**PKPdf**	**01 36 56.7**	**-1.4**
SNY	**Shenyang**	**163.22**	**317**	PKP	**PKPdf**	**01 36 52.8**	**-5.1**
SNY				PP	**PP**	**01 41 34.8**	**+1.5**
SNY				SS	SS	02 02 02.0	+5.4
SNY				PPMZ			
	comp=Z,3µm,12.0s						
SNY				L	L		
	comp=Z,1µm,25.0s						
SNY				L	L		
	comp=Z,3µm,23.4s						
SNY				L	L		
	comp=Z,5µm,23.0s						
SAIH	**SAIHA**	**164.17**	**116**	*e*P	**PKPdf**	**01 36 57.3**	**-2.3**
AZL	**Aizawl**	**164.57**	**111**	*e*P	**PKPdf**	**01 36 57.5**	**-2.3**
SHL	**Shillong**	**164.68**	**104**	P	**PKPdf**	**01 36 55.5**	**-4.5**
	SNR=17						
SHL	**Shillong**	**164.68**	**104**	*e*P	**PKPdf**	**01 36 57.8**	**-2.2**
LSA	**Lhasa**	**165.07**	**88**	P	**PKPdf**	**01 36 56.9**	**-3.7**
XLT	**XiLinHaoTe**	**165.14**	**338**	*e*PKP	**PKPdf**	**01 37 00.4**	**+0.7**
XLT				PP	**PP**	**01 41 43.8**	**+0.9**
XLT				L	L		
	comp=Z,3µm,22.1s						
XLT				L	L		
	comp=Z,5µm,22.6s						
CM31	**Chiang Mai Arr**	**165.40**	**142**	P	**PKPdf**	**01 36 55.0**	**-5.6**
	SNR=9.2						
CMAR	**Chiang Mai Arr**	**165.40**	**142**	PKP	**PKPdf**	**01 37 00.4**	**-0.2**
	comp=Z,7.9nm,1.0s,baz=256,slow=2.0,SNR=28						
CMAR				PKPab	**PKPab**	**01 37 58.6**	**+0.2**
	comp=Z,2.4nm,0.5s,baz=236,slow=5.8,SNR=4.3						
CMAR	**Chiang Mai Arr**	**165.40**	**142**		**PKPdf**	**01 36 59.6**	**-0.9**
CHTO	**Chiang Mai**	**165.69**	**141**	PKP	**PKPdf**	**01 37 01.1**	**+0.3**
TEZP	**TEZPUR**	**165.82**	**101**	*e*P	**PKPdf**	**01 36 58.6**	**-2.1**
IMP	**Imphal**	**166.09**	**110**	*e*P	**PKPdf**	**01 36 58.7**	**-2.3**
DL2	**Dalian**	**166.15**	**312**	PKP	**PKPdf**	**01 37 02.5**	**+2.0**
DL2				PKPab	**PKPab**	**01 38 06.1**	**+4.8**
DL2				PP	**PP**	**01 41 47.9**	**-0.9**
DL2				SS	SS	02 02 28.6	+1.6
DL2				PPMZ			
	comp=Z,2µm,11.8s						
DL2				L	L		
	comp=Z,6µm,23.5s						
DL2				L	L		
	comp=Z,3µm,21.4s						
DL2				L	L		
	comp=Z,7µm,22.2s						
KOHI	**KOHIMA**	**166.59**	**107**	*e*P	**PKPdf**	**01 36 59.3**	**-2.2**
JORH	**JORHAT**	**167.09**	**103**	*e*P	**PKPdf**	**01 36 59.7**	**-1.9**
MOKO	**MOKOCHONG**	**167.16**	**105**	*e*P	**PKPdf**	**01 36 59.8**	**-2.2**
GOMU	**GeErMu**	**167.25**	**59**	PKP	**PKPdf**	**01 37 00.8**	**-1.2**
GOMU				L	L		
	comp=Z,3µm,19.2s						
GOMU				L	L		
	comp=Z,4µm,19.1s						
GOMU				L	L		
	comp=Z,8µm,19.2s						
BJI2	**Beijing**	**168.43**	**329**	PKP	**PKPdf**	**01 37 02.6**	**+0.4**
BJI2				PP	**PP**	**01 42 00.4**	**+0.4**
BJI2				SKS	**SKSdf**	**01 44 01.9**	**-1.6**
BJI2				SKKS	**SKKSac**	**01 48 47.8**	**+2.7**
BJI2				SS	**SS**	**02 02 49.8**	**+0.8**
BJI2				L	L		
	comp=Z,2µm,19.6s						
BJI2				L	L		
	comp=Z,2µm,19.1s						
BJI2				L	L		
	comp=Z,4µm,22.8s						
GTA2	**Gaotai**	**168.47**	**35**	PKP	**PKPdf**	**01 37 02.8**	**+0.4**
GTA2				PKPab	**PKPab**	**01 38 11.3**	**-0.4**
GTA2				PP	**PP**	**01 41 59.5**	**-1.0**
GTA2				SKKS		01 48 50.8	
GTA2				SS	**SS**	**02 02 49.7**	**-0.3**
GTA2				PPMZ			
	comp=Z,2µm,11.0s						
GTA2				L	L		
	comp=Z,7µm,21.3s						
GTA2				L	L		
	comp=Z,5µm,22.7s						
GTA2				L	L		
	comp=Z,8µm,22.7s						
QIZ	**Qiongzhong**	**168.66**	**187**	PKP	**PKPdf**	**01 37 03.2**	**+0.2**
QIZ				PP	**PP**	**01 42 03.2**	**+2.6**
QIZ				SKS	**SKSdf**	**01 44 03.9**	**-0.7**
QIZ				SS	**SS**	**02 02 51.2**	**+0.8**
QIZ				PPMZ			
	comp=Z,3µm,13.2s						
QIZ				L	L		
	comp=Z,5µm,19.6s						
QIZ				L	L		
	comp=Z,5µm,20.1s						
QIZ				L	L		
	comp=Z,5µm,20.2s						
SSE	**Sheshan**	**168.94**	**277**	PKP	**PKPdf**	**01 37 04.3**	**+1.5**
SSE				PP	**PP**	**01 42 10.9**	**+6.9**
SSE				L	L		
	comp=Z,2µm,17.6s						
SSE				L	L		
	comp=Z,1µm,18.2s						
HHC	**Hu-ho-hao-te**	**169.20**	**347**	*e*PKP	**PKPdf**	**01 37 02.2**	**-0.6**
HHC				L	L		
	comp=Z,6µm,20.6s						
HHC				L	L		
	comp=Z,6µm,19.1s						
HHC				L	L		
	comp=Z,9µm,18.3s						
QZH2	**Quanzhou**	**169.46**	**242**	PKP	**PKPdf**	**01 37 02.0**	**-1.3**
QZH2				PP	**PP**	**01 42 07.0**	**+0.8**
QZH2				SKKS		01 48 54.5	
QZH2				SS	**SS**	**02 03 08.1**	**+7.0**
QZH2				L	L		
	comp=Z,3µm,22.0s						
QZH2				L	L		
	comp=Z,5µm,21.6s						
QZH2				L	L		
	comp=Z,7µm,25.8s						
BTO2	**Baotou**	**169.55**	**354**	*e*PKP	**PKPdf**	**01 37 01.7**	**-1.4**
BTO2				PP	**PP**	**01 42 05.9**	**+0.6**
BTO2				L	L		
	comp=Z,8µm,18.2s						
BTO2				L	L		
	comp=Z,8µm,22.0s						
BTO2				L	L		
	comp=Z,17µm,22.2s						
TNCH	**TengChong**	**169.80**	**119**	PKP	**PKPdf**	**01 37 03.6**	**-0.2**
TNCH				PKPab	**PKPab**	**01 38 17.0**	**-1.2**
TNCH				PPMZ			
	comp=Z,2µm,14.5s						
TNCH				L	L		
	comp=Z,2µm,19.5s						
TNCH				L	L		
	comp=Z,2µm,19.1s						
TNCH				L	L		
	comp=Z,8µm,20.2s						
TIA	**Tai'an**	**170.62**	**311**	PKP	**PKPdf**	**01 37 04.5**	**+0.8**
TIA				PP	PP	01 42 19.9	+8.3
TIA				SS	SS	02 03 16.9	+5.0
TIA				PPMZ			
	comp=Z,3µm,7.6s						
TIA				L	L		
	comp=Z,2µm,21.3s						
TIA				L	L		
	comp=Z,6µm,20.6s						
TIA				L	L		
	comp=Z,10µm,20.6s						
NJ2	**Nanjing**	**170.85**	**283**	*e*PKP	**PKPdf**	**01 37 04.1**	**+0.2**
NJ2				PP	**PP**	**01 42 13.9**	**+0.4**
NJ2				SKKS		01 48 57.4	
NJ2				SS	**SS**	**02 03 18.0**	**+2.4**
NJ2				PPMZ			
	comp=Z,7µm,9.9s						
NJ2				L	L		
	comp=Z,11µm,18.9s						
NJ2				L	L		
	comp=Z,10µm,18.0s						
NJ2				L	L		
	comp=Z,20µm,18.6s						
HNS	**HongShan**	**171.21**	**325**	⇓PKP	**PKPdf**	**01 37 05.2**	**+1.3**
HNS				PP	**PP**	**01 42 14.5**	**+0.5**
HNS				SS	SS	02 03 19.2	+2.4
HNS				PPMZ			
	comp=Z,4µm,14.8s						
HNS				L	L		
	comp=Z,8µm,22.6s						
HNS				L	L		
	comp=Z,4µm,19.1s						
HNS				L	L		
	comp=Z,8µm,21.1s						
GZH2	**Guangzhou**	**171.84**	**217**	⇓PKP	**PKPdf**	**01 37 05.3**	**+0.7**
GZH2				PP	**PP**	**01 42 18.9**	**+1.7**
GZH2				SS	SS	02 03 29.9	+6.8
GZH2				L	L		
	comp=Z,5µm,21.5s						
GZH2				L	L		
	comp=Z,5µm,17.9s						
GZH2				L	L		
	comp=Z,9µm,19.1s						
TIY	**Taiyuan**	**171.91**	**336**	PKP	**PKPdf**	**01 37 03.8**	**-0.5**
TIY				PKPab	**PKPab**	**01 38 24.8**	**-2.1**
TIY				PP	**PP**	**01 42 17.0**	**-0.3**
TIY				L	L		
	comp=Z,5µm,20.6s						
TIY				L	L		
	comp=Z,5µm,19.9s						
TIY				L	L		
	comp=Z,10µm,19.9s						
KMI2	**Kunming**	**172.82**	**135**	⇑PKP	**PKPdf**	**01 37 04.9**	**-0.4**
PZH	**PanZhiHua**	**173.03**	**122**	PKP	PKPdf	01 37 27.4	+22
PZH				PKPab	**PKPab**	**01 38 35.8**	**+3.4**
PZH				PP	**PP**	**01 42 22.8**	**-1.2**
LZH	**Lanzhou**	**173.13**	**32**	*e*PKP	**PKPdf**	**01 37 05.3**	**+0.3**
LZH				pPKP	pPKPdf	01 37 10.7	-5.0
LZH				PKPab	**PKPab**	**01 38 33.6**	**+1.1**
LZH				PP	**PP**	**01 42 22.8**	**-0.9**
LZH				SS	SS	02 03 37.1	+1.3
LZH				L	L		
	comp=Z,4µm,18.4s						

LZH				L	L		
	comp=Z,6µm,19.4s						
LZH				L	L		
	comp=Z,8µm,20.9s						
LZDM	**Lanzhou Array**	**173.17**	**34**	PKP	**PKPdf**	**01 37 06.2**	**+0.9**
	comp=Z,2.8nm,0.3s,baz=259,slow=1.5,SNR=5.8						
LZDM				PKPab	**PKPab**	**01 38 32.4**	**-0.5**
	comp=Z,3.2nm,0.3s,baz=45,slow=4.3,SNR=2.8						
LYN	**LuoYang**	**174.56**	**322**	PKP	**PKPdf**	**01 37 06.3**	**+0.9**
LYN				PP	**PP**	**01 42 30.5**	**-0.1**
LYN				SKS	**SKSdf**	**01 44 07.2**	**+1.1**
LYN				SKKS	**SKKSac**	**01 49 21.9**	**+6.9**
LYN				PPMZ			
	comp=Z,4µm,5.4s						
LYN				L	L		
	comp=Z,7µm,22.0s						
LYN				L	L		
	comp=Z,4µm,21.3s						
LYN				L	L		
	comp=Z,14µm,20.6s						
GULI	**GuiLin**	**174.67**	**200**	⇓PKP	**PKPdf**	**01 37 05.5**	**-0.2**
GULI				L	L		
	comp=Z,5µm,19.8s						
GULI				L	L		
	comp=Z,3µm,19.6s						
GULI				L	L		
	comp=Z,9µm,20.2s						
WHN	**Wuhan**	**174.83**	**274**	PKP	**PKPdf**	**01 37 05.8**	**+0.3**
WHN				PP	**PP**	**01 42 34.2**	**+1.0**
WHN				SKKS		01 49 19.0	
WHN				SS	**SS**	**02 03 51.0**	**-3.4**
WHN				L	L		
	comp=Z,31µm,25.1s						
WHN				L	L		
	comp=Z,10µm,21.3s						
WHN				L	L		
	comp=Z,18µm,19.5s						
CNSH	**ChangSha**	**175.47**	**243**	PKP	**PKPdf**	**01 37 06.0**	**+0.2**
CNSH				PP	**PP**	**01 42 42.9**	**+7.1**
CNSH				L	L		
	comp=Z,2µm,29.9s						
CNSH				L	L		
	comp=Z,4µm,32.8s						
CNSH				L	L		
	comp=Z,2µm,28.9s						
GYA	**Guiyang**	**175.85**	**158**	⇓PKP	**PKPdf**	**01 37 06.3**	**+0.2**
GYA				PKPab	**PKPab**	**01 38 44.5**	**-0.2**
GYA				PP	**PP**	**01 42 35.5**	**-1.0**
GYA				SKKS		01 49 23.6	
GYA				SS	**SS**	**02 04 01.0**	**-0.3**
GYA				PPMZ			
	comp=Z,5µm,13.2s						
GYA				L	L		
	comp=Z,3µm,19.4s						
GYA				L	L		
	comp=Z,4µm,17.8s						
GYA				L	L		
	comp=Z,5µm,12.8s						
XAN	**Xi'an**	**176.28**	**353**	PKP	**PKPdf**	**01 37 06.7**	**+0.8**
XAN				PKPab	**PKPab**	**01 38 47.0**	**+0.7**
XAN				PP	**PP**	**01 42 38.4**	**+0.2**
XAN				SKKS		01 49 27.7	
XAN				SS	**SS**	**02 04 04.4**	**-0.4**
XAN				PPMZ			
	comp=Z,7µm,12.0s						
XAN				L	L		
	comp=Z,3µm,19.9s						
XAN				L	L		
	comp=Z,3µm,17.9s						
XAN				L	L		
	comp=Z,9µm,23.0s						

UCR ***06*** *01:20:05.4±0.7, 8°.28N×83°.06W, h20^{km}±5^{km}, MW3.6, Presumed earthquake*

UPA ***06*** *01:20:05.8±0.9, 8°.33N×83°.03W, h10^{km}±2^{km}, MW3.5, Presumed earthquake*

ISC 06 01:20:05.6±1.0**, 8°.32N**±0°.03×**83°.04W**±0°.03**, h17**^{km}±7^{km}**, n27, σ0ˢ.62**/39**, 3C-4D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTPM	**Petroterminale**	**0.20**	**127**	*e*P	**Pb**	**01 20 10.7**	**-0.1**
PTPM				*e*S	**Sb**	**01 20 14.1**	**-0.2**
PTPA	**Petro Terminal**	**0.21**	**126**	*e*P	**Pg**	**01 20 10.6**	**0.0**
PTPA				*e*S	**Sb**	**01 20 15.4**	**+0.9**
LMNES	**Limones**	**0.28**	**142**	*e*P	**Pb**	**01 20 12.1**	**-0.2**
LMNES	**Limones**	**0.28**	**142**	⇑*e*P	**Pb**	**01 20 12.6**	**+0.3**
LMNES				*e*S	**Sb**	**01 20 18.6**	**+1.8**
PIRO	**Carate, Puerto**	**0.30**	**285**	*e*P	**Pg**	**01 20 12.0**	**-0.2**
PIRO	**Carate, Puerto**	**0.30**	**285**	⇑*i*P	**Pg**	**01 20 12.1**	**-0.2**
PIRO				*e*S	**Sb**	**01 20 17.2**	**-0.2**
FITO	**Golfito**	**0.32**	**339**	*e*P	**Pg**	**01 20 11.9**	**-0.6**
FITO				*e*S	**Sg**	**01 20 17.5**	**+0.3**
NELY	**Ciudad Neily**	**0.34**	**16**	*e*P	**Pg**	**01 20 12.9**	**+0.1**
NELY	**Ciudad Neily**	**0.34**	**16**	*e*P	**Pg**	**01 20 13.0**	**+0.2**
NELY				*e*S	**Sb**	**01 20 19.8**	**+1.5**
VITO	**San Vito**	**0.50**	**8**	*e*S	**Sn**	**01 20 24.9**	**-1.4**
MLIR3	**Monte Lirio, C**	**0.51**	**24**	⇓*i*P	**Pg**	**01 20 16.0**	**0.0**
MLIR3				*e*S	**Sb**	**01 20 24.1**	**+0.7**
BRU2	**Volcan**	**0.58**	**36**	*e*P	**Pg**	**01 20 17.4**	**+0.2**
BRU2	**Volcan**	**0.58**	**36**	⇓*i*P	**Pg**	**01 20 17.4**	**+0.2**
BRU2				*e*S	**Sn**	**01 20 28.0**	**-0.4**
CLLRA	**Cordillera,**	**0.59**	**45**	*e*P	**Pb**	**01 20 17.7**	**+0.1**
CLLRA	**Cordillera,**	**0.59**	**45**	⇓*i*P	**Pb**	**01 20 17.8**	**+0.1**
CLLRA				*e*S	**Sn**	**01 20 28.2**	**-0.5**
DVD	**David**	**0.59**	**79**	*e*P	**Pb**	**01 20 17.6**	**+0.1**
DVD				*e*S	**Sb**	**01 20 26.4**	**+0.8**
PTAR3	**Potrerillos Ar**	**0.65**	**56**	*e*P	**Pg**	**01 20 18.2**	**-0.3**
EDP2	**Potrero Grande**	**0.70**	**349**	*e*P	**Pg**	**01 20 19.5**	**+0.1**
BQTLY	**Boquete Panama**	**0.72**	**53**	*e*P	**Pg**	**01 20 19.6**	**-0.1**
BGUAL	**Bijagual, Pana**	**0.72**	**75**	⇑*i*P	**Pg**	**01 20 19.7**	**-0.2**
BGUAL				*e*S	**Sg**	**01 20 28.8**	**-0.7**
BQSF3	**Alto Boquete,**	**0.73**	**55**	*e*P	**Pb**	**01 20 20.5**	**+0.6**
LNBQ3	**Los Naranjos,**	**0.75**	**52**	*e*P	**Pg**	**01 20 20.2**	**-0.2**
RBALA	**Bur**	**1.03**	**58**	*e*P	**Pb**	**01 20 24.6**	**-0.5**
RBALA	**Bur**	**1.03**	**58**	⇓*i*P	**Pb**	**01 20 24.6**	**-0.5**
KKNTU	**Kakintº**	**1.32**	**67**	*e*P	**Pn**	**01 20 28.7**	**-0.6**
KKNTU	**Kakintº**	**1.32**	**67**	*e*P	**Pn**	**01 20 28.7**	**-0.6**
KKNTU				*e*S	**Sn**	**01 20 46.6**	**+0.1**
JTS	**Las Juntas de**	**2.72**	**316**	*e*P	**Pn**	**01 20 49.2**	**+0.7**

UPA 06 01:21:27.0±1.1**, 8°.30N×82°.93W, h17**^{km}±3^{km}**, MW2.8, 4C-8D, Presumed earthquake, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTPM	**Petroterminale**	**0.10**	**154**	⇑*i*P	Pb	01 21 30.3	-0.2
PTPM				*e*S	Sg	01 21 33.6	+0.6
PTPM	**Petroterminale**	**0.10**	**154**	⇑*i*P	Pb	01 21 30.3	-0.2
PTPM				*e*S	Sg	01 21 33.1	+0.1
LIMO3	**Limones**	**0.20**	**163**	*e*P	Pg	01 21 31.8	-0.2
LIMO3				*e*S	Sb	01 21 35.8	0.0
LMNES	**Limones**	**0.21**	**162**	⇑*i*P	Pg	01 21 31.8	-0.2
LMNES				*e*S	Sb	01 21 37.3	+1.4
NELY	**Ciudad Neily**	**0.35**	**357**	*e*S	Sb	01 21 40.5	+0.4
PIRO	**Carate, Puerto**	**0.42**	**285**	*e*P	Pg	01 21 34.6	-0.9
PIRO				*e*S	Sb	01 21 41.9	-0.2
DVD	**David**	**0.49**	**74**	⇓*i*P	Pg	01 21 36.9	0.0
DVD				*e*S	Sb	01 21 44.2	+0.2
DVD	**David**	**0.49**	**74**	⇓*i*P	Pg	01 21 36.9	+0.1
DVD				*e*S	Sb	01 21 44.3	+0.3
MLIR3	**Monte Lirio, C**	**0.50**	**11**	*e*P	Pb	01 21 37.7	+0.2
MLIR3				*e*S	Sb	01 21 45.2	+0.7
VITO	**San Vito**	**0.52**	**355**	*e*S	Sb	01 21 45.5	+0.5
CLLRA	**Cordillera,**	**0.54**	**35**	⇓*i*P	Pb	01 21 38.2	0.0
CLLRA				*e*S	Sn	01 21 47.4	-1.5
BRU2	**Volcan**	**0.54**	**25**	⇓*i*P	Pb	01 21 38.2	0.0
BRU2				*e*S	Sn	01 21 47.5	-1.4
BRU2	**Volcan**	**0.54**	**25**	⇓*i*P	Pb	01 21 38.2	0.0
BRU2				*e*S	Sb	01 21 47.0	+1.2
SCLRA	**Santa Clara, W**	**0.55**	**15**	*i* P	Pb	01 21 38.4	+0.1
SCLRA				*e*S	Sn	01 21 48.4	-0.6
BGUAL	**Bijagual, Pana**	**0.62**	**70**	⇓*i*P	Pg	01 21 39.1	-0.2
BGUAL				*e*S	Sb	01 21 48.1	+0.2
BQTLY	**Boquete Panama**	**0.65**	**45**	⇓*i*P	Pg	01 21 39.6	-0.2
BQSF3	**Alto Boquete,**	**0.66**	**48**	*e*P	Pg	01 21 39.8	-0.2
BQSF3				*e*S	Sb	01 21 49.8	+0.8
RBALA	**Bur**	**0.96**	**53**	⇓*i*P	Pb	01 21 44.6	-0.6
RBALA				*e*S	Sb	01 21 57.4	-0.1
KKNTU	**Kakintº**	**1.23**	**64**	⇑*i*P	Pn	01 21 48.5	-0.9
KKNTU				*e*S	Sb	01 22 04.6	-0.8

GUC 06 01:24:02.9±0.6**, 30°.37S×71°.54W, h34**^{km}±1^{km}**, ML3.6, 2C, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CO06	**Fray Jorge**	**0.31**	**196**	*e*P	Pb	01 24 10.2	-0.7
CO06				*e*S	Sn	01 24 16.0	0.0
CO06				IAML		01 24 16.8	
	comp=N,5µm,0.1s						
GO04	**Tololo Observa**	**0.67**	**73**	*e*P	Pn	01 24 15.8	-0.3
GO04				*e*S	Sb	01 24 25.4	-0.2
GO04				IAML		01 24 27.3	
	comp=N,4µm,0.3s						
CO03	**El Pedregal**	**0.87**	**123**	⇑*e*P	Pn	01 24 18.6	-0.2
CO03				*e*S	Sn	01 24 30.4	+0.1
CO02	**Combarbal**	**0.95**	**151**	*e*P	Pn	01 24 20.0	0.0
CO02				*e*S	Sb	01 24 33.2	-0.1
CO02				IAML		01 24 35.4	
	comp=E,3µm,0.2s						
CO01	**Juntas del Tor**	**1.31**	**73**	*e*P	Pb	01 24 26.1	-1.0
CO01				*e*S	Sb	01 24 43.3	-0.4
LCO	**Las Campanas**	**1.54**	**28**	*e*P	Pn	01 24 28.8	+0.6
LCO				*e*S	Sb	01 24 49.0	-1.2
CO04	**Los Peladeros**	**1.73**	**164**	*e*P	Pn	01 24 32.1	+1.1
CO04				*e*S	Sb	01 24 54.9	-1.0
CO04				IAML		01 24 58.4	
	comp=E,512nm,0.2s						
AC05	**El Transito**	**1.88**	**36**	*e*P	Pn	01 24 34.4	+1.6
AC05				*e*S	Sb	01 24 59.0	-1.0
AC04	**Llanos de Chal**	**2.20**	**11**	⇑*e*P	Pn	01 24 36.9	-0.2
AC04				*e*S	Sn	01 25 03.6	+0.5
VA03	**San Esteban**	**2.53**	**161**	*e*P	Pn	01 24 43.6	+1.9
VA03				*e*S	Sb	01 25 18.0	-0.4
VA03				IAML		01 25 27.2	
	comp=E,342nm,0.5s						
ROCH	**El Roble**	**2.63**	**170**	*e*P	Pn	01 24 43.9	+0.7
ROCH				*e*P	Pb	01 24 47.4	-2.1
ROCH				*e*S	Sb	01 25 22.5	+1.0
ROCH				IAML		01 25 25.5	
	comp=N,261nm,0.6s						
VA01	**Torpederas**	**2.65**	**182**	*e*P	Pn	01 24 42.9	-0.3
PEL	**Peldehue**	**2.86**	**166**	*e*P	Pn	01 24 48.2	+2.0
PEL				*e*S	Sn	01 25 23.1	+3.6
PEL				IAML		01 25 31.6	
	comp=N,113nm,0.3s						
MT02	**Curacav**	**2.90**	**173**	*e*P	Pn	01 24 48.2	+1.5
MT02				*e*S	Sn	01 25 23.5	+3.1
MT02				IAML		01 25 37.5	
	comp=E,90nm,0.3s						
GO03	**Copiapo**	**2.99**	**23**	*e*P	Pn	01 24 48.9	+0.8
GO03				*e*S	Sn	01 25 26.0	+3.2
GO03				IAML		01 25 39.8	
	comp=N,159nm,0.5s						
MT10	**Hacienda Santa**	**3.02**	**164**	*e*P	Pn	01 24 50.2	+1.8
MT10				*e*S	Sn	01 25 27.0	+3.5
MT10				IAML		01 25 38.0	
	comp=N,290nm,0.4s						
MT05	**Renca**	**3.09**	**168**	*e*P	Pn	01 24 51.6	+2.2
MT05				IAML		01 25 43.0	
	comp=E,187nm,0.3s						
MT14	**Cerro Cal¡n**	**3.13**	**165**	*e*P	Pn	01 24 52.3	+2.3
MT14				*e*S	Sb	01 25 33.1	-2.7
MT14				IAML		01 25 43.3	
	comp=E,302nm,0.5s						
MT16	**CCHEN**	**3.17**	**164**	*e*P	Pn	01 24 52.6	+2.2
MT16				*e*S	Sn	01 25 30.6	+3.5
MT16				IAML		01 25 44.2	
	comp=E,72nm,0.6s						
AC06	**Mina Casimiro**	**3.18**	**19**	*e*P	Pn	01 24 50.6	0.0
AC06				IAML		01 25 40.1	
	comp=E,99nm,0.6s						
MT03	**Universidad Ad**	**3.23**	**165**	*e*P	Pn	01 24 53.3	+1.9
MT03				IAML		01 25 53.7	
	comp=E,190nm,0.5s						
MT04	**Ro Olivares**	**3.25**	**159**	*e*P	Pn	01 24 55.0	+3.2
MT04				*e*S	Sb	01 25 35.2	-4.1
MT04				IAML		01 25 43.9	
	comp=E,111nm,0.2s						
MT08	**Bocatoma Ro**	**3.33**	**158**	*e*P	Pn	01 24 56.9	+4.1
MT08				IAML		01 25 46.8	
	comp=N,145nm,0.8s						
VCA	**Vinchina**	**3.33**	**62**	*e*P	Pb	01 24 57.7	-3.6
MT15	**Las Vizcachas**	**3.33**	**165**	*e*P	Pn	01 24 54.5	+1.7
MT15				*e*S	Sn	01 25 35.1	+3.8
MT09	**Talagante**	**3.43**	**172**	*e*P	Pn	01 24 55.1	+1.0
MT09				*e*S	Sn	01 25 36.1	+2.5
MT09				IAML		01 25 53.9	
	comp=N,90nm,0.4s						
MT12	**Pirque**	**3.46**	**166**	*e*P	Pn	01 24 55.6	+1.2
MT12				*e*S	Sn	01 25 36.8	+2.6
MT12				IAML		01 25 55.1	
	comp=N,180nm,0.6s						
MT01	**Popeta**	**3.49**	**176**	*e*P	Pn	01 24 55.4	+0.6
MT01				*e*S	Sn	01 25 35.1	+0.1
MT01				IAML		01 25 51.6	
	comp=E,64nm,0.7s						
MT13	**San Alfonso**	**3.53**	**163**	*e*P	Pn	01 24 57.6	+2.2
MT13				*e*S	Sn	01 25 39.7	+3.6
MT13				IAML		01 25 53.3	
	comp=E,107nm,0.4s						
LMEL	**Las Melosas**	**3.65**	**162**	*e*P	Pn	01 24 59.1	+2.0
LMEL				*e*S	Sn	01 25 43.5	+4.4
BO04	**La Punta**	**3.69**	**168**	*e*P	Pn	01 24 59.0	+1.4
BO04				*e*S	Sb	01 25 46.6	-5.2
BO01	**Tunca**	**4.03**	**175**	*e*P	Pn	01 25 02.5	+0.3
BO01				*e*S	Sn	01 25 49.6	+1.3
AC02	**Maricunga**	**4.11**	**32**	*e*P	Pn	01 25 05.9	+2.1
AC02				*e*S	Sn	01 25 57.3	+6.4
CYA	**Choya**	**5.36**	**70**	*e*P	Pn	01 25 22.6	+2.0
TCA	**Tanti**	**6.04**	**101**	*e*P	Pn	01 25 32.0	+2.0
TCA				*e*S	Sn	01 26 37.8	-0.4

SJA ***06*** *01:26:28.4±1.7, 30°.33S×71°.63W, h10^{km}±16^{km}, ML3.7, MW3.2*

GUC ***06*** *01:26:32.5±0.6, 30°.36S×71°.42W, h38^{km}±4^{km}, ML3.7*

ISC 06 01:26:28.5±1.5**, 30°.35S**±0°.02×**71°.66W**±0°.05**, h4**^{km}±10^{km}**, n56, σ1ˢ.86**/92**, 1D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CO06	**Fray Jorge**	**0.33**	**176**	*e*P	**Pg**	**01 26 37.7**	**+3.0**
CO06				*e*S	**Sb**	**01 26 43.0**	**+0.5**
CO06				IAML		01 26 43.8	
	comp=E,6µm,0.3s						
GO04	**Tololo Observa**	**0.77**	**77**	*i* P	**Pg**	**01 26 44.1**	**+0.9**
GO04				*e*S	**Sg**	**01 26 54.2**	**+1.1**
GO04				IAML		01 26 54.8	
	comp=Z,3µm,0.2s						
GO04	**Tololo Observa**	**0.77**	**77**	⇓*i*P	**Pg**	**01 26 43.9**	**+0.7**
GO04				*e*S	**Sg**	**01 26 52.9**	**-0.2**
GO04				IAML		01 26 57.4	
	comp=N,7µm,0.3s						
CO03	**El Pedregal**	**0.97**	**120**	*e*P	**Pg**	**01 26 46.3**	**-0.7**
CO03				*e*S	**Sg**	**01 26 57.9**	**-1.8**
CO02	**Combarbal**	**1.02**	**146**	*i* P	**Pg**	**01 26 48.0**	**-0.1**
CO02				*e*S	**Sg**	**01 27 01.3**	**-0.1**
CO02				IAML		01 27 01.5	
	comp=Z,2µm,0.5s						
CO02	**Combarbal**	**1.02**	**146**	*e*P	**Pg**	**01 26 47.8**	**-0.4**
CO02				*e*S	**Sg**	**01 27 00.7**	**-0.7**
CO02				IAML		01 27 02.8	
	comp=N,7µm,0.2s						
CO01	**Juntas del Tor**	**1.41**	**75**	*i* P	**Pn**	**01 26 54.5**	**-0.7**
CO01				*e*S	**Sn**	**01 27 14.4**	**+0.1**
CO01				IAML		01 27 17.4	
	comp=Z,298nm,2.2s						
CO01	**Juntas del Tor**	**1.41**	**75**	*e*P	**Pn**	**01 26 54.0**	**-1.1**
CO01				*e*S	**Sb**	**01 27 11.4**	**-2.4**
LCO	**Las Campanas**	**1.57**	**32**	*i* P	**Pn**	**01 26 57.4**	**-0.1**
LCO				*e*S	**Sn**	**01 27 18.5**	**+0.1**
LCO				IAML		01 27 19.4	
	comp=Z,1µm,3.0s						
LCO	**Las Campanas**	**1.57**	**32**	*e*P	**Pn**	**01 26 57.1**	**-0.3**
LCO				*e*S	**Sn**	**01 27 18.0**	**-0.5**
LCO				IAML		01 27 20.4	
	comp=Z,3µm,0.3s						
CO04	**Los Peladeros**	**1.79**	**161**	*e*P	**Pn**	**01 26 59.6**	**-0.9**
CO04				*e*S	**Sn**	**01 27 22.6**	**-1.1**
CO04				IAML		01 27 26.6	
	comp=E,2µm,0.1s						
AROD	**Rodeo**	**1.90**	**85**	*i* P	**Pn**	**01 27 03.1**	**+1.1**
AC05	**El Transito**	**1.93**	**39**	*i* P	**Pn**	**01 27 03.2**	**+0.9**
AC05				IAML		01 27 55.4	
	comp=Z,220nm,3.4s						
AC05	**El Transito**	**1.93**	**39**	*e*P	**Pn**	**01 27 02.9**	**+0.6**
AC05				*e*S	**Sn**	**01 27 27.7**	**+0.6**
AC05				IAML		01 27 29.5	
	comp=N,562nm,0.5s						
AC04	**Llanos de Chal**	**2.20**	**14**	*e*P	**Pn**	**01 27 05.0**	**-0.8**
AC04				*e*S	**Sn**	**01 27 31.2**	**-2.3**
ACCO	**Cerro Coronel**	**2.25**	**97**	*i* P	**Pn**	**01 27 08.8**	**+1.9**
ACCO				IAML		01 27 55.8	
	comp=Z,207nm,3.3s						
RTLS	**Leoncito**	**2.49**	**126**	*i* P	**Pn**	**01 27 11.9**	**+1.8**
RTLS				IAML		01 27 56.6	
	comp=Z,507nm,3.0s						
VA03	**San Esteban**	**2.59**	**159**	*i* P	**Pn**	**01 27 12.1**	**+0.8**
VA03				IAML		01 27 49.8	
	comp=Z,198nm,1.1s						
VA03	**San Esteban**	**2.59**	**159**	*e*P	**Pn**	**01 27 11.6**	**+0.3**
VA03				*e*S	**Sn**	**01 27 43.1**	**-0.1**
VA03				IAML		01 27 52.9	
	comp=E,491nm,0.4s						
VA01	**Torpederas**	**2.67**	**180**	*e*P	**Pn**	**01 27 14.8**	**+2.5**
VA01				*e*S	**Sb**	**01 27 51.4**	**+1.5**
VA01				IAML		01 27 52.8	
	comp=E,156nm,0.7s						
ROCH	**El Roble**	**2.67**	**168**	*e*P	**Pn**	**01 27 14.1**	**+1.5**
ROCH				*e*P	**Pb**	**01 27 14.6**	**-2.4**
ROCH				*e*S	**Sn**	**01 27 48.5**	**+2.9**
ROCH				*e*S	**Sn**	**01 27 48.5**	**+2.9**
ROCH				IAML		01 27 51.2	
	comp=N,434nm,0.3s						
ZON	**Zonda**	**2.83**	**116**	*i* P	**Pn**	**01 27 16.3**	**+1.8**
ZON				IAML		01 28 37.5	
	comp=Z,300nm,3.6s						
PEL	**Peldehue**	**2.91**	**164**	*e*P	**Pn**	**01 27 17.0**	**+1.3**
PEL				*e*S	**Sn**	**01 27 54.6**	**+3.5**
PEL				IAML		01 28 03.7	
	comp=N,168nm,0.2s						
RTLL	**Cerro Villicun**	**2.91**	**110**	*i* P	**Pn**	**01 27 17.2**	**+1.6**
RTLL				IAML		01 27 55.6	
	comp=Z,215nm,3.5s						
MT02	**Curacav**	**2.94**	**171**	*i* P	**Pn**	**01 27 17.2**	**+1.2**
MT02				IAML		01 27 58.6	
	comp=Z,161nm,1.5s						
MT02	**Curacav**	**2.94**	**171**	*e*P	**Pn**	**01 27 17.5**	**+1.5**
MT02				IAML		01 28 02.9	
	comp=E,138nm,0.5s						
GO03	**Copiapo**	**3.02**	**25**	*e*P	**Pn**	**01 27 18.3**	**+1.2**
GO03				*e*S	**Sn**	**01 27 56.1**	**+2.3**
GO03				IAML		01 28 04.6	
	comp=N,130nm,0.5s						
MT10	**Hacienda Santa**	**3.07**	**162**	*e*P	**Pn**	**01 27 18.9**	**+1.0**
MT10				*e*S	**Sn**	**01 27 54.5**	**-0.7**
MT05	**Renca**	**3.13**	**166**	*i* P	**Pn**	**01 27 21.4**	**+2.6**
MT05				IAML		01 28 09.8	
	comp=Z,168nm,0.7s						
MT05	**Renca**	**3.13**	**166**	*e*P	**Pn**	**01 27 20.6**	**+1.8**
MT05				*e*S	**Sb**	**01 28 02.1**	**-1.4**
MT05				IAML		01 28 11.0	
	comp=E,404nm,0.4s						
MT14	**Cerro Cal¡n**	**3.19**	**163**	*e*P	**Pn**	**01 27 21.4**	**+1.9**
MT14				*e*S	**Sn**	**01 27 57.8**	**-0.1**
MT14				IAML		01 28 14.5	
	comp=E,277nm,0.3s						
AC06	**Mina Casimiro**	**3.19**	**21**	*e*P	**Pn**	**01 27 21.8**	**+2.2**
AC06				*e*S	**Sn**	**01 28 01.2**	**+3.1**
AC06				IAML		01 28 14.8	
	comp=E,105nm,0.3s						
CFA	**Coronel Fontan**	**3.19**	**114**	*i* P	**Pn**	**01 27 21.1**	**+1.5**
CFA				IAML		01 28 19.2	
	comp=Z,189nm,3.6s						
MT16	**CCHEN**	**3.22**	**163**	*e*P	**Pn**	**01 27 22.8**	**+2.9**
MT16				*e*S	**Sn**	**01 27 57.5**	**-1.3**
MT16				IAML		01 28 10.7	
	comp=N,122nm,0.6s						
MT03	**Universidad Ad**	**3.28**	**163**	*i* P	**Pn**	**01 27 22.4**	**+1.5**
MT03				IAML		01 28 11.5	
	comp=Z,287nm,1.6s						
MT03	**Universidad Ad**	**3.28**	**163**	*e*P	**Pn**	**01 27 22.3**	**+1.5**
MT03				IAML		01 28 10.5	
	comp=E,300nm,0.4s						
MT04	**Ro Olivares**	**3.31**	**157**	*i* P	**Pn**	**01 27 23.9**	**+2.5**
MT04				IAML		01 28 10.3	
	comp=Z,174nm,2.9s						
MT04	**Ro Olivares**	**3.31**	**157**	*e*P	**Pn**	**01 27 22.9**	**+1.5**
MT04				*e*S	**Sn**	**01 28 03.5**	**+2.2**
MT04				IAML		01 28 14.7	
	comp=E,137nm,0.7s						
MT15	**Las Vizcachas**	**3.39**	**163**	*e*P	**Pn**	**01 27 22.4**	**+0.2**
MT15				*e*S	**Sn**	**01 28 06.8**	**+3.9**
MT08	**Bocatoma Ro**	**3.39**	**156**	*i* P	**Pn**	**01 27 26.2**	**+3.8**
MT08				IAML		01 28 15.4	
	comp=Z,129nm,1.1s						
MT08	**Bocatoma Ro**	**3.39**	**156**	*e*P	**Pn**	**01 27 25.4**	**+3.0**
MT08				*e*S	**Sn**	**01 28 04.6**	**+1.4**
MT08				IAML		01 28 14.3	
	comp=N,131nm,0.5s						
ARCO	**CERRO ARCO**	**3.41**	**138**	*i* P	**Pn**	**01 27 25.5**	**+2.9**
ARCO				IAML		01 28 41.5	
	comp=Z,288nm,2.9s						
VCA	**Vinchina**	**3.41**	**63**	*e*P	**Pn**	**01 27 25.7**	**+3.0**
VCA				*e*S	**Sn**	**01 28 07.8**	**+4.1**
MT09	**Talagante**	**3.46**	**171**	*e*P	**Pn**	**01 27 22.7**	**-0.7**
MT09				*e*S	**Sn**	**01 28 02.0**	**-3.0**
MT09				IAML		01 28 21.0	
	comp=N,164nm,0.7s						
MT12	**Pirque**	**3.50**	**165**	*e*P	**Pn**	**01 27 25.2**	**+1.4**
MT12				*e*S	**Sn**	**01 28 04.0**	**-1.8**
MT01	**Popeta**	**3.52**	**174**	*e*P	**Pn**	**01 27 22.7**	**-1.4**
MT01				*e*S	**Sb**	**01 28 12.0**	**-2.5**
MT01				IAML		01 28 18.9	
	comp=E,137nm,0.5s						
MT13	**San Alfonso**	**3.58**	**161**	*i* P	**Pn**	**01 27 27.2**	**+2.3**
MT13				IAML		01 28 26.0	
	comp=Z,175nm,2.3s						
MT13	**San Alfonso**	**3.58**	**161**	*e*P	**Pn**	**01 27 26.4**	**+1.5**
MT13				*e*S	**Sn**	**01 28 07.3**	**-0.5**
MT13				IAML		01 28 19.5	
	comp=E,153nm,0.4s						
LMEL	**Las Melosas**	**3.70**	**161**	*e*P	**Pn**	**01 27 28.2**	**+1.6**
LMEL				*e*S	**Sn**	**01 28 10.3**	**-0.5**
BO04	**La Punta**	**3.74**	**166**	*e*P	**Pn**	**01 27 27.7**	**+0.7**
BO04				*e*S	**Sn**	**01 28 08.9**	**-2.6**
AC02	**Maricunga**	**4.15**	**33**	*e*P	**Pn**	**01 27 35.4**	**+2.3**
AC02				*e*S	**Sn**	**01 28 25.1**	**+2.7**
ACLC	**CERRO LA CRUZ**	**4.19**	**78**	*i* P	**Pn**	**01 27 34.9**	**+1.5**
ACLC				IAML		01 28 39.6	
	comp=Z,138nm,2.8s						
ACAN	**Cantantal**	**4.28**	**118**	*i* P	**Pn**	**01 27 35.7**	**+1.2**
ACAN				IAML		01 29 03.1	
	comp=Z,1µm,2.8s						
AC01	**Pan de Azucar**	**4.29**	**13**	*e*P	**Pn**	**01 27 33.0**	**-1.6**
CYA	**Choya**	**5.45**	**71**	*e*P	**Pn**	**01 27 50.6**	**0.0**
TCA	**Tanti**	**6.16**	**101**	*e*P	**Pn**	**01 28 00.7**	**+0.4**

PAS ***06*** *01:48:36.5±2.9, 34°.56N±0°.05×120°.06W±0°.05, h13^{km}±7^{km}, Error ellipse: s-maj=9.6km s-min=1.6km az=218.0*

NEIC 06 01:48:30.6±1.7**, 34°.28N**±0°.03×**120°.36W**±0°.03**, h10**^{km}±2^{km}**, ML3.7**/152**, ML3.9**/92(PAS)**, Error ellipse: s-maj=6.4km s-min=3.1km az=48.0, Southern California**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NJQ	**Nojoqui County**	**0.30**	**30**		Pn	01 48 39.7	-1.4
SYP	**Santa Ynez Pea**	**0.40**	**51**		Pg	01 48 39.2	+0.5
SYP					Sg	01 48 41.4	-2.6
FIGC	**Figueroa Mtn.**	**0.55**	**34**		Pg	01 48 40.4	-0.9
FIGC					Sg	01 48 44.0	-4.5
SBC	**Santa Barbara**	**0.56**	**72**		Pb	01 48 42.8	+0.3
SBC					Sg	01 48 47.9	-1.0
PKM	**Mcpherson Peak**	**0.76**	**36**		Pg	01 48 43.9	-1.5
PKM					Sg	01 48 49.6	-5.7
BCD	**Casitas Dam**	**0.84**	**83**		Pn	01 48 48.4	-0.2
BCD					Sg	01 48 58.2	+0.3
STCC	**Santa Clara**	**0.97**	**88**		Pn	01 48 51.5	+1.2
STCC					Sn	01 49 03.5	-0.7
DCD	**Diablo Creek**	**1.02**	**337**		Pn	01 48 52.8	+1.8
DCD					Sn	01 49 07.1	+1.8

DPD	Davis Peak	1.02	340		Pn	01 48 52.8	+1.8
BCW	Bitter Crk WRg	1.02	49		Pg	01 48 48.9	-1.5
BCW					Sg	01 48 58.5	-5.2
SMMC	Simmler	1.08	16		Pg	01 48 50.3	-1.1
EFD	Emergency Oper	1.09	344		Pn	01 48 52.8	+0.8
CRGC	Crocker Grade	1.10	28		Pg	01 48 50.2	-1.6
MPI	Mount Pinos, F	1.14	61		Sg	01 49 02.0	-5.3
LOK	Lockwood Valle	1.14	66		Pb	01 48 51.3	-1.3
YEG	Yeguas Mountai	1.21	16		Pb	01 48 52.8	-0.9
SBI	Santa Barbara	1.36	125		Pg	01 48 59.9	+3.1
OSI	Osito Audit: C	1.39	75		Pn	01 48 55.7	-0.5
OSI				IAML		01 49 17.3	
	comp=N,2µm,0.6s						
OSI				IAML		01 49 21.5	
	comp=E,1µm,0.6s						
TEJ	El Tejon	1.67	55		Pn	01 48 58.3	-1.8
PKD	Bear Valley Ra	1.67	355		Pn	01 48 60.0	-0.1
PKD				IAML		01 49 27.5	
	comp=E,1µm,0.9s						
PKD				IAML		01 49 37.5	
	comp=N,988nm,0.9s						
PASC	Pasadena Art C	1.80	93		Pn	01 49 02.7	+0.8
PASC				IAML		01 49 24.3	
	comp=E,1µm,0.6s						
PASC				IAML		01 49 26.8	
	comp=N,453nm,0.6s						
TPO	Tropico Hills	1.86	70	IAML		01 49 26.6	
	comp=E,1µm,0.8s						
TPO				IAML		01 49 31.3	
	comp=N,840nm,0.6s						
VES	Vestal, Richgr	1.88	33		Pn	01 49 01.3	-1.5
VES				IAML		01 49 23.6	
	comp=N,628nm,0.5s						
VES				IAML		01 49 30.7	
	comp=E,654nm,0.7s						
HULI	Fort Hunter Li	1.89	338		Pb	01 49 04.6	-0.6
HULI				IAML		01 49 43.4	
	comp=N,1µm,1.2s						
MWC	Mount Wilson	1.91	91		Pn	01 49 04.3	+0.9
MWC				IAML		01 49 27.8	
	comp=N,1µm,0.3s						
MWC				IAML		01 49 32.2	
	comp=E,1µm,0.5s						
PMPB	Monarch Peak	1.97	350		Pn	01 49 04.7	+0.5
ISA	Isabella, Lake	2.08	48		Pn	01 49 04.5	-1.2
ISA				IAML		01 49 30.4	
	comp=N,479nm,0.5s						
ISA				IAML		01 49 30.8	
	comp=E,444nm,0.3s						
VOG	Valley Oaks Go	2.19	21		Pn	01 49 06.7	-0.4
BFSC	Mount Baldy Ra	2.24	90		Pn	01 49 08.8	+0.9
BFSC				IAML		01 49 40.5	
	comp=N,492nm,0.5s						
BFSC				IAML		01 49 46.3	
	comp=E,447nm,0.6s						
BSGM	Shirttail Gulc	2.26	341		Pn	01 49 09.0	+1.0
BBGB	Big Mountain B	2.37	347		Pn	01 49 11.0	+1.4
LRMC	Laurel Mtn Rad	2.51	61		Pn	01 49 10.7	-0.9
LRMC				IAML		01 49 45.4	
	comp=E,210nm,0.4s						
LRMC				IAML		01 49 50.1	
	comp=N,243nm,1.0s						
ELS	Elsinore Mount	2.52	104		Pn	01 49 12.8	+1.1
SAO	San Andreas Ge	2.64	341		Pn	01 49 14.2	+0.9
CLC	China Lake	2.74	55		Pn	01 49 13.7	-1.0
CCCA	Chr Cany lake	2.76	62		Pn	01 49 14.0	-1.0
CCCA				IAML		01 49 58.7	
	comp=E,339nm,0.9s						
CWC	Cottonwood Cre	2.85	40		Pn	01 49 16.5	+0.1
CWC				IAML		01 49 52.2	
	comp=N,441nm,0.7s						
MPMC	Manual Prospec	2.95	52		Pn	01 49 17.0	-0.7
MPMC				IAML		01 50 03.3	
	comp=N,175nm,0.8s						
MPMC				IAML		01 50 11.8	
	comp=E,134nm,0.9s						
GSC	Goldstone, Bar	3.10	70	IAML		01 50 15.3	
	comp=N,159nm,0.8s						
DPP	Dos Picos Cty	3.12	113	IAML		01 49 59.4	
	comp=E,105nm,0.3s						
QSM	Queen of Sheba	3.32	58	IAML		01 50 11.0	
	comp=E,139nm,0.7s						
QSM				IAML		01 50 27.5	
	comp=N,128nm,0.9s						
JRSC	Jasper Ridge	3.48	334	IAML		01 50 08.1	
	comp=E,102nm,0.8s						
JRSC				IAML		01 50 39.7	
	comp=N,81nm,1.1s						
MDPB	Devils Postpil	3.51	17	IAML		01 50 06.6	
	comp=N,195nm,0.5s						
GWY	Greenwater Val	3.57	57	IAML		01 50 39.2	
	comp=E,96nm,1.1s						
GWY				IAML		01 50 44.4	
	comp=N,88nm,0.9s						
FURC	Furnace Creek,	3.60	52	IAML		01 50 28.2	
	comp=N,192nm,0.9s						
FURC				IAML		01 50 33.6	
	comp=E,216nm,1.0s						
BELC	Belle Mtn. Jos	3.63	93	IAML		01 50 33.1	
	comp=E,157nm,0.8s						
BELC				IAML		01 50 41.3	
	comp=N,144nm,0.8s						
DSP	Deep Springs	3.65	31	IAML		01 50 19.6	
	comp=N,90nm,0.7s						
DSP				IAML		01 50 34.4	
	comp=E,81nm,1.0s						
CBX	Cerro Bola	3.66	121	IAML		01 50 34.4	
	comp=E,209nm,0.8s						
CBX				IAML		01 50 34.8	
	comp=N,140nm,0.8s						
WCT	Wildcat Mounta	3.95	49	IAML		01 50 29.9	
	comp=E,70nm,1.1s						
BC3	Big Chuckawall	4.12	97	IAML		01 51 01.2	
	comp=N,59nm,1.8s						
LHV	Little Huntoon	4.24	20	IAML		01 50 40.5	
	comp=E,86nm,0.8s						
LHV				IAML		01 50 42.4	
	comp=N,85nm,0.9s						
TPNV	Topopah Spring	4.28	50	IAML		01 50 40.3	
	comp=N,57nm,1.1s						
TPNV				IAML		01 50 56.8	
	comp=N,56nm,1.4s						
WAKR	Walker	4.29	10	IAML		01 50 50.4	
	comp=N,91nm,1.0s						
WAKR				IAML		01 50 54.3	
	comp=E,82nm,1.2s						
IRM	Iron Mountain	4.32	90	IAML		01 50 54.4	
	comp=N,47nm,1.1s						
ESJX	Sierra Juarez	4.34	120	IAML		01 50 49.3	
	comp=N,122nm,0.1s						
TPH	Tonopah	4.56	33	IAML		01 50 49.0	
	comp=E,47nm,1.1s						
TPH				IAML		01 50 51.8	
	comp=N,39nm,1.1s						
RYN	Ryan	4.59	18	IAML		01 51 17.0	
	comp=N,34nm,1.1s						
YERR	Yerington	4.79	11	IAML		01 50 53.3	
	comp=E,79nm,0.6s						
YERR				IAML		01 50 59.0	
	comp=N,46nm,1.1s						
BLYC	Blythe	4.87	95	IAML		01 51 24.2	
	comp=E,35nm,1.2s						
BLYC				IAML		01 51 27.5	
	comp=N,38nm,1.0s						
SUTB	Sutter Butte	5.08	347	IAML		01 51 02.6	
	comp=N,59nm,0.6s						
SUTB				IAML		01 51 19.1	
	comp=E,61nm,0.6s						
PRN	Pahroc Range	5.33	53	IAML		01 51 30.1	
	comp=E,41nm,1.0s						
PRN				IAML		01 51 35.3	
	comp=N,43nm,1.2s						
W13A	Hualapai Mount	5.40	79	IAML		01 51 32.9	
	comp=N,25nm,1.2s						

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*IDC **06** 01:59:11.9±0.6, 31°.53N×93°.32E, h0^{km}, mb4.2/20, mbtmp4.2/25, ML4.0/4, Error ellipse: s-maj=19.8km s-min=13.3km az=50.0*

*GFZ **06** 01:59:15.4±0.3, 32°N±3°×9°4E±°, h10^{km}, M4.4/23, mb4.4/23*

*NEIC **06** 01:59:16.9±1.6, 31°.65N±0°.08×93°.41E±0°.08, h27^{km}±4^{km}, mb4.4/45, Error ellipse: s-maj=11.8km s-min=10.1km az=153.0*

*BJI **06** 01:59:16.0, 31°.61N×93°.40E, h30^{km}, mb4.5/29, ML3.9/2, Ms3.9/1, Ms7 3.9/1*

*NDI **06** 01:59:16.6±0.6, 31°.68N×93°.49E, h26^{km}, ML4.3, MW4.0, mb4.4(NEIC), Presumed earthquake*

*MOS **06** 01:59:18.1±1.4, 31°.52N×93°.36E, h30^{km}, mb5.0/30, Error ellipse: s-maj=8.2km s-min=3.9km az=122.1*

*BGR **06** 01:59:20.8, 31°.75N×92°.96E, h33^{km}, mb4.5*

ISC 06 01:59:14.1±0.4**, 31°.52N**±0°.04×**93°.32E**±0°.05**, h10^{km}, n273,** σ1^{s}.75/272**, mb4.5**/97**, 6C-11D, Xizang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LSA	Lhasa	2.60	226	P	Pn	02 00 02.5	+5.7
LSA	Lhasa	2.60	226		Pn	02 00 02.5	+5.7
LSA	Lhasa	2.60	226	P	Pb	02 00 02.8	+1.6
GOMU	GeErMu	4.83	15	Pn	Pn	02 00 27.0	-0.3
GOMU				Sn	Sn	02 01 27.9	+4.5
TEZP	TEZPUR	4.91	185	eP	Pn	02 00 31.1	+3.2
TEZP				eS	Sn	02 01 24.8	-0.1
TEZP				IAML		02 02 01.9	
	comp=E,687nm,0.2s						
TEZP				IAML		02 02 45.6	
	comp=N,577nm,0.3s						
TEZP	TEZPUR	4.91	185	eP	Pn	02 00 30.8	+2.8
TEZP				eS	Sn	02 01 24.7	-0.1
TEZP				i S	Sn	02 01 24.7	-0.1
TEZP				IAML		02 01 55.0	
	comp=E,1µm,0.3s						
TEZP				IAML		02 01 55.6	
	comp=N,1µm,0.2s						
MOKO	MOKOCHONG	5.29	168	eP	Pn	02 00 35.1	+1.8
MOKO				eS	Sn	02 01 32.9	-1.5
MOKO				IAML		02 01 52.2	
	comp=N,512nm,0.3s						
MOKO				IAML		02 02 31.6	
	comp=E,524nm,1.4s						
MOKO	MOKOCHONG	5.29	168	eP	Pn	02 00 34.8	+1.5
MOKO				eS	Sn	02 01 33.1	-1.3
MOKO				IAML		02 01 43.5	
	comp=E,1µm,1.0s						
MOKO				IAML		02 01 52.1	
	comp=N,1µm,0.1s						
KOHI	KOHIMA	5.82	173	eP	Pn	02 00 43.1	+2.4
KOHI				eS	Sn	02 01 46.1	-1.4
KOHI				IAML		02 02 38.7	
	comp=E,277nm,1.4s						
KOHI				IAML		02 02 47.4	
	comp=N,379nm,0.7s						
KOHI	KOHIMA	5.82	173	eP	Pn	02 00 42.6	+1.9
KOHI				eS	Sn	02 01 45.9	-1.7
SHL	Shillong	6.06	192	P	Pn	02 00 46.2	+2.2
SHL	Shillong	6.06	192		Pn	02 00 46.2	+2.2
SHL	Shillong	6.06	192	eP	Pn	02 00 46.3	+2.2
SHL				IAML		02 01 53.2	
	comp=N,288nm,0.1s						
SHL				IAML		02 01 53.6	
	comp=E,282nm,0.1s						
SHL	Shillong	6.06	192	eP	Pn	02 00 45.9	+1.9
SHL				IAML		02 02 01.4	
	comp=N,15nm,0.1s						
SHL				IAML		02 02 01.7	
	comp=E,20nm,0.1s						
EVN	Everest	6.67	240		Pn	02 00 55.3	+2.5
EVN	Everest	6.67	240	P	Pn	02 00 55.8	+2.9
	comp=Z,26nm,0.8s						
MORE	Moreh	7.31	173	Pn	Pn	02 01 02.8	+1.8
AZL	Aizawl	7.77	184	eP	Pn	02 01 09.8	+2.3
AZL				eS	Sn	02 02 32.3	-3.3
AZL				IAML		02 02 33.7	
	comp=N,471nm,0.1s						
AZL				IAML		02 02 50.2	
	comp=E,450nm,0.2s						
AZL	Aizawl	7.77	184	eP	Pn	02 01 09.8	+2.3
AZL				eS	Sn	02 02 32.5	-3.1
AZL				IAML		02 02 42.9	
	comp=E,337nm,0.5s						
AZL				IAML		02 02 43.8	
	comp=N,649nm,1.0s						
SAIH	SAIHA	9.00	182	eP	Pn	02 01 26.5	+2.1
SAIH				eS	Sn	02 03 01.6	-4.3
SAIH				IAML		02 03 05.1	
	comp=N,217nm,0.1s						
LZDM	Lanzhou Array	9.71	60	Pn	Pn	02 01 33.0	-1.1
	baz=257,slow=13						
	comp=N,7.9nm,0.4s						
LZH	Lanzhou	9.87	60	eP	Pn	02 01 33.1	-3.2
LZH				pmax	pmax		
	comp=N,40nm,1.7s						
KMI2	Kunming	10.45	125	P	Pn	02 01 45.3	+1.0
KMI2				pmax	pmax		
	comp=N,10.0nm,0.9s						
WMQ	Urumqi	13.06	342	eP	Pn	02 02 20.9	+1.2
WMQ				pmax	pmax		
	comp=N,24nm,0.9s						
CMAR	Chiang Mai Arr	13.96	157	Pn	Pn	02 02 32.3	+0.1
	comp=N,1.0nm,0.3s,baz=334,slow=12,SNR=16						
CMAR	Chiang Mai Arr	13.96	157	i P	Pn	02 02 32.7	+0.5
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
WUS	Wushi	14.89	314		Pn	02 02 43.9	-1.0
WUS	Wushi	14.89	314	P	Pn	02 02 48.5	+3.7
	comp=Z,20nm,1.3s						
SHLS	Shalkode	15.98	320	eP	Pn	02 02 59.4	+0.2
SHLS				eS	Sn	02 05 54.2	-2.3
SHLS	Shalkode	15.98	320	eP	Pn	02 02 59.5	+0.2
SHLS				eS	Sn	02 05 54.3	-2.3
TARG	Taragay, Kyrgy	16.07	314	P	Pn	02 03 01.2	+0.6
TARG				pmax	pmax		
	comp=Z,15nm,1.1s						
TARG	Taragay, Kyrgy	16.07	314		Pn	02 03 01.1	+0.6
TARG				IAmb	IAmb	02 03 20.7	
	comp=Z,15nm,1.1s						
TARG	Taragay, Kyrgy	16.07	314	P	Pn	02 03 02.9	+2.4
	comp=Z,13nm,1.2s						
PDGK	Podgornoye	16.09	321	P	Pn	02 02 58.9	-1.6
PDGK	Podgornoye	16.09	321		Pn	02 02 58.9	-1.6
PRZ	Przheval'sk	16.15	317	P	Pn	02 03 06.5	+5.1
PRZ	Przheval'sk	16.15	317	P	Pn	02 03 06.5	+5.1
	comp=Z,37nm,1.6s						
UZB	Uzynbulak	16.22	320	eP	Pn	02 03 05.5	+3.3
UZB	Uzynbulak	16.22	320	eP	Pn	02 03 05.6	+3.3
KSH2	Kashi	16.35	303	P	Pn	02 03 06.3	+2.4
KSH2				pmax	pmax		
	comp=Z,6.0nm,0.8s						
ASAI	AK-SAY(Kyrgyzs	16.46	309	P	Pn	02 03 09.0	+3.5
	comp=Z,6.3nm,1.9s						
KPKS	Kokpek	16.61	320	eP	Pn	02 03 10.3	+3.1
KPKS	Kokpek	16.61	320	eP	Pn	02 03 10.3	+3.1
NIL	Nilore	17.05	282	P	Pn	02 03 13.0	+0.3
NIL				pmax	pmax		
	comp=Z,36nm,1.3s						
NIL	Nilore	17.05	282		Pn	02 03 13.0	+0.3
NIL				IAmb	IAmb	02 03 19.2	
	comp=Z,36nm,1.2s						
NIL	Nilore	17.05	282	P	Pn	02 03 14.5	+1.9
	comp=Z,24nm,1.1s						
NRN	Naryn	17.06	310	P	Pn	02 03 14.2	+1.1
NRN				pmax	pmax		
	comp=Z,10.0nm,1.2s						
NRN	Naryn	17.06	310	P	Pn	02 03 14.2	+1.1
ZSN	Zaisan	17.18	340	eP	Pn	02 03 17.8	+3.6
ZSN	Zaisan	17.18	340	eP	Pn	02 03 17.8	+3.6
TNSS	Tian-Shan	17.34	316	eP	Pn	02 03 19.7	+3.1
TNSS	Tian-Shan	17.34	316	eP	Pn	02 03 19.7	+3.1
MDOK	Medeo	17.36	317	eP	Pn	02 03 19.9	+3.3
MDOK	Medeo	17.36	317	eP	Pn	02 03 19.9	+3.3
HHC	Hu-ho-hao-te	17.40	53	eP	Pn	02 03 16.8	-0.3
HHC				pmax	pmax		
	comp=Z,12nm,0.6s						
MK31	Makanchi Array	17.46	334	deP	Pn	02 03 17.7	0.0
MKAR	Makanchi Array	17.46	334	P	Pn	02 03 18.4	+0.7
	comp=Z,0.2nm,0.3s,baz=142,slow=13,SNR=12						
MKAR				PcP	PcP	02 07 57.8	-0.6
	comp=Z,0.5nm,0.6s,baz=179,slow=2.2,SNR=4.9						
	comp=Z,1.7nm,0.7s						
MKAR				AML	AML		
MKAR	Makanchi Array	17.46	334	i P	Pn	02 03 18.8	+1.1
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
MKAR	Makanchi Array	17.46	334	P	Pn	02 03 17.5	-0.2
AAA	Alma-Ata	17.46	317	eP	Pn	02 03 21.2	+3.4
AAA	Alma-Ata	17.46	317	eP	Pn	02 03 21.2	+3.4
MAKZ	Makanchi	17.59	333	P	Pn	02 03 17.6	-1.7
MAKZ				pmax	pmax		
	comp=Z,10.0nm,1.3s						
MAKZ	Makanchi	17.59	333	P	Pn	02 03 17.6	-1.7
MAKZ	Makanchi	17.59	333	P	Pn	02 03 19.5	+0.1
	comp=Z,5.2nm,1.1s						
BOOM	Boomskoye usch	17.64	313	P	Pn	02 03 19.6	-0.6
BOOM				pmax	pmax		
	comp=Z,6.0nm,0.8s						
BOOM	Boomskoye usch	17.64	313	Pn	Pn	02 03 19.6	-0.6
BOOM	Boomskoye usch	17.64	313	P	Pn	02 03 23.1	+2.9
	comp=Z,8.3nm,0.9s						
TDK	Taldyqorghan	17.80	323	eP	Pn	02 03 25.5	+3.6
TDK	Taldyqorghan	17.80	323	eP	Pn	02 03 25.5	+3.6
HNS	HongShan	18.57	66	⇑P	P	02 03 28.7	-2.5
HNS				pmax	pmax		
	comp=Z,13nm,0.9s						
AAK	Ala-Archa	18.63	312	P	P	02 03 32.9	+0.9
	comp=Z,0.4nm,0.3s,baz=136,slow=12,SNR=11						
	comp=Z,6.4nm,0.9s						
AAK				AML	AML		
AAK	Ala-Archa	18.63	312	⇓eP	P	02 03 33.2	+1.2
AAK				pmax	pmax		
	comp=Z,13nm,1.1s						
AAK	Ala-Archa	18.63	312		P	02 03 32.8	+0.8
AAK	Ala-Archa	18.63	312	P	P	02 03 33.4	+1.4
	comp=Z,15nm,1.6s						
SGDS	Sogindy	18.97	314	eP	P	02 03 39.2	+3.5
ARSB	Arslanbob	19.03	307	P	P	02 03 36.1	-0.3
ARSB				pmax	pmax		
	comp=Z,12nm,1.3s						
ARSB	Arslanbob	19.03	307	P	P	02 03 36.1	-0.3
SONM	Songino Array	19.11	28	P	P	02 03 36.3	-0.9
	comp=Z,0.4nm,0.3s,baz=216,slow=11,SNR=17						
	comp=Z,4.7nm,0.7s						
SONM				AML	AML		
SONM	Songino Array	19.11	28	P	P	02 03 36.0	-1.1
ULN	Ulaanbaatar	19.40	29	deP	P	02 03 40.7	+0.3
ULN				pmax	pmax		
	comp=Z,6.0nm,0.9s						
ULN	Ulaanbaatar	19.40	29	P	P	02 03 39.2	-1.2
ULN	Ulaanbaatar	19.40	29	P	P	02 03 40.6	+0.2
	comp=Z,8.1nm,0.9s						
ARK	Arkit	19.92	307	P	P	02 03 50.3	+4.2
	comp=Z,5.0nm,0.9s						
BTK	Batken	20.10	301	P	P	02 03 48.5	+0.4
BTK				pmax	pmax		
	comp=Z,26nm,1.4s						
BTK	Batken	20.10	301	P	P	02 03 48.5	+0.4
BTK				IAmb	IAmb	02 03 54.6	
	comp=Z,26nm,1.4s						
BTK	Batken	20.10	301	P	P	02 03 49.8	+1.7
	comp=Z,18nm,1.5s						
ZAK	Zakamensk	20.26	19	eP	P	02 03 49.7	0.0
ZAK				pmax	pmax		
	comp=Z,10.0nm,1.0s						
TIA	Tai'an	20.30	70	P	P	02 03 49.1	-1.1
TIA				pmax	pmax		
	comp=Z,17nm,0.8s						
BJI2	Beijing	20.35	59	P	P	02 03 50.1	-0.6
BJI2				pmax	pmax		
	comp=Z,3.0nm,0.7s						
TRKS	Terek-Say	20.38	306	P	P	02 03 52.1	+0.9
KBL	Kabul	20.56	285	P	P	02 03 53.5	+0.3
KBL				pmax	pmax		
	comp=Z,46nm,0.9s						
KBL	Kabul	20.56	285	P	P	02 03 53.5	+0.3
KBL	Kabul	20.56	285	P	P	02 03 54.3	+1.0
	comp=Z,60nm,1.1s						
DZA	Taraz	20.80	309	eP	P	02 03 59.0	+3.4
DZA	Taraz	20.80	309	eP	P	02 03 59.1	+3.4
SEM	Semipalatinsk	21.23	336	eP	P	02 04 03.7	+3.3
SEM	Semipalatinsk	21.23	336	eP	P	02 04 03.7	+3.3
KK31	Karatay Array	21.44	309	P	P	02 04 03.2	+0.8
KK31	Karatay Array	21.44	309	P	P	02 04 03.2	+0.8
KKAR	Karatay Array	21.44	309	P	P	02 04 01.2	-1.2
KKAR	Karatay Array	21.44	309	P	P	02 04 01.2	-1.2
CHM	Chimkent	21.74	306	eP	P	02 04 09.3	+3.7
CHM	Chimkent	21.74	306	eP	P	02 04 09.4	+3.7
XLT	XiLinHaoTe	21.76	49	eP	P	02 04 05.2	-0.8
XLT				pmax	pmax		
	comp=Z,10.0nm,0.9s						
BRLS	Borolday	21.86	308	eP	P	02 04 10.3	+3.4
BRLS	Borolday	21.86	308	eP	P	02 04 10.3	+3.4
KURBB	Kurchatov Arra	22.02	334	P	P	02 04 07.7	-0.9
	comp=Z,7.6nm,1.0s,baz=142,slow=12,SNR=27						
KURBB				PcP	PcP	02 08 06.1	-0.4
	comp=Z,0.8nm,0.6s,baz=159,slow=1.4,SNR=5.6						
KURBB				ScP	ScP	02 11 44.0	+0.1
	comp=Z,0.2nm,0.3s,baz=152,slow=2.5,SNR=6.7						
	comp=Z,7.6nm,1.0s						
KURK	Kurchatov	22.07	335	d iP	P	02 04 07.4	-1.6
KURK				pmax	pmax		
	comp=Z,24nm,1.3s						
KURK	Kurchatov	22.07	335	P	P	02 04 07.5	-1.6
KURK				IAmb	IAmb	02 04 17.5	
	comp=Z,26nm,1.3s						
KURK	Kurchatov	22.07	335		PcP	02 08 06.1	-0.5
KURK					ScP	02 11 44.0	0.0
KURK	Kurchatov	22.07	335	P	P	02 04 07.9	-1.1
	comp=Z,13nm,0.9s						
ZAA0	Zalesovo Array	23.23	347	P	P	02 04 20.4	-0.9
ZALV	Zalesovo Beam	23.23	347	P	P	02 04 21.5	+0.1
	comp=Z,1.5nm,0.6s,baz=153,slow=7.6,SNR=7.4						
	comp=Z,1.5nm,0.6s						
ZALV	Zalesovo Beam	23.23	347	i P	P	02 04 23.2	+1.9
ZALV	Zalesovo Beam	23.23	347	P	P	02 04 19.2	-2.1
HIA	Hailar	26.61	41	⇑eP	P	02 04 52.5	-0.2
HIA				pmax	pmax		
	comp=Z,7.0nm,1.1s						
BVAR	Borovoye Array	27.16	329	P	P	02 04 56.7	-0.9
	comp=Z,3.1nm,0.7s,baz=127,slow=12,SNR=6.2						
	comp=Z,3.1nm,0.7s						
BORK	Borovoye	27.21	329	ceP	P	02 04 58.0	+0.1
BORK				pmax	pmax		
	comp=Z,6.0nm,0.9s						
KSRS	Korea Array	29.02	69	P	P	02 05 13.7	-0.6
	comp=Z,1.0nm,0.5s,baz=262,slow=8.7,SNR=5.4						
	comp=Z,1.0nm,0.5s						
AB31	Akbulak array	30.65	315	P	P	02 05 28.5	-0.1
AB31				IAmb	IAmb	02 05 37.2	
	comp=Z,1.8nm,0.7s						
ABKAR	Akbulak array	30.65	315	P	P	02 05 28.3	-0.3
ZEA	Zeya	32.92	38	eP	P	02 05 50.3	+1.8
ZEA				pmax	pmax		
	comp=Z,10.0nm,1.2s						
KLR	Kul'dur	33.76	47	eP	P	02 05 54.9	-0.9
KLR				pmax	pmax		
	comp=Z,1.0nm,1.2s						
SVE	Sverdlovsk	33.93	328	eP	P	02 05 57.0	-0.2
SVE				pmax	pmax		
	comp=Z,22nm,0.8s						
ARTI	Arti	34.74	326	d iP	P	02 06 03.7	-0.6
ARTI						02 07 16.5	
ARTI						02 08 32.3	
ARTI				S	S	02 11 31.1	-3.2
ARTI				SS	SnSn	02 13 39.2	-7.9
ARTI				pmax	pmax		
	comp=Z,7.0nm,0.6s						
ARTI	Arti	34.74	326	P	P	02 06 04.1	-0.1
NRIK	Noril'sk	38.01	357	P	P	02 06 31.1	-0.9
	comp=Z,2.8nm,0.5s,baz=174,slow=8.8,SNR=3.6						
	comp=Z,2.8nm,0.5s						
NRIK	Noril'sk	38.01	357	IAmb	IAmb	02 06 34.3	
	comp=Z,6.0nm,0.9s						
YAK	Yakutsk	38.46	27	⇓eP	P	02 06 36.9	+1.0
YAK				pmax	pmax		
	comp=Z,8.0nm,0.6s						
BELG	Belogornoye	39.04	316	deP	P	02 06 40.4	-0.5
BELG				pmax	pmax		
	comp=Z,4.0nm,1.5s						
GNI	Garni	39.89	296	ceP	P	02 06 50.3	+1.9
GNI				pmax	pmax		
	comp=Z,20nm,1.5s						
GNI	Garni	39.89	296	P	P	02 06 49.5	+1.0
GNI	Garni	39.89	296	P	P	02 06 50.6	+2.2
	comp=Z,11nm,1.4s						
KIRV	Kirov	40.05	326	d iP	P	02 06 49.0	-0.2
YSS	Yuzhno-Sakhali	40.59	53	⇑eP	P	02 06 54.3	+0.5
YSS				pmax	pmax		
	comp=Z,14nm,1.5s						
GURO	Guroymak-BITLI	42.12	294	P	P	02 07 07.9	+1.1
GURO				IAmb	IAmb	02 07 09.0	
	comp=Z,5.3nm,0.7s						
RAYN	Ar Rayn	42.87	272	P	P	02 07 12.4	-0.5
RAYN				pmax	pmax		
	comp=Z,4.0nm,1.1s						
RAYN	Ar Rayn	42.87	272	P	P	02 07 12.4	-0.5

RAYN				IAmb	IAmb	02 07 16.9	
	comp=Z,4.0nm,1.1s						
RAYN	**Ar Rayn**	**42.87**	**272**	P	**P**	**02 07 12.4**	**-0.5**
	comp=Z,4.0nm,1.6s						
ARPR	**Arapgir-MALATY**	**44.92**	**296**	P	**P**	**02 07 33.5**	**+4.2**
	comp=Z,11nm,1.5s						
KLMR	**Klimovskoe**	**45.53**	**326**	*e*P	P	02 07 31.4	-2.2
KLMR				pmax	pmax		
	comp=Z,18nm,0.7s						
TOKA	**Tokat**	**46.17**	**297**	P	**P**	**02 07 38.8**	**-0.3**
TOKA				IAmb	IAmb	02 07 40.5	
	comp=Z,4.8nm,1.0s						
BNN	**Bunyan**	**46.88**	**296**	P	**P**	**02 07 44.9**	**+0.2**
BNN				IAmb	IAmb	02 07 46.2	
	comp=Z,6.2nm,0.9s						
BR131	**Keskin Array S**	**48.42**	**297**	*d i*P	**P**	**02 07 57.0**	**+0.3**
BR131	**Keskin Array S**	**48.42**	**297**	P	**P**	**02 07 56.5**	**-0.2**
BR131				IAmb	IAmb	02 07 57.4	
	comp=Z,4.4nm,1.0s						
BRTR	**Keskin Array B**	**48.42**	**297**	P	**P**	**02 07 56.5**	**-0.2**
	comp=Z,2.3nm,0.8s,baz=102,slow=7.3,SNR=13						
	comp=Z,2.3nm,0.8s						
BRTR	**Keskin Array B**	**48.42**	**297**	P	**P**	**02 07 57.0**	**+0.3**
BRTR	**Keskin Array B**	**48.42**	**297**	P	**P**	**02 07 57.0**	**+0.3**
SEY	**Seymchan**	**48.44**	**32**	⇓*e*P	**P**	**02 07 57.6**	**+1.3**
SEY				pmax	pmax		
	comp=Z,11nm,1.3s						
LVZ	**Lovozero**	**49.49**	**335**	P	P	02 08 03.0	-1.4
LVZ				pmax	pmax		
	comp=Z,12nm,0.8s						
LVZ	**Lovozero**	**49.49**	**335**	P	P	02 08 03.0	-1.4
AKASG	**Malin Array Be**	**50.30**	**312**	P	P	02 08 09.4	-1.3
	comp=Z,0.2nm,0.2s,baz=87,slow=6.4,SNR=4.4						
	comp=Z,0.2nm,0.2s						
AKASG	**Malin Array Be**	**50.30**	**312**	*ce*P	**P**	**02 08 09.6**	**-1.1**
AKASG	**Malin Array Be**	**50.30**	**312**	IAmb	IAmb	02 08 47.6	
	comp=Z,3.1nm,1.3s						
MNK	**Minsk**	**50.97**	**317**	*i* P	**P**	**02 08 16.1**	**+0.4**
MNK				*i*		02 09 32.0	
MNK				*i*		02 10 12.8	
MNK				*i* PPP	PPP	02 11 11.2	
MNK				*i* S	**S**	**02 15 31.3**	**-1.2**
MNK				*i* SS	**SS**	**02 19 07.8**	**+0.8**
MNK				*i* SSS	SSS	02 20 41.1	
MNK				pmax	pmax		
	comp=Z,6.0nm,0.9s						
MNK				pmax	pmax		
	comp=N,5.0nm,0.8s						
MNK				pmax	pmax		
	comp=E,8.0nm,0.9s						
MNK				MLR	MLR		
	comp=N,6µm,18.0s						
MNK				MLR	MLR		
	comp=Z,8µm,18.0s						
MNK				MLR	MLR		
	comp=E,4µm,18.0s						
MNK	**Minsk**	**50.97**	**317**	*i* P	**P**	**02 08 16.2**	**+0.4**
	comp=E,8.0nm,0.9s						
MNK				*i* P	**P**	**02 08 16.2**	**+0.4**
	comp=N,5.0nm,0.8s						
MNK				*i* P	**P**	**02 08 16.2**	**+0.4**
	comp=Z,6.0nm,0.9s,baz=89						
MNK				*i* PcP	**PcP**	**02 09 32.0**	**+0.1**
MNK				*i* PP	**PP**	**02 10 12.8**	**+0.8**
MNK				*i* PPP	PPP	02 11 11.2	
MNK				*i* S	**S**	**02 15 31.3**	**-1.2**
MNK				*i* SS	**SS**	**02 19 07.9**	**+0.8**
MNK				*i* SSS	SSS	02 20 41.1	
MNK				*i* LQ	LQ	02 26 16.6	
MNK				*i* LRM	MLR	02 31 49.0	
	comp=N,6µm,17.9s						
MNK				*i* LRM	MLR	02 32 00.5	
	comp=Z,8µm,18.3s						
MNK				*i* LRM	MLR	02 32 49.3	
	comp=E,4µm,17.8s						
ELL	**Elmali**	**51.91**	**294**	P	**P**	**02 08 22.4**	**-0.8**
ELL				pmax	pmax		
	comp=Z,20nm,1.0s						
ELL	**Elmali**	**51.91**	**294**	P	**P**	**02 08 22.4**	**-0.8**
FIA1	**FINESS Array S**	**52.05**	**326**	P	**P**	**02 08 23.2**	**-0.5**
FINES	**FINESS Array B**	**52.05**	**326**	P	**P**	**02 08 23.0**	**-0.7**
	comp=Z,2.7nm,0.6s,baz=84,slow=8.8,SNR=21						
	comp=Z,2.7nm,0.6s						
SGF	**Sodankyl**	**52.42**	**333**	P	**P**	**02 08 26.7**	**+0.3**
SGF				pmax	pmax		
	comp=Z,21nm,1.9s						
SGF	**Sodankyl**	**52.42**	**333**	P	**P**	**02 08 26.4**	**0.0**
	comp=Z,21nm,2.0s						
KEV	**Kevo**	**52.62**	**336**	P	**P**	**02 08 27.3**	**-0.5**
KEV				pmax	pmax		
	comp=Z,22nm,1.3s						
KEV	**Kevo**	**52.62**	**336**	P	**P**	**02 08 27.3**	**-0.5**
MLR	**Muntele Rosu**	**53.06**	**306**	P	**P**	**02 08 32.0**	**+0.3**
MLR				pmax	pmax		
	comp=Z,5.0nm,0.8s						
MLR	**Muntele Rosu**	**53.06**	**306**	P	**P**	**02 08 32.0**	**+0.3**
MLR				IAmb	IAmb	02 08 33.0	
	comp=Z,5.2nm,0.8s						
ARCES	**ARCESS Array B**	**53.10**	**336**	P	**P**	**02 08 31.0**	**-0.4**
	comp=Z,3.5nm,0.7s,baz=89,slow=7.4,SNR=12						
	comp=Z,3.5nm,0.7s						
ARCES	**ARCESS Array B**	**53.10**	**336**	P	**P**	**02 08 30.9**	**-0.4**
ARCES				IAmb	IAmb	02 08 31.4	
	comp=Z,7.2nm,1.0s						
BURAR	**Bucovina Array**	**53.23**	**308**	P	P	02 08 31.0	-1.8
BURAR	**Bucovina Array**	**53.23**	**308**	P	**P**	**02 08 32.0**	**-0.9**
BILL	**Bilibino**	**54.82**	**26**	*de*P	**P**	**02 08 45.7**	**+1.7**
BILL				pmax	pmax		
	comp=Z,9.0nm,1.3s						
VYHS	**Vyhne**	**57.29**	**310**	*e*P	**P**	**02 09 01.7**	**-0.3**
STEB	**Steborice**	**57.67**	**312**	*e*P	P	02 09 03.0	-1.6
MAUC	**Maruska**	**57.75**	**312**	*e*P	**P**	**02 09 04.8**	**-0.5**
MORC	**Moravsky Berou**	**57.85**	**312**	*e*P	P	02 09 03.2	-2.7
MORH	**Mrgy, Hungar**	**57.92**	**308**	P	**P**	**02 09 05.6**	**-0.8**
	comp=Z,4.4nm,1.4s						
HFS	**Hagfors**	**58.17**	**325**	P	**P**	**02 09 07.1**	**-0.9**
	comp=Z,3.3nm,0.6s,baz=80,slow=8.1,SNR=9.7						
	comp=Z,3.3nm,0.6s						
KRLC	**Kraliky**	**58.27**	**313**	*e*P	**P**	**02 09 08.4**	**-0.5**
DPC	**Dobruska-Polom**	**58.49**	**313**	P	**P**	**02 09 10.6**	**+0.1**
DPC	**Dobruska-Polom**	**58.49**	**313**	*e*P	**P**	**02 09 10.6**	**+0.1**
DPC	**Dobruska-Polom**	**58.49**	**313**	P	**P**	**02 09 10.6**	**+0.1**
	comp=Z,4.8nm,1.4s						
VRAC	**Vranov**	**58.55**	**312**	*e*P	**P**	**02 09 10.6**	**-0.2**
CHVC	**Chvalec**	**58.61**	**313**	*e*P	**P**	**02 09 11.3**	**+0.1**
UPC	**Upice**	**58.65**	**313**	P	**P**	**02 09 11.0**	**-0.5**
UPC	**Upice**	**58.65**	**313**	P	**P**	**02 09 11.0**	**-0.5**
	comp=Z,7.4nm,1.3s						
KRUC	**Moravsky**	**58.74**	**311**	*e*P	**P**	**02 09 12.0**	**-0.1**
NC405	**NORSAR Array S**	**58.98**	**326**	P	**P**	**02 09 12.9**	**-0.7**
RONA	**Rosalia, Austr**	**59.12**	**310**	*e*P	**P**	**02 09 14.3**	**-0.6**
	comp=Z,5.8nm,1.7s						
NORES	**NORESS Array B**	**59.13**	**325**	P	**P**	**02 09 17.0**	**+2.4**
NB2	**NORSAR Subarra**	**59.23**	**326**	P	P	02 09 14.0	-1.4
	comp=Z,2.4nm,0.6s,baz=80,slow=6.9						
NB2	**NORSAR Subarra**	**59.23**	**326**	P	**P**	**02 09 14.3**	**-1.1**
NOA	**NORSAR Array B**	**59.23**	**326**	P	**P**	**02 09 14.2**	**-1.2**
	comp=Z,2.6nm,0.7s,baz=80,slow=6.9,SNR=9.9						
	comp=Z,2.6nm,0.7s						
CONA	**Conrad Observa**	**59.35**	**310**	*i* P	**P**	**02 09 16.0**	**-0.5**
	comp=Z,5.8nm,1.1s,SNR=6.0						
ARSA	**Arzberg**	**59.74**	**310**	*e*P	**P**	**02 09 18.4**	**-0.7**
	comp=Z,2.0nm,1.1s						
BRG	**Berggiesshubel**	**59.85**	**314**	*e*P	**P**	**02 09 19.2**	**-0.6**
	comp=Z,2.0nm,0.8s,baz=74,slow=7.0						
GROS	**Grobnik**	**59.97**	**309**	*i* P	**P**	**02 09 19.8**	**-0.9**
ZVC	**Zvikov**	**60.05**	**312**	*e*P	**P**	**02 09 20.9**	**-0.3**
PERS	**Pernice**	**60.17**	**309**	*i* P	**P**	**02 09 21.4**	**-0.7**
SOKA	**Soboth**	**60.22**	**309**	*e*P	**P**	**02 09 21.7**	**-0.8**
	comp=Z,4.6nm,1.2s						
CLL	**Collm**	**60.32**	**315**	*e*P	**P**	**02 09 22.3**	**-0.7**
	comp=Z,1.5nm,0.7s,baz=74,slow=7.0						
CLL	**Collm**	**60.32**	**315**	*e*P	**P**	**02 09 22.0**	**-1.0**
MOA	**Molln**	**60.41**	**310**	*e*P	**P**	**02 09 23.2**	**-0.5**
	comp=Z,3.7nm,1.0s						
GEC2	**GERESS Array S**	**60.51**	**312**	P	**P**	**02 09 24.3**	**-0.2**
GEC2	**GERESS Array S**	**60.51**	**312**	P	**P**	**02 09 23.9**	**-0.5**
GEC2	**GERESS Array S**	**60.51**	**312**	*e*P	**P**	**02 09 24.2**	**-0.3**
	comp=Z,8.5nm,1.4s,baz=74,slow=7.0						
GEC2	**GERESS Array S**	**60.51**	**312**	P	**P**	**02 09 24.4**	**-0.2**
	comp=Z,4.7nm,1.2s						
GERES	**GERESS Array B**	**60.51**	**312**	P	**P**	**02 09 24.1**	**-0.3**
	comp=Z,1.7nm,0.5s,baz=64,slow=6.1,SNR=17						
	comp=Z,1.7nm,0.5s						
GERES	**GERESS Array B**	**60.51**	**312**	P	**P**	**02 09 24.3**	**-0.2**
GERES	**GERESS Array B**	**60.51**	**312**	P	**P**	**02 09 24.2**	**-0.2**
KHC	**Kasperske Hory**	**60.52**	**312**	*e*P	**P**	**02 09 24.1**	**-0.3**
OBKA	**Obir**	**60.59**	**309**	*e*P	**P**	**02 09 24.3**	**-0.7**
	comp=Z,1.4nm,0.7s						
MOZS	**Mozjanca**	**60.72**	**309**	*e*P	**P**	**02 09 24.6**	**-1.2**
BIOA	**Bad Ischl, Aus**	**60.86**	**310**	*e*P	**P**	**02 09 25.9**	**-0.9**
	comp=Z,1.6nm,0.5s						
WET	**Wettzell**	**60.95**	**312**	*e*P	**P**	**02 09 27.1**	**-0.3**
	comp=Z,4.3nm,1.2s,baz=74,slow=7.0						
PLN	**Plauen**	**61.05**	**314**	*e*P	**P**	**02 09 27.5**	**-0.5**
	comp=Z,2.0nm,1.1s,baz=74,slow=7.0						
TIP	**Timpagrande**	**61.21**	**300**	P	**P**	**02 09 28.1**	**-1.2**
TIP				IAmb	IAmb	02 09 37.2	
	comp=Z,5.8nm,1.2s						
KBA	**Koelnbreinsper**	**61.22**	**310**	*e*P	**P**	**02 09 28.2**	**-1.2**
	comp=Z,2.6nm,1.2s						
LESA	**Schwarzleotal**	**61.56**	**310**	*i* P	**P**	**02 09 30.6**	**-1.0**
	comp=Z,8.2nm,1.6s						
CLZ	**Clausthal**	**61.77**	**316**	*e*P	**P**	**02 09 32.9**	**0.0**
	comp=Z,7.7nm,0.8s,baz=74,slow=7.0						
GRF	**Grafenberg Arr**	**61.84**	**313**	*e*P	**P**	**02 09 33.4**	**0.0**
	comp=Z,6.4nm,1.0s,baz=74,slow=7.0						
ABTA	**Abfaltersbach**	**61.86**	**310**	*e*P	P	02 09 31.9	-1.8
	comp=Z,4.7nm,1.2s						
RETH	**Rethem/Aller,**	**62.12**	**317**	*e*P	**P**	**02 09 34.8**	**-0.3**
	comp=Z,7.6nm,1.2s,baz=74,slow=7.0						
CEL	**Celeste**	**62.15**	**300**	P	**P**	**02 09 34.8**	**-0.9**
FUR	**Furstenfeldbru**	**62.25**	**311**	P	**P**	**02 09 36.2**	**0.0**
FUR	**Furstenfeldbru**	**62.25**	**311**	*e*P	**P**	**02 09 35.9**	**-0.2**
	comp=Z,13nm,1.1s,baz=74,slow=7.0						
FUR	**Furstenfeldbru**	**62.25**	**311**	P	**P**	**02 09 36.2**	**0.0**
	comp=Z,14nm,1.1s						
WTTA	**Wattenberg**	**62.28**	**310**	*e*P	P	02 09 35.1	-1.5
	comp=Z,4.6nm,1.5s						
WATA	**Walderalm**	**62.30**	**311**	*e*P	**P**	**02 09 35.4**	**-1.3**
	comp=Z,2.1nm,1.0s						
SQTA	**Sankt Quirin**	**62.58**	**310**	*e*P	P	02 09 37.1	-1.4
	comp=Z,2.4nm,0.6s						
MOTA	**Moosalm**	**62.61**	**311**	*e*P	**P**	**02 09 37.5**	**-1.2**
	comp=Z,3.7nm,1.1s						
RETA	**Reutte**	**62.78**	**311**	*i* P	**P**	**02 09 38.9**	**-0.8**
	comp=Z,5.4nm,1.2s,SNR=4.5						
FETA	**Feichten**	**62.95**	**310**	*e*P	**P**	**02 09 39.9**	**-1.1**
	comp=Z,4.1nm,1.1s						
STU	**Stuttgart**	**63.39**	**313**	*e*P	**P**	**02 09 44.1**	**+0.5**
	comp=Z,7.6nm,0.6s,baz=74,slow=7.0						
DAVA	**Damuels**	**63.41**	**311**	*e*P	**P**	**02 09 42.8**	**-1.3**
	comp=Z,4.0nm,1.1s						
WB0	**Warramunga Arr**	**64.44**	**137**	P	**P**	**02 09 50.4**	**-0.5**
WB0				IAmb	IAmb	02 10 00.9	
	comp=Z,6.1nm,1.2s						
WRA	**Warramunga Arr**	**64.55**	**137**	P	**P**	**02 09 52.2**	**+0.6**
WRA	**Warramunga Arr**	**64.55**	**137**	P	**P**	**02 09 52.2**	**+0.6**
CDF	**Champ du Feu**	**64.71**	**313**	*e*P	P	02 09 51.1	-1.4
CDF				pmax	pmax		
	comp=Z,10.0nm,1.4s						
HINF	**Hinteralfeld**	**65.18**	**312**	*e*P	P	02 09 53.9	-1.6
HINF				pmax	pmax		
	comp=Z,2.0nm,0.7s						
SENIN	**Lac Senin/Sane**	**65.39**	**311**	IAmb	IAmb	02 09 58.2	
	comp=Z,4.0nm,0.8s						
LPG	**La Plagne**	**66.06**	**310**	*e*P	**P**	**02 10 00.6**	**-0.9**
LPG				pmax	pmax		
	comp=Z,7.0nm,0.9s						
LPL	**La Plagne**	**66.06**	**310**	*e*P	**P**	**02 10 00.6**	**-0.9**
LPL				pmax	pmax		
	comp=Z,15nm,1.2s						
MBDF	**Montbardon**	**66.33**	**309**	*e*P	**P**	**02 10 02.8**	**-0.3**
MBDF				pmax	pmax		
	comp=Z,5.0nm,0.8s						
C19K	**Lookout Ridge**	**66.70**	**22**	P	**P**	**02 10 04.7**	**-0.2**
ORIF	**Oris-en-Rattie**	**66.84**	**309**	P	P	02 10 04.7	-1.6
ORIF				pmax	pmax		
	comp=Z,4.0nm,0.9s						
AS31	**Alice Springs**	**67.23**	**140**	P	**P**	**02 10 08.9**	**0.0**
AS31				IAmb	IAmb	02 10 09.5	
	comp=Z,1.1nm,0.6s						
ASAR	**Alice Springs**	**67.23**	**140**	P	**P**	**02 10 08.8**	**0.0**
	comp=Z,2.6nm,0.6s,baz=325,slow=6.5,SNR=44						
	comp=Z,2.6nm,0.6s						
SMF	**Signal de Mont**	**67.51**	**312**	*e*P	P	02 10 08.9	-1.6
SMF				pmax	pmax		
	comp=Z,7.0nm,1.0s						
SSF	**Saint Saulge**	**67.57**	**312**	*e*P	P	02 10 09.2	-1.6
SSF				pmax	pmax		
	comp=Z,8.0nm,1.0s						
VIVF	**Saint-Julien-l**	**67.66**	**310**	*e*P	**P**	**02 10 10.2**	**-1.2**
VIVF				pmax	pmax		
	comp=Z,13nm,1.4s						
AVF	**Avril sur Loir**	**67.77**	**312**	*e*P	P	02 10 10.6	-1.4
AVF				pmax	pmax		
	comp=Z,18nm,1.5s						
D20K	**Etivluk River**	**67.83**	**22**	P	**P**	**02 10 11.3**	**-0.8**
D20K				IAmb	IAmb	02 10 22.2	
	comp=Z,5.2nm,1.0s						
KEST	**Kesra**	**67.95**	**299**	P	**P**	**02 10 12.7**	**-0.8**
	comp=Z,2.1nm,0.9s,baz=360,slow=8.2,SNR=4.7						
	comp=Z,2.1nm,0.9s						
EKA	**Eskdalemuir Ar**	**68.17**	**322**	P	**P**	**02 10 13.5**	**-0.9**
	comp=Z,2.9nm,0.6s,baz=69,slow=5.3,SNR=13						
	comp=Z,2.9nm,0.6s						
LDF	**La Druitiere**	**69.20**	**315**	*e*P	P	02 10 19.3	-1.7
LDF				pmax	pmax		
	comp=Z,9.0nm,0.9s						
CAF	**Calviac**	**69.34**	**311**	*e*P	**P**	**02 10 21.0**	**-0.9**
CAF				pmax	pmax		
	comp=Z,13nm,1.4s						
RJF	**Les Rejaudoux**	**69.53**	**311**	*e*P	**P**	**02 10 22.4**	**-0.7**
RJF				pmax	pmax		
	comp=Z,37nm,1.1s						
GRR	**Gorron**	**69.73**	**315**	*e*P	P	02 10 22.7	-1.5
GRR				pmax	pmax		
	comp=Z,13nm,0.9s						
SGMF	**Saint Gilles**	**70.82**	**315**	*e*P	**P**	**02 10 30.0**	**-0.9**
SGMF				pmax	pmax		
	comp=Z,52nm,1.6s						
ROSF	**Rostrenen**	**71.21**	**316**	*e*P	**P**	**02 10 32.2**	**-1.1**
ROSF				pmax	pmax		
	comp=Z,98nm,1.8s						
ETSF	**Etsaut**	**71.92**	**310**	*e*P	**P**	**02 10 36.8**	**-0.9**
ETSF				pmax	pmax		
	comp=Z,241nm,2.4s						
BMAR	**Burnt Mountain**	**72.26**	**20**	P	**P**	**02 10 39.4**	**+0.1**
ILAR	**Eielson Array**	**73.25**	**23**	P	P	02 10 43.6	-1.5
	comp=Z,1.2nm,0.8s,baz=299,slow=5.9,SNR=12						
	comp=Z,1.2nm,0.8s						
I27K	**Kandik River**	**74.37**	**21**	P	**P**	**02 10 51.1**	**-0.7**
I27K				IAmb	IAmb	02 10 54.8	
	comp=Z,7.8nm,1.1s						
INK	**Inuvik**	**74.59**	**16**	P	P	02 10 51.3	-1.6
	comp=Z,1.6nm,0.8s,baz=33,slow=8.6,SNR=3.3						
	comp=Z,1.6nm,0.8s						
INK	**Inuvik**	**74.59**	**16**	IAmb	IAmb	02 10 55.0	
	comp=Z,8.6nm,1.5s						
ESDC	**Sonseca Array**	**75.68**	**308**	P	**P**	**02 10 58.9**	**-1.0**
	comp=Z,0.9nm,0.8s,baz=71,slow=6.0,SNR=5.9						
	comp=Z,0.9nm,0.8s						
YKA	**Yellowknife Ar**	**83.66**	**13**	P	**P**	**02 11 43.1**	**+0.4**
	comp=Z,1.3nm,0.8s,baz=324,slow=3.1,SNR=2.8						
	comp=Z,1.3nm,0.8s						
TORD	**Torodi Ar. Bea**	**84.61**	**282**	P	**P**	**02 11 47.3**	**-1.1**
	comp=Z,7.4nm,0.9s,baz=53,slow=4.9,SNR=10						
	comp=Z,7.4nm,0.9s						
VNA2	**Neumayer--Watz**	**122.92**	**203**	PKPdf	**PKPdf**	**02 18 09.3**	**-0.4**
	comp=Z,2.0nm,0.8s,baz=65,slow=1.1						
CPUP	**Villa Florida**	**153.84**	**274**	PKPbc	**PKPdf**	**02 19 12.4**	**+6.3**
	comp=Z,0.9nm,0.6s,baz=108,slow=3.2,SNR=6.0						
LPAZ	**La Paz**	**157.30**	**308**	PKP	**PKPdf**	**02 19 11.0**	**-0.8**
	comp=Z,0.8nm,0.8s,baz=270,slow=2.0,SNR=4.1						
LPAZ	**La Paz**	**157.30**	**308**	PKIKP	**PKPdf**	**02 19 11.0**	**-0.8**

UCR ***06*** *02:16:01.1±0.9,8°.18N×82°.92W,h15^{km}±4^{km},MW3.8, Presumed earthquake*
UPA ***06*** *02:16:01.2±1.0,8°.25N×82°.95W,h14^{km}±1^{km},MW4.1, Presumed earthquake*
CATAC ***06*** *02:16:04.5,8°N±4°×8°3W±°,h1^{km}±4^{km},M3.5/10, MLv3.5/10,confirmed*
ISC 06 02:16:01.2±0.8,**8°.23N**±0°.03×**82°.95W**±0°.02,**h16**^{km}±5^{km},**n71,**σ**0^{s}.94**/103,**13D,Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTPM	**Petroterminale**	**0.07**	**109**	⇓*i*P	**Pg**	**02 16 04.1**	**-0.2**
PTPM				*e*S	**Sg**	**02 16 07.2**	**+0.7**
PTPA	**Petro Terminal**	**0.08**	**110**	*e*P	**Pg**	**02 16 04.1**	**-0.4**
PTPA				*e*S	**Sg**	**02 16 07.1**	**+0.5**
LIMO3	**Limones**	**0.15**	**146**	⇓*i*P	**Pg**	**02 16 05.2**	**-0.1**
LIMO3				*e*S	**Sb**	**02 16 09.2**	**+0.7**
LMNES	**Limones**	**0.15**	**145**	*e*P	**Pg**	**02 16 05.1**	**-0.2**
LMNES	**Limones**	**0.15**	**145**	*i* P	**Pg**	**02 16 05.1**	**-0.2**
LMNES				*e*S	**Sb**	**02 16 08.9**	**+0.3**
CDITO	**Canoas**	**0.35**	**12**	P	**Pb**	**02 16 08.8**	**-0.3**
CDITO				S	**Sb**	**02 16 15.3**	**+1.0**
NELY	**Ciudad Neily**	**0.42**	**0**	*e*P	**Pb**	**02 16 09.8**	**-0.4**
NELY				*e*S	**Sb**	**02 16 16.9**	**+0.6**
NELY	**Ciudad Neily**	**0.42**	**0**	⇓*i*P	**Pb**	**02 16 09.8**	**-0.4**
NELY				*e*S	**Sb**	**02 16 16.9**	**+0.6**
PIRO	**Carate, Puerto**	**0.42**	**295**	P	**Pg**	**02 16 09.4**	**-0.3**
PIRO	**Carate, Puerto**	**0.42**	**295**	*e*P	**Pg**	**02 16 09.4**	**-0.3**
PIRO	**Carate, Puerto**	**0.42**	**295**	⇓*i*P	**Pg**	**02 16 09.5**	**-0.3**
PIRO				*e*S	**Sb**	**02 16 16.3**	**0.0**
FITO	**Golfito**	**0.44**	**333**	*e*P	**Pg**	**02 16 09.6**	**-0.5**
JIME	**Puerto Jimenez**	**0.48**	**310**	*e*P	**Pb**	**02 16 11.0**	**-0.3**
JIME				*e*S	**Sn**	**02 16 20.1**	**-1.4**
DVD	**David**	**0.53**	**67**	⇓*i*P	**Pg**	**02 16 11.8**	**0.0**
DVD				*e*S	**Sg**	**02 16 18.3**	**-0.7**
MLIR3	**Monte Lirio, C**	**0.57**	**12**	*e*P	**Pb**	**02 16 13.1**	**+0.2**
MLIR3				*e*S	**Sb**	**02 16 20.2**	**-0.7**
LOMA3	**Las Lomas, Chi**	**0.59**	**70**	*i* P	**Pg**	**02 16 12.6**	**-0.2**
LOMA3				*e*S	**Sb**	**02 16 22.0**	**+0.8**
VITO	**San Vito**	**0.59**	**358**	*e*P	**Pb**	**02 16 13.0**	**-0.1**
VITO	**San Vito**	**0.59**	**358**	*e*S	**Sn**	**02 16 23.6**	**-0.7**
CLLRA	**Cordillera,**	**0.61**	**33**	*e*P	**Pb**	**02 16 13.2**	**-0.4**
CLLRA	**Cordillera,**	**0.61**	**33**	⇓*i*P	**Pb**	**02 16 13.5**	**-0.1**
CLLRA				*e*S	**Sn**	**02 16 24.3**	**-0.6**
BRU2	**Volcan**	**0.62**	**24**	P	**Pb**	**02 16 13.7**	**0.0**
BRU2				S	**Sn**	**02 16 24.2**	**-0.8**
BRU2	**Volcan**	**0.62**	**24**	*e*P	**Pb**	**02 16 13.5**	**-0.1**
BRU2	**Volcan**	**0.62**	**24**	⇓*i*P	**Pb**	**02 16 13.7**	**0.0**
BRU2				*e*S	**Sn**	**02 16 23.6**	**-1.4**
SCLRA	**Santa Clara, W**	**0.62**	**15**	*e*P	**Pb**	**02 16 13.8**	**+0.1**
SCLRA	**Santa Clara, W**	**0.62**	**15**	*e*P	**Pb**	**02 16 13.9**	**+0.2**
SCLRA				*e*S	**Sn**	**02 16 25.2**	**+0.1**
CHIR3	**Chiriqui UPA,**	**0.63**	**75**	⇓*i*P	**Pg**	**02 16 13.2**	**-0.4**
CHIR3				*e*S	**Sb**	**02 16 23.3**	**+0.8**
PTAR3	**Potrerillos Ar**	**0.64**	**44**	*e*P	**Pb**	**02 16 13.9**	**-0.2**
PTAR3				*e*S	**Sb**	**02 16 24.0**	**+1.1**
BQTLY	**Boquete Panama**	**0.71**	**42**	*e*P	**Pg**	**02 16 14.8**	**-0.4**
BQTLY	**Boquete Panama**	**0.71**	**42**	⇓*i*P	**Pg**	**02 16 14.9**	**-0.3**
BQTLY				*e*S	**Sb**	**02 16 25.8**	**+0.9**
BQSF3	**Alto Boquete,**	**0.72**	**45**	⇓*i*P	**Pg**	**02 16 14.8**	**-0.5**
BQSF3				*e*S	**Sb**	**02 16 25.0**	**-0.1**
LNBQ3	**Los Naranjos,**	**0.75**	**42**	⇓*i*P	**Pg**	**02 16 15.1**	**-0.8**
LNBQ3				*e*S	**Sb**	**02 16 26.6**	**+0.6**
EDP2	**Potrero Grande**	**0.81**	**344**	*e*P	**Pb**	**02 16 17.1**	**+0.1**
PANP	**Palmar Norte**	**0.89**	**325**	*e*P	**Pg**	**02 16 17.8**	**-0.6**
RBALA	**Bur**	**1.02**	**51**	*e*P	**Pb**	**02 16 19.4**	**-1.0**
RBALA	**Bur**	**1.02**	**51**	⇓*i*P	**Pb**	**02 16 19.7**	**-0.7**
RBALA				*e*S	**Sb**	**02 16 33.2**	**-0.3**
CHGR2	**Aguacate**	**1.06**	**48**	*e*P	**Pb**	**02 16 20.2**	**-1.0**
EDPE	**Pejibaye, P**	**1.11**	**326**	*e*P	**Pb**	**02 16 21.6**	**-0.4**
SAJE	**San Jernim**	**1.24**	**334**	*e*P	**Pn**	**02 16 23.6**	**-0.4**
CNI2	**El Empalme, Bo**	**1.28**	**22**	*e*P	**Pn**	**02 16 22.4**	**-1.9**
CNI2				*e*S	**Sb**	**02 16 39.8**	**-1.2**
KKNTU	**Kakintº**	**1.28**	**62**	*e*P	**Pn**	**02 16 23.2**	**-1.1**
KKNTU	**Kakintº**	**1.28**	**62**	⇓*i*P	**Pn**	**02 16 23.3**	**-1.1**
KKNTU				*e*S	**Sb**	**02 16 40.2**	**-1.0**
CEUA	**Cerro Uatsi, L**	**1.39**	**0**	*e*P	**Pg**	**02 16 27.7**	**-0.2**
RGM0	**Gandoca**	**1.40**	**14**	P	**Pg**	**02 16 30.9**	**+2.9**
RGM0				S	**Sg**	**02 16 49.7**	**+3.4**
QUEP	**Quepos**	**1.69**	**315**	P	**Pg**	**02 16 33.4**	**-0.4**
QUEP				S	**Sg**	**02 16 54.2**	**-1.7**
PIEC	**Cerro El Cedra**	**1.71**	**324**	*e*P	**Pb**	**02 16 31.6**	**-0.7**
GMAL	**Guarumal, Vera**	**1.76**	**105**	*e*P	**Pn**	**02 16 30.2**	**-0.8**
RSUS3	**Rio de Jesus,**	**1.79**	**98**	*e*P	**Pn**	**02 16 30.8**	**-0.5**
RSUS3				*e*S	**Sn**	**02 16 53.7**	**0.0**
ABE2	**San Pablo**	**1.83**	**323**	*e*P	**Pb**	**02 16 33.9**	**-0.5**
LCR2	**La Lucha 2**	**1.83**	**325**	P	**Pb**	**02 16 33.6**	**-0.8**
LCR2				S	**Sg**	**02 16 58.6**	**-1.6**
LCR2	**La Lucha 2**	**1.83**	**325**	*e*P	**Pb**	**02 16 33.3**	**-1.1**
LCR2	**La Lucha 2**	**1.83**	**325**	*e*P	**Pb**	**02 16 34.0**	**-0.4**
VERB	**Verbena**	**1.86**	**337**	*e*P	**Pn**	**02 16 33.0**	**+0.5**
SAFE3	**Santa Fe, Vera**	**1.87**	**81**	*e*P	**Pn**	**02 16 32.2**	**-0.3**
ABRB	**Las Abras (San**	**1.92**	**337**	*e*P	**Pb**	**02 16 35.2**	**-0.8**
LCOCO	**El Coco**	**1.94**	**342**	*e*P	**Pb**	**02 16 35.0**	**-1.1**
CVTQ	**Turrialba Volc**	**1.94**	**335**	*e*P	**Pb**	**02 16 35.7**	**-0.7**
VTR0	**Volcan Turrial**	**1.95**	**336**	*e*P	**Pb**	**02 16 35.8**	**-0.8**
STIA3	**Santiago, Vera**	**1.96**	**94**	*e*P	**Pn**	**02 16 33.2**	**-0.6**
HDC	**Heredia**	**2.10**	**327**	P	**Pb**	**02 16 38.2**	**-0.8**
HDC				S	**Sb**	**02 17 06.3**	**+1.3**
VBV1	**V. Barva**	**2.19**	**329**	*e*P	**Pn**	**02 16 38.9**	**+1.7**
TCS1	**Tacares**	**2.24**	**324**	P	**Pb**	**02 16 40.7**	**-0.7**
CACAO	**El Cacao, Vera**	**2.25**	**113**	*e*P	**Pn**	**02 16 38.2**	**+0.6**
CACAO				*e*S	**Sn**	**02 17 06.4**	**+1.4**
CHIT3	**Chitre**	**2.52**	**96**	*e*P	**Pn**	**02 16 41.4**	**0.0**
AZU	**Azuero**	**2.68**	**99**	*e*P	**Pn**	**02 16 43.0**	**-0.7**
JTS	**Las Juntas de**	**2.85**	**316**	P	**Pn**	**02 16 48.6**	**+2.6**
JTS				S	**Sn**	**02 17 21.1**	**+1.1**
JTS	**Las Juntas de**	**2.85**	**316**	*e*P	**Pn**	**02 16 46.4**	**+0.5**
COVE	**Coope Vega, Sa**	**2.86**	**330**	P	**Pg**	**02 16 56.4**	**+0.4**
CMARA	**Lajas Hojancha**	**3.02**	**306**	P	**Pn**	**02 16 49.3**	**+0.9**
ZANG	**Zanguenga, Cho**	**3.13**	**76**	*e*P	**Pn**	**02 16 49.0**	**-0.8**
BCIP	**Isla Barro Col**	**3.21**	**73**	P	**Pn**	**02 16 52.8**	**+1.8**
BCIP				S	**Sb**	**02 17 38.8**	**+2.0**
BCIP	**Isla Barro Col**	**3.21**	**73**	*e*P	**Pn**	**02 16 51.3**	**+0.3**

NNC ***06*** *02:32:10.0±6.7,38°.13N×71°.51E,h316^{km}±69^{km},mb1.7, mpv2.9,Error ellipse: s-maj=80.7km s-min=48.4km az=26.0*
KRNET ***06*** *02:32:19.5±0.1,39°.02N×70°.79E,mb3.0*
ISC 06 02:32:21.6±2.6,**39°.1N**±0°.1×**70°.85E**±0°.07,**h10**^{km}**,n11,** σ**2^{s}.03**/21,**13C-9D,Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DRK	**Karamyk**	**0.86**	**59**	⇑*e*P	**Pg**	**02 32 37.0**	**-1.2**
DRK				⇑*e*S	**Sg**	**02 32 49.7**	**+0.3**
BTK	**Batken**	**1.01**	**359**	⇓*e*P	**Pg**	**02 32 39.2**	**-1.9**
BTK				⇓*i*S	**Sg**	**02 32 53.7**	**-0.5**
OHH	**Osh**	**2.10**	**45**	⇑*e*P	**Pb**	**02 32 58.3**	**-1.5**
OHH				⇑*e*S	**Sb**	**02 33 26.8**	**+0.8**
SFK	**Sufi-Kurgan**	**2.27**	**64**	⇓*i*P	**Pb**	**02 33 00.9**	**-1.9**
SFK				⇓*i*S	**Sb**	**02 33 31.2**	**+0.2**
TRKS	**Terek-Say**	**2.49**	**5**	⇓*i*P	**Pn**	**02 33 02.8**	**+0.4**
TRKS				⇓*i*S	**Sn**	**02 33 34.4**	**+1.5**
ARK	**Arkit**	**2.88**	**17**	⇑*i*P	**Pn**	**02 33 09.2**	**+1.6**
ARK				⇑*i*S	**Sn**	**02 33 45.4**	**+3.0**
SALK	**Salom-Alik**	**2.93**	**50**	⇑*i*P	**Pn**	**02 33 10.1**	**+1.7**
SALK				⇑*i*S	**Sn**	**02 33 46.9**	**+3.2**
KK31	**Karatay Array**	**4.06**	**357**	⇑P	**Pn**	**02 33 26.6**	**+2.8**
	0.9nm,0.3s,baz=180,slow=12,SNR=32						
KK31				⇓S	**Sg**	**02 34 32.8**	**+0.9**
	2.0nm,0.5s,baz=176,slow=30,SNR=4.9						
EKS2	**Erkin-Say**	**4.24**	**31**	⇑*e*P	**Pn**	**02 33 28.2**	**+1.8**
EKS2				⇑*e*S	**Sn**	**02 34 18.3**	**+2.3**
AAK	**Ala-Archa**	**4.53**	**36**	⇑P	**Pn**	**02 33 30.4**	**0.0**
	0.8nm,0.6s						
AAK				⇓S	**Sb**	**02 34 31.8**	**-4.2**
	1.9nm,0.7s						
AB31	**Akbulak array**	**12.85**	**326**	⇓P	Pn	02 35 14.6	-10
	0.3nm,0.5s,baz=158,slow=12,SNR=10						
AB31				⇑S	**Sn**	**02 37 46.7**	**-0.5**
	1.7nm,1.1s						

THE ***06*** *02:42:47.8,38°N±2°×2°6E±°,h3^{km}±5^{km},M2.3/11, MLh2.3/11*
ISK ***06*** *02:42:48.7,38°.50N×25°.83E,h5^{km},ML2.5/29*
ATH ***06*** *02:42:48.1,38°.41N×25°.76E,h9^{km}±3^{km},ML2.5/7,Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*
AFAD ***06*** *02:42:49.6,38°.45N×25°.89E,h7^{km}±4^{km},ML2.4*
ISC 06 02:42:47.7±1.1,**38°.45N**±0°.02×**25°.75E**±0°.02,**h6**^{km}±9^{km}, **n66,**σ**0^{s}.74**/94,**Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CHOS	**Chios island**	**0.25**	**105**	P	**Pg**	**02 42 52.9**	**+0.3**
CHOS				S	**Sg**	**02 42 55.8**	**0.0**
CHOS				AML	AML		
CHOS	**Chios island**	**0.25**	**105**	Pg	**Pg**	**02 42 52.9**	**+0.3**
CHOS				AML	AML		
CESE	**eme**	**0.45**	**106**	Pg	**Pb**	**02 42 57.3**	**-0.7**
CESE				AML	AML		
KARB	**zmir-Karabur**	**0.56**	**68**	P	**Pb**	**02 42 59.5**	**-0.4**

KARB				S	Sg	02 43 05.1	-0.7
KARB				IAML		02 43 06.0	
	comp=N,420nm,0.3s						
KARB				IAML		02 43 06.0	
	comp=E,820nm,0.3s						
ZEYE	Izmir, Urla-Ze	0.63	110	P	Pg	02 42 59.8	0.0
KRBN	Karaburun	0.65	77	Pg	Pb	02 43 00.9	-0.5
KRBN				Sg	Sg	02 43 08.7	+0.2
URLA	Izmir	0.67	98	Pg	Pb	02 43 01.2	-0.6
URLA				AML	AML		
URLA	Izmir	0.67	98	P	Pg	02 43 00.1	-0.5
FOCM	Foa	0.81	71	Pg	Pb	02 43 04.2	0.0
FOCM				Sg	Sg	02 43 13.7	-0.1
FOCM				AML	AML		
BAGT	Foa	0.89	76	P	Pg	02 43 04.9	+0.2
BAGT				S	Sg	02 43 15.4	-0.8
BAGT				IAML		02 43 19.0	
	comp=N,135nm,0.6s						
PRK	Paraskevi	0.89	27	P	Pg	02 43 04.6	-0.2
PRK				S	Sg	02 43 16.8	+0.4
PRK				AML	AML		
PRK	Paraskevi	0.89	27	P	Pg	02 43 05.0	+0.3
PRK				S	Sb	02 43 17.9	+0.2
PRK				AML	AML		
DGB	zmir	0.98	114	P	Pg	02 43 05.7	-0.7
DGB				S	Sb	02 43 19.5	-0.6
DGB				IAML		02 43 22.0	
	comp=E,107nm,0.6s						
GMLD	Gumuldur	0.99	112	Pg	Pg	02 43 06.7	0.0
GMLD				AML	AML		
BLCB	Balcova	1.02	93	P	Pg	02 43 07.0	-0.2
BLCB				S	Sn	02 43 21.5	-1.6
BLCB				AML	AML		
BLCB	Balcova	1.02	93	Pg	Pg	02 43 07.0	-0.2
BLCB				AML	AML		
TNSA	Tinos	1.02	207	P	Pg	02 43 06.8	-0.5
TNSA				S	Sg	02 43 20.2	-0.4
TNSA				AML	AML		
KOCA	Canakkale, Ayv	1.09	16	P	Pg	02 43 07.8	-0.8
KOCA				S	Sn	02 43 24.8	-0.1
DKL	Dikili	1.09	55	Pg	Pg	02 43 08.9	+0.2
DKL				AML	AML		
DKL	Dikili	1.09	55	P	Pb	02 43 09.1	+0.1
DKL				S	Sn	02 43 24.3	-0.7
KARY	Karystos	1.12	248	P	Pg	02 43 08.4	-0.7
KARY				S	Sg	02 43 23.8	+0.2
KARY				AML	AML		
KARY	Karystos	1.12	248	P	Pg	02 43 09.6	+0.5
KARY				S	Sg	02 43 23.9	+0.4
AYVA	Ayvalik	1.13	40	P	Pg	02 43 08.5	-0.8
AYVA				S	Sn	02 43 25.0	-0.8
AYVA				IAML		02 43 27.0	
	comp=N,148nm,0.4s						
AYVA				IAML		02 43 29.0	
	comp=E,103nm,0.5s						
ZEDA	zmir-Bergama	1.16	63	P	Pg	02 43 09.9	+0.1
ZEDA				S	Sn	02 43 25.9	-0.7
ZEDA				IAML		02 43 27.0	
	comp=N,99nm,0.6s						
ZEDA				IAML		02 43 28.0	
	comp=E,76nm,0.3s						
CAMT	Merkez	1.26	76	P	Pn	02 43 12.1	+0.3
CAMT				S	Sb	02 43 27.7	-0.6
KYMI	Kymi, Euboea I	1.31	278	P	Pn	02 43 12.0	-0.5
KYMI				S	Sb	02 43 30.4	+0.7
KYMI				AML	AML		
KYMI	Kymi, Euboea I	1.31	278	P	Pn	02 43 12.2	-0.3
KYMI				S	Sb	02 43 30.2	+0.5
DUVT	Torbali	1.35	99	P	Pn	02 43 13.0	-0.2
EZNE	Ezine-Canakkal	1.39	20	Pn	Pn	02 43 13.9	+0.3
GCAM	G?zelcaml?	1.39	122	Pn	Pg	02 43 15.3	+1.0
GCAM				AML	AML		
BOZC	Bozcaada	1.41	10	Pn	Pn	02 43 13.9	0.0
BOZC				AML	AML		
BOZC	Bozcaada	1.41	10	P	Pn	02 43 12.8	-1.1
BAYC	CANAKKALE_Bayr	1.43	25	P	Pn	02 43 12.6	-1.5
EZN	Ezine	1.44	18	P	Pn	02 43 13.5	-0.8
EZN				S	Sg	02 43 35.0	+0.9
EZN				AML	AML		
EZN	Ezine	1.44	18	Pn	Pn	02 43 14.4	+0.1
EZN				AML	AML		
BUHA	Balikesir, Bur	1.47	44	P	Pn	02 43 14.0	-0.7
DION	Dionisos Attik	1.48	256	P	Pn	02 43 15.2	+0.4
DION				S	Sn	02 43 34.2	-0.3
DION				AML	AML		
DION	Dionisos Attik	1.48	256	P	Pn	02 43 15.1	+0.2
DION				S	Sn	02 43 33.9	-0.7
DION				AML	AML		
LIA	Limnos Island	1.51	343	P	Pn	02 43 14.7	-0.5
LIA				S	Sn	02 43 35.4	+0.1
LIA				AML	AML		
LIA	Limnos Island	1.51	343	P	Pn	02 43 16.3	+1.0
LIA				S	Sn	02 43 35.9	+0.7
LIA				AML	AML		
SOMA	Soma-Manisa	1.56	63	Pn	Pb	02 43 16.8	-0.2
SOMA				AML	AML		
AOS	Alonnisos	1.63	297	P	Pn	02 43 16.9	0.0
AOS				S	Sn	02 43 38.4	+0.2
AOS				AML	AML		
VLY	Voula,Athens	1.66	249	P	Pn	02 43 17.4	+0.1
VLY				S	Sn	02 43 38.9	0.0
VLY				AML	AML		
AKS	Akhisar	1.67	75	Pn	Pb	02 43 18.4	-0.4
AKS				AML	AML		
COMU	Canakkale	1.74	19	Pn	Pn	02 43 19.3	+0.9
COMU				AML	AML		
GADA	Gvkgeada	1.74	4	P	Pn	02 43 17.5	-0.9
GADA				S	Sn	02 43 42.0	+1.1
GADA				AML	AML		
GADA	Gvkgeada	1.74	4	Pn	Pn	02 43 19.6	+1.2
GADA				AML	AML		
AYDB	Zeytinkoy-Aydi	1.76	106	Pn	Pb	02 43 20.1	-0.4
AYDB				AML	AML		
STEP	BALIKESIR_Sava	1.79	58	P	Pb	02 43 21.4	+0.5
ODEM	Odemis-Izmir	1.83	95	Pn	Pb	02 43 21.3	-0.4
ODEM				AML	AML		
KTTT	Salihli	1.85	82	P	Pb	02 43 21.7	-0.2
CANM	Can-anakkale	1.86	33	Pn	Pn	02 43 20.9	+0.9
CANM				AML	AML		
BODT	Bodrum	1.86	138	Pn	Pb	02 43 21.8	-0.3
BODT				AML	AML		
YENI	Yenice-Canakka	1.88	38	Pn	Pn	02 43 21.1	+0.7
GORD	Gordes-Manisa	1.95	76	Pn	Pb	02 43 22.8	-0.9
GORD				AML	AML		
MLSB	Milas	1.98	125	Pn	Pb	02 43 23.4	-0.7
GELI	Tayfur-Gelibol	2.02	16	Pn	Pn	02 43 23.4	+1.1
GELI				AML	AML		
SMTH	Samothraki Isl	2.02	355	P	Pn	02 43 21.2	-1.1
SMTH				S	Sn	02 43 48.7	+0.7
BALB	Balikesir	2.04	54	Pn	Pn	02 43 23.7	+1.2
BALB				AML	AML		
NAZL	Nazilli-Aydin	2.06	103	Pn	Pb	02 43 24.5	-1.0
NAZL				AML	AML		
GONE	Gonen-Balikesi	2.19	43	Pn	Pn	02 43 25.6	+1.0
KULA	Kula-Manisa	2.28	88	Pn	Pn	02 43 27.2	+1.2
SUSR	Susurluk-Balik	2.36	50	Pn	Pn	02 43 28.3	+1.3
SUSR				AML	AML		
YER	Yerkesik	2.40	122	Pn	Pn	02 43 29.4	+1.8
EDC	Edincik	2.50	40	Pn	Pn	02 43 30.5	+1.6
EDC				AML	AML		
TURN	Turunc	2.59	129	Pn	Pn	02 43 32.2	+2.0

*SNET **06** 02:44:13.7±1.2, 13°.35N×89°.73W, h55^{km}, ML2.6, Presumed earthquake*

*CATAC **06** 02:44:13.4±0.8, 13°N±6°×9°0W±°, h35^{km}±5^{km}, M2.8/7, MLv2.8/7, Error ellipse: s-maj=12.8km s-min=8.2km az=22.0, confirmed*

*GCG **06** 02:44:14.6±0.4, 13°.44N×89°.72W, h54^{km}±4^{km}, MD3.7, Presumed earthquake*

ISC 06 02:44:10.5±3.7**, 13°.2N**±0°.1×**89°.80W**±0°.07**, h14**^{km}±17^{km}**, n20, σ0^{s}.82**/39**, 1C-2D, El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAYA	Jayaque - finc	0.57	37	iP	Pn	02 44 24.4	0.0
JAYA				eS	Sb	02 44 31.9	+1.3
JAYA	Jayaque - finc	0.57	37	⇑iP	Pn	02 44 24.5	0.0
JAYA				eS	Sb	02 44 32.6	+2.0
JAYA	Jayaque - finc	0.57	37	P	Pn	02 44 24.5	0.0
JAYA				S	Sn	02 44 33.0	-0.7
CEVE	Cerro Verde	0.66	15	iP	Pn	02 44 25.8	+0.1
CEVE				eS	Sn	02 44 36.0	0.0
CEVE	Cerro Verde	0.66	15	P	Pn	02 44 25.7	+0.1
CEVE				S	Sn	02 44 35.4	-0.5
SBLS	San Blas	0.67	15	iP	Pn	02 44 25.6	-0.2
SBLS				eS	Sn	02 44 35.4	-0.8
FAME	Alcaldia de Sa	0.68	342	P	Pn	02 44 26.1	+0.4
FAME				S	Sn	02 44 35.6	-0.6
SNJE	San Jose	0.70	16	iP	Pn	02 44 26.1	-0.1
SNJE				eS	Sb	02 44 35.2	+1.0
PMON	Piamonte	0.70	42	iP	Pn	02 44 26.4	+0.3
PMON				eS	Sb	02 44 35.6	+1.4
PMON	Piamonte	0.70	42	P	Pn	02 44 26.5	+0.3
PMON				S	Sn	02 44 36.3	-0.5
NUBE	Las Nubes	0.71	2	eP	Pn	02 44 26.1	-0.1
NUBE				eS	Sb	02 44 35.3	+0.9
NUBE	Las Nubes	0.71	2	iP	Pn	02 44 26.4	+0.1
NUBE				eS	Sb	02 44 35.4	+1.0
NUBE	Las Nubes	0.71	2	P	Pn	02 44 26.4	+0.1
NUBE				S	Sb	02 44 35.7	+1.3
BOQS	Boqueron	0.74	43	iP	Pn	02 44 26.9	+0.1
BOQS				eS	Sb	02 44 36.7	+1.2
SJTE	Alcalda de S	0.88	61	⇓iP	Pn	02 44 28.7	+0.1
SJTE				eS	Sb	02 44 39.5	+0.2
RBDL	Robledal	0.92	7	⇓iP	Pn	02 44 29.2	-0.1
RBDL				eS	Sn	02 44 41.9	-0.5
COEG	Centro de Oper	0.99	64	iP	Pn	02 44 30.0	-0.1
COEG				eS	Sg	02 44 42.4	-0.4
COEG	Centro de Oper	0.99	64	P	Pn	02 44 30.2	0.0
COEG				S	Sb	02 44 42.8	+0.3
MTO3	Montecristo	1.27	20	eP	Pn	02 44 33.4	-0.7
MTO3	Montecristo	1.27	20	P	Pn	02 44 33.5	-0.6
MTO3				S	Sb	02 44 48.4	-2.4

*SJA **06** 02:47:15.8±0.7, 30°.32S×71°.79W, h10^{km}, ML3.5, MW3.2*

*GUC **06** 02:47:20.5±0.8, 30°.38S×71°.49W, h36^{km}±2^{km}, ML3.5*

ISC 06 02:47:17.9±1.0**, 30°.29S**±0°.02×**71°.64W**±0°.05**, h10**^{km}**, n38, σ2^{s}.10**/68**, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CO06	Fray Jorge	0.39	179	eP	Pn	02 47 28.2	-1.3
CO06				eS	Sb	02 47 33.9	+1.0
CO06				IAML		02 47 34.7	
	comp=N,9µm,0.3s						
GO04	Tololo Observa	0.74	81	eP	Pn	02 47 33.3	-1.3
GO04				IAML		02 47 48.3	
	comp=Z,2µm,0.2s						
GO04	Tololo Observa	0.74	81	eP	Pn	02 47 33.3	-1.3
GO04				eS	Sg	02 47 42.1	+0.2
GO04				IAML		02 47 45.4	
	comp=N,7µm,0.2s						
CO03	El Pedregal	0.99	124	eP	Pg	02 47 36.0	-0.9
CO03				eS	Sg	02 47 39.0	-11
CO03				IAML		02 47 48.9	
	comp=Z,651nm,0.3s						
CO03	El Pedregal	0.99	124	eP	Pg	02 47 36.0	-0.9
CO03				eS	Sg	02 47 47.1	-2.7
CO03				IAML		02 47 48.4	
	comp=E,1µm,0.4s						
CO02	Combarbal	1.07	149	iP	Pg	02 47 37.3	-1.1
CO02				eS	Sg	02 47 49.5	-2.8
CO01	Juntas del Tor	1.38	77	eP	Pg	02 47 43.6	-0.7
CO01				eS	Sb	02 47 59.2	-2.4
CO01				IAML		02 48 01.5	
	comp=Z,524nm,0.8s						
CO01	Juntas del Tor	1.38	77	eP	Pb	02 47 43.3	-0.6
CO01				eS	Sb	02 47 58.2	-3.4
CO01				IAML		02 48 01.5	
	comp=N,794nm,0.2s						
LCO	Las Campanas	1.51	33	eP	Pb	02 47 45.9	-0.3
LCO				iS	Sg	02 48 05.7	-0.9
AC05	El Transito	1.87	40	eP	Pb	02 47 51.8	-0.5
AC05				eS	Sb	02 48 15.8	0.0
AC05				IAML		02 48 17.7	
	comp=N,550nm,0.3s						
AROD	Rodeo	1.88	87	eP	Pb	02 47 52.1	-0.4
AROD				eS	Sb	02 48 15.2	-1.0
AC04	Llanos de Chal	2.13	14	eP	Pn	02 47 54.3	+0.7
ACCO	Cerro Coronel	2.25	98	eP	Pn	02 47 52.5	-2.9
ACCO				eP	Pb	02 47 57.8	-1.0
ACCO				IAML	S	02 48 28.6	+5.2
	comp=Z,213nm,0.7s						
ACCO				eS	S	02 48 28.6	+5.2
RTLS	Leoncito	2.51	127	eP	Pb	02 48 01.0	-2.3
RTLS				eS	Sb	02 48 34.6	+0.2
RTLS				IAML		02 48 39.0	
	comp=Z,252nm,1.0s						
VA03	San Esteban	2.64	160	eP	Pn	02 48 01.1	+0.5
VA03				eS	Sb	02 48 36.5	-1.3
VA03				IAML		02 48 45.0	
	comp=Z,230nm,0.5s						
VA03	San Esteban	2.64	160	eP	Pn	02 48 00.9	+0.3
VA03				iS	Sn	02 48 32.0	-0.7
VA03				IAML		02 48 40.2	
	comp=E,501nm,0.2s						
ZON	Zonda	2.84	117	eP	Pn	02 48 05.1	+1.8
ZON				eP	Pb	02 48 05.5	-3.2
ZON				eS	Sg	02 48 47.6	-1.4
RTLL	Cerro Villicun	2.92	112	eP	Pn	02 48 06.2	+1.9
RTLL				IAML		02 48 56.9	
	comp=Z,79nm,0.5s						
GO03	Copiapo	2.95	25	eP	Pb	02 48 07.6	-3.1
GO03				IAML		02 48 54.6	
	comp=Z,122nm,0.5s						
GO03	Copiapo	2.95	25	eP	Pn	02 48 06.8	+1.9
GO03				iS	Sb	02 48 44.9	-1.9
MT02	Curacav	2.99	172	eP	Pn	02 48 05.5	+0.1
MT02				eS	Sb	02 48 46.1	-1.8
MT02				IAML		02 48 53.1	
	comp=Z,122nm,0.3s						
AC06	Mina Casimiro	3.13	21	eP	Pn	02 48 09.9	+2.6
AC06				iS	Sb	02 48 49.4	-2.5
MT05	Renca	3.19	166	eP	Pn	02 48 08.8	+0.7
MT05				eS	Sn	02 48 48.5	+2.3
MT05				IAML		02 48 58.0	
	comp=Z,171nm,0.3s						
CFA	Coronel Fontan	3.21	115	eP	Pn	02 48 10.6	+2.3
CFA				eS	Sb	02 48 53.5	-0.5
MT03	Universidad Ad	3.34	164	eP	Pn	02 48 10.5	+0.3
MT03				eP	Pb	02 48 10.6	-6.6
MT03				eP	Pb	02 48 10.9	-6.3
MT03				eS	Sb	02 48 56.5	-1.4
MT03				IAML		02 49 04.5	
	comp=Z,135nm,0.2s						
MT04	Ro Olivares	3.36	158	eP	Pn	02 48 12.3	+1.6
MT04				eS	Sn	02 48 52.5	+1.8
MT04				IAML		02 49 05.6	
	comp=Z,83nm,0.4s						
VCA	Vinchina	3.37	64	eP	Pb	02 48 14.8	-3.0
VCA				eS	Sg	02 49 06.1	0.0
VCA				IAML		02 49 07.4	
	comp=Z,290nm,0.3s						
VCA	Vinchina	3.37	64	eP	Pb	02 48 14.6	-3.2
VCA				iS	Sb	02 48 55.2	-3.7
MT08	Bocatoma Ro	3.44	157	eP	Pn	02 48 14.0	+2.3
MT08				eS	Sn	02 48 53.5	+0.9
MT08				IAML		02 49 06.2	
	comp=Z,61nm,0.6s						
ARCO	CERRO ARCO	3.44	138	eP	Pn	02 48 14.6	+3.0
ARCO				eS	Sb	02 48 59.0	-1.9
ARCO				IAML		02 49 08.7	
	comp=Z,56nm,0.4s						
MT13	San Alfonso	3.63	162	eP	Pn	02 48 15.2	+0.9
MT13				eS	Sn	02 48 59.6	+2.3
MT13				IAML		02 49 12.6	
	comp=Z,62nm,0.6s						
AAGR	Agrelo	3.68	140	eP	Pn	02 48 18.2	+3.3
AAGR				eS	Sb	02 49 10.5	+2.8
AAGR				IAML		02 49 11.0	
	comp=Z,44nm,0.4s						
AC02	Maricunga	4.09	33	eP	Pb	02 48 25.2	-5.1
AC02				IAML		02 49 31.1	
	comp=Z,59nm,0.8s						
BO01	Tunca	4.12	174	eP	Pn	02 48 20.9	+0.1
BO01				eS	Sn	02 49 11.5	+2.4
BO01				IAML		02 49 21.8	
	comp=Z,31nm,0.5s						
ACLC	CERRO LA CRUZ	4.16	79	eP	Pn	02 48 24.0	+2.3
ACLC				eS	Sb	02 49 21.3	-0.5
ACLC				IAML		02 49 22.9	
	comp=Z,39nm,0.3s						
TINO	Tinogasta	4.20	59	eP	Pn	02 48 25.1	+3.1
ACAN	Cantantal	4.30	119	IAML		02 49 23.0	
	comp=Z,154nm,0.5s						
CYA	Choya	5.42	72	eP	Pn	02 48 39.4	+0.6

*IDC **06** 02:49:45.5±1.3, 5°.29S×131°.11E, h0^{km}, mb4.2/6, mbtmp4.3/9, ML4.5/3, Error ellipse: s-maj=51.9km s-min=15.9km az=77.0*

*DJA **06** 02:49:57.9±0.2, 6°S±2°×13°1E±°, h109^{km}±6^{km}, M4.7/19, mB5.1/7, mb4.8/12, MLv4.9/19, Mw(mB)4.5/7*

ISC 06 02:49:56.0±0.6**, 5°.76S**±0°.04×**131°.01E**±0°.06**, h86**^{km}**, n33, σ2^{s}.18**/36**, mb4.0**/6**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BNDI	Bandanaira	1.65	318	P	Pn	02 50 27.2	+3.7
BNDI				S	Sn	02 50 49.5	+5.1
BNDI				AML	AML		
SAUI	Saumlaki	2.23	173	P	Pn	02 50 34.2	+3.1
SAUI	Saumlaki	2.23	173	S	Sn	02 51 00.6	+2.7
SAUI	Saumlaki	2.23	173	P	Pn	02 50 35.0	+3.9
SAUI				AML	AML		
FAKI	Fak Fak	3.08	24	P	Pn	02 50 43.9	+1.4
FAKI	Fak Fak	3.08	24	S	Sn	02 51 19.2	+0.8
FAKI	Fak Fak	3.08	24	P	Pn	02 50 44.0	+1.4
FAKI				S	Sn	02 51 19.3	+0.8
FAKI				AML	AML		
MSAI	Masohi	3.17	319	P	Pn	02 50 45.6	+1.8
MSAI				AML	AML		
KMPI	Kaimana, Papua	3.40	52	P	Pn	02 50 48.9	+2.0
KMPI				S	Sn	02 51 27.4	+1.2
NLAI	Namlea	4.63	303	P	Pn	02 51 05.7	+2.1
NLAI				AML	AML		
MWPI	Manokwari, Pap	5.67	32	P	Pn	02 51 20.9	+3.1
	1.5nm160nm,0.7s						
MWPI				S	Sn	02 52 22.8	+1.2
	1.5nm160nm,0.7s						
MWPI				AML	AML		
SANI	Sanana	6.22	306	P	Pn	02 51 25.5	+0.3
SANI	Sanana	6.22	306	P	Pn	02 51 25.5	+0.3
	0.8nm3µm182nm,0.6s						
SANI				AML	AML		
DRS	Darwin Rock St	6.63	181	P	Pn	02 51 30.4	-0.4
BAKI	Biak	6.82	48	P	Pn	02 51 36.9	+3.5
BAKI				S	Sn	02 52 50.9	+1.3
SOEI	Soe	7.77	239	P	Pn	02 51 48.3	+1.8
SOEI	Soe	7.77	239	S	Sn	02 53 12.1	-0.9
SOEI	Soe	7.77	239	P	Pn	02 51 48.7	+2.2
	0.3nm43nm,0.7s						
SOEI				AML	AML		
MNI	Manado	9.44	319	P	Pn	02 52 09.8	+0.5
TOLI2	Tolitoli	12.28	303	P	Pn	02 52 48.9	+1.0
FITZ	Fitzroy Crossi	13.34	203	Pn	Pn	02 52 57.7	-4.1
	2.2nm,0.3s,baz=31,slow=11,SNR=71						
FITZ				Sn	Sn	02 55 13.9	-15
	4.9nm,0.3s,baz=2.8,slow=14,SNR=9.3						
	5.3nm,0.3s						
FITZ				AML	AML		
PLAI	Plampang	13.47	256	P	Pn	02 53 03.4	-0.3
WRA	Warramunga Arr	14.46	167	Pn	Pn	02 53 11.8	-4.8
	2.0nm,0.3s,baz=350,slow=14,SNR=41						
WRA				Sn	Sn	02 55 41.3	-15
	3.1nm,0.3s,baz=348,slow=24,SNR=7.2						
	3.4nm,0.3s						
WRA				AML	AML		
QIS	Mount Isa	16.91	151	P	Pn	02 53 45.9	-1.5
MTSU	Mount Surprise	17.89	135	P	P	02 53 58.8	-0.1
ASAR	Alice Springs	18.02	171	Pn	P	02 53 58.8	-1.4
	1.5nm,0.3s,baz=351,slow=8.4,SNR=74						
ASAR				Sn	Sn	02 57 08.2	-14
	1.3nm,0.3s,baz=350,slow=26,SNR=9.9						
	5.3nm,0.5s						
ASAR				AML	AML		
KKM	Kota Kinabalu	18.86	308	P	P	02 54 09.4	-0.2
STKA	Stephens Creek	27.81	160	P	P	02 55 40.1	+3.0
	1.4nm,0.7s,baz=346,slow=8.3,SNR=2.8						
	1.4nm,0.7s						
CMAR	Chiang Mai Arr	39.74	308	P	P	02 57 18.5	-2.0
	1.4nm,0.5s,baz=141,slow=8.4,SNR=9.4						
	1.4nm,0.5s						
SONM	Songino Array	57.60	341	P	P	02 59 34.7	-2.4
	0.4nm,0.3s,baz=157,slow=7.8,SNR=2.5						
	0.4nm,0.3s						
MKAR	Makanchi Array	67.75	326	P	P	03 00 43.2	-1.3
	1.4nm,0.4s,baz=114,slow=7.6,SNR=35						
	1.4nm,0.4s						
KURBB	Kurchatov Arra	71.99	328	P	P	03 01 08.7	-1.7
	3.2nm,0.2s,baz=126,slow=4.7,SNR=1.3						
	3.2nm,0.2s						
BVAR	Borovoye Array	77.56	327	P	P	03 01 40.6	-1.9
	0.3nm,0.3s,baz=120,slow=5.7,SNR=2.0						
	0.3nm,0.3s						

*ISK **06** 02:52:56.5, 40°.61N×33°.51E, h2^{km}, ML3.6/25*

*CFUSG **06** 02:52:57.6, 40°.60N×33°.60E, h5^{km}, Mb2.9/4, MD3.3/4, MSH3.0/5*

*IDC **06** 02:52:57.4±1.0, 40°.66N×33°.65E, h0^{km}, mb3.8/3, mbtmp3.5/7, ML3.3/4, Error ellipse: s-maj=16.6km s-min=11.8km az=84.0*

*AFAD **06** 02:52:57.0, 40°.62N×33°.49E, h7^{km}±2^{km}, MW3.7*

ISC 06 02:52:57.2±1.2**, 40°.60N**±0°.02×**33°.55E**±0°.02**, h3**^{km}±9^{km}**, n80, σ0^{s}.96**/98**, 16C-2D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELDT	Eldivan	0.14	219	P	Pg	02 53 00.3	+0.3
YENC	ankr-Yen	0.24	71	P	Pg	02 53 03.1	+1.3
ILGA	Ilgaz	0.47	16	P	Pg	02 53 06.2	0.0
ILGA				S	Sg	02 53 13.0	+0.7
ILGA				IAML		02 53 14.0	
	comp=E,5µm,0.9s						
GOKD	Ankara-Kalecik	0.53	186	P	Pg	02 53 08.0	+0.6
GOKD				S	Sb	02 53 17.2	-0.1
GOKD				IAML		02 53 19.0	
	comp=N,3µm,0.4s						
DELI	KIRIKKALE	0.67	154	P	Pg	02 53 10.2	+0.2
SUNG	orum-Sungurl	0.68	127	P	Pb	02 53 11.1	-0.6
SUNG				IAML		02 53 21.0	
	comp=E,529nm,0.6s						
SUNG				S	Sb	02 53 21.4	-0.1
SUNG				IAML		02 53 22.0	
	comp=N,726nm,0.4s						
KMON	Kastamonu	0.79	13	Pg	Pb	02 53 12.6	-1.1
KMON				Sg	Sb	02 53 24.3	-0.6
KMON				AML	AML		
DERS	Karabk-Eskip	0.80	289	P	Pg	02 53 12.6	+0.2
CMDR	Camlidere-ANKA	0.82	263	P	Pg	02 53 12.2	-0.7
CMDR				S	Sn	02 53 28.5	-0.1
CMDR				IAML		02 53 30.0	
	comp=N,2µm,0.6s						
BR131	Keskin Array S	0.88	175	Pg	Pb	02 53 14.6	-0.6
BR131				Sg	Sn	02 53 27.7	-2.3
BRTR	Keskin Array B	0.88	175	Pg	Pb	02 53 14.6	-0.6
	131nm,0.3s,baz=2.0,slow=16,SNR=2506						
BRTR				Lg	Lg	02 53 27.8	
	180nm,0.3s,baz=348,slow=21,SNR=22						
KAGI	orum-Kargı	0.89	53	P	Pg	02 53 14.0	-0.2
SAFT	Safranbolu	0.91	315	Pg	Pg	02 53 14.7	+0.1
SAFT				AML	AML		
LOD	Lodumlu	0.93	220	Pg	Pg	02 53 14.9	-0.1
LOD				AML	AML		
KBUK	KARABUK-Merkez	0.94	313	P	Pg	02 53 14.4	-0.8
KBUK				S	Sg	02 53 27.5	+0.1
KBUK				IAML		02 53 32.0	
	comp=N,599nm,0.8s						
KESK	Krkkale-Ke	0.97	178	P	Pg	02 53 15.8	+0.1
AYAZ	Ayas K¶y, M	1.00	85	P	Pn	02 53 17.2	-1.0
SEYI	Kastamonu-Seyd	1.04	8	P	Pg	02 53 16.9	-0.3
BBAL	Bala	1.11	197	P	Pb	02 53 18.7	-0.4
BCAM	Yenicaga	1.14	281	P	Pb	02 53 18.4	-1.3
AKPI	Kirsehir/Akpin	1.15	162	P	Pb	02 53 19.2	-0.6
COAL	Corum-Alaca	1.15	107	P	Pn	02 53 19.4	-1.0
COAL				S	Sn	02 53 36.6	-0.2
CDAG	Cicekdag	1.17	147	P	Pb	02 53 19.3	-0.8
AFSR	Afar-Bala (An	1.21	198	Pn	Pg	02 53 20.9	+0.5
AFSR				Sn	Sn	02 53 38.3	+0.2
AFSR				AML	AML		
KAMT	Kaman	1.24	174	Pn	Pg	02 53 20.9	0.0
KAMT				Sn	Sn	02 53 39.7	+0.8

KAMT				AML	AML		
YOZG	Bozok Univ. Me	1.26	130	P	Pb	02 53 21.2	-0.5
YOZG				S	Sn	02 53 38.1	-1.4
YOZG				IAML		02 53 39.0	
	comp=N,202nm,0.3s						
KIBS	BOLU	1.30	262	P	Pn	02 53 21.5	-1.0
DEVR	Zonguldak/Devr	1.31	295	P	Pn	02 53 21.1	-1.3
RUZG	Kolk¶y-BOLU	1.34	276	Pn	Pb	02 53 22.2	-0.8
RUZG				AML	AML		
CIDE	Kastamonu/Cide	1.35	341	⇑P	Pg	02 53 23.6	+0.5
CIDE				⇑S	Sg	02 53 41.4	+0.7
KURC	Kurucasile-Bar	1.38	334	Pn	Pg	02 53 23.4	-0.2
KURC				AML	AML		
POLA	Polatl-ANKAR	1.39	230	Pn	Pg	02 53 23.6	-0.2
POLA				AML	AML		
BZK	Bozkurt	1.40	14	Pn	Pg	02 53 23.9	-0.1
BZK				AML	AML		
BZK	Bozkurt	1.40	14	⇑P	Pg	02 53 24.3	+0.3
BZK				⇓S	Sg	02 53 43.2	+1.1
BOLU	Bolu-Merkez-Mu	1.43	278	P	Pn	02 53 23.5	-0.6
YUVA	Yuva-Kibriscik	1.43	262	Pn	Pb	02 53 24.2	-0.4
YUVA				AML	AML		
KKUL	Konya-Kulu	1.51	199	P	Pb	02 53 25.3	-0.6
KULU	Kulu	1.61	195	Pn	Pg	02 53 27.8	-0.3
SERE	Sereflikochisa	1.66	179	Pn	Pb	02 53 28.0	-0.4
SERE				AML	AML		
YOZ	Yozgat	1.67	125	Pn	Pg	02 53 28.5	-0.6
YOZ				AML	AML		
KOZK	Kozakli-Nevseh	1.72	143	Pn	Pb	02 53 29.1	-0.5
KOZK				AML	AML		
YARM	Yarimca-Ladik(	1.76	79	Pn	Pb	02 53 29.2	-1.0
YARM				AML	AML		
MDUB	Mudurnu	1.79	267	Pn	Pb	02 53 29.3	-1.5
MDUB				AML	AML		
SINP	Sinop	1.81	40	Pn	Pb	02 53 29.9	-1.0
SINP				AML	AML		
KIZO	Buyukkizoglu-L	1.84	80	Pn	Pb	02 53 31.0	-0.5
KIZO				AML	AML		
SVRH	Sivrihisar-ESK	1.94	234	Pn	Pb	02 53 31.4	-1.8
SVRH				AML	AML		
SAHE	Sakarya_HENDEK	2.06	278	⇑P	Pb	02 53 33.5	-1.7
KIZT	Kizilcal	2.15	217	Pn	Pn	02 53 34.3	+0.3
TOKT	Tokat	2.31	96	Pn	Pb	02 53 37.3	-2.2
TOKT				AML	AML		
GULT	Gulveren	2.32	267	Pn	Pn	02 53 36.7	+0.4
GULT				AML	AML		
GULA	Gulagac	2.32	166	Pn	Pb	02 53 37.4	-2.3
GULA				AML	AML		
SAUV	Serdivan-Sakar	2.45	274	Pn	Pn	02 53 38.6	+0.5
SAUV				AML	AML		
BNN	Bunyan	2.49	134	Pn	Pn	02 53 39.9	+1.1
BNN				AML	AML		
LADK	Ladik-KONYA	2.57	201	Pn	Pn	02 53 40.2	+0.4
LADK				AML	AML		
SVSK	Karacayir	2.73	103	Pn	Pn	02 53 43.3	+1.4
SVSK				AML	AML		
YAL	Yalta	3.91	6	*e*P	Pn	02 53 58.5	+0.4
YAL				pmax	pmax	02 54 05.6	
	comp=Z,6.0nm,0.5s						
YAL				*e*S	Sn	02 54 45.5	+1.0
YAL				smax	smax	02 54 45.7	
	comp=N,32nm,0.7s						
YAL				smax	smax	02 54 45.7	
	comp=E,17nm,0.4s						
SEV	Sevastopol'	3.94	1	*e*P	Pn	02 53 58.0	-0.6
SEV				pmax	pmax	02 54 01.3	
	comp=Z,4.0nm,0.3s						
SEV				*e*S	Sn	02 54 44.2	-1.1
SEV				smax	smax	02 54 46.5	
	comp=N,9.0nm,0.5s						
SEV				smax	smax	02 54 46.5	
	comp=E,7.0nm,0.5s						
KEPZ	Antalya-Kepez	4.00	203	⇑P	Pn	02 54 00.8	+1.4
BAND	Balkesir-Ban	4.16	268	⇑P	Pn	02 54 02.0	+0.4
SIM	Simferopol'	4.36	5	*e*S	Sn	02 54 56.0	+0.2
SIM				smax	smax	02 54 57.1	
	comp=N,23nm,0.7s						
SUDU	Sudak	4.42	14	*e*P	Pn	02 54 05.9	+0.8
SUDU				pmax	pmax	02 54 13.3	
	comp=Z,8.0nm,0.6s						
SUDU				*e*S	Sn	02 54 56.9	-0.1
SUDU				smax	smax	02 55 01.4	
	comp=N,40nm,0.7s						
SUDU				smax	smax	02 55 01.4	
	comp=E,25nm,0.6s						
DNZ2	Donuzlav2	4.78	357	*e*P	Pn	02 54 11.5	+1.5
DNZ2				pmax	pmax	02 54 15.1	
	comp=Z,78nm,0.9s						
DNZ2				*e*S	Sn	02 55 06.3	+0.4
DNZ2				smax	smax	02 55 12.9	
	comp=N,41nm,0.7s						
DNZ2				smax	smax	02 55 12.9	
	comp=E,50nm,0.9s						
TAVA	DENIZLI_Tavas	4.78	230	⇑P	Pn	02 54 11.6	+1.5
TIRR	Tirgusor	5.41	317	⇑P	Pn	02 54 19.7	+1.0
TPGR	Topolog	5.68	320	⇑P	Pn	02 54 22.6	0.0
TLCR		5.75	324	⇑P	Pn	02 54 23.3	-0.1
HARR	Harsova	5.81	316	⇑P	Pn	02 54 24.9	+0.6
CFR	Carcaliu	6.06	321	⇑P	Pn	02 54 28.2	+0.6
VRI	Vrincioaia	7.24	319	⇑P	Pn	02 54 45.0	+1.1
PLOR	Plostina	7.27	318	⇑P	Pn	02 54 44.5	+0.2
MLR	Muntele Rosu	7.40	314	Pn	Pn	02 54 47.3	+1.1
	comp=E,0.1nm,0.3s,baz=100,slow=17,SNR=1.3						
MLR				Sn	Sn	02 56 13.3	+2.5
	comp=E,0.1nm,0.3s,baz=108,slow=19,SNR=1.5						
	comp=E,0.9nm,0.5s						
MLR				AML	AML		
MLR	Muntele Rosu	7.40	314	⇓P	Pn	02 54 47.2	+0.9
KBZ	Khabaz	7.62	63	Pn	Pn	02 54 49.9	+0.8
	comp=E,0.1nm,0.3s,baz=238,slow=13,SNR=1.6						
	comp=E,0.9nm,0.6s						
KBZ				AML	AML		
VOIR		7.88	311	⇑P	Pn	02 54 53.8	+1.1
BURAR	Bucovina Array	9.22	322	⇑P	Pn	02 55 11.1	0.0
AKASG	Malin Array Be	10.54	345	Pn	Pn	02 55 26.6	-2.5
	comp=E,0.9nm,0.3s,baz=166,slow=12,SNR=4.3						
	comp=E,0.4nm,0.4s						
AKASG				AML	AML		
AKTO	Aktyubinsk	19.68	52	P	Pn	02 57 27.0	-1.7
	comp=E,0.2nm,0.3s,baz=238,slow=11,SNR=3.6						
	comp=E,0.6nm,0.4s						
AKTO				AML	AML		
FINES	FINESS Array B	21.36	350	P	P	02 57 45.8	+0.4
	comp=E,1.3nm,0.8s,baz=148,slow=11,SNR=3.5						
	comp=E,1.3nm,0.8s						
KURBB	Kurchatov Arra	32.56	57	P	P	02 59 29.6	+0.2
	comp=E,1.2nm,0.3s,baz=277,slow=9.2,SNR=1.2						
	comp=E,1.2nm,0.3s						
TORD	Torodi Ar. Bea	39.05	235	P	P	03 00 27.2	+1.7
	comp=E,1.1nm,0.9s,baz=28,slow=6.6,SNR=4.1						
	comp=E,1.1nm,0.9s						

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*IDC **06** 02:59:13.8±0.3, 17°.17S×167°.66E, h0^{km}, mb5.1/26, mbtmp5.2/30, ML5.2/3, MS5.7/56, Error ellipse: s-maj=11.6km s-min=9.7km az=78.0*

*MOS **06** 02:59:14.2±1.1, 17°.10S×167°.58E, h10^{km}, mb6.0/46, MS5.9/25, Error ellipse: s-maj=7.0km s-min=5.9km az=127.8*

*PTWC **06** 02:59:14, 17°.10S×167°.80E, h10^{km}, Mwp6.4/4*

*BJI **06** 02:59:15.4, 17°.16S×167°.61E, h10^{km}, mB6.4/50, mb5.4/72, Ms6.1/86, Ms7 5.9/83*

*NOU **06** 02:59:15.6, 17°.15S×167°.79E, h0^{km}, ML6.3/185, Vanuatu Islands*

*NEIC **06** 02:59:15, 17°.15S×167°.60E, h4^{km}*

*NEIC **06** 02:59:16.1±2.4, 17°.16S±0°.05×167°.53E±0°.06, h10^{km}, mb5.9/356, Ms_20 6.0/690, Mww6.2/36, Error ellipse: s-maj=10.3km s-min=8.5km az=78.0*

*GFZ **06** 02:59:16.4, 17°.14S×167°.67E, h15^{km}, Mw6.2/86, Moment Tensor Solution. Moment tensor: Scale 10^{18}Nm; M_{rr}2.10; $M_{\theta\theta}$-0.04; $M_{\phi\phi}$-2.06; $M_{r\theta}$-0.12; $M_{\theta\phi}$0.05; $M_{\phi r}$-0.62; Fault plane solution: $M_0$2.17409×10^{18} NP1: ϕ_s182.21398°, δ53.42904°, λ94.21167°. NP2: ϕ_s355.16823°, δ36.77901°, λ84.34651°. Principal axes: T 2.1983, Plg80.9913°, Azm111.5828°; N -0.0492, Plg3.3814°, Azm359.7017°; P -2.1490, Plg8.3402°, Azm269.2054°;*

*ISC-PP **06** 02:59:16, 17°.16S×167°.53E, h25^{km}, Mwppsm6.6, Moment Tensor Solution. s32 Moment tensor: Scale 10^{19}Nm; M_{rr}0.39±.18; $M_{\theta\theta}$0.23±.28; $M_{\phi\phi}$-0.56±.15; $M_{r\theta}$0.27±.19; $M_{\theta\phi}$-0.10±.24; $M_{\phi r}$-0.40±.16; Fault plane solution: $M_0$1.14000×10^{19} NP1: ϕ_s167.10000°, δ59.70000°, λ34.30000°. NP2: ϕ_s58.10000°, δ60.90000°, λ144.80000°.*

*GFZ **06** 02:59:17.2±0.2, 17°S±3°×16°8E±°, h10^{km}, M6.3/37, mb5.8/37*

*GCMT **06** 02:59:21.1±0.0, 17°.11S×167°.62E, h12^{km}, MW6.2/175, Moment Tensor Solution. s172,c404; s175,c726; Duration: 3^{s}0 Moment tensor: Scale 10^{18}Nm; M_{rr}2.02±.01; $M_{\theta\theta}$0.36±.01; $M_{\phi\phi}$-2.38±.01; $M_{r\theta}$-0.15±.03; $M_{\theta\phi}$-0.12±.01; $M_{\phi r}$-0.68±.03; Best double couple: $M_0$2.31100×10^{18} NP1: ϕ_s359.00000°, δ36.00000°, λ84.00000°. NP2: ϕ_s186.00000°, δ54.00000°, λ95.00000°. Principal axes: T 2.1320, Plg81.0000°, Azm116.0000°; N 0.3590, Plg4.0000°, Azm3.0000°; P -2.4900, Plg9.0000°, Azm273.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s. Triangular moment-rate function*

*NEIC **06** 02:59:26.5, 17°.05S×167°.60E, h12^{km}, Moment Tensor Solution. Duration: 6^{s}5 Moment tensor: Scale 10^{18}Nm; M_{rr}1.95; $M_{\theta\theta}$0.27; $M_{\phi\phi}$-2.23; $M_{r\theta}$-1.06; $M_{\theta\phi}$0.03; $M_{\phi r}$-0.55; Fault plane solution: $M_0$2.42000×10^{18} NP1: ϕ_s336.83000°, δ42.79000°, λ52.35000°. NP2: ϕ_s203.27000°, δ57.46000°, λ119.49000°. Principal axes: T 2.5187, Plg64.0000°, Azm166.0000°; N -0.2185, Plg25.0000°, Azm6.0000°; P -2.3002, Plg8.0000°, Azm273.0000°;*

ISC 06 02:59:15.5±0.2, **17°.20S**±0°.03×**167°.73E**±0°.03, **h10^{km}, h10^{km}:pP-P, n1599,** σ**1^{s}94**/1167, **mb5.8**/298, **MS6.0**/442, **129C-82D, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
RTV	Rentapao	0.89	132	P	Pg	02 59 31.7	-0.9
RTV	Rentapao	0.89	132	S	Sb	02 59 44.9	0.0
RTV	Rentapao	0.89	132	P	Pg	02 59 31.3	-1.3
SANVU	Saraoutou	1.81	344	P	Pn	02 59 46.8	0.0
SANVU	Saraoutou	1.81	344	S	Sb	03 00 13.1	+1.5
SANVU	Saraoutou	1.81	344		Pn	02 59 44.4	-2.5
SANVU	Saraoutou	1.81	344	P	Pn	02 59 44.3	-2.5
SANVU	Saraoutou	1.81	344	P	Pn	02 59 45.0	-1.8
MARNC	Mare, Loyalty	4.27	176	P	Pn	03 00 20.7	+0.1
MARNC	Mare, Loyalty	4.27	176		Pn	03 00 19.4	-1.1
MARNC	Mare, Loyalty	4.27	176	⇑P	Pn	03 00 18.9	-1.7
KOUNC	Koumac, New Ca	4.66	224	P	Pn	03 00 27.8	+1.8
KOUNC	Koumac, New Ca	4.66	224		Pn	03 00 25.1	-0.9
KOUNC	Koumac, New Ca	4.66	224	P	Pn	03 00 25.9	-0.1
KOUNC	Koumac, New Ca	4.66	224	⇑P	Pn	03 00 25.1	-0.9
YATNC	Mamie plateau,	4.90	189	P	Pn	03 00 31.4	+2.1
DZM	Mont Dzumac	5.00	194	Pn	Pn	03 00 29.2	-1.5
	22nm,0.3s,baz=29,slow=9.0,SNR=149						
DZM				Sn	Sn	03 01 24.4	-4.2
	132nm,0.3s,baz=96,slow=19,SNR=4.7						
DZM				LR	LR	03 01 35.7	
	comp=Z,30μm,18.9s,baz=10,slow=28						
	102nm,0.3s						
DZM				AML	AML		
NOUC	Port Laguerre	5.06	195	P	Pn	03 00 32.4	+0.9
NOUC	Port Laguerre	5.06	195	P	Pn	03 00 31.6	+0.1
ONTNC	Ouen Toro	5.22	193	P	Pn	03 00 35.7	+2.0
ONTNC	Ouen Toro	5.22	193		Pn	03 00 33.0	-0.7
ONTNC	Ouen Toro	5.22	193	P	Pn	03 00 32.7	-1.0
ONTNC	Ouen Toro	5.22	193	⇑P	Pn	03 00 32.5	-1.2
OUENC	Ouen Island, N	5.26	189	P	Pn	03 00 36.2	+2.0
OUENC	Ouen Island, N	5.26	189	S	Sn	03 01 37.3	+2.4
OUENC	Ouen Island, N	5.26	189		Pn	03 00 34.4	+0.2
OUENC	Ouen Island, N	5.26	189	P	Pn	03 00 34.5	+0.2
HURO	Huro Makira	8.76	319	P	Pn	03 01 22.6	+0.2
NGOA	Tingoa Renbel	9.31	306	P	Pn	03 01 30.0	+0.1
MSVF	Nonsavu	9.86	95	Pn	Pn	03 01 42.6	+5.1
	0.7nm,0.3s,baz=248,slow=8.6,SNR=21						
MSVF				LR	LR	03 04 47.0	
	comp=Z,279μm,18.9s,baz=270,slow=34						
	202nm,1.3s						
MSVF				AML	AML		
MSVF	Nonsavu	9.86	95	P	Pn	03 01 38.8	+1.2
MSVF	Nonsavu	9.86	95		Pn	03 01 41.8	+4.3
MSVF	Nonsavu	9.86	95	⇑P	Pn	03 01 43.5	+6.0
MSVF	Nonsavu	9.86	95	P	Pn	03 01 43.8	+6.2
HNR	Honiara	10.81	315	Pn	Pn	03 01 49.8	-0.7
	53nm,0.3s,baz=317,slow=7.7,SNR=16						
HNR				Sn	Sn	03 03 46.3	-5.4
	baz=338,slow=19						
HNR				LR	LR	03 05 39.9	
	comp=Z,69μm,18.3s,baz=220,slow=36						
	510nm,0.9s						
HNR				AML	AML		
HNR	Honiara	10.81	315	P	Pn	03 01 52.1	+1.6
HNR	Honiara	10.81	315		Pn	03 01 49.4	-1.1
HNR	Honiara	10.81	315	⇑P	Pn	03 01 50.6	+0.1
HNR	Honiara	10.81	315	P	Pn	03 01 50.8	+0.3
	comp=Z,3μm,0.9s						
SAVO	Savo Central	11.11	315	P	Pn	03 01 55.9	+1.3
SAVO	Savo Central	11.11	315	S	Sn	03 04 00.6	+1.7
DGTI	Dogotuki	11.54	87	P	Pn	03 02 01.5	+1.1
TATA	Tatamba Isabel	11.68	318	P	Pn	03 02 04.0	+1.7
NFK	Norfolk Island	11.79	179	P	Pn	03 02 05.3	+1.5
	comp=Z,245nm,1.1s						
NFK	Norfolk Island	11.79	179	P	Pn	03 02 06.7	+2.9
TAVE	Taveuni	11.84	89	P	Pn	03 02 04.3	-0.3
TAVE	Taveuni	11.84	89	S	Sn	03 04 17.8	+0.9
FUNA	Funafuti	14.11	54	P	Pn	03 02 37.1	+1.5
FUNA	Funafuti	14.11	54	P	Pn	03 02 37.5	+1.9
	comp=Z,478nm,0.9s						
LHI	Lord Howe Isla	16.29	207	P	Pn	03 03 05.7	+1.3
	comp=Z,119nm,2.2s,comp=Z,0.0nm						
LHI	Lord Howe Isla	16.29	207	P	Pn	03 03 05.3	+0.9
AUBSH	Beerwah State	16.72	232	P	P	03 03 12.8	+0.5
GD1S	Gladstone Soft	16.85	244	P	P	03 03 14.3	+0.5
GC1S	Gold Coast 1 S	17.05	228	P	P	03 03 16.4	+0.5
AUNRC	North Rockhamp	17.25	246	P	P	03 03 19.4	+1.2
EIDS	Eidsvold	17.50	240	P	P	03 03 21.9	+0.9
EIDS	Eidsvold	17.50	240	P	P	03 03 23.0	+2.0
EIDS	Eidsvold	17.50	240		P	03 03 22.8	+1.8
EIDS	Eidsvold	17.50	240	⇓P	P	03 03 22.3	+1.3
EIDS	Eidsvold	17.50	240	P	P	03 03 23.2	+2.2
RIZ	Raoul Island	17.80	135	P	P	03 03 26.6	+2.5
TW1H	Toowoomba 1 Ha	17.82	232	P	P	03 03 27.3	+2.7
AUTOO	Toowoomba Stat	17.83	232	P	P	03 03 27.5	+2.9
OUZ	Omahuta	18.70	165	P	Pn	03 03 35.2	+0.9
OUZ	Omahuta	18.70	165	⇑P	P	03 03 34.9	+0.9
OUZ	Omahuta	18.70	165	P	P	03 03 35.0	+1.0
	comp=Z,296nm,1.7s						
TARA	Tarawa	19.14	16	P	P	03 03 39.9	+0.9
TARA	Tarawa	19.14	16	P	Pn	03 03 41.7	+1.9
	comp=Z,778nm,2.2s						
AUAYR	Ayr State High	19.43	260	P	Pn	03 03 44.8	+1.5
WCZ	Waipu Caves	19.57	164	P	Pn	03 03 45.3	+0.4
ARMA	Armidale	19.72	225	P	P	03 03 46.9	+1.4
ARMA	Armidale	19.72	225	P	Pn	03 03 47.8	+0.9
ARMA	Armidale	19.72	225		P	03 03 46.3	+0.8
ARMA				IAmb	IAmb	03 03 53.2	
	comp=Z,889nm,1.6s						
ARMA	Armidale	19.72	225	⇑P	Pn	03 03 47.9	+1.0
ARMA	Armidale	19.72	225	P	Pn	03 03 48.2	+1.3
	comp=Z,466nm,2.8s						
RMQ	Roma	19.87	239	P	P	03 03 47.4	+0.4
	comp=Z,230nm,1.7s						
RMQ	Roma	19.87	239	P	P	03 03 49.2	+2.2
RABL	Rabaul	20.00	309	P	P	03 03 49.0	+0.4
RABL				IAmb	IAmb	03 03 58.5	
	comp=Z,2μm,1.9s						
AFI	Afiamalu	20.01	83	P	P	03 03 49.5	+0.8
	comp=Z,109nm,0.9s,baz=260,slow=11,SNR=11						
	comp=Z,109nm,0.9s						
AFI	Afiamalu	20.01	83	P	P	03 03 50.0	+1.3
AFI				IAmb	IAmb	03 04 01.2	
	comp=Z,981nm,1.4s						
AFI	Afiamalu	20.01	83	P	P	03 03 50.2	+1.5
AFI	Afiamalu	20.01	83	P	Pn	03 03 52.0	+1.6
	comp=Z,646nm,1.4s						
KRVT	Keravat (AS076	20.03	308	P	P	03 03 48.6	-0.1
	comp=Z,151nm,0.3s,baz=22,slow=6.9,SNR=7.2						
KRVT				LR	LR	03 10 25.5	
	comp=Z,36μm,20.9s,baz=130,slow=34						
GRZ	Great Barrier	20.18	162	P	Pn	03 03 53.1	+1.0
CTA	Charters Tower	20.55	259	P	P	03 03 54.3	-0.2
CTA	Charters Tower	20.55	259	P	P	03 03 55.2	+0.7
	comp=Z,50nm,0.6s,baz=81,slow=12,SNR=38						
CTA				LR	LR	03 10 26.2	
	comp=Z,65μm,21.8s,baz=76,slow=33						
	comp=Z,50nm,0.6s						
CTA	Charters Tower	20.55	259	P	P	03 03 57.0	+2.5
CTAO	Charters Tower	20.55	259	P	P	03 03 56.0	+1.5
CTAO	Charters Tower	20.55	259	P	P	03 03 55.4	+1.0
CTAO				IAMs_20	IAMs_20	03 10 14.9	
	comp=Z,64μm,21.0s						
CTAO	Charters Tower	20.55	259	⇓P	P	03 03 55.6	+1.2
CTAO	Charters Tower	20.55	259	P	P	03 03 56.0	+1.5
	comp=Z,545nm,2.6s						
AUPHS	Peel High Scho	20.64	225	P	Pn	03 03 57.9	+0.3
PMG	Port Moresby	21.45	289	P	P	03 04 05.5	+1.4
	comp=Z,121nm,0.9s,baz=109,slow=7.2,SNR=14						
PMG				LR	LR	03 11 15.4	
	comp=Z,56μm,20.2s,baz=110,slow=34						
PMG	Port Moresby	21.45	289	P	P	03 04 06.5	+2.3
PMG	Port Moresby	21.45	289	P	P	03 04 06.2	+2.0
PMG	Port Moresby	21.45	289	*d i*P	P	03 04 05.2	+1.0
PMG				pmax	pmax		
	comp=Z,857nm,1.6s						
PMG				MLR	MLR		
	comp=Z,48μm,12.0s						
PMG	Port Moresby	21.45	289		P	03 04 05.0	+0.8
PMG				IAmb	IAmb	03 04 19.9	
	comp=Z,1μm,1.6s						
PMG	Port Moresby	21.45	289	⇓P	P	03 04 05.1	+1.0
TOZ	Tahuroa Road	21.57	163	P	P	03 04 06.3	+1.1
TOZ				IAmb	IAmb	03 04 13.6	
	comp=Z,368nm,0.9s						
TOZ				IAMs_20	IAMs_20	03 11 55.8	
	comp=Z,60μm,18.0s						
TOZ	Tahuroa Road	21.57	163	P	P	03 04 06.8	+1.6
AULRC	Lightning Ridg	21.80	233	P	P	03 04 10.3	+2.4
MGCD	Mangrove Creek	21.87	220	P	P	03 04 09.9	+1.4
	comp=Z,116nm,0.8s						
MGCD	Mangrove Creek	21.87	220	P	P	03 04 11.0	+2.5
MGCD	Mangrove Creek	21.87	220	P	P	03 04 11.9	+3.4
	comp=Z,116nm,0.8s						
AUKHS	Kincumber High	21.87	219	P	P	03 04 12.0	+3.4
WIZ	White Island	21.90	159	P	P	03 04 11.8	+3.0
HIZ	Hauiti	22.13	165	P	P	03 04 12.5	+1.2
HIZ	Hauiti	22.13	165	P	P	03 04 12.5	+1.2
HIZ	Hauiti	22.13	165	P	P	03 04 13.5	+2.1
	comp=Z,1μm,1.4s						
TLZ	Tolley Road	22.14	164	P	P	03 04 12.9	+1.4
HAZ	Te Kaha	22.31	159	P	P	03 04 13.2	+0.1
MXZ	Matakaoa Point	22.32	157	P	P	03 04 14.9	+1.6
MXZ	Matakaoa Point	22.32	157	P	P	03 04 11.8	-1.5
MXZ				IAmb	IAmb	03 04 29.5	
	comp=Z,354nm,1.1s						
MXZ	Matakaoa Point	22.32	157	P	P	03 04 15.8	+2.4
MTSU	Mount Surprise	22.33	264	P	P	03 04 13.7	+0.1
	comp=Z,350nm,1.0s						
MTSU	Mount Surprise	22.33	264	P	P	03 04 15.7	+2.0
MTSU	Mount Surprise	22.33	264	P	P	03 04 14.5	+0.8
	comp=Z,350nm,1.0s						
SYDH	Sydney Hard Ro	22.47	220	P	P	03 04 17.5	+2.6
URZ	Urewera	22.54	160	LR	LR	03 11 43.1	
	comp=Z,51μm,18.7s,baz=346,slow=33						
URZ	Urewera	22.54	160	P	P	03 04 17.3	+1.7
URZ	Urewera	22.54	160	P	P	03 04 15.8	+0.1
URZ	Urewera	22.54	160	⇑P	P	03 04 16.4	+0.8
URZ	Urewera	22.54	160	P	P	03 04 16.7	+1.1
	comp=Z,825nm,1.6s						
KHEZ	Kahui Hut	22.69	167	P	P	03 04 19.0	+1.7
	comp=Z,1μm,1.4s						
VRZ	Vera Road	22.69	166	P	P	03 04 21.2	+3.9
MWZ	Matawai	22.74	160	P	P	03 04 18.4	+0.5
PUZ	Puketiti	22.75	158	P	P	03 04 18.5	+0.5
RTZ	Ruatahuna	22.82	161		P	03 04 18.9	+0.1
RTZ	Ruatahuna	22.82	161	P	P	03 04 19.2	+0.4
WOLH	Wollongong Har	22.83	218	P	P	03 04 21.3	+2.5
AUDCS	Dubbo College	22.86	226	P	P	03 04 21.7	+2.6
NGZ	Ngauruhoe	22.95	164	P	P	03 04 22.6	+2.4
BKZ	Black Stump Fm	23.18	162	P	P	03 04 23.9	+1.4
WAZ	Wanganui	23.34	166	P	P	03 04 27.0	+2.9
KNZ	Kokohu	23.41	160	P	P	03 04 25.5	+0.8
QLP	Quilpie	23.68	243	P	P	03 04 27.8	+0.3
	comp=Z,625nm,1.9s,comp=Z,0.0nm						
QLP	Quilpie	23.68	243	P	P	03 04 28.8	+1.3
QLP	Quilpie	23.68	243	⇑P	P	03 04 27.1	-0.4
QLP	Quilpie	23.68	243	P	P	03 04 27.8	+0.3
	comp=Z,625nm,1.9s						
AUUHS	Ulladulla High	23.74	217	P	P	03 04 29.1	+1.2
TSZ	Takapari Road	23.87	164	P	P	03 04 29.5	+0.3
QRZ	Quartz Range	23.91	171		P	03 04 30.5	+0.9
QRZ	Quartz Range	23.91	171	P	P	03 04 30.7	+1.2
PXZ	Pawanui	24.09	163	P	P	03 04 30.8	-0.4
MRZ	Mangatainoka R	24.34	165		P	03 04 31.8	-1.8
MRZ				IAmb	IAmb	03 04 47.1	
	comp=Z,477nm,1.0s						
MRZ				IAMs_20	IAMs_20	03 13 54.5	
	comp=Z,46μm,19.0s						
MRZ	Mangatainoka R	24.34	165	P	P	03 04 32.7	-0.9
CNB	Canberra Magne	24.36	219	P	P	03 04 34.3	+0.5
	comp=Z,16nm,1.2s,comp=Z,0.0nm						
NNZ	Nelson	24.43	170	IAmb	IAmb	03 04 53.9	
	comp=Z,301nm,1.1s						
NNZ				IAMs_20	IAMs_20	03 13 38.4	
	comp=Z,46μm,18.0s						
NNZ	Nelson	24.43	170	P	P	03 04 34.5	+0.2
BFZ	Birch Farm	24.53	164	P	P	03 04 37.0	+1.7
BFZ	Birch Farm	24.53	164	IAmb	IAmb	03 04 48.9	
	comp=Z,356nm,0.9s						
BFZ				IAMs_20	IAMs_20	03 13 09.5	
	comp=Z,33μm,18.0s						
BFZ	Birch Farm	24.53	164	P	P	03 04 34.4	-0.9
BFZ	Birch Farm	24.53	164	P	P	03 04 35.1	-0.2
	comp=Z,746nm,2.4s						
AUMHS	Melrose High S	24.55	219	P	P	03 04 36.7	+1.1
CMSA	Cobar Meteorol	24.57	230	P	P	03 04 36.0	+0.3
	comp=Z,345nm,2.3s,comp=Z,0.0nm						
CMSA	Cobar Meteorol	24.57	230	P	P	03 04 35.8	0.0
CMSA	Cobar Meteorol	24.57	230	P	P	03 04 35.7	0.0
	comp=Z,345nm,2.3s						
AUMTS	Mt Stromlo	24.58	219	P	P	03 04 37.8	+2.0
CAN	Canberra	24.58	219	P	P	03 04 36.0	+0.2
	comp=Z,307nm,1.3s,comp=Z,0.0nm						
CAN	Canberra	24.58	219	P	P	03 04 37.0	+1.1
CAN	Canberra	24.58	219	P	P	03 04 35.7	-0.1
CAN				IAmb	IAmb	03 04 49.6	
	comp=Z,311nm,1.1s						
CAN	Canberra	24.58	219	⇑P	P	03 04 35.3	-0.6
CAN	Canberra	24.58	219	P	P	03 04 36.9	+1.1
	comp=Z,307nm,1.3s						
DSZ	Denniston Nort	24.71	173	IAMs_20	IAMs_20	03 13 43.2	
	comp=Z,48μm,18.0s						
DSZ	Denniston Nort	24.71	173	P	P	03 04 38.1	+1.1
SNZO	South Karori	24.77	167	P	P	03 04 39.2	+1.8
SNZO	South Karori	24.77	167	P	P	03 04 36.7	-0.7
SNZO				IAmb	IAmb	03 05 07.6	
	comp=Z,375nm,1.1s						
SNZO	South Karori	24.77	167	IAMs_20	IAMs_20	03 14 14.9	
	comp=Z,45μm,18.0s						
SNZO	South Karori	24.77	167	⇑P	P	03 04 39.0	+1.6
SNZO	South Karori	24.77	167	P	P	03 04 39.3	+2.0
	comp=Z,274nm,0.9s						
THZ	Tophouse	24.88	171	IAmb	IAmb	03 04 53.1	
	comp=Z,379nm,0.9s						
THZ	Tophouse	24.88	171	P	P	03 04 40.1	+1.6
MANU	Manus Island	25.05	305	P	P	03 04 39.4	-0.9
MANU				IAmb	IAmb	03 04 58.0	
	comp=Z,211nm,1.2s						
MANU	Manus Island	25.05	305	⇑P	P	03 04 42.3	+2.1
KHZ	Kahutara	25.62	170	P	P	03 04 45.4	+0.3
KHZ	Kahutara	25.62	170	⇑P	P	03 04 44.5	-0.6
KHZ	Kahutara	25.62	170	P	P	03 04 44.8	-0.3
	comp=Z,334nm,1.0s						
PATS	Pohnpei	25.63	338	P	P	03 04 46.9	+1.5
	comp=Z,402nm,2.2s						
PATS	Pohnpei	25.63	338	P	P	03 04 47.0	+1.5
PATS	Pohnpei	25.63	338	P	P	03 04 43.3	-2.2
PATS				IAmb	IAmb	03 05 12.5	
	comp=Z,533nm,1.2s						
PATS	Pohnpei	25.63	338	P	P	03 04 45.5	+0.1
	comp=Z,405nm,2.2s						
INZ	Inchbonnie	25.64	174	IAmb	IAmb	03 05 07.5	
	comp=Z,271nm,1.0s						
INZ				IAMs_20	IAMs_20	03 14 03.7	
	comp=Z,40μm,19.0s						
INZ	Inchbonnie	25.64	174	P	P	03 04 46.0	+0.7
MILA	Mila	25.69	216	P	P	03 04 46.3	+0.4
	comp=Z,97nm,2.1s						
MILA	Mila	25.69	216	P	P	03 04 47.2	+1.3

MILA	Mila	25.69	216	⇑P	P	03 04 46.6	+0.7
LTZ	Lake Taylor	25.79	172	IAmb	IAmb	03 05 01.0	
	comp=Z,281nm,0.9s						
LTZ				IAMs_20	IAMs_20	03 13 58.8	
	comp=Z,34µm,19.0s						
LTZ	Lake Taylor	25.79	172	P	P	03 04 46.8	+0.1
WVZ	Waitaha Valley	25.92	175	P	P	03 04 50.0	+2.2
GVZ	Greta Valley S	26.08	171	P	P	03 04 51.6	+2.3
OXZ	Oxford	26.30	173	IAMs_20	IAMs_20	03 14 52.2	
	comp=Z,37µm,19.0s						
OXZ	Oxford	26.30	173	P	P	03 04 53.3	+2.0
FOZ	Fox Glacier	26.31	177	IAMs_20	IAMs_20	03 15 34.2	
	comp=Z,31µm,18.0s						
FOZ	Fox Glacier	26.31	177	P	P	03 04 53.8	+2.4
RPZ	Rata Peaks	26.58	175	LR	LR	03 15 03.9	
	comp=Z,12µm,18.3s,baz=332,slow=36						
RPZ	Rata Peaks	26.58	175	IAmb	IAmb	03 05 12.1	
	comp=Z,204nm,1.3s						
RPZ	Rata Peaks	26.58	175	P	P	03 04 55.7	+1.8
MQZ	McQueen’s Vall	26.75	172	P	P	03 04 57.1	+1.8
JCZ	Jackson Bay	26.80	178	P	P	03 04 57.9	+1.9
JCZ	Jackson Bay	26.80	178	P	P	03 04 59.1	+3.1
QIS	Mount Isa	26.81	258	P	P	03 04 56.5	+0.3
	comp=Z,312nm,1.3s,comp=Z,0.0nm						
QIS	Mount Isa	26.81	258	P	P	03 04 56.4	+0.3
QIS	Mount Isa	26.81	258	P	P	03 04 56.1	-0.1
	comp=Z,312nm,1.3s						
LBZ	Lake Benmore	27.18	176	IAMs_20	IAMs_20	03 16 02.4	
	comp=Z,32µm,18.0s						
WKZ	Wanaka	27.57	178	P	P	03 05 02.9	+0.2
AUMAG	Moama Anglican	27.74	223	P	P	03 05 07.0	+2.7
STKA	Stephens Creek	27.81	233	P	P	03 05 04.7	-0.4
	comp=Z,1µm,2.7s						
STKA	Stephens Creek	27.81	233	P	P	03 05 05.2	+0.2
	comp=Z,37nm,0.6s,baz=66,slow=8.3,SNR=35						
STKA				LR	LR	03 16 16.1	
	comp=Z,32µm,18.1s,baz=59,slow=37						
	comp=Z,37nm,0.6s						
STKA	Stephens Creek	27.81	233	P	P	03 05 05.3	+0.3
STKA	Stephens Creek	27.81	233	c iP	P	03 05 05.0	0.0
STKA	Stephens Creek	27.81	233	P	P	03 05 05.2	+0.2
	comp=Z,1µm,2.7s						
ODZ	Otahua Downs	27.87	176	P	P	03 05 07.8	+2.4
ODZ	Otahua Downs	27.87	176	P	P	03 05 04.9	-0.4
	comp=Z,64nm,1.7s						
EAZ	Earnscleugh	27.98	178	P	P	03 05 09.4	+3.1
MLZ	Mavora Lakes	28.09	179	IAmb	IAmb	03 05 50.5	
	comp=Z,166nm,1.4s						
MLZ	Mavora Lakes	28.09	179	P	P	03 05 08.9	+1.5
DCZ	Deep Cove	28.18	181	IAmb	IAmb	03 05 24.0	
	comp=Z,160nm,1.0s						
DCZ	Deep Cove	28.18	181	P	P	03 05 07.0	-1.2
TOO	Toolangi	28.18	220	P	P	03 05 08.5	+0.1
	comp=Z,55nm,2.7s,comp=Z,0.0nm						
TOO	Toolangi	28.18	220	P	P	03 05 07.8	-0.6
TOO	Toolangi	28.18	220	⇓P	P	03 05 08.7	+0.4
HHSZ	Highcliff Hill	28.70	176	P	P	03 05 15.4	+2.6
TUZ	Tuapeka	28.71	177	P	P	03 05 15.4	+2.5
BRAT	Ballarat	29.14	221	P	P	03 05 19.6	+2.9
GLAD	Gladstone	29.17	212	P	P	03 05 19.3	+2.3
CTZ	Chatham Island	29.59	157	P	P	03 05 21.2	+0.5
CTZ	Chatham Island	29.59	157	P	P	03 05 21.5	+0.9
CORO	Coronation Par	29.95	212	P	P	03 05 26.6	+2.7
ARPS	Mount Arapiles	30.05	224	P	P	03 05 25.1	+0.3
AUBRN	Burnie High Sc	30.32	214	P	P	03 05 29.3	+2.2
AUHPC	Hawkesdale P12	30.49	222	P	P	03 05 31.3	+2.5
HTT	Hallett	30.51	233	P	P	03 05 28.9	-0.1
	comp=Z,41nm,2.0s						
HTT	Hallett	30.51	233	P	P	03 05 31.5	+2.4
HTT	Hallett	30.51	233	P	P	03 05 30.2	+1.1
HTT	Hallett	30.51	233	⇑P	P	03 05 30.1	+1.1
MOO	Moorlands	30.67	211	P	P	03 05 30.8	+0.5
	comp=Z,219nm,1.5s						
MOO	Moorlands	30.67	211	P	P	03 05 32.6	+2.3
MOO	Moorlands	30.67	211	P	P	03 05 31.5	+1.2
	comp=Z,166nm,1.3s						
GENI	Genyem	30.72	295	P	P	03 05 32.9	+1.9
GENI	Genyem	30.72	295	P	P	03 05 31.8	+0.8
	comp=Z,10µmcomp=Z,463nm,2.1s						
GENI	Genyem	30.72	295	P	P	03 05 31.7	+0.8
	comp=Z,459nm,2.2s						
RAR	Rarotonga	30.92	103	LR	LR	03 17 07.7	
	comp=Z,6µm,19.1s,baz=257,slow=35						
RAR	Rarotonga	30.92	103	P	P	03 05 37.3	+4.6
RAR				pmax	pmax		
	comp=Z,595nm,2.0s						
RAR	Rarotonga	30.92	103	P	P	03 05 37.3	+4.6
TAU	Tasmania Unive	30.96	210	P	P	03 05 35.4	+2.6
TAU	Tasmania Unive	30.96	210	P	P	03 05 32.5	-0.3
TAU				pmax	pmax		
	comp=Z,257nm,1.7s						
TAU	Tasmania Unive	30.96	210	P	P	03 05 32.5	-0.3
TAU				IAmb	IAmb	03 05 45.4	
	comp=Z,257nm,1.6s						
TAU	Tasmania Unive	30.96	210	P	P	03 05 36.5	+3.7
	comp=Z,90nm,1.7s						
AUTAR	Taroona High S	30.96	210	P	P	03 05 35.1	+2.3
AUMBR	Murray Bridge	30.99	229	P	P	03 05 35.7	+2.5
AUMAR	Marden Senior	31.35	230	P	P	03 05 38.9	+2.5
WR0	Warramunga Arr	31.55	260	P	P	03 05 36.8	-1.5
WR8	Warramunga Arr	31.59	260	P	P	03 05 37.0	-1.7
WR8	Warramunga Arr	31.59	260	P	P	03 05 37.1	-1.5
WR8				IAmb	IAmb	03 05 44.6	
	comp=Z,203nm,1.4s						
WR5	Warramunga Arr	31.66	260	P	P	03 05 37.6	-1.7
WB0	Warramunga Arr	31.69	260	IAmb	IAmb	03 05 45.5	
	comp=Z,258nm,1.4s						
WC2	Warramunga Arr	31.72	260	P	P	03 05 38.5	-1.3
WRAB	Tennant Creek	31.73	260	P	P	03 05 41.5	+1.6
WRAB	Tennant Creek	31.73	260	d iP	P	03 05 38.7	-1.2
WRAB				pmax	pmax		
	comp=Z,395nm,2.8s						
WRAB				MLR	MLR		
	comp=Z,27µm,12.0s						
WRAB	Tennant Creek	31.73	260	IAMs_20	IAMs_20	03 17 05.7	
	comp=Z,35µm,21.0s						
WRAB	Tennant Creek	31.73	260	P	P	03 05 38.9	-1.0
WRA	Warramunga Arr	31.74	260	P	P	03 05 38.8	-1.3
	comp=Z,48nm,1.1s,baz=80,slow=6.0,SNR=67						
WRA				S	S	03 10 47.3	-2.9
	comp=Z,3.4nm,1.2s,baz=93,slow=12,SNR=2.0						
WRA				PKiKP	PKiKP	03 15 59.3	-1.3
	comp=Z,1.6nm,0.8s,baz=7.4,slow=0.2,SNR=6.1						
WRA				LR	LR	03 17 27.9	
	comp=Z,34µm,21.4s,baz=86,slow=35						
	comp=Z,48nm,1.1s						
WRA	Warramunga Arr	31.74	260	i P	P	03 05 38.7	-1.3
WRA				pmax	pmax		
	comp=Z,13nm,0.6s						
WRA	Warramunga Arr	31.74	260		P	03 05 37.7	-2.4
AS17	Alice Springs	32.21	253	P	P	03 05 42.9	-1.3
	comp=Z,130nm,0.6s						
AS07	Alice Springs	32.23	253	P	P	03 05 43.2	-1.1
	comp=Z,129nm,0.6s						
AS01	Alice Springs	32.25	253	P	P	03 05 46.8	+2.3
AS05	Alice Springs	32.25	253	P	P	03 05 43.5	-1.0
	comp=Z,129nm,0.6s						
AS09	Alice Springs	32.26	253	P	P	03 05 43.8	-0.8
	comp=Z,168nm,0.6s						
AS15	Alice Springs	32.28	253	P	P	03 05 43.8	-1.0
	comp=Z,142nm,0.7s						
AS14	Alice Springs	32.28	253	P	P	03 05 44.0	-0.8
	comp=Z,157nm,0.6s						
AS31	Alice Springs	32.29	253	P	P	03 05 43.9	-0.9
	comp=Z,74nm,0.6s,comp=Z,0.0nm						
AS31	Alice Springs	32.29	253	IAmb	IAmb	03 05 47.9	
	comp=Z,52nm,0.5s						
ASAR	Alice Springs	32.29	253	P	P	03 05 43.5	-1.4
	comp=Z,109nm,0.6s,baz=80,slow=7.9,SNR=259						
ASAR				PKiKP	PKiKP	03 15 59.3	-1.7
	comp=Z,0.9nm,0.7s,baz=107,slow=1.7,SNR=5.6						
ASAR				LR	LR	03 17 50.6	
	comp=Z,64µm,21.9s,baz=85,slow=35						
	comp=Z,109nm,0.6s						
ASAR	Alice Springs	32.29	253	P	P	03 05 43.1	-1.8
AUALC	St Philip’s Co	32.31	253	P	P	03 05 46.7	+1.7
BBOO	Buckleboo	32.48	235	P	P	03 05 46.1	-0.3
	comp=Z,168nm,1.9s						
BBOO	Buckleboo	32.48	235	P	P	03 05 48.7	+2.3
BBOO	Buckleboo	32.48	235	P	P	03 05 46.0	-0.4
	comp=Z,168nm,1.9s						
AUCAS	Cummins Area S	33.28	233	P	P	03 05 55.6	+2.3
KDU	Kakadu	34.33	273	P	P	03 06 01.1	-1.5
	comp=Z,37nm,2.0s						
MTN	Manton Dam	35.58	272	P	P	03 06 12.4	-1.1
	comp=Z,43nm,2.2s						
DRS	Darwin Rock St	35.88	272	P	P	03 06 17.9	+1.8
WAKE	Wake Island	36.27	358	IAMs_20	IAMs_20	03 19 15.5	
	comp=Z,18µm,18.0s						
KNRA	Kununurra	37.36	267	P	P	03 06 27.0	-1.7
	comp=Z,109nm,0.8s						
KNRA	Kununurra	37.36	267	P	P	03 06 27.0	-1.7
WRKA	Warakurna	37.50	251	P	P	03 06 28.7	-1.1
FAKI	Fak Fak	37.61	288	P	P	03 06 32.3	+1.5
FAKI	Fak Fak	37.61	288		P	03 06 29.4	-1.4
FAKI				IAmb	IAmb	03 06 42.8	
	comp=Z,431nm,1.5s						
FAKI	Fak Fak	37.61	288	⇓P	P	03 06 29.9	-0.9
FAKI	Fak Fak	37.61	288	P	P	03 06 30.1	-0.7
	comp=Z,6µmcomp=Z,261nm,1.8s						
FAKI	Fak Fak	37.61	288	P	P	03 06 30.1	-0.7
	comp=Z,259nm,1.8s						
GUMO	Guam	38.02	322	P	P	03 06 33.8	-0.4
	comp=Z,68nm,0.3s,baz=183,slow=13,SNR=6.9						
GUMO				LR	LR	03 20 27.7	
	comp=Z,21µm,21.9s,baz=138,slow=34						
	comp=Z,68nm,0.3s						
GUMO	Guam	38.02	322	P	P	03 06 35.8	+1.6
GUMO	Guam	38.02	322	P	P	03 06 32.5	-1.7
GUMO	Guam	38.02	322	IAMs_20	IAMs_20	03 20 05.2	
	comp=Z,27µm,21.0s						
GUMO	Guam	38.02	322	P	P	03 06 34.3	+0.2
	comp=Z,317nm,1.4s						
FORT	Forrest	38.48	242	P	P	03 06 37.7	-0.3
	comp=Z,80nm,0.9s						
DPSS	Saipan	38.83	325	P	P	03 06 39.1	-1.9
XMAS	Kiritimati	39.31	64	P	P	03 06 46.9	+1.8
XMAS				IAmb	IAmb	03 07 04.7	
	comp=Z,258nm,1.1s						
XMAS	Kiritimati	39.31	64	P	P	03 06 48.3	+3.3
	comp=Z,224nm,2.1s						
FITZ	Fitzroy Crossi	40.06	262	P	P	03 06 50.4	-0.9
	comp=Z,67nm,0.9s						
FITZ	Fitzroy Crossi	40.06	262	LR	LR	03 22 23.3	
	comp=Z,57µm,21.9s,baz=100,slow=35						
FITZ	Fitzroy Crossi	40.06	262	P	P	03 06 53.4	+2.1
FITZ	Fitzroy Crossi	40.06	262	⇑P	P	03 06 50.2	-1.1
FITZ	Fitzroy Crossi	40.06	262	P	P	03 06 50.7	-0.6
	comp=Z,67nm,0.9s						
JOHN	Johnston Islan	40.48	35	P	P	03 06 55.2	+0.5
JOHN	Johnston Islan	40.48	35	P	P	03 07 00.4	+5.7
	comp=Z,206nm,2.1s						
PAE	Paea	40.67	97	eP	P	03 06 58.7	+2.3
	comp=Z,138nm,1.1s						
PAE				eLR	LR	03 18 08.2	
	comp=Z,46µm,24.7s						
PPT2	Papeete2	40.68	97	eP	P	03 06 51.9	-4.7
	comp=Z,2µm,24.2s						
PPT2	Papeete2	40.68	97	eP	P	03 07 00.4	+3.8
	comp=Z,176nm,1.4s						
PPT2				eS	S	03 13 03.5	-3.5
	comp=Z,15µm,25.8s						
PPT2				eLQ	LQ	03 16 24.8	
	comp=Z,18µm,27.2s						
PPT2				eLR	LR	03 18 05.8	
	comp=Z,58µm,29.2s						
PPT2				eLR	LR	03 18 14.3	
	comp=Z,77µm,26.5s						
PPT	Papeete	40.68	97	P	P	03 06 57.0	+0.5
	comp=Z,44nm,0.9s,baz=222,slow=13,SNR=1.6						
PPT				LR	LR	03 20 26.9	
	comp=Z,6µm,19.1s,baz=258,slow=31						
	comp=Z,44nm,0.9s						
TIAR	Tiarei	40.90	97	eLR	LR	03 18 13.8	
	comp=Z,183µm,24.6s						
TVO	Taravao	40.97	97	eP	P	03 07 04.3	+5.4
	comp=Z,275nm,1.4s						
TVO				eLR	LR	03 18 16.6	
	comp=Z,38µm,24.7s						
PMOR	Pomariorio Ree	42.62	94	eP	P	03 07 16.6	+4.2
	comp=Z,326nm,1.2s						
PMOR				eLR	LR	03 19 01.8	
	comp=Z,49µm,24.5s						
SOEI	Soe	42.83	274	P	P	03 07 12.3	-2.0
SOEI	Soe	42.83	274	P	P	03 07 16.1	+1.8
SOEI	Soe	42.83	274	P	P	03 07 12.9	-1.4
SOEI				IAmb	IAmb	03 07 51.8	
	comp=Z,186nm,1.0s						
SOEI				IAMs_20	IAMs_20	03 23 13.8	
	comp=Z,17µm,21.0s						
SOEI	Soe	42.83	274	P	P	03 07 14.0	-0.3
	comp=Z,7µmcomp=Z,193nm,1.7s						
SOEI	Soe	42.83	274	P	P	03 07 14.6	+0.3
	comp=Z,192nm,1.7s						
VAH	Vaihoa	42.84	94	eP	P	03 07 13.0	-1.2
	comp=Z,359nm,1.4s						
VAH				eLR	LR	03 19 08.8	
	comp=Z,53µm,24.4s						
TNTI	Ternate	43.59	290	P	P	03 07 22.1	+1.9
TNTI	Ternate	43.59	290	P	P	03 07 23.0	+2.7
	comp=Z,189nm,2.2s						
SANI	Sanana	43.68	286	P	P	03 07 19.8	-1.2
SANI	Sanana	43.68	286	P	P	03 07 23.1	+2.1
SANI	Sanana	43.68	286	P	P	03 07 20.3	-0.7
	comp=Z,9µmcomp=Z,366nm,1.8s						
SANI	Sanana	43.68	286	P	P	03 07 20.9	-0.1
	comp=Z,362nm,1.8s						
KMBL	Kambalda	43.80	242	P	P	03 07 20.8	-1.0
MMRI	Maumere	45.06	275	P	P	03 07 34.0	+2.0
MMRI	Maumere	45.06	275	P	P	03 07 33.5	+1.5
	comp=Z,193nm,1.6s						
MBWA	Marble Bar	45.38	257	P	P	03 07 34.2	-0.3
	comp=Z,485nm,1.0s,comp=Z,0.0nm						
MBWA	Marble Bar	45.38	257	P	P	03 07 34.2	-0.3
MBWA				S	S	03 14 13.9	-1.9
MBWA	Marble Bar	45.38	257	P	P	03 07 34.3	-0.3
MBWA	Marble Bar	45.38	257	⇑P	P	03 07 33.0	-1.5
MBWA	Marble Bar	45.38	257	P	P	03 07 34.2	-0.3
	comp=Z,485nm,1.0s						
MEEK	Meekatharra	46.29	249	P	P	03 07 41.8	+0.1
	comp=Z,273nm,1.3s,comp=Z,0.0nm						
MEEK	Meekatharra	46.29	249	P	P	03 07 43.6	+1.9
MEEK	Meekatharra	46.29	249	P	P	03 07 41.4	-0.3
	comp=Z,273nm,1.3s						
LUWI	Luwuk	47.03	285	P	P	03 07 46.2	-1.4
LUWI	Luwuk	47.03	285	P	P	03 07 49.5	+1.9
LUWI	Luwuk	47.03	285	P	P	03 07 47.4	-0.3
LUWI	Luwuk	47.03	285	P	P	03 07 47.9	+0.3
	comp=Z,9µmcomp=Z,399nm,1.6s						
LUWI	Luwuk	47.03	285	P	P	03 07 51.4	+3.8
	comp=Z,399nm,1.4s						
KLBR	Kellerberrin	47.33	243	P	P	03 07 49.3	-0.4
	comp=Z,266nm,1.0s						
KLBR	Kellerberrin	47.33	243	P	P	03 07 50.9	+1.2
KLBR	Kellerberrin	47.33	243	P	P	03 07 48.7	-1.0
	comp=Z,266nm,1.0s						
LBFI	Labuhan Bajo,	47.34	274	P	P	03 07 48.9	-1.1
NWAO	Narrogin (SRO)	47.90	241	P	P	03 07 53.7	-0.5
	comp=Z,280nm,1.3s						
NWAO	Narrogin (SRO)	47.90	241	P	P	03 07 53.9	-0.3
	comp=Z,171nm,1.3s						
NWAO	Narrogin (SRO)	47.90	241	P	P	03 07 53.0	-1.2
	comp=Z,98nm,0.7s,baz=93,slow=6.6,SNR=32						
NWAO				LR	LR	03 27 34.4	
	comp=Z,28µm,20.9s,baz=90,slow=36						
	comp=Z,98nm,0.7s						
NWAO	Narrogin (SRO)	47.90	241	P	P	03 07 55.4	+1.2
NWAO	Narrogin (SRO)	47.90	241	P	P	03 07 56.7	+2.5
NWAO	Narrogin (SRO)	47.90	241	P	P	03 07 54.8	+0.6
NWAO				S	S	03 14 52.2	+0.5
NWAO	Narrogin (SRO)	47.90	241	P	P	03 07 53.4	-0.8
NWAO				pmax	pmax		
	comp=Z,144nm,0.9s						
NWAO				MLR	MLR		
	comp=Z,28µm,20.0s						
NWAO	Narrogin (SRO)	47.90	241	P	P	03 07 53.4	-0.8
NWAO				IAmb	IAmb	03 08 05.1	
	comp=Z,144nm,0.9s						
NWAO	Narrogin (SRO)	47.90	241	P	P	03 07 56.0	+1.8
	comp=Z,167nm,1.3s						
DAV	Davao City (W)	48.13	297	LR	LR	03 27 42.3	
	comp=Z,6µm,19.0s,baz=122,slow=36						
DAV	Davao City (W)	48.13	297	P	P	03 07 57.1	+0.9
DAV				S	S	03 14 48.9	-6.4
BLDU	Ballidu	48.14	244	P	P	03 07 56.6	+0.5
	comp=Z,164nm,2.2s						
BLDU	Ballidu	48.14	244	P	P	03 07 58.4	+2.3
BLDU	Ballidu	48.14	244	P	P	03 07 58.0	+2.0
	comp=Z,162nm,2.2s						
KAPI	Kappang	48.48	279	LR	LR	03 28 09.0	
	comp=Z,8µm,21.8s,baz=95,slow=36						
KAPI	Kappang	48.48	279	P	P	03 08 00.3	+1.5
KAPI	Kappang	48.48	279	P	P	03 07 57.5	-1.4
KAPI	Kappang	48.48	279	P	P	03 07 58.4	-0.5
KAPI	Kappang	48.48	279	⇑P	P	03 07 58.2	-0.5
KAPI	Kappang	48.48	279	P	P	03 07 58.7	-0.1
	comp=Z,3µmcomp=Z,98nm,1.7s						
KAPI	Kappang	48.48	279	P	P	03 07 59.0	+0.2
	comp=Z,189nm,1.7s						
MORW	Morawa	48.64	246	P	P	03 07 59.8	-0.2
	comp=Z,239nm,1.2s						
MORW	Morawa	48.64	246	P	P	03 08 01.6	+1.7
MORW	Morawa	48.64	246	IAmb	IAmb	03 08 10.5	
	comp=Z,118nm,0.9s						
MORW	Morawa	48.64	246	⇓P	P	03 07 59.3	-0.7
MORW	Morawa	48.64	246	P	P	03 07 59.2	-0.7
	comp=Z,239nm,1.2s						
MUN	Mundaring	48.67	242	P	P	03 08 00.2	0.0
	comp=Z,121nm,1.3s						
MUN	Mundaring	48.67	242	P	P	03 08 02.4	+2.2
MUN	Mundaring	48.67	242	P	P	03 08 00.1	0.0
PLAI	Plampang	49.26	273	P	P	03 08 06.8	+1.9
PLAI	Plampang	49.26	273	P	P	03 08 05.1	+0.2
	comp=Z,26µmcomp=Z,8µmcomp=Z,218nm,2.1s						
PLAI	Plampang	49.26	273	P	P	03 08 07.2	+2.3
	comp=Z,217nm,2.1s						
TOLI2	Tolitoli	49.70	287	P	P	03 08 09.8	+1.6
TOLI2	Tolitoli	49.70	287	P	P	03 08 06.5	-1.8
TOLI2	Tolitoli	49.70	287	P	P	03 08 06.8	-1.4
	comp=Z,160nm,1.5s						
GIRL	Giralia	50.37	255	P	P	03 08 13.6	+0.4
	comp=Z,156nm,1.6s						
TAOE	Nuku Hiva Isla	51.32	88	eP	P	03 08 16.2	-4.4
	comp=Z,1µm,28.2s						
TAOE				eS	S	03 15 36.7	-3.6
	comp=Z,16µm,25.6s						
TAOE				eSS	SS	03 19 08.6	-7.5
	comp=Z,6µm,26.0s						
TAOE				eLQ	LQ	03 20 53.1	
	comp=Z,11µm,25.6s						
TAOE				eLR	LR	03 23 04.4	
	comp=Z,66µm,26.7s						
HMH	Humu‘ula Sheep	51.42	46	P	P	03 08 22.1	+0.7
DRV	Dumont d’Urvil	52.65	193	P	P	03 08 29.2	-0.4
JAGI	Jajag, Banyuwa	52.81	272	P	P	03 08 33.6	+2.0
JAGI	Jajag, Banyuwa	52.81	272	P	P	03 08 34.2	+2.6
	comp=Z,116nm,1.9s						
MYLDM	Lahad Datu	53.47	290	P	P	03 08 38.0	+1.6
MYLDM	Lahad Datu	53.47	290	P	P	03 08 37.5	+1.2
KKM	Kota Kinabalu	55.89	290	P	P	03 08 55.7	+1.6
KKM	Kota Kinabalu	55.89	290	P	P	03 08 53.6	-0.5
KKM	Kota Kinabalu	55.89	290	⇑P	P	03 08 53.2	-0.9
JHJ	Hachijo jima 2	56.72	332	LR	LR	03 29 37.7	
	comp=Z,3µm,21.9s,baz=136,slow=32						
SMRI	Semarang	56.73	273	P	P	03 09 02.1	+2.0
SMRI	Semarang	56.73	273	P	P	03 09 03.7	+3.6
	comp=Z,335nm,2.5s						
JOW	Kunigami	58.16	318	LR	LR	03 29 36.0	
	comp=Z,6µm,21.8s,baz=170,slow=31						
BBJI	Bungbulang	59.29	271	P	P	03 09 19.8	+1.7
BBJI	Bungbulang	59.29	271	IAmb	IAmb	03 09 37.1	
	comp=Z,100nm,1.0s						
INU	Inuyama	59.83	331	P	P	03 09 23.0	+1.7
INU	Inuyama	59.83	331	P	P	03 09 19.6	-1.6
INU	Inuyama	59.83	331	⇓P	P	03 09 20.3	-0.9
INU	Inuyama	59.83	331	P	P	03 09 20.0	-1.2
	comp=Z,130nm,1.4s						
JGF	Kuroka	59.89	332	P	P	03 09 23.1	+1.4
JGF	Kuroka	59.89	332	P	P	03 09 20.0	-1.6
JGF				IAmb	IAmb	03 09 32.7	
	comp=Z,93nm,1.1s						
JGF	Kuroka	59.89	332	⇓P	P	03 09 22.6	+1.0
JMN	Monobe	60.06	328	P	P	03 09 24.6	+1.7
JMN	Monobe	60.06	328	P	P	03 09 23.0	+0.1
JMN	Monobe	60.06	328	⇑P	P	03 09 25.4	+2.5
YOJ	Yonaguni jima	60.14	312	P	P	03 09 25.0	+1.4
JSU	Suzuyama	60.21	323	P	P	03 09 25.5	+1.5
JSU	Suzuyama	60.21	323	P	P	03 09 24.6	+0.6
JSU	Suzuyama	60.21	323	⇑P	P	03 09 26.2	+2.2
MJAR	Matsushiro Arr	60.29	333	P	P	03 09 22.7	-1.7
	comp=Z,26nm,0.9s,baz=164,slow=7.3,SNR=27						
MJAR				LR	LR	03 32 43.6	
	comp=Z,4µm,22.0s,baz=141,slow=33						
MJAR				PKP2bc	P'P'bc	03 38 56.2	+3.1
	comp=Z,1.1nm,0.5s,baz=298,slow=2.1,SNR=2.0						
	comp=Z,26nm,0.9s						
MJAR	Matsushiro Arr	60.29	333	P	P	03 09 22.4	-2.0
MJAR				IAmb	IAmb	03 09 35.0	
	comp=Z,102nm,1.2s						
MAJO	Matsushiro	60.29	333	P	P	03 09 25.7	+1.3
MAJO	Matsushiro	60.29	333	c iP	P	03 09 22.6	-1.8
MAJO				pmax	pmax		
	comp=Z,160nm,1.3s						
MAJO	Matsushiro	60.29	333	P	P	03 09 22.8	-1.6
MAJO				IAmb	IAmb	03 09 35.0	
	comp=Z,175nm,1.3s						
MAJO	Matsushiro	60.29	333	⇓P	P	03 09 22.9	-1.5
MJB9	Matsu-Tunnel	60.30	333	IAmb	IAmb	03 09 35.0	
	comp=Z,162nm,1.3s						
VNDA	Vanda	60.42	181	P	P	03 09 24.5	-0.2
	comp=Z,49nm,1.3s,baz=358,slow=6.6,SNR=24						
VNDA				LR	LR	03 32 26.5	
	comp=Z,4µm,19.7s,baz=16,slow=33						
VNDA				PKP2bc	P'P'bc	03 38 56.8	-3.8
	comp=Z,2.7nm,1.1s,baz=236,slow=3.6,SNR=4.2						
	comp=Z,49nm,1.3s						
VNDA	Vanda	60.42	181	P	P	03 09 24.4	-0.3
SBA	Scott Base	60.68	180	P	P	03 09 27.1	+0.6
SBA				pmax	pmax		
	comp=Z,376nm,1.5s						
SBA	Scott Base	60.68	180	P	P	03 09 27.1	+0.6
YULB	Yu-li	60.71	310	P	P	03 09 29.2	+1.7
NACB	Ninganchiao	60.97	311	P	P	03 09 31.0	+1.7
NACB	Ninganchiao	60.97	311	P	P	03 09 27.9	-1.4
JNU	Nakatsue	61.18	325	LR	LR	03 34 09.1	
	comp=Z,2µm,19.6s,baz=122,slow=34						
SSLB	Suanglung	61.20	310	P	P	03 09 32.5	+1.6
SSLB	Suanglung	61.20	310	P	P	03 09 28.5	-2.4
SSLB				IAmb	IAmb	03 09 41.1	
	comp=Z,116nm,0.9s						
SSLB				IAMs_20	IAMs_20	03 30 12.6	
	comp=Z,11µm,22.0s						
CASY	Casey	61.43	203	P	P	03 09 31.5	-0.3
CASY				IAmb	IAmb	03 09 44.1	
	comp=Z,146nm,1.2s						
CASY	Casey	61.43	203	⇑P	P	03 09 31.0	-0.7
YHNB	Yeheng	61.43	311	P	P	03 09 34.4	+1.9
YHNB	Yeheng	61.43	311	P	P	03 09 31.8	-0.7
TATO	Taipei	61.54	312	P	P	03 09 35.3	+2.2
ERM	Erimo	63.14	340	P	P	03 09 45.2	+1.8
ERM	Erimo	63.14	340	P	P	03 09 44.4	+0.9
JEM	Erimo	63.14	340	P	P	03 09 45.1	+1.6
QZH2	Quanzhou	63.61	310	⇓iP	P	03 09 46.8	-0.1
QZH2				S	S	03 18 18.3	-2.8
QZH2				L	L		
	comp=Z,5µm,17.9s						
QZH2				L	L		
	comp=Z,4µm,20.6s						
QZH2				L	L		
	comp=Z,6µm,17.5s						
YUK	Yuzh-Kuril'sk	64.14	343	c iP	P	03 09 50.9	+0.9
YUK				i S	S	03 18 29.1	+2.2
YUK				i SS	SS	03 22 35.7	-0.9
YUK				pmax	pmax		
	comp=N,72nm,0.9s						
YUK				pmax	pmax		
	comp=E,224nm,0.9s						
YUK				pmax	pmax		
	comp=Z,239nm,0.9s						
YUK				pmax	pmax		
	comp=Z,592nm,2.0s						
KUR	Kuril'sk	64.71	345	eP	P	03 09 52.2	-1.5
KUR				e		03 10 23.1	
KUR				eS	S	03 18 39.1	+5.2
KUR				pmax	pmax		
	comp=Z,342nm,1.1s						
KUR				pmax	pmax		
	comp=Z,4µm,4.8s						
KUR				MLR	MLR		
	comp=N,8µm,16.0s						
KUR				MLR	MLR		
	comp=Z,8µm,16.0s						
KUR				MLR	MLR		
	comp=E,3µm,13.0s						
DLV	Lat	65.30	292	P	P	03 09 59.3	+0.9
HKPS	Hong Kong Po S	65.50	305	P	P	03 10 01.1	+1.7

TJN	**Taejon**	**65.53**	**325**	P	**P**	**03 10 00.4**	**+1.1**
TJN	**Taejon**	**65.53**	**325**	*c i*P	**P**	**03 09 59.4**	**+0.1**
SSE	**Sheshan**	**65.61**	**317**	P	**P**	**03 09 58.7**	**-1.2**
SSE				S	**S**	**03 18 46.7**	**+1.1**
SSE				pmax	pmax		
	comp=E,39nm,1.0s						
SSE				pmax	pmax		
	comp=E,3µm,10.1s						
SSE				L	L		
	comp=E,2µm,15.3s						
SSE				L	L		
	comp=E,2µm,19.3s						
BTDF	**Bukit Timah Da**	**65.63**	**280**	P	**P**	**03 10 02.3**	**+1.9**
MYKOM	**Kota Tinggi**	**65.70**	**280**	P	**P**	**03 10 02.5**	**+1.6**
MYKOM	**Kota Tinggi**	**65.70**	**280**	P	**P**	**03 10 01.2**	**+0.4**
KSRS	**Korea Array**	**66.02**	**326**	P	**P**	**03 10 01.3**	**-1.1**
	comp=E,5.2nm,0.9s,baz=143,slow=6.4,SNR=14						
KSRS				PKP2bc	**P'P'bc**	**03 38 39.2**	**+0.4**
	comp=E,2.8nm,1.2s,baz=328,slow=4.3,SNR=2.2						
	comp=E,5.2nm,0.9s						
KSAR	**Wonju Array Be**	**66.03**	**326**	P	**P**	**03 10 00.8**	**-1.7**
KSAR	**Wonju Array Be**	**66.03**	**326**	P	**P**	**03 10 00.8**	**-1.7**
GZH2	**Guangzhou**	**66.61**	**306**	P	**P**	**03 10 07.9**	**+1.4**
GZH2				S	**S**	**03 18 59.9**	**+1.8**
GZH2				pmax	pmax		
	comp=E,53nm,2.0s						
GZH2				L	L		
	comp=E,5µm,17.1s						
GZH2				L	L		
	comp=E,8µm,22.5s						
GZH2				L	L		
	comp=E,13µm,22.2s						
INCN	**Inchon**	**66.74**	**325**	P	**P**	**03 10 08.9**	**+1.8**
INCN	**Inchon**	**66.74**	**325**	P	**P**	**03 10 05.5**	**-1.6**
INCN				pmax	pmax		
	comp=Z,149nm,1.3s						
INCN	**Inchon**	**66.74**	**325**	P	**P**	**03 10 05.5**	**-1.6**
INCN				IAmb	IAmb	03 10 19.4	
	comp=Z,149nm,1.2s						
QIZ	**Qiongzhong**	**67.33**	**300**	P	**P**	**03 10 11.9**	**+0.7**
QIZ				S	**S**	**03 19 08.6**	**+1.7**
QIZ				pmax	pmax		
	comp=Z,42nm,2.1s						
QIZ				L	L		
	comp=Z,2µm,24.0s						
QIZ				L	L		
	comp=Z,4µm,24.3s						
QIZ				L	L		
	comp=Z,10µm,27.5s						
QIZ	**Qiongzhong**	**67.33**	**300**	P	**P**	**03 10 13.0**	**+1.8**
HJU	**Haeju**	**67.64**	**325**	P	**P**	**03 10 13.0**	**+0.3**
HJU				AmB			
	comp=Z,3µm,3.7s						
YSS	**Yuzhno-Sakhali**	**67.70**	**342**	P	**P**	**03 10 14.6**	**+1.7**
YSS	**Yuzhno-Sakhali**	**67.70**	**342**	*ce*P	**P**	**03 10 12.4**	**-0.5**
YSS				pmax	pmax		
	comp=Z,441nm,2.6s						
YSS				MLR	MLR		
	comp=Z,6µm,16.0s						
YSS	**Yuzhno-Sakhali**	**67.70**	**342**	P	**P**	**03 10 12.3**	**-0.5**
YSS	**Yuzhno-Sakhali**	**67.70**	**342**	⇑P	**P**	**03 10 12.6**	**-0.3**
NJ2	**Nanjing**	**67.75**	**316**	*e*P	**P**	**03 10 12.9**	**-0.7**
NJ2				pP	**sP**	**03 10 18.4**	**+2.1**
NJ2				sP	**pwP**	**03 10 22.9**	**+2.3**
NJ2				S	**S**	**03 19 15.4**	**+3.9**
NJ2				pmax	pmax		
	comp=Z,100nm,1.6s						
NJ2				L	L		
	comp=Z,7µm,19.9s						
NJ2				L	L		
	comp=Z,7µm,19.9s						
NJ2				L	L		
	comp=Z,20µm,22.7s						
BKNI	**Bangkinang**	**67.88**	**278**	P	**P**	**03 10 13.3**	**-1.5**
BKNI	**Bangkinang**	**67.88**	**278**	P	**P**	**03 10 16.8**	**+2.0**
HHU	**Hamhung**	**68.07**	**328**	P	**P**	**03 10 16.2**	**+0.8**
HHU				AmB			
	comp=Z,7µm,9.7s						
PYAG	**Pyongyang**	**68.35**	**326**	P	**P**	**03 10 17.9**	**+0.7**
PYAG				S	**S**	**03 19 18.6**	**+0.2**
PYAG				AmB			
	comp=Z,3µm,4.2s						
SKR	**Severo-Kuril's**	**68.36**	**352**	*ce*P	**P**	**03 10 17.5**	**+0.6**
VLA	**Vladivostok**	**68.46**	**333**	*de*P	**P**	**03 10 17.3**	**-0.4**
VLA				pmax	pmax		
	comp=Z,240nm,1.7s						
VLA				MLR	MLR		
	comp=Z,3µm,16.0s						
PSTR	**Posyet**	**68.57**	**332**	*de*P	**P**	**03 10 18.4**	**-0.1**
USRK	**Ussuriysk Ar.**	**69.28**	**333**	P	**P**	**03 10 22.4**	**-0.4**
	comp=Z,10.0nm,0.7s,baz=147,slow=4.5,SNR=28						
USRK				PKP2bc	**P'P'bc**	**03 38 30.8**	**+2.3**
	comp=Z,0.6nm,0.6s,baz=329,slow=3.3,SNR=5.5						
USRK				LR	LR	03 38 56.0	
	comp=Z,3µm,20.3s,baz=149,slow=34						
	comp=Z,10.0nm,0.7s						
USRK	**Ussuriysk Ar.**	**69.28**	**333**	P	**P**	**03 10 22.0**	**-0.8**
UGL	**Uglegorsk**	**69.81**	**342**	*e*P	**P**	**03 10 27.4**	**+1.4**
UGL				*e*S	**S**	**03 19 35.5**	**+0.2**
UGL				pmax	pmax		
	comp=Z,100nm,1.8s						
UGL				pmax	pmax		
	comp=Z,4µm,11.0s						
UGL				smax	smax		
	comp=E,4µm,14.0s						
UGL				smax	smax		
	comp=N,2µm,10.0s						
SHEM	**Shemya Is, Ala**	**69.85**	**4**	LR	LR	03 36 06.0	
	comp=N,11µm,20.5s,baz=194,slow=32						
KULM	**Kulim**	**69.89**	**282**	P	**P**	**03 10 28.7**	**+1.4**
KULM	**Kulim**	**69.89**	**282**	⇑P	**P**	**03 10 26.5**	**-0.8**
WHN	**Wuhan**	**69.92**	**313**	⇓P	**P**	**03 10 26.7**	**-0.4**
WHN				S	**S**	**03 19 39.0**	**+1.6**
WHN				pmax	pmax		
	comp=N,520nm,1.1s						
WHN				L	L		
	comp=N,5µm,12.7s						
WHN				L	L		
	comp=N,12µm,18.6s						
WHN				L	L		
	comp=N,21µm,19.8s						
GULI	**GuiLin**	**70.02**	**306**	⇑P	**P**	**03 10 27.1**	**-0.7**
GULI				S	**S**	**03 19 40.6**	**+1.9**
GULI				pmax	pmax		
	comp=N,56nm,2.1s						
GULI				pmax	pmax		
	comp=N,3µm,11.0s						
GULI				L	L		
	comp=N,5µm,20.0s						
GULI				L	L		
	comp=N,5µm,21.1s						
GULI				L	L		
	comp=N,7µm,23.0s						
ADK	**Adak**	**70.12**	**10**	IAMs_20	IAMs_20	03 36 01.3	
	comp=Z,7µm,19.0s						
PET	**Petropavlovsk**	**70.37**	**354**	P	**P**	**03 10 31.3**	**+2.0**
PET	**Petropavlovsk**	**70.37**	**354**	⇑*i*P	**P**	**03 10 28.7**	**-0.6**
PET				*e*S	**S**	**03 19 41.4**	**-0.3**
PET				pmax	pmax		
	comp=Z,78nm,1.8s						
PET				pmax	pmax		
	comp=Z,2µm,14.8s						
PET				pmax	pmax		
	comp=Z,2µm,10.7s						
PET	**Petropavlovsk**	**70.37**	**354**	IAMs_20	IAMs_20	03 37 48.0	
	comp=Z,8µm,18.0s						
DL2	**Dalian**	**70.53**	**323**	P	**P**	**03 10 29.6**	**-1.1**
DL2				S	**S**	**03 19 40.3**	**-3.9**
DL2				pmax	pmax		
	comp=Z,79nm,1.8s						
DL2				pmax	pmax		
	comp=Z,4µm,11.1s						
DL2				L	L		
	comp=Z,7µm,22.2s						
DL2				L	L		
	comp=Z,8µm,24.3s						
DL2				L	L		
	comp=Z,11µm,23.5s						
PEA0B	**Petropavlovsk-**	**70.55**	**354**	*d i*P	**P**	**03 10 29.8**	**-0.7**
PEA0B	**Petropavlovsk-**	**70.55**	**354**	P	**P**	**03 10 29.5**	**-1.0**
PETK	**Petropavlovsk-**	**70.55**	**354**	P	**P**	**03 10 31.4**	**+0.9**
	comp=Z,6.9nm,0.8s,baz=139,slow=6.6,SNR=7.4						
PETK				LR	LR	03 35 17.0	
	comp=Z,7µm,21.7s,baz=169,slow=31						
	comp=Z,6.9nm,0.8s						
PETK	**Petropavlovsk-**	**70.55**	**354**	P	**P**	**03 10 29.3**	**-1.2**
RPSI	**Rantau Prapat**	**70.64**	**279**	P	**P**	**03 10 30.8**	**-1.1**
RPSI				IAMs_20	IAMs_20	03 42 49.8	
	comp=Z,9µm,21.0s						
MDJ	**Mudanjiang**	**70.66**	**332**	P	**P**	**03 10 31.0**	**-0.3**
MDJ				pmax	pmax		
	comp=Z,33nm,1.7s						
MDJ	**Mudanjiang**	**70.66**	**332**	P	**P**	**03 10 32.5**	**+1.2**
MDJ	**Mudanjiang**	**70.66**	**332**	IAmb	IAmb	03 10 42.6	
	comp=Z,223nm,1.4s						
PSI	**Prapat**	**70.68**	**279**	P	**P**	**03 10 30.8**	**-1.5**
PSI				pmax	pmax		
	comp=Z,292nm,1.3s						
PSI				MLR	MLR		
	comp=Z,9µm,21.0s						
ATKA	**Atka Island**	**70.88**	**12**	IAMs_20	IAMs_20	03 36 55.4	
	comp=Z,9µm,19.0s						
TYV	**Tymovskoe**	**71.26**	**344**	*e*P	**P**	**03 10 35.4**	**+0.6**
TYV				*e*S	**S**	**03 19 52.0**	**-0.1**
TYV				pmax	pmax		
	comp=Z,33nm,1.5s						
TYV				pmax	pmax		
	comp=Z,1µm,4.0s						
TYV				smax	smax		
	comp=N,1µm,8.7s						
TYV				smax	smax		
	comp=E,1µm,8.7s						
GSI	**Gunungsitoli**	**71.47**	**277**	P	**P**	**03 10 38.5**	**+1.5**
GSI	**Gunungsitoli**	**71.47**	**277**	P	**P**	**03 10 36.5**	**-0.4**
GSI	**Gunungsitoli**	**71.47**	**277**	⇑P	**P**	**03 10 36.6**	**-0.4**
TIA	**Tai'an**	**71.47**	**319**	P	**P**	**03 10 35.5**	**-1.0**
TIA				S	**S**	**03 19 56.2**	**+0.9**
TIA				pmax	pmax		
	comp=E,27nm,1.2s						
TIA				L	L		
	comp=E,4µm,15.1s						
TIA				L	L		
	comp=E,1µm,15.1s						
TIA				L	L		
	comp=E,5µm,15.1s						
SNY	**Shenyang**	**71.50**	**327**	P	**P**	**03 10 36.9**	**+0.4**
SNY				S	**S**	**03 19 57.7**	**+2.4**
SNY				pmax	pmax		
	comp=E,34nm,2.2s						
SNY				pmax	pmax		
	comp=E,3µm,10.8s						
SNY				L	L		
	comp=E,4µm,17.7s						
SNY				L	L		
	comp=E,3µm,15.5s						
SNY				L	L		
	comp=E,5µm,24.5s						
CN2	**Changchun**	**71.98**	**329**	⇑P	**P**	**03 10 38.2**	**-1.1**
CN2				*e*sP	sP	03 10 45.0	+2.8
CN2				*e*S	**S**	**03 19 59.1**	**-1.7**
CN2				pmax	pmax		
	comp=E,30nm,0.6s						
CN2				pmax	pmax		
	comp=E,1µm,4.0s						
CN2				L	L		
	comp=E,800nm,14.0s						
CN2				L	L		
	comp=E,700nm,14.0s						
CN2				L	L		
	comp=E,1µm,15.0s						
BNX	**BinXian**	**72.51**	**332**	⇓P	**P**	**03 10 41.2**	**-1.3**
BNX				S	**S**	**03 20 09.6**	**+2.9**
BNX				sS	**SKiKP**	**03 20 16.0**	**-1.9**
BNX				SS	**SS**	**03 24 50.8**	**+4.7**
BNX				pmax	pmax		
	comp=E,41nm,0.8s						
BNX				pmax	pmax		
	comp=E,4µm,7.6s						
BNX				L	L		
	comp=E,5µm,19.5s						
BNX				L	L		
	comp=E,4µm,19.8s						
BNX				L	L		
	comp=E,6µm,20.4s						
QSPA	**South Pole Qui**	**72.84**	**180**	P	**P**	**03 10 44.8**	**+0.4**
	comp=E,248nm,1.0s,baz=23,slow=2.0,SNR=118						
QSPA				LR	LR	03 41 43.9	
	comp=E,6µm,18.1s,baz=30,slow=35						
QSPA	**South Pole Qui**	**72.84**	**180**	P	**P**	**03 10 44.4**	**0.0**
QSPA	**South Pole Qui**	**72.84**	**180**	IAMs_20	IAMs_20	03 41 50.9	
	comp=Z,7µm,18.0s						
GRNR	**Gornyy**	**73.05**	**340**	⇑*i*P	**P**	**03 10 46.7**	**+1.1**
GRNR				pmax	pmax		
	comp=Z,20nm,0.9s						
ENH	**Enshi**	**73.27**	**310**	P	**P**	**03 10 49.3**	**+1.9**
SLVN	**Son La**	**73.33**	**299**	P	**P**	**03 10 49.3**	**+1.3**
SLVN	**Son La**	**73.33**	**299**	IAmb	IAmb	03 11 00.3	
	comp=Z,173nm,1.7s						
LHMI	**Lhok Sumawe**	**73.34**	**281**	P	**P**	**03 10 50.6**	**+2.5**
KLR	**Kul'dur**	**73.43**	**336**	LR	LR	03 40 29.5	
	comp=Z,6µm,20.8s,baz=156,slow=34						
KLR	**Kul'dur**	**73.43**	**336**	*e*P	**P**	**03 10 44.5**	**-3.4**
KLR				pmax	pmax		
	comp=Z,27nm,1.6s						
GYA	**Guiyang**	**73.48**	**305**	⇓P	**P**	**03 10 48.5**	**-0.3**
GYA				S	**S**	**03 20 18.8**	**-0.1**
GYA				SKS	**SKSac**	**03 20 55.3**	**-0.5**
GYA				pmax	pmax		
	comp=Z,31nm,1.7s						
GYA				pmax	pmax		
	comp=Z,2µm,5.2s						
GYA				L	L		
	comp=Z,3µm,19.4s						
GYA				L	L		
	comp=Z,4µm,18.5s						
GYA				L	L		
	comp=Z,7µm,20.4s						
LYN	**LuoYang**	**73.52**	**315**	P	**P**	**03 10 48.7**	**0.0**
LYN				pP	sP	03 10 54.3	+2.8
LYN				sP	pwP	03 10 58.0	+2.2
LYN				S	**SKiKP**	**03 20 22.4**	**+2.6**
LYN				pmax	pmax		
	comp=Z,87nm,1.1s						
LYN				pmax	pmax		
	comp=Z,5µm,6.6s						
LYN				L	L		
	comp=Z,4µm,15.8s						
LYN				L	L		
	comp=Z,5µm,15.5s						
LYN				L	L		
	comp=Z,9µm,18.2s						
HNS	**HongShan**	**73.73**	**318**	⇑P	**P**	**03 10 49.6**	**-0.3**
HNS				PP	**PP**	**03 13 36.9**	**+2.3**
HNS				S	**SKiKP**	**03 20 21.6**	**+1.6**
HNS				pmax	pmax		
	comp=Z,72nm,2.2s						
HNS				L	L		
	comp=Z,5µm,16.5s						
HNS				L	L		
	comp=Z,4µm,17.7s						
HNS				L	L		
	comp=Z,5µm,17.3s						
NKL	**Nikolayevsk**	**73.85**	**343**	*e*P	**P**	**03 10 48.3**	**-1.9**
NKL				*e*S	**S**	**03 20 22.2**	**+0.6**
NKL				pmax	pmax		
	comp=N,41nm,1.0s						
NKL				pmax	pmax		
	comp=E,44nm,1.6s						
NKL				pmax	pmax		
	comp=Z,121nm,1.6s						
NKL				smax	smax		
	comp=E,577nm,6.9s						
NKL				smax	smax		
	comp=N,354nm,5.7s						
NKL				MLR	MLR		
	comp=E,13µm,19.0s						
NKL				MLR	MLR		
	comp=N,3µm,13.0s						
NKL				MLR	MLR		
	comp=Z,16µm,16.0s						
UNV	**Unalaska Valle**	**74.14**	**16**	IAMs_20	IAMs_20	03 36 15.0	
	comp=Z,8µm,20.0s						
BJI2	**Beijing**	**74.45**	**321**	P	**P**	**03 10 53.6**	**-0.4**
BJI2				S	**S**	**03 20 29.0**	**0.0**
BJI2				pmax	pmax		
	comp=Z,34µm,3.2s						
BJI2				L	L		
	comp=Z,3µm,18.7s						
BJI2				L	L		
	comp=Z,5µm,17.2s						
BJI2				L	L		
	comp=Z,3µm,19.3s						
BJT	**Baijiatuau**	**74.45**	**321**	P	**P**	**03 10 56.0**	**+2.0**
TIY	**Taiyuan**	**75.37**	**318**	P	**P**	**03 11 00.2**	**+0.7**
TIY				S	**SKiKP**	**03 20 31.2**	**+8.6**
TIY				pmax	pmax		
	comp=Z,4µm,11.0s						
TIY				L	L		
	comp=Z,4µm,18.5s						
TIY				L	L		
	comp=Z,5µm,21.3s						
TIY				L	L		
	comp=Z,5µm,22.0s						
XAN	**Xi'an**	**75.68**	**313**	⇓P	**P**	**03 11 01.3**	**-0.1**
XAN				pP	sP	03 11 06.8	+2.6
XAN				S	**S**	**03 20 42.7**	**-0.4**
XAN				pmax	pmax		
	comp=Z,63nm,2.1s						
XAN				L	L		
	comp=Z,6µm,19.9s						
XAN				L	L		
	comp=Z,4µm,19.9s						
XAN				L	L		
	comp=Z,9µm,19.2s						
HEH	**HeiHe**	**75.97**	**335**	*e*P	**P**	**03 11 01.7**	**-0.8**
HEH				S	**S**	**03 20 46.6**	**+1.2**
HEH				pmax	pmax		
	comp=Z,32nm,1.6s						
HEH				pmax	pmax		
	comp=Z,4µm,7.7s						
HEH				L	L		
	comp=Z,5µm,21.0s						
HEH				L	L		
	comp=Z,6µm,22.4s						
HEH				L	L		
	comp=Z,8µm,17.4s						
KMI2	**Kunming**	**75.99**	**302**	⇑P	**P**	**03 11 03.6**	**+0.1**
KMI2				S	**S**	**03 20 51.8**	**+4.7**
KMI2				SS	**SS**	**03 25 34.6**	**-5.7**
KMI2				pmax	pmax		
	comp=Z,160nm,1.9s						
KMI2				pmax	pmax		
	comp=Z,3µm,9.0s						
KMI2				L	L		
	comp=Z,4µm,24.5s						
KMI2				L	L		
	comp=Z,3µm,26.3s						
KMI2				L	L		
	comp=Z,7µm,22.9s						
RPN	**Rapa Nui**	**76.23**	**114**	LR	LR	03 37 25.8	
	comp=Z,2µm,21.6s,baz=270,slow=30						
SPIA	**Saint Paul Isl**	**76.34**	**12**	IAMs_20	IAMs_20	03 40 10.1	
	comp=Z,7µm,20.0s						
CM31	**Chiang Mai Arr**	**76.36**	**294**	P	**P**	**03 11 05.7**	**+0.2**
	SNR=53						
CMAR	**Chiang Mai Arr**	**76.36**	**294**	P	**P**	**03 11 05.8**	**+0.4**
	comp=Z,9.9nm,0.7s,baz=126,slow=4.2,SNR=40						
CMAR				PKPPKP	**P'P'df**	**03 38 20.1**	**-0.7**
	comp=Z,1.5nm,0.3s,baz=239,slow=3.2,SNR=4.4						
	comp=Z,9.9nm,0.7s						
CMAR	**Chiang Mai Arr**	**76.36**	**294**	P	**P**	**03 11 05.4**	**-0.1**
CHTO	**Chiang Mai**	**76.50**	**295**	P	**P**	**03 11 06.6**	**+0.3**
CHTO	**Chiang Mai**	**76.50**	**295**	P	**P**	**03 11 05.8**	**-0.5**
CHTO	**Chiang Mai**	**76.50**	**295**	⇑P	**P**	**03 11 06.3**	**+0.1**
XLT	**XiLinHaoTe**	**76.96**	**324**	*e*P	**P**	**03 11 08.2**	**-0.2**
XLT				pP	sP	03 11 13.2	+1.9
XLT				PcP	**PcP**	**03 11 19.0**	**-0.5**
XLT				S	**S**	**03 20 56.0**	**-0.8**
XLT				ScS	**SKKSac**	**03 21 23.8**	**+2.3**
XLT				pmax	pmax		
	comp=Z,40nm,2.1s						
XLT				pmax	pmax		
	comp=Z,3µm,5.6s						
XLT				L	L		
	comp=Z,310nm,14.5s						
XLT				L	L		
	comp=Z,2µm,16.8s						
XLT				L	L		
	comp=Z,3µm,15.9s						
PZH	**PanZhiHua**	**77.40**	**303**	P	**P**	**03 11 12.8**	**+1.4**
PZH				S	**S**	**03 21 01.9**	**-0.5**
PZH				SS	**SS**	**03 26 00.6**	**-0.9**
PZH				pmax	pmax		
	comp=Z,30nm,1.9s						
PZH				pmax	pmax		
	comp=Z,3µm,9.7s						
PZH				L	L		
	comp=Z,3µm,24.1s						
PZH				L	L		
	comp=Z,4µm,22.9s						
PZH				L	L		
	comp=Z,8µm,24.3s						
MA2	**Magadan**	**77.74**	**351**	LR	LR	03 42 18.5	
	comp=Z,3µm,20.6s,baz=172,slow=33						
MA2	**Magadan**	**77.74**	**351**	*ce*P	**P**	**03 11 11.9**	**-0.4**
MA2				pmax	pmax		
	comp=Z,149nm,2.8s						
MA2				MLR	MLR		
	comp=Z,3µm,17.0s						
MA2	**Magadan**	**77.74**	**351**	IAMs_20	IAMs_20	03 39 40.7	
	comp=Z,9µm,21.0s						
HHC	**Hu-ho-hao-te**	**77.75**	**320**	*e*P	**P**	**03 11 12.5**	**-0.5**
HHC				S	**S**	**03 21 03.1**	**-2.4**
HHC				SS	**SS**	**03 26 02.4**	**-3.7**
HHC				pmax	pmax		
	comp=Z,28nm,1.4s						
HHC				pmax	pmax		
	comp=Z,2µm,5.5s						
HHC				L	L		
	comp=Z,4µm,16.0s						
HHC				L	L		
	comp=Z,3µm,17.6s						
HHC				L	L		
	comp=Z,5µm,17.6s						
HIA	**Hailar**	**78.64**	**330**	P	**P**	**03 11 19.3**	**+1.7**
HIA	**Hailar**	**78.64**	**330**	IAMs_20	IAMs_20	03 45 05.7	
	comp=Z,5µm,20.0s						
ZEA	**Zeya**	**78.73**	**337**	*e*P	**P**	**03 11 17.4**	**-0.5**
ZEA				*e*S	**S**	**03 21 14.9**	**-0.3**
ZEA				*e*		03 21 38.1	
ZEA				pmax	pmax		
	comp=N,500nm,5.9s						
ZEA				pmax	pmax		
	comp=Z,1µm,6.8s						
ZEA				pmax	pmax		
	comp=N,10.0nm,1.6s						
ZEA				pmax	pmax		
	comp=Z,30nm,1.9s						
ZEA				smax	smax		
	comp=N,1µm,10.2s						
BTO2	**Baotou**	**78.73**	**319**	*e*P	**P**	**03 11 18.8**	**+0.3**
BTO2				pP	**sP**	**03 11 23.5**	**+2.2**
BTO2				sP	**pwP**	**03 11 25.9**	**+0.4**
BTO2				S	**S**	**03 21 17.3**	**+1.1**
BTO2				sS	**sS**	**03 21 23.0**	**+3.6**
BTO2				SS	**SS**	**03 26 22.6**	**+1.6**
BTO2				pmax	pmax		
	comp=N,80nm,1.9s						
BTO2				pmax	pmax		
	comp=N,6µm,5.1s						
BTO2				L	L		
	comp=N,8µm,17.1s						
BTO2				L	L		
	comp=N,8µm,17.8s						
BTO2				L	L		
	comp=N,14µm,15.9s						
HILR	**Hailar Array B**	**78.83**	**330**	P	**P**	**03 11 19.7**	**+1.0**
	comp=N,2.3nm,0.3s,baz=123,slow=5.5,SNR=5.1						
	comp=N,2.3nm,0.3s						
TNCH	**TengChong**	**79.39**	**300**	P	**P**	**03 11 23.0**	**+0.5**
TNCH				S	**S**	**03 21 23.7**	**-0.2**
TNCH				sS	sS	03 21 29.2	+2.1
TNCH				pmax	pmax		
	comp=N,1µm,3.2s						
TNCH				L	L		
	comp=N,2µm,25.4s						
TNCH				L	L		
	comp=N,3µm,26.2s						
TNCH				L	L		
	comp=N,9µm,31.8s						
PBA	**Port Blair**	**79.42**	**286**	P	**P**	**03 11 22.4**	**-0.2**
	SNR=7.4						
MAW	**Mawson**	**79.77**	**202**	P	**P**	**03 11 23.7**	**+0.1**
	comp=Z,20nm,2.2s						
MAW	**Mawson**	**79.77**	**202**	P	**P**	**03 11 23.9**	**+0.4**
	comp=Z,41nm,1.1s,baz=105,slow=6.2,SNR=25						
MAW				LR	LR	03 44 30.0	
	comp=Z,2µm,18.3s,baz=93,slow=34						

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      comp=Z,41nm,1.1s
MAW   Mawson           79.77 202  P        P        03 11 23.1 -0.5
R16K  Pilot Point      79.87  18  IAMs_20  IAMs_20  03 40 18.8
      comp=Z,8µm,19.0s
SII   Sitkinak Islan   80.11  20  IAMs_20  IAMs_20  03 51 44.4
      comp=Z,6µm,18.0s
O14K  Tigyukauivet M   80.28  16  IAMs_20  IAMs_20  03 43 07.7
      comp=Z,6µm,18.0s
LZH   Lanzhou          80.30 312  P        P        03 11 27.4 +0.2
LZH                               sP       PcP      03 11 38.2 +3.9
LZH                               S        S        03 21 22.6  -10
LZH                               SS       SS       03 26 39.8 -5.0
LZH                               pmax     pmax
      comp=Z,81nm,1.9s
LZH                               pmax     pmax
      comp=Z,3µm,4.4s
LZH                               L        L
      comp=Z,5µm,15.9s
LZH                               L        L
      comp=Z,4µm,17.5s
LZH                               L        L
      comp=Z,8µm,18.1s
LZDM  Lanzhou Array    80.34 312  P        P        03 11 28.3 +0.7
      comp=Z,1.5nm,0.3s,baz=98,slow=8.9,SNR=5.1
LZDM                              LR       LR       03 42 55.2
      comp=Z,2µm,21.9s,baz=105,slow=33
      comp=Z,1.5nm,0.3s
N14K  Kuskokwak Cree   80.76  15  IAMs_20  IAMs_20  03 39 50.3
      comp=Z,7µm,22.0s
SEY   Seymchan         80.77 353  LR       LR       03 42 38.4
      comp=Z,7µm,21.4s,baz=164,slow=32
SEY   Seymchan         80.77 353 eP        P        03 11 26.9 -1.9
SEY                               pmax     pmax
      comp=Z,71nm,1.4s
N15K  Kwethluk River   81.38  16  IAMs_20  IAMs_20  03 44 38.6
      comp=Z,6µm,19.0s
M14K  Bethel           81.42  15  IAMs_20  IAMs_20  03 42 09.6
      comp=Z,7µm,20.0s
P17K  Kvichak River    81.56  18  IAMs_20  IAMs_20  03 41 43.6
      comp=Z,7µm,20.0s
KDAK  Kodiak Island    81.61  20  LR       LR       03 41 08.7
      comp=Z,5µm,21.4s,baz=223,slow=31
KDAK  Kodiak Island    81.61  20  IAMs_20  IAMs_20  03 47 54.4
      comp=Z,6µm,19.0s
K13K  Kusilvak Mount   81.86  13  IAMs_20  IAMs_20  03 42 22.1
      comp=Z,7µm,20.0s
Q19K  Cape Douglas,    82.18  19  IAMs_20  IAMs_20  03 48 48.3
      comp=Z,7µm,19.0s
M16K  Timber Creek     82.40  16  IAMs_20  IAMs_20  03 41 10.6
      comp=Z,6µm,20.0s
O18K  Koktuh Hills     82.46  18  IAMs_20  IAMs_20  03 44 01.4
      comp=Z,7µm,19.0s
J14K  Nanvaranak Lak   82.82  13  IAMs_20  IAMs_20  03 43 22.5
      comp=Z,6µm,20.0s
L16K  Owhat River      82.86  15  IAMs_20  IAMs_20  03 41 58.7
      comp=Z,5µm,20.0s
O19K  Port Alsworth    83.00  18  IAMs_20  IAMs_20  03 42 47.7
      comp=Z,6µm,21.0s
SAIH  SAIHA            83.06 296 eP        P        03 11 40.8 -1.1
SAIH                              IAmb     IAmb     03 11 52.5
      comp=Z,251nm,1.7s
M17K  Holitna River    83.11  16  IAMs_20  IAMs_20  03 43 47.6
      comp=Z,7µm,20.0s
IMP   Imphal           83.12 299 eP        P        03 11 41.4 -0.8
IMP                               IAmb     IAmb     03 11 52.0
      comp=Z,160nm,1.1s
ILSW  Iliamna Southw   83.18  19  IAmb     IAmb     03 11 51.0
      comp=Z,200nm,1.7s
MOKO  MOKOCHONG        83.22 300 eP        P        03 11 41.9 -0.9
MOKO                              IAmb     IAmb     03 11 52.8
      comp=Z,255nm,1.4s
KOHI  KOHIMA           83.32 299 eP        P        03 11 42.4 -0.9
KOHI                              IAmb     IAmb     03 11 55.7
      comp=Z,210nm,1.5s
HOM   Homer            83.39  19  IAMs_20  IAMs_20  03 48 23.2
      comp=Z,6µm,19.0s
CIT   Chita            83.42 330 eP        P        03 11 42.6 -0.4
CIT                              e                  03 14 59.4
CIT                              e                  03 22 07.4
CIT                               pmax     pmax
      comp=Z,431nm,1.9s
CNPM  China Poot       83.42  20  IAMs_20  IAMs_20  03 47 25.0
      comp=Z,6µm,20.0s
BRLK  Bradley Lake     83.72  20  IAmb     IAmb     03 12 08.8
      comp=Z,127nm,1.5s
BRLK                              IAMs_20  IAMs_20  03 47 24.5
      comp=Z,6µm,19.0s
AZL   Aizawl           83.77 297 eP        P        03 11 44.6 -1.0
AZL                               IAmb     IAmb     03 11 55.6
      comp=Z,269nm,2.3s
L18K  Granite Mounta   84.00  16  IAmb     IAmb     03 11 56.8
      comp=Z,167nm,2.0s
K17K  Iditarod         84.00  15  IAmb     IAmb     03 11 56.6
      comp=Z,146nm,1.9s
K17K                              IAMs_20  IAMs_20  03 41 52.0
      comp=Z,6µm,22.0s
SILR  SILCHAR          84.06 298 eP        P        03 11 46.0 -0.9
SILR                              IAmb     IAmb     03 11 58.7
      comp=Z,108nm,0.6s
ANM   Nome             84.08  11  IAMs_20  IAMs_20  03 47 23.8
      comp=Z,5µm,19.0s
BELA  Belgrano 2       84.24 175  P        P        03 11 45.8 -1.1
ULN   Ulaanbaatar      84.38 324  P        P        03 11 48.5 +0.3
ULN                               S        SKSac    03 22 13.7 +1.6
ULN   Ulaanbaatar      84.38 324d iP       P        03 11 46.6 -1.6
ULN                               pmax     pmax
      comp=Z,204nm,1.2s
ULN                               MLR      MLR
      comp=Z,2µm,17.0s
ULN   Ulaanbaatar      84.38 324  P        P        03 11 47.5 -0.7
ULN   Ulaanbaatar      84.38 324 ⇑P        P        03 11 47.7 -0.5
J17K  VABM Dome        84.39  14  P        P        03 11 49.7 +2.0
J17K                              IAmb     IAmb     03 11 59.7
      comp=Z,131nm,2.0s
L19K  White Mountain   84.46  17  IAmb     IAmb     03 11 59.8
      comp=Z,198nm,1.7s
L19K                              IAMs_20  IAMs_20  03 44 37.2
      comp=Z,7µm,20.0s
SLKM  Skilak Lake      84.50  19  IAMs_20  IAMs_20  03 49 33.7
      comp=Z,5µm,18.0s
YAK   Yakutsk          84.51 343  LR       LR       03 49 29.4
      comp=Z,7µm,18.4s,baz=144,slow=36
YAK   Yakutsk          84.51 343 eP        P        03 11 46.8 -1.5
YAK                              e                  03 14 59.4
YAK                              eS        SKSac    03 22 09.7 -2.2
YAK                              eSS       SS       03 27 52.4 +6.5
YAK                               pmax     pmax
      comp=Z,66nm,1.3s
YAK                               pmax     pmax
      comp=N,32nm,1.8s
YAK                               pmax     pmax
      comp=E,17nm,1.5s
YAK                               pmax     pmax
      comp=Z,321nm,3.3s
YAK                               pmax     pmax
      comp=E,150nm,3.7s
YAK                               pmax     pmax
      comp=N,53nm,2.8s
YAK                               smax     smax
      comp=N,1µm,5.8s
YAK                               smax     smax
      comp=E,568nm,6.2s
YAK                               MLR      MLR
      comp=Z,8µm,17.0s
YAK                               MLR      MLR
      comp=E,2µm,19.0s
O22K  Cooper Landing   84.64  20  IAMs_20  IAMs_20  03 48 04.4
      comp=Z,6µm,20.0s
M20K  Styx River       84.70  17  IAmb     IAmb     03 12 33.3
      comp=Z,97nm,1.9s
M20K                              IAMs_20  IAMs_20  03 42 40.0
      comp=Z,6µm,20.0s
SONM  Songino Array    84.74 324  P        P        03 11 49.4 -0.6
      comp=Z,15nm,0.8s,baz=143,slow=4.7,SNR=66
SONM                              PKKPbc   PKKPbc   03 30 00.1 -1.4
      comp=Z,0.9nm,0.8s,baz=318,slow=2.0,SNR=3.9
SONM                              PKPPKP            03 38 05.0
      comp=Z,0.6nm,0.8s,baz=254,slow=1.0,SNR=5.5
SONM                              LR       LR       03 48 56.2
      comp=Z,2µm,20.1s,baz=123,slow=35
      comp=Z,15nm,0.8s
SONM  Songino Array    84.74 324  P        P        03 11 48.9 -1.0
SONM                              IAmb     IAmb     03 12 01.3
      comp=Z,146nm,1.2s
TEZP  TEZPUR           84.75 300 eP        P        03 11 49.6 -0.8
TEZP                              IAmb     IAmb     03 12 01.0
GTA2  Gaotai           84.76 314  P        P        03 11 50.0 -0.3
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GTA2                              sP       pwP      03 12 01.2 +3.8
GTA2                              PP       PP       03 15 06.3 -0.4
GTA2                              S        SKSac    03 22 16.0 +1.1
GTA2                              SS       SS       03 27 49.9 -1.0
GTA2                              pmax     pmax
      comp=Z,41nm,1.8s
GTA2                              pmax     pmax
      comp=Z,2µm,6.5s
GTA2                              L        L
      comp=Z,2µm,16.5s
GTA2                              L        L
      comp=Z,4µm,16.8s
GTA2                              L        L
      comp=Z,5µm,17.2s
STLK  Strandline Lak   84.78  18  P        P        03 11 47.5 -2.2
MID   Middleton Isla   85.00  22  IAMs_20  IAMs_20  03 50 44.3
      comp=Z,7µm,18.0s
BILL  Bilibino         85.00 359d iP       P        03 11 49.5 -1.2
BILL                              pmax     pmax
      comp=Z,231nm,1.8s
J18K  Innoko River     85.03  15  IAmb     IAmb     03 12 02.2
      comp=Z,59nm,1.4s
J18K                              IAMs_20  IAMs_20  03 42 34.1
      comp=Z,6µm,21.0s
P23K  Montague Islan   85.05  21  IAMs_20  IAMs_20  03 44 17.2
      comp=Z,6µm,20.0s
SUA   Susitna One      85.08  19  IAmb     IAmb     03 12 16.4
      comp=Z,177nm,1.9s
SUA                               IAMs_20  IAMs_20  03 41 33.4
      comp=Z,5µm,20.0s
RC01  Rabbit Creek A   85.10  19  IAMs_20  IAMs_20  03 50 04.4
      comp=Z,6µm,18.0s
SHL   Shillong         85.13 298 eP        P        03 11 51.1 -1.4
SHL                               IAmb     IAmb     03 12 02.9
      comp=Z,129nm,1.0s
MCCM  Marconi Confer   85.15  48  IAMs_20  IAMs_20  03 48 38.1
      comp=Z,5µm,18.0s
F15K  North Star Dit   85.25  11  IAMs_20  IAMs_20  03 48 18.6
      comp=Z,6µm,20.0s
JRSC  Jasper Ridge     85.29  49  IAMs_20  IAMs_20  03 40 19.8
      comp=Z,5µm,22.0s
KMPM  Mount Pierce     85.31  45  IAmb     IAmb     03 12 05.4
      comp=Z,124nm,1.3s
FORD  Fort Ord Natur   85.31  49  IAMs_20  IAMs_20  03 49 20.5
      comp=Z,5µm,18.0s
KCPM  Cahto Peak       85.35  46  IAmb     IAmb     03 12 05.4
      comp=Z,185nm,1.4s
KCPM                              IAMs_20  IAMs_20  03 41 35.1
      comp=Z,6µm,20.0s
G16K  Koyuk River      85.41  12  IAmb     IAmb     03 12 03.6
      comp=Z,70nm,1.4s
G16K                              IAMs_20  IAMs_20  03 45 40.5
      comp=Z,7µm,20.0s
DCMP  DeCamp, Califo   85.42  46  IAmb     IAmb     03 12 05.5
      comp=Z,77nm,1.4s
HULI  Fort Hunter Li   85.42  50  IAMs_20  IAMs_20  03 49 03.6
      comp=Z,5µm,18.0s
M22K  Willow           85.49  19  IAMs_20  IAMs_20  03 42 29.7
      comp=Z,6µm,21.0s
KMRM  Mail Ridge       85.50  46  IAmb     IAmb     03 12 10.9
      comp=Z,89nm,1.0s
H17K  Granite Mounta   85.53  13  IAMs_20  IAMs_20  03 44 58.0
      comp=Z,7µm,21.0s
CVS   Carmenet Viney   85.54  48  IAmb     IAmb     03 12 05.8
      comp=Z,137nm,1.4s
CVS                               IAMs_20  IAMs_20  03 40 37.4
      comp=Z,6µm,22.0s
SAO   San Andreas Ge   85.58  50 ⇑P        P        03 11 54.9 +0.6
SAO   San Andreas Ge   85.58  50  IAmb     IAmb     03 12 13.1
      comp=Z,114nm,1.5s
SAO                               IAMs_20  IAMs_20  03 49 45.8
      comp=Z,6µm,18.0s
SAO   San Andreas Ge   85.58  50 ⇑P        P        03 11 54.9 +0.6
K20K  Telida           85.62  16  IAmb     IAmb     03 12 38.5
      comp=Z,90nm,1.6s
HIN   Hinchinbrook I   85.64  21  IAMs_20  IAMs_20  03 44 46.0
      comp=Z,6µm,21.0s
PMR   Palmer           85.67  19  P        P        03 11 56.0 +1.9
PMR   Palmer           85.67  19  P        P        03 11 52.1 -2.0
PMR                               pmax     pmax
      comp=Z,65nm,1.6s
PMR   Palmer           85.67  19  P        P        03 11 52.1 -2.0
MHC   Mount Hamilton   85.69  49  IAmb     IAmb     03 12 14.0
      comp=Z,207nm,1.6s
MHC                               IAMs_20  IAMs_20  03 53 11.5
      comp=Z,5µm,18.0s
J19K  Poorman          85.74  15  IAMs_20  IAMs_20  03 42 55.9
      comp=Z,7µm,22.0s
KNK   Knik Glacier     85.75  20  IAMs_20  IAMs_20  03 55 18.7
      comp=Z,6µm,18.0s
KHMM  Horse Mountain   85.78  45  IAmb     IAmb     03 12 11.8
      comp=Z,78nm,1.1s
KHMM                              IAMs_20  IAMs_20  03 45 23.4
      comp=Z,5µm,19.0s
GLI   Glacier Island   85.80  20  IAMs_20  IAMs_20  03 42 07.0
      comp=Z,5µm,21.0s
PMPB  Monarch Peak     85.83  50  IAmb     IAmb     03 12 08.1
      comp=Z,145nm,1.3s
PKD   Bear Valley Ra   85.91  51  IAMs_20  IAMs_20  03 51 22.4
      comp=Z,5µm,18.0s
FID   Port Fidalgo     85.91  21  IAMs_20  IAMs_20  03 41 58.5
      comp=Z,5µm,21.0s
CUT   Chulitna         85.95  18  IAMs_20  IAMs_20  03 44 22.8
      comp=Z,5µm,21.0s
KRMB  Red Mountain     85.95  44  IAmb     IAmb     03 12 15.2
      comp=Z,218nm,2.0s
EYAK  Cordova Ski Ar   86.01  21  P        P        03 11 57.6 +1.8
EYAK  Cordova Ski Ar   86.01  21  IAMs_20  IAMs_20  03 45 06.8
      comp=Z,6µm,19.0s
KHBM  Hayfork Bally    86.03  45  IAmb     IAmb     03 12 08.8
      comp=Z,87nm,1.4s
KHBM                              IAMs_20  IAMs_20  03 45 31.1
      comp=Z,6µm,19.0s
SML   Sawmill          86.09  19  IAMs_20  IAMs_20  03 49 19.6
      comp=Z,5µm,20.0s
O02D  Mt. Diablo Mer   86.11  46  IAMs_20  IAMs_20  03 41 42.3
      comp=Z,7µm,21.0s
CAST  Castle Rocks     86.21  17  IAMs_20  IAMs_20  03 44 52.1
      comp=Z,7µm,21.0s
RAGM  Ragged Mountai   86.27  22  IAMs_20  IAMs_20  03 46 28.6
      comp=Z,6µm,20.0s
DIV   Divide           86.42  21  IAMs_20  IAMs_20  03 42 37.3
      comp=Z,6µm,22.0s
SCM   Sheep Creek Mo   86.43  20  IAmb     IAmb     03 13 05.5
      comp=Z,102nm,1.8s
SYO   Syowa Base       86.48 196⇑iP        P        03 11 58.0 -0.2
SYO   Syowa Base       86.48 196⇑iP        P        03 11 59.6 +1.4
M02C  Callahan         86.60  45  IAmb     IAmb     03 12 11.9
      comp=Z,174nm,1.5s
M02C                              IAMs_20  IAMs_20  03 45 50.2
      comp=Z,5µm,20.0s
G18K  Tagagawik        86.62  13  IAmb     IAmb     03 12 09.9
      comp=Z,84nm,1.6s
I20K  Naaghedeneel     86.68  15  IAMs_20  IAMs_20  03 43 34.9
      comp=Z,6µm,22.0s
OSI   Osito Audit: C   86.73  52  IAMs_20  IAMs_20  03 41 11.3
      comp=Z,7µm,21.0s
ORV   Oroville         86.73  47  IAmb     IAmb     03 12 21.7
      comp=Z,107nm,1.4s
ORV                               IAMs_20  IAMs_20  03 41 37.9
      comp=Z,6µm,22.0s
AFDM  Forest Hills D   86.85  48  IAmb     IAmb     03 12 12.3
      comp=Z,207nm,1.7s
YBH   Yreka Blue Hor   86.85  45  LR       LR       03 45 32.6
      comp=Z,3µm,19.3s,baz=254,slow=32
YBH   Yreka Blue Hor   86.85  45  IAmb     IAmb     03 12 12.8
      comp=Z,124nm,1.6s
DHUB  DHUBRI           86.88 298 eP        P        03 12 00.1 -0.8
DHUB                              IAmb     IAmb     03 12 11.1
      comp=Z,24nm,0.8s
BOD   Bodaibo          86.88 334 eP        P        03 11 58.5 -1.7
BOD                               pmax     pmax
      comp=Z,119nm,2.2s
CMB   Columbia Colle   86.88  49 ⇑P        P        03 12 02.6 +1.8
CMB   Columbia Colle   86.88  49  IAmb     IAmb     03 12 15.4
      comp=Z,47nm,1.0s
GOMU  GeErMu           86.89 309  P        P        03 12 00.5 -0.7
GOMU                              pP       PcP      03 12 04.8 +1.3
GOMU                              sP       pwP      03 12 08.5 +0.2
GOMU                              SS       SS       03 28 26.2 +3.5
GOMU                              pmax     pmax
      comp=Z,8.0nm,0.9s
GOMU                              L        L
      comp=Z,3µm,19.9s
GOMU                              L        L
      comp=Z,5µm,19.1s
GOMU                              L        L
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      comp=Z,11µm,19.2s
VES   Vestal, Richgr   86.94  51  IAmb     IAmb     03 12 12.7
      comp=Z,111nm,1.3s
VES                               IAMs_20  IAMs_20  03 42 54.9
      comp=Z,5µm,20.0s
PASC  Pasadena Art C   86.96  53  IAmb     IAmb     03 12 12.9
      comp=Z,65nm,1.4s
PASC                              IAMs_20  IAMs_20  03 43 22.6
      comp=Z,6µm,20.0s
CRQM  Cirque           87.07  22  IAMs_20  IAMs_20  03 54 53.2
      comp=Z,5µm,18.0s
MWC   Mount Wilson     87.08  53  IAmb     IAmb     03 12 13.8
      comp=Z,112nm,1.4s
MWC                               IAMs_20  IAMs_20  03 42 04.7
      comp=Z,7µm,21.0s
CAL   Calcutta         87.10 295 eP        P        03 12 01.3 -0.8
G19K  Purcell Mounta   87.18  14  IAmb     IAmb     03 12 13.1
      comp=Z,98nm,1.8s
TPO   Tropico Hills    87.21  52  IAmb     IAmb     03 12 14.7
      comp=Z,143nm,1.4s
HATC  Hat Creek Radi   87.30  46  IAMs_20  IAMs_20  03 53 23.8
      comp=Z,4µm,18.0s
ISA   Isabella, Lake   87.33  52  IAmb     IAmb     03 12 18.0
      comp=Z,93nm,1.3s
ISA                               IAMs_20  IAMs_20  03 43 17.1
      comp=Z,6µm,20.0s
ELS   Elsinore Mount   87.34  54  IAmb     IAmb     03 12 17.1
      comp=Z,76nm,1.8s
BFSC  Mount Baldy Ra   87.39  53  IAmb     IAmb     03 12 21.7
      comp=Z,145nm,1.8s
BFSC                              IAMs_20  IAMs_20  03 43 07.0
      comp=Z,7µm,20.0s
COBR  COOCHBEHAR       87.42 298 eP        P        03 12 02.9 -0.7
CBX   Cerro Bola       87.43  55  IAmb     IAmb     03 12 22.3
      comp=Z,51nm,1.3s
C16K  Lisburne Hills   87.45  10  IAMs_20  IAMs_20  03 47 21.5
      comp=Z,5µm,20.0s
DPP   Dos Picos Cty    87.47  54  IAmb     IAmb     03 12 22.1
      comp=Z,138nm,1.9s
E18K  Tukpahlearik C   87.53  12  IAMs_20  IAMs_20  03 46 26.6
      comp=Z,6µm,20.0s
BWN   Browne           87.54  17  IAMs_20  IAMs_20  03 46 04.9
      comp=Z,7µm,20.0s
MCARA McCarthy VSAT    87.55  21  IAMs_20  IAMs_20  03 52 25.4
      comp=Z,5µm,18.0s
BAR   Barrett          87.56  55  IAMs_20  IAMs_20  03 44 18.7
      comp=Z,7µm,20.0s
F19K  Shaleruckik Mo   87.61  13  IAmb     IAmb     03 12 33.8
      comp=Z,85nm,1.6s
F19K                              IAMs_20  IAMs_20  03 45 03.4
      comp=Z,5µm,20.0s
I21K  Tanana           87.63  16  IAmb     IAmb     03 12 48.3
      comp=Z,112nm,1.8s
RDOG  Red Dog Mine     87.66  11  IAMs_20  IAMs_20  03 44 30.2
      comp=Z,5µm,22.0s
BEKR  Beckworth        87.66  47  IAmb     IAmb     03 12 16.6
      comp=Z,149nm,1.4s
PCA   Pinnacle         87.68  23  IAMs_20  IAMs_20  03 44 23.2
      comp=Z,5µm,20.0s
HOLB  Holberg          87.77  35  P        P        03 12 04.6 -0.2
HOLB                              IAmb     IAmb     03 12 24.5
      comp=Z,84nm,1.5s
VTX   Valle De La Tr   87.78  56  IAmb     IAmb     03 12 22.8
      comp=Z,95nm,1.8s
ZAK   Zakamensk        87.81 325 eP        P        03 12 03.4 -1.6
ZAK                               pmax     pmax
      comp=Z,63nm,1.9s
MLY   Manley           87.84  16  IAMs_20  IAMs_20  03 44 59.6
      comp=Z,6µm,21.0s
ELIB  Princess Elisa   87.88 190 dP        P        03 12 04.5 -0.7
      comp=Z,76nm,1.1s
LOGN  Logan Glacier    87.89  22  IAMs_20  IAMs_20  03 54 38.5
      comp=Z,4µm,18.0s
CWC   Cottonwood Cre   87.93  51  IAMs_20  IAMs_20  03 41 24.9
      comp=Z,6µm,22.0s
I04A  Tendick Farm,    87.96  43  IAmb     IAmb     03 12 17.6
      comp=Z,90nm,1.3s
NEA2  Nenana           87.97  17  IAMs_20  IAMs_20  03 44 21.1
      comp=Z,5µm,22.0s
BORC  Borrego Spring   87.98  54  IAmb     IAmb     03 12 24.8
      comp=Z,54nm,1.3s
PFO   Pinyon Flats O   88.08  54  LR       LR       03 44 06.4
      comp=Z,8µm,20.2s,baz=252,slow=31
PFO   Pinyon Flats O   88.08  54  P        P        03 12 06.6 -0.1
PFO                               pmax     pmax
      comp=Z,52nm,1.6s
PFO   Pinyon Flats O   88.08  54  P        P        03 12 06.6 -0.1
YUH   Yuha Desert      88.14  55  IAmb     IAmb     03 12 21.2
      comp=Z,92nm,1.8s
JPG   JALPAIGURI       88.14 298 eP        P        03 12 06.1 -0.8
PMD   Palm Desert      88.15  54  IAmb     IAmb     03 12 25.4
      comp=Z,64nm,1.6s
O28M  Mount Upton      88.15  23  IAMs_20  IAMs_20  03 53 46.6
      comp=Z,5µm,18.0s
MPMC  Manual Prospec   88.22  51  IAmb     IAmb     03 12 19.6
      comp=Z,53nm,1.3s
IRK   Irkutsk          88.23 327 eP        P        03 12 05.0 -1.9
IRK                              eS        SKSac    03 22 38.4 +2.9
IRK                               pmax     pmax
      comp=Z,176nm,2.8s
F20K  Avaraart Lake    88.23  14  IAmb     IAmb     03 12 24.7
      comp=Z,72nm,1.9s
E19K  Redstone River   88.25  13  IAMs_20  IAMs_20  03 48 54.9
      comp=Z,5µm,20.0s
M26K  Nabesna, AK      88.26  21  IAMs_20  IAMs_20  03 46 20.1
      comp=Z,5µm,21.0s
I23K  Minto, Yukon-K   88.31  17  IAMs_20  IAMs_20  03 47 27.0
      comp=Z,6µm,20.0s
G21K  Allakaket        88.31  15  IAMs_20  IAMs_20  03 46 03.9
      comp=Z,6µm,20.0s
H22K  Ishtalitna Cre   88.35  16  IAMs_20  IAMs_20  03 47 57.9
      comp=Z,7µm,20.0s
DSP   Deep Springs     88.37  50  IAmb     IAmb     03 12 20.2
      comp=Z,120nm,1.3s
MENT  Mentasta         88.39  20  P        P        03 12 09.1 +1.7
GSC   Goldstone, Bar   88.44  52  IAmb     IAmb     03 12 21.4
      comp=Z,119nm,1.6s
O29M  Mount Kennedy    88.46  24  IAMs_20  IAMs_20  03 44 25.7
      comp=Z,5µm,20.0s
WIFE  Three Sisters-   88.46  43  IAmb     IAmb     03 12 20.4
      comp=Z,106nm,1.3s
V35K  Ketchikan        88.48  30  IAMs_20  IAMs_20  03 42 12.1
      comp=Z,5µm,22.0s
COLA  College          88.53  17  P        P        03 12 09.6 +1.7
COLA  College          88.53  17  P        P        03 12 12.2 +4.3
COLA  College          88.53  17  IAMs_20  IAMs_20  03 45 31.7
      comp=Z,7µm,20.0s
COLA  College          88.53  17 ⇓P        P        03 12 12.7 +4.8
G04A  Mulino           88.54  42  IAmb     IAmb     03 12 20.5
      comp=Z,76nm,1.0s
NVAR  Mina Array Bea   88.54  49  P        P        03 12 08.0 -0.9
      comp=Z,15nm,1.1s,baz=227,slow=7.7,SNR=28
NVAR                              PKKPbc   PKKPbc   03 29 51.3 -0.5
      comp=Z,1.0nm,0.7s,baz=88,slow=3.5,SNR=6.8
NVAR                              PKPPKP   P'P'df   03 37 59.3 +2.2
      comp=Z,3.8nm,1.1s,baz=91,slow=2.9,SNR=9.8
NVAR                              LR       LR       03 43 38.4
      comp=Z,4µm,21.9s,baz=254,slow=30
      comp=Z,15nm,1.1s
NVAR  Mina Array Bea   88.54  49  P        P        03 12 07.6 -1.3
MOD   Modoc Plateau    88.55  45  IAmb     IAmb     03 12 20.8
      comp=Z,93nm,1.4s
MOD                               IAMs_20  IAMs_20  03 47 13.7
      comp=Z,4µm,19.0s
BWNR  Bhubaneshwar     88.56 292 eP        P        03 12 08.3 -0.8
BBB   Bella Bella      88.57  34  LR       LR       03 44 43.1
      comp=Z,3µm,21.5s,baz=254,slow=31
BBB   Bella Bella      88.57  34  IAmb     IAmb     03 12 20.3
      comp=Z,168nm,1.9s
BELC  Belle Mtn. Jos   88.58  54  IAmb     IAmb     03 12 22.2
      comp=Z,169nm,1.6s
BELC                              IAMs_20  IAMs_20  03 43 51.4
      comp=Z,6µm,20.0s
WISH  Wishkah          88.59  39  IAmb     IAmb     03 12 21.3
      comp=Z,172nm,1.5s
RUBB  Prince Rupert    88.60  31  IAmb     IAmb     03 12 30.6
      comp=Z,65nm,1.6s
RIDG  Independent Ri   88.60  19  IAMs_20  IAMs_20  03 47 49.9
      comp=Z,5µm,19.0s
SHBG  Sahibganj        88.61 297 eP        P        03 12 08.0 -1.2
QSM   Queen of Sheba   88.65  52  IAmb     IAmb     03 12 21.9
      comp=Z,89nm,1.4s
NLWA  Neilton Lookou   88.66  39  IAmb     IAmb     03 12 21.3
      comp=Z,129nm,1.5s
GRAC  Grapevine Rang   88.67  51  IAmb     IAmb     03 12 21.7
      comp=Z,101nm,1.2s
ILAR  Eielson Array    88.73  18  P        P        03 12 07.7 -1.3
      comp=Z,1.1nm,0.6s,baz=239,slow=5.0,SNR=18
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ILAR				PKiKP	PKiKP	03 17 08.9	+0.1
	comp=Z,0.4nm,0.7s,baz=297,slow=2.9,SNR=4.8						
ILAR				PKKPbc	PKKPdf	03 29 49.8	+2.1
	comp=Z,1.8nm,1.1s,baz=360,slow=2.0,SNR=7.2						
ILAR				PKPPKP	P'P'df	03 37 56.4	+2.6
	comp=Z,1.8nm,1.1s,baz=343,slow=2.8,SNR=4.6						
ILAR				LR	LR	03 45 07.0	
	comp=Z,8µm,21.4s,baz=229,slow=31						
	comp=Z,1.1nm,0.6s						
ILAR	Eielson Array	88.73	18	P	P	03 12 07.0	-1.9
WRAK	Wrangell Islan	88.75	29	IAMs_20	IAMs_20	03 42 32.0	
	comp=Z,5µm,21.0s						
FURC	Furnace Creek,	88.84	51	IAmb	IAmb	03 12 22.3	
	comp=Z,142nm,1.4s						
FURC				IAMs_20	IAMs_20	03 43 56.2	
	comp=Z,7µm,20.0s						
R32K	Eaglecrest	88.86	27	IAMs_20	IAMs_20	03 55 15.6	
	comp=Z,5µm,18.0s						
BC3	Big Chuckawall	88.87	54	IAmb	IAmb	03 12 23.9	
	comp=Z,91nm,1.6s						
BC3				IAMs_20	IAMs_20	03 44 59.3	
	comp=Z,6µm,20.0s						
GWY	Greenwater Val	88.88	52	IAmb	IAmb	03 12 23.1	
	comp=Z,74nm,1.4s						
JIS	Juneau Island	88.91	27	P	P	03 12 11.1	+1.3
KVN	Kaiserville	88.93	49	IAmb	IAmb	03 12 22.6	
	comp=Z,138nm,1.4s						
D19K	Kuna River	88.94	12	IAMs_20	IAMs_20	03 49 10.2	
	comp=Z,5µm,20.0s						
CBB	Campbell River	89.02	36	IAmb	IAmb	03 12 22.8	
	comp=Z,200nm,1.8s						
SCRK	Sand Creek	89.04	19	IAMs_20	IAMs_20	03 47 14.5	
	comp=Z,4µm,19.0s						
J25K	Salcha River,	89.06	18	IAMs_20	IAMs_20	03 49 20.1	
	comp=Z,5µm,18.0s						
SHOC	Shoshone, Teco	89.07	52	IAmb	IAmb	03 12 23.9	
	comp=Z,95nm,1.2s						
SHOC				IAMs_20	IAMs_20	03 44 02.3	
	comp=Z,7µm,21.0s						
L27K	Beaver Creek,	89.11	21	IAMs_20	IAMs_20	03 49 54.5	
	comp=Z,5µm,20.0s						
HOOD	Mount Hood Mea	89.11	42	P	P	03 12 11.2	-0.2
WCT	Wildcat Mounta	89.14	51	P	P	03 12 10.3	-1.3
WCT				IAmb	IAmb	03 12 23.8	
	comp=Z,123nm,1.5s						
CLRS	Cowichan Lake	89.16	38	IAmb	IAmb	03 12 23.3	
	comp=Z,182nm,1.8s						
C19K	Lookout Ridge	89.18	11	IAMs_20	IAMs_20	03 47 55.5	
	comp=Z,6µm,20.0s						
TPH	Tonopah	89.19	50	P	P	03 12 10.7	-1.3
TPH				pmax	pmax		
	comp=Z,141nm,1.5s						
TPH	Tonopah	89.19	50	P	P	03 12 10.7	-1.3
TPH				IAmb	IAmb	03 12 24.1	
	comp=Z,141nm,1.5s						
H24K	Noodor Dome	89.24	17	IAMs_20	IAMs_20	03 47 13.5	
	comp=Z,5µm,19.0s						
IRM	Iron Mountain	89.29	54	IAmb	IAmb	03 12 25.6	
	comp=Z,129nm,1.6s						
IRM				IAMs_20	IAMs_20	03 44 13.4	
	comp=Z,6µm,20.0s						
PALK	Pallekele	89.30	278	LR	LR	03 52 54.1	
	comp=Z,5µm,20.0s,baz=118,slow=36						
PALK	Pallekele	89.30	278	P	P	03 12 13.0	+0.2
PALK	Pallekele	89.30	278	IAMs_20	IAMs_20	03 52 53.5	
	comp=Z,5µm,20.0s						
PMSA	Palmer Station	89.31	160	LR	LR	03 49 40.3	
	comp=Z,3µm,18.1s,baz=222,slow=34						
PMSA	Palmer Station	89.31	160	P	P	03 12 11.0	-0.8
PMSA				IAmb	IAmb	03 12 40.6	
	comp=Z,177nm,1.7s						
PMSA	Palmer Station	89.31	160	IAMs_20	IAMs_20	03 49 46.6	
	comp=Z,4µm,19.0s						
PMSA	Palmer Station	89.31	160	⇓P	P	03 12 11.3	-0.5
PMSA	Palmer Station	89.31	160	eP	P	03 12 11.1	-0.7
GNW	Green Mountain	89.37	39	IAmb	IAmb	03 12 24.3	
	comp=Z,203nm,1.9s						
TPNV	Topopah Spring	89.48	51	IAmb	IAmb	03 12 25.5	
	comp=Z,93nm,1.3s						
TPNV				IAMs_20	IAMs_20	03 46 25.1	
	comp=Z,5µm,19.0s						
PGC	Sidney	89.48	38	IAmb	IAmb	03 12 24.6	
	comp=Z,184nm,1.8s						
BLYC	Blythe	89.63	55	IAmb	IAmb	03 12 27.1	
	comp=Z,83nm,1.5s						
LON	Longmire	89.63	40	IAmb	IAmb	03 12 25.1	
	comp=Z,123nm,1.8s						
K27K	Chicken	89.68	20	IAMs_20	IAMs_20	03 53 08.3	
	comp=Z,5µm,19.0s						
COLD	Coldfoot	89.68	15	IAMs_20	IAMs_20	03 45 39.2	
	comp=Z,7µm,21.0s						
MOY	Mondy	89.70	325	eP	P	03 12 13.0	-0.9
MOY				pmax	pmax		
	comp=Z,285nm,3.7s						
JMUI	Jamui	89.71	296	eP	P	03 12 13.6	-0.9
G06A	Carlson Farm,	89.72	42	IAmb	IAmb	03 12 38.1	
	comp=Z,115nm,1.5s						
MALK	Mahakanadarawa	89.78	279	P	P	03 12 13.3	-1.8
LPIG	La Paz	89.84	65	LR	LR	03 43 15.3	
	comp=Z,5µm,21.9s,baz=250,slow=29						
M29M	Somme Creek	89.87	22	IAMs_20	IAMs_20	03 55 04.8	
	comp=Z,4µm,18.0s						
113A	Mohawk Valley,	89.87	56	IAmb	IAmb	03 12 28.2	
	comp=Z,88nm,1.8s						
WVOR	Wild Horse Val	89.90	45	⇓P	P	03 12 14.6	-0.5
WVOR	Wild Horse Val	89.90	45	IAMs_20	IAMs_20	03 48 08.4	
	comp=Z,5µm,19.0s						
SLBS	Sierra La Lagu	90.02	65	P	P	03 12 17.9	+1.9
SLBS				IAmb	IAmb	03 12 31.9	
	comp=Z,97nm,1.4s						
T35M	Bob Quinn	90.02	29	IAMs_20	IAMs_20	03 43 44.8	
	comp=Z,5µm,22.0s						
BMN	Battle Mountai	90.09	48	IAmb	IAmb	03 12 28.2	
	comp=Z,155nm,1.4s						
SHPR	Sheep Range	90.13	52	IAmb	IAmb	03 12 28.8	
	comp=Z,76nm,1.4s						
EVN	Everest	90.20	299	IAmb	IAmb	03 12 28.8	
	comp=Z,62nm,1.1s						
I26K	Coal Creek Min	90.22	19	IAMs_20	IAMs_20	03 49 55.1	
	comp=Z,5µm,19.0s						
N31M	Braeburn, Yuko	90.27	24	IAMs_20	IAMs_20	03 59 59.5	
	comp=Z,4µm,18.0s						
RAGD	RAYAGADA	90.35	290	eP	P	03 12 16.7	-0.9
B20K	Meade River	90.40	11	IAMs_20	IAMs_20	03 48 45.4	
	comp=Z,6µm,20.0s						
TROLL	Troll, Antarti	90.45	185	⇑P	P	03 12 16.7	-0.6
	comp=Z,7µm,0.8s						
F07A	Phinny Hill Vi	90.45	42	IAmb	IAmb	03 12 29.3	
	comp=Z,151nm,1.6s						
E23K	Chandalar	90.47	15	IAMs_20	IAMs_20	03 46 49.8	
	comp=Z,6µm,21.0s						
F24K	Squaw Lake	90.49	16	IAMs_20	IAMs_20	03 49 52.6	
	comp=Z,6µm,19.0s						
MXC	Moxie City	90.50	41	IAmb	IAmb	03 12 29.5	
	comp=Z,157nm,1.9s						
GAYA	Gaya	90.53	296	eP	P	03 12 17.6	-0.6
PRN	Pahroc Range	90.54	51	IAmb	IAmb	03 12 30.6	
	comp=Z,64nm,1.1s						
LTY	Liberty	90.55	40	IAmb	IAmb	03 12 39.7	
	comp=Z,54nm,1.2s						
NVL	N'lazarevskaya	90.68	188	eP	P	03 12 16.0	-2.1
NVL				eS	SKSac	03 22 46.4	-3.2
NVL				pmax	pmax		
	comp=Z,90nm,0.9s						
NVL				MLR	MLR		
	comp=Z,3µm,18.0s						
P33M	Teslin, Yukon	90.69	25	IAMs_20	IAMs_20	03 51 13.0	
	comp=Z,4µm,18.0s						
E24K	Your Creek	90.76	15	IAMs_20	IAMs_20	03 47 08.9	
	comp=Z,6µm,22.0s						
E07A	Sunnyside	90.77	41	IAmb	IAmb	03 12 31.6	
	comp=Z,70nm,1.0s						
G08A	Pilot Rock	90.83	43	IAmb	IAmb	03 12 30.3	
	comp=Z,72nm,1.1s						
Y14A	Wickenburg	90.88	55	IAmb	IAmb	03 12 38.5	
	comp=Z,72nm,1.9s						
HSIG		90.89	60	IAmb	IAmb	03 12 35.3	
	comp=Z,62nm,1.4s						
I27K	Kandik River	90.90	19	IAMs_20	IAMs_20	03 46 50.6	
	comp=Z,6µm,21.0s						
HAWA	Hanford	90.91	41	IAmb	IAmb	03 12 32.3	
	comp=Z,109nm,1.2s						
DLBC	Dease Lake	90.91	28	LR	LR	03 44 34.5	
	comp=Z,4µm,21.6s,baz=238,slow=30						
WAH2	Wahluke Slope	91.03	41	IAmb	IAmb	03 12 31.9	
	comp=Z,99nm,1.4s						
SNAA	Sanae	91.12	183	⇑P	P	03 12 19.4	-0.8
	comp=Z,2µm,1.0s						
SNAA	Sanae	91.12	183	P	P	03 12 19.5	-0.8
	comp=Z,142nm,1.1s,baz=180,slow=4.8,SNR=37						
SNAA				LR	LR	03 52 03.6	
	comp=Z,5µm,18.5s,baz=161,slow=35						
SNAA	Sanae	91.12	183	c iP	P	03 12 19.2	-1.1
SNAA				pmax	pmax		
	comp=Z,263nm,1.4s						
SNAA	Sanae	91.12	183	⇑P	P	03 12 19.5	-0.8
N32M	Quiet Lake	91.12	25	IAMs_20	IAMs_20	03 55 02.5	
	comp=Z,4µm,18.0s						
YPT	Yellepit	91.13	42	IAmb	IAmb	03 12 32.4	
	comp=Z,44nm,1.1s						
M31M	Drury Creek, Y	91.22	23	IAMs_20	IAMs_20	03 54 34.8	
	comp=Z,6µm,19.0s						
EPH	Ephrata	91.26	40	IAmb	IAmb	03 12 32.8	
	comp=Z,161nm,1.7s						
LLLB	Lillooet	91.27	37	IAmb	IAmb	03 12 39.6	
	comp=Z,63nm,1.4s						
I28M	Miner Creek	91.32	19	IAMs_20	IAMs_20	03 47 55.8	
	comp=Z,5µm,20.0s						
H27K	Steamboat Moun	91.35	18	IAMs_20	IAMs_20	03 47 43.5	
	comp=Z,5µm,20.0s						
B22K	Teshekpuk Lake	91.41	12	IAMs_20	IAMs_20	03 47 50.1	
	comp=Z,5µm,20.0s						
LNOR	Lincton Mounta	91.49	42	IAmb	IAmb	03 12 33.8	
	comp=Z,71nm,1.6s						
D08A	Wollman Farm,	91.56	41	IAmb	IAmb	03 12 34.5	
	comp=Z,150nm,1.9s						
F26K	Sheenjek River	91.61	17	IAMs_20	IAMs_20	03 50 09.2	
	comp=Z,6µm,20.0s						
ELK	Elko	91.61	48	LR	LR	03 45 18.0	
	comp=Z,3µm,21.8s,baz=258,slow=30						
ELK	Elko	91.61	48	⇑P	P	03 12 22.5	-0.7
ELK	Elko	91.61	48	IAmb	IAmb	03 12 35.2	
	comp=Z,108nm,1.8s						
G27K	Doyon Strip	91.70	18	IAMs_20	IAMs_20	03 46 36.7	
	comp=Z,7µm,21.0s						
BMO	Blue Mountains	91.73	43	⇓P	P	03 12 22.2	-1.3
BMO	Blue Mountains	91.73	43	IAmb	IAmb	03 12 35.0	
	comp=Z,77nm,1.4s						
LCMT	Little Creek M	91.75	52	IAmb	IAmb	03 12 36.0	
	comp=Z,40nm,1.2s						
VNA3	Neumayer Olymp	91.77	181	⇑P	P	03 12 22.1	-1.1
	comp=Z,89nm,0.8s						
I29M	Ogilvie Camp,	91.78	20	IAMs_20	IAMs_20	03 57 06.1	
	comp=Z,4µm,19.0s						
B08A	Colville Reser	91.83	40	IAmb	IAmb	03 12 35.0	
	comp=Z,135nm,1.9s						
E09A	Wood Farm, Sta	91.83	42	IAmb	IAmb	03 12 35.4	
	comp=Z,94nm,1.5s						
J30M	Hart River	91.95	21	IAMs_20	IAMs_20	03 47 50.7	
	comp=Z,5µm,21.0s						
VNA2	Neumayer--Watz	92.04	182	⇑P	P	03 12 23.5	-0.9
	comp=Z,94nm,0.8s,baz=152,slow=4.2						
SZCU	Shurtz Canyon	92.07	51	IAmb	IAmb	03 12 38.6	
	comp=Z,83nm,1.8s						
KNB	Kanab	92.07	52	IAmb	IAmb	03 12 45.2	
	comp=Z,155nm,1.7s						
TUC	Tucson	92.09	57	P	P	03 12 24.6	-0.9
MFID	Camas Ranch	92.18	45	IAmb	IAmb	03 12 37.5	
	comp=Z,60nm,1.4s						
D25K	Kavik River	92.20	15	IAMs_20	IAMs_20	03 48 07.1	
	comp=Z,7µm,21.0s						
X16A	Lo Mia Camp, P	92.26	55	IAmb	IAmb	03 12 39.5	
	comp=Z,89nm,1.8s						
U15A	North Rim	92.27	53	IAmb	IAmb	03 12 39.7	
	comp=Z,154nm,2.0s						
H29M	Whitestone	92.31	19	IAMs_20	IAMs_20	03 48 37.0	
	comp=Z,6µm,20.0s						
VNA1	Neumayer--Stat	92.33	181	⇑P	P	03 12 25.1	-0.7
	comp=Z,87nm,1.2s						
TIXI	Tiksi	92.47	349	P	P	03 12 26.0	-0.1
	comp=Z,3.3nm,0.6s,baz=145,slow=6.9,SNR=1.4						
TIXI				LR	LR	03 52 35.3	
	comp=Z,5µm,19.6s,baz=154,slow=35						
	comp=Z,3.3nm,0.6s						
TIXI	Tiksi	92.47	349	d iP	P	03 12 26.9	+0.8
TIXI				pmax	pmax		
	comp=Z,35nm,1.4s						
TIXI				MLR	MLR		
	comp=Z,7µm,19.0s						
ESPZ	Base Esperanza	92.48	162	IAmb	IAmb	03 12 40.7	
	comp=Z,80nm,1.0s						
PKCU	Pink Cliffs	92.60	52	IAmb	IAmb	03 12 47.5	
	comp=Z,139nm,1.7s						
E27K	Coleen River	92.65	17	IAMs_20	IAMs_20	03 48 09.7	
	comp=Z,6µm,21.0s						
WUAZ	Wupatki	92.67	54	IAmb	IAmb	03 12 41.2	
	comp=Z,36nm,1.2s						
WUAZ				IAMs_20	IAMs_20	03 47 09.8	
	comp=Z,5µm,20.0s						
PLID	Pearl Lake	92.68	44	IAmb	IAmb	03 12 49.5	
	comp=Z,47nm,1.5s						
G29M	Pine Creek	92.86	19	IAMs_20	IAMs_20	03 49 02.4	
	comp=Z,6µm,20.0s						
EPYK	Eagle Plains	92.92	19	IAMs_20	IAMs_20	03 55 25.3	
	comp=Z,4µm,19.0s						
SALM	Salem	92.98	281	eP	P	03 12 28.9	-1.0
319A	Douglas	93.01	58	IAmb	IAmb	03 12 45.6	
	comp=Z,61nm,1.4s						
NEW	Newport	93.15	40	LR	LR	03 47 33.7	
	comp=Z,2µm,20.6s,baz=256,slow=31						
NEW	Newport	93.15	40	P	P	03 12 29.5	-0.4
DUG	Dugway, Tooele	93.15	49	⇑P	P	03 12 30.3	0.0
DUG	Dugway, Tooele	93.15	49	IAMs_20	IAMs_20	03 46 51.0	
	comp=Z,5µm,20.0s						
HLID	Hailey	93.19	45	IAMs_20	IAMs_20	03 44 50.6	
	comp=Z,5µm,22.0s						
HLID	Hailey	93.19	45	⇑P	P	03 12 30.8	+0.3
HLID				⇓P	pwP	03 12 36.7	-0.5
KOD	Kodaikanal	93.22	280	eP	P	03 12 29.9	-1.4
G30M	tAoh Zraii Nji	93.46	19	IAMs_20	IAMs_20	03 49 00.3	
	comp=Z,6µm,20.0s						
X18A	Snowflake	93.46	55	IAmb	IAmb	03 12 50.7	
	comp=Z,101nm,2.0s						
E28M	Babbage River	93.50	17	IAMs_20	IAMs_20	03 48 15.2	
	comp=Z,6µm,21.0s						
ALBI	Allahabad	93.64	295	eP	P	03 12 30.8	-1.8
ALBI				IAmb	IAmb	03 12 43.3	
	comp=Z,59nm,1.4s						
HVU	Hansel Valley	93.71	47	IAmb	IAmb	03 12 44.5	
	comp=Z,69nm,1.8s						
E29M	Blow River	93.83	18	IAMs_20	IAMs_20	03 49 46.9	
	comp=Z,5µm,20.0s						
HYB	Hyderabad	94.26	287	eP	P	03 12 34.4	-1.3
HYB				ePcP	PcP	03 12 34.8	-1.4
HYB				ePP	PP	03 16 20.5	-2.4
HYB				eSKSac	SKSac	03 23 09.0	-2.5
HYB				eSKKSac	SKKSac	03 23 28.6	-3.9
HYB				eS	S	03 23 44.9	-2.9
HYB				IAMs_20	IAMs_20	03 49 26.8	
	comp=Z,7µm,32.7s						
LDM	Libby Dam	94.34	41	IAmb	IAmb	03 12 47.9	
	comp=Z,47nm,1.6s						
F31M	Tsiigehtchic	94.51	19	IAMs_20	IAMs_20	03 47 31.1	
	comp=Z,5µm,21.0s						
121A	Cookes Peak, D	94.57	58	IAmb	IAmb	03 12 56.0	
	comp=Z,51nm,1.8s						
WMQ	Urumqi	94.76	314	eP	P	03 12 37.2	-0.3
WMQ				sP	pwP	03 12 48.2	+3.7
WMQ				PP	PP	03 16 30.8	+4.5
WMQ				SKS	SKSac	03 23 14.7	+1.5
WMQ				SS	SS	03 30 16.3	+0.6
WMQ				pmax	pmax		
	comp=Z,39nm,1.5s						
WMQ				pmax	pmax		
	comp=Z,1µm,5.1s						
WMQ				L	L		
	comp=Z,3µm,24.1s						
WMQ				L	L		
	comp=Z,3µm,24.2s						
WMQ				L	L		
	comp=Z,6µm,23.9s						
NGP	Nagpur	94.87	291	eP	P	03 12 37.5	-1.0
DLMT	Dillon	95.03	44	IAMs_20	IAMs_20	03 54 26.1	
	comp=Z,4µm,19.0s						
INK	Inuvik	95.07	19	LR	LR	03 50 42.4	
	comp=Z,6µm,20.8s,baz=239,slow=32						
PV19	Morning Glory	95.37	52	IAmb	IAmb	03 12 58.7	
	comp=Z,86nm,1.8s						
MVCO	Mesa Verde	95.40	53	IAMs_20	IAMs_20	03 47 51.1	
	comp=Z,6µm,21.0s						
PV03	Paradox Valley	95.45	52	IAmb	IAmb	03 12 59.0	
	comp=Z,44nm,1.8s						
BOZ	Bozeman (W)	95.75	44	IAMs_20	IAMs_20	03 55 43.1	
	comp=Z,4µm,18.0s						
BOZ	Bozeman (W)	95.75	44	⇓P	P	03 12 50.5	+8.4
LOHW	Long Hollow	95.82	46	IAMs_20	IAMs_20	03 57 41.3	
	comp=Z,4µm,19.0s						
PTH	Pithoragarh	96.22	299	eP	P	03 12 43.8	-0.9
PDAR	Pinedale Array	96.29	47	P	P	03 12 46.0	+1.3
	comp=Z,0.4nm,0.3s,baz=258,slow=5.1,SNR=4.7						
PDAR				PP	PP	03 16 37.8	-0.5
	comp=Z,1.0nm,0.9s,baz=244,slow=6.4,SNR=3.7						
PDAR				PKKPbc	PKKPbc	03 29 30.5	-1.5
	comp=Z,1.1nm,0.8s,baz=84,slow=6.2,SNR=5.3						
PDAR				LR	LR	03 49 21.1	
	comp=Z,1µm,21.2s,baz=282,slow=31						
	comp=Z,0.4nm,0.3s						
PDAR	Pinedale Array	96.29	47	P	P	03 12 42.7	-2.0
TASM	ASL Pad, Albuq	96.33	56	IAMs_20	IAMs_20	03 47 41.9	
	comp=Z,4µm,21.0s						
TASM	ASL Pad, Albuq	96.33	56	IAMs_20	IAMs_20	03 47 41.9	
	comp=Z,4µm,21.0s						
TASM	ASL Pad, Albuq	96.33	56	IAMs_20	IAMs_20	03 47 41.8	
	comp=Z,4µm,21.0s						
TASM	ASL Pad, Albuq	96.33	56	IAMs_20	IAMs_20	03 47 41.8	
	comp=Z,4µm,21.0s						
ABQ	Albuquerque	96.33	56	IAMs_20	IAMs_20	03 47 41.9	
	comp=Z,4µm,21.0s						
ALQ	Albuquerque	96.33	56	IAMs_20	IAMs_20	03 47 41.9	
	comp=Z,4µm,21.0s						
ALQ	Albuquerque	96.33	56	IAmb	IAmb	03 13 03.0	
	comp=Z,10nm,1.3s						
ALQ				IAMs_20	IAMs_20	03 47 41.9	
	comp=Z,4µm,21.0s						
ANMO	Albuquerque	96.33	56	LR	LR	03 47 53.5	
	comp=Z,4µm,21.2s,baz=262,slow=30						
ANMO	Albuquerque	96.33	56	⇓eP	P	03 12 43.2	-1.8
ANMO				pmax	pmax		
	comp=Z,10.0nm,1.4s						
ANMO	Albuquerque	96.33	56	IAMs_20	IAMs_20	03 47 41.9	
	comp=Z,4µm,21.0s						
VHRN	Van Horn	96.36	60	IAmb	IAmb	03 13 01.4	
	comp=Z,41nm,2.0s						
JHNI	Jhansi	96.45	295	eP	P	03 12 44.6	-0.9
AKL	Akola	96.57	290	eP	P	03 12 44.2	-2.0
S22A	4UR Ranch, Cre	96.83	53	IAMs_20	IAMs_20	03 49 17.8	
	comp=Z,6µm,20.0s						
TXAR	Lajitas Array	97.06	62	P	P	03 12 49.0	+0.7
	comp=Z,0.3nm,0.6s,baz=224,slow=3.5,SNR=6.2						
TXAR				PP	PP	03 16 40.6	-3.8
	comp=Z,0.8nm,1.1s,baz=232,slow=3.0,SNR=3.5						
TXAR				PKKPbc	PKKPbc	03 29 28.7	-0.5
	comp=Z,0.6nm,0.8s,baz=127,slow=4.5,SNR=4.3						
TXAR				LR	LR	03 50 46.3	
	comp=Z,3µm,18.7s,baz=270,slow=32						
	comp=Z,0.3nm,0.6s						
TXAR	Lajitas Array	97.06	62	P	P	03 12 46.3	-2.0
RLMT	Red Lodge	97.19	45	IAMs_20	IAMs_20	03 47 36.3	
	comp=Z,5µm,22.0s						
HAYD	Hayden	97.29	50	IAMs_20	IAMs_20	03 48 13.5	
	comp=Z,5µm,22.0s						
GUNA	GUNA	97.35	293	eP	P	03 12 48.2	-1.4
AGRA	Agra	97.50	296	eP	P	03 12 47.1	-3.1
ZSN	Zaisan	97.77	317	eP	P	03 12 50.9	-0.1
ZSN				pmax	pmax		
	comp=Z,87nm,1.7s						
ZSN	Zaisan	97.77	317	eP	P	03 12 51.0	-0.1
	comp=Z,87nm,1.7s						
UGON	Onchagaon	97.82	297	eP	P	03 12 50.8	-0.9
SDCO	Great Sand Dun	97.84	53	IAMs_20	IAMs_20	03 48 37.7	
	comp=Z,5µm,20.0s						
ASOR	Ausora	98.05	298	eP	P	03 12 51.7	-1.0
ASOR				IAmb	IAmb	03 12 53.0	
	comp=Z,14nm,0.3s						
MERT	Meerut	98.14	298	eP	P	03 12 52.0	-1.1
KAD	Karad	98.24	286	eP	P	03 12 52.6	-1.2
UNM	Universidad Na	98.36	72	IAMs_20	IAMs_20	03 46 40.2	
	comp=Z,5µm,22.0s						
K22A	Casper	98.40	48	IAmb	IAmb	03 13 06.0	
	comp=Z,36nm,1.8s						
Q24A	Divide	98.43	52	IAMs_20	IAMs_20	03 48 43.1	
	comp=Z,4µm,22.0s						
T25A	Trinidad	98.52	54	IAMs_20	IAMs_20	03 50 59.7	
	comp=Z,4µm,20.0s						
AYAN	Aya Nagar	98.53	297	eP	P	03 12 53.9	-0.9
AYAN				IAmb	IAmb	03 13 50.9	
	comp=Z,13nm,0.7s						
MK31	Makanchi Array	99.28	316	d iP	Pdif	03 12 57.2	-0.6
MKAR	Makanchi Array	99.28	316	P	Pdif	03 12 57.5	-0.3
	comp=Z,3.3nm,0.8s,baz=93,slow=6.1,SNR=16						
MKAR				PP	PP	03 16 59.8	-1.2
	comp=Z,8.7nm,1.0s,baz=104,slow=10,SNR=7.2						
MKAR				PKiKP	PKiKP	03 17 28.0	+0.3
	comp=Z,2.6nm,0.9s,baz=185,slow=1.0,SNR=5.3						
MKAR				PKKPbc	PKKPbc	03 29 21.0	-2.5
	comp=Z,0.7nm,0.7s,baz=298,slow=2.6,SNR=4.1						
MKAR				LR	LR	03 56 25.7	
	comp=Z,3µm,21.9s,baz=96,slow=35						
	comp=Z,3.3nm,0.8s						
MKAR	Makanchi Array	99.28	316	i P	Pdif	03 13 00.0	+2.2
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.6s						
MKAR	Makanchi Array	99.28	316	P	Pdif	03 12 56.4	-1.4
MAKZ	Makanchi	99.50	316	P	Pdif	03 12 57.8	-0.9
MAKZ				pmax	pmax		
	comp=Z,141nm,1.9s						
MAKZ				MLR	MLR		
	comp=Z,4µm,21.0s						
MAKZ	Makanchi	99.50	316	P	Pdif	03 12 57.8	-0.9
YKA	Yellowknife Ar	99.53	27	P	Pdif	03 12 58.6	+0.1
	comp=Z,1.7nm,1.0s,baz=247,slow=4.6,SNR=3.9						
YKA				LR	LR	03 50 15.9	
	comp=Z,3µm,21.0s,baz=262,slow=31						
	comp=Z,1.7nm,1.0s						
ZAA0	Zalesovo Array	99.63	323	IAmb	IAmb	03 13 09.2	
	comp=Z,63nm,1.2s						
ZALV	Zalesovo Beam	99.63	323	P	Pdif	03 12 57.6	-1.5
	comp=Z,7.0nm,0.7s,baz=108,slow=4.8,SNR=19						
ZALV				LR	LR	03 57 42.6	
	comp=Z,2µm,21.0s,baz=105,slow=35						
	comp=Z,7.0nm,0.7s						
ZALV	Zalesovo Beam	99.63	323	i P	Pdif	03 12 57.5	-1.6
ZALV				pmax	pmax		
	comp=Z,7.0nm,0.7s						
ZALV	Zalesovo Beam	99.63	323	P	Pdif	03 12 57.5	-1.6
AJM	Ajmer	100.16	295	eP	Pdif	03 12 59.6	-2.7
SHLS	Shalkode	100.32	312	eP	Pdif	03 13 01.1	-1.5
SHLS	Shalkode	100.32	312	eP	Pdif	03 13 01.1	-1.5
KSCO	Kaye Shedlock’	100.35	52	IAMs_20	IAMs_20	03 51 03.9	
	comp=Z,6µm,21.0s						
LR03	Panguipulli	100.46	137	IAMs_20	IAMs_20	03 48 11.6	
	comp=Z,6µm,22.0s						
UZB	Uzynbulak	100.63	312	eP	Pdif	03 13 03.4	-0.6
UZB	Uzynbulak	100.63	312	eP	Pdif	03 13 03.5	-0.6
EFI	East Falkland	100.66	153	IAMs_20	IAMs_20	03 56 29.8	
	comp=Z,4µm,19.0s						
KPKS	Kokpek	100.94	312	eP	Pdif	03 13 05.0	-0.3
KPKS	Kokpek	100.94	312	eP	Pdif	03 13 05.1	-0.3
PLCA	Paso Flores	101.00	139	PKKPbc	PKKPbc	03 29 16.5	-1.7
	comp=Z,1.9nm,0.9s,baz=82,slow=7.1,SNR=2.1						
GO06	Curarrehue	101.05	137	IAMs_20	IAMs_20	03 48 53.2	
	comp=Z,4µm,20.0s						
OGNE	Ogallala	101.24	51	IAMs_20	IAMs_20	03 58 46.2	
	comp=Z,4µm,19.0s						
BI05	Punta Hualpn	101.42	134	IAMs_20	IAMs_20	03 48 10.5	
	comp=Z,3µm,19.0s						
SEM	Semipalatinsk	101.48	319	eP	Pdif	03 13 07.4	-0.3
SEM				MLR	MLR		
	comp=Z,2µm,18.0s						
SEM	Semipalatinsk	101.48	319	eP	Pdif	03 13 07.4	-0.3
SEM				ePKiKP	PKiKP	03 17 31.5	-0.2
SEM				LR	LR	04 00 57.6	
	comp=Z,2µm,17.7s						
TDK	Taldyqorghan	101.48	314	eP	Pdif	03 13 07.2	-0.4
TDK	Taldyqorghan	101.48	314	eP	Pdif	03 13 07.3	-0.4
TDK				ePKiKP	PKiKP	03 17 32.0	+0.3
TDK				LR	LR	04 00 50.5	
	comp=Z,2µm,17.3s						
SRGN	SRI GANGA NAGA	101.62	298	eP	Pdif	03 13 07.4	-1.2
MDOK	Medeo	102.04	312	eP	Pdif	03 13 09.9	-0.4
MDOK	Medeo	102.04	312	eP	Pdif	03 13 10.0	-0.4
MDOK				ePKiKP	PKiKP	03 17 32.9	-0.1
MDOK				LR	LR	04 01 07.7	
TNSS	Tian-Shan	102.09	311	eP	Pdif	03 13 10.1	-0.7
TNSS	Tian-Shan	102.09	311	eP	Pdif	03 13 10.2	-0.7
TNSS				ePKiKP	PKiKP	03 17 33.1	-0.3
AAA	Alma-Ata	102.15	312	eP	Pdif	03 13 10.5	-0.2
AAA	Alma-Ata	102.15	312	eP	Pdif	03 13 10.5	-0.2
KSH2	Kashi	102.29	307	P	Pdif	03 13 11.8	+0.3
KSH2				pP	sPdif	03 13 21.2	+6.8

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KSH2                                   S         Sdif     03 24 55.2 -0.3
KSH2                                   L         L
       comp=Z,2µm,19.2s
KSH2                                   L         L
       comp=Z,4µm,20.0s
KSH2                                   L         L
       comp=Z,4µm,21.1s
WMOK   Wichita Mounta    102.39  57    IAMs_20   IAMs_20  04 02 57.7
       comp=Z,3µm,18.0s
CBKS   Cedar Bluff       102.50  53    IAMs_20   IAMs_20  03 54 45.0
       comp=Z,4µm,20.0s
NRIK   Noril'sk          102.53 339    P         Pdif     03 13 11.3 -0.4
       comp=Z,3.6nm,0.6s,baz=119,slow=2.6,SNR=6.1
KURK   Kurchatov         102.56 319    P         Pdif     03 13 10.4 -1.8
KURK   Kurchatov         102.56 319deP           Pdif     03 13 11.0 -1.2
KURK                                   pmax      pmax
       comp=Z,25nm,1.3s
KURK                                   MLR       MLR
       comp=Z,4µm,18.0s
KURK   Kurchatov         102.56 319    Pdif      Pdif     03 13 11.3 -0.9
KURK   Kurchatov         102.56 319    IAMs_20   IAMs_20  04 02 51.3
       comp=Z,4µm,19.0s
KURBB  Kurchatov Arra    102.59 319    P         Pdif     03 13 11.8 -0.6
       comp=Z,0.9nm,0.2s,baz=104,slow=3.7,SNR=11
KURBB                                  PP        PP       03 17 18.9 -6.9
       comp=Z,0.9nm,0.2s,baz=100,slow=6.6,SNR=5.9
KURBB                                  PKKPbc    PKKPbc   03 29 11.8 -2.2
       comp=Z,0.7nm,0.3s,baz=279,slow=3.5,SNR=4.5
KURBB                                  PKPPKP    P'P'df   03 37 31.2 +1.5
       comp=Z,0.3nm,0.7s,baz=298,slow=3.2,SNR=6.3
KUU    Kurty             102.70 312  eP          Pdif     03 13 12.5 -0.5
KUU                                  i                    03 17 33.7
KUU                                    MLR       MLR
       comp=Z,1µm,17.0s
KUU    Kurty             102.70 312  eP          Pdif     03 13 12.6 -0.5
KUU                                  ePKiKP      PKiKP    03 17 33.8 -0.1
KUU                                    LR        LR       04 01 29.9
       comp=Z,1µm,16.6s
OK038  West end E0370    102.79  56    IAMs_20   IAMs_20  04 02 24.9
       comp=Z,3µm,18.0s
ML02   Panimavida        103.16 134    IAMs_20   IAMs_20  03 49 13.5
       comp=Z,4µm,22.0s
GO05   Hualane           103.21 133    IAMs_20   IAMs_20  03 53 36.8
       comp=Z,4µm,19.0s
R32A   Long Quarter,     103.21  54    IAMs_20   IAMs_20  03 54 26.8
       comp=Z,4µm,20.0s
Z35A   Perchaven, San    103.34  59    IAMs_20   IAMs_20  04 02 48.9
       comp=Z,4µm,18.0s
E28A   Huff              103.35  45    IAMs_20   IAMs_20  03 51 28.4
       comp=Z,5µm,21.0s
HKT    Hockley           103.83  63    IAMs_20   IAMs_20  03 57 16.2
       comp=Z,5µm,18.0s
SGDS   Sogindy           103.83 312  ePdif       Pdif     03 13 17.4 -0.8
BO01   Tunca             104.13 133    IAMs_20   IAMs_20  03 53 39.2
       comp=Z,3µm,19.0s
BGNE   Belgrade          104.20  51    IAMs_20   IAMs_20  03 55 32.6
       comp=Z,5µm,20.0s
MDND   Maddock           104.31  44    IAMs_20   IAMs_20  04 01 26.7
       comp=Z,4µm,18.0s
MT02   Curacav           104.69 132    IAMs_20   IAMs_20  03 59 32.0
       comp=Z,3µm,18.0s
MT05   Renca             104.91 132    IAMs_20   IAMs_20  03 59 47.5
       comp=Z,4µm,18.0s
KSU1   Kansas State U    104.95  53    IAMs_20   IAMs_20  03 55 03.8
       comp=Z,5µm,20.0s
TUL3   Leonard           105.02  57    IAMs_20   IAMs_20  04 06 12.2
       comp=Z,4µm,18.0s
MT16   CCHEN             105.04 133    IAMs_20   IAMs_20  03 59 53.0
       comp=Z,3µm,18.0s
NATX   Nacogdoches       105.17  61    IAMs_20   IAMs_20  04 01 00.8
       comp=Z,3µm,18.0s
Z38A   Mt. Pleasant      105.19  59    IAMs_20   IAMs_20  03 55 24.9
       comp=Z,4µm,19.0s
VA03   San Esteban       105.38 132    IAMs_20   IAMs_20  04 00 37.0
       comp=Z,3µm,18.0s
HOPE   Hope Point        105.85 166    IAMs_20   IAMs_20  04 00 29.5
       comp=Z,3µm,18.0s
441A   DeRidder          106.22  62    IAMs_20   IAMs_20  03 59 15.7
       comp=Z,3µm,18.0s
U38A   Gravette          106.23  56    IAMs_20   IAMs_20  04 02 00.2
       comp=Z,3µm,18.0s
F33A   5 Mile Ranch,     106.24  46    IAMs_20   IAMs_20  03 58 29.1
       comp=Z,4µm,20.0s
CO03   El Pedregal       106.30 130    IAMs_20   IAMs_20  03 50 35.8
       comp=Z,4µm,21.0s
MIAR   Mount Ida         106.57  58    IAMs_20   IAMs_20  04 01 27.4
       comp=Z,3µm,18.0s
AGMN   Agassiz Nation    106.86  44    IAMs_20   IAMs_20  04 03 43.9
       comp=Z,4µm,18.0s
BRLS   Borolday          107.22 310  i P         Pdif     03 13 32.9 -0.3
BRLS                                   pmax      pmax
       comp=Z,30nm,3.3s
BRLS   Borolday          107.22 310  ePdif       Pdif     03 13 32.9 -0.3
       comp=Z,30nm,3.3s
LCO    Las Campanas      107.25 129    IAMs_20   IAMs_20  03 50 25.1
       comp=Z,4µm,22.0s
AC04   Llanos de Chal    107.39 128    IAMs_20   IAMs_20  03 52 05.9
       comp=Z,3µm,20.0s
P38A   Dawn              107.39  53    IAMs_20   IAMs_20  03 56 08.3
       comp=Z,4µm,20.0s
AC05   El Transito       107.66 129    IAMs_20   IAMs_20  03 51 37.0
       comp=Z,5µm,22.0s
N38A   Joes South For    107.77  52    IAMs_20   IAMs_20  03 54 45.3
       comp=Z,5µm,21.0s
BVAR   Borovoye Array    107.94 321    Pdiff     Pdif     03 13 35.2 -0.9
       comp=Z,1.5nm,0.7s,baz=83,slow=6.1,SNR=5.2
BVAR                                   PKiKP     PKiKP    03 17 43.6 +0.3
       comp=Z,2.6nm,0.7s,baz=108,slow=3.3,SNR=8.1
I37A   Lemond, Waseca    108.05  49    IAMs_20   IAMs_20  04 04 21.2
       comp=Z,4µm,18.0s
143A   Socs Landing,     108.06  61    IAMs_20   IAMs_20  04 03 27.1
       comp=Z,4µm,18.0s
TGUH   Tegucigalpa,Un    108.12  80    IAMs_20   IAMs_20  03 52 20.2
       comp=Z,4µm,22.0s
GO03   Copiapo           108.33 128    IAMs_20   IAMs_20  03 53 51.1
       comp=Z,4µm,22.0s
AC06   Mina Casimiro     108.37 127    IAMs_20   IAMs_20  03 53 49.9
       comp=Z,4µm,21.0s
P40A   Paris             108.51  53    IAMs_20   IAMs_20  03 57 23.1
       comp=Z,4µm,20.0s
AC01   Pan de Azucar     108.80 126    IAMs_20   IAMs_20  03 51 53.6
       comp=Z,5µm,22.0s
T42A   Van Buren         108.94  56    IAMs_20   IAMs_20  03 56 49.7
       comp=Z,3µm,20.0s
BOAB   BOACO BROADBAN109.25  83    IAMs_20   IAMs_20  03 51 43.4
       comp=Z,5µm,21.0s
JTS    Las Juntas de     109.40  85    IAMs_20   IAMs_20  03 53 00.4
       comp=Z,5µm,20.0s
L40A   Anamosa           109.42  51    IAMs_20   IAMs_20  03 57 33.9
       comp=Z,4µm,20.0s
N41A   Harden Midland    109.56  52    IAMs_20   IAMs_20  03 55 27.6
       comp=Z,5µm,21.0s
AC02   Maricunga         109.57 127    IAMs_20   IAMs_20  03 54 38.8
       comp=Z,3µm,20.0s
E38A   The Farm, Brul    109.60  46    IAMs_20   IAMs_20  03 57 10.7
       comp=Z,3µm,21.0s
EYMN   Ely               109.74  45    IAMs_20   IAMs_20  03 58 39.2
       comp=Z,3µm,20.0s
Y45A   Yeager Farm, C    109.77  60    IAMs_20   IAMs_20  04 05 33.3
       comp=Z,4µm,18.0s
146A   Union             110.00  61    IAMs_20   IAMs_20  04 01 00.7
       comp=Z,3µm,19.0s
I40A   Norwalk           110.04  49    IAMs_20   IAMs_20  03 56 39.8
       comp=Z,4µm,20.0s
P43A   Skaggs, Pawnee    110.46  54    IAMs_20   IAMs_20  03 58 03.6
       comp=Z,4µm,20.0s
S44A   Carbondale        110.47  56    IAMs_20   IAMs_20  03 58 02.3
       comp=Z,3µm,20.0s
L42A   Oliver, Polo      110.57  51    IAMs_20   IAMs_20  03 57 28.3
       comp=Z,4µm,21.0s
HDIL   Hopedale          110.72  53    IAMs_20   IAMs_20  03 56 34.3
       comp=Z,5µm,21.0s
PB02   IPOC Station P    111.78 122    IAMs_20   IAMs_20  03 53 14.3
       comp=Z,4µm,22.0s
L44A   Lake County Fo    111.89  51    IAMs_20   IAMs_20  03 58 58.1
       comp=Z,4µm,19.0s
TA01   Diego Aracena     111.91 121    IAMs_20   IAMs_20  03 52 54.0
       comp=Z,4µm,22.0s
H43A   Windswept, Lux    112.12  48    IAMs_20   IAMs_20  03 58 14.8
       comp=Z,4µm,21.0s
P46A   Rosedale          112.24  54    IAMs_20   IAMs_20  03 58 48.9
       comp=Z,5µm,20.0s
Y49A   Blount Mountai    112.35  60    IAMs_20   IAMs_20  04 00 51.8
       comp=Z,4µm,19.0s
PSGCX  Pisagua           112.43 120    IAMs_20   IAMs_20  03 53 40.7
       comp=Z,4µm,21.0s
PB12   IPOC Station P    112.73 119    IAMs_20   IAMs_20  03 54 35.8
       comp=Z,4µm,21.0s
PB11   IPOC Station P    112.73 121    IAMs_20   IAMs_20  03 53 50.8
       comp=Z,4µm,21.0s
AP01   Chacalluta        112.83 119    IAMs_20   IAMs_20  03 54 27.6
       comp=Z,3µm,21.0s
PB08   IPOC Station P    112.96 121    IAMs_20   IAMs_20  03 53 49.6
       comp=Z,4µm,22.0s
U49A   Red Boiling Sp    113.12  57    IAMs_20   IAMs_20  04 09 46.7
       comp=Z,4µm,18.0s
GO01   Chusmiza          113.16 121    IAMs_20   IAMs_20  03 54 04.9
       comp=Z,3µm,20.0s
W50A   Signal Mountai    113.39  59    IAMs_20   IAMs_20  03 59 44.0
       comp=Z,4µm,21.0s
N47A   Urbana            113.48  52    IAMs_20   IAMs_20  03 57 47.5
       comp=Z,5µm,22.0s
PB16   IPOC Station P    113.54 119    IAMs_20   IAMs_20  03 55 34.2
       comp=Z,5µm,20.0s
SVE    Sverdlovsk        113.58 325  ePKIKP      PKiKP    03 17 56.2 +2.4
SVE                                    pmax      pmax
       comp=Z,30nm,2.0s
P48A   Milroy            113.61  54    IAMs_20   IAMs_20  04 00 12.1
       comp=Z,4µm,20.0s
R49A   Shelbyville       113.73  55    IAMs_20   IAMs_20  04 07 07.7
       comp=Z,4µm,18.0s
O48B   Farmland          113.86  53    IAMs_20   IAMs_20  04 10 05.6
       comp=Z,3µm,18.0s
TULEG  Thule             114.15  12    IAMs_20   IAMs_20  04 01 42.9
       comp=Z,4µm,22.0s
Y52A   Lilburn           114.30  60    IAMs_20   IAMs_20  04 02 02.3
       comp=Z,3µm,19.0s
R50A   Paris             114.40  55    IAMs_20   IAMs_20  04 07 37.2
       comp=Z,3µm,19.0s
AB31   Akbulak array     114.41 317  i PKIKP     PKPdf    03 17 54.8 -0.8
O49A   Covington         114.48  53    IAMs_20   IAMs_20  03 57 55.2
       comp=Z,4µm,22.0s
W52A   Murphy            114.51  59    IAMs_20   IAMs_20  04 00 18.7
       comp=Z,3µm,19.0s
E46A   Sault Ste Mari    114.59  46    IAMs_20   IAMs_20  03 59 10.2
       comp=Z,4µm,21.0s
N49A   Columbus Grove    114.62  52    IAMs_20   IAMs_20  03 58 41.8
       comp=Z,4µm,21.0s
ARTI   Arti              114.86 325    PKP       PKiKP    03 17 55.0 -1.3
       comp=Z,13nm,0.8s,baz=122,slow=2.3,SNR=7.1
ARTI   Arti              114.86 325  i PKIKP     PKiKP    03 17 55.3 -1.0
ARTI                                                      03 18 52.8
ARTI                                                      03 25 07.6
ARTI                                   SP        SP       03 28 34.7 +2.8
ARTI   Arti              114.86 325              PKiKP    03 17 53.2 -3.0
ARTI                                   IAMs_20   IAMs_20  04 14 57.4
       comp=Z,3µm,18.0s
TZTN   Tazewell          114.92  57    IAMs_20   IAMs_20  04 09 53.2
       comp=Z,3µm,18.0s
S51A   Beattyville       114.94  56    IAMs_20   IAMs_20  04 00 22.8
       comp=Z,4µm,21.0s
Q51A   Peebles           115.20  55    IAMs_20   IAMs_20  04 00 43.3
       comp=Z,4µm,20.0s
V53A   Saluda            115.46  58    IAMs_20   IAMs_20  04 07 18.7
       comp=Z,4µm,19.0s
M50A   Fremont           115.50  52    IAMs_20   IAMs_20  03 59 19.8
       comp=Z,4µm,21.0s
ACSO   Alum Creek Sta    115.52  53    IAMs_20   IAMs_20  04 00 37.6
       comp=Z,3µm,20.0s
AKTO   Aktyubinsk        115.60 318    PKP       PKiKP    03 17 56.7 -1.2
       comp=Z,3.9nm,0.6s,baz=9.4,slow=1.8,SNR=8.2
AKTO                                   PP        PP       03 19 00.6 +0.2
       comp=Z,2.5nm,0.8s,baz=103,slow=9.5,SNR=4.7
LPAZ   La Paz            115.67 118    PKP       PKPdf    03 17 59.8 -0.1
       comp=Z,3.4nm,1.2s,baz=275,slow=0.9,SNR=5.4
LPAZ   La Paz            115.67 118    PKIKP     PKiKP    03 18 01.3 +1.5
LPAZ   La Paz            115.67 118              PKiKP    03 18 01.3 +1.5
N51A   Ashland           115.99  52    IAMs_20   IAMs_20  04 04 51.1
       comp=Z,3µm,20.0s
Q52A   Bidwell           116.04  55    IAMs_20   IAMs_20  04 01 38.6
       comp=Z,3µm,20.0s
O52A   Adamsville        116.39  53    IAMs_20   IAMs_20  04 12 21.8
       comp=Z,4µm,18.0s
KMSC   Kings Mountain    116.64  59    IAMs_20   IAMs_20  04 01 43.0
       comp=Z,3µm,20.0s
NEEM   North Greenlan    116.73   9  i P         PKPdf    03 17 59.0 -0.8
P53A   Whipple           116.73  54    IAMs_20   IAMs_20  04 00 35.8
       comp=Z,3µm,21.0s
M52A   Chesterland       116.76  52    IAMs_20   IAMs_20  04 08 44.3
       comp=Z,3µm,18.0s
V55A   Taylorsville      116.77  58    IAMs_20   IAMs_20  04 10 39.3
       comp=Z,3µm,18.0s
Q54A   Coxs Mills        117.16  55    IAMs_20   IAMs_20  04 02 12.1
       comp=Z,4µm,20.0s
N53A   Lisbon            117.16  53    IAMs_20   IAMs_20  04 00 22.9
       comp=Z,4µm,22.0s
KBS    Kingsbay          117.19 355    IAMs_20   IAMs_20  04 07 10.6
       comp=Z,3µm,21.0s
Y57A   Sumter            117.36  60    IAMs_20   IAMs_20  04 11 35.2
       comp=Z,3µm,18.0s
SPA0   Spitsbergen Ar    117.42 354  e           PKiKP    03 18 26.1 +25
SPITS  Spitsbergen Ar    117.42 354    PKP       PKPdf    03 18 01.4 +0.7
       comp=Z,14nm,0.8s,baz=95,slow=3.3,SNR=4.9
U56A   King              117.46  58    IAMs_20   IAMs_20  04 07 37.5
       comp=Z,4µm,19.0s
O54A   Avella            117.51  53    IAMs_20   IAMs_20  04 02 42.4
       comp=Z,4µm,21.0s
R55A   Marlinton         117.71  55    IAMs_20   IAMs_20  04 02 10.8
       comp=Z,4µm,21.0s
Y58A   Scranton          117.95  60    IAMs_20   IAMs_20  04 05 07.0
       comp=Z,3µm,18.0s
X58A   Rowland           118.25  60    IAMs_20   IAMs_20  04 12 15.8
       comp=Z,3µm,18.0s
Q56A   Snyder Ridge,     118.44  55    IAMs_20   IAMs_20  04 01 18.1
       comp=Z,3µm,22.0s
CPUP   Villa Florida     118.44 134    PKP       PKPdf    03 18 03.3 -0.9
       comp=Z,2.0nm,0.8s,baz=84,slow=2.2,SNR=4.7
S57A   Dark Hollow, R    118.62  56    IAMs_20   IAMs_20  04 06 40.2
       comp=Z,3µm,19.0s
W59A   Clinton           119.00  59    IAMs_20   IAMs_20  04 06 58.7
       comp=Z,4µm,20.0s
Y60A   Bolivia           119.16  60    IAMs_20   IAMs_20  04 04 13.0
       comp=Z,4µm,21.0s
KIRV   Kirov             119.20 328    PKP       PKPdf    03 18 02.6 -1.9
       comp=Z,6.2nm,0.5s,baz=319,slow=2.1,SNR=8.8
KIRV   Kirov             119.20 328c iPKIKP      PKPdf    03 18 04.5  0.0
P57A   Homestead Farm    119.34  54    IAMs_20   IAMs_20  04 03 29.0
       comp=Z,3µm,21.0s
R58B   Mineral           119.47  56    IAMs_20   IAMs_20  04 13 02.7
       comp=Z,3µm,18.0s
L56A   Greenwood         119.58  51    IAMs_20   IAMs_20  04 09 20.8
       comp=Z,3µm,20.0s
T59A   Double "B" Far    119.74  57    IAMs_20   IAMs_20  04 13 26.9
       comp=Z,3µm,18.0s
CBN    Corbin Frederi    119.87  55    IAMs_20   IAMs_20  04 11 48.1
       comp=Z,3µm,18.0s
M57A   Sunshine Farm,    119.95  52    IAMs_20   IAMs_20  04 01 38.6
       comp=Z,4µm,21.0s
N58A   Sunbury           120.28  52    IAMs_20   IAMs_20  04 02 29.6
       comp=Z,3µm,21.0s
K57A   Scipio Center     120.31  50    IAMs_20   IAMs_20  04 15 09.1
       comp=Z,4µm,18.0s
DAG    Danmarks Havn     120.31   2  i P         PKPdf    03 18 00.7 -5.5
BINY   Binghamton        120.74  51    IAMs_20   IAMs_20  04 06 18.6
       comp=Z,4µm,20.0s
MURT   Porto Murtinho    121.14 129  eP          PKPdf    03 18 08.4 -1.1
LVZ    Lovozero          121.27 341d iPKIKP      PKPdf    03 18 08.7 +0.4
LVZ    Lovozero          121.27 341    IAMs_20   IAMs_20  04 17 21.7
       comp=Z,4µm,19.0s
VADS   Vadso             121.37 345  ePKPdf      PKPdf    03 18 06.4 -2.0
VADS                                 eSP         SP       03 29 28.3 -1.3
VADS                                 eSS         SS       03 36 16.5 +3.3
SUR    Sutherland        121.40 213    PKP       PKPdf    03 18 09.9 -0.1
       comp=Z,13nm,1.0s,baz=124,slow=5.0,SNR=3.6
SUR    Sutherland        121.40 213    IAMs_20   IAMs_20  04 00 32.9
       comp=Z,4µm,20.0s
L59A   Walton            121.44  51    IAMs_20   IAMs_20  04 06 39.1
       comp=Z,3µm,20.0s
LONY   Lake Ozonia       121.53  48    IAMs_20   IAMs_20  04 06 26.8
       comp=Z,4µm,19.0s
SIV    San Ignacio       121.67 122    PKP       PKPdf    03 18 10.8 +0.1
       comp=Z,2.4nm,0.7s,baz=197,slow=0.7,SNR=8.4
BELG   Belogornoye       121.74 321    PKP       PKPdf    03 18 08.7 -0.9
       comp=Z,69nm,0.8s,baz=278,slow=0.7,SNR=11
BELG   Belogornoye       121.74 321c iPKIKP      PKPdf    03 18 08.2 -1.4
BELG                                   MLR       MLR
       comp=Z,655nm,23.0s
BOSA   Boshof            121.77 219    PKP       PKPdf    03 18 10.3 -0.3
       comp=Z,25nm,1.2s,baz=89,slow=3.9,SNR=9.9
BOSA   Boshof            121.77 219              PKPdf    03 18 10.2 -0.5
APA    Apatity           121.85 341  i PKIKP     PKPdf    03 18 09.9 +0.5
APA                                  e                    03 19 39.9
APA                                  e                    03 25 00.4
APA                                  ePS         PKKPdf   03 29 30.2 +45
APA                                    pmax      pmax
       comp=Z,15nm,1.0s
COIM   Forte Coimbra     122.05 128  eP          PKPdf    03 18 09.2 -2.1
ADZR   Andozero          122.14 336  ePKIKP      PKPdf    03 18 06.7 -3.3
ADZR                                   pmax      pmax
       comp=Z,55nm,1.4s
HAMF   Hammerfest        122.35 347  ePKPdf      PKPdf    03 18 10.8 +0.6
HAMF                                 eSP         SP       03 29 39.0 +0.7
PAL    Palisades         122.39  52    IAMs_20   IAMs_20  04 06 48.4
       comp=Z,3µm,19.0s
TRY    Troy              122.40  50    IAMs_20   IAMs_20  04 03 23.4
       comp=Z,4µm,22.0s
BDQN   Bodoquena, MS     122.51 129  eP          PKPdf    03 18 08.4 -3.7
SUMG   Summit            122.59   9    IAMs_20   IAMs_20  04 13 49.4
       comp=Z,3µm,20.0s
SUMG   Summit            122.59   9  i P         PKPdf    03 18 10.9 -0.3
ILULI  Ilulissat         122.71  15    IAMs_20   IAMs_20  04 06 00.2
       comp=Z,4µm,22.0s
DBG    Daneborg          122.71   3  i P         PKPdf    03 18 09.9 -1.0
N62A   Caumsett State    122.73  52    IAMs_20   IAMs_20  04 07 07.4
       comp=Z,3µm,19.0s
ARA0   ARCESS Array S    122.74 345  ePKPdf      PKPdf    03 18 10.1 -1.0
ARA0                                 eSP         SP       03 29 39.1 -2.7
ARCES  ARCESS Array B    122.74 345    PKP       PKPdf    03 18 09.7 -1.4
       comp=Z,8.9nm,0.7s,baz=73,slow=0.8,SNR=16
ARCES                                  PKKPbc    PKKPab   03 28 01.2 -2.1
       comp=Z,3.4nm,1.1s,baz=243,slow=1.0,SNR=4.6
WSPT   Westport, CT      122.81  52    IAMs_20   IAMs_20  04 06 59.5
       comp=Z,3µm,19.0s
KLMR   Klimovskoe        123.07 333  ePKIKP      PKPdf    03 18 09.5 -2.4
KLMR                                   pmax      pmax
       comp=Z,139nm,1.5s
KLMR                                   MLR       MLR
       comp=Z,4µm,17.0s
L61B   Northampton       123.16  50    IAMs_20   IAMs_20  04 03 46.4
       comp=Z,4µm,21.0s
PTLB   Pontes e Lacer    123.53 122  eP          PKPdf    03 18 12.6 -1.6
MAK    Makhachkala       123.56 310  i P         Pdif     03 14 39.5 -6.3
MAK                                  e                    03 25 12.4
MAK                                  eSS         SS       03 36 39.9 -3.0
MAK                                  eSSS        SSS      03 41 18.7
MAK                                    pmax      pmax
       comp=Z,211nm,1.2s
KTK1   Kautokeino        123.67 345  ePKPdf      PKPdf    03 18 13.1 +0.2
KTK1                                 eSP         SP       03 29 51.7 +1.7
JETT   Jettan, Norway    123.91 347  epPKPdf     PKiKP    03 18 15.5 +1.9
JETT                                 eSKSac      SKSac    03 25 14.9 -0.7
TRCB   Terra Rica        123.98 134  eP          PKPdf    03 18 13.8 -1.1
MAKGR  Makgori           124.07 221              PKPdf    03 18 15.3 +0.1
SCHQ   Schefferville     124.08  35    PKP       PKPdf    03 18 14.5 +0.4
       comp=Z,5.8nm,0.8s,baz=14,slow=3.6,SNR=4.0
LBTB   Lobatse           124.13 222    PKP       PKPdf    03 18 15.1 -0.2
       comp=Z,15nm,1.1s,baz=140,slow=4.0,SNR=8.0
TRO    Tromso            124.16 347  ePKPdf      PKPdf    03 18 09.3 -4.4
TEFE   Tefe              124.38 107  eP          PKPdf    03 18 12.8 -3.0
SFJD   Kangerlussuaq     124.39  17    IAMs_20   IAMs_20  04 11 49.0
       comp=Z,3µm,20.0s
LDASE  Londrina, Braz    124.61 136  eP          PKPdf    03 18 14.3 -1.8
D62A   Allapoint, All    124.92  44    IAMs_20   IAMs_20  04 22 52.5
       comp=Z,3µm,18.0s
MATP   Matopo            125.24 229    PKP       PKPdf    03 18 16.4 -1.2
       comp=Z,26nm,1.2s,baz=118,slow=2.4,SNR=9.3
VRH    Novokhopyorsk     125.59 321  i PKIKP     PKPdf    03 18 14.8 -2.2
VRH                                    pmax      pmax
       comp=Z,50nm,0.8s
PP1B   Ponte de Pedra    125.64 127  eP          PKPdf    03 18 15.6 -2.6
FRTB   Fartura           125.67 137  eP          PKPdf    03 18 15.9 -2.3
RAYN   Ar Rayn           125.77 287  ⇓PKIKP      PKPdf    03 18 18.2 -0.1
RAYN   Ar Rayn           125.77 287    IAMs_20   IAMs_20  04 15 28.4
       comp=Z,4µm,20.0s
GNI    Garni             125.99 307    PKP       PKPdf    03 18 17.6 -0.8
       comp=Z,10nm,0.8s,baz=271,slow=2.8,SNR=7.9
GNI    Garni             125.99 307c iPKIKP      PKPdf    03 18 17.7 -0.7
GNI    Garni             125.99 307    PKP       PKPdf    03 18 19.7 +1.3
SALV   Santo Antonio     126.01 125  eP          PKPdf    03 18 17.8 -1.1
MOS    Moscow            126.20 328  i PKIKP     PKPdf    03 18 17.5 -0.6
MOS                                  e                    03 20 12.2
MOS                                  ePPP        PPP      03 22 52.5
MOS                                  e                    03 25 15.9
MOS                                  eSS         SS       03 37 19.3 +4.2
MOS                                    pmax      pmax
       comp=Z,57nm,1.4s
NCK    Nalchik           126.29 312⇓ePKIKP       PKPdf    03 18 17.3 -1.4
NCK                                    MLR       MLR
       comp=Z,3µm,20.0s
STEI   Steigen           126.33 347  ePKPdf      PKPdf    03 18 18.4 +0.5
G65A   Princeton         126.34  46              PKiKP    03 18 20.6 +1.5
GOF    Gofitskoye        126.36 314cePKIKP       PKPdf    03 18 19.6 +0.9
ATD    Arta Tunnel       126.45 272    P         PKiKP    03 18 22.0 +1.7
       SNR=9.4
LOF    Lofoten           126.50 348  ePKPdf      PKPdf    03 18 18.2 -0.1
KIBK   Kibwezi           126.72 254    P         PKiKP    03 18 23.2 +2.3
       SNR=8.1
KBZ    Khabaz            126.74 312    PKP       PKPdf    03 18 18.9 -0.6
       comp=Z,4.6nm,0.9s,baz=103,slow=2.2,SNR=9.5
KBZ                                    PP        PP       03 20 17.1 +0.7
       comp=Z,3.8nm,0.9s,baz=69,slow=12,SNR=1.6
KBZ    Khabaz            126.74 312⇓ePKIKP       PKPdf    03 18 18.3 -1.2
LPSR   Galich'ya Gora    126.74 324  i PKIKP     PKPdf    03 18 17.4 -1.8
LPSR                                   pmax      pmax
       comp=Z,50nm,1.0s
OZAP   Van, Ozalp-Mer    126.76 306  ⇑P          PKPdf    03 18 20.7 +0.7
FAUS   Fauske            126.78 347  ePKPdf      PKPdf    03 18 20.0 +1.1
KIV    Kislovodsk        126.84 312  i PKIKP     PKPdf    03 18 19.2 -0.6
KIV                                  e                    03 20 14.5
KIV                                  ePS         PS       03 30 20.5 -1.4
KIV                                  eSS         SS       03 37 21.1 -3.3
KIV                                    pmax      pmax
       comp=Z,23nm,1.1s
KIV    Kislovodsk        126.84 312    PKP       PKiKP    03 18 21.7 +1.4
SPB    Sao Paulo         126.86 139    IAMs_20   IAMs_20  04 06 49.5
       comp=Z,3µm,20.0s
SHA1   Shidzhatmaz       126.91 312d iPKIKP      PKPdf    03 18 19.7 -0.4
VORR   Voronezh          126.92 322  ePKIKP      PKPdf    03 18 16.5 -3.1
VORR                                   pmax      pmax
       comp=Z,50nm,1.0s
NEUR   Neytrino          126.98 312d iPKIKP      PKPdf    03 18 20.8 +0.6
NEUR                                   MLR       MLR
       comp=Z,3µm,22.0s
OBN    Obninsk           127.01 327    PKP       PKPdf    03 18 19.2 -0.4
       comp=Z,15nm,0.4s,baz=120,slow=1.5,SNR=8.5
OBN    Obninsk           127.01 327d iPKIKP      PKPdf    03 18 18.6 -1.0
OBN                                  e                    03 20 19.3
OBN                                  ePPP        PPP      03 23 03.0
OBN                                    pmax      pmax
       comp=Z,142nm,1.5s
OBN    Obninsk           127.01 327  ⇓P          PKiKP    03 18 22.2 +2.1
OBN    Obninsk           127.01 327    PKP       PKPdf    03 18 21.0 +1.4
VSR    Storozhevoye      127.10 322  i PKIKP     PKPdf    03 18 16.8 -3.1
VSR                                    pmax      pmax
       comp=Z,20nm,1.0s
VSR                                    MLR       MLR
       comp=Z,2µm,18.0s
VORD   Divnogorie        127.11 322  ePKIKP      PKPdf    03 18 17.7 -2.2
VORD                                   pmax      pmax
       comp=Z,20nm,1.0s
PUL    Pulkovo           127.56 334⇓ePKIKP       PKPdf    03 18 19.8 -0.7
PUL                                    MLR       MLR
       comp=Z,29µm,54.0s
KMBO   Kilima Mbogo      127.92 255    PKP       PKPdf    03 18 22.8 -0.2
       baz=152,slow=2.0
BB19B  Bebedouro         127.94 136  eP          PKPdf    03 18 20.1 -2.5
KONS   Konsvik           127.99 347  ePKPdf      PKPdf    03 18 19.6 -1.6
LMN    Caledonia Moun    128.06  45              PKPdf    03 18 23.0 +1.0
MACA   Manacapuru-AM     128.12 108  eP          PKPdf    03 18 20.3 -2.7
STOK   Stokkvaagen       128.15 347  eP          PKPdf    03 18 22.5 +1.0
HOMI   Horasan           128.16 308  ⇑P          PKPdf    03 18 23.3 +0.6
FINES  FINESS Array B    128.17 338    PKP       PKPdf    03 18 21.1 -0.5
       comp=Z,10nm,0.9s,baz=63,slow=1.4,SNR=17
LSZ    Lusaka            128.68 233    PKP       PKPdf    03 18 24.0 -0.2
       comp=Z,11nm,1.1s,baz=238,slow=2.3,SNR=10
LSZ                                    PP        PP       03 20 29.4 -0.1
       comp=Z,1.9nm,0.6s,baz=139,slow=5.5,SNR=1.5
LSZ    Lusaka            128.68 233    PKIKP     PKPdf    03 18 24.0 -0.2
CLDB   Colider           128.73 120  eP          PKPdf    03 18 22.2 -2.0
ANGG   Ammassalik, Gr    128.75  13    IAMs_20   IAMs_20  04 10 47.3
       comp=Z,3µm,21.0s
SOC    Sochi             129.03 313  i PKIKP     PKPdf    03 18 24.1 +0.2
SOC                                  e                    03 20 31.7
SOC                                  ePPP        PPP      03 23 13.2
SOC                                  eSS         SS       03 37 43.2 -8.0
SOC                                  eSSS        SSS      03 42 35.3
SOC                                    MLR       MLR
       comp=Z,1µm,18.0s
ARAG   Araguaiana, MT    129.11 128  eP          PKPdf    03 18 21.9 -2.9
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VSU   Vasula             129.82 334c iPKIKP   PKPdf    03 18 24.2  -0.7
VSU                                   MLR      MLR
      comp=Z,4µm,20.0s
BOAV  Boa Vista          130.40 102  eP       PKPdf    03 18 25.6  -1.7
BSCB  Bom Sucesso        130.43 139  eP       PKPdf    03 18 25.6  -1.7
ARPR  Arapgir-MALATY     131.04 307   IAMs_20 IAMs_20  04 24 10.7
      comp=Z,2µm,20.0s
PMNB  Patos De Minas     131.11 135  eP       PKPdf    03 18 26.5  -2.2
MNK   Minsk              131.67 330  i PKIKP  PKPdf    03 18 28.9  +0.4
MNK                                  i                 03 20 48.9
MNK                                  i PPP    PPP      03 23 39.0
MNK                                  i                 03 25 40.3
MNK                                  i PS     PS       03 31 03.1  +0.1
MNK                                  i SS     SS       03 38 25.3  +2.8
MNK                                  i SSS    SSS      03 43 17.4
MNK                                   pmax    pmax
      comp=E,7.0nm,0.7s
MNK                                   pmax    pmax
      comp=Z,6.0nm,0.9s
MNK                                   pmax    pmax
      comp=N,6.0nm,0.8s
MNK                                   MLR     MLR
      comp=N,3µm,20.0s
MNK                                   MLR     MLR
      comp=E,3µm,23.0s
MNK                                   MLR     MLR
      comp=Z,6µm,23.0s
MNK   Minsk              131.67 330  i PKP    PKPdf    03 18 28.9  +0.4
      comp=E,7.0nm,0.7s
MNK                                  i PKP    PKPdf    03 18 28.9  +0.4
      comp=N,6.0nm,0.8s
MNK                                  i PKP    PKPdf    03 18 28.9  +0.4
      comp=Z,6.0nm,0.9s,baz=55
MNK                                  i PP     PP       03 20 49.0  +0.9
MNK                                  i PPP    PPP      03 23 39.0
MNK                                  i SKS    SKSac    03 25 40.3  +1.2
MNK                                  i PS     PS       03 31 03.2  +0.1
MNK                                  i SS     SS       03 38 25.3  +2.8
MNK                                  i SSS    SSS      03 43 17.5
MNK                                  i LRM    MLR      04 15 56.7
      comp=E,3µm,22.5s
MNK                                  i LRM    MLR      04 15 56.7
      comp=N,3µm,20.3s
MNK                                  i LRM    MLR      04 15 56.8
      comp=Z,6µm,22.6s
SNDB  Serra Nova Dou     131.76 124  eP       PKPdf    03 18 28.0  -1.9
BDFB  Brasilia           131.97 131   PKP     PKPdf    03 18 30.2  -0.2
      comp=Z,5.0nm,0.9s,baz=73,slow=7.5,SNR=5.9
ITTB  Itaituba           132.03 113  eP       PKPdf    03 18 28.5  -1.9
SIM   Simferopol'        132.46 316  ePKHKP   PKPpre   03 18 12.3
SIM                                   pmax    pmax
      comp=Z,6.0nm,0.9s
SIM                                   MLR     MLR
      comp=Z,1µm,16.1s
MOL   Molde              132.60 348  ePKPdf   PKPdf    03 18 29.5  -0.5
MOL                                  eSKPdf   SKPdf    03 22 05.1  -0.3
DOMB  Dombas             132.75 346  ePKPdf   PKPdf    03 18 28.6  -1.8
DOMB                                 eSKPdf   SKPab    03 22 04.6  +5.3
PABE  Paberze            132.87 333           PKPdf    03 18 28.8  -1.9
BNN   Bunyan             132.99 307           PKPdf    03 18 31.2  -0.5
AKASG Malin Array Be     133.01 325   PKhKP   PKPpre   03 18 22.9
      comp=Z,1.3nm,0.6s,baz=66,slow=2.4,SNR=6.2
AKASG                                 PKP     PKPdf    03 18 31.2  +0.1
      comp=Z,8.8nm,0.9s,baz=62,slow=2.2,SNR=18
AKASG                                 PP      PP       03 20 56.6  -0.2
      comp=Z,0.3nm,0.3s,baz=53,slow=6.8,SNR=4.9
AKASG                                 SKPbc   SKPbc    03 21 59.3  +0.2
      comp=Z,1.6nm,0.7s,baz=54,slow=4.9,SNR=4.5
AKASG                                 SKKPbc  SKKPbc   03 31 21.5  +0.2
      comp=Z,0.3nm,0.3s,baz=248,slow=3.0,SNR=4.5
AKBB  Malin Array Si     133.01 325c iPKIKP   PKPdf    03 18 31.4  +0.2
AKBB  Malin Array Si     133.01 325   PKP     PKPdf    03 18 32.0  +0.8
KIEV  Kiev               133.02 325  ⇑P       PKPdf    03 18 31.3  +0.1
KIEV  Kiev               133.02 325  ⇑PKIKP   PKPdf    03 18 31.3  +0.1
KIEV  Kiev               133.02 325  ⇑P       PKPdf    03 18 31.3  +0.1
KIEV  Kiev               133.02 325   PKP     PKPdf    03 18 32.0  +0.8
AKN   Aaknes             133.07 348  ePKPdf   PKPdf    03 18 31.4  +0.4
AKN                                  eSKPdf   SKPdf    03 22 06.4   0.0
DIAM  Diamantina, MG     133.11 137  eP       PKPdf    03 18 30.6  -1.9
NB2   NORSAR Subarra133.11 345        PKPdf   PKPdf    03 18 30.9  -0.2
      comp=Z,209nm,2.5s,baz=31,slow=1.9
NB2   NORSAR Subarra133.11 345        PKPdf   PKPdf    03 18 30.9  -0.2
NOA   NORSAR Array B 133.11 345       PKP     PKPdf    03 18 30.2  -0.9
      comp=Z,3.7nm,0.7s,baz=32,slow=2.0,SNR=9.0
HFS   Hagfors            133.20 343   PKP     PKPdf    03 18 30.0  -1.3
      comp=Z,4.2nm,0.7s,baz=159,slow=4.6,SNR=4.3
HFS   Hagfors            133.20 343   PKIKP   PKPdf    03 18 30.0  -1.3
NC602 NORSAR Array S 133.29 344      ePKPdf   PKPdf    03 18 31.0  -0.4
NC602                                eSKPdf   SKPdf    03 22 06.3  -0.5
NC602 NORSAR Array S 133.29 344               PKPdf    03 18 31.5  +0.1
TSUM  Tsumeb             133.42 220   PKP     PKPdf    03 18 33.5  +0.4
      comp=Z,14nm,1.1s,baz=166,slow=1.9,SNR=6.3
BZK   Bozkurt            133.51 312  ⇑P       PKiKP    03 18 34.6  +1.0
MC01  Montes Claros      134.08 136  eP       PKPdf    03 18 32.4  -1.9
SKAR  Skarslia           134.13 346  ePKPdf   PKPdf    03 18 31.1  -2.0
SKAR                                 eSKPdf   SKPab    03 22 07.3  +1.9
SUW   Suwalki            134.17 331  ePKPdf   PKPdf    03 18 33.7  +0.5
LUBAR Lubar, Ukraine     134.21 325   PKP     PKPdf    03 18 33.7  +0.2
SJMB  Sao Joao De Ma     134.38 140  eP       PKPdf    03 18 33.0  -1.7
KIRS  Kirsehir-Merke     134.38 308  ⇓P       PKPdf    03 18 35.6  +1.3
RIB01 Linhares ES        134.39 141  eP       PKPdf    03 18 32.7  -2.0
RNPP9 Sopachiv           134.41 327   PKP     PKPdf    03 18 33.5  -0.3
BR131 Keskin Array S     134.43 309   P       PKPdf    03 18 33.8  -0.6
      SNR=11
BR131 Keskin Array S     134.43 309d iPKIKP   PKPdf    03 18 33.3  -1.1
BRTR  Keskin Array B     134.43 309   PKhKP   PKPpre   03 18 29.7
      comp=Z,1.1nm,0.8s,baz=94,slow=3.8,SNR=3.8
BRTR                                  PKP     PKPdf    03 18 34.9  +0.5
      comp=Z,6.7nm,0.8s,baz=72,slow=1.6,SNR=12
BRTR                                  PP      PP       03 21 06.2  -0.5
      comp=Z,9.0nm,1.2s,baz=75,slow=5.2,SNR=5.8
BR104 Keskin Array S     134.43 309   PKP     PKPdf    03 18 33.7  -0.7
MMAI  Mount Meron Ar     134.44 300   PKP     PKPdf    03 18 35.4  +0.8
      comp=Z,12nm,0.9s,baz=46,slow=6.2,SNR=9.0
BR106 Keskin Array S     134.44 309   PKP     PKPdf    03 18 35.0  +0.6
BR105 Keskin Array S     134.44 309   PKP     PKPdf    03 18 34.9  +0.5
RNPP8 Varash             134.47 327   PKP     PKPdf    03 18 34.0  +0.1
BSFB  Barra de Sao F     134.49 141  eP       PKPdf    03 18 33.2  -1.7
RNPP5 Staryi Chortor     134.52 327   PKP     PKiKP    03 18 36.1  +0.7
SORM  Soroca             134.76 322  ⇓P       PKPdf    03 18 34.2  -0.3
SORM  Soroca             134.76 322  ⇓PKIKP   PKPdf    03 18 34.2  -0.3
SORM  Soroca             134.76 322  ⇓P       PKPdf    03 18 34.2  -0.3
SORM  Soroca             134.76 322   PKP     PKPdf    03 18 35.6  +1.1
JANB  Januaria           134.98 134  eP       PKPdf    03 18 34.3  -1.7
KMPD  K-Podol'skiy       135.64 324   PKP     PKPdf    03 18 36.3  +0.1
CSS   Mathiatis          135.80 303   IAMs_20 IAMs_20  04 22 46.0
      comp=Z,3µm,22.0s
TLCR                     135.83 318  ⇑PKIKP   PKPdf    03 18 35.8  -0.8
TLCR                     135.83 318  ⇑P       PKPdf    03 18 35.8  -0.8
TPGR  Topolog            136.23 318  ⇑P       PKPdf    03 18 35.9  -1.5
CFR   Carcaliu           136.26 318  ⇓PKIKP   PKPdf    03 18 36.6  -0.8
CFR   Carcaliu           136.26 318  ⇓P       PKPdf    03 18 36.6  -0.8
R9F13 Warsaw-Wawer       136.26 331  ePKP     PKPdf    03 18 37.9  +0.7
SDBA  SAO DESIDERIO      136.36 130  eP       PKPdf    03 18 36.7  -1.9
SMTB  Santa Maria do     136.53 124  eP       PKPdf    03 18 33.3  -5.6
HARR  Harsova            136.61 318  ⇓PKIKP   PKiKP    03 18 40.6  +0.7
HARR  Harsova            136.61 318  ⇓P       PKiKP    03 18 40.6  +0.7
BIZ   Bicaz              136.68 322  ⇓P       PKPdf    03 18 36.5  -1.7
BIZ   Bicaz              136.68 322  ⇓P       PKPdf    03 18 36.5  -1.7
BEL   Belsk              136.68 330  ePKPdf   PKPdf    03 18 39.6  +1.7
KEPZ  Antalya-Kepez      136.72 306  ⇑P       PKiKP    03 18 40.9  +0.5
ONER  Baraj Valea Uz     136.81 321  ⇑P       PKPdf    03 18 38.6  +0.1
VRI   Vrincioaia         136.83 320  ⇓P       PKPdf    03 18 38.9  +0.4
VRI   Vrincioaia         136.83 320  ⇓PKIKP   PKPdf    03 18 38.9  +0.4
VRI   Vrincioaia         136.83 320  ⇓P       PKPdf    03 18 38.9  +0.4
BURAR Bucovina Array     136.85 323  ⇑PKIKP   PKPdf    03 18 37.7  -0.9
BURAR Bucovina Array     136.85 323  ⇑P       PKPdf    03 18 37.7  -0.9
SAHR  Sahastru           136.92 320  ⇑P       PKPdf    03 18 38.5  -0.3
SAHR  Sahastru           136.92 320  ⇑P       PKPdf    03 18 38.5  -0.3
KWP   Kalwaria Pacla     137.10 327  ePKPdf   PKPdf    03 18 40.1  +1.2
GKP   Gorka Klasztor     137.28 334  ePKPdf   PKPdf    03 18 40.7  +1.7
OZUR                     137.29 321  ⇑P       PKPdf    03 18 37.3  -2.1
ISP   Isparta            137.30 308   IAMs_20 IAMs_20  04 25 22.4
      comp=Z,3µm,22.0s
NEHR  Nehoiu             137.30 320  ⇑P       PKPdf    03 18 36.7  -2.7
NEHR  Nehoiu             137.30 320  ⇑P       PKPdf    03 18 36.7  -2.7
MLR   Muntele Rosu       137.49 320   PKP     PKPdf    03 18 39.9   0.0
      comp=Z,15nm,1.1s,baz=300,slow=2.5,SNR=6.8
MLR   Muntele Rosu       137.49 320  ⇑P       PKPdf    03 18 38.8  -1.1
MLR   Muntele Rosu       137.49 320  ⇑P       PKPdf    03 18 38.8  -1.1
DOPR  Dopca              137.59 321  ⇑P       PKPdf    03 18 39.1  -0.8
KOLS  Kolonicke sedl     137.74 326  ePKP     PKPdf    03 18 40.7  +0.6
BMR   Baia Mare          137.80 324  ⇓PKIKP   PKPdf    03 18 39.9  -0.3
BMR   Baia Mare          137.80 324  ⇓P       PKPdf    03 18 39.9  -0.3
CMC01 Camacan, BA        137.94 139  eP       PKPdf    03 18 38.5  -2.9
STHS  Stebnicka Huta     137.99 327  ePKP     PKPdf    03 18 40.8  +0.2
VOIR                     138.06 320  ⇑PKIKP   PKPdf    03 18 38.3  -2.6
VOIR                     138.06 320  ⇑P       PKPdf    03 18 38.3  -2.6
MDB   Medias             138.11 322  ⇓P       PKPdf    03 18 36.2  -4.7
MDB   Medias             138.11 322  ⇓PKIKP   PKPdf    03 18 36.2  -4.7
MDB   Medias             138.11 322  ⇓P       PKPdf    03 18 36.2  -4.7
BAND  Balkesir-Ban       138.25 312  ⇑P       PKPdf    03 18 42.6  +1.3
CJR   Cluj-Napoca        138.26 323  ⇑PKIKP   PKPdf    03 18 38.6  -2.6
CJR   Cluj-Napoca        138.26 323  ⇑P       PKPdf    03 18 38.6  -2.6
ARR   Arges              138.35 320  ⇓P       PKPdf    03 18 39.3  -2.2
MESR  Meseseni           138.40 324  ⇑P       PKPdf    03 18 41.3   0.0
TNR   Turnu Rosu         138.43 321  ⇑P       PKPdf    03 18 38.4  -3.1
TNR   Turnu Rosu         138.43 321  ⇑PKIKP   PKPdf    03 18 38.4  -3.1
TNR   Turnu Rosu         138.43 321  ⇑P       PKPdf    03 18 38.4  -3.1
NIE   Niedzica           138.47 328  ePKPdf   PKiKP    03 18 43.7  +0.1
JMB   Yambol             138.48 316   P       PKPdf    03 18 42.0  +0.4
JMB   Yambol             138.48 316  eP       PKiKP    03 18 44.1  +0.4
SZH   Strazhitsa         138.51 317   P       PKPdf    03 18 41.9  +0.2
SZH   Strazhitsa         138.51 317  eP       PKPdf    03 18 43.8  +2.1
MARR  Marisel-Cluj       138.56 323  ⇑P       PKPdf    03 18 40.5  -1.3
TAVA  DENIZLI_Tavas      138.63 308  ⇓P       PKPdf    03 18 43.8  +1.6
DRGR                     138.73 323  ⇓PKIKP   PKPdf    03 18 41.3  -0.8
DRGR                     138.73 323  ⇓P       PKPdf    03 18 41.3  -0.8
LOT   Lotru              138.84 321  ⇓P       PKPdf    03 18 40.7  -1.7
LOT   Lotru              138.84 321  ⇓P       PKPdf    03 18 40.7  -1.7
DEV   Deva               139.12 322  ⇑PKIKP   PKPdf    03 18 42.2  -0.5
DEV   Deva               139.12 322  ⇑P       PKPdf    03 18 42.2  -0.5
YER   Yerkesik           139.21 307   P       PKPdf    03 18 43.1  -0.1
RUE   Ruedersdorf        139.26 336  ePKPdf   PKPdf    03 18 40.0  -2.6
      baz=39,slow=1.6
DIM   Dimitrovgrad       139.31 315   P       PKPdf    03 18 41.5  -1.7
PLVB  Pleven             139.33 318  ⇓P       PKPdf    03 18 44.4  +1.3
BSEG  Bad Segeberg       139.36 340  ePKPdf   PKPdf    03 18 40.0  -2.8
      baz=39,slow=1.6
STEB  Steborice          139.37 330  ePKPpre  PKPpre   03 18 35.9
KSP   Ksiaz              139.42 332  ePKPdf   PKPdf    03 18 43.9  +0.8
GZR   Gura Zlata         139.46 322  ⇓P       PKPdf    03 18 42.5  -1.0
GZR   Gura Zlata         139.46 322  ⇓PKIKP   PKPdf    03 18 42.5  -1.0
GZR   Gura Zlata         139.46 322  ⇓P       PKPdf    03 18 42.5  -1.0
ENEZ  Enez               139.47 313   P       PKPdf    03 18 41.4  -2.1
ALN   Alexandroupoli     139.48 314   P       PKPdf    03 18 40.4  -3.1
MORC  Moravsky Berou     139.59 330  ⇑PKIKP   PKPdf    03 18 39.6  -3.9
MORC  Moravsky Berou     139.59 330  ePKP     PKPdf    03 18 35.4  -8.1
MORC                                 e                 03 21 38.8
MORC  Moravsky Berou     139.59 330  ⇑P       PKPdf    03 18 39.6  -3.9
ARG   Arkhangelos        139.60 306   P       PKPdf    03 18 40.7  -3.2
PSZ   Piszkesteto        139.62 326  ⇑PKIKP   PKPdf    03 18 41.2  -2.5
PSZ   Piszkesteto        139.62 326  ⇑P       PKPdf    03 18 41.2  -2.5
KDZ   Kurdzhali          139.65 315   P       PKPdf    03 18 37.9  -5.9
KDZ   Kurdzhali          139.65 315  eP       PKPdf    03 18 44.7  +0.9
OSTC  Ostas              139.66 332  ePKPpre  PKPpre   03 18 43.2
CHVC  Chvalec            139.71 332   AMS     AMS      04 20 20.0
      comp=Z,8µm,22.2s
EZN   Ezine              139.71 312   P       PKPdf    03 18 41.5  -2.5
BLCB  Balcova            139.72 310   P       PKPdf    03 18 41.5  -2.5
MAUC  Maruska            139.73 330  ePKPpre  PKPpre   03 18 35.2
KRLC  Kraliky            139.74 331  ePKPpre  PKPpre   03 18 38.2
KRLC                                 ex       x        03 21 59.4
KRLC                                  AMS     AMS      04 14 40.0
      comp=Z,4µm,20.6s
DPC   Dobruska-Polom     139.76 332  ePKPpre  PKPpre   03 18 40.1
DPC                                  ex       x        03 21 53.7
DPC                                   AMS     AMS      04 20 20.0
      comp=Z,7µm,20.8s
GORT1 Trebel             139.79 338  ePKPdf   PKPdf    03 18 39.0  -4.6
      baz=39,slow=1.6
VYHS  Vyhne              139.80 328  ePKP     PKPdf    03 18 46.0  +2.1
PLD   Plovdiv            139.82 316   P       PKPdf    03 18 41.0  -3.1
GADA  Gvkgeada           139.87 313   P       PKPdf    03 18 39.9  -4.3
MPEP  Malo Peshtene      139.91 318  eP       PKPdf    03 18 46.2  +2.0
HLG   Helgoland          139.92 342  ePKPdf   PKPdf    03 18 37.1  -6.7
      baz=39,slow=1.6
VALD  Valchedram         139.94 319  eP       PKPdf    03 18 46.2  +2.0
PRK   Paraskevi          139.97 311   P       PKPdf    03 18 41.6  -2.8
SMTH  Samothraki Isl     140.01 313   P       PKPdf    03 18 42.3  -2.2
BZS   Buzias             140.02 322  ⇑PKIKP   PKPdf    03 18 43.8  -0.5
BZS   Buzias             140.02 322  ⇑P       PKPdf    03 18 43.8  -0.5
RZN   Rozhen             140.03 315   P       PKPdf    03 18 43.4  -1.3
RZN   Rozhen             140.03 315  eP       PKPdf    03 18 45.9  +1.2
JAVC  Velka Javorina     140.15 329  ePKP     PKPdf    03 18 38.1  -6.5
JAVC                                 e                 03 21 32.8
FLTG  Flechtingen        140.35 337  ePKPdf   PKPdf    03 18 39.8  -4.9
      baz=39,slow=1.6
VRAC  Vranov             140.36 330   PKP     PKPdf    03 18 44.9  +0.1
      comp=Z,1.3nm,0.6s,baz=90,slow=2.0,SNR=3.6
VRAC                                  PP      PP       03 21 41.2  -1.5
      comp=Z,1.5nm,0.7s,baz=69,slow=5.9,SNR=3.7
VRAC  Vranov             140.36 330  ePKP     PKPdf    03 18 37.4  -7.5
VRAC                                 e                 03 21 43.6
VRAC  Vranov             140.36 330  ⇑P       PKPdf    03 18 43.7  -1.1
BRG   Berggiesshubel     140.42 334  ePKPdf   PKPdf    03 18 42.2  -2.6
      baz=39,slow=1.6
BRG   Berggiesshubel     140.42 334⇓ePKPf              03 18 40.3
BRG                                   Amp              03 18 41.1
      comp=Z,3.0nm,0.9s
BRG   Berggiesshubel     140.42 334   P       PKPdf    03 18 44.5  -0.4
BRG                                   Amp              03 18 45.4
      comp=Z,8.6nm,0.9s
BRG   Berggiesshubel     140.42 334   P       PKiKP    03 18 49.1  +1.6
BRG                                   Amp              03 18 49.9
      comp=Z,14nm,0.9s
BRG   Berggiesshubel     140.42 334   P       PKiKP    03 18 55.9  +8.5
BRG                                   Amp              03 18 58.8
      comp=Z,47nm,1.2s
BRG                                   PP      PP       03 21 59.1   +16
BRG                                   Amp              03 22 10.4
      comp=Z,18nm,1.4s
BRG                                   SKP              03 22 25.4
BRG                                   Amp              03 22 26.6
      comp=Z,21nm,1.4s
MDVR  Moldovita          140.42 321  ⇑P       PKPdf    03 18 43.5  -1.6
CLL   Collm              140.47 335  i PKIKP  PKPdf    03 18 43.1  -1.9
CLL                                   pmax    pmax
      comp=Z,18nm,1.3s
CLL                                   MLR     MLR
      comp=Z,3µm,23.0s
CLL   Collm              140.47 335  ePKPdf   PKPdf    03 18 40.0  -5.0
      baz=39,slow=1.6
CLL   Collm              140.47 335  ePKPpre  PKPpre   03 18 39.0
CLL                                  i PKPdf  PKPdf    03 18 43.1  -1.9
      comp=Z,18nm,1.3s
CLL                                  i PKiKP  pPKPdf   03 18 46.7  -0.5
      comp=Z,16nm,0.9s
CLL                                  ePKPmax           03 18 53.0
      comp=Z,80nm,1.6s
CLL                                  ePP      PP       03 21 44.0  +0.8
      comp=Z,90nm,2.3s
CLL                                  ePPlp             03 21 58.0
      comp=Z,1µm,12.2s
CLL                                  eSS      SS       03 40 12.0  +4.6
CLL                                  eSSS     SSS      03 45 24.0
CLL                                   LH               04 05 00.0
CLL                                   LV               04 08 00.0
CLL                                   AMS     AMS      04 22 00.0
      comp=N,3µm,24.1s
CLL                                   AMS     AMS      04 22 00.0
      comp=E,900nm,24.9s
CLL                                   AMS     AMS      04 22 00.0
      comp=Z,3µm,23.0s
LIA   Limnos Island      140.49 313   P       PKPdf    03 18 43.5  -1.8
SRO   Srobarova          140.51 327  ePKP     PKPdf    03 18 44.4  -0.7
THAS  Thassos island     140.52 314   P       PKPdf    03 18 42.9  -2.5
PLNA  Plana              140.54 317  eP       PKPdf    03 18 47.7  +2.1
VTS   Vitosha            140.59 318   P       PKPdf    03 18 43.0  -2.6
VTS   Vitosha            140.59 318  eP       PKPdf    03 18 47.7  +2.0
KRUC  Moravsky           140.63 330  ePKP     PKPdf    03 18 38.1  -7.2
MODS  Modra-Piesok       140.67 329  ePKP     PKPdf    03 18 46.7  +1.2
RETH  Rethem/Aller,      140.68 339  ePKPdf   PKPdf    03 18 40.7  -4.5
      baz=39,slow=1.6
ASSE  Asse, Remlinge     140.72 338  ePKPdf   PKPdf    03 18 40.7  -4.6
      baz=39,slow=1.6
MMB   Musomishta         140.76 316   P       PKPdf    03 18 39.8  -6.1
MMB   Musomishta         140.76 316  eP       PKPdf    03 18 41.6  -4.3
NVR   Nevrokopi          140.77 315   P       PKPdf    03 18 39.4  -6.5
PRU   Pruhonice          140.81 333  ePKPDF   PKPdf    03 18 44.0  -1.6
PRU                                   AMS     AMS      04 20 20.0
      comp=Z,6µm,21.4s
KKB   Krupnik            141.03 317   P       PKPdf    03 18 39.9  -6.5
KKB   Krupnik            141.03 317  eP       PKPdf    03 18 41.9  -4.4
NEUB  Neuenburg          141.04 336  ePKPdf   PKPdf    03 18 41.3  -4.7
      baz=39,slow=1.6
BOVS  Bovan              141.04 320  ⇑P       PKPdf    03 18 44.7  -1.5
CLZ   Clausthal          141.06 338  ePKPdf   PKPdf    03 18 41.6  -4.4
      baz=39,slow=1.6
SRS   Serrai             141.06 315   P       PKPdf    03 18 36.1   -10
PEHC  Pehcevo            141.21 317  i P      PKPdf    03 18 44.4  -2.4
EKA   Eskdalemuir Ar     141.30 352   PKhKP   PKPpre   03 18 41.8
      comp=Z,2.5nm,0.7s,baz=5.6,slow=2.9,SNR=6.6
ESK   Eskdalemuir        141.32 352   IAMs_20 IAMs_20  04 32 56.0
      comp=Z,3µm,19.0s
FRGS  Fruska Gora        141.33 323⇑iP        PKPdf    03 18 43.2  -3.6
MORH  Mrgy, Hungar       141.34 325  ⇓P       PKPdf    03 18 44.7  -2.0
MORH  Mrgy, Hungar       141.34 325⇑iP        PKPdf    03 18 39.6  -7.1
SOH   Sokhos             141.35 315   P       PKPdf    03 18 41.2  -5.8
ZVC   Zvikov             141.37 332  ePKPpre  PKPpre   03 18 40.0
ZVC                                   AMS     AMS      04 20 40.0
      comp=Z,7µm,22.7s
TANN  Tannenbergstha     141.38 335  ePKPdf   PKPdf    03 18 42.1  -4.6
      baz=39,slow=1.6
ZKR   Zakros             141.41 305   P       PKPdf    03 18 39.8  -7.4
WINA  Alland / Wiene     141.44 329  i PKP    PKPdf    03 18 46.0  -0.8
      SNR=7.7
GTTG  Gottingen          141.45 338  ePKPdf   PKPdf    03 18 42.2  -4.5
      baz=39,slow=1.6
PLN   Plauen             141.45 335  ePKPdf   PKPdf    03 18 42.3  -4.5
      baz=39,slow=1.6
PLG   Polygyros          141.49 314   P       PKPdf    03 18 40.4  -6.9
KNT   Kendrikon          141.50 316   P       PKPdf    03 18 43.4  -3.8
NKC   Novy Kostel        141.53 334  ePKPpre  PKPpre   03 18 42.8
NKC                                   AMS     AMS      04 22 30.0
      comp=Z,5µm,20.6s
PAIG  Paliouri           141.53 313   P       PKPdf    03 18 40.0  -7.2
MOX   Moxa               141.54 336  ePKPdf   PKPdf    03 18 42.3  -4.7
      baz=39,slow=1.6
MOX                                  eL       L        04 28 23.1
      comp=Z,3µm,18.7s
IBBN  Ibbenburen         141.57 340  ePKPdf   PKPdf    03 18 42.9  -4.0
      baz=39,slow=1.6
RONA  Rosalia, Austr     141.61 329  i PKP    PKPdf    03 18 46.2  -1.0
      comp=Z,52nm,1.3s
RONA                                 eSdiff            03 30 18.7
      comp=Z,6.1nm,1.5s
VAY   Valandovo          141.65 316  i P      PKPdf    03 18 39.8  -7.6
CONA  Conrad Observa     141.66 329  i PKP    PKPdf    03 18 46.6  -0.7
      comp=Z,42nm,1.4s,SNR=10
CONA                                 eSdiff            03 30 19.3
      comp=Z,3.3nm,1.0s
AOS   Alonnisos          141.71 312   P       PKPdf    03 18 42.6  -5.0
KARY  Karystos           141.76 310   P       PKPdf    03 18 36.4   -11
KYMI  Kymi, Euboea I     141.77 311   P       PKPdf    03 18 34.9   -13
TEKS  Tekeris            141.84 322⇑iP        PKPdf    03 18 41.2  -6.5
KHC   Kasperske Hory     141.87 332  ePKPpre  PKPpre   03 18 42.5
KHC                                  ePKPDF   PKPdf    03 18 49.0  +1.4
KHC                                  ex       x        03 22 09.6
KHC                                   AMS     AMS      04 20 50.0
      comp=Z,8µm,21.6s
GRG   Griva              141.93 316   P       PKPdf    03 18 37.0   -11
UBBA  Unterbreizbach     142.03 337  ePKPdf   PKPdf    03 18 41.5  -6.2
      baz=39,slow=1.6
GEC2  GERESS Array S 142.03 332      ePKPdf   PKPdf    03 18 43.2  -4.8
      baz=39,slow=1.6
GERES GERESS Array B 142.03 332       PKhKP   PKPpre   03 18 42.3
      comp=Z,4.9nm,0.8s,baz=46,slow=3.9,SNR=18
NEO   Neokhori           142.11 313   P       PKPdf    03 18 38.6   -10
WET   Wettzell           142.17 333  ePKPdf   PKPdf    03 18 43.7  -4.5
      baz=39,slow=1.6
BEHE  Becsehely          142.18 327⇑iP        PKPdf    03 18 43.2  -5.0
LIT   Litokhoron         142.27 314   P       PKPdf    03 18 41.5  -7.1
KASTN Kahler Asten       142.28 339  ePKPdf   PKPdf    03 18 43.8  -4.5
      baz=39,slow=1.6
ARSA  Arzberg            142.30 329  i PKP    PKPdf    03 18 47.4  -1.1
      comp=Z,46nm,1.4s,SNR=12
ARSA                                 eSdiff            03 30 24.5
      comp=Z,5.1nm,1.4s
SJES  Sjenica            142.31 320  eP       PKPdf    03 18 43.1  -5.6
BBLS  Lazi&#263i         142.31 322⇑iP        PKPdf    03 18 43.1  -5.5
IDI   Anoyia             142.39 306   PKP     PKPdf    03 18 48.6  -0.4
      comp=Z,21nm,0.9s,baz=180,slow=5.1,SNR=3.2
IDI   Anoyia             142.39 306   PKP     PKPdf    03 18 47.9  -1.1
GRA1  Grafenberg Arr     142.45 335   IAMs_20 IAMs_20  04 23 34.6
      comp=Z,3µm,20.0s
GRF   Grafenberg Arr     142.45 335  ePKPdf   PKPdf    03 18 43.9  -4.7
      baz=39,slow=1.6
GRF                                  eL       L        04 23 34.5
      comp=Z,3µm,21.1s
GRFO  Grafenberg         142.45 335   PKIKP   PKPdf    03 18 46.5  -2.1
GRFO                                  MLR     MLR
      comp=Z,3µm,22.0s
GRFO  Grafenberg         142.45 335           PKPdf    03 18 46.5  -2.1
GRFO                                  IAMs_20 IAMs_20  04 23 23.7
      comp=Z,3µm,22.0s
BUG   Bochum--Univer     142.47 340  ePKPdf   PKPdf    03 18 43.8  -4.8
      baz=39,slow=1.6
MOA   Molln              142.49 330  i PKP    PKPdf    03 18 48.0  -0.8
      comp=Z,72nm,1.6s,SNR=13
MOA                                  eSdiff            03 30 27.8
      comp=Z,5.8nm,1.2s
ATAL  Atalanti           142.51 312   P       PKPdf    03 18 41.5  -7.5
VILL  Villia             142.52 311   P       PKPdf    03 18 41.0  -8.1
LKR   Lokris             142.55 312   P       PKPdf    03 18 42.9  -6.2
PLE   Pljevlja           142.62 321⇑iPKP      PKPdf    03 18 44.0  -5.3
TYRN  Tyrnavos           142.62 314   P       PKPdf    03 18 43.0  -6.2
PVY   Plav               142.68 319⇑iPKP      PKPdf    03 18 44.8  -4.6
AXAR  Agios Charalam     142.74 312   P       PKPdf    03 18 43.2  -6.3
KOME  Kolasin            142.81 320⇑iPKP      PKPdf    03 18 44.5  -5.1
LTK   Loutraki           142.83 311   P       PKPdf    03 18 43.6  -6.1
THL   Klokotos Trika     142.84 314   P       PKPdf    03 18 43.6  -6.0
PHP   Peshkopia          142.86 318   P       PKPdf    03 18 43.6  -6.0
AGG   Agios Georgios     142.86 313   P       PKPdf    03 18 41.9  -7.8
BIOA  Bad Ischl, Aus     142.90 331  i PKP    PKPdf    03 18 49.3  -0.2
      comp=Z,49nm,1.1s,SNR=10
BIOA                                 eSdiff            03 30 29.3
      comp=Z,4.2nm,1.5s
OHR   Ohrid              142.92 317  i P      PKPdf    03 18 47.0  -2.7
SOKA  Soboth             142.93 328  i PKP    PKPdf    03 18 48.8  -0.9
      comp=Z,66nm,1.0s,SNR=23
SOKA                                 eSdiff            03 30 34.7
      comp=Z,4.1nm,1.1s
IMMV  Iera Moni Meta     143.03 307   P       PKPab    03 18 41.0  -4.4
THAL  Thalero            143.04 311   P       PKPab    03 18 42.2  -3.0
BLY   Banja Luka         143.06 324  ⇑P       PKPab    03 18 46.4  +1.2
BLY   Banja Luka         143.06 324  ⇑P       PKPab    03 18 46.4  +1.2
BLY   Banja Luka         143.06 324⇑iP        PKPab    03 18 44.6  -0.5
KPRO  Kipourio           143.10 315   P       PKPab    03 18 42.2  -3.3
KBN   Korca              143.17 316   P       PKPab    03 18 43.4  -2.4
GVDS  Gavdos             143.18 306   P       PKPab    03 18 44.2  -1.7
KLINJ Klinje             143.19 321  eP       PKPdf    03 18 50.0  -0.3
NKME  Niksic             143.20 320⇑iPKP      PKPab    03 18 45.4  -0.5
PDG   Podgorica          143.20 320  ⇑P       PKPab    03 18 46.1  +0.3
PDG   Podgorica          143.20 320   IAMs_20 IAMs_20  04 27 05.5
      comp=Z,3µm,20.0s
PDG   Podgorica          143.20 320  ⇑P       PKPab    03 18 46.1  +0.3
PDG   Podgorica          143.20 320⇑iP        PKPab    03 18 45.0  -0.8
KALE  Kalithea           143.27 312   P       PKPab    03 18 45.1  -1.2
BOPT  Opiter             143.27 341  dPKPdf   PKPab    03 18 46.9  +1.2
EVR   Evrytania          143.27 313   P       PKPab    03 18 45.1  -1.2
OBKA  Obir               143.29 329  i PKP    PKPbc    03 18 49.3  +2.0
      comp=Z,31nm,1.2s,SNR=17
OBKA                                 eSdiff            03 30 30.8
      comp=Z,5.7nm,1.3s
CRES  Cresnjevec Ost     143.29 327  ePKPdf   PKPab    03 18 46.0  -0.1
GUR   Goura              143.31 311   P       PKPab    03 18 45.2  -1.3
SERG  Sergoula           143.32 312   P       PKPab    03 18 45.2  -1.2
ANX   Ano Chora          143.34 312   P       PKPab    03 18 45.2  -1.4
CEME  Cevo               143.35 320⇑iPKP      PKPab    03 18 45.7  -0.8
BMOL  Mol                143.35 342  dPKPdf   PKPab    03 18 46.2  +0.2
VLI   Veliai             143.37 309   P       PKPab    03 18 42.9  -3.7
BRY   Bratogost          143.38 321  eP       PKPab    03 18 46.1  -0.6
BRY   Bratogost          143.38 321⇑iPKP      PKPab    03 18 45.6  -1.1
DRME  Dracevica, Mon     143.38 319⇑iP        PKPab    03 18 45.4  -1.1
DRME  Dracevica, Mon     143.38 319⇑iPKP      PKPab    03 18 46.0  -0.5
KLV   Kalavryta, Ach     143.41 312   P       PKPab    03 18 45.7  -1.2
ANKY  Antikythira Is     143.41 308   P       PKPab    03 18 45.1  -1.7
EFP   Efpalio            143.42 312   P       PKPab    03 18 46.1  -0.7
LAKA  Lakka              143.45 312   P       PKPab    03 18 45.7  -1.2
TETR  Tetrakomo, Epi     143.45 314   P       PKPab    03 18 45.7  -1.3
KTHA  Kythira Island     143.45 308   P       PKPab    03 18 45.7  -1.2
ULC   Ulcinj             143.47 319⇑iPKP      PKPab    03 18 46.1  -0.8
NBTA  Tacaratu-PE        143.47 134  eP       PKPab    03 18 48.7  +1.0
KBA   Koelnbreinsper     143.48 330  i PKP    PKPbc    03 18 49.8  +1.9
      comp=Z,91nm,1.2s,SNR=24
KBA                                  eSdiff            03 30 32.9
      comp=Z,5.4nm,1.3s
PRMD  Pramanda           143.48 314   P       PKPab    03 18 45.8  -1.3
VVK   Vomvokou           143.49 312   P       PKPab    03 18 45.8  -1.3
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BUM	Brajici-Budva	143.50	320	⇑*i*PKP	PKPab	03 18 45.8	-1.3
VLX	Vlachokerasia	143.52	310	P	PKPab	03 18 45.9	-1.5
LESA	Schwarzleotal	143.54	331	*i* PKP	PKPbc	03 18 49.6	+1.7
	comp=Z,59nm,1.1s,SNR=35						
LESA				*e*Sdiff		03 30 29.9	
	comp=Z,9.4nm,1.2s						
MEM	Membach	143.59	340	*d*PKPdf	PKPab	03 18 47.5	+0.5
JAN	Janina	143.59	315	P	PKPab	03 18 46.0	-1.5
TREB	Trebinje	143.60	321	*e*P	PKPab	03 18 46.9	-0.4
PVO	Paravola	143.60	313	P	PKPab	03 18 46.0	-1.5
FUR	Furstenfeldbru	143.60	333	*e*PKPdf	PKPab	03 18 47.5	+0.3
	baz=39,slow=1.6						
LJU	Ljubljana	143.62	328	*e*PKPdf	PKPab	03 18 46.8	-0.5
LJU				*i*		03 18 58.4	
MYKA	Terra Mystica	143.65	329	*i* PKP	PKPbc	03 18 49.9	+1.6
	comp=Z,84nm,1.3s,SNR=12						
MYKA				*e*SKKP		03 30 28.1	
	comp=Z,4.0nm,1.1s						
HCY	Herceg Novi	143.66	320	⇑*i*P	PKPab	03 18 47.2	-0.4
HCY	Herceg Novi	143.66	320	⇑*i*PKP	PKPab	03 18 46.8	-0.8
AMPL	Ampelaki	143.68	313	P	PKPab	03 18 46.1	-1.7
CRNS	Crni Vrh	143.73	328	*e*PKPdf	PKPab	03 18 47.3	-0.5
DSB	Dublin	143.74	354	PKP	PKPbc	03 18 49.3	+1.1
DRO	Drossia	143.76	312	P	PKPab	03 18 46.3	-1.9
PLEV	Plevrona-Mesol	143.78	313	P	PKPab	03 18 46.3	-1.9
PDO	Prodromos	143.85	313	P	PKPab	03 18 46.4	-2.0
RLS	Riolos of Patr	143.89	312	P	PKPab	03 18 47.6	-1.0
AXS	Araxos	143.89	312	P	PKPab	03 18 46.8	-1.8
ITM	Ithomi	143.93	310	P	PKPab	03 18 46.9	-1.9
UCC	Uccle	143.93	342	*d*PKPdf	PKPab	03 18 48.3	0.0
BOST	Ostende	143.94	344	*d*PKPdf	PKPbc	03 18 50.4	+1.5
AMT	Artemida-Makis	143.94	311	P	PKPab	03 18 46.9	-2.0
BCLA	Clavier	143.98	341	*d*PKPdf	PKPab	03 18 45.7	-2.8
STU	Stuttgart	143.99	336	IAMs_20	IAMs_20	04 26 30.4	
	comp=Z,3µm,20.0s						
STU	Stuttgart	143.99	336	*e*PKPdf	PKPab	03 18 44.5	-4.1
	baz=39,slow=1.6						
IGT	Igoumenitsa	144.00	315	P	PKPab	03 18 47.0	-2.0
SRN	Sarande	144.06	316	P	PKPab	03 18 47.1	-2.0
NBPS	Pedro II - PI	144.07	124	*e*P	PKPab	03 18 50.7	+0.6
VLO	Vlora	144.09	317	P	PKPab	03 18 48.2	-1.0
WATA	Walderalm	144.10	332	*i* PKP	PKPab	03 18 50.7	+1.4
	comp=Z,144nm,1.7s,SNR=21						
WATA				*e*SKKP	SKKPab	03 30 35.5	-1.0
	comp=Z,7.5nm,1.0s						
ABTA	Abfaltersbach	144.11	331	*i* PKP	PKPbc	03 18 50.9	+1.2
	comp=Z,162nm,0.9s,SNR=60						
ABTA				*i* Sdiff		03 30 41.8	
	comp=Z,8.7nm,1.2s						
TSLK	Tsoukalades, L	144.12	314	P	PKPab	03 18 47.2	-2.2
WTTA	Wattenberg	144.13	332	*i* PKP	PKPab	03 18 50.8	+1.4
	comp=Z,149nm,1.2s,SNR=30						
WTTA				*e*Sdiff		03 30 46.5	
	comp=Z,15nm,1.3s						
LKD2	Lefkada island	144.13	314	P	PKPab	03 18 48.4	-1.1
NYDR	Nydri-Lefkada	144.14	313	P	PKPab	03 18 47.7	-1.8
NBMA	Muriti-CE	144.20	131	*e*P	PKPab	03 18 49.9	-0.6
EVGI	Lefkada island	144.21	313	P	PKPab	03 18 48.3	-1.5
RCHB	Rochefort	144.23	341	*d*PKPdf	PKPab	03 18 50.2	+0.7
DRAG	Dragano-Lefkad	144.24	313	P	PKPab	03 18 48.4	-1.5
BMRD	Maredsous	144.25	341	*d*PKPdf	PKPab	03 18 49.7	+0.2
KEK	Kerkira	144.28	315	P	PKPab	03 18 47.3	-2.7
MOTA	Moosalm	144.31	332	*i* PKP	PKPab	03 18 51.2	+1.1
	comp=Z,234nm,2.0s,SNR=32						
MOTA				*e*SKKP	SKKPab	03 30 35.9	+0.3
	comp=Z,10nm,1.3s						
RETA	Reutte	144.35	333	*i* PKP	PKPab	03 18 51.0	+0.9
	comp=Z,98nm,1.2s,SNR=34						
RETA				*e*Sdiff		03 30 38.4	
	comp=Z,7.2nm,1.4s						
FSK	Fiskardo	144.35	313	P	PKPab	03 18 47.8	-2.5
SQTA	Sankt Quirin	144.35	332	*i* PKP	PKPab	03 18 51.2	+1.0
	comp=Z,112nm,1.0s,SNR=38						
SQTA				*e*Sdiff		03 30 38.6	
	comp=Z,13nm,1.8s						
WLF	Walferdange	144.36	339	PKP	PKPab	03 18 49.7	-0.2
WLF	Walferdange	144.36	339	*d*PKPdf	PKPab	03 18 49.3	-0.7
WLF	Walferdange	144.36	339	*e*PKPdf	PKPab	03 18 46.2	-3.8
	baz=39,slow=1.6						
RTZL	Ratzakli, Kefa	144.37	312	P	PKPab	03 18 48.8	-1.6
VLS	Valsamata	144.46	313	P	PKPab	03 18 49.0	-1.8
UBR	Ueberruh	144.48	334	*e*PKPdf	PKPab	03 18 49.6	-1.0
	baz=39,slow=1.6						
DOU	Dourbes	144.48	341	*d*PKPdf	PKPab	03 18 49.9	-0.5
LTHK	Lithakia	144.49	312	P	PKPab	03 18 49.0	-1.8
ORTH	Orthonies,Zaky	144.53	312	P	PKPab	03 18 49.1	-1.9
BFO	Black Forest	144.68	336	PKIKP	PKPab	03 18 50.4	-0.9
BFO	Black Forest	144.68	336		PKPab	03 18 50.4	-0.9
BFO				IAMs_20	IAMs_20	04 27 08.8	
	comp=Z,3µm,20.0s						
BFO	Black Forest	144.68	336	*e*PKPdf	PKPab	03 18 47.0	-4.3
	baz=39,slow=1.6						
FETA	Feichten	144.72	332	*i* PKP	PKPab	03 18 52.1	+0.4
	comp=Z,128nm,0.9s,SNR=48						
FETA				*i* Sdiff		03 30 42.6	
	comp=Z,13nm,1.2s						
DAVA	Damuels	144.88	334	*i* PKP	PKPab	03 18 52.0	-0.2
	comp=Z,593nm,2.0s,SNR=54						
DAVA				*i* Sdiff		03 30 41.1	
	comp=Z,11nm,1.2s						
ECH	Echery	145.22	337	IAMs_20	IAMs_20	04 23 37.0	
	comp=Z,3µm,22.0s						
DAVOX	Davos/Dischmat	145.28	333	PKPbc	PKPbc	03 18 53.3	-0.3
	comp=Z,83nm,0.7s,baz=200,slow=0.8,SNR=64						
VAL	Valentia	145.30	358	PKP	PKPbc	03 18 51.0	-2.2
MATE	Matera	145.79	319	⇑P	PKPdf	03 18 54.5	-0.2
NBMO	Morrinhos-CE	145.84	124	*e*P	PKPdf	03 18 53.7	-1.9
SALO	Salr	145.87	331		PKPdf	03 18 53.6	-1.2
TIP	Timpagrande	146.56	317		PKPdf	03 18 56.8	+0.6
TIP				IAMs_20	IAMs_20	04 26 16.8	
	comp=Z,2µm,22.0s						
TIP	Timpagrande	146.56	317	⇑P	PKPdf	03 18 57.5	+1.4
AQU	L'Aquila	146.70	324	PKP	PKPdf	03 18 54.8	-1.4
AQU	L'Aquila	146.70	324	⇑*i*P	PKPdf	03 18 56.1	-0.2
VLC	Villacollemand	147.02	329	PKP	PKPdf	03 18 54.8	-1.9
NBPV	Pedro Velho	147.31	134	*e*P	PKPdf	03 18 55.7	-2.4
CEL	Celeste	147.63	316	IAMs_20	IAMs_20	04 31 42.0	
	comp=Z,2µm,21.0s						
SSB	Saint Sauveur	148.66	337	IAMs_20	IAMs_20	04 25 38.1	
	comp=Z,3µm,22.0s						
RAFF	Raffo Rosso	149.21	316		PKPbc	03 19 04.0	-0.8
WDD	Wied Dalam	149.84	313		PKPdf	03 19 01.3	-0.2
VSL	Villasalto	150.88	324	IAMs_20	IAMs_20	04 28 11.4	
	comp=Z,2µm,22.0s						
EJON	La Jonquera	151.70	336	PKP	PKPdf	03 19 04.1	-0.2
MAHO	Mahon	153.21	331	PKP	PKPdf	03 19 04.9	-1.6
KEST	Kesra	153.36	318	PKPbc	PKPbc	03 19 14.1	-0.5
	comp=Z,17nm,0.8s,baz=132,slow=1.8,SNR=14						
KEST	Kesra	153.36	318	P	PKPdf	03 19 08.3	+1.3
	SNR=14						
KEST	Kesra	153.36	318		PKPbc	03 19 14.5	-0.1
ETOS	Mallorca	153.97	333	PKP	PKPdf	03 19 06.6	-1.0
PGAV	Gavieira, Arco	155.08	353	*e*LR	LR	04 24 02.4	
PGAV				*i* IAMs_20	IAMs_20	04 32 48.3	
	comp=Z,3µm,20.0s						
ECHE	Chera	155.62	338	PKP	PKPdf	03 19 09.2	-0.8
UCM	Universidad Co	155.68	343	PKP	PKPdf	03 19 09.5	-0.6
PVIS	Viseu	156.26	352	*e*PKPdf	PKPdf	03 19 09.7	-1.1
PVIS				*e*pPKPab	PKPab	03 19 40.1	+1.5
ESDC	Sonseca Array	156.47	344	PKP	PKPdf	03 19 10.5	-0.6
	comp=Z,3.4nm,1.2s,baz=336,slow=3.3,SNR=7.2						
ESDC				PKPbc	sPKPdf	03 19 20.6	+6.6
	comp=Z,4.5nm,1.0s,baz=355,slow=3.0,SNR=12						
ESDC				PKPab	PKPab	03 19 39.7	+0.1
	comp=Z,5.7nm,1.0s,baz=19,slow=3.5,SNR=6.2						
ESDC				PP	PP	03 23 15.5	-0.8
	comp=Z,1.1nm,1.0s,baz=22,slow=5.5,SNR=3.2						
ESDC	Sonseca Array	156.47	344		PKPdf	03 19 11.5	+0.4
MTE	Manteigas	156.52	351	*e*LR	LR	04 24 28.5	
MTE				*i* IAMs_20	IAMs_20	04 32 19.1	
	comp=Z,3µm,20.0s						
ETOB	Tobarra	156.66	338	PKP	PKPdf	03 19 08.3	-3.1
CART	Cartagena	157.40	336	IAMs_20	IAMs_20	04 29 47.2	
	comp=Z,2µm,22.0s						
PMRV	Marv??o	157.45	350	*e*LR	LR	04 25 26.4	
PMRV				*i* IAMs_20	IAMs_20	04 35 45.0	
	comp=Z,3µm,20.0s						
PSBE	So Bento	157.56	353	*e*pPKPab	PKPab	03 19 45.2	+1.0
PESTR	Estremoz	158.03	350	*e*pPKPab	PKPab	03 19 47.9	+1.7
PARRA	Arraiolos	158.15	351	*e*pPKPab	PKPab	03 19 47.7	+1.0
LIS	Lisbon	158.39	353	*e*PKPdf	PKPdf	03 19 12.6	-0.8
LIS				IAMs_20	IAMs_20	04 32 23.4	
	comp=Z,3µm,12.5s						
LIS	Lisbon	158.39	353	*e*PKIKP	PKPdf	03 19 12.6	-0.8
MOE	Montemor	158.48	352	*e*PKP	PKPdf	03 19 11.3	-2.3
PBAR	Barrancos	158.60	349	*e*pPKPab	PKPab	03 19 50.1	+1.4
MESJ	Messejana	159.13	351	*e*PKPdf	PKPdf	03 19 13.6	-0.8
MESJ				IAMs_20	IAMs_20	04 35 27.3	
	comp=Z,4µm,26.1s						
MESJ	Messejana	159.13	351	*e*PKIKP	PKPdf	03 19 13.6	-0.8
PVAQ	Vaqueiros	159.48	350	*e*LR	LR	04 23 17.5	
PVAQ				*i* IAMs_20	IAMs_20	04 36 25.1	
	comp=Z,3µm,20.0s						
MORF	Marmelete	159.72	352	*e*PKPdf	PKPdf	03 19 14.4	-0.7
MORF				IAMs_20	IAMs_20	04 38 49.0	
	comp=Z,3µm,15.8s						
MORF	Marmelete	159.72	352	*e*PKIKP	PKPdf	03 19 14.4	-0.7
MD01	Midelt array s	162.99	338		PKPdf	03 19 17.1	-1.7
TORD	Torodi Ar. Bea	165.93	255	PKP	PKPdf	03 19 20.4	-1.3
	comp=Z,16nm,1.1s,baz=354,slow=1.0,SNR=19						
TORD				PKPab	PKPab	03 20 20.8	-0.9
	comp=Z,18nm,0.9s,baz=98,slow=4.0,SNR=6.6						
TORD				PP	PP	03 24 09.4	+0.3
	comp=Z,4.3nm,1.0s,baz=141,slow=5.8,SNR=4.0						
DBIC	Dimbokro	167.27	216	PKP	PKPdf	03 19 21.2	-1.6
	comp=Z,34nm,1.1s,baz=161,slow=0.7,SNR=9.0						
DBIC				PKPab	PKPab	03 20 28.1	+0.8
	comp=Z,13nm,0.9s,baz=117,slow=2.2,SNR=4.1						
DBIC				PP	PP	03 24 18.4	+3.9
	comp=Z,20nm,1.3s,baz=150,slow=6.2,SNR=4.1						

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*AZER **06** 03:03:56.4, 41.°65N×46.°23E, h2km, ml2.4*
*MOS **06** 03:03:56.5, 41.°84N×46.°33E, h22km, MPVA3.5*
*NORS **06** 03:03:56.6, 41.°72N×45.°86E, h2km, MPVA3.2*
*DRS **06** 03:03:58.1, 41.°82N×46.°23E, h24km*

ISC 06 03:03:56.9±1.1, **41.°87N**±0.°02×**46.°21E**±0.°02, **h4**km±10km, **n37**, σ**1.s02**/72, **Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZKTA	Zakatala	0.38	126	P	Pg	03 04 04.0	-0.3
ZKTA				S	Sg	03 04 09.7	+0.4
KMKR	Kumukh	0.71	68	*i* Pg	Pg	03 04 10.7	+0.1
KMKR				*e*Sg	Sb	03 04 20.4	-1.8
GNBR	Gunib	0.77	47	*e*Pg	Pb	03 04 12.0	-0.8
GNBR				*e*Sg	Sb	03 04 22.8	-0.8
XNZR	Khunzakh	0.77	28	*e*Pg	Pb	03 04 12.9	-0.1
XNZR				*e*Sg	Sb	03 04 23.9	+0.1
BTLR	Botlikh	0.80	1	*e*Pg	Pb	03 04 13.2	-0.2
BTLR				*e*Sg	Sb	03 04 24.4	-0.2
ARKR	Arakani	0.94	38	*i* Pg	Pb	03 04 15.4	-0.4
ARKR				*e*Sg	Sb	03 04 28.3	-0.3
UNCR	Uncukul	0.95	27	*e*Pg	Pb	03 04 15.6	-0.4
UNCR				*e*Sg	Sb	03 04 28.8	-0.1
SEKA	Sheki	0.99	131	P	Pg	03 04 15.6	-0.3
SEKA				S	Sg	03 04 29.4	+0.7
QZX	Qazax, Azerbai	1.02	218	P	Pg	03 04 16.3	-0.3
QZX				S	Sb	03 04 31.5	+0.5
KRNR	Karanay	1.09	28	*e*Pg	Pb	03 04 18.0	-0.4
KRNR				*e*Sg	Sb	03 04 32.6	-0.4
URKR	Urkarakh	1.10	74	*e*Pg	Pg	03 04 17.8	-0.2
URKR				*e*Sg	Sb	03 04 32.4	-0.9
BUJR	Buynaksk	1.17	34	*e*Pg	Pn	03 04 19.3	-0.7
BUJR				*e*Sg	Sn	03 04 35.6	-0.8
GDB	GEDABAY	1.20	197	P	Pg	03 04 18.0	-1.8
GDB				S	Sg	03 04 34.2	-1.1
AKT	Akhty	1.20	108	*e*Pg	Pg	03 04 18.2	-1.7
AKT				*e*Sg	Sg	03 04 34.3	-1.2
GANJ	Ganja	1.22	176	P	Pg	03 04 18.3	-2.0
GANJ				S	Sg	03 04 35.2	-1.0
SGKR	Sergokala	1.23	61	*e*Pg	Pg	03 04 19.9	-0.5
SGKR				*e*Sg	Sn	03 04 37.0	-1.0
DLMR	Dylym	1.24	14	*e*Pg	Pn	03 04 21.4	+0.4
DLMR				*e*Sg	Sn	03 04 38.8	+0.5
MNGR	Mingechevir, A	1.27	149	P	Pn	03 04 21.4	-0.1
MNGR				S	Sb	03 04 39.0	+0.9
GROC	Groznyy	1.37	347	*e*Pg	Pg	03 04 23.5	+0.3
GROC				*e*Sg	Sn	03 04 42.8	+1.4
KSMR	Kasumkent	1.46	100	*e*Pg	Pn	03 04 23.2	-0.9
KSMR				*e*Sg	Sb	03 04 42.4	-1.1
QBL	Gabala	1.53	126	P	Pb	03 04 25.8	-0.1
QBL				S	Sg	03 04 46.5	+0.5
QSAR	Qusar	1.58	102	Pn	Pg	03 04 28.3	+1.2
QSAR				Sn	Sg	03 04 50.9	+3.4
DRN	Derbent	1.59	83	*e*Pg	Pb	03 04 26.0	-0.8
DRN				*e*Sg	Sb	03 04 47.1	-0.1
XNQ	Khinaliq	1.60	115	Pn	Pn	03 04 26.2	0.0
XNQ				Sn	Sg	03 04 50.5	+2.0
LACR	Lac	1.71	305	*e*Pg	Pg	03 04 29.8	+0.1
LACR				*e*Sg	Sg	03 04 53.2	+1.2
BRDA	Brd	1.76	155	Sn	Sg	03 04 54.8	+1.4
QUBA	Quba, Azerbaij	1.79	106	Pn	Pg	03 04 32.0	+0.9
QUBA				Sn	Sg	03 04 56.2	+2.0
IML	Ismayilli	1.83	125	Sn	Sg	03 04 58.0	+2.2
AGDM	Agdam	1.88	159	Pn	Pn	03 04 30.6	+0.8
AGDM				Sn	Sb	03 04 56.6	+0.9
ZRD	Zardab	1.94	144	Pn	Pb	03 04 32.7	0.0
ZRD				Sn	Sg	03 04 59.6	+0.4
KORR	Kora	2.00	308	*e*Pg	Pb	03 04 34.0	+0.2
KORR				*e*Sg	Sg	03 05 01.9	+0.7
GNI	Garni	2.04	213	*e*Pg	Pn	03 04 33.8	+1.6
GNI				*e*Sg	Sb	03 05 01.1	+0.6
PQL	Pirkuli	2.09	120	Pn	Pb	03 04 35.7	+0.2
PQL				Sn	Sg	03 05 04.0	-0.1
SIZA	Siyzn	2.17	110	Pn	Pb	03 04 37.1	+0.4
SIZA				Sn	Sg	03 05 07.1	+0.5
DIGR	Digorskoe uzhe	2.21	299	*e*Pn	Pb	03 04 36.5	-1.0
DIGR				*e*Sn	Sg	03 05 06.4	-1.4
ATGJ	Altiaghaj	2.28	115	Pn	Pb	03 04 38.3	-0.5
ATGJ				Sn	Sg	03 05 09.8	-0.5
SBZ	Shahbuz	2.52	192	Pn	Pn	03 04 39.5	+0.8
SBZ				Sn	Sb	03 05 13.4	-0.6

MAN 06 03:06:41.0, 13.°51N×121.°54E, h10km, MS3.2, Mindoro

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LQP	Lukban	0.60	360	*e*P	Pb	03 06 53.7	0.0
LQP				*e*S	Sb	03 07 01.6	-0.7
IBAJ	Ibajay, Aklan	1.79	160	*i* P	Pn	03 07 11.6	-0.5
SCPH	Surigao	5.36	133	*e*P	Pb	03 08 09.7	-5.1
CGP	Cagayan de Oro	5.90	148	*e*P	Pn	03 08 15.9	+7.4

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*IDC **06** 03:07:02.2±1.2, 17.°07S×167.°68E, h0km, mb4.2/8, mbtmp4.3/9, ML3.7/1, Error ellipse: s-maj=31.9km s-min=17.5km az=99.0*
*NEIC **06** 03:07:03.3±1.5, 17.°15S±0.°04×167.°9E±0.°1, h10km±1km, mb4.4/11, Error ellipse: s-maj=18.6km s-min=5.1km az=102.0*

ISC 06 03:07:05.0±0.8, **17.°18S**±0.°06×**167.°8E**±0.°1, **h21**km, **n29**, σ**0.s79**/30, **mb4.3**/11, **Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SANVU	Saraoutou	1.80	343	Pn	Pn	03 07 34.4	-0.4
MARNC	Mare, Loyalty	4.29	177	Pn	Pn	03 08 08.3	-0.8
KOUNC	Koumac, New Ca	4.69	224	Pn	Pn	03 08 14.8	+0.2
DZM	Mont Dzumac	5.02	194	Pn	Pn	03 08 19.0	-0.2
	3.0nm,0.3s,baz=20,slow=16,SNR=2.4						
DZM				Sn	Sn	03 09 14.3	-2.4
	6.9nm,0.3s,baz=278,slow=16,SNR=3.9						
	11nm,0.4s						
DZM				AML	AML		
ONTNC	Ouen Toro	5.25	193	Pn	Pn	03 08 21.9	-0.3
OUENC	Ouen Island, N	5.28	189	Pn	Pn	03 08 23.8	+1.1
EIDS	Eidsvold	17.53	239	P	P	03 11 10.5	+1.3
EIDS				IAmb	IAmb	03 11 27.4	
	comp=Z,21nm,1.4s						
CTA	Charters Tower	20.57	259	P	P	03 11 43.6	+0.9
	comp=Z,6.5nm,0.7s,baz=90,slow=11,SNR=7.0						
	comp=Z,6.5nm,0.7s						
CTAO	Charters Tower	20.57	259	P	P	03 11 42.2	-0.4
CTAO				IAmb	IAmb	03 11 45.6	
	comp=Z,21nm,1.2s						
TOZ	Tahuroa Road	21.58	163	P	P	03 11 53.6	+0.3
TOZ				IAmb	IAmb	03 12 24.5	
	comp=Z,24nm,1.2s						
STKA	Stephens Creek	27.84	233	P	P	03 12 53.6	+0.5
	comp=Z,3.8nm,0.6s,baz=66,slow=8.3,SNR=11						
	comp=Z,3.8nm,0.6s						
WR8	Warramunga Arr	31.61	260	P	P	03 13 26.3	-0.4
WR8				IAmb	IAmb	03 13 41.2	
	comp=Z,8.7nm,1.5s						
WRA	Warramunga Arr	31.77	260	P	P	03 13 27.5	-0.6
	comp=Z,3.1nm,0.7s,baz=90,slow=9.5,SNR=11						
	comp=Z,3.1nm,0.7s						
WRA	Warramunga Arr	31.77	260	P	P	03 13 27.2	-0.9
AS31	Alice Springs	32.32	253	P	P	03 13 32.9	0.0
AS31				IAmb	IAmb	03 13 33.8	
	comp=Z,5.3nm,0.5s						
ASAR	Alice Springs	32.32	253	P	P	03 13 32.6	-0.2
	comp=Z,8.2nm,0.5s,baz=80,slow=8.4,SNR=77						
	comp=Z,8.2nm,0.5s						
ASAR	Alice Springs	32.32	253	P	P	03 13 32.4	-0.5
BBOO	Buckleboo	32.51	235	P	P	03 13 35.1	+0.7
KNRA	Kununurra	37.39	267	P	P	03 14 16.0	-0.6
KNRA				IAmb	IAmb	03 14 56.6	
	comp=Z,4.1nm,1.1s						
FITZ	Fitzroy Crossi	40.08	262	P	P	03 14 40.0	+0.7
MBWA	Marble Bar	45.40	257	P	P	03 15 22.7	+0.2
MJAR	Matsushiro Arr	60.28	333	P	P	03 17 11.4	-0.7
	comp=Z,1.1nm,0.8s,baz=170,slow=6.8,SNR=4.0						
	comp=Z,1.1nm,0.8s						
QSPA	South Pole Qui	72.86	180	P	P	03 18 33.5	+1.3
	comp=Z,6.3nm,0.9s,baz=46,slow=0.8,SNR=6.3						
	comp=Z,6.3nm,0.9s						
QSPA	South Pole Qui	72.86	180	P	P	03 18 32.0	-0.2
SONM	Songino Array	84.73	324	P	P	03 19 37.6	0.0
	comp=Z,1.0nm,0.9s,baz=141,slow=5.5,SNR=2.5						
	comp=Z,1.0nm,0.9s						
ILAR	Eielson Array	88.70	18	P	P	03 19 56.5	+0.1
	comp=Z,0.5nm,1.1s,baz=205,slow=4.8,SNR=1.4						
	comp=Z,0.5nm,1.1s						
VNA3	Neumayer Olymp	91.79	181	P	P	03 20 11.0	+0.1
VNA2	Neumayer--Watz	92.06	182	P	P	03 20 13.0	+0.8
	baz=178,slow=3.5						
DAVOX	Davos/Dischmat	145.27	333	PKPbc	PKPbc	03 26 41.2	0.0
	comp=Z,1.6nm,0.5s,baz=301,slow=1.5,SNR=4.0						

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*IDC **06** 03:10:37.9±0.8, 17.°05S×167.°78E, h0km, mb4.4/15, mbtmp4.4/16, ML4.2/1, Error ellipse: s-maj=25.5km s-min=14.0km az=99.0*
*NEIC **06** 03:10:39.8±1.7, 17.°12S±0.°06×167.°9E±0.°1, h10km, mb4.9/9, Error ellipse: s-maj=20.1km s-min=9.9km az=261.0*
*NOU **06** 03:10:40.7, 17.°13S×167.°84E, h23km, MLv5.4/23, Vanuatu Islands*

ISC 06 03:10:41.1±0.5, **17.°13S**±0.°05×**167.°80E**±0.°06, **h21**km, **n62**, σ**0.s90**/63, **mb4.7**/20, **1C-1D**, **Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTV	Rentapao	0.89	138	P	Pn	03 10 58.4	0.0
RTV	Rentapao	0.89	138	S	Sn	03 11 09.4	-1.3
SANVU	Saraoutou	1.77	341	P	Pn	03 11 10.8	+0.4
SANVU	Saraoutou	1.77	341	S	Sn	03 11 32.1	-0.1
SANVU	Saraoutou	1.77	341		Pn	03 11 09.7	-0.7
MARNC	Mare, Loyalty	4.34	177	P	Pn	03 11 44.8	-1.0
MARNC	Mare, Loyalty	4.34	177	Pn	Pn	03 11 44.8	-1.0
KOUNC	Koumac, New Ca	4.76	224	P	Pn	03 11 50.2	-1.4
KOUNC	Koumac, New Ca	4.76	224	S	Sn	03 12 46.9	+0.7
KOUNC	Koumac, New Ca	4.76	224		Pn	03 11 51.1	-0.5
YATNC	Mamie plateau,	4.98	190	P	Pn	03 11 54.4	-0.3
DZM	Mont Dzumac	5.08	194	Pn	Pn	03 11 55.0	-1.2
	8.0nm,0.3s,baz=14,slow=12,SNR=10						
DZM				Sn	Sn	03 12 52.0	-2.3
	18nm,0.3s,baz=132,slow=21,SNR=7.8						
	32nm,0.5s						
DZM				AML	AML		
NOUC	Port Laguerre	5.14	196	P	Pn	03 11 56.8	-0.1
ONTNC	Ouen Toro	5.31	194	P	Pn	03 11 59.0	-0.2
ONTNC	Ouen Toro	5.31	194		Pn	03 11 59.2	0.0
OUENC	Ouen Island, N	5.34	190	P	Pn	03 12 00.2	+0.6
OUENC	Ouen Island, N	5.34	190	Pn	Pn	03 12 00.1	+0.6
NGOA	Tingoa Renbel	9.32	305	P	Pn	03 12 54.1	-0.2
TATA	Tatamba Isabel	11.67	317	P	Pn	03 13 26.9	+0.4
CTA	Charters Tower	20.63	258	P	P	03 15 19.9	+0.5
	16nm,1.2s,baz=45,slow=6.1,SNR=3.5						
	16nm,1.2s						
RTZ	Ruatahuna	22.87	161	P	P	03 15 45.6	+2.4
RTZ				IAmb	IAmb	03 15 55.0	
	comp=Z,44nm,1.0s						
MSWZ	Moikau Station	25.04	167	P	P	03 16 03.3	-0.5
STKA	Stephens Creek	27.90	233	P	P	03 16 31.1	+1.3
	comp=Z,3.7nm,0.8s,baz=45,slow=6.8,SNR=3.4						
	comp=Z,3.7nm,0.8s						
WRA	Warramunga Arr	31.82	260	P	P	03 17 03.8	-0.8
	comp=Z,2.2nm,0.9s,baz=89,slow=9.2,SNR=5.7						
	comp=Z,2.2nm,0.9s						
AS31	Alice Springs	32.37	253	P	P	03 17 08.9	-0.6
AS31				IAmb	IAmb	03 17 19.3	
	comp=Z,3.0nm,0.6s						
ASAR	Alice Springs	32.37	253	P	P	03 17 08.8	-0.7
	comp=Z,2.0nm,0.4s,baz=80,slow=8.5,SNR=17						
	comp=Z,2.0nm,0.4s						
ASAR	Alice Springs	32.37	253	P	P	03 17 08.2	-1.2
MJAR	Matsushiro Arr	60.26	333	P	P	03 20 46.8	-1.2
	comp=Z,3.2nm,1.1s,baz=152,slow=4.9,SNR=5.3						
	comp=Z,3.2nm,1.1s						
SBA	Scott Base	60.76	180	P	P	03 20 52.4	+1.6
SBA				IAmb	IAmb	03 20 53.3	
	comp=Z,29nm,1.6s						
SSLB	Suanglung	61.20	310	P	P	03 20 55.1	+0.4
USRK	Ussuriysk Ar.	69.24	333	P	P	03 21 46.9	+0.5
	comp=Z,1.6nm,0.7s,baz=166,slow=5.3,SNR=4.3						
	comp=Z,1.6nm,0.7s						
USRK	Ussuriysk Ar.	69.24	333	P	P	03 21 46.8	+0.4
RPSI	Rantau Prapat	70.69	279	P	P	03 21 55.5	-0.6
RPSI				IAmb	IAmb	03 22 05.5	
	comp=Z,16nm,1.0s						
QSPA	South Pole Qui	72.92	180	P	P	03 22 09.4	+0.8
	comp=Z,20nm,0.9s,baz=359,slow=4.2,SNR=26						
	comp=Z,20nm,0.9s						
QSPA	South Pole Qui	72.92	180	P	P	03 22 09.4	+0.8
CMAR	Chiang Mai Arr	76.39	294	P	P	03 22 30.3	+0.9
	comp=Z,4.0nm,0.2s,baz=127,slow=3.9,SNR=5.3						
	comp=Z,4.0nm,0.2s						
CMAR	Chiang Mai Arr	76.39	294	P	P	03 22 29.8	+0.4
MAW	Mawson	79.87	202	P	P	03 22 48.4	+0.5
	comp=Z,1.8nm,0.8s,baz=77,slow=4.4,SNR=4.1						
	comp=Z,1.8nm,0.8s						
MAW	Mawson	79.87	202	P	P	03 22 48.7	+0.9
BELA	Belgrano 2	84.31	175	P	P	03 23 10.0	-1.0
SONM	Songino Array	84.72	324	P	P	03 23 13.7	+0.1
	comp=Z,2.9nm,1.0s,baz=122,slow=8.9,SNR=7.3						
	comp=Z,2.9nm,1.0s						
SONM	Songino Array	84.72	324	P	P	03 23 12.2	-1.4
SONM				IAmb	IAmb	03 23 23.6	
	comp=Z,4.5nm,1.0s						
SHL	Shillong	85.15	298	P	P	03 23 16.2	-0.1
ELIB	Princess Elisa	87.96	190	*d*P	P	03 23 29.4	+0.1
	comp=Z,7.7nm,1.2s						
NVAR	Mina Array Bea	88.45	49	P	P	03 23 32.7	+0.5
	comp=Z,1.5nm,1.1s,baz=233,slow=8.3,SNR=7.0						
	comp=Z,1.5nm,1.1s						
NVAR	Mina Array Bea	88.45	49	P	P	03 23 31.1	-1.1
ILAR	Eielson Array	88.64	18	P	P	03 23 31.4	-0.8
	comp=Z,0.2nm,0.8s,baz=237,slow=3.1,SNR=1.4						
	comp=Z,0.2nm,0.8s						
TROLL	Troll, Antarti	90.53	185	P	P	03 23 41.7	+0.4
	comp=Z,510nm,0.9s						
SNAA	Sanae	91.19	183	P	P	03 23 45.0	+0.6
	comp=Z,171nm,1.1s						
SNAA	Sanae	91.19	183	P	P	03 23 44.5	+0.2
	comp=Z,8.2nm,1.1s,baz=166,slow=4.2,SNR=5.9						
	comp=Z,8.2nm,1.1s						
VNA3	Neumayer Olymp	91.84	181	⇑P	P	03 23 47.1	-0.2
	comp=Z,6.0nm,0.8s						
VNA2	Neumayer--Watz	92.11	182	P	P	03 23 48.8	+0.3
	comp=Z,4.9nm,0.7s,baz=151,slow=3.2						
VNA1	Neumayer--Stat	92.41	181	P	P	03 23 48.8	-1.1
	comp=Z,7.5nm,1.1s						
MKAR	Makanchi Array	99.28	316	P	Pdif	03 24 21.8	+0.3
	comp=Z,0.2nm,0.7s,baz=101,slow=4.6,SNR=1.2						
	comp=Z,0.2nm,0.7s						
ZALV	Zalesovo Beam	99.61	323	P	Pdif	03 24 22.2	-0.6
	comp=Z,0.7nm,0.6s,baz=84,slow=6.4,SNR=2.4						
	comp=Z,0.7nm,0.6s						
BRTR	Keskin Array B	134.43	309	PKP	PKPdf	03 29 56.2	-1.9
	comp=Z,1.0nm,1.0s,baz=169,slow=1.3,SNR=3.5						
CLL	Collm	140.44	335	*e*PKiKP	PKiKP	03 30 13.0	+1.9
GERES	GERESS Array B	141.99	332	PKP	PKPdf	03 30 11.4	-0.3
	comp=Z,0.9nm,0.7s,baz=286,slow=1.0,SNR=4.1						
DAVOX	Davos/Dischmat	145.24	333	PKPbc	PKPdf	03 30 17.4	-0.2
	comp=Z,6.1nm,0.8s,baz=49,slow=1.7,SNR=13						
NRCA	Norcia	146.52	325		PKPab	03 30 21.8	-0.3
ZCCA	Zocca	146.57	329		PKPab	03 30 22.8	+0.6
KEST	Kesra	153.35	318	PKPbc	PKiKP	03 30 38.5	+0.1

comp=Z,4.4nm,1.1s,baz=342,slow=3.2,SNR=2.3

IDC 06 03:15:55.2±31.0, 23°.21S×176°.59W, h0^{km}, mb3.8/4, mbtmp3.8/4, Error ellipse: s-maj=564.7km s-min=148.9km az=79.0, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	34.62	268	P	P	03 22 46.5	+0.1
	2.3nm,0.4s,baz=111,slow=15,SNR=7.1						
	2.3nm,0.4s						
STKA	Stephens Creek	37.88	247	P	P	03 23 13.9	-0.2
	0.8nm,0.5s,baz=90,slow=13,SNR=3.5						
	0.8nm,0.5s						
ASAR	Alice Springs	45.24	259	P	P	03 24 14.3	-0.3
	0.2nm,0.5s,baz=103,slow=7.3,SNR=5.6						
	0.2nm,0.5s						
WRA	Warramunga Arr	45.59	264	P	P	03 24 17.4	0.0
	0.8nm,0.5s,baz=101,slow=8.4,SNR=8.8						
	0.8nm,0.5s						

PRU 06 03:16:54.0, 50°.44N×18°.83E, h0^{km}, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STEB	Steborice	0.85	234	*e*PG	Pg	03 17 09.7	-0.5
STEB				*e*SG	Sg	03 17 20.7	-0.5
	comp=Z,1.9nm,0.3s						
STEB				AML	AML		
MORC	Moravsky Berou	1.06	232	*e*PG	Pg	03 17 12.8	-1.5
MORC				*e*SG	Sg	03 17 25.8	-2.3
MAUC	Maruska	1.26	211	*e*PG	Pg	03 17 17.0	-1.0
MAUC				*e*SG	Sg	03 17 34.2	-0.1
KRLC	Kraliky	1.36	255	*e*PG	Pg	03 17 18.2	-1.9
KRLC				*e*SG	Sg	03 17 36.8	-1.0
	comp=Z,1.0nm,0.3s						
KRLC				AML	AML		
DPC	Dobruska-Polom	1.61	268	*e*PG	Pn	03 17 22.9	-0.8
DPC				*e*SG	Sn	03 17 45.1	0.0
VRAC	Vranov	1.84	233	*e*PN	Pn	03 17 25.5	-1.3
VRAC				*e*SG	Sn	03 17 50.0	-0.8

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*SJA **06** 03:24:08.6±0.7, 27°.29S×71°.58W, h15^{km}±3^{km}, ML3.9, MW4.0*

*IDC **06** 03:24:09.7±1.2, 27°.25S×71°.65W, h0^{km}, mb3.9/3, mbtmp3.7/6, ML3.6/3, MS4.6/1, Error ellipse: s-maj=38.4km s-min=15.8km az=83.0*

*GUC **06** 03:24:09.8±0.7, 27°.28S×71°.66W, h34^{km}±3^{km}, ML3.6*

*NEIC **06** 03:24:12.6±1.8, 27°.27S±0°.04×71°.51W±0°.07, h35^{km}±2^{km}, mb4.4/4, ML3.5(GUC), Error ellipse: s-maj=11.5km s-min=5.2km az=291.0*

ISC 06 03:24:09.1±1.7, 27°.30S±0°.03×71°.62W±0°.05, h8^{km}±10^{km}, n78, σ1^{s}.67/100, mb4.2/4, 1D, Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	1.02	152	*e*P	Pb	03 24 28.1	-0.8
AC04				*e*S	Sb	03 24 41.2	-1.3
AC04	Llanos de Chal	1.02	152	*e*P	Pb	03 24 28.2	-0.8
AC04				*i* S	Sb	03 24 40.0	-2.5
AC04				IAML		03 24 46.0	
	comp=E,3μm,0.5s						
AC04	Llanos de Chal	1.02	152		Pb	03 24 28.2	-0.8
AC04				Sn	Sb	03 24 39.7	-2.8
AC06	Mina Casimiro	1.12	93	⇓*i*P	Pg	03 24 30.1	-0.6
AC06				*e*S	Sn	03 24 44.1	-2.6
AC06				IAML		03 24 48.4	
	comp=N,4μm,0.6s						
AC06	Mina Casimiro	1.12	93		Pg	03 24 30.1	-0.6
GO03	Copiapo	1.26	104	*e*P	Pg	03 24 32.5	-0.8
GO03				*e*S	Sn	03 24 49.1	-1.1
GO03				IAML		03 24 51.6	
	comp=Z,3μm,0.4s						
GO03	Copiapo	1.26	104	*i* P	Pb	03 24 32.4	-0.8
GO03				*e*S	Sb	03 24 47.2	-2.4
GO03				IAML		03 24 52.2	
	comp=N,2μm,0.4s						
GO03	Copiapo	1.26	104		Pb	03 24 32.3	-0.8
AC01	Pan de Azucar	1.47	39	*e*P	Pn	03 24 30.4	-5.4
AC01				*e*P	Pn	03 24 35.7	-0.1
AC01				*e*S	Sn	03 24 35.8	-19
AC01	Pan de Azucar	1.47	39	*i* P	Pn	03 24 35.7	-0.1
AC01				*e*S	Sn	03 24 53.9	-1.3
AC01				IAML		03 25 02.3	
	comp=N,680nm,0.6s						
AC01	Pan de Azucar	1.47	39		Pn	03 24 35.6	-0.1
LCO	Las Campanas	1.89	155	*e*P	Pn	03 24 42.4	+0.7
LCO				*e*S	Sn	03 25 04.8	-1.0
LCO				IAML		03 25 15.0	
	comp=Z,2μm,0.5s						
LCO	Las Campanas	1.89	155	*i* P	Pn	03 24 42.0	+0.3
LCO				*e*S	Sn	03 25 03.7	-2.2
LCO	Las Campanas	1.89	155		Pn	03 24 42.1	+0.3
AC05	El Transito	1.94	142	*e*P	Pn	03 24 43.2	+0.8
AC05				*e*S	Sn	03 25 02.9	-4.0
AC05				*e*S	Sg	03 25 13.9	+2.6
AC05				IAML		03 25 14.8	
	comp=Z,1μm,0.7s						
AC05	El Transito	1.94	142	*i* P	Pn	03 24 43.1	+0.8
AC05				*e*S	Sb	03 25 08.0	-1.0
AC05				IAML		03 25 15.9	
	comp=N,1μm,0.4s						
AC05	El Transito	1.94	142		Pn	03 24 43.1	+0.8
AC02	Maricunga	2.27	79	*e*P	Pb	03 24 49.1	-1.4
AC02				*e*S	Sb	03 25 17.1	-1.8
AC02				IAML		03 25 22.8	
	comp=Z,970nm,0.6s						
AC02	Maricunga	2.27	79	*e*P	Pb	03 24 49.1	-1.4
AC02				*i* S	Sb	03 25 16.6	-2.2
AC02	Maricunga	2.27	79		Pb	03 24 48.6	-1.9
PB14	IPOC Station P	2.88	23	*e*P	Pn	03 24 55.5	0.0
PB14				*e*S	Sn	03 25 30.4	-0.1
PB14				IAML		03 25 55.6	
	comp=Z,304nm,0.5s						
PB14	IPOC Station P	2.88	23		Pn	03 24 55.1	-0.4
GO04	Tololo Observa	2.95	166	*e*P	Pn	03 24 57.1	+0.7
GO04				*e*S	Sb	03 25 38.7	+0.4
GO04				IAML		03 25 46.2	
	comp=Z,585nm,0.4s						
GO04	Tololo Observa	2.95	166	*e*P	Pn	03 24 56.9	+0.5
GO04				*e*S	Sn	03 25 31.6	-0.5
GO04	Tololo Observa	2.95	166		Pn	03 24 56.9	+0.5
CO01	Juntas del Tor	2.98	154	*e*P	Pn	03 24 58.4	+1.5
CO01				*e*S	Sb	03 25 35.4	-3.9
CO01				IAML		03 25 45.1	
	comp=Z,286nm,0.8s						
CO01	Juntas del Tor	2.98	154	*e*P	Pn	03 24 58.4	+1.5
CO01				*i* S	Sn	03 25 33.5	+0.5
CO01				IAML		03 25 45.8	
	comp=E,244nm,0.3s						
CO01	Juntas del Tor	2.98	154		Pn	03 24 58.7	+1.9
VCA	Vinchina	3.34	116	*e*P	Pn	03 25 02.9	+1.2
VCA				*e*S	Sg	03 26 00.6	+4.3
VCA				IAML		03 26 04.3	
	comp=Z,284nm,0.4s						
CO06	Fray Jorge	3.36	180	*e*P	Pn	03 25 01.6	-0.2
CO06	Fray Jorge	3.36	180		Pn	03 25 00.8	-1.0
AROD	Rodeo	3.42	147	*e*P	Pn	03 25 06.3	+3.3
AROD				*e*S	Sb	03 25 47.5	-4.4
CO03	El Pedregal	3.62	167	*e*P	Pn	03 25 05.8	+0.3
CO03	El Pedregal	3.62	167		Pn	03 25 06.9	+1.4
TINO	Tinogasta	3.67	103	*e*P	Pb	03 25 09.8	-4.4
TINO				*e*S	Sb	03 25 59.9	+1.0
TINO				IAML		03 26 16.6	
	comp=Z,166nm,1.0s						
CO02	Combarbal	3.92	172		Pn	03 25 09.6	-0.1
PB05	IPOC Station P	4.61	16	*e*P	Pn	03 25 20.1	+1.0
PB05	IPOC Station P	4.61	16		Pn	03 25 18.6	-0.5
CO04	Los Peladeros	4.76	173	*e*P	Pn	03 25 21.4	+0.2
CO04	Los Peladeros	4.76	173		Pn	03 25 22.4	+1.1
PB06	IPOC Station P	4.94	23	*e*P	Pn	03 25 24.1	+0.4
PB06				IAML		03 26 57.0	
	comp=Z,114nm,0.7s						
PB06	IPOC Station P	4.94	23		Pn	03 25 23.5	-0.2
ZON	Zonda	4.95	149		Pn	03 25 24.7	+1.1
CFA	Coronel Fontan	5.20	146	Pn	Pn	03 25 30.1	+2.9
	comp=Z,1.2nm,0.3s,baz=327,slow=14,SNR=10						
CFA				Sn	Sn	03 26 28.4	+1.0
	comp=Z,1.3nm,0.3s,baz=16,slow=11,SNR=3.7						
	comp=Z,3.0nm,0.3s						
CFA				AML	AML		
AF01	San Pedro de A	5.34	36		Pn	03 25 27.2	-2.1
VA03	San Esteban	5.52	171		Pn	03 25 33.0	+1.4
ROCH	El Roble	5.67	175	*i* S	Sn	03 26 36.6	-2.7
PEL	Peldehue	5.88	172	Pn	Pn	03 25 37.2	+0.7
MT02	Curacav	5.95	176	Pn	Pn	03 25 38.2	+0.7
MT10	Hacienda Santa	6.02	171	*i* S	Sn	03 26 45.5	-2.3
MT05	Renca	6.12	173	Pn	Pn	03 25 41.4	+1.6
MT16	CCHEN	6.18	171	*i* S	Sn	03 26 49.2	-2.2
MT09	Talagante	6.47	175		Pn	03 25 46.0	+1.3
MT13	San Alfonso	6.52	170	Pn	Pn	03 25 47.1	+1.7
MT01	Popeta	6.55	177	Pn	Pn	03 25 46.5	+0.9
PSGCX	Pisagua	7.79	10	Pn	Pn	03 26 01.4	-1.5
PB12	IPOC Station P	8.73	8	Pn	Pn	03 26 14.7	-1.0
H03S3	Juan Fernandez	9.04	222	Pn	Pn	03 26 18.4	-1.2
	baz=40,slow=74						
H03S1	Juan Fernandez	9.05	222	Pn	Pn	03 26 16.6	-3.1
H03S2	Juan Fernandez	9.06	222	Pn	Pn	03 26 17.9	-1.9
	baz=260,slow=74						
PB18	Visviri	9.87	12	Pn	Pn	03 26 31.4	-0.2
LPAZ	La Paz	11.43	17	Pn	Pn	03 26 53.7	+0.5
	comp=Z,0.2nm,0.3s,baz=194,slow=6.7,SNR=7.7						
	comp=Z,0.6nm,0.4s						
LPAZ				AML	AML		
LPAZ	La Paz	11.43	17		Pn	03 26 52.3	-0.8
TRQA	Tornquist	13.44	145	Pn	Pn	03 27 19.3	-0.7
SIV	San Ignacio	14.91	43	Pn	Pn	03 27 39.3	-1.0
	baz=236,slow=15,SNR=3.0						
	comp=Z,0.4nm,0.3s						
ATAH	Atahualpa	21.07	341	LR	LR	03 36 14.4	
	comp=Z,2μm,20.8s,baz=18,slow=34						
VAO	Valinhos	22.71	85	P	P	03 29 11.2	-0.2
VAO				IAmb	IAmb	03 29 11.6	
	comp=Z,9.1nm,0.7s						
MACA	Manacapuru-AM	26.18	25	P	P	03 29 43.9	-0.3
MACA				IAmb	IAmb	03 29 48.1	
	comp=Z,7.6nm,0.7s						
ORCD	Orcadas	38.06	159	P	P	03 31 28.5	+0.8
QSPA	South Pole Qui	62.91	180	P	P	03 34 37.8	+2.1
	comp=Z,0.4nm,0.5s,baz=133,slow=3.0,SNR=1.6						
	comp=Z,0.4nm,0.5s						
QSPA	South Pole Qui	62.91	180	P	P	03 34 36.6	+1.0
MAW	Mawson	79.49	164	P	P	03 36 17.6	+2.0
	comp=Z,1.1nm,0.6s,baz=225,slow=7.1,SNR=2.7						
	comp=Z,1.1nm,0.6s						
MAW	Mawson	79.49	164	P	P	03 36 16.9	+1.2
TORD	Torodi Ar. Bea	81.62	71	P	P	03 36 29.4	+1.4
	comp=Z,0.9nm,0.6s,baz=259,slow=4.5,SNR=6.9						
	comp=Z,0.9nm,0.6s						
KURBB	Kurchatov Arra	147.49	36	PKPbc	PKPab	03 43 54.8	-0.6
	comp=Z,0.7nm,0.6s,baz=308,slow=3.4,SNR=7.7						
ZALV	Zalesovo Beam	148.23	27	PKPbc	PKiKP	03 43 56.9	0.0
	comp=Z,0.8nm,0.5s,baz=270,slow=1.4,SNR=4.5						
MKAR	Makanchi Array	151.71	40	PKPbc	PKiKP	03 44 06.1	+1.7
	comp=Z,0.6nm,0.5s,baz=318,slow=2.7,SNR=6.7						
MKAR	Makanchi Array	151.71	40		PKiKP	03 44 05.9	+1.5

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*NEIC **06** 03:27:29.1±2.2, 17°.04S±0°.05×167°.9E±0°.1, h10^{km}±1^{km}, mb4.6/9, Error ellipse: s-maj=18.6km s-min=3.8km az=62.0*

*IDC **06** 03:27:35.4±0.8, 17°.48S×168°.02E, h0^{km}, mb4.2/12, mbtmp4.2/13, ML3.7/1, Error ellipse: s-maj=25.3km s-min=14.8km az=100.0*

ISC 06 03:27:36.9±0.6, 17°.55S±0°.08×168°.0E±0°.1, h10^{km}, n63, σ1^{s}.81/53, mb4.5/17, 4C-1D, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SANVU	Saraoutou	2.23	340		Pn	03 27 59.7	-14
MARNC	Mare, Loyalty	3.91	180	Pn	Pn	03 28 35.1	-1.9
KOUNC	Koumac, New Ca	4.62	229		Pn	03 28 41.8	-5.0
DZM	Mont Dzumac	4.73	198	Pn	Pn	03 28 45.3	-3.1
	2.9nm,0.3s,baz=45,slow=16,SNR=7.0						
DZM				Sn	Sn	03 29 41.9	-1.5
	baz=317,slow=19						
	6.4nm,0.3s						
DZM				AML	AML		
ONTNC	Ouen Toro	4.95	197		Pn	03 28 50.0	-1.4
OUENC	Ouen Island, N	4.96	193	Pn	Pn	03 28 51.3	-0.2
CTA	Charters Tower	20.75	260	P	P	03 32 17.6	-0.3
	3.5nm,0.9s,baz=78,slow=15,SNR=8.0						
	3.5nm,0.9s						
URZ	Urewera	22.11	161	P	P	03 32 37.1	+4.7
	14nm,0.7s,baz=316,slow=3.1,SNR=8.6						
BFZ	Birch Farm	24.12	165	P	P	03 32 50.2	-2.7
BFZ				IAmb	IAmb	03 33 02.7	
	comp=Z,20nm,0.9s						
THZ	Tophouse	24.49	171	P	P	03 32 53.3	-3.0
STKA	Stephens Creek	27.82	234	P	P	03 33 28.4	+1.9
	comp=Z,3.1nm,0.6s,baz=56,slow=6.2,SNR=12						
	comp=Z,3.1nm,0.6s						
WB0	Warramunga Arr	31.90	261	P	P	03 33 53.9	-8.9
WB0				IAmb	IAmb	03 34 05.1	
	comp=Z,8.5nm,1.1s						
WRA	Warramunga Arr	31.95	260	P	P	03 34 03.2	0.0
	comp=Z,2.4nm,0.8s,baz=89,slow=8.9,SNR=13						
	comp=Z,2.4nm,0.8s						
WRA	Warramunga Arr	31.95	260	P	P	03 33 54.3	-8.9
AS31	Alice Springs	32.44	253	P	P	03 33 59.1	-8.4
AS31				IAmb	IAmb	03 34 26.0	
	comp=Z,3.0nm,0.7s						
ASAR	Alice Springs	32.45	253	P	P	03 34 07.7	+0.1
	comp=Z,4.7nm,0.5s,baz=80,slow=8.6,SNR=23						
	comp=Z,4.7nm,0.5s						
ASAR	Alice Springs	32.45	253	P	P	03 33 58.4	-9.1
KNRA	Kununurra	37.61	267	P	P	03 34 41.9	-10
KNRA				IAmb	IAmb	03 35 22.0	
	comp=Z,6.6nm,1.1s						
FITZ	Fitzroy Crossi	40.28	263	P	P	03 35 04.6	-10
VNDA	Vanda	60.07	182	P	P	03 37 44.4	+0.7
	comp=Z,0.4nm,1.0s,baz=12,slow=6.6,SNR=5.2						
	comp=Z,0.4nm,1.0s						
USRK	Ussuriysk Ar.	69.71	333	P	P	03 38 46.1	-0.8
	comp=Z,2.5nm,0.7s,baz=108,slow=11,SNR=5.5						
	comp=Z,2.5nm,0.7s						
QSPA	South Pole Qui	72.49	180	P	P	03 39 04.6	+0.9
	comp=Z,3.5nm,0.7s,baz=42,slow=1.5,SNR=15						
	comp=Z,3.5nm,0.7s						
QSPA	South Pole Qui	72.49	180	P	P	03 39 00.4	-3.2
CMAR	Chiang Mai Arr	76.75	294	P	P	03 39 30.0	+1.0
	comp=Z,0.6nm,0.4s,baz=119,slow=3.9,SNR=5.3						
	comp=Z,0.6nm,0.4s						
MAW	Mawson	79.55	202	P	P	03 39 47.2	+3.5
	comp=Z,3.6nm,0.9s,baz=204,slow=3.8,SNR=7.4						
SONM	Songino Array	85.18	323	P	P	03 40 12.7	-0.9
	comp=Z,4.5nm,1.1s,baz=143,slow=4.9,SNR=12						
	comp=Z,4.5nm,1.1s						
SONM	Songino Array	85.18	323	P	P	03 39 58.2	-15
SONM				IAmb	IAmb	03 40 15.5	
	comp=Z,7.7nm,1.2s						
SYO	Syowa Base	86.22	196	⇑*e*P	P	03 40 16.2	-2.0
BLCC	Black Canyon	86.62	53	P	P	03 40 11.3	-10
ELIB	Princess Elisa	87.58	190	*d*P	P	03 40 22.1	-3.0
	comp=Z,4.7nm,1.2s						
ILAR	Eielson Array	88.98	18	P	P	03 40 30.6	-0.8
	comp=Z,0.3nm,0.8s,baz=232,slow=5.7,SNR=5.4						
	comp=Z,0.3nm,0.8s						
TROLL	Troll, Antarti	90.12	184	⇑P	P	03 40 40.5	+3.4
	comp=Z,114nm,0.9s						
SNAA	Sanae	90.78	183	P	P	03 40 44.2	+4.2
SNAA	Sanae	90.78	183	P	P	03 40 40.5	+0.4
	comp=Z,2.5nm,0.8s,baz=170,slow=5.9,SNR=6.6						
	comp=Z,2.5nm,0.8s						
VNA3	Neumayer Olymp	91.42	181	⇑P	P	03 40 45.8	+2.8
VNA2	Neumayer--Watz	91.69	182	⇑P	P	03 40 47.3	+3.1
	baz=150,slow=2.5						
VNA1	Neumayer--Stat	91.99	181	P	P	03 40 47.6	+2.1
MKAR	Makanchi Array	99.72	316	P	Pdif	03 41 20.1	-1.0
	comp=Z,0.5nm,0.7s,baz=99,slow=7.5,SNR=3.8						
	comp=Z,0.5nm,0.7s						
ZALV	Zalesovo Beam	100.08	323	P	Pdif	03 41 21.4	-1.0
	comp=Z,0.4nm,0.3s,baz=141,slow=5.0,SNR=4.6						
ARCES	ARCESS Array B	123.15	345	PKP	PKiKP	03 46 33.1	-0.3
	comp=Z,1.0nm,0.5s,baz=101,slow=1.2,SNR=7.7						
FINES	FINESS Array B	128.59	338	PKP	PKiKP	03 46 44.0	-0.4
	comp=Z,5.1nm,1.1s,baz=248,slow=2.1,SNR=5.6						
AKASG	Malin Array Be	133.45	325	PKP	PKPdf	03 46 53.0	-0.3
	comp=Z,1.1nm,0.9s,baz=74,slow=1.7,SNR=4.2						
RONA	Rosalia, Austr	142.05	329	*e*PKP	PKPdf	03 47 07.7	-1.6
	comp=Z,1.6nm,0.8s						
CONA	Conrad Observa	142.10	329	*e*PKP	PKPdf	03 47 08.2	-1.3
	comp=Z,3.0nm,1.2s						
GERES	GERESS Array B	142.46	332	PKP	PKPdf	03 47 10.1	-0.1
	comp=Z,1.0nm,0.7s,baz=7.6,slow=4.0,SNR=5.5						
ARSA	Arzberg	142.74	329	*e*PKP	PKPdf	03 47 10.1	-0.5
	comp=Z,2.0nm,1.0s						
MOA	Molln	142.93	330	*e*PKP	PKPdf	03 47 08.2	-2.7
	comp=Z,2.4nm,0.9s						
BIOA	Bad Ischl, Aus	143.33	331	*e*PKP	PKPdf	03 47 10.1	-1.5
	comp=Z,1.7nm,0.7s						
SOKA	Soboth	143.38	328	*e*PKP	PKPdf	03 47 11.9	+0.1
	comp=Z,2.7nm,1.0s						
OBKA	Obir	143.73	329	*i* PKP	PKPdf	03 47 11.4	-1.0
	comp=Z,2.8nm,1.1s						
KBA	Koelnbreinsper	143.91	330	*e*PKP	PKPdf	03 47 12.8	0.0
	comp=Z,5.7nm,1.0s						
LESA	Schwarzleotal	143.97	331	*i* PKP	PKPdf	03 47 12.1	-0.7
	comp=Z,8.0nm,1.1s						
MYKA	Terra Mystica	144.09	329	*e*PKP	PKPdf	03 47 12.5	-0.5
	comp=Z,1.8nm,0.5s						
WATA	Walderalm	144.54	332	*i* PKP	PKPdf	03 47 12.7	-1.2
	comp=Z,5.5nm,1.6s						
ABTA	Abfaltersbach	144.55	331	*i* PKP	PKPbc	03 47 12.1	-0.3
	comp=Z,12nm,1.4s						
WTTA	Wattenberg	144.57	332	*i* PKP	PKPdf	03 47 14.3	+0.3
	comp=Z,2.0nm,1.0s						
MOTA	Moosalm	144.74	332	*i* PKP	PKPdf	03 47 13.4	-0.8
	comp=Z,13nm,1.1s,SNR=5.8						
RETA	Reutte	144.78	333	*i* PKP	PKPdf	03 47 14.4	+0.2
	comp=Z,6.7nm,1.3s						
SQTA	Sankt Quirin	144.79	332	*i* PKP	PKPdf	03 47 13.8	-0.5
	comp=Z,8.3nm,0.9s						
FETA	Feichten	145.16	332	*i* PKP	PKPdf	03 47 14.8	-0.2
	comp=Z,14nm,1.0s,SNR=8.7						
DAVA	Damuels	145.32	334	*i* PKP	PKPdf	03 47 15.3	+0.1
	comp=Z,25nm,1.3s,SNR=7.5						
KEST	Kesra	153.80	318	PKP	PKPdf	03 47 29.0	+0.1
	comp=Z,2.2nm,0.9s,baz=349,slow=5.2,SNR=1.5						
KEST				PKPbc	PKiKP	03 47 38.0	+1.1
	comp=Z,5.4nm,1.1s,baz=127,slow=4.1,SNR=4.6						
TORD	Torodi Ar. Bea	166.10	254	PKP	PKPdf	03 47 44.3	+1.1
	comp=Z,1.8nm,0.9s,baz=309,slow=2.1,SNR=5.1						

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*IDC **06** 03:31:55.8±1.1, 16°.97S×167°.58E, h0^{km}, mb4.2/12, mbtmp4.2/13, ML3.8/1, MS4.2/1, Error ellipse: s-maj=30.0km s-min=16.0km az=86.0*

*NEIC **06** 03:31:57.2±1.1, 17°.09S±0°.06×167°.8E±0°.1, h10^{km}±1^{km}, mb4.3/11, Error ellipse: s-maj=21.0km s-min=9.7km az=83.0*

ISC 06 03:31:59.6±0.7, 17°.09S±0°.07×167°.6E±0°.1, h25^{km}, n50, σ2^{s}.40/51, mb4.4/16, 2C-2D, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SANVU	Saraoutou	1.69	346		Pb	03 32 27.2	-2.7
MARNC	Mare, Loyalty	4.38	175	Pn	Pn	03 33 02.5	-2.1
KOUNC	Koumac, New Ca	4.67	222		Pn	03 33 08.8	+0.3
DZM	Mont Dzumac	5.08	192	Pn	Pn	03 33 13.9	-0.3
	3.7nm,0.3s,baz=62,slow=6.9,SNR=10						
DZM				Sn	Sn	03 34 09.7	-2.4
	7.5nm,0.3s,baz=310,slow=22,SNR=2.3						
	21nm,0.5s						
DZM				AML	AML		
ONTNC	Ouen Toro	5.30	192	Pn	Pn	03 33 17.2	0.0
OUENC	Ouen Island, N	5.35	188	Pn	Pn	03 33 17.6	-0.3
CTA	Charters Tower	20.47	258	P	P	03 36 35.1	-0.6
	2.4nm,0.5s,baz=78,slow=9.3,SNR=2.4						
	2.4nm,0.5s						
BFZ	Birch Farm	24.66	164	P	P	03 37 18.0	-0.3
LTZ	Lake Taylor	25.91	172	P	P	03 37 28.0	-1.7
RPZ	Rata Peaks	26.70	174	LR	LR	03 46 20.5	
	comp=Z,504nm,18.8s,baz=315,slow=32						
STKA	Stephens Creek	27.79	233	P	P	03 37 47.0	+0.3
	1.8nm,0.5s,baz=66,slow=9.3,SNR=8.9						
	1.8nm,0.5s						
WR8	Warramunga Arr	31.51	260	P	P	03 38 20.1	+0.3
WRA	Warramunga Arr	31.66	260	P	P	03 38 20.7	-0.5
	1.7nm,0.7s,baz=81,slow=6.0,SNR=11						
	1.7nm,0.7s						
WRA	Warramunga Arr	31.66	260	P	P	03 38 19.9	-1.3
AS31	Alice Springs	32.23	253	P	P	03 38 26.5	+0.4
AS31				IAmb	IAmb	03 38 27.6	
	comp=Z,4.2nm,0.5s						
ASAR	Alice Springs	32.23	253	P	P	03 38 26.6	+0.4
	comp=Z,6.3nm,0.5s,baz=80,slow=8.4,SNR=84						
	comp=Z,6.3nm,0.5s						
KNRA	Kununurra	37.27	266	P	P	03 39 09.9	+0.2
KNRA				IAmb	IAmb	03 39 29.1	
	comp=Z,6.5nm,1.1s						
FITZ	Fitzroy Crossi	39.97	262	P	P	03 39 32.9	+0.5
FITZ				IAmb	IAmb	03 39 34.4	
	comp=Z,2.6nm,1.1s						
MJAR	Matsushiro Arr	60.15	333	P	P	03 42 04.5	-0.7
	comp=Z,3.9nm,1.2s,baz=157,slow=6.8,SNR=4.1						
	comp=Z,3.9nm,1.2s						
VNDA	Vanda	60.52	181	P	P	03 42 08.6	+1.4
	comp=Z,0.3nm,0.5s,baz=46,slow=3.0,SNR=1.6						
	comp=Z,0.3nm,0.5s						
VNDA	Vanda	60.52	181	P	P	03 42 06.6	-0.6
VNDA				IAmb	IAmb	03 42 27.5	
	comp=Z,2.6nm,1.4s						
QSPA	South Pole Qui	72.95	180	P	P	03 43 27.3	+0.5
	comp=Z,2.7nm,1.0s,baz=88,slow=2.7,SNR=11						
	comp=Z,2.7nm,1.0s						
QSPA	South Pole Qui	72.95	180	P	P	03 43 27.4	+0.7
CMAR	Chiang Mai Arr	76.23	294	P	P	03 43 45.8	-0.6
	comp=Z,1.2nm,0.3s,baz=122,slow=4.4,SNR=4.6						
	comp=Z,1.2nm,0.3s						
CMAR	Chiang Mai Arr	76.23	294	P	P	03 43 46.2	-0.1
MAW	Mawson	79.84	202	P	P	03 44 06.7	+1.1
	comp=Z,1.6nm,0.9s,baz=84,slow=4.0,SNR=2.7						
	comp=Z,1.6nm,0.9s						
BELA	Belgrano 2	84.35	175	P	P	03 44 28.1	-1.1
SONM	Songino Array	84.59	324	P	P	03 44 30.2	-0.6
	comp=Z,2.8nm,0.9s,baz=147,slow=5.4,SNR=10.0						
	comp=Z,2.8nm,0.9s						
SONM	Songino Array	84.59	324	P	P	03 44 28.7	-2.2
SONM				IAmb	IAmb	03 44 32.8	
	comp=Z,4.5nm,1.1s						
ELIB	Princess Elisa	87.97	190	*d*P	P	03 44 47.5	+0.3
	comp=Z,4.7nm,0.9s						
ELIB				*d*x	x	03 44 57.1	
TROLL	Troll, Antarti	90.55	185	P	P	03 44 59.6	+0.2
	comp=Z,123nm,1.0s						
SNAA	Sanae	91.22	183	P	P	03 45 03.4	+1.0
	comp=Z,1.3nm,0.8s,baz=254,slow=7.1,SNR=1.7						
	comp=Z,1.3nm,0.8s						
VNA3	Neumayer Olymp	91.87	181	P	P	03 45 04.8	-0.5
	comp=Z,2.4nm,0.6s						
VNA3				⇑pP	sP	03 45 14.6	0.0
	comp=Z,6.8nm,0.8s						
VNA2	Neumayer--Watz	92.14	182	P	P	03 45 06.3	-0.2
	comp=Z,2.1nm,0.7s,baz=173,slow=3.3						
VNA2				⇑pP	sP	03 45 16.2	+0.3
	comp=Z,7.2nm,0.8s,baz=144,slow=4.2						
MKAR	Makanchi Array	99.14	316	P	Pdif	03 45 39.9	+1.1
	comp=Z,0.2nm,0.5s,baz=84,slow=6.4,SNR=1.6						
	comp=Z,0.2nm,0.5s						
MKAR	Makanchi Array	99.14	316	P	Pdif	03 45 39.0	+0.3
ARCES	ARCESS Array B	122.61	345	PKP	PKiKP	03 50 52.1	-0.5
	comp=Z,0.9nm,0.7s,baz=90,slow=2.7,SNR=1.7						
CONA	Conrad Observa	141.52	329	*e*PKP	PKiKP	03 51 35.9	+4.5
	comp=Z,1.8nm,1.1s						
SOKA	Soboth	142.79	328	*e*PKP	PKiKP	03 51 37.8	+3.7
	comp=Z,0.9nm,0.8s						
OBKA	Obir	143.15	329	*e*PKP	PKiKP	03 51 39.0	+4.1
	comp=Z,4.2nm,1.7s						
KBA	Koelnbreinsper	143.33	330	*e*PKP	PKiKP	03 51 38.8	+3.4
	comp=Z,4.0nm,1.1s						
LESA	Schwarzleotal	143.40	331	*e*PKP	PKiKP	03 51 39.5	+4.2
	comp=Z,4.4nm,1.0s						
WATA	Walderalm	143.96	332	*e*PKiKP	PKiKP	03 51 43.5	+6.9
	comp=Z,3.0nm,1.2s						
ABTA	Abfaltersbach	143.97	331	*i* PKP	PKiKP	03 51 41.5	+5.0
	comp=Z,3.8nm,1.1s						
WTTA	Wattenberg	143.99	332	*e*PKP	PKiKP	03 51 39.6	+2.9
	comp=Z,2.5nm,1.1s						
MOTA	Moosalm	144.16	332	*e*PKP	PKiKP	03 51 40.4	+3.4
	comp=Z,3.6nm,0.8s						
RETA	Reutte	144.21	333	*e*PKP	PKiKP	03 51 42.1	+5.1
	comp=Z,3.0nm,1.1s						
SQTA	Sankt Quirin	144.21	332	*i* PKP	PKiKP	03 51 41.8	+4.8
	comp=Z,4.9nm,0.8s						
FETA	Feichten	144.58	332	*i* PKP	PKiKP	03 51 43.7	+5.8
	comp=Z,7.1nm,1.0s						
DAVA	Damuels	144.74	333	*e*PKP	PKiKP	03 51 43.7	+5.5
	comp=Z,5.9nm,0.9s						

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*IDC **06** 03:39:04.7±1.2, 28°.34N×104°.99E, h0^{km}, mb3.5/4,* *mbtmp3.6/5, ML4.5/1, Error ellipse: s-maj=29.9km s-min=22.4km az=92.0*

ISC 06 03:39:07.8±1.1**, 28°.4N**±0°.1×**105°.0E**±0°.1**, h19km, n6, σ1s.53**/8**, mb3.5**/4**, Sichuan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PZH	PanZhiHua	3.40	238	Pn	Pn	03 40 02.3	+2.3
PZH				Pg	Pg	03 40 12.2	-0.8
PZH				Sg	Sg	03 40 55.6	-1.5
PZH				smax	smax		
	comp=N,40nm,0.5s						
PZH				smax	smax		
	comp=E,40nm,0.9s						
CMAR	Chiang Mai Arr	11.29	211	Pn	Pn	03 41 49.6	+1.4
	comp=E,0.9nm,0.3s,baz=15,slow=12,SNR=9.6						
	comp=E,1.5nm,0.3s						
CMAR				AML	AML		
KSRS	Korea Array	21.27	59	P	P	03 43 52.0	-1.0
	comp=E,1.5nm,0.7s,baz=242,slow=10,SNR=5.3						
	comp=E,1.5nm,0.7s						
MKAR	Makanchi Array	25.58	322	P	P	03 44 35.3	-0.3
	comp=E,0.9nm,0.7s,baz=113,slow=10.0,SNR=5.8						
	comp=E,0.9nm,0.7s						
KURBB	Kurchatov Arra	29.91	325	P	P	03 45 14.6	+0.3
	comp=E,0.2nm,0.5s,baz=132,slow=10.0,SNR=3.1						
	comp=E,0.2nm,0.5s						
ASAR	Alice Springs	58.75	149	P	P	03 49 04.4	-0.3
	comp=E,0.4nm,0.8s,baz=330,slow=6.5,SNR=5.3						
	comp=E,0.4nm,0.8s						

IDC 06 03:39:58.3±2.7**, 17°.02S**×**167°.71E, h0km, mb3.8**/4**, mbtmp3.8**/5**, ML3.4**/1**, Error ellipse: s-maj=49.4km s-min=26.9km az=73.0, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	5.16	193	Pn	Pn	03 41 15.2	-1.7
	1.3nm,0.3s,baz=80,slow=19,SNR=13						
DZM				Sn	Sn	03 42 12.2	-5.2
	1.0nm,0.3s,baz=131,slow=21,SNR=1.7						
	3.5nm,0.3s						
DZM				AML	AML		
STKA	Stephens Creek	27.90	233	P	P	03 45 51.4	+1.2
	1.7nm,0.8s,baz=46,slow=16,SNR=2.9						
	1.7nm,0.8s						
WRA	Warramunga Arr	31.75	260	P	P	03 46 24.1	-0.3
	0.4nm,0.8s,baz=83,slow=7.5,SNR=2.2						
	0.4nm,0.8s						
ASAR	Alice Springs	32.32	253	P	P	03 46 28.9	-0.5
	0.5nm,0.5s,baz=81,slow=8.5,SNR=10						
	0.5nm,0.5s						
QSPA	South Pole Qui	73.02	180	P	P	03 51 30.0	+0.1
	1.4nm,0.8s,baz=350,slow=2.9,SNR=6.7						
	1.4nm,0.8s						

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*BJI **06** 03:44:21.8, 17°.59S×167°.70E, h19km, mb4.7/15*

*IDC **06** 03:44:21.0±0.7, 17°.04S×167°.73E, h0km, mb4.3/15, mbtmp4.3/17, ML6.9/1, Error ellipse: s-maj=16.9km s-min=13.5km az=90.0*

*NOU **06** 03:44:23.7, 16°.96S×167°.61E, h19km, mb4.9/10, Vanuatu Islands*

*NEIC **06** 03:44:23.6±2.0, 17°.17S±0°.02×167°.66E±0°.09, h10km±1km, mb4.9/29, Error ellipse: s-maj=13.9km s-min=3.2km az=82.0*

ISC 06 03:44:25.2±0.5**, 17°.08S**±0°.05×**167°.66E**±0°.07**, h25km, n87, σ1s.32**/81**, mb4.8**/34**, 1C-2D, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SANVU	Saraoutou	1.68	345		Pb	03 44 52.8	-2.6
MARNC	Mare, Loyalty	4.40	175	Pn	Pn	03 45 27.4	-2.9
KOUNC	Koumac, New Ca	4.70	222	P	Pn	03 45 34.5	-0.1
KOUNC	Koumac, New Ca	4.70	222	S	Sn	03 46 30.0	+1.6
KOUNC	Koumac, New Ca	4.70	222		Pn	03 45 33.5	-1.1
YATNC	Mamie plateau,	5.01	188	P	Pn	03 45 39.0	+0.2
DZM	Mont Dzumac	5.10	193	Pn	Pn	03 45 38.7	-1.5
	32nm,0.6s,baz=60,slow=18						
DZM				Sn	Sn	03 46 35.6	-2.7
	12nm,0.3s,baz=133,slow=23,SNR=6.2						
ONTNC	Ouen Toro	5.33	192	P	Pn	03 45 43.5	+0.3
ONTNC	Ouen Toro	5.33	192		Pn	03 45 41.9	-1.2
OUENC	Ouen Island, N	5.37	188	P	Pn	03 45 45.6	+1.8
NGOA	Tingoa Renbel	9.18	306	P	Pn	03 46 34.3	-1.8
MSVF	Nonsavu	9.95	95	Pn	Pn	03 46 46.3	-0.3
	8.2nm,0.9s,baz=264,slow=15,SNR=3.7						
TATA	Tatamba Isabel	11.54	317	P	Pn	03 47 05.6	-2.9
EIDS	Eidsvold	17.50	239		Pn	03 48 26.0	-1.7
KRVT	Keravat (AS076	19.90	308	P	P	03 48 54.9	-0.1
	312nm,0.3s,baz=155,slow=17,SNR=6.3						
KRVT				AML	AML		
CTA	Charters Tower	20.50	258	P	P	03 49 02.0	+0.4
	12nm,1.0s,baz=82,slow=11,SNR=8.2						
	12nm,1.0s						
CTAO	Charters Tower	20.50	258	P	Pn	03 49 02.6	-1.3
TOZ	Tahuroa Road	21.70	163	P	P	03 49 14.6	+0.2
TOZ				IAmb	IAmb	03 49 27.6	
	comp=Z,53nm,1.4s						
KHZ	Kahutara	25.75	170	P	P	03 49 52.4	-1.4
KHZ				IAmb	IAmb	03 50 03.3	
	comp=Z,29nm,0.9s						
STKA	Stephens Creek	27.82	233	P	P	03 50 12.2	-0.4
	comp=Z,2.2nm,0.6s,baz=61,slow=9.2,SNR=4.7						
	comp=Z,2.2nm,0.6s						
WR8	Warramunga Arr	31.54	260	P	P	03 50 45.3	-0.4
WR8				IAmb	IAmb	03 51 05.6	
	comp=Z,40nm,2.0s						
WRA	Warramunga Arr	31.69	260	P	P	03 50 46.5	-0.7
	comp=Z,4.9nm,0.8s,baz=89,slow=8.5,SNR=20						
	comp=Z,4.9nm,0.8s						
WRA	Warramunga Arr	31.69	260		P	03 50 46.4	-0.7
AS31	Alice Springs	32.26	253		P	03 50 52.3	+0.3
ASAR	Alice Springs	32.26	253	P	P	03 50 52.0	-0.1
	comp=Z,3.7nm,0.5s,baz=82,slow=8.2,SNR=39						
	comp=Z,3.7nm,0.5s						
ASAR	Alice Springs	32.26	253	P	P	03 50 51.4	-0.6
KNRA	Kununurra	37.30	266		P	03 51 35.4	-0.2
KNRA				IAmb	IAmb	03 52 26.4	
	comp=Z,31nm,1.9s						
FITZ	Fitzroy Crossi	40.00	262	P	P	03 51 58.1	-0.2
	comp=Z,9.6nm,0.9s,baz=104,slow=7.1,SNR=14						
	comp=Z,9.6nm,0.9s						
FITZ	Fitzroy Crossi	40.00	262		P	03 51 58.1	-0.2
MBWA	Marble Bar	45.33	257		P	03 52 42.7	+1.1
MBWA				IAmb	IAmb	03 52 43.3	
	comp=Z,23nm,1.1s						
DAV	Davao City (W)	48.02	297	P	P	03 53 01.0	-1.6
	comp=Z,153nm,0.5s,baz=90,slow=8.1,SNR=3.6						
DAV	Davao City (W)	48.02	297	IAmb	IAmb	03 53 02.4	
	comp=Z,157nm,0.6s						
MJAR	Matsushiro Arr	60.15	333	P	P	03 54 30.4	-0.4
	comp=Z,3.0nm,1.1s,baz=164,slow=9.4,SNR=5.0						
	comp=Z,3.0nm,1.1s						
VNDA	Vanda	60.54	181	P	P	03 54 32.9	0.0
	comp=Z,0.9nm,0.9s,baz=353,slow=8.7,SNR=3.4						
	comp=Z,0.9nm,0.9s						
VNDA	Vanda	60.54	181	P	P	03 54 33.7	+0.8
VNDA				IAmb	IAmb	03 54 43.4	
	comp=Z,21nm,1.6s						
SBA	Scott Base	60.80	180	P	P	03 54 36.9	+2.2
YHNB	Yeheng	61.30	311	P	P	03 54 40.6	+1.7
NJ2	Nanjing	67.61	316	eP	P	03 55 21.6	+1.6
NJ2				pmax	pmax		
	comp=Z,36nm,0.7s						
USRK	Ussuriysk Ar.	69.14	333	P	P	03 55 29.7	+0.4
	comp=Z,0.8nm,0.5s,baz=114,slow=6.7,SNR=4.2						
	comp=Z,0.8nm,0.5s						
PEA0B	Petropavlovsk-	70.42	354	P	P	03 55 40.3	+3.3
RPSI	Rantau Prapat	70.55	279	P	P	03 55 38.5	-0.2
RPSI				IAmb	IAmb	03 55 52.9	
	comp=Z,10.0nm,1.0s						
BNX	BinXian	72.37	332	⇑P	P	03 55 53.4	+4.5
BNX				pmax	pmax		
	comp=Z,7.0nm,0.7s						
QSPA	South Pole Qui	72.97	180	P	P	03 55 53.1	+0.6
	comp=Z,14nm,1.0s,baz=11,slow=3.7,SNR=19						
	comp=Z,14nm,1.0s						
QSPA	South Pole Qui	72.97	180	P	P	03 55 53.3	+0.8
KLR	Kul'dur	73.29	336	P	P	03 55 55.1	+0.7
	comp=Z,1.0nm,0.6s,baz=162,slow=3.9,SNR=6.0						
	comp=Z,1.0nm,0.6s						
CMAR	Chiang Mai Arr	76.25	294	P	P	03 56 12.7	+0.6
	comp=Z,1.0nm,0.3s,baz=148,slow=3.4,SNR=4.7						
	comp=Z,1.0nm,0.3s						
HHC	Hu-ho-hao-te	77.61	320	eP	P	03 56 21.1	+1.6
HHC				pmax	pmax		
	comp=Z,17nm,0.6s						
LZH	Lanzhou	80.17	312	eP	P	03 56 35.5	+1.8
LZH				sP	pwP	03 56 44.7	-0.9
LZH				pmax	pmax		
	comp=Z,19nm,1.5s						
ULN	Ulaanbaatar	84.24	324	P	P	03 56 55.2	+0.4
ULN				IAmb	IAmb	03 57 05.2	
	comp=Z,6.4nm,1.1s						
BELA	Belgrano 2	84.37	175	P	P	03 56 54.1	-0.7
SONM	Songino Array	84.59	324	P	P	03 56 56.9	+0.3
	comp=Z,2.7nm,1.0s,baz=134,slow=4.3,SNR=10						
	comp=Z,2.7nm,1.0s						
SONM	Songino Array	84.59	324	P	P	03 56 56.0	-0.5
SONM				IAmb	IAmb	03 56 58.8	
	comp=Z,6.2nm,1.3s						
GTA2	Gaotai	84.62	314	eP	P	03 56 58.9	+2.0
GTA2				pP	pP	03 57 04.1	+0.3
GTA2				pmax	pmax		
	comp=Z,6.0nm,1.0s						
BEKR	Beckworth	87.63	47		P	03 57 10.9	-0.9
BEKR				IAmb	IAmb	03 57 23.0	
	comp=Z,9.0nm,1.5s						
WAKR	Walker	87.73	49	P	P	03 57 12.4	+0.1
WAKR				IAmb	IAmb	03 57 13.3	
	comp=Z,10nm,1.5s						
LRMC	Laurel Mtn Rad	87.83	52	IAmb	IAmb	03 57 14.5	
	comp=Z,20nm,2.0s						
ELIB	Princess Elisa	87.99	190	dP	P	03 57 12.9	0.0
	comp=Z,4.6nm,1.3s						
ELIB				dx	x	03 57 21.4	
CLC	China Lake	88.02	52	IAmb	IAmb	03 57 24.3	
	comp=Z,16nm,1.8s						
NVAR	Mina Array Bea	88.52	49	P	P	03 57 15.8	-0.3
	comp=Z,1.1nm,1.0s,baz=207,slow=8.4,SNR=8.1						
	comp=Z,1.1nm,1.0s						
TROLL	Troll, Antarti	90.57	185	P	P	03 57 25.4	+0.3
	comp=Z,464nm,1.2s						
SNAA	Sanae	91.24	183	P	P	03 57 28.5	+0.4
	comp=Z,98nm,0.9s						
SNAA	Sanae	91.24	183	P	P	03 57 28.0	-0.1
	comp=Z,4.4nm,0.9s,baz=163,slow=4.5,SNR=6.7						
	comp=Z,4.4nm,0.9s						
SNAA	Sanae	91.24	183		P	03 57 25.7	-2.4
VNA3	Neumayer Olymp	91.89	181	P	P	03 57 31.1	+0.1
	comp=Z,3.9nm,0.7s						
VNA2	Neumayer--Watz	92.16	182	P	P	03 57 32.4	+0.1
	comp=Z,2.9nm,0.7s,baz=179,slow=4.9						
VNA1	Neumayer--Stat	92.46	181	P	P	03 57 34.0	+0.4
	comp=Z,6.0nm,1.6s						
WMQ	Urumqi	94.63	314	eP	P	03 57 45.8	+1.7
MKAR	Makanchi Array	99.14	316	P	Pdif	03 58 04.5	0.0
	comp=Z,0.8nm,0.9s,baz=92,slow=6.1,SNR=4.0						
	comp=Z,0.8nm,0.9s						
ARCES	ARCESS Array B	122.60	345	PKP	PKiKP	04 03 17.3	-0.9
	comp=Z,1.2nm,0.7s,baz=29,slow=3.0,SNR=5.6						
CLL	Collm	140.33	335	ePKiKP	PKiKP	04 03 56.0	+1.6
CONA	Conrad Observa	141.52	329	ePKP	PKPdf	04 03 54.3	0.0
	comp=Z,2.6nm,1.2s						
GERES	GERESS Array B	141.88	332	PKP	PKPdf	04 03 54.0	-0.9
	comp=Z,0.2nm,0.3s,baz=360,slow=2.3,SNR=5.4						
ARSA	Arzberg	142.15	329	ePKP	PKPdf	04 03 54.5	-0.9
	comp=Z,0.9nm,1.0s						
BIOA	Bad Ischl, Aus	142.75	331	ePKP	PKPdf	04 03 56.6	+0.2
	comp=Z,5.2nm,1.3s						
SOKA	Soboth	142.79	328	ePKP	PKPdf	04 03 53.5	-3.1
	comp=Z,0.6nm,0.6s						
OBKA	Obir	143.15	329	ePKP	PKPdf	04 03 54.8	-2.5
	comp=Z,3.6nm,1.5s						
KBA	Koelnbreinsper	143.33	330	i PKP	PKPbc	04 03 54.9	+0.1
	comp=Z,3.7nm,1.0s						
LESA	Schwarzleotal	143.39	331	i PKP	PKPdf	04 03 55.5	-2.1
	comp=Z,7.5nm,1.8s						
MYKA	Terra Mystica	143.51	329	ePKP	PKPdf	04 03 55.9	-1.9
	comp=Z,0.3nm,0.3s						
WATA	Walderalm	143.96	332	ePKP	PKPdf	04 03 58.0	-0.8
	comp=Z,0.9nm,0.6s						
ABTA	Abfaltersbach	143.97	331	ePKP	PKPbc	04 03 56.4	-0.1
	comp=Z,7.1nm,1.2s						
WTTA	Wattenberg	143.99	332	ePKP	PKPdf	04 03 58.2	-0.6
	comp=Z,2.7nm,0.9s						
MOTA	Moosalm	144.16	332	i PKP	PKPdf	04 03 58.4	-0.7
	comp=Z,7.0nm,1.3s						
RETA	Reutte	144.21	333	i PKP	PKPdf	04 03 58.0	-1.1
	comp=Z,4.0nm,1.3s						
SQTA	Sankt Quirin	144.21	332	i PKP	PKPdf	04 03 57.5	-1.6
	comp=Z,4.1nm,0.9s						
FETA	Feichten	144.58	332	i PKP	PKPdf	04 03 58.6	-1.2
	comp=Z,5.6nm,0.9s						
DAVA	Damuels	144.74	334	i PKP	PKPdf	04 03 59.8	-0.3
	comp=Z,12nm,1.3s						

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*KRNET **06** 03:46:25.5±0.1, 39°.78N×73°.13E, h19km, mb3.3*

*ISU **06** 03:46:25, 39°.79N×73°.14E, h5km*

*SOME **06** 03:46:26.1, 39°.77N×73°.25E, h10km*

*NNC **06** 03:46:27.8±1.6, 39°.82N×73°.30E, h0km, mb3.6, mpv3.3, Error ellipse: s-maj=11.8km s-min=5.8km az=178.0*

ISC 06 03:46:23.6±1.1**, 39°.71N**±0°.05×**73°.29E**±0°.02**, h10km, n45, σ2s.07**/77**, 22C-21D, Tajikistan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SFK	Sufi-Kurgan	0.34	29	⇑iP	Pb	03 46 33.1	+1.1
SFK				⇑iS	Sb	03 46 38.5	+0.9
OHH	Osh	0.90	335	⇑iP	Pg	03 46 40.3	-0.7
OHH				⇑iS	Sg	03 46 51.4	-1.3
TSTA	Tashata	1.07	325	P	Pn	03 46 44.3	-0.4
TSTA				S	Sb	03 46 58.0	-0.2
DRK	Karamyk	1.17	259	⇑eP	Pb	03 46 45.4	-0.8
DRK				⇑eS	Sg	03 46 59.7	-1.8
SALK	Salom-Alik	1.24	19	⇑iP	Pg	03 46 48.1	+0.6
SALK				⇑iS	Sn	03 47 04.5	+0.4
FRG	Fergana	1.33	300	P	Pg	03 46 49.1	-0.1
FRG				S	Sg	03 47 06.1	-0.4
ARSB	Arslanbob	1.63	352	⇓eP	Pb	03 46 54.1	+0.2
ARSB				⇓eS	Sb	03 47 14.9	+0.4
BTK	Batken	1.93	281	⇓iP	Pb	03 46 58.2	-0.8
BTK				⇓iS	Sb	03 47 21.8	-1.4
KSNS	Kasansay	1.98	318	P	Pg	03 47 02.7	+1.1
KSNS				S	Sg	03 47 28.3	+1.1
ARK	Arkit	2.31	335	⇓iP	Pb	03 47 03.9	-1.7
ARK				⇓iS	Sn	03 47 31.8	+1.3
TRKS	Terek-Say	2.44	319	⇑iP	Pn	03 47 04.5	+0.7
TRKS				⇑iS	Sn	03 47 32.7	-1.1
UCH	Uchtor	2.68	20	⇓eP	Pb	03 47 10.3	-1.7
UCH				⇓iS	Sb	03 47 43.0	-2.1
NRN	Naryn	2.69	49	⇓iP	Pb	03 47 10.9	-1.1
NRN				⇓iS	Sb	03 47 44.1	-1.1
EKS2	Erkin-Say	2.97	7	⇑iP	Pb	03 47 13.8	-2.9
EKS2				⇑iS	Sn	03 47 49.0	+2.3
MRKS	Merke	3.03	359	Pg	Pg	03 47 20.5	-1.2
	7.7nm,0.7s						
MRKS				Lg	Lg	03 47 59.7	
	47nm,0.3s						
MRKS	Merke	3.03	359	eP	Pg	03 47 20.7	-1.0
	7.7nm,0.7s						
MRKS				eS	Sg	03 47 59.7	-1.3
	47nm,0.3s						
AAK	Ala-Archa	3.06	17	⇑Pg	Pg	03 47 20.3	-2.0
	1.6nm,0.4s						
AAK				⇑Lg	Lg	03 48 00.1	
	11nm,0.7s						
AAK	Ala-Archa	3.06	17	⇓eP	Pb	03 47 15.4	-2.9
AAK				⇓iS	Sn	03 47 51.8	+2.8
CHMG	Chimgan	3.10	307	S	Sb	03 47 58.6	+1.8
KBK	Karagaybulak	3.20	23	⇑iP	Pb	03 47 17.4	-3.2
KBK				⇑iS	Sn	03 47 55.3	+2.9
TVKS	Tavaksay	3.33	305	S	Sb	03 48 02.8	-0.7
BOOM	Boomskoye usch	3.42	35	⇓eP	Pb	03 47 21.1	-3.4
BOOM				⇓iS	Sn	03 48 01.4	+3.5
CHMS	Chumysh	3.46	18	⇑iP	Pn	03 47 20.7	+3.0
CHMS				⇑eS	Sn	03 48 01.2	+2.5
USP	Ospenovka	3.67	14	⇑iP	Pn	03 47 23.7	+3.2
USP				⇑iS	Sn	03 48 06.0	+2.2
KDJ	Kajisay	3.81	49	⇑eP	Pb	03 47 26.9	-4.2
KDJ				⇑iS	Sn	03 48 11.7	+4.2
SGDS	Sogindy	3.87	15	Pg	Pg	03 47 36.3	-1.5
	2.1nm,0.3s						
SGDS				Lg	Lg	03 48 27.6	
	18nm,0.7s						
KST	Kastek	3.89	30	Pg	Pg	03 47 37.4	-0.8
	1.7nm,0.2s						
KST				Lg	Lg	03 48 28.9	
	11nm,0.4s						
KST	Kastek	3.89	30	eP	Pg	03 47 37.7	-0.4
	1.7nm,0.2s						
KST				eS	Sg	03 48 28.9	+0.4
	11nm,0.4s						
TARG	Taragay, Kyrgy	3.98	58	⇓iP	Pb	03 47 29.6	-4.5
TARG				⇓iS	Sn	03 48 16.3	+4.3
KK31	Karatay Array	3.98	329	Pn	Pn	03 47 27.6	+2.9
KK31				⇓Pg	Pg	03 47 38.0	-1.9
	3.6nm,0.5s,baz=145,slow=14,SNR=20						
KK31				⇓Sn	Sb	03 48 18.0	-4.0
	5.6nm,0.3s,baz=147,slow=22,SNR=4.0						
KK31				⇓Lg	Lg	03 48 32.0	
	11nm,0.6s,baz=147,slow=22,SNR=4.0						
DGS	Degeres	3.99	27	Pg	Pg	03 47 39.3	-0.7
	6.0nm,0.4s						
DGS				Lg	Lg	03 48 30.7	
	19nm,0.5s						
DGS	Degeres	3.99	27	eP	Pg	03 47 38.8	-1.2
	6.0nm,0.4s						
DGS				eS	Sg	03 48 30.7	-1.0
	19nm,0.5s						
BRLS	Borolday	4.21	323	Pg	Pb	03 47 40.3	+2.4
	4.4nm,0.3s						
BRLS				Lg	Lg	03 48 33.6	
	13nm,0.4s						
BRLS	Borolday	4.21	323	eP	Pb	03 47 40.5	+2.7
	4.4nm,0.3s						
BRLS				eS	Sg	03 48 33.6	-5.3
	13nm,0.4s						
TNSS	Tian-Shan	4.31	38	Pg	Pg	03 47 45.1	-1.2
	0.4nm,0.2s						
TNSS				Lg	Lg	03 48 42.7	
	6.5nm,0.6s						
TNSS	Tian-Shan	4.31	38	eP	Pg	03 47 45.8	-0.5
	1.3nm,0.3s						
TNSS				eS	Sg	03 48 42.7	+0.5
	6.5nm,0.6s						
KRBS	Karabastau	4.36	23	Pg	Pg	03 47 45.4	-1.8
	3.5nm,0.4s						
KRBS				Lg	Lg	03 48 42.4	
	9.3nm,0.6s						
KRBS	Karabastau	4.36	23	eP	Pg	03 47 45.6	-1.6
	3.5nm,0.4s						
KRBS				eS	Sg	03 48 42.4	-1.3
	9.3nm,0.6s						
MDOK	Medeo	4.46	38	Pg	Pg	03 47 48.0	-1.0
	3.7nm,0.3s						
MDOK				Lg	Lg	03 48 46.9	
	25nm,0.6s						
MDOK	Medeo	4.46	38	eP	Pg	03 47 48.2	-0.8
	3.7nm,0.3s						
MDOK				eS	Sg	03 48 46.9	+0.1
	25nm,0.6s						
KOTS	Kotyrbulak	4.54	38	Pg	Pg	03 47 50.2	-0.4
	1.9nm,0.2s						
KOTS				Lg	Lg	03 48 50.6	
	43nm,0.6s						
KOTS	Kotyrbulak	4.54	38	eP	Pg	03 47 50.4	-0.2
	1.9nm,0.2s						
KOTS				eS	Sg	03 48 50.6	+1.1
	43nm,0.6s						
KTBS	Karatobe	4.74	31	Pg	Pg	03 47 52.1	-2.2
	0.2nm,0.1s						
KTBS				Lg	Lg	03 48 53.9	
	6.9nm,0.5s						
KTBS	Karatobe	4.74	31	eP	Pg	03 47 52.4	-2.0
	0.2nm,0.1s						
KTBS				eS	Sg	03 48 53.9	-1.7
	6.9nm,0.5s						
PDGK	Podgornoye	5.89	50	⇓Pg	Pg	03 48 15.7	-0.7
	1.3nm,0.5s						
PDGK				⇓Lg	Lg	03 49 33.0	
	7.9nm,1.2s						

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*IDC **06** 03:57:08.1±0.8, 19°.10N×121°.39E, h0km, mb4.0/7, mbtmp3.9/8, ML3.6/1, Error ellipse: s-maj=51.6km s-min=17.0km az=70.0*

*NEIC **06** 03:57:13.9±2.0, 19°.20N±0°.06×121°.2E±0°.1, h34km±4km, mb4.4/16, Error ellipse: s-maj=15.0km s-min=8.5km az=95.0*

*MAN **06** 03:57:15.0, 19°.09N×121°.32E, h14km, MS3.7*

ISC 06 03:57:14.0±0.5**, 19°.18N**±0°.04×**121°.07E**±0°.07**, h39km, n49, σ1s.43**/47**, mb4.3**/14**, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PACPP	Pamplona Cagay	0.77	160	i P	Pn	03 57 27.6	-0.7
PACPP				i S	Sn	03 57 38.4	-0.3
SIPP	Brgy, Tapao	1.38	205	eP	Pn	03 57 37.4	+0.6
SIPP				eS	Sn	03 57 55.3	+1.5
BBP	Basco	1.51	34	eP	Pn	03 57 39.3	+0.8
BBP				eS	Sn	03 57 57.7	+0.8
CVP	Callao Caves	1.64	154	eP	Pn	03 57 41.0	+0.8
CVP				eS	Sn	03 58 01.9	+1.8
SZP	Santa	1.73	200		Pn	03 57 43.2	+1.7
TWG	Pinlang	3.62	360	Pn	Pn	03 58 06.9	-0.6
YULB	Yu-li	4.19	3	Pn	Pn	03 58 16.4	+0.9
PCPS	Palayan City	4.51	180	eP	Pn	03 58 11.0	-8.7
PCPS				eS	Sn	03 59 00.9	-10
SSLB	Suanglung	4.58	359		Pn	03 58 19.9	-0.9
NACB	Ninganchiao	4.99	5	Pn	Pn	03 58 26.3	-0.1
LQP	Lukban	5.06	175	eP	Pn	03 58 31.1	+3.5
YHNB	Yeheng	5.47	3	Pn	Pn	03 58 34.9	+1.9
KNMB	Chin-men Tao	5.81	335	Pn	Pn	03 58 36.2	-1.5
HKPS	Hong Kong Po S	7.18	297	Pn	Pn	03 58 55.3	-1.2
KSRS	Korea Array	19.16	17	P	P	04 01 33.1	-1.0
	0.2nm,0.3s,baz=194,slow=11,SNR=3.1						
	1.7nm,0.9s						
KSRS				AML	AML		
FITZ	Fitzroy Crossi	37.32	173	P	P	04 04 20.2	-2.5
WRA	Warramunga Arr	41.00	161	P	P	04 04 50.6	-2.8
	0.5nm,0.4s,baz=343,slow=9.1,SNR=11						
WRA				PcP	PcP	04 06 53.2	+0.1
	0.2nm,0.5s,baz=348,slow=3.3,SNR=4.6						
	0.5nm,0.4s						
WRA	Warramunga Arr	41.00	161	P	P	04 04 50.4	-3.0
WR8	Warramunga Arr	41.06	161	P	P	04 04 51.2	-2.8
WR8				IAmb	IAmb	04 05 25.2	
	comp=Z,8.8nm,1.4s						
MKAR	Makanchi Array	41.97	320	P	P	04 05 03.2	+2.0
	comp=Z,0.9nm,0.7s,baz=112,slow=11,SNR=6.8						
	comp=Z,0.9nm,0.7s						
MKAR	Makanchi Array	41.97	320	P	P	04 05 03.0	+1.8
H11S3	WAKE ISLAND Hy	43.08	83	T	T	04 50 53.3	
	baz=279,slow=75,SNR=22						
H11S1	WAKE ISLAND Hy	43.09	83	T	T	04 50 47.7	
	baz=279,slow=75,SNR=21						
H11S2	WAKE ISLAND Hy	43.10	83	T	T	04 50 46.2	
	baz=279,slow=75,SNR=18						
H11N1	WAKE ISLAND Hy	43.10	81	T	T	04 50 52.0	
	baz=277,slow=75,SNR=48						
H11N2	WAKE ISLAND Hy	43.11	81	T	T	04 50 48.0	
	baz=277,slow=75,SNR=32						
H11N3	WAKE ISLAND Hy	43.12	81	T	T	04 50 57.2	
	baz=277,slow=75,SNR=31						
AS31	Alice Springs	44.39	163	P	P	04 05 20.7	-0.2
ASAR	Alice Springs	44.39	163	P	P	04 05 19.7	-1.2
	comp=Z,0.8nm,0.3s,baz=346,slow=6.7,SNR=33						
	comp=Z,0.8nm,0.3s						
ASAR	Alice Springs	44.39	163	P	P	04 05 20.2	-0.8
KURBB	Kurchatov Arra	45.94	323	P	P	04 05 34.5	+1.6
	comp=Z,1.3nm,0.6s,baz=119,slow=7.7,SNR=16						
	comp=Z,1.3nm,0.6s						
INKA	Innaminka	50.39	157	P	P	04 06 05.8	-1.7
INKA				IAmb	IAmb	04 06 07.5	
	comp=Z,3.1nm,0.7s						
BBOO	Buckleboo	53.65	164	P	P	04 06 31.4	-0.3
STKA	Stephens Creek	54.45	158	P	P	04 06 35.8	-1.7
	comp=Z,1.1nm,0.6s,baz=339,slow=8.6,SNR=1.4						
	comp=Z,1.1nm,0.6s						
AB31	Akbulak array	56.92	317	P	P	04 06 56.6	+1.4
AB31				IAmb	IAmb	04 06 57.1	
	comp=Z,2.2nm,0.6s						
ABKAR	Akbulak array	56.92	317	P	P	04 06 56.4	+1.3
TOO	Toolangi	60.96	158	P	P	04 07 23.1	-0.1
TOO				IAmb	IAmb	04 07 39.7	
	comp=Z,4.6nm,1.4s						
D19K	Kuna River	68.94	23	P	P	04 08 15.3	+0.5
D19K				IAmb	IAmb	04 08 23.2	
	comp=Z,7.0nm,1.4s						
B20K	Meade River	69.31	21	P	P	04 08 17.5	+0.5
L18K	Granite Mounta	69.61	30	P	P	04 08 19.8	+0.9
PMR	Palmer	73.23	30	P	P	04 08 40.1	-0.7
SCM	Sheep Creek Mo	74.04	30	P	P	04 08 44.7	-0.9

SCM				IAmb	IAmb	04 09 27.5	
	comp=Z,8.2nm,1.4s						
ARCES	ARCESS Array B	74.13	339	P	P	04 08 46.4	+0.5
	comp=Z,0.9nm,0.6s,baz=55,slow=4.6,SNR=4.1						
	comp=Z,0.9nm,0.6s						
ARCES	ARCESS Array B	74.13	339	P	P	04 08 46.5	+0.5
ARCES				IAmb	IAmb	04 08 54.2	
	comp=Z,6.9nm,1.4s						
F30M	Barrier River	77.33	22	P	P	04 09 04.4	+0.1
F30M				IAmb	IAmb	04 09 10.3	
	comp=Z,4.3nm,1.1s						
BFZ	Birch Farm	78.56	140	P	P	04 09 10.8	-0.6
YKA	Yellowknife Ar	87.60	23	P	P	04 09 57.9	0.0
	comp=Z,2.7nm,0.8s,baz=310,slow=4.6,SNR=8.0						
	comp=Z,2.7nm,0.8s						
TXAR	Lajitas Array	115.28	43	PKP	PKPdf	04 15 52.2	+0.2
	comp=Z,0.2nm,0.5s,baz=199,slow=1.0,SNR=4.8						
TXAR	Lajitas Array	115.28	43		PKPdf	04 15 52.1	+0.1

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*IDC **06** 04:20:48.5±0.6, 17°.05S×167°.71E, h0^{km}, mb4.4/17, mbtmp4.4/19, ML4.6/2, MS4.3/7, Error ellipse: s-maj=17.9km s-min=13.0km az=99.0*

*BJI **06** 04:20:50.3, 16°.73S×167°.76E, h11^{km}, mB5.4/2, mb4.8/24, Ms5.0/3, Ms7 5.0/2*

*GFZ **06** 04:20:50.4±0.4, 17°S±5°×16°8E±°, h10^{km}, M4.8/16, mb4.8/16, confirmed*

*NEIC **06** 04:20:50.8±2.5, 17°.17S±0°.05×167°.66E±0°.09, h10^{km}±1^{km}, mb5.1/47, Error ellipse: s-maj=14.2km s-min=9.1km az=268.0*

*NOU **06** 04:20:51.2, 17°.20S×167°.93E, h19^{km}, MLv4.9/31, Vanuatu Islands*

ISC 06 04:20:51.9±0.4, **17°.17S**±0°.04×**167°.79E**±0°.06, **h21**^{km}, **n163**, σ**1^{s}28**/143, **mb5.0**/55, **MS4.1**/4, **6C-2D, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RTV	Rentapao	0.86	136	P	Pb	04 21 07.2	-1.0
RTV	Rentapao	0.86	136	S	Sb	04 21 16.6	-2.7
SANVU	Saraoutou	1.81	342	P	Pn	04 21 21.2	-0.6
SANVU	Saraoutou	1.81	342	S	Sb	04 21 44.8	-1.6
SANVU	Saraoutou	1.81	342		Pn	04 21 20.1	-1.7
SANVU	Saraoutou	1.81	342	P	Pn	04 21 20.6	-1.1
MARNC	Mare, Loyalty	4.29	177	P	Pn	04 21 54.5	-1.5
MARNC	Mare, Loyalty	4.29	177		Pn	04 21 54.6	-1.4
KOUNC	Koumac, New Ca	4.72	224	P	Pn	04 22 00.4	-1.5
KOUNC	Koumac, New Ca	4.72	224		Pn	04 22 00.8	-1.1
YATNC	Mamie plateau,	4.94	190	P	Pn	04 22 03.8	-1.1
DZM	Mont Dzumac	5.04	194	Pn	Pn	04 22 05.9	-0.5
	6.2nm,0.3s,baz=66,slow=9.5,SNR=18						
DZM				Sn	Sn	04 23 02.3	-1.7
	10nm,0.3s,baz=306,slow=17,SNR=4.2						
	31nm,0.5s						
DZM				AML	AML		
NOUC	Port Laguerre	5.10	196	P	Pn	04 22 06.9	-0.2
ONTNC	Ouen Toro	5.26	194	P	Pn	04 22 09.5	+0.2
ONTNC	Ouen Toro	5.26	194		Pn	04 22 08.3	-1.0
OUENC	Ouen Island, N	5.30	190	P	Pn	04 22 10.4	+0.6
OUENC	Ouen Island, N	5.30	190		Pn	04 22 10.9	+1.1
HURO	Huro Makira	8.78	319	P	Pn	04 23 00.3	+2.6
NGOA	Tingoa Renbel	9.34	306	P	Pn	04 23 04.9	-0.4
MSVF	Nonsavu	9.81	95	Pn	Pn	04 23 15.0	+3.1
	0.4nm,0.3s,baz=286,slow=13,SNR=3.8						
MSVF				LR	LR	04 26 21.2	
	comp=Z,2µm,20.9s,baz=271,slow=34						
	14nm,1.1s						
MSVF				AML	AML		
HNR	Honiara	10.84	314	LR	LR	04 26 24.3	
	comp=Z,1µm,19.4s,baz=244,slow=31						
SAVO	Savo Central	11.13	315	P	Pn	04 23 32.1	+2.2
TATA	Tatamba Isabel	11.70	317	P	Pn	04 23 40.2	+2.5
EIDS	Eidsvold	17.57	240	P	P	04 24 56.5	0.0
EIDS	Eidsvold	17.57	240	P	P	04 24 58.6	+2.1
	comp=Z,28nm,1.5s						
ARMA	Armidale	19.78	225	P	Pn	04 25 22.3	-0.2
ARMA	Armidale	19.78	225	P	Pn	04 25 24.8	+2.3
	comp=Z,36nm,1.7s						
AFI	Afiamalu	19.95	83	LR	LR	04 31 07.4	
	comp=Z,816nm,19.0s,baz=257,slow=31						
KRVT	Keravat (AS076	20.06	308	LR	LR	04 31 33.3	
	comp=Z,525nm,19.5s,baz=145,slow=32						
CTA	Charters Tower	20.61	259	P	P	04 25 29.5	-0.4
	comp=Z,6.7nm,0.9s,baz=83,slow=14,SNR=6.2						
CTA				LR	LR	04 32 07.0	
	comp=Z,976nm,19.3s,baz=70,slow=33						
	comp=Z,6.7nm,0.9s						
CTAO	Charters Tower	20.61	259	P	P	04 25 29.9	-0.1
CTAO				IAmb	IAmb	04 25 42.3	
	comp=Z,205nm,1.7s						
CTAO	Charters Tower	20.61	259	P	Pn	04 25 35.7	+3.4
	comp=Z,59nm,1.3s						
TOZ	Tahuroa Road	21.58	163	P	P	04 25 41.6	+1.5
TOZ				IAmb	IAmb	04 25 53.1	
	comp=Z,58nm,1.0s						
MTSU	Mount Surprise	22.39	264	P	P	04 25 50.8	+1.7
	comp=Z,22nm,1.1s						
URZ	Urewera	22.54	161	P	P	04 25 52.2	+1.7
	comp=Z,64nm,0.9s						
QLP	Quilpie	23.75	243	P	P	04 26 02.9	0.0
	comp=Z,76nm,1.6s						
MRZ	Mangatainoka R	24.36	166	P	P	04 26 08.6	+0.2
MRZ				IAmb	IAmb	04 26 29.0	
	comp=Z,115nm,1.4s						
BFZ	Birch Farm	24.54	164	P	P	04 26 10.2	+0.1
BFZ	Birch Farm	24.54	164	P	P	04 26 09.7	-0.4
BFZ				IAmb	IAmb	04 26 35.0	
	comp=Z,59nm,1.1s						
TCW	Tory Channel	24.60	168	P	P	04 26 11.6	+1.0
CMSA	Cobar Meteorol	24.63	230	P	P	04 26 12.2	+1.2
CMSA	Cobar Meteorol	24.63	230	P	P	04 26 12.6	+1.6
	comp=Z,40nm,1.7s						
CAN	Canberra	24.64	219	P	P	04 26 11.6	+0.5
CAN				IAmb	IAmb	04 26 21.0	
	comp=Z,42nm,1.2s						
CAN	Canberra	24.64	219	P	P	04 26 12.8	+1.7
	comp=Z,35nm,1.3s						
QIS	Mount Isa	26.87	258	P	P	04 26 31.9	+0.5
QIS	Mount Isa	26.87	258	P	P	04 26 32.3	+0.9
	comp=Z,16nm,0.9s						
STKA	Stephens Creek	27.87	233	P	P	04 26 40.6	+0.4
	comp=Z,5.2nm,1.0s,baz=56,slow=8.9,SNR=6.3						
STKA				LR	LR	04 36 47.5	
	comp=Z,432nm,18.8s,baz=327,slow=34						
	comp=Z,5.2nm,1.0s						
STKA	Stephens Creek	27.87	233	P	P	04 26 40.8	+0.5
	comp=Z,54nm,1.6s						
WR8	Warramunga Arr	31.65	260	P	P	04 27 12.6	-1.4
WRAB	Tennant Creek	31.79	260	P	P	04 27 15.4	+0.2
WRA	Warramunga Arr	31.80	260	P	P	04 27 13.4	-1.9
	comp=Z,3.8nm,1.0s,baz=81,slow=5.9,SNR=15						
	comp=Z,3.8nm,1.0s						
WRA	Warramunga Arr	31.80	260		P	04 27 13.9	-1.4
AS01	Alice Springs	32.31	253	P	P	04 27 20.4	+0.7
AS31	Alice Springs	32.35	253		P	04 27 18.9	-1.2
ASAR	Alice Springs	32.35	253	P	P	04 27 18.8	-1.3
	comp=Z,7.2nm,0.5s,baz=80,slow=8.5,SNR=80						
ASAR				LR	LR	04 39 21.0	
	comp=Z,1µm,21.6s,baz=84,slow=34						
	comp=Z,7.2nm,0.5s						
KNRA	Kununurra	37.42	266	P	P	04 28 02.6	-1.3
FITZ	Fitzroy Crossi	40.12	262	P	P	04 28 27.1	+0.6
FITZ	Fitzroy Crossi	40.12	262		P	04 28 26.0	-0.5
FITZ	Fitzroy Crossi	40.12	262	P	P	04 28 26.4	0.0
	comp=Z,4.2nm,1.0s						
PPT2	Papeete2	40.62	97	*e*LR	LR	04 39 43.6	
	comp=Z,462nm,26.5s						
PPT2				*e*LR	LR	04 39 51.5	
	comp=Z,469nm,22.2s						
MBWA	Marble Bar	45.44	257	P	P	04 29 09.1	-0.5
MBWA				IAmb	IAmb	04 29 17.7	
	comp=Z,59nm,1.4s						
MBWA	Marble Bar	45.44	257	P	P	04 29 10.0	+0.3
	comp=Z,28nm,0.9s						
MEEK	Meekatharra	46.35	249	P	P	04 29 17.4	+0.5
MORW	Morawa	48.70	246	P	P	04 29 33.5	-1.6
TAOE	Nuku Hiva Isla	51.27	88	*e*LR	LR	04 44 41.8	
	comp=Z,893nm,26.0s						
MYLDM	Lahad Datu	53.51	290	P	P	04 30 13.2	+1.9
	comp=Z,20nm,1.1s						
JGF	Kuroka	59.89	331	P	P	04 30 55.5	-0.8
MJAR	Matsushiro Arr	60.29	333	P	P	04 30 58.0	-1.0
	comp=Z,7.1nm,0.9s,baz=159,slow=7.6,SNR=12						
	comp=Z,7.1nm,0.9s						
MJAR	Matsushiro Arr	60.29	333	P	P	04 30 57.8	-1.2
MAJO	Matsushiro	60.29	333	P	P	04 30 58.0	-1.0
MAJO				IAmb	IAmb	04 30 59.1	
	comp=Z,11nm,0.9s						
VNDA	Vanda	60.45	181	P	P	04 31 00.6	+1.0
	comp=Z,1.7nm,0.8s,baz=337,slow=9.2,SNR=7.9						
	comp=Z,1.7nm,0.8s						
VNDA	Vanda	60.45	181		P	04 30 56.0	-3.5
VNDA				IAmb	IAmb	04 31 09.8	
	comp=Z,32nm,1.9s						
VNDA	Vanda	60.45	181	P	P	04 31 00.8	+1.3
	comp=Z,8.4nm,1.7s						
SBA	Scott Base	60.71	180	P	P	04 31 02.2	+0.8
SBA				IAmb	IAmb	04 31 27.3	
	comp=Z,41nm,1.6s						
SBA	Scott Base	60.71	180	P	P	04 31 02.1	+0.7
	comp=Z,16nm,2.1s						
DLV	Lat	65.34	292	P	P	04 31 38.1	+4.8
	comp=Z,29nm,0.7s						
NJ2	Nanjing	67.77	316	*e*P	P	04 31 48.7	+0.4
NJ2				pmax	pmax		
	comp=Z,27nm,0.7s						
WHN	Wuhan	69.95	312	P	P	04 32 03.5	+1.7
PETK	Petropavlovsk-	70.53	354	P	P	04 32 04.6	-0.3
	comp=Z,0.9nm,0.5s,baz=159,slow=6.0,SNR=1.3						
	comp=Z,0.9nm,0.5s						
MDJ	Mudanjiang	70.66	332	P	P	04 32 06.2	+0.3
MDJ				pmax	pmax		
	comp=Z,10.0nm,1.2s						
RPSI	Rantau Prapat	70.70	279	P	P	04 32 05.0	-1.9
RPSI				IAmb	IAmb	04 32 14.5	
	comp=Z,14nm,1.0s						
RPSI	Rantau Prapat	70.70	279	P	P	04 32 05.8	-1.0
	comp=Z,16nm,1.1s						
PSI	Prapat	70.73	279	P	P	04 32 06.2	-1.0
	comp=Z,14nm,1.0s						
CN2	Changchun	71.99	329	*e*P	P	04 32 16.3	+2.3
CN2				pmax	pmax		
	comp=Z,10.0nm,0.7s						
BNX	BinXian	72.51	332	⇓P	P	04 32 16.5	-0.5
BNX				pmax	pmax		
	comp=Z,7.0nm,0.7s						
QSPA	South Pole Qui	72.87	180	P	P	04 32 20.0	+0.9
	comp=Z,24nm,1.0s,baz=10.0,slow=2.6,SNR=44						
	comp=Z,24nm,1.0s						
QSPA	South Pole Qui	72.87	180	P	P	04 32 20.0	+0.9
QSPA	South Pole Qui	72.87	180	P	P	04 32 20.3	+1.1
	comp=Z,34nm,1.0s						
XAN	Xi'an	75.70	313	P	P	04 32 36.6	+0.5
XAN				pmax	pmax		
	comp=Z,12nm,2.0s						
HEH	HeiHe	75.97	335	*e*P	P	04 32 37.0	-0.1
KMI2	Kunming	76.02	302	P	P	04 32 37.3	-1.0
KMI2				pmax	pmax		
	comp=Z,10.0nm,0.7s						
CMAR	Chiang Mai Arr	76.40	294	P	P	04 32 40.6	+0.3
	comp=Z,0.8nm,0.3s,baz=115,slow=5.5,SNR=5.3						
	comp=Z,0.8nm,0.3s						
CMAR	Chiang Mai Arr	76.40	294		P	04 32 40.9	+0.6
PZH	PanZhiHua	77.44	303	P	P	04 32 46.6	+0.5
HHC	Hu-ho-hao-te	77.76	320	*e*P	P	04 32 47.9	+0.3
HHC				pmax	pmax		
	comp=Z,7.0nm,0.6s						
MAW	Mawson	79.82	202	P	P	04 32 59.5	+1.1
	comp=Z,3.3nm,0.9s,baz=98,slow=8.5,SNR=4.1						
	comp=Z,3.3nm,0.9s						
MAW	Mawson	79.82	202	P	P	04 32 59.0	+0.6
LZDM	Lanzhou Array	80.37	312	P	P	04 33 02.9	+0.6
	comp=Z,1.2nm,0.3s,baz=101,slow=7.5,SNR=1.9						
	comp=Z,1.2nm,0.3s						
BELA	Belgrano 2	84.26	175		P	04 33 21.4	-0.2
ULN	Ulaanbaatar	84.39	324	P	P	04 33 23.4	+0.6
ULN	Ulaanbaatar	84.39	324	P	P	04 33 23.1	+0.3
	comp=Z,13nm,1.1s						
SONM	Songino Array	84.75	324	P	P	04 33 24.0	-0.6
	comp=Z,3.6nm,0.9s,baz=139,slow=5.1,SNR=18						
	comp=Z,3.6nm,0.9s						
SONM	Songino Array	84.75	324	P	P	04 33 24.3	-0.3
SONM				IAmb	IAmb	04 33 25.9	
	comp=Z,8.4nm,1.1s						
GTA2	Gaotai	84.78	314	*e*P	P	04 33 26.0	+1.0
GTA2				sP	sP	04 33 33.0	+0.3
GTA2				pmax	pmax		
	comp=Z,8.0nm,2.1s						
SYO	Syowa Base	86.52	196	⇑*i*P	P	04 33 33.2	+0.3
SYO	Syowa Base	86.52	196	⇑*i*P	P	04 33 41.0	+8.1
ORV	Oroville	86.67	47	P	P	04 33 33.8	-0.4
AFDM	Forest Hills D	86.78	48		P	04 33 34.4	-0.4
AFDM				IAmb	IAmb	04 33 57.7	
	comp=Z,9.2nm,1.1s						
CMB	Columbia Colle	86.82	49		P	04 33 33.8	-1.3
CMB				IAmb	IAmb	04 33 57.9	
	comp=Z,9.4nm,1.1s						
BEKR	Beckworth	87.60	47	IAmb	IAmb	04 34 02.9	
	comp=Z,15nm,1.4s						
MDPB	Devils Postpil	87.60	50	IAmb	IAmb	04 34 02.2	
	comp=Z,11nm,1.1s						
ELIB	Princess Elisa	87.92	190	*d*P	P	04 33 39.8	-0.1
	comp=Z,7.0nm,1.1s						
DSP	Deep Springs	88.31	50	IAmb	IAmb	04 34 05.6	
	comp=Z,12nm,1.2s						
NVAR	Mina Array Bea	88.48	49	P	P	04 33 43.5	+0.3
	comp=Z,1.1nm,0.9s,baz=227,slow=7.9,SNR=7.7						
	comp=Z,1.1nm,0.9s						
NVAR	Mina Array Bea	88.48	49	P	P	04 33 43.1	-0.1
NV11	Mina Array Sit	88.59	49	IAmb	IAmb	04 34 06.8	
	comp=Z,20nm,1.4s						
ILAR	Eielson Array	88.68	18	P	P	04 33 43.3	+0.1
	comp=Z,0.3nm,0.7s,baz=218,slow=6.9,SNR=3.1						
	comp=Z,0.3nm,0.7s						
KVN	Kaiserville	88.87	49	IAmb	IAmb	04 34 08.0	
	comp=Z,11nm,1.4s						
WCT	Wildcat Mounta	89.08	51	IAmb	IAmb	04 34 09.9	
	comp=Z,16nm,1.6s						
IRM	Iron Mountain	89.23	54	IAmb	IAmb	04 34 11.0	
	comp=Z,16nm,1.7s						
TPNV	Topopah Spring	89.42	51	IAmb	IAmb	04 34 10.8	
	comp=Z,15nm,1.4s						
J08A	Circle Bar Ran	90.31	44	IAmb	IAmb	04 34 14.5	
	comp=Z,7.7nm,1.1s						
TROLL	Troll, Antarti	90.48	185	⇑P	P	04 33 52.4	+0.5
	comp=Z,996nm,1.1s						
SNAA	Sanae	91.15	183	⇑P	P	04 33 55.2	+0.2
	comp=Z,183nm,0.9s						
SNAA	Sanae	91.15	183	P	P	04 33 54.9	0.0
	comp=Z,12nm,1.1s,baz=185,slow=6.2,SNR=11						
	comp=Z,12nm,1.1s						
SNAA	Sanae	91.15	183	P	P	04 33 55.2	+0.2
SNAA				IAmb	IAmb	04 33 56.5	
	comp=Z,16nm,1.1s						
SNAA	Sanae	91.15	183	P	P	04 33 55.3	+0.4
	comp=Z,14nm,1.5s						
VNA3	Neumayer Olymp	91.80	181	⇑P	P	04 33 57.7	-0.2
	comp=Z,9.0nm,0.8s						
VNA2	Neumayer--Watz	92.07	182	⇑P	P	04 33 59.1	0.0
	comp=Z,8.1nm,0.7s,baz=147,slow=5.2						
VNA1	Neumayer--Stat	92.36	181	P	P	04 34 01.2	+0.8
	comp=Z,8.9nm,1.0s						
HYB	Hyderabad	94.31	287	*e*PKiKP	PKiKP	04 38 53.3	-0.9
HYB				*e*SKSac	SKSac	04 44 44.3	-0.7
HYB				*e*SKKSac	SKKSac	04 45 03.0	-3.2
WMQ	Urumqi	94.79	314	*e*P	P	04 34 12.8	+0.7
MKAR	Makanchi Array	99.30	316	P	Pdif	04 34 30.9	-1.6
	comp=Z,0.4nm,0.6s,baz=100,slow=6.0,SNR=6.4						
	comp=Z,0.4nm,0.6s						
ZALV	Zalesovo Beam	99.64	323	P	Pdif	04 34 32.0	-1.7
	comp=Z,2.0nm,0.9s,baz=126,slow=7.7,SNR=5.9						
	comp=Z,2.0nm,0.9s						
ZALV	Zalesovo Beam	99.64	323	P	Pdif	04 34 32.5	-1.2
ARCES	ARCESS Array B	122.73	345	PKP	PKiKP	04 39 45.5	-0.2
	comp=Z,1.2nm,0.6s,baz=108,slow=1.5,SNR=6.6						
FINES	FINESS Array B	128.16	338	PKP	PKPdf	04 39 55.3	-0.8
	comp=Z,4.4nm,1.1s,baz=40,slow=3.2,SNR=5.3						
AKASG	Malin Array Be	133.02	325	PKP	PKPdf	04 40 05.4	-0.3
	comp=Z,1.2nm,0.7s,baz=68,slow=1.8,SNR=6.0						
CLL	Collm	140.47	335	*e*PKPdf	PKPdf	04 40 19.0	-0.5
RONA	Rosalia, Austr	141.61	329	*e*PKP	PKPdf	04 40 20.9	-0.8
	comp=Z,2.9nm,1.0s						
CONA	Conrad Observa	141.67	329	*e*PKP	PKPdf	04 40 20.3	-1.6
	comp=Z,3.6nm,1.3s						
GERES	GERESS Array B	142.03	332	PKP	PKPdf	04 40 19.9	-2.6
	comp=Z,0.3nm,0.4s,baz=49,slow=2.6,SNR=5.9						
ARSA	Arzberg	142.30	329	*e*PKP	PKPdf	04 40 20.1	-2.9
	comp=Z,2.4nm,1.1s						
MOA	Molln	142.49	330	*i* PKP	PKPdf	04 40 19.8	-3.4
	comp=Z,2.8nm,0.9s						
BIOA	Bad Ischl, Aus	142.90	331	*e*PKP	PKPdf	04 40 21.4	-2.6
	comp=Z,3.9nm,1.2s						
SOKA	Soboth	142.94	328	*i* PKP	PKPdf	04 40 20.5	-3.7
	comp=Z,5.3nm,1.1s						
OBKA	Obir	143.30	329	*i* PKP	PKPbc	04 40 22.0	+0.1
	comp=Z,2.2nm,1.0s						
KBA	Koelnbreinsper	143.48	330	*i* PKP	PKPbc	04 40 22.3	-0.2
	comp=Z,6.2nm,1.0s,SNR=8.0						
LESA	Schwarzleotal	143.54	331	*i* PKP	PKPbc	04 40 22.9	+0.4
	comp=Z,8.5nm,0.9s,SNR=6.5						
MYKA	Terra Mystica	143.66	330	*e*PKP	PKPbc	04 40 22.5	-0.4
	comp=Z,2.4nm,0.7s						
WATA	Walderalm	144.10	332	*e*PKP	PKPdf	04 40 25.0	-1.2
	comp=Z,8.6nm,1.9s						
ABTA	Abfaltersbach	144.11	331	*i* PKP	PKPbc	04 40 23.8	-0.4
	comp=Z,9.8nm,0.8s,SNR=9.2						
WTTA	Wattenberg	144.13	332	*i* PKP	PKPdf	04 40 25.3	-1.1
	comp=Z,11nm,1.2s,SNR=5.1						
MOTA	Moosalm	144.31	333	*i* PKP	PKPdf	04 40 25.5	-1.2
	comp=Z,9.1nm,0.9s,SNR=5.7						
RETA	Reutte	144.35	333	*i* PKP	PKPbc	04 40 25.2	+0.2
	comp=Z,5.2nm,1.2s						
SQTA	Sankt Quirin	144.36	332	*i* PKP	PKPdf	04 40 25.6	-1.1
	comp=Z,12nm,1.1s,SNR=5.6						
BFO	Black Forest	144.68	336		PKPdf	04 40 26.5	-0.5
FETA	Feichten	144.72	333	*i* PKP	PKPdf	04 40 27.0	-0.4
	comp=Z,17nm,0.9s,SNR=11						
DAVA	Damuels	144.88	334	*i* PKP	PKPdf	04 40 27.2	-0.4
	comp=Z,24nm,0.9s,SNR=9.7						
TUE	Stuetta	145.75	333		PKPab	04 40 29.9	-0.1
INTR	Introdacqua	146.65	323		PKPab	04 40 32.7	-0.7
SENIN	Lac Senin/Sane	146.69	335		PKPab	04 40 33.0	-0.6
TORD	Torodi Ar. Bea	166.00	255	PKP	PKPdf	04 40 55.2	-1.1
	comp=Z,1.5nm,0.9s,baz=66,slow=1.2,SNR=4.5						

NOU 06 04:29:55.5, 17°.40S×168°.02E, h54^{km}, MLv4.5/11, **Vanuatu Islands, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RTV	Rentapao	0.55	135	P	Pn	04 30 11.0	+3.4
RTV	Rentapao	0.55	135	S	Sn	04 30 17.6	+1.3
OUENC	Ouen Island, N	5.11	192	P	Pn	04 31 07.7	-1.9

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*NOU **06** 04:33:53.1, 17°.19S×167°.66E, h4^{km}, MLv4.6/21, Vanuatu Islands*

*IDC **06** 04:33:53.2±1.2, 17°.14S×167°.62E, h0^{km}, mb4.2/8, mbtmp4.1/9, ML3.9/1, Error ellipse: s-maj=28.4km s-min=19.3km az=92.0*

*NEIC **06** 04:33:53.2±1.6, 17°.11S±0°.06×167°.9E±0°.1, h10^{km}±2^{km}, mb4.3/6, Error ellipse: s-maj=22.6km s-min=10.6km az=83.0*

ISC 06 04:33:55.9±0.6, **17°.17S**±0°.05×**167°.70E**±0°.07, **h25**^{km}, **n32**, σ**1^{s}21**/32, **mb4.2**/10, **Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RTV	Rentapao	0.93	132	P	Pb	04 34 11.4	-1.9
RTV	Rentapao	0.93	132	S	Sn	04 34 24.3	-1.6
SANVU	Saraoutou	1.78	344	P	Pn	04 34 24.0	-1.0
SANVU	Saraoutou	1.78	344	S	Sb	04 34 47.8	-1.8
SANVU	Saraoutou	1.78	344		Pn	04 34 23.2	-1.9
MARNC	Mare, Loyalty	4.30	176	P	Pn	04 34 58.5	-1.3
MARNC	Mare, Loyalty	4.30	176	Pn	Pn	04 34 58.7	-1.1
KOUNC	Koumac, New Ca	4.67	223	P	Pn	04 35 04.3	-0.5
KOUNC	Koumac, New Ca	4.67	223		Pn	04 35 04.1	-0.7
YATNC	Mamie plateau,	4.92	189	P	Pn	04 35 07.7	-0.7
DZM	Mont Dzumac	5.02	193	Pn	Pn	04 35 09.3	-0.4
	4.9nm,0.3s,baz=52,slow=9.0,SNR=54						
DZM				Sn	Sn	04 36 04.3	-2.7
	6.1nm,0.3s,baz=136,slow=23,SNR=10						
	8.4nm,0.3s						
DZM				AML	AML		
NOUC	Port Laguerre	5.08	195	P	Pn	04 35 10.0	-0.5
ONTNC	Ouen Toro	5.25	193	P	Pn	04 35 12.2	-0.5
ONTNC	Ouen Toro	5.25	193	Pn	Pn	04 35 12.9	+0.2
OUENC	Ouen Island, N	5.29	189	P	Pn	04 35 12.6	-0.7
OUENC	Ouen Island, N	5.29	189	Pn	Pn	04 35 14.1	+0.8
DGTI	Dogotuki	11.56	87	P	Pn	04 36 40.5	+1.0
CTA	Charters Tower	20.53	259	P	Pn	04 38 33.6	-1.2
	4.6nm,0.8s,baz=73,slow=13,SNR=4.2						
	4.6nm,0.8s						
STKA	Stephens Creek	27.81	233	P	P	04 39 44.3	+1.1
	2.4nm,0.8s,baz=47,slow=7.5,SNR=4.1						
	2.4nm,0.8s						
WB0	Warramunga Arr	31.67	260	P	P	04 40 16.4	-1.2
WB0				IAmb	IAmb	04 40 37.1	
	comp=Z,10nm,1.4s						
WRA	Warramunga Arr	31.72	260	P	P	04 40 17.8	-0.2
	comp=Z,1.3nm,0.8s,baz=91,slow=9.4,SNR=12						
	comp=Z,1.3nm,0.8s						
AS31	Alice Springs	32.27	253	P	P	04 40 22.8	-0.1
AS31				IAmb	IAmb	04 40 23.7	
	comp=Z,1.3nm,0.5s						
ASAR	Alice Springs	32.27	253	P	P	04 40 22.7	-0.2
	comp=Z,2.5nm,0.5s,baz=80,slow=8.5,SNR=56						
	comp=Z,2.5nm,0.5s						
ASAR	Alice Springs	32.27	253	P	P	04 40 22.5	-0.3
KNRA	Kununurra	37.34	267	P	P	04 41 06.3	-0.3
KNRA				IAmb	IAmb	04 41 41.2	
	comp=Z,7.0nm,1.4s						
FITZ	Fitzroy Crossi	40.03	262	P	P	04 41 28.9	-0.3
QSPA	South Pole Qui	72.87	180	P	P	04 45 23.8	+1.2
	comp=Z,8.5nm,1.0s,baz=7.6,slow=1.9,SNR=16						
	comp=Z,8.5nm,1.0s						
QSPA	South Pole Qui	72.87	180	P	P	04 45 23.6	+1.0
BELA	Belgrano 2	84.27	175	P	P	04 46 24.7	-0.3
SONM	Songino Array	84.69	324	P	P	04 46 29.4	+1.7
	comp=Z,0.5nm,0.6s,baz=113,slow=3.9,SNR=4.5						
	comp=Z,0.5nm,0.6s						
SNAA	Sanae	91.15	183	P	P	04 46 58.5	+0.1
	comp=Z,3.1nm,0.9s,baz=146,slow=7.3,SNR=4.4						
	comp=Z,3.1nm,0.9s						
PDAR	Pinedale Array	96.29	47	P	P	04 47 25.0	+2.4
	comp=Z,0.1nm,0.6s,baz=263,slow=7.8,SNR=1.7						
	comp=Z,0.1nm,0.6s						

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*IDC **06** 04:39:18.3±0.4, 17°.06S×167°.71E, h0^{km}, mb4.8/26, mbtmp4.9/28, ML4.6/2, MS4.7/30, Error ellipse: s-maj=14.0km s-min=9.9km az=81.0*

*MOS **06** 04:39:18.9±1.1, 17°.04S×167°.65E, h10^{km}, mb5.6/38, Error ellipse: s-maj=8.3km s-min=7.6km az=35.5*

*BJI **06** 04:39:19.3, 16°.57S×168°.03E, h7^{km}, mB5.8/22, mb5.0/60, Ms5.2/12, Ms7 4.9/14*

*NEIC **06** 04:39:20.4±2.3, 17°.12S±0°.05×167°.78E±0°.07, h10^{km}±1^{km}, mb5.7/202, Mww5.4/21, Error ellipse: s-maj=11.0km s-min=8.2km az=74.0*

*NEIC **06** 04:39:20.9, 17°.22S×167°.89E, h12^{km}, Moment Tensor Solution. Duration: 2^{s}6 Moment tensor: Scale 10^{17}Nm; M_{rr}1.47; $M_{\theta\theta}$-0.03; $M_{\phi\phi}$-1.45; $M_{r\theta}$0.14; $M_{\theta\phi}$0.10; $M_{\phi r}$-0.84; Fault plane solution: $M_0$1.70000×10^{17} NP1: ϕ_s358.47000°, δ29.99000°, λ94.56000°. NP2: ϕ_s173.20000°, δ60.12000°, λ87.37000°. Principal axes: T 1.7062, Plg75.0000°, Azm76.0000°; N -0.0219, Plg2.0000°, Azm175.0000°; P -1.6843, Plg15.0000°, Azm265.0000°;*

*NEIC **06** 04:39:20.4, 17°.12S×167°.78E, h10^{km}*

*NOU **06** 04:39:21.4, 17°.21S×167°.86E, h9^{km}, ML5.4/106, Vanuatu Islands*

*GFZ **06** 04:39:21.1, 17°.09S×167°.78E, h12^{km}, Mw5.4/45, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}1.48; $M_{\theta\theta}$-0.18; $M_{\phi\phi}$-1.30; $M_{r\theta}$-0.01; $M_{\theta\phi}$0.14; $M_{\phi r}$-0.09; Fault plane solution: $M_0$1.40783×10^{17} NP1: ϕ_s173.84019°, δ46.72019°, λ91.15590°. NP2: ϕ_s352.15438°, δ43.29219°, λ88.77279°. Principal axes: T 1.4827, Plg88.0903°, Azm109.1838°; N -0.1642, Plg0.8415°, Azm353.0477°; P -1.3185, Plg1.7142°, Azm263.0225°;*

*GFZ **06** 04:39:21.2±0.2, 17°S±3°×16°8E±°, h10^{km}, M5.5/38, mb5.2/38*

*GCMT **06** 04:39:23.4±0.2, 17°.13S±0°.02×167°.58E±0°.01, h18^{km}, MW5.5/151, Moment Tensor Solution. s85,c108; s151,c258; Duration: 1^{s}4 Moment tensor: Scale 10^{17} Nm; M_{rr}2.15±.07; $M_{\theta\theta}$-0.17±.04; $M_{\phi\phi}$-1.98±.05; $M_{r\theta}$0.10±.12; $M_{\theta\phi}$0.09±.03; $M_{\phi r}$-0.73±.09; Best double couple: $M_0$2.19300×10^{17} NP1: ϕ_s359.00000°, δ35.00000°, λ93.00000°. NP2: ϕ_s175.00000°, δ55.00000°, λ88.00000°. Principal axes: T 2.2770, Plg80.0000°, Azm78.0000°; N*

-0.1630, Plg1.0000°, Azm177.0000°; P -2.1100, Plg10.0000°, Azm267.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function

ISC 06 04:39:21.8±0.2**, 17°.13S**±0°.04×**167°.84E**±0°.04**, h21**km**, n638, σ1**s**68**/587**, mb5.5**/186**, MS4.8**/40**, 40C-28D, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RTV	Rentapao	0.86	140	P	Pb	04 39 37.3	-0.7
SANVU	Saraoutou	1.79	340	P	Pn	04 39 50.6	-0.8
SANVU	Saraoutou	1.79	340		Pn	04 39 50.0	-1.4
SANVU	Saraoutou	1.79	340	P	Pn	04 39 50.0	-1.4
MARNC	Mare, Loyalty	4.33	178	P	Pn	04 40 24.5	-1.9
MARNC	Mare, Loyalty	4.33	178		Pn	04 40 24.4	-1.9
KOUNC	Koumac, New Ca	4.78	224	P	Pn	04 40 30.8	-1.9
KOUNC	Koumac, New Ca	4.78	224		Pn	04 40 30.3	-2.4
YATNC	Mamie plateau,	4.98	190	P	Pn	04 40 34.9	-0.5
YATNC	Mamie plateau,	4.98	190	S	Sn	04 41 30.2	-2.2
DZM	Mont Dzumac	5.08	195	Pn	Pn	04 40 35.3	-1.6
	10nm,0.3s,baz=54,slow=11,SNR=34						
DZM				Sn	Sn	04 41 31.4	-3.6
	26nm,0.3s,baz=298,slow=21,SNR=6.4						
	48nm,0.3s						
DZM				AML	AML		
NOUC	Port Laguerre	5.15	196	P	Pn	04 40 37.1	-0.6
NOUC	Port Laguerre	5.15	196	S	Sn	04 41 34.3	-2.2
ONTNC	Ouen Toro	5.31	194	P	Pn	04 40 39.5	-0.4
ONTNC	Ouen Toro	5.31	194	S	Sn	04 41 38.3	-2.1
ONTNC	Ouen Toro	5.31	194		Pn	04 40 38.8	-1.1
OUENC	Ouen Island, N	5.34	190	P	Pn	04 40 40.8	+0.5
OUENC	Ouen Island, N	5.34	190	S	Sn	04 41 39.1	-2.1
OUENC	Ouen Island, N	5.34	190		Pn	04 40 39.4	-0.9
HURO	Huro Makira	8.79	318	P	Pn	04 41 27.1	-0.6
NGOA	Tingoa Renbel	9.36	305	P	Pn	04 41 34.7	-0.8
MSVF	Nonsavu	9.76	95	Pn	Pn	04 41 42.2	+1.1
	0.5nm,0.3s,baz=268,slow=8.5,SNR=8.4						
MSVF				Sn	Sn	04 43 26.7	-3.5
	0.2nm,0.3s,baz=311,slow=5.3,SNR=1.3						
MSVF				LR	LR	04 44 40.0	
	comp=Z,14µm,21.1s,baz=296,slow=32						
MSVF	Nonsavu	9.76	95	P	Pn	04 41 42.5	+1.4
MSVF	Nonsavu	9.76	95	P	Pn	04 41 47.0	+5.9
HNR	Honiara	10.84	314	Pn	Pn	04 41 54.8	-1.0
	12nm,0.3s,baz=189,slow=13,SNR=5.0						
HNR				Sn	Sn	04 43 48.9	-7.8
	3.8nm,0.3s,baz=214,slow=3.6,SNR=1.7						
HNR				LR	LR	04 45 42.4	
	comp=Z,5µm,18.6s,baz=216,slow=36						
	432nm,1.1s						
HNR				AML	AML		
HNR	Honiara	10.84	314	P	Pn	04 41 57.2	+1.3
HNR	Honiara	10.84	314		Pn	04 41 54.7	-1.2
HNR	Honiara	10.84	314	P	Pn	04 41 55.7	-0.2
	comp=Z,650nm,1.2s						
SAVO	Savo Central	11.14	314	P	Pn	04 42 00.7	+0.8
DGTI	Dogotuki	11.43	88	P	Pn	04 42 04.8	+0.9
TATA	Tatamba Isabel	11.70	317	P	Pn	04 42 09.2	+1.6
AUBSH	Beerwah State	16.85	232	P	P	04 43 18.2	-0.2
GD1S	Gladstone Soft	16.98	244	P	P	04 43 19.7	-0.2
GC1S	Gold Coast 1 S	17.17	228	P	P	04 43 22.2	+0.2
AUNRC	North Rockhamp	17.38	246	P	P	04 43 23.9	-0.4
EIDS	Eidsvold	17.63	239	P	P	04 43 26.8	-0.3
	comp=Z,186nm,1.5s						
EIDS	Eidsvold	17.63	239	P	P	04 43 27.7	+0.6
	comp=Z,186nm,1.5s						
EIDS	Eidsvold	17.63	239	P	P	04 43 27.9	+0.8
EIDS	Eidsvold	17.63	239		Pn	04 43 25.5	-0.8
EIDS	Eidsvold	17.63	239	P	P	04 43 26.9	-0.3
	comp=Z,186nm,1.5s						
TW1H	Toowoomba 1 Ha	17.95	232	P	P	04 43 31.9	+1.2
AUTOO	Toowoomba Stat	17.95	232	P	P	04 43 31.7	+1.0
OUZ	Omahuta	18.73	165	P	Pn	04 43 41.0	+1.4
OUZ	Omahuta	18.73	165	P	Pn	04 43 40.8	+1.2
	comp=Z,70nm,1.4s						
TARA	Tarawa	19.04	16	P	Pn	04 43 45.5	+2.0
	comp=Z,256nm,1.8s						
AUAYR	Ayr State High	19.55	260	P	Pn	04 43 49.8	+0.2
WCZ	Waipu Caves	19.60	164	P	Pn	04 43 51.3	+1.2
ARMA	Armidale	19.84	225	P	Pn	04 43 52.5	-0.6
	comp=Z,126nm,1.7s						
ARMA	Armidale	19.84	225	P	Pn	04 43 53.3	+0.2
	comp=Z,126nm,1.7s						
ARMA	Armidale	19.84	225	P	Pn	04 43 53.0	-0.1
ARMA	Armidale	19.84	225		P	04 43 51.8	+0.3
ARMA	Armidale	19.84	225	P	Pn	04 43 53.4	+0.2
	comp=Z,126nm,1.7s						
AFI	Afiamalu	19.90	84	P	Pn	04 43 53.9	+0.1
	comp=Z,54nm,0.9s,baz=286,slow=20,SNR=4.5						
	comp=Z,54nm,0.9s						
AFI	Afiamalu	19.90	84	P	Pn	04 43 53.7	-0.1
AFI	Afiamalu	19.90	84	P	P	04 43 52.1	0.0
AFI	Afiamalu	19.90	84	P	Pn	04 43 54.4	+0.5
	comp=Z,226nm,1.4s						
RMQ	Roma	19.99	239	P	Pn	04 43 54.9	0.0
	comp=Z,75nm,1.6s						
RMQ	Roma	19.99	239	P	Pn	04 43 54.4	-0.5
RMQ	Roma	19.99	239	P	Pn	04 43 55.4	+0.6
	comp=Z,75nm,1.6s						
KRVT	Keravat (AS076	20.07	308	P	P	04 43 51.7	-2.3
	comp=Z,247nm,0.7s,baz=21,slow=13,SNR=4.0						
KRVT				LR	LR	04 51 37.9	
	comp=Z,2µm,18.8s,baz=135,slow=37						
CTA	Charters Tower	20.67	258	P	P	04 44 00.6	+0.1
CTA	Charters Tower	20.67	258	P	P	04 43 59.7	-0.8
	comp=Z,48nm,1.0s,baz=78,slow=12,SNR=29						
CTA				LR	LR	04 50 40.0	
	comp=Z,3µm,21.2s,baz=76,slow=33						
	comp=Z,48nm,1.0s						
CTAO	Charters Tower	20.67	258	P	P	04 44 01.4	+0.9
CTAO	Charters Tower	20.67	258	P	P	04 44 00.5	+0.1
CTAO				pmax	pmax		
	comp=Z,352nm,1.3s						
CTAO	Charters Tower	20.67	258	P	P	04 44 00.5	+0.1
CTAO				IAmb	IAmb	04 44 06.5	
	comp=Z,352nm,1.3s						
CTAO	Charters Tower	20.67	258	P	P	04 44 01.1	+0.6
	comp=Z,249nm,1.4s						
AUPHS	Peel High Scho	20.76	225	P	Pn	04 44 03.3	-0.5
MKAZ	Moumakai	20.92	163	P	Pn	04 44 04.5	-1.1
PMG	Port Moresby	21.53	288	P	P	04 44 07.0	-2.7
	comp=Z,14nm,0.9s,baz=83,slow=17,SNR=4.9						
PMG				LR	LR	04 51 29.0	
	comp=Z,3µm,19.9s,baz=109,slow=34						
	comp=Z,14nm,0.9s						
PMG	Port Moresby	21.53	288	P	P	04 44 11.3	+1.5
PMG	Port Moresby	21.53	288	*i* P	P	04 44 09.2	-0.6
PMG				pmax	pmax		
	comp=Z,27nm,1.1s						
PMG	Port Moresby	21.53	288	P	P	04 44 10.1	+0.3
PMG	Port Moresby	21.53	288	P	P	04 44 11.7	+1.9
	comp=Z,3µmcomp=Z,124nm,1.9s						
PMG	Port Moresby	21.53	288	P	P	04 44 10.5	+0.7
	comp=Z,126nm,1.9s						
TOZ	Tahuroa Road	21.60	163	P	P	04 44 11.4	+1.1
TOZ				IAmb	IAmb	04 44 16.2	
	comp=Z,343nm,1.2s						
TOZ	Tahuroa Road	21.60	163	P	P	04 44 11.9	+1.6
AULRC	Lightning Ridg	21.93	233	P	P	04 44 15.6	+1.7
MGCD	Mangrove Creek	21.98	220	P	P	04 44 17.4	+2.9
	comp=Z,55nm,1.1s						
MGCD	Mangrove Creek	21.98	220	P	P	04 44 16.4	+1.9
MGCD	Mangrove Creek	21.98	220	P	P	04 44 17.6	+3.1
	comp=Z,55nm,1.1s						
AUKHS	Kincumber High	21.99	219	P	P	04 44 16.2	+1.7
HIZ	Hauiti	22.17	165	P	P	04 44 18.2	+1.8
HIZ	Hauiti	22.17	165	P	P	04 44 19.5	+3.1
HIZ	Hauiti	22.17	165	P	P	04 44 18.9	+2.5
	comp=Z,323nm,1.5s						
MTSU	Mount Surprise	22.44	264	P	P	04 44 19.9	+0.4
	comp=Z,87nm,1.5s						
MTSU	Mount Surprise	22.44	264	P	P	04 44 21.1	+1.5
MTSU	Mount Surprise	22.44	264	P	P	04 44 20.0	+0.4
	comp=Z,87nm,1.5s						
URZ	Urewera	22.56	161	P	P	04 44 22.4	+1.8
	comp=Z,171nm,1.3s,baz=14,slow=4.1,SNR=17						
URZ				LR	LR	04 51 27.0	
	comp=Z,2µm,20.9s,baz=344,slow=32						
	comp=Z,171nm,1.3s						
URZ	Urewera	22.56	161	P	P	04 44 21.9	+1.3
	comp=Z,217nm,1.5s						
SYDH	Sydney Hard Ro	22.58	220	P	P	04 44 22.3	+1.4
RTZ	Ruatahuna	22.85	161	P	P	04 44 24.7	+0.9
RTZ				IAmb	IAmb	04 44 42.4	
	comp=Z,445nm,1.4s						
WOLH	Wollongong Har	22.95	218	P	P	04 44 26.6	+1.9
AUDCS	Dubbo College	22.98	226	P	P	04 44 26.5	+1.4
BKZ	Black Stump Fm	23.21	163	P	P	04 44 28.6	+1.1
MOVZ	Moawhango	23.24	164	P	P	04 44 30.2	+2.5
BHHZ	Black Hill Sta	23.40	164	P	P	04 44 31.2	+1.9
KWHZ	Kaweka Forest	23.43	163	P	P	04 44 32.6	+2.9
MCHZ	McNeill Hill	23.53	163	P	P	04 44 34.4	+3.8
KRHZ	Kereru	23.62	163	P	P	04 44 33.2	+1.7
QLP	Quilpie	23.81	243	P	P	04 44 32.3	-1.1
	comp=Z,312nm,1.6s						
QLP	Quilpie	23.81	243	P	P	04 44 34.1	+0.7
QLP	Quilpie	23.81	243	P	P	04 44 32.8	-0.6
	comp=Z,312nm,1.6s						
PNHZ	Pukenui	23.83	164	P	P	04 44 34.3	+0.9
AUUHS	Ulladulla High	23.85	217	P	P	04 44 35.1	+1.4
TSZ	Takapari Road	23.91	164	P	P	04 44 35.5	+1.3
KAHZ	Kahuranaki	23.91	163	P	P	04 44 37.3	+3.1
WPHZ	Waipukurau	24.04	164	P	P	04 44 36.5	+1.1
PXZ	Pawanui	24.12	163	P	P	04 44 37.2	+1.1
PRHZ	Porangahau	24.28	163	P	P	04 44 38.9	+1.3
MRZ	Mangatainoka R	24.38	166	P	P	04 44 38.2	-0.3
MRZ				IAmb	IAmb	04 44 47.0	
	comp=Z,171nm,1.2s						
OGWZ	Otaki Gorge	24.43	166	P	P	04 44 39.7	+0.7
CNB	Canberra Magne	24.47	219	P	P	04 44 40.1	+0.6
	comp=Z,3.2nm,1.1s						
BFZ	Birch Farm	24.57	164	P	P	04 44 41.1	+0.9
BFZ	Birch Farm	24.57	164	P	P	04 44 40.6	+0.4
BFZ	Birch Farm	24.57	164	P	P	04 44 40.3	+0.1
	comp=Z,169nm,2.0s						
AUMHS	Melrose High S	24.67	219	P	P	04 44 42.9	+1.6
CAW	Cannon Point	24.69	167	P	P	04 44 43.0	+1.7
CMSA	Cobar Meteorol	24.69	230	P	P	04 44 41.4	0.0
	comp=Z,113nm,1.2s						
CMSA	Cobar Meteorol	24.69	230	P	P	04 44 42.2	+0.8
CMSA	Cobar Meteorol	24.69	230	P	P	04 44 41.5	0.0
	comp=Z,113nm,1.2s						
AUMTS	Mt Stromlo	24.70	219	P	P	04 44 43.0	+1.5
CAN	Canberra	24.70	219	P	P	04 44 43.8	+2.3
	comp=Z,92nm,1.4s						
CAN	Canberra	24.70	219	P	P	04 44 43.0	+1.5
CAN	Canberra	24.70	219	P	P	04 44 42.7	+1.2
CAN				pmax	pmax		
	comp=Z,195nm,1.5s						
CAN	Canberra	24.70	219	P	P	04 44 42.7	+1.2
CAN				IAmb	IAmb	04 44 47.0	
	comp=Z,194nm,1.5s						
CAN	Canberra	24.70	219	P	P	04 44 44.0	+2.4
	comp=Z,92nm,1.4s						
SNZO	South Karori	24.81	168	P	P	04 44 41.6	-0.8
SNZO				IAmb	IAmb	04 44 55.9	
	comp=Z,252nm,1.3s						
TMWZ	Te Maipa	24.88	165	P	P	04 44 44.3	+1.2
MSWZ	Moikau Station	25.02	167	P	P	04 44 44.3	0.0
MANU	Manus Island	25.10	305	P	P	04 44 43.0	-2.3
PLWZ	Palliser	25.17	167	P	P	04 44 46.0	+0.3
PATS	Pohnpei	25.61	338	P	P	04 44 51.3	+1.4
PATS	Pohnpei	25.61	338	P	P	04 44 48.1	-1.8
PATS				IAmb	IAmb	04 45 07.0	
	comp=Z,163nm,1.0s						
KHZ	Kahutara	25.66	170	IAmb	IAmb	04 45 00.0	
	comp=Z,376nm,1.7s						
KHZ	Kahutara	25.66	170	P	P	04 44 50.1	0.0
	comp=Z,103nm,2.1s						
AUSMG	Snowy Mountain	25.67	218	P	P	04 44 52.0	+1.6
MILA	Mila	25.80	216	P	P	04 44 54.7	+3.1
LTZ	Lake Taylor	25.84	173	IAmb	IAmb	04 45 00.4	
	comp=Z,441nm,1.9s						
OXZ	Oxford	26.35	173	IAmb	IAmb	04 45 05.3	
	comp=Z,172nm,1.6s						
RPZ	Rata Peaks	26.64	175	LR	LR	04 55 33.3	
	comp=Z,766nm,18.0s,baz=86,slow=36						
JCZ	Jackson Bay	26.87	178	P	P	04 45 02.8	+1.7
QIS	Mount Isa	26.92	258	P	P	04 45 00.9	-1.0
	comp=Z,66nm,1.3s						
QIS	Mount Isa	26.92	258	P	P	04 45 02.2	+0.4
QIS	Mount Isa	26.92	258	P	P	04 45 00.8	-1.1
	comp=Z,66nm,1.3s						
INKA	Innaminka	27.12	242	P	P	04 45 03.1	-0.4
STKA	Stephens Creek	27.93	233	P	P	04 45 10.9	+0.2
	comp=Z,195nm,1.3s						
STKA	Stephens Creek	27.93	233	P	P	04 45 10.2	-0.5
	comp=Z,54nm,1.2s,baz=48,slow=7.1,SNR=25						
STKA				PcP	PcP	04 48 24.9	-1.1
	comp=Z,3.3nm,0.9s,baz=51,slow=3.5,SNR=1.8						
STKA				LR	LR	04 56 09.6	
	comp=Z,3µm,18.0s,baz=63,slow=36						
	comp=Z,54nm,1.2s						
STKA	Stephens Creek	27.93	233	P	P	04 45 11.4	+0.7
STKA	Stephens Creek	27.93	233	*i* P	P	04 45 10.0	-0.7
STKA	Stephens Creek	27.93	233	P	P	04 45 11.0	+0.2
	comp=Z,195nm,1.3s						
TOO	Toolangi	28.30	220	P	P	04 45 14.6	+0.6
	comp=Z,11nm,2.8s						
TOO	Toolangi	28.30	220	P	P	04 45 14.2	+0.2
TOO				pmax	pmax		
	comp=Z,33nm,1.6s						
TOO	Toolangi	28.30	220	P	P	04 45 14.2	+0.2
BRAT	Ballarat	29.26	221	P	P	04 45 24.3	+1.9
ARPS	Mount Arapiles	30.17	224	P	P	04 45 33.4	+2.9
	comp=Z,11nm,1.6s						
ARPS	Mount Arapiles	30.17	224	P	P	04 45 34.0	+3.5
HTT	Hallett	30.63	233	P	P	04 45 35.6	+0.9
	comp=Z,14nm,1.8s						
HTT	Hallett	30.63	233	P	P	04 45 36.3	+1.5
HTT	Hallett	30.63	233	P	P	04 45 35.6	+0.9
MOO	Moorlands	30.78	211	P	P	04 45 38.6	+2.8
	comp=Z,69nm,1.6s						
MOO	Moorlands	30.78	211	P	P	04 45 37.4	+1.6
MOO	Moorlands	30.78	211	P	P	04 45 39.3	+3.5
	comp=Z,70nm,1.6s						
GENI	Genyem	30.79	295	P	P	04 45 37.9	+1.7
GENI	Genyem	30.79	295	P	P	04 45 37.1	+0.9
	comp=Z,7µmcomp=Z,61nm,0.8s						
GENI	Genyem	30.79	295	P	P	04 45 36.8	+0.6
	comp=Z,92nm,1.5s						
RAR	Rarotonga	30.82	103	LR	LR	04 57 18.9	
	comp=Z,610nm,18.6s,baz=270,slow=35						
AUMBR	Murray Bridge	31.12	229	P	P	04 45 40.2	+1.3
AUMAR	Marden Senior	31.48	230	P	P	04 45 43.9	+1.8
WR8	Warramunga Arr	31.71	260	P	P	04 45 42.0	-2.3
WRAB	Tennant Creek	31.85	260	P	P	04 45 46.2	+0.6
WRAB	Tennant Creek	31.85	260	*i* P	P	04 45 43.3	-2.3
WRAB				pmax	pmax		
	comp=Z,77nm,1.6s						
WRAB	Tennant Creek	31.85	260	P	P	04 45 43.6	-1.9
	comp=Z,37nm,1.4s						
WRA	Warramunga Arr	31.86	260	P	P	04 45 43.9	-1.7
	comp=Z,22nm,1.0s,baz=90,slow=8.6,SNR=60						
WRA				PcP	PcP	04 48 36.2	-0.2
	comp=Z,9.6nm,1.1s,baz=91,slow=2.6,SNR=6.3						
WRA				ScP	ScP	04 52 20.3	+1.6
	comp=Z,1.9nm,1.1s,baz=94,slow=4.0,SNR=4.7						
WRA				PKiKP	PKiKP	04 55 59.9	-5.3
	comp=Z,1.1nm,1.1s,baz=32,slow=0.3,SNR=4.8						
WRA				LR	LR	04 57 31.4	
	comp=Z,2µm,21.4s,baz=90,slow=34						
	comp=Z,22nm,1.0s						
WRA	Warramunga Arr	31.86	260		P	04 45 43.0	-2.7
AS17	Alice Springs	32.33	253	P	P	04 45 48.6	-1.2
AS17	Alice Springs	32.33	253	P	P	04 45 48.6	-1.2
	comp=Z,33nm,0.8s						
AS01	Alice Springs	32.37	253	P	P	04 45 48.5	-1.6
	comp=Z,40nm,0.9s						
AS01	Alice Springs	32.37	253	P	P	04 45 51.6	+1.5
AS09	Alice Springs	32.38	253	P	P	04 45 48.6	-1.6
	comp=Z,43nm,0.8s						
AS15	Alice Springs	32.40	253	P	P	04 45 48.5	-2.0
AS31	Alice Springs	32.41	253	P	P	04 45 48.9	-1.7
	comp=Z,11nm,1.1s						
AS31	Alice Springs	32.41	253	P	P	04 45 48.6	-1.9
ASAR	Alice Springs	32.41	253	P	P	04 45 48.3	-2.2
	comp=Z,12nm,0.5s,baz=80,slow=8.5,SNR=127						
ASAR				PcP	PcP	04 48 37.8	-0.1
	comp=Z,8.5nm,1.0s,baz=83,slow=2.6,SNR=7.8						
ASAR				ScP	ScP	04 52 23.0	+2.4
	comp=Z,2.4nm,1.1s,baz=107,slow=3.1,SNR=5.5						
ASAR				PKiKP	PKiKP	04 56 00.8	-4.7
	comp=Z,0.4nm,0.8s,baz=81,slow=1.8,SNR=2.3						
ASAR				LR	LR	04 58 04.9	
	comp=Z,3µm,22.0s,baz=92,slow=35						
	comp=Z,12nm,0.5s						
ASAR	Alice Springs	32.41	253		P	04 45 48.0	-2.5
AUALC	St Philip's Co	32.43	253	P	P	04 45 51.8	+1.1
BBOO	Buckleboo	32.61	235	P	P	04 45 51.4	-0.6
	comp=Z,49nm,1.6s						
BBOO	Buckleboo	32.61	235	P	P	04 45 53.6	+1.5
BBOO	Buckleboo	32.61	235	P	P	04 45 52.0	-0.1
BBOO				IAmb	IAmb	04 46 08.1	
	comp=Z,160nm,1.8s						
BBOO	Buckleboo	32.61	235	P	P	04 45 52.3	+0.2
	comp=Z,50nm,2.4s						
AUCAS	Cummins Area S	33.41	233	P	P	04 46 00.4	+1.4
KDU	Kakadu	34.43	272	P	P	04 46 07.1	-1.1
	comp=Z,19nm,1.5s						
BAKI	Biak	35.01	294	P	P	04 46 14.6	+1.5
	comp=Z,2µmcomp=Z,70nm,1.2s						
MTN	Manton Dam	35.68	272	P	P	04 46 21.6	+2.7
KNRA	Kununurra	37.48	266	P	P	04 46 32.1	-2.1
WRKA	Warakurna	37.62	251	P	P	04 46 33.9	-1.5
	comp=Z,14nm,2.3s						
FAKI	Fak Fak	37.69	288	P	P	04 46 38.2	+2.1
FAKI	Fak Fak	37.69	288	P	P	04 46 38.6	+2.5
	comp=Z,57nm,2.4s						
FAKI	Fak Fak	37.69	288	P	P	04 46 35.8	-0.3
	comp=Z,54nm,1.4s						
GUMO	Guam	38.03	322	LR	LR	05 04 10.9	
	comp=Z,886nm,18.1s,baz=140,slow=39						
FITZ	Fitzroy Crossi	40.17	262	P	P	04 46 55.3	-1.5
	comp=Z,18nm,1.2s						
FITZ	Fitzroy Crossi	40.17	262	LR	LR	05 02 37.0	
	comp=Z,3µm,21.3s,baz=98,slow=35						
FITZ	Fitzroy Crossi	40.17	262	P	P	04 46 58.3	+1.5
FITZ	Fitzroy Crossi	40.17	262		P	04 46 56.2	-0.6
FITZ	Fitzroy Crossi	40.17	262	P	P	04 46 56.5	-0.4
	comp=Z,18nm,1.2s						
PPT2	Papeete2	40.58	97	*e*S	S	04 53 07.4	-1.6
	comp=Z,1µm,25.8s						
PPT2				*e*LQ	LQ	04 56 25.1	
	comp=Z,1µm,25.8s						
PPT2				*e*LR	LR	04 58 07.2	
	comp=Z,4µm,28.0s						
PPT2				*e*LR	LR	04 58 15.6	
	comp=Z,5µm,25.8s						
PPT	Papeete	40.58	97	LR	LR	04 59 44.3	
	comp=Z,1µm,19.5s,baz=257,slow=30						
SOEI	Soe	42.94	274	P	P	04 47 21.6	+1.9
SOEI	Soe	42.94	274	P	P	04 47 20.6	+0.9
	comp=Z,2µmcomp=Z,54nm,1.7s						
SOEI	Soe	42.94	274	P	P	04 47 22.0	+2.3
	comp=Z,72nm,1.7s						
KMBL	Kambalda	43.92	242	P	P	04 47 26.6	-0.8
	comp=Z,29nm,1.4s						
MBWA	Marble Bar	45.49	257	P	P	04 47 39.5	-0.5
	comp=Z,83nm,1.6s						
MBWA	Marble Bar	45.49	257	P	P	04 47 39.7	-0.3
MBWA	Marble Bar	45.49	257		P	04 47 39.1	-0.9
MBWA	Marble Bar	45.49	257	P	P	04 47 39.4	-0.6
	comp=Z,83nm,1.6s						
MEEK	Meekatharra	46.41	249	P	P	04 47 47.8	+0.6
	comp=Z,95nm,1.3s						
MEEK	Meekatharra	46.41	249	P	P	04 47 48.7	+1.5
MEEK	Meekatharra	46.41	249	P	P	04 47 47.1	-0.1
	comp=Z,95nm,1.3s						
LBFI	Labuhan Bajo,	47.44	274	P	P	04 47 55.1	-0.2
GTOI	Gorontalo	47.56	287	P	P	04 47 56.7	+0.4
	comp=Z,784nmcomp=Z,37nm,1.0s						
NWAO	Narrogin (SRO)	48.03	241	LR	LR	05 07 36.7	
	comp=Z,2µm,20.9s,baz=92,slow=35						
DAV	Davao City (W)	48.20	296	LR	LR	05 07 45.9	
	comp=Z,473nm,19.0s,baz=152,slow=36						
KAPI	Kappang	48.57	279	P	P	04 48 05.8	+1.7
KAPI	Kappang	48.57	279	*i* P	P	04 48 03.6	-0.5
KAPI				pmax	pmax		
	comp=Z,133nm,1.5s						
KAPI	Kappang	48.57	279	P	P	04 48 03.6	-0.5
KAPI	Kappang	48.57	279	P	P	04 48 03.8	-0.3
	comp=Z,789nmcomp=Z,34nm,1.5s						
KAPI	Kappang	48.57	279	P	P	04 48 04.1	0.0
	comp=Z,64nm,1.5s						
MORW	Morawa	48.77	246	P	P	04 48 05.6	+0.2
	comp=Z,37nm,1.6s						
MORW	Morawa	48.77	246	P	P	04 48 07.1	+1.7
MORW	Morawa	48.77	246	IAmb	IAmb	04 48 10.8	
	comp=Z,134nm,1.8s						
MORW	Morawa	48.77	246	P	P	04 48 05.3	-0.1
	comp=Z,37nm,1.6s						
TOLI2	Tolitoli	49.79	287	P	P	04 48 15.0	+1.6
TOLI2	Tolitoli	49.79	287	P	P	04 48 12.3	-1.1
TOLI2				IAmb	IAmb	04 48 18.7	
	comp=Z,105nm,1.6s						
TOLI2	Tolitoli	49.79	287	P	P	04 48 12.5	-0.9
	comp=Z,37nm,1.4s						
PCI	Palu	49.89	284	P	P	04 48 15.9	+1.7
MMSI	Mamuju	50.12	281	P	P	04 48 18.3	+2.3
GIRL	Giralia	50.49	255	P	P	04 48 19.9	+1.2
	comp=Z,72nm,1.5s						
GIRL	Giralia	50.49	255	IAmb	IAmb	04 48 26.2	
	comp=Z,151nm,1.5s						
TAOE	Nuku Hiva Isla	51.22	88	*e*S	S	04 55 39.9	-2.2
	comp=Z,1µm,25.9s						
TAOE				*e*SS	SS	04 59 21.2	+3.4
	comp=Z,640nm,28.0s						
TAOE				*e*LR	LR	05 03 07.8	
	comp=Z,4µm,25.9s						
KHKI	Kahang-Kahang	51.55	273	P	P	04 48 26.4	-0.4
	comp=Z,1µmcomp=Z,58nm,1.4s						
IGBI	Denpasar	51.88	272	P	P	04 48 30.9	+1.7
DRV	Dumont d'Urvil	52.74	194	P	P	04 48 34.2	-0.6
MYLDM	Lahad Datu	53.54	290	P	P	04 48 43.2	+1.7
MYLDM	Lahad Datu	53.54	290	P	P	04 48 42.3	+0.9
MYLDM				IAmb	IAmb	04 48 53.7	
	comp=Z,131nm,1.4s						
SNJI	Sawahan-Nganju	55.38	272	P	P	04 48 57.3	+2.2
	comp=Z,40nm,1.2s						
KKM	Kota Kinabalu	55.97	290	P	P	04 49 00.7	+1.5
KKM	Kota Kinabalu	55.97	290	P	P	04 48 58.4	-0.8
KKM				IAmb	IAmb	04 49 05.6	
	comp=Z,102nm,1.3s						
KKM	Kota Kinabalu	55.97	290	P	P	04 48 59.1	-0.1
	comp=Z,1µmcomp=Z,61nm,1.5s						
KKM	Kota Kinabalu	55.97	290	P	P	04 49 00.7	+1.5
	comp=Z,61nm,1.5s						
JHJ	Hachijo jima 2	56.71	332	LR	LR	05 09 17.6	
	comp=Z,266nm,21.6s,baz=39,slow=32						
JOW	Kunigami	58.19	318	LR	LR	05 14 07.8	
	comp=Z,539nm,18.6s,baz=192,slow=36						
INU	Inuyama	59.83	331	P	P	04 49 27.2	+1.5
INU	Inuyama	59.83	331	P	P	04 49 25.2	-0.5
INU				IAmb	IAmb	04 50 01.4	
	comp=Z,64nm,1.5s						
INU	Inuyama	59.83	331	P	P	04 49 25.9	+0.2
JMN	Monobe	60.06	328	P	P	04 49 28.9	+1.5
MJAR	Matsushiro Arr	60.28	333	P	P	04 49 27.3	-1.6
	comp=Z,26nm,1.1s,baz=162,slow=6.9,SNR=28						
	comp=Z,26nm,1.1s						
MJAR	Matsushiro Arr	60.28	333	P	P	04 49 27.9	-1.0
MJAR				pmax	pmax		
	comp=Z,21nm,1.2s						
MJAR	Matsushiro Arr	60.28	333	P	P	04 49 27.9	-1.0
MAJO	Matsushiro	60.28	333	P	P	04 49 31.2	+2.3
MAJO	Matsushiro	60.28	333	*i* P	P	04 49 28.1	-0.8
MAJO				pmax	pmax		
	comp=Z,34nm,1.1s						
MAJO	Matsushiro	60.28	333	P	P	04 49 28.0	-0.8
MAJO	Matsushiro	60.28	333	P	P	04 49 28.5	-0.4
	comp=Z,28nm,1.2s						
VNDA	Vanda	60.48	181	P	P	04 49 29.9	+0.2
	comp=Z,6.6nm,1.1s,baz=357,slow=6.9,SNR=20						
	comp=Z,6.6nm,1.1s						
VNDA	Vanda	60.48	181	P	P	04 49 30.2	+0.5
VNDA				pmax	pmax		
	comp=Z,77nm,1.8s						
VNDA	Vanda	60.48	181	P	P	04 49 30.2	+0.5
VNDA				IAmb	IAmb	04 49 31.4	
	comp=Z,77nm,1.8s						
VNDA	Vanda	60.48	181	P	P	04 49 30.4	+0.7
	comp=Z,21nm,2.1s						
SBA	Scott Base	60.75	180	P	P	04 49 33.0	+1.5
SBA				pmax	pmax		
	comp=Z,142nm,1.5s						
SBA	Scott Base	60.75	180	P	P	04 49 33.0	+1.5
SBA	Scott Base	60.75	180	P	P	04 49 32.7	+1.2
	comp=Z,64nm,1.9s						
NACB	Ninganchiao	61.01	311	P	P	04 49 35.8	+1.8
NACB	Ninganchiao	61.01	311	P	P	04 49 28.2	-5.9
	comp=Z,70nm,1.4s						
JNU	Nakatsue	61.19	325	LR	LR	05 14 10.6	
	comp=Z,132nm,18.8s,baz=107,slow=34						
YHNB	Yeheng	61.47	311	P	P	04 49 39.1	+1.9

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YHNB  Yeheng            61.47 311    P      P        04 49 37.0  -0.3
      comp=Z,141nm,1.9s
CASY  Casey             61.53 203    P      P        04 49 36.4  -0.5
CASY  Casey             61.53 203    P      P        04 49 37.1  +0.1
      comp=Z,24nm,1.7s
JKA   Kamikawa-asahi    65.18 340    P      P        04 50 01.5  +0.2
JKA                                  IAmb   IAmb     04 50 26.2
      comp=Z,49nm,1.3s
JKA   Kamikawa-asahi    65.18 340    P      P        04 50 01.9  +0.6
      comp=Z,28nm,1.5s
ASAJ  Asahikawa         65.18 340    P      P        04 50 01.5  +0.2
ASAJ                                 pmax   pmax
      comp=Z,49nm,1.3s
KSRS  Korea Array       66.03 326    P      P        04 50 05.4  -1.5
      comp=Z,3.6nm,1.0s,baz=143,slow=7.6,SNR=7.1
      comp=Z,3.6nm,1.0s
QIZ   Qiongzhong        67.39 300    P      P        04 50 18.9  +2.9
QIZ                                  S      S        04 59 12.9  +1.9
QIZ                                  L      L
      comp=Z,440nm,11.7s
QIZ                                  L      L
      comp=Z,380nm,18.6s
QIZ                                  L      L
      comp=Z,740nm,24.5s
YSS   Yuzhno-Sakhali    67.67 342    P      P        04 50 19.3  +2.1
YSS   Yuzhno-Sakhali    67.67 342ceP        P        04 50 17.4  +0.2
YSS                                  pmax   pmax
      comp=Z,24nm,1.0s
YSS   Yuzhno-Sakhali    67.67 342    P      P        04 50 17.9  +0.7
YSS                                  IAmb   IAmb     04 50 37.2
      comp=Z,37nm,1.0s
YSS   Yuzhno-Sakhali    67.67 342    P      P        04 50 18.1  +0.9
      comp=Z,41nm,1.2s
NJ2   Nanjing           67.78 316   eP      P        04 50 19.0  +0.8
NJ2                                  pmax   pmax
      comp=Z,34nm,1.0s
PSTR  Posyet            68.57 331   iP      P        04 50 23.5  +0.6
USA0B Ussuriysk Arra    69.27 333   iP      P        04 50 27.5  +0.2
USRK  Ussuriysk Ar.     69.27 333    P      P        04 50 27.0  -0.3
      comp=Z,20nm,1.1s,baz=134,slow=5.5,SNR=21
      comp=Z,20nm,1.1s
USRK  Ussuriysk Ar.     69.27 333    P      P        04 50 27.7  +0.4
USRK  Ussuriysk Ar.     69.27 333    P      P        04 50 27.6  +0.4
SHEM  Shemya Is, Ala    69.78   4    LR     LR       05 16 18.5
      comp=Z,632nm,20.2s,baz=134,slow=32
WHN   Wuhan             69.96 312   ⇓P      P        04 50 32.1  +0.3
WHN                                  pP     pP       04 50 35.1  -2.2
KULM  Kulim             69.98 282    P      P        04 50 34.8  +2.4
KULM  Kulim             69.98 282    P      P        04 50 33.1  +0.7
KULM                                 IAmb   IAmb     04 50 44.1
      comp=Z,86nm,1.5s
KULM  Kulim             69.98 282    P      P        04 50 34.2  +1.8
      comp=Z,927nmcomp=Z,41nm,2.0s
KULM  Kulim             69.98 282    P      P        04 50 34.2  +1.8
      comp=Z,41nm,2.0s
PEA0B Petropavlovsk-    70.50 354ceP        P        04 50 34.4  -0.2
PETK  Petropavlovsk-    70.50 354    P      P        04 50 34.0  -0.7
      comp=Z,9.6nm,1.0s,baz=113,slow=7.1,SNR=8.1
PETK                                 LR     LR       05 16 19.5
      comp=Z,486nm,20.6s,baz=134,slow=32
      comp=Z,9.6nm,1.0s
PETK  Petropavlovsk-    70.50 354    P      P        04 50 34.1  -0.5
PETK  Petropavlovsk-    70.50 354    P      P        04 50 34.1  -0.5
DL2   Dalian            70.54 323    P      P        04 50 35.3  +0.1
DL2                                  S      S        04 59 52.3  +4.7
DL2                                  pmax   pmax
      comp=Z,50nm,1.1s
DL2                                  pmax   pmax
      comp=Z,1μm,8.7s
DL2                                  L      L
      comp=Z,940nm,22.4s
DL2                                  L      L
      comp=Z,750nm,20.3s
DL2                                  L      L
      comp=Z,1μm,23.7s
MDJ   Mudanjiang        70.65 332    P      P        04 50 36.4  +0.6
MDJ                                  pmax   pmax
      comp=Z,33nm,1.0s
RPSI  Rantau Prapat     70.74 279    P      P        04 50 36.9  -0.1
RPSI                                 IAmb   IAmb     04 50 45.9
      comp=Z,50nm,1.1s
RPSI  Rantau Prapat     70.74 279    P      P        04 50 39.3  +2.3
      comp=Z,48nm,2.2s
PSI   Prapat            70.77 279    P      P        04 50 39.5  +2.1
PSI   Prapat            70.77 279    P      P        04 50 36.9  -0.5
PSI                                  pmax   pmax
      comp=Z,50nm,1.1s
PSI   Prapat            70.77 279    P      P        04 50 38.7  +1.3
      comp=Z,1μmcomp=Z,48nm,2.2s
TYV   Tymovskoe         71.23 343   eP      P        04 50 42.9  +3.8
TYV                                  pmax   pmax
      comp=Z,11nm,1.5s
TYV                                  pmax   pmax
      comp=Z,200nm,2.5s
TIA   Tai'an            71.50 319    P      P        04 50 39.7  -1.4
TIA                                  pmax   pmax
      comp=Z,10.0nm,1.1s
GSI   Gunungsitoli      71.57 277    P      P        04 50 43.9  +1.9
GSI   Gunungsitoli      71.57 277    P      P        04 50 44.8  +2.8
      comp=Z,86nm,2.2s
GSI   Gunungsitoli      71.57 277    P      P        04 50 45.7  +3.6
      comp=Z,84nm,2.2s
CN2   Changchun         71.98 329   eP      P        04 50 43.8   0.0
CN2                                 esP     pP       04 50 50.3  +1.0
CN2                                 eS      S        05 00 04.7  +0.6
CN2                                  pmax   pmax
      comp=Z,10.0nm,0.6s
CN2                                  pmax   pmax
      comp=Z,100nm,3.0s
CN2                                  L      L
      comp=Z,200nm,12.0s
CN2                                  L      L
      comp=Z,300nm,12.0s
CN2                                  L      L
      comp=Z,300nm,14.0s
BNX   BinXian           72.50 332   ⇓P      P        04 50 46.6  -0.3
BNX                                  pP     pP       04 50 49.2  -3.4
BNX                                  sP     sP       04 50 50.5  -4.0
BNX                                  S      S        05 00 14.1  +4.1
BNX                                  sS     sS       05 00 20.3  +0.3
BNX                                  pmax   pmax
      comp=Z,17nm,1.0s
BNX                                  L      L
      comp=Z,570nm,15.2s
QSPA  South Pole Qui    72.91 180    P      P        04 50 49.7  +0.4
      comp=Z,68nm,1.1s,baz=24,slow=2.1,SNR=73
      comp=Z,68nm,1.1s
QSPA  South Pole Qui    72.91 180    P      P        04 50 49.5  +0.2
GRNR  Gornyy            73.03 340⇑iP        P        04 50 50.1  +0.2
GRNR                                 pmax   pmax
      comp=Z,10.0nm,0.9s
ENH   Enshi             73.31 310    IAmb   IAmb     04 51 02.1
      comp=Z,107nm,1.4s
SLVN  Son La            73.40 299    P      P        04 50 55.3  +2.5
SLVN  Son La            73.40 299    P      P        04 50 56.5  +3.6
KLR   Kul'dur           73.42 336   eP      P        04 50 51.3  -0.9
KLR                                  pmax   pmax
      comp=Z,8.0nm,1.7s
GYA   Guiyang           73.53 305   ⇑P      P        04 50 55.1  +1.5
GYA                                  pmax   pmax
      comp=Z,13nm,0.9s
LYN   LuoYang           73.55 315    P      P        04 50 54.1  +0.7
LYN                                  sP     sP       04 51 01.2  +0.2
LYN                                  S      SKiKP    05 00 26.0  +3.1
LYN                                  pmax   pmax
      comp=Z,48nm,1.2s
LYN                                  pmax   pmax
      comp=Z,1μm,5.8s
HNS   HongShan          73.75 318   ⇓P      P        04 50 55.3  +0.8
HNS                                  pmax   pmax
      comp=Z,31nm,1.4s
BJI2  Beijing           74.46 321    P      P        04 50 58.8  +0.2
BJI2                                 sP     sP       04 51 06.0  -0.3
BJI2                                 S      S        05 00 32.6  +0.2
BJI2                                 pmax   pmax
      comp=Z,9.0nm,1.5s
BJI2                                 L      L
      comp=Z,350nm,17.8s
BJI2                                 L      L
      comp=Z,440nm,16.7s
BJI2                                 L      L
      comp=Z,320nm,15.0s
BSI   Banda Aceh        75.07 281    P      P        04 51 04.1  +1.4
      comp=Z,2μmcomp=Z,100nm,1.2s
XAN   Xi'an             75.72 313    P      P        04 51 06.5  +0.5
XAN                                  pP     pP       04 51 11.4  -0.1
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XAN                                  sP     sP       04 51 13.8  +0.1
XAN                                  pmax   pmax
      comp=Z,23nm,1.4s
HEH   HeiHe             75.95 335   eP      P        04 51 06.5  -0.4
HEH                                  pmax   pmax
      comp=Z,11nm,1.1s
KMI2  Kunming           76.04 302   ⇑P      P        04 51 09.0  +0.7
KMI2                                 pmax   pmax
      comp=Z,28nm,2.3s
KMI2                                 pmax   pmax
      comp=Z,370nm,3.4s
KMI2                                 L      L
      comp=Z,520nm,24.6s
CMAR  Chiang Mai Arr    76.43 294    P      P        04 51 10.2  -0.2
      comp=Z,2.8nm,0.7s,baz=122,slow=4.3,SNR=17
      comp=Z,2.8nm,0.7s
CMAR  Chiang Mai Arr    76.43 294ceP        P        04 51 11.6  +1.2
CMAR                                 pmax   pmax
      comp=Z,2.0nm,0.4s
CMAR  Chiang Mai Arr    76.43 294    P      P        04 51 11.0  +0.7
CHTO  Chiang Mai        76.57 295    P      P        04 51 12.2  +1.0
CHTO  Chiang Mai        76.57 295    P      P        04 51 11.0  -0.1
CHTO                                 pmax   pmax
      comp=Z,59nm,1.4s
CHTO  Chiang Mai        76.57 295    P      P        04 51 11.0  -0.1
CHTO  Chiang Mai        76.57 295    P      P        04 51 12.0  +0.8
      comp=Z,34nm,2.4s
CHTO  Chiang Mai        76.57 295    P      P        04 51 12.2  +1.0
      comp=Z,34nm,2.4s
XLT   XiLinHaoTe        76.97 324   eP      P        04 51 13.3  +0.3
XLT                                  pmax   pmax
      comp=Z,17nm,1.4s
XLT                                  pmax   pmax
      comp=Z,490nm,5.0s
MA2   Magadan           77.69 351    LR     LR       05 21 49.1
      comp=Z,299nm,20.2s,baz=120,slow=33
HHC   Hu-ho-hao-te      77.77 320   eP      P        04 51 18.6  +1.1
HHC                                  pmax   pmax
      comp=Z,11nm,0.6s
HHC                                  pmax   pmax
      comp=Z,320nm,5.0s
ZEA   Zeya              78.71 337   eP      P        04 51 21.2  -1.1
ZEA                                 e                04 51 37.3
ZEA                                  pmax   pmax
      comp=Z,10.0nm,1.1s
BTO2  Baotou            78.75 319   eP      P        04 51 23.9  +0.9
BTO2                                 pP     pP       04 51 28.7  +0.1
BTO2                                 sP     sP       04 51 31.0  +0.1
BTO2                                 pmax   pmax
      comp=Z,37nm,1.4s
BTO2                                 pmax   pmax
      comp=Z,740nm,7.1s
HILR  Hailar Array B    78.83 330    P      P        04 51 23.3  +0.2
      comp=Z,1.2nm,0.5s,baz=141,slow=9.6,SNR=5.0
HILR                                 LR     LR       05 23 42.7
      comp=Z,233nm,21.4s,baz=245,slow=34
      comp=Z,1.2nm,0.5s
NPW   Naypyitaw         79.39 295    P      P        04 51 29.4  +2.6
      comp=Z,55nm,1.7s
TNCH  TengChong         79.45 300   ⇑P      P        04 51 27.3   0.0
TNCH                                 pP     pP       04 51 31.0  -1.8
TNCH                                 sP     PcP      04 51 35.7  +0.4
TNCH                                 S      S        05 01 24.6  -3.2
TNCH                                 SS     SS       05 06 39.5  +3.6
TNCH                                 pmax   pmax
      comp=Z,320nm,3.5s
TNCH                                 L      L
      comp=Z,510nm,5.5s
TNCH                                 L      L
      comp=Z,560nm,6.9s
TNCH                                 L      L
      comp=Z,400nm,15.9s
MAW   Mawson            79.88 202    P      P        04 51 29.1  +0.5
      comp=Z,6.6nm,2.9s
MAW   Mawson            79.88 202    P      P        04 51 28.7  +0.1
      comp=Z,15nm,1.2s,baz=103,slow=7.8,SNR=15
MAW                                  LR     LR       05 24 24.1
      comp=Z,316nm,18.6s,baz=312,slow=34
      comp=Z,15nm,1.2s
MAW   Mawson            79.88 202    P      P        04 51 29.0  +0.5
MAW                                  pmax   pmax
      comp=Z,9.0nm,1.3s
MAW   Mawson            79.88 202    P      P        04 51 29.0  +0.5
MAW   Mawson            79.88 202    P      P        04 51 29.1  +0.5
      comp=Z,6.6nm,2.9s
LZH   Lanzhou           80.34 312   eP      P        04 51 33.0  +1.2
LZH                                  sP     pwP      04 51 41.4  -1.6
LZH                                  S      S        05 01 39.9  +3.2
LZH                                  pmax   pmax
      comp=Z,43nm,1.8s
LZH                                  pmax   pmax
      comp=Z,590nm,7.2s
LZDM  Lanzhou Array     80.38 312    P      P        04 51 33.4  +1.1
      comp=Z,0.8nm,0.2s,baz=113,slow=6.8,SNR=7.3
      comp=Z,0.8nm,0.2s
SEY   Seymchan          80.72 353    LR     LR       05 24 14.0
      comp=Z,471nm,20.3s,baz=154,slow=33
SEY   Seymchan          80.72 353   eP      P        04 51 31.7  -1.3
SEY                                  pmax   pmax
      comp=Z,16nm,1.0s
KDAK  Kodiak Island     81.51  20    LR     LR       05 23 04.6
      comp=Z,296nm,19.2s,baz=81,slow=32
CIT   Chita             83.42 330   eP      P        04 51 48.0  +0.5
CIT                                  pmax   pmax
      comp=Z,88nm,3.1s
J16K  Anvik River       83.85  14    IAmb   IAmb     04 52 20.4
      comp=Z,60nm,1.8s
BRDH  Bariadhala        84.35 296    P      P        04 51 53.2  +0.3
      comp=Z,61nm,0.3s,baz=97,slow=11,SNR=4.6
L19K  White Mountain    84.36  17    IAmb   IAmb     04 52 01.7
      comp=Z,53nm,1.6s
ULN   Ulaanbaatar       84.39 324ceP        P        04 51 52.3  -0.4
ULN                                  pmax   pmax
      comp=Z,82nm,1.7s
ULN   Ulaanbaatar       84.39 324    P      P        04 51 52.5  -0.2
ULN                                  IAmb   IAmb     04 51 54.9
      comp=Z,58nm,1.2s
ULN   Ulaanbaatar       84.39 324    P      P        04 51 53.2  +0.5
YAK   Yakutsk           84.48 343   eP      P        04 51 52.8  +0.2
YAK                                 e                04 55 09.9
YAK                                 eS      SKSac    05 02 15.9  +1.1
YAK                                 eSS     SS       05 07 50.8  +1.9
YAK                                  pmax   pmax
      comp=Z,23nm,1.2s
YAK                                  pmax   pmax
      comp=E,3.0nm,1.1s
YAK                                  pmax   pmax
      comp=N,5.0nm,1.3s
YAK                                  pmax   pmax
      comp=Z,190nm,3.5s
YAK                                  pmax   pmax
      comp=N,171nm,3.3s
YAK                                  pmax   pmax
      comp=E,47nm,3.2s
YAK                                  smax   smax
      comp=N,76nm,4.9s
YAK                                  smax   smax
      comp=E,68nm,4.4s
SONM  Songino Array     84.75 324    P      P        04 51 53.5  -1.0
      comp=E,28nm,1.1s,baz=140,slow=3.9,SNR=65
      comp=E,28nm,1.1s
SONM  Songino Array     84.75 324    P      P        04 51 54.1  -0.4
SONM                                 pmax   pmax
      comp=Z,51nm,1.3s
SONM  Songino Array     84.75 324    P      P        04 51 54.1  -0.4
SONM                                 IAmb   IAmb     04 51 56.6
      comp=Z,51nm,1.3s
GTA2  Gaotai            84.79 314    P      P        04 51 55.4  +0.5
GTA2                                 pP     PcP      04 51 58.5  +0.2
GTA2                                 S      SKSac    05 02 19.1  +0.8
GTA2                                 pmax   pmax
      comp=Z,26nm,1.7s
GTA2                                 pmax   pmax
      comp=Z,470nm,7.9s
GTA2                                 L      L
      comp=Z,330nm,15.8s
GTA2                                 L      L
      comp=Z,440nm,16.1s
GTA2                                 L      L
      comp=Z,490nm,16.8s
BILL  Bilibino          84.94 359ceP        P        04 51 54.3  -0.5
BILL                                 pmax   pmax
      comp=Z,31nm,1.3s
GDXM  Geysers           85.38  47    IAmb   IAmb     04 52 09.0
      comp=Z,56nm,1.4s
SAO   San Andreas Ge    85.46  49    IAmb   IAmb     04 52 09.1
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      comp=Z,50nm,1.4s
MHC   Mount Hamilton    85.56  49    P      P        04 51 58.7  -0.1
MHC                                  pmax   pmax
      comp=Z,70nm,1.4s
MHC   Mount Hamilton    85.56  49    P      P        04 51 58.7  -0.1
MHC                                  IAmb   IAmb     04 52 09.9
      comp=Z,70nm,1.4s
PMR   Palmer            85.58  19    P      P        04 52 00.7  +2.6
PKD   Bear Valley Ra    85.78  51    IAmb   IAmb     04 52 10.8
      comp=Z,57nm,1.4s
O02D  Mt. Diablo Mer    85.99  46    IAmb   IAmb     04 52 12.2
      comp=Z,109nm,1.5s
M02C  Callahan          86.48  45    IAmb   IAmb     04 52 14.7
      comp=Z,94nm,1.4s
ORV   Oroville          86.61  47    P      P        04 52 03.1  -0.7
ORV                                  pmax   pmax
      comp=Z,58nm,1.5s
ORV   Oroville          86.61  47    P      P        04 52 03.1  -0.7
ORV                                  IAmb   IAmb     04 52 14.4
      comp=Z,58nm,1.4s
AFDM  Forest Hills D    86.72  48    IAmb   IAmb     04 52 15.0
      comp=Z,87nm,1.4s
YBH   Yreka Blue Hor    86.73  45    P      P        04 52 04.7  +0.3
YBH                                  pmax   pmax
      comp=Z,66nm,1.6s
YBH   Yreka Blue Hor    86.73  45    P      P        04 52 04.7  +0.3
YBH                                  IAmb   IAmb     04 52 15.6
      comp=Z,66nm,1.6s
CMB   Columbia Colle    86.76  49    IAmb   IAmb     04 52 15.2
      comp=Z,50nm,1.4s
GOMU  GeErMu            86.93 309    P      P        04 52 07.2  +1.3
GOMU                                 pP     pP       04 52 10.8  -0.7
GOMU                                 sP     sP       04 52 14.6  +0.7
GOMU                                 pmax   pmax
      comp=Z,3.0nm,0.9s
GOMU                                 L      L
      comp=Z,190nm,16.1s
GOMU                                 L      L
      comp=Z,300nm,16.5s
ISA   Isabella, Lake    87.20  51    IAmb   IAmb     04 52 17.8
      comp=Z,106nm,1.6s
L04D  Klamath Falls     87.21  44    IAmb   IAmb     04 52 17.6
      comp=Z,73nm,1.5s
BFSC  Mount Baldy Ra    87.27  53    IAmb   IAmb     04 52 17.7
      comp=Z,75nm,1.7s
MDPB  Devils Postpil    87.54  49    IAmb   IAmb     04 52 19.4
      comp=Z,72nm,1.3s
LRMC  Laurel Mtn Rad    87.73  52    IAmb   IAmb     04 52 20.5
      comp=Z,101nm,1.8s
CWC   Cottonwood Cre    87.80  51    IAmb   IAmb     04 52 20.7
      comp=Z,87nm,1.8s
ZAK   Zakamensk         87.82 325   eP      P        04 52 08.8  -0.7
ZAK                                  pmax   pmax
      comp=Z,35nm,1.4s
I04A  Tendick Farm,     87.84  43    IAmb   IAmb     04 52 20.3
      comp=Z,50nm,1.5s
BORC  Borrego Spring    87.85  54    IAmb   IAmb     04 52 20.7
      comp=Z,54nm,1.7s
ELIB  Princess Elisa    87.96 190   dP      P        04 52 09.4  -0.6
      comp=Z,19nm,1.4s
MPMC  Manual Prospec    88.09  51    IAmb   IAmb     04 52 22.2
      comp=Z,61nm,1.7s
IRK   Irkutsk           88.24 327   eP      P        04 52 10.2  -1.1
IRK                                  pmax   pmax
      comp=Z,47nm,2.1s
DSP   Deep Springs      88.25  50    IAmb   IAmb     04 52 22.8
      comp=Z,79nm,1.4s
GSC   Goldstone, Bar    88.32  52    IAmb   IAmb     04 52 23.1
      comp=Z,79nm,1.7s
WIFE  Three Sisters-    88.34  43    IAmb   IAmb     04 52 23.2
      comp=Z,83nm,1.5s
NVAR  Mina Array Bea    88.42  49    P      P        04 52 13.3  +0.5
      comp=Z,9.0nm,1.2s,baz=230,slow=6.6,SNR=31
      comp=Z,9.0nm,1.2s
MOD   Modoc Plateau     88.43  45    IAmb   IAmb     04 52 23.4
      comp=Z,58nm,1.4s
BELC  Belle Mtn. Jos    88.45  54    IAmb   IAmb     04 52 24.9
      comp=Z,72nm,1.5s
QSM   Queen of Sheba    88.52  52    IAmb   IAmb     04 52 23.8
      comp=Z,68nm,1.6s
NLWA  Neilton Lookou    88.54  39    IAmb   IAmb     04 52 24.1
      comp=Z,91nm,1.7s
ILAR  Eielson Array     88.63  18    P      P        04 52 12.5  -0.4
      comp=Z,0.8nm,0.8s,baz=241,slow=4.9,SNR=7.4
ILAR                                 PKKPbc PKKPdf   05 09 53.9  +1.7
      comp=Z,0.3nm,0.9s,baz=58,slow=2.2,SNR=1.9
ILAR                                 LR     LR       05 27 13.9
      comp=Z,672nm,20.2s,baz=106,slow=32
      comp=Z,0.8nm,0.8s
BC3   Big Chuckawall    88.75  54    IAmb   IAmb     04 52 25.5
      comp=Z,108nm,2.0s
GWY   Greenwater Val    88.76  52    IAmb   IAmb     04 52 24.9
      comp=Z,67nm,1.7s
KVN   Kaiserville       88.81  48    IAmb   IAmb     04 52 25.3
      comp=Z,61nm,1.5s
CBB   Campbell River    88.90  36    P      P        04 52 14.3  -0.2
SHOC  Shoshone, Teco    88.94  52    IAmb   IAmb     04 52 25.8
      comp=Z,61nm,1.4s
WCT   Wildcat Mounta    89.02  51    IAmb   IAmb     04 52 26.4
      comp=Z,78nm,1.6s
TPH   Tonopah           89.06  50    IAmb   IAmb     04 52 26.6
      comp=Z,109nm,1.7s
IRM   Iron Mountain     89.17  54    IAmb   IAmb     04 52 27.3
      comp=Z,106nm,1.8s
GNW   Green Mountain    89.25  39    P      P        04 52 16.5  +0.3
GNW                                  IAmb   IAmb     04 52 27.0
      comp=Z,79nm,1.7s
TPNV  Topopah Spring    89.36  51    IAmb   IAmb     04 52 28.1
      comp=Z,93nm,1.7s
BLYC  Blythe            89.50  54    IAmb   IAmb     04 52 28.8
      comp=Z,70nm,1.6s
LON   Longmire          89.51  40    IAmb   IAmb     04 52 27.9
      comp=Z,61nm,1.8s
D05A  Enumclaw          89.59  40    P      P        04 52 17.9  +0.1
G06A  Carlson Farm,     89.60  42    IAmb   IAmb     04 52 28.6
      comp=Z,87nm,1.7s
WVOR  Wild Horse Val    89.77  45    P      P        04 52 19.5  +0.6
WVOR  Wild Horse Val    89.77  45    IAmb   IAmb     04 52 29.9
      comp=Z,100nm,1.5s
A04D  Lummi Island      89.84  38    IAmb   IAmb     04 52 29.7
      comp=Z,98nm,1.6s
BMN   Battle Mountai    89.97  47    IAmb   IAmb     04 52 30.8
      comp=Z,75nm,1.4s
SHPR  Sheep Range       90.01  52    IAmb   IAmb     04 52 31.4
      comp=Z,90nm,1.8s
J08A  Circle Bar Ran    90.25  44    IAmb   IAmb     04 52 31.9
      comp=Z,97nm,1.7s
F07A  Phinny Hill Vi    90.33  42    IAmb   IAmb     04 52 32.0
      comp=Z,95nm,1.6s
MXC   Moxie City        90.38  41    IAmb   IAmb     04 52 32.2
      comp=Z,62nm,1.6s
PRN   Pahroc Range      90.41  51    IAmb   IAmb     04 52 33.2
      comp=Z,39nm,1.3s
LTY   Liberty           90.43  40    IAmb   IAmb     04 52 32.2
      comp=Z,55nm,1.6s
TROLL Troll, Antarti    90.52 185   ⇑P      P        04 52 21.7  -0.3
      comp=Z,3μm,1.2s
NVL   N'lazarevskaya    90.76 188   eP      P        04 52 22.9   0.0
NVL                                 eS      SKSac    05 02 50.0  -3.2
NVL                                  pmax   pmax
      comp=Z,32nm,1.0s
NVL                                  MLR    MLR
      comp=Z,397nm,15.0s
WAH2  Wahluke Slope     90.91  41    IAmb   IAmb     04 52 35.3
      comp=Z,35nm,1.3s
SNAA  Sanae             91.19 183   ⇑P      P        04 52 24.4  -0.6
      comp=Z,674nm,1.1s
SNAA  Sanae             91.19 183    P      P        04 52 25.1  +0.1
      comp=Z,55nm,1.1s,baz=188,slow=4.2,SNR=42
      comp=Z,55nm,1.1s
SNAA  Sanae             91.19 183c iP       P        04 52 24.4  -0.6
SNAA                                 pmax   pmax
      comp=Z,105nm,1.4s
D08A  Wollman Farm,     91.44  41    IAmb   IAmb     04 52 37.2
      comp=Z,59nm,1.7s
ELK   Elko              91.49  48    LR     LR       05 28 00.3
      comp=Z,787nm,19.2s,baz=68,slow=32
ELK   Elko              91.49  48    IAmb   IAmb     04 52 37.9
      comp=Z,44nm,1.6s
BMO   Blue Mountains    91.61  43    IAmb   IAmb     04 52 37.8
      comp=Z,50nm,1.6s
LCMT  Little Creek M    91.62  52    IAmb   IAmb     04 52 38.5
      comp=Z,42nm,1.7s
B08A  Colville Reser    91.71  40    IAmb   IAmb     04 52 37.8
      comp=Z,69nm,1.9s
E09A  Wood Farm, Sta    91.71  42    IAmb   IAmb     04 52 38.9
      comp=Z,38nm,1.3s
VNA3  Neumayer Olymp    91.83 181   ⇑P      P        04 52 26.8  -1.1
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      comp=Z,19nm,0.8s
SZCU  Shurtz Canyon     91.94  51  IAmb      IAmb      04 52 41.4
      comp=Z,56nm,1.9s
KNB   Kanab             91.94  52  IAmb      IAmb      04 52 47.0
      comp=Z,60nm,1.6s
TUC   Tucson            91.97  57  P         P         04 52 29.3  -0.1
TUC                                pmax      pmax
      comp=Z,40nm,1.7s
TUC   Tucson            91.97  57  P         P         04 52 29.2  -0.1
TUC                                IAmb      IAmb      04 52 40.5
      comp=Z,40nm,1.7s
MFID  Camas Ranch       92.06  45  IAmb      IAmb      04 52 40.2
      comp=Z,42nm,1.6s
F10A  Beach Ranch, E    92.09  42  IAmb      IAmb      04 52 39.8
      comp=Z,82nm,1.7s
VNA2  Neumayer--Watz    92.11 182 ⇑P         P         04 52 28.7  -0.5
      comp=Z,24nm,0.9s,baz=153,slow=3.9
U15A  North Rim         92.15  53  IAmb      IAmb      04 52 41.5
      comp=Z,60nm,1.8s
VNA1  Neumayer--Stat    92.40 181  P         P         04 52 31.0  +0.5
      comp=Z,39nm,1.2s
PKCU  Pink Cliffs       92.47  52  IAmb      IAmb      04 52 42.7
      comp=Z,60nm,1.8s
WUAZ  Wupatki           92.55  54  IAmb      IAmb      04 52 43.0
      comp=Z,44nm,1.7s
NEW   Newport           93.03  40  LR        LR        05 25 34.7
      comp=Z,486nm,21.6s,baz=89,slow=30
NEW   Newport           93.03  40  P         P         04 52 33.2  -0.6
DUN6  Lazy B Ranch      93.40  57  IAmb      IAmb      04 52 47.1
      comp=Z,74nm,1.6s
HYB   Hyderabad         94.35 287 ePKiKP     PKiKP     04 57 23.4  -0.8
HYB                               eSKSac     SKSac     05 03 14.7  -0.5
HYB                               eSKKSac    SKKSac    05 03 34.7  -1.6
WMQ   Urumqi            94.80 314 eP         P         04 52 41.2  -0.9
WMQ                                pmax      pmax
      comp=Z,28nm,1.3s
INK   Inuvik            94.98  19  LR        LR        05 30 11.5
      comp=Z,655nm,20.3s,baz=69,slow=32
PDAR  Pinedale Array    96.17  47  P         P         04 52 48.4  -0.1
      comp=Z,0.4nm,0.9s,baz=236,slow=1.6,SNR=3.9
PDAR                               PP        PP        04 56 47.1  +5.1
      comp=Z,0.6nm,0.9s,baz=174,slow=1.5,SNR=4.6
PDAR                               PKKPbc    PKKPbc    05 09 35.5  -1.2
      comp=Z,0.9nm,0.8s,baz=64,slow=3.4,SNR=6.9
      comp=Z,0.4nm,0.9s
ANMO  Albuquerque       96.20  55 i P        P         04 52 47.0  -1.9
ANMO                               pmax      pmax
      comp=Z,2.0nm,1.5s
TXAR  Lajitas Array     96.93  62  P         P         04 52 53.6  +1.4
      comp=Z,0.1nm,0.5s,baz=197,slow=2.1,SNR=4.3
      comp=Z,0.1nm,0.5s
ORCD  Orcadas           98.09 165  P         Pdif      04 52 57.0  +0.3
MKAR  Makanchi Array    99.31 316  P         Pdif      04 53 01.8  -0.6
      comp=Z,4.3nm,1.1s,baz=98,slow=6.2,SNR=15
MKAR                               PP        PP        04 57 04.1  -1.6
      comp=Z,0.5nm,0.8s,baz=119,slow=5.1,SNR=2.2
      comp=Z,4.3nm,1.1s
MKAR  Makanchi Array    99.31 316ceP         Pdif      04 53 02.5  +0.1
MKAR                               pmax      pmax
      comp=Z,3.0nm,1.0s
MKAR  Makanchi Array    99.31 316  P         Pdif      04 53 01.4  -0.9
YKA   Yellowknife Ar    99.42  27  P         Pdif      04 53 02.5  +0.1
      comp=Z,0.7nm,0.7s,baz=247,slow=4.5,SNR=2.4
      comp=Z,0.7nm,0.7s
MAKZ  Makanchi          99.52 316  P         Pdif      04 53 03.1  -0.2
MAKZ                               pmax      pmax
      comp=Z,42nm,1.9s
MAKZ  Makanchi          99.52 316  P         Pdif      04 53 03.1  -0.2
MAKZ                               IAmb      IAmb      04 53 13.7
      comp=Z,41nm,1.9s
ZAA0  Zalesovo Array    99.64 323  P         Pdif      04 53 02.4  -1.2
ZAA0                               IAmb      IAmb      04 53 04.5
      comp=Z,28nm,1.4s
ZALV  Zalesovo Beam     99.64 323  P         Pdif      04 53 02.9  -0.7
      comp=Z,7.9nm,1.0s,baz=108,slow=4.8,SNR=21
      comp=Z,7.9nm,1.0s
NRIK  Noril'sk         102.50 339 i P        Pdif      04 53 16.6  +0.6
NRIK                               pmax      pmax
      comp=Z,2.0nm,0.8s
KURK  Kurchatov        102.58 319  P         Pdif      04 53 16.0  -0.7
KURK                              i                    04 57 36.2
KURBB Kurchatov Arra   102.62 319  P         Pdif      04 53 16.0  -0.9
      comp=Z,1.0nm,1.0s,baz=111,slow=2.8,SNR=6.8
KURBB                              PKiKP     PKiKP     04 57 36.2  -1.7
      comp=Z,2.1nm,1.1s,baz=117,slow=2.4,SNR=9.1
KURBB                              PKKPbc    PKKPbc    05 09 17.5  -0.8
      comp=Z,1.6nm,0.2s,baz=282,slow=3.9,SNR=5.1
BVAR  Borovoye Array   107.96 321  PKiKP     PKiKP     04 57 47.1  -0.6
      comp=Z,0.7nm,0.4s,baz=143,slow=2.9,SNR=6.7
ARTI  Arti             114.86 325  PKP       PKiKP     04 58 00.0  -0.6
      comp=Z,3.9nm,0.9s,baz=6.3,slow=2.0,SNR=5.4
ARTI  Arti             114.86 325 i PKIKP    PKPdf     04 58 01.2  +0.5
ARTI                                                   04 58 55.6
ARTI                                                   05 05 13.2
LPAZ  La Paz           115.61 118  PKP       PKiKP     04 58 04.0   0.0
      comp=Z,1.3nm,0.9s,baz=242,slow=4.5,SNR=4.0
AKTO  Aktyubinsk       115.63 318  PKP       PKiKP     04 58 00.9  -1.4
      comp=Z,0.8nm,0.3s,baz=50,slow=2.1,SNR=3.8
KIRV  Kirov            119.20 328c iPKIKP    PKiKP     04 58 09.3  +0.4
BELG  Belogornoye      121.75 321  PKP       PKPdf     04 58 12.6  -1.4
      comp=Z,46nm,1.1s,baz=148,slow=2.4,SNR=12
APA   Apatity          121.82 341 i PKIKP    PKPdf     04 58 13.7   0.0
APA                               e                    04 59 46.9
APA                                pmax      pmax
      comp=Z,8.0nm,1.1s
APA                                MLR       MLR
      comp=Z,633nm,22.3s
BOSA  Boshof           121.89 219  PKP       PKPdf     04 58 14.4  -0.9
      comp=Z,8.1nm,1.1s,baz=115,slow=7.3,SNR=4.1
ARCES ARCESS Array B   122.70 345  PKP       PKPdf     04 58 14.3  -1.1
      comp=Z,4.8nm,0.8s,baz=44,slow=0.9,SNR=15
KLMR  Klimovskoe       123.06 333 ePKIKP     PKPdf     04 58 14.0  -2.3
KLMR                               pmax      pmax
      comp=Z,46nm,1.4s
SCHQ  Schefferville    123.97  35  PKP       PKPdf     04 58 16.8  -1.5
      comp=Z,7.4nm,1.1s,baz=342,slow=6.4,SNR=2.5
VRH   Novokhopyorsk    125.61 321 ePKIKP     PKPdf     04 58 20.2  -1.2
VRH                                pmax      pmax
      comp=Z,10.0nm,1.1s
GNI   Garni            126.04 307c iPKIKP    PKiKP     04 58 23.1  -0.2
GNI                                pmax      pmax
      comp=Z,22nm,0.6s
MOS   Moscow           126.20 328 i PKIKP    PKiKP     04 58 22.9   0.0
LPSR  Galich'ya Gora   126.75 324 ePKIKP     PKPdf     04 58 20.2  -3.4
LPSR                               pmax      pmax
      comp=Z,30nm,1.1s
KBZ   Khabaz           126.78 312  PKP       PKPdf     04 58 23.7  -0.2
      comp=Z,4.6nm,1.1s,baz=78,slow=6.9,SNR=4.3
KBZ                                PP        PP        05 00 21.0  -0.2
      comp=Z,4.0nm,0.5s,baz=132,slow=1.6,SNR=16
KBZ   Khabaz           126.78 312c iPKIKP    PKiKP     04 58 24.8  +0.4
KIV   Kislovodsk       126.88 312 ePKIKP     PKPdf     04 58 24.3   0.0
KIV                                pmax      pmax
      comp=Z,15nm,1.1s
KIV   Kislovodsk       126.88 312  PKP       PKPdf     04 58 24.1  -0.2
VORR  Voronezh         126.93 323 ePKIKP     PKPdf     04 58 22.2  -1.8
VORR                               pmax      pmax
      comp=Z,20nm,1.0s
SHA1  Shidzhatmaz      126.95 312c iPKIKP    PKiKP     04 58 24.9  -0.2
OBN   Obninsk          127.02 327d iPKIKP    PKPdf     04 58 24.0   0.0
OBN                               e                    05 00 20.1
OBN                               ePPP       PPP       05 03 04.8
OBN                                pmax      pmax
      comp=Z,41nm,1.3s
OBN                                MLR       MLR
      comp=Z,211nm,18.0s
OBN   Obninsk          127.02 327  PKP       PKPdf     04 58 23.6  -0.4
VSR   Storozhevoye     127.12 322 ePKIKP     PKPdf     04 58 22.2  -2.2
VSR                                pmax      pmax
      comp=Z,10.0nm,1.1s
FINES FINESS Array B   128.15 338  PKP       PKPdf     04 58 25.2  -0.7
      comp=Z,32nm,1.2s,baz=345,slow=1.5,SNR=17
HOMI  Horasan          128.20 308 ⇑P         PKiKP     04 58 30.4  +2.7
BDFB  Brasilia         131.93 131  PKP       PKPdf     04 58 35.0  +0.3
      comp=Z,6.3nm,1.1s,baz=331,slow=1.9,SNR=6.1
AK03  Malin Array Si   133.00 325  PKP       PKPdf     04 58 34.7  -0.8
AKASG Malin Array Be   133.02 325  PKP       PKPdf     04 58 34.4  -1.2
      comp=Z,3.6nm,0.9s,baz=60,slow=2.6,SNR=11
AKASG                              SKPbc     SKPbc     05 02 02.3  +0.1
      comp=Z,0.3nm,0.4s,baz=49,slow=2.0,SNR=6.5
AKBB  Malin Array Si   133.02 325c iPKIKP    PKPdf     04 58 36.0  +0.4
AKBB  Malin Array Si   133.02 325  PKP       PKPdf     04 58 35.4  -0.2
AK09  Malin Array Si   133.03 325  PKP       PKPdf     04 58 35.0  -0.6
KIEV  Kiev             133.03 325  PKP       PKPdf     04 58 35.1  -0.5
AK08  Malin Array Si   133.03 325  PKP       PKPdf     04 58 35.2  -0.4
AK04  Malin Array Si   133.04 325  PKP       PKPdf     04 58 34.9  -0.7
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NB2   NORSAR Subarra133.08 345  PKPdf     PKPdf     04 58 35.0  -0.5
      comp=Z,9.3nm,1.2s,baz=31,slow=1.9
NB2   NORSAR Subarra133.08 345  PKPdf     PKPdf     04 58 35.0  -0.5
NOA   NORSAR Array B133.08 345  PKP       PKPdf     04 58 35.5  +0.1
      comp=Z,1.6nm,1.0s,baz=29,slow=2.0,SNR=3.2
MBAR  Mbarara         134.22 252 i PKIKP    PKiKP     04 58 39.9  -0.7
LUBAR Lubar, Ukraine  134.22 325  PKP       PKPdf     04 58 37.4  -0.5
RNPP9 Sopachiv        134.41 327  PKP       PKPdf     04 58 38.0  -0.2
KIRS  Kirsehir-Merke  134.42 308 ⇑P         PKPdf     04 58 38.8  +0.1
BRTR  Keskin Array B  134.47 309  PKP       PKPdf     04 58 37.5  -1.3
      comp=Z,5.8nm,1.1s,baz=116,slow=2.9,SNR=12
BRTR  Keskin Array B  134.47 309c iPKIKP    PKPdf     04 58 39.5  +0.6
BRTR                             pmax      pmax
      comp=Z,6.0nm,1.1s
RNPP8 Varash          134.48 327  PKP       PKPdf     04 58 38.1  -0.2
BR106 Keskin Array S  134.48 309  PKP       PKPdf     04 58 38.5  -0.4
RNPP5 Staryi Chortor  134.52 327  PKP       PKPdf     04 58 37.9  -0.5
SORM  Soroca          134.78 322 ⇑P         PKPdf     04 58 37.7  -1.3
KMPD  K-Podol'skiy    135.66 324  PKP       PKPdf     04 58 39.3  -1.3
R9F13 Warsaw-Wawer    136.26 331 ePKP       PKiKP     04 58 43.3   0.0
CFR   Carcaliu        136.29 319 ⇓PKIKP     PKiKP     04 58 43.2  -0.3
CFR   Carcaliu        136.29 319 ⇓P         PKiKP     04 58 43.2  -0.3
BIZ   Bicaz           136.69 322 ⇑P         PKiKP     04 58 43.5  -0.9
KEPZ  Antalya-Kepez   136.77 306 ⇓P         PKiKP     04 58 44.2  -0.7
ISR   Istrita         137.32 319 ⇑P         PKPdf     04 58 32.3   -12
ISR   Istrita         137.32 319  PKP       PKPdf     04 58 43.6  -0.3
MLR   Muntele Rosu    137.51 320 ⇑PKIKP     PKPdf     04 58 44.7  +0.4
MLR   Muntele Rosu    137.51 320 ⇑P         PKPdf     04 58 44.7  +0.4
KOLS  Kolonicke sedl  137.75 326 ePKP       PKPdf     04 58 44.2  -0.3
VOIR                  138.08 320 ⇓PKIKP     PKPdf     04 58 45.0  -0.3
VOIR                  138.08 320 ⇓P         PKPdf     04 58 45.0  -0.3
OJC   Ojcow           138.21 329  PKP       PKPdf     04 58 44.8  -0.5
ARR   Arges           138.37 321 ⇑P         PKPdf     04 58 44.4  -1.5
TAVA  DENIZLI_Tavas   138.67 308 ⇓P         PKiKP     04 58 48.3  -0.5
DRGR                  138.74 323 ⇑PKIKP     PKPdf     04 58 41.7  -4.8
DRGR                  138.74 323 ⇑P         PKPdf     04 58 41.7  -4.8
LOT   Lotru           138.85 321 ⇓P         PKPdf     04 58 46.3  -0.5
KSP   Ksiaz           139.41 332  PKP       PKPdf     04 58 46.9  -0.6
GZR   Gura Zlata      139.47 322 ⇓PKIKP     PKPdf     04 58 48.6  +0.8
GZR   Gura Zlata      139.47 322 ⇓P         PKPdf     04 58 48.6  +0.8
MORC  Moravsky Berou  139.59 330 ⇓PKIKP     PKiKP     04 58 49.4  -0.8
MORC  Moravsky Berou  139.59 330 ePKP       PKPdf     04 58 41.4  -6.5
MORC                             e                    05 01 43.4
MORC  Moravsky Berou  139.59 330 ⇓P         PKiKP     04 58 49.4  -0.8
MAUC  Maruska         139.73 330 ePKPDF     PKiKP     04 58 50.6  +0.1
EZN   Ezine           139.75 312  PKP       PKPdf     04 58 47.7  -0.7
DPC   Dobruska-Polom  139.75 332 ePKPDF     PKiKP     04 58 50.3  -0.3
DPC   Dobruska-Polom  139.75 332  PKP       PKPdf     04 58 47.9  -0.3
VYHS  Vyhne           139.81 328 ePKP       PKPdf     04 58 48.6  +0.3
BDRM  Kayabasi        139.91 308 ⇓P         PKPdf     04 58 38.8   -10
BZS   Buzias          140.03 323 ⇑PKIKP     PKPdf     04 58 47.8  -1.0
BZS   Buzias          140.03 323 ⇑P         PKPdf     04 58 47.8  -1.0
JAVC  Velka Javorina  140.15 329 ePKP       PKPdf     04 58 43.7  -5.3
FLTG  Flechtingen     140.33 338 ePKPdf     PKPdf     04 58 48.8  -0.2
      baz=38,slow=1.5
VRAC  Vranov          140.36 330 ⇓PKIKP     PKPdf     04 58 44.5  -4.8
VRAC  Vranov          140.36 330 ePKP       PKPdf     04 58 43.7  -5.6
VRAC  Vranov          140.36 330 ⇓P         PKPdf     04 58 44.5  -4.8
BRG   Berggiesshubel  140.41 334 ePKPdf     PKPdf     04 58 48.5  -0.8
      baz=38,slow=1.5
BRG   Berggiesshubel  140.41 334 ePKP       PKPdf     04 58 45.6  -3.6
BRG                               Amp                 04 58 53.9
      comp=Z,12nm,1.3s
BRG   Berggiesshubel  140.41 334  P         PKiKP     04 59 00.2  +8.4
BRG                               Amp                 04 59 01.5
      comp=Z,18nm,1.3s
BRG                               SKP                 05 02 28.2
BRG                               Amp                 05 02 30.0
      comp=Z,20nm,1.5s
MDVR  Moldovita       140.44 321 ⇓P         PKPdf     04 58 48.9  -0.7
CLL   Collm           140.46 335 ePKIKP     PKPdf     04 58 49.0  -0.3
CLL                               pmax      pmax
      comp=Z,16nm,1.4s
CLL   Collm           140.46 335 ePKPdf     PKPdf     04 58 49.5  +0.2
      baz=38,slow=1.5
CLL   Collm           140.46 335 ePKPdf     PKPdf     04 58 49.0  -0.3
      comp=Z,16nm,1.4s
CLL                              ePPlp                05 01 42.0
      comp=Z,300nm,7.1s
CLL                              eSKPdf     SKPdf     05 02 23.0   0.0
CLL                              ePPP       PPP       05 04 52.0
CLL                              eSKKS      SKKSac    05 08 12.0   -29
CLL                              ex         x         05 09 00.0
CLL                              ePSKS                05 12 06.0
CLL                              eSS        SS        05 20 06.0  -4.6
CLL                              eSSS       SSS       05 25 00.0
CLL                               LH                  05 45 00.0
CLL                               L         L         05 57 00.0
SRO   Srobarova       140.51 327 ePKP       PKiKP     04 58 52.7  +0.6
KRUC  Moravsky        140.62 330 ePKP       PKPdf     04 58 44.4  -5.3
RETH  Rethem/Aller,   140.65 339 ePKPdf     PKiKP     04 58 52.1  -0.1
      baz=38,slow=1.5
MODS  Modra-Piesok    140.67 329 ePKP       PKPdf     04 58 51.0  +1.1
PRU   Pruhonice       140.81 333 ePKPDF     PKPdf     04 58 51.1  +1.1
NEUB  Neuenburg       141.02 336 ePKPdf     PKPdf     04 58 51.1  +0.7
      baz=38,slow=1.5
CLZ   Clausthal       141.04 338 ePKPdf     PKiKP     04 58 53.4  +0.3
      baz=38,slow=1.5
BOVS  Bovan           141.06 320 ⇑P         PKiKP     04 58 52.1  -1.3
EKA   Eskdalemuir Ar  141.25 352  PKhKP     PKPpre    04 58 44.6
      comp=Z,0.9nm,0.8s,baz=209,slow=17,SNR=3.9
MORH  Mrgy, Hungar    141.35 325 ⇑P         PKPdf     04 58 46.0  -5.1
TANN  Tannenbergstha  141.37 335 ePKPdf     PKPdf     04 58 50.4  -0.7
      baz=38,slow=1.5
GTTG  Gottingen       141.43 338 ePKPdf     PKiKP     04 58 54.1  +0.3
      baz=38,slow=1.5
PLN   Plauen          141.44 335 ePKPdf     PKPdf     04 58 50.1  -1.1
      baz=38,slow=1.5
MOX   Moxa            141.53 336 ePKPdf     PKPdf     04 58 48.9  -2.4
      baz=38,slow=1.5
IBBN  Ibbenburen      141.54 340 ePKPdf     PKiKP     04 58 55.0  +1.0
      baz=38,slow=1.5
RONA  Rosalia, Austr  141.61 329 i PKP      PKPdf     04 58 47.0  -4.6
      comp=Z,21nm,1.3s
RONA                             eSKP       SKPbc     05 02 31.5  +3.8
      comp=Z,8.7nm,1.4s
CONA  Conrad Observa  141.66 329 i PKP      PKPdf     04 58 47.2  -4.5
      comp=Z,16nm,1.3s,SNR=8.6
CONA                             eSKP       SKPbc     05 02 29.3  +1.3
      comp=Z,14nm,1.7s
KHC   Kasperske Hory  141.86 332 ePKPDF     PKiKP     04 58 53.9  -1.0
GEC2  GERESS Array S  142.02 332 ePKPdf     PKPdf     04 58 49.0  -3.4
      baz=38,slow=1.5
GERES GERESS Array B  142.02 332  PKhKP     PKPpre    04 58 46.6
      comp=Z,4.3nm,1.0s,baz=14,slow=1.7,SNR=14
GERES                             SKPbc     SKPbc     05 02 27.4  -1.5
      comp=Z,0.8nm,0.7s,baz=251,slow=4.1,SNR=4.1
WET   Wettzell        142.16 333 ePKPdf     PKPdf     04 58 49.2  -3.4
      baz=38,slow=1.5
KASTN Kahler Asten    142.26 339 ePKPdf     PKPdf     04 58 53.2  +0.5
      baz=38,slow=1.5
ARSA  Arzberg         142.30 329 i PKP      PKPdf     04 58 49.4  -3.4
      comp=Z,12nm,1.2s,SNR=8.7
ARSA                             eSKP       SKPbc     05 02 31.3  +1.8
      comp=Z,7.1nm,1.5s
GRF   Grafenberg Arr  142.43 335 ePKPdf     PKPdf     04 58 49.1  -3.9
      baz=38,slow=1.5
BUG   Bochum--Univer  142.44 340 ePKPdf     PKPdf     04 58 53.0  +0.2
      baz=38,slow=1.5
MOA   Molln           142.48 331 i PKP      PKPdf     04 58 49.7  -3.5
      comp=Z,14nm,1.0s,SNR=8.6
MOA                              eSKP       SKPbc     05 02 32.9  +3.0
      comp=Z,12nm,1.6s
BIOA  Bad Ischl, Aus  142.89 331 i PKP      PKPdf     04 58 50.6  -3.3
      comp=Z,18nm,1.3s,SNR=7.1
BIOA                             eSKP       SKPbc     05 02 35.0  +4.1
      comp=Z,11nm,1.5s
SOKA  Soboth          142.94 329 i PKP      PKPdf     04 58 50.5  -3.6
      comp=Z,16nm,1.2s,SNR=20
SOKA                             i SKP      SKPbc     05 02 34.1  +3.0
      comp=Z,13nm,1.5s
BLY   Banja Luka      143.07 324 ⇑P         PKPbc     04 58 52.4  +1.4
PDG   Podgorica       143.22 320 ⇑P         PKPbc     04 58 51.5   0.0
BOPT  Opiter          143.25 341 dPKP       PKiKP     04 58 57.4  -0.2
OBKA  Obir            143.29 329 i PKP      PKPbc     04 58 51.9  +0.1
      comp=Z,12nm,1.4s,SNR=7.5
OBKA                             eSKP       SKPbc     05 02 35.9  +3.9
      comp=Z,6.2nm,1.6s
KBA   Koelnbreinsper  143.47 330 i PKP      PKPbc     04 58 52.1  -0.2
      comp=Z,33nm,1.2s,SNR=20
KBA                              eSKP       SKPbc     05 02 35.4  +2.8
      comp=Z,7.8nm,1.3s
LESA  Schwarzleotal   143.53 331 i PKP      PKPbc     04 58 51.9  -0.4
      comp=Z,36nm,1.1s,SNR=20
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LESA                             eSKP       SKPbc     05 02 34.8  +2.2
      comp=Z,12nm,1.4s
MEM   Membach         143.57 340 dPKPdf     PKPbc     04 58 53.3  +1.1
FUR   Furstenfeldbru  143.59 333 ePKPdf     PKPab     04 58 51.6   0.0
      baz=38,slow=1.5
MYKA  Terra Mystica   143.65 330 i PKP      PKPbc     04 58 52.5  -0.3
      comp=Z,19nm,1.2s,SNR=11
MYKA                             eSKP       SKPbc     05 02 35.9  +3.0
      comp=Z,7.8nm,1.1s
UCC   Uccle           143.91 342 dPKPdf     PKPbc     04 58 54.0  +0.8
STU   Stuttgart       143.97 336 ePKPdf     PKPab     04 58 53.2  +0.2
      baz=38,slow=1.5
WATA  Walderalm       144.09 332 i PKP      PKPbc     04 58 54.6  +0.5
      comp=Z,23nm,1.2s,SNR=14
WATA                             i SKP      SKPbc     05 02 36.9  +2.9
      comp=Z,14nm,1.6s
ABTA  Abfaltersbach   144.10 331 i PKP      PKPab     04 58 53.5  -0.2
      comp=Z,67nm,1.4s,SNR=32
ABTA                             eSKP       SKPbc     05 02 35.6  +1.6
      comp=Z,12nm,1.2s
WTTA  Wattenberg      144.12 332 i PKP      PKPbc     04 58 55.1  +0.8
      comp=Z,44nm,1.2s,SNR=21
WTTA                             eSKP       SKPbc     05 02 34.5  +0.4
      comp=Z,14nm,1.5s
RCHB  Rochefort       144.21 341 dPKPdf     PKPab     04 58 54.0  +0.2
BMRD  Maredsous       144.22 341 dPKPdf     PKPbc     04 58 55.0  +0.8
TRI   Trieste         144.24 328  PKIKP     PKPab     04 58 53.4  -0.7
TRI   Trieste         144.24 328            PKPab     04 58 53.4  -0.7
MOTA  Moosalm         144.30 333 i PKP      PKPbc     04 58 55.4  +0.6
      comp=Z,49nm,1.2s,SNR=18
MOTA                             eSKP       SKPbc     05 02 37.4  +2.9
      comp=Z,8.0nm,1.3s
KEK   Kerkira         144.30 316            PKPab     04 58 53.3  -1.2
WLF   Walferdange     144.33 340 dPKPdf     PKPbc     04 58 55.2  +0.6
WLF   Walferdange     144.33 340 ePKPdf     PKPbc     04 58 54.8  +0.2
      baz=38,slow=1.5
RETA  Reutte          144.34 333 i PKP      PKPbc     04 58 55.3  +0.5
      comp=Z,29nm,1.3s,SNR=16
SQTA  Sankt Quirin    144.35 332 i PKP      PKPab     04 58 54.6   0.0
      comp=Z,54nm,1.4s,SNR=25
SQTA                             i SKP      SKPbc     05 02 37.8  +3.2
      comp=Z,10nm,1.4s
DOU   Dourbes         144.46 341 dPKPdf     PKPbc     04 58 55.5  +0.5
DOU                              dPKiKP     PKiKP     04 58 59.5  -0.6
UBR   Ueberruh        144.47 334 ePKPdf     PKPab     04 58 53.9  -1.0
      baz=38,slow=1.5
BFO   Black Forest    144.67 336  PKIKP     PKPab     04 58 55.3  -0.3
BFO   Black Forest    144.67 336            PKPab     04 58 55.2  -0.3
BFO   Black Forest    144.67 336 ePKPdf     PKPbc     04 58 56.1  +0.3
      baz=38,slow=1.5
FETA  Feichten        144.71 333 i PKP      PKPbc     04 58 56.2  +0.1
      comp=Z,58nm,1.1s,SNR=35
FETA                             i SKP      SKPbc     05 02 38.4  +2.9
      comp=Z,7.9nm,1.3s
DAVA  Damuels         144.87 334 i PKP      PKPbc     04 58 56.8  +0.1
      comp=Z,105nm,1.2s,SNR=42
TUE   Stuetta         145.74 333  PKP       PKPdf     04 58 58.6  -0.5
MATE  Matera          145.81 319 ⇑P         PKPdf     04 58 59.1   0.0
TIP   Timpagrande     146.59 317            PKPdf     04 58 59.5  -1.1
TIP   Timpagrande     146.59 317 ⇑P         PKPab     04 59 03.4  +0.2
TIP   Timpagrande     146.59 317  PKP       PKPdf     04 59 01.0  +0.4
CEL   Celeste         147.66 316            PKPdf     04 59 03.4  +1.0
KEST  Kesra           153.39 318  PKPbc     PKPbc     04 59 16.8  -2.3
      comp=Z,9.6nm,1.1s,baz=127,slow=1.1,SNR=5.5
KEST                              PKPab     PKPab     04 59 30.2  -0.8
      comp=Z,41nm,1.1s,baz=160,slow=1.9,SNR=12
ESDC  Sonseca Array   156.44 344  PKP       PKPdf     04 59 16.6  +1.1
      comp=Z,0.8nm,1.2s,baz=344,slow=0.8,SNR=5.3
ESDC                              PKPab     PKPab     04 59 43.8   0.0
      comp=Z,1.9nm,0.9s,baz=43,slow=2.5,SNR=4.8
TORD  Torodi Ar. Bea  166.05 255  PKP       PKPdf     04 59 25.9  -0.3
      comp=Z,8.3nm,1.1s,baz=50,slow=1.0,SNR=18
TORD                              PKPab     PKPab     05 00 27.1  +0.5
      comp=Z,4.2nm,1.0s,baz=132,slow=2.5,SNR=5.4
DBIC  Dimbokro        167.39 215  PKP       PKPdf     04 59 26.6  -0.7
      comp=Z,12nm,1.1s,baz=186,slow=3.0,SNR=3.9
DBIC  Dimbokro        167.39 215 ⇑PKIKP     PKPdf     04 59 27.1  -0.2
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*SKHL **06** 04:48:40.6±0.2, 43°.70N×147°.90E, h50^{km}±3^{km}, mb4.2/2*
*JMA **06** 04:48:40.2±0.5, 44°N±1°×14°8E±°, h0^{km}, MV3.6/30, E*
OFF HOKKAIDO

ISC 06 04:48:34.8±2.6**, 43°.7N**±0°.1×**147°.9E**±0°.1**, h2**^{km}±14^{km}**, n14,**
σ**1^{s}.38**/24**, Kuril Islands**

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Code  Station Name      Δ°   AZ°    Phase ID            Time       Res
                                  Op        ISC        h  m  s    ISC
KUR   Kuril'sk         1.57 358  eP        Pg         04 49 05.0  +0.1
KUR                              eS        Sn         04 49 23.3  -1.2
KUR                               A        A          04 49 27.3
      110nm,0.2s
KUR                               A        A          04 49 27.3
      150nm,0.2s
REI   Reidovoe         1.60   2  eP        Pg         04 49 05.5   0.0
REI                               AMB      AMB        04 49 09.5
      150nm,0.5s
REI                              eS        Sn         04 49 24.3  -1.1
REI                               A        A          04 49 25.0
      90nm,0.3s
REI                               A        A          04 49 25.0
      80nm,0.3s
NEM2  Nemuro 2         1.62 260   P        Pg         04 49 05.7  -0.1
NEM2                              S        Sn         04 49 24.4  -1.3
NMR   Nemuro--Hokkai   1.63 260  eP        Pb         04 49 05.7  +0.2
NMR                              eS        Sn         04 49 24.4  -1.5
JRA   Rausu            2.05 279   P        Pb         04 49 12.3  -0.3
JRA                              eS        Sn         04 49 36.6  +0.2
JKHN  Kushirohamanak   2.10 255   P        Pb         04 49 12.8  -0.8
JKHN                              S        Sn         04 49 36.5  -1.1
JNSB  Nemuroshibetsu   2.12 274   P        Pb         04 49 13.6  -0.4
JNSB                             eS        Sn         04 49 38.4  +0.3
JNK   Nakash           2.33 269   P        Pb         04 49 15.9  -1.6
AKK   Akkeshi          2.34 255  eP        Pb         04 49 16.3  -1.3
AKK                              eS        Sn         04 49 41.9  -1.6
JAK   Akkeshi          2.45 255   P        Pn         04 49 17.2  +1.5
JAK                              eS        Sn         04 49 45.0  -1.2
JTKR  Abashiri--Toko   2.92 277  eS        Sn         04 49 58.3  +0.3
JAR   Ashorobuto       3.05 265   P        Pb         04 49 26.7  -3.0
JAR                               S        Sn         04 50 01.2  +0.2
JOB   Onbets           3.08 257  eP        Pn         04 49 26.6  +2.2
JCH   Churui           3.50 254   P        Pn         04 49 32.5  +2.3
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*NEIC **06** 04:58:29±1.5, 14°.10N±0°.10×120°.7E±0°.2, h202^{km}±8^{km},*
mb4.1/17, Error ellipse: s-maj=27.0km s-min=12.6km
az=74.0
*MAN **06** 04:58:29.0, 14°.15N×120°.45E, h187^{km}, MS3.8*
*IDC **06** 04:58:30.1±5.2, 14°.16N×120°.91E, h224^{km}±52^{km},*
mb3.6/15, mbtmp4.1/15, MS4.5/1, Error ellipse:
s-maj=32.9km s-min=9.9km az=64.0

ISC 06 04:58:28.3±0.5**, 14°.13N**±0°.08×**120°.7E**±0°.1**, h200**^{km}**, n51,**
σ**0^{s}.94**/49**, mb4.0**/24**, Luzon**

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Code  Station Name      Δ°   AZ°    Phase ID            Time       Res
                                  Op        ISC        h  m  s    ISC
TGY   Tagaytay City    0.22  97  eP        Pn         04 58 56.2  +1.5
PCPS  Palayan City     0.62  33  eP        Pn         04 59 02.3  +6.4
PCPS                             eS        Sn         04 59 32.8   +15
LQP   Lukban           0.81  91  eP        Pn         04 58 58.5  +1.4
SZP   Santa            3.41 356            Pn         04 59 23.6  +0.7
YULB  Yu-li            9.23   3   Pn       Pn         05 00 38.3  +0.7
TOLI2 Tolitoli        12.94 180   P        P          05 01 29.5  +1.1
CMAR  Chiang Mai Arr  21.32 285   P        P          05 03 01.2  +1.4
      1.4nm,0.4s,baz=96,slow=7.8,SNR=15
      1.4nm,0.4s
CMAR  Chiang Mai Arr  21.32 285   P        P          05 03 00.0  +0.1
LZDM  Lanzhou Array   26.56 328   P        P          05 03 49.0  +0.8
      2.0nm,0.4s,baz=145,slow=10,SNR=2.1
      2.0nm,0.4s
GTA2  Gaotai          31.27 328  eP        P          05 04 30.8  +1.3
GTA2                              pmax     pmax
      comp=Z,9.0nm,0.8s
FITZ  Fitzroy Crossi  32.39 171   P        P          05 04 38.4  -1.0
      comp=Z,0.8nm,0.5s,baz=26,slow=8.0,SNR=1.8
      comp=Z,0.8nm,0.5s
FITZ  Fitzroy Crossi  32.39 171   P        P          05 04 38.6  -0.8
HILR  Hailar Array B  35.34 359   P        P          05 05 02.6  -1.8
      comp=Z,0.7nm,0.3s,baz=241,slow=15,SNR=4.4
      comp=Z,0.7nm,0.3s
SONM  Songino Array   35.65 343   P        P          05 05 07.3   0.0
      comp=Z,2.2nm,0.6s,baz=165,slow=9.9,SNR=12
      comp=Z,2.2nm,0.6s
SONM  Songino Array   35.65 343   P        P          05 05 07.5  +0.2
SONM                              IAmb     IAmb       05 05 08.3
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	comp=Z,1.6nm,0.7s						
WRA	Warramunga Arr	36.42	158	P	P	05 05 13.1	-0.9
	comp=Z,1.0nm,0.4s,baz=335,slow=9.5,SNR=16						
	comp=Z,1.0nm,0.4s						
WRA	Warramunga Arr	36.42	158	P	P	05 05 13.2	-0.8
WR8	Warramunga Arr	36.49	158	P	P	05 05 13.6	-1.0
WR8				IAmb	IAmb	05 05 18.0	
	comp=Z,5.0nm,1.1s						
ASAR	Alice Springs	39.72	161	P	P	05 05 41.1	-0.4
	comp=Z,0.8nm,0.4s,baz=338,slow=6.6,SNR=23						
	comp=Z,0.8nm,0.4s						
ASAR	Alice Springs	39.72	161	P	P	05 05 40.9	-0.6
MKAR	Makanchi Array	45.69	323	P	P	05 06 29.9	+0.6
	comp=Z,1.2nm,0.6s,baz=126,slow=9.7,SNR=15						
	comp=Z,1.2nm,0.6s						
MKAR	Makanchi Array	45.69	323	P	P	05 06 29.7	+0.5
PDGK	Podgornoye	45.70	318	P	P	05 06 30.1	+0.6
ZAA0	Zalesovo Array	48.68	333	P	P	05 06 51.8	-0.3
ZALV	Zalesovo Beam	48.68	333	P	P	05 06 51.8	-0.3
	comp=Z,2.2nm,0.4s,baz=123,slow=7.0,SNR=11						
	comp=Z,2.2nm,0.4s						
BBOO	Buckleboo	48.93	163	P	P	05 06 53.4	-0.8
BBOO				IAmb	IAmb	05 07 10.3	
	comp=Z,17nm,1.2s						
KURBB	Kurchatov Arra	49.84	326	P	P	05 07 01.5	+0.5
	comp=Z,3.8nm,0.4s,baz=127,slow=7.6,SNR=24						
	comp=Z,3.8nm,0.4s						
KURK	Kurchatov	49.84	326		P	05 07 01.6	+0.6
KKAR	Karatay Array	51.68	314	P	P	05 07 15.3	+0.4
BVAR	Borovoye Array	55.42	326	P	P	05 07 42.2	+0.3
	comp=Z,1.3nm,0.5s,baz=120,slow=9.7,SNR=9.6						
	comp=Z,1.3nm,0.5s						
BORK	Borovoye	55.47	326		P	05 07 42.6	+0.4
BORK				IAmb	IAmb	05 07 43.2	
	comp=Z,4.2nm,0.8s						
NRIK	Noril'sk	59.00	347	LR	LR	05 37 00.4	
	comp=Z,352nm,18.1s,baz=142,slow=39						
AB31	Akbulak array	60.42	319		P	05 08 15.9	-0.7
AB31				IAmb	IAmb	05 08 17.2	
	comp=Z,2.2nm,0.7s						
ABKAR	Akbulak array	60.42	319	P	P	05 08 16.4	-0.3
J17K	VABM Dome	73.09	28	P	P	05 09 37.5	+1.1
J17K				IAmb	IAmb	05 09 38.5	
	comp=Z,4.5nm,0.8s						
C19K	Lookout Ridge	73.22	22	P	P	05 09 37.1	-0.1
B20K	Meade River	74.13	21	P	P	05 09 43.1	+0.8
L18K	Granite Mounta	74.17	29	P	P	05 09 43.9	+1.3
L18K				IAmb	IAmb	05 10 17.5	
	comp=Z,9.9nm,1.5s						
CAST	Castle Rocks	76.24	28	P	P	05 09 55.4	+0.9
CAST				IAmb	IAmb	05 09 56.1	
	comp=Z,4.9nm,0.7s						
ARCES	ARCESS Array B	78.69	339	P	P	05 10 07.2	-0.7
	comp=Z,1.1nm,0.4s,baz=80,slow=6.9,SNR=19						
	comp=Z,1.1nm,0.4s						
ARCES	ARCESS Array B	78.69	339	P	P	05 10 07.4	-0.5
BMAR	Burnt Mountain	78.87	23	P	P	05 10 10.5	+1.5
SPITS	Spitsbergen Ar	79.17	348	P	P	05 10 10.1	-0.4
	comp=Z,1.6nm,0.6s,baz=145,slow=3.5,SNR=0.9						
	comp=Z,1.6nm,0.6s						
D27M	Malcolm River	79.83	21	P	P	05 10 15.2	+0.9
D27M				IAmb	IAmb	05 10 15.6	
	comp=Z,2.4nm,0.9s						
FINES	FINESS Array B	79.92	331	P	P	05 10 13.3	-1.4
	comp=Z,1.9nm,0.8s,baz=82,slow=4.0,SNR=11						
	comp=Z,1.9nm,0.8s						
FINES	FINESS Array B	79.92	331	P	P	05 10 13.8	-0.9
BURAR	Bucovina Array	83.35	317	P	P	05 10 33.1	0.0
NB2	NORSAR Subarra	86.88	333	P	P	05 10 48.6	-1.7
	comp=Z,3.8nm,1.0s,baz=66,slow=5.1						
NOA	NORSAR Array B	86.88	333	P	P	05 10 48.4	-1.9
	comp=Z,1.2nm,0.8s,baz=69,slow=4.6,SNR=4.3						
	comp=Z,1.2nm,0.8s						
TXAR	Lajitas Array	119.16	44	PKP	PKPdf	05 16 53.5	-0.8
	comp=Z,0.2nm,0.4s,baz=144,slow=1.1,SNR=5.1						
TXAR	Lajitas Array	119.16	44		PKPdf	05 16 54.0	-0.2

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*CATAC **06** 05:00:56.7±1.2, 10°N±4°×8°7W±°, h4^{km}±8^{km}, M3.6/25, MLv3.6/25, Error ellipse: s-maj=10.7km s-min=4.1km az=43.5, confirmed*

*UCR **06** 05:00:58.7±0.5, 10°.58N×86°.65W, h15^{km}±10^{km}, MW4.2, Presumed earthquake*

ISC 06 05:00:58.0±1.8**, 10°.48N**±0°.05×**86°.63W**±0°.07**, h19**^{km}±3^{km}**, n60, σ1^{s}12**/67**, Off coast of Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ALIBA	Liberia Airpor	1.07	84	*e*P	Pg	05 01 19.2	+0.3
JUD3	Juan Diaz 3	1.12	106	*e*P	Pg	05 01 19.7	-0.1
LCRUZ	La Cruz	1.15	59	*e*P	Pg	05 01 19.4	-0.9
LAPC	Finca la Perla	1.21	76	*e*P	Pb	05 01 19.7	-0.7
CMARA	Lajas Hojancha	1.28	111	P	Pg	05 01 21.9	-0.8
CMARA				S	Sg	05 01 38.1	-1.4
CMARA	Lajas Hojancha	1.28	111	*e*P	Pg	05 01 22.1	-0.7
VRLE	La Escondida,	1.28	76	*e*P	Pg	05 01 21.8	-1.1
GPS2	Hotel Rincn d	1.29	78	*e*P	Pg	05 01 22.2	-0.8
GPS1	Guardaparques	1.29	77	*e*P	Pg	05 01 22.2	-0.9
CARN	Rivas	1.30	57	P	Pg	05 01 22.3	-0.8
CARN				S	Sg	05 01 42.8	+2.8
CARN	Rivas	1.30	57	*e*P	Pg	05 01 21.9	-1.2
VORI	VORI	1.31	75	*e*P	Pg	05 01 22.4	-0.9
PEJA	Penjamo Buenos	1.36	72	*e*P	Pg	05 01 23.5	-0.8
JAPN	Al SSO del Vol	1.40	42	P	Pb	05 01 23.7	+0.2
MORN	Al O del Volca	1.43	42	P	Pb	05 01 23.9	-0.2
MESS	Mesas	1.44	80	*e*P	Pg	05 01 24.3	-1.4
NYURE	Nandayure	1.44	109	*e*P	Pb	05 01 24.1	-0.1
HORNC	Hornillas	1.45	81	*e*P	Pg	05 01 24.5	-1.5
CUI	Cuipilapa	1.46	83	*e*P	Pg	05 01 24.7	-1.4
CLARA	Aguas Claras	1.46	78	*e*P	Pb	05 01 24.3	-0.4
VMAR	Armenia, Volca	1.53	77	*e*P	Pb	05 01 25.9	+0.1
NANN	Nandasmo	1.53	19	P	Pb	05 01 25.8	0.0
NANN				S	Sg	05 01 46.9	-0.7
SABN	Sabanita	1.54	17	P	Pn	05 01 23.4	-1.0
MASN	Masaya	1.57	18	P	Pn	05 01 21.7	-3.2
TIMP	Tierras Morena	1.59	86	*e*P	Pb	05 01 26.1	-0.7
MAS3	Al N del Volca	1.60	16	P	Pn	05 01 24.3	-1.0
UPAL	Upala	1.65	75	P	Pb	05 01 27.8	+0.1
UPAL				S	Sg	05 01 52.3	+1.1
JUNT	Juntas	1.66	97	*e*P	Pb	05 01 27.5	-0.4
JTS	Las Juntas de	1.67	96	P	Pb	05 01 27.7	-0.3
JTS	Las Juntas de	1.67	96	*e*P	Pb	05 01 27.6	-0.5
TISN	Laguna Tiscapa	1.69	12	P	Pn	05 01 25.2	-1.3
MGAN	Managua	1.70	13	P	Pn	05 01 27.4	+0.8
WILN	Americas 2	1.72	15	P	Pb	05 01 30.0	+0.9
APQ2	Apoyeque	1.73	10	P	Pn	05 01 27.5	+0.4
APQ2				S	Sb	05 01 50.4	-0.1
APQ2				S	Sg	05 01 55.3	+1.4
APQ2	Apoyeque	1.73	10	P	Pn	05 01 27.4	+0.4
TABAC	Tabacon	1.83	89	*e*P	Pb	05 01 30.6	-0.4
ARE1	Arenal 1	1.88	90	*e*P	Pb	05 01 31.6	-0.2
VARE2	V. Arenal	1.88	90	*e*P	Pb	05 01 31.6	-0.2
CEDE	Laguna Cedeo	1.90	90	*e*P	Pb	05 01 31.0	-1.1
MOMN	Momotombo	1.92	3	P	Pn	05 01 30.1	+0.4
ACON	Acoyapa	2.06	44	P	Pn	05 01 32.2	+0.7
PLRN	Geotermica Pol	2.09	356	P	Pn	05 01 32.7	+0.6
PLRN				S	Sn	05 01 56.6	-1.0
HERN	Volcan Telica	2.12	355	*e*P	Pn	05 01 32.8	+0.3
BOAB	BOACO BROADBAN	2.17	26	P	Pn	05 01 33.7	+0.5
COVE	Coope Vega, Sa	2.21	84	P	Pg	05 01 40.7	+0.3
TRB2	Turrubares	2.22	105	S	Sb	05 02 04.3	-0.5
CRIN	San Cristobal	2.24	350	P	Pn	05 01 35.0	+0.8
ACOS	Acosta	2.52	105	*e*P	Pn	05 01 40.0	+1.9
HDC	Heredia	2.52	101	P	Pb	05 01 42.3	-0.5
MATN	Matagalpa	2.53	16	P	Pn	05 01 38.6	+0.4
PICV	PH. Pirrs	2.55	109	*e*P	Pn	05 01 40.6	+2.2
CSGN	Cosiguina Volc	2.64	340	P	Pn	05 01 40.5	+0.8
LCR2	La Lucha 2	2.69	106	P	Pb	05 01 44.1	-1.6
VICA	Volcano Irazu	2.79	100	*e*P	Pn	05 01 44.4	+2.4
ABRB	Las Abras (San	2.91	99	*e*P	Pb	05 01 46.5	-2.9
CNCH	Conchagua	3.02	337	P	Pn	05 01 45.3	+0.4
RCFN	Al S de San Ju	3.06	8	P	Pn	05 01 45.8	+0.4
RCPN	Sur Rio San Ju	3.07	10	P	Pn	05 01 46.5	+0.9
RCVN	Varillal2	3.11	8	P	Pn	05 01 47.0	+0.8
OCON	Estacion meteo	3.13	3	P	Pn	05 01 47.6	+1.2

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*UPA **06** 05:02:33.7±1.4, 8°.11N×82°.97W, h14^{km}±2^{km}, MW3.6, Presumed earthquake*

*UCR **06** 05:02:34.4±0.5, 8°.13N×82°.95W, h12^{km}±2^{km}, MW3.6, Presumed earthquake*

ISC 06 05:02:34.4±1.1**, 8°.13N**±0°.06×**82°.93W**±0°.03**, h17**^{km}±5^{km}**, n31, σ0^{s}87**/46**, 3C-5D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LMNES	Limones	0.07	117	*e*P	Pg	05 02 38.1	+0.3
LMNES	Limones	0.07	117	*i* P	Pg	05 02 38.0	+0.3
LMNES				*e*S	Sg	05 02 39.2	-0.9
PTPM	Petroterminale	0.08	33	*i* P	Pg	05 02 37.8	-0.1
PTPM				*e*S	Sg	05 02 41.0	+0.8
PTPA	Petro Terminal	0.09	40	*e*P	Pg	05 02 37.7	-0.2
PTPA				*e*S	Sg	05 02 40.8	+0.6
PIRO	Carate, Puerto	0.49	303	*e*P	Pg	05 02 43.6	-0.7
PIRO	Carate, Puerto	0.49	303	⇑*i*P	Pg	05 02 43.6	-0.7
PIRO				*e*S	Sg	05 02 49.0	-1.9
NELY	Ciudad Neily	0.51	358	*e*P	Pg	05 02 44.1	-0.6
NELY	Ciudad Neily	0.51	358	⇑*e*P	Pg	05 02 44.1	-0.6
NELY				*e*S	Sb	05 02 53.0	+0.9
DVD	David	0.56	57	⇓*i*P	Pg	05 02 45.6	+0.1
DVD				*e*S	Sb	05 02 54.4	+1.0
MLIR3	Monte Lirio, C	0.66	9	⇓*i*P	Pg	05 02 47.5	0.0
MLIR3				*e*S	Sb	05 02 57.1	+0.6
CLLRA	Cordillera,	0.68	27	*e*P	Pb	05 02 48.9	+1.0
CLLRA				*e*S	Sn	05 03 00.4	+0.7
VITO	San Vito	0.68	356	⇓*i*P	Pb	05 02 48.4	+0.5
VITO				*e*S	Sn	05 02 60.0	+0.3
BRU2	Volcan	0.70	19	*e*P	Pg	05 02 47.8	-0.4
BRU2	Volcan	0.70	19	⇓*i*P	Pg	05 02 48.0	-0.2
BRU2				*e*S	Sb	05 02 59.9	+2.3
SCLRA	Santa Clara, W	0.71	12	⇑*e*P	Pg	05 02 48.5	+0.1
SCLRA				*e*S	Sn	05 03 00.9	+0.5
BQTLY	Boquete Panama	0.77	37	*e*P	Pg	05 02 49.0	-0.7
BQTLY	Boquete Panama	0.77	37	*i* P	Pg	05 02 48.9	-0.7
BQSF3	Alto Boquete,	0.78	39	*e*P	Pg	05 02 48.9	-0.7
BQSF3				*e*S	Sb	05 03 00.9	+1.1
LNBQ3	Los Naranjos,	0.81	36	*e*P	Pg	05 02 49.3	-1.0
LNBQ3				*e*S	Sb	05 03 02.1	+1.3
RBALA	Bur	1.06	46	*e*P	Pb	05 02 53.7	-0.7
RBALA	Bur	1.06	46	⇓*i*P	Pb	05 02 53.7	-0.7
RBALA				*e*S	Sb	05 03 08.7	+0.7
EDPE	Pejibaye, P	1.20	328	*e*P	Pn	05 02 55.7	-0.8
KKNTU	Kakintº	1.31	58	*e*P	Pn	05 02 57.1	-0.8
KKNTU	Kakintº	1.31	58	*i* P	Pn	05 02 56.9	-1.0
KKNTU				*e*S	Sb	05 03 15.6	+0.5
SAJE	San Jernim	1.33	334	*e*P	Pn	05 02 57.6	-0.8
CNI2	El Empalme, Bo	1.36	19	*e*P	Pn	05 02 56.9	-1.7
SVQ2	Quepos	1.78	317	*e*P	Pn	05 03 05.1	+0.7
PIEC	Cerro El Cedra	1.80	325	*e*P	Pn	05 03 05.3	+0.4
PITB	Pirrs, San	1.87	325	*e*P	Pn	05 03 05.8	+0.1
LCR2	La Lucha 2	1.92	326	*e*P	Pn	05 03 06.5	-0.1
CVTQ	Turrialba Volc	2.04	336	*e*P	Pn	05 03 09.6	+1.4

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*NEIC **06** 05:05:00.8±1.0, 17°.13S±0°.06×167°.9E±0°.1, h10^{km}±1^{km}, mb4.3/7, Error ellipse: s-maj=22.9km s-min=7.9km az=73.0*

*NOU **06** 05:05:02.7, 17°.25S×167°.88E, h26^{km}, MLv4.6/23, Vanuatu Islands*

*IDC **06** 05:05:02.5±1.4, 17°.56S×167°.46E, h0^{km}, mb3.8/6, mbtmp3.8/6, Error ellipse: s-maj=41.7km s-min=33.6km az=151.0*

ISC 06 05:05:02.9±0.7**, 17°.21S**±0°.04×**167°.81E**±0°.08**, h21**^{km}**, n33, σ1^{s}16**/33**, mb4.0**/8**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTV	Rentapao	0.82	135	P	Pb	05 05 18.7	+0.2
RTV	Rentapao	0.82	135	S	Sb	05 05 29.1	-0.1
SANVU	Saraoutou	1.85	341	P	Pn	05 05 33.5	+0.1
SANVU	Saraoutou	1.85	341	S	Sn	05 05 56.2	+0.1
SANVU	Saraoutou	1.85	341		Pn	05 05 31.1	-2.4
SANVU				Sn	Sn	05 05 54.7	-1.4
MARNC	Mare, Loyalty	4.25	177	P	Pn	05 06 05.9	-0.6
MARNC	Mare, Loyalty	4.25	177	Pn	Pn	05 06 04.5	-2.0
KOUNC	Koumac, New Ca	4.71	225	P	Pn	05 06 12.8	0.0
KOUNC	Koumac, New Ca	4.71	225	S	Sn	05 07 06.6	-0.2
KOUNC	Koumac, New Ca	4.71	225	Pn	Pn	05 06 12.9	+0.2
YATNC	Mamie plateau,	4.90	190	P	Pn	05 06 14.8	-0.6
YATNC	Mamie plateau,	4.90	190	S	Sn	05 07 09.7	-1.8
NOUC	Port Laguerre	5.07	196	P	Pn	05 06 17.9	+0.2
NOUC	Port Laguerre	5.07	196	S	Sn	05 07 13.9	-1.7
ONTNC	Ouen Toro	5.23	194	Pn	Pn	05 06 19.9	0.0
OUENC	Ouen Island, N	5.26	190	P	Pn	05 06 21.2	+0.9
OUENC	Ouen Island, N	5.26	190	S	Sn	05 07 18.6	-1.8
OUENC	Ouen Island, N	5.26	190	Pn	Pn	05 06 20.9	+0.5
WRA	Warramunga Arr	31.82	260	P	P	05 11 26.3	-0.1
	0.4nm,0.8s,baz=85,slow=8.9,SNR=1.7						
	0.4nm,0.8s						
WRA	Warramunga Arr	31.82	260	P	P	05 11 25.2	-1.2
ASAR	Alice Springs	32.36	253	P	P	05 11 30.4	-0.8
	0.5nm,0.4s,baz=80,slow=8.4,SNR=11						
	0.5nm,0.4s						
ASAR	Alice Springs	32.36	253	P	P	05 11 30.8	-0.5
KNRA	Kununurra	37.44	267	P	P	05 12 14.1	-0.9
KNRA				IAmb	IAmb	05 12 14.7	
	comp=Z,4.0nm,1.2s						
FAKI	Fak Fak	37.69	288	P	P	05 12 16.5	-0.6
FITZ	Fitzroy Crossi	40.13	262	P	P	05 12 37.0	-0.6
	comp=Z,2.0nm,0.8s,baz=84,slow=9.2,SNR=2.5						
	comp=Z,2.0nm,0.8s						
FITZ	Fitzroy Crossi	40.13	262	P	P	05 12 37.0	-0.6
FITZ				IAmb	IAmb	05 12 56.1	
	comp=Z,1.6nm,1.2s						
CASY	Casey	61.45	203	P	P	05 15 18.1	+0.6
CASY				IAmb	IAmb	05 15 51.5	
	comp=Z,4.6nm,1.2s						
QSPA	South Pole Qui	72.83	180	P	P	05 16 30.5	+0.5
	comp=Z,2.4nm,1.0s,baz=16,slow=1.9,SNR=5.1						
	comp=Z,2.4nm,1.0s						
QSPA	South Pole Qui	72.83	180	P	P	05 16 30.1	+0.2
QSPA				IAmb	IAmb	05 16 42.7	
	comp=Z,9.7nm,1.3s						
SONM	Songino Array	84.79	324	P	P	05 17 38.3	+2.4
	comp=Z,0.2nm,0.4s,baz=125,slow=4.0,SNR=1.9						
	comp=Z,0.2nm,0.4s						
SONM	Songino Array	84.79	324	P	P	05 17 35.9	+0.1
SONM				IAmb	IAmb	05 17 51.0	
	comp=Z,3.1nm,1.4s						
ILAR	Eielson Array	88.72	18	P	P	05 18 00.4	+6.0
	comp=Z,0.8nm,1.1s,baz=204,slow=3.8,SNR=4.1						
	comp=Z,0.8nm,1.1s						
TORD	Torodi Ar. Bea	166.01	255	PKP	PKPdf	05 25 09.9	+2.6
	comp=Z,0.8nm,0.9s,baz=151,slow=3.3,SNR=2.4						

NOU 06 05:18:12.9, 17°.07S×167°.86E, h14^{km}**, ML4.3**/16**, Vanuatu Islands, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTV	Rentapao	0.90	143	P	Pb	05 18 29.9	-0.4
RTV	Rentapao	0.90	143	S	Sb	05 18 42.7	+0.6
SANVU	Saraoutou	1.73	339	P	Pn	05 18 42.6	0.0
KOUNC	Koumac, New Ca	4.84	224	P	Pn	05 19 24.1	-1.3
YATNC	Mamie plateau,	5.05	190	P	Pn	05 19 29.0	+0.8
NOUC	Port Laguerre	5.22	196	P	Pn	05 19 30.8	+0.3

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*OSUNB **06** 05:23:42.7±0.2, 18°.75S×47°.10W, h0^{km}, mR2.6/9, Error ellipse: s-maj=2.0km s-min=1.9km az=0.0*

*VAO **06** 05:23:42.2±0.2, 18°.84S×47°.17W, h0^{km}, mbR2.9, Presumed earthquake*

ISC 06 05:23:42.2±1.3**, 18°.82S**±0°.03×**47°.17W**±0°.03**, h3**^{km}±11^{km}**, n32, σ0^{s}95**/53**, Brazil**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMNB	Patos De Minas	0.74	68	P	Pb	05 23 57.8	-0.2
PMNB				S	Sg	05 24 06.3	+0.2
PMNB	Patos De Minas	0.74	68	*e*P	Pb	05 23 57.7	-0.2
PMNB				*e*S	Sg	05 24 06.4	+0.2
IPMB	Ipameri, GO	1.29	310	P	Pb	05 24 07.8	+0.6
IPMB				S	Sb	05 24 24.8	+0.5
IPMB	Ipameri, GO	1.29	310	*e*P	Pg	05 24 06.9	0.0
IPMB				*e*S	Sg	05 24 23.7	-0.1
BAT2	UHE Batalha	1.48	349	P	Pn	05 24 09.5	-0.3
CANS	Sao Roque de M	1.64	154	P	Pg	05 24 14.2	+0.6
CANS				S	Sn	05 24 32.7	-1.1
CANS	Sao Roque de M	1.64	154	*e*P	Pn	05 24 12.3	+0.2
CANS				*e*S	Sn	05 24 32.7	-1.1
ITU3	Corumbazu	1.72	290	P	Pn	05 24 14.2	+1.0
BB19B	Bebedouro	2.58	210	P	Pb	05 24 28.3	-0.9
BB19B				S	Sb	05 25 00.8	-0.5
BB19B	Bebedouro	2.58	210	*e*P	Pn	05 24 24.8	-0.2
BB19B				*e*S	Sn	05 24 57.3	+0.4
JQT1	Jequitai-MG	3.10	60	P	Pn	05 24 30.7	-1.5
JQT1				S	Sn	05 25 07.5	-2.3
BSCB	Bom Sucesso	3.13	134	P	Pn	05 24 33.0	+0.5
BSCB	Bom Sucesso	3.13	134	*e*P	Pn	05 24 32.8	+0.2
BSCB				*e*S	Sn	05 25 11.3	+0.7
DIAM	Diamantina, MG	3.36	82	P	Pn	05 24 34.6	-1.2
DIAM	Diamantina, MG	3.36	82	*e*P	Pn	05 24 35.7	-0.1
DIAM				*e*S	Sn	05 25 17.6	+1.3
FABR	Ouro Preto, Br	3.46	118	*e*P	Pn	05 24 37.2	0.0
GNG6	Mina Gongo Soc	3.56	109	*e*P	Pn	05 24 38.7	+0.1
GNG6				*e*S	Sn	05 25 22.1	+0.8
MC01	Montes Claros	3.72	56	P	Pn	05 24 41.7	+0.9
MC01	Montes Claros	3.72	56	*e*P	Pn	05 24 41.0	+0.3
MC01				*e*S	Sn	05 25 26.6	+1.4
VAO	Valinhos	4.17	177	*e*P	Pn	05 24 46.6	-0.3
VAO				*e*S	Sn	05 25 36.4	+0.2
JANB	Januaria	4.63	37	P	Pn	05 24 50.6	-2.6
JANB	Januaria	4.63	37	*e*P	Pn	05 24 53.7	+0.5
JANB				*e*S	Sn	05 25 49.0	+1.4
FRTB	Fartura	5.03	206	*e*P	Pn	05 24 58.3	-0.4
FRTB				*e*S	Sn	05 25 57.8	+0.4
ARCA	Ara§uai, MG	5.33	69	*e*P	Pn	05 25 03.1	+0.2
ARCA				*e*S	Sn	05 26 06.2	+1.3
PET01	Itanhaem-SP	5.45	181	*e*P	Pn	05 25 04.1	-0.3
PET01				*e*S	Sn	05 26 08.0	+0.3
SJMB	Sao Joao De Ma	5.67	90	P	Pn	05 25 07.1	-0.3
SJMB	Sao Joao De Ma	5.67	90	*e*P	Pn	05 25 07.7	+0.2
SJMB				*e*S	Sn	05 26 14.3	+1.2
LDASE	Londrina, Braz	5.86	218	*e*P	Pn	05 25 09.8	-0.3
LDASE				*e*S	Sn	05 26 18.1	+0.2
CAM01	Campos-RJ	5.97	121	*e*P	Pn	05 25 11.7	+0.1
CAM01				*e*S	Sn	05 26 21.4	+0.7
SDBA	SAO DESIDERIO	6.73	19	P	Pn	05 25 19.7	-2.4
SDBA	SAO DESIDERIO	6.73	19	*e*P	Pn	05 25 22.5	+0.4
NTVB	Natividade	7.08	356	P	Pn	05 25 25.0	-1.9

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*IDC **06** 05:24:04.0±1.5, 44°.95S×80°.40W, h0^{km}, mb3.7/4, mbtmp3.7/5, ML3.9/1, MS3.9/1, Error ellipse: s-maj=38.8km s-min=25.7km az=128.0*

*NEIC **06** 05:24:05.4±1.2, 44°.78S±0°.08×80°.1W±0°.2, h10^{km}±2^{km}, mb4.6/11, Error ellipse: s-maj=21.4km s-min=14.0km az=278.0*

ISC 06 05:24:05.0±0.9**, 44°.72S**±0°.08×**80°.2W**±0°.1**, h10**^{km}**, n41, σ1^{s}45**/38**, mb4.0**/8**, Off coast of southern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GO07	Milladeo Hill,	4.95	73	Pn	Pn	05 25 19.5	+0.1
GO07				Sn	Sn	05 26 16.4	-0.2
LL05	Los Muermos	5.90	58		Pn	05 25 32.6	+0.2
GO08	Villa O'Higgin	6.44	128		Pn	05 25 38.5	-1.3
LL03	Petrohue	6.71	61	Pn	Pn	05 25 43.8	+0.2
LR04	Corral	6.94	48		Pn	05 25 43.4	-3.3
LR03	Panguipulli	7.70	51	Pn	Pn	05 25 57.6	+0.4
PLCA	Paso Flores	8.11	64	Pn	Pn	05 26 04.2	+1.4
	0.3nm,0.3s,baz=236,slow=13,SNR=26						
	6.2nm,0.8s						
PLCA				AML	AML		
PLCA	Paso Flores	8.11	64		Pn	05 26 03.5	+0.7
GO06	Curarrehue	8.23	54		Pn	05 26 04.4	-0.2
BI02	San Fabin de	10.49	43		Pn	05 26 36.1	+0.7
MG02	Cerro Sombrero	10.81	142	Pn	Pn	05 26 40.0	+0.3
H03S1	Juan Fernandez	10.90	5	T	T	05 37 54.2	
	baz=184,slow=73,SNR=267						
H03S2	Juan Fernandez	10.90	5	T	T	05 38 13.0	
	baz=184,slow=73,SNR=289						
H03S3	Juan Fernandez	10.92	5	T	T	05 38 12.1	
	baz=184,slow=73,SNR=266						
MG03	Isla Dawson	11.11	149	Pn	Pn	05 26 44.1	+0.4
ML02	Panimavida	11.15	40	Pn	Pn	05 26 42.5	-1.9
GO05	Hualane	11.56	36	Pn	Pn	05 26 49.6	-0.5
BO02	Sierra Bellavi	12.24	39		Pn	05 26 58.4	-1.0
BO01	Tunca	12.45	37	Pn	Pn	05 27 00.5	-1.7
MT09	Talagante	13.02	36		Pn	05 27 08.4	-1.6
MT13	San Alfonso	13.35	38		Pn	05 27 14.8	+0.3
VA03	San Esteban	14.08	35		Pn	05 27 23.1	-1.4
CO03	El Pedregal	15.72	31	Pn	Pn	05 27 46.5	-0.2
CO03				IAmb	IAmb	05 27 54.0	
	comp=Z,19nm,1.1s						
GO04	Tololo Observa	16.29	30		Pn	05 27 56.6	+2.6
GO04				IAmb	IAmb	05 28 01.1	
	comp=Z,29nm,0.8s						
CO01	Juntas del Tor	16.72	32		Pn	05 28 01.9	+2.3
AC05	El Transito	17.69	30		Pn	05 28 12.6	+1.0
GO03	Copiapo	18.84	28	P	P	05 28 22.7	-2.4
AC02	Maricunga	19.92	30	P	P	05 28 35.2	-2.1
AC02				IAmb	IAmb	05 28 56.2	
	comp=Z,32nm,0.6s						
PB03	IPOC Station P	24.18	24	P	P	05 29 21.9	+0.2
PB03				IAmb	IAmb	05 29 25.0	
	comp=Z,31nm,1.2s						
CPUP	Villa Florida	25.96	53	P	P	05 29 39.6	+2.0
	comp=Z,2.7nm,1.0s,baz=222,slow=12,SNR=4.9						
	comp=Z,2.7nm,1.0s						
CPUP	Villa Florida	25.96	53	P	P	05 29 37.8	+0.2
CPUP				IAmb	IAmb	05 29 44.6	
	comp=Z,16nm,1.5s						
ORCD	Orcadas	26.34	140	P	P	05 29 39.0	-1.6
ORCD				IAmb	IAmb	05 29 42.1	
	comp=Z,23nm,1.0s						
LPAZ	La Paz	30.10	24	P	P	05 30 17.2	+1.8
	comp=Z,1.4nm,0.9s,baz=207,slow=11,SNR=6.6						
	comp=Z,1.4nm,0.9s						
LPAZ	La Paz	30.10	24	P	P	05 30 15.1	-0.3
BDFB	Brasilia	39.69	53	LR	LR	05 50 34.1	
	comp=Z,142nm,18.4s,baz=285,slow=40						
VNA3	Neumayer Olymp	42.22	153	P	P	05 31 57.8	+0.1
	comp=Z,2.7nm,1.0s						
VNA2	Neumayer--Watz	42.97	153	P	P	05 32 04.1	+0.3
	comp=Z,1.7nm,0.7s,baz=267,slow=7.7						
QSPA	South Pole Qui	45.53	180	P	P	05 32 22.8	-1.6
	comp=Z,0.7nm,0.7s,baz=141,slow=1.2,SNR=4.2						
	comp=Z,0.7nm,0.7s						
QSPA	South Pole Qui	45.53	180	P	P	05 32 23.8	-0.7
QSPA				IAmb	IAmb	05 33 04.4	
	comp=Z,7.3nm,1.4s						
TXAR	Lajitas Array	76.76	339	P	P	05 35 59.1	+2.6
	comp=Z,0.2nm,0.8s,baz=151,slow=6.2,SNR=4.4						
	comp=Z,0.2nm,0.8s						
TXAR	Lajitas Array	76.76	339	P	P	05 35 57.7	+1.3

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*NEIC **06** 05:39:04.6±1.3, 17°.14S±0°.05×167°.7E±0°.1, h10^{km}±1^{km}, mb4.6/8, Error ellipse: s-maj=22.9km s-min=7.9km az=261.0*

*IDC **06** 05:39:06.0±2.0, 17°.25S×167°.37E, h0^{km}, mb3.7/6, mbtmp3.8/7, ML3.6/1, MS3.8/1, Error ellipse: s-maj=40.9km s-min=20.5km az=76.0*

ISC 06 05:39:06.3±1.2**, 17°.18S**±0°.06×**167°.6E**±0°.2**, h25**^{km}**, n21, σ1^{s}17**/20**, mb4.0**/8**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SANVU	Saraoutou	1.77	346		Pn	05 39 34.9	-0.5
KOUNC	Koumac, New Ca	4.62	223		Pn	05 40 15.6	+1.0
DZM	Mont Dzumac	5.00	193	Pn	Pn	05 40 19.8	-0.2
	2.4nm,0.3s,baz=16,slow=18,SNR=18						
DZM				Sn	Sn	05 41 13.4	-3.6
	3.3nm,0.3s,baz=114,slow=23,SNR=6.1						
	6.4nm,0.3s						
DZM				AML	AML		
ONTNC	Ouen Toro	5.23	192	Pn	Pn	05 40 23.1	+0.1
OUENC	Ouen Island, N	5.27	188	Pn	Pn	05 40 24.0	+0.4
CTA	Charters Tower	20.47	259	P	P	05 43 42.6	+0.1
	3.1nm,0.9s,baz=108,slow=9.6,SNR=3.7						
	3.1nm,0.9s						
MGBR	Mount Gambier	31.37	224	P	P	05 45 24.7	-0.5
WB0	Warramunga Arr	31.61	260	P	P	05 45 26.4	-1.1
WB0				IAmb	IAmb	05 45 28.2	
	comp=Z,5.5nm,1.3s						
WRA	Warramunga Arr	31.66	260	P	P	05 45 28.1	+0.2
	comp=Z,0.2nm,0.6s,baz=88,slow=9.7,SNR=2.0						
	comp=Z,0.2nm,0.6s						
ASAR	Alice Springs	32.22	253	P	P	05 45 33.9	+1.0
	comp=Z,0.5nm,0.5s,baz=80,slow=8.8,SNR=12						
	comp=Z,0.5nm,0.5s						
ASAR	Alice Springs	32.22	253	P	P	05 45 32.8	0.0
BBOO	Buckleboo	32.43	235	P	P	05 45 35.2	+0.6
BBOO				IAmb	IAmb	05 45 41.7	
	comp=Z,24nm,1.4s						

GUMO	Guam	37.95	322	P	P	05 46 21.7	-0.5
FITZ	Fitzroy Crossi	39.98	262	P	P	05 46 40.0	+0.7
	comp=Z,1.6nm,0.8s,baz=97,slow=8.1,SNR=1.7						
	comp=Z,1.6nm,0.8s						
FITZ	Fitzroy Crossi	39.98	262	P	P	05 46 39.0	-0.2
JHJ	Hachijo jima 2	56.66	332	LR	LR	06 09 24.5	
	comp=Z,94nm,21.8s,baz=128,slow=32						
CASY	Casey	61.42	203	P	P	05 49 20.3	+0.1
CASY				IAmb	IAmb	05 49 29.7	
	comp=Z,6.0nm,1.4s						
QSPA	South Pole Qui	72.87	180	P	P	05 50 34.9	+1.9
	comp=Z,1.9nm,0.9s,baz=6.4,slow=1.5,SNR=6.3						
	comp=Z,1.9nm,0.9s						
QSPA	South Pole Qui	72.87	180	P	P	05 50 34.3	+1.3
QSPA				IAmb	IAmb	05 50 40.8	
	comp=Z,8.8nm,1.4s						
SONM	Songino Array	84.67	324	P	P	05 51 43.2	+5.2
	comp=Z,0.3nm,0.5s,baz=123,slow=5.3,SNR=2.7						
	comp=Z,0.3nm,0.5s						
SONM	Songino Array	84.67	324	P	P	05 51 37.9	-0.1

IDC ***06*** *05:43:15.8±0.9, 1°.70S×120°.64E, h0^{km}, mb3.7/7, mbtmp3.8/8, ML4.0/1, Error ellipse: s-maj=34.3km s-min=14.0km az=80.0*

DJA ***06*** *05:43:16.7±0.2, 2°S±1°×12°0E±°, h10^{km}, M4.4/18, MLv4.4/18*

NEIC ***06*** *05:43:22.0±0.7, 1°.83S±0°.06×120°.43E±0°.08, h45^{km}±11^{km}, mb4.1/9, Error ellipse: s-maj=11.9km s-min=9.2km az=83.0*

ISC 06 05:43:16.3±0.6**, 1°.99S**±0°.05×**120°.30E**±0°.07**, h10**^{km}**, n31, σ1^{s}.58**/33**, mb4.0**/12**, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PCI	Palu	1.17	337	P	Pb	05 43 33.4	-5.2
MMSI	Mamuju	1.56	243	P	Pg	05 43 44.4	-1.8
MMSI				AML	AML		
LUWI	Luwuk	2.64	69		Pn	05 43 59.5	+0.5
LUWI				Sn	Sn	05 44 28.4	-2.7
LUWI	Luwuk	2.64	69	P	Pn	05 44 00.2	+1.2
KAPI	Kappang	3.06	190	Pn	Pb	05 44 10.8	0.0
	13nm,0.3s,baz=337,slow=5.8,SNR=15						
KAPI				Sn	Sg	05 44 53.1	-1.5
	7.6nm,0.3s,baz=305,slow=22,SNR=4.4						
	86nm,0.6s						
KAPI				AML	AML		
KAPI	Kappang	3.06	190		Pb	05 44 10.3	-0.5
KAPI	Kappang	3.06	190	P	Pb	05 44 08.1	-2.7
TOLI2	Tolitoli	3.11	9		Pn	05 44 06.2	+0.7
TOLI2				Sn	Sn	05 44 37.7	-5.1
GTOI	Gorontalo	3.76	46	P	Pn	05 44 14.9	+0.6
MYLDM	Lahad Datu	7.34	346		Pn	05 45 06.2	+2.6
KKM	Kota Kinabalu	8.96	333	Pn	Pn	05 45 26.6	+0.7
RPSI	Rantau Prapat	21.87	282	P	P	05 48 11.6	+2.1
WB0	Warramunga Arr	22.41	143	P	P	05 48 16.8	+1.5
WB0				IAmb	IAmb	05 48 24.4	
	comp=Z,7.2nm,1.1s						
WRAB	Tennant Creek	22.51	143	P	P	05 48 17.5	+1.1
WRAB				IAmb	IAmb	05 48 19.7	
	comp=Z,8.3nm,1.1s						
WRA	Warramunga Arr	22.51	143	P	P	05 48 17.6	+1.3
	comp=Z,2.7nm,0.9s,baz=319,slow=10,SNR=11						
	comp=Z,2.7nm,0.9s						
WRA	Warramunga Arr	22.51	143	P	P	05 48 17.7	+1.3
WR8	Warramunga Arr	22.62	143	P	P	05 48 17.7	+0.2
WR8				IAmb	IAmb	05 48 26.1	
	comp=Z,7.3nm,0.9s						
TWG	Pinlang	24.67	2	P	P	05 48 37.5	0.0
ASAR	Alice Springs	25.26	150	P	P	05 48 44.5	+1.6
	comp=Z,0.6nm,0.6s,baz=339,slow=12,SNR=10						
	comp=Z,0.6nm,0.6s						
ASAR	Alice Springs	25.26	150	P	P	05 48 43.7	+0.8
STKA	Stephens Creek	35.87	148	P	P	05 50 18.3	+1.7
	comp=Z,1.2nm,0.6s,baz=315,slow=11,SNR=4.4						
	comp=Z,1.2nm,0.6s						
SONM	Songino Array	51.09	348	P	P	05 52 20.0	+0.9
	comp=Z,0.8nm,0.9s,baz=166,slow=8.3,SNR=2.1						
	comp=Z,0.8nm,0.9s						
SONM	Songino Array	51.09	348	P	P	05 52 18.9	-0.2
MKAR	Makanchi Array	58.94	330	P	P	05 53 16.0	+0.2
	comp=Z,0.9nm,0.6s,baz=134,slow=7.5,SNR=6.5						
	comp=Z,0.9nm,0.6s						
MKAR	Makanchi Array	58.94	330	P	P	05 53 15.8	0.0
ZALV	Zalesovo Beam	63.05	337	P	P	05 53 43.8	+0.3
	comp=Z,0.4nm,0.3s,baz=134,slow=8.3,SNR=2.4						
	comp=Z,0.4nm,0.3s						
ZALV	Zalesovo Beam	63.05	337	P	P	05 53 43.3	-0.2
KURBB	Kurchatov Arra	63.37	332	P	P	05 53 45.5	-0.2
	comp=Z,0.8nm,1.0s,baz=133,slow=6.6,SNR=3.3						
	comp=Z,0.8nm,1.0s						
KURK	Kurchatov	63.39	332	P	P	05 53 46.0	+0.1
KURK				IAmb	IAmb	05 53 49.1	
	comp=Z,2.8nm,1.1s						
AB31	Akbulak array	72.67	323	P	P	05 54 44.2	-0.1
AB31				IAmb	IAmb	05 55 02.5	
	comp=Z,1.4nm,0.9s						
ABKAR	Akbulak array	72.67	323	P	P	05 54 44.1	-0.1

SKHL ***06*** *05:50:44.7±0.7, 43°.50N×144°.70E, h143^{km}±6^{km}, mb4.6/2, msh5.5/5*

IDC ***06*** *05:50:44.8±2.0, 43°.67N×144°.64E, h137^{km}±18^{km}, mb3.9/27, mbtmp4.3/35, MS4.0/1, Error ellipse: s-maj=12.6km s-min=10.6km az=127.0*

NEIC ***06*** *05:50:45.9±1.5, 43°.59N±0°.07×144°.6E±0°.1, h147^{km}±6^{km}, mb4.3/104, Error ellipse: s-maj=13.3km s-min=9.8km az=103.0*

MOS ***06*** *05:50:45.1±0.8, 43°.65N×144°.59E, h154^{km}, mb4.4/22, Error ellipse: s-maj=9.0km s-min=5.9km az=101.3*

GFZ ***06*** *05:50:45.0±0.4, 44°N±4°×14°5E±°, h153^{km}±4^{km}, M3.9/10, mb4.3/10, Error ellipse: s-maj=12.2km s-min=7.1km az=106.0, confirmed*

JMA ***06*** *05:50:46.0±0.2, 43°.5N±0°.6×144°.6E±0°.7, h149^{km}±1^{km}, MD4.0/38, MV4.0/38, TESHIKAGA REGION*

JMA Felt II J1 at TESHIKAGA REGION .

ISC 06 05:50:45.4±0.5**, 43°.55N**±0°.04×**144°.65E**±0°.03**, h146**^{km}±4^{km}**, n291, σ1^{s}.13**/290**, mb4.3**/117**, 9C-24D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JNK	Nakash	0.06	52	⇓*i*P	Pn	05 51 06.0	+1.0
JNK				⇓S	Sn	05 51 20.8	+0.8
JNSB	Nemuroshibetsu	0.34	48	⇓*i*P	Pn	05 51 06.8	+1.1
JNSB				A	A	05 51 06.8	
	comp=N,17nm,2.2s,comp=E,8.0nm,2.5s						
JNSB				⇓S	Sn	05 51 22.5	+1.5
JRA	Rausu	0.52	41	⇓*i*P	Pn	05 51 07.3	+0.9
JRA				⇓S	Sn	05 51 23.5	+1.1
JAK	Akkeshi	0.55	176	*i* P	Pn	05 51 07.4	+0.8
JAK				A	A	05 51 07.4	
	comp=N,11nm,0.3s,comp=E,20nm,0.7s						
JAK				S	Sn	05 51 23.2	+0.5
JKHN	Kushirohamanak	0.59	141	*i* P	Pn	05 51 07.7	+0.8
JKHN				A	A	05 51 07.7	
	comp=N,9.0nm,0.4s,comp=E,12nm,0.9s						
JKHN				S	Sn	05 51 23.7	+0.7
JTKR	Abashiri--Toko	0.69	309	⇓*i*P	Pn	05 51 08.3	+0.9
JTKR				⇓S	Sn	05 51 24.7	+0.5
JAR	Ashorobuto	0.69	249	*i* P	Pn	05 51 08.7	+1.3
JAR				A	A	05 51 08.7	
	comp=N,11nm,0.9s,comp=E,5.0nm,0.5s						
JAR				S	Sn	05 51 25.5	+1.4
RUSJ	Misakicho	0.71	38	⇓*i*PN	Pn	05 51 08.6	+1.1
RUSJ				*i* S	Sn	05 51 25.7	+1.3
NMR	Nemuro--Hokkai	0.81	102	⇓*i*PN	Pn	05 51 08.8	+0.6
NMR				*i* S	Sn	05 51 25.3	-0.3
NMR	Nemuro--Hokkai	0.81	102	*i* P	Pn	05 51 08.8	+0.6
NMR				*i* S	Sn	05 51 25.3	-0.3
NEM2	Nemuro 2	0.82	102	*i* P	Pn	05 51 08.8	+0.5
NEM2				A	A	05 51 08.8	
	comp=N,12nm,0.8s,comp=E,15nm,0.4s						
NEM2				S	Sn	05 51 25.4	-0.3
JOB	Onbets	0.88	223	*i* P	Pn	05 51 10.0	+1.2
JOB				S	Sn	05 51 27.6	+1.1
YUK	Yuzh-Kuril'sk	1.00	60	*d i*PN	Pn	05 51 10.8	+1.0
YUK				*i* S	Sn	05 51 29.7	+1.2
YUK				pmax	pmax		
	comp=Z,6µm,0.2s						
YUK				pmax	pmax		
	comp=E,676nm,0.1s						
YUK				pmax	pmax		
	comp=N,352nm,0.2s						
YUK				smax	smax		
	comp=N,4µm,1.0s						
YUK				smax	smax		
	comp=E,3µm,1.0s						
YUK				smax	smax		
	comp=N,3µm,0.1s						
YUK				smax	smax		
	comp=E,3µm,0.4s						
YUK	Yuzh-Kuril'sk	1.00	60	*i* P	Pn	05 51 10.8	+1.0
YUK				AMB	AMB	05 51 11.4	
	comp=E,6µm,0.2s						
YUK				*i* S	Sn	05 51 29.7	+1.2
YUK				A	A	05 51 32.4	
	comp=E,4µm,2.0s						
YUK				A	A	05 51 32.4	
	comp=E,3µm,2.0s						
YUK				A	A	05 51 32.8	
	comp=E,3µm,0.3s						
YUK				A	A	05 51 32.8	
	comp=E,3µm,0.3s						
JMP	Maruseppu	1.04	297	⇓*i*P	Pn	05 51 10.9	+0.7
JMP				⇓S	Sn	05 51 29.3	+0.2
JCH	Churui	1.32	226	*i* P	Pn	05 51 13.5	+0.6
JCH				A	A	05 51 13.5	
	comp=N,3.0nm,0.3s,comp=E,2.0nm,0.6s						
JCH				S	Sn	05 51 33.6	-0.2
JKK2	Kamakawa 2	1.42	284	⇓*i*P	Pn	05 51 14.8	+1.0
JKK2				⇓S	Sn	05 51 36.3	+0.8
JFR	Furan	1.55	256	P	Pn	05 51 16.1	+0.9
JFR				S	Sn	05 51 39.0	+1.0
JKA	Kamikawa-asahi	1.59	292		Pn	05 51 16.7	+1.1
JKA	Kamikawa-asahi	1.59	292	P	Pn	05 51 16.4	+0.8
ASAJ	Asahikawa	1.59	292	PN	Pn	05 51 16.7	+1.1
ASAJ	Asahikawa	1.59	292	⇓*i*P	Pn	05 51 16.9	+1.2
ASAJ				⇓S	Sn	05 51 40.4	+1.6
JNBK	Urakawa-nobuka	1.88	228	*i* P	Pn	05 51 19.1	+0.2
JNBK				A	A	05 51 19.1	
	comp=N,3.0nm,0.9s,comp=E,4.0nm,0.5s						
JNBK				S	Sn	05 51 43.6	-1.0
ERM	Erimo	1.88	216	P	Pn	05 51 20.8	+1.9
ERM	Erimo	1.88	216	S	Sn	05 51 46.4	+1.8
ERM	Erimo	1.88	216	*ce*PN	Pn	05 51 20.6	+1.7
ERM				pmax	pmax		
	comp=Z,267nm,0.6s						
ERM	Erimo	1.88	216		Pn	05 51 19.3	+0.3
ERM	Erimo	1.88	216	P	Pn	05 51 19.6	+0.7
JEM	Erimo	1.88	216	P	Pn	05 51 20.8	+1.9
JEM	Erimo	1.88	216	S	Sn	05 51 46.4	+1.8
JSE	Soyaes	2.05	314	⇓*i*P	Pn	05 51 21.3	+0.5
JSE				⇓S	Sn	05 51 48.1	0.0
KUR	Kuril'sk	2.86	53	⇓*i*PN	Pn	05 51 31.8	+1.1
KUR				*i* S	Sn	05 52 07.7	+1.9
KUR				pmax	pmax		
	comp=Z,518nm,0.4s						
KUR				pmax	pmax		
	comp=E,121nm,0.5s						
KUR				pmax	pmax		
	comp=N,111nm,0.3s						
KUR				smax	smax		
	comp=E,313nm,0.5s						
KUR				smax	smax		
	comp=N,162nm,0.2s						
KUR	Kuril'sk	2.86	53	*i* P	Pn	05 51 31.8	+1.1
KUR				AMB	AMB	05 51 32.4	
	comp=N,520nm,0.4s						
KUR				*i* S	Sn	05 52 07.7	+1.9
KUR				A	A	05 52 13.7	
	comp=N,160nm,0.4s						
KUR				A	A	05 52 13.7	
	comp=N,310nm,0.4s						
JAHD	Aomorihigashid	3.35	228	A	A	05 51 38.1	
	comp=N,4.0nm,1.1s,comp=E,5.0nm,0.6s						
YSS	Yuzhno-Sakhali	3.66	339	P	Pn	05 51 43.3	+2.3
YSS	Yuzhno-Sakhali	3.66	339	*ce*PN	Pn	05 51 41.9	+0.9
YSS				pmax	pmax		
	comp=Z,32nm,0.7s						
YSS	Yuzhno-Sakhali	3.66	339		Pn	05 51 41.3	+0.3
YSS	Yuzhno-Sakhali	3.66	339	*i* P	Pn	05 51 41.6	+0.6
YSS				AMB	AMB	05 51 43.9	
	comp=Z,50nm,0.6s						
YSS				AMB	AMB	05 51 44.7	
	comp=Z,100nm,3.8s						
YSS				*e*S	Sn	05 52 24.8	+0.5
YSS				A	A	05 52 25.2	
	comp=Z,300nm,3.0s						
YSS				A	A	05 52 25.2	
	comp=Z,200nm,3.0s						
YSS				A	A	05 52 25.9	
	comp=Z,130nm,0.9s						
YSS				A	A	05 52 25.9	
	comp=Z,120nm,0.9s						
YSS	Yuzhno-Sakhali	3.66	339	P	Pn	05 51 41.1	0.0
JTM	Tenmabayashi	3.83	225	P	Pn	05 51 42.7	-0.6
JTM	Tenmabayashi	3.83	225	S	Sn	05 52 24.4	-3.9
JTM	Tenmabayashi	3.83	225		Pn	05 51 43.0	-0.4
JTM	Tenmabayashi	3.83	225	P	Pn	05 51 43.0	-0.4
TYV	Tymovskoe	7.45	350	*e*PN	Pn	05 52 28.5	-2.7
TYV				pmax	pmax		
	comp=Z,9.0nm,0.9s						
TYV				pmax	pmax		
	comp=Z,200nm,3.6s						
TYV	Tymovskoe	7.45	350	*e*P	Pn	05 52 32.5	+1.3
TYV				AMB	AMB	05 52 32.9	
	comp=Z,200nm,3.6s						
TYV				*e*S	Sn	05 53 56.9	+2.6
TYV				A	A	05 53 58.9	
	comp=Z,100nm,4.9s						
TYV				A	A	05 53 58.9	
	comp=Z,100nm,4.9s						
MAJO	Matsushiro	8.56	217	P	Pn	05 52 47.0	+0.7
MAJO	Matsushiro	8.56	217	PN	Pn	05 52 47.5	+1.2
MAJO	Matsushiro	8.56	217		Pn	05 52 47.5	+1.2
MAJO	Matsushiro	8.56	217	P	Pn	05 52 46.0	-0.3
	comp=Z,9.4nm,0.7s						
MJAR	Matsushiro Arr	8.56	217	P	Pn	05 52 47.3	+1.0
	comp=Z,2.5nm,0.5s,baz=27,slow=12,SNR=13						
MJAR				S	Sn	05 54 22.8	+1.4
	comp=Z,0.9nm,0.5s,baz=7.1,slow=40,SNR=1.4						
MJAR	Matsushiro Arr	8.56	217		Pn	05 52 46.2	0.0
USRK	Ussuriysk Ar.	9.17	278	P	Pn	05 52 53.7	-0.6
	comp=Z,2.8nm,0.8s,baz=75,slow=17,SNR=1.4						
USRK	Ussuriysk Ar.	9.17	278	PN	Pn	05 52 54.6	+0.3
USRK	Ussuriysk Ar.	9.17	278		Pn	05 52 54.5	+0.3
JGF	Kuroka	9.72	218	P	Pn	05 53 02.2	+0.4
JGF	Kuroka	9.72	218	P	Pn	05 53 01.7	-0.1
	comp=Z,16nm,1.7s						
INU	Inuyama	10.09	218	P	Pn	05 53 06.5	0.0
	comp=Z,26nm,2.4s						
KLR	Kul'dur	10.56	307	P	Pn	05 53 11.9	-0.9
	comp=Z,1.2nm,0.5s,baz=91,slow=12,SNR=4.3						
KLR	Kul'dur	10.56	307	*e*PN	Pn	05 53 11.7	-1.1
KLR				pmax	pmax		
	comp=Z,1.0nm,1.3s						
KLR	Kul'dur	10.56	307	*e*P	Pn	05 53 13.0	+0.2
PETK	Petropavlovsk-	12.90	38	P	Pn	05 53 41.6	-1.6
	comp=Z,1.9nm,0.5s,baz=221,slow=7.7,SNR=5.7						
PETK	Petropavlovsk-	12.90	38	PN	Pn	05 53 42.4	-0.8
PETK	Petropavlovsk-	12.90	38	Pn	Pn	05 53 42.4	-0.8
KSRS	Korea Array	14.10	250	P	Pn	05 53 58.2	-0.3
	comp=Z,1.8nm,0.7s,baz=64,slow=12,SNR=5.5						
ZEA	Zeya	15.33	318	*e*P	Pn	05 54 13.8	0.0
ZEA				pmax	pmax		
	comp=E,10.0nm,0.4s						
ZEA				pmax	pmax		
	comp=N,10.0nm,0.7s						
ZEA				pmax	pmax		
	comp=Z,20nm,0.5s						
MA2	Magadan	16.48	11	P	Pn	05 54 25.6	-2.3
	comp=Z,9.0nm,0.5s,baz=182,slow=12,SNR=4.2						
MA2	Magadan	16.48	11	P	Pn	05 54 27.1	-0.8
MA2				pmax	pmax		
	comp=Z,72nm,1.5s						
MA2	Magadan	16.48	11		Pn	05 54 27.1	-0.8
MA2	Magadan	16.48	11	P	Pn	05 54 26.5	-1.4
	comp=Z,39nm,1.7s						
HIA	Hailar	18.06	297	P	P	05 54 44.6	-0.8
	comp=Z,7.7nm,0.7s						
HILR	Hailar Array B	18.11	298	P	P	05 54 44.5	-1.4
	comp=Z,3.0nm,0.3s,baz=101,slow=12,SNR=12						
SEY	Seymchan	19.94	10	P	P	05 55 03.6	-2.0
	comp=Z,6.3nm,0.5s,baz=194,slow=9.4,SNR=23						
SEY	Seymchan	19.94	10	*e*P	P	05 55 02.5	-3.0
SEY				pmax	pmax		
	comp=Z,15nm,1.0s						
SEY	Seymchan	19.94	10	*e*P	P	05 55 04.2	-1.3
YAK	Yakutsk	20.51	340	P	P	05 55 10.1	-1.6
	comp=Z,19nm,0.3s,baz=128,slow=3.9,SNR=8.0						
	comp=Z,19nm,0.3s						
YAK	Yakutsk	20.51	340	P	P	05 55 10.1	-1.6
YAK	Yakutsk	20.51	340	P	P	05 55 10.0	-1.6
	comp=Z,27nm,0.5s						
JMZ	Minamidaito 2	20.80	216	P	P	05 55 14.4	-0.7
HHC	Hu-ho-hao-te	24.57	275	*e*P	P	05 55 51.0	-0.7
HHC				pmax	pmax		
	comp=Z,9.0nm,0.5s						
HHC				pmax	pmax		
	comp=Z,210nm,7.6s						
ULN	Ulaanbaatar	26.43	293	*ce*P	P	05 56 09.6	+1.1
ULN				pmax	pmax		
	comp=Z,8.0nm,1.0s						
ULN	Ulaanbaatar	26.43	293		P	05 56 09.3	+0.8
ULN				IAmb	IAmb	05 56 11.7	
	comp=Z,8.7nm,1.1s						
ULN	Ulaanbaatar	26.43	293	*e*P	P	05 56 09.7	+1.2
SONM	Songino Array	26.87	293	P	P	05 56 13.0	+0.6
	comp=Z,12nm,0.6s,baz=86,slow=8.1,SNR=52						
	comp=Z,12nm,0.6s						
SONM	Songino Array	26.87	293		P	05 56 12.8	+0.4
BILL	Bilibino	27.08	18	*i* P	P	05 56 15.2	+1.3
BILL				pmax	pmax		
	comp=Z,4.0nm,1.2s						
BILL	Bilibino	27.08	18	*e*P	P	05 56 15.2	+1.3
SSLB	Suanglung	27.71	232	P	P	05 56 19.2	-0.8
	comp=Z,19nm,2.3s						
ZAK	Zakamensk	28.75	298	*e*P	P	05 56 28.9	-0.2
ZAK				pmax	pmax		
	comp=Z,6.0nm,1.4s						
MIDW	Midway	34.04	104	P	P	05 57 12.6	-2.8
	comp=Z,185nm,2.0s						
G18K	Tagagawik	37.82	34		P	05 57 47.2	0.0
G18K				IAmb	IAmb	05 57 47.8	
	comp=Z,4.5nm,0.6s						
D19K	Kuna River	38.44	30	P	P	05 57 51.9	-0.6
D19K				IAmb	IAmb	05 57 53.9	
	comp=Z,8.6nm,1.1s						
E19K	Redstone River	38.60	32	P	P	05 57 54.0	+0.3
E19K				IAmb	IAmb	05 57 54.5	
	comp=Z,7.5nm,1.1s						
J19K	Poorman	38.94	37	P	P	05 57 56.9	+0.3
J19K				IAmb	IAmb	05 57 57.7	
	comp=Z,5.0nm,1.0s						
D20K	Etivluk River	39.02	30		P	05 57 56.8	-0.4
J20K	Nowinta River	39.60	37	P	P	05 58 03.1	+1.1
J20K				IAmb	IAmb	05 58 03.8	
	comp=Z,7.0nm,0.8s						
ZALV	Zalesovo Beam	39.67	307	P	P	05 58 03.0	+0.3
	comp=Z,2.1nm,0.3s,baz=89,slow=6.9,SNR=11						
	comp=Z,2.1nm,0.3s						
ZALV	Zalesovo Beam	39.67	307		P	05 58 02.4	-0.3
G21K	Allakaket	39.96	33	P	P	05 58 05.3	+0.3
G21K				IAmb	IAmb	05 58 06.8	
	comp=Z,3.9nm,0.8s						
F21K	Alatna River	40.02	32	P	P	05 58 05.0	-0.5
D22K	Ayikyak River	40.46	30	P	P	05 58 08.6	-0.5
D22K				IAmb	IAmb	05 58 09.9	
	comp=Z,4.5nm,0.8s						
CAST	Castle Rocks	40.51	38	P	P	05 58 10.5	+0.9
CAST				IAmb	IAmb	05 58 11.3	
	comp=Z,5.5nm,0.5s						
KDAK	Kodiak Island	40.72	47	P	P	05 58 10.3	-1.0
	comp=Z,20nm,1.9s						
E22K	Anaktuvuk Pass	40.72	31	P	P	05 58 10.6	-0.7
E22K				IAmb	IAmb	05 58 12.0	
	comp=Z,7.7nm,0.7s						
TRF	Thorofare Moun	41.32	38	IAmb	IAmb	05 58 20.2	
	comp=Z,7.1nm,1.0s						
G23K	Bananza Creek	41.36	33	P	P	05 58 15.9	-0.6
G23K				IAmb	IAmb	05 58 17.4	
	comp=Z,4.8nm,0.8s						
E23K	Chandalar	41.54	31		P	05 58 17.6	-0.4
E23K				IAmb	IAmb	05 58 18.9	
	comp=Z,4.8nm,0.6s						
H23K	Yukon River	41.56	34	IAmb	IAmb	05 58 21.0	
	comp=Z,4.0nm,0.7s						
MCK	McKinley	41.91	38	IAmb	IAmb	05 58 22.5	
	comp=Z,5.3nm,0.8s						
C24K	Franklin Bluff	41.94	29	IAmb	IAmb	05 58 21.7	
	comp=Z,6.8nm,0.7s						
E24K	Your Creek	41.97	31	IAmb	IAmb	05 58 22.4	
	comp=Z,5.8nm,0.8s						
RND	Reindeer	41.97	38	P	P	05 58 21.4	-0.1
RND				pmax	pmax		
	comp=Z,4.0nm,0.6s						
RND	Reindeer	41.97	38	P	P	05 58 21.4	-0.1
RND				IAmb	IAmb	05 58 22.8	
	comp=Z,3.6nm,0.6s						
GHO	Glory Hole Cre	42.08	41	P	P	05 58 22.9	+0.4
GHO				IAmb	IAmb	05 58 24.9	
	comp=Z,11nm,1.1s						
COLA	College	42.30	36	P	P	05 58 25.0	+0.9
COLA				pmax	pmax		
	comp=Z,25nm,0.3s						
COLA	College	42.30	36	P	P	05 58 25.0	+0.9
COLA	College	42.30	36	P	P	05 58 24.3	+0.2
	comp=Z,12nm,1.1s						
SML	Sawmill	42.36	40	IAmb	IAmb	05 58 26.4	
	comp=Z,6.0nm,0.8s						
DHY	Denali Highway	42.66	39	IAmb	IAmb	05 58 28.2	
	comp=Z,4.4nm,0.7s						
IL31		42.72	36	IAmb	IAmb	05 58 28.4	
	comp=Z,6.4nm,0.7s						
ILAR	Eielson Array	42.72	36	P	P	05 58 27.6	+0.1
	comp=Z,5.4nm,0.9s,baz=257,slow=5.6,SNR=66						
	comp=Z,5.4nm,0.9s						
MK31	Makanchi Array	43.06	297	⇓Pg	PKiKP	06 07 27.8	+7.2
	comp=Z,1.2nm,0.9s						
MK31				⇑Lg	Lg	06 08 25.7	
	comp=Z,2.9nm,0.9s,baz=114,slow=29,SNR=3.7						
MK31	Makanchi Array	43.06	297	P	P	05 58 30.7	+0.1
MK31				pmax	pmax		
	comp=Z,5.0nm,0.7s						
MK31	Makanchi Array	43.06	297	P	P	05 58 30.7	+0.1
MK31				IAmb	IAmb	05 58 31.4	
	comp=Z,4.5nm,0.7s						
MKAR	Makanchi Array	43.06	297	P	P	05 58 30.7	+0.2
	comp=Z,3.8nm,0.6s,baz=81,slow=9.5,SNR=45						
	comp=Z,3.8nm,0.6s						
MKAR	Makanchi Array	43.06	297		P	05 58 30.4	-0.2
GLI	Glacier Island	43.07	42	IAmb	IAmb	05 58 31.5	
	comp=Z,4.7nm,0.8s						
PRP	Porcupine Dome	43.23	35	IAmb	IAmb	05 58 34.0	
	comp=Z,13nm,1.3s						
MAKZ	Makanchi	43.26	297	⇑Pg	PKiKP	06 07 26.7	+6.0
	comp=Z,0.7nm,0.5s						
MAKZ				⇓Lg	Lg	06 08 30.1	
	comp=Z,4.5nm,1.2s						
MAKZ	Makanchi	43.26	297	*i* P	P	05 58 32.2	+0.1
MAKZ				pmax	pmax		
	comp=Z,7.0nm,0.9s						
MAKZ	Makanchi	43.26	297		P	05 58 32.0	-0.1
MAKZ				IAmb	IAmb	05 58 33.1	
	comp=Z,5.8nm,0.8s						
MAKZ	Makanchi	43.26	297	P	P	05 58 31.8	-0.4
	comp=Z,6.5nm,0.7s						
K24K	Donnelly Dome	43.30	37	IAmb	IAmb	05 58 32.9	
	comp=Z,7.1nm,0.6s						
RIDG	Independent Ri	43.72	37	IAmb	IAmb	05 58 36.0	
	comp=Z,4.2nm,0.6s						
EYAK	Cordova Ski Ar	43.77	42	IAmb	IAmb	05 58 38.9	
	comp=Z,3.5nm,0.6s						
G26K	Porcupine Rive	43.81	33	IAmb	IAmb	05 58 38.2	
	comp=Z,6.0nm,1.0s						
SCRK	Sand Creek	44.06	37	IAmb	IAmb	05 58 39.0	
	comp=Z,7.2nm,0.6s						
KURK	Kurchatov	44.13	303	*ce*P	P	05 58 38.9	-0.1
KURK				pmax	pmax		
	comp=Z,9.0nm,0.6s						
KURK	Kurchatov	44.13	303		P	05 58 38.8	-0.1
KURK	Kurchatov	44.13	303	*e*P	P	05 58 38.9	-0.1
KURK	Kurchatov	44.13	303	P	P	05 58 38.5	-0.4
	comp=Z,15nm,0.6s						
KURBB	Kurchatov Arra	44.22	303	P	P	05 58 39.5	-0.1
	comp=Z,12nm,0.5s,baz=70,slow=8.7,SNR=89						
	comp=Z,12nm,0.5s						
KURBB	Kurchatov Arra	44.22	303	P	P	05 58 39.4	-0.2
BMRM	Bremner River	44.26	41	P	P	05 58 40.4	+0.5
BMRM				IAmb	IAmb	05 58 41.9	
	comp=Z,5.4nm,0.9s						
MENT	Mentasta	44.33	38	IAmb	IAmb	05 58 44.5	
	comp=Z,3.3nm,0.5s						

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L26K  Log Cabin Wild    44.49  38   IAmb    IAmb      05 58 43.7
            comp=Z,5.2nm,0.7s
M26K  Nabesna, AK       44.75  39   IAmb    IAmb      05 58 46.7
            comp=Z,9.5nm,1.2s
K27K  Chicken           44.89  37   IAmb    IAmb      05 58 46.4
            comp=Z,7.0nm,0.7s
L27K  Beaver Creek,     45.16  38   IAmb    IAmb      05 58 49.1
            comp=Z,6.1nm,0.8s
BCAR  Beaver Creek A    45.18  38           P         05 58 48.3 +1.1
M27K  Edge Creek, AK    45.27  39   IAmb    IAmb      05 58 51.2
            comp=Z,6.5nm,0.8s
I28M  Miner Creek       45.56  34   IAmb    IAmb      05 58 52.0
            comp=Z,5.4nm,0.6s
BARN  Barnard Glacie    45.64  41   IAmb    IAmb      05 58 54.3
            comp=Z,4.5nm,0.6s
GRNC  Granite Creek     45.67  41   IAmb    IAmb      05 58 55.0
            comp=Z,6.2nm,0.9s
CMAR  Chiang Mai Arr    45.73 252   P       P         05 58 52.6 +0.6
            comp=Z,0.6nm,0.3s,baz=41,slow=7.1,SNR=4.9
            comp=Z,0.6nm,0.3s
CMAR  Chiang Mai Arr    45.73 252   P       P         05 58 51.9 -0.1
I29M  Ogilvie Camp,     46.24  34   IAmb    IAmb      05 58 57.0
            comp=Z,5.1nm,0.7s
F30M  Barrier River     46.80  31   IAmb    IAmb      05 59 02.2
            comp=Z,12nm,0.9s
L29M  L29M              46.80  37   IAmb    IAmb      05 59 02.5
            comp=Z,6.0nm,0.8s
HYT   Haines Junctio    47.67  40           P         05 59 08.6 +2.0
H31M  Peel River        47.75  33   IAmb    IAmb      05 59 08.9
            comp=Z,7.6nm,0.7s
BRDH  Bariadhala        48.14 262   LR      LR        06 21 12.4
            comp=Z,153nm,19.1s,baz=222,slow=38
BVAR  Borovoye Array    48.22 309   P       P         05 59 11.1 +0.2
            comp=Z,3.3nm,0.3s,baz=88,slow=10,SNR=29
            comp=Z,3.3nm,0.3s
BORK  Borovoye          48.26 309 i P       P         05 59 11.1  0.0
BORK                                pmax    pmax
            comp=Z,4.0nm,1.0s
BORK  Borovoye          48.26 309   P       P         05 59 11.4 +0.2
KK31  Karatay Array     52.20 297 i P       P         05 59 40.4 -0.6
KKAR  Karatay Array     52.20 297   P       P         05 59 40.7 -0.3
KKAR  Karatay Array     52.20 297   P       P         05 59 40.7 -0.3
ARTI  Arti              53.35 316c iP       P         05 59 48.6 -0.6
ARTI                                                  06 00 52.9
ARTI                                S       S         06 07 10.9 +1.5
ARTI                                SS      SS        06 10 55.5 +4.9
ARTI                                pmax    pmax
            comp=Z,14nm,1.0s
ARTI  Arti              53.35 316           P         05 59 48.6 -0.6
SPITS Spitsbergen Ar    54.63 349   P       P         05 59 56.3 -1.9
            comp=Z,9.7nm,0.8s,baz=82,slow=7.7,SNR=10
            comp=Z,9.7nm,0.8s
AB31  Akbulak array     55.77 308 i P       P         06 00 06.8 +0.1
ABKAR Akbulak array     55.77 308           P         06 00 06.7  0.0
AKTO  Aktyubinsk        56.28 310   P       P         06 00 10.3 -0.1
HOLB  Holberg           56.51  50   P       P         06 00 12.7 +0.7
HOLB                                IAmb    IAmb      06 00 26.9
            comp=Z,7.5nm,1.1s
YKAW3 Yellowknife Wh    56.93  33   P       P         06 00 15.2 +0.4
YKAW3                               IAmb    IAmb      06 00 52.7
            comp=Z,5.8nm,0.9s
YKA   Yellowknife Ar    56.97  33   P       P         06 00 14.9 -0.1
            comp=Z,1.8nm,0.8s,baz=311,slow=7.4,SNR=12
            comp=Z,1.8nm,0.8s
YKA   Yellowknife Ar    56.97  33 i P       P         06 00 15.3 +0.3
YKA                                 pmax    pmax
            comp=Z,1.0nm,0.5s
YKA   Yellowknife Ar    56.97  33   P       P         06 00 16.0 +1.0
LVZ   Lovozero          57.23 335   P       P         06 00 15.7 -1.1
LVZ                                 pmax    pmax
            comp=Z,21nm,1.4s
LVZ   Lovozero          57.23 335   P       P         06 00 15.7 -1.1
VADS  Vadso            57.40 338 eP       P         06 00 17.2 -0.7
KEV   Kevo              58.26 339   P       P         06 00 23.1 -0.8
KEV                                 pmax    pmax
            comp=Z,18nm,1.3s
KEV   Kevo              58.26 339   P       P         06 00 23.1 -0.8
HAMF  Hammerfest        58.50 340 eP       P         06 00 24.3 -1.3
ARCES ARCESS Array B    58.80 339   P       P         06 00 27.3 -0.4
            comp=Z,1.4nm,0.4s,baz=38,slow=7.5,SNR=24
            comp=Z,1.4nm,0.4s
ARCES ARCESS Array B    58.80 339   P       P         06 00 27.0 -0.7
ARCES                               IAmb    IAmb      06 01 09.5
            comp=Z,7.2nm,1.4s
NEEM  North Greenlan    58.89   4 i P       P         06 00 27.4 -1.1
NEEM                                IAmb    IAmb      06 00 28.3
            comp=Z,10nm,0.8s
DAG   Danmarks Havn     59.49 356 i P       P         06 00 31.5 -0.8
DAG                                 IAmb    IAmb      06 00 33.0
            comp=Z,5.4nm,0.8s
KLMR  Klimovskoe        59.62 327 eP       P         06 00 30.8 -2.6
KLMR                                pmax    pmax
            comp=Z,20nm,1.1s
JETT  Jettan, Norway    60.07 340 eP       P         06 00 36.2 -0.2
TRO   Tromso            60.37 341 eP       P         06 00 38.1 -0.2
BELG  Belogornoye       60.79 316 i P       P         06 00 41.7 +0.2
BELG                                pmax    pmax
            comp=Z,3.0nm,0.9s
KULLO Kullorsuaq        61.25   7 i P       P         06 00 41.5 -2.8
KULLO                               IAmb    IAmb      06 00 42.5
            comp=Z,22nm,0.9s
STEI  Steigen           62.54 341 eP       P         06 00 52.0 -0.9
FAUS  Fauske            62.95 340 eP       P         06 00 55.7  0.0
WB0   Warramunga Arr    63.70 191   P       P         06 01 01.6 +0.5
FITZ  Fitzroy Crossi    63.77 200   P       P         06 01 02.7 +1.0
WRA   Warramunga Arr    63.88 191   P       P         06 01 02.6 +0.3
            comp=Z,2.3nm,0.8s,baz=13,slow=6.8,SNR=12
            comp=Z,2.3nm,0.8s
WRA   Warramunga Arr    63.88 191 i P       P         06 01 03.0 +0.6
WRA                                 pmax    pmax
            comp=Z,3.0nm,0.9s
WRA   Warramunga Arr    63.88 191   P       P         06 01 02.5 +0.2
VAGH  Vaagaholmen       63.96 341 eP       P         06 01 01.8 -0.5
RAUS  Rausandaksla      64.00 340 eP       P         06 01 02.3 -0.4
SUMG  Summit            64.16   1   P       P         06 01 04.5 +0.4
SUMG                                pmax    pmax
            comp=Z,10.0nm,0.6s
SUMG  Summit            64.16   1   P       P         06 01 04.5 +0.4
SUMG  Summit            64.16   1 i P       P         06 01 04.8 +0.8
SUMG                                IAmb    IAmb      06 01 07.1
            comp=Z,10nm,0.7s
FINES FINESS Array B    64.22 332   P       P         06 01 03.3 -0.8
            comp=Z,14nm,0.5s,baz=46,slow=7.4,SNR=115
            comp=Z,14nm,0.5s
FINES FINESS Array B    64.22 332           P         06 01 03.7 -0.4
OBN   Obninsk           64.39 323⇑eP       P         06 01 05.5 +0.2
OBN                               e*PP      pP        06 01 40.1 -0.1
OBN                               eS        pS        06 10 13.0 +1.5
OBN                                 pmax    pmax
            comp=Z,4.0nm,0.9s
OBN   Obninsk           64.39 323 eP       P         06 01 05.5 +0.2
NSS   Namsos            66.06 340 eP       P         06 01 15.9  0.0
AS31  Alice Springs     67.60 191   P       P         06 01 26.6 +0.4
ASAR  Alice Springs     67.61 191   P       P         06 01 27.6 +1.4
            comp=Z,0.4nm,0.5s,baz=4.7,slow=6.1,SNR=8.4
            comp=Z,0.4nm,0.5s
ASAR  Alice Springs     67.61 191   P       P         06 01 26.9 +0.7
KIV   Kislovodsk        68.53 311 eP       P         06 01 33.6 +1.6
KIV                                 pmax    pmax
            comp=Z,12nm,1.1s
KIV   Kislovodsk        68.53 311 eP       P         06 01 33.6 +1.6
KBZ   Khabaz            68.56 310   P       P         06 01 32.6 +0.6
            comp=Z,2.0nm,0.5s,baz=73,slow=2.1,SNR=6.8
            comp=Z,2.0nm,0.5s
KBZ   Khabaz            68.56 310 i P       P         06 01 32.1 +0.1
KBZ                                 pmax    pmax
            comp=Z,4.0nm,0.9s
KBZ   Khabaz            68.56 310 eP       P         06 01 32.2 +0.2
DOMB  Dombas            68.86 339 eP       P         06 01 33.7 +0.1
NC405 NORSAR Array S    68.92 338   P       P         06 01 33.8 -0.2
NC405                               IAmb    IAmb      06 01 37.1
            comp=Z,7.7nm,1.0s
KVN   Kaiserville       68.94  56   P       P         06 01 36.0 +1.3
KVN                                 pmax    pmax
            comp=Z,3.0nm,1.4s
KVN   Kaiserville       68.94  56   P       P         06 01 36.0 +1.3
NB2   NORSAR Subarra    69.12 338   P       P         06 01 34.7 -0.6
            comp=Z,2.3nm,0.6s,baz=35,slow=6.2
NB2   NORSAR Subarra    69.12 338   P       P         06 01 34.7 -0.6
NOA   NORSAR Array B    69.12 338   P       P         06 01 35.0 -0.3
            comp=Z,2.7nm,0.7s,baz=21,slow=5.9,SNR=16
            comp=Z,2.7nm,0.7s
NOA   NORSAR Array B    69.12 338   P       P         06 01 35.0 -0.3
HFS   Hagfors           69.16 336   P       P         06 01 34.9 -0.5
            comp=Z,4.1nm,0.5s,baz=34,slow=5.6,SNR=24
            comp=Z,4.1nm,0.5s
NVAR  Mina Array Bea    69.22  56   P       P         06 01 37.3 +0.8
            comp=Z,0.5nm,0.5s,baz=294,slow=5.8,SNR=6.3
            comp=Z,0.5nm,0.5s
NC602 NORSAR Array S    69.28 337 eP       P         06 01 35.6 -0.5
AK03  Malin Array Si    70.64 323   P       P         06 01 44.2 -0.4
AKASG Malin Array Be    70.65 323   P       P         06 01 44.1 -0.7
            comp=Z,1.4nm,0.4s,baz=44,slow=6.6,SNR=28
            comp=Z,1.4nm,0.4s
AKASG Malin Array Be    70.65 323 i P       P         06 01 44.0 -0.7
AKASG                               pmax    pmax
            comp=Z,2.0nm,0.4s
AKASG Malin Array Be    70.65 323   P       P         06 01 45.1 +0.4
AKBB  Malin Array Si    70.65 323ceP       P         06 01 44.8 +0.1
AKBB                                pmax    pmax
            comp=Z,5.0nm,1.2s
AK04  Malin Array Si    70.66 323   P       P         06 01 44.2 -0.6
AK01  Malin Array Si    70.67 323   P       P         06 01 44.1 -0.7
KIEV  Kiev              70.67 323   P       P         06 01 44.3 -0.5
            comp=Z,2µmcomp=Z,28nm,1.3s
AK22  Malin Array Si    70.68 323   P       P         06 01 44.2 -0.7
AK21  Malin Array Si    70.68 323   P       P         06 01 44.3 -0.6
AK10  Malin Array Si    70.71 322   P       P         06 01 44.5 -0.6
PDAR  Pinedale Array    71.41  48   P       P         06 01 50.1 +0.4
            comp=Z,0.5nm,0.5s,baz=239,slow=1.3,SNR=6.9
            comp=Z,0.5nm,0.5s
PDAR  Pinedale Array    71.41  48   P       P         06 01 50.3 +0.5
RNPP9 Sopachiv          71.57 325   P       P         06 01 49.8 -0.4
LUBAR Lubar, Ukraine    71.87 323   P       P         06 01 51.7 -0.3
ULM   Lac du Bonnet     72.74  36   P       P         06 01 57.1 -0.2
            comp=Z,2.3nm,0.9s,baz=338,slow=5.4,SNR=2.1
            comp=Z,2.3nm,0.9s
ULM   Lac du Bonnet     72.74  36   P       P         06 01 57.5 +0.3
ULM                                 pmax    pmax
            comp=Z,16nm,1.5s
ULM   Lac du Bonnet     72.74  36   P       P         06 01 57.5 +0.3
KMPD  K-Podol'skiy      73.44 322   P       P         06 02 00.7 -0.7
PFO   Pinyon Flats O    73.47  59 i P       P         06 02 01.6 -0.4
BUR08 Bucovina Ar. S    74.69 322   P       P         06 02 09.0 +0.2
BURAR Bucovina Array    74.71 322   P       P         06 02 09.1 +0.2
BURAR                               pmax    pmax
            comp=Z,1.0nm,0.7s
BURAR Bucovina Array    74.71 322   P       P         06 02 09.1 +0.2
TESR  Tescani           74.89 321   P       P         06 02 09.3 -0.5
            comp=Z,4.7nm,2.1s
OJC   Ojcow             74.98 327   P       P         06 02 10.3 +0.1
            comp=Z,5.3nm,0.8s
NIE   Niedzica          75.41 326   P       P         06 02 11.8 -1.0
DPC   Dobruska-Polom    76.22 329 eP       P         06 02 18.0 +0.6
BRTR  Keskin Array B    76.35 312   P       P         06 02 17.9 -0.6
            comp=Z,0.5nm,0.5s,baz=58,slow=5.2,SNR=2.1
            comp=Z,0.5nm,0.5s
BRTR  Keskin Array B    76.35 312   P       P         06 02 17.6 -0.9
CLL   Collm             76.64 331 i P       P         06 02 19.5 -0.1
CLL                                 pmax    pmax
            comp=Z,3.0nm,0.6s
CLL   Collm             76.64 331 i P       P         06 02 19.5 -0.1
            comp=Z,3.0nm,0.6s
VYHS  Vyhne             76.73 326 eP       P         06 02 18.5 -1.7
EKA   Eskdalemuir Ar    77.77 342   P       P         06 02 25.9 +0.1
            comp=Z,0.9nm,0.4s,baz=21,slow=4.9,SNR=18
            comp=Z,0.9nm,0.4s
ESK   Eskdalemuir       77.80 342   P       P         06 02 26.2 +0.2
ESK                                 pmax    pmax
            comp=Z,17nm,1.2s
ESK   Eskdalemuir       77.80 342   P       P         06 02 26.2 +0.2
KHC   Kasperske Hory    78.24 330 eP       P         06 02 28.5 -0.1
CONA  Conrad Observa    78.36 328 eP       P         06 02 28.7 -0.7
            comp=Z,1.8nm,0.8s
RONA  Rosalia, Austr    78.38 327 eP       P         06 02 28.7 -0.8
            comp=Z,1.2nm,0.6s
SCHQ  Schefferville     78.39  18   P       P         06 02 28.4 -1.0
            comp=Z,3.0nm,0.8s,baz=339,slow=8.6,SNR=5.9
            comp=Z,3.0nm,0.8s
SCHQ  Schefferville     78.39  18   IAmb    IAmb      06 02 59.8
            comp=Z,6.8nm,1.2s
GERES GERESS Array B    78.43 329   P       P         06 02 29.7 -0.1
            comp=Z,0.7nm,0.3s,baz=35,slow=4.9,SNR=7.7
            comp=Z,0.7nm,0.3s
MOA   Molln             79.04 328 eP       P         06 02 31.1 -1.9
            comp=Z,4.1nm,1.6s
ARSA  Arzberg           79.05 327 eP       P         06 02 32.6 -0.5
            comp=Z,1.8nm,1.0s
SOKA  Soboth            79.71 327 i P       P         06 02 36.3 -0.4
            comp=Z,1.6nm,0.9s
LESA  Schwarzleotal     79.99 329 eP       P         06 02 38.1 -0.2
            comp=Z,1.6nm,0.6s
KBA   Koelnbreinsper    80.03 329 i P       P         06 02 38.8 +0.2
            comp=Z,2.5nm,0.5s
OBKA  Obir              80.04 328 i P       P         06 02 38.0 -0.5
            comp=Z,1.2nm,0.7s
MYKA  Terra Mystica     80.29 328 eP       P         06 02 39.7 -0.2
            comp=Z,2.6nm,0.9s
WATA  Walderalm         80.47 330 eP       P         06 02 41.2 +0.3
            comp=Z,1.6nm,0.6s
WTTA  Wattenberg        80.51 330 i P       P         06 02 41.1  0.0
            comp=Z,2.9nm,0.8s
MOTA  Moosalm           80.64 330 eP       P         06 02 41.4 -0.4
            comp=Z,2.2nm,0.9s
SQTA  Sankt Quirin      80.71 330 eP       P         06 02 42.3 +0.2
            comp=Z,2.2nm,0.8s
FDMO  Fiordimonte       83.50 326   P       P         06 02 57.0 +0.3
FDMO                                IAmb    IAmb      06 03 29.0
            comp=Z,5.0nm,1.3s
NRCA  Norcia            83.66 326   P       P         06 02 57.9 +0.4
TXAR  Lajitas Array     84.26  55   P       P         06 03 01.7 +0.8
            comp=Z,0.5nm,0.7s,baz=286,slow=4.2,SNR=7.6
            comp=Z,0.5nm,0.7s
TXAR  Lajitas Array     84.26  55   P       P         06 03 00.7 -0.2
WVT   Waverly           87.45  40   P       P         06 03 16.8 +0.5
WVT                                 pmax    pmax
            comp=Z,7.0nm,1.5s
WVT   Waverly           87.45  40   P       P         06 03 16.8 +0.5
WVT                                 IAmb    IAmb      06 03 53.5
            comp=Z,7.4nm,1.4s
ESDC  Sonseca Array     92.44 336   P       P         06 03 38.9 -0.7
            comp=Z,0.4nm,0.6s,baz=10,slow=5.2,SNR=4.5
            comp=Z,0.4nm,0.6s
ESDC  Sonseca Array     92.44 336   P       P         06 03 39.1 -0.5
TROLL Troll, Antarti   146.19 200 ⇓PKPbc   PKPab     06 10 08.2 -0.1
            comp=Z,92nm,0.6s
VNA2  Neumayer--Watz   149.26 198 ⇓PKPbc   PKPbc     06 10 15.6 +0.3
            comp=Z,2.0nm,0.6s,baz=100,slow=1.5
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*IDC **06** 06:13:51.2±2.4, 17°.05S×167°.74E, h0^{km}, mb4.1/5, mbtmp4.1/6, ML3.6/1, Error ellipse: s-maj=44.5km s-min=23.1km az=69.0*

*NOU **06** 06:13:53.1, 17°.23S×167°.81E, h8^{km}, MLv4.6/18, Vanuatu Islands*

ISC 06 06:13:54.9±0.7**, 17°.22S**±0°.05×**167°.81E**±0°.09**, h21**^{km}**, n27,** σ**2^{s}.47**/27**, mb4.1**/5**, Vanuatu Islands**

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Code  Station Name       Δ°  AZ°    Phase ID           Time     Res
                                  Op       ISC        h  m  s   ISC
RTV   Rentapao          0.82 134  P        Pb        06 14 09.6 -0.8
RTV   Rentapao          0.82 134  S        Sb        06 14 19.9 -1.1
SANVU Saraoutou         1.86 342  P        Pn        06 14 24.0 -1.5
SANVU Saraoutou         1.86 342  S        Sb        06 14 49.6 -1.3
MARNC Mare, Loyalty     4.24 177  P        Pn        06 14 57.0 -1.3
KOUNC Koumac, New Ca    4.70 225  P        Pn        06 15 04.3 -0.3
YATNC Mamie plateau,    4.89 190  P        Pn        06 15 06.6 -0.6
DZM   Mont Dzumac       4.99 195  Pn       Pn        06 15 08.9 +0.2
            2.0nm,0.3s,baz=326,slow=24,SNR=18
DZM                               Sn       Sn        06 16 03.1 -2.8
            5.2nm,0.3s,baz=289,slow=22,SNR=7.8
            10nm,0.5s
DZM                               AML      AML
NOUC  Port Laguerre     5.06 196  P        Pn        06 15 10.0 +0.5
            31nm,1.5s
NOUC                              AML      AML
OUENC Ouen Island, N    5.25 190  P        Pn        06 15 12.8 +0.6
            48nm,1.8s
OUENC                             AML      AML
STKA  Stephens Creek   27.86 234  P        P         06 19 43.7 +0.6
            1.1nm,0.4s,baz=62,slow=15,SNR=2.9
            1.1nm,0.4s
WRA   Warramunga Arr   31.81 260  P        P         06 20 17.4 -1.0
            1.1nm,0.8s,baz=89,slow=9.2,SNR=7.1
            1.1nm,0.8s
ASAR  Alice Springs    32.36 253  P        P         06 20 22.0 -1.1
            1.4nm,0.5s,baz=79,slow=8.8,SNR=32
            1.4nm,0.5s
FITZ  Fitzroy Crossi   40.13 262  P        P         06 21 29.2 -0.4
            2.8nm,0.7s,baz=98,slow=7.1,SNR=9.3
            2.8nm,0.7s
QSPA  South Pole Qui   72.82 180  P        P         06 25 22.4 +0.6
            3.3nm,0.9s,baz=72,slow=3.8,SNR=12
            3.3nm,0.9s
TROLL Troll, Antarti   90.43 185  P        P         06 26 55.0 +0.3
            comp=Z,114nm,0.9s
CONA  Conrad Observa  141.72 329 ePKP     PKiKP     06 33 27.9 +0.1
            comp=Z,4.1nm,1.4s
MOA   Molln           142.54 330 ePKiKP   PKiKP     06 33 35.1 +5.6
            comp=Z,5.8nm,2.2s
KBA   Koelnbreinsper  143.53 330 ePKiKP   PKiKP     06 33 36.0 +4.3
            comp=Z,2.1nm,1.1s
LESA  Schwarzleotal   143.59 331 ePKiKP   PKiKP     06 33 35.4 +3.8
            comp=Z,0.9nm,0.6s
MYKA  Terra Mystica   143.71 330 ePKiKP   PKiKP     06 33 36.2 +4.2
            comp=Z,1.4nm,0.5s
ABTA  Abfaltersbach   144.16 331 ePKP     PKPbc     06 33 27.0 -0.5
            comp=Z,1.5nm,0.7s
WTTA  Wattenberg      144.19 332 ePKP     PKiKP     06 33 33.1  0.0
            comp=Z,6.3nm,1.3s
MOTA  Moosalm         144.36 333 ePKP     PKiKP     06 33 36.1 +2.7
            comp=Z,4.1nm,1.3s
SQTA  Sankt Quirin    144.41 332 ePKiKP   PKiKP     06 33 37.6 +4.2
            comp=Z,4.2nm,1.1s
FETA  Feichten        144.77 332 ePKP     PKPdf     06 33 29.6 -0.9
            comp=Z,5.0nm,1.3s
DAVA  Damuels         144.94 334 ePKiKP   PKiKP     06 33 38.8 +4.3
            comp=Z,6.2nm,1.2s
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*IDC **06** 06:26:45.8±4.3, 37°.20N×142°.28E, h0^{km}, mb3.6/2, mbtmp3.6/2, ML1.9/1, Error ellipse: s-maj=85.0km s-min=24.9km az=13.0*

*JMA **06** 06:26:46.3±0.1, 37°.7N±0°.3×142°.0E±0°.3, h28^{km}, MV3.4/38, SE OFF MIYAGI PREF*

ISC 06 06:26:46.1±1.5**, 37°.72N**±0°.06×**142°.0E**±0°.1**, h24**^{km}**, n15,** σ**1^{s}.74**/14**, Off east coast of Honshu**

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Code  Station Name       Δ°  AZ°    Phase ID           Time     Res
                                  Op       ISC        h  m  s   ISC
JIKH  Ishinomakikobu    0.73 324  P        Pb        06 27 00.3 +0.1
JIKH                             eS        Sb        06 27 09.8  0.0
JIO   Ouri              0.90 325  P        Pn        06 27 03.0 -0.3
JFK   Kawauchi          0.97 249  P        Pn        06 27 03.0 -1.3
JMM   Marumori          0.98 279  P        Pn        06 27 03.6 -0.7
JMM                               S        Sn        06 27 16.0 -1.4
ONAJ  Iwakimizuishiy    1.15 238 eP        Pn        06 27 05.4 -1.3
ONAJ                              S        Sn        06 27 18.9 -2.8
JKMT  Kesennumamotoy    1.17 339  P        Pn        06 27 06.9  0.0
JKMT                             eS        Sn        06 27 22.0 -0.2
MJAR  Matsushiro Arr    3.26 250  Pn       Pn        06 27 38.5 +2.8
            0.1nm,0.3s,baz=80,slow=16,SNR=4.5
MJAR                              Sn       Sn        06 28 17.1 +3.3
            0.2nm,0.3s,baz=77,slow=17,SNR=4.6
MJAR                              AML      AML
H11N2 WAKE ISLAND Hy   28.10 123  T        T         07 01 58.3
            baz=315,slow=75,SNR=59
H11N1 WAKE ISLAND Hy   28.11 123  T        T         07 01 57.5
            baz=315,slow=75,SNR=72
H11N3 WAKE ISLAND Hy   28.12 123  T        T         07 01 59.7
            baz=315,slow=75,SNR=57
H11S1 WAKE ISLAND Hy   28.84 125  T        T         07 02 57.0
            baz=316,slow=76,SNR=69
H11S3 WAKE ISLAND Hy   28.84 125  T        T         07 02 56.5
            baz=316,slow=76,SNR=80
H11S2 WAKE ISLAND Hy   28.86 125  T        T         07 03 00.8
            baz=316,slow=76,SNR=87
WRA   Warramunga Arr   57.80 189  P        P         06 36 35.3 -0.2
            0.8nm,0.7s,baz=5.6,slow=6.9,SNR=6.1
            0.8nm,0.7s
ASAR  Alice Springs    61.53 188  P        P         06 37 01.6 +0.4
            0.5nm,0.8s,baz=20,slow=4.9,SNR=4.9
            0.5nm,0.8s
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*PDG **06** 06:36:14.1±0.7, 37°.52N×22°.15E, h59^{km}±2^{km}, ML3.7/9, Error ellipse: s-maj=1.8km s-min=1.8km az=0.0*

*THE **06** 06:36:16.5, 37°N±1°×2°2E±°, h59^{km}±2^{km}, M3.3/22, MLh3.3/22*

*ATH **06** 06:36:17.1, 37°.46N×22°.26E, h44^{km}±3^{km}, ML3.4/19, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*

ISC 06 06:36:14.5±1.2**, 37°.43N**±0°.03×**22°.17E**±0°.03**, h73**^{km}±7^{km}**, n72,** σ**1^{s}.55**/131**, 4C-4D, Southern Greece**

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Code  Station Name       Δ°  AZ°    Phase ID           Time     Res
                                  Op       ISC        h  m  s   ISC
VLX   Vlachokerasia     0.18 111  P        Pn        06 36 26.0 +0.5
VLX                               S        Sn        06 36 33.5 -0.1
VLX                               AML      AML
VALY  Valyra            0.31 209  P        Pn        06 36 26.4 +0.3
VALY                              S        Sn        06 36 34.5 +0.1
VALY                              AML      AML
VALY  Valyra            0.31 209  P        Pn        06 36 26.3 +0.3
VALY                              S        Sn        06 36 33.7 -0.8
ITM   Ithomi            0.32 217  P        Pn        06 36 26.5 +0.3
ITM                               S        Sn        06 36 34.4 -0.3
ITM                               AML      AML
ITM   Ithomi            0.32 217  P        Pn        06 36 26.3 +0.1
ITM                               S        Sn        06 36 34.0 -0.7
ITM                               AML      AML
AAMF  Ano Amfeia        0.34 194  P        Pn        06 36 26.7 +0.4
AAMF                              S        Sn        06 36 34.8 -0.1
AAMF  Ano Amfeia        0.34 194  P        Pn        06 36 26.7 +0.4
AMT   Artemida-Makis    0.38 285  P        Pn        06 36 26.8 +0.3
AMT                               S        Sn        06 36 35.0 -0.5
AMT                               AML      AML
AMT   Artemida-Makis    0.38 285  P        Pn        06 36 26.5 -0.1
AMT                               S        Sn        06 36 34.5 -1.0
AMT                               AML      AML
GUR   Goura             0.52  15  P        Pn        06 36 28.6 +0.7
GUR                               S        Sn        06 36 37.6 -0.2
GUR                               AML      AML
GUR   Goura             0.52  15  P        Pn        06 36 28.4 +0.5
GUR                               S        Sn        06 36 35.9 -1.9
KLV1  Kalavrita         0.60 355  P        Pn        06 36 29.2 +0.6
KLV1                              S        Sn        06 36 38.5 -0.6
KLV1                              AML      AML
KLV   Kalavryta, Ach    0.61 359  P        Pn        06 36 29.6 +0.8
KLV                               S        Sn        06 36 39.8 +0.5
KLV                               AML      AML
KLV   Kalavryta, Ach    0.61 359  P        Pn        06 36 29.3 +0.6
KLV                               S        Sn        06 36 37.4 -1.8
DRO   Drossia           0.63 325  P        Pn        06 36 30.0 +1.1
DRO                               S        Sn        06 36 40.5 +1.0
DRO                               AML      AML
DRO   Drossia           0.63 325  P        Pn        06 36 30.0 +1.1
DRO                               S        Sn        06 36 39.9 +0.4
THAL  Thalero           0.72  33  P        Pn        06 36 30.6 +0.8
THAL                              S        Sn        06 36 42.4 +1.2
THAL                              AML      AML
THAL  Thalero           0.72  33  P        Pn        06 36 30.6 +0.8
THAL                              S        Sn        06 36 39.5 -1.7
THAL                              AML      AML
LAKA  Lakka             0.82 349  P        Pn        06 36 32.4 +1.4
LAKA                              S        Sn        06 36 44.6 +1.4
LAKA                              AML      AML
LAKA  Lakka             0.82 349  P        Pn        06 36 32.3 +1.4
LAKA                              S        Sn        06 36 43.0 -0.2
RLS   Riolos of Patr    0.83 318  P        Pn        06 36 32.7 +1.5
RLS                               S        Sn        06 36 44.6 +1.1
RLS                               AML      AML
RLS   Riolos of Patr    0.83 318  P        Pn        06 36 32.9 +1.8
RLS                               S        Sn        06 36 44.2 +0.8
RLS                               AML      AML
LOUT  Loutraki          0.84  49  P        Pn        06 36 31.9 +0.7
LOUT                              S        Sn        06 36 41.4 -2.4
LOUT                              AML      AML
LTK   Loutraki          0.86  47  P        Pn        06 36 32.4 +0.9
LTK                               S        Sn        06 36 44.9 +0.7
LTK                               AML      AML
LTK   Loutraki          0.86  47  P        Pn        06 36 32.1 +0.6
LTK                               S        Sn        06 36 43.0 -1.1
VLI   Veliai            0.94 139  P        Pn        06 36 33.8 +1.4
VLI                               S        Sn        06 36 47.1 +1.4
VLI                               AML      AML
VLI   Veliai            0.94 139  P        Pn        06 36 34.0 +1.5
VLI                               S        Sn        06 36 46.7 +0.9
VLI                               AML      AML
KALE  Kalithea          0.95 359  P        Pn        06 36 34.0 +1.3
KALE                              S        Sn        06 36 47.0 +0.8
KALE                              AML      AML
KALE  Kalithea          0.95 359  P        Pn        06 36 33.8 +1.1
KALE                              S        Sn        06 36 46.3 +0.1
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KALE				AML	AML		
SERG	Sergoula	0.98	355	P	Pn	06 36 34.5	+1.5
SERG				S	Sn	06 36 48.3	+1.7
SERG				AML	AML		
AXS	Araxos	0.99	321	P	Pn	06 36 35.2	+2.2
EFP	Efpalio	1.01	348	P	Pn	06 36 35.0	+1.7
EFP				S	Sn	06 36 49.6	+2.4
EFP				AML	AML		
EFP	Efpalio	1.01	348	P	Pn	06 36 35.1	+1.9
EFP				AML	AML		
LTHK	Lithakia	1.09	285	P	Pn	06 36 35.2	+0.9
LTHK				S	Sn	06 36 52.0	+2.9
LTHK				AML	AML		
PLEV	Plevrona-Mesol	1.15	329	P	Pn	06 36 37.2	+2.3
PLEV				S	Sn	06 36 52.4	+2.1
PLEV				AML	AML		
PLEV	Plevrona-Mesol	1.15	329	P	Pn	06 36 37.6	+2.6
PLEV				S	Sn	06 36 52.2	+1.9
PLEV				AML	AML		
VILL	Villia	1.16	51	P	Pn	06 36 35.9	+0.7
VILL				S	Sn	06 36 51.9	+1.2
VILL				AML	AML		
VIL2	Platees	1.17	48	P	Pn	06 36 35.5	+0.3
VIL2				S	Sn	06 36 50.8	0.0
VIL2				AML	AML		
ANX	Ano Chora	1.17	350	P	Pn	06 36 37.0	+1.6
ANX				S	Sn	06 36 52.0	+0.9
ANX				AML	AML		
PVO	Paravola	1.28	337	P	Pn	06 36 39.5	+2.8
PVO				S	Sn	06 36 55.0	+1.5
ATH	Athens Observa	1.34	66	P	Pn	06 36 38.2	+0.8
ATH				S	Sn	06 36 55.6	+0.9
ATH				AML	AML		
ATH	Athens Observa	1.34	66	P	Pn	06 36 38.0	+0.6
ATH				S	Sn	06 36 54.7	+0.1
NOAC	Athens-Thissio	1.34	66	P	Pn	06 36 38.4	+1.0
NOAC				S	Sn	06 36 54.7	0.0
VLY	Voula,Athens	1.36	72	P	Pn	06 36 38.5	+0.8
VLY				S	Sn	06 36 55.3	+0.3
VLY				AML	AML		
VLY	Voula,Athens	1.36	72	P	Pn	06 36 38.5	+0.8
VLY				S	Sn	06 36 54.9	-0.2
LKR	Lokris	1.38	28	P	Pn	06 36 38.6	+0.7
LKR				S	Sn	06 36 55.3	-0.4
LKR				AML	AML		
AXAR	Agios Charalam	1.39	16	P	Pn	06 36 39.6	+1.5
AXAR				S	Sn	06 36 56.9	+1.1
AXAR				AML	AML		
ATAL	Atalanti	1.43	28	P	Pn	06 36 39.4	+0.9
ATAL				S	Sn	06 36 56.0	-0.7
PTL	Penteli	1.48	65	P	Pn	06 36 40.3	+1.0
PTL				S	Sn	06 36 58.8	+0.9
PTL				AML	AML		
EVR	Evrytania	1.51	349	P	Pn	06 36 42.3	+2.6
EVR				S	Sn	06 37 01.0	+2.3
EVR				AML	AML		
DION	Dionisos Attik	1.54	65	P	Pn	06 36 41.1	+1.0
DION				S	Sn	06 37 00.4	+1.0
DION	Dionisos Attik	1.54	65	P	Pn	06 36 41.1	+1.0
DION				S	Sn	06 36 59.3	-0.1
DION				AML	AML		
AMPL	Ampelaki	1.67	333	P	Pn	06 36 44.8	+3.0
AMPL				S	Sn	06 37 05.3	+2.9
AMPL				AML	AML		
ULC	Ulcinj	5.05	334	⇓*i*Pn	Pn	06 37 27.8	+0.1
ULC				*e*Sn	Sn	06 38 21.4	-3.4
ULC				AML	AML		
DRME	Dracevica, Mon	5.27	335	⇑*i*Pn	Pn	06 37 30.7	0.0
DRME				*e*Sn	Sn	06 38 26.2	-3.9
DRME				AML	AML		
PVY	Plav	5.43	342	*e*Pn	Pn	06 37 33.2	+0.3
PVY				*e*Sn	Sn	06 38 29.5	-4.5
PVY				AML	AML		
BUM	Brajici-Budva	5.47	334	⇓*i*Pn	Pn	06 37 32.8	-0.7
BUM				*e*Sn	Sn	06 38 31.6	-3.5
BUM				AML	AML		
CEME	Cevo	5.68	335	⇓*i*Pn	Pn	06 37 35.5	-0.8
CEME				*e*Sn	Sn	06 38 36.8	-3.4
CEME				AML	AML		
HCY	Herceg Novi	5.75	332	⇑*i*Pn	Pn	06 37 36.1	-1.1
HCY				*e*Sn	Sn	06 38 37.7	-4.0
HCY				AML	AML		
KOME	Kolasin	5.78	340	⇓*i*Pn	Pn	06 37 38.0	+0.3
KOME				*e*Sn	Sn	06 38 39.2	-3.4
KOME				AML	AML		
NKME	Niksic	5.87	336	⇑*i*Pn	Pn	06 37 38.8	-0.1
NKME				*e*Sn	Sn	06 38 41.2	-3.5
NKME				AML	AML		
BRY	Bratogost	6.13	334	⇑*i*Pn	Pn	06 37 41.6	-0.9
BRY				*e*Sn	Sn	06 38 47.4	-3.8
BRY				AML	AML		
SOKA	Soboth	10.65	332	*i* Pn	Pn	06 38 42.6	-1.5
	0.9nm,0.3s						
OBKA	Obir	10.69	330	*i* Pn	Pn	06 38 44.6	-0.1
	0.4nm,0.2s						
ARSA	Arzberg	10.97	336	*e*Pn	Pn	06 38 49.2	+0.8
	0.7nm,0.3s						
RONA	Rosalia, Austr	11.13	339	*e*Pn	Pn	06 38 51.6	+1.0
	0.5nm,0.3s						
CONA	Conrad Observa	11.46	338	*e*Pn	Pn	06 38 56.8	+1.6
	0.5nm,0.3s						
ABTA	Abfaltersbach	11.74	325	*e*Pn	Pn	06 39 01.2	+2.2
	0.3nm,0.3s						
BIOA	Bad Ischl, Aus	12.02	331	*i* Pn	Pn	06 39 04.0	+1.3
	0.5nm,0.2s						
LESA	Schwarzleotal	12.19	328	*i* Pn	Pn	06 39 05.5	+0.3
	0.8nm,0.3s						
WTTA	Wattenberg	12.52	325	*e*Pn	Pn	06 39 10.7	+0.9
	0.8nm,0.3s						
WATA	Walderalm	12.61	325	*e*Pn	Pn	06 39 11.4	+0.6
	0.6nm,0.2s						

BJI ***06*** *06:38:32.3, 47°.70N×27°.71W, h11^{km}, mb5.0/42, Ms5.2/1, Ms7 5.0/1*
IDC ***06*** *06:38:33.7±0.3, 47°.77N×27°.52W, h0^{km}, mb4.8/56, mbtmp4.8/58, ML4.8/2, MS4.4/4, Error ellipse: s-maj=11.6km s-min=7.3km az=175.0*
PTWC ***06*** *06:38:34, 47°.70N×27°.70W, h10^{km}, Mwp5.3/3*
IGIL ***06*** *06:38:34.7, 47°.83N×27°.54W, h10^{km}, mb5.4*
NEIC ***06*** *06:38:35.6±1.6, 47°.77N±0°.10×27°.5W±0°.1, h10^{km}±1^{km}, mb5.3/780, Mww5.0/17, Error ellipse: s-maj=16.3km s-min=13.7km az=176.0*
INMG ***06*** *06:38:36.0±3.5, 47°.78N×27°.53W, h10^{km}, mb5.4, Ms4.2, MW5.0, #DIST_RANGE: DISTANT*
GFZ ***06*** *06:38:36.7±0.4, 48°N±3°×2°7W±°, h10^{km}, M5.0/67, mb4.9/67*
BGR ***06*** *06:38:40.5, 47°.85N×27°.06W, h33^{km}, mb5.2*
ISC 06 06:38:35.3±0.6**, 47°.88N**±0°.04**×27°.53W**±0°.04**, h8^{km}**±3^{km}**,**
h8^{km}:pP-P, n1021, σ1s.21/750**, mb5.2**/538**, MS4.4**/3**,**
30C-48D, Northern Mid-Atlantic Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PGRA	Graciosa	8.86	182	*e*S	Sn	06 42 29.5	+6.0
PGRA				*e*LR	LR	06 42 34.1	
PGRA				*i* IAMs_20	IAMs_20	06 43 18.6	
	732nm,16.0s						
PAGU	Agualva, Azore	9.12	178	*e*S	Sn	06 42 35.5	+5.6
PAGU				*e*LR	LR	06 42 41.1	
PAGU				*i* IAMs_20	IAMs_20	06 43 27.6	
	951nm,16.0s						
ROSA	Rosais	9.17	183	*e*S	Sn	06 42 37.5	+6.1
ROSA				*e*LR	LR	06 42 45.0	
ROSA				*i* IAMs_20	IAMs_20	06 43 29.1	
	471nm,16.0s						
PSCM	Serra do Cume	9.18	178	*e*S	Sn	06 42 44.5	+13
PMAN	Manadas	9.26	183	*e*S	Sn	06 42 42.5	+9.1
CALA	Caldeira	9.34	186	*e*S	Sn	06 42 42.5	+7.0
CALA				*e*LR	LR	06 42 49.0	
CALA				*i* IAMs_20	IAMs_20	06 43 42.6	
	420nm,18.0s						
PICO	Pico	9.40	184	*e*S	Sn	06 42 47.4	+10
PPNO	Prainha do Nor	9.42	184	*e*S	Sn	06 42 43.5	+5.9
PCAN	Candelaria	9.44	185	*e*S	Sn	06 42 43.5	+5.5
PID	Ribeirinha	9.45	183	*e*S	Sn	06 42 53.4	+15
PSET	Sete Cidades	10.14	172	*e*LR	LR	06 43 04.0	
PSET				*i* IAMs_20	IAMs_20	06 44 02.6	
	905nm,16.0s						
CMLA	Cha da Macela	10.22	171	*e*S	Sn	06 43 02.4	+5.3
CMLA				*e*LR	LR	06 43 17.9	
CMLA				*i* IAMs_20	IAMs_20	06 44 05.3	
	902nm,16.0s						
PGRON	Lagoa das Cont	10.23	170	*e*S	Sn	06 43 13.4	+16
BART	Pico Bartolome	10.25	169	*e*S	Sn	06 43 12.4	+15
BART				*e*LR	LR	06 43 21.9	
BART				*i* IAMs_20	IAMs_20	06 44 03.9	
	714nm,16.0s						
PSMN	Pico do Norte,	11.02	170	*e*S	Sn	06 43 41.3	+25
PSMN				*e*LR	LR	06 43 48.8	
PSMN				*i* IAMs_20	IAMs_20	06 44 27.7	
	720nm,16.0s						
VAL	Valentia	11.86	64	P	Pn	06 41 26.5	+1.9
VAL				S	Sn	06 43 25.0	-12
IGLA	Glengowla, Co	12.77	58	P	Pn	06 41 34.9	-2.2
IGLA				S	Sn	06 43 45.5	-14
IGLA	Glengowla, Co	12.77	58	P	Pn	06 41 35.4	-1.7
IWEX	Carrickbyrne,	14.04	64	P	P	06 41 58.9	-3.4
IWEX				S	Sn	06 44 33.6	+3.4
IDGL	Inch Island, C	14.37	53	P	Pn	06 41 59.8	+0.9
DSB	Dublin	14.46	60	P	Pn	06 42 00.5	+0.4
ILTH	Belurgan, Co L	14.68	57	P	Pn	06 42 04.5	+1.4
PGAV	Gavieira, Arco	14.86	106	*e*P	Pn	06 42 03.9	-1.8
PGAV				*i* IAmb	IAmb	06 42 15.9	
	181nm,1.8s						
PGAV				*e*LR	LR	06 45 30.8	
PGAV				*i* IAMs_20	IAMs_20	06 46 44.1	
	2µm,20.0s						
PTO	Porto	15.08	110	*e*P	Pn	06 42 06.3	-2.3
PTO				*i* IAmb	IAmb	06 42 14.6	
	244nm,1.4s						
CLGH	Cloghs, Cushen	15.13	54	P	Pn	06 42 10.0	+0.8
	comp=Z,192nm,1.0s						
PCAB	Cabril	15.14	107	*e*P	Pn	06 42 08.0	-1.5
PCAB				*i* IAmb	IAmb	06 42 17.0	
	comp=Z,177nm,1.5s						
POLO	Lamas de Olo	15.47	108	*e*P	Pn	06 42 11.4	-2.4
POLO				*i* IAmb	IAmb	06 42 33.6	
	comp=Z,84nm,1.7s						
PVRL	Vila Real	15.57	108	*e*P	Pn	06 42 12.2	-2.8
PVRL				*i* IAmb	IAmb	06 42 21.2	
	comp=Z,88nm,1.6s						
WLF1	Llynfaes	15.63	61	P	Pn	06 42 17.2	+1.6
	comp=E,95nm,1.4s						
IOMK	Kirk Michael	15.74	58	P	Pn	06 42 18.3	+1.1
	comp=Z,155nm,2.1s						
PCAS	Casmilo, Conde	15.76	113	*e*P	Pn	06 42 15.6	-1.9
PCAS				*i* IAmb	IAmb	06 42 42.6	
	comp=Z,189nm,1.7s						
PVIS	Viseu	15.76	110	*e*P	Pn	06 42 14.9	-2.7
ECAL	Calabor	15.87	104	P	Pn	06 42 18.8	-0.2
	comp=Z,254nm,1.7s						
PSBE	So Bento	15.90	115	*e*P	Pn	06 42 17.2	-2.2
PSBE				*i* IAmb	IAmb	06 42 24.6	
	comp=Z,202nm,1.9s						
PBRG	Braganca	15.93	105	*e*P	Pn	06 42 18.9	-0.9
PBRG				*i* IAmb	IAmb	06 42 25.8	
	comp=Z,171nm,1.5s						
PMAFR	Mafra	15.95	117	*e*P	Pn	06 42 19.6	-0.5
PMAFR				*i* IAmb	IAmb	06 42 40.4	
	comp=Z,272nm,1.4s						
MTE	Manteigas	16.15	110	*e*P	Pn	06 42 20.3	-2.4
MTE				*i* IAmb	IAmb	06 42 30.9	
	comp=Z,160nm,1.6s						
MTE				*e*LR	LR	06 46 09.5	
MTE				*i* IAMs_20	IAMs_20	06 47 31.1	
	comp=Z,2µm,20.0s						
MTE	Manteigas	16.15	110		Pn	06 42 20.2	-2.5
MTE	Manteigas	16.15	110	P	P	06 42 25.4	-0.6
	comp=Z,67nm,1.4s						
PSARD	Sardoal	16.23	114	*e*P	Pn	06 42 21.8	-1.9
PSARD				*i* IAmb	IAmb	06 42 31.4	
	comp=Z,210nm,1.7s						
FOEL	Foel Wylfa	16.27	63	P	Pn	06 42 24.0	-0.1
	comp=Z,37nm,2.2s						
PCBR	Castelo Branco	16.52	112	*e*P	Pn	06 42 27.0	-0.2
PCBR				*i* IAmb	IAmb	06 42 46.8	
	comp=Z,88nm,1.4s						
PMTG	Montargil	16.52	115	*e*P	Pn	06 42 26.2	-1.1
PMTG				*i* IAmb	IAmb	06 42 33.3	
	comp=Z,203nm,1.7s						
KESW	Keswick, Cumbr	16.65	57	P	Pn	06 42 30.0	+1.1
	comp=Z,161nm,2.4s						
ESK	Eskdalemuir	16.78	55	Pn	Pn	06 42 30.8	+0.2
ESK	Eskdalemuir	16.78	55	P	P	06 42 31.7	-1.1
ESK	Eskdalemuir	16.78	55	P	P	06 42 31.6	-1.1
	comp=Z,131nm,2.5s						
ESK	Eskdalemuir	16.78	55	P	P	06 42 31.7	-1.1
	comp=Z,129nm,2.5s						
MOE	Montemor	16.79	117	*e*P	Pn	06 42 28.8	-2.0
MOE				*i* IAmb	IAmb	06 42 35.2	
	comp=Z,144nm,1.5s						
PARRA	Arraiolos	16.79	116	*e*P	Pn	06 42 29.2	-1.5
PARRA				*i* IAmb	IAmb	06 42 37.1	
	comp=Z,174nm,1.8s						
EKA	Eskdalemuir Ar	16.81	55	Pn	Pn	06 42 31.6	+0.7
	baz=253,slow=11						
EKA				Sn	Sn	06 45 24.2	-14
	baz=256,slow=21						
EKA				LR	LR	06 47 49.4	
	comp=Z,1µm,18.9s,baz=248,slow=33						
	comp=Z,53nm,1.0s						
PMRV	Marv??o	16.81	113	*e*P	Pn	06 42 30.8	-0.2
PMRV				*i* IAmb	IAmb	06 42 35.9	
	comp=Z,225nm,2.1s						
PMRV				*e*LR	LR	06 46 33.9	
PMRV				*i* IAMs_20	IAMs_20	06 48 01.6	
	comp=Z,2µm,18.0s						
STNC	Stoke	16.89	63	P	P	06 42 33.6	-0.4
	comp=Z,285nm,2.2s						
PMOZ	Porto Moniz, M	16.96	149	*e*LR	LR	06 46 27.8	
PMOZ				*i* IAMs_20	IAMs_20	06 47 41.7	
	comp=Z,774nm,20.0s						
EVO	Evora	16.99	116	*e*P	Pn	06 42 31.1	-2.1
EVO				*i* IAmb	IAmb	06 42 38.4	
	comp=Z,128nm,2.0s						
EVO	Evora	16.99	116	P	Pn	06 42 31.1	-2.1
	comp=Z,36nm,2.8s						
PESTR	Estremoz	17.03	115	*e*P	Pn	06 42 31.7	-2.1
PESTR				*i* IAmb	IAmb	06 42 37.7	
	comp=Z,94nm,2.2s						
PESTR	Estremoz	17.03	115	Pn	Pn	06 42 31.9	-1.9
PESTR	Estremoz	17.03	115	P	Pn	06 42 34.3	+0.5
PESTR	Estremoz	17.03	115	P	Pn	06 42 34.3	+0.5
	comp=Z,42nm,2.2s						
PLOUS	Minas do Lousa	17.07	118	*e*P	Pn	06 42 31.8	-2.4
PLOUS				*i* IAmb	IAmb	06 42 37.1	
	comp=Z,134nm,1.8s						
PTEO	Sao Teotonio	17.21	120	*e*P	Pn	06 42 35.2	-0.8
PTEO				*i* IAmb	IAmb	06 42 40.4	
	comp=Z,231nm,1.7s						
BORG	Borgarnes	17.24	9	LR	LR	06 47 04.3	
	comp=Z,448nm,18.9s,baz=182,slow=29						
MESJ	Messejana	17.31	118	*e*P	Pn	06 42 36.2	-1.0
MESJ				IAmb	IAmb	06 42 38.3	
	comp=Z,530nm,2.2s						
MESJ	Messejana	17.31	118	*e*P	Pn	06 42 34.9	-2.4
MESJ				*i* IAmb	IAmb	06 42 40.4	
	comp=Z,159nm,1.9s						
MESJ	Messejana	17.31	118	P	Pn	06 42 34.7	-2.6
MESJ				IAmb	IAmb	06 42 38.6	
	comp=Z,345nm,2.0s						
MESJ	Messejana	17.31	118	P	Pn	06 42 36.3	-1.0
EDMD	Edmundbyers	17.35	57	P	P	06 42 38.8	-0.3
	comp=Z,124nm,1.9s						
CWF	Charnwood Fore	17.39	64	P	Pn	06 42 38.2	0.0
	comp=Z,66nm,2.0s						
PBEJ	Beja	17.40	117	*e*P	Pn	06 42 37.7	-0.7
PBEJ				*i* IAmb	IAmb	06 42 43.4	
	comp=Z,122nm,2.1s						
MORF	Marmelete	17.42	120	*e*P	Pn	06 42 37.5	-1.1
MORF				IAmb	IAmb	06 42 40.9	
	comp=Z,647nm,1.9s						
MORF	Marmelete	17.42	120	*e*P	Pn	06 42 37.2	-1.4
MORF				*i* IAmb	IAmb	06 42 41.9	
	comp=Z,333nm,1.6s						
PFVI	Vila Bisbo	17.44	121	*e*P	Pn	06 42 38.0	-0.9
PFVI				*i* IAmb	IAmb	06 42 42.9	
	comp=Z,345nm,1.8s						
PFVI	Vila Bisbo	17.44	121	P	P	06 42 40.3	+0.2
	comp=Z,172nm,2.0s						
PCVE	Castro Verde	17.56	119	*e*P	Pn	06 42 39.6	-0.7
PCVE				*i* IAmb	IAmb	06 42 43.4	
	comp=Z,159nm,1.7s						
PBAR	Barrancos	17.80	116	*e*P	Pn	06 42 43.0	-0.3
PBAR				*i* IAmb	IAmb	06 42 46.0	
	comp=Z,106nm,1.7s						
IVI	Ivigtut	17.81	326	P	Pn	06 42 43.3	0.0
IVI	Ivigtut	17.81	326	*i* P	P	06 42 50.9	+6.9
IVI				IAmb	IAmb	06 42 53.5	
	comp=Z,70nm,1.1s						
IVI	Ivigtut	17.81	326	P	P	06 42 45.5	+1.5
	comp=Z,77nm,2.0s						
PBDV	Barranco-do-Ve	17.88	119	*e*P	Pn	06 42 43.0	-1.4
PBDV				*i* IAmb	IAmb	06 42 51.4	
	comp=Z,163nm,2.0s						
PVAQ	Vaqueiros	17.90	119	*e*P	Pn	06 42 44.2	-0.3
PVAQ				*i* IAmb	IAmb	06 42 47.3	
	comp=Z,149nm,1.8s						
PVAQ				*e*LR	LR	06 46 59.0	
PVAQ				*i* IAMs_20	IAMs_20	06 48 20.5	
	comp=Z,1µm,22.0s						
PVAQ	Vaqueiros	17.90	119	P	Pn	06 42 44.6	0.0
PVAQ				P	Pn	06 42 44.6	0.0
PVAQ	Vaqueiros	17.90	119	P	Pn	06 42 43.0	-1.6
	comp=Z,82nm,2.0s						
HMNX	Herstmonceux	18.35	70	P	P	06 42 51.6	+1.6
MFF	Saint Martin d	18.61	84	P	Pn	06 42 54.1	+0.9
	comp=Z,29nm,2.1s						
PAB	San Pablo	18.66	108	P	P	06 42 51.1	-2.6
PAB	San Pablo	18.66	108	P	Pn	06 42 54.0	0.0
PAB	San Pablo	18.66	108	P	Pn	06 42 55.6	+1.5
PAB				P	Pn	06 42 55.6	+1.5
PAB				P	sP	06 42 56.2	+0.1
PAB				P	sP	06 42 56.2	+0.1
PAB	San Pablo	18.66	108	P	P	06 42 53.2	-0.6
	comp=Z,92nm,2.3s						
ESBB	Sonseca Array	18.84	107	P	P	06 42 55.3	-0.3
ESDC	Sonseca Array	18.84	107	P	P	06 42 55.0	-0.6
	comp=Z,1.8nm,0.3s,baz=300,slow=10,SNR=28						
ESDC				LR	LR	06 48 50.5	
	comp=Z,2µm,19.0s,baz=290,slow=33						
	comp=Z,21nm,1.1s						
ESDC				AML	AML		
ESDC	Sonseca Array	18.84	107	P	P	06 42 55.4	-0.3
UCM	Universidad Co	18.97	105	P	Pn	06 42 57.5	-0.1
	comp=Z,211nm,1.6s						
ATE	Arette	19.37	94	P	Pn	06 43 03.8	+1.4
	comp=Z,38nm,1.3s						
DRLN	Deer Lake	19.82	285	P	P	06 43 05.4	-0.9
DRLN	Deer Lake	19.82	285	P	P	06 43 06.0	-0.2
CLF	Chambon-Foret	19.90	78		P	06 43 07.6	+0.5
CLF	Chambon-Foret	19.90	78	P	Pn	06 43 08.1	-0.7
	comp=Z,277nm,1.6s						
BOST	Ostende	19.98	69	*d*P	P	06 43 07.6	-0.3
EMAL	Malaga-Limoner	20.30	115	P	P	06 43 12.1	+0.6
	comp=Z,30nm,1.7s						
SMIR	Smir Dam	20.45	119	P	Pn	06 43 15.0	-0.3
SMIR				P	Pn	06 43 15.0	-0.3
CEST	Esterri de Car	20.88	94		P	06 43 17.3	-0.7
UCC	Uccle	20.90	70		P	06 43 17.8	-0.1
UCC				IAmb	IAmb	06 43 18.9	
	comp=Z,143nm,1.0s						
UCC	Uccle	20.90	70	*d*P	P	06 43 17.5	-0.4
	comp=Z,83nm,1.1s						
UCC	Uccle	20.90	70	P	P	06 43 17.8	-0.1
	comp=Z,28nm,1.3s						
NUUK	Nuuk	20.98	330	*i* P	P	06 43 19.4	+0.8
NUUK				IAmb	IAmb	06 43 21.7	
	comp=Z,174nm,1.5s						
AVE	Averroes	21.02	127	P	P	06 43 18.8	-0.6
AVE	Averroes	21.02	127	P	P	06 43 19.4	0.0
AVE				P	P	06 43 19.4	0.0
AVE	Averroes	21.02	127	P	P	06 43 19.4	0.0
	comp=Z,319nm,1.6s						
DOU	Dourbes	21.11	72	*d*P	P	06 43 20.0	-0.2
	comp=Z,73nm,1.2s						
LOR	Lormes	21.12	80	P	P	06 43 20.6	+0.3
	comp=Z,154nm,1.9s						
EBR	Ebro Roquetas	21.17	99	P	P	06 43 21.0	+0.1
BMRD	Maredsous	21.20	71	*d*P	P	06 43 21.1	-0.1
	comp=Z,83nm,1.1s						
MTLF	Montolieu	21.23	91	P	P	06 43 21.6	0.0
	comp=Z,198nm,2.4s						
BMOL	Mol	21.33	69	*d*P	P	06 43 21.9	-0.6
	comp=Z,98nm,1.2s						
ZHG	ZHG	21.33	125	P	P	06 43 23.0	+0.2
ZHG				P	P	06 43 23.0	+0.2
SRHM	Skhour des Reh	21.40	129	P	P	06 43 23.0	-0.6
SRHM				P	P	06 43 23.0	-0.6
RCHB	Rochefort	21.51	72	*d*P	P	06 43 24.0	-0.5
	comp=Z,68nm,1.1s						
RCHB	Rochefort	21.51	72	P	P	06 43 24.2	-0.3
	comp=Z,142nm,1.2s						
BCLA	Clavier	21.53	71	*d*P	P	06 43 24.4	-0.3
	comp=Z,35nm,1.7s						
PALE	Palemas	21.62	117	P	P	06 43 27.0	+1.1
PALE				P	P	06 43 27.0	+1.1
EMUR	La Murta	21.63	108	P	P	06 43 26.1	+0.1
	comp=Z,77nm,2.0s						
CBRU	Bruguera	21.63	94	P	P	06 43 26.1	+0.1
BOPT	Opiter	21.68	69	*d*P	P	06 43 26.0	-0.3
	comp=Z,42nm,1.3s						
CORI	Orista	21.68	95	P	P	06 43 26.4	0.0
CORI				IAmb	IAmb	06 43 29.8	
	comp=Z,194nm,1.4s						
OPLO	Oploo	21.76	68	P	P	06 43 27.5	+0.5
	comp=Z,354nm,2.1s						
HGN	Heimansgroeve	21.89	70	P	P	06 43 28.2	-0.4
HGN	Heimansgroeve	21.89	70	P	P	06 43 28.3	-0.4
	comp=Z,94nm,1.1s						
CART	Cartagena	21.94	108	P	P	06 43 29.1	0.0
	comp=Z,73nm,2.0s						
MEM	Membach	21.96	70	*d*P	P	06 43 28.6	-0.7
	comp=Z,79nm,1.1s						
MEM	Membach	21.96	70	P	P	06 43 28.9	-0.4
	comp=Z,147nm,1.4s						
SJAF	Saint Jean de	22.02	93	P	P	06 43 30.4	+0.3
	comp=Z,62nm,2.3s						
EJON	La Jonquera	22.04	93	P	P	06 43 30.4	+0.1
	comp=Z,95nm,2.0s						
SSB	Saint Sauveur	22.12	85		P	06 43 30.5	-0.6
SSB				IAmb	IAmb	06 43 33.1	
	comp=Z,174nm,1.4s						
SSB	Saint Sauveur	22.12	85	P	P	06 43 31.7	+0.6
	comp=Z,92nm,1.6s						
IFR	Ifrane	22.13	122	P	P	06 43 30.2	-1.2
	comp=Z,34nm,1.7s						
AKLM	AKL	22.16	118	P	P	06 43 31.2	-0.4
AKLM				P	P	06 43 31.2	-0.4
AKLM				P	P	06 43 31.2	-0.4
AKLM				P	P	06 43 31.2	-0.4
LCRM	LCR	22.16	122	P	P	06 43 31.0	-0.8
LCRM				P	P	06 43 31.0	-0.8
WLF	Walferdange	22.17	73	*e*P	P	06 43 31.1	-0.5
	comp=Z,169nm,1.5s,baz=279,slow=9.3						
WTSB	Winterswijk	22.35	67	P	P	06 43 33.1	-0.3
	comp=Z,116nm,1.2s						
OUK	Oukaimeden	22.42	131	P	P	06 43 34.0	-0.8
OUK				P	P	06 43 34.0	-0.8
SFJD	Kangerlussuaq	22.57	336	LR	LR	06 50 28.4	
	comp=Z,2µm,19.3s,baz=138,slow=32						
SFJD	Kangerlussuaq	22.57	336	*i* P	P	06 43 37.6	+1.9
SFJD				IAmb	IAmb	06 43 40.7	
	comp=Z,44nm,1.2s						
BUG	Bochum--Univer	22.68	68	*e*P	P	06 43 36.6	-0.3
	comp=Z,119nm,1.1s,baz=279,slow=9.3						
BUG	Bochum--Univer	22.68	68	P	P	06 43 36.5	-0.3
	comp=Z,105nm,1.2s						
TISM	Timmit	22.76	128	P	P	06 43 36.0	-2.0
TISM				P	P	06 43 36.0	-2.0
MD01	Midelt array s	22.82	123	P	P	06 43 37.2	-1.5
MD31	MD31	22.82	123	P	P	06 43 37.5	-1.1
TAF	Taforalt	22.82	116	P	P	06 43 40.0	+1.3
TAF				P	P	06 43 40.0	+1.3
TAF				P	P	06 43 40.0	+1.3
TAF				P	P	06 43 40.0	+1.3
SCO	Scoresbysund	22.83	5	P	P	06 43 40.6	+2.2
SCO				IAmb	IAmb	06 43 47.8	
	comp=Z,79nm,1.2s						
SCO	Scoresbysund	22.83	5	P	P	06 43 43.0	+4.6
SCO	Scoresbysund	22.83	5	*i* P	P	06 43 42.4	+4.0
SCO				IAmb	IAmb	06 43 47.5	
	comp=Z,77nm,1.2s						
SCO	Scoresbysund	22.83	5	P	P	06 43 44.0	+5.6
	comp=Z,57nm,1.2s						
GIMEL	St. Georges /	22.90	81	P	P	06 43 39.5	0.0
	comp=Z,181nm,1.4s						
IBBN	Ibbenburen	22.92	66	*e*P	P	06 43 39.1	-0.3
	comp=Z,176nm,1.1s,baz=279,slow=9.3						

IBBN	Ibbenburen	22.92	66	P	P	06 43 39.6	+0.1
	comp=Z,176nm,1.1s						
MDT	Midelt	22.94	123	P	P	06 43 39.1	-0.9
	comp=Z,27nm,1.1s,baz=326,slow=10,SNR=48						
	comp=Z,27nm,1.1s						
MDT	Midelt	22.94	123	P	P	06 43 39.4	-0.6
MDT				P	P	06 43 39.4	-0.6
TIO	Tiouine	22.95	130	P	P	06 43 39.0	-1.2
	comp=Z,222nm,2.4s						
SNART	Snartemo	23.07	50	*i* P	P	06 43 42.4	+1.5
ECH	Echery	23.08	76		P	06 43 40.8	-0.4
ECH	Echery	23.08	76	P	P	06 43 41.1	-0.2
ECH	Echery	23.08	76	P	P	06 43 41.0	-0.2
	comp=Z,95nm,2.6s						
ORIF	Oris-en-Rattie	23.13	85	P	P	06 43 42.6	+0.8
	comp=Z,78nm,2.2s						
OUZM	OUZ	23.23	129	P	P	06 43 42.0	-1.0
OUZM				P	P	06 43 42.0	-1.0
OUZM				P	P	06 43 42.1	-0.9
OUZM				P	P	06 43 42.1	-0.9
ARBF	Arbois	23.27	89	P	P	06 43 44.2	+1.0
	comp=Z,76nm,2.1s						
BOURR	Bourrignon	23.32	78	P	P	06 43 43.6	-0.1
	comp=Z,105nm,2.1s						
KASTN	Kahler Asten	23.41	68	*e*P	P	06 43 44.1	-0.5
	comp=Z,317nm,1.9s,baz=279,slow=9.3						
GOLM	Goulmima	23.58	125	P	P	06 43 47.0	+0.5
GOLM				P	P	06 43 47.0	+0.5
SENIN	Lac Senin/Sane	23.63	81	IAmb	IAmb	06 43 48.1	
	comp=Z,61nm,1.1s						
HOMB	Homborsund	23.73	51	*i* P	P	06 43 47.3	-0.2
BFO	Black Forest	23.82	75	P	P	06 43 48.0	-0.6
BFO	Black Forest	23.82	75	P	P	06 43 48.2	-0.4
BFO	Black Forest	23.82	75	*e*P	P	06 43 48.0	-0.6
	comp=Z,37nm,1.1s,baz=279,slow=9.3						
MUD	Monsted U'grnd	23.84	55	*i* P	P	06 43 48.5	-0.1
MUD				IAmb	IAmb	06 43 51.0	
	comp=Z,74nm,1.2s						
RETH	Rethem/Aller,	23.87	64	*e*P	P	06 43 48.9	0.0
	comp=Z,123nm,1.5s,baz=279,slow=9.3						
RETH	Rethem/Aller,	23.87	64	P	P	06 43 49.2	+0.2
	comp=Z,96nm,2.6s						
GOET	G??ttrup	23.93	54	*i* P	P	06 43 51.3	+1.8
TZRR	Tazzarine	23.95	128	P	P	06 43 50.0	-0.1
TZRR				P	P	06 43 50.0	-0.1
SSRD	Sdr. Stenderup	24.02	58	*i* P	P	06 43 50.6	+0.2
SSRD				IAmb	IAmb	06 43 55.1	
	comp=Z,393nm,1.4s						
SLE	Schleitheim	24.06	77	P	P	06 43 50.6	-0.3
	comp=Z,51nm,1.4s						
MAHO	Mahon	24.14	98	P	P	06 43 51.1	-0.5
	comp=Z,66nm,2.2s						
ISO	Isola	24.17	86	P	P	06 43 52.0	0.0
	comp=Z,58nm,1.2s						
BNALP	Bannalp	24.24	79	P	P	06 43 53.2	+0.4
CALF	Calern	24.24	87	P	P	06 43 53.3	+0.6
	comp=Z,91nm,1.3s						
STU	Stuttgart	24.29	74	P	P	06 43 52.1	-0.9
STU				IAmb	IAmb	06 43 54.9	
	comp=Z,110nm,1.2s						
STU	Stuttgart	24.29	74	*e*P	P	06 43 52.7	-0.3
	comp=Z,300nm,1.2s,baz=279,slow=9.3						
STU	Stuttgart	24.29	74	P	P	06 43 52.9	-0.1
	comp=Z,88nm,1.4s						
GTTG	Gottingen	24.34	67	*e*P	P	06 43 53.2	-0.2
	comp=Z,58nm,1.2s,baz=279,slow=9.3						
GTTG	Gottingen	24.34	67	P	P	06 43 53.7	+0.2
	comp=Z,80nm,2.5s						
ILULI	Ilulissat	24.35	340	P	P	06 43 53.5	+0.1
ILULI				IAmb	IAmb	06 44 11.3	
	comp=Z,118nm,1.2s						
ILULI	Ilulissat	24.35	340	*i* P	P	06 43 53.4	+0.1
ILULI				IAmb	IAmb	06 43 55.6	
	comp=Z,89nm,1.1s						
ILULI	Ilulissat	24.35	340	P	P	06 43 54.9	+1.6
	comp=Z,80nm,1.1s						
BSEG	Bad Segeberg	24.40	61	*e*P	P	06 43 53.7	-0.2
	comp=Z,81nm,1.4s,baz=279,slow=9.3						
ZGR	Zagora	24.45	129	P	P	06 43 54.0	-0.8
ZGR				P	P	06 43 54.0	-0.8
ZGR				P	P	06 43 54.0	-0.8
ZGR				P	P	06 43 54.0	-0.8
ZGR				P	P	06 43 55.0	+0.3
ZGR				P	P	06 43 55.0	+0.3
ZGR				P	P	06 43 55.0	+0.3
ZGR				P	P	06 43 55.0	+0.3
UBBA	Unterbreizbach	24.45	69	P	P	06 43 50.8	-3.5
	comp=Z,20nm,1.4s						
ESCA	l'Escarene	24.52	86	P	P	06 43 54.8	-0.3
	comp=Z,107nm,1.0s						
KONO	Kongsberg	24.55	48		P	06 43 55.2	-0.1
KONO				IAmb	IAmb	06 43 57.8	
	comp=Z,83nm,1.1s						
KONO	Kongsberg	24.55	48	P	P	06 43 57.3	+2.1
KONO	Kongsberg	24.55	48	P	P	06 43 56.2	+0.9
	comp=Z,67nm,1.2s						
CLZ	Clausthal	24.56	66	*e*P	P	06 43 55.8	+0.3
	comp=Z,187nm,1.2s,baz=279,slow=9.3						
MON	Monaco	24.59	87	P	P	06 43 57.7	+2.0
	comp=Z,230nm,1.2s						
ASSE	Asse, Remlinge	24.72	66	*e*P	P	06 43 56.9	+0.1
	comp=Z,106nm,1.2s,baz=279,slow=9.3						
ASSE	Asse, Remlinge	24.72	66	P	P	06 43 57.1	+0.3
	comp=Z,69nm,1.3s						
TUE	Stuetta	24.96	79	P	P	06 43 60.0	+0.7
TUE	Stuetta	24.96	79	P	P	06 43 59.4	+0.1
	comp=Z,7µmcomp=Z,431nm,1.4s						
TUE	Stuetta	24.96	79	P	P	06 44 00.1	+0.7
	comp=Z,108nm,1.4s						
GDH	Godhavn	24.96	338	*i* P	P	06 43 58.5	-0.4
GDH				IAmb	IAmb	06 44 01.7	
	comp=Z,71nm,1.0s						
HAL	Halifax	25.00	276	P	P	06 43 58.5	-0.8
HAL				IAmb	IAmb	06 44 00.5	
	comp=Z,73nm,1.2s						
GORT1	Trebel	25.04	64	*e*P	P	06 44 00.5	+0.9
	comp=Z,1.3nm,1.4s,baz=279,slow=9.3						
FLTG	Flechtingen	25.05	65	*e*P	P	06 43 59.1	-0.6
	comp=Z,51nm,1.3s,baz=279,slow=9.3						
FLTG	Flechtingen	25.05	65	P	P	06 43 59.3	-0.5
	comp=Z,32nm,1.6s						
DAVA	Damuels	25.09	77	*i* P	P	06 44 00.8	+0.4
	comp=Z,167nm,1.3s,SNR=49						
DAVA	Damuels	25.09	77	P	P	06 44 00.8	+0.4
	comp=Z,130nm,1.4s						
UBR	Ueberruh	25.13	76	*e*P	P	06 43 59.8	-0.9
	comp=Z,100nm,1.6s,baz=279,slow=9.3						
UBR	Ueberruh	25.13	76	P	P	06 44 00.8	+0.1
	comp=Z,36nm,1.4s						
DAVOX	Davos/Dischmat	25.22	78	P	P	06 44 01.1	-0.5
	comp=Z,32nm,1.1s,baz=288,slow=9.3,SNR=39						
	comp=Z,32nm,1.1s						
STRU	Stroemstad	25.23	49	*i* P	P	06 44 03.4	+2.0
SCHQ	Schefferville	25.24	301	P	P	06 44 00.8	-0.7
	comp=Z,46nm,1.0s,baz=93,slow=11,SNR=19						
	comp=Z,46nm,1.0s						
SUMG	Summit	25.27	352	P	P	06 44 02.9	+0.8
SUMG				IAmb	IAmb	06 44 10.8	
	comp=Z,50nm,1.2s						
SUMG	Summit	25.27	352	*i* P	P	06 44 02.5	+0.4
SUMG				IAmb	IAmb	06 44 07.6	
	comp=Z,46nm,1.2s						
SUMG	Summit	25.27	352	P	P	06 44 04.2	+2.1
	comp=Z,43nm,1.4s						
WIMM	Wimmelburg	25.30	67	P	P	06 44 02.1	+0.1
	comp=Z,146nm,1.2s						
FIGM	Figuig	25.37	119	P	P	06 44 04.0	+0.9
FIGM				P	P	06 44 04.0	+0.9
LMN	Caledonia Moun	25.41	279	P	P	06 44 02.4	-0.8
LMN	Caledonia Moun	25.41	279	P	P	06 44 02.9	-0.2
GRFO	Grafenberg	25.41	71	P	P	06 44 03.7	+0.6
GRA1	Grafenberg Arr	25.41	71	IAmb	IAmb	06 44 06.3	
	comp=Z,112nm,1.2s						
GRF	Grafenberg Arr	25.41	71	*e*P	P	06 44 03.1	0.0
	comp=Z,118nm,1.2s,baz=279,slow=9.3						
ONAU	Onsala	25.42	53	*i* P	P	06 44 02.9	-0.2
NBO00	NORSAR Array S	25.43	45	IAmb	IAmb	06 44 06.3	
	comp=Z,66nm,1.1s						
NAO01	NORSAR Array S	25.44	45	IAmb	IAmb	06 44 06.4	
	comp=Z,70nm,1.2s						
NAO01	NORSAR Array S	25.44	45	P	P	06 44 03.5	+0.2
NC204	NORSAR Array S	25.48	44	IAmb	IAmb	06 44 06.7	
	comp=Z,49nm,1.0s						
MOX	Moxa	25.49	69	*e*P	P	06 44 03.1	-0.8
	comp=Z,42nm,1.2s,baz=279,slow=9.3						
MOX	Moxa	25.49	69	P	P	06 44 03.8	-0.1
	comp=Z,40nm,1.3s						
NEUB	Neuenburg	25.51	68	*e*P	P	06 44 03.9	-0.1
	comp=Z,44nm,1.0s,baz=279,slow=9.3						
NEUB	Neuenburg	25.51	68	P	P	06 44 04.0	+0.1
	comp=Z,71nm,1.1s						
RETA	Reutte	25.61	76	*i* P	P	06 44 05.4	+0.3
	comp=Z,59nm,1.2s,SNR=23						
NB2	NORSAR Subarra	25.64	45	P	P	06 44 05.3	+0.2
	comp=Z,85nm,1.4s,baz=259,slow=10						
NOA	NORSAR Array B	25.64	45	P	P	06 44 04.9	-0.3
	comp=Z,7.0nm,0.8s,baz=259,slow=10.0,SNR=16						
	comp=Z,7.0nm,0.8s						
NB201	NORSAR Array S	25.68	45	IAmb	IAmb	06 44 08.2	
	comp=Z,157nm,1.9s						
FETA	Feichten	25.72	78	*i* P	P	06 44 06.7	+0.6
	comp=Z,83nm,1.2s,SNR=47						
FUR	Furstenfeldbru	25.78	75	*e*P	P	06 44 06.5	0.0
	comp=Z,98nm,1.2s,baz=279,slow=9.3						
BATG	Bathurst New B	25.82	283	P	P	06 44 06.2	-0.7
FABU	Falkenberg	25.83	54	*i* P	P	06 44 07.2	+0.5
PLN	Plauen	25.86	69	*e*P	P	06 44 06.9	-0.3
	comp=Z,16nm,1.2s,baz=279,slow=9.3						
MOTA	Moosalm	25.87	77	*i* P	P	06 44 07.6	+0.1
	comp=Z,65nm,1.9s,SNR=25						
NC405	NORSAR Array S	25.89	45	IAmb	IAmb	06 44 11.1	
	comp=Z,52nm,0.9s						
SQTA	Sankt Quirin	25.98	77	*i* P	P	06 44 08.9	+0.5
	comp=Z,50nm,1.0s,SNR=35						
SALO	Salr	26.00	81	IAmb	IAmb	06 44 14.7	
	comp=Z,73nm,1.5s						
TANN	Tannenbergstha	26.07	69	*e*P	P	06 44 08.7	-0.4
	comp=Z,545nm,3.1s,baz=279,slow=9.3						
TANN	Tannenbergstha	26.07	69	P	P	06 44 08.9	-0.2
	comp=Z,65nm,1.3s						
NKC	Novy Kostel	26.09	70	*e*P	P	06 44 09.8	+0.5
NKC	Novy Kostel	26.09	70	P	P	06 44 09.3	0.0
	comp=Z,34nm,1.3s						
PGF	Pioggiola	26.11	88	P	P	06 44 10.0	+0.3
	comp=Z,60nm,1.9s						
WATA	Walderalm	26.18	76	*i* P	P	06 44 10.6	+0.2
	comp=Z,77nm,1.3s,SNR=34						
WTTA	Wattenberg	26.24	77	*i* P	P	06 44 11.4	+0.4
	comp=Z,109nm,1.3s,SNR=45						
CLL	Collm	26.26	67	IAmb	IAmb	06 44 14.3	
	comp=Z,79nm,1.4s						
CLL	Collm	26.26	67	*e*P	P	06 44 10.6	-0.2
	comp=Z,74nm,1.4s,baz=279,slow=9.3						
CLL	Collm	26.26	67	P	P	06 44 10.5	-0.3
	comp=Z,755nmcomp=Z,46nm,1.7s						
CLL	Collm	26.26	67	⇑*i*P	P	06 44 10.4	-0.3
	comp=Z,78nm,1.4s						
CLL				AMS	AMS	06 53 00.0	
	comp=N,700nm,17.8s						
CLL				AMS	AMS	06 53 00.0	
	comp=E,500nm,20.3s						
CLL				AMS	AMS	06 54 00.0	
	comp=Z,1µm,16.6s						
VLC	Villacollemand	26.41	84	P	P	06 44 12.1	-0.2
VLC	Villacollemand	26.41	84	P	P	06 44 12.2	-0.2
	comp=Z,32nm,1.4s						
RUE	Ruedersdorf	26.58	64	*e*P	P	06 44 12.7	-0.9
	comp=Z,65nm,1.2s,baz=279,slow=9.3						
WET	Wettzell	26.58	72	*e*P	P	06 44 13.4	-0.4
	comp=Z,56nm,1.2s,baz=279,slow=9.3						
CTI	Castel Tesino	26.61	79	IAmb	IAmb	06 44 15.3	
	comp=Z,71nm,1.2s						
HSKC	Hora Svate Kat	26.64	69	*e*P	P	06 44 14.2	-0.1
HFS	Hagfors	26.67	47	P	P	06 44 15.2	+0.8
	comp=Z,17nm,1.1s,baz=246,slow=11,SNR=7.6						
	comp=Z,17nm,1.1s						
DBG	Daneborg	26.71	4	*i* P	P	06 44 16.9	+2.3
DBG				IAmb	IAmb	06 44 22.9	
	comp=Z,15nm,1.1s						
ZCCA	Zocca	26.74	83	IAmb	IAmb	06 44 48.6	
	comp=Z,94nm,1.2s						
CGRP	Cima Grappa	26.76	80	P	P	06 44 15.5	-0.1
CGRP	Cima Grappa	26.76	80	P	P	06 44 15.5	-0.1
	comp=Z,48nm,2.2s						
RJOB	Jochberg	26.87	75	P	P	06 44 16.5	0.0
	comp=Z,25nm,1.7s						
LESA	Schwarzleotal	26.88	76	*i* P	P	06 44 16.5	0.0
	comp=Z,39nm,1.4s,SNR=23						
BRG	Berggiesshubel	26.91	68	*e*P	P	06 44 16.6	-0.1
	comp=Z,66nm,1.4s,baz=279,slow=9.3						
BRG	Berggiesshubel	26.91	68	P	P	06 44 16.7	-0.1
	comp=Z,44nm,1.4s						
BRG	Berggiesshubel	26.91	68	⇑*i*P	P	06 44 16.5	-0.1
BRG				Amp		06 44 17.9	
	comp=Z,39nm,1.1s						
ABTA	Abfaltersbach	26.97	77	*i* P	P	06 44 17.5	+0.2
	comp=Z,28nm,1.2s,SNR=15						
KHC	Kasperske Hory	27.03	72	*e*P	P	06 44 17.6	-0.3
KHC	Kasperske Hory	27.03	72	IAmb	IAmb	06 44 19.2	
	comp=Z,59nm,1.3s						
KHC	Kasperske Hory	27.03	72	P	P	06 44 17.4	-0.5
	comp=Z,658nmcomp=Z,41nm,1.4s						
KHC	Kasperske Hory	27.03	72	P	P	06 44 17.9	0.0
	comp=Z,41nm,1.4s						
GEC2	GERESS Array S	27.18	72	*e*P	P	06 44 19.1	-0.2
	comp=Z,73nm,1.2s,baz=279,slow=9.3						
GERES	GERESS Array B	27.18	72	P	P	06 44 19.0	-0.2
	comp=Z,32nm,0.9s,baz=280,slow=9.3,SNR=136						
	comp=Z,32nm,0.9s						
GERES	GERESS Array B	27.18	72	P	P	06 44 18.7	-0.5
STAL	STALIGIAL	27.25	78	IAmb	IAmb	06 44 20.8	
	comp=Z,79nm,1.5s						
ZVC	Zvikov	27.36	71	*e*P	P	06 44 20.7	0.0
KBA	Koelnbreinsper	27.41	76	*i* P	P	06 44 21.6	+0.1
	comp=Z,43nm,1.3s,SNR=20						
BIOA	Bad Ischl, Aus	27.43	75	*i* P	P	06 44 21.1	-0.4
	comp=Z,43nm,1.3s,SNR=29						
PRU	Pruhonice	27.46	70	*e*P	P	06 44 22.1	+0.5
PRU	Pruhonice	27.46	70	P	P	06 44 21.8	+0.1
	comp=Z,30nm,1.5s						
BLEU	Blekinge	27.52	56	*i* P	P	06 44 22.2	+0.1
EMMW	East Machias	27.55	278	P	P	06 44 20.9	-1.5
ACOM	Acomizza, Ital	27.68	77	P	P	06 44 23.7	-0.2
MYKA	Terra Mystica	27.74	77	*i* P	P	06 44 24.4	+0.1
	comp=Z,81nm,1.5s,SNR=31						
F64A	Sherman	27.75	281	P	P	06 44 23.4	-0.8
VSL	Villasalto	27.76	94	IAmb	IAmb	06 44 29.3	
	comp=Z,52nm,1.2s						
VSL	Villasalto	27.76	94	P	P	06 44 24.1	-0.3
VSL	Villasalto	27.76	94	P	P	06 44 24.1	-0.3
	comp=Z,44nm,2.2s						
ROBS	Robic	27.78	78	*e*P	P	06 44 23.8	-0.7
MOA	Molln	27.80	74	*i* P	P	06 44 24.6	-0.1
	comp=Z,15nm,1.3s,SNR=8.2						
D62A	Allapoint, All	27.83	284	P	P	06 44 24.9	-0.1
D62A				IAmb	IAmb	06 44 25.6	
	comp=Z,78nm,1.9s						
TRI	Trieste	28.12	79	IAmb	IAmb	06 44 27.6	
	comp=Z,96nm,1.7s						
SESA	Seetaler Alpe,	28.20	76	*i* P	P	06 44 28.2	-0.4
	SNR=63						
TREC	Trest	28.21	71	P	P	06 44 28.3	-0.1
	comp=Z,22nm,2.3s						
UPC	Upice	28.28	68	*e*P	P	06 44 28.7	-0.2
UPC	Upice	28.28	68	P	P	06 44 28.9	-0.1
	comp=Z,34nm,1.5s						
CHVC	Chvalec	28.29	68	*e*P	P	06 44 28.8	-0.2
OBKA	Obir	28.38	77	*i* P	P	06 44 29.4	-0.6
	comp=Z,28nm,1.0s,SNR=26						
KSP	Ksiaz	28.38	67	*e*P	P	06 44 29.7	-0.2
KSP	Ksiaz	28.38	67	P	P	06 44 29.5	-0.4
	comp=Z,585nmcomp=Z,26nm,1.4s						
OSTC	Ostas	28.39	68	*e*P	P	06 44 29.6	-0.4
DPC	Dobruska-Polom	28.50	68	*e*P	P	06 44 30.1	-0.9
DPC	Dobruska-Polom	28.50	68	P	P	06 44 30.6	-0.4
	comp=Z,17nm,1.8s						
LJU	Ljubljana	28.51	78	*e*P	P	06 44 30.5	-0.6
GKP	Gorka Klasztor	28.56	62	*e*P	P	06 44 31.9	+0.5
PKME	Peaks-Kenny Pk	28.57	280	IAmb	IAmb	06 44 38.2	
	comp=Z,43nm,1.3s						
PKME	Peaks-Kenny Pk	28.57	280	P	P	06 44 25.5	-6.1
SOKA	Soboth	28.64	76	*i* P	P	06 44 31.2	-1.1
	comp=Z,34nm,1.4s,SNR=24						
PERS	Pernice	28.71	76	*e*P	P	06 44 31.7	-1.2
ARSA	Arzberg	28.78	75	IAmb	IAmb	06 44 34.3	
	comp=Z,56nm,1.1s						
ARSA	Arzberg	28.78	75	*i* P	P	06 44 33.1	-0.4
	comp=Z,58nm,1.2s,SNR=37						
CONA	Conrad Observa	28.81	74	*i* P	P	06 44 33.5	-0.3
	comp=Z,20nm,1.1s,SNR=14						
PDKS	Podkum	28.82	78	*e*P	P	06 44 33.0	-0.8
KRUC	Moravsky	28.85	71	*e*P	P	06 44 33.5	-0.5
KRLC	Kraliky	28.85	69	*e*P	P	06 44 34.3	+0.2
WINA	Alland / Wiene	28.89	73	*i* P	P	06 44 34.6	+0.1
	SNR=19						
VRAC	Vranov	28.91	70	P	P	06 44 33.6	-1.0
	comp=Z,8.0nm,1.0s,baz=280,slow=8.9,SNR=20						
	comp=Z,8.0nm,1.0s						
VRAC	Vranov	28.91	70	*e*P	P	06 44 34.0	-0.6
VRAC	Vranov	28.91	70	⇓P	P	06 44 35.0	+0.4
VRAC	Vranov	28.91	70	P	P	06 44 34.3	-0.3
	comp=Z,7.0nm,2.1s						
AQU	L'Aquila	29.15	86	IAmb	IAmb	06 44 37.3	
	comp=Z,36nm,1.1s						
AQU	L'Aquila	29.15	86	P	P	06 44 36.1	-0.7
AQU	L'Aquila	29.15	86	⇑*i*P	P	06 44 35.7	-1.1
AQU	L'Aquila	29.15	86	P	P	06 44 36.1	-0.7
	comp=Z,414nmcomp=Z,26nm,1.0s						
RONA	Rosalia, Austr	29.15	74	*i* P	P	06 44 36.5	-0.3
	comp=Z,16nm,1.1s,SNR=12						
DAG	Danmarks Havn	29.21	4	*i* P	P	06 44 37.3	+0.3
DAG				IAmb	IAmb	06 44 44.5	
	comp=Z,17nm,1.1s						
MORC	Moravsky Berou	29.40	69	IAmb	IAmb	06 44 40.2	
	comp=Z,41nm,1.2s						
MORC	Moravsky Berou	29.40	69	*e*P	P	06 44 38.7	-0.2
MORC	Moravsky Berou	29.40	69	⇑P	P	06 44 38.9	-0.1
STEB	Steborice	29.50	69	*e*P	P	06 44 39.8	0.0
ZST	Bratislava	29.53	73	*e*P	P	06 44 39.8	-0.3
MODS	Modra-Piesok	29.59	72	*e*P	P	06 44 40.6	-0.1
MAUC	Maruska	29.68	70	*e*P	P	06 44 41.9	+0.5
JAVC	Velka Javorina	29.71	71	*e*P	P	06 44 42.0	+0.3
KEST	Kesra	29.77	100	P	P	06 44 41.5	-0.9
	comp=Z,45nm,0.9s,baz=335,slow=4.9,SNR=47						
	comp=Z,45nm,0.9s						
KEST	Kesra	29.77	100	P	P	06 44 41.6	-0.8
	SNR=11						
KEST	Kesra	29.77	100	P	P	06 44 41.7	-0.7
MPLH	Magyarpolny	30.12	74	P	P	06 44 44.3	-1.0
	comp=Z,2µmcomp=Z,60nm,0.5s						
SRO	Srobarova	30.42	73	*e*P	P	06 44 48.3	+0.4
VYHS	Vyhne	30.55	71	*e*P	P	06 44 49.0	-0.2
LBNH	Lisbon	30.70	280	P	P	06 44 49.0	-1.4
OJC	Ojcow	30.70	68	*e*P	P	06 44 50.1	-0.3
OJC	Ojcow	30.70	68	P	P	06 44 49.9	-0.5
	comp=Z,34nm,1.6s						
BLY	Banja Luka	30.72	79	IAmb	IAmb	06 44 51.7	
	comp=Z,68nm,1.3s						
BLY	Banja Luka	30.72	79	⇓P	P	06 44 50.8	+0.2
BLY	Banja Luka	30.72	79	⇑*i*P	P	06 44 50.0	-0.6
BEL	Belsk	30.94	64	*e*P	P	06 44 52.7	+0.2
BEL				*e*PP	PP	06 46 02.0	-0.2
NEEM	North Greenlan	31.06	350	*i* P	P	06 44 53.2	-0.4
NEEM				IAmb	IAmb	06 45 00.9	
	comp=Z,46nm,1.3s						
R9F13	Warsaw-Wawer	31.08	64	*e*P	P	06 44 53.0	-0.7
MORH	Mrgy, Hungar	31.15	76	⇓P	P	06 44 53.8	-0.5
MORH	Mrgy, Hungar	31.15	76	⇑*i*P	P	06 44 53.0	-1.4
MORH	Mrgy, Hungar	31.15	76	P	P	06 44 52.9	-1.4
	comp=Z,451nmcomp=Z,18nm,2.0s						
NIE	Niedzica	31.22	69	*e*P	P	06 44 55.7	+0.6
NIE	Niedzica	31.22	69	P	P	06 44 55.0	-0.1
	comp=Z,301nmcomp=Z,13nm,1.4s						
PSZ	Piszkesteto	31.40	72	⇓P	P	06 44 57.7	+1.0
KECS	Kecovo	31.61	71	*e*P	P	06 44 59.0	+0.6
TRQ	Mont Tremblant	31.70	285	IAmb	IAmb	06 45 00.2	
	comp=Z,39nm,1.0s						
STHS	Stebnicka Huta	31.82	69	*e*P	P	06 45 00.5	+0.2
SUW	Suwalki	31.95	60	*e*P	P	06 45 00.7	-0.6
MATE	Matera	32.13	86	⇓P	P	06 45 01.8	-1.3
KLINJ	Klinje	32.27	81	*e*P	P	06 45 02.8	-1.6
FRGS	Fruska Gora	32.29	77	⇑*i*P	P	06 45 04.1	-0.4
TEKS	Tekeris	32.34	78	⇑*i*P	P	06 45 04.0	-0.9
BRY	Bratogost	32.35	81	⇑*i*P	P	06 45 03.9	-1.3
HCY	Herceg Novi	32.52	82	⇑*i*P	P	06 45 05.0	-1.5
BBLS	Lazi&#263i	32.53	79	⇑*i*P	P	06 45 06.1	-0.6
KOLS	Kolonicke sedl	32.60	69	*e*P	P	06 45 07.5	+0.3
KWP	Kalwaria Pacla	32.67	68	P	P	06 45 07.4	-0.4
	comp=Z,2µmcomp=Z,61nm,0.5s						
CEL	Celeste	32.77	91	IAmb	IAmb	06 45 08.0	
	comp=Z,24nm,1.0s						
CEL	Celeste	32.77	91	P	P	06 45 06.2	-2.6
	comp=Z,506nmcomp=Z,30nm,1.2s						
CFNY	Clifton-Fine,	32.79	281	IAmb	IAmb	06 45 10.4	
	comp=Z,33nm,1.4s						
FINES	FINESS Array B	32.81	46	P	P	06 45 09.1	+0.3
	comp=Z,27nm,1.0s,baz=252,slow=3.8,SNR=29						
	comp=Z,27nm,1.0s						
FINES	FINESS Array B	32.81	46	P	P	06 45 08.8	0.0
TIP	Timpagrande	32.88	89	IAmb	IAmb	06 45 09.5	
	comp=Z,61nm,1.5s						
TIP	Timpagrande	32.88	89	⇓P	P	06 45 08.4	-1.4
TIP	Timpagrande	32.88	89	P	P	06 45 08.5	-1.3
	comp=Z,384nmcomp=Z,20nm,1.8s						
PDG	Podgorica	33.03	82	IAmb	IAmb	06 45 11.7	
	comp=Z,42nm,1.3s						
PDG	Podgorica	33.03	82	⇓P	P	06 45 10.7	-0.3
DRME	Dracevica, Mon	33.09	82	⇑*i*P	P	06 45 10.3	-1.2
SJES	Sjenica	33.16	80	⇑*i*P	P	06 45 11.4	-0.8
BZS	Buzias	33.30	75	⇓P	P	06 45 13.5	+0.2
ARCES	ARCESS Array B	33.42	31	P	P	06 45 14.0	-0.1
	comp=Z,15nm,0.7s,baz=255,slow=8.7,SNR=42						
	comp=Z,15nm,0.7s						
ARCES	ARCESS Array B	33.42	31	P	P	06 45 14.3	+0.3
ARCES				IAmb	IAmb	06 45 15.2	
	comp=Z,53nm,1.2s						
DRGR		33.58	73	⇑P	P	06 45 15.1	-0.7
MESR	Meseseni	33.61	72	⇓P	P	06 45 16.8	+0.8
L59A	Walton	33.62	278	IAmb	IAmb	06 45 17.3	
	comp=Z,37nm,1.4s						
MDVR	Moldovita	33.69	77	⇓P	P	06 45 16.4	-0.3
BMR	Baia Mare	33.78	71	⇓P	P	06 45 18.4	+0.9
NACGM	Naroch	33.85	57	⇑*i*P	P	06 45 17.1	-0.8
	comp=Z,35nm,1.0s,baz=281						
MARR	Marisel-Cluj	33.88	73	⇓P	P	06 45 18.8	+0.3
HERR	Herculane	34.11	76	⇓P	P	06 45 20.5	+0.2
RNPP8	Varash	34.13	64	P	P	06 45 19.9	-0.5
RNPP9	Sopachiv	34.13	64	P	P	06 45 19.9	-0.5
GZR	Gura Zlata	34.14	75	⇓P	P	06 45 20.7	0.0
BOVS	Bovan	34.15	78	⇓P	P	06 45 20.8	+0.2
RNPP5	Staryi Chortor	34.18	64	P	P	06 45 20.6	-0.2
CJR	Cluj-Napoca	34.18	72	⇓P	P	06 45 21.6	+0.6
DELO	Deloro Mine	34.34	283	IAmb	IAmb	06 45 23.5	
	comp=Z,28nm,1.1s						
KSPA	Keystone Colle	34.39	278	IAmb	IAmb	06 45 30.0	
	comp=Z,63nm,1.8s						
ARCR	ARCALIA	34.53	72	⇑P	P	06 45 24.3	+0.4
SPITS	Spitsbergen Ar	34.55	15	P	P	06 45 25.3	+1.5
	comp=Z,12nm,0.9s,baz=179,slow=12,SNR=3.8						
	comp=Z,12nm,0.9s						
MNK	Minsk	34.56	58	*i* P	P	06 45 23.7	-0.4
	comp=E,7.0nm,0.7s						
MNK				*i* P	P	06 45 23.7	-0.4
	comp=N,48nm,1.1s						
MNK				*i* P	P	06 45 23.7	-0.4
	comp=Z,38nm,0.9s,baz=282						
MNK				*i* PP	PnPn	06 46 38.6	-0.5
MNK				*i* PPP	PPP	06 46 50.5	
MNK				*i* PcP	PcP	06 47 58.7	+0.2
MNK				*i* S	S	06 50 52.8	-0.1
MNK				*i* SS	SnSn	06 53 04.6	+0.7
MNK				*i* SSS	SSS	06 53 20.6	
MNK				*i* LRM	MLR	07 00 22.3	
	comp=Z,217nm,16.4s						
MNK				*i* LRM	MLR	07 00 23.6	
	comp=E,256nm,15.2s						
MNK				*i* LRM	MLR	07 00 31.8	
	comp=N,191nm,14.7s						
OHR	Ohrid	34.66	83	*i* P	P	06 45 25.6	+0.4
BURAR	Bucovina Array	34.89	70	P	P	06 45 27.8	+0.6
BURAR				IAmb	IAmb	06 45 30.0	
	comp=Z,86nm,1.8s						
BURAR	Bucovina Array	34.89	70	⇑P	P	06 45 27.8	+0.6
MDB	Medias	34.89	73	⇑P	P	06 45 27.6	+0.5
TNR	Turnu Rosu	35.01	74	⇓P	P	06 45 28.4	+0.3
KMPD	K-Podol'skiy	35.35	68	P	P	06 45 29.3	-1.6
ARR	Arges	35.36	74	⇓P	P	06 45 31.2	0.0
VTS	Vitosha	35.59	79	*e*P	P	06 45 32.9	-0.4
VOIR		35.60	74	⇓P	P	06 45 33.0	-0.3
VOIR		35.60	74	P	P	06 45 32.1	-1.2
	comp=Z,15nm,1.2s						
VOIR				pP	sP	06 45 36.3	+1.0
	comp=Z,15nm,1.2s						
MPEP	Malo Peshtene	35.60	78	*e*P	P	06 45 33.2	0.0
MI29	MI29, Kamyanyy	35.61	65	P	P	06 45 32.5	-0.7
	comp=Z,11µmcomp=Z,304nm,1.4s						
DOPR	Dopca	35.61	73	⇓P	P	06 45 33.3	+0.1

BIZ	Bicaz	35.70	71	⇑P	P	06 45 34.5	+0.4
LUBAR	Lubar, Ukraine	35.71	66	P	P	06 45 32.9	-1.1
MI30	MI30,Zelenitsa	35.71	64	P	P	06 45 32.8	-1.3
	comp=Z,94nm,1.1s						
VAY	Valandovo	35.74	82	iP	P	06 45 33.7	-0.7
PEHC	Pehcevo	35.75	81	iP	P	06 45 33.7	-0.9
VLAD	Vladila	35.77	76	⇓P	P	06 45 35.2	+0.6
OZUR		35.81	72	⇑P	P	06 45 34.9	-0.2
KKB	Krupnik	35.87	80	eP	P	06 45 36.7	+1.1
GIRR	Girov	35.95	71	⇑P	P	06 45 36.6	+0.5
ONER	Baraj Valea Uz	36.11	72	⇓P	P	06 45 37.8	+0.2
MLR	Muntele Rosu	36.16	73	P	P	06 45 37.4	-0.7
	comp=Z,38nm,1.2s,baz=307,slow=3.5,SNR=15						
	comp=Z,38nm,1.2s						
MLR	Muntele Rosu	36.16	73	IAmb	IAmb	06 45 40.3	
	comp=Z,52nm,1.2s						
MLR	Muntele Rosu	36.16	73	⇓P	P	06 45 38.1	0.0
MLR	Muntele Rosu	36.16	73	P	P	06 45 37.3	-0.7
	comp=Z,653nmcomp=Z,39nm,1.3s						
PLVB	Pleven	36.17	77	⇓P	P	06 45 38.0	0.0
COVR	Voineasa-Covas	36.18	73	⇓P	P	06 45 38.2	0.0
TESR	Tescani	36.21	71	⇑P	P	06 45 37.9	-0.4
TESR	Tescani	36.21	71	P	P	06 45 37.8	-0.6
	comp=Z,33nm,1.6s						
AK20	Malin Array Si	36.21	64	P	P	06 45 37.4	-0.9
AK19	Malin Array Si	36.22	64	P	P	06 45 37.4	-1.0
AK21	Malin Array Si	36.22	64	P	P	06 45 37.5	-0.9
AK22	Malin Array Si	36.24	64	P	P	06 45 37.5	-1.1
AK18	Malin Array Si	36.25	64	P	P	06 45 37.6	-1.1
AK17	Malin Array Si	36.26	64	P	P	06 45 37.7	-1.0
KIEV	Kiev	36.34	64	P	P	06 45 39.0	-0.5
KIEV				IAmb	IAmb	06 45 39.9	
	comp=Z,58nm,1.1s						
KIEV	Kiev	36.34	64	⇓P	P	06 45 39.2	-0.3
KIEV	Kiev	36.34	64	P	P	06 45 38.5	-1.0
	comp=Z,240nm,1.6s						
AKASG	Malin Array Be	36.35	64	P	P	06 45 38.8	-0.7
	comp=Z,26nm,0.9s,baz=285,slow=8.7,SNR=27						
AKASG				PcP	PcP	06 48 02.5	-1.4
	comp=Z,1.1nm,0.7s,baz=289,slow=2.8,SNR=4.6						
	comp=Z,26nm,0.9s						
AKASG	Malin Array Be	36.35	64	P	P	06 45 37.6	-1.9
AKBB	Malin Array Si	36.35	64	IAmb	IAmb	06 45 40.0	
	comp=Z,59nm,1.1s						
AKBB	Malin Array Si	36.35	64	P	P	06 45 38.3	-1.2
AK02	Malin Array Si	36.35	64	P	P	06 45 38.3	-1.3
MMB	Musomishta	36.42	81	eP	P	06 45 41.1	+0.8
PLOR	Plostina	36.47	72	⇓P	P	06 45 40.5	-0.1
VRI	Vrincioaia	36.51	72	⇓P	P	06 45 40.9	-0.1
VRI	Vrincioaia	36.51	72	P	P	06 45 39.8	-1.2
	comp=Z,634nmcomp=Z,33nm,1.3s						
SAHR	Sahastru	36.54	73	⇑P	P	06 45 42.0	+0.7
LVZ	Lovozero	36.54	34	P	P	06 45 41.5	+0.5
LVZ				IAmb	IAmb	06 45 48.6	
	comp=Z,56nm,1.3s						
LVZ	Lovozero	36.54	34	P	P	06 45 41.1	+0.1
	comp=Z,38nm,1.2s						
SORM	Soroca	36.68	68	⇓P	P	06 45 41.7	-0.7
SORM	Soroca	36.68	68	P	P	06 45 40.7	-1.7
	comp=Z,1µmcomp=Z,77nm,1.4s						
ISR	Istrita	36.69	74	⇑P	P	06 45 42.8	+0.2
ISR	Istrita	36.69	74	P	P	06 45 41.9	-0.7
	comp=Z,41nm,1.2s						
PLD	Plovdiv	36.81	79	eP	P	06 45 43.6	+0.1
GHRR		36.87	72	P	P	06 45 43.4	-0.6
SZH	Strazhitsa	37.11	77	eP	P	06 45 45.6	-0.5
VARL	Varlezi	37.21	72	⇑P	P	06 45 47.3	+0.4
TUDR		37.22	72	⇓P	P	06 45 47.2	+0.2
RAZG	Razgrad	37.33	76	⇑P	P	06 45 47.6	-0.3
SCHL	Schela	37.36	72	⇓P	P	06 45 48.3	+0.1
SCHLR	Schela	37.38	73	⇓P	P	06 45 48.4	+0.1
VLDR	Vladesti	37.38	72	⇑P	P	06 45 48.8	+0.4
ITM	Ithomi	37.40	88	IAmb	IAmb	06 45 49.5	
	comp=Z,67nm,1.6s						
KDZ	Kurdzhali	37.44	79	eP	P	06 45 49.4	+0.5
BAL3X	Bal3x, Balta	37.53	68	P	P	06 45 48.0	-1.6
CFR	Carcaliu	37.69	73	⇑P	P	06 45 49.9	-1.1
HARR	Harsova	37.77	74	⇓P	P	06 45 50.1	-1.5
JMB	Yambol	37.82	78	eP	P	06 45 52.2	+0.1
E46A	Sault Ste Mari	37.91	289	IAmb	IAmb	06 45 54.4	
	comp=Z,50nm,1.2s						
TLCR		38.13	72	⇑P	P	06 45 53.9	-0.7
TIRR	Tirgusor	38.18	74	⇓P	P	06 45 53.8	-1.3
ALN	Alexandroupoli	38.26	80	IAmb	IAmb	06 45 57.5	
	comp=Z,101nm,1.3s						
CAVK	Edirne/Enez-Ca	38.44	80	⇓P	P	06 45 57.2	-0.1
O53A	New Philadelph	38.64	279	IAmb	IAmb	06 46 01.1	
	comp=Z,74nm,1.4s						
EZN	Ezine	38.97	81	P	P	06 46 01.2	-0.6
	comp=Z,584nmcomp=Z,37nm,1.2s						
O52A	Adamsville	39.12	279	IAmb	IAmb	06 46 05.0	
	comp=Z,65nm,1.4s						
OBN	Obninsk	39.27	55	P	P	06 46 03.7	-0.4
	comp=Z,19nm,0.6s,baz=263,slow=8.1,SNR=18						
	comp=Z,19nm,0.6s						
OBN	Obninsk	39.27	55	P	P	06 46 03.4	-0.7
OBN				IAmb	IAmb	06 46 05.0	
	comp=Z,115nm,1.2s						
OBN	Obninsk	39.27	55	P	P	06 46 03.7	-0.4
	comp=Z,1µmcomp=Z,64nm,1.4s						
BLKN	Baker Lake	39.35	320	P	P	06 46 05.2	+0.6
BLKN				IAmb	IAmb	06 46 07.4	
	comp=Z,58nm,1.1s						
Q52A	Bidwell	39.99	278	IAmb	IAmb	06 46 12.0	
	comp=Z,93nm,1.9s						
BALB	Balikesir	40.10	81	IAmb	IAmb	06 46 12.4	
	comp=Z,91nm,1.5s						
I45A	Fountain	40.14	287	IAmb	IAmb	06 46 13.2	
	comp=Z,51nm,1.1s						
TBO	Thunder Bay	40.19	295	IAmb	IAmb	06 46 13.7	
	comp=Z,89nm,1.0s						
F42A	Maple Grove Fa	40.59	290	IAmb	IAmb	06 46 16.7	
	comp=Z,94nm,1.7s						
YLV	Yalova	40.62	79	P	P	06 46 14.4	-1.2
	comp=Z,33nm,1.6s						
BORA	Eskisehir	41.68	79	IAmb	IAmb	06 46 25.6	
	comp=Z,80nm,1.7s						
EYMN	Ely	41.74	295	IAmb	IAmb	06 46 26.0	
	comp=Z,95nm,1.1s						
I42A	Draeger Farm,	41.92	288	IAmb	IAmb	06 46 27.9	
	comp=Z,42nm,1.0s						
ARG	Arkhangelos	42.09	85	P	P	06 46 26.5	-1.1
L44A	Lake County Fo	42.10	285	IAmb	IAmb	06 46 29.6	
	comp=Z,68nm,1.1s						
G40A	Rib Lake	42.11	291	IAmb	IAmb	06 46 29.3	
	comp=Z,60nm,1.1s						
K43A	Burlington	42.11	286	IAmb	IAmb	06 46 29.3	
	comp=Z,61nm,1.1s						
TORD	Torodi Ar. Bea	42.32	135	P	P	06 46 27.1	-2.6
	comp=Z,31nm,1.2s,baz=324,slow=6.6,SNR=43						
	comp=Z,31nm,1.2s						
E38A	The Farm, Brul	42.36	293	IAmb	IAmb	06 46 30.9	
	comp=Z,94nm,1.1s						
EPLO	Experimental L	42.38	298	IAmb	IAmb	06 46 30.8	
	comp=Z,58nm,1.1s						
TKL	Tuckaleechee C	42.79	275	P	P	06 46 32.5	-0.9
	comp=Z,4.1nm,1.0s,baz=48,slow=9.2,SNR=4.6						
	comp=Z,4.1nm,1.0s						
ISP	Isparta	42.81	81	P	P	06 46 32.5	-1.2
ISP				IAmb	IAmb	06 46 34.2	
	comp=Z,71nm,1.6s						
I40A	Norwalk	43.01	289	IAmb	IAmb	06 46 36.9	
	comp=Z,44nm,1.1s						
WCI	Wyandotte Cave	43.06	280	P	P	06 46 35.7	+0.2
PDPR	Patillas Dam,	43.22	240	IAmb	IAmb	06 46 38.2	
	comp=Z,46nm,1.1s						
L42A	Oliver, Polo	43.32	286	IAmb	IAmb	06 46 39.1	
	comp=Z,71nm,1.1s						
ULM	Lac du Bonnet	43.41	300	P	P	06 46 37.6	-0.6
	comp=Z,29nm,1.0s,baz=65,slow=8.6,SNR=17						
	comp=Z,29nm,1.0s						
ULM	Lac du Bonnet	43.41	300	IAmb	IAmb	06 46 38.9	
	comp=Z,43nm,1.1s						
SPMN	Marine on St.	43.76	292	IAmb	IAmb	06 46 42.6	
	comp=Z,62nm,0.9s						
BR106	Keskin Array S	43.84	77	P	P	06 46 42.1	+0.1
	comp=Z,138nmcomp=Z,12nm,1.5s						
BR105	Keskin Array S	43.85	77	P	P	06 46 42.1	+0.1
	comp=Z,153nmcomp=Z,14nm,1.5s						
BR131	Keskin Array S	43.86	77	P	P	06 46 42.1	0.0
	SNR=6.8						
BRTR	Keskin Array B	43.86	77	P	P	06 46 42.3	+0.2
	comp=Z,8.3nm,0.9s,baz=295,slow=5.9,SNR=19						
BRTR				PcP	PcP	06 48 27.6	-0.8
	comp=Z,6.9nm,1.1s,baz=289,slow=4.4,SNR=6.3						
	comp=Z,8.3nm,0.9s						
BRTR	Keskin Array B	43.86	77	P	P	06 46 42.2	0.0
BR104	Keskin Array S	43.87	77	P	P	06 46 41.3	-0.9
	comp=Z,128nmcomp=Z,12nm,1.5s						
KEPZ	Antalya-Kepez	44.03	82	⇓P	P	06 46 42.3	-1.1
154A	Montrose	44.12	271	IAmb	IAmb	06 46 46.0	
	comp=Z,40nm,1.1s						
AGMN	Agassiz Nation	44.23	297	IAmb	IAmb	06 46 46.4	
	comp=Z,57nm,1.1s						
KIRS	Kirsehir-Merke	44.35	78	⇑P	P	06 46 45.9	-0.1
P43A	Skaggs, Pawnee	44.44	283	IAmb	IAmb	06 46 48.1	
	comp=Z,32nm,1.1s						
Q44A	Meyer Farm, Va	44.50	282	IAmb	IAmb	06 46 54.4	
	comp=Z,30nm,1.1s						
KIRV	Kirov	44.80	46	P	P	06 46 48.9	-0.3
	comp=Z,46nm,0.9s,baz=283,slow=3.7,SNR=31						
	comp=Z,46nm,0.9s						
FFC	Flin Flon	45.00	308	P	P	06 46 51.6	+0.7
FFC				IAmb	IAmb	06 46 52.5	
	comp=Z,38nm,1.1s						
WVT	Waverly	45.24	278	P	P	06 46 53.2	+0.2
DBIC	Dimbokro	45.39	147	P	P	06 46 52.5	-1.8
	comp=Z,16nm,1.0s,baz=4.7,slow=6.8,SNR=6.9						
	comp=Z,16nm,1.0s						
F33A	5 Mile Ranch,	45.63	294	IAmb	IAmb	06 46 57.3	
	comp=Z,25nm,1.1s						
SDDR	Presa de Saban	45.64	246	P	P	06 46 58.0	+1.6
	comp=Z,1µmcomp=Z,78nm,1.3s						
FVM	French Village	45.92	282	IAmb	IAmb	06 47 05.7	
	comp=Z,27nm,1.1s						
352A	Blakely	46.04	271	IAmb	IAmb	06 47 01.2	
	comp=Z,29nm,1.1s						
P40A	Paris	46.15	285	IAmb	IAmb	06 47 01.2	
	comp=Z,47nm,1.2s						
CSS	Mathiatis	46.29	83	P	P	06 47 00.2	-1.1
CSS				IAmb	IAmb	06 47 03.2	
	comp=Z,36nm,1.0s						
CSS	Mathiatis	46.29	83	P	P	06 47 00.4	-0.9
	comp=Z,36nm,1.2s						
BELG	Belogornoye	46.37	55	P	P	06 47 01.5	-0.2
	comp=Z,68nm,1.0s,baz=78,slow=3.1,SNR=24						
	comp=Z,68nm,1.0s						
CCM	Cathedral Cave	46.42	282	P	P	06 47 02.1	-0.2
PBMO	Poplar Bluff	46.60	280	IAmb	IAmb	06 47 10.6	
	comp=Z,52nm,1.9s						
R40A	Maddies Statio	46.97	283	IAmb	IAmb	06 47 07.5	
	comp=Z,29nm,1.1s						
CY604	RAF Akrotiri,	47.44	83	P	P	06 47 10.9	+0.9
KIV	Kislovodsk	47.47	67	P	P	06 47 10.8	+0.3
KIV	Kislovodsk	47.47	67	P	P	06 47 09.4	-1.1
KIV				IAmb	IAmb	06 47 46.1	
	comp=Z,28nm,1.2s						
KIV	Kislovodsk	47.47	67	P	P	06 47 09.6	-0.9
	comp=Z,411nmcomp=Z,17nm,1.3s						
LCAR	Lake Charles	47.48	280	IAmb	IAmb	06 47 16.9	
	comp=Z,28nm,1.6s						
A36M	Sachs Harbour	47.57	335	IAmb	IAmb	06 47 14.2	
	comp=Z,25nm,0.9s						
KBZ	Khabaz	47.71	67	P	P	06 47 12.4	+0.1
	comp=Z,8.2nm,1.1s,baz=296,slow=12,SNR=7.4						
	comp=Z,8.2nm,1.1s						
YKAW3	Yellowknife Wh	47.83	321	IAmb	IAmb	06 47 19.9	
	comp=Z,30nm,1.4s						
YKA	Yellowknife Ar	47.86	321	P	P	06 47 13.3	+0.1
	comp=Z,10nm,1.0s,baz=67,slow=7.4,SNR=12						
	comp=Z,10nm,1.0s						
YKA	Yellowknife Ar	47.86	321	P	P	06 47 12.8	-0.4
S39A	Bolivar	47.99	283	IAmb	IAmb	06 47 15.5	
	comp=Z,27nm,1.1s						
MMAI	Mount Meron Ar	48.83	84	P	P	06 47 21.4	+0.2
	comp=Z,1.4nm,0.3s,baz=264,slow=8.0,SNR=7.6						
	comp=Z,1.4nm,0.3s						
UALR	University of	49.02	279	IAmb	IAmb	06 47 22.2	
	comp=Z,30nm,1.5s						
MIAR	Mount Ida	49.98	280	IAmb	IAmb	06 47 30.8	
	comp=Z,73nm,1.6s						
ARTI	Arti	50.11	46	P	P	06 47 30.8	+0.2
	comp=Z,58nm,1.0s,baz=296,slow=5.2,SNR=56						
	comp=Z,58nm,1.0s						
ARTI	Arti	50.11	46	P	P	06 47 30.7	+0.1
WLAR	White Oak Lake	50.18	279	IAmb	IAmb	06 47 32.1	
	comp=Z,65nm,1.7s						
ASF	Jabal al Asfar	50.34	84	P	P	06 47 33.2	+0.5
	comp=Z,20nm,1.0s,baz=300,slow=1.6,SNR=18						
	comp=Z,20nm,1.0s						
EIL	Elat	50.59	87	P	P	06 47 34.6	0.0
	comp=Z,10nm,0.9s,baz=41,slow=4.1,SNR=5.6						
	comp=Z,10nm,0.9s						
TUL3	Leonard	50.63	283	IAmb	IAmb	06 47 34.8	
	comp=Z,24nm,0.9s						
GNI	Garni	50.80	70	P	P	06 47 36.5	+0.3
	comp=Z,14nm,0.4s,baz=331,slow=2.1,SNR=5.3						
	comp=Z,14nm,0.4s						
OK051	E0350 and S346	50.97	284	IAmb	IAmb	06 47 37.7	
	comp=Z,32nm,1.0s						
BLOK	Blackwell	51.07	285	IAmb	IAmb	06 47 38.4	
	comp=Z,30nm,1.0s						
OK048	Pawnee Station	51.09	284	IAmb	IAmb	06 47 38.7	
	comp=Z,50nm,1.1s						
WRGLY	Wrigley	51.10	325	IAmb	IAmb	06 47 59.7	
	comp=Z,47nm,1.3s						
RSSD	Black Hills	51.23	296	P	P	06 47 39.8	+0.3
OK052	Battle Ridge R	51.25	283	IAmb	IAmb	06 47 39.8	
	comp=Z,54nm,1.0s						
CBKS	Cedar Bluff	51.51	288	IAmb	IAmb	06 47 41.7	
	comp=Z,53nm,1.1s						
EDM	Edmonton	51.65	310	IAmb	IAmb	06 47 43.8	
	comp=Z,36nm,1.2s						
URIC	Uribia, Colomb	51.71	241	P	P	06 47 41.7	-1.4
	comp=Z,640nmcomp=Z,26nm,1.4s						
W35A	Tecumseh	51.80	283	IAmb	IAmb	06 47 43.8	
	comp=Z,51nm,1.2s						
INK	Inuvik	51.86	333	IAmb	IAmb	06 47 50.3	
	comp=Z,30nm,1.1s						
FNO	Franklin	52.08	283	IAmb	IAmb	06 47 46.0	
	comp=Z,43nm,1.0s						
NOKA	Waynoka	52.26	285	IAmb	IAmb	06 47 47.6	
	comp=Z,47nm,0.9s						
NATX	Nacogdoches	52.39	278	IAmb	IAmb	06 47 49.0	
	comp=Z,37nm,1.1s						
EGMT	Eagleton	52.46	303	IAmb	IAmb	06 47 50.1	
	comp=Z,41nm,1.1s						
TREL	Terrell	52.74	280	IAmb	IAmb	06 47 53.1	
	comp=Z,45nm,1.4s						
X34A	Smith Ranch, M	52.76	283	IAmb	IAmb	06 47 51.8	
	comp=Z,55nm,1.2s						
F30M	Barrier River	52.96	333	IAmb	IAmb	06 47 59.1	
	comp=Z,49nm,1.1s						
AKTO	Aktyubinsk	52.99	53	P	P	06 47 52.4	+0.2
	comp=Z,25nm,0.9s,baz=304,slow=6.5,SNR=53						
	comp=Z,25nm,0.9s						
E29M	Blow River	53.12	334	IAmb	IAmb	06 48 00.1	
	comp=Z,34nm,1.1s						
Z35A	Perchaven, San	53.15	281	IAmb	IAmb	06 47 53.9	
	comp=Z,31nm,1.2s						
SDV	Santo Domingo	53.19	237	P	P	06 47 53.7	-0.5
SDV				IAmb	IAmb	06 47 56.0	
	comp=Z,38nm,1.1s						
SDV	Santo Domingo	53.19	237	P	P	06 47 54.9	+0.6
	comp=Z,5µmcomp=Z,237nm,1.2s						
D27M	Malcolm River	53.45	336	IAmb	IAmb	06 48 03.0	
	comp=Z,35nm,1.1s						
E28M	Babbage River	53.46	335	IAmb	IAmb	06 48 03.7	
	comp=Z,23nm,1.1s						
NBPS	Pedro II - PI	53.47	197	eP	P	06 47 54.8	-1.4
G30M	tAoh Zraii Nji	53.48	332	IAmb	IAmb	06 48 02.6	
	comp=Z,36nm,1.5s						
BOAV	Boa Vista	53.50	223	P	P	06 47 55.2	-1.1
BOAV				IAmb	IAmb	06 48 03.0	
	comp=Z,33nm,1.4s						
BOAV	Boa Vista	53.50	223	P	P	06 47 53.7	-2.6
	comp=Z,14nm,1.1s						
BOAV	Boa Vista	53.50	223	eP	P	06 47 55.3	-1.1
HNVL	Huntsville, TX	53.56	277	IAmb	IAmb	06 47 57.7	
	comp=Z,50nm,1.2s						
FW06	Azle	53.57	281	IAmb	IAmb	06 47 57.3	
	comp=Z,43nm,1.1s						
H31M	Peel River	53.59	331	IAmb	IAmb	06 48 15.1	
	comp=Z,37nm,1.1s						
WTFS	Witchita Falls	53.68	282	IAmb	IAmb	06 47 58.1	
	comp=Z,46nm,1.2s						
NRIK	Noril'sk	53.84	23	P	P	06 47 59.1	+1.0
	comp=Z,7.0nm,0.8s,baz=309,slow=4.9,SNR=9.4						
	comp=Z,7.0nm,0.8s						
NRIK	Noril'sk	53.84	23	P	P	06 47 59.5	+1.3
NRIK				IAmb	IAmb	06 48 07.0	
	comp=Z,25nm,1.1s						
C27K	Jago River	53.94	337	IAmb	IAmb	06 48 06.4	
	comp=Z,30nm,1.1s						
SMWD	Samnorwood	54.03	285	IAmb	IAmb	06 48 01.1	
	comp=Z,24nm,1.1s						
WHTX	Lake Whitney,	54.11	280	IAmb	IAmb	06 48 01.5	
	comp=Z,50nm,1.2s						
PLPT	Palo Pinto	54.17	281	IAmb	IAmb	06 48 01.6	
	comp=Z,44nm,1.3s						
F28M	Old Crow	54.19	334	IAmb	IAmb	06 48 07.7	
	comp=Z,24nm,0.9s						
YNE	Yellowstone No	54.28	300	IAmb	IAmb	06 48 04.8	
	comp=Z,40nm,1.0s						
E27K	Coleen River	54.31	335	IAmb	IAmb	06 48 09.1	
	comp=Z,47nm,1.1s						
HKT	Hockley	54.31	277	P	P	06 48 01.4	-0.7
HKT				IAmb	IAmb	06 48 03.4	
	comp=Z,25nm,1.1s						
YMP	Mirror Lake Pl	54.52	300	IAmb	IAmb	06 48 05.5	
	comp=Z,34nm,1.0s						
I30M	Mount Dempster	54.62	331	IAmb	IAmb	06 48 11.4	
	comp=Z,45nm,1.4s						
H29M	Whitestone	54.63	332	IAmb	IAmb	06 48 11.2	
	comp=Z,38nm,1.1s						
ISCO	Idaho Springs	54.65	292	IAmb	IAmb	06 48 06.8	
	comp=Z,41nm,1.3s						
AB31	Akbulak array	54.68	53	IAmb	IAmb	06 48 06.1	
	comp=Z,30nm,1.1s						
ABKAR	Akbulak array	54.68	53	P	P	06 48 04.6	0.0
D25K	Kavik River	54.83	338	IAmb	IAmb	06 48 12.8	
	comp=Z,42nm,1.2s						
BOZ	Bozeman (W)	54.88	301	IAmb	IAmb	06 48 07.7	
	comp=Z,22nm,0.9s						
WTLY	Watson Lake, Y	54.95	323	IAmb	IAmb	06 48 14.4	
	comp=Z,42nm,1.1s						
J30M	Hart River	55.01	330	IAmb	IAmb	06 48 14.8	
	comp=Z,36nm,1.4s						
APMT	Aspermont	55.04	283	IAmb	IAmb	06 48 07.9	
	comp=Z,30nm,1.0s						
YFT	Old Faithful	55.09	300	IAmb	IAmb	06 48 12.2	
	comp=Z,36nm,1.1s						
YHB	Horse Butte	55.12	300	IAmb	IAmb	06 48 11.2	
	comp=Z,21nm,1.0s						
ABTX	Abilene, Hawle	55.16	282	IAmb	IAmb	06 48 08.4	
	comp=Z,24nm,1.1s						
HAYD	Hayden	55.24	294	IAmb	IAmb	06 48 18.2	
	comp=Z,70nm,1.6s						
G27K	Doyon Strip	55.24	334	IAmb	IAmb	06 48 15.8	
	comp=Z,20nm,1.0s						
PDAR	Pinedale Array	55.31	298	P	P	06 48 08.6	-1.0
	comp=Z,12nm,0.9s,baz=62,slow=7.7,SNR=70						
PDAR				PP	PP	06 50 11.8	-1.1
	comp=Z,2.2nm,0.9s,baz=64,slow=10,SNR=3.7						
	comp=Z,12nm,0.9s						
DKNS	Dickens	55.35	284	IAmb	IAmb	06 48 10.4	
	comp=Z,24nm,0.9s						
E25K	Arctic Village	55.46	336	IAmb	IAmb	06 48 17.8	
	comp=Z,40nm,1.2s						
BRDY	Brady	55.57	280	IAmb	IAmb	06 48 11.4	
	comp=Z,35nm,1.0s						
DLMT	Dillon	55.58	302	IAmb	IAmb	06 48 13.1	
	comp=Z,30nm,1.1s						
H27K	Steamboat Moun	55.59	333	IAmb	IAmb	06 48 18.5	
	comp=Z,33nm,1.4s						
I28M	Miner Creek	55.62	332	IAmb	IAmb	06 48 18.6	
	comp=Z,43nm,1.1s						
PAMC	Pamplona, Colo	55.62	238	P	P	06 48 09.8	-2.5
BMAR	Burnt Mountain	55.66	335	P	P	06 48 12.6	+1.1
SN07	Snyder 07	55.69	283	IAmb	IAmb	06 48 12.6	
	comp=Z,36nm,1.0s						
G26K	Porcupine Rive	55.77	335	IAmb	IAmb	06 48 20.1	
	comp=Z,26nm,1.1s						
K29M	Barlow Dome	55.88	330	IAmb	IAmb	06 48 21.2	
	comp=Z,47nm,1.6s						
N32M	Quiet Lake	56.00	326	IAmb	IAmb	06 48 17.2	
	comp=Z,35nm,0.9s						
I27K	Kandik River	56.04	333	IAmb	IAmb	06 48 21.7	
	comp=Z,33nm,1.0s						
O20A	White River Ci	56.07	294	IAmb	IAmb	06 48 17.0	
	comp=Z,40nm,1.2s						
EF04	Eagle Ford 04	56.09	278	IAmb	IAmb	06 48 15.5	
	comp=Z,42nm,1.0s						
E24K	Your Creek	56.26	337	IAmb	IAmb	06 48 23.6	
	comp=Z,42nm,1.1s						
R33M	Jennings River	56.26	323	IAmb	IAmb	06 48 23.6	
	comp=Z,29nm,1.4s						
DAWY	Dawson	56.36	331	IAmb	IAmb	06 48 24.3	
	comp=Z,58nm,1.3s						
NEW	Newport	56.40	307	P	P	06 48 16.8	-0.2
	comp=Z,11nm,1.0s,baz=3.3,slow=2.1,SNR=17						
	comp=Z,11nm,1.0s						
NEW	Newport	56.40	307	IAmb	IAmb	06 48 18.2	
	comp=Z,28nm,1.2s						
L29M	L29M	56.56	329	IAmb	IAmb	06 48 26.1	
	comp=Z,43nm,1.3s						
E23K	Chandalar	56.57	338	IAmb	IAmb	06 48 25.8	
	comp=Z,27nm,1.2s						
SGCY	Sterling City	56.58	282	IAmb	IAmb	06 48 19.4	
	comp=Z,47nm,1.1s						
129A	Stewart Farms,	56.62	283	IAmb	IAmb	06 48 19.4	
	comp=Z,35nm,1.0s						
JCT	Junction City	56.62	280	IAmb	IAmb	06 48 19.0	
	comp=Z,29nm,1.0s						
S22A	4UR Ranch, Cre	56.64	291	IAmb	IAmb	06 48 21.2	
	comp=Z,42nm,1.8s						
H10N2	ASCENSION HYDR	56.66	164	T	T	07 49 07.6	
	baz=350,slow=76,SNR=23						
H10N3	ASCENSION HYDR	56.67	164	T	T	07 49 16.2	
	baz=350,slow=76,SNR=29						
H10N1	ASCENSION HYDR	56.67	164	T	T	07 49 09.1	
	baz=350,slow=76,SNR=23						
D22K	Ayikyak River	56.72	339	IAmb	IAmb	06 48 27.0	
	comp=Z,31nm,1.1s						
N31M	Braeburn, Yuko	56.79	327	IAmb	IAmb	06 48 27.4	
	comp=Z,25nm,1.1s						
HNDO	Hondo	56.88	279	IAmb	IAmb	06 48 21.0	
	comp=Z,22nm,1.1s						
G24K	Hadweenzic Riv	56.98	336	IAmb	IAmb	06 48 29.2	
	comp=Z,34nm,1.1s						
RUSC	La Rusia	57.02	238	P	P	06 48 16.7	-5.6
	comp=Z,16nm,1.2s						
Q32M	Nakina River	57.06	323	P	P	06 48 22.9	+1.2
Q32M				IAmb	IAmb	06 48 30.0	
	comp=Z,31nm,1.5s						
E22K	Anaktuvuk Pass	57.07	338	IAmb	IAmb	06 48 29.2	
	comp=Z,30nm,1.2s						
M29M	Somme Creek	57.12	329	IAmb	IAmb	06 48 30.5	
	comp=Z,35nm,1.3s						
HWUT	Hardware Ranch	57.20	297	IAmb	IAmb	06 48 24.1	
	comp=Z,23nm,1.1s						
K27K	Chicken	57.26	332	IAmb	IAmb	06 48 30.9	
	comp=Z,29nm,1.2s						
PRP	Porcupine Dome	57.27	334	IAmb	IAmb	06 48 31.2	
	comp=Z,37nm,1.3s						
PV15	Paradox Valley	57.31	293	IAmb	IAmb	06 48 31.5	
	comp=Z,47nm,1.6s						
COLD	Coldfoot	57.33	337	IAmb	IAmb	06 48 31.1	
	comp=Z,20nm,1.0s						
E21K	Killik River	57.36	339	IAmb	IAmb	06 48 31.1	
	comp=Z,20nm,1.1s						
BSUT	Blindstream Ca	57.37	296	IAmb	IAmb	06 48 34.1	
	comp=Z,28nm,1.3s						
TMB01	Midkiff	57.37	283	IAmb	IAmb	06 48 25.0	
	comp=Z,29nm,1.1s						
ODSA	Odessa	57.38	283	IAmb	IAmb	06 48 24.9	
	comp=Z,57nm,1.7s						
PV02	Paradox Valley	57.55	293	IAmb	IAmb	06 48 33.3	
	comp=Z,47nm,1.1s						
PV03	Paradox Valley	57.59	293	IAmb	IAmb	06 48 27.7	
	comp=Z,50nm,1.2s						
ITTB	Itaituba	57.62	214	eP	P	06 48 24.9	-1.0
PV13	Radium Mtn., P	57.63	293	IAmb	IAmb	06 48 28.9	
	comp=Z,31nm,1.2s						
PLID	Pearl Lake	57.67	303	IAmb	IAmb	06 48 28.9	
	comp=Z,22nm,1.1s						
BORK	Borovoye	57.72	45	P	P	06 48 26.8	+0.6
BORK				IAmb	IAmb	06 48 27.9	
	comp=Z,29nm,0.8s						
H24K	Noodor Dome	57.72	335	IAmb	IAmb	06 48 34.3	
	comp=Z,31nm,1.1s						
833A	Chaparral WMA,	57.74	278	IAmb	IAmb	06 48 27.5	
	comp=Z,39nm,1.1s						
BVAR	Borovoye Array	57.77	45	P	P	06 48 27.1	+0.5
	comp=Z,28nm,0.8s,baz=310,slow=5.6,SNR=97						
	comp=Z,28nm,0.8s						
SPBC	San Pablo de B	57.78	239	P	P	06 48 23.5	-3.7
	comp=Z,45nm,1.0s						
BCAR	Beaver Creek A	57.83	331	P	P	06 48 28.3	+1.4
J25K	Salcha River,	57.87	333	IAmb	IAmb	06 48 35.1	
	comp=Z,41nm,1.1s						
SCRK	Sand Creek	57.90	332	IAmb	IAmb	06 48 35.6	

	comp=Z,44nm,1.1s						
SPUT	South Promonto	57.91	298	IAmb	IAmb	06 48 35.0	
	comp=Z,57nm,1.8s						
SKAG	Skagway	57.94	325	P	P	06 48 29.3	+1.7
C19K	Lookout Ridge	58.09	342	IAmb	IAmb	06 48 37.1	
	comp=Z,43nm,1.1s						
SRU	San Rafael Swe	58.09	295	IAmb	IAmb	06 48 32.2	
	comp=Z,41nm,1.5s						
ANMO	Albuquerque	58.13	288	P	P	06 48 30.5	+0.8
	comp=Z,16nm,1.0s,baz=65,slow=6.6,SNR=44						
	comp=Z,16nm,1.0s						
ANMO	Albuquerque	58.13	288	P	P	06 48 29.6	-0.1
ANMO				IAmb	IAmb	06 48 31.7	
	comp=Z,37nm,1.3s						
TASM	ASL Pad, Albuq	58.14	288	IAmb	IAmb	06 48 31.9	
	comp=Z,37nm,1.3s						
TASM	ASL Pad, Albuq	58.14	288	IAmb	IAmb	06 48 31.9	
	comp=Z,37nm,1.3s						
ALQ	Albuquerque	58.14	288	IAmb	IAmb	06 48 31.9	
	comp=Z,37nm,1.3s						
ALQ	Albuquerque	58.14	288	IAmb	IAmb	06 48 31.8	
	comp=Z,38nm,1.3s						
F21K	Alatna River	58.18	338	IAmb	IAmb	06 48 37.3	
	comp=Z,48nm,1.1s						
H23K	Yukon River	58.20	336	IAmb	IAmb	06 48 37.8	
	comp=Z,30nm,1.0s						
MPU	Maple Canyon	58.21	296	IAmb	IAmb	06 48 37.4	
	comp=Z,57nm,1.9s						
IL31		58.21	334	IAmb	IAmb	06 48 37.3	
	comp=Z,31nm,1.2s						
ILAR	Eielson Array	58.21	334	P	P	06 48 30.6	+1.0
	comp=Z,5.9nm,1.0s,baz=43,slow=5.0,SNR=41						
ILAR				PP	PP	06 50 35.2	-2.7
	comp=Z,1.7nm,1.1s,baz=40,slow=10,SNR=2.5						
	comp=Z,5.9nm,1.0s						
ILAR	Eielson Array	58.21	334	P	P	06 48 30.3	+0.8
D19K	Kuna River	58.27	341	IAmb	IAmb	06 48 37.6	
	comp=Z,30nm,1.1s						
NORC	Norcasia	58.31	239	P	P	06 48 28.6	-2.3
	comp=Z,648nmcomp=Z,23nm,1.2s						
JIS	Juneau Island	58.35	324	P	P	06 48 31.8	+1.3
M27K	Edge Creek, AK	58.35	330	IAmb	IAmb	06 48 38.9	
	comp=Z,44nm,1.4s						
L26K	Log Cabin Wild	58.37	331	IAmb	IAmb	06 48 38.8	
	comp=Z,34nm,1.4s						
COLA	College	58.42	334	P	P	06 48 33.0	+2.1
COLA	College	58.42	334	P	P	06 48 31.6	+0.7
COLA				IAmb	IAmb	06 48 38.7	
	comp=Z,33nm,1.1s						
LNOR	Lincton Mounta	58.47	305	IAmb	IAmb	06 48 32.5	
	comp=Z,18nm,1.0s						
TPB11	China Draw	58.47	284	IAmb	IAmb	06 48 33.5	
	comp=Z,27nm,1.1s						
HDA	Harding Lake	58.49	334	IAmb	IAmb	06 48 39.1	
	comp=Z,39nm,1.0s						
NLU	North Lily Min	58.52	296	IAmb	IAmb	06 48 39.9	
	comp=Z,61nm,1.9s						
MACA	Manacapuru-AM	58.52	220	*e*P	P	06 48 31.5	-0.7
MENT	Mentasta	58.55	331	P	P	06 48 33.6	+1.7
CCB	Clear Creek Bu	58.58	334	IAmb	IAmb	06 48 40.5	
	comp=Z,21nm,1.1s						
ROSC	El Rosal	58.58	238	P	P	06 48 33.3	+0.1
	comp=Z,7.9nm,0.5s,baz=43,slow=3.5,SNR=10						
	comp=Z,7.9nm,0.5s						
ROSC	El Rosal	58.58	238	P	P	06 48 32.3	-0.8
MFID	Camas Ranch	58.60	301	IAmb	IAmb	06 48 43.7	
	comp=Z,34nm,1.7s						
O29M	Mount Kennedy	58.60	327	IAmb	IAmb	06 48 40.4	
	comp=Z,30nm,1.2s						
Q16A	Castle Valley	58.61	295	IAmb	IAmb	06 48 41.3	
	comp=Z,40nm,1.1s						
H22K	Ishtalitna Cre	58.65	336	IAmb	IAmb	06 48 40.7	
	comp=Z,25nm,1.3s						
TPB05	Hovey Rd	58.66	283	IAmb	IAmb	06 48 33.7	
	comp=Z,17nm,1.0s						
M26K	Nabesna, AK	58.69	331	IAmb	IAmb	06 48 41.0	
	comp=Z,29nm,1.3s						
CBOC	Ciudad Bolivar	58.74	241	P	P	06 48 35.1	+1.1
	comp=Z,581nmcomp=Z,25nm,1.5s						
P29M	Windy Craggy	58.75	326	IAmb	IAmb	06 48 41.5	
	comp=Z,24nm,1.1s						
C18K	Utukok River	58.80	342	IAmb	IAmb	06 48 41.5	
	comp=Z,34nm,1.0s						
DUG	Dugway, Tooele	58.81	297	IAmb	IAmb	06 48 35.9	
	comp=Z,21nm,0.9s						
O28M	Mount Upton	58.86	328	IAmb	IAmb	06 48 42.5	
	comp=Z,33nm,1.1s						
F20K	Avaraart Lake	58.86	339	IAmb	IAmb	06 48 42.0	
	comp=Z,29nm,1.1s						
GUY2C	Guyana, Caldas	58.88	240	P	P	06 48 35.0	-0.3
	comp=Z,514nmcomp=Z,34nm,1.1s						
E19K	Redstone River	58.90	340	IAmb	IAmb	06 48 42.2	
	comp=Z,22nm,0.9s						
LTY	Liberty	58.91	307	IAmb	IAmb	06 48 42.0	
	comp=Z,32nm,1.1s						
TPB01	Permian Basin	58.94	283	IAmb	IAmb	06 48 39.4	
	comp=Z,16nm,0.9s						
TPB28		58.95	284	IAmb	IAmb	06 48 37.3	
	comp=Z,44nm,1.1s						
S32K	Killisnoo	58.96	323	IAmb	IAmb	06 48 43.2	
	comp=Z,36nm,1.6s						
LOGN	Logan Glacier	59.12	328	IAmb	IAmb	06 48 44.0	
	comp=Z,32nm,1.4s						
V35K	Ketchikan	59.12	320	IAmb	IAmb	06 48 43.8	
	comp=Z,30nm,1.4s						
MLY	Manley	59.13	336	IAmb	IAmb	06 48 43.8	
	comp=Z,41nm,1.3s						
BARN	Barnard Glacie	59.18	329	IAmb	IAmb	06 48 44.4	
	comp=Z,38nm,1.3s						
IMAR	Indian Mountai	59.20	337	P	P	06 48 37.3	+0.9
H21K	Melozitna Rive	59.21	337	IAmb	IAmb	06 48 44.4	
	comp=Z,25nm,1.0s						
ALPN	Alpine	59.22	282	IAmb	IAmb	06 48 38.1	
	comp=Z,33nm,1.2s						
SMTB	Santa Maria do	59.23	203	*e*P	P	06 48 34.3	-2.8
S31K	Pelican	59.29	324	IAmb	IAmb	06 48 45.9	
	comp=Z,63nm,2.0s						
F07A	Phinny Hill Vi	59.36	306	IAmb	IAmb	06 48 39.0	
	comp=Z,18nm,1.1s						
KBD	Kabd	59.42	79	P	P	06 48 38.2	-0.2
GRNC	Granite Creek	59.44	329	IAmb	IAmb	06 48 46.1	
	comp=Z,23nm,1.2s						
F19K	Shaleruckik Mo	59.53	339	IAmb	IAmb	06 48 46.0	
	comp=Z,32nm,1.1s						
NBPN	Ponto Novo - B	59.54	194	*e*P	P	06 48 37.6	-1.7
MCK	McKinley	59.59	334	IAmb	IAmb	06 48 46.6	
	comp=Z,30nm,1.1s						
CBB	Campbell River	59.60	312	IAmb	IAmb	06 48 40.9	
	comp=Z,21nm,1.0s						
DHY	Denali Highway	59.60	333	IAmb	IAmb	06 48 47.2	
	comp=Z,23nm,1.1s						
E18K	Tukpahlearik C	59.69	341	IAmb	IAmb	06 48 47.6	
	comp=Z,28nm,1.1s						
RND	Reindeer	59.81	334	IAmb	IAmb	06 48 47.9	
	comp=Z,45nm,1.6s						
VHRN	Van Horn	59.83	284	IAmb	IAmb	06 48 42.7	
	comp=Z,26nm,1.0s						
ORTC	Ortega, Tolima	59.87	239	P	P	06 48 42.3	+0.6
	comp=Z,1µmcomp=Z,124nm,1.1s						
TXAR	Lajitas Array	59.91	282	P	P	06 48 41.8	-0.1
	comp=Z,13nm,0.8s,baz=70,slow=6.6,SNR=142						
	comp=Z,13nm,0.8s						
ELK	Elko	59.91	299	P	P	06 48 42.7	+0.7
	comp=Z,11nm,0.9s,baz=37,slow=5.7,SNR=52						
	comp=Z,11nm,0.9s						
TX31	Lajitas Ar. Si	59.91	282	IAmb	IAmb	06 48 43.2	
	comp=Z,22nm,1.0s						
J08A	Circle Bar Ran	60.14	303	P	P	06 48 43.9	+0.5
J08A				IAmb	IAmb	06 48 44.9	
	comp=Z,24nm,1.0s						
G06A	Carlson Farm,	60.16	306	P	P	06 48 43.2	-0.1
G06A				IAmb	IAmb	06 49 04.8	
	comp=Z,22nm,1.4s						
TRF	Thorofare Moun	60.20	334	IAmb	IAmb	06 48 50.9	
	comp=Z,38nm,1.1s						
BMRM	Bremner River	60.25	330	IAmb	IAmb	06 48 51.0	
	comp=Z,30nm,1.2s						
KLU	Klutina	60.31	331	IAmb	IAmb	06 49 06.0	
	comp=Z,19nm,1.0s						
BERG	Berg Lake	60.36	329	IAmb	IAmb	06 48 52.2	
	comp=Z,28nm,1.1s						
PSUT	Pine Spring	60.48	296	IAmb	IAmb	06 48 54.6	
	comp=Z,18nm,1.0s						
ESQI	Esquipulas	60.48	259	P	P	06 48 47.2	+1.3
ESQI				IAmb	IAmb	06 48 47.5	
	comp=Z,34nm,1.1s						
G18K	Tagagawik	60.50	339	P	P	06 48 46.9	+1.6
G18K				IAmb	IAmb	06 48 53.4	
	comp=Z,37nm,1.2s						
SCM	Sheep Creek Mo	60.51	332	IAmb	IAmb	06 49 42.0	
	comp=Z,35nm,1.4s						
NLWA	Neilton Lookou	60.52	309	IAmb	IAmb	06 49 02.0	
	comp=Z,37nm,1.4s						
MACC	Macarena, Meta	60.52	236	P	P	06 48 46.1	0.0
	comp=Z,650nmcomp=Z,25nm,1.1s						
121A	Cookes Peak, D	60.52	287	P	P	06 48 46.6	+0.4
DIV	Divide	60.52	331	IAmb	IAmb	06 48 53.0	
	comp=Z,35nm,1.3s						
TEFE	Tefe	60.60	224	*e*P	P	06 48 46.3	-0.3
MTO3	Montecristo	60.61	259	P	P	06 48 46.8	-0.2
X18A	Snowflake	60.62	290	IAmb	IAmb	06 48 48.0	
	comp=Z,20nm,1.0s						
RAGM	Ragged Mountai	60.70	330	IAmb	IAmb	06 48 54.5	
	comp=Z,33nm,1.1s						
J20K	Nowinta River	60.73	336	IAmb	IAmb	06 48 55.4	
	comp=Z,17nm,0.9s						
CAST	Castle Rocks	60.74	335	IAmb	IAmb	06 48 53.9	
	comp=Z,29nm,1.1s						
CCUT	Cedar City	60.81	295	IAmb	IAmb	06 48 50.2	
	comp=Z,25nm,1.2s						
KNB	Kanab	60.82	294	IAmb	IAmb	06 48 49.1	
	comp=Z,33nm,1.1s						
WVOR	Wild Horse Val	60.82	302	IAmb	IAmb	06 48 50.1	
	comp=Z,33nm,1.0s						
U15A	North Rim	60.87	293	IAmb	IAmb	06 48 50.6	
	comp=Z,15nm,0.9s						
E03A	Lebam	60.90	308	IAmb	IAmb	06 49 17.1	
	comp=Z,38nm,1.2s						
EYAK	Cordova Ski Ar	60.95	330	P	P	06 48 50.4	+2.0
EYAK	Cordova Ski Ar	60.95	330	IAmb	IAmb	06 48 56.0	
	comp=Z,27nm,1.4s						
KAIM	Kayak Island	60.95	329	IAmb	IAmb	06 48 56.5	
	comp=Z,37nm,1.1s						
H18K	Honhosa River	61.03	339	IAmb	IAmb	06 48 57.3	
	comp=Z,38nm,1.1s						
FID	Port Fidalgo	61.04	331	IAmb	IAmb	06 48 57.1	
	comp=Z,38nm,1.4s						
GHO	Glory Hole Cre	61.06	332	IAmb	IAmb	06 48 58.2	
	comp=Z,29nm,1.2s						
PINE	Pine Mountain	61.25	304	IAmb	IAmb	06 48 53.1	
	comp=Z,22nm,1.0s						
PMR	Palmer	61.26	332	P	P	06 48 52.1	+1.6
PMR	Palmer	61.26	332	P	P	06 48 50.4	-0.1
J19K	Poorman	61.27	337	IAmb	IAmb	06 48 58.1	
	comp=Z,35nm,1.2s						
BMN	Battle Mountai	61.28	299	IAmb	IAmb	06 48 54.0	
	comp=Z,21nm,1.0s						
K20K	Telida	61.35	336	IAmb	IAmb	06 48 59.2	
	comp=Z,29nm,1.1s						
WIFE	Three Sisters-	61.56	305	IAmb	IAmb	06 48 54.8	
	comp=Z,24nm,1.0s						
H17K	Granite Mounta	61.59	339	IAmb	IAmb	06 49 00.8	
	comp=Z,35nm,1.1s						
X16A	Lo Mia Camp, P	61.63	291	IAmb	IAmb	06 48 55.6	
	comp=Z,16nm,0.9s						
RAYN	Ar Rayn	61.72	86	P	P	06 48 53.7	-0.5
RAYN	Ar Rayn	61.72	86	P	P	06 48 53.1	-1.1
POPC	Popayan, Colom	61.80	239	P	P	06 48 54.6	-0.5
	comp=Z,423nmcomp=Z,16nm,1.6s						
RC01	Rabbit Creek A	61.83	332	IAmb	IAmb	06 49 02.2	
	comp=Z,31nm,1.2s						
PRN	Pahroc Range	61.93	296	IAmb	IAmb	06 49 04.6	
	comp=Z,23nm,1.2s						
J18K	Innoko River	61.98	337	IAmb	IAmb	06 49 03.0	
	comp=Z,18nm,1.1s						
SDBA	SAO DESIDERIO	61.98	199	*e*P	P	06 48 55.2	-0.7
MOD	Modoc Plateau	62.11	302	IAmb	IAmb	06 48 59.5	
	comp=Z,25nm,1.1s						
J04A	Umpqua Nationa	62.25	305	IAmb	IAmb	06 48 59.8	
	comp=Z,21nm,0.8s						
SLKM	Skilak Lake	62.43	332	IAmb	IAmb	06 49 06.0	
	comp=Z,35nm,1.2s						
K04D	Chiloquin, OR	62.46	304	IAmb	IAmb	06 49 00.3	
	comp=Z,30nm,1.0s						
SEW	Seward	62.50	331	IAmb	IAmb	06 49 06.4	
	comp=Z,29nm,1.3s						
BBAC	Balboa, Cauca	62.55	239	P	P	06 48 56.6	-3.5
	comp=Z,17nm,2.4s						
SHPR	Sheep Range	62.58	295	IAmb	IAmb	06 49 08.6	
	comp=Z,20nm,1.3s						
TUC	Tucson	62.59	289	P	P	06 49 00.1	+0.1
TUC				IAmb	IAmb	06 49 02.0	
	comp=Z,28nm,1.1s						
J17K	VABM Dome	62.65	338	IAmb	IAmb	06 49 07.8	
	comp=Z,30nm,1.2s						
PTLC	Puerto Leguiza	62.68	236	P	P	06 49 03.0	+2.3
	comp=Z,1µmcomp=Z,84nm,1.1s						
KVN	Kaiserville	62.69	299	IAmb	IAmb	06 49 03.5	
	comp=Z,22nm,1.1s						
W13A	Hualapai Mount	62.71	293	IAmb	IAmb	06 49 03.1	
	comp=Z,21nm,1.2s						
TPH	Tonopah	62.80	297	IAmb	IAmb	06 49 04.5	
	comp=Z,23nm,1.1s						
HPIG		62.82	281	IAmb	IAmb	06 49 03.1	
	comp=Z,18nm,1.1s						
TNA	Tin City	62.82	343	IAmb	IAmb	06 49 09.1	
	comp=Z,31nm,1.2s						
Y14A	Wickenburg	62.92	291	IAmb	IAmb	06 49 04.2	
	comp=Z,13nm,1.0s						
TPNV	Topopah Spring	62.95	296	IAmb	IAmb	06 49 14.4	
	comp=Z,21nm,1.3s						
L18K	Granite Mounta	62.99	336	IAmb	IAmb	06 49 09.8	
	comp=Z,23nm,1.1s						
K17K	Iditarod	63.01	337	IAmb	IAmb	06 49 10.0	
	comp=Z,35nm,1.2s						
L04D	Klamath Falls	63.03	304	IAmb	IAmb	06 49 03.6	
	comp=Z,20nm,1.1s						
KURK	Kurchatov	63.14	43	P	P	06 49 02.9	-0.4
KURK	Kurchatov	63.14	43	P	P	06 49 03.2	-0.1
KURK				IAmb	IAmb	06 49 04.3	
	comp=Z,20nm,0.9s						
KURBB	Kurchatov Arra	63.16	43	P	P	06 49 03.1	-0.3
	comp=Z,16nm,0.9s,baz=317,slow=7.0,SNR=78						
	comp=Z,16nm,0.9s						
NVAR	Mina Array Bea	63.21	298	P	P	06 49 04.3	0.0
	comp=Z,2.0nm,0.8s,baz=60,slow=5.1,SNR=16						
NVAR				PP	PP	06 51 18.3	-4.6
	comp=Z,2.5nm,0.9s,baz=74,slow=6.4,SNR=5.9						
	comp=Z,2.0nm,0.8s						
NVAR	Mina Array Bea	63.21	298	P	P	06 49 03.9	-0.4
SNDB	Serra Nova Dou	63.23	206	*e*P	P	06 49 02.0	-2.2
GMN	Gold Mountain	63.33	297	IAmb	IAmb	06 49 06.6	
	comp=Z,16nm,1.1s						
SAKB	Bahrain	63.42	80	P	P	06 49 05.0	-0.5
LHV	Little Huntoon	63.45	298	IAmb	IAmb	06 49 08.0	
	comp=Z,14nm,1.0s						
MTPC	Mountain Pass	63.49	294	IAmb	IAmb	06 49 08.0	
	comp=Z,31nm,1.2s						
N19K	Bonanza Creek	63.49	334	IAmb	IAmb	06 49 12.4	
	comp=Z,17nm,1.0s						
M03C	McCloud	63.55	303	IAmb	IAmb	06 49 07.4	
	comp=Z,27nm,1.0s						
ZAA0	Zalesovo Array	63.56	38	P	P	06 49 05.2	-0.8
ZAA0				IAmb	IAmb	06 49 13.2	
	comp=Z,38nm,1.6s						
ZALV	Zalesovo Beam	63.56	38	P	P	06 49 06.5	+0.4
	comp=Z,7.3nm,1.0s,baz=303,slow=8.7,SNR=19						
	comp=Z,7.3nm,1.0s						
ZALV	Zalesovo Beam	63.56	38	P	P	06 49 05.9	-0.1
ZAIG	Zacatecas	63.58	275	P	P	06 49 08.5	+1.6
ZAIG				IAmb	IAmb	06 49 09.4	
	comp=Z,17nm,1.1s						
YBH	Yreka Blue Hor	63.58	304	P	P	06 49 05.0	-1.4
	comp=Z,4.9nm,1.0s,baz=41,slow=4.4,SNR=5.3						
	comp=Z,4.9nm,1.0s						
FURC	Furnace Creek,	63.64	296	IAmb	IAmb	06 49 15.7	
	comp=Z,30nm,1.1s						
CLDB	Colider	63.66	211	*e*P	P	06 49 05.8	-1.2
MPK	Martis Peak	63.66	300	IAmb	IAmb	06 49 10.9	
	comp=Z,26nm,1.1s						
SHOC	Shoshone, Teco	63.66	295	IAmb	IAmb	06 49 09.0	
	comp=Z,24nm,1.1s						
DSP	Deep Springs	63.71	297	IAmb	IAmb	06 49 16.1	
	comp=Z,17nm,1.2s						
ILSW	Iliamna Southw	63.76	333	IAmb	IAmb	06 50 50.5	
	comp=Z,23nm,0.8s						
CMBC	Cumbal	63.77	239	P	P	06 49 07.2	-1.2
	comp=Z,9µmcomp=Z,6.2nm,0.6s						
L02F	Cave Junction	63.80	304	IAmb	IAmb	06 49 09.4	
	comp=Z,20nm,1.2s						
CMC01	Camacan, BA	63.86	193	*e*P	P	06 49 08.9	+0.6
M17K	Holitna River	63.86	336	P	P	06 49 08.9	+1.0
TULM	Tulcn-Chalpat	63.93	239	P	P	06 49 07.2	-2.3
	comp=Z,34nm,1.5s						
BRLS	Borolday	63.93	54	*e*P	P	06 49 09.4	+0.7
	comp=Z,11nm,1.1s						
QSM	Queen of Sheba	63.98	295	IAmb	IAmb	06 49 18.1	
	comp=Z,25nm,1.2s						
BLYC	Blythe	64.00	292	IAmb	IAmb	06 49 11.3	
	comp=Z,20nm,1.1s						
O03E	Paynes Creek	64.02	302	IAmb	IAmb	06 49 10.1	
	comp=Z,16nm,1.1s						
SEM	Semipalatinsk	64.10	43	*e*P	P	06 49 10.2	+0.3
	comp=Z,19nm,1.4s						
IRM	Iron Mountain	64.11	293	IAmb	IAmb	06 49 12.1	
	comp=Z,20nm,1.2s						
CASC	Dorado de Casc	64.14	238	P	P	06 49 08.6	-1.9
KSXB	Camp Six Broad	64.16	304	IAmb	IAmb	06 49 17.4	
	comp=Z,37nm,1.5s						
113A	Mohawk Valley,	64.17	291	IAmb	IAmb	06 49 12.2	
	comp=Z,21nm,1.2s						
KK31	Karatay Array	64.25	54	IAmb	IAmb	06 49 12.6	
	comp=Z,33nm,1.8s						
KKAR	Karatay Array	64.25	54	P	P	06 49 10.8	0.0
CHM	Chimkent	64.28	55	*e*P	P	06 49 11.2	+0.3
MPMC	Manual Prospec	64.29	296	IAmb	IAmb	06 49 13.6	
	comp=Z,26nm,1.1s						
CWC	Cottonwood Cre	64.39	297	IAmb	IAmb	06 49 20.1	
	comp=Z,33nm,1.8s						
TLIG	Tlapa	64.50	268	P	P	06 49 12.6	-0.2
TLIG				IAmb	IAmb	06 49 14.5	
	comp=Z,34nm,1.2s						
CLC	China Lake	64.52	296	IAmb	IAmb	06 49 16.3	
	comp=Z,28nm,1.2s						
BC3	Big Chuckawall	64.64	293	IAmb	IAmb	06 49 15.4	
	comp=Z,19nm,1.2s						
OTAV	Otavalo	64.70	239	P	P	06 49 13.8	-0.7
OTAV				IAmb	IAmb	06 49 21.9	
	comp=Z,26nm,1.4s						
OTAV	Otavalo	64.70	239	*e*P	P	06 49 14.5	0.0
PIX	Pinacate	64.79	290	IAmb	IAmb	06 49 16.0	
	comp=Z,26nm,1.1s						
LRMC	Laurel Mtn Rad	64.79	296	IAmb	IAmb	06 49 16.7	
	comp=Z,30nm,1.3s						
DZA	Taraz	64.83	53	*e*P	P	06 49 15.0	+0.4
	comp=Z,5.3nm,0.6s						
ISA	Isabella, Lake	65.15	296	IAmb	IAmb	06 49 20.7	
	comp=Z,31nm,1.1s						
PMD	Palm Desert	65.22	293	IAmb	IAmb	06 49 19.2	
	comp=Z,19nm,1.2s						
PFO	Pinyon Flats O	65.29	293	P	P	06 49 18.5	+0.7
	comp=Z,8.5nm,1.0s,baz=38,slow=5.1,SNR=13						
	comp=Z,8.5nm,1.0s						
PFO	Pinyon Flats O	65.29	293	P	P	06 49 18.3	+0.5
PFO				IAmb	IAmb	06 49 25.0	
	comp=Z,22nm,1.3s						
L14K	Kuka Creek	65.30	338	P	P	06 49 19.6	+2.3
SLWR	Sila	65.48	81	P	P	06 49 18.8	-0.2
BORC	Borrego Spring	65.50	293	IAmb	IAmb	06 49 27.9	
	comp=Z,32nm,1.7s						
SLOR	San Lorenzo -	65.51	239	IAmb	IAmb	06 49 27.6	
	comp=Z,20nm,1.4s						
TPO	Tropico Hills	65.53	295	IAmb	IAmb	06 49 56.2	
	comp=Z,34nm,1.7s						
YUH	Yuha Desert	65.61	292	IAmb	IAmb	06 49 28.6	
	comp=Z,41nm,1.8s						
BFSC	Mount Baldy Ra	65.61	295	IAmb	IAmb	06 49 21.6	
	comp=Z,18nm,1.3s						
JRN	Qarnain Island	65.66	79	P	P	06 49 19.4	-0.7
ARCA	Ara§uai, MG	65.72	195	*e*P	P	06 49 19.2	-1.2
BDFB	Brasilia	65.83	202	P	P	06 49 20.5	-0.8
	comp=Z,7.7nm,1.0s,baz=24,slow=11,SNR=7.4						
	comp=Z,7.7nm,1.0s						
BDFB	Brasilia	65.83	202	P	P	06 49 19.9	-1.4
BDFB				IAmb	IAmb	06 49 28.2	
	comp=Z,48nm,1.7s						
MWC	Mount Wilson	65.86	295	IAmb	IAmb	06 49 24.6	
	comp=Z,18nm,1.2s						
MHC	Mount Hamilton	65.91	299	IAmb	IAmb	06 49 24.9	
	comp=Z,20nm,1.1s						
MC01	Montes Claros	65.95	197	*e*P	P	06 49 20.9	-1.1
SFX	San Felipe	66.02	290	IAmb	IAmb	06 49 24.3	
	comp=Z,23nm,1.2s						
ESJX	Sierra Juarez	66.05	292	IAmb	IAmb	06 49 23.8	
	comp=Z,21nm,1.4s						
SAO	San Andreas Ge	66.18	299	IAmb	IAmb	06 49 26.5	
	comp=Z,17nm,1.1s						
SGDS	Sogindy	66.20	51	*e*P	P	06 49 23.7	+0.2
GHWR	Ruwais	66.34	80	P	P	06 49 23.6	-0.9
VTX	Valle De La Tr	66.36	291	IAmb	IAmb	06 49 26.9	
	comp=Z,17nm,1.1s						
AAK	Ala-Archa	66.70	52	P	P	06 49 26.3	-0.5
AAK	Ala-Archa	66.70	52	P	P	06 49 26.6	-0.1
AAK				IAmb	IAmb	06 49 29.2	
	comp=Z,18nm,1.4s						
KUU	Kurty	66.78	50	*e*P	P	06 49 27.5	+0.4
ARAG	Araguaiana, MT	66.92	205	*e*P	P	06 49 27.7	-0.4
TDK	Taldyqorghan	67.04	48	*e*P	P	06 49 29.2	+0.4
	comp=Z,6.8nm,0.6s						
MZWR	Madinat Zayed	67.15	79	P	P	06 49 28.6	-1.0
VILB	Vilhena	67.19	215	*e*P	P	06 49 28.3	-1.7
BANOM	Banah	67.25	76	P	P	06 49 29.9	-0.5
MZR	Muzera	67.40	80	P	P	06 49 30.8	-0.5
MAKZ	Makanchi	67.48	44	P	P	06 49 31.7	+0.2
MAKZ				IAmb	IAmb	06 49 32.9	
	comp=Z,23nm,1.4s						
NAZ	Nazwa, Dubai	67.48	77	P	P	06 49 31.1	-0.7
MASF	Masafi	67.54	77	P	P	06 49 31.1	-1.2
AAA	Alma-Ata	67.56	50	*e*P	P	06 49 32.5	+0.4
FAQ	Al Faqa, Dubai	67.60	78	P	P	06 49 31.3	-1.2
MKAR	Makanchi Array	67.64	44	P	P	06 49 32.4	-0.1
	comp=Z,12nm,1.1s,baz=330,slow=4.2,SNR=42						
	comp=Z,12nm,1.1s						
MKAR	Makanchi Array	67.64	44	P	P	06 49 32.1	-0.4
MDOK	Medeo	67.66	50	*e*P	P	06 49 33.1	+0.2
MDH	Madha	67.68	77	P	P	06 49 31.7	-1.3
TNSS	Tian-Shan	67.70	50	*e*P	P	06 49 33.4	-0.1
LPIG	La Paz	67.81	282	P	P	06 49 34.0	+0.2
	comp=Z,26nm,1.0s,baz=55,slow=4.4,SNR=3.7						
	comp=Z,26nm,1.0s						
SLBS	Sierra La Lagu	67.86	281	P	P	06 49 33.1	-1.2
UOSS	Minazif	67.86	77	P	P	06 49 33.3	-0.9
UOSS	Minazif	67.86	77	P	P	06 49 33.4	-0.9
HATD	Hatta, Dubai	67.90	77	P	P	06 49 33.9	-0.6
ASHO	Ashiyiah	67.95	77	P	P	06 49 34.1	-0.7
ALNE	Al Ain	68.18	78	P	P	06 49 35.4	-0.8
CZSB	Cruzeiro do Su	68.19	229	*e*P	P	06 49 34.1	-2.2
PMNB	Patos De Minas	68.25	199	*e*P	P	06 49 36.7	+0.1
KPKS	Kokpek	68.28	49	*e*P	P	06 49 37.1	+0.4
SALV	Santo Antonio	68.31	209	*e*P	P	06 49 36.2	-0.7
ZSN	Zaisan	68.34	42	*e*P	P	06 49 37.3	+0.4
	comp=Z,22nm,1.5s						
KDJ	Kajisay	68.46	51	IAmb	IAmb	06 49 40.2	
	comp=Z,35nm,1.8s						
SOHO	SOHO	68.64	77	P	P	06 49 38.3	-0.8
UZB	Uzynbulak	68.68	49	*e*P	P	06 49 39.6	+0.3
	comp=Z,17nm,1.6s						
UMZA	Um Al Zommool	68.72	79	P	P	06 49 39.5	-0.1
SHLS	Shalkode	68.90	49	*e*P	P	06 49 42.3	+1.7
	comp=Z,11nm,1.2s						
PTLB	Pontes e Lacer	69.08	213	P	P	06 49 40.9	-0.8
PTLB				IAmb	IAmb	06 49 42.9	
	comp=Z,14nm,0.9s						
PTLB	Pontes e Lacer	69.08	213	*e*P	P	06 49 40.5	-1.2
ARQ	Araqi	69.18	78	P	P	06 49 42.1	-0.4
	SNR=6.5						
KBL	Kabul	69.28	61	P	P	06 49 42.0	-1.2
LODK	Lodwar	69.51	108	P	P	06 49 44.6	-0.1
	SNR=5.1						
LODK	Lodwar	69.51	108	P	P	06 49 45.4	+0.7
LODK				IAmb	IAmb	06 49 46.6	
	comp=Z,54nm,1.7s						
KSH2	Kashi	69.74	54	P	P	06 49 47.1	+1.2
KSH2				PcP	PcP	06 50 09.3	+0.6
KSH2				PP	PP	06 52 21.0	+1.4
KSH2				pmax	pmax		
	comp=Z,19nm,1.2s						
MBAR	Mbarara	69.74	115	P	P	06 49 46.4	+0.2
BSY	Bisya	70.04	78	P	P	06 49 46.5	-1.3
SQUM	Sultan Qaboos	70.10	77	P	P	06 49 47.7	-0.4
BIDO	Bidbid	70.11	77	P	P	06 49 47.4	-0.8
	SNR=5.8						
WUS	Wushi	70.19	50	IAmb	IAmb	06 49 50.3	
	comp=Z,27nm,1.5s						
SMDO	Samad	70.38	77	P	P	06 49 49.0	-1.0
	SNR=6.4						
WSAR	Wadi Sarin	70.64	77	P	P	06 49 50.8	-0.7
JMDO	Jabal Madar	70.90	78	P	P	06 49 52.1	-0.9
WHFO	Wadi Hawf	71.15	84	P	P	06 49 53.8	-0.9
ABTO	Aybut	71.23	85	P	P	06 49 54.7	-0.5
WBK	Wadi Bani Khal	71.30	77	P	P	06 49 54.7	-0.8

RBK	Rabkut	71.74	84	P	P	06 49 57.2	-1.0
MHTO	MHTO	71.78	79	P	P	06 49 57.9	-0.5
	SNR=7.7						
JLN	Jalan Bani Buh	71.91	77	P	P	06 49 58.2	-1.0
NIL	Nilore	72.37	59	P	P	06 50 01.4	-0.4
NIL	Nilore	72.37	59	P	P	06 50 02.1	+0.3
NIL				IAmb	IAmb	06 50 02.8	
	comp=Z,26nm,1.1s						
WMQ	Urumqi	72.39	43	*e*P	P	06 50 03.5	+1.7
WMQ				pmax	pmax		
	comp=Z,16nm,1.1s						
AQDB	Aquidauana	72.59	208	IAmb	IAmb	06 50 10.1	
	comp=Z,65nm,1.8s						
AQDB	Aquidauana	72.59	208	*e*P	P	06 50 02.8	-0.2
COIM	Forte Coimbra	72.74	210	*e*P	P	06 50 01.5	-2.4
BDQN	Bodoquena, MS	72.90	209	*e*P	P	06 50 04.8	0.0
LPAZ	La Paz	73.46	221	P	P	06 50 08.6	-0.4
	comp=Z,5.9nm,1.0s,baz=18,slow=6.5,SNR=12						
	comp=Z,5.9nm,1.0s						
LPAZ	La Paz	73.46	221	IAmb	IAmb	06 50 15.5	
	comp=Z,39nm,1.8s						
LPAZ	La Paz	73.46	221	*e*P	P	06 50 08.7	-0.2
MURT	Porto Murtinho	74.31	209	*e*P	P	06 50 11.9	-1.2
KIBK	Kibwezi	75.64	110	P	P	06 50 21.7	+0.5
KIBK	Kibwezi	75.64	110	P	P	06 50 22.5	+1.3
KIBK				IAmb	IAmb	06 50 23.6	
	comp=Z,40nm,1.7s						
SONM	Songino Array	76.59	30	P	P	06 50 27.2	+1.0
	comp=Z,6.8nm,0.9s,baz=323,slow=6.1,SNR=28						
	comp=Z,6.8nm,0.9s						
SONM	Songino Array	76.59	30	P	P	06 50 25.8	-0.5
ULN	Ulaanbaatar	76.79	30	P	P	06 50 27.7	+0.3
ULN	Ulaanbaatar	76.79	30	P	P	06 50 28.7	+1.3
ULN				IAmb	IAmb	06 50 35.4	
	comp=Z,22nm,1.2s						
ULN	Ulaanbaatar	76.79	30	P	P	06 50 28.3	+0.9
GO01	Chusmiza	76.91	220	IAmb	IAmb	06 50 35.8	
	comp=Z,35nm,1.5s						
PB11	IPOC Station P	77.19	220	IAmb	IAmb	06 50 39.6	
	comp=Z,48nm,1.4s						
CPUP	Villa Florida	78.58	207	P	P	06 50 36.5	-0.7
	comp=Z,3.8nm,1.0s,baz=359,slow=8.1,SNR=6.4						
	comp=Z,3.8nm,1.0s						
CPUP	Villa Florida	78.58	207	*e*P	P	06 50 36.8	-0.4
HILR	Hailar Array B	78.91	21	P	P	06 50 40.7	+1.7
	comp=Z,1.1nm,0.3s,baz=347,slow=3.3,SNR=9.0						
	comp=Z,1.1nm,0.3s						
PETK	Petropavlovsk-	79.29	357	P	P	06 50 42.1	+1.1
	comp=Z,3.7nm,0.9s,baz=3.4,slow=7.4,SNR=2.6						
	comp=Z,3.7nm,0.9s						
HEH	HeiHe	79.89	16	*e*P	P	06 50 44.7	+0.5
HEH				pmax	pmax		
	comp=Z,15nm,0.9s						
LSZ	Lusaka	80.08	126	P	P	06 50 45.8	0.0
LSZ	Lusaka	80.08	126	P	P	06 50 46.0	+0.1
LSZ				IAmb	IAmb	06 50 46.8	
	comp=Z,40nm,1.6s						
GTA2	Gaotai	81.21	39	P	P	06 50 52.2	+0.4
GTA2				sP	pwP	06 50 57.0	-0.4
GTA2				PP	PP	06 53 57.6	+1.3
GTA2				pmax	pmax		
	comp=Z,18nm,1.4s						
CPSB	Cacapava Do Su	81.33	202	*e*P	P	06 50 52.3	+0.3
PSAL	Palomas, Salto	83.12	206	*e*P	P	06 50 59.7	-1.7
BTO2	Baotou	84.01	31	*e*P	P	06 51 06.9	+0.6
BTO2				pP	pwP	06 51 11.5	-0.5
BTO2				sP	PcP	06 51 14.0	+3.7
BTO2				S	SKSac	07 01 29.3	-0.6
BTO2				SS	SS	07 06 58.5	+1.1
BTO2				pmax	pmax		
	comp=Z,28nm,0.8s						
BNX	BinXian	84.21	17	⇓P	P	06 51 06.1	-0.9
BNX				pmax	pmax		
	comp=Z,24nm,1.3s						
HHC	Hu-ho-hao-te	84.50	30	*e*P	P	06 51 05.4	-3.4
HHC				pmax	pmax		
	comp=Z,14nm,0.5s						
CN2	Changchun	85.65	19	*e*P	P	06 51 12.8	-1.5
CN2				pmax	pmax		
	comp=Z,10.0nm,0.8s						
LZH	Lanzhou	85.80	38	*e*P	P	06 51 16.6	+1.2
LZH				sP	pwP	06 51 26.4	+5.3
LZH				pmax	pmax		
	comp=Z,42nm,1.3s						
LZDM	Lanzhou Array	85.85	38	P	P	06 51 16.4	+0.6
	comp=Z,2.3nm,0.3s,baz=251,slow=7.7,SNR=3.7						
	comp=Z,2.3nm,0.3s						
USRK	Ussuriysk Ar.	86.55	15	P	P	06 51 17.1	-1.7
	comp=Z,6.5nm,0.8s,baz=308,slow=4.0,SNR=9.6						
	comp=Z,6.5nm,0.8s						
BJT	Baijiatuau	86.73	27	IAmb	IAmb	06 51 26.8	
	comp=Z,27nm,1.3s						
BJI2	Beijing	86.73	27	P	P	06 51 19.4	-0.3
BJI2				sP	pwP	06 51 26.0	+0.6
BJI2				pmax	pmax		
	comp=Z,7.0nm,1.0s						
HYB	Hyderabad	87.60	67	*e*P	P	06 51 24.1	-0.2
HYB				*e*PcP	pP	06 51 25.9	-0.1
HYB				*e*PP	PP	06 54 49.0	0.0
HYB				*e*S	S	07 02 06.3	-0.1
HYB				*e*ScS	ScS	07 02 12.5	-0.7
HNS	HongShan	88.66	29	⇓P	P	06 51 29.9	+0.9
HNS				pmax	pmax		
	comp=Z,22nm,1.3s						
TIA	Tai'an	90.52	28	P	P	06 51 40.8	+3.0
TIA				pmax	pmax		
	comp=Z,5.0nm,0.5s						
KSRS	Korea Array	92.26	19	P	P	06 51 44.5	-1.3
	comp=Z,2.7nm,0.8s,baz=345,slow=5.9,SNR=7.1						
	comp=Z,2.7nm,0.8s						
PZH	PanZhiHua	93.07	44	P	P	06 51 49.0	-0.9
NJ2	Nanjing	94.90	28	*e*P	P	06 51 56.8	-1.2
NJ2				pmax	pmax		
	comp=Z,46nm,1.1s						
MJAR	Matsushiro Arr	94.99	11	P	P	06 51 58.2	-0.2
	comp=Z,0.5nm,0.4s,baz=335,slow=5.0,SNR=5.1						
	comp=Z,0.5nm,0.4s						
CMAR	Chiang Mai Arr	98.46	51	P	Pdif	06 52 14.8	+0.4
	comp=Z,1.1nm,0.3s,baz=344,slow=4.6,SNR=2.3						
	comp=Z,1.1nm,0.3s						
MYLDM	Lahad Datu	119.32	40		PKPdf	06 57 24.2	-1.3
ELIB	Princess Elisa	124.77	163	*d*PKPdf	PKiKP	06 57 34.8	+0.2
BELA	Belgrano 2	125.56	182		PKPpre	06 57 26.4	
QSPA	South Pole Qui	137.76	180	PKP	PKPdf	06 57 58.0	-0.9
	comp=Z,4.5nm,1.0s,baz=246,slow=1.9,SNR=9.0						
QSPA	South Pole Qui	137.76	180		PKPdf	06 57 58.5	-0.3
WB0	Warramunga Arr	148.35	34		PKPbc	06 58 21.8	-0.5
WRA	Warramunga Arr	148.49	34	PKPbc	PKPbc	06 58 21.9	-0.8
	comp=Z,7.4nm,1.0s,baz=342,slow=3.1,SNR=24						
WRA	Warramunga Arr	148.49	34		PKPbc	06 58 22.1	-0.6
VNDA	Vanda	150.03	184	PKPbc	PKPbc	06 58 24.6	-0.2
	comp=Z,5.0nm,1.0s,baz=263,slow=3.2,SNR=18						
VNDA	Vanda	150.03	184		PKPbc	06 58 25.2	+0.4
CASY	Casey	151.51	145		PKPbc	06 58 28.4	-0.2
ASAR	Alice Springs	151.67	38	PKPbc	PKPbc	06 58 29.5	-0.9
	comp=Z,7.7nm,0.9s,baz=348,slow=2.0,SNR=48						

IDC 06 06:47:40.2±1.8**, 46°.54N×28°.28W, h0**^{km}**, mb3.6**/1**, mbtmp3.6**/2**, ML4.4**/1**, Error ellipse: s-maj=204.3km s-min=32.2km az=10.0, Northern Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ESDC	Sonseca Array	18.99	102	P	P	06 52 03.5	+0.2
	0.2nm,0.3s,baz=297,slow=12,SNR=7.7						
	0.5nm,0.3s						
ESDC				AML	AML		
H10N2	ASCENSION HYDR	55.51	163	T	T	07 58 17.6	
	baz=350						
H10N3	ASCENSION HYDR	55.52	163	T	T	07 58 12.8	
	baz=350						
H10N1	ASCENSION HYDR	55.52	163	T	T	07 58 17.8	
	baz=350						
TXAR	Lajitas Array	59.69	282	P	P	06 57 46.5	0.0
	0.5nm,0.7s,baz=74,slow=7.0,SNR=8.9						
	0.5nm,0.7s						
ASAR	Alice Springs	153.04	38	PKPbc	PKPbc	07 07 39.5	-0.2
	0.4nm,0.7s,baz=340,slow=2.2,SNR=5.5						

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*IDC **06** 06:51:16.6±0.3, 7°.71N×37°.20W, h0^{km}, mb5.6/42, mbtmp5.6/42, MS6.4/69, Error ellipse: s-maj=11.7km s-min=8.9km az=138.0*

*MOS **06** 06:51:16.8±1.1, 7°.70N×37°.19W, h10^{km}, mb6.3/86, MS6.4/26, Error ellipse: s-maj=6.3km s-min=3.3km az=54.1*

*ISC-PP **06** 06:51:18, 7°.68N×37°.15W, h26^{km}, Mwppsm6.7, Moment Tensor Solution. s55 Moment tensor: Scale 10^{19}Nm; M_{rr}0.70±.14; $M_{\theta\theta}$-0.42±.16; $M_{\phi\phi}$-0.27±.16; $M_{r\theta}$-0.07±.12; $M_{\theta\phi}$-0.24±.22; $M_{\phi r}$-0.26±.24; Fault plane solution: $M_0$1.35000×10^{19} NP1:ϕ_s222.60000°, δ54.40000°, λ78.30000°. NP2:ϕ_s62.20000°, δ37.30000°, λ105.80000°.*

*PTWC **06** 06:51:18, 7°.50N×37°.10W, h10^{km}, Mwp6.5/36*

*GFZ **06** 06:51:18.7, 7°.61N×37°.16W, h17^{km}, Mw6.6/50, Moment Tensor Solution. Moment tensor: Scale 10^{18}Nm; M_{rr}0.18; $M_{\theta\theta}$-0.51; $M_{\phi\phi}$0.33; $M_{r\theta}$2.72; $M_{\theta\phi}$-8.27; $M_{\phi r}$-2.05; Fault plane solution: $M_0$8.95640×10^{18} NP1:ϕ_s89.85656°, δ78.91008°, λ162.69509°. NP2:ϕ_s183.28610°, δ73.02813°, λ11.60176°. Principal axes: T 9.4178, Plg20.0242°, Azm45.7904°; N -1.0082, Plg69.5385°, Azm238.1664°; P -8.4096, Plg4.0366°, Azm137.2641°;*

*GFZ **06** 06:51:18.7±0.1, 8°N±1°×3°7W±°, h10^{km}, M6.3/321, mB6.6/307, mb6.0/321, Mw(mB)6.4/307, MwMwp6.2/264, Mwp6.2/264*

*NEIC **06** 06:51:18.8, 7°.69N×37°.20W, h10^{km}*

*NEIC **06** 06:51:18.5±1.5, 7°.68N±0°.09×37°.15W±0°.08, h10^{km}±1^{km}, mb6.2/1102, Ms_20 6.7/773, Mwb6.5/281, Mww6.7/48, Error ellipse: s-maj=15.1km s-min=12.9km az=159.0, Moment Tensor Solution. Moment tensor: Scale 10^{18}Nm; M_{rr}-1.10; $M_{\theta\theta}$0.35; $M_{\phi\phi}$0.75; $M_{r\theta}$0.50; $M_{\theta\phi}$-7.29; $M_{\phi r}$0.59; Fault plane solution: $M_0$7.39000×10^{18} NP1: ϕ_s180.53000°, δ84.98000°, λ-5.76000°. NP2:ϕ_s271.04000°, δ84.26000°, λ-174.95000°. Principal axes: T 7.8387, Plg1.0000°, Azm226.0000°; N -0.9969, Plg82.0000°, Azm320.0000°; P -6.8418, Plg8.0000°, Azm136.0000°;*

*OSUNB **06** 06:51:19.3±0.2, 7°.62N×37°.33W, h10^{km}, Mw6.3/48 Error ellipse: s-maj=2.7km s-min=3.7km az=0.0*

*NEIC **06** 06:51:19, 7°.69N×37°.22W, h10^{km}*

*IPGP **06** 06:51:19.0, 7°.70N×37°.24W, h6^{km}, Mw6.6, Fault plane solution: NP1:ϕ_s271.00000°, δ75.00000°, λ173.00000°. NP2:ϕ_s2.00000°, δ83.00000°, λ15.00000°.*

*INMG **06** 06:51:19.0±5.5, 7°.53N×37°.25W, h10^{km}, mb6.2, Ms6.6, MW6.4, #DIST_RANGE: DISTANT*

*BJI **06** 06:51:20.1, 7°.67N×37°.04W, h10^{km}, mB6.6/54, mb6.7/1, Ms7.0/79, Ms7 6.8/79*

*CATAC **06** 06:51:21.6±2.9, 8°N±10°×3°7W±1°2, h63^{km}±37^{km}, M6.4/13, mb6.2/12, mB6.7/12, Mw(mB)6.5/12, MwMwp6.3/13, Mwp6.2/13, Error ellipse: s-maj=28.4km s-min=18.2km az=54.1, confirmed*

*GCMT **06** 06:51:23.1±0.0, 7°.79N×37°.18W, h12^{km}, MW6.6/177, Moment Tensor Solution. s175,c431; s177,c800; Duration: 4^{s}9 Moment tensor: Scale 10^{19}Nm; M_{rr}-0.07±.00; $M_{\theta\theta}$-0.06±.00; $M_{\phi\phi}$0.13±.00; $M_{r\theta}$0.13±.01; $M_{\theta\phi}$-1.02±.00; $M_{\phi r}$-0.00±.01; Best double couple: $M_0$1.03300×10^{19} NP1:ϕ_s183.00000°, δ83.00000°, λ-1.00000°. NP2:ϕ_s273.00000°, δ89.00000°, λ-173.00000°. Principal axes: T 1.0690, Plg4.0000°, Azm48.0000°; N -0.0730, Plg83.0000°, Azm280.0000°; P -0.9970, Plg6.0000°, Azm138.0000°; nsta1 refers to body waves, cutoff=50s. nsta2 refers to surface/mantle waves, cutoff=125s. Triangular moment-rate function*

*BGR **06** 06:51:23.1, 8°.00N×37°.05W, h33^{km}, mb6.2, mB_BB6.6, Ms6.4*

*NEIC **06** 06:51:23.3, 7°.69N×37°.20W, h12^{km}, Moment Tensor Solution. Duration: 11^{s}4 Moment tensor: Scale 10^{19}Nm; M_{rr}-0.04; $M_{\theta\theta}$-0.13; $M_{\phi\phi}$0.17; $M_{r\theta}$0.37; $M_{\theta\phi}$-1.19; $M_{\phi r}$0.53; Fault plane solution: $M_0$1.36000×10^{19} NP1: ϕ_s276.31000°, δ67.63000°, λ-167.73000°. NP2: ϕ_s181.58000°, δ78.67000°, λ-22.83000°. Principal axes: T 1.2359, Plg7.0000°, Azm230.0000°; N 0.2183, Plg65.0000°, Azm337.0000°; P -1.4542, Plg24.0000°, Azm137.0000°;*

ISC 06 06:51:18.6±0.4**, 7°.63N**±0°.03×**37°.26W**±0°.03**, h12**^{km}±2^{km}**, h12**^{km}**:pP-P, n2856, σ1^{s}49**/2485**, mb6.2**/1002**, MS6.7**/535**, 285C-110D, Central Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NBMO	Morrinhos-CE	11.22	194	P	Pn	06 53 58.0	-1.0
NBMO	Morrinhos-CE	11.22	194	*e*P	Pn	06 53 56.9	-2.1
NBPS	Pedro II - PI	12.65	199	P	Pn	06 54 16.9	-1.8
NBPS	Pedro II - PI	12.65	199	*e*P	Pn	06 54 16.8	-1.8
NBPB	Pedra_Branca-C	13.29	190	P	Pn	06 54 27.3	0.0
NBPV	Pedro Velho	14.09	172	P	Pn	06 54 39.6	+1.3
NBPV	Pedro Velho	14.09	172	*e*P	Pn	06 54 39.3	+1.0
NBPV				*e*S	Sn	06 57 13.9	-0.9
NBMA	Muriti-CE	14.97	186	P	Pn	06 54 51.9	+1.6
NBMA	Muriti-CE	14.97	186	*e*P	Pn	06 54 50.7	+0.4
NBMA				*e*S	Sn	06 57 36.2	-0.1
SACV	Santiago Islan	15.23	60		Pn	06 54 45.3	-8.5
SACV	Santiago Islan	15.23	60	⇓P	Pn	06 54 45.1	-8.7
SACV	Santiago Islan	15.23	60	P	Pn	06 54 46.0	-7.8
MDP	Montagnes des	15.49	262	Pn	Pn	06 54 55.5	-1.7
	3.3nm,0.3s,baz=53,slow=14,SNR=42						
MDP				Sn	Sn	06 57 30.3	-19
	4.5nm,0.3s,baz=19,slow=15,SNR=3.9						
MDP				LR	LR	06 59 48.5	
	comp=Z,154µm,21.4s,baz=70,slow=33						
MPGF	Montagnes des	15.50	262	⇑P	Pn	06 54 54.1	-3.1
NBTA	Tacaratu-PE	16.66	183	P	P	06 55 13.5	-1.1
NBTA	Tacaratu-PE	16.66	183	*e*P	Pn	06 55 09.8	-2.4
NBTA				*e*S	Sn	06 58 17.0	-0.3
NBAN	Anadia - AL	17.21	177	P	P	06 55 21.4	+0.7
PAL2	UHE Estreito -	17.46	215	P	P	06 55 22.9	-0.5
BMO1	UHE Belo Monte	18.00	234	P	Pn	06 55 27.2	-1.7
ATM1	UHE Belo Monte	18.46	235	P	P	06 55 33.7	-0.8
NBLA	Lagarto - SE	18.51	182	P	P	06 55 35.0	0.0
NBPN	Ponto Novo - B	18.59	189	P	P	06 55 36.0	+0.1
NBPN	Ponto Novo - B	18.59	189	*e*P	P	06 55 34.6	-1.2
SMTB	Santa Maria do	19.35	212	P	P	06 55 44.5	+0.2
SMTB	Santa Maria do	19.35	212	*e*P	P	06 55 43.2	-1.1
LAJE	UHE Lajeado	20.68	212	P	P	06 55 59.6	+0.9
SDBA	SAO DESIDERIO	21.31	201	P	P	06 56 06.3	+0.7
SDBA	SAO DESIDERIO	21.31	201	*e*P	P	06 56 04.4	-1.2
NTVB	Natividade	21.83	208	P	P	06 56 11.6	+0.4
ITTB	Itaituba	21.95	238	P	P	06 56 12.0	-0.5
ITTB	Itaituba	21.95	238	*e*P	P	06 56 10.4	-2.1
ITTB				*e*S	S	07 00 14.7	-0.3
NBIT	Itapeh - BA	22.52	186	P	P	06 56 19.3	+0.8
NBIT	Itapeh - BA	22.52	186	*e*P	P	06 56 17.9	-0.5
NBIT				*e*S	S	07 00 25.8	+0.3
BBGH	Gun Hill	22.60	286	P	P	06 56 18.4	-1.0
BBGH	Gun Hill	22.60	286	P	P	06 56 22.8	+3.4
	107µm61µm3µm,1.7s						
BBGH	Gun Hill	22.60	286	P	P	06 56 22.9	+3.4
CMC01	Camacan, BA	22.95	186	P	P	06 56 24.8	+1.8
CMC01	Camacan, BA	22.95	186	*e*P	P	06 56 22.1	-0.9
CMC01				*e*S	S	07 00 33.1	-0.1
CAN3	Cana Brava	23.33	208	P	P	06 56 27.3	+0.3
BOAV	Boa Vista	23.75	259		P	06 56 30.7	-0.4
BOAV	Boa Vista	23.75	259	P	P	06 56 30.9	-0.2
	88µm24µm1µm,2.2s						
BOAV	Boa Vista	23.75	259	P	P	06 56 30.6	-0.5
BOAV	Boa Vista	23.75	259	*e*P	P	06 56 29.6	-1.5
BOAV				*e*pP	pP	06 56 33.3	-0.2
SNDB	Serra Nova Dou	23.96	216	P	P	06 56 33.2	+0.1
SNDB	Serra Nova Dou	23.96	216	*e*P	P	06 56 32.6	-0.5
SNDB				*e*S	S	07 00 49.5	-0.3
TRN	Trinidad (W)	24.02	279	*e*P	P	06 56 33.5	-0.3
TRN				x	x	07 01 03.0	
SLAC	Saint Lucia, A	24.03	287	*e*P	P	06 56 32.2	-1.6
SLAC				x	x	07 01 00.7	
H05S1	Guadeloupe/Mar	24.10	288	P	P	06 56 37.2	+2.8
	SNR=18						
H05S1				T	T	07 21 16.7	
	SNR=2011						
MPOM	Morne Pois Mar	24.12	288		P	06 56 34.1	-0.5
MPOM				IAmb	IAmb	06 56 46.9	
	comp=Z,822nm,1.2s						
MPOM	Morne Pois Mar	24.12	288	P	P	06 56 35.3	+0.7
MPOM	Morne Pois Mar	24.12	288	P	P	06 56 35.4	+0.7
	comp=Z,60µmcomp=Z,29µmcomp=Z,777nm,1.9s						
SLBI	Saint Lucia, B	24.13	287	P	P	06 56 35.3	+0.6
SLBI	Saint Lucia, B	24.13	287	*e*P	P	06 56 37.9	+3.1
SLBI				x	x	07 00 58.5	
SLCP	Castries, St.	24.14	287	*e*P	P	06 56 37.9	+3.1
GUA01	Guaratinga, BA	24.19	186	P	P	06 56 35.9	+0.7
GUA01	Guaratinga, BA	24.19	186	*e*P	P	06 56 34.4	-0.9
ILAM	Ilet Lapin Mar	24.21	289	P	P	06 56 34.9	-0.6
ILAM	Ilet Lapin Mar	24.21	289	P	P	06 56 36.3	+0.8
ILAM	Ilet Lapin Mar	24.21	289	P	P	06 56 36.4	+0.8
	comp=Z,30µmcomp=Z,1µm,1.0s,comp=Z,83µmcomp=Z,30µm						
BIM	Bigot	24.34	288	P	P	06 56 36.1	-0.6
BIM				IAmb	IAmb	06 56 47.3	
	comp=Z,1µm,1.2s						
BIM	Bigot	24.34	288	P	P	06 56 37.8	+1.1
BIM	Bigot	24.34	288	*e*P	P	06 56 35.7	-1.0
BIM				x	x	07 01 04.2	
BIM	Bigot	24.34	288	P	P	06 56 37.8	+1.1
	comp=Z,67µmcomp=Z,41µmcomp=Z,857nm,1.3s						
GRSS	Sisters	24.43	283	*e*P	P	06 56 34.6	-2.9
GRSS				x	x	07 00 59.7	
GRGR	Grenville	24.44	282	P	P	06 56 37.4	-0.2
GRHS	Sauteurs	24.44	283	*e*P	P	06 56 35.7	-1.9
GRHS				x	x	07 00 56.3	
GRW	Mount Saint Ca	24.45	283	*e*P	P	06 56 35.7	-2.1
GRW				x	x	07 01 03.1	
FDFM	Morne la Roset	24.47	289	P	P	06 56 37.0	-0.9
FDFM				IAmb	IAmb	06 56 49.1	
	comp=Z,925nm,1.0s						
CXM	Morne La Croix	24.50	289	P	P	06 56 37.8	-0.5
SVN	Savane Anatole	24.51	289	P	P	06 56 37.5	-0.7
SVN	Savane Anatole	24.51	289	*e*P	P	06 56 40.2	+1.9
SVN				x	x	07 01 03.0	
SVN	Savane Anatole	24.51	289	P	P	06 56 40.0	+1.7
	comp=Z,62µmcomp=Z,28µmcomp=Z,2µm,1.1s						
ARCA	Ara§uai, MG	24.76	191	*e*P	P	06 56 39.3	-1.1
H05N1	Guadeloupe/Mar	24.81	293	P	P	06 56 41.4	+0.5
	SNR=103						
H05N1				T	T	07 22 16.6	
	SNR=271						
DSDZ	La Diserade, G	24.82	293	*e*P	P	06 56 41.7	+0.8
DSDZ				x	x	07 01 15.2	
GDSD	La Dsirade Is	24.82	293	P	P	06 56 40.5	-0.5
GDSD				IAmb	IAmb	06 56 48.4	
	comp=Z,719nm,1.2s						
GDSD	La Dsirade Is	24.82	293	P	P	06 56 41.4	+0.4
GDSD	La Dsirade Is	24.82	293	P	P	06 56 41.5	+0.5
	comp=Z,67µmcomp=Z,22µmcomp=Z,613nm,2.3s,comp=Z,22µm						
DWS	Wesley	24.83	291	*e*P	P	06 56 38.0	-3.1
DWS				x	x	07 01 07.7	
DSLB	Salisbury	24.90	290	*e*P	P	06 56 38.8	-2.9
DSLB				x	x	07 01 10.2	
MAGL	Barre de l'ile	24.91	292	P	P	06 56 41.6	-0.2
MAGL	Barre de l'ile	24.91	292	P	P	06 56 42.8	+1.0
	comp=Z,67µmcomp=Z,29µmcomp=Z,1µm,1.4s,comp=Z,29µm						
MC01	Montes Claros	25.07	195	P	P	06 56 43.3	+0.1
MC01	Montes Claros	25.07	195	*e*P	P	06 56 42.4	-0.9
TDBA	Terre de Bas,	25.21	291		P	06 56 44.4	-0.1
TDBA	Terre de Bas,	25.21	291	P	P	06 56 45.8	+1.3
	comp=Z,61µmcomp=Z,22µmcomp=Z,702nm,1.0s,comp=Z,22µm						
TBG	Guadaloupe-3	25.22	291	*e*P	P	06 56 45.3	+0.7
CBE	Ff, Capester	25.24	292		P	06 56 44.8	-0.1
CBE	Ff, Capester	25.24	292	P	P	06 56 46.0	+1.1
CBE	Ff, Capester	25.24	292	P	P	06 56 46.6	+1.7
CBE	Ff, Capester	25.24	292	P	P	06 56 46.6	+1.7
	comp=Z,27µmcomp=Z,1µm,1.1s,comp=Z,62µm						
ABD	La Joyeuse, An	25.25	293	P	P	06 56 44.2	-0.7
ABD	La Joyeuse, An	25.25	293	P	P	06 56 47.8	+2.9
ABD	La Joyeuse, An	25.25	293	P	P	06 56 47.8	+2.9
	comp=Z,60µmcomp=Z,30µmcomp=Z,1µm,1.6s						
MMLZ	Guadeloupe Bro	25.29	292	*e*P	P	06 56 43.9	-1.4
MMLZ				x	x	07 01 13.1	
DHSZ	Broadband at M	25.45	292	*e*P	P	06 56 44.6	-2.1
DHSZ				x	x	07 01 14.5	
GDHS	Morne Mazeau,	25.45	292	P	P	06 56 46.9	+0.1
GDHS				IAmb	IAmb	06 56 54.2	
	comp=Z,1µm,1.3s						
GDHS	Morne Mazeau,	25.45	292	P	P	06 56 47.7	+1.0
GDHS	Morne Mazeau,	25.45	292	P	P	06 56 48.3	+1.6
	comp=Z,64µmcomp=Z,19µmcomp=Z,806nm,1.3s						
BDFB	Brasilia	25.46	205	P	P	06 56 46.7	-0.2
	comp=Z,190nm,1.0s,baz=32,slow=9.9,SNR=60						
BDFB				LR	LR	07 06 09.2	
	comp=Z,92µm,21.3s,baz=24,slow=35						
	comp=Z,190nm,1.0s						
BDFB	Brasilia	25.46	205		P	06 56 46.5	-0.3
JQT1	Jequitai-MG	25.69	196	P	P	06 56 49.8	+1.0
MACA	Manacapuru-AM	25.72	246		P	06 56 48.6	-0.5
MACA	Manacapuru-AM	25.72	246	P	P	06 56 49.3	+0.2
MACA	Manacapuru-AM	25.72	246	*e*P	P	06 56 48.5	-0.6
ANWB	Willy Bob	25.90	295	P	P	06 56 50.4	-0.4
ANWB				IAmb	IAmb	06 57 00.9	
	comp=Z,462nm,0.9s						
ANWB	Willy Bob	25.90	295	P	P	06 56 51.5	+0.7
ANWB	Willy Bob	25.90	295	P	P	06 56 51.4	+0.7
	comp=Z,75µmcomp=Z,15µmcomp=Z,787nm,1.3s						
ANWB	Willy Bob	25.90	295	⇓P	P	06 56 50.5	-0.2
ANWB	Willy Bob	25.90	295	*e*P	P	06 56 49.6	-1.2
ANWB				x	x	07 01 23.1	
ANWB	Willy Bob	25.90	295	P	P	06 56 51.5	+0.7
ANWB	Willy Bob	25.90	295	P	P	06 56 51.5	+0.7
	comp=Z,58µmcomp=Z,16µmcomp=Z,795nm,1.3s,comp=Z,16µm						
MLYT	Lee's Yard	25.97	293	*e*P	P	06 56 53.8	+2.3
MLYT				x	x	07 02 48.4	
CLDB	Colider	26.05	225	P	P	06 56 52.9	+0.7
CLDB	Colider	26.05	225	*e*P	P	06 56 51.0	-1.1
CLDB	Colider	26.05	225	P	P	06 56 51.7	-0.4
	comp=Z,22µmcomp=Z,22µmcomp=Z,568nm,0.9s,comp=Z,98µm						
SJMB	Sao Joao De Ma	26.45	188	P	P	06 56 56.5	+0.7
SJMB	Sao Joao De Ma	26.45	188	*e*P	P	06 56 55.0	-0.8
DIAM	Diamantina, MG	26.53	194	P	P	06 56 57.6	+1.0
DIAM	Diamantina, MG	26.53	194	*e*P	P	06 56 55.9	-0.7
BSFB	Barra de Sao F	26.53	188	P	P	06 56 57.3	+0.8
BSFB	Barra de Sao F	26.53	188	*e*P	P	06 56 56.3	-0.2
BSFB	Barra de Sao F	26.53	188	P	P	06 56 57.4	+0.9
	comp=Z,8µmcomp=Z,539nm,1.2s,comp=Z,27µm						
SKI	Saint Kitts	26.65	294	*e*P	P	06 56 49.3	-8.3
SKI				⇓x	x	07 01 30.3	
SEUS	St. Eustatius	26.92	294	P	P	06 57 02.0	+2.0
SEUS	St. Eustatius	26.92	294	*e*P	P	06 57 00.6	+0.5
SEUS				x	x	07 01 33.6	
SEUS	St. Eustatius	26.92	294	P	P	06 57 02.5	+2.5
SEUS	St. Eustatius	26.92	294	P	P	06 57 02.1	+2.0
	comp=Z,20µmcomp=Z,2µm,1.1s,comp=Z,49µmcomp=Z,20µm						
RIB01	Linhares ES	26.95	187	P	P	06 57 00.4	+0.2
RIB01	Linhares ES	26.95	187	P	P	06 57 01.0	+0.8
RIB01	Linhares ES	26.95	187	*e*P	P	06 57 00.0	-0.2
RIB01				*e*S	S	07 01 36.6	-0.7
SMRT	St. Maarten	27.18	295	IAmb	IAmb	06 57 18.2	
	comp=Z,500nm,1.1s						
SMRT	St. Maarten	27.18	295	*e*P	P	06 57 06.3	+3.9
SMRT				x	x	07 01 45.3	
SMRT	St. Maarten	27.18	295	P	P	06 57 03.6	+1.2
	comp=Z,12µmcomp=Z,372nm,2.0s,comp=Z,51µmcomp=Z,12µm						
SABA	Saba	27.20	294	P	P	06 57 01.9	-0.7
SABA	Saba	27.20	294	P	P	06 57 04.4	+1.9
SABA	Saba	27.20	294	*e*P	P	06 56 57.1	-5.4
SABA				x	x	07 01 41.5	
SABA	Saba	27.20	294	P	P	06 57 04.5	+1.9
SABA	Saba	27.20	294	P	P	06 57 04.5	+1.9
	comp=Z,17µmcomp=Z,829nm,2.5s,comp=Z,50µmcomp=Z,17µm						
ARAG	Araguaiana, MT	27.30	212	P	P	06 57 03.8	+0.4
ARAG	Araguaiana, MT	27.30	212	*e*P	P	06 57 02.1	-1.3
ARAG				*e*S	S	07 01 42.6	-0.3
H10N3	ASCENSION HYDR	27.40	124	T	T	07 25 58.1	
	baz=304,slow=75,SNR=646						
H10N2	ASCENSION HYDR	27.41	124	T	T	07 25 50.6	
	baz=304,slow=75,SNR=601						
H10N1	ASCENSION HYDR	27.42	124	T	T	07 25 52.6	
	baz=304,slow=75,SNR=636						
PMNB	Patos De Minas	27.53	199	⇑P	P	06 57 05.4	-0.2
PMNB	Patos De Minas	27.53	199	P	P	06 57 06.1	+0.5
PMNB	Patos De Minas	27.53	199	*e*P	P	06 57 03.0	-2.5
PMNB	Patos De Minas	27.53	199	P	P	06 57 05.2	-0.3
	comp=Z,45µmcomp=Z,12µmcomp=Z,268nm,1.6s						
ASCN	Ascension	27.57	124		P	06 57 04.9	-1.0
IPMB	Ipameri, GO	27.65	203	P	P	06 57 06.9	+0.2
IPMB	Ipameri, GO	27.65	203	*e*P	P	06 57 06.1	-0.5
ITU3	Corumbazu	28.13	204	P	P	06 57 11.3	+0.5
ALF01	Guarapari-ES	28.28	187	P	P	06 57 13.3	+1.3
ALF01	Guarapari-ES	28.28	187	*e*P	P	06 57 12.5	+0.5
MACI	Morro de la Ar	28.37	41	P	P	06 57 10.6	-2.5
MACI	Morro de la Ar	28.37	41	P	P	06 57 13.9	+0.8
	comp=Z,7µmcomp=Z,228nm,1.1s,comp=Z,7µm						
CANS	Sao Roque de M	29.16	198	*e*P	P	06 57 19.7	-0.4
BSCB	Bom Sucesso	29.39	194	P	P	06 57 22.9	+0.7
BSCB	Bom Sucesso	29.39	194	*e*P	P	06 57 21.5	-0.6
BSCB				*e*S	S	07 02 15.2	-0.7
BSCB	Bom Sucesso	29.39	194	P	P	06 57 22.8	+0.7

	comp=Z,5µmcomp=Z,176nm,1.3s,comp=Z,29µmcomp=Z,5µm						
TEFE	Tefe	29.47	249	P	P	06 57 23.3	+0.4
CAM01	Campos-RJ	29.59	188	P	P	06 57 25.4	+1.6
CAM01	Campos-RJ	29.59	188	*e*P	P	06 57 22.2	-1.5
CAM01				*e*S	S	07 02 18.8	0.0
SALV	Santo Antonio	29.66	218	P	P	06 57 24.4	-0.1
SALV	Santo Antonio	29.66	218	*e*P	P	06 57 23.8	-0.7
HUMP	Col San Antoni	29.72	293	IAmb	IAmb	06 57 30.6	
	comp=Z,304nm,1.0s						
PDPR	Patillas Dam,	29.84	293	IAmb	IAmb	06 57 32.3	
	comp=Z,849nm,1.6s						
IGPR	InterUniversit	29.91	293	P	P	06 57 27.6	+1.0
ECPR	Experimental S	30.24	293	IAmb	IAmb	06 57 35.4	
	comp=Z,537nm,1.0s						
ECPR	Experimental S	30.24	293	P	P	06 57 30.3	+0.7
CELP	Cerrillos	30.37	293	IAmb	IAmb	06 57 47.2	
	comp=Z,537nm,0.9s						
CELP	Cerrillos	30.37	293	P	P	06 57 31.4	+0.7
OBIP	Obispado Ponce	30.38	293	P	P	06 57 31.2	+0.3
C2SB	Chapadao do Su	30.40	210	P	P	06 57 33.2	+2.2
C2SB	Chapadao do Su	30.40	210	*e*P	P	06 57 28.2	-2.8
C2SB				*e*pP	pP	06 57 32.8	-0.5
C2SB	Chapadao do Su	30.40	210	P	P	06 57 33.4	+2.4
	comp=Z,56µmcomp=Z,11µmcomp=Z,251nm,2.1s,comp=Z,11µm						
EMPR	Esperanza - Ma	30.44	294	P	P	06 57 32.5	+1.2
PP1B	Ponte de Pedra	30.52	215	*e*P	P	06 57 32.5	+0.4
BB19B	Bebedouro	30.59	201	P	P	06 57 33.8	+1.1
BB19B	Bebedouro	30.59	201	*e*P	P	06 57 32.1	-0.6
BB19B				*e*S	S	07 02 34.3	-0.4
AOPR	Arecibo Observ	30.60	293	IAmb	IAmb	06 57 42.6	
	comp=Z,459nm,1.0s						
AOPR	Arecibo Observ	30.60	293	P	P	06 57 33.0	+0.1
VILB	Vilhena	30.62	228		P	06 57 32.8	-0.3
VILB				IAmb	IAmb	06 57 53.6	
	comp=Z,270nm,1.0s						
VILB	Vilhena	30.62	228	P	P	06 57 34.1	+1.0
VILB	Vilhena	30.62	228	*e*P	P	06 57 33.3	+0.2
MLPR	Magueyes Islan	30.76	292	IAmb	IAmb	06 57 39.2	
	comp=Z,361nm,1.0s						
MLPR	Magueyes Islan	30.76	292	P	P	06 57 35.2	+1.0
CRPR	Cabo Rojo, PR	30.83	292	IAmb	IAmb	06 57 40.3	
	comp=Z,314nm,0.9s						
CRPR	Cabo Rojo, PR	30.83	292	P	P	06 57 35.9	+1.1
PRSN	Puerto Rico Se	30.92	293	IAmb	IAmb	06 57 41.6	
	comp=Z,513nm,1.1s						
PRSN	Puerto Rico Se	30.92	293	P	P	06 57 36.3	+0.7
AGPR	Aguadilla, PR	30.96	293	IAmb	IAmb	06 57 41.3	
	comp=Z,637nm,1.1s						
AGPR	Aguadilla, PR	30.96	293	P	P	06 57 37.2	+1.2
PMOZ	Porto Moniz, M	31.22	34	P	P	06 57 36.6	-1.6
PMOZ	Porto Moniz, M	31.22	34	*e*P	P	06 57 39.0	+0.7
PMOZ				*i* IAmb	IAmb	06 58 40.6	
	comp=Z,538nm,2.0s						
PMOZ				*e*S	S	07 03 01.2	+17
PMOZ				*e*LR	LR	07 05 16.6	
PMOZ				*i* IAMs_20	IAMs_20	07 07 02.6	
	comp=Z,66µm,22.0s						
PMOZ				*e*T	T	07 29 30.0	
PMOZ	Porto Moniz, M	31.22	34	P	P	06 57 36.6	-1.6
PMOZ	Porto Moniz, M	31.22	34	P	P	06 57 39.9	+1.7
	comp=Z,43µmcomp=Z,9µmcomp=Z,281nm,2.4s						
FUL	Funchal	31.26	34	*e*P	P	06 57 39.5	+1.1
FUL				*i* IAmb	IAmb	06 57 55.4	
	comp=Z,616nm,1.6s						
FUL				*e*T	T	07 29 37.2	
PSMN	Pico do Norte,	31.27	19	*e*P	P	06 57 40.0	+1.5
PSMN				*i* IAmb	IAmb	06 58 00.1	
	comp=Z,1µm,1.8s						
PSMN				*e*S	S	07 02 45.8	+0.8
PSMN				*e*LR	LR	07 04 51.4	
PSMN				*i* IAMs_20	IAMs_20	07 07 38.0	
	comp=Z,79µm,20.9s						
PMAR	Madeira	31.30	34	*e*P	P	06 57 40.8	+1.7
PMAR				*i* IAmb	IAmb	06 57 50.5	
	comp=Z,657nm,1.4s						
PMAR				*e*T	T	07 29 38.5	
PTLB	Pontes e Lacer	31.56	223		P	06 57 41.5	+0.3
PTLB	Pontes e Lacer	31.56	223	P	P	06 57 42.1	+0.9
PTLB	Pontes e Lacer	31.56	223	*e*P	P	06 57 41.5	+0.3
PCAN	Candelaria	31.70	13	*e*P	P	06 57 46.8	+4.5
PCAN				*i* IAmb	IAmb	06 57 56.7	
	comp=Z,889nm,1.3s						
PCAN				*e*LQ	LQ	07 04 56.0	
PFCBR	Castelo Branco	31.71	13	*e*P	P	06 57 45.5	+3.3
PFCBR				*i* IAmb	IAmb	06 57 57.5	
	comp=Z,520nm,1.6s						
HOR	Horta	31.73	13	*e*P	P	06 57 45.0	+2.5
HOR				*i* IAmb	IAmb	06 57 57.1	
	comp=Z,1µm,1.4s						
HOR				*e*S	S	07 02 51.6	-0.5
HOR				*e*LQ	LQ	07 04 21.3	
HOR				*e*LR	LR	07 04 48.5	
HOR				*i* IAMs_20	IAMs_20	07 07 52.7	
	comp=Z,54µm,20.9s						
PICO	Pico	31.75	13	*e*P	P	06 57 44.2	+1.5
PICO				*i* IAmb	IAmb	06 57 57.6	
	comp=Z,2µm,1.3s						
PICO				*e*S	S	07 02 53.0	+0.4
PICO				*e*LR	LR	07 04 41.2	
PICO				*i* IAMs_20	IAMs_20	07 07 31.8	
	comp=Z,45µm,20.9s						
PPNO	Prainha do Nor	31.76	13	*e*P	P	06 57 41.4	-1.4
PPNO				*i* IAmb	IAmb	06 57 57.5	
	comp=Z,990nm,1.2s						
PID	Ribeirinha	31.77	14	*e*P	P	06 57 44.2	+1.3
PID				*i* IAmb	IAmb	06 57 59.5	
	comp=Z,835nm,1.7s						
CALA	Caldeira	31.77	13	*e*P	P	06 57 44.0	+1.1
CALA				*i* IAmb	IAmb	06 58 05.3	
	comp=Z,1µm,1.4s						
CALA				*e*LQ	LQ	07 04 15.6	
CALA				*e*LR	LR	07 05 01.4	
CALA				*i* IAMs_20	IAMs_20	07 07 53.6	
	comp=Z,48µm,20.0s						
PCED	Cedros	31.81	13	*e*P	P	06 57 44.3	+1.0
PCED				*i* IAmb	IAmb	06 57 57.8	
	comp=Z,1µm,1.4s						
PSET	Sete Cidades	31.82	17	*e*P	P	06 57 49.1	+5.7
PSET				*i* IAmb	IAmb	06 58 05.8	
	comp=Z,1µm,1.3s						
PSET				*e*LQ	LQ	07 04 16.7	
PSET				*e*LR	LR	07 05 41.6	
PSET				*i* IAMs_20	IAMs_20	07 07 46.8	
	comp=Z,73µm,20.0s						
CMLA	Cha da Macela	31.83	18	*e*P	P	06 57 45.8	+2.4
CMLA				*i* IAmb	IAmb	06 57 56.1	
	comp=Z,852nm,1.6s						
PMPS	Porto Santo	31.88	35	*e*P	P	06 57 43.8	0.0
PMPS				*i* IAmb	IAmb	06 57 57.9	
	comp=Z,564nm,2.0s						
PGRON	Lagoa das Cont	31.88	18	*e*P	P	06 57 46.8	+2.9
PGRON				*i* IAmb	IAmb	06 58 06.2	
	comp=Z,915nm,1.5s						
VABB	Valinhos	31.89	197	P	P	06 57 45.4	+1.2
VAO	Valinhos	31.89	197		P	06 57 43.6	-0.6
VAO	Valinhos	31.89	197	*e*P	P	06 57 43.6	-0.6
PMPST	Porto Santo, M	31.89	35	*e*P	P	06 57 43.3	-0.8
PMPST				*i* IAmb	IAmb	06 57 58.2	
	comp=Z,889nm,2.0s						
PMPST				*e*T	T	07 30 15.5	
BART	Pico Bartolome	31.95	18	*e*P	P	06 57 46.6	+2.1
BART				*i* IAmb	IAmb	06 57 59.5	
	comp=Z,2µm,1.4s						
BART				*e*LQ	LQ	07 04 34.0	
BART				*e*LR	LR	07 05 32.2	
BART				*i* IAMs_20	IAMs_20	07 07 57.2	
	comp=Z,66µm,20.0s						
PMAN	Manadas	31.96	14	*e*P	P	06 57 47.5	+3.0
PMAN				*i* IAmb	IAmb	06 58 15.7	
	comp=Z,838nm,1.5s						
ROSA	Rosais	32.00	13	*e*P	P	06 57 40.6	-4.3
ROSA				*i* IAmb	IAmb	06 57 59.6	
	comp=Z,933nm,1.2s						
ROSA				*e*LQ	LQ	07 03 58.0	
ROSA				*e*LR	LR	07 04 55.7	
ROSA				*i* IAMs_20	IAMs_20	07 07 41.0	
	comp=Z,42µm,20.0s						
ROSA	Rosais	32.00	13	⇑P	P	06 57 46.2	+1.3
ROSA	Rosais	32.00	13	P	P	06 57 46.2	+1.3
	comp=Z,22µmcomp=Z,427nm,1.1s						
H07S1	FLORES T-PHASE	32.08	9	P	P	06 57 47.9	+2.3
	SNR=13						
DBIC	Dimbokro	32.16	90	P	P	06 57 44.7	-1.9
	comp=Z,37nm,0.8s,baz=287,slow=10,SNR=17						
DBIC				LR	LR	07 08 39.9	
	comp=Z,14µm,20.1s,baz=274,slow=32						
	comp=Z,37nm,0.8s						
DBIC	Dimbokro	32.16	90	P	P	06 57 45.0	-1.6
DBIC				pmax	pmax		
	comp=Z,238nm,1.1s						
DBIC	Dimbokro	32.16	90		P	06 57 44.5	-2.1
DBIC				IAmb	IAmb	06 58 03.1	
	comp=Z,238nm,1.1s						
DBIC	Dimbokro	32.16	90	P	P	06 57 44.8	-1.8
DBIC	Dimbokro	32.16	90	⇓P	P	06 57 44.6	-1.9
DBIC	Dimbokro	32.16	90	P	P	06 57 44.9	-1.6
DBIC	Dimbokro	32.16	90	P	P	06 57 45.5	-1.1
	comp=Z,9µmcomp=Z,3µmcomp=Z,269nm,1.1s						
ADH	Angra Heroismo	32.19	15	*e*P	P	06 57 48.7	+2.2
ADH				*i* IAmb	IAmb	06 58 07.8	
	comp=Z,642nm,1.8s						
ADH				*e*LQ	LQ	07 04 15.3	
ADH				*e*LR	LR	07 05 52.6	
ADH				*i* IAMs_20	IAMs_20	07 07 23.9	
	comp=Z,30µm,20.0s						
PSCM	Serra do Cume	32.26	15	*e*P	P	06 57 41.5	-5.7
PSCM				*i* IAmb	IAmb	06 58 01.3	
	comp=Z,587nm,1.4s						
PSBA	Serra de Santa	32.27	15	*e*P	P	06 57 49.1	+1.8
PSBA				*i* IAmb	IAmb	06 58 01.1	
	comp=Z,797nm,1.2s						
PAGU	Agualva, Azore	32.30	15	*e*P	P	06 57 50.1	+2.5
PAGU				*i* IAmb	IAmb	06 57 55.8	
	comp=Z,729nm,1.5s						
PAGU				*e*S	S	07 03 01.7	+0.6
PAGU				*e*LQ	LQ	07 04 22.5	
PAGU				*e*LR	LR	07 05 59.3	
PAGU				*i* IAMs_20	IAMs_20	07 07 49.8	
	comp=Z,29µm,20.0s						
SRBC	Serra Branca	32.35	13	*e*P	P	06 57 47.9	0.0
SRBC				*i* IAmb	IAmb	06 58 10.6	
	comp=Z,2µm,1.7s						
SRBC				*e*LQ	LQ	07 04 25.4	
SRBC				*e*LR	LR	07 05 30.3	
SRBC				*i* IAMs_20	IAMs_20	07 08 01.2	
	comp=Z,39µm,20.0s						
PGRA	Graciosa	32.36	14	*e*P	P	06 57 49.5	+1.5
PGRA				*i* IAmb	IAmb	06 57 56.7	
	comp=Z,2µm,1.4s						
PGRA				*e*S	S	07 02 58.8	-3.1
PGRA				*e*LQ	LQ	07 04 18.2	
PGRA				*e*LR	LR	07 05 30.3	
PGRA				*i* IAMs_20	IAMs_20	07 07 50.5	
	comp=Z,40µm,22.0s						
H07N1	FLORES T-PHASE	32.39	9	P	P	06 57 48.7	+0.3
	SNR=35						
SPB	Sao Paulo	32.59	198	P	P	06 57 50.5	+0.4
SPB				IAmb	IAmb	06 57 56.2	
	comp=Z,311nm,1.2s						
SPB				IAMs_20	IAMs_20	07 09 48.6	
	comp=Z,207µm,22.0s						
SPB	Sao Paulo	32.59	198	⇑P	P	06 57 50.9	+0.7
SPB	Sao Paulo	32.59	198	P	P	06 57 51.8	+1.7
SPB	Sao Paulo	32.59	198	*e*P	P	06 57 49.5	-0.6
SPB	Sao Paulo	32.59	198	P	P	06 57 51.9	+1.7
	comp=Z,27µmcomp=Z,5µmcomp=Z,238nm,1.4s,comp=Z,5µm						
SDV	Santo Domingo	33.05	275	LR	LR	07 11 26.1	
	comp=Z,31µm,21.7s,baz=88,slow=36						
SDV	Santo Domingo	33.05	275		P	06 57 54.2	-0.5
SDV				IAmb	IAmb	06 58 10.6	
	comp=Z,399nm,1.2s						
SDV	Santo Domingo	33.05	275	P	P	06 57 55.6	+1.0
	comp=Z,80µmcomp=Z,25µmcomp=Z,1µm,0.9s						
SDV	Santo Domingo	33.05	275	P	P	06 57 55.3	+0.7
	comp=Z,78µmcomp=Z,24µmcomp=Z,1µm,1.0s,comp=Z,24µm						
FRTB	Fartura	33.05	201	P	P	06 57 55.1	+0.8
FRTB	Fartura	33.05	201	*e*P	P	06 57 53.4	-0.9
FRTB	Fartura	33.05	201	P	P	06 57 55.2	+0.9
	comp=Z,28µmcomp=Z,12µmcomp=Z,779nm,1.3s,comp=Z,12µm						
PET01	Itanhaem-SP	33.20	197	P	P	06 57 56.2	+0.7
PET01	Itanhaem-SP	33.20	197	*e*P	P	06 57 54.6	-0.9
SIV	San Ignacio	33.27	225	P	P	06 57 57.2	+0.9
	comp=Z,359nm,0.8s,baz=63,slow=9.0,SNR=183						
	comp=Z,359nm,0.8s						
AQDB	Aquidauana	33.30	213	P	P	06 57 57.0	+0.6
AQDB	Aquidauana	33.30	213	*e*P	P	06 57 55.7	-0.8
AQDB	Aquidauana	33.30	213	P	P	06 57 57.1	+0.6
	comp=Z,52µmcomp=Z,5µmcomp=Z,156nm,1.7s,comp=Z,5µm						
LDASE	Londrina, Braz	33.68	203	*e*P	P	06 57 58.4	-1.4
TRCB	Terra Rica	33.78	206	P	P	06 58 01.1	+0.5
TRCB	Terra Rica	33.78	206	P	P	06 58 01.1	+0.5
TRCB	Terra Rica	33.78	206	*e*P	P	06 57 59.8	-0.9
TRCB	Terra Rica	33.78	206	P	P	06 58 01.2	+0.6
	comp=Z,36µmcomp=Z,7µmcomp=Z,304nm,0.8s,comp=Z,7µm						
BDQN	Bodoquena, MS	33.85	214	*e*P	P	06 58 01.0	-0.3
BANI	BANI	33.92	292	P	P	06 58 02.1	0.0
COIM	Forte Coimbra	34.02	216	*e*P	P	06 58 01.1	-1.6
COIM				*e*S	S	07 03 27.2	-0.9
URI	Uribia	34.46	280	P	P	06 58 05.7	-1.0
URIC	Uribia, Colomb	34.47	280	P	P	06 58 07.0	+0.3
	comp=Z,16µmcomp=Z,7µmcomp=Z,609nm,1.2s						
SC01	Santiago de lo	34.52	293	P	P	06 58 08.5	+1.4
SDDR	Presa de Saban	34.91	292		P	06 58 11.0	+0.3
SDDR	Presa de Saban	34.91	292	P	P	06 58 11.8	+1.2
	comp=Z,27µmcomp=Z,9µmcomp=Z,636nm,1.2s						
SDDR	Presa de Saban	34.91	292	⇓P	P	06 58 11.9	+1.3
SDDR	Presa de Saban	34.91	292	P	P	06 58 11.8	+1.2
SDDR	Presa de Saban	34.91	292	P	P	06 58 11.8	+1.2
	comp=Z,22µmcomp=Z,9µmcomp=Z,642nm,1.2s,comp=Z,9µm						
PAMC	Pamplona, Colo	35.14	272	P	P	06 58 14.6	+1.5
PTGB	Pitanga	35.24	204	P	P	06 58 13.6	+0.3
PTGB	Pitanga	35.24	204	*e*P	P	06 58 12.3	-1.1
PTGB				*e*pP	pP	06 58 15.2	-0.5
PTGB				*e*S	S	07 03 46.2	-0.8
MURT	Porto Murtinho	35.30	214	*e*P	P	06 58 12.8	-1.0
MURT				*e*S	S	07 03 47.4	-0.4
BBSR	BB Station	35.44	318	P	P	06 58 14.4	-0.5
BBSR	BB Station	35.44	318	⇓P	P	06 58 14.8	-0.1
BBSR	BB Station	35.44	318	P	P	06 58 18.2	+3.3
	comp=Z,30µmcomp=Z,5µmcomp=Z,147nm,2.3s						
GRTK	Grand Turk	35.47	297		P	06 58 14.8	-0.5
GRTK	Grand Turk	35.47	297	P	P	06 58 17.7	+2.5
	comp=Z,33µmcomp=Z,11µmcomp=Z,659nm,1.3s						
GRTK	Grand Turk	35.47	297	⇓P	P	06 58 16.3	+1.0
GRTK	Grand Turk	35.47	297	P	P	06 58 17.8	+2.5
GRTK	Grand Turk	35.47	297	P	P	06 58 17.7	+2.5
	comp=Z,30µmcomp=Z,11µmcomp=Z,665nm,1.3s,comp=Z,11µm						
RUSC	La Rusia	35.61	269	P	P	06 58 20.5	+3.3
	comp=Z,23µmcomp=Z,10µmcomp=Z,769nm,1.4s						
RUSC	La Rusia	35.61	269	P	P	06 58 18.8	+1.6
BARC	Barichara	35.66	271	P	P	06 58 18.5	+1.2
	comp=Z,40µmcomp=Z,14µmcomp=Z,650nm,1.2s						
OUK	Oukaimeden	36.09	46	P	P	06 58 21.0	0.0
OUK				P	P	06 58 21.0	0.0
OUK				P	P	06 58 21.0	0.0
OUK				P	P	06 58 21.0	0.0
BRJC	Barrancabermej	36.19	271	P	P	06 58 21.9	+0.3
	comp=Z,17µmcomp=Z,11µmcomp=Z,434nm,1.0s						
TIO	Tiouine	36.37	46	P	P	06 58 22.4	-0.7
TIO	Tiouine	36.37	46	P	P	06 58 22.9	-0.2
	comp=Z,91µmcomp=Z,17µmcomp=Z,741nm,1.6s						
CHIC	Chingaza	36.38	267	P	P	06 58 22.7	-1.0
	comp=Z,19µmcomp=Z,6µmcomp=Z,252nm,0.9s						
VILC	Villavicencio,	36.41	267	P	P	06 58 21.9	-1.7
SPBC	San Pablo de B	36.62	269	P	P	06 58 27.3	+2.0
	comp=Z,25µmcomp=Z,6µmcomp=Z,294nm,1.6s						
OUZM	OUZ	36.72	47	P	P	06 58 26.0	-0.1
OUZM				P	P	06 58 26.0	-0.1
CVER	Cruz Verde, Cu	36.73	267	P	P	06 58 28.9	+2.1
	comp=Z,10µmcomp=Z,505nm,1.1s						
SRHM	Skhour des Reh	36.80	44	P	P	06 58 26.0	-0.7
SRHM				P	P	06 58 26.0	-0.7
ACRG	Accra	36.85	91	P	P	06 58 25.0	-2.2
ACRG				IAmb	IAmb	06 58 45.0	
	comp=Z,437nm,1.3s						
ACRG	Accra	36.85	91	P	P	06 58 25.4	-1.8
	comp=Z,8µmcomp=Z,5µmcomp=Z,282nm,1.3s						
MACC	Macarena, Meta	36.85	263	P	P	06 58 27.4	+0.2
	comp=Z,24µmcomp=Z,6µmcomp=Z,412nm,1.1s						
PTBC	PUERTO BERRIO,	36.92	271	P	P	06 58 25.3	-2.6
	comp=Z,33µmcomp=Z,4µmcomp=Z,178nm,1.4s						
ROSC	El Rosal	36.94	268	P	P	06 58 28.2	-0.2
	comp=Z,273nm,0.7s,baz=119,slow=10,SNR=89						
ROSC				LR	LR	07 15 01.8	
	comp=Z,71µm,18.1s,baz=76,slow=38						
	comp=Z,273nm,0.7s						
ROSC	El Rosal	36.94	268	P	P	06 58 29.1	+0.6
ROSC				pmax	pmax		
	comp=Z,494nm,1.0s						
ROSC	El Rosal	36.94	268		P	06 58 29.1	+0.6
ROSC				IAmb	IAmb	06 58 34.2	
	comp=Z,494nm,1.0s						
ROSC	El Rosal	36.94	268	P	P	06 58 31.3	+2.8
	comp=Z,30µmcomp=Z,9µmcomp=Z,522nm,0.9s						
ZGR	Zagora	37.15	49	P	P	06 58 29.0	-0.7
ZGR				P	P	06 58 29.0	-0.7
SJPY	San Joaquin	37.27	209	*e*P	P	06 58 29.7	-0.9
TISM	Timmit	37.39	46	P	P	06 58 33.1	+1.5
TISM				P	P	06 58 33.1	+1.5
NORC	Norcasia	37.41	269	P	P	06 58 31.2	-0.9
	comp=Z,54µmcomp=Z,5µmcomp=Z,287nm,1.1s						
TZRR	Tazzarine	37.52	48	P	P	06 58 33.0	+0.1
TZRR				P	P	06 58 33.0	+0.1
SJCC	San Jacinto, C	37.54	276	P	P	06 58 31.8	-1.3
	comp=Z,16µmcomp=Z,3µmcomp=Z,186nm,0.9s						
SJCC	San Jacinto, C	37.54	276	P	P	06 58 31.5	-1.7
AVE	Averroes	37.61	43	P	P	06 58 32.2	-1.2
AVE	Averroes	37.61	43	P	P	06 58 32.2	-1.2
AVE				IAmb	IAmb	06 58 38.8	
	comp=Z,539nm,1.0s						
AVE	Averroes	37.61	43	P	P	06 58 34.4	+1.0
AVE				P	P	06 58 34.4	+1.0
AVE				P	P	06 58 34.5	+1.0
AVE				P	P	06 58 34.5	+1.0
AVE	Averroes	37.61	43	⇑P	P	06 58 33.0	-0.4
AVE	Averroes	37.61	43	P	P	06 58 33.1	-0.3
	comp=Z,37µmcomp=Z,11µmcomp=Z,562nm,1.1s						
PRAC	Prado	37.64	266	P	P	06 58 35.7	+1.7
	comp=Z,54µmcomp=Z,8µmcomp=Z,271nm,1.3s						
MASC	Masc	37.90	293	P	P	06 58 37.3	+1.3
	comp=Z,17µmcomp=Z,9µmcomp=Z,393nm,2.1s						
UREC	San Jos de Ur	37.92	273	P	P	06 58 35.7	-0.7
	comp=Z,53µmcomp=Z,2µmcomp=Z,69nm,0.8s						
GUY2C	Guyana, Caldas	37.94	269	P	P	06 58 37.6	+0.6
	comp=Z,81µmcomp=Z,5µmcomp=Z,281nm,1.0s						
ORTC	Ortega, Tolima	37.97	267	P	P	06 58 37.5	+0.7
	comp=Z,55µmcomp=Z,9µmcomp=Z,487nm,1.2s						
PTLC	Puerto Leguiza	38.15	261	P	P	06 58 40.3	+2.0
	comp=Z,118µmcomp=Z,8µmcomp=Z,476nm,1.5s						
ZHG	ZHG	38.22	43	P	P	06 58 39.0	+0.3
ZHG				P	P	06 58 39.0	+0.3
BETC	Betania	38.33	265	P	P	06 58 39.2	-0.7
RTC	Rabat Centre	38.39	43	P	P	06 58 37.7	-2.3
GOLM	Goulmima	38.45	47	P	P	06 58 42.0	+1.2
GOLM				P	P	06 58 42.0	+1.2
GARC	Garzon, Huila	38.46	264	P	P	06 58 41.4	+0.2
	comp=Z,93µmcomp=Z,3µmcomp=Z,111nm,1.0s						
CZSB	Cruzeiro do Su	38.50	247		P	06 58 40.2	-1.0
CZSB				IAmb	IAmb	06 58 44.3	
	comp=Z,417nm,0.8s						
CZSB	Cruzeiro do Su	38.50	247	P	P	06 58 40.9	-0.3
	comp=Z,184µmcomp=Z,10µmcomp=Z,617nm,1.2s						
CZSB	Cruzeiro do Su	38.50	247	P	P	06 58 40.3	-0.9
CZSB	Cruzeiro do Su	38.50	247	*e*P	P	06 58 39.8	-1.4
CZSB				*e*S	S	07 04 36.0	-0.9
CBOC	Ciudad Bolivar	38.52	270	P	P	06 58 41.8	+0.2
	comp=Z,82µmcomp=Z,8µmcomp=Z,331nm,1.0s						
GTBY	Guantanamo Bay	38.64	292		P	06 58 41.2	-1.1
GTBY				IAmb	IAmb	06 58 49.2	
	comp=Z,654nm,1.2s						
GTBY	Guantanamo Bay	38.64	292	P	P	06 58 44.1	+1.8
	comp=Z,30µmcomp=Z,10µmcomp=Z,542nm,1.2s						
GTBY	Guantanamo Bay	38.64	292	⇑P	P	06 58 43.9	+1.6
GTBY	Guantanamo Bay	38.64	292	⇓*i*P	P	06 58 44.5	+2.2
GTBY	Guantanamo Bay	38.64	292	P	P	06 58 44.7	+2.4
	comp=Z,21µmcomp=Z,10µmcomp=Z,548nm,1.2s						
TORD	Torodi Ar. Bea	38.67	79	P	P	06 58 40.6	-2.0
	comp=Z,38nm,0.5s,baz=273,slow=7.7,SNR=144						
TORD				LR	LR	07 12 47.9	
	comp=Z,37µm,21.0s,baz=262,slow=33						
	comp=Z,38nm,0.5s						
TORD	Torodi Ar. Bea	38.67	79	P	P	06 58 40.2	-2.5
NMDO	Nuevo Mundo	38.67	293		P	06 58 42.4	-0.2
LPAZ	La Paz	38.71	232	P	P	06 58 44.2	+0.6
	comp=Z,367nm,0.7s,baz=37,slow=7.2,SNR=185						
LPAZ				LR	LR	07 13 53.4	
	comp=Z,114µm,21.4s,baz=66,slow=35						
	comp=Z,367nm,0.7s						
LPAZ	La Paz	38.71	232		P	06 58 44.1	+0.5
LPAZ				IAmb	IAmb	06 58 48.4	
	comp=Z,374nm,0.8s						
LPAZ	La Paz	38.71	232	P	P	06 58 43.5	-0.1
	comp=Z,51µmcomp=Z,10µmcomp=Z,585nm,0.9s						
LPAZ	La Paz	38.71	232	⇑P	P	06 58 44.1	+0.5
LPAZ	La Paz	38.71	232	P	P	06 58 44.3	+0.6
LPAZ	La Paz	38.71	232	*e*P	P	06 58 42.0	-1.6
LPAZ				*e*S	S	07 04 39.3	-1.8
LPAZ	La Paz	38.71	232	P	P	06 58 44.4	+0.8
	comp=Z,48µmcomp=Z,10µmcomp=Z,588nm,0.9s,comp=Z,10µm						
LCBC	Los crdobas,	38.72	275	P	P	06 58 46.2	+3.2
	comp=Z,40µmcomp=Z,15µmcomp=Z,805nm,0.9s						
APAC	Apartado, Choc	38.95	273	P	P	06 58 46.8	+1.8
	comp=Z,34µmcomp=Z,9µmcomp=Z,363nm,1.2s						
CPUP	Villa Florida	38.98	209	P	P	06 58 45.1	+0.1
	comp=Z,33nm,1.1s,baz=40,slow=8.9,SNR=24						
CPUP				LR	LR	07 14 25.9	
	comp=Z,111µm,20.7s,baz=35,slow=36						
	comp=Z,33nm,1.1s						
CPUP	Villa Florida	38.98	209		P	06 58 45.1	+0.1
CPUP	Villa Florida	38.98	209	⇑P	P	06 58 45.1	+0.1
CPUP	Villa Florida	38.98	209	P	P	06 58 44.9	-0.1
CPUP	Villa Florida	38.98	209	P	P	06 58 45.4	+0.4
	comp=Z,27µmcomp=Z,5µmcomp=Z,96nm,1.5s,comp=Z,5µm						
SHEL	Horse Pasture	39.02	127	P	P	06 58 44.9	-0.7
SHEL				pmax	pmax		
	comp=Z,1µm,1.9s						
SHEL	Horse Pasture	39.02	127	P	P	06 58 44.9	-0.7
SHEL				IAmb	IAmb	06 58 57.0	
	comp=Z,1µm,1.9s						
SHEL	Horse Pasture	39.02	127	P	P	06 58 47.3	+1.7
	comp=Z,21µmcomp=Z,464nm,2.1s						
PFVI	Vila Bisbo	39.11	37	P	P	06 58 43.1	-2.9
PFVI	Vila Bisbo	39.11	37	*e*P	P	06 58 46.5	+0.4
PFVI				*i* IAmb	IAmb	06 58 59.1	
	comp=Z,822nm,1.8s						
PFVI				*e*PP	PP	07 00 16.2	+0.5
PFVI				*e*S	S	07 04 50.3	+4.7
PFVI				*e*SS	SS	07 07 32.0	-6.2
PFVI				*e*LR	LR	07 09 06.0	
PFVI				*i* IAMs_20	IAMs_20	07 11 20.4	
	comp=Z,87µm,20.0s						
PFVI				*e*T	T	07 39 18.0	
PFVI	Vila Bisbo	39.11	37		P	06 58 44.5	-1.5
PFVI				IAmb	IAmb	06 58 58.8	
	comp=Z,1µm,1.9s						
PFVI	Vila Bisbo	39.11	37	P	P	06 58 46.4	+0.4
	comp=Z,34µmcomp=Z,7µmcomp=Z,315nm,1.9s,comp=Z,7µm						
MD31	MD31	39.21	46	P	P	06 58 45.7	-1.3
MD01	Midelt array s	39.21	46	P	P	06 58 46.0	-1.1
MDT	Midelt	39.29	46	LR	LR	07 14 43.4	
	comp=Z,54µm,18.3s,baz=244,slow=36						
MDT	Midelt	39.29	46	P	P	06 58 47.8	+0.1
MDT				P	P	06 58 47.8	+0.1
MDT				P	pP	06 58 49.5	-0.7
MDT				P	pP	06 58 49.5	-0.7
IFR	Ifrane	39.30	45	P	P	06 58 47.3	-0.6
IFR	Ifrane	39.30	45	P	P	06 58 47.8	-0.1
	comp=Z,14µmcomp=Z,3µmcomp=Z,69nm,1.7s						
MORF	Marmelete	39.33	37	*e*P	P	06 58 47.6	-0.3
MORF				*e*S	S	07 04 49.5	+0.6
MORF				IAMs_20	IAMs_20	07 09 46.9	
	comp=Z,131µm,24.5s						
MORF	Marmelete	39.33	37	*e*P	P	06 58 48.6	+0.7
MORF				*i* IAmb	IAmb	06 59 00.7	
	comp=Z,756nm,1.8s						
MORF				*e*PP	PP	07 00 24.5	+6.4
MORF				*e*S	S	07 04 56.3	+7.4
MORF				*e*SS	SS	07 07 38.9	-3.8
MORF				*e*LR	LR	07 09 16.6	
MORF				*i* IAMs_20	IAMs_20	07 11 14.1	
	comp=Z,95µm,22.0s						
MORF				*e*T	T	07 39 25.9	
MORF	Marmelete	39.33	37	*e*P	P	06 58 47.6	-0.3
MORF				*e*S	S	07 04 49.5	+0.6
MORF	Marmelete	39.33	37	⇑P	P	06 58 47.6	-0.3
PTEO	Sao Teotonio	39.44	37	*e*P	P	06 58 49.5	+0.7
PTEO				*i* IAmb	IAmb	06 59 01.8	
	comp=Z,665nm,1.8s						
PTEO				*e*PP	PP	07 00 18.1	-1.3
PTEO				*e*S	S	07 04 50.5	0.0
PTEO				*e*SS	SS	07 07 38.9	-6.0
PTEO				*e*LR	LR	07 09 17.1	
PTEO				*i* IAMs_20	IAMs_20	07 11 28.6	

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      comp=Z,99µm,22.0s
PTEO                           eT        T        07 39 26.3
POPC  Popayan, Colom 39.57 265  P        P        06 58 47.3 -3.2
      comp=Z,31µmcomp=Z,3µmcomp=Z,130nm,1.2s
LCRM  LCR            39.58  45  P        P        06 58 51.0 +0.7
LCRM                            P        P        06 58 51.0 +0.7
PBDV  Barranco-do-Ve 39.72  38  P        P        06 58 49.8 -1.4
PBDV  Barranco-do-Ve 39.72  38 eP        P        06 58 51.4 +0.2
PBDV                           i IAmb    IAmb     06 59 03.5
      comp=Z,842nm,1.9s
PBDV                           eT        T        07 39 31.7
GWJ   Greenwich      39.77 289 i P       P        06 58 53.4 +1.4
GWJ                            i P       pP       06 58 53.9 -0.7
HOJ   Hope           39.78 289⇓iP        P        06 58 54.8 +2.9
HOJ                           ⇓iP        sP       06 58 56.5 +1.0
CHIV  Chivirico      39.85 292  P        P        06 58 51.8 -0.6
STH   Stony Hill     39.85 289 i P       P        06 58 54.5 +2.0
STH                           ⇓iP        pP       06 58 54.9 -0.2
PCVE  Castro Verde   39.91  37  P        P        06 58 50.9 -1.8
PCVE  Castro Verde   39.91  37 eP        P        06 58 52.0 -0.7
PCVE                           ePP       PP       07 00 26.1 +1.7
PCVE                           eS        S        07 05 01.1 +3.6
PCVE                           eSS       SS       07 07 54.1 -0.1
PCVE                           eLR       LR       07 09 21.4
PCVE                           i IAMs_20 IAMs_20  07 11 32.3
      comp=Z,96µm,22.0s
PCVE                           eT        T        07 39 35.1
MESJ  Messejana      39.94  37 eP        P        06 58 52.6 -0.2
MESJ                           eS        S        07 04 58.6 +0.6
MESJ                             IAMs_20 IAMs_20  07 10 17.7
      comp=Z,130µm,25.4s
MESJ  Messejana      39.94  37 eP        P        06 58 52.7 -0.2
MESJ                           i IAmb    IAmb     06 59 06.3
      comp=Z,422nm,1.5s
MESJ                           eT        T        07 39 37.2
MESJ  Messejana      39.94  37 eP        P        06 58 52.7 -0.2
MESJ                           eS        S        07 04 58.6 +0.6
MESJ  Messejana      39.94  37  P        P        06 58 51.9 -1.0
MESJ  Messejana      39.94  37 ⇑P        P        06 58 52.4 -0.5
PLOUS Minas do Lousa 39.95  36 eP        P        06 58 53.5 +0.6
PLOUS                          i IAmb    IAmb     06 59 06.1
      comp=Z,769nm,1.8s
PLOUS                          ePP       PP       07 00 25.1 +0.2
PLOUS                          eS        S        07 04 57.9 -0.2
PLOUS                          eSS       SS       07 07 51.7 -3.2
PLOUS                          eLR       LR       07 09 22.5
PLOUS                          i IAMs_20 IAMs_20  07 11 43.7
      comp=Z,99µm,22.0s
PLOUS                          eT        T        07 39 36.4
PVAQ  Vaqueiros      39.95  38 eP        P        06 58 52.8 -0.2
PVAQ                           i IAmb    IAmb     06 59 06.5
      comp=Z,754nm,1.8s
PVAQ                           ePP       PP       07 00 29.6 +4.7
PVAQ                           eS        S        07 05 09.9  +12
PVAQ                           eSS       SS       07 07 54.2 -1.0
PVAQ                           eLR       LR       07 09 04.9
PVAQ                           i IAMs_20 IAMs_20  07 11 45.6
      comp=Z,86µm,20.0s
PVAQ                           eT        T        07 39 40.1
PVAQ  Vaqueiros      39.95  38  P        P        06 58 53.3 +0.2
PVAQ                            P        P        06 58 53.3 +0.2
PVAQ  Vaqueiros      39.95  38 ⇑P        P        06 58 52.2 -0.9
PVAQ  Vaqueiros      39.95  38  P        P        06 58 53.3 +0.2
      comp=Z,35µmcomp=Z,8µmcomp=Z,279nm,2.1s,comp=Z,8µm
LIS   Lisbon         39.99  35 eP        P        06 58 53.0 -0.3
LIS                            eS        S        07 04 59.2 +0.5
LIS                              IAMs_20 IAMs_20  07 10 03.3
      comp=Z,125µm,26.7s
LIS   Lisbon         39.99  35 eP        P        06 58 53.1 -0.3
LIS                            i IAmb    IAmb     06 59 06.7
      comp=Z,1µm,1.8s
LIS   Lisbon         39.99  35 eP        P        06 58 53.0 -0.3
LIS                            eS        S        07 04 59.2 +0.5
PMAFR Mafra          40.08  35  P        P        06 58 53.2 -0.9
PMAFR Mafra          40.08  35 eP        P        06 58 53.3 -0.8
PMAFR                          i IAmb    IAmb     06 59 07.3
      comp=Z,2µm,1.6s
PMAFR                          ePP       PP       07 00 28.3 +2.0
PMAFR                          eS        S        07 05 02.8 +2.7
PMAFR                          eSS       SS       07 07 56.4 -1.2
PMAFR                          eLR       LR       07 09 20.1
PMAFR                          i IAMs_20 IAMs_20  07 11 46.0
      comp=Z,94µm,20.0s
EGRO  El Granado     40.18  38  P        P        06 58 53.2 -1.8
BBAC  Balboa, Cauca  40.22 264  P        P        06 58 54.1 -1.7
      comp=Z,30µmcomp=Z,3µmcomp=Z,156nm,0.8s
PBEJ  Beja           40.27  37 eP        P        06 58 54.9 -0.8
PBEJ                           i IAmb    IAmb     06 59 09.9
      comp=Z,446nm,2.0s
PBEJ                           eT        T        07 39 51.4
SFS   San Fernando   40.30  40  P        P        06 58 54.7 -1.2
SFS   San Fernando   40.30  40  P        P        06 58 56.0 +0.1
SFS   San Fernando   40.30  40  IAMs_20  IAMs_20  07 12 01.2
      comp=Z,120µm,22.0s
SFS   San Fernando   40.30  40  P        P        06 58 59.9 +4.0
      comp=Z,24µmcomp=Z,2µm,1.2s
MOE   Montemor       40.32  36 eP        P        06 58 57.0 +1.0
MOE                            i IAmb    IAmb     06 59 09.5
      comp=Z,1µm,1.7s
MOE                            ePP       PP       07 00 28.5 -0.4
MOE                            eS        S        07 05 05.3 +1.7
MOE                            eSS       SS       07 08 02.2 -0.2
MOE                            eLR       LR       07 09 31.0
MOE                            i IAMs_20 IAMs_20  07 11 53.9
      comp=Z,103µm,20.0s
CNIL  Conil          40.34  40  P        P        06 58 56.6 +0.3
SMIR  Smir Dam       40.37  42  P        P        06 58 58.0 +1.5
SMIR                            P        P        06 58 58.0 +1.5
ECEU  Ceuta          40.50  41  P        P        06 58 56.7 -0.9
PB18  Visviri        40.52 232  IAMs_20  IAMs_20  07 14 59.3
      comp=Z,134µm,21.0s
PB18  Visviri        40.52 232  P        P        06 58 58.1 -0.4
      comp=Z,30µmcomp=Z,8µmcomp=Z,358nm,1.0s,comp=Z,8µm
EVO   Evora          40.52  36  P        P        06 58 56.6 -1.2
EVO   Evora          40.52  36⇑eP        P        06 58 57.1 -0.6
EVO                            i IAmb    IAmb     06 59 11.1
      comp=Z,848nm,1.6s
EVO   Evora          40.52  36  P        P        06 58 57.3 -0.4
      comp=Z,14µmcomp=Z,3µmcomp=Z,136nm,1.8s,comp=Z,3µm
CVJ   Coleyville     40.56 289 i P       P        06 59 00.0 +1.6
MTDJ  Mount Denham   40.56 289           P        06 58 58.3 -0.1
MTDJ                            IAmb     IAmb     06 59 21.1
      comp=Z,597nm,1.4s
MTDJ  Mount Denham   40.56 289  P        P        06 59 00.7 +2.3
      comp=Z,18µmcomp=Z,8µmcomp=Z,344nm,1.5s
MTDJ  Mount Denham   40.56 289 ⇑P        P        06 59 00.1 +1.7
MTDJ  Mount Denham   40.56 289  P        P        06 59 00.8 +2.3
      comp=Z,17µmcomp=Z,8µmcomp=Z,348nm,1.5s,comp=Z,8µm
CASC  Dorado de Casc 40.65 261  P        P        06 58 58.3 -1.0
      comp=Z,39µmcomp=Z,8µmcomp=Z,488nm,1.6s
MCJ   Malvern        40.65 289 i P       P        06 59 02.3 +3.1
PARRA Arraiolos      40.69  36 eP        P        06 58 58.6 -0.6
PARRA                          i IAmb    IAmb     06 59 12.5
      comp=Z,975nm,1.7s
PARRA                          ePP       PP       07 00 32.3 -0.7
PARRA                          eS        S        07 05 10.3 +1.1
PARRA                          eSS       SS       07 08 09.4 -0.5
PARRA                          eLR       LR       07 09 44.6
PARRA                          i IAMs_20 IAMs_20  07 12 04.9
      comp=Z,96µm,20.0s
PARRA                          eT        T        07 39 54.6
AKLM  AKL            40.73  44  P        P        06 58 60.0 +0.4
AKLM                            P        P        06 58 60.0 +0.4
PSBE  So Bento       40.74  34 eP        P        06 58 59.8 +0.3
PSBE                           i IAmb    IAmb     06 59 14.2
      comp=Z,1µm,1.9s
PSBE                           ePP       PP       07 00 33.0 -0.5
PSBE                           eS        S        07 05 12.6 +2.7
PSBE                           eSS       SS       07 08 07.8 -3.0
PSBE                           eLR       LR       07 09 41.0
PSBE                           i IAMs_20 IAMs_20  07 12 05.4
      comp=Z,98µm,22.0s
PMTG  Montargil      40.76  35 eP        P        06 58 59.2 -0.4
PMTG                           i IAmb    IAmb     06 59 13.1
      comp=Z,1µm,1.7s
PMTG                           ePP       PP       07 00 35.8 +2.1
PMTG                           eS        S        07 05 11.0 +0.8
PMTG                           eSS       SS       07 08 11.6 +0.5
PMTG                           eLR       LR       07 09 41.4
PMTG                           i IAMs_20 IAMs_20  07 12 06.8
      comp=Z,80µm,22.0s
ESPR  Espera         40.77  40  P        P        06 58 58.8 -1.0
EMIN  Mina Concepcio 40.82  38  P        P        06 58 57.7 -2.5
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PBAR  Barrancos      40.86  37  P        P        06 58 59.0 -1.6
PBAR  Barrancos      40.86  37 eP        P        06 59 00.4 -0.2
PBAR                           i IAmb    IAmb     06 59 13.8
      comp=Z,745nm,1.7s
PBAR                           ePP       PP       07 00 37.3 +2.5
PBAR                           eS        S        07 05 11.3 -0.5
PBAR                           eSS       SS       07 08 13.2  0.0
PBAR                           eLR       LR       07 09 31.7
PBAR                           i IAMs_20 IAMs_20  07 12 23.9
      comp=Z,92µm,20.0s
CPSB  Cacapava Do Su 40.88 202           P        06 59 01.2 +0.4
CPSB  Cacapava Do Su 40.88 202  P        P        06 59 02.1 +1.3
CPSB  Cacapava Do Su 40.88 202 eP        P        06 59 01.3 +0.5
CPSB                           eS        S        07 05 12.0 -0.2
CPSB  Cacapava Do Su 40.88 202  P        P        06 59 02.3 +1.5
      comp=Z,25µmcomp=Z,5µmcomp=Z,169nm,1.4s,comp=Z,5µm
PB16  IPOC Station P 40.97 231           P        06 59 00.8 -1.5
PB16                            IAMs_20  IAMs_20  07 15 28.4
      comp=Z,146µm,20.0s
PB16  IPOC Station P 40.97 231  P        P        06 59 00.6 -1.8
      comp=Z,26µmcomp=Z,4µmcomp=Z,122nm,1.1s,comp=Z,4µm
CMBC  Cumbal         40.97 263  P        P        06 59 03.6 +1.3
      comp=Z,2µm,0.8s
TULM  Tulcn-Chalpat  40.98 262  P        P        06 59 04.1 +1.7
      comp=Z,8µmcomp=Z,716nm,1.0s
PESTR Estremoz       40.99  36  P        P        06 59 04.5 +2.9
PESTR Estremoz       40.99  36 eP        P        06 59 03.6 +2.0
PESTR                          i IAmb    IAmb     06 59 55.2
      comp=Z,218nm,1.8s
PESTR                          eSS       SS       07 08 15.6 -0.2
PESTR Estremoz       40.99  36  P        P        06 59 04.5 +2.9
      comp=Z,2µmcomp=Z,64nm,2.2s
PALE  Palemas        41.06  43  P        P        06 59 03.0 +0.6
PALE                            P        P        06 59 03.0 +0.6
PALE                            P        pP       06 59 04.0 -0.8
PALE                            P        pP       06 59 04.0 -0.8
PSARD Sardoal        41.15  35 eP        P        06 59 03.0  0.0
PSARD                          i IAmb    IAmb     06 59 16.2
      comp=Z,998nm,1.6s
PSARD                          ePP       PP       07 00 46.7 +8.7
PSARD                          eS        S        07 05 23.7 +7.6
PSARD                          eSS       SS       07 08 15.8 -3.2
PSARD                          eLR       LR       07 09 53.6
PSARD                          i IAMs_20 IAMs_20  07 12 18.0
      comp=Z,79µm,22.0s
EBAD  Badajoz        41.25  37  P        P        06 59 02.1 -1.7
PCAS  Casmilo, Conde 41.27  34 eP        P        06 59 03.5 -0.4
PCAS                           i IAmb    IAmb     06 59 17.3
      comp=Z,1µm,1.6s
PCAS                           ePP       PP       07 00 42.7 +3.4
PCAS                           eS        S        07 05 17.0 -0.9
PCAS                           eSS       SS       07 08 18.3 -3.1
PCAS                           eLR       LR       07 09 21.7
PCAS                           i IAMs_20 IAMs_20  07 12 20.7
      comp=Z,99µm,22.0s
EMIJ  Mijas          41.28  41  P        P        06 59 01.7 -2.4
FIGM  Figuig         41.39  49  P        P        06 59 05.0 -0.2
FIGM                            P        P        06 59 05.0 -0.2
FIGM                            P        pP       06 59 06.0 -1.7
FIGM                            P        pP       06 59 06.0 -1.7
PMRV  Marv??o        41.48  36 eP        P        06 59 05.6  0.0
PMRV                           i IAmb    IAmb     06 59 19.2
      comp=Z,1µm,1.8s
PMRV                           ePP       PP       07 00 51.7  +10
PMRV                           eS        S        07 05 24.3 +3.3
PMRV                           eSS       SS       07 08 23.1 -2.4
PMRV                           eLR       LR       07 10 00.5
PMRV                           i IAMs_20 IAMs_20  07 12 27.8
      comp=Z,73µm,22.0s
GO01  Chusmiza       41.53 229  P        P        06 59 05.0 -1.8
GO01                            IAMs_20  IAMs_20  07 15 39.3
      comp=Z,165µm,22.0s
GO01  Chusmiza       41.53 229  P        P        06 59 05.8 -1.1
      comp=Z,30µmcomp=Z,3µmcomp=Z,60nm,1.2s,comp=Z,3µm
JBK   JBK            41.54  45  P        P        06 59 06.0 -0.4
JBK                             P        P        06 59 06.0 -0.4
EMAL  Malaga-Limoner 41.62  41  P        P        06 59 06.1 -0.8
EMAL  Malaga-Limoner 41.62  41  P        P        06 59 06.8  0.0
      comp=Z,13µmcomp=Z,3µmcomp=Z,117nm,1.5s,comp=Z,3µm
AP01  Chacalluta     41.63 231  IAMs_20  IAMs_20  07 15 26.0
      comp=Z,76µm,22.0s
AP01  Chacalluta     41.63 231  P        P        06 59 06.9 -0.2
      comp=Z,6µmcomp=Z,299nm,0.8s,comp=Z,6µm
CUSE  Cuicocha Este  41.65 262  P        P        06 59 09.1 +1.2
      comp=Z,6µmcomp=Z,233nm,1.4s
PCBR  Castelo Branco 41.70  35 eP        P        06 59 07.3 -0.1
PCBR                           i IAmb    IAmb     06 59 21.7
      comp=Z,472nm,2.0s
OTAV  Otavalo        41.72 262  P        P        06 59 10.6 +2.1
OTAV  Otavalo        41.72 262           P        06 59 07.5 -1.0
OTAV  Otavalo        41.72 262  P        P        06 59 09.0 +0.5
      comp=Z,22µmcomp=Z,6µmcomp=Z,224nm,0.8s
OTAV  Otavalo        41.72 262  P        P        06 59 08.8 +0.3
OTAV  Otavalo        41.72 262 eP        P        06 59 07.5 -1.0
OTAV                           eS        S        07 05 23.7 -2.3
OTAV  Otavalo        41.72 262  P        P        06 59 08.6 +0.1
      comp=Z,20µmcomp=Z,6µmcomp=Z,224nm,0.8s
PB12  IPOC Station P 41.76 231           P        06 59 05.5 -2.8
PB12                            IAMs_20  IAMs_20  07 15 41.5
      comp=Z,91µm,21.0s
PB12  IPOC Station P 41.76 231  P        P        06 59 06.3 -2.0
      comp=Z,25µmcomp=Z,3µmcomp=Z,78nm,0.8s,comp=Z,3µm
PIAT  Ana Tenorio    41.78 260  P        P        06 59 08.4 -0.5
      comp=Z,20µmcomp=Z,7µmcomp=Z,795nm,0.9s
EMLI  Melilla        41.78  44  P        P        06 59 06.1 -2.1
ECAB  El Cabril      41.79  39  P        P        06 59 07.1 -1.1
PB08  IPOC Station P 41.79 228  P        P        06 59 05.8 -3.0
PB08  IPOC Station P 41.79 228  P        P        06 59 06.7 -2.2
PB08  IPOC Station P 41.79 228  P        P        06 59 06.8 -2.0
      comp=Z,28µmcomp=Z,3µmcomp=Z,74nm,1.0s,comp=Z,3µm
WMELI Melilla        41.79  44  P        P        06 59 06.6 -1.6
UPA   Univ. de Panam 41.84 275  P        P        06 59 10.3 +1.4
      comp=Z,6µmcomp=Z,3µmcomp=Z,186nm,1.0s
TAF   Taforalt       41.90  45  P        P        06 59 11.0 +1.8
TAF                             P        P        06 59 11.0 +1.8
PB11  IPOC Station P 41.93 229           P        06 59 07.4 -2.4
PB11                            IAMs_20  IAMs_20  07 16 12.0
      comp=Z,112µm,20.0s
PB11  IPOC Station P 41.93 229  P        P        06 59 09.2 -0.6
      comp=Z,27µmcomp=Z,4µmcomp=Z,158nm,0.9s,comp=Z,4µm
SLOR  San Lorenzo -  41.96 260  P        P        06 59 10.4 -0.1
PTO   Porto          41.97  33 eP        P        06 59 10.0 +0.4
PTO                            i IAmb    IAmb     06 59 22.7
      comp=Z,906nm,1.6s
EGOR  Sierra Gorda,  42.03  41  P        P        06 59 09.9 -0.5
MTE   Manteigas      42.04  34 eP        P        06 59 09.5 -0.8
MTE                            i IAmb    IAmb     06 59 24.4
      comp=Z,1µm,2.0s
MTE                            eS        S        07 05 26.7 -2.7
MTE                            eSS       SS       07 08 35.5 -1.3
MTE                            eLR       LR       07 10 09.7
MTE                            i IAMs_20 IAMs_20  07 12 51.8
      comp=Z,95µm,22.0s
MTE   Manteigas      42.04  34           P        06 59 08.6 -1.7
MTE                             IAmb     IAmb     06 59 22.2
      comp=Z,1µm,1.6s
MTE                             IAMs_20  IAMs_20  07 12 09.9
      comp=Z,105µm,21.0s
MTE   Manteigas      42.04  34 ⇑P        P        06 59 09.5 -0.8
MTE   Manteigas      42.04  34  P        P        06 59 09.8 -0.5
      comp=Z,33µmcomp=Z,8µmcomp=Z,476nm,1.9s,comp=Z,8µm
PAC1  Pacto, Paraso  42.05 262  P        P        06 59 10.9 +0.1
      comp=Z,7µmcomp=Z,827nm,1.0s
PVIS  Viseu          42.06  34 eP        P        06 59 09.5 -1.0
EALB  Alboran        42.08  43  P        P        06 59 08.8 -1.8
BCIP  Isla Barro Col 42.14 275  P        P        06 59 12.8 +1.5
      comp=Z,9µmcomp=Z,244nm,1.6s
BCIP  Isla Barro Col 42.14 275 ⇑P        P        06 59 11.6 +0.2
BCIP  Isla Barro Col 42.14 275  P        P        06 59 12.9 +1.5
      comp=Z,9µmcomp=Z,226nm,1.1s
PSGCX Pisagua        42.19 230  IAMs_20  IAMs_20  07 16 19.7
      comp=Z,78µm,20.0s
PSGCX Pisagua        42.19 230  P        P        06 59 10.1 -1.7
      comp=Z,28µmcomp=Z,5µmcomp=Z,150nm,0.9s,comp=Z,5µm
SLA   San Lorenzo    42.33 220 eP        P        06 59 12.2 -0.8
SALTA                42.52 221  P        P        06 59 14.1 -0.8
      comp=Z,30µmcomp=Z,3µmcomp=Z,56nm,1.6s,comp=Z,3µm
PVRL  Vila Real      42.55  33 eP        P        06 59 14.3 -0.1
PVRL                           i IAmb    IAmb     06 59 27.6
      comp=Z,617nm,1.7s
POLO  Lamas de Olo   42.57  33 eP        P        06 59 13.8 -0.8
POLO                           i IAmb    IAmb     06 59 27.0
      comp=Z,293nm,1.7s
POLO                           eS        S        07 05 36.4 -0.9
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POLO                           eSS       SS       07 08 43.5 -3.7
POLO                           eLR       LR       07 10 36.9
POLO                           i IAMs_20 IAMs_20  07 12 58.7
      comp=Z,44µm,22.0s
AZU   Azuero         42.62 273  P        P        06 59 17.0 +1.7
      comp=Z,11µmcomp=Z,6µmcomp=Z,324nm,1.1s
PNME  Penonome       42.64 274  P        P        06 59 16.9 +1.4
      comp=Z,12µmcomp=Z,7µmcomp=Z,204nm,1.6s
PCAB  Cabril         42.68  33 eP        P        06 59 15.8 +0.3
PCAB                           i IAmb    IAmb     06 59 28.8
      comp=Z,652nm,1.7s
PGAV  Gavieira, Arco 42.73  32 eP        P        06 59 14.9 -1.0
PGAV                           i IAmb    IAmb     06 59 29.3
      comp=Z,982nm,1.7s
PGAV                           eS        S        07 05 34.8 -4.8
PGAV                           eSS       SS       07 08 52.2 +1.9
PGAV                           eLR       LR       07 10 38.1
PGAV                           i IAMs_20 IAMs_20  07 12 37.5
      comp=Z,63µm,22.0s
TA01  Diego Aracena  42.81 229  IAMs_20  IAMs_20  07 16 41.2
      comp=Z,108µm,20.0s
TA01  Diego Aracena  42.81 229  P        P        06 59 15.6 -1.1
      comp=Z,33µmcomp=Z,6µmcomp=Z,156nm,0.8s,comp=Z,6µm
AF01  San Pedro de A 42.89 224  IAmb     IAmb     07 00 13.5
      comp=Z,593nm,1.4s
AF01                            IAMs_20  IAMs_20  07 17 24.2
      comp=Z,73µm,21.0s
PB09  IPOC Station P 42.89 226  IAmb     IAmb     06 59 50.5
      comp=Z,668nm,1.7s
PB09                            IAMs_20  IAMs_20  07 17 07.3
      comp=Z,132µm,21.0s
PB09  IPOC Station P 42.89 226  P        P        06 59 17.4 -0.1
      comp=Z,34µmcomp=Z,7µmcomp=Z,231nm,1.3s,comp=Z,7µm
PB02  IPOC Station P 43.06 227  IAMs_20  IAMs_20  07 17 09.9
      comp=Z,126µm,19.0s
PB02  IPOC Station P 43.06 227  P        P        06 59 18.3 -0.6
      comp=Z,33µmcomp=Z,7µmcomp=Z,169nm,0.8s,comp=Z,7µm
PSAL  Palomas, Salto 43.15 206 eP        P        06 59 19.7 +0.4
PSAL                           eS        S        07 05 45.3 -0.3
CAIB  Caibarien      43.19 295  IAmb     IAmb     06 59 26.4
      comp=Z,646nm,1.4s
CACAO El Cacao, Vera 43.22 273  P        P        06 59 19.7 -0.5
      comp=Z,8µmcomp=Z,565nm,1.0s
PB07  IPOC Station P 43.31 227  IAMs_20  IAMs_20  07 16 30.4
      comp=Z,75µm,22.0s
PB07  IPOC Station P 43.31 227  P        P        06 59 20.5 -0.4
      comp=Z,33µmcomp=Z,7µmcomp=Z,220nm,1.2s
PAB   San Pablo      43.35  38  P        P        06 59 21.7 +0.7
PAB   San Pablo      43.35  38  P        P        06 59 18.8 -2.2
PAB   San Pablo      43.35  38  IAMs_20  IAMs_20  07 13 35.1
      comp=Z,89µm,20.0s
PAB   San Pablo      43.35  38  P        P        06 59 20.5 -0.5
PAB                             P        P        06 59 20.5 -0.5
PAB                             P        P        06 59 20.6 -0.5
PAB                             P        P        06 59 20.6 -0.5
PAB   San Pablo      43.35  38 ⇑P        P        06 59 19.8 -1.2
PAB   San Pablo      43.35  38  P        P        06 59 20.2 -0.8
      comp=Z,37µmcomp=Z,5µmcomp=Z,172nm,2.1s
HAL   Halifax        43.40 333  IAmb     IAmb     06 59 27.5
      comp=Z,1µm,2.0s
PB03  IPOC Station P 43.41 226  IAMs_20  IAMs_20  07 17 21.1
      comp=Z,65µm,20.0s
PB03  IPOC Station P 43.41 226  P        P        06 59 20.5 -1.3
      comp=Z,34µmcomp=Z,8µmcomp=Z,267nm,0.9s
PBRG  Braganca       43.44  34 eP        P        06 59 20.9 -0.7
PBRG                           i IAmb    IAmb     06 59 35.2
      comp=Z,763nm,1.6s
PBRG                           eS        S        07 05 49.9  0.0
PBRG                           eSS       SS       07 09 07.6 +3.4
PBRG                           eLR       LR       07 10 54.7
PBRG                           i IAMs_20 IAMs_20  07 13 24.8
      comp=Z,89µm,22.0s
ECAL  Calabor        43.54  33  P        P        06 59 22.7 +0.3
      comp=Z,50µmcomp=Z,13µmcomp=Z,588nm,1.8s,comp=Z,13µm
GMAL  Guarumal, Vera 43.57 273  P        P        06 59 24.7 +1.7
      comp=Z,7µmcomp=Z,206nm,1.5s
FSA   Cafayete       43.63 219 eP        P        06 59 22.1 -1.4
ESDC  Sonseca Array  43.67  38  P        P        06 59 22.6 -0.9
      comp=Z,27nm,1.0s,baz=238,slow=8.2,SNR=32
ESDC                            LR       LR       07 14 16.2
      comp=Z,78µm,19.9s,baz=231,slow=32
      comp=Z,27nm,1.0s
ESDC  Sonseca Array  43.67  38  P        P        06 59 22.3 -1.2
PRVC  Isla de Provid 43.70 281  P        P        06 59 27.9 +3.9
      comp=Z,15µmcomp=Z,9µmcomp=Z,337nm,1.5s
PB06  IPOC Station P 43.70 226  P        P        06 59 22.8 -1.3
      comp=Z,32µmcomp=Z,8µmcomp=Z,283nm,1.8s,comp=Z,8µm
AHML  Horco Molle    43.72 218 eP        P        06 59 16.9 -7.1
TAM   Tamanrasset    43.76  65  P        P        06 59 24.1 -0.5
TAM                             pmax     pmax
      comp=Z,327nm,0.6s
TAM   Tamanrasset    43.76  65           P        06 59 24.1 -0.5
TAM                             IAmb     IAmb     06 59 35.2
      comp=Z,327nm,0.6s
TAM   Tamanrasset    43.76  65  P        P        06 59 25.0 +0.4
      comp=Z,32µmcomp=Z,6µmcomp=Z,174nm,1.2s,comp=Z,6µm
NNA   Nana           43.92 244ceP        P        06 59 27.3 +1.4
NNA                             pmax     pmax
      comp=Z,114nm,0.9s
NNA                             MLR      MLR
      comp=Z,218µm,22.0s
NNA   Nana           43.92 244           P        06 59 26.4 +0.6
NNA   Nana           43.92 244  IAMs_20  IAMs_20  07 17 29.7
      comp=Z,128µm,21.0s
NNA   Nana           43.92 244  P        P        06 59 25.0 -0.9
      comp=Z,30µmcomp=Z,4µmcomp=Z,123nm,2.1s
NNA   Nana           43.92 244 ⇑P        P        06 59 24.7 -1.2
NNA   Nana           43.92 244  P        P        06 59 25.6 -0.3
      comp=Z,29µmcomp=Z,4µmcomp=Z,120nm,2.1s
GUD   Guadarrama     44.16  37  P        P        06 59 26.3 -1.2
MCRA  Macar, Loja    44.24 256  P        P        06 59 27.2 -1.2
      comp=Z,24µmcomp=Z,6µmcomp=Z,394nm,0.9s
PB05  IPOC Station P 44.24 226  IAmb     IAmb     06 59 42.4
      comp=Z,376nm,0.9s
PB05                            IAMs_20  IAMs_20  07 17 48.2
      comp=Z,127µm,20.0s
PB05  IPOC Station P 44.24 226  P        P        06 59 28.0 -0.4
      comp=Z,33µmcomp=Z,9µmcomp=Z,506nm,1.1s,comp=Z,9µm
EMUR  La Murta       44.33  42  P        P        06 59 27.2 -1.6
      comp=Z,30µmcomp=Z,4µmcomp=Z,74nm,1.0s
CART  Cartagena      44.35  42  P        P        06 59 26.5 -2.4
CART                            IAmb     IAmb     06 59 39.6
      comp=Z,554nm,1.7s
CART  Cartagena      44.35  42  P        P        06 59 28.1 -0.8
CART                            P        P        06 59 28.1 -0.8
CART                            P        pP       06 59 30.9 -0.5
CART                            P        pP       06 59 30.9 -0.5
CART  Cartagena      44.35  42 ⇑P        P        06 59 26.8 -2.1
CART  Cartagena      44.35  42  P        P        06 59 27.9 -1.0
      comp=Z,35µmcomp=Z,5µmcomp=Z,170nm,1.4s,comp=Z,5µm
UCM   Universidad Co 44.49  38  P        P        06 59 29.9 -0.2
      comp=Z,31µmcomp=Z,8µmcomp=Z,420nm,1.8s
DRLN  Deer Lake      44.85 341  IAmb     IAmb     06 59 41.9
      comp=Z,675nm,1.5s
M65A  Busby, Falmout 44.91 324  IAMs_20  IAMs_20  07 13 27.8
      comp=Z,70µm,20.0s
BRU2  Volcan         44.96 275  P        P        06 59 36.2 +1.8
      comp=Z,8µmcomp=Z,644nm,1.4s,comp=Z,8µm
CYA   Choya          45.23 216 eP        P        06 59 33.2 -2.8
CYA                            eP        P        06 59 33.2 -2.8
L64A  Middleborough  45.25 324  IAMs_20  IAMs_20  07 13 28.2
      comp=Z,72µm,20.0s
EMMW  East Machias   45.30 330  IAmb     IAmb     07 00 16.0
      comp=Z,738nm,1.9s
PB14  IPOC Station P 45.52 224  IAmb     IAmb     07 00 04.3
      comp=Z,647nm,1.4s
PB14  IPOC Station P 45.52 224  P        P        06 59 37.8 -0.9
      comp=Z,31µmcomp=Z,8µmcomp=Z,322nm,1.1s
PIRO  Carate, Puerto 45.62 274  IAmb     IAmb     06 59 44.6
      comp=Z,335nm,0.9s
BCX   Boston College 45.70 325  IAmb     IAmb     06 59 47.6
      comp=Z,337nm,1.5s
WES   Weston         45.82 325  IAmb     IAmb     07 00 48.9
      comp=Z,423nm,1.8s
WES                             IAMs_20  IAMs_20  07 13 44.9
      comp=Z,66µm,21.0s
S61A  Accomac        45.85 317  IAMs_20  IAMs_20  07 13 57.3
      comp=Z,62µm,21.0s
Y60A  Bolivia        45.95 311  IAmb     IAmb     06 59 54.2
      comp=Z,311nm,1.0s
Y60A                            IAMs_20  IAMs_20  07 13 55.1
      comp=Z,87µm,22.0s
BLUN  Bluefields     46.00 279  P        P        06 59 45.2 +2.8
      comp=Z,8µmcomp=Z,59nm,2.0s
UNH   University of  46.01 326  IAmb     IAmb     06 59 49.1
      comp=Z,612nm,2.0s
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TINO	Tinogasta	46.01	218	*e*P	P	06 59 39.2	-3.2
HRV	Adam Dziewonsk	46.03	325	P	P	06 59 43.4	+1.2
HRV	Adam Dziewonsk	46.03	325	P	P	06 59 42.0	-0.2
HRV				IAmb	IAmb	06 59 49.0	
	comp=Z,553nm,1.6s						
HRV	Adam Dziewonsk	46.03	325	IAMs_20	IAMs_20	07 14 00.5	
	comp=Z,68µm,20.0s						
HRV	Adam Dziewonsk	46.03	325	P	P	06 59 43.1	+0.9
	comp=Z,24µmcomp=Z,7µmcomp=Z,156nm,1.6s						
ANCO	Parque Anchore	46.06	204	*e*P	P	06 59 42.6	+0.2
MGBA	MARTIN GARCIA	46.10	204	*e*P	P	06 59 42.8	-0.1
AC02	Maricunga	46.14	221	*e*P	P	06 59 42.8	-1.1
AC02	Maricunga	46.14	221	P	P	06 59 44.0	+0.2
	comp=Z,10µmcomp=Z,357nm,1.5s						
N62A	Caumsett State	46.21	322	IAmb	IAmb	06 59 56.5	
	comp=Z,286nm,1.2s						
LCR2	La Lucha 2	46.23	276	IAmb	IAmb	06 59 58.6	
	comp=Z,357nm,1.3s						
WSPT	Westport, CT	46.26	322	IAmb	IAmb	06 59 57.7	
	comp=Z,298nm,1.2s						
P61A	Hammonton	46.33	319	IAmb	IAmb	06 59 57.1	
	comp=Z,246nm,0.8s						
WVL	Waterville	46.33	328	IAmb	IAmb	06 59 51.1	
	comp=Z,684nm,1.9s						
HDC	Heredia	46.34	277	*e*P	P	06 59 44.6	-0.6
HDC	Heredia	46.34	277	P	P	06 59 48.2	+3.0
	comp=Z,12µmcomp=Z,11µmcomp=Z,303nm,2.3s						
DWPF	Disney Wildern	46.38	302	P	P	06 59 45.5	+0.3
DWPF				IAmb	IAmb	06 59 51.1	
	comp=Z,276nm,1.0s						
DWPF	Disney Wildern	46.38	302	P	P	06 59 47.1	+1.9
	comp=Z,23µmcomp=Z,6µmcomp=Z,294nm,1.0s						
SOR	Soroa	46.44	294	IAmb	IAmb	07 00 05.7	
	comp=Z,512nm,1.7s						
SOR	Soroa	46.44	294	P	P	06 59 47.4	+1.6
	comp=Z,15µmcomp=Z,5µmcomp=Z,137nm,1.0s,comp=Z,5µm						
I63A	Otisfield	46.48	327	IAMs_20	IAMs_20	07 14 18.4	
	comp=Z,61µm,20.0s						
K62A	Royalston	46.52	324	IAmb	IAmb	07 00 27.8	
	comp=Z,673nm,2.0s						
K62A				IAMs_20	IAMs_20	07 14 16.5	
	comp=Z,69µm,20.0s						
PAL	Palisades	46.52	321	IAmb	IAmb	06 59 59.0	
	comp=Z,309nm,0.9s						
F64A	Sherman	46.57	330	IAMs_20	IAMs_20	07 14 26.6	
	comp=Z,58µm,20.0s						
LPA	La Plata	46.60	204*c*	*i*P	P	06 59 47.5	+0.8
LPA				PP	PP	07 01 39.0	+2.5
LPA				PPP	PPP	07 02 36.4	
LPA				S	S	07 06 38.1	+2.5
LPA				SS	SS	07 10 08.7	+6.7
PKME	Peaks-Kenny Pk	46.62	329	IAmb	IAmb	07 00 25.5	
	comp=Z,381nm,1.4s						
W59A	Clinton	46.62	312	IAmb	IAmb	06 59 59.6	
	comp=Z,353nm,1.0s						
W59A				IAMs_20	IAMs_20	07 14 44.8	
	comp=Z,68µm,20.0s						
ACLC	CERRO LA CRUZ	46.63	216	*e*P	P	06 59 44.7	-2.5
L61B	Northampton	46.64	324	IAmb	IAmb	06 59 53.9	
	comp=Z,476nm,1.7s						
L61B				IAMs_20	IAMs_20	07 14 28.8	
	comp=Z,64µm,20.0s						
AC01	Pan de Azucar	46.65	223	IAMs_20	IAMs_20	07 20 09.7	
	comp=Z,95µm,19.0s						
AC01	Pan de Azucar	46.65	223	P	P	06 59 49.9	+2.6
	comp=Z,27µmcomp=Z,7µmcomp=Z,180nm,1.6s,comp=Z,7µm						
BRNJ	Basking Ridge	46.75	321	IAmb	IAmb	06 59 55.0	
	comp=Z,255nm,1.4s						
TCA	Tanti	46.75	213	*e*P	P	06 59 45.1	-3.0
I62A	Tamworth	46.78	326	IAMs_20	IAMs_20	07 14 16.3	
	comp=Z,68µm,21.0s						
T59A	Double "B" Far	46.81	315		P	06 59 49.0	+0.6
T59A				IAmb	IAmb	07 00 07.9	
	comp=Z,274nm,1.4s						
T59A				IAMs_20	IAMs_20	07 14 16.6	
	comp=Z,63µm,21.0s						
VCA	Vinchina	46.88	218	*e*P	P	06 59 46.7	-2.5
VCA				*e*P	P	06 59 46.7	-2.5
CSU	Charleston Sou	46.95	309		P	06 59 49.5	-0.1
Y58A	Scranton	47.01	310	IAMs_20	IAMs_20	07 14 37.1	
	comp=Z,92µm,21.0s						
RGRS	Roger Stewart	47.02	308	IAmb	IAmb	06 59 56.1	
	comp=Z,279nm,1.1s						
X58A	Rowland	47.02	311	IAmb	IAmb	06 59 56.2	
	comp=Z,262nm,1.2s						
X58A				IAMs_20	IAMs_20	07 14 36.6	
	comp=Z,83µm,21.0s						
J61A	Chester	47.12	325	IAmb	IAmb	07 00 04.1	
	comp=Z,277nm,1.1s						
J61A				IAMs_20	IAMs_20	07 14 45.5	
	comp=Z,56µm,20.0s						
H62A	Milan	47.13	327	IAMs_20	IAMs_20	07 14 47.7	
	comp=Z,66µm,20.0s						
JTS	Las Juntas de	47.16	277	*i* P	P	06 59 52.4	+0.9
JTS				pmax	pmax		
	comp=Z,98nm,1.1s						
JTS				MLR	MLR		
	comp=Z,19µm,19.0s						
JTS	Las Juntas de	47.16	277		P	06 59 52.7	+1.2
JTS	Las Juntas de	47.16	277	P	P	06 59 50.8	-0.7
JTS	Las Juntas de	47.16	277	⇓P	P	06 59 53.0	+1.5
JTS	Las Juntas de	47.16	277	P	P	06 59 52.8	+1.3
	comp=Z,11µmcomp=Z,3µmcomp=Z,93nm,1.3s,comp=Z,3µm						
HNH	Hanover	47.20	325	IAmb	IAmb	07 00 04.4	
	comp=Z,259nm,1.1s						
HNH				IAMs_20	IAMs_20	07 14 27.4	
	comp=Z,60µm,21.0s						
G62A	West of Eustis	47.23	328	IAmb	IAmb	07 00 04.2	
	comp=Z,284nm,1.0s						
CBN	Corbin Frederi	47.28	316	IAmb	IAmb	07 00 09.0	
	comp=Z,428nm,1.4s						
CBN				IAMs_20	IAMs_20	07 15 60.0	
	comp=Z,52µm,18.0s						
CBN	Corbin Frederi	47.28	316	⇓P	P	06 59 52.0	0.0
AC06	Mina Casimiro	47.29	221	IAMs_20	IAMs_20	07 21 00.8	
	comp=Z,94µm,18.0s						
EDA	Edea	47.31	92	P	P	06 59 51.5	-1.2
EDA				IAmb	IAmb	07 00 41.5	
	comp=Z,669nm,1.9s						
257A	Skidaway Islan	47.32	307	IAMs_20	IAMs_20	07 14 49.6	
	comp=Z,102µm,21.0s						
LBNH	Lisbon	47.34	326	IAmb	IAmb	07 00 05.7	
	comp=Z,181nm,1.1s						
LBNH				IAMs_20	IAMs_20	07 14 43.1	
	comp=Z,71µm,21.0s						
LBNH	Lisbon	47.34	326	⇓P	P	06 59 52.7	+0.3
GO03	Copiapo	47.37	221	*e*P	P	06 59 51.1	-1.9
GO03	Copiapo	47.37	221	IAmb	IAmb	07 00 07.5	
	comp=Z,361nm,1.5s						
GO03				IAMs_20	IAMs_20	07 20 30.9	
	comp=Z,87µm,20.0s						
GO03	Copiapo	47.37	221	⇑P	P	06 59 51.6	-1.4
GO03	Copiapo	47.37	221	P	P	06 59 53.9	+0.9
	comp=Z,31µmcomp=Z,5µmcomp=Z,149nm,1.4s,comp=Z,5µm						
V58A	Windy Hill, Pi	47.39	313	IAmb	IAmb	07 00 05.5	
	comp=Z,272nm,0.9s						
TRY	Troy	47.39	324	IAMs_20	IAMs_20	07 14 52.7	
	comp=Z,69µm,21.0s						
SJPF	Ste Jean	47.40	36	*e*P	P	06 59 53.7	+0.7
SJPF				pmax	pmax		
	comp=Z,59nm,1.1s						
SDMD	Soldier's Deli	47.53	318	IAmb	IAmb	07 00 13.7	
	comp=Z,259nm,1.5s						
Y57A	Sumter	47.60	310	IAMs_20	IAMs_20	07 15 05.9	
	comp=Z,105µm,22.0s						
ATE	Arette	47.69	36	P	P	06 59 55.4	+0.1
	comp=Z,30µmcomp=Z,6µmcomp=Z,244nm,1.9s						
456A	Hilliard	47.69	305	IAMs_20	IAMs_20	07 15 11.5	
	comp=Z,96µm,21.0s						
MCVT	Middlebury Col	47.75	325	IAmb	IAmb	07 00 02.7	
	comp=Z,244nm,1.4s						
D62A	Allapoint, All	47.77	331	IAmb	IAmb	07 00 02.6	
	comp=Z,440nm,1.5s						
D62A				IAMs_20	IAMs_20	07 15 16.4	
	comp=Z,63µm,21.0s						
AVFE	Valle Fertil	47.83	216	*e*P	P	06 59 51.1	-5.4
BOAB	BOACO BROADBAN	47.86	280	⇑P	P	06 59 57.3	+0.4
BOAB	BOACO BROADBAN	47.86	280	P	P	06 59 57.6	+0.7
	comp=Z,30µmcomp=Z,25µmcomp=Z,684nm,1.6s						
PAGS	Pennsylvania G	47.88	319	IAmb	IAmb	07 00 15.9	
	comp=Z,585nm,1.8s						
L59A	Walton	47.90	322	IAmb	IAmb	07 00 10.5	
	comp=Z,272nm,1.0s						
BIRD	Birdtown, Kers	47.91	310	IAmb	IAmb	07 00 09.1	
	comp=Z,325nm,1.0s						
KSPA	Keystone Colle	47.99	321	IAmb	IAmb	07 00 10.5	
	comp=Z,250nm,1.0s						
S57A	Dark Hollow, R	48.16	315	IAMs_20	IAMs_20	07 14 57.4	
	comp=Z,61µm,21.0s						
MRA	San Martin	48.19	213	*e*P	P	06 59 53.9	-5.4
N58A	Sunbury	48.20	320	IAmb	IAmb	07 00 15.2	
	comp=Z,432nm,1.9s						
FLET	Fletcher	48.21	326	IAmb	IAmb	07 00 12.3	
	comp=Z,227nm,1.1s						
AC05	El Transito	48.24	220	IAmb	IAmb	07 00 19.9	
	comp=Z,316nm,1.2s						
AC05	El Transito	48.24	220	P	P	07 00 00.3	+0.5
	comp=Z,31µmcomp=Z,6µmcomp=Z,231nm,1.1s,comp=Z,6µm						
EPF	Esparros	48.27	37	*e*P	P	07 00 01.0	+1.2
EPF				pmax	pmax		
	comp=Z,1µm,1.3s						
J59A	Piesco	48.32	324	IAmb	IAmb	07 00 13.1	
	comp=Z,260nm,1.0s						
J59A				IAMs_20	IAMs_20	07 15 21.3	
	comp=Z,65µm,21.0s						
AC04	Llanos de Chal	48.33	221	P	P	07 00 00.2	-0.2
	comp=Z,26µmcomp=Z,7µmcomp=Z,299nm,1.2s,comp=Z,7µm						
P57A	Homestead Farm	48.35	317	IAmb	IAmb	07 00 17.9	
	comp=Z,532nm,1.8s						
JSC	Jenkinsville	48.37	310	IAmb	IAmb	07 00 13.2	
	comp=Z,198nm,0.9s						
MGAN	Managua	48.42	279	P	P	07 00 03.2	+1.9
	comp=Z,24µmcomp=Z,675nm,1.4s						
MGAN	Managua	48.42	279	P	P	07 00 02.7	+1.4
	comp=Z,24µmcomp=Z,702nm,1.2s,comp=Z,24µm						
ACDV	Cuesta del Vie	48.46	218	*e*P	P	07 00 01.8	+0.3
NCB	Newcomb	48.46	325	IAmb	IAmb	07 00 14.3	
	comp=Z,332nm,1.3s						
BINY	Binghamton	48.48	322	IAmb	IAmb	07 00 15.3	
	comp=Z,230nm,1.1s						
BINY	Binghamton	48.48	322	⇑P	P	07 00 02.0	+0.7
BINY	Binghamton	48.48	322	P	P	07 00 02.4	+1.0
	comp=Z,23µmcomp=Z,8µmcomp=Z,265nm,1.1s						
U56A	King	48.55	313	IAmb	IAmb	07 00 14.9	
	comp=Z,601nm,1.9s						
U56A				IAMs_20	IAMs_20	07 15 22.0	
	comp=Z,62µm,22.0s						
CEST	Esterri de Car	48.57	38	IAmb	IAmb	07 00 17.1	
	comp=Z,459nm,1.3s						
LCO	Las Campanas	48.64	220	P	P	07 00 02.9	-0.1
LCO				pmax	pmax		
	comp=Z,183nm,1.3s						
LCO				MLR	MLR		
	comp=Z,123µm,20.0s						
LCO	Las Campanas	48.64	220		P	07 00 02.9	-0.1
LCO	Las Campanas	48.64	220	⇑P	P	07 00 02.3	-0.7
AROD	Rodeo	48.67	218	*e*P	P	07 00 03.8	+0.5
CORI	Orista	48.71	39	P	P	07 00 01.0	-2.1
CORI				IAmb	IAmb	07 00 16.9	
	comp=Z,231nm,1.1s						
LMQ	La Malbaie	48.72	331	IAmb	IAmb	07 00 09.4	
	comp=Z,646nm,2.0s						
ACCO	Cerro Coronel	48.73	217	*e*P	P	07 00 04.6	+0.8
ICQ	Pointe Anglais	48.75	334		P	07 00 03.0	-0.2
ICQ				IAmb	IAmb	07 00 09.6	
	comp=Z,406nm,1.5s						
KMSC	Kings Mountain	48.76	311	IAmb	IAmb	07 00 16.3	
	comp=Z,631nm,1.8s						
KMSC				IAMs_20	IAMs_20	07 15 40.5	
	comp=Z,91µm,22.0s						
CNGN	Cerro Negro	48.87	280	P	P	07 00 05.6	+0.8
	comp=Z,178µmcomp=Z,8µm,1.5s						
CNGN	Cerro Negro	48.87	280	P	P	07 00 05.9	+1.2
	comp=Z,144µmcomp=Z,169µmcomp=Z,9µm,1.5s,comp=Z,169µm						
ACAN	Cantantal	48.88	214	*e*P	P	07 00 03.0	-1.6
RTLL	Cerro Villicun	48.91	216	*e*P	P	07 00 03.8	-1.0
CO01	Juntas del Tor	48.92	219	IAmb	IAmb	07 00 26.4	
	comp=Z,541nm,1.3s						
CO01	Juntas del Tor	48.92	219	P	P	07 00 05.9	+0.7
	comp=Z,29µmcomp=Z,6µmcomp=Z,327nm,1.3s,comp=Z,6µm						
Q56A	Snyder Ridge,	48.93	316	IAmb	IAmb	07 00 41.4	
	comp=Z,383nm,1.3s						
BLA	Blacksburg	48.95	314	⇓P	P	07 00 05.5	+0.4
BLA	Blacksburg	48.95	314	⇓P	P	07 00 05.5	+0.4
V55A	Taylorsville	48.96	312	IAmb	IAmb	07 00 17.6	
	comp=Z,284nm,1.0s						
V55A				IAMs_20	IAMs_20	07 16 26.7	
	comp=Z,61µm,20.0s						
CFA	Coronel Fontan	48.98	216	LR	LR	07 22 31.0	
	comp=Z,42µm,18.1s,baz=45,slow=38						
PAULI	Pauline	49.00	310	IAmb	IAmb	07 00 17.5	
	comp=Z,211nm,1.1s						
CFNY	Clifton-Fine,	49.06	324		P	07 00 06.1	+0.4
CFNY				IAmb	IAmb	07 00 12.6	
	comp=Z,344nm,1.6s						
LONY	Lake Ozonia	49.06	325	⇓P	P	07 00 06.7	+1.0
MAHO	Mahon	49.06	42		P	07 00 04.7	-1.2
MAHO	Mahon	49.06	42	⇑P	P	07 00 05.2	-0.7
MAHO	Mahon	49.06	42	P	P	07 00 05.4	-0.4
	comp=Z,29µmcomp=Z,8µmcomp=Z,393nm,1.4s,comp=Z,8µm						
HODGE	Hodges	49.11	309	IAmb	IAmb	07 00 19.0	
	comp=Z,260nm,1.0s						
J57A	Williamstown	49.17	323		P	07 00 07.0	+0.4
J57A				IAmb	IAmb	07 00 19.7	
	comp=Z,298nm,1.0s						
ZON	Zonda	49.19	216	*e*P	P	07 00 07.0	0.0
ZON	Zonda	49.19	216	P	P	07 00 07.2	+0.2
ZON	Zonda	49.19	216	IAmb	IAmb	07 00 36.7	
	comp=Z,716nm,1.7s						
ZON	Zonda	49.19	216	⇑P	P	07 00 06.6	-0.3
ZON	Zonda	49.19	216	P	P	07 00 07.8	+0.8
	comp=E,3µmcomp=E,189nm,1.6s,comp=E,3µm						
TIGA	Tifton	49.20	305	IAMs_20	IAMs_20	07 16 08.3	
	comp=Z,98µm,21.0s						
154A	Montrose	49.20	307	IAMs_20	IAMs_20	07 16 09.3	
	comp=Z,100µm,20.0s						
CRIN	San Cristobal	49.21	280	P	P	07 00 09.7	+2.3
	comp=Z,20µmcomp=Z,913nm,1.4s						
CRIN	San Cristobal	49.21	280	P	P	07 00 09.7	+2.3
	comp=Z,15µmcomp=Z,21µmcomp=Z,965nm,1.4s						
R55A	Marlinton	49.22	315	IAMs_20	IAMs_20	07 15 30.4	
	comp=Z,61µm,22.0s						
L56A	Greenwood	49.42	321	IAmb	IAmb	07 00 22.1	
	comp=Z,202nm,1.0s						
VAL	Valentia	49.44	22	P	P	07 00 05.9	-2.6
VAL	Valentia	49.44	22	P	P	07 00 07.8	-0.6
VAL	Valentia	49.44	22	⇓P	P	07 00 08.6	+0.1
VAL	Valentia	49.44	22	⇓P	P	07 00 08.6	+0.1
VAL	Valentia	49.44	22	P	P	07 00 07.2	-1.2
	comp=Z,24µmcomp=Z,7µmcomp=Z,293nm,1.3s,comp=Z,7µm						
LDAQ	Lac Daran	49.45	330	IAmb	IAmb	07 00 21.2	
	comp=Z,205nm,1.0s						
TGUH	Tegucigalpa,Un	49.46	282	P	P	07 00 10.7	+1.3
	comp=Z,16µmcomp=Z,9µmcomp=Z,396nm,1.4s						
TGUH	Tegucigalpa,Un	49.46	282	⇑P	P	07 00 09.3	-0.1
TGUH	Tegucigalpa,Un	49.46	282	P	P	07 00 10.4	+1.0
	comp=Z,13µmcomp=Z,10µmcomp=Z,402nm,1.4s						
EJON	La Jonquera	49.49	39	P	P	07 00 08.8	-0.3
	comp=Z,31µmcomp=Z,7µmcomp=Z,344nm,2.2s						
GO04	Tololo Observa	49.50	219	*e*P	P	07 00 07.8	-1.8
GO04	Tololo Observa	49.50	219	⇑P	P	07 00 08.7	-0.9
GO04	Tololo Observa	49.50	219	P	P	07 00 09.0	-0.6
	comp=Z,30µmcomp=Z,8µmcomp=Z,509nm,0.7s						
553A	Crawfordville	49.50	303	IAmb	IAmb	07 00 21.6	
	comp=Z,339nm,1.1s						
553A				IAMs_20	IAMs_20	07 16 38.5	
	comp=Z,65µm,21.0s						
SJAF	Saint Jean de	49.51	39	P	P	07 00 09.0	-0.2
	comp=Z,28µmcomp=Z,7µmcomp=Z,310nm,1.8s,comp=Z,7µm						
MTLF	Montolieu	49.57	38	*e*P	P	07 00 09.9	+0.2
MTLF				pmax	pmax		
	comp=Z,261nm,1.3s						
MTLF	Montolieu	49.57	38	⇑P	P	07 00 08.8	-0.9
MTLF	Montolieu	49.57	38	P	P	07 00 09.0	-0.7
	comp=Z,29µmcomp=Z,5µmcomp=Z,205nm,1.1s,comp=Z,5µm						
LFF	La Frestale	49.63	35	*e*P	P	07 00 10.7	+0.6
LFF				pmax	pmax		
	comp=Z,805nm,1.0s						
MCWV	Mont Chateau	49.67	317	IAmb	IAmb	07 01 09.0	
	comp=Z,600nm,1.9s						
MCWV	Mont Chateau	49.67	317	⇑P	P	07 00 10.8	+0.4
U54A	Nelsons Funny	49.68	312	IAmb	IAmb	07 00 23.0	
	comp=Z,231nm,0.9s						
U54A				IAMs_20	IAMs_20	07 16 08.8	
	comp=Z,60µm,21.0s						
WBO	Williamsburg	49.68	325	IAmb	IAmb	07 00 23.6	
	comp=Z,251nm,1.3s						
ROSF	Rostrenen	49.71	29	*e*P	P	07 00 11.0	+0.4
ROSF				pmax	pmax		
	comp=Z,248nm,1.1s						
ROSF	Rostrenen	49.71	29	⇑P	P	07 00 09.8	-0.8
ROSF	Rostrenen	49.71	29	P	P	07 00 10.9	+0.4
	comp=Z,7µmcomp=Z,270nm,2.3s						
RTLS	Leoncito	49.74	216	*e*P	P	07 00 10.6	-0.9
GOGA	Godfrey	49.76	308	⇑P	P	07 00 12.1	+0.9
GOGA	Godfrey	49.76	308	IAmb	IAmb	07 00 24.0	
	comp=Z,319nm,1.3s						
GOGA	Godfrey	49.76	308	⇑P	P	07 00 12.2	+0.9
GOGA	Godfrey	49.76	308	P	P	07 00 13.1	+1.8
	comp=Z,21µmcomp=Z,5µmcomp=Z,241nm,1.3s						
S54A	Dingess, Beckl	49.85	314	IAmb	IAmb	07 00 31.8	
	comp=Z,657nm,1.5s						
CO03	El Pedregal	49.89	218	*e*P	P	07 00 10.2	-2.2
CO03	El Pedregal	49.89	218	IAmb	IAmb	07 00 24.3	
	comp=Z,463nm,1.1s						
CO03				IAMs_20	IAMs_20	07 22 36.6	
	comp=Z,53µm,18.0s						
CO03	El Pedregal	49.89	218	P	P	07 00 12.8	+0.4
	comp=Z,25µmcomp=Z,6µmcomp=Z,425nm,1.3s,comp=Z,6µm						
BG3	Lake Jocassee	49.91	310	IAmb	IAmb	07 00 25.1	
	comp=Z,398nm,0.9s						
MMNY	Mt. Morris Dam	49.96	321	IAmb	IAmb	07 00 26.3	
	comp=Z,274nm,1.3s						
SGMF	Saint Gilles	50.00	30	*e*P	P	07 00 13.4	+0.6
SGMF				pmax	pmax		
	comp=Z,533nm,1.4s						
TRQ	Mont Tremblant	50.03	327	IAmb	IAmb	07 00 25.7	
	comp=Z,251nm,1.0s						
Q54A	Coxs Mills	50.03	315	IAmb	IAmb	07 00 30.7	
	comp=Z,563nm,1.8s						
Q54A				IAMs_20	IAMs_20	07 16 28.0	
	comp=Z,61µm,21.0s						
PECO	Prince Edward	50.07	323	IAmb	IAmb	07 00 26.6	
	comp=Z,361nm,1.0s						
V53A	Saluda	50.08	311	IAMs_20	IAMs_20	07 16 22.4	
	comp=Z,83µm,22.0s						
AUSP	Uspallata	50.10	216	*e*P	P	07 00 14.9	+0.8
CCA1	Carnmenellis	50.11	26	*e*P	P	07 00 14.5	+0.8
CCA1				IAMs_20	IAMs_20	07 15 33.9	
	comp=Z,105µm,24.2s						
CCA1	Carnmenellis	50.11	26	P	P	07 00 14.2	+0.5
	comp=Z,27µmcomp=Z,7µmcomp=Z,197nm,0.9s						
MFF	Saint Martin d	50.16	33	⇑*e*P	P	07 00 12.8	-1.3
MFF	Saint Martin d	50.16	33	⇑P	P	07 00 12.8	-1.3
MFF	Saint Martin d	50.16	33	P	P	07 00 13.3	-0.8
	comp=Z,6µmcomp=Z,1µmcomp=Z,45nm,2.1s,comp=Z,1µm						
GAC	Glen Almond	50.22	326	⇓P	P	07 00 15.3	+0.8
H09W1	TRISTAN DA CUN	50.24	154	T	T	07 54 32.6	
	SNR=22						
O54A	Avella	50.28	317	IAMs_20	IAMs_20	07 17 14.3	
	comp=Z,53µm,19.0s						
ARCO	CERRO ARCO	50.28	215	*e*P	P	07 00 13.3	-2.1
352A	Blakely	50.30	305	IAMs_20	IAMs_20	07 16 31.4	
	comp=Z,101µm,22.0s						
CO02	Combarbal	50.34	218	*e*P	P	07 00 12.2	-3.6
CO02	Combarbal	50.34	218	IAMs_20	IAMs_20	07 21 38.4	
	comp=Z,61µm,19.0s						
CO02	Combarbal	50.34	218	⇑P	P	07 00 14.8	-0.9
CO02	Combarbal	50.34	218	P	P	07 00 15.1	-0.7
	comp=Z,24µmcomp=Z,8µmcomp=Z,732nm,1.4s						
CO06	Fray Jorge	50.36	219	IAMs_20	IAMs_20	07 22 06.2	
	comp=Z,66µm,19.0s						
Y52A	Lilburn	50.38	308	IAmb	IAmb	07 00 28.3	
	comp=Z,253nm,0.9s						
PAOC	Oil Creek Stat	50.46	319	IAmb	IAmb	07 00 29.5	
	comp=Z,333nm,0.9s						
152A	Waverly Hall	50.50	306	IAmb	IAmb	07 00 29.7	
	comp=Z,292nm,1.1s						
152A				IAMs_20	IAMs_20	07 16 36.7	
	comp=Z,98µm,22.0s						
P53A	Whipple	50.65	316	IAmb	IAmb	07 00 38.4	
	comp=Z,496nm,1.3s						
P53A				IAMs_20	IAMs_20	07 16 36.2	
	comp=Z,66µm,22.0s						
W52A	Murphy	50.71	310	IAMs_20	IAMs_20	07 17 24.2	
	comp=Z,75µm,20.0s						
451A	Vernon	50.71	303	IAMs_20	IAMs_20	07 17 06.6	
	comp=Z,63µm,20.0s						
DELO	Deloro Mine	50.77	323	IAmb	IAmb	07 00 31.6	
	comp=Z,285nm,1.2s						
TKL	Tuckaleechee C	50.80	310	P	P	07 00 19.9	+0.7
	comp=Z,58nm,0.9s,baz=125,slow=8.4,SNR=56						
TKL				LR	LR	07 17 16.7	
	comp=Z,94µm,21.7s,baz=118,slow=31						
	comp=Z,58nm,0.9s						
TKL	Tuckaleechee C	50.80	310	⇑P	P	07 00 19.8	+0.7
JSA	Saint Aubin	50.82	29	⇑P	P	07 00 18.3	-0.7
ALLY	Alegheny Colle	50.83	319	IAmb	IAmb	07 00 32.2	
	comp=Z,287nm,0.9s						
O53A	New Philadelph	50.87	317	IAmb	IAmb	07 00 40.1	
	comp=Z,457nm,1.2s						
N53A	Lisbon	50.88	318	IAmb	IAmb	07 00 32.9	
	comp=Z,314nm,0.9s						
TEIG	Tepich	50.88	290		P	07 00 20.0	+0.1
TEIG	Tepich	50.88	290	P	P	07 00 18.7	-1.3
	comp=Z,16µmcomp=Z,5µmcomp=Z,138nm,1.1s						
TEIG	Tepich	50.88	290	⇓P	P	07 00 20.1	+0.1
TEIG	Tepich	50.88	290	P	P	07 00 21.2	+1.3
	comp=Z,14µmcomp=Z,6µmcomp=Z,142nm,1.1s,comp=Z,6µm						
KEST	Kesra	50.89	50	P	P	07 00 19.6	-0.3
	comp=Z,44nm,0.8s,baz=108,slow=0.4,SNR=23						
KEST				LR	LR	07 22 29.8	
	comp=Z,77µm,19.0s,baz=254,slow=37						
	comp=Z,44nm,0.8s						
KEST	Kesra	50.89	50	P	P	07 00 20.1	+0.2
	SNR=58						
KEST				S	S	07 07 35.2	-1.2
KEST	Kesra	50.89	50	IAmb	IAmb	07 00 48.5	
	comp=Z,678nm,1.4s						
CO04	Los Peladeros	50.91	217	IAmb	IAmb	07 00 31.2	
	comp=Z,377nm,1.1s						
CO04				IAMs_20	IAMs_20	07 23 35.6	
	comp=Z,57µm,19.0s						
CO04	Los Peladeros	50.91	217	P	P	07 00 19.6	-0.7
	comp=Z,26µmcomp=Z,7µmcomp=Z,335nm,1.2s						
IGLA	Glengowla, Co	50.94	21	P	P	07 00 20.9	+1.1
IGLA	Glengowla, Co	50.94	21	P	P	07 00 22.7	+2.9
	comp=Z,24µmcomp=Z,5µmcomp=Z,172nm,1.7s,comp=Z,5µm						
TZTN	Tazewell	50.97	311	IAmb	IAmb	07 00 33.3	
	comp=Z,677nm,1.6s						
TZTN				IAMs_20	IAMs_20	07 16 59.9	
	comp=Z,65µm,22.0s						
TZTN	Tazewell	50.97	311	⇑P	P	07 00 21.6	+1.2
TZTN	Tazewell	50.97	311	P	P	07 00 21.6	+1.2
	comp=Z,20µmcomp=Z,7µmcomp=Z,236nm,1.5s,comp=Z,7µm						
HTL	Hartland	51.03	26	P	P	07 00 20.2	-0.3
	comp=Z,6µmcomp=Z,2µmcomp=Z,39nm,2.2s,comp=Z,2µm						
Q52A	Bidwell	51.03	315	IAmb	IAmb	07 00 32.7	
	comp=Z,210nm,0.9s						
IWEX	Carrickbyrne,	51.10	24	P	P	07 00 20.8	-0.3
IWEX	Carrickbyrne,	51.10	24	*e*P	P	07 00 20.7	-0.4
IWEX	Carrickbyrne,	51.10	24	P	P	07 00 21.4	+0.4
	comp=Z,23µmcomp=Z,6µmcomp=Z,240nm,1.2s,comp=Z,6µm						
VA03	San Esteban	51.17	216	*e*P	P	07 00 20.1	-1.9
VA03	San Esteban	51.17	216	IAmb	IAmb	07 00 33.8	
	comp=Z,331nm,0.9s						
VA03				IAMs_20	IAMs_20	07 22 17.4	
	comp=Z,75µm,19.0s						
VA03	San Esteban	51.17	216	P	P	07 00 21.6	-0.4
	comp=Z,6µmcomp=Z,436nm,1.1s,comp=Z,6µm						
P52A	Corning	51.23	316	IAmb	IAmb	07 00 42.4	
	comp=Z,535nm,1.3s						
O52A	Adamsville	51.24	316	IAmb	IAmb	07 00 36.0	
	comp=Z,386nm,1.1s						
O52A				IAMs_20	IAMs_20	07 17 14.8	
	comp=Z,51µm,20.0s						
X51A	Calhoun	51.24	309	IAMs_20	IAMs_20	07 17 30.2	
	comp=Z,93µm,21.0s						
MT08	Bocatoma Ro	51.35	215	IAmb	IAmb	07 00 36.1	
	comp=Z,388nm,1.0s						
S51A	Beattyville	51.43	313	IAmb	IAmb	07 00 43.6	
	comp=Z,715nm,1.9s						
S51A				IAMs_20	IAMs_20	07 17 35.0	
	comp=Z,49µm,20.0s						
LDF	La Druitiere	51.44	31	*e*P	P	07 00 23.8	+0.1
LDF				pmax	pmax		
	comp=Z,142nm,1.2s						
MTO3	Montecristo	51.50	282	IAmb	IAmb	07 00 43.8	
	comp=Z,352nm,1.3s						
PEL	Peldehue	51.52	216	*e*P	P	07 00 29.2	+4.7
PEL	Peldehue	51.52	216	P	P	07 00 24.4	-0.2
PEL	Peldehue	51.52	216	IAmb	IAmb	07 00 35.6	
	comp=Z,318nm,1.1s						
PEL				IAMs_20	IAMs_20	07 22 47.5	
	comp=Z,67µm,20.0s						
PEL	Peldehue	51.52	216	⇑P	P	07 00 23.6	-0.9
PEL	Peldehue	51.52	216	P	P	07 00 23.8	-0.8
	comp=Z,27µmcomp=Z,4µmcomp=Z,310nm,1.6s,comp=Z,4µm						
250A	Grady	51.53	305	IAMs_20	IAMs_20	07 17 41.2	
	comp=Z,82µm,22.0s						

ARBF	**Arbois**	**51.57**	**39**	P	**P**	**07 00 25.5**	**+0.8**
	comp=Z,27µmcomp=Z,8µmcomp=Z,415nm,2.1s,comp=Z,8µm						
MT16	**CCHEN**	**51.63**	**216**	IAmb	IAmb	07 00 37.2	
	comp=Z,336nm,0.8s						
MT16				IAMs_20	IAMs_20	07 23 44.6	
	comp=Z,56µm,20.0s						
MT03	**Universidad Ad**	**51.67**	**216**	IAmb	IAmb	07 00 37.7	
	comp=Z,417nm,1.1s						
MT03				IAMs_20	IAMs_20	07 23 47.6	
	comp=Z,57µm,20.0s						
MT13	**San Alfonso**	**51.72**	**215**	IAmb	IAmb	07 00 47.7	
	comp=Z,229nm,1.0s						
MT05	**Renca**	**51.73**	**216**	IAMs_20	IAMs_20	07 22 53.2	
	comp=Z,60µm,19.0s						
BGF	**Bois d'Agland**	**51.78**	**34**	*e*P	**P**	**07 00 26.8**	**+0.5**
BGF				pmax	pmax		
	comp=Z,187nm,1.1s						
P51A	**Williamsport**	**51.81**	**315**	IAmb	IAmb	07 00 40.1	
	comp=Z,351nm,0.9s						
W50A	**Signal Mountai**	**51.81**	**309**	IAmb	IAmb	07 00 38.9	
	comp=Z,355nm,1.0s						
W50A				IAMs_20	IAMs_20	07 17 26.3	
	comp=Z,87µm,22.0s						
SADO	**Sadowa**	**51.81**	**323**	LR	LR	07 17 58.7	
	comp=Z,45µm,20.1s,baz=142,slow=31						
Q51A	**Peebles**	**51.81**	**314**	IAmb	IAmb	07 00 38.8	
	comp=Z,295nm,0.9s						
MT02	**Curacav**	**51.86**	**216**	IAmb	IAmb	07 00 55.6	
	comp=Z,346nm,1.5s						
MT02				IAMs_20	IAMs_20	07 23 59.9	
	comp=Z,81µm,20.0s						
VIVF	**Saint-Julien-l**	**51.88**	**37**	*e*P	**P**	**07 00 26.2**	**-1.0**
VIVF				pmax	pmax		
	comp=Z,653nm,1.7s						
DSB	**Dublin**	**51.92**	**23**	P	**P**	**07 00 25.5**	**-1.7**
DSB	**Dublin**	**51.92**	**23**	P	**P**	**07 00 26.2**	**-1.0**
DSB	**Dublin**	**51.92**	**23**	P	**P**	**07 00 25.6**	**-1.7**
DSB	**Dublin**	**51.92**	**23**	⇑P	**P**	**07 00 26.4**	**-0.8**
DSB	**Dublin**	**51.92**	**23**	P	**P**	**07 00 27.5**	**+0.3**
	comp=Z,5µmcomp=Z,120nm,1.4s						
BRAL	**Brewton**	**51.94**	**304**	IAMs_20	IAMs_20	07 17 46.2	
	comp=Z,81µm,21.0s						
BRAL	**Brewton**	**51.94**	**304**	⇓P	**P**	**07 00 29.4**	**+1.7**
N51A	**Ashland**	**51.97**	**317**	IAmb	IAmb	07 00 40.7	
	comp=Z,227nm,0.9s						
N51A				IAMs_20	IAMs_20	07 18 46.0	
	comp=Z,49µm,19.0s						
SSB	**Saint Sauveur**	**52.04**	**37**	P	**P**	**07 00 26.8**	**-1.5**
SSB				pmax	pmax		
	comp=Z,314nm,1.2s						
SSB	**Saint Sauveur**	**52.04**	**37**		**P**	**07 00 26.8**	**-1.5**
SSB				IAmb	IAmb	07 00 44.3	
	comp=Z,314nm,1.2s						
SSB	**Saint Sauveur**	**52.04**	**37**	IAMs_20	IAMs_20	07 18 47.9	
	comp=Z,76µm,21.0s						
SSB	**Saint Sauveur**	**52.04**	**37**	⇑P	**P**	**07 00 28.2**	**0.0**
SSB	**Saint Sauveur**	**52.04**	**37**	P	**P**	**07 00 28.6**	**+0.3**
	comp=Z,33µmcomp=Z,7µmcomp=Z,308nm,2.1s,comp=Z,7µm						
ACSO	**Alum Creek Sta**	**52.08**	**316**	IAmb	IAmb	07 00 42.2	
	comp=Z,380nm,1.1s						
ACSO				IAMs_20	IAMs_20	07 17 08.0	
	comp=Z,70µm,22.0s						
ACSO	**Alum Creek Sta**	**52.08**	**316**	⇓P	**P**	**07 00 28.7**	**+0.1**
BO04	**La Punta**	**52.08**	**215**	IAmb	IAmb	07 00 40.4	
	comp=Z,314nm,1.0s						
BO04				IAMs_20	IAMs_20	07 23 49.6	
	comp=Z,56µm,19.0s						
SWET	**Sewanee**	**52.29**	**309**	IAmb	IAmb	07 00 41.6	
	comp=Z,257nm,0.9s						
CLF	**Chambon-Foret**	**52.33**	**33**	⇑P	**P**	**07 00 29.9**	**-0.4**
CLF	**Chambon-Foret**	**52.33**	**33**	P	**P**	**07 00 30.2**	**-0.1**
	comp=Z,26µmcomp=Z,10µmcomp=Z,389nm,1.4s,comp=Z,10µm						
MT01	**Popeta**	**52.36**	**216**	P	**P**	**07 00 29.4**	**-1.4**
MT01				IAmb	IAmb	07 00 41.8	
	comp=Z,285nm,0.9s						
MT01				IAMs_20	IAMs_20	07 24 28.0	
	comp=Z,51µm,19.0s						
MONM	**Monmouth**	**52.37**	**26**	*e*P	**P**	**07 00 30.4**	**-0.2**
MONM				IAMs_20	IAMs_20	07 16 52.7	
	comp=Z,89µm,23.8s						
SMF	**Signal de Mont**	**52.39**	**35**	*e*P	**P**	**07 00 31.1**	**+0.2**
SMF				pmax	pmax		
	comp=Z,158nm,1.5s						
VSL	**Villasalto**	**52.39**	**45**	IAmb	IAmb	07 00 43.0	
	comp=Z,839nm,1.9s						
VSL	**Villasalto**	**52.39**	**45**	⇑P	**P**	**07 00 30.1**	**-0.9**
VSL	**Villasalto**	**52.39**	**45**	P	**P**	**07 00 30.3**	**-0.7**
	comp=Z,27µmcomp=Z,5µmcomp=Z,179nm,2.1s,comp=Z,5µm						
MCH1	**Michaelchurch**	**52.40**	**26**	⇑P	**P**	**07 00 29.1**	**-1.7**
MCH1	**Michaelchurch**	**52.40**	**26**	*e*P	**P**	**07 00 30.4**	**-0.3**
MCH1				IAMs_20	IAMs_20	07 17 04.4	
	comp=Z,102µm,27.0s						
LRAL	**Lakeview Retre**	**52.44**	**306**	IAmb	IAmb	07 00 44.0	
	comp=Z,247nm,1.0s						
LRAL				IAMs_20	IAMs_20	07 17 48.1	
	comp=Z,109µm,22.0s						
LRAL	**Lakeview Retre**	**52.44**	**306**	⇓P	**P**	**07 00 31.8**	**+0.4**
ILTH	**Belurgan, Co L**	**52.54**	**22**	P	**P**	**07 00 30.8**	**-1.0**
ILTH	**Belurgan, Co L**	**52.54**	**22**	*e*P	**P**	**07 00 31.8**	**0.0**
ILTH	**Belurgan, Co L**	**52.54**	**22**	P	**P**	**07 00 34.7**	**+2.9**
	comp=N,14µmcomp=N,43nm,1.1s						
APG	**El Apazote**	**52.58**	**283**	P	**P**	**07 00 33.7**	**+0.7**
	comp=N,2.8nm,0.7s,baz=119,slow=11,SNR=20						
SWN1	**Swindon**	**52.59**	**27**	*e*P	**P**	**07 00 32.8**	**+0.6**
SWN1				IAMs_20	IAMs_20	07 17 11.4	
	comp=Z,97µm,23.1s						
U49A	**Red Boiling Sp**	**52.62**	**311**	IAMs_20	IAMs_20	07 18 01.8	
	comp=Z,79µm,21.0s						
M50A	**Fremont**	**52.63**	**317**	IAmb	IAmb	07 00 46.1	
	comp=Z,328nm,1.0s						
M50A				IAMs_20	IAMs_20	07 19 05.7	
	comp=Z,47µm,20.0s						
BO01	**Tunca**	**52.64**	**215**	P	**P**	**07 00 32.2**	**-0.7**
BO01				IAmb	IAmb	07 00 43.7	
	comp=Z,220nm,0.9s						
BO01				IAMs_20	IAMs_20	07 22 32.5	
	comp=Z,67µm,20.0s						
BO01	**Tunca**	**52.64**	**215**	P	**P**	**07 00 31.9**	**-0.9**
	comp=Z,22µmcomp=Z,6µmcomp=Z,272nm,1.8s						
ORIF	**Oris-en-Rattie**	**52.65**	**38**	P	**P**	**07 00 32.9**	**0.0**
	comp=Z,24µmcomp=Z,4µmcomp=Z,89nm,2.3s,comp=Z,4µm						
SCHQ	**Schefferville**	**52.67**	**339**	P	**P**	**07 00 32.5**	**-0.3**
	comp=Z,91nm,0.9s,baz=142,slow=6.1,SNR=57						
SCHQ				LR	LR	07 19 19.0	
	comp=Z,33µm,21.3s,baz=144,slow=32						
	comp=Z,91nm,0.9s						
CALF	**Calern**	**52.70**	**39**	P	**P**	**07 00 32.9**	**-0.4**
	comp=Z,25µmcomp=Z,8µmcomp=Z,359nm,1.8s,comp=Z,8µm						
EDS3	**Malargue**	**52.71**	**213**	*e*P	**P**	**07 00 32.8**	**-0.7**
WLF1	**Llynfaes**	**52.74**	**24**	*e*P	**P**	**07 00 33.2**	**-0.1**
WLF1				IAMs_20	IAMs_20	07 16 41.5	
	comp=Z,166µm,26.8s						
WLF1	**Llynfaes**	**52.74**	**24**	P	**P**	**07 00 32.8**	**-0.5**
	comp=E,4µmcomp=E,113nm,0.8s						
BO02	**Sierra Bellavi**	**52.76**	**215**	IAmb	IAmb	07 00 46.6	
	comp=Z,246nm,0.8s						
BO02				IAMs_20	IAMs_20	07 23 19.5	
	comp=Z,75µm,20.0s						
BO02	**Sierra Bellavi**	**52.76**	**215**	⇑P	**P**	**07 00 33.2**	**-0.6**
BO02	**Sierra Bellavi**	**52.76**	**215**	P	**P**	**07 00 33.5**	**-0.3**
	comp=Z,21µmcomp=Z,6µmcomp=Z,330nm,0.9s						
LOR	**Lormes**	**52.76**	**34**	*e*P	**P**	**07 00 35.9**	**+2.3**
LOR				pmax	pmax		
	comp=Z,407nm,1.6s						
LOR	**Lormes**	**52.76**	**34**	⇑P	**P**	**07 00 32.6**	**-1.0**
LOR	**Lormes**	**52.76**	**34**	P	**P**	**07 00 32.8**	**-0.8**
	comp=Z,23µmcomp=Z,5µmcomp=Z,169nm,1.3s,comp=Z,5µm						
HLM1	**Long Mynd**	**52.82**	**26**	*e*P	**P**	**07 00 33.2**	**-0.7**
HLM1				IAMs_20	IAMs_20	07 17 04.9	
	comp=Z,76µm,25.1s						
R49A	**Shelbyville**	**52.83**	**313**	IAmb	IAmb	07 00 48.0	
	comp=Z,369nm,1.3s						
WME	**Myndd Eilian**	**52.86**	**24**	*e*P	**P**	**07 00 34.0**	**-0.2**
X48A	**Hartselle**	**52.91**	**308**	IAmb	IAmb	07 00 46.8	
	comp=Z,209nm,0.9s						
IDGL	**Inch Island, C**	**52.92**	**21**	P	**P**	**07 00 34.1**	**-0.5**
IDGL	**Inch Island, C**	**52.92**	**21**	*e*P	**P**	**07 00 33.8**	**-0.8**
IDGL	**Inch Island, C**	**52.92**	**21**	P	**P**	**07 00 35.1**	**+0.6**
	comp=Z,24µmcomp=Z,5µmcomp=Z,170nm,1.3s,comp=Z,5µm						
FOEL	**Foel Wylfa**	**52.95**	**25**	*e*P	**P**	**07 00 35.1**	**+0.3**
FOEL				IAMs_20	IAMs_20	07 17 22.9	
	comp=Z,63µm,23.1s						
FOEL	**Foel Wylfa**	**52.95**	**25**	P	**P**	**07 00 34.2**	**-0.7**
	comp=Z,10µmcomp=Z,3µmcomp=Z,184nm,1.8s,comp=Z,3µm						
K50A	**Casco**	**52.98**	**319**	IAmb	IAmb	07 00 48.6	
	comp=Z,528nm,1.5s						
ISO	**Isola**	**52.99**	**39**	P	**P**	**07 00 34.9**	**-0.5**
	comp=Z,24µmcomp=Z,4µmcomp=Z,119nm,2.3s,comp=Z,4µm						
O49A	**Covington**	**52.99**	**315**	IAMs_20	IAMs_20	07 18 20.3	
	comp=Z,57µm,21.0s						
ESCA	**l'Escarene**	**53.02**	**40**	P	**P**	**07 00 35.2**	**-0.3**
	comp=Z,7µmcomp=Z,356nm,2.2s,comp=Z,7µm						
SBF	**Sospel**	**53.07**	**40**	*e*P	**P**	**07 00 36.4**	**+0.4**
SBF				pmax	pmax		
	comp=Z,240nm,1.1s						
HMNX	**Herstmonceux**	**53.15**	**29**	*e*P	**P**	**07 00 37.0**	**+0.7**
HMNX				IAMs_20	IAMs_20	07 16 06.2	
	comp=Z,84µm,36.1s						
HMNX	**Herstmonceux**	**53.15**	**29**	P	**P**	**07 00 37.6**	**+1.3**
	comp=Z,27µmcomp=Z,8µmcomp=Z,420nm,1.6s,comp=Z,8µm						
V48A	**Smith Brothers**	**53.15**	**309**	IAmb	IAmb	07 00 48.6	
	comp=Z,306nm,0.9s						
V48A				IAMs_20	IAMs_20	07 18 17.8	
	comp=Z,76µm,21.0s						
N49A	**Columbus Grove**	**53.20**	**316**	IAmb	IAmb	07 00 50.1	
	comp=Z,278nm,1.1s						
N49A				IAMs_20	IAMs_20	07 18 15.7	
	comp=Z,65µm,21.0s						
BO03	**Pichilemu**	**53.22**	**216**	P	**P**	**07 00 37.2**	**+0.1**
	comp=Z,22µmcomp=Z,5µmcomp=Z,205nm,1.1s						
Z47A	**Carrollton**	**53.34**	**306**	IAmb	IAmb	07 00 50.7	
	comp=Z,520nm,1.3s						
Z47A				IAMs_20	IAMs_20	07 18 28.1	
	comp=Z,97µm,22.0s						
IOMK	**Kirk Michael**	**53.40**	**23**	P	**P**	**07 00 38.5**	**+0.4**
	comp=Z,19µmcomp=Z,5µmcomp=Z,152nm,2.0s,comp=Z,5µm						
CLGH	**Cloghs, Cushen**	**53.44**	**22**	*e*P	**P**	**07 00 38.4**	**0.0**
CLGH				IAMs_20	IAMs_20	07 16 19.1	
	comp=Z,83µm,31.6s						
CLGH	**Cloghs, Cushen**	**53.44**	**22**	P	**P**	**07 00 39.1**	**+0.7**
	comp=Z,23µmcomp=Z,6µmcomp=Z,191nm,1.1s,comp=Z,6µm						
AAM	**Ann Arbor**	**53.45**	**318**	P	**P**	**07 00 39.6**	**+0.9**
AAM	**Ann Arbor**	**53.45**	**318**	⇑P	**P**	**07 00 39.3**	**+0.6**
PGF	**Pioggiola**	**53.46**	**42**	⇑P	**P**	**07 00 37.8**	**-1.2**
PGF	**Pioggiola**	**53.46**	**42**	⇑P	**P**	**07 00 37.8**	**-1.2**
PGF	**Pioggiola**	**53.46**	**42**	P	**P**	**07 00 38.0**	**-1.0**
	comp=Z,24µmcomp=Z,5µmcomp=Z,226nm,2.2s,comp=Z,5µm						
P48A	**Milroy**	**53.47**	**314**	IAmb	IAmb	07 00 51.8	
	comp=Z,346nm,1.2s						
P48A				IAMs_20	IAMs_20	07 18 14.9	
	comp=Z,56µm,22.0s						
STNC	**Stoke**	**53.51**	**26**	P	**P**	**07 00 38.2**	**-0.8**
	comp=Z,21µmcomp=Z,7µmcomp=Z,186nm,1.2s						
PAYG	**Puerto Ayora**	**53.52**	**264**	P	**P**	**07 00 40.3**	**+0.6**
PAYG	**Puerto Ayora**	**53.52**	**264**	P	**P**	**07 00 40.9**	**+1.2**
	comp=Z,11µmcomp=Z,5µmcomp=Z,219nm,1.2s						
PAYG	**Puerto Ayora**	**53.52**	**264**	P	**P**	**07 00 40.9**	**+1.2**
	comp=Z,5µmcomp=Z,226nm,1.2s,comp=Z,5µm						
GO05	**Hualane**	**53.57**	**215**	IAMs_20	IAMs_20	07 24 53.0	
	comp=Z,90µm,19.0s						
GO05	**Hualane**	**53.57**	**215**	⇑P	**P**	**07 00 38.6**	**-1.1**
GO05	**Hualane**	**53.57**	**215**	P	**P**	**07 00 39.7**	**0.0**
	comp=Z,22µmcomp=Z,4µmcomp=Z,129nm,1.5s						
HUEH	**Huehuetenango**	**53.59**	**283**	IAmb	IAmb	07 00 54.0	
	comp=Z,249nm,0.9s						
O48B	**Farmland**	**53.59**	**315**	IAmb	IAmb	07 00 52.2	
	comp=Z,231nm,0.9s						
WCI	**Wyandotte Cave**	**53.62**	**312**	P	**P**	**07 00 40.7**	**+0.6**
WCI				pmax	pmax		
	comp=Z,257nm,0.9s						
WCI	**Wyandotte Cave**	**53.62**	**312**	P	**P**	**07 00 40.7**	**+0.6**
WCI				IAmb	IAmb	07 00 52.1	
	comp=Z,257nm,0.8s						
WCI	**Wyandotte Cave**	**53.62**	**312**	IAMs_20	IAMs_20	07 18 33.2	
	comp=Z,62µm,21.0s						
WCI	**Wyandotte Cave**	**53.62**	**312**	⇑P	**P**	**07 00 40.3**	**+0.2**
WCI	**Wyandotte Cave**	**53.62**	**312**	P	**P**	**07 00 41.5**	**+1.4**
	comp=Z,22µmcomp=Z,6µmcomp=Z,328nm,0.8s						
CWF	**Charnwood Fore**	**53.66**	**26**	*e*P	**P**	**07 00 39.6**	**-0.4**
CWF				IAMs_20	IAMs_20	07 17 42.8	
	comp=Z,83µm,23.7s						
CWF	**Charnwood Fore**	**53.66**	**26**	P	**P**	**07 00 39.0**	**-1.0**
	comp=Z,23µmcomp=Z,5µmcomp=Z,204nm,1.9s						
I49A	**Point Hope**	**53.66**	**320**	IAmb	IAmb	07 00 52.5	
	comp=Z,304nm,1.1s						
ELSH	**Elham, Standar**	**53.71**	**29**	P	**P**	**07 00 40.8**	**+0.3**
	comp=Z,6µmcomp=Z,2µmcomp=Z,109nm,1.8s						
GIMEL	**St. Georges /**	**53.73**	**36**	P	**P**	**07 00 40.4**	**-0.4**
	comp=Z,29µmcomp=Z,5µmcomp=Z,164nm,1.9s,comp=Z,5µm						
NRS	**Narsarsuaq**	**53.76**	**355**	IAmb	IAmb	07 00 52.0	
	comp=Z,224nm,1.2s						
NRS	**Narsarsuaq**	**53.76**	**355**	*i* P	**P**	**07 00 41.0**	**+0.4**
NRS				IAmb	IAmb	07 00 48.1	
	comp=Z,216nm,1.3s						
NRS	**Narsarsuaq**	**53.76**	**355**	*i* P	**P**	**07 00 40.9**	**+0.2**
NRS				IAmb	IAmb	07 00 48.1	
	comp=Z,214nm,1.3s						
NRS	**Narsarsuaq**	**53.76**	**355**	P	**P**	**07 00 44.1**	**+3.4**
	comp=Z,159nm,1.2s						
GAL1	**Galloway**	**53.80**	**23**	*e*P	**P**	**07 00 40.5**	**-0.5**
GAL1				IAMs_20	IAMs_20	07 16 30.4	
	comp=Z,72µm,29.2s						
ML02	**Panimavida**	**53.82**	**214**	IAMs_20	IAMs_20	07 25 34.6	
	comp=Z,78µm,18.0s						
ML02	**Panimavida**	**53.82**	**214**	P	**P**	**07 00 41.2**	**-0.2**
	comp=Z,23µmcomp=Z,13µmcomp=Z,1µm,1.1s						
146A	**Union**	**53.98**	**305**	IAMs_20	IAMs_20	07 18 47.1	
	comp=Z,51µm,21.0s						
346A	**Big Creek Wild**	**54.00**	**303**	IAMs_20	IAMs_20	07 19 21.5	
	comp=Z,79µm,21.0s						
WVT	**Waverly**	**54.05**	**309**	P	**P**	**07 00 42.9**	**-0.3**
WVT				pmax	pmax		
	comp=Z,244nm,0.8s						
WVT	**Waverly**	**54.05**	**309**	P	**P**	**07 00 42.9**	**-0.3**
WVT				IAmb	IAmb	07 00 54.2	
	comp=Z,244nm,0.8s						
WVT	**Waverly**	**54.05**	**309**	IAMs_20	IAMs_20	07 19 07.6	
	comp=Z,79µm,21.0s						
WVT	**Waverly**	**54.05**	**309**	⇑P	**P**	**07 00 42.8**	**-0.4**
WVT	**Waverly**	**54.05**	**309**	P	**P**	**07 00 43.5**	**+0.3**
	comp=Z,22µmcomp=Z,5µmcomp=Z,348nm,0.9s						
IVI	**Ivigtut**	**54.08**	**354**	*i* P	**P**	**07 00 43.5**	**+0.5**
IVI				IAmb	IAmb	07 00 54.4	
	comp=Z,359nm,1.2s						
IVI	**Ivigtut**	**54.08**	**354**	*i* P	**P**	**07 00 43.5**	**+0.5**
IVI				IAmb	IAmb	07 00 55.0	
	comp=Z,251nm,1.0s						
IVI	**Ivigtut**	**54.08**	**354**	P	**P**	**07 00 43.4**	**+0.4**
	comp=Z,8µmcomp=Z,5µmcomp=Z,268nm,1.4s						
BLO	**Bloomington**	**54.14**	**313**	IAmb	IAmb	07 00 56.9	
	comp=Z,291nm,1.1s						
NEWG	**New Galloway**	**54.17**	**23**	*e*P	**P**	**07 00 42.9**	**-0.9**
NEWG				IAMs_20	IAMs_20	07 16 39.7	
	comp=Z,77µm,32.2s						
KESW	**Keswick, Cumbr**	**54.22**	**24**	*e*P	**P**	**07 00 43.8**	**-0.3**
KESW				IAMs_20	IAMs_20	07 17 37.9	
	comp=Z,69µm,21.3s						
KESW	**Keswick, Cumbr**	**54.22**	**24**	P	**P**	**07 00 45.0**	**+0.9**
	comp=Z,20µmcomp=Z,6µmcomp=Z,276nm,0.9s,comp=Z,6µm						
N47A	**Urbana**	**54.22**	**316**	IAmb	IAmb	07 00 56.8	
	comp=Z,339nm,1.2s						
N47A				IAMs_20	IAMs_20	07 19 37.8	
	comp=Z,56µm,20.0s						
SENIN	**Lac Senin/Sane**	**54.25**	**37**	IAMs_20	IAMs_20	07 19 56.4	
	comp=Z,100µm,21.0s						
HPK	**Haverah Park**	**54.37**	**25**	*e*P	**P**	**07 00 45.1**	**-0.2**
HPK				IAMs_20	IAMs_20	07 18 06.9	
	comp=Z,58µm,18.7s						
BI02	**San Fabin de**	**54.39**	**214**	IAmb	IAmb	07 00 57.4	
	comp=Z,273nm,0.8s						
BI02	**San Fabin de**	**54.39**	**214**	P	**P**	**07 00 45.3**	**-0.5**
	comp=Z,21µmcomp=Z,6µmcomp=Z,402nm,1.2s,comp=Z,6µm						
CLTB	**Caltabellotta**	**54.45**	**49**	⇑P	**P**	**07 00 46.3**	**+0.1**
CLTB	**Caltabellotta**	**54.45**	**49**	P	**P**	**07 00 46.4**	**+0.1**
	comp=Z,20µmcomp=Z,671nm,1.8s,comp=Z,20µm						
WACR	**West Acre**	**54.51**	**27**	P	**P**	**07 00 48.5**	**+2.2**
	comp=Z,22µmcomp=Z,6µmcomp=Z,370nm,1.1s						
545A	**Edgard**	**54.54**	**301**	IAMs_20	IAMs_20	07 23 41.0	
	comp=Z,46µm,18.0s						
USIN	**University of**	**54.54**	**312**	IAmb	IAmb	07 01 00.4	
	comp=Z,314nm,1.0s						
HAU	**Haudompre**	**54.57**	**35**	*e*P	**P**	**07 00 46.9**	**+0.1**
HAU				pmax	pmax		
	comp=Z,304nm,1.3s						
BAIF	**Baives**	**54.58**	**32**	*e*P	**P**	**07 00 46.7**	**-0.1**
BAIF				pmax	pmax		
	comp=Z,184nm,1.0s						
PGBU	**Glenifferbraes**	**54.59**	**22**	*e*P	**P**	**07 00 46.5**	**-0.3**
PGBU				IAMs_20	IAMs_20	07 16 52.5	
	comp=Z,141µm,27.6s						
LAWE	**Loch Awe, Argy**	**54.60**	**21**	*e*P	**P**	**07 00 46.2**	**-0.6**
LAWE				IAMs_20	IAMs_20	07 16 49.8	
	comp=Z,82µm,34.6s						
J47A	**Sunmer**	**54.63**	**319**	IAmb	IAmb	07 00 59.9	
	comp=Z,298nm,1.1s						
BOST	**Ostende**	**54.65**	**30**	*d*P	**P**	**07 00 45.5**	**-1.8**
	comp=Z,71nm,1.2s						
ESK	**Eskdalemuir**	**54.71**	**23**	P	**P**	**07 00 46.0**	**-1.7**
ESK				pmax	pmax		
	comp=Z,83nm,0.9s						
ESK	**Eskdalemuir**	**54.71**	**23**	P	**P**	**07 00 46.0**	**-1.7**
ESK	**Eskdalemuir**	**54.71**	**23**	⇑P	**P**	**07 00 47.3**	**-0.4**
ESK	**Eskdalemuir**	**54.71**	**23**	*e*P	**P**	**07 00 46.9**	**-0.8**
ESK				IAMs_20	IAMs_20	07 16 52.4	
	comp=Z,82µm,35.3s						
ESK	**Eskdalemuir**	**54.71**	**23**	P	**P**	**07 00 47.1**	**-0.6**
	comp=Z,21µmcomp=Z,4µmcomp=Z,114nm,1.0s						
ESK	**Eskdalemuir**	**54.71**	**23**	P	**P**	**07 00 47.1**	**-0.6**
	comp=Z,21µmcomp=Z,4µmcomp=Z,113nm,1.0s						
EKB	**Eskdalemuir**	**54.73**	**23**	P	**P**	**07 00 46.2**	**-1.6**
EKA	**Eskdalemuir Ar**	**54.74**	**23**	P	**P**	**07 00 47.4**	**-0.5**
	comp=Z,58nm,1.0s,baz=218,slow=5.7,SNR=33						
EKA				LR	LR	07 21 15.1	
	comp=Z,26µm,18.4s,baz=230,slow=33						
	comp=Z,58nm,1.0s						
BOURR	**Bourrignon**	**54.74**	**36**	P	**P**	**07 00 47.5**	**-0.7**
	comp=Z,25µmcomp=Z,7µmcomp=Z,298nm,1.9s,comp=Z,7µm						
BOB	**Bobbio (Coli)**	**54.77**	**39**	⇑P	**P**	**07 00 47.9**	**-0.6**
DOU	**Dourbes**	**54.80**	**32**	P	**P**	**07 00 47.4**	**-1.0**
DOU	**Dourbes**	**54.80**	**32**	*d*P	**P**	**07 00 47.1**	**-1.3**
	comp=Z,147nm,1.2s						
EDMD	**Edmundbyers**	**54.85**	**24**	*e*P	**P**	**07 00 47.9**	**-0.8**
EDMD				IAMs_20	IAMs_20	07 17 55.0	
	comp=Z,75µm,25.1s						
EDMD	**Edmundbyers**	**54.85**	**24**	P	**P**	**07 00 48.5**	**-0.2**
	comp=Z,22µmcomp=Z,4µmcomp=Z,124nm,1.3s						
WDD	**Wied Dalam**	**54.89**	**51**	IAMs_20	IAMs_20	07 23 42.2	
	comp=Z,95µm,20.0s						
WDD	**Wied Dalam**	**54.89**	**51**	P	**P**	**07 00 50.5**	**+1.2**
	comp=Z,25µmcomp=Z,8µmcomp=Z,515nm,1.3s,comp=Z,8µm						
GIVF	**Givet**	**54.92**	**32**	*e*P	**P**	**07 00 50.1**	**+0.8**
GIVF				pmax	pmax		
	comp=Z,165nm,1.0s						
EAB	**Aberfoyle**	**54.93**	**22**	*e*P	**P**	**07 00 49.4**	**+0.1**
EAB				IAMs_20	IAMs_20	07 16 48.8	
	comp=Z,80µm,28.2s						
T45A	**Paducah**	**54.96**	**310**	IAMs_20	IAMs_20	07 19 23.6	
	comp=Z,73µm,21.0s						
SFIN	**Lafayette**	**55.01**	**315**	IAMs_20	IAMs_20	07 19 23.4	
	comp=Z,55µm,21.0s						
BMRD	**Maredsous**	**55.01**	**32**	*d*P	**P**	**07 00 48.5**	**-1.4**
	comp=Z,63nm,1.2s						
GDLE	**Glaisdale, N Y**	**55.04**	**25**	*e*P	**P**	**07 00 50.1**	**0.0**
GDLE				IAMs_20	IAMs_20	07 18 24.9	
	comp=Z,64µm,23.2s						
VBMS	**Vicksburg**	**55.07**	**304**	IAMs_20	IAMs_20	07 20 34.9	
	comp=Z,71µm,20.0s						
VBMS	**Vicksburg**	**55.07**	**304**	⇓P	**P**	**07 00 50.9**	**+0.2**
VLC	**Villacollemand**	**55.09**	**40**	⇑P	**P**	**07 00 49.3**	**-1.4**
VLC	**Villacollemand**	**55.09**	**40**	P	**P**	**07 00 49.6**	**-1.2**
	comp=Z,24µmcomp=Z,5µmcomp=Z,109nm,1.1s,comp=Z,5µm						
UCC	**Uccle**	**55.09**	**31**	P	**P**	**07 00 48.6**	**-1.9**
UCC				pmax	pmax		
	comp=Z,453nm,1.7s						
UCC	**Uccle**	**55.09**	**31**	P	**P**	**07 00 48.6**	**-1.9**
UCC				IAmb	IAmb	07 01 01.8	
	comp=Z,453nm,1.7s						
UCC	**Uccle**	**55.09**	**31**	*d*P	**P**	**07 00 49.5**	**-1.0**
	comp=Z,76nm,1.4s						
UCC	**Uccle**	**55.09**	**31**	P	**P**	**07 00 49.3**	**-1.2**
	comp=Z,2µmcomp=Z,765nmcomp=Z,33nm,1.7s,comp=Z,765nm						
ECH	**Echery**	**55.14**	**35**	P	**P**	**07 00 49.7**	**-1.3**
ECH	**Echery**	**55.14**	**35**	IAmb	IAmb	07 01 08.9	
	comp=Z,447nm,1.5s						
ECH	**Echery**	**55.14**	**35**	⇑P	**P**	**07 00 49.7**	**-1.3**
ECH	**Echery**	**55.14**	**35**	P	**P**	**07 00 50.0**	**-0.9**
	comp=Z,27µmcomp=Z,5µmcomp=Z,195nm,1.4s						
RCHB	**Rochefort**	**55.16**	**32**	*d*P	**P**	**07 00 49.4**	**-1.7**
	comp=Z,77nm,1.3s						
RCHB	**Rochefort**	**55.16**	**32**	P	**P**	**07 00 49.7**	**-1.3**
	comp=Z,5µmcomp=Z,142nm,2.1s,comp=Z,5µm						
BNALP	**Bannalp**	**55.17**	**37**	P	**P**	**07 00 50.9**	**-0.6**
	comp=Z,25µmcomp=Z,6µmcomp=Z,276nm,1.8s,comp=Z,6µm						
CANA	**Caviahue**	**55.18**	**212**	*e*P	**P**	**07 00 49.1**	**-2.5**
INVG	**Invergeldie, C**	**55.22**	**22**	*e*P	**P**	**07 00 50.8**	**-0.6**
INVG				IAMs_20	IAMs_20	07 17 07.9	
	comp=Z,85µm,33.0s						
VAE	**Valguarnera**	**55.32**	**49**	P	**P**	**07 00 52.3**	**-0.2**
	comp=Z,9.2nm,0.3s,baz=356,slow=4.4,SNR=21						
VAE				LR	LR	07 23 08.1	
	comp=Z,92µm,21.3s,baz=280,slow=35						
	comp=Z,9.2nm,0.3s						
KPL	**Plockton**	**55.35**	**20**	*e*P	**P**	**07 00 51.2**	**-1.0**
KPL				IAMs_20	IAMs_20	07 20 17.9	
	comp=Z,55µm,17.1s						
BCLA	**Clavier**	**55.36**	**32**	*d*P	**P**	**07 00 51.3**	**-1.1**
	comp=Z,87nm,1.5s						
WLF	**Walferdange**	**55.38**	**33**	P	**P**	**07 00 48.7**	**-3.9**
WLF	**Walferdange**	**55.38**	**33**	P	**P**	**07 00 51.7**	**-0.9**
WLF	**Walferdange**	**55.38**	**33**	IAMs_20	IAMs_20	07 19 41.7	
	comp=Z,52µm,22.0s						
WLF	**Walferdange**	**55.38**	**33**	*d*P	**P**	**07 00 51.5**	**-1.1**
WLF	**Walferdange**	**55.38**	**33**	*e*P	**P**	**07 00 51.2**	**-1.4**
	comp=Z,288nm,1.4s,baz=240,slow=7.0						
WLF				*e*S	**S**	**07 08 34.6**	**-2.2**
	baz=239,slow=13						
WLF	**Walferdange**	**55.38**	**33**	P	**P**	**07 00 52.5**	**-0.2**
	comp=Z,21µmcomp=Z,4µmcomp=Z,172nm,1.7s,comp=Z,4µm						
BI05	**Punta Hualpn**	**55.52**	**215**	*e*P	**P**	**07 00 53.5**	**-0.3**
BI05	**Punta Hualpn**	**55.52**	**215**	IAmb	IAmb	07 01 04.9	
	comp=Z,221nm,1.0s						
BI05				IAMs_20	IAMs_20	07 25 11.7	
	comp=Z,71µm,20.0s						
TUE	**Stuetta**	**55.53**	**38**	P	**P**	**07 00 51.8**	**-2.2**
TUE				IAMs_20	IAMs_20	07 20 43.2	
	comp=Z,96µm,21.0s						
TUE	**Stuetta**	**55.53**	**38**	⇑P	**P**	**07 00 52.2**	**-1.8**
TUE	**Stuetta**	**55.53**	**38**	P	**P**	**07 00 52.7**	**-1.4**
	comp=Z,13µmcomp=Z,222nm,0.7s						
TUE	**Stuetta**	**55.53**	**38**	P	**P**	**07 00 52.6**	**-1.4**
	comp=Z,21µmcomp=Z,3µmcomp=Z,56nm,0.7s,comp=Z,3µm						
ZCCA	**Zocca**	**55.56**	**40**	P	**P**	**07 00 53.5**	**-0.6**
ZCCA				IAmb	IAmb	07 01 14.2	
	comp=Z,474nm,1.2s						
PEBM	**Pemiscott Bayo**	**55.61**	**309**	IAmb	IAmb	07 01 07.0	
	comp=Z,321nm,1.4s						
S44A	**Carbondale**	**55.64**	**311**	IAmb	IAmb	07 01 07.8	
	comp=Z,426nm,1.1s						
S44A				IAMs_20	IAMs_20	07 19 45.5	
	comp=Z,84µm,22.0s						
SLE	**Schleitheim**	**55.66**	**36**	P	**P**	**07 00 54.0**	**-0.8**
SLE	**Schleitheim**	**55.66**	**36**	P	**P**	**07 00 53.8**	**-1.0**
	comp=Z,23µmcomp=Z,5µmcomp=Z,120nm,1.0s,comp=Z,5µm						
MGAB	**Montegabbione**	**55.69**	**42**	⇑P	**P**	**07 00 53.9**	**-1.1**
BMOL	**Mol**	**55.71**	**31**	*d*P	**P**	**07 00 55.3**	**+0.3**
	comp=Z,120nm,1.2s						
MEM	**Membach**	**55.84**	**32**	*d*P	**P**	**07 00 54.5**	**-1.4**
	comp=Z,136nm,1.2s						
MEM	**Membach**	**55.84**	**32**	P	**P**	**07 00 54.8**	**-1.1**
	comp=Z,14µmcomp=Z,7µmcomp=Z,360nm,1.5s,comp=Z,7µm						
SALO	**Salr**	**55.84**	**39**	⇑P	**P**	**07 00 54.2**	**-1.9**
Q44A	**Meyer Farm, Va**	**55.86**	**312**	IAMs_20	IAMs_20	07 19 53.4	
	comp=Z,55µm,22.0s						
BFO	**Black Forest**	**55.86**	**35**	P	**P**	**07 00 55.0**	**-1.2**
BFO				pmax	pmax		
	comp=Z,1µm,1.8s						
BFO	**Black Forest**	**55.86**	**35**	P	**P**	**07 00 55.0**	**-1.2**
BFO				IAMs_20	IAMs_20	07 20 11.1	
	comp=Z,50µm,22.0s						
BFO	**Black Forest**	**55.86**	**35**	⇑P	**P**	**07 00 55.0**	**-1.2**
BFO	**Black Forest**	**55.86**	**35**	*e*P	**P**	**07 00 55.1**	**-1.2**
	comp=Z,1µm,1.9s,baz=240,slow=7.0						
BFO				*e*S	**S**	**07 08 41.4**	**-2.1**
	baz=239,slow=13						
CESX	**Cesi**	**55.88**	**43**	IAmb	IAmb	07 01 16.7	
	comp=Z,238nm,1.2s						
HGN	**Heimansgroeve**	**55.88**	**32**	P	**P**	**07 00 55.4**	**-0.8**
	comp=Z,24µmcomp=Z,5µmcomp=Z,175nm,1.9s,comp=Z,5µm						
I45A	**Fountain**	**55.90**	**319**	IAmb	IAmb	07 01 09.0	
	comp=Z,349nm,1.2s						
143A	**Socs Landing,**	**55.91**	**304**	IAMs_20	IAMs_20	07 20 29.3	
	comp=Z,57µm,21.0s						
BOPT	**Opiter**	**55.93**	**31**	*d*P	**P**	**07 00 56.9**	**+0.4**
	comp=Z,67nm,1.4s						
BOPT				*d*PcP	**PcP**	**07 01 54.3**	**-0.8**
DAVOX	**Davos/Dischmat**	**56.00**	**37**	P	**P**	**07 00 56.1**	**-1.3**
	comp=Z,39nm,0.8s,baz=243,slow=6.5,SNR=77						
DAVOX				LR	LR	07 21 08.4	
	comp=Z,119µm,21.6s,baz=253,slow=32						
	comp=Z,39nm,0.8s						
M44A	**Midewin, Midew**	**56.05**	**315**	IAMs_20	IAMs_20	07 22 10.3	

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              comp=Z,48µm,19.0s
HBAR  Harrisburg        56.06 308   P        P          07 00 57.5  -0.3
MURB  Monte Urbino      56.11  42   IAmb     IAmb       07 01 30.2
              comp=Z,216nm,1.0s
DRUM  Mains of Drumt    56.16  22  eP        P          07 00 57.9  -0.2
DRUM                                IAMs_20  IAMs_20    07 17 35.9
              comp=Z,82µm,30.0s
DRUM  Mains of Drumt    56.16  22   P        P          07 00 58.3  +0.3
              comp=Z,19µmcomp=Z,238nm,1.2s
DAVA  Damuels           56.24  37  ⇑P        P          07 00 57.9  -1.2
DAVA  Damuels           56.24  37  i P       P          07 00 57.9  -1.2
              comp=Z,234nm,1.1s,SNR=47
DAVA                               i P'P'    P'P'df     07 30 55.6  -3.3
              comp=Z,20nm,1.6s
DAVA  Damuels           56.24  37   P        P          07 00 58.0  -1.1
              comp=Z,30µmcomp=Z,6µmcomp=Z,348nm,1.6s
L44A  Lake County Fo    56.27 316   IAMs_20  IAMs_20    07 20 19.9
              comp=Z,61µm,21.0s
OPLO  Oploo             56.30  31   P        P          07 00 59.9  +0.8
              comp=Z,13µmcomp=Z,532nm,1.9s,comp=Z,13µm
AQU   L'Aquila          56.33  44   P        P          07 00 59.2  -0.5
AQU   L'Aquila          56.33  44   P        P          07 00 58.3  -1.4
AQU                                 IAmb     IAmb       07 01 10.7
              comp=Z,470nm,1.4s
AQU   L'Aquila          56.33  44  ⇑P        P          07 00 58.9  -0.9
AQU   L'Aquila          56.33  44⇑i P        P          07 00 58.8  -0.9
AQU   L'Aquila          56.33  44   P        P          07 00 59.0  -0.7
              comp=Z,5µmcomp=Z,155nm,0.9s
AQU   L'Aquila          56.33  44   P        P          07 00 59.1  -0.7
              comp=Z,24µmcomp=Z,6µmcomp=Z,191nm,0.9s,comp=Z,6µm
MCD   Coleburn Disti    56.37  21  eP        P          07 00 59.5  -0.1
MCD                                 IAMs_20  IAMs_20    07 17 43.7
              comp=Z,52µm,20.7s
TEOL  Teolo             56.45  40   IAmb     IAmb       07 01 11.6
              comp=Z,182nm,0.8s
P43A  Skaggs, Pawnee    56.48 313   IAmb     IAmb       07 01 12.4
              comp=Z,227nm,1.1s
P43A                                IAMs_20  IAMs_20    07 20 11.7
              comp=Z,53µm,21.0s
CCAR  Cane Creek        56.51 306   IAmb     IAmb       07 01 13.5
              comp=Z,342nm,0.9s
INTR  Introdacqua       56.55  44   IAmb     IAmb       07 01 20.2
              comp=Z,401nm,1.6s
UBR   Ueberruh          56.57  37  eP        P          07 01 00.1  -1.2
              comp=Z,902nm,1.7s,baz=240,slow=7.0
UBR                                eS        S          07 08 50.6  -2.4
              baz=239,slow=13
UBR   Ueberruh          56.57  37   P        P          07 01 00.4  -0.9
              comp=Z,24µmcomp=Z,8µmcomp=Z,297nm,1.7s
STU   Stuttgart         56.58  35   P        P          07 00 59.9  -1.4
STU   Stuttgart         56.58  35  ⇑P        P          07 00 60.0  -1.4
STU   Stuttgart         56.58  35  eP        P          07 00 59.7  -1.5
              comp=Z,582nm,1.4s,baz=240,slow=7.0
STU                                eS        S          07 08 51.2  -1.8
              baz=239,slow=13
STU   Stuttgart         56.58  35   P        P          07 01 00.1  -1.2
              comp=Z,19µmcomp=Z,4µmcomp=Z,144nm,1.8s
FVM   French Village    56.61 311   IAmb     IAmb       07 01 14.4
              comp=Z,231nm,1.0s
FETA  Feichten          56.62  37  i P       P          07 01 00.2  -1.6
              comp=Z,171nm,1.1s,SNR=37
FETA                               i P'P'    P'P'df     07 30 56.2  -2.2
              comp=Z,18nm,1.5s
HDIL  Hopedale          56.63 314   IAmb     IAmb       07 01 13.8
              comp=Z,326nm,1.0s
HDIL  Hopedale          56.63 314  ⇑P        P          07 01 01.9  +0.1
GO06  Curarrehue        56.65 211  eP        P          07 01 00.2  -1.8
GO06  Curarrehue        56.65 211   IAmb     IAmb       07 01 14.4
              comp=Z,231nm,0.9s
GO06  Curarrehue        56.65 211  ⇑P        P          07 01 01.3  -0.7
GO06  Curarrehue        56.65 211   P        P          07 01 01.5  -0.5
              comp=Z,21µmcomp=Z,6µmcomp=Z,304nm,1.1s,comp=Z,6µm
SLM   Saint Louis       56.67 312   IAmb     IAmb       07 01 14.6
              comp=Z,393nm,1.1s
CEL   Celeste           56.68  49   P        P          07 00 59.6  -2.6
CEL                                 IAmb     IAmb       07 01 13.1
              comp=Z,488nm,1.7s
CEL                                 IAMs_20  IAMs_20    07 23 54.7
              comp=Z,86µm,22.0s
CEL   Celeste           56.68  49  ⇑P        P          07 01 00.3  -1.9
CEL   Celeste           56.68  49   P        P          07 01 01.2  -1.0
              comp=Z,3µmcomp=Z,150nm,1.7s
CEL   Celeste           56.68  49   P        P          07 01 01.5  -0.8
              comp=Z,21µmcomp=Z,3µmcomp=Z,152nm,1.7s,comp=Z,3µm
CTI   Castel Tesino     56.74  39   P        P          07 01 01.0  -1.6
CTI   Castel Tesino     56.74  39   IAmb     IAmb       07 01 13.7
              comp=Z,229nm,0.9s
K43A  Burlington        56.76 317   IAMs_20  IAMs_20    07 20 22.8
              comp=Z,57µm,22.0s
CGRP  Cima Grappa       56.76  39   P        P          07 01 01.1  -1.7
              comp=Z,23µmcomp=Z,5µmcomp=Z,212nm,1.0s,comp=Z,5µm
T42A  Van Buren         56.83 309   IAMs_20  IAMs_20    07 21 03.1
              comp=Z,77µm,21.0s
RETA  Reutte            56.86  37  i P       P          07 01 01.7  -1.7
              comp=Z,165nm,0.9s,SNR=52
RETA                               eP'P'     P'P'df     07 30 53.9  -4.0
              comp=Z,7.2nm,1.4s
VA04  Juan Fernndez     56.91 221   IAmb     IAmb       07 01 15.6
              comp=Z,200nm,1.1s
VA04                                IAMs_20  IAMs_20    07 24 39.7
              comp=Z,76µm,21.0s
BUG   Bochum--Univer    56.96  32  eP        P          07 01 02.6  -1.2
              comp=Z,429nm,1.3s,baz=240,slow=7.0
BUG                                eS        S          07 08 57.6  -0.3
              baz=239,slow=13
BUG   Bochum--Univer    56.96  32   P        P          07 01 03.2  -0.7
              comp=Z,21µmcomp=Z,7µmcomp=Z,274nm,2.2s
MOTA  Moosalm           57.00  37  i P       P          07 01 02.4  -2.1
              comp=Z,332nm,1.9s,SNR=57
MOTA                               i P'P'    P'P'df     07 30 54.3  -3.6
              comp=Z,19nm,1.6s
SQTA  Sankt Quirin      57.01  37  i P       P          07 01 02.8  -1.7
              comp=Z,135nm,0.8s,SNR=90
SQTA                               i P'P'    P'P'df     07 30 54.2  -3.6
              comp=Z,16nm,1.7s
WTSB  Winterswijk       57.02  31   P        P          07 01 03.5  -0.8
              comp=Z,22µmcomp=Z,7µmcomp=Z,350nm,1.4s
PLCA  Paso Flores       57.05 210   P        P          07 01 05.2  +0.4
              comp=Z,68nm,1.0s,baz=34,slow=8.6,SNR=48
PLCA                                LR       LR         07 25 46.5
              comp=Z,103µm,19.2s,baz=38,slow=36
              comp=Z,68nm,1.0s
PLCA  Paso Flores       57.05 210  eP        P          07 01 02.6  -2.2
PLCA                               eP        P          07 01 04.2  -0.6
PLCA  Paso Flores       57.05 210   P        P          07 01 04.6  -0.2
PLCA                                IAmb     IAmb       07 01 16.1
              comp=Z,237nm,1.2s
PLCA  Paso Flores       57.05 210  ⇑P        P          07 01 04.2  -0.6
PLCA  Paso Flores       57.05 210   P        P          07 01 05.3  +0.5
PLCA  Paso Flores       57.05 210  eP        P          07 01 02.1  -2.7
PLCA                               eS        S          07 09 00.0  +0.5
PLCA  Paso Flores       57.05 210   P        P          07 01 04.5  -0.2
              comp=Z,19µmcomp=Z,5µmcomp=Z,190nm,1.1s
H03S3 Juan Fernandez    57.08 221   P        P          07 01 06.7  +2.1
              baz=49,slow=10,SNR=5.6
H03S1 Juan Fernandez    57.09 221   P        P          07 01 01.8  -2.9
              baz=49,slow=10,SNR=3.2
H03S2 Juan Fernandez    57.10 221   P        P          07 01 06.4  +1.6
              baz=49,slow=10,SNR=2.4
UALR  University of     57.19 307   IAmb     IAmb       07 01 16.9
              comp=Z,273nm,0.9s
CCM   Cathedral Cave    57.24 311   P        P          07 01 05.9  -0.3
CCM                                 pmax     pmax
              comp=Z,282nm,0.9s
CCM   Cathedral Cave    57.24 311            P          07 01 05.9  -0.3
CCM                                 IAmb     IAmb       07 01 18.6
              comp=Z,282nm,0.9s
CCM   Cathedral Cave    57.24 311   IAMs_20  IAMs_20    07 20 35.1
              comp=Z,79µm,22.0s
WHAR  Wooly Hollow      57.27 307   IAmb     IAmb       07 01 18.9
              comp=Z,406nm,1.3s
MARCO Tramutola         57.28  47   P        P          07 01 05.8  -0.7
              comp=Z,23µmcomp=Z,4µmcomp=Z,328nm,1.2s
WATA  Walderalm         57.28  37  i P       P          07 01 04.6  -1.9
              comp=Z,151nm,1.3s,SNR=45
WATA                               eP'P'     P'P'df     07 30 54.0  -3.4
              comp=Z,21nm,1.7s
WTTA  Wattenberg        57.28  38  i P       P          07 01 04.5  -2.0
              comp=Z,152nm,0.8s,SNR=79
WTTA                               i P'P'    P'P'df     07 30 53.9  -3.6
              comp=Z,26nm,2.0s
WTTA  Wattenberg        57.28  38   P        P          07 01 04.9  -1.7
              comp=Z,21µmcomp=Z,5µmcomp=Z,248nm,0.9s,comp=Z,5µm
NUUK  Nuuk              57.39 353  ⇓P        P          07 01 07.3  +0.7
NUUK  Nuuk              57.39 353  i P       P          07 01 08.3  +1.6
NUUK                                IAmb     IAmb       07 01 18.5
              comp=Z,554nm,1.3s
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NUUK  Nuuk              57.39 353  i P       P          07 01 07.2  +0.5
NUUK                                IAmb     IAmb       07 01 18.6
              comp=Z,554nm,1.3s
NUUK  Nuuk              57.39 353   P        P          07 01 07.7  +1.0
              comp=Z,7µmcomp=Z,7µmcomp=Z,338nm,1.3s
L42A  Oliver, Polo      57.41 315   IAmb     IAmb       07 01 19.5
              comp=Z,351nm,1.1s
L42A                                IAMs_20  IAMs_20    07 20 57.2
              comp=Z,57µm,21.0s
KASTN Kahler Asten      57.43  32  eP        P          07 01 06.0  -1.3
              comp=Z,238nm,1.3s,baz=240,slow=7.0
KASTN                              eS        S          07 09 04.6  +0.5
              baz=239,slow=13
FUR   Furstenfeldbru    57.49  37  eP        P          07 01 06.4  -1.3
              comp=Z,2µm,1.8s,baz=240,slow=7.0
FUR                                eS        S          07 09 02.4  -2.7
              baz=239,slow=13
FUR   Furstenfeldbru    57.49  37   P        P          07 01 06.7  -1.1
              comp=Z,23µmcomp=Z,9µmcomp=Z,384nm,1.8s
STAL  STALIGIAL         57.49  39   IAmb     IAmb       07 01 18.1
              comp=Z,202nm,1.0s
X40A  Basin Creek Fa    57.51 306   IAmb     IAmb       07 01 19.7
              comp=Z,621nm,2.0s
ABTA  Abfaltersbach     57.59  38  i P       P          07 01 07.3  -1.3
              comp=Z,288nm,1.8s,SNR=41
ABTA                               i P'P'    P'P'df     07 30 55.4  -1.5
              comp=Z,11nm,1.5s
I42A  Draeger Farm,     57.61 318   IAmb     IAmb       07 01 21.2
              comp=Z,407nm,1.0s
TIP   Timpagrande       57.61  48   IAMs_20  IAMs_20    07 24 35.3
              comp=Z,61µm,22.0s
TIP   Timpagrande       57.61  48  ⇑P        P          07 01 06.2  -2.7
TIP   Timpagrande       57.61  48  ⇑P        P          07 01 09.8  +1.0
TIP   Timpagrande       57.61  48   P        P          07 01 06.5  -2.3
              comp=Z,2µmcomp=Z,141nm,1.4s
TIP                                 pP       pP         07 01 10.5  -1.0
              comp=Z,2µmcomp=Z,141nm,1.4s
TIP   Timpagrande       57.61  48   P        P          07 01 06.5  -2.3
              comp=Z,19µmcomp=Z,2µmcomp=Z,174nm,1.4s
IBBN  Ibbenburen        57.70  31  ⇑P        P          07 01 08.2  -0.9
IBBN  Ibbenburen        57.70  31  eP        P          07 01 08.0  -1.1
              comp=Z,486nm,1.5s,baz=240,slow=7.0
IBBN                               eS        S          07 09 06.9  -0.6
              baz=239,slow=13
IBBN  Ibbenburen        57.70  31   P        P          07 01 08.4  -0.7
              comp=Z,21µmcomp=Z,7µmcomp=Z,267nm,2.0s
FUSE  Fusea             57.74  39   P        P          07 01 08.1  -1.5
              comp=Z,14µmcomp=Z,5µmcomp=Z,201nm,1.1s
N41A  Harden Midland    57.80 314   IAMs_20  IAMs_20    07 21 00.6
              comp=Z,45µm,20.0s
ISOG  Isortoq, Green    57.84 359  ⇓P        P          07 01 10.0  +0.2
ISOG  Isortoq, Green    57.84 359  i P       P          07 01 09.9  +0.2
ISOG                                IAmb     IAmb       07 01 18.6
              comp=Z,400nm,1.3s
ISOG  Isortoq, Green    57.84 359  i P       P          07 01 10.4  +0.6
ISOG                                IAmb     IAmb       07 01 25.0
              comp=Z,420nm,1.2s
F42A  Maple Grove Fa    57.86 320   IAmb     IAmb       07 01 22.8
              comp=Z,346nm,1.2s
GRC2  Grafenberg Arr    57.88  36   P        P          07 01 09.1  -1.4
              comp=Z,23µmcomp=Z,6µmcomp=Z,271nm,1.9s
LR04  Corral            57.89 212  eP        P          07 01 10.6   0.0
ANGG  Ammassalik, Gr    57.89 360   IAmb     IAmb       07 01 22.7
              comp=Z,313nm,1.2s
ANGG  Ammassalik, Gr    57.89 360  ⇓P        P          07 01 10.3  +0.2
ANGG  Ammassalik, Gr    57.89 360  i P       P          07 01 10.5  +0.3
ANGG                                IAmb     IAmb       07 01 18.7
              comp=Z,178nm,1.0s
ANGG  Ammassalik, Gr    57.89 360  i P       P          07 01 11.1  +0.9
ANGG                                IAmb     IAmb       07 01 18.7
              comp=Z,142nm,0.8s
ANGG  Ammassalik, Gr    57.89 360   P        P          07 01 10.6  +0.3
              comp=Z,8µmcomp=Z,6µmcomp=Z,270nm,1.6s
TRI   Trieste           57.92  40   P        P          07 01 08.5  -2.3
TRI                                 pmax     pmax
              comp=Z,253nm,1.0s
TRI   Trieste           57.92  40   P        P          07 01 08.5  -2.3
TRI                                 IAmb     IAmb       07 01 20.3
              comp=Z,253nm,1.0s
SABO  M.te Sabotino     57.93  40   IAmb     IAmb       07 01 21.9
              comp=Z,448nm,1.1s
LESA  Schwarzleotal     57.99  38  i P       P          07 01 09.7  -1.6
              comp=Z,131nm,0.8s,SNR=102
LESA                               eP'P'     P'P'df     07 30 52.8  -3.4
              comp=Z,12nm,1.8s
ROBS  Robic             57.99  39  eP        P          07 01 09.8  -1.5
ROBS                               eS        S          07 09 14.3  +2.7
ROBS                               e                    07 15 36.9
GRC3  Grafenberg Arr    58.02  36   P        P          07 01 10.1  -1.4
              comp=Z,20µmcomp=Z,6µmcomp=Z,227nm,1.8s
GRC1  Grafenberg Arr    58.03  36   P        P          07 01 10.3  -1.2
              comp=Z,21µmcomp=Z,6µmcomp=Z,334nm,1.1s,comp=Z,6µm
MATE  Matera            58.04  46  ⇑P        P          07 01 08.7  -3.0
MATE  Matera            58.04  46  ⇑P        P          07 01 12.8  +1.1
MATE  Matera            58.04  46   P        P          07 01 10.1  -1.6
              comp=Z,18µmcomp=Z,3µmcomp=Z,77nm,1.0s,comp=Z,3µm
GRC4  Grafenberg Arr    58.08  36   P        P          07 01 10.6  -1.2
              comp=Z,21µmcomp=Z,6µmcomp=Z,289nm,2.0s,comp=Z,6µm
UBBA  Unterbreizbach    58.08  33  eS        S          07 09 09.0  -3.4
              baz=239,slow=13
UBBA  Unterbreizbach    58.08  33   P        P          07 01 07.5  -4.2
              comp=Z,20µmcomp=Z,5µmcomp=Z,177nm,2.1s
R40A  Maddies Statio    58.09 311   IAmb     IAmb       07 01 24.6
              comp=Z,394nm,1.3s
R40A                                IAMs_20  IAMs_20    07 21 11.4
              comp=Z,80µm,22.0s
PRED  Cave del Predi    58.11  39   IAmb     IAmb       07 01 23.9
              comp=Z,644nm,2.0s
PRED  Cave del Predi    58.11  39   P        P          07 01 11.2  -1.0
              comp=Z,4µmcomp=Z,116nm,1.8s
MIAR  Mount Ida         58.12 306   P        P          07 01 12.3  -0.1
MIAR                                pmax     pmax
              comp=Z,167nm,1.1s
MIAR  Mount Ida         58.12 306   P        P          07 01 12.3  -0.1
MIAR  Mount Ida         58.12 306  ⇑P        P          07 01 12.0  -0.4
MIAR  Mount Ida         58.12 306   P        P          07 01 13.0  +0.6
              comp=Z,17µmcomp=Z,5µmcomp=Z,205nm,1.6s,comp=Z,5µm
ACOM  Acomizza, Ital    58.12  39   P        P          07 01 11.4  -1.0
              comp=Z,22µmcomp=Z,8µmcomp=Z,285nm,1.6s,comp=Z,8µm
BORG  Borgarnes         58.13   8   LR       LR         07 18 14.4
              comp=Z,7µm,20.7s,baz=198,slow=28
BORG  Borgarnes         58.13   8   P        P          07 01 12.0  +0.1
BORG                                pmax     pmax
              comp=Z,916nm,1.8s
BORG  Borgarnes         58.13   8   P        P          07 01 12.0  +0.1
BORG  Borgarnes         58.13   8  ⇓P        P          07 01 13.7  +1.8
BORG  Borgarnes         58.13   8   P        P          07 01 13.9  +2.0
              comp=Z,13µmcomp=Z,322nm,2.0s
JFWS  Jewell Farm       58.14 316   IAmb     IAmb       07 01 24.6
              comp=Z,370nm,1.0s
JFWS  Jewell Farm       58.14 316   IAMs_20  IAMs_20    07 21 56.5
              comp=Z,54µm,19.0s
JFWS  Jewell Farm       58.14 316  ⇑P        P          07 01 12.1  -0.3
GRB5  Grafenberg Arr    58.17  36   P        P          07 01 11.1  -1.4
              comp=Z,20µmcomp=Z,5µmcomp=Z,289nm,1.8s
GRFO  Grafenberg        58.19  35   P        P          07 01 12.0  -0.6
GRFO                                pmax     pmax
              comp=Z,200nm,0.9s
GRFO  Grafenberg        58.19  35   P        P          07 01 12.0  -0.6
GRFO                                IAmb     IAmb       07 01 23.2
              comp=Z,200nm,0.9s
GRA1  Grafenberg Arr    58.19  35   P        P          07 01 11.7  -1.0
              comp=Z,21µmcomp=Z,6µmcomp=Z,327nm,1.4s,comp=Z,6µm
GRF   Grafenberg Arr    58.19  35  eP        P          07 01 11.3  -1.4
              comp=Z,288nm,1.0s,baz=240,slow=7.0
GRF                                eS        S          07 09 12.7  -1.4
              baz=239,slow=13
GRF                                eL        L          07 21 48.8
              comp=Z,28µm,21.5s
RJOB  Jochberg          58.20  38   P        P          07 01 11.2  -1.6
              comp=Z,16µmcomp=Z,3µmcomp=Z,122nm,1.1s
MYKA  Terra Mystica     58.23  39  i P       P          07 01 12.1  -1.0
              comp=Z,359nm,1.7s,SNR=55
MYKA                               eP'P'     P'P'df     07 30 53.9  -2.0
              comp=Z,6.7nm,1.1s
KBA   Koelnbreinsper    58.24  38  ⇑P        P          07 01 11.2  -2.1
KBA   Koelnbreinsper    58.24  38  ⇑P        P          07 01 11.2  -2.1
KBA   Koelnbreinsper    58.24  38  i P       P          07 01 11.6  -1.6
              comp=Z,292nm,1.7s,SNR=50
KBA                                eP'P'     P'P'df     07 30 53.2  -2.8
              comp=Z,8.5nm,1.7s
KBA   Koelnbreinsper    58.24  38   P        P          07 01 11.7  -1.6
              comp=Z,27µmcomp=Z,5µmcomp=Z,240nm,1.6s
GRB2  Grafenberg Arr    58.25  35   P        P          07 01 11.7  -1.3
              comp=Z,20µmcomp=Z,5µmcomp=Z,231nm,1.1s,comp=Z,5µm
GRA2  Grafenberg Arr    58.25  35   P        P          07 01 12.2  -0.9
              comp=Z,21µmcomp=Z,8µmcomp=Z,452nm,1.6s,comp=Z,8µm
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GRB4  Grafenberg Arr    58.28  35   P        P          07 01 12.1  -1.2
              comp=Z,20µmcomp=Z,6µmcomp=Z,294nm,1.9s
LL03  Petrohue          58.28 211   P        P          07 01 13.2  -0.2
              comp=Z,16µmcomp=Z,5µmcomp=Z,594nm,1.0s,comp=Z,5µm
GRA3  Grafenberg Arr    58.28  35   P        P          07 01 12.3  -1.0
              comp=Z,21µmcomp=Z,6µmcomp=Z,256nm,1.8s
P40A  Paris             58.29 312   IAMs_20  IAMs_20    07 21 18.7
              comp=Z,74µm,21.0s
GRB1  Grafenberg Arr    58.30  35   P        P          07 01 12.1  -1.3
              comp=Z,20µmcomp=Z,7µmcomp=Z,330nm,1.9s
GRB3  Grafenberg Arr    58.36  35   P        P          07 01 12.6  -1.3
              comp=Z,20µmcomp=Z,5µmcomp=Z,193nm,2.0s
NATX  Nacogdoches       58.40 303   IAMs_20  IAMs_20    07 22 22.2
              comp=Z,62µm,21.0s
NATX  Nacogdoches       58.40 303  ⇑P        P          07 01 14.6  +0.2
GTTG  Gottingen         58.44  33  eP        P          07 01 13.3  -1.0
              comp=Z,173nm,1.1s,baz=240,slow=7.0
GTTG                               eS        S          07 09 18.9  +1.6
              baz=239,slow=13
GTTG  Gottingen         58.44  33   P        P          07 01 13.8  -0.5
              comp=Z,29µmcomp=Z,8µmcomp=Z,416nm,1.4s,comp=Z,8µm
L40A  Anamosa           58.52 315   IAmb     IAmb       07 01 26.8
              comp=Z,294nm,1.0s
L40A                                IAMs_20  IAMs_20    07 21 29.5
              comp=Z,58µm,22.0s
LJU   Ljubljana         58.55  40  i P       P          07 01 14.4  -0.8
BIOA  Bad Ischl, Aus    58.69  38  i P       P          07 01 14.3  -1.9
              comp=Z,190nm,1.1s,SNR=44
S39A  Bolivar           58.72 310   IAMs_20  IAMs_20    07 22 23.1
              comp=Z,64µm,19.0s
I40A  Norwalk           58.75 317   IAMs_20  IAMs_20    07 21 12.5
              comp=Z,45µm,22.0s
OBKA  Obir              58.75  39  i P       P          07 01 15.9  -0.8
              comp=Z,72nm,1.0s,SNR=72
OBKA                               eP'P'     P'P'df     07 30 52.1  -3.1
              comp=Z,5.9nm,1.5s
OBKA  Obir              58.75  39   P        P          07 01 15.9  -0.8
              comp=Z,27µmcomp=Z,7µmcomp=Z,377nm,1.8s,comp=Z,7µm
RETH  Rethem/Aller,     58.75  31  eP        P          07 01 15.7  -0.7
              comp=Z,843nm,1.8s,baz=240,slow=7.0
RETH  Rethem/Aller,     58.75  31   P        P          07 01 16.1  -0.3
              comp=Z,21µmcomp=Z,7µmcomp=Z,254nm,2.0s
CLZ   Clausthal         58.81  32  eP        P          07 01 15.2  -1.8
              comp=Z,1µm,2.6s,baz=240,slow=7.0
CLZ                                eS        S          07 09 24.0  +1.9
              baz=239,slow=13
CLZ   Clausthal         58.81  32   P        P          07 01 15.9  -1.1
              comp=Z,21µmcomp=Z,4µmcomp=Z,115nm,2.0s
HLG   Helgoland         58.82  29  eP        P          07 01 15.4  -1.5
              comp=Z,695nm,1.2s,baz=240,slow=7.0
HLG                                eS        S          07 09 21.4  -0.7
              baz=239,slow=13
HHAR  Hobbs             58.83 308   IAmb     IAmb       07 02 24.8
              comp=Z,337nm,1.8s
PDKS  Podkum            58.85  40  eP        P          07 01 16.4  -1.0
PDKS                               e                    07 01 27.4
PDKS                               ePP       PP         07 03 30.6  +3.1
MOX   Moxa              58.88  34  eP        P          07 01 16.3  -1.1
              comp=Z,1µm,2.5s,baz=240,slow=7.0
MOX                                eS        S          07 09 22.8  -0.2
              baz=239,slow=13
MOX                                eL        L          07 22 11.7
              comp=Z,40µm,21.6s
MOX   Moxa              58.88  34   P        P          07 01 16.5  -1.0
              comp=Z,20µmcomp=Z,4µmcomp=Z,95nm,2.1s
WET   Wettzell          58.89  36  eP        P          07 01 15.8  -1.7
              comp=Z,746nm,2.2s,baz=240,slow=7.0
WET                                eS        S          07 09 21.9  -1.3
              baz=239,slow=13
WET   Wettzell          58.89  36   P        P          07 01 16.0  -1.5
              comp=Z,20µmcomp=Z,4µmcomp=Z,114nm,0.7s
Z38A  Mt. Pleasant      58.97 304   IAMs_20  IAMs_20    07 22 40.2
              comp=Z,53µm,22.0s
G40A  Rib Lake          58.99 319   IAmb     IAmb       07 01 30.8
              comp=Z,277nm,1.1s
G40A                                IAMs_20  IAMs_20    07 22 39.8
              comp=Z,35µm,18.0s
LRW   Lerwick           58.99  20  eP        P          07 01 16.4  -1.6
LRW                                 IAMs_20  IAMs_20    07 18 56.6
              comp=Z,61µm,26.0s
SESA  Seetaler Alpe,    59.02  39  i P       P          07 01 16.5  -2.2
              SNR=20
LL05  Los Muermos       59.02 211   P        P          07 01 18.0  -0.5
              comp=Z,17µmcomp=Z,7µmcomp=Z,394nm,1.1s,comp=Z,7µm
HKT   Hockley           59.07 300   P        P          07 01 19.3  +0.3
HKT                                 pmax     pmax
              comp=Z,203nm,1.2s
HKT   Hockley           59.07 300   P        P          07 01 19.3  +0.3
HKT                                 IAmb     IAmb       07 01 39.0
              comp=Z,203nm,1.1s
HKT   Hockley           59.07 300  ⇑P        P          07 01 19.3  +0.3
HKT   Hockley           59.07 300   P        P          07 01 19.9  +0.9
              comp=Z,16µmcomp=Z,5µmcomp=Z,168nm,2.0s
PLN   Plauen            59.10  34  eP        P          07 01 17.8  -1.1
              comp=Z,142nm,1.5s,baz=240,slow=7.0
PLN                                eS        S          07 09 25.2  -0.8
              baz=239,slow=13
ASSE  Asse, Remlinge    59.12  32  eP        P          07 01 18.0  -0.9
              comp=Z,1µm,2.1s,baz=240,slow=7.0
ASSE                               eS        S          07 09 27.6  +1.7
              baz=239,slow=13
ASSE  Asse, Remlinge    59.12  32   P        P          07 01 18.2  -0.7
              comp=Z,20µmcomp=Z,6µmcomp=Z,183nm,2.1s
SOKA  Soboth            59.13  39  i P       P          07 01 17.8  -1.5
              comp=Z,486nm,2.3s,SNR=117
SOKA                               i P'P'    P'P'df     07 30 52.0  -2.6
              comp=Z,13nm,1.6s
MOA   Molln             59.14  38  i P       P          07 01 17.3  -2.0
              comp=Z,250nm,1.4s,SNR=41
MOA                                eP'P'     P'P'df     07 30 52.3  -2.1
              comp=Z,16nm,1.9s
MOA   Molln             59.14  38   P        P          07 01 17.5  -1.9
              comp=Z,6µmcomp=Z,192nm,1.4s,comp=Z,6µm
NKC   Novy Kostel       59.15  35   P        P          07 01 18.4  -0.9
NKC   Novy Kostel       59.15  35  eS        S          07 09 32.2  +5.6
NKC                                 AMS      AMS        07 19 20.0
              comp=Z,70µm,31.0s
NKC   Novy Kostel       59.15  35   P        P          07 01 18.5  -0.8
              comp=Z,20µmcomp=Z,5µmcomp=Z,204nm,2.1s
PERS  Pernice           59.16  39  eP        P          07 01 18.1  -1.4
U38A  Gravette          59.21 308   IAMs_20  IAMs_20    07 21 44.4
              comp=Z,79µm,22.0s
GEC2  GERESS Array S    59.24  37  eP        P          07 01 18.3  -1.7
              comp=Z,315nm,1.6s,baz=240,slow=7.0
GEC2                               eS        S          07 09 25.4  -2.6
              baz=239,slow=13
GEC2  GERESS Array S    59.24  37   P        P          07 01 18.5  -1.5
              comp=Z,21µmcomp=Z,4µmcomp=Z,142nm,1.9s
GERES GERESS Array B    59.24  37   P        P          07 01 18.9  -1.2
              comp=Z,16nm,0.7s,baz=238,slow=7.4,SNR=40
              comp=Z,16nm,0.7s
GERES GERESS Array B    59.24  37   P        P          07 01 17.6  -2.4
TANN  Tannenbergstha    59.24  35  eP        P          07 01 18.9  -1.1
              comp=Z,865nm,1.9s,baz=240,slow=7.0
TANN                               eS        S          07 09 28.0  +0.1
              baz=239,slow=13
TANN  Tannenbergstha    59.24  35   P        P          07 01 19.1  -0.9
              comp=Z,40µmcomp=Z,10µmcomp=Z,386nm,1.5s
NEUB  Neuenburg         59.24  34  eP        P          07 01 18.6  -1.3
              comp=Z,258nm,1.0s,baz=240,slow=7.0
NEUB                               eS        S          07 09 28.4  +0.7
              baz=239,slow=13
NEUB  Neuenburg         59.24  34   P        P          07 01 19.0  -0.9
              comp=Z,20µmcomp=Z,5µmcomp=Z,249nm,1.6s
WIMM  Wimmelburg        59.25  33   P        P          07 01 18.9  -1.0
              comp=Z,43µmcomp=Z,10µmcomp=Z,464nm,1.3s
KHC   Kasperske Hory    59.29  36ceP         P          07 01 18.8  -1.6
KHC                                 pmax     pmax
              comp=Z,134nm,1.3s
KHC   Kasperske Hory    59.29  36  eP        P          07 01 18.0  -2.4
KHC                                ex        x          07 01 29.0
KHC                                eS        S          07 09 27.9  -0.6
KHC                                 AMS      AMS        07 19 10.0
              comp=Z,71µm,35.3s
KHC   Kasperske Hory    59.29  36   IAmb     IAmb       07 01 31.6
              comp=Z,344nm,1.5s
KHC   Kasperske Hory    59.29  36  ⇑P        P          07 01 18.6  -1.8
KHC   Kasperske Hory    59.29  36   P        P          07 01 18.6  -1.8
              comp=Z,4µmcomp=Z,163nm,1.6s
KHC                                 pP       pP         07 01 23.0   0.0
              comp=Z,4µmcomp=Z,163nm,1.6s
KHC   Kasperske Hory    59.29  36   P        P          07 01 18.9  -1.4
              comp=Z,20µmcomp=Z,4µmcomp=Z,163nm,1.6s
ZAG   Zagreb            59.40  41   P        P          07 01 24.9  +3.8
ZAG   Zagreb            59.40  41   P        P          07 01 21.6  +0.5
              comp=Z,17µmcomp=Z,1µm,1.8s
P38A  Dawn              59.41 312   IAmb     IAmb       07 01 33.1
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       comp=Z,238nm,0.9s
P38A                                IAMs_20  IAMs_20  07 22 04.5
       comp=Z,86µm,22.0s
PTJ    Puntijarka         59.42  41  P        P        07 01 20.6  -0.7
FLTG   Flechtingen        59.52  32 ⥣P        P        07 01 20.3  -1.5
FLTG   Flechtingen        59.52  32 eP        P        07 01 20.4  -1.3
       comp=Z,585nm,1.7s,baz=240,slow=7.0
FLTG                                eS       S        07 09 32.2  +1.0
       baz=239,slow=13
FLTG   Flechtingen        59.52  32  P        P        07 01 20.7  -1.1
       comp=Z,19µmcomp=Z,5µmcomp=Z,150nm,1.5s
N38A   Joes South For     59.54 313  IAMs_20  IAMs_20  07 22 36.7
       comp=Z,46µm,20.0s
LL02   Futaleuf           59.55 209  IAmb     IAmb     07 01 34.4
       comp=Z,195nm,1.2s
LL02   Futaleuf           59.55 209 ⥥P        P        07 01 22.1   0.0
LL02   Futaleuf           59.55 209  P        P        07 01 21.4  -0.6
       comp=Z,15µmcomp=Z,4µmcomp=Z,141nm,1.2s
ARSA   Arzberg            59.67  39  P        P        07 01 20.6  -2.3
ARSA                                IAmb     IAmb     07 01 35.1
       comp=Z,615nm,2.0s
ARSA   Arzberg            59.67  39 ⥣P        P        07 01 20.7  -2.3
ARSA   Arzberg            59.67  39 i P       P        07 01 21.3  -1.7
       comp=Z,212nm,2.0s,SNR=50
ARSA                                i P'P'   P'P'df   07 30 50.9  -2.8
       comp=Z,6.2nm,1.3s
ARSA   Arzberg            59.67  39  P        P        07 01 21.2  -1.8
       comp=Z,23µmcomp=Z,4µmcomp=Z,118nm,1.4s
TREL   Terrell            59.78 303  IAmb     IAmb     07 02 26.7
       comp=Z,364nm,1.6s
BLY    Banja Luka         59.78  42  IAmb     IAmb     07 01 54.9
       comp=Z,252nm,1.3s
BLY    Banja Luka         59.78  42 ⥣P        P        07 01 22.6  -1.1
BLY    Banja Luka         59.78  42 ⥣P        P        07 01 24.6  +0.8
BLY    Banja Luka         59.78  42⥣iP        P        07 01 23.1  -0.6
BLY    Banja Luka         59.78  42  P        P        07 01 22.9  -0.8
       comp=Z,22µmcomp=Z,4µmcomp=Z,168nm,1.1s,comp=Z,4µm
ZVC    Zvikov             59.79  36 eS        S        07 09 39.5  +4.6
ZVC                                 AMS      AMS      07 19 20.0
       comp=Z,59µm,34.0s
TBO    Thunder Bay        59.86 323  IAmb     IAmb     07 01 36.4
       comp=Z,333nm,1.4s
SKMB   Sankelmark Bun     59.87  29  P        P        07 01 25.6  +1.4
       comp=Z,20µmcomp=Z,8µmcomp=Z,289nm,2.4s
TREB   Trebinje           59.88  45 eP        P        07 01 22.6  -1.9
HSKC   Hora Svate Kat     59.88  35 eS        S        07 09 41.6  +5.5
HSKC                                AMS      AMS      07 19 30.0
       comp=Z,70µm,33.6s
HSKC   Hora Svate Kat     59.88  35  P        P        07 01 23.6  -0.8
       comp=Z,20µmcomp=Z,5µmcomp=Z,186nm,2.0s,comp=Z,5µm
BSEG   Bad Segeberg       59.88  30 eS        S        07 09 35.2  -0.6
       baz=239,slow=13
BSEG   Bad Segeberg       59.88  30  P        P        07 01 23.4  -0.8
       comp=Z,12µmcomp=Z,5µmcomp=Z,272nm,1.4s
GORT1  Trebel             59.89  32 eP        P        07 01 23.6  -0.7
       comp=Z,6.5nm,1.6s,baz=240,slow=7.0
GORT1  Trebel             59.89  32  P        P        07 01 24.9  +0.6
       comp=Z,81nmcomp=Z,2.7nm,1.8s,comp=Z,81nm
HCY    Herceg Novi        59.89  45 eP        P        07 01 23.8  -0.8
HCY    Herceg Novi        59.89  45⥣iP        P        07 01 23.7  -0.8
CLL    Collm              59.97  34 i P       P        07 01 23.7  -1.2
CLL                                 eS       S        07 09 37.0  -0.1
CLL                                 pmax     pmax
       comp=Z,524nm,1.9s
CLL    Collm              59.97  34  IAmb     IAmb     07 01 39.7
       comp=Z,418nm,1.8s
CLL                                 IAMs_20  IAMs_20  07 22 43.2
       comp=Z,53µm,21.0s
CLL    Collm              59.97  34 eP        P        07 01 23.7  -1.2
       comp=Z,203nm,1.5s,baz=240,slow=7.0
CLL                                 eS       S        07 09 37.9  +0.9
       baz=239,slow=13
CLL    Collm              59.97  34  P        P        07 01 23.8  -1.2
       comp=Z,4µmcomp=Z,105nm,1.9s
CLL    Collm              59.97  34  P        P        07 01 23.9  -1.0
       comp=Z,19µmcomp=Z,4µmcomp=Z,105nm,1.9s
CLL    Collm              59.97  34 i P       P        07 01 23.7  -1.2
       comp=Z,524nm,1.9s
CLL                                 ePlp              07 01 27.0
       comp=Z,4µm,9.1s
CLL                                 i PcP    PcP      07 02 08.6  -2.4
CLL                                 ePPlp             07 03 37.0
       comp=Z,2µm,6.6s
CLL                                 eS       S        07 09 37.0  -0.1
       comp=N,11µm,23.0s
CLL                                 eS       S        07 09 37.0  -0.1
       comp=E,15µm,16.7s
CLL                                 eS       S        07 09 37.0  -0.1
       comp=Z,8µm,15.6s
CLL                                 eSS      SS       07 13 32.0  -1.6
CLL                                 eSSS     SSS      07 16 08.0
CLL                                 L        L        07 19 00.0
CLL                                 AMS      AMS      07 19 00.0
       comp=N,24µm,20.7s
CLL                                 AMS      AMS      07 19 00.0
       comp=E,51µm,34.1s
CLL                                 AMS      AMS      07 19 00.0
       comp=Z,71µm,36.0s
CLL                                 AMS      AMS      07 22 00.0
       comp=N,27µm,21.5s
CLL                                 AMS      AMS      07 22 00.0
       comp=E,41µm,22.4s
CLL                                 AMS      AMS      07 22 00.0
       comp=Z,54µm,21.8s
CLL                                 i PKPPKPbcP'P'bc  07 31 00.5  -2.3
       comp=Z,59nm,2.1s
SFJD   Kangerlussuaq      59.98 354  LR       LR       07 21 29.2
       comp=Z,9µm,21.2s,baz=170,slow=30
SFJD   Kangerlussuaq      59.98 354  P        P        07 01 24.6   0.0
SFJD                                pmax     pmax
       comp=Z,529nm,1.3s
SFJD   Kangerlussuaq      59.98 354  P        P        07 01 24.6   0.0
SFJD   Kangerlussuaq      59.98 354 ⥣P        P        07 01 24.4  -0.3
SFJD   Kangerlussuaq      59.98 354  P        P        07 01 24.8  +0.1
SFJD   Kangerlussuaq      59.98 354 i P       P        07 01 24.6   0.0
SFJD                                IAmb     IAmb     07 01 32.1
       comp=Z,456nm,1.5s
SFJD   Kangerlussuaq      59.98 354 i P       P        07 01 24.6   0.0
SFJD                                IAmb     IAmb     07 01 37.3
       comp=Z,303nm,1.0s
SFJD   Kangerlussuaq      59.98 354  P        P        07 01 24.9  +0.2
       comp=Z,8µmcomp=Z,373nm,2.0s
VLO    Vlora              60.01  47  P        P        07 01 25.9  +0.5
VLO    Vlora              60.01  47  P        P        07 01 26.5  +1.2
       comp=Z,52µmcomp=Z,613nm,1.7s,comp=Z,52µm
KEK    Kerkira            60.02  48  P        P        07 01 25.6  +0.1
KEK    Kerkira            60.02  48  P        P        07 01 23.3  -2.2
KEK    Kerkira            60.02  48 ⥣P        P        07 01 23.6  -1.9
KEK    Kerkira            60.02  48  P        P        07 01 24.8  -0.7
       comp=Z,24µmcomp=Z,7µmcomp=Z,308nm,1.3s
DMLN   Damoulianata-K     60.05  50  P        P        07 01 25.7  -0.1
BRY    Bratogost          60.07  45⥣iP        P        07 01 24.9  -1.1
BRY    Bratogost          60.07  45⥣iP        P        07 01 25.1  -0.9
LL07   Hotel Espejo d     60.07 210  P        P        07 01 25.4  -0.3
LL07                                IAMs_20  IAMs_20  07 26 12.0
       comp=Z,75µm,20.0s
LL07   Hotel Espejo d     60.07 210  P        P        07 01 25.1  -0.5
       comp=Z,17µmcomp=Z,6µmcomp=Z,508nm,1.0s
LXR1   Lixouri, Cepha     60.09  50  P        P        07 01 26.1  +0.1
MLDN   Muldoon            60.10 300  IAmb     IAmb     07 01 39.1
       comp=Z,183nm,1.0s
ARG2   Argostoli          60.12  50  P        P        07 01 26.5  +0.3
BUM    Brajici-Budva      60.13  45⥣iP        P        07 01 25.3  -1.0
LFKM   Lefkimmi           60.14  49  P        P        07 01 27.1  +0.8
BEHE   Becsehely          60.15  40⥣iP        P        07 01 25.5  -0.8
BEHE   Becsehely          60.15  40  P        P        07 01 25.8  -0.4
       comp=Z,7µmcomp=Z,3µmcomp=Z,114nm,2.0s
CONA   Conrad Observa     60.15  38 i P       P        07 01 24.9  -1.4
       comp=Z,142nm,1.1s,SNR=69
CONA                                eP'P'    P'P'df   07 30 50.5  -2.4
       comp=Z,12nm,1.8s
KLINJ  Klinje             60.19  44 eP        P        07 01 25.7  -1.0
TUL3   Leonard            60.20 307  IAMs_20  IAMs_20  07 22 38.4
       comp=Z,75µm,22.0s
ORTH   Orthonies,Zaky     60.20  51  P        P        07 01 27.0  +0.2
VLS    Valsamata          60.20  50  P        P        07 01 26.7  -0.1
SRN    Sarande            60.21  48  P        P        07 01 26.8   0.0
SRN    Sarande            60.21  48  P        P        07 01 26.6  -0.2
       comp=Z,5µmcomp=Z,170nm,1.7s
CEME   Cevo               60.22  45⥣iP        P        07 01 26.2  -0.7
PRU    Pruhonice          60.23  36  P        P        07 01 25.7  -1.1
PRU    Pruhonice          60.23  36 eP        P        07 01 27.0  +0.2
PRU                                 epP      sP       07 01 30.8  +0.4
PRU                                 eS       S        07 09 42.5  +1.9
PRU                                 AMS      AMS      07 19 50.0
       comp=Z,66µm,35.1s
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PRU    Pruhonice          60.23  36  P        P        07 01 25.6  -1.2
       comp=Z,18µmcomp=Z,4µmcomp=Z,176nm,1.7s,comp=Z,4µm
VSK1   VASILIKIADES       60.24  50  P        P        07 01 27.3  +0.3
TSUM   Tsumeb             60.24 117  P        P        07 01 25.0  -2.5
TSUM                                IAmb     IAmb     07 01 39.1
       comp=Z,307nm,1.3s
TSUM   Tsumeb             60.24 117  IAMs_20  IAMs_20  07 21 13.6
       comp=Z,46µm,21.0s
TSUM   Tsumeb             60.24 117 i P       P        07 01 28.0  +0.6
TSUM   Tsumeb             60.24 117 ⥣P        P        07 01 27.4  -0.1
TSUM   Tsumeb             60.24 117  P        P        07 01 28.2  +0.7
       comp=Z,13µmcomp=Z,4µmcomp=Z,211nm,1.4s
TSUM   Tsumeb             60.24 117  P        P        07 01 28.2  +0.7
FSK    Fiskardo           60.25  50  P        P        07 01 27.1   0.0
ULC    Ulcinj             60.27  46⥣iP        P        07 01 26.7  -0.5
LTHK   Lithakia           60.27  51  P        P        07 01 28.0  +0.8
BRG    Berggiesshubel     60.29  35 eP        P        07 01 26.1  -1.0
       comp=Z,675nm,1.9s,baz=240,slow=7.0
BRG                                 eS       S        07 09 42.2  +1.0
       baz=239,slow=13
BRG    Berggiesshubel     60.29  35  P        P        07 01 26.2  -1.0
       comp=Z,19µmcomp=Z,4µmcomp=Z,153nm,2.0s,comp=Z,4µm
BRG    Berggiesshubel     60.29  35 eP        P        07 01 26.9  -0.3
BRG                                 Amp               07 01 31.4
       comp=Z,91nm,1.2s
BRG    Berggiesshubel     60.29  35  PP       PP       07 03 38.0  -2.1
BRG    Berggiesshubel     60.29  35  S        S        07 09 44.0  +2.8
BRG    Berggiesshubel     60.29  35  SS       SS       07 13 46.0  +7.3
DRME   Dracevica, Mon     60.30  45⥣iP        P        07 01 27.1  -0.3
DRME   Dracevica, Mon     60.30  45⥣iP        P        07 01 27.3  -0.1
RTZL   Ratzakli, Kefa     60.31  50  P        P        07 01 28.0  +0.4
NKME   Niksic             60.32  45⥣iP        P        07 01 26.8  -0.7
DRAG   Dragano-Lefkad     60.32  50  P        P        07 01 28.3  +0.7
RONA   Rosalia, Austr     60.33  39 i P       P        07 01 26.2  -1.3
       comp=Z,328nm,1.2s,SNR=136
RONA                                i P'P'   P'P'df   07 30 50.2  -2.4
       comp=Z,9.1nm,1.5s
FRB    Frobisher Bay      60.34 345  LR       LR       07 23 17.5
       comp=Z,46µm,21.7s,baz=146,slow=32
FRB    Frobisher Bay      60.34 345  P        P        07 01 26.9  -0.3
FRB    Frobisher Bay      60.34 345 ⥥P        P        07 01 27.1   0.0
FRB    Frobisher Bay      60.34 345  P        P        07 01 27.6  +0.4
       comp=Z,8µmcomp=Z,5µmcomp=Z,330nm,1.0s
WINA   Alland / Wiene     60.35  38 i P       P        07 01 26.6  -1.0
       SNR=106
IGT    Igoumenitsa        60.36  49  P        P        07 01 28.0  +0.1
EVGI   Lefkada island     60.37  50  P        P        07 01 28.2  +0.3
GO07   Milladeo Hill,     60.37 210  IAMs_20  IAMs_20  07 26 20.0
       comp=Z,78µm,22.0s
GO07   Milladeo Hill,     60.37 210  P        P        07 01 27.2  -0.6
       comp=Z,19µmcomp=Z,5µmcomp=Z,309nm,1.1s
SSRD   Sdr. Stenderup     60.39  29 i P       P        07 01 26.6  -1.1
SSRD                                IAmb     IAmb     07 01 38.7
       comp=Z,259nm,1.0s
LKD2   Lefkada island     60.41  50  P        P        07 01 28.1  -0.1
LKD2   Lefkada island     60.41  50  P        P        07 01 28.6  +0.4
       comp=Z,23µmcomp=Z,7µmcomp=Z,280nm,1.2s
TSLK   Tsoukalades, L     60.42  50  P        P        07 01 28.0  -0.2
NYDR   Nydri-Lefkada      60.42  50  P        P        07 01 28.4  +0.2
PDG    Podgorica          60.42  45  P        P        07 01 27.4  -0.8
PDG    Podgorica          60.42  45 ⥣P        P        07 01 27.8  -0.3
PDG    Podgorica          60.42  45 ⥥P        P        07 01 29.4  +1.3
PDG    Podgorica          60.42  45⥣iP        P        07 01 28.0  -0.1
PDG    Podgorica          60.42  45  P        P        07 01 28.1  -0.1
       comp=Z,22µmcomp=Z,7µmcomp=Z,327nm,1.7s
PDG    Podgorica          60.42  45⥣iP        P        07 01 27.9  -0.3
UPM    Unac-Piva          60.42  44 eP        P        07 01 28.8  +0.4
UPM    Unac-Piva          60.42  44⥣iP        P        07 01 27.7  -0.7
TLIG   Tlapa              60.43 286  IAmb     IAmb     07 01 39.4
       comp=Z,194nm,0.9s
SOP    Sopron             60.48  39  P        P        07 01 27.6  -0.9
SOP    Sopron             60.48  39  P        P        07 01 27.5  -1.0
       comp=Z,20µmcomp=Z,5µmcomp=Z,281nm,1.0s
TREC   Trest              60.49  37  P        P        07 01 27.4  -1.2
TREC   Trest              60.49  37 eS        S        07 09 46.0  +2.1
TREC   Trest              60.49  37  P        P        07 01 27.4  -1.2
       comp=Z,22µmcomp=Z,5µmcomp=Z,224nm,1.7s,comp=Z,5µm
KVTX   Kingsville         60.51 297 ⥣P        P        07 01 31.4  +2.3
KVTX   Kingsville         60.51 297  P        P        07 01 31.6  +2.5
       comp=Z,20µmcomp=Z,11µmcomp=Z,558nm,1.3s
735A   Kenedy             60.61 299  IAmb     IAmb     07 01 43.0
       comp=Z,251nm,1.1s
EF04   Eagle Ford 04      60.64 299  IAmb     IAmb     07 01 40.6
       comp=Z,202nm,1.0s
AST1   Astakos            60.67  50  P        P        07 01 30.0   0.0
I37A   Lemond, Waseca     60.67 317  IAMs_20  IAMs_20  07 22 33.5
       comp=Z,41µm,21.0s
435B   Jarrell            60.69 301  IAmb     IAmb     07 01 40.9
       comp=Z,178nm,1.0s
KMY    Karmoy             60.72  23 eP        P        07 01 30.2  +0.3
KMY                                 eS       S        07 09 42.8  -3.6
KMY                                 IVMs_BB  IVMs_BB  07 21 04.8
       comp=Z,16µm,26.6s
MUD    Monsted U'grnd     60.72  27 i P       P        07 01 30.0  +0.1
MUD                                 IAmb     IAmb     07 01 36.5
       comp=Z,422nm,1.4s
KOME   Kolasin            60.73  45⥣iP        P        07 01 30.6  +0.1
DEOK   Depew              60.74 307  IAmb     IAmb     07 01 42.8
       comp=Z,246nm,1.2s
PDO    Prodromos          60.76  50  P        P        07 01 30.2  -0.4
JAN    Janina             60.78  49  P        P        07 01 30.7  -0.1
WHTX   Lake Whitney,      60.78 302  IAmb     IAmb     07 01 43.1
       comp=Z,234nm,1.2s
WHTX                                IAMs_20  IAMs_20  07 24 08.3
       comp=Z,68µm,22.0s
PLE    Pljevlja           60.80  44⥣iP        P        07 01 30.5  -0.4
AXS    Araxos             60.81  50  P        P        07 01 30.7  -0.2
FW13   Cleburne           60.82 303  IAmb     IAmb     07 01 43.5
       comp=Z,336nm,1.1s
RLS    Riolos of Patr     60.84  51  P        P        07 01 31.4  +0.3
EYMN   Ely                60.85 321 ⥣P        P        07 01 30.2  -0.9
EYMN   Ely                60.85 321  P        P        07 01 29.8  -1.2
       comp=Z,14µmcomp=Z,3µmcomp=Z,94nm,1.4s,comp=Z,3µm
Z35A   Perchaven, San     60.85 304  IAMs_20  IAMs_20  07 23 58.9
       comp=Z,65µm,21.0s
AMPL   Ampelaki           60.86  50  P        P        07 01 31.9  +0.6
KOVH   Kovagotottos       60.86  41 ⥣P        P        07 01 29.0  -2.1
PLEV   Plevrona-Mesol     60.88  50  P        P        07 01 31.2  -0.2
MPLH   Magyarpolny        60.90  40  P        P        07 01 30.8  -0.6
       comp=Z,13µmcomp=Z,666nm,1.1s
MPLH   Magyarpolny        60.90  40  P        P        07 01 30.8  -0.6
       comp=Z,20µmcomp=Z,5µmcomp=Z,261nm,1.1s
AMT    Artemida-Makis     60.90  51  P        P        07 01 31.2  -0.4
PRMD   Pramanda           60.93  49  P        P        07 01 32.2  +0.4
KRUC   Moravsky           60.94  37  P        P        07 01 30.2  -1.4
KRUC   Moravsky           60.94  37 eP        P        07 01 29.6  -2.0
KRUC                                eS       S        07 09 34.7   -15
KRUC   Moravsky           60.94  37  P        P        07 01 30.0  -1.6
       comp=Z,18µmcomp=Z,4µmcomp=Z,181nm,1.8s
RUE    Ruedersdorf        60.95  33 ⥣P        P        07 01 30.9  -0.6
RUE    Ruedersdorf        60.95  33 eP        P        07 01 30.5  -1.0
       comp=Z,332nm,1.0s,baz=240,slow=7.0
RUE                                 eS       S        07 09 49.0  -0.5
       baz=239,slow=13
RUE    Ruedersdorf        60.95  33  P        P        07 01 31.7  +0.2
       comp=Z,23µmcomp=Z,8µmcomp=Z,322nm,1.3s,comp=Z,8µm
PVY    Plav               60.97  45⥣iP        P        07 01 31.9  -0.2
SNART  Snartemo           60.97  25 eP        P        07 01 30.8  -0.8
SNART                               eS       S        07 09 49.9  +0.2
SNART                               IVMs_BB  IVMs_BB  07 22 58.9
       comp=Z,13µm,19.2s
SNART  Snartemo           60.97  25 i P       P        07 01 31.7  +0.1
BBLS   Lazi&#263i         60.98  44⥣iP        P        07 01 31.5  -0.6
T35A   Sooner Cattle      60.99 308  IAMs_20  IAMs_20  07 23 01.3
       comp=Z,76µm,22.0s
ITM    Ithomi             60.99  52  P        P        07 01 31.9  -0.2
ITM    Ithomi             60.99  52 ⥣P        P        07 01 30.9  -1.3
ITM    Ithomi             60.99  52  P        P        07 01 32.0  -0.2
       comp=Z,21µmcomp=Z,8µmcomp=Z,530nm,1.1s
KBN    Korca              60.99  48  P        P        07 01 32.0  -0.3
DRO    Drossia            61.00  51  P        P        07 01 31.6  -0.7
OK052  Battle Ridge R     61.01 307  IAMs_20  IAMs_20  07 23 03.1
       comp=Z,72µm,22.0s
TETR   Tetrakomo, Epi     61.02  49  P        P        07 01 32.3  -0.1
ZST    Bratislava         61.02  38 eP        P        07 01 31.3  -0.9
ZST    Bratislava         61.02  38  P        P        07 01 31.5  -0.7
       comp=Z,177µmcomp=Z,7µm,1.7s
PVO    Paravola           61.02  50  P        P        07 01 32.3   0.0
VALY   Valyra             61.03  52  P        P        07 01 33.2  +0.8
PHP    Peshkopia          61.04  46  P        P        07 01 36.6  +4.1
PHP    Peshkopia          61.04  46  P        P        07 01 32.6  +0.1
       comp=Z,3µmcomp=Z,181nm,1.4s
UNM    Universidad Na     61.05 288  P        P        07 01 36.6  +3.4
       comp=Z,12µmcomp=Z,9µmcomp=Z,259nm,1.0s
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GOET   G??ttrup           61.08  27 i P       P        07 01 33.1  +0.8
GOET                                IAmb     IAmb     07 01 40.0
       comp=Z,173nm,0.8s
WIN    Windhoek           61.08 121  P        P        07 01 31.2  -2.0
WIN                                 pmax     pmax
       comp=Z,136nm,1.0s
WIN    Windhoek           61.08 121  P        P        07 01 31.1  -2.0
WIN                                 IAMs_20  IAMs_20  07 21 18.6
       comp=Z,69µm,22.0s
WIN    Windhoek           61.08 121  P        P        07 01 33.9  +0.7
       comp=Z,10µmcomp=Z,3µmcomp=Z,144nm,0.9s
WIN    Windhoek           61.08 121  P        P        07 01 32.6  -0.6
OHR    Ohrid              61.14  47 i P       P        07 01 34.7  +1.5
OK051  E0350 and S346     61.15 308  IAMs_20  IAMs_20  07 23 05.7
       comp=Z,65µm,22.0s
VRAC   Vranov             61.15  37  P        P        07 01 31.9  -1.2
       comp=Z,76nm,1.1s,baz=240,slow=7.5,SNR=45
VRAC                                LR       LR       07 24 24.7
       comp=Z,61µm,21.9s,baz=253,slow=33
       comp=Z,76nm,1.1s
VRAC   Vranov             61.15  37  P        P        07 01 33.9  +0.8
VRAC   Vranov             61.15  37 eP        P        07 01 31.9  -1.2
VRAC                                eS       S        07 09 37.1   -15
VRAC   Vranov             61.15  37 ⥥P        P        07 01 33.9  +0.8
VRAC   Vranov             61.15  37  P        P        07 01 31.8  -1.2
       comp=Z,5µmcomp=Z,2µmcomp=Z,84nm,1.7s
SJES   Sjenica            61.18  45⥣iP        P        07 01 33.0  -0.5
MODS   Modra-Piesok       61.20  38 eP        P        07 01 32.1  -1.3
MODS                                e                 07 30 58.6
MODS   Modra-Piesok       61.20  38  P        P        07 01 32.4  -1.0
       comp=Z,41µmcomp=Z,10µmcomp=Z,410nm,1.1s
OK048  Pawnee Station     61.22 307  IAMs_20  IAMs_20  07 23 08.4
       comp=Z,66µm,22.0s
EF02   Christine          61.22 299  IAmb     IAmb     07 01 53.6
       comp=Z,328nm,1.1s
MORH   Mrgy, Hungar       61.26  41 ⥣P        P        07 01 34.7  +0.9
MORH   Mrgy, Hungar       61.26  41⥣iP        P        07 01 32.7  -1.1
MORH   Mrgy, Hungar       61.26  41  P        P        07 01 33.1  -0.7
       comp=Z,3µmcomp=Z,71nm,1.3s
MORH   Mrgy, Hungar       61.26  41  P        P        07 01 32.8  -1.0
       comp=Z,19µmcomp=Z,3µmcomp=Z,80nm,1.3s,comp=Z,3µm
LAKA   Lakka              61.28  50  P        P        07 01 33.9  -0.2
TEKS   Tekeris            61.28  43⥣iP        P        07 01 33.2  -0.9
UPC    Upice              61.31  36 eS        S        07 09 52.0  -2.3
UPC                                 AMS      AMS      07 20 00.0
       comp=Z,74µm,36.0s
UPC    Upice              61.31  36  P        P        07 01 33.3  -0.8
       comp=Z,19µmcomp=Z,5µmcomp=Z,271nm,1.5s,comp=Z,5µm
BLS5   Blasjo             61.34  24 eP        P        07 01 33.8  -0.3
BLS5                                IVmB_BB           07 01 39.7
       comp=Z,5µm,9.9s
BLS5                                ePP      PP       07 03 48.7  -0.5
BLS5                                eS       S        07 09 53.7  -0.7
BLS5                                IVMs_BB  IVMs_BB  07 21 09.8
       comp=Z,17µm,25.6s
FNO    Franklin           61.34 306  IAmb     IAmb     07 02 57.5
       comp=Z,429nm,1.7s
KLV    Kalavryta, Ach     61.36  51  P        P        07 01 35.0  +0.2
CHVC   Chvalec            61.37  36 eS        S        07 09 55.4  +0.3
CHVC                                AMS      AMS      07 20 00.0
       comp=Z,71µm,36.2s
SERG   Sergoula           61.38  50  P        P        07 01 35.2  +0.4
VLX    Vlachokerasia      61.38  52  P        P        07 01 36.2  +1.3
DPC    Dobruska-Polom     61.42  36 eS        S        07 09 51.2  -4.7
DPC                                 AMS      AMS      07 20 10.0
       comp=Z,54µm,35.3s
DPC    Dobruska-Polom     61.42  36  P        P        07 01 34.3  -0.7
       comp=Z,4µmcomp=Z,152nm,1.8s
DPC    Dobruska-Polom     61.42  36  P        P        07 01 34.2  -0.7
       comp=Z,20µmcomp=Z,4µmcomp=Z,152nm,1.8s,comp=Z,4µm
KALE   Kalithea           61.44  50  P        P        07 01 36.9  +1.6
OSTC   Ostas              61.45  36 eS        S        07 09 58.0  +1.9
OSTC                                AMS      AMS      07 20 10.0
       comp=Z,68µm,34.9s
COYC   Coyhaique          61.47 207 ⥥P        P        07 01 35.5  +0.4
COYC   Coyhaique          61.47 207  P        P        07 01 35.5  +0.4
       comp=Z,14µmcomp=Z,3µmcomp=Z,118nm,1.6s,comp=Z,3µm
HOMB   Homborsund         61.48  26 eP        P        07 01 35.4  +0.4
HOMB                                eS       S        07 09 57.3  +1.2
HOMB                                IVMs_BB  IVMs_BB  07 22 30.2
       comp=Z,16µm,21.6s
HOMB   Homborsund         61.48  26 i P       P        07 01 35.0  -0.1
GUR    Goura              61.48  51  P        P        07 01 36.1  +0.5
OK029  Liberty Lake       61.49 307  IAMs_20  IAMs_20  07 23 28.8
       comp=Z,78µm,21.0s
BER    Bergen             61.51  22 eP        P        07 01 36.2  +1.0
BER                                 IVMs_BB  IVMs_BB  07 25 02.6
       comp=Z,15µm,13.8s
BER    Bergen             61.51  22  P        P        07 01 38.0  +2.8
       comp=Z,181nm,1.7s
ASK    Askoy              61.52  22 eP        P        07 01 36.0  +0.7
ASK                                 ePP      PP       07 03 49.9  -0.8
ASK                                 eS       S        07 09 58.5  +1.9
ASK                                 IVMs_BB  IVMs_BB  07 24 43.1
       comp=Z,16µm,16.9s
KSU1   Kansas State U     61.58 310  IAMs_20  IAMs_20  07 23 51.7
       comp=Z,52µm,20.0s
KSU1   Kansas State U     61.58 310 ⥥P        P        07 01 35.0  -1.1
KRLC   Kraliky            61.58  36 eS        S        07 09 58.8  +1.0
KRLC                                AMS      AMS      07 20 20.0
       comp=Z,40µm,34.8s
KRLC   Kraliky            61.58  36  P        P        07 01 35.6  -0.4
       comp=Z,16µmcomp=Z,4µmcomp=Z,157nm,1.9s
KSP    Ksiaz              61.62  35 eP        P        07 01 35.3  -0.9
KSP                                 eS       S        07 10 00.7  +2.5
KSP                                 eL       L        07 20 41.4
       comp=Z,69µm,34.1s
KSP    Ksiaz              61.62  35 ⥣P        P        07 01 35.2  -0.9
KSP    Ksiaz              61.62  35 ⥣P        P        07 01 35.2  -0.9
KSP    Ksiaz              61.62  35  P        P        07 01 35.2  -0.9
       comp=Z,4µmcomp=Z,163nm,2.2s
JAVC   Velka Javorina     61.63  38 eP        P        07 01 35.4  -0.9
JAVC                                eS       S        07 09 42.8   -16
JAVC   Velka Javorina     61.63  38  P        P        07 01 35.8  -0.5
       comp=Z,21µmcomp=Z,5µmcomp=Z,102nm,2.2s
THL    Klokotos Trika     61.63  49  P        P        07 01 37.1  +0.7
SRO    Srobarova          61.63  39 eP        P        07 01 36.1  -0.2
SRO    Srobarova          61.63  39  P        P        07 01 36.2  -0.1
       comp=Z,5µmcomp=Z,541nm,1.0s,comp=Z,5µm
PLPT   Palo Pinto         61.64 303  IAmb     IAmb     07 01 46.1
       comp=Z,164nm,1.0s
LNIZ   Loecknitz          61.66  32  P        P        07 01 36.8  +0.4
       comp=Z,19µmcomp=Z,12µmcomp=Z,428nm,1.5s
FRGS   Fruska Gora        61.67  42⥣iP        P        07 01 36.3  -0.4
VLI    Veliai             61.68  52  P        P        07 01 39.4  +2.6
KTHA   Kythira Island     61.68  53  P        P        07 01 37.9  +1.1
       comp=Z,11µmcomp=Z,960nm,0.9s,comp=Z,11µm
OVD    Ostervraa, Den     61.68  27 i P       P        07 01 36.7  +0.3
OVD                                 IAmb     IAmb     07 01 39.8
       comp=Z,162nm,1.0s
HOPE   Hope Point         61.68 179  P        P        07 01 37.0  +0.6
HOPE                                pmax     pmax
       comp=Z,279nm,1.5s
HOPE   Hope Point         61.68 179  P        P        07 01 37.0  +0.6
HOPE                                IAmb     IAmb     07 02 08.3
       comp=Z,279nm,1.5s
RGN    Rugen              61.71  31  P        P        07 01 35.5  -1.1
RGN                                 IAMs_20  IAMs_20  07 24 11.1
       comp=Z,45µm,22.0s
RGN    Rugen              61.71  31 eP        P        07 01 35.8  -0.9
       comp=Z,1µm,1.8s,baz=240,slow=7.0
RGN                                 eS       S        07 09 58.9  -0.2
       baz=239,slow=13
RGN    Rugen              61.71  31  P        P        07 01 40.3  +3.7
       comp=Z,19µmcomp=Z,9µmcomp=Z,218nm,1.9s
ODD1   Odda               61.71  23 eP        P        07 01 37.0  +0.4
ODD1                                eS       S        07 09 59.8  +0.7
ODD1                                IVMs_BB  IVMs_BB  07 21 47.4
       comp=Z,15µm,21.3s
EFI    East Falkland      61.72 195ceP        P        07 01 39.8  +3.1
EFI                                 pmax     pmax
       comp=Z,241nm,1.2s
EFI                                 MLR      MLR
       comp=Z,30µm,17.0s
EFI    East Falkland      61.72 195  P        P        07 01 36.7   0.0
EFI                                 IAmb     IAmb     07 01 47.0
       comp=Z,248nm,1.2s
EFI    East Falkland      61.72 195 ⥣P        P        07 01 41.4  +4.7
EFI    East Falkland      61.72 195  P        P        07 01 40.9  +4.2
       comp=Z,12µmcomp=Z,173nm,1.1s
AGG    Agios Georgios     61.73  50  P        P        07 01 39.4  +2.2
AGG    Agios Georgios     61.73  50 ⥣P        P        07 01 36.7  -0.5
AGG    Agios Georgios     61.73  50 ⥣P        P        07 01 36.7  -0.5
AGG    Agios Georgios     61.73  50  P        P        07 01 37.2   0.0
       comp=Z,21µmcomp=Z,7µmcomp=Z,422nm,1.8s
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SUE	Sulen	61.74	22	eP	P	07 01 37.1	+0.3
SUE				eS	S	07 09 59.8	+0.5
THAL	Thalero	61.75	51	P	P	07 01 39.9	+2.5
TYRN	Tyrnavos	61.83	49	P	P	07 01 39.2	+1.5
COP	Copenhagen	61.84	29	i P	P	07 01 35.9	-1.7
COP				IAmb	IAmb	07 01 41.9	
	comp=Z,707nm,1.6s						
COP	Copenhagen	61.84	29	P	P	07 01 40.8	+3.3
	comp=Z,31µmcomp=Z,9µmcomp=Z,375nm,1.7s,comp=Z,9µm						
MORC	Moravsky Berou	61.91	37	IAmb	IAmb	07 01 54.5	
	comp=Z,395nm,1.7s						
MORC	Moravsky Berou	61.91	37	eP	P	07 01 37.1	-1.1
MORC				eS	S	07 09 50.1	-12
MORC				e		07 30 34.2	
MORC	Moravsky Berou	61.91	37	⇑P	P	07 01 39.1	+0.9
MORC	Moravsky Berou	61.91	37	P	P	07 01 37.4	-0.9
	comp=Z,20µmcomp=Z,5µmcomp=Z,134nm,2.1s,comp=Z,5µm						
MAUC	Maruska	61.92	37	eS	S	07 10 05.7	+3.6
AXAR	Agios Charalam	61.92	50	P	P	07 01 40.2	+1.7
833A	Chaparral WMA,	61.92	298	IAmb	IAmb	07 01 48.9	
	comp=Z,256nm,1.1s						
BUD	Budapest	61.95	40	P	P	07 01 37.8	-0.7
BUD	Budapest	61.95	40	P	P	07 01 37.6	-0.8
	comp=Z,5µmcomp=Z,225nm,1.5s						
BRDY	Brady	61.97	301	IAmb	IAmb	07 01 49.2	
	comp=Z,190nm,0.9s						
HNDO	Hondo	61.97	299	IAmb	IAmb	07 01 51.8	
	comp=Z,194nm,1.2s						
LTK	Loutraki	61.98	51	P	P	07 01 41.7	+2.8
LIT	Litokhoron	62.11	49	P	P	07 01 41.8	+2.1
LIT	Litokhoron	62.11	49	⇑P	P	07 01 38.6	-1.2
LIT	Litokhoron	62.11	49	P	P	07 01 38.7	-1.0
	comp=Z,18µmcomp=Z,4µmcomp=Z,372nm,1.1s,comp=Z,4µm						
L34A	Svendsen Farm,	62.14	314	IAMs_20	IAMs_20	07 25 34.6	
	comp=Z,41µm,19.0s						
LKR	Lokris	62.15	50	P	P	07 01 40.1	+0.1
ILULI	Ilulissat	62.17	354	IAmb	IAmb	07 01 50.4	
	comp=Z,317nm,1.5s						
ILULI	Ilulissat	62.17	354	i P	P	07 01 38.6	-0.9
ILULI				IAmb	IAmb	07 01 50.8	
	comp=Z,242nm,1.3s						
ILULI	Ilulissat	62.17	354	i P	P	07 01 39.6	+0.1
ILULI				IAmb	IAmb	07 01 50.0	
	comp=Z,265nm,1.4s						
ILULI	Ilulissat	62.17	354	P	P	07 01 42.0	+2.5
	comp=Z,5µmcomp=Z,166nm,1.9s						
ATAL	Atalanti	62.18	50	P	P	07 01 40.3	+0.1
FOO	Floro	62.20	21	eP	P	07 01 39.2	-0.6
FOO				eS	S	07 10 06.4	+1.3
FOO				IVMs_BB	IVMs_BB	07 20 52.1	
	comp=Z,16µm,26.6s						
VYHS	Vyhne	62.20	39	eP	P	07 01 39.0	-1.2
VYHS				e		07 31 00.8	
VYHS	Vyhne	62.20	39	P	P	07 01 39.0	-1.2
	comp=Z,1µmcomp=Z,35nm,1.3s						
GVD	Gavdhos	62.22	55	P	P	07 01 40.8	+0.2
	comp=Z,8µmcomp=Z,840nm,0.9s,comp=Z,8µm						
IMMV	Iera Moni Meta	62.25	54	P	P	07 01 42.4	+1.7
	comp=Z,21µmcomp=Z,8µmcomp=Z,691nm,1.4s						
GRG	Griva	62.26	48	P	P	07 01 41.7	+0.9
GRG	Griva	62.26	48	P	P	07 01 40.0	-0.7
	comp=Z,44µmcomp=Z,11µmcomp=Z,748nm,1.1s,comp=Z,11µm						
VILL	Villia	62.28	51	P	P	07 01 42.9	+2.0
OKC	Ostrava-Krasne	62.29	37	eS	S	07 10 09.1	+2.4
OKC				AMS	AMS	07 23 50.0	
	comp=Z,48µm,25.3s						
OKC	Ostrava-Krasne	62.29	37	P	P	07 01 39.9	-0.8
	comp=Z,13µmcomp=Z,5µmcomp=Z,234nm,1.6s,comp=Z,5µm						
LUNU	Lund	62.31	30	i P	P	07 01 40.7	0.0
HYA	Hoyanger	62.34	22	eP	P	07 01 41.3	+0.6
HYA				eS	S	07 10 09.1	+2.3
HYA				IVMs_BB	IVMs_BB	07 20 56.5	
	comp=Z,16µm,27.0s						
WMOK	Wichita Mounta	62.35	305	P	P	07 01 39.9	-1.6
WMOK	Wichita Mounta	62.35	305	⇑P	P	07 01 40.1	-1.4
WMOK	Wichita Mounta	62.35	305	P	P	07 01 40.9	-0.6
	comp=Z,13µmcomp=Z,3µmcomp=Z,103nm,1.7s						
RAC	Raciborz	62.42	37	eP	P	07 01 41.2	-0.3
RAC				eS	S	07 10 03.0	-5.3
RAC				AMS	AMS	07 23 48.0	
	comp=Z,61nm,23.4s						
GDH	Godhavn	62.46	354	i P	P	07 01 42.4	+0.9
GDH				IAmb	IAmb	07 01 52.4	
	comp=Z,548nm,1.5s						
GDH	Godhavn	62.46	354	i P	P	07 01 42.3	+0.9
GDH				IAmb	IAmb	07 01 52.4	
	comp=Z,548nm,1.5s						
STFN	Stefani	62.46	51	P	P	07 01 44.6	+2.5
XOR	Xorichti	62.46	50	P	P	07 01 43.2	+1.1
XOR	Xorichti	62.46	50	P	P	07 01 41.4	-0.8
	comp=Z,7µmcomp=Z,636nm,0.9s,comp=Z,7µm						
NEO	Neokhori	62.47	50	P	P	07 01 43.9	+1.7
VAY	Valandovo	62.48	47	i P	P	07 01 42.2	+0.1
BOVS	Bovan	62.50	45	⇑P	P	07 01 43.4	+1.2
ONAU	Onsala	62.50	28	i P	P	07 01 42.1	+0.2
JCT	Junction City	62.54	300	P	P	07 01 42.2	-0.7
JCT	Junction City	62.54	300	P	P	07 01 41.7	-1.2
JCT				IAmb	IAmb	07 01 53.4	
	comp=Z,183nm,0.9s						
JCT	Junction City	62.54	300	⇑P	P	07 01 42.1	-0.7
ATH	Athens Observa	62.55	51	P	P	07 01 45.7	+3.0
VLY	Voula,Athens	62.59	51	P	P	07 01 45.3	+2.4
THE	Thessaloniki	62.60	48	P	P	07 01 45.2	+2.3
THE	Thessaloniki	62.60	48	P	P	07 01 42.8	-0.1
	comp=Z,5µmcomp=Z,133nm,1.9s,comp=Z,5µm						
BANR	Banloc	62.63	43	⇓P	P	07 01 44.4	+1.3
PSZ	Piszkesteto	62.66	40	P	P	07 01 44.7	+1.4
PSZ	Piszkesteto	62.66	40	P	P	07 01 42.3	-1.0
PSZ	Piszkesteto	62.66	40	⇑P	P	07 01 42.1	-1.2
PSZ	Piszkesteto	62.66	40	⇓P	P	07 01 44.8	+1.4
PSZ	Piszkesteto	62.66	40	P	P	07 01 42.4	-0.9
	comp=Z,6µmcomp=Z,346nm,1.8s						
FABU	Falkenberg	62.66	28	i P	P	07 01 42.6	-0.4
AMBH	Ambrzfalva	62.67	41	⇑P	P	07 01 44.8	+1.5
AMBH	Ambrzfalva	62.67	41	P	P	07 01 44.9	+1.7
	comp=Z,25µmcomp=Z,13µmcomp=Z,804nm,1.1s						
KNT	Kendrikon	62.68	47	P	P	07 01 47.5	+4.0
KNT	Kendrikon	62.68	47	P	P	07 01 46.0	+2.5
	comp=Z,18µmcomp=Z,4µmcomp=Z,316nm,1.1s,comp=Z,4µm						
PTL	Penteli	62.68	51	P	P	07 01 45.3	+1.7
BSZH	Besenyszg	62.68	40	P	P	07 01 44.5	+1.2
	comp=Z,20µmcomp=Z,46µmcomp=Z,548nm,1.6s						
TJOU	Tjoern	62.71	27	i P	P	07 01 43.2	-0.1
ABTX	Abilene, Hawle	62.71	303	IAMs_20	IAMs_20	07 28 21.3	
	comp=Z,36µm,19.0s						
DION	Dionisos Attik	62.74	51	P	P	07 01 45.9	+1.9
KONO	Kongsberg	62.75	25	ceP	P	07 01 44.8	+1.2
KONO				pmax	pmax		
	comp=Z,132nm,1.3s						
KONO	Kongsberg	62.75	25	eP	P	07 01 45.1	+1.6
KONO				IVmB_BB		07 01 59.3	
	comp=Z,4µm,4.8s						
KONO				eS	S	07 10 13.4	+1.3
KONO				IVMs_BB	IVMs_BB	07 22 05.2	
	comp=Z,15µm,24.5s						
KONO	Kongsberg	62.75	25	P	P	07 01 42.9	-0.7
KONO				IAmb	IAmb	07 01 55.2	
	comp=Z,219nm,1.4s						
KONO	Kongsberg	62.75	25	P	P	07 01 46.3	+2.7
	comp=Z,19µmcomp=Z,5µmcomp=Z,127nm,1.4s						
BSD	Bornholm Skovb	62.79	31	i P	P	07 01 42.1	-1.8
BSD				IAmb	IAmb	07 01 46.9	
	comp=Z,195nm,1.5s						
BSD	Bornholm Skovb	62.79	31	P	P	07 01 44.0	+0.1
	comp=Z,3µmcomp=Z,107nm,1.8s						
ECSD	EROS Data Cent	62.80	315	IAmb	IAmb	07 01 55.9	
	comp=Z,257nm,1.1s						
ECSD	EROS Data Cent	62.80	315	IAMs_20	IAMs_20	07 24 52.9	
	comp=Z,44µm,19.0s						
ECSD	EROS Data Cent	62.80	315	⇑P	P	07 01 43.1	-1.2
ECSD	EROS Data Cent	62.80	315	P	P	07 01 43.6	-0.7
	comp=Z,5µmcomp=Z,241nm,1.1s						
MDVR	Moldovita	62.84	43	⇑P	P	07 01 45.0	+0.4
SKAR	Skarslia	62.84	23	eP	P	07 01 44.4	+0.1
SKAR				IVmB_BB		07 01 51.8	
	comp=Z,3µm,2.4s						
SKAR				eS	S	07 10 14.3	+0.8
SKAR				IVMs_BB	IVMs_BB	07 22 21.5	
	comp=Z,17µm,24.6s						
PLG	Polygyros	62.89	48	P	P	07 01 48.6	+3.6
SOH	Sokhos	62.93	48	P	P	07 01 46.6	+1.4
SOH	Sokhos	62.93	48	P	P	07 01 44.7	-0.5
	comp=Z,21µmcomp=Z,4µmcomp=Z,235nm,1.7s						
DEL	Delary	62.94	29	i P	P	07 01 44.7	-0.1
AOS	Alonnisos	62.94	50	P	P	07 01 47.6	+2.4
IDI	Anoyia	62.95	54	LR	LR	07 28 56.1	
	comp=Z,44µm,21.9s,baz=250,slow=36						
PAIG	Paliouri	62.96	49	P	P	07 01 47.5	+2.1
PAIG	Paliouri	62.96	49	P	P	07 01 44.4	-0.9
	comp=Z,2µmcomp=Z,82nm,1.1s						
KYMI	Kymi, Euboea I	62.99	50	P	P	07 01 47.5	+1.9
KKB	Krupnik	63.02	47	eP	P	07 01 46.0	+0.2
R32A	Long Quarter,	63.02	309	IAMs_20	IAMs_20	07 24 56.1	
	comp=Z,73µm,20.0s						
BZS	Buzias	63.02	42	P	P	07 01 46.7	+1.0
BZS	Buzias	63.02	42	⇑P	P	07 01 45.1	-0.6
BZS	Buzias	63.02	42	⇓P	P	07 01 46.7	+1.0
BZS	Buzias	63.02	42	P	P	07 01 45.3	-0.4
	comp=Z,17µmcomp=Z,6µmcomp=Z,191nm,1.4s						
SAQQ	Saqqaq	63.03	354	i P	P	07 01 44.5	-0.7
SAQQ				IAmb	IAmb	07 01 54.8	
	comp=Z,524nm,1.3s						
SAQQ	Saqqaq	63.03	354	i P	P	07 01 45.6	+0.4
SAQQ				IAmb	IAmb	07 01 56.2	
	comp=Z,714nm,1.3s						
STRU	Stroemstad	63.07	26	i P	P	07 01 45.6	-0.1
ELIS	Ellis County	63.10	307	IAmb	IAmb	07 01 59.2	
	comp=Z,227nm,1.1s						
GKP	Gorka Klasztor	63.17	33	eP	P	07 01 46.2	-0.3
GKP				eS	S	07 10 19.0	+1.3
GKP				eL	L	07 25 12.9	
	comp=Z,72µm,21.1s						
SRS	Serrai	63.18	48	P	P	07 01 46.4	-0.4
	comp=Z,21µmcomp=Z,6µmcomp=Z,318nm,1.2s						
F33A	5 Mile Ranch,	63.20	318	IAmb	IAmb	07 01 58.1	
	comp=Z,107nm,0.9s						
F33A				IAMs_20	IAMs_20	07 24 03.4	
	comp=Z,37µm,21.0s						
APMT	Aspermont	63.22	303	IAmb	IAmb	07 01 59.5	
	comp=Z,300nm,1.1s						
KECS	Kecovo	63.23	39	eP	P	07 01 47.1	+0.1
KECS	Kecovo	63.23	39	P	P	07 01 47.5	+0.5
	comp=Z,629nmcomp=Z,23nm,1.0s						
OUR	Ouranopolis	63.28	49	P	P	07 01 47.1	-0.4
AKN	Aaknes	63.28	22	eP	P	07 01 47.6	+0.5
AKN				IVmB_BB		07 01 50.5	
	comp=Z,3µm,1.3s						
AKN				IVMs_BB	IVMs_BB	07 22 52.5	
	comp=Z,12µm,13.3s						
BGNE	Belgrade	63.28	313	IAMs_20	IAMs_20	07 24 25.8	
	comp=Z,62µm,22.0s						
VTS	Vitosha	63.30	46	eP	P	07 01 48.2	+0.5
HERR	Herculane	63.34	43	⇑P	P	07 01 48.3	+0.5
OSL	Oslo	63.38	25	eP	P	07 01 47.6	-0.2
OSL				IVmB_BB		07 01 54.4	
	comp=Z,2µm,1.9s						
OSL				eS	S	07 10 21.3	+1.3
OSL				eSS	SS	07 14 29.6	+3.0
OSL				IVMs_BB	IVMs_BB	07 22 48.3	
	comp=Z,13µm,25.9s						
BLSH	Balsha	63.39	46	eP	P	07 01 48.7	+0.5
PLNA	Plana	63.40	46	eP	P	07 01 48.7	+0.3
MMB	Musomishta	63.40	47	eP	P	07 01 48.2	-0.1
OJC	Ojcow	63.42	37	eP	P	07 01 47.8	-0.4
OJC				eS	S	07 10 22.9	+1.9
OJC				eL	L	07 24 46.3	
	comp=Z,52µm,23.6s						
OJC	Ojcow	63.42	37	P	P	07 01 47.6	-0.7
OJC	Ojcow	63.42	37	⇑P	P	07 01 47.5	-0.7
OJC	Ojcow	63.42	37	P	P	07 01 47.8	-0.4
	comp=Z,18µmcomp=Z,5µmcomp=Z,225nm,1.9s						
NIE	Niedzica	63.44	38	eP	P	07 01 48.6	+0.2
NIE				eS	S	07 10 24.7	+3.5
NIE				eL	L	07 25 41.1	
	comp=Z,40µm,22.2s						
PUNG	Punghina	63.53	44	⇑P	P	07 01 50.4	+1.4
SCO	Scoresbysund	63.54	6	P	P	07 01 48.4	-0.2
SCO				pmax	pmax		
	comp=Z,295nm,1.0s						
SCO	Scoresbysund	63.54	6	P	P	07 01 48.4	-0.2
SCO	Scoresbysund	63.54	6	⇓P	P	07 01 49.5	+0.8
SCO	Scoresbysund	63.54	6	i P	P	07 01 49.4	+0.8
SCO				IAmb	IAmb	07 01 58.3	
	comp=Z,182nm,1.1s						
SCO	Scoresbysund	63.54	6	i P	P	07 01 49.4	+0.8
SCO				IAmb	IAmb	07 02 00.5	
	comp=Z,342nm,1.1s						
SCO	Scoresbysund	63.54	6	P	P	07 01 49.8	+1.1
	comp=Z,8µmcomp=Z,4µmcomp=Z,320nm,1.1s						
BORR	Bors	63.59	41	⇑P	P	07 01 50.6	+1.2
SMWD	Samnorwood	63.60	305	IAmb	IAmb	07 02 01.7	
	comp=Z,161nm,1.0s						
THERA	Ancient Thera,	63.61	53	P	P	07 01 49.9	+0.1
	comp=Z,26µmcomp=Z,9µmcomp=Z,810nm,1.0s						
ABAH	Abaujker	63.63	39	P	P	07 01 48.6	-1.1
	comp=Z,19µmcomp=Z,4µmcomp=Z,147nm,2.0s						
AGMN	Agassiz Nation	63.70	321	IAmb	IAmb	07 02 01.4	
	comp=Z,200nm,1.2s						
AGMN	Agassiz Nation	63.70	321	⇑P	P	07 01 48.8	-1.4
AGMN	Agassiz Nation	63.70	321	P	P	07 01 49.4	-0.8
	comp=Z,4µmcomp=Z,152nm,1.0s,comp=Z,4µm						
VALD	Valchedram	63.72	45	eP	P	07 01 51.3	+1.0
MOL	Molde	63.73	21	eP	P	07 01 51.6	+1.7
MOL				IVmB_BB		07 01 53.5	
	comp=Z,3µm,1.3s						
MOL				eS	S	07 10 21.3	-2.9
MOL				IVMs_BB	IVMs_BB	07 21 35.6	
	comp=Z,14µm,29.3s						
OZNA	Ozona	63.73	301	IAmb	IAmb	07 02 11.2	
	comp=Z,346nm,1.2s						
GZR	Gura Zlata	63.74	43	P	P	07 01 51.1	+0.6
GZR	Gura Zlata	63.74	43	⇑P	P	07 01 51.2	+0.6
LTVH	Ltavrtes, Hu	63.76	41	⇑P	P	07 01 51.2	+0.7
LTVH	Ltavrtes, Hu	63.76	41	P	P	07 01 51.2	+0.7
	comp=Z,21µmcomp=Z,8µmcomp=Z,477nm,1.1s						
SAATT	Saattut	63.77	355	i P	P	07 01 50.3	+0.2
SAATT				IAmb	IAmb	07 01 55.3	
	comp=Z,160nm,0.8s						
SAATT	Saattut	63.77	355	i P	P	07 01 49.9	-0.2
SAATT				IAmb	IAmb	07 02 01.1	
	comp=Z,1µm,1.9s						
BLEU	Blekinge	63.80	30	i P	P	07 01 50.0	-0.5
SRE	Strehaia	63.82	44	P	P	07 01 52.3	+1.3
SRE	Strehaia	63.82	44	⇑P	P	07 01 52.3	+1.3
MPEP	Malo Peshtene	63.84	45	eP	P	07 01 51.5	+0.3
SGCY	Sterling City	63.85	302	IAmb	IAmb	07 02 04.2	
	comp=Z,268nm,1.0s						
CBKS	Cedar Bluff	63.89	310	⇑P	P	07 01 50.9	-0.7
GO08	Villa O'Higgin	63.90	205	P	P	07 01 51.5	+0.2
GO08				IAmb	IAmb	07 02 07.7	
	comp=Z,245nm,1.2s						
GO08	Villa O'Higgin	63.90	205	P	P	07 01 53.0	+1.7
	comp=Z,16µmcomp=Z,5µmcomp=Z,168nm,2.0s						
DKNS	Dickens	63.93	304	IAmb	IAmb	07 02 04.4	
	comp=Z,297nm,1.2s						
PGB	Panagyurishte	63.94	46	eP	P	07 01 51.8	-0.1
NIAQ	Niaqornat	63.95	354	i P	P	07 01 53.3	+2.0
NIAQ				IAmb	IAmb	07 01 57.9	
	comp=Z,343nm,1.4s						
DOMB	Dombas	63.96	22	eP	P	07 01 52.2	+0.6
DOMB				IVmB_BB		07 02 03.3	
	comp=Z,4µm,1.8s						
DOMB				eS	S	07 10 29.4	+2.1
DOMB				IVMs_BB	IVMs_BB	07 22 24.1	
	comp=Z,17µm,27.9s						
DEV	Deva	63.96	42	P	P	07 01 52.9	+1.0
DEV	Deva	63.96	42	⇓P	P	07 01 52.9	+1.0
DEV	Deva	63.96	42	P	P	07 01 51.6	-0.3
	comp=Z,6µmcomp=Z,308nm,1.6s						
NAO01	NORSAR Array S	63.97	24	P	P	07 01 50.8	-0.9
	comp=Z,3µmcomp=Z,1µmcomp=Z,114nm,1.2s,comp=Z,1µm						
ZKR	Zakros	63.99	55	P	P	07 01 53.6	+1.3
	comp=Z,10µmcomp=Z,804nm,1.1s						
STHS	Stebnicka Huta	64.02	38	eP	P	07 01 52.6	+0.4
NBO00	NORSAR Array S	64.03	24	P	P	07 01 51.6	-0.5
NBO00				IAmb	IAmb	07 02 22.1	
	comp=Z,202nm,1.1s						
DRGR		64.11	41	P	P	07 01 53.6	+0.7
DRGR		64.11	41	⇓P	P	07 01 53.7	+0.7
DRGR		64.11	41	P	P	07 01 52.3	-0.7
	comp=Z,5µmcomp=Z,258nm,1.4s						
CRAR	CRAIOVA	64.14	44	P	P	07 01 54.6	+1.6
CRAR	CRAIOVA	64.14	44	⇑P	P	07 01 54.7	+1.6
RZN	Rozhen	64.15	47	eP	P	07 01 52.6	-0.9
NC204	NORSAR Array S	64.16	24	P	P	07 01 52.3	-0.7
NC602	NORSAR Array S	64.17	24	eP	P	07 01 52.2	-0.8
NC602	NORSAR Array S	64.17	24	IAmb	IAmb	07 02 07.5	
	comp=Z,229nm,1.1s						
NORES	NORESS Array B	64.17	24	P	P	07 01 54.3	+1.3
NORES				pmax	pmax		
	comp=Z,36nm,0.8s						
GRTLG	Ghanzi	64.19	118	P	P	07 01 51.9	-2.0
GRTLG				IAmb	IAmb	07 02 04.4	
	comp=Z,220nm,1.3s						
NB2	NORSAR Subarra	64.21	24	P	P	07 01 53.5	+0.2
	comp=Z,3µm,3.3s,baz=236,slow=6.9						
NB2	NORSAR Subarra	64.21	24	P	P	07 01 53.7	+0.4
NB2				pmax	pmax		
	comp=Z,3µm,3.9s						
NB2	NORSAR Subarra	64.21	24	P	P	07 01 53.5	+0.2
NOA	NORSAR Array B	64.21	24	P	P	07 01 52.5	-0.8
	comp=Z,66nm,1.0s,baz=234,slow=6.7,SNR=51						
NOA				LR	LR	07 24 47.0	
	comp=Z,37µm,21.9s,baz=230,slow=31						
	comp=Z,66nm,1.0s						
CEI	Carei	64.21	40	P	P	07 01 54.7	+1.2
CEI	Carei	64.21	40	⇑P	P	07 01 54.8	+1.2
PLD	Plovdiv	64.26	47	eP	P	07 01 54.5	+0.6
POST	Post	64.32	303	IAmb	IAmb	07 02 06.4	
	comp=Z,235nm,1.2s						
MARR	Marisel-Cluj	64.34	42	⇑P	P	07 01 54.9	+0.4
ZAIG	Zacatecas	64.35	292	IAmb	IAmb	07 02 19.3	
	comp=Z,181nm,1.2s						
ZAIG	Zacatecas	64.35	292	⇓P	P	07 01 56.6	+1.4
ZAIG	Zacatecas	64.35	292	P	P	07 01 57.1	+1.9
	comp=Z,12µmcomp=Z,4µmcomp=Z,131nm,1.1s						
MESR	Meseseni	64.37	41	⇑P	P	07 01 55.8	+1.3
ULM	Lac du Bonnet	64.37	323	P	P	07 01 53.3	-1.2
	comp=Z,67nm,0.8s,baz=109,slow=7.3,SNR=59						
ULM				LR	LR	07 25 23.1	
	comp=Z,40µm,21.0s,baz=106,slow=32						
	comp=Z,67nm,0.8s						
ULM	Lac du Bonnet	64.37	323	d iP	P	07 01 53.7	-0.8
NC303	NORSAR Array S	64.38	24	P	P	07 01 53.3	-1.0
TRPA	Tarpa	64.40	40	P	P	07 01 53.5	-1.2
	comp=Z,18µmcomp=Z,4µmcomp=Z,223nm,1.1s						
LOT	Lotru	64.42	43	⇑P	P	07 01 55.5	+0.4
LOT	Lotru	64.42	43	P	P	07 01 54.3	-0.8
	comp=Z,19µmcomp=Z,4µmcomp=Z,126nm,1.5s						
229A	Bryant Ranch,	64.44	302	IAmb	IAmb	07 02 20.9	
	comp=Z,176nm,1.3s						
CHOS	Chios island	64.44	51	P	P	07 01 56.3	+1.0
	comp=Z,18µmcomp=Z,6µmcomp=Z,407nm,1.5s						
PLVB	Pleven	64.47	45	⇑P	P	07 01 56.5	+1.2
SAND	Sanderson	64.47	299	IAmb	IAmb	07 02 08.4	
	comp=Z,259nm,1.2s						
VLAD	Vladila	64.47	45	⇑P	P	07 01 56.2	+0.9
KOLS	Kolonicke sedl	64.49	39	eP	P	07 01 55.9	+0.6
KOLS	Kolonicke sedl	64.49	39	P	P	07 01 56.3	+1.0
	comp=Z,861nmcomp=Z,99nm,1.0s						
BEL	Belsk	64.60	36	eP	P	07 01 56.2	+0.3
BEL				eS	S	07 10 37.9	+2.5
BEL				eL	L	07 22 43.0	
	comp=Z,56µm,33.0s						
BEL	Belsk	64.60	36	⇑P	P	07 01 55.8	-0.1
BEL	Belsk	64.60	36	⇑P	P	07 01 55.9	-0.1
BEL	Belsk	64.60	36	P	P	07 01 56.9	+1.0
	comp=Z,1377µmcomp=Z,502µmcomp=Z,24µm,1.3s						
NUUG	Nuugaatsiaq	64.62	354	i P	P	07 01 54.8	-0.9
NUUG				IAmb	IAmb	07 02 05.2	
	comp=Z,211nm,1.3s						
NUUG	Nuugaatsiaq	64.62	354	i P	P	07 01 54.9	-0.7
NUUG				IAmb	IAmb	07 02 08.0	
	comp=Z,335nm,1.5s						
SUSD	Miller	64.62	316	IAMs_20	IAMs_20	07 26 06.9	
	comp=Z,35µm,20.0s						
TMB01	Midkiff	64.63	301	IAmb	IAmb	07 02 09.8	
	comp=Z,263nm,1.2s						
K30B	Basset	64.64	314	IAMs_20	IAMs_20	07 25 46.7	
	comp=Z,45µm,19.0s						
CJR	Cluj-Napoca	64.67	42	P	P	07 01 57.7	+1.2
CJR	Cluj-Napoca	64.67	42	⇑P	P	07 01 57.8	+1.2
AMTX	Amarillo	64.73	305	IAmb	IAmb	07 02 09.6	
	comp=Z,220nm,1.1s						
AMTX	Amarillo	64.73	305	⇓P	P	07 01 57.0	-0.3
HFS	Hagfors	64.74	25	P	P	07 01 55.5	-1.2
	comp=Z,28nm,0.9s,baz=241,slow=6.1,SNR=23						
HFS				LR	LR	07 25 25.6	
	comp=Z,33µm,21.7s,baz=243,slow=32						
	comp=Z,28nm,0.9s						
TNR	Turnu Rosu	64.82	43	P	P	07 01 58.7	+1.2
TNR	Turnu Rosu	64.82	43	⇓P	P	07 01 58.7	+1.2
KARP	Karpathos	64.82	54	P	P	07 01 57.0	-0.8
KARP	Karpathos	64.82	54	⇑P	P	07 01 56.0	-1.8
KARP	Karpathos	64.82	54	P	P	07 01 57.8	0.0
	comp=Z,25µmcomp=Z,26µmcomp=Z,3µm,1.1s						
BMR	Baia Mare	64.88	41	P	P	07 01 58.3	+0.5
BMR	Baia Mare	64.88	41	⇓P	P	07 01 58.4	+0.5
BMR	Baia Mare	64.88	41	P	P	07 01 57.1	-0.8
	comp=Z,7µmcomp=Z,456nm,1.5s						
SUMG	Summit	64.89	360	P	P	07 01 56.4	-1.6
SUMG	Summit	64.89	360	P	P	07 01 58.1	+0.1
SUMG	Summit	64.89	360	⇑P	P	07 01 57.6	-0.4
SUMG	Summit	64.89	360	i P	P	07 01 58.4	+0.4
SUMG				IAmb	IAmb	07 02 10.2	
	comp=Z,644nm,1.2s						
SUMG	Summit	64.89	360	i P	P	07 01 57.8	-0.2
SUMG				IAmb	IAmb	07 02 10.2	
	comp=Z,641nm,1.2s						
SUMG	Summit	64.89	360	P	P	07 01 58.4	+0.4
	comp=Z,8µmcomp=Z,10µmcomp=Z,612nm,1.4s						
EZN	Ezine	64.93	50	P	P	07 01 57.7	-0.6
ALN	Alexandroupoli	64.94	48	⇑P	P	07 01 57.7	-0.6
ALN	Alexandroupoli	64.94	48	IAmb	IAmb	07 02 03.5	
	comp=Z,148nm,1.0s						
ALN	Alexandroupoli	64.94	48	⇑P	P	07 01 57.7	-0.6
ALN	Alexandroupoli	64.94	48	P	P	07 01 58.0	-0.4
	comp=Z,17µmcomp=Z,5µmcomp=Z,300nm,1.2s						
R9F13	Warsaw-Wawer	64.94	35	eP	P	07 01 58.3	+0.2
	comp=Z,5.1nm,0.7s						
R9F13				eS	S	07 10 41.6	+2.0
CAVK	Edirne/Enez-Ca	64.98	49	⇑P	P	07 01 60.0	+1.3
KWP	Kalwaria Pacla	64.99	38	eP	P	07 01 58.5	-0.1
KWP				eS	S	07 10 42.7	+2.3
KWP				eL	L	07 26 33.9	
	comp=Z,56µm,22.8s						
KWP	Kalwaria Pacla	64.99	38	⇑P	P	07 01 58.4	-0.1
KWP	Kalwaria Pacla	64.99	38	⇑P	P	07 01 58.4	-0.2
ARR	Arges	64.99	43	⇑P	P	07 01 59.8	+1.1
ARR	Arges	64.99	43	P	P	07 01 58.3	-0.5
	comp=Z,6µmcomp=Z,374nm,1.5s						
HUMR	Humele	65.01	44	⇓P	P	07 02 00.3	+1.5
HUMR	Humele	65.01	44	P	P	07 01 58.5	-0.3
	comp=Z,16µmcomp=Z,1µm,1.5s						
PH02	Texas Public H	65.02	305	IAmb	IAmb	07 02 11.6	
	comp=Z,174nm,1.2s						
MDB	Medias	65.03	42	P	P	07 01 59.9	+1.1
MDB	Medias	65.03	42	⇓P	P	07 01 59.9	+1.1
COPA	Copaceanca	65.08	45	⇑P	P	07 01 59.5	+0.3
ODSA	Odessa	65.08	302	IAmb	IAmb	07 02 10.1	
	comp=Z,230nm,1.0s						
STFAR	Stefanesti-Arg	65.08	44	⇑P	P	07 02 00.4	+1.1
LKGWB	Lokgwabe	65.16	121	P	P	07 02 02.0	+1.8
LKGWB	Lokgwabe	65.16	121	P	P	07 02 03.4	+3.2
MNHN	Monahans	65.17	301	IAmb	IAmb	07 02 13.0	
	comp=Z,138nm,1.0s						
DKL	Dikili	65.22	51	⇓P	P	07 01 53.2	-7.0
TGMR	Targu Mures	65.22	42	⇑P	P	07 02 01.2	+1.1
MTUR	Matau	65.24	44	P	P	07 02 01.1	+0.7
MTUR	Matau	65.24	44	⇑P	P	07 02 01.1	+0.7
ARCR	ARCALIA	65.27	41	⇑P	P	07 02 01.5	+1.0
VOIR		65.29	43	P	P	07 02 01.2	+0.5
VOIR		65.29	43	⇑P	P	07 02 01.3	+0.5
VOIR		65.29	43	P	P	07 01 59.8	-0.9
	comp=Z,20µmcomp=Z,5µmcomp=Z,195nm,1.1s						
BDRM	Kayabasi	65.29	53	⇑P	P	07 02 01.3	+0.5
SZH	Strazhitsa	65.41	46	eP	P	07 02 00.1	-1.3
MSTX	Muleshoe	65.50	304	IAmb	IAmb	07 02 15.1	
	comp=Z,289nm,1.2s						
MSTX				IAMs_20	IAMs_20	07 26 47.0	
	comp=Z,56µm,22.0s						
JMB	Yambol	65.63	47	eP	P	07 02 02.5	-0.3
DOPR	Dopca	65.66	43	⇑P	P	07 02 03.9	+1.0
ARG	Arkhangelos	65.70	54	P	P	07 02 02.6	-0.8
ARG	Arkhangelos	65.70	54	⇑P	P	07 02 02.5	-0.9
ARG	Arkhangelos	65.70	54	P	P	07 02 03.2	-0.2
	comp=Z,12µmcomp=Z,783nm,1.4s						
AYDN	Tasoluk	65.73	52	P	P	07 02 03.3	-0.3
	comp=Z,63µmcomp=Z,22µmcomp=Z,2µm,1.5s						
JMI	Jan Mayen	65.74	10	eP	P	07 02 05.6	+2.6
JMI				eS	S	07 10 52.0	+3.2
JMI				IVMs_BB	IVMs_BB	07 22 34.4	
	comp=Z,9µm,16.4s						
TXAR	Lajitas Array	65.75	299	P	P	07 02 03.3	-0.7

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      comp=Z,12nm,0.6s,baz=106,slow=6.6,SNR=179
TXAR                            LR       LR       07 30 26.0
      comp=Z,9µm,21.2s,baz=78,slow=36
      comp=Z,12nm,0.6s
TXAR  Lajitas Array     65.75 299  P        P        07 02 03.4 -0.6
TXAR  Lajitas Array     65.75 299  P        P        07 02 03.4 -0.6
RTBA  Rita Blanca       65.81 306  IAmb     IAmb     07 02 16.9
      comp=Z,266nm,1.2s
ALPN  Alpine            65.82 300  IAmb     IAmb     07 02 24.4
      comp=Z,224nm,1.0s
JMIC  Jan Mayen         65.83  10  LR       LR       07 23 11.4
      comp=Z,19µm,21.2s,baz=199,slow=29
JMIC  Jan Mayen         65.83  10 eP        P        07 02 05.5 +1.9
RAZG  Razgrad           65.85  46 ⇓P        P        07 02 04.7 +0.5
LOZB  Loznitsa          65.87  46 ⇓P        P        07 02 05.0 +0.6
JNE   Jan Mayen East    65.87  10 eP        P        07 02 04.4 +0.6
JNE                               eS        S        07 10 53.0 +2.7
JNE                                IVMs_BB  IVMs_BB  07 22 21.3
      comp=Z,10µm,34.7s
JNW   Jan Mayen West    65.88  10 eP        P        07 02 04.0 +0.2
JNW                               eS        S        07 10 54.4 +3.9
JNW                                IVMs_BB  IVMs_BB  07 22 38.0
      comp=Z,9µm,13.8s
BALY  Balya             65.89  50  P        P        07 02 04.0 -0.6
      comp=Z,59µmcomp=Z,13µmcomp=Z,1µm,1.1s
MLR   Muntele Rosu      65.91  43  LR       LR       07 29 52.4
      comp=Z,30µm,19.8s,baz=270,slow=35
MLR   Muntele Rosu      65.91  43  P        P        07 02 06.1 +1.3
MLR   Muntele Rosu      65.91  43  IAMs_20  IAMs_20  07 29 41.0
      comp=Z,46µm,21.0s
MLR   Muntele Rosu      65.91  43 ⇑P        P        07 02 06.1 +1.3
MLR   Muntele Rosu      65.91  43  P        P        07 02 04.3 -0.5
      comp=Z,19µmcomp=Z,13µmcomp=Z,943nm,1.6s
SULR                    65.93  44 ⇑P        P        07 02 05.4 +0.7
SULR                    65.93  44  P        P        07 02 05.0 +0.3
      comp=Z,15µmcomp=Z,996nm,1.0s
OZUR                    65.96  43 ⇓P        P        07 02 05.7 +0.8
YER   Yerkesik          65.96  53  P        P        07 02 04.0 -1.2
BUR08 Bucovina Ar. S    65.97  41  P        P        07 02 04.4 -0.7
BUR08                              IAmb     IAmb     07 02 16.5
      comp=Z,237nm,1.1s
BURAR Bucovina Array    65.98  41  P        P        07 02 06.3 +1.2
BURAR Bucovina Array    65.98  41  P        P        07 02 04.3 -0.8
BURAR Bucovina Array    65.98  41 ⇑P        P        07 02 06.3 +1.2
TPB01 Permian Basin     66.00 300  IAmb     IAmb     07 02 25.6
      comp=Z,183nm,1.1s
OGNE  Ogallala          66.04 311  IAMs_20  IAMs_20  07 26 00.9
      comp=Z,71µm,21.0s
OGNE  Ogallala          66.04 311 ⇑P        P        07 02 05.8 +0.2
BALB  Balikesir         66.07  50 ⇑P        P        07 02 05.0 -0.7
UPNV  Upernavik         66.09 354 i P       P        07 02 04.6 -0.6
UPNV                               IAmb     IAmb     07 02 12.4
      comp=Z,120nm,1.1s
UPNV  Upernavik         66.09 354 i P       P        07 02 04.4 -0.8
UPNV                               IAmb     IAmb     07 02 12.4
      comp=Z,105nm,1.0s
UPNV  Upernavik         66.09 354  P        P        07 02 08.6 +3.3
      comp=Z,4µmcomp=Z,157nm,1.8s
TURR  Turia             66.10  43 ⇑P        P        07 02 06.4 +0.6
PECS  Pecos             66.11 301  IAmb     IAmb     07 02 35.8
      comp=Z,141nm,1.2s
NEHR  Nehoiu            66.14  44 ⇑P        P        07 02 06.9 +0.8
KSCO  Kaye Shedlock'    66.14 309  IAMs_20  IAMs_20  07 26 53.6
      comp=Z,66µm,20.0s
COVR  Voineasa-Covas    66.18  43 ⇑P        P        07 02 07.1 +0.7
EDC   Edincik           66.18  49  P        P        07 02 05.6 -0.8
ISR   Istrita           66.23  44 ⇓P        P        07 02 07.1 +0.3
LEHL  Lehliu            66.28  45 ⇓P        P        07 02 08.1 +1.1
TPB11 China Draw        66.31 301  IAmb     IAmb     07 02 21.6
      comp=Z,268nm,1.2s
E28A  Huff              66.34 318  IAMs_20  IAMs_20  07 27 08.4
      comp=Z,32µm,19.0s
CICN  Ciocanesti        66.36  45 ⇓P        P        07 02 07.9 +0.4
BAND  Balkesir-Ban      66.36  49 ⇓P        P        07 02 08.1 +0.5
BIZ   Bicaz             66.38  42 ⇑P        P        07 02 08.8 +1.2
MANT  Manisa            66.39  51  P        P        07 02 07.1 -1.0
PRD   Provadia          66.41  46 eP        P        07 02 06.7 -1.1
ONER  Baraj Valea Uz    66.42  43 ⇓P        P        07 02 09.2 +1.3
BISRR Bisoca            66.45  44 ⇑P        P        07 02 08.8 +0.7
SAHR  Sahastru          66.47  43 ⇑P        P        07 02 08.8 +0.6
PLOR  Plostina          66.48  43  P        P        07 02 09.4 +1.1
PLOR  Plostina          66.48  43 ⇑P        P        07 02 09.4 +1.1
PGOR  Pogoanele         66.49  44 ⇓P        P        07 02 09.6 +1.3
NSS   Namsos            66.49  21 eP        P        07 02 08.1 +0.2
NSS                                IVmB_BB           07 02 19.3
      comp=Z,4µm,2.0s
NSS                               eS        S        07 10 58.3 +0.1
NSS                                IVMs_BB  IVMs_BB  07 22 53.2
      comp=Z,10µm,32.6s
TAVA  DENIZLI_Tavas     66.51  53 ⇓P        P        07 02 08.8 +0.1
VRI   Vrincioaia        66.54  43  P        P        07 02 09.6 +1.0
VRI   Vrincioaia        66.54  43 ⇑P        P        07 02 09.6 +1.0
VRI   Vrincioaia        66.54  43  P        P        07 02 08.2 -0.4
      comp=Z,20µmcomp=Z,4µmcomp=Z,200nm,0.9s
PRAR  RASCA             66.57  42 ⇓P        P        07 02 09.4 +0.6
GRER                    66.59  44 ⇑P        P        07 02 09.8 +0.9
KSANE Kasane            66.60 113  P        P        07 02 08.8 -0.8
KSANE Kasane            66.60 113  P        P        07 02 09.7 +0.1
TESR  Tescani           66.64  43 ⇓P        P        07 02 10.2 +0.9
TESR  Tescani           66.64  43  P        P        07 02 08.2 -1.0
      comp=Z,20µmcomp=Z,6µmcomp=Z,296nm,1.5s
GIRR  Girov             66.65  42 ⇓P        P        07 02 10.6 +1.3
AMRR  Amara             66.67  45  P        P        07 02 10.4 +1.0
AMRR  Amara             66.67  45 ⇑P        P        07 02 10.5 +1.0
TPB28                   66.68 301  IAmb     IAmb     07 02 30.8
      comp=Z,368nm,1.7s
SUW   Suwalki           66.73  34 eP        P        07 02 08.7 -1.0
SUW                               eS        S        07 11 02.5 +1.2
SUW                               eL        L        07 27 04.8
      comp=Z,52µm,22.2s
SUW   Suwalki           66.73  34 ⇑P        P        07 02 08.4 -1.2
SUW   Suwalki           66.73  34  IAMs_20  IAMs_20  07 26 54.5
      comp=Z,51µm,22.0s
SUW   Suwalki           66.73  34 ⇑P        P        07 02 08.4 -1.2
ODBI  Odobesti          66.73  43 ⇓P        P        07 02 11.0 +1.2
PBUR  Paburge           66.78  32  P        P        07 02 10.6 +0.7
      comp=Z,18µmcomp=Z,13µmcomp=Z,955nm,1.6s
PANC  Panciu            66.82  43 ⇓P        P        07 02 11.3 +0.9
ICOR  Ion Corvin        66.88  45 ⇑P        P        07 02 12.1 +1.3
AKAS  Kas               66.89  54  P        P        07 02 10.2 -0.9
AKAS  Kas               66.89  54  P        P        07 02 11.2  0.0
      comp=Z,25µmcomp=Z,2µm,1.4s
CVNA  Calvinia          66.89 129  P        P        07 02 12.2 +1.0
      comp=Z,8µmcomp=Z,665nm,1.1s
VHRN  Van Horn          67.02 300  IAmb     IAmb     07 02 32.8
      comp=Z,193nm,1.1s
PSN   Preselentsi       67.02  46 eP        P        07 02 11.1 -0.6
DRBR  Darabani          67.04  41 ⇑P        P        07 02 11.9 +0.2
GHRR                    67.04  43 ⇑P        P        07 02 13.0 +1.2
GHRR                    67.04  43  P        P        07 02 10.5 -1.4
      comp=Z,6µmcomp=Z,255nm,1.1s
HARR  Harsova           67.10  45  P        P        07 02 12.7 +0.5
HARR  Harsova           67.10  45 ⇑P        P        07 02 12.7 +0.5
TLBR  Topalu            67.15  45 ⇑P        P        07 02 13.3 +0.8
ISK   Istanbul-Kandi    67.21  49  P        P        07 02 11.8 -1.1
BIR   Birlad            67.24  43  P        P        07 02 14.0 +1.0
BIR   Birlad            67.24  43 ⇑P        P        07 02 14.0 +1.0
T25A  Trinidad          67.24 307  IAmb     IAmb     07 02 48.0
      comp=Z,349nm,1.3s
T25A                               IAMs_20  IAMs_20  07 26 50.0
      comp=Z,35µm,22.0s
MFTR  Murfatlar         67.33  45 ⇑P        P        07 02 14.5 +0.8
CFR   Carcaliu          67.34  44  P        P        07 02 14.9 +1.2
CFR   Carcaliu          67.34  44 ⇓P        P        07 02 15.0 +1.2
MG03  Isla Dawson       67.35 201  P        P        07 02 13.5 +0.1
CER   Ceres             67.35 131  P        P        07 02 17.0 +3.0
      comp=Z,160nm,1.1s
HPIG                    67.35 296  IAmb     IAmb     07 02 29.0
      comp=Z,485nm,1.9s
HPIG                    67.35 296 ⇑P        P        07 02 14.7 +0.2
HPIG                    67.35 296  P        P        07 02 15.0 +0.6
      comp=Z,9µmcomp=Z,3µmcomp=Z,86nm,1.6s
SCTR  Scanteiesti       67.36  44 ⇑P        P        07 02 14.7 +0.9
DBG   Daneborg          67.36   5 i P       P        07 02 13.9 +0.6
DBG                                IAmb     IAmb     07 02 26.0
      comp=Z,416nm,1.3s
DBG   Daneborg          67.36   5 i P       P        07 02 13.8 +0.5
DBG                                IAmb     IAmb     07 02 25.4
      comp=Z,404nm,1.3s
DBG   Daneborg          67.36   5  P        P        07 02 14.6 +1.3
      comp=Z,7µmcomp=Z,4µmcomp=Z,282nm,1.6s
TIRR  Tirgusor          67.39  45  P        P        07 02 15.0 +1.0
TIRR  Tirgusor          67.39  45  P        P        07 02 12.5 -1.5
TIRR  Tirgusor          67.39  45 ⇑P        P        07 02 13.1 -0.9
TIRR  Tirgusor          67.39  45 ⇑P        P        07 02 15.0 +1.0
TIRR  Tirgusor          67.39  45  P        P        07 02 14.1 +0.1
      comp=Z,19µmcomp=Z,7µmcomp=Z,268nm,1.2s
IASR  Iasi              67.42  42 ⇓P        P        07 02 15.1 +0.9
MNTX  Cornudas Mount    67.43 301 ⇓P        P        07 02 13.6 -1.1
MNTX  Cornudas Mount    67.43 301  P        P        07 02 14.9 +0.3
      comp=Z,10µmcomp=Z,3µmcomp=Z,112nm,1.0s
VASR  Vaslui            67.44  43 ⇑P        P        07 02 15.2 +0.9
VLDR  Vladesti          67.45  43 ⇓P        P        07 02 15.1 +0.7
TPGR  Topolog           67.47  45 ⇑P        P        07 02 15.0 +0.4
USHA  Ushuaia           67.47 199  LR       LR       07 33 41.5
      comp=Z,29µm,18.1s,baz=24,slow=38
SLIT  Slitere, Latvi    67.58  30  P        P        07 02 17.1 +2.2
      comp=Z,38µmcomp=Z,12µmcomp=Z,758nm,1.6s
PABE  Paberze           67.67  33  P        P        07 02 13.7 -1.8
PABE                               IAMs_20  IAMs_20  07 28 01.8
      comp=Z,36µm,20.0s
PABE  Paberze           67.67  33  P        P        07 02 15.4 -0.1
      comp=Z,17µmcomp=Z,8µmcomp=Z,463nm,1.5s
LEOM  Leova             67.70  43  P        P        07 02 14.5 -1.5
JURR  Jurilovca         67.77  45 ⇑P        P        07 02 17.4 +0.9
LEIR  Leirfjorden       67.79  20 eP        P        07 02 16.5 +0.3
LEIR                              eS        S        07 11 14.2 +0.4
LEIR                              eSS       SS       07 15 38.3 +3.2
LEIR                               IVMs_BB  IVMs_BB  07 25 03.3
      comp=Z,14µm,22.2s
TLCR                    67.81  44  P        P        07 02 17.5 +0.8
TLCR                    67.81  44 ⇑P        P        07 02 17.6 +0.8
ISP   Isparta           67.83  52ceP        P        07 02 16.2 -0.9
ISP                                pmax     pmax
      comp=Z,178nm,1.1s
ISP   Isparta           67.83  52 ⇑P        P        07 02 16.2 -0.9
BCK   Bucak             67.83  53  P        P        07 02 16.4 -0.7
STOK  Stokkvaagen       67.89  20 eP        P        07 02 17.9 +1.1
STOK                              eS        S        07 11 16.8 +2.0
STOK                               IVMs_BB  IVMs_BB  07 23 36.0
      comp=Z,12µm,23.8s
KULLO Kullorsuaq        67.89 354 ⇓P        P        07 02 16.6  0.0
KULLO Kullorsuaq        67.89 354 i P       P        07 02 17.5 +0.9
KULLO                              IAmb     IAmb     07 02 20.9
      comp=Z,85nm,0.8s
KULLO Kullorsuaq        67.89 354 i P       P        07 02 16.8 +0.2
KULLO                              IAmb     IAmb     07 02 27.6
      comp=Z,650nm,1.6s
KULLO Kullorsuaq        67.89 354  P        P        07 02 16.9 +0.2
      comp=Z,6µmcomp=Z,4µmcomp=Z,208nm,1.4s
KONS  Konsvik           68.02  19 eP        P        07 02 17.0 -0.6
KONS                              eS        S        07 11 17.6 +1.2
KONS                               IVMs_BB  IVMs_BB  07 25 21.0
      comp=Z,11µm,20.8s
ILON  Igloolik, Nuna    68.06 344  P        P        07 02 17.8  0.0
ILON                               IAmb     IAmb     07 02 28.9
      comp=Z,211nm,1.2s
BORA  Eskisehir         68.06  50  P        P        07 02 16.6 -1.9
BORA                               IAmb     IAmb     07 02 29.1
      comp=Z,330nm,1.2s
Q24A  Divide            68.07 309  IAMs_20  IAMs_20  07 28 18.2
      comp=Z,60µm,20.0s
SUR   Sutherland        68.08 129  LR       LR       07 24 59.9
      comp=Z,32µm,21.5s,baz=289,slow=30
SUR   Sutherland        68.08 129  P        P        07 02 17.4 -1.5
SUR                                IAmb     IAmb     07 02 44.6
      comp=Z,211nm,1.2s
SUR   Sutherland        68.08 129  P        P        07 02 19.5 +0.7
      comp=Z,10µmcomp=Z,174nm,1.0s
SUR   Sutherland        68.08 129  P        P        07 02 19.3 +0.4
KHWEE KHWEE             68.10 117  P        P        07 02 17.0 -2.1
KHWEE KHWEE             68.10 117  P        P        07 02 22.0 +2.9
RSSD  Black Hills       68.10 314  P        P        07 02 18.0 -0.9
RSSD                               pmax     pmax
      comp=Z,79nm,1.1s
RSSD  Black Hills       68.10 314  P        P        07 02 18.0 -0.9
RSSD  Black Hills       68.10 314  IAMs_20  IAMs_20  07 27 20.2
      comp=Z,52µm,22.0s
RSSD  Black Hills       68.10 314  P        P        07 02 19.1 +0.2
      comp=Z,14µmcomp=Z,3µmcomp=Z,69nm,1.0s
SORM  Soroca            68.15  41  P        P        07 02 19.6 +0.9
SORM  Soroca            68.15  41 ⇓P        P        07 02 19.7 +0.9
SDCO  Great Sand Dun    68.18 308  IAmb     IAmb     07 02 32.5
      comp=Z,167nm,1.1s
SDCO                               IAMs_20  IAMs_20  07 28 20.9
      comp=Z,53µm,21.0s
SDCO  Great Sand Dun    68.18 308 ⇑P        P        07 02 19.4 -0.1
VAGH  Vaagaholmen       68.20  19 eP        P        07 02 18.9 +0.3
VAGH                              eS        S        07 11 16.3 -2.3
VAGH                               IVMs_BB  IVMs_BB  07 23 41.3
      comp=Z,10µm,32.1s
KIS   Kishinev          68.20  42  P        P        07 02 20.3 +1.2
KIS   Kishinev          68.20  42 ⇑P        P        07 02 20.4 +1.2
MOR8  Moi Rana          68.28  20 eP        P        07 02 20.0 +0.8
MOR8                               IVmB_BB           07 02 23.2
      comp=Z,2µm,1.6s
MOR8                              eS        S        07 11 23.8 +4.2
MOR8                               IVMs_BB  IVMs_BB  07 25 22.0
      comp=Z,12µm,21.6s
MBAR  Mbarara           68.28  94  LR       LR       07 30 06.8
      comp=Z,8µm,19.8s,baz=292,slow=34
MBAR  Mbarara           68.28  94  P        P        07 02 21.3 +0.9
MBAR                               S        S        07 11 22.5 +0.8
MBAR  Mbarara           68.28  94 i P       P        07 02 21.0 +0.6
MBAR                               pmax     pmax
      comp=Z,94nm,1.1s
MBAR  Mbarara           68.28  94  P        P        07 02 18.3 -2.1
MBAR                               IAmb     IAmb     07 02 29.6
      comp=Z,158nm,1.2s
MBAR  Mbarara           68.28  94  P        P        07 02 21.9 +1.5
      comp=Z,4µmcomp=Z,3µmcomp=Z,97nm,1.2s
MBAR  Mbarara           68.28  94  P        P        07 02 21.3 +0.9
RAUS  Rausandaksla      68.29  20 eP        P        07 02 17.6 -1.7
RAUS                              eS        S        07 11 20.3 +0.6
RAUS                               IVMs_BB  IVMs_BB  07 25 29.3
      comp=Z,12µm,21.0s
EPT   El Paso           68.39 301  IAmb     IAmb     07 02 33.4
      comp=Z,164nm,1.0s
EPT                                IAMs_20  IAMs_20  07 32 14.9
      comp=Z,32µm,19.0s
ORCD  Orcadas           68.41 184  P        P        07 02 19.3 -0.7
SAHE  Sakarya_HENDEK    68.51  49 ⇓P        P        07 02 22.4 +1.2
ISCO  Idaho Springs     68.55 310 ⇑P        P        07 02 22.3 +0.5
ISCO  Idaho Springs     68.55 310  IAmb     IAmb     07 02 35.6
      comp=Z,239nm,1.1s
ISCO  Idaho Springs     68.55 310 ⇑P        P        07 02 22.3 +0.5
ISCO  Idaho Springs     68.55 310  P        P        07 02 22.6 +0.7
      comp=Z,12µmcomp=Z,4µmcomp=Z,196nm,1.4s
KEPZ  Antalya-Kepez     68.57  53 ⇑P        P        07 02 22.0 +0.3
ALQ   Albuquerque       68.63 304  IAmb     IAmb     07 02 43.0
      comp=Z,271nm,1.8s
ALQ   Albuquerque       68.63 304  IAmb     IAmb     07 02 43.0
      comp=Z,271nm,1.8s
ALQ                                IAMs_20  IAMs_20  07 28 24.0
      comp=Z,96µm,21.0s
ANMO  Albuquerque       68.63 304  LR       LR       07 28 46.5
      comp=Z,99µm,21.1s,baz=100,slow=33
ANMO  Albuquerque       68.63 304deP        P        07 02 23.3 +1.0
ANMO                               pmax     pmax
      comp=Z,73nm,1.2s
ANMO  Albuquerque       68.63 304  P        P        07 02 22.7 +0.4
ANMO  Albuquerque       68.63 304 ⇑P        P        07 02 22.7 +0.4
ANMO  Albuquerque       68.63 304  P        P        07 02 23.7 +1.3
      comp=Z,12µmcomp=Z,3µmcomp=Z,82nm,1.8s
TASM  ASL Pad, Albuq    68.63 304  IAmb     IAmb     07 02 43.0
      comp=Z,243nm,1.8s
TASM  ASL Pad, Albuq    68.63 304  IAmb     IAmb     07 02 43.0
      comp=Z,239nm,1.7s
TASM  ASL Pad, Albuq    68.63 304  IAMs_20  IAMs_20  07 28 35.0
      comp=Z,99µm,21.0s
TASM  ASL Pad, Albuq    68.63 304  IAMs_20  IAMs_20  07 28 35.1
      comp=Z,100µm,21.0s
TASM  ASL Pad, Albuq    68.63 304  IAMs_20  IAMs_20  07 28 35.1
      comp=Z,100µm,21.0s
LSZ   Lusaka            68.71 110  LR       LR       07 27 00.2
      comp=Z,11µm,20.9s,baz=296,slow=31
LSZ   Lusaka            68.71 110  P        P        07 02 24.2 +1.2
LSZ                                S        S        07 11 25.4 -1.3
LSZ   Lusaka            68.71 110  P        P        07 02 22.1 -0.9
LSZ                                pmax     pmax
      comp=Z,635nm,1.6s
LSZ   Lusaka            68.71 110  P        P        07 02 22.1 -0.9
LSZ   Lusaka            68.71 110 ⇑P        P        07 02 23.7 +0.7
LSZ   Lusaka            68.71 110  P        P        07 02 24.0 +1.0
      comp=Z,4µmcomp=Z,210nm,1.5s
LSZ   Lusaka            68.71 110  P        P        07 02 23.9 +0.9
MDUB  Mudurnu           68.72  50 ⇑P        P        07 02 21.7 -0.9
MTSE  Matsula           68.73  29  P        P        07 02 22.6 +0.5
      comp=Z,19µmcomp=Z,1µm,1.1s
MAKGR Makgori           68.80 121  P        P        07 02 21.7 -1.7
MAKGR                              IAmb     IAmb     07 02 27.4
      comp=Z,230nm,1.2s
MAKGR Makgori           68.80 121  P        P        07 02 23.4 -0.1
PURM  Purcari           68.81  43 ⇑P        P        07 02 23.6 +0.7
LOF   Lofoten           69.08  18 eP        P        07 02 24.1 -0.1
LOF                                IVmB_BB           07 02 35.2
      comp=Z,3µm,1.2s
LOF                               eS        S        07 11 29.2 +0.2
LOF                                IVMs_BB  IVMs_BB  07 24 25.2
      comp=Z,8µm,24.2s
LBTB  Lobatse           69.21 120  P        P        07 02 24.3 -1.7
LBTB                               pmax     pmax
      comp=Z,699nm,2.0s
LBTB  Lobatse           69.21 120  P        P        07 02 24.3 -1.7
LBTB  Lobatse           69.21 120 i P       P        07 02 25.6 -0.3
LBTB  Lobatse           69.21 120 ⇓P        P        07 02 25.3 -0.6
LBTB  Lobatse           69.21 120  P        P        07 02 25.6 -0.3
      comp=Z,6µmcomp=Z,3µmcomp=Z,102nm,1.3s
LBTB  Lobatse           69.21 120  P        P        07 02 25.6 -0.3
FAUS  Fauske            69.22  19 eP        P        07 02 25.1 +0.1
FAUS                               IVmB_BB           07 02 40.1
      comp=Z,5µm,2.2s
FAUS                              eS        S        07 11 32.8 +2.1
FAUS                               IVMs_BB  IVMs_BB  07 28 27.6
      comp=Z,11µm,20.0s
S22A  4UR Ranch, Cre    69.23 307  IAmb     IAmb     07 02 53.1
      comp=Z,212nm,1.3s
S22A                               IAMs_20  IAMs_20  07 28 05.5
      comp=Z,50µm,22.0s
KIEV  Kiev              69.30  39  P        P        07 02 26.2 +0.4
KIEV  Kiev              69.30  39  P        P        07 02 24.3 -1.6
KIEV  Kiev              69.30  39 ⇑P        P        07 02 24.3 -1.6
KIEV  Kiev              69.30  39 i P       P        07 02 25.0 -0.9
      SNR=53
KIEV  Kiev              69.30  39 ⇑P        P        07 02 26.3 +0.4
KIEV  Kiev              69.30  39  P        P        07 02 24.5 -1.4
      comp=Z,18µmcomp=Z,5µmcomp=Z,276nm,1.8s,comp=Z,5µm
AKASG Malin Array Be    69.31  39  P        P        07 02 24.3 -1.7
      comp=Z,57nm,0.8s,baz=260,slow=6.1,SNR=98
AKASG                              LR       LR       07 30 13.4
      comp=Z,22µm,21.8s,baz=256,slow=34
      comp=Z,57nm,0.8s
AKASG Malin Array Be    69.31  39 i P       P        07 02 24.2 -1.7
AKASG                              pmax     pmax
      comp=Z,58nm,0.8s
AKASG Malin Array Be    69.31  39  P        P        07 02 24.1 -1.9
AKBB  Malin Array Si    69.31  39ceP        P        07 02 24.4 -1.5
AKBB                               pmax     pmax
      comp=Z,239nm,1.1s
FFC   Flin Flon         69.33 326 i P       P        07 02 25.4 -0.6
FFC   Flin Flon         69.33 326  P        P        07 02 25.5 -0.6
FFC   Flin Flon         69.33 326  IAMs_20  IAMs_20  07 28 17.9
      comp=Z,48µm,20.0s
FFC   Flin Flon         69.33 326 ⇑P        P        07 02 25.4 -0.6
FFC   Flin Flon         69.33 326  P        P        07 02 25.8 -0.2
      comp=Z,13µmcomp=Z,5µmcomp=Z,425nm,1.1s
POIN  Pond Inlet        69.47 348  P        P        07 02 26.6  0.0
POIN                               IAmb     IAmb     07 02 49.4
      comp=Z,307nm,1.4s
MNK   Minsk             69.50  34 i P       P        07 02 26.8 -0.2
MNK                               i                  07 02 50.1
MNK                               i                  07 04 59.8
MNK                               i PPP     PPP      07 06 40.3
MNK                               i S       S        07 11 34.2 -0.2
MNK                               i SS      SS       07 16 02.1 +0.2
MNK                                pmax     pmax
      comp=Z,182nm,1.0s
MNK                                pmax     pmax
      comp=E,64nm,1.0s
MNK                                pmax     pmax
      comp=N,81nm,0.9s
MNK                                MLR      MLR
      comp=E,6µm,16.0s
MNK   Minsk             69.50  34 i P       P        07 02 26.9 -0.2
      comp=E,64nm,1.0s
MNK                               i P       P        07 02 26.9 -0.2
      comp=N,81nm,0.9s
MNK                               i P       P        07 02 26.9 -0.2
      comp=Z,182nm,1.0s,baz=254
MNK                               i PcP     PcP      07 02 50.1 -0.1
MNK                               i PP      PP       07 04 59.9 -0.8
MNK                               i PPP     PPP      07 06 40.4
MNK                               i S       S        07 11 34.3 -0.2
MNK                               i SS      SS       07 16 02.1 +0.2
MNK                               i SSS     SSS      07 19 19.3
STEI  Steigen           69.50  19 eP        P        07 02 28.1 +1.3
STEI                               IVmB_BB           07 02 30.0
      comp=Z,1µm,1.8s
STEI                              eS        S        07 11 34.2 +0.2
BROLN Tlhalogang        69.52 116  P        P        07 02 27.3 -0.6
121A  Cookes Peak, D    69.53 302  IAmb     IAmb     07 02 49.0
      comp=Z,362nm,1.5s
K22A  Casper            69.64 313  IAmb     IAmb     07 03 04.7
      comp=Z,278nm,1.5s
CSS   Mathiatis         69.77  56  P        P        07 02 27.9 -1.2
CSS   Mathiatis         69.77  56 ⇑P        P        07 02 28.3 -0.8
CSS   Mathiatis         69.77  56  P        P        07 02 28.5 -0.6
      comp=Z,15µmcomp=Z,4µmcomp=Z,280nm,1.7s
DAG   Danmarks Havn     69.84   4  P        P        07 02 28.7  0.0
DAG   Danmarks Havn     69.84   4 ⇑P        P        07 02 28.4 -0.3
DAG   Danmarks Havn     69.84   4 i P       P        07 02 28.8 +0.1
DAG                                IAmb     IAmb     07 02 39.6
      comp=Z,131nm,0.9s
DAG   Danmarks Havn     69.84   4 i P       P        07 02 27.5 -1.3
DAG                                IAmb     IAmb     07 02 39.2
      comp=Z,141nm,0.9s
DAG   Danmarks Havn     69.84   4  P        P        07 02 28.8 +0.1
      comp=Z,3µmcomp=Z,230nm,1.4s
KKUL  Konya-Kulu        69.86  51  P        P        07 02 29.4 -0.4
      comp=Z,16µmcomp=Z,5µmcomp=Z,439nm,1.3s
HAYD  Hayden            69.89 310  IAMs_20  IAMs_20  07 28 58.1
      comp=Z,41µm,21.0s
BLKN  Baker Lake        69.95 337  IAmb     IAmb     07 02 40.6
      comp=Z,212nm,1.0s
ARBE  Arbavere          70.03  29  P        P        07 02 30.3 +0.1
      comp=Z,18µmcomp=Z,2µm,1.1s
VSU   Vasula            70.08  30ceP        P        07 02 30.7 +0.2
VSU                                pmax     pmax
      comp=Z,138nm,1.3s
VSU   Vasula            70.08  30 ⇑P        P        07 02 27.0 -3.5
VSU   Vasula            70.08  30  P        P        07 02 29.6 -0.9
      comp=Z,15µmcomp=Z,3µmcomp=Z,172nm,1.7s
LAO   LASA Array        70.09 317  IAMs_20  IAMs_20  07 29 55.6
      comp=Z,36µm,19.0s
LAO   LASA Array        70.09 317 ⇓P        P        07 02 30.9 -0.1
BOSA  Boshof            70.16 124  P        P        07 02 31.5 -0.2
      comp=Z,211nm,1.1s,baz=296,slow=5.2,SNR=25
      comp=Z,211nm,1.1s
BOSA  Boshof            70.16 124  P        P        07 02 30.4 -1.4
BOSA                               IAmb     IAmb     07 02 35.4
      comp=Z,217nm,1.0s
BOSA  Boshof            70.16 124 i P       P        07 02 31.5 -0.2
BOSA  Boshof            70.16 124  P        P        07 02 31.6 -0.2
BOSA  Boshof            70.16 124  P        P        07 02 31.7  0.0
      comp=Z,7µmcomp=Z,241nm,1.4s
BOSA  Boshof            70.16 124  P        P        07 02 31.6 -0.2
NEEM  North Greenlan    70.17 357 i P       P        07 02 31.4 +0.3
NEEM                               IAmb     IAmb     07 02 38.2
      comp=Z,497nm,1.6s
NEEM  North Greenlan    70.17 357 i P       P        07 02 30.8 -0.3
NEEM                               IAmb     IAmb     07 02 43.0
      comp=Z,392nm,1.0s
BLWY  Bulawayo          70.39 114 i P       P        07 02 31.3 -2.0
KZIT  Kziot             70.39  60 ⇑P        P        07 02 33.1 +0.1
KZIT  Kziot             70.39  60  P        P        07 02 34.1 +1.1
      comp=Z,13µmcomp=Z,6µmcomp=Z,436nm,1.3s
BR131 Keskin Array S    70.48  51  P        P        07 02 32.8 -0.8
      SNR=105
BR131                              S        S        07 11 45.0 -1.8
BR131 Keskin Array S    70.48  51c iP       P        07 02 32.6 -0.9
BR131 Keskin Array S    70.48  51  P        P        07 02 32.7 -0.9
BRTR  Keskin Array B    70.48  51  P        P        07 02 32.6 -0.9
      comp=Z,63nm,0.8s,baz=252,slow=5.6,SNR=85
BRTR                               LR       LR       07 33 22.9
      comp=Z,22µm,21.7s,baz=245,slow=36
      comp=Z,63nm,0.8s
BRTR  Keskin Array B    70.48  51  P        P        07 02 31.9 -1.7
MVCO  Mesa Verde        70.49 307  IAmb     IAmb     07 03 07.4
      comp=Z,232nm,1.4s
MVCO                               IAMs_20  IAMs_20  07 29 02.0
      comp=Z,49µm,22.0s
MVCO  Mesa Verde        70.49 307 ⇑P        P        07 02 35.0 +1.1
MVCO  Mesa Verde        70.49 307  P        P        07 02 35.5 +1.6
      comp=Z,10µmcomp=Z,4µmcomp=Z,133nm,2.0s,comp=Z,4µm
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O20A  White River Ci  70.59 310   IAmb      IAmb      07 02 47.8
      comp=Z,335nm,1.1s
O20A                              IAMs_20   IAMs_20   07 29 32.5
      comp=Z,49µm,20.0s
KIRS  Kirsehir-Merke  70.63  51  ⇓P         P         07 02 34.4  0.0
PV01  Paradox Valley  70.64 308   IAmb      IAmb      07 02 48.0
      comp=Z,180nm,1.1s
CY604 RAF Akrotiri,   70.69  56   P         P         07 02 34.5  0.0
CY604                             IAmb      IAmb      07 02 49.4
      comp=Z,306nm,1.3s
319A  Douglas         70.73 300   IAmb      IAmb      07 02 55.1
      comp=Z,148nm,1.0s
FINES FINESS Array B  70.77  27   P         P         07 02 33.7 -0.9
      comp=Z,52nm,0.9s,baz=265,slow=4.9,SNR=58
FINES                             LR        LR        07 30 19.6
      comp=Z,45µm,20.9s,baz=247,slow=33
      comp=Z,52nm,0.9s
FIA1  FINESS Array S  70.77  27   P         P         07 02 33.3 -1.3
PV02  Paradox Valley  70.78 308   IAmb      IAmb      07 02 48.7
      comp=Z,327nm,1.1s
EIL   Elat            70.82  61   LR        LR        07 33 12.0
      comp=Z,62µm,21.7s,baz=274,slow=36
EIL   Elat            70.82  61  ⇑P         P         07 02 35.4 -0.3
EIL   Elat            70.82  61   P         P         07 02 36.5 +0.9
      comp=Z,13µmcomp=Z,4µmcomp=Z,220nm,1.6s
PV13  Radium Mtn., P  70.84 308   IAmb      IAmb      07 02 49.0
      comp=Z,174nm,1.1s
PV11  David Mesa, Pa  70.89 308   IAmb      IAmb      07 03 21.4
      comp=Z,280nm,1.4s
HRFI  Mount Harif     70.91  61   P         P         07 02 36.0 -0.2
      comp=Z,14µmcomp=Z,6µmcomp=Z,482nm,1.4s,comp=Z,6µm
PV04  Paradox Valley  70.92 308   IAmb      IAmb      07 03 14.1
      comp=Z,364nm,1.7s
PV16  Nyswonger Mesa  70.92 308   IAmb      IAmb      07 03 14.4
      comp=Z,412nm,1.7s
TULEG Thule           70.97 353  i P        P         07 02 35.0 -0.6
TULEG                             IAmb      IAmb      07 02 40.0
      comp=Z,152nm,1.0s
TULEG Thule           70.97 353  i P        P         07 02 35.8 +0.2
TULEG                             IAmb      IAmb      07 02 46.7
      comp=Z,714nm,1.5s
TULEG Thule           70.97 353   P         P         07 02 39.2 +3.6
      comp=Z,7µmcomp=Z,6µmcomp=Z,302nm,2.0s
PV20  West Nyswonger  70.97 308   IAmb      IAmb      07 02 49.6
      comp=Z,316nm,1.2s
PV19  Morning Glory   70.98 308   IAmb      IAmb      07 03 03.4
      comp=Z,408nm,1.3s
PV21  Cone Mtn., Par  71.00 308   IAmb      IAmb      07 03 02.8
      comp=Z,179nm,1.2s
BZK   Bozkurt         71.01  48  ⇑P         P         07 02 38.0 +1.5
PV23  Carpenter Ridg  71.01 308   IAmb      IAmb      07 02 51.1
      comp=Z,226nm,1.1s
PV10  Paradox Valley  71.03 308   IAmb      IAmb      07 02 57.7
      comp=Z,341nm,1.2s
SALP  Salfit          71.12  59  ⇑P         P         07 02 37.5 -0.1
SLBS  Sierra La Lagu  71.15 292   P         P         07 02 39.5 +1.7
SLBS                              IAmb      IAmb      07 02 53.1
      comp=Z,320nm,1.9s
SLBS  Sierra La Lagu  71.15 292  ⇑P         P         07 02 39.6 +1.7
SLBS  Sierra La Lagu  71.15 292   P         P         07 02 40.2 +2.3
      comp=Z,9µmcomp=Z,3µmcomp=Z,91nm,1.0s
MSBI  Mazada          71.23  60  ⇑P         P         07 02 38.3 +0.2
MSBI  Mazada          71.23  60   P         P         07 02 39.1 +1.1
      comp=Z,16µmcomp=Z,3µmcomp=Z,175nm,1.7s
W18A  Petrified Fore  71.33 304   IAmb      IAmb      07 03 00.2
      comp=Z,358nm,1.3s
MMLI  Mount Malkishu  71.34  58   P         P         07 02 40.3 +1.5
      comp=Z,8µmcomp=Z,428nm,1.7s
MMAI  Mount Meron Ar  71.35  58   P         P         07 02 39.2 +0.3
      comp=Z,22nm,0.8s,baz=280,slow=3.9,SNR=15
MMAI                              PP        PP        07 05 17.1 -0.1
      comp=Z,8.4nm,0.7s,baz=284,slow=6.8,SNR=5.4
MMAI                              LR        LR        07 33 51.6
      comp=Z,17µm,21.8s,baz=268,slow=36
      comp=Z,22nm,0.8s
UJAP  Al Uja          71.35  59   P         P         07 02 39.8 +1.0
      comp=Z,16µmcomp=Z,4µmcomp=Z,188nm,2.0s
GHAJ  Ghor Haditha    71.41  60   P         P         07 02 40.3 +1.2
      comp=Z,15µmcomp=Z,5µmcomp=Z,131nm,1.1s
SIM   Simferopol'     71.47  45  eP         P         07 02 38.0 -1.3
SIM                              e                    07 02 59.0
SIM                              eS         S         07 11 52.0 -5.9
SIM                               pmax      pmax
      comp=Z,187nm,1.3s
LPIG  La Paz          71.48 293   LR        LR        07 35 30.4
      comp=Z,10µm,18.5s,baz=84,slow=37
DQRL  Deir Qamar      71.53  57  eP         P         07 02 40.8 +0.8
TRO   Tromso          71.54  18  eP         P         07 02 39.2  0.0
TRO                               IVmB_BB             07 02 54.1
      comp=Z,5µm,2.9s
TRO                              eS         S         07 11 59.1 +1.4
TRO                               IVMs_BB   IVMs_BB   07 25 00.1
      comp=Z,11µm,28.2s
BHL   Bhannes         71.61  57  eP         P         07 02 40.0 -0.5
QRWL  Qaraoun         71.61  57  eP         P         07 02 41.5 +1.0
SHBL  Chebaa          71.65  57  eP         P         07 02 41.3 +0.5
RCY   Rachaya         71.74  57  eP         P         07 02 41.9 +0.6
ZAHL  Zahle           71.80  57  eP         P         07 02 41.7  0.0
HWQ   Hawqa           71.87  57  eP         P         07 02 41.8 -0.3
BW06  Boulder Array   71.87 312   IAmb      IAmb      07 03 26.5
      comp=Z,556nm,1.6s
BW06  Boulder Array   71.87 312  ⇑P         P         07 02 41.5 -0.6
PD31  Pinedale Array  71.87 312   IAmb      IAmb      07 03 26.5
      comp=Z,555nm,1.6s
PDAR  Pinedale Array  71.87 312   P         P         07 02 42.2 +0.1
      comp=Z,8.7nm,0.9s,baz=94,slow=4.8,SNR=51
PDAR                              LR        LR        07 30 23.9
      comp=Z,37µm,21.5s,baz=114,slow=33
      comp=Z,8.7nm,0.9s
PDAR  Pinedale Array  71.87 312   P         P         07 02 41.4 -0.7
RLMT  Red Lodge       71.95 315   IAMs_20   IAMs_20   07 29 17.0
      comp=Z,34µm,21.0s
RLMT  Red Lodge       71.95 315  ⇓P         P         07 02 41.6 -0.8
JETT  Jettan, Norway  71.95  18  eP         P         07 02 41.7  0.0
JETT                             eS         S         07 12 02.6  0.0
JETT                              IVMs_BB   IVMs_BB   07 25 25.0
      comp=Z,11µm,35.6s
OUL   Oulu            71.99  23   P         P         07 02 41.4 -0.6
OUL   Oulu            71.99  23   P         P         07 02 42.2 +0.2
      comp=Z,13µmcomp=Z,4µmcomp=Z,247nm,1.4s,comp=Z,4µm
TUC   Tucson          72.05 301   P         P         07 02 43.2  0.0
TUC                               pmax      pmax
      comp=Z,107nm,1.0s
TUC   Tucson          72.05 301   P         P         07 02 43.2  0.0
TUC   Tucson          72.05 301  ⇓P         P         07 02 43.2  0.0
TUC   Tucson          72.05 301   P         P         07 02 43.8 +0.6
      comp=Z,8µmcomp=Z,2µmcomp=Z,121nm,1.2s
BEIL  Beino           72.08  56  eP         P         07 02 43.6 +0.4
HSIG                  72.10 298  ⇓P         P         07 02 44.6 +1.2
BNN   Bunyan          72.10  52   IAmb      IAmb      07 03 00.6
      comp=Z,415nm,1.3s
BNN   Bunyan          72.10  52  ⇑P         P         07 02 42.7 -0.7
H06S1 SOCORRO T       72.20 287   P         P         07 02 45.6 +1.5
      SNR=11
H06N1 SOCORRO T-PHAS72.22 287     P         P         07 02 43.9 -0.3
      SNR=6.5
PUL   Pulkovo         72.24  29ceP          P         07 02 43.8 +0.2
PUL                               pmax      pmax
      comp=Z,342nm,1.0s
PUL                               MLR       MLR
      comp=Z,35µm,18.0s
PUL   Pulkovo         72.24  29   P         P         07 02 46.0 +2.5
      comp=Z,18µmcomp=Z,8µmcomp=Z,508nm,1.1s
SRU   San Rafael Swe  72.25 309   IAmb      IAmb      07 03 05.0
      comp=Z,237nm,1.1s
HMU   Henry Mountain  72.33 307   IAmb      IAmb      07 03 12.5
      comp=Z,361nm,1.3s
LODK  Lodwar          72.34  89   P         P         07 02 46.0 +0.8
      SNR=48
LODK  Lodwar          72.34  89   P         P         07 02 44.4 -0.7
LODK                              IAmb      IAmb      07 02 54.7
      comp=Z,310nm,1.2s
LODK  Lodwar          72.34  89   P         P         07 02 46.4 +1.2
      comp=Z,5µmcomp=Z,3µmcomp=Z,245nm,1.2s,comp=Z,3µm
ANDN  Andirin         72.40  53   P         P         07 02 44.9 -0.3
      comp=Z,48µmcomp=Z,17µmcomp=Z,2µm,1.4s
ESPZ  Base Esperanza  72.41 189   P         P         07 02 43.5 -0.9
P17A  Butcher Ranch,  72.44 309   IAmb      IAmb      07 03 23.4
      comp=Z,430nm,1.5s
YNE   Yellowstone No  72.45 315   IAmb      IAmb      07 02 58.2
      comp=Z,281nm,1.1s
BSUT  Blindstream Ca  72.55 310   IAmb      IAmb      07 03 01.0
      comp=Z,293nm,1.0s
KTK1  Kautokeino      72.61  19  eP         P         07 02 45.7  0.0
KTK1                              IVmB_BB             07 02 56.2
      comp=Z,3µm,6.0s
KTK1                             eS         S         07 12 12.0 +1.9
KTK1                              IVMs_BB   IVMs_BB   07 26 08.2
      comp=Z,10µm,25.0s
EGMT  Eagleton        72.67 318   IAmb      IAmb      07 02 58.9
      comp=Z,131nm,0.8s
EGMT                              IAMs_20   IAMs_20   07 29 47.8
      comp=Z,34µm,22.0s
EGMT  Eagleton        72.67 318  ⇓P         P         07 02 45.8 -0.7
WUAZ  Wupatki         72.69 305   IAmb      IAmb      07 03 00.5
      comp=Z,240nm,1.1s
WUAZ  Wupatki         72.69 305  ⇑P         P         07 02 47.9 +0.9
X16A  Lo Mia Camp, P  72.69 304   IAmb      IAmb      07 03 01.4
      comp=Z,192nm,1.1s
GRHM  Grahamstown, E  72.74 128   P         P         07 02 46.6 -0.6
GRHM                              IAmb      IAmb      07 02 52.3
      comp=Z,249nm,1.1s
H17A  Grant Village   72.79 314   IAmb      IAmb      07 03 01.1
      comp=Z,343nm,1.4s
TMUT  Trail Mountain  72.79 309   IAmb      IAmb      07 03 07.5
      comp=Z,515nm,1.7s
YNR   Norris Junctio  72.89 314   IAmb      IAmb      07 03 06.2
      comp=Z,290nm,1.3s
YNM   Yellowstone No  72.91 314   IAmb      IAmb      07 03 03.1
      comp=Z,176nm,1.0s
AHID  Auburn Hatcher  73.00 312   IAmb      IAmb      07 03 01.3
      comp=Z,350nm,1.1s
AHID  Auburn Hatcher  73.00 312  ⇑P         P         07 02 48.7 -0.1
AHID  Auburn Hatcher  73.00 312   P         P         07 02 48.8 +0.1
      comp=Z,10µmcomp=Z,4µmcomp=Z,342nm,1.1s
FXWY  Fox Creek       73.03 313   IAmb      IAmb      07 03 01.7
      comp=Z,381nm,1.1s
FXWY                              IAMs_20   IAMs_20   07 31 44.8
      comp=Z,55µm,20.0s
GAZ   Gaziantep       73.06  54   P         P         07 02 48.9 -0.1
GAZ   Gaziantep       73.06  54  ⇑P         P         07 02 49.2 +0.1
SGF   Sodankyl        73.10  21   P         P         07 02 48.2 -0.4
SGF   Sodankyl        73.10  21   P         P         07 02 48.8 +0.2
      comp=Z,12µmcomp=Z,5µmcomp=Z,219nm,1.6s
MPU   Maple Canyon    73.17 309   IAmb      IAmb      07 03 27.9
      comp=Z,395nm,1.6s
SRIG  Santa Rosalia   73.22 296  ⇓P         P         07 02 51.9 +1.8
SRIG  Santa Rosalia   73.22 296   P         P         07 02 52.0 +1.9
      comp=Z,9µmcomp=Z,4µmcomp=Z,141nm,1.0s
HWUT  Hardware Ranch  73.24 311  ⇓P         P         07 02 49.9 -0.3
HWUT  Hardware Ranch  73.24 311   P         P         07 02 50.2 -0.1
      comp=Z,10µmcomp=Z,7µmcomp=Z,484nm,1.0s,comp=Z,7µm
YHB   Horse Butte     73.27 314   IAmb      IAmb      07 03 06.8
      comp=Z,368nm,1.1s
HAMF  Hammerfest      73.45  18  eP         P         07 02 50.5  0.0
HAMF                              IVmB_BB             07 03 05.7
      comp=Z,6µm,2.4s
HAMF                             eS         S         07 12 19.4 -0.1
HAMF                              IVMs_BB   IVMs_BB   07 25 50.1
      comp=Z,9µm,34.4s
NLU   North Lily Min  73.51 309   IAmb      IAmb      07 03 05.0
      comp=Z,200nm,1.1s
MSF   Maaselka        73.51  23   P         P         07 02 50.8 -0.2
MSF   Maaselka        73.51  23   P         P         07 02 51.2 +0.1
      comp=Z,13µmcomp=Z,6µmcomp=Z,387nm,1.2s
PKCU  Pink Cliffs     73.54 307   IAmb      IAmb      07 03 32.6
      comp=Z,440nm,1.5s
ARA0  ARCESS Array S  73.56  19  eP         P         07 02 49.5 -1.8
ARA0                             eS         S         07 12 20.6 -0.3
ARA0                              IVMs_BB   IVMs_BB   07 26 31.8
      comp=Z,11µm,31.3s
ARCES ARCESS Array B  73.56  19   P         P         07 02 49.5 -1.7
      comp=Z,80nm,0.9s,baz=237,slow=4.2,SNR=73
ARCES                             LR        LR        07 30 53.5
      comp=Z,32µm,19.9s,baz=245,slow=32
      comp=Z,80nm,0.9s
ARCES ARCESS Array B  73.56  19   P         P         07 02 49.7 -1.6
ARCES                             pmax      pmax
      comp=Z,266nm,1.1s
ARCES ARCESS Array B  73.56  19   P         P         07 02 49.7 -1.6
ARCES                             IAmb      IAmb      07 03 01.9
      comp=Z,266nm,1.1s
NOQ   North Oquirrh   73.59 310   IAmb      IAmb      07 03 10.2
      comp=Z,236nm,1.1s
BOZ   Bozeman (W)     73.66 315   P         P         07 02 52.5  0.0
BOZ   Bozeman (W)     73.66 315   IAMs_20   IAMs_20   07 32 04.2
      comp=Z,40µm,20.0s
BOZ   Bozeman (W)     73.66 315  ⇑P         P         07 02 52.5  0.0
TCRU  Three Creeks R  73.71 308   IAmb      IAmb      07 03 33.3
      comp=Z,375nm,1.2s
ANN   Anapa           73.80  46  eP         P         07 02 52.5 -0.6
SPUT  South Promonto  73.88 311   IAmb      IAmb      07 03 06.8
      comp=Z,364nm,1.1s
BJO1  Bjornoya        74.03  13  eP         P         07 02 55.1 +1.2
BJO1                             eS         S         07 12 30.3 +4.3
BJO1                              IVMs_BB   IVMs_BB   07 28 01.5
      comp=Z,5µm,17.1s
ARPR  Arapgir-MALATY  74.05  52   P         P         07 02 55.0 +0.1
      comp=Z,14µmcomp=Z,8µmcomp=Z,499nm,1.5s,comp=Z,8µm
DUG   Dugway, Tooele  74.09 310   IAmb      IAmb      07 03 14.2
      comp=Z,407nm,1.4s
DUG   Dugway, Tooele  74.09 310   P         P         07 02 55.3 +0.2
      comp=Z,9µmcomp=Z,4µmcomp=Z,228nm,1.7s
KEV   Kevo            74.13  19   P         P         07 02 53.0 -1.6
KEV                               pmax      pmax
      comp=Z,370nm,0.9s
KEV   Kevo            74.13  19   P         P         07 02 53.0 -1.6
KEV                               IAmb      IAmb      07 03 05.3
      comp=Z,370nm,0.9s
KEV                               IAMs_20   IAMs_20   07 30 29.1
      comp=Z,28µm,19.0s
KEV   Kevo            74.13  19  ⇑P         P         07 02 54.1 -0.5
KEV   Kevo            74.13  19   P         P         07 02 54.2 -0.3
KEV   Kevo            74.13  19   P         P         07 02 54.7 +0.1
      comp=Z,11µmcomp=Z,4µmcomp=Z,485nm,1.0s
HVU   Hansel Valley   74.16 311   IAmb      IAmb      07 03 33.1
      comp=Z,586nm,1.8s
SZCU  Shurtz Canyon   74.17 307   IAmb      IAmb      07 03 16.6
      comp=Z,424nm,1.7s
BGU   Big Grassy Mou  74.30 310   IAmb      IAmb      07 03 09.4
      comp=Z,394nm,1.1s
DLMT  Dillon          74.31 315   IAmb      IAmb      07 03 09.2
      comp=Z,440nm,1.1s
BUT   Butte           74.35 316   IAmb      IAmb      07 03 07.6
      comp=Z,321nm,1.5s
RES   Resolute Bay    74.45 347   LR        LR        07 31 52.2
      comp=Z,13µm,20.0s,baz=122,slow=33
RES   Resolute Bay    74.45 347   P         P         07 02 56.5 +0.2
RES   Resolute Bay    74.45 347   IAmb      IAmb      07 03 08.4
      comp=Z,417nm,1.2s
RES   Resolute Bay    74.45 347  ⇑P         P         07 02 57.5 +1.2
RES   Resolute Bay    74.45 347   P         P         07 02 57.2 +0.9
      comp=Z,5µmcomp=Z,311nm,1.1s
NOR   Nord            74.52   3  ⇑P         P         07 02 56.1 -0.6
NOR   Nord            74.52   3  ⇑P         P         07 02 56.1 -0.6
NOR   Nord            74.52   3  i P        P         07 02 55.8 -0.9
NOR                               IAmb      IAmb      07 03 00.2
      comp=Z,96nm,0.9s
NOR   Nord            74.52   3  i P        P         07 02 56.3 -0.4
NOR                               IAmb      IAmb      07 03 07.9
      comp=Z,364nm,1.2s
NOR   Nord            74.52   3   P         P         07 02 57.0 +0.3
      comp=Z,6µmcomp=Z,4µmcomp=Z,290nm,1.4s
OBN   Obninsk         74.54  35   LR        LR        07 34 16.6
      comp=Z,23µm,19.9s,baz=258,slow=35
OBN   Obninsk         74.54  35ceP          P         07 02 56.4 -0.8
OBN                              e                    07 03 07.3
OBN                              e                    07 05 45.2
OBN                               pmax      pmax
      comp=Z,175nm,1.2s
OBN   Obninsk         74.54  35   P         P         07 02 56.5 -0.7
OBN                               IAMs_20   IAMs_20   07 33 54.0
      comp=Z,27µm,20.0s
OBN   Obninsk         74.54  35  ⇓P         P         07 02 58.3 +1.1
OBN   Obninsk         74.54  35   P         P         07 02 57.7 +0.5
      comp=Z,18µmcomp=Z,7µmcomp=Z,286nm,1.5s,comp=Z,7µm
KMBO  Kilima Mbogo    74.80  93   P         P         07 03 00.4 +0.5
      baz=271,slow=6.1
KMBO                              LR        LR        07 35 21.0
      comp=Z,4µm,19.2s,baz=286,slow=35
KMBO  Kilima Mbogo    74.80  93  i P        P         07 03 01.1 +1.2
KELT  Kelkit          74.81  51   P         P         07 02 59.7 +0.2
      comp=Z,19µmcomp=Z,972nm,1.6s
PMSA  Palmer Station  74.93 192   P         P         07 02 59.1 -0.1
PMSA  Palmer Station  74.93 192  eP         P         07 02 58.4 -0.8
PMSA  Palmer Station  74.93 192   P         P         07 03 00.7 +1.5
      comp=Z,7µmcomp=Z,4µmcomp=Z,140nm,1.1s,comp=Z,4µm
VADS  Vadso           75.02  19  eP         P         07 02 58.9 -0.8
VADS                              IVmB_BB             07 03 10.4
      comp=Z,2µm,1.1s
VADS                             eS         S         07 12 37.4 +0.2
VADS                              IVMs_BB   IVMs_BB   07 27 28.2
      comp=Z,11µm,31.6s
FURI  Furi            75.03  83   P         P         07 03 00.9 -0.4
FURI                              IAmb      IAmb      07 03 15.6
      comp=Z,534nm,1.5s
POGA  Pongola         75.15 121   P         P         07 02 59.6 -1.7
POGA  Pongola         75.15 121   P         P         07 03 02.1 +0.7
      comp=Z,448nm,1.1s
POGA  Pongola         75.15 121   P         P         07 03 01.4 +0.1
MOS   Moscow          75.23  34  eP         P         07 03 01.7 +0.5
MOS                              e                    07 03 14.0
MOS                              ePPP       PPP       07 07 37.3
MOS                              eS         S         07 12 43.1 +3.1
MOS                              eSS        SS        07 17 36.6 +7.2
MOS                               pmax      pmax
      comp=Z,900nm,1.6s
MOS                               pmax      pmax
      comp=Z,364nm,1.4s
MOS                               pmax      pmax
      comp=N,78nm,0.9s
MOS                               pmax      pmax
      comp=E,125nm,1.3s
BLYC  Blythe          75.23 303   IAmb      IAmb      07 03 29.0
      comp=Z,270nm,1.3s
KTUT  Trabzon         75.24  50  ⇑P         P         07 03 03.1 +1.5
KBS   Kingsbay        75.25   9  i P        P         07 03 02.2 +1.2
KBS                               pmax      pmax
      comp=Z,62nm,1.0s
KBS   Kingsbay        75.25   9  eP         P         07 03 02.1 +1.2
KBS                              eS         S         07 12 42.5 +3.0
KBS                               IVMs_BB   IVMs_BB   07 26 50.8
      comp=Z,9µm,31.2s
KBS   Kingsbay        75.25   9   P         P         07 03 01.2 +0.2
KBS                               IAmb      IAmb      07 03 13.8
      comp=Z,216nm,1.1s
KBS   Kingsbay        75.25   9  ⇑P         P         07 03 02.7 +1.8
KBS   Kingsbay        75.25   9  i P        P         07 03 02.5 +1.5
KBS   Kingsbay        75.25   9  i P        P         07 03 01.8 +0.9
KBS   Kingsbay        75.25   9   P         P         07 03 03.1 +2.1
      comp=Z,10µmcomp=Z,3µmcomp=Z,238nm,1.1s
SOC   Sochi           75.34  47  eP         P         07 03 02.2  0.0
SOC                              e                    07 05 47.5
SOC                              eS         S         07 12 41.9 +0.1
SOC                              eSS        SS        07 17 34.2 +2.4
SOC                              eSSS       SSS       07 20 51.6
SOC                               pmax      pmax
      comp=Z,372nm,1.0s
SOC                               MLR       MLR
      comp=Z,9µm,19.0s
MSO   Missoula        75.37 316   IAMs_20   IAMs_20   07 33 42.3
      comp=Z,44µm,20.0s
MSO   Missoula        75.37 316  ⇑P         P         07 03 02.5 +0.1
HLID  Hailey          75.48 313   IAmb      IAmb      07 03 16.4
      comp=Z,217nm,1.1s
HLID                              IAMs_20   IAMs_20   07 31 46.5
      comp=Z,53µm,22.0s
HLID  Hailey          75.48 313  ⇓P         P         07 03 03.2  0.0
HLID  Hailey          75.48 313   P         P         07 03 03.9 +0.7
      comp=Z,10µmcomp=Z,4µmcomp=Z,224nm,1.1s
SPA0  Spitsbergen Ar  75.51  10  eP         P         07 03 03.5 +1.0
SPB2  Spitsbergen Ar  75.51  10   P         P         07 03 01.6 -0.9
SPITS Spitsbergen Ar  75.51  10   P         P         07 03 01.9 -0.6
      comp=Z,30nm,0.9s,baz=109,slow=4.8,SNR=8.7
SPITS                             LR        LR        07 28 43.3
      comp=Z,21µm,21.0s,baz=232,slow=30
      comp=Z,30nm,0.9s
VSLR  Vesyoloye       75.57  47  i P        P         07 03 04.2 +0.7
VSLR                              pmax      pmax
      comp=Z,462nm,1.2s
VSLR                              MLR       MLR
      comp=Z,6µm,15.0s
LPSR  Galich'ya Gora  75.59  38  eP         P         07 03 02.8 -0.5
LPSR                             e                    07 03 05.3
LPSR                             eS         S         07 12 41.0 -3.1
LPSR                              pmax      pmax
      comp=Z,310nm,1.1s
LPSR                              pmax      pmax
      comp=Z,750nm,1.6s
LPSR                              smax      smax
      comp=E,6µm,14.1s
VSR   Storozhevoye    75.59  39  eP         P         07 03 01.8 -1.6
VSR                              e                    07 03 04.2
VSR                              eS         S         07 12 41.0 -3.2
VSR                               pmax      pmax
      comp=Z,290nm,1.3s
VSR                               pmax      pmax
      comp=Z,1µm,2.2s
VSR                               smax      smax
      comp=N,4µm,22.8s
EDM   Edmonton        75.60 323   IAmb      IAmb      07 03 14.7
      comp=Z,317nm,0.9s
VORD  Divnogorie      75.64  39  eP         P         07 03 03.1 -0.6
VORD                             e                    07 03 05.7
VORD                             eS         S         07 12 44.8  0.0
VORD                              pmax      pmax
      comp=Z,270nm,1.1s
VORD                              pmax      pmax
      comp=Z,340nm,1.0s
VORD                              smax      smax
      comp=N,190nm,4.7s
APA   Apatity         75.65  22  eP         P         07 03 03.3 -0.1
APA                              e                    07 03 16.7
APA                              e                    07 05 53.1
APA                              eS         S         07 12 44.0 -0.3
APA                              e                    07 13 17.0
APA                              eSS        SS        07 17 35.2 -0.2
APA                               pmax      pmax
      comp=Z,141nm,1.0s
VORR  Voronezh        75.66  39  eP         P         07 03 03.1 -0.7
VORR                             e                    07 03 05.5
VORR                             eS         S         07 12 42.9 -2.0
VORR                              pmax      pmax
      comp=Z,490nm,1.7s
VORR                              pmax      pmax
      comp=Z,460nm,1.2s
VORR                              smax      smax
      comp=N,220nm,5.0s
PRN   Pahroc Range    75.72 307   IAmb      IAmb      07 03 32.3
      comp=Z,232nm,1.2s
KIBK  Kibwezi         75.76  94   P         P         07 03 04.0 -1.2
KIBK  Kibwezi         75.76  94   P         P         07 03 07.0 +1.7
      SNR=20
KIBK  Kibwezi         75.76  94   P         P         07 03 04.4 -0.8
KIBK  Kibwezi         75.76  94   P         P         07 03 07.0 +1.7
      comp=Z,2µmcomp=Z,105nm,1.6s
ELK   Elko            75.96 310   LR        LR        07 35 47.4
      comp=Z,50µm,18.1s,baz=94,slow=35
ELK   Elko            75.96 310  ⇑P         P         07 03 06.5 +0.4
ELK   Elko            75.96 310   IAMs_20   IAMs_20   07 32 56.6
      comp=Z,53µm,20.0s
ELK   Elko            75.96 310  ⇑P         P         07 03 06.5 +0.4
BC3   Big Chuckawall  76.00 303   IAMs_20   IAMs_20   07 34 51.3
      comp=Z,41µm,20.0s
LVZ   Lovozero        76.20  22ceP          P         07 03 07.5 +0.9
LVZ                               pmax      pmax
      comp=Z,252nm,1.0s
LVZ                               MLR       MLR
      comp=Z,15µm,18.0s
LVZ   Lovozero        76.20  22   P         P         07 03 05.6 -1.0
LVZ                               IAmb      IAmb      07 03 18.0
      comp=Z,272nm,1.0s
LVZ   Lovozero        76.20  22  ⇑P         P         07 03 06.8 +0.2
LVZ   Lovozero        76.20  22   P         P         07 03 07.2 +0.6
      comp=Z,15µmcomp=Z,4µmcomp=Z,368nm,1.0s,comp=Z,4µm
VTX   Valle De La Tr  76.29 300   IAmb      IAmb      07 03 23.9
      comp=Z,365nm,1.5s
HOPEN Hopen           76.32  12  eP         P         07 03 08.3 +1.3
HOPEN                            eS         S         07 12 51.5 +0.1
YUH   Yuha Desert     76.40 302   IAmb      IAmb      07 03 22.0
      comp=Z,231nm,1.5s
ESJX  Sierra Juarez   76.43 301   IAmb      IAmb      07 03 22.6
      comp=Z,276nm,1.6s
BELC  Belle Mtn. Jos  76.46 303   IAMs_20   IAMs_20   07 34 55.2
      comp=Z,48µm,19.0s
MFID  Camas Ranch     76.50 313   IAMs_20   IAMs_20   07 32 29.6
      comp=Z,52µm,22.0s
TPNV  Topopah Spring  76.67 306   IAmb      IAmb      07 03 26.9
      comp=Z,175nm,1.1s
TPNV                              IAMs_20   IAMs_20   07 33 02.7
      comp=Z,53µm,22.0s
TPNV  Topopah Spring  76.67 306  ⇑P         P         07 03 11.2 +1.1
PLID  Pearl Lake      76.69 314   IAMs_20   IAMs_20   07 34 03.6
      comp=Z,44µm,21.0s
BATM  Batumi          76.72  49   P         P         07 03 11.4 +1.4
BATM  Batumi          76.72  49  ⇓P         P         07 03 11.4 +1.4
ADZR  Andozero        76.84  26  eP         P         07 03 09.6 -0.6
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ADZR                             S        S        07 12 57.5 +0.1
ADZR                             SS       SS       07 17 55.0 +1.6
ADZR                             pmax     pmax
      comp=Z,341nm,1.0s
PFO   Pinyon Flats O   76.84 303    LR       LR       07 35 37.7
      comp=Z,32µm,18.9s,baz=94,slow=35
PFO   Pinyon Flats O   76.84 303d iP       P        07 03 13.0 +1.9
PFO                                 pmax     pmax
      comp=Z,65nm,1.0s
PFO   Pinyon Flats O   76.84 303    P        P        07 03 11.1 +0.1
PFO   Pinyon Flats O   76.84 303    IAMs_20  IAMs_20  07 34 09.4
      comp=Z,33µm,20.0s
PFO   Pinyon Flats O   76.84 303    P        P        07 03 13.0 +1.9
      comp=Z,9µmcomp=Z,3µmcomp=Z,71nm,1.8s,comp=Z,3µm
KLMR  Klimovskoe       76.94  29c iP       P        07 03 09.4 -1.4
KLMR                                S        S        07 12 57.8 -0.8
KLMR                                SS       SS       07 17 56.4 +1.4
KLMR                                pmax     pmax
      comp=Z,944nm,1.5s
DNR   Dunn Ranch,Anz   76.99 303    IAmb     IAmb     07 03 34.1
      comp=Z,234nm,1.4s
FURC  Furnace Creek,   77.16 306    IAmb     IAmb     07 03 49.8
      comp=Z,415nm,1.6s
QSM   Queen of Sheba   77.17 305    IAmb     IAmb     07 03 27.0
      comp=Z,263nm,1.2s
VRH   Novokhopyorsk    77.19  39   eP        P        07 03 10.1 -2.3
VRH                                e                  07 03 13.9
VRH                                eS        S        07 12 56.2 -5.5
VRH                                 pmax     pmax
      comp=Z,280nm,1.1s
VRH                                 pmax     pmax
      comp=Z,980nm,1.9s
VRH                                 smax     smax
      comp=E,6µm,14.0s
DPP   Dos Picos Cty    77.25 302    IAmb     IAmb     07 03 28.7
      comp=Z,353nm,1.7s
YKAW1 Yellowknife Wh   77.37 332    IAmb     IAmb     07 03 22.8
      comp=Z,289nm,1.3s
YKA   Yellowknife Ar   77.43 332    P        P        07 03 12.2 -1.4
      comp=Z,67nm,0.8s,baz=104,slow=6.1,SNR=110
YKA                                 LR       LR       07 33 30.0
      comp=Z,50µm,20.9s,baz=92,slow=33
      comp=Z,67nm,0.8s
YKA   Yellowknife Ar   77.43 332  i P        P        07 03 12.1 -1.5
YKA                                 pmax     pmax
      comp=Z,68nm,0.8s
YKA   Yellowknife Ar   77.43 332    P        P        07 03 12.7 -0.9
YKAW3 Yellowknife Wh   77.44 332    IAmb     IAmb     07 03 23.8
      comp=Z,224nm,0.9s
TPH   Tonopah          77.45 307    IAmb     IAmb     07 03 25.8
      comp=Z,221nm,1.1s
BMN   Battle Mountai   77.47 310    IAmb     IAmb     07 03 42.1
      comp=Z,434nm,1.5s
SHA1  Shidzhatmaz      77.48  47ceP        P        07 03 14.6  0.0
EPOS  Posof            77.49  49    P        P        07 03 15.6 +1.0
      comp=Z,17µmcomp=Z,6µmcomp=Z,383nm,2.0s,comp=Z,6µm
NEUR  Neytrino         77.50  47  i P        P        07 03 15.2 +0.5
NEUR                                pmax     pmax
      comp=Z,168nm,1.2s
NEUR                                MLR      MLR
      comp=Z,54µm,24.0s
KIV   Kislovodsk       77.51  47    P        P        07 03 14.5 -0.1
KIV                                 S        S        07 13 06.0 +0.2
KIV   Kislovodsk       77.51  47   eP        P        07 03 14.0 -0.5
KIV                                e                  07 06 05.4
KIV                                ePPP      PPP      07 07 54.4
KIV                                eS        S        07 13 04.9 -0.9
KIV                                eSS       SS       07 18 05.4 +0.6
KIV                                 pmax     pmax
      comp=Z,244nm,4.0s
KIV                                 pmax     pmax
      comp=Z,243nm,1.0s
KIV                                 MLR      MLR
      comp=Z,10µm,19.0s
KIV   Kislovodsk       77.51  47    P        P        07 03 13.5 -1.1
KIV                                 IAmb     IAmb     07 03 18.8
      comp=Z,314nm,1.1s
KIV   Kislovodsk       77.51  47   ⥣P        P        07 03 14.1 -0.5
KIV   Kislovodsk       77.51  47  i P        P        07 03 14.5 -0.1
      SNR=44
KIV   Kislovodsk       77.51  47   ⥣P        P        07 03 15.8 +1.2
KIV   Kislovodsk       77.51  47    P        P        07 03 16.2 +1.6
KIV   Kislovodsk       77.51  47    P        P        07 03 15.6 +1.0
      comp=Z,19µmcomp=Z,4µmcomp=Z,280nm,1.3s
KVAR  Kislovodsk Arr   77.52  47    LR       LR       07 38 27.0
      comp=Z,9µm,20.6s,baz=192,slow=37
GRAC  Grapevine Rang   77.56 306    IAmb     IAmb     07 03 56.2
      comp=Z,477nm,1.4s
CCCA  Chr Cany lake    77.57 305    IAmb     IAmb     07 04 05.4
      comp=Z,215nm,1.3s
NEW   Newport          77.60 318    P        P        07 03 14.5 -0.5
      comp=Z,46nm,1.0s,baz=108,slow=4.4,SNR=48
NEW                                 LR       LR       07 34 08.6
      comp=Z,24µm,20.4s,baz=104,slow=33
      comp=Z,46nm,1.0s
NEW   Newport          77.60 318    IAMs_20  IAMs_20  07 33 57.4
      comp=Z,26µm,20.0s
NEW   Newport          77.60 318   ⥣P        P        07 03 14.4 -0.6
NEW   Newport          77.60 318    P        P        07 03 14.5 -0.5
      comp=Z,8µmcomp=Z,2µmcomp=Z,99nm,1.0s
BMO   Blue Mountains   77.61 314    IAmb     IAmb     07 03 36.0
      comp=Z,186nm,1.2s
BMO   Blue Mountains   77.61 314   ⥣P        P        07 03 14.9 -0.2
KBZ   Khabaz           77.66  47    P        P        07 03 15.2  0.0
      comp=Z,110nm,1.0s,baz=287,slow=2.4,SNR=56
KBZ                                 LR       LR       07 37 16.0
      comp=Z,12µm,21.8s,baz=292,slow=36
      comp=Z,110nm,1.0s
KBZ   Khabaz           77.66  47ceP        P        07 03 15.0 -0.2
KBZ                                 pmax     pmax
      comp=Z,133nm,1.0s
KBZ                                 MLR      MLR
      comp=Z,16µm,22.0s
MPMC  Manual Prospec   77.67 305    IAmb     IAmb     07 03 43.8
      comp=Z,225nm,1.4s
GEVA  Gevas            77.72  53    IAmb     IAmb     07 03 33.0
      comp=Z,479nm,1.7s
RPN   Rapa Nui         77.76 240    LR       LR       07 33 34.8
      comp=Z,34µm,21.6s,baz=69,slow=33
RPN   Rapa Nui         77.76 240    P        P        07 03 16.6 +0.5
RPN                                 pmax     pmax
      comp=Z,399nm,1.0s
RPN   Rapa Nui         77.76 240    P        P        07 03 16.6 +0.5
RPN   Rapa Nui         77.76 240    IAMs_20  IAMs_20  07 33 11.0
      comp=Z,34µm,22.0s
RPN   Rapa Nui         77.76 240    P        P        07 03 20.6 +4.5
      comp=Z,17µmcomp=Z,461nm,1.2s
GOF   Gofitskoye       77.79  46c iP       P        07 03 15.5 -0.5
GOF                                eS        S        07 13 07.4 -1.2
VA02  Isla de Pascua   77.85 240    IAMs_20  IAMs_20  07 33 14.5
      comp=Z,38µm,22.0s
VA02  Isla de Pascua   77.85 240    P        P        07 03 20.6 +3.9
      comp=Z,384nm,1.2s
DSP   Deep Springs     78.05 307    IAmb     IAmb     07 03 28.9
      comp=Z,199nm,1.1s
NV11  Mina Array Sit   78.18 308    IAmb     IAmb     07 03 38.3
      comp=Z,278nm,1.4s
HAKT  HAKKARI          78.24  53    P        P        07 03 19.9 +1.0
      comp=Z,37µmcomp=Z,10µmcomp=Z,354nm,2.0s,comp=Z,10µm
TIN   Tinemaha, Big    78.26 306    IAmb     IAmb     07 04 18.5
      comp=Z,240nm,1.2s
PASC  Pasadena Art C   78.27 303    IAMs_20  IAMs_20  07 35 53.2
      comp=Z,52µm,20.0s
TPO   Tropico Hills    78.29 304    IAmb     IAmb     07 04 04.6
      comp=Z,349nm,1.4s
NVAR  Mina Array Bea   78.30 308    P        P        07 03 20.0 +0.7
      comp=Z,26nm,1.0s,baz=91,slow=6.0,SNR=71
NVAR                                PP       PP       07 06 15.5 -0.7
      comp=Z,7.2nm,1.0s,baz=70,slow=6.6,SNR=3.2
NVAR                                LR       LR       07 37 18.5
      comp=Z,19µm,18.0s,baz=94,slow=35
      comp=Z,26nm,1.0s
J08A  Circle Bar Ran   78.43 313    IAmb     IAmb     07 03 36.0
      comp=Z,409nm,1.6s
OZAP  Van, Ozalp-Mer   78.45  52   ⥥P        P        07 03 21.2 +1.0
SMAI  San Martin Ant   78.47 191    P        P        07 03 19.4 +0.3
ISA   Isabella, Lake   78.47 305    IAmb     IAmb     07 03 35.9
      comp=Z,723nm,2.0s
WVOR  Wild Horse Val   78.54 312   ⥣P        P        07 03 21.3 +0.9
WVOR  Wild Horse Val   78.54 312    IAmb     IAmb     07 03 49.0
      comp=Z,394nm,1.4s
WVOR  Wild Horse Val   78.54 312   ⥣P        P        07 03 21.3 +0.9
WVOR  Wild Horse Val   78.54 312    P        P        07 03 21.5 +1.1
      comp=Z,8µmcomp=Z,3µmcomp=Z,202nm,1.5s,comp=Z,3µm
OSI   Osito Audit: C   78.70 304    IAMs_20  IAMs_20  07 35 16.7
      comp=Z,48µm,20.0s
YPT   Yellepit         78.80 315    IAmb     IAmb     07 03 34.7
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      comp=Z,195nm,1.1s
ATD   Arta Tunnel      78.86  80    LR       LR       07 39 10.8
      comp=Z,582nm,19.0s,baz=275,slow=36
ATD   Arta Tunnel      78.86  80    P        P        07 03 23.8 +1.2
      SNR=55
ATD                                 S        S        07 13 22.2 +1.0
ATD   Arta Tunnel      78.86  80    P        P        07 03 22.5 -0.1
ATD                                 IAmb     IAmb     07 03 35.7
      comp=Z,285nm,1.2s
ATD   Arta Tunnel      78.86  80   ⥣P        P        07 03 24.4 +1.8
ATD   Arta Tunnel      78.86  80    P        P        07 03 25.6 +3.1
      comp=Z,3µmcomp=Z,201nm,1.2s
MDPB  Devils Postpil   78.92 307    IAmb     IAmb     07 03 50.1
      comp=Z,323nm,1.6s
VES   Vestal, Richgr   78.97 305    IAmb     IAmb     07 04 22.1
      comp=Z,552nm,1.6s
GNI   Garni            79.02  51    LR       LR       07 38 59.3
      comp=Z,19µm,21.6s,baz=291,slow=36
GNI   Garni            79.02  51    P        P        07 03 23.0 -0.1
GNI                                 S        S        07 13 24.7 +2.4
GNI   Garni            79.02  51ceP        P        07 03 23.4 +0.3
GNI                                 pmax     pmax
      comp=Z,112nm,1.3s
GNI                                 MLR      MLR
      comp=Z,24µm,21.0s
GNI   Garni            79.02  51    P        P        07 03 23.3 +0.2
GNI   Garni            79.02  51    P        P        07 03 24.5 +1.4
      comp=Z,18µmcomp=Z,4µmcomp=Z,202nm,1.8s
WAKR  Walker           79.19 308    IAmb     IAmb     07 04 03.2
      comp=Z,726nm,1.8s
HAWA  Hanford          79.20 316    IAMs_20  IAMs_20  07 37 49.7
      comp=Z,35µm,19.0s
HAWA  Hanford          79.20 316   ⥣P        P        07 03 23.9 +0.1
PNTR  Pine Nut         79.30 308    IAmb     IAmb     07 03 42.2
      comp=Z,234nm,1.1s
F07A  Phinny Hill Vi   79.47 315    IAmb     IAmb     07 03 43.9
      comp=Z,710nm,1.9s
MOD   Modoc Plateau    79.78 311    IAmb     IAmb     07 03 41.5
      comp=Z,459nm,1.1s
BEKR  Beckworth        79.87 309    IAmb     IAmb     07 03 38.2
      comp=Z,256nm,1.1s
CMB   Columbia Colle   79.95 307   ⥥P        P        07 03 29.3 +1.2
CMB   Columbia Colle   79.95 307    IAMs_20  IAMs_20  07 35 12.3
      comp=Z,33µm,21.0s
K05A  Summer Lake      80.21 312    IAmb     IAmb     07 04 04.5
      comp=Z,477nm,1.3s
RAYN  Ar Rayn          80.39  67    P        P        07 03 30.6 -0.1
RAYN                                S        S        07 13 35.3 -1.8
RAYN  Ar Rayn          80.39  67    P        P        07 03 30.4 -0.3
RAYN                                pmax     pmax
      comp=Z,193nm,1.7s
RAYN                                MLR      MLR
      comp=Z,16µm,20.0s
RAYN  Ar Rayn          80.39  67    P        P        07 03 30.4 -0.3
RAYN  Ar Rayn          80.39  67   ⥣P        P        07 03 30.5 -0.2
RAYN  Ar Rayn          80.39  67  i P        P        07 03 31.2 +0.5
      SNR=25
RAYN  Ar Rayn          80.39  67    P        P        07 03 31.9 +1.2
      comp=Z,14µmcomp=Z,2µmcomp=Z,61nm,1.1s
J05D  Fort Rock, OR    80.44 313    IAmb     IAmb     07 03 50.1
      comp=Z,311nm,1.6s
G05A  Wamic            80.46 315    IAmb     IAmb     07 04 05.4
      comp=Z,650nm,1.8s
I05D  Terrebonne, OR   80.49 314    IAmb     IAmb     07 03 46.6
      comp=Z,390nm,1.6s
VNA1  Neumayer--Stat   80.52 171    P        P        07 03 31.6 +1.3
      comp=Z,141nm,1.1s
HATC  Hat Creek Radi   80.69 310    IAMs_20  IAMs_20  07 35 26.6
      comp=Z,46µm,22.0s
HULI  Fort Hunter Li   80.71 305    IAMs_20  IAMs_20  07 36 41.6
      comp=Z,47µm,20.0s
ORV   Oroville         80.76 309    IAMs_20  IAMs_20  07 36 20.8
      comp=Z,44µm,20.0s
VNA3  Neumayer Olymp   80.83 171   ⥣P        P        07 03 32.9 +0.9
      comp=Z,93nm,0.8s
VNA3                               ⥥S        S        07 13 43.8 +4.0
      comp=N,10µm,18.8s
VNA3                               ⥣PKKPbc   PKKPbc   07 22 09.5 -4.8
      comp=Z,2.5nm,0.8s
VNA3  Neumayer Olymp   80.83 171    P        P        07 03 33.1 +1.1
      comp=Z,3µmcomp=Z,221nm,1.2s
SAO   San Andreas Ge   80.84 306    P        P        07 03 35.4 +2.6
SAO   San Andreas Ge   80.84 306   ⥣P        P        07 03 34.3 +1.5
K04D  Chiloquin, OR    80.84 312    IAmb     IAmb     07 04 11.2
      comp=Z,234nm,1.0s
BELG  Belogornoye      80.88  38    P        P        07 03 31.8 -0.8
      comp=Z,194nm,1.0s,baz=296,slow=5.3,SNR=24
BELG                                LR       LR       07 37 44.7
      comp=Z,12µm,20.2s,baz=278,slow=34
      comp=Z,194nm,1.0s
BELG  Belogornoye      80.88  38c iP       P        07 03 31.9 -0.8
BELG                                pmax     pmax
      comp=Z,40nm,1.2s
BELG                                MLR      MLR
      comp=Z,2µm,20.0s
A05A  Maple Falls      80.90 318    IAmb     IAmb     07 03 50.7
      comp=Z,205nm,1.1s
VNA2  Neumayer--Watz   80.91 170   ⥣P        P        07 03 33.1 +0.8
      comp=Z,50nm,0.9s,baz=326,slow=4.2
VNA2                               ⥥S        S        07 13 43.5 +3.0
      comp=E,12µm,17.3s
VNA2                               ⥣PKKPbc   PKKPbc   07 22 09.1 -5.0
      comp=Z,2.0nm,0.8s,baz=63,slow=1.2
VNA2  Neumayer--Watz   80.91 170    P        P        07 03 33.0 +0.6
      comp=Z,3µmcomp=Z,123nm,1.5s
O03E  Paynes Creek     80.97 310    IAmb     IAmb     07 03 52.4
      comp=Z,562nm,1.4s
O03E                                IAMs_20  IAMs_20  07 35 37.0
      comp=Z,43µm,21.0s
MHC   Mount Hamilton   80.97 307    IAmb     IAmb     07 03 50.5
      comp=Z,252nm,1.2s
MHC                                 IAMs_20  IAMs_20  07 35 30.5
      comp=Z,49µm,22.0s
SUTB  Sutter Butte     81.00 308    IAMs_20  IAMs_20  07 38 04.0
      comp=Z,26µm,20.0s
MAK   Makhachkala      81.02  48d iP       P        07 03 30.2 -3.4
MAK                                e                  07 06 33.1
MAK                                ePPP      PPP      07 08 26.1
MAK                                eS        S        07 13 37.8 -5.1
MAK                                eSS       SS       07 18 59.2 +1.9
MAK                                eSSS      SSS      07 22 22.5
MAK                                 pmax     pmax
      comp=Z,327nm,0.8s
MAK                                 pmax     pmax
      comp=Z,7µm,8.6s
MAK                                 smax     smax
      comp=N,5µm,7.6s
MAK                                 smax     smax
      comp=E,13µm,11.4s
MAK                                 MLR      MLR
      comp=E,29µm,26.0s
J04A  Umpqua Nationa   81.08 313    IAmb     IAmb     07 03 46.1
      comp=Z,218nm,0.8s
M03C  McCloud          81.17 311    IAmb     IAmb     07 03 54.0
      comp=Z,510nm,1.3s
AONC  Vina, CA USA     81.18 309    IAMs_20  IAMs_20  07 36 53.9
      comp=Z,26µm,20.0s
G04A  Mulino           81.28 315    IAmb     IAmb     07 03 54.2
      comp=Z,288nm,1.2s
A04D  Lummi Island     81.32 318    IAmb     IAmb     07 03 52.3
      comp=Z,391nm,1.6s
JRSC  Jasper Ridge     81.44 307    IAmb     IAmb     07 03 46.8
      comp=Z,207nm,1.1s
JRSC                                IAMs_20  IAMs_20  07 35 21.9
      comp=Z,46µm,22.0s
H04D  Lebanon          81.49 314    IAmb     IAmb     07 04 02.9
      comp=Z,286nm,1.4s
CVS   Carmenet Viney   81.57 308    IAmb     IAmb     07 03 56.5
      comp=Z,293nm,1.4s
CVS                                 IAMs_20  IAMs_20  07 36 02.1
      comp=Z,27µm,22.0s
YBH   Yreka Blue Hor   81.59 311    LR       LR       07 36 20.9
      comp=Z,53µm,22.0s,baz=94,slow=33
BUCK  Buck Mountain    81.68 314    IAmb     IAmb     07 04 43.8
      comp=Z,314nm,1.6s
O02D  Mt. Diablo Mer   81.72 309    IAMs_20  IAMs_20  07 36 12.2
      comp=Z,42µm,21.0s
C36M  Paulatuk         81.79 339    IAMs_20  IAMs_20  07 36 09.3
      comp=Z,41µm,21.0s
KIRV  Kirov            81.81  32    P        P        07 03 36.2 -1.2
      comp=Z,79nm,0.8s,baz=274,slow=4.5,SNR=9.5
KIRV                                LR       LR       07 36 26.1
      comp=Z,32µm,22.0s,baz=272,slow=33
      comp=Z,79nm,0.8s
KIRV  Kirov            81.81  32ceP        P        07 03 36.6 -0.8
PGC   Sidney           81.82 318    IAmb     IAmb     07 03 47.5
      comp=Z,185nm,1.1s
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G03D  McMinnville, O   81.83 315    IAmb     IAmb     07 04 23.7
      comp=Z,506nm,1.6s
B04A  Port Angeles     81.88 317    IAmb     IAmb     07 03 53.1
      comp=Z,386nm,1.5s
COR   Corvallis        81.89 314    P        P        07 03 38.4 +0.2
COR                                 pmax     pmax
      comp=Z,151nm,1.1s
COR                                 MLR      MLR
      comp=Z,14µm,20.0s
COR   Corvallis        81.89 314    P        P        07 03 38.4 +0.2
COR   Corvallis        81.89 314   ⥣P        P        07 03 39.6 +1.4
COR   Corvallis        81.89 314    P        P        07 03 39.9 +1.7
      comp=Z,10µmcomp=Z,4µmcomp=Z,130nm,1.8s
MCCM  Marconi Confer   81.91 307    IAmb     IAmb     07 03 49.1
      comp=Z,170nm,1.0s
MCCM                                IAMs_20  IAMs_20  07 36 11.2
      comp=Z,37µm,21.0s
MCCM  Marconi Confer   81.91 307   ⥣P        P        07 03 39.8 +1.3
KBD   Kabd             81.94  62    P        P        07 03 38.8  0.0
KBD                                 S        S        07 13 49.7 -3.2
FARB  Farallon Islan   82.03 307    IAMs_20  IAMs_20  07 35 52.5
      comp=Z,40µm,22.0s
WISH  Wishkah          82.10 317    IAmb     IAmb     07 04 19.0
      comp=Z,305nm,1.2s
NLWA  Neilton Lookou   82.15 317    IAmb     IAmb     07 03 58.7
      comp=Z,525nm,1.6s
NLWA                                IAMs_20  IAMs_20  07 38 23.7
      comp=Z,31µm,19.0s
NLWA  Neilton Lookou   82.15 317   ⥣P        P        07 03 40.6 +1.1
A36M  Sachs Harbour    82.17 342    IAmb     IAmb     07 03 44.0
      comp=Z,219nm,0.9s
A36M                                IAMs_20  IAMs_20  07 35 41.4
      comp=Z,52µm,22.0s
DCMP  DeCamp, Califo   82.19 309    IAmb     IAmb     07 04 00.5
      comp=Z,317nm,1.6s
L02F  Cave Junction    82.21 311    IAmb     IAmb     07 03 50.1
      comp=Z,198nm,1.2s
CLRS  Cowichan Lake    82.26 318    IAmb     IAmb     07 03 59.2
      comp=Z,320nm,1.4s
I02E  Swisshome, OR    82.30 313    IAmb     IAmb     07 03 52.7
      comp=Z,161nm,0.8s
SNAA  Sanae            82.32 170   ⥣P        P        07 03 40.6 +0.7
      comp=Z,2µm,1.0s
SNAA                               ⥥S        S        07 13 57.5 +2.2
      comp=N,153µm,10.5s
SNAA  Sanae            82.32 170    P        P        07 03 40.6 +0.7
      comp=N,59nm,0.9s,baz=323,slow=5.0,SNR=38
SNAA                                LR       LR       07 32 20.2
      comp=N,8µm,21.1s,baz=328,slow=30
      comp=N,59nm,0.9s
SNAA  Sanae            82.32 170c iP       P        07 03 40.3 +0.3
SNAA                                pmax     pmax
      comp=Z,118nm,1.2s
SNAA  Sanae            82.32 170    P        P        07 03 40.2 +0.3
SNAA  Sanae            82.32 170   ⥥P        P        07 03 40.3 +0.3
SNAA  Sanae            82.32 170    P        P        07 03 40.8 +0.9
      comp=Z,2µmcomp=Z,100nm,0.9s
KCPM  Cahto Peak       82.36 309    IAMs_20  IAMs_20  07 37 43.1
      comp=Z,39µm,20.0s
KHMM  Horse Mountain   82.40 310    IAmb     IAmb     07 03 52.0
      comp=Z,286nm,1.1s
KMRM  Mail Ridge       82.43 310    IAmb     IAmb     07 04 18.3
      comp=Z,257nm,1.2s
KRMB  Red Mountain     82.50 311    IAmb     IAmb     07 04 00.9
      comp=Z,379nm,1.4s
C03A  Quillayute Air   82.59 317    IAmb     IAmb     07 04 09.0
      comp=Z,395nm,1.3s
JCC   Jacoby Creek,    82.63 310    IAmb     IAmb     07 04 09.4
      comp=Z,171nm,1.1s
JCC                                 IAMs_20  IAMs_20  07 37 23.1
      comp=Z,37µm,20.0s
KMPM  Mount Pierce     82.73 310    IAmb     IAmb     07 03 53.9
      comp=Z,171nm,1.0s
TROLL Troll, Antarti   83.61 168    P        P        07 03 47.1 +0.4
      comp=Z,3µm,0.9s
TROLL                              ⥥S        SKSac    07 14 11.2 +2.3
      comp=N,611µm,13.5s
WTLY  Watson Lake, Y   84.21 330    IAmb     IAmb     07 04 02.9
      comp=Z,252nm,1.1s
BBB   Bella Bella      84.56 322    LR       LR       07 38 05.1
      comp=Z,26µm,20.0s,baz=85,slow=33
BBB   Bella Bella      84.56 322    IAmb     IAmb     07 04 12.1
      comp=Z,234nm,1.4s
BBB   Bella Bella      84.56 322   ⥣P        P        07 03 53.0 +1.3
BBB   Bella Bella      84.56 322    P        P        07 03 53.6 +1.8
      comp=Z,5µmcomp=Z,3µmcomp=Z,90nm,1.1s
SAKB  Bahrain          84.73  65    P        P        07 03 52.9 -0.3
SAKB                                S        SKSac    07 14 18.6 +0.7
NVL   N'lazarevskaya   84.80 165   eP        P        07 03 53.1 +0.6
NVL                                e                  07 07 03.9
NVL                                eS        SKSac    07 14 18.4 +2.1
NVL                                eSSS      SSS      07 23 20.9
NVL                                 pmax     pmax
      comp=Z,72nm,1.0s
NVL                                 MLR      MLR
      comp=Z,7µm,18.0s
DLBC  Dease Lake       85.01 328    LR       LR       07 37 39.4
      comp=Z,37µm,21.3s,baz=61,slow=33
INK   Inuvik           85.28 338    LR       LR       07 39 16.1
      comp=Z,90µm,19.7s,baz=88,slow=34
INK   Inuvik           85.28 338    P        P        07 03 55.3 +0.2
INK   Inuvik           85.28 338   ⥣P        P        07 03 55.0 -0.1
INK   Inuvik           85.28 338    P        P        07 03 55.4 +0.3
      comp=Z,6µmcomp=Z,4µmcomp=Z,299nm,1.0s
T35M  Bob Quinn        85.30 327    IAMs_20  IAMs_20  07 38 47.1
      comp=Z,37µm,20.0s
R33M  Jennings River   85.38 329    IAMs_20  IAMs_20  07 38 21.2
      comp=Z,34µm,20.0s
BELA  Belgrano 2       85.39 179    P        P        07 03 56.0 +0.6
BELA                                IAmb     IAmb     07 04 19.5
      comp=Z,293nm,1.4s
RUBB  Prince Rupert    85.61 324    IAmb     IAmb     07 04 16.7
      comp=Z,333nm,1.7s
S34M  Telegraph Cree   85.65 328    IAMs_20  IAMs_20  07 38 19.5
      comp=Z,30µm,20.0s
SLWR  Sila             85.98  66    P        P        07 03 58.8 -0.7
SLWR                                S        SKSac    07 14 24.9 -0.9
Q32M  Nakina River     86.11 329    IAMs_20  IAMs_20  07 38 46.3
      comp=Z,27µm,20.0s
P33M  Teslin, Yukon    86.20 330    IAMs_20  IAMs_20  07 39 24.6
      comp=Z,30µm,20.0s
V35K  Ketchikan        86.26 325    IAmb     IAmb     07 04 19.6
      comp=Z,184nm,1.3s
V35K                                IAMs_20  IAMs_20  07 39 42.7
      comp=Z,27µm,20.0s
HG4B  Hotspring        86.43 322    IAmb     IAmb     07 04 21.5
      comp=Z,407nm,1.5s
WRAK  Wrangell Islan   86.52 326    IAmb     IAmb     07 04 14.5
      comp=Z,224nm,0.9s
WRAK  Wrangell Islan   86.52 326    IAMs_20  IAMs_20  07 39 13.3
      comp=Z,34µm,19.0s
WRAK  Wrangell Islan   86.52 326   ⥣P        P        07 04 02.3 +0.9
G30M  tAoh Zraii Nji   86.53 337    IAmb     IAmb     07 04 15.9
      comp=Z,257nm,1.1s
P32M  Atlin            86.74 330    IAmb     IAmb     07 04 14.6
      comp=Z,140nm,0.9s
P32M                                IAMs_20  IAMs_20  07 39 22.1
      comp=Z,33µm,20.0s
ARTI  Arti             86.82  34    P        P        07 04 02.9 -0.1
      comp=Z,300nm,1.2s,baz=275,slow=3.9,SNR=41
ARTI                                PP       PP       07 07 24.4 -1.0
      comp=Z,56nm,1.2s,baz=280,slow=4.8,SNR=4.4
ARTI                                LR       LR       07 39 53.1
      comp=Z,37µm,21.3s,baz=278,slow=34
      comp=Z,300nm,1.2s
ARTI  Arti             86.82  34c iP       P        07 04 03.1 +0.1
ARTI                                                  07 07 25.4
ARTI                                PPP      PPP      07 09 19.8
ARTI                                S        SKSac    07 14 28.8 -1.0
ARTI                                SS       SS       07 20 15.2 -7.0
ARTI                                SSS      SSS      07 23 47.9
ARTI                                pmax     pmax
      comp=Z,289nm,1.3s
ARTI                                pmax     pmax
      comp=Z,1µm,6.7s
ARTI  Arti             86.82  34    P        P        07 04 02.5 -0.5
ARTI                                IAmb     IAmb     07 04 18.6
      comp=Z,249nm,1.1s
ARTI                                IAMs_20  IAMs_20  07 39 41.3
      comp=Z,41µm,21.0s
ARTI  Arti             86.82  34   ⥣P        P        07 04 02.9 -0.1
EPYK  Eagle Plains     86.85 337    IAmb     IAmb     07 04 15.4
      comp=Z,247nm,1.1s
E29M  Blow River       86.86 339    IAmb     IAmb     07 04 31.2
      comp=Z,194nm,1.1s
JRN   Qarnain Island   86.92  65    P        P        07 04 03.7 -0.5
JRN                                 S        SKSac    07 14 33.4 +1.8
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I30M  Mount Dempster    86.94 335    IAMs_20 IAMs_20 07 40 04.8
      comp=Z,36µm,21.0s
U33K  Whale Pass        86.99 326    IAMs_20 IAMs_20 07 42 17.8
      comp=Z,31µm,18.0s
J30M  Hart River        87.05 335    IAmb    IAmb    07 04 40.7
      comp=Z,142nm,1.2s
J30M                                 IAMs_20 IAMs_20 07 39 05.7
      comp=Z,49µm,22.0s
GHWR  Ruwais            87.06  66    P       P       07 04 04.4  -0.5
DIB   Dawson Inlet,     87.07 323    IAmb    IAmb    07 04 17.5
      comp=Z,258nm,1.0s
CRAG  Craig             87.09 325    P       P       07 04 06.5 +2.2
CRAG  Craig             87.09 325    IAmb    IAmb    07 04 38.1
      comp=Z,156nm,1.2s
G29M  Pine Creek        87.24 337    IAmb    IAmb    07 04 27.7
      comp=Z,175nm,1.2s
ABPO  Ambohimpanom      87.28 109    P       P       07 04 10.6 +4.4
JIS   Juneau Island     87.31 328    P       P       07 04 06.4 +1.1
VOI   Vohitsoka         87.33 112    P       P       07 04 10.7 +4.4
R32K  Eaglecrest        87.38 328    IAMs_20 IAMs_20 07 39 00.9
      comp=Z,38µm,21.0s
N31M  Braeburn, Yuko    87.41 332    IAmb    IAmb    07 04 19.9
      comp=Z,155nm,1.0s
N31M                                 IAMs_20 IAMs_20 07 38 47.5
      comp=Z,37µm,21.0s
BESE  Bessie Mountai    87.50 329    IAMs_20 IAMs_20 07 39 38.0
      comp=Z,32µm,20.0s
AKTO  Aktyubinsk        87.53  40    P       P       07 04 07.5 +0.9
      comp=Z,176nm,1.2s,baz=298,slow=3.5,SNR=56
AKTO                                 LR      LR      07 42 11.4
      comp=Z,14µm,20.3s,baz=286,slow=35
      comp=Z,176nm,1.2s
S32K  Killisnoo         87.55 328    IAmb    IAmb    07 04 19.8
      comp=Z,195nm,1.0s
S32K                                 IAMs_20 IAMs_20 07 39 36.5
      comp=Z,28µm,19.0s
SKAG  Skagway           87.58 330    P       P       07 04 08.4 +1.8
I29M  Ogilvie Camp,     87.70 336    IAmb    IAmb    07 04 37.9
      comp=Z,192nm,1.5s
MZR   Muzera            87.73  67    P       P       07 04 08.2 +0.1
      SNR=11
MZR                                  S       SKSac   07 14 40.3 +3.5
MZR   Muzera            87.73  67  i P       P       07 04 08.6 +0.5
      SNR=15
D27M  Malcolm River     87.74 340    IAmb    IAmb    07 04 21.2
      comp=Z,165nm,1.1s
D27M                                 IAMs_20 IAMs_20 07 40 16.6
      comp=Z,47µm,22.0s
F28M  Old Crow          87.77 338    IAmb    IAmb    07 04 22.5
      comp=Z,132nm,0.9s
J29N  Klondike Camp     87.87 335    IAmb    IAmb    07 04 22.6
      comp=Z,184nm,1.4s
J29N                                 IAMs_20 IAMs_20 07 39 53.5
      comp=Z,43µm,22.0s
SVE   Sverdlovsk        87.97  33deP         P       07 04 09.0 +0.5
SVE                                eS        SKSac   07 14 36.7  -0.1
SVE                                e                 07 15 50.0
SVE                                  pmax    pmax
      comp=Z,303nm,2.2s
SVE                                  MLR     MLR
      comp=Z,21µm,17.0s
FOMA  Nahampoana Res    88.00 115    IAMs_20 IAMs_20 07 37 30.8
      comp=Z,23µm,21.0s
MZWR  Madinat Zayed     88.00  66    P       P       07 04 09.2  -0.1
MZWR                                 S       SKSac   07 14 38.7 +0.4
SIT   Sitka             88.03 327    P       P       07 04 10.7 +2.0
SIT   Sitka             88.03 327    IAmb    IAmb    07 04 29.2
      comp=Z,235nm,1.5s
N30M  Aishikik Lake     88.03 332    IAMs_20 IAMs_20 07 42 24.7
      comp=Z,38µm,18.0s
L29M  L29M              88.14 333    IAmb    IAmb    07 04 40.4
      comp=Z,175nm,1.4s
E27K  Coleen River      88.25 339    IAmb    IAmb    07 04 23.1
      comp=Z,233nm,1.1s
ABTO  Aybut             88.28  73    P       P       07 04 11.1 +0.3
      SNR=15
ABTO                                 S       SKSac   07 14 43.0 +2.7
S31K  Pelican           88.33 328    IAmb    IAmb    07 04 27.2
      comp=Z,233nm,1.3s
S31K                                 IAMs_20 IAMs_20 07 39 20.1
      comp=Z,33µm,21.0s
I28M  Miner Creek       88.34 336    IAmb    IAmb    07 04 53.8
      comp=Z,164nm,1.4s
M29M  Somme Creek       88.44 333    IAMs_20 IAMs_20 07 40 59.8
      comp=Z,34µm,19.0s
DAWY  Dawson            88.46 335    IAmb    IAmb    07 04 22.9
      comp=Z,106nm,1.0s
ELIB  Princess Elisa    88.49 164  dP        P       07 04 10.9 +0.2
      comp=Z,50nm,1.1s
C27K  Jago River        88.56 340    IAmb    IAmb    07 04 22.2
      comp=Z,116nm,0.9s
C27K                                 IAMs_20 IAMs_20 07 42 33.1
      comp=Z,35µm,20.0s
WHFO  Wadi Hawf         88.66  72    P       P       07 04 12.5  -0.1
      SNR=11
WHFO                                 S       SKSac   07 14 42.9 +0.4
P29M  Windy Craggy      88.74 330    IAMs_20 IAMs_20 07 40 53.9
      comp=Z,33µm,20.0s
H27K  Steamboat Moun    88.77 337    IAmb    IAmb    07 04 25.4
      comp=Z,94nm,0.9s
AJN   Ajban             88.90  66    P       P       07 04 14.1 +0.4
AJN                                  S       SKSac   07 14 45.0 +1.3
AJN   Ajban             88.90  66  i P       P       07 04 14.0 +0.4
      SNR=8.7
AB31  Akbulak array     88.95  41    IAmb    IAmb    07 04 26.6
      comp=Z,277nm,1.4s
ABKAR Akbulak array     88.95  41    P       P       07 04 12.7  -0.6
O29M  Mount Kennedy     89.00 331    IAMs_20 IAMs_20 07 42 11.6
      comp=Z,31µm,20.0s
SBV   Sambava           89.03 104    P       P       07 04 16.7 +2.4
RBK   Rabkut            89.12  73    P       P       07 04 14.6  -0.2
RBK                                  S       SKSac   07 14 40.1  -5.2
ASUD  Al Ashush, Dub    89.20  65    P       P       07 04 15.2 +0.2
ASUD                                 S       SKSac   07 14 43.4  -2.0
UMZA  Um Al Zommool     89.31  67    P       P       07 04 15.8 +0.3
UMZA                                 S       SKSac   07 14 45.9  -0.2
F26K  Sheenjek River    89.31 339    IAmb    IAmb    07 04 43.7
      comp=Z,149nm,1.2s
UMQ   Umm Al-Quwin      89.37  64    P       P       07 04 17.1 +1.3
UMQ                                  S       SKSac   07 14 49.1 +2.7
G26K  Porcupine Rive    89.42 338    IAmb    IAmb    07 04 29.4
      comp=Z,153nm,1.1s
FAQ   Al Faqa, Dubai    89.42  65    P       P       07 04 16.3 +0.2
      SNR=8.6
FAQ                                  S       SKSac   07 14 48.3 +1.6
FAQ   Al Faqa, Dubai    89.42  65  i P       P       07 04 16.2 +0.2
      SNR=15
NAZ   Nazwa, Dubai      89.45  65    P       P       07 04 16.6 +0.4
      SNR=5.9
NAZ                                  S       SKSac   07 14 47.5 +0.6
NAZ   Nazwa, Dubai      89.45  65  i P       P       07 04 16.5 +0.3
      SNR=10
D25K  Kavik River       89.54 340    IAMs_20 IAMs_20 07 42 19.2
      comp=Z,41µm,20.0s
PNL   Peninsula         89.55 330    P       P       07 04 17.0 +1.0
BMAR  Burnt Mountain    89.56 338    P       P       07 04 15.9   0.0
K27K  Chicken           89.61 335    IAMs_20 IAMs_20 07 40 57.7
      comp=Z,41µm,21.0s
O28M  Mount Upton       89.66 331    IAmb    IAmb    07 04 29.6
      comp=Z,138nm,1.1s
ALNE  Al Ain            89.66  66    P       P       07 04 16.6  -0.6
      SNR=26
ALNE                                 S       SKSac   07 14 49.5 +1.3
ALNE  Al Ain            89.66  66  i P       P       07 04 17.8 +0.5
      SNR=20
SHME  Shamm             89.73  64    P       P       07 04 17.1  -0.3
SHME                                 S       SKSac   07 14 45.0  -3.5
BCAR  Beaver Creek A    89.76 334    P       P       07 04 17.4 +0.5
L27K  Beaver Creek,     89.78 334    IAMs_20 IAMs_20 07 40 20.0
      comp=Z,42µm,22.0s
DMTO  DMTO              89.80  72    P       P       07 04 16.9  -1.0
DMTO                                 S       SKSac   07 14 50.2 +1.0
MASF  Masafi            89.84  65    P       P       07 04 18.3 +0.3
      SNR=7.1
MASF                                 S       SKSac   07 14 47.4  -1.9
MSFE  Esma-Masafi       89.84  65  i P       P       07 04 18.3 +0.2
      SNR=11
ASHO  Ashiyiah          89.85  65    P       P       07 04 18.0  -0.1
      SNR=19
ASHO                                 S       SKSac   07 14 47.5  -1.9
ASHO  Ashiyiah          89.85  65  i P       P       07 04 18.4 +0.2
      SNR=10
PCA   Pinnacle          89.86 331    IAMs_20 IAMs_20 07 42 41.3
      comp=Z,39µm,19.0s
BANOM Banah             89.89  64    P       P       07 04 17.9  -0.4
HATD  Hatta, Dubai      89.89  65    P       P       07 04 18.1  -0.2
      SNR=26
HATD                                 S       SKSac   07 14 53.4 +3.9
HATD  Hatta, Dubai      89.89  65  i P       P       07 04 18.7 +0.4
      SNR=23
UOSS  Minazif           89.94  65    P       P       07 04 18.0  -0.6
UOSS                                 S       SKSac   07 14 49.8   0.0
UOSS                                 S       SKSac   07 14 50.8 +1.0
UOSS  Minazif           89.94  65    P       P       07 04 16.9  -1.7
UOSS                                 IAmb    IAmb    07 04 34.6
      comp=Z,237nm,1.6s
UOSS  Minazif           89.94  65    IAMs_20 IAMs_20 07 48 27.9
      comp=Z,31µm,20.0s
UOSS  Minazif           89.94  65  ⇑P        P       07 04 17.7  -0.8
UOSS  Minazif           89.94  65    P       P       07 04 17.9  -0.6
UOSS  Minazif           89.94  65    P       P       07 04 18.6 +0.1
UOSS  Minazif           89.94  65    P       P       07 04 19.0 +0.4
      comp=Z,10µmcomp=Z,3µmcomp=Z,84nm,2.3s
MDH   Madha             89.97  65    P       P       07 04 18.3  -0.3
MDH                                  S       SKSac   07 14 47.1  -2.9
MDH   Madha             89.97  65  i P       P       07 04 18.0  -0.7
      SNR=7.7
M27K  Edge Creek, AK    90.00 333    IAmb    IAmb    07 04 30.4
      comp=Z,169nm,1.0s
M27K                                 IAMs_20 IAMs_20 07 42 53.9
      comp=Z,33µm,18.0s
BARN  Barnard Glacie    90.27 332    IAmb    IAmb    07 04 34.8
      comp=Z,294nm,1.5s
BARN                                 IAMs_20 IAMs_20 07 40 19.1
      comp=Z,38µm,21.0s
SOHO  SOHO              90.36  66    P       P       07 04 20.1  -0.3
SOHO                                 S       SKSac   07 14 52.7 +0.5
SOHO  SOHO              90.36  66  i P       P       07 04 20.2  -0.2
      SNR=12
D24K  Happy Valley      90.42 341    IAmb    IAmb    07 04 37.7
      comp=Z,106nm,0.9s
D24K                                 IAMs_20 IAMs_20 07 41 46.0
      comp=Z,36µm,22.0s
SCRK  Sand Creek        90.43 335    IAMs_20 IAMs_20 07 41 54.1
      comp=Z,40µm,20.0s
ARQ   Araqi             90.46  67    P       P       07 04 20.4  -0.6
      SNR=16
ARQ                                  S       SKSac   07 14 53.2 +0.3
M26K  Nabesna, AK       90.49 333    IAMs_20 IAMs_20 07 45 03.8
      comp=Z,34µm,19.0s
YAH   Yahtse            90.50 331    IAmb    IAmb    07 04 36.3
      comp=Z,127nm,1.1s
MENT  Mentasta          90.64 334    P       P       07 04 20.9  -0.1
C23K  Itkillik River    90.72 341    IAmb    IAmb    07 04 36.2
      comp=Z,201nm,1.2s
C23K                                 IAMs_20 IAMs_20 07 43 30.2
      comp=Z,39µm,21.0s
J25K  Salcha River,     90.79 336    IAMs_20 IAMs_20 07 41 40.6
      comp=Z,37µm,20.0s
MCARA McCarthy VSAT     90.81 332    IAmb    IAmb    07 04 43.6
      comp=Z,157nm,1.0s
MCARA                                IAMs_20 IAMs_20 07 41 40.3
      comp=Z,29µm,22.0s
RIDG  Independent Ri    90.87 335    IAMs_20 IAMs_20 07 41 46.7
      comp=Z,41µm,21.0s
VRDI  Verde Repeater    91.05 332    IAMs_20 IAMs_20 07 41 47.8
      comp=Z,34µm,21.0s
D23K  Nanushuk River    91.10 341    IAmb    IAmb    07 04 37.9
      comp=Z,138nm,1.2s
HOQ   Hoqain            91.14  66    P       P       07 04 23.1  -1.0
      SNR=10
HOQ                                  S       SKSac   07 14 52.5  -4.3
GLB   Gilahina Butte    91.15 333    IAMs_20 IAMs_20 07 41 51.3
      comp=Z,31µm,21.0s
BSY   Bisya             91.17  67    P       P       07 04 23.6  -0.7
      SNR=10
BSY                                  S       SKSac   07 14 58.4 +1.4
K24K  Donnelly Dome     91.24 335    IAmb    IAmb    07 05 08.3
      comp=Z,172nm,1.3s
H24K  Noodor Dome       91.35 337    IAmb    IAmb    07 04 38.5
      comp=Z,125nm,1.2s
IL31                    91.35 336    IAmb    IAmb    07 04 35.9
      comp=Z,100nm,1.0s
ILAR  Eielson Array     91.35 336    P       P       07 04 24.3 +0.1
      comp=Z,31nm,0.9s,baz=61,slow=3.4,SNR=119
ILAR                                 PP      PP      07 08 01.0  -0.3
      comp=Z,11nm,1.1s,baz=71,slow=6.8,SNR=4.2
ILAR                                 PKiKP   PKiKP   07 09 15.0  -1.3
      comp=Z,0.4nm,0.4s,baz=88,slow=3.0,SNR=9.9
ILAR                                 LR      LR      07 42 49.4
      comp=Z,45µm,20.6s,baz=62,slow=34
      comp=Z,31nm,0.9s
ILAR  Eielson Array     91.35 336    P       P       07 04 24.6 +0.4
ILAR  Eielson Array     91.35 336    P       P       07 04 24.6 +0.4
B22K  Teshekpuk Lake    91.36 342    IAMs_20 IAMs_20 07 47 46.2
      comp=Z,18µm,18.0s
BERG  Berg Lake         91.42 332    IAmb    IAmb    07 04 37.5
      comp=Z,98nm,1.0s
HARP  HAARP             91.44 334    IAMs_20 IAMs_20 07 42 55.0
      comp=Z,24µm,20.0s
HDA   Harding Lake      91.50 336    IAMs_20 IAMs_20 07 42 13.4
      comp=Z,36µm,20.0s
BMRM  Bremner River     91.66 332    IAmb    IAmb    07 04 40.0
      comp=Z,133nm,1.2s
BMRM                                 IAMs_20 IAMs_20 07 42 19.0
      comp=Z,36µm,20.0s
COLA  College           91.70 336    P       P       07 04 25.6  -0.2
COLA  College           91.70 336    P       P       07 04 25.9 +0.2
COLA                                 pmax    pmax
      comp=Z,78nm,1.0s
COLA  College           91.70 336    P       P       07 04 25.9 +0.2
COLA  College           91.70 336    IAMs_20 IAMs_20 07 42 08.6
      comp=Z,37µm,20.0s
COLA  College           91.70 336  ⇑P        P       07 04 24.9  -0.9
COLA  College           91.70 336    P       P       07 04 25.9 +0.2
COLA  College           91.70 336    P       P       07 04 26.0 +0.2
      comp=Z,4µmcomp=Z,1µmcomp=Z,91nm,1.0s
CCB   Clear Creek Bu    91.76 336    IAMs_20 IAMs_20 07 42 29.2
      comp=Z,34µm,20.0s
D22K  Ayikyak River     91.80 341    IAmb    IAmb    07 04 40.7
      comp=Z,137nm,1.1s
G23K  Bananza Creek     91.81 338    IAmb    IAmb    07 05 02.6
      comp=Z,115nm,1.4s
RAGM  Ragged Mountai    91.89 332    IAmb    IAmb    07 04 39.4
      comp=Z,102nm,1.0s
RAGM                                 IAMs_20 IAMs_20 07 42 25.9
      comp=Z,40µm,20.0s
BIDO  Bidbid            91.89  66    P       P       07 04 27.3  -0.3
      SNR=8.2
BIDO                                 S       SKSac   07 14 59.9  -1.2
SMDO  Samad             91.89  67    P       P       07 04 27.1  -0.6
      SNR=16
SMDO                                 S       SKSac   07 15 01.2   0.0
KAIM  Kayak Island      91.91 331    IAmb    IAmb    07 04 39.3
      comp=Z,90nm,1.0s
WRH   Wood River Hil    91.94 336    IAMs_20 IAMs_20 07 42 35.0
      comp=Z,33µm,20.0s
H23K  Yukon River       91.98 338    IAmb    IAmb    07 04 46.9
      comp=Z,122nm,1.3s
JMDO  Jabal Madar       92.05  67    P       P       07 04 29.4 +1.0
      SNR=7.0
JMDO                                 S       SKSac   07 14 57.7  -4.3
KLU   Klutina           92.09 333    IAmb    IAmb    07 04 39.8
      comp=Z,104nm,1.1s
KLU                                  IAMs_20 IAMs_20 07 42 27.2
      comp=Z,25µm,21.0s
MHTO  MHTO              92.14  69    P       P       07 04 28.1  -0.7
      SNR=15
MHTO                                 S       SKSac   07 14 59.1  -3.4
DIV   Divide            92.15 333    IAMs_20 IAMs_20 07 42 42.7
      comp=Z,30µm,20.0s
DHY   Denali Highway    92.17 335    IAmb    IAmb    07 04 47.8
      comp=Z,202nm,1.4s
NEA2  Nenana            92.29 336    IAMs_20 IAMs_20 07 42 26.1
      comp=Z,33µm,20.0s
EYAK  Cordova Ski Ar    92.33 332    P       P       07 04 29.2 +0.4
EYAK  Cordova Ski Ar    92.33 332    IAmb    IAmb    07 04 40.9
      comp=Z,134nm,1.1s
WSAR  Wadi Sarin        92.39  66    LR      LR      07 47 49.7
      comp=Z,102nm,19.7s,baz=294,slow=37
WSAR  Wadi Sarin        92.39  66    P       P       07 04 28.5  -1.4
WSAR                                 S       SKSac   07 15 02.2  -1.7
SYO   Syowa Base        92.39 159⇓eP         P       07 04 29.0 +0.2
E21K  Killik River      92.42 341    IAMs_20 IAMs_20 07 43 11.8
      comp=Z,40µm,22.0s
MCK   McKinley          92.57 336    IAmb    IAmb    07 05 25.3
      comp=Z,211nm,1.9s
SCM   Sheep Creek Mo    92.60 334    IAmb    IAmb    07 04 44.6
      comp=Z,176nm,1.1s
SCM                                  IAMs_20 IAMs_20 07 42 11.6
      comp=Z,27µm,22.0s
BWN   Browne            92.61 336    IAMs_20 IAMs_20 07 47 19.9
      comp=Z,29µm,18.0s
B20K  Meade River       92.64 343    IAmb    IAmb    07 04 44.6
      comp=Z,122nm,1.3s
B20K                                 IAMs_20 IAMs_20 07 48 48.0
      comp=Z,20µm,18.0s
HIN   Hinchinbrook I    92.74 332    IAmb    IAmb    07 04 58.6
      comp=Z,112nm,1.2s
WBK   Wadi Bani Khal    92.80  67    P       P       07 04 30.4  -1.5
      SNR=7.5
WBK                                  S       SKSac   07 15 08.9 +2.7
GLI   Glacier Island    92.84 333    IAMs_20 IAMs_20 07 43 04.0
      comp=Z,23µm,20.0s
SML   Sawmill           93.05 334    IAmb    IAmb    07 04 44.0
      comp=Z,92nm,1.1s
SML                                  IAMs_20 IAMs_20 07 46 39.5
      comp=Z,22µm,19.0s
G21K  Allakaket         93.14 339    IAmb    IAmb    07 04 46.6
      comp=Z,132nm,1.4s
TRF   Thorofare Moun    93.24 336    IAMs_20 IAMs_20 07 43 50.1
      comp=Z,32µm,21.0s
KNK   Knik Glacier      93.26 333    IAMs_20 IAMs_20 07 42 32.9
      comp=Z,22µm,21.0s
JLN   Jalan Bani Buh    93.28  67    P       P       07 04 32.7  -1.3
      SNR=12
JLN                                  S       SKSac   07 15 09.2 +0.4
P23K  Montague Islan    93.30 332    IAMs_20 IAMs_20 07 42 50.2
      comp=Z,39µm,20.0s
GHO   Glory Hole Cre    93.32 334    IAMs_20 IAMs_20 07 46 54.7
      comp=Z,26µm,19.0s
PWL   Port Wells        93.41 333    IAmb    IAmb    07 04 53.0
      comp=Z,132nm,1.3s
PWL                                  IAMs_20 IAMs_20 07 43 39.1
      comp=Z,20µm,22.0s
KTH   Kantishna Hill    93.45 336    IAMs_20 IAMs_20 07 45 38.8
      comp=Z,24µm,20.0s
IMAR  Indian Mountai    93.48 338    P       P       07 04 33.8  -0.2
PMR   Palmer            93.48 334    P       P       07 04 34.0  -0.1
PMR   Palmer            93.48 334    IAmb    IAmb    07 04 53.1
      comp=Z,130nm,1.6s
HRA   Herat             93.50  55    P       P       07 04 34.2  -0.9
HRA                                  IAmb    IAmb    07 04 51.0
      comp=Z,307nm,2.0s
CUT   Chulitna          93.65 335    IAmb    IAmb    07 05 29.2
      comp=Z,123nm,1.2s
CUT                                  IAMs_20 IAMs_20 07 43 25.3
      comp=Z,38µm,22.0s
C19K  Lookout Ridge     93.85 342    IAmb    IAmb    07 04 50.2
      comp=Z,261nm,1.9s
M22K  Willow            93.85 334    IAmb    IAmb    07 04 49.7
      comp=Z,95nm,0.9s
M22K                                 IAMs_20 IAMs_20 07 42 46.7
      comp=Z,34µm,22.0s
RC01  Rabbit Creek A    93.95 333    IAmb    IAmb    07 04 55.5
      comp=Z,251nm,1.9s
RC01                                 IAMs_20 IAMs_20 07 44 37.4
      comp=Z,32µm,20.0s
CAST  Castle Rocks      93.98 336    IAMs_20 IAMs_20 07 47 57.8
      comp=Z,23µm,18.0s
O22K  Cooper Landing    94.19 333    IAmb    IAmb    07 04 52.6
      comp=Z,159nm,1.3s
O22K                                 IAMs_20 IAMs_20 07 44 28.6
      comp=Z,23µm,20.0s
SEW   Seward            94.21 332    IAmb    IAmb    07 04 51.8
      comp=Z,131nm,1.3s
SEW                                  IAMs_20 IAMs_20 07 43 59.3
      comp=Z,31µm,22.0s
SUA   Susitna One       94.25 334    IAMs_20 IAMs_20 07 45 30.8
      comp=Z,22µm,20.0s
PPLA  Purkeypile        94.25 335    IAmb    IAmb    07 05 21.4
      comp=Z,272nm,1.6s
I20K  Naaghedeneel      94.30 338    IAmb    IAmb    07 05 06.4
      comp=Z,141nm,1.2s
BORK  Borovoye          94.33  35  i P       P       07 04 38.4 +0.2
BORK                                 pmax    pmax
      comp=Z,27nm,1.1s
BORK                                 MLR     MLR
      comp=Z,24µm,18.0s
BORK  Borovoye          94.33  35    P       P       07 04 37.1  -1.1
BORK                                 IAMs_20 IAMs_20 07 46 50.0
      comp=Z,25µm,20.0s
BVAR  Borovoye Array    94.38  35    P       P       07 04 39.1 +0.7
      comp=Z,7.3nm,0.9s,baz=284,slow=3.1,SNR=24
      comp=Z,7.3nm,0.9s
SLKM  Skilak Lake       94.40 333    IAMs_20 IAMs_20 07 44 34.3
      comp=Z,21µm,20.0s
NRIK  Noril'sk          94.45  17    P       P       07 04 39.1 +0.7
      comp=Z,7.0nm,0.8s,baz=310,slow=1.4,SNR=7.6
NRIK                                 LR      LR      07 46 24.6
      comp=Z,9µm,20.4s,baz=298,slow=35
      comp=Z,7.0nm,0.8s
NRIK  Noril'sk          94.45  17  i P       P       07 04 38.7 +0.3
NRIK                                 pmax    pmax
      comp=Z,52nm,1.3s
NRIK                                 MLR     MLR
      comp=Z,17µm,20.0s
NRIK  Noril'sk          94.45  17    P       P       07 04 37.3  -1.1
NRIK                                 IAmb    IAmb    07 04 50.3
      comp=Z,106nm,1.4s
F19K  Shaleruckik Mo    94.47 340    IAMs_20 IAMs_20 07 44 34.6
      comp=Z,36µm,21.0s
C18K  Utukok River      94.58 342    IAmb    IAmb    07 04 53.0
      comp=Z,153nm,1.6s
CAPN  Captain Cook N    94.71 333    IAMs_20 IAMs_20 07 43 20.2
      comp=Z,35µm,22.0s
K20K  Telida            94.81 336    IAMs_20 IAMs_20 07 43 53.8
      comp=Z,29µm,20.0s
M20K  Styx River        95.09 335    IAMs_20 IAMs_20 07 45 02.4
      comp=Z,39µm,21.0s
L20K  Farewell, AK      95.14 335    IAMs_20 IAMs_20 07 44 11.2
      comp=Z,33µm,21.0s
G18K  Tagagawik         95.27 339    IAMs_20 IAMs_20 07 45 29.9
      comp=Z,35µm,20.0s
CNPM  China Poot        95.27 332    IAmb    IAmb    07 04 56.9
      comp=Z,128nm,1.5s
HOM   Homer             95.40 332    IAMs_20 IAMs_20 07 44 47.9
      comp=Z,33µm,20.0s
RDOG  Red Dog Mine      95.45 342    IAMs_20 IAMs_20 07 46 38.2
      comp=Z,23µm,20.0s
H18K  Honhosa River     95.56 339    IAmb    IAmb    07 04 57.8
      comp=Z,96nm,1.4s
PTCN  Pitcairn Islan    95.75 246    IAMs_20 IAMs_20 07 42 34.6
      comp=Z,25µm,20.0s
C16K  Lisburne Hills    96.04 343    IAMs_20 IAMs_20 07 46 46.8
      comp=Z,27µm,21.0s
N19K  Bonanza Creek     96.16 334    IAmb    IAmb    07 05 05.1
      comp=Z,152nm,2.0s
N19K                                 IAMs_20 IAMs_20 07 47 17.7
      comp=Z,33µm,18.0s
H17K  Granite Mounta    96.23 339    IAmb    IAmb    07 05 05.4
      comp=Z,86nm,1.2s
O19K  Port Alsworth     96.38 333    IAMs_20 IAMs_20 07 47 20.4
      comp=Z,32µm,20.0s
L18K  Granite Mounta    96.41 336    IAMs_20 IAMs_20 07 45 45.2
      comp=Z,23µm,21.0s
Q19K  Cape Douglas,     96.65 332    IAMs_20 IAMs_20 07 45 26.7
      comp=Z,29µm,21.0s
KDAK  Kodiak Island     96.65 331    LR      LR      07 48 11.1
      comp=Z,37µm,19.1s,baz=57,slow=35
KDAK  Kodiak Island     96.65 331    P       P       07 04 48.9 +0.3
KDAK                                 pmax    pmax
      comp=Z,83nm,1.1s
KDAK  Kodiak Island     96.65 331    P       P       07 04 48.9 +0.3
KDAK                                 IAmb    IAmb    07 05 00.5
      comp=Z,83nm,1.1s
KDAK  Kodiak Island     96.65 331    IAMs_20 IAMs_20 07 45 08.9
      comp=Z,37µm,21.0s
KDAK  Kodiak Island     96.65 331    P       P       07 04 50.7 +2.0
      comp=Z,92nm,1.1s
G16K  Koyuk River       96.83 340    IAMs_20 IAMs_20 07 47 09.8
      comp=Z,27µm,20.0s
O18K  Koktuh Hills      96.93 333    IAmb    IAmb    07 04 59.5
      comp=Z,68nm,1.2s
O18K                                 IAMs_20 IAMs_20 07 47 46.1
      comp=Z,27µm,20.0s
BRLS  Borolday          97.12  45  eP        Pdif    07 04 52.0 +0.7
BRLS                               eS        SKSac   07 15 29.1 +0.5
BRLS                                 pmax    pmax
      comp=Z,43nm,1.8s
BRLS  Borolday          97.12  45  eP        Pdif    07 04 52.1 +0.8
      comp=Z,43nm,1.8s
BRLS                               eS        SKSac   07 15 29.1 +0.5
M17K  Holitna River     97.13 335    IAmb    IAmb    07 04 57.7
      comp=Z,103nm,1.6s
M17K                                 IAMs_20 IAMs_20 07 45 24.2
      comp=Z,26µm,21.0s
CHM   Chimkent          97.17  46  eP        Pdif    07 04 52.3 +0.8
CHM                                  pmax    pmax
      comp=Z,43nm,2.0s
CHM                                  MLR     MLR
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	comp=Z,7µm,20.0s						
CHM	**Chimkent**	**97.17**	**46**	*e*P	Pdif	07 04 52.4	+0.9
	comp=Z,43nm,2.0s						
CHM				LR	LR	07 49 32.2	
	comp=Z,7µm,19.9s						
OHAK	**Old Harbor**	**97.24**	**330**	P	Pdif	07 04 53.5	+2.1
OHAK	**Old Harbor**	**97.24**	**330**	IAmb	IAmb	07 05 03.6	
	comp=Z,77nm,1.0s						
F15K	**North Star Dit**	**97.41**	**341**	IAMs_20	IAMs_20	07 46 59.1	
	comp=Z,29µm,20.0s						
KKAR	**Karatay Array**	**97.57**	**45**	P	**P**	**07 04 51.7**	**-1.5**
KKAR	**Karatay Array**	**97.57**	**45**	P	**P**	**07 04 51.7**	**-1.5**
QSPA	**South Pole Qui**	**97.65**	**180**	P	Pdif	07 04 53.6	+0.4
	comp=Z,8.0nm,1.0s,baz=186,slow=1.0,SNR=18						
QSPA				PP	**PP**	**07 08 51.9**	**+1.3**
	comp=Z,11nm,1.0s,baz=155,slow=7.8,SNR=2.6						
	comp=Z,8.0nm,1.0s						
QSPA	**South Pole Qui**	**97.65**	**180**		**P**	**07 04 52.9**	**-0.2**
QSPA				IAmb	IAmb	07 05 07.7	
	comp=Z,110nm,1.6s						
P17K	**Kvichak River**	**97.80**	**333**	IAMs_20	IAMs_20	07 47 20.0	
	comp=Z,32µm,19.0s						
M16K	**Timber Creek**	**97.96**	**335**	IAmb	IAmb	07 05 08.5	
	comp=Z,47nm,1.1s						
M16K				IAMs_20	IAMs_20	07 46 09.1	
	comp=Z,34µm,21.0s						
DZA	**Taraz**	**98.21**	**45**	*e*P	Pdif	07 04 57.0	+0.9
DZA	**Taraz**	**98.21**	**45**	*e*P	Pdif	07 04 57.0	+0.9
ANM	**Nome**	**98.35**	**340**	IAMs_20	IAMs_20	07 48 26.1	
	comp=Z,29µm,19.0s						
P16K	**Nushagak River**	**98.57**	**333**	IAMs_20	IAMs_20	07 48 00.5	
	comp=Z,22µm,19.0s						
BTK	**Batken**	**98.71**	**48**	P	Pdif	07 05 01.5	+3.0
	comp=Z,4µmcomp=Z,770nmcomp=Z,17nm,1.6s						
ARK	**Arkit**	**99.00**	**46**	P	Pdif	07 05 04.1	+4.3
	comp=Z,3µmcomp=Z,856nmcomp=Z,14nm,1.9s						
CHIR	**Chirikof Islan**	**99.03**	**330**	IAMs_20	IAMs_20	07 46 07.9	
	comp=Z,27µm,20.0s						
R16K	**Pilot Point**	**99.12**	**332**	IAMs_20	IAMs_20	07 49 43.2	
	comp=Z,30µm,18.0s						
L14K	**Kuka Creek**	**99.29**	**337**	IAMs_20	IAMs_20	07 47 48.0	
	comp=Z,27µm,20.0s						
O15K	**Ungalikthiuk R**	**99.31**	**334**	IAMs_20	IAMs_20	07 46 45.8	
	comp=Z,34µm,19.0s						
M14K	**Bethel**	**99.34**	**336**	IAmb	IAmb	07 05 31.6	
	comp=Z,99nm,1.4s						
M14K				IAMs_20	IAMs_20	07 49 15.5	
	comp=Z,33µm,19.0s						
N14K	**Kuskokwak Cree**	**99.69**	**335**	IAMs_20	IAMs_20	07 47 03.9	
	comp=Z,35µm,21.0s						
O14K	**Tigyukauivet M**	**99.89**	**334**	IAMs_20	IAMs_20	07 47 12.1	
	comp=Z,23µm,20.0s						
KURBB	**Kurchatov Arra**	**99.96**	**36**	PP	**PP**	**07 09 07.9**	**-0.4**
	comp=Z,13nm,1.2s,baz=299,slow=8.3,SNR=7.1						
KURBB				LR	LR	07 50 43.8	
	comp=Z,16µm,18.9s,baz=302,slow=36						
KURK	**Kurchatov**	**99.97**	**36**	*i* P	**Pdif**	**07 05 04.4**	**+0.7**
KURK				pmax	pmax		
	comp=Z,127nm,0.9s						
KURK				MLR	MLR		
	comp=Z,19µm,20.0s						
KURK	**Kurchatov**	**99.97**	**36**	IAMs_20	IAMs_20	07 49 44.2	
	comp=Z,19µm,21.0s						
SGDS	**Sogindy**	**100.29**	**43**	*e*P	**Pdif**	**07 05 06.2**	**+0.8**
SGDS				*e*S	**SKSac**	**07 15 45.0**	**+0.4**
AAK	**Ala-Archa**	**100.49**	**44**	P	**Pdif**	**07 05 06.2**	**-0.2**
	comp=Z,7.1nm,0.8s,baz=243,slow=6.6,SNR=9.8						
AAK				PP	**PP**	**07 09 12.8**	**0.0**
	comp=Z,3.4nm,0.7s,baz=271,slow=5.1,SNR=3.7						
AAK	**Ala-Archa**	**100.49**	**44**	P	**Pdif**	**07 05 11.2**	**+4.7**
AAK	**Ala-Archa**	**100.49**	**44**	*i* P	**Pdif**	**07 05 06.7**	**+0.2**
AAK				pmax	pmax		
	comp=Z,69nm,1.8s						
AAK				MLR	MLR		
	comp=Z,11µm,18.0s						
AAK	**Ala-Archa**	**100.49**	**44**		**Pdif**	**07 05 04.6**	**-1.9**
AAK	**Ala-Archa**	**100.49**	**44**	*i* P	**Pdif**	**07 05 07.7**	**+1.2**
	SNR=5.5						
AAK	**Ala-Archa**	**100.49**	**44**	P	**Pdif**	**07 05 10.6**	**+4.1**
GAMB	**Gambell**	**100.97**	**341**	IAMs_20	IAMs_20	07 49 28.1	
	comp=Z,22µm,20.0s						
KUU	**Kurty**	**101.29**	**42**	*e*P	**Pdif**	**07 05 10.6**	**+0.8**
KUU				MLR	MLR		
	comp=Z,7µm,18.0s						
KUU	**Kurty**	**101.29**	**42**	*e*P	**Pdif**	**07 05 10.6**	**+0.8**
KUU				LR	LR	07 51 28.8	
	comp=Z,7µm,17.7s						
CNBA	**Chernabura Isl**	**101.49**	**330**	IAMs_20	IAMs_20	07 47 08.9	
	comp=Z,31µm,22.0s						
ZALV	**Zalesovo Beam**	**101.81**	**31**	P	**Pdif**	**07 05 12.5**	**+0.6**
	comp=Z,2.1nm,0.8s,baz=151,slow=3.4,SNR=7.7						
ZALV				PP	**PP**	**07 09 21.1**	**-1.1**
	comp=Z,8.1nm,0.9s,baz=297,slow=7.9,SNR=4.8						
ZALV	**Zalesovo Beam**	**101.81**	**31**		**Pdif**	**07 05 09.7**	**-2.2**
AAA	**Alma-Ata**	**101.93**	**43**	*e*P	**Pdif**	**07 05 13.5**	**+0.8**
AAA				MLR	MLR		
	comp=Z,27µm,18.0s						
AAA	**Alma-Ata**	**101.93**	**43**	*e*P	**Pdif**	**07 05 13.6**	**+0.8**
AAA				LR	LR	07 51 50.7	
	comp=Z,27µm,17.5s						
TNSS	**Tian-Shan**	**102.02**	**43**	*e*P	**Pdif**	**07 05 13.9**	**+0.3**
TNSS	**Tian-Shan**	**102.02**	**43**	*e*P	**Pdif**	**07 05 14.0**	**+0.3**
MDOK	**Medeo**	**102.04**	**43**	*e*P	**Pdif**	**07 05 13.9**	**+0.6**
MDOK	**Medeo**	**102.04**	**43**	*e*P	**Pdif**	**07 05 14.0**	**+0.6**
MDOK				LR	LR	07 51 54.8	
TDK	**Taldyqorghan**	**102.22**	**41**	*e*P	**Pdif**	**07 05 14.8**	**+0.9**
TDK				MLR	MLR		
	comp=Z,14µm,19.0s						
TDK	**Taldyqorghan**	**102.22**	**41**	*e*P	**Pdif**	**07 05 14.8**	**+0.9**
TDK				LR	LR	07 51 49.3	
	comp=Z,14µm,18.6s						
KSH2	**Kashi**	**102.48**	**47**	P	**Pdif**	**07 05 20.6**	**+5.2**
KSH2				PP	**PP**	**07 09 29.9**	**+2.0**
KSH2				pmax	pmax		
	comp=Z,9.0nm,0.9s						
KSH2				pmax	pmax		
	comp=Z,490nm,9.3s						
KSH2				L	L		
	comp=Z,15µm,19.6s						
KSH2				L	L		
	comp=Z,13µm,17.6s						
KSH2				L	L		
	comp=Z,21µm,21.6s						
ROCAM	**Rodrigues Isla**	**102.50**	**109**	IAMs_20	IAMs_20	07 46 14.0	
	comp=Z,18µm,20.0s						
BILL	**Bilibino**	**102.69**	**351**	*i* P	**Pdif**	**07 05 16.2**	**+0.7**
BILL				pmax	pmax		
	comp=Z,4.0nm,1.1s						
BILL	**Bilibino**	**102.69**	**351**	IAMs_20	IAMs_20	07 55 35.6	
	comp=Z,17µm,19.0s						
KPKS	**Kokpek**	**103.02**	**42**	*e*P	**Pdif**	**07 05 18.3**	**+0.7**
KPKS	**Kokpek**	**103.02**	**42**	*e*P	**Pdif**	**07 05 18.3**	**+0.7**
UZB	**Uzynbulak**	**103.37**	**42**	*i* P	**Pdif**	**07 05 19.8**	**+0.6**
UZB	**Uzynbulak**	**103.37**	**42**	*e*Pdif	**Pdif**	**07 05 19.9**	**+0.6**
SHLS	**Shalkode**	**103.66**	**42**	*i* P	**Pdif**	**07 05 22.5**	**+2.0**
SHLS				*e*S	**SKSac**	**07 16 02.3**	**+1.5**
SHLS	**Shalkode**	**103.66**	**42**	*e*Pdif	**Pdif**	**07 05 22.5**	**+2.0**
SHLS				*e*S	**SKSac**	**07 16 02.3**	**+1.5**
MAKZ	**Makanchi**	**103.69**	**38**	P	**Pdif**	**07 05 23.7**	**+3.2**
	comp=Z,22nm,1.7s						
TAOE	**Nuku Hiva Isla**	**103.81**	**263**	*e*P	**Pdif**	**07 05 23.8**	**+2.1**
	comp=Z,331nm,26.8s						
TAOE				*e*PP	**PP**	**07 09 33.8**	**-5.1**
	comp=Z,711nm,26.7s						
TAOE				*e*S	**Sdif**	**07 17 17.4**	**+5.5**
	comp=Z,5µm,26.4s						
TAOE				*e*SS	**SS**	**07 24 20.7**	**-5.6**
	comp=Z,5µm,25.9s						
TAOE				*e*LQ	LQ	07 34 53.6	
	comp=Z,51µm,31.7s						
TAOE				*e*LR	LR	07 39 25.3	
	comp=Z,9µm,23.1s						
WUS	**Wushi**	**104.30**	**44**	IAMs_20	IAMs_20	07 53 54.5	
	comp=Z,17µm,21.0s						
SPIA	**Saint Paul Isl**	**104.92**	**336**	IAMs_20	IAMs_20	07 51 26.2	
	comp=Z,31µm,20.0s						
ZSN	**Zaisan**	**105.12**	**37**	*i* P	**Pdif**	**07 05 27.6**	**+0.9**
ZSN	**Zaisan**	**105.12**	**37**	*e*Pdif	**Pdif**	**07 05 27.7**	**+0.9**
PAF	**Port-aux-Franc**	**107.12**	**139**	IAMs_20	IAMs_20	07 46 55.1	
	comp=Z,14µm,20.0s						
WMQ	**Urumqi**	**108.66**	**39**	Pdif	**Pdif**	**07 05 44.6**	**+1.9**
WMQ				PP	**PP**	**07 10 13.3**	**0.0**
WMQ				SS	SS	07 25 29.9	-0.1
WMQ				PPMZ			
	comp=Z,2µm,7.7s						
WMQ				L	L		
	comp=Z,37µm,24.0s						
WMQ				L	L		
	comp=Z,20µm,22.5s						
WMQ				L	L		
	comp=Z,25µm,24.1s						
VNDA	**Vanda**	**109.42**	**184**	Pdiff	**Pdif**	**07 05 42.4**	**-2.7**
	comp=Z,0.6nm,0.4s,baz=135,slow=5.7,SNR=11						
VNDA				PP	**PP**	**07 10 18.9**	**+0.9**
	comp=Z,7.6nm,1.3s,baz=215,slow=7.4,SNR=3.5						
VNDA	**Vanda**	**109.42**	**184**	Pdif	**Pdif**	**07 05 42.6**	**-2.6**
ATKA	**Atka Island**	**109.98**	**333**	IAMs_20	IAMs_20	07 54 31.3	
	comp=Z,16µm,20.0s						
ADK	**Adak**	**111.30**	**334**	IAMs_20	IAMs_20	07 55 17.9	
	comp=Z,23µm,20.0s						
VAH	**Vaihoa**	**111.56**	**257**	*e*LR	LR	07 43 04.6	
	comp=Z,19µm,21.6s						
PMOR	**Pomariorio Ree**	**111.81**	**257**	*e*LR	LR	07 43 09.2	
	comp=Z,19µm,21.8s						
HYB	**Hyderabad**	**111.89**	**68**	*e*Pdif	**Pdif**	**07 05 55.2**	**-2.2**
HYB				*e*PKiKP	**PKiKP**	**07 09 53.4**	**-1.3**
HYB				*e*SKSac	**SKSac**	**07 16 34.5**	**-2.5**
HYB				*e*SKKSac	**SKKSac**	**07 17 36.4**	**-4.4**
HYB				IAMs_20	IAMs_20	07 45 07.6	
	comp=Z,16µm,42.4s						
TVO	**Taravao**	**113.19**	**254**	*e*LR	LR	07 43 48.7	
	comp=Z,12µm,22.8s						
PPT2	**Papeete2**	**113.50**	**254**	*e*P	**Pdif**	**07 06 04.7**	**+0.1**
	comp=Z,254nm,26.8s						
PPT2				*e*PP	**PP**	**07 10 43.4**	**-5.9**
	comp=Z,1µm,25.8s						
PPT2				*e*S	SKKSac	07 17 39.3	-12
	comp=Z,5µm,25.8s						
PPT2				*e*SS	**SS**	**07 26 40.3**	**+3.4**
	comp=Z,9µm,30.8s						
PPT2				*e*LQ	LQ	07 37 59.6	
	comp=Z,25µm,29.8s						
PPT2				*e*LR	LR	07 43 54.7	
	comp=Z,34µm,28.8s						
PPT2				*e*LR	LR	07 43 55.5	
	comp=Z,21µm,30.5s						
AIS	**Amsterdam Isla**	**114.22**	**128**	IAMs_20	IAMs_20	07 46 04.7	
	comp=Z,15µm,22.0s						
CIT	**Chita**	**115.53**	**20**	*e*PKIKP	**PKiKP**	**07 09 58.0**	**-2.8**
CIT				*e*		07 11 06.6	
SONM	**Songino Array**	**116.13**	**26**	PKP	**PKiKP**	**07 10 01.4**	**-0.8**
	comp=Z,3.3nm,0.9s,baz=266,slow=1.1,SNR=9.4						
SONM				PP	**PP**	**07 11 04.7**	**-1.6**
	comp=Z,24nm,1.2s,baz=300,slow=7.2,SNR=7.2						
SONM	**Songino Array**	**116.13**	**26**		**PKiKP**	**07 09 60.0**	**-2.2**
ULN	**Ulaanbaatar**	**116.40**	**26**	PKIKP	**PKPdf**	**07 10 04.1**	**+1.4**
ULN	**Ulaanbaatar**	**116.40**	**26**		**PKPdf**	**07 10 04.1**	**+1.4**
ULN	**Ulaanbaatar**	**116.40**	**26**	IAMs_20	IAMs_20	08 04 59.7	
	comp=Z,15µm,20.0s						
GOMU	**GeErMu**	**117.37**	**43**	PKP	**PKPdf**	**07 10 04.7**	**-0.5**
GOMU				SS	SS	07 27 27.8	+1.6
GOMU				PPMZ			
	comp=Z,2µm,10.3s						
GOMU				L	L		
	comp=Z,16µm,19.9s						
GOMU				L	L		
	comp=Z,9µm,19.4s						
GOMU				L	L		
	comp=Z,20µm,19.3s						
CASY	**Casey**	**117.38**	**166**	IAMs_20	IAMs_20	07 55 44.8	
	comp=Z,21µm,19.0s						
ZEA	**Zeya**	**117.47**	**10**	*e*PKIKP	**PKiKP**	**07 10 09.8**	**+5.4**
ZEA				*e*		07 21 02.9	
ZEA				*e*SS	SS	07 27 27.8	+2.8
ZEA				pmax	pmax		
	comp=Z,10.0nm,1.3s						
ZEA				pmax	pmax		
	comp=Z,600nm,14.4s						
PET	**Petropavlovsk**	**118.08**	**349**	*i* PKIKP	**PKiKP**	**07 10 07.9**	**+2.3**
PET				pmax	pmax		
	comp=Z,21nm,1.1s						
PETK	**Petropavlovsk-**	**118.17**	**350**	PKP	**PKiKP**	**07 10 06.0**	**+0.2**
	comp=Z,4.5nm,0.9s,baz=100,slow=4.5,SNR=4.6						
PETK	**Petropavlovsk-**	**118.17**	**350**	PKIKP	**PKiKP**	**07 10 06.0**	**+0.2**
GTA2	**Gaotai**	**118.53**	**37**	PKP	**PKPdf**	**07 10 06.6**	**-0.5**
GTA2				PP	**PP**	**07 11 26.1**	**+2.7**
GTA2				SKKS		07 18 23.3	
GTA2				SS	**SS**	**07 27 41.6**	**+1.2**
GTA2				PPMZ			
	comp=Z,2µm,10.0s						
GTA2				L	L		
	comp=Z,10µm,22.0s						
GTA2				L	L		
	comp=Z,12µm,22.7s						
GTA2				L	L		
	comp=Z,21µm,24.4s						
HILR	**Hailar Array B**	**119.61**	**17**	PKP	**PKPdf**	**07 10 08.2**	**-0.5**
	comp=Z,8.1nm,0.7s,baz=22,slow=1.6,SNR=14						
HIA	**Hailar**	**119.87**	**17**	IAMs_20	IAMs_20	08 03 11.2	
	comp=Z,15µm,20.0s						
SHL	**Shillong**	**120.56**	**54**	P	PKiKP	07 10 21.0	+10
	SNR=5.1						
HEH	**HeiHe**	**120.83**	**11**	PKP	**PKPdf**	**07 10 09.6**	**-1.4**
HEH				PP	**PP**	**07 11 43.5**	**+5.2**
HEH				PPMZ			
	comp=Z,1µm,6.0s						
HEH				L	L		
	comp=Z,8µm,20.2s						
HEH				L	L		
	comp=Z,17µm,19.9s						
HEH				L	L		
	comp=Z,14µm,22.0s						
KLR	**Kul'dur**	**122.57**	**9**	*e*PKIKP	**PKPdf**	**07 10 12.5**	**-1.9**
KLR				pmax	pmax		
	comp=Z,6.0nm,1.5s						
RAR	**Rarotonga**	**123.00**	**250**	IAMs_20	IAMs_20	07 55 33.0	
	comp=Z,14µm,21.0s						
BTO2	**Baotou**	**123.15**	**30**	*e*PKP	**PKiKP**	**07 10 16.2**	**+0.1**
BTO2				L	L		
	comp=Z,37µm,23.5s						
BTO2				L	L		
	comp=Z,22µm,23.5s						
BTO2				L	L		
	comp=Z,75µm,22.9s						
LZDM	**Lanzhou Array**	**123.19**	**38**	PKP	**PKPdf**	**07 10 15.9**	**-0.4**
	comp=Z,2.5nm,0.3s,baz=254,slow=1.1,SNR=5.1						
LZH	**Lanzhou**	**123.20**	**37**	PKP	**PKiKP**	**07 10 16.6**	**+0.2**
LZH				PP	**PP**	**07 11 55.9**	**+0.6**
LZH				SKS	**SKSac**	**07 17 21.5**	**+3.5**
LZH				SKKS	**SKKSac**	**07 18 54.2**	**-1.2**
LZH				SS	**SS**	**07 28 41.4**	**+1.1**
LZH				PPMZ			
	comp=Z,2µm,14.0s						
LZH				L	L		
	comp=Z,16µm,19.4s						
LZH				L	L		
	comp=Z,15µm,17.5s						
LZH				L	L		
	comp=Z,24µm,19.0s						
XLT	**XiLinHaoTe**	**123.31**	**23**	*e*PKP	**PKiKP**	**07 10 17.3**	**+1.0**
XLT				PP	**PP**	**07 11 57.8**	**+2.3**
XLT				SS	SS	07 28 41.1	+0.4
XLT				L	L		
	comp=Z,12µm,18.4s						
XLT				L	L		
	comp=Z,18µm,19.4s						
HHC	**Hu-ho-hao-te**	**123.88**	**28**	*e*PKP	**PKPdf**	**07 10 14.3**	**-3.0**
HHC				SKKS		07 18 53.6	
HHC				SS	**SS**	**07 28 46.5**	**-1.7**
HHC				L	L		
	comp=Z,30µm,19.9s						
HHC				L	L		
	comp=Z,14µm,20.3s						
HHC				L	L		
	comp=Z,41µm,20.6s						
BNX	**BinXian**	**125.12**	**13**	⇓PKP	**PKPdf**	**07 10 18.2**	**-1.2**
BNX				SS	SS	07 29 04.2	+1.3
BNX				L	L		
	comp=Z,12µm,21.0s						
BNX				L	L		
	comp=Z,11µm,20.5s						
BNX				L	L		
	comp=Z,13µm,24.7s						
YSS	**Yuzhno-Sakhali**	**125.66**	**360**	*i* PKIKP	**PKPdf**	**07 10 20.2**	**-0.1**
YSS	**Yuzhno-Sakhali**	**125.66**	**360**		**PKPdf**	**07 10 17.2**	**-3.1**
TNCH	**TengChong**	**126.08**	**52**	PKP	**PKPdf**	**07 10 18.9**	**-3.1**
TNCH				sPKP	sPKPdf	07 10 24.3	-1.5
TNCH				PP	**PP**	**07 12 18.4**	**+3.1**
TNCH				SKKS		07 19 10.9	
TNCH				PPMZ			
	comp=Z,2µm,11.0s						
TNCH				L	L		
	comp=Z,3µm,32.1s						
TNCH				L	L		
	comp=Z,4µm,26.0s						
TNCH				L	L		
	comp=Z,15µm,51.6s						
CN2	**Changchun**	**126.46**	**16**	PKP	**PKPdf**	**07 10 21.2**	**-0.8**
CN2				*e*PP	**PP**	**07 12 20.2**	**+3.9**
CN2				PPMZ			
	comp=Z,500nm,7.0s						
CN2				L	L		
	comp=Z,2µm,18.0s						
CN2				L	L		
	comp=Z,1µm,18.0s						
CN2				L	L		
	comp=Z,2µm,19.0s						
BJI2	**Beijing**	**126.61**	**25**	PKP	**PKPdf**	**07 10 21.6**	**-0.8**
BJI2				PP	**PP**	**07 12 18.9**	**+1.4**
BJI2				SS	SS	07 29 19.3	-2.8
BJI2				PPMZ			
	comp=Z,1µm,12.0s						
BJI2				L	L		
	comp=Z,10µm,24.7s						
BJI2				L	L		
	comp=Z,10µm,22.1s						
BJI2				L	L		
	comp=Z,14µm,24.1s						
BJT	**Baijiatuau**	**126.61**	**25**	IAMs_20	IAMs_20	08 08 41.2	
	comp=Z,17µm,20.0s						
MDJ	**Mudanjiang**	**126.66**	**12**	PKP	**PKiKP**	**07 10 22.9**	**+0.1**
MDJ				SS	SS	07 29 23.3	+1.2
MDJ				PPMZ			
	comp=Z,1µm,11.1s						
MDJ				L	L		
	comp=Z,10µm,21.3s						
MDJ				L	L		
	comp=Z,11µm,19.9s						
MDJ				L	L		
	comp=Z,18µm,24.8s						
TIY	**Taiyuan**	**126.75**	**30**	PKP	**PKiKP**	**07 10 26.7**	**+3.4**
TIY				SS	SS	07 29 23.5	-0.9
TIY				PPMZ			
	comp=Z,2µm,10.3s						
TIY				L	L		
	comp=Z,18µm,20.6s						
TIY				L	L		
	comp=Z,9µm,20.6s						
TIY				L	L		
	comp=Z,22µm,24.7s						
USRK	**Ussuriysk Ar.**	**127.50**	**10**	PKP	**PKPdf**	**07 10 23.3**	**-0.6**
	comp=Z,13nm,0.9s,baz=253,slow=2.5,SNR=14						
USRK	**Ussuriysk Ar.**	**127.50**	**10**		**PKPdf**	**07 10 21.2**	**-2.8**
XAN	**Xi'an**	**127.61**	**36**	PKP	**PKiKP**	**07 10 25.3**	**+0.2**
XAN				PP	**PP**	**07 12 26.4**	**+1.8**
XAN				PPMZ			
	comp=Z,2µm,11.0s						
XAN				L	L		
	comp=Z,26µm,23.0s						
XAN				L	L		
	comp=Z,13µm,22.7s						
XAN				L	L		
	comp=Z,27µm,19.2s						
PZH	**PanZhiHua**	**127.72**	**48**	PKP	**PKPdf**	**07 10 25.1**	**0.0**
PZH				SKKS		07 19 22.5	
PZH				PPMZ			
	comp=Z,1µm,11.4s						
PZH				L	L		
	comp=Z,4µm,19.0s						
PZH				L	L		
	comp=Z,3µm,18.8s						
PZH				L	L		
	comp=Z,6µm,20.0s						
SNY	**Shenyang**	**127.75**	**18**	PKP	**PKPdf**	**07 10 20.7**	**-3.8**
SNY				PP	**PP**	**07 12 26.7**	**+1.9**
SNY				SS	SS	07 29 41.1	+5.2
SNY				PPMZ			
	comp=Z,1µm,10.4s						
SNY				L	L		
	comp=Z,8µm,19.8s						
SNY				L	L		
	comp=Z,9µm,21.0s						
SNY				L	L		
	comp=Z,15µm,21.1s						
HNS	**HongShan**	**128.10**	**28**	⇑PKP	**PKiKP**	**07 10 26.7**	**+0.8**
HNS				PP	**PP**	**07 12 29.2**	**+1.8**
HNS				SS	SS	07 29 41.7	+0.9
HNS				PPMZ			
	comp=Z,3µm,10.5s						
HNS				L	L		
	comp=Z,21µm,22.0s						
HNS				L	L		
	comp=Z,13µm,20.8s						
HNS				L	L		
	comp=Z,31µm,22.4s						
YUK	**Yuzh-Kuril'sk**	**128.50**	**357**	*e*PKIKP	**PKPdf**	**07 10 20.5**	**-5.3**
YUK				*e*		07 12 27.9	
YUK				*e*PPP	PPP	07 15 18.0	
YUK				*e*SS	SS	07 29 52.3	+7.5
YUK				MLR	MLR		
	comp=N,9µm,19.0s						
YUK				MLR	MLR		
	comp=Z,11µm,19.0s						
LYN	**LuoYang**	**129.21**	**32**	*e*PKP	**PKiKP**	**07 10 28.7**	**+0.5**
LYN				SS	SS	07 29 58.4	+3.5
LYN				PPMZ			
	comp=Z,3µm,11.9s						
LYN				L	L		
	comp=Z,54µm,19.4s						
LYN				L	L		
	comp=Z,38µm,20.4s						
LYN				L	L		
	comp=Z,75µm,19.4s						
KMI2	**Kunming**	**129.23**	**49**	PKP	**PKPdf**	**07 10 28.0**	**-0.1**
KMI2				PP	**PP**	**07 12 38.6**	**+2.6**
KMI2				SKKS		07 19 32.8	
KMI2				PPMZ			
	comp=Z,1µm,11.8s						
KMI2				L	L		
	comp=Z,6µm,23.7s						
KMI2				L	L		
	comp=Z,7µm,22.3s						
KMI2				L	L		
	comp=Z,8µm,24.8s						
CHTO	**Chiang Mai**	**129.45**	**58**	PKP	**PKiKP**	**07 10 29.1**	**0.0**
CHTO	**Chiang Mai**	**129.45**	**58**	PKP	**PKiKP**	**07 10 28.9**	**-0.2**
CTZ	**Chatham Island**	**129.50**	**218**	IAMs_20	IAMs_20	08 01 28.3	
	comp=Z,17µm,20.0s						
CM31	**Chiang Mai Arr**	**129.61**	**59**	P	**PKPdf**	**07 10 28.4**	**-0.2**
	SNR=27						
CMAR	**Chiang Mai Arr**	**129.61**	**59**	PKP	**PKiKP**	**07 10 29.1**	**-0.3**
	comp=Z,11nm,0.8s,baz=287,slow=3.4,SNR=44						
CMAR	**Chiang Mai Arr**	**129.61**	**59**		**PKPdf**	**07 10 28.9**	**+0.3**
DL2	**Dalian**	**129.72**	**21**	PKP	**PKPdf**	**07 10 27.3**	**-1.0**
DL2				SS	SS	07 30 04.9	+4.5
DL2				PPMZ			
	comp=Z,2µm,10.6s						
DL2				L	L		
	comp=Z,14µm,20.5s						
DL2				L	L		
	comp=Z,6µm,21.4s						
DL2				L	L		
	comp=Z,13µm,19.4s						
TIA	**Tai'an**	**130.19**	**27**	PKP	**PKPdf**	**07 10 29.4**	**+0.1**
TIA				PP	**PP**	**07 12 42.0**	**+0.9**
TIA				SKS	**SKSac**	**07 17 34.3**	**-4.6**
TIA				PPMZ			
	comp=Z,3µm,6.9s						
TIA				L	L		
	comp=Z,14µm,18.9s						
TIA				L	L		
	comp=Z,14µm,19.6s						
TIA				L	L		
	comp=Z,34µm,17.5s						
ERM	**Erimo**	**130.59**	**360**	IAMs_20	IAMs_20	08 10 21.5	
	comp=Z,15µm,20.0s						
ERM	**Erimo**	**130.59**	**360**	PKP	**PKiKP**	**07 10 31.8**	**+1.1**
ENH	**Enshi**	**130.61**	**39**	IAMs_20	IAMs_20	08 07 35.9	
	comp=Z,16µm,20.0s						
GYA	**Guiyang**	**131.28**	**45**	⇓PKP	**PKPdf**	**07 10 31.3**	**-0.5**
GYA				SKKS		07 19 41.6	
GYA				PPMZ			
	comp=Z,2µm,9.8s						
GYA				L	L		
	comp=Z,7µm,21.0s						
GYA				L	L		
	comp=Z,8µm,22.5s						
GYA				L	L		

	comp=Z,21µm,28.6s						
SLVN	**Son La**	**132.23**	**52**	IAMs_20	IAMs_20	08 11 54.2	
	comp=Z,11µm,21.0s						
INCN	**Inchon**	**132.66**	**17**	IAMs_20	IAMs_20	08 16 30.6	
	comp=Z,15µm,19.0s						
KSRS	**Korea Array**	**133.06**	**16**	PKP	**PKPdf**	**07 10 32.8**	**-1.9**
	comp=Z,4.7nm,0.8s,baz=2.6,slow=2.1,SNR=12						
KSRS				PP	**PP**	**07 12 58.4**	**-0.8**
	comp=Z,2.0nm,0.9s,baz=334,slow=5.7,SNR=4.1						
WHN	**Wuhan**	**133.28**	**34**	PKP	**PKiKP**	**07 10 36.2**	**-0.3**
WHN				PP	**PP**	**07 13 03.5**	**+2.2**
WHN				PKS		07 14 09.3	
WHN				SS	SS	07 30 46.8	+2.0
WHN				L	L		
	comp=Z,69µm,18.5s						
WHN				L	L		
	comp=Z,14µm,15.6s						
WHN				L	L		
	comp=Z,102µm,19.7s						
GSI	**Gunungsitoli**	**134.08**	**81**	PKP	**PKiKP**	**07 10 38.7**	**+0.1**
CNSH	**ChangSha**	**134.21**	**38**	PKP	**PKiKP**	**07 10 39.2**	**+0.7**
CNSH				PP	**PP**	**07 13 09.2**	**+1.9**
CNSH				SS	SS	07 31 00.0	+3.7
CNSH				L	L		
	comp=Z,11µm,19.0s						
CNSH				L	L		
	comp=Z,14µm,19.6s						
CNSH				L	L		
	comp=Z,15µm,21.2s						
NJ2	**Nanjing**	**134.42**	**29**	*e*PKP	**PKiKP**	**07 10 38.4**	**-0.4**
NJ2				PKS		07 14 09.0	
NJ2				SS	SS	07 30 59.1	+0.9
NJ2				PPMZ			
	comp=Z,4µm,9.0s						
NJ2				L	L		
	comp=Z,59µm,23.2s						
NJ2				L	L		
	comp=Z,22µm,21.3s						
NJ2				L	L		
	comp=Z,73µm,22.1s						
GULI	**GuiLin**	**134.57**	**43**	⇓PKP	**PKPdf**	**07 10 33.6**	**-4.3**
GULI				L	L		
	comp=Z,14µm,21.8s						
GULI				L	L		
	comp=Z,9µm,21.6s						
GULI				L	L		
	comp=Z,21µm,20.8s						
PSI	**Prapat**	**135.07**	**78**	PKP	**PKiKP**	**07 10 40.0**	**-0.7**
MJB9	**Matsu-Tunnel**	**135.85**	**5**		**PKPdf**	**07 10 38.0**	**-2.0**
MJAR	**Matsushiro Arr**	**135.86**	**5**	PKP	**PKPdf**	**07 10 39.2**	**-0.8**
	comp=Z,4.0nm,0.8s,baz=347,slow=2.1,SNR=6.1						
MJAR				PP	**PP**	**07 13 15.9**	**-1.0**
	comp=Z,2.7nm,0.9s,baz=340,slow=3.6,SNR=2.3						
KHZ	**Kahutara**	**135.99**	**213**	IAMs_20	IAMs_20	08 04 58.4	
	comp=Z,15µm,20.0s						
SNZO	**South Karori**	**136.08**	**215**	IAMs_20	IAMs_20	08 09 42.1	
	comp=Z,15µm,18.0s						
KULM	**Kulim**	**136.09**	**74**		**PKPdf**	**07 10 41.0**	**0.0**
KULM	**Kulim**	**136.09**	**74**	PKP	**PKPdf**	**07 10 41.0**	**0.0**
WHZ	**Wether Hill Ro**	**136.12**	**205**	IAMs_20	IAMs_20	08 07 53.1	
	comp=Z,14µm,19.0s						
MXZ	**Matakaoa Point**	**136.13**	**222**	IAMs_20	IAMs_20	08 05 55.1	
	comp=Z,17µm,20.0s						
LBZ	**Lake Benmore**	**136.28**	**209**	IAMs_20	IAMs_20	08 05 36.1	
	comp=Z,18µm,20.0s						
PYZ	**Puysegur Point**	**136.43**	**204**	IAMs_20	IAMs_20	08 09 24.5	
	comp=Z,15µm,19.0s						
MLZ	**Mavora Lakes**	**136.46**	**206**	IAMs_20	IAMs_20	08 04 26.7	
	comp=Z,14µm,20.0s						
WKZ	**Wanaka**	**136.48**	**207**	IAMs_20	IAMs_20	08 03 50.3	
	comp=Z,18µm,21.0s						
JGF	**Kuroka**	**136.70**	**6**		**PKPdf**	**07 10 40.6**	**-1.0**
THZ	**Tophouse**	**136.78**	**213**	IAMs_20	IAMs_20	08 04 34.8	
	comp=Z,15µm,21.0s						
DCZ	**Deep Cove**	**136.80**	**205**	IAMs_20	IAMs_20	08 08 07.4	
	comp=Z,14µm,19.0s						
NNZ	**Nelson**	**136.89**	**214**	IAMs_20	IAMs_20	08 08 01.8	
	comp=Z,13µm,19.0s						
INU	**Inuyama**	**136.91**	**7**		**PKPdf**	**07 10 42.4**	**+0.4**
FOZ	**Fox Glacier**	**137.09**	**209**	IAMs_20	IAMs_20	08 05 31.7	
	comp=Z,16µm,21.0s						
PPI	**Padang Panjang**	**137.19**	**82**	PKP	**PKiKP**	**07 10 44.7**	**-0.2**
RAO	**Raoul Island**	**137.23**	**235**	IAMs_20	IAMs_20	08 04 14.9	
	comp=Z,10µm,21.0s						
PDSI	**Padang**	**137.34**	**83**	PKP	**PKPdf**	**07 10 43.7**	**+0.3**
DSZ	**Denniston Nort**	**137.38**	**212**	IAMs_20	IAMs_20	08 03 06.7	
	comp=Z,22µm,22.0s						
QRZ	**Quartz Range**	**137.63**	**214**	IAMs_20	IAMs_20	08 08 35.4	
	comp=Z,11µm,19.0s						
HIZ	**Hauiti**	**137.77**	**218**	IAMs_20	IAMs_20	08 06 08.7	
	comp=Z,17µm,20.0s						
TOZ	**Tahuroa Road**	**137.84**	**220**	IAMs_20	IAMs_20	08 06 17.9	
	comp=Z,20µm,21.0s						
QIZ	**Qiongzhong**	**138.12**	**50**	PKP	**PKPdf**	**07 10 43.5**	**-1.1**
QIZ				sPKP	**sPKPdf**	**07 10 51.7**	**+3.3**
QIZ				PP	**PP**	**07 13 32.3**	**-0.2**
QIZ				SS	SS	07 31 47.6	+3.5
QIZ				PPMZ			
	comp=Z,2µm,9.3s						
QIZ				L	L		
	comp=Z,6µm,24.0s						
QIZ				L	L		
	comp=Z,5µm,19.6s						
QIZ				L	L		
	comp=Z,10µm,24.0s						
SDSI	**Sungai Dareh**	**138.29**	**83**	PKP	**PKPdf**	**07 10 44.7**	**-0.4**
HKPS	**Hong Kong Po S**	**139.15**	**43**	IAMs_20	IAMs_20	08 17 38.3	
	comp=Z,10µm,19.0s						
QZH2	**Quanzhou**	**139.98**	**35**	PKP	**PKPdf**	**07 10 43.6**	**-4.3**
QZH2				PP	**PP**	**07 13 43.8**	**+0.5**
QZH2				SS	SS	07 32 05.4	+0.6
QZH2				L	L		
	comp=Z,15µm,19.9s						
QZH2				L	L		
	comp=Z,11µm,19.2s						
QZH2				L	L		
	comp=Z,25µm,20.6s						
MYKOM	**Kota Tinggi**	**140.09**	**78**	PKP	**PKPdf**	**07 10 48.2**	**-0.2**
OUZ	**Omahuta**	**140.58**	**221**	IAMs_20	IAMs_20	08 08 32.4	
	comp=Z,11µm,20.0s						
DLV	**Lat**	**140.78**	**61**	IAMs_20	IAMs_20	08 17 22.1	
	comp=Z,13µm,22.0s						
PMBI	**Palembang**	**141.92**	**85**	IAMs_20	IAMs_20	08 08 13.4	
	comp=Z,10µm,21.0s						
SSLB	**Suanglung**	**142.21**	**34**		**PKPdf**	**07 10 48.6**	**-3.3**
H01W2	**Cape Leeuwin H**	**142.22**	**140**	T	T	09 49 52.4	
	baz=239,slow=74,SNR=6.6						
H01W3	**Cape Leeuwin H**	**142.24**	**140**	T	T	09 49 52.1	
	baz=239,slow=74,SNR=9.6						
H01W1	**Cape Leeuwin H**	**142.24**	**140**	T	T	09 49 53.3	
	baz=239,slow=74,SNR=8.3						
TWG	**Pinlang**	**143.04**	**35**	IAMs_20	IAMs_20	08 16 48.9	
	comp=Z,19µm,20.0s						
MSVF	**Nonsavu**	**144.19**	**250**	IAMs_20	IAMs_20	08 05 31.0	
	comp=Z,13µm,21.0s						
TAU	**Tasmania Unive**	**144.63**	**186**	IAMs_20	IAMs_20	08 17 43.2	
	comp=Z,8µm,18.0s						
CNJI	**Cibinong**	**144.69**	**92**	PKP	**PKPdf**	**07 10 56.4**	**-0.1**
TPI	**Tanjungpandan**	**144.73**	**84**	PKP	PKPbc	07 10 55.6	+0.1
BBJI	**Bungbulang**	**145.22**	**92**		**PKPbc**	**07 10 54.8**	**-2.4**
BBJI	**Bungbulang**	**145.22**	**92**	PKP	**PKPbc**	**07 10 56.2**	**-0.9**
NWAO	**Narrogin (SRO)**	**145.46**	**140**	PKP2	**PKPbc**	**07 10 55.4**	**-1.9**
NWAO	**Narrogin (SRO)**	**145.46**	**140**		**PKPbc**	**07 10 55.4**	**-1.9**
CMJI	**Cimerak**	**146.02**	**93**	PKP	**PKPdf**	**07 10 59.1**	**+0.3**
SZP	**Santa**	**146.67**	**41**	IAMs_20	IAMs_20	08 20 56.4	
	comp=Z,12µm,20.0s						
UGM	**Wanagama**	**148.08**	**93**	PKPbc	**PKPbc**	**07 11 04.8**	**-0.7**
UGM	**Wanagama**	**148.08**	**93**	PKP	**PKPdf**	**07 11 03.2**	**+0.9**
TARA	**Tarawa**	**148.60**	**285**	IAMs_20	IAMs_20	08 10 15.8	
	comp=Z,11µm,20.0s						
PCJI	**Pacitan**	**148.73**	**93**	PKP	**PKPdf**	**07 11 04.1**	**+0.8**
SNJI	**Sawahan-Nganju**	**149.30**	**92**	PKP	**PKPdf**	**07 11 05.1**	**+0.7**
CAN	**Canberra**	**151.85**	**191**	IAMs_20	IAMs_20	08 12 43.6	
	comp=Z,13µm,22.0s						
MARNC	**Mare, Loyalty**	**151.98**	**238**		**PKPab**	**07 11 22.2**	**-1.7**
IGBI	**Denpasar**	**152.66**	**94**	PKP	**PKPdf**	**07 11 10.2**	**+0.8**
MYLDM	**Lahad Datu**	**152.67**	**63**		**PKPdf**	**07 11 07.7**	**-1.7**
ONTNC	**Ouen Toro**	**152.91**	**235**	IAMs_20	IAMs_20	08 10 08.6	
	comp=Z,10µm,21.0s						
BKB	**Balikpapan**	**153.48**	**77**	IAMs_20	IAMs_20	08 33 21.6	
	comp=Z,10µm,21.0s						
MBWA	**Marble Bar**	**154.02**	**124**	IAMs_20	IAMs_20	08 36 02.9	
	comp=Z,10µm,20.0s						
MBWA	**Marble Bar**	**154.02**	**124**	PKP	**PKPdf**	**07 11 11.6**	**+0.4**
STKA	**Stephens Creek**	**155.85**	**178**	PKP	**PKPdf**	**07 11 13.6**	**+0.2**
	baz=17,slow=0.9,SNR=3.6						
STKA				PKPab	**PKPab**	**07 11 39.8**	**-0.1**
	comp=Z,42nm,1.1s,baz=192,slow=3.0,SNR=10						
KAPI	**Kappang**	**157.00**	**85**	P	**PKPdf**	**07 11 15.4**	**0.0**
KAPI	**Kappang**	**157.00**	**85**	PKP	**PKPdf**	**07 11 17.5**	**+2.1**
DAV	**Davao City (W)**	**157.50**	**50**	IAMs_20	IAMs_20	08 28 37.4	
	comp=Z,11µm,20.0s						
PATS	**Pohnpei**	**158.84**	**312**	IAMs_20	IAMs_20	08 23 54.3	
	comp=Z,13µm,20.0s						
LUWI	**Luwuk**	**159.05**	**73**	PKP	**PKPdf**	**07 11 15.2**	**-2.8**
EIDS	**Eidsvold**	**160.65**	**203**		**PKPab**	**07 12 01.3**	**+0.5**
SOEI	**Soe**	**161.61**	**98**	PKP	**PKPdf**	**07 11 18.8**	**-2.1**
ASAR	**Alice Springs**	**161.94**	**153**	PKP	**PKPdf**	**07 11 20.6**	**-0.3**
	comp=Z,5.8nm,1.1s,baz=103,slow=0.4,SNR=19						
ASAR				PKPab	**PKPab**	**07 12 05.6**	**-1.0**
	comp=Z,15nm,1.0s,baz=195,slow=4.2,SNR=11						
ASAR	**Alice Springs**	**161.94**	**153**		**PKPdf**	**07 11 20.0**	**-0.8**
SANI	**Sanana**	**162.41**	**72**	PKP	**PKPdf**	**07 11 14.6**	**-6.9**
WRA	**Warramunga Arr**	**165.30**	**147**	PKP	**PKPdf**	**07 11 23.3**	**-0.8**
	comp=Z,7.8nm,0.9s,baz=243,slow=1.1,SNR=36						
WRA				PKPab	**PKPab**	**07 12 21.8**	**+0.4**
	comp=Z,20nm,1.1s,baz=198,slow=2.8,SNR=8.2						
WRA	**Warramunga Arr**	**165.30**	**147**		**PKPdf**	**07 11 22.8**	**-1.3**
WR8	**Warramunga Arr**	**165.37**	**148**		**PKPdf**	**07 11 20.8**	**-3.3**
BAKI	**Biak**	**170.80**	**46**	PKP	**PKPdf**	**07 11 28.7**	**+0.7**

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*IDC **06** 07:04:19.8±1.1, 50°.06N×78°.69E, h0^{km}, mbtmp3.3/3, ML2.2/3, Error ellipse: s-maj=9.5km s-min=7.2km az=19.0*

*NNC **06** 07:04:19.5±0.5, 50°.02N×78°.81E, h0^{km}, mb3.5, mpv3.2, Error ellipse: s-maj=5.0km s-min=2.0km az=61.0, Suspected Mining explosion.*

ISC 06 07:04:16.5±0.8**, 49°.94N**±0°.04×**78°.88E**±0°.05**, h0^{km}, n23, σ1^{s}.30**/35**, 14C-10D, Eastern Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
KUR07	**Kurchatov Arra**	**0.69**	**341**	⇑P	**Pb**	**07 04 31.2**	**-0.2**
KUR07				⇓S	**Sb**	**07 04 40.3**	**-1.1**
KUR14	**Kurchatov Arra**	**0.70**	**345**	⇑P	**Pb**	**07 04 31.6**	**-0.1**
KUR14				⇑S	**Sb**	**07 04 40.4**	**-1.5**
KUR06	**Kurchatov Arra**	**0.71**	**342**	⇑P	**Pb**	**07 04 31.5**	**-0.2**
KUR06				⇓S	**Sb**	**07 04 40.3**	**-1.7**
KUR15	**Kurchatov Arra**	**0.71**	**344**	⇑P	**Pb**	**07 04 31.7**	**-0.2**
KUR15				⇓S	**Sb**	**07 04 41.0**	**-1.2**
KURBB	**Kurchatov Arra**	**0.72**	**342**	Pg	**Pb**	**07 04 31.6**	**-0.4**
	3.8nm,0.3s,baz=168,slow=19,SNR=97						
KURBB				Lg	Lg	07 04 40.3	
	9.3nm,0.3s,baz=169,slow=32,SNR=20						
KURBB	**Kurchatov Arra**	**0.72**	**342**	⇑P	**Pb**	**07 04 31.8**	**-0.2**
	73nm,0.5s						
KURBB				⇓S	**Sb**	**07 04 40.9**	**-1.5**
	412nm,0.7s						
KUR16	**Kurchatov Arra**	**0.73**	**341**	⇑P	**Pb**	**07 04 31.8**	**-0.4**
KUR16				⇑S	**Sb**	**07 04 41.3**	**-1.5**
KUR05	**Kurchatov Arra**	**0.74**	**343**	⇑P	**Pb**	**07 04 32.1**	**-0.2**
KUR05				⇑S	**Sg**	**07 04 41.2**	**+0.9**
KUR17	**Kurchatov Arra**	**0.74**	**340**	⇑P	**Pb**	**07 04 32.2**	**-0.2**
KUR17				⇓S	**Sb**	**07 04 41.7**	**-1.4**
KUR04	**Kurchatov Arra**	**0.76**	**344**	⇑P	**Pb**	**07 04 32.5**	**-0.1**
KUR04				⇓S	**Sg**	**07 04 41.7**	**+0.8**
KURK	**Kurchatov**	**0.80**	**348**	⇑P	**Pb**	**07 04 33.1**	**-0.2**
	11nm,0.5s						
KURK				⇓S	**Sb**	**07 04 43.5**	**-1.1**
	82nm,0.9s						
SEM	**Semipalatinsk**	**1.00**	**61**	P	**Pn**	**07 04 37.8**	**-0.2**
	6.1nm,0.2s						
SEM				S	**Sn**	**07 04 53.4**	**+0.4**
	86nm,0.4s						
MAKZ	**Makanchi**	**3.75**	**145**	⇑Pg	**Pg**	**07 05 30.6**	**+2.2**
	14nm,1.0s						
MAKZ				⇓Lg	Lg	07 06 20.0	
	26nm,0.8s						
MK31	**Makanchi Array**	**3.88**	**143**	⇓Pn	**Pb**	**07 05 24.0**	**-1.8**
	0.6nm,0.4s,baz=334,slow=7.1,SNR=22						
MK31				⇓Pg	**Pg**	**07 05 31.3**	**+0.5**
	3.0nm,0.5s,baz=298,slow=4.4,SNR=15						
MK31				Lg	Lg	07 06 25.3	
	28nm,0.8s,baz=332,slow=24,SNR=12						
MKAR	**Makanchi Array**	**3.88**	**143**	Pn	**Pb**	**07 05 24.1**	**-1.8**
	0.4nm,0.3s,baz=321,slow=13,SNR=25						
MKAR				Pg	**Pg**	**07 05 31.9**	**+1.1**
	1.1nm,0.3s,baz=320,slow=15,SNR=25						
MKAR				Sn	**Sb**	**07 06 13.7**	**+0.3**
	0.9nm,0.3s,baz=330,slow=22,SNR=6.6						
MKAR				Lg	Lg	07 06 24.6	
	4.3nm,0.3s,baz=330,slow=30,SNR=19						
	2.9nm,0.6s						
MKAR				AML	AML		
MKAR	**Makanchi Array**	**3.88**	**143**	P	**Pb**	**07 05 24.1**	**-1.8**
ZSN	**Zaisan**	**4.68**	**120**	Pg	**Pg**	**07 05 47.4**	**+1.2**
	3.5nm,0.4s						
ZSN				Lg	Lg	07 06 53.7	
	21nm,0.7s						
I46RU	**ZALESOVO INFRA**	**5.45**	**40**	I	I	07 36 45.0	
	baz=226,slow=322,SNR=9.4						
ZALV	**Zalesovo Beam**	**5.45**	**40**	Pn	Pn	07 05 44.3	+5.5
	0.9nm,0.3s,baz=230,slow=14,SNR=13						
ZALV				Lg	Lg	07 07 09.6	
	0.8nm,0.3s,baz=220,slow=25,SNR=7.3						
	5.5nm,0.5s						
ZALV				AML	AML		
DJR	**Jarkent**	**5.64**	**173**	Pg	**Pg**	**07 06 07.8**	**+3.3**
	2.7nm,0.4s						
DJR				Lg	Lg	07 07 25.5	
	8.0nm,0.6s						
BVAR	**Borovoye Array**	**6.14**	**304**	Pn	**Pn**	**07 05 50.0**	**+1.6**
	baz=107,slow=8.6,SNR=3.7						
BVAR				Sn	**Sn**	**07 06 56.9**	**-2.4**
	0.2nm,0.3s,baz=111,slow=22,SNR=6.0						
BVAR				Lg	Lg	07 07 27.9	
	0.2nm,0.3s,baz=114,slow=27,SNR=5.3						
	2.3nm,0.8s						
KPKS	**Kokpek**	**6.47**	**181**	Pg	**Pg**	**07 06 19.8**	**-0.7**
	0.2nm,0.2s						
KPKS				Lg	Lg	07 07 47.8	
	19nm,0.5s						
AAK	**Ala-Archa**	**7.90**	**204**	Lg	Lg	07 08 27.3	
	0.6nm,0.3s,baz=251,slow=23,SNR=2.5						

NOU 06 07:31:48.8, 17°.11S×167°.79E, h4^{km}, MLv4.3/17**, Vanuatu Islands, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
RTV	**Rentapao**	**0.91**	**138**	P	Pg	07 32 06.2	-0.1
RTV	**Rentapao**	**0.91**	**138**	S	Sb	07 32 19.3	-0.3
SANVU	**Saraoutou**	**1.75**	**341**	P	Pn	07 32 19.3	-0.6
SANVU	**Saraoutou**	**1.75**	**341**	S	Sb	07 32 43.6	-0.1
KOUNC	**Koumac, New Ca**	**4.77**	**224**	P	Pn	07 33 00.8	-0.7
YATNC	**Mamie plateau,**	**5.00**	**190**	P	Pn	07 33 04.5	-0.1
NOUC	**Port Laguerre**	**5.16**	**196**	P	Pn	07 33 07.0	+0.1
OUENC	**Ouen Island, N**	**5.36**	**189**	P	Pn	07 33 10.0	+0.4

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*IDC **06** 07:36:17.0±0.8, 60°.54N×28°.70W, h0^{km}, mb3.9/15, mbtmp3.9/17, ML3.7/2, Error ellipse: s-maj=20.0km s-min=12.6km az=172.0*

*NEIC **06** 07:36:19.4±1.4, 60°.7N±0°.1×28°.6W±0°.2, h10^{km}±2^{km}, mb4.4/55, Error ellipse: s-maj=21.2km s-min=15.7km az=191.0*

ISC 06 07:36:19.0±0.6**, 60°.65N**±0°.09×**28°.70W**±0°.06**, h10^{km}, n67, σ0^{s}.95**/53**, mb4.3**/41**, 5D, Reykjanes Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
BORG	**Borgarnes**	**5.33**	**36**	Pn	**Pn**	**07 37 37.5**	**-1.0**
	7.4nm,0.3s,baz=262,slow=4.1,SNR=36						
BORG				Sn	**Sn**	**07 38 40.6**	**+0.8**
	3.9nm,0.3s,baz=211,slow=23,SNR=9.0						
	36nm,0.5s						
BORG				AML	AML		
BORG	**Borgarnes**	**5.33**	**36**	Pn	**Pn**	**07 37 37.7**	**-0.8**
ANGG	**Ammassalik, Gr**	**6.42**	**325**	Pn	**Pn**	**07 37 52.9**	**-0.6**
SCO	**Scoresbysund**	**10.26**	**13**	Pn	**Pn**	**07 38 46.4**	**+0.5**
SFJD	**Kangerlussuaq**	**11.53**	**313**	Pn	**Pn**	**07 39 03.9**	**+0.5**
SUMG	**Summit**	**12.56**	**346**	Pn	**Pn**	**07 39 15.7**	**-2.2**
EKA	**Eskdalemuir Ar**	**14.49**	**100**	Pn	**Pn**	**07 39 43.4**	**-0.6**
	baz=294,slow=13						
	3.0nm,0.9s						
BOST	**Ostende**	**19.87**	**104**	*d*P	**Pn**	**07 40 52.6**	**+1.1**
	comp=Z,29nm,1.0s						
SCHQ	**Schefferville**	**20.94**	**271**	P	**P**	**07 41 00.1**	**-1.4**
	comp=Z,8.5nm,0.8s,baz=70,slow=8.6,SNR=7.6						
	comp=Z,8.5nm,0.8s						
DOU	**Dourbes**	**21.42**	**105**	*d*P	**P**	**07 41 07.7**	**+1.0**
BCLA	**Clavier**	**21.54**	**103**	*d*P	**P**	**07 41 11.1**	**+3.1**
RCHB	**Rochefort**	**21.68**	**104**	*d*P	**P**	**07 41 08.8**	**-0.7**
	comp=Z,5.9nm,1.1s						
MEM	**Membach**	**21.76**	**102**	*d*P	**P**	**07 41 10.2**	**-0.1**
	comp=Z,6.0nm,1.1s						
CLF	**Chambon-Foret**	**21.78**	**111**	P	**P**	**07 41 10.2**	**-0.4**
CLL	**Collm**	**24.73**	**93**	*i* P	**P**	**07 41 40.1**	**0.0**
	comp=Z,8.0nm,1.2s						
FINES	**FINESS Array B**	**25.88**	**64**	P	**P**	**07 41 49.1**	**-1.3**
	comp=Z,4.1nm,1.0s,baz=0.0,slow=1.9,SNR=5.0						
	comp=Z,4.1nm,1.0s						
ESDC	**Sonseca Array**	**26.01**	**133**	P	**P**	**07 41 49.7**	**-2.1**
	comp=Z,2.4nm,0.8s,baz=331,slow=9.1,SNR=14						
	comp=Z,2.4nm,0.8s						
ESDC	**Sonseca Array**	**26.01**	**133**		**P**	**07 41 52.2**	**+0.4**
AKASG	**Malin Array Be**	**33.07**	**81**	P	**P**	**07 42 54.0**	**-0.4**
	comp=Z,0.5nm,0.5s,baz=315,slow=8.6,SNR=4.7						
	comp=Z,0.5nm,0.5s						
YKA	**Yellowknife Ar**	**38.09**	**311**	P	**P**	**07 43 37.3**	**0.0**
	comp=Z,2.1nm,0.8s,baz=67,slow=8.7,SNR=2.0						
	comp=Z,2.1nm,0.8s						
N49A	**Columbus Grove**	**38.80**	**265**	P	**P**	**07 43 45.3**	**+1.8**
Q51A	**Peebles**	**39.85**	**263**	P	**P**	**07 43 52.7**	**+0.4**
Q51A				IAmb	IAmb	07 43 56.1	
	comp=Z,7.8nm,0.8s						
P48A	**Milroy**	**40.53**	**265**	P	**P**	**07 43 58.5**	**+0.5**
P48A				IAmb	IAmb	07 44 01.4	
	comp=Z,9.2nm,1.0s						
S51A	**Beattyville**	**41.05**	**261**	P	**P**	**07 44 02.3**	**0.0**
BRTR	**Keskin Array B**	**43.08**	**90**	P	**P**	**07 44 19.4**	**+0.4**
	comp=Z,0.7nm,0.4s,baz=321,slow=9.6,SNR=3.6						
	comp=Z,0.7nm,0.4s						
PBMO	**Poplar Bluff**	**45.08**	**267**	P	**P**	**07 44 35.4**	**+0.5**
PBMO				IAmb	IAmb	07 44 38.5	
	comp=Z,5.7nm,0.8s						
LAO	**LASA Array**	**45.22**	**289**	P	**P**	**07 44 36.5**	**+0.6**
N32M	**Quiet Lake**	**45.44**	**319**	IAmb	IAmb	07 44 43.6	
	comp=Z,5.7nm,1.0s						
S39A	**Bolivar**	**45.79**	**270**		**P**	**07 44 40.3**	**-0.2**
S39A				IAmb	IAmb	07 44 43.9	
	comp=Z,3.9nm,0.9s						
M29M	**Somme Creek**	**46.14**	**323**	P	**P**	**07 44 43.5**	**+0.4**
LRAL	**Lakeview Retre**	**46.40**	**261**	P	**P**	**07 44 45.8**	**+0.5**
LRAL				IAmb	IAmb	07 44 46.5	
	comp=Z,4.5nm,0.9s						
ILAR	**Eielson Array**	**46.65**	**329**	P	**P**	**07 44 47.2**	**+0.3**
	comp=Z,1.4nm,0.8s,baz=34,slow=6.8,SNR=5.5						
	comp=Z,1.4nm,0.8s						
HYT	**Haines Junctio**	**47.10**	**321**	P	**P**	**07 44 51.9**	**+1.3**
LDM	**Libby Dam**	**48.03**	**297**		**P**	**07 44 57.9**	**-0.1**
BOZ	**Bozeman (W)**	**48.53**	**292**	IAmb	IAmb	07 45 06.0	
	comp=Z,3.0nm,1.1s						
BVAR	**Borovoye Array**	**49.72**	**51**	P	**P**	**07 45 11.6**	**+0.8**
	comp=Z,2.2nm,0.9s,baz=306,slow=5.0,SNR=5.6						
	comp=Z,2.2nm,0.9s						
PD31	**Pinedale Array**	**49.73**	**288**		**P**	**07 45 10.7**	**-0.6**
PDAR	**Pinedale Array**	**49.73**	**288**	P	**P**	**07 45 10.7**	**-0.6**
	comp=Z,1.2nm,0.7s,baz=57,slow=6.8,SNR=11						
	comp=Z,1.2nm,0.7s						
RTBA	**Rita Blanca**	**51.40**	**277**	IAmb	IAmb	07 45 27.5	
	comp=Z,4.1nm,0.9s						
T25A	**Trinidad**	**51.66**	**279**	IAmb	IAmb	07 45 30.5	
	comp=Z,5.8nm,0.9s						
S22A	**4UR Ranch, Cre**	**52.35**	**282**		**P**	**07 45 32.1**	**+1.0**
P17A	**Butcher Ranch,**	**52.86**	**286**	IAmb	IAmb	07 45 38.7	
	comp=Z,5.5nm,1.1s						
PV02	**Paradox Valley**	**52.91**	**283**	IAmb	IAmb	07 45 39.6	
	comp=Z,5.0nm,0.9s						
PV13	**Radium Mtn., P**	**52.98**	**283**	IAmb	IAmb	07 45 40.0	
	comp=Z,4.8nm,1.0s						
SRU	**San Rafael Swe**	**53.04**	**285**	IAmb	IAmb	07 45 40.7	
	comp=Z,3.9nm,0.9s						
PV05	**Paradox Valley**	**53.18**	**284**		**P**	**07 45 36.6**	**-0.5**
PV05				IAmb	IAmb	07 45 40.5	
	comp=Z,5.4nm,0.9s						
TMUT	**Trail Mountain**	**53.22**	**286**	IAmb	IAmb	07 45 44.8	
	comp=Z,4.5nm,1.1s						
BRDY	**Brady**	**53.71**	**270**		**P**	**07 45 41.4**	**+0.5**
ELK	**Elko**	**53.96**	**290**		**P**	**07 45 42.6**	**-0.3**
ELK				IAmb	IAmb	07 45 48.0	
	comp=Z,2.8nm,0.9s						
ZALV	**Zalesovo Beam**	**54.15**	**42**	P	**P**	**07 45 43.2**	**-0.5**
	comp=Z,0.2nm,0.3s,baz=325,slow=7.4,SNR=1.3						
	comp=Z,0.2nm,0.3s						
SGCY	**Sterling City**	**54.25**	**273**		**P**	**07 45 44.8**	**0.0**
ANMO	**Albuquerque**	**54.41**	**279**	P	**P**	**07 45 47.5**	**+1.3**
ALQ	**Albuquerque**	**54.41**	**279**		**P**	**07 45 47.3**	**+1.1**
KURBB	**Kurchatov Arra**	**54.70**	**48**	P	**P**	**07 45 47.6**	**-0.1**
	comp=Z,1.4nm,0.8s,baz=322,slow=7.3,SNR=9.8						
	comp=Z,1.4nm,0.8s						
PSUT	**Pine Spring**	**55.08**	**288**		**P**	**07 45 51.6**	**+0.6**
PSUT				IAmb	IAmb	07 45 55.8	
	comp=Z,3.9nm,0.9s						
MOD	**Modoc Plateau**	**55.34**	**295**	IAmb	IAmb	07 45 57.0	
	comp=Z,4.5nm,0.9s						
U15A	**North Rim**	**56.03**	**285**	IAmb	IAmb	07 46 01.3	
	comp=Z,2.4nm,0.8s						
PRN	**Pahroc Range**	**56.54**	**288**	IAmb	IAmb	07 46 06.5	
	comp=Z,5.2nm,1.1s						
KVN	**Kaiserville**	**56.63**	**291**	IAmb	IAmb	07 46 06.5	
	comp=Z,2.4nm,0.9s						
ALPN	**Alpine**	**56.74**	**274**	IAmb	IAmb	07 46 06.9	
	comp=Z,5.1nm,1.1s						
NVAR	**Mina Array Bea**	**57.23**	**291**	P	**P**	**07 46 06.5**	**+0.1**
	comp=Z,0.4nm,0.8s,baz=37,slow=7.8,SNR=3.0						
	comp=Z,0.4nm,0.8s						
X16A	**Lo Mia Camp, P**	**57.24**	**283**	IAmb	IAmb	07 46 11.9	
	comp=Z,3.3nm,1.0s						
TXAR	**Lajitas Array**	**57.61**	**273**	P	**P**	**07 46 09.1**	**+0.1**
	comp=Z,0.5nm,0.8s,baz=37,slow=6.4,SNR=5.7						
	comp=Z,0.5nm,0.8s						
MKAR	**Makanchi Array**	**59.27**	**48**	P	**P**	**07 46 21.2**	**+1.0**
	comp=Z,1.5nm,0.9s,baz=308,slow=6.0,SNR=7.5						
	comp=Z,1.5nm,0.9s						
SONM	**Songino Array**	**65.92**	**31**	P	**P**	**07 47 05.7**	**+0.9**
	comp=Z,1.0nm,0.8s,baz=324,slow=7.3,SNR=3.5						
	comp=Z,1.0nm,0.8s						
HHC	**Hu-ho-hao-te**	**73.77**	**30**	*e*P	**P**	**07 47 52.2**	**-0.9**
HHC				pmax	pmax		
	comp=Z,8.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,1µm,6.3s						
ASAR	**Alice Springs**	**141.12**	**26**	PKP	**PKPdf**	**07 55 49.6**	**+0.4**
	comp=Z,0.5nm,0.9s,baz=337,slow=4.5,SNR=4.1						

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*SJA **06** 07:37:24.0±0.6, 21°.59S×70°.34W, h34^{km}±2^{km}, ML3.3, MW3.5*

*GUC **06** 07:37:26.4±0.8, 21°.59S×70°.21W, h36^{km}±2^{km}, ML3.4*

ISC 06 07:37:24.4±1.4**, 21°.58S**±0°.02×**70°.27W**±0°.05**, h16^{km}**±11^{km}**, n28, σ0^{s}.99**/49**, 5D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
PB07	**IPOC Station P**	**0.38**	**112**	*e*P	**Pn**	**07 37 34.6**	**-0.9**
PB07				IAML		07 37 43.0	
	comp=Z,2µm,0.4s						
PB07	**IPOC Station P**	**0.38**	**112**	*e*P	**Pn**	**07 37 34.4**	**-1.1**
PB07				*e*S	**Sb**	**07 37 40.1**	**+1.4**
PB07				IAML		07 37 41.0	
	comp=N,8µm,0.2s						
PB02	**IPOC Station P**	**0.43**	**53**	*e*P	**Pn**	**07 37 35.2**	**-0.9**
PB02				IAML		07 37 44.4	
	comp=Z,4µm,0.3s						
PB02	**IPOC Station P**	**0.43**	**53**	⇓*i*P	**Pn**	**07 37 35.1**	**-0.9**
PB02				*i* S	**Sb**	**07 37 41.5**	**+1.4**
PB02				IAML		07 37 42.1	
	comp=E,4µm,0.3s						
PB09	**IPOC Station P**	**0.98**	**103**	*e*P	**Pg**	**07 37 43.4**	**-0.1**
PB09				*e*S	**Sb**	**07 37 55.5**	**-0.4**
PB09				IAML		07 37 56.8	
	comp=Z,1µm,0.4s						
PB09	**IPOC Station P**	**0.98**	**103**	⇓*i*P	**Pg**	**07 37 43.4**	**-0.1**
PB09				*i* S	**Sb**	**07 37 55.7**	**-0.2**
PB09				IAML		07 37 56.5	
	comp=E,2µm,0.3s						
TA01	**Diego Aracena**	**1.01**	**5**	*e*P	**Pb**	**07 37 43.7**	**+0.1**
TA01				*e*S	**Sn**	**07 37 58.3**	**+0.4**
TA01				IAML		07 37 59.0	
	comp=Z,385nm,0.5s						
TA01	**Diego Aracena**	**1.01**	**5**	⇓*i*P	**Pb**	**07 37 43.5**	**-0.1**
TA01				*e*S	**Sb**	**07 37 56.5**	**-0.2**
TA01				IAML		07 37 58.1	
	comp=N,1µm,0.4s						
PB05	**IPOC Station P**	**1.27**	**177**	*e*P	**Pn**	**07 37 47.6**	**0.0**
PB05				*e*S	**Sg**	**07 38 05.6**	**+0.1**

PB05				IAML		07 38 06.2	
	comp=Z,228nm,0.2s						
PB05	IPOC Station P	1.27	177	⇓iP	Pn	07 37 47.6	0.0
PB05				eS	Sb	07 38 03.6	-0.5
PB05				IAML		07 38 09.4	
	comp=E,610nm,0.6s						
PB06	IPOC Station P	1.29	150	eP	Pn	07 37 48.1	+0.1
PB06				eS	Sn	07 38 05.1	+0.1
PB06				IAML		07 38 10.7	
	comp=Z,440nm,0.3s						
PB06	IPOC Station P	1.29	150	eP	Pn	07 37 47.6	-0.4
PB06				i S	Sb	07 38 04.1	-0.8
PB06				IAML		07 38 06.1	
	comp=E,1µm,0.2s						
TA02	Huaiquique	1.31	6	eP	Pn	07 37 48.0	-0.1
TA02				eS	Sn	07 38 05.9	+0.7
TA02				IAML		07 38 07.3	
	comp=Z,342nm,0.1s						
TA02	Huaiquique	1.31	6	eP	Pb	07 37 48.5	-0.1
TA02				eS	Sn	07 38 05.4	+0.2
TA02				IAML		07 38 06.2	
	comp=N,1µm,0.2s						
PB08	IPOC Station P	1.77	36	eP	Pn	07 37 55.6	+0.8
PB08				eS	Sb	07 38 18.5	-0.4
PB08				IAML		07 38 20.3	
	comp=Z,394nm,0.3s						
PB08	IPOC Station P	1.77	36	⇓iP	Pn	07 37 55.6	+0.8
PB08				eS	Sb	07 38 18.1	-0.8
PB08				IAML		07 38 19.8	
	comp=N,671nm,0.4s						
PB11	IPOC Station P	1.90	18	eP	Pn	07 37 56.6	+0.3
PB11				eS	Sb	07 38 21.4	-1.0
PB11				IAML		07 38 23.2	
	comp=Z,209nm,0.5s						
PB11	IPOC Station P	1.90	18	eP	Pn	07 37 56.5	+0.1
PB11				eS	Sn	07 38 20.1	+0.1
PB11				IAML		07 38 23.8	
	comp=E,447nm,0.3s						
PSGCX	Pisagua	1.98	4	eP	Pn	07 37 57.5	+0.1
PSGCX				IAML		07 38 33.7	
	comp=Z,122nm,0.3s						
GO01	Chusmiza	2.15	28	eP	Pn	07 38 01.5	+1.4
GO01				eS	Sb	07 38 29.1	-0.9
GO01				IAML		07 38 31.2	
	comp=Z,218nm,0.2s						
GO01	Chusmiza	2.15	28	eP	Pn	07 38 01.4	+1.3
GO01				eS	Sn	07 38 26.8	+0.1
GO01				IAML		07 38 32.7	
	comp=N,708nm,0.2s						
AF01	San Pedro de A	2.37	126	eP	Pb	07 38 06.3	-0.6
AF01				eS	Sn	07 38 33.5	+1.7
AF01				IAML		07 38 57.7	
	comp=Z,441nm,0.6s						
PB12	IPOC Station P	2.95	359	eP	Pn	07 38 11.4	+0.6
PB12				eS	Sn	07 38 44.5	-1.4
PB12				IAML		07 39 02.8	
	comp=Z,64nm,0.9s						
PB12	IPOC Station P	2.95	359	eP	Pn	07 38 10.8	+0.1
PB12				eS	Sn	07 38 42.0	-3.9
PB14	IPOC Station P	3.03	182	eP	Pn	07 38 04.2	-7.9
PB14				IAML		07 39 04.1	
	comp=Z,47nm,0.9s						
AP01	Chacalluta	3.19	359	eP	Pb	07 38 20.8	0.0
AP01				IAML		07 39 18.1	
	comp=Z,132nm,0.4s						
PB16	IPOC Station P	3.31	13	eP	Pn	07 38 17.1	+1.0
PB16				eS	Sb	07 39 05.3	+2.0
PB16				IAML		07 39 19.0	
	comp=Z,33nm,0.7s						
AC02	Maricunga	5.33	169	eP	Pn	07 38 45.2	+1.4
AC02				IAML		07 40 14.9	
	comp=Z,24nm,0.8s						

*UCR **06** 07:46:21.6±0.6, 8°.27N×82°.99W, h17km±5km, MW3.6, Presumed earthquake*

*UPA **06** 07:46:22.3±1.0, 8°.33N×82°.92W, h12km±3km, MW3.5, Presumed earthquake*

ISC 06 07:46:21.9±1.0, 8°.31N±0°.03×82°.96W±0°.03, h17km±8km, n31, σ0s.64/44, 1C-10D, Panama-Costa Rica border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTPM	Petroterminale	0.13	143	⇑iP	Pb	07 46 25.9	0.0
PTPM				eS	Sb	07 46 29.4	+0.9
PTPA	Petro Terminal	0.14	141	eP	Pg	07 46 25.9	0.0
PTPA				eS	Sb	07 46 29.6	+0.8
LIMO3	Limones	0.23	156	⇓iP	Pb	07 46 27.4	-0.1
LIMO3				eS	Sb	07 46 31.6	+0.3
LMNES	Limones	0.23	155	eP	Pg	07 46 27.3	+0.1
NELY	Ciudad Neily	0.34	2	eP	Pg	07 46 29.2	+0.1
NELY				eS	Sb	07 46 35.5	+1.0
FITO	Golfito	0.37	328	eP	Pg	07 46 28.9	-0.7
PIRO	Carate, Puerto	0.39	284	⇓iP	Pg	07 46 29.7	-0.2
PIRO				eS	Sb	07 46 37.2	+1.2
MLIR3	Monte Lirio, C	0.50	15	⇓iP	Pb	07 46 32.6	+0.4
MLIR3				eS	Sb	07 46 40.5	+1.2
DVD	David	0.52	76	⇓iP	Pg	07 46 32.2	0.0
DVD				eS	Sg	07 46 39.4	+0.1
BRU2	Volcan	0.55	29	eP	Pb	07 46 33.1	0.0
BRU2	Volcan	0.55	29	⇓iP	Pb	07 46 33.3	+0.1
BRU2				eS	Sb	07 46 41.7	+0.9
SCLRA	Santa Clara, W	0.55	18	eP	Pb	07 46 33.3	+0.2
CLLRA	Cordillera,	0.55	38	eP	Pb	07 46 33.2	+0.1
LOMA3	Las Lomas, Chi	0.57	78	⇓iP	Pg	07 46 33.1	-0.2
LOMA3				eS	Sb	07 46 41.5	+0.2
PTAR3	Potrerillos Ar	0.59	50	⇓iP	Pb	07 46 33.9	0.0
PTAR3				eS	Sg	07 46 41.8	+0.1
CHIR3	Chiriqui UPA,	0.63	82	⇓iP	Pg	07 46 33.9	-0.4
CHIR3				eS	Sb	07 46 43.2	+0.3
BQTLY	Boquete Panama	0.66	48	eP	Pg	07 46 34.8	-0.3
BQSF3	Alto Boquete,	0.67	50	⇓iP	Pg	07 46 34.9	-0.3
BQSF3				eS	Sb	07 46 44.9	+0.5
LNBQ3	Los Naranjos,	0.70	47	⇓iP	Pg	07 46 35.1	-0.6
LNBQ3				eS	Sb	07 46 45.7	+0.6
BURE	Buenos Aires	0.94	336	eP	Pb	07 46 39.1	-0.6
RBALA	Bur	0.98	54	eP	Pb	07 46 39.8	-0.5
EDPE	Pejibaye, P	1.04	324	eP	Pb	07 46 40.3	-1.2
SAJE	San Jernim	1.17	332	eP	Pn	07 46 42.8	-0.7
CNI2	El Empalme, Bo	1.21	23	eP	Pn	07 46 43.0	-0.9
KKNTU	Kakintº	1.25	65	eP	Pn	07 46 43.6	-1.0
PIEC	Cerro El Cedra	1.64	323	eP	Pn	07 46 50.0	-0.1
ABE2	San Pablo	1.76	322	eP	Pn	07 46 52.2	+0.4
LCR2	La Lucha 2	1.76	324	eP	Pn	07 46 52.4	+0.6
GMAL	Guarumal, Vera	1.79	108	eP	Pn	07 46 50.7	-1.3
BCIP	Isla Barro Col	3.20	74	eP	Pn	07 47 12.4	+1.0
GAMB1	Gamboa	3.31	76	eP	Pn	07 47 13.2	+0.3

*KRSC **06** 07:54:21.1±2.0, 58°.96N×158°.21E, h20km±13km, Ml3.8*

*NERS **06** 07:54:36.5, 58°.91N×157°.87E, h33km*

ISC 06 07:54:25.9±0.9, 58°.76N±0°.04×158°.83E±0°.03, h10km, n19, σ2s.11/26, Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALN	Palana	0.67	60	eP	Pg	07 54 39.0	+0.1
PALN				eS	Sb	07 54 49.0	0.0
TIGL	Tigil	1.00	185	eP	Pg	07 54 44.7	-0.4
TIGL				eS	Sn	07 54 59.9	-0.3
OSSR	Ossora	2.24	76	eP	Pn	07 55 03.1	+0.1
OSSR				eS	Sb	07 55 35.4	+1.3
SRDR	Sredinnyy	2.50	169	eP	Pn	07 55 06.4	-0.1
KOZ	Kozyrevsk	2.77	168	eP	Pn	07 55 10.7	+0.4
ESO	Esso	2.85	182	eP	Pn	07 55 11.1	-0.3
CIRR	Tsirk	2.85	158	eP	Pn	07 55 12.9	+1.4
BZWR	Bezymyannyi-We	2.95	162	eP	Pn	07 55 14.0	+1.2
ZLN	Zelenaya	2.95	158	eP	Pn	07 55 13.9	+1.1
BZMR	Bezymyannaya	2.97	162	eP	Pn	07 55 14.3	+1.1
BZGR	Bezymyannyi-Gr	3.00	160	eP	Pn	07 55 15.2	+1.6
KMNR	Kamenistaya	3.11	165	eP	Pn	07 55 16.3	+1.3
TUMR	Tumrok	3.56	168	eP	Pn	07 55 23.2	+2.0
GADL	Gadlja	3.97	286	eSg	Sb	07 56 25.4	+1.6
GADL				Sgmax		07 56 43.6	
	200nm,0.7s						
TLAR	Talaya	4.01	309	eP	Pn	07 55 29.7	+2.3
TLAR				ePg	Pg	07 55 41.0	-1.7
TLAR				eSg	Sg	07 56 30.0	-4.6
TLAR				Sgmax		07 56 42.2	
	110nm,0.2s						
MA2	Magadan	4.23	285	ePg	Pg	07 55 47.0	+0.2
MA2				Pgmax		07 55 53.4	
	10.0nm,0.8s						
MA2				eSg	Sb	07 56 35.7	+4.3
MA2				Sgmax		07 56 51.8	
	40nm,0.7s						
MGD	Magadan 1	4.34	291	eSg	Sg	07 56 40.9	-4.1
MGD				Sgmax		07 56 56.6	
	50nm,0.3s						
SEY	Seymchan	5.24	326	ePg	Pg	07 56 08.2	+2.1
SEY				Pgmax		07 56 14.1	
SEY				eSg	Sg	07 57 11.6	-2.2
SEY				Sgmax		07 57 17.7	
	10.0nm,0.6s						
SUUS	Susuman	6.59	312	eSg	Sg	07 57 54.4	-2.9
SUUS				Sgmax		07 58 11.3	
	20nm,0.7s						

WEL 06 07:57:07.9±1.4, 33°S±34°×18°0E±4°3, h322km±56km, M3.7/7, mB4.2/8, ML3.9/5, MLv4.1/7, Mw(mB)3.3/7, Error ellipse: s-maj=64.7km s-min=31.1km az=123.5, confirmed, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WMGZ	Waiomatatini S	5.10	194	P	Pn	07 58 27.0	-0.3
WMGZ				S	S	07 59 30.1	-1.1
HAZ	Te Kaha	5.19	199	P	Pn	07 58 28.8	+0.6
HAZ				S	S	07 59 33.1	0.0
PKGZ	Pakihiroa	5.22	197	P	Pn	07 58 28.8	+0.2
PKGZ				AML	AML		
PUZ	Puketiti	5.37	195	P	Pn	07 58 30.9	+0.5
PUZ				S	S	07 59 37.1	0.0
RUGZ	Raukumara Rang	5.42	200	P	Pn	07 58 30.9	-0.1
RUGZ				AML	AML		
TWGZ	Tauwhareparae	5.54	196	P	Pn	07 58 34.3	+2.0
TWGZ				S	S	07 59 43.8	+3.3
TWGZ				AML	AML		
TWGZ				AML	AML		
MWZ	Matawai	5.80	199	P	Pn	07 58 34.3	-1.0
MWZ				S	S	07 59 46.3	+0.2
MWZ				AML	AML		
TKGZ	Te Karaka	5.82	197	P	Pn	07 58 35.9	+0.4
TKGZ				AML	AML		
TKGZ				AML	AML		
URZ	Urewera	5.86	203	P	Pn	07 58 36.1	+0.1
URZ				S	S	07 59 47.9	+0.7
URZ				AML	AML		
URZ				AML	AML		
MUGZ	Murupara	6.17	204	P	Pn	07 58 39.5	-0.2
MUGZ				AML	AML		
KNZ	Kokohu	6.41	196	P	Pn	07 58 41.5	-0.9
RAHZ	Arahi	6.47	200	P	Pn	07 58 42.9	-0.3
RAHZ				AML	AML		
MTHZ	Maungataniwha	6.48	202	P	Pn	07 58 43.2	-0.2
MTHZ				AML	AML		
KAHZ	Kahuranaki	7.34	199	P	Pn	07 58 53.5	-0.2
PXZ	Pawanui	7.57	198	P	Pn	07 58 55.6	-0.7
PNHZ	Pukenui	7.65	202	P	Pn	07 58 55.8	-1.6
WPHZ	Waipukurau	7.72	201	P	Pn	07 58 57.0	-1.1
PRHZ	Porangahau	7.85	199	P	Pn	07 58 59.2	-0.6

*IDC **06** 08:06:49.5±1.9, 18°.00S×178°.03W, h625km±20km, mb2.8/8, mbtmp3.8/9, Error ellipse: s-maj=38.9km s-min=17.1km az=146.0*

ISC 06 08:06:47.3±0.8, 18°.1S±0°.2×177°.8W±0°.2, h600km, n11, σ1s.30/13, mb3.3/8, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	3.93	274	P	P	08 08 15.3	+2.9
	17nm,0.6s,baz=146,slow=5.4,SNR=14						
STKA	Stephens Creek	39.02	241	P	P	08 13 23.4	-0.6
	1.2nm,0.6s,baz=94,slow=11,SNR=4.3						
	1.2nm,0.6s						
WRA	Warramunga Arr	45.14	260	P	P	08 14 11.2	-0.9
	0.9nm,0.5s,baz=96,slow=7.0,SNR=14						
WRA				PcP	PcP	08 15 38.7	-0.8
	0.2nm,0.3s,baz=91,slow=3.2,SNR=2.1						
	0.9nm,0.5s						
ASAR	Alice Springs	45.27	254	P	P	08 14 12.5	-0.6
	2.8nm,0.7s,baz=92,slow=7.8,SNR=32						
ASAR				PcP	PcP	08 15 39.1	-0.8
	0.5nm,0.5s,baz=107,slow=4.0,SNR=7.1						
	2.8nm,0.7s						
QSPA	South Pole Qui	71.98	180	P	P	08 17 11.5	+0.3
	0.5nm,0.6s,baz=123,slow=3.0,SNR=1.3						
	0.5nm,0.6s						
NVAR	Mina Array Bea	79.17	44	P	P	08 17 51.7	+0.2
	0.3nm,0.6s,baz=225,slow=8.8,SNR=3.6						
	0.3nm,0.6s						
TXAR	Lajitas Array	85.63	57	P	P	08 18 25.4	+1.4
	0.5nm,0.7s,baz=217,slow=6.3,SNR=8.9						
	0.5nm,0.7s						
ILAR	Eielson Array	85.93	13	P	P	08 18 23.0	-1.5
	0.6nm,0.9s,baz=227,slow=4.1,SNR=6.2						
	0.6nm,0.9s						
PDAR	Pinedale Array	87.10	43	P	P	08 18 31.0	+0.2
	0.2nm,0.4s,baz=222,slow=4.8,SNR=2.3						
	0.2nm,0.4s						
GERES	GERESS Array B	147.91	346	PKPbc	PKPbc	08 25 25.6	-0.5
	0.7nm,0.5s,baz=325,slow=2.1,SNR=6.3						
DAVOX	Davos/Dischmat	150.68	349	PKPbc	PKiKP	08 25 32.1	-1.2
	1.5nm,0.5s,baz=94,slow=2.6,SNR=4.2						

NOU 06 08:28:09.4, 17°.12S×167°.76E, h3km, MLv4.2/12, Vanuatu Islands, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTV	Rentapao	0.92	137	P	Pg	08 28 27.5	+0.4
RTV	Rentapao	0.92	137	S	Sg	08 28 39.7	+0.6
SANVU	Saraoutou	1.75	342	P	Pn	08 28 40.0	-0.6
KOUNC	Koumac, New Ca	4.74	223	P	Pn	08 29 21.5	-0.3
NOUC	Port Laguerre	5.14	195	P	Pn	08 29 27.9	+0.6

*IDC **06** 08:29:45.4±0.5, 7°.74N×37°.29W, h0km, mb4.2/22, mbtmp4.2/23, ML3.1/1, Error ellipse: s-maj=17.9km s-min=13.4km az=139.0*

*NEIC **06** 08:29:47.4±1.6, 7°.8N±0°.1×37°.2W±0°.1, h10km±1km, mb4.6/62, Error ellipse: s-maj=25.0km s-min=20.1km az=139.0*

ISC 06 08:29:46.7±0.4, 7°.73N±0°.06×37°.29W±0°.07, h10km, n110, σ1s.50/90, mb4.5/62, 2D, Central Mid-Atlantic Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NBMO	Morrinhos-CE	11.31	194	eP	Pn	08 32 27.4	-1.0
NBMO				eS	Sn	08 34 25.8	-9.1
NBPS	Pedro II - PI	12.74	199	eP	Pn	08 32 47.0	-1.0
NBPS				eS	Sn	08 35 00.5	-10
NBPV	Pedro Velho	14.19	172	eP	Pn	08 33 09.0	+1.1
NBPV				eS	Sn	08 35 43.9	-1.8
NBMA	Muriti-CE	15.07	186	eP	Pn	08 33 20.6	+0.7
SACV	Santiago Islan	15.21	61	Pn	Pn	08 33 16.3	-5.5
MDP	Montagnes des	15.48	261	Pn	Pn	08 33 20.9	-4.3
	0.1nm,0.3s,baz=162,slow=8.6,SNR=2.4						
MDP				Sn	Sn	08 35 56.4	-21
	0.1nm,0.3s,baz=115,slow=15,SNR=1.9						
	13nm,1.1s						
MDP				AML	AML		
NBTA	Tacaratu-PE	16.76	183	eP	Pn	08 33 42.3	+0.6
NBPN	Ponto Novo - B	18.68	189	eP	P	08 34 05.7	+0.5
SMTB	Santa Maria do	19.42	212	eP	P	08 34 12.1	-1.2
SDBA	SAO DESIDERIO	21.39	201	eP	P	08 34 35.8	+1.0
ITTB	Itaituba	21.98	237	eP	P	08 34 38.9	-2.2
BOAV	Boa Vista	23.73	258		P	08 34 55.5	-3.8
BOAV	Boa Vista	23.73	258	eP	P	08 35 00.5	+1.2
SNDB	Serra Nova Dou	24.02	216	eP	P	08 35 03.0	+0.9
H05S1	Guadeloupe/Mar	24.03	288	T	T	08 59 39.6	
	SNR=56						
H05N1	Guadeloupe/Mar	24.74	292	T	T	09 00 29.1	
	SNR=15						
BDFB	Brasilia	25.54	205	P	P	08 35 16.0	+0.1
	5.3nm,0.6s,baz=26,slow=10,SNR=11						
	5.3nm,0.6s						
BDFB	Brasilia	25.54	205		P	08 35 16.7	+0.8
BDFB				IAmb	IAmb	08 35 21.9	
	comp=Z,14nm,1.1s						
CLDB	Colider	26.09	225	eP	P	08 35 19.6	-1.3
SJMB	Sao Joao De Ma	26.55	188	eP	P	08 35 26.8	+2.0
ARAG	Araguaiana, MT	27.37	212	eP	P	08 35 33.3	+1.0
H10N3	ASCENSION HYDR	27.48	124	T	T	09 04 23.9	
	baz=304,slow=75,SNR=48						
H10N2	ASCENSION HYDR	27.49	124	T	T	09 04 24.6	
	baz=304,slow=75,SNR=59						
H10N1	ASCENSION HYDR	27.50	124	T	T	09 04 24.5	
	baz=304,slow=75,SNR=62						
H10S3	ASCENSION HYDR	27.98	126	T	T	09 05 00.8	
	baz=280,slow=74,SNR=114						
H10S2	ASCENSION HYDR	28.00	126	T	T	09 05 00.0	
	baz=300,slow=74,SNR=111						
CELP	Cerrillos	30.30	293	P	P	08 35 58.0	-0.5
PTLB	Pontes e Lacer	31.61	223		P	08 36 11.9	+2.0
PTLB	Pontes e Lacer	31.61	223	eP	P	08 36 10.9	+0.9
DBIC	Dimbokro	32.19	90	P	P	08 36 14.8	-0.4
	comp=Z,4.3nm,0.7s,baz=265,slow=8.4,SNR=2.4						
	comp=Z,4.3nm,0.7s						
PET01	Itanhaem-SP	33.28	197	eP	P	08 36 25.4	+0.8
TORD	Torodi Ar. Bea	38.68	79	P	P	08 37 10.6	-0.5
	comp=Z,8.9nm,0.6s,baz=274,slow=9.3,SNR=38						
TORD				PcP	PcP	08 39 22.4	-0.8
	comp=Z,0.8nm,0.7s,baz=272,slow=1.5,SNR=2.2						
	comp=Z,8.9nm,0.6s						
LPAZ	La Paz	38.75	232	P	P	08 37 12.3	+0.1
	comp=Z,7.0nm,0.9s,baz=46,slow=5.2,SNR=28						
	comp=Z,7.0nm,0.9s						
LPAZ	La Paz	38.75	232		P	08 37 12.5	+0.3
LPAZ	La Paz	38.75	232	eP	P	08 37 12.0	-0.2
MD01	Midelt array s	39.16	46	P	P	08 37 13.6	-1.5
MDT	Midelt	39.24	46	P	P	08 37 16.6	+1.0
	comp=Z,1.1nm,0.6s,baz=239,slow=9.9,SNR=2.5						
	comp=Z,1.1nm,0.6s						
BRU2	Volcan	44.92	275	P	P	08 38 02.4	0.0
060A	Indiantown	45.08	301	P	P	08 38 04.3	+1.1
LMQ	La Malbaie	48.62	331	P	P	08 38 31.7	+1.1
HODGE	Hodges	49.03	309	P	P	08 38 35.6	+1.6
HODGE				IAmb	IAmb	08 38 38.0	
	comp=Z,13nm,1.4s						
TIGA	Tifton	49.11	305	P	P	08 38 36.6	+1.9
TGUH	Tegucigalpa,Un	49.41	282	P	P	08 38 38.3	+1.0
BG3	Lake Jocassee	49.83	310	P	P	08 38 41.1	+1.0
BG3				IAmb	IAmb	08 38 43.7	
	comp=Z,13nm,1.3s						
W50A	Signal Mountai	51.72	309	P	P	08 38 54.6	+0.2
W50A				IAmb	IAmb	08 38 58.4	
	comp=Z,16nm,1.5s						
Q51A	Peebles	51.72	314	P	P	08 38 54.3	-0.1
Q51A				IAmb	IAmb	08 38 55.1	
	comp=Z,13nm,1.3s						
SCHQ	Schefferville	52.57	339	P	P	08 38 59.8	-0.6
	comp=Z,5.5nm,0.8s,baz=196,slow=5.4,SNR=3.9						
	comp=Z,5.5nm,0.8s						
BO02	Sierra Bellavi	52.82	215	P	P	08 39 03.9	+1.3
BO02				IAmb	IAmb	08 39 05.3	
	comp=Z,6.7nm,0.8s						
V48A	Smith Brothers	53.06	309	P	P	08 39 04.9	+0.5
V48A				IAmb	IAmb	08 39 08.2	
	comp=Z,7.4nm,1.2s						
EKA	Eskdalemuir Ar	54.66	23	P	P	08 39 15.1	-0.6
	comp=Z,1.8nm,0.8s,baz=225,slow=6.9,SNR=3.9						
	comp=Z,1.8nm,0.8s						
DAVOX	Davos/Dischmat	55.94	37	P	P	08 39 26.0	+0.7
	comp=Z,1.1nm,0.6s,baz=233,slow=6.1,SNR=3.9						
	comp=Z,1.1nm,0.6s						
SQTA	Sankt Quirin	56.95	38	epP	P	08 39 35.6	+3.2
	comp=Z,3.5nm,0.8s						
PLCA	Paso Flores	57.12	210	P	P	08 39 35.0	+1.4
	comp=Z,2.7nm,1.1s,baz=34,slow=5.6,SNR=4.2						
	comp=Z,2.7nm,1.1s						
WATA	Walderalm	57.22	38	eP	P	08 39 34.3	-0.1
	comp=Z,3.7nm,1.2s						
ABTA	Abfaltersbach	57.53	39	eP	P	08 39 37.9	+1.4
	comp=Z,5.7nm,1.3s						
LESA	Schwarzleotal	57.93	38	eP	P	08 39 39.4	+0.2
	comp=Z,2.4nm,0.9s						
MYKA	Terra Mystica	58.18	39	epP	P	08 39 43.0	+2.0
	comp=Z,3.4nm,1.0s						
S39A	Bolivar	58.63	310		P	08 39 44.4	+0.1
S39A				IAmb	IAmb	08 39 47.6	
	comp=Z,12nm,1.5s						
OBKA	Obir	58.70	39	eP	P	08 39 45.1	+0.4
	comp=Z,2.9nm,0.8s						
SOKA	Soboth	59.07	39	eP	P	08 39 48.1	+0.9
	comp=Z,3.2nm,1.5s						
MOA	Molln	59.08	38	eP	P	08 39 47.2	-0.1
	comp=Z,3.5nm,1.0s						
CONA	Conrad Observa	60.09	38	epP	P	08 39 56.6	+2.4
	comp=Z,3.4nm,1.4s						
RONA	Rosalia, Austr	60.27	39	epP	P	08 39 58.4	+2.9
	comp=Z,3.1nm,1.1s						
BRDY	Brady	61.89	301		P	08 40 07.0	+0.3
BRDY				IAmb	IAmb	08 40 08.1	
	comp=Z,6.8nm,1.2s						
ABTX	Abilene, Hawle	62.63	303		P	08 40 12.5	+0.8
ABTX				IAmb	IAmb	08 40 14.7	
	comp=Z,5.5nm,1.1s						
OZNA	Ozona	63.65	301		P	08 40 19.9	+1.3
SGCY	Sterling City	63.78	302		P	08 40 20.2	+0.9
SAND	Sanderson	64.40	299		P	08 40 24.2	+0.8
SAND				IAmb	IAmb	08 40 26.2	
	comp=Z,7.0nm,1.1s						
TMB01	Midkiff	64.55	301	P	P	08 40 25.1	+0.6
MNHN	Monahans	65.09	301	IAmb	IAmb	08 40 30.4	
	comp=Z,7.2nm,1.4s						
TXAR	Lajitas Array	65.68	299	P	P	08 40 30.6	-1.3
	comp=Z,0.5nm,0.7s,baz=93,slow=6.3,SNR=7.2						
	comp=Z,0.5nm,0.7s						
MLR	Muntele Rosu	65.86	43	P	P	08 40 33.1	+0.3
	comp=Z,2.1nm,0.6s,baz=237,slow=4.6,SNR=3.8						
	comp=Z,2.1nm,0.6s						
TPB28		66.60	301	IAmb	IAmb	08 40 43.3	
	comp=Z,4.5nm,1.4s						
VHRN	Van Horn	66.94	300		P	08 40 41.1	+1.2
VHRN				IAmb	IAmb	08 40 42.9	
	comp=Z,4.8nm,1.1s						
T25A	Trinidad	67.16	307	IAmb	IAmb	08 40 45.1	
	comp=Z,8.3nm,1.3s						
SUR	Sutherland	68.17	129	P	P	08 40 47.8	+0.1
	comp=Z,3.7nm,0.7s,baz=212,slow=12,SNR=1.5						
	comp=Z,3.7nm,0.7s						
S22A	4UR Ranch, Cre	69.14	307	IAmb	IAmb	08 40 58.5	
	comp=Z,4.6nm,1.3s						
AKASG	Malin Array Be	69.25	39	P	P	08 40 53.7	-0.2
	comp=Z,0.2nm,0.3s,baz=258,slow=4.8,SNR=3.4						
	comp=Z,0.2nm,0.3s						
BOSA	Boshof	70.24	124	P	P	08 41 01.2	+0.6
	comp=Z,8.0nm,1.2s,baz=338,slow=5.4,SNR=3.9						
	comp=Z,8.0nm,1.2s						
BRTR	Keskin Array B	70.44	51	P	P	08 41 02.6	+0.9
	comp=Z,0.7nm,0.5s,baz=293,slow=6.4,SNR=4.3						
	comp=Z,0.7nm,0.5s						
FINES	FINESS Array B	70.69	27	P	P	08 41 03.7	+1.2
	comp=Z,1.1nm,0.6s,baz=206,slow=8.3,SNR=5.5						
	comp=Z,1.1nm,0.6s						
PDAR	Pinedale Array	71.78	312	P	P	08 41 09.9	0.0
	comp=Z,0.1nm,0.4s,baz=103,slow=7.8,SNR=3.9						
	comp=Z,0.1nm,0.4s						
P18A	Preston Nutter	71.99	309	IAmb	IAmb	08 41 16.5	
	comp=Z,9.8nm,1.5s						
WUAZ	Wupatki	72.61	305	IAmb	IAmb	08 41 19.9	
	comp=Z,5.0nm,1.1s						
HWUT	Hardware Ranch	73.16	311	IAmb	IAmb	08 41 28.7	
	comp=Z,3.6nm,0.8s						
YHL	Hebgen Lake	73.17	314	IAmb	IAmb	08 41 32.5	
	comp=Z,6.8nm,1.3s						
U15A	North Rim	73.39	306	IAmb	IAmb	08 41 23.3	
	comp=Z,7.0nm,1.4s						
ARCES	ARCESS Array B	73.47	19	P	P	08 41 18.9	-0.3
	comp=Z,5.9nm,1.2s,baz=231,slow=12,SNR=4.0						
	comp=Z,5.9nm,1.2s						
BGU	Big Grassy Mou	74.21	310	IAmb	IAmb	08 41 28.7	
	comp=Z,7.6nm,1.3s						
DLMT	Dillon	74.22	315	IAmb	IAmb	08 41 29.1	
	comp=Z,13nm,1.5s						
PRN	Pahroc Range	75.64	307	IAmb	IAmb	08 41 37.3	
	comp=Z,7.5nm,1.4s						
QSM	Queen of Sheba	77.08	305	IAmb	IAmb	08 41 44.2	
	comp=Z,5.8nm,1.3s						
TPH	Tonopah	77.36	307	IAmb	IAmb	08 41 46.4	
	comp=Z,7.6nm,1.3s						
KBZ	Khabaz	77.61	47	P	P	08 41 45.4	+2.1
	comp=Z,0.4nm,0.4s,baz=191,slow=2.2,SNR=3.7						
	comp=Z,0.4nm,0.4s						
NVAR	Mina Array Bea	78.21	308	P	P	08 41 48.9	+1.7
	comp=Z,0.2nm,0.4s,baz=94,slow=4.5,SNR=4.6						
	comp=Z,0.2nm,0.4s						
LHV	Little Huntoon	78.37	307	IAmb	IAmb	08 41 52.7	
	comp=Z,6.4nm,1.3s						

VNA1	**Neumayer--Stat**	**80.63**	**171**	P	**P**	**08 42 00.5**	**+1.3**
	comp=Z,3.0nm,0.7s						
VNA3	**Neumayer Olymp**	**80.93**	**171**	⇓P	**P**	**08 42 02.2**	**+1.3**
	comp=Z,5.5nm,0.7s						
VNA2	**Neumayer--Watz**	**81.01**	**170**	P	**P**	**08 42 02.6**	**+1.4**
	comp=Z,1.8nm,0.6s,baz=331,slow=3.9						
SNAA	**Sanae**	**82.43**	**170**	P	**P**	**08 42 10.1**	**+1.3**
	comp=Z,105nm,0.7s						
SNAA	**Sanae**	**82.43**	**170**	P	**P**	**08 42 09.7**	**+0.9**
	comp=Z,4.2nm,0.7s,baz=322,slow=5.2,SNR=10						
	comp=Z,4.2nm,0.7s						
TROLL	**Troll, Antarti**	**83.71**	**168**	P	**P**	**08 42 16.8**	**+1.2**
	comp=Z,118nm,0.7s						
N32M	**Quiet Lake**	**86.08**	**331**	P	**P**	**08 42 27.4**	**-0.3**
M31M	**Drury Creek, Y**	**86.53**	**332**	P	**P**	**08 42 29.5**	**-0.4**
M31M				IAmb	IAmb	08 42 33.6	
	comp=Z,4.4nm,1.0s						
ELIB	**Princess Elisa**	**88.59**	**164**	*d*P	**P**	**08 42 41.7**	**+2.1**
	comp=Z,2.0nm,1.0s						
QSPA	**South Pole Qui**	**97.75**	**180**	P	**P**	**08 43 20.7**	**-1.2**
	comp=Z,1.0nm,1.0s,baz=101,slow=2.2,SNR=2.0						
	comp=Z,1.0nm,1.0s						
PETK	**Petropavlovsk-**	**118.07**	**350**	PKP	**PKiKP**	**08 48 35.1**	**+1.1**
	comp=Z,4.0nm,0.9s,baz=336,slow=3.3,SNR=6.0						
HHC	**Hu-ho-hao-te**	**123.80**	**28**	*e*P	**PKPdf**	**08 48 41.3**	**-4.2**
PZH	**PanZhiHua**	**127.68**	**48**	PKP	**PKPdf**	**08 48 52.2**	**-1.1**
NJ2	**Nanjing**	**134.35**	**29**	*e*P	**PKPdf**	**08 49 05.4**	**-0.2**
NJ2				pmax	pmax		
	comp=Z,47nm,0.5s						

*IDC **06** 08:37:11.7±5.5, 7°.59S×126°.71E, h177^{km}±60^{km}, mb3.5/6, mbtmp4.2/9, Error ellipse: s-maj=57.4km s-min=21.0km az=55.0*

*NEIC **06** 08:37:14.6±2.2, 7°.79S±0°.07×126°.65E±0°.10, h210^{km}±10^{km}, mb4.0/6, Error ellipse: s-maj=14.1km s-min=9.4km az=109.0*

ISC 06 08:37:13.6±0.6**, 7°.85S**±0°.06×**126°.69E**±0°.09**, h200**^{km}**, n31, σ1^{s}65**/34**, mb4.0**/11**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SOEI	**Soe**	**3.05**	**231**		**Pn**	**08 38 05.7**	**+1.8**
MTN	**Manton Dam**	**6.61**	**139**		**Pn**	**08 38 51.0**	**+2.2**
FAKI	**Fak Fak**	**7.39**	**49**	Pn	**Pn**	**08 38 59.6**	**+0.6**
KNRA	**Kununurra**	**8.04**	**166**		**Pn**	**08 39 09.8**	**+2.4**
FITZ	**Fitzroy Crossi**	**10.24**	**186**	P	**Pn**	**08 39 36.8**	**+0.9**
	6.5nm,0.4s,baz=22,slow=11,SNR=25						
FITZ				S	**Sn**	**08 41 27.7**	**-2.6**
	6.5nm,0.4s,baz=81,slow=8.2,SNR=6.2						
FITZ	**Fitzroy Crossi**	**10.24**	**186**	Pn	**Pn**	**08 39 37.3**	**+1.4**
WB0	**Warramunga Arr**	**14.00**	**149**		**P**	**08 40 25.8**	**+0.3**
WRAB	**Tennant Creek**	**14.12**	**149**		**P**	**08 40 26.3**	**-0.5**
WRA	**Warramunga Arr**	**14.12**	**149**	P	**Pn**	**08 40 25.8**	**+0.6**
	6.0nm,0.6s,baz=328,slow=12,SNR=31						
WRA				S	**S**	**08 42 58.1**	**-4.3**
	1.7nm,0.3s,baz=330,slow=23,SNR=9.7						
WRA	**Warramunga Arr**	**14.12**	**149**	P	**P**	**08 40 26.1**	**-0.8**
WRA					**S**	**08 43 00.8**	**-1.6**
WR8	**Warramunga Arr**	**14.22**	**149**		**P**	**08 40 27.3**	**-0.6**
MBWA	**Marble Bar**	**14.84**	**206**	P	**Pn**	**08 40 33.4**	**-0.5**
AS31	**Alice Springs**	**17.18**	**157**	P	**Pn**	**08 41 02.6**	**+0.5**
AS31				IAmb	IAmb	08 41 07.2	
	comp=Z,7.5nm,0.8s						
ASAR	**Alice Springs**	**17.18**	**157**	P	**Pn**	**08 41 04.5**	**+2.4**
	comp=Z,20nm,0.6s,baz=331,slow=10,SNR=160						
ASAR				S	**S**	**08 44 09.1**	**-0.2**
	comp=Z,1.5nm,0.5s,baz=323,slow=22,SNR=6.2						
ASAR	**Alice Springs**	**17.18**	**157**	P	**Pn**	**08 41 04.9**	**+2.8**
FORT	**Forrest**	**22.85**	**177**	P	**P**	**08 42 01.4**	**+1.8**
STKA	**Stephens Creek**	**27.64**	**152**	P	**P**	**08 42 44.9**	**+2.1**
	comp=Z,1.0nm,0.4s,baz=325,slow=9.2,SNR=6.0						
	comp=Z,1.0nm,0.4s						
TOO	**Toolangi**	**34.15**	**153**	P	**P**	**08 43 40.6**	**+0.9**
TOO				IAmb	IAmb	08 44 00.7	
	comp=Z,6.5nm,1.4s						
CMAR	**Chiang Mai Arr**	**37.85**	**314**	P	**P**	**08 44 10.9**	**-0.4**
	comp=Z,1.3nm,0.3s,baz=143,slow=6.5,SNR=8.6						
	comp=Z,1.3nm,0.3s						
KSRS	**Korea Array**	**45.08**	**1**	P	**P**	**08 45 08.3**	**-1.5**
	comp=Z,1.1nm,0.7s,baz=186,slow=8.6,SNR=3.3						
	comp=Z,1.1nm,0.7s						
HHC	**Hu-ho-hao-te**	**50.42**	**345**	*e*P	**P**	**08 45 52.7**	**+1.8**
HHC				pmax	pmax		
	comp=Z,10.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,2µm,6.7s						
WMQ	**Urumqi**	**62.37**	**329**	*e*P	**P**	**08 47 15.3**	**+0.2**
WMQ				pP	pwP	08 48 04.1	-1.5
WMQ				pmax	pmax		
	comp=Z,28nm,0.6s						
MKAR	**Makanchi Array**	**67.18**	**329**	P	**P**	**08 47 45.0**	**-1.1**
	comp=Z,0.6nm,0.6s,baz=128,slow=7.6,SNR=5.5						
	comp=Z,0.6nm,0.6s						
ZALV	**Zalesovo Beam**	**70.94**	**335**	P	**P**	**08 48 07.1**	**-1.8**
	comp=Z,1.0nm,0.5s,baz=116,slow=6.6,SNR=3.0						
	comp=Z,1.0nm,0.5s						
KURBB	**Kurchatov Arra**	**71.56**	**330**	P	**P**	**08 48 11.8**	**-1.0**
	comp=Z,0.6nm,0.7s,baz=134,slow=5.8,SNR=6.4						
	comp=Z,0.6nm,0.7s						
KURK	**Kurchatov**	**71.57**	**330**	P	**P**	**08 48 11.8**	**-1.1**
KURK	**Kurchatov**	**71.57**	**330**	IAmb	IAmb	08 48 13.3	
	comp=Z,1.5nm,0.5s						
KK31	**Karatay Array**	**71.85**	**320**	P	**P**	**08 48 14.3**	**-0.4**
KK31				IAmb	IAmb	08 48 25.6	
	comp=Z,4.5nm,1.4s						
KKAR	**Karatay Array**	**71.85**	**320**	P	**P**	**08 48 14.2**	**-0.6**
AB31	**Akbulak array**	**81.15**	**322**	P	**P**	**08 49 05.6**	**-1.2**
ABKAR	**Akbulak array**	**81.15**	**322**	P	**P**	**08 49 05.8**	**-1.0**

*SJA **06** 08:52:50.0±0.7, 27°.97S×71°.54W, h8^{km}, ML3.7, MW3.6*

*GUC **06** 08:52:52.1±0.7, 28°.08S×71°.32W, h32^{km}±2^{km}, ML3.4*

ISC 06 08:52:50.0±1.6**, 27°.99S**±0°.03×**71°.50W**±0°.06**, h13**^{km}±10^{km}**, n28, σ1^{s}44**/51**, 2C-1D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	**Llanos de Chal**	**0.43**	**120**	*e*P	**Pb**	**08 52 59.7**	**+0.2**
AC04				*e*S	**Pb**	**08 52 59.7**	**+0.2**
AC04				*e*P	**Pb**	**08 52 59.9**	**+0.5**
AC04	**Llanos de Chal**	**0.43**	**120**	⇑*i*P	**Pb**	**08 52 60.0**	**+0.5**
AC04				*i* S	**Sg**	**08 53 04.7**	**+0.3**
AC04				IAML		08 53 05.3	
	comp=E,9µm,0.3s						
GO03	**Copiapo**	**1.19**	**71**	*e*P	**Pg**	**08 53 13.3**	**+0.5**
GO03				*e*S	**Sg**	**08 53 31.0**	**+2.7**
GO03				IAML		08 53 31.2	
	comp=Z,1µm,0.8s						
GO03	**Copiapo**	**1.19**	**71**	*e*P	**Pb**	**08 53 12.4**	**0.0**
GO03				*i* S	**Sn**	**08 53 27.8**	**-0.5**
GO03				IAML		08 53 35.2	
	comp=N,2µm,0.5s						
AC06	**Mina Casimiro**	**1.19**	**58**	⇓*i*P	**Pg**	**08 53 12.8**	**-0.2**
AC06				*i* S	**Sg**	**08 53 28.6**	**+0.1**
AC06				IAML		08 53 35.4	
	comp=E,939nm,0.3s						
LCO	**Las Campanas**	**1.23**	**146**	*e*P	**Pb**	**08 53 13.2**	**-0.1**
LCO				*e*S	**Sg**	**08 53 30.6**	**+0.6**
LCO				IAML		08 53 31.9	
	comp=Z,1µm,0.2s						
LCO	**Las Campanas**	**1.23**	**146**	*e*P	**Pn**	**08 53 13.1**	**-0.1**
LCO				*e*S	**Sb**	**08 53 28.5**	**-0.8**
AC05	**El Transito**	**1.37**	**128**	*e*P	**Pb**	**08 53 15.6**	**+0.1**
AC05				*e*S	**Sb**	**08 53 33.1**	**+0.2**
AC05				*e*S	**Sg**	**08 53 34.1**	**0.0**
AC05				IAML		08 53 34.2	
	comp=Z,544nm,0.2s						
AC05	**El Transito**	**1.37**	**128**	⇑*i*P	**Pb**	**08 53 15.3**	**-0.2**
AC05				*e*S	**Sn**	**08 53 31.6**	**-1.4**
AC05				IAML		08 53 36.1	
	comp=E,1µm,0.6s						
AC01	**Pan de Azucar**	**2.00**	**24**	*e*P	**Pn**	**08 53 24.6**	**+1.1**
AC01				*i* S	**Sg**	**08 53 53.1**	**-1.3**
AC01				IAML		08 54 02.2	
	comp=E,275nm,0.4s						
GO04	**Tololo Observa**	**2.26**	**165**	*e*P	**Pn**	**08 53 28.7**	**+1.4**
GO04				*e*S	**Sg**	**08 54 00.9**	**-1.8**
GO04				IAML		08 54 07.3	
	comp=Z,844nm,0.9s						
GO04	**Tololo Observa**	**2.26**	**165**	*e*P	**Pn**	**08 53 28.5**	**+1.3**
GO04				*i* S	**Sb**	**08 53 57.6**	**-1.1**
CO01	**Juntas del Tor**	**2.33**	**149**	*e*P	**Pb**	**08 53 30.9**	**-1.1**
CO01				*e*S	**Sn**	**08 53 58.4**	**+1.5**
CO01				IAML		08 54 04.2	
	comp=E,688nm,0.3s						
AC02	**Maricunga**	**2.40**	**62**	*e*P	**Pb**	**08 53 32.9**	**-0.4**
AC02				IAML		08 54 10.7	
	comp=Z,359nm,0.3s						
AC02	**Maricunga**	**2.40**	**62**	*e*P	**Pb**	**08 53 32.5**	**-0.8**
AC02				*i* S	**Sb**	**08 54 02.8**	**-0.2**
AC02				IAML		08 54 11.5	
	comp=E,597nm,0.4s						
CO06	**Fray Jorge**	**2.68**	**183**	*e*P	**Pn**	**08 53 32.8**	**0.0**
CO06				*i* S	**Sn**	**08 54 03.4**	**-1.7**
CO06				IAML		08 54 21.5	
	comp=E,204nm,0.3s						
AROD	**Rodeo**	**2.80**	**141**	*e*P	**Pb**	**08 53 39.2**	**-0.8**
AROD				*e*S	**Sb**	**08 54 15.4**	**+1.0**
VCA	**Vinchina**	**2.99**	**105**	*e*P	**Pb**	**08 53 43.2**	**0.0**
VCA				*e*S	**Sg**	**08 54 24.6**	**-1.6**
VCA				IAML		08 54 30.0	
	comp=Z,199nm,0.5s						
VCA	**Vinchina**	**2.99**	**105**	IAML		08 54 35.2	
	comp=E,280nm,0.4s						
CO02	**Combarbal**	**3.23**	**172**	*e*P	**Pn**	**08 53 41.5**	**+1.0**
CO02				*e*S	**Sn**	**08 54 20.6**	**+1.7**
CO02				IAML		08 54 37.1	
	comp=Z,468nm,0.4s						
ACCO	**Cerro Coronel**	**3.35**	**141**	*e*P	**Pb**	**08 53 47.3**	**-2.1**
ACCO				*e*S	**Sb**	**08 54 29.1**	**-1.0**
ACCO				IAML		08 54 39.9	
	comp=Z,159nm,0.6s						
TINO	**Tinogasta**	**3.47**	**92**	*e*P	**Pb**	**08 53 48.1**	**-3.3**
TINO				*e*S	**Sb**	**08 54 33.1**	**-0.4**
TINO				IAML		08 54 48.0	
	comp=Z,81nm,0.8s						
ACLC	**CERRO LA CRUZ**	**4.24**	**111**	*e*P	**Pn**	**08 53 53.1**	**-1.3**
ACLC				*e*P	Pb	08 53 58.8	-5.7
ACLC				*e*S	**Sb**	**08 54 53.5**	**-2.2**
RTLL	**Cerro Villicun**	**4.24**	**142**	*e*P	Pb	08 53 59.5	-5.0
RTLL				*e*S	**Sn**	**08 54 46.1**	**+2.4**
RTLL				IAML		08 55 04.5	
	comp=Z,106nm,0.5s						
RTLS	**Leoncito**	**4.25**	**154**	*e*P	Pb	08 53 59.8	-5.0
RTLS				*e*S	**Sb**	**08 54 53.1**	**-2.9**
CFA	**Coronel Fontan**	**4.58**	**143**	*e*P	**Pn**	**08 54 03.0**	**+4.0**
CFA				IAML		08 55 17.3	
	comp=Z,42nm,0.7s						
VA03	**San Esteban**	**4.83**	**170**	*e*P	**Pn**	**08 54 04.6**	**+2.1**
VA03				*e*S	**Sb**	**08 55 13.2**	**+0.6**
VA03				IAML		08 55 31.5	
	comp=Z,126nm,0.6s						
PB05	**IPOC Station P**	**5.25**	**13**	*e*P	**Pn**	**08 54 09.5**	**+1.2**
PB05				IAML		08 55 49.2	
	comp=Z,46nm,0.5s						

*UCR **06** 09:12:31.4±0.6, 8°.29N×83°.05W, h10^{km}±3^{km}, MW3.7, Presumed earthquake*

*UPA **06** 09:12:31.6±1.1, 8°.30N×83°.02W, h13^{km}±4^{km}, MW3.1, Presumed earthquake*

ISC 06 09:12:31.4±1.2**, 8°.30N**±0°.05×**83°.05W**±0°.03**, h16**^{km}±9^{km}**, n34, σ0^{s}87**/41**, 2C-6D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LMNES	**Limones**	**0.27**	**137**	*e*P	**Pb**	**09 12 37.8**	**-0.2**
LMNES	**Limones**	**0.27**	**137**	⇑*e*P	**Pb**	**09 12 38.0**	**0.0**
PIRO	**Carate, Puerto**	**0.30**	**289**	*e*P	**Pg**	**09 12 37.9**	**+0.1**
FITO	**Golfito**	**0.34**	**342**	*e*P	**Pg**	**09 12 37.9**	**-0.6**
FITO				*e*S	**Sg**	**09 12 43.3**	**0.0**
NELY	**Ciudad Neily**	**0.36**	**16**	*e*P	**Pg**	**09 12 38.9**	**0.0**
NELY				*e*S	**Sb**	**09 12 45.4**	**+0.5**
NELY	**Ciudad Neily**	**0.36**	**16**	⇓*i*P	**Pg**	**09 12 38.9**	**0.0**
JIME	**Puerto Jimenez**	**0.36**	**310**	*e*P	**Pg**	**09 12 38.8**	**-0.1**
JIME				*e*S	**Sb**	**09 12 45.2**	**+0.3**
VITO	**San Vito**	**0.52**	**9**	*e*P	**Pg**	**09 12 41.8**	**0.0**
VITO	**San Vito**	**0.52**	**9**	⇓*i*P	**Pg**	**09 12 42.1**	**+0.3**
VITO				*e*S	**Sb**	**09 12 51.7**	**+2.1**
SCLRA	**Santa Clara, W**	**0.59**	**27**	*e*P	**Pg**	**09 12 43.4**	**+0.2**
SCLRA	**Santa Clara, W**	**0.59**	**27**	⇓*i*P	**Pg**	**09 12 43.4**	**+0.2**
BRU2	**Volcan**	**0.60**	**36**	*e*P	**Pg**	**09 12 43.4**	**0.0**
BRU2	**Volcan**	**0.60**	**36**	⇓*i*P	**Pg**	**09 12 43.4**	**0.0**
BRU2				*e*S	**Sb**	**09 12 53.6**	**+1.6**
CLLRA	**Cordillera,**	**0.61**	**44**	*e*P	**Pg**	**09 12 43.6**	**0.0**
CLLRA	**Cordillera,**	**0.61**	**44**	*i* P	**Pg**	**09 12 43.7**	**+0.1**
EDP2	**Potrero Grande**	**0.72**	**350**	*e*P	**Pg**	**09 12 45.1**	**-0.5**
BGUAL	**Bijagual, Pana**	**0.74**	**74**	⇑*i*P	**Pg**	**09 12 45.4**	**-0.4**
BGUAL				*e*S	**Sb**	**09 12 57.1**	**+1.3**
BQTLY	**Boquete Panama**	**0.74**	**52**	*e*P	**Pg**	**09 12 45.3**	**-0.5**
BQTLY	**Boquete Panama**	**0.74**	**52**	⇓*i*P	**Pg**	**09 12 45.4**	**-0.5**
PANP	**Palmar Norte**	**0.77**	**328**	*e*P	**Pg**	**09 12 45.4**	**-1.1**
BURE	**Buenos Aires**	**0.91**	**342**	*e*P	**Pg**	**09 12 48.2**	**-1.0**
EDPE	**Pejibaye, P**	**1.00**	**329**	*e*P	**Pg**	**09 12 48.8**	**-1.9**
RBALA	**Bur**	**1.05**	**57**	*e*P	**Pb**	**09 12 50.5**	**-0.8**
RBALA	**Bur**	**1.05**	**57**	⇓*i*P	**Pb**	**09 12 50.5**	**-0.8**
SAJE	**San Jernim**	**1.13**	**336**	*e*P	**Pb**	**09 12 51.5**	**-1.2**
KKNTU	**Kakintº**	**1.34**	**66**	*e*P	**Pn**	**09 12 54.5**	**-1.0**
KKNTU	**Kakintº**	**1.34**	**66**	*i* P	**Pn**	**09 12 54.6**	**-0.9**
KKNTU				*e*S	**Sb**	**09 13 12.3**	**-0.8**
PIEC	**Cerro El Cedra**	**1.59**	**326**	*e*P	**Pn**	**09 12 59.8**	**+0.6**
RAZU	**San Marcos de**	**1.66**	**325**	*e*P	**Pn**	**09 13 00.4**	**+0.3**
PITB	**Pirrs, San**	**1.66**	**325**	*e*P	**Pn**	**09 13 00.7**	**+0.6**
ABE2	**San Pablo**	**1.71**	**325**	*e*P	**Pn**	**09 13 01.7**	**+0.9**
LCR2	**La Lucha 2**	**1.71**	**327**	*e*P	**Pn**	**09 13 01.1**	**+0.3**
LCOCO	**El Coco**	**1.84**	**344**	*e*P	**Pn**	**09 13 04.1**	**+1.7**
ATEO	**Atenas**	**2.12**	**322**	*e*P	**Pn**	**09 13 07.7**	**+1.3**

IDC 06 09:12:53.8±1.1**, 8°.00N**×**37°.41W, h0**^{km}**, mb3.7**/5**, mbtmp3.7**/5**, Error ellipse: s-maj=45.9km s-min=22.9km az=150.0, Central Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BDFB	**Brasilia**	**25.73**	**204**	P	P	09 18 25.4	-0.9
	1.7nm,0.7s,baz=72,slow=6.4,SNR=1.9						
	1.7nm,0.7s						
H10N3	**ASCENSION HYDR**	**27.74**	**124**	T	T	09 47 25.7	
	baz=305,slow=74,SNR=7.8						
H10N2	**ASCENSION HYDR**	**27.74**	**124**	T	T	09 47 26.8	
	baz=305,slow=74,SNR=13						
H10N1	**ASCENSION HYDR**	**27.76**	**124**	T	T	09 47 28.1	
	baz=305,slow=74,SNR=20						
H10S3	**ASCENSION HYDR**	**28.24**	**126**	T	T	09 48 02.5	
	baz=279,slow=74,SNR=13						
H10S2	**ASCENSION HYDR**	**28.26**	**126**	T	T	09 48 02.3	
	baz=301,slow=74,SNR=7.9						
TORD	**Torodi Ar. Bea**	**38.75**	**79**	P	P	09 20 20.0	-0.3
	1.1nm,0.5s,baz=274,slow=8.9,SNR=14						
	1.1nm,0.5s						
LPAZ	**La Paz**	**38.82**	**231**	P	P	09 20 22.3	+0.8
	1.4nm,0.8s,baz=48,slow=4.5,SNR=7.9						
	1.4nm,0.8s						
TXAR	**Lajitas Array**	**65.44**	**299**	P	P	09 23 38.4	-0.6
	0.1nm,0.6s,baz=114,slow=8.1,SNR=1.5						
	0.1nm,0.6s						
BRTR	**Keskin Array B**	**70.36**	**51**	P	P	09 24 10.6	+0.6
	0.3nm,0.5s,baz=273,slow=4.8,SNR=2.3						
	0.3nm,0.5s						

IDC 06 09:37:53.4±19.0**, 7°.45S**×**114°.57E, h170**^{km}±142^{km}**, mb3.3**/3**, mbtmp3.7**/4**, ML2.9**/1**, MS3.8**/1**, Error ellipse: s-maj=141.0km s-min=114.2km az=69.0, Bali Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**15.12**	**136**	P	P	09 41 19.4	-0.2
	baz=318,slow=12,SNR=1.3						
FITZ				S	Sn	09 44 07.2	+0.1
	1.3nm,0.9s,baz=259,slow=17,SNR=1.4						
	1.1nm,0.9s						
WRA	**Warramunga Arr**	**22.84**	**125**	P	P	09 42 41.5	-0.7
	0.3nm,0.4s,baz=297,slow=12,SNR=16						
	0.3nm,0.4s						
ASAR	**Alice Springs**	**24.59**	**133**	P	P	09 42 58.0	0.0
	0.9nm,0.5s,baz=309,slow=8.3,SNR=23						
	0.9nm,0.5s						
NWAO	**Narrogin (SRO)**	**25.48**	**175**	LR	LR	09 52 33.5	
	comp=Z,198nm,19.6s,baz=256,slow=34						
STKA	**Stephens Creek**	**35.00**	**138**	P	P	09 44 30.1	+0.4
	1.4nm,0.4s,baz=307,slow=8.1,SNR=8.5						
	1.4nm,0.4s						

*IDC **06** 09:48:23.8±1.6, 17°.06S×167°.67E, h0^{km}, mb4.3/6, mbtmp4.3/7, ML4.0/1, MS4.0/1, Error ellipse: s-maj=36.9km s-min=21.4km az=82.0*

*NOU **06** 09:48:24.8, 17°.16S×167°.80E, h3^{km}, MLv4.7/23, Vanuatu Islands*

*NEIC **06** 09:48:25.2±1.9, 17°.12S±0°.06×167°.79E±0°.06, h10^{km}±1^{km}, mb4.6/14, Error ellipse: s-maj=11.6km s-min=8.1km az=50.0*

ISC 06 09:48:27.0±0.6**, 17°.18S**±0°.07×**167°.81E**±0°.08**, h21**^{km}**, n60, σ1^{s}02**/53**, mb4.6**/14**, 3C, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTV	**Rentapao**	**0.85**	**136**	P	**Pb**	**09 48 41.6**	**-1.4**
RTV	**Rentapao**	**0.85**	**136**	S	**Sb**	**09 48 53.4**	**-0.5**
SANVU	**Saraoutou**	**1.81**	**341**		**Pn**	**09 48 55.1**	**-1.9**
MARNC	**Mare, Loyalty**	**4.29**	**177**	P	**Pn**	**09 49 30.2**	**-0.8**
MARNC	**Mare, Loyalty**	**4.29**	**177**	Pn	**Pn**	**09 49 29.8**	**-1.2**
KOUNC	**Koumac, New Ca**	**4.73**	**224**	P	**Pn**	**09 49 36.1**	**-1.0**
KOUNC	**Koumac, New Ca**	**4.73**	**224**		**Pn**	**09 49 36.0**	**-1.2**
YATNC	**Mamie plateau,**	**4.94**	**190**	P	**Pn**	**09 49 39.2**	**-0.7**
DZM	**Mont Dzumac**	**5.04**	**195**	Pn	**Pn**	**09 49 40.0**	**-1.4**
	5.1nm,0.3s,baz=191,slow=5.5,SNR=23						
DZM				Sn	**Sn**	**09 50 37.0**	**-2.1**
	baz=120,slow=20						
	12nm,0.4s						
DZM				AML	AML		
NOUC	**Port Laguerre**	**5.10**	**196**	P	**Pn**	**09 49 41.8**	**-0.4**
ONTNC	**Ouen Toro**	**5.26**	**194**	P	**Pn**	**09 49 45.8**	**+1.4**
ONTNC	**Ouen Toro**	**5.26**	**194**		**Pn**	**09 49 45.0**	**+0.6**
OUENC	**Ouen Island, N**	**5.29**	**190**	P	**Pn**	**09 49 45.2**	**+0.3**
OUENC	**Ouen Island, N**	**5.29**	**190**	Pn	**Pn**	**09 49 44.5**	**-0.4**
NGOA	**Tingoa Renbel**	**9.36**	**306**	P	**Pn**	**09 50 41.2**	**+0.5**
TATA	**Tatamba Isabel**	**11.71**	**317**	P	**Pn**	**09 51 13.7**	**+0.8**
EIDS	**Eidsvold**	**17.58**	**240**	P	**Pn**	**09 52 31.0**	**+0.2**
URZ	**Urewera**	**22.53**	**161**	P	**P**	**09 53 26.9**	**+1.4**
BKZ	**Black Stump Fm**	**23.18**	**163**	P	**P**	**09 53 33.8**	**+1.5**
QLP	**Quilpie**	**23.76**	**243**	P	**P**	**09 53 39.6**	**+1.5**
THZ	**Tophouse**	**24.89**	**171**	P	**P**	**09 53 49.3**	**+1.0**
PLWZ	**Palliser**	**25.14**	**167**	P	**P**	**09 53 50.7**	**+0.1**
STKA	**Stephens Creek**	**27.89**	**233**	P	**P**	**09 54 16.1**	**+0.6**
	3.4nm,1.0s,baz=71,slow=8.5,SNR=7.0						
	3.4nm,1.0s						
WB0	**Warramunga Arr**	**31.77**	**260**	P	**P**	**09 54 49.1**	**-0.9**
WB0				IAmb	IAmb	09 55 17.6	
	comp=Z,15nm,1.4s						
WRA	**Warramunga Arr**	**31.82**	**260**	P	**P**	**09 54 48.5**	**-2.0**
	comp=Z,1.1nm,0.8s,baz=90,slow=8.8,SNR=7.5						
	comp=Z,1.1nm,0.8s						
WRA	**Warramunga Arr**	**31.82**	**260**	P	**P**	**09 54 50.4**	**-0.1**
AS31	**Alice Springs**	**32.37**	**253**	P	**P**	**09 54 54.2**	**-1.1**
AS31				IAmb	IAmb	09 55 03.1	
	comp=Z,2.3nm,0.6s						
ASAR	**Alice Springs**	**32.37**	**253**	P	**P**	**09 54 54.8**	**-0.5**
	comp=Z,3.1nm,0.4s,baz=80,slow=8.5,SNR=130						
	comp=Z,3.1nm,0.4s						
ASAR	**Alice Springs**	**32.37**	**253**	P	**P**	**09 54 54.4**	**-0.9**
FITZ	**Fitzroy Crossi**	**40.14**	**262**	P	**P**	**09 56 01.1**	**-0.6**
PPT	**Papeete**	**40.61**	**97**	LR	LR	10 10 02.5	
	comp=Z,194nm,19.0s,baz=293,slow=32						
MORW	**Morawa**	**48.72**	**246**	P	**P**	**09 57 09.3**	**-1.0**
SBA	**Scott Base**	**60.71**	**180**	P	**P**	**09 58 37.3**	**+0.9**
SBA				IAmb	IAmb	09 58 54.4	
	comp=Z,5.8nm,1.0s						
CASY	**Casey**	**61.48**	**203**	P	**P**	**09 58 42.8**	**+1.1**
CASY				IAmb	IAmb	09 58 55.6	
	comp=Z,2.5nm,0.9s						
QSPA	**South Pole Qui**	**72.87**	**180**	P	**P**	**09 59 55.5**	**+1.3**
	comp=Z,6.2nm,0.8s,baz=360,slow=1.5,SNR=36						
	comp=Z,6.2nm,0.8s						
QSPA	**South Pole Qui**	**72.87**	**180**	P	**P**	**09 59 55.2**	**+1.0**
QSPA				IAmb	IAmb	10 00 03.7	
	comp=Z,13nm,1.0s						
MAW	**Mawson**	**79.83**	**202**	P	**P**	**10 00 33.5**	**+0.1**
BELA	**Belgrano 2**	**84.26**	**175**	P	**P**	**10 00 56.7**	**+0.1**
SONM	**Songino Array**	**84.76**	**324**	P	**P**	**10 00 59.6**	**-0.1**
	comp=Z,0.3nm,0.3s,baz=116,slow=3.4,SNR=1.7						
	comp=Z,0.3nm,0.3s						
SONM	**Songino Array**	**84.76**	**324**	P	**P**	**10 00 58.9**	**-0.8**
SONM				IAmb	IAmb	10 01 13.2	
	comp=Z,3.8nm,1.5s						
SCM	**Sheep Creek Mo**	**86.38**	**20**	P	**P**	**10 01 08.1**	**+0.8**
SCM				IAmb	IAmb	10 01 14.1	
	comp=Z,12nm,1.5s						
KLU	**Klutina**	**86.59**	**20**	P	**P**	**10 01 07.3**	**-1.1**
KLU				IAmb	IAmb	10 01 08.6	
	comp=Z,2.5nm,0.7s						
TROLL	**Troll, Antarti**	**90.48**	**185**	⇑P	**P**	**10 01 27.6**	**+0.6**
	comp=Z,300nm,1.0s						
SNAA	**Sanae**	**91.15**	**183**	P	**P**	**10 01 30.5**	**+0.5**
	comp=Z,94nm,1.1s						
SNAA	**Sanae**	**91.15**	**183**	P	**P**	**10 01 30.4**	**+0.4**
	comp=Z,2.4nm,0.7s,baz=228,slow=7.9,SNR=4.5						
	comp=Z,2.4nm,0.7s						
VNA3	**Neumayer Olymp**	**91.79**	**181**	⇑P	**P**	**10 01 32.9**	**0.0**
	comp=Z,5.0nm,0.8s						
VNA2	**Neumayer--Watz**	**92.06**	**182**	⇑P	**P**	**10 01 34.4**	**+0.2**
	comp=Z,5.5nm,0.8s,baz=166,slow=4.0						
CONA	**Conrad Observa**	**141.68**	**329**	*e*PKP	**PKPdf**	**10 07 57.4**	**+0.5**
	comp=Z,3.0nm,1.5s						
GERES	**GERESS Array B**	**142.04**	**332**	PKhKP	PKPpre	10 07 54.2	
	comp=Z,0.4nm,0.5s,baz=45,slow=0.2,SNR=4.3						
MOA	**Molln**	**142.50**	**330**	*e*PKP	**PKPdf**	**10 07 57.8**	**-0.5**
	comp=Z,3.1nm,1.4s						
SOKA	**Soboth**	**142.95**	**328**	*e*PKP	**PKPdf**	**10 07 57.9**	**-1.3**
	comp=Z,1.8nm,1.3s						
KBA	**Koelnbreinsper**	**143.49**	**330**	*e*PKP	PKPbc	10 07 59.0	+1.4
	comp=Z,2.0nm,0.9s						
LESA	**Schwarzleotal**	**143.55**	**331**	*e*PKiKP	**PKPdf**	**10 08 01.9**	**+1.6**
	comp=Z,3.2nm,1.0s						
ABTA	**Abfaltersbach**	**144.13**	**331**	*e*PKP	**PKPdf**	**10 08 02.6**	**+1.2**
	comp=Z,1.9nm,1.1s						
WTTA	**Wattenberg**	**144.15**	**332**	*e*PKiKP	**PKiKP**	**10 08 04.0**	**-1.0**
	comp=Z,5.4nm,1.2s						
MOTA	**Moosalm**	**144.32**	**333**	*i* PKP	PKPbc	10 08 01.1	+1.0
	comp=Z,3.4nm,0.7s						
RETA	**Reutte**	**144.36**	**333**	*e*PKP	PKPbc	10 08 00.7	+0.7
	comp=Z,3.1nm,1.1s						
SQTA	**Sankt Quirin**	**144.37**	**332**	*e*PKP	PKPbc	10 08 01.2	+1.0
	comp=Z,1.7nm,0.6s						
FETA	**Feichten**	**144.73**	**333**	*e*PKP	PKPbc	10 08 01.9	+0.6
	comp=Z,5.3nm,0.8s						
DAVA	**Damuels**	**144.90**	**334**	*e*PKP	PKPbc	10 08 02.4	+0.5
	comp=Z,3.0nm,0.7s						

*NEIC **06** 10:03:19.7±1.0, 19°.42N±0°.08×65°.76W±0°.05, h10^{km}±15^{km}, ML2.8/35, Md3.6/13(RSPR), Error ellipse: s-maj=13.1km s-min=5.5km az=201.0*

*RSPR **06** 10:03:20.0, 19°.57N×65°.55W, h43^{km}±10^{km}, MD3.6/13*

ISC 06 10:03:17.2±2.7**, 19°.5N**±0°.1×**65°.69W**±0°.08**, h5**^{km}±14^{km}**, n44, σ0^{s}92**/52**, 6C-10D, Puerto Rico region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EMPR	**Esperanza - Ma**	**1.29**	**218**		**Pg**	**10 03 42.6**	**+0.6**
EMPR					**Sb**	**10 04 00.1**	**+1.1**
EMPR	**Esperanza - Ma**	**1.29**	**218**	⇑*e*P	**Pg**	**10 03 42.6**	**+0.6**
EMPR				*e*S	**Sb**	**10 04 00.1**	**+1.1**
ECPR	**Experimental S**	**1.34**	**208**		**Pb**	**10 03 42.2**	**-0.6**
ECPR				IAML		10 04 03.3	
	240nm,0.2s						
ECPR				IAML		10 04 07.5	
	297nm,0.2s						
ECPR	**Experimental S**	**1.34**	**208**		**Sb**	**10 04 00.8**	**+0.4**
ECPR	**Experimental S**	**1.34**	**208**	⇓*e*P	**Pb**	**10 03 42.6**	**-0.2**
HUMP	**Col San Antoni**	**1.37**	**186**		**Pb**	**10 03 42.9**	**-0.3**
HUMP				IAML		10 04 08.4	
	103nm,0.2s						
HUMP	**Col San Antoni**	**1.37**	**186**		**Sn**	**10 04 00.7**	**-0.8**
HUMP	**Col San Antoni**	**1.37**	**186**	⇓*e*P	**Pb**	**10 03 42.5**	**-0.8**
PDPR	**Patillas Dam,**	**1.51**	**192**		**Pb**	**10 03 44.8**	**-1.0**
PDPR				IAML		10 04 06.7	
	82nm,0.6s						
PDPR	**Patillas Dam,**	**1.51**	**192**		**Sn**	**10 04 04.6**	**-0.5**
PDPR	**Patillas Dam,**	**1.51**	**192**	⇓*e*P	**Pb**	**10 03 45.0**	**-0.8**
AOPR	**Arecibo Observ**	**1.53**	**221**		**Pn**	**10 03 44.9**	**-0.3**
AOPR				IAML		10 04 10.6	
	204nm,0.5s						
AOPR	**Arecibo Observ**	**1.53**	**221**		**Sn**	**10 04 05.3**	**-0.3**
AOPR	**Arecibo Observ**	**1.53**	**221**	⇑*e*P	**Pb**	**10 03 45.4**	**-0.6**
IGPR	**InterUniversit**	**1.58**	**194**		**Pb**	**10 03 46.1**	**-0.8**
IGPR					**Sn**	**10 04 06.3**	**-0.5**
IGPR	**InterUniversit**	**1.58**	**194**	⇑*e*P	**Pb**	**10 03 46.1**	**-0.8**
CELP	**Cerrillos**	**1.65**	**211**		**Pn**	**10 03 46.5**	**-0.4**
CELP	**Cerrillos**	**1.65**	**211**		**Sn**	**10 04 08.7**	**+0.1**

CELP	Cerrillos	1.65	211	⇑*e*P	Pb	10 03 47.3	-0.9
AGPR	Aguadilla, PR	1.69	233	Pn	Pb	10 03 48.6	-0.3
AGPR				IAML		10 04 10.5	
	92nm,1.9s						
AGPR				IAML		10 04 24.6	
	72nm,1.5s						
AGPR	Aguadilla, PR	1.69	233		Sb	10 04 10.5	-0.1
AGPR	Aguadilla, PR	1.69	233	⇓*e*P	Pb	10 03 48.3	-0.5
OBIP	Obispado Ponce	1.69	211		Pn	10 03 46.4	-1.1
OBIP	Obispado Ponce	1.69	211		Sn	10 04 09.4	-0.2
OBIP	Obispado Ponce	1.69	211	⇓*e*P	Pn	10 03 47.4	-0.1
OBIP				*e*S	Sn	10 04 09.4	-0.2
LSP	Las Mesas	1.87	225		Pb	10 03 50.4	-1.5
LSP					Sn	10 04 14.3	+0.4
LSP	Las Mesas	1.87	225	⇓*e*P	Pb	10 03 50.4	-1.5
LSP				*e*S	Sn	10 04 14.3	+0.4
PRSN	Puerto Rico Se	1.88	227		Pn	10 03 49.7	-0.3
PRSN				IAML		10 04 20.0	
	180nm,0.2s						
PRSN	Puerto Rico Se	1.88	227		Sn	10 04 14.6	+0.4
PRSN	Puerto Rico Se	1.88	227	⇓*e*P	Pb	10 03 50.5	-1.5
GBPR	Guanica, Bosqu	1.89	217		Pb	10 03 50.9	-1.3
GBPR	Guanica, Bosqu	1.89	217	⇓*e*P	Pb	10 03 50.9	-1.3
MLPR	Magueyes Islan	2.00	220	Pn	Pn	10 03 51.4	-0.2
MLPR	Magueyes Islan	2.00	220		Sn	10 04 17.4	+0.4
MLPR	Magueyes Islan	2.00	220	⇓*e*P	Pb	10 03 52.2	-1.8
CRPR	Cabo Rojo, PR	2.01	222		Pn	10 03 52.3	+0.5
CRPR				IAML		10 04 29.9	
	70nm,0.8s						
CRPR	Cabo Rojo, PR	2.01	222		Sn	10 04 18.1	+0.8
CRPR	Cabo Rojo, PR	2.01	222	⇓*e*P	Pb	10 03 52.9	-1.4
IDE	Isla Desecheo	2.02	237		Pb	10 03 52.7	-1.8
IDE					Sn	10 04 18.3	+0.6
IDE	Isla Desecheo	2.02	237	⇑*e*P	Pb	10 03 52.7	-1.8
IDE				*e*S	Sn	10 04 18.3	+0.6
PCDR	Punta Cana, DR	2.73	249	Pn	Pn	10 04 01.7	0.0
PCDR	Punta Cana, DR	2.73	249	⇑*e*P	Pn	10 04 02.5	+0.7
CBE	Ff, Capester	5.18	131	Pn	Pn	10 04 37.2	+1.8
SDDR	Presa de Saban	5.31	265	Pn	Pn	10 04 38.0	+0.7

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*IDC **06** 10:09:28.1±0.7, 17.°02S×167.°77E, h0^{km}, mb4.2/13, mbtmp4.2/14, ML3.7/1, MS3.4/4, Error ellipse: s-maj=23.9km s-min=14.2km az=98.0*

*NEIC **06** 10:09:29.6±1.3, 17.°08S±0.°06×167.°7E±0.°1, h7^{km}±5^{km}, mb4.7/16, Error ellipse: s-maj=18.1km s-min=7.8km az=83.0*

*NOU **06** 10:09:29.5, 17.°13S×167.°87E, h12^{km}, MLv4.7/24, Vanuatu Islands*

ISC 06 10:09:31.0±0.5, 17.°10S±0.°05×167.°81E±0.°08, h21^{km}, n80, σ1.^{s}02/75, mb4.5/21, MS3.2/3, 4C, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTV	Rentapao	0.90	140	P	Pb	10 09 46.5	-1.4
RTV	Rentapao	0.90	140	S	Sb	10 09 58.1	-1.3
SANVU	Saraoutou	1.75	340	P	Pn	10 09 59.4	-0.7
SANVU	Saraoutou	1.75	340	S	Sb	10 10 22.3	-1.6
SANVU	Saraoutou	1.75	340		Pn	10 09 58.8	-1.2
MARNC	Mare, Loyalty	4.36	177	P	Pn	10 10 34.9	-1.1
MARNC	Mare, Loyalty	4.36	177	Pn	Pn	10 10 34.9	-1.1
KOUNC	Koumac, New Ca	4.79	224	P	Pn	10 10 41.5	-0.4
KOUNC	Koumac, New Ca	4.79	224		Pn	10 10 41.2	-0.6
YATNC	Mamie plateau,	5.00	190	P	Pn	10 10 44.1	-0.8
DZM	Mont Dzumac	5.11	194	Pn	Pn	10 10 46.2	-0.2
	2.9nm,0.3s,baz=43,slow=10,SNR=44						
DZM				Sn	Sn	10 11 43.1	-1.6
	baz=315,slow=20 24nm,0.6s						
DZM				AML	AML		
NOUC	Port Laguerre	5.17	196	P	Pn	10 10 46.2	-0.9
ONTNC	Ouen Toro	5.33	194	P	Pn	10 10 49.8	+0.4
ONTNC	Ouen Toro	5.33	194		Pn	10 10 49.9	+0.5
OUENC	Ouen Island, N	5.37	190	P	Pn	10 10 50.1	+0.3
OUENC	Ouen Island, N	5.37	190	Pn	Pn	10 10 50.0	+0.1
NGOA	Tingoa Renbel	9.32	305	P	Pn	10 11 45.1	+1.0
HNR	Honiara	10.80	314	LR	LR	10 15 42.3	
	comp=Z,168nm,22.0s,baz=202,slow=35						
HNR	Honiara	10.80	314	Pn	Pn	10 12 02.8	-1.7
TATA	Tatamba Isabel	11.66	317	P	Pn	10 12 17.0	+0.7
CTA	Charters Tower	20.65	258	P	P	10 14 09.6	+0.2
	6.0nm,0.8s,baz=97,slow=7.8,SNR=5.3 6.0nm,0.8s						
CTAO	Charters Tower	20.65	258		P	10 14 09.9	+0.5
PMG	Port Moresby	21.50	288	LR	LR	10 21 34.0	
	comp=Z,249nm,18.4s,baz=118,slow=34						
TOZ	Tahuroa Road	21.63	163	P	P	10 14 21.3	+1.5
TOZ				IAmb	IAmb	10 14 25.4	
	comp=Z,32nm,1.0s						
MSWZ	Moikau Station	25.06	167	P	P	10 14 54.5	+0.7
RPZ	Rata Peaks	26.67	175	LR	LR	10 25 26.0	
	comp=Z,52nm,19.4s,baz=192,slow=36						
STKA	Stephens Creek	27.93	233	P	P	10 15 20.6	+0.8
	comp=Z,3.2nm,0.7s,baz=56,slow=8.8,SNR=6.4 comp=Z,3.2nm,0.7s						
WB0	Warramunga Arr	31.79	260	P	P	10 15 53.2	-1.0
WB0				IAmb	IAmb	10 16 06.8	
	comp=Z,20nm,1.5s						
WRA	Warramunga Arr	31.84	260	P	P	10 15 53.5	-1.1
	comp=Z,2.6nm,0.8s,baz=81,slow=6.0,SNR=22						
WRA				PcP	PcP	10 18 46.0	+0.6
	comp=Z,0.4nm,0.8s,baz=95,slow=3.8,SNR=2.3 comp=Z,2.6nm,0.8s						
WRA	Warramunga Arr	31.84	260	P	P	10 15 52.9	-1.7
AS31	Alice Springs	32.39	253	P	P	10 15 59.1	-0.5
AS31				IAmb	IAmb	10 15 59.9	
	comp=Z,3.0nm,0.5s						
ASAR	Alice Springs	32.40	253	P	P	10 15 59.0	-0.5
	comp=Z,5.8nm,0.5s,baz=80,slow=8.7,SNR=159						
ASAR				PcP	PcP	10 18 47.1	+0.1
	comp=Z,0.6nm,0.8s,baz=96,slow=4.1,SNR=3.3 comp=Z,5.8nm,0.5s						
ASAR	Alice Springs	32.40	253	P	P	10 15 58.6	-1.0
KNRA	Kununurra	37.45	266	P	P	10 16 41.6	-1.6
KNRA				IAmb	IAmb	10 16 56.1	
	comp=Z,13nm,1.4s						
GUMO	Guam	37.99	322	LR	LR	10 34 12.0	
	comp=Z,38nm,18.3s,baz=162,slow=39						
FITZ	Fitzroy Crossi	40.15	262	P	P	10 17 05.3	-0.5
MBWA	Marble Bar	45.48	257	P	P	10 17 48.9	-0.1
JGF	Kuroka	59.84	331	P	P	10 19 34.7	-0.3
VNDA	Vanda	60.51	181	P	P	10 19 39.7	+0.6
	comp=Z,1.3nm,1.0s,baz=26,slow=4.9,SNR=3.8 comp=Z,1.3nm,1.0s						
SBA	Scott Base	60.78	180	P	P	10 19 42.4	+1.6
SBA				IAmb	IAmb	10 19 52.7	
	comp=Z,11nm,1.1s						
CASY	Casey	61.55	203	P	P	10 19 46.5	+0.3
CASY				IAmb	IAmb	10 20 29.1	
	comp=Z,3.4nm,1.1s						
JKA	Kamikawa-asahi	65.14	340	P	P	10 20 11.2	+1.0
JKA				IAmb	IAmb	10 20 25.9	
	comp=Z,13nm,1.4s						
USRK	Ussuriysk Ar.	69.23	333	P	P	10 20 36.7	+0.5
	comp=Z,1.2nm,0.7s,baz=106,slow=4.2,SNR=4.2 comp=Z,1.2nm,0.7s						
USRK	Ussuriysk Ar.	69.23	333	P	P	10 20 36.2	+0.1
PETK	Petropavlovsk-	70.47	354	P	P	10 20 44.4	+0.8
QSPA	South Pole Qui	72.94	180	P	P	10 20 59.8	+1.2
	comp=Z,16nm,0.9s,baz=22,slow=1.4,SNR=54 comp=Z,16nm,0.9s						
QSPA	South Pole Qui	72.94	180	P	P	10 20 59.9	+1.2
CMAR	Chiang Mai Arr	76.39	294	P	P	10 21 20.4	+1.1
	comp=Z,0.7nm,0.7s,baz=138,slow=5.1,SNR=5.7 comp=Z,0.7nm,0.7s						
CMAR	Chiang Mai Arr	76.39	294	P	P	10 21 19.2	-0.1
MAW	Mawson	79.89	202	P	P	10 21 39.2	+1.4
	comp=Z,1.9nm,0.8s,baz=80,slow=9.7,SNR=4.6 comp=Z,1.9nm,0.8s						
MAW	Mawson	79.89	202	P	P	10 21 39.1	+1.2
BELA	Belgrano 2	84.33	175	P	P	10 22 01.3	+0.3
SONM	Songino Array	84.71	324	P	P	10 22 04.1	+0.7
	comp=Z,2.3nm,0.9s,baz=141,slow=4.9,SNR=7.7 comp=Z,2.3nm,0.9s						
SONM	Songino Array	84.71	324	P	P	10 22 03.2	-0.2
SONM				IAmb	IAmb	10 22 05.6	
	comp=Z,6.0nm,1.3s						
NVAR	Mina Array Bea	88.42	49	P	P	10 22 22.4	+0.4
	comp=Z,1.6nm,1.1s,baz=225,slow=7.6,SNR=7.9 comp=Z,1.6nm,1.1s						
ILAR	Eielson Array	88.61	18	P	P	10 22 20.9	-1.1
	comp=Z,0.2nm,0.8s,baz=228,slow=5.4,SNR=1.5 comp=Z,0.2nm,0.8s						
TROLL	Troll, Antarti	90.55	185	⇑P	P	10 22 31.9	+0.6
	comp=Z,438nm,0.9s						
SNAA	Sanae	91.22	183	⇑P	P	10 22 35.3	+1.0
	comp=Z,75nm,0.7s						
SNAA	Sanae	91.22	183	P	P	10 22 34.5	+0.2
	comp=Z,7.7nm,1.2s,baz=141,slow=5.0,SNR=5.0 comp=Z,7.7nm,1.2s						
VNA3	Neumayer Olymp	91.86	181	⇑P	P	10 22 37.2	-0.1
	comp=Z,5.1nm,0.7s						
VNA2	Neumayer--Watz	92.14	182	⇑P	P	10 22 38.9	+0.4
	comp=Z,5.0nm,0.7s,baz=158,slow=3.4						
RONA	Rosalia, Austr	141.57	329	*e*PKP	PKPdf	10 28 59.2	-1.5
	comp=Z,1.9nm,1.0s						
GERES	GERESS Array B	141.98	332	PKP	PKPdf	10 29 01.0	-0.5
	comp=Z,0.3nm,0.3s,baz=31,slow=3.1,SNR=3.9						
ARSA	Arzberg	142.26	329	*e*PKP	PKPdf	10 28 59.9	-2.1
	comp=Z,2.4nm,1.3s						
MOA	Molln	142.44	331	*e*PKP	PKPdf	10 28 59.2	-3.0
	comp=Z,4.7nm,1.4s						
SOKA	Soboth	142.90	329	*i* PKP	PKPdf	10 29 00.5	-2.6
	comp=Z,2.5nm,1.3s						
OBKA	Obir	143.25	329	*e*PKP	PKPbc	10 29 01.0	+0.2
	comp=Z,1.3nm,0.6s						
KBA	Koelnbreinsper	143.43	330	*e*PKP	PKPbc	10 29 01.8	+0.4
	comp=Z,4.2nm,1.1s						
LESA	Schwarzleotal	143.49	331	*i* PKP	PKPbc	10 29 02.1	+0.7
	comp=Z,7.2nm,1.4s						
WATA	Walderalm	144.06	332	*e*PKP	PKPdf	10 29 05.4	+0.2
	comp=Z,2.9nm,1.0s						
ABTA	Abfaltersbach	144.07	331	*i* PKP	PKPbc	10 29 03.3	+0.1
	comp=Z,8.0nm,1.5s						
WTTA	Wattenberg	144.08	332	*e*PKP	PKPdf	10 29 04.7	-0.7
	comp=Z,2.8nm,0.8s						
MOTA	Moosalm	144.26	333	*e*PKP	PKPbc	10 29 04.4	+0.5
	comp=Z,3.5nm,1.2s						
RETA	Reutte	144.30	333	*e*PKP	PKPdf	10 29 04.7	-0.8
	comp=Z,2.1nm,0.6s						
SQTA	Sankt Quirin	144.31	332	*e*PKP	PKPbc	10 29 04.4	+0.4
	comp=Z,5.8nm,1.0s						
FETA	Feichten	144.67	333	*e*PKP	PKPdf	10 29 06.1	-0.2
	comp=Z,4.1nm,0.8s						
DAVA	Damuels	144.83	334	*e*PKP	PKPdf	10 29 06.6	-0.1
	comp=Z,5.3nm,0.7s						
DAVOX	Davos/Dischmat	145.23	333	PKPbc	PKPdf	10 29 08.0	+0.6
	comp=Z,6.0nm,0.7s,baz=355,slow=2.8,SNR=14						
KEST	Kesra	153.35	318	PKPbc	PKPbc	10 29 27.1	-1.0
	comp=Z,3.2nm,1.0s,baz=56,slow=4.2,SNR=2.4						
KEST				PKPab	PKPab	10 29 40.0	-0.1
	comp=Z,4.7nm,1.0s,baz=51,slow=9.2,SNR=3.7						
TORD	Torodi Ar. Bea	166.03	256	PKP	PKPdf	10 29 35.4	0.0
	comp=Z,0.5nm,0.7s,baz=81,slow=1.7,SNR=3.6						
TORD				PKPab	PKPab	10 30 35.3	-0.4
	comp=Z,1.0nm,0.7s,baz=101,slow=3.2,SNR=4.2						

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*TEH **06** 10:21:55.4, 29.°51N×51.°99E, h8^{km}±24^{km}, ML3.6, Presumed earthquake*

*OMAN **06** 10:21:58.6±0.9, 29.°30N×52.°07E, h10^{km}, mb3.5/11, ml3.8/7, Error ellipse: s-maj=11.4km s-min=4.4km az=22.0*

*DSN **06** 10:21:59.7±1.1, 29.°14N×52.°02E, h10^{km}, ML3.9/9, Error ellipse: s-maj=16.8km s-min=6.0km az=13.0*

ISC 06 10:21:56.3±0.9, 29.°46N±0.°05×52.°04E±0.°04, h10^{km}, n52, σ1.^{s}22/66, Southern Iran

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAZ2	Kazeron-Fars-I	0.37	295	Pg	Pg	10 22 01.7	-1.9
SHI	Shiraz	0.45	66	Pg	Pg	10 22 04.4	-0.7
SHI				Sg	Sb	10 22 12.6	-0.6
DSBU	Dashti - Bushe	1.29	212	Pg	Pn	10 22 20.8	+0.4
KLNJ	Kolanjah	1.59	346	Pg	Pn	10 22 24.2	-0.7
JHRM	Jahrom	1.65	125	Pg	Pg	10 22 27.7	-0.2
KHL1	Khalili_Fars	2.12	148	Pn	Pb	10 22 34.2	-0.7
TAFT	Taft - Yazd	2.91	39	Pn	Pn	10 22 44.6	+1.7
IGAR	Gharneh	2.94	360	Pn	Pn	10 22 43.9	+0.6
JHBN	Jahan bin	3.01	337	Pn	Pn	10 22 44.7	+0.4
AMIS	Naft Sefid	3.24	313	Pn	Pn	10 22 47.9	+0.6
IZEF	Zefreh	3.44	4	Pn	Pn	10 22 51.2	+1.1
ICHK	Chekchek	3.44	36	Pn	Pn	10 22 51.8	+1.6
KBD	Kabd	3.81	267	P	Pn	10 22 56.5	+1.5
KBD				S	Sn	10 23 41.7	+1.8
KHGB	Koh Gabri	3.96	76	Pn	Pn	10 22 59.1	+1.8
ANAR	Anarak	3.99	21	Pn	Pn	10 22 58.5	+0.9
NGRK	Negar Kerman	4.09	86	Pn	Pn	10 23 01.2	+2.0
JRN	Qarnain Island	4.55	171	P	Pn	10 23 07.6	+2.4
SHME	Shamm	4.97	132	P	Pn	10 23 12.9	+1.9
SHME				S	Sn	10 24 09.1	+0.5
BANOM	Banah	5.16	132	P	Pn	10 23 15.2	+1.5
BANOM				S	Sn	10 24 14.1	+0.8
SLWR	Sila	5.38	183	P	Pn	10 23 18.6	+2.0
SLWR				S	Sn	10 24 19.9	+1.3
MASF	Masafi	5.47	137	P	Pn	10 23 19.5	+1.5
	SNR=6.0						
MASF				S	Sn	10 24 21.2	+0.2
MSFE	Esma-Masafi	5.48	137	P	Pn	10 23 18.6	+0.5
NAZ	Nazwa, Dubai	5.49	143	P	Pn	10 23 20.3	+2.1
NAZ	Nazwa, Dubai	5.49	143	P	Pn	10 23 19.4	+1.2
GHWR	Ruwais	5.52	172	P	Pn	10 23 20.3	+1.7
AJN	Ajban	5.54	151	P	Pn	10 23 20.6	+1.8
MDH	Madha	5.61	137	P	Pn	10 23 20.8	+1.0
MDH				S	Sn	10 24 24.0	-0.3
MDH	Madha	5.61	137	P	Pn	10 23 19.5	-0.3
ASUD	Al Ashush, Dub	5.63	148	P	Pn	10 23 21.7	+1.6
	SNR=19						
ASUD				S	Sn	10 24 25.4	+0.5
ASUD	Al Ashush, Dub	5.63	148	P	Pn	10 23 20.4	+0.3
FAQ	Al Faqa, Dubai	5.66	145	P	Pn	10 23 21.9	+1.4
FAQ				S	Sn	10 24 25.7	+0.1
UOSS	Minazif	5.82	140	P	Pn	10 23 23.6	+0.8
UOSS				S	Sn	10 24 28.3	-1.3
UOSS	Minazif	5.82	140	P	Pn	10 23 22.7	-0.1
HATD	Hatta, Dubai	5.88	141	P	Pn	10 23 24.7	+1.2
MZWR	Madinat Zayed	5.91	163	P	Pn	10 23 25.2	+1.3
ASHO	Ashiyiah	5.95	142	P	Pn	10 23 25.7	+1.2
	SNR=7.1						
ASHO				S	Sn	10 24 32.3	-0.5
ASHO	Ashiyiah	5.95	142	P	Pn	10 23 24.9	+0.4
ASHO				S	Sn	10 24 31.5	-1.3
ALNE	Al Ain	6.32	148	P	Pn	10 23 30.7	+1.2
SOHO	SOHO	6.65	142	P	Pn	10 23 34.5	+0.5
SOHO				S	Sn	10 24 46.6	-3.3
SOHO	SOHO	6.65	142	P	Pn	10 23 33.9	-0.2
UMZA	Um Al Zommool	7.28	157	P	Pn	10 23 43.4	+0.7
ARQ	Araqi	7.30	146	P	Pn	10 23 43.5	+0.5
ARQ				S	Sn	10 25 05.0	-1.0
BSY	Bisya	8.13	144	P	Pn	10 23 55.1	+0.6
RAYN	Ar Rayn	8.32	226	P	Pn	10 23 57.8	+0.7
RAYN	Ar Rayn	8.32	226	P	Pn	10 23 57.1	0.0
SMDO	Samad	8.35	138	P	Pn	10 23 58.2	+0.7
WSAR	Wadi Sarin	8.56	135	P	Pn	10 24 00.4	+0.1
WBK	Wadi Bani Khal	9.23	136	P	Pn	10 24 09.2	-0.4
MHTO	MHTO	9.99	146	P	Pn	10 24 19.0	-1.0
	SNR=7.1						
WHFO	Wadi Hawf	11.59	172	P	Pn	10 24 40.3	-1.6
	SNR=5.6						
DMTO	DMTO	11.99	167	P	Pn	10 24 46.4	-0.9
ABTO	Aybut	12.10	174	P	Pn	10 24 48.9	0.0

IDC 06 10:30:17.0±3.9, 34.°67N×87.°33E, h0^{km}, mb3.6/2, mbtmp3.5/5, ML2.9/3, Error ellipse: s-maj=233.9km s-min=21.6km az=66.0, Xizang

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	Makanchi Array	12.70	344	Pn	Pn	10 33 18.1	-0.8
	0.1nm,0.3s,baz=161,slow=14,SNR=3.2 0.7nm,0.9s						
MKAR				AML	AML		
KURBB	Kurchatov Arra	17.19	341	P	Pn	10 34 17.1	-1.3
	baz=158,slow=11,SNR=4.6 0.5nm,0.5s						
ZALV	Zalesovo Beam	19.36	356	P	Pn	10 34 44.8	-0.2
	0.2nm,0.3s,baz=165,slow=12,SNR=5.2 1.1nm,0.6s						
ZALV				AML	AML		
WRA	Warramunga Arr	70.32	133	P	P	10 41 33.0	+0.4
	0.9nm,0.8s,baz=329,slow=6.3,SNR=8.8 0.9nm,0.8s						
ASAR	Alice Springs	72.93	136	P	P	10 41 47.6	-0.7
	0.3nm,0.9s,baz=327,slow=6.5,SNR=1.9 0.3nm,0.9s						

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*IDC **06** 10:30:15.5±1.3, 48.°02N×27.°60W, h0^{km}, mb3.8/9, mbtmp3.7/11, ML4.2/2, Error ellipse: s-maj=43.0km s-min=17.6km az=178.0*

*NEIC **06** 10:30:18.2±1.2, 48.°1N±0.°1×27.°5W±0.°2, h10^{km}±2^{km}, mb4.2/15, Error ellipse: s-maj=25.0km s-min=16.6km az=194.0*

ISC 06 10:30:17.5±0.7, 48.°1N±0.°1×27.°54W±0.°08, h10^{km}, n34, σ0.^{s}81/32, mb4.0/15, Northern Mid-Atlantic Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NRS	Narsarsuaq	16.62	329	Pn	Pn	10 34 10.5	+0.2
ESK	Eskdalemuir	16.67	55	Pn	Pn	10 34 09.9	-1.1
ESK				IAmb	IAmb	10 34 15.5	
	comp=Z,24nm,1.4s						
EKA	Eskdalemuir Ar	16.70	55	Pn	Pn	10 34 12.4	+1.0
	baz=246,slow=9.9 comp=Z,0.7nm,0.6s						
PAB	San Pablo	18.73	109	P	P	10 34 36.3	0.0
ESBB	Sonseca Array	18.90	108	P	Pn	10 34 38.8	+0.1
ESDC	Sonseca Array	18.90	108	P	Pn	10 34 39.5	+0.8
	comp=Z,0.6nm,0.3s,baz=300,slow=13,SNR=16 comp=Z,0.9nm,0.3s						
ESDC				AML	AML		
ESDC	Sonseca Array	18.90	108	P	Pn	10 34 39.1	+0.4
CEST	Esterri de Car	20.90	94	P	P	10 35 00.3	+0.4
CEST				IAmb	IAmb	10 35 07.3	
	comp=Z,16nm,1.4s						
SSB	Saint Sauveur	22.10	85	P	P	10 35 12.5	-0.3
SSB				IAmb	IAmb	10 35 27.5	
	comp=Z,12nm,1.5s						
ECH	Echery	23.04	77	P	P	10 35 22.8	+0.2
ECH				IAmb	IAmb	10 35 53.8	
	comp=Z,7.3nm,1.4s						
BFO	Black Forest	23.77	76	P	P	10 35 29.2	-0.8
BFO				IAmb	IAmb	10 35 52.3	
	comp=Z,8.2nm,1.4s						
SCHQ	Schefferville	25.14	300	P	P	10 35 42.2	-0.2
	comp=Z,3.5nm,0.9s,baz=120,slow=20,SNR=1.6 comp=Z,3.5nm,0.9s						
SCHQ	Schefferville	25.14	300	P	P	10 35 42.5	0.0
NOA	NORSAR Array B	25.50	45	P	P	10 35 46.9	+1.2
	comp=Z,0.6nm,0.7s,baz=260,slow=11,SNR=2.0 comp=Z,0.6nm,0.7s						
GERES	GERESS Array B	27.12	73	P	P	10 36 00.5	0.0
	comp=Z,0.4nm,0.2s,baz=279,slow=9.3,SNR=6.4 comp=Z,0.4nm,0.2s						
ARSA	Arzberg	28.74	75	P	P	10 36 14.7	-0.2
ARCES	ARCESS Array B	33.26	31	P	P	10 36 55.4	+0.9
	comp=Z,0.6nm,0.6s,baz=257,slow=8.3,SNR=1.5 comp=Z,0.6nm,0.6s						
ARCES	ARCESS Array B	33.26	31	P	P	10 36 55.4	+0.9
ARCES				IAmb	IAmb	10 37 27.9	
	comp=Z,5.3nm,1.2s						
SMRT	St. Maarten	41.61	236	P	P	10 38 06.2	+0.5
YNE	Yellowstone No	54.19	300	P	P	10 39 43.7	+0.5
YNE				IAmb	IAmb	10 39 44.7	
	comp=Z,2.3nm,0.8s						
PDAR	Pinedale Array	55.22	297	P	P	10 39 49.7	-1.0
	comp=Z,0.7nm,0.8s,baz=68,slow=8.6,SNR=7.9 comp=Z,0.7nm,0.8s						
PDAR	Pinedale Array	55.22	297	P	P	10 39 50.8	+0.1
PV16	Nyswonger Mesa	57.52	293	P	P	10 40 08.0	+0.9
PV16				IAmb	IAmb	10 40 08.8	
	comp=Z,3.1nm,0.8s						
PV20	West Nyswonger	57.53	293	P	P	10 40 08.0	+0.8
BVAR	Borovoye Array	57.63	45	P	P	10 40 06.2	-1.3
	comp=Z,0.7nm,0.4s,baz=342,slow=7.8,SNR=4.1 comp=Z,0.7nm,0.4s						
H10S3	ASCENSION HYDR	57.91	165	T	T	11 42 09.8	
	baz=232,slow=74,SNR=6.5						
H10S2	ASCENSION HYDR	57.92	165	T	T	11 42 09.4	
	baz=348,slow=74,SNR=5.4						
ILAR	Eielson Array	58.04	334	P	P	10 40 10.1	0.0
	comp=Z,0.5nm,0.9s,baz=34,slow=5.5,SNR=4.8 comp=Z,0.5nm,0.9s						
SAND	Sanderson	58.45	281	P	P	10 40 13.2	-0.3
SAND				IAmb	IAmb	10 40 13.9	
	comp=Z,2.5nm,0.8s						
TXAR	Lajitas Array	59.87	281	P	P	10 40 23.7	+0.2
	comp=Z,0.9nm,0.7s,baz=70,slow=6.8,SNR=14 comp=Z,0.9nm,0.7s						
TXAR	Lajitas Array	59.87	281	P	P	10 40 23.4	-0.1
SONM	Songino Array	76.43	30	P	P	10 42 07.1	-0.1
	comp=Z,0.4nm,0.4s,baz=349,slow=5.9,SNR=1.8 comp=Z,0.4nm,0.4s						
WRA	Warramunga Arr	148.33	34	PKPbc	PKPbc	10 50 02.7	-1.4
	comp=Z,0.3nm,0.8s,baz=332,slow=2.8,SNR=1.7						
ASAR	Alice Springs	151.52	38	PKPbc	PKPbc	10 50 09.5	-2.3
	comp=Z,0.2nm,0.6s,baz=354,slow=2.8,SNR=4.6						

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*IDC **06** 10:30:31.7±1.8, 17.°98S×178.°31W, h618^{km}±19^{km}, mb3.1/10, mbtmp4.0/12, Error ellipse: s-maj=21.7km s-min=17.5km az=89.0*

ISC 06 10:30:30.2±0.7, 18.°0S±0.°1×178.°2W±0.°1, h600^{km}, n26, σ1.^{s}02/28, mb3.6/9, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	3.58	273	P	P	10 31 56.1	+3.2
	17nm,0.7s,baz=146,slow=12,SNR=9.9						
DZM	Mont Dzumac	14.99	252	P	P	10 33 37.5	-0.9
	7.5nm,1.0s,baz=11,slow=14,SNR=1.9						
URZ	Urewera	20.61	191	P	P	10 34 27.9	-1.3
	12nm,0.9s,baz=80,slow=7.0,SNR=2.2 12nm,0.9s						
STKA	Stephens Creek	38.76	241	P	P	10 37 05.0	+0.3
	2.7nm,0.9s,baz=124,slow=7.1,SNR=3.9 2.7nm,0.9s						
WRA	Warramunga Arr	44.81	260	P	P	10 37 51.8	-0.6
	1.9nm,0.5s,baz=93,slow=7.4,SNR=81						
WRA				PcP	PcP	10 39 20.2	-0.9
	0.4nm,0.9s,baz=89,slow=3.9,SNR=6.3 1.9nm,0.5s						
ASAR	Alice Springs	44.96	254	P	P	10 37 53.2	-0.2
	6.2nm,0.6s,baz=88,slow=8.6,SNR=132						
ASAR				PcP	PcP	10 39 20.9	-0.8
	1.1nm,0.5s,baz=105,slow=4.0,SNR=14 6.2nm,0.6s						
VNDA	Vanda	60.39	185	P	P	10 39 43.0	+0.9
	0.3nm,0.7s,baz=6.2,slow=5.9,SNR=1.4 0.3nm,0.7s						
MJAR	Matsushiro Arr	68.08	323	P	P	10 40 30.6	-0.7
	1.0nm,0.6s,baz=166,slow=5.2,SNR=4.2 1.0nm,0.6s						
QSPA	South Pole Qui	72.07	180	P	P	10 40 55.0	+0.4
	1.7nm,0.7s,baz=316,slow=1.1,SNR=18 1.7nm,0.7s						
MAW	Mawson	83.85	200	P	P	10 41 57.1	-0.3
	1.0nm,0.6s,baz=164,slow=6.3,SNR=4.1 1.0nm,0.6s						
TXAR	Lajitas Array	85.87	58	P	P	10 42 09.1	+1.1
	0.3nm,0.8s,baz=211,slow=7.1,SNR=3.7 0.3nm,0.8s						
ILAR	Eielson Array	85.92	13	P	P	10 42 05.9	-1.3
	0.2nm,0.4s,baz=218,slow=4.9,SNR=7.1 0.2nm,0.4s						
TROLL	Troll, Antarti	90.23	180	P	P	10 42 27.0	-0.6
	comp=Z,114nm,0.9s						
VNA3	Neumayer Olymp	90.65	176	P	P	10 42 29.2	-0.2
BRTR	Keskin Array B	144.97	315	PKP	PKPdf	10 49 00.1	-0.3
	comp=Z,1.1nm,0.5s,baz=96,slow=2.5,SNR=4.5						
GERES	GERESS Array B	147.74	345	PKPbc	PKPbc	10 49 07.9	-0.5
	comp=Z,1.3nm,0.5s,baz=9.9,slow=3.1,SNR=12						
CONA	Conrad Observa	148.00	342	*e*PKP	PKPbc	10 49 08.8	-0.4
	comp=Z,2.9nm,1.2s						
MOA	Molln	148.51	344	*e*PKP	PKPdf	10 49 07.4	+1.5
	comp=Z,3.4nm,1.2s						
SOKA	Soboth	149.37	342	*e*PKP	PKPbc	10 49 12.3	-0.2
	comp=Z,2.1nm,1.4s						
KBA	Koelnbreinsper	149.47	344	*e*PKP	PKPbc	10 49 11.8	-1.1
	comp=Z,1.5nm,0.6s						
WATA	Walderalm	149.64	347	*e*PKP	PKiKP	10 49 14.2	+0.3
	comp=Z,2.0nm,0.6s						
WTTA	Wattenberg	149.70	347	*i* PKP	PKPbc	10 49 13.0	-0.4
	comp=Z,2.6nm,0.5s						
MOTA	Moosalm	149.74	347	*e*PKP	PKPbc	10 49 13.1	-0.4
	comp=Z,3.8nm,1.1s						
SQTA	Sankt Quirin	149.83	347	*i* PKP	PKPbc	10 49 13.2	-0.5
	comp=Z,5.0nm,1.0s						
ABTA	Abfaltersbach	149.98	345	*i* PKP	PKPbc	10 49 12.7	-1.2
	comp=Z,2.0nm,0.6s						
FETA	Feichten	150.12	348	*e*PKP	PKPbc	10 49 13.9	-0.4
	comp=Z,2.2nm,1.0s						

IDC 06 10:41:09.5±3.1, 6.°02S×147.°52E, h0^{km}, mb3.1/1,

mbtmp3.3/3,ML3.4/1,Error ellipse: s-maj=70.5km s-min=27.7km az=86.0,Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	3.38	186	Pn	Pn	10 42 05.0	+1.4
	30nm,0.8s,baz=40,slow=13,SNR=9.9						
PMG				Sn	Sn	10 42 45.1	+0.6
	1.7nm,0.3s,baz=182,slow=20,SNR=1.7						
WRA	Warramunga Arr	18.86	222	P	P	10 45 30.2	-1.2
	0.1nm,0.3s,baz=51,slow=11,SNR=8.7						
	0.8nm,0.9s						
WRA				AML	AML		
ASAR	Alice Springs	21.90	215	P	P	10 46 04.0	-0.5
	0.3nm,0.4s,baz=53,slow=8.8,SNR=21						
	0.3nm,0.4s						
TORD	Torodi Ar. Bea	145.60	284	PKPbc	PKPdf	11 00 49.7	-1.2
	0.2nm,0.5s,baz=94,slow=1.2,SNR=1.7						

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*IDC **06** 11:08:10.8±3.1,34°.66N×97°.39W,h0^{km},mbtmp3.1/4, ML3.2/4,Error ellipse: s-maj=40.7km s-min=15.1km az=109.0*

*NEIC **06** 11:08:14.7±1.6,34°.745N±0°.008×97°.573W±0°.010, h7^{km}±1^{km},Error ellipse: s-maj=2.7km s-min=1.6km az=43.0*

*NEIC **06** 11:08:14.2±1.5,34°.728N±0°.004×97°.58W±0°.01,h5^{km}±1^{km}, mb_Lg3.3/133,ML3.4/21,ML3.4/38,Mwr3.4/20(SLM),Error ellipse: s-maj=2.5km s-min=1.7km az=129.0*

*NEIC **06** 11:08:15,34°.75N×97°.58W,h9^{km},Moment Tensor Solution. Moment tensor: Scale 10^{14}Nm; M$_{rr}$-0.24; M$_{\theta\theta}$1.00; M$_{\phi\phi}$-0.76; M$_{r\theta}$0.56; M$_{\theta\phi}$0.85; M$_{\phi r}$-0.43; Fault plane solution: M$_0$1.43000×10^{14} NP1:ϕ_s290.00000°, δ80.00000°,λ-30.00000°. NP2:ϕ_s26.00000°,δ61.00000°, λ-168.00000°. Principal axes: T 1.4286, Plg13.0000°, Azm341.0000°; N 0.0006, Plg59.0000°, Azm93.0000°; P -1.4292, Plg28.0000°, Azm244.0000°;*

ISC 06 11:08:13.7±1.0**,34°.71N**±0°.02×**97°.53W**±0°.03**,h11**^{km}±9^{km}**, n105,**σ**1^{s}.53**/82**,Oklahoma**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
X34A	Smith Ranch, M	0.28	247		Pg	11 08 20.1	+0.8
X34A				IAML		11 08 25.5	
	comp=N,5µm,0.5s						
FNO	Franklin	0.56	11		Pg	11 08 24.7	+0.1
FNO					Sg	11 08 32.5	+0.6
FNO				IAML		11 08 33.2	
	comp=N,3µm,0.2s						
W34A	Bridge Creek,	0.56	339		Pg	11 08 24.7	+0.1
W34A					Sg	11 08 32.2	+0.1
W35A	Tecumseh	0.69	50		Pb	11 08 27.7	-0.1
W35A					Sb	11 08 37.8	+0.4
W35A				IAML		11 08 49.0	
	comp=E,1µm,0.3s						
OKCSW	OKLAHOMA CITY	0.70	6		Pg	11 08 26.8	-0.4
OKCSW					Sg	11 08 36.5	0.0
OKCSW				IAML		11 08 37.2	
	comp=E,2µm,0.6s						
OKCSW				IAML		11 08 37.2	
	comp=N,2µm,0.4s						
LOOK	Love County	0.77	158		Pn	11 08 30.2	-0.3
LOOK					Sn	11 08 41.6	-0.5
OK004	Okla Sci Mus	0.81	3		Pg	11 08 29.5	+0.1
OK004					Sg	11 08 40.4	+0.3
BCOK	Bluff Creek, N	0.95	356		Pg	11 08 31.7	-0.2
BCOK					Sg	11 08 44.4	+0.1
ADOK	Arcadia Dam	0.95	8		Pg	11 08 31.9	-0.1
WMOK	Wichita Mounta	1.03	272		Pg	11 08 32.4	-1.2
WMOK					Sg	11 08 46.6	-0.5
OK029	Liberty Lake	1.09	3		Pg	11 08 33.8	-0.8
OK029					Sg	11 08 48.8	+0.1
WTFS	Witchita Falls	1.22	220		Pg	11 08 36.7	-0.4
WTFS					Sg	11 08 53.5	+0.4
CSTR	Hydro, Custer	1.33	315		Pn	11 08 37.9	-0.4
CSTR					Sg	11 08 56.2	-0.5
Z35A	Perchaven, San	1.39	171		Pb	11 08 40.1	+0.3
DEOK	Depew	1.41	36		Pb	11 08 40.5	+0.4
DEOK					Sn	11 08 59.5	+1.6
OK052	Battle Ridge R	1.41	25		Pg	11 08 40.2	-0.6
OK052					Sn	11 08 59.2	+1.3
QUOK	Quay	1.60	24		Pn	11 08 43.1	+1.1
FW06	Azle	1.73	181		Pg	11 08 46.7	-0.2
CROK	Carrier	1.83	348		Pn	11 08 46.0	+0.9
TUL3	Leonard	1.86	49		Pb	11 08 47.3	-0.3
OK051	E0350 and S346	1.88	17		Pn	11 08 46.9	+1.2
PLPT	Palo Pinto	2.00	199		Pn	11 08 49.4	+2.0
OK038	West end E0370	2.02	331		Pn	11 08 49.3	+1.5
BLOK	Blackwell	2.06	7		Pn	11 08 49.9	+1.6
GC02	Grant County #	2.15	353		Pn	11 08 50.4	+0.8
NOKA	Waynoka	2.24	330		Pn	11 08 52.1	+1.4
SMWD	Samnorwood	2.27	281		Pn	11 08 53.0	+1.9
TREL	Terrell	2.31	148		Pb	11 08 54.3	-1.0
T35A	Sooner Cattle	2.35	20		Pn	11 08 54.2	+1.9
FW13	Cleburne	2.35	178		Pb	11 08 54.9	-1.2
KAN01	Argonia South	2.45	356		Pn	11 08 54.6	+1.1
KAN08	Anthony NE Sta	2.54	352		Pn	11 08 55.5	+0.7
Z38A	Mt. Pleasant	2.56	124		Pb	11 08 58.0	-1.6
Z38A				IAmb_Lg		11 09 37.8	
	comp=Z,103nm,0.7s						
APMT	Aspermont	2.56	238		Pn	11 08 57.7	+2.6
WHTX	Lake Whitney,	2.71	179		Pn	11 08 59.6	+2.4
ABTX	Abilene, Hawle	2.73	221		Pn	11 08 59.4	+1.9
ABTX				IAmb_Lg		11 09 41.8	
	comp=Z,127nm,0.9s						
DKNS	Dickens	3.00	251		Pn	11 09 03.7	+2.4
DKNS				IAmb_Lg		11 09 54.4	
	comp=Z,96nm,0.9s						
U38A	Gravette	3.09	55		Pn	11 09 04.4	+2.0
SN07	Snyder 07	3.23	241		Pn	11 09 06.4	+2.0
MIAR	Mount Ida	3.26	92		Pb	11 09 07.8	-3.7
MIAR				IAmb_Lg		11 10 05.6	
	comp=Z,104nm,0.9s						
HHAR	Hobbs	3.32	61		Pn	11 09 07.3	+1.7
AMTX	Amarillo	3.42	274		Pn	11 09 09.3	+2.2
AMTX				IAmb_Lg		11 10 06.0	
	comp=Z,118nm,0.8s						
BRDY	Brady	3.63	200		Pn	11 09 11.6	+1.7
BRDY				IAmb_Lg		11 10 15.4	
	comp=Z,72nm,0.8s						
PH02	Texas Public H	3.69	282	IAmb_Lg		11 10 12.5	
	comp=Z,94nm,1.0s						
POST	Post	3.69	245		Pn	11 09 13.1	+2.4
POST				IAmb_Lg		11 10 17.5	
	comp=Z,77nm,0.9s						
NATX	Nacogdoches	3.80	140		Pn	11 09 14.5	+2.4
NATX				IAmb_Lg		11 10 26.1	
	comp=Z,101nm,0.8s						
WLAR	White Oak Lake	3.80	104		Pn	11 09 14.3	+2.2
WLAR				IAmb_Lg		11 10 23.6	
	comp=Z,87nm,1.1s						
R32A	Long Quarter,	3.83	346		Pn	11 09 13.6	+1.1
R32A				IAmb_Lg		11 10 23.3	
	comp=Z,84nm,0.8s						
X40A	Basin Creek Fa	3.88	92		Pn	11 09 15.7	+2.5
X40A				IAmb_Lg		11 10 21.1	
	comp=Z,62nm,0.8s						
435B	Jarrell	3.92	181		Pn	11 09 15.8	+2.0
435B				IAmb_Lg		11 10 30.0	
	comp=Z,106nm,0.8s						
SGCY	Sterling City	4.11	228		Pn	11 09 18.0	+1.6
Z41A	Richland Creek	4.18	109		Pn	11 09 20.3	+2.9
SNAG	San Augustine	4.25	138	IAmb_Lg		11 10 38.2	
	comp=Z,42nm,0.8s						
UALR	University of	4.27	88	IAmb_Lg		11 10 42.0	
	comp=Z,71nm,0.8s						
WHAR	Wooly Hollow	4.34	81		Pn	11 09 21.9	+2.3
MSTX	Muleshoe	4.40	262	IAmb_Lg		11 10 41.3	
	comp=Z,70nm,0.9s						
KSU1	Kansas State U	4.44	9		Pn	11 09 21.8	+0.8
KSU1	Kansas State U	4.44	9	IAmb_Lg		11 10 38.9	
	comp=Z,92nm,0.7s						
CBKS	Cedar Bluff	4.46	337	IAmb_Lg		11 10 37.2	
	comp=Z,51nm,0.7s						
229A	Bryant Ranch,	4.51	234	IAmb_Lg		11 10 37.0	
	comp=Z,38nm,0.9s						
S39A	Bolivar	4.52	48		Pn	11 09 23.8	+1.7
S39A				IAmb_Lg		11 10 36.4	
	comp=Z,92nm,1.0s						
FCAR	Ozark Folk Cen	4.57	74		Pn	11 09 24.6	+1.8
RTBA	Rita Blanca	4.58	294	IAmb_Lg		11 10 48.2	
	comp=Z,44nm,0.9s						
JCT	Junction City	4.63	205	IAmb_Lg		11 10 48.4	
	comp=Z,105nm,0.8s						
OZNA	Ozona	4.84	220		Pn	11 09 28.3	+1.7
OZNA				IAmb_Lg		11 11 00.0	
	comp=Z,65nm,0.9s						
MLDN	Muldoon	4.93	175		Pn	11 09 30.0	+2.3
MLDN				IAmb_Lg		11 11 00.8	
	comp=Z,50nm,1.0s						
ODSA	Odessa	4.93	240		Pn	11 09 29.4	+1.6
ODSA				IAmb_Lg		11 10 58.8	
	comp=Z,46nm,1.1s						
HNDO	Hondo	5.38	197		Pn	11 09 35.0	+1.2
HNDO				IAmb_Lg		11 11 19.6	
	comp=Z,65nm,0.9s						
143A	Socs Landing,	5.48	110	IAmb_Lg		11 11 17.8	
	comp=Z,33nm,0.9s						
EF04	Eagle Ford 04	5.49	182	IAmb_Lg		11 11 22.4	
	comp=Z,81nm,1.1s						
MNHN	Monahans	5.53	234	IAmb_Lg		11 11 23.6	
	comp=Z,55nm,0.8s						
R40A	Maddies Statio	5.54	48		Pn	11 09 37.5	+1.4
R40A				IAmb_Lg		11 11 18.4	
	comp=Z,82nm,1.0s						
TPB06	Permian Basin	5.67	239	IAmb_Lg		11 11 26.5	
	comp=Z,32nm,0.9s						
T42A	Van Buren	5.71	64	IAmb_Lg		11 11 29.1	
	comp=Z,40nm,0.9s						
735A	Kenedy	5.84	182	IAmb_Lg		11 11 34.4	
	comp=Z,52nm,0.9s						
P38A	Dawn	5.85	32	IAmb_Lg		11 11 27.2	
	comp=Z,77nm,0.8s						
KSCO	Kaye Shedlock’	5.93	318	IAmb_Lg		11 11 31.1	
	comp=Z,79nm,1.1s						
T25A	Trinidad	6.09	295	IAmb_Lg		11 11 37.4	
	comp=Z,67nm,0.8s						
PBMO	Poplar Bluff	6.13	68	Pn	Pn	11 09 46.3	+2.1
PBMO				IAmb_Lg		11 11 33.1	
	comp=Z,71nm,0.7s						
TPB13	Reeves - Culbe	6.16	241	IAmb_Lg		11 11 35.7	
	comp=Z,68nm,0.9s						
PECS	Pecos	6.28	240	Pn	Pn	11 09 47.5	+1.2
PECS				IAmb_Lg		11 11 46.2	
	comp=Z,28nm,0.8s						
TPB01	Permian Basin	6.47	236	Pn	Pn	11 09 49.8	+0.9
TPB01				IAmb_Lg		11 11 52.5	
	comp=Z,34nm,0.8s						
TPB28		6.58	245	IAmb_Lg		11 11 58.9	
	comp=Z,29nm,0.9s						
FVM	French Village	6.60	58	Pn	Pn	11 09 51.6	+1.0
FVM				IAmb_Lg		11 11 43.9	
	comp=Z,51nm,0.9s						
Y45A	Yeager Farm, C	6.66	95	IAmb_Lg		11 11 56.6	
	comp=Z,26nm,0.8s						
ALPN	Alpine	6.73	232	IAmb_Lg		11 11 55.8	
	comp=Z,36nm,0.9s						
GLAT	Glass	6.90	75	IAmb_Lg		11 12 14.5	
	comp=Z,47nm,0.8s						
SLM	Saint Louis	7.05	54	IAmb_Lg		11 12 07.3	
	comp=Z,46nm,0.8s						
MNTX	Cornudas Mount	7.24	248	IAmb_Lg		11 12 18.9	
	comp=Z,23nm,0.9s						
UTMT	University of	7.25	75	IAmb_Lg		11 12 15.9	
	comp=Z,56nm,0.8s						
S44A	Carbondale	7.32	64	IAmb_Lg		11 12 08.3	
	comp=Z,37nm,0.7s						
ALQ	Albuquerque	7.35	274	IAmb_Lg		11 12 18.3	
	comp=Z,33nm,1.1s						
ALQ	Albuquerque	7.35	274	IAmb_Lg		11 12 16.5	
	comp=Z,43nm,1.3s						
ALQ				IAmb_Lg		11 12 18.2	
	comp=Z,32nm,1.1s						
TASM	ASL Pad, Albuq	7.35	274	IAmb_Lg		11 12 22.1	
	comp=Z,20nm,1.0s						
TASM				IAmb_Lg		11 12 22.2	
	comp=Z,19nm,1.0s						
VHRN	Van Horn	7.40	240	IAmb_Lg		11 12 13.8	
	comp=Z,25nm,0.7s						
Q24A	Divide	7.44	307	IAmb_Lg		11 12 23.6	
	comp=Z,35nm,1.0s						
TXAR	Lajitas Array	7.48	226	Pn	Pn	11 10 03.0	+0.2
	comp=Z,0.1nm,0.3s,baz=48,slow=14,SNR=12						
TXAR				Pg	Pb	11 10 30.2	+6.8
	comp=Z,1.2nm,0.3s,baz=49,slow=18,SNR=11						
TXAR				Sn	Sn	11 11 26.4	-1.3
	comp=Z,1.4nm,0.3s,baz=51,slow=28,SNR=3.8						
TXAR				Lg	Lg	11 12 08.8	
	comp=Z,3.1nm,0.3s,baz=45,slow=26,SNR=6.1						
	comp=Z,0.2nm,0.3s						
TXAR				AML	AML		
Y22A	Socorro	7.85	267	IAmb_Lg		11 12 35.6	
	comp=Z,31nm,1.0s						
EPT	El Paso	8.07	251	IAmb_Lg		11 12 44.1	
	comp=Z,19nm,1.0s						
ECSD	EROS Data Cent	9.04	4	IAmb_Lg		11 13 15.4	
	comp=Z,19nm,0.9s						
SUSD	Miller	9.78	354	IAmb_Lg		11 13 32.9	
	comp=Z,37nm,0.9s						
JFWS	Jewell Farm	9.96	33	IAmb_Lg		11 13 45.6	
	comp=Z,34nm,0.7s						
PDAR	Pinedale Array	12.36	314	Pn	Pn	11 11 10.7	+0.9
	comp=Z,0.1nm,0.3s,baz=124,slow=14,SNR=2.1						
PDAR				Lg	Lg	11 14 41.7	
	comp=Z,0.3nm,0.3s,baz=124,slow=35,SNR=5.9						
	comp=Z,0.2nm,0.4s						
PDAR				AML	AML		
ULM	Lac du Bonnet	15.58	4	Pn	Pn	11 11 49.4	-3.8
	comp=Z,0.3nm,0.3s,baz=187,slow=15,SNR=1.9						
ULM				Sn	Sn	11 14 35.1	-10
	comp=Z,0.3nm,0.3s,baz=111,slow=13,SNR=3.0						
ULM				Lg	Lg	11 16 19.2	
	comp=Z,0.1nm,0.3s,baz=170,slow=6.7,SNR=3.7						
	comp=Z,1.6nm,0.5s						
ULM				AML	AML		
NVAR	Mina Array Bea	17.09	289	P	Pn	11 12 13.0	+0.2
	baz=100,slow=13,SNR=1.6						
	comp=Z,0.1nm,0.4s						

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*VAO **06** 11:20:56.5±0.4,28°.19S×71°.74W,h10^{km},mb4.7, Presumed earthquake*

*IDC **06** 11:20:58.6±0.5,27°.88S×71°.34W,h0^{km},mb4.3/12, mbtmp4.2/17,ML4.2/5,MS4.1/25,Error ellipse: s-maj=17.0km s-min=10.9km az=81.0*

*NEIC **06** 11:21:00.1,27°.98S×71°.43W,h18^{km}*

*NEIC **06** 11:21:00.8±1.0,27°.99S±0°.03×71°.38W±0°.04,h19^{km}±3^{km}, mb4.9/22,Mwr4.7/30,Mwr4.8(GUC),Error ellipse: s-maj=5.5km s-min=3.0km az=46.0,Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M$_{rr}$0.11; M$_{\theta\theta}$-0.03; M$_{\phi\phi}$-0.08; M$_{r\theta}$0.43; M$_{\theta\phi}$0.38; M$_{\phi r}$-1.18; Fault plane solution: M$_0$1.32000×10^{16} NP1:ϕ_s162.09000°, δ85.55000°,λ102.91000°. NP2:ϕ_s270.80000°,δ13.65000°, λ19.21000°. Principal axes: T 1.2050, Plg48.0000°, Azm86.0000°; N 0.2058, Plg13.0000°, Azm341.0000°; P -1.4108, Plg39.0000°, Azm240.0000°;*

*GFZ **06** 11:21:00.2±0.2,28°S±2°×7°2W±°,h10^{km},M4.8/23, mb4.9/23*

*GUC **06** 11:21:01.3±0.7,28°.03S×71°.41W,h21^{km}±5^{km},ML4.8*

*SJA **06** 11:21:01.4±0.7,27°.99S×71°.34W,h14^{km}±3^{km},ML4.9, MW4.7*

ISC 06 11:20:58.7±1.4**,27°.97S**±0°.02×**71°.44W**±0°.04**,h6**^{km}±8^{km}**, n233,**σ**1^{s}.51**/234**,mb4.8**/23**,MS4.3**/21**,4C-5D,Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	Llanos de Chal	0.40	125	*i* P	Pb	11 21 08.6	+0.4
AC04				*e*S	Sb	11 21 13.2	-1.4
AC04				IAML		11 21 15.6	
	comp=Z,51µm,0.7s						
AC04	Llanos de Chal	0.40	125	*i* P	Pb	11 21 08.5	+0.3
AC04				*e*S	Sb	11 21 13.4	-1.2
AC04				IAML		11 21 14.2	
	comp=N,76µm,0.5s						
AC04	Llanos de Chal	0.40	125		Pb	11 21 08.4	+0.3
AC04				Sg	Sb	11 21 13.2	-1.4
AC04	Llanos de Chal	0.40	125	P	Pb	11 21 08.6	+0.4
GO03	Copiapo	1.14	71	*i* P	Pg	11 21 21.6	+1.1
GO03				*e*S	Sn	11 21 36.6	-0.5
GO03				IAML		11 21 43.8	
	comp=Z,24µm,0.5s						
GO03	Copiapo	1.14	71	⇓*i*P	Pg	11 21 21.4	+1.0
GO03				*e*S	Sn	11 21 36.0	-1.2
GO03				IAML		11 21 43.7	
	comp=N,34µm,0.5s						
GO03	Copiapo	1.14	71		Pg	11 21 21.1	+0.6
GO03				Sn	Sn	11 21 35.5	-1.6
GO03	Copiapo	1.14	71	P	Pg	11 21 21.5	+1.0
AC06	Mina Casimiro	1.14	58	⇓*i*P	Pg	11 21 21.5	+0.8
AC06				*e*S	Sn	11 21 36.0	-1.3
AC06				IAML		11 21 44.3	
	comp=E,15µm,0.5s						
AC06	Mina Casimiro	1.14	58		Pb	11 21 21.0	+0.1
AC06				Sn	Sg	11 21 35.7	+0.2
LCO	Las Campanas	1.22	148	*i* P	Pn	11 21 21.6	-1.0
LCO				*i* S	Sg	11 21 40.1	+2.0
LCO				IAML		11 21 43.4	
	comp=Z,32µm,0.7s						
LCO	Las Campanas	1.22	148	*e*P	Pn	11 21 21.4	-1.2
LCO				*e*S	Sb	11 21 36.8	-1.8
LCO				IAML		11 21 40.2	
	comp=Z,124µm,0.5s						
LCO	Las Campanas	1.22	148		Pn	11 21 21.2	-1.4
AC05	El Transito	1.34	130	*e*P	Pn	11 21 24.1	-0.1
AC05				*i* S	Sg	11 21 41.5	-0.4
AC05				IAML		11 21 46.8	
	comp=Z,7µm,0.7s						
AC05	El Transito	1.34	130	⇑*i*P	Pn	11 21 23.8	-0.4
AC05				*e*S	Sg	11 21 41.4	-0.5
AC05				IAML		11 21 43.5	
	comp=N,13µm,0.5s						
AC05	El Transito	1.34	130		Pn	11 21 23.8	-0.4
AC05				Sn	Sn	11 21 40.7	-1.7
AC05	El Transito	1.34	130	P	Pn	11 21 24.0	-0.2
AC01	Pan de Azucar	1.97	23	*i* P	Pn	11 21 33.3	+0.7
AC01				*e*S	Sg	11 22 02.1	+0.1
AC01				IAML		11 22 09.4	
	comp=Z,7µm,0.6s						
AC01	Pan de Azucar	1.97	23	⇑*i*P	Pn	11 21 33.0	+0.4
AC01				*e*S	Sg	11 22 03.4	+1.5
AC01	Pan de Azucar	1.97	23		Pn	11 21 32.8	+0.2
AC01	Pan de Azucar	1.97	23	P	Pn	11 21 33.3	+0.7
GO04	Tololo Observa	2.26	166	*i* P	Pn	11 21 37.2	+0.3
GO04				*e*S	Sb	11 22 09.0	+0.5
GO04				IAML		11 22 12.8	
	comp=Z,11µm,0.5s						
GO04	Tololo Observa	2.26	166	⇓*i*P	Pn	11 21 36.9	0.0
GO04				*e*S	Sb	11 22 07.1	-1.4
GO04				IAML		11 22 11.1	
	comp=N,37µm,0.5s						
GO04	Tololo Observa	2.26	166		Pn	11 21 36.8	-0.1
GO04	Tololo Observa	2.26	166	P	Pn	11 21 37.1	+0.3
CO01	Juntas del Tor	2.32	150	*i* P	Pn	11 21 39.5	+1.8
CO01				*e*S	Sb	11 22 08.4	-1.8
CO01				IAML		11 22 14.3	
	comp=Z,5µm,0.5s						
CO01	Juntas del Tor	2.32	150	*e*P	Pn	11 21 39.5	+1.8
CO01				*e*S	Sb	11 22 08.2	-2.0
CO01				IAML		11 22 12.9	
	comp=N,6µm,0.3s						
CO01	Juntas del Tor	2.32	150		Pn	11 21 38.7	+1.0
CO01	Juntas del Tor	2.32	150	P	Pb	11 21 39.6	-1.5
AC02	Maricunga	2.35	62	*i* P	Pb	11 21 41.6	-0.2
AC02				*e*S	Sg	11 22 13.3	-0.9
AC02				IAML		11 22 16.2	
	comp=Z,14µm,0.5s						
AC02	Maricunga	2.35	62	⇑*i*P	Pb	11 21 41.4	-0.4
AC02				*e*S	Sg	11 22 12.5	-1.7
AC02				IAML		11 22 18.0	
	comp=E,15µm,0.6s						
AC02	Maricunga	2.35	62	P	Pb	11 21 41.5	-0.2
CO06	Fray Jorge	2.70	184	⇓*i*P	Pn	11 21 41.2	-1.4
CO06	Fray Jorge	2.70	184		Pn	11 21 41.0	-1.6
AROD	Rodeo	2.78	142	*i* P	Pb	11 21 47.8	-1.3
AROD				*i* S	Sb	11 22 22.9	-0.7
VCA	Vinchina	2.95	106	*i* P	Pb	11 21 51.8	0.0
VCA				*i* S	Sg	11 22 32.8	-0.9
VCA				IAML		11 22 35.4	
	comp=Z,6µm,1.4s						
VCA	Vinchina	2.95	106	⇑*e*P	Pb	11 21 51.8	0.0
VCA				*e*S	Sg	11 22 32.7	-0.9
ACDV	Cuesta del Vie	2.99	138	*i* P	Pb	11 21 51.0	-1.5
ACDV				*e*S	Sb	11 22 30.4	+1.1
ACDV				IAML		11 22 36.9	
	comp=Z,4µm,1.1s						
CO02	Combarbal	3.24	173	*i* P	Pn	11 21 50.0	-0.2
CO02				IAML		11 22 46.3	
	comp=Z,6µm,0.5s						
CO02	Combarbal	3.24	173	*e*P	Pn	11 21 49.8	-0.4
CO02	Combarbal	3.24	173		Pn	11 21 49.6	-0.7
CO02	Combarbal	3.24	173	P	Pn	11 21 50.1	-0.1
ACCO	Cerro Coronel	3.33	142	*i* P	Pb	11 21 55.6	-2.8
ACCO				IAML		11 22 51.1	
	comp=Z,3µm,0.8s						
TINO	Tinogasta	3.43	92	*i* P	Pb	11 21 56.4	-3.5
TINO				IAML		11 22 52.2	
	comp=Z,2µm,0.7s						
PB14	IPOC Station P	3.46	16	*i* P	Pn	11 21 53.3	-0.1
PB14				IAML		11 23 03.3	
	comp=Z,3µm,0.7s						
PB14	IPOC Station P	3.46	16		Pn	11 21 52.8	-0.6
PB14	IPOC Station P	3.46	16	P	Pn	11 21 53.6	+0.1
CO04	Los Peladeros	4.08	174		Pn	11 22 01.4	-0.5
CO04	Los Peladeros	4.08	174	P	Pn	11 22 02.3	+0.4
ACLC	CERRO LA CRUZ	4.20	111	*i* P	Pn	11 22 07.0	+3.5
ACLC				IAML		11 23 04.6	
	comp=Z,1µm,1.0s						
RTLL	Cerro Villicun	4.23	143	*i* P	Pn	11 22 07.6	+3.9
RTLL				IAML		11 23 13.5	
	comp=Z,2µm,0.7s						
ZON	Zonda	4.30	147	*i* P	Pn	11 22 08.3	+3.6
ZON				IAML		11 23 22.4	
	comp=Z,1µm,0.9s						
ZON	Zonda	4.30	147	P	Pn	11 22 08.8	+4.1
CFA	Coronel Fontan	4.57	143	Pn	Pn	11 22 11.4	+3.0
	comp=Z,26nm,0.3s,baz=319,slow=11,SNR=247						
CFA				Sn	Sn	11 23 05.4	+3.5
	comp=Z,23nm,0.3s,baz=296,slow=21,SNR=5.6						
CFA				LR	LR	11 23 27.4	
	comp=Z,213nm,20.6s,baz=229,slow=32						
	comp=Z,69nm,0.3s						
CFA				AML	AML		
CFA	Coronel Fontan	4.57	143	*i* P	Pn	11 22 11.6	+3.2
CFA				*e*S	Sn	11 23 04.2	+2.3
CFA				IAML		11 23 21.4	
	comp=Z,1µm,0.8s						
VA03	San Esteban	4.84	171	*i* P	Pn	11 22 12.8	+0.7
VA03	San Esteban	4.84	171	*e*P	Pn	11 22 12.7	+0.6
VA03				*e*S	Sn	11 23 13.2	+4.7
VA03	San Esteban	4.84	171	Pn	Pn	11 22 12.4	+0.3
VA03	San Esteban	4.84	171	P	Pn	11 22 13.1	+0.9
CYA	Choya	5.00	97	*i* P	Pn	11 22 17.3	+2.9
CYA				*e*S	Sn	11 23 15.2	+2.7
CYA				IAML		11 23 25.1	
	comp=Z,888nm,0.8s						
CYA	Choya	5.00	97	*e*P	Pn	11 22 16.9	+2.5
CYA				*e*S	Sn	11 23 11.0	-1.6
PEL	Peldehue	5.20	173		Pn	11 22 16.8	-0.2
PEL	Peldehue	5.20	173	P	Pn	11 22 17.4	+0.3
	comp=Z,348nm,1.0s						
PB05	IPOC Station P	5.22	13	*i* P	Pn	11 22 16.4	-1.0
PB05				IAML		11 23 58.0	
	comp=Z,1µm,0.7s						
PB05	IPOC Station P	5.22	13		Pn	11 22 15.9	-1.5
PB05	IPOC Station P	5.22	13	P	Pn	11 22 17.3	-0.2
	comp=Z,181nm,0.7s						
MT02	Curacav	5.28	177	*i* P	Pn	11 22 17.0	-1.1
MT02				IAML		11 23 58.4	
	comp=Z,992nm,0.8s						
MT02	Curacav	5.28	177		Pn	11 22 16.9	-1.2
PB06	IPOC Station P	5.51	18		Pn	11 22 21.0	-0.5
PB06	IPOC Station P	5.51	18	P	Pn	11 22 22.0	+0.5
	comp=Z,336nm,0.8s						
MT01	Popeta	5.88	178		Pn	11 22 24.2	-2.1
PB07	IPOC Station P	6.38	13	P	Pn	11 22 33.0	-0.4
	comp=Z,194nm,0.7s						
BO01	Tunca	6.41	177	P	Pn	11 22 33.8	+0.1
	comp=Z,117nm,0.7s						
PB09	IPOC Station P	6.47	18	P	Pn	11 22 37.2	+2.6
	comp=Z,188nm,1.4s						
BO03	Pichilemu	6.52	184	P	Pn	11 22 33.2	-1.9
	comp=Z,76nm,0.9s						
PB02	IPOC Station P	6.77	12		Pn	11 22 37.3	-1.5
PB02	IPOC Station P	6.77	12	P	Pn	11 22 39.0	+0.2
	comp=Z,97nm,0.7s						
BO02	Sierra Bellavi	6.82	175	P	Pn	11 22 40.7	+1.3
	comp=Z,151nm,0.6s						
TCA	Tanti	6.84	121	*e*P	Pn	11 22 40.6	+0.9

TCA				*e*S	Sn	11 23 55.4	-2.4
TA01	Diego Aracena	7.46	9		Pn	11 22 47.0	-1.1
ML02	Panimavida	7.77	180	P	Pn	11 22 56.3	+4.0
	comp=Z,186nm,0.7s						
PB08	IPOC Station P	8.07	16	P	Pn	11 23 01.0	+4.1
	comp=Z,54nm,0.8s						
PSGCX	Pisagua	8.43	9	P	Pn	11 23 00.8	-0.7
	comp=Z,31nm,0.8s						
H03N1	Juan Fernandez	8.43	228	T	T	11 31 36.8	
	baz=56,slow=74,SNR=3797						
H03N2	Juan Fernandez	8.44	228	T	T	11 31 36.4	
	baz=206,slow=74,SNR=5044						
GO01	Chusmiza	8.52	14	P	Pn	11 23 06.2	+3.1
	comp=Z,56nm,0.7s						
BI02	San Fabin de	8.67	179	P	Pn	11 23 03.5	-1.2
	comp=Z,70nm,0.8s						
H03S3	Juan Fernandez	8.67	226	T	T	11 31 44.7	
	baz=49,slow=77,SNR=13						
H03S1	Juan Fernandez	8.68	226	T	T	11 31 45.3	
	baz=49,slow=77,SNR=14						
H03S2	Juan Fernandez	8.69	226	T	T	11 31 46.9	
	baz=49,slow=77,SNR=13						
PB12	IPOC Station P	9.37	7		Pn	11 23 13.0	-1.5
PB12	IPOC Station P	9.37	7	P	Pn	11 23 14.1	-0.4
	comp=Z,26nm,0.5s						
PB16	IPOC Station P	9.76	11		Pn	11 23 20.1	-0.1
PB16	IPOC Station P	9.76	11	P	Pn	11 23 24.4	+4.2
	comp=Z,28nm,0.8s						
GO06	Curarrehue	11.58	180		Pn	11 23 44.1	-0.6
GO06	Curarrehue	11.58	180	P	Pn	11 23 47.1	+2.4
	comp=Z,11nm,0.9s						
LPAZ	La Paz	12.03	15	Pn	Pn	11 23 51.7	+0.4
	comp=Z,0.7nm,0.3s,baz=194,slow=6.4,SNR=21						
LPAZ				LR	LR	11 28 51.2	
	comp=Z,924nm,18.2s,baz=200,slow=40						
	comp=Z,3.1nm,0.5s						
LPAZ				AML	AML		
LPAZ	La Paz	12.03	15		Pn	11 23 51.4	+0.1
LPAZ	La Paz	12.03	15	*e*P	Pn	11 23 53.3	+2.0
LPAZ	La Paz	12.03	15	P	Pn	11 23 53.1	+1.8
	comp=Z,12nm,0.8s						
PSAL	Palomas, Salto	12.44	108	*e*P	Pn	11 23 55.5	-0.8
PSAL				*e*S	Sn	11 26 17.5	+2.2
CPUP	Villa Florida	12.68	86	Pn	Pn	11 23 59.3	-0.2
	comp=Z,0.9nm,0.3s,baz=258,slow=12,SNR=26						
CPUP				LR	LR	11 29 50.2	
	comp=Z,728nm,20.5s,baz=260,slow=42						
	comp=Z,6.7nm,0.6s						
CPUP				AML	AML		
CPUP	Villa Florida	12.68	86	*e*P	Pn	11 24 01.6	+1.9
CPUP	Villa Florida	12.68	86	P	Pn	11 24 01.5	+1.9
	comp=Z,41nm,0.8s						
PLCA	Paso Flores	12.75	177	Pn	Pn	11 24 00.8	+0.2
	comp=Z,0.1nm,0.3s,baz=332,slow=13,SNR=5.2						
PLCA				Lg	Lg	11 27 40.3	
	comp=Z,0.2nm,0.3s,baz=339,slow=20,SNR=3.2						
PLCA				LR	LR	11 29 10.6	
	comp=Z,2µm,18.7s,baz=354,slow=38						
	comp=Z,0.5nm,0.5s						
PLCA				AML	AML		
PLCA	Paso Flores	12.75	177	Pn	Pn	11 23 59.8	-0.9
PLCA	Paso Flores	12.75	177	*e*P	Pn	11 23 55.1	-5.5
ANCO	Parque Anchore	13.14	122	*e*P	Pn	11 24 05.1	-0.7
MURT	Porto Murtinho	14.04	66	*e*P	P	11 24 22.9	-3.4
SJPY	San Joaquin	14.05	81	*e*P	Pn	11 24 21.0	+2.6
COIM	Forte Coimbra	14.83	60	*e*P	Pn	11 24 30.6	+1.6
GO07	Milladeo Hill,	15.21	186	Pn	Pn	11 24 34.4	+0.3
GO07				IAmb	IAmb	11 24 41.6	
	comp=Z,103nm,1.4s						
GO07	Milladeo Hill,	15.21	186	P	Pn	11 24 36.9	+2.8
	comp=Z,58nm,1.1s						
SIV	San Ignacio	15.31	41	Pn	Pn	11 24 30.9	-4.6
	comp=Z,0.1nm,0.3s,baz=230,slow=8.7,SNR=13						
	comp=Z,2.9nm,0.6s						
SIV				AML	AML		
BDQN	Bodoquena, MS	15.35	64	*e*P	P	11 24 39.3	-1.5
CPSB	Cacapava Do Su	15.91	103	Pn	Pn	11 24 44.0	+0.8
CPSB	Cacapava Do Su	15.91	103	*e*P	Pn	11 24 44.0	+0.8
CPSB	Cacapava Do Su	15.91	103	P	P	11 24 45.4	-1.6
	comp=Z,52nm,0.8s						
AQDB	Aquidauana	16.18	66	*e*P	Pn	11 24 47.8	+1.1
AQDB	Aquidauana	16.18	66	P	P	11 24 50.6	+0.7
	comp=Z,20nm,1.2s						
PTLB	Pontes e Lacer	16.90	45	*e*P	Pn	11 24 55.4	-0.5
COYC	Coyhaique	17.57	181	P	Pn	11 25 03.2	-0.9
	comp=Z,16nm,0.9s						
PTGB	Pitanga	17.67	84	*e*P	P	11 25 06.8	+0.1
TRCB	Terra Rica	17.76	77	P	Pn	11 25 05.9	-0.8
TRCB				IAmb	IAmb	11 25 18.2	
	comp=Z,102nm,1.3s						
TRCB	Terra Rica	17.76	77	*e*P	P	11 25 08.0	+0.5
TRCB	Terra Rica	17.76	77	P	P	11 25 08.7	+1.1
	comp=Z,55nm,1.0s						
VILB	Vilhena	18.26	37	P	Pn	11 25 12.0	-0.9
VILB	Vilhena	18.26	37	*e*P	Pn	11 25 11.7	-1.2
PP1B	Ponte de Pedra	18.41	59	*e*P	P	11 25 16.2	+1.4
LDASE	Londrina, Braz	18.87	81	*e*P	Pn	11 25 20.8	+0.5
SALV	Santo Antonio	18.89	54	*e*P	Pn	11 25 21.5	+1.0
C2SB	Chapadao do Su	19.36	66	*e*P	Pn	11 25 27.2	+1.0
C2SB	Chapadao do Su	19.36	66	P	Pn	11 25 27.3	+1.0
	comp=Z,73nm,1.1s						
CZSB	Cruzeiro do Su	20.17	356	P	P	11 25 34.0	0.0
CZSB	Cruzeiro do Su	20.17	356	*e*P	P	11 25 32.7	-1.3
FRTB	Fartura	20.25	82	*e*P	Pn	11 25 35.6	-1.2
FRTB	Fartura	20.25	82	P	Pn	11 25 35.9	-0.9
	comp=Z,157nm,1.0s						
ARAG	Araguaiana, MT	21.89	60	*e*P	P	11 25 52.9	+0.2
BB19B	Bebedouro	21.93	77	*e*P	P	11 25 52.5	-0.6
PET01	Itanhaem-SP	22.00	86	*e*P	P	11 25 54.1	+0.4
SPB	Sao Paulo	22.05	84	P	P	11 25 52.8	-1.4
SPB	Sao Paulo	22.05	84	*e*P	P	11 25 54.3	+0.1
SPB	Sao Paulo	22.05	84	P	P	11 25 54.4	+0.1
	comp=Z,30nm,1.1s						
CLDB	Colider	22.48	44	*e*P	P	11 25 58.0	-0.9
CLDB	Colider	22.48	44	P	P	11 25 58.2	-0.7
	comp=Z,30nm,1.2s						
VAO	Valinhos	22.63	83	P	P	11 25 59.8	-0.8
VAO	Valinhos	22.63	83	*e*P	P	11 25 60.0	-0.6
IPMB	Ipameri, GO	23.55	70	*e*P	P	11 26 08.6	-1.4
CANS	Sao Roque de M	24.08	77	*e*P	P	11 26 15.0	-0.2
SNDB	Serra Nova Dou	24.68	54	*e*P	P	11 26 19.1	-1.5
PMNB	Patos De Minas	24.78	73	*e*P	P	11 26 21.4	-0.2
PMNB	Patos De Minas	24.78	73	P	P	11 26 21.3	-0.2
	comp=Z,40nm,1.0s						
BDFB	Brasilia	24.92	65	P	P	11 26 23.1	+0.2
	comp=Z,15nm,0.9s,baz=232,slow=9.3,SNR=17						
BDFB				LR	LR	11 37 39.1	
	comp=Z,2µm,18.0s,baz=259,slow=40						
	comp=Z,15nm,0.9s						
BDFB	Brasilia	24.92	65	P	P	11 26 21.5	-1.4
BDFB				IAmb	IAmb	11 26 24.6	
	comp=Z,18nm,0.9s						
TEFE	Tefe	25.18	16	*e*P	P	11 26 26.1	+1.1
BSCB	Bom Sucesso	25.21	80	*e*P	P	11 26 25.3	-0.2
MACA	Manacapuru-AM	26.73	24	P	P	11 26 39.1	0.0
MACA				IAmb	IAmb	11 26 57.2	
	comp=Z,17nm,0.6s						
MACA	Manacapuru-AM	26.73	24	*e*P	P	11 26 39.8	+0.7
DIAM	Diamantina, MG	27.24	75	*e*P	P	11 26 43.8	-0.1
MC01	Montes Claros	27.73	72	*e*P	P	11 26 47.0	-1.3
ITTB	Itaituba	27.84	35	*e*P	P	11 26 49.2	+0.2
SGC2	Sao Gabriel da	27.99	10	*e*P	P	11 26 48.5	-1.9
JANB	Januaria	28.25	69	*e*P	P	11 26 52.8	-0.1
OTAV	Otavalo	28.84	345	*e*P	P	11 26 57.0	-1.5
ALF01	Guarapari-ES	28.89	82	*e*P	P	11 26 57.9	-0.5
SJMB	Sao Joao De Ma	29.21	78	*e*P	P	11 27 01.5	+0.1
SDBA	SAO DESIDERIO	29.23	63	*e*P	P	11 27 01.6	0.0
SMTB	Santa Maria do	29.45	54	*e*P	P	11 27 05.4	+1.9
GUA01	Guaratinga, BA	31.30	76	*e*P	P	11 27 17.6	-2.3
BOAV	Boa Vista	31.97	21	P	P	11 27 25.2	-0.5
BOAV	Boa Vista	31.97	21	*e*P	P	11 27 26.2	+0.6
NBIT	Itapeh - BA	32.38	73	*e*P	P	11 27 29.8	+0.4
ROSC	El Rosal	32.74	355	LR	LR	11 40 34.8	
	comp=Z,216nm,20.5s,baz=63,slow=36						
NBPN	Ponto Novo - B	33.89	66	*e*P	P	11 27 42.5	-0.1
NBTA	Tacaratu-PE	36.60	66	*e*P	P	11 28 06.2	+0.3
NBMA	Muriti-CE	37.08	63	*e*P	P	11 28 10.5	+0.5
PMSA	Palmer Station	37.11	175	LR	LR	11 43 38.0	
	comp=Z,465nm,18.2s,baz=338,slow=36						
ORCD	Orcadas	37.38	159	P	P	11 28 11.6	-0.4
MDP	Montagnes des	37.55	32	LR	LR	11 45 37.4	
	comp=Z,393nm,18.2s,baz=204,slow=40						
SJG	San Juan	46.10	7	LR	LR	11 49 49.2	
	comp=Z,39nm,20.8s,baz=178,slow=38						
VNA3	Neumayer Olymp	54.77	160	P	P	11 30 30.3	+1.5
	comp=Z,4.8nm,0.7s						
VNA2	Neumayer--Watz	55.40	159	⇓P	P	11 30 33.5	+0.2
	comp=Z,7.3nm,0.6s,baz=289,slow=8.4						
SNAA	Sanae	56.99	159	P	P	11 30 44.4	-0.4
	comp=Z,139nm,0.8s						
SNAA	Sanae	56.99	159	P	P	11 30 45.7	+0.9
	comp=Z,2.0nm,0.6s,baz=284,slow=5.7,SNR=4.0						
SNAA				LR	LR	11 52 57.3	
	comp=Z,111nm,21.4s,baz=267,slow=34						
	comp=Z,2.0nm,0.6s						
SNAA	Sanae	56.99	159	P	P	11 30 43.4	-1.5
SNAA				IAmb	IAmb	11 31 20.2	
	comp=Z,7.6nm,0.9s						
TROLL	Troll, Antarti	58.71	160	P	P	11 30 53.1	-3.9
	comp=Z,219nm,0.8s						
QSPA	South Pole Qui	62.24	180	P	P	11 31 21.9	+0.7
	comp=Z,7.1nm,1.1s,baz=139,slow=2.0,SNR=19						
	comp=Z,7.1nm,1.1s						
QSPA	South Pole Qui	62.24	180	P	P	11 31 22.0	+0.8
QSPA				IAmb	IAmb	11 31 33.3	
	comp=Z,16nm,1.1s						
X48A	Hartselle	63.82	346		P	11 31 31.6	-0.2
X48A				IAmb	IAmb	11 31 41.8	
	comp=Z,6.8nm,0.9s						
LPIG	La Paz	63.91	320	LR	LR	11 52 39.4	
	comp=Z,78nm,20.6s,baz=187,slow=30						
W50A	Signal Mountai	64.19	347	P	P	11 31 35.3	+1.0
W50A				IAmb	IAmb	11 31 50.1	
	comp=Z,7.8nm,0.9s						
CPCT	Cooper Cave	64.28	348		P	11 31 34.6	-0.2
CPCT				IAmb	IAmb	11 31 44.9	
	comp=Z,8.2nm,1.1s						
TXAR	Lajitas Array	64.79	329	P	P	11 31 40.3	+1.9
	comp=Z,0.4nm,0.5s,baz=155,slow=9.2,SNR=12						
	comp=Z,0.4nm,0.5s						
WVT	Waverly	65.60	345		P	11 31 42.4	-0.9
WVT				IAmb	IAmb	11 31 53.1	
	comp=Z,7.7nm,0.9s						
PBMO	Poplar Bluff	66.84	343	P	P	11 31 51.7	+0.4
PBMO				IAmb	IAmb	11 32 01.7	
	comp=Z,15nm,1.1s						
S44A	Carbondale	67.42	345		P	11 31 54.8	-0.2
S44A				IAmb	IAmb	11 32 05.2	
	comp=Z,12nm,0.9s						
P43A	Skaggs, Pawnee	69.34	345	P	P	11 32 07.5	+0.5
VNDA	Vanda	70.10	191	P	P	11 32 13.5	+2.3
	comp=Z,1.1nm,1.1s,baz=113,slow=3.2,SNR=6.4						
	comp=Z,1.1nm,1.1s						
DBIC	Dimbokro	72.83	73	P	P	11 32 29.1	+0.4
	comp=Z,18nm,1.0s,baz=238,slow=5.1,SNR=7.0						
DBIC				LR	LR	12 03 35.9	
	comp=Z,151nm,19.3s,baz=251,slow=35						
	comp=Z,18nm,1.0s						
DBIC	Dimbokro	72.83	73	P	P	11 32 27.2	-1.5
SUR	Sutherland	77.34	120	LR	LR	12 01 38.9	
	comp=Z,194nm,20.3s,baz=238,slow=32						
PDAR	Pinedale Array	78.65	332	P	P	11 33 03.0	+1.3
	comp=Z,0.4nm,0.8s,baz=130,slow=8.5,SNR=4.1						
	comp=Z,0.4nm,0.8s						
MAW	Mawson	78.80	164	P	P	11 33 04.0	+2.0
	comp=Z,1.3nm,0.8s,baz=206,slow=8.7,SNR=6.3						
MAW				LR	LR	12 06 16.9	
	comp=Z,165nm,21.9s,baz=223,slow=34						
	comp=Z,1.3nm,0.8s						
RAR	Rarotonga	78.94	252	LR	LR	11 59 04.9	
	comp=Z,185nm,19.7s,baz=104,slow=29						
NVAR	Mina Array Bea	79.27	324	P	P	11 33 07.2	+2.0
	comp=Z,0.3nm,0.6s,baz=160,slow=5.6,SNR=4.6						
	comp=Z,0.3nm,0.6s						
TSUM	Tsumeb	80.40	107	LR	LR	12 05 47.8	
	comp=Z,193nm,18.6s,baz=329,slow=34						
ULM	Lac du Bonnet	80.84	344	P	P	11 33 13.4	+0.3
	comp=Z,5.2nm,1.0s,baz=244,slow=4.9,SNR=3.7						
	comp=Z,5.2nm,1.0s						
TORD	Torodi Ar. Bea	81.69	70	P	P	11 33 18.8	+0.3
	comp=Z,9.7nm,1.1s,baz=259,slow=3.9,SNR=23						
	comp=Z,9.7nm,1.1s						
BOSA	Boshof	82.44	118	P	P	11 33 22.2	-0.2
	comp=Z,5.9nm,0.8s,baz=242,slow=2.7,SNR=10						
	comp=Z,5.9nm,0.8s						
SCHQ	Schefferville	82.56	3	LR	LR	12 09 39.8	
	comp=Z,24nm,21.9s,baz=147,slow=35						
LBTB	Lobatse	84.38	115	LR	LR	12 10 04.1	
	comp=Z,129nm,18.3s,baz=218,slow=35						
MDT	Midelt	87.63	51	LR	LR	12 13 27.1	
	comp=Z,157nm,18.9s,baz=238,slow=36						
URZ	Urewera	88.10	227	LR	LR	12 04 15.8	
	comp=Z,170nm,19.3s,baz=154,slow=29						
RPZ	Rata Peaks	88.56	220	LR	LR	12 04 16.5	
	comp=Z,15nm,18.5s,baz=57,slow=29						
LSZ	Lusaka	91.18	108	LR	LR	12 11 17.9	
	comp=Z,208nm,18.3s,baz=206,slow=33						
FRB	Frobisher Bay	91.44	1	LR	LR	12 16 57.7	
	comp=Z,32nm,19.9s,baz=98,slow=37						
SFJD	Kangerlussuaq	95.98	8	LR	LR	12 18 38.8	
	comp=Z,20nm,19.4s,baz=220,slow=36						
KEST	Kesra	98.98	54	LR	LR	12 20 12.1	
	comp=Z,373nm,21.2s,baz=264,slow=36						
ASAR	Alice Springs	123.14	208	PKP	PKPdf	11 39 56.4	-0.6
	comp=Z,0.5nm,0.9s,baz=121,slow=1.8,SNR=5.5						
H11S2	WAKE ISLAND Hy	126.16	273	T	T	13 59 13.4	
	baz=112,slow=75,SNR=32						
H11S1	WAKE ISLAND Hy	126.17	273	T	T	13 59 14.3	
	baz=112,slow=75,SNR=31						
H11S3	WAKE ISLAND Hy	126.18	273	T	T	13 59 14.8	
	baz=112,slow=75,SNR=41						
WRA	Warramunga Arr	126.23	210	PKP	PKPdf	11 40 03.1	+0.1
	comp=Z,0.9nm,0.9s,baz=153,slow=1.8,SNR=8.1						
H11N3	WAKE ISLAND Hy	126.42	275	T	T	13 59 26.1	
	baz=113,slow=75,SNR=7.8						
H11N1	WAKE ISLAND Hy	126.43	275	T	T	13 59 26.5	
	baz=113,slow=75,SNR=7.5						
H11N2	WAKE ISLAND Hy	126.44	275	T	T	13 59 26.7	
	baz=113,slow=75,SNR=11						
BVAR	Borovoye Array	142.36	38	PKP	PKPdf	11 40 32.6	+0.7
	comp=Z,0.8nm,0.6s,baz=310,slow=2.2,SNR=2.6						
KURBB	Kurchatov Arra	147.94	37	PKPbc	PKPdf	11 40 43.0	+1.4
	comp=Z,2.2nm,0.8s,baz=302,slow=3.0,SNR=12						
ZALV	Zalesovo Beam	148.75	27	PKPbc	PKPbc	11 40 46.5	-0.1
	comp=Z,6.4nm,0.7s,baz=308,slow=3.6,SNR=20						
MKAR	Makanchi Array	152.12	41	PKPbc	PKPbc	11 40 55.0	0.0
	comp=Z,2.7nm,0.8s,baz=309,slow=2.5,SNR=18						
HHC	Hu-ho-hao-te	166.92	350	*e*P	PKPdf	11 41 01.9	-3.6
NJ2	Nanjing	170.19	297	*e*P	PKPdf	11 41 08.0	+0.2
NJ2				pmax	pmax		
	comp=Z,41nm,0.7s						
PZH	PanZhiHua	173.76	102	PKP	PKPdf	11 41 09.1	-0.7

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*SJA **06** 11:30:29.9±0.7, 27°.90S×71°.62W, h7^{km}±3^{km}, ML4.2, MW3.8*
*IDC **06** 11:30:30.9±1.2, 27°.91S×71°.67W, h0^{km}, mb4.1/2, mbtmp3.9/6, ML3.8/4, Error ellipse: s-maj=30.8km s-min=18.4km az=89.0*
*NEIC **06** 11:30:34.0±1.8, 28°.00S±0°.03×71°.42W±0°.06, h26^{km}±7^{km}, mb4.5/5, ML4.1(GUC), Error ellipse: s-maj=7.9km s-min=3.4km az=102.0*
*GUC **06** 11:30:34.4±0.7, 28°.09S×71°.34W, h28^{km}±3^{km}, ML4.2*
ISC 06 11:30:30.1±1.5**, 27°.93S**±0°.02×**71°.54W**±0°.05**, h6**^{km}±9^{km}**, n80,** σ2^{s}.**12**/101**, mb4.5**/4**, 1C-2D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	Llanos de Chal	0.49	123	*e*P	Pb	11 30 41.5	+0.3
AC04	Llanos de Chal	0.49	123	*e*P	Pb	11 30 41.5	+0.3
AC04				*e*S	Sg	11 30 46.1	0.0
AC04				IAML		11 30 46.7	
	comp=E,25µm,0.2s						
AC04	Llanos de Chal	0.49	123		Pb	11 30 41.6	+0.3
AC04					Sg	11 30 46.5	+0.4
AC06	Mina Casimiro	1.20	62	⇓*i*P	Pg	11 30 54.4	+1.3
AC06				*e*S	Sn	11 31 09.9	-0.2
AC06				IAML		11 31 16.4	
	comp=E,4µm,0.4s						
AC06	Mina Casimiro	1.20	62		Pg	11 30 54.3	+1.2
GO03	Copiapo	1.21	74	*e*P	Pg	11 30 54.4	+1.1
GO03				*e*S	Sn	11 31 12.1	+1.8
GO03				IAML		11 31 13.0	
	comp=Z,3µm,0.8s						
GO03	Copiapo	1.21	74	*e*P	Pg	11 30 54.3	+1.1
GO03				*i* S	Sg	11 31 08.8	-0.1
GO03				IAML		11 31 16.8	
	comp=N,5µm,0.4s						
GO03	Copiapo	1.21	74		Pg	11 30 54.2	+1.0
GO03				Sn	Sn	11 31 09.0	-1.3
LCO	Las Campanas	1.30	146	*e*P	Pn	11 30 54.2	-0.9
LCO				IAML		11 31 13.2	
	comp=N,27µm,0.3s						
LCO	Las Campanas	1.30	146		Pn	11 30 54.5	-0.6
AC05	El Transito	1.43	129	*e*P	Pn	11 30 45.3	-12
AC05				*e*S	Sb	11 31 15.7	-0.3
AC05				IAML		11 31 16.3	
	comp=Z,2µm,0.5s						
AC05	El Transito	1.43	129	⇑*i*P	Pn	11 30 56.8	0.0
AC05				*e*S	Sn	11 31 11.6	-4.5
AC05				IAML		11 31 17.6	
	comp=N,6µm,0.4s						
AC05	El Transito	1.43	129		Pn	11 30 56.7	-0.1
AC01	Pan de Azucar	1.97	26	*e*P	Pn	11 31 01.5	-2.5
AC01				*e*P	Pb	11 31 06.3	-0.1
AC01				*e*S	Sb	11 31 29.5	-1.7
AC01				*e*S	Sg	11 31 32.5	-0.8
AC01	Pan de Azucar	1.97	26	*e*P	Pb	11 31 06.3	-0.1
AC01				IAML		11 31 47.6	
	comp=E,1µm,0.5s						
AC01	Pan de Azucar	1.97	26		Pb	11 31 06.6	+0.3
GO04	Tololo Observa	2.32	164	*e*P	Pn	11 31 10.1	+1.0
GO04				*e*S	Sn	11 31 37.5	-0.7
GO04				IAML		11 31 46.7	
	comp=N,10µm,0.4s						
GO04	Tololo Observa	2.32	164		Pn	11 31 09.5	+0.4
CO01	Juntas del Tor	2.40	148	*e*P	Pn	11 31 12.5	+2.4
CO01				*e*S	Sn	11 31 41.1	+1.0
CO01				IAML		11 31 45.1	
	comp=Z,2µm,0.9s						
CO01	Juntas del Tor	2.40	148	*e*P	Pn	11 31 12.2	+2.1
CO01				IAML		11 31 45.4	
	comp=N,4µm,0.4s						
CO01	Juntas del Tor	2.40	148		Pn	11 31 12.0	+1.8
AC02	Maricunga	2.41	64	*e*P	Pb	11 31 14.4	+0.2
AC02				*e*S	Sg	11 31 47.0	-0.5
AC02				IAML		11 31 52.1	
	comp=Z,892nm,0.8s						
AC02	Maricunga	2.41	64	*e*P	Pb	11 31 14.4	+0.2
CO06	Fray Jorge	2.73	182	*e*P	Pn	11 31 14.1	-0.5
CO06	Fray Jorge	2.73	182		Pn	11 31 14.0	-0.6
AROD	Rodeo	2.87	141	*e*P	Pb	11 31 20.5	-1.4
AROD				*e*S	Sb	11 31 56.5	-1.0
CO03	El Pedregal	2.99	166		Pn	11 31 18.9	+0.8
VCA	Vinchina	3.05	106	*e*P	Pb	11 31 24.4	-0.5
VCA				*e*S	Sb	11 32 01.5	-0.9
VCA				IAML		11 32 08.5	
	comp=Z,522nm,0.8s						
VCA	Vinchina	3.05	106	*e*P	Pb	11 31 23.0	-1.9
ACDV	Cuesta del Vie	3.08	137	*e*P	Pb	11 31 24.1	-1.3
ACDV				*e*S	Sb	11 32 03.9	+0.6
ACDV				IAML		11 32 06.7	
	comp=Z,432nm,0.5s						
CO02	Combarbal	3.29	172	*e*P	Pn	11 31 22.7	+0.3
CO02	Combarbal	3.29	172		Pn	11 31 22.6	+0.3
ACCO	Cerro Coronel	3.42	141	*e*P	Pb	11 31 28.7	-2.6
ACCO				*e*S	Sn	11 32 09.0	+3.7
ACCO				IAML		11 32 24.7	
	comp=Z,423nm,0.9s						
PB14	IPOC Station P	3.45	17	*e*P	Pn	11 31 27.2	+2.5
PB14				*e*S	Sb	11 32 09.7	-4.5
PB14				IAML		11 32 29.1	
	comp=Z,383nm,0.7s						
PB14	IPOC Station P	3.45	17	*e*P	Pn	11 31 26.4	+1.7
PB14	IPOC Station P	3.45	17		Pn	11 31 25.8	+1.1
TINO	Tinogasta	3.52	93	*e*P	Pb	11 31 29.2	-3.6
TINO				*e*S	Sg	11 32 22.9	-0.2
TINO				IAML		11 32 25.7	
	comp=Z,175nm,0.4s						
CO04	Los Peladeros	4.12	173		Pn	11 31 34.5	+0.5
ACLC	CERRO LA CRUZ	4.30	111	*e*P	Pn	11 31 40.2	+4.0
ACLC				*e*S	Sb	11 32 33.5	-4.9
ACLC				IAML		11 32 41.8	
	comp=Z,130nm,0.5s						
RTLL	Cerro Villicun	4.31	142	*e*P	Pn	11 31 40.6	+4.3
RTLL				*e*S	Sn	11 32 29.5	+2.6
RTLL				IAML		11 32 46.2	
	comp=Z,374nm,1.0s						
RTLS	Leoncito	4.32	154	*e*P	Pn	11 31 41.2	+4.6
RTLS				*e*S	Sn	11 32 33.5	+6.0
RTLS				IAML		11 32 46.4	
	comp=Z,1µm,0.6s						
ZON	Zonda	4.38	146	*e*P	Pn	11 31 42.1	+4.9
ZON				*e*S	Sb	11 32 36.0	-4.6
ZON				IAML		11 32 51.2	
	comp=Z,158nm,2.0s						
CFA	Coronel Fontan	4.65	143	Pn	Pn	11 31 44.4	+3.4
	comp=Z,8.4nm,0.3s,baz=314,slow=11,SNR=76						
	comp=Z,20nm,0.3s						
CFA				AML	AML		
CFA	Coronel Fontan	4.65	143	*e*P	Pn	11 31 44.6	+3.7
CFA				*e*S	Sb	11 32 44.0	-4.5
CFA				IAML		11 32 54.3	
	comp=Z,331nm,0.6s						
VA03	San Esteban	4.89	170	⇓*e*P	Pn	11 31 45.4	+1.1
CYA	Choya	5.09	97	*e*P	Pn	11 31 50.7	+3.6
CYA				*e*S	Sb	11 32 54.8	-6.3
CYA				IAML		11 32 57.7	
	comp=Z,100nm,0.7s						
CYA	Choya	5.09	97	*e*P	Pn	11 31 49.9	+2.9
PB05	IPOC Station P	5.20	14		Pn	11 31 49.7	+1.1
PEL	Peldehue	5.25	172		Pn	11 31 50.1	+0.9
MT02	Curacav	5.32	176		Pn	11 31 50.5	+0.4
PB06	IPOC Station P	5.50	19		Pn	11 31 54.4	+1.6
MT16	CCHEN	5.55	171		Pn	11 31 52.6	-0.7
MT09	Talagante	5.84	175		Pn	11 31 57.3	-0.1
MT13	San Alfonso	5.89	170		Pn	11 31 58.6	+0.6
MT01	Popeta	5.92	178		Pn	11 31 58.0	-0.3
PB03	IPOC Station P	6.08	16		Pn	11 32 01.7	+1.0
SLA	San Lorenzo	6.29	61	*e*P	Pb	11 32 14.2	-5.9
PB07	IPOC Station P	6.36	14		Pn	11 32 06.5	+2.0
BO01	Tunca	6.45	177		Pn	11 32 05.3	-0.3
PB02	IPOC Station P	6.75	13		Pn	11 32 11.8	+1.9
BO02	Sierra Bellavi	6.87	175		Pn	11 32 10.8	-0.7
TCA	Tanti	6.93	121	*e*P	Pn	11 32 13.4	+1.1
GO05	Hualane	7.06	183	Pn	Pn	11 32 12.1	-2.0
H03N1	Juan Fernandez	8.39	227	T	T	11 41 07.9	
	baz=206,slow=74,SNR=166						
PSGCX	Pisagua	8.40	9	Pn	Pn	11 32 33.5	+0.9
H03N2	Juan Fernandez	8.40	227	T	T	11 41 08.3	
	baz=55,slow=74,SNR=132						
BI02	San Fabin de	8.71	179		Pn	11 32 35.7	-1.0
LPAZ	La Paz	12.01	16	Pn	Pn	11 33 24.8	+2.3
	comp=Z,0.2nm,0.3s,baz=214,slow=7.7,SNR=6.2						
	comp=Z,0.6nm,0.4s						
LPAZ				AML	AML		
CPUP	Villa Florida	12.76	86	Pn	Pn	11 33 35.0	+2.9
	comp=Z,0.1nm,0.3s,baz=279,slow=15,SNR=3.8						
	comp=Z,4.9nm,1.1s						
CPUP				AML	AML		
SIV	San Ignacio	15.34	41	Pn	Pn	11 34 05.9	-1.3
	baz=219,slow=14,SNR=1.3						
	comp=Z,0.4nm,0.3s						
CPSB	Cacapava Do Su	16.00	103	Pn	Pn	11 34 14.1	-1.8
VAO	Valinhos	22.71	83	P	P	11 35 32.3	-0.5
ORCD	Orcadas	37.45	159	P	P	11 37 42.3	-1.7
ORCD				IAmb	IAmb	11 38 04.4	
	comp=Z,12nm,0.9s						
OBIP	Obispado Ponce	45.95	7	P	P	11 38 53.5	-0.5
OBIP				IAmb	IAmb	11 38 53.9	
	comp=Z,7.5nm,1.1s						
QSPA	South Pole Qui	62.28	180	P	P	11 40 54.6	+1.7
	comp=Z,1.3nm,1.0s,baz=194,slow=4.2,SNR=14						
	comp=Z,1.3nm,1.0s						
QSPA	South Pole Qui	62.28	180	P	P	11 40 54.2	+1.3
QSPA				IAmb	IAmb	11 41 31.1	
	comp=Z,2.8nm,1.3s						
BOSA	Boshof	82.53	118	P	P	11 42 55.3	+0.9
	comp=Z,2.1nm,0.8s,baz=233,slow=6.3,SNR=3.8						
	comp=Z,2.1nm,0.8s						
KURBB	Kurchatov Arra	147.96	37	PKPbc	PKiKP	11 50 18.1	+0.2
	comp=Z,0.4nm,0.6s,baz=305,slow=3.0,SNR=1.6						
ZALV	Zalesovo Beam	148.76	27	PKPbc	PKiKP	11 50 20.4	+0.9
	comp=Z,1.5nm,0.7s,baz=290,slow=4.4,SNR=6.2						
MKAR	Makanchi Array	152.15	40	PKPbc	PKiKP	11 50 28.0	+1.2
	comp=Z,0.5nm,0.6s,baz=276,slow=2.3,SNR=4.1						

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*SJA **06** 11:34:50.7±0.7, 27°.97S×71°.47W, h16^{km}±3^{km}, ML3.6, MW3.7*
*GUC **06** 11:34:55.5±0.7, 28°.06S×71°.19W, h27^{km}±2^{km}, ML3.7*
ISC 06 11:34:52.0±1.1**, 27°.96S**±0°.02×**71°.24W**±0°.05**, h10**^{km}**, n30,**

σ2^{s}.13/57,1C,Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	**Llanos de Chal**	**0.28**	**148**	⇑*i*P	**Pn**	**11 35 00.4**	**-1.8**
AC04				*i* S	**Sb**	**11 35 04.2**	**+0.1**
AC04				IAML		11 35 04.6	
	comp=E,36μm,0.1s						
GO03	**Copiapo**	**0.97**	**68**	*e*P	**Pn**	**11 35 12.8**	**+1.1**
GO03				*e*S	**Sn**	**11 35 26.2**	**+0.7**
GO03				IAML		11 35 29.9	
	comp=Z,1μm,0.6s						
GO03	**Copiapo**	**0.97**	**68**	*e*P	**Pn**	**11 35 12.9**	**+1.2**
GO03				*e*S	**Sn**	**11 35 25.5**	**0.0**
GO03				IAML		11 35 29.5	
	comp=N,2μm,0.4s						
AC06	**Mina Casimiro**	**0.99**	**53**	*e*P	**Pn**	**11 35 13.1**	**+1.1**
AC06				*e*S	**Sn**	**11 35 27.0**	**+0.9**
LCO	**Las Campanas**	**1.15**	**156**	*e*P	**Pn**	**11 35 14.0**	**-0.4**
LCO				*e*S	**Sg**	**11 35 28.0**	**-1.1**
LCO				IAML		11 35 29.8	
	comp=Z,3μm,0.4s						
LCO	**Las Campanas**	**1.15**	**156**	*e*P	**Pn**	**11 35 13.7**	**-0.7**
LCO				*i* S	**Sg**	**11 35 27.5**	**-1.6**
LCO				IAML		11 35 29.2	
	comp=Z,11μm,0.2s						
AC05	**El Transito**	**1.22**	**136**	*e*P	**Pg**	**11 35 15.4**	**-0.1**
AC05				*e*S	**Sb**	**11 35 30.4**	**-0.7**
AC05				IAML		11 35 30.4	
	comp=Z,632nm,0.2s						
AC05	**El Transito**	**1.22**	**136**	*i* P	**Pg**	**11 35 15.2**	**-0.2**
AC05				*e*S	**Sb**	**11 35 30.1**	**-1.0**
AC05				IAML		11 35 30.6	
	comp=N,1μm,0.3s						
AC01	**Pan de Azucar**	**1.90**	**18**	*e*P	**Pb**	**11 35 25.9**	**-0.9**
AC01				*e*S	**Sb**	**11 35 50.1**	**-0.4**
AC01	**Pan de Azucar**	**1.90**	**18**	*e*P	**Pb**	**11 35 25.6**	**-1.1**
AC01				*i* S	**Sb**	**11 35 49.3**	**-1.2**
AC02	**Maricunga**	**2.19**	**60**	*e*P	**Pg**	**11 35 32.9**	**-1.1**
AC02				*e*S	**Sn**	**11 35 56.8**	**+0.5**
AC02				*e*S	**Sg**	**11 36 03.6**	**+1.2**
AC02				IAML		11 36 04.8	
	comp=Z,386nm,0.7s						
AC02	**Maricunga**	**2.19**	**60**	*e*P	**Pg**	**11 35 33.1**	**-0.9**
AC02				*i* S	**Sg**	**11 36 00.9**	**-1.5**
GO04	**Tololo Observa**	**2.24**	**170**	*e*P	**Pn**	**11 35 30.1**	**+0.8**
GO04				*e*S	**Sb**	**11 35 59.5**	**-1.0**
GO04				IAML		11 36 01.7	
	comp=Z,630nm,0.7s						
GO04	**Tololo Observa**	**2.24**	**170**	*e*P	**Pn**	**11 35 30.1**	**+0.8**
GO04				*i* S	**Sb**	**11 35 58.6**	**-1.9**
GO04				*e*S	**Sn**	**11 35 58.9**	**+1.7**
GO04				IAML		11 36 03.2	
	comp=N,2μm,0.4s						
CO01	**Juntas del Tor**	**2.25**	**154**	*e*P	**Pb**	**11 35 31.3**	**-1.5**
CO01				*e*S	**Sb**	**11 35 59.8**	**-0.9**
CO01				IAML		11 36 01.3	
	comp=Z,240nm,0.4s						
CO01	**Juntas del Tor**	**2.25**	**154**	*e*P	**Pb**	**11 35 31.5**	**-1.4**
CO01				*e*S	**Sb**	**11 35 58.5**	**-2.2**
CO01				IAML		11 36 01.8	
	comp=E,297nm,0.2s						
AROD	**Rodeo**	**2.69**	**145**	*e*P	**Pb**	**11 35 39.0**	**-1.4**
AROD				*e*S	**Sb**	**11 36 13.3**	**-0.3**
CO06	**Fray Jorge**	**2.72**	**187**	*e*P	**Pn**	**11 35 34.6**	**-1.2**
ACDV	**Cuesta del Vie**	**2.88**	**140**	*e*P	**Pb**	**11 35 42.6**	**-1.0**
ACDV				*e*S	**Sb**	**11 36 17.3**	**-1.6**
ACDV				IAML		11 36 27.9	
	comp=Z,100nm,0.6s						
ACCO	**Cerro Coronel**	**3.23**	**144**	*e*P	**Pb**	**11 35 47.7**	**-2.0**
ACCO				*e*S	**Sb**	**11 36 28.8**	**-0.5**
ACCO				IAML		11 36 35.5	
	comp=Z,151nm,0.4s						
CO02	**Combarbal**	**3.24**	**176**	*e*P	**Pn**	**11 35 42.6**	**-0.4**
CO02				IAML		11 36 35.0	
	comp=E,937nm,0.3s						
TINO	**Tinogasta**	**3.25**	**93**	*e*P	**Pb**	**11 35 47.2**	**-2.6**
TINO				*e*S	**Sg**	**11 36 38.3**	**+1.9**
TINO				IAML		11 36 40.0	
	comp=Z,81nm,0.5s						
PB14	**IPOC Station P**	**3.41**	**13**	IAML		11 36 53.9	
	comp=N,32nm,0.5s						
ACLC	**CERRO LA CRUZ**	**4.04**	**112**	*e*P	**Pn**	**11 35 57.9**	**+3.8**
ACLC				*e*S	**Sb**	**11 36 51.9**	**-0.5**
ACLC				IAML		11 37 04.4	
	comp=Z,34nm,0.4s						
RTLL	**Cerro Villicun**	**4.13**	**145**	*e*P	Pb	11 35 59.7	-5.1
RTLL				*e*P	Pn	11 35 59.8	+4.6
RTLL				*e*S	**Sb**	**11 36 49.1**	**-5.7**
RTLL				IAML		11 37 04.8	
	comp=Z,61nm,0.5s						
CFA	**Coronel Fontan**	**4.47**	**145**	*e*P	**Pn**	**11 36 03.1**	**+3.2**
CFA				*e*S	**Sn**	**11 36 56.8**	**+4.8**
CFA				IAML		11 37 07.1	
	comp=Z,34nm,0.5s						
VA03	**San Esteban**	**4.82**	**173**	*e*P	**Pn**	**11 36 06.7**	**+1.9**
VA03				*e*S	**Sb**	**11 37 18.2**	**+3.4**
VA03				IAML		11 37 27.6	
	comp=Z,63nm,0.6s						
VA03	**San Esteban**	**4.82**	**173**	*e*P	**Pn**	**11 36 05.8**	**+1.1**
VA03				*i* S	**Sn**	**11 37 06.3**	**+5.6**
CYA	**Choya**	**4.83**	**97**	*e*P	**Pn**	**11 36 08.6**	**+3.8**
CYA				*e*S	**Sb**	**11 37 10.1**	**-4.8**
CYA				IAML		11 37 25.0	
	comp=Z,34nm,0.5s						
CYA	**Choya**	**4.83**	**97**	*e*P	**Pn**	**11 36 07.9**	**+3.1**
CYA				*i* S	**Sn**	**11 37 02.9**	**+2.2**

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*IDC **06** 11:36:43.7±0.7, 14°.11N×93°.08E, h0^{km}, mb4.0/8, mbtmp4.0/10, ML3.8/2, MS3.7/6, Error ellipse: s-maj=17.1km s-min=14.7km az=166.0*

*NEIC **06** 11:36:45.7±0.5, 14°.06N±0°.07×93°.1E±0°.1, h10^{km}±1^{km}, mb4.1/6, Error ellipse: s-maj=19.7km s-min=12.2km az=100.0*

*NDI **06** 11:36:53.6±2.4, 14°.14N×92°.96E, h37^{km}±29^{km}, ML4.0, MW4.0, mb4.1(NEIC), Presumed earthquake*

*BKK **06** 11:36:57.9±1.0, 14°N±4°×9°4E±°, h22^{km}±12^{km}, M3.7/19, mB4.3/11, mb4.1/14, Mjma3.5/19, ML4.3/13, MLv3.9/13, Mw(mB)3.4/11*

ISC 06 11:36:48.0±0.5**, 14°.09N**±0°.05×**93°.17E**±0°.06**, h32**^{km}**, n51, σ1^{s}.98**/45**, mb4.1**/9**, MS4.0**/5**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PBA	**Port Blair**	**2.45**	**190**	Pn	**Pn**	**11 37 24.9**	**-1.0**
PBA	**Port Blair**	**2.45**	**190**	*e*P	**Pb**	**11 37 31.8**	**+0.3**
PBA				*e*S	**Sb**	**11 37 59.1**	**-2.2**
PBA				IAML		11 38 01.6	
	comp=N,391nm,0.8s						
PBA				IAML		11 38 02.1	
	comp=E,315nm,0.4s						
KHLT	**Khaolaem Dam**	**5.30**	**82**	P	**Pn**	**11 38 07.2**	**+2.2**
KHLT				AML	AML		
UMPA	**Umpang Tak**	**5.88**	**68**	P	**Pn**	**11 38 15.0**	**+1.9**
	comp=E,0.4nmcomp=E,69nm,0.7s						
UMPA				S	**Sn**	**11 39 15.8**	**-3.7**
	comp=E,0.4nmcomp=E,69nm,0.7s						
MHMT	**Maesarieng**	**6.12**	**48**	P	**Pn**	**11 38 19.3**	**+3.0**
	comp=E,0.2nmcomp=E,0.1nmcomp=E,0.1nmcomp=E,15nm,0.8s						
MHMT				AML	AML		
MHMT				AML	AML		
UTHA	**Uthaitani**	**6.24**	**76**	P	**Pn**	**11 38 21.5**	**+3.5**
CM13	**Chiang Mai Arr**	**6.99**	**51**	P	**Pn**	**11 38 30.5**	**+2.2**
	comp=E,97nmcomp=E,7.1nm,0.6s						
CM05	**Chiang Mai Arr**	**7.01**	**52**	P	**Pn**	**11 38 31.3**	**+2.8**
	comp=E,0.0nmcomp=E,0.0nmcomp=E,5.9nm,0.7s						
CM05				AML	AML		
CM02	**Chiang Mai Arr**	**7.03**	**51**	P	**Pn**	**11 38 30.1**	**+1.3**
	comp=E,0.0nmcomp=E,0.0nmcomp=E,6.0nm,0.7s						
CM02				AML	AML		
CM04	**Chiang Mai Arr**	**7.03**	**52**	P	**Pn**	**11 38 31.4**	**+2.5**
	comp=E,0.0nmcomp=E,0.0nmcomp=E,102nmcomp=E,8.7nm,0.5s						
CM04				AML	AML		
CM31	**Chiang Mai Arr**	**7.04**	**51**	Pn	**Pn**	**11 38 29.6**	**+0.6**
CMAR	**Chiang Mai Arr**	**7.04**	**51**	Pn	**Pn**	**11 38 30.4**	**+1.4**
	comp=E,0.4nm,0.3s,baz=231,slow=15,SNR=4.2						
CMAR				Sn	**Sn**	**11 39 45.6**	**-2.4**
	comp=E,0.6nm,0.3s,baz=245,slow=31,SNR=4.1						
CMAR				LR	LR	11 41 49.1	
	comp=E,84nm,18.5s,baz=150,slow=43						
	comp=E,0.5nm,0.3s						
CMAR				AML	AML		
CMAR	**Chiang Mai Arr**	**7.04**	**51**		**Pn**	**11 38 29.8**	**+0.8**
CM09	**Chiang Mai Arr**	**7.07**	**51**	P	**Pn**	**11 38 32.1**	**+2.7**
	comp=E,0.0nmcomp=E,0.0nmcomp=E,99nmcomp=E,10nm,0.7s						
CM09				AML	AML		
CHTO	**Chiang Mai**	**7.26**	**49**	S	**Sn**	**11 39 50.6**	**-2.8**
CHTO	**Chiang Mai**	**7.26**	**49**	Pn	**Pn**	**11 38 32.9**	**+0.9**
CMAI	**Chiengmai2**	**8.08**	**43**	P	**Pn**	**11 38 45.9**	**+2.5**
	comp=E,0.3nmcomp=E,0.4nmcomp=E,8.1nm,0.6s						
CMAI				S	**Sn**	**11 40 10.0**	**-3.8**
	comp=E,0.3nmcomp=E,0.4nmcomp=E,8.1nm,0.6s						
CMAI				AML	AML		
SAIH	**SAIHA**	**8.36**	**359**	*e*P	**Pn**	**11 38 51.3**	**+4.1**
SAIH				*e*S	**Sn**	**11 40 16.4**	**-4.2**
SAIH				IAML		11 40 17.4	
	comp=N,405nm,0.2s						
SAIH				IAML		11 40 17.6	
	comp=E,580nm,0.1s						
VIS	**Vishakhapatnam**	**10.13**	**292**	*e*P	**Pn**	**11 39 12.4**	**+1.0**
VIS				*e*S	Sn	11 40 53.0	-11
VIS				IAML		11 40 55.2	
	comp=N,99nm,0.1s						
VIS				IAML		11 40 57.4	
	comp=E,78nm,0.1s						
BOK	**Bokaro**	**11.86**	**326**	*e*S	Sn	11 41 31.5	-15
BOK				IAML		11 41 39.8	
	comp=N,12nm,0.4s						
BOK				IAML		11 41 39.8	
	comp=E,9.6nm,0.3s						
PALK	**Pallekele**	**13.99**	**242**	Pn	**Pn**	**11 40 02.3**	**-2.0**
	comp=E,0.5nm,0.3s,baz=82,slow=9.6,SNR=6.7						
PALK				Sn	Sn	11 42 23.1	-16
	comp=E,2.4nm,0.3s,baz=329,slow=16,SNR=8.4						
	comp=E,9.0nm,0.9s						
PALK				AML	AML		
HYB	**Hyderabad**	**14.46**	**285**	*e*S	Sn	11 42 38.0	-12
HYB				IAML		11 42 50.9	
	comp=N,15nm,0.5s						
HYB				IAML		11 42 54.0	
	comp=E,6.8nm,0.2s						
EVN	**Everest**	**15.01**	**338**		**Pn**	**11 40 17.6**	**-1.0**
EVN				IAmb	IAmb	11 40 27.8	
	comp=Z,7.2nm,0.7s						
MYKOM	**Kota Tinggi**	**16.15**	**138**		**P**	**11 40 35.8**	**+0.1**
MYKOM				IAmb	IAmb	11 40 42.8	
	comp=Z,19nm,1.1s						
H08S3	**Diego Garcia H**	**29.78**	**225**	T	T	12 13 49.6	
	baz=42,slow=75,SNR=14						
H08S2	**Diego Garcia H**	**29.79**	**225**	T	T	12 13 50.7	
	baz=42,slow=75,SNR=4.5						
H08S1	**Diego Carcia H**	**29.80**	**225**	T	T	12 13 50.8	
	baz=42,slow=75,SNR=2.7						
MKAR	**Makanchi Array**	**33.86**	**347**	P	**P**	**11 43 27.6**	**0.0**
	comp=Z,1.6nm,0.7s,baz=169,slow=8.3,SNR=7.6						
	comp=Z,1.6nm,0.7s						
MAKZ	**Makanchi**	**33.94**	**346**	P	**P**	**11 43 28.6**	**+0.2**
KURBB	**Kurchatov Arra**	**38.33**	**345**	P	**P**	**11 44 06.2**	**+0.5**
	comp=Z,1.9nm,0.7s,baz=159,slow=7.9,SNR=11						
	comp=Z,1.9nm,0.7s						
AB31	**Akbulak array**	**44.40**	**329**	P	**P**	**11 44 56.0**	**+0.4**
AB31				IAmb	IAmb	11 44 57.4	
	comp=Z,2.8nm,0.9s						
WRA	**Warramunga Arr**	**52.76**	**129**	P	**P**	**11 46 01.1**	**+0.7**
	comp=Z,0.8nm,0.7s,baz=308,slow=9.2,SNR=20						
WRA				PcP	**PcP**	**11 47 10.7**	**+1.0**
	comp=Z,0.4nm,0.8s,baz=323,slow=3.1,SNR=5.5						
	comp=Z,0.8nm,0.7s						
WRA	**Warramunga Arr**	**52.76**	**129**	P	**P**	**11 46 00.8**	**+0.5**
AS31	**Alice Springs**	**54.72**	**133**	P	**P**	**11 46 16.0**	**+1.3**
AS31				IAmb	IAmb	11 46 39.2	
	comp=Z,0.9nm,0.9s						
ASAR	**Alice Springs**	**54.72**	**133**	P	**P**	**11 46 15.8**	**+1.1**
	comp=Z,0.8nm,0.6s,baz=312,slow=6.7,SNR=21						
ASAR				PcP	**PcP**	**11 47 18.7**	**+1.5**
	comp=Z,0.3nm,0.6s,baz=310,slow=4.2,SNR=1.5						
	comp=Z,0.8nm,0.6s						
ASAR	**Alice Springs**	**54.72**	**133**	P	**P**	**11 46 15.3**	**+0.7**
BRTR	**Keskin Array B**	**57.76**	**308**	P	**P**	**11 46 36.4**	**0.0**
	comp=Z,1.5nm,0.7s,baz=118,slow=7.5,SNR=8.2						
	comp=Z,1.5nm,0.7s						
BRTR	**Keskin Array B**	**57.76**	**308**	P	**P**	**11 46 35.9**	**-0.5**
FINES	**FINESS Array B**	**66.82**	**331**	P	**P**	**11 47 36.0**	**-0.4**
	comp=Z,1.1nm,0.6s,baz=123,slow=7.0,SNR=7.1						
	comp=Z,1.1nm,0.6s						
FINES	**FINESS Array B**	**66.82**	**331**	P	**P**	**11 47 36.4**	**0.0**
H04N2	**CROZET ISLANDS**	**70.60**	**209**	T	T	13 05 05.0	
	baz=42,slow=75,SNR=11						
H04N1	**CROZET ISLANDS**	**70.61**	**209**	T	T	13 05 05.5	
	baz=42,slow=75,SNR=11						
H04N3	**CROZET ISLANDS**	**70.62**	**209**	T	T	13 05 06.6	
	baz=42,slow=75,SNR=9.1						
VRAC	**Vranov**	**70.71**	**318**	LR	LR	12 25 38.2	
	comp=Z,77nm,18.6s,baz=229,slow=42						
GERES	**GERESS Array B**	**72.62**	**317**	P	**P**	**11 48 12.7**	**+0.1**
	comp=Z,1.5nm,0.5s,baz=85,slow=4.7,SNR=12						
	comp=Z,1.5nm,0.5s						
HFS	**Hagfors**	**72.66**	**329**	LR	LR	12 23 48.0	
	comp=Z,76nm,18.6s,baz=249,slow=39						
VAE	**Valguarnera**	**72.72**	**305**	LR	LR	12 24 52.6	
	comp=Z,284nm,18.9s,baz=184,slow=40						
SPITS	**Spitsbergen Ar**	**73.60**	**348**	LR	LR	12 27 24.1	
	comp=Z,30nm,19.9s,baz=319,slow=41						
NOA	**NORSAR Array B**	**73.90**	**330**	LR	LR	12 23 31.7	
	comp=Z,20nm,18.6s,baz=55,slow=38						
TORD	**Torodi Ar. Bea**	**88.26**	**283**	P	**P**	**11 49 37.5**	**+0.5**
	comp=Z,1.2nm,0.8s,baz=70,slow=5.2,SNR=6.5						
	comp=Z,1.2nm,0.8s						
TXAR	**Lajitas Array**	**133.87**	**21**	PKP	**PKPdf**	**11 56 01.9**	**-0.8**
	comp=Z,0.1nm,0.5s,baz=36,slow=2.2,SNR=1.9						

IDC 06 11:43:31.4±2.3**, 5°.85S**×**151°.19E, h0**^{km}**, mb3.1**/3**, mbtmp3.1**/3**, Error ellipse: s-maj=149.4km s-min=32.5km az=127.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**21.55**	**228**	P	P	11 48 22.7	+0.1
	0.4nm,0.5s,baz=54,slow=10.0,SNR=8.4						
	0.4nm,0.5s						
ASAR	**Alice Springs**	**24.30**	**221**	P	P	11 48 51.0	+0.1
	0.2nm,0.6s,baz=57,slow=9.5,SNR=5.6						
	0.2nm,0.6s						
ILAR	**Eielson Array**	**83.73**	**22**	P	P	11 56 01.9	-0.1
	0.2nm,0.7s,baz=230,slow=5.5,SNR=1.7						
	0.2nm,0.7s						

NNC 06 11:53:00.2±2.0**, 53°.44N**×**87°.48E, h0**^{km}**, mb3.7, mpv3.4, 4C-10D, Error ellipse: s-maj=15.8km s-min=7.1km az=60.0, Suspected Mining explosion., Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZAA0	**Zalesovo Array**	**1.66**	**289**	⇓P	Pn	11 53 29.7	-0.9
	6.0nm,0.5s						
ZAA0				⇓S	Sb	11 53 53.0	0.0
	12nm,0.8s						
KURK	**Kurchatov**	**6.10**	**247**	⇓Pn	Pn	11 54 32.0	+0.5
	0.8nm,0.6s						
KURK				⇓Sn	Sn	11 55 42.6	+0.6
	0.7nm,0.8s						
KURK				⇓Lg	Lg	11 56 15.5	
	5.3nm,1.2s						
KURBB	**Kurchatov Arra**	**6.20**	**247**	⇑Pn	Pn	11 54 32.8	0.0
	3.8nm,0.5s						
KURBB				⇓Sn	Sn	11 55 42.7	-1.6
	2.9nm,0.7s						
KURBB				⇑Lg	Lg	11 56 17.9	
	9.4nm,0.7s						
MK31	**Makanchi Array**	**7.44**	**209**	⇓Pn	Pn	11 54 50.6	+0.7
	1.0nm,0.5s,baz=30,slow=13,SNR=32						
MK31				⇓Sn	Sn	11 56 18.8	+3.9
	0.4nm,0.6s						
MK31				⇓Lg	Lg	11 56 54.8	
	1.9nm,0.9s,baz=36,slow=24,SNR=4.2						
MAKZ	**Makanchi**	**7.52**	**210**	⇑Pn	Pn	11 54 51.6	+0.6
	2.0nm,0.5s						
MAKZ				⇓Sn	Sn	11 56 17.9	+1.0
	1.1nm,0.8s						
MAKZ				⇑Lg	Lg	11 56 57.2	
	3.2nm,1.1s						

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*IDC **06** 11:54:13.2±1.2, 39°.79N×143°.65E, h0^{km}, mb3.9/7, mbtmp3.8/9, ML2.8/2, MS2.9/1, Error ellipse: s-maj=24.9km s-min=19.5km az=84.0*

*JMA **06** 11:54:17.7±0.0, 39°.8N±0°.2×143°.4E±0°.3, h14^{km}, MV3.8/33, FAR E OFF SANRIKU*

*NIED **06** 11:54:17.7, 39°.77N×143°.42E, h14^{km}, MW3.8, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M$_{rr}$4.38; M$_{\theta\theta}$-0.06; M$_{\phi\phi}$-4.31; M$_{r\theta}$2.31; M$_{\theta\phi}$-1.85; M$_{\phi r}$3.93; Fault plane solution: M$_0$6.55000×10^{14} NP1: ϕ_s191.00000°, δ24.00000°, λ75.00000°. NP2: ϕ_s28.00000°, δ67.00000°, λ97.00000°.*

ISC 06 11:54:14.2±1.2**, 39°.8N**±0°.1×**143°.7E**±0°.2**, h6**^{km}**, n17, σ0^{s}.57**/9**, mb3.8**/7**, Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MJAR	**Matsushiro Arr**	**5.38**	**235**	Pn	**Pn**	**11 55 35.6**	**+0.7**
	0.1nm,0.3s,baz=44,slow=11,SNR=18						
	5.1nm,0.7s						
MJAR				AML	AML		
JHJ	**Hachijo jima 2**	**7.35**	**206**	Sn	Sn	11 57 09.3	-16
	19nm,0.3s,baz=35,slow=19,SNR=1.7						
USRK	**Ussuriysk Ar.**	**9.74**	**301**	Pn	**Pn**	**11 56 34.9**	**+0.1**
	0.2nm,0.3s,baz=82,slow=14,SNR=4.5						
	3.0nm,0.9s						
USRK				AML	AML		
KSRS	**Korea Array**	**12.53**	**264**	LR	LR	12 02 05.1	
	comp=Z,47nm,18.5s,baz=165,slow=38						
SONM	**Songino Array**	**27.85**	**299**	P	**P**	**12 00 04.3**	**-0.2**
	1.1nm,0.7s,baz=92,slow=7.9,SNR=3.6						
	1.1nm,0.7s						
H11N2	**WAKE ISLAND Hy**	**28.25**	**128**	T	T	12 29 54.6	
	baz=318,slow=75,SNR=53						
H11N1	**WAKE ISLAND Hy**	**28.26**	**128**	T	T	12 29 56.3	
	baz=318,slow=75,SNR=48						
H11N3	**WAKE ISLAND Hy**	**28.27**	**128**	T	T	12 29 53.4	
	baz=318,slow=75,SNR=49						
H11S1	**WAKE ISLAND Hy**	**29.07**	**130**	T	T	12 31 02.2	
	baz=322						
H11S3	**WAKE ISLAND Hy**	**29.08**	**130**	T	T	12 31 01.6	
	baz=322						
H11S2	**WAKE ISLAND Hy**	**29.09**	**130**	T	T	12 31 04.4	
	baz=322						
ZALV	**Zalesovo Beam**	**41.43**	**310**	P	**P**	**12 02 01.0**	**-0.3**
	1.4nm,0.5s,baz=105,slow=7.8,SNR=5.8						
	1.4nm,0.5s						
MKAR	**Makanchi Array**	**44.21**	**300**	P	**P**	**12 02 23.7**	**-0.3**
	1.6nm,1.0s,baz=75,slow=10,SNR=7.4						
	1.6nm,1.0s						
KURBB	**Kurchatov Arra**	**45.75**	**306**	P	**P**	**12 02 35.4**	**-0.7**
	2.4nm,0.2s,baz=80,slow=8.2,SNR=6.7						
	2.4nm,0.2s						
ILAR	**Eielson Array**	**46.23**	**34**	P	**P**	**12 02 40.4**	**+0.6**
	0.5nm,0.8s,baz=253,slow=7.2,SNR=5.2						
	0.5nm,0.8s						
WRA	**Warramunga Arr**	**60.05**	**190**	P	**P**	**12 04 21.6**	**-0.4**
	0.5nm,0.7s,baz=10,slow=6.8,SNR=5.3						
	0.5nm,0.7s						
ASAR	**Alice Springs**	**63.78**	**190**	P	**P**	**12 04 46.5**	**-0.5**
	0.3nm,0.7s,baz=8.2,slow=5.6,SNR=6.3						
	0.3nm,0.7s						

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*IDC **06** 11:56:22.8±1.0, 35°.54N×4°.26W, h0^{km}, mb4.0/9, mbtmp3.9/14, ML3.9/5, MS2.9/2, Error ellipse: s-maj=32.6km s-min=10.8km az=95.0*

*NEIC **06** 11:56:23.0±2.5, 35°.55N±0°.05×5°.34W±0°.08, h10^{km}±1^{km}, mb4.3/12, Error ellipse: s-maj=10.7km s-min=8.2km az=257.0*

*CNRM **06** 11:56:25.4, 35°.48N×5°.56W, h68^{km}, ML4.1*

*IGIL **06** 11:56:27.8, 35°.56N×5°.40W, h52^{km}, ML4.2*

*SFS **06** 11:56:27.0, 35°.58N×5°.38W, h54^{km}, mb4.5/4, ML4.3/25, ML4.6/26, MLv4.1/26*

*INMG **06** 11:56:27.0±2.8, 35°.61N×5°.46W, h78^{km}±6^{km}, ML4.2, Error ellipse: s-maj=4.0km s-min=3.4km az=110.0, #DIST_RANGE: REGIONAL #IPMA_REGION: W Tetuan*

*MDD **06** 11:56:27.1±0.2, 35°.57N×5°.41W, h51^{km}±6^{km}, Mb4.9/90, Error ellipse: s-maj=2.0km s-min=1.7km az=157.0*

ISC 06 11:56:25.2±0.6**, 35°.60N**±0°.03×**5°.38W**±0°.02**, h36**^{km}±1^{km}**, n226, σ2^{s}.15**/370**, mb4.0**/11**, 47C-22D, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SMIR	**Smir Dam**	**0.08**	**1**	P	**Pn**	**11 56 34.8**	**+3.5**
SMIR				S	**Sn**	**11 56 43.4**	**+8.0**
ECEU	**Ceuta**	**0.30**	**1**	P	**Pn**	**11 56 36.6**	**+3.4**
ECEU				S	**Sn**	**11 56 43.2**	**+3.5**
ECEU	**Ceuta**	**0.30**	**1**	⇑P	**Pn**	**11 56 36.6**	**+3.4**
ECEU				S	**Sn**	**11 56 43.0**	**+3.3**
CPS	**Cap Spartel**	**0.47**	**294**	P	**Pn**	**11 56 38.1**	**+2.8**
CPS				S	**Sn**	**11 56 46.6**	**+4.2**
CHEFC	**Chefchaouen**	**0.49**	**176**	P	**Pn**	**11 56 38.4**	**+2.6**
CHEFC				S	**Sn**	**11 56 47.0**	**+3.9**
EJIF	**Jimena Fronter**	**0.85**	**355**	⇓P	**Pn**	**11 56 44.4**	**+3.7**
EJIF				S	**Sn**	**11 56 54.0**	**+2.0**
CNIL	**Conil**	**0.94**	**325**	P	**Pn**	**11 56 45.2**	**+3.3**
EMIJ	**Mijas**	**1.08**	**27**	P	**Pn**	**11 56 45.0**	**+1.1**
EMIJ	**Mijas**	**1.08**	**27**	⇓P	**Pn**	**11 56 45.0**	**+1.1**
EMIJ				⇑IVmb_VC		11 56 47.3	
	11μm,SNR=178						
EMIJ				S	**Sn**	**11 56 58.4**	**+0.8**
SFS	**San Fernando**	**1.09**	**323**	P	**Pn**	**11 56 47.0**	**+3.0**
SFS	**San Fernando**	**1.09**	**323**	Pn	**Pn**	**11 56 45.4**	**+1.5**
SFS	**San Fernando**	**1.09**	**323**	P	**Pn**	**11 56 45.2**	**+1.3**
SFS				S	**Sn**	**11 57 00.6**	**+2.8**
PALE	**Palemas**	**1.24**	**108**	P	**Pn**	**11 56 47.3**	**+1.2**
PALE				S	**Sn**	**11 57 05.5**	**+4.0**
ESPR	**Espera**	**1.32**	**343**	P	**Pn**	**11 56 49.8**	**+2.6**
ESPR				S	**Sn**	**11 57 06.6**	**+3.1**
ESPR	**Espera**	**1.32**	**343**	⇓P	**Pn**	**11 56 49.8**	**+2.6**
ESPR				⇑IVmb_VC		11 56 50.1	
	12μm,SNR=117						
ESPR				S	**Sn**	**11 57 06.4**	**+2.8**
EMAL	**Malaga-Limoner**	**1.39**	**33**	P	**Pn**	**11 56 49.2**	**+1.1**
EMAL				S	**Sn**	**11 57 05.4**	**+0.1**
SICH	**Sidi Chahed**	**1.49**	**178**	P	**Pn**	**11 56 50.1**	**+0.6**
SICH				S	**Sn**	**11 57 07.2**	**-0.5**
AKLM	**AKL**	**1.65**	**131**	P	**Pn**	**11 56 52.2**	**+0.4**
AKLM				S	**Sn**	**11 57 11.4**	**-0.4**
EGOR	**Sierra Gorda,**	**1.82**	**34**	P	**Pn**	**11 56 56.0**	**+1.9**
EGOR				S	**Sn**	**11 57 17.1**	**+1.0**
EGOR	**Sierra Gorda,**	**1.82**	**34**	P	**Pn**	**11 56 56.3**	**+2.1**
EGOR				⇑IVmb_VC		11 57 03.3	
	3μm,SNR=46						
EGOR				S	**Sn**	**11 57 18.6**	**+2.5**
ARNO	**Arenosillo**	**1.85**	**324**	P	**Pn**	**11 56 56.6**	**+2.3**
ARNO				S	**Sn**	**11 57 18.4**	**+1.9**
ELGU	**Los Guajares,**	**1.90**	**48**	P	**Pn**	**11 56 55.5**	**+0.3**
ELGU				S	**Sn**	**11 57 18.5**	**+0.6**
ELGU	**Los Guajares,**	**1.90**	**48**	P	**Pn**	**11 56 55.6**	**+0.3**
ELGU				⇑IVmb_VC		11 57 02.3	
	4μm,SNR=75						
ELGU				S	**Sn**	**11 57 17.8**	**-0.1**
EALB	**Alboran**	**1.94**	**79**	P	**Pn**	**11 56 56.2**	**+0.6**
EALB				S	**Sn**	**11 57 18.8**	**0.0**
EALB	**Alboran**	**1.94**	**79**	P	**Pn**	**11 56 56.6**	**+1.0**
EALB				⇑IVmb_VC		11 57 00.0	
	3μm,SNR=9.6						
EALB				S	**Sn**	**11 57 18.3**	**-0.4**
LCRM	**LCR**	**1.96**	**167**	P	**Pn**	**11 56 56.5**	**+0.5**
LCRM				S	**Sn**	**11 57 21.4**	**+2.0**
EMEL	**Melilla**	**2.00**	**98**	P	**Pn**	**11 56 57.1**	**+0.6**
EMEL				⇑IVmb_VC		11 56 58.2	
	26μm,SNR=15						
EMEL				S	**Sn**	**11 57 19.8**	**-0.5**
WMELI	**Melilla**	**2.00**	**97**	P	**Pn**	**11 56 57.5**	**+1.0**
WMELI				S	**Sn**	**11 57 19.4**	**-0.9**
EMLI	**Melilla**	**2.01**	**98**	P	**Pn**	**11 56 57.2**	**+0.7**
EMLI				S	**Sn**	**11 57 20.0**	**-0.4**
RTC	**Rabat Centre**	**2.01**	**217**	P	**Pn**	**11 56 56.0**	**-0.7**
RTC				S	**Sn**	**11 57 17.1**	**-3.4**
IFR	**Ifrane**	**2.09**	**174**	P	**Pn**	**11 56 58.2**	**+0.3**
IFR				S	**Sn**	**11 57 21.5**	**-1.1**
EQTA	**Presa de Quent**	**2.24**	**44**	P	**Pn**	**11 57 02.0**	**+2.1**
EQTA				S	**Sn**	**11 57 27.6**	**+1.2**
EQUE	**Quentar**	**2.24**	**44**	P	**Pn**	**11 57 01.6**	**+1.7**
EQUE				⇑IVmb_VC		11 57 07.6	
	1μm,SNR=23						
EQUE				S	**Sn**	**11 57 26.9**	**+0.5**
ZHG	**ZHG**	**2.39**	**206**	P	**Pn**	**11 57 02.4**	**+0.5**
ZHG				S	**Sn**	**11 57 29.1**	**-0.8**
EBER	**Berja**	**2.40**	**57**	P	**Pn**	**11 57 03.2**	**+1.1**
EBER				S	**Sn**	**11 57 31.0**	**+0.7**
EBER	**Berja**	**2.40**	**57**	P	**Pn**	**11 57 03.2**	**+1.1**
EBER				⇑IVmb_VC		11 57 09.2	

	2μm,SNR=28						
EBER				S	**Sn**	**11 57 30.7**	**+0.4**
EMIN	**Mina Concepcio**	**2.40**	**335**	P	**Pn**	**11 57 03.4**	**+1.5**
EMIN				S	**Sn**	**11 57 29.2**	**-0.9**
EMIN	**Mina Concepcio**	**2.40**	**335**	⇓P	**Pn**	**11 57 03.4**	**+1.5**
EMIN				⇑IVmb_VC		11 57 06.1	
	4μm,SNR=41						
EMIN				S	**Sn**	**11 57 29.3**	**-0.8**
ECAB	**El Cabril**	**2.47**	**359**	P	**Pn**	**11 57 04.4**	**+1.5**
ECAB				S	**Sn**	**11 57 31.2**	**-0.7**
ECAB	**El Cabril**	**2.47**	**359**	⇓P	**Pn**	**11 57 04.5**	**+1.5**
ECAB				⇑IVmb_VC		11 57 09.7	
	2μm,SNR=27						
ECAB				S	**Sn**	**11 57 30.7**	**-1.2**
TAF	**Taforalt**	**2.55**	**107**	P	**Pn**	**11 57 05.4**	**+1.2**
TAF				S	**Sn**	**11 57 37.1**	**+3.1**
EGRO	**El Granado**	**2.57**	**319**	P	**Pn**	**11 57 05.9**	**+1.7**
EGRO				S	**Sn**	**11 57 33.1**	**-1.1**
EGRO	**El Granado**	**2.57**	**319**	⇓P	**Pn**	**11 57 05.9**	**+1.7**
EGRO				⇑IVmb_VC		11 57 06.1	
	9μm,SNR=60						
EGRO				S	**Sn**	**11 57 33.5**	**-0.7**
CZD	**Col de Zad**	**2.58**	**174**	P	**Pn**	**11 57 05.0**	**+0.3**
CZD				S	**Sn**	**11 57 33.4**	**-1.5**
PVAQ	**Vaqueiros**	**2.60**	**314**	⇓*i*P	**Pn**	**11 57 06.3**	**+1.6**
PVAQ				*e*S	**Sn**	**11 57 35.0**	**-0.2**
PVAQ				*i* IAML		11 57 35.7	
PVAQ				*i* IAML		11 57 35.8	
PVAQ				*i* IAML		11 57 35.9	
PVAQ	**Vaqueiros**	**2.60**	**314**	P	**Pn**	**11 57 06.2**	**+1.4**
PVAQ				S	**Sn**	**11 57 35.5**	**+0.4**
PBDV	**Barranco-do-Ve**	**2.63**	**309**	P	**Pn**	**11 57 06.7**	**+1.6**
PBDV				S	**Sn**	**11 57 35.0**	**-0.9**
PBDV	**Barranco-do-Ve**	**2.63**	**309**	⇓*e*P	**Pn**	**11 57 06.8**	**+1.6**
PBDV				*e*S	**Sn**	**11 57 35.7**	**-0.2**
PBDV				*i* IAML		11 57 36.4	
PBDV				*i* IAML		11 57 37.2	
PBDV				*i* IAML		11 57 37.5	
JBK	**JBK**	**2.63**	**118**	P	**Pn**	**11 57 06.2**	**+0.8**
JBK				S	**Sn**	**11 57 36.7**	**+0.5**
EADA	**Adamuz**	**2.64**	**14**	P	**Pn**	**11 57 07.2**	**+1.9**
EADA				S	**Sn**	**11 57 35.6**	**-0.6**
EADA	**Adamuz**	**2.64**	**14**	⇓P	**Pn**	**11 57 07.2**	**+1.9**
EADA				⇑IVmb_VC		11 57 07.9	
	3μm,SNR=49						
EADA				S	**Sn**	**11 57 36.1**	**-0.1**
MD01	**Midelt array s**	**2.77**	**169**		**Pn**	**11 57 07.7**	**+0.5**
MD31	**MD31**	**2.77**	**169**		**Pn**	**11 57 07.5**	**+0.3**
MD31	**MD31**	**2.77**	**169**	P	**Pn**	**11 57 07.9**	**+0.7**
MD31				S	**Sn**	**11 57 38.4**	**-1.1**
AVE	**Averroes**	**2.84**	**217**	P	**Pn**	**11 57 09.0**	**+1.0**
AVE				S	**Sn**	**11 57 40.2**	**-0.9**
AVE	**Averroes**	**2.84**	**217**		**Pn**	**11 57 09.2**	**+1.1**
AVE	**Averroes**	**2.84**	**217**	P	**Pn**	**11 57 07.6**	**-0.4**
AVE				S	**Sn**	**11 57 37.7**	**-3.4**
MDT	**Midelt**	**2.85**	**167**	Pn	**Pn**	**11 57 08.7**	**+0.4**
	31nm,0.3s,baz=29,slow=14,SNR=1133						
MDT				Sn	**Sn**	**11 57 38.7**	**-2.7**
	156nm,0.3s,baz=5.6,slow=11,SNR=25						
	104nm,0.3s						
MDT				AML	AML		
MDT	**Midelt**	**2.85**	**167**	P	**Pn**	**11 57 09.1**	**+0.8**
MDT				S	**Sn**	**11 57 40.7**	**-0.8**
PBAR	**Barrancos**	**2.89**	**333**	P	**Pn**	**11 57 10.1**	**+1.4**
PBAR				S	**Sn**	**11 57 41.4**	**-0.9**
PBAR	**Barrancos**	**2.89**	**333**	⇓*e*P	**Pn**	**11 57 10.2**	**+1.4**
PBAR				*e*S	**Sn**	**11 57 41.8**	**-0.5**
PBAR				*i* IAML		11 57 42.6	
PBAR				*i* IAML		11 57 43.1	
PBAR				*i* IAML		11 57 44.3	
E0802	**Ubeda,Jaen**	**2.91**	**33**	P	**Pn**	**11 57 10.8**	**+1.8**
E0802				S	**Sn**	**11 57 43.4**	**+0.7**
ENIJ	**Nijar**	**2.91**	**61**	P	**Pn**	**11 57 10.3**	**+1.4**
ENIJ				S	**Sn**	**11 57 42.8**	**+0.1**
ENIJ	**Nijar**	**2.91**	**61**	P	**Pn**	**11 57 10.5**	**+1.5**
ENIJ				⇑IVmb_VC		11 57 20.0	
	1μm,SNR=7.0						
ENIJ				S	**Sn**	**11 57 43.0**	**+0.3**
PCVE	**Castro Verde**	**2.95**	**314**	P	**Pn**	**11 57 10.9**	**+1.5**
PCVE				S	**Sn**	**11 57 42.9**	**-0.7**
PCVE	**Castro Verde**	**2.95**	**314**	⇓*e*P	**Pn**	**11 57 11.0**	**+1.5**
PCVE				*e*S	**Sn**	**11 57 43.2**	**-0.4**
PCVE				*i* IAML		11 57 44.1	
PCVE				*i* IAML		11 57 45.6	
PCVE				*i* IAML		11 57 48.1	
PBEJ	**Beja**	**3.14**	**321**	*e*P	**Pn**	**11 57 13.4**	**+1.3**
PBEJ				*e*S	**Sn**	**11 57 47.3**	**-1.0**
PBEJ				*i* IAML		11 57 48.5	
PBEJ				*i* IAML		11 57 48.9	
MORF	**Marmelete**	**3.14**	**304**	*e*P	**Pn**	**11 57 13.4**	**+1.2**
MORF				*e*S	**Sn**	**11 57 47.2**	**-1.2**
MORF				IAML		11 57 49.2	
	comp=N,775nm,0.2s						
MORF	**Marmelete**	**3.14**	**304**	*e*P	**Pn**	**11 57 13.4**	**+1.2**
MORF				*e*S	**Sn**	**11 57 47.8**	**-0.5**
MORF				*i* IAML		11 57 52.2	
MORF				*i* IAML		11 57 52.5	
MORF				*i* IAML		11 57 53.9	
PFVI	**Vila Bisbo**	**3.17**	**300**	P	**Pn**	**11 57 13.6**	**+1.1**
PFVI				S	**Sn**	**11 57 47.7**	**-1.5**
PFVI	**Vila Bisbo**	**3.17**	**300**	*e*P	**Pn**	**11 57 13.7**	**+1.1**
PFVI				*e*S	**Sn**	**11 57 48.2**	**-1.0**
PFVI				*i* IAML		11 57 52.8	
PFVI				*i* IAML		11 57 55.1	
PFVI				*i* IAML		11 57 57.6	
PFVI	**Vila Bisbo**	**3.17**	**300**		**Pn**	**11 57 13.8**	**+1.2**
PFVI	**Vila Bisbo**	**3.17**	**300**	P	**Pn**	**11 57 13.5**	**+1.0**
PFVI				S	**Sn**	**11 57 48.3**	**-0.9**
MESJ	**Messejana**	**3.19**	**315**	*e*P	**Pn**	**11 57 14.4**	**+1.5**
MESJ				*e*S	**Sn**	**11 57 48.6**	**-1.0**
MESJ				IAML		11 57 50.5	
	comp=N,752nm,0.2s						
MESJ	**Messejana**	**3.19**	**315**	⇓*e*P	**Pn**	**11 57 14.4**	**+1.5**
MESJ				*e*S	**Sn**	**11 57 48.8**	**-0.9**
MESJ				*i* IAML		11 57 50.4	
MESJ				*i* IAML		11 57 50.5	
MESJ				*i* IAML		11 57 51.3	
MESJ	**Messejana**	**3.19**	**315**		**Pn**	**11 57 14.3**	**+1.5**
PTEO	**Sao Teotonio**	**3.32**	**307**	*e*P	**Pn**	**11 57 16.2**	**+1.6**
PTEO				*e*S	**Sn**	**11 57 52.6**	**-0.1**
PTEO				*i* IAML		11 57 54.0	
PTEO				*i* IAML		11 57 55.3	
PTEO				*i* IAML		11 57 55.8	
EBAD	**Badajoz**	**3.41**	**338**	P	**Pn**	**11 57 17.4**	**+1.6**
EBAD				S	**Sn**	**11 57 54.2**	**-0.8**
EBAD	**Badajoz**	**3.41**	**338**	P	**Pn**	**11 57 17.4**	**+1.6**
EBAD				⇑IVmb_VC		11 57 18.8	
	comp=N,8μm,SNR=71						
EBAD				S	**Sn**	**11 57 53.8**	**-1.2**
PLOUS	**Minas do Lousa**	**3.44**	**316**	⇓*e*P	**Pn**	**11 57 17.7**	**+1.5**
PLOUS				*e*S	**Sn**	**11 57 54.8**	**-1.0**
PLOUS				*i* IAML		11 57 56.1	
PLOUS				*i* IAML		11 57 56.5	
PLOUS				*i* IAML		11 57 56.5	
PSIM	**Granatula de C**	**3.47**	**22**	P	**Pn**	**11 57 18.3**	**+1.6**
PSIM				S	**Sn**	**11 57 54.5**	**-2.0**
EVO	**Evora**	**3.60**	**325**	P	**Pn**	**11 57 20.2**	**+1.7**
EVO				S	**Sn**	**11 57 58.6**	**-1.3**
EVO	**Evora**	**3.60**	**325**	⇓*e*P	**Pn**	**11 57 20.2**	**+1.7**
EVO				*e*S	**Sn**	**11 57 58.9**	**-0.9**
EVO				*i* IAML		11 58 00.6	
EVO				*i* IAML		11 58 00.9	
EVO				*i* IAML		11 58 10.6	
PESTR	**Estremoz**	**3.71**	**332**	P	**Pn**	**11 57 21.5**	**+1.6**
PESTR				S	**Sn**	**11 58 00.6**	**-1.8**
PESTR	**Estremoz**	**3.71**	**332**	⇓*e*P	**Pn**	**11 57 21.5**	**+1.6**
PESTR				*e*S	**Sn**	**11 58 00.9**	**-1.5**
PESTR				*i* IAML		11 58 04.0	
PESTR				*i* IAML		11 58 04.3	
PESTR				*i* IAML		11 58 08.3	
PESTR	**Estremoz**	**3.71**	**332**		**Pn**	**11 57 21.2**	**+1.2**
PESTR	**Estremoz**	**3.71**	**332**	P	**Pn**	**11 57 21.3**	**+1.4**
PESTR				S	**Sn**	**11 58 03.7**	**+1.4**
SRHM	**Skhour des Reh**	**3.75**	**215**	P	**Pn**	**11 57 21.2**	**+0.6**
SRHM				S	**Sn**	**11 58 05.0**	**+1.3**
MOE	**Montemor**	**3.76**	**322**	*e*P	**Pn**	**11 57 22.2**	**+1.5**
MOE				*e*S	**Sn**	**11 58 03.2**	**-0.5**
MOE				*i* IAML		11 58 04.7	
MOE				*i* IAML		11 58 04.7	
MOE				*i* IAML		11 58 06.1	
PARRA	**Arraiolos**	**3.85**	**327**	⇓*e*P	**Pn**	**11 57 23.5**	**+1.6**
PARRA				*e*S	**Sn**	**11 58 04.4**	**-1.4**
PARRA				*i* IAML		11 58 06.4	
PARRA				*i* IAML		11 58 06.6	
PARRA				*i* IAML		11 58 06.7	
GOLM	**Goulmima**	**3.90**	**175**	P	**Pn**	**11 57 22.9**	**+0.1**
GOLM				S	**Sn**	**11 58 08.6**	**+1.2**
TISM	**Timmit**	**3.97**	**193**	P	**Pn**	**11 57 22.1**	**-1.4**
TISM				S	**Sn**	**11 58 06.0**	**-2.7**
EMUR	**La Murta**	**4.01**	**55**	P	**Pn**	**11 57 26.3**	**+2.1**
EMUR				S	**Sn**	**11 58 10.1**	**+0.2**
EMUR	**La Murta**	**4.01**	**55**	P	**Pn**	**11 57 26.0**	**+1.9**
EMUR				⇑IVmb_VC		11 57 32.9	
	comp=N,511nm,SNR=7.5						
EMUR				S	**Sn**	**11 58 09.8**	**-0.1**
PAB	**San Pablo**	**4.02**	**11**		**Pn**	**11 57 25.3**	**+0.9**
PAB	**San Pablo**	**4.02**	**11**	P	**Pn**	**11 57 25.3**	**+0.9**
PAB				⇑IVmb_VC		11 57 26.0	
	comp=N,828nm,SNR=15						
PAB				S	**Sn**	**11 58 07.4**	**-2.9**
CIBOR	**Castaar de Ib**	**4.03**	**360**	P	**Pn**	**11 57 25.9**	**+1.5**
CIBOR				S	**Sn**	**11 58 07.8**	**-2.6**
CART	**Cartagena**	**4.04**	**59**	P	**Pn**	**11 57 26.2**	**+1.7**
CART				S	**Sn**	**11 58 06.9**	**-3.7**
CART	**Cartagena**	**4.04**	**59**	Pn	**Pn**	**11 57 25.9**	**+1.3**
CART	**Cartagena**	**4.04**	**59**	P	**Pn**	**11 57 26.7**	**+2.1**
CART				S	**Sn**	**11 58 15.6**	**+5.0**
PMTG	**Montargil**	**4.14**	**328**	⇓*e*P	**Pn**	**11 57 27.3**	**+1.4**
PMTG				*e*S	**Sn**	**11 58 11.6**	**-1.4**
PMTG				*i* IAML		11 58 14.3	
PMTG				*i* IAML		11 58 14.4	
PMTG				*i* IAML		11 58 15.1	
PMRV	**Marv??o**	**4.14**	**338**	*e*P	**Pn**	**11 57 27.6**	**+1.7**
PMRV				*e*S	**Sn**	**11 58 11.2**	**-1.9**
PMRV				*i* IAML		11 58 13.8	
PMRV				*i* IAML		11 58 14.3	
PMRV				*i* IAML		11 58 14.3	
ESDC	**Sonseca Array**	**4.22**	**15**	Pn	**Pn**	**11 57 28.1**	**+1.1**
	comp=N,8.0nm,0.3s,baz=186,slow=12,SNR=217						
ESDC				Sn	**Sn**	**11 58 13.0**	**-2.1**
	comp=N,14nm,0.3s,baz=199,slow=23,SNR=19						
ESDC				LR	LR	11 58 48.5	
	comp=N,40nm,21.3s,baz=183,slow=35						
	comp=N,9.3nm,0.4s						
ESDC				AML	AML		
ESDC	**Sonseca Array**	**4.22**	**15**		**Pn**	**11 57 28.4**	**+1.3**
ESDC	**Sonseca Array**	**4.22**	**15**	P	**Pn**	**11 57 28.4**	**+1.3**
ESDC				⇑IVmb_VC		11 57 29.2	
	comp=N,2μm,SNR=35						
ESDC				S	**Sn**	**11 58 11.9**	**-3.2**
ESBB	**Sonseca Array**	**4.22**	**15**		**Pn**	**11 57 28.2**	**+1.1**
ESBB	**Sonseca Array**	**4.22**	**15**	P	**Pn**	**11 57 28.4**	**+1.4**
ESBB				⇑IVmb_VC		11 57 29.2	
	comp=N,1μm,SNR=28						
ESBB				S	**Sn**	**11 58 12.3**	**-2.8**
ARF	**Arif**	**4.27**	**167**	P	**Pn**	**11 57 26.9**	**-0.8**
ARF				S	**Sn**	**11 58 14.9**	**-1.4**
ETOB	**Tobarra**	**4.32**	**44**	P	**Pn**	**11 57 30.1**	**+1.8**
ETOB				S	**Sn**	**11 58 15.5**	**-2.0**
ETOB	**Tobarra**	**4.32**	**44**	P	**Pn**	**11 57 30.3**	**+1.9**
ETOB				⇑IVmb_VC		11 57 32.6	
	comp=N,877nm,SNR=11						
ETOB				S	**Sn**	**11 58 16.0**	**-1.5**
LIS	**Lisbon**	**4.33**	**317**	*e*P	**Pn**	**11 57 30.6**	**+2.2**
LIS				*e*S	**Sn**	**11 58 17.6**	**0.0**
LIS				*i* IAML		11 58 19.4	
LIS				*i* IAML		11 58 19.6	
LIS				*i* IAML		11 58 19.8	
EPLA	**Plasencia**	**4.49**	**353**	P	**Pn**	**11 57 32.3**	**+1.6**
EPLA				⇑IVmb_VC		11 57 34.2	
	comp=N,4μm,SNR=44						
PCBR	**Castelo Branco**	**4.55**	**339**	⇓*e*P	**Pn**	**11 57 33.3**	**+1.8**
PCBR				*e*S	**Sn**	**11 58 20.7**	**-2.3**
PCBR				*i* IAML		11 58 22.4	
PCBR				*i* IAML		11 58 22.5	
PCBR				*i* IAML		11 58 22.7	
PSARD	**Sardoal**	**4.56**	**332**	⇓*e*P	**Pn**	**11 57 33.5**	**+1.7**
PSARD				*e*S	**Sn**	**11 58 21.1**	**-2.4**
PSARD				*i* IAML		11 58 23.5	
PSARD				*i* IAML		11 58 23.7	
PSARD				*i* IAML		11 58 24.2	
PMAFR	**Mafra**	**4.57**	**318**	P	**Pn**	**11 57 31.7**	**-0.1**
PMAFR				S	**Sn**	**11 58 21.8**	**-1.8**
PMAFR	**Mafra**	**4.57**	**318**	*e*P	**Pn**	**11 57 33.3**	**+1.5**
PMAFR				*e*S	**Sn**	**11 58 21.8**	**-1.8**
PMAFR				*i* IAML		11 58 24.5	
PMAFR				*i* IAML		11 58 24.8	
PMAFR				*i* IAML		11 58 25.9	
PSBE	**So Bento**	**4.76**	**326**	⇓*e*P	**Pn**	**11 57 36.2**	**+1.9**
PSBE				*e*S	**Sn**	**11 58 26.9**	**-1.4**
PSBE				*i* IAML		11 58 28.7	
PSBE				*i* IAML		11 58 29.5	
PSBE				*i* IAML		11 58 31.5	
TZRR	**Tazzarine**	**4.80**	**182**	P	**Pn**	**11 57 36.1**	**+1.0**
TZRR				S	**Sn**	**11 58 27.1**	**-2.5**
OUZM	**OUZ**	**4.82**	**194**	P	**Pn**	**11 57 35.8**	**+0.4**
OUZM				S	**Sn**	**11 58 29.7**	**-0.3**
OUK	**Oukaimeden**	**4.85**	**206**	P	**Pn**	**11 57 34.5**	**-1.4**
OUK				S	**Sn**	**11 58 27.2**	**-3.8**
FIGM	**Figuig**	**4.87**	**134**	P	**Pn**	**11 57 36.3**	**+0.2**
FIGM				S	**Sn**	**11 58 31.7**	**+0.5**
TIO	**Tiouine**	**4.92**	**199**	P	**Pn**	**11 57 37.5**	**+0.8**
TIO				S	**Sn**	**11 58 29.7**	**-2.8**
TIO	**Tiouine**	**4.92**	**199**	P	**Pn**	**11 57 37.0**	**+0.3**
TIO				S	**Sn**	**11 58 28.8**	**-3.6**
AFON	**Font Roja**	**4.93**	**50**	P	**Pn**	**11 57 39.1**	**+2.2**
AFON				⇑IVmb_VC		11 57 47.1	
	comp=N,348nm,SNR=3.0						
AFON				S	**Sn**	**11 58 32.6**	**-0.1**
EVIV	**Cofrentes, Val**	**4.99**	**42**	⇓P	**Pn**	**11 57 38.9**	**+1.3**
EVIV				⇑IVmb_VC		11 57 42.5	
	comp=N,729nm,SNR=8.7						
EVIV				S	**Sn**	**11 58 31.5**	**-2.5**
UCM	**Universidad Co**	**5.00**	**19**	S	**Sn**	**11 58 30.6**	**-3.5**
PCAS	**Casmilo, Conde**	**5.08**	**332**	*e*P	**Pn**	**11 57 40.6**	**+1.7**
PCAS				*e*S	**Sn**	**11 58 33.6**	**-2.7**
PCAS				*i* IAML		11 58 35.6	
PCAS				*i* IAML		11 58 35.8	
PCAS				*i* IAML		11 58 36.4	
MTE	**Manteigas**	**5.09**	**341**	*e*P	**Pn**	**11 57 40.8**	**+1.9**
MTE				*e*S	**Sn**	**11 58 33.9**	**-2.6**
MTE				*i* IAML		11 58 36.8	
MTE				*i* IAML		11 58 36.9	
MTE				*i* IAML		11 58 37.9	
MTE	**Manteigas**	**5.09**	**341**		**Pn**	**11 57 40.6**	**+1.6**
GUD	**Guadarrama**	**5.13**	**11**	P	**Pn**	**11 57 40.8**	**+1.2**
GUD				⇑IVmb_VC		11 57 41.9	
	comp=N,2μm,SNR=27						
GUD				S	**Sn**	**11 58 34.0**	**-3.6**
YEBES	**Yebes (Guadala**	**5.24**	**20**	P	**Pn**	**11 57 43.3**	**+2.2**
YEBES				⇑IVmb_VC		11 57 43.6	
	comp=N,4μm,SNR=18						
YEBES				S	**Sn**	**11 58 38.1**	**-2.1**
ECHE	**Chera**	**5.31**	**40**	P	**Pn**	**11 57 43.5**	**+1.6**
ECHE				⇑IVmb_VC		11 57 44.6	
	comp=N,526nm,SNR=2.8						
ECHE				S	**Sn**	**11 58 38.0**	**-3.8**
ZGR	**Zagora**	**5.47**	**182**	P	**Pn**	**11 57 43.9**	**-0.4**
ZGR				S	**Sn**	**11 58 43.4**	**-2.6**
PVIS	**Viseu**	**5.48**	**340**	*e*P	**Pn**	**11 57 45.9**	**+1.6**
PVIS				*e*S	**Sn**	**11 58 42.9**	**-3.2**
EJUZ	**Juzbado, Salam**	**5.49**	**356**	P	**Pn**	**11 57 46.0**	**+1.5**
EJUZ				S	**Sn**	**11 58 43.3**	**-3.2**
TTIG	**Tnine Tigouga,**	**5.66**	**208**	P	**Pn**	**11 57 44.1**	**-2.8**
TTIG				S	**Sn**	**11 58 46.6**	**-4.0**
ETOR	**Torete**	**5.83**	**26**	⇓P	**Pn**	**11 57 50.8**	**+1.6**
ETOR				⇑IVmb_VC		11 57 51.1	
	comp=N,3μm,SNR=32						
ETOR				S	**Sn**	**11 58 51.1**	**-3.8**
E0901	**Celadas (Terue**	**5.92**	**33**	P	**Pn**	**11 57 52.5**	**+2.2**
E0901				⇑IVmb_VC		11 57 53.1	
	comp=N,2μm,SNR=22						
E0901				S	**Sn**	**11 58 53.4**	**-3.6**
PVRL	**Vila Real**	**5.96**	**343**	*e*P	**Pn**	**11 57 52.5**	**+1.6**
PVRL				*e*S	**Sn**	**11 58 54.5**	**-3.3**
PVRL				*i* IAML		11 58 56.3	
PVRL				*i* IAML		11 58 56.8	
PVRL				*i* IAML		11 58 57.7	
POLO	**Lamas de Olo**	**6.07**	**343**	*e*P	**Pn**	**11 57 54.1**	**+1.7**
POLO				*e*S	**Sn**	**11 58 57.2**	**-3.4**
POLO				*i* IAML		11 58 59.0	
POLO				*i* IAML		11 58 59.1	
POLO				*i* IAML		11 59 00.1	
PTO	**Porto**	**6.08**	**336**	*e*P	**Pn**	**11 57 54.2**	**+1.7**
PTO				*e*S	**Sn**	**11 58 57.0**	**-3.8**
PTO				*i* IAML		11 59 00.8	
PTO				*i* IAML		11 59 01.1	
PTO				*i* IAML		11 59 01.2	
EMOS	**Mosqueruela**	**6.14**	**38**	P	**Pn**	**11 57 55.3**	**+1.8**
EMOS				⇑IVmb_VC		11 57 55.9	
	comp=N,297nm,SNR=4.4						
EMOS				S	**Sn**	**11 58 58.5**	**-4.0**
CGR	**Cap Guir**	**6.23**	**219**	P	**Pn**	**11 57 52.5**	**-2.1**
CGR				S	**Sn**	**11 59 00.7**	**-3.8**
PBRG	**Braganca**	**6.29**	**351**	*e*P	**Pn**	**11 57 56.9**	**+1.5**
PBRG				*e*S	**Sn**	**11 59 02.6**	**-3.4**
PBRG				*i* IAML		11 59 04.9	
PBRG				*i* IAML		11 59 05.9	
PBRG				*i* IAML		11 59 05.9	
EIBI	**Ibiza**	**6.36**	**55**	P	**Pn**	**11 57 58.3**	**+1.9**
EIBI	**Ibiza**	**6.36**	**55**	P	**Pn**	**11 57 59.3**	**+2.9**
EIBI				⇑IVmb_VC		11 58 03.9	
	comp=N,221nm,SNR=1.5						
EIBI				S	**Sn**	**11 59 06.4**	**-1.3**
ECAL	**Calabor**	**6.42**	**351**	P	**Pn**	**11 57 58.9**	**+1.6**
ECAL	**Calabor**	**6.42**	**351**	P	**Pn**	**11 57 58.6**	**+1.4**
ECAL				S	**Sn**	**11 59 06.6**	**-2.7**
PCAB	**Cabril**	**6.44**	**342**	*e*P	**Pn**	**11 57 59.2**	**+1.7**
PCAB				*e*S	**Sn**	**11 59 05.8**	**-4.0**
PCAB				*i* IAML		11 59 07.6	
PCAB				*i* IAML		11 59 08.8	
PCAB				*i* IAML		11 59 09.0	
ELOB	**Lobios**	**6.60**	**342**	P	**Pn**	**11 58 00.9**	**+1.2**
ELOB				⇑IVmb_VC		11 58 02.1	
	comp=N,3μm,SNR=20						
ELOB				S	**Sn**	**11 59 10.3**	**-3.4**
PGAV	**Gavieira, Arco**	**6.74**	**341**	*e*P	**Pn**	**11 58 03.4**	**+1.7**
PGAV				*e*S	**Sn**	**11 59 13.3**	**-4.0**
PGAV				*i* IAML		11 59 14.8	
PGAV				*i* IAML		11 59 15.8	
PGAV				*i* IAML		11 59 17.5	
ERTA	**Horta de San J**	**6.99**	**38**	P	**Pn**	**11 58 06.8**	**+1.8**
ERTA				⇑IVmb_VC		11 58 15.7	
	comp=N,236nm,SNR=2.4						
ERTA				S	**Sn**	**11 59 20.6**	**-2.6**
EZAM	**Zamans**	**7.03**	**339**	P	**Pn**	**11 58 07.2**	**+1.6**
EZAM				⇑IVmb_VC		11 58 07.9	
	comp=N,2μm,SNR=9.0						
EZAM				S	**Sn**	**11 59 19.1**	**-5.2**
ESAC	**San Caprasio**	**7.22**	**31**	P	**Pn**	**11 58 09.2**	**+1.0**
ESAC				⇑IVmb_VC		11 58 14.2	
	comp=N,824nm,SNR=4.3						
ESAC				S	**Sn**	**11 59 25.1**	**-3.9**
EAGO	**Agolada(Pontev**	**7.49**	**345**	P	**Pn**	**11 58 13.7**	**+1.7**
EAGO				⇑IVmb_VC		11 58 15.7	
	comp=N,1μm,SNR=9.0						
EAGO				S	**Sn**	**11 59 31.4**	**-4.2**
EPOB	**Poblet**	**7.66**	**39**	P	**Pn**	**11 58 15.9**	**+1.6**
EPOB				⇑IVmb_VC		11 58 16.4	
	comp=N,266nm,SNR=2.7						
EPOB				S	**Sn**	**11 59 34.5**	**-5.3**
EARI	**Arriondas**	**7.69**	**1**	P	**Pn**	**11 58 15.8**	**+1.1**
EARI				⇑IVmb_VC		11 58 17.9	
	comp=N,632nm,SNR=2.9						
EARI				S	**Sn**	**11 59 35.1**	**-5.5**
ETOS	**Mallorca**	**7.71**	**55**	P	**Pn**	**11 58 16.8**	**+1.8**
ETOS				⇑IVmb_VC		11 58 21.7	
	comp=N,170nm,SNR=1.9						
EARA	**Aranguren**	**7.75**	**21**	P	**Pn**	**11 58 17.2**	**+1.8**
EARA				⇑IVmb_VC		11 58 22.5	
	comp=N,736nm,SNR=4.4						
EARA				S	**Sn**	**11 59 38.0**	**-3.9**
ELAN	**Lanestosa**	**7.77**	**11**	P	**Pn**	**11 58 17.2**	**+1.5**
ELAN				⇑IVmb_VC		11 58 19.9	
	comp=N,2μm,SNR=10						
ELAN				S	**Sn**	**11 59 38.3**	**-4.1**
ALT03	**Santillana del**	**7.83**	**7**	P	**Pn**	**11 58 18.2**	**+1.7**
ALT03				⇑IVmb_VC		11 58 19.6	
	comp=N,739nm,SNR=3.8						
ALT03				S	**Sn**	**11 59 38.2**	**-5.5**
ALT04	**Santillana del**	**7.83**	**7**	P	**Pn**	**11 58 18.2**	**+1.8**
ALT04				⇑IVmb_VC		11 58 19.9	
	comp=N,563nm,SNR=2.4						
ALT04				S	**Sn**	**11 59 38.8**	**-4.9**
ALT01	**Santillana del**	**7.83**	**7**	P	**Pn**	**11 58 18.2**	**+1.7**
ALT01				⇑IVmb_VC		11 58 19.4	
	comp=N,1μm,SNR=2.2						
ALT01				S	**Sn**	**11 59 38.3**	**-5.4**
ALT02	**Santillana del**	**7.83**	**7**	P	**Pn**	**11 58 18.2**	**+1.7**
ALT02				S	**Sn**	**11 59 39.4**	**-4.4**
EPON	**Pontenova**	**7.84**	**351**	P	**Pn**	**11 58 18.2**	**+1.5**
EPON				⇑IVmb_VC		11 58 19.1	
	comp=N,831nm,SNR=3.7						
EPON				S	**Sn**	**11 59 39.4**	**-4.6**
EMAZ	**Mazaricos**	**7.85**	**340**	P	**Pn**	**11 58 18.3**	**+1.5**
EMAZ				⇑IVmb_VC		11 58 19.2	
	comp=N,1μm,SNR=5.2						
EMAZ				S	**Sn**	**11 59 38.6**	**-5.8**
EALK	**Alkurruntz**	**8.18**	**20**	P	**Pn**	**11 58 23.1**	**+1.8**
EALK				⇑IVmb_VC		11 58 28.5	
	comp=N,696nm,SNR=4.9						
EALK				S	**Sn**	**11 59 48.4**	**-4.2**
ECHI	**Chisagues Biel**	**8.28**	**30**	P	**Pn**	**11 58 23.8**	**+1.0**
ECHI				⇑IVmb_VC		11 58 28.5	
	comp=N,307nm,SNR=5.4						
ECHI				S	**Sn**	**11 59 50.3**	**-4.8**
CORI	**Orista**	**8.61**	**40**	Pn	**Pn**	**11 58 28.7**	**+1.4**
CEST	**Esterri de Car**	**8.68**	**34**	Pn	**Pn**	**11 58 29.4**	**+1.1**
TANT	**Tantan**	**8.72**	**216**	P	**Pn**	**11 58 26.7**	**-2.2**
TANT				S	**Sn**	**12 00 00.2**	**-5.7**
PMPST	**Porto Santo, M**	**9.40**	**258**	*e*P	**Pn**	**11 58 38.5**	**+0.4**
PMPST				*e*S	Sn	12 00 11.7	-11
PMPST				*i* IAML		12 00 20.4	
PMPST				*i* IAML		12 00 21.2	
PMPST				*i* IAML		12 00 21.4	
PMAR	**Madeira**	**9.98**	**257**	*e*P	**Pn**	**11 58 44.7**	**-1.5**
PMAR				*e*S	Sn	12 00 24.3	-13
PMAR				*i* IAML		12 00 35.1	
PMAR				*i* IAML		12 00 35.3	
PMAR				*i* IAML		12 00 37.3	
PMAR	**Madeira**	**9.98**	**257**	P	**Pn**	**11 58 43.2**	**-3.0**
PMAR				S	**Sn**	**12 00 32.0**	**-4.9**
FUL	**Funchal**	**9.98**	**256**	*e*S	Sn	12 00 25.2	-12
FUL				*i* IAML		12 00 33.9	
FUL				*i* IAML		12 00 34.9	
FUL				*i* IAML		12 00 36.9	
PMOZ	**Porto Moniz, M**	**10.17**	**258**	*e*P	**Pn**	**11 58 49.5**	**+0.8**
PMOZ				*e*S	Sn	12 00 31.1	-10
PMOZ				*i* IAML		12 00 40.5	
PMOZ				*i* IAML		12 00 40.7	
PMOZ				*i* IAML		12 00 45.7	
PMOZ	**Porto Moniz, M**	**10.17**	**258**	P	Pn	11 58 44.9	-3.8
PMOZ				S	**Sn**	**12 00 36.3**	**-5.3**
KEST	**Kesra**	**11.98**	**85**	Pn	Pn	11 59 04.2	-9.4
	comp=N,0.1nm,0.3s,baz=253,slow=20,SNR=1.3						
	comp=N,1.3nm,0.8s						
KEST				AML	AML		
KEST	**Kesra**	**11.98**	**85**		**Pn**	**11 59 15.2**	**+1.6**
VSL	**Villasalto**	**12.34**	**67**	Pn	**Pn**	**11 59 17.4**	**-1.0**
CLF	**Chambon-Foret**	**13.65**	**22**		**Pn**	**11 59 36.6**	**+0.5**
FDMO	**Fiordimonte**	**16.09**	**57**	Pn	**Pn**	**12 00 08.4**	**-0.3**
DAVA	**Damuels**	**16.31**	**40**	*e*P	**P**	**12 00 16.5**	**+2.3**
	comp=N,5.6nm,1.2s						
FETA	**Feichten**	**16.60**	**42**	*e*Pn	**P**	**12 00 18.6**	**+1.3**
	comp=N,2.1nm,0.8s						
VAL	**Valentia**	**16.70**	**349**	P	**Pn**	**12 00 18.1**	**+1.9**
RETA	**Reutte**	**16.90**	**40**	*e*P	**P**	**12 00 21.5**	**+0.9**
	comp=N,1.6nm,0.8s						
SQTA	**Sankt Quirin**	**16.98**	**42**	*e*P	**P**	**12 00 23.1**	**+1.6**
	comp=N,0.7nm,0.5s						
ABTA	**Abfaltersbach**	**17.44**	**45**	*e*P	**P**	**12 00 28.8**	**+2.3**
	comp=N,3.0nm,1.2s						
SGRT	**San Giovanni R**	**17.59**	**63**	P	**Pn**	**12 00 27.7**	**+0.2**
DSB	**Dublin**	**17.66**	**358**	P	**Pn**	**12 00 28.9**	**+0.8**
LESA	**Schwarzleotal**	**17.91**	**43**	*e*P	**P**	**12 00 33.0**	**+1.2**
	comp=N,1.5nm,0.5s						
TIP	**Timpagrande**	**17.95**	**72**	P	**Pn**	**12 00 32.2**	**+0.3**
TIP				IAmb	IAmb	12 00 35.5	
	comp=Z,7.1nm,0.5s						
KBA	**Koelnbreinsper**	**18.09**	**45**	*e*Pn	**P**	**12 00 35.6**	**+1.7**
	comp=Z,1.0nm,0.5s						
SOKA	**Soboth**	**18.89**	**48**	*e*Pn	**Pn**	**12 00 47.1**	**+3.8**
	comp=Z,1.8nm,0.7s						

MOA	Molln	19.04	44	ePn	Pn	12 00 48.6	+3.6
	comp=Z,1.0nm,0.4s						
GERES	GERESS Array B	19.29	41	P	P	12 00 44.0	-2.9
	comp=Z,0.1nm,0.3s,baz=226,slow=13,SNR=13						
	comp=Z,0.8nm,0.4s						
GERES				AML	AML		
GERES	GERESS Array B	19.29	41	P	P	12 00 46.4	-0.6
KHC	Kasperske Hory	19.40	40	P	P	12 00 48.7	+0.6
ESK	Eskdalemuir	19.78	4	P	P	12 00 53.1	+1.1
ESK				IAmb	IAmb	12 01 09.6	
	comp=Z,30nm,1.4s						
EKB	Eskdalemuir	19.79	4	P	P	12 00 52.7	+0.5
EKB				IAmb	IAmb	12 01 29.9	
	comp=Z,26nm,1.5s						
EKA	Eskdalemuir Ar	19.80	4	P	P	12 00 53.8	+1.5
	baz=183,slow=11						
	comp=Z,0.5nm,0.4s						
CONA	Conrad Observa	19.99	45	eP	Pn	12 00 59.9	+3.4
	comp=Z,1.2nm,0.5s						
RONA	Rosalia, Austr	20.14	46	ePn	Pn	12 00 59.8	+1.6
	comp=Z,1.1nm,0.5s						
PDG	Podgorica	20.28	63	P	P	12 00 56.0	-1.6
PDG				IAmb	IAmb	12 00 59.6	
	comp=Z,7.5nm,0.9s						
MODS	Modra-Piesok	21.04	46	eP	P	12 01 05.7	-0.1
VYHS	Vyhne	22.01	47	eP	P	12 01 18.7	+2.4
ITM	Ithomi	22.02	78	P	P	12 01 15.2	-1.3
ITM				IAmb	IAmb	12 01 19.8	
	comp=Z,26nm,1.3s						
TORD	Torodi Ar. Bea	23.25	162	P	P	12 01 28.7	-0.7
	comp=Z,2.3nm,0.6s,baz=338,slow=10.0,SNR=4.4						
	comp=Z,2.3nm,0.6s						
TORD	Torodi Ar. Bea	23.25	162	P	P	12 01 28.2	-1.2
MLR	Muntele Rosu	25.63	58	P	P	12 01 51.0	-0.4
HFS	Hagfors	27.48	21	P	P	12 02 08.0	+0.3
	comp=Z,1.0nm,0.3s,baz=208,slow=5.9,SNR=12						
	comp=Z,1.0nm,0.3s						
FINES	FINESS Array B	32.62	28	P	P	12 02 52.4	-0.8
	comp=Z,1.5nm,0.8s,baz=220,slow=18,SNR=3.8						
	comp=Z,1.5nm,0.8s						
FINES	FINESS Array B	32.62	28	P	P	12 02 52.5	-0.7
ARCES	ARCESS Array B	37.96	17	P	P	12 03 39.2	+0.2
	comp=Z,0.7nm,0.7s,baz=218,slow=7.6,SNR=6.9						
	comp=Z,0.7nm,0.7s						
ARCES	ARCESS Array B	37.96	17	P	P	12 03 39.5	+0.5
ARCES				IAmb	IAmb	12 03 58.7	
	comp=Z,6.7nm,1.2s						
KURBB	Kurchatov Arra	59.88	47	P	P	12 06 25.7	-1.5
	comp=Z,1.4nm,0.5s,baz=294,slow=7.6,SNR=8.4						
	comp=Z,1.4nm,0.5s						
ZALV	Zalesovo Beam	62.24	42	P	P	12 06 41.7	-1.4
	comp=Z,0.5nm,0.3s,baz=277,slow=8.6,SNR=3.0						
	comp=Z,0.5nm,0.3s						
KSH2	Kashi	62.35	60	P	P	12 06 44.7	+0.4
KSH2				pmax	pmax		
	comp=Z,8.0nm,0.7s						
MKAR	Makanchi Array	63.65	50	P	P	12 06 51.0	-1.7
	comp=Z,0.3nm,0.4s,baz=286,slow=5.0,SNR=4.8						
	comp=Z,0.3nm,0.4s						
MKAR	Makanchi Array	63.65	50	P	P	12 06 51.4	-1.3
BOSA	Boshof	70.10	152	P	P	12 07 33.1	-0.7
	comp=Z,4.6nm,0.8s,baz=350,slow=6.5,SNR=8.5						
	comp=Z,4.6nm,0.8s						
BOSA	Boshof	70.10	152	P	P	12 07 33.1	-0.7
ILAR	Eielson Array	75.51	344	P	P	12 08 07.4	+2.0
	comp=Z,0.2nm,0.5s,baz=18,slow=5.6,SNR=5.5						
PDAR	Pinedale Array	75.81	313	LR	LR	12 40 39.9	
	comp=Z,26nm,19.3s,baz=150,slow=35						
CMAR	Chiang Mai Arr	90.52	67	P	P	12 09 23.2	-0.6
	comp=Z,0.5nm,0.3s,baz=302,slow=5.8,SNR=8.7						
	comp=Z,0.5nm,0.3s						
ASAR	Alice Springs	142.91	83	PKhKP	PKPpre	12 15 50.1	
	comp=Z,0.5nm,0.6s,baz=299,slow=2.6,SNR=14						

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*NNC **06** 12:10:24.5±5.1, 41°.94N×82°.09E, h0^{km}, mb3.4, mpv2.9, Error ellipse: s-maj=39.1km s-min=19.8km az=156.0*

*SOME **06** 12:10:29.0, 42°.18N×81°.80E, h25^{km}*

ISC 06 12:10:27.2±2.5**, 42°.4N**±0°.1×**81°.94E**±0°.07**, h10^{km}, n9, σ1ˢ67**/20**, 7C-3D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KTMS	Ketmen	1.60	314	eP	Pg	12 10 58.3	+0.4
	4.5nm,0.3s						
KTMS				eS	Sg	12 11 19.4	+0.8
	6.1nm,0.4s						
SHLS	Shalkode	1.99	295	eP	Pn	12 10 59.3	-1.8
	11nm,0.3s						
SHLS				eS	Sn	12 11 21.2	-5.0
	30nm,0.3s						
PDGK	Podgornoye	2.05	299	⇑Pn	Pg	12 11 06.9	+0.4
	4.3nm,0.4s						
PDGK				⇑Sn	Sg	12 11 35.0	+1.9
	29nm,0.5s						
UZB	Uzynbulak	2.29	291	eP	Pb	12 11 09.3	+0.6
UZB				eS	Sb	12 11 38.3	+1.2
DJR	Jarkent	2.53	322	eP	Pg	12 11 15.3	-0.3
	6.0nm,0.3s						
DJR				eS	Sg	12 11 48.7	+0.3
	11nm,0.4s						
KPKS	Kokpek	2.64	296	eP	Pb	12 11 15.1	+0.5
	0.4nm,0.3s						
KPKS				eS	Sb	12 11 48.2	+1.2
	22nm,0.4s						
KURS	Kuram	2.99	294	eP	Pb	12 11 21.2	+0.6
	4.4nm,0.4s						
KURS				eS	Sb	12 11 58.8	+1.6
	5.0nm,0.6s						
MK31	Makanchi Array	4.45	3	⇑Pn	Pn	12 11 37.3	+2.6
	1.3nm,0.7s,baz=129,slow=29,SNR=4.4						
MK31				⇑Pg	Pg	12 11 52.2	-0.3
	2.8nm,0.9s,baz=173,slow=10,SNR=6.4						
MK31				⇓Sn	Sb	12 12 39.1	-0.1
	1.3nm,0.8s,baz=183,slow=24,SNR=2.8						
MK31				⇓Lg	Lg	12 12 58.3	
	2.1nm,0.8s,baz=189,slow=29,SNR=3.0						
MAKZ	Makanchi	4.46	0	⇑Pn	Pn	12 11 35.3	+0.4
	0.8nm,0.5s						
MAKZ				⇓Pg	Pg	12 11 52.2	-0.4
	1.0nm,0.7s						
MAKZ				⇑Sn	Sb	12 12 38.1	-1.3
	2.3nm,0.8s						
MAKZ				⇑Lg	Lg	12 12 57.5	
	2.2nm,0.7s						

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*CATAC **06** 12:11:40.9±0.9, 6°N±3°×7°8W±°, h7^{km}±6^{km}, M4.4/11, mb4.6/1, MLv4.3/11, Error ellipse: s-maj=7.5km s-min=3.4km az=34.2, confirmed*

*UPA **06** 12:11:40.0±0.9, 5°.94N×77°.56W, h10^{km}±12^{km}, MW4.0, Presumed earthquake*

*NEIC **06** 12:11:41.6±1.7, 5°.96N±0°.08×77°.47W±0°.08, h11^{km}±5^{km}, mb4.4/27, Error ellipse: s-maj=13.0km s-min=9.5km az=221.0*

*RSNC **06** 12:11:41.6±0.0, 6°N±1°×7°8W±°, h10^{km}±2^{km}, M3.7, mB4.6, mb4.5, ML3.3, Mw(mB)3.8*

*IDC **06** 12:11:47.3±2.2, 5°.74N×77°.60W, h64^{km}±19^{km}, mb3.7/14, mbtmp4.0/16, MS3.4/6, Error ellipse: s-maj=19.5km s-min=12.8km az=38.0*

ISC 06 12:11:39.0±1.5**, 5°.92N**±0°.03×**77°.65W**±0°.03**, h2^{km}**±9^{km}**, n122, σ1ˢ43**/147**, mb4.2**/23**, MS3.4**/5**, 1C-12D, Near west coast of Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SOLC	Bahia Solano	0.39	38	P	Pb	12 11 49.3	+0.6
SOLC				S	Sb	12 11 55.6	+0.5
PIZC	Pizarro, Choco	0.99	163	P	Pb	12 11 59.5	+0.6
PIZC				S	Sb	12 12 12.7	+0.3
PTAC	Punta Ardita,	1.23	353	P	Pg	12 12 02.4	-0.3
PTAC				S	Sn	12 12 20.6	+0.2
PTAC	Punta Ardita,	1.23	353	⇓iP	Pg	12 12 02.4	-0.3
PTAC				eS	Sg	12 12 18.6	0.0
CBOC	Ciudad Bolivar	1.63	92	P	Pn	12 12 06.6	-2.3
CBOC				S	Sn	12 12 27.2	-3.4
APAC	Apartado, Choc	2.24	28	P	Pn	12 12 18.5	+1.4
APAC				S	Sb	12 12 47.4	-1.0
GUY2C	Guyana, Caldas	2.38	107	P	Pn	12 12 18.5	-1.0
GUY2C				S	Sn	12 12 49.3	-0.2
UPD2	Meteti	2.64	352	eP	Pn	12 12 22.4	-0.2
UREC	San Jos de Ur	2.78	49	P	Pn	12 12 25.1	+0.4
UREC				S	Sn	12 13 00.0	+1.2
UREC	San Jos de Ur	2.78	49	⇑iP	Pn	12 12 25.0	+0.4
UREC				eS	Sn	12 12 58.4	-0.5
NORC	Norcasia	2.79	97	P	Pn	12 12 24.8	0.0
NORC				S	Sn	12 12 59.9	+0.8
ACHO3	Achotines, Los	2.91	301	⇓iP	Pn	12 12 26.7	+0.3
TOTI	Torti	3.06	348	eP	Pn	12 12 28.2	-0.2
TOTI				eS	Sn	12 13 04.2	-1.5
ORTC	Ortega, Tolima	3.12	130	P	Pn	12 12 30.2	+0.9
ORTC				S	Sb	12 13 10.7	-3.1
AZU	Azuero	3.20	306	P	Pn	12 12 30.8	+0.5
AZU				S	Sn	12 13 08.9	-0.2
AZU	Azuero	3.20	306	⇓iP	Pn	12 12 31.0	+0.6
AZU				eS	Sn	12 13 09.9	+0.8
AZU	Azuero	3.20	306	⇓iP	Pn	12 12 30.9	+0.6
PTBC	PUERTO BERRIO,	3.24	79	P	Pn	12 12 31.5	+0.6
PTBC				S	Sn	12 13 12.7	+2.7
CHIT3	Chitre	3.41	307	⇓iP	Pn	12 12 34.0	+0.7
CHIT3				eS	Sn	12 13 14.6	+0.3
ROSC	El Rosal	3.49	108	P	Pn	12 12 36.5	+1.9
	64nm,0.4s,baz=299,slow=7.1,SNR=34						
ROSC				S	Sn	12 13 19.6	+2.8
	148nm,0.8s,baz=37,slow=24,SNR=4.8						
ROSC	El Rosal	3.49	108		Pn	12 12 34.6	-0.1
ROSC	El Rosal	3.49	108	P	Pn	12 12 37.2	+2.6
CACAO	El Cacao, Vera	3.49	294	P	Pn	12 12 31.8	-2.5
CACAO				S	Sn	12 13 13.5	-2.7
CACAO	El Cacao, Vera	3.49	294	⇓iP	Pn	12 12 31.8	-2.5
CACAO				eS	Sn	12 13 16.8	+0.6
CACAO	El Cacao, Vera	3.49	294	⇓iP	Pn	12 12 31.8	-2.5
POPC	Popayan, Colom	3.50	164	P	Pn	12 12 34.6	0.0
CNTA3	Canitas, Panam	3.50	340	eP	Pn	12 12 34.3	-0.2
PRAC	Prado	3.52	128	P	Pn	12 12 35.8	+1.0
PRAC	Prado	3.52	128	P	Pn	12 12 35.8	+1.0
PRAC				S	Sn	12 13 20.3	+3.2
CHPO	Chepo, Panama	3.54	336	eP	Pn	12 12 34.4	-0.6
UPA	Univ. de Panam	3.57	329	P	Pn	12 12 34.4	-1.0
UPA				S	Sn	12 13 17.8	-0.4
UPA	Univ. de Panam	3.57	329	eP	Pn	12 12 34.9	-0.5
UPA				eS	Sn	12 13 17.4	-0.8
UPA	Univ. de Panam	3.57	329	eP	Pn	12 12 35.0	-0.4
SPBC	San Pablo de B	3.57	94	P	Pn	12 12 36.4	+0.8
SPBC				S	Sn	12 13 20.1	+1.7
PNME	Penonome	3.68	314	⇓iP	Pn	12 12 37.7	+0.7
PNME	Penonome	3.68	314	⇓iP	Pn	12 12 37.8	+0.7
ZANG	Zanguenga, Cho	3.73	324	eP	Pn	12 12 37.7	0.0
ZANG				eS	Sn	12 13 22.5	+0.3
ZANG	Zanguenga, Cho	3.73	324	eP	Pn	12 12 37.9	+0.2
GAMB1	Gamboa	3.78	327	⇓iP	Pn	12 12 37.9	-0.4
GAMB1	Gamboa	3.78	327	eP	Pn	12 12 37.7	-0.6
CVER	Cruz Verde, Cu	3.83	111	P	Pn	12 12 41.5	+2.1
BCIP	Isla Barro Col	3.89	326	P	Pn	12 12 39.4	-0.4
BCIP	Isla Barro Col	3.89	326	P	Pn	12 12 39.7	-0.1
BCIP				S	Sn	12 13 25.8	-0.3
BCIP	Isla Barro Col	3.89	326	⇓iP	Pn	12 12 39.4	-0.4
BCIP				eS	Sn	12 13 25.3	-0.8
BBAC	Balboa, Cauca	3.89	174	P	Pn	12 12 40.6	+0.5
STIA3	Santiago, Vera	3.94	304	eP	Pn	12 12 40.9	+0.3
STIA3				eS	Sn	12 13 27.2	-0.2
CALO3	Calobre, Verag	3.96	307	eP	Pn	12 12 41.1	+0.2
GMAL	Guarumal, Vera	4.00	297	P	Pn	12 12 42.9	+1.5
GMAL	Guarumal, Vera	4.00	297	⇓iP	Pn	12 12 43.1	+1.8
GMAL				eS	Sn	12 13 28.9	+0.1
BRJC	Barrancabermej	4.02	75	P	Pn	12 12 42.2	+0.5
CHIC	Chingaza	4.11	108	P	Pn	12 12 44.9	+1.7
SAFE3	Santa Fe, Vera	4.27	307	eP	Pn	12 12 45.4	+0.3
GARC	Garzon, Huila	4.29	150	P	Pn	12 12 47.1	+1.5
GARC				S	Sn	12 13 36.1	-0.2
VILC	Villavicencio,	4.33	114	P	Pn	12 12 49.0	+2.9
BARC	Barichara	4.49	81	P	Pn	12 12 49.6	+1.2
RUSC	La Rusia	4.54	90	P	Pn	12 12 50.6	+1.3
RUSC	La Rusia	4.54	90	P	Pn	12 12 50.2	+0.9
RUSC				S	Sn	12 13 44.0	+1.0
SJCC	San Jacinto, C	4.65	32	P	Pn	12 12 49.5	-0.9
SJCC	San Jacinto, C	4.65	32	P	Pn	12 12 50.0	-0.4
SJCC				S	Sn	12 13 42.9	-2.1
SJCC	San Jacinto, C	4.65	32	eP	Pn	12 12 49.2	-1.1
OCAC	Ocana	4.88	62	P	Pn	12 12 55.0	+1.4
PAMC	Pamplona, Colo	5.12	74	P	Pn	12 12 58.4	+1.2
MACC	Macarena, Meta	5.33	134	P	Pn	12 12 59.4	-0.3
	836nm76nm,0.7s						
MACC				AML	AML		
OTAV	Otavalo	5.70	188		Pn	12 13 07.3	+2.2
OTAV	Otavalo	5.70	188	P	Pn	12 13 07.1	+1.9
OTAV				AML	AML		
BRU2	Volcan	5.76	300		Pn	12 13 08.1	+2.5
PIRO	Carate, Puerto	6.16	294	P	Pn	12 13 13.2	+2.2
DRK0	Durika	6.46	301	P	Pn	12 13 04.8	-11
SLOR	San Lorenzo -	6.66	187		Pn	12 13 23.8	+5.4
RAFA	San Farael, Vo	7.30	304	Pn	Pn	12 13 29.8	+2.8
LCR2	La Lucha 2	7.35	302		Pn	12 13 30.7	+3.1
JTS	Las Juntas de	8.43	301	P	Pn	12 13 46.9	+4.5
	14nm,0.9s,baz=91,slow=7.7,SNR=7.9						
JTS				LR	LR	12 17 06.2	
	comp=Z,289nm,21.8s,baz=103,slow=37						
BANI	BANI	14.29	29	Pn	Pn	12 15 02.7	0.0
SDDR	Presa de Saban	14.39	25	Pn	Pn	12 15 04.4	+0.4
PCDR	Punta Cana, DR	15.44	35	Pn	Pn	12 15 17.1	-1.0
CRPR	Cabo Rojo, PR	15.82	40	Pn	Pn	12 15 21.4	-1.7
CRPR				IAmb	IAmb	12 15 43.3	
	comp=Z,25nm,1.0s						
AOPR	Arecibo Observ	16.30	40	Pn	Pn	12 15 28.6	-0.6
AOPR				IAmb	IAmb	12 15 44.5	
	comp=Z,40nm,1.4s						
SJG	San Juan	16.52	42	P	Pn	12 15 31.9	-0.1
	comp=Z,3.0nm,0.4s,baz=228,slow=12,SNR=2.0						
BOAV	Boa Vista	17.44	101	Pn	Pn	12 15 41.3	-2.3
CMIG	Matias Romero	20.19	305	LR	LR	12 23 59.1	
	comp=Z,77nm,18.6s,baz=108,slow=36						
LPAZ	La Paz	23.99	157	P	P	12 16 54.2	-1.7
	comp=Z,2.7nm,0.7s,baz=324,slow=7.7,SNR=17						
	comp=Z,2.7nm,0.7s						
LPAZ	La Paz	23.99	157		P	12 16 55.2	-0.7
MDP	Montagnes des	24.91	91	P	P	12 17 03.0	-0.7
	comp=Z,5.5nm,0.9s,baz=273,slow=11,SNR=5.5						
MDP				LR	LR	12 28 03.1	
	comp=Z,77nm,21.9s,baz=224,slow=39						
	comp=Z,5.5nm,0.9s						
PB12	IPOC Station P	25.43	164	P	P	12 17 08.6	+0.3
PB12				IAmb	IAmb	12 17 21.4	
	comp=Z,23nm,1.4s						
VILB	Vilhena	25.54	137		P	12 17 09.6	+0.2
PB11	IPOC Station P	26.70	163	P	P	12 17 19.8	-0.2
PB11				IAmb	IAmb	12 17 22.2	
	comp=Z,16nm,0.9s						
PB08	IPOC Station P	27.21	162	P	P	12 17 25.7	+0.9
PB08				IAmb	IAmb	12 17 56.9	
	comp=Z,5.5nm,0.9s						
WVT	Waverly	31.49	344	P	P	12 18 02.1	-0.1
WVT				IAmb	IAmb	12 18 11.2	
	comp=Z,8.2nm,1.4s						
USIN	University of	33.17	345	P	P	12 18 16.8	-0.2
AC06	Mina Casimiro	33.83	168	P	P	12 18 24.9	+2.0
AC06				IAmb	IAmb	12 18 58.6	
	comp=Z,14nm,1.2s						
TXAR	Lajitas Array	33.85	317	P	P	12 18 24.9	+1.7
	comp=Z,0.4nm,0.8s,baz=134,slow=9.1,SNR=5.9						
	comp=Z,0.4nm,0.8s						
BDFB	Brasilia	36.34	126	P	P	12 18 42.4	-2.4
	comp=Z,2.8nm,0.7s,baz=295,slow=7.6,SNR=4.7						
	comp=Z,2.8nm,0.7s						
BDFB	Brasilia	36.34	126	P	P	12 18 43.1	-1.7
BDFB				IAmb	IAmb	12 18 57.7	
	comp=Z,5.9nm,1.2s						
CPUP	Villa Florida	37.63	149	P	P	12 18 52.7	-2.8
	comp=Z,1.7nm,0.8s,baz=327,slow=8.5,SNR=3.2						
	comp=Z,1.7nm,0.8s						
ALQ	Albuquerque	39.24	321	P	P	12 19 10.9	+1.6
ALQ	Albuquerque	39.24	321	P	P	12 19 10.7	+1.4
ALQ				IAmb	IAmb	12 19 20.7	
	comp=Z,3.0nm,1.1s						
S22A	4UR Ranch, Cre	41.33	324	P	P	12 19 28.4	+1.7
PV13	Radium Mtn., P	42.78	323	P	P	12 19 40.8	+2.4
PV13				IAmb	IAmb	12 19 51.1	
	comp=Z,3.9nm,1.0s						
PV18	Skein Mesa, Pa	42.89	323	P	P	12 19 41.4	+2.1
PV18				IAmb	IAmb	12 19 51.9	
	comp=Z,3.4nm,0.8s						
GO06	Curarrehue	45.63	173	P	P	12 20 01.6	+0.5
GO06				IAmb	IAmb	12 20 03.1	
	comp=Z,3.0nm,0.8s						
EPLO	Experimental L	45.66	345	P	P	12 20 01.6	+0.5
EPLO				IAmb	IAmb	12 20 25.9	
	comp=Z,8.9nm,1.1s						
ULM	Lac du Bonnet	46.76	344	LR	LR	12 41 33.8	
	comp=Z,37nm,19.3s,baz=58,slow=38						
PLCA	Paso Flores	46.88	173	P	P	12 20 11.4	+0.6
	comp=Z,5.2nm,0.8s,baz=346,slow=8.1,SNR=19						
	comp=Z,5.2nm,0.8s						
PLCA	Paso Flores	46.88	173	P	P	12 20 12.2	+1.3
NVAR	Mina Array Bea	48.99	317	P	P	12 20 30.2	+2.7
	comp=Z,0.6nm,0.6s,baz=128,slow=6.8,SNR=9.1						
NVAR				LR	LR	12 43 52.2	
	comp=Z,37nm,18.7s,baz=163,slow=39						
	comp=Z,0.6nm,0.6s						
LL02	Futaleuf	49.16	174	P	P	12 20 28.8	+0.4
LL02				IAmb	IAmb	12 20 30.5	
	comp=Z,4.7nm,0.7s						
ESDC	Sonseca Array	73.69	51	P	P	12 23 15.0	+0.2
	comp=Z,1.5nm,1.1s,baz=267,slow=5.7,SNR=4.7						
	comp=Z,1.5nm,1.1s						
ESDC	Sonseca Array	73.69	51	P	P	12 23 14.5	-0.2
PPT	Papeete	74.71	250	LR	LR	12 50 29.4	
	comp=Z,57nm,18.5s,baz=40,slow=31						
ILAR	Eielson Array	75.89	336	P	P	12 23 28.3	+1.5
	comp=Z,0.3nm,0.7s,baz=133,slow=4.2,SNR=4.8						
	comp=Z,0.3nm,0.7s						
EKA	Eskdalemuir Ar	76.35	35	P	P	12 23 30.0	+0.4
	comp=Z,0.5nm,0.6s,baz=258,slow=5.9,SNR=4.5						
	comp=Z,0.5nm,0.6s						
TORD	Torodi Ar. Bea	78.33	78	P	P	12 23 41.0	-0.6
	comp=Z,1.1nm,0.7s,baz=277,slow=6.1,SNR=9.8						
	comp=Z,1.1nm,0.7s						
GERES	GERESS Array B	86.48	41	P	P	12 24 24.1	+0.4
	comp=Z,0.3nm,0.4s,baz=290,slow=5.5,SNR=5.6						
	comp=Z,0.3nm,0.4s						
GERES	GERESS Array B	86.48	41	P	P	12 24 23.6	0.0
ARCES	ARCESS Array B	89.07	20	P	P	12 24 36.2	+0.7
	comp=Z,0.8nm,0.6s,baz=292,slow=6.4,SNR=4.3						
	comp=Z,0.8nm,0.6s						
ARCES	ARCESS Array B	89.07	20	P	P	12 24 35.9	+0.4
QSPA	South Pole Qui	95.93	180	P	P	12 25 07.3	0.0
	comp=Z,1.3nm,1.0s,baz=138,slow=4.6,SNR=2.2						
	comp=Z,1.3nm,1.0s						
QSPA	South Pole Qui	95.93	180	P	P	12 25 07.8	+0.5
HHC	Hu-ho-hao-te	132.70	350	eP	PKPdf	12 30 53.9	-2.2
ASAR	Alice Springs	144.89	237	PKP	PKPbc	12 31 17.8	0.0
	comp=Z,1.9nm,0.8s,baz=124,slow=3.6,SNR=6.3						
WRA	Warramunga Arr	145.94	243	PKPbc	PKPdf	12 31 19.7	-0.9
	comp=Z,2.0nm,0.8s,baz=106,slow=3.4,SNR=5.1						
PZH	PanZhiHua	147.76	1	PKPbc	PKPdf	12 31 21.1	-2.6

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*IDC **06** 12:19:29.1±0.9, 2°.61S×139°.02E, h0^{km}, mb4.1/11, mbtmp4.1/12, ML4.3/1, MS3.5/2, Error ellipse: s-maj=44.7km s-min=16.4km az=90.0*

*NEIC **06** 12:19:36.2±1.2, 2°.7S±0°.1×139°.0E±0°.1, h45^{km}±3^{km}, mb4.3/19, Error ellipse: s-maj=17.4km s-min=16.8km az=84.0*

*DJA **06** 12:19:38.7±1.0, 3°S±3°×13°9E±°, h21^{km}±9^{km}, M4.5/10, mB5.6/1, mb4.4/2, MLv4.6/10, Mw(mB)5.1/1*

ISC 06 12:19:36.8±0.6**, 2°.78S**±0°.07×**138°.84E**±0°.05**, h46^{km}, n43, σ1ˢ63**/46**, mb4.2**/17**, Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GENI	Genyem	1.34	82	P	Pn	12 20 00.5	+1.4
GENI				S	Sn	12 20 18.9	+3.2
GENI				AML	AML		
BAKI	Biak	3.15	300	P	Pn	12 20 26.0	+2.0
BAKI				S	Sn	12 21 01.9	+1.5
BAKI				AML	AML		
FAKI	Fak Fak	6.58	269	Pn	Pn	12 21 12.9	+1.9
FAKI	Fak Fak	6.58	269	P	Pn	12 21 13.2	+2.1
	0.1nm20nm,1.1s						
FAKI				AML	AML		
MTN	Manton Dam	12.57	217		Pn	12 22 34.1	+1.1
SOEI	Soe	16.05	244	Pn	Pn	12 23 19.4	-0.1
SOEI				IAmb	IAmb	12 23 40.8	
	comp=Z,40nm,0.8s						
LUWI	Luwuk	16.15	276	Pn	Pn	12 23 21.5	+0.8
LUWI				IAmb	IAmb	12 23 43.3	
	comp=Z,63nm,1.2s						
KNRA	Kununurra	16.21	217	Pn	Pn	12 23 22.7	+1.3
WB0	Warramunga Arr	17.43	194	P	Pn	12 23 36.9	+0.2
WB0				IAmb	IAmb	12 23 40.6	
	comp=Z,6.0nm,0.6s						
WRA	Warramunga Arr	17.61	194	P	Pn	12 23 37.6	-1.3
	comp=Z,1.0nm,0.3s,baz=14,slow=13,SNR=52						
WRA				S	Sn	12 26 43.7	-11
	comp=Z,1.2nm,0.5s,baz=2.7,slow=23,SNR=5.3						
	comp=Z,3.7nm,0.4s						
WRA				AML	AML		
WRA	Warramunga Arr	17.61	194	P	Pn	12 23 38.3	-0.7
FITZ	Fitzroy Crossi	19.98	219	P	P	12 24 06.0	+0.5
	comp=Z,3.2nm,0.8s,baz=41,slow=10.0,SNR=16						
FITZ				S	S	12 27 42.1	-5.7
	comp=Z,4.7nm,0.7s,baz=159,slow=8.9,SNR=5.0						
	comp=Z,3.2nm,0.8s						
FITZ	Fitzroy Crossi	19.98	219	P	P	12 24 06.3	+0.9
AS31	Alice Springs	21.30	193	P	P	12 24 20.6	+0.9
AS31				IAmb	IAmb	12 24 37.0	
	comp=Z,3.2nm,0.5s						
ASAR	Alice Springs	21.30	193	P	P	12 24 20.6	+0.9
	comp=Z,4.6nm,0.5s,baz=19,slow=11,SNR=92						
ASAR				S	S	12 28 13.0	-1.0
	comp=Z,1.1nm,0.8s,baz=18,slow=26,SNR=4.5						
ASAR				LR	LR	12 33 30.3	
	comp=Z,102nm,20.7s,baz=249,slow=39						
	comp=Z,4.6nm,0.5s						
ASAR	Alice Springs	21.30	193	P	P	12 24 20.1	+0.4
INKA	Innaminka	24.89	176	P	P	12 24 55.8	+0.4
MBWA	Marble Bar	26.07	224	P	P	12 25 06.6	+0.4
MBWA				IAmb	IAmb	12 25 10.4	
	comp=Z,7.8nm,0.8s						
STKA	Stephens Creek	29.06	175	LR	LR	12 39 39.9	
	comp=Z,99nm,19.7s,baz=36,slow=41						
FORT	Forrest	29.65	199	P	P	12 25 38.9	+0.8
FORT				IAmb	IAmb	12 25 43.0	
	comp=Z,6.5nm,0.8s						
MORW	Morawa	33.96	217	P	P	12 26 16.1	+0.1
TOO	Toolangi	35.16	171	P	P	12 26 27.4	+1.2
TOO				IAmb	IAmb	12 27 06.9	
	comp=Z,4.2nm,1.3s						
KULM	Kulim	38.98	282	P	P	12 27 00.3	+1.2
KULM				IAmb	IAmb	12 27 13.1	
	comp=Z,15nm,1.3s						
KLR	Kul'dur	52.17	354	P	P	12 28 41.4	-1.3
	comp=Z,1.8nm,0.6s,baz=197,slow=4.2,SNR=8.3						
	comp=Z,1.8nm,0.6s						
HILR	Hailar Array B	54.68	345	P	P	12 29 00.1	-1.1
	comp=Z,0.9nm,0.4s,baz=174,slow=7.2,SNR=1.4						
	comp=Z,0.9nm,0.4s						
MKAR	Makanchi Array	69.92	322	P	P	12 30 42.4	-0.9
	comp=Z,2.7nm,0.6s,baz=104,slow=8.3,SNR=24						
	comp=Z,2.7nm,0.6s						
MKAR	Makanchi Array	69.92	322	P	P	12 30 42.1	-1.2
MAKZ	Makanchi	70.12	322	P	P	12 30 43.4	-1.1
ZALV	Zalesovo Beam	72.06	330	P	P	12 30 53.8	-2.2
	comp=Z,0.9nm,0.5s,baz=112,slow=6.4,SNR=5.1						
	comp=Z,0.9nm,0.5s						
ZALV	Zalesovo Beam	72.06	330	P	P	12 30 54.2	-1.8
KURBB	Kurchatov Arra	73.86	325	P	P	12 31 05.0	-1.7
	comp=Z,0.7nm,0.7s,baz=115,slow=5.5,SNR=7.7						
	comp=Z,0.7nm,0.7s						
VNDA	Vanda	75.70	175	P	P	12 31 17.2	+0.3
	comp=Z,0.8nm,0.7s,baz=319,slow=6.0,SNR=8.5						
	comp=Z,0.8nm,0.7s						
VNDA	Vanda	75.70	175	P	P	12 31 17.0	+0.1
VNDA				IAmb	IAmb	12 32 00.6	
	comp=Z,1.8nm,1.1s						
BVAR	Borovoye Array	79.44	325	P	P	12 31 36.9	-1.3
	comp=Z,1.5nm,0.6s,baz=107,slow=9.5,SNR=6.9						
	comp=Z,1.5nm,0.6s						
ILAR	Eielson Array	85.84	24	P	P	12 32 08.4	-2.8
	comp=Z,1.0nm,0.7s,baz=262,slow=4.6,SNR=13						
	comp=Z,1.0nm,0.7s						
ILAR	Eielson Array	85.84	24	P	P	12 32 08.8	-2.5
C23K	Itkillik River	85.98	19	P	P	12 32 10.1	-1.7
QSPA	South Pole Qui	87.16	180	P	P	12 32 17.8	0.0
	comp=Z,2.0nm,1.0s,baz=347,slow=4.1,SNR=3.7						
	comp=Z,2.0nm,1.0s						
QSPA	South Pole Qui	87.16	180	P	P	12 32 17.6	-0.3
BMAR	Burnt Mountain	87.42	22	P	P	12 32 17.8	-1.2
BCAR	Beaver Creek A	87.66	27	P	P	12 32 19.9	-0.3
I27K	Kandik River	88.20	24	P	P	12 32 20.8	-1.9
I27K				IAmb	IAmb	12 32 36.6	
	comp=Z,5.7nm,1.3s						
H27K	Steamboat Moun	88.35	24	P	P	12 32 22.4	-1.0
H27K				IAmb	IAmb	12 32 58.9	
	comp=Z,2.5nm,1.2s						

*NEIC **06** 12:19:45.9±0.6, 19.°21N±0.°03×155.°47W±0.°02, h39^{km}±3^{km}, ML4.3/44, ML4.1/38(HVO), Error ellipse: s-maj=4.4km s-min=2.8km az=184.0*
*HVO **06** 12:19:47.6±0.8, 19.°19N±0.°05×155.°47W±0.°02, h32^{km}±7^{km}, Error ellipse: s-maj=7.2km s-min=1.8km az=166.0*
*PTWC **06** 12:19:47, 19.°30N×155.°50W, Ml3.8/38*
ISC 06 12:19:46.2±1.0**, 19.°23N**±0.°03×**155.°49W**±0.°02**, h33**^{km}±2^{km}**, n93, σ0.ˢ45**/108**, Hawaiian Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WOH	Wood Valley	0.03	337		Pb	12 19 52.4	+0.5
WOH	Wood Valley	0.03	337	P	Pb	12 19 52.5	+0.6
PPL	Puu Pili	0.07	159		Pb	12 19 52.5	+0.7
PPL	Puu Pili	0.07	159	P	Pb	12 19 52.4	+0.5
HTC	Hot Caves	0.09	83		Pb	12 19 52.8	+0.8
HTC	Hot Caves	0.09	83	P	Pb	12 19 52.7	+0.7
KHU	Kahuku	0.12	279		Pb	12 19 53.1	+0.7
KHU					Sb	12 19 57.0	+0.3
KHU	Kahuku	0.12	279	P	Pb	12 19 52.9	+0.5
DES	Desert	0.15	42		Pb	12 19 52.9	+0.4
DES				IAML		12 19 57.5	
	comp=N,38µm,0.5s						
DES	Desert	0.15	42	P	Pb	12 19 52.8	+0.4
HPO	Honuapo	0.15	203	P	Pb	12 19 52.9	+0.6
HLP	Hilina Pali	0.19	68		Pb	12 19 53.4	+0.6
HLP				IAML		12 19 58.1	
	comp=N,38µm,0.3s						
HLP				IAML		12 19 58.2	
	comp=E,24µm,0.6s						
HLP	Hilina Pali	0.19	68	P	Pb	12 19 53.4	+0.6
TRH	Trail	0.20	344		Pb	12 19 54.0	+0.7
TRH	Trail	0.20	344	P	Pb	12 19 53.9	+0.7
DAH	Dandelion	0.21	308		Pb	12 19 53.7	+0.3
DAH	Dandelion	0.21	308	P	Pb	12 19 53.7	+0.3
KNH	Kipuka Nene	0.22	60		Pb	12 19 53.4	+0.3
KNH	Kipuka Nene	0.22	60	P	Pb	12 19 53.5	+0.3
RCO	Red Cone	0.22	324		Pb	12 19 53.9	+0.4
RCO	Red Cone	0.22	324	P	Pb	12 19 53.9	+0.4
CPK	Cone Peak	0.23	43		Pb	12 19 53.5	+0.3
CPK	Cone Peak	0.23	43	P	Pb	12 19 53.6	+0.3
SDHHI	Sand Hill	0.25	49		Pb	12 19 53.9	+0.4
SDHHI					Sb	12 19 58.7	+0.3
SDHHI	Sand Hill	0.25	49	P	Pb	12 19 53.9	+0.4
SWH	Southwest Rift	0.25	335		Pb	12 19 54.2	+0.3
SWH	Southwest Rift	0.25	335	P	Pb	12 19 54.1	+0.2
WRMHI	West Rim	0.25	45		Pb	12 19 54.0	+0.4
WRMHI					Sb	12 19 58.8	+0.3
WRMHI	West Rim	0.25	45	P	Pn	12 19 53.0	-0.3
OUT	Outlet	0.26	51		Pb	12 19 53.9	+0.3
OUT	Outlet	0.26	51	P	Pb	12 19 53.9	+0.3
WIH	Wilkes Camp	0.26	340		Pb	12 19 54.4	+0.4
WIH					Sb	12 19 59.7	+0.5
PWH	Poliokeawe Pal	0.26	77		Pb	12 19 54.1	+0.6
AHA	Ahua	0.26	56		Pb	12 19 54.0	+0.4
AHA					Sb	12 19 58.9	+0.2
AHA	Ahua	0.26	56		Pb	12 19 54.2	+0.6
AHA					Sb	12 19 59.1	+0.4
AHA	Ahua	0.26	56	P	Pn	12 19 53.0	-0.4
RIM	Rim	0.27	51		Pb	12 19 54.1	+0.4
RIM					Sb	12 19 58.9	+0.1
RIM	Rim	0.27	51	P	Pb	12 19 54.0	+0.4
OVEH	Oceanview Est	0.27	254		Pb	12 19 54.0	+0.2
OVEH	Oceanview Est	0.27	254	P	Pb	12 19 53.9	+0.2
UWE	Uwekahuna	0.27	44		Pb	12 19 54.1	+0.3
UWE	Uwekahuna	0.27	44		Sb	12 19 59.1	+0.2
KKO	Keanakako'i	0.27	51		Pb	12 19 54.2	+0.4
KKO					Sb	12 19 59.1	+0.1
OBL	Observatory Le	0.27	46		Pb	12 19 54.1	+0.3
OBL					Sb	12 19 59.2	+0.2
OBL	Observatory Le	0.27	46	P	Pb	12 19 54.1	+0.3
MWH	Mokuaweoweo	0.28	339		Pb	12 19 54.6	+0.4
MWH				IAML		12 20 00.1	
	comp=N,19µm,0.5s						
MWH	Mokuaweoweo	0.28	339		Sb	12 19 59.8	+0.1
UWB	Uwekahuna Bluf	0.28	46		Pb	12 19 54.1	+0.2
UWB					Sb	12 19 59.0	-0.1
UWB	Uwekahuna Bluf	0.28	46	P	Pb	12 19 54.1	+0.2
MLH	Mauna Loa	0.28	20		Pb	12 19 54.6	+0.6
MLH				IAML		12 20 00.1	
	comp=E,38µm,0.4s						
MLH	Mauna Loa	0.28	20		Sb	12 19 59.7	+0.3
BYL	Byron's Ledge	0.29	50		Pb	12 19 54.2	+0.2
BYL				IAML		12 20 05.0	
	comp=E,21µm,0.5s						
SBLHI	Steaming Bluff	0.29	47		Pn	12 19 54.2	+0.2
SBLHI					Sb	12 19 59.1	-0.1
HATHI	Halema‘uma‘u T	0.29	48		Pn	12 19 54.2	+0.2
HATHI				IAML		12 19 59.7	
	comp=N,21µm,0.6s						
HATHI				IAML		12 20 01.6	
	comp=E,18µm,0.5s						
HATHI	Halema‘uma‘u T	0.29	48		Sb	12 19 59.3	0.0
SPT	South Point	0.30	215		Pn	12 19 53.9	-0.2
SPT	South Point	0.30	215	P	Pn	12 19 54.1	0.0
PUH	Pauahi	0.30	61		Pn	12 19 54.2	+0.1
PUH				IAML		12 19 59.5	
	comp=E,30µm,0.4s						
PUH				IAML		12 19 59.5	
	comp=N,20µm,0.3s						
PUH	Pauahi	0.30	61		Sb	12 19 59.2	-0.2
ESR	Escape Road	0.30	52		Pn	12 19 54.4	+0.2
ESR					Sb	12 19 59.6	+0.1
PLL	Puu Ulaula	0.31	5		Pn	12 19 55.0	+0.5
RSD	Rainshed	0.31	41		Pn	12 19 54.4	0.0
RSD				IAML		12 20 05.5	
	comp=N,18µm,0.3s						
RSD	Rainshed	0.31	41		Sb	12 19 59.8	+0.1
MLOA	Mauna Loa Obse	0.32	345		Pn	12 19 55.0	+0.3
MLOA				IAML		12 20 00.6	
	comp=E,22µm,0.2s						
KNHH	Kane Nui o Ham	0.34	63		Pb	12 19 54.6	0.0
ALEP	Alea Permanent	0.34	335		Pn	12 19 55.2	+0.1
ALEP					Sn	12 20 00.8	+0.3
KAE	Kaena	0.34	80		Pn	12 19 54.9	0.0
KUH	Kaapuna	0.36	276		Pn	12 19 55.2	0.0
HMH	Humu‘ula Sheep	0.37	1		Pn	12 19 55.9	+0.4
HMH				IAML		12 20 02.5	
	comp=E,24µm,0.3s						
HMH	Humu‘ula Sheep	0.37	1		Sn	12 20 02.3	+0.9
STCH	Steam Cracks	0.38	65		Pb	12 19 55.0	-0.1
STCH	Steam Cracks	0.38	65		Sb	12 20 00.8	-0.5
NPOC	North of Pu‘u	0.40	65		Pb	12 19 55.4	0.0
NPOC					Sb	12 20 01.1	-0.5
JCUZ	Jacuzzi	0.40	67		Pb	12 19 55.4	0.0
JCUZ					Sb	12 20 01.2	-0.5
KLCH	Kalalua Cone	0.44	66		Pb	12 19 55.7	-0.2
CPH	Captain Cook	0.48	303		Pb	12 19 56.6	+0.1
KLK	Kealakekua	0.50	306		Pb	12 19 56.9	0.0
JOKA	Jonika Flow	0.50	66		Pb	12 19 56.5	-0.4
JOKA	Jonika Flow	0.50	66		Sb	12 20 03.2	-1.0
KHLU	Kahalu`u	0.53	314		Pb	12 19 57.2	0.0
KHLU				IAML		12 20 04.8	
	comp=N,19µm,0.3s						
KHLU				IAML		12 20 04.9	
	comp=E,16µm,0.2s						
POHA	Pohakuloa	0.53	356		Pb	12 19 57.4	-0.1
POHA				IAML		12 20 10.7	
	comp=E,14µm,0.6s						
POHA				IAML		12 20 11.3	
	comp=E,12µm,0.4s						
POHA	Pohakuloa	0.53	356		Sb	12 20 04.8	-0.4
HPU	Hale Pohaku	0.55	3		Pb	12 19 58.0	0.0
HUH	Hualalai	0.56	325		Pb	12 19 58.2	+0.3
HUH				IAML		12 20 15.6	
	comp=E,19µm,0.4s						
HUH	Hualalai	0.56	325		Sn	12 20 06.5	+0.2
PKL	Puu Kaliu	0.58	67		Pn	12 19 57.7	-0.5
KKU	Keanakolu	0.67	12		Pb	12 20 00.0	+0.2
MHA	Mahukona	1.03	338		Pn	12 20 04.3	0.0
HLK	Haleakala	1.68	335	Pn	Pn	12 20 12.7	-0.8
KHLH	Kahului Airpor	1.88	332		Pn	12 20 16.2	+0.3
HON	Honolulu	3.15	312	Pn	Pn	12 20 32.4	-1.0
KIP	Kipapa	3.22	313		Pn	12 20 33.4	-1.1
KEKH	Kekaha	4.81	305	Pn	Pn	12 20 54.5	-1.8

NOU 06 12:34:39.9, 15.°66S×166.°92E, h30^{km}**, MLv4.2**/10**,**
Vanuatu Islands, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SANVU	Saraoutou	0.34	52	P	Pn	12 34 49.6	+0.7
KOUNC	Koumac, New Ca	5.47	207	P	Pn	12 35 59.6	+0.2
KOUNC	Koumac, New Ca	5.47	207	S	Sn	12 37 02.0	+0.6
SAVO	Savo Central	9.49	312	P	Pn	12 36 54.7	+0.1

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*IDC **06** 12:34:56.1±1.5, 59.°31N×152.°18W, h52^{km}±19^{km}, mb3.5/12, mbtmp3.8/15, ML3.6/3, MS2.6/1, Error ellipse: s-maj=22.2km s-min=9.9km az=112.0*
*AEIC **06** 12:34:58.7±1.2, 59.°35N±0.°04×152.°07W±0.°03, h55^{km}±5^{km}, Error ellipse: s-maj=5.2km s-min=2.5km az=171.0*
*NEIC **06** 12:34:58.0±1.1, 59.°33N±0.°04×152.°06W±0.°05, h57^{km}±7^{km}, ML3.9/156, ML3.7(AEIC), Error ellipse: s-maj=5.3km s-min=3.6km az=162.0*
ISC 06 12:34:57.4±0.7**, 59.°28N**±0.°04×**152.°06W**±0.°03**, h62**^{km}±7^{km}**, n261, σ0.ˢ81**/266**, mb3.9**/12**, Southern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HOM	Homer	0.43	29		Pn	12 35 08.6	-0.3
HOM	Homer	0.43	29		Sn	12 35 16.9	-0.2
CNPM	China Poot	0.49	59		Pn	12 35 09.1	-0.3
CNPM	China Poot	0.49	59		Sn	12 35 17.7	-0.4
AU22	Augustine Moun	0.67	278		Pn	12 35 11.7	+0.3
AU22					Sn	12 35 21.8	+0.2
AUJK	Augustine Jueg	0.70	276		Pn	12 35 12.0	+0.3
AUJK					Sn	12 35 23.0	+0.8
AUI	Augustine Isla	0.70	275		Pn	12 35 12.1	+0.3
AUI					Sn	12 35 23.2	+0.9
P19K	Oil Pt	0.70	302		Pn	12 35 11.8	0.0
P19K					Sn	12 35 22.9	+0.4
AGU	Augustine-Summ	0.71	277		Pn	12 35 12.2	+0.3
AGU					Sn	12 35 23.7	+1.1
AUL	Augustine Lava	0.71	279		Pn	12 35 12.3	+0.4
AUL					Sn	12 35 23.6	+1.1
AUCH	Augustine Cone	0.72	277		Pn	12 35 12.3	+0.3
AUF	Augustine Flow	0.73	279		Pn	12 35 12.1	+0.1
BRLK	Bradley Lake	0.77	51		Pn	12 35 11.8	-0.8
BRLK	Bradley Lake	0.77	51		Sn	12 35 23.0	-0.8
BRSE	Bradley Lake S	0.81	55		Pn	12 35 12.8	-0.3
ILS	Iliamna Low So	0.85	323		Pn	12 35 13.0	-0.7
ILS					Sn	12 35 24.6	-1.1
O20K	Slope Mountain	0.85	341		Pn	12 35 13.3	-0.3
IVE	Iliamna Volcan	0.88	327		Pn	12 35 13.2	-0.9
Q19K	Cape Douglas,	0.89	247		Pn	12 35 14.4	+0.3
Q19K	Cape Douglas,	0.89	247		Sn	12 35 27.5	+1.0
Q19K	Cape Douglas,	0.89	247	IAML		12 35 28.6	
	comp=N,5µm,0.5s						
Q19K				IAML		12 35 31.9	
	comp=E,6µm,0.5s						
ILSW	Iliamna Southw	0.89	322		Pn	12 35 13.3	-0.9
ILSW				IAML		12 35 26.4	
	comp=N,2µm,0.3s						
ILSW				IAML		12 35 28.4	
	comp=E,4µm,0.6s						
ILIM	Iliamna	0.92	331		Pn	12 35 13.8	-0.7
ILIM					Sn	12 35 25.9	-1.4
ILW	Iliamna West	0.95	325		Pn	12 35 14.2	-0.8
RDSO	Redoubt South	1.23	344		Pn	12 35 17.9	-0.7
REF	Redoubt East F	1.25	345		Pn	12 35 18.4	-0.6
RDT	Redoubt	1.31	352		Pn	12 35 18.9	-0.7
RDT					Sn	12 35 35.7	-0.5
DFR	Drift River	1.35	347		Pn	12 35 19.6	-0.6
NCT	North Crescent	1.36	341		Pn	12 35 19.9	-0.4
NCT					Sn	12 35 36.2	-1.2
RDJH	Redoubt Jeurge	1.37	344		Pn	12 35 20.0	-0.4
O19K	Port Alsworth	1.47	310		Pn	12 35 21.2	-0.4
O19K	Port Alsworth	1.47	310		Sn	12 35 39.5	-0.3
O19K	Port Alsworth	1.47	310	IAML		12 35 41.6	
	comp=E,11µm,0.5s						
O19K				IAML		12 35 42.0	
	comp=N,8µm,0.4s						
KAHG	Katmai Hook Gl	1.52	240		Pn	12 35 23.5	+1.1
KDAK	Kodiak Island	1.53	191	P	Pn	12 35 22.7	+0.3
	comp=N,508nm,0.3s,baz=26,slow=6.7,SNR=3364						
KDAK				S	Sn	12 35 39.6	-1.8
	comp=N,190nm,0.4s,baz=1.3,slow=13,SNR=8.1						
KDAK				LR	LR	12 35 51.4	
	comp=N,56nm,20.3s,baz=50,slow=36						
KDAK	Kodiak Island	1.53	191		Pn	12 35 23.2	+0.7
KDAK				IAML		12 35 51.9	
	comp=N,936nm,0.7s						
KDAK				IAML		12 35 54.2	
	comp=N,810nm,0.4s						
SLKM	Skilak Lake	1.54	36		Pn	12 35 22.8	+0.1
SEW	Seward	1.56	57		Pn	12 35 23.0	+0.1
SEW				IAML		12 35 47.6	
	comp=E,1µm,0.3s						
SEW				IAML		12 35 51.8	
	comp=N,1µm,0.6s						
CAPN	Captain Cook N	1.56	17		Pn	12 35 24.4	+1.5
KARR	Katmai Rainbow	1.58	241		Pn	12 35 24.4	+1.1
P18K	Big Mountain,	1.63	275		Pn	12 35 23.5	-0.3
P18K					Sn	12 35 43.2	-0.7
Q18K	Katmai Hardscr	1.66	249		Pn	12 35 24.8	+0.5
Q18K					Sn	12 35 44.9	+0.3
O22K	Cooper Landing	1.68	43		Pn	12 35 24.8	+0.2
KAWH	Katmai	1.69	239		Pn	12 35 25.7	+1.0
O18K	Koktuh Hills	1.70	291		Pn	12 35 24.0	-0.8
O18K				IAML		12 36 01.6	
	comp=N,864nm,0.6s						
KAKN	Katmai Knife C	1.85	239		Pn	12 35 28.1	+1.1
CKL	Chakachamna La	1.93	356		Pn	12 35 28.1	+0.2
N19K	Bonanza Creek	1.96	323		Pn	12 35 28.0	-0.4
N19K				IAML		12 35 56.5	
	comp=E,1µm,0.7s						
N19K				IAML		12 35 58.8	
	comp=N,662nm,0.9s						
MGLS	Mageik Landsli	1.99	236		Pn	12 35 30.0	+1.3
ACHA	Angle Creek He	2.01	239		Pn	12 35 27.5	-1.6
SPWE	Spurr West	2.01	353		Pn	12 35 29.7	+0.6
ANCK	Angle Creek	2.10	240		Pn	12 35 31.7	+1.5
CAHL	Cahill	2.10	235		Pn	12 35 31.5	+1.3
SPNN	North Nagishla	2.12	352		Pn	12 35 31.3	+0.7
RC01	Rabbit Creek A	2.15	32		Pn	12 35 31.4	+0.4
RC01				IAML		12 36 03.4	
	comp=N,1µm,0.4s						
OHAK	Old Harbor	2.17	198	P	Pn	12 35 31.8	+0.8
OHAK	Old Harbor	2.17	198		Pn	12 35 31.9	+0.8
OHAK				IAML		12 36 15.9	
	comp=N,460nm,0.7s						
STLK	Strandline Lak	2.23	3		Pn	12 35 32.6	+0.6
STLK				IAML		12 36 02.1	
	comp=N,713nm,0.6s						
STLK				IAML		12 36 04.8	
	comp=E,604nm,0.7s						
P17K	Kvichak River	2.25	270		Pn	12 35 32.5	+0.2
SUA	Susitna One	2.28	16		Pn	12 35 33.2	+0.4
SUA	Susitna One	2.28	16	IAML		12 36 07.0	
	comp=E,940nm,0.5s						
SUA				IAML		12 36 07.2	
	comp=N,949nm,0.5s						
N18K	Kilae Creek	2.38	308		Pn	12 35 33.5	-0.6
N18K				IAML		12 36 14.6	
	comp=E,521nm,0.7s						
PWL	Port Wells	2.45	48		Pn	12 35 34.5	-0.4
PWL				IAML		12 36 13.5	
	comp=E,863nm,0.5s						
P23K	Montague Islan	2.47	71		Pn	12 35 35.5	+0.2
O17K	Koliganek Bris	2.61	283		Pn	12 35 37.4	+0.3
M22K	Willow	2.66	20		Pn	12 35 38.3	+0.6
M20K	Styx River	2.66	349		Pn	12 35 38.3	+0.4
PMR	Palmer	2.73	31	P	Pn	12 35 38.7	-0.1
PMR	Palmer	2.73	31	S	Sn	12 36 17.0	+6.4
PMR	Palmer	2.73	31		Pn	12 35 38.3	-0.5
PMR				IAML		12 36 19.8	
	comp=N,301nm,0.5s						
PMR				IAML		12 36 23.0	
	comp=E,328nm,0.5s						
KNK	Knik Glacier	2.79	38		Pn	12 35 39.2	-0.4
KNK				IAML		12 36 22.8	
	comp=N,738nm,0.7s						
R17L	Mt. Peulik Vol	2.80	236		Pn	12 35 41.3	+1.5
N17K	Nushagak Hills	2.87	298		Pn	12 35 40.1	-0.6
N17K				IAML		12 36 28.7	
	comp=N,502nm,0.7s						
M19K	Big River Lodg	2.87	337		Pn	12 35 41.0	+0.3
M18K	Stony River	2.90	321		Pn	12 35 40.8	-0.3
MID	Middleton Isla	2.93	85	Pn	Pn	12 35 41.3	-0.2
GHO	Glory Hole Cre	2.94	30		Pn	12 35 41.3	-0.4
GHO				IAML		12 36 29.6	
	comp=N,503nm,0.5s						
SII	Sitkinak Islan	2.96	203	P	Pn	12 35 42.4	+0.5
SII	Sitkinak Islan	2.96	203		Pn	12 35 42.3	+0.5
SII				IAML		12 36 32.5	
	comp=N,584nm,1.3s						
SII				IAML		12 36 42.6	
	comp=E,443nm,0.6s						
GLI	Glacier Island	2.96	55		Pn	12 35 40.4	-1.5
GLI				IAML		12 36 29.1	
	comp=E,574nm,0.5s						
GLI				IAML		12 36 29.3	
	comp=N,443nm,0.6s						
HIN	Hinchinbrook I	3.02	66		Pn	12 35 42.1	-0.7
HIN				IAML		12 36 36.8	
	comp=N,578nm,0.8s						
HIN				IAML		12 36 39.9	
	comp=E,471nm,0.9s						
P16K	Nushagak River	3.07	268		Pn	12 35 43.8	+0.5
P16K				IAML		12 36 53.1	
	comp=E,340nm,0.6s						
P16K				IAML		12 37 08.6	
	comp=N,356nm,1.2s						
O16K	Kokwok River B	3.10	278		Pn	12 35 44.1	+0.3
O16K				IAML		12 36 47.0	
	comp=N,187nm,0.9s						
SML	Sawmill	3.13	34		Pn	12 35 43.8	-0.5
SML				IAML		12 36 35.5	
	comp=N,384nm,0.7s						
SML				IAML		12 36 35.5	
	comp=E,393nm,0.7s						
FID	Port Fidalgo	3.16	60		Pn	12 35 43.2	-1.5
FID				IAML		12 36 32.7	
	comp=E,476nm,0.6s						
FID				IAML		12 36 37.8	
	comp=N,456nm,0.7s						
L19K	White Mountain	3.22	336		Pn	12 35 45.3	-0.1
L19K				IAML		12 36 24.1	
	comp=N,200nm,0.4s						
L19K				IAML		12 36 24.7	
	comp=E,178nm,0.5s						
CUT	Chulitna	3.25	15		Pn	12 35 46.6	+0.7
M23K	Glacier View	3.31	38		Pn	12 35 46.7	0.0
L20K	Farewell, AK	3.33	345		Pn	12 35 47.2	+0.2
M17K	Holitna River	3.42	311		Pn	12 35 47.9	-0.2
EYAK	Cordova Ski Ar	3.42	66	P	Pn	12 35 47.2	-1.0
EYAK	Cordova Ski Ar	3.42	66	S	Sn	12 36 29.1	+1.7
EYAK	Cordova Ski Ar	3.42	66		Pn	12 35 47.6	-0.6
SCM	Sheep Creek Mo	3.46	40		Pn	12 35 48.9	+0.1
SCM				IAML		12 36 48.0	
	comp=E,323nm,0.6s						
SCM				IAML		12 36 51.9	
	comp=N,229nm,0.9s						
N16K	Nishlik Lake	3.59	292		Pn	12 35 50.8	+0.2
PPLA	Purkeypile	3.63	359		Pn	12 35 51.6	+0.4
PPLA	Purkeypile	3.63	359	IAML		12 36 55.2	
	comp=E,156nm,0.7s						
DIV	Divide	3.64	57		Pn	12 35 51.5	+0.2
DIV				IAML		12 36 51.0	
	comp=N,142nm,0.5s						
L18K	Granite Mounta	3.72	324		Pn	12 35 52.1	-0.2
L18K				IAML		12 36 53.9	
	comp=N,200nm,0.7s						
L18K				IAML		12 36 57.3	
	comp=E,214nm,0.9s						
KLU	Klutina	3.77	51		Pn	12 35 52.9	-0.1
KLU				IAML		12 36 49.7	
	comp=N,288nm,0.6s						
KLU				IAML		12 36 52.4	
	comp=E,184nm,0.7s						
M16K	Timber Creek	3.87	300		Pn	12 35 54.2	-0.1
M16K				IAML		12 37 02.6	
	comp=E,132nm,0.9s						
M16K				IAML		12 37 06.6	
	comp=N,173nm,0.7s						
RAGM	Ragged Mountai	3.89	70		Pn	12 35 54.9	+0.3
RAGM				IAML		12 37 14.5	
	comp=E,155nm,0.9s						
WAT7	Susitna Watana	3.89	22		Pn	12 35 55.5	+0.8
GOAT	Goat Mountain	3.91	67		Pn	12 35 54.5	-0.4
WAT6	Susitna Watana	3.92	31		Pn	12 35 55.5	+0.3
KAIM	Kayak Island	3.94	77		Pn	12 35 56.3	+1.0
WAT1	Susitna Watana	3.95	24		Pn	12 35 56.0	+0.6
CHIR	Chirikof Islan	3.97	210	P	Pn	12 35 55.8	+0.1
O15K	Ungalikthiuk R	3.99	272		Pn	12 35 56.7	+0.7
PS12	TAPS Pump St12	4.08	54		Pn	12 35 57.0	-0.2
BMRM	Bremner River	4.09	62		Pn	12 35 56.8	-0.6
BMRM				IAML		12 37 04.6	
	comp=E,179nm,0.8s						
BMRM				IAML		12 37 05.1	
	comp=N,173nm,0.8s						
CAST	Castle Rocks	4.15	360		Pn	12 35 58.3	+0.1
N15K	Kwethluk River	4.16	286		Pn	12 35 58.9	+0.5
N15K				IAML		12 37 12.3	
	comp=N,184nm,0.8s						
N15K				IAML		12 37 21.4	
	comp=E,188nm,0.7s						
L17K	Donlin	4.19	316		Pn	12 35 58.5	-0.2
K20K	Telida	4.20	348		Pn	12 35 59.1	+0.2
TRF	Thorofare Moun	4.27	11		Pn	12 35 59.5	-0.5
TRF	Thorofare Moun	4.27	11	IAML		12 36 59.3	
	comp=E,171nm,0.5s						
KTH	Kantishna Hill	4.32	7		Pn	12 36 00.7	+0.1
KTH	Kantishna Hill	4.32	7	IAML		12 36 56.9	
	comp=E,172nm,1.0s						
KTH				IAML		12 36 58.2	
	comp=N,161nm,0.5s						
BERG	Berg Lake	4.36	72		Pn	12 36 00.9	-0.2
BERG	Berg Lake	4.36	72	IAML		12 37 23.7	
	comp=E,159nm,0.8s						
BERG				IAML		12 37 24.6	
	comp=N,122nm,0.8s						
N25K	Chitina, Valde	4.37	55		Pn	12 36 00.9	-0.3
L16K	Owhat River	4.40	307		Pn	12 36 01.6	0.0
L16K				IAML		12 37 21.7	
	comp=N,132nm,0.9s						
L16K				IAML		12 37 27.8	
	comp=E,96nm,1.0s						
RND	Reindeer	4.42	19		Pn	12 36 02.5	+0.7
RND				IAML		12 37 05.6	
	comp=N,81nm,0.6s						
RND				IAML		12 37 12.0	
	comp=E,99nm,1.0s						
DHY	Denali Highway	4.43	29		Pn	12 36 02.6	+0.4
DHY				IAML		12 37 07.1	
	comp=E,102nm,0.7s						
DHY				IAML		12 37 17.9	
	comp=N,107nm,0.7s						
M15K	Kasigluk River	4.56	292		Pn	12 36 03.9	+0.1
K17K	Iditarod	4.59	321		Pn	12 36 04.3	0.0
K17K	Iditarod	4.59	321	IAML		12 37 27.9	
	comp=N,139nm,1.0s						
HARP	HAARP	4.60	44		Pn	12 36 05.0	+0.7
GLB	Gilahina Butte	4.63	59		Pn	12 36 05.1	+0.3
GLB				IAML		12 37 16.9	
	comp=N,80nm,0.6s						
MCK	McKinley	4.71	17		Pn	12 36 06.8	+1.0
MCK				IAML		12 37 10.0	
	comp=N,130nm,0.6s						
MCK				IAML		12 37 26.6	
	comp=E,85nm,0.7s						
VRDI	Verde Repeater	4.71	62		Pn	12 36 05.3	-0.7
CRQM	Cirque	4.71	68		Pn	12 36 06.0	-0.1
CRQM				IAML		12 37 29.6	
	comp=E,60nm,1.0s						
CRQM				IAML		12 37 33.0	
	comp=N,77nm,1.0s						
J18K	Innoko River	4.76	334		Pn	12 36 06.4	0.0
J18K				IAML		12 37 33.1	
	comp=E,75nm,1.0s						
TGL	Tana Glacier	4.86	68		Pn	12 36 07.5	-0.5
TGL				IAML		12 37 36.6	
	comp=N,59nm,1.0s						
N14K	Kuskokwak Cree	4.93	282		Pn	12 36 09.9	+1.1
MCARA	McCarthy VSAT	4.96	61	Pn	Pn	12 36 09.4	+0.1
MCARA				IAML		12 37 33.9	
	comp=E,111nm,0.7s						
MCARA				IAML		12 37 41.1	
	comp=N,115nm,1.1s						
J20K	Nowinta River	5.01	349		Pn	12 36 10.1	+0.2
J19K	Poorman	5.02	342		Pn	12 36 10.1	0.0
BWN	Browne	5.06	13		Pn	12 36 11.2	+0.6
KIAG	Kiagna River	5.12	67		Pn	12 36 11.5	-0.2
PTPK	Patty Peak	5.15	64		Pn	12 36 11.5	-0.5
BALM	Baldy	5.16	66		Pn	12 36 13.1	+1.0

L15K	Ungalak Mounta	5.25	301		Pn	12 36 13.5	+0.4
YAH	Yahtse	5.32	74		Pn	12 36 14.5	+0.1
YAH				IAML		12 37 15.9	
	comp=E,36nm,0.7s						
YAH				IAML		12 37 17.8	
	comp=N,41nm,0.6s						
J17K	VABM Dome	5.33	324	Pn	Pn	12 36 14.5	+0.1
J17K				IAML		12 37 46.5	
	comp=E,97nm,1.4s						
J17K				IAML		12 37 48.2	
	comp=N,72nm,1.1s						
GRNC	Granite Creek	5.37	70		Pn	12 36 15.2	+0.2
M26K	Nabesna, AK	5.42	51		Pn	12 36 15.2	-0.4
M26K	Nabesna, AK	5.42	51	IAML		12 37 58.0	
	comp=N,34nm,0.6s						
K24K	Donnelly Dome	5.44	31		Pn	12 36 17.5	+1.7
MENT	Mentasta	5.46	44	P	Pn	12 36 18.1	+2.0
MENT	Mentasta	5.46	44		Pn	12 36 17.6	+1.5
BARN	Barnard Glacie	5.49	67		Pn	12 36 16.3	-0.4
K15K	Wolf Creek Mou	5.54	307		Pn	12 36 17.8	+0.7
CHX	Chaix Hills	5.60	77		Pn	12 36 18.1	0.0
RIDG	Independent Ri	5.65	35		Pn	12 36 19.1	+0.4
I20K	Naaghedeneel	5.65	349		Pn	12 36 17.8	-0.8
CCB	Clear Creek Bu	5.74	19		Pn	12 36 19.3	-0.6
J16K	Anvik River	5.75	318		Pn	12 36 19.8	-0.3
LOGN	Logan Glacier	5.75	70	Pn	Pn	12 36 20.7	+0.5
SAMH	Samovar Hills	5.77	77		Pn	12 36 21.2	+0.7
MLY	Manley	5.80	6		Pn	12 36 21.2	+0.4
M13K	Dall Lake	5.80	286		Pn	12 36 22.0	+1.2
M27K	Edge Creek, AK	5.86	54		Pn	12 36 21.5	-0.1
I21K	Tanana	5.92	0		Pn	12 36 22.9	+0.6
GCSA	Galena City Sc	5.93	340		Pn	12 36 22.8	+0.3
COLA	College	5.95	18	P	Pn	12 36 22.9	+0.2
COLA	College	5.95	18		Pn	12 36 22.8	+0.1
MDM	Murphy Dome	5.97	16		Pn	12 36 23.3	+0.2
IL31		6.02	22		Pn	12 36 24.0	+0.3
ILAR	Eielson Array	6.02	22	P	Pn	12 36 23.6	-0.1
	comp=N,3.2nm,0.3s,baz=206,slow=14,SNR=104						
ILAR				S	Sn	12 37 29.3	-1.9
	comp=N,5.5nm,0.5s,baz=212,slow=21,SNR=7.4						
ILAR				LR	LR	12 38 56.9	
	comp=N,62nm,21.0s,baz=210,slow=40						
	comp=N,5.5nm,0.4s						
ILAR				AML	AML		
I23K	Minto, Yukon-K	6.02	11		Pn	12 36 23.4	-0.3
SDPT	Sand Point	6.03	233	P	Pn	12 36 25.7	+1.9
SDPT	Sand Point	6.03	233	S	Sn	12 37 30.3	-1.1
PCA	Pinnacle	6.03	77		Pn	12 36 24.4	+0.4
YUK2	White River	6.08	61		Pn	12 36 24.6	0.0
SCRK	Sand Creek	6.08	36		Pn	12 36 24.0	-0.7
O28M	Mount Upton	6.13	71		Pn	12 36 25.7	+0.2
I17K	Unalakleet	6.19	322		Pn	12 36 26.4	+0.4
J25K	Salcha River,	6.21	28		Pn	12 36 26.3	-0.1
L27K	Beaver Creek,	6.23	48		Pn	12 36 27.4	+0.7
POKR	Poker Plat Res	6.24	18		Pn	12 36 26.6	-0.1
BC03		6.25	48		Pn	12 36 27.3	+0.5
BCAR	Beaver Creek A	6.25	48	Pn	Pn	12 36 28.0	+1.1
H21K	Melozitna Rive	6.41	357		Pn	12 36 28.9	-0.1
YUK8	Steele Glacier	6.43	67		Pn	12 36 30.1	+0.5
PNL	Peninsula	6.46	81	P	Pn	12 36 29.7	-0.1
PNL	Peninsula	6.46	81	S	Sn	12 37 40.7	-1.4
PNL	Peninsula	6.46	81		Pn	12 36 29.8	-0.1
J14K	Nanvaranak Lak	6.58	307	Pn	Pn	12 36 32.4	+1.1
H18K	Honhosa River	6.58	336		Pn	12 36 31.6	+0.2
H22K	Ishtalitna Cre	6.64	2		Pn	12 36 32.4	+0.1
H23K	Yukon River	6.67	9	Pn	Pn	12 36 32.3	-0.3
H17K	Granite Mounta	6.76	330		Pn	12 36 34.2	+0.4
IM04	Indian Mountai	6.76	354		Pn	12 36 34.1	+0.2
H24K	Noodor Dome	6.86	15		Pn	12 36 35.6	+0.5
O29M	Mount Kennedy	6.88	76		Pn	12 36 36.3	+0.7
PRP	Porcupine Dome	6.95	23		Pn	12 36 36.7	+0.1
YUK6	Outpost Mounta	7.04	70		Pn	12 36 38.9	+0.9
G19K	Purcell Mounta	7.26	344		Pn	12 36 41.2	+0.6
G21K	Allakaket	7.29	355		Pn	12 36 41.8	+0.7
G18K	Tagagawik	7.30	338		Pn	12 36 41.6	+0.5
P29M	Windy Craggy	7.31	81		Pn	12 36 41.7	+0.3
YUK5	Granite Creek	7.31	69		Pn	12 36 42.2	+0.6
M29M	Somme Creek	7.35	59		Pn	12 36 42.4	+0.3
HYT	Haines Junctio	7.45	72		Pn	12 36 44.1	+0.7
G23K	Bananza Creek	7.51	6		Pn	12 36 44.4	+0.2
H25L	Birch Creek	7.57	20		Pn	12 36 45.0	+0.1
P30M	Million Dollar	7.68	77		Pn	12 36 46.9	+0.4
DAWY	Dawson	7.69	46		Pn	12 36 47.4	+0.7
G24K	Hadweenzic Riv	7.73	14		Pn	12 36 47.0	-0.1
N30M	Aishikik Lake	7.73	67		Pn	12 36 47.3	+0.1
G16K	Koyuk River	7.77	326		Pn	12 36 47.9	+0.2
F20K	Avaraart Lake	7.97	350		Pn	12 36 51.1	+0.7
I27K	Kandik River	7.97	33		Pn	12 36 50.4	0.0
F21K	Alatna River	8.00	356		Pn	12 36 51.5	+0.7
F19K	Shaleruckik Mo	8.01	344		Pn	12 36 51.6	+0.7
G15K	Niukluk	8.01	321		Pn	12 36 51.3	+0.4
PLBC	Pleasant Camp	8.02	82		Pn	12 36 51.4	+0.3
ANM	Nome	8.21	316		Pn	12 36 54.1	+0.5
I28M	Miner Creek	8.36	37		Pn	12 36 56.6	+0.8
H27K	Steamboat Moun	8.47	30		Pn	12 36 57.0	-0.3
F24K	Squaw Lake	8.47	11		Pn	12 36 57.0	-0.3
G26K	Porcupine Rive	8.55	22		Pn	12 36 58.6	+0.3
WHY	Whitehorse	8.72	74		Pn	12 37 01.6	+0.8
F25K	Christian Rive	8.82	16		Pn	12 37 02.8	+0.8
BMAR	Burnt Mountain	8.83	19		Pn	12 37 02.4	+0.2
G27K	Doyon Strip	8.89	28		Pn	12 37 03.0	0.0
E24K	Your Creek	8.97	9		Pn	12 37 04.3	+0.3
SIT	Sitka	9.12	97	P	Pn	12 37 04.6	-1.5
F26K	Sheenjek River	9.14	19		Pn	12 37 06.9	+0.5
E21K	Killik River	9.23	356		Pn	12 37 09.1	+1.5
JIS	Juneau Island	9.23	89	P	Pn	12 37 08.3	+0.7
E25K	Arctic Village	9.32	15		Pn	12 37 09.0	+0.1
D22K	Ayikyak River	9.64	359		Pn	12 37 14.1	+0.9
UNV	Unalaska Valle	9.65	242	P	Pn	12 37 14.2	+0.9
D23K	Nanushuk River	9.74	3		Pn	12 37 15.8	+1.3
P33M	Teslin, Yukon	9.75	76		Pn	12 37 14.6	-0.2
F28M	Old Crow	9.96	28		Pn	12 37 17.9	+0.3
D25K	Kavik River	10.37	11		Pn	12 37 21.9	-1.2
C19K	Lookout Ridge	10.38	345	Pn	Pn	12 37 24.3	+1.0
U33K	Whale Pass	10.61	99		Pn	12 37 25.1	-1.3
MMPY	Sheldon Lake,	10.63	63	Pn	Pn	12 37 26.7	0.0
CRAG	Craig	10.90	102	P	Pn	12 37 28.7	-1.7
CRAG	Craig	10.90	102	Pn	Pn	12 37 28.7	-1.7
DLBC	Dease Lake	11.43	85	P	Pn	12 37 38.4	+0.7
	comp=N,0.4nm,0.3s,baz=281,slow=19,SNR=12						
	comp=N,0.7nm,0.3s						
DLBC				AML	AML		
V35K	Ketchikan	11.73	101	Pn	Pn	12 37 40.8	-0.8
INK	Inuvik	12.14	34	P	Pn	12 37 48.5	+1.3
	comp=N,1.2nm,0.8s,baz=238,slow=17,SNR=1.8						
YKA	Yellowknife Ar	18.33	64	P	P	12 39 07.1	+0.8
	comp=N,0.1nm,0.3s,baz=278,slow=12,SNR=5.6						
	comp=N,1.1nm,0.7s						
YKA				AML	AML		
PETK	Petropavlovsk-	28.04	280	P	P	12 40 42.3	-0.2
	comp=N,3.2nm,1.1s,baz=68,slow=13,SNR=6.6						
	comp=N,3.2nm,1.1s						
NVAR	Mina Array Bea	29.95	119	P	P	12 41 00.7	+0.9
	comp=N,0.2nm,0.3s,baz=337,slow=8.5,SNR=2.6						
	comp=N,0.2nm,0.3s						
ARCES	ARCESS Array B	51.47	1	P	P	12 43 54.5	-1.3
	comp=N,1.7nm,0.9s,baz=350,slow=6.5,SNR=4.6						
	comp=N,1.7nm,0.9s						
SONM	Songino Array	55.60	307	P	P	12 44 26.6	+0.2
	comp=N,0.3nm,0.3s,baz=46,slow=8.4,SNR=1.9						
	comp=N,0.3nm,0.3s						
ZALV	Zalesovo Beam	58.24	324	P	P	12 44 44.2	-0.6
	comp=N,0.5nm,0.5s,baz=32,slow=8.5,SNR=2.3						
	comp=N,0.5nm,0.5s						
NOA	NORSAR Array B	59.31	9	P	P	12 44 51.2	-1.0
	comp=N,0.7nm,0.8s,baz=331,slow=14,SNR=1.7						
	comp=N,0.7nm,0.8s						
FINES	FINESS Array B	59.60	1	P	P	12 44 53.6	-0.5
	comp=N,0.6nm,0.3s,baz=13,slow=9.3,SNR=10						
	comp=N,0.6nm,0.3s						
HFS	Hagfors	60.40	8	P	P	12 44 58.9	-0.7
	comp=N,0.8nm,0.3s,baz=0.0,slow=5.9,SNR=5.0						
	comp=N,0.8nm,0.3s						
BVAR	Borovoye Array	62.93	333	P	P	12 45 16.0	-0.8
	comp=N,0.7nm,0.6s,baz=10,slow=9.5,SNR=3.9						
	comp=N,0.7nm,0.6s						
EKA	Eskdalemuir Ar	63.05	19	P	P	12 45 17.7	+0.1
	comp=N,0.5nm,0.5s,baz=335,slow=5.5,SNR=4.3						
	comp=N,0.5nm,0.5s						
MKAR	Makanchi Array	65.29	322	P	P	12 45 31.9	-0.5
	comp=N,0.1nm,0.4s,baz=42,slow=6.6,SNR=2.0						
	comp=N,0.1nm,0.4s						
AKASG	Malin Array Be	70.37	359	P	P	12 46 03.5	-0.6
	comp=N,0.5nm,0.4s,baz=6.4,slow=6.5,SNR=4.2						
	comp=N,0.5nm,0.4s						

NOU 06 12:44:28.4, 21.°91S×169.°82E, h0^{km}, MLv3.6/15, Southeast of Loyalty Islands, Southeast of Loyalty Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MARNC	Mare, Loyalty	1.72	284	P	Pn	12 44 58.7	-0.9
MARNC	Mare, Loyalty	1.72	284	S	Sn	12 45 21.9	-0.3
YATNC	Mamie plateau,	2.72	266	P	Pn	12 45 12.5	-0.9
YATNC	Mamie plateau,	2.72	266	S	Sn	12 45 47.2	+0.1
OUENC	Ouen Island, N	2.81	259	P	Pn	12 45 14.3	-0.3
ONTNC	Ouen Toro	3.15	262	P	Pn	12 45 19.3	+0.1
ONTNC	Ouen Toro	3.15	262	S	Sn	12 45 58.4	+0.9
NOUC	Port Laguerre	3.27	266	P	Pn	12 45 20.9	0.0
NOUC	Port Laguerre	3.27	266	S	Sn	12 46 00.9	+0.3
KOUNC	Koumac, New Ca	5.34	284	P	Pn	12 45 49.7	+0.3
KOUNC	Koumac, New Ca	5.34	284	S	Sn	12 46 52.8	+1.2

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*IDC **06** 12:48:25.7±1.9, 18.°78N×145.°64E, h195^{km}±19^{km}, mb3.7/19, mbtmp4.2/21, Error ellipse: s-maj=15.9km s-min=9.6km az=80.0*

*NEIC **06** 12:48:26.9±1.1, 18.°76N±0.°10×145.°6E±0.°2, h193^{km}±8^{km}, mb4.5/33, Error ellipse: s-maj=24.6km s-min=13.4km az=99.0*

ISC 06 12:48:26.5±0.5**, 18.°75N**±0.°06×**145.°7E**±0.°1**, h200^{km}, n66, σ1.^{s}05**/64**, mb4.2**/33**, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DPSS	Saipan	3.49	178	Pn	Pn	12 49 21.0	-1.1
GUMO	Guam	5.19	189	P	Pn	12 49 43.3	-0.1
	22nm,0.4s,baz=0.0,slow=20,SNR=1.4						
GUMO				S	Sn	12 50 43.0	-1.2
	39nm,0.4s,baz=0.0,slow=20,SNR=2.3						
GUMO	Guam	5.19	189		Pn	12 49 43.9	+0.5
INU	Inuyama	18.23	337	P	P	12 52 26.1	+1.4
INU				IAmb	IAmb	12 52 53.3	
	comp=Z,34nm,1.4s						
JGF	Kuroka	18.33	338	P	P	12 52 27.1	+1.3
JGF				IAmb	IAmb	12 52 57.5	
	comp=Z,45nm,1.5s						
MJAR	Matsushiro Arr	18.90	341	P	P	12 52 32.0	-0.1
	comp=Z,3.4nm,0.7s,baz=169,slow=10,SNR=8.9						
MJAR				S	S	12 55 55.1	-1.1
	comp=Z,0.6nm,0.5s,baz=192,slow=22,SNR=4.6						
MJAR	Matsushiro Arr	18.90	341	P	P	12 52 31.9	-0.1
H11S3	WAKE ISLAND Hy	19.91	87	T	T	13 13 48.0	
	baz=275,slow=74,SNR=8.7						
H11S1	WAKE ISLAND Hy	19.92	87	T	T	13 13 49.2	
	baz=275,slow=74,SNR=9.3						
H11S2	WAKE ISLAND Hy	19.93	87	T	T	13 13 49.6	
	baz=275,slow=74,SNR=9.9						
H11N1	WAKE ISLAND Hy	20.05	84	T	T	13 14 00.6	
	baz=267,slow=74						
H11N2	WAKE ISLAND Hy	20.06	84	T	T	13 14 00.1	
	baz=267						
H11N3	WAKE ISLAND Hy	20.07	84	T	T	13 14 04.2	
	baz=267,slow=74						
MANU	Manus Island	20.73	175	P	P	12 52 51.1	-0.7
MANU				IAmb	IAmb	12 53 05.1	
	comp=Z,24nm,1.5s						
JTM	Tenmabayashi	22.32	351	P	P	12 53 08.3	+0.8
ERM	Erimo	23.29	355	P	P	12 53 18.1	+1.9
KSRS	Korea Array	24.26	324	P	P	12 53 25.0	-0.2
	comp=Z,0.7nm,0.6s,baz=139,slow=8.8,SNR=2.5						
	comp=Z,0.7nm,0.6s						
JKA	Kamikawa-asahi	25.42	355	P	P	12 53 36.8	+1.2
JKA				IAmb	IAmb	12 53 39.0	
	comp=Z,15nm,1.4s						
LUWI	Luwuk	29.90	231	P	P	12 54 19.1	+3.3
MTN	Manton Dam	34.52	206	P	P	12 54 56.1	+0.2
MTN				IAmb	IAmb	12 55 39.5	
	comp=Z,7.8nm,1.2s						
PETK	Petropavlovsk-	35.54	12	P	P	12 55 03.1	-1.2
	comp=Z,2.7nm,0.9s,baz=223,slow=6.1,SNR=4.0						
	comp=Z,2.7nm,0.9s						
WRA	Warramunga Arr	40.03	197	P	P	12 55 42.3	+0.1
	comp=Z,1.5nm,0.3s,baz=14,slow=8.2,SNR=57						
WRA				PcP	PcP	12 57 42.0	-1.2
	comp=Z,0.8nm,0.5s,baz=24,slow=3.5,SNR=11						
	comp=Z,1.5nm,0.3s						
WRA	Warramunga Arr	40.03	197	P	P	12 55 42.0	-0.3
SONM	Songino Array	43.09	321	P	P	12 56 06.6	-0.4
	comp=Z,0.8nm,0.5s,baz=124,slow=9.6,SNR=4.2						
	comp=Z,0.8nm,0.5s						
AS31	Alice Springs	43.70	196	P	P	12 56 12.0	+0.1
ASAR	Alice Springs	43.70	196	P	P	12 56 11.3	-0.6
	comp=Z,0.4nm,0.3s,baz=15,slow=6.5,SNR=22						
ASAR				PcP	PcP	12 57 54.8	-0.5
	comp=Z,0.5nm,0.6s,baz=26,slow=3.4,SNR=7.6						
	comp=Z,0.4nm,0.3s						
ASAR	Alice Springs	43.70	196	P	P	12 56 12.3	+0.4
CMAR	Chiang Mai Arr	44.20	277	P	P	12 56 16.1	+0.1
	comp=Z,0.4nm,0.4s,baz=72,slow=6.1,SNR=4.7						
	comp=Z,0.4nm,0.4s						
YAK	Yakutsk	44.66	349		P	12 56 18.6	-0.4
MORW	Morawa	55.49	212	P	P	12 57 40.9	+0.1
O15K	Ungalikthiuk R	56.13	30	P	P	12 57 46.1	+1.2
N15K	Kwethluk River	56.38	29	P	P	12 57 47.9	+1.2
K15K	Wolf Creek Mou	56.61	26	P	P	12 57 49.7	+1.4
K15K				IAmb	IAmb	12 58 10.1	
	comp=Z,24nm,1.4s						
F15K	North Star Dit	57.00	22	P	P	12 57 52.4	+1.4
F15K				IAmb	IAmb	12 58 19.4	
	comp=Z,19nm,1.4s						
J16K	Anvik River	57.42	26	P	P	12 57 55.0	+1.1
J16K				IAmb	IAmb	12 58 14.7	
	comp=Z,18nm,1.4s						
ZALV	Zalesovo Beam	57.96	322	P	P	12 57 56.9	-1.0
	comp=Z,1.9nm,0.6s,baz=88,slow=6.1,SNR=9.9						
	comp=Z,1.9nm,0.6s						
ZALV	Zalesovo Beam	57.96	322	P	P	12 57 57.5	-0.4
MKAR	Makanchi Array	58.41	314	P	P	12 58 01.1	-0.1
	comp=Z,1.3nm,0.5s,baz=91,slow=8.2,SNR=15						
	comp=Z,1.3nm,0.5s						
MKAR	Makanchi Array	58.41	314	P	P	12 58 00.9	-0.3
N18K	Kilae Creek	58.51	29	P	P	12 58 02.5	+0.9
N18K				IAmb	IAmb	12 58 12.1	
	comp=Z,24nm,1.5s						
H18K	Honhosa River	59.08	24	P	P	12 58 05.7	+0.3
H18K				IAmb	IAmb	12 58 13.8	
	comp=Z,12nm,1.5s						
E18K	Tukpahlearik C	59.25	21	P	P	12 58 07.9	+1.4
E18K				IAmb	IAmb	12 58 09.6	
	comp=Z,5.8nm,1.1s						
CAST	Castle Rocks	61.05	27	P	P	12 58 20.0	+1.2
CAST				IAmb	IAmb	12 58 20.6	
	comp=Z,4.7nm,0.6s						
D20K	Etivluk River	61.16	21	P	P	12 58 20.7	+1.2
KURBB	Kurchatov Arra	61.27	318	P	P	12 58 19.9	-0.6
	comp=Z,1.9nm,0.5s,baz=97,slow=7.2,SNR=23						
	comp=Z,1.9nm,0.5s						
SML	Sawmill	62.33	29	P	P	12 58 28.1	+0.7
SML				IAmb	IAmb	12 58 29.1	
	comp=Z,6.0nm,0.8s						
E22K	Anaktuvuk Pass	62.60	22	P	P	12 58 30.1	+0.9
E23K	Chandalar	63.37	22		P	12 58 35.5	+1.3
E23K				IAmb	IAmb	12 58 36.5	
	comp=Z,3.0nm,0.6s						
ILAR	Eielson Array	63.60	26	P	P	12 58 34.9	-0.9
	comp=Z,1.0nm,0.4s,baz=252,slow=6.1,SNR=19						
	comp=Z,1.0nm,0.4s						
D25K	Kavik River	64.84	21	P	P	12 58 44.5	+0.8
D25K				IAmb	IAmb	12 58 46.0	
	comp=Z,2.9nm,0.7s						
BVAR	Borovoye Array	66.42	320	P	P	12 58 53.6	-0.5
	comp=Z,5.6nm,0.5s,baz=95,slow=7.4,SNR=25						
	comp=Z,5.6nm,0.5s						
L29M	L29M	67.20	29	P	P	12 59 00.8	+1.9
L29M				IAmb	IAmb	12 59 01.2	
	comp=Z,3.8nm,0.5s						
HYT	Haines Junctio	67.39	31		P	12 59 01.6	+1.5
AB31	Akbulak array	73.29	317		P	12 59 34.8	-1.1
AKTO	Aktyubinsk	74.31	318	P	P	12 59 41.3	-0.6
	comp=Z,0.7nm,0.3s,baz=81,slow=7.1,SNR=4.4						
	comp=Z,0.7nm,0.3s						
YKA	Yellowknife Ar	77.95	28	P	P	13 00 01.9	-0.2
	comp=Z,1.5nm,0.4s,baz=292,slow=5.4,SNR=12						
	comp=Z,1.5nm,0.4s						
SPITS	Spitsbergen Ar	79.11	351	P	P	13 00 08.4	+0.1
	comp=Z,4.8nm,0.8s,baz=45,slow=5.6,SNR=5.2						
	comp=Z,4.8nm,0.8s						
PINE	Pine Mountain	79.63	47		P	13 00 13.1	+1.1
ARCES	ARCESS Array B	82.44	342	P	P	13 00 25.6	-0.4
	comp=Z,1.4nm,0.8s,baz=47,slow=7.3,SNR=10.0						
	comp=Z,1.4nm,0.8s						
NVAR	Mina Array Bea	83.12	52	P	P	13 00 31.2	+0.8
	comp=Z,2.1nm,0.7s,baz=267,slow=5.8,SNR=29						
	comp=Z,2.1nm,0.7s						
NV11	Mina Array Sit	83.23	52	P	P	13 00 31.9	+1.0
FINES	FINESS Array B	86.83	335	P	P	13 00 46.0	-2.0
	comp=Z,1.1nm,0.3s,baz=70,slow=4.8,SNR=27						
	comp=Z,1.1nm,0.3s						
PDAR	Pinedale Array	87.80	45	P	P	13 00 53.5	+0.1
	comp=Z,0.3nm,0.3s,baz=256,slow=1.0,SNR=5.1						
	comp=Z,0.3nm,0.3s						
PV02	Paradox Valley	90.21	49	P	P	13 01 05.2	+0.4
PV02				IAmb	IAmb	13 01 20.6	
	comp=Z,2.5nm,1.0s						
HFS	Hagfors	92.33	338	P	P	13 01 11.8	-2.0
	comp=Z,1.5nm,0.7s,baz=64,slow=6.6,SNR=1.5						
	comp=Z,1.5nm,0.7s						
LPAZ	La Paz	147.69	91	PKPbc	PKPbc	13 07 49.5	+0.5
	comp=Z,2.0nm,0.6s,baz=280,slow=2.6,SNR=10						

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*IDC **06** 12:59:32.7±4.9, 36.°47N×70.°37E, h218^{km}±47^{km}, mb3.0/5, mbtmp3.8/10, Error ellipse: s-maj=37.3km s-min=22.8km az=32.0*

*NEIC **06** 12:59:33.8±0.6, 36.°58N±0.°08×70.°4E±0.°2, h207^{km}±12^{km}, mb4.3/6, Error ellipse: s-maj=18.0km s-min=10.6km az=79.0*

*NNC **06** 12:59:35.2±17.0, 36.°86N×69.°64E, h130^{km}±378^{km}, mb3.3, mpv3.9, Error ellipse: s-maj=149.2km s-min=106.2km az=25.0*

ISC 06 12:59:31.9±0.7**, 36.°52N**±0.°06×**70.°38E**±0.°07**, h204^{km}, n40, σ2.^{s}03**/48**, mb3.8**/6**, 5C-1D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBL	Kabul	2.26	209		Pn	13 00 16.0	+2.3
BTK	Batken	3.55	5		Pn	13 00 31.2	+2.8
NIL	Nilore	3.71	140		Pn	13 00 32.8	+2.5
JMU	Jammu	5.23	134	*e*P	Pn	13 00 51.6	+2.1
JMU				*e*S	S	13 01 48.5	-1.7
JMU				IAML		13 01 52.4	
	comp=E,830nm,0.2s						
JMU				IAML		13 01 53.6	
	comp=N,925nm,0.2s						
TSSA	Tissa	6.01	126	*e*S	S	13 02 06.6	-2.0
TSSA				IAML		13 02 09.0	
	comp=E,607nm,0.1s						
TSSA				IAML		13 02 09.9	
	comp=N,673nm,0.1s						
THN	Thein Dam	6.02	131	*e*P	Pn	13 01 01.7	+2.1
THN				*e*S	S	13 02 06.8	-1.9
THN				IAML		13 02 10.7	
	comp=N,413nm,0.3s						
THN				IAML		13 02 11.6	
	comp=E,310nm,0.3s						
DHRM	DHARAMSHALA	6.49	129	*e*P	Pn	13 01 07.0	+1.2
DHRM				*e*S	S	13 02 16.6	-3.4
DHRM				IAML		13 02 20.1	
	comp=N,113nm,0.5s						
DHRM				IAML		13 02 20.6	
	comp=E,157nm,0.1s						
KK31	Karatay Array	6.57	1	⇑P	Pn	13 01 07.6	+1.0
	comp=E,3.0nm,0.3s,baz=190,slow=12,SNR=30						
KK31				⇓S	S	13 02 17.4	-4.1
	comp=E,17nm,0.8s,baz=195,slow=20,SNR=7.2						
KK31	Karatay Array	6.57	1		Pn	13 01 07.6	+1.0
KKAR	Karatay Array	6.57	1		Pn	13 01 07.6	+1.0
AAK	Ala-Archa	6.88	26	P	Pn	13 01 12.6	+1.9
	comp=E,12nm,0.3s,baz=168,slow=5.3,SNR=22						
AAK				S	S	13 02 29.5	+0.4
	comp=E,9.7nm,0.6s,baz=34,slow=21,SNR=12						
AAK	Ala-Archa	6.88	26	⇑P	Pn	13 01 11.9	+1.2
	comp=E,4.5nm,0.5s						
AAK				⇑S	S	13 02 28.8	-0.2
	comp=E,12nm,0.7s						
AAK	Ala-Archa	6.88	26		Pn	13 01 12.2	+1.4
FRU1	Bishkek	7.08	26	Pn	Pn	13 01 14.4	+1.2
BOOM	Boomskoye usch	7.34	34		Pn	13 01 18.0	+1.3
KDJ	Kajisay	7.69	41		Pn	13 01 22.6	+1.4
TARG	Taragay, Kyrgy	7.76	46		Pn	13 01 22.1	-0.3
SMLA	Simla	7.79	132	*e*P	Pn	13 01 25.2	+2.7
SMLA				*e*S	S	13 02 46.6	-4.0
SMLA				IAML		13 02 48.9	
	comp=N,54nm,0.3s						
SMLA				IAML		13 02 50.2	
	comp=E,43nm,0.6s						
KLP	Kalpa	8.21	125	*e*S	S	13 02 55.2	-5.7
KLP				IAML		13 02 60.0	
	comp=N,40nm,0.3s						
KLP				IAML		13 03 00.4	
	comp=E,35nm,0.4s						
WUS	Wushi	8.32	53	Pn	Pn	13 01 29.3	-0.1
MAKZ	Makanchi	13.43	36		Pn	13 02 35.1	+0.6
MKAR	Makanchi Array	13.57	37	P	Pn	13 02 36.8	+0.6
	comp=E,1.1nm,0.7s,baz=222,slow=15,SNR=8.6						
AB31	Akbulak array	14.83	332	⇑P	Pn	13 02 50.7	-1.0
	comp=E,1.8nm,0.7s,baz=145,slow=12,SNR=17						
AB31				⇑S	S	13 05 31.2	-4.9
	comp=E,0.6nm,0.6s						
AB31	Akbulak array	14.83	332	P	Pn	13 02 51.6	-0.1
ABKAR	Akbulak array	14.83	332		Pn	13 02 52.1	+0.4
KURBB	Kurchatov Arra	15.27	20	P	Pn	13 02 57.1	+0.1
	comp=E,1.5nm,0.6s,baz=210,slow=11,SNR=7.0						
BVAR	Borovoye Array	16.50	0	P	Pn	13 03 12.4	+0.6
	comp=E,2.8nm,0.5s,baz=162,slow=10,SNR=14						
AKTO	Aktyubinsk	16.52	331	P	Pn	13 03 12.8	+0.7
	comp=E,1.9nm,0.3s,baz=142,slow=4.9,SNR=6.6						
BORK	Borovoye	16.52	360		P	13 03 11.8	+0.7
BORK				IAmb	IAmb	13 03 15.7	
	comp=Z,3.7nm,0.6s						
ZAA0	Zalesovo Array	20.10	25	P	P	13 03 50.2	+0.4
ZALV	Zalesovo Beam	20.10	25	P	P	13 03 50.8	+0.9
	comp=Z,1.0nm,0.3s,baz=215,slow=10,SNR=7.1						
	comp=Z,1.0nm,0.3s						
ZALV	Zalesovo Beam	20.10	25	P	P	13 03 50.5	+0.6
CMAR	Chiang Mai Arr	30.90	118	P	P	13 05 30.4	+0.8
	comp=Z,0.3nm,0.3s,baz=296,slow=6.5,SNR=4.2						
	comp=Z,0.3nm,0.3s						
NC303	NORSAR Array S	44.01	323	P	P	13 07 19.9	+1.0
NC303				IAmb	IAmb	13 07 29.4	
	comp=Z,10nm,1.1s						
TORD	Torodi Ar. Bea	65.22	268	P	P	13 09 50.4	-1.4
	comp=Z,0.2nm,0.4s,baz=41,slow=6.6,SNR=1.6						
	comp=Z,0.2nm,0.4s						
K13K	Kusilvak Mount	72.32	24	P	P	13 10 36.0	+1.1
K13K				IAmb	IAmb	13 10 39.6	
	comp=Z,15nm,0.7s						
GSTR	Great Sitkin T	74.47	36	P	P	13 10 49.8	+2.1
CAST	Castle Rocks	74.82	18	P	P	13 10 50.9	+1.5
CAST				IAmb	IAmb	13 11 06.8	
	comp=Z,6.0nm,1.4s						
WRA	Warramunga Arr	82.42	121	P	P	13 11 29.8	-1.7
	comp=Z,0.3nm,0.6s,baz=315,slow=5.6,SNR=1.9						
	comp=Z,0.3nm,0.6s						
ASAR	Alice Springs	84.68	124	P	P	13 11 41.3	-1.6
	comp=Z,0.4nm,0.7s,baz=313,slow=4.7,SNR=8.4						
	comp=Z,0.4nm,0.7s						

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*RHSSO **06** 13:15:31.3±0.5, 43.°97N×16.°04E, h8^{km}±3^{km}, ML2.8/9*

*PDG **06** 13:15:33.2±0.3, 43.°90N×16.°32E, h10^{km}, ML3.2/9, Error ellipse: s-maj=0.6km s-min=0.5km az=90.0*

*BEO **06** 13:15:34.4±0.4, 43.°97N×16.°47E, h0^{km}, ML2.5/11*

*VIE **06** 13:15:35.5±0.8, 44.°11N×16.°65E, h10^{km}, mb2.5/13, ml2.5/15, Error ellipse: s-maj=11.3km s-min=5.9km az=60.0 67 km NNE of Split*

*PRU **06** 13:15:35.1, 43.°90N×16.°33E, h15^{km}*

ISC 06 13:15:33.8±0.9**, 43.°94N**±0.°02×**16.°33E**±0.°02**, h10^{km}**±6^{km}**, n80, σ1.^{s}49**/149**, 6C-3D, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KIJV	Kijevo	0.08	38	*i* Pg	Pg	13 15 36.3	0.0
KIJV				Sg	Sg	13 15 38.8	+0.7
MORI	Morici	0.46	261	*i* Pg	Pg	13 15 42.1	-0.7
MORI				Sg	Sg	13 15 49.2	+0.3
ZIRJ	Zirje	0.57	240	*i* Pg	Pg	13 15 43.8	-1.1
ZIRJ				Sg	Sg	13 15 52.8	+0.2
UDBI	Udbina	0.72	325	*i* Pg	Pg	13 15 47.3	-0.4
UDBI				Sg	Sb	13 15 57.9	-0.4

RICI	Ricice	0.73	127	ePg	Pg	13 15 46.8	-1.2
RICI				Sg	Sg	13 15 57.6	+0.1
HVAR	Hvar	0.77	174	ePg	Pg	13 15 46.9	-1.7
HVAR				Sg	Sg	13 15 58.8	+0.2
MAKA	Makarska	0.82	142	ePg	Pg	13 15 47.9	-1.7
MAKA				Sg	Sg	13 16 00.5	+0.2
DUGI	Dugi Otok	0.92	274	i Pg	Pg	13 15 50.6	-1.0
DUGI				Sg	Sb	13 16 04.7	+0.5
VIRC	Vir	0.99	291	ePg	Pg	13 15 51.9	-0.8
VIRC				Sg	Sb	13 16 06.6	+0.6
BLY	Banja Luka	1.01	37	ePg	Pg	13 15 52.6	-0.7
BLY				eSg	Sg	13 16 05.0	-1.5
BLY	Banja Luka	1.01	37	⇓iPg	Pg	13 15 52.4	-0.9
BLY				eSg	Sg	13 16 06.6	+0.1
NVLJ	Novalja	1.22	301	ePg	Pg	13 15 57.7	+0.5
NVLJ				Sg	Sn	13 16 13.8	+0.4
LSTV	Lastovo	1.24	161	i Pg	Pn	13 15 56.5	-0.6
LSTV				Sg	Sb	13 16 14.6	+1.3
RABC	Rab	1.38	307	ePn	Pn	13 15 59.6	+0.6
RABC				Sg	Sg	13 16 19.7	+1.6
STON	Ston	1.46	137	i Pn	Pn	13 16 00.4	+0.3
STON				Sg	Sn	13 16 20.4	+1.2
STON	Ston	1.46	137	ePg	Pn	13 15 58.5	-1.6
STON				eSg	Sn	13 16 20.1	+0.8
MOSL	Moslavina	1.70	10	Sn	Sg	13 16 28.1	-0.3
BOJS	Bojanci	1.74	334	i Pn	Pn	13 16 04.8	+0.7
OZLJ	Ozalj	1.79	340	ePn	Pb	13 16 06.4	-0.1
OZLJ				Sn	Sg	13 16 30.0	-1.2
KLINJ	Klinje	1.81	114	ePn	Pn	13 16 05.9	+0.8
KLINJ				eSn	Sb	13 16 31.6	+1.8
DBRK	Dubrovnik	1.83	133	ePn	Pn	13 16 06.4	+1.1
DBRK				Sn	Sb	13 16 30.8	+0.4
BRY	Bratogost	1.91	122	ePn	Pn	13 16 07.1	+0.6
BRY				eSn	Sb	13 16 33.6	+0.8
BRY	Bratogost	1.91	122	⇑iPn	Pn	13 16 06.9	+0.4
BRY				eSn	Sn	13 16 32.8	+2.1
BRY				AML	AML		
TREB	Trebinje	1.91	129	ePn	Pn	13 16 06.7	+0.3
TREB				eSn	Sn	13 16 32.3	+1.8
RIY	Rijeka	1.91	317	ePn	Pb	13 16 08.0	-0.7
RIY				Sn	Sg	13 16 34.2	-1.1
RIY	Rijeka	1.91	317	ePn	Pn	13 16 07.9	+1.5
RIY				eSn	Sg	13 16 35.1	-0.2
GBRS	Gornja Briga	1.93	326	i Pn	Pn	13 16 07.9	+1.3
PTJ	Puntijarka	1.98	353	ePn	Pb	13 16 09.0	-1.0
PTJ				Sn	Sb	13 16 34.8	0.0
UPM	Unac-Piva	2.01	111	ePn	Pn	13 16 08.3	+0.4
UPM				eSn	Sb	13 16 35.7	+0.1
VISS	Visnje	2.15	331	i Pn	Pn	13 16 10.9	+1.3
HCY	Herceg Novi	2.17	133	⇑iPn	Pn	13 16 09.9	-0.1
HCY				eSn	Sn	13 16 39.3	+2.4
HCY	Herceg Novi	2.17	133	⇑iPn	Pn	13 16 09.9	-0.1
HCY				i Sn	Sn	13 16 38.7	+1.8
HCY				AML	AML		
KALN	Kalnik	2.19	2	ePn	Pn	13 16 11.1	+0.8
KALN				Sn	Sb	13 16 40.1	-0.6
BBLS	Lazi&#263i	2.22	91	ePn	Pn	13 16 11.3	+0.6
BBLS				eSn	Sn	13 16 38.5	+0.3
BBLS	Lazi&#263i	2.22	91	⇑iPn	Pn	13 16 11.0	+0.3
BBLS				eSn	Sb	13 16 41.9	+0.3
LOBO	Lobor	2.22	355	ePn	Pn	13 16 11.7	+1.0
LOBO				Sn	Sb	13 16 40.8	-0.8
NKME	Niksic	2.24	121	ePn	Pn	13 16 11.8	+0.8
NKME				i Sn	Sn	13 16 41.0	+2.3
NKME				AML	AML		
CEME	Cevo	2.35	126	⇑iPn	Pn	13 16 12.9	+0.5
CEME				eSn	Sn	13 16 43.2	+1.9
CEME				AML	AML		
TEKS	Tekeris	2.38	74	ePn	Pn	13 16 12.2	-0.6
TEKS	Tekeris	2.38	74	ePn	Pn	13 16 13.8	+1.0
TEKS				eSn	Sb	13 16 44.7	-1.3
BUM	Brajici-Budva	2.49	130	⇓iPn	Pn	13 16 14.7	+0.3
BUM				eSn	Sn	13 16 47.1	+2.3
BUM				AML	AML		
BEHE	Becsehely	2.55	7	ePn	Pn	13 16 12.8	-2.4
BEHE				eSn	Sn	13 16 44.2	-2.0
KOME	Kolasin	2.56	114	ePn	Pn	13 16 16.6	+1.2
KOME				eSn	Sn	13 16 49.4	+2.7
KOME				AML	AML		
PDG	Podgorica	2.62	124	ePn	Pn	13 16 16.1	+0.1
PDG				eSn	Sn	13 16 50.8	+3.0
DIVS	Divibare	2.64	85	ePn	Pn	13 16 15.4	-1.1
AQU	L'Aquila	2.67	235	ePn	Pn	13 16 13.1	-3.7
AQU				eSn	Sn	13 16 43.4	-5.8
DRME	Dracevica, Mon	2.73	129	ePn	Pn	13 16 18.0	+0.4
DRME				eSn	Sn	13 16 53.1	+2.5
DRME	Dracevica, Mon	2.73	129	⇑iPn	Pn	13 16 18.2	+0.6
DRME				eSn	Sn	13 16 51.7	+1.1
DRME				AML	AML		
SJES	Sjenica	2.73	103	ePn	Pn	13 16 18.7	+1.0
SJES				eSn	Sn	13 16 54.1	+3.3
FRGS	Fruska Gora	2.77	63	ePn	Pn	13 16 18.9	+0.7
FRGS				eSn	Sn	13 16 54.4	+2.8
IVAS	Ivanjica	2.79	96	ePn	Pn	13 16 18.9	+0.4
IVAS				eSn	Sn	13 16 52.6	+0.3
MORH	Mrgy, Hungar	2.80	35	ePn	Pn	13 16 18.3	-0.3
MORH				eSn	Sn	13 16 52.8	+0.4
OBKA	Obir	2.86	334	ePn	Pn	13 16 21.6	+2.1
	4.7nm,0.3s						
OBKA				eSn	Sn	13 16 56.0	+1.9
	15nm,0.6s						
SOKA	Soboth	2.89	342	ePn	Pn	13 16 20.1	+0.2
	4.2nm,0.4s						
SOKA				eSn	Sn	13 16 54.3	-0.4
	4.6nm,0.6s						
ULC	Ulcinj	2.91	132	⇓iPn	Pn	13 16 20.1	0.0
ULC				eSn	Sn	13 16 56.0	+0.9
ULC				AML	AML		
TRUS	Trudelj	2.95	83	ePn	Pn	13 16 20.3	-0.3
PVY	Plav	2.97	116	ePn	Pn	13 16 21.7	+0.7
PVY				eSn	Sn	13 16 59.5	+2.7
PVY				AML	AML		
GRUS	Gruza	3.17	89	ePn	Pn	13 16 23.8	+0.2
MYKA	Terra Mystica	3.29	326	ePn	Pn	13 16 27.4	+1.9
	1.9nm,0.3s						
MYKA				eSn	Sn	13 17 07.9	+3.2
	15nm,0.6s						
GOCS	Kraljevo Serbi	3.31	95	ePn	Pn	13 16 25.9	+0.2
GOCS				eSn	Sn	13 17 05.2	+0.1
ARSA	Arzberg	3.36	351	ePn	Pn	13 16 26.4	+0.1
	3.7nm,0.4s						
ARSA				eSn	Sn	13 17 05.0	-1.3
	1.4nm,0.4s						
SELS	Selova	3.55	100	ePn	Pn	13 16 29.7	+0.8
SELS				eSn	Sn	13 17 09.3	-1.7
RONA	Rosalia, Austr	3.76	360	ePn	Pn	13 16 31.8	0.0
	1.9nm,0.3s						
RONA				eSn	Sn	13 17 13.4	-2.7
	1.2nm,0.4s						
KBA	Koelnbreinsper	3.78	327	ePn	Pn	13 16 33.9	+1.7
	0.5nm,0.2s						
KBA				eSn	Sn	13 17 17.4	+0.6
	0.9nm,0.3s						
KUBS	Kucevo	3.87	81	ePn	Pn	13 16 32.7	-0.6
ABTA	Abfaltersbach	3.89	318	ePn	Pn	13 16 34.2	+0.5
	0.9nm,0.1s						
ABTA				eSn	Sn	13 17 23.1	+3.7
	22nm,0.9s						
CONA	Conrad Observa	4.00	355	ePn	Pn	13 16 35.1	-0.1
	3.0nm,0.4s						
CONA				eSn	Sn	13 17 20.7	-1.5
	2.6nm,0.5s						
BARS	Barje	4.15	104	ePn	Pn	13 16 38.0	+0.8
MOA	Molln	4.17	340	ePn	Pn	13 16 39.4	+2.0
	0.9nm,0.2s						
MOA				eSn	Sn	13 17 26.2	0.0
	1.2nm,0.3s						
ZAGS	Zajecar	4.27	90	ePn	Pn	13 16 39.7	+1.0
ZAGS				eSn	Sn	13 17 27.4	-1.2
LESA	Schwarzleotal	4.33	325	ePn	Pn	13 16 40.9	+1.3
	0.8nm,0.2s						
LESA				eSn	Sn	13 17 32.3	+2.1
	0.8nm,0.3s						
MODS	Modra-Piesok	4.48	8	ePN	Pn	13 16 42.6	+0.9
ZAPS	Zavoj	4.62	96	ePn	Pn	13 16 44.5	+0.8
ZAPS				eSn	Sn	13 17 35.5	-1.9
WTTA	Wattenberg	4.68	317	ePn	Pn	13 16 46.6	+2.0
	1.6nm,0.2s						
WTTA				eSn	Sn	13 17 41.2	+2.2
	2.0nm,0.3s						
WATA	Walderalm	4.76	317	i Pn	Pn	13 16 47.8	+2.1
	2.0nm,0.2s						
WATA				eSn	Sn	13 17 41.5	+0.6
	2.4nm,0.6s						
SQTA	Sankt Quirin	4.87	314	ePn	Pn	13 16 48.6	+1.4
	1.5nm,0.3s						
SQTA				eSn	Sn	13 17 45.7	+2.2
	1.6nm,0.2s						
VYHS	Vyhne	4.88	20	ePN	Pn	13 16 47.4	+0.3
VYHS				eSN	Sn	13 17 41.3	-2.3
FETA	Feichten	5.00	310	ePn	Pn	13 16 51.2	+2.2
	0.6nm,0.3s						
FETA				eSn	Sn	13 17 50.3	+3.4
	0.6nm,0.4s						
MOTA	Moosalm	5.00	315	ePn	Pn	13 16 51.3	+2.2
	0.9nm,0.4s						
MOTA				eSn	Sn	13 17 49.6	+2.6
	0.7nm,0.3s						
KHC	Kasperske Hory	5.53	341	ePN	Pn	13 16 57.0	+0.9
KHC				eSN	Sn	13 17 58.5	-1.2

IDC 06 13:34:29.2±3.2, 31°.86S×178°.08W, h0^{km}, mb3.3/2, mbtmp3.4/3, ML2.7/1, Error ellipse: s-maj=74.2km s-min=37.7km az=113.0, Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	7.51	210	Pn	Pn	13 36 19.7	-0.2
	0.1nm,0.3s,baz=281,slow=18,SNR=1.9						
URZ				Sn	Sn	13 37 46.5	+0.8
	0.8nm,0.3s,baz=235,slow=20,SNR=7.8						
	8.7nm,1.0s						
URZ				AML	AML		
ASAR	Alice Springs	42.98	269	P	P	13 42 30.5	+0.1
	0.2nm,0.5s,baz=110,slow=7.2,SNR=8.3						
	0.2nm,0.5s						
WRA	Warramunga Arr	44.10	274	P	P	13 42 39.1	-0.4
	0.1nm,0.3s,baz=111,slow=8.0,SNR=6.3						
	0.1nm,0.3s						
FINES	FINESS Array B	146.48	339	PKPbc	PKPdf	13 54 10.8	+0.6
	2.4nm,0.9s,baz=59,slow=4.9,SNR=4.4						

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*ISU **06** 13:34:42, 41°.13N×73°.08E, h26^{km}*
*KRNET **06** 13:34:46.4±0.1, 41°.13N×73°.01E, h18^{km}, mb3.4*
*SOME **06** 13:34:47.2, 41°.23N×73°.13E, h10^{km}*
*NNC **06** 13:34:48.1±0.9, 41°.28N×73°.03E, h0^{km}, mb3.9, mpv3.7, Error ellipse: s-maj=9.0km s-min=3.0km az=173.0*
*KNET **06** 13:34:49.0±0.3, 41°.36N×72°.98E, h11^{km}±2^{km}, ml2.9, Error ellipse: s-maj=3.5km s-min=2.3km az=89.0*
ISC 06 13:34:44.4±1.1, 41°.07N±0°.03×73°.18E±0°.02, h6^{km}±10^{km}, n62, σ1^{s}42/106, 45C-14D, Kyrgyzstan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ARSB	Arslanbob	0.29	330	⇑eP	Pg	13 34 50.9	+0.7
ARSB				⇑eS	Sg	13 34 53.9	-0.2
SALK	Salom-Alik	0.52	111	⇑eP	Pn	13 34 59.4	+0.8
SALK				⇑eS	Sn	13 35 08.3	+0.4
OHH	Osh	0.62	209	⇓iP	Pn	13 34 58.5	-1.4
OHH				⇓iS	Sn	13 35 07.1	-3.1
TSTA	Tashata	0.72	227	P	Pn	13 35 01.3	+0.1
TSTA				S	Sn	13 35 11.7	-1.0
SFK	Sufi-Kurgan	1.08	167	⇑iP	Pn	13 35 08.6	+2.2
SFK				⇑iS	Sn	13 35 24.4	+2.5
ARK	Arkit	1.17	309	⇑iP	Pb	13 35 05.6	-1.5
ARK				⇑iS	Sb	13 35 19.8	-2.7
KSNS	Kasansay	1.25	275	P	Pg	13 35 11.6	+3.1
KSNS				S	Sn	13 35 28.8	+3.0
FRG	Fergana	1.27	237	P	Pg	13 35 11.4	+2.7
FRG				S	Sn	13 35 29.2	+3.1
TRKS	Terek-Say	1.60	287	⇑iP	Pn	13 35 12.7	-0.7
TRKS				⇑iS	Sn	13 35 32.0	-2.5
EKS2	Erkin-Say	1.65	16	⇓P	Pg	13 35 16.2	+0.1
	16nm,0.2s,SNR=35						
EKS2				⇑S	Sn	13 35 36.2	+0.5
	26nm,0.2s						
EKS2	Erkin-Say	1.65	16	⇑eP	Pg	13 35 16.2	+0.1
EKS2				⇑eS	Sg	13 35 38.1	+0.6
MRKS	Merke	1.67	1	eP	Pb	13 35 16.2	+0.5
	23nm,0.2s						
MRKS				eS	Sb	13 35 36.9	-0.1
	253nm,0.3s						
AAK	Ala-Archa	1.85	32	⇑P	Pg	13 35 20.7	+0.9
	77nm,0.3s,SNR=60						
AAK				⇓S	Sg	13 35 45.0	+1.3
	57nm,0.2s						
AAK	Ala-Archa	1.85	32	⇓Pn	Pg	13 35 20.4	+0.6
	6.2nm,0.3s						
AAK				⇑Sn	Sg	13 35 44.3	+0.5
	9.1nm,0.5s						
AAK	Ala-Archa	1.85	32	⇓iP	Pg	13 35 20.4	+0.6
AAK				⇓iS	Sg	13 35 45.1	+1.3
FRU1	Bishkek	2.05	31	⇑iP	Pg	13 35 23.3	-0.3
FRU1				⇑iS	Sg	13 35 50.3	+0.1
BTK	Batken	2.06	241	⇑iP	Pg	13 35 22.2	-1.7
BTK				⇑iS	Sg	13 35 48.4	-2.3
KBK	Karagaybulak	2.06	39	⇑P	Pg	13 35 25.1	+1.2
	26nm,0.2s,SNR=22						
KBK				⇓S	Sg	13 35 52.8	+2.1
	128nm,0.4s						
KBK	Karagaybulak	2.06	39	⇑iP	Pg	13 35 23.7	-0.2
KBK				⇑iS	Sg	13 35 51.0	+0.3
NRN	Naryn	2.16	79	⇑eP	Pg	13 35 25.9	+0.1
NRN				⇑iS	Sg	13 35 54.8	+1.0
CHMS	Chumysh	2.25	31	⇑P	Pb	13 35 26.7	+1.1
	18nm,0.2s,SNR=18						
CHMS				⇑S	Sg	13 35 56.5	-0.3
	45nm,0.3s						
CHMS	Chumysh	2.25	31	⇑iP	Pb	13 35 25.9	+0.3
CHMS				⇑iS	Sb	13 35 54.9	+1.2
PSK	Pskem	2.27	293	S	Sb	13 35 55.3	+0.9
DZA	Taraz	2.28	323	Pg	Pg	13 35 27.6	-0.6
	85nm,0.1s						
DZA				Lg	Lg	13 35 56.3	
	276nm,0.3s						
DZA	Taraz	2.28	323	eP	Pg	13 35 27.6	-0.6
	85nm,0.1s						
DZA				eS	Sb	13 35 56.2	+1.7
	276nm,0.3s						
USP	Ospenovka	2.40	24	⇓P	Pb	13 35 28.6	+0.5
	11nm,0.2s,SNR=16						
USP				⇓S	Sb	13 36 00.1	+2.1
	47nm,0.2s						
USP	Ospenovka	2.40	24	⇑iP	Pb	13 35 27.8	-0.3
USP				⇑iS	Sb	13 35 58.1	+0.1
CHMG	Chimgan	2.43	282	S	Sb	13 35 58.5	-0.5
CHRV	Charvak	2.50	284	S	Sg	13 36 04.0	-0.5
BOOM	Boomskoye usch	2.50	55	⇑eP	Pb	13 35 30.3	+0.4
BOOM				⇑iS	Sb	13 36 02.5	+1.4
ULHL	Ulahol	2.58	62	⇑P	Pg	13 35 33.7	-0.1
	9.3nm,0.2s,SNR=20						
ULHL				⇓S	Sg	13 36 09.0	+1.7
	22nm,0.3s						
ULHL	Ulahol	2.58	62	⇑eP	Pb	13 35 31.6	+0.4
ULHL				⇑iS	Sb	13 36 04.6	+1.4
TKM2	Tokmak 2	2.58	43	P	Pb	13 35 32.3	+1.1
	22nm,0.2s,SNR=30						
TKM2				⇓S	Sg	13 36 07.0	-0.4
	71nm,0.5s						
TKM2	Tokmak 2	2.58	43	⇑eP	Pb	13 35 31.1	-0.1
TKM2				⇑iS	Sb	13 36 03.8	+0.5
IUG	Iuzhnay	2.59	296	eP	Pg	13 35 33.6	-0.5
	95nm,0.2s						
IUG				eS	Sg	13 36 06.7	-1.0
	262nm,0.4s						
SGDS	Sogindy	2.61	24	Pg	Pb	13 35 33.2	+1.6
	7.4nm,0.1s						
SGDS				Lg	Lg	13 36 06.4	
	24nm,0.4s						
TVKS	Tavaksay	2.70	282	P	Pg	13 35 35.3	-0.9
TVKS				S	Sg	13 36 10.5	-0.7
KK31	Karatay Array	2.84	317	⇓Pg	Pb	13 35 35.2	-0.3
	15nm,0.4s,baz=134,slow=14,SNR=168						
KK31				⇑Lg	Lg	13 36 11.3	
	21nm,0.3s,baz=142,slow=27,SNR=11						
KST	Kastek	2.86	46	Pg	Pg	13 35 39.5	+0.3
	5.5nm,0.3s						
KST				Lg	Lg	13 36 17.6	
	44nm,0.4s						
KST	Kastek	2.86	46	eP	Pg	13 35 39.5	+0.3
	5.5nm,0.3s						
KST				eS	Sg	13 36 17.6	+1.3
	44nm,0.4s						
DGS	Degeres	2.90	41	Pg	Pg	13 35 39.5	-0.5
	12nm,0.4s						
DGS				Lg	Lg	13 36 17.3	
	51nm,0.5s						
DGS	Degeres	2.90	41	eP	Pg	13 35 39.5	-0.5
	12nm,0.4s						
DGS				eS	Sg	13 36 17.3	-0.3
	51nm,0.5s						
NZBK	Nazarbek	3.07	274	S	Sg	13 36 24.7	+1.7
BRLS	Borolday	3.17	309	Pg	Pb	13 35 41.9	+0.8
	16nm,0.3s						
BRLS				Lg	Lg	13 36 21.4	
	28nm,0.3s						
BRLS	Borolday	3.17	309	eP	Pb	13 35 41.9	+0.8
	16nm,0.3s						
BRLS				eS	Sb	13 36 21.4	+1.5
	28nm,0.3s						
MTBS	Maitube	3.18	49	Pg	Pg	13 35 45.1	-0.1
	8.1nm,0.0s						
MTBS				Lg	Lg	13 36 26.4	
	40nm,0.3s						
MTBS	Maitube	3.18	49	eP	Pg	13 35 45.1	-0.1
	8.1nm,0.0s						
MTBS				eS	Sg	13 36 26.4	0.0
	40nm,0.3s						
KDJ	Kajisay	3.18	69	⇑eP	Pb	13 35 40.3	-1.2
KDJ				⇑iS	Sb	13 36 19.6	-1.0
TNSS	Tian-Shan	3.43	54	Pg	Pg	13 35 49.4	-0.6
	2.5nm,0.3s						
TNSS				Lg	Lg	13 36 35.0	
	7.6nm,0.8s						
TNSS	Tian-Shan	3.43	54	eP	Pg	13 35 49.4	-0.6
	2.5nm,0.3s						
TNSS				eS	Sg	13 36 34.5	+0.1
	7.6nm,0.8s						
KNDC	Almaty	3.54	51	⇑Pg	Pg	13 35 52.5	+0.3
	19nm,0.5s						
KNDC				⇑Lg	Lg	13 36 40.7	
	116nm,0.8s						
TARG	Taragay, Kyrgy	3.54	78	⇑eP	Pb	13 35 45.5	-2.2
TARG				⇑iS	Sb	13 36 28.6	-2.5
KOTS	Kotyrbulak	3.64	52	Pg	Pg	13 35 53.8	-0.3
	9.6nm,0.4s						
KOTS				Lg	Lg	13 36 42.3	
	50nm,0.5s						
KOTS	Kotyrbulak	3.64	52	eP	Pg	13 35 53.8	-0.3
	9.6nm,0.4s						
KOTS				eS	Sg	13 36 41.8	+0.6
	50nm,0.5s						
KUU	Kurty	3.66	39	Pg	Pg	13 35 53.0	-1.5
	1.6nm,0.1s						
KUU				Lg	Lg	13 36 40.0	
	26nm,0.5s						
KUU	Kurty	3.66	39	eP	Pg	13 35 53.0	-1.5
	1.6nm,0.1s						
KUU				eS	Sg	13 36 40.0	-2.1
	26nm,0.5s						
KTBS	Karatobe	3.70	43	Pg	Pg	13 35 53.4	-1.9
	0.2nm,0.0s						
KTBS				Lg	Lg	13 36 40.6	
	24nm,0.4s						
KTBS	Karatobe	3.70	43	eP	Pg	13 35 53.4	-1.9
	0.2nm,0.0s						
KTBS				eS	Sg	13 36 40.6	-2.6
	24nm,0.4s						
ARXS	Arharly	4.65	46	Pg	Pg	13 36 10.6	-2.8
	5.9nm,0.4s						
ARXS				Lg	Lg	13 37 11.4	
	14nm,0.7s						
ARXS	Arharly	4.65	46	eP	Pg	13 36 10.6	-2.8
	5.9nm,0.4s						
ARXS				eS	Sg	13 37 10.4	-3.3
	14nm,0.7s						
UZB	Uzynbulak	4.82	63	eP	Pg	13 36 15.8	-0.9
UZB				eS	Sg	13 37 19.1	0.0
PDGK	Podgornoye	5.20	62	⇑Pg	Pg	13 36 21.5	-2.5
	3.0nm,0.7s						
PDGK				⇓Lg	Lg	13 37 30.4	
	9.2nm,0.8s						

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*RSNC **06** 13:48:58.4±2.4, 9°N±7°×7°0W±2°0, h0^{km}, M3.9, mB4.8, mb4.3, ML3.2, Mw(mB)4.1*
*CATAC **06** 13:49:04.1±0.8, 9°N±3°×7°0W±°, h114^{km}±19^{km}, M4.2/6, mb4.2/2, mB4.8/2, MLv4.3/6, Mw(mB)4.1/2, Error ellipse: s-maj=14.2km s-min=6.3km az=97.3, confirmed*
*FUNV **06** 13:49:05.7, 8°.77N×70°.51W, h19^{km}, MW3.9, Presumed earthquake*
*IDC **06** 13:49:19.6±2.7, 4°.35N×78°.62W, h0^{km}, mb3.3/1, mbtmp3.6/2, ML2.4/1, Error ellipse: s-maj=61.2km s-min=26.4km az=161.0*
ISC 06 13:49:01.4±0.8, 8°.71N±0°.04×70°.40W±0°.05, h7^{km}, n37, σ2^{s}42/54, Venezuela

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PAMC	Pamplona, Colo	2.65	239	P	Pn	13 49 46.1	+1.1
PAMC				S	Sn	13 50 15.7	-2.0
OCAC	Ocana	2.92	261	P	Pn	13 49 49.7	+1.2
BENV	Beln	3.03	66	eP	Pn	13 49 52.7	+2.8
BENV				eS	Sn	13 50 28.4	+1.9
TURV	Turiamo	3.06	55	eP	Pn	13 49 53.4	+3.2
TURV				eS	Sn	13 50 28.1	+1.0
URI	Uribia	3.35	332	P	Pn	13 49 54.7	+0.5
URI				S	Sn	13 50 32.7	-1.6
URIC	Uribia, Colomb	3.36	332	P	Pn	13 49 54.6	+0.3
URIC				S	Sn	13 50 32.4	-2.0
URIC	Uribia, Colomb	3.36	332	eP	Pn	13 49 54.9	+0.6
URIC				eS	Sn	13 50 30.5	-4.0
BARC	Barichara	3.47	233	P	Pn	13 49 57.3	+1.3
TACV	Tcata	3.62	67	eP	Pn	13 50 00.4	+2.4
TACV				eS	Sn	13 50 41.7	+0.7
BRJC	Barrancabermej	3.74	243	P	Pn	13 50 01.3	+1.8
RUSC	La Rusia	3.86	224	P	Pn	13 50 02.6	+0.9
RUSC	La Rusia	3.86	224	eP	Pn	13 50 02.1	+0.4
RUSC				eS	Sn	13 50 44.4	-3.2
RUSC	La Rusia	3.86	224	P	Pn	13 50 02.5	+0.9
RUSC				S	Sn	13 50 47.8	+0.2
FUNV	FUNVISIS	3.95	63	eP	Pn	13 50 05.2	+2.7
FUNV				eS	Sn	13 50 49.2	0.0
SMRC	Santa Marta, M	4.49	303	P	Pn	13 50 09.4	-0.4
PTBC	PUERTO BERRIO,	4.56	242	P	Pn	13 50 10.6	-0.3
SPBC	San Pablo de B	4.74	230	P	Pn	13 50 15.0	+1.5
	1µm23nm,0.7s						
SPBC				AML	AML		
SJCC	San Jacinto, C	4.86	284	P	Pn	13 50 17.4	+2.4
	835nm51nm,1.0s						
SJCC				S	Sn	13 51 13.2	+1.6
	835nm51nm,1.0s						
SJCC				AML	AML		
SJCC	San Jacinto, C	4.86	284	eP	Pn	13 50 15.6	+0.5
SJCC				eS	Sn	13 51 06.0	-5.7
SJCC	San Jacinto, C	4.86	284	P	Pn	13 50 17.3	+2.2
SJCC				S	Sn	13 51 12.9	+1.3
UREC	San Jos de Ur	5.17	260	P	Pn	13 50 20.6	+1.4
	610nm17nm,0.8s						
UREC				AML	AML		
CHIC	Chingaza	5.23	219	P	Pn	13 50 21.0	+0.5
	818nm30nm,0.7s						
CHIC				AML	AML		
NORC	Norcasia	5.43	235	P	Pn	13 50 25.9	+3.1
NORC				AML	AML		
ROSC	El Rosal	5.47	226	Pn	Pn	13 50 26.7	+3.0
	3.9nm,0.3s,baz=71,slow=8.1,SNR=5.7						
ROSC				Sn	Sn	13 51 22.1	-5.1
	3.9nm,0.3s,baz=84,slow=24,SNR=1.9						
	9.9nm,0.3s						
ROSC				AML	AML		
ROSC	El Rosal	5.47	226	P	Pn	13 50 27.1	+3.4
	22nm,1.1s						
ROSC				AML	AML		
CVER	Cruz Verde, Cu	5.54	221	P	Pn	13 50 25.9	+1.2
CVER				AML	AML		
VILC	Villavicencio,	5.62	216	P	Pn	13 50 25.6	0.0
VILC				AML	AML		
HELC	Santa Helena	5.67	244	P	Pn	13 50 28.1	+1.7
	7.2nm,1.2s						
HELC				AML	AML		
HELC	Santa Helena	5.67	244	eP	Pn	13 50 26.7	+0.3
HELC				eS	Sn	13 51 26.9	-5.1
GUY2C	Guyana, Caldas	6.02	235	P	Pn	13 50 32.9	+1.5
	24nm,0.6s						
APAC	Apartado, Choc	6.17	263	P	Pn	13 50 34.9	+2.0
	27nm,0.7s						
CBOC	Ciudad Bolivar	6.24	243	P	Pn	13 50 36.9	+2.7
PRAC	Prado	6.67	222	P	Pn	13 50 41.0	+1.0

PRAC				S	Sn	13 51 57.0	+0.7
TRN	Trinidad (W)	9.08	77	eP	Pn	13 51 13.6	+0.6
TRN				eS	Sn	13 52 49.3	-6.2
LPAZ	La Paz	24.94	175	P	P	13 54 26.7	+0.5
	0.7nm,0.6s,baz=353,slow=8.1,SNR=2.5						
	0.7nm,0.6s						
ASAR	Alice Springs	152.40	235	PKP	PKPdf	14 08 56.0	+3.6
	0.5nm,0.6s,baz=120,slow=2.7,SNR=12						
WRA	Warramunga Arr	153.60	242	PKP	PKPbc	14 08 58.8	-3.1
	0.3nm,0.6s,baz=107,slow=2.7,SNR=7.4						

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*NOU **06** 14:20:58.4, 21°.78S×170°.18E, h0^{km}, MLv3.7/8, Southeast of Loyalty Islands*

*IDC **06** 14:21:01.4±7.3, 21°.40S×170°.11E, h134^{km}±43^{km}, mb3.1/3, mbtmp3.4/4, Error ellipse: s-maj=79.1km s-min=30.7km az=36.0*

ISC 06 14:20:56.9±2.7**, 21°.9S**±0°.3×**170°.5E**±0°.2**, h51^{km}, n10, σ0^{s}85**/9**, mb3.4**/3**, Southeast of Loyalty Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MARNC	Mare, Loyalty	2.38	281	P	Pn	14 21 34.0	+0.6
MARNC	Mare, Loyalty	2.38	281	S	Sn	14 22 00.7	-0.6
YATNC	Mamie plateau,	3.39	267	P	Pn	14 21 47.4	+0.1
YATNC	Mamie plateau,	3.39	267	S	Sn	14 22 25.3	-1.0
DZM	Mont Dzumac	3.80	267	P	Pn	14 21 53.5	+0.4
	2.8nm,0.3s,baz=80,slow=12,SNR=37						
DZM				S	Sn	14 22 36.1	-0.5
	9.0nm,0.6s,baz=88,slow=22,SNR=10						
ONTNC	Ouen Toro	3.81	264	P	Pn	14 21 54.4	+1.4
ONTNC	Ouen Toro	3.81	264	S	Sn	14 22 36.8	+0.3
ASAR	Alice Springs	33.76	260	P	P	14 27 27.9	-6.1
	0.2nm,0.5s,baz=90,slow=8.7,SNR=10						
	0.2nm,0.5s						
WRA	Warramunga Arr	33.82	267	P	P	14 27 27.5	-7.0
	0.2nm,0.4s,baz=100,slow=8.5,SNR=6.2						
	0.2nm,0.4s						
VNDA	Vanda	55.79	182	P	P	14 30 27.9	-0.4
	0.9nm,0.9s,baz=4.6,slow=6.9,SNR=18						
	0.9nm,0.9s						

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*IDC **06** 14:35:58.4±2.1, 36°.40N×141°.90E, h0^{km}, mb3.3/3, mbtmp3.3/4, ML2.6/1, MS2.7/1, Error ellipse: s-maj=37.2km s-min=26.6km az=29.0*

*JMA **06** 14:36:03.9±0.1, 36°.7N±0°.3×141°.5E±0°.3, h38^{km}, MV3.1/40, E OFF IBARAKI PREF*

ISC 06 14:36:02.4±1.6**, 36°.63N**±0°.07×**141°.4E**±0°.1**, h26^{km}, n15, σ1^{s}28**/11**, mb3.3**/3**, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ONAJ	Iwakimizuishiy	0.70	313	eP	Pn	14 36 16.9	+0.2
ONAJ				eS	Sn	14 36 26.5	-0.2
JHO	Hitachi	0.70	269	eP	Pn	14 36 17.4	+0.7
JHO				S	Sn	14 36 27.7	+1.0
JFK	Kawauchi	0.87	328	P	Pb	14 36 19.0	+0.2
JFK				S	Sn	14 36 30.3	-0.5
JYT	Yasato	1.08	249	i P	Pb	14 36 23.4	+1.0
MJAR	Matsushiro Arr	2.60	269	Pn	Pb	14 36 46.0	-2.4
	0.8nm,0.3s,baz=88,slow=15,SNR=56						
MJAR				Sn	Sb	14 37 19.6	-0.4
	0.6nm,0.3s,baz=90,slow=25,SNR=6.9						
	7.5nm,0.4s						
MJAR				AML	AML		
USRK	Ussuriysk Ar.	10.44	319	LR	LR	14 42 20.9	
	comp=Z,40nm,19.4s,baz=105,slow=35						
H11N2	WAKE ISLAND Hy	27.92	120	T	T	15 11 10.1	
	baz=313,slow=75,SNR=13						
H11N1	WAKE ISLAND Hy	27.93	120	T	T	15 11 10.1	
	baz=313,slow=75,SNR=9.6						
H11N3	WAKE ISLAND Hy	27.94	120	T	T	15 11 10.8	
	baz=313,slow=75,SNR=8.7						
H11S1	WAKE ISLAND Hy	28.62	122	T	T	15 12 05.7	
	baz=315,slow=76,SNR=5.2						
H11S3	WAKE ISLAND Hy	28.62	122	T	T	15 11 57.6	
	baz=315,slow=76,SNR=5.2						
H11S2	WAKE ISLAND Hy	28.64	122	T	T	15 12 05.1	
	baz=315,slow=76,SNR=4.3						
MKAR	Makanchi Array	44.35	302	P	P	14 44 11.9	+1.5
	0.2nm,0.6s,baz=81,slow=8.9,SNR=2.0						
	0.2nm,0.6s						
KURBB	Kurchatov Arra	46.27	308	P	P	14 44 30.4	+4.9
	0.3nm,0.5s,baz=82,slow=7.8,SNR=6.1						
	0.3nm,0.5s						
WRA	Warramunga Arr	56.66	188	P	P	14 45 42.0	-1.5
	0.2nm,0.7s,baz=21,slow=6.4,SNR=2.0						
	0.2nm,0.7s						

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*UPA **06** 14:46:31.0±1.2, 8°.29N×82°.96W, h17^{km}±2^{km}, MW2.9, Presumed earthquake*

*CATAC **06** 14:46:31.1±0.7, 8°N±4°×8°3W±°, h5^{km}±2^{km}, M3.2/7, MLv3.2/7, Error ellipse: s-maj=8.9km s-min=6.4km az=179.3, confirmed*

ISC 06 14:46:31.7±1.0**, 8°.30N**±0°.04×**82°.92W**±0°.03**, h16^{km}**±7^{km}**, n19, σ1^{s}02**/31**, 2C-2D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTPM	Petroterminale	0.11	156	⇑iP	Pb	14 46 34.8	-0.5
PTPM				eS	Sg	14 46 38.8	+1.2
LMNES	Limones	0.21	163	eP	Pb	14 46 36.3	-0.8
CDITO	Canoas	0.27	11	P	Pg	14 46 37.1	-0.5
CDITO				S	Sb	14 46 43.1	+0.5
NELY	Ciudad Neily	0.34	356	eS	Sb	14 46 44.3	-0.3
PIRO	Carate, Puerto	0.42	284	P	Pg	14 46 38.7	-1.5
DVD	David	0.49	74	i P	Pg	14 46 41.2	-0.2
DVD				eS	Sg	14 46 48.4	+0.4
VITO	San Vito	0.51	355	eS	Sb	14 46 50.3	+0.6
BRU2	Volcan	0.54	25	P	Pg	14 46 42.3	-0.2
BRU2				S	Sb	14 46 51.0	+0.6
BRU2	Volcan	0.54	25	i P	Pg	14 46 42.2	-0.2
BRU2				eS	Sb	14 46 51.0	+0.7
SCLRA	Santa Clara, W	0.54	15	⇑iP	Pg	14 46 42.5	-0.1
SCLRA				eS	Sb	14 46 51.6	+1.1
CHIR3	Chiriqui UPA,	0.59	81	eS	Sb	14 46 53.2	+1.4
BGUAL	Bijagual, Pana	0.62	71	⇓iP	Pg	14 46 43.5	-0.4
BGUAL				eS	Sg	14 46 52.8	+0.6
BQTLY	Boquete Panama	0.64	45	eP	Pg	14 46 43.7	-0.7
BQTLY				eS	Sb	14 46 54.7	+1.4
RBALA	Bur	0.95	53	i P	Pg	14 46 48.8	-1.4
RBALA				eS	Sg	14 47 02.7	0.0
OCHAL	Ojochal	1.06	318	P	Pb	14 46 50.0	-1.7
OCHAL				S	Sn	14 47 06.7	+0.3
KKNTU	Kakintº	1.23	64	⇓iP	Pn	14 46 52.7	-1.4
KKNTU				eS	Sb	14 47 09.5	-0.5
LCR2	La Lucha 2	1.78	323	P	Pn	14 47 02.2	+0.2
LCR2				S	Sb	14 47 26.7	+0.4
JTS	Las Juntas de	2.81	315	P	Pn	14 47 18.2	+2.2
MASN	Masaya	4.85	319	P	Pn	14 47 45.7	+1.7

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*IDC **06** 14:55:18.5±0.3, 20°.61S×174°.00W, h0^{km}, mb5.0/22, mbtmp5.0/26, ML4.8/4, MS5.2/12, Error ellipse: s-maj=13.7km s-min=11.2km az=122.0*

*NOU **06** 14:55:18.7, 20°.87S×173°.66W, h5^{km}, ML5.4/145, Tonga Islands*

*NEIC **06** 14:55:19.5, 20°.65S×173°.56W, h10^{km}*

*NEIC **06** 14:55:19.4±2.6, 20°.70S±0°.07×173°.57W±0°.08, h10^{km}±1^{km}, mb5.5/496, Ms_20 5.8/664, Mwb5.4/131, Mww5.5/18, Error ellipse: s-maj=12.6km s-min=10.7km az=59.0, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}1.85; $M_{\theta\theta}$-0.48; $M_{\phi\phi}$-1.37; $M_{r\theta}$-0.29; $M_{\theta\phi}$-0.59; $M_{\phi r}$-0.51; Fault plane solution: $M_0$1.86000×10^{17} NP1: ϕ_s25.67000°, δ35.76000°, λ88.65000°. NP2: ϕ_s207.33000°, δ54.25000°, λ90.97000°. Principal axes: T 1.9464, Plg81.0000°, Azm122.0000°; N -0.1883, Plg1.0000°, Azm27.0000°; P -1.7580, Plg9.0000°, Azm297.0000°;*

*MOS **06** 14:55:19.1±1.1, 20°.58S×174°.07W, h10^{km}, mb5.5/38, MS6.0/10 Error ellipse: s-maj=8.7km s-min=7.9km az=65.9*

*NEIC **06** 14:55:19.4, 20°.70S×173°.57W, h10^{km}*

*NEIC **06** 14:55:20.1, 19°.80S×173°.57W, h22^{km}, Moment Tensor Solution. Duration: 3^{s}0 Moment tensor: Scale 10^{17}Nm; M_{rr}2.45; $M_{\theta\theta}$0.10; $M_{\phi\phi}$-2.55; $M_{r\theta}$-0.04; $M_{\theta\phi}$0.05; $M_{\phi r}$-0.55; Fault plane solution: $M_0$2.56000×10^{17} NP1: ϕ_s357.79000°, δ38.82000°, λ88.13000°. NP2: ϕ_s180.18000°, δ51.21000°, λ91.50000°. Principal axes: T 2.5087, Plg84.0000°, Azm100.0000°; N 0.1045, Plg1.0000°, Azm359.0000°; P -2.6132, Plg6.0000°, Azm269.0000°;*

*BJI **06** 14:55:20.0, 20°.06S×173°.77W, h8^{km}, mB5.8/12, mb5.4/47, Ms5.6/1, Ms7 5.6/1*

*BGR **06** 14:55:21.4, 21°.50S×173°.50W, h33^{km}*

*GFZ **06** 14:55:23.3, 20°.48S×174°.17W, h33^{km}, Mw5.6/30, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}2.95; $M_{\theta\theta}$-0.31; $M_{\phi\phi}$-2.64; $M_{r\theta}$-0.59; $M_{\theta\phi}$-0.34; $M_{\phi r}$-2.05; Fault plane solution: $M_0$3.53746×10^{17} NP1: ϕ_s192.64022°, δ63.54478°, λ93.66356°. NP2: ϕ_s4.46148°, δ26.68956°, λ82.68268°. Principal axes: T 3.6662, Plg71.2236°, Azm110.7096°; N -0.2733, Plg3.2795°, Azm11.0063°; P -3.3929, Plg18.4666°, Azm279.9099°;*

*GFZ **06** 14:55:23.3±0.1, 20°S±3°×17°4W±°, h29^{km}, M5.4/81, mb5.3/81*

*PTWC **06** 14:55:23, 20°.30S×173°.30W, h95^{km}, Mwp5.8/10*

*GCMT **06** 14:55:24.5±0.1, 20°.77S±0°.01×173°.61W±0°.01, h14^{km}, MW5.6/122, Moment Tensor Solution. s122, c225; s99, c172; Duration: 1^{s}5 Moment tensor: Scale 10^{17}Nm; M_{rr}2.09±.04; $M_{\theta\theta}$0.23±.04; $M_{\phi\phi}$-2.32±.04; $M_{r\theta}$0.69±.08; $M_{\theta\phi}$-0.70±.03; $M_{\phi r}$1.69±.10; Best double couple: $M_0$2.93600×10^{17} NP1: ϕ_s187.00000°, δ26.00000°, λ78.00000°. NP2: ϕ_s20.00000°, δ64.00000°, λ96.00000°. Principal axes: T 2.7420, Plg70.0000°, Azm302.0000°; N 0.3920, Plg5.0000°, Azm198.0000°; P -3.1300, Plg19.0000°, Azm106.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 06 14:55:21.0±0.4**, 20°.67S**±0°.04×**173°.91W**±0°.05**, h17^{km}**±2^{km}**, h17^{km}:pP-P, n1344, σ1^{s}46**/866**, mb5.5**/389**, MS5.8**/342**, 70C-53D, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NIUE	Niue	4.07	68	P	Pn	14 56 16.8	-5.7
NIUE				S	Sn	14 56 55.8	-14
NIUE	Niue	4.07	68	P	Pn	14 56 17.0	-5.5
NIUE	Niue	4.07	68		Pn	14 56 16.7	-5.9
NIUE	Niue	4.07	68	P	Pn	14 56 15.1	-7.4
NIUE	Niue	4.07	68	P	Pn	14 56 16.0	-6.5
NIUE				S	Sn	14 56 54.5	-15
NIUE				AML	AML		
NIUE				AML	AML		
LKBA	Tubou, Lakemba	5.22	297	P	Pn	14 56 42.6	+4.3
LKBA	Tubou, Lakemba	5.22	297	P	Pn	14 56 41.6	+3.3
TAVE	Taveuni	6.91	304	P	Pn	14 57 06.3	+4.7
TAVE	Taveuni	6.91	304	P	Pn	14 57 06.6	+5.0
AFI	Afiamalu	7.03	17	Pn	Pn	14 56 58.4	-4.8
	53nm,0.3s,baz=254,slow=0.6,SNR=33						
AFI				Sn	Sn	14 58 11.0	-12
	32nm,0.3s,baz=69,slow=22,SNR=3.9						
	161nm,0.5s						
AFI				AML	AML		
AFI	Afiamalu	7.03	17	P	Pn	14 57 01.2	-2.0
AFI	Afiamalu	7.03	17	P	Pn	14 57 00.7	-2.5
AFI	Afiamalu	7.03	17		Pn	14 57 00.7	-2.5
AFI	Afiamalu	7.03	17	P	Pn	14 56 56.1	-7.1
AFI	Afiamalu	7.03	17	P	Pn	14 56 54.8	-8.5
AFI				S	Sn	14 58 11.5	-11
AFI				AML	AML		
AFI				AML	AML		
DGTI	Dogotuki	7.43	305	P	Pn	14 57 13.2	+4.5
DGTI	Dogotuki	7.43	305	P	Pn	14 57 14.1	+5.4
MSVF	Nonsavu	8.14	290	Pn	Pn	14 57 24.6	+6.1
	7.8nm,0.3s,baz=123,slow=10,SNR=74						
MSVF				LR	LR	15 00 12.5	
	comp=Z,56μm,18.8s,baz=96,slow=37						
MSVF	Nonsavu	8.14	290	P	Pn	14 57 22.6	+4.2
MSVF	Nonsavu	8.14	290	P	Pn	14 57 22.7	+4.2
MSVF	Nonsavu	8.14	290		Pn	14 57 22.7	+4.2
MSVF	Nonsavu	8.14	290	P	Pn	14 57 25.0	+6.5
RIZ	Raoul Island	9.28	202	P	Pn	14 57 33.9	-0.2
RIZ				S	Sn	14 59 12.8	-5.3
GLKZ	Green Lake	9.29	202	P	Pn	14 57 33.1	-1.1
GLKZ				S	Sn	14 59 11.5	-6.9
RAR	Rarotonga	13.22	95	Pn	Pn	14 58 20.2	-7.9
	13nm,0.3s,baz=256,slow=6.7,SNR=30						
RAR				Sn	Sn	15 00 35.8	-19
	3.1nm,0.3s,baz=64,slow=16,SNR=2.3						
RAR				LR	LR	15 04 01.6	
	comp=Z,11μm,18.3s,baz=230,slow=39						
	191nm,0.7s						
RAR				AML	AML		
RAR	Rarotonga	13.22	95	P	Pn	14 58 22.3	-5.8
RAR	Rarotonga	13.22	95	P	Pn	14 58 20.2	-7.9
RAR	Rarotonga	13.22	95	P	Pn	14 58 20.1	-8.0
RAR				S	Sn	15 00 35.6	-19
FUNA	Funafuti	13.79	330	P	Pn	14 58 39.0	+3.2
FUNA	Funafuti	13.79	330	P	Pn	14 58 32.3	-3.5
	comp=Z,275nm,1.9s						
MARNC	Mare, Loyalty	16.87	264	P	P	14 59 19.4	+0.9
YATNC	Mamie plateau,	17.93	262	P	P	14 59 32.4	+2.1
OUENC	Ouen Island, N	17.99	261	P	P	14 59 32.8	+1.9
OUENC	Ouen Island, N	17.99	261		P	14 59 31.3	+0.5
OUENC	Ouen Island, N	17.99	261	P	P	14 59 32.7	+1.9
OUZ	Omahuta	18.19	215	P	Pn	14 59 32.8	+0.1
OUZ	Omahuta	18.19	215	P	P	14 59 33.3	+0.3
	comp=Z,98nm,2.4s						
WMGZ	Waiomatatini S	18.34	200	P	Pn	14 59 38.0	+3.4
ONTNC	Ouen Toro	18.34	261	P	Pn	14 59 36.8	+2.1
ONTNC	Ouen Toro	18.34	261		Pn	14 59 36.0	+1.2
ONTNC	Ouen Toro	18.34	261	P	Pn	14 59 36.8	+2.1
DZM	Mont Dzumac	18.35	262	P	P	14 59 35.2	+0.3
	comp=Z,2.3nm,0.3s,baz=84,slow=18,SNR=23						
DZM				LR	LR	15 05 54.2	
	comp=Z,9μm,18.5s,baz=92,slow=35						
	comp=Z,49nm,0.7s						
DZM				AML	AML		
WCZ	Waipu Caves	18.37	212	P	Pn	14 59 36.4	+1.5
NFK	Norfolk Island	18.44	240	P	Pn	14 59 38.5	+2.6
	comp=Z,101nm,1.0s						
NOUC	Port Laguerre	18.48	262	P	Pn	14 59 38.6	+2.2
HAZ	Te Kaha	18.49	201	P	P	14 59 35.8	-0.4
HAZ				S	Sn	15 02 46.3	-16
PKGZ	Pakihiroa	18.49	200	P	P	14 59 34.5	-1.8
PKGZ				S	Sn	15 02 46.3	-16
PUZ	Puketiti	18.62	200	P	Pn	14 59 42.9	+4.9
SANVU	Saraoutou	18.69	283	P	Pn	14 59 41.5	+2.6
SANVU	Saraoutou	18.69	283		Pn	14 59 39.6	+0.7
SANVU				IAmb	IAmb	14 59 44.0	
	comp=Z,354nm,1.1s						
SANVU	Saraoutou	18.69	283	P	Pn	14 59 39.7	+0.7
TWGZ	Tauwhareparae	18.80	200	P	Pn	14 59 45.1	+4.8
TWGZ				S	Sn	15 02 53.2	-17
MKAZ	Moumakai	18.94	208	P	Pn	14 59 46.7	+4.9
MWZ	Matawai	19.10	201	P	Pn	14 59 45.6	+1.8
MWZ				S	Sn	15 02 58.5	-19
URZ	Urewera	19.17	202	P	P	14 59 44.1	+0.4
	comp=Z,3.9nm,0.3s,baz=0.7,slow=6.3,SNR=23						
URZ				S	Sn	15 03 04.7	-14
	comp=Z,29nm,0.7s,baz=322,slow=24,SNR=4.0						
URZ				LR	LR	15 05 36.2	
	comp=Z,4μm,18.7s,baz=4.0,slow=32						
	comp=Z,43nm,0.8s						
URZ				AML	AML		
URZ	Urewera	19.17	202	P	P	14 59 42.9	-0.8
URZ	Urewera	19.17	202	P	Pn	14 59 45.1	+0.4
URZ				S	Sn	15 03 00.2	-19
URZ	Urewera	19.17	202	P	Pn	14 59 44.9	+0.3
	comp=Z,84nm,0.8s						
TOZ	Tahuroa Road	19.32	206	P	Pn	14 59 47.0	+0.6
TOZ	Tahuroa Road	19.32	206	P	Pn	14 59 48.5	+2.1
PRGZ	Paritu Road	19.52	199	P	Pn	14 59 50.4	+1.6
PRGZ				S	S	15 03 08.9	-19
RTZ	Ruatahuna	19.54	202	P	Pn	14 59 50.0	+0.8
HRRZ	Handcock Road	19.59	204	P	Pn	14 59 53.1	+3.4
KNZ	Kokohu	19.67	200	P	Pn	14 59 52.1	+1.5
KNZ				S	S	15 03 13.1	-17
RAHZ	Arahi	19.77	201	P	Pn	14 59 54.1	+2.3
RAHZ				S	S	15 03 15.3	-17
MTHZ	Maungataniwha	19.80	202	P	Pn	14 59 53.3	+1.2
MTHZ				S	S	15 03 16.0	-17
NMHZ	Naumai	20.03	201	P	Pn	14 59 54.7	-0.2
NMHZ				S	S	15 03 25.3	-12
BKZ	Black Stump Fm	20.20	202	P	P	14 59 54.1	-0.9
HIZ	Hauiti	20.26	206	P	Pn	14 59 58.8	+1.3
KOUNC	Koumac, New Ca	20.41	266	P	Pn	14 59 59.4	-0.1
KOUNC	Koumac, New Ca	20.41	266	P	Pn	15 00 00.4	+0.9
NTVZ	North Tongarir	20.44	204	P	Pn	14 59 59.2	-0.6
NTVZ				S	S	15 03 39.1	-6.9
ETVZ	East Tongariro	20.46	204	P	P	14 59 56.7	-1.2
SNVZ	South Ngauruho	20.53	204	P	P	14 59 60.0	+1.3
NGZ	Ngauruhoe	20.53	204	P	Pn	15 00 01.2	+0.2
WHVZ	Whangaehu Hut	20.63	204	P	P	15 00 00.9	+1.1
WNVZ	Wahianoa	20.66	204	P	P	15 00 01.1	+0.9
KRHZ	Kereru	20.67	202	P	Pn	15 00 02.7	+0.3
PXZ	Pawanui	20.85	200	P	Pn	15 00 03.9	-0.6
TSZ	Takapari Road	21.18	202	P	P	15 00 05.7	+0.1
BFZ	Birch Farm	21.64	201	P	P	15 00 09.0	-1.5
BFZ	Birch Farm	21.64	201	P	P	15 00 12.5	+2.0
BFZ				IAmb	IAmb	15 00 31.6	
	comp=Z,489nm,1.8s						
BFZ	Birch Farm	21.64	201	P	P	15 00 13.1	+2.6
BFZ	Birch Farm	21.64	201	P	P	15 00 12.8	+2.3
	comp=Z,171nm,1.3s						
MRZ	Mangatainoka R	21.85	202	P	P	15 00 14.3	+1.6
QRZ	Quartz Range	23.17	207	P	P	15 00 25.2	-1.5
QRZ	Quartz Range	23.17	207	P	P	15 00 27.5	+0.8
QRZ				IAmb	IAmb	15 00 43.5	
	comp=Z,232nm,1.4s						
PPT	Papeete	23.19	86	P	P	15 00 27.2	0.0
	comp=Z,171nm,1.1s,baz=258,slow=10,SNR=7.2						
PPT				LR	LR	15 08 02.7	
	comp=Z,4μm,18.3s,baz=252,slow=33						
	comp=Z,171nm,1.1s						
PPTF	Pamatai, Papee	23.20	87	P	P	15 00 25.0	-2.3
BSWZ	Blackbirch Sta	23.39	204	P	P	15 00 29.6	+0.7
THZ	Tophouse	23.80	205	P	P	15 00 33.2	+0.2
KHZ	Kahutara	24.12	203	P	P	15 00 34.5	-1.4
KHZ	Kahutara	24.12	203	S	S	15 04 52.8	-0.1
KHZ	Kahutara	24.12	203	P	P	15 00 36.0	+0.1
KHZ	Kahutara	24.12	203	P	P	15 00 35.6	-0.2
	comp=Z,92nm,1.9s						
DSZ	Denniston Nort	24.24	207	IAmb	IAmb	15 00 55.2	
	comp=Z,110nm,0.9s						
GVZ	Greta Valley S	24.78	203	P	P	15 00 42.6	+0.6
GVZ				IAmb	IAmb	15 01 04.9	
	comp=Z,117nm,0.9s						
LTZ	Lake Taylor	24.91	205	IAmb	IAmb	15 01 02.6	
	comp=Z,82nm,0.8s						
OXZ	Oxford	25.47	204	IAmb	IAmb	15 01 08.1	
	comp=Z,180nm,1.2s						
RPZ	Rata Peaks	26.18	205	LR	LR	15 12 04.1	
	comp=Z,2μm,18.2s,baz=20,slow=38						
LHI	Lord Howe Isla	26.50	240	P	P	15 00 57.3	-0.3
	comp=Z,33nm,1.1s						
JCZ	Jackson Bay	27.42	208	P	P	15 01 05.3	-0.6
ODZ	Otahua Downs	27.45	204	P	P	15 01 04.6	-1.5
HNR	Honiara	27.56	290	LR	LR	15 10 22.2	
	comp=Z,4μm,19.3s,baz=214,slow=33						
SAVO	Savo Central	27.80	290	P	P	15 01 12.0	+2.5
TATA	Tatamba Isabel	28.17	292	P	P	15 01 11.5	-1.2
TW1H	Toowoomba 1 Ha	31.81	251	P	P	15 01 45.6	+0.6
AUTOO	Toowoomba Stat	31.81	251	P	P	15 01 45.3	+0.3
ARMA	Armidale	32.46	246	P	P	15 01 52.0	+1.2
	comp=Z,29nm,1.1s						
ARMA	Armidale	32.46	246	P	P	15 01 51.9	+1.2
ARMA	Armidale	32.46	246	P	P	15 01 50.6	-0.1
ARMA	Armidale	32.46	246	P	P	15 01 50.6	-0.1
	comp=Z,30nm,1.1s						
EIDS	Eidsvold	32.50	255	P	P	15 01 49.2	-1.8
	comp=Z,36nm,1.3s						
EIDS	Eidsvold	32.50	255	P	P	15 01 50.0	-1.0
EIDS	Eidsvold	32.50	255	P	P	15 01 50.5	-0.4
EIDS	Eidsvold	32.50	255	P	P	15 01 49.4	-1.6
	comp=Z,36nm,1.3s						
AUPHS	Peel High Scho	33.20	245	P	P	15 01 57.7	+0.6
MGCD	Mangrove Creek	33.43	241	P	P	15 01 58.4	-0.7
	comp=Z,77nm,1.0s						
MGCD	Mangrove Creek	33.43	241	P	P	15 02 00.2	+1.1
MGCD	Mangrove Creek	33.43	241	P	P	15 01 58.1	-1.0
	comp=Z,77nm,1.0s						
SYDH	Sydney Hard Ro	33.86	240	P	P	15 02 03.1	+0.3
WOLH	Wollongong Har	33.91	239	P	P	15 02 03.2	0.0
AUUHS	Ulladulla High	34.48	237	P	P	15 02 08.3	+0.2
CNB	Canberra Magne	35.34	238	P	P	15 02 15.7	0.0
	comp=Z,1.8nm,1.1s						
AULRC	Lightning Ridg	35.48	248	P	P	15 02 17.8	+1.0
AUMHS	Melrose High S	35.56	238	P	P	15 02 17.8	+0.2
AUMTS	Mt Stromlo	35.63	238	P	P	15 02 18.3	+0.2
CAN	Canberra	35.63	238	P	P	15 02 18.0	-0.1
	comp=Z,69nm,1.1s						
CAN	Canberra	35.63	238	P	P	15 02 17.9	-0.1
CAN	Canberra	35.63	238	P	P	15 02 18.1	-0.1
CAN				pmax	pmax		
	comp=Z,69nm,1.1s						
CAN	Canberra	35.63	238	IAmb	IAmb	15 02 19.3	
	comp=Z,62nm,1.0s						
CAN	Canberra	35.63	238	P	P	15 02 18.2	+0.1
	comp=Z,69nm,1.1s						
MILA	Mila	35.97	235	P	P	15 02 20.6	-0.4
	comp=Z,9.3nm,1.2s						
AUSMG	Snowy Mountain	36.21	236	P	P	15 02 23.3	+0.1
KRVT	Keravat (AS076	36.89	292	LR	LR	15 15 59.1	
	comp=Z,2μm,20.6s,baz=102,slow=34						
CTA	Charters Tower	37.28	264	P	P	15 02 30.8	-1.6
CTA	Charters Tower	37.28	264	LR	LR	15 16 49.3	
	comp=Z,2μm,18.0s,baz=86,slow=35						
CTA	Charters Tower	37.28	264	P	P	15 02 33.5	+1.1
CTA	Charters Tower	37.28	264	P	P	15 02 30.7	-1.6
CTAO	Charters Tower	37.28	264	P	P	15 02 33.5	+1.1
CTAO	Charters Tower	37.28	264	P	P	15 02 31.4	-1.0
CTAO				pmax	pmax		
	comp=Z,38nm,1.1s						
CTAO				MLR	MLR		
	comp=Z,7μm,18.0s						
CTAO	Charters Tower	37.28	264	P	P	15 02 31.4	-1.0
CTAO	Charters Tower	37.28	264	P	P	15 02 30.9	-1.4
	comp=Z,34nm,0.7s						
CMSA	Cobar Meteorol	37.67	245	P	P	15 02 34.6	-0.9
	comp=Z,65nm,1.3s						
CMSA	Cobar Meteorol	37.67	245	P	P	15 02 35.8	+0.3
CMSA	Cobar Meteorol	37.67	245	P	P	15 02 34.7	-0.8
	comp=Z,65nm,1.3s						
PATS	Pohnpei	38.63	312	P	P	15 02 43.6	-0.1
PATS	Pohnpei	38.63	312	P	P	15 02 42.8	-0.9
PATS				IAmb	IAmb	15 02 51.7	
	comp=Z,121nm,1.4s						
QLP	Quilpie	38.67	253	P	P	15 02 42.4	-1.6
	comp=Z,101nm,1.2s						
QLP	Quilpie	38.67	253	P	P	15 02 44.6	+0.6
QLP	Quilpie	38.67	253	P	P	15 02 42.5	-1.5
	comp=Z,101nm,1.2s						
CORO	Coronation Par	38.84	229	P	P	15 02 45.8	+0.6
TOO	Toolangi	38.92	235	P	P	15 02 45.8	-0.2
	comp=Z,22nm,1.0s						
TOO	Toolangi	38.92	235	P	P	15 02 45.5	-0.5
TOO				pmax	pmax		
	comp=Z,23nm,1.1s						
TOO	Toolangi	38.92	235	P	P	15 02 45.5	-0.5
PMG	Port Moresby	39.12	281	P	P	15 02 50.0	+2.1
PMG	Port Moresby	39.12	281	P	P	15 02 50.1	+2.1
PMG	Port Moresby	39.12	281	ceP	P	15 02 46.4	-1.5
PMG				pmax	pmax		
	comp=Z,61nm,1.0s						
PMG	Port Moresby	39.12	281	P	P	15 02 46.5	-1.5
	comp=Z,93nm,1.0s						
PMG	Port Moresby	39.12	281	P	P	15 02 45.4	-2.5
	comp=Z,95nm,1.0s						
MOO	Moorlands	39.16	227	P	P	15 02 48.3	+0.4
	comp=Z,60nm,1.3s						
AUMAG	Moama Anglican	39.17	238	P	P	15 02 48.6	+0.5
TAU	Tasmania Unive	39.24	227	P	P	15 02 48.7	+0.1
TAU	Tasmania Unive	39.24	227	P	P	15 02 49.2	+0.7
TAU				pmax	pmax		
	comp=Z,52nm,1.1s						
TAU	Tasmania Unive	39.24	227	P	P	15 02 49.2	+0.7
MTSU	Mount Surprise	39.40	266	P	P	15 02 49.2	-1.1
	comp=Z,22nm,0.9s						
MTSU	Mount Surprise	39.40	266	P	P	15 02 51.4	+1.1
MTSU	Mount Surprise	39.40	266	P	P	15 02 49.3	-1.0
	comp=Z,22nm,0.9s						
BRAT	Ballarat	40.12	236	P	P	15 02 56.2	+0.3
STKA	Stephens Creek	41.17	245	P	P	15 03 03.8	-1.0
	comp=Z,201nm,1.1s						
STKA	Stephens Creek	41.17	245	P	P	15 03 03.1	-1.7
	comp=Z,48nm,1.0s,baz=94,slow=8.7,SNR=36						
STKA				LR	LR	15 18 49.2	
	comp=Z,3μm,18.1s,baz=80,slow=34						
	comp=Z,48nm,1.0s						
STKA	Stephens Creek	41.17	245	P	P	15 03 04.6	-0.2
STKA	Stephens Creek	41.17	245	diP	P	15 03 04.1	-0.7

STKA	Stephens Creek	41.17	245	P	P	15 03 04.2	-0.5
	comp=Z,201nm,1.1s						
ARPS	Mount Arapiles	41.60	238	P	P	15 03 07.8	-0.4
	comp=Z,19nm,1.0s						
INKA	Innaminka	41.77	251	P	P	15 03 10.1	+0.5
QIS	Mount Isa	43.39	262	P	P	15 03 20.7	-2.3
	comp=Z,13nm,0.9s						
QIS	Mount Isa	43.39	262	P	P	15 03 24.2	+1.2
AUMBR	Murray Bridge	43.41	240	P	P	15 03 22.7	-0.2
HTT	Hallett	43.55	243	P	P	15 03 23.3	-0.8
	comp=Z,25nm,1.1s						
HTT	Hallett	43.55	243	P	P	15 03 24.3	+0.2
HTT	Hallett	43.55	243	P	P	15 03 23.3	-0.8
AUMAR	Marden Senior	43.91	241	P	P	15 03 27.4	+0.4
WAKE	Wake Island	44.03	333	P	P	15 03 28.1	+0.1
WAKE	Wake Island	44.03	333	P	P	15 03 27.6	-0.4
	comp=Z,220nm,1.2s						
BBOO	Buckleboo	45.91	244	P	P	15 03 41.2	-1.8
	comp=Z,44nm,1.0s						
BBOO	Buckleboo	45.91	244	P	P	15 03 43.6	+0.7
BBOO	Buckleboo	45.91	244	P	P	15 03 42.3	-0.6
BBOO				IAmb	IAmb	15 03 43.3	
	comp=Z,41nm,1.0s						
BBOO	Buckleboo	45.91	244	P	P	15 03 41.2	-1.8
	comp=Z,44nm,1.0s						
AS17	Alice Springs	48.12	256	P	P	15 03 59.1	-1.3
	comp=Z,53nm,1.0s						
AS01	Alice Springs	48.16	256	P	P	15 04 01.4	+0.7
AS09	Alice Springs	48.16	256	P	P	15 03 59.4	-1.4
	comp=Z,40nm,0.9s						
WR0	Warramunga Arr	48.17	261	P	P	15 03 59.0	-1.8
	comp=Z,27nm,0.9s						
AS15	Alice Springs	48.20	256	P	P	15 03 59.7	-1.3
	comp=Z,48nm,0.8s						
GENI	Genyem	48.20	286	P	P	15 04 03.1	+2.1
GENI	Genyem	48.20	286	P	P	15 04 00.4	-0.6
	comp=Z,2µmcomp=Z,3µmcomp=Z,172nm,1.7s						
GENI	Genyem	48.20	286	P	P	15 03 59.2	-1.8
	comp=Z,170nm,1.7s						
AS31	Alice Springs	48.20	256	P	P	15 03 59.6	-1.5
	comp=Z,12nm,1.0s						
ASAR	Alice Springs	48.20	256	P	P	15 03 59.3	-1.8
	comp=Z,47nm,1.0s,baz=91,slow=7.8,SNR=140						
ASAR				PcP	PcP	15 05 28.3	+0.1
	comp=Z,11nm,1.0s,baz=102,slow=3.8,SNR=4.2						
ASAR				S	S	15 10 55.5	-4.5
	comp=Z,2.8nm,0.9s,baz=95,slow=16,SNR=7.8						
	comp=Z,47nm,1.0s						
WR8	Warramunga Arr	48.21	261	IAmb	IAmb	15 04 01.7	
	comp=Z,64nm,1.3s						
AUALC	St Philip's Co	48.22	256	P	P	15 04 00.7	-0.5
WB0	Warramunga Arr	48.35	262	IAmb	IAmb	15 04 05.7	
	comp=Z,35nm,0.9s						
WB9	Warramunga Arr	48.35	262	P	P	15 04 00.2	-2.0
	comp=Z,44nm,1.1s						
WB2	Warramunga Arr	48.35	261	P	P	15 04 00.3	-1.9
	comp=Z,51nm,1.0s						
WB1	Warramunga Ar.	48.35	261	P	P	15 04 00.3	-1.9
WRAB	Tennant Creek	48.36	261	P	P	15 04 00.8	-1.4
WRAB	Tennant Creek	48.36	261	P	P	15 04 00.8	-1.4
WRAB				pmax	pmax		
	comp=Z,47nm,1.2s						
WRAB				MLR	MLR		
	comp=Z,3µm,18.0s						
WRAB	Tennant Creek	48.36	261	P	P	15 04 00.8	-1.4
WRAB				IAmb	IAmb	15 04 02.1	
	comp=Z,47nm,1.1s						
WRAB	Tennant Creek	48.36	261	P	P	15 03 59.8	-2.4
	comp=Z,42nm,1.0s						
WR1	Warramunga Arr	48.36	261	P	P	15 04 00.4	-1.9
	comp=Z,48nm,1.0s						
WRA	Warramunga Arr	48.37	261	P	P	15 04 00.1	-2.1
	comp=Z,32nm,1.1s,baz=96,slow=7.6,SNR=78						
WRA				PcP	PcP	15 05 29.1	+0.3
	comp=Z,14nm,1.0s,baz=93,slow=3.8,SNR=5.0						
	comp=Z,32nm,1.1s						
KDU	Kakadu	51.78	270	P	P	15 04 27.0	-1.3
	comp=Z,30nm,1.0s						
FORT	Forrest	52.74	247	P	P	15 04 34.0	-1.2
	comp=Z,37nm,0.8s						
FORT	Forrest	52.74	247	P	P	15 04 34.3	-0.9
GUMO	Guam	52.92	307	P	P	15 04 37.0	+0.4
GUMO	Guam	52.92	307	P	P	15 04 35.7	-0.9
GUMO				pmax	pmax		
	comp=Z,278nm,1.1s						
GUMO				MLR	MLR		
	comp=Z,15µm,18.0s						
GUMO	Guam	52.92	307	P	P	15 04 35.7	-0.9
GUMO	Guam	52.92	307	P	P	15 04 34.2	-2.3
	comp=Z,232nm,1.2s						
MTN	Manton Dam	52.99	269	P	P	15 04 35.5	-1.7
	comp=Z,19nm,0.8s						
WRKA	Warakurna	53.10	254	P	P	15 04 36.9	-1.1
	comp=Z,25nm,0.9s						
DRS	Darwin Rock St	53.33	270	P	P	15 04 41.2	+1.5
MWPI	Manokwari, Pap	54.45	284	P	P	15 04 47.7	-0.2
	comp=Z,98nm,1.1s						
KNRA	Kununurra	54.46	265	P	P	15 04 43.6	-4.4
	comp=Z,80nm,0.5s						
DRV	Dumont d'Urvil	54.51	201	P	P	15 04 49.7	+2.2
FAKI	Fak Fak	55.28	281	P	P	15 04 55.8	+1.8
FAKI	Fak Fak	55.28	281	P	P	15 04 52.8	-1.2
FAKI				IAmb	IAmb	15 04 55.4	
	comp=Z,55nm,1.1s						
FAKI	Fak Fak	55.28	281	P	P	15 04 52.3	-1.7
	comp=Z,57nm,1.2s						
FAKI	Fak Fak	55.28	281	P	P	15 04 51.2	-2.8
	comp=Z,56nm,1.2s						
FITZ	Fitzroy Crossi	56.80	261	P	P	15 05 04.0	-0.7
	comp=Z,6.5nm,1.2s						
FITZ	Fitzroy Crossi	56.80	261	P	P	15 05 04.0	-0.7
FITZ	Fitzroy Crossi	56.80	261	P	P	15 05 03.5	-1.2
	comp=Z,6.5nm,1.2s						
KMBL	Kambalda	57.97	245	P	P	15 05 11.8	-1.1
	comp=Z,20nm,1.1s						
SBA	Scott Base	57.99	185	P	P	15 05 13.0	+0.8
SBA				pmax	pmax		
	comp=Z,66nm,1.2s						
SBA	Scott Base	57.99	185	P	P	15 05 13.0	+0.8
SBA				IAmb	IAmb	15 05 29.5	
	comp=Z,66nm,1.1s						
SBA	Scott Base	57.99	185	P	P	15 05 14.6	+2.3
	comp=Z,49nm,1.1s						
VNDA	Vanda	58.11	186	P	P	15 05 15.3	+2.2
	comp=Z,5.2nm,0.8s,baz=5.1,slow=6.9,SNR=22						
	comp=Z,5.2nm,0.8s						
VNDA	Vanda	58.11	186	P	P	15 05 14.6	+1.4
VNDA				IAmb	IAmb	15 05 29.4	
	comp=Z,39nm,1.1s						
VNDA	Vanda	58.11	186	P	P	15 05 16.3	+3.1
	comp=Z,35nm,1.4s						
RPN	Rapa Nui	58.84	110	LR	LR	15 26 12.1	
	comp=Z,3µm,18.1s,baz=322,slow=31						
NLAI	Namlea	59.91	279	P	P	15 05 25.7	-0.9
	comp=Z,2µmcomp=Z,89nm,1.4s						
NLAI				pP	pwP	15 05 35.8	+0.3
	comp=Z,2µmcomp=Z,89nm,1.4s						
SOEI	Soe	60.33	270	P	P	15 05 30.2	+0.6
SOEI	Soe	60.33	270	P	P	15 05 29.8	+0.2
SOEI	Soe	60.33	270	P	P	15 05 28.8	-0.9
	comp=Z,268nm,1.2s						
TNTI	Ternate	61.22	283	P	P	15 05 35.1	-0.4
TNTI	Ternate	61.22	283	P	P	15 05 34.0	-1.4
TNTI	Ternate	61.22	283	P	P	15 05 34.1	-1.4
	comp=Z,1µmcomp=Z,108nm,1.1s						
TNTI	Ternate	61.22	283	P	P	15 05 34.6	-1.0
	comp=Z,108nm,1.0s						
SANI	Sanana	61.38	279	P	P	15 05 36.2	-0.4
SANI	Sanana	61.38	279	P	P	15 05 34.8	-1.8
	comp=Z,2µmcomp=Z,968nmcomp=Z,102nm,1.1s						
SANI	Sanana	61.38	279	P	P	15 05 35.1	-1.6
	comp=Z,103nm,1.1s						
KLBR	Kellerberrin	61.45	245	P	P	15 05 37.2	+0.3
	comp=Z,230nm,0.9s						
KLBR	Kellerberrin	61.45	245	P	P	15 05 37.7	+0.8
KLBR	Kellerberrin	61.45	245	P	P	15 05 37.1	+0.3
	comp=Z,230nm,0.9s						
MEEK	Meekatharra	61.47	250	P	P	15 05 36.8	-0.3
	comp=Z,36nm,1.2s						
MEEK	Meekatharra	61.47	250	P	P	15 05 38.0	+0.9
MEEK	Meekatharra	61.47	250	P	P	15 05 36.3	-0.8
	comp=Z,36nm,1.2s						
MBWA	Marble Bar	61.55	257	P	P	15 05 36.7	-1.0
	comp=Z,51nm,1.1s						
MBWA	Marble Bar	61.55	257	P	P	15 05 36.3	-1.4
MBWA	Marble Bar	61.55	257	P	P	15 05 33.9	-3.7
MBWA	Marble Bar	61.55	257	P	P	15 05 35.9	-1.7
MBWA	Marble Bar	61.55	257	P	P	15 05 36.3	-1.4
	comp=Z,51nm,1.1s						
NWAO	Narrogin (SRO)	61.71	243	P	P	15 05 38.4	-0.2
NWAO	Narrogin (SRO)	61.71	243	P	P	15 05 38.8	+0.2
NWAO				pmax	pmax		
	comp=Z,84nm,1.3s						
NWAO				MLR	MLR		
	comp=Z,4µm,19.0s						
NWAO	Narrogin (SRO)	61.71	243	P	P	15 05 38.8	+0.2
MMRI	Maumere	62.59	271	P	P	15 05 44.8	+0.1
MMRI	Maumere	62.59	271	P	P	15 05 42.9	-1.8
	comp=Z,2µmcomp=Z,1µmcomp=Z,68nm,0.9s						
MMRI	Maumere	62.59	271	P	P	15 05 43.2	-1.6
	comp=Z,68nm,1.0s						
MUN	Mundaring	62.70	244	P	P	15 05 41.3	-3.9
	comp=Z,90nm,1.3s						
MUN	Mundaring	62.70	244	P	P	15 05 46.2	+1.0
MUN	Mundaring	62.70	244	P	P	15 05 41.3	-3.9
MORW	Morawa	63.30	247	P	P	15 05 49.7	+0.4
	comp=Z,65nm,1.1s						
MORW	Morawa	63.30	247	P	P	15 05 50.4	+1.1
MORW	Morawa	63.30	247	P	P	15 05 49.3	-0.1
MORW	Morawa	63.30	247	P	P	15 05 49.2	-0.1
	comp=Z,65nm,1.1s						
MNI	Manado	63.80	282	P	P	15 05 51.0	-1.8
	comp=Z,4µmcomp=Z,87nm,0.9s						
WSI	Waingapu	64.08	269	P	P	15 05 53.9	-0.7
	comp=Z,140nm,1.9s						
LUWI	Luwuk	64.74	279	P	P	15 06 00.6	+1.7
LUWI	Luwuk	64.74	279	P	P	15 05 58.1	-0.8
	comp=Z,2µmcomp=Z,147nm,1.1s						
LUWI	Luwuk	64.74	279	P	P	15 05 56.6	-2.3
	comp=Z,147nm,1.1s						
LBFI	Labuhan Bajo,	64.83	270	P	P	15 05 57.7	-1.9
CASY	Casey	65.45	206	P	P	15 06 02.8	+0.1
CASY	Casey	65.45	206	P	P	15 06 03.8	+1.1
	comp=Z,69nm,1.5s						
PLAI	Plampang	66.70	269	P	P	15 06 13.2	+1.6
PLAI	Plampang	66.70	269	P	P	15 06 10.6	-1.0
	comp=Z,1µmcomp=Z,81nm,1.1s						
PLAI	Plampang	66.70	269	P	P	15 06 10.8	-0.8
	comp=Z,81nm,1.1s						
TOLI2	Tolitoli	67.39	280	P	P	15 06 15.6	-0.4
TOLI2	Tolitoli	67.39	280	P	P	15 06 15.3	-0.7
	comp=Z,56nm,1.1s						
PCI	Palu	67.51	278	P	P	15 06 16.7	-0.1
QSPA	South Pole Qui	69.40	180	P	P	15 06 29.0	+1.1
	comp=Z,32nm,1.0s,baz=47,slow=1.3,SNR=41						
	comp=Z,32nm,1.0s						
QSPA	South Pole Qui	69.40	180	P	P	15 06 28.7	+0.8
QSPA	South Pole Qui	69.40	180	P	P	15 06 30.1	+2.2
	comp=Z,83nm,1.1s						
MYLDM	Lahad Datu	71.09	283	P	P	15 06 40.7	+1.8
MYLDM	Lahad Datu	71.09	283	IAmb	IAmb	15 07 13.4	
	comp=Z,77nm,1.3s						
MYLDM	Lahad Datu	71.09	283	P	P	15 06 38.5	-0.4
	comp=Z,39nm,1.4s						
MYLDM	Lahad Datu	71.09	283	P	P	15 06 38.2	-0.7
	comp=Z,39nm,1.4s						
BBKI	Banjar Baru	71.24	273	P	P	15 06 39.6	-0.3
	comp=Z,56nm,1.3s						
KIWB	Kanaga Island	72.27	358	P	P	15 06 45.9	+0.7
ADK	Adak	72.28	358	P	P	15 06 46.8	+1.6
ADK	Adak	72.28	358	P	P	15 06 45.3	+0.1
ADK	Adak	72.28	358	IAMs_20	IAMs_20	15 44 51.2	
	comp=Z,4µm,18.0s						
ADK	Adak	72.28	358	P	P	15 06 45.4	+0.1
	comp=Z,89nm,1.2s						
PKKI	Palangkaraya	72.48	274	P	P	15 06 47.5	+0.2
JGF	Kuroka	72.54	320	P	P	15 06 49.4	+2.2
JGF	Kuroka	72.54	320	P	P	15 06 47.6	+0.4
JGF	Kuroka	72.54	320	P	P	15 06 46.1	-1.2
	comp=Z,48nm,1.9s						
ATKA	Atka Island	72.56	360	P	P	15 06 48.1	+1.3
ATKA	Atka Island	72.56	360	IAMs_20	IAMs_20	15 44 34.4	
	comp=Z,5µm,18.0s						
SNJI	Sawahan-Nganju	72.67	268	P	P	15 06 49.5	+0.8
	comp=Z,97nm,1.4s						
MJAR	Matsushiro Arr	72.68	321	P	P	15 06 47.9	0.0
	comp=Z,14nm,0.8s,baz=147,slow=6.1,SNR=29						
	comp=Z,14nm,0.8s						
MJAR	Matsushiro Arr	72.68	321	P	P	15 06 48.3	+0.3
MJAR				pmax	pmax		
	comp=Z,35nm,1.2s						
MJAR	Matsushiro Arr	72.68	321	P	P	15 06 48.2	+0.3
MJAR				IAmb	IAmb	15 07 00.2	
	comp=Z,35nm,1.2s						
MAJO	Matsushiro	72.68	321	P	P	15 06 50.0	+2.0
MAJO	Matsushiro	72.68	321	P	P	15 06 47.8	-0.2
MAJO				pmax	pmax		
	comp=Z,35nm,1.0s						
MAJO				MLR	MLR		
	comp=Z,10µm,21.0s						
MAJO	Matsushiro	72.68	321	P	P	15 06 47.8	-0.2
MAJO				IAmb	IAmb	15 07 02.3	
	comp=Z,35nm,0.9s						
MAJO	Matsushiro	72.68	321	P	P	15 06 46.5	-1.5
	comp=Z,39nm,1.0s						
MJB9	Matsu-Tunnel	72.68	321	IAmb	IAmb	15 07 03.2	
	comp=Z,32nm,0.9s						
PCJI	Pacitan	73.08	267	P	P	15 06 50.6	-0.3
JMN	Monobe	73.48	317	P	P	15 06 54.7	+1.8
KKM	Kota Kinabalu	73.52	283	P	P	15 06 54.6	+1.0
KKM	Kota Kinabalu	73.52	283	IAmb	IAmb	15 07 08.8	
	comp=Z,72nm,1.5s						
KKM	Kota Kinabalu	73.52	283	P	P	15 06 52.2	-1.4
	comp=Z,30nm,1.2s						
KKM	Kota Kinabalu	73.52	283	P	P	15 06 52.4	-1.1
	comp=Z,30nm,1.2s						
JTM	Tenmabayashi	74.08	326	P	P	15 06 58.3	+2.2
HULI	Fort Hunter Li	75.24	42	IAmb	IAmb	15 07 17.8	
	comp=Z,79nm,1.2s						
HULI				IAMs_20	IAMs_20	15 36 42.0	
	comp=Z,4µm,18.0s						
FORD	Fort Ord Natur	75.33	41	IAMs_20	IAMs_20	15 38 12.4	
	comp=Z,3µm,18.0s						
JRSC	Jasper Ridge	75.51	40	IAMs_20	IAMs_20	15 38 02.4	
	comp=Z,3µm,18.0s						
SAO	San Andreas Ge	75.58	41	P	P	15 07 06.9	+2.0
SAO	San Andreas Ge	75.58	41	IAmb	IAmb	15 07 08.3	
	comp=Z,39nm,1.2s						
SAO				IAMs_20	IAMs_20	15 39 11.1	
	comp=Z,4µm,18.0s						
PKD	Bear Valley Ra	75.62	42	IAmb	IAmb	15 07 19.7	
	comp=Z,38nm,1.1s						
PKD				IAMs_20	IAMs_20	15 38 46.2	
	comp=Z,3µm,18.0s						
PMPB	Monarch Peak	75.63	42	IAmb	IAmb	15 07 21.9	
	comp=Z,61nm,1.3s						
STKI	Sintang	75.63	276	P	P	15 07 06.1	+0.3
	comp=Z,36nm,1.3s						
JKA	Kamikawa-asahi	75.76	329	IAmb	IAmb	15 07 23.3	
	comp=Z,26nm,0.9s						
JKA	Kamikawa-asahi	75.76	329	P	P	15 07 05.6	-0.2
	comp=Z,40nm,0.9s						
ASAJ	Asahikawa	75.77	329	P	P	15 07 05.6	-0.2
MHC	Mount Hamilton	75.83	41	IAmb	IAmb	15 07 10.0	
	comp=Z,63nm,1.4s						
MHC				IAMs_20	IAMs_20	15 38 11.8	
	comp=Z,4µm,18.0s						
CBX	Cerro Bola	75.98	47	IAmb	IAmb	15 07 10.6	
	comp=Z,47nm,1.3s						
CVS	Carmenet Viney	76.00	39	IAmb	IAmb	15 07 11.0	
	comp=Z,54nm,1.4s						
YOJ	Yonaguni jima	76.00	303	P	P	15 07 09.5	+1.9
VTX	Valle De La Tr	76.06	48	IAmb	IAmb	15 07 11.1	
	comp=Z,41nm,1.3s						
MWC	Mount Wilson	76.17	45	IAmb	IAmb	15 07 22.7	
	comp=Z,32nm,1.1s						
CNBA	Chernabura Isl	76.18	8	IAMs_20	IAMs_20	15 45 30.1	
	comp=Z,4µm,19.0s						
BAR	Barrett	76.19	47	IAmb	IAmb	15 07 16.4	
	comp=Z,43nm,1.5s						
DPP	Dos Picos Cty	76.19	47	IAmb	IAmb	15 07 24.4	
	comp=Z,49nm,1.3s						
KCPM	Cahto Peak	76.23	38	IAMs_20	IAMs_20	15 36 31.6	
	comp=Z,3µm,18.0s						
ELS	Elsinore Mount	76.25	46	IAmb	IAmb	15 07 12.0	
	comp=Z,46nm,1.4s						
ESJX	Sierra Juarez	76.30	48	IAmb	IAmb	15 07 12.8	
	comp=Z,54nm,1.3s						
SLBS	Sierra La Lagu	76.32	58	IAMs_20	IAMs_20	15 36 55.1	
	comp=Z,3µm,18.0s						
SLBS	Sierra La Lagu	76.32	58	P	P	15 07 10.7	+1.1
	comp=Z,20nm,1.6s						
TPO	Tropico Hills	76.45	44	IAmb	IAmb	15 07 13.3	
	comp=Z,74nm,1.3s						
KMRM	Mail Ridge	76.52	37	IAmb	IAmb	15 07 33.4	
	comp=Z,48nm,1.0s						
SFX	San Felipe	76.52	49	IAmb	IAmb	15 07 25.5	
	comp=Z,52nm,1.6s						
BBJI	Bungbulang	76.62	267	P	P	15 07 12.5	+1.0
BBJI	Bungbulang	76.62	267	IAmb	IAmb	15 07 24.1	
	comp=Z,31nm,0.9s						
YUH	Yuha Desert	76.68	47	IAmb	IAmb	15 07 15.1	
	comp=Z,39nm,1.3s						
BORC	Borrego Spring	76.70	47	IAmb	IAmb	15 07 15.3	
	comp=Z,65nm,1.3s						
JCC	Jacoby Creek,	76.74	37	IAMs_20	IAMs_20	15 36 55.1	
	comp=Z,3µm,18.0s						
ISA	Isabella, Lake	76.77	44	IAmb	IAmb	15 07 15.2	
	comp=Z,53nm,1.3s						
YULB	Yu-li	76.83	301	P	P	15 07 14.2	+1.9
YULB	Yu-li	76.83	301	IAmb	IAmb	15 07 28.8	
	comp=Z,32nm,1.0s						
YULB	Yu-li	76.83	301	P	P	15 07 12.2	-0.1
	comp=Z,30nm,1.6s						
PFO	Pinyon Flats O	76.88	46*c*	*i*P	P	15 07 12.3	-0.2
PFO				pmax	pmax		
	comp=Z,44nm,1.3s						
PFO	Pinyon Flats O	76.88	46	P	P	15 07 11.4	-1.1
PFO				IAmb	IAmb	15 07 15.7	
	comp=Z,39nm,1.3s						
PFO	Pinyon Flats O	76.88	46	P	P	15 07 11.5	-1.1
	comp=Z,24nm,1.4s						
KHMM	Horse Mountain	76.94	37	IAMs_20	IAMs_20	15 42 12.5	
	comp=Z,5µm,18.0s						
PMD	Palm Desert	76.95	46	IAmb	IAmb	15 07 16.6	
	comp=Z,44nm,1.4s						
SUTB	Sutter Butte	76.97	39	IAmb	IAmb	15 07 15.5	
	comp=Z,51nm,1.6s						
NACB	Ninganchiao	76.97	302	P	P	15 07 14.3	+1.2
NACB	Ninganchiao	76.97	302	P	P	15 07 10.6	-2.5
	comp=Z,114nm,1.2s						
O02D	Mt. Diablo Mer	77.01	38	IAmb	IAmb	15 07 35.9	
	comp=Z,102nm,2.0s						
O02D				IAMs_20	IAMs_20	15 38 01.2	
	comp=Z,4µm,19.0s						
SMAI	San Martin Ant	77.06	158	P	P	15 07 13.1	+0.2
KHBM	Hayfork Bally	77.08	37	IAMs_20	IAMs_20	15 38 02.3	
	comp=Z,4µm,18.0s						
WELL	Weller Preserv	77.09	40	IAMs_20	IAMs_20	15 39 19.2	
	comp=Z,3µm,18.0s						
PET	Petropavlovsk	77.15	343*c*	*i*P	P	15 07 11.5	-1.9
PET				*e*S	S	15 17 00.8	-0.9
PET				*e*PS	PnS	15 17 26.8	-15
PET				*e*PPS	PPS	15 18 05.4	
PET				*e*SS	SS	15 21 57.8	-2.2
PET				pmax	pmax		
	comp=Z,23nm,1.4s						
PET				pmax	pmax		
	comp=Z,400nm,12.4s						
PET				pmax	pmax		
	comp=Z,500nm,12.1s						
PET	Petropavlovsk	77.15	343	P	P	15 07 13.0	-0.4
	comp=Z,24nm,1.4s						
KRMB	Red Mountain	77.28	36	IAMs_20	IAMs_20	15 37 02.6	
	comp=Z,3µm,18.0s						
SSLB	Suanglung	77.29	302	P	P	15 07 14.7	-0.3
SSLB	Suanglung	77.29	302	IAmb	IAmb	15 07 15.9	
	comp=Z,54nm,1.1s						
SSLB	Suanglung	77.29	302	P	P	15 07 12.2	-2.8
	comp=Z,47nm,1.1s						
YHNB	Yeheng	77.39	303	P	P	15 07 17.2	+1.6
YHNB	Yeheng	77.39	303	P	P	15 07 12.0	-3.5
	comp=Z,80nm,1.2s						
CCCA	Chr Cany lake	77.41	44	IAmb	IAmb	15 07 23.9	
	comp=Z,54nm,1.3s						
BELC	Belle Mtn. Jos	77.41	46	IAmb	IAmb	15 07 30.0	
	comp=Z,46nm,1.2s						
CLC	China Lake	77.43	44	IAmb	IAmb	15 07 19.6	
	comp=Z,53nm,1.5s						
TATO	Taipei	77.46	303	P	P	15 07 17.2	+1.4
TATO	Taipei	77.46	303	P	P	15 07 14.1	-1.7
TATO	Taipei	77.46	303	P	P	15 07 15.7	-0.1
PEA0B	Petropavlovsk-	77.48	343*c*	*e*P	P	15 07 15.2	-0.1
PETK	Petropavlovsk-	77.48	343	P	P	15 07 15.1	-0.2
	comp=Z,15nm,0.8s,baz=151,slow=5.2,SNR=21						
	comp=Z,15nm,0.8s						
PETK	Petropavlovsk-	77.48	343	P	P	15 07 15.5	+0.2
PETK	Petropavlovsk-	77.48	343	P	P	15 07 15.5	+0.2
KSXB	Camp Six Broad	77.51	36	IAMs_20	IAMs_20	15 37 27.6	
	comp=Z,4µm,18.0s						
BC3	Big Chuckawall	77.58	47	IAmb	IAmb	15 07 31.3	
	comp=Z,58nm,1.3s						
MPMC	Manual Prospec	77.64	44	IAmb	IAmb	15 07 20.2	
	comp=Z,40nm,1.2s						
O03E	Paynes Creek	77.65	38	P	P	15 07 16.1	-0.6
O03E				IAmb	IAmb	15 07 30.8	
	comp=Z,66nm,1.4s						
M02C	Callahan	77.78	37	IAMs_20	IAMs_20	15 38 05.7	
	comp=Z,3µm,19.0s						
PIX	Pinacate	77.79	49	IAmb	IAmb	15 07 20.4	
	comp=Z,39nm,1.3s						
YSS	Yuzhno-Sakhali	77.82	331	P	P	15 07 18.4	+1.1
YSS	Yuzhno-Sakhali	77.82	331*c*	*e*P	P	15 07 17.6	+0.3
YSS				pmax	pmax		
	comp=Z,88nm,1.7s						
YSS	Yuzhno-Sakhali	77.82	331	P	P	15 07 17.5	+0.3
YSS	Yuzhno-Sakhali	77.82	331	P	P	15 07 16.7	-0.6
	comp=Z,68nm,0.9s						
YSS				pP	pwP	15 07 25.9	-0.3
WAKR	Walker	77.92	41	IAmb	IAmb	15 07 21.9	
	comp=Z,60nm,1.3s						
QSM	Queen of Sheba	77.99	44	IAmb	IAmb	15 07 21.7	
	comp=Z,43nm,1.3s						
MPK	Martis Peak	78.06	40	IAmb	IAmb	15 07 42.1	
	comp=Z,57nm,1.1s						
IRM	Iron Mountain	78.08	46	IAmb	IAmb	15 07 23.4	
	comp=Z,72nm,1.4s						
DSP	Deep Springs	78.13	42	IAmb	IAmb	15 07 23.6	
	comp=Z,62nm,1.3s						
PNTR	Pine Nut	78.19	40	IAmb	IAmb	15 07 23.8	
	comp=Z,77nm,1.3s						
HATC	Hat Creek Radi	78.19	38	IAmb	IAmb	15 08 18.6	
	comp=Z,94nm,1.6s						
HATC				IAMs_20	IAMs_20	15 38 05.5	
	comp=Z,3µm,18.0s						
BLYC	Blythe	78.27	47	IAmb	IAmb	15 07 34.8	
	comp=Z,36nm,1.1s						
FURC	Furnace Creek,	78.29	44	IAmb	IAmb	15 07 55.6	
	comp=Z,51nm,1.4s						
YERR	Yerington	78.34	40	IAmb	IAmb	15 07 24.5	
	comp=Z,62nm,1.3s						
SHOC	Shoshone, Teco	78.34	44	IAmb	IAmb	15 07 36.8	
	comp=Z,64nm,1.4s						
GMN	Gold Mountain	78.54	43	IAmb	IAmb	15 07 25.1	
	comp=Z,35nm,1.1s						
RYN	Ryan	78.56	41	P	P	15 07 19.0	-2.8
RYN				IAmb	IAmb	15 08 22.7	
	comp=Z,33nm,0.9s						
NVAR	Mina Array Bea	78.57	41	P	P	15 07 22.6	+0.6
	comp=Z,30nm,1.1s,baz=225,slow=7.4,SNR=58						
	comp=Z,30nm,1.1s						
NVAR	Mina Array Bea	78.57	41	P	P	15 07 19.6	-2.4
L04D	Klamath Falls	78.64	36	IAmb	IAmb	15 07 35.8	
	comp=Z,39nm,1.2s						
SII	Sitkinak Islan	78.71	11	IAMs_20	IAMs_20	15 46 08.4	
	comp=Z,4µm,19.0s						
BELA	Belgrano 2	78.88	172	P	P	15 07 22.7	-0.1
BELA				IAmb	IAmb	15 07 29.9	
	comp=Z,56nm,1.3s						
TPNV	Topopah Spring	78.97	44	P	P	15 07 23.8	-0.4
TPNV				pmax	pmax		
	comp=Z,52nm,1.3s						
TPNV	Topopah Spring	78.97	44	P	P	15 07 23.8	-0.4
TPNV				IAmb	IAmb	15 07 43.7	
	comp=Z,52nm,1.3s						
TPH	Tonopah	79.03	42	IAmb	IAmb	15 07 39.0	
	comp=Z,61nm,1.2s						
BUCK	Buck Mountain	79.59	35	IAmb	IAmb	15 08 04.0	
	comp=Z,63nm,1.6s						
PMSA	Palmer Station	79.59	156	*e*P	P	15 07 32.9	+6.0
PMSA	Palmer Station	79.59	156	P	P	15 07 29.6	+2.7
	comp=Z,18nm,1.3s						
KSRS	Korea Array	79.60	317	P	P	15 07 28.4	+1.1
	comp=Z,20nm,1.1s,baz=132,slow=5.4,SNR=23						
	comp=Z,20nm,1.1s						
QZH2	Quanzhou	79.73	302	P	P	15 07 28.9	+0.6
PRN	Pahroc Range	80.02	44	IAmb	IAmb	15 07 34.4	
	comp=Z,79nm,1.3s						
TUC	Tucson	80.11	50	P	P	15 07 32.0	+1.7

TUC	Tucson	80.11	50	P	P	15 07 32.1	+1.7
	comp=Z,21nm,1.3s						
KDAK	Kodiak Island	80.16	11	IAMs_20	IAMs_20	15 36 26.6	
	comp=Z,4µm,22.0s						
O14K	Tigyukauivet M	80.31	7	IAMs_20	IAMs_20	15 45 41.3	
	comp=Z,3µm,19.0s						
O15K	Ungalikthiuk R	80.39	7	IAMs_20	IAMs_20	15 45 07.5	
	comp=Z,3µm,19.0s						
INCN	Inchon	80.45	316	P	P	15 07 33.7	+1.7
INCN	Inchon	80.45	316	P	P	15 07 31.3	-0.7
	comp=Z,60nm,1.2s						
VLA	Vladivostok	80.67	323	*i* P	P	15 07 33.6	+0.6
VLA				pmax	pmax		
	comp=Z,11nm,1.2s						
TYV	Tymovskoe	80.82	334	*e*P	P	15 07 33.3	-0.3
TYV				*e*S	S	15 17 39.3	-1.7
TYV				pmax	pmax		
	comp=Z,24nm,1.3s						
TYV				pmax	pmax		
	comp=Z,300nm,3.8s						
TYV				smax	smax		
	comp=N,300nm,6.3s						
TYV				smax	smax		
	comp=E,500nm,6.3s						
WVOR	Wild Horse Val	80.85	38	P	P	15 07 34.7	+0.5
WVOR	Wild Horse Val	80.85	38	IAMs_20	IAMs_20	15 44 02.0	
	comp=Z,3µm,18.0s						
WVOR	Wild Horse Val	80.85	38	P	P	15 07 34.7	+0.5
	comp=Z,28nm,1.1s						
P17K	Kvichak River	80.86	9	IAMs_20	IAMs_20	15 45 23.6	
	comp=Z,3µm,21.0s						
MDSI	Maura Dua	80.87	269	P	P	15 07 33.5	-1.3
	comp=Z,94nm,1.1s						
E03A	Lebam	80.88	33	IAmb	IAmb	15 07 55.1	
	comp=Z,39nm,1.2s						
PSTR	Posyet	80.99	322	*i* P	P	15 07 35.3	+0.6
O16K	Kokwok River B	81.02	8	IAmb	IAmb	15 07 39.4	
	comp=Z,45nm,1.1s						
O16K				IAMs_20	IAMs_20	15 45 18.8	
	comp=Z,3µm,19.0s						
Q19K	Cape Douglas,	81.05	10	IAMs_20	IAMs_20	15 46 28.4	
	comp=Z,5µm,20.0s						
M13K	Dall Lake	81.25	5	IAMs_20	IAMs_20	15 49 45.3	
	comp=Z,3µm,20.0s						
HPIG		81.27	57	P	P	15 07 37.7	+0.8
	comp=Z,14nm,1.6s						
U15A	North Rim	81.29	46	IAmb	IAmb	15 07 47.0	
	comp=Z,49nm,1.2s						
USA0B	Ussuriysk Arra	81.31	324*c*	*i*P	P	15 07 37.0	+0.6
USA0B	Ussuriysk Arra	81.31	324	IAmb	IAmb	15 08 01.1	
	comp=Z,45nm,1.4s						
USRK	Ussuriysk Ar.	81.31	324	P	P	15 07 36.6	+0.3
	comp=Z,12nm,1.1s,baz=114,slow=3.3,SNR=19						
	comp=Z,12nm,1.1s						
USRK	Ussuriysk Ar.	81.31	324	P	P	15 07 36.0	-0.3
NLWA	Neilton Lookou	81.31	32	IAMs_20	IAMs_20	15 50 02.6	
	comp=Z,4µm,19.0s						
N15K	Kwethluk River	81.33	7	IAMs_20	IAMs_20	15 36 08.3	
	comp=Z,3µm,21.0s						
STD	Studebaker Rid	81.36	33	IAmb	IAmb	15 07 52.7	
	comp=Z,62nm,1.2s						
O18K	Koktuh Hills	81.68	9	IAMs_20	IAMs_20	15 46 07.1	
	comp=Z,3µm,20.0s						
M14K	Bethel	81.71	6	IAMs_20	IAMs_20	15 44 59.4	
	comp=Z,4µm,19.0s						
ELK	Elko	81.85	41	P	P	15 07 40.0	+0.3
ELK	Elko	81.85	41	IAMs_20	IAMs_20	15 42 57.1	
	comp=Z,4µm,18.0s						
USHA	Ushuaia	81.86	146	LR	LR	15 39 07.1	
	comp=Z,671nm,18.1s,baz=36,slow=32						
ZAIG	Zacatecas	81.87	62	P	P	15 07 41.2	+0.9
	comp=Z,14nm,1.6s						
N17K	Nushagak Hills	82.04	8	IAMs_20	IAMs_20	15 45 24.9	
	comp=Z,3µm,21.0s						
CNPM	China Poot	82.04	11	IAmb	IAmb	15 07 42.4	
	comp=Z,50nm,1.2s						
HOM	Homer	82.09	11	IAMs_20	IAMs_20	15 46 40.7	
	comp=Z,4µm,21.0s						
O19K	Port Alsworth	82.14	10	IAMs_20	IAMs_20	15 45 39.3	
	comp=Z,3µm,18.0s						
HKPS	Hong Kong Po S	82.15	297	P	P	15 07 43.0	+1.7
HKPS	Hong Kong Po S	82.15	297	P	P	15 07 40.3	-1.0
	comp=Z,90nm,1.1s						
L14K	Kuka Creek	82.22	5	IAMs_20	IAMs_20	15 44 58.1	
	comp=Z,4µm,20.0s						
M16K	Timber Creek	82.30	7	IAMs_20	IAMs_20	15 36 10.8	
	comp=Z,3µm,21.0s						
BRLK	Bradley Lake	82.33	12	IAmb	IAmb	15 07 50.6	
	comp=Z,50nm,1.1s						
BRLK				IAMs_20	IAMs_20	15 46 44.6	
	comp=Z,4µm,22.0s						
JMBI	JAMBI	82.36	271	P	P	15 07 44.5	+1.9
N18K	Kilae Creek	82.37	9	IAMs_20	IAMs_20	15 45 32.4	
	comp=Z,4µm,20.0s						
TPRI	Tanjung Pinang	82.42	274	P	P	15 07 43.2	+0.2
	comp=Z,52nm,1.1s						
CBB	Campbell River	82.44	29	IAmb	IAmb	15 07 55.9	
	comp=Z,40nm,1.2s						
KSI	Kapahiang	82.64	269	P	P	15 07 43.5	-0.7
K13K	Kusilvak Mount	82.65	4	IAMs_20	IAMs_20	15 44 49.5	
	comp=Z,3µm,18.0s						
MAW	Mawson	82.67	199	P	P	15 07 45.0	+1.7
	comp=Z,5.9nm,1.3s						
MAW	Mawson	82.67	199	P	P	15 07 44.3	+1.1
	comp=Z,25nm,1.1s,baz=120,slow=6.3,SNR=29						
	comp=Z,25nm,1.1s						
MAW	Mawson	82.67	199	P	P	15 07 45.0	+1.7
	comp=Z,5.9nm,1.3s						
N19K	Bonanza Creek	82.70	9	IAmb	IAmb	15 07 44.2	
	comp=Z,85nm,1.6s						
N19K				IAMs_20	IAMs_20	15 36 24.3	
	comp=Z,4µm,21.0s						
H03S2	Juan Fernandez	82.72	123	T	T	16 40 15.3	
	baz=248,slow=75,SNR=132						
H03S1	Juan Fernandez	82.73	123	T	T	16 40 16.4	
	baz=248,slow=75,SNR=119						
H03S3	Juan Fernandez	82.73	123	T	T	16 40 11.4	
	baz=248,slow=75,SNR=119						
A04D	Lummi Island	82.79	31	IAmb	IAmb	15 07 47.2	
	comp=Z,45nm,1.1s						
BBB	Bella Bella	82.80	26	P	P	15 07 44.2	+0.3
	comp=Z,16nm,1.1s						
E07A	Sunnyside	82.80	34	IAmb	IAmb	15 07 47.3	
	comp=Z,38nm,1.1s						
DLV	Lat	82.84	286	P	P	15 07 46.4	+1.1
DLV	Lat	82.84	286	P	P	15 07 44.0	-1.4
	comp=Z,28nm,1.1s						
VA04	Juan Fernndez	82.86	123	IAMs_20	IAMs_20	15 41 53.8	
	comp=Z,4µm,18.0s						
HAWA	Hanford	82.87	35	IAmb	IAmb	15 07 47.7	
	comp=Z,41nm,1.2s						
MDJ	Mudanjiang	82.90	323	P	P	15 07 45.0	+0.3
MDJ				S	S	15 18 05.6	+2.9
MDJ				pmax	pmax		
	comp=Z,26nm,1.8s						
MDJ				pmax	pmax		
	comp=Z,810nm,5.2s						
MDJ	Mudanjiang	82.90	323	P	P	15 07 46.2	+1.5
MDJ	Mudanjiang	82.90	323	IAmb	IAmb	15 08 03.7	
	comp=Z,54nm,1.2s						
MDJ	Mudanjiang	82.90	323	P	P	15 07 45.5	+0.8
	comp=Z,41nm,1.4s						
L16K	Owhat River	82.91	7	IAMs_20	IAMs_20	15 45 14.0	
	comp=Z,3µm,19.0s						
SEW	Seward	82.92	12	IAMs_20	IAMs_20	15 46 53.6	
	comp=Z,5µm,20.0s						
MID	Middleton Isla	82.95	14	IAMs_20	IAMs_20	15 51 56.3	
	comp=Z,3µm,18.0s						
NJ2	Nanjing	82.97	308	*e*P	P	15 07 46.7	+1.3
NJ2				pmax	pmax		
	comp=Z,81nm,1.0s						
DUG	Dugway, Tooele	83.05	42	P	P	15 07 44.6	-1.2
DUG	Dugway, Tooele	83.05	42	IAMs_20	IAMs_20	15 51 55.6	
	comp=Z,4µm,19.0s						
DUG	Dugway, Tooele	83.05	42	P	P	15 07 44.5	-1.2
	comp=Z,11nm,1.2s						
WAH2	Wahluke Slope	83.08	34	IAmb	IAmb	15 07 48.7	
	comp=Z,62nm,1.4s						
MFID	Camas Ranch	83.08	39	IAmb	IAmb	15 07 49.5	
	comp=Z,36nm,1.4s						
MFID				IAMs_20	IAMs_20	15 51 19.9	
	comp=Z,3µm,22.0s						
BMO	Blue Mountains	83.11	37	P	P	15 07 46.6	+0.6
BMO	Blue Mountains	83.11	37	IAmb	IAmb	15 07 53.6	
	comp=Z,48nm,1.8s						
SLKM	Skilak Lake	83.14	12	IAMs_20	IAMs_20	15 46 50.7	
	comp=Z,5µm,22.0s						
HMU	Henry Mountain	83.15	45	IAmb	IAmb	15 08 05.2	
	comp=Z,56nm,1.4s						
E08A	Dider Farm, El	83.18	35	IAmb	IAmb	15 07 49.1	
	comp=Z,32nm,1.4s						
O22K	Cooper Landing	83.22	12	IAMs_20	IAMs_20	15 46 53.4	
	comp=Z,4µm,22.0s						
P23K	Montague Islan	83.24	13	IAMs_20	IAMs_20	15 47 20.9	
	comp=Z,3µm,20.0s						
GO07	Milladeo Hill,	83.28	133	IAMs_20	IAMs_20	15 45 44.0	
	comp=Z,4µm,18.0s						
BTDF	Bukit Timah Da	83.29	274	P	P	15 07 48.4	+0.9
BTDF	Bukit Timah Da	83.29	274	P	P	15 07 48.1	+0.6
	comp=Z,37nm,1.1s						
MYKOM	Kota Tinggi	83.37	274	P	P	15 07 49.1	+1.2
MYKOM	Kota Tinggi	83.37	274	P	P	15 07 48.7	+0.8
	comp=Z,2µmcomp=Z,815nmcomp=Z,43nm,1.2s						
MYKOM	Kota Tinggi	83.37	274	P	P	15 07 47.2	-0.7
	comp=Z,44nm,1.2s						
EPH	Ephrata	83.45	34	IAmb	IAmb	15 07 50.3	
	comp=Z,41nm,1.2s						
GRNR	Gornyy	83.47	331	⇑*i*P	P	15 07 47.9	+0.4
GRNR				pmax	pmax		
	comp=Z,10.0nm,1.2s						
LL07	Hotel Espejo d	83.52	133	IAMs_20	IAMs_20	15 45 57.2	
	comp=Z,3µm,18.0s						
D08A	Wollman Farm,	83.61	34	IAmb	IAmb	15 07 51.4	
	comp=Z,37nm,1.1s						
VHRN	Van Horn	83.63	54	IAmb	IAmb	15 07 55.6	
	comp=Z,58nm,1.7s						
E09A	Wood Farm, Sta	83.68	35	IAmb	IAmb	15 07 54.6	
	comp=Z,34nm,1.2s						
L18K	Granite Mounta	83.74	8	IAmb	IAmb	15 08 08.8	
	comp=Z,63nm,1.6s						
L18K				IAMs_20	IAMs_20	15 46 05.8	
	comp=Z,4µm,20.0s						
M19K	Big River Lodg	83.76	9	IAMs_20	IAMs_20	15 46 19.1	
	comp=Z,3µm,21.0s						
MNTX	Cornudas Mount	83.76	53	P	P	15 07 50.3	+0.8
	comp=Z,14nm,1.4s						
RC01	Rabbit Creek A	83.78	12	IAmb	IAmb	15 07 55.8	
	comp=Z,41nm,1.1s						
RC01				IAMs_20	IAMs_20	15 45 59.3	
	comp=Z,3µm,21.0s						
STLK	Strandline Lak	83.78	10	IAmb	IAmb	15 07 50.4	
	comp=Z,27nm,1.2s						
HIN	Hinchinbrook I	83.79	13	IAmb	IAmb	15 07 51.3	
	comp=Z,36nm,1.2s						
PAYG	Puerto Ayora	83.80	88	IAMs_20	IAMs_20	15 38 46.6	
	comp=Z,3µm,18.0s						
V35K	Ketchikan	83.81	23	IAmb	IAmb	15 08 06.8	
	comp=Z,35nm,1.3s						
PWL	Port Wells	83.83	12	IAmb	IAmb	15 08 02.0	
	comp=Z,40nm,1.2s						
KAIM	Kayak Island	83.84	14	IAmb	IAmb	15 07 52.2	
	comp=Z,28nm,1.0s						
F10A	Beach Ranch, E	83.85	36	IAmb	IAmb	15 08 11.8	
	comp=Z,44nm,1.0s						
U33K	Whale Pass	83.89	22	IAmb	IAmb	15 08 07.3	
	comp=Z,39nm,1.4s						
SPUT	South Promonto	83.90	42	IAmb	IAmb	15 08 09.6	
	comp=Z,52nm,1.6s						
M20K	Styx River	83.93	10	IAmb	IAmb	15 08 02.3	
	comp=Z,37nm,1.3s						
TX31	Lajitas Ar. Si	83.95	56	IAmb	IAmb	15 08 07.8	
	comp=Z,41nm,1.4s						
TXAR	Lajitas Array	83.95	56	P	P	15 07 51.6	+0.9
	comp=Z,7.9nm,1.2s,baz=212,slow=4.4,SNR=32						
	comp=Z,7.9nm,1.2s						
L19K	White Mountain	83.95	9	IAMs_20	IAMs_20	15 46 28.4	
	comp=Z,4µm,21.0s						
HVU	Hansel Valley	83.97	41	IAmb	IAmb	15 08 09.8	
	comp=Z,35nm,1.3s						
PLID	Pearl Lake	83.99	37	IAmb	IAmb	15 08 08.6	
	comp=Z,64nm,1.6s						
PLID				IAMs_20	IAMs_20	15 41 43.1	
	comp=Z,3µm,19.0s						
HLID	Hailey	84.00	39	IAmb	IAmb	15 07 54.0	
	comp=Z,35nm,1.2s						
HLID				IAMs_20	IAMs_20	15 51 30.2	
	comp=Z,4µm,19.0s						
HLID	Hailey	84.00	39	P	P	15 07 51.6	+1.0
	comp=Z,27nm,1.2s						
K17K	Iditarod	84.02	7	IAMs_20	IAMs_20	15 36 14.4	
	comp=Z,3µm,20.0s						
LL05	Los Muermos	84.05	132	IAMs_20	IAMs_20	15 43 09.4	
	comp=Z,4µm,18.0s						
EYAK	Cordova Ski Ar	84.09	14	P	P	15 07 51.3	+0.9
EYAK	Cordova Ski Ar	84.09	14	IAmb	IAmb	15 08 12.4	
	comp=Z,40nm,1.2s						
GLI	Glacier Island	84.10	13	IAmb	IAmb	15 07 52.7	
	comp=Z,43nm,1.0s						
GAMB	Gambell	84.18	1	IAMs_20	IAMs_20	15 44 22.6	
	comp=Z,4µm,19.0s						
RAGM	Ragged Mountai	84.19	14	IAmb	IAmb	15 07 57.5	
	comp=Z,40nm,1.4s						
RAGM				IAMs_20	IAMs_20	15 52 12.9	
	comp=Z,3µm,19.0s						
B08A	Colville Reser	84.23	33	IAmb	IAmb	15 08 08.1	
	comp=Z,48nm,1.2s						
MVCO	Mesa Verde	84.28	47	P	P	15 07 53.0	+0.8
	comp=Z,14nm,1.4s						
KNK	Knik Glacier	84.32	12	IAmb	IAmb	15 08 16.5	
	comp=Z,27nm,0.9s						
PMR	Palmer	84.35	12	P	P	15 07 52.6	+0.9
PMR	Palmer	84.35	12	IAmb	IAmb	15 07 54.1	
	comp=Z,45nm,1.4s						
S31K	Pelican	84.37	19	IAmb	IAmb	15 07 58.8	
	comp=Z,42nm,1.4s						
L20K	Farewell, AK	84.38	9	IAMs_20	IAMs_20	15 46 33.6	
	comp=Z,4µm,21.0s						
P18A	Preston Nutter	84.38	44	IAmb	IAmb	15 08 12.5	
	comp=Z,53nm,1.3s						
WRAK	Wrangell Islan	84.40	22	IAmb	IAmb	15 08 10.4	
	comp=Z,29nm,1.2s						
WRAK	Wrangell Islan	84.40	22	IAMs_20	IAMs_20	15 48 49.5	
	comp=Z,3µm,22.0s						
TPB28		84.41	53	IAmb	IAmb	15 08 01.2	
	comp=Z,44nm,1.8s						
C09A	Chrisman Ranch	84.42	34	IAmb	IAmb	15 08 11.5	
	comp=Z,33nm,1.2s						
QIZ	Qiongzhong	84.44	293	P	P	15 07 53.5	+0.3
QIZ				S	S	15 18 22.3	+3.0
QIZ				pmax	pmax		
	comp=Z,550nm,8.6s						
LLLB	Lillooet	84.46	30	IAmb	IAmb	15 08 15.2	
	comp=Z,25nm,1.2s						
ALPN	Alpine	84.46	55	IAmb	IAmb	15 08 09.9	
	comp=Z,37nm,1.4s						
LL02	Futaleuf	84.48	134	IAMs_20	IAMs_20	15 40 44.8	
	comp=Z,3µm,18.0s						
LL02	Futaleuf	84.48	134	P	P	15 07 54.4	+1.3
	comp=Z,15nm,1.2s						
DL2	Dalian	84.52	315	P	P	15 07 55.9	+2.8
DL2				pmax	pmax		
	comp=Z,46nm,1.1s						
DL2				L	L		
	comp=Z,700nm,21.5s						
DL2				L	L		
	comp=Z,1µm,21.1s						
PV13	Radium Mtn., P	84.55	46	IAmb	IAmb	15 08 12.3	
	comp=Z,36nm,1.1s						
ALQ	Albuquerque	84.56	50	IAmb	IAmb	15 07 57.3	
	comp=Z,35nm,1.2s						
ALQ				IAMs_20	IAMs_20	15 52 60.0	
	comp=Z,5µm,21.0s						
ALQ	Albuquerque	84.56	50	IAmb	IAmb	15 07 57.3	
	comp=Z,34nm,1.2s						
ALQ				IAMs_20	IAMs_20	15 52 60.0	
	comp=Z,5µm,21.0s						
TASM	ASL Pad, Albuq	84.56	50	IAmb	IAmb	15 07 57.3	
	comp=Z,37nm,1.3s						
TASM	ASL Pad, Albuq	84.56	50	IAmb	IAmb	15 07 57.3	
	comp=Z,36nm,1.3s						
TASM	ASL Pad, Albuq	84.56	50	IAMs_20	IAMs_20	15 52 60.0	
	comp=Z,5µm,21.0s						
TASM	ASL Pad, Albuq	84.56	50	IAMs_20	IAMs_20	15 52 60.0	
	comp=Z,5µm,21.0s						
TASM	ASL Pad, Albuq	84.56	50	IAMs_20	IAMs_20	15 52 59.9	
	comp=Z,5µm,21.0s						
TASM	ASL Pad, Albuq	84.56	50	IAMs_20	IAMs_20	15 52 59.9	
	comp=Z,5µm,21.0s						
ABQ	Albuquerque	84.56	50	IAMs_20	IAMs_20	15 53 00.0	
	comp=Z,5µm,21.0s						
ANMO	Albuquerque	84.56	50	P	P	15 07 55.2	+1.5
ANMO	Albuquerque	84.56	50	IAMs_20	IAMs_20	15 53 00.0	
	comp=Z,5µm,21.0s						
ANMO	Albuquerque	84.56	50	P	P	15 07 54.7	+1.0
	comp=Z,23nm,1.2s						
GHO	Glory Hole Cre	84.56	12	IAmb	IAmb	15 08 06.0	
	comp=Z,40nm,1.0s						
PV16	Nyswonger Mesa	84.56	46	IAmb	IAmb	15 08 13.2	
	comp=Z,57nm,1.3s						
PV03	Paradox Valley	84.58	46	IAmb	IAmb	15 08 13.2	
	comp=Z,55nm,1.4s						
J17K	VABM Dome	84.59	7	IAMs_20	IAMs_20	15 46 06.6	
	comp=Z,4µm,21.0s						
DIV	Divide	84.61	13	IAmb	IAmb	15 07 55.6	
	comp=Z,36nm,1.0s						
DIV				IAMs_20	IAMs_20	15 47 20.1	
	comp=Z,4µm,19.0s						
HWUT	Hardware Ranch	84.62	42	IAMs_20	IAMs_20	15 42 52.3	
	comp=Z,3µm,18.0s						
HWUT	Hardware Ranch	84.62	42	P	P	15 07 54.1	+0.2
	comp=Z,16nm,2.0s						
PV21	Cone Mtn., Par	84.66	46	IAmb	IAmb	15 08 13.0	
	comp=Z,56nm,1.3s						
LR04	Corral	84.67	131	IAMs_20	IAMs_20	15 43 00.6	
	comp=Z,3µm,19.0s						
KLR	Kul'dur	84.67	328	*e*P	P	15 07 52.7	-1.0
KLR				pmax	pmax		
	comp=Z,3.0nm,1.2s						
SDSI	Sungai Dareh	84.67	271	P	P	15 07 53.6	-1.0
	comp=Z,1µmcomp=Z,25nm,1.1s						
SML	Sawmill	84.70	12	IAmb	IAmb	15 08 10.5	
	comp=Z,24nm,1.1s						
PV01	Paradox Valley	84.71	46	IAmb	IAmb	15 08 13.0	
	comp=Z,37nm,1.3s						
BMRM	Bremner River	84.72	14	IAMs_20	IAMs_20	15 47 25.0	
	comp=Z,5µm,22.0s						
PV22	Blue Mesa, Par	84.77	46	IAmb	IAmb	15 08 13.4	
	comp=Z,35nm,1.3s						
PV07	Paradox Valley	84.81	46	IAmb	IAmb	15 08 13.5	
	comp=Z,38nm,1.3s						
CN2	Changchun	84.81	321	*e*P	P	15 07 56.0	+1.5
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
BNX	BinXian	84.81	323	⇑P	P	15 07 54.7	+0.2
BNX				pP	PcP	15 07 57.9	+0.1
BNX				sP	sP	15 07 59.3	-1.2
BNX				S	S	15 18 22.6	+0.7
BNX				sS	pS	15 18 27.5	0.0
BNX				pmax	pmax		
	comp=Z,32nm,1.0s						
BNX				pmax	pmax		
	comp=Z,720nm,6.8s						
CRQM	Cirque	84.87	15	IAMs_20	IAMs_20	15 46 34.1	
	comp=Z,4µm,20.0s						
PNL	Peninsula	84.88	17	P	P	15 07 55.2	+0.7
CUT	Chulitna	84.90	11	IAMs_20	IAMs_20	15 46 55.1	
	comp=Z,4µm,21.0s						
LL03	Petrohue	84.90	132	IAMs_20	IAMs_20	15 43 44.9	
	comp=Z,3µm,19.0s						
I17K	Unalakleet	84.91	6	IAMs_20	IAMs_20	15 52 28.0	
	comp=Z,3µm,22.0s						
J18K	Innoko River	84.94	8	IAMs_20	IAMs_20	15 46 18.5	
	comp=Z,5µm,20.0s						
TGL	Tana Glacier	84.95	15	IAmb	IAmb	15 08 00.9	
	comp=Z,40nm,1.1s						
TGL				IAMs_20	IAMs_20	15 46 34.8	
	comp=Z,4µm,20.0s						
TPB05	Hovey Rd	84.95	54	IAmb	IAmb	15 08 01.6	
	comp=Z,38nm,1.3s						
PCA	Pinnacle	85.02	16	IAmb	IAmb	15 07 58.1	
	comp=Z,45nm,1.3s						
MA2	Magadan	85.02	343	IAMs_20	IAMs_20	15 41 10.5	
	comp=Z,3µm,18.0s						
MA2	Magadan	85.02	343	P	P	15 07 54.8	-0.4
	comp=Z,54nm,1.6s						
PPLA	Purkeypile	85.04	10	IAMs_20	IAMs_20	15 46 41.9	
	comp=Z,4µm,22.0s						
R32K	Eaglecrest	85.16	20	IAMs_20	IAMs_20	15 48 30.7	
	comp=Z,4µm,19.0s						
GRNC	Granite Creek	85.19	15	IAmb	IAmb	15 08 02.2	
	comp=Z,49nm,1.2s						
K20K	Telida	85.19	9	IAMs_20	IAMs_20	15 36 26.0	
	comp=Z,3µm,20.0s						
JIS	Juneau Island	85.20	20	P	P	15 07 56.8	+0.7
ANM	Nome	85.22	4	IAMs_20	IAMs_20	15 53 06.5	
	comp=Z,4µm,20.0s						
VRDI	Verde Repeater	85.22	14	IAMs_20	IAMs_20	15 47 34.0	
	comp=Z,4µm,19.0s						
BESE	Bessie Mountai	85.30	19	IAmb	IAmb	15 07 59.9	
	comp=Z,27nm,1.2s						
BESE				IAMs_20	IAMs_20	15 48 54.5	
	comp=Z,3µm,18.0s						
P29M	Windy Craggy	85.31	18	IAmb	IAmb	15 07 60.0	
	comp=Z,24nm,1.1s						
P29M				IAMs_20	IAMs_20	15 48 11.0	
	comp=Z,3µm,20.0s						
NEW	Newport	85.32	34	P	P	15 07 57.3	+0.3
NEW	Newport	85.32	34	P	P	15 07 57.3	+0.3
	comp=Z,8.9nm,1.3s						
GLB	Gilahina Butte	85.32	14	IAmb	IAmb	15 07 59.4	
	comp=Z,62nm,1.5s						
RDMU	Red Mountain	85.33	44	IAmb	IAmb	15 08 15.8	
	comp=Z,40nm,1.5s						
LOGN	Logan Glacier	85.45	15	IAmb	IAmb	15 08 00.3	
	comp=Z,34nm,1.0s						
MCARA	McCarthy VSAT	85.45	14	IAmb	IAmb	15 08 04.9	
	comp=Z,28nm,1.0s						
MCARA				IAMs_20	IAMs_20	15 46 44.2	
	comp=Z,4µm,19.0s						
BARN	Barnard Glacie	85.49	15	IAmb	IAmb	15 08 11.2	
	comp=Z,48nm,1.1s						
AHID	Auburn Hatcher	85.55	41	IAmb	IAmb	15 08 19.6	
	comp=Z,38nm,1.3s						
AHID				IAMs_20	IAMs_20	15 52 51.9	
	comp=Z,3µm,18.0s						
AHID	Auburn Hatcher	85.55	41	P	P	15 07 59.5	+1.0
	comp=Z,23nm,1.2s						
CAST	Castle Rocks	85.55	10	IAMs_20	IAMs_20	15 36 30.3	
	comp=Z,3µm,22.0s						
J19K	Poorman	85.58	8	IAmb	IAmb	15 08 04.6	
	comp=Z,48nm,1.2s						
J19K				IAMs_20	IAMs_20	15 46 25.6	
	comp=Z,4µm,20.0s						
PDSI	Padang	85.59	271	P	P	15 07 57.8	-1.4
	comp=Z,40nm,1.1s						
O28M	Mount Upton	85.61	16	IAmb	IAmb	15 08 15.7	
	comp=Z,36nm,1.4s						
O28M				IAMs_20	IAMs_20	15 47 53.3	
	comp=Z,4µm,19.0s						
O29M	Mount Kennedy	85.64	17	IAmb	IAmb	15 08 16.2	
	comp=Z,52nm,1.4s						
O29M				IAMs_20	IAMs_20	15 48 04.9	
	comp=Z,4µm,18.0s						
WHN	Wuhan	85.66	305	⇓P	P	15 08 00.7	+1.6
WHN				sP	pwP	15 08 08.5	+0.5
WHN				pmax	pmax		
	comp=Z,80nm,0.9s						
S22A	4UR Ranch, Cre	85.69	47	IAmb	IAmb	15 08 18.5	
	comp=Z,53nm,1.4s						
CNSH	ChangSha	85.72	302	P	P	15 08 00.8	+1.4
CNSH				pmax	pmax		
	comp=Z,26nm,1.1s						
PPI	Padang Panjang	85.81	271	P	P	15 07 59.3	-0.9
	comp=Z,23nm,1.0s						
SKAG	Skagway	85.86	19	P	P	15 08 00.0	+0.6
HARP	HAARP	85.88	13	IAMs_20	IAMs_20	15 46 22.8	
	comp=Z,3µm,19.0s						
J20K	Nowinta River	85.96	9	IAMs_20	IAMs_20	15 46 34.4	
	comp=Z,4µm,22.0s						
O20A	White River Ci	85.96	44	IAMs_20	IAMs_20	15 52 24.6	
	comp=Z,5µm,21.0s						
S34M	Telegraph Cree	85.98	21	IAmb	IAmb	15 08 07.5	
	comp=Z,47nm,1.5s						
S34M				IAMs_20	IAMs_20	15 48 54.4	
	comp=Z,3µm,20.0s						
H17K	Granite Mounta	86.01	6	IAMs_20	IAMs_20	15 36 13.2	
	comp=Z,3µm,22.0s						
BI05	Punta Hualpn	86.04	128	IAMs_20	IAMs_20	15 43 50.9	
	comp=Z,4µm,18.0s						
DHY	Denali Highway	86.05	12	IAMs_20	IAMs_20	15 47 09.3	
	comp=Z,4µm,19.0s						
FXWY	Fox Creek	86.07	40	IAMs_20	IAMs_20	15 51 40.8	
	comp=Z,4µm,18.0s						
RND	Reindeer	86.08	11	IAMs_20	IAMs_20	15 46 59.2	
	comp=Z,4µm,19.0s						
TNA	Tin City	86.08	2	IAmb	IAmb	15 08 06.8	
	comp=Z,49nm,1.1s						
TNA				IAMs_20	IAMs_20	15 35 56.5	
	comp=Z,3µm,19.0s						
ODSA	Odessa	86.09	54	IAmb	IAmb	15 08 04.7	
	comp=Z,39nm,1.2s						
DLMT	Dillon	86.10	38	IAmb	IAmb	15 08 18.8	
	comp=Z,40nm,1.2s						

DLMT				IAMs_20	IAMs_20	15 52 43.8	
	comp=Z,2µm,18.0s						
SNOW	**Snow King Moun**	**86.14**	**41**	IAmb	IAmb	15 08 20.0	
	comp=Z,46nm,1.6s						
SNOW				IAMs_20	IAMs_20	15 52 31.6	
	comp=Z,3µm,18.0s						
GO06	**Curarrehue**	**86.17**	**131**	IAMs_20	IAMs_20	15 40 27.4	
	comp=Z,3µm,20.0s						
GO06	**Curarrehue**	**86.17**	**131**	P	**P**	**15 08 04.0**	**+2.2**
	comp=Z,14nm,1.3s						
MSO	**Missoula**	**86.18**	**37**	IAMs_20	IAMs_20	15 51 20.0	
	comp=Z,4µm,21.0s						
TIA	**Tai'an**	**86.25**	**311**	P	**P**	**15 08 02.8**	**+0.9**
TIA				pmax	pmax		
	comp=Z,22nm,1.0s						
PLCA	**Paso Flores**	**86.35**	**132**	P	**P**	**15 08 03.6**	**+1.0**
	comp=Z,4.4nm,1.1s,baz=235,slow=5.8,SNR=8.8						
	comp=Z,4.4nm,1.1s						
PLCA	**Paso Flores**	**86.35**	**132**	*e*P	P	15 08 09.1	+6.5
PLCA	**Paso Flores**	**86.35**	**132**	P	**P**	**15 08 06.1**	**+3.5**
	comp=Z,15nm,1.4s						
M26K	**Nabesna, AK**	**86.35**	**14**	IAMs_20	IAMs_20	15 46 34.1	
	comp=Z,4µm,20.0s						
MCK	**McKinley**	**86.36**	**11**	IAMs_20	IAMs_20	15 52 40.8	
	comp=Z,3µm,19.0s						
HYT	**Haines Junctio**	**86.37**	**17**	IAmb	IAmb	15 08 16.0	
	comp=Z,43nm,1.4s						
H18K	**Honhosa River**	**86.38**	**7**	IAMs_20	IAMs_20	15 46 00.8	
	comp=Z,3µm,20.0s						
LDM	**Libby Dam**	**86.39**	**35**	IAmb	IAmb	15 08 24.2	
	comp=Z,70nm,1.5s						
F15K	**North Star Dit**	**86.40**	**4**	IAmb	IAmb	15 08 04.2	
	comp=Z,37nm,1.3s						
F15K				IAMs_20	IAMs_20	15 45 00.6	
	comp=Z,3µm,19.0s						
Q32M	**Nakina River**	**86.42**	**20**	IAmb	IAmb	15 08 16.4	
	comp=Z,79nm,1.9s						
P32M	**Atlin**	**86.46**	**19**	IAmb	IAmb	15 08 06.4	
	comp=Z,31nm,1.4s						
BW06	**Boulder Array**	**86.50**	**42**	IAMs_20	IAMs_20	15 52 04.1	
	comp=Z,4µm,20.0s						
PDAR	**Pinedale Array**	**86.50**	**42**	P	**P**	**15 08 02.7**	**-0.5**
	comp=Z,3.3nm,0.9s,baz=204,slow=3.3,SNR=15						
	comp=Z,3.3nm,0.9s						
PDAR	**Pinedale Array**	**86.50**	**42**	P	**P**	**15 08 01.1**	**-2.1**
I20K	**Naaghedeneel**	**86.50**	**8**	IAMs_20	IAMs_20	15 46 32.8	
	comp=Z,4µm,20.0s						
M27K	**Edge Creek, AK**	**86.57**	**14**	IAMs_20	IAMs_20	15 46 38.8	
	comp=Z,4µm,20.0s						
YHL	**Hebgen Lake**	**86.64**	**39**	IAmb	IAmb	15 08 26.8	
	comp=Z,45nm,1.4s						
MENT	**Mentasta**	**86.67**	**13**	P	**P**	**15 08 03.9**	**+0.6**
MENT	**Mentasta**	**86.67**	**13**	IAmb	IAmb	15 08 20.0	
	comp=Z,36nm,1.1s						
BWN	**Browne**	**86.68**	**10**	IAMs_20	IAMs_20	15 36 35.9	
	comp=Z,3µm,20.0s						
MSTX	**Muleshoe**	**86.77**	**52**	IAmb	IAmb	15 08 34.7	
	comp=Z,34nm,1.1s						
BOZ	**Bozeman (W)**	**86.80**	**38**	P	**P**	**15 08 05.4**	**+0.9**
BOZ	**Bozeman (W)**	**86.80**	**38**	IAmb	IAmb	15 08 26.6	
	comp=Z,48nm,1.6s						
BOZ				IAMs_20	IAMs_20	15 52 49.2	
	comp=Z,3µm,18.0s						
L26K	**Log Cabin Wild**	**86.83**	**13**	IAmb	IAmb	15 08 20.8	
	comp=Z,37nm,1.2s						
ELIB	**Princess Elisa**	**86.87**	**185**	*d*P	**P**	**15 08 05.3**	**+0.8**
	comp=Z,24nm,1.1s						
LKWY	**Lake**	**86.95**	**40**	IAMs_20	IAMs_20	15 48 58.3	
	comp=Z,3µm,18.0s						
WHY	**Whitehorse**	**86.97**	**18**	IAmb	IAmb	15 08 25.1	
	comp=Z,59nm,1.4s						
N30M	**Aishikik Lake**	**87.01**	**17**	IAMs_20	IAMs_20	15 47 11.1	
	comp=Z,4µm,19.0s						
K24K	**Donnelly Dome**	**87.02**	**12**	IAMs_20	IAMs_20	15 47 17.9	
	comp=Z,3µm,21.0s						
G18K	**Tagagawik**	**87.07**	**6**	IAMs_20	IAMs_20	15 46 15.2	
	comp=Z,4µm,22.0s						
SGCY	**Sterling City**	**87.07**	**54**	IAmb	IAmb	15 08 14.2	
	comp=Z,37nm,1.4s						
NEA2	**Nenana**	**87.13**	**10**	IAmb	IAmb	15 08 08.9	
	comp=Z,41nm,1.4s						
NEA2				IAMs_20	IAMs_20	15 47 02.2	
	comp=Z,4µm,20.0s						
RIDG	**Independent Ri**	**87.14**	**12**	IAmb	IAmb	15 08 11.7	
	comp=Z,37nm,1.1s						
RIDG				IAMs_20	IAMs_20	15 46 35.2	
	comp=Z,4µm,20.0s						
R33M	**Jennings River**	**87.18**	**20**	IAmb	IAmb	15 08 09.5	
	comp=Z,35nm,1.3s						
R33M				IAMs_20	IAMs_20	15 47 36.2	
	comp=Z,3µm,18.0s						
L27K	**Beaver Creek,**	**87.19**	**14**	IAmb	IAmb	15 08 08.9	
	comp=Z,34nm,1.4s						
BCAR	**Beaver Creek A**	**87.21**	**14**	P	**P**	**15 08 05.5**	**-0.5**
I21K	**Tanana**	**87.22**	**9**	IAmb	IAmb	15 08 28.2	
	comp=Z,30nm,1.0s						
I21K				IAMs_20	IAMs_20	15 45 53.6	
	comp=Z,3µm,18.0s						
MLY	**Manley**	**87.27**	**10**	IAmb	IAmb	15 08 22.5	
	comp=Z,49nm,1.3s						
MLY				IAMs_20	IAMs_20	15 46 52.8	
	comp=Z,4µm,22.0s						
HDA	**Harding Lake**	**87.34**	**11**	IAmb	IAmb	15 08 28.6	
	comp=Z,42nm,1.2s						
SYO	**Syowa Base**	**87.36**	**191**	⇑*e*P	**P**	**15 08 07.0**	**+0.2**
N31M	**Braeburn, Yuko**	**87.39**	**17**	IAmb	IAmb	15 08 10.7	
	comp=Z,56nm,1.4s						
N31M				IAMs_20	IAMs_20	15 48 20.1	
	comp=Z,3µm,21.0s						
SEY	**Seymchan**	**87.46**	**345**	*ce*P	**P**	**15 08 07.1**	**0.0**
SEY				pmax	pmax		
	comp=Z,57nm,1.3s						
HNDO	**Hondo**	**87.47**	**57**	IAmb	IAmb	15 08 28.3	
	comp=Z,39nm,1.2s						
JCT	**Junction City**	**87.47**	**56**	IAmb	IAmb	15 08 27.7	
	comp=Z,28nm,1.4s						
M29M	**Somme Creek**	**87.47**	**16**	IAmb	IAmb	15 08 10.4	
	comp=Z,27nm,1.1s						
G19K	**Purcell Mounta**	**87.48**	**7**	IAMs_20	IAMs_20	15 36 20.8	
	comp=Z,3µm,21.0s						
BI02	**San Fabin de**	**87.48**	**128**	P	**P**	**15 08 07.6**	**-0.6**
	comp=Z,15nm,1.2s						
HEH	**HeiHe**	**87.51**	**327**	*e*P	**P**	**15 08 07.8**	**+0.1**
HEH				pmax	pmax		
	comp=Z,22nm,1.3s						
TROLL	**Troll, Antarti**	**87.53**	**179**	P	**P**	**15 08 08.2**	**+0.4**
	comp=Z,1µm,1.2s						
SCRK	**Sand Creek**	**87.53**	**13**	IAmb	IAmb	15 08 21.2	
	comp=Z,28nm,1.3s						
SCRK				IAMs_20	IAMs_20	15 46 37.4	
	comp=Z,3µm,19.0s						
H21K	**Melozitna Rive**	**87.55**	**9**	IAMs_20	IAMs_20	15 46 43.5	
	comp=Z,4µm,22.0s						
KULM	**Kulim**	**87.59**	**277**	P	**P**	**15 08 10.1**	**+1.2**
KULM	**Kulim**	**87.59**	**277**	P	**P**	**15 08 09.1**	**+0.2**
	comp=Z,731nmcomp=Z,42nm,1.1s						
KULM	**Kulim**	**87.59**	**277**	P	**P**	**15 08 09.9**	**+0.9**
	comp=Z,42nm,1.1s						
I23K	**Minto, Yukon-K**	**87.60**	**10**	IAmb	IAmb	15 08 21.4	
	comp=Z,43nm,1.4s						
COLA	**College**	**87.60**	**11**	P	**P**	**15 08 07.4**	**-0.3**
COLA	**College**	**87.60**	**11**	P	**P**	**15 08 07.1**	**-0.6**
COLA				pmax	pmax		
	comp=Z,58nm,1.0s						
COLA	**College**	**87.60**	**11**	P	**P**	**15 08 07.1**	**-0.6**
COLA	**College**	**87.60**	**11**	P	**P**	**15 08 07.6**	**-0.1**
	comp=Z,56nm,1.2s						
VNA3	**Neumayer Olymp**	**87.68**	**175**	⇑P	**P**	**15 08 08.9**	**+0.5**
	comp=Z,14nm,0.8s						
VNA3	**Neumayer Olymp**	**87.68**	**175**	P	**P**	**15 08 09.2**	**+0.8**
	comp=Z,29nm,1.0s						
ILAR	**Eielson Array**	**87.68**	**11**	P	**P**	**15 08 07.7**	**-0.5**
	comp=Z,11nm,0.9s,baz=218,slow=4.4,SNR=55						
ILAR				PP	**PP**	**15 11 35.0**	**+1.0**
	comp=Z,1.2nm,1.0s,baz=213,slow=8.7,SNR=2.8						
	comp=Z,11nm,0.9s						
SNAA	**Sanae**	**87.70**	**177**	⇑P	**P**	**15 08 09.0**	**+0.4**
	comp=Z,379nm,1.0s						
SNAA	**Sanae**	**87.70**	**177**	P	**P**	**15 08 08.9**	**+0.4**
	comp=Z,16nm,1.2s,baz=215,slow=3.5,SNR=10						
	comp=Z,16nm,1.2s						
SNAA	**Sanae**	**87.70**	**177**	*e*P	**P**	**15 08 09.2**	**+0.7**
SNAA				pmax	pmax		
	comp=Z,27nm,1.2s						
SNAA	**Sanae**	**87.70**	**177**	P	**P**	**15 08 08.6**	**+0.1**
SNAA				IAmb	IAmb	15 08 22.4	
	comp=Z,28nm,1.1s						
SNAA	**Sanae**	**87.70**	**177**	P	**P**	**15 08 09.6**	**+1.1**
	comp=Z,29nm,1.2s						
IMAR	**Indian Mountai**	**87.73**	**8**	P	**P**	**15 08 08.3**	**0.0**
J25K	**Salcha River,**	**87.82**	**12**	IAmb	IAmb	15 08 11.7	
	comp=Z,29nm,1.1s						
N32M	**Quiet Lake**	**87.89**	**19**	IAmb	IAmb	15 08 12.7	
	comp=Z,41nm,1.4s						
H22K	**Ishtalitna Cre**	**87.98**	**9**	IAMs_20	IAMs_20	15 35 53.7	
	comp=Z,3µm,19.0s						
AMTX	**Amarillo**	**87.99**	**52**	IAMs_20	IAMs_20	15 44 19.6	
	comp=Z,4µm,18.0s						
F19K	**Shaleruckik Mo**	**88.07**	**6**	IAMs_20	IAMs_20	15 36 18.6	
	comp=Z,3µm,22.0s						
L29M	**L29M**	**88.12**	**15**	IAMs_20	IAMs_20	15 53 27.5	
	comp=Z,3µm,20.0s						
VNA2	**Neumayer--Watz**	**88.17**	**176**	⇑P	**P**	**15 08 10.8**	**+0.1**
	comp=Z,13nm,0.9s,baz=180,slow=3.8						
VNA2	**Neumayer--Watz**	**88.17**	**176**	P	**P**	**15 08 11.9**	**+1.2**
	comp=Z,33nm,1.1s						
H23K	**Yukon River**	**88.19**	**10**	IAMs_20	IAMs_20	15 47 02.4	
	comp=Z,4µm,20.0s						
G21K	**Allakaket**	**88.27**	**8**	IAMs_20	IAMs_20	15 46 40.5	
	comp=Z,4µm,22.0s						
RPSI	**Rantau Prapat**	**88.29**	**274**	P	**P**	**15 08 12.1**	**-0.2**
	comp=Z,47nm,1.1s						
PSI	**Prapat**	**88.32**	**274**	P	**P**	**15 08 13.2**	**+0.6**
PSI	**Prapat**	**88.32**	**274**	P	**P**	**15 08 12.7**	**+0.1**
PSI	**Prapat**	**88.32**	**274**	P	**P**	**15 08 11.9**	**-0.7**
	comp=Z,47nm,1.1s						
K22A	**Casper**	**88.35**	**43**	IAmb	IAmb	15 08 30.6	
	comp=Z,29nm,1.5s						
K22A				IAMs_20	IAMs_20	15 52 23.0	
	comp=Z,4µm,21.0s						
M31M	**Drury Creek, Y**	**88.36**	**17**	IAmb	IAmb	15 08 24.7	
	comp=Z,30nm,1.4s						
VNA1	**Neumayer--Stat**	**88.37**	**175**	P	**P**	**15 08 12.5**	**+1.0**
	comp=Z,36nm,1.2s						
APMT	**Aspermont**	**88.45**	**54**	IAmb	IAmb	15 08 32.7	
	comp=Z,58nm,1.7s						
H24K	**Noodor Dome**	**88.48**	**10**	IAMs_20	IAMs_20	15 47 08.8	
	comp=Z,4µm,21.0s						
F20K	**Avaraart Lake**	**88.50**	**7**	IAmb	IAmb	15 08 25.7	
	comp=Z,34nm,1.3s						
F20K				IAMs_20	IAMs_20	15 36 24.9	
	comp=Z,3µm,20.0s						
ABTX	**Abilene, Hawle**	**88.51**	**54**	IAmb	IAmb	15 08 55.9	
	comp=Z,22nm,1.0s						
ABTX				IAMs_20	IAMs_20	15 44 36.4	
	comp=Z,3µm,18.0s						
HNS	**HongShan**	**88.52**	**311**	⇓P	**P**	**15 08 15.3**	**+2.5**
HNS				pmax	pmax		
	comp=Z,28nm,1.1s						
BO02	**Sierra Bellavi**	**88.61**	**127**	IAMs_20	IAMs_20	15 44 00.0	
	comp=Z,4µm,18.0s						
NVL	**N'lazarevskaya**	**88.72**	**182**	*e*P	**P**	**15 08 15.4**	**+2.2**
NVL				pmax	pmax		
	comp=Z,8.0nm,0.9s						
NVL				MLR	MLR		
	comp=Z,1µm,16.0s						
BJI2	**Beijing**	**88.73**	**314**	P	**P**	**15 08 14.7**	**+1.0**
BJI2				pP	**sP**	**15 08 19.5**	**-0.3**
BJI2				PP	**PP**	**15 11 47.2**	**+4.2**
BJI2				SKS	**SKSac**	**15 18 40.2**	**-2.2**
BJI2				pmax	pmax		
	comp=Z,350nm,9.6s						
BJT	**Baijiatuau**	**88.73**	**314**	P	**P**	**15 08 15.2**	**+1.5**
BJT	**Baijiatuau**	**88.73**	**314**	P	**P**	**15 08 14.9**	**+1.2**
BJT	**Baijiatuau**	**88.73**	**314**	P	**P**	**15 08 14.9**	**+1.2**
	comp=Z,16nm,1.6s						
E19K	**Redstone River**	**88.73**	**6**	IAMs_20	IAMs_20	15 36 22.1	
	comp=Z,3µm,22.0s						
RDOG	**Red Dog Mine**	**88.83**	**4**	IAMs_20	IAMs_20	15 54 31.0	
	comp=Z,3µm,22.0s						
LYN	**LuoYang**	**88.86**	**308**	P	**P**	**15 08 17.5**	**+3.0**
LYN				pP	pwP	15 08 22.2	-1.3
LYN				sS	sS	15 19 11.4	+2.4
LYN				pmax	pmax		
	comp=Z,70nm,1.1s						
MT09	**Talagante**	**88.87**	**126**	IAMs_20	IAMs_20	15 44 01.9	
	comp=Z,3µm,18.0s						
I26K	**Coal Creek Min**	**88.88**	**12**	IAMs_20	IAMs_20	15 46 39.0	
	comp=Z,4µm,19.0s						
K29M	**Barlow Dome**	**88.88**	**15**	IAMs_20	IAMs_20	15 48 03.8	
	comp=Z,4µm,20.0s						
C16K	**Lisburne Hills**	**88.91**	**3**	IAMs_20	IAMs_20	15 45 04.1	
	comp=Z,4µm,19.0s						
F21K	**Alatna River**	**88.94**	**8**	IAmb	IAmb	15 08 44.3	
	comp=Z,36nm,1.6s						
F21K				IAMs_20	IAMs_20	15 46 53.4	
	comp=Z,3µm,19.0s						
G23K	**Bananza Creek**	**88.94**	**9**	IAmb	IAmb	15 08 28.7	
	comp=Z,60nm,1.6s						
G23K				IAMs_20	IAMs_20	15 36 36.2	
	comp=Z,3µm,21.0s						
MT02	**Curacav**	**88.97**	**125**	IAMs_20	IAMs_20	15 44 03.4	
	comp=Z,3µm,19.0s						
GSI	**Gunungsitoli**	**89.06**	**272**	P	**P**	**15 08 16.9**	**+1.0**
GSI	**Gunungsitoli**	**89.06**	**272**	P	**P**	**15 08 16.7**	**+0.8**
GSI	**Gunungsitoli**	**89.06**	**272**	P	**P**	**15 08 14.7**	**-1.2**
	comp=Z,119nm,1.1s						
BO04	**La Punta**	**89.07**	**126**	IAMs_20	IAMs_20	15 43 23.2	
	comp=Z,3µm,19.0s						
ORCD	**Orcadas**	**89.14**	**158**	P	**P**	**15 08 14.8**	**-0.6**
KSCO	**Kaye Shedlock'**	**89.19**	**48**	IAMs_20	IAMs_20	15 53 13.9	
	comp=Z,4µm,21.0s						
EGMT	**Eagleton**	**89.20**	**37**	IAMs_20	IAMs_20	15 45 15.0	
	comp=Z,3µm,18.0s						
MT05	**Renca**	**89.22**	**125**	IAMs_20	IAMs_20	15 43 39.1	
	comp=Z,3µm,22.0s						
ENH	**Enshi**	**89.33**	**303**	P	**P**	**15 08 17.8**	**+1.0**
ENH	**Enshi**	**89.33**	**303**	P	**P**	**15 08 17.8**	**+1.0**
	comp=Z,57nm,1.3s						
G24K	**Hadweenzic Riv**	**89.34**	**10**	IAMs_20	IAMs_20	15 36 41.5	
	comp=Z,3µm,21.0s						
PEL	**Peldehue**	**89.36**	**125**	IAMs_20	IAMs_20	15 43 34.0	
	comp=Z,4µm,20.0s						
MT16	**CCHEN**	**89.37**	**126**	IAMs_20	IAMs_20	15 43 35.0	
	comp=Z,4µm,21.0s						
COLD	**Coldfoot**	**89.40**	**9**	IAmb	IAmb	15 08 30.3	
	comp=Z,27nm,1.3s						
COLD				IAMs_20	IAMs_20	15 36 36.2	
	comp=Z,3µm,22.0s						
MT13	**San Alfonso**	**89.42**	**126**	IAMs_20	IAMs_20	15 44 04.3	
	comp=Z,3µm,19.0s						
I27K	**Kandik River**	**89.45**	**13**	IAmb	IAmb	15 08 30.2	
	comp=Z,57nm,1.6s						
C18K	**Utukok River**	**89.54**	**5**	IAmb	IAmb	15 08 23.0	
	comp=Z,46nm,1.4s						
MMPY	**Sheldon Lake,**	**89.58**	**18**	IAmb	IAmb	15 08 20.9	
	comp=Z,38nm,1.3s						
CO04	**Los Peladeros**	**89.59**	**124**	IAMs_20	IAMs_20	15 45 50.8	
	comp=Z,3µm,18.0s						
FYU	**Fort Yukon**	**89.60**	**11**	IAmb	IAmb	15 08 59.6	
	comp=Z,37nm,1.4s						
VA03	**San Esteban**	**89.62**	**125**	IAMs_20	IAMs_20	15 44 03.7	
	comp=Z,3µm,18.0s						
CO06	**Fray Jorge**	**89.62**	**123**	IAMs_20	IAMs_20	15 43 38.9	
	comp=Z,4µm,20.0s						
BILI	**Bilibino, Chuk**	**89.64**	**353**	P	**P**	**15 08 16.1**	**-1.2**
	comp=Z,17nm,0.9s						
BILL	**Bilibino**	**89.64**	**353**	*ce*P	**P**	**15 08 17.4**	**0.0**
BILL				pmax	pmax		
	comp=Z,28nm,1.5s						
BILL	**Bilibino**	**89.64**	**353**	P	**P**	**15 08 17.3**	**0.0**
BILL				IAMs_20	IAMs_20	15 44 51.2	
	comp=Z,3µm,18.0s						
I28M	**Miner Creek**	**89.68**	**14**	IAmb	IAmb	15 08 33.3	
	comp=Z,34nm,1.4s						
I28M				IAMs_20	IAMs_20	15 46 46.0	
	comp=Z,4µm,19.0s						
ZEA	**Zeya**	**89.68**	**329**	*e*P	**P**	**15 08 18.6**	**+0.8**
ZEA				pmax	pmax		
	comp=N,10.0nm,1.0s						
ZEA				pmax	pmax		
	comp=Z,30nm,1.3s						
ZEA				pmax	pmax		
	comp=E,200nm,8.2s						
ZEA				pmax	pmax		
	comp=Z,200nm,6.6s						
J30M	**Hart River**	**89.78**	**15**	IAmb	IAmb	15 08 21.5	
	comp=Z,32nm,1.3s						
J30M				IAMs_20	IAMs_20	15 48 42.6	
	comp=Z,3µm,19.0s						
I29M	**Ogilvie Camp,**	**89.97**	**14**	IAmb	IAmb	15 08 32.5	
	comp=Z,43nm,1.3s						
I29M				IAMs_20	IAMs_20	15 47 55.6	
	comp=Z,3µm,20.0s						
D20K	**Etivluk River**	**90.01**	**6**	IAMs_20	IAMs_20	15 46 31.9	
	comp=Z,4µm,21.0s						
H27K	**Steamboat Moun**	**90.02**	**13**	IAmb	IAmb	15 08 23.3	
	comp=Z,46nm,1.4s						
H27K				IAMs_20	IAMs_20	15 47 41.1	
	comp=Z,4µm,20.0s						
F24K	**Squaw Lake**	**90.02**	**10**	IAmb	IAmb	15 08 34.2	
	comp=Z,82nm,1.9s						
F24K				IAMs_20	IAMs_20	15 47 19.5	
	comp=Z,3µm,20.0s						
E22K	**Anaktuvuk Pass**	**90.02**	**8**	IAMs_20	IAMs_20	15 47 01.8	
	comp=Z,4µm,20.0s						
E21K	**Killik River**	**90.04**	**7**	IAmb	IAmb	15 08 32.6	
	comp=Z,35nm,1.2s						
E21K				IAMs_20	IAMs_20	15 45 48.5	
	comp=Z,3µm,19.0s						
WMOK	**Wichita Mounta**	**90.07**	**53**	P	**P**	**15 08 19.5**	**-0.7**
WMOK	**Wichita Mounta**	**90.07**	**53**	P	**P**	**15 08 19.5**	**-0.7**
	comp=Z,4.0nm,1.6s						
GYA	**Guiyang**	**90.08**	**298**	P	**P**	**15 08 22.0**	**+1.4**
GYA				PP	**PP**	**15 12 00.3**	**+6.1**
GYA				SKS	**SKSac**	**15 18 53.1**	**+1.8**
GYA				S	**S**	**15 19 11.9**	**-1.7**
GYA				pmax	pmax		
	comp=Z,15nm,1.4s						
TPTI		**90.11**	**273**	P	**P**	**15 08 20.3**	**-0.5**
	comp=Z,956nmcomp=Z,45nm,1.4s						
G26K	**Porcupine Rive**	**90.21**	**11**	IAMs_20	IAMs_20	15 46 39.4	
	comp=Z,4µm,22.0s						
E23K	**Chandalar**	**90.25**	**9**	IAMs_20	IAMs_20	15 47 00.9	
	comp=Z,4µm,21.0s						
I30M	**Mount Dempster**	**90.30**	**15**	IAMs_20	IAMs_20	15 48 05.4	
	comp=Z,3µm,22.0s						
HKT	**Hockley**	**90.37**	**58**	P	**P**	**15 08 21.5**	**0.0**
HKT	**Hockley**	**90.37**	**58**	P	**P**	**15 08 21.5**	**0.0**
	comp=Z,12nm,1.6s						
E24K	**Your Creek**	**90.44**	**9**	IAmb	IAmb	15 08 37.9	
	comp=Z,46nm,1.9s						
E24K				IAMs_20	IAMs_20	15 47 17.6	
	comp=Z,4µm,22.0s						
F25K	**Christian Rive**	**90.45**	**10**	IAmb	IAmb	15 08 53.8	
	comp=Z,26nm,1.4s						
SLVN	**Son La**	**90.47**	**293**	P	**P**	**15 08 23.9**	**+1.5**
SLVN	**Son La**	**90.47**	**293**	IAmb	IAmb	15 08 37.3	
	comp=Z,25nm,1.2s						
SLVN	**Son La**	**90.47**	**293**	P	**P**	**15 08 22.6**	**+0.2**
	comp=Z,19nm,1.3s						
OGNE	**Ogallala**	**90.48**	**46**	IAMs_20	IAMs_20	15 53 07.2	
	comp=Z,4µm,22.0s						
GO04	**Tololo Observa**	**90.49**	**122**	IAMs_20	IAMs_20	15 45 56.7	
	comp=Z,3µm,18.0s						
GO04	**Tololo Observa**	**90.49**	**122**	P	**P**	**15 08 25.2**	**+2.6**
	comp=Z,48nm,1.3s						
BMAR	**Burnt Mountain**	**90.49**	**11**	P	**P**	**15 08 21.4**	**0.0**
G27K	**Doyon Strip**	**90.49**	**12**	IAMs_20	IAMs_20	15 47 38.8	
	comp=Z,4µm,22.0s						
D22K	**Ayikyak River**	**90.61**	**8**	IAmb	IAmb	15 08 28.5	
	comp=Z,28nm,1.0s						
XLT	**XiLinHaoTe**	**90.63**	**317**	*e*P	**P**	**15 08 23.3**	**+0.6**
XLT				pP	sP	15 08 27.7	-1.0
XLT				sP	pwP	15 08 30.6	-1.0
XLT				S	**S**	**15 19 24.2**	**+6.3**
XLT				pmax	pmax		
	comp=Z,10.0nm,1.1s						
RSSD	**Black Hills**	**90.66**	**43**	P	**P**	**15 08 21.3**	**-1.6**
RSSD				pmax	pmax		
	comp=Z,28nm,1.4s						
RSSD				MLR	MLR		
	comp=Z,5µm,19.0s						
RSSD	**Black Hills**	**90.66**	**43**	P	**P**	**15 08 21.3**	**-1.6**
RSSD				IAmb	IAmb	15 08 41.3	
	comp=Z,28nm,1.4s						
RSSD	**Black Hills**	**90.66**	**43**	P	**P**	**15 08 23.2**	**+0.3**
	comp=Z,15nm,1.2s						
F26K	**Sheenjek River**	**90.81**	**11**	IAmb	IAmb	15 08 31.3	
	comp=Z,23nm,1.1s						
F26K				IAMs_20	IAMs_20	15 46 37.2	
	comp=Z,4µm,20.0s						
OK038	**West end E0370**	**90.83**	**51**	IAMs_20	IAMs_20	15 45 19.1	
	comp=Z,3µm,19.0s						
E25K	**Arctic Village**	**90.94**	**10**	IAmb	IAmb	15 08 46.7	
	comp=Z,22nm,1.1s						
E25K				IAMs_20	IAMs_20	15 46 29.9	
	comp=Z,4µm,19.0s						
D23K	**Nanushuk River**	**90.95**	**8**	IAmb	IAmb	15 08 42.2	
	comp=Z,19nm,1.0s						
LCO	**Las Campanas**	**91.04**	**121**	IAMs_20	IAMs_20	15 44 12.4	
	comp=Z,3µm,20.0s						
AC04	**Llanos de Chal**	**91.07**	**121**	IAMs_20	IAMs_20	15 45 27.2	
	comp=Z,2µm,18.0s						
CO01	**Juntas del Tor**	**91.12**	**123**	P	**P**	**15 08 29.2**	**+3.5**
	comp=Z,13nm,1.2s						
HILR	**Hailar Array B**	**91.23**	**323**	P	**P**	**15 08 25.1**	**-0.2**
	comp=Z,1.2nm,0.4s,baz=140,slow=9.5,SNR=7.3						
	comp=Z,1.2nm,0.4s						
H31M	**Peel River**	**91.27**	**15**	IAmb	IAmb	15 08 44.6	
	comp=Z,35nm,1.2s						
XAN	**Xi'an**	**91.31**	**306**	P	**P**	**15 08 28.8**	**+2.8**
XAN				pmax	pmax		
	comp=Z,40nm,1.1s						
G29M	**Pine Creek**	**91.33**	**13**	IAmb	IAmb	15 08 32.1	
	comp=Z,35nm,1.2s						
D24K	**Happy Valley**	**91.38**	**9**	IAMs_20	IAMs_20	15 47 16.7	
	comp=Z,4µm,20.0s						
AC05	**El Transito**	**91.45**	**121**	IAMs_20	IAMs_20	15 43 34.3	
	comp=Z,3µm,18.0s						
AC05	**El Transito**	**91.45**	**121**	P	**P**	**15 08 28.3**	**+1.3**
	comp=Z,36nm,1.4s						
OK029	**Liberty Lake**	**91.50**	**52**	IAMs_20	IAMs_20	15 55 08.5	
	comp=Z,2µm,18.0s						
F28M	**Old Crow**	**91.54**	**12**	IAmb	IAmb	15 08 34.1	
	comp=Z,30nm,1.2s						
W35A	**Tecumseh**	**91.66**	**53**	IAmb	IAmb	15 08 31.1	
	comp=Z,45nm,1.4s						
R32A	**Long Quarter,**	**91.68**	**49**	IAmb	IAmb	15 08 37.1	
	comp=Z,26nm,1.0s						
E27K	**Coleen River**	**91.70**	**12**	IAmb	IAmb	15 08 34.5	
	comp=Z,41nm,1.2s						
E27K				IAMs_20	IAMs_20	15 46 35.8	
	comp=Z,4µm,18.0s						
C23K	**Itkillik River**	**91.77**	**8**	IAmb	IAmb	15 08 33.8	
	comp=Z,24nm,1.2s						
C23K				IAMs_20	IAMs_20	15 46 27.1	
	comp=Z,3µm,20.0s						
D25K	**Kavik River**	**91.90**	**9**	IAMs_20	IAMs_20	15 47 26.2	
	comp=Z,3µm,20.0s						
GO03	**Copiapo**	**92.00**	**120**	IAMs_20	IAMs_20	15 47 20.7	
	comp=Z,3µm,18.0s						
NATX	**Nacogdoches**	**92.01**	**57**	IAMs_20	IAMs_20	15 46 50.8	
	comp=Z,3µm,18.0s						
OK052	**Battle Ridge R**	**92.06**	**52**	IAmb	IAmb	15 08 38.0	
	comp=Z,34nm,1.3s						
OK048	**Pawnee Station**	**92.13**	**52**	IAMs_20	IAMs_20	15 45 58.2	
	comp=Z,3µm,18.0s						
G31M	**Satah River**	**92.19**	**15**	IAMs_20	IAMs_20	15 48 03.4	
	comp=Z,4µm,21.0s						
HHC	**Hu-ho-hao-te**	**92.24**	**313**	*e*P	**P**	**15 08 29.9**	**-0.3**
HHC				pmax	pmax		
	comp=Z,12nm,0.5s						
HHC				pmax	pmax		
	comp=Z,330nm,4.9s						
OK051	**E0350 and S346**	**92.24**	**52**	IAMs_20	IAMs_20	15 51 07.3	
	comp=Z,4µm,21.0s						
NNA	**Nana**	**92.31**	**104**	IAMs_20	IAMs_20	15 44 47.6	
	comp=Z,3µm,18.0s						
F30M	**Barrier River**	**92.40**	**14**	IAmb	IAmb	15 09 02.6	
	comp=Z,29nm,1.1s						
F30M				IAMs_20	IAMs_20	15 47 54.1	
	comp=Z,4µm,21.0s						
E28M	**Babbage River**	**92.46**	**12**	IAMs_20	IAMs_20	15 47 45.7	
	comp=Z,4µm,20.0s						
WRGLY	**Wrigley**	**92.46**	**20**	IAmb	IAmb	15 08 55.1	
	comp=Z,26nm,1.2s						
E29M	**Blow River**	**92.60**	**13**	IAMs_20	IAMs_20	15 48 02.4	
	comp=Z,3µm,19.0s						
JTS	**Las Juntas de**	**92.61**	**80**	IAMs_20	IAMs_20	15 43 52.6	
	comp=Z,4µm,20.0s						
JTS	**Las Juntas de**	**92.61**	**80**	P	**P**	**15 08 34.5**	**+2.1**
	comp=Z,34nm,1.4s						
T35A	**Sooner Cattle**	**92.65**	**52**	IAmb	IAmb	15 08 50.6	
	comp=Z,36nm,1.3s						
T35A				IAMs_20	IAMs_20	15 46 34.0	
	comp=Z,3µm,18.0s						
BSI	**Banda Aceh**	**92.65**	**275**	P	**P**	**15 08 33.8**	**+1.2**
	comp=Z,62nm,1.4s						
441A	**DeRidder**	**92.78**	**58**	IAMs_20	IAMs_20	15 52 11.3	
	comp=Z,2µm,18.0s						
KMI2	**Kunming**	**92.86**	**296**	⇑P	**P**	**15 08 35.2**	**+1.6**
KMI2				SKS	**SKSac**	**15 19 09.1**	**+1.7**

KMI2				pmax	pmax		
	comp=Z,23nm,1.3s						
PB14	**IPOC Station P**	**93.08**	**118**	IAMs_20	IAMs_20	15 43 21.4	
	comp=Z,3µm,20.0s						
HDC	**Heredia**	**93.28**	**81**	*e*P	P	15 08 41.0	+5.3
BTO2	**Baotou**	**93.36**	**312**	*e*P	**P**	**15 08 36.7**	**+1.3**
BTO2				pP	**sP**	**15 08 41.5**	**0.0**
BTO2				sP	**pwP**	**15 08 43.8**	**-0.6**
BTO2				S	**S**	**15 19 39.8**	**-2.8**
BTO2				sS	**sS**	**15 19 51.8**	**+1.8**
BTO2				pmax	pmax		
	comp=Z,6.0nm,0.5s						
KSU1	**Kansas State U**	**93.46**	**50**	IAMs_20	IAMs_20	15 55 30.6	
	comp=Z,2µm,18.0s						
INK	**Inuvik**	**93.47**	**14**	P	**P**	**15 08 35.6**	**+0.5**
INK	**Inuvik**	**93.47**	**14**	IAmb	IAmb	15 08 42.3	
	comp=Z,28nm,1.2s						
INK	**Inuvik**	**93.47**	**14**	P	**P**	**15 08 35.1**	**0.0**
	comp=Z,19nm,1.2s						
YAK	**Yakutsk**	**93.74**	**337**	*e*P	**P**	**15 08 36.5**	**+0.1**
YAK				*e*		15 12 22.0	
YAK				*e*S	**SKSac**	**15 19 10.8**	**+0.8**
YAK				*e*		15 19 47.0	
YAK				*e*SS	**SS**	**15 26 03.4**	**-0.3**
YAK				pmax	pmax		
	comp=Z,16nm,1.3s						
YAK				pmax	pmax		
	comp=N,5.0nm,1.5s						
YAK				pmax	pmax		
	comp=E,4.0nm,1.6s						
YAK				pmax	pmax		
	comp=Z,264nm,4.4s						
YAK				pmax	pmax		
	comp=N,124nm,4.8s						
YAK				pmax	pmax		
	comp=E,107nm,5.6s						
YAK				smax	smax		
	comp=N,112nm,3.5s						
YAK				smax	smax		
	comp=E,40nm,3.8s						
YAK	**Yakutsk**	**93.74**	**337**	P	**P**	**15 08 35.7**	**-0.7**
	comp=Z,12nm,0.8s						
CM31	**Chiang Mai Arr**	**93.79**	**288**	IAmb	IAmb	15 08 41.8	
	comp=Z,31nm,1.1s						
CMAR	**Chiang Mai Arr**	**93.79**	**288**	P	**P**	**15 08 39.0**	**+1.2**
	comp=Z,19nm,1.0s,baz=115,slow=2.9,SNR=75						
	comp=Z,19nm,1.0s						
CMAR	**Chiang Mai Arr**	**93.79**	**288**	*ce*P	**P**	**15 08 39.7**	**+1.9**
CMAR				pmax	pmax		
	comp=Z,20nm,1.0s						
CMAR	**Chiang Mai Arr**	**93.79**	**288**	P	**P**	**15 08 38.2**	**+0.4**
CHTO	**Chiang Mai**	**93.92**	**289**	P	**P**	**15 08 40.0**	**+1.7**
CHTO	**Chiang Mai**	**93.92**	**289**	P	**P**	**15 08 39.9**	**+1.6**
CHTO	**Chiang Mai**	**93.92**	**289**	P	**P**	**15 08 39.7**	**+1.4**
	comp=Z,23nm,1.1s						
CHTO	**Chiang Mai**	**93.92**	**289**	P	**P**	**15 08 37.7**	**-0.7**
	comp=Z,23nm,1.1s						
MIAR	**Mount Ida**	**93.92**	**55**	IAMs_20	IAMs_20	15 56 06.5	
	comp=Z,2µm,19.0s						
PB05	**IPOC Station P**	**93.97**	**116**	IAMs_20	IAMs_20	15 44 08.1	
	comp=Z,3µm,19.0s						
U38A	**Gravette**	**94.03**	**53**	IAmb	IAmb	15 11 41.0	
	comp=Z,26nm,1.8s						
U38A				IAMs_20	IAMs_20	15 55 34.6	
	comp=Z,3µm,18.0s						
SUSD	**Miller**	**94.06**	**44**	IAMs_20	IAMs_20	15 52 54.9	
	comp=Z,4µm,21.0s						
PZH	**PanZhiHua**	**94.19**	**297**	P	**P**	**15 08 40.9**	**+1.3**
PB03	**IPOC Station P**	**94.68**	**116**	IAMs_20	IAMs_20	15 43 36.9	
	comp=Z,3µm,19.0s						
PB07	**IPOC Station P**	**94.70**	**115**	IAMs_20	IAMs_20	15 43 36.4	
	comp=Z,2µm,18.0s						
L34A	**Svendsen Farm,**	**94.77**	**47**	IAMs_20	IAMs_20	15 53 18.4	
	comp=Z,2µm,20.0s						
TA01	**Diego Aracena**	**94.92**	**114**	IAMs_20	IAMs_20	15 48 33.3	
	comp=Z,2µm,18.0s						
143A	**Socs Landing,**	**94.92**	**57**	IAMs_20	IAMs_20	15 49 08.9	
	comp=Z,2µm,18.0s						
MDND	**Maddock**	**95.09**	**41**	IAMs_20	IAMs_20	15 50 09.6	
	comp=Z,2µm,18.0s						
YKA	**Yellowknife Ar**	**95.10**	**24**	P	**P**	**15 08 42.7**	**0.0**
	comp=Z,2.9nm,0.8s,baz=234,slow=3.9,SNR=6.1						
	comp=Z,2.9nm,0.8s						
OTAV	**Otavalo**	**95.20**	**92**	IAMs_20	IAMs_20	15 57 49.6	
	comp=Z,3µm,21.0s						
OTAV	**Otavalo**	**95.20**	**92**	*e*P	P	15 08 49.9	+5.0
PB09	**IPOC Station P**	**95.21**	**115**	IAMs_20	IAMs_20	15 44 07.1	
	comp=Z,3µm,19.0s						
S39A	**Bolivar**	**95.29**	**52**	IAMs_20	IAMs_20	15 55 58.0	
	comp=Z,3µm,18.0s						
ECSD	**EROS Data Cent**	**95.31**	**45**	IAMs_20	IAMs_20	15 54 44.9	
	comp=Z,2µm,19.0s						
ECSD	**EROS Data Cent**	**95.31**	**45**	P	**P**	**15 08 41.7**	**-2.4**
	comp=Z,28nm,1.3s						
PB12	**IPOC Station P**	**95.58**	**112**	IAMs_20	IAMs_20	15 44 14.9	
	comp=Z,3µm,19.0s						
AP01	**Chacalluta**	**95.67**	**112**	IAMs_20	IAMs_20	15 44 16.2	
	comp=Z,3µm,20.0s						
PB11	**IPOC Station P**	**95.70**	**113**	P	**P**	**15 08 49.4**	**+2.7**
	comp=Z,25nm,1.7s						
LZH	**Lanzhou**	**95.94**	**306**	*e*P	**P**	**15 08 47.4**	**0.0**
LZH				pP	sP	15 08 53.4	-0.1
LZH				pmax	pmax		
	comp=Z,18nm,1.3s						
PB08	**IPOC Station P**	**95.97**	**114**	IAMs_20	IAMs_20	15 44 09.2	
	comp=Z,2µm,19.0s						
GO01	**Chusmiza**	**96.13**	**114**	P	**P**	**15 08 51.8**	**+2.6**
	comp=Z,14nm,2.7s						
R40A	**Maddies Statio**	**96.28**	**52**	IAMs_20	IAMs_20	15 48 56.3	
	comp=Z,3µm,19.0s						
F33A	**5 Mile Ranch,**	**96.35**	**43**	IAmb	IAmb	15 09 05.7	
	comp=Z,22nm,1.2s						
F33A				IAMs_20	IAMs_20	15 54 07.5	
	comp=Z,3µm,18.0s						
PB16	**IPOC Station P**	**96.41**	**112**	P	**P**	**15 08 49.7**	**-0.8**
	comp=Z,12nm,1.6s						
SALTA		**96.60**	**119**	P	**P**	**15 08 51.7**	**+0.5**
	comp=Z,4.9nm,1.2s						
PB18	**Visviri**	**96.73**	**112**	IAMs_20	IAMs_20	15 48 14.4	
	comp=Z,3µm,19.0s						
NPW	**Naypyitaw**	**96.73**	**289**	P	**P**	**15 08 52.2**	**+1.1**
	comp=Z,15nm,1.2s						
P40A	**Paris**	**96.89**	**50**	IAMs_20	IAMs_20	15 50 43.4	
	comp=Z,3µm,18.0s						
CCM	**Cathedral Cave**	**96.95**	**52**	IAMs_20	IAMs_20	15 48 51.0	
	comp=Z,2µm,19.0s						
PBA	**Port Blair**	**97.12**	**280**	*e*P	**P**	**15 08 51.0**	**-2.0**
I37A	**Lemond, Waseca**	**97.56**	**46**	IAMs_20	IAMs_20	15 54 48.5	
	comp=Z,2µm,19.0s						
AGMN	**Agassiz Nation**	**97.57**	**41**	IAmb	IAmb	15 09 02.2	
	comp=Z,17nm,1.1s						
AGMN	**Agassiz Nation**	**97.57**	**41**	P	**P**	**15 08 53.1**	**-1.2**
	comp=Z,14nm,1.3s						
Z47A	**Carrollton**	**97.72**	**58**	IAMs_20	IAMs_20	15 50 25.0	
	comp=Z,2µm,18.0s						
ULN	**Ulaanbaatar**	**98.02**	**318**	P	Pdif	15 08 56.9	+0.3
ULN				pmax	pmax		
	comp=Z,12nm,1.5s						
ULN				MLR	MLR		
	comp=Z,10µm,19.0s						
ULN	**Ulaanbaatar**	**98.02**	**318**	P	Pdif	15 08 56.9	+0.3
ULN				IAmb	IAmb	15 08 59.8	
	comp=Z,12nm,1.4s						
ULN	**Ulaanbaatar**	**98.02**	**318**	P	Pdif	15 08 57.0	+0.4
ULN	**Ulaanbaatar**	**98.02**	**318**	P	Pdif	15 08 57.2	+0.6
	comp=Z,6.3nm,1.3s						
A36M	**Sachs Harbour**	**98.11**	**14**	IAmb	IAmb	15 09 02.4	
	comp=Z,14nm,0.9s						
N41A	**Harden Midland**	**98.16**	**50**	IAMs_20	IAMs_20	15 52 51.1	
	comp=Z,2µm,19.0s						
S44A	**Carbondale**	**98.31**	**53**	IAMs_20	IAMs_20	16 01 31.8	
	comp=Z,2µm,19.0s						
SPMN	**Marine on St.**	**98.39**	**45**	IAMs_20	IAMs_20	15 59 59.6	
	comp=Z,2µm,19.0s						
SONM	**Songino Array**	**98.42**	**318**	P	**P**	**15 08 57.1**	**-1.2**
	comp=Z,2.5nm,1.0s,baz=118,slow=2.5,SNR=9.8						
SONM				PP	**PP**	**15 12 54.1**	**-4.8**
	comp=Z,2.5nm,1.0s,baz=123,slow=7.2,SNR=4.2						
	comp=Z,2.5nm,1.0s						
SONM	**Songino Array**	**98.42**	**318**	IAmb	IAmb	15 09 00.9	
	comp=Z,8.1nm,1.4s						
LPAZ	**La Paz**	**98.44**	**111**	P	Pdif	15 08 59.4	-0.4
	comp=Z,0.6nm,0.6s,baz=248,slow=4.4,SNR=5.0						
	comp=Z,0.6nm,0.6s						
LPAZ	**La Paz**	**98.44**	**111**	IAmb	IAmb	15 09 08.6	
	comp=Z,13nm,1.8s						
LPAZ	**La Paz**	**98.44**	**111**	*e*P	Pdif	15 09 04.8	+5.1
LPAZ	**La Paz**	**98.44**	**111**	P	Pdif	15 08 59.3	-0.5
	comp=Z,4.1nm,1.5s						
T45A	**Paducah**	**98.54**	**54**	IAMs_20	IAMs_20	15 49 13.9	
	comp=Z,2µm,18.0s						
451A	**Vernon**	**98.74**	**61**	IAMs_20	IAMs_20	15 46 13.9	
	comp=Z,3µm,18.0s						
P43A	**Skaggs, Pawnee**	**98.76**	**51**	IAMs_20	IAMs_20	15 51 04.9	
	comp=Z,3µm,18.0s						
HDIL	**Hopedale**	**99.23**	**50**	IAMs_20	IAMs_20	15 50 39.3	
	comp=Z,3µm,18.0s						
JFWS	**Jewell Farm**	**99.33**	**48**	IAMs_20	IAMs_20	16 00 38.2	
	comp=Z,2µm,18.0s						
L42A	**Oliver, Polo**	**99.44**	**49**	IAMs_20	IAMs_20	15 59 59.0	
	comp=Z,2µm,18.0s						
E38A	**The Farm, Brul**	**99.69**	**44**	IAMs_20	IAMs_20	15 54 38.9	
	comp=Z,3µm,19.0s						
TIXI	**Tiksi**	**99.92**	**344**	*i* P	**Pdif**	**15 09 02.9**	**-1.3**
TIXI				pmax	pmax		
	comp=Z,14nm,1.0s						
GTA2	**Gaotai**	**100.13**	**308**	*e*P	**Pdif**	**15 09 07.4**	**+1.3**
GTA2				sP	sP	15 09 12.8	+0.6
G40A	**Rib Lake**	**100.14**	**45**	IAMs_20	IAMs_20	15 53 32.7	
	comp=Z,2µm,18.0s						
152A	**Waverly Hall**	**100.22**	**59**	IAMs_20	IAMs_20	15 46 10.1	
	comp=Z,2µm,21.0s						
MOKO	**MOKOCHONG**	**100.24**	**294**	*e*P	**Pdif**	**15 09 06.2**	**-0.8**
MOKO				IAmb	IAmb	15 09 14.1	
	comp=Z,3.8nm,0.6s						
IMP	**Imphal**	**100.27**	**293**	*e*P	**Pdif**	**15 09 08.8**	**+1.8**
SAIH	**SAIHA**	**100.39**	**290**	*e*P	**Pdif**	**15 09 08.9**	**+1.2**
M44A	**Midewin, Midew**	**100.39**	**50**	IAMs_20	IAMs_20	15 54 18.2	
	comp=Z,2µm,18.0s						
KOHI	**KOHIMA**	**100.41**	**294**	*e*P	**Pdif**	**15 09 08.9**	**+1.2**
P46A	**Rosedale**	**100.45**	**52**	IAMs_20	IAMs_20	15 51 09.5	
	comp=Z,3µm,19.0s						
U49A	**Red Boiling Sp**	**100.56**	**55**	IAMs_20	IAMs_20	15 52 11.4	
	comp=Z,2µm,18.0s						
I42A	**Draeger Farm,**	**100.57**	**47**	IAMs_20	IAMs_20	15 53 46.0	
	comp=Z,2µm,18.0s						
JORH	**JORHAT**	**100.60**	**295**	*e*P	**Pdif**	**15 09 07.4**	**-0.9**
K43A	**Burlington**	**100.60**	**48**	IAMs_20	IAMs_20	15 55 11.7	
	comp=Z,2µm,18.0s						
X51A	**Calhoun**	**100.69**	**57**	IAMs_20	IAMs_20	15 56 43.6	
	comp=Z,3µm,18.0s						
WCI	**Wyandotte Cave**	**100.70**	**53**	IAMs_20	IAMs_20	15 52 00.0	
	comp=Z,2µm,18.0s						
L44A	**Lake County Fo**	**100.73**	**49**	IAMs_20	IAMs_20	15 54 13.2	
	comp=Z,2µm,19.0s						
SFIN	**Lafayette**	**100.76**	**51**	IAMs_20	IAMs_20	15 55 31.9	
	comp=Z,3µm,18.0s						
656A	**Willston**	**101.00**	**63**	IAMs_20	IAMs_20	15 46 24.7	
	comp=Z,2µm,18.0s						
AZL	**Aizawl**	**101.03**	**291**	*e*P	**Pdif**	**15 09 09.3**	**-1.2**
AZL				IAmb	IAmb	15 09 35.3	
	comp=Z,17nm,1.8s						
ZIRO	**ZIRO**	**101.17**	**295**	*e*P	**Pdif**	**15 09 10.7**	**-0.4**
SILR	**SILCHAR**	**101.25**	**292**	*e*P	**Pdif**	**15 09 10.5**	**-0.7**
GOGA	**Godfrey**	**101.44**	**59**	IAMs_20	IAMs_20	15 46 09.6	
	comp=Z,2µm,21.0s						
154A	**Montrose**	**101.50**	**59**	IAMs_20	IAMs_20	15 57 09.0	
	comp=Z,2µm,18.0s						
H43A	**Windswept, Lux**	**101.53**	**47**	IAMs_20	IAMs_20	15 53 46.4	
	comp=Z,2µm,19.0s						
DWPF	**Disney Wildern**	**101.55**	**64**	IAMs_20	IAMs_20	15 46 23.2	
	comp=Z,2µm,19.0s						
W52A	**Murphy**	**101.57**	**57**	IAMs_20	IAMs_20	15 57 11.1	
	comp=Z,2µm,18.0s						
F42A	**Maple Grove Fa**	**101.67**	**45**	IAMs_20	IAMs_20	15 53 35.3	
	comp=Z,3µm,21.0s						
P48A	**Milroy**	**101.71**	**52**	IAMs_20	IAMs_20	15 56 27.0	
	comp=Z,3µm,18.0s						
TEZP	**TEZPUR**	**101.80**	**294**	*e*P	**Pdif**	**15 09 10.7**	**-3.0**
456A	**Hilliard**	**101.83**	**62**	IAMs_20	IAMs_20	15 46 14.6	
	comp=Z,3µm,18.0s						
N47A	**Urbana**	**101.93**	**51**	IAMs_20	IAMs_20	15 56 24.8	
	comp=Z,2µm,19.0s						
SHL	**Shillong**	**102.28**	**293**	*e*P	**Pdif**	**15 09 15.5**	**-0.5**
TZTN	**Tazewell**	**102.29**	**56**	IAMs_20	IAMs_20	15 55 04.1	
	comp=Z,2µm,18.0s						
I45A	**Fountain**	**102.46**	**48**	IAMs_20	IAMs_20	15 53 52.9	
	comp=Z,2µm,21.0s						
S51A	**Beattyville**	**102.56**	**54**	IAMs_20	IAMs_20	15 53 59.4	
	comp=Z,2µm,18.0s						
V53A	**Saluda**	**102.61**	**57**	IAMs_20	IAMs_20	15 46 05.6	
	comp=Z,3µm,19.0s						
257A	**Skidaway Islan**	**103.00**	**61**	IAMs_20	IAMs_20	15 46 21.8	
	comp=Z,3µm,22.0s						
N49A	**Columbus Grove**	**103.04**	**51**	IAMs_20	IAMs_20	15 52 30.2	
	comp=Z,2µm,19.0s						
Q51A	**Peebles**	**103.14**	**53**	IAMs_20	IAMs_20	15 59 30.6	
	comp=Z,2µm,18.0s						
J47A	**Sunmer**	**103.22**	**49**	IAMs_20	IAMs_20	15 55 58.0	
	comp=Z,3µm,18.0s						
U54A	**Nelsons Funny**	**103.62**	**56**	IAMs_20	IAMs_20	15 46 04.3	
	comp=Z,2µm,22.0s						
KMSC	**Kings Mountain**	**103.63**	**57**	IAMs_20	IAMs_20	15 56 58.4	
	comp=Z,3µm,18.0s						
ACSO	**Alum Creek Sta**	**103.73**	**52**	IAMs_20	IAMs_20	15 56 09.5	
	comp=Z,3µm,18.0s						
AAM	**Ann Arbor**	**103.79**	**50**	IAMs_20	IAMs_20	15 56 13.2	
	comp=Z,3µm,19.0s						
V55A	**Taylorsville**	**103.91**	**57**	IAMs_20	IAMs_20	15 58 60.0	
	comp=Z,2µm,18.0s						
M50A	**Fremont**	**104.00**	**51**	IAMs_20	IAMs_20	15 55 59.5	
	comp=Z,3µm,18.0s						
DHUB	**DHUBRI**	**104.03**	**293**	*e*P	**Pdif**	**15 09 22.4**	**-1.2**
DHUB				IAmb	IAmb	15 09 29.0	
	comp=Z,1.4nm,0.4s						
S54A	**Dingess, Beckl**	**104.35**	**55**	IAMs_20	IAMs_20	15 46 00.7	
	comp=Z,2µm,20.0s						
N51A	**Ashland**	**104.36**	**51**	IAMs_20	IAMs_20	15 56 30.1	
	comp=Z,3µm,18.0s						
E46A	**Sault Ste Mari**	**104.40**	**46**	IAMs_20	IAMs_20	15 53 44.5	
	comp=Z,3µm,20.0s						
O52A	**Adamsville**	**104.55**	**52**	IAMs_20	IAMs_20	15 56 16.1	
	comp=Z,2µm,19.0s						
U56A	**King**	**104.69**	**56**	IAMs_20	IAMs_20	15 56 54.6	
	comp=Z,2µm,19.0s						
P53A	**Whipple**	**104.72**	**53**	IAMs_20	IAMs_20	15 53 33.6	
	comp=Z,2µm,18.0s						
BLA	**Blacksburg**	**104.88**	**56**	IAMs_20	IAMs_20	15 56 45.7	
	comp=Z,3µm,19.0s						
Q54A	**Coxs Mills**	**105.01**	**54**	IAMs_20	IAMs_20	15 54 18.3	
	comp=Z,3µm,19.0s						
X58A	**Rowland**	**105.06**	**58**	IAMs_20	IAMs_20	15 57 13.2	
	comp=Z,3µm,18.0s						
R55A	**Marlinton**	**105.38**	**55**	IAMs_20	IAMs_20	16 02 15.0	
	comp=Z,2µm,18.0s						
N53A	**Lisbon**	**105.46**	**52**	IAMs_20	IAMs_20	15 56 14.2	
	comp=Z,3µm,18.0s						
V58A	**Windy Hill, Pi**	**105.55**	**57**	IAMs_20	IAMs_20	15 57 05.2	
	comp=Z,2µm,18.0s						
COIM	**Forte Coimbra**	**105.61**	**119**	*e*P	**Pdif**	**15 09 36.8**	**+6.0**
MCWV	**Mont Chateau**	**105.92**	**53**	IAMs_20	IAMs_20	16 02 12.4	
	comp=Z,2µm,20.0s						
W59A	**Clinton**	**105.92**	**58**	IAMs_20	IAMs_20	15 46 16.2	
	comp=Z,2µm,22.0s						
S57A	**Dark Hollow, R**	**106.15**	**55**	IAMs_20	IAMs_20	16 02 24.3	
	comp=Z,2µm,18.0s						
Q56A	**Snyder Ridge,**	**106.27**	**54**	IAMs_20	IAMs_20	15 56 48.6	
	comp=Z,2µm,19.0s						
BOK	**Bokaro**	**107.02**	**289**	*e*P	**Pdif**	**15 09 36.2**	**-0.8**
BOK				IAmb	IAmb	15 14 03.5	
	comp=Z,18nm,0.4s						
R58B	**Mineral**	**107.02**	**55**	IAMs_20	IAMs_20	16 03 06.4	
	comp=Z,2µm,19.0s						
T59A	**Double "B" Far**	**107.05**	**56**	IAMs_20	IAMs_20	15 59 07.1	
	comp=Z,2µm,18.0s						
P57A	**Homestead Farm**	**107.26**	**54**	IAMs_20	IAMs_20	15 59 18.8	
	comp=Z,3µm,18.0s						
CBN	**Corbin Frederi**	**107.47**	**55**	IAMs_20	IAMs_20	16 03 04.1	
	comp=Z,3µm,19.0s						
V61A	**Roper**	**107.55**	**58**	IAMs_20	IAMs_20	15 46 17.2	
	comp=Z,2µm,19.0s						
SSPA	**Standing Stone**	**107.61**	**53**	IAMs_20	IAMs_20	15 57 23.9	
	comp=Z,2µm,19.0s						
VIS	**Vishakhapatnam**	**107.65**	**283**	*e*P	**Pdif**	**15 09 39.0**	**-0.9**
L56A	**Greenwood**	**108.16**	**51**	IAMs_20	IAMs_20	15 56 55.6	
	comp=Z,3µm,19.0s						
M57A	**Sunshine Farm,**	**108.31**	**52**	IAMs_20	IAMs_20	15 57 02.7	
	comp=Z,2µm,18.0s						
N58A	**Sunbury**	**108.52**	**53**	IAMs_20	IAMs_20	15 56 28.1	
	comp=Z,2µm,18.0s						
S61A	**Accomac**	**108.67**	**56**	IAMs_20	IAMs_20	16 03 04.9	
	comp=Z,2µm,18.0s						
K57A	**Scipio Center**	**109.03**	**51**	IAMs_20	IAMs_20	16 05 16.7	
	comp=Z,2µm,18.0s						
R61A	**Willards**	**109.06**	**55**	IAMs_20	IAMs_20	15 56 59.3	
	comp=Z,2µm,20.0s						
BINY	**Binghamton**	**109.32**	**51**	IAMs_20	IAMs_20	15 56 59.3	
	comp=Z,2µm,19.0s						
J57A	**Williamstown**	**109.53**	**50**	IAMs_20	IAMs_20	15 56 46.9	
	comp=Z,2µm,19.0s						
P61A	**Hammonton**	**109.74**	**54**	IAMs_20	IAMs_20	15 56 47.3	
	comp=Z,3µm,18.0s						
WMQ	**Urumqi**	**109.94**	**310**	*e*PKP	**PKiKP**	**15 13 52.0**	**+0.4**
L59A	**Walton**	**110.00**	**51**	IAMs_20	IAMs_20	15 56 21.5	
	comp=Z,2µm,19.0s						
J59A	**Piesco**	**110.61**	**50**	IAMs_20	IAMs_20	15 57 19.5	
	comp=Z,3µm,18.0s						
LONY	**Lake Ozonia**	**110.73**	**49**	IAMs_20	IAMs_20	16 10 25.9	
	comp=Z,2µm,18.0s						
TRD	**Trivandrum**	**110.80**	**271**	*e*P	**PKiKP**	**15 13 52.8**	**-1.2**
TRY	**Troy**	**111.10**	**51**	IAMs_20	IAMs_20	15 57 55.5	
	comp=Z,2µm,19.0s						
HYB	**Hyderabad**	**111.95**	**281**	*e*PKiKP	**PKiKP**	**15 13 55.1**	**-1.0**
HYB				*e*SKSac	**SKSac**	**15 20 37.6**	**-0.2**
HYB				*e*SKKSac	**SKKSac**	**15 21 41.4**	**-0.4**
J61A	**Chester**	**112.00**	**50**	IAMs_20	IAMs_20	15 57 55.2	
	comp=Z,2µm,18.0s						
HNH	**Hanover**	**112.24**	**50**	IAMs_20	IAMs_20	15 58 19.6	
	comp=Z,2µm,19.0s						
LBNH	**Lisbon**	**112.57**	**50**	IAMs_20	IAMs_20	15 59 31.3	
	comp=Z,2µm,19.0s						
WES	**Weston**	**112.76**	**52**	IAMs_20	IAMs_20	15 59 22.5	
	comp=Z,2µm,18.0s						
I62A	**Tamworth**	**112.94**	**50**	IAMs_20	IAMs_20	15 57 29.3	
	comp=Z,2µm,18.0s						
ZALV	**Zalesovo Beam**	**113.03**	**321**	PKiKP	**PKiKP**	**15 13 56.9**	**-0.2**
	comp=Z,0.7nm,0.5s,baz=84,slow=2.6,SNR=7.8						
L64A	**Middleborough**	**113.06**	**52**	IAMs_20	IAMs_20	15 59 16.3	
	comp=Z,2µm,19.0s						
H62A	**Milan**	**113.16**	**49**	IAMs_20	IAMs_20	15 59 32.9	
	comp=Z,3µm,19.0s						
TULEG	**Thule**	**113.47**	**14**	IAMs_20	IAMs_20	16 03 02.6	
	comp=Z,2µm,19.0s						
I63A	**Otisfield**	**113.50**	**50**	IAMs_20	IAMs_20	15 57 55.2	
	comp=Z,2µm,20.0s						
MK31	**Makanchi Array**	**114.11**	**313**	*c i*PKIKP	**PKiKP**	**15 13 59.7**	**+0.3**
MKAR	**Makanchi Array**	**114.11**	**313**	PKiKP	PKPdf	15 13 58.5	-0.9
	comp=Z,2.5nm,0.9s,baz=77,slow=1.6,SNR=15						
MKAR				PKKPbc	**PKKPbc**	**15 24 41.1**	**-0.2**
	comp=Z,0.5nm,0.8s,baz=275,slow=3.0,SNR=4.1						
MAKZ	**Makanchi**	**114.32**	**313**	PKIKP	PKPdf	15 13 58.3	-1.5
BHPL	**Bhopal**	**114.41**	**287**	*e*P	PKPdf	15 13 58.8	-1.8
PDGK	**Podgornoye**	**115.79**	**309**	PKIKP	**PKPdf**	**15 14 02.0**	**-0.9**
SMLA	**Simla**	**116.16**	**295**	*e*P	**PKPdf**	**15 14 01.8**	**-1.9**
POO	**Poona**	**116.56**	**281**	*e*P	**PKPdf**	**15 14 03.7**	**-1.2**
KURK	**Kurchatov**	**116.72**	**317**	P	**PKPdf**	**15 14 03.4**	**-0.8**
KURK	**Kurchatov**	**116.72**	**317**	PKIKP	**PKPdf**	**15 14 03.1**	**-1.1**
KURBB	**Kurchatov Arra**	**116.77**	**317**	PKP	**PKPdf**	**15 14 03.1**	**-1.3**
	comp=Z,4.5nm,1.1s,baz=90,slow=1.8,SNR=17						
KURBB				PP	**PP**	**15 15 10.5**	**-2.4**
	comp=Z,4.1nm,1.1s,baz=73,slow=8.3,SNR=7.3						
KURBB				PKKPbc	**PKKPbc**	**15 24 32.2**	**0.0**
	comp=Z,1.3nm,1.1s,baz=274,slow=4.1,SNR=5.0						
KURBB	**Kurchatov Arra**	**116.77**	**317**	PKIKP	**PKPdf**	**15 14 03.5**	**-0.8**
TARG	**Taragay, Kyrgy**	**116.91**	**307**	PKIKP	**PKiKP**	**15 14 06.9**	**+1.4**
BOOM	**Boomskoye usch**	**118.34**	**308**	PKIKP	**PKiKP**	**15 14 08.7**	**+0.8**
KSH2	**Kashi**	**118.42**	**304**	PKP	**PKiKP**	**15 14 09.6**	**+1.5**
KSH2				SKKS		15 22 15.3	
AAK	**Ala-Archa**	**119.41**	**308**	PKIKP	**PKPdf**	**15 14 09.5**	**-0.4**
NIL	**Nilore**	**119.78**	**298**	PKIKP	**PKPdf**	**15 14 08.9**	**-1.8**
ILULI	**Ilulissat**	**120.59**	**20**	IAMs_20	IAMs_20	16 12 44.2	
	comp=Z,2µm,18.0s						
ARK	**Arkit**	**121.28**	**307**	PKIKP	**PKPdf**	**15 14 12.3**	**-1.2**
BHUJ	**Bhuj**	**121.41**	**285**	*e*P	**PKPdf**	**15 14 12.5**	**-1.5**
BHUJ				IAmb	IAmb	15 15 23.6	
	comp=Z,15nm,0.4s						
BVAR	**Borovoye Array**	**121.66**	**320**	PKP	**PKPdf**	**15 14 13.4**	**-0.2**
	comp=Z,5.2nm,0.8s,baz=103,slow=1.6,SNR=23						
BVAR				PP	**PP**	**15 15 43.6**	**-2.9**
	comp=Z,4.1nm,1.0s,baz=76,slow=6.1,SNR=2.4						
BTK	**Batken**	**122.12**	**305**	PKIKP	**PKiKP**	**15 14 15.4**	**+0.1**
KK31	**Karatay Array**	**122.34**	**309**	*i* PKIKP	**PKPdf**	**15 14 15.0**	**-0.3**
SUMG	**Summit**	**122.39**	**14**	IAMs_20	IAMs_20	16 07 52.3	
	comp=Z,2µm,20.0s						
KBL	**Kabul**	**123.33**	**298**	P	**PKiKP**	**15 14 18.9**	**+0.9**
	SNR=12						
IVI	**Ivigtut**	**124.88**	**29**	IAMs_20	IAMs_20	16 07 20.0	
	comp=Z,2µm,21.0s						
SUR	**Sutherland**	**125.40**	**195**	P	**PKiKP**	**15 14 22.5**	**+0.3**
SVE	**Sverdlovsk**	**126.28**	**326**	*i* PKIKP	**PKiKP**	**15 14 22.9**	**+0.1**
SVE				pmax	pmax		
	comp=Z,18nm,1.5s						
SVE				MLR	MLR		
	comp=Z,5µm,22.0s						
ARTI	**Arti**	**127.60**	**326**	*i* PKIKP	**PKiKP**	**15 14 25.6**	**+0.1**
ARTI						15 16 26.3	
ARTI						15 21 36.6	
ARTI				SP	SP	15 26 30.7	+1.9
BOSA	**Boshof**	**127.62**	**201**	PKP	**PKiKP**	**15 14 26.8**	**+0.1**
	comp=Z,16nm,1.3s,baz=158,slow=2.3,SNR=4.4						
AB31	**Akbulak array**	**128.83**	**317**	*i* PKIKP	**PKPdf**	**15 14 27.3**	**-0.2**
AKTO	**Aktyubinsk**	**129.72**	**319**	PKIKP	**PKPdf**	**15 14 28.6**	**-0.6**
ARCES	**ARCESS Array B**	**129.72**	**351**	PKP	**PKPdf**	**15 14 28.6**	**-0.1**
	comp=Z,9.4nm,1.0s,baz=38,slow=1.9,SNR=7.0						
APA	**Apatity**	**130.04**	**347**	*i* PKIKP	**PKiKP**	**15 14 32.9**	**+2.8**
APA				*e*		15 16 41.0	
APA				*e*SS	SS	15 34 06.1	+0.6
APA				pmax	pmax		
	comp=Z,9.0nm,1.2s						
JLN	**Jalan Bani Buh**	**130.55**	**282**	P	**PKiKP**	**15 14 32.4**	**0.0**
KIRV	**Kirov**	**130.97**	**332**	*c i*PKIKP	**PKiKP**	**15 14 33.2**	**+1.1**
WSAR	**Wadi Sarin**	**131.41**	**283**	P	**PKPdf**	**15 14 32.9**	**-0.3**
MHTO	**MHTO**	**131.69**	**280**	P	**PKPdf**	**15 14 33.2**	**-0.6**
	SNR=5.1						
JMDO	**Jabal Madar**	**131.78**	**282**	P	**PKPdf**	**15 14 32.5**	**-1.4**
SMDO	**Samad**	**131.92**	**283**	P	**PKPdf**	**15 14 30.2**	**-4.1**
BSY	**Bisya**	**132.66**	**282**	P	**PKPdf**	**15 14 35.5**	**-0.1**
SOHO	**SOHO**	**133.43**	**284**	P	**PKPdf**	**15 14 36.5**	**-0.5**
KLMR	**Klimovskoe**	**133.52**	**338**	*e*PKIKP	**PKPdf**	**15 14 35.7**	**-0.3**
KLMR				*e*		15 17 04.4	
KLMR				pmax	pmax		
	comp=Z,22nm,1.4s						
KLMR				MLR	MLR		
	comp=Z,4µm,19.0s						
OUL	**Oulu**	**133.71**	**349**	PKIKP	**PKiKP**	**15 14 38.6**	**+1.1**
UOSS	**Minazif**	**133.81**	**285**	P	**PKPdf**	**15 14 36.9**	**-0.8**
HATD	**Hatta, Dubai**	**133.86**	**285**	P	**PKPdf**	**15 14 37.5**	**-0.3**
MASF	**Masafi**	**133.89**	**286**	P	**PKPdf**	**15 14 36.7**	**-1.2**
ASHO	**Ashiyiah**	**133.92**	**285**	P	**PKPdf**	**15 14 38.3**	**+0.3**
BELG	**Belogornoye**	**134.98**	**325**	*i* PKIKP	**PKPdf**	**15 14 39.0**	**0.0**
MZR	**Muzera**	**136.09**	**282**	P	**PKiKP**	**15 14 43.5**	**-0.2**
FINES	**FINESS Array B**	**136.94**	**346**	PKP	**PKPdf**	**15 14 40.7**	**-1.6**
	comp=Z,8.4nm,1.1s,baz=25,slow=1.9,SNR=9.5						
MOS	**Moscow**	**137.80**	**334**	*i* PKIKP	**PKPdf**	**15 14 42.9**	**-1.2**
LSZ	**Lusaka**	**138.20**	**213**	PKIKP	**PKiKP**	**15 14 47.4**	**-0.9**
OBN	**Obninsk**	**138.66**	**334**	*c i*PKIKP	**PKiKP**	**15 14 48.0**	**+0.1**
OBN				*e*		15 17 38.4	
OBN				*e*PPP	PPP	15 20 36.4	
OBN				*i* SS	SS	15 35 43.9	-5.9
OBN				pmax	pmax		
	comp=Z,21nm,1.7s						
OBN				MLR	MLR		
	comp=Z,4µm,21.0s						
VRH	**Novokhopyorsk**	**138.73**	**326**	*e*PKIKP	**PKPdf**	**15 14 42.7**	**-3.3**
VRH				pmax	pmax		
	comp=Z,5.0nm,1.0s						
MAK	**Makhachkala**	**138.92**	**312**	*i* P	**Pdif**	**15 11 51.3**	**-7.0**
MAK				*i*		15 14 44.1	
MAK				*e*		15 17 35.2	
MAK				*e*		15 21 52.1	
MAK				pmax	pmax		
	comp=Z,144nm,1.1s						
LPSR	**Galich'ya Gora**	**139.28**	**330**	*e*PKHKP	PKPpre	15 14 40.8	
LPSR				pmax	pmax		
	comp=Z,10.0nm,1.1s						
NB2	**NORSAR Subarra**	**139.51**	**356**	PKP	**PKPdf**	**15 14 44.8**	**-2.4**
	comp=Z,1.7nm,0.9s,baz=23,slow=2.6						
NOA	**NORSAR Array B**	**139.51**	**356**	PKP	**PKPdf**	**15 14 47.0**	**-0.2**
	comp=Z,1.8nm,1.0s,baz=24,slow=2.8,SNR=4.1						
NOA	**NORSAR Array B**	**139.51**	**356**	PKIKP	**PKPdf**	**15 14 47.0**	**-0.2**
VORR	**Voronezh**	**139.72**	**328**	*e*PKIKP	**PKPdf**	**15 14 48.8**	**+1.0**
VORR				pmax	pmax		
	comp=Z,20nm,1.1s						
VSR	**Storozhevoye**	**140.02**	**328**	*e*PKIKP	**PKPdf**	**15 14 46.0**	**-2.4**
VSR				pmax	pmax		
	comp=Z,6.0nm,1.2s						
HFS	**Hagfors**	**140.21**	**354**	PKhKP	PKPpre	15 14 39.8	
	comp=Z,2.0nm,0.7s,baz=100,slow=7.8,SNR=4.4						
KBZ	**Khabaz**	**141.74**	**315**	PKP	**PKPdf**	**15 14 49.5**	**-2.1**

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
	comp=Z,4.4nm,1.0s,baz=67,slow=1.8,SNR=3.5						
KBZ				PP	PP	15 17 53.4	-2.5
	comp=Z,2.8nm,0.8s,baz=59,slow=8.0,SNR=3.8						
KBZ	Khabaz	141.74	315	i PKIKP	PKPdf	15 14 51.3	-0.4
KIV	Kislovodsk	141.78	316	⇑ePKIKP	PKPdf	15 14 52.5	+0.6
KIV				pmax	pmax		
	comp=Z,24nm,1.7s						
SHA1	Shidzhatmaz	141.89	316	i PKIKP	PKPdf	15 14 52.8	+0.5
NEUR	Neytrino	142.06	315	i PKIKP	PKPdf	15 14 49.3	-3.3
MNK	Minsk	142.39	339	i PKIKP	PKPdf	15 14 52.8	+0.3
MNK				i		15 18 00.5	
MNK				i PPP	PPP	15 21 08.4	
MNK				i		15 22 02.6	
MNK				i SS	SS	15 36 37.6	+4.5
MNK				pmax	pmax		
	comp=N,10.0nm,0.7s						
MNK				pmax	pmax		
	comp=E,17nm,0.8s						
MNK				pmax	pmax		
	comp=Z,23nm,1.0s						
MNK				MLR	MLR		
	comp=Z,4µm,20.0s						
MNK				MLR	MLR		
	comp=E,2µm,20.0s						
MNK				MLR	MLR		
	comp=N,4µm,23.0s						
MNK	Minsk	142.39	339	i PKP	PKPdf	15 14 52.8	+0.3
	comp=E,17nm,0.8s						
MNK				i PKP	PKPdf	15 14 52.8	+0.3
	comp=N,10.0nm,0.7s						
MNK				i PKP	PKPdf	15 14 52.8	+0.3
	comp=Z,23nm,1.0s,baz=34						
MNK				i PP	PP	15 18 00.6	+1.5
MNK				i PKS	PKSdf	15 18 28.6	+0.5
MNK				i PPP	PPP	15 21 08.4	
MNK				i SKS	SKSdf	15 22 02.7	+1.1
MNK				i SS	SS	15 36 37.6	+4.5
MNK				i LQ	LQ	16 09 50.6	
MNK				i LRM	MLR	16 17 21.5	
	comp=Z,4µm,19.7s						
MNK				i LRM	MLR	16 17 26.5	
	comp=E,2µm,19.5s						
MNK				i LRM	MLR	16 17 31.6	
	comp=N,4µm,23.1s						
OZAP	Van, Ozalp-Mer	142.82	307	⇓P	PKiKP	15 14 56.0	-1.3
RAYN	Ar Rayn	143.44	282	P	PKPdf	15 14 56.0	+0.6
RAYN	Ar Rayn	143.44	282	PKIKP	PKPdf	15 14 54.2	-1.2
SOC	Sochi	143.87	317	ePKHKP	PKPpre	15 14 50.5	
SOC				ePPP	PPP	15 21 17.5	
SOC				eSS	SS	15 36 46.5	-5.0
ANN	Anapa	144.66	320	ePKIKP	PKPbc	15 14 55.6	0.0
EKB	Eskdalemuir	144.69	9		PKPab	15 14 54.4	-0.8
EKA	Eskdalemuir Ar	144.69	9	PKP	PKPab	15 14 54.4	-0.9
	comp=N,14nm,0.9s,baz=347,slow=3.4,SNR=17						
ESK	Eskdalemuir	144.70	9	PKIKP	PKPab	15 14 54.3	-1.0
ESK				MLR	MLR		
	comp=Z,3µm,21.0s						
ESK	Eskdalemuir	144.70	9		PKPab	15 14 54.3	-1.0
AK03	Malin Array Si	144.91	334	PKP	PKPab	15 14 55.0	-1.2
AK23	Malin Array Si	144.92	334	PKP	PKPab	15 14 55.0	-1.2
AKASG	Malin Array Be	144.93	334	PKP	PKPab	15 14 55.6	-0.6
	comp=Z,18nm,0.8s,baz=38,slow=3.7,SNR=76						
AKBB	Malin Array Si	144.93	334	i PKIKP	PKPab	15 14 55.9	-0.3
AKBB	Malin Array Si	144.93	334	PKP	PKPab	15 14 54.9	-1.3
AK04	Malin Array Si	144.93	334	PKP	PKPab	15 14 55.0	-1.3
AK01	Malin Array Si	144.94	334	PKP	PKPab	15 14 55.4	-0.9
KIEV	Kiev	144.94	334	⇑PKIKP	PKPab	15 14 55.6	-0.7
KIEV	Kiev	144.94	334		PKPab	15 14 55.1	-1.1
KIEV	Kiev	144.94	334	⇑P	PKPab	15 14 55.6	-0.7
KIEV	Kiev	144.94	334	PKP	PKPab	15 14 55.1	-1.1
AK21	Malin Array Si	144.94	334	PKP	PKPab	15 14 55.2	-1.1
AK22	Malin Array Si	144.94	334	PKP	PKPab	15 14 55.2	-1.1
AK08	Malin Array Si	144.96	334	PKP	PKPab	15 14 55.3	-1.1
AK11	Malin Array Si	144.97	334	PKP	PKPab	15 14 55.3	-1.1
BSD	Bornholm Skovb	144.97	351	PKIKP	PKPbc	15 14 56.4	+0.2
IGLA	Glengowla, Co	145.22	16	PKPdf	PKPdf	15 14 57.5	0.0
ILTH	Belurgan, Co L	145.37	13	PKPdf	PKPbc	15 14 57.3	-0.3
RNPP9	Sopachiv	145.62	338	PKP	PKPbc	15 14 58.2	-0.3
RNPP8	Varash	145.70	338	PKP	PKPdf	15 14 57.7	-0.7
RGN	Rugen	145.73	353	ePKPbc	PKPbc	15 14 58.5	-0.2
	baz=8.0,slow=2.5						
RNPP5	Staryi Chortor	145.78	338	PKP	PKPdf	15 14 58.0	-0.5
DSB	Dublin	146.09	13	PKPdf	PKPdf	15 14 58.3	-0.7
LUBAR	Lubar, Ukraine	146.12	335	PKP	PKPdf	15 14 58.4	-0.8
VAL	Valentia	146.29	18	PKPdf	PKPbc	15 15 00.3	-0.2
GKP	Gorka Klasztor	146.34	348	ePKPbc	PKPab	15 15 01.0	-0.5
R9F13	Warsaw-Wawer	146.40	343	ePKP	PKPab	15 15 01.5	-0.2
R9F13				e		15 17 55.3	
R9F13				eSKS	SKSdf	15 22 10.8	+3.1
SIM	Simferopol'	146.51	323	ePKP2	PKPbc	15 15 00.8	-0.6
SIM				pmax	pmax		
	comp=Z,164nm,1.6s						
BSEG	Bad Segeberg	146.63	355	PKP2	PKPab	15 15 02.0	-0.5
BSEG	Bad Segeberg	146.63	355	ePKPbc	PKPbc	15 15 01.5	0.0
	baz=8.0,slow=2.5						
LODK	Lodwar	146.74	243	P	PKPbc	15 15 03.6	+0.5
	SNR=13						
IWEX	Carrickbyrne,	146.81	14	PKPdf	PKPbc	15 15 02.0	0.0
BEL	Belsk	146.84	343	ePKPbc	PKPab	15 15 02.9	-0.6
BEL	Belsk	146.84	343	PKP2	PKPab	15 15 03.6	+0.2
SORM	Soroca	147.25	332	⇑PKP2	PKPab	15 15 04.4	-0.7
SORM	Soroca	147.25	332	⇑P	PKPab	15 15 04.4	-0.7
GORT1	Trebel	147.49	354	ePKPbc	PKPab	15 15 05.4	-0.4
	baz=8.0,slow=2.5						
RUE	Ruedersdorf	147.69	351	ePKPbc	PKPbc	15 15 04.2	-0.3
	baz=8.0,slow=2.5						
KMPD	K-Podol'skiy	147.72	334	PKP	PKPdf	15 15 01.1	-0.8
RETH	Rethem/Aller,	147.89	356	ePKPbc	PKPbc	15 15 05.1	+0.1
	baz=8.0,slow=2.5						
MBAR	Mbarara	147.93	232	P	PKPbc	15 15 05.6	-0.9
FLTG	Flechtingen	148.15	354	ePKPbc	PKPbc	15 15 05.4	-0.3
	baz=8.0,slow=2.5						
BZK	Bozkurt	148.31	318	⇑P	PKPbc	15 15 07.0	+0.5
IBBN	Ibbenburen	148.40	358	ePKPbc	PKPbc	15 15 04.6	-1.8
	baz=8.0,slow=2.5						
ASSE	Asse, Remlinge	148.40	355	ePKPbc	PKPbc	15 15 04.6	-1.7
	baz=8.0,slow=2.5						
OJC	Ojcow	148.57	343	ePKPbc	PKPbc	15 15 07.0	+0.1
OJC	Ojcow	148.57	343	PKIKP	PKPbc	15 15 05.0	-1.9
VASR	Vaslui	148.62	331	⇓P	PKiKP	15 15 07.8	-0.8
CLZ	Clausthal	148.71	355	ePKPbc	PKPbc	15 15 07.2	0.0
	baz=8.0,slow=2.5						
PRAR	RASCA	148.76	333	⇑P	PKiKP	15 15 08.8	-0.1
KSP	Ksiaz	148.83	347	ePKPbc	PKiKP	15 15 08.4	-0.6
CLL	Collm	148.94	352	i PKP2	PKPbc	15 15 08.0	+0.2
CLL				pmax	pmax		
	comp=Z,56nm,1.2s						
CLL	Collm	148.94	352	ePKPbc	PKPbc	15 15 07.6	-0.2
	baz=8.0,slow=2.5						
CLL	Collm	148.94	352	ePKPdf	PKPdf	15 15 05.0	+1.2
	comp=Z,7.0nm,1.1s						
CLL				i PKPbc	PKPbc	15 15 08.0	+0.2
	comp=Z,56nm,1.2s						
CLL				i x	x	15 15 19.9	
	comp=Z,150nm,1.5s						
CLL				ePPlp		15 18 36.0	
	comp=Z,300nm,8.0s						
GIRR	Girov	148.96	332	⇓P	PKiKP	15 15 10.2	+0.8
KOLS	Kolonicke sedl	148.96	339	PKP2	PKPbc	15 15 06.5	-1.5
KOLS	Kolonicke sedl	148.96	339	ePKP	PKiKP	15 15 09.2	-0.1
BURAR	Bucovina Array	148.98	335	⇓PKP2	PKiKP	15 15 10.2	+0.7
BURAR	Bucovina Array	148.98	335	⇓P	PKiKP	15 15 10.2	+0.7
GTTG	Gottingen	149.04	355	ePKPbc	PKPbc	15 15 08.2	+0.1
	baz=8.0,slow=2.5						
OSTC	Ostas	149.12	347	⇑ePKP	PKiKP	15 15 09.7	+0.1
BIZ	Bicaz	149.15	333	⇓P	PKiKP	15 15 09.8	+0.1
VARL	Varlezi	149.15	330	⇓P	PKPbc	15 15 07.0	-1.5
NIE	Niedzica	149.16	342	ePKPbc	PKiKP	15 15 09.3	-0.4
TLCR		149.19	328	⇓PKP2	PKiKP	15 15 09.2	-0.6
TLCR		149.19	328	⇓P	PKiKP	15 15 09.2	-0.6
NEUB	Neuenburg	149.20	353	ePKPbc	PKPbc	15 15 08.5	+0.1
	baz=8.0,slow=2.5						
UPC	Upice	149.21	348	PKP2	PKiKP	15 15 09.5	-0.2
UPC	Upice	149.21	348	⇑ePKP	PKiKP	15 15 09.3	-0.4
BRG	Berggiesshubel	149.23	350	PKIKP	PKPdf	15 15 05.4	+1.1
BRG	Berggiesshubel	149.23	350	ePKPbc	PKPbc	15 15 08.7	+0.2
	baz=8.0,slow=2.5						
BRG	Berggiesshubel	149.23	350	⇓ePKPf		15 15 04.7	
BRG				Amp		15 15 07.4	
	comp=Z,6.2nm,1.1s						
BRG				⇑PKPb		15 15 09.5	
BRG				Amp		15 15 11.3	
	comp=Z,40nm,1.2s						
BRG				PKPab	PKPab	15 15 14.1	+1.1
BRG				Amp		15 15 15.2	
	comp=Z,52nm,1.1s						
BRG	Berggiesshubel	149.23	350	P	PKPab	15 15 20.2	+7.2
BRG				Amp		15 15 21.9	
	comp=Z,58nm,1.2s						
BRG				PP	PP	15 18 39.2	-0.2
BRG				Amp		15 18 43.8	
	comp=Z,6.2nm,1.3s						
GHRR		149.24	330	⇓P	PKiKP	15 15 10.4	+0.5
TESR	Tescani	149.24	332	⇓P	PKiKP	15 15 09.4	-0.5
SCTR	Scanteiesti	149.24	329	⇓P	PKiKP	15 15 09.6	-0.3
BUG	Bochum--Univer	149.28	359	PKP2	PKiKP	15 15 09.5	-0.3
BUG	Bochum--Univer	149.28	359	ePKPbc	PKPbc	15 15 08.9	+0.3
	baz=8.0,slow=2.5						
DPC	Dobruska-Polom	149.29	347	PKP2	PKiKP	15 15 09.9	-0.1
DPC	Dobruska-Polom	149.29	347	⇑ePKP	PKiKP	15 15 09.4	-0.6
OKC	Ostrava-Krasne	149.36	345	PKP2	PKiKP	15 15 09.7	-0.3
STEB	Steborice	149.36	345	⇑ePKP	PKiKP	15 15 09.9	-0.2
SCHL	Schela	149.45	329	⇑P	PKiKP	15 15 11.0	+0.7
KRLC	Kraliky	149.45	346	PKP2	PKiKP	15 15 09.9	-0.4
KRLC	Kraliky	149.45	346	⇑ePKP	PKiKP	15 15 10.1	-0.2
JURR	Jurilovca	149.46	327	⇑P	PKiKP	15 15 10.6	+0.2
SCHLR	Schela	149.47	329	⇓P	PKPbc	15 15 08.4	-0.9
KASTN	Kahler Asten	149.47	357	ePKPbc	PKPbc	15 15 09.0	-0.2
	baz=8.0,slow=2.5						
ONER	Baraj Valea Uz	149.49	332	⇓P	PKiKP	15 15 10.6	+0.1
PANC	Panciu	149.50	330	⇑P	PKiKP	15 15 10.8	+0.4
BMOL	Mol	149.51	1	dPKiKP	PKiKP	15 15 10.4	+0.2
CFR	Carcaliu	149.53	328	⇑P	PKPbc	15 15 09.8	+0.3
MORC	Moravsky Berou	149.56	345	PKP2	PKiKP	15 15 10.1	-0.4
MORC	Moravsky Berou	149.56	345	ePKP	PKPbc	15 15 09.4	-0.1
MORC	Moravsky Berou	149.56	345	⇓P	PKiKP	15 15 10.8	+0.3
HSKC	Hora Svate Kat	149.57	351	⇑ePKP	PKiKP	15 15 10.4	-0.1
BMR	Baia Mare	149.60	336	⇓P	PKiKP	15 15 10.8	+0.2
BOPT	Opiter	149.62	1	dPKiKP	PKiKP	15 15 10.8	+0.3
ODBI	Odobesti	149.62	330	⇑P	PKiKP	15 15 11.7	+1.0
TPGR	Topolog	149.62	328	⇓P	PKiKP	15 15 10.8	0.0
VRI	Vrincioaia	149.69	331	PKP2	PKiKP	15 15 10.7	-0.2
VRI	Vrincioaia	149.69	331	⇑P	PKiKP	15 15 11.0	+0.1
BR131	Keskin Array S	149.73	315	P	PKPbc	15 15 10.1	-0.2
	SNR=12						
BR131	Keskin Array S	149.73	315	i PKHKP	PKPpre	15 15 04.8	
BRTR	Keskin Array B	149.73	315	PKP	PKPdf	15 15 05.5	-0.2
	comp=Z,4.7nm,1.1s,baz=50,slow=2.2,SNR=11						
BRTR				PKPbc	PKPbc	15 15 10.6	+0.2
	comp=Z,23nm,1.2s,baz=55,slow=3.5,SNR=18						
BRTR				PP	PP	15 18 44.1	+0.5
	comp=Z,6.3nm,1.2s,baz=344,slow=7.4,SNR=4.3						
PLOR	Plostina	149.74	331	⇓P	PKiKP	15 15 10.8	-0.2
BR105	Keskin Array S	149.75	315	PKP	PKPdf	15 15 04.3	-1.4
ARCR	ARCALIA	149.75	335	⇓P	PKiKP	15 15 10.8	-0.2
MOX	Moxa	149.77	353	PKP2	PKiKP	15 15 10.4	-0.5
MOX	Moxa	149.77	353	ePKPbc	PKPbc	15 15 09.9	0.0
	baz=8.0,slow=2.5						
SAHR	Sahastru	149.82	331	⇑P	PKiKP	15 15 11.2	0.0
KIRS	Kirsehir-Merke	149.84	314	⇑P	PKPbc	15 15 10.4	-0.2
PLN	Plauen	149.86	352	ePKPbc	PKPbc	15 15 10.2	0.0
	baz=8.0,slow=2.5						
MAUC	Maruska	149.87	345	⇑ePKP	PKiKP	15 15 11.8	+0.6
TANN	Tannenbergstha	149.89	352	ePKPbc	PKPbc	15 15 10.4	+0.1
	baz=8.0,slow=2.5						
UCC	Uccle	149.90	2	dPKiKP	PKiKP	15 15 12.5	+1.4
OZUR		149.94	332	⇓P	PKiKP	15 15 11.0	-0.4
BISRR	Bisoca	149.94	330	⇓P	PKiKP	15 15 11.6	+0.1
COVR	Voineasa-Covas	149.95	331	⇑P	PKPbc	15 15 10.8	+0.3
COVR	Voineasa-Covas	149.95	331	⇑P	PKPbc	15 15 10.8	+0.3
PRU	Pruhonice	149.98	349	PKP2	PKiKP	15 15 11.1	-0.3
PRU	Pruhonice	149.98	349	⇑ePKP	PKiKP	15 15 11.0	-0.3
HARR	Harsova	149.99	328	⇑PKP2	PKiKP	15 15 11.5	0.0
HARR	Harsova	149.99	328	⇑P	PKiKP	15 15 11.5	0.0
BOSR	Bodos	150.01	332	⇑P	PKiKP	15 15 12.6	+1.0
TLBR	Topalu	150.03	328	⇑P	PKiKP	15 15 11.8	+0.2
MFTR	Murfatlar	150.10	327	⇑P	PKiKP	15 15 12.0	+0.3
MEM	Membach	150.12	0	dPKiKP	PKiKP	15 15 11.4	-0.2
DOPR	Dopca	150.21	332	⇑P	PKiKP	15 15 13.0	+1.0
VRAC	Vranov	150.22	346	PKPbc	PKPbc	15 15 10.2	-0.8
	comp=Z,21nm,1.2s,baz=5.7,slow=1.4,SNR=20						
VRAC	Vranov	150.22	346	ePKP	PKPbc	15 15 10.7	-0.3
VRAC	Vranov	150.22	346	⇓P	PKiKP	15 15 12.0	+0.1
MESR	Meseseni	150.24	336	⇑P	PKiKP	15 15 12.8	+0.8
BCLA	Clavier	150.31	1	dPKP	PKiKP	15 15 12.6	+0.7
MLR	Muntele Rosu	150.34	331	PKPbc	PKPbc	15 15 11.6	0.0
	comp=Z,45nm,1.2s,baz=41,slow=2.6,SNR=5.6						
MLR	Muntele Rosu	150.34	331	PKIKP	PKPdf	15 15 07.5	+1.1
MLR	Muntele Rosu	150.34	331	⇑P	PKPbc	15 15 11.4	-0.2
ISR	Istrita	150.34	330	⇑PKIKP	PKiKP	15 15 11.8	-0.5
ISR	Istrita	150.34	330	⇑P	PKiKP	15 15 11.8	-0.5
CJR	Cluj-Napoca	150.35	335	⇓PKIKP	PKiKP	15 15 12.8	+0.5
CJR	Cluj-Napoca	150.35	335	⇓P	PKiKP	15 15 12.8	+0.5
HWQ	Hawqa	150.37	304	⇓eP	PKPbc	15 15 09.6	-2.4
JAVC	Velka Javorina	150.38	344	ePKP	PKiKP	15 15 12.0	-0.3
VYHS	Vyhne	150.41	343	ePKP	PKPbc	15 15 11.7	+0.2
BMRD	Maredsous	150.41	2	dPKiKP	PKiKP	15 15 12.3	+0.1
TREC	Trest	150.47	347	PKIKP	PKPbc	15 15 11.3	-0.4
KRUC	Moravsky	150.49	346	PKIKP	PKPbc	15 15 11.1	-0.6
KRUC	Moravsky	150.49	346	ePKP	PKPbc	15 15 11.0	-0.6
RCHB	Rochefort	150.57	1	dPKP	PKiKP	15 15 12.6	+0.1
MARR	Marisel-Cluj	150.57	336	⇑P	PKiKP	15 15 13.4	+0.6
ZVC	Zvikov	150.57	349	⇑ePKP	PKiKP	15 15 12.5	-0.1
ZVC				ePKPAB	pPKPab	15 15 20.5	-2.6
DOU	Dourbes	150.61	2	dPKP	PKiKP	15 15 12.2	-0.4
PSZ	Piszkesteto	150.62	341	⇓P	PKiKP	15 15 12.8	0.0
PSZ	Piszkesteto	150.62	341	IAMs_20	IAMs_20	16 10 32.6	
	comp=Z,1µm,20.0s						
PSZ	Piszkesteto	150.62	341	⇓P	PKiKP	15 15 12.8	0.0
DRGR		150.63	336	⇓P	PKiKP	15 15 12.8	-0.1
DRGR		150.63	336	⇓P	PKiKP	15 15 12.8	-0.1
BHL	Bhannes	150.72	303	eP	PKPdf	15 15 09.8	+2.5
GRF	Grafenberg Arr	150.75	353	ePKPbc	PKPbc	15 15 11.9	-0.4
	baz=8.0,slow=2.5						
VOIR		150.78	332	⇑PKIKP	PKiKP	15 15 14.2	+1.0
VOIR		150.78	332	⇑P	PKiKP	15 15 14.2	+1.0
SAHE	Sakarya_HENDEK	150.88	319	⇑P	PKiKP	15 15 13.2	-0.3
MODS	Modra-Piesok	150.93	345	ePKP	PKiKP	15 15 13.7	+0.3
MTUR	Matau	150.94	332	⇑PKIKP	PKiKP	15 15 14.6	+1.0
MTUR	Matau	150.94	332	⇑P	PKiKP	15 15 14.6	+1.0
TNR	Turnu Rosu	150.94	333	⇓P	PKiKP	15 15 14.8	+1.3
KHC	Kasperske Hory	150.98	350	i PKIKP	PKPdf	15 15 06.5	-0.7
KHC	Kasperske Hory	150.98	350	⇑ePKP	PKPbc	15 15 12.5	-0.4
KHC				ePKPAB	PKPab	15 15 20.6	+0.3
ARR	Arges	151.01	332	⇑P	PKiKP	15 15 14.7	+1.0
WLF	Walferdange	151.07	360	dPKiKP	PKiKP	15 15 13.7	+0.1
WLF	Walferdange	151.07	360	ePKPbc	PKiKP	15 15 13.4	-0.2
	baz=8.0,slow=2.5						
WET	Wettzell	151.07	351	PKIKP	PKPbc	15 15 12.9	-0.2
WET	Wettzell	151.07	351	ePKPbc	PKPbc	15 15 13.1	0.0
	baz=8.0,slow=2.5						
SRO	Srobarova	151.17	343	ePKP	PKiKP	15 15 15.3	+1.5
MMAI	Mount Meron Ar	151.20	301	PKP	PKPdf	15 15 08.3	+0.2
	comp=Z,8.2nm,1.0s,baz=67,slow=2.2,SNR=4.5						
MMAI				PKPbc	PKiKP	15 15 14.3	-0.2
	comp=Z,64nm,1.2s,baz=56,slow=6.4,SNR=15						
GEC2	GERESS Array S	151.23	350	ePKPbc	PKPbc	15 15 13.4	-0.3
	baz=8.0,slow=2.5						
GERES	GERESS Array B	151.23	350	PKPbc	PKPbc	15 15 13.3	-0.3
	comp=Z,1.3nm,0.8s,baz=20,slow=2.8,SNR=10						
DEV	Deva	151.31	335	⇑P	PKiKP	15 15 13.8	-0.4
DEV	Deva	151.31	335	⇑PKIKP	PKiKP	15 15 13.8	-0.4
DEV	Deva	151.31	335	⇑P	PKiKP	15 15 13.8	-0.4
LOT	Lotru	151.31	334	⇓P	PKPbc	15 15 13.2	-0.7
WINA	Alland / Wiene	151.47	346	i PKiKP	PKiKP	15 15 15.2	+0.8
	SNR=9.5						
LOZB	Loznitsa	151.61	328	⇓P	PKPbc	15 15 13.2	-1.3
CONA	Conrad Observa	151.68	346	i PKiKP	PKiKP	15 15 14.9	-0.1
	comp=Z,52nm,1.6s,SNR=14						
RONA	Rosalia, Austr	151.80	345	i PKiKP	PKiKP	15 15 15.5	+0.2
	comp=Z,42nm,1.5s,SNR=9.3						
STU	Stuttgart	151.85	356	PKIKP	PKPdf	15 15 10.5	+2.1
STU	Stuttgart	151.85	356	ePKPbc	PKiKP	15 15 14.9	-0.4
	baz=8.0,slow=2.5						
BZS	Buzias	152.03	336	⇓PKIKP	PKPbc	15 15 14.8	-0.6
BZS	Buzias	152.03	336	⇓P	PKPbc	15 15 14.8	-0.6
MOA	Molln	152.09	348	i PKiKP	PKiKP	15 15 15.5	-0.3
	comp=Z,29nm,1.1s						
FUR	Furstenfeldbru	152.25	353	ePKPbc	PKPbc	15 15 15.5	-0.3
	baz=8.0,slow=2.5						
HERR	Herculane	152.33	335	⇑P	PKPbc	15 15 15.3	-0.7
BFO	Black Forest	152.34	357	ePKPbc	PKiKP	15 15 16.0	-0.3
	baz=8.0,slow=2.5						
BIOA	Bad Ischl, Aus	152.36	349	ePKP	PKPbc	15 15 15.8	-0.3
	comp=Z,30nm,1.2s						
ARSA	Arzberg	152.40	346	i PKiKP	PKPbc	15 15 16.1	-0.1
	comp=Z,13nm,1.1s						
MORH	Mrgy, Hungar	152.52	341	⇓P	PKiKP	15 15 16.6	-0.1
KEPZ	Antalya-Kepez	152.52	312	⇓P	PKPbc	15 15 16.4	-0.4
PLVB	Pleven	152.56	330	⇓P	PKPbc	15 15 15.0	-1.6
PLVB	Pleven	152.56	330	⇓P	PKPbc	15 15 15.0	-1.6
LESA	Schwarzleotal	152.78	350	ePKP	PKPbc	15 15 15.9	-1.2
	comp=Z,52nm,1.6s						
ISP	Isparta	152.80	314c	i PKIKP	PKPbc	15 15 16.9	-0.6
ISP				pmax	pmax		
	comp=Z,23nm,1.3s						
UBR	Ueberruh	152.86	354	ePKPbc	PKPbc	15 15 16.7	-0.5
	baz=8.0,slow=2.5						
RETA	Reutte	152.98	353	i PKiKP	PKiKP	15 15 18.1	+0.4
	comp=Z,23nm,1.0s,SNR=8.0						
KBA	Koelnbreinsper	153.00	349	ePKiKP	PKPbc	15 15 17.3	-0.4
	comp=Z,24nm,0.9s						
WATA	Walderalm	153.03	352	i PKiKP	PKiKP	15 15 18.1	+0.2
	comp=Z,30nm,1.2s,SNR=7.0						
SOKA	Soboth	153.05	346	ePKP	PKPbc	15 15 17.1	-0.6
	comp=Z,24nm,1.2s						
MOTA	Moosalm	153.08	352	i PKiKP	PKPbc	15 15 17.7	-0.2
	comp=Z,28nm,1.2s,SNR=9.5						
WTTA	Wattenberg	153.09	352	PKIKP	PKPbc	15 15 16.3	-1.6
WTTA	Wattenberg	153.09	352	i PKP	PKPbc	15 15 16.1	-1.8
	comp=Z,32nm,1.1s,SNR=14						
SQTA	Sankt Quirin	153.19	352	ePKP	PKPbc	15 15 17.3	-0.8
	comp=Z,32nm,1.4s						
DAVA	Damuels	153.27	354	i PKiKP	PKiKP	15 15 18.5	+0.1
	comp=Z,29nm,1.1s,SNR=11						
OBKA	Obir	153.31	347	ePKP	PKPbc	15 15 17.6	-0.7
	comp=Z,11nm,1.2s						
MYKA	Terra Mystica	153.38	348	ePKP	PKPbc	15 15 17.8	-0.7
	comp=Z,12nm,1.1s						
FETA	Feichten	153.44	353	i PKiKP	PKPbc	15 15 18.2	-0.5
	comp=Z,33nm,1.4s,SNR=9.7						
ABTA	Abfaltersbach	153.46	350	i PKiKP	PKiKP	15 15 18.5	-0.2
	comp=Z,48nm,1.1s,SNR=8.4						
DAVOX	Davos/Dischmat	153.77	354	PKP	PKPdf	15 15 11.3	-0.3
	comp=Z,1.0nm,0.6s,baz=10,slow=1.6,SNR=3.5						
DAVOX				PKPbc	PKPbc	15 15 18.4	-1.0
	comp=Z,8.8nm,1.0s,baz=6.7,slow=2.4,SNR=10						
TAVA	DENIZLI_Tavas	154.06	315	⇓P	PKPbc	15 15 18.3	-2.0
GRG	Griva	155.48	329	PKIKP	PKPdf	15 15 13.9	0.0
PGAV	Gavieira, Arco	155.55	27	eSS	SS	15 39 11.1	+10
PGAV				eLR	LR	16 20 41.7	
PGAV				i IAMs_20	IAMs_20	16 37 17.9	
	comp=Z,2µm,20.0s						
PDG	Podgorica	155.63	336	⇑P	PKPdf	15 15 12.7	-1.3
PHP	Peshkopia	155.78	333	PKIKP	PKPdf	15 15 14.3	0.0
PMOZ	Porto Moniz, M	156.00	55	eLR	LR	16 17 06.9	
PMOZ				i IAMs_20	IAMs_20	16 46 08.3	
	comp=Z,1µm,18.0s						
PVIS	Viseu	156.74	28	ePKPab	PKPab	15 15 45.5	+0.6
MTE	Manteigas	157.15	28	eSS	SS	15 39 34.1	+16
MTE				eLR	LR	16 20 17.0	
PCBR	Castelo Branco	157.64	28	ePKPdf	PKPdf	15 15 19.1	+2.4
PMRV	Marv??o	158.01	29	eSS	SS	15 39 32.4	+5.0
PMRV				eLR	LR	16 20 10.7	
PMRV				i IAMs_20	IAMs_20	16 37 29.3	
	comp=Z,1µm,22.0s						
MESJ	Messejana	158.87	33	ePKPdf	PKPdf	15 15 16.1	-2.1
MORF	Marmelete	159.05	35	ePKPdf	PKPdf	15 15 16.3	-2.2
MORF	Marmelete	159.05	35	ePKPdf	PKPdf	15 15 18.4	-0.2
PFVI	Vila Bisbo	159.08	35	ePKPdf	PKPdf	15 15 16.3	-2.2
ESDC	Sonseca Array	159.19	22	PKP	PKPdf	15 15 18.5	-0.2
	comp=Z,4.5nm,1.2s,baz=345,slow=2.8,SNR=10						
ESDC				PKPab	PKPab	15 15 55.8	+0.2
	comp=Z,5.9nm,1.2s,baz=311,slow=3.7,SNR=6.6						
ESDC				PP	PP	15 19 35.5	-0.3
	comp=Z,2.0nm,1.2s,baz=340,slow=5.7,SNR=4.1						
PVAQ	Vaqueiros	159.46	33	eSS	SS	15 39 59.1	+16
PVAQ				eLR	LR	16 22 28.0	
PVAQ				i IAMs_20	IAMs_20	16 36 03.3	
	comp=Z,1µm,20.0s						
TORD	Torodi Ar. Bea	171.42	150	PKP	PKPdf	15 15 28.7	-0.8
	comp=Z,7.2nm,1.2s,baz=225,slow=0.4,SNR=11						
TORD				PKPab	PKPab	15 16 50.9	+1.1
	comp=Z,5.8nm,1.1s,baz=228,slow=4.2,SNR=6.3						
TAM	Tamanrasset	177.82	14	PKIKP	PKPdf	15 15 33.1	+1.6

IDC 06 15:08:03.7±1.6**,8°.15S**×**117°.57E,h0**^{km}**,mb3.4**/4**, mbtmp3.5**/5**,ML4.0**/1**,Error ellipse: s-maj=31.0km s-min=20.7km az=87.0,Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAPI	Kappang	3.80	35	Pn	Pn	15 09 06.3	+2.7
	10.0nm,0.3s,baz=217,slow=3.7,SNR=19						
KAPI				Sn	Sn	15 09 49.3	+0.3
	1.5nm,0.3s,baz=235,slow=23,SNR=1.5						
	21nm,0.3s						
KAPI				AML	AML		
WRA	Warramunga Arr	20.03	128	P	P	15 12 38.5	0.0
	0.6nm,0.5s,baz=300,slow=12,SNR=8.1						
	0.6nm,0.5s						
ASAR	Alice Springs	21.98	136	P	P	15 12 59.4	-0.2
	0.4nm,0.5s,baz=309,slow=8.8,SNR=14						
	0.4nm,0.5s						
SONM	Songino Array	56.61	351	P	P	15 17 48.8	+0.2
	0.5nm,0.6s,baz=174,slow=5.8,SNR=1.9						
	0.5nm,0.6s						
MKAR	Makanchi Array	63.07	334	P	P	15 18 32.5	-0.4
	0.4nm,0.5s,baz=138,slow=6.7,SNR=3.2						
	0.4nm,0.5s						

ROM 06 15:12:42.2±0.3**,40°.821N**±0°.003×**14°.414E**±0°.009**,h2**^{km}**, Md1.4**/4**,Error ellipse: s-maj=0.8km s-min=0.3km az=272.0,Southern Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VCRE	Vesuvio Crater	0.01	97	P	Pg	15 12 44.0	+1.1
VCRE				S	Sg	15 12 44.7	+1.5
VCRE				END			
VBKN	Vesuvio Bunker	0.01	52	P	Pg	15 12 43.9	+1.0
VBKN				S	Sg	15 12 44.6	+1.3
VBKN				END			
VTIR	Vesuvio Tirone	0.02	153	P	Pg	15 12 43.8	+1.0
VTIR				S	Sg	15 12 44.4	+1.3
VTIR				AML	AML		
	comp=E,611µm,0.1s						
VTIR				AML	AML		
	comp=N,388µm,0.2s						
VTIR				END			
VVDG	Vesuvio Valle	0.02	26	P	Pg	15 12 43.7	+0.9
VVDG				S	Sg	15 12 44.5	+1.2
VVDG				END			

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*IDC **06** 15:16:50.7±1.2, 60°.52N×28°.69W, h0^{km}, mb3.5/5, mbtmp3.5/7, ML3.7/2, MS3.5/1, Error ellipse: s-maj=25.4km s-min=20.5km az=40.0*

ISC 06 15:16:52.1±1.1**,60°.5N**±0°.1×**28°.6W**±0°.1**,h10**^{km}**,n8,**σ1^{s}**42**/7**, mb3.5**/4**,Reykjanes Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BORG	Borgarnes	5.40	35	Pn	Pn	15 18 12.1	-0.4
	2.7nm,0.3s,baz=221,slow=6.9,SNR=14						
	9.4nm,0.5s						
BORG				AML	AML		
EKA	Eskdalemuir Ar	14.42	100	Pn	Pn	15 20 15.6	-0.4
	baz=297,slow=9.5						
	0.1nm,0.3s						
NOA	NORSAR Array B	19.24	71	LR	LR	15 28 15.8	
	comp=Z,129nm,18.6s,baz=285,slow=36						
ESDC	Sonseca Array	25.89	133	P	P	15 22 25.8	+1.9
	1.3nm,0.9s,baz=335,slow=11,SNR=5.7						
	1.3nm,0.9s						
ILAR	Eielson Array	46.78	329	P	P	15 25 20.6	-0.5
	0.5nm,0.8s,baz=38,slow=7.9,SNR=8.4						
	0.5nm,0.8s						
PDAR	Pinedale Array	49.82	288	P	P	15 25 45.3	+0.2
	0.2nm,0.4s,baz=46,slow=6.3,SNR=3.8						
	0.2nm,0.4s						
TORD	Torodi Ar. Bea	52.23	142	P	P	15 26 01.6	-1.5
	0.3nm,0.6s,baz=336,slow=7.5,SNR=2.2						
	0.3nm,0.6s						
KURBB	Kurchatov Arra	54.74	48	P	P	15 26 22.4	+1.2
	0.3nm,0.6s,baz=334,slow=6.2,SNR=2.2						
	0.3nm,0.6s						

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*IDC **06** 15:17:07.8±0.7, 60°.57N×28°.70W, h0^{km}, mb3.9/14, mbtmp3.9/17, ML2.8/2, MS4.0/1, Error ellipse:*

s-maj=17.7km s-min=13.5km az=169.0

*NEIC **06** 15:17:09.9±1.5,60°.8N±0°.1×28°.6W±0°.1,h10^{km}±1^{km}, mb4.4/79,Error ellipse: s-maj=17.4km s-min=11.3km az=174.0*

ISC 06 15:17:09.6±0.5,**60°.72N**±0°.08×**28°.65W**±0°.05,**h10**^{km}**,n92,** σ**1^s.55**/67,**mb4.4**/51,**4D,Reykjanes Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BORG	Borgarnes	5.26	37	Pn	Pn	15 18 28.4	+0.3
	22nm,0.3s,baz=234,slow=7.9,SNR=16						
BORG				Sn	Sn	15 19 30.6	+1.9
	3.8nm,0.3s,baz=212,slow=23,SNR=7.7						
BORG				LR	LR	15 20 02.3	
	comp=Z,1µm,18.1s,baz=258,slow=32						
BORG	Borgarnes	5.26	37	Pn	Pn	15 18 27.6	-0.6
BORG				Sn	Sn	15 19 27.9	-0.8
ANGG	Ammassalik, Gr	6.37	324	Pn	Pn	15 18 41.4	-2.0
NRS	Narsarsuaq	8.18	280	Pn	Pn	15 19 10.2	+2.1
IVI	Ivigtut	9.50	281	Pn	Pn	15 19 26.2	-0.1
SUMG	Summit	12.50	346		Pn	15 20 06.0	-1.5
ESK	Eskdalemuir	14.47	101	P	P	15 20 40.7	-0.3
EKA	Eskdalemuir Ar	14.49	101	Pn	Pn	15 20 32.0	-2.4
	baz=301,slow=15						
	0.9nm,0.6s						
NOA	NORSAR Array B	19.20	72	P	P	15 21 32.8	-0.5
	baz=284,slow=10,SNR=4.1						
	1.1nm,0.9s						
SCHQ	Schefferville	20.96	271	P	P	15 21 53.4	+0.9
	12nm,1.0s,baz=55,slow=11,SNR=5.6						
	12nm,1.0s						
SCHQ	Schefferville	20.96	271	IAmb	IAmb	15 21 58.3	
	comp=Z,20nm,1.1s						
BMRD	Maredsous	21.36	104	*d*P	P	15 21 57.3	+0.6
	comp=Z,8.2nm,1.2s						
DOU	Dourbes	21.42	105	*d*P	P	15 21 59.0	+1.6
	comp=Z,4.8nm,0.8s						
DOU				*d*PP	PnPn	15 22 15.9	-1.2
RCHB	Rochefort	21.68	104	*d*P	P	15 21 58.6	-1.5
CLF	Chambon-Foret	21.79	112		P	15 21 59.6	-1.8
CLF				IAmb	IAmb	15 22 04.4	
	comp=Z,17nm,0.9s						
ARCES	ARCESS Array B	23.59	45	P	P	15 22 22.9	+2.8
	comp=Z,2.5nm,0.9s,baz=282,slow=9.5,SNR=1.6						
	comp=Z,2.5nm,0.9s						
ARCES	ARCESS Array B	23.59	45	IAmb	IAmb	15 22 33.5	
	comp=Z,16nm,1.4s						
CLL	Collm	24.71	94	*e*P	P	15 22 29.0	-1.6
CLL				*e*S	S	15 27 00.0	+7.9
CLL				L	L	15 30 00.0	
SENIN	Lac Senin/Sane	25.34	108	P	P	15 22 36.2	-0.4
BATG	Bathurst New B	25.36	255	P	P	15 22 36.8	+0.3
BRG	Berggiesshubel	25.44	93	*e*P	P	15 22 38.0	+0.7
BRG				Amp		15 22 40.1	
	comp=Z,2.0nm,0.7s						
FINES	FINESS Array B	25.83	64	P	P	15 22 41.6	+1.0
	comp=Z,2.1nm,0.7s,baz=299,slow=9.2,SNR=6.3						
	comp=Z,2.1nm,0.7s						
FINES	FINESS Array B	25.83	64	P	P	15 22 39.6	-1.0
ESDC	Sonseca Array	26.04	133	P	P	15 22 43.0	+0.2
	comp=Z,3.4nm,0.8s,baz=335,slow=9.5,SNR=16						
	comp=Z,3.4nm,0.8s						
ESDC	Sonseca Array	26.04	133	P	P	15 22 43.4	+0.6
MAHO	Mahon	29.10	121	P	P	15 23 10.2	+0.1
F30M	Barrier River	41.50	326	P	P	15 24 55.8	-0.5
G31M	Satah River	41.57	325	P	P	15 24 56.5	-0.3
G31M				IAmb	IAmb	15 24 57.7	
	comp=Z,7.1nm,1.1s						
IDI	Anoyia	42.29	102	P	P	15 25 03.1	-0.1
H31M	Peel River	42.38	324		P	15 25 03.6	+0.1
F28M	Old Crow	42.59	328	P	P	15 25 04.7	-0.5
E27K	Coleen River	42.60	329	P	P	15 25 05.0	-0.3
G29M	Pine Creek	42.61	327		P	15 25 05.0	-0.4
G29M				IAmb	IAmb	15 25 11.0	
	comp=Z,7.7nm,1.1s						
D25K	Kavik River	42.88	332	P	P	15 25 08.2	+0.7
BRTR	Keskin Array B	43.06	90	P	P	15 25 10.4	+0.9
	comp=Z,0.9nm,0.7s,baz=305,slow=4.4,SNR=3.9						
	comp=Z,0.9nm,0.7s						
NHSC	New Hope	43.10	254	P	P	15 25 11.1	+1.5
I30M	Mount Dempster	43.39	324		P	15 25 11.8	0.0
E25K	Arctic Village	43.62	331	P	P	15 25 13.9	+0.4
EDM	Edmonton	43.69	300		P	15 25 14.8	+0.5
I29M	Ogilvie Camp,	43.84	325	P	P	15 25 15.2	-0.1
I29M				IAmb	IAmb	15 25 20.1	
	comp=Z,7.0nm,0.8s						
J30M	Hart River	43.86	324		P	15 25 16.1	+0.5
J30M				IAmb	IAmb	15 25 22.3	
	comp=Z,9.5nm,1.2s						
H27K	Steamboat Moun	44.06	328		P	15 25 16.4	-0.6
H27K				IAmb	IAmb	15 25 18.3	
	comp=Z,5.8nm,0.9s						
G26K	Porcupine Rive	44.09	329	IAmb	IAmb	15 25 20.2	
	comp=Z,6.8nm,0.9s						
I28M	Miner Creek	44.22	326		P	15 25 18.1	-0.4
KBZ	Khabaz	44.55	79	P	P	15 25 22.2	+1.0
	comp=Z,3.1nm,0.9s,baz=322,slow=11,SNR=5.2						
	comp=Z,3.1nm,0.9s						
I27K	Kandik River	44.56	327	IAmb	IAmb	15 25 27.0	
	comp=Z,8.8nm,1.2s						
FYU	Fort Yukon	44.75	329	IAmb	IAmb	15 25 29.1	
	comp=Z,7.1nm,1.0s						
K29M	Barlow Dome	44.75	323		P	15 25 22.6	-0.2
K29M				IAmb	IAmb	15 25 28.9	
	comp=Z,5.0nm,0.9s						
DAWY	Dawson	45.12	325	IAmb	IAmb	15 25 31.6	
	comp=Z,6.4nm,1.0s						
N32M	Quiet Lake	45.40	319	IAmb	IAmb	15 25 30.3	
	comp=Z,6.9nm,0.9s						
H24K	Noodor Dome	45.98	330	IAmb	IAmb	15 25 38.1	
	comp=Z,3.9nm,1.0s						
R33M	Jennings River	46.01	316	IAmb	IAmb	15 25 36.7	
	comp=Z,6.5nm,1.2s						
N31M	Braeburn, Yuko	46.01	320	IAmb	IAmb	15 25 38.3	
	comp=Z,7.0nm,1.1s						
AKTO	Aktyubinsk	46.55	62	P	P	15 25 37.5	+0.5
	comp=Z,1.7nm,0.7s,baz=308,slow=8.3,SNR=5.8						
	comp=Z,1.7nm,0.7s						
BCAR	Beaver Creek A	46.58	325	P	P	15 25 36.5	-0.6
L27K	Beaver Creek,	46.59	325	IAmb	IAmb	15 25 43.1	
	comp=Z,4.2nm,1.1s						
IL31		46.60	329	IAmb	IAmb	15 25 42.0	
	comp=Z,3.0nm,0.9s						
ILAR	Eielson Array	46.60	329	P	P	15 25 37.8	+0.7
	comp=Z,2.6nm,0.9s,baz=30,slow=6.7,SNR=13						
ILAR				PcP	PcP	15 27 08.2	-2.7
	comp=Z,0.7nm,0.9s,baz=4.6,slow=3.5,SNR=4.1						
	comp=Z,2.6nm,0.9s						
HYT	Haines Junctio	47.05	321		P	15 25 40.7	-0.3
M27K	Edge Creek, AK	47.16	324	IAmb	IAmb	15 25 45.2	
	comp=Z,3.0nm,0.9s						
H21K	Melozitna Rive	47.30	332	IAmb	IAmb	15 25 49.2	
	comp=Z,3.4nm,0.9s						
LDM	Libby Dam	48.02	297		P	15 25 48.0	-0.6
BOZ	Bozeman (W)	48.52	292	IAmb	IAmb	15 26 04.8	
	comp=Z,4.2nm,1.3s						
YPP	Pitchstone Pla	49.16	290	IAmb	IAmb	15 26 03.4	
	comp=Z,4.8nm,1.2s						
BVAR	Borovoye Array	49.66	52	P	P	15 26 01.3	+0.3
	comp=Z,0.9nm,0.8s,baz=335,slow=6.4,SNR=3.5						
	comp=Z,0.9nm,0.8s						
PD31	Pinedale Array	49.73	288	IAmb	IAmb	15 26 04.7	
	comp=Z,4.7nm,1.1s						
PDAR	Pinedale Array	49.73	288	P	P	15 26 00.6	-1.3
	comp=Z,2.2nm,0.9s,baz=26,slow=5.7,SNR=6.2						
	comp=Z,2.2nm,0.9s						
PDAR	Pinedale Array	49.73	288		P	15 26 00.4	-1.6
BW06	Boulder Array	49.73	288	IAmb	IAmb	15 26 04.7	
	comp=Z,4.6nm,1.1s						
STLK	Strandline Lak	50.57	329	IAmb	IAmb	15 26 13.8	
	comp=Z,6.3nm,1.1s						
WMOK	Wichita Mounta	50.83	273	P	P	15 26 10.5	+0.4
RDMU	Red Mountain	51.44	286	IAmb	IAmb	15 26 19.6	
	comp=Z,10nm,1.3s						
T25A	Trinidad	51.67	279	P	P	15 26 16.1	-0.5
T25A				IAmb	IAmb	15 26 20.5	
	comp=Z,6.1nm,1.1s						
TORD	Torodi Ar. Bea	52.41	142	P	P	15 26 19.0	-3.0
	comp=Z,1.4nm,0.8s,baz=337,slow=7.9,SNR=6.9						
	comp=Z,1.4nm,0.8s						
PV13	Radium Mtn., P	52.99	283	IAmb	IAmb	15 26 30.5	
	comp=Z,6.3nm,1.1s						
PV05	Paradox Valley	53.19	284	IAmb	IAmb	15 26 29.9	
	comp=Z,6.9nm,1.1s						
TMUT	Trail Mountain	53.22	286	IAmb	IAmb	15 26 32.6	
	comp=Z,4.8nm,1.1s						
KURK	Kurchatov	54.59	48	P	P	15 26 37.5	-0.1
KURK	Kurchatov	54.59	48	IAmb	IAmb	15 26 39.1	
	comp=Z,4.2nm,1.4s						
KURBB	Kurchatov Arra	54.63	48	P	P	15 26 37.5	-0.4
	comp=Z,0.7nm,0.8s,baz=323,slow=7.2,SNR=4.3						
	comp=Z,0.7nm,0.8s						
PSUT	Pine Spring	55.07	288	IAmb	IAmb	15 26 45.7	
	comp=Z,2.8nm,0.9s						
WUAZ	Wupatki	56.33	284	IAmb	IAmb	15 26 54.8	
	comp=Z,6.2nm,1.1s						
X16A	Lo Mia Camp, P	57.25	283	IAmb	IAmb	15 27 01.9	
	comp=Z,4.4nm,1.0s						
TXAR	Lajitas Array	57.63	273	P	P	15 27 00.5	+0.8
	comp=Z,0.6nm,0.9s,baz=27,slow=7.9,SNR=5.7						
	comp=Z,0.6nm,0.9s						
GRAC	Grapevine Rang	57.95	289	IAmb	IAmb	15 27 05.6	
	comp=Z,4.5nm,1.0s						
GSC	Goldstone, Bar	59.07	288	IAmb	IAmb	15 27 14.9	
	comp=Z,4.7nm,1.1s						
MKAR	Makanchi Array	59.20	48	P	P	15 27 11.0	+0.5
	comp=Z,0.9nm,0.8s,baz=318,slow=6.5,SNR=5.8						
	comp=Z,0.9nm,0.8s						
BC3	Big Chuckawall	59.78	285	IAmb	IAmb	15 27 18.7	
	comp=Z,3.0nm,0.9s						
PFO	Pinyon Flats O	60.30	286	P	P	15 27 17.8	-0.5
PFO				IAmb	IAmb	15 27 20.5	
	comp=Z,5.0nm,1.1s						
WMQ	Urumqi	63.71	46	*e*P	P	15 27 43.4	+2.4
WMQ				LR	LR		
	comp=N,27µm,21.5s						
WMQ				LR	LR		
	comp=E,10µm,23.9s						
WMQ				LR	LR		
	comp=Z,9µm,24.0s						
HHC	Hu-ho-hao-te	73.69	30	*e*P	P	15 28 40.5	-2.8
HHC				pmax	pmax		
	comp=Z,9.0nm,0.5s						
HHC				pmax	pmax		
	comp=Z,270nm,6.4s						
LZDM	Lanzhou Array	76.09	38	P	P	15 28 58.5	+1.0
	comp=Z,3.8nm,0.4s,baz=354,slow=12,SNR=3.8						

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*MAN **06** 15:23:39.0,6°.08N×125°.92E,h143^{km},MS6.4*

MAN INTENSITY V - DON MARCELINO AND MALITA DAVAO OCCIDENTAL; GLAN MALAPATAN AND ALABELSARANGANI ; GENERAL SANTOS CITY; . INTENSITY IV - DAVAO CITY BANSALAN HAGONOY MATANAO MAGSAYSAY STA. CRUZ SULOP AND DIGOS CITY DAVAO DEL SUR; KIAMBA SARANGANI; TUPI LAKE SEBU NORALA AND POLOMOLOK SOUTH COTABATO; KORONADAL CITY; MATI CITY AND SAN ISIDRO DAVAO ORIENTAL . INTENSITY III - KIDAPAWAN CITY; MANAY DAVAO ORIENTAL; MAASIM SARANGANI; TAMPAKAN TANTANGAN SURALLAH AND BANGA SOUTH COTABATO; GINGOOG CITY; ROSARIO AGUSAN DEL SUR; . INTENSITY II - TACURONG CITY SULTAN KUDARAT; CAGAYAN DE ORO CITY; MAITUM SARANGANI; VILLANUEVA AND JASAAN MISAMIS ORIENTAL; MARAMAG AND DON CARLOS BUKIDNON; .

*BJI **06** 15:23:41.1,6°.20N×125°.97E,h110^{km},mB6.2/76,mb5.6/80*

*MOS **06** 15:23:43.2±1.2,6°.39N×125°.67E,h128^{km},mb5.6/65, MS5.6/15,Error ellipse: s-maj=6.8km s-min=3.7km az=115.2*

*IPGP **06** 15:23:43.0,6°.30N×125°.83E,h122^{km},Mw6.4,Fault plane solution: NP1:ϕ_s201.00000°,δ42.00000°,λ116.00000°. NP2:ϕ_s348.00000°,δ53.00000°,λ69.00000°.*

*PTWC **06** 15:23:43,6°.00N×125°.80E,h10^{km},Mwp6.2/5*

*NEIC **06** 15:23:43.1,6°.33N×125°.84E,h119^{km}*

*NEIC **06** 15:23:43,6°.28N×125°.84E,h119^{km}*

*NEIC **06** 15:23:43.1±2.5,6°.27N±0°.05×125°.83E±0°.08,h120^{km}±1^{km}, mb6.0/375,Mwb6.3/99,Mww6.3/47,Error ellipse: s-maj=13.2km s-min=9.1km az=81.0,Moment Tensor Solution. Moment tensor: Scale 10^{18}Nm; M_{rr}3.56; $M_{\theta\theta}$-0.18; $M_{\phi\phi}$-3.38; $M_{r\theta}$-1.44; $M_{\theta\phi}$0.23; $M_{\phi r}$0.78; Fault plane solution: $M_0$3.85000×10^{18} NP1:ϕ_s191.83000°, δ40.22000°,λ117.31000°. NP2:ϕ_s337.77000°,δ54.99000°, λ68.80000°. Principal axes: T 4.1129, Plg71.0000°, Azm196.0000°; N -0.5953, Plg17.0000°, Azm350.0000°; P -3.5176, Plg8.0000°, Azm83.0000°;*

*IDC **06** 15:23:44.6±0.4,6°.33N×125°.67E,h130^{km}±2^{km},mb5.3/37, mbtmp5.6/38,MS5.4/55 Error ellipse: s-maj=11.2km s-min=5.7km az=75.0*

*DJA **06** 15:23:44.0±0.2,6°N±2°×12°6E±°,h121^{km}±2^{km},M6.5/174, mb6.4/174,mB6.8/172,MLv7.1/7,Mw(mB)6.7/172, MwMwp6.2/166,Mwp6.2/166*

*CATAC **06** 15:23:44.8±2.1,6°N±6°×12°6E±°,h122^{km}±18^{km},M6.1/14, mb5.8/14,mB6.5/9,Mw(mB)6.2/9,MwMwp6.2/8,Mwp6.2/8, Error ellipse: s-maj=12.8km s-min=11.3km az=128.7, confirmed*

*GFZ **06** 15:23:45.2±0.2,6°N±1°×12°6E±°,h128^{km}±1^{km},M6.1/210, mB6.4/186,mb5.8/210,Mw(mB)6.2/186,MwMwp6.1/144, Mwp6.1/144,Error ellipse: s-maj=4.2km s-min=2.8km az=65.5,confirmed*

*GFZ **06** 15:23:45.0,6°.27N×125°.82E,h123^{km},Mw6.4/68,Moment Tensor Solution. Moment tensor: Scale 10^{18}Nm; M_{rr}3.68; $M_{\theta\theta}$0.46; $M_{\phi\phi}$-4.15; $M_{r\theta}$-1.22; $M_{\theta\phi}$0.07; $M_{\phi r}$1.25; Fault plane solution: $M_0$4.30650×10^{18} NP1: ϕ_s196.19328°,δ38.60463°,λ117.59342°. NP2: ϕ_s342.41898°,δ56.42876°,λ69.70438°. Principal axes: T 4.2554, Plg70.6642°, Azm204.6226°; N 0.1005, Plg16.7985°, Azm353.9768°; P -4.3559, Plg9.2981°, Azm86.8098°;*

*GFZ **06** 15:23:46.4,6°.27N×125°.71E,h128^{km},MW6.3,Moment Tensor Solution. s54 Moment tensor: Scale 10^{18}Nm; M_{rr}3.21; $M_{\theta\theta}$0.49; $M_{\phi\phi}$-3.69; $M_{r\theta}$-1.12; $M_{\theta\phi}$-0.01; $M_{\phi r}$1.19; Fault plane solution: NP1:ϕ_s198.00000°,δ38.00000°, λ119.00000°. NP2:ϕ_s342.00000°,δ57.00000°,λ68.00000°. Principal axes: T 3.7800, Plg69.0000°, Azm204.0000°; N 0.1200, Plg17.0000°, Azm354.0000°; P -3.9000, Plg9.0000°, Azm87.0000°;*

*GCMT **06** 15:23:47.2±0.0,6°.28N×125°.82E,h125^{km},MW6.4/180, Moment Tensor Solution. s180,c449; s180,c766; Duration: 3^s.8 Moment tensor: Scale 10^{18}Nm; M_{rr}3.93±.02; $M_{\theta\theta}$0.50±.02; $M_{\phi\phi}$-4.44±.02; $M_{r\theta}$-1.58±.01; $M_{\theta\phi}$0.12±.02; $M_{\phi r}$1.27±.02; Best double couple: $M_0$4.67200×10^{18} NP1:ϕ_s198.00000°,δ40.00000°, λ121.00000°. NP2:ϕ_s339.00000°,δ57.00000°,λ67.00000°. Principal axes: T 4.6900, Plg68.0000°, Azm200.0000°; N -0.0460, Plg19.0000°, Azm353.0000°; P -4.6540, Plg9.0000°, Azm86.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s. Triangular moment-rate function*

*NEIC **06** 15:23:52.6,6°.28N×125°.84E,h120^{km},Moment Tensor Solution. Duration: 7^s.5 Moment tensor: Scale 10^{18}Nm; M_{rr}3.64; $M_{\theta\theta}$-0.26; $M_{\phi\phi}$-3.38; $M_{r\theta}$-0.56; $M_{\theta\phi}$0.48; $M_{\phi r}$1.09; Fault plane solution: $M_0$3.76000×10^{18} NP1: ϕ_s176.79000°,δ36.15000°,λ98.92000°. NP2: ϕ_s345.80000°,δ54.35000°,λ83.54000°. Principal axes: T 3.8671, Plg79.0000°, Azm230.0000°; N -0.2261, Plg5.0000°, Azm350.0000°; P -3.6409, Plg9.0000°, Azm80.0000°;*

ISC 06 15:23:44.0±0.2,**6°.31N**±0°.02×**125°.73E**±0°.03,**h123**^{km}±1^{km}**, h124**^{km}**:pP-P,n1992,**σ**1^s.75**/2228,**mb5.9**/490**,157C-82D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DAV	Davao City (W)	0.77	349	P	Pn	15 24 04.1	-0.2
	162µm,0.8s,baz=127,slow=1.0,SNR=380						
DAV				S	Sn	15 24 22.3	+2.7
	260µm,0.7s,baz=273,slow=22,SNR=15						
DAV	Davao City (W)	0.77	349	P	Pn	15 24 04.5	+0.2
DAV				S	Sn	15 24 22.0	+2.5
DAV	Davao City (W)	0.77	349		Pn	15 24 04.3	+0.1
DAV				Sn	Sn	15 24 19.6	+0.1
DAV	Davao City (W)	0.77	349	P	Pn	15 24 04.3	+0.1
DAV	Davao City (W)	0.77	349	⇑P	Pn	15 24 03.2	-1.0
DAV	Davao City (W)	0.77	349	P	Pn	15 24 04.0	-0.2
DAV	Davao City (W)	0.77	349	P	Pn	15 24 04.4	+0.2
DAV	Davao City (W)	0.77	349	P	Pn	15 24 06.0	+1.8
DMPH	Davao City--Mi	0.80	344	*i* P	Pn	15 24 04.7	+0.2
DMPH				*i* S	Sn	15 24 20.2	+0.2
GSPH	General Santos	0.81	254	*i* P	Pn	15 24 03.2	-1.4
GSPH				*i* S	Sn	15 24 20.6	+0.4
KCP	Kidapawan	0.94	318	*i* P	Pn	15 24 06.7	+0.9
KCP				*i* S	Sn	15 24 26.1	+3.8
CDOP	Cateel, Davao	1.63	26	*i* P	Pn	15 24 13.1	0.0
CDOP				*i* S	Sn	15 24 35.9	+0.6
BUKP	Musuan	1.70	337	*e*P	Pn	15 24 14.3	+0.3
BUKP				*i* S	Sn	15 24 37.7	+0.8
CTBH	Cotabato--PC H	1.73	302	*i* P	Pn	15 24 14.7	+0.4
BIPH	Bislig	1.97	19	*i* P	Pn	15 24 16.8	-0.4
BIPH				*i* S	Sn	15 24 45.0	+2.4
PAGZ	Pagadian	2.79	303	*i* P	Pn	15 24 28.2	+0.6
PAGZ				*i* S	Sn	15 25 03.2	+2.1
DCPH	Dipolog City	3.27	314	*i* P	Pn	15 24 37.3	+3.5
LSIP	Lazi, Siquijor	3.49	324	*e*P	Pn	15 24 37.8	+1.0
LSIP				*e*S	Sn	15 25 24.1	+6.4
ZCP	Zamboanga City	3.68	280	*i* p	Pn	15 24 39.7	+0.4
TBP	Tagbilaran	3.84	331	*i* P	Pn	15 24 42.0	+0.5
TBP				*i* S	Sn	15 25 28.9	+3.0
SNPH	Sibulan	3.90	321	*e*P	Pn	15 24 43.5	+1.3
SNPH				*e*S	Sn	15 25 52.4	+25
LLP	Lapu-Lapu	4.35	336	*e*P	Pn	15 24 48.9	+0.6
LLP				*i* S	Sn	15 25 43.3	+5.1
PLP	Palo	4.88	351	*e*P	Pn	15 24 55.8	+0.4
PLP				*e*S	Sn	15 25 53.2	+2.2
MNI	Manado	4.91	190	P	Pn	15 24 54.7	-1.1
GUIM	Jordan	5.30	324	*e*P	Pn	15 25 03.7	+2.8
GUIM				*i* S	Sn	15 25 13.6	-47
TNTI	Ternate	5.74	163	P	Pn	15 25 07.0	+0.1
TNTI	Ternate	5.74	163	S	Sn	15 26 11.4	-0.2
TNTI	Ternate	5.74	163		Pn	15 25 04.9	-2.0
TNTI	Ternate	5.74	163	P	Pn	15 25 04.5	-2.4
TNTI	Ternate	5.74	163	⇓P	Pn	15 25 04.9	-2.0
TNTI	Ternate	5.74	163	P	Pn	15 25 05.1	-1.8
	57nm120µm78µm7µm,0.7s						
TNTI				AML	AML		
JAP	San Jose, Anti	5.78	320	*e*P	Pn	15 25 10.0	+2.4
GTOI	Gorontalo	6.25	206	P	Pn	15 25 12.7	-1.2
MMPH	Masbate	6.36	341	*e*P	Pn	15 25 19.8	+4.5
IBAJ	Ibajay, Aklan	6.50	328	*i* P	Pn	15 25 19.8	+2.5
TOLI2	Tolitoli	7.14	224	P	Pn	15 25 26.3	+0.4
TOLI2	Tolitoli	7.14	224	S	Sn	15 26 46.3	+0.7
TOLI2	Tolitoli	7.14	224		Pn	15 25 24.1	-1.8
TOLI2	Tolitoli	7.14	224	P	Pn	15 25 24.1	-1.8
TOLI2	Tolitoli	7.14	224	P	Pn	15 25 24.2	-1.8
	comp=Z,108µmcomp=Z,7µm,1.1s,comp=Z,182µm						
MYLDM	Lahad Datu	7.28	262	P	Pn	15 25 31.8	+4.1
MYLDM	Lahad Datu	7.28	262		Pn	15 25 30.2	+2.5
MYLDM	Lahad Datu	7.28	262	P	Pn	15 25 30.6	+2.9
MYLDM	Lahad Datu	7.28	262	⇓P	Pn	15 25 30.3	+2.5
MYLDM	Lahad Datu	7.28	262	P	Pn	15 25 30.6	+2.9
	comp=Z,14µm,1.4s						
PPR	Puerto Princes	7.74	297	*e*P	Pn	15 25 34.7	+0.7
LUWI	Luwuk	7.88	202	P	Pn	15 25 37.9	+2.1
LUWI				S	Sn	15 27 05.0	+1.7
LUWI	Luwuk	7.88	202	P	Pn	15 25 39.9	+4.1
LUWI	Luwuk	7.88	202		Pn	15 25 36.5	+0.7
LUWI	Luwuk	7.88	202	P	Pn	15 25 37.2	+1.4
SANI	Sanana	8.31	178	P	Pn	15 25 37.0	-4.6
SANI	Sanana	8.31	178	P	Pn	15 25 40.6	-1.0
SANI	Sanana	8.31	178	⇑P	Pn	15 25 36.9	-4.7
SANI	Sanana	8.31	178	P	Pn	15 25 37.0	-4.6
TARAI	Tarakan	8.65	250	P	Pn	15 25 50.0	+3.7
LQP	Lukban	8.78	332	*e*P	Pn	15 25 51.9	+3.7
SWI	Sorong	9.01	142	P	Pn	15 25 49.7	-1.5
	comp=Z,1µm,0.7s						
TGY	Tagaytay City	9.07	329	*e*P	Pn	15 25 57.7	+5.8
TGY				*e*S	Sn	15 27 50.6	+18
PCI	Palu	9.27	220	P	Pn	15 25 57.3	+2.7
	comp=Z,139µmcomp=Z,77µmcomp=Z,8µm,1.1s						
KKM	Kota Kinabalu	9.46	269	P	Pn	15 26 00.9	+3.6
KKM	Kota Kinabalu	9.46	269		Pn	15 25 58.0	+0.6
KKM	Kota Kinabalu	9.46	269	P	Pn	15 26 01.8	+4.5
KKM	Kota Kinabalu	9.46	269	⇑P	Pn	15 26 00.0	+2.7
KKM	Kota Kinabalu	9.46	269	P	Pn	15 26 02.5	+5.2
NLAI	Namlea	9.58	172	P	Pn	15 25 55.1	-3.7
KDI	Kendari	10.66	197	P	Pn	15 26 13.1	-0.3
	comp=Z,71µmcomp=Z,19µmcomp=Z,1µm,0.8s						
MWPI	Manokwari, Pap	10.98	131	P	Pn	15 26 18.9	+1.3
PALP	Palanan	11.17	343	*i* P	Pn	15 26 23.5	+3.4
MMSI	Mamuju	11.23	217	P	Pn	15 26 24.3	+3.2
	comp=Z,119µmcomp=Z,21µmcomp=Z,2µm,1.0s						
FAKI	Fak Fak	11.24	144	P	Pn	15 26 21.2	0.0
FAKI	Fak Fak	11.24	144		Pn	15 26 18.5	-2.6
FAKI	Fak Fak	11.24	144	P	Pn	15 26 20.9	-0.2
FAKI	Fak Fak	11.24	144	⇑P	Pn	15 26 19.4	-1.7
FAKI	Fak Fak	11.24	144	P	Pn	15 26 20.8	-0.4
	comp=Z,126µmcomp=Z,24µmcomp=Z,2µm,1.1s						
FAKI	Fak Fak	11.24	144	P	Pn	15 26 21.0	-0.2
	comp=Z,24µmcomp=Z,2µm,1.1s,comp=Z,126µm						
BOLP	Bolinao	11.52	331	*i* P	P	15 26 29.7	-3.6
BNDI	Bandanaira	11.54	159	P	Pn	15 26 26.6	+1.5
BNDI	Bandanaira	11.54	159	⇑P	Pn	15 26 24.9	-0.1
BNDI	Bandanaira	11.54	159	P	Pn	15 26 25.3	+0.2
	comp=Z,87µmcomp=Z,61µmcomp=Z,2µm,1.2s						
BNDI	Bandanaira	11.54	159	P	Pn	15 26 24.4	-0.6
	comp=Z,61µmcomp=Z,4µm,1.7s,comp=Z,87µm						
BKB	Balikpapan	11.59	230	P	Pn	15 26 27.9	+2.2
BKB	Balikpapan	11.59	230	S	Sn	15 28 35.2	+1.8
BKB	Balikpapan	11.59	230		Pn	15 26 23.8	-1.9
BKB	Balikpapan	11.59	230	⇑P	Pn	15 26 28.1	+2.4
BKB	Balikpapan	11.59	230	P	P	15 26 30.4	-3.7
CVP	Callao Caves	11.95	342	*e*P	Pn	15 26 34.1	+3.7
SZP	Santa	12.30	336		Pn	15 26 35.6	+0.5
SZP	Santa	12.30	336	⇓P	P	15 26 42.1	0.0
SIPP	Brgy, Tapao	12.64	336	*e*P	Pn	15 26 42.0	+2.5
SIPP				*e*S	S	15 29 16.2	-0.6
KAPI	Kappang	12.73	208	P	Pn	15 26 42.7	+2.0
	comp=Z,1µm,0.9s,baz=28,slow=13,SNR=146						
KAPI				S	Sn	15 29 01.4	+0.3
	comp=Z,185nm,0.9s,baz=202,slow=12,SNR=1.4						
KAPI				ScP	ScP	15 35 28.7	-0.7
	comp=Z,66nm,1.1s,baz=24,slow=1.7,SNR=5.0						
KAPI	Kappang	12.73	208	P	Pn	15 26 42.0	+1.3
KAPI	Kappang	12.73	208	S	Sn	15 29 05.2	+4.1
KAPI	Kappang	12.73	208	P	P	15 26 44.3	-2.6
KAPI				S	Sn	15 29 05.1	+4.0
KAPI	Kappang	12.73	208	P	Pn	15 26 40.7	0.0
KAPI						15 29 00.3	
KAPI	Kappang	12.73	208		Pn	15 26 40.7	0.0
KAPI				Sn	Sn	15 29 00.3	-0.8
KAPI	Kappang	12.73	208	P	Pn	15 26 43.0	+2.3
KAPI	Kappang	12.73	208	⇑P	Pn	15 26 42.7	+2.0
KAPI	Kappang	12.73	208	P	Pn	15 26 43.2	+2.5
	comp=Z,52µmcomp=Z,24µmcomp=Z,1µm,1.3s						
BAKI	Biak	12.76	125	P	Pn	15 26 40.4	-0.7
	comp=Z,92µmcomp=Z,25µmcomp=Z,2µm,1.4s						
PACPP	Pamplona Cagay	12.81	341	*e*P	P	15 26 44.8	-3.0
PKKI	Palangkaraya	14.49	234	P	P	15 27 07.8	+1.3
BBKI	Banjar Baru	14.57	229	P	P	15 27 09.6	+2.2
SAUI	Saumlaki	15.24	159	Pn	Pn	15 27 11.3	-1.6
SAUI	Saumlaki	15.24	159	P	P	15 27 14.4	-0.5
SAUI	Saumlaki	15.24	159	⇑P	Pn	15 27 11.1	-1.7
SAUI	Saumlaki	15.24	159	P	Pn	15 27 13.5	+0.7
	comp=Z,79µmcomp=Z,75µmcomp=Z,6µm,0.9s						
SAUI	Saumlaki	15.24	159	P	P	15 27 14.4	-0.5
	comp=Z,79µmcomp=Z,75µmcomp=Z,6µm,0.9s,comp=Z,75µm						
MMRI	Maumere	15.25	193		Pn	15 27 13.0	+0.2
MMRI	Maumere	15.25	193	P	Pn	15 27 11.8	-1.1
MMRI	Maumere	15.25	193	⇓P	Pn	15 27 11.7	-1.1
MMRI	Maumere	15.25	193	P	Pn	15 27 13.8	+1.0
	comp=Z,82µmcomp=Z,9µm,1.6s						
MMRI	Maumere	15.25	193	P	P	15 27 14.0	-0.9
	comp=Z,82µmcomp=Z,157µmcomp=Z,9µm,1.6s,comp=Z,157µm						
STKI	Sintang	15.52	247	P	P	15 27 21.9	+4.0
LBFI	Labuhan Bajo,	15.80	202	P	P	15 27 21.6	+0.5
SOEI	Soe	16.02	185	P	P	15 27 25.1	+1.4
SOEI	Soe	16.02	185		Pn	15 27 21.2	-1.4
SOEI	Soe	16.02	185	P	P	15 27 25.2	+1.6
SOEI	Soe	16.02	185	P	P	15 27 24.9	+1.3
	comp=Z,81µmcomp=Z,75µmcomp=Z,7µm,1.0s						
SOEI	Soe	16.02	185	P	P	15 27 25.1	+1.4
	comp=Z,81µmcomp=Z,75µmcomp=Z,7µm,1.0s,comp=Z,75µm						
WSI	Waingapu	16.77	199	P	Pn	15 27 31.3	-0.3
	comp=Z,103µmcomp=Z,66µmcomp=Z,4µm,1.0s						
GENI	Genyem	16.91	121	⇓P	P	15 27 31.9	-1.4
GENI	Genyem	16.91	121	P	P	15 27 32.1	-1.3
	comp=Z,95µmcomp=Z,56µmcomp=Z,5µm,1.4s						
GENI	Genyem	16.91	121	P	Pn	15 27 36.2	+2.8
	comp=Z,95µmcomp=Z,57µmcomp=Z,5µm,1.4s,comp=Z,57µm						
PLAI	Plampang	17.00	208	P	Pn	15 27 35.5	+1.1

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      comp=Z,105µmcomp=Z,81µmcomp=Z,7µm,1.0s
PLAI  Plampang          17.00 208  P     Pn     15 27 36.7 +2.3
      comp=Z,105µmcomp=Z,81µmcomp=Z,7µm,1.0s,comp=Z,81µm
TWGBT Beinan            17.02 345  P     Pn     15 27 36.3 +1.7
TWGBT Beinan            17.02 345  S     S      15 30 48.0 +2.4
TWG   Pinlang           17.02 345  P     Pn     15 27 34.6  0.0
TWG   Pinlang           17.02 345  P     Pn     15 27 35.2 +0.6
      comp=Z,33µmcomp=Z,4µmcomp=Z,309nm,0.6s
YULB  Yu-li             17.51 346  P     Pn     15 27 40.7 +0.1
YULB  Yu-li             17.51 346  P     P      15 27 39.4 -0.5
YULB  Yu-li             17.51 346  P     Pn     15 27 40.5 -0.1
      comp=Z,27µmcomp=Z,4µmcomp=Z,159nm,1.2s
KHKI  Kahang-Kahang     17.73 215  P     Pn     15 27 44.5 +1.3
      comp=Z,114µmcomp=Z,34µmcomp=Z,3µm,1.1s
BWJI  Bawean            17.78 227  P     Pn     15 27 46.3 +2.5
DLV    Lat              17.91 289  P     Pn     15 27 47.5 +1.8
DLV    Lat              17.91 289  P     Pn     15 27 46.2 +0.5
DLV    Lat              17.91 289 ⇑P     Pn     15 27 46.7 +1.0
SSLB  Suanglung         17.98 346  P     Pn     15 27 47.0 +0.8
SSLB  Suanglung         17.98 346  S     Sn     15 31 08.9 +1.5
SSLB  Suanglung         17.98 346  P     P      15 27 44.7 -0.3
SSLB  Suanglung         17.98 346  P     Pn     15 27 46.2  0.0
      comp=Z,28µmcomp=Z,5µmcomp=Z,341nm,1.1s
ABJI  Asem Bagus        18.10 219  P     Pn     15 27 48.5 +0.8
      comp=Z,101µmcomp=Z,63µmcomp=Z,4µm,1.8s
IGBI  Denpasar          18.36 215  P     Pn     15 27 51.4 +0.7
      comp=Z,95µmcomp=Z,74µmcomp=Z,7µm,1.4s
BLJI  Banyuglugur       18.48 221  P     Pn     15 27 52.4 +0.3
      comp=Z,115µmcomp=Z,54µmcomp=Z,5µm,1.2s
JAGI  Jajag, Banyuwa    18.67 218  P     P      15 27 52.0 -0.7
JAGI  Jajag, Banyuwa    18.67 218 ⇑P     Pn     15 27 54.0 -0.5
JAGI  Jajag, Banyuwa    18.67 218  P     Pn     15 27 54.2 -0.2
      comp=Z,100µmcomp=Z,43µmcomp=Z,2µm,0.9s
JAGI  Jajag, Banyuwa    18.67 218  P     Pn     15 27 54.3 -0.2
      comp=Z,100µmcomp=Z,43µmcomp=Z,2µm,0.9s,comp=Z,43µm
YHNB  Yeheng            18.73 348  P     Pn     15 27 55.5 +0.4
YHNB  Yeheng            18.73 348  S     Sn     15 31 24.2 -1.2
YHNB  Yeheng            18.73 348  P     P      15 27 53.0 -0.3
YHNB  Yeheng            18.73 348  P     Pn     15 27 55.9 +0.7
      comp=Z,7µmcomp=Z,22µmcomp=Z,272nm,1.2s
TATO  Taipei            19.00 348  P     Pn     15 27 59.1 +0.9
TATO  Taipei            19.00 348  P     P      15 27 56.4 +0.2
KNMB  Chin-men Tao      19.38 339  P     Pn     15 28 03.3 +0.7
      comp=Z,30µmcomp=Z,15µmcomp=Z,641nm,1.6s
HKPS  Hong Kong Po S    19.42 326  P     Pn     15 28 03.3 +0.1
HKPS  Hong Kong Po S    19.42 326  S     Sn     15 31 38.5 -3.5
HKPS  Hong Kong Po S    19.42 326  P     P      15 28 01.8 +1.1
HKPS  Hong Kong Po S    19.42 326  P     Pn     15 28 02.9 -0.3
      comp=Z,40µmcomp=Z,15µmcomp=Z,1µm,1.2s
HKC   Hong Kong Obse    19.43 326 ⇑P     Pn     15 28 03.0 -0.2
MCO   Taipa Grande      19.63 324  P     Pn     15 28 07.0 +1.4
SNJI  Sawahan-Nganju    19.75 225  P     Pn     15 28 08.4 +1.2
      comp=Z,58µmcomp=Z,5µm,1.1s
QZH2  Quanzhou          19.75 341⇑iP     Pn     15 28 05.8 -1.2
QZH2                               PP    pP     15 28 31.6 +4.7
QZH2                               sP    sP     15 28 43.9 +1.4
QZH2                               S     S      15 31 39.9 -0.4
QZH2                               sS    sS     15 32 12.3 -5.1
QZH2                               pmax  pmax
      comp=Z,810nm,1.0s
QZH2                               pmax  pmax
      comp=Z,3µm,5.6s
QZH2                               L     L
      comp=Z,19µm,19.2s
QZH2                               L     L
      comp=Z,23µm,22.0s
MTN   Manton Dam        19.77 164  P     P      15 28 05.4 +0.8
      comp=Z,727nm,1.1s,comp=Z,0.0nm
MTN   Manton Dam        19.77 164  P     P      15 28 04.4 -0.2
QIZ   Qiongzhong        19.98 311  P     Pn     15 28 08.3 -1.4
QIZ                                pP    pP     15 28 33.8 +4.5
QIZ                                sP    sP     15 28 43.8 -1.0
QIZ                                S     S      15 31 48.5 +3.6
QIZ                                pmax  pmax
      comp=Z,1µm,1.1s
QIZ                                pmax  pmax
      comp=Z,9µm,5.1s
QIZ   Qiongzhong        19.98 311  P     Pn     15 28 08.8 -0.9
QIZ   Qiongzhong        19.98 311  P     Pn     15 28 08.4 -1.3
      comp=Z,63µmcomp=Z,19µmcomp=Z,2µm,1.1s,comp=Z,19µm
KDU   Kakadu            20.03 160  P     P      15 28 07.8 +0.4
      comp=Z,2µm,1.1s,comp=Z,0.0nm
TPI   Tanjungpandan     20.17 244  P     Pn     15 28 12.4 +0.4
      comp=Z,25µmcomp=Z,1µm,1.8s
GUMO  Guam              20.18  68  P     P      15 28 07.9 -1.1
      comp=Z,196nm,0.8s,baz=251,slow=11,SNR=12
GUMO                               LR    LR     15 35 05.0
      comp=Z,15µm,21.3s,baz=258,slow=34
      comp=Z,196nm,0.8s
GUMO  Guam              20.18  68  P     Pn     15 28 11.4 -0.7
GUMO  Guam              20.18  68  S     S      15 31 51.9 +2.9
GUMO  Guam              20.18  68 ⇑P     P      15 28 08.6 -0.5
GUMO  Guam              20.18  68  P     P      15 28 08.7 -0.3
      comp=Z,67µmcomp=Z,22µmcomp=Z,784nm,1.1s
SMRI  Semarang          20.22 229  P     P      15 28 09.1 -0.3
SMRI  Semarang          20.22 229 ⇑P     P      15 28 10.5 +1.0
SMRI  Semarang          20.22 229  P     Pn     15 28 14.0 +1.5
PCJI  Pacitan           20.45 225  P     Pn     15 28 14.4 -0.8
      comp=Z,80µmcomp=Z,5µm,2.0s
JOW   Kunigami          20.55   6  P     P      15 28 12.9  0.0
      comp=Z,434nm,1.0s,baz=177,slow=6.1,SNR=14
JOW                                LR    LR     15 35 07.6
      comp=Z,8µm,21.4s,baz=155,slow=33
JOW                                ScP   ScP    15 35 45.2 +0.5
      comp=Z,98nm,0.8s,baz=117,slow=6.0,SNR=3.5
      comp=Z,434nm,1.0s
JOW   Kunigami          20.55   6  P     Pn     15 28 15.4 -1.0
JOW   Kunigami          20.55   6  P     P      15 28 11.0 -2.0
JOW   Kunigami          20.55   6 ⇓P     Pn     15 28 16.6 +0.3
JOW   Kunigami          20.55   6  P     Pn     15 28 15.5 -0.9
      comp=Z,28µmcomp=Z,16µmcomp=Z,1µm,1.4s
UGM   Wanagama          20.73 227  P     P      15 28 15.1 +0.2
UGM   Wanagama          20.73 227  P     Pn     15 28 18.5  0.0
      comp=Z,102µmcomp=Z,78µmcomp=Z,6µm,1.9s
GZH2  Guangzhou         20.79 327  P     Pn     15 28 17.6 -1.6
GZH2                               sP    sP     15 28 52.5 -1.1
GZH2                               S     S      15 32 02.7 +1.9
YOGI  Yogyakarta        20.83 228  P     Pn     15 28 19.4 -0.3
      comp=Z,106µmcomp=Z,82µmcomp=Z,6µm,1.7s
DPSS  Saipan            21.59  64  P     P      15 28 21.4 -2.8
TPRI  Tanjung Pinang    21.82 257  P     P      15 28 27.2 +0.6
      comp=Z,39µmcomp=Z,2µm,1.4s
KNRA  Kununurra         22.05 172  P     P      15 28 29.4 +0.5
      comp=Z,795nm,0.8s
KNRA  Kununurra         22.05 172  P     P      15 28 27.0 -1.9
CMJI  Cimerak           22.20 231  P     P      15 28 31.0 +0.5
      comp=Z,76µmcomp=Z,46µmcomp=Z,2µm,1.5s
MYKOM Kota Tinggi       22.27 259  P     P      15 28 33.1 +1.8
MYKOM Kota Tinggi       22.27 259  S     S      15 32 31.8 +3.8
MYKOM Kota Tinggi       22.27 259 ⇑P     P      15 28 31.0 -0.3
MYKOM Kota Tinggi       22.27 259  P     P      15 28 32.4 +1.1
      comp=Z,49µmcomp=Z,3µm,2.0s
MYKOM Kota Tinggi       22.27 259  P     P      15 28 32.5 +1.2
      comp=Z,117µmcomp=Z,49µmcomp=Z,3µm,2.0s,comp=Z,49µm
BTDF  Bukit Timah Da    22.44 258  P     P      15 28 34.8 +1.8
BTDF  Bukit Timah Da    22.44 258  S     S      15 32 35.1 +4.3
BTDF  Bukit Timah Da    22.44 258  P     P      15 28 33.8 +0.8
      comp=Z,67µmcomp=Z,41µmcomp=Z,3µm,1.6s
BBJI  Bungbulang        22.64 233  P     P      15 28 36.8 +1.9
BBJI  Bungbulang        22.64 233  P     P      15 28 34.1 -0.8
BBJI  Bungbulang        22.64 233  P     P      15 28 36.6 +1.6
      comp=Z,41µmcomp=Z,32µmcomp=Z,2µm,1.2s
BBJI  Bungbulang        22.64 233  P     P      15 28 36.5 +1.6
      comp=Z,41µmcomp=Z,32µmcomp=Z,2µm,1.1s
TNG   Tangerang         22.72 237  P     P      15 28 39.5 +3.8
TNG                                P     P      15 28 39.5 +3.8
      comp=Z,91µmcomp=Z,10µm,2.0s
PMBI  Palembang         22.85 247  P     P      15 28 38.0 +1.0
PMBI  Palembang         22.85 247  P     P      15 28 41.0 +4.1
CNJI  Cibinong          22.96 234  P     P      15 28 38.5 +0.5
      comp=Z,73µmcomp=Z,54µmcomp=Z,3µm,1.1s
MANU  Manus Island      23.14 110  P     P      15 28 38.8 -0.9
MANU  Manus Island      23.14 110 ⇓P     P      15 28 39.6 -0.1
JMBI  JAMBI             23.42 251  P     P      15 28 45.2 +2.9
      comp=Z,87µmcomp=Z,61µmcomp=Z,6µm,1.1s
GULI  GuiLin            23.93 324 ⇑P     P      15 28 47.5 +0.8
GULI                               S     S      15 32 53.4 -1.0
GULI                               pmax  pmax
      comp=Z,220nm,2.0s
GULI                               pmax  pmax
      comp=Z,9µm,11.8s
GULI                               L     L
      comp=Z,13µm,18.6s
GULI                               L     L
      comp=Z,12µm,20.1s
GULI                               L     L
      comp=Z,13µm,23.3s
MDSI  Maura Dua         24.04 244  P     P      15 28 48.8 +0.9
      comp=Z,88µmcomp=Z,52µmcomp=Z,2µm,1.1s
FITZ  Fitzroy Crossi    24.25 180  P     P      15 28 49.6 -0.1
      comp=Z,613nm,1.6s
FITZ  Fitzroy Crossi    24.25 180  S     S      15 32 58.7 -0.9
      comp=Z,246nm,0.9s,baz=134,slow=21,SNR=4.9
FITZ  Fitzroy Crossi    24.25 180  P     P      15 28 51.2 +1.5
FITZ  Fitzroy Crossi    24.25 180 ⇑P     P      15 28 47.9 -1.8
FITZ  Fitzroy Crossi    24.25 180  P     P      15 28 48.4 -1.2
      comp=Z,9µmcomp=Z,12µmcomp=Z,613nm,1.6s
RGRI  Rengat            24.27 255  P     P      15 28 53.4 +3.5
      comp=Z,83µmcomp=Z,73µmcomp=Z,1µm,0.8s
CNSH  ChangSha          24.91 332  P     P      15 28 55.6  0.0
CNSH                               S     S      15 33 07.2 -2.8
CNSH                               L     L
      comp=Z,31µm,10.3s
CNSH                               L     L
      comp=Z,17µm,13.3s
CNSH                               L     L
      comp=Z,17µm,26.1s
KULM  Kulim             24.97 269  P     P      15 28 57.7 +1.4
KULM  Kulim             24.97 269  P     P      15 28 56.1 -0.2
KULM  Kulim             24.97 269 ⇑P     P      15 28 56.5 +0.1
KULM  Kulim             24.97 269  P     P      15 28 56.9 +0.5
      comp=Z,83µmcomp=Z,32µmcomp=Z,2µm,1.6s
KULM  Kulim             24.97 269  P     P      15 28 56.8 +0.5
      comp=Z,83µmcomp=Z,32µmcomp=Z,2µm,1.6s
SSE   Sheshan           25.02 351  P     P      15 28 57.6 +1.0
SSE                                S     S      15 33 15.3 +3.6
SSE                                pmax  pmax
      comp=Z,2µm,7.9s
SSE                                L     L
      comp=Z,3µm,18.6s
MNAI  Manna             25.09 246  P     P      15 28 57.6 +0.2
MNAI  Manna             25.09 246 ⇑P     P      15 28 59.2 +1.8
MNAI  Manna             25.09 246  P     P      15 29 00.4 +3.0
      comp=Z,64µmcomp=Z,74µmcomp=Z,5µm,1.3s
KSI   Kapahiang         25.13 247  P     P      15 29 00.3 +2.4
SDSI  Sungai Dareh      25.30 254  P     P      15 28 58.6 -0.7
BKNI  Bangkinang        25.34 257  P     P      15 29 01.2 +1.4
BKNI  Bangkinang        25.34 257  P     P      15 29 02.7 +3.0
BKNI  Bangkinang        25.34 257 ⇑P     P      15 29 01.7 +2.0
BKNI  Bangkinang        25.34 257  P     P      15 29 02.0 +2.3
      comp=Z,75µmcomp=Z,28µmcomp=Z,2µm,1.2s
BKNI  Bangkinang        25.34 257  P     P      15 29 02.3 +2.6
      comp=Z,75µmcomp=Z,29µmcomp=Z,2µm,1.2s
SLVN  Son La            25.87 307  P     P      15 29 07.5 +3.0
SLVN  Son La            25.87 307  P     P      15 29 05.2 +0.7
SLVN                               IAmb  IAmb   15 29 11.3
      comp=Z,1µm,1.7s
SLVN  Son La            25.87 307  P     P      15 29 06.8 +2.3
      comp=Z,34µmcomp=Z,9µmcomp=Z,374nm,1.5s,comp=Z,9µm
PPI   Padang Panjang    26.16 256  P     P      15 29 06.6 -0.5
PDSI  Padang            26.22 255  P     P      15 29 07.7  0.0
WHN   Wuhan             26.38 337 ⇓P     P      15 29 10.8 +2.0
WHN                                pP    pP     15 29 34.9 -0.6
WHN                                sP    sP     15 29 46.8 -3.2
WHN                                PcP   PcP    15 32 33.2 +1.7
WHN                                S     S      15 33 35.7 +2.6
WHN                                sS    sS     15 34 16.7 -2.8
WHN                                ScP   ScP    15 36 00.7 +0.5
WHN                                ScS   ScS    15 39 51.7 +1.1
WHN                                pmax  pmax
      comp=Z,1µm,1.4s
WHN                                pmax  pmax
      comp=Z,14µm,8.1s
WHN                                L     L
      comp=Z,18µm,9.8s
WHN                                L     L
      comp=Z,21µm,15.4s
WHN                                L     L
      comp=Z,64µm,21.2s
NJ2   Nanjing           26.41 347 ⇑P     P      15 29 10.7 +1.6
NJ2                                pP    pP     15 29 39.4 +3.9
NJ2                                sP    sP     15 29 44.8 -5.1
NJ2                                PP    PnPn   15 30 02.2 +5.5
NJ2                                PcP   PcP    15 32 37.5 +5.9
NJ2                                S     S      15 33 36.8 +3.3
NJ2                                ScP   ScP    15 36 00.6 +0.3
NJ2                                ScS   ScS    15 39 52.1 +1.4
NJ2                                pmax  pmax
      comp=Z,180nm,1.2s
NJ2                                pmax  pmax
      comp=Z,6µm,9.0s
PMG   Port Moresby      26.45 126  S     S      15 33 34.6  0.0
      comp=Z,23nm,1.0s,baz=205,slow=19,SNR=1.3
PMG                                ScP   ScP    15 36 01.6 +0.8
      comp=Z,54nm,1.1s,baz=313,slow=2.9,SNR=4.6
PMG   Port Moresby      26.45 126  P     P      15 29 10.0 +0.3
PMG   Port Moresby      26.45 126  S     S      15 33 37.2 +2.6
PMG   Port Moresby      26.45 126d iP    P      15 29 09.5 -0.2
PMG                                pmax  pmax
      comp=Z,678nm,1.3s
PMG   Port Moresby      26.45 126  P     P      15 29 08.6 -1.1
PMG   Port Moresby      26.45 126 ⇑P     P      15 29 09.1 -0.6
PMG   Port Moresby      26.45 126  P     P      15 29 09.4 -0.2
      comp=Z,41µmcomp=Z,759nm,1.4s
PMG   Port Moresby      26.45 126  P     P      15 29 09.9 +0.3
      comp=Z,42µmcomp=Z,7µmcomp=Z,776nm,1.4s,comp=Z,7µm
COEN  Coen              26.56 139  P     P      15 29 13.6 +2.9
      comp=Z,8.6nm,0.8s
PSI   Prapat            26.94 264  P     P      15 29 16.0 +1.7
PSI   Prapat            26.94 264  P     P      15 29 16.7 +2.4
PSI   Prapat            26.94 264  P     P      15 29 16.4 +2.1
      comp=Z,45µmcomp=Z,14µmcomp=Z,575nm,1.7s
RPSI  Rantau Prapat     26.96 264  P     P      15 29 16.7 +2.4
      comp=Z,45µmcomp=Z,14µmcomp=Z,575nm,1.7s,comp=Z,14µm
GYA   Guiyang           27.05 320 ⇑P     P      15 29 17.0 +1.9
GYA                                pP    pP     15 29 43.5 +1.8
GYA                                PcP   PcP    15 32 35.2 +1.8
GYA                                S     S      15 33 45.5 +1.3
GYA                                sS    sS     15 34 31.3 +0.7
GYA                                SS    SnSn   15 35 12.3 +7.1
GYA                                ScP   ScP    15 36 04.6 +2.0
GYA                                ScS   ScS    15 39 52.3 -1.8
GYA                                pmax  pmax
      comp=Z,4µm,6.1s
GYA                                L     L
      comp=Z,12µm,16.3s
GYA                                L     L
      comp=Z,13µm,14.0s
GYA                                L     L
      comp=Z,23µm,16.5s
JNU   Nakatsue          27.11  10  P     P      15 29 15.5 +0.1
      comp=Z,188nm,0.8s,baz=190,slow=3.4,SNR=18
      comp=Z,188nm,0.8s
JNU   Nakatsue          27.11  10  P     P      15 29 15.8 +0.4
PPSI  Pulau Pagai       27.21 251  P     P      15 29 17.9 +1.3
      comp=Z,2µm,1.3s
WB0   Warramunga Arr    27.28 162  P     P      15 29 14.3 -2.7
WRAB  Tennant Creek     27.42 162  P     P      15 29 18.1 -0.2
WRAB  Tennant Creek     27.42 162  P     P      15 29 15.1 -3.2
WRAB                               pmax  pmax
      comp=Z,1µm,1.2s
WRAB  Tennant Creek     27.42 162  P     P      15 29 15.1 -3.2
WRAB  Tennant Creek     27.42 162  P     P      15 29 15.7 -2.6
      comp=Z,42µmcomp=Z,16µmcomp=Z,593nm,1.0s
WRA   Warramunga Arr    27.43 162  P     P      15 29 15.7 -2.7
      comp=Z,324nm,0.7s,baz=342,slow=9.5,SNR=109
WRA                                S     S      15 33 48.1 -1.8
      comp=Z,215nm,1.2s,baz=337,slow=14,SNR=8.4
WRA                                ScP   ScP    15 36 03.9 +0.3
      comp=Z,42nm,0.9s,baz=344,slow=2.9,SNR=2.8
WRA                                ScS   ScS    15 39 54.9 -0.7
      comp=Z,8.6nm,0.9s,baz=298,slow=3.5,SNR=5.7
WRA                                PKiKP PKiKP  15 40 10.1 -1.3
      comp=Z,5.2nm,0.9s,baz=326,slow=0.9,SNR=5.3
WRA                                P3KPbc       16 01 43.5
      comp=Z,1.6nm,0.8s,baz=160,slow=4.1,SNR=9.8
WRA   Warramunga Arr    27.43 162  P     P      15 29 15.8 -2.5
MBWA  Marble Bar        27.92 192  P     P      15 29 23.2 +0.5
      comp=Z,1µm,0.8s,comp=Z,0.0nm
MBWA  Marble Bar        27.92 192  P     P      15 29 23.5 +0.8
MBWA  Marble Bar        27.92 192  P     P      15 29 23.2 +0.5
MBWA  Marble Bar        27.92 192  P     P      15 29 22.5 -0.2
MBWA  Marble Bar        27.92 192 ⇑P     P      15 29 22.0 -0.8
MBWA  Marble Bar        27.92 192  P     P      15 29 23.5 +0.8
      comp=Z,37µmcomp=Z,20µmcomp=Z,1µm,0.8s
PBSI  Pulau Batu        28.11 258  P     P      15 29 25.9 +1.3
      comp=Z,49µmcomp=Z,14µmcomp=Z,955nm,1.5s
KRVT  Keravat (AS076    28.29 111  LR    LR     15 39 01.1
      comp=Z,13µm,20.3s,baz=274,slow=32
ENH   Enshi             28.31 329  P     P      15 29 27.1 +0.9
ENH   Enshi             28.31 329  IAmb  IAmb   15 30 14.2
      comp=Z,253nm,1.0s
ENH   Enshi             28.31 329  P     P      15 29 26.9 +0.7
      comp=Z,22µmcomp=Z,5µmcomp=Z,195nm,0.9s
JMN   Monobe            28.31  14  P     P      15 29 28.1 +2.0
JMN   Monobe            28.31  14  IAmb  IAmb   15 29 35.7
      comp=Z,418nm,1.2s
JMN   Monobe            28.31  14 ⇑P     P      15 29 27.8 +1.7
JMN   Monobe            28.31  14  P     P      15 29 28.1 +2.0
      comp=Z,343nm,1.2s
JMN   Monobe            28.31  14  P     P      15 29 27.8 +1.7
RABL  Rabaul            28.38 111 ⇑P     P      15 29 28.1 +1.1
GSI   Gunungsitoli      28.52 261  P     P      15 29 29.6 +1.4
GSI   Gunungsitoli      28.52 261  S     S      15 34 09.1 +1.8
GSI   Gunungsitoli      28.52 261  P     P      15 29 29.2 +1.0
      comp=Z,50µmcomp=Z,20µmcomp=Z,1µm,1.2s
GSI   Gunungsitoli      28.52 261  P     P      15 29 28.9 +0.7
      comp=Z,50µmcomp=Z,20µmcomp=Z,1µm,1.3s
TPTI                    28.61 265  P     P      15 29 29.8 +0.9
      comp=Z,45µmcomp=Z,8µmcomp=Z,320nm,1.4s
LHMI  Lhok Sumawe       28.65 269  P     P      15 29 31.9 +2.5
      comp=Z,45µmcomp=Z,32µmcomp=Z,1µm,1.2s
CM31  Chiang Mai Arr    28.76 297  P     P      15 29 32.1 +1.8
      SNR=149
CM31  Chiang Mai Arr    28.76 297  IAmb  IAmb   15 29 37.8
      comp=Z,339nm,1.0s
CMAR  Chiang Mai Arr    28.76 297  P     P      15 29 29.9 -0.4
      comp=Z,95nm,0.7s,baz=123,slow=7.3,SNR=138
CMAR                               PcP   PcP    15 32 38.0 +0.4
      comp=Z,26nm,0.9s,baz=113,slow=3.4,SNR=6.8
CMAR                               ScP   ScP    15 36 07.5 -0.3
      comp=Z,36nm,0.8s,baz=116,slow=1.5,SNR=21
CMAR                               PKiKP PKiKP  15 40 11.7 -0.6
      comp=Z,3.4nm,0.6s,baz=250,slow=1.1,SNR=12
CMAR                               LR    LR     15 41 39.4
      comp=Z,10µm,19.0s,baz=110,slow=38
CMAR                               P3KPbc       16 01 39.3
      comp=Z,1.0nm,0.7s,baz=282,slow=3.8,SNR=11
      comp=Z,95nm,0.7s
CMAR  Chiang Mai Arr    28.76 297  P     P      15 29 29.6 -0.7
CHTO  Chiang Mai        28.89 298  P     P      15 29 32.2 +0.7
CHTO  Chiang Mai        28.89 298  P     P      15 29 33.5 +2.0
CHTO  Chiang Mai        28.89 298  P     P      15 29 30.6 -0.9
CHTO                               pmax  pmax
      comp=Z,156nm,0.7s
CHTO  Chiang Mai        28.89 298  P     P      15 29 30.6 -0.9
CHTO                               IAmb  IAmb   15 29 35.7
      comp=Z,156nm,0.7s
CHTO  Chiang Mai        28.89 298  P     P      15 29 31.7 +0.2
      comp=Z,28µmcomp=Z,343nm,1.2s
CHTO  Chiang Mai        28.89 298  P     P      15 29 31.3 -0.2
      comp=Z,28µmcomp=Z,5µmcomp=Z,341nm,1.2s
KMI2  Kunming           28.89 313 ⇑P     P      15 29 33.7 +2.1
KMI2                               PcP   PcP    15 32 39.3 +1.2
KMI2                               S     S      15 34 13.9 +0.5
KMI2                               ScP   ScP    15 36 08.4  0.0
KMI2                               ScS   ScS    15 40 05.2 +2.5
KMI2                               pmax  pmax
      comp=Z,220nm,1.3s
KMI2                               pmax  pmax
      comp=Z,3µm,5.1s
KMI2                               L     L
      comp=Z,15µm,18.5s
KMI2                               L     L
      comp=Z,11µm,19.9s
KMI2                               L     L
      comp=Z,23µm,18.1s
JHJ   Hachijo jima 2    29.71  24  LR    LR     15 42 17.8
      comp=Z,7µm,18.9s,baz=220,slow=37
JIE   Ise               29.73  19  P     P      15 29 39.3 +0.6
TJN   Taejon            29.96   3  P     P      15 29 43.1 +2.4
TJN   Taejon            29.96   3  IAmb  IAmb   15 30 09.5
      comp=Z,509nm,1.2s
TJN   Taejon            29.96   3  P     P      15 29 42.6 +1.9
      comp=Z,63µmcomp=Z,378nm,1.4s
QIS   Mount Isa         29.98 153  P     P      15 29 41.5 +0.5
      comp=Z,783nm,1.7s,comp=Z,0.0nm
QIS   Mount Isa         29.98 153  P     P      15 29 41.9 +0.9
QIS   Mount Isa         29.98 153  S     S      15 34 30.2 +0.2
QIS   Mount Isa         29.98 153  P     P      15 29 39.6 -1.4
      comp=Z,24µmcomp=Z,10µmcomp=Z,783nm,1.7s,comp=Z,10µm
JWT   Wachi             30.18  16  P     P      15 29 42.0 -0.6
BSI   Banda Aceh        30.28 270  P     P      15 29 45.7 +1.9
      comp=Z,42µmcomp=Z,10µmcomp=Z,542nm,1.1s
PZH   PanZhiHua         30.43 314  P     P      15 29 47.0 +1.9
PZH                                pP    pP     15 30 14.7 +2.7
PZH                                S     S      15 34 38.9 +1.7
PZH                                sS    sS     15 35 27.8 +4.0
PZH                                pmax  pmax
      comp=Z,210nm,1.2s
PZH                                pmax  pmax
      comp=Z,2µm,6.9s
PZH                                L     L
      comp=Z,9µm,22.8s
PZH                                L     L
      comp=Z,9µm,16.5s
PZH                                L     L
      comp=Z,15µm,17.2s
MTSU  Mount Surprise    30.44 143  P     P      15 29 46.6 +1.5
      comp=Z,183nm,0.8s
MTSU  Mount Surprise    30.44 143  P     P      15 29 46.4 +1.3
MTSU  Mount Surprise    30.44 143  P     P      15 29 46.5 +1.3
      comp=Z,6µmcomp=Z,183nm,0.8s,comp=Z,6µm
JSG   Sagara            30.48  21  P     P      15 29 47.8 +2.5
JSG   Sagara            30.48  21  P     P      15 29 47.2 +1.9
      comp=Z,790nm,0.9s
LYN   LuoYang           30.66 338  P     P      15 29 48.3 +1.4
LYN                                pP    pP     15 30 16.8 +2.9
LYN                                PcP   PcP    15 32 44.5 +2.3
LYN                                S     S      15 34 38.9 -1.5
LYN                                ScP   ScP    15 36 14.2 +0.6
LYN                                PcS   PcS    15 36 27.9 +1.8
LYN                                ScS   ScS    15 40 14.5 +4.2
LYN                                pmax  pmax
      comp=Z,65nm,1.5s
LYN                                pmax  pmax
      comp=Z,3µm,8.7s
INU   Inuyama           30.71  18  P     P      15 29 48.1 +0.8
INU   Inuyama           30.71  18  IAmb  IAmb   15 29 50.3
      comp=Z,217nm,0.7s
INU   Inuyama           30.71  18  P     P      15 29 46.4 -0.9
INU                                S     S      15 34 41.7 +0.5
INU   Inuyama           30.71  18  P     P      15 29 48.3 +1.0
      comp=Z,349nm,0.7s
TIA   Tai'an            30.79 346  P     P      15 29 49.0 +1.0
TIA                                PcP   PcP    15 32 44.3 +1.8
TIA                                S     S      15 34 40.4 -2.0
TIA                                ScP   ScP    15 36 14.4 +0.4
TIA                                PcS   PcS    15 36 28.5 +2.0
TIA                                ScS   ScS    15 40 12.3 +1.4
TIA                                pmax  pmax
      comp=Z,28nm,0.8s
TIA                                pmax  pmax
      comp=Z,3µm,7.6s
TIA                                L     L
      comp=Z,3µm,10.0s
TIA                                L     L
      comp=Z,8µm,10.7s
TIA                                L     L
      comp=Z,9µm,15.5s
AS31  Alice Springs     30.84 165  P     P      15 29 46.5 -2.1
AS31  Alice Springs     30.84 165  IAmb  IAmb   15 29 52.4
      comp=Z,205nm,0.5s
ASAR  Alice Springs     30.84 165  P     P      15 29 47.1 -1.5
      comp=Z,328nm,0.5s,baz=341,slow=6.9,SNR=339
ASAR                               PcP   PcP    15 32 43.5 +0.7
      comp=Z,62nm,0.7s,baz=0.5,slow=2.8,SNR=4.8
ASAR                               S     S      15 34 42.9 -0.6
      comp=Z,96nm,1.1s,baz=353,slow=21,SNR=6.9
ASAR                               LR    LR     15 42 02.2
      comp=Z,7µm,19.5s,baz=356,slow=36
ASAR                               P3KPbc       16 01 33.2
      comp=Z,1.1nm,0.5s,baz=176,slow=4.3,SNR=38
      comp=Z,328nm,0.5s
ASAR  Alice Springs     30.84 165  P     P      15 29 46.6 -2.0
AS01  Alice Springs     30.85 165  P     P      15 29 49.9 +1.2
AUALC St Philip's Co    30.86 165  P     P      15 29 48.0 -0.8
AS17  Alice Springs     30.86 165  P     P      15 29 47.1 -1.6
AS09  Alice Springs     30.88 165  P     P      15 29 47.2 -1.8
GIRL  Giralia           30.89 201  P     P      15 29 50.8 +1.8
      comp=Z,1µm,1.1s
INCN  Inchon            31.04   1  P     P      15 29 51.8 +1.6
INCN  Inchon            31.04   1  P     P      15 29 49.8 -0.4
INCN  Inchon            31.04   1  P     P      15 29 50.2  0.0
INCN                               pmax  pmax
      comp=Z,113nm,1.0s
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INCN	**Inchon**	**31.04**	**1**	P	**P**	**15 29 50.2**	**0.0**
INCN	**Inchon**	**31.04**	**1**	P	**P**	**15 29 52.5**	**+2.3**
	comp=Z,129nm,1.0s						
JGF	**Kuroka**	**31.05**	**19**	P	**P**	**15 29 51.9**	**+1.6**
JGF	**Kuroka**	**31.05**	**19**	P	**P**	**15 29 51.3**	**+1.0**
	comp=Z,4µmcomp=Z,128nm,1.3s,comp=Z,4µm						
JGF	**Kuroka**	**31.05**	**19**	P	**P**	**15 29 51.5**	**+1.2**
KSRS	**Korea Array**	**31.07**	**3**	P	**P**	**15 29 49.8**	**-0.6**
	comp=Z,40nm,0.6s,baz=180,slow=9.7,SNR=76						
KSRS				PcP	**PcP**	**15 32 43.9**	**+0.8**
	comp=Z,28nm,0.7s,baz=188,slow=2.0,SNR=13						
KSRS				ScP	**ScP**	**15 36 15.5**	**+0.6**
	comp=Z,27nm,0.7s,baz=184,slow=2.7,SNR=21						
KSRS				PKiKP	**PKiKP**	**15 40 10.7**	**-2.5**
	comp=Z,2.3nm,0.7s,baz=256,slow=1.6,SNR=5.2						
KSRS				P3KPbc		16 01 29.1	
	comp=Z,3.1nm,0.9s,baz=10,slow=6.1,SNR=6.3						
	comp=Z,40nm,0.6s						
WRKA	**Warakurna**	**31.26**	**176**	P	**P**	**15 29 52.9**	**+0.6**
	comp=Z,337nm,2.0s						
JOD2	**Odawara 2**	**31.33**	**21**	P	**P**	**15 29 52.8**	**0.0**
HJU	**Haeju**	**31.59**	**360**	P	**P**	**15 29 57.0**	**+2.1**
HJU				AmB			
	comp=Z,7µm,6.1s						
JGN	**Niukaw**	**31.61**	**18**	P	**P**	**15 29 56.0**	**+0.7**
XAN	**Xi'an**	**31.68**	**333**	⇑P	**P**	**15 29 56.0**	**+0.1**
XAN				pP	pP	15 30 20.5	-2.4
XAN				PcP	**PcP**	**15 32 46.7**	**+1.7**
XAN				S	**S**	**15 34 55.8**	**-0.6**
XAN				ScP	**ScP**	**15 36 17.6**	**+0.5**
XAN				pmax	pmax		
	comp=Z,120nm,0.9s						
XAN				L	L		
	comp=Z,10µm,15.8s						
XAN				L	L		
	comp=Z,6µm,15.8s						
XAN				L	L		
	comp=Z,9µm,14.4s						
NPW	**Naypyitaw**	**31.71**	**298**	P	**P**	**15 29 58.5**	**+2.2**
	comp=Z,9µmcomp=Z,7µmcomp=Z,658nm,1.1s,comp=Z,7µm						
JRY	**Ryogami san**	**31.94**	**20**	P	**P**	**15 29 58.3**	**+0.1**
JRY				S	**S**	**15 34 59.9**	**-0.5**
TNCH	**TengChong**	**32.02**	**309**	⇑P	**P**	**15 30 00.3**	**+1.2**
TNCH				S	**S**	**15 34 58.8**	**-3.4**
TNCH				sS	sS	15 35 51.5	+2.6
TNCH				pmax	pmax		
	comp=Z,260nm,2.2s						
TNCH				pmax	pmax		
	comp=Z,4µm,4.2s						
TNCH				L	L		
	comp=Z,6µm,11.3s						
TNCH				L	L		
	comp=Z,8µm,13.4s						
TNCH				L	L		
	comp=Z,15µm,15.9s						
MAJO	**Matsushiro**	**32.19**	**19**	P	**P**	**15 30 00.2**	**-0.1**
MAJO	**Matsushiro**	**32.19**	**19**	P	**P**	**15 29 57.4**	**-2.9**
MAJO				pmax	pmax		
	comp=Z,189nm,1.1s						
MAJO	**Matsushiro**	**32.19**	**19**	P	**P**	**15 29 57.4**	**-2.9**
MAJO				IAmb	IAmb	15 30 08.2	
	comp=Z,189nm,1.1s						
MAJO	**Matsushiro**	**32.19**	**19**	P	**P**	**15 30 00.1**	**-0.2**
	comp=Z,3µmcomp=Z,175nm,1.7s						
MAJO	**Matsushiro**	**32.19**	**19**	P	**P**	**15 30 00.5**	**+0.3**
MAJO				ScP	**ScP**	**15 36 20.2**	**+1.4**
MAT	**Matsushiro**	**32.19**	**19**	P	**P**	**15 29 59.9**	**-0.4**
MAT				S	**S**	**15 35 01.9**	**-2.3**
MJAR	**Matsushiro Arr**	**32.19**	**19**	P	**P**	**15 29 58.7**	**-1.6**
	comp=Z,51nm,0.7s,baz=189,slow=9.3,SNR=79						
MJAR				PcP	**PcP**	**15 32 48.7**	**+2.4**
	comp=Z,21nm,1.0s,baz=196,slow=2.9,SNR=3.7						
MJAR				ScP	**ScP**	**15 36 19.1**	**+0.3**
	comp=Z,67nm,1.0s,baz=190,slow=3.5,SNR=24						
MJAR				LR	LR	15 44 49.5	
	comp=Z,6µm,18.4s,baz=204,slow=39						
MJAR				P3KPbc		16 01 24.9	
	comp=Z,2.9nm,0.6s,baz=98,slow=4.2,SNR=14						
	comp=Z,51nm,0.7s						
MJAR	**Matsushiro Arr**	**32.19**	**19**	P	**P**	**15 29 57.5**	**-2.8**
MJB9	**Matsu-Tunnel**	**32.19**	**19**	IAmb	IAmb	15 30 09.1	
	comp=Z,177nm,1.0s						
PATS	**Pohnpei**	**32.37**	**87**	P	**P**	**15 30 02.6**	**+0.4**
	comp=Z,203nm,2.3s						
PATS	**Pohnpei**	**32.37**	**87**	P	**P**	**15 30 04.4**	**+2.3**
PATS	**Pohnpei**	**32.37**	**87**	P	**P**	**15 30 00.5**	**-1.7**
PATS				IAmb	IAmb	15 30 16.8	
	comp=Z,207nm,1.2s						
PATS	**Pohnpei**	**32.37**	**87**	P	**P**	**15 30 03.1**	**+0.9**
	comp=Z,203nm,2.3s						
HNS	**HongShan**	**32.54**	**344**	⇑P	**P**	**15 30 04.1**	**+0.8**
HNS				PcP	**PcP**	**15 32 48.9**	**+1.7**
HNS				ScP	**ScP**	**15 36 20.3**	**+0.4**
HNS				ScS	**ScS**	**15 40 20.7**	**+1.2**
HNS				pmax	pmax		
	comp=Z,130nm,1.0s						
HNS				L	L		
	comp=Z,6µm,18.2s						
HNS				L	L		
	comp=Z,7µm,22.0s						
HNS				L	L		
	comp=Z,10µm,20.1s						
PYAG	**Pyongyang**	**32.60**	**0**	P	**P**	**15 30 06.2**	**+2.4**
PYAG				S	**S**	**15 35 12.8**	**+2.4**
PYAG				AmB			
	comp=Z,1µm,2.6s						
JYT	**Yasato**	**32.60**	**22**	P	**P**	**15 30 03.0**	**-0.8**
DL2	**Dalian**	**32.66**	**354**	P	**P**	**15 30 05.6**	**+1.3**
DL2				sP	**sP**	**15 30 45.8**	**+0.3**
DL2				PcP	**PcP**	**15 32 48.9**	**+1.4**
DL2				S	**S**	**15 35 12.5**	**+1.1**
DL2				ScP	**ScP**	**15 36 21.4**	**+1.1**
DL2				PcS	**PcS**	**15 36 30.4**	**-2.3**
DL2				pmax	pmax		
	comp=Z,200nm,1.3s						
DL2				pmax	pmax		
	comp=Z,1µm,7.1s						
PBA	**Port Blair**	**32.99**	**282**	P	**P**	**15 30 09.5**	**+1.9**
	SNR=18						
PBA	**Port Blair**	**32.99**	**282**	⇑P	**P**	**15 30 08.2**	**+0.6**
PBA	**Port Blair**	**32.99**	**282**	*e*P	**P**	**15 30 06.8**	**-0.7**
PBA				IAmb	IAmb	15 30 14.1	
	comp=Z,233nm,0.8s						
PBA	**Port Blair**	**32.99**	**282**	P	**P**	**15 30 09.2**	**+1.6**
	comp=Z,9µmcomp=Z,401nm,1.2s						
CTA	**Charters Tower**	**33.10**	**143**	P	**P**	**15 30 09.8**	**+1.3**
	comp=Z,210nm,1.6s,comp=Z,0.0nm						
CTA	**Charters Tower**	**33.10**	**143**	ScP	**ScP**	**15 36 22.0**	**-0.1**
	comp=Z,40nm,0.9s,baz=312,slow=5.4,SNR=3.5						
CTA				LR	LR	15 43 27.1	
	comp=Z,11µm,20.1s,baz=302,slow=36						
CTA	**Charters Tower**	**33.10**	**143**	P	**P**	**15 30 10.1**	**+1.7**
CTA	**Charters Tower**	**33.10**	**143**	P	**P**	**15 30 10.2**	**+1.8**
CTA				pmax	pmax		
	comp=Z,16nm,1.6s						
CTAO	**Charters Tower**	**33.10**	**143**	P	**P**	**15 30 10.1**	**+1.7**
CTAO	**Charters Tower**	**33.10**	**143**	P	**P**	**15 30 06.3**	**-2.1**
CTAO				pmax	pmax		
	comp=Z,2µm,1.7s						
CTAO	**Charters Tower**	**33.10**	**143**	P	**P**	**15 30 06.3**	**-2.1**
CTAO	**Charters Tower**	**33.10**	**143**	⇑P	**P**	**15 30 09.9**	**+1.5**
CTAO	**Charters Tower**	**33.10**	**143**	P	**P**	**15 30 10.2**	**+1.8**
	comp=Z,29µmcomp=Z,10µmcomp=Z,529nm,1.6s						
CTAO	**Charters Tower**	**33.10**	**143**	P	**P**	**15 30 10.5**	**+2.1**
CTAO				ScP	**ScP**	**15 36 24.5**	**+2.3**
AUAYR	**Ayr State High**	**33.43**	**141**	P	**P**	**15 30 13.2**	**+2.0**
MEEK	**Meekatharra**	**33.47**	**192**	P	**P**	**15 30 12.0**	**+0.4**
	comp=Z,2µm,1.1s,comp=Z,0.0nm						
MEEK	**Meekatharra**	**33.47**	**192**	P	**P**	**15 30 12.1**	**+0.6**
MEEK	**Meekatharra**	**33.47**	**192**	P	**P**	**15 30 12.2**	**+0.6**
	comp=Z,27µmcomp=Z,22µmcomp=Z,2µm,1.1s,comp=Z,22µm						
HHU	**Hamhung**	**33.51**	**3**	P	**P**	**15 30 14.6**	**+2.9**
HHU				pP	**pP**	**15 30 44.3**	**+5.8**
HHU				S	**S**	**15 35 26.8**	**+2.3**
HHU				AmB			
	comp=Z,3µm,2.0s						
TIY	**Taiyuan**	**33.52**	**341**	P	**P**	**15 30 13.1**	**+1.2**
TIY				pP	**pP**	**15 30 42.0**	**+3.0**
TIY				S	**S**	**15 35 23.6**	**-1.4**
TIY				pmax	pmax		
	comp=Z,34nm,0.6s						
TIY				pmax	pmax		
	comp=Z,2µm,12.0s						
TIY				L	L		
	comp=Z,11µm,17.2s						
TIY				L	L		
	comp=Z,6µm,15.8s						
TIY				L	L		
	comp=Z,8µm,19.9s						
SUJ	**Sinuiju**	**33.67**	**358**	P	**P**	**15 30 15.8**	**+2.8**
COCO	**West Island**	**34.10**	**237**	P	**P**	**15 30 19.0**	**+1.9**
COCO	**West Island**	**34.10**	**237**	P	**P**	**15 30 17.8**	**+0.6**
COCO	**West Island**	**34.10**	**237**	P	**P**	**15 30 17.7**	**+0.6**
COCO				pmax	pmax		
	comp=Z,505nm,1.1s						
COCO	**West Island**	**34.10**	**237**	P	**P**	**15 30 17.7**	**+0.5**
COCO	**West Island**	**34.10**	**237**	P	**P**	**15 30 17.9**	**+0.8**
	comp=Z,5µmcomp=Z,258nm,1.3s						
COCO	**West Island**	**34.10**	**237**	P	**P**	**15 30 18.2**	**+1.1**
	comp=Z,28µmcomp=Z,11µmcomp=Z,506nm,1.3s,comp=Z,11µm						
COCO	**West Island**	**34.10**	**237**	P	**P**	**15 30 17.6**	**+0.4**
JMM	**Marumori**	**34.27**	**21**	P	**P**	**15 30 17.5**	**-0.8**
JMM				S	**S**	**15 35 36.3**	**0.0**
JYA	**Atsumi**	**34.55**	**20**	P	**P**	**15 30 20.2**	**-0.4**
BJI2	**Beijing**	**34.65**	**347**	P	**P**	**15 30 22.2**	**+0.7**
BJI2				pP	**pP**	**15 30 48.2**	**-0.5**
BJI2				sP	**sP**	**15 31 00.2**	**-2.6**
BJI2				PP	**PnPn**	**15 31 41.7**	**0.0**
BJI2				PcP	**PcP**	**15 32 55.2**	**+2.1**
BJI2				S	**S**	**15 35 43.1**	**+1.0**
BJI2				ScP	**ScP**	**15 36 27.8**	**+0.6**
BJI2				PcS	**PcS**	**15 36 36.9**	**-2.8**
BJI2				ScS	**ScS**	**15 40 31.3**	**+0.8**
BJI2				pmax	pmax		
	comp=Z,57nm,1.2s						
BJI2				pmax	pmax		
	comp=Z,1µm,8.4s						
BJI2				L	L		
	comp=Z,3µm,13.7s						
BJI2				L	L		
	comp=Z,3µm,15.4s						
BJI2				L	L		
	comp=Z,3µm,17.8s						
BJT	**Baijiatuau**	**34.65**	**347**	P	**P**	**15 30 23.2**	**+1.7**
BJT	**Baijiatuau**	**34.65**	**347**	P	**P**	**15 30 21.3**	**-0.2**
BJT				pmax	pmax		
	comp=Z,139nm,1.1s						
BJT	**Baijiatuau**	**34.65**	**347**		**P**	**15 30 21.3**	**-0.2**
BJT	**Baijiatuau**	**34.65**	**347**	P	**P**	**15 30 22.4**	**+0.9**
	comp=Z,17µmcomp=Z,3µmcomp=Z,120nm,0.8s						
MORE	**Moreh**	**35.03**	**304**	IAmb	IAmb	15 30 31.1	
	comp=Z,414nm,1.5s						
SNY	**Shenyang**	**35.42**	**357**	P	**P**	**15 30 29.6**	**+1.5**
SNY				S	**S**	**15 35 56.7**	**+2.8**
SNY				pmax	pmax		
	comp=Z,260nm,0.8s						
SNY				pmax	pmax		
	comp=Z,2µm,3.5s						
SNY				L	L		
	comp=Z,4µm,17.5s						
SNY				L	L		
	comp=Z,9µm,21.2s						
SNY				L	L		
	comp=Z,8µm,25.0s						
SAIH	**SAIHA**	**35.44**	**300**	*e*P	**P**	**15 30 28.0**	**-0.7**
SAIH				IAmb	IAmb	15 30 33.1	
	comp=Z,3µm,1.6s						
IMP	**Imphal**	**35.58**	**305**	*e*P	**P**	**15 30 29.3**	**-0.5**
IMP				IAmb	IAmb	15 31 05.2	
	comp=Z,122nm,0.3s						
LZDM	**Lanzhou Array**	**35.77**	**329**	P	**P**	**15 30 31.6**	**0.0**
	comp=Z,53nm,1.0s,baz=138,slow=8.4,SNR=9.2						
LZDM				PcP	**PcP**	**15 32 58.3**	**+1.4**
	comp=Z,34nm,0.7s,baz=152,slow=6.5,SNR=3.5						
LZDM				ScP	**ScP**	**15 36 31.4**	**-0.5**
	comp=Z,16nm,0.6s,baz=141,slow=3.6,SNR=5.7						
	comp=Z,53nm,1.0s						
LZH	**Lanzhou**	**35.79**	**329**	P	**P**	**15 30 33.1**	**+1.5**
LZH				pP	pP	15 31 01.6	+2.3
LZH				sP	sP	15 31 17.5	+4.0
LZH				S	**S**	**15 35 59.1**	**-1.0**
LZH				sS	sS	15 36 47.7	+0.4
LZH				pmax	pmax		
	comp=Z,250nm,1.5s						
LZH				pmax	pmax		
	comp=Z,3µm,4.8s						
LZH				L	L		
	comp=Z,28µm,16.2s						
LZH				L	L		
	comp=Z,21µm,17.1s						
LZH				L	L		
	comp=Z,16µm,20.6s						
MOKO	**MOKOCHONG**	**35.79**	**307**	*e*P	**P**	**15 30 30.8**	**-1.0**
MOKO				IAmb	IAmb	15 30 37.7	
	comp=Z,254nm,1.1s						
KOHI	**KOHIMA**	**35.84**	**306**	*e*P	**P**	**15 30 31.0**	**-1.2**
KOHI				IAmb	IAmb	15 30 38.9	
	comp=Z,269nm,0.6s						
JOM	**Ohasama**	**35.88**	**21**	P	**P**	**15 30 31.3**	**-0.8**
AZL	**Aizawl**	**36.17**	**302**	*e*P	**P**	**15 30 34.0**	**-0.9**
AZL				IAmb	IAmb	15 30 38.3	
	comp=Z,190nm,1.1s						
JORH	**JORHAT**	**36.20**	**308**	*e*P	**P**	**15 30 34.1**	**-0.9**
JORH				IAmb	IAmb	15 30 39.1	
	comp=Z,759nm,0.7s						
MORW	**Morawa**	**36.39**	**194**	P	**P**	**15 30 37.3**	**+0.8**
	comp=Z,2µm,1.4s,comp=Z,0.0nm						
MORW	**Morawa**	**36.39**	**194**	P	**P**	**15 30 37.7**	**+1.2**
MORW	**Morawa**	**36.39**	**194**	⇑P	**P**	**15 30 37.3**	**+0.8**
MORW	**Morawa**	**36.39**	**194**	P	**P**	**15 30 37.5**	**+1.0**
	comp=Z,23µmcomp=Z,21µmcomp=Z,2µm,1.4s,comp=Z,21µm						
PSTR	**Posyet**	**36.47**	**6**	*c i*P	**P**	**15 30 38.3**	**+1.2**
SILR	**SILCHAR**	**36.49**	**304**	*e*P	**P**	**15 30 36.9**	**-0.6**
SILR				IAmb	IAmb	15 30 45.2	
	comp=Z,484nm,1.1s						
HHC	**Hu-ho-hao-te**	**36.65**	**342**	*e*P	**P**	**15 30 39.8**	**+1.0**
HHC				pP	pP	15 31 08.6	+2.4
HHC				sP	sP	15 31 22.5	+2.1
HHC				S	**S**	**15 36 10.3**	**-2.7**
HHC				sS	sS	15 37 02.3	+2.0
HHC				pmax	pmax		
	comp=Z,49nm,1.2s						
HHC				pmax	pmax		
	comp=Z,2µm,5.6s						
HHC				L	L		
	comp=Z,7µm,19.1s						
HHC				L	L		
	comp=Z,4µm,17.6s						
HHC				L	L		
	comp=Z,9µm,16.8s						
BRDH	**Bariadhala**	**36.66**	**300**	P	**P**	**15 30 40.0**	**+1.0**
	comp=Z,1µm,0.6s,baz=96,slow=6.9,SNR=36						
INKA	**Innaminka**	**36.83**	**157**	IAmb	IAmb	15 30 43.7	
	comp=Z,402nm,1.1s						
ZIRO	**ZIRO**	**36.89**	**309**	*e*P	**P**	**15 30 40.0**	**-1.1**
ZIRO				IAmb	IAmb	15 30 45.0	
	comp=Z,249nm,0.9s						
FORT	**Forrest**	**36.94**	**177**	P	**P**	**15 30 41.9**	**+0.7**
	comp=Z,894nm,1.0s,comp=Z,0.0nm						
JTM	**Tenmabayashi**	**36.97**	**20**	P	**P**	**15 30 42.6**	**+1.3**
JTM	**Tenmabayashi**	**36.97**	**20**	IAmb	IAmb	15 30 44.9	
	comp=Z,148nm,0.7s						
JTM	**Tenmabayashi**	**36.97**	**20**	⇑P	**P**	**15 30 41.4**	**0.0**
JTM	**Tenmabayashi**	**36.97**	**20**	P	**P**	**15 30 43.0**	**+1.6**
	comp=Z,4µmcomp=Z,254nm,0.7s,comp=Z,4µm						
JTM	**Tenmabayashi**	**36.97**	**20**	P	**P**	**15 30 42.7**	**+1.3**
TATA	**Tatamba Isabel**	**36.98**	**113**	P	**P**	**15 30 43.9**	**+2.1**
VLA	**Vladivostok**	**37.06**	**7**	*d i*P	**P**	**15 30 41.0**	**-1.1**
VLA				pmax	pmax		
	comp=Z,335nm,1.0s						
VLA				MLR	MLR		
	comp=Z,4µm,18.0s						
BTO2	**Baotou**	**37.11**	**340**	*e*P	**P**	**15 30 43.8**	**+1.1**
BTO2				pP	**pP**	**15 31 06.5**	**-3.6**
BTO2				sP	**sP**	**15 31 18.1**	**-6.1**
BTO2				S	**S**	**15 36 24.0**	**+4.1**
BTO2				sS	**sS**	**15 37 05.3**	**-2.0**
BTO2				pmax	pmax		
	comp=Z,5µm,8.4s						
BTO2				L	L		
	comp=Z,16µm,19.7s						
BTO2				L	L		
	comp=Z,14µm,15.9s						
BTO2				L	L		
	comp=Z,28µm,22.9s						
SAVO	**Savo Central**	**37.28**	**114**	P	**P**	**15 30 46.5**	**+2.1**
QLP	**Quilpie**	**37.29**	**152**	P	**P**	**15 30 44.7**	**+0.5**
	comp=Z,796nm,1.5s,comp=Z,0.0nm						
QLP	**Quilpie**	**37.29**	**152**	P	**P**	**15 30 44.7**	**+0.5**
QLP	**Quilpie**	**37.29**	**152**	P	**P**	**15 30 44.7**	**+0.5**
	comp=Z,27µmcomp=Z,18µmcomp=Z,796nm,1.5s,comp=Z,18µm						
TEZP	**TEZPUR**	**37.29**	**307**	*e*P	**P**	**15 30 43.3**	**-1.0**
TEZP				IAmb	IAmb	15 30 47.7	
	comp=Z,929nm,2.1s						
CN2	**Changchun**	**37.34**	**360**	⇑P	**P**	**15 30 45.4**	**+0.9**
CN2				*e*pP	pP	15 31 10.0	-1.8
CN2				PcP	**PcP**	**15 33 02.8**	**+1.7**
CN2				*e*S	**S**	**15 36 25.9**	**+2.8**
CN2				*e*SS	**SS**	**15 39 03.5**	**-8.5**
CN2				pmax	pmax		
	comp=Z,700nm,6.0s						
JOT	**Ohata**	**37.50**	**19**	P	**P**	**15 30 47.8**	**+2.0**
HNR	**Honiara**	**37.51**	**114**	P	**P**	**15 30 48.4**	**+2.1**
HNR	**Honiara**	**37.51**	**114**	P	**P**	**15 30 42.8**	**-3.5**
HNR				pmax	pmax		
	comp=Z,355nm,0.8s						
HNR	**Honiara**	**37.51**	**114**	P	**P**	**15 30 42.8**	**-3.5**
HNR	**Honiara**	**37.51**	**114**	P	**P**	**15 30 48.3**	**+2.1**
	comp=Z,21µmcomp=Z,5µmcomp=Z,462nm,1.1s						
SHL	**Shillong**	**37.58**	**304**	P	**P**	**15 30 46.9**	**0.0**
	SNR=258						
SHL	**Shillong**	**37.58**	**304**	*e*P	**P**	**15 30 45.2**	**-1.7**
SHL				IAmb	IAmb	15 30 51.3	
	comp=Z,441nm,0.9s						
KMBL	**Kambalda**	**37.64**	**185**	P	**P**	**15 30 48.3**	**+1.2**
	comp=Z,1µm,1.1s						
BLDU	**Ballidu**	**37.72**	**193**	P	**P**	**15 30 48.7**	**+0.9**
	comp=Z,2µm,1.4s,comp=Z,0.0nm						
BLDU	**Ballidu**	**37.72**	**193**	P	**P**	**15 30 48.3**	**+0.6**
BLDU	**Ballidu**	**37.72**	**193**	P	**P**	**15 30 48.6**	**+0.9**
	comp=Z,21µmcomp=Z,23µmcomp=Z,2µm,1.4s,comp=Z,23µm						
USA0B	**Ussuriysk Arra**	**38.14**	**7**	*d i*P	**P**	**15 30 50.2**	**-0.9**
USA0B	**Ussuriysk Arra**	**38.14**	**7**	IAmb	IAmb	15 31 01.2	
	comp=Z,139nm,0.8s						
USRK	**Ussuriysk Ar.**	**38.14**	**7**	P	**P**	**15 30 50.8**	**-0.4**
	comp=Z,47nm,0.5s,baz=192,slow=4.8,SNR=55						
USRK				PcP	**PcP**	**15 33 04.0**	**+0.5**
	comp=Z,22nm,0.8s,baz=170,slow=3.8,SNR=4.2						
USRK				ScP	**ScP**	**15 36 40.9**	**+0.8**
	comp=Z,23nm,1.0s,baz=202,slow=2.1,SNR=7.8						
USRK				P3KPbc		16 00 59.8	
	comp=Z,1.7nm,0.6s,baz=150,slow=41,SNR=4.5						
USRK				PKP2ab	**P'P'ab**	**16 04 57.8**	**+1.3**
	comp=Z,1.9nm,0.9s,baz=20,slow=6.1,SNR=6.7						
	comp=Z,47nm,0.5s						
USRK	**Ussuriysk Ar.**	**38.14**	**7**	P	**P**	**15 30 50.1**	**-1.0**
AUNRC	**North Rockhamp**	**38.16**	**141**	P	**P**	**15 30 53.1**	**+1.5**
MDJ	**Mudanjiang**	**38.31**	**4**	P	**P**	**15 30 52.7**	**+0.2**
MDJ				S	**S**	**15 36 41.2**	**+3.5**
MDJ				sS	sS	15 37 28.9	+3.7
MDJ				ScS	**ScS**	**15 40 54.7**	**+4.0**
MDJ				pmax	pmax		
	comp=Z,180nm,1.6s						
MDJ				pmax	pmax		
	comp=Z,3µm,4.5s						
MDJ	**Mudanjiang**	**38.31**	**4**	P	**P**	**15 30 53.0**	**+0.4**
MDJ	**Mudanjiang**	**38.31**	**4**	IAmb	IAmb	15 31 01.2	
	comp=Z,345nm,1.0s						
MDJ	**Mudanjiang**	**38.31**	**4**	P	**P**	**15 30 53.0**	**+0.4**
	comp=Z,14µmcomp=Z,5µmcomp=Z,376nm,1.0s						
MDJ	**Mudanjiang**	**38.31**	**4**	P	**P**	**15 30 54.5**	**+2.0**
MDJ				pP	**pP**	**15 31 21.2**	**+1.3**
JSH	**Shimam**	**38.34**	**17**	P	**P**	**15 30 55.4**	**+2.5**
JSH				S	**S**	**15 36 41.3**	**+3.1**
XLT	**XiLinHaoTe**	**38.39**	**349**	*e*P	**P**	**15 30 54.1**	**+0.7**
XLT				PcP	**PcP**	**15 33 06.3**	**+1.9**
XLT				ScP	**ScP**	**15 36 41.4**	**+0.2**
XLT				S	**S**	**15 36 42.7**	**+3.6**
XLT				PcS	**PcS**	**15 36 56.2**	**+2.5**
XLT				pmax	pmax		
	comp=Z,67nm,1.4s						
XLT				pmax	pmax		
	comp=Z,2µm,8.4s						
XLT				L	L		
	comp=Z,680nm,14.0s						
XLT				L	L		
	comp=Z,4µm,20.8s						
XLT				L	L		
	comp=Z,4µm,13.1s						
KLBR	**Kellerberrin**	**38.45**	**191**	P	**P**	**15 30 54.7**	**+0.7**
	comp=Z,4µm,1.0s						
KLBR	**Kellerberrin**	**38.45**	**191**	P	**P**	**15 30 54.6**	**+0.7**
KLBR	**Kellerberrin**	**38.45**	**191**	P	**P**	**15 30 52.3**	**-1.5**
	comp=Z,2µmcomp=Z,34µmcomp=Z,4µm,1.0s						
TAWA	**Tawang**	**38.48**	**307**	*e*P	**P**	**15 30 53.0**	**-1.6**
NGOA	**Tingoa Renbel**	**38.49**	**117**	P	**P**	**15 30 56.7**	**+2.2**
ERM	**Erimo**	**38.78**	**21**	P	**P**	**15 30 59.0**	**+2.5**
ERM	**Erimo**	**38.78**	**21**	P	**P**	**15 30 58.0**	**+1.4**
ERM				pmax	pmax		
	comp=Z,158nm,0.8s						
ERM	**Erimo**	**38.78**	**21**	P	**P**	**15 30 58.0**	**+1.4**
ERM				IAmb	IAmb	15 31 03.2	
	comp=Z,158nm,0.8s						
ERM	**Erimo**	**38.78**	**21**	⇓P	**P**	**15 30 58.6**	**+2.1**
JEM	**Erimo**	**38.78**	**21**	P	**P**	**15 30 59.3**	**+2.8**
JEM	**Erimo**	**38.78**	**21**	P	**P**	**15 30 58.6**	**+2.1**
JEM				S	**S**	**15 36 44.1**	**-0.7**
GD1S	**Gladstone Soft**	**38.92**	**141**	P	**P**	**15 30 59.7**	**+1.8**
JEW	**Eniwo**	**38.95**	**18**	P	**P**	**15 31 00.2**	**+2.3**
MUN	**Mundaring**	**39.14**	**193**	P	**P**	**15 31 00.7**	**+1.0**
	comp=Z,2µm,0.9s,comp=Z,0.0nm						
MUN	**Mundaring**	**39.14**	**193**	P	**P**	**15 31 01.3**	**+1.7**
MUN	**Mundaring**	**39.14**	**193**	P	**P**	**15 30 59.1**	**-0.5**
BNX	**BinXian**	**39.31**	**2**	⇑P	**P**	**15 31 00.4**	**-0.5**
BNX				S	**S**	**15 36 56.2**	**+3.5**
BNX				pmax	pmax		
	comp=Z,200nm,1.1s						
BNX				pmax	pmax		
	comp=Z,2µm,5.7s						
BNX				L	L		
	comp=Z,5µm,17.3s						
BNX				L	L		
	comp=Z,10µm,23.5s						
BNX				L	L		
	comp=Z,7µm,18.1s						
DHUB	**DHUBRI**	**39.32**	**304**	*e*P	**P**	**15 31 00.3**	**-0.9**
DHUB				IAmb	IAmb	15 31 08.4	
	comp=Z,656nm,1.8s						
HURO	**Huro Makira**	**39.69**	**115**	P	**P**	**15 31 06.9**	**+2.4**
NWAO	**Narrogin (SRO)**	**39.84**	**191**	P	**P**	**15 31 07.2**	**+1.7**
	comp=Z,4µm,1.1s,comp=Z,0.0nm						
NWAO	**Narrogin (SRO)**	**39.84**	**191**	LR	LR	15 49 24.5	
	comp=Z,4µm,19.7s,baz=18,slow=39						
NWAO	**Narrogin (SRO)**	**39.84**	**191**	P	**P**	**15 31 07.1**	**+1.7**
NWAO	**Narrogin (SRO)**	**39.84**	**191**	P	**P**	**15 31 06.6**	**+1.1**
NWAO	**Narrogin (SRO)**	**39.84**	**191**	P	**P**	**15 31 05.3**	**-0.2**
NWAO				pmax	pmax		
	comp=Z,3µm,1.0s						
NWAO	**Narrogin (SRO)**	**39.84**	**191**	P	**P**	**15 31 05.3**	**-0.2**
NWAO	**Narrogin (SRO)**	**39.84**	**191**	P	**P**	**15 31 07.1**	**+1.6**
	comp=Z,31µmcomp=Z,40µmcomp=Z,4µm,1.1s,comp=Z,40µm						
NWAO	**Narrogin (SRO)**	**39.84**	**191**	P	**P**	**15 31 06.9**	**+1.4**
EIDS	**Eidsvold**	**39.99**	**143**	P	**P**	**15 31 07.3**	**+0.5**
	comp=Z,392nm,1.5s,comp=Z,0.0nm						
EIDS	**Eidsvold**	**39.99**	**143**	P	**P**	**15 31 07.1**	**+0.3**
EIDS	**Eidsvold**	**39.99**	**143**	P	**P**	**15 31 06.2**	**-0.6**
EIDS	**Eidsvold**	**39.99**	**143**	⇑P	**P**	**15 31 06.8**	**0.0**
EIDS	**Eidsvold**	**39.99**	**143**	P	**P**	**15 31 07.1**	**+0.3**
	comp=Z,18µmcomp=Z,7µmcomp=Z,392nm,1.5s						
LSA	**Lhasa**	**40.01**	**310**	P	**P**	**15 31 09.9**	**+2.4**
LSA	**Lhasa**	**40.01**	**310**	IAmb	IAmb	15 31 13.5	
	comp=Z,541nm,1.7s						
LSA	**Lhasa**	**40.01**	**310**	P	**P**	**15 31 09.7**	**+2.1**
LSA	**Lhasa**	**40.01**	**310**	P	**P**	**15 31 09.5**	**+1.9**
	comp=Z,17µmcomp=Z,4µmcomp=Z,140nm,0.9s						
LSA	**Lhasa**	**40.01**	**310**	P	**P**	**15 31 10.0**	**+2.4**
BBOO	**Buckleboo**	**40.12**	**166**	P	**P**	**15 31 08.8**	**+1.0**
	comp=Z,3µm,1.0s,comp=Z,0.0nm						
BBOO	**Buckleboo**	**40.12**	**166**	P	**P**	**15 31 06.8**	**-1.0**
BBOO	**Buckleboo**	**40.12**	**166**	P	**P**	**15 31 05.7**	**-2.1**
BBOO	**Buckleboo**	**40.12**	**166**	P	**P**	**15 31 06.5**	**-1.3**
	comp=Z,20µmcomp=Z,51µmcomp=Z,3µm,1.0s						
AUHAR	**St Anne’s Scho**	**40.28**	**193**	P	**P**	**15 31 11.7**	**+2.7**
ASAJ	**Asahikawa**	**40.46**	**19**	P	**P**	**15 31 11.2**	**+0.8**
ASAJ	**Asahikawa**	**40.46**	**19**	P	**P**	**15 31 11.0**	**+0.5**
JKA	**Kamikawa-asahi**	**40.46**	**19**	IAmb	IAmb	15 31 17.6	
	comp=Z,414nm,1.3s						
JKA	**Kamikawa-asahi**	**40.46**	**19**	P	**P**	**15 31 11.2**	**+0.8**
	comp=Z,4µmcomp=Z,248nm,1.2s,comp=Z,4µm						
GTA2	**Gaotai**	**40.48**	**329**	P	**P**	**15 31 12.3**	**+1.5**
GTA2				PcP	**PcP**	**15 33 12.8**	**+1.6**
GTA2				ScP	**ScP**	**15 36 49.0**	**-0.4**
GTA2				ScS	**ScS**	**15 41 00.4**	**-3.6**
GTA2				pmax	pmax		
	comp=Z,80nm,1.6s						

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GTA2                                 pmax     pmax
        comp=Z,3µm,10.7s
GTA2                                 L        L
        comp=Z,8µm,16.8s
GTA2                                 L        L
        comp=Z,8µm,18.9s
GTA2                                 L        L
        comp=Z,11µm,17.9s
STKA  Stephens Creek     40.88 159   P        P        15 31 15.4 +1.4
        comp=Z,6µm,1.1s,comp=Z,0.0nm
STKA  Stephens Creek     40.88 159   P        P        15 31 12.5 -1.5
        comp=Z,693nm,0.7s,baz=333,slow=8.3,SNR=35
STKA                                 PP       PP       15 32 49.3 -1.5
        comp=Z,367nm,1.1s,baz=324,slow=8.3,SNR=4.1
STKA                                 PcP      PcP      15 33 13.5 +1.0
        comp=Z,156nm,0.9s,baz=1.9,slow=6.6,SNR=2.9
STKA                                 S        S        15 37 15.6 -0.8
        comp=Z,178nm,1.1s,baz=132,slow=18,SNR=8.2
        comp=Z,693nm,0.7s
STKA  Stephens Creek     40.88 159   P        P        15 31 13.1 -0.9
STKA  Stephens Creek     40.88 159⇑iP       P        15 31 12.8 -1.2
STKA  Stephens Creek     40.88 159   P        P        15 31 12.8 -1.2
        comp=Z,92µmcomp=Z,77µmcomp=Z,6µm,1.1s,comp=Z,77µm
PTPS  Port Pirie         40.95 164   P        P        15 31 17.2 +2.6
GOMU  GeErMu             41.06 321   P        P        15 31 17.4 +1.4
GOMU                                 pmax     pmax
        comp=Z,48nm,1.2s
GOMU                                 L        L
        comp=Z,4µm,13.4s
GOMU                                 L        L
        comp=Z,7µm,13.9s
GOMU                                 L        L
        comp=Z,12µm,13.9s
JWK2  Keihoku            41.33  17   P        P        15 31 20.3 +2.8
AUCAS Cummins Area S     41.44 167   P        P        15 31 19.9 +1.4
HTT   Hallett            41.46 163   P        P        15 31 20.4 +1.6
        comp=Z,474nm,1.3s
HTT   Hallett            41.46 163   P        P        15 31 19.8 +1.0
HTT   Hallett            41.46 163   P        P        15 31 18.3 -0.5
HTT   Hallett            41.46 163 ⇑P        P        15 31 17.9 -0.9
AULRC Lightning Ridg     41.48 150   P        P        15 31 18.5 -0.4
YUK   Yuzh-Kuril'sk      41.52  22c iP        P        15 31 19.0 -0.1
YUK                                i *PP      pP       15 31 44.4 -2.6
YUK                                 ePPP      PPP      15 33 32.8
YUK                                i S        S        15 37 27.3 +1.8
YUK                                i *SS      sS       15 38 13.0 -0.6
YUK                                  pmax     pmax
        comp=Z,694nm,1.0s
YUK                                  pmax     pmax
        comp=N,99nm,0.7s
YUK                                  pmax     pmax
        comp=E,160nm,1.1s
RKGY  Rocky Gully        41.53 191   P        P        15 31 21.3 +2.0
        comp=Z,2µm,0.9s,comp=Z,0.0nm
H11S3 WAKE ISLAND Hy     41.69  69   P        P        15 31 19.3 -1.3
H11S3                                T        T        16 15 44.4
        baz=264,slow=75
H11S1 WAKE ISLAND Hy     41.70  69   P        P        15 31 20.4 -0.4
H11S1                                T        T        16 15 50.2
        baz=264,slow=75
H11S2 WAKE ISLAND Hy     41.70  69   P        P        15 31 20.4 -0.4
H11S2                                T        T        16 15 33.9
        baz=264,slow=75
AUALB St Joseph's Co     41.74 190   P        P        15 31 23.4 +2.4
WAKE  Wake Island        41.82  68   P        P        15 31 23.9 +2.0
WAKE  Wake Island        41.82  68   P        P        15 31 23.7 +1.8
        comp=Z,288nm,1.5s
BOK   Bokaro             42.02 299  eP        P        15 31 22.6 -0.9
BOK                                  IAmb     IAmb     15 31 29.8
        comp=Z,872nm,1.8s
H11N1 WAKE ISLAND Hy     42.13  68   P        P        15 31 24.8 +0.6
        baz=164,slow=74,SNR=4.6
H11N1                                T        T        16 16 28.2
        baz=265,slow=75,SNR=124
H11N2 WAKE ISLAND Hy     42.14  68   P        P        15 31 25.0 +0.7
        baz=230,slow=74,SNR=3.1
H11N2                                T        T        16 16 42.1
        baz=265,slow=75,SNR=120
TW1H  Toowoomba 1 Ha     42.15 144   P        P        15 31 26.1 +1.6
AUTOO Toowoomba Stat     42.15 144   P        P        15 31 25.8 +1.3
H11N3 WAKE ISLAND Hy     42.15  68   P        P        15 31 23.9 -0.4
H11N3                                T        T        16 16 43.5
        baz=265,slow=75,SNR=95
CMSA  Cobar Meteorol     42.19 154   P        P        15 31 25.6 +0.9
        comp=Z,510nm,1.5s,comp=Z,0.0nm
CMSA  Cobar Meteorol     42.19 154   P        P        15 31 25.6 +0.9
CMSA  Cobar Meteorol     42.19 154   P        P        15 31 26.0 +1.3
        comp=Z,22µmcomp=Z,10µmcomp=Z,510nm,1.5s,comp=Z,10µm
AUBSH Beerwah State      42.22 143   P        P        15 31 26.2 +1.2
H01W3 Cape Leeuwin H     42.41 194   P        P        15 31 28.9 +2.8
        baz=22,slow=5.0,SNR=9.1
H01W1 Cape Leeuwin H     42.41 194   P        P        15 31 28.9 +2.8
        baz=22,slow=5.0,SNR=10.0
H01W2 Cape Leeuwin H     42.42 194   P        P        15 31 29.0 +2.8
        baz=22,slow=5.0,SNR=11
EVN   Everest            42.68 305   P        P        15 31 28.5 -1.1
EVN                                  IAmb     IAmb     15 31 36.1
        comp=Z,361nm,0.9s
EVN   Everest            42.68 305 ⇓P        P        15 31 30.2 +0.6
EVN   Everest            42.68 305   P        P        15 31 30.4 +0.9
        comp=Z,11µmcomp=Z,6µmcomp=Z,478nm,1.0s,comp=Z,6µm
AUMAR Marden Senior      42.75 164   P        P        15 31 29.3 +0.1
GHSS  Government Hou     42.77 164   P        P        15 31 31.1 +1.8
VIS   Vishakhapatnam     42.89 289  eP        P        15 31 29.3 -1.3
VIS                                  IAmb     IAmb     15 31 34.1
        comp=Z,102nm,0.6s
YSS   Yuzhno-Sakhali     43.06  17   P        P        15 31 31.9 +0.4
YSS   Yuzhno-Sakhali     43.06  17deP        P        15 31 31.1 -0.4
YSS                                  pmax     pmax
        comp=Z,139nm,0.7s
YSS                                  MLR      MLR
        comp=Z,4µm,16.0s
YSS   Yuzhno-Sakhali     43.06  17   P        P        15 31 30.1 -1.4
YSS                                  IAmb     IAmb     15 31 35.7
        comp=Z,132nm,0.7s
YSS   Yuzhno-Sakhali     43.06  17 ⇑P        P        15 31 31.6 +0.1
YSS   Yuzhno-Sakhali     43.06  17   P        P        15 31 31.4 -0.1
        comp=Z,10µmcomp=Z,2µmcomp=Z,176nm,0.7s
KLR   Kul'dur            43.08   6   P        P        15 31 30.7 -0.9
        comp=Z,50nm,0.6s,baz=188,slow=5.3,SNR=73
KLR                                  PcP      PcP      15 33 20.4 +0.9
        comp=Z,66nm,0.8s,baz=197,slow=5.6,SNR=5.3
KLR                                  ScP      ScP      15 36 59.5 +0.1
        comp=Z,45nm,1.1s,baz=195,slow=3.7,SNR=8.8
KLR                                  S        S        15 37 47.7 -0.6
        comp=Z,6.2nm,0.9s,baz=11,slow=19,SNR=5.7
KLR                                  PKP2ab            16 04 36.3
        comp=Z,4.9nm,0.9s,baz=345,slow=5.0,SNR=7.1
        comp=Z,50nm,0.6s
KLR   Kul'dur            43.08   6  eP        P        15 31 29.7 -1.9
KLR                                  pmax     pmax
        comp=Z,47nm,1.5s
HIA   Hailar             43.11 354   P        P        15 31 33.3 +1.3
HIA   Hailar             43.11 354   P        P        15 31 33.2 +1.3
        comp=Z,17µmcomp=Z,4µmcomp=Z,150nm,1.2s
HIA   Hailar             43.11 354   P        P        15 31 33.4 +1.3
HIA                                  x        x        15 33 21.1
HIA                                  ScP      ScP      15 37 00.6 +1.0
AUMBR Murray Bridge      43.16 164   P        P        15 31 34.1 +1.7
KUR   Kuril'sk           43.30  23  eP        P        15 31 34.3 +0.9
KUR                                 e*PP      pP       15 32 02.4 +0.8
KUR                                 e                  15 33 17.4
KUR                                 i S       S        15 37 52.8 +1.2
KUR                                 eSS       SS       15 41 07.1 -2.8
KUR                                 e                  15 41 21.3
KUR                                 eSSS      SSS      15 41 59.0
KUR                                  pmax     pmax
        comp=Z,689nm,1.1s
KUR                                  pmax     pmax
        comp=Z,3µm,6.8s
KUR                                  MLR      MLR
        comp=Z,2µm,13.0s
HILR  Hailar Array B     43.40 354   P        P        15 31 34.0 -0.3
        comp=Z,18nm,0.5s,baz=171,slow=10,SNR=52
HILR                                 PcP      PcP      15 33 21.8 +1.2
        comp=Z,118nm,0.6s,baz=159,slow=3.8,SNR=20
HILR                                 ScP      ScP      15 37 00.9 +0.2
        comp=Z,19nm,0.8s,baz=150,slow=6.8,SNR=5.7
HILR                                 LR       LR       15 51 20.1
        comp=Z,3µm,18.8s,baz=110,slow=38
        comp=Z,18nm,0.5s
GC1S  Gold Coast 1 S     43.51 143   P        P        15 31 37.4 +2.0
HEH   HeiHe              43.82   2  eP        P        15 31 36.4 -1.2
HEH                                  PcP      PP       15 33 23.2 +1.1
HEH                                  ScP      ScP      15 37 02.5 +0.1
HEH                                  S        S        15 38 00.7 +1.6
HEH                                  ScS      SS       15 41 21.4 +1.4
HEH                                  pmax     pmax
        comp=Z,260nm,0.8s
HEH                                  pmax     pmax
        comp=Z,4µm,7.1s
ARMA  Armidale           44.16 147   P        P        15 31 41.6 +0.9
        comp=Z,440nm,1.4s,comp=Z,0.0nm
ARMA  Armidale           44.16 147   P        P        15 31 42.0 +1.3
ARMA  Armidale           44.16 147 ⇑P        P        15 31 40.9 +0.1
ARMA  Armidale           44.16 147   P        P        15 31 42.3 +1.6
        comp=Z,23µmcomp=Z,7µmcomp=Z,440nm,1.4s
AUPHS Peel High Scho     44.30 149   P        P        15 31 43.4 +1.7
ULN   Ulaanbaatar        44.38 342   P        P        15 31 43.0 +0.7
ULN   Ulaanbaatar        44.38 342   P        P        15 31 41.4 -0.9
ULN                                  pmax     pmax
        comp=Z,222nm,1.3s
ULN   Ulaanbaatar        44.38 342   P        P        15 31 41.4 -0.9
ULN                                  IAmb     IAmb     15 31 49.1
        comp=Z,221nm,1.2s
ULN   Ulaanbaatar        44.38 342 ⇑P        P        15 31 42.8 +0.5
ULN   Ulaanbaatar        44.38 342   P        P        15 31 42.6 +0.3
        comp=Z,9µmcomp=Z,612nm,1.2s
ULN   Ulaanbaatar        44.38 342   P        P        15 31 43.0 +0.7
        comp=Z,17µmcomp=Z,2µmcomp=Z,156nm,1.2s,comp=Z,2µm
SONM  Songino Array      44.55 341   P        P        15 31 43.5 -0.2
        comp=Z,36nm,0.9s,baz=162,slow=8.8,SNR=56
SONM                                 PcP      PcP      15 33 25.2 +0.5
        comp=Z,37nm,1.0s,baz=172,slow=4.2,SNR=10.0
SONM                                 ScP      ScP      15 37 07.0 +1.3
        comp=Z,5.3nm,0.7s,baz=160,slow=4.8,SNR=4.7
SONM                                 PKiKP    PKiKP    15 40 23.7 -0.5
        comp=Z,1.1nm,0.5s,baz=124,slow=1.0,SNR=4.3
SONM                                 LR       LR       15 51 53.8
        comp=Z,8µm,20.6s,baz=156,slow=38
SONM                                 PKP2ab   P'P'ab   16 04 29.0 -0.1
        comp=Z,1.6nm,1.0s,baz=330,slow=8.3,SNR=5.2
        comp=Z,36nm,0.9s
SONM  Songino Array      44.55 341   P        P        15 31 42.8 -0.9
PALK  Pallekele          44.71 274   P        P        15 31 46.3 +1.0
PALK  Pallekele          44.71 274c iP        P        15 31 46.8 +1.5
PALK                                 pmax     pmax
        comp=Z,151nm,1.1s
PALK  Pallekele          44.71 274   P        P        15 31 44.5 -0.8
PALK                                 IAmb     IAmb     15 31 49.4
        comp=Z,672nm,1.6s
PALK  Pallekele          44.71 274   P        P        15 31 47.5 +2.2
PALK  Pallekele          44.71 274 i P        P        15 31 47.6 +2.2
        SNR=10
PALK  Pallekele          44.71 274   P        P        15 31 47.7 +2.4
        comp=Z,23µmcomp=Z,8µmcomp=Z,250nm,2.5s
PALK  Pallekele          44.71 274   P        P        15 31 47.1 +1.8
PALK                                 ScP      ScP      15 37 05.2 -1.7
HALK  Hakmana            44.77 272   P        P        15 31 47.9 +2.1
        comp=Z,20µmcomp=Z,9µmcomp=Z,260nm,1.3s
UGL   Uglegorsk          44.81  15  eP        P        15 31 48.0 +2.5
UGL                                 e                  15 33 34.0
UGL                                 eS        S        15 38 15.4 +2.0
UGL                                 eSS       ScS      15 41 30.0 -0.1
UGL                                  pmax     pmax
        comp=Z,2µm,3.6s
UGL                                  pmax     pmax
        comp=Z,400nm,0.8s
UGL                                  smax     smax
        comp=E,10µm,10.0s
UGL                                  smax     smax
        comp=N,17µm,9.2s
MALK  Mahakanadarawa     44.84 276   P        P        15 31 47.4 +1.1
MALK  Mahakanadarawa     44.84 276 ⇑P        P        15 31 48.1 +1.8
MALK  Mahakanadarawa     44.84 276   P        P        15 31 48.9 +2.6
        comp=Z,21µmcomp=Z,10µmcomp=Z,496nm,1.4s
GRNR  Gornyy             45.21  10⇑iP        P        15 31 48.4 -0.2
GRNR                                 pmax     pmax
        comp=Z,6.0nm,0.8s
MDRS  Chennai            45.28 282  eP        P        15 31 49.1 -0.6
MDRS                                 IAmb     IAmb     15 31 54.0
        comp=Z,306nm,1.2s
ARPS  Mount Arapiles     45.43 162   P        P        15 31 52.0 +1.5
        comp=Z,532nm,1.4s,comp=Z,0.0nm
AUMAG Moama Anglican     45.81 158   P        P        15 31 55.6 +2.1
MGBR  Mount Gambier      45.94 164   P        P        15 31 54.0 -0.6
MGCD  Mangrove Creek     46.10 150   P        P        15 31 59.6 +3.7
        comp=Z,100nm,1.3s
MGCD  Mangrove Creek     46.10 150   P        P        15 31 57.7 +1.8
MGCD  Mangrove Creek     46.10 150   P        P        15 31 59.6 +3.7
        comp=Z,1µmcomp=Z,100nm,1.3s
KOUNC Koumac, New Ca     46.34 126   P        P        15 32 00.1 +2.1
KOUNC Koumac, New Ca     46.34 126   P        P        15 31 56.0 -1.9
KOUNC Koumac, New Ca     46.34 126 ⇑P        P        15 31 59.5 +1.6
SYDH  Sydney Hard Ro     46.37 151   P        P        15 32 00.0 +2.1
SANVU Saraoutou          46.42 118   P        P        15 32 00.1 +1.4
SANVU Saraoutou          46.42 118   P        P        15 31 57.1 -1.6
SANVU                                IAmb     IAmb     15 32 08.6
        comp=Z,424nm,0.9s
SANVU Saraoutou          46.42 118 ⇑P        P        15 32 00.3 +1.6
SANVU Saraoutou          46.42 118   P        P        15 32 02.1 +3.4
SANVU Saraoutou          46.42 118   P        P        15 32 00.7 +2.0
        comp=Z,18µmcomp=Z,5µmcomp=Z,528nm,1.1s
AUKHS Kincumber High     46.43 150   P        P        15 32 01.0 +2.5
TYV   Tymovskoe          46.60  15  eP        P        15 32 02.6 +3.1
TYV                                 eS        S        15 38 44.0 +4.9
TYV                                  pmax     pmax
        comp=Z,73nm,1.4s
TYV                                  pmax     pmax
        comp=Z,1µm,3.6s
TYV                                  smax     smax
        comp=N,27nm,2.4s
TYV                                  smax     smax
        comp=E,28nm,2.4s
TYV                                  smax     smax
        comp=N,10µm,6.4s
TYV                                  smax     smax
        comp=E,3µm,6.4s
CIT   Chita              46.67 350  eP        P        15 32 01.2 +1.1
CIT                                 e                  15 32 30.4
CIT                                 e                  15 33 33.6
CIT                                 e                  15 33 55.8
CIT                                 e                  15 34 35.4
CIT                                  pmax     pmax
        comp=Z,568nm,2.7s
AUHPC Hawkesdale P12     46.81 162   P        P        15 32 04.3 +3.0
BRAT  Ballarat           46.82 160   P        P        15 32 03.3 +1.9
AUMTS Mt Stromlo         46.85 154   P        P        15 32 03.4 +1.6
CAN   Canberra           46.85 154   P        P        15 32 04.3 +2.5
        comp=Z,999nm,1.3s,comp=Z,0.0nm
CAN   Canberra           46.85 154   P        P        15 32 03.1 +1.3
CAN   Canberra           46.85 154   P        P        15 32 03.6 +1.8
CAN                                  pmax     pmax
        comp=Z,999nm,1.3s
CAN   Canberra           46.85 154 ⇑P        P        15 32 01.6 -0.1
CAN   Canberra           46.85 154   P        P        15 32 04.1 +2.4
CAN   Canberra           46.85 154   P        P        15 32 04.2 +2.5
        comp=Z,24µmcomp=Z,17µmcomp=Z,999nm,1.3s
CAN   Canberra           46.85 154   P        P        15 32 04.3 +2.5
CAN                                  x        x        15 33 54.3
AUMHS Melrose High S     46.92 154   P        P        15 32 04.0 +1.7
WOLH  Wollongong Har     46.95 151   P        P        15 32 04.5 +2.0
CNB   Canberra Magne     47.01 153   P        P        15 32 05.3 +2.3
        comp=Z,20nm,1.6s,comp=Z,0.0nm
ZEA   Zeya               47.30   1  eP        P        15 32 03.4 -1.6
ZEA                                 e*PP      pP       15 32 31.0 -2.4
ZEA                                 e*SP      sP       15 32 46.8 -0.3
ZEA                                 e                  15 33 35.3
ZEA                                 e                  15 34 04.1
ZEA                                 eS        S        15 38 47.2 -1.8
ZEA                                  pmax     pmax
        comp=E,200nm,8.8s
ZEA                                  pmax     pmax
        comp=N,500nm,6.9s
ZEA                                  pmax     pmax
        comp=Z,1µm,10.1s
ZEA                                  pmax     pmax
        comp=E,20nm,0.7s
ZEA                                  pmax     pmax
        comp=N,30nm,1.2s
ZEA                                  pmax     pmax
        comp=Z,110nm,0.9s
ZEA                                  smax     smax
        comp=E,800nm,10.0s
ZEA                                  smax     smax
        comp=N,1µm,16.2s
HYB   Hyderabad          47.35 288  eP        P        15 32 04.6 -1.3
HYB                                  IAmb     IAmb     15 32 11.8
        comp=Z,225nm,1.3s
HYB   Hyderabad          47.35 288  eP        P        15 32 04.9 -1.1
HYB                                 epP       pP       15 32 33.1 -1.5
HYB                                 ePcP      PcP      15 33 33.8 -1.2
HYB                                 ePP       PP       15 33 58.8 +0.6
HYB                                 eS        S        15 38 50.3 -0.5
HYB                                 eScS      ScS      15 41 46.9 -1.1
HYB                                  IAMs_20  IAMs_20  15 47 15.4
        comp=Z,28µm,56.1s
TOO   Toolangi           47.39 159   P        P        15 32 08.5 +2.6
        comp=Z,416nm,1.4s,comp=Z,0.0nm
TOO   Toolangi           47.39 159   P        P        15 32 08.5 +2.6
TOO   Toolangi           47.39 159 ⇑P        P        15 32 08.3 +2.4
MLBS  Spotswood, Mel     47.40 159   P        P        15 32 07.8 +1.9
AUUHS Ulladulla High     47.54 152   P        P        15 32 09.6 +2.6
AUSMG Snowy Mountain     47.61 155   P        P        15 32 09.4 +1.7
AUKSC Keysborough Se     47.62 159   P        P        15 32 09.7 +2.1
ZAK   Zakamensk          47.78 341  eP        P        15 32 08.6 -0.2
ZAK                                  pmax     pmax
        comp=Z,21nm,1.1s
NKL   Nikolayevsk        48.27  12  eP        P        15 32 11.6 -0.8
NKL                                 eS        S        15 39 02.1 -0.6
NKL                                  pmax     pmax
        comp=E,230nm,1.2s
NKL                                  pmax     pmax
        comp=N,227nm,1.1s
NKL                                  pmax     pmax
        comp=Z,687nm,1.3s
NKL                                  smax     smax
        comp=E,4µm,4.4s
NKL                                  smax     smax
        comp=N,1µm,2.8s
NKL                                  MLR      MLR
        comp=E,6µm,13.0s
NKL                                  MLR      MLR
        comp=N,11µm,17.0s
NKL                                  MLR      MLR
        comp=Z,13µm,17.0s
MILA  Mila               48.38 155   P        P        15 32 15.9 +2.4
        comp=Z,144nm,1.7s
MILA  Mila               48.38 155   P        P        15 32 15.7 +2.1
MILA  Mila               48.38 155 ⇑P        P        15 32 15.6 +2.0
TRD   Trivandrum         48.39 276  eP        P        15 32 12.7 -1.2
TRD                                  IAmb     IAmb     15 32 17.6
        comp=Z,298nm,0.5s
AUSSC Sale College,      48.45 157   P        P        15 32 15.8 +1.9
NOUC  Port Laguerre      48.75 127   P        P        15 32 18.6 +2.1
NOUC  Port Laguerre      48.75 127   P        P        15 32 17.9 +1.3
NOUC  Port Laguerre      48.75 127   P        P        15 32 17.8 +1.3
ONTNC Ouen Toro          48.97 127   P        P        15 32 19.9 +1.6
ONTNC Ouen Toro          48.97 127   IAmb     IAmb     15 32 21.5
        comp=Z,315nm,1.2s
ONTNC Ouen Toro          48.97 127 ⇑P        P        15 32 19.9 +1.6
IRK   Irkutsk            49.09 343  eP        P        15 32 16.8 -1.9
IRK                                 e                  15 32 45.9
IRK                                  pmax     pmax
        comp=Z,125nm,1.5s
YATNC Mamie plateau,     49.20 126   P        P        15 32 21.6 +1.6
LHI   Lord Howe Isla     49.27 142   P        P        15 32 23.1 +2.7
        comp=Z,141nm,1.6s,comp=Z,0.0nm
LHI   Lord Howe Isla     49.27 142   P        P        15 32 19.9 -0.5
LHI                                  IAmb     IAmb     15 32 23.9
        comp=Z,178nm,1.2s
LHI   Lord Howe Isla     49.27 142   P        P        15 32 21.0 +0.6
LHI   Lord Howe Isla     49.27 142 ⇓P        P        15 32 22.6 +2.2
OUENC Ouen Island, N     49.34 127   P        P        15 32 22.9 +1.9
OUENC Ouen Island, N     49.34 127   P        P        15 32 20.4 -0.6
OUENC                                IAmb     IAmb     15 32 24.8
        comp=Z,518nm,1.6s
BHPL  Bhopal             49.38 295  eP        P        15 32 20.8 -0.7
BHPL                                 IAmb     IAmb     15 32 23.9
        comp=Z,2µm,2.4s
MOY   Mondy              49.63 340  eP        P        15 32 23.4 +0.4
MOY                                  pmax     pmax
        comp=Z,182nm,2.2s
MARNC Mare, Loyalty      49.83 125   P        P        15 32 26.9 +2.1
MARNC Mare, Loyalty      49.83 125 ⇑P        P        15 32 26.4 +1.6
WMQ   Urumqi             50.06 324 ⇑P        P        15 32 27.9 +1.6
WMQ                                  ScP      ScP      15 37 30.7 +1.9
WMQ                                  PcS      PcS      15 37 40.8 -0.6
WMQ                                  S        S        15 39 24.1 -4.1
WMQ                                  pmax     pmax
        comp=Z,45nm,1.7s
WMQ                                  pmax     pmax
        comp=Z,2µm,6.5s
WMQ                                  L        L
        comp=Z,27µm,19.5s
WMQ                                  L        L
        comp=Z,10µm,19.5s
WMQ                                  L        L
        comp=Z,6µm,21.9s
AUBRN Burnie High Sc     50.61 160   P        P        15 32 32.2 +1.9
SKR   Severo-Kuril's     50.97  24  eP        P        15 32 34.7 +1.8
SKR                                 e                  15 34 25.8
SKR                                 eS        S        15 39 39.1 -1.3
SKR                                 eSS       ScS      15 42 01.0  -10
SKR                                 eSSS      SSS      15 43 06.4
SKR                                  pmax     pmax
        comp=Z,194nm,1.0s
SKR                                  MLR      MLR
        comp=Z,4µm,16.0s
GLAD  Gladstone          51.31 158   P        P        15 32 37.2 +1.6
CORO  Coronation Par     51.42 159   P        P        15 32 38.2 +1.9
SMLA  Simla              51.66 305  eP        P        15 32 37.8 -0.7
SMLA                                 IAmb     IAmb     15 32 43.6
        comp=Z,462nm,1.2s
GOA   Goa                51.66 285  eP        P        15 32 37.5 -1.1
GOA                                  IAmb     IAmb     15 32 43.2
        comp=Z,67nm,0.6s
POO   Poona              51.92 289  eP        P        15 32 39.4 -1.2
POO                                  IAmb     IAmb     15 32 46.1
        comp=Z,79nm,0.9s
HMDM  Hanimaadhoo        52.19 274   P        P        15 32 44.4 +1.8
BOD   Bodaibo            52.19 352  eP        P        15 32 42.9 +1.1
BOD                                  pmax     pmax
        comp=Z,185nm,1.8s
MOO   Moorlands          52.31 160   P        P        15 32 46.3 +3.4
        comp=Z,575nm,1.8s
MOO   Moorlands          52.31 160   P        P        15 32 44.8 +1.8
MOO   Moorlands          52.31 160   P        P        15 32 44.9 +1.9
MOO   Moorlands          52.31 160   P        P        15 32 46.3 +3.4
        comp=Z,13µmcomp=Z,575nm,1.8s
TAU   Tasmania Unive     52.77 160   P        P        15 32 48.2 +1.9
TAU   Tasmania Unive     52.77 160   P        P        15 32 46.3  0.0
TAU                                  pmax     pmax
        comp=Z,636nm,1.2s
TAU   Tasmania Unive     52.77 160   P        P        15 32 46.3  0.0
TAU   Tasmania Unive     52.77 160 ⇑P        P        15 32 48.2 +1.9
TAU   Tasmania Unive     52.77 160   P        P        15 32 48.6 +2.2
        comp=Z,11µmcomp=Z,561nm,1.7s,comp=Z,11µm
TAU   Tasmania Unive     52.77 160   P        P        15 32 49.1 +2.8
AUTAR Taroona High S     52.81 160   P        P        15 32 49.3 +2.7
KAAM  Kaadhehdhoo        52.93 266   P        P        15 32 48.0 -0.1
PEA0B Petropavlovsk-     53.45  23ceP        P        15 32 52.2 +0.9
PEA0B Petropavlovsk-     53.45  23   IAmb     IAmb     15 32 54.6
        comp=Z,170nm,0.8s
PETK  Petropavlovsk-     53.45  23   P        P        15 32 51.0 -0.3
        comp=Z,108nm,0.7s,baz=214,slow=2.4,SNR=154
PETK                                 PcP      PcP      15 33 57.4 +0.6
        comp=Z,30nm,0.5s,baz=244,slow=1.7,SNR=7.7
PETK                                 ScP      ScP      15 37 44.7 +1.4
        comp=Z,22nm,0.9s,baz=194,slow=3.3,SNR=4.7
PETK                                 LR       LR       15 55 33.2
        comp=Z,4µm,20.9s,baz=212,slow=36
        comp=Z,108nm,0.7s
NFK   Norfolk Island     53.70 133   P        P        15 32 56.3 +2.8
        comp=Z,83nm,1.1s
NFK   Norfolk Island     53.70 133   P        P        15 32 54.0 +0.6
PET   Petropavlovsk      53.77  24   P        P        15 32 56.1 +2.5
PET   Petropavlovsk      53.77  24α iP        P        15 32 56.0 +2.5
PET                                 e*PP      pP       15 33 25.6 +3.4
PET                                 eS        S        15 40 19.5 +1.0
PET                                 e                  15 42 28.0
PET                                 eSS       SKiKP    15 43 57.2 +2.4
PET                                  pmax     pmax
        comp=Z,2µm,7.2s
PET                                  pmax     pmax
        comp=Z,246nm,0.9s
PET                                  pmax     pmax
        comp=Z,2µm,15.3s
PET                                  MLR      MLR
        comp=Z,2µm,18.0s
PET   Petropavlovsk      53.77  24   P        P        15 32 53.3 -0.2
PET                                  IAmb     IAmb     15 32 57.4
        comp=Z,189nm,0.9s
PET   Petropavlovsk      53.77  24 ⇓P        P        15 32 54.5 +0.9
PET   Petropavlovsk      53.77  24   P        P        15 32 55.6 +2.1
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	comp=Z,4µmcomp=Z,251nm,1.5s						
PET	**Petropavlovsk**	**53.77**	**24**	P	**P**	**15 32 55.9**	**+2.4**
	comp=Z,4µmcomp=Z,266nm,1.5s						
PET	**Petropavlovsk**	**53.77**	**24**	P	**P**	**15 32 55.6**	**+2.1**
PET				pP	**pP**	**15 33 23.9**	**+1.7**
PET				ScP	**ScP**	**15 37 45.1**	**+0.5**
ZSN	**Zaisan**	**53.82**	**327**	*c i*P	**P**	**15 32 54.1**	**+0.1**
ZSN				*e*S	**S**	**15 40 20.3**	**+0.9**
ZSN				pmax	pmax		
	comp=Z,123nm,2.8s						
ZSN	**Zaisan**	**53.82**	**327**	⇑*i*P	**P**	**15 32 54.2**	**+0.1**
	comp=Z,123nm,2.8s						
ZSN				*e*S	**S**	**15 40 20.3**	**+0.9**
WUS	**Wushi**	**53.99**	**317**	IAmb	IAmb	15 33 50.4	
	comp=Z,481nm,1.7s						
WUS	**Wushi**	**53.99**	**317**	P	**P**	**15 32 56.8**	**+1.2**
WUS	**Wushi**	**53.99**	**317**	P	**P**	**15 32 56.9**	**+1.3**
	comp=Z,15µmcomp=Z,3µmcomp=Z,88nm,1.2s						
SHLS	**Shalkode**	**54.74**	**320**	*c i*P	**P**	**15 32 58.9**	**-2.1**
SHLS				*e*S	**S**	**15 40 29.0**	**-3.2**
SHLS				pmax	pmax		
	comp=Z,167nm,2.2s						
SHLS	**Shalkode**	**54.74**	**320**	⇑*i*P	**P**	**15 32 58.9**	**-2.1**
	comp=Z,167nm,2.2s						
SHLS				*e*S	**S**	**15 40 29.0**	**-3.2**
PDGK	**Podgornoye**	**54.81**	**320**	P	**P**	**15 33 01.0**	**-0.4**
DGAR	**Diego Garcia**	**54.87**	**256**	P	**P**	**15 33 02.3**	**+0.1**
DGAR	**Diego Garcia**	**54.87**	**256**	P	**P**	**15 33 01.8**	**-0.3**
H08S2	**Diego Garcia H**	**54.88**	**256**	P	**P**	**15 33 02.6**	**+0.7**
	baz=41,slow=12,SNR=11						
H08S3	**Diego Garcia H**	**54.88**	**256**	P	**P**	**15 33 02.2**	**+0.3**
	baz=41,slow=12,SNR=12						
MK31	**Makanchi Array**	**54.89**	**325**	*i* P	**P**	**15 33 01.1**	**-0.7**
MK31				pmax	pmax		
	comp=Z,79nm,1.1s						
MKAR	**Makanchi Array**	**54.89**	**325**	P	**P**	**15 32 59.5**	**-2.3**
	comp=Z,13nm,0.4s,baz=118,slow=6.4,SNR=93						
MKAR				ScP	**ScP**	**15 37 48.4**	**-1.3**
	comp=Z,7.2nm,0.6s,baz=110,slow=4.7,SNR=3.7						
MKAR				S	**S**	**15 40 31.6**	**-2.2**
	comp=Z,2.5nm,0.9s,baz=145,slow=10,SNR=1.5						
MKAR				PKPPKP	**P'P'df**	**16 03 04.0**	**-6.4**
	comp=Z,7.1nm,1.1s,baz=289,slow=2.3,SNR=14						
	comp=Z,13nm,0.4s						
MKAR	**Makanchi Array**	**54.89**	**325**	P	**P**	**15 32 59.8**	**-2.0**
H08S1	**Diego Carcia H**	**54.90**	**256**	P	**P**	**15 33 02.0**	**0.0**
	baz=41,slow=12,SNR=26						
UZB	**Uzynbulak**	**55.02**	**319**	*c i*P	**P**	**15 33 02.8**	**-0.2**
UZB				*e*S	**S**	**15 40 36.4**	**+0.5**
UZB				pmax	pmax		
	comp=Z,179nm,2.7s						
UZB	**Uzynbulak**	**55.02**	**319**	⇑*i*P	**P**	**15 33 02.9**	**-0.1**
	comp=Z,179nm,2.7s						
UZB				*e*S	**S**	**15 40 36.5**	**+0.5**
MAKZ	**Makanchi**	**55.07**	**325**	P	**P**	**15 33 02.4**	**-0.8**
MAKZ				pmax	pmax		
	comp=Z,338nm,1.6s						
MAKZ	**Makanchi**	**55.07**	**325**	P	**P**	**15 33 02.4**	**-0.8**
MAKZ				IAmb	IAmb	15 33 55.2	
	comp=Z,338nm,1.6s						
MAKZ	**Makanchi**	**55.07**	**325**	⇑P	**P**	**15 33 03.1**	**0.0**
MAKZ	**Makanchi**	**55.07**	**325**	P	**P**	**15 33 03.3**	**+0.1**
	comp=Z,14µmcomp=Z,4µmcomp=Z,88nm,1.0s						
PRZ	**Przheval'sk**	**55.12**	**318**	P	**P**	**15 33 05.9**	**+2.1**
	comp=Z,6µmcomp=Z,138nm,1.3s						
TARG	**Taragay, Kyrgy**	**55.18**	**317**	IAmb	IAmb	15 34 06.2	
	comp=Z,181nm,1.2s						
TARG	**Taragay, Kyrgy**	**55.18**	**317**	P	**P**	**15 33 05.4**	**+0.9**
	comp=Z,14µmcomp=Z,4µmcomp=Z,67nm,1.0s,comp=Z,4µm						
FUNA	**Funafuti**	**55.31**	**105**	P	**P**	**15 33 06.7**	**+1.4**
FUNA	**Funafuti**	**55.31**	**105**	⇓P	**P**	**15 33 07.7**	**+2.4**
FUNA	**Funafuti**	**55.31**	**105**	P	**P**	**15 33 07.4**	**+2.1**
	comp=Z,922nm,1.3s						
KPKS	**Kokpek**	**55.39**	**320**	*e*P	**P**	**15 33 05.5**	**-0.1**
KPKS				*e*S	**S**	**15 40 41.2**	**+0.5**
KPKS	**Kokpek**	**55.39**	**320**	*e*P	**P**	**15 33 05.5**	**-0.1**
KPKS				*e*S	**S**	**15 40 41.3**	**+0.5**
NIL	**Nilore**	**55.58**	**307**	P	**P**	**15 33 08.0**	**+0.9**
NIL	**Nilore**	**55.58**	**307**	P	**P**	**15 33 05.3**	**-1.8**
NIL				pmax	pmax		
	comp=Z,423nm,1.0s						
NIL	**Nilore**	**55.58**	**307**	P	**P**	**15 33 05.3**	**-1.8**
NIL	**Nilore**	**55.58**	**307**	P	**P**	**15 33 06.9**	**-0.1**
	comp=Z,16µmcomp=Z,7µmcomp=Z,526nm,1.2s,comp=Z,7µm						
KSH2	**Kashi**	**55.68**	**314**	P	**P**	**15 33 08.9**	**+1.1**
KSH2				sP	sP	15 33 55.5	+4.9
KSH2				S	**S**	**15 40 43.7**	**-1.2**
KSH2				pmax	pmax		
	comp=Z,70nm,1.5s						
KSH2				pmax	pmax		
	comp=Z,3µm,13.4s						
KSH2				L	L		
	comp=Z,5µm,17.4s						
KSH2				L	L		
	comp=Z,7µm,20.0s						
KSH2				L	L		
	comp=Z,9µm,20.8s						
YAK	**Yakutsk**	**55.68**	**2**	LR	LR	15 57 49.8	
	comp=Z,2µm,20.7s,baz=178,slow=37						
YAK	**Yakutsk**	**55.68**	**2**	*e*P	**P**	**15 33 05.9**	**-1.2**
YAK				*e**PP	**pP**	**15 33 33.9**	**-2.2**
YAK				*e*		15 34 05.0	
YAK				*e*		15 35 14.0	
YAK				*e*S	**S**	**15 40 43.2**	**-0.5**
YAK				*e*		15 42 40.5	
YAK				*e*SS	**SS**	**15 44 32.2**	**+1.4**
YAK				pmax	pmax		
	comp=Z,504nm,0.9s						
YAK				pmax	pmax		
	comp=E,51nm,1.3s						
YAK				pmax	pmax		
	comp=N,183nm,1.2s						
YAK				pmax	pmax		
	comp=Z,272nm,1.5s						
YAK				pmax	pmax		
	comp=E,49nm,1.5s						
YAK				pmax	pmax		
	comp=N,267nm,1.7s						
YAK				smax	smax		
	comp=N,2µm,2.8s						
YAK				smax	smax		
	comp=E,1µm,3.0s						
YAK	**Yakutsk**	**55.68**	**2**	P	**P**	**15 33 05.8**	**-1.4**
YAK	**Yakutsk**	**55.68**	**2**	⇑P	**P**	**15 33 05.9**	**-1.2**
YAK	**Yakutsk**	**55.68**	**2**	P	**P**	**15 33 06.2**	**-1.0**
	comp=Z,16µmcomp=Z,11µmcomp=Z,828nm,1.0s						
YAK	**Yakutsk**	**55.68**	**2**	P	**P**	**15 33 08.2**	**+1.1**
YAK				PcP	**PcP**	**15 34 05.9**	**+0.9**
YAK				ScP	**ScP**	**15 37 53.2**	**+0.4**
ASAI	**AK-SAY(Kyrgyzs**	**55.71**	**316**	P	**P**	**15 33 09.1**	**+0.9**
	comp=Z,12µmcomp=Z,3µmcomp=Z,72nm,1.5s,comp=Z,3µm						
KDJ	**Kajisay**	**55.78**	**318**	IAmb	IAmb	15 33 57.1	
	comp=Z,141nm,1.1s						
KDJ	**Kajisay**	**55.78**	**318**	P	**P**	**15 33 09.3**	**+0.8**
	comp=Z,16µmcomp=Z,4µmcomp=Z,84nm,0.8s						
NRN	**Naryn**	**56.28**	**316**	IAmb	IAmb	15 33 54.4	
	comp=Z,272nm,1.7s						
TDK	**Taldyqorghan**	**56.29**	**321**	*c i*P	**P**	**15 33 11.9**	**0.0**
TDK				*e*S	**S**	**15 40 53.2**	**+0.7**
TDK				pmax	pmax		
	comp=Z,69nm,1.0s						
TDK	**Taldyqorghan**	**56.29**	**321**	⇑*i*P	**P**	**15 33 12.0**	**0.0**
	comp=Z,69nm,1.0s						
TDK				*e*S	**S**	**15 40 53.2**	**+0.7**
MDOK	**Medeo**	**56.32**	**319**	*e*P	**P**	**15 33 12.1**	**-0.1**
MDOK				*e*S	**S**	**15 40 53.5**	**+0.4**
MDOK	**Medeo**	**56.32**	**319**	*e*P	**P**	**15 33 12.2**	**-0.1**
MDOK				*e*S	**S**	**15 40 53.6**	**+0.4**
TNSS	**Tian-Shan**	**56.33**	**318**	*e*P	**P**	**15 33 12.3**	**-0.3**
TNSS	**Tian-Shan**	**56.33**	**318**	*e*P	**P**	**15 33 12.3**	**-0.3**
BHUJ	**Bhuj**	**56.42**	**294**	*e*P	**P**	**15 33 12.3**	**-0.9**
BHUJ				IAmb	IAmb	15 33 18.6	
AAA	**Alma-Ata**	**56.42**	**319**	*e*P	**P**	**15 33 12.9**	**0.0**
AAA				pmax	pmax		
	comp=Z,67nm,0.9s						
AAA	**Alma-Ata**	**56.42**	**319**	*e*P	**P**	**15 33 12.9**	**0.0**
	comp=Z,67nm,0.9s						
MA2	**Magadan**	**56.48**	**15**	P	**P**	**15 33 15.0**	**+2.1**
MA2	**Magadan**	**56.48**	**15**	*ce*P	**P**	**15 33 13.6**	**+0.7**
MA2				pmax	pmax		
	comp=Z,412nm,2.5s						
MA2	**Magadan**	**56.48**	**15**	P	**P**	**15 33 13.6**	**+0.7**
MA2				IAmb	IAmb	15 33 20.7	
	comp=Z,140nm,0.9s						
MA2	**Magadan**	**56.48**	**15**	P	**P**	**15 33 15.5**	**+2.6**
	comp=Z,16µmcomp=Z,3µmcomp=Z,165nm,1.0s,comp=Z,3µm						
MA2	**Magadan**	**56.48**	**15**	P	**P**	**15 33 14.7**	**+1.8**
MA2				pP	**pP**	**15 33 43.1**	**+1.3**
MA2				ScP	**ScP**	**15 37 57.8**	**+1.4**
BOOM	**Boomskoye usch**	**56.76**	**318**	IAmb	IAmb	15 34 12.7	
	comp=Z,481nm,1.9s						
BOOM	**Boomskoye usch**	**56.76**	**318**	P	**P**	**15 33 16.3**	**+0.8**
	comp=Z,14µmcomp=Z,3µmcomp=Z,31nm,1.9s						
MSVF	**Nonsavu**	**56.91**	**116**	LR	LR	15 55 48.1	
	comp=Z,4µm,20.5s,baz=291,slow=34						
MSVF	**Nonsavu**	**56.91**	**116**	P	**P**	**15 33 18.8**	**+2.1**
MSVF	**Nonsavu**	**56.91**	**116**	P	**P**	**15 33 19.6**	**+2.9**
	comp=Z,243nm,1.2s						
KUU	**Kurty**	**57.10**	**319**	*e*P	**P**	**15 33 17.8**	**+0.2**
KUU				pmax	pmax		
	comp=Z,81nm,1.0s						
KUU	**Kurty**	**57.10**	**319**	*e*P	**P**	**15 33 17.8**	**+0.2**
	comp=Z,81nm,1.0s						
TKM2	**Tokmak 2**	**57.17**	**318**	P	**P**	**15 33 18.9**	**+0.5**
	SNR=28						
KBK	**Karagaybulak**	**57.50**	**317**	P	**P**	**15 33 21.9**	**+1.3**
	SNR=13						
CHMS	**Chumysh**	**57.77**	**318**	P	**P**	**15 33 22.8**	**+0.4**
	SNR=12						
AAK	**Ala-Archa**	**57.80**	**317**	P	**P**	**15 33 22.7**	**0.0**
	comp=Z,8.9nm,0.6s,baz=113,slow=6.2,SNR=26						
AAK				LR	LR	16 01 05.1	
	comp=Z,10µm,21.3s,baz=114,slow=39						
	comp=Z,8.9nm,0.6s						
AAK	**Ala-Archa**	**57.80**	**317**	P	**P**	**15 33 23.8**	**+1.1**
	SNR=12						
AAK	**Ala-Archa**	**57.80**	**317**	P	**P**	**15 33 23.3**	**+0.6**
AAK	**Ala-Archa**	**57.80**	**317**	*i* P	**P**	**15 33 23.1**	**+0.4**
AAK				pmax	pmax		
	comp=Z,530nm,1.4s						
AAK	**Ala-Archa**	**57.80**	**317**	P	**P**	**15 33 22.4**	**-0.3**
AAK				IAmb	IAmb	15 34 17.2	
	comp=Z,324nm,1.6s						
AAK	**Ala-Archa**	**57.80**	**317**	*i* P	**P**	**15 33 23.6**	**+0.9**
	SNR=22						
AAK	**Ala-Archa**	**57.80**	**317**	P	**P**	**15 33 23.4**	**+0.6**
	comp=Z,15µmcomp=Z,3µmcomp=Z,58nm,1.6s						
ZAA0	**Zalesovo Array**	**57.85**	**333**	IAmb	IAmb	15 34 14.3	
	comp=Z,129nm,1.2s						
ZALV	**Zalesovo Beam**	**57.85**	**333**	P	**P**	**15 33 21.1**	**-1.5**
	comp=Z,9.2nm,0.4s,baz=124,slow=4.5,SNR=31						
ZALV				ScP	**ScP**	**15 37 59.2**	**-3.4**
	comp=Z,1.4nm,0.6s,baz=140,slow=2.2,SNR=1.3						
ZALV				LR	LR	16 00 09.0	
	comp=Z,4µm,19.2s,baz=128,slow=38						
ZALV				PKP2bc	P'P'df	16 03 14.4	+9.0
	comp=Z,36nm,1.1s,baz=303,slow=3.1,SNR=25						
	comp=Z,9.2nm,0.4s						
ZALV	**Zalesovo Beam**	**57.85**	**333**	*i* P	**P**	**15 33 21.7**	**-0.9**
ZALV				pmax	pmax		
	comp=Z,9.0nm,0.4s						
ZALV	**Zalesovo Beam**	**57.85**	**333**	P	**P**	**15 33 21.0**	**-1.7**
DGTI	**Dogotuki**	**57.96**	**114**	P	**P**	**15 33 26.0**	**+2.0**
SEM	**Semipalatinsk**	**58.01**	**327**	*c i*P	**P**	**15 33 23.6**	**-0.5**
SEM				pmax	pmax		
	comp=Z,86nm,2.2s						
SEM	**Semipalatinsk**	**58.01**	**327**	⇑*i*P	**P**	**15 33 23.6**	**-0.5**
	comp=Z,86nm,2.2s						
SGDS	**Sogindy**	**58.04**	**318**	⇑*i*P	**P**	**15 33 24.3**	**0.0**
	comp=Z,93nm,2.4s						
SGDS				*e*S	**S**	**15 41 16.1**	**+0.6**
USP	**Ospenovka**	**58.05**	**318**	P	**P**	**15 33 24.5**	**+0.2**
	SNR=33						
OHH	**Osh**	**58.18**	**314**	P	**P**	**15 33 25.0**	**-0.3**
	comp=Z,4µmcomp=Z,92nm,1.4s						
EKS2	**Erkin-Say**	**58.29**	**317**	P	**P**	**15 33 26.8**	**+0.7**
	SNR=35						
TAVE	**Taveuni**	**58.41**	**114**	P	**P**	**15 33 29.9**	**+2.7**
KURBB	**Kurchatov Arra**	**59.05**	**327**	P	**P**	**15 33 30.0**	**-1.0**
	comp=Z,49nm,0.9s,baz=129,slow=5.7,SNR=102						
KURBB				LR	LR	16 00 59.2	
	comp=Z,5µm,19.8s,baz=133,slow=38						
KURBB				PKPPKP	**P'P'df**	**16 02 56.7**	**-7.1**
	comp=Z,11nm,1.0s,baz=270,slow=3.9,SNR=9.0						
	comp=Z,49nm,0.9s						
KURK	**Kurchatov**	**59.05**	**327**	P	**P**	**15 33 30.7**	**-0.3**
KURK	**Kurchatov**	**59.05**	**327**	P	**P**	**15 33 30.0**	**-1.0**
KURK	**Kurchatov**	**59.05**	**327**	P	**P**	**15 33 29.3**	**-1.6**
KURK	**Kurchatov**	**59.05**	**327**	P	**P**	**15 33 30.3**	**-0.7**
	comp=Z,15µmcomp=Z,4µmcomp=Z,157nm,1.2s						
KURK	**Kurchatov**	**59.05**	**327**	P	**P**	**15 33 30.7**	**-0.3**
KBL	**Kabul**	**59.18**	**307**	P	**P**	**15 33 33.5**	**+0.9**
	SNR=87						
KBL	**Kabul**	**59.18**	**307**	P	**P**	**15 33 30.8**	**-1.7**
KBL				pmax	pmax		
	comp=Z,238nm,1.4s						
KBL	**Kabul**	**59.18**	**307**	P	**P**	**15 33 30.8**	**-1.7**
KBL				IAmb	IAmb	15 33 37.4	
	comp=Z,238nm,1.4s						
KBL	**Kabul**	**59.18**	**307**	P	**P**	**15 33 31.8**	**-0.8**
	comp=Z,10µmcomp=Z,4µmcomp=Z,99nm,0.8s						
ARK	**Arkit**	**59.22**	**315**	P	**P**	**15 33 31.9**	**-0.6**
	comp=Z,11µmcomp=Z,5µmcomp=Z,113nm,0.7s						
BTK	**Batken**	**59.43**	**313**	P	**P**	**15 33 34.6**	**+0.6**
	comp=Z,11µmcomp=Z,4µmcomp=Z,187nm,1.7s						
SEY	**Seymchan**	**59.77**	**14**	LR	LR	16 00 11.0	
	comp=Z,2µm,19.7s,baz=198,slow=37						
SEY	**Seymchan**	**59.77**	**14**	*e*P	**P**	**15 33 34.6**	**-1.1**
SEY				pmax	pmax		
	comp=Z,250nm,1.5s						
LKBA	**Tubou, Lakemba**	**59.88**	**115**	P	**P**	**15 33 39.4**	**+2.1**
DZA	**Taraz**	**60.05**	**316**	*e*P	**P**	**15 33 38.1**	**0.0**
DZA				pmax	pmax		
	comp=Z,125nm,1.5s						
DZA	**Taraz**	**60.05**	**316**	*e*P	**P**	**15 33 38.1**	**0.0**
	comp=Z,125nm,1.5s						
KK31	**Karatay Array**	**60.68**	**316**	*i* P	**P**	**15 33 42.2**	**-0.2**
KK31	**Karatay Array**	**60.68**	**316**	P	**P**	**15 33 40.4**	**-2.0**
KKAR	**Karatay Array**	**60.68**	**316**	P	**P**	**15 33 40.4**	**-2.0**
KKAR	**Karatay Array**	**60.68**	**316**	P	**P**	**15 33 40.4**	**-2.0**
SHEM	**Shemya Is, Ala**	**60.78**	**31**	LR	LR	15 56 45.2	
	comp=Z,2µm,19.8s,baz=244,slow=33						
SMY	**Shemya**	**60.78**	**31**	P	**P**	**15 33 45.0**	**+2.3**
SMY	**Shemya**	**60.78**	**31**	⇑P	**P**	**15 33 45.5**	**+2.8**
CHM	**Chimkent**	**61.05**	**315**	*e*P	**P**	**15 33 44.9**	**+0.1**
CHM				pmax	pmax		
	comp=Z,72nm,1.4s						
CHM	**Chimkent**	**61.05**	**315**	*e*P	**P**	**15 33 45.0**	**+0.1**
	comp=Z,72nm,1.4s						
OUZ	**Omahuta**	**61.10**	**136**	P	**P**	**15 33 48.3**	**+3.1**
OUZ	**Omahuta**	**61.10**	**136**	⇑P	**P**	**15 33 47.4**	**+2.2**
OUZ	**Omahuta**	**61.10**	**136**	P	**P**	**15 33 48.3**	**+3.1**
	comp=Z,144nm,1.6s						
BRLS	**Borolday**	**61.12**	**316**	*c i*P	**P**	**15 33 45.6**	**+0.2**
BRLS				pmax	pmax		
	comp=Z,92nm,1.5s						
BRLS	**Borolday**	**61.12**	**316**	⇑*i*P	**P**	**15 33 45.6**	**+0.2**
	comp=Z,92nm,1.5s						
WCZ	**Waipu Caves**	**62.00**	**136**	P	**P**	**15 33 52.4**	**+1.1**
GRZ	**Great Barrier**	**62.93**	**136**	P	**P**	**15 33 59.1**	**+1.6**
MSZ	**Milford Sound**	**63.32**	**148**	P	**P**	**15 34 02.3**	**+2.4**
JCZ	**Jackson Bay**	**63.39**	**147**	P	**P**	**15 34 02.2**	**+1.7**
JCZ	**Jackson Bay**	**63.39**	**147**	P	**P**	**15 34 02.6**	**+2.1**
DCZ	**Deep Cove**	**63.45**	**149**	P	**P**	**15 34 02.4**	**+1.7**
QRZ	**Quartz Range**	**63.56**	**142**	P	**P**	**15 34 03.4**	**+1.9**
QRZ	**Quartz Range**	**63.56**	**142**	P	**P**	**15 34 03.9**	**+2.3**
DSZ	**Denniston Nort**	**63.66**	**143**	P	**P**	**15 34 03.6**	**+1.3**
PYZ	**Puysegur Point**	**63.69**	**149**	P	**P**	**15 34 05.1**	**+2.8**
PYZ	**Puysegur Point**	**63.69**	**149**	P	**P**	**15 34 04.1**	**+1.9**
HIZ	**Hauiti**	**63.73**	**139**	P	**P**	**15 34 05.8**	**+3.1**
HIZ	**Hauiti**	**63.73**	**139**	P	**P**	**15 34 03.3**	**+0.6**
	comp=Z,17µmcomp=Z,11µmcomp=Z,493nm,1.7s						
TOZ	**Tahuroa Road**	**63.74**	**138**	IAmb	IAmb	15 34 07.0	
	comp=Z,413nm,1.4s						
TOZ	**Tahuroa Road**	**63.74**	**138**	P	**P**	**15 34 05.1**	**+2.4**
WVZ	**Waitaha Valley**	**63.85**	**145**	P	**P**	**15 34 04.1**	**+0.7**
MLZ	**Mavora Lakes**	**63.89**	**148**	P	**P**	**15 34 02.3**	**-1.3**
MLZ				IAmb	IAmb	15 34 06.8	
	comp=Z,253nm,1.0s						
MLZ	**Mavora Lakes**	**63.89**	**148**	P	**P**	**15 34 04.8**	**+1.2**
TKNZ	**Takaka Hill**	**63.94**	**142**	P	**P**	**15 34 02.7**	**-1.4**
WKZ	**Wanaka**	**64.01**	**147**	P	**P**	**15 34 06.9**	**+2.5**
INZ	**Inchbonnie**	**64.05**	**144**	IAmb	IAmb	15 34 07.5	
	comp=Z,407nm,1.6s						
INZ	**Inchbonnie**	**64.05**	**144**	P	**P**	**15 34 05.7**	**+1.0**
TLZ	**Tolley Road**	**64.08**	**138**	P	**P**	**15 34 07.4**	**+2.3**
WHZ	**Wether Hill Ro**	**64.15**	**149**	P	**P**	**15 34 06.3**	**+1.0**
LBZ	**Lake Benmore**	**64.36**	**146**	P	**P**	**15 34 06.0**	**-0.8**
EAZ	**Earnscleugh**	**64.43**	**147**	P	**P**	**15 34 08.1**	**+1.0**
RPZ	**Rata Peaks**	**64.43**	**145**	LR	LR	16 04 39.2	
	comp=Z,688nm,18.5s,baz=298,slow=38						
RPZ	**Rata Peaks**	**64.43**	**145**	P	**P**	**15 34 09.3**	**+2.1**
RPZ	**Rata Peaks**	**64.43**	**145**	P	**P**	**15 34 08.5**	**+1.3**
BVAR	**Borovoye Array**	**64.63**	**327**	P	**P**	**15 34 07.9**	**-0.5**
	comp=Z,42nm,0.7s,baz=134,slow=9.4,SNR=45						
BVAR				PKPPKP	**P'P'df**	**16 02 53.3**	**-1.6**
	comp=Z,1.1nm,0.6s,baz=255,slow=2.9,SNR=7.3						
	comp=Z,42nm,0.7s						
HRA	**Herat**	**64.64**	**305**	P	**P**	**15 34 07.8**	**-1.3**
HRA				IAmb	IAmb	15 34 15.3	
	comp=Z,351nm,1.6s						
ARCZ	**Arundel**	**64.64**	**145**	P	**P**	**15 34 09.5**	**+0.9**
BORK	**Borovoye**	**64.68**	**327**	P	**P**	**15 34 06.8**	**-1.9**
BORK				pmax	pmax		
	comp=Z,114nm,0.9s						
BORK	**Borovoye**	**64.68**	**327**	P	**P**	**15 34 06.8**	**-1.9**
BORK				IAmb	IAmb	15 34 48.3	
	comp=Z,114nm,0.8s						
OXZ	**Oxford**	**64.76**	**144**	IAmb	IAmb	15 34 18.9	
	comp=Z,148nm,0.6s						
OXZ	**Oxford**	**64.76**	**144**	P	**P**	**15 34 10.1**	**+0.8**
WIZ	**White Island**	**64.77**	**137**	P	**P**	**15 34 12.0**	**+2.5**
APZ	**The Paps**	**64.80**	**149**	P	**P**	**15 34 10.9**	**+1.3**
TMZ	**Timaru**	**64.82**	**146**	P	**P**	**15 34 11.7**	**+2.0**
ODZ	**Otahua Downs**	**65.04**	**146**	P	**P**	**15 34 12.8**	**+1.8**
ODZ	**Otahua Downs**	**65.04**	**146**	IAmb	IAmb	15 34 21.5	
	comp=Z,190nm,1.2s						
ODZ	**Otahua Downs**	**65.04**	**146**	P	**P**	**15 34 13.0**	**+1.9**
ODZ	**Otahua Downs**	**65.04**	**146**	P	**P**	**15 34 12.9**	**+1.8**
	comp=Z,15µmcomp=Z,6µmcomp=Z,216nm,1.7s,comp=Z,6µm						
TUZ	**Tuapeka**	**65.07**	**148**	P	**P**	**15 34 13.2**	**+1.9**
URZ	**Urewera**	**65.10**	**137**	LR	LR	16 05 46.2	
	comp=Z,3µm,18.4s,baz=286,slow=39						
URZ	**Urewera**	**65.10**	**137**	P	**P**	**15 34 13.2**	**+1.6**
URZ	**Urewera**	**65.10**	**137**	P	**P**	**15 34 13.0**	**+1.4**
	comp=Z,5µmcomp=Z,232nm,1.0s,comp=Z,5µm						
KHZ	**Kahutara**	**65.10**	**143**	P	**P**	**15 34 12.4**	**+0.9**
KHZ	**Kahutara**	**65.10**	**143**	IAmb	IAmb	15 34 14.1	
	comp=Z,388nm,1.2s						
KHZ	**Kahutara**	**65.10**	**143**	P	**P**	**15 34 12.3**	**+0.8**
KHZ	**Kahutara**	**65.10**	**143**	P	**P**	**15 34 12.4**	**+0.9**
	comp=Z,8µmcomp=Z,341nm,2.1s,comp=Z,8µm						
GVZ	**Greta Valley S**	**65.13**	**144**	P	**P**	**15 34 12.8**	**+1.1**
KIWB	**Kanaga Island**	**65.15**	**35**	IAmb	IAmb	15 34 19.1	
	comp=Z,225nm,0.8s						
BKZ	**Black Stump Fm**	**65.16**	**138**	P	**P**	**15 34 13.9**	**+1.8**
SNZO	**South Karori**	**65.18**	**141**	P	**P**	**15 34 13.2**	**+1.1**
SNZO	**South Karori**	**65.18**	**141**	P	**P**	**15 34 11.1**	**-0.9**
SNZO	**South Karori**	**65.18**	**141**	P	**P**	**15 34 13.4**	**+1.4**
	comp=Z,410nm,1.2s						
AFI	**Afiamalu**	**65.18**	**108**	P	**P**	**15 34 14.5**	**+1.8**
AFI	**Afiamalu**	**65.18**	**108**	P	**P**	**15 34 14.2**	**+1.5**
AFI	**Afiamalu**	**65.18**	**108**	P	**P**	**15 34 16.8**	**+4.1**
	comp=Z,200nm,1.1s						
RTZ	**Ruatahuna**	**65.19**	**138**	P	**P**	**15 34 13.8**	**+1.4**
SYZ	**Scrubby Hill**	**65.19**	**148**	P	**P**	**15 34 14.7**	**+2.7**
SYZ	**Scrubby Hill**	**65.19**	**148**	P	**P**	**15 34 13.1**	**+1.1**
TSZ	**Takapari Road**	**65.29**	**140**	P	**P**	**15 34 14.4**	**+1.6**
HAZ	**Te Kaha**	**65.30**	**137**	P	**P**	**15 34 14.4**	**+1.6**
TIXI	**Tiksi**	**65.30**	**1**	LR	LR	16 06 51.5	
	comp=Z,3µm,18.2s,baz=200,slow=40						
TIXI	**Tiksi**	**65.30**	**1**	*ce*P	**P**	**15 34 11.1**	**-1.2**
TIXI				pmax	pmax		
	comp=Z,700nm,1.7s						
TIXI	**Tiksi**	**65.30**	**1**	P	**P**	**15 34 10.0**	**-2.3**
MQZ	**McQueen’s Vall**	**65.34**	**144**	P	**P**	**15 34 14.9**	**+1.8**
MWZ	**Matawai**	**65.42**	**137**	P	**P**	**15 34 15.1**	**+1.4**
ADK	**Adak**	**65.42**	**35**	P	**P**	**15 34 15.5**	**+2.0**
ADK	**Adak**	**65.42**	**35**	P	**P**	**15 34 11.9**	**-1.6**
ADK				pmax	pmax		
	comp=Z,264nm,0.8s						
ADK	**Adak**	**65.42**	**35**	P	**P**	**15 34 11.9**	**-1.6**
ADK	**Adak**	**65.42**	**35**	⇑P	**P**	**15 34 15.3**	**+1.8**
ADK	**Adak**	**65.42**	**35**	P	**P**	**15 34 15.6**	**+2.1**
	comp=Z,388nm,0.8s						
HHSZ	**Highcliff Hill**	**65.54**	**147**	P	**P**	**15 34 17.3**	**+3.0**
MXZ	**Matakaoa Point**	**65.56**	**136**	P	**P**	**15 34 16.5**	**+1.9**
MXZ	**Matakaoa Point**	**65.56**	**136**	P	**P**	**15 34 16.0**	**+1.4**
JLN	**Jalan Bani Buh**	**65.73**	**291**	P	**P**	**15 34 15.9**	**-0.1**
	SNR=34						
PUZ	**Puketiti**	**65.78**	**137**	P	**P**	**15 34 17.3**	**+1.3**
BFZ	**Birch Farm**	**65.81**	**140**	P	**P**	**15 34 18.1**	**+2.0**
BFZ	**Birch Farm**	**65.81**	**140**	P	**P**	**15 34 17.3**	**+1.2**
BFZ	**Birch Farm**	**65.81**	**140**	P	**P**	**15 34 17.6**	**+1.5**
	comp=Z,7µmcomp=Z,360nm,1.6s,comp=Z,7µm						
PXZ	**Pawanui**	**65.86**	**139**	P	**P**	**15 34 17.3**	**+0.9**
KNZ	**Kokohu**	**65.87**	**138**	P	**P**	**15 34 17.3**	**+0.8**
WBK	**Wadi Bani Khal**	**66.16**	**292**	P	**P**	**15 34 19.0**	**+0.2**
	SNR=36						
WSAR	**Wadi Sarin**	**66.51**	**292**	LR	LR	16 07 02.7	
	comp=Z,8.6nm,19.6s,baz=124,slow=39						
WSAR	**Wadi Sarin**	**66.51**	**292**	P	**P**	**15 34 21.4**	**+0.4**
	SNR=30						
ROCAM	**Rodrigues Isla**	**66.57**	**245**	P	**P**	**15 34 21.6**	**+0.2**
ROCAM				IAmb	IAmb	15 34 23.3	
	comp=Z,336nm,1.0s						
ROCAM	**Rodrigues Isla**	**66.57**	**245**	P	**P**	**15 34 22.3**	**+0.9**
MCQ	**Macquarie Isla**	**66.65**	**160**	P	**P**	**15 34 24.8**	**+3.7**
	comp=Z,358nm,1.3s						
JMDO	**Jabal Madar**	**66.95**	**292**	P	**P**	**15 34 23.8**	**-0.1**
	SNR=42						
ATKA	**Atka Island**	**66.97**	**35**	P	**P**	**15 34 25.5**	**+2.2**
BIDO	**Bidbid**	**66.98**	**293**	P	**P**	**15 34 25.0**	**+0.9**
	SNR=75						
MHTO	**MHTO**	**67.02**	**290**	P	**P**	**15 34 24.5**	**+0.3**
	SNR=72						
SMDO	**Samad**	**67.03**	**292**	P	**P**	**15 34 25.0**	**+0.5**
	SNR=38						
BILL	**Bilibino**	**67.34**	**15**	*de*P	**P**	**15 34 24.6**	**-0.8**
BILL				pmax	pmax		
	comp=Z,257nm,2.5s						
BILL				MLR	MLR		
	comp=Z,3µm,19.0s						
BILL	**Bilibino**	**67.34**	**15**	P	**P**	**15 34 24.1**	**-1.3**
BILL	**Bilibino**	**67.34**	**15**	P	**P**	**15 34 26.6**	**+1.1**
BILI	**Bilibino, Chuk**	**67.40**	**15**	P	**P**	**15 34 27.2**	**+1.4**
	comp=Z,6µmcomp=Z,3µmcomp=Z,108nm,1.6s						
NRIK	**Noril'sk**	**67.70**	**346**	P	**P**	**15 34 27.6**	**-0.1**
	comp=Z,50nm,0.6s,baz=135,slow=6.7,SNR=37						
NRIK				S	**S**	**15 43 13.7**	**-1.4**
	comp=Z,11nm,1.0s,baz=138,slow=12,SNR=11						
NRIK				PKP2bc	**P'P'bc**	**16 02 49.4**	**-1.6**
	comp=Z,2.2nm,0.4s,baz=356,slow=2.8,SNR=10						
NRIK				LR	LR	16 07 04.0	
	comp=Z,5µm,18.6s,baz=146,slow=38						
	comp=Z,50nm,0.6s						
NRIK	**Noril'sk**	**67.70**	**346**	*i* P	**P**	**15 34 27.4**	**-0.3**
NRIK				pmax	pmax		
	comp=Z,156nm,1.6s						
NRIK	**Noril'sk**	**67.70**	**346**	IAmb	IAmb	15 34 37.5	
	comp=Z,336nm,1.5s						
HOQ	**Hoqain**	**67.74**	**293**	P	**P**	**15 34 29.3**	**+0.5**
	SNR=60						
BSY	**Bisya**	**67.80**	**292**	P	**P**	**15 34 29.7**	**+0.5**
	SNR=49						
NIUE	**Niue**	**68.19**	**113**	P	**P**	**15 34 35.8**	**+4.2**
	comp=Z,466nm,1.0s						
NIUE	**Niue**	**68.19**	**113**	P	**P**	**15 34 33.6**	**+2.0**
NIUE	**Niue**	**68.19**	**113**	P	**P**	**15 34 32.8**	**+1.2**
	comp=Z,462nm,1.0s						
ARQ	**Araqi**	**68.45**	**292**	P	**P**	**15 34 34.0**	**+0.7**
	SNR=35						
SOHO	**SOHO**	**68.47**	**293**	P	**P**	**15 34 33.9**	**+0.6**
SOHO	**SOHO**	**68.47**	**293**	*i* P	**P**	**15 34 33.0**	**-0.4**
	SNR=40						
MDH	**Madha**	**68.75**	**295**	P	**P**	**15 34 34.5**	**-0.5**
MDH	**Madha**	**68.75**	**295**	*i* P	**P**	**15 34 34.0**	**-1.0**
	SNR=10						
BANOM	**Banah**	**68.78**	**295**	P	**P**	**15 34 36.6**	**+1.3**
BANOM	**Banah**	**68.78**	**295**	*i* P	**P**	**15 34 35.9**	**+0.6**
	SNR=9.2						
UOSS	**Minazif**	**68.81**	**294**	P	**P**	**15 34 35.6**	**+0.1**
UOSS	**Minazif**	**68.81**	**294**	P	**P**	**15 34 34.2**	**-1.3**
UOSS	**Minazif**	**68.81**	**294**	*i* P	**P**	**15 34 34.8**	**-0.7**
	SNR=12						
UOSS	**Minazif**	**68.81**	**294**	P	**P**	**15 34 34.9**	**-0.6**
	comp=Z,15µmcomp=Z,4µmcomp=Z,114nm,2.0s						
UOSS	**Minazif**	**68.81**	**294**	P	**P**	**15 34 34.7**	**-0.8**
UOSS				PcP	**PcP**	**15 34 59.5**	**+0.2**
HATD	**Hatta, Dubai**	**68.87**	**294**	P	**P**	**15 34 37.0**	**+1.2**
	SNR=36						
HATD	**Hatta, Dubai**	**68.87**	**294**	*i* P	**P**	**15 34 35.8**	**0.0**
	SNR=37						
MSFE	**Esma-Masafi**	**68.87**	**295**	*i* P	**P**	**15 34 35.7**	**-0.2**
	SNR=16						

MASF	**Masafi**	68.87	295	P	P	15 34 37.5	+1.6
	SNR=20						
SHME	**Shamm**	68.93	295	P	P	15 34 36.8	+0.7
	SNR=12						
SHME	**Shamm**	68.93	295	*i* P	P	15 34 36.6	+0.5
	SNR=14						
ASHO	**Ashiyiah**	68.93	294	P	P	15 34 37.0	+0.7
	SNR=29						
ASHO	**Ashiyiah**	68.93	294	*i* P	P	15 34 36.4	+0.1
	SNR=60						
SHAO	**Shalim**	69.18	287	P	P	15 34 38.6	+0.8
	SNR=13						
SHAO	**Shalim**	69.18	287	*i* P	P	15 34 38.6	+0.8
	SNR=13						
ALNE	**Al Ain**	69.18	293	P	P	15 34 38.5	+0.7
	SNR=86						
ALNE	**Al Ain**	69.18	293	*i* P	P	15 34 37.8	0.0
	SNR=64						
NAZ	**Nazwa, Dubai**	69.31	294	P	P	15 34 40.0	+1.5
	SNR=18						
NAZ	**Nazwa, Dubai**	69.31	294	*i* P	P	15 34 38.4	-0.1
	SNR=24						
UMQ	**Umm Al-Quwin**	69.33	295	P	P	15 34 39.7	+1.1
	SNR=10						
UMQ	**Umm Al-Quwin**	69.33	295	*i* P	P	15 34 39.8	+1.1
	SNR=11						
FAQ	**Al Faqa, Dubai**	69.36	294	P	P	15 34 39.0	+0.1
	SNR=20						
FAQ	**Al Faqa, Dubai**	69.36	294	*i* P	P	15 34 38.9	+0.1
	SNR=27						
AB31	**Akbulak array**	69.54	320	*i* P	P	15 34 38.3	-1.1
ABKAR	**Akbulak array**	69.54	320	P	P	15 34 37.8	-1.6
ASUD	**Al Ashush, Dub**	69.59	294	P	P	15 34 41.3	+1.0
	SNR=20						
ASUD	**Al Ashush, Dub**	69.59	294	*i* P	P	15 34 40.9	+0.6
	SNR=22						
UMZA	**Um Al Zommool**	69.68	292	P	P	15 34 41.5	+0.6
DMTO	**DMTO**	69.82	286	P	P	15 34 42.1	+0.3
	SNR=9.8						
AJN	**Ajban**	69.90	294	P	P	15 34 42.5	+0.4
	SNR=18						
AJN	**Ajban**	69.90	294	*i* P	P	15 34 42.1	-0.1
	SNR=23						
RBK	**Rabkut**	70.53	286	P	P	15 34 47.0	+0.9
	SNR=29						
MZWR	**Madinat Zayed**	70.89	293	P	P	15 34 48.7	+0.6
WHFO	**Wadi Hawf**	70.94	287	P	P	15 34 48.4	-0.2
	SNR=30						
MSEY	**Mahe Island**	70.97	263	P	P	15 34 48.4	-0.6
AKTO	**Aktyubinsk**	71.03	321	S	S	15 43 54.5	-0.4
	comp=Z,5.7nm,1.0s,baz=6.3,slow=21,SNR=6.0						
AKTO				PKPPKP		16 02 35.6	
	comp=Z,1.4nm,0.8s,baz=266,slow=3.5,SNR=5.7						
AKTO				LR	LR	16 09 05.1	
	comp=Z,4µm,19.0s,baz=105,slow=38						
AKTO	**Aktyubinsk**	71.03	321	P	P	15 34 47.6	-1.0
MZR	**Muzera**	71.24	292	P	P	15 34 51.0	+0.7
	SNR=187						
MZR	**Muzera**	71.24	292	*i* P	P	15 34 51.0	+0.7
	SNR=123						
SVE	**Sverdlovsk**	71.26	328	d*e*P	P	15 34 49.2	-0.5
SVE				*e*S	S	15 43 52.7	-4.5
SVE				*e*		15 44 37.7	
SVE				pmax	pmax		
	comp=Z,96nm,1.0s						
ABTO	**Aybut**	71.40	286	P	P	15 34 52.0	+0.5
	SNR=47						
JRN	**Qarnain Island**	71.86	294	P	P	15 34 54.4	+0.5
	SNR=38						
UNV	**Unalaska Valle**	71.89	35	P	P	15 34 55.5	+1.9
CTZ	**Chatham Island**	71.92	140	P	P	15 34 56.0	+2.1
CTZ	**Chatham Island**	71.92	140	P	P	15 34 56.5	+2.6
ARTI	**Arti**	72.32	327	PKPPKP		16 02 35.2	
	comp=Z,1.0nm,0.3s,baz=264,slow=1.7,SNR=9.0						
ARTI	**Arti**	72.32	327	c *i*P	P	15 34 54.8	-1.3
ARTI						15 35 19.7	
ARTI						15 37 35.2	
ARTI				S	S	15 44 07.7	-1.7
ARTI						15 44 44.5	
ARTI				SS	SS	15 48 45.4	-4.4
ARTI				SSS	SSS	15 52 00.4	
ARTI				pmax	pmax		
	comp=Z,91nm,1.7s						
ARTI				MLR	MLR		
	comp=Z,3µm,18.0s						
ARTI	**Arti**	72.32	327	P	P	15 34 54.4	-1.8
AKUT	**Akutan**	72.38	35	P	P	15 34 58.7	+2.2
SLWR	**Sila**	72.89	293	P	P	15 35 00.9	+0.7
CASY	**Casey**	73.25	186	P	P	15 34 59.8	-1.5
CASY	**Casey**	73.25	186	P	P	15 35 00.2	-1.1
	comp=Z,17µmcomp=Z,13µmcomp=Z,780nm,1.6s						
CASY	**Casey**	73.25	186	P	P	15 35 02.6	+1.3
DRV	**Dumont d’Urvil**	73.52	174	P	P	15 35 03.6	+0.7
DRV	**Dumont d’Urvil**	73.52	174	P	P	15 35 03.2	+0.3
DRV	**Dumont d’Urvil**	73.52	174	P	P	15 35 03.8	+0.9
RER	**Riviere de l’E**	73.83	246	IAmb	IAmb	15 35 10.8	
	comp=Z,197nm,1.1s						
RER	**Riviere de l’E**	73.83	246	P	P	15 35 06.4	+0.6
SAKB	**Bahrain**	73.97	295	P	P	15 35 07.0	+0.6
KIP	**Kipapa**	74.95	70	P	P	15 35 15.1	+2.9
SDPT	**Sand Point**	75.64	34	P	P	15 35 17.1	+1.7
SDPT	**Sand Point**	75.64	34	IAmb	IAmb	15 35 23.8	
	comp=Z,356nm,0.8s						
L14K	**Kuka Creek**	75.70	28	IAmb	IAmb	15 35 20.0	
	comp=Z,397nm,1.4s						
N14K	**Kuskokwak Cree**	75.87	30	IAmb	IAmb	15 35 19.8	
	comp=Z,151nm,0.8s						
LKRN	**Lenkeran, Azer**	75.90	308	P	P	15 35 18.9	+1.6
O14K	**Tigyukauivet M**	75.94	30	IAmb	IAmb	15 35 20.2	
	comp=Z,151nm,0.9s						
C16K	**Lisburne Hills**	76.45	21	IAmb	IAmb	15 35 23.7	
	comp=Z,422nm,1.8s						
K15K	**Wolf Creek Mou**	76.45	27	IAmb	IAmb	15 35 24.4	
	comp=Z,252nm,1.4s						
KBD	**Kabd**	76.52	298	P	P	15 35 20.7	-0.2
XMAS	**Kiritimati**	76.69	89	P	P	15 35 24.7	+2.5
N15K	**Kwethluk River**	76.70	30	IAmb	IAmb	15 35 25.5	
	comp=Z,358nm,1.4s						
MAK	**Makhachkala**	77.11	313	d *i*P	P	15 35 22.2	-1.8
MAK				*e**PP	pP	15 35 53.8	-1.2
MAK				*e**SP	sP	15 36 06.3	-1.8
MAK				*e*S	S	15 45 00.4	-2.7
MAK				*e**SS	sS	15 45 56.9	+0.5
MAK				pmax	pmax		
	comp=Z,256nm,1.2s						
MAK				MLR	MLR		
	comp=Z,3µm,18.0s						
I17K	**Unalakleet**	77.16	26	IAmb	IAmb	15 35 28.4	
	comp=Z,204nm,1.2s						
SEKA	**Sheki**	77.25	311	P	P	15 35 25.9	+1.0
L16K	**Owhat River**	77.28	28	IAmb	IAmb	15 35 28.7	
	comp=Z,408nm,1.6s						
MNGR	**Mingechevir, A**	77.31	310	P	P	15 35 26.9	+1.7
POHA	**Pohakuloa**	77.32	71	P	P	15 35 28.0	+2.1
M16K	**Timber Creek**	77.41	29	IAmb	IAmb	15 35 36.2	
	comp=Z,333nm,1.4s						
KIRV	**Kirov**	77.52	329	LR	LR	16 12 45.5	
	comp=Z,4µm,20.7s,baz=104,slow=38						
KIRV	**Kirov**	77.52	329	c*e*P	P	15 35 25.9	0.0
O16K	**Kokwok River B**	77.60	30	IAmb	IAmb	15 35 30.3	
	comp=Z,415nm,1.6s						
H17K	**Granite Mounta**	77.71	25	IAmb	IAmb	15 35 31.2	
	comp=Z,258nm,1.4s						
SBV	**Sambava**	77.77	255	P	P	15 35 27.7	-0.5
	SNR=5.8						
SBV	**Sambava**	77.77	255	P	P	15 35 27.9	-0.2
	comp=Z,14µmcomp=Z,4µmcomp=Z,93nm,2.5s						
BELG	**Belogornoye**	77.77	322	LR	LR	16 13 27.4	
	comp=Z,3µm,18.5s,baz=91,slow=38						
BELG	**Belogornoye**	77.77	322	c *i*P	P	15 35 26.2	-1.3
BELG				pmax	pmax		
	comp=Z,15nm,0.9s						
GANJ	**Ganja**	77.89	310	P	P	15 35 29.8	+1.4
RAR	**Rarotonga**	77.96	113	LR	LR	16 08 28.1	
	comp=Z,1µm,18.1s,baz=279,slow=34						
RAR	**Rarotonga**	77.96	113	P	P	15 35 31.5	+2.4
RAR	**Rarotonga**	77.96	113	P	P	15 35 32.8	+3.7
RAR	**Rarotonga**	77.96	113	P	P	15 35 27.4	-1.7
	comp=Z,200nm,0.5s						
K17K	**Iditarod**	78.00	27	IAmb	IAmb	15 35 33.1	
	comp=Z,417nm,1.4s						
N17K	**Nushagak Hills**	78.19	30	IAmb	IAmb	15 35 34.3	
	comp=Z,342nm,1.5s						
M17K	**Holitna River**	78.19	29	IAmb	IAmb	15 35 41.2	
	comp=Z,267nm,1.4s						
H18K	**Honhosa River**	78.39	25	IAmb	IAmb	15 35 34.6	
	comp=Z,266nm,1.6s						
CHIR	**Chirikof Islan**	78.43	34	P	P	15 35 33.3	+2.2
NAX	**Nakhchivan**	78.48	309	P	P	15 35 32.9	+1.1
RAYN	**Ar Rayn**	78.57	293	P	P	15 35 32.9	+0.3
RAYN	**Ar Rayn**	78.57	293	⇑P	P	15 35 33.4	+0.8
RAYN	**Ar Rayn**	78.57	293	P	P	15 35 30.8	-1.7
RAYN				IAmb	IAmb	15 35 34.1	
	comp=Z,232nm,0.9s						
RAYN	**Ar Rayn**	78.57	293	*i* P	P	15 35 32.6	0.0
	SNR=89						
RAYN	**Ar Rayn**	78.57	293	P	P	15 35 30.2	-2.3
	comp=Z,12µmcomp=Z,6µmcomp=Z,392nm,1.5s						
RAYN	**Ar Rayn**	78.57	293	P	P	15 35 32.7	+0.1
N18K	**Kilae Creek**	78.84	29	IAmb	IAmb	15 35 37.7	
	comp=Z,288nm,1.6s						
ACHA	**Angle Creek He**	78.84	32	IAmb	IAmb	15 35 38.4	
	comp=Z,236nm,1.4s						
GNI	**Garni**	79.08	310	P	P	15 35 36.6	+1.3
GNI	**Garni**	79.08	310	P	P	15 35 34.1	-1.1
GNI				pmax	pmax		
	comp=Z,702nm,1.7s						
GNI	**Garni**	79.08	310	P	P	15 35 34.0	-1.1
GNI				IAmb	IAmb	15 35 42.5	
	comp=Z,702nm,1.6s						
GNI	**Garni**	79.08	310	P	P	15 35 36.1	+1.0
GNI	**Garni**	79.08	310	P	P	15 35 36.5	+1.3
	comp=Z,12µmcomp=Z,5µmcomp=Z,167nm,1.9s						
GNI	**Garni**	79.08	310	P	P	15 35 36.0	+0.8
O18K	**Koktuh Hills**	79.08	30	IAmb	IAmb	15 35 38.0	
	comp=Z,192nm,0.7s						
G19K	**Purcell Mounta**	79.08	24	IAmb	IAmb	15 35 38.6	
	comp=Z,359nm,1.6s						
TBLG	**Delisi**	79.11	311	P	P	15 35 35.0	-0.1
SII	**Sitkinak Islan**	79.30	34	P	P	15 35 39.1	+3.3
SII	**Sitkinak Islan**	79.30	34	IAmb	IAmb	15 35 39.2	
	comp=Z,239nm,0.7s						
J19K	**Poorman**	79.39	26	IAmb	IAmb	15 35 40.4	
	comp=Z,291nm,1.6s						
N19K	**Bonanza Creek**	79.54	29	IAmb	IAmb	15 35 41.6	
	comp=Z,655nm,1.6s						
OZAP	**Van, Ozalp-Mer**	79.64	308	⇑P	P	15 35 40.8	+2.4
F20K	**Avaraart Lake**	79.76	23	IAmb	IAmb	15 35 42.5	
	comp=Z,244nm,1.5s						
Q19K	**Cape Douglas,**	79.79	31	IAmb	IAmb	15 35 46.1	
	comp=Z,181nm,0.8s						
OHAK	**Old Harbor**	79.84	33	P	P	15 35 41.3	+2.6
OHAK	**Old Harbor**	79.84	33	IAmb	IAmb	15 35 41.7	
	comp=Z,160nm,0.8s						
HAKT	**HAKKARI**	79.87	307	P	P	15 35 40.4	+0.7
	comp=Z,31µmcomp=Z,14µmcomp=Z,639nm,1.7s						
I20K	**Naaghedeneel**	79.98	25	IAmb	IAmb	15 35 44.5	
	comp=Z,178nm,0.9s						
NCK	**Nalchik**	79.99	313	*i* P	P	15 35 39.2	-0.6
NCK				pmax	pmax		
	comp=Z,146nm,1.4s						
K20K	**Telida**	80.00	27	IAmb	IAmb	15 35 44.1	
	comp=Z,317nm,1.5s						
J20K	**Nowinta River**	80.05	26	IAmb	IAmb	15 35 44.2	
	comp=Z,219nm,1.2s						
KDAK	**Kodiak Island**	80.26	33	LR	LR	16 08 41.6	
	comp=Z,3µm,20.8s,baz=244,slow=34						
KDAK	**Kodiak Island**	80.26	33	c *i*P	P	15 35 41.7	+0.8
KDAK				pmax	pmax		
	comp=Z,92nm,0.5s						
KDAK	**Kodiak Island**	80.26	33	P	P	15 35 41.0	0.0
KDAK				IAmb	IAmb	15 35 43.9	
	comp=Z,197nm,0.7s						
KDAK	**Kodiak Island**	80.26	33	P	P	15 35 40.9	-0.1
KDAK	**Kodiak Island**	80.26	33	P	P	15 35 43.2	+2.2
	comp=Z,7µmcomp=Z,299nm,1.3s						
M20K	**Styx River**	80.29	28	IAmb	IAmb	15 35 52.3	
	comp=Z,563nm,1.5s						
GOF	**Gofitskoye**	80.41	315	c *i*P	P	15 35 41.8	-0.2
GOF				*e*S	S	15 45 34.5	-3.6
IMAR	**Indian Mountai**	80.41	24	P	P	15 35 40.9	-0.7
KBZ	**Khabaz**	80.50	313	P	P	15 35 42.6	+0.1
	comp=Z,19nm,0.8s,baz=100,slow=7.5,SNR=32						
KBZ				S	S	15 45 33.5	-5.6
	comp=Z,1.2nm,0.6s,baz=20,slow=21,SNR=7.1						
	comp=Z,19nm,0.8s						
KBZ	**Khabaz**	80.50	313	c*e*P	P	15 35 42.1	-0.4
KBZ				pmax	pmax		
	comp=Z,67nm,1.3s						
G21K	**Allakaket**	80.57	24	IAmb	IAmb	15 35 46.9	
	comp=Z,604nm,1.9s						
EPOS	**Posof**	80.62	311	P	P	15 35 44.3	+0.8
	comp=Z,14µmcomp=Z,4µmcomp=Z,142nm,1.8s						
NEUR	**Neytrino**	80.64	313	c *i*P	P	15 35 42.5	-1.0
NEUR				pmax	pmax		
	comp=Z,114nm,1.6s						
KIV	**Kislovodsk**	80.65	313	P	P	15 35 44.2	+0.7
KIV	**Kislovodsk**	80.65	313	*e*P	P	15 35 42.9	-0.6
KIV				*e**SP	sP	15 36 25.8	-2.0
KIV				*e*		15 38 48.3	
KIV				*e*S	S	15 45 37.6	-3.3
KIV				*e*SS	SS	15 50 57.1	+0.8
KIV				pmax	pmax		
	comp=Z,75nm,1.0s						
KIV	**Kislovodsk**	80.65	313	P	P	15 35 41.7	-1.8
KIV				IAmb	IAmb	15 35 48.6	
	comp=Z,423nm,1.7s						
KIV	**Kislovodsk**	80.65	313	*i* P	P	15 35 43.4	0.0
	SNR=37						
KIV	**Kislovodsk**	80.65	313	⇓P	P	15 35 44.2	+0.7
KIV	**Kislovodsk**	80.65	313	P	P	15 35 43.5	0.0
	comp=Z,11µmcomp=Z,4µmcomp=Z,125nm,1.5s,comp=Z,4µm						
KIV	**Kislovodsk**	80.65	313	P	P	15 35 43.0	-0.5
SHA1	**Shidzhatmaz**	80.67	313	c*e*P	P	15 35 42.8	-1.0
STLK	**Strandline Lak**	80.88	29	IAmb	IAmb	15 35 47.2	
	comp=Z,294nm,1.8s						
D22K	**Ayikyak River**	81.12	21	IAmb	IAmb	15 35 56.7	
	comp=Z,416nm,1.8s						
GURO	**Guroymak-BITLI**	81.18	308	IAmb	IAmb	15 35 53.5	
	comp=Z,452nm,1.2s						
ABPO	**Ambohimpanom**	81.25	250	P	P	15 35 46.6	-0.6
ABPO				pmax	pmax		
	comp=Z,111nm,1.4s						
ABPO	**Ambohimpanom**	81.25	250	P	P	15 35 46.6	-0.6
ABPO	**Ambohimpanom**	81.25	250	P	P	15 35 47.4	+0.2
	comp=Z,13µmcomp=Z,3µmcomp=Z,80nm,2.2s,comp=Z,3µm						
BRLK	**Bradley Lake**	81.25	31	IAmb	IAmb	15 35 49.0	
	comp=Z,182nm,0.6s						
CCD	**Concordia, Ant**	81.29	181	P	P	15 35 46.1	-0.4
CCD	**Concordia, Ant**	81.29	181	P	P	15 35 47.8	+1.3
VRH	**Novokhopyorsk**	81.37	321	*e*P	P	15 35 45.1	-1.8
VRH				*e*S	S	15 45 36.2	-12
VRH				pmax	pmax		
	comp=Z,80nm,0.6s						
VRH				smax	smax		
	comp=E,1µm,10.9s						
BATM	**Batumi**	81.39	311	⇓P	P	15 35 45.7	-1.6
BATM	**Batumi**	81.39	311	⇓P	P	15 35 45.7	-1.6
MLY	**Manley**	81.58	25	IAmb	IAmb	15 35 52.1	
	comp=Z,142nm,0.7s						
SLKM	**Skilak Lake**	81.61	30	IAmb	IAmb	15 35 51.1	
	comp=Z,732nm,1.7s						
ATD	**Arta Tunnel**	81.81	281	LR	LR	16 11 29.3	
	comp=Z,56nm,19.9s,baz=92,slow=35						
ATD	**Arta Tunnel**	81.81	281	P	P	15 35 50.9	+0.8
	SNR=13						
ATD	**Arta Tunnel**	81.81	281	P	P	15 35 51.0	+0.8
ATD	**Arta Tunnel**	81.81	281	P	P	15 35 51.3	+1.2
	comp=Z,12µmcomp=Z,4µmcomp=Z,107nm,2.1s						
RC01	**Rabbit Creek A**	81.87	29	IAmb	IAmb	15 35 52.5	
	comp=Z,127nm,0.7s						
C23K	**Itkillik River**	81.93	20	IAmb	IAmb	15 35 52.8	
	comp=Z,429nm,1.5s						
SEW	**Seward**	81.98	30	IAmb	IAmb	15 35 53.3	
	comp=Z,628nm,1.5s						
BWN	**Browne**	82.09	26	IAmb	IAmb	15 36 02.8	
	comp=Z,140nm,0.8s						
VOI	**Vohitsoka**	82.14	247	P	P	15 35 50.8	-1.0
	SNR=8.7						
VOI	**Vohitsoka**	82.14	247	IAmb	IAmb	15 35 54.9	
	comp=Z,405nm,1.9s						
VOI	**Vohitsoka**	82.14	247	P	P	15 35 51.2	-0.6
	comp=Z,11µmcomp=Z,3µmcomp=Z,110nm,1.9s,comp=Z,3µm						
I23K	**Minto, Yukon-K**	82.17	25	IAmb	IAmb	15 35 56.3	
	comp=Z,445nm,1.4s						
PMR	**Palmer**	82.18	29	P	P	15 35 53.1	+2.1
PMR	**Palmer**	82.18	29	P	P	15 35 49.2	-1.8
PMR	**Palmer**	82.18	29	IAmb	IAmb	15 35 54.1	
	comp=Z,349nm,1.4s						
GHO	**Glory Hole Cre**	82.28	29	IAmb	IAmb	15 35 55.0	
	comp=Z,633nm,1.8s						
NEA2	**Nenana**	82.28	26	IAmb	IAmb	15 35 56.3	
	comp=Z,267nm,1.4s						
MCK	**McKinley**	82.32	27	IAmb	IAmb	15 35 55.0	
	comp=Z,380nm,1.1s						
KOPT	**Kop Dagi**	82.34	309	IAmb	IAmb	15 35 59.0	
	comp=Z,250nm,1.2s						
RND	**Reindeer**	82.35	27	IAmb	IAmb	15 35 55.0	
	comp=Z,263nm,1.1s						
KNK	**Knik Glacier**	82.50	29	IAmb	IAmb	15 35 56.4	
	comp=Z,408nm,1.1s						
FOMA	**Nahampoana Res**	82.52	244	P	P	15 35 54.2	+0.7
VSLR	**Vesyoloye**	82.58	313	*i* P	P	15 35 52.9	-0.6
VSLR				pmax	pmax		
	comp=Z,132nm,0.9s						
KLMR	**Klimovskoe**	82.68	330	*e*P	P	15 35 51.5	-2.1
KLMR				*e**PP	pP	15 36 24.7	+0.1
KLMR				S	S	15 46 00.0	-0.9
KLMR				pmax	pmax		
	comp=Z,298nm,1.5s						
WRH	**Wood River Hil**	82.70	26	IAmb	IAmb	15 35 57.7	
	comp=Z,361nm,1.3s						
H24K	**Noodor Dome**	82.81	24	IAmb	IAmb	15 36 00.0	
	comp=Z,206nm,1.0s						
SOC	**Sochi**	82.81	313	c *i*P	P	15 35 53.5	-1.2
SOC				*e*		15 39 08.1	
SOC				*e*PPP	PPP	15 40 57.2	
SOC				*e*S	S	15 46 01.5	-1.4
SOC				*e*SS	SS	15 51 29.5	+1.4
SOC				*e*SSS	SSS	15 54 52.3	
SOC				pmax	pmax		
	comp=Z,45nm,0.7s						
COLA	**College**	82.81	25	P	P	15 35 55.7	+1.5
COLA	**College**	82.81	25	⇓P	P	15 35 54.5	+0.3
COLA	**College**	82.81	25	P	P	15 35 53.4	-0.8
COLA	**College**	82.81	25	P	P	15 35 53.1	-1.0
	comp=Z,12µmcomp=Z,3µmcomp=Z,113nm,1.0s,comp=Z,3µm						
COLA	**College**	82.81	25	P	P	15 35 54.7	+0.5
COLA				pP	pP	15 36 27.0	+1.9
F24K	**Squaw Lake**	82.83	23	IAmb	IAmb	15 36 10.7	
	comp=Z,412nm,1.8s						
VORD	**Divnogorie**	82.90	321	*e*P	P	15 35 53.2	-1.8
VORD				*e*S	S	15 45 51.4	-12
VORD				pmax	pmax		
	comp=Z,70nm,0.6s						
VORD				smax	smax		
	comp=N,30nm,3.5s						
VORR	**Voronezh**	82.94	321	*e*P	P	15 35 53.3	-1.8
VORR				*e*S	S	15 45 53.3	-11
VORR				pmax	pmax		
	comp=Z,140nm,0.7s						
VORR				smax	smax		
	comp=N,60nm,3.8s						
VSR	**Storozhevoye**	82.97	321	*e*P	P	15 35 53.4	-1.9
VSR				*e*		15 39 10.5	
VSR				pmax	pmax		
	comp=Z,100nm,0.8s						
DHY	**Denali Highway**	83.01	27	IAmb	IAmb	15 36 00.5	
	comp=Z,613nm,2.0s						
LPSR	**Galich'ya Gora**	83.09	322	*e*P	P	15 35 55.2	-0.7
LPSR				pmax	pmax		
	comp=Z,140nm,0.8s						
HDA	**Harding Lake**	83.20	26	IAmb	IAmb	15 35 58.9	
	comp=Z,222nm,1.1s						
IL31		83.22	26	IAmb	IAmb	15 35 58.5	
	comp=Z,548nm,1.9s						
ILAR	**Eielson Array**	83.22	26	P	P	15 35 54.7	-1.7
	comp=Z,38nm,0.6s,baz=279,slow=5.2,SNR=136						
ILAR				S	S	15 46 04.3	-2.0
	comp=Z,0.3nm,0.6s,baz=270,slow=7.1,SNR=1.0						
ILAR				PKKP	PKKPdf	15 54 07.7	-1.5
	comp=Z,1.9nm,1.0s,baz=29,slow=3.6,SNR=5.0						
ILAR				PKKPbc	PKKPbc	15 54 17.6	-1.4
	comp=Z,7.2nm,1.1s,baz=71,slow=1.5,SNR=17						
ILAR				PKPPKP	P'P'df	16 02 20.4	-1.4
	comp=Z,2.0nm,1.1s,baz=151,slow=1.3,SNR=5.8						
ILAR				LR	LR	16 10 32.7	
	comp=Z,1µm,21.9s,baz=266,slow=34						
	comp=Z,38nm,0.6s						
ILAR	**Eielson Array**	83.22	26	P	P	15 35 53.7	-2.7
ADZR	**Andozero**	83.25	334	c *i*P	P	15 35 56.2	-0.3
ADZR				S	S	15 46 00.4	-6.1
ADZR				pmax	pmax		
	comp=Z,98nm,0.8s						
ADZR				MLR	MLR		
	comp=Z,6µm,20.0s						
KELT	**Kelkit**	83.28	310	P	P	15 35 58.7	+1.3
	comp=Z,15µmcomp=Z,506nm,2.4s,comp=Z,15µm						
D25K	**Kavik River**	83.40	21	IAmb	IAmb	15 36 01.4	
	comp=Z,260nm,1.3s						
FID	**Port Fidalgo**	83.46	30	IAmb	IAmb	15 36 01.4	
	comp=Z,333nm,1.1s						
H04N2	**CROZET ISLANDS**	83.52	222	P	P	15 36 00.8	+2.9
H04N1	**CROZET ISLANDS**	83.54	222	P	P	15 36 00.8	+2.8
	baz=325,slow=74,SNR=3.4						
H04N3	**CROZET ISLANDS**	83.54	222	P	P	15 36 00.8	+2.7
	baz=137,slow=74,SNR=3.2						
CRZF	**Crozet Islands**	83.56	222	P	P	15 36 00.7	+2.3
CRZF	**Crozet Islands**	83.56	222	P	P	15 35 59.5	+1.1
H04S1	**CROZET ISLANDS**	83.64	222	P	P	15 36 02.8	+4.2
H04S3	**CROZET ISLANDS**	83.65	222	P	P	15 36 02.7	+4.1
H04S2	**CROZET ISLANDS**	83.65	222	P	P	15 36 02.8	+4.2
F25K	**Christian Rive**	83.69	23	IAmb	IAmb	15 36 02.7	
	comp=Z,149nm,1.2s						
E25K	**Arctic Village**	83.71	22	IAmb	IAmb	15 36 03.5	
	comp=Z,517nm,1.5s						
KLU	**Klutina**	83.71	29	IAmb	IAmb	15 36 03.0	
	comp=Z,376nm,1.6s						
K24K	**Donnelly Dome**	83.72	27	IAmb	IAmb	15 36 01.4	
	comp=Z,157nm,0.8s						
MOS	**Moscow**	83.77	325	*e*P	P	15 35 58.1	-1.2
MOS				*e**PP	pP	15 36 28.7	-2.0
MOS				*e*		15 39 10.6	
MOS				*e*PPP	PPP	15 41 04.7	
MOS				*e*S	SKSac	15 46 09.0	-1.7
MOS				*e**SS	sS	15 47 05.0	-1.5
MOS				*e*SSS	SSS	15 55 06.0	
MOS				pmax	pmax		
	comp=Z,300nm,0.7s						
MOS				pmax	pmax		
	comp=Z,205nm,0.7s						
MOS				smax	smax		
	comp=N,1µm,2.7s						
MOS				MLR	MLR		
	comp=Z,3µm,19.0s						
EYAK	**Cordova Ski Ar**	83.83	30	P	P	15 36 02.0	+2.5
J25K	**Salcha River,**	83.88	26	IAmb	IAmb	15 36 02.4	
	comp=Z,128nm,1.0s						
ARPR	**Arapgir-MALATY**	84.05	309	P	P	15 36 02.6	+1.3
	comp=Z,12µmcomp=Z,6µmcomp=Z,152nm,2.1s,comp=Z,6µm						
BMAR	**Burnt Mountain**	84.10	23	P	P	15 36 00.3	-0.5
OBN	**Obninsk**	84.39	325	LR	LR	16 16 50.9	
	comp=Z,4µm,21.5s,baz=94,slow=38						
OBN	**Obninsk**	84.39	325	c *i*P	P	15 36 01.9	-0.6
OBN				*e*PPP	PPP	15 41 14.4	
OBN				*i* SS	SS	15 51 50.4	-0.4
OBN				pmax	pmax		
	comp=Z,532nm,2.1s						
OBN				MLR	MLR		
	comp=Z,4µm,21.0s						
OBN	**Obninsk**	84.39	325	P	P	15 36 01.4	-1.0
OBN	**Obninsk**	84.39	325	⇓P	P	15 36 02.7	+0.2
OBN	**Obninsk**	84.39	325	P	P	15 36 02.1	-0.4
	comp=Z,14µmcomp=Z,6µmcomp=Z,231nm,1.4s,comp=Z,6µm						
ANN	**Anapa**	84.39	314	*e*P	P	15 36 01.4	-1.3
SCRK	**Sand Creek**	84.50	26	IAmb	IAmb	15 36 06.7	
	comp=Z,481nm,1.8s						
LVZ	**Lovozero**	84.61	338	c*e*P	P	15 36 01.8	-1.6
LVZ				pmax	pmax		
	comp=Z,183nm,2.2s						
LVZ	**Lovozero**	84.61	338	P	P	15 36 03.2	-0.2
	comp=Z,12µmcomp=Z,3µmcomp=Z,79nm,2.6s,comp=Z,3µm						
LVZ	**Lovozero**	84.61	338	P	P	15 36 02.9	-0.5
MENT	**Mentasta**	84.68	27	P	P	15 36 06.2	+2.3
GLB	**Gilahina Butte**	84.73	29	IAmb	IAmb	15 36 15.7	
	comp=Z,147nm,0.9s						
L26K	**Log Cabin Wild**	84.85	27	IAmb	IAmb	15 36 08.9	
	comp=Z,245nm,1.9s						
M26K	**Nabesna, AK**	85.05	28	IAmb	IAmb	15 36 10.8	
	comp=Z,195nm,1.5s						
APA	**Apatity**	85.11	337	*e*P	P	15 36 02.6	-3.2
APA				*e*		15 39 23.4	
APA				*e*S	SKSac	15 46 13.2	-5.7
APA				*e*PS	PnS	15 47 43.5	+7.2
APA				*e*SS	SS	15 52 04.2	+3.4
APA				pmax	pmax		
	comp=Z,26nm,0.8s						

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E27K  Coleen River      85.19  22  IAmb      IAmb      15 36 10.6
            comp=Z,255nm,1.4s
TGL   Tana Glacier      85.25  30  IAmb      IAmb      15 36 18.4
            comp=Z,120nm,0.8s
G27K  Doyon Strip       85.28  23  IAmb      IAmb      15 36 10.3
            comp=Z,300nm,1.8s
D27M  Malcolm River     85.32  21  IAmb      IAmb      15 36 19.1
            comp=Z,238nm,1.4s
TOKA  Tokat             85.39 310  IAmb      IAmb      15 36 13.5
            comp=Z,530nm,1.8s
I27K  Kandik River      85.40  25  IAmb      IAmb      15 36 49.7
            comp=Z,286nm,1.1s
BCAR  Beaver Creek A    85.55  27  P         P         15 36 07.0 -1.2
ASF   Jabal al Asfar    85.70 302  PKKPbc    PKKPbc    15 54 11.0 -1.0
            comp=Z,3.5nm,0.8s,baz=105,slow=2.9,SNR=5.6
ASF                                LR        LR        16 19 01.0
            comp=Z,2µm,20.1s,baz=77,slow=39
ANDN  Andirin           85.71 307  P         P         15 36 10.1 +0.5
            comp=Z,32µmcomp=Z,16µmcomp=Z,954nm,1.6s,comp=Z,16µm
MAW   Mawson            85.82 200  P         P         15 36 07.6 -1.6
MAW   Mawson            85.82 200  P         P         15 36 09.2  0.0
            comp=Z,82nm,0.6s,baz=68,slow=5.0,SNR=236
MAW                                S         SKSac     15 46 20.8 -2.3
            comp=Z,5.8nm,1.2s,baz=62,slow=6.4,SNR=2.5
MAW                                PKKPbc    PKKPbc    15 54 11.1 -2.4
            comp=Z,2.7nm,0.7s,baz=175,slow=4.4,SNR=11
MAW                                PKPPKP              16 02 13.3
            comp=Z,9.6nm,1.1s,baz=246,slow=4.1,SNR=5.5
MAW                                LR        LR        16 09 55.2
            comp=Z,1µm,21.2s,baz=54,slow=32
            comp=Z,82nm,0.6s
MAW   Mawson            85.82 200  P         P         15 36 07.2 -2.0
MAW   Mawson            85.82 200  P         P         15 36 07.6 -1.6
            comp=Z,2µmcomp=Z,1µmcomp=Z,52nm,1.8s,comp=Z,1µm
F28M  Old Crow          85.89  23  IAmb      IAmb      15 36 15.3
            comp=Z,95nm,0.7s
E28M  Babbage River     85.91  22  IAmb      IAmb      15 36 17.3
            comp=Z,258nm,1.6s
BNN   Bunyan            86.00 308  IAmb      IAmb      15 36 17.2
            comp=Z,289nm,1.3s
BEIL  Beino             86.09 304 eP         P         15 36 12.0 +0.5
VNDA  Vanda             86.09 173  P         P         15 36 10.6 +0.1
            comp=Z,49nm,0.7s,baz=316,slow=6.1,SNR=110
VNDA                               PKKPbc    PKKPbc    15 54 10.7 -2.4
            comp=Z,6.1nm,0.8s,baz=264,slow=1.2,SNR=23
VNDA                               PKPPKP    P'P'df    16 02 12.1 -2.8
            comp=Z,1.0nm,0.9s,baz=22,slow=2.9,SNR=4.6
VNDA                               LR        LR        16 13 40.7
            comp=Z,2µm,20.5s,baz=339,slow=35
            comp=Z,49nm,0.7s
VNDA  Vanda             86.09 173  P         P         15 36 08.3 -2.2
VNDA  Vanda             86.09 173  P         P         15 36 11.3 +0.9
            comp=Z,12µmcomp=Z,5µmcomp=Z,202nm,2.0s
I28M  Miner Creek       86.11  25  IAmb      IAmb      15 36 15.1
            comp=Z,148nm,0.7s
FURI  Furi              86.14 278  P         P         15 36 11.8 -0.6
FURI                               IAmb      IAmb      15 36 18.9
            comp=Z,283nm,1.5s
FURI  Furi              86.14 278  P         P         15 36 14.8 +2.3
            comp=Z,11µmcomp=Z,5µmcomp=Z,144nm,2.2s
FURI  Furi              86.14 278  P         P         15 36 14.6 +2.2
VADS  Vadso             86.28 340 eP         P         15 36 10.5 -1.0
VADS                               IVmB_BB             15 36 12.2
            comp=Z,2µm,5.7s
VADS                              epP        pP        15 36 41.8 -1.0
VADS                              eSKSac     SKSac     15 46 22.2 -4.0
VADS                               IVMs_BB   IVMs_BB   16 06 47.9
            comp=Z,638nm,19.9s
HWQ   Hawqa             86.31 304 eP         P         15 36 12.5 -0.1
ZAHL  Zahle             86.40 304 eP         P         15 36 14.1 +1.0
HOPEN Hopen             86.41 347 eP         P         15 36 12.1  0.0
HOPEN                              IVmB_BB             15 36 13.5
            comp=Z,4µm,3.1s
HOPEN                             eSKSac     SKSac     15 46 25.7 -1.0
HOPEN                             eSS        SS        15 52 22.2 +2.7
HOPEN                              IVMs_BB   IVMs_BB   16 16 59.0
            comp=Z,1µm,21.4s
RCY   Rachaya           86.47 303 eP         P         15 36 14.4 +0.9
E29M  Blow River        86.53  22  IAmb      IAmb      15 36 15.3
            comp=Z,192nm,1.9s
SHBL  Chebaa            86.56 303 eP         P         15 36 14.9 +1.0
PCA   Pinnacle          86.58  30  IAmb      IAmb      15 37 11.0
            comp=Z,117nm,1.1s
BHL   Bhannes           86.59 304 eP         P         15 36 13.9 -0.1
QRWL  Qaraoun           86.60 303 eP         P         15 36 15.0 +0.9
H29M  Whitestone        86.66  24  IAmb      IAmb      15 36 17.8
            comp=Z,385nm,1.9s
DQRL  Deir Qamar        86.67 303 eP         P         15 36 15.1 +0.7
G29M  Pine Creek        86.70  23  IAmb      IAmb      15 36 16.4
            comp=Z,122nm,0.7s
SIM   Simferopol'       86.73 315 eP         P         15 36 12.9 -1.4
SIM                               e                    15 39 38.0
SIM                               eS         S         15 46 37.0 -4.7
SIM                                pmax      pmax
            comp=Z,72nm,0.8s
PPT   Papeete           86.85 108  P         P         15 36 15.3 -0.1
            comp=Z,20nm,0.6s,baz=280,slow=5.0,SNR=6.6
PPT                                LR        LR        16 10 05.9
            comp=Z,2µm,19.5s,baz=264,slow=32
            comp=Z,20nm,0.6s
PPTF  Pamatai, Papee    86.86 108  P         P         15 36 18.0 +2.4
PPTF  Pamatai, Papee    86.86 108  P         P         15 36 16.9 +1.3
MMAI  Mount Meron Ar    86.88 303  P         P         15 36 15.9 +0.5
            comp=Z,16nm,0.6s,baz=73,slow=5.9,SNR=20
MMAI                               LR        LR        16 19 47.4
            comp=Z,2µm,20.7s,baz=77,slow=39
            comp=Z,16nm,0.6s
GHAJ  Ghor Haditha      86.90 301  P         P         15 36 15.9 +0.5
            comp=Z,10µmcomp=Z,5µmcomp=Z,268nm,1.5s,comp=Z,5µm
MMLI  Mount Malkishu    86.92 302  P         P         15 36 16.9 +1.4
            comp=Z,8µmcomp=Z,5µmcomp=Z,260nm,0.5s,comp=Z,5µm
UJAP  Al Uja            86.93 302  P         P         15 36 16.3 +0.8
            comp=Z,10µmcomp=Z,5µmcomp=Z,168nm,2.0s
SBA   Scott Base        87.01 172  P         P         15 36 14.4 -0.5
SBA                                pmax      pmax
            comp=Z,877nm,1.8s
SBA   Scott Base        87.01 172  P         P         15 36 14.4 -0.5
SBA   Scott Base        87.01 172  P         P         15 36 16.8 +1.9
            comp=Z,10µmcomp=Z,288nm,2.3s,comp=Z,10µm
SBA   Scott Base        87.01 172  P         P         15 36 16.8 +1.9
MSF   Maaselka          87.02 336  P         P         15 36 14.4 -0.9
MSF   Maaselka          87.02 336  P         P         15 36 14.9 -0.4
            comp=Z,12µmcomp=Z,3µmcomp=Z,60nm,1.5s,comp=Z,3µm
MSF                                pP        pP        15 36 48.2 +1.7
PNL   Peninsula         87.07  30  P         P         15 36 18.0 +2.3
MSBI  Mazada            87.08 301  P         P         15 36 16.8 +0.6
            comp=Z,11µmcomp=Z,4µmcomp=Z,74nm,1.5s,comp=Z,4µm
BZK   Bozkurt           87.11 312 ⇓P         P         15 36 17.7 +1.5
KEV   Kevo              87.14 340  P         P         15 36 14.0 -1.8
KEV                                pmax      pmax
            comp=Z,38nm,1.1s
KEV   Kevo              87.14 340  P         P         15 36 14.0 -1.8
KEV   Kevo              87.14 340  P         P         15 36 15.9 +0.1
            comp=Z,11µmcomp=Z,2µmcomp=Z,35nm,1.2s
KEV                                pP        pP        15 36 48.8 +1.8
EPYK  Eagle Plains      87.29  24  IAmb      IAmb      15 36 19.3
            comp=Z,82nm,0.6s
PUL   Pulkovo           87.32 330ceP         P         15 36 16.9 +0.1
PUL                                pmax      pmax
            comp=Z,139nm,0.4s
ILGA  Ilgaz             87.42 311  IAmb      IAmb      15 37 28.0
            comp=Z,216nm,1.7s
KIRS  Kirsehir-Merke    87.47 309 ⇑P         P         15 36 17.7 -0.4
HRFI  Mount Harif       87.48 300  P         P         15 36 18.9 +0.6
            comp=Z,8µmcomp=Z,6µmcomp=Z,308nm,1.6s
EIL   Elat              87.59 299  P         P         15 36 18.1 -0.7
            comp=Z,36nm,0.7s,baz=90,slow=2.0,SNR=46
EIL                                LR        LR        16 23 11.0
            comp=Z,2µm,18.4s,baz=85,slow=41
            comp=Z,36nm,0.7s
EIL   Elat              87.59 299  P         P         15 36 19.2 +0.4
            comp=Z,7µmcomp=Z,5µmcomp=Z,169nm,1.8s,comp=Z,5µm
BR131 Keskin Array S    87.62 310  P         P         15 36 20.0 +1.1
            SNR=14
BR131 Keskin Array S    87.62 310 i P        P         15 36 17.9 -1.0
BRTR  Keskin Array B    87.62 310  P         P         15 36 15.8 -3.1
            comp=Z,12nm,0.7s,baz=108,slow=4.6,SNR=35
BRTR                               S         SKSac     15 46 31.9 -4.0
            comp=Z,0.4nm,0.6s,baz=85,slow=6.0,SNR=1.6
BRTR                               PKKPbc    PKKPbc    15 54 06.1 -1.7
            comp=Z,2.1nm,0.9s,baz=188,slow=4.4,SNR=6.5
BRTR                               PKPPKP    P'P'df    16 02 12.7 -2.6
            comp=Z,1.8nm,1.1s,baz=152,slow=5.6,SNR=4.0
BRTR                               LR        LR        16 20 10.9
            comp=Z,2µm,21.8s,baz=91,slow=39
BRTR  Keskin Array B    87.62 310 i P        P         15 36 15.3 -3.6
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BRTR                               pmax      pmax
            comp=Z,12nm,0.7s
BRTR  Keskin Array B    87.62 310  P         P         15 36 16.4 -2.5
ARA0  ARCESS Array S    87.70 340 eP         P         15 36 18.4 -0.1
ARA0                               IVmB_BB             15 36 18.6
            comp=Z,2µm,6.0s
ARA0                              epP        pP        15 36 49.0 -0.8
ARA0                              eSKSac     SKSac     15 46 31.8 -3.1
ARA0                              eSS        SS        15 52 41.4 +2.8
ARA0                               IVMs_BB   IVMs_BB   16 18 12.2
            comp=Z,1µm,23.4s
ARCES ARCESS Array B    87.70 340  P         P         15 36 16.2 -2.3
            comp=Z,19nm,0.6s,baz=79,slow=5.8,SNR=77
ARCES                              PKiKP     PKiKP     15 41 20.9  0.0
            comp=Z,2.5nm,0.4s,baz=68,slow=2.1,SNR=25
ARCES                              PKKPbc    PKKPbc    15 54 05.5 -3.0
            comp=Z,3.3nm,0.5s,baz=260,slow=3.0,SNR=21
ARCES                              LR        LR        16 22 10.3
            comp=Z,3µm,18.4s,baz=81,slow=40
            comp=Z,19nm,0.6s
ARCES ARCESS Array B    87.70 340  P         P         15 36 16.0 -2.5
SGF   Sodankyl          87.74 338  P         P         15 36 18.1 -0.6
SGF                                pmax      pmax
            comp=Z,40nm,1.3s
SGF   Sodankyl          87.74 338  P         P         15 36 18.3 -0.4
            comp=Z,10µmcomp=Z,2µmcomp=Z,40nm,1.3s,comp=Z,2µm
SGF                                pP        pP        15 36 52.0 +2.0
SPB2  Spitsbergen Ar    87.77 349  IAmb      IAmb      15 36 21.4
            comp=Z,130nm,1.0s
SPA0  Spitsbergen Ar    87.77 349 eP         P         15 36 18.5 -0.2
SPA0                               IVmB_BB             15 36 19.7
            comp=Z,3µm,2.0s
SPA0                              epP        pP        15 36 49.7 -0.3
SPA0                              eSKSac     SKSac     15 46 33.4 -1.8
SPA0                               IVMs_BB   IVMs_BB   16 20 53.0
            comp=Z,1µm,16.1s
SPITS Spitsbergen Ar    87.77 349  P         P         15 36 17.6 -1.1
            comp=Z,40nm,0.6s,baz=68,slow=5.2,SNR=42
SPITS                              PKiKP     PKiKP     15 41 20.5 -0.3
            comp=Z,3.1nm,0.5s,baz=68,slow=1.5,SNR=15
SPITS                              PKKPbc    PKKPbc    15 54 05.5 -3.0
            comp=Z,2.1nm,0.5s,baz=150,slow=3.5,SNR=4.6
SPITS                              LR        LR        16 21 14.6
            comp=Z,3µm,19.3s,baz=50,slow=39
            comp=Z,40nm,0.6s
KZIT  Kziot             87.94 301  P         P         15 36 20.6 +0.1
            comp=Z,9µmcomp=Z,4µmcomp=Z,150nm,1.5s
KIBK  Kibwezi           87.95 267  P         P         15 36 20.2 -0.7
KIBK  Kibwezi           87.95 267  P         P         15 36 21.4 +0.4
            SNR=30
KIBK  Kibwezi           87.95 267  IAmb      IAmb      15 36 26.9
            comp=Z,241nm,1.7s
KIBK  Kibwezi           87.95 267  P         P         15 36 21.3 +0.3
            comp=Z,9µmcomp=Z,3µmcomp=Z,99nm,1.4s,comp=Z,3µm
HAMF  Hammerfest        88.07 341 eP         P         15 36 19.2 -1.0
HAMF                               IVmB_BB             15 36 19.9
            comp=Z,2µm,4.4s
HAMF                              epP        pP        15 36 51.3 -0.2
HAMF                              eSKSac     SKSac     15 46 33.0 -4.0
HAMF                               IVMs_BB   IVMs_BB   16 18 45.9
            comp=Z,1µm,26.3s
INK   Inuvik            88.14  21  S         SKSac     15 46 35.1 -2.4
            comp=Z,3.9nm,1.0s,baz=279,slow=31,SNR=13
INK                                PKKPbc    PKKPbc    15 54 04.5 -2.9
            comp=Z,10.0nm,0.8s,baz=34,slow=2.2,SNR=14
INK                                LR        LR        16 17 54.5
            comp=Z,2µm,21.1s,baz=278,slow=37
INK   Inuvik            88.14  21  P         P         15 36 21.4 +0.9
INK   Inuvik            88.14  21  IAmb      IAmb      15 36 27.4
            comp=Z,93nm,1.1s
INK   Inuvik            88.14  21  P         P         15 36 21.4 +0.9
            comp=Z,2µmcomp=Z,74nm,1.0s
G31M  Satah River       88.15  23  IAmb      IAmb      15 36 22.4
            comp=Z,71nm,0.8s
KKUL  Konya-Kulu        88.24 309  P         P         15 36 21.3 -0.5
            comp=Z,8µmcomp=Z,4µmcomp=Z,138nm,1.5s,comp=Z,4µm
F31M  Tsiigehtchic      88.25  22  IAmb      IAmb      15 36 22.8
            comp=Z,92nm,0.6s
KBS   Kingsbay          88.31 350  P         P         15 36 20.9 -0.2
KBS                                pmax      pmax
            comp=Z,35nm,0.7s
KBS   Kingsbay          88.31 350 eP         P         15 36 22.9 +1.7
KBS                                IVmB                15 36 23.0
            comp=Z,501nm,0.8s
KBS                               epP        pP        15 36 52.7 +0.2
KBS                               eSKSac     SKSac     15 46 35.5 -2.8
KBS                               eSS        SS        15 52 50.2 +3.2
KBS                                IVMs_BB   IVMs_BB   16 22 05.2
            comp=Z,1µm,18.2s
KBS   Kingsbay          88.31 350  P         P         15 36 20.9 -0.2
KBS   Kingsbay          88.31 350 i P        P         15 36 21.0 -0.2
KBS   Kingsbay          88.31 350  P         P         15 36 22.2 +1.0
            comp=Z,12µmcomp=Z,2µmcomp=Z,69nm,0.9s,comp=Z,2µm
HSPB  Hornsund (broa    88.36 348 eP         P         15 36 21.7 +0.2
BJO1  Bjornoya          88.39 345 eP         P         15 36 20.7 -0.9
BJO1                               IVmB                15 36 21.5
            comp=Z,2µm,2.5s
BJO1                              epP        pP        15 36 52.5 -0.4
BJO1                              eSKSac     SKSac     15 46 37.1 -1.7
CSS   Mathiatis         88.39 305  P         P         15 36 22.4 -0.2
            comp=Z,7µmcomp=Z,3µmcomp=Z,76nm,0.9s,comp=Z,3µm
OUL   Oulu              88.45 335  P         P         15 36 21.5 -0.6
OUL                                pmax      pmax
            comp=Z,69nm,1.6s
OUL   Oulu              88.45 335  P         P         15 36 19.7 -2.4
            comp=Z,12µmcomp=Z,2µmcomp=Z,69nm,1.6s,comp=Z,2µm
KTK1  Kautokeino        88.61 339  IVmB_BB             15 36 22.6
            comp=Z,1µm,7.3s
KTK1                              eP         P         15 36 22.9 +0.2
KTK1                              epP        pP        15 36 54.2 +0.1
KTK1                              eSKSac     SKSac     15 46 35.6 -4.7
KTK1                               IVMs_BB   IVMs_BB   16 08 50.4
            comp=Z,756nm,15.6s
KMBO  Kilima Mbogo      88.61 269  LR        LR        16 15 05.9
            comp=Z,2µm,21.7s,baz=90,slow=35
KMBO  Kilima Mbogo      88.61 269c iP        P         15 36 23.9 -0.3
FIA1  FINESS Array S    89.10 332  IAmb      IAmb      15 36 26.5
            comp=Z,158nm,0.8s
FINES FINESS Array B    89.10 332  P         P         15 36 23.1 -2.1
            comp=Z,50nm,0.7s,baz=66,slow=4.8,SNR=73
FINES                              PKiKP     PKiKP     15 41 23.1 -0.3
            comp=Z,8.6nm,0.7s,baz=58,slow=1.8,SNR=16
FINES                              PKKPbc    PKKPbc    15 54 03.0 -1.8
            comp=Z,3.5nm,0.6s,baz=315,slow=0.8,SNR=11
FINES                              LR        LR        16 21 24.5
            comp=Z,3µm,19.1s,baz=90,slow=39
            comp=Z,50nm,0.7s
FINES FINESS Array B    89.10 332 i P        P         15 36 21.5 -3.7
FINES                              pmax      pmax
            comp=Z,50nm,0.7s
FINES FINESS Array B    89.10 332  P         P         15 36 22.2 -3.0
WHY   Whitehorse        89.14  29  IAmb      IAmb      15 36 28.4
            comp=Z,88nm,0.8s
SKAG  Skagway           89.14  30  P         P         15 36 27.5 +2.1
AKASG Malin Array Be    89.28 321  P         P         15 36 24.2 -2.0
            comp=Z,19nm,0.7s,baz=72,slow=4.4,SNR=51
AKASG                              PP        PP        15 39 57.3 -1.0
            comp=Z,4.7nm,0.8s,baz=74,slow=7.2,SNR=2.0
AKASG                              PKiKP     PKiKP     15 41 23.5 -0.4
            comp=Z,2.9nm,0.5s,baz=77,slow=2.1,SNR=11
AKASG                              PKKPbc    PKKPbc    15 54 01.4 -2.5
            comp=Z,1.3nm,0.6s,baz=273,slow=2.3,SNR=7.1
AKASG                              PKPPKP              16 02 08.1
            comp=Z,0.4nm,0.6s,baz=275,slow=1.5,SNR=4.7
AKASG                              LR        LR        16 21 17.2
            comp=Z,2µm,18.1s,baz=77,slow=39
            comp=Z,19nm,0.7s
AKASG Malin Array Be    89.28 321ceP         P         15 36 25.2 -1.1
AKASG                              pmax      pmax
            comp=Z,20nm,0.7s
AKASG Malin Array Be    89.28 321  P         P         15 36 23.7 -2.6
AKASG                              IAmb      IAmb      15 39 36.9
            comp=Z,115nm,1.2s
AKBB  Malin Array Si    89.28 321ceP         P         15 36 24.6 -1.7
AKBB                               pmax      pmax
            comp=Z,28nm,1.2s
KIEV  Kiev              89.29 321 ⇑P         P         15 36 25.3 -1.0
KIEV  Kiev              89.29 321  P         P         15 36 24.8 -1.5
KIEV  Kiev              89.29 321 i P        P         15 36 25.4 -0.9
            SNR=15
KIEV  Kiev              89.29 321 ⇑P         P         15 36 25.3 -1.0
KIEV  Kiev              89.29 321  P         P         15 36 25.0 -1.3
            comp=Z,9µmcomp=Z,2µmcomp=Z,37nm,1.1s,comp=Z,2µm
KIEV  Kiev              89.29 321  P         P         15 36 25.0 -1.3
KIEV                               pP        pP        15 36 55.7 -2.3
VSU   Vasula            89.36 329ceP         P         15 36 23.8 -2.6
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VSU                                pmax      pmax
            comp=Z,145nm,1.3s
VSU   Vasula            89.36 329  P         P         15 36 25.1 -1.3
            comp=Z,9µmcomp=Z,2µmcomp=Z,111nm,0.9s,comp=Z,2µm
VSU                                pP        pP        15 36 59.5 +1.5
MDUB  Mudurnu           89.39 310  IAmb      IAmb      15 37 30.1
            comp=Z,95nm,1.2s
JETT  Jettan, Norway    89.43 340 eP         P         15 36 26.9 +0.3
JETT                               IVmB_BB             15 36 28.1
            comp=Z,2µm,2.3s
JETT                              eSKSac     SKSac     15 46 42.6 -2.6
JETT                              eSS        SS        15 53 05.7 +1.9
MNK   Minsk             89.45 325 i P        P         15 36 26.8 -0.1
MNK                               i *PP      pP        15 36 57.8 -0.6
MNK                               i                    15 39 59.6
MNK                               i PPP      PPP       15 41 56.8
MNK                               i S        SKSac     15 46 45.2 -0.6
MNK                               i PS       PnS       15 48 29.0 +0.7
MNK                               i SS       SS        15 53 07.0 +2.3
MNK                               i SSS      SSS       15 56 43.4
MNK                                pmax      pmax
            comp=N,39nm,0.8s
MNK                                pmax      pmax
            comp=Z,110nm,0.7s
MNK                                pmax      pmax
            comp=E,27nm,0.8s
MNK                                MLR       MLR
            comp=E,2µm,18.0s
MNK                                MLR       MLR
            comp=Z,4µm,18.0s
MNK                                MLR       MLR
            comp=N,2µm,19.0s
MNK   Minsk             89.45 325 i P        P         15 36 26.9 -0.1
            comp=E,27nm,0.8s
MNK                               i P        P         15 36 26.9 -0.1
            comp=N,39nm,0.8s
MNK                               i P        P         15 36 26.9 -0.1
            comp=Z,110nm,0.7s,baz=80
MNK                               i pP       pP        15 36 57.9 -0.6
MNK                               i PP       PP        15 39 59.7  0.0
MNK                               i PPP      PPP       15 41 56.9
MNK                               i S        SKSac     15 46 45.2 -0.6
MNK                               i sS       pS        15 47 41.5 -6.4
MNK                               i PS       PnS       15 48 29.0 +0.7
MNK                               i SS       SS        15 53 07.0 +2.3
MNK                               i SSS      SSS       15 56 43.5
MNK                               i LQ       LQ        16 10 02.8
MNK                               i LR       LR        16 14 43.3
MNK                               i LRM      MLR       16 16 26.6
            comp=E,2µm,17.7s
MNK                               i LRM      MLR       16 16 38.6
            comp=Z,4µm,17.8s
MNK                               i LRM      MLR       16 16 41.8
            comp=N,2µm,19.4s
MNK   Minsk             89.45 325 i SSS      PPP       15 41 56.8
MNK   Minsk             89.45 325 i SSS      PPP       15 41 56.8
KEPZ  Antalya-Kepez     89.55 307 ⇓P         P         15 36 26.1 -1.8
ARBE  Arbavere          89.55 330  P         P         15 36 27.2 -0.1
            comp=Z,6µmcomp=Z,426nm,0.7s,comp=Z,6µm
BESE  Bessie Mountai    89.56  31  IAmb      IAmb      15 36 31.5
            comp=Z,174nm,1.9s
SAHE  Sakarya_HENDEK    89.60 311 ⇑P         P         15 36 28.1  0.0
SIT   Sitka             89.60  33  P         P         15 36 30.1 +2.5
SIT   Sitka             89.60  33  P         P         15 36 26.8 -0.8
JIS   Juneau Island     89.86  31  P         P         15 36 31.0 +2.2
N32M  Quiet Lake        89.89  28  IAmb      IAmb      15 36 38.8
            comp=Z,110nm,0.8s
TRO   Tromso            89.91 340 eP         P         15 36 27.5 -1.3
TRO                                IVmB                15 36 33.1
            comp=Z,949nm,1.8s
TRO                               epP        pP        15 36 59.6 -0.5
TRO                               eSKSac     SKSac     15 46 42.6 -5.2
TRO                                IVMs_BB   IVMs_BB   16 08 25.4
            comp=Z,859nm,29.9s
LODK  Lodwar            89.99 273  P         P         15 36 30.7 +0.2
            SNR=33
LODK  Lodwar            89.99 273  P         P         15 36 30.5  0.0
            comp=Z,8µmcomp=Z,2µmcomp=Z,30nm,1.7s,comp=Z,2µm
BORA  Eskisehir         90.04 310  IAmb      IAmb      15 36 35.6
            comp=Z,140nm,1.7s
SORM  Soroca            90.26 318 ⇑P         P         15 36 29.9 -1.0
SORM  Soroca            90.26 318 ⇑P         P         15 36 29.9 -1.0
BCK   Bucak             90.27 308  P         P         15 36 29.0 -2.3
ISP   Isparta           90.27 308ceP         P         15 36 28.9 -2.5
ISP                                pmax      pmax
            comp=Z,46nm,0.6s
ISP   Isparta           90.27 308  IAmb      IAmb      15 36 34.5
            comp=Z,54nm,0.7s
VAF   Ylistaro          90.30 334  P         P         15 36 30.3 -0.4
VAF                                pmax      pmax
            comp=Z,69nm,1.3s
TLCR                    90.43 315 ⇓P         P         15 36 31.5 -0.2
TLCR                    90.43 315 ⇓P         P         15 36 31.5 -0.2
JURR  Jurilovca         90.45 315 ⇑P         P         15 36 26.6 -5.3
NOR   Nord              90.45 355 i P        P         15 36 31.5 +0.3
NOR                                IAMs_20   IAMs_20   16 09 05.2
            comp=Z,3µm,32.8s
NOR   Nord              90.45 355  P         P         15 36 31.6 +0.4
            comp=Z,10µmcomp=Z,3µmcomp=Z,186nm,1.3s
LEOM  Leova             90.61 317  P         P         15 36 31.8 -0.7
TPGR  Topolog           90.76 315 ⇓P         P         15 36 32.9 -0.5
Q32M  Nakina River      90.79  30  IAmb      IAmb      15 36 37.5
            comp=Z,148nm,2.0s
MTSE  Matsula           90.80 329  P         P         15 36 32.8 -0.3
            comp=Z,5µmcomp=Z,343nm,0.7s,comp=Z,5µm
VLDR  Vladesti          90.83 316 ⇓P         P         15 36 33.0 -0.6
TIRR  Tirgusor          90.83 315  P         P         15 36 35.7 +2.1
TIRR                               pmax      pmax
            comp=Z,35nm,1.6s
TIRR  Tirgusor          90.83 315  IAmb      IAmb      15 36 37.1
            comp=Z,125nm,1.8s
TIRR  Tirgusor          90.83 315 ⇑P         P         15 36 33.0 -0.6
TIRR  Tirgusor          90.83 315  P         P         15 36 33.3 -0.4
            comp=Z,1µmcomp=Z,35nm,1.6s,comp=Z,1µm
CFR   Carcaliu          90.90 315 ⇓P         P         15 36 33.0 -0.9
ISK   Istanbul-Kandi    90.91 311  P         P         15 36 32.9 -1.2
ELL   Elmali            90.91 307  P         P         15 36 33.9 -0.5
ELL                                pmax      pmax
            comp=Z,194nm,0.9s
ELL   Elmali            90.91 307  IAmb      IAmb      15 36 39.3
            comp=Z,169nm,1.6s
SCTR  Scanteiesti       90.92 316 ⇑P         P         15 36 33.7 -0.3
HARR  Harsova           91.13 315 ⇓P         P         15 36 35.0  0.0
HARR  Harsova           91.13 315 ⇓P         P         15 36 35.0  0.0
CRAG  Craig             91.13  34  P         P         15 36 36.9 +2.1
CRAG  Craig             91.13  34  IAmb      IAmb      15 36 38.7
            comp=Z,159nm,1.6s
C36M  Paulatuk          91.13  19  IAmb      IAmb      15 36 37.0
            comp=Z,67nm,0.9s
PSN   Preselentsi       91.16 314  P         P         15 36 35.7 +0.5
ALE   Alert             91.21   1  P         P         15 36 36.5 +1.8
GHRR                    91.25 316  P         P         15 36 36.0 +0.4
            comp=Z,78nm,0.8s
WRAK  Wrangell Islan    91.34  33  IAmb      IAmb      15 36 39.4
            comp=Z,115nm,1.5s
PABE  Paberze           91.46 326  IAmb      IAmb      15 36 37.5
            comp=Z,71nm,0.7s
PABE  Paberze           91.46 326  P         P         15 36 36.0 -0.3
            comp=Z,2µmcomp=Z,109nm,0.7s,comp=Z,2µm
PANC  Panciu            91.46 316 ⇓P         P         15 36 37.5 +0.9
ODBI  Odobesti          91.55 316 ⇑P         P         15 36 38.1 +1.2
TAVA  DENIZLI_Tavas     91.59 308 ⇓P         P         15 36 37.3 -0.2
GRER                    91.67 316 ⇓P         P         15 36 38.1 +0.6
TESR  Tescani           91.69 317 ⇓P         P         15 36 37.1 -0.4
TESR  Tescani           91.69 317  P         P         15 36 36.8 -0.8
            comp=Z,8µmcomp=Z,2µmcomp=Z,79nm,1.3s,comp=Z,2µm
GIRR  Girov             91.70 317 ⇑P         P         15 36 38.0 +0.3
MANT  Manisa            91.70 309  IAmb      IAmb      15 36 43.7
            comp=Z,123nm,1.5s
STEI  Steigen           91.74 339 eP         P         15 36 35.6 -1.8
STEI                              epP        pP        15 37 08.4 -0.3
STEI                              eSKSac     SKSac     15 46 54.0 -4.4
VRI   Vrincioaia        91.75 316 ⇓P         P         15 36 37.5 -0.4
VRI   Vrincioaia        91.75 316 ⇓P         P         15 36 37.5 -0.4
VRI   Vrincioaia        91.75 316  P         P         15 36 37.6 -0.4
            comp=Z,8µmcomp=Z,2µmcomp=Z,79nm,1.6s,comp=Z,2µm
PRD   Provadia          91.77 314  P         P         15 36 38.2 +0.2
SAHR  Sahastru          91.81 316 ⇓P         P         15 36 38.5 +0.2
PLOR  Plostina          91.81 316 ⇓P         P         15 36 38.5 +0.2
BISRR Bisoca            91.83 316 ⇑P         P         15 36 39.1 +0.8
ONER  Baraj Valea Uz    91.89 317 ⇓P         P         15 36 38.5 -0.1
FAUS  Fauske            91.93 339 eP         P         15 36 37.4 -0.8
FAUS                              epP        pP        15 37 09.3 -0.2
FAUS                              eSKSac     SKSac     15 46 56.0 -3.5
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BIZ	Bicaz	91.97	317	⇑P	P	15 36 38.6	-0.3
H02S1	DAWSON INLET T	92.01	36	P	P	15 36 40.2	+1.3
	SNR=13						
H02S2	DAWSON INLET T	92.01	36	P	P	15 36 40.5	+1.6
	SNR=13						
ISR	Istrita	92.02	316	⇑P	P	15 36 39.3	0.0
ISR	Istrita	92.02	316	⇑P	P	15 36 39.3	0.0
BALB	Balikesir	92.03	310	IAmb	IAmb	15 36 44.9	
	comp=Z,67nm,1.2s						
DLBC	Dease Lake	92.05	31	PKKPbc	PKKPbc	15 53 55.6	-1.8
	comp=Z,3.6nm,0.8s,baz=54,slow=2.2,SNR=8.2						
DLBC				LR	LR	16 15 45.8	
	comp=Z,1µm,19.8s,baz=260,slow=34						
COVR	Voineasa-Covas	92.12	316	⇓P	P	15 36 39.0	-0.7
NEHR	Nehoiu	92.13	316	⇑P	P	15 36 39.9	+0.2
YER	Yerkesik	92.14	308	P	P	15 36 38.5	-1.5
YER	Yerkesik	92.14	308	P	P	15 36 39.1	-0.9
WTLY	Watson Lake, Y	92.20	29	IAmb	IAmb	15 36 43.5	
	comp=Z,159nm,1.5s						
TURR	Turia	92.20	317	⇓P	P	15 36 39.9	-0.1
BALY	Balya	92.21	310	P	P	15 36 39.4	-0.9
	comp=Z,4µmcomp=Z,138nm,1.9s						
SUW	Suwalki	92.25	325	*e*P	P	15 36 38.9	-1.2
SUW	Suwalki	92.25	325	P	P	15 36 36.7	-3.3
LOF	Lofoten	92.26	340	*e*P	P	15 36 38.8	-0.9
LOF				IVmB		15 36 39.6	
	comp=Z,1µm,2.3s						
LOF				*e*SKSac	SKSac	15 46 57.4	-3.9
LOF				IVMs_BB	IVMs_BB	16 18 14.1	
	comp=Z,789nm,21.6s						
SULR		92.31	315	⇑P	P	15 36 40.1	-0.3
SULR		92.31	315	P	P	15 36 40.9	+0.4
	comp=Z,3µmcomp=Z,143nm,1.3s,comp=Z,3µm						
T35M	Bob Quinn	92.32	32	IAmb	IAmb	15 36 44.2	
	comp=Z,112nm,1.9s						
OZUR		92.35	317	⇑P	P	15 36 37.1	-3.6
MLR	Muntele Rosu	92.36	316	LR	LR	16 23 23.5	
	comp=Z,3µm,20.5s,baz=66,slow=39						
MLR	Muntele Rosu	92.36	316	⇑P	P	15 36 40.9	0.0
MLR	Muntele Rosu	92.36	316	IAmb	IAmb	15 36 45.6	
	comp=Z,250nm,1.9s						
MLR	Muntele Rosu	92.36	316	⇑P	P	15 36 40.9	0.0
MLR	Muntele Rosu	92.36	316	P	P	15 36 40.8	0.0
	comp=Z,9µmcomp=Z,2µmcomp=Z,69nm,1.2s						
AYDN	Tasoluk	92.37	308	P	P	15 36 41.0	0.0
	comp=Z,6µmcomp=Z,196nm,1.9s,comp=Z,6µm						
ARG	Arkhangelos	92.42	307	P	P	15 36 39.8	-1.4
ARG	Arkhangelos	92.42	307	P	P	15 36 39.8	-1.4
ARG	Arkhangelos	92.42	307	IAmb	IAmb	15 36 45.2	
	comp=Z,172nm,1.6s						
ARG	Arkhangelos	92.42	307	P	P	15 36 41.1	-0.1
	comp=Z,6µmcomp=Z,62nm,1.5s,comp=Z,6µm						
BURAR	Bucovina Array	92.43	318	⇓P	P	15 36 40.8	-0.3
BURAR	Bucovina Array	92.43	318	P	P	15 36 38.3	-2.8
BURAR	Bucovina Array	92.43	318	⇓P	P	15 36 40.8	-0.3
JMB	Yambol	92.53	313	P	P	15 36 40.5	-1.0
JMB	Yambol	92.53	313	P	P	15 36 41.7	+0.1
DOPR	Dopca	92.65	317	⇑P	P	15 36 41.8	-0.3
MOR8	Moi Rana	92.69	338	*e*P	P	15 36 39.8	-2.1
MOR8				IVmB_BB		15 36 40.2	
	comp=Z,1µm,3.3s						
MOR8				*e*SKSac	SKSac	15 46 58.9	-5.0
MOR8				IVMs_BB	IVMs_BB	16 11 44.1	
	comp=Z,1µm,4.2s						
RAUS	Rausandaksla	92.74	338	*e*P	P	15 36 41.0	-0.9
RAUS				IVmB_BB		15 36 41.7	
	comp=Z,2µm,6.4s						
RAUS				*e*SKSac	SKSac	15 47 01.3	-2.8
RAUS				IVMs_BB	IVMs_BB	16 24 14.8	
	comp=Z,2µm,12.0s						
SZH	Strazhitsa	92.78	314	P	P	15 36 41.7	-1.1
SZH	Strazhitsa	92.78	314	P	P	15 36 42.8	+0.1
BLCB	Balcova	92.89	309	P	P	15 36 42.0	-1.3
VAGH	Vaagaholmen	92.91	338	IVmB		15 36 42.3	
	comp=Z,1µm,2.8s						
VAGH				*e*P	P	15 36 43.1	+0.4
VAGH				*e*SKSac	SKSac	15 47 02.8	-2.2
VAGH				IVMs_BB	IVMs_BB	16 16 46.0	
	comp=Z,2µm,4.1s						
BODT	Bodrum	92.92	308	P	P	15 36 41.7	-1.8
HG4B	Hotspring	92.98	37	IAmb	IAmb	15 36 46.6	
	comp=Z,42nm,0.8s						
VOIR		92.99	316	⇑P	P	15 36 42.9	-0.8
VOIR		92.99	316	⇑P	P	15 36 42.9	-0.8
VOIR		92.99	316	P	P	15 36 42.4	-1.3
	comp=Z,826nmcomp=Z,16nm,1.6s						
RUBB	Prince Rupert	93.02	35	IAmb	IAmb	15 36 46.9	
	comp=Z,105nm,1.7s						
KONS	Konsvik	93.05	338	*e*P	P	15 36 42.8	-0.6
KONS				*e*SKSac	SKSac	15 47 02.3	-3.5
KONS				IVMs_BB	IVMs_BB	16 23 02.0	
	comp=Z,2µm,19.9s						
ENEZ	Enez	93.14	311	P	P	15 36 42.7	-1.7
STOK	Stokkvaagen	93.16	338	*e*P	P	15 36 43.6	-0.3
STOK				IVmB		15 36 45.0	
	comp=Z,683nm,2.1s						
STOK				*e*SKSac	SKSac	15 47 05.1	-1.3
STOK				IVMs_BB	IVMs_BB	16 20 09.4	
	comp=Z,2µm,4.2s						
EZN	Ezine	93.18	310	P	P	15 36 43.5	-1.1
ALN	Alexandroupoli	93.19	312	P	P	15 36 42.9	-1.7
ALN	Alexandroupoli	93.19	312	P	P	15 36 42.2	-2.4
ALN	Alexandroupoli	93.19	312	P	P	15 36 43.5	-1.1
	comp=Z,8µmcomp=Z,1µmcomp=Z,34nm,1.8s,comp=Z,1µm						
LEIR	Leirfjorden	93.21	338	*e*P	P	15 36 43.4	-0.8
LEIR				IVmB_BB		15 37 27.8	
	comp=Z,1µm,3.7s						
LEIR				*e*SKSac	SKSac	15 47 04.5	-2.2
LEIR				IVMs_BB	IVMs_BB	16 20 25.5	
	comp=Z,2µm,16.4s						
HUMR	Humele	93.23	315	P	P	15 36 44.2	-0.5
	comp=Z,156nm,1.4s						
ARR	Arges	93.29	316	⇓P	P	15 36 45.2	+0.1
ARR	Arges	93.29	316	P	P	15 36 44.3	-0.8
	comp=Z,1µmcomp=Z,45nm,2.3s						
KARP	Karpathos	93.30	306	P	P	15 36 46.4	+1.0
	comp=Z,9µmcomp=Z,129nm,1.7s						
PRK	Paraskevi	93.33	310	P	P	15 36 43.6	-1.7
PVL	Pavlikeni	93.38	314	P	P	15 36 46.0	+0.5
GADA	Gvkgeada	93.43	311	P	P	15 36 44.0	-1.7
BMR	Baia Mare	93.55	319	P	P	15 36 46.0	-0.1
BMR	Baia Mare	93.55	319	⇓P	P	15 36 46.9	+0.7
BMR	Baia Mare	93.55	319	P	P	15 36 46.4	+0.2
	comp=Z,1µmcomp=Z,49nm,0.8s						
KDZ	Kurdzhali	93.56	312	P	P	15 36 44.6	-1.7
KDZ	Kurdzhali	93.56	312	P	P	15 36 46.1	-0.3
WRGLY	Wrigley	93.59	25	IAmb	IAmb	15 36 49.3	
	comp=Z,225nm,1.8s						
KWP	Kalwaria Pacla	93.59	321	*e*P	P	15 36 46.1	-0.2
SMTH	Samothraki Isl	93.65	311	P	P	15 36 45.0	-1.8
CHOS	Chios island	93.66	309	P	P	15 36 45.1	-1.9
CJR	Cluj-Napoca	93.70	318	⇓P	P	15 36 47.9	+0.9
CJR	Cluj-Napoca	93.70	318	⇓P	P	15 36 47.9	+0.9
LOT	Lotru	93.87	316	⇑P	P	15 36 47.5	-0.3
LOT	Lotru	93.87	316	P	P	15 36 47.2	-0.6
	comp=Z,7µmcomp=Z,2µmcomp=Z,31nm,2.1s						
PLD	Plovdiv	93.89	313	P	P	15 36 46.1	-1.7
PLD	Plovdiv	93.89	313	P	P	15 36 47.8	0.0
R9F13	Warsaw-Wawer	93.90	323	*e*P	P	15 36 47.3	-0.3
	comp=Z,1.1nm,0.5s						
R9F13				*e*SKS	SKSac	15 47 11.4	+0.4
R9F13				*e*S	S	15 47 45.4	-1.7
RZN	Rozhen	93.99	313	P	P	15 36 46.6	-2.0
RZN	Rozhen	93.99	313	P	P	15 36 48.3	-0.3
LIA	Limnos Island	94.03	311	P	P	15 36 46.8	-1.7
MARR	Marisel-Cluj	94.03	318	⇑P	P	15 36 49.0	+0.5
KOLS	Kolonicke sedl	94.04	320	*e*P	P	15 36 48.4	0.0
KOLS	Kolonicke sedl	94.04	320	P	P	15 36 48.8	+0.4
	comp=Z,142nmcomp=Z,19nm,0.7s,comp=Z,142nm						
TRPA	Tarpa	94.07	319	P	P	15 36 48.2	-0.3
	comp=Z,9µmcomp=Z,1µmcomp=Z,22nm,1.5s,comp=Z,1µm						
BEL	Belsk	94.21	323	*e*P	P	15 36 48.9	-0.2
BEL	Belsk	94.21	323	P	P	15 36 47.3	-1.8
BEL	Belsk	94.21	323	P	P	15 36 49.6	+0.5
	comp=Z,468µmcomp=Z,248µmcomp=Z,13µm,0.8s						
PGB	Panagyurishte	94.23	313	P	P	15 36 49.3	-0.1
THAS	Thassos island	94.23	311	P	P	15 36 47.7	-1.7
DRGR		94.28	318	⇑P	P	15 36 49.5	-0.1
DRGR		94.28	318	⇑P	P	15 36 49.5	-0.1
DRGR		94.28	318	P	P	15 36 48.9	-0.8
	comp=Z,22nm,2.0s						
NSS	Namsos	94.29	337	*e*P	P	15 36 46.9	-2.2
KAVA	Kavala	94.30	312	P	P	15 36 48.0	-1.7
MPEP	Malo Peshtene	94.36	314	P	P	15 36 50.4	+0.4
DEV	Deva	94.36	317	⇑P	P	15 36 50.2	+0.2
DEV	Deva	94.36	317	⇑P	P	15 36 50.2	+0.2
DEV	Deva	94.36	317	P	P	15 36 50.1	+0.2
	comp=Z,1µmcomp=Z,27nm,1.1s						
SRE	Strehaia	94.44	316	⇓P	P	15 36 51.7	+1.4
SRE	Strehaia	94.44	316	⇓P	P	15 36 51.6	+1.4
SYO	Syowa Base	94.45	201	⇓*e*P	P	15 36 45.6	-4.1
SYO	Syowa Base	94.45	201	⇑*i*P	P	15 36 50.2	+0.5
THR3	Thira Island,	94.55	307	P	P	15 36 49.0	-1.9
GZR	Gura Zlata	94.56	316	⇓P	P	15 36 51.2	+0.2
GZR	Gura Zlata	94.56	316	⇓P	P	15 36 51.2	+0.2
STHS	Stebnicka Huta	94.57	321	*e*P	P	15 36 50.6	-0.2
DAG	Danmarks Havn	94.58	352	*i* P	P	15 36 50.1	-0.2
DAG	Danmarks Havn	94.58	352	P	P	15 36 48.1	-2.2
	comp=Z,4µmcomp=Z,336nm,1.0s						
NVR	Nevrokopi	94.71	312	P	P	15 36 49.7	-1.9
MMB	Musomishta	94.75	313	P	P	15 36 49.9	-1.9
MMB	Musomishta	94.75	313	P	P	15 36 50.9	-1.0
PLNA	Plana	94.78	314	P	P	15 36 52.5	+0.4
RMGR	Halanga-Turnu	94.79	316	⇓P	P	15 36 52.0	+0.1
BLSH	Balsha	94.80	314	P	P	15 36 52.6	+0.5
BORR	Bors	94.82	318	⇑P	P	15 36 50.8	-1.1
BBB	Bella Bella	94.84	36	LR	LR	16 14 05.9	
	comp=Z,1µm,21.4s,baz=290,slow=32						
BBB	Bella Bella	94.84	36	P	P	15 36 53.8	+1.9
	comp=Z,887nmcomp=Z,35nm,2.1s						
OUR	Ouranopolis	94.84	311	P	P	15 36 50.4	-1.8
OUR	Ouranopolis	94.84	311	P	P	15 36 50.1	-2.1
ABAH	Abaujker	94.87	320	P	P	15 36 51.5	-0.7
	comp=Z,6µmcomp=Z,918nmcomp=Z,24nm,1.3s,comp=Z,918nm						
VTS	Vitosha	94.88	314	P	P	15 36 50.5	-2.0
VTS	Vitosha	94.88	314	P	P	15 36 52.8	+0.2
HERR	Herculane	94.93	316	⇑P	P	15 36 51.6	-0.9
SRS	Serrai	94.96	312	P	P	15 36 49.6	-3.2
SRS	Serrai	94.96	312	P	P	15 36 51.1	-1.6
	comp=Z,6µmcomp=Z,991nmcomp=Z,19nm,1.6s,comp=Z,991nm						
KARY	Karystos	94.98	309	P	P	15 36 50.7	-2.2
MBAR	Mbarara	95.03	270	LR	LR	16 18 54.2	
	comp=Z,2µm,21.3s,baz=96,slow=35						
MBAR	Mbarara	95.03	270	P	P	15 36 53.4	-0.5
	comp=Z,6µmcomp=Z,888nmcomp=Z,5.5nm,1.3s						
KYMI	Kymi, Euboea I	95.11	310	P	P	15 36 51.3	-2.2
KKB	Krupnik	95.13	313	P	P	15 36 51.4	-2.2
KKB	Krupnik	95.13	313	P	P	15 36 53.3	-0.3
PAIG	Paliouri	95.15	311	P	P	15 36 51.5	-2.2
PAIG	Paliouri	95.15	311	P	P	15 36 52.2	-1.4
	comp=Z,466nmcomp=Z,19nm,0.7s,comp=Z,466nm						
AOS	Alonnisos	95.16	310	P	P	15 36 51.7	-2.1
NIE	Niedzica	95.17	321	*e*P	P	15 36 53.6	0.0
IDI	Anoyia	95.17	306	P	P	15 36 52.4	-1.6
	comp=Z,13nm,0.7s,baz=77,slow=4.4,SNR=7.2						
IDI				LR	LR	16 27 27.7	
	comp=Z,661nm,18.4s,baz=84,slow=40						
	comp=Z,13nm,0.7s						
IDI	Anoyia	95.17	306	P	P	15 36 51.6	-2.4
IDI	Anoyia	95.17	306	IAmb	IAmb	15 37 56.9	
	comp=Z,54nm,1.1s						
SOH	Sokhos	95.20	312	P	P	15 36 51.7	-2.3
SOH	Sokhos	95.20	312	P	P	15 36 52.2	-1.7
	comp=Z,903nmcomp=Z,12nm,1.4s,comp=Z,903nm						
OJC	Ojcow	95.26	322	*e*P	P	15 36 53.7	-0.3
OJC	Ojcow	95.26	322	P	P	15 36 54.4	+0.5
OJC	Ojcow	95.26	322	P	P	15 36 53.8	-0.1
	comp=Z,7µmcomp=Z,1µmcomp=Z,27nm,1.6s,comp=Z,1µm						
HOLB	Holberg	95.27	38	IAmb	IAmb	15 36 57.5	
	comp=Z,45nm,1.0s						
HFS	Hagfors	95.29	332	P	P	15 36 52.1	-1.8
	comp=Z,18nm,0.7s,baz=77,slow=3.2,SNR=27						
HFS				PKKPbc	PKKPdf	15 53 46.6	-1.6
	comp=Z,6.5nm,0.5s,baz=230,slow=3.7,SNR=21						
HFS				LR	LR	16 26 01.1	
	comp=Z,4µm,18.6s,baz=72,slow=39						
	comp=Z,18nm,0.7s						
BZS	Buzias	95.30	317	⇓P	P	15 36 53.8	-0.4
BZS	Buzias	95.30	317	⇓P	P	15 36 53.8	-0.4
BZS	Buzias	95.30	317	P	P	15 36 53.5	-0.7
	comp=Z,5µmcomp=Z,753nmcomp=Z,21nm,0.9s						
DION	Dionisos Attik	95.36	309	P	P	15 36 51.8	-2.9
PTL	Penteli	95.41	309	P	P	15 36 52.0	-2.9
MDVR	Moldovita	95.44	316	⇓P	P	15 36 53.1	-1.8
KNT	Kendrikon	95.46	312	P	P	15 36 55.6	+0.6
KNT	Kendrikon	95.46	312	P	P	15 36 56.3	+1.3
	comp=Z,940nmcomp=Z,33nm,1.2s,comp=Z,940nm						
RES	Resolute Bay	95.47	10	LR	LR	16 22 30.0	
	comp=Z,926nm,20.9s,baz=331,slow=37						
RES	Resolute Bay	95.47	10	P	P	15 36 54.2	-0.1
RES	Resolute Bay	95.47	10	IAmb	IAmb	15 36 57.1	
	comp=Z,69nm,0.9s						
RES	Resolute Bay	95.47	10	P	P	15 36 56.5	+2.1
	comp=Z,8µmcomp=Z,2µmcomp=Z,100nm,1.2s,comp=Z,2µm						
NEO	Neokhori	95.63	310	P	P	15 36 52.6	-3.3
XOR	Xorichti	95.64	311	P	P	15 36 53.2	-2.8
XOR	Xorichti	95.64	311	P	P	15 36 54.2	-1.8
	comp=Z,822nmcomp=Z,29nm,2.1s						
VAY	Valandovo	95.66	313	*i* P	P	15 36 54.4	-1.6
VAM	Vamos	95.70	306	P	P	15 36 56.7	+0.4
BOVS	Bovan	95.73	315	⇓P	P	15 36 55.9	-0.3
NC405	NORSAR Array S	95.80	334	IAmb	IAmb	15 36 56.9	
	comp=Z,39nm,0.7s						
VILL	Villia	95.81	309	P	P	15 36 52.4	-4.4
PSZ	Piszkesteto	95.84	319	⇑P	P	15 36 56.4	-0.3
PSZ	Piszkesteto	95.84	319	IAmb	IAmb	15 36 59.5	
	comp=Z,112nm,2.0s						
PSZ	Piszkesteto	95.84	319	⇑P	P	15 36 56.4	-0.3
PSZ	Piszkesteto	95.84	319	P	P	15 36 56.1	-0.6
	comp=Z,20nm,1.2s						
GKP	Gorka Klasztor	95.86	325	*e*P	P	15 36 56.1	-0.4
IMMV	Iera Moni Meta	95.86	307	P	P	15 36 54.6	-2.4
GRG	Griva	95.87	312	P	P	15 36 54.6	-2.4
GRG	Griva	95.87	312	P	P	15 36 55.2	-1.8
	comp=Z,2µmcomp=Z,73nm,1.8s,comp=Z,2µm						
NC303	NORSAR Array S	95.90	334	IAmb	IAmb	15 37 01.3	
	comp=Z,44nm,1.0s						
ATAL	Atalanti	95.92	310	P	P	15 36 54.3	-2.9
LKR	Lokris	95.95	310	P	P	15 36 53.7	-3.6
LIT	Litokhoron	96.00	311	P	P	15 36 54.7	-2.9
LIT	Litokhoron	96.00	311	P	P	15 36 54.4	-3.2
LIT	Litokhoron	96.00	311	P	P	15 36 55.9	-1.7
	comp=Z,6µmcomp=Z,1µmcomp=Z,46nm,2.4s						
NC602	NORSAR Array S	96.03	333	*e*P	P	15 36 56.0	-1.2
NC602				*e*SKSac	SKSac	15 47 18.9	-3.1
NC602				IVMs_BB	IVMs_BB	16 21 18.9	
	comp=Z,2µm,21.5s						
NC602	NORSAR Array S	96.03	333	IAmb	IAmb	15 37 20.9	
	comp=Z,45nm,1.4s						
NORES	NORESS Array B	96.03	333	P	P	15 36 58.0	+0.8
NORES				pmax	pmax		
	comp=Z,7.0nm,0.7s						
NB2	NORSAR Subarra	96.05	334	P	P	15 36 53.9	-3.4
	comp=Z,31nm,0.8s,baz=66,slow=4.6						
NB2				PKKP	PKKPdf	15 53 45.8	-1.1
	comp=Z,2.2nm,0.7s,baz=234,slow=2.4						
NB2	NORSAR Subarra	96.05	334	P	P	15 36 53.9	-3.4
NOA	NORSAR Array B	96.05	334	P	P	15 36 54.3	-3.1
	comp=Z,18nm,0.7s,baz=65,slow=4.6,SNR=91						
NOA				PKiKP	PKiKP	15 41 34.8	-0.5
	comp=Z,2.5nm,0.7s,baz=71,slow=4.7,SNR=4.4						
NOA				PKKPbc	PKKPdf	15 53 45.1	-1.7
	comp=Z,6.4nm,1.0s,baz=247,slow=2.4,SNR=13						
NOA				PKPPKP	P'P'df	16 01 56.2	-1.8
	comp=Z,0.9nm,0.8s,baz=332,slow=5.5,SNR=3.3						
NOA				LR	LR	16 25 33.0	
	comp=Z,2µm,18.4s,baz=70,slow=39						
LTK	Loutraki	96.11	309	P	P	15 36 54.9	-3.3
NC204	NORSAR Array S	96.15	334	IAmb	IAmb	15 36 58.6	
	comp=Z,33nm,0.8s						
AXAR	Agios Charalam	96.18	310	P	P	15 36 55.2	-3.2
QSPA	South Pole Qui	96.20	180	P	P	15 36 57.2	-0.8
	comp=Z,77nm,1.1s,baz=342,slow=4.5,SNR=104						
QSPA				PKKPbc	PKKPbc	15 53 44.7	-3.0
	comp=Z,1.3nm,0.5s,baz=198,slow=2.7,SNR=5.7						
QSPA				LR	LR	16 19 39.6	
	comp=Z,2µm,21.3s,baz=353,slow=35						
	comp=Z,77nm,1.1s						
QSPA	South Pole Qui	96.20	180	P	P	15 36 56.0	-1.9
QSPA				IAmb	IAmb	15 37 00.8	
	comp=Z,242nm,1.3s						
QSPA	South Pole Qui	96.20	180	P	P	15 36 58.8	+0.8
	comp=Z,5µmcomp=Z,211nm,1.9s						
NBO00	NORSAR Array S	96.25	334	IAmb	IAmb	15 37 07.3	
	comp=Z,66nm,1.5s						
NAO01	NORSAR Array S	96.28	333	IAmb	IAmb	15 36 58.9	
	comp=Z,32nm,0.8s						
NAO01	NORSAR Array S	96.28	333	P	P	15 36 57.4	-0.9
	comp=Z,402nmcomp=Z,26nm,0.7s						
TYRN	Tyrnavos	96.29	311	P	P	15 36 55.6	-3.2
ANKY	Antikythira Is	96.32	307	P	P	15 36 57.5	-1.5
NEEM	North Greenlan	96.35	359	*i* P	P	15 36 59.6	+0.9
VYHS	Vyhne	96.35	320	*e*P	P	15 36 57.7	-1.3
VYHS				*e*PP	PP	15 40 57.5	+3.7
AGG	Agios Georgios	96.37	310	P	P	15 36 56.0	-3.3
OKC	Ostrava-Krasne	96.39	322	AMS	AMS	16 17 50.0	
	comp=Z,2µm,18.5s						
OKC	Ostrava-Krasne	96.39	322	P	P	15 36 59.5	+0.4
	comp=Z,4µmcomp=Z,1µmcomp=Z,15nm,1.9s,comp=Z,1µm						
VLI	Veliai	96.42	308	P	P	15 36 56.2	-3.3
POGA	Pongola	96.42	243	P	P	15 36 59.5	-0.2
	comp=Z,113nm,1.2s						
KTHA	Kythira Island	96.42	307	P	P	15 36 57.2	-2.3
THL	Klokotos Trika	96.48	311	P	P	15 36 56.3	-3.4
BSD	Bornholm Skovb	96.52	327	*e*P	P	15 36 58.2	-1.3
BUD	Budapest	96.52	319	P	P	15 36 59.3	-0.4
	comp=Z,1µmcomp=Z,12nm,1.1s						
DOMB	Dombas	96.54	335	*e*P	P	15 36 59.7	+0.1
DOMB				IVmB_BB		15 37 02.9	
	comp=Z,966nm,4.5s						
DOMB				*e*SKSac	SKSac	15 47 23.3	-1.5
DOMB				IVMs_BB	IVMs_BB	16 16 02.0	
	comp=Z,2µm,21.0s						
STEB	Steborice	96.59	322	*e*P	P	15 37 00.0	0.0
GUR	Goura	96.61	309	P	P	15 36 56.9	-3.6
FRGS	Fruska Gora	96.65	317	⇑*i*P	P	15 36 59.2	-1.2
KALE	Kalithea	96.66	310	P	P	15 36 57.9	-2.8
VLX	Vlachokerasia	96.71	309	P	P	15 36 58.1	-2.9
SERG	Sergoula	96.72	310	P	P	15 36 58.1	-2.7
MAUC	Maruska	96.73	321	*e*P	P	15 37 01.2	+0.5
KLV	Kalavryta, Ach	96.73	309	P	P	15 36 58.2	-2.8
MORC	Moravsky Berou	96.78	322	⇓P	P	15 37 01.4	+0.5
MORC	Moravsky Berou	96.78	322	IAmb	IAmb	15 37 05.2	
	comp=Z,63nm,1.8s						
MORC	Moravsky Berou	96.78	322	*e*P	P	15 37 00.8	-0.1
MORC	Moravsky Berou	96.78	322	⇓P	P	15 37 01.4	+0.5
MORC	Moravsky Berou	96.78	322	P	P	15 37 00.7	-0.3
	comp=Z,6µmcomp=Z,937nmcomp=Z,18nm,2.6s						
ANX	Ano Chora	96.78	310	P	P	15 36 58.4	-2.8
EVR	Evrytania	96.79	310	P	P	15 36 58.5	-2.8
LAKA	Lakka	96.82	310	P	P	15 36 58.6	-2.8
EFP	Efpalio	96.83	310	P	P	15 36 58.6	-2.7
DBG	Daneborg	96.84	351	*i* P	P	15 37 00.9	+0.3
DBG	Daneborg	96.84	351	P	P	15 37 00.8	+0.2
	comp=Z,6µmcomp=Z,2µmcomp=Z,148nm,1.1s						
KPRO	Kipourio	96.88	311	P	P	15 36 58.0	-3.6
SRO	Srobarova	96.89	320	*e*P	P	15 37 01.7	+0.4
VVK	Vomvokou	96.91	310	P	P	15 36 59.5	-2.2
MOL	Molde	96.93	336	*e*P	P	15 37 02.2	+1.0
MOL				IVmB		15 37 03.5	
	comp=Z,937nm,3.5s						
MOL				*e*SKSac	SKSac	15 47 26.4	-0.1
MOL				IVMs_BB	IVMs_BB	16 16 53.4	
	comp=Z,1µm,4.5s						
JAVC	Velka Javorina	96.98	321	*e*P	P	15 37 02.8	+0.9
JAVC	Velka Javorina	96.98	321	P	P	15 37 03.1	+1.2
	comp=Z,6µmcomp=Z,1µmcomp=Z,35nm,2.3s						
TEKS	Tekeris	97.01	316	⇑*i*P	P	15 37 00.9	-1.1
OHR	Ohrid	97.01	313	*i* P	P	15 37 00.7	-1.5
SJES	Sjenica	97.05	315	⇑*i*P	P	15 37 01.3	-1.0
PVO	Paravola	97.08	310	P	P	15 37 01.0	-1.4
TETR	Tetrakomo, Epi	97.09	311	P	P	15 37 00.7	-2.0
DRO	Drossia	97.09	309	P	P	15 37 00.7	-1.9
ITM	Ithomi	97.11	309	P	P	15 37 00.2	-2.4
ITM	Ithomi	97.11	309	P	P	15 37 01.6	-1.0
	comp=Z,5µmcomp=Z,1µmcomp=Z,34nm,1.3s						
PHP	Peshkopia	97.12	313	P	P	15 37 00.3	-2.4
PHP	Peshkopia	97.12	313	P	P	15 37 01.5	-1.1
	comp=Z,616nmcomp=Z,21nm,2.0s						
JMIC	Jan Mayen	97.13	346	LR	LR	16 26 18.6	
	comp=Z,1µm,18.7s,baz=55,slow=39						
MORH	Mrgy, Hungar	97.14	318	⇓P	P	15 37 01.9	-0.6
MORH	Mrgy, Hungar	97.14	318	⇑*i*P	P	15 37 01.5	-1.0
MORH	Mrgy, Hungar	97.14	318	P	P	15 37 01.6	-1.0
	comp=Z,4µmcomp=Z,818nmcomp=Z,12nm,1.3s						
KBN	Korca	97.14	312	P	P	15 36 59.4	-3.4
KRLC	Kraliky	97.15	322	*e*P	Pdif	15 37 02.8	+0.1
KRLC				AMS	AMS	16 27 00.0	
	comp=Z,3µm,17.9s						
KRLC	Kraliky	97.15	322	P	P	15 37 02.4	-0.2
	comp=Z,6µmcomp=Z,981nmcomp=Z,25nm,1.8s						
PRMD	Pramanda	97.18	311	P	P	15 37 00.9	-2.0
AMT	Artemida-Makis	97.19	309	P	P	15 37 00.8	-2.2
KSP	Ksiaz	97.20	323	*e*P	Pdif	15 37 03.0	+0.2
KSP	Ksiaz	97.20	323	P	P	15 37 01.9	-0.8
PLEV	Plevrona-Mesol	97.22	310	P	P	15 37 00.9	-2.2
AMPL	Ampelaki	97.24	310	P	P	15 37 01.0	-2.2
RLS	Riolos of Patr	97.26	310	P	P	15 37 01.1	-2.2
BBLS	Lazi&#263i	97.28	316	⇑*i*P	P	15 37 02.7	-0.6
AXS	Araxos	97.29	310	P	P	15 37 01.2	-2.2
OSTC	Ostas	97.34	323	*e*P	P	15 37 03.2	-0.2
DPC	Dobruska-Polom	97.34	322	*e*P	Pdif	15 37 03.9	+0.4
DPC				*e*PP	PP	15 41 00.5	-0.9
DPC				*e*SS	SS	15 55 08.9	+11
DPC				AMS	AMS	16 25 00.0	
	comp=Z,4µm,18.4s						
DPC	Dobruska-Polom	97.34	322	P	Pdif	15 37 03.6	+0.1
	comp=Z,7µmcomp=Z,911nmcomp=Z,26nm,1.7s						
AKN	Aaknes	97.34	335	*e*P	P	15 37 01.6	-1.5
AKN				*e*SKSac	SKSac	15 47 28.7	-0.1
AKN				IVMs_BB	IVMs_BB	16 24 23.6	
	comp=Z,3µm,20.3s						
PDO	Prodromos	97.34	310	P	P	15 37 01.5	-2.2
KONO	Kongsberg	97.37	333	*e*P	P	15 36 56.2	-7.0
KONO				IVmB_BB		15 37 07.8	
	comp=Z,824nm,4.0s						
KONO				*e*SKSac	SKSac	15 47 24.2	-4.8
KONO				IVMs_BB	IVMs_BB	16 21 14.3	
	comp=Z,1µm,4.8s						
MODS	Modra-Piesok	97.38	320	*e*P	P	15 37 03.2	-0.4
MODS				*e*PP	PP	15 41 05.3	+3.6
MODS	Modra-Piesok	97.38	320	P	P	15 37 03.6	0.0
	comp=Z,1µmcomp=Z,18nm,2.2s						
CHVC	Chvalec	97.42	323	*e*P	Pdif	15 37 04.0	+0.2
CHVC				AMS	AMS	16 25 10.0	
	comp=Z,5µm,19.3s						
UPC	Upice	97.48	323	*e*P	P	15 37 03.6	-0.4
UPC				AMS	AMS	16 25 20.0	
	comp=Z,6µm,19.1s						
UPC	Upice	97.48	323	P	P	15 37 04.0	0.0
	comp=Z,5µmcomp=Z,984nmcomp=Z,26nm,1.8s						
SKAR	Skarslia	97.49	334	IVmB_BB		15 37 02.8	
	comp=Z,1µm,3.7s						
SKAR				*e*P	P	15 37 03.4	-0.5
SKAR				*e*SKSac	SKSac	15 47 29.7	0.0
SKAR				IVMs_BB	IVMs_BB	16 17 59.9	
	comp=Z,2µm,14.0s						
LNIZ	Loecknitz	97.49	326	P	Pdif	15 37 04.3	+0.4
	comp=Z,5µmcomp=Z,2µmcomp=Z,83nm,2.1s						
VRAC	Vranov	97.51	321	P	P	15 37 03.6	-0.6
	comp=Z,8.0nm,0.8s,baz=82,slow=4.1,SNR=16						
	comp=Z,8.0nm,0.8s						
VRAC	Vranov	97.51	321	⇑P	Pdif	15 37 04.7	+0.5
VRAC	Vranov	97.51	321	*e*P	Pdif	15 37 04.5	+0.3
VRAC	Vranov	97.51	321	⇑P	Pdif	15 37 04.7	+0.4
VRAC	Vranov	97.51	321	P	P	15 37 04.1	-0.1
	comp=Z,2µmcomp=Z,324nmcomp=Z,6.7nm,1.5s,comp=Z,324nm						
YKAW3	Yellowknife Wh	97.54	24	IAmb	IAmb	15 37 07.0	
	comp=Z,163nm,1.9s						
ZST	Bratislava	97.55	320	*e*P	P	15 37 02.4	-1.9
ZST				*e*PP	PP	15 41 04.2	+1.3
YKA	Yellowknife Ar	97.57	24	P	P	15 37 03.3	-0.8
	comp=Z,14nm,0.6s,baz=302,slow=4.4,SNR=47						
YKA				PKiKP	PKiKP	15 41 37.7	-0.2
	comp=Z,3.7nm,0.6s,baz=295,slow=1.8,SNR=18						
YKA				PKKPbc	PKKPbc	15 53 38.8	-4.1
	comp=Z,8.8nm,0.5s,baz=126,slow=3.3,SNR=33						
YKA				LR	LR	16 24 51.1	
	comp=Z,2µm,19.2s,baz=290,slow=38						
	comp=Z,14nm,0.6s						
YKA	Yellowknife Ar	97.57	24	c*e*P	Pdif	15 37 05.1	+1.0
YKA				pmax	pmax		
	comp=Z,14nm,0.6s						
YKA	Yellowknife Ar	97.57	24	P	P	15 37 01.6	-2.5
MPLH	Magyarpolny	97.58	319	P	P	15 37 04.3	-0.2
	comp=Z,786nmcomp=Z,20nm,2.7s						
RGN	Rugen	97.59	327	*e*PP	PP	15 41 04.0	+1.1
	baz=66,slow=7.5						
RGN				*e*pPP		15 41 33.8	
	baz=66,slow=7.5						
LKD2	Lefkada island	97.69	310	P	P	15 37 03.0	-2.2
LKD2	Lefkada island	97.69	310	P	P	15 37 04.3	-1.0
	comp=Z,1µmcomp=Z,44nm,1.9s						

KRUC	**Moravsky**	**97.72**	**321**	*e*P	Pdif	15 37 05.2	+0.1
KRUC	**Moravsky**	**97.72**	**321**	P	**P**	**15 37 05.0**	**-0.1**
	comp=Z,5µmcomp=Z,1µmcomp=Z,18nm,1.6s						
EVGI	**Lefkada island**	**97.74**	**310**	P	**P**	**15 37 03.2**	**-2.2**
IGT	**Igoumenitsa**	**97.75**	**311**	P	**P**	**15 37 02.9**	**-2.6**
PDG	**Podgorica**	**97.78**	**314**	⇓P	**P**	**15 37 04.8**	**-0.6**
PDG	**Podgorica**	**97.78**	**314**	⇑*i*P	**P**	**15 37 03.8**	**-1.7**
PDG	**Podgorica**	**97.78**	**314**	P	**P**	**15 37 03.9**	**-1.6**
	comp=Z,776nmcomp=Z,16nm,0.8s						
FSK	**Fiskardo**	**97.85**	**310**	P	**P**	**15 37 03.3**	**-2.6**
DRME	**Dracevica, Mon**	**97.89**	**314**	⇑*i*P	**P**	**15 37 04.7**	**-1.3**
ORTH	**Orthonies,Zaky**	**97.90**	**309**	P	**P**	**15 37 04.2**	**-2.0**
VLS	**Valsamata**	**97.90**	**310**	P	**P**	**15 37 03.3**	**-2.9**
SRN	**Sarande**	**97.91**	**312**	P	**P**	**15 37 03.4**	**-2.8**
KLINJ	**Klinje**	**98.05**	**315**	*e*P	**P**	**15 37 04.0**	**-2.8**
RUE	**Ruedersdorf**	**98.10**	**325**	*e*Pdiff	Pdif	15 37 07.2	+0.5
	baz=68,slow=4.5						
RUE				*e*PP	**PP**	**15 41 08.1**	**+1.1**
	baz=66,slow=7.5						
RUE				*e*pPP		15 41 38.1	
	baz=66,slow=7.5						
RUE	**Ruedersdorf**	**98.10**	**325**	P	Pdif	15 37 07.4	+0.8
	comp=Z,2µmcomp=Z,112nm,1.3s						
KEK	**Kerkira**	**98.11**	**311**	P	**P**	**15 37 03.6**	**-3.5**
BRY	**Bratogost**	**98.15**	**315**	⇑*i*P	**P**	**15 37 06.1**	**-1.3**
HYA	**Hoyanger**	**98.17**	**335**	*e*P	**P**	**15 37 05.3**	**-1.5**
HYA				*e*SKSac	**SKSac**	**15 47 32.7**	**-0.3**
HYA				IVMs_BB	IVMs_BB	16 21 31.7	
	comp=Z,2µm,4.9s						
TREC	**Trest**	**98.20**	**322**	P	**P**	**15 37 05.9**	**-1.4**
TREC	**Trest**	**98.20**	**322**	*e*P	Pdif	15 37 07.5	+0.2
TREC	**Trest**	**98.20**	**322**	P	Pdif	15 37 07.6	+0.3
	comp=Z,778nmcomp=Z,15nm,1.7s						
RONA	**Rosalia, Austr**	**98.22**	**320**	*i* Pdiff	**P**	**15 37 05.8**	**-1.6**
	comp=Z,9.4nm,1.5s						
RONA				*i* PP	**PP**	**15 41 06.7**	**-1.5**
	comp=Z,18nm,1.3s						
RONA				*e*PKKP	**PKKPbc**	**15 53 37.2**	**-3.4**
	comp=Z,2.1nm,0.8s						
RONA				*e*P'P'	**P'P'df**	**16 01 51.1**	**-3.5**
	comp=Z,5.6nm,1.7s						
WINA	**Alland / Wiene**	**98.23**	**320**	*i* Pdiff	Pdif	15 37 07.9	+0.4
	SNR=6.7						
BEHE	**Becsehely**	**98.30**	**319**	⇑*i*P	**P**	**15 37 07.2**	**-0.5**
CLRS	**Cowichan Lake**	**98.30**	**39**	IAmb	IAmb	15 37 11.1	
	comp=Z,83nm,1.8s						
HCY	**Herceg Novi**	**98.31**	**314**	*e*P	**P**	**15 37 05.0**	**-2.9**
CONA	**Conrad Observa**	**98.42**	**320**	*i* Pdiff	**P**	**15 37 08.3**	**0.0**
	comp=Z,12nm,2.0s,SNR=7.7						
CONA				*i* PP	**PP**	**15 41 09.3**	**-0.5**
	comp=Z,16nm,1.5s						
CONA				*i* PKKP	**PKKPbc**	**15 53 37.0**	**-3.1**
	comp=Z,4.9nm,0.7s						
CONA				*e*P'P'	**P'P'df**	**16 01 52.5**	**-1.8**
	comp=Z,3.6nm,1.5s						
HOMB	**Homborsund**	**98.49**	**332**	*e*P	**P**	**15 37 07.5**	**-0.8**
PRU	**Pruhonice**	**98.54**	**323**	P	**P**	**15 37 07.9**	**-0.9**
PRU	**Pruhonice**	**98.54**	**323**	*e*P	Pdif	15 37 09.1	+0.3
PRU				*e*PP	**PP**	**15 41 17.2**	**+6.7**
PRU				*e*SS	SS	15 55 31.9	+18
PRU				AMS	AMS	16 21 50.0	
	comp=Z,4µm,19.5s						
PRU	**Pruhonice**	**98.54**	**323**	P	**P**	**15 37 08.2**	**-0.5**
	comp=Z,4µmcomp=Z,856nmcomp=Z,19nm,1.9s						
BLY	**Banja Luka**	**98.55**	**317**	IAmb	IAmb	15 37 11.9	
	comp=Z,60nm,1.7s						
BLY	**Banja Luka**	**98.55**	**317**	⇑P	Pdif	15 37 09.5	+0.5
BLY	**Banja Luka**	**98.55**	**317**	⇑*i*P	**P**	**15 37 08.0**	**-0.9**
BLY	**Banja Luka**	**98.55**	**317**	P	Pdif	15 37 09.0	+0.1
	comp=Z,5µmcomp=Z,788nmcomp=Z,15nm,1.8s						
BRG	**Berggiesshubel**	**98.59**	**323**	*e*Pdiff	Pdif	15 37 09.0	+0.1
	baz=68,slow=4.5						
BRG				*e*PP	**PP**	**15 41 12.2**	**+1.4**
	baz=66,slow=7.5						
BRG				*e*pPP		15 41 42.3	
	baz=66,slow=7.5						
BRG	**Berggiesshubel**	**98.59**	**323**	P	**P**	**15 37 08.7**	**-0.2**
	comp=Z,5µmcomp=Z,935nmcomp=Z,37nm,0.7s						
BRG	**Berggiesshubel**	**98.59**	**323**	P	Pdif	15 37 09.2	+0.3
BRG				Amp		15 37 11.3	
	comp=Z,27nm,0.8s						
BRG				pP	pP	15 37 33.9	-6.6
BRG				Amp		15 37 34.4	
	comp=Z,13nm,0.9s						
BRG	**Berggiesshubel**	**98.59**	**323**	sP	sP	15 37 46.0	-7.3
BRG	**Berggiesshubel**	**98.59**	**323**	P	**PKiKP**	**15 41 43.5**	**+3.4**
BRG				Amp		15 41 45.3	
	comp=Z,4.1nm,0.7s						
BRG	**Berggiesshubel**	**98.59**	**323**	S	**S**	**15 48 24.0**	**-3.5**
BRG	**Berggiesshubel**	**98.59**	**323**	SP	SP	15 49 47.0	-5.5
BRG				PKKP		15 53 39.9	
BRG				Amp		15 53 41.4	
	comp=Z,4.4nm,1.0s						
BRG	**Berggiesshubel**	**98.59**	**323**	SS	SS	15 55 24.0	+9.2
ODD1	**Odda**	**98.59**	**334**	*e*P	Pdif	15 37 10.1	+1.3
ODD1				*e*PP	**PP**	**15 41 11.0**	**+0.5**
RICC	**Richard**	**98.61**	**323**	*e*P	Pdif	15 37 09.5	+0.4
PGC	**Sidney**	**98.78**	**39**	IAmb	IAmb	15 37 13.2	
	comp=Z,65nm,1.6s						
SUE	**Sulen**	**98.83**	**335**	*e*P	**P**	**15 37 09.7**	**-0.1**
SUE				IVmB_BB		15 37 34.8	
	comp=Z,2µm,3.7s						
SUE				*e*SKSac	**SKSac**	**15 47 36.7**	**+0.5**
SUE				IVMs_BB	IVMs_BB	16 19 36.1	
	comp=Z,2µm,4.3s						
ARSA	**Arzberg**	**98.86**	**320**	*i* Pdiff	**P**	**15 37 09.8**	**-0.5**
	comp=Z,5.8nm,1.1s,SNR=7.0						
ARSA				*i* PP	**PP**	**15 41 13.6**	**+0.6**
	comp=Z,11nm,1.3s						
ARSA				*i* PKKP	**PKKPbc**	**15 53 38.3**	**-0.5**
	comp=Z,9.9nm,1.4s						
ARSA				*e*P'P'	**P'P'df**	**16 01 54.6**	**+1.2**
	comp=Z,2.9nm,1.1s						
ARSA	**Arzberg**	**98.86**	**320**	P	**P**	**15 37 09.8**	**-0.5**
	comp=Z,6µmcomp=Z,685nmcomp=Z,8.8nm,1.2s,comp=Z,685nm						
LSZ	**Lusaka**	**98.89**	**256**	LR	LR	16 20 46.4	
	comp=Z,2µm,19.2s,baz=92,slow=35						
LSZ	**Lusaka**	**98.89**	**256**	P	**P**	**15 37 08.9**	**-2.2**
LSZ				pmax	pmax		
	comp=Z,78nm,1.7s						
LSZ	**Lusaka**	**98.89**	**256**	P	**P**	**15 37 08.9**	**-2.2**
LSZ				IAmb	IAmb	15 40 42.1	
	comp=Z,78nm,1.7s						
LSZ	**Lusaka**	**98.89**	**256**	P	**P**	**15 37 10.0**	**-1.2**
	comp=Z,6µmcomp=Z,21nm,1.4s						
BLS5	**Blasjo**	**98.90**	**333**	*e*P	**P**	**15 37 06.2**	**-4.0**
BLS5				*e*SKSac	**SKSac**	**15 47 34.1**	**-2.7**
BLS5				IVMs_BB	IVMs_BB	16 21 45.1	
	comp=Z,2µm,13.8s						
B04A	**Port Angeles**	**98.95**	**39**	IAmb	IAmb	15 37 14.2	
	comp=Z,88nm,1.8s						
ZVC	**Zvikov**	**98.95**	**322**	*e*P	Pdif	15 37 10.8	+0.2
ZVC				*e*PP	**PP**	**15 41 18.4**	**+4.8**
ZVC				*e*SS	SS	15 55 29.0	+9.1
ZVC				AMS	AMS	16 26 00.0	
	comp=Z,4µm,19.0s						
CLL	**Collm**	**98.98**	**324**	⇑*i*P	**P**	**15 37 10.5**	**-0.2**
CLL				*e*		15 47 33.0	
CLL				pmax	pmax		
	comp=Z,34nm,1.2s						
CLL				MLR	MLR		
	comp=Z,3µm,22.8s						
CLL	**Collm**	**98.98**	**324**	IAmb	IAmb	15 37 13.8	
	comp=Z,26nm,1.1s						
CLL	**Collm**	**98.98**	**324**	*e*Pdiff	**P**	**15 37 10.2**	**-0.5**
	baz=68,slow=4.5						
CLL				*e*PP	**PP**	**15 41 15.2**	**+1.4**
	baz=66,slow=7.5						
CLL				*e*pPP		15 41 45.2	
	baz=66,slow=7.5						
CLL	**Collm**	**98.98**	**324**	P	**P**	**15 37 10.1**	**-0.5**
	comp=Z,5µmcomp=Z,798nmcomp=Z,22nm,1.8s						
CLL	**Collm**	**98.98**	**324**	⇑*i*Pdif	**P**	**15 37 10.5**	**-0.2**
	comp=Z,34nm,1.2s						
CLL				*e*Pdifflp		15 37 11.0	
	comp=Z,700nm,16.9s						
CLL				*e*pPdif	**pP**	**15 37 41.0**	**-1.2**
CLL				*e*PP	**PP**	**15 41 14.0**	**+0.3**
	comp=Z,500nm,11.4s						
CLL				*e*sPP		15 41 56.0	
CLL				*e*sPPP		15 43 56.0	
CLL				*i* SKSac	**SKSac**	**15 47 36.1**	**-1.4**
CLL				*e*Sdif	**ScS**	**15 48 30.0**	**-0.8**
CLL				*e*sSdif	**sS**	**15 49 24.0**	**-3.1**
CLL				*e*SP	**SP**	**15 49 54.0**	**-2.7**
CLL				*e*PS	**PS**	**15 50 12.0**	**-0.5**
CLL				*e*pPS		15 50 36.0	
CLL				*e*PPS	PPS	15 50 57.0	
CLL				*i* PKKPbc	**PKKPbc**	**15 53 38.2**	**-0.3**
	comp=Z,11nm,1.3s						
CLL				*e*pPKKPbc		15 54 06.0	
CLL				*e*SS	**SS**	**15 55 23.0**	**+2.8**
CLL				*e*sSS		15 56 10.0	
CLL				*e*SSS	SSS	15 59 09.0	
CLL				*e*sSSS		16 00 02.0	
CLL				*i* PKPPKPdf	**P'P'df**	**16 01 50.3**	**-2.5**
	comp=Z,111nm,3.2s						
CLL				*e*SSSS		16 02 30.0	
CLL				*e*x	x	16 03 48.0	
CLL				LH		16 09 00.0	
CLL				LV		16 11 00.0	
CLL				AMS	AMS	16 15 00.0	
	comp=N,3µm,24.4s						
CLL				AMS	AMS	16 15 00.0	
	comp=E,4µm,29.9s						
CLL				AMS	AMS	16 23 00.0	
	comp=Z,3µm,22.8s						
HSKC	**Hora Svate Kat**	**98.99**	**323**	*e*P	Pdif	15 37 10.9	+0.1
HSKC				AMS	AMS	16 20 20.0	
	comp=Z,4µm,21.8s						
HSKC	**Hora Svate Kat**	**98.99**	**323**	P	Pdif	15 37 11.1	+0.3
	comp=Z,5µmcomp=Z,834nmcomp=Z,26nm,1.8s						
LLLB	**Lillooet**	**99.04**	**37**	IAmb	IAmb	15 37 21.4	
	comp=Z,33nm,1.1s						
GROS	**Grobnik**	**99.13**	**319**	*e*Pdiff	**Pdif**	**15 37 10.7**	**-0.9**
KULLO	**Kullorsuaq**	**99.23**	**1**	*i* P	**Pdif**	**15 37 11.7**	**+0.4**
KULLO	**Kullorsuaq**	**99.23**	**1**	P	**Pdif**	**15 37 12.4**	**+1.1**
	comp=Z,2µmcomp=Z,125nm,0.9s						
GORT1	**Trebel**	**99.29**	**326**	*e*Pdiff	**Pdif**	**15 37 12.0**	**0.0**
	baz=68,slow=4.5						
SOKA	**Soboth**	**99.36**	**319**	*i* Pdiff	**Pdif**	**15 37 11.9**	**-0.8**
	comp=Z,5.0nm,0.9s,SNR=7.4						
SOKA				*e*PP	**PP**	**15 41 16.2**	**-0.8**
	comp=Z,13nm,1.4s						
SOKA				*i* PKKP	**PKKPbc**	**15 53 37.6**	**+0.2**
	comp=Z,10nm,1.6s						
SOKA				*e*P'P'	**P'P'df**	**16 01 52.8**	**+0.3**
	comp=Z,7.2nm,2.1s						
KHC	**Kasperske Hory**	**99.43**	**322**	*ce*P	**Pdif**	**15 37 12.6**	**-0.3**
KHC				pmax	pmax		
	comp=Z,4.0nm,0.8s						
KHC	**Kasperske Hory**	**99.43**	**322**	*e*P	**Pdif**	**15 37 12.8**	**0.0**
KHC				*e*PP	**PP**	**15 41 21.2**	**+3.9**
KHC				*e*x	x	15 41 45.0	
KHC				*e*SS	SS	15 55 34.3	+7.5
KHC				AMS	AMS	16 22 30.0	
	comp=Z,4µm,23.2s						
KHC	**Kasperske Hory**	**99.43**	**322**	P	**Pdif**	**15 37 12.5**	**-0.3**
	comp=Z,4µmcomp=Z,649nmcomp=Z,16nm,1.6s						
BSEG	**Bad Segeberg**	**99.45**	**327**	*e*Pdiff	**Pdif**	**15 37 12.9**	**+0.2**
	baz=68,slow=4.5						
BSEG				*e*PP	**PP**	**15 41 18.2**	**+1.1**
	baz=66,slow=7.5						
BSEG				*e*pPP		15 41 48.4	
	baz=66,slow=7.5						
BSEG	**Bad Segeberg**	**99.45**	**327**	P	**Pdif**	**15 37 13.1**	**+0.4**
	comp=Z,3µmcomp=Z,543nmcomp=Z,12nm,1.2s						
MOA	**Molln**	**99.46**	**321**	*i* Pdiff	**Pdif**	**15 37 12.9**	**-0.1**
	comp=Z,48nm,2.0s,SNR=14						
MOA				*e*PP	**PP**	**15 41 18.3**	**+0.7**
	comp=Z,14nm,1.6s						
MOA				*e*PKKP	**PKKPbc**	**15 53 36.9**	**-0.2**
	comp=Z,10nm,1.5s						
MOA				*e*P'P'	**P'P'df**	**16 01 53.5**	**+1.3**
	comp=Z,3.6nm,1.2s						
MOA	**Molln**	**99.46**	**321**	P	**Pdif**	**15 37 13.1**	**+0.2**
	comp=Z,870nmcomp=Z,29nm,1.5s,comp=Z,870nm						
GEC2	**GERESS Array S**	**99.46**	**322**	*e*Pdiff	**Pdif**	**15 37 12.5**	**-0.5**
	baz=68,slow=4.5						
GEC2				*e*PP	**PP**	**15 41 18.9**	**+1.3**
	baz=66,slow=7.5						
GEC2				*e*pPP		15 41 49.2	
	baz=66,slow=7.5						
GEC2	**GERESS Array S**	**99.46**	**322**	P	**Pdif**	**15 37 13.1**	**+0.1**
	comp=Z,4µmcomp=Z,776nmcomp=Z,16nm,1.8s						
GERES	**GERESS Array B**	**99.46**	**322**	P	**Pdif**	**15 37 12.3**	**-0.7**
	comp=Z,7.0nm,0.7s,baz=62,slow=3.2,SNR=54						
GERES				PKiKP	**PKiKP**	**15 41 41.8**	**0.0**
	comp=Z,3.3nm,0.7s,baz=68,slow=1.3,SNR=9.6						
GERES				PKKPbc	**PKKPbc**	**15 53 35.6**	**-1.6**
	comp=Z,1.4nm,0.6s,baz=229,slow=3.0,SNR=7.0						
	comp=Z,7.0nm,0.7s						
GERES	**GERESS Array B**	**99.46**	**322**	P	**Pdif**	**15 37 12.8**	**-0.2**
GERES	**GERESS Array B**	**99.46**	**322**		**Pdif**	**15 37 12.8**	**-0.2**
SESA	**Seetaler Alpe,**	**99.52**	**320**	*i* Pdiff	**Pdif**	**15 37 13.2**	**-0.3**
	SNR=8.1						
FLTG	**Flechtingen**	**99.60**	**326**	*e*Pdiff	**Pdif**	**15 37 12.9**	**-0.5**
	baz=68,slow=4.5						
FLTG				*e*PP	**PP**	**15 41 19.2**	**+0.8**
	baz=66,slow=7.5						
FLTG				*e*pPP		15 41 49.5	
	baz=66,slow=7.5						
FLTG	**Flechtingen**	**99.60**	**326**	P	**Pdif**	**15 37 13.4**	**0.0**
	comp=Z,4µmcomp=Z,797nmcomp=Z,26nm,0.8s,comp=Z,797nm						
TANN	**Tannenbergstha**	**99.63**	**323**	*e*Pdiff	**Pdif**	**15 37 13.0**	**-0.7**
	baz=68,slow=4.5						
TANN				*e*PP	**PP**	**15 41 20.0**	**+1.2**
	baz=66,slow=7.5						
TANN				*e*pPP		15 41 50.1	
	baz=66,slow=7.5						
TANN	**Tannenbergstha**	**99.63**	**323**	P	**Pdif**	**15 37 13.8**	**+0.1**
	comp=Z,9µmcomp=Z,1µmcomp=Z,31nm,1.8s						
NKC	**Novy Kostel**	**99.71**	**323**	P	**Pdif**	**15 37 13.3**	**-0.7**
NKC	**Novy Kostel**	**99.71**	**323**	*e*P	**Pdif**	**15 37 14.0**	**0.0**
NKC				AMS	AMS	16 22 50.0	
	comp=Z,4µm,19.8s						
NKC	**Novy Kostel**	**99.71**	**323**	P	**Pdif**	**15 37 14.5**	**+0.5**
	comp=Z,9µmcomp=Z,799nmcomp=Z,18nm,1.7s						
NEUB	**Neuenburg**	**99.73**	**324**	*e*Pdiff	**Pdif**	**15 37 14.3**	**+0.3**
	baz=68,slow=4.5						
NEUB				*e*PP	**PP**	**15 41 20.6**	**+1.2**
	baz=66,slow=7.5						
NEUB				*e*pPP		15 41 50.7	
	baz=66,slow=7.5						
NEUB	**Neuenburg**	**99.73**	**324**	P	**Pdif**	**15 37 14.4**	**+0.4**
	comp=Z,5µmcomp=Z,1µmcomp=Z,39nm,0.8s						
OBKA	**Obir**	**99.74**	**319**	*i* Pdiff	**Pdif**	**15 37 14.1**	**-0.2**
	comp=Z,8.2nm,1.0s						
OBKA				*e*PP	**PP**	**15 41 19.8**	**0.0**
	comp=Z,11nm,1.4s						
OBKA				*e*PKKP	**PKKPbc**	**15 53 36.8**	**+0.4**
	comp=Z,11nm,1.3s						
OBKA				*i* P'P'	**P'P'df**	**16 01 47.1**	**-4.7**
	comp=Z,6.6nm,1.3s						
OBKA	**Obir**	**99.74**	**319**	P	**Pdif**	**15 37 13.1**	**-1.2**
	comp=Z,5µmcomp=Z,15nm,1.3s						
WIMM	**Wimmelburg**	**99.77**	**325**	P	**Pdif**	**15 37 14.4**	**+0.3**
	comp=Z,2µmcomp=Z,58nm,1.7s						
PLN	**Plauen**	**99.79**	**324**	*e*Pdiff	**Pdif**	**15 37 14.4**	**+0.1**
	baz=68,slow=4.5						
PLN				*e*PP	**PP**	**15 41 20.9**	**+1.0**
	baz=66,slow=7.5						
PLN				*e*pPP		15 41 51.2	
	baz=66,slow=7.5						
ELIB	**Princess Elisa**	**99.80**	**198**	*b*P	**Pdif**	**15 37 12.8**	**-1.2**
	comp=Z,40nm,0.0s						
ELIB				*d*PP	**PP**	**15 41 17.8**	**-2.0**
WET	**Wettzell**	**99.86**	**322**	*e*Pdiff	**Pdif**	**15 37 14.2**	**-0.5**
	baz=68,slow=4.5						
WET				*e*PP	**PP**	**15 41 21.7**	**+1.2**
	baz=66,slow=7.5						
WET				*e*pPP		15 41 51.9	
	baz=66,slow=7.5						
WET	**Wettzell**	**99.86**	**322**	P	**Pdif**	**15 37 15.0**	**+0.4**
	comp=Z,4µmcomp=Z,794nmcomp=Z,13nm,1.6s						
MOZS	**Mozjanca**	**99.88**	**319**	*e*Pdiff	**Pdif**	**15 37 13.6**	**-1.3**
GBRS	**Gornja Briga**	**99.89**	**318**	*e*Pdiff	**Pdif**	**15 37 14.0**	**-0.9**
BIOA	**Bad Ischl, Aus**	**99.91**	**321**	*i* Pdiff	**Pdif**	**15 37 15.1**	**+0.1**
	comp=Z,12nm,1.3s						
BIOA				*e*PP	**PP**	**15 41 19.1**	**-1.9**
	comp=Z,15nm,1.5s						
BIOA				*i* PKKP	**PKKPbc**	**15 53 35.8**	**0.0**
	comp=Z,12nm,1.5s						
BIOA				*e*P'P'	**P'P'df**	**16 01 46.1**	**-5.2**
	comp=Z,7.0nm,1.5s						
LJU	**Ljubljana**	**99.91**	**319**	*e*Pdiff	**Pdif**	**15 37 14.6**	**-0.3**
LJU				*e*PP	**PP**	**15 41 23.3**	**+2.3**
LJU				*e*SKSac	**SKSac**	**15 47 37.1**	**-5.2**
LJU				*e*		15 49 38.7	
LJU				*e*		15 56 32.8	
ASSE	**Asse, Remlinge**	**100.00**	**325**	*e*Pdiff	**Pdif**	**15 37 15.6**	**+0.6**
	baz=68,slow=4.5						
ASSE				*e*PP	**PP**	**15 41 22.1**	**+0.7**
	baz=66,slow=7.5						
ASSE				*e*pPP		15 41 52.4	
	baz=66,slow=7.5						
ASSE	**Asse, Remlinge**	**100.00**	**325**	P	**Pdif**	**15 37 16.1**	**+1.0**
MOX	**Moxa**	**100.04**	**324**	*e*Pdiff	**Pdif**	**15 37 15.4**	**-0.1**
	baz=68,slow=4.5						
MOX				*e*PP	**PP**	**15 41 23.3**	**+1.4**
	baz=66,slow=7.5						
MOX				*e*pPP		15 41 53.4	
	baz=66,slow=7.5						
MOX	**Moxa**	**100.04**	**324**	P	**Pdif**	**15 37 15.8**	**+0.4**
	comp=Z,4µmcomp=Z,715nmcomp=Z,17nm,1.0s						
CLZ	**Clausthal**	**100.28**	**325**	*e*Pdiff	**Pdif**	**15 37 16.6**	**+0.1**
	baz=68,slow=4.5						
CLZ				*e*PP	**PP**	**15 41 25.1**	**+1.4**
	baz=66,slow=7.5						
CLZ				*e*pPP		15 41 55.3	
	baz=66,slow=7.5						
CLZ	**Clausthal**	**100.28**	**325**	P	**Pdif**	**15 37 16.8**	**+0.3**
	comp=Z,920nmcomp=Z,35nm,1.4s						
MYKA	**Terra Mystica**	**100.28**	**320**	*e*Pdiff	**Pdif**	**15 37 16.2**	**-0.5**
	comp=Z,4.5nm,0.8s						
MYKA				*e*PP	**PP**	**15 41 22.9**	**-1.0**
	comp=Z,0.4nm,0.3s						
MYKA				*e*PKKP	**PKKPbc**	**15 53 35.1**	**+0.3**
	comp=Z,7.8nm,0.6s						
MYKA				*e*P'P'	**P'P'df**	**16 01 44.0**	**-6.8**
	comp=Z,1.3nm,0.5s						
KBA	**Koelnbreinsper**	**100.31**	**320**	*e*Pdiff	**Pdif**	**15 37 17.3**	**+0.4**
	comp=Z,6.9nm,0.8s						
KBA				*i* PP	**PP**	**15 41 23.9**	**-0.3**
	comp=Z,15nm,1.0s						
KBA				*e*PKKP	**PKKPbc**	**15 53 35.3**	**+0.5**
	comp=Z,3.8nm,0.7s						
KBA	**Koelnbreinsper**	**100.31**	**320**	P	**Pdif**	**15 37 16.5**	**-0.5**
	comp=Z,5µmcomp=Z,11nm,1.4s						
SCO	**Scoresbysund**	**100.34**	**349**	*i* P	**Pdif**	**15 37 18.3**	**+2.0**
RJOB	**Jochberg**	**100.42**	**321**	P	**Pdif**	**15 37 16.6**	**-0.7**
	comp=Z,4.8nm,0.8s						
GRB3	**Grafenberg Arr**	**100.43**	**323**	P	**Pdif**	**15 37 17.9**	**+0.7**
	comp=Z,4µmcomp=Z,857nmcomp=Z,29nm,1.1s						
DRE	**Drenchia**	**100.44**	**319**	P	**Pdif**	**15 37 16.6**	**-0.8**
	comp=Z,679nmcomp=Z,16nm,1.4s						
RETH	**Rethem/Aller,**	**100.47**	**326**	*e*Pdiff	**Pdif**	**15 37 17.6**	**+0.3**
	baz=68,slow=4.5						
RETH				*e*PP	**PP**	**15 41 25.9**	**+0.9**
	baz=66,slow=7.5						
RETH				*e*pPP		15 41 55.9	
	baz=66,slow=7.5						
RETH	**Rethem/Aller,**	**100.47**	**326**	P	**Pdif**	**15 37 17.9**	**+0.7**
	comp=Z,5µmcomp=Z,1µmcomp=Z,29nm,0.8s						
GRB1	**Grafenberg Arr**	**100.50**	**323**	P	**Pdif**	**15 37 18.2**	**+0.7**
	comp=Z,5µmcomp=Z,783nmcomp=Z,32nm,1.0s						
TIP	**Timpagrande**	**100.52**	**312**	P	**Pdif**	**15 37 17.5**	**-0.4**
	comp=Z,879nmcomp=Z,18nm,2.1s						
GRB4	**Grafenberg Arr**	**100.53**	**323**	P	**Pdif**	**15 37 18.2**	**+0.5**
	comp=Z,5µmcomp=Z,719nmcomp=Z,22nm,1.1s						
GRB2	**Grafenberg Arr**	**100.54**	**323**	P	**Pdif**	**15 37 18.3**	**+0.6**
	comp=Z,5µmcomp=Z,735nmcomp=Z,24nm,1.1s						
GRA3	**Grafenberg Arr**	**100.56**	**323**	P	**Pdif**	**15 37 18.1**	**+0.3**
	comp=Z,5µmcomp=Z,794nmcomp=Z,22nm,2.6s						
GRA2	**Grafenberg Arr**	**100.58**	**323**	P	**Pdif**	**15 37 18.4**	**+0.6**
	comp=Z,5µmcomp=Z,815nmcomp=Z,13nm,1.3s						
GRB5	**Grafenberg Arr**	**100.60**	**322**	P	**Pdif**	**15 37 18.3**	**+0.4**
	comp=Z,5µmcomp=Z,732nmcomp=Z,26nm,1.5s						
SUMG	**Summit**	**100.61**	**355**	P	**Pdif**	**15 37 17.9**	**-0.1**
SUMG	**Summit**	**100.61**	**355**	P	**Pdif**	**15 37 19.0**	**+1.0**
SUMG				pmax	pmax		
	comp=Z,45nm,1.7s						
SUMG	**Summit**	**100.61**	**355**	*i* P	**Pdif**	**15 37 18.0**	**0.0**
SUMG	**Summit**	**100.61**	**355**	P	**Pdif**	**15 37 19.3**	**+1.3**
	comp=Z,45nm,1.7s						
LESA	**Schwarzleotal**	**100.61**	**321**	*i* Pdiff	**Pdif**	**15 37 17.3**	**-0.8**
	comp=Z,9.8nm,0.9s,SNR=6.4						
LESA				*e*PP	**PP**	**15 41 25.2**	**-1.2**
	comp=Z,18nm,1.7s						
LESA				*i* PKKP	**PKKPbc**	**15 53 34.0**	**+0.1**
	comp=Z,6.9nm,0.5s						
LESA				*e*P'P'	**P'P'df**	**16 01 42.7**	**-7.4**
	comp=Z,4.5nm,1.6s						
GTTG	**Gottingen**	**100.64**	**325**	*e*Pdiff	**Pdif**	**15 37 18.6**	**+0.6**
	baz=68,slow=4.5						
GTTG				*e*PP	**PP**	**15 41 27.6**	**+1.3**
	baz=66,slow=7.5						
GTTG				*e*pPP		15 41 57.6	
	baz=66,slow=7.5						
GTTG	**Gottingen**	**100.64**	**325**	P	**Pdif**	**15 37 18.9**	**+0.8**
	comp=Z,7µmcomp=Z,2µmcomp=Z,62nm,1.1s						
HLG	**Helgoland**	**100.64**	**328**	*e*PP	**PP**	**15 41 27.0**	**+0.9**
	baz=66,slow=7.5						
HLG				*e*pPP		15 41 57.1	
	baz=66,slow=7.5						
GRA1	**Grafenberg Arr**	**100.65**	**323**	P	**Pdif**	**15 37 19.2**	**+1.0**
	comp=Z,4µmcomp=Z,816nmcomp=Z,17nm,1.4s						
GRF	**Grafenberg Arr**	**100.65**	**323**	*e*Pdiff	**Pdif**	**15 37 17.9**	**-0.3**
	baz=68,slow=4.5						
GRF				*e*PP	**PP**	**15 41 27.7**	**+1.2**
	baz=66,slow=7.5						
GRF				*e*pPP		15 41 57.7	
	baz=66,slow=7.5						
GRC4	**Grafenberg Arr**	**100.70**	**322**	P	**Pdif**	**15 37 19.0**	**+0.6**
	comp=Z,5µmcomp=Z,763nmcomp=Z,18nm,2.5s						
GRC1	**Grafenberg Arr**	**100.74**	**322**	P	**Pdif**	**15 37 18.9**	**+0.4**
	comp=Z,5µmcomp=Z,744nmcomp=Z,14nm,1.0s						
GRC3	**Grafenberg Arr**	**100.74**	**322**	P	**Pdif**	**15 37 18.9**	**+0.3**
	comp=Z,4µmcomp=Z,866nmcomp=Z,14nm,2.6s						
FUSE	**Fusea**	**100.77**	**319**	P	**Pdif**	**15 37 17.9**	**-0.9**
	comp=Z,7.4nm,1.4s						
GRC2	**Grafenberg Arr**	**100.88**	**322**	P	**Pdif**	**15 37 19.4**	**+0.2**
	comp=Z,608nmcomp=Z,14nm,1.3s						
MARCO	**Tramutola**	**100.88**	**313**	P	**Pdif**	**15 37 17.4**	**-2.1**
	comp=Z,722nmcomp=Z,23nm,2.0s						
UBBA	**Unterbreizbach**	**100.91**	**324**	*e*PP	**PP**	**15 41 26.2**	**-2.1**
	baz=66,slow=7.5						
UBBA				*e*pPP		15 41 56.2	
	baz=66,slow=7.5						
ABTA	**Abfaltersbach**	**100.97**	**320**	*i* Pdiff	**Pdif**	**15 37 18.4**	**-1.4**
	comp=Z,7.1nm,0.9s						
ABTA				*e*PP	**PP**	**15 41 28.2**	**-0.9**
	comp=Z,3.2nm,0.6s						
ABTA				*i* PKKP	**PKKPbc**	**15 53 33.4**	**+0.6**
	comp=Z,15nm,1.0s						
FUR	**Furstenfeldbru**	**101.21**	**322**	*e*PP	**PP**	**15 41 32.0**	**+1.2**
	baz=66,slow=7.5						
FUR				*e*pPP		15 42 02.0	
	baz=66,slow=7.5						
WTTA	**Wattenberg**	**101.33**	**321**	*i* Pdiff	**Pdif**	**15 37 20.7**	**-0.8**
	comp=Z,34nm,1.5s,SNR=12						
WTTA				*i* PP	**PP**	**15 41 28.2**	**-3.6**
	comp=Z,18nm,0.8s						
WTTA				*e*PKKP	**PKKPbc**	**15 53 34.2**	**+2.2**
	comp=Z,4.4nm,0.9s						
WTTA				*e*P'P'	**P'P'df**	**16 01 47.0**	**-1.9**
	comp=Z,11nm,1.4s						
WTTA	**Wattenberg**	**101.33**	**321**	P	**Pdif**	**15 37 21.0**	**-0.5**
	comp=Z,575nmcomp=Z,20nm,1.4s,comp=Z,575nm						
WATA	**Walderalm**	**101.34**	**321**	*i* Pdiff	**Pdif**	**15 37 21.2**	**-0.3**
	comp=Z,19nm,1.2s,SNR=10						
WATA				*e*PP	**PP**	**15 41 32.7**	**+0.8**
	comp=Z,15nm,1.4s						
WATA				*e*PKKP	**PKKPbc**	**15 53 34.1**	**+2.2**
	comp=Z,3.4nm,0.7s						
WATA				*e*P'P'	**P'P'df**	**16 01 47.2**	**-1.6**
	comp=Z,5.1nm,0.8s						
CEL	**Celeste**	**101.43**	**311**	P	**Pdif**	**15 37 22.1**	**+0.1**
	comp=Z,5µmcomp=Z,890nmcomp=Z,22nm,2.4s						
IBBN	**Ibbenburen**	**101.54**	**326**	*e*Pdiff	**Pdif**	**15 37 22.3**	**+0.2**
	baz=68,slow=4.5						
IBBN				*e*PP	**PP**	**15 41 33.9**	**+0.9**
	baz=66,slow=7.5						
IBBN				*e*pPP		15 42 04.0	
	baz=66,slow=7.5						
IBBN	**Ibbenburen**	**101.54**	**326**	P	**Pdif**	**15 37 22.8**	**+0.7**
	comp=Z,4µmcomp=Z,1µmcomp=Z,40nm,1.8s						
SQTA	**Sankt Quirin**	**101.61**	**321**	*i* Pdiff	**Pdif**	**15 37 21.8**	**-0.9**
	comp=Z,25nm,1.4s,SNR=9.7						
SQTA				*i* PP	**PP**	**15 41 34.5**	**+0.5**
	comp=Z,12nm,1.1s						
SQTA				*e*PKKP	**PKKPbc**	**15 53 32.7**	**+1.7**
	comp=Z,12nm,1.6s						
SQTA				*e*P'P'	**P'P'df**	**16 01 44.2**	**-4.0**
	comp=Z,1.7nm,0.7s						
MOTA	**Moosalm**	**101.63**	**321**	*i* Pdiff	**Pdif**	**15 37 22.1**	**-0.7**
	comp=Z,13nm,1.1s						
MOTA				*i* PP	**PP**	**15 41 36.3**	**+2.1**
	comp=Z,27nm,1.5s						
MOTA				*e*PKKP	**PKKPbc**	**15 53 30.7**	**-0.3**

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      comp=Z,7.7nm,1.0s
MOTA                              eP'P'     P'P'df   16 01 43.8 -4.4
      comp=Z,5.4nm,1.5s
KASTN Kahler Asten     101.66 325 ePdiff    Pdif     15 37 23.2 +0.5
      baz=68,slow=4.5
KASTN                             ePP       PP       15 41 35.3 +1.3
      baz=66,slow=7.5
KASTN                             epPP               15 42 05.5
      baz=66,slow=7.5
CGRP  Cima Grappa      101.75 319  P        Pdif     15 37 23.0 -0.4
      comp=Z,768nmcomp=Z,14nm,0.9s
RETA  Reutte           101.79 321 ePdiff    Pdif     15 37 23.1 -0.3
      comp=Z,7.3nm,1.2s
RETA                              ePP       PP       15 41 34.3 -1.0
      comp=Z,20nm,1.5s
RETA                              ePKKP     PKKPbc   15 53 31.1 +0.6
      comp=Z,1.9nm,0.5s
AQU   L'Aquila         101.93 316  P        Pdif     15 37 23.3 -0.9
AQU   L'Aquila         101.93 316⇑iP        Pdif     15 37 23.2 -0.9
FETA  Feichten         101.99 321 i Pdiff   Pdif     15 37 24.1 -0.3
      comp=Z,11nm,1.1s
FETA                              ePP       PP       15 41 35.0 -1.8
      comp=Z,19nm,1.7s
FETA                              i PKKP    PKKPbc   15 53 29.7 -0.2
      comp=Z,11nm,1.0s
UBR   Ueberruh         102.12 321 ePdiff    Pdif     15 37 24.2 -0.7
      baz=68,slow=4.5
UBR                               ePP       PP       15 41 38.5 +0.8
      baz=66,slow=7.5
UBR                               epPP               15 42 08.4
      baz=66,slow=7.5
UBR   Ueberruh         102.12 321  P        Pdif     15 37 24.8  0.0
      comp=Z,11nm,1.4s
BOSA  Boshof           102.17 242  P        Pdif     15 37 24.5 -1.0
      comp=Z,3.0nm,1.0s,baz=73,slow=3.4,SNR=3.7
BOSA                               PKiKP    PKiKP    15 41 47.1 -0.1
      comp=Z,5.8nm,1.0s,baz=102,slow=2.7,SNR=5.7
BOSA                               PKKPbc   PKKPbc   15 53 29.2 +0.4
      comp=Z,2.3nm,0.7s,baz=302,slow=4.8,SNR=5.3
BUG   Bochum--Univer   102.20 326 ePdiff    Pdif     15 37 25.2 +0.2
      baz=68,slow=4.5
BUG                               ePP       PP       15 41 38.7 +0.7
      baz=66,slow=7.5
BUG                               epPP               15 42 08.9
      baz=66,slow=7.5
BUG   Bochum--Univer   102.20 326  P        Pdif     15 37 25.9 +1.0
      comp=Z,3µmcomp=Z,893nmcomp=Z,18nm,1.1s
WTSB  Winterswijk      102.22 326  P        Pdif     15 37 25.8 +0.8
      comp=Z,4µmcomp=Z,800nmcomp=Z,22nm,1.1s
STU   Stuttgart        102.23 323 ePdiff    Pdif     15 37 25.3 +0.1
      baz=68,slow=4.5
STU                               ePP       PP       15 41 39.1 +0.7
      baz=66,slow=7.5
STU                               epPP               15 42 09.2
      baz=66,slow=7.5
DAVA  Damuels          102.42 321 ePdiff    Pdif     15 37 26.3  0.0
      comp=Z,12nm,1.7s
DAVA                              ePP       PP       15 41 36.8 -3.3
      comp=Z,15nm,1.0s
DAVA                              ePKKP     PKKPbc   15 53 31.7 +3.0
      comp=Z,2.9nm,1.0s
DAVA                              eP'P'     P'P'df   16 01 46.8 +0.1
      comp=Z,2.9nm,1.4s
DAVA  Damuels          102.42 321  P        Pdif     15 37 26.2 -0.2
      comp=Z,4µmcomp=Z,12nm,1.2s
NEW   Newport          102.82  38  P        Pdif     15 37 29.8 +1.9
      comp=Z,17nm,1.1s
BFO   Black Forest     102.94 323 ePdiff    Pdif     15 37 27.8 -0.6
      baz=68,slow=4.5
BFO                               ePP       PP       15 41 44.4 +0.7
      baz=66,slow=7.5
BFO                               epPP               15 42 14.5
      baz=66,slow=7.5
TUE   Stuetta          103.08 321  P        Pdif     15 37 29.8 +0.5
      comp=Z,7.8nm,1.7s
HGN   Heimansgroeve    103.26 326  P        Pdif     15 37 30.3 +0.5
      comp=Z,16nm,1.9s
MEM   Membach          103.29 325 dPdif     Pdif     15 37 29.8 -0.1
      comp=Z,10nm,1.2s
MEM   Membach          103.29 325  P        Pdif     15 37 30.9 +1.0
      comp=Z,574nmcomp=Z,17nm,1.4s
VLC   Villacollemand   103.32 318  P        Pdif     15 37 28.8 -1.4
BNALP Bannalp          103.50 321  P        Pdif     15 37 31.1  0.0
      comp=Z,3µmcomp=Z,4.9nm,1.1s
BMOL  Mol              103.52 326 dPdif     Pdif     15 37 30.2 -0.6
WLF   Walferdange      103.64 324  P        Pdif     15 37 31.2 -0.3
WLF   Walferdange      103.64 324 dPdif     Pdif     15 37 31.8 +0.3
      comp=Z,7.5nm,0.9s
WLF   Walferdange      103.64 324 ePdiff    Pdif     15 37 31.6 +0.1
      baz=68,slow=4.5
WLF                               ePP       PKiKP    15 41 50.5 +1.2
      baz=66,slow=7.5
WLF                               epPP               15 42 20.4
      baz=66,slow=7.5
WLF   Walferdange      103.64 324  P        Pdif     15 37 33.0 +1.5
      comp=Z,4µmcomp=Z,13nm,1.7s
ECH   Echery           103.70 323  P        Pdif     15 37 33.2 +1.4
ECH   Echery           103.70 323  P        Pdif     15 37 31.9 +0.1
ECH   Echery           103.70 323  P        Pdif     15 37 32.3 +0.5
      comp=Z,5µmcomp=Z,645nmcomp=Z,7.7nm,1.2s
BCLA  Clavier          103.78 325 dPdif     Pdif     15 37 33.1 +1.1
      comp=Z,5.4nm,1.4s
RCHB  Rochefort        103.94 325 dPdif     Pdif     15 37 33.4 +0.7
      comp=Z,5.8nm,1.4s
RCHB  Rochefort        103.94 325  P        Pdif     15 37 33.8 +1.0
      comp=Z,721nmcomp=Z,15nm,1.4s
UCC   Uccle            104.12 326 dPdif     Pdif     15 37 33.8 +0.2
      comp=Z,8.9nm,0.9s
BMRD  Maredsous        104.13 325 dPdif     Pdif     15 37 33.5 -0.2
      comp=Z,8.1nm,1.1s
WVOR  Wild Horse Val   104.18  44  P        Pdif     15 37 36.2 +2.0
      comp=Z,8.4nm,1.7s
DRUM  Mains of Drumt   104.24 334 eP        Pdif     15 37 35.0 +1.0
DOU   Dourbes          104.33 325 dP        Pdif     15 37 32.9 -1.6
      comp=Z,10.0nm,1.2s
LINV  Loch Inver, As   104.64 336 eP        Pdif     15 37 37.6 +2.0
WACR  West Acre        105.13 329 eP        Pdif     15 37 38.5 +0.5
LMK   Market Rasen     105.21 330 eP        Pdif     15 37 36.8 -1.6
INVG  Invergeldie, C   105.22 334 eP        Pdif     15 37 39.8 +1.4
ELMS  Elmsett, Ipswi   105.28 328 eP        Pdif     15 37 38.5 -0.2
EKA   Eskdalemuir Ar   105.49 333  Pdiff    Pdif     15 37 39.1 -0.4
      comp=Z,1.2nm,0.6s,baz=48,slow=2.5,SNR=6.6
EKA                                PKiKP    PKiKP    15 41 51.5 -1.0
      comp=Z,2.1nm,0.6s,baz=33,slow=3.2,SNR=13
EKA                                PKKPbc   PKKPbc   15 53 17.9 -1.8
      comp=Z,2.4nm,0.4s,baz=240,slow=3.5,SNR=24
EAB   Aberfoyle        105.50 334 eP        Pdif     15 37 39.0 -0.6
PGBU  Glenifferbraes   105.80 333 eP        Pdif     15 37 41.2 +0.3
TROLL Troll, Antarti   105.83 196 ⇑Pdiff    Pdif     15 37 43.0 +2.1
      comp=Z,364nm,0.5s
TROLL                              PKiKP    PKiKP    15 41 54.0 +1.2
      comp=Z,138nm,0.2s
TROLL                             ⇓SKSac    SKSac    15 48 11.0 +1.8
      comp=E,299nm,1.2s
TROLL                              PKKPbc   PKKPbc   15 53 17.6 -1.7
      comp=Z,364nm,0.7s
KESW  Keswick, Cumbr   105.91 332 eP        Pdif     15 37 40.3 -1.1
LAWE  Loch Awe, Argy   105.92 334 eP        Pdif     15 37 41.2 -0.2
NVAR  Mina Array Bea   105.92  47  Pdiff    Pdif     15 37 42.1  0.0
      comp=Z,4.2nm,0.6s,baz=276,slow=5.3,SNR=27
NVAR                               PKiKP    PKiKP    15 41 53.5 -0.5
      comp=Z,3.1nm,0.8s,baz=307,slow=1.8,SNR=7.5
NVAR                               PKKPbc   PKKPbc   15 53 16.3 -1.7
      comp=Z,3.5nm,0.8s,baz=141,slow=4.2,SNR=12
NVAR                               PKKPab   PKKPab   15 53 33.7 -1.3
      comp=Z,2.0nm,0.7s,baz=114,slow=5.1,SNR=5.4
CWF   Charnwood Fore   106.11 330 eP        Pdif     15 37 41.3 -1.0
KEST  Kesra            107.21 310  PKiKP    PKiKP    15 41 56.0 -0.3
      comp=Z,7.7nm,0.8s,baz=47,slow=1.8,SNR=5.7
OLDB  Oldbury-Upon-S   107.35 329 eP        Pdif     15 37 46.4 -1.4
SNAA  Sanae            107.43 195 ⇑Pdiff    Pdif     15 37 49.2 +1.3
      comp=Z,216nm,0.6s
SNAA  Sanae            107.43 195  Pdiff    Pdif     15 37 48.2 +0.3
      comp=Z,6.3nm,0.7s,baz=142,slow=7.6,SNR=11
SNAA                               PKiKP    PKiKP    15 41 55.2 -0.4
      comp=Z,17nm,1.0s,baz=113,slow=2.2,SNR=3.8
SNAA                               PP       PP       15 42 15.9 -0.6
      comp=Z,18nm,0.9s,baz=146,slow=9.5,SNR=4.6
SNAA                               PKKPbc   PKKPbc   15 53 10.9 -3.4
      comp=Z,7.5nm,0.9s,baz=324,slow=2.8,SNR=10.0
VNA2  Neumayer--Watz   109.05 195  Pdiff    Pdif     15 37 57.3 +2.3
      comp=Z,7.1nm,0.6s,baz=122,slow=4.5
VNA2                               PKiKP    PKiKP    15 41 58.3 -0.3
      comp=Z,17nm,0.6s,baz=147,slow=3.2
VNA2                              ⇓SKSac    SKSac    15 48 22.7 -0.2
      comp=E,6.0nm,1.1s,baz=163,slow=3.9
VNA2                               PKKPbc   PKKPbc   15 53 06.0 -3.1
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      comp=Z,6.8nm,0.8s,baz=312,slow=4.5
VNA3  Neumayer Olymp   109.40 194  Pdiff    Pdif     15 37 59.5 +2.9
      comp=Z,7.0nm,0.7s
VNA3                               PKiKP    PKiKP    15 41 59.8 +0.5
      comp=Z,7.4nm,0.6s
VNA3                              ⇓SKSac    SKSac    15 48 24.2 -0.1
      comp=N,3.4nm,1.2s
VNA3                              ⇑PKKPbc   PKKPbc   15 53 02.4 -5.6
      comp=Z,7.9nm,0.8s
VNA1  Neumayer--Stat   109.45 195  Pdiff    Pdif     15 37 58.1 +1.4
      comp=Z,7.9nm,0.8s
VNA1                              ⇑PKiKP    PKiKP    15 41 59.8 +0.5
      comp=Z,30nm,1.0s
VNA1                               PKKPbc   PKKPbc   15 53 05.5 -2.3
      comp=Z,15nm,1.1s
PDAR  Pinedale Array   110.06  40  Pdiff    Pdif     15 37 59.7 -0.8
      comp=Z,0.1nm,0.3s,baz=244,slow=44,SNR=2.0
PDAR                               PKiKP    PKiKP    15 42 01.3 -0.4
      comp=Z,2.2nm,0.6s,baz=320,slow=1.8,SNR=12
PDAR                               PKKPbc   PKKPbc   15 53 02.9 -2.4
      comp=Z,2.3nm,0.6s,baz=127,slow=4.3,SNR=13
PDAR                               PKKPab   PKKPab   15 53 14.5 -2.1
      comp=Z,3.2nm,0.5s,baz=122,slow=5.6,SNR=12
ULM   Lac du Bonnet    113.17  28  PKiKP    PKiKP    15 42 06.8 -0.2
      comp=Z,18nm,0.9s,baz=320,slow=1.9,SNR=18
ULM                                PKKPbc   PKKPbc   15 52 53.4 -1.6
      comp=Z,5.7nm,0.6s,baz=122,slow=4.4,SNR=7.9
UCM   Universidad Co   114.06 319  PKP      PKiKP    15 42 09.2 +0.1
ESDC  Sonseca Array    114.87 319  PKP      PKiKP    15 42 10.4 -0.3
      comp=Z,5.0nm,0.8s,baz=51,slow=2.3,SNR=20
ESDC                               PKKPbc   PKKPbc   15 52 48.8 -0.1
      comp=Z,5.1nm,1.0s,baz=256,slow=3.1,SNR=10
ENIJ  Nijar            115.09 316  PKP      PKiKP    15 42 10.6 -0.6
PBRG  Braganca         115.42 322 ePKPdf    PKPdf    15 42 12.7 +1.0
EBER  Berja            115.60 316  PKP      PKPdf    15 42 12.9 +0.5
EQTA  Presa de Quent   115.82 317  PKP      PKiKP    15 42 12.3 -0.4
EALB  Alboran          116.19 315  PKP      PKiKP    15 42 13.3 +0.1
PGAV  Gavieira, Arco   116.25 323 ePKPdf    PKiKP    15 42 14.0 +0.6
PGAV                              ePP       PP       15 43 25.0 +5.1
PGAV                              eSS       SS       16 00 11.7  +58
PGAV                              eLR       LR       16 20 39.9
PGAV                              i IAMs_20 IAMs_20  16 37 21.1
      comp=Z,2µm,20.0s
PCAB  Cabril           116.25 323 ePKPdf    PKiKP    15 42 14.5 +1.2
POLO  Lamas de Olo     116.32 322 ePKPdf    PKiKP    15 42 14.4 +0.9
EGOR  Sierra Gorda,    116.33 317  PKP      PKPdf    15 42 13.6 -0.1
PVRL  Vila Real        116.33 322 ePKPdf    PKiKP    15 42 14.7 +1.3
ECAB  El Cabril        116.69 318  PKP      PKiKP    15 42 15.4 +1.2
EMAL  Malaga-Limoner   116.73 317  PKP      PKPdf    15 42 13.7 -0.6
MTE   Manteigas        116.74 321 ePKPdf    PKiKP    15 42 15.3 +1.0
MTE                               ePP       PP       15 43 28.4 +5.1
MTE                               eSS       SS       16 00 33.6  +73
MTE                               eLR       LR       16 21 15.7
MTE                               i IAMs_20 IAMs_20  16 33 12.7
      comp=Z,2µm,18.0s
PVIS  Viseu            116.77 322 ePKPdf    PKiKP    15 42 14.9 +0.6
PTO   Porto            116.94 323 ePKPdf    PKiKP    15 42 15.3 +0.8
PCBR  Castelo Branco   117.02 321 ePKPdf    PKiKP    15 42 15.7 +1.0
PMRV  Marv??o          117.21 321 ePKPdf    PKiKP    15 42 16.1 +1.0
PMRV                              ePP       PP       15 43 30.9 +4.3
PMRV                              eSS       SS       16 00 31.3  +65
PMRV                              eLR       LR       16 21 58.2
PMRV                              i IAMs_20 IAMs_20  16 37 30.3
      comp=Z,1µm,22.0s
PCAS  Casmilo, Conde   117.53 322 ePKPdf    PKiKP    15 42 16.4 +0.6
PSARD Sardoal          117.59 321 ePKPdf    PKiKP    15 42 17.1 +1.2
PESTR Estremoz         117.66 320 ePKPdf    PKiKP    15 42 17.2 +1.1
PBAR  Barrancos        117.70 319 ePKPdf    PKiKP    15 42 17.0 +0.9
PMTG  Montargil        117.94 321 ePKPdf    PKiKP    15 42 17.3 +0.7
PARRA Arraiolos        117.97 320 ePKPdf    PKiKP    15 42 18.0 +1.4
PSBE  So Bento         118.04 321 ePKPdf    PKiKP    15 42 17.9 +1.1
EVO   Evora            118.12 320 ePKPdf    PKiKP    15 42 17.8 +0.9
SCHQ  Schefferville    118.19   8  PKP      PKiKP    15 42 16.8 +0.2
      comp=Z,38nm,0.7s,baz=1.9,slow=2.8,SNR=43
SCHQ                               SKP      SKPdf    15 45 39.7 -1.2
      comp=Z,11nm,0.8s,baz=356,slow=2.0,SNR=3.9
SCHQ                               PKKPbc   PKKPbc   15 52 35.5 -2.3
      comp=Z,12nm,0.9s,baz=139,slow=3.7,SNR=6.4
PBEJ  Beja             118.32 319 ePKPdf    PKiKP    15 42 18.2 +0.8
MOE   Montemor         118.34 320 ePKPdf    PKiKP    15 42 18.2 +0.9
PVAQ  Vaqueiros        118.58 319 ePKPdf    PKiKP    15 42 18.6 +0.7
PVAQ                              ePP       PP       15 43 39.9 +3.8
PVAQ                              eSS       SS       16 00 46.0  +62
PVAQ                              eLR       LR       16 22 32.3
PVAQ                              i IAMs_20 IAMs_20  16 36 08.1
      comp=Z,1µm,20.0s
MESJ  Messejana        118.65 319 ePKPdf    PKiKP    15 42 18.5 +0.5
MESJ                              ePP       PP       15 43 36.9 +0.3
MESJ                               IAMs_20  IAMs_20  16 25 15.5
      comp=Z,2µm,17.2s
MESJ  Messejana        118.65 319 ePKPdf    PKiKP    15 42 18.6 +0.6
MESJ  Messejana        118.65 319 ePKIKP    PKiKP    15 42 18.5 +0.5
MESJ                              e                  15 43 36.9
PCVE  Castro Verde     118.66 319 ePKPdf    PKiKP    15 42 18.6 +0.6
PLOUS Minas do Lousa   118.67 320 ePKPdf    PKiKP    15 42 18.6 +0.6
LIS   Lisbon           118.73 321 ePKPdf    PKiKP    15 42 18.7 +0.6
LIS                               ePP       PP       15 43 37.5 +0.4
LIS                                IAMs_20  IAMs_20  16 34 40.4
      comp=Z,4µm,29.1s
LIS   Lisbon           118.73 321 ePKIKP    PKiKP    15 42 18.7 +0.6
LIS                               e                  15 43 37.5
PBDV  Barranco-do-Ve   118.81 319 ePKPdf    PKiKP    15 42 20.1 +1.7
MDT   Midelt           118.88 313  PKKPbc   PKKPbc   15 52 34.0 -0.6
      comp=Z,20nm,1.2s,baz=246,slow=6.6,SNR=7.1
PTEO  Sao Teotonio     119.15 319 ePKPdf    PKiKP    15 42 20.4 +1.4
MORF  Marmelete        119.24 319 ePKPdf    PKiKP    15 42 19.5 +0.3
MORF                              ePP       PP       15 43 40.9 +0.1
MORF                               IAMs_20  IAMs_20  16 27 25.6
      comp=Z,4µm,36.6s
MORF  Marmelete        119.24 319 ePKPdf    PKiKP    15 42 20.4 +1.2
PFVI  Vila Bisbo       119.46 319 ePKPdf    PKiKP    15 42 19.6  0.0
TXAR  Lajitas Array    120.78  50  PKP      PKiKP    15 42 23.2 +0.6
      comp=Z,7.3nm,0.6s,baz=312,slow=2.1,SNR=58
TXAR                               PKKPbc   PKKPbc   15 52 27.9 +0.3
      comp=Z,4.6nm,1.0s,baz=122,slow=5.6,SNR=9.2
TXAR                               PKKP     PKKPdf   15 53 00.7  0.0
      comp=Z,2.7nm,1.0s,baz=122,slow=5.0,SNR=3.8
TORD  Torodi Ar. Bea   121.15 289  PKP      PKPdf    15 42 23.1 -0.2
      comp=Z,48nm,0.7s,baz=90,slow=1.7,SNR=103
TORD                               SKP      SKPdf    15 45 46.2 -1.4
      comp=Z,10nm,0.8s,baz=88,slow=2.2,SNR=4.7
TORD                               PKKPab   PKKPbc   15 52 26.4 +0.7
      comp=Z,5.4nm,0.9s,baz=266,slow=3.8,SNR=10
PMSA  Palmer Station   121.22 175  PKKPbc   PKKPbc   15 52 25.0 -1.8
      comp=Z,5.5nm,0.5s,baz=20,slow=4.7,SNR=8.8
PMOZ  Porto Moniz, M   127.51 320 ePP       PP       15 44 40.0 +3.6
PMOZ                              eSS       SS       16 02 37.0  +60
DBIC  Dimbokro         129.03 284  PKP      PKPdf    15 42 38.5  0.0
      comp=Z,47nm,0.9s,baz=84,slow=2.8,SNR=26
CPCT  Cooper Cave      129.65  32           PKPpre   15 42 26.1
BLA   Blacksburg       130.29  27  PKHKP    PKPpre   15 42 28.9
BLA   Blacksburg       130.29  27           PKPpre   15 42 28.9
USHA  Ushuaia          130.29 169  PKP      PKPdf    15 42 39.9 +0.3
      comp=Z,49nm,0.7s,baz=195,slow=1.6,SNR=12
USHA                               SKPbc    SKPab    15 45 50.9 -0.7
      comp=Z,46nm,1.0s,baz=206,slow=2.1,SNR=5.6
T59A  Double "B" Far   131.75  25           PKPpre   15 42 31.9
COYC  Coyhaique        137.94 161           PKPpre   15 42 45.4
LL02  Futaleuf         140.13 160           PKPpre   15 42 51.1
CAMR  Camarioca        140.58  41 eP        PKPdf    15 42 56.9 -2.9
MGV   Manicaragua      142.16  41 eP        PKPdf    15 42 59.4 -3.2
CAIB  Caibarien        142.21  40 eP        PKPdf    15 42 58.9 -3.8
LR04  Corral           142.40 156           PKPpre   15 42 56.6
PLCA  Paso Flores      142.75 159  PKP      PKPdf    15 43 00.6 -2.7
      comp=Z,39nm,0.7s,baz=201,slow=1.2,SNR=50
PLCA                               SKPbc    SKPbc    15 46 30.1  0.0
      comp=Z,34nm,0.9s,baz=212,slow=3.3,SNR=6.5
LCCY  Blossom Villag   143.78  44 eP        PKPab    15 42 55.5 -7.1
CBCY  The Bluff, Cay   143.96  44 eP        PKPab    15 42 56.7 -6.7
CCCC  Cccc             144.24  40 eP        PKPab    15 43 03.8 -0.6
H03S2 Juan Fernandez   144.34 143  PKP      PKPdf    15 43 07.0 +1.3
      baz=289,slow=3.2,SNR=12
H03S1 Juan Fernandez   144.34 143  PKP      PKPdf    15 43 07.3 +1.5
      baz=289,slow=3.2,SNR=7.3
H03S3 Juan Fernandez   144.35 143  PKP      PKPdf    15 43 06.9 +1.1
      baz=289,slow=3.2,SNR=8.7
CARN  Rivas            144.37  61 eP        PKPdf    15 43 06.8 +0.1
H03N2 Juan Fernandez   144.61 143  PKP      PKPdf    15 43 07.2 +1.0
      baz=51,slow=74,SNR=38
H03N1 Juan Fernandez   144.62 143  PKP      PKPdf    15 43 07.2 +0.9
      baz=211,slow=74,SNR=30
ALIBA Liberia Airpor   144.62  62 eP        PKPdf    15 43 08.1 +0.9
LAPC  Finca la Perla   144.64  61 eP        PKPab    15 43 05.6 -0.5
VRLE  La Escondida,    144.69  61 eP        PKPbc    15 43 06.6 +0.1
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VORI  VORI             144.69  61 eP        PKPab    15 43 06.4 -0.1
GPS2  Hotel Rincn d    144.72  61 eP        PKPbc    15 43 06.6 +0.1
JUD3  Juan Diaz 3      144.82  62 eP        PKPab    15 43 06.7 -0.1
CUI   Cuipilapa        144.93  61 eP        PKPbc    15 43 06.0 -1.2
JTS   Las Juntas de    145.28  62 eP        PKPbc    15 43 06.9 -1.3
ARE1  Arenal 1         145.41  61 eP        PKPdf    15 43 07.0 -1.6
VARE2 V. Arenal        145.41  61 eP        PKPdf    15 43 07.6 -1.1
HLGC  Holguin          145.53  38 eP        PKPab    15 43 09.9 +0.7
LMGC  Las Mercedes     145.55  40 eP        PKPab    15 43 09.3  0.0
YAR   Yar              145.73  39 eP        PKPbc    15 43 09.6 +0.1
VPL3  V. Platanar      145.81  61 eP        PKPdf    15 43 09.4 +0.1
CHIV  Chivirico        145.99  39 eP        PKPdf    15 43 08.5 -0.9
PINC  Pinares de May   145.99  38 eP        PKPdf    15 43 09.6 +0.2
VBV1  V. Barva         146.11  61 eP        PKPdf    15 43 09.7 -0.4
ACOS  Acosta           146.19  62 eP        PKPbc    15 43 11.5 +0.3
PICV  PH. Pirrs        146.24  62 eP        PKPbc    15 43 11.7 +0.4
ABE2  San Pablo        146.33  62 eP        PKPab    15 43 12.9 +0.1
LCR2  La Lucha 2       146.36  62 eP        PKPbc    15 43 11.8 -0.1
MOAC  Moa              146.36  37 eP        PKPbc    15 43 11.2 -0.1
NMDO  Nuevo Mundo      146.43  37 eP        PKPbc    15 43 11.0 -0.5
CVTR  Volcan Turrial   146.45  61 eP        PKPbc    15 43 11.9 -0.4
CVTQ  Turrialba Volc   146.45  61 eP        PKPbc    15 43 12.7 +0.5
VTR0  Volcan Turrial   146.45  61 eP        PKPbc    15 43 11.8 -0.5
ABRB  Las Abras (San   146.49  61 eP        PKPbc    15 43 12.7 +0.4
CVJ   Coleyville       146.51  43⇓iP        PKPab    15 43 13.1  0.0
MTDJ  Mount Denham     146.52  43 eP        PKPdf    15 43 09.1 -1.3
LCOCO El Coco          146.59  61 eP        PKiKP    15 43 14.7 -0.3
MCJ   Malvern          146.62  43 i P       PKPbc    15 43 11.9 -0.4
QMBU  Quimbuelo        146.81  37 eP        PKPbc    15 43 11.9 -0.7
GTBY  Guantanamo Bay   146.83  38 eP        PKPdf    15 43 10.0 -0.8
STH   Stony Hill       147.11  42 i P       PKPab    15 43 14.9 -0.5
STH                               i P       PKPab    15 43 14.9 -0.5
PCJ   Portland Cotta   147.11  43 i P       PKPbc    15 43 13.8 +0.2
GWJ   Greenwich        147.16  42 i P       PKPab    15 43 15.3 -0.4
GWJ                              ⇓iP        PKiKP    15 43 15.4 -0.7
MASC  Masc             147.17  36 eP        PKPbc    15 43 12.7 -1.0
HOJ   Hope             147.20  42⇑iP        PKPab    15 43 15.4 -0.3
HOJ                              ⇓iP        PKiKP    15 43 15.7 -0.4
MT04  Ro Olivares      149.28 153 i P       PKiKP    15 43 21.1 +0.9
MT08  Bocatoma Ro      149.29 154 i P       PKiKP    15 43 21.7 +1.4
SDDR  Presa de Saban   149.79  33 i P       PKiKP    15 43 21.8 +0.3
CO02  Combarbal        150.69 150 i P       PKiKP    15 43 23.8 +0.7
RTLS  Leoncito         151.01 153 i P       PKiKP    15 43 24.9 +0.9
LPA   La Plata         151.34 174dePKIKP    PKPdf    15 43 18.5 +0.9
LPA   La Plata         151.34 174  PKP      PKPab    15 43 35.0 +3.0
LPA                                PKIKS             15 46 48.0
LPA                                PPP      PPP      15 50 22.8
CFA   Coronel Fontan   151.64 154  PKP      PKPdf    15 43 17.6 -0.7
      comp=Z,20nm,1.0s,baz=219,slow=1.2,SNR=37
CFA                                PKPbc    PKiKP    15 43 24.9 -0.1
      comp=Z,131nm,0.7s,baz=234,slow=2.0,SNR=98
CFA   Coronel Fontan   151.64 154 i P       PKiKP    15 43 25.2 +0.3
RTLL  Cerro Villicun   151.78 154 i P       PKiKP    15 43 25.9 +0.7
MRA   San Martin       151.91 159 i P       PKPbc    15 43 23.1 -2.1
ACCO  Cerro Coronel    152.13 152 i P       PKiKP    15 43 27.2 +0.8
AROD  Rodeo            152.29 151 i P       PKiKP    15 43 28.3 +1.6
ATAH  Atahualpa        156.03  93  PKP      PKPdf    15 43 25.3 -0.1
      comp=Z,26nm,0.9s,baz=269,slow=0.8,SNR=37
ATAH                               PKPab    PKPab    15 43 54.6 +1.3
      comp=Z,71nm,0.8s,baz=270,slow=4.4,SNR=12
H05N1 Guadeloupe/Mar   156.54  17  PKP      PKPdf    15 43 26.7 +1.2
      SNR=8.3
NNA   Nana             157.02 106  PKP      PKPdf    15 43 26.5 +0.3
      comp=Z,78nm,1.2s,baz=264,slow=1.3,SNR=10
NNA                                PKPab    PKPab    15 43 57.9 +0.9
      comp=Z,43nm,0.9s,baz=274,slow=6.3,SNR=6.8
ROSC  El Rosal         157.12  62  PKP      PKPdf    15 43 27.3 +0.5
      comp=Z,60nm,0.8s,baz=297,slow=1.3,SNR=53
H05S1 Guadeloupe/Mar   158.40  18  PKP      PKPdf    15 43 28.5 +0.7
      SNR=16
CPUP  Villa Florida    159.88 172  PKP      PKPdf    15 43 29.8 +0.5
      comp=Z,36nm,1.0s,baz=202,slow=0.9,SNR=46
CPUP                               PKPab    PKPab    15 44 08.4 -0.3
      comp=Z,61nm,1.0s,baz=192,slow=4.2,SNR=16
LPAZ  La Paz           163.19 127  PKP      PKPdf    15 43 32.9 -0.8
      comp=Z,61nm,1.0s,baz=243,slow=0.9,SNR=129
LPAZ                               PKPab    PKPab    15 44 24.6 +0.2
      comp=Z,68nm,1.1s,baz=237,slow=4.4,SNR=8.2
SIV   San Ignacio      168.29 146  PKP      PKPdf    15 43 36.9 -0.2
      comp=Z,54nm,1.0s,baz=206,slow=1.0,SNR=105
SIV                                PKPab    PKPab    15 44 46.5 +0.4
      comp=Z,73nm,1.1s,baz=215,slow=4.8,SNR=13
MDP   Montagnes des    168.55 352  PKP      PKPdf    15 43 37.9 +0.6
      comp=Z,30nm,1.0s,baz=23,slow=1.1,SNR=22
MDP                                PKPab    PKPab    15 44 47.4 +0.3
      comp=Z,70nm,0.6s,baz=357,slow=3.5,SNR=39
BDFB  Brasilia         168.88 213  PKP      PKPdf    15 43 37.6  0.0
      comp=Z,44nm,1.0s,baz=161,slow=1.6,SNR=39
BDFB                               PKPab    PKPab    15 44 48.5 -0.2
      comp=Z,12nm,0.7s,baz=142,slow=4.6,SNR=7.4
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NOU ***06*** *15:44:27.1, 38.°71S×176.°44E, h104km, MLv3.6/14, North Island, New Zealand*

WEL ***06*** *15:44:29.1±0.7, 39°S±4°×17°6E±°, h87km±6km, M3.3/67, ML3.0/31, MLv3.3/67, Error ellipse: s-maj=5.8km s-min=5.3km az=39.3, confirmed*

ISC 06 15:44:26.8±1.4**, 38.°62S**±0.°03×**176.°43E**±0.°03**, h113**km±7km**, n116, σ1§09**/125**, North Island**

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Code  Station Name       Δ°   AZ°  Phase ID           Time      Res
                                   Op       ISC      h  m  s    ISC
ALRZ  Allen Road         0.09 309  P        Pn       15 44 42.5 +0.1
ALRZ                               S        Sn       15 44 51.7 -2.4
ALRZ                               AML      AML
ALRZ                               AML      AML
MRHZ  Matea Rd           0.22 183  P        Pn       15 44 43.1 +0.4
MRHZ                               S        Sn       15 44 53.6 -1.1
MRHZ                               AML      AML
MRHZ                               AML      AML
ARAZ  Aratiatia Land     0.24 267  P        Pn       15 44 43.4 +0.7
ARAZ                               AML      AML
HRRZ  Handcock Road      0.25 333  P        Pn       15 44 43.0 +0.2
HRRZ                               S        Sn       15 44 54.4 -0.4
HRRZ                               AML      AML
HRRZ                               AML      AML
RRRZ  Republican Roa     0.28  13  P        Pn       15 44 43.0  0.0
RRRZ                               AML      AML
RRRZ                               AML      AML
MUGZ  Murupara           0.30  62  P        Pn       15 44 43.0  0.0
MUGZ                               S        Sn       15 44 53.2 -1.9
MUGZ                               AML      AML
MUGZ                               AML      AML
POIZ  Poihipi            0.31 267  P        Pn       15 44 44.0 +0.9
POIZ                               AML      AML
POIZ                               AML      AML
HSRZ  Hossack Road       0.34 334  P        Pn       15 44 43.5 +0.4
HSRZ                               S        Sn       15 44 55.1 -0.3
HSRZ                               AML      AML
HSRZ                               AML      AML
GRRZ  Galatos Road       0.37 317  P        Pn       15 44 43.9 +0.6
GRRZ                               AML      AML
GRRZ                               AML      AML
HLRZ  Highlands Stat     0.37 350  P        Pn       15 44 43.8 +0.5
HLRZ                               AML      AML
HLRZ                               AML      AML
WHTZ  Whakaora           0.37 262  P        Pn       15 44 44.3 +0.9
WHTZ                               AML      AML
WHTZ                               AML      AML
TARZ  Mount Tarawera     0.39   9  P        Pn       15 44 43.6 +0.2
TARZ                               AML      AML
TARZ                               AML      AML
MTHZ  Maungataniwha      0.40 126  P        Pn       15 44 44.1 +0.7
MTHZ                               S        Sn       15 44 55.6 -0.4
MTHZ                               AML      AML
MTHZ                               AML      AML
RTZ   Ruatahuna          0.43  90  P        Pn       15 44 44.0 +0.3
RTZ                                AML      AML
RTZ                                AML      AML
UTU   Utuhina            0.48 337  P        Pn       15 44 44.5 +0.7
UTU                                AML      AML
UTU                                AML      AML
MKRZ  Makatiti           0.48   3  P        Pn       15 44 44.8 +0.8
MKRZ                               AML      AML
KUTZ  Kaahu Road         0.49 285  P        Pn       15 44 44.7 +0.7
KUTZ                               AML      AML
KUTZ                               AML      AML
NGRZ  Ngongotaha         0.55 340  P        Pn       15 44 44.9 +0.5
NGRZ                               AML      AML
NGRZ                               AML      AML
BKZ   Black Stump Fm     0.55 175  P        Pn       15 44 44.9 +0.5
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BKZ	Black Stump Fm	0.55	175	S	Sn	15 44 57.4	-0.3
WATZ	Wairara	0.55	260	P	Pn	15 44 45.2	+0.8
WATZ				AML	AML		
WATZ				AML	AML		
NMHZ	Naumai	0.56	149	P	Pn	15 44 46.2	+1.7
NMHZ				S	Sn	15 44 59.3	+1.5
NMHZ				AML	AML		
NMHZ				AML	AML		
EDRZ	Edgecumbe	0.56	26	P	Pn	15 44 44.4	-0.2
EDRZ				AML	AML		
EDRZ				AML	AML		
RATZ	Rangitukua	0.57	244	P	Pn	15 44 45.3	+0.8
RATZ				AML	AML		
RATZ				AML	AML		
RITZ	Rihia Road	0.57	231	P	Pn	15 44 45.8	+1.2
RITZ				AML	AML		
RITZ				AML	AML		
RAHZ	Arahi	0.59	120	P	Pn	15 44 45.8	+1.2
RAHZ				S	Sn	15 44 58.8	+0.7
RAHZ				AML	AML		
RAHZ				AML	AML		
TTHS	Turangi Tongar	0.61	232	P	Pn	15 44 46.0	+1.3
KARZ	Kaharoa	0.61	346	P	Pn	15 44 45.1	+0.3
KARZ				AML	AML		
KARZ				AML	AML		
LIRZ	Lichensteins R	0.61	357	P	Pn	15 44 45.0	+0.2
LIRZ				AML	AML		
LIRZ				AML	AML		
URZ	Urewera	0.64	56	P	Pn	15 44 44.6	-0.4
URZ	Urewera	0.64	56	P	Pn	15 44 44.9	-0.1
URZ				S	Sn	15 44 57.0	-1.6
URZ				AML	AML		
URZ				AML	AML		
MARZ	Manawahe	0.66	17	P	Pn	15 44 45.4	+0.2
MARZ				AML	AML		
MARZ				AML	AML		
KATZ	Kakaramea	0.68	238	P	Pn	15 44 46.4	+0.9
KATZ				AML	AML		
KATZ				AML	AML		
TMVZ	Te Maari	0.76	228	P	Pn	15 44 47.2	+1.2
TMVZ				AML	AML		
TMVZ				AML	AML		
TLZ	Tolley Road	0.76	292	P	Pn	15 44 46.9	+0.9
TLZ				AML	AML		
TLZ				AML	AML		
NTVZ	North Tongarir	0.76	231	P	Pn	15 44 47.2	+1.1
NTVZ				AML	AML		
NTVZ				AML	AML		
ETVZ	East Tongariro	0.76	227	P	Pn	15 44 47.4	+1.2
ETVZ				AML	AML		
ETVZ				AML	AML		
WHHZ	Waihua	0.78	126	P	Pn	15 44 47.6	+1.5
WHHZ				AML	AML		
WHHZ				AML	AML		
KRVZ	Karewarewa	0.78	232	P	Pn	15 44 47.3	+1.1
KRVZ				AML	AML		
KRVZ				AML	AML		
ARHZ	Aropaoanui	0.78	146	P	Pn	15 44 47.8	+1.6
ARHZ				AML	AML		
ARHZ				AML	AML		
RAGZ	Rawiri	0.78	81	P	Pn	15 44 46.9	+0.6
RAGZ				AML	AML		
RAGZ				AML	AML		
KWHZ	Kaweka Forest	0.81	180	P	Pn	15 44 47.9	+1.5
KWHZ				AML	AML		
OTVZ	Oturere	0.81	227	P	Pn	15 44 47.9	+1.3
OTVZ				AML	AML		
WTVZ	West Tongariro	0.82	233	P	Pn	15 44 47.8	+1.1
WTVZ				AML	AML		
SNVZ	South Ngauruho	0.84	227	P	Pn	15 44 48.2	+1.3
SNVZ				AML	AML		
MCHZ	McNeill Hill	0.85	166	P	Pn	15 44 48.7	+1.9
MCHZ				AML	AML		
NGZ	Ngauruhoe	0.85	229	P	Pn	15 44 48.2	+1.2
NGZ				AML	AML		
KMRZ	Kaimai	0.86	333	P	Pn	15 44 47.5	+0.6
KMRZ				AML	AML		
KMRZ				AML	AML		
WHRZ	Whale Island	0.87	30	P	Pn	15 44 47.3	+0.2
WHRZ				AML	AML		
WHRZ				AML	AML		
TUVZ	Tukino	0.89	223	P	Pn	15 44 48.6	+1.3
TUVZ				AML	AML		
TGRZ	Tauranga	0.90	351	P	Pn	15 44 47.6	+0.4
TGRZ				AML	AML		
TGRZ				AML	AML		
TWVZ	Taurewa	0.90	239	P	Pn	15 44 48.5	+1.1
TWVZ				AML	AML		
COVZ	Chateau Observ	0.91	230	P	Pn	15 44 48.5	+1.1
MWZ	Matawai	0.91	72	P	Pn	15 44 47.8	+0.4
MWZ				AML	AML		
MWZ				AML	AML		
BHHZ	Black Hill Sta	0.92	198	P	Pn	15 44 48.7	+1.2
BHHZ				AML	AML		
WHVZ	Whangaehu Hut	0.93	224	P	Pn	15 44 49.1	+1.3
WHVZ				AML	AML		
FWVZ	Far West T-bar	0.94	227	P	Pn	15 44 49.0	+1.1
FWVZ				AML	AML		
MAVZ	Matarangi	0.94	226	P	Pn	15 44 49.3	+1.3
MAVZ				AML	AML		
MOVZ	Moawhango	0.95	214	P	Pn	15 44 48.8	+1.0
MOVZ				AML	AML		
WNVZ	Wahianoa	0.96	222	P	Pn	15 44 49.3	+1.2
WNVZ				AML	AML		
TRVZ	Turoa	0.97	225	P	Pn	15 44 49.4	+1.3
TRVZ				AML	AML		
KRHZ	Kereru	1.03	183	P	Pn	15 44 49.8	+1.2
KRHZ				AML	AML		
RIGZ	Rimuhau	1.05	95	P	Pn	15 44 49.8	+1.1
RIGZ				AML	AML		
KNZ	Kokohu	1.05	113	P	Pn	15 44 49.8	+1.0
MTVZ	Mangateitei	1.07	224	P	Pn	15 44 50.5	+1.4
MTVZ				AML	AML		
PKVZ	Pokaka	1.08	231	P	Pn	15 44 50.5	+1.4
PKVZ				AML	AML		
TKGZ	Te Karaka	1.13	81	P	Pn	15 44 50.7	+1.2
TKGZ				AML	AML		
TOZ	Tahuroa Road	1.15	320	P	Pn	15 44 50.7	+0.9
CKHZ	Cape Kidnapper	1.16	154	P	Pn	15 44 51.5	+1.6
CKHZ				AML	AML		
PRGZ	Paritu Road	1.18	105	P	Pn	15 44 51.3	+1.2
PRGZ				AML	AML		
RUGZ	Raukumara Rang	1.18	57	P	Pn	15 44 50.0	-0.3
RUGZ				AML	AML		
KAHZ	Kahuranaki	1.23	164	P	Pn	15 44 52.3	+1.6
KAHZ				AML	AML		
HIZ	Hauiti	1.24	274	P	Pn	15 44 51.5	+0.7
HIZ	Hauiti	1.24	274	P	Sn	15 45 09.8	+0.9
HIZ	Hauiti	1.24	274	P	Pn	15 44 52.2	+1.5
MHGZ	Mahia Peninsul	1.27	115	P	Pn	15 44 52.6	+1.4
MHGZ				AML	AML		
TWGZ	Tauwhareparae	1.29	71	P	Pn	15 44 52.7	+1.2
TWGZ				AML	AML		
PNHZ	Pukenui	1.31	188	P	Pn	15 44 52.4	+0.8
PNHZ				AML	AML		
HAZ	Te Kaha	1.37	52	P	Pn	15 44 51.9	-0.3
HAZ				AML	AML		
CNGZ	Carnagh Statio	1.40	85	P	Pn	15 44 53.9	+1.3
CNGZ				AML	AML		
VRZ	Vera Road	1.40	248	P	Pn	15 44 54.3	+1.7
WPHZ	Waipukurau	1.45	180	P	Pn	15 44 54.1	+1.0
WPHZ				AML	AML		
PXZ	Pawanui	1.45	167	P	Pn	15 44 54.4	+1.2
TSZ	Takapari Road	1.48	194	P	Pn	15 44 54.5	+0.8
PKGZ	Pakihiroa	1.50	61	P	Pn	15 44 54.3	+0.5
PKGZ				AML	AML		
PUZ	Puketiti	1.54	70	P	Pn	15 44 54.9	+0.7
PUZ				AML	AML		
WAZ	Wanganui	1.60	224	P	Pn	15 44 56.8	+1.8
PRHZ	Porangahau	1.66	175	P	Pn	15 44 56.7	+1.0
PRHZ				AML	AML		
DVHZ	Dannevirke	1.69	187	P	Pn	15 44 56.6	+0.4
DVHZ				AML	AML		
WMGZ	Waiomatatini S	1.75	64	P	Pn	15 44 57.3	+0.5
WMGZ				AML	AML		
LREZ	Lake Rotokare	1.79	241	P	Pn	15 44 59.4	+2.1
LREZ				AML	AML		
MKAZ	Moumakai	1.81	326	P	Pn	15 44 58.6	+1.0
MXZ	Matakaoa Point	1.82	55	P	Pn	15 44 58.6	+1.0
MXZ	Matakaoa Point	1.82	55	P	Sn	15 45 21.9	+0.8
MXZ	Matakaoa Point	1.82	55	P	Pn	15 44 58.7	+1.0
ANWZ	Angora Road	1.84	179	P	Pn	15 44 58.9	+1.0
ANWZ				AML	AML		
POWZ	Post Office Ro	1.84	196	P	Pn	15 44 58.6	+0.6
POWZ				AML	AML		
PRWZ	Pori Road	1.97	190	P	Pn	15 45 00.4	+0.9
PRWZ				AML	AML		
PKE	Pukeiti	1.99	252	P	Pn	15 45 01.9	+2.1
ETAZ	East Tamaki Re	2.04	324	P	Pn	15 45 01.7	+1.2
ETAZ				AML	AML		
BFZ	Birch Farm	2.07	184	P	Pn	15 45 00.9	+0.1
BFZ	Birch Farm	2.07	184	S	Sn	15 45 25.2	-1.5
BFZ	Birch Farm	2.07	184	P	Pn	15 45 01.0	+0.3
WIAZ	Waiheke Island	2.09	330	P	Pn	15 45 02.2	+1.1
WIAZ				AML	AML		
AWAZ	Awhitu Peninsu	2.10	317	P	Pn	15 45 02.4	+1.2
AWAZ				AML	AML		
MRZ	Mangatainoka R	2.14	198	P	Pn	15 45 01.9	+0.1
TIWZ	Tintock	2.20	191	P	Pn	15 45 02.8	+0.3
TIWZ				AML	AML		
WTAZ	Waiatarua	2.23	318	P	Pn	15 45 04.3	+1.4
CPWZ	Castlepoint	2.30	184	P	Pn	15 45 04.5	+0.9
CPWZ				AML	AML		
HOWZ	Holdsworth Sta	2.38	197	P	Pn	15 45 04.6	-0.2
HOWZ				AML	AML		
OGWZ	Otaki Gorge	2.40	203	P	Pn	15 45 05.1	0.0
OGWZ				AML	AML		
SNZO	South Karori	3.00	206	P	Pn	15 45 11.7	-1.1
SNZO	South Karori	3.00	206	S	Sn	15 45 45.9	-2.4
QRZ	Quartz Range	3.73	233	P	Pn	15 45 22.5	-0.1
QRZ	Quartz Range	3.73	233	S	Sn	15 46 04.0	-1.7
KHZ	Kahutara	4.39	209	P	Pn	15 45 30.0	-1.3

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*IDC **06** 15:48:37.2±2.1,38°.22N×78°.01E,h0^{km},mb3.3/2, mbtmp3.4/6,ML3.1/4,Error ellipse: s-maj=32.4km s-min=16.3km az=56.0*

*NNC **06** 15:48:39.9±2.0,38°.17N×77°.88E,h16^{km}±8^{km},mb3.8, mpv3.5,Error ellipse: s-maj=14.9km s-min=10.9km az=136.0*

ISC 06 15:48:38.7±1.5,**38°.1N**±0°.1×**77°.96E**±0°.07,**h10**^{km}**,n19,** σ**2^s.59**/24,**6C-7D,Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TNSS	Tian-Shan	4.95	351	Pg	Pb	15 50 09.7	+4.1
	3.7nm,0.6s						
TNSS				Lg	Lg	15 51 16.4	
	4.6nm,0.7s						
MDOK	Medeo	5.06	352	Pg	Pb	15 50 11.7	+4.3
	7.8nm,0.8s						
MDOK				Lg	Lg	15 51 20.3	
	29nm,0.7s						
UZB	Uzynbulak	5.06	9	Pg	Pb	15 50 10.3	+2.8
	5.0nm,0.5s						
UZB				Lg	Lg	15 51 17.6	
	12nm,0.4s						
KNDC	Almaty	5.12	352	⇓Pg	Pb	15 50 12.3	+3.8
	27nm,0.6s						
KNDC				⇑Lg	Lg	15 51 21.3	
	49nm,0.6s						
KST	Kastek	5.12	343	Pg	Pg	15 50 14.0	-2.8
	2.5nm,0.8s						
KST				Lg	Lg	15 51 23.2	
	10nm,0.5s						
KOTS	Kotyrbulak	5.13	353	Pg	Pg	15 50 15.7	-1.1
	7.1nm,0.6s						
KOTS				Lg	Lg	15 51 24.4	
	24nm,0.6s						
SHLS	Shalkode	5.14	12	Pg	Pg	15 50 15.0	-2.1
	12nm,0.5s						
SHLS				Lg	Lg	15 51 24.1	
	31nm,0.4s						
AAK	Ala-Archa	5.21	331	Pn	Pn	15 49 58.7	+1.9
	0.6nm,0.3s,baz=153,slow=16,SNR=3.9						
AAK				Lg	Lg	15 51 21.2	
	1.5nm,0.3s,baz=53,slow=22,SNR=7.0						
	1.6nm,0.3s						
AAK				AML	AML		
AAK	Ala-Archa	5.21	331	⇑Pg	Pg	15 50 15.4	-3.1
	5.7nm,0.8s						
AAK				⇓Lg	Lg	15 51 22.7	
	8.6nm,0.7s						
PDGK	Podgornoye	5.31	12	⇑Pn	Pn	15 49 59.3	+1.1
	3.6nm,0.6s						
PDGK				⇓Pg	Pb	15 50 15.1	+3.4
	5.4nm,0.5s						
PDGK				⇓Lg	Lg	15 51 28.5	
	21nm,0.7s						
KPKS	Kokpek	5.35	6	Pg	Pg	15 50 17.2	-3.9
	0.3nm,0.2s						
KPKS				Lg	Lg	15 51 28.5	
	29nm,0.6s						
KK31	Karatay Array	7.52	314	⇑Pn	Pn	15 50 27.1	-1.4
	0.2nm,0.3s,baz=128,slow=12,SNR=7.4						
KK31				⇑Pg	Pb	15 50 52.4	+3.2
	0.5nm,0.4s						
KK31				⇓Lg	Lg	15 52 36.3	
	1.8nm,0.7s,baz=139,slow=30						
MAKZ	Makanchi	9.15	18	⇓Pn	Pn	15 50 51.8	+1.0
	1.8nm,0.9s						
MAKZ				⇑Sn	Sn	15 52 34.4	+0.6
	2.2nm,1.1s						
MK31	Makanchi Array	9.22	19	⇓Pn	Pn	15 50 51.8	+0.1
	0.2nm,0.3s,baz=202,slow=12,SNR=28						
MK31				Sn	Sn	15 52 36.4	+1.0
	1.1nm,0.8s,baz=313,slow=80,SNR=4.2						
MKAR	Makanchi Array	9.22	19	Pn	Pn	15 50 51.9	+0.2
	0.6nm,0.3s,baz=195,slow=12,SNR=22						
MKAR				Sn	Sn	15 52 33.8	-1.6
	0.4nm,0.3s,baz=198,slow=23,SNR=4.2						
	0.9nm,0.3s						
MKAR				AML	AML		
BVAR	Borovoye Array	15.78	343	Pn	Pn	15 52 18.6	-2.3
	0.1nm,0.3s,baz=143,slow=14,SNR=8.8						
	0.2nm,0.4s						
BVAR				AML	AML		
ZALV	Zalesovo Beam	16.50	14	Pn	Pn	15 52 27.5	-2.5
	0.2nm,0.3s,baz=203,slow=11,SNR=4.2						
	0.3nm,0.4s						
ZALV				AML	AML		
SONM	Songino Array	22.83	56	P	P	15 53 41.4	-0.6
	0.4nm,0.4s,baz=254,slow=10,SNR=4.1						
	0.4nm,0.4s						
CMAR	Chiang Mai Arr	26.83	131	P	P	15 54 19.8	+0.4
	0.5nm,0.8s,baz=335,slow=9.8,SNR=4.2						
	0.5nm,0.8s						

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*IDC **06** 15:51:41.4±1.4,35°.59N×10°.78E,h0^{km},mb3.5/5, mbtmp3.5/7,ML3.3/2,Error ellipse: s-maj=30.0km s-min=14.3km az=171.0*

*TUN **06** 15:51:43.4,35°.54N×10°.67E,h11^{km}±4^{km},MD3.6*

ISC 06 15:51:43.3±0.7,**35°.57N**±0°.04×**10°.68E**±0°.04,**h10**^{km}**,n21,** σ**1^s.29**/21,**mb3.8**/3,**Tunisia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BKLT	Bekalta	0.26	80	*i* P	Pg	15 51 50.1	+1.5
HANT	Hania	0.37	315	*i* P	Pg	15 51 51.4	+0.8
BTHT	Jabal bu Thady	0.55	217	*i* P	Pg	15 51 53.6	-0.3
TROT	Trozza	0.88	270	*i* P	Pg	15 52 00.5	+0.2
ZGN	Zaghouan	0.93	329	*i* P	Pg	15 52 01.9	+0.7
KEST	Kesra	1.10	279	Pg	Pg	15 52 04.2	-0.3
	42nm,0.3s,baz=105,slow=20,SNR=666						
KEST				Lg	Lg	15 52 20.8	
	78nm,0.3s,baz=120,slow=22,SNR=24						
MBZ	Menzel Bouzelf	1.11	359	*i* P	Pb	15 52 04.7	+0.2
KRIT	Krib	1.51	301	*i* P	Pn	15 52 12.0	+1.5
MEDT	Meda	1.59	203	*i* P	Pn	15 52 11.2	-0.3
THTN	Thala	1.63	270	*i* P	Pb	15 52 15.0	+1.5
SYA	Sidi Yaiche	1.75	242	*i* P	Pn	15 52 15.7	+2.0
BLIT	Baltah	1.81	310	*i* P	Pn	15 52 14.5	0.0
BERT	Berda	1.91	226	*i* P	Pb	15 52 18.6	+0.4
GHAT	Ghardimaou	2.14	296	*i* P	Pn	15 52 16.1	-3.0
ESDC	Sonseca Array	12.31	294	Pn	Pn	15 54 40.4	+1.7
	0.1nm,0.3s,baz=101,slow=14,SNR=4.6						
	0.5nm,0.5s						
ESDC				AML	AML		
BRTR	Keskin Array B	18.63	70	P	P	15 56 00.6	-0.6
	baz=242,slow=9.2,SNR=2.6						
	0.8nm,0.8s						
AKASG	Malin Array Be	20.20	36	P	P	15 56 16.5	-1.6
	0.2nm,0.3s,baz=232,slow=8.2,SNR=3.3						
	0.2nm,0.3s						
TORD	Torodi Ar. Bea	23.75	202	P	P	15 56 55.7	-0.2
	1.0nm,0.8s,baz=20,slow=11,SNR=1.6						
	1.0nm,0.8s						
FINES	FINESS Array B	27.68	16	P	P	15 57 30.1	-1.1
	1.5nm,0.9s,baz=243,slow=5.6,SNR=1.3						
	1.5nm,0.9s						
ARCES	ARCESS Array B	34.98	9	P	P	15 58 34.4	-1.0
	2.4nm,0.9s,baz=186,slow=11,SNR=4.1						
	2.4nm,0.9s						
MKAR	Makanchi Array	53.31	54	P	P	16 01 01.8	-0.6
	0.5nm,0.6s,baz=280,slow=7.3,SNR=4.0						
	0.5nm,0.6s						

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*IDC **06** 15:57:04.3±0.5,5°.56S×152°.33E,h0^{km},mb4.7/27, mbtmp4.7/29,ML4.0/2,Error ellipse: s-maj=14.8km s-min=9.2km az=95.0*

*BJI **06** 15:57:05.7,5°.10S×152°.60E,h10^{km},mB5.6/3,mb5.1/52, Ms5.4/4,Ms7 5.1/4*

*NEIC **06** 15:57:05.8±2.1,5°.56S±0°.06×152°.65E±0°.07,h10^{km}±1^{km}, mb5.2/186,Error ellipse: s-maj=12.8km s-min=10.8km az=97.0*

*GFZ **06** 15:57:06.7±0.2,5°S±3°×15°3E±°,h10^{km},M5.0/29, mb5.0/29,confirmed*

*DJA **06** 15:57:11.5±0.6,5°S±4°×15°2E±°,h49^{km}±7^{km},M5.6/20, mb5.0/20,mB6.4/1,MLv5.9/1,Mw(mB)6.1/1*

ISC 06 15:57:10.2±0.3,**5°.48S**±0°.04×**152°.56E**±0°.06,**h40**^{km}**,n295,** σ**1^s.31**/223,**mb5.1**/178,**2C-3D,New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KRVT	Keravat (AS076	1.28	336	Pg	Pn	15 57 31.9	+0.2
	3µm,0.3s,baz=6.4,slow=0.5,SNR=713						
KRVT				Lg	Lg	15 57 48.9	
	4µm,0.3s,baz=321,slow=22,SNR=4.1						
I40PG	Keravat	1.29	335	Pg	Pn	15 57 32.6	+0.8
	baz=150,slow=20						
RABL	Rabaul	1.34	343		Pn	15 57 32.8	+0.3
MANU	Manus Island	6.20	303		Pn	15 58 38.7	-0.6
PMG	Port Moresby	6.62	234	Pn	Pn	15 58 44.7	-0.3
	8.9nm,0.3s,baz=49,slow=7.0,SNR=35						
PMG				Sn	Sn	15 59 57.7	-1.6
	35nm,0.3s,baz=219,slow=21,SNR=12						
PMG	Port Moresby	6.62	234	Pn	Pn	15 58 44.1	-1.0
PMG	Port Moresby	6.62	234	P	Pn	15 58 45.9	+0.9
	4.3nm235nm,0.8s						
PMG				AML	AML		
PMG	Port Moresby	6.62	234	P	Pn	15 58 46.0	+0.9
	comp=Z,241nm,0.8s						
HNR	Honiara	8.31	119	Pn	Pn	15 59 09.1	+0.8
	comp=Z,2.3nm,0.3s,baz=280,slow=3.3,SNR=3.5						
	comp=Z,22nm,0.5s						
HNR				AML	AML		
PATS	Pohnpei	13.52	25	P	Pn	16 00 18.2	-1.4
	comp=Z,184nm,1.2s						
PATS	Pohnpei	13.52	25		Pn	16 00 16.9	-2.6
PATS	Pohnpei	13.52	25	P	Pn	16 00 18.4	-1.2
	comp=Z,184nm,1.2s						
MTSU	Mount Surprise	14.93	212	P	Pn	16 00 39.3	+0.6
	comp=Z,35nm,0.9s						
CTA	Charters Tower	15.76	202	P	Pn	16 00 46.6	-2.8
CTA	Charters Tower	15.76	202	Pn	Pn	16 00 46.7	-2.8
	comp=Z,0.3nm,0.3s,baz=45,slow=15,SNR=4.0						
	comp=Z,10.0nm,1.2s						
CTA				AML	AML		
SANVU	Saraoutou	17.46	126		Pn	16 01 08.2	-2.7
SANVU	Saraoutou	17.46	126	P	P	16 01 13.1	+1.4
	comp=Z,110nm,0.9s						
MWPI	Manokwari, Pap	19.03	283	P	P	16 01 29.6	+0.6
	comp=Z,74nm,1.0s						
QIS	Mount Isa	19.57	219	P	P	16 01 35.5	+0.7
	comp=Z,39nm,1.2s						
QIS	Mount Isa	19.57	219	P	P	16 01 35.7	+0.8
	comp=Z,39nm,1.2s						
EIDS	Eidsvold	19.82	184	P	P	16 01 37.6	0.0
	comp=Z,19nm,0.9s						
EIDS	Eidsvold	19.82	184		P	16 01 37.0	-0.6
EIDS	Eidsvold	19.82	184	P	P	16 01 37.2	-0.4
	comp=Z,20nm,0.9s						
GUMO	Guam	20.43	338	P	P	16 01 43.1	-1.0
	comp=Z,80nm,0.9s,baz=124,slow=6.6,SNR=5.0						
	comp=Z,80nm,0.9s						
GUMO	Guam	20.43	338		P	16 01 44.4	+0.2
GUMO				IAmb	IAmb	16 01 46.5	
	comp=Z,130nm,1.0s						
GUMO	Guam	20.43	338	P	P	16 01 44.6	+0.4
	comp=Z,136nm,1.2s						
KDU	Kakadu	21.07	249	P	P	16 01 50.9	-0.3
	comp=Z,89nm,1.1s						
DZM	Mont Dzumac	21.27	142	P	P	16 01 53.5	+0.1
	comp=Z,8.8nm,0.5s,baz=113,slow=8.0,SNR=14						
	comp=Z,8.8nm,0.5s						
MTN	Manton Dam	22.36	249	P	P	16 02 07.3	+2.2
	comp=Z,44nm,1.0s						
MTN	Manton Dam	22.36	249		P	16 02 05.6	+0.5
QLP	Quilpie	22.44	200	P	P	16 02 05.0	-0.8
	comp=Z,82nm,0.9s						
QLP	Quilpie	22.44	200	P	P	16 02 05.4	-0.3
	comp=Z,82nm,0.9s						
BNDI	Bandanaira	22.59	271	P	P	16 02 07.4	-0.1
WB0	Warramunga Arr	22.67	230		P	16 02 07.9	-0.4
WB0				IAmb	IAmb	16 02 30.7	
	comp=Z,133nm,1.6s						
WR8	Warramunga Arr	22.70	229		P	16 02 07.6	-1.1
WRAB	Tennant Creek	22.80	229	P	P	16 02 09.5	-0.3
WRAB	Tennant Creek	22.80	229	P	P	16 02 11.0	+1.3
	comp=Z,53nm,1.2s						
WRA	Warramunga Arr	22.82	229	P	P	16 02 08.4	-1.4
	comp=Z,7.3nm,0.5s,baz=56,slow=10,SNR=56						
WRA				S	S	16 06 12.4	-4.1
	comp=Z,6.3nm,1.2s,baz=57,slow=19,SNR=9.4						
WRA				ScP	ScP	16 09 42.1	+6.9
	comp=Z,1.4nm,1.1s,baz=49,slow=2.3,SNR=4.6						
	comp=Z,7.3nm,0.5s						
WRA	Warramunga Arr	22.82	229		P	16 02 07.9	-1.9
INKA	Innaminka	24.82	206		P	16 02 27.7	-1.1
AS17	Alice Springs	25.43	223	P	P	16 02 35.5	+1.2
	comp=Z,35nm,0.8s						
KNRA	Kununurra	25.46	245	P	P	16 02 35.6	+1.0
	comp=Z,40nm,0.6s						
KNRA	Kununurra	25.46	245		P	16 02 35.2	+0.6
KNRA				IAmb	IAmb	16 02 40.4	
	comp=Z,27nm,0.6s						
AS15	Alice Springs	25.46	223	P	P	16 02 36.4	+1.7
	comp=Z,39nm,0.7s						
AS09	Alice Springs	25.48	223	P	P	16 02 36.9	+2.0
	comp=Z,35nm,0.8s						
AS31	Alice Springs	25.48	223	P	P	16 02 36.4	+1.4
	comp=Z,10nm,0.7s						
AS31	Alice Springs	25.48	223		P	16 02 34.1	-0.8
ASAR	Alice Springs	25.49	223	P	P	16 02 34.1	-0.8
	comp=Z,6.1nm,0.5s,baz=58,slow=9.1,SNR=67						
ASAR				ScP	ScP	16 09 47.3	+4.8
	comp=Z,0.4nm,0.6s,baz=48,slow=1.4,SNR=2.7						
	comp=Z,6.1nm,0.5s						
ASAR	Alice Springs	25.49	223		P	16 02 34.9	-0.1
CMSA	Cobar Meteorol	26.71	193	P	P	16 02 45.3	-0.5
	comp=Z,11nm,0.9s						
CMSA	Cobar Meteorol	26.71	193	P	P	16 02 45.6	-0.3
	comp=Z,12nm,0.9s						
STKA	Stephens Creek	28.19	200	P	P	16 02 58.3	-0.9
	comp=Z,54nm,1.5s						
STKA	Stephens Creek	28.19	200	P	P	16 02 58.0	-1.1
	comp=Z,4.6nm,1.0s,baz=32,slow=13,SNR=5.2						
	comp=Z,4.6nm,1.0s						
SOEI	Soe	28.35	260		P	16 03 01.2	+0.3
SOEI	Soe	28.35	260	P	P	16 03 00.7	-0.2
	comp=Z,43nm,1.1s						
FITZ	Fitzroy Crossi	29.12	242	P	P	16 03 07.2	-0.4
	comp=Z,9.7nm,0.8s						
FITZ	Fitzroy Crossi	29.12	242		P	16 03 06.8	-0.7
FITZ	Fitzroy Crossi	29.12	242	P	P	16 03 09.0	+1.4
	comp=Z,9.8nm,0.8s						
CNB	Canberra Magne	29.83	185	P	P	16 03 14.0	+0.2
	comp=Z,0.4nm,1.5s						
MMRI	Maumere	30.25	262	P	P	16 03 16.6	-1.0
MMRI				IAmb	IAmb	16 03 30.6	
	comp=Z,58nm,1.1s						
MMRI	Maumere	30.25	262	P	P	16 03 15.8	-1.8
	comp=Z,50nm,0.9s						
WRKA	Warakurna	30.32	228	P	P	16 03 18.1	-0.1
	comp=Z,9.6nm,0.9s						
HTT	Hallett	30.57	203	P	P	16 03 19.7	-0.5
	comp=Z,7.0nm,1.4s						
MILA	Mila	31.58	185	P	P	16 03 28.4	-0.7

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WSI   Waingapu          32.24 261  P       P       16 03 34.4 -0.7
ARPS  Mount Arapiles    32.65 196  P       P       16 03 37.7 -0.8
      comp=Z,5.7nm,2.4s
FORT  Forrest           34.11 220  P       P       16 03 50.1 -1.1
      comp=Z,12nm,0.8s
MBWA  Marble Bar        35.42 241  P       P       16 04 02.6 -0.2
      comp=Z,21nm,0.8s
KMBL  Kambalda          38.60 224  P       P       16 04 30.3 +0.7
      comp=Z,13nm,2.3s
MEEK  Meekatharra       38.60 233  P       P       16 04 30.3 +0.5
      comp=Z,30nm,0.5s
JNU   Nakatsue          43.56 333  P       P       16 05 09.4 -0.9
      comp=Z,21nm,0.6s,baz=123,slow=2.8,SNR=8.3
      comp=Z,21nm,0.6s
MJAR  Matsushiro Arr    43.91 343  P       P       16 05 10.8 -2.3
      comp=Z,2.7nm,0.9s,baz=164,slow=8.3,SNR=13
      comp=Z,2.7nm,0.9s
MAJO  Matsushiro        43.91 343  P       P       16 05 10.4 -2.7
BBJI  Bungbulang        44.65 265  P       P       16 05 17.7 -1.8
BBJI                               IAmb    IAmb    16 05 30.2
      comp=Z,20nm,0.7s
DLV    Lat              47.12 292  P       P       16 05 39.2 +0.1
      comp=Z,25nm,0.9s
KSRS  Korea Array       48.50 334  P       P       16 05 48.5 -0.6
      comp=Z,3.7nm,0.8s,baz=147,slow=8.4,SNR=8.6
      comp=Z,3.7nm,0.8s
NJ2   Nanjing           49.22 322 eP       P       16 05 56.4 +1.6
NJ2                                pmax    pmax
      comp=Z,54nm,1.4s
JKA   Kamikawa-asahi    50.18 351          P       16 06 01.2 -0.6
JKA   Kamikawa-asahi    50.18 351  P       P       16 06 02.1 +0.3
      comp=Z,14nm,1.3s
WHN   Wuhan             51.18 317  P       P       16 06 10.9 +1.2
SDSI  Sungai Dareh      51.23 273  P       P       16 06 09.4 -0.9
      comp=Z,13nm,0.8s
PPI   Padang Panjang    52.31 274  P       P       16 06 17.4 -1.0
USRK  Ussuriysk Ar.     52.81 342  P       P       16 06 20.8 -0.8
      comp=Z,4.4nm,0.8s,baz=170,slow=7.8,SNR=13
      comp=Z,4.4nm,0.8s
KULM  Kulim             52.92 281  P       P       16 06 22.1 -0.8
      comp=Z,13nm,1.3s
YSS   Yuzhno-Sakhali    52.93 352  P       P       16 06 21.9 -0.5
      comp=Z,9.3nm,1.2s
MDJ   Mudanjiang        53.97 340  P       P       16 06 31.1 +1.0
MDJ                                pmax    pmax
      comp=Z,26nm,1.8s
GYA   Guiyang           54.62 308  P       P       16 06 35.9 +0.6
GYA                                pmax    pmax
      comp=Z,11nm,0.8s
CN2   Changchun         54.82 336 eP       P       16 06 39.4 +3.1
CN2                                pmax    pmax
      comp=Z,10.0nm,0.7s
HNS   HongShan          55.35 324 ⇑P       P       16 06 40.5 +0.3
HNS                                pmax    pmax
      comp=Z,19nm,1.0s
BNX   BinXian           55.72 339 ⇑P       P       16 06 41.9 -0.8
BNX                                pmax    pmax
      comp=Z,16nm,1.0s
BJI2  Beijing           56.31 327  P       P       16 06 47.4 +0.3
BJI2                               pP      pP      16 06 52.3 -5.1
BJI2                               pmax    pmax
      comp=Z,4.0nm,0.8s
XAN   Xi'an             56.95 317  P       P       16 06 51.8  0.0
XAN                                pmax    pmax
      comp=Z,33nm,0.9s
KMI2  Kunming           57.17 305  P       P       16 06 54.9 +1.2
KMI2                               pmax    pmax
      comp=Z,15nm,1.0s
KLR   Kul'dur           57.43 344  P       P       16 06 54.2 -0.6
      comp=Z,4.7nm,0.7s,baz=153,slow=1.0,SNR=13
      comp=Z,4.7nm,0.7s
CMAR  Chiang Mai Arr    57.95 296  P       P       16 06 59.5 +0.5
      comp=Z,4.9nm,0.8s,baz=121,slow=5.7,SNR=29
      comp=Z,4.9nm,0.8s
CMAR  Chiang Mai Arr    57.95 296          P       16 06 59.2 +0.2
CHTO  Chiang Mai        58.06 296  P       P       16 07 00.1 +0.3
CHTO  Chiang Mai        58.06 296  P       P       16 07 00.3 +0.4
      comp=Z,7.7nm,1.2s
PET   Petropavlovsk     58.51   4  P       P       16 07 01.7 -0.6
      comp=Z,14nm,0.9s
PETK  Petropavlovsk-    58.53   4  P       P       16 07 02.7 +0.3
      comp=Z,6.3nm,0.6s,baz=158,slow=5.7,SNR=49
      comp=Z,6.3nm,0.6s
PETK  Petropavlovsk-    58.53   4          P       16 07 02.1 -0.4
PZH   PanZhiHua         58.57 306  P       P       16 07 03.5 +0.1
XLT   XiLinHaoTe        59.13 330 eP       P       16 07 07.2 +0.3
XLT                                pmax    pmax
      comp=Z,19nm,0.6s
HHC   Hu-ho-hao-te      59.46 325 eP       P       16 07 11.9 +2.6
HHC                                pmax    pmax
      comp=Z,19nm,0.6s
HHC                                pmax    pmax
      comp=Z,390nm,5.7s
HEH   HeiHe             59.62 342 eP       P       16 07 09.2 -0.8
TNCH  TengChong         60.63 303  P       P       16 07 18.3 +0.6
TNCH                               pP      pP      16 07 23.1 -5.1
TNCH                               pmax    pmax
      comp=Z,15nm,0.4s
NPW   Naypyitaw         60.88 296  P       P       16 07 19.5 +0.2
      comp=Z,23nm,1.0s
LZH   Lanzhou           61.55 316 eP       P       16 07 24.9 +1.2
LZH                                pP      pP      16 07 29.8 -4.4
LZH                                sP      sP      16 07 33.0 -5.3
LZH                                pmax    pmax
      comp=Z,33nm,1.3s
LZDM  Lanzhou Array     61.58 316  P       P       16 07 24.7 +0.6
      comp=Z,4.6nm,0.4s,baz=110,slow=8.5,SNR=4.2
      comp=Z,4.6nm,0.4s
HILR  Hailar Array B    61.78 336  P       P       16 07 24.4 -0.4
      comp=Z,2.5nm,0.5s,baz=139,slow=7.7,SNR=6.7
      comp=Z,2.5nm,0.5s
MORE  Moreh             63.94 300          P       16 07 38.4 -1.2
MORE                               IAmb    IAmb    16 07 39.0
      comp=Z,13nm,0.5s
MA2   Magadan           64.87 359  P       P       16 07 45.2 +0.2
      comp=Z,16nm,0.7s,baz=178,slow=7.2,SNR=14
      comp=Z,16nm,0.7s
MA2   Magadan           64.87 359  P       P       16 07 44.3 -0.7
      comp=Z,30nm,0.8s
GTA2  Gaotai            66.07 318 eP       P       16 07 54.7 +1.3
GTA2                               sP      pP      16 08 01.8 -2.1
GTA2                               pmax    pmax
      comp=Z,15nm,0.8s
ULN   Ulaanbaatar       66.44 328  P       P       16 07 56.6 +1.0
      comp=Z,40nm,1.1s
ULN   Ulaanbaatar       66.44 328  P       P       16 07 56.8 +1.1
      comp=Z,10nm,1.1s
SONM  Songino Array     66.77 328  P       P       16 07 57.9 +0.3
      comp=Z,5.4nm,0.5s,baz=142,slow=5.4,SNR=25
      comp=Z,5.4nm,0.5s
SONM  Songino Array     66.77 328          P       16 07 58.0 +0.3
SONM                               IAmb    IAmb    16 07 59.8
      comp=Z,23nm,1.5s
GOMU  GeErMu            68.04 312  P       P       16 08 06.5 +0.2
GOMU                               pP      pP      16 08 10.3 -6.6
GOMU                               sP      sP      16 08 14.1 -6.9
GOMU                               pmax    pmax
      comp=Z,4.0nm,0.8s
YAK   Yakutsk           69.59 349          P       16 08 14.6 -0.3
YAK                                IAmb    IAmb    16 08 16.8
      comp=Z,21nm,1.1s
YAK   Yakutsk           69.59 349  P       P       16 08 15.6 +0.8
      comp=Z,17nm,1.2s
EVN   Everest           71.48 302  P       P       16 08 29.1 +1.1
      comp=Z,11nm,0.9s
BILL  Bilibino          73.99   5  P       P       16 08 41.7 +0.5
BILI  Bilibino, Chuk    74.02   5  P       P       16 08 42.4 +1.0
      comp=Z,48nm,0.9s
L14K  Kuka Creek        75.07  21  IAmb    IAmb    16 08 51.5
      comp=Z,22nm,1.0s
WMQ   Urumqi            76.08 318 eP       P       16 08 56.1 +2.2
WMQ                                PcP     sP      16 09 07.8 -1.0
WMQ                                pmax    pmax
      comp=Z,18nm,0.7s
M16K  Timber Creek      76.21  22  IAmb    IAmb    16 08 56.6
      comp=Z,20nm,0.8s
HYB   Hyderabad         76.49 289 eP       P       16 08 56.2 -0.4
HYB                               ePcP     pP      16 09 07.8 +0.6
HYB                               ePP      PP      16 11 48.3 -0.7
HYB                               eS       S       16 18 43.5 +3.5
HYB                               eScS     ScS     16 19 12.5 +2.5
J16K  Anvik River       77.11  20  IAmb    IAmb    16 09 02.4
      comp=Z,16nm,0.8s
F15K  North Star Dit    77.54  17  IAmb    IAmb    16 09 04.3
      comp=Z,23nm,1.1s
J17K  VABM Dome         77.70  20  IAmb    IAmb    16 09 05.7
      comp=Z,39nm,1.4s
G16K  Koyuk River       77.99  18  IAmb    IAmb    16 09 06.8
      comp=Z,44nm,1.3s
L19K  White Mountain    78.47  22  IAmb    IAmb    16 09 10.5
      comp=Z,18nm,0.6s
ZSN   Zaisan            79.23 320 eP       P       16 09 12.6 +1.3
SLKM  Skilak Lake       79.39  25  IAmb    IAmb    16 09 12.9
      comp=Z,23nm,0.8s
SEW   Seward            79.50  26  IAmb    IAmb    16 09 24.1
      comp=Z,17nm,0.8s
M22K  Willow            80.08  24  IAmb    IAmb    16 09 17.3
      comp=Z,36nm,1.0s
G19K  Purcell Mounta    80.12  19  IAmb    IAmb    16 09 29.8
      comp=Z,24nm,1.1s
I20K  Naaghedeneel      80.16  20  IAmb    IAmb    16 09 36.8
      comp=Z,26nm,0.8s
GHO   Glory Hole Cre    80.58  24  IAmb    IAmb    16 09 32.6
      comp=Z,15nm,0.7s
MKAR  Makanchi Array    80.68 319  P       P       16 09 19.1 -0.1
      comp=Z,9.1nm,0.8s,baz=107,slow=5.8,SNR=53
      comp=Z,9.1nm,0.8s
MKAR  Makanchi Array    80.68 319          P       16 09 19.0 -0.2
MAKZ  Makanchi          80.89 319          P       16 09 20.4 +0.1
MAKZ                               IAmb    IAmb    16 09 22.1
      comp=Z,20nm,0.8s
MAKZ  Makanchi          80.89 319  P       P       16 09 21.6 +1.3
      comp=Z,28nm,1.1s
GLI   Glacier Island    80.90  26  IAmb    IAmb    16 09 23.1
      comp=Z,20nm,0.8s
HIN   Hinchinbrook I    80.93  26  IAmb    IAmb    16 09 23.5
      comp=Z,15nm,0.8s
IMAR  Indian Mountai    81.10  20  P       P       16 09 20.8 -0.1
FID   Port Fidalgo      81.11  26  IAmb    IAmb    16 09 22.7
      comp=Z,18nm,1.0s
I21K  Tanana            81.25  21  IAmb    IAmb    16 09 42.4
      comp=Z,24nm,1.0s
SCM   Sheep Creek Mo    81.27  25  IAmb    IAmb    16 09 47.1
      comp=Z,21nm,1.1s
EYAK  Cordova Ski Ar    81.33  26  IAmb    IAmb    16 09 25.1
      comp=Z,57nm,1.9s
RND   Reindeer          81.45  23  IAmb    IAmb    16 09 24.0
      comp=Z,20nm,1.0s
G21K  Allakaket         81.50  19  IAmb    IAmb    16 09 25.7
      comp=Z,73nm,2.0s
SHLS  Shalkode          81.54 315 eP       P       16 09 23.6 -0.3
      comp=Z,12nm,1.2s
ZALV  Zalesovo Beam     81.58 326  P       P       16 09 23.1 -0.6
      comp=Z,8.1nm,0.5s,baz=113,slow=5.7,SNR=36
      comp=Z,8.1nm,0.5s
ZALV  Zalesovo Beam     81.58 326          P       16 09 22.4 -1.4
DIV   Divide            81.59  26  IAmb    IAmb    16 09 25.9
      comp=Z,18nm,1.0s
MLY   Manley            81.60  21  IAmb    IAmb    16 09 43.6
      comp=Z,16nm,0.8s
KAIM  Kayak Island      81.64  27  IAmb    IAmb    16 09 26.4
      comp=Z,18nm,0.8s
KLU   Klutina           81.69  25  IAmb    IAmb    16 09 26.6
      comp=Z,23nm,1.0s
RAGM  Ragged Mountai    81.73  27  IAmb    IAmb    16 09 27.3
      comp=Z,35nm,1.3s
UZB   Uzynbulak         81.85 315 eP       P       16 09 26.8 +1.2
      comp=Z,17nm,1.7s
F21K  Alatna River      81.92  19  IAmb    IAmb    16 09 27.9
      comp=Z,43nm,1.9s
NEA2  Nenana            81.98  22  IAmb    IAmb    16 09 26.6
      comp=Z,24nm,1.2s
BMRM  Bremner River     82.02  26  IAmb    IAmb    16 09 32.7
      comp=Z,28nm,1.3s
BERG  Berg Lake         82.17  27  IAmb    IAmb    16 09 29.0
      comp=Z,26nm,0.8s
KPKS  Kokpek            82.17 315 eP       P       16 09 28.5 +1.2
TARG  Taragay, Kyrgy    82.36 313  P       P       16 09 29.8 +1.2
      comp=Z,13nm,1.4s
HARP  HAARP             82.44  25  IAmb    IAmb    16 09 58.6
      comp=Z,35nm,1.4s
COLA  College           82.57  22  P       P       16 09 27.8 -0.9
COLA                               IAmb    IAmb    16 09 29.4
      comp=Z,23nm,0.8s
COLA  College           82.57  22  P       P       16 09 28.6  0.0
      comp=Z,31nm,1.3s
CRQM  Cirque            82.57  27  IAmb    IAmb    16 09 31.2
      comp=Z,20nm,1.0s
GLB   Gilahina Butte    82.58  26  IAmb    IAmb    16 09 31.0
      comp=Z,24nm,1.0s
VRDI  Verde Repeater    82.64  26  IAmb    IAmb    16 09 31.4
      comp=Z,16nm,0.9s
TGL   Tana Glacier      82.71  27  IAmb    IAmb    16 09 31.8
      comp=Z,16nm,1.0s
TDK   Taldyqorghan      82.76 317 eP       P       16 09 31.5 +1.4
      comp=Z,10nm,1.2s
K24K  Donnelly Dome     82.84  23  IAmb    IAmb    16 09 55.0
      comp=Z,15nm,1.0s
IL31                    82.88  22  IAmb    IAmb    16 09 49.0
      comp=Z,12nm,0.8s
ILAR  Eielson Array     82.88  22  P       P       16 09 29.9 -0.4
      comp=Z,5.6nm,0.6s,baz=253,slow=5.3,SNR=64
      comp=Z,5.6nm,0.6s
ILAR  Eielson Array     82.88  22          P       16 09 29.1 -1.2
MCARA McCarthy VSAT     82.89  26  IAmb    IAmb    16 09 32.7
      comp=Z,18nm,1.0s
ASAI  AK-SAY(Kyrgyzs    83.10 312  P       P       16 09 33.7 +1.2
      comp=Z,12nm,1.3s
D22K  Ayikyak River     83.12  17  IAmb    IAmb    16 09 35.0
      comp=Z,17nm,0.7s
RIDG  Independent Ri    83.18  23  IAmb    IAmb    16 09 34.6
      comp=Z,32nm,1.4s
MDOK  Medeo             83.25 314 eP       P       16 09 34.0 +1.1
TNSS  Tian-Shan         83.29 314 eP       P       16 09 34.3 +0.9
AAA   Alma-Ata          83.35 315 eP       P       16 09 34.6 +1.2
KSH2  Kashi             83.42 310  P       P       16 09 35.2 +1.3
KSH2                               sP      pP      16 09 46.2 +1.4
KSH2                               pmax    pmax
      comp=Z,20nm,1.0s
L26K  Log Cabin Wild    83.46  24  IAmb    IAmb    16 09 37.3
      comp=Z,11nm,0.8s
LOGN  Logan Glacier     83.56  27  IAmb    IAmb    16 09 38.1
      comp=Z,8.2nm,0.6s
E23K  Chandalar         83.61  19  IAmb    IAmb    16 09 56.8
      comp=Z,18nm,1.0s
BOOM  Boomskoye usch    83.88 314  IAmb    IAmb    16 09 38.8
      comp=Z,18nm,0.8s
BOOM  Boomskoye usch    83.88 314  P       P       16 09 38.0 +1.8
      comp=Z,29nm,1.4s
F24K  Squaw Lake        83.89  19  IAmb    IAmb    16 09 38.3
      comp=Z,15nm,0.9s
O28M  Mount Upton       83.90  27  IAmb    IAmb    16 09 39.9
      comp=Z,9.8nm,0.7s
KUU   Kurty             83.92 315 eP       P       16 09 37.6 +1.4
      comp=Z,13nm,1.0s
L27K  Beaver Creek,     84.11  25  IAmb    IAmb    16 09 39.2
      comp=Z,21nm,1.4s
BCAR  Beaver Creek A    84.12  25          P       16 09 36.9 +0.1
KURK  Kurchatov         84.15 322          P       16 09 37.2 +0.1
KURK  Kurchatov         84.15 322  P       P       16 09 37.5 +0.3
      comp=Z,28nm,1.2s
NIL   Nilore            84.16 305          P       16 09 37.4 -0.3
NIL   Nilore            84.16 305  P       P       16 09 38.0 +0.4
      comp=Z,36nm,1.2s
KURBB Kurchatov Arra    84.18 322  P       P       16 09 37.2 -0.1
      comp=Z,6.5nm,0.8s,baz=107,slow=4.0,SNR=39
      comp=Z,6.5nm,0.8s
TKM2  Tokmak 2          84.23 314  P       P       16 09 38.9 +0.8
      SNR=32
FYU   Fort Yukon        84.34  21  IAmb    IAmb    16 09 40.1
      comp=Z,17nm,1.2s
O29M  Mount Kennedy     84.47  28  IAmb    IAmb    16 09 41.0
      comp=Z,14nm,1.1s
QSPA  South Pole Qui    84.48 180  P       P       16 09 38.8  0.0
      comp=Z,2.6nm,0.9s,baz=285,slow=1.8,SNR=17
      comp=Z,2.6nm,0.9s
P29M  Windy Craggy      84.62  29  IAmb    IAmb    16 09 58.6
      comp=Z,15nm,1.2s
KBK   Karagaybulak      84.63 314  P       P       16 09 41.4 +1.3
      SNR=15
CHMS  Chumysh           84.85 314  P       P       16 09 42.4 +1.5
      SNR=23
MAW   Mawson            84.85 203  P       P       16 09 40.9 +0.5
      comp=Z,1.3nm,0.6s,baz=71,slow=5.8,SNR=6.7
      comp=Z,1.3nm,0.6s
AAK   Ala-Archa         84.96 314  P       P       16 09 43.3 +1.7
      SNR=16
AAK   Ala-Archa         84.96 314          P       16 09 42.1 +0.5
AAK   Ala-Archa         84.96 314  P       P       16 09 42.9 +1.2
      comp=Z,36nm,0.9s
BMAR  Burnt Mountain    84.97  20          P       16 09 41.9 +0.9
SIT   Sitka             84.98  31  IAmb    IAmb    16 10 00.5
      comp=Z,36nm,1.7s
SGDS  Sogindy           85.03 314 eP       P       16 09 43.2 +1.3
      comp=Z,7.4nm,0.8s
USP   Ospenovka         85.09 314  P       P       16 09 43.2 +1.1
      SNR=35
HYT   Haines Junctio    85.15  28  IAmb    IAmb    16 09 47.5
      comp=Z,17nm,0.8s
I27K  Kandik River      85.24  22  IAmb    IAmb    16 10 03.2
      comp=Z,25nm,1.2s
D25K  Kavik River       85.28  18  IAmb    IAmb    16 09 44.6
      comp=Z,16nm,0.9s
M29M  Somme Creek       85.29  26  IAmb    IAmb    16 09 46.6
      comp=Z,12nm,0.8s
EKS2  Erkin-Say         85.48 313  P       P       16 09 45.6 +1.4
      SNR=27
DAWY  Dawson            85.50  24  IAmb    IAmb    16 09 47.3
      comp=Z,28nm,1.5s
H27K  Steamboat Moun    85.53  22  IAmb    IAmb    16 09 46.5
      comp=Z,18nm,1.1s
L29M  L29M              85.68  25  IAmb    IAmb    16 09 47.4
      comp=Z,14nm,0.8s
BESE  Bessie Mountai    85.69  30  IAmb    IAmb    16 09 47.5
      comp=Z,14nm,1.0s
N31M  Braeburn, Yuko    86.16  27  IAmb    IAmb    16 09 50.0
      comp=Z,19nm,0.8s
K29M  Barlow Dome       86.19  25  IAmb    IAmb    16 09 50.0
      comp=Z,21nm,0.8s
C27K  Jago River        86.25  18  IAmb    IAmb    16 09 50.0
      comp=Z,19nm,0.8s
WHY   Whitehorse        86.31  28  IAmb    IAmb    16 09 50.4
      comp=Z,20nm,0.9s
E27K  Coleen River      86.32  20  IAmb    IAmb    16 09 50.4
      comp=Z,18nm,0.8s
I29M  Ogilvie Camp,     86.42  23  IAmb    IAmb    16 09 50.4
      comp=Z,21nm,1.1s
V35K  Ketchikan         86.48  34  IAmb    IAmb    16 09 51.1
      comp=Z,14nm,1.0s
NRIK  Noril'sk          86.53 341  P       P       16 09 48.3 -0.3
      comp=Z,14nm,0.6s,baz=116,slow=3.6,SNR=25
      comp=Z,14nm,0.6s
F28M  Old Crow          86.69  21  IAmb    IAmb    16 09 52.0
      comp=Z,15nm,0.8s
H29M  Whitestone        86.71  22  IAmb    IAmb    16 10 18.1
      comp=Z,46nm,1.9s
D27M  Malcolm River     86.96  19  IAmb    IAmb    16 09 53.7
      comp=Z,19nm,0.8s
M31M  Drury Creek, Y    87.01  27  IAmb    IAmb    16 09 53.3
      comp=Z,12nm,0.9s
Q32M  Nakina River      87.09  30  IAmb    IAmb    16 09 54.8
      comp=Z,30nm,1.6s
I30M  Mount Dempster    87.13  24  IAmb    IAmb    16 09 54.0
      comp=Z,18nm,1.1s
E28M  Babbage River     87.19  20  IAmb    IAmb    16 09 54.1
      comp=Z,14nm,0.8s
DZA   Taraz             87.29 313 eP       P       16 09 54.3 +1.3
      comp=Z,5.7nm,0.6s
S34M  Telegraph Cree    87.39  31  IAmb    IAmb    16 09 56.0
      comp=Z,17nm,0.9s
T35M  Bob Quinn         87.63  32  IAmb    IAmb    16 09 57.1
      comp=Z,11nm,1.0s
E29M  Blow River        87.67  20  IAmb    IAmb    16 10 09.8
      comp=Z,13nm,1.3s
G30M  tAoh Zraii Nji    87.78  22  IAmb    IAmb    16 09 56.7
      comp=Z,21nm,1.2s
R33M  Jennings River    87.85  30  IAmb    IAmb    16 09 58.2
      comp=Z,9.7nm,0.8s
KKAR  Karatay Array     87.92 313          P       16 09 55.5 -0.4
BRLS  Borolday          88.40 313 eP       P       16 09 59.8 +1.6
      comp=Z,3.9nm,0.7s
CHM   Chimkent          88.46 313 eP       P       16 09 59.8 +1.3
      comp=Z,10nm,0.9s
MMPY  Sheldon Lake,     88.52  27  IAmb    IAmb    16 10 01.2
      comp=Z,31nm,1.5s
F31M  Tsiigehtchic      88.84  22  IAmb    IAmb    16 10 20.5
      comp=Z,29nm,1.5s
WTLY  Watson Lake, Y    89.08  29  IAmb    IAmb    16 10 06.3
      comp=Z,17nm,0.8s
INK   Inuvik            89.17  21  IAmb    IAmb    16 10 04.7
      comp=Z,21nm,1.2s
INK   Inuvik            89.17  21  P       P       16 10 01.4 +0.2
      comp=Z,15nm,1.1s
BVAR  Borovoye Array    89.64 323  P       P       16 10 03.1 -0.7
      comp=Z,21nm,0.7s,baz=99,slow=5.8,SNR=70
      comp=Z,21nm,0.7s
BORK  Borovoye          89.68 323          P       16 10 02.2 -1.8
BORK                               IAmb    IAmb    16 10 04.5
      comp=Z,14nm,0.8s
E09A  Wood Farm, Sta    93.45  44  P       P       16 10 19.3 -2.3
E09A                               IAmb    IAmb    16 10 23.5
      comp=Z,9.1nm,1.2s
NEW   Newport           94.26  42          P       16 10 22.6 -2.8
NEW   Newport           94.26  42  P       P       16 10 24.8 -0.6
      comp=Z,6.4nm,1.8s
ABKAR Akbulak array     95.82 319  P       P       16 10 30.8 -1.7
YKA   Yellowknife Ar    96.14  28  P       P       16 10 34.3 +0.8
      comp=Z,3.0nm,0.7s,baz=272,slow=5.0,SNR=15
      comp=Z,3.0nm,0.7s
ARTI  Arti              96.84 326  P       P       16 10 35.9 -1.0
      comp=Z,5.9nm,0.8s,baz=86,slow=3.4,SNR=8.9
      comp=Z,5.9nm,0.8s
ARTI  Arti              96.84 326          P       16 10 35.7 -1.2
PDAR  Pinedale Array    99.48  48  P       Pdif    16 10 48.8 -0.6
      comp=Z,0.3nm,0.6s,baz=256,slow=2.4,SNR=5.3
      comp=Z,0.3nm,0.6s
FINES FINESS Array B   111.57 335  Pdiff   Pdif    16 11 41.2 -1.2
      comp=Z,0.9nm,0.6s,baz=64,slow=4.4,SNR=8.0
AKASG Malin Array Be   114.90 324  PKP     PKiKP   16 15 46.6 -0.2
      comp=Z,0.4nm,0.5s,baz=64,slow=2.1,SNR=4.2
BRTR  Keskin Array B   115.57 312  PKP     PKPdf   16 15 52.2 +3.6
      comp=Z,0.6nm,0.6s,baz=66,slow=2.8,SNR=2.5
NOA   NORSAR Array B   117.47 340  PKP     PKPdf   16 15 51.0 -0.4
      comp=Z,0.8nm,0.7s,baz=48,slow=1.8,SNR=3.5
PLCA  Paso Flores      119.38 143  PKP     PKiKP   16 15 56.8 +0.9
      comp=Z,0.7nm,0.6s,baz=273,slow=3.6,SNR=6.9
RONA  Rosalia, Austr   123.77 326 ePKiKP   PKiKP   16 16 04.7 +0.5
      comp=Z,0.7nm,0.6s
CONA  Conrad Observa   123.88 326 ePKiKP   PKPdf   16 16 04.6 +0.4
      comp=Z,1.7nm,0.6s
ARSA  Arzberg          124.45 326 ePKiKP   PKPdf   16 16 05.4 +0.2
      comp=Z,2.8nm,1.3s
GERES GERESS Array B   124.50 328  PKP     PKPdf   16 16 05.7 +0.3
      comp=Z,1.7nm,0.6s,baz=90,slow=1.7,SNR=15
SOKA  Soboth           125.06 325 i PKP    PKPdf   16 16 06.0 -0.5
      comp=Z,2.6nm,1.1s
OBKA  Obir             125.42 325 ePKiKP   PKPdf   16 16 07.7 +0.4
      comp=Z,4.0nm,1.3s
MYKA  Terra Mystica    125.86 326 ePKiKP   PKPdf   16 16 08.1 +0.1
      comp=Z,0.8nm,0.4s
LESA  Schwarzleotal    125.91 327 i PKP    PKPdf   16 16 07.6 -0.5
      comp=Z,4.1nm,1.2s
ABTA  Abfaltersbach    126.42 327 i PKiKP  PKPdf   16 16 09.0 -0.1
      comp=Z,5.8nm,1.2s
WATA  Walderalm        126.56 328 ePKiKP   PKPdf   16 16 09.8 +0.3
      comp=Z,3.4nm,1.2s
WTTA  Wattenberg       126.57 328 ePKiKP   PKiKP   16 16 10.3 +0.3
      comp=Z,8.7nm,1.4s
EKA   Eskdalemuir Ar   126.61 343  PKP     PKiKP   16 16 09.8 +0.3
      comp=Z,0.7nm,0.5s,baz=0.5,slow=2.5,SNR=6.6
MOTA  Moosalm          126.80 328 i PKiKP  PKPdf   16 16 10.3 +0.4
      comp=Z,4.6nm,1.1s
SQTA  Sankt Quirin     126.82 328 ePKiKP   PKiKP   16 16 10.6 +0.2
      comp=Z,6.8nm,1.1s
RETA  Reutte           126.89 328 ePKP     PKPdf   16 16 09.1 -0.9
      comp=Z,2.4nm,1.0s
FETA  Feichten         127.20 328 i PKiKP  PKiKP   16 16 11.9 +0.6
      comp=Z,6.3nm,1.2s
DAVA  Damuels          127.48 329 ePKiKP   PKiKP   16 16 12.6 +0.8
      comp=Z,2.6nm,0.7s
BCLA  Clavier          127.48 334 dPKP     PKPdf   16 16 11.0 +0.1
WLF   Walferdange      127.66 333 dPKP     PKPdf   16 16 11.7 +0.4
BMRD  Maredsous        127.80 334 dPKP     PKiKP   16 16 13.1 +1.0
LPAZ  La Paz           134.31 119  PKP     PKiKP   16 16 27.7 +0.7
      comp=Z,1.8nm,0.9s,baz=291,slow=2.9,SNR=6.4
TORD  Torodi Ar. Bea   150.28 287  PKPbc   PKPbc   16 16 58.0 -0.2
      comp=Z,3.5nm,0.7s,baz=57,slow=3.3,SNR=16
BDFB  Brasilia         150.75 136  PKPbc   PKPbc   16 16 59.8 +0.4
      comp=Z,4.9nm,0.7s,baz=38,slow=2.6,SNR=7.5
DBIC  Dimbokro         157.51 274  PKPab   PKPab   16 17 35.8 +0.7
      comp=Z,6.3nm,0.7s,baz=77,slow=2.6,SNR=4.7
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TRN 06 16:14:08.4, 17°.18N×62°.20W, h119km, MD3.6,
North-west of Antigua., Leeward Islands

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Code  Station Name        Δ°  AZ°   Phase ID        Time       Res
                                   Op     ISC     h  m  s     ISC
SKI   Saint Kitts        0.54 286  eP     Pn      16 14 27.9 +1.4
SKI                                eS     Sn      16 14 42.5 +2.4
ANWB  Willy Bob          0.62  39  eP     Pn      16 14 29.1 +2.0
ANWB                               eS     Sn      16 14 42.7 +1.6
DHSZ  Broadband at M     0.99 155  eP     Pn      16 14 31.6 +1.3
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SMRT	**St. Maarten**	**1.20**	**316**	*e*P	Pn	16 14 33.1	+0.7
SMRT				*e*S	Sn	16 14 51.1	+0.4
MMLZ	**Guadeloupe Bro**	**1.24**	**156**	*e*P	Pn	16 14 33.9	+1.0
MMLZ				*e*S	Sn	16 14 52.6	+1.3
DSDZ	**La Diserade, G**	**1.39**	**128**	*e*P	Pn	16 14 36.0	+1.6
DSDZ				*e*S	Sn	16 14 54.8	+0.6
TBG	**Guadaloupe-3**	**1.42**	**158**	*e*P	Pn	16 14 36.5	+1.6
TBG				*e*S	Sn	16 14 56.0	+1.0
DSLB	**Salisbury**	**1.89**	**157**	*e*P	Pn	16 14 42.2	+1.7
DSLB				*e*S	Sn	16 15 06.5	+1.6

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*SOME **06** 16:36:52.0, 41°.82N×81°.98E, h10km*

*NNC **06** 16:36:53.5±3.6, 41°.83N×82°.12E, h0km, mb3.4, mpv3.0, Error ellipse: s-maj=28.9km s-min=15.7km az=164.0*

ISC 06 16:36:51.7±2.5**, 41°.8N**±0°.1×**81°.90E**±0°.08**, h10**km**, n14, σ1ˢ.77**/29**, 5C-4D, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KTMS	**Ketmen**	**2.01**	**326**	*e*P	**Pg**	**16 37 29.6**	**-0.7**
	19nm,0.1s						
KTMS				*e*S	**Sg**	**16 37 56.8**	**+0.4**
	51nm,0.3s						
SHLS	**Shalkode**	**2.26**	**308**	*e*P	**Pn**	**16 37 30.2**	**+0.9**
	42nm,0.1s						
SHLS				*e*S	**Sn**	**16 37 57.7**	**+0.5**
	191nm,0.3s						
PDGK	**Podgornoye**	**2.35**	**312**	⇑Pn	**Pb**	**16 37 34.4**	**+0.1**
	7.6nm,0.3s						
PDGK				⇑Sn	**Sg**	**16 38 07.0**	**-0.3**
	39nm,0.5s						
UZB	**Uzynbulak**	**2.52**	**304**	*e*P	**Pg**	**16 37 39.7**	**-0.4**
UZB				*e*S	**Sg**	**16 38 14.2**	**+1.4**
KPKS	**Kokpek**	**2.90**	**306**	*e*P	**Pg**	**16 37 46.5**	**-0.9**
	0.1nm,0.1s						
KPKS				*e*S	**Sg**	**16 38 25.4**	**+0.5**
	116nm,0.3s						
DJR	**Jarkent**	**2.97**	**329**	*e*P	**Pg**	**16 37 46.6**	**-2.1**
	5.7nm,0.2s						
DJR				*e*S	**Sg**	**16 38 25.6**	**-1.6**
	9.7nm,0.2s						
KURS	**Kuram**	**3.23**	**303**	*e*P	**Pg**	**16 37 52.0**	**-1.6**
	2.1nm,0.3s						
KURS				*e*S	**Sg**	**16 38 35.0**	**-0.4**
	10nm,0.4s						
KOTS	**Kotyrbulak**	**3.82**	**294**	*e*P	**Pg**	**16 38 02.4**	**-2.5**
	3.2nm,0.2s						
KOTS				*e*S	**Sg**	**16 38 52.9**	**-1.5**
	16nm,0.5s						
MDOK	**Medeo**	**3.84**	**293**	*e*P	**Pg**	**16 38 04.3**	**-1.0**
MDOK				*e*S	**Sg**	**16 38 55.8**	**+0.8**
TNSS	**Tian-Shan**	**3.87**	**290**	*e*P	**Pg**	**16 38 05.1**	**-0.8**
	0.7nm,0.2s						
TNSS				*e*S	**Sg**	**16 38 57.5**	**+1.5**
	2.2nm,0.2s						
DGS	**Degeres**	**4.75**	**290**	*e*P	**Pg**	**16 38 20.1**	**-2.7**
	2.2nm,0.3s						
DGS				*e*S	**Sg**	**16 39 23.3**	**-1.0**
	6.6nm,0.4s						
KRBS	**Karabastau**	**4.96**	**295**	*e*P	**Pg**	**16 38 23.8**	**-3.0**
	0.7nm,0.3s						
KRBS				*e*S	**Sg**	**16 39 29.4**	**-1.5**
	5.9nm,0.3s						
MK31	**Makanchi Array**	**5.01**	**3**	⇓Pn	**Pn**	**16 38 08.9**	**+1.9**
	0.5nm,0.5s,baz=186,slow=12,SNR=34						
MK31				⇓Pg	**Pg**	**16 38 24.2**	**-3.5**
	0.4nm,0.3s,baz=172,slow=15,SNR=5.5						
MK31				⇓Lg	Lg	16 39 32.2	
	4.2nm,0.7s,baz=187,slow=28,SNR=5.2						
MAKZ	**Makanchi**	**5.02**	**1**	⇓Pn	**Pn**	**16 38 08.7**	**+1.6**
	1.2nm,0.3s						
MAKZ				⇑Pg	**Pg**	**16 38 25.4**	**-2.5**
	2.4nm,0.7s						
MAKZ				⇑Sn	**Sn**	**16 39 08.2**	**+3.1**
	1.2nm,0.4s						
MAKZ				⇑Lg	Lg	16 39 31.4	
	3.9nm,0.7s						

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*BJI **06** 16:45:18.2, 2°.80S×102°.28E, h216km, mB4.9/11, mb4.6/45*

*GFZ **06** 16:45:24.6±0.3, 2°S±4°×10°2E±°, h219km, M4.8/21, mb4.8/21, confirmed*

*DJA **06** 16:45:24.7±0.1, 2°S±2°×10°2E±°, h221km±2km, M4.5/42, mB5.1/25, mb4.8/41, MLv4.7/42, Mw(mB)4.4/25*

*NEIC **06** 16:45:24.8±2.0, 2°.17S±0°.06×102°.29E±0°.05, h213km±5km, mb4.7/49, Error ellipse: s-maj=9.4km s-min=6.3km az=160.0*

*IDC **06** 16:45:26.3±1.4, 2°.11S×102°.48E, h234km±12km, mb4.2/27, mbtmp4.8/28, Error ellipse: s-maj=11.6km s-min=7.1km az=63.0*

ISC 06 16:45:25.2±0.6**, 2°.13S**±0°.04×**102°.34E**±0°.04**, h222**km±5km**, n249, σ1ˢ.18**/252**, mb4.6**/69**, 2C-2D, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JMBI	**JAMBI**	**1.40**	**70**	P	**Pn**	**16 45 59.8**	**-0.2**
JMBI				AML	AML		
JMBI	**JAMBI**	**1.40**	**70**	P	**Pn**	**16 45 59.8**	**-0.2**
SDSI	**Sungai Dareh**	**1.49**	**323**	P	**Pn**	**16 46 00.3**	**-0.5**
SDSI	**Sungai Dareh**	**1.49**	**323**	P	**Pn**	**16 46 00.2**	**-0.5**
KSI	**Kapahiang**	**1.54**	**170**	P	**Pn**	**16 46 01.2**	**-0.1**
KSI				AML	AML		
RGRI	**Rengat**	**1.77**	**360**	P	**Pn**	**16 46 03.1**	**-0.1**
RGRI				AML	AML		
LHSI	**Lahat**	**2.06**	**145**	P	**Pn**	**16 46 05.6**	**-0.4**
LHSI	**Lahat**	**2.06**	**145**	P	**Pn**	**16 46 05.4**	**-0.6**
PDSI	**Padang**	**2.23**	**303**	P	**Pn**	**16 46 07.1**	**-0.6**
PDSI				AML	AML		
MNAI	**Manna**	**2.31**	**164**	P	**Pn**	**16 46 07.9**	**-0.6**
MNAI	**Manna**	**2.31**	**164**		**Pn**	**16 46 07.2**	**-1.3**
MNAI	**Manna**	**2.31**	**164**	P	**Pn**	**16 46 07.5**	**-1.0**
MNAI				AML	AML		
PPSI	**Pulau Pagai**	**2.41**	**255**	P	**Pn**	**16 46 09.5**	**0.0**
PPI	**Padang Panjang**	**2.55**	**311**	P	**Pn**	**16 46 10.9**	**-0.1**
PPI				AML	AML		
PMBI	**Palembang**	**2.56**	**108**	P	**Pn**	**16 46 10.5**	**-0.6**
PMBI	**Palembang**	**2.56**	**108**	S	**S**	**16 46 45.1**	**-1.8**
PMBI	**Palembang**	**2.56**	**108**		**Pn**	**16 46 09.8**	**-1.3**
PMBI	**Palembang**	**2.56**	**108**	P	**Pn**	**16 46 10.2**	**-0.9**
PMBI				AML	AML		
PMBI	**Palembang**	**2.56**	**108**	P	**Pn**	**16 46 10.3**	**-0.8**
BKNI	**Bangkinang**	**2.76**	**332**	P	**Pn**	**16 46 14.1**	**+0.8**
BKNI	**Bangkinang**	**2.76**	**332**		**Pn**	**16 46 12.4**	**-1.0**
BKNI	**Bangkinang**	**2.76**	**332**	P	**Pn**	**16 46 13.0**	**-0.3**
BKNI				AML	AML		
BKNI	**Bangkinang**	**2.76**	**332**	P	**Pn**	**16 46 13.7**	**+0.3**
MDSI	**Maura Dua**	**2.98**	**142**	P	**Pn**	**16 46 14.9**	**-0.9**
TPRI	**Tanjung Pinang**	**3.73**	**36**	P	**Pn**	**16 46 23.8**	**-0.8**
BTDF	**Bukit Timah Da**	**3.75**	**23**	P	**Pn**	**16 46 24.7**	**-0.1**
BTDF	**Bukit Timah Da**	**3.75**	**23**	S	**S**	**16 47 10.8**	**-0.8**
BTDF	**Bukit Timah Da**	**3.75**	**23**	P	**Pn**	**16 46 24.5**	**-0.3**
BTDF				AML	AML		
KASI	**Kota Agung**	**4.01**	**147**	P	**Pn**	**16 46 29.4**	**+1.5**
MYKOM	**Kota Tinggi**	**4.17**	**21**	P	**Pn**	**16 46 29.9**	**-0.1**
MYKOM	**Kota Tinggi**	**4.17**	**21**		**Pn**	**16 46 29.8**	**-0.1**
MYKOM	**Kota Tinggi**	**4.17**	**21**	P	**Pn**	**16 46 29.7**	**-0.2**
MYKOM				AML	AML		
MYKOM	**Kota Tinggi**	**4.17**	**21**	P	**Pn**	**16 46 29.9**	**-0.1**
PBSI	**Pulau Batu**	**4.55**	**297**	P	**Pn**	**16 46 33.9**	**-0.6**
TPI	**Tanjungpandan**	**5.35**	**97**	P	**Pn**	**16 46 45.1**	**+0.5**
	0.3nm75nm,0.6s						
TPI				AML	AML		
GSI	**Gunungsitoli**	**5.85**	**306**	P	**Pn**	**16 46 50.7**	**-0.2**
GSI	**Gunungsitoli**	**5.85**	**306**		**Pn**	**16 46 49.8**	**-1.1**
GSI	**Gunungsitoli**	**5.85**	**306**	P	**Pn**	**16 46 49.7**	**-1.2**
GSI	**Gunungsitoli**	**5.85**	**306**	P	**Pn**	**16 46 50.3**	**-0.6**
	comp=Z,584nm,0.5s						
RPSI	**Rantau Prapat**	**5.88**	**325**		**Pn**	**16 46 50.9**	**-0.4**
RPSI	**Rantau Prapat**	**5.88**	**325**	P	**Pn**	**16 46 51.5**	**+0.2**
	comp=Z,47nm,1.0s						
PSI	**Prapat**	**5.96**	**325**	P	**Pn**	**16 46 51.4**	**-1.1**
PSI	**Prapat**	**5.96**	**325**	P	**Pn**	**16 46 51.1**	**-1.4**
PSI				AML	AML		
TPTI		**7.43**	**316**	P	**Pn**	**16 47 10.2**	**-0.9**
	comp=Z,3μmcomp=Z,89nm,0.7s						
TPTI		**7.43**	**316**	P	**Pn**	**16 47 10.3**	**-0.7**
	comp=Z,1μm,0.7s						
BBJI	**Bungbulang**	**7.49**	**135**	Pn	**Pn**	**16 47 09.0**	**-3.0**
KULM	**Kulim**	**7.56**	**347**		**Pn**	**16 47 11.8**	**-1.0**
KULM	**Kulim**	**7.56**	**347**	P	**Pn**	**16 47 13.2**	**+0.4**
KULM				AML	AML		
CMJI	**Cimerak**	**8.29**	**133**	P	**Pn**	**16 47 18.0**	**-4.1**
LHMI	**Lhok Sumawe**	**9.07**	**324**	P	**Pn**	**16 47 30.8**	**-1.5**
	comp=Z,82nm,1.0s						
SMRI	**Semarang**	**9.44**	**121**	P	**Pn**	**16 47 38.2**	**+1.1**
	comp=Z,91nm,1.1s						
BBKI	**Banjar Baru**	**12.56**	**96**	P	**Pn**	**16 48 18.1**	**+1.5**
	comp=Z,79nm,0.9s						
JAGI	**Jajag, Banyuwa**	**13.34**	**119**		**Pn**	**16 48 23.6**	**-2.8**
JAGI	**Jajag, Banyuwa**	**13.34**	**119**	P	**Pn**	**16 48 27.1**	**+0.8**
	comp=Z,48nm,0.5s						
KHKI	**Kahang-Kahang**	**14.59**	**116**	P	**P**	**16 48 43.0**	**+0.7**
	comp=Z,1μmcomp=Z,178nm,0.8s						
KKM	**Kota Kinabalu**	**16.06**	**60**	P	**Pn**	**16 48 59.9**	**+0.4**
KKM	**Kota Kinabalu**	**16.06**	**60**	P	**Pn**	**16 48 59.9**	**+0.4**
KKM				IAmb	IAmb	16 49 02.4	
	comp=Z,30nm,0.8s						
KKM	**Kota Kinabalu**	**16.06**	**60**	P	**Pn**	**16 48 59.6**	**+0.1**
KKM	**Kota Kinabalu**	**16.06**	**60**	P	**Pn**	**16 48 59.9**	**+0.4**
	comp=Z,49nm,1.1s						
MMSI	**Mamuju**	**16.57**	**92**	P	**Pn**	**16 49 06.2**	**+0.8**
	comp=Z,68nm,0.8s						
MMSI	**Mamuju**	**16.57**	**92**	P	**Pn**	**16 49 06.3**	**+0.8**
	comp=Z,919nm,0.8s						
PLAI	**Plampang**	**16.74**	**114**	P	**P**	**16 49 05.4**	**-0.6**
	comp=Z,60nm,0.7s						
PCI	**Palu**	**17.54**	**86**	P	**Pn**	**16 49 16.5**	**-0.3**
	comp=Z,2μmcomp=Z,105nm,1.2s						
KAPI	**Kappang**	**17.62**	**100**	P	**P**	**16 49 15.1**	**-0.5**
	comp=Z,157nm,0.7s,baz=265,slow=12,SNR=26						
KAPI	**Kappang**	**17.62**	**100**	P	**Pn**	**16 49 17.4**	**-0.3**
KAPI	**Kappang**	**17.62**	**100**	S	**S**	**16 52 29.2**	**+2.2**
KAPI	**Kappang**	**17.62**	**100**		**P**	**16 49 16.8**	**+1.3**
KAPI	**Kappang**	**17.62**	**100**	P	**P**	**16 49 16.4**	**+0.9**
	comp=Z,998nmcomp=Z,127nm,1.0s						
KAPI	**Kappang**	**17.62**	**100**	P	**P**	**16 49 16.4**	**+0.9**
	comp=Z,244nm,1.0s						
MYLDM	**Lahad Datu**	**17.70**	**66**	P	**Pn**	**16 49 18.9**	**+0.2**
MYLDM	**Lahad Datu**	**17.70**	**66**	S	**S**	**16 52 30.9**	**+2.2**
MYLDM	**Lahad Datu**	**17.70**	**66**		**Pn**	**16 49 18.7**	**0.0**
TOLI2	**Tolitoli**	**18.72**	**80**	P	**P**	**16 49 29.0**	**+1.5**
TOLI2	**Tolitoli**	**18.72**	**80**	P	**P**	**16 49 28.2**	**+0.7**
TOLI2	**Tolitoli**	**18.72**	**80**	P	**P**	**16 49 28.7**	**+1.2**
	comp=Z,132nm,0.8s						
LUWI	**Luwuk**	**20.46**	**87**	P	**P**	**16 49 47.5**	**+1.4**
LUWI	**Luwuk**	**20.46**	**87**	P	**P**	**16 49 46.9**	**+0.7**
LUWI	**Luwuk**	**20.46**	**87**	P	**P**	**16 49 44.9**	**-1.2**
	comp=Z,1μmcomp=Z,96nm,0.8s						
CMAR	**Chiang Mai Arr**	**20.72**	**351**	P	**P**	**16 49 48.8**	**-0.1**
	comp=Z,2.2nm,0.6s,baz=182,slow=9.9,SNR=12						
CMAR				S	**S**	**16 53 24.7**	**-2.5**
	comp=Z,0.3nm,0.4s,baz=168,slow=26,SNR=2.0						
CMAR				PcP	**PcP**	**16 53 49.6**	**+0.6**
	comp=Z,0.6nm,0.5s,baz=142,slow=1.8,SNR=2.3						
CMAR				ScP	**ScP**	**16 57 02.9**	**-1.7**
	comp=Z,0.7nm,0.8s,baz=211,slow=3.8,SNR=5.8						
CMAR	**Chiang Mai Arr**	**20.72**	**351**	P	**P**	**16 49 50.0**	**+1.1**
MMRI	**Maumere**	**20.83**	**109**	P	**P**	**16 49 48.0**	**-2.2**
	comp=Z,43nm,0.6s						
GTOI	**Gorontalo**	**20.85**	**83**	P	**P**	**16 49 49.1**	**-1.2**
	comp=Z,859nmcomp=Z,83nm,1.2s						
CHTO	**Chiang Mai**	**21.07**	**351**	P	**P**	**16 49 53.4**	**+0.9**
CHTO	**Chiang Mai**	**21.07**	**351**	P	**P**	**16 49 53.2**	**+0.6**
CHTO	**Chiang Mai**	**21.07**	**351**	P	**P**	**16 49 52.2**	**-0.3**
CHTO	**Chiang Mai**	**21.07**	**351**	P	**P**	**16 49 52.2**	**-0.3**
	comp=Z,5.9nm,0.8s						
NPW	**Naypyitaw**	**22.60**	**345**	P	**P**	**16 50 08.6**	**+1.5**
	comp=Z,10nm,1.0s						
MNI	**Manado**	**22.78**	**81**	P	**P**	**16 50 10.1**	**+1.2**
SLVN	**Son La**	**23.37**	**4**	P	**P**	**16 50 15.2**	**+1.1**
SLVN	**Son La**	**23.37**	**4**	P	**P**	**16 50 14.8**	**+0.8**
SLVN	**Son La**	**23.37**	**4**	P	**P**	**16 50 15.5**	**+1.4**
	comp=Z,11nm,0.8s						
GIRL	**Giralia**	**23.44**	**151**	P	**P**	**16 50 16.0**	**+1.3**
NLAI	**Namlea**	**24.76**	**93**	P	**P**	**16 50 29.9**	**+3.1**
TNTI	**Ternate**	**25.19**	**84**	P	**P**	**16 50 30.7**	**0.0**
TNTI	**Ternate**	**25.19**	**84**	P	**P**	**16 50 34.1**	**+3.4**
TNTI	**Ternate**	**25.19**	**84**	P	**P**	**16 50 29.8**	**-1.0**
	comp=Z,17nm,0.6s						
MBWA	**Marble Bar**	**25.40**	**139**	P	**P**	**16 50 33.8**	**+1.3**
MBWA				IAmb	IAmb	16 50 36.6	
	comp=Z,12nm,0.7s						
KMI2	**Kunming**	**27.11**	**1**	P	**P**	**16 50 50.2**	**+2.2**
KMI2				pP	pP	16 51 36.4	+4.1
KMI2				pmax	pmax		
	comp=Z,13nm,1.0s						
FITZ	**Fitzroy Crossi**	**27.83**	**126**	P	**P**	**16 50 52.9**	**-1.3**
	comp=Z,16nm,0.7s,baz=309,slow=5.8,SNR=48						
	comp=Z,16nm,0.7s						
FITZ	**Fitzroy Crossi**	**27.83**	**126**	P	**P**	**16 50 53.8**	**-0.4**
FITZ	**Fitzroy Crossi**	**27.83**	**126**	P	**P**	**16 50 53.3**	**-0.9**
FITZ	**Fitzroy Crossi**	**27.83**	**126**	P	**P**	**16 50 53.6**	**-0.6**
	comp=Z,6.3nm,0.8s						
PZH	**PanZhiHua**	**28.47**	**359**	P	**P**	**16 51 02.0**	**+2.1**
GYA	**Guiyang**	**28.72**	**8**	⇓P	**P**	**16 51 03.7**	**+1.6**
GYA				pmax	pmax		
	comp=Z,26nm,0.7s						
KNRA	**Kununurra**	**29.32**	**119**	P	**P**	**16 51 05.9**	**-1.5**
KNRA				IAmb	IAmb	16 51 06.4	
	comp=Z,9.0nm,0.9s						
FAKI	**Fak Fak**	**29.89**	**92**	P	**P**	**16 51 12.8**	**+0.2**
SSLB	**Suanglung**	**31.49**	**34**	P	**P**	**16 51 27.1**	**+0.6**
SSLB				IAmb	IAmb	16 52 00.8	
	comp=Z,18nm,1.2s						
TATO	**Taipei**	**32.73**	**33**	P	**P**	**16 51 37.9**	**+0.7**
ENH	**Enshi**	**32.93**	**11**	P	**P**	**16 51 40.0**	**+1.1**
ENH	**Enshi**	**32.93**	**11**	IAmb	IAmb	16 51 40.1	
	comp=Z,13nm,0.6s						
NWAO	**Narrogin (SRO)**	**33.68**	**157**	P	**P**	**16 51 46.6**	**+1.3**
WHN	**Wuhan**	**34.45**	**19**	⇓P	**P**	**16 51 53.5**	**+1.6**
WB0	**Warramunga Arr**	**35.90**	**122**	IAmb	IAmb	16 52 04.4	
	comp=Z,20nm,0.6s						
WRA	**Warramunga Arr**	**35.93**	**122**	P	**P**	**16 52 03.0**	**-1.8**
	comp=Z,14nm,0.7s,baz=299,slow=8.0,SNR=227						
WRA				PcP	**PcP**	**16 54 26.0**	**-0.7**
	comp=Z,0.8nm,0.4s,baz=308,slow=2.6,SNR=3.4						
WRA				ScP	**ScP**	**16 57 49.2**	**-2.6**
	comp=Z,0.9nm,0.7s,baz=303,slow=3.4,SNR=3.6						
	comp=Z,14nm,0.7s						
WRA	**Warramunga Arr**	**35.93**	**122**		**P**	**16 52 03.6**	**-1.2**
WRAB	**Tennant Creek**	**35.94**	**122**	P	**P**	**16 52 04.2**	**-0.6**
WRAB	**Tennant Creek**	**35.94**	**122**	P	**P**	**16 52 03.7**	**-1.1**
WRAB				IAmb	IAmb	16 52 04.9	
	comp=Z,20nm,0.6s						
WRAB	**Tennant Creek**	**35.94**	**122**	P	**P**	**16 52 02.3**	**-2.5**
	comp=Z,34nm,0.6s						
WR8	**Warramunga Arr**	**36.07**	**122**		**P**	**16 52 05.2**	**-0.8**
WR8				IAmb	IAmb	16 52 06.0	
	comp=Z,23nm,0.7s						
XAN	**Xi'an**	**36.50**	**9**	⇑P	**P**	**16 52 09.7**	**+0.3**
XAN				pmax	pmax		
	comp=Z,28nm,0.8s						
AUALC	**St Philip's Co**	**37.30**	**128**	P	**P**	**16 52 16.9**	**+0.6**
AS31	**Alice Springs**	**37.31**	**128**		**P**	**16 52 16.0**	**-0.4**
AS31				IAmb	IAmb	16 52 17.0	
	comp=Z,17nm,0.6s						
ASAR	**Alice Springs**	**37.31**	**128**	P	**P**	**16 52 15.0**	**-1.4**
	comp=Z,32nm,0.5s,baz=301,slow=7.7,SNR=774						
ASAR				PcP	**PcP**	**16 54 30.4**	**-0.4**
	comp=Z,1.2nm,0.3s,baz=299,slow=2.3,SNR=4.5						
ASAR				ScP	**ScP**	**16 57 54.8**	**-2.1**
	comp=Z,0.9nm,0.5s,baz=306,slow=3.7,SNR=8.2						
	comp=Z,32nm,0.5s						
ASAR	**Alice Springs**	**37.31**	**128**		**P**	**16 52 14.7**	**-1.7**
AS01	**Alice Springs**	**37.35**	**128**	P	**P**	**16 52 17.0**	**+0.3**
NJ2	**Nanjing**	**37.43**	**23**	*e*P	**P**	**16 52 20.5**	**+3.4**
NJ2				pmax	pmax		
	comp=Z,45nm,1.4s						
FORT	**Forrest**	**37.48**	**142**	P	**P**	**16 52 18.0**	**+0.4**
FORT				IAmb	IAmb	16 52 21.2	
	comp=Z,28nm,0.8s						
LYN	**LuoYang**	**37.70**	**14**	P	**P**	**16 52 21.2**	**+1.8**
LYN				pmax	pmax		
	comp=Z,48nm,0.8s						
TIA	**Tai'an**	**40.56**	**19**	P	**P**	**16 52 43.3**	**+0.3**
TIA				pmax	pmax		
	comp=Z,12nm,0.7s						
GTA2	**Gaotai**	**41.48**	**357**	P	**P**	**16 52 51.5**	**+0.9**
GTA2				pP	pP	16 53 42.6	+5.2
GTA2				PcP	**PcP**	**16 54 44.4**	**+0.5**
GTA2				pmax	pmax		
	comp=Z,13nm,0.8s						
HHC	**Hu-ho-hao-te**	**43.59**	**10**	*e*P	**P**	**16 53 08.2**	**+0.6**
HHC				pmax	pmax		
	comp=Z,19nm,0.5s						
HHC				pmax	pmax		
	comp=Z,300nm,5.6s						
BJI2	**Beijing**	**43.82**	**15**	P	**P**	**16 53 10.3**	**+1.1**
BJI2				pP	**pP**	**16 53 54.4**	**-2.1**
BJI2				pmax	pmax		
	comp=Z,8.0nm,1.1s						
BJI2				pmax	pmax		
	comp=Z,210nm,8.7s						
BBOO	**Buckleboo**	**43.96**	**138**	P	**P**	**16 53 09.7**	**-0.8**
BBOO				IAmb	IAmb	16 53 10.2	
	comp=Z,37nm,1.5s						
INKA	**Innaminka**	**44.67**	**128**	P	**P**	**16 53 16.0**	**-0.2**
GUMO	**Guam**	**44.97**	**68**	P	**P**	**16 53 16.8**	**-2.0**
	comp=Z,48nm,0.5s,baz=98,slow=6.1,SNR=5.4						
	comp=Z,48nm,0.5s						
PMG	**Port Moresby**	**45.14**	**101**	P	**P**	**16 53 20.3**	**+0.1**
PMG				IAmb	IAmb	16 53 52.0	
	comp=Z,38nm,1.1s						
KSRS	**Korea Array**	**45.98**	**29**	P	**P**	**16 53 25.8**	**-0.4**
	comp=Z,11nm,1.0s,baz=212,slow=8.2,SNR=10						
	comp=Z,11nm,1.0s						
HTT	**Hallett**	**46.27**	**136**	P	**P**	**16 53 29.3**	**+0.5**
CTA	**Charters Tower**	**46.44**	**116**	P	**P**	**16 53 29.7**	**-0.5**
	comp=Z,9.0nm,0.9s,baz=319,slow=11,SNR=8.0						
	comp=Z,9.0nm,0.9s						
QLP	**Quilpie**	**46.96**	**125**	P	**P**	**16 53 35.3**	**+1.1**
STKA	**Stephens Creek**	**47.34**	**133**	P	**P**	**16 53 35.5**	**-1.5**
	comp=Z,9.1nm,0.4s,baz=320,slow=7.5,SNR=36						
	comp=Z,9.1nm,0.4s						
STKA	**Stephens Creek**	**47.34**	**133**	P	**P**	**16 53 34.9**	**-2.1**
	comp=Z,87nm,0.8s						
XLT	**XiLinHaoTe**	**47.45**	**13**	*e*P	**P**	**16 53 38.8**	**+1.1**
XLT				pmax	pmax		
	comp=Z,10.0nm,1.0s						
XLT				pmax	pmax		
	comp=Z,130nm,4.2s						
WMQ	**Urumqi**	**47.59**	**346**	*e*P	**P**	**16 53 40.4**	**+1.7**
WMQ				pmax	pmax		
	comp=Z,42nm,0.9s						
SHLS	**Shalkode**	**49.56**	**338**	*e*P	**P**	**16 53 53.8**	**0.0**
	comp=Z,6.5nm,0.4s						
UZB	**Uzynbulak**	**49.72**	**338**	*e*P	**P**	**16 53 56.2**	**+1.2**
SONM	**Songino Array**	**49.88**	**4**	P	**P**	**16 53 56.2**	**+0.1**
	comp=Z,24nm,0.7s,baz=186,slow=9.5,SNR=131						
SONM				PcP	**PcP**	**16 55 12.8**	**-0.3**
	comp=Z,3.3nm,0.7s,baz=181,slow=5.9,SNR=7.5						
SONM				ScP	**ScP**	**16 58 45.6**	**-2.0**
	comp=Z,0.8nm,0.7s,baz=197,slow=1.5,SNR=3.1						
	comp=Z,24nm,0.7s						
SONM	**Songino Array**	**49.88**	**4**		**P**	**16 53 57.2**	**+1.0**
SONM				IAmb	IAmb	16 53 58.5	
	comp=Z,26nm,0.7s						
ULN	**Ulaanbaatar**	**49.96**	**4**		**P**	**16 53 57.1**	**+0.4**
ULN				IAmb	IAmb	16 53 59.0	
	comp=Z,15nm,0.9s						
ULN	**Ulaanbaatar**	**49.96**	**4**	P	**P**	**16 53 58.2**	**+1.4**
	comp=Z,17nm,1.0s						
KPKS	**Kokpek**	**50.12**	**338**	*e*P	**P**	**16 53 59.1**	**+1.1**
CMSA	**Cobar Meteorol**	**50.24**	**130**	P	**P**	**16 54 00.1**	**+1.1**
CMSA	**Cobar Meteorol**	**50.24**	**130**	P	**P**	**16 53 58.6**	**-0.4**
	comp=Z,25nm,0.7s						
TNSS	**Tian-Shan**	**50.44**	**336**	*e*P	**P**	**16 54 01.6**	**+0.8**
MDOK	**Medeo**	**50.50**	**336**	*e*P	**P**	**16 54 02.2**	**+1.2**
AAA	**Alma-Ata**	**50.60**	**336**	*e*P	**P**	**16 54 02.7**	**+1.2**
	comp=Z,15nm,0.9s						
MJAR	**Matsushiro Arr**	**50.93**	**37**	P	**P**	**16 54 04.0**	**0.0**
	comp=Z,11nm,0.7s,baz=207,slow=7.6,SNR=57						
	comp=Z,11nm,0.7s						
MJAR	**Matsushiro Arr**	**50.93**	**37**		**P**	**16 54 03.4**	**-0.7**
RK1H	**Rockhampton Ha**	**51.17**	**119**	P	**P**	**16 54 05.4**	**-0.6**
KUU	**Kurty**	**51.40**	**336**	*e*P	**P**	**16 54 08.9**	**+1.5**
TDK	**Taldyqorghan**	**51.53**	**338**	*e*P	**P**	**16 54 09.7**	**+1.3**
ZSN	**Zaisan**	**51.69**	**345**	*e*P	**P**	**16 54 10.9**	**+1.4**
SGDS	**Sogindy**	**51.75**	**334**	*e*P	**P**	**16 54 11.5**	**+1.4**
MKAR	**Makanchi Array**	**51.81**	**343**	P	**P**	**16 54 10.7**	**+0.3**
	comp=Z,14nm,0.7s,baz=148,slow=8.0,SNR=62						
	comp=Z,14nm,0.7s						
MKAR	**Makanchi Array**	**51.81**	**343**		**P**	**16 54 10.1**	**-0.4**
MAKZ	**Makanchi**	**51.92**	**342**		**P**	**16 54 11.3**	**+0.1**
MAKZ	**Makanchi**	**51.92**	**342**	P	**P**	**16 54 11.8**	**+0.5**
	comp=Z,8.4nm,1.4s						
BNX	**BinXian**	**52.58**	**22**	⇑P	**P**	**16 54 16.5**	**+0.4**
BNX				pmax	pmax		
	comp=Z,23nm,1.0s						
DZA	**Taraz**	**52.81**	**332**	*e*P	**P**	**16 54 19.1**	**+1.3**
USA0B	**Ussuriysk Arra**	**53.20**	**26**		**P**	**16 54 21.2**	**+0.6**
USRK	**Ussuriysk Ar.**	**53.20**	**26**	P	**P**	**16 54 21.3**	**+0.7**
	comp=Z,26nm,0.6s,baz=221,slow=5.8,SNR=92						
	comp=Z,26nm,0.6s						
USRK	**Ussuriysk Ar.**	**53.20**	**26**		**P**	**16 54 21.1**	**+0.5**
CHM	**Chimkent**	**53.22**	**330**	*e*P	**P**	**16 54 22.4**	**+1.6**
BRLS	**Borolday**	**53.63**	**331**	*e*P	**P**	**16 54 24.2**	**+0.4**
HILR	**Hailar Array B**	**53.63**	**14**	P	**P**	**16 54 23.8**	**+0.1**
	comp=Z,2.9nm,0.6s,baz=196,slow=9.0,SNR=8.7						
	comp=Z,2.9nm,0.6s						
KURBB	**Kurchatov Arra**	**56.36**	**342**	P	**P**	**16 54 43.5**	**+0.4**
	comp=Z,8.7nm,0.7s,baz=160,slow=6.7,SNR=31						
	comp=Z,8.7nm,0.7s						
KURK	**Kurchatov**	**56.41**	**342**		**P**	**16 54 43.2**	**-0.3**
KURK				IAmb	IAmb	16 54 44.8	
	comp=Z,13nm,0.7s						
KURK	**Kurchatov**	**56.41**	**342**	P	**P**	**16 54 43.5**	**0.0**
	comp=Z,23nm,0.8s						
HEH	**HeiHe**	**56.44**	**19**	*e*P	**P**	**16 54 44.1**	**+0.4**
HEH				pP	**pP**	**16 55 33.8**	**+0.3**
HEH				pmax	pmax		
	comp=Z,18nm,0.9s						
ZAA0	**Zalesovo Array**	**57.75**	**348**		**P**	**16 54 52.6**	**-0.1**
ZAA0				IAmb	IAmb	16 54 54.0	
	comp=Z,18nm,0.7s						
ZALV	**Zalesovo Beam**	**57.75**	**348**	P	**P**	**16 54 52.8**	**0.0**
	comp=Z,6.4nm,0.3s,baz=164,slow=5.4,SNR=80						
	comp=Z,6.4nm,0.3s						
ZALV	**Zalesovo Beam**	**57.75**	**348**	P	**P**	**16 54 52.6**	**-0.1**
JKA	**Kamikawa-asahi**	**58.42**	**33**	IAmb	IAmb	16 54 59.2	
	comp=Z,7.8nm,0.7s						
YSS	**Yuzhno-Sakhali**	**60.37**	**31**	P	**P**	**16 55 12.0**	**+1.1**
YSS	**Yuzhno-Sakhali**	**60.37**	**31**		**P**	**16 55 11.3**	**+0.4**
YSS				IAmb	IAmb	16 55 12.4	
	comp=Z,21nm,0.8s						
YSS	**Yuzhno-Sakhali**	**60.37**	**31**	P	**P**	**16 55 11.7**	**+0.8**
	comp=Z,33nm,1.3s						
BVAR	**Borovoye Array**	**61.13**	**339**	P	**P**	**16 55 15.1**	**-0.8**
	comp=Z,7.9nm,0.5s,baz=153,slow=9.9,SNR=32						
	comp=Z,7.9nm,0.5s						
AB31	**Akbulak array**	**62.89**	**330**		**P**	**16 55 26.6**	**-1.0**
AB31				IAmb	IAmb	16 55 28.6	
	comp=Z,16nm,0.7s						
ABKAR	**Akbulak array**	**62.89**	**330**	P	**P**	**16 55 26.3**	**-1.3**
YAK	**Yakutsk**	**67.30**	**14**		**P**	**16 55 54.8**	**-0.8**
YAK	**Yakutsk**	**67.30**	**14**	P	**P**	**16 55 55.3**	**-0.4**
	comp=Z,50nm,0.8s						
ARTI	**Arti**	**68.31**	**335**	P	**P**	**16 56 02.0**	**-0.2**
KBZ	**Khabaz**	**69.94**	**318**	P	**P**	**16 56 13.5**	**+1.1**
	comp=Z,5.1nm,0.8s,baz=114,slow=6.1,SNR=12						
	comp=Z,5.1nm,0.8s						
MAW	**Mawson**	**70.75**	**195**	P	**P**	**16 56 18.4**	**+1.5**
	comp=Z,2.4nm,0.8s,baz=21,slow=8.7,SNR=5.1						
	comp=Z,2.4nm,0.8s						
MAW	**Mawson**	**70.75**	**195**	IAmb	IAmb	16 56 20.0	
	comp=Z,1.0nm,1.2s						
JCZ	**Jackson Bay**	**71.74**	**136**	P	**P**	**16 56 23.7**	**+0.3**
PETK	**Petropavlovsk-**	**71.76**	**31**	P	**P**	**16 56 21.4**	**-1.8**
	comp=Z,4.3nm,0.8s,baz=272,slow=2.6,SNR=7.2						
	comp=Z,4.3nm,0.8s						
PETK	**Petropavlovsk-**	**71.76**	**31**	P	**P**	**16 56 22.4**	**-0.8**
NRIK	**Noril'sk**	**72.03**	**355**	P	**P**	**16 56 23.1**	**-1.3**
	comp=Z,4.1nm,0.4s,baz=141,slow=3.1,SNR=7.5						
	comp=Z,4.1nm,0.4s						
NRIK	**Noril'sk**	**72.03**	**355**	IAmb	IAmb	16 56 25.4	
	comp=Z,13nm,1.2s						
LBZ	**Lake Benmore**	**72.79**	**136**	P	**P**	**16 56 30.1**	**+0.6**
RPZ	**Rata Peaks**	**73.24**	**135**	P	**P**	**16 56 30.2**	**-2.0**
QRZ	**Quartz Range**	**73.68**	**132**	P	**P**	**16 56 35.8**	**+1.0**
LTZ	**Lake Taylor**	**73.90**	**134**	P	**P**	**16 56 38.4**	**+2.4**
NNZ	**Nelson**	**74.39**	**132**	P	**P**	**16 56 39.7**	**+0.9**
BR131	**Keskin Array S**	**75.13**	**312**	P	**P**	**16 56 43.0**	**-0.3**
BRTR	**Keskin Array B**	**75.13**	**312**	P	**P**	**16 56 43.1**	**-0.3**
	comp=Z,2.1nm,0.6s,baz=136,slow=7.0,SNR=13						
	comp=Z,2.1nm,0.6s						
WAZ	**Wanganui**	**75.33**	**130**	P	**P**	**16 56 46.7**	**+2.4**
TOZ	**Tahuroa Road**	**75.41**	**128**	P	**P**	**16 56 47.1**	**+2.3**
TLZ	**Tolley Road**	**75.53**	**129**	P	**P**	**16 56 47.3**	**+1.8**
FWVZ	**Far West T-bar**	**75.69**	**130**	P	**P**	**16 56 46.5**	**-0.1**
TRVZ	**Turoa**	**75.69**	**130**	P	**P**	**16 56 46.5**	**-0.1**
WNVZ	**Wahianoa**	**75.73**	**130**	P	**P**	**16 56 46.7**	**-0.1**
MRZ	**Mangatainoka R**	**75.93**	**131**	P	**P**	**16 56 48.1**	**+0.4**

BHHZ	Black Hill Sta	76.11	130	P	P	16 56 47.3	-1.5
TSZ	Takapari Road	76.12	131	P	P	16 56 48.5	-0.3
PNHZ	Pukenui	76.28	130	P	P	16 56 49.4	-0.3
BFZ	Birch Farm	76.44	131	P	P	16 56 50.4	-0.1
URZ	Urewera	76.74	129	P	P	16 56 51.9	-0.4
HAZ	Te Kaha	77.20	128	P	P	16 56 53.0	-1.8
PUZ	Puketiti	77.62	128	P	P	16 56 56.5	-0.6
BOSA	Boshof	77.64	241	P	P	16 56 58.5	+0.9
	comp=Z,10nm,0.7s,baz=95,slow=4.0,SNR=25						
	comp=Z,10nm,0.7s						
BOSA	Boshof	77.64	241	IAmb	IAmb	16 56 59.6	
	comp=Z,8.9nm,0.8s						
AKASG	Malin Array Be	81.01	322	P	P	16 57 14.7	-0.5
	comp=Z,0.5nm,0.4s,baz=87,slow=5.1,SNR=6.1						
VNDA	Vanda	81.59	169	P	P	16 57 17.5	-0.2
	comp=Z,0.5nm,0.4s,baz=331,slow=6.5,SNR=8.4						
	comp=Z,0.5nm,0.4s						
FINES	FINESS Array B	85.31	332	P	P	16 57 36.4	-0.4
	comp=Z,1.2nm,0.8s,baz=108,slow=4.8,SNR=5.7						
	comp=Z,1.2nm,0.8s						
VYHS	Vyhne	87.26	319	*e*P	P	16 57 47.7	+1.0
ARCES	ARCESS Array B	87.39	340	P	P	16 57 46.2	-0.7
	comp=Z,1.7nm,0.3s,baz=99,slow=5.4,SNR=35						
	comp=Z,1.7nm,0.3s						
ARCES	ARCESS Array B	87.39	340	IAmb	IAmb	16 57 48.3	
	comp=Z,8.6nm,1.1s						
QSPA	South Pole Qui	87.83	180	P	P	16 57 49.5	+0.3
	comp=Z,2.1nm,0.5s,baz=194,slow=0.3,SNR=38						
	comp=Z,2.1nm,0.5s						
QSPA	South Pole Qui	87.83	180	P	P	16 57 49.9	+0.7
QSPA				IAmb	IAmb	16 57 50.7	
	comp=Z,8.7nm,1.4s						
TROLL	Troll, Antarti	91.02	198	P	P	16 58 06.9	+2.9
	comp=Z,51nm,0.7s						
SPITS	Spitsbergen Ar	91.23	348	P	P	16 58 03.4	-1.3
	comp=Z,5.8nm,0.9s,baz=96,slow=4.3,SNR=5.5						
	comp=Z,5.8nm,0.9s						
NOA	NORSAR Array B	92.39	331	P	P	16 58 09.6	-0.8
	comp=Z,0.6nm,0.8s,baz=77,slow=5.5,SNR=1.6						
	comp=Z,0.6nm,0.8s						
VNA2	Neumayer--Watz	94.36	198	P	P	16 58 20.7	+1.4
	comp=Z,1.1nm,0.6s,baz=91,slow=4.3						
E21K	Killik River	96.99	21	P	P	16 58 31.2	0.0
E21K				IAmb	IAmb	16 58 31.9	
	comp=Z,5.2nm,0.7s						
PLID	Pearl Lake	125.54	33		PKPdf	17 04 00.5	0.0
NVAR	Mina Array Bea	128.20	41	PKP	PKiKP	17 04 06.7	+0.3
	comp=Z,0.6nm,0.6s,baz=355,slow=2.5,SNR=4.3						
NVAR	Mina Array Bea	128.20	41		PKPdf	17 04 06.0	+0.3
PDAR	Pinedale Array	130.52	31	PKP	PKPdf	17 04 09.8	-0.2
	comp=Z,0.6nm,0.7s,baz=117,slow=1.7,SNR=4.6						
PDAR				SKPbc	SKPbc	17 07 09.2	-3.5
	comp=Z,1.1nm,0.8s,baz=294,slow=1.5,SNR=8.2						
PLCA	Paso Flores	136.85	188	SKPbc	SKPbc	17 07 32.5	-1.1
	comp=Z,1.9nm,0.8s,baz=209,slow=0.7,SNR=6.2						
TXAR	Lajitas Array	143.34	40	PKP	PKPbc	17 04 32.0	+0.4
	comp=Z,2.5nm,0.5s,baz=225,slow=0.5,SNR=58						
TXAR	Lajitas Array	143.34	40		PKPbc	17 04 32.0	+0.3
UALR	University of	144.76	21		PKPbc	17 04 34.9	-0.6
CPUP	Villa Florida	145.56	213	PKPbc	PKPbc	17 04 38.0	-0.2
	comp=Z,5.7nm,0.7s,baz=137,slow=4.4,SNR=18						
BDFB	Brasilia	145.78	238	PKPbc	PKPbc	17 04 39.3	0.0
	comp=Z,4.2nm,0.6s,baz=138,slow=5.2,SNR=6.7						
CPCT	Cooper Cave	146.24	10	PKPbc	PKPdf	17 04 39.4	+0.8
HKT	Hockley	147.39	30	PKPbc	PKPbc	17 04 42.8	-0.5
LPAZ	La Paz	159.42	207	PKPab	PKPab	17 05 37.9	+0.3
	comp=Z,0.7nm,0.7s,baz=199,slow=1.1,SNR=4.2						

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*NEIC **06** 16:51:23.6±1.4, 38.°0N±0.°1×77.°9E±0.°1, h10^{km}±2^{km}, mb4.6/6, Error ellipse: s-maj=18.7km s-min=14.3km az=173.0*

ISC 06 16:51:23.5±0.7**, 37.°98N**±0.°07×**77.°97E**±0.°07**, h10^{km}, n23, σ1^{s}26**/26**, mb4.6**/4**, 3C-1D, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSH2	Kashi	2.21	302	Pn	Pn	16 52 00.5	0.0
KSH2				Sn	Sb	16 52 30.9	-0.4
KSH2				smax	smax		
	comp=N,370nm,0.7s						
KSH2				smax	smax		
	comp=E,400nm,0.7s						
WUS	Wushi	3.36	16		Pn	16 52 15.8	-0.4
TARG	Taragay, Kyrgy	3.75	358		Pn	16 52 23.0	+1.2
NRN	Naryn	3.77	337	Pn	Pn	16 52 21.7	-0.3
KDJ	Kajisay	4.19	352	Pn	Pn	16 52 28.4	+0.7
BOOM	Boomskoye usch	4.76	342		Pn	16 52 36.7	+1.1
AAK	Ala-Archa	5.36	331	⇓P	Pb	16 53 00.1	+2.8
	comp=E,1.3nm,0.4s						
AAK				⇑S	Sb	16 53 59.0	-2.7
	comp=E,6.2nm,0.6s						
AAK	Ala-Archa	5.36	331		Pn	16 52 44.9	+1.2
PDGK	Podgornoye	5.47	12		Pn	16 52 45.3	+0.1
KK31	Karatay Array	7.64	314	⇑P	Pn	16 53 17.5	+2.6
	comp=E,0.2nm,0.3s,baz=148,slow=14,SNR=8.0						
KK31				⇑S	Sn	16 54 28.8	-13
	comp=E,1.5nm,0.6s,baz=138,slow=26,SNR=6.1						
KK31	Karatay Array	7.64	314	Pn	Pn	16 53 13.4	-1.5
KKAR	Karatay Array	7.64	314	Pn	Pn	16 53 13.1	-1.8
MAKZ	Makanchi	9.30	17	Pn	Pn	16 53 37.4	-0.3
HYB	Hyderabad	20.49	178	*e*P	P	16 56 01.6	-0.1
HYB				*e*S	S	16 59 51.9	+0.8
PZH	PanZhiHua	23.07	113	P	P	16 56 30.2	+0.8
HHC	Hu-ho-hao-te	26.02	73	*e*P	P	16 56 56.6	-0.2
HHC				pmax	pmax		
	comp=Z,7.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,280nm,7.3s						
SLVN	Son La	27.85	119	P	P	16 57 13.4	0.0
NJ2	Nanjing	33.80	88	*e*P	P	16 58 05.6	-0.1
NJ2				pmax	pmax		
	comp=Z,28nm,0.8s						
NC405	NORSAR Array S	46.35	322	P	P	16 59 49.1	-0.4
NC405				IAmb	IAmb	17 00 02.5	
	comp=Z,11nm,1.4s						
NC602	NORSAR Array S	46.45	322	P	P	16 59 49.5	-0.7
SPB2	Spitsbergen Ar	47.38	346	P	P	16 59 57.2	-0.1
ECH	Echery	51.00	306	P	P	17 00 24.4	-1.1
ECH				IAmb	IAmb	17 00 59.7	
	comp=Z,7.8nm,1.5s						
BMAR	Burnt Mountain	70.09	16	P	P	17 02 35.0	-0.4

KRSC 06 16:51:39.3±1.6**, 54.°61N×165.°87E, h20^{km}**±19^{km}**, MI4.0, Komandorsky Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BKI	Bering	0.60	6	*e*P	Pb	16 51 49.5	-1.6
BKI				*e*S	Sb	16 51 56.6	-2.6
KBTR	Krutoberegovo	2.37	314	*e*P	Pb	16 52 19.1	-2.0
MKZ	Mys Kozlova	2.41	270	*e*P	Pb	16 52 21.0	-0.8
MKZ				*e*S	Sb	16 52 49.6	-1.4
ZLN	Zelenaya	3.22	298	*e*P	Pb	16 52 32.7	-3.0
BZGR	Bezymyannyi-Gr	3.25	296	*e*P	Pn	16 52 32.3	+3.2
CIRR	Tsirk	3.29	299	*e*P	Pb	16 52 33.7	-3.2
BZWR	Bezymyannyi-We	3.36	296	*e*P	Pn	16 52 33.9	+3.3
TUMR	Tumrok	3.37	284	*e*P	Pb	16 52 35.0	-3.3
KLY	Klyuchi	3.42	302	*e*P	Pn	16 52 34.0	+2.5
KMNR	Kamenistaya	3.43	292	*e*P	Pb	16 52 35.6	-3.7
KIRR	Kirishev	3.44	295	*e*P	Pb	16 52 36.3	-3.2
KOZ	Kozyrevsk	3.72	295	*e*P	Pb	16 52 40.7	-3.5
SPN	Mys Shipunski	3.78	249	*e*P	Pn	16 52 40.7	+4.4
SPN				*e*S	Sn	16 53 23.7	+3.7
KII	Karymskiy	3.80	264	*e*P	Pn	16 52 40.9	+4.2
NLC	Nalytchevo	4.12	252	*e*P	Pn	16 52 44.9	+3.9
NLC				*e*S	Sn	16 53 31.8	+3.4
SDLR	Sedlovina	4.34	255	*e*P	Pn	16 52 48.7	+4.7
SMAR	Somma	4.39	255	*e*P	Pn	16 52 50.2	+5.3
UGLR	Uglovaya	4.39	254	*e*P	Pn	16 52 49.5	+4.6
KRER	Koryakskii	4.40	256	*e*P	Pn	16 52 50.0	+4.9
AVH	Avacha	4.42	255	*e*P	Pn	16 52 50.4	+5.2
KRX	Arik	4.44	257	*e*P	Pn	16 52 49.9	+4.4
KOK	Koryaka	4.47	256	*e*P	Pn	16 52 50.2	+4.3
DALK	Dalny	4.50	252	*e*P	Pn	16 52 50.5	+4.3
DALK				*e*S	Sn	16 53 41.6	+3.7
PET	Petropavlovsk	4.56	253	*e*P	Pn	16 52 51.0	+4.0
PET				*e*S	Sn	16 53 43.2	+3.9
INSR	Institute	4.57	253	*e*P	Pn	16 52 51.7	+4.6
RUS	Russkaya	4.90	247	*e*P	Pn	16 52 55.9	+4.2
KRMR	Karymshinskiy	4.93	252	*e*P	Pn	16 52 57.3	+5.2
KRMR				*e*S	Sn	16 53 52.7	+4.3
MTVR	Mutnovka	5.05	248	*e*P	Pn	16 52 58.7	+4.8
MTVR				*e*S	Sn	16 53 55.5	+3.8
GRL	Gorelyy	5.08	249	*e*P	Pn	16 52 59.5	+5.3
ASAK	Asacha	5.25	248	*e*P	Pn	16 53 01.7	+5.1
KDTR	Khodutka, Kamc	5.46	242	*e*P	Pn	16 53 03.4	+4.1

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*UCR **06** 17:01:02.9±0.5, 8.°28N×83.°06W, h14^{km}±18^{km}, MW3.6, Presumed earthquake*

*UPA **06** 17:01:03.3±1.8, 8.°33N×83.°04W, h10^{km}±4^{km}, MW3.6, Presumed earthquake*

ISC 06 17:01:03.2±1.0**, 8.°31N**±0.°03×**83.°06W**±0.°03**, h16^{km}**±9^{km}**, n27, σ0^{s}73**/40**, 2C-7D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTPM	Petroterminale	0.21	122	⇑*i*P	Pb	17 01 08.1	-0.5
PTPM				*e*S	Sg	17 01 11.6	+0.3
PTPA	Petro Terminal	0.22	121	*e*P	Pg	17 01 08.1	-0.1
LIMO3	Limones	0.28	138	*i* P	Pb	17 01 09.6	-0.3
LIMO3				*e*S	Sb	17 01 14.3	-0.1
LMNES	Limones	0.29	137	*e*P	Pg	17 01 09.4	0.0
LMNES	Limones	0.29	137	⇑*i*P	Pb	17 01 09.5	-0.5
LMNES				*e*S	Sb	17 01 16.0	+1.5
PIRO	Carate, Puerto	0.29	288	*e*P	Pg	17 01 09.2	-0.2
PIRO	Carate, Puerto	0.29	288	*e*P	Pg	17 01 09.4	0.0
FITO	Golfito	0.32	343	*e*P	Pg	17 01 09.1	-0.9
FITO				*e*S	Sg	17 01 14.7	+0.1
NELY	Ciudad Neily	0.35	18	*e*P	Pg	17 01 10.3	-0.2
NELY	Ciudad Neily	0.35	18	⇓*i*P	Pg	17 01 10.4	-0.1
NELY				*e*S	Sb	17 01 16.8	+0.5
VITO	San Vito	0.51	10	*i* P	Pb	17 01 14.6	+0.7
MLIR3	Monte Lirio, C	0.53	26	⇓*i*P	Pb	17 01 14.1	-0.1
MLIR3				*e*S	Sb	17 01 22.1	+0.5
BRU2	Volcan	0.60	37	*e*P	Pg	17 01 14.7	-0.3
BRU2	Volcan	0.60	37	⇓*i*P	Pg	17 01 14.9	-0.2
BRU2				*e*S	Sb	17 01 24.0	+0.4
CLLRA	Cordillera,	0.61	46	*e*P	Pg	17 01 15.1	-0.3
CLLRA	Cordillera,	0.61	46	⇓*i*P	Pg	17 01 15.2	-0.1
CLLRA				*e*S	Sb	17 01 25.3	+1.2
DVD	David	0.61	79	*e*P	Pg	17 01 14.6	-0.6
DVD				*e*S	Sb	17 01 25.3	+1.5
PTAR3	Potrerillos Ar	0.67	56	*e*P	Pb	17 01 17.1	+0.5
PTAR3				*e*S	Sb	17 01 27.1	+1.4
BQTLY	Boquete Panama	0.74	53	*e*P	Pg	17 01 16.9	-0.8
BQTLY	Boquete Panama	0.74	53	⇓*i*P	Pg	17 01 16.9	-0.7
BGUAL	Bijagual, Pana	0.74	75	⇓*i*P	Pg	17 01 16.9	-0.8
BGUAL				*e*S	Sb	17 01 28.0	+0.4
BQSF3	Alto Boquete,	0.75	55	*e*P	Pg	17 01 17.2	-0.7
BQSF3				*e*S	Sb	17 01 29.1	+1.2
LNBQ3	Los Naranjos,	0.77	52	*e*P	Pb	17 01 18.4	+0.1
EDPE	Pejibaye, P	0.98	329	*e*P	Pb	17 01 20.7	-1.1
RBALA	Bur	1.06	58	*e*P	Pb	17 01 22.0	-1.1
RBALA	Bur	1.06	58	⇓*i*P	Pb	17 01 22.0	-1.1
RBALA				*e*S	Sb	17 01 36.2	-0.4
LCR2	La Lucha 2	1.70	327	*e*P	Pb	17 01 34.0	-0.1

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*IDC **06** 17:06:07.1±0.4, 1.°53N×126.°59E, h0^{km}, mb4.3/22, mbtmp4.3/24, ML4.3/2, MS4.1/2, Error ellipse: s-maj=22.3km s-min=8.4km az=77.0*

*GFZ **06** 17:06:13.2±0.2, 2°N±3°×12°7E±°, h41^{km}, M4.7/19, mb4.7/19, confirmed*

*NEIC **06** 17:06:13.6±2.8, 1.°51N±0.°09×126.°64E±0.°07, h44^{km}±7^{km}, mb4.6/26, Error ellipse: s-maj=14.2km s-min=8.1km az=216.0*

*DJA **06** 17:06:13.0±0.7, 2°N±3°×12°7E±°, h40^{km}±23^{km}, M4.6/20, mB5.0/7, mb4.8/17, MLv4.7/20, Mw(mB)4.4/7*

ISC 06 17:06:14.0±0.3**, 1.°59N**±0.°04×**126.°71E**±0.°05**, h47^{km}, n117, σ1^{s}53**/124**, mb4.6**/53**, 2D, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TNTI	Ternate	1.05	141		Pn	17 06 31.7	-0.6
TNTI				Sn	Sn	17 06 45.2	-0.7
TNTI	Ternate	1.05	141	P	Pn	17 06 31.9	-0.4
TNTI	Ternate	1.05	141	P	Pn	17 06 32.0	-0.3
MNI	Manado	1.87	266	P	Pn	17 06 42.5	-1.1
MNI				S	Sn	17 07 05.8	-0.3
MNI				AML	AML		
SANI	Sanana	3.69	191	P	Pn	17 07 10.8	+2.3
GTOI	Gorontalo	3.81	256	P	Pn	17 07 11.4	+1.1
GTOI				AML	AML		
LUWI	Luwuk	4.72	236		Pn	17 07 21.3	-1.4
LUWI	Luwuk	4.72	236	P	Pn	17 07 25.3	+2.6
LUWI	Luwuk	4.72	236	P	Pn	17 07 25.4	+2.6
	comp=Z,247nm,0.7s						
GSPH	General Santos	4.80	339	*i* P	Pn	17 07 23.9	0.0
GSPH				*i* S	Sn	17 08 16.1	-2.2
NLAI	Namlea	4.81	175	P	Pn	17 07 25.5	+1.5
	comp=Z,42nm,0.6s						
TOLI2	Tolitoli	5.94	265		Pn	17 07 37.9	-1.7
TOLI2	Tolitoli	5.94	265	P	Pn	17 07 40.1	+0.5
	comp=Z,61nm,0.7s						
CDOP	Cateel, Davao	6.16	358	*i* P	Pn	17 07 45.5	+3.1
CDOP				*i* S	Sn	17 08 53.8	+2.1
BUKP	Musuan	6.46	345	*e*P	Pn	17 07 55.1	+8.5
BUKP				*e*S	Sn	17 09 00.0	+0.9
BIPH	Bislig	6.56	357	*e*P	Pn	17 07 48.9	+0.9
KDI	Kendari	6.86	217	P	Pn	17 07 54.1	+2.0
	comp=Z,0.2nmcomp=Z,44nm,0.8s						
KDI				AML	AML		
PCI	Palu	7.30	250	P	Pn	17 07 58.9	+0.7
	comp=Z,0.2nmcomp=Z,65nm,0.9s						
PCI				AML	AML		
MYLDM	Lahad Datu	8.93	294		Pn	17 08 21.8	+1.2
KAPI	Kappang	9.56	227	Pn	Pn	17 08 27.7	-1.3
	comp=Z,2.1nm,0.3s,baz=77,slow=9.7,SNR=5.0						
	comp=Z,17nm,0.6s						
KAPI				AML	AML		
KAPI	Kappang	9.56	227	P	Pn	17 08 31.4	+2.3
KKM	Kota Kinabalu	11.36	293	Pn	Pn	17 08 53.2	-0.7
SOEI	Soe	11.53	192	P	Pn	17 08 55.9	-0.3
	comp=Z,64nm,1.0s						
LQP	Lukban	13.45	338	*e*P	P	17 09 29.1	-1.6
STKI	Sintang	15.30	264	P	Pn	17 09 48.6	+1.6
	comp=Z,24nm,1.3s						
KNRA	Kununurra	17.28	173	Pn	Pn	17 10 07.9	-4.1
PCJI	Pacitan	18.28	238	P	Pn	17 10 26.8	+2.4
	comp=Z,67nm,1.0s						
FITZ	Fitzroy Crossi	19.59	183	P	P	17 10 37.8	-0.6
	comp=Z,0.8nm,0.3s,baz=29,slow=10,SNR=6.9						
	comp=Z,5.2nm,0.6s						
FITZ				AML	AML		
FITZ	Fitzroy Crossi	19.59	183	P	P	17 10 35.7	-2.7
FITZ	Fitzroy Crossi	19.59	183	P	Pn	17 10 39.8	-0.3
	comp=Z,2.8nm,1.8s						
WB0	Warramunga Arr	22.53	161		P	17 11 06.5	-3.6
WRAB	Tennant Creek	22.67	161	P	P	17 11 08.7	-2.9
WRAB	Tennant Creek	22.67	161	P	P	17 11 11.8	+0.2
	comp=Z,65nm,1.2s						
WRA	Warramunga Arr	22.67	161	P	P	17 11 11.5	-0.1
	comp=Z,34nm,0.6s,baz=340,slow=11,SNR=23						
WRA				PcP	PcP	17 15 03.7	+0.7
	comp=Z,0.6nm,0.6s,baz=326,slow=2.0,SNR=2.7						
WRA				S	S	17 15 16.4	-0.3
	comp=Z,1.0nm,0.8s,baz=332,slow=22,SNR=5.7						
	comp=Z,34nm,0.6s						
WRA	Warramunga Arr	22.67	161	P	P	17 11 07.6	-4.0
WR8	Warramunga Arr	22.74	161		P	17 11 09.1	-3.2
WR8				IAmb	IAmb	17 11 15.2	
	comp=Z,33nm,0.8s						
MYKOM	Kota Tinggi	22.85	271	P	P	17 11 13.2	-0.3
	comp=Z,12nm,0.9s						
PMG	Port Moresby	23.12	119	LR	LR	17 22 24.7	
	comp=Z,424nm,19.1s,baz=340,slow=42						
QIS	Mount Isa	25.38	151	P	P	17 11 38.4	+1.3
	comp=Z,16nm,0.8s						
SDSI	Sungai Dareh	25.40	265	P	P	17 11 37.2	-0.1
	comp=Z,12nm,1.1s						
AS31	Alice Springs	26.06	165		P	17 11 44.8	+1.5
ASAR	Alice Springs	26.06	165	P	P	17 11 43.6	+0.3
	comp=Z,3.4nm,0.4s,baz=345,slow=11,SNR=25						
ASAR				PcP	PcP	17 15 10.6	+0.2
	comp=Z,0.6nm,0.5s,baz=330,slow=2.4,SNR=2.9						
ASAR				S	S	17 16 15.8	+4.4
	comp=Z,1.7nm,0.8s,baz=350,slow=22,SNR=7.9						
	comp=Z,3.4nm,0.4s						
ASAR	Alice Springs	26.06	165	P	P	17 11 44.0	+0.7
ASAR				PcP	PcP	17 15 11.8	+1.4
RPSI	Rantau Prapat	27.78	273	P	P	17 11 56.6	-2.3
RPSI				IAmb	IAmb	17 12 00.1	
	comp=Z,11nm,1.0s						
RPSI	Rantau Prapat	27.78	273	P	P	17 11 57.9	-1.0
NJ2	Nanjing	31.19	347	*e*P	P	17 12 31.2	+2.4
NJ2				pmax	pmax		
	comp=Z,41nm,1.0s						
GYA	Guiyang	31.34	324	⇓P	P	17 12 32.2	+1.8
GYA				pmax	pmax		
	comp=Z,12nm,0.8s						
CMAR	Chiang Mai Arr	31.98	303	P	P	17 12 35.0	-1.0
	comp=Z,1.6nm,0.8s,baz=121,slow=7.2,SNR=15						
	comp=Z,1.6nm,0.8s						
CHTO	Chiang Mai	32.14	304	P	P	17 12 35.2	-2.2
CHTO				IAmb	IAmb	17 12 40.6	
	comp=Z,4.0nm,0.8s						
CHTO	Chiang Mai	32.14	304	P	P	17 12 34.8	-2.6
	comp=Z,6.2nm,0.8s						
FORT	Forrest	32.22	178	P	P	17 12 38.0	+0.2
FORT				IAmb	IAmb	17 12 50.5	
	comp=Z,13nm,0.9s						
PZH	PanZhiHua	34.48	318	P	P	17 12 59.6	+1.8
RMQ	Roma	35.10	144	P	P	17 13 02.1	-1.0
	comp=Z,37nm,0.9s						
KSRS	Korea Array	35.71	2	P	P	17 13 08.0	0.0
	comp=Z,1.2nm,0.6s,baz=178,slow=9.8,SNR=4.5						
	comp=Z,1.2nm,0.6s						
STKA	Stephens Creek	36.16	158	P	P	17 13 12.3	+0.3
	comp=Z,4.5nm,0.7s,baz=341,slow=6.3,SNR=8.3						
	comp=Z,4.5nm,0.7s						
STKA	Stephens Creek	36.16	158	P	P	17 13 12.7	+0.7
	comp=Z,36nm,0.8s						
MJAR	Matsushiro Arr	36.37	16	P	P	17 13 12.7	-1.1
	comp=Z,3.6nm,0.9s,baz=185,slow=9.5,SNR=8.5						
	comp=Z,3.6nm,0.9s						
MJAR	Matsushiro Arr	36.37	16	P	P	17 13 12.8	-1.1
MJAR				IAmb	IAmb	17 13 30.2	
	comp=Z,6.8nm,1.3s						
DL2	Dalian	37.43	353	P	P	17 13 24.9	+2.2
DL2				pmax	pmax		
	comp=Z,52nm,1.2s						
MORE	Moreh	38.58	308	P	P	17 13 32.1	-0.6
BJI2	Beijing	39.43	347	P	P	17 13 41.3	+1.8
BJI2				pmax	pmax		
	comp=Z,6.0nm,0.8s						
SHL	Shillong	41.15	308	P	P	17 13 53.2	-1.1
SHL				IAmb	IAmb	17 13 55.9	
	comp=Z,11nm,0.8s						
HHC	Hu-ho-hao-te	41.41	343	*e*P	P	17 13 57.8	+1.7
HHC				pmax	pmax		
	comp=Z,14nm,0.6s						
HHC				pmax	pmax		
	comp=Z,170nm,6.2s						
USA0B	Ussuriysk Arra	42.69	6	P	P	17 14 05.8	-0.4
USA0B				IAmb	IAmb	17 14 09.2	
	comp=Z,13nm,1.2s						
USRK	Ussuriysk Ar.	42.69	6	P	P	17 14 07.1	+0.9
	comp=Z,5.3nm,0.9s,baz=193,slow=7.8,SNR=11						
	comp=Z,5.3nm,0.9s						
XLT	XiLinHaoTe	43.17	349	*e*P	P	17 14 10.1	-0.2
XLT				pmax	pmax		
	comp=Z,6.0nm,1.4s						
XLT				pmax	pmax		
	comp=Z,180nm,3.5s						
BNX	BinXian	43.97	1	⇓P	P	17 14 16.2	-0.4
BNX				pmax	pmax		
	comp=Z,4.0nm,1.0s						
JKA	Kamikawa-asahi	44.63	16	P	P	17 14 23.0	+1.1
JKA				IAmb	IAmb	17 14 24.6	
	comp=Z,13nm,1.0s						
JKA	Kamikawa-asahi	44.63	16	P	P	17 14 22.1	+0.1
	comp=Z,15nm,1.3s						
GTA2	Gaotai	45.01	330	*e*P	P	17 14 24.0	-1.1
GTA2				pmax	pmax		
	comp=Z,2.0nm,1.0s						
EVN	Everest	46.26	308	P	P	17 14 36.6	+0.8
	comp=Z,9.1nm,0.9s						
YSS	Yuzhno-Sakhali	47.30	15	P	P	17 14 40.0	-2.8
	comp=Z,10nm,1.2s						
HILR	Hailar Array B	48.16	354	P	P	17 14 49.8	+0.2
	comp=Z,0.8nm,0.4s,baz=206,slow=12,SNR=4.8						
	comp=Z,0.8nm,0.4s						
HEH	HeiHe	48.49	1	*e*P	P	17 14 52.2	+0.2
ULN	Ulaanbaatar	49.13	343	P	P	17 14 54.0	-3.3
	comp=Z,5.4nm,0.7s						
SONM	Songino Array	49.31	342	P	P	17 14 57.8	-0.7
	comp=Z,2.1nm,0.8s,baz=154,slow=8.5,SNR=9.2						
	comp=Z,2.1nm,0.8s						
SONM	Songino Array	49.31	342	P	P	17 14 58.3	-0.2
SONM				IAmb	IAmb	17 15 01.1	
	comp=Z,3.4nm,1.0s						
PETK	Petropavlovsk-	57.41	22	P	P	17 15 58.7	+1.0
	comp=Z,2.7nm,0.7s,baz=193,slow=6.3,SNR=6.8						
	comp=Z,2.7nm,0.7s						
PETK	Petropavlovsk-	57.41	22	P	P	17 15 57.0	-0.7
PDGK	Podgornoye	59.05	321	P	P	17 16 09.9	+0.4
MKAR	Makanchi Array	59.30	326	P	P	17 16 10.1	-0.9
	comp=Z,2.5nm,0.5s,baz=121,slow=7.9,SNR=50						
	comp=Z,2.5nm,0.5s						
MKAR	Makanchi Array	59.30	326	P	P	17 16 09.6	-1.5
MAKZ	Makanchi	59.48	326	P	P	17 16 10.9	-1.4
MAKZ				IAmb	IAmb	17 16 15.9	
	comp=Z,11nm,1.2s						
KSH2	Kashi	59.66	315	P	P	17 16 15.7	+1.8
KSH2				pmax	pmax		
	comp=Z,5.0nm,0.9s						
ASAI	AK-SAY(Kyrgyzs	59.80	318	P	P	17 16 15.0	-0.1
	comp=Z,5.0nm,1.1s						
YAK	Yakutsk	60.33	2	P	P	17 16 17.1	-0.7
YAK	Yakutsk	60.33	2	P	P	17 16 18.4	+0.6
	comp=Z,14nm,0.8s						
ZALV	Zalesovo Beam	62.48	334	P	P	17 16 31.3	-1.2
	comp=Z,0.9nm,0.4s,baz=128,slow=4.9,SNR=8.6						
	comp=Z,0.9nm,0.4s						
KBL	Kabul	62.81	308	P	P	17 16 37.2	+1.8
	comp=Z,12nm,0.7s						
KURBB	Kurchatov Arra	63.52	328	P	P	17 16 38.7	-0.8
	comp=Z,4.3nm,0.5s,baz=129,slow=6.1,SNR=45						
	comp=Z,4.3nm,0.5s						
KURK	Kurchatov	63.53	328	P	P	17 16 38.3	-1.2
KURK	Kurchatov	63.53	328	P	P	17 16 38.9	-0.6
	comp=Z,14nm,0.8s						
KKAR	Karatay Array	64.78	318	P	P	17 16 46.3	-1.6
BVAR	Borovoye Array	69.09	327	P	P	17 17 14.5	-0.7
	comp=Z,6.3nm,0.9s,baz=126,slow=7.5,SNR=13						
	comp=Z,6.3nm,0.9s						
NRIK	Noril'sk	72.49	346	P	P	17 17 34.7	-0.7
	comp=Z,1.8nm,0.3s,baz=153,slow=6.8,SNR=4.2						
	comp=Z,1.8nm,0.3s						
RAR	Rarotonga	75.25	112	LR	LR	17 51 10.4	
	comp=Z,115nm,18.6s,baz=100,slow=36						
ARTI	Arti	76.80	328	P	P	17 17 59.6	-1.1
ARTI				IAmb	IAmb	17 18 06.2	
	comp=Z,9.6nm,1.0s						
VNDA	Vanda	81.32	173	P	P	17 18 25.8	+0.8
	comp=Z,3.5nm,0.8s,baz=315,slow=6.0,SNR=23						
	comp=Z,3.5nm,0.8s						
VNDA	Vanda	81.32	173	P	P	17 18 25.3	+0.4
VNDA				IAmb	IAmb	17 18 30.0	
	comp=Z,3.6nm,0.8s						
MAW	Mawson	81.75	200	P	P	17 18 27.4	0.0
	comp=Z,2.8nm,1.1s,baz=169,slow=4.3,SNR=4.6						
	comp=Z,2.8nm,1.1s						
MAW	Mawson	81.75	200	P	P	17 18 26.4	-0.9
G19K	Purcell Mounta	82.98	23	P	P	17 18 35.2	+1.2
J19K	Poorman	83.17	26	P	P	17 18 36.3	+1.4
J19K				IAmb	IAmb	17 18 38.0	
	comp=Z,8.6nm,1.0s						
KBZ	Khabaz	84.42	314	P	P	17 18 41.2	-0.5
	comp=Z,3.2nm,0.9s,baz=108,slow=6.4,SNR=4.0						
	comp=Z,3.2nm,0.9s						
SML	Sawmill	86.22	28	P	P	17 18 51.5	+1.1
ILAR	Eielson Array	87.03	25	P	P	17 18 54.3	+0.1
	comp=Z,0.5nm,0.9s,baz=245,slow=5.9,SNR=4.1						
	comp=Z,0.5nm,0.9s						
QSPA	South Pole Qui	91.51	180	P	P	17 19 15.3	-0.1
	comp=Z,1.1nm,0.9s,baz=240,slow=1.7,SNR=6.1						
	comp=Z,1.1nm,0.9s						
QSPA	South Pole Qui	91.51	180	P	P	17 19 14.3	-1.2
QSPA				IAmb	IAmb	17 19 43.4	
	comp=Z,6.2nm,1.4s						
ARCES	ARCESS Array B	92.43	340	P	P	17 19 19.3	-0.3
	comp=Z,2.3nm,0.8s,baz=85,slow=5.2,SNR=4.3						
	comp=Z,2.3nm,0.8s						
FINES	FINESS Array B	93.69	332	P	P	17 19 25.1	-0.3
	comp=Z,2.8nm,1.0s,baz=116,slow=8.7,SNR=5.1						
	comp=Z,2.8nm,1.0s						
TXAR	Lajitas Array	122.91	53	PKP	PKiKP	17 25 06.5	+0.3
	comp=Z,0.4nm,0.7s,baz=252,slow=1.2,SNR=4.9						
TORD	Torodi Ar. Bea	123.53	287	PKP	PKiKP	17 25 09.0	+1.4
	comp=Z,0.3nm,0.6s,baz=47,slow=1.1,SNR=2.0						

VA03	**San Esteban**	145.00	154	*e*P	PKPdf	17 25 47.9	+0.9
AAGR	**Agrelo**	145.44	157	*e*P	PKPab	17 25 49.3	+1.4
AUSP	**Uspallata**	145.97	155	*e*P	PKPab	17 25 51.3	+1.2
RTLS	**Leoncito**	146.37	155	*e*P	PKPab	17 25 52.5	+0.9
ACAN	**Cantantal**	146.79	158	*e*P	PKPbc	17 25 51.3	-0.4

IDC ***06*** *17:27:08.4±1.8, 0°.27N×123°.69E, h0km, mb3.4/3, mbtmp3.4/3, Error ellipse: s-maj=194.9km s-min=26.2km az=62.0*

DJA ***06*** *17:27:09.8±1.5, 2°N±4°×12°7E±°, h21km±15km, M3.3/10, MLv3.3/10*

ISC 06 17:27:11.4±1.6**, 1°.7N**±0°.2×**126°.73E**±0°.10**, h47km, n6, σ0s.84**/7**, mb3.5**/3**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TNTI	**Ternate**	1.10	145	P	Pn	17 27 30.1	-0.4
MNI	**Manado**	1.91	263	P	Pn	17 27 40.9	-0.6
MNI				S	Sn	17 28 03.4	-0.9
MNI				AML	AML		
GTOI	**Gorontalo**	3.86	254	P	Pn	17 28 09.2	+0.9
WRA	**Warramunga Arr**	22.75	161	P	P	17 32 09.8	+0.1
	1.1nm,0.6s,baz=330,slow=11,SNR=11						
	1.1nm,0.6s						
ASAR	**Alice Springs**	26.14	165	P	P	17 32 42.3	+0.9
	0.3nm,0.5s,baz=343,slow=11,SNR=13						
	0.3nm,0.5s						
MKAR	**Makanchi Array**	59.24	326	P	P	17 37 08.1	0.0
	0.2nm,0.4s,baz=126,slow=7.2,SNR=4.2						
	0.2nm,0.4s						

AEIC ***06*** *17:30:51.0±2.7, 51°.17N±0°.05×178°.92W±0°.07, h26km±4km, Error ellipse: s-maj=7.8km s-min=5.7km az=158.0*

GFZ ***06*** *17:30:52.5±0.4, 51°N±9°×17°9W±°, h49km, M4.7/23, mb4.7/23, confirmed*

NEIC ***06*** *17:30:52.8±1.7, 51°.34N±0°.05×178°.94W±0°.07, h50km±3km, mb4.5/161, ML4.5/14, ML4.3(AEIC), Error ellipse: s-maj=8.3km s-min=4.5km az=139.0*

IDC ***06*** *17:30:55.5±2.9, 51°.47N×179°.05W, h71km±24km, mb4.0/28, mbtmp4.2/31, MS3.5/2, Error ellipse: s-maj=16.0km s-min=10.8km az=157.0*

ISC 06 17:30:52.0±1.1**, 51°.25N**±0°.08×**178°.90W**±0°.03**, h45**km±8km**, n309, σ1s.14**/269**, mb4.5**/148**, 15C-9D, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GAKI	**Gareloi-Kavalg**	0.31	11		Pn	17 30 59.7	-1.1
GAKI					Sn	17 31 06.1	-0.9
GALAA	**Gareloi Lava P**	0.52	9		Pn	17 31 03.4	+0.2
GALAA					Sn	17 31 12.1	+0.8
GASW	**Gareloi Southw**	0.53	3		Pn	17 31 03.3	-0.1
GASW					Sn	17 31 12.4	+0.9
GAEA	**Gareloi East**	0.54	10		Pn	17 31 03.6	+0.1
GAEA					Sn	17 31 12.8	+1.1
GANO	**Gareloi North**	0.57	6		Pn	17 31 03.7	-0.2
GANO					Sn	17 31 13.3	+0.8
GANE	**Gareloi Northe**	0.57	8		Pn	17 31 03.9	0.0
GANE					Sn	17 31 13.6	+1.1
TACS	**Tanaga Cape Sa**	0.78	38		Pn	17 31 06.9	+0.2
TACS					Sn	17 31 19.1	+1.7
TASE	**Tanaga Southea**	0.80	42		Pn	17 31 07.1	+0.1
TASE					Sn	17 31 19.4	+1.6
TAFP	**Tanaga Falls P**	0.87	41		Pn	17 31 07.8	0.0
TAFP					Sn	17 31 20.6	+1.1
TAPA	**Tanaga Point A**	0.89	50		Sn	17 31 21.0	+1.1
AMKA	**Amchitka**	1.13	277		Pn	17 31 09.8	-1.6
CERB	**Semis’ Cerberu**	1.14	307		Pn	17 31 11.9	+0.3
CERB					Sn	17 31 27.5	+1.5
KIMD	**Kanaga Island**	1.16	63		Sn	17 31 26.7	+0.2
CETU	**Semis' Tuman**	1.23	306		Pn	17 31 13.0	+0.3
KIWB	**Kanaga Island**	1.25	60		Pn	17 31 13.1	0.0
KIWB				IAML		17 31 35.8	
	comp=E,11µm,0.6s						
KIWB				IAML		17 31 36.3	
	comp=N,9µm,0.7s						
KIKV	**Kanaga Island**	1.25	59		Sn	17 31 29.5	+0.8
KICM	**Kanaga Island**	1.26	57		Sn	17 31 30.5	+1.6
KINC	**Kanaga Island**	1.30	58		Pn	17 31 14.6	+0.8
KIRH	**Kanaga Island**	1.30	59		Pn	17 31 14.4	+0.6
KIRH					Sn	17 31 31.2	+1.2
ADK	**Adak**	1.52	65	P	Pn	17 31 18.5	+1.8
ADK	**Adak**	1.52	65		Pn	17 31 16.9	+0.1
ADK				IAML		17 31 38.9	
	comp=N,7µm,0.9s						
ADK				IAML		17 31 44.5	
	comp=N,9µm,0.8s						
ADK	**Adak**	1.52	65	P	Pn	17 31 16.9	+0.1
ADAG	**Mount Adagdak**	1.61	62		Pn	17 31 18.9	+0.9
ETKA	**Kagalaska Isla**	1.68	68		Sn	17 31 40.1	+1.0
LSSE	**Little Sitkin**	1.72	294		Pn	17 31 19.8	+0.4
LSPA	**Little Sitkin**	1.73	295		Pn	17 31 19.8	+0.3
LSNW	**Little Sitkin**	1.76	295		Pn	17 31 19.9	-0.1
GSSP	**Great Sitkin S**	1.90	63		Pn	17 31 22.8	+0.9
GSTD	**Great Sitkin T**	1.90	64		Pn	17 31 22.9	+0.9
GSMY	**Great Sitkin M**	1.94	65		Sn	17 31 47.7	+2.0
GSTR	**Great Sitkin T**	1.96	63		Pn	17 31 24.3	+1.5
ATKA	**Atka Island**	3.08	70	P	Pn	17 31 39.8	+1.7
ATKA	**Atka Island**	3.08	70		Pn	17 31 39.3	+1.2
ATKA				IAML		17 32 21.4	
	comp=N,2µm,0.9s						
ATKA				IAML		17 32 21.8	
	comp=E,1µm,0.6s						
KOWE	**Korovin West**	3.10	67		Pn	17 31 39.2	+0.8
SHEM	**Shemya Is, Ala**	4.57	292	P	Pn	17 31 59.9	+1.3
	comp=E,84nm,0.4s,baz=240,slow=0.1,SNR=17						
SHEM				S	Sn	17 32 54.7	+4.4
	comp=E,48nm,0.4s,baz=284,slow=18,SNR=1.1						
SHEM				LR	LR	17 33 25.4	
	comp=E,168nm,20.5s,baz=113,slow=34						
SHEM	**Shemya Is, Ala**	4.57	292	Pn	Pn	17 31 55.3	-3.2
SHEM				IAML		17 33 11.9	
	comp=E,304nm,0.8s						
SMY	**Shemya**	4.57	292		Pn	17 32 00.8	+2.3
SMY				IAML		17 33 19.1	
	comp=N,302nm,1.1s						
SPIA	**Saint Paul Isl**	7.80	37	P	Pn	17 32 46.5	+3.7
UNV	**Unalaska Valle**	7.99	66	P	Pn	17 32 47.8	+2.4
SDPT	**Sand Point**	11.75	62	P	Pn	17 33 38.8	+2.0
PET	**Petropavlovsk**	13.89	286	Pn	Pn	17 34 05.9	-0.1
	comp=N,16nm,2.0s						
PETK	**Petropavlovsk-**	14.46	287	P	Pn	17 34 15.5	+1.8
	comp=N,2.8nm,0.7s,baz=90,slow=19,SNR=11						
K15K	**Wolf Creek Mou**	14.54	34		P	17 34 21.6	+1.4
OHAK	**Old Harbor**	16.06	58	P	Pn	17 34 30.9	-3.5
J17K	**VABM Dome**	16.11	33		P	17 34 37.3	-0.4
J17K				IAmb	IAmb	17 34 44.1	
	comp=Z,20nm,0.9s						
KDAK	**Kodiak Island**	16.55	57	P	Pn	17 34 38.5	-2.0
	comp=Z,5.2nm,0.3s,baz=265,slow=6.0,SNR=15						
KDAK				S	Sn	17 37 40.6	-2.4
	comp=Z,35nm,1.3s,baz=65,slow=14,SNR=1.9						
KDAK	**Kodiak Island**	16.55	57	Pn	Pn	17 34 38.4	-2.2
KDAK				IAmb	IAmb	17 34 43.2	
	comp=Z,59nm,1.4s						
J19K	**Poorman**	17.70	35		Pn	17 34 54.9	+0.1
G18K	**Tagagawik**	17.94	27	P	P	17 34 59.9	+1.9
BILI	**Bilibino, Chuk**	18.32	342	P	Pn	17 35 08.0	+5.6
	comp=Z,23nm,1.0s						
CAST	**Castle Rocks**	18.74	39	P	Pn	17 35 07.7	+0.2
SEY	**Seymchan**	19.30	318	P	P	17 35 11.3	-1.5
	comp=Z,1.0nm,0.6s,baz=110,slow=14,SNR=5.9						
PWL	**Port Wells**	19.41	48	P	P	17 35 13.5	-0.6
PWL				IAmb	IAmb	17 35 29.9	
	comp=Z,30nm,0.6s						
E19K	**Redstone River**	19.46	25		P	17 35 13.5	-1.0
IMAR	**Indian Mountai**	19.52	31	P	P	17 35 15.5	+0.3
F20K	**Avaraart Lake**	19.59	27	P	P	17 35 15.3	-0.6
H21K	**Melozitna Rive**	19.64	33	P	P	17 35 15.8	-0.7
SML	**Sawmill**	19.70	46	P	P	17 35 17.0	-0.2
SML				IAmb	IAmb	17 35 32.2	
	comp=Z,13nm,0.6s						
G21K	**Allakaket**	19.92	30	IAmb	IAmb	17 35 22.0	
	comp=Z,18nm,0.7s						
SCM	**Sheep Creek Mo**	20.16	46	IAmb	IAmb	17 35 25.9	
	comp=Z,15nm,0.7s						
H22K	**Ishtalitna Cre**	20.26	33		P	17 35 22.9	-0.4
F21K	**Alatna River**	20.37	29	IAmb	IAmb	17 35 27.3	
	comp=Z,9.2nm,0.6s						
D20K	**Etivluk River**	20.53	23	IAmb	IAmb	17 35 28.3	
	comp=Z,26nm,0.8s						
DHY	**Denali Highway**	20.54	43		P	17 35 25.4	-1.0
DHY				IAmb	IAmb	17 35 30.9	
	comp=Z,22nm,0.8s						
I23K	**Minto, Yukon-K**	20.61	36	IAmb	IAmb	17 35 31.8	
	comp=Z,12nm,0.6s						
COLA	**College**	21.05	38	P	P	17 35 33.7	+1.9
	comp=Z,14nm,0.9s						
BMRM	**Bremner River**	21.21	49	IAmb	IAmb	17 36 01.9	
	comp=Z,20nm,1.2s						
HDA	**Harding Lake**	21.21	39	IAmb	IAmb	17 35 36.5	
	comp=Z,7.5nm,0.4s						
HARP	**HAARP**	21.30	45	IAmb	IAmb	17 35 50.9	
	comp=Z,24nm,1.0s						
ILAR	**Eielson Array**	21.38	39	P	P	17 35 34.9	-0.5
	comp=Z,1.6nm,0.5s,baz=243,slow=8.9,SNR=31						
ILAR				PcP	PcP	17 39 37.1	-0.2
	comp=Z,1.0nm,0.6s,baz=261,slow=3.3,SNR=12						
	comp=Z,1.6nm,0.5s						
ILAR	**Eielson Array**	21.38	39	P	P	17 35 35.2	-0.2
K24K	**Donnelly Dome**	21.47	42	IAmb	IAmb	17 36 04.7	
	comp=Z,13nm,0.8s						
H24K	**Noodor Dome**	21.48	35		P	17 35 36.3	-0.1
D22K	**Ayikyak River**	21.68	26	IAmb	IAmb	17 35 53.2	
	comp=Z,12nm,0.9s						
GLB	**Gilahina Butte**	21.68	48	P	P	17 35 38.4	-0.2
GLB				IAmb	IAmb	17 35 44.9	
	comp=Z,12nm,0.6s						
RIDG	**Independent Ri**	21.84	42	IAmb	IAmb	17 35 43.5	
	comp=Z,10nm,0.9s						
G24K	**Hadweenzic Riv**	22.03	34	IAmb	IAmb	17 35 44.8	
	comp=Z,15nm,0.8s						
MENT	**Mentasta**	22.08	45	IAmb	IAmb	17 36 13.5	
	comp=Z,7.8nm,0.6s						
SCRK	**Sand Creek**	22.27	42		P	17 35 43.4	-1.6
SCRK				IAmb	IAmb	17 35 47.0	
	comp=Z,8.5nm,0.6s						
F24K	**Squaw Lake**	22.31	31	IAmb	IAmb	17 35 48.5	
	comp=Z,19nm,0.9s						
FYU	**Fort Yukon**	22.77	35	IAmb	IAmb	17 35 54.0	
	comp=Z,10nm,0.6s						
C23K	**Itkillik River**	22.86	25	IAmb	IAmb	17 36 03.8	
	comp=Z,20nm,1.1s						
D24K	**Happy Valley**	22.93	27	IAmb	IAmb	17 35 57.5	
	comp=Z,12nm,0.9s						
BCAR	**Beaver Creek A**	22.97	45		P	17 35 51.5	-0.8
F25K	**Christian Rive**	23.09	32	IAmb	IAmb	17 35 54.6	
	comp=Z,16nm,1.4s						
K27K	**Chicken**	23.09	42	IAmb	IAmb	17 35 55.1	
	comp=Z,18nm,1.5s						
C24K	**Franklin Bluff**	23.31	26	IAmb	IAmb	17 35 57.7	
	comp=Z,17nm,0.5s						
G26K	**Porcupine Rive**	23.45	35	IAmb	IAmb	17 36 02.2	
	comp=Z,12nm,0.7s						
D25K	**Kavik River**	23.75	28	IAmb	IAmb	17 36 03.9	
	comp=Z,7.7nm,0.7s						
M29M	**Somme Creek**	24.35	47	IAmb	IAmb	17 36 09.4	
	comp=Z,13nm,1.2s						
I28M	**Miner Creek**	24.38	40	IAmb	IAmb	17 36 07.2	
	comp=Z,8.7nm,0.8s						
L29M	**L29M**	24.61	45	IAmb	IAmb	17 36 12.7	
	comp=Z,11nm,1.1s						
K29M	**Barlow Dome**	25.01	44	IAmb	IAmb	17 36 17.4	
	comp=Z,9.8nm,1.1s						
F28M	**Old Crow**	25.11	35	IAmb	IAmb	17 36 13.6	
	comp=Z,8.0nm,0.7s						
YSS	**Yuzhno-Sakhali**	25.27	275		P	17 36 14.9	+1.2
YSS				IAmb	IAmb	17 36 16.1	
	comp=Z,18nm,0.7s						
YSS	**Yuzhno-Sakhali**	25.27	275	P	P	17 36 15.2	+1.5
	comp=Z,26nm,1.1s						
D27M	**Malcolm River**	25.39	31	IAmb	IAmb	17 36 19.2	
	comp=Z,12nm,1.3s						
E28M	**Babbage River**	25.60	33	P	P	17 36 15.9	-0.7
I30M	**Mount Dempster**	25.77	41	IAmb	IAmb	17 36 18.4	
	comp=Z,14nm,1.3s						
JKA	**Kamikawa-asahi**	26.64	270		P	17 36 26.6	+0.4
JKA				IAmb	IAmb	17 36 28.9	
	comp=Z,21nm,1.1s						
JKA	**Kamikawa-asahi**	26.64	270	P	P	17 36 27.7	+1.5
	comp=Z,20nm,1.1s						
H31M	**Peel River**	26.71	40	IAmb	IAmb	17 36 50.2	
	comp=Z,13nm,1.4s						
USRK	**Ussuriysk Ar.**	33.25	277	P	P	17 37 24.0	-0.6
	comp=Z,3.4nm,0.8s,baz=60,slow=9.2,SNR=5.8						
	comp=Z,3.4nm,0.8s						
USRK	**Ussuriysk Ar.**	33.25	277		P	17 37 24.3	-0.3
H11N2	**WAKE ISLAND Hy**	33.39	205	T	T	18 12 41.6	
	baz=17,slow=76						
H11N3	**WAKE ISLAND Hy**	33.40	205	T	T	18 12 42.4	
	baz=17,slow=76						
H11N1	**WAKE ISLAND Hy**	33.41	205	T	T	18 12 43.1	
	baz=17,slow=76						
MJAR	**Matsushiro Arr**	33.70	261	P	P	17 37 29.4	+0.7
	comp=Z,2.3nm,0.8s,baz=56,slow=8.4,SNR=6.3						
MJAR				PcP	PcP	17 40 07.8	+0.4
	comp=Z,1.1nm,0.7s,baz=74,slow=2.0,SNR=2.9						
	comp=Z,2.3nm,0.8s						
MJAR	**Matsushiro Arr**	33.70	261	P	P	17 37 25.2	-3.5
MJAR				PcP	PcP	17 40 08.6	+1.1
MDJ	**Mudanjiang**	34.53	280	IAmb	IAmb	17 37 36.5	
	comp=Z,9.3nm,1.1s						
H11S1	**WAKE ISLAND Hy**	34.61	205	T	T	18 14 26.3	
	baz=18						
H11S2	**WAKE ISLAND Hy**	34.62	205	T	T	18 14 21.3	
	baz=18,slow=74						
H11S3	**WAKE ISLAND Hy**	34.62	205	T	T	18 14 33.5	
	baz=18,slow=74						
BNX	**BinXian**	35.33	283	⇑P	P	17 37 41.8	-0.8
BNX				pmax	pmax		
	comp=Z,18nm,0.6s						
YKA	**Yellowknife Ar**	35.37	46	P	P	17 37 42.6	-0.1
	comp=Z,3.9nm,0.9s,baz=282,slow=9.2,SNR=14						
YKA				PcP	PcP	17 40 11.1	-0.7
	comp=Z,0.8nm,0.6s,baz=263,slow=2.6,SNR=5.5						
	comp=Z,3.9nm,0.9s						
YKA	**Yellowknife Ar**	35.37	46	P	P	17 37 40.9	-1.8
GNW	**Green Mountain**	35.92	73	IAmb	IAmb	17 37 51.1	
	comp=Z,4.2nm,0.6s						
STD	**Studebaker Rid**	36.91	75	IAmb	IAmb	17 38 00.0	
	comp=Z,8.5nm,0.7s						
LON	**Longmire**	36.91	74	IAmb	IAmb	17 38 27.4	
	comp=Z,6.6nm,1.1s						
LTY	**Liberty**	37.36	73	IAmb	IAmb	17 38 02.4	
	comp=Z,4.2nm,0.5s						
B08A	**Colville Reser**	37.64	70	IAmb	IAmb	17 38 04.5	
	comp=Z,7.7nm,0.9s						
EPH	**Ephrata**	37.96	72	IAmb	IAmb	17 38 07.0	
	comp=Z,10nm,1.1s						
WIFE	**Three Sisters-**	38.26	78	IAmb	IAmb	17 38 16.1	
	comp=Z,5.3nm,0.8s						
F07A	**Phinny Hill Vi**	38.47	74	IAmb	IAmb	17 38 12.5	
	comp=Z,6.5nm,0.7s						
D08A	**Wollman Farm,**	38.50	72	IAmb	IAmb	17 38 11.6	
	comp=Z,3.5nm,0.6s						
C09A	**Chrisman Ranch**	38.53	71	IAmb	IAmb	17 38 15.3	
	comp=Z,8.0nm,1.1s						
EDM	**Edmonton**	38.93	61	IAmb	IAmb	17 38 14.5	
	comp=Z,7.2nm,0.7s						
YBH	**Yreka Blue Hor**	38.96	82	LR	LR	17 52 26.4	
	comp=Z,196nm,18.9s,baz=124,slow=33						
NEW	**Newport**	38.99	69	IAmb	IAmb	17 38 15.4	
	comp=Z,7.0nm,0.7s						
NEW	**Newport**	38.99	69	P	P	17 38 14.7	+1.0
	comp=Z,12nm,0.8s						
KSRS	**Korea Array**	39.58	271	P	P	17 38 19.8	+1.2
	comp=Z,4.0nm,0.9s,baz=62,slow=7.2,SNR=7.0						
	comp=Z,4.0nm,0.9s						
MSO	**Missoula**	41.57	70		P	17 38 35.7	+0.5
MSO				IAmb	IAmb	17 38 36.7	
	comp=Z,9.8nm,1.1s						
HLID	**Hailey**	43.04	74	P	P	17 38 48.9	+1.7
	comp=Z,4.4nm,0.8s						
XLT	**XiLinHaoTe**	43.17	287	*e*P	P	17 38 49.2	+1.1
XLT				pmax	pmax		
	comp=Z,7.0nm,1.2s						
XLT				pmax	pmax		
	comp=Z,240nm,8.3s						
EGMT	**Eagleton**	43.39	66	IAmb	IAmb	17 38 52.2	
	comp=Z,7.0nm,0.8s						
BOZ	**Bozeman (W)**	43.59	70	IAmb	IAmb	17 38 53.2	
	comp=Z,6.5nm,0.8s						
NVAR	**Mina Array Bea**	43.63	83	P	P	17 38 54.8	+2.7
	comp=Z,0.5nm,0.5s,baz=309,slow=7.3,SNR=2.8						
	comp=Z,0.5nm,0.5s						
NVAR	**Mina Array Bea**	43.63	83	P	P	17 38 50.3	-1.8
ELK	**Elko**	44.15	78		P	17 38 56.7	+0.5
YHL	**Hebgen Lake**	44.26	71	IAmb	IAmb	17 38 59.0	
	comp=Z,12nm,1.0s						
YHB	**Horse Butte**	44.30	71	IAmb	IAmb	17 39 01.0	
	comp=Z,9.3nm,1.0s						
YNE	**Yellowstone No**	44.87	70	P	P	17 39 01.4	-0.5
YNE				IAmb	IAmb	17 39 03.5	
	comp=Z,5.8nm,0.9s						
HVU	**Hansel Valley**	45.05	75	IAmb	IAmb	17 39 06.3	
	comp=Z,5.2nm,0.5s						
DUG	**Dugway, Tooele**	45.96	77		P	17 39 10.7	+0.2
DUG				IAmb	IAmb	17 39 14.7	
	comp=Z,16nm,1.4s						
DUG	**Dugway, Tooele**	45.96	77	P	P	17 39 12.1	+1.5
	comp=Z,9.3nm,1.2s						
ULN	**Ulaanbaatar**	46.26	296	P	P	17 39 12.5	-0.3
ULN				IAmb	IAmb	17 39 14.2	
	comp=Z,10nm,1.2s						
ULN	**Ulaanbaatar**	46.26	296	P	P	17 39 13.5	+0.7
	comp=Z,6.4nm,1.0s						
BW06	**Boulder Array**	46.41	72	IAmb	IAmb	17 39 16.6	
	comp=Z,12nm,1.1s						
PD31	**Pinedale Array**	46.41	72	IAmb	IAmb	17 39 16.7	
	comp=Z,11nm,1.1s						
PDAR	**Pinedale Array**	46.41	72	P	P	17 39 14.8	+0.7
	comp=Z,5.0nm,0.5s,baz=297,slow=4.1,SNR=49						
	comp=Z,5.0nm,0.5s						
SONM	**Songino Array**	46.65	297	P	P	17 39 15.7	-0.1
	comp=Z,3.3nm,0.9s,baz=60,slow=9.2,SNR=13						
SONM				PcP	PcP	17 40 48.8	-0.1
	comp=Z,0.6nm,0.5s,baz=87,slow=3.8,SNR=3.2						
	comp=Z,3.3nm,0.9s						
SONM	**Songino Array**	46.65	297	P	P	17 39 15.3	-0.5
SONM				IAmb	IAmb	17 39 17.5	
	comp=Z,5.8nm,1.3s						
SONM				PcP	PcP	17 40 50.4	+1.5
TIA	**Tai'an**	47.12	277	P	P	17 39 19.7	+0.3
TIA				pmax	pmax		
	comp=Z,10.0nm,0.6s						
HHC	**Hu-ho-hao-te**	47.66	286	*e*P	P	17 39 25.1	+1.4
HHC				pmax	pmax		
	comp=Z,10.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,160nm,5.3s						
O20A	**White River Ci**	48.78	74	P	P	17 39 32.9	+0.4
RSSD	**Black Hills**	48.87	67	P	P	17 39 32.6	-0.5
RSSD				IAmb	IAmb	17 39 34.0	
	comp=Z,5.0nm,0.6s						
PV21	**Cone Mtn., Par**	49.31	76	P	P	17 39 36.7	+0.1
PV21				IAmb	IAmb	17 39 51.4	
	comp=Z,12nm,1.2s						
SPITS	**Spitsbergen Ar**	50.50	356	P	P	17 39 44.5	-0.3
	comp=Z,6.0nm,0.4s,baz=357,slow=8.7,SNR=9.8						
	comp=Z,6.0nm,0.4s						
ECSD	**EROS Data Cent**	53.35	64	P	P	17 40 05.0	-1.5
ECSD				IAmb	IAmb	17 40 07.1	
	comp=Z,3.9nm,1.0s						
SUMG	**Summit**	53.44	14	P	P	17 40 05.9	-1.3
SUMG				IAmb	IAmb	17 40 10.6	
	comp=Z,10nm,1.2s						
ZALV	**Zalesovo Beam**	54.07	313	PcP	PcP	17 41 16.7	+0.8
	comp=Z,3.3nm,0.7s,baz=45,slow=5.9,SNR=15						
ZALV	**Zalesovo Beam**	54.07	313		PcP	17 41 16.9	+1.0
GTA2	**Gaotai**	55.54	292	P	P	17 40 23.3	+0.7
GTA2				pP	pP	17 40 37.1	+2.2
GTA2				pmax	pmax		
	comp=Z,21nm,0.8s						
P38A	**Dawn**	57.77	66	P	P	17 40 37.8	-0.5
WMOK	**Wichita Mounta**	57.99	73	P	P	17 40 39.3	-0.7
	comp=Z,5.1nm,1.1s						
ARCES	**ARCESS Array B**	58.21	350	P	P	17 40 40.2	-0.6
	comp=Z,0.9nm,0.3s,baz=25,slow=8.6,SNR=9.3						
ARCES				PcP	PcP	17 41 31.5	-0.3
	comp=Z,1.7nm,0.7s,baz=37,slow=5.0,SNR=2.1						
	comp=Z,0.9nm,0.3s						
ARCES	**ARCESS Array B**	58.21	350	P	P	17 40 39.9	-0.9
ARCES				IAmb	IAmb	17 41 02.0	
	comp=Z,9.7nm,1.4s						
ARCES				PcP	PcP	17 41 31.1	-0.6
LVZ	**Lovozero**	58.55	346	P	P	17 40 42.5	-0.8
LVZ	**Lovozero**	58.55	346	P	P	17 40 43.1	-0.2
	comp=Z,21nm,1.5s						
P40A	**Paris**	58.68	65	P	P	17 40 42.8	-1.9
TXAR	**Lajitas Array**	58.74	81	P	P	17 40 46.3	+1.1
	comp=Z,0.9nm,0.6s,baz=312,slow=6.3,SNR=7.8						
	comp=Z,0.9nm,0.6s						
TXAR	**Lajitas Array**	58.74	81	P	P	17 40 45.0	-0.2
KURBB	**Kurchatov Arra**	59.17	314	P	P	17 40 46.5	-1.3
	comp=Z,1.4nm,0.6s,baz=42,slow=6.5,SNR=12						
KURBB				PcP	PcP	17 41 35.3	-0.6
	comp=Z,0.5nm,0.4s,baz=40,slow=3.8,SNR=6.5						
	comp=Z,1.4nm,0.6s						
WMQ	**Urumqi**	59.36	303	*e*P	P	17 40 52.0	+2.7
WMQ				LR	LR		
	comp=Z,120nm,21.3s						
R40A	**Maddies Statio**	59.40	66	P	P	17 40 47.9	-1.7
MKAR	**Makanchi Array**	60.06	308	P	P	17 40 52.7	-1.3
	comp=Z,0.7nm,0.3s,baz=48,slow=6.9,SNR=18						
MKAR				PcP	PcP	17 41 39.5	-0.1
	comp=Z,0.6nm,0.5s,baz=48,slow=3.7,SNR=4.4						
	comp=Z,0.7nm,0.3s						
SCHQ	**Schefferville**	60.15	38	P	P	17 40 54.1	-0.4
	comp=Z,2.9nm,0.8s,baz=349,slow=5.2,SNR=3.1						
	comp=Z,2.9nm,0.8s						
BVAR	**Borovoye Array**	60.95	320	P	P	17 40 58.0	-2.0
	comp=Z,2.9nm,0.4s,baz=24,slow=6.4,SNR=13						
BVAR				PcP	PcP	17 41 42.6	-0.4
	comp=Z,2.6nm,0.5s,baz=54,slow=3.0,SNR=6.9						
	comp=Z,2.9nm,0.4s						
FCAR	**Ozark Folk Cen**	61.14	68	P	P	17 40 59.7	-1.8
MIAR	**Mount Ida**	61.23	70	P	P	17 41 02.2	+0.1
	comp=Z,11nm,1.1s						
P48A	**Milroy**	62.43	61		P	17 41 09.5	-0.7
WCI	**Wyandotte Cave**	62.82	62		P	17 41 11.3	-1.4
WCI	**Wyandotte Cave**	62.82	62	P	P	17 41 12.7	-0.1
	comp=Z,17nm,0.8s						
WVT	**Waverly**	63.44	65	P	P	17 41 16.4	-0.5
WVT	**Waverly**	63.44	65	P	P	17 41 17.7	+0.8
	comp=Z,12nm,1.0s						
Z47A	**Carrollton**	65.40	67	P	P	17 41 29.4	-0.3
FINES	**FINESS Array B**	65.89	347	P	P	17 41 31.8	-0.7
	comp=Z,4.4nm,0.6s,baz=11,slow=7.3,SNR=40						
	comp=Z,4.4nm,0.6s						
LRAL	**Lakeview Retre**	66.14	67	IAmb	IAmb	17 41 51.9	
	comp=Z,5.5nm,1.0s						
V53A	**Saluda**	66.59	62	IAmb	IAmb	17 41 38.4	
	comp=Z,5.2nm,0.5s						
ASAI	**AK-SAY(Kyrgyzs**	67.19	307	P	P	17 41 43.2	+1.6
	comp=Z,6.2nm,0.9s						
LSA	**Lhasa**	67.42	290	P	P	17 41 44.9	+1.6
	comp=Z,11nm,0.7s						
NB2	**NORSAR Subarra**	67.77	355	P	P	17 41 43.7	-0.8
	comp=Z,3.7nm,0.8s,baz=7.7,slow=6.5						
NOA	**NORSAR Array B**	67.77	355	P	P	17 41 44.2	-0.2
	comp=Z,1.4nm,0.7s,baz=12,slow=6.9,SNR=7.4						
	comp=Z,1.4nm,0.7s						
GOGA	**Godfrey**	67.88	64	IAmb	IAmb	17 41 46.9	
	comp=Z,7.8nm,0.8s						
GOGA	**Godfrey**	67.88	64	P	P	17 41 45.6	0.0
	comp=Z,11nm,0.9s						
KK31	**Karatay Array**	68.42	312	P	P	17 41 48.9	0.0
KK31				IAmb	IAmb	17 41 50.8	
	comp=Z,3.1nm,0.6s						
HFS	**Hagfors**	68.50	353	P	P	17 41 47.7	-1.3
	comp=Z,1.9nm,0.6s,baz=4.1,slow=10,SNR=6.7						
	comp=Z,1.9nm,0.6s						
ARSB	**Arslanbob**	68.62	310	IAmb	IAmb	17 41 52.6	
	comp=Z,5.5nm,0.7s						
KSH2	**Kashi**	69.01	307	P	P	17 41 53.6	+0.8
KSH2				pmax	pmax		
	comp=Z,8.0nm,0.7s						
OBN	**Obninsk**	69.97	339	P	P	17 41 57.7	-0.4
	comp=Z,13nm,0.5s						
BTK	**Batken**	70.64	310	P	P	17 42 04.5	+1.8
	comp=Z,8.1nm,0.9s						
CMAR	**Chiang Mai Arr**	70.96	276	P	P	17 42 05.0	+0.2
	comp=Z,2.2nm,0.8s,baz=28,slow=6.6,SNR=19						
	comp=Z,2.2nm,0.8s						
EVN	**Everest**	71.26	291		P	17 42 06.6	-0.7
EVN				IAmb	IAmb	17 42 10.2	
	comp=Z,18nm,1.4s						
EKA	**Eskdalemuir Ar**	73.72	3	P	P	17 42 20.0	-0.7
	comp=Z,1.1nm,0.5s,baz=355,slow=5.1,SNR=11						
	comp=Z,1.1nm,0.5s						
NIL	**Nilore**	74.43	304		P	17 42 25.2	-0.1
NIL	**Nilore**	74.43	304	P	P	17 42 26.8	+1.5
	comp=Z,20nm,0.7s						
AK21	**Malin Array Si**	75.61	342	P	P	17 42 31.5	-0.2
AK22	**Malin Array Si**	75.62	342	P	P	17 42 31.5	-0.2
AK03	**Malin Array Si**	75.63	342	P	P	17 42 31.5	-0.3

AKASG	**Malin Array Be**	**75.65**	**342**	P	**P**	**17 42 31.2**	**-0.7**
	comp=Z,1.3nm,0.4s,baz=20,slow=5.8,SNR=18						
	comp=Z,1.3nm,0.4s						
AKBB	**Malin Array Si**	**75.65**	**342**	P	**P**	**17 42 30.5**	**-1.4**
AKBB				IAmb	IAmb	17 42 32.9	
	comp=Z,11nm,1.0s						
AKBB	**Malin Array Si**	**75.65**	**342**	P	**P**	**17 42 31.3**	**-0.6**
AK20	**Malin Array Si**	**75.65**	**342**	P	**P**	**17 42 31.5**	**-0.4**
RNPP1	**Kostyukhnivka**	**75.66**	**344**	P	**P**	**17 42 31.4**	**-0.5**
KIEV	**Kiev**	**75.66**	**342**		**P**	**17 42 30.6**	**-1.3**
KIEV				IAmb	IAmb	17 42 32.9	
	comp=Z,9.6nm,1.0s						
KIEV	**Kiev**	**75.66**	**342**	⇑P	**P**	**17 42 31.5**	**-0.5**
KIEV	**Kiev**	**75.66**	**342**	P	**P**	**17 42 31.3**	**-0.6**
	comp=Z,1µmcomp=Z,43nm,1.1s						
KIEV	**Kiev**	**75.66**	**342**	P	**P**	**17 42 31.6**	**-0.3**
	comp=Z,11nm,1.1s						
AK18	**Malin Array Si**	**75.66**	**342**	P	**P**	**17 42 31.6**	**-0.4**
LUBAR	**Lubar, Ukraine**	**76.68**	**343**	P	**P**	**17 42 37.3**	**-0.5**
CLL	**Collm**	**77.32**	**352**	*e*P	**P**	**17 42 41.0**	**-0.3**
KWP	**Kalwaria Pacla**	**77.82**	**346**	P	**P**	**17 42 44.0**	**-0.2**
	comp=Z,18nm,1.4s						
DPC	**Dobruska-Polom**	**77.95**	**350**	*e*P	**P**	**17 42 45.3**	**+0.3**
DPC	**Dobruska-Polom**	**77.95**	**350**	P	**P**	**17 42 44.7**	**-0.3**
	comp=Z,3.7nm,2.1s						
KMPD	**K-Podol'skiy**	**78.22**	**343**	P	**P**	**17 42 45.5**	**-0.9**
STHS	**Stebnicka Huta**	**78.25**	**347**	*e*P	**P**	**17 42 47.8**	**+1.2**
SORM	**Soroca**	**78.27**	**342**	⇑P	**P**	**17 42 46.7**	**0.0**
SORM	**Soroca**	**78.27**	**342**	P	**P**	**17 42 46.4**	**-0.3**
	comp=Z,435nmcomp=Z,22nm,0.9s						
NKC	**Novy Kostel**	**78.43**	**353**	*e*P	**P**	**17 42 48.2**	**+0.6**
KOLS	**Kolonicke sedl**	**78.56**	**346**	*e*P	**P**	**17 42 49.0**	**+0.7**
BCLA	**Clavier**	**78.64**	**357**	*d*P	**P**	**17 42 49.2**	**+0.5**
	comp=Z,4.8nm,0.9s						
LANS	**Liptovska Anna**	**78.75**	**348**	*e*P	**P**	**17 42 51.0**	**+1.6**
BMRD	**Maredsous**	**78.78**	**358**	*d*P	**P**	**17 42 49.8**	**+0.4**
RCHB	**Rochefort**	**78.91**	**357**	*d*P	**P**	**17 42 49.8**	**-0.4**
TRPA	**Tarpa**	**79.30**	**346**	P	**P**	**17 42 53.3**	**+0.9**
	comp=Z,9.8nm,1.6s						
BUR08	**Bucovina Ar. S**	**79.33**	**344**	IAmb	IAmb	17 42 54.0	
	comp=Z,8.6nm,0.9s						
BURAR	**Bucovina Array**	**79.36**	**344**		**P**	**17 42 53.0**	**+0.1**
BURAR				IAmb	IAmb	17 42 54.9	
	comp=Z,11nm,1.1s						
BURAR	**Bucovina Array**	**79.36**	**344**	⇑P	**P**	**17 42 53.7**	**+0.9**
KHC	**Kasperske Hory**	**79.43**	**352**	*e*P	**P**	**17 42 51.2**	**-1.9**
KHC	**Kasperske Hory**	**79.43**	**352**	P	**P**	**17 42 53.1**	**0.0**
	comp=Z,3.1nm,1.0s						
VYHS	**Vyhne**	**79.48**	**348**	*e*P	**P**	**17 42 54.1**	**+0.8**
GERES	**GERESS Array B**	**79.70**	**352**	P	**P**	**17 42 54.1**	**-0.5**
	comp=Z,1.1nm,0.6s,baz=23,slow=4.8,SNR=11						
	comp=Z,1.1nm,0.6s						
MODS	**Modra-Piesok**	**79.79**	**349**	*e*P	**P**	**17 42 56.2**	**+1.1**
BIZ	**Bicaz**	**79.85**	**343**	⇓P	**P**	**17 42 56.2**	**+0.8**
ARCR	**ARCALIA**	**80.02**	**344**	⇑P	**P**	**17 42 57.3**	**+1.0**
TESR	**Tescani**	**80.16**	**342**	⇓P	**P**	**17 42 56.3**	**-0.7**
TESR	**Tescani**	**80.16**	**342**	P	**P**	**17 42 56.9**	**-0.1**
	comp=Z,6.2nm,2.1s						
CONA	**Conrad Observa**	**80.39**	**350**	*i* P	**P**	**17 42 58.9**	**+0.5**
	comp=Z,5.6nm,1.5s						
RONA	**Rosalia, Austr**	**80.57**	**350**	*e*P	**P**	**17 43 00.0**	**+0.7**
	comp=Z,3.4nm,1.4s						
DRGR		**80.58**	**345**	⇑P	**P**	**17 42 59.5**	**+0.1**
DRGR		**80.58**	**345**	P	**P**	**17 42 59.9**	**+0.5**
	comp=Z,4.0nm,1.1s						
MARR	**Marisel-Cluj**	**80.62**	**345**	⇑P	**P**	**17 42 59.8**	**+0.1**
MOA	**Molln**	**80.63**	**351**	*e*P	**P**	**17 42 58.8**	**-0.8**
	comp=Z,0.6nm,0.5s						
OZUR		**80.72**	**343**	⇓P	**P**	**17 43 00.8**	**+0.6**
VRI	**Vrincioaia**	**80.76**	**342**	⇑P	**P**	**17 43 00.8**	**+0.4**
VRI	**Vrincioaia**	**80.76**	**342**	P	**P**	**17 43 00.0**	**-0.3**
	comp=Z,6.8nm,1.2s						
PLOR	**Plostina**	**80.79**	**342**	⇑P	**P**	**17 43 00.8**	**+0.2**
BIOA	**Bad Ischl, Aus**	**80.85**	**351**	*e*P	**P**	**17 43 00.1**	**-0.7**
	comp=Z,1.4nm,0.6s						
COVR	**Voineasa-Covas**	**80.88**	**343**	⇓P	**P**	**17 43 02.2**	**+1.2**
SAHR	**Sahastru**	**80.91**	**342**	⇑P	**P**	**17 43 01.7**	**+0.6**
ARSA	**Arzberg**	**81.10**	**350**	*e*P	**P**	**17 43 02.8**	**+0.7**
	comp=Z,1.4nm,0.7s						
CFR	**Carcaliu**	**81.14**	**341**	⇑P	**P**	**17 43 02.9**	**+0.6**
LESA	**Schwarzleotal**	**81.20**	**352**	*e*P	**P**	**17 43 03.2**	**+0.5**
	comp=Z,1.0nm,0.5s						
MLR	**Muntele Rosu**	**81.27**	**343**	⇑P	**P**	**17 43 04.8**	**+1.6**
MLR	**Muntele Rosu**	**81.27**	**343**	P	**P**	**17 43 05.0**	**+1.8**
	comp=Z,11nm,0.9s						
RETA	**Reutte**	**81.29**	**353**	*e*P	**P**	**17 43 04.1**	**+0.9**
	comp=Z,1.8nm,1.1s						
WATA	**Walderalm**	**81.38**	**353**	*e*P	**P**	**17 43 03.9**	**+0.1**
	comp=Z,2.6nm,0.6s						
MOTA	**Moosalm**	**81.41**	**353**	*e*P	**P**	**17 43 03.9**	**0.0**
	comp=Z,4.7nm,1.1s						
WTTA	**Wattenberg**	**81.45**	**353**	*e*P	**P**	**17 43 04.4**	**+0.3**
	comp=Z,4.4nm,0.8s						
KBA	**Koelnbreinsper**	**81.48**	**352**	*e*P	**P**	**17 43 05.3**	**+1.0**
	comp=Z,13nm,0.8s						
VOIR		**81.49**	**343**	⇑P	**P**	**17 43 05.0**	**+0.7**
VOIR		**81.49**	**343**	P	**P**	**17 43 04.5**	**+0.2**
	comp=Z,7.5nm,1.1s						
VOIR		**81.49**	**343**	P	**P**	**17 43 05.5**	**+1.2**
	comp=Z,7.5nm,1.3s						
SQTA	**Sankt Quirin**	**81.52**	**353**	*i* P	**P**	**17 43 04.5**	**0.0**
	comp=Z,3.4nm,0.7s						
DAVA	**Damuels**	**81.55**	**354**	*e*P	**P**	**17 43 05.2**	**+0.6**
	comp=Z,4.3nm,1.3s						
ARR	**Arges**	**81.63**	**343**	P	**P**	**17 43 06.4**	**+1.3**
	comp=Z,7.4nm,1.3s						
HARR	**Harsova**	**81.65**	**341**	⇑P	**P**	**17 43 05.5**	**+0.5**
SOKA	**Soboth**	**81.72**	**350**	*i* P	**P**	**17 43 06.0**	**+0.5**
	comp=Z,8.3nm,1.2s						
FETA	**Feichten**	**81.76**	**353**	*i* P	**P**	**17 43 06.2**	**+0.4**
	comp=Z,4.9nm,1.1s						
TIRR	**Tirgusor**	**81.78**	**341**	P	**P**	**17 43 05.6**	**-0.1**
	comp=Z,6.3nm,0.9s						
WRA	**Warramunga Arr**	**81.88**	**224**	P	**P**	**17 43 06.1**	**-0.3**
	comp=Z,0.9nm,0.7s,baz=34,slow=6.2,SNR=7.9						
	comp=Z,0.9nm,0.7s						
ABTA	**Abfaltersbach**	**81.89**	**352**	*i* P	**P**	**17 43 06.5**	**+0.1**
	comp=Z,4.4nm,1.0s						
GZR	**Gura Zlata**	**81.93**	**345**	⇓P	**P**	**17 43 07.0**	**+0.4**
OBKA	**Obir**	**81.93**	**351**	*i* P	**P**	**17 43 06.6**	**0.0**
	comp=Z,2.3nm,0.5s						
TUE	**Stuetta**	**82.40**	**354**	P	**P**	**17 43 09.1**	**-0.1**
	comp=Z,23nm,1.6s						
PLVB	**Pleven**	**83.55**	**343**	⇑P	**P**	**17 43 15.1**	**+0.2**
FITZ	**Fitzroy Crossi**	**84.33**	**232**	P	**P**	**17 43 19.9**	**+0.8**
	comp=Z,4.7nm,0.8s,baz=38,slow=4.6,SNR=8.3						
	comp=Z,4.7nm,0.8s						
FITZ	**Fitzroy Crossi**	**84.33**	**232**	P	**P**	**17 43 19.2**	**+0.2**
BR131	**Keskin Array S**	**85.03**	**335**	IAmb	IAmb	17 43 23.4	
	comp=Z,4.8nm,0.8s						
BRTR	**Keskin Array B**	**85.03**	**335**	P	**P**	**17 43 22.5**	**-0.3**
	comp=Z,3.9nm,0.7s,baz=43,slow=2.5,SNR=21						
	comp=Z,3.9nm,0.7s						
BR105	**Keskin Array S**	**85.05**	**335**	P	**P**	**17 43 22.2**	**-0.6**
	comp=Z,6.0nm,0.8s						
BR104	**Keskin Array S**	**85.05**	**335**	P	**P**	**17 43 22.4**	**-0.4**
	comp=Z,6.7nm,0.8s						
YLV	**Yalova**	**85.28**	**339**	P	**P**	**17 43 23.5**	**-0.3**
	comp=Z,13nm,1.1s						
ASAR	**Alice Springs**	**85.35**	**222**	P	**P**	**17 43 24.5**	**+0.4**
	comp=Z,1.5nm,0.8s,baz=22,slow=5.8,SNR=18						
	comp=Z,1.5nm,0.8s						
ASAR	**Alice Springs**	**85.35**	**222**	P	**P**	**17 43 22.8**	**-1.4**
PDG	**Podgorica**	**85.37**	**347**	⇓P	**P**	**17 43 24.3**	**+0.2**
PDG	**Podgorica**	**85.37**	**347**	P	**P**	**17 43 24.3**	**+0.2**
	comp=Z,10.0nm,0.9s						
KKUL	**Konya-Kulu**	**85.74**	**336**	P	**P**	**17 43 26.9**	**+0.6**
	comp=Z,15nm,1.1s						
ESDC	**Sonseca Array**	**89.34**	**4**	P	**P**	**17 43 42.0**	**-1.5**
	comp=Z,1.0nm,0.6s,baz=346,slow=4.7,SNR=12						
	comp=Z,1.0nm,0.6s						
CSS	**Mathiatis**	**89.59**	**334**	P	**P**	**17 43 44.4**	**-0.2**
STKA	**Stephens Creek**	**89.78**	**213**	P	**P**	**17 43 46.4**	**+1.2**
	comp=Z,3.1nm,0.7s,baz=3.3,slow=7.6,SNR=4.6						
	comp=Z,3.1nm,0.7s						
TORD	**Torodi Ar. Bea**	**115.87**	**359**	PKP	**PKiKP**	**17 49 28.4**	**-1.4**
	comp=Z,0.4nm,0.5s,baz=3.9,slow=2.2,SNR=4.2						
DBIC	**Dimbokro**	**122.08**	**7**	PKP	**PKPdf**	**17 49 41.0**	**-0.7**
	comp=Z,2.2nm,0.6s,baz=24,slow=4.2,SNR=4.0						
DBIC	**Dimbokro**	**122.08**	**7**	PKPdf	**PKPdf**	**17 49 41.6**	**-0.1**
QSPA	**South Pole Qui**	**141.00**	**180**	PKhKP	PKPpre	17 50 09.8	
	comp=Z,1.2nm,0.9s,baz=283,slow=3.0,SNR=8.7						
MAW	**Mawson**	**146.34**	**218**	PKPbc	**PKPbc**	**17 50 26.7**	**+0.4**
	comp=Z,3.1nm,0.8s,baz=62,slow=4.7,SNR=9.5						
MAW	**Mawson**	**146.34**	**218**		**PKPbc**	**17 50 25.9**	**-0.4**
BOSA	**Boshof**	**151.01**	**312**	PKPbc	**PKiKP**	**17 50 40.1**	**-0.2**
	comp=Z,3.8nm,0.6s,baz=12,slow=1.6,SNR=12						
BOSA	**Boshof**	**151.01**	**312**	PKPbc	**PKiKP**	**17 50 40.2**	**-0.1**

*MEX **06** 17:33:52.1±0.4, 30°.07N×113°.45W, h10^{km}, MD4.3, Presumed earthquake*

*ECX **06** 17:34:03.4±0.3, 30°.61N×114°.07W, h13^{km}±5^{km}, ML3.6*

ISC 06 17:34:02.4±1.3**, 30°.64N**±0°.03×**114°.09W**±0°.03**, h2**^{km}±12^{km}**, n17, σ2^{s}18**/26**, 6C-6D, Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SFX	**San Felipe**	**0.76**	**302**	⇑*e*P	**Pg**	**17 34 17.3**	**+0.3**
SFX				*e*S	**Sg**	**17 34 28.2**	**+1.3**
SFX	**San Felipe**	**0.76**	**302**	*e*P	**Pg**	**17 34 17.4**	**+0.3**
SFX				*e*S	**Sn**	**17 34 37.3**	**+5.0**
PPXB	**Puerto Peasco**	**0.80**	**30**	⇓*e*P	**Pg**	**17 34 17.9**	**+0.1**
PPXB				*e*S	**Sg**	**17 34 29.0**	**+0.8**
PPXB				⇑*e*		17 34 30.5	
PPXB				IAML		17 34 30.5	
	comp=E,1µm,0.6s						
SLGB	**San Luis Gonza**	**0.85**	**199**	⇓*e*P	**Pg**	**17 34 18.1**	**-0.5**
SLGB				*e*S	**Sg**	**17 34 29.0**	**-0.7**
SLGB				IAML		17 34 43.0	
	comp=N,2µm,0.8s						
SLGB				⇓*e*		17 34 43.0	
SLGB				IAML		17 34 43.0	
	comp=E,2µm,0.7s						
SLGB				⇓*e*		17 34 43.0	
PIX	**Pinacate**	**1.07**	**30**	⇓*e*P	**Pb**	**17 34 22.1**	**-1.5**
PIX				*e*S	**Sb**	**17 34 36.8**	**-1.3**
ECBX	**El Chinero**	**1.17**	**316**	⇑*e*P	**Pn**	**17 34 23.3**	**-2.5**
ECBX				*e*S	**Sb**	**17 34 39.8**	**-1.2**
PLIB	**Puerto Liberta**	**1.41**	**120**	*e*P	**Pn**	**17 34 27.1**	**-2.0**
PLIB				*e*S	**Sn**	**17 34 45.4**	**-2.9**
LAPR	**La Primavera**	**1.54**	**95**	*e*P	**Pn**	**17 34 28.9**	**-2.0**
LAPR				*e*S	**Sn**	**17 34 49.5**	**-1.9**
LAPR				IAML		17 35 08.2	
	comp=E,1µm,0.7s						
LAPR				⇑*e*		17 35 08.2	
LAPR				⇓*e*		17 35 09.1	
LAPR				IAML		17 35 09.1	
	comp=N,1µm,0.9s						
SQX	**San Quintin**	**1.54**	**268**	⇑*e*P	**Pn**	**17 34 29.6**	**-1.3**
SQX				⇑*e*		17 35 02.3	
SQX				IAML		17 35 02.3	
	comp=E,1µm,0.4s						
MBIG	**Mexicali**	**2.00**	**332**	*e*P	**Pn**	**17 34 35.8**	**-1.4**
CBX	**Cerro Bola**	**2.76**	**308**	*e*P	**Pn**	**17 34 46.2**	**-1.6**
CBX				*e*S	**Sb**	**17 35 27.8**	**+0.9**
TJIG	**Tijuana**	**2.84**	**310**	*e*P	**Pn**	**17 34 46.4**	**-2.4**
TJIG				*e*S	**Sb**	**17 35 29.1**	**+0.1**
HSIG		**3.17**	**120**	*e*S	**Pb**	**17 34 59.8**	**+0.2**
TUC	**Tucson**	**3.28**	**59**	*e*	Pn	17 34 39.0	-16
TUC				*e*	**Sb**	**17 35 44.4**	**+2.5**
NZIG	**Nacozari, Sono**	**3.93**	**93**	*e*	Pn	17 34 50.2	-14
NZIG				*i* S	Sn	17 35 24.5	-26
CGIG		**5.29**	**91**	*e*	**Pn**	**17 35 25.3**	**+2.7**
CGIG				*e*		17 36 42.6	
CSIG	**Choix**	**6.30**	**126**	*e*	**Sb**	**17 37 12.8**	**+4.3**

*SJA **06** 17:45:44.7±0.7, 21°.42S×66°.76W, h218^{km}±6^{km}, ML3.8, MW3.9*

*NEIC **06** 17:45:44.6±2.3, 21°.48S±0°.07×66°.8W±0°.1, h227^{km}±7^{km}, mb4.4/13, Error ellipse: s-maj=14.0km s-min=10.3km az=89.0*

*SCB **06** 17:45:44.8±1.4, 21°.50S×66°.72W, h211^{km}±16^{km}, MB4.8, ML4.7/2, Error ellipse: s-maj=5.7km s-min=3.6km az=0.0*

*IDC **06** 17:45:44.3±1.3, 21°.45S×66°.61W, h216^{km}±11^{km}, mb3.7/8, mbtmp4.2/14, Error ellipse: s-maj=16.6km s-min=11.1km az=84.0*

*GFZ **06** 17:45:46.4±0.2, 21°S±2°×6°7W±°, h256^{km}, M4.2/17, mb4.2/17*

*VAO **06** 17:45:47.9±1.2, 21°.19S×66°.60W, h247^{km}±9^{km}, mb4.1, Presumed earthquake*

ISC 06 17:45:44.3±0.6**, 21°.45S**±0°.04×**66°.77W**±0°.04**, h225**^{km}±6^{km}**, n167, σ1^{s}23**/186**, mb4.2**/16**, Southern Bolivia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YJA	**Yavi**	**1.37**	**122**	*e*P	**Pn**	**17 46 20.4**	**+0.7**
YJA				*e*S	**S**	**17 46 46.0**	**-1.3**
YJA	**Yavi**	**1.37**	**122**	P	**Pn**	**17 46 19.6**	**-0.1**
AOVT	**TarijaAcel**	**1.92**	**93**	P	**Pn**	**17 46 23.9**	**-0.3**
AF01	**San Pedro de A**	**1.99**	**221**	*e*P	Pn	17 46 36.7	+12
AF01				*e*S	S	17 47 11.7	+15
AF01	**San Pedro de A**	**1.99**	**221**		**Pn**	**17 46 26.5**	**+1.6**
HJA	**Humahuaca**	**2.15**	**145**	*e*P	**Pn**	**17 46 27.4**	**+0.8**
HJA				*e*S	**S**	**17 46 59.7**	**+0.1**
HJA				IAML		17 47 00.9	
	comp=Z,206nm,0.6s						
PB09	**IPOC Station P**	**2.33**	**261**	*e*P	**Pn**	**17 46 29.1**	**+0.9**
PB09				*e*S	**S**	**17 47 05.2**	**+2.9**
PB09				IAML		17 47 06.7	
	comp=Z,213nm,0.4s						
PB09	**IPOC Station P**	**2.33**	**261**		**Pn**	**17 46 29.1**	**+0.9**
PB09				Sn	**S**	**17 47 03.5**	**+1.2**
PB09	**IPOC Station P**	**2.33**	**261**	P	**Pn**	**17 46 28.8**	**+0.6**
PB09	**IPOC Station P**	**2.33**	**261**	P	**Pn**	**17 46 29.4**	**+1.2**
PB09	**IPOC Station P**	**2.33**	**261**	P	**Pn**	**17 46 29.1**	**+0.9**
PB08	**IPOC Station P**	**2.58**	**300**		**Pn**	**17 46 32.3**	**+1.1**
PB08	**IPOC Station P**	**2.58**	**300**	P	**Pn**	**17 46 32.5**	**+1.3**
SALTA		**2.79**	**172**	*e*P	**Pn**	**17 46 34.7**	**+1.3**
SALTA		**2.79**	**172**	P	**Pn**	**17 46 34.9**	**+1.4**
SALTA		**2.79**	**172**	P	**Pn**	**17 46 34.5**	**+1.1**
PB03	**IPOC Station P**	**2.84**	**257**		**Pn**	**17 46 33.6**	**-0.1**
PB03	**IPOC Station P**	**2.84**	**257**	P	**Pn**	**17 46 34.3**	**+0.7**
PB03	**IPOC Station P**	**2.84**	**257**	P	**Pn**	**17 46 34.5**	**+0.8**
GO01	**Chusmiza**	**2.88**	**308**	*e*P	**Pn**	**17 46 35.9**	**+1.3**
GO01				*e*S	**S**	**17 47 17.8**	**+4.1**
GO01				IAML		17 47 24.3	
	comp=Z,353nm,0.1s						
GO01	**Chusmiza**	**2.88**	**308**		**Pn**	**17 46 35.4**	**+0.8**
GO01	**Chusmiza**	**2.88**	**308**	P	**Pn**	**17 46 35.6**	**+1.1**
GO01	**Chusmiza**	**2.88**	**308**	P	**Pn**	**17 46 35.6**	**+1.1**
GO01	**Chusmiza**	**2.88**	**308**	P	**Pn**	**17 46 35.4**	**+0.8**
PB06	**IPOC Station P**	**2.89**	**244**	*e*P	**Pn**	**17 46 34.8**	**+0.6**
PB06				*e*S	**S**	**17 47 13.4**	**+0.2**
PB06				IAML		17 47 14.8	
	comp=Z,198nm,0.2s						
PB06	**IPOC Station P**	**2.89**	**244**		**Pn**	**17 46 34.6**	**+0.4**
PB06	**IPOC Station P**	**2.89**	**244**	P	**Pn**	**17 46 34.7**	**+0.6**
PB06	**IPOC Station P**	**2.89**	**244**	P	**Pn**	**17 46 35.1**	**+0.9**
PB06	**IPOC Station P**	**2.89**	**244**	P	**Pn**	**17 46 34.8**	**+0.6**
PB07	**IPOC Station P**	**2.92**	**264**	*e*P	**Pn**	**17 46 35.2**	**+0.7**
PB07				*e*S	**S**	**17 47 12.6**	**-1.1**
PB07	**IPOC Station P**	**2.92**	**264**		**Pn**	**17 46 35.0**	**+0.5**
PB07	**IPOC Station P**	**2.92**	**264**	P	**Pn**	**17 46 35.3**	**+0.8**
PB07	**IPOC Station P**	**2.92**	**264**	P	**Pn**	**17 46 35.2**	**+0.7**
PB02	**IPOC Station P**	**2.92**	**272**	*e*P	**Pn**	**17 46 35.0**	**+0.5**
PB02				*e*S	**S**	**17 47 12.4**	**-1.3**
PB02	**IPOC Station P**	**2.92**	**272**		**Pn**	**17 46 34.6**	**+0.1**
PB02	**IPOC Station P**	**2.92**	**272**	P	**Pn**	**17 46 35.2**	**+0.7**
PB02				S	**S**	**17 47 12.4**	**-1.3**
PB02				IAML		17 47 14.9	
	comp=Z,1µm,0.2s						
PB02	**IPOC Station P**	**2.92**	**272**	P	**Pn**	**17 46 35.0**	**+0.5**
PB02	**IPOC Station P**	**2.92**	**272**	P	**Pn**	**17 46 35.1**	**+0.5**
SOEO	**Opoqueri**	**3.06**	**340**	P	**Pn**	**17 46 37.9**	**+1.4**
PB11	**IPOC Station P**	**3.19**	**301**	*e*P	**Pn**	**17 46 38.1**	**+0.5**
PB11				*e*S	**S**	**17 47 19.1**	**-0.2**
PB11	**IPOC Station P**	**3.19**	**301**		**Pn**	**17 46 38.0**	**+0.3**
PB11	**IPOC Station P**	**3.19**	**301**	P	**Pn**	**17 46 38.5**	**+0.9**
PB11				S	**S**	**17 47 18.4**	**-0.9**
PB11				IAML		17 47 20.9	
	comp=Z,2µm,0.2s						
PB11	**IPOC Station P**	**3.19**	**301**	P	**Pn**	**17 46 38.2**	**+0.5**
PB11	**IPOC Station P**	**3.19**	**301**	P	**Pn**	**17 46 38.1**	**+0.5**
TA01	**Diego Aracena**	**3.31**	**285**	*e*P	**Pn**	**17 46 38.7**	**-0.1**
TA01				*e*S	**S**	**17 47 19.4**	**-2.1**
TA01	**Diego Aracena**	**3.31**	**285**		**Pn**	**17 46 38.3**	**-0.6**
TA01	**Diego Aracena**	**3.31**	**285**	P	**Pn**	**17 46 39.2**	**+0.3**
TA01	**Diego Aracena**	**3.31**	**285**	P	**Pn**	**17 46 38.5**	**-0.3**
TA02	**Huaiquique**	**3.36**	**290**	*e*P	**Pn**	**17 46 40.0**	**+0.6**
TA02				*e*S	**S**	**17 47 20.8**	**-1.7**
SLA	**San Lorenzo**	**3.46**	**161**	*e*P	**Pn**	**17 46 42.0**	**+1.3**
SLA				*e*S	**S**	**17 47 24.5**	**-0.5**
PB05	**IPOC Station P**	**3.48**	**246**	*e*P	**Pn**	**17 46 41.5**	**+0.5**
PB05				*e*S	**S**	**17 47 23.4**	**-1.9**
PB05				IAML		17 47 26.3	
	comp=Z,173nm,0.2s						
PB05	**IPOC Station P**	**3.48**	**246**		**Pn**	**17 46 41.4**	**+0.5**
PB05	**IPOC Station P**	**3.48**	**246**	P	**Pn**	**17 46 41.6**	**+0.7**
PB05	**IPOC Station P**	**3.48**	**246**	P	**Pn**	**17 46 41.4**	**+0.5**
AOEA	**Aiquile**	**3.56**	**24**	P	**Pn**	**17 46 42.2**	**+0.1**
AOEA	**Aiquile**	**3.56**	**24**	P	**Pn**	**17 46 42.5**	**+0.4**
PSGCX	**Pisagua**	**3.65**	**300**	*e*P	**Pn**	**17 46 42.5**	**-0.5**
PSGCX				*e*S	**S**	**17 47 27.1**	**-1.7**
PSGCX	**Pisagua**	**3.65**	**300**		**Pn**	**17 46 41.8**	**-1.1**
PSGCX	**Pisagua**	**3.65**	**300**	P	**Pn**	**17 46 43.1**	**+0.2**
PSGCX	**Pisagua**	**3.65**	**300**	P	**Pn**	**17 46 42.4**	**-0.5**
PB16	**IPOC Station P**	**4.03**	**320**	*e*P	**Pn**	**17 46 49.5**	**+1.5**
PB16	**IPOC Station P**	**4.03**	**320**		**Pn**	**17 46 49.4**	**+1.3**
PB16	**IPOC Station P**	**4.03**	**320**	P	**Pn**	**17 46 49.6**	**+1.5**
PB16	**IPOC Station P**	**4.03**	**320**	P	**Pn**	**17 46 49.7**	**+1.6**
PB16	**IPOC Station P**	**4.03**	**320**	P	**Pn**	**17 46 49.7**	**+1.6**
PB12	**IPOC Station P**	**4.38**	**309**	*e*P	**Pn**	**17 46 51.1**	**-0.7**
PB12				*e*S	**S**	**17 47 41.9**	**-3.1**
PB12	**IPOC Station P**	**4.38**	**309**		**Pn**	**17 46 50.6**	**-1.2**
PB12	**IPOC Station P**	**4.38**	**309**	P	**Pn**	**17 46 50.9**	**-0.9**
PB12	**IPOC Station P**	**4.38**	**309**	P	**Pn**	**17 46 50.8**	**-0.9**
AP01	**Chacalluta**	**4.55**	**312**	*e*P	**Pn**	**17 46 54.0**	**+0.2**
AP01				*e*S	**S**	**17 47 46.1**	**-2.4**
AP01	**Chacalluta**	**4.55**	**312**		**Pn**	**17 46 52.8**	**-0.9**
AP01	**Chacalluta**	**4.55**	**312**	P	**Pn**	**17 46 53.9**	**+0.2**
PB14	**IPOC Station P**	**4.61**	**226**	*e*P	**Pn**	**17 46 55.0**	**+0.2**
PB14				*e*S	**S**	**17 47 46.0**	**-4.3**
PB14	**IPOC Station P**	**4.61**	**226**	P	**Pn**	**17 46 55.0**	**+0.2**
PB14	**IPOC Station P**	**4.61**	**226**	P	**Pn**	**17 46 54.8**	**0.0**
PB14	**IPOC Station P**	**4.61**	**226**	P	**Pn**	**17 46 54.6**	**-0.2**
PB18	**Visviri**	**4.62**	**326**		**Pn**	**17 46 57.3**	**+2.2**
PB18	**Visviri**	**4.62**	**326**	P	**Pn**	**17 46 57.6**	**+2.5**
PB18	**Visviri**	**4.62**	**326**	P	**Pn**	**17 46 57.4**	**+2.2**
BBOJ	**La Paz, Jacaqu**	**4.65**	**343**	P	**Pn**	**17 46 57.2**	**+1.6**
SOEJ	**Jacaque**	**4.65**	**343**	P	**Pn**	**17 46 57.4**	**+1.8**
FSA	**Cafayete**	**4.70**	**171**	*e*P	**Pn**	**17 46 57.5**	**+1.8**
BBOD	**La Paz, Gloria**	**5.09**	**340**	P	**Pn**	**17 47 02.7**	**+1.6**
LPAZ	**La Paz**	**5.29**	**346**	P	**Pn**	**17 47 04.8**	**+1.0**
	comp=Z,31nm,0.4s,baz=158,slow=7.8,SNR=113						
LPAZ				S	**S**	**17 48 06.9**	**+0.4**
	comp=Z,10nm,0.7s,baz=330,slow=15,SNR=1.5						
LPAZ	**La Paz**	**5.29**	**346**	*e*P	**Pn**	**17 47 05.3**	**+1.5**
LPAZ	**La Paz**	**5.29**	**346**		**Pn**	**17 47 04.6**	**+0.9**
LPAZ	**La Paz**	**5.29**	**346**	P	**Pn**	**17 47 05.2**	**+1.5**
LPAZ	**La Paz**	**5.29**	**346**	*e*P	**Pn**	**17 47 04.6**	**+0.9**
LPAZ				*e*S	**S**	**17 48 06.5**	**0.0**
LPAZ	**La Paz**	**5.29**	**346**	P	**Pn**	**17 47 05.0**	**+1.2**
	comp=Z,75nm,1.2s						
LPAZ	**La Paz**	**5.29**	**346**	P	**Pn**	**17 47 04.8**	**+1.0**
	comp=Z,75nm,1.2s						
BBOB	**La Paz, Bander**	**5.44**	**346**	P	**Pn**	**17 47 07.0**	**+1.6**
AC02	**Maricunga**	**5.78**	**201**	P	**Pn**	**17 47 09.4**	**-0.2**
	comp=Z,26nm,1.1s						
AC01	**Pan de Azucar**	**5.85**	**216**	P	**Pn**	**17 47 08.9**	**-1.1**
	comp=Z,28nm,1.0s						
GO03	**Copiapo**	**6.88**	**207**		**Pn**	**17 47 21.6**	**-1.7**
GO03	**Copiapo**	**6.88**	**207**	P	**Pn**	**17 47 22.1**	**-1.2**
	comp=Z,16nm,0.5s						
SIV	**San Ignacio**	**7.65**	**46**	P	**Pn**	**17 47 31.5**	**-1.8**
	comp=Z,13nm,0.3s,baz=212,slow=11,SNR=114						
SIV				S	S	17 48 46.7	-14
	comp=Z,1.5nm,0.3s,baz=234,slow=15,SNR=3.0						
SIV	**San Ignacio**	**7.65**	**46**	P	**Pn**	**17 47 32.0**	**-1.2**
AC05	**El Transito**	**8.01**	**203**		**Pn**	**17 47 36.5**	**-1.3**
AC05	**El Transito**	**8.01**	**203**	P	**Pn**	**17 47 36.5**	**-1.3**
	comp=Z,16nm,0.9s						
PTLB	**Pontes e Lacer**	**9.38**	**52**	Pn	**Pn**	**17 47 55.4**	**0.0**
PTLB	**Pontes e Lacer**	**9.38**	**52**	*e*P	**Pn**	**17 47 54.5**	**-0.9**
CO03	**El Pedregal**	**9.99**	**200**	Pn	**Pn**	**17 48 01.4**	**-1.7**
CFA	**Coronel Fontan**	**10.20**	**187**	P	**Pn**	**17 48 04.5**	**-1.2**
	comp=Z,2.3nm,0.3s,baz=34,slow=15,SNR=44						
CFA				S	S	17 49 49.9	-10
	comp=Z,3.1nm,0.3s,baz=180,slow=14,SNR=8.9						
ZON	**Zonda**	**10.20**	**189**		**Pn**	**17 48 04.7**	**-1.1**
ZON	**Zonda**	**10.20**	**189**	P	**Pn**	**17 48 05.3**	**-0.5**
	comp=E,10.0nm,0.7s						
AQDB	**Aquidauana**	**10.39**	**87**	P	**Pn**	**17 48 07.9**	**-0.3**
	comp=Z,7.9nm,2.5s						
VILB	**Vilhena**	**10.52**	**38**	*e*P	**Pn**	**17 48 10.1**	**+0.1**
CO04	**Los Peladeros**	**11.20**	**199**	Pn	**Pn**	**17 48 17.6**	**-1.1**
VA03	**San Esteban**	**11.76**	**196**	P	**Pn**	**17 48 26.9**	**+1.3**
	comp=Z,46nm,0.6s						
MT02	**Curacav**	**12.38**	**197**		**Pn**	**17 48 33.0**	**-0.3**
MT09	**Talagante**	**12.83**	**196**		**Pn**	**17 48 35.5**	**-3.6**
BO01	**Tunca**	**13.44**	**196**	P	**P**	**17 48 48.6**	**+0.3**
	comp=Z,52nm,1.2s						
BO02	**Sierra Bellavi**	**13.75**	**194**	P	**P**	**17 48 52.7**	**+0.9**
	comp=Z,58nm,0.7s						
PTGB	**Pitanga**	**13.91**	**106**	*e*P	**P**	**17 48 55.1**	**+1.3**
ML02	**Panimavida**	**14.83**	**195**	P	**P**	**17 49 04.0**	**+0.3**
	comp=Z,44nm,0.7s						
CPSB	**Cacapava Do Su**	**14.93**	**129**	P	**P**	**17 49 05.9**	**+1.0**
	comp=Z,25nm,1.1s						
BI02	**San Fabin de**	**15.66**	**194**	IAmb	IAmb	17 49 16.8	
	comp=Z,11nm,0.8s						
BI02	**San Fabin de**	**15.66**	**194**	P	**Pn**	**17 49 14.6**	**+1.1**
	comp=Z,17nm,1.0s						
BB19B	**Bebedouro**	**17.01**	**92**	*e*P	**P**	**17 49 28.2**	**+0.4**
SNDB	**Serra Nova Dou**	**17.55**	**60**	*e*P	**P**	**17 49 33.8**	**0.0**
IPMB	**Ipameri, GO**	**17.80**	**82**	*e*P	**P**	**17 49 37.2**	**+0.6**
ATAH	**Atahualpa**	**18.13**	**320**	P	**Pn**	**17 49 43.7**	**+0.5**
	comp=Z,2.5nm,0.7s,baz=91,slow=13,SNR=1.6						
GO06	**Curarrehue**	**18.52**	**192**	P	**P**	**17 49 42.8**	**-1.4**
GO06				IAmb	IAmb	17 49 46.3	
	comp=Z,18nm,0.8s						
GO06	**Curarrehue**	**18.52**	**192**	P	**P**	**17 49 44.6**	**+0.4**
	comp=Z,26nm,1.1s						
BDFB	**Brasilia**	**18.69**	**75**	P	**P**	**17 49 46.7**	**+0.5**
	comp=Z,3.2nm,0.5s,baz=245,slow=10,SNR=6.4						
BDFB	**Brasilia**	**18.69**	**75**	P	**P**	**17 49 46.0**	**-0.3**
CANS	**Sao Roque de M**	**19.08**	**90**	*e*P	**P**	**17 49 50.3**	**0.0**
PLCA	**Paso Flores**	**19.49**	**189**	P	**P**	**17 49 55.6**	**+1.1**
	comp=Z,1.9nm,0.5s,baz=3.9,slow=12,SNR=16						
PLCA	**Paso Flores**	**19.49**	**189**	P	**P**	**17 49 54.3**	**-0.2**
PLCA				IAmb	IAmb	17 50 13.6	
	comp=Z,15nm,1.4s						
ITTB	**Itaituba**	**20.08**	**34**	*e*P	**P**	**17 49 59.4**	**-1.6**
SGC2	**Sao Gabriel da**	**21.17**	**359**	*e*P	**P**	**17 50 12.0**	**-0.5**
LL02	**Futaleuf**	**22.09**	**190**	P	**P**	**17 50 21.8**	**+0.6**
	comp=Z,9.7nm,0.8s						
JANB	**Januaria**	**22.24**	**77**	*e*P	**P**	**17 50 21.7**	**-1.2**
SMTB	**Santa Maria do**	**22.31**	**59**	*e*P	**P**	**17 50 23.3**	**-0.2**
RIB01	**Linhares ES**	**24.80**	**90**	*e*P	**P**	**17 50 46.9**	**+0.8**
GUA01	**Guaratinga, BA**	**25.93**	**84**	*e*P	**P**	**17 50 55.7**	**-0.5**
PIRO	**Carate, Puerto**	**33.84**	**330**	P	**P**	**17 52 02.1**	**-3.6**
CELP	**Cerrillos**	**39.28**	**0**	P	**P**	**17 52 50.3**	**-1.3**
CELP				IAmb	IAmb	17 53 00.6	
	comp=Z,17nm,1.1s						
V48A	**Smith Brothers**	**59.97**	**341**	P	**P**	**17 55 27.3**	**+0.2**
V48A				IAmb	IAmb	17 55 28.2	
	comp=Z,5.6nm,0.7s						
WVT	**Waverly**	**60.64**	**340**	P	**P**	**17 55 30.7**	**-0.9**
	comp=Z,12nm,0.7s						
MIAR	**Mount Ida**	**61.24**	**335**	P	**P**	**17 55 36.7**	**+1.0**
	comp=Z,8.1nm,1.8s						
TXAR	**Lajitas Array**	**61.75**	**323**	P	**P**	**17 55 40.3**	**+0.9**
	comp=Z,0.4nm,0.6s,baz=145,slow=6.5,SNR=5.1						
	comp=Z,0.4nm,0.6s						
TXAR	**Lajitas Array**	**61.75**	**323**	P	**P**	**17 55 38.8**	**-0.6**
WCI	**Wyandotte Cave**	**62.13**	**343**	P	**P**	**17 55 41.3**	**-0.3**
	comp=Z,6.3nm,1.6s						
MNHN	**Monahans**	**62.82**	**326**		**P**	**17 55 47.8**	**+1.4**
MNHN				IAmb	IAmb	17 55 48.5	
	comp=Z,5.0nm,0.5s						
CCM	**Cathedral Cave**	**63.51**	**339**	P	**P**	**17 55 51.0**	**+0.4**
	comp=Z,12nm,0.7s						
S39A	**Bolivar**	**63.92**	**337**		**P**	**17 55 53.1**	**-0.2**
DBIC	**Dimbokro**	**66.81**	**72**	P	**P**	**17 56 11.8**	**-0.6**
	comp=Z,3.2nm,0.7s,baz=173,slow=17,SNR=1.4						
	comp=Z,3.2nm,0.7s						
ANMO	**Albuquerque**	**67.57**	**325**	P	**P**	**17 56 19.0**	**+2.1**
	comp=Z,2.3nm,1.0s						
QSPA	**South Pole Qui**	**68.74**	**180**	P	**P**	**17 56 24.8**	**+1.1**
	comp=Z,1.6nm,1.2s,baz=132,slow=4.0,SNR=7.5						
	comp=Z,1.6nm,1.2s						
QSPA	**South Pole Qui**	**68.74**	**180**	P	**P**	**17 56 23.2**	**-0.5**
ECSD	**EROS Data Cent**	**70.41**	**337**	P	**P**	**17 56 34.5**	**+0.5**
VTX	**Valle De La Tr**	**70.49**	**317**	P	**P**	**17 56 35.8**	**+1.1**
PDAR	**Pinedale Array**	**75.08**	**329**	P	**P**	**17 57 03.3**	**+1.6**
	comp=Z,0.7nm,0.3s,baz=141,slow=7.0,SNR=3.4						
	comp=Z,0.7nm,0.3s						
TORD	**Torodi Ar. Bea**	**75.46**	**69**	P	**P**	**17 57 04.0**	**-0.3**
	comp=Z,4.0nm,0.5s,baz=256,slow=5.2,SNR=41						

	comp=Z,4.0nm,0.5s						
ULM	Lac du Bonnet	75.89	341	P	P	17 57 06.1	+0.2
	comp=Z,3.7nm,0.7s,baz=131,slow=8.9,SNR=5.2						
	comp=Z,3.7nm,0.7s						
ULM	Lac du Bonnet	75.89	341	P	P	17 57 05.0	-0.8
ULM				IAmb	IAmb	17 57 32.2	
	comp=Z,13nm,1.4s						
NVAR	Mina Array Bea	76.70	321	P	P	17 57 12.2	+1.2
	comp=Z,1.2nm,0.9s,baz=164,slow=7.1,SNR=5.2						
	comp=Z,1.2nm,0.9s						
HLID	Hailey	78.08	327	P	P	17 57 21.6	+3.1
YKA	Yellowknife Ar	91.82	340	P	P	17 58 27.6	+1.4
	comp=Z,1.6nm,0.7s,baz=133,slow=4.7,SNR=12						
	comp=Z,1.6nm,0.7s						
MPLH	Magyarpolny	101.70	44	P	Pdif	17 59 09.6	-1.7
	comp=Z,13nm,0.5s						
ASAR	Alice Springs	130.85	205	PKP	PKiKP	18 04 30.8	+0.2
	comp=Z,0.2nm,0.4s,baz=132,slow=1.9,SNR=12						
ASAR				SKPbc	SKPab	18 07 34.1	+1.2
	comp=Z,0.4nm,0.7s,baz=136,slow=3.7,SNR=2.4						
WRA	Warramunga Arr	133.97	208	PKP	PKiKP	18 04 36.5	-0.4
	comp=Z,0.3nm,0.3s,baz=153,slow=2.0,SNR=13						
ZALV	Zalesovo Beam	141.04	27	PKhKP	PKPpre	18 04 44.1	
	comp=Z,1.1nm,0.7s,baz=291,slow=4.0,SNR=4.7						
MKAR	Makanchi Array	144.40	37	PKP	PKPdf	18 04 54.1	+0.5
	comp=Z,3.2nm,0.6s,baz=310,slow=3.5,SNR=29						
HILR	Hailar Array B	151.48	351	PKPbc	PKiKP	18 05 12.9	+0.9
	comp=Z,1.0nm,0.4s,baz=82,slow=5.0,SNR=3.9						
SONM	Songino Array	153.10	10	PKPbc	PKiKP	18 05 16.8	+1.3
	comp=Z,0.7nm,0.4s,baz=347,slow=1.6,SNR=5.4						

IDC ***06*** *17:58:33.5±3.3, 20°.72S×178°.77W, h604^{km}±25^{km}, mb3.1/7, mbtmp4.0/8, Error ellipse: s-maj=71.1km s-min=19.3km az=146.0*

ISC 06 17:58:33.2±1.3**, 20°.7S**±0°.3×**178°.8W**±0°.2**, h600**^{km}**, n13,** σ**1^{s}30**/13**, mb3.7**/7**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	Nonsavu	4.24	314	P	P	18 00 00.7	+0.1
	14nm,0.6s,baz=147,slow=11,SNR=11						
ASAR	Alice Springs	43.76	257	P	P	18 05 47.5	+0.2
	4.3nm,0.8s,baz=96,slow=8.2,SNR=96						
ASAR				PcP	PcP	18 07 20.5	0.0
	0.7nm,0.6s,baz=100,slow=3.6,SNR=6.9						
	4.3nm,0.8s						
WRA	Warramunga Arr	43.85	262	P	P	18 05 47.7	-0.4
	1.1nm,0.3s,baz=97,slow=7.6,SNR=61						
	1.1nm,0.3s						
FITZ	Fitzroy Crossi	52.28	263	P	P	18 06 50.4	-0.2
	1.4nm,0.5s,baz=84,slow=2.7,SNR=12						
	1.4nm,0.5s						
PETK	Petropavlovsk-	76.32	346	P	P	18 09 21.8	+0.4
	2.2nm,0.8s,baz=188,slow=6.5,SNR=2.8						
	2.2nm,0.8s						
TXAR	Lajitas Array	87.79	58	P	P	18 10 21.0	+1.0
	0.4nm,0.8s,baz=274,slow=4.1,SNR=3.7						
	0.4nm,0.8s						
ILAR	Eielson Array	88.71	13	P	P	18 10 22.4	-0.8
	0.3nm,0.5s,baz=202,slow=4.7,SNR=6.4						
	0.3nm,0.5s						
CMAR	Chiang Mai Arr	89.52	290	P	P	18 10 29.1	+1.0
	0.5nm,0.6s,baz=106,slow=6.6,SNR=5.1						
	0.5nm,0.6s						
BVAR	Borovoye Array	118.80	320	PKP	PKPdf	18 16 13.1	-1.0
	0.6nm,0.4s,baz=53,slow=1.7,SNR=5.1						
HFS	Hagfors	139.66	350	PKhKP	PKPpre	18 16 46.3	
	3.8nm,1.0s,baz=282,slow=2.8,SNR=4.7						
AKASG	Malin Array Be	142.87	330	PKP	PKPdf	18 16 56.5	-2.8
	1.4nm,0.4s,baz=44,slow=4.3,SNR=19						
BRTR	Keskin Array B	146.46	312	PKPbc	PKPdf	18 17 08.2	+2.2
	0.5nm,0.5s,baz=142,slow=5.3,SNR=4.1						
GERES	GERESS Array B	150.23	343	PKPbc	PKPbc	18 17 16.8	-0.7
	0.3nm,0.3s,baz=5.7,slow=2.7,SNR=5.8						

NOU ***06*** *18:02:12.6, 37°.65S×177°.97E, h140^{km}, MLv4.1/14, Off E. Coast of N. Island, N.Z.*

WEL ***06*** *18:02:16.5±1.0, 37°S±6°×17°8E±°, h80^{km}±13^{km}, M3.5/18, ML3.4/17, MLv3.5/18, Error ellipse: s-maj=8.1km s-min=7.5km az=72.5, confirmed*

ISC 06 18:02:10.7±1.9**, 37°.34S**±0°.06×**177°.68E**±0°.07**, h145**^{km}±10^{km}**, n135,** σ**1^{s}92**/139**, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HAZ	Te Kaha	0.43	169	P	Pn	18 02 31.4	+0.3
HAZ				S	Sn	18 02 44.0	-2.7
HAZ				AML	AML		
HAZ				AML	AML		
WIZ	White Island	0.43	244	P	Pn	18 02 30.3	-0.9
WIZ				AML	AML		
MXZ	Matakaoa Point	0.55	114	P	Pn	18 02 32.6	+0.9
MXZ	Matakaoa Point	0.55	114	S	Sn	18 02 48.1	+0.4
MXZ	Matakaoa Point	0.55	114	P	Pn	18 02 32.9	+1.2
MXZ				S	Sn	18 02 47.1	-0.7
MXZ				AML	AML		
MXZ				AML	AML		
PKGZ	Pakihiroa	0.62	149	P	Pn	18 02 33.7	+1.6
PKGZ				AML	AML		
PKGZ				AML	AML		
RUGZ	Raukumara Rang	0.63	180	P	Pn	18 02 32.4	+0.1
RUGZ				AML	AML		
RUGZ				AML	AML		
WMGZ	Waiomatatini S	0.76	130	P	Pn	18 02 35.0	+1.9
WMGZ				S	Sn	18 02 50.7	+0.5
WMGZ				AML	AML		
WMGZ				AML	AML		
WHRZ	Whale Island	0.76	227	P	Pn	18 02 33.4	+0.3
WHRZ				AML	AML		
WHRZ				AML	AML		
PUZ	Puketiti	0.87	148	P	Pn	18 02 35.8	+1.8
PUZ				AML	AML		
PUZ				AML	AML		
TWGZ	Tauwhareparae	0.87	164	P	Pn	18 02 36.4	+2.4
TWGZ				AML	AML		
TWGZ				AML	AML		
MWZ	Matawai	1.00	187	P	Pn	18 02 36.5	+1.4
MWZ				S	Sn	18 02 52.8	-0.9
MWZ				AML	AML		
MWZ				AML	AML		
URZ	Urewera	1.02	206	P	Pn	18 02 36.2	+1.0
URZ	Urewera	1.02	206	S	Sn	18 02 53.3	-0.6
URZ	Urewera	1.02	206	P	Pn	18 02 36.3	+1.0
URZ				S	Sn	18 02 52.3	-1.6
URZ				AML	AML		
URZ				AML	AML		
MARZ	Manawahe	1.02	231	P	Pn	18 02 35.8	+0.5
MARZ				AML	AML		
MARZ				AML	AML		
EDRZ	Edgecumbe	1.07	224	P	Pn	18 02 36.7	+1.0
EDRZ				AML	AML		
EDRZ				AML	AML		
MYRZ	Mayor Island	1.15	272	P	Pn	18 02 36.4	+0.1
MYRZ				AML	AML		
MYRZ				AML	AML		
RAGZ	Rawiri	1.18	190	P	Pn	18 02 39.1	+2.4
TGRZ	Tauranga	1.19	250	P	Pn	18 02 37.0	+0.2
TGRZ				AML	AML		
TGRZ				AML	AML		
CNGZ	Carnagh Statio	1.22	160	P	Pn	18 02 39.7	+2.7
LIRZ	Lichensteins R	1.22	237	P	Pn	18 02 38.4	+1.3
MKRZ	Makatiti	1.25	230	P	Pn	18 02 39.4	+2.0
TARZ	Mount Tarawera	1.29	226	P	Pn	18 02 39.7	+1.8
TARZ				AML	AML		
KARZ	Kaharoa	1.32	239	P	Pn	18 02 39.1	+1.0
MUGZ	Murupara	1.34	212	P	Pn	18 02 39.9	+1.6
RRRZ	Republican Roa	1.36	222	P	Pn	18 02 40.1	+1.6
RRRZ				AML	AML		
RIGZ	Rimuhau	1.37	177	P	Pn	18 02 40.6	+2.1
RTZ	Ruatahuna	1.39	203	P	Pn	18 02 40.3	+1.5
HLRZ	Highlands Stat	1.39	229	P	Pn	18 02 40.7	+1.9
NGRZ	Ngongotaha	1.41	237	P	Pn	18 02 40.4	+1.4
UTU	Utuhina	1.44	234	P	Pn	18 02 41.3	+2.0
UTU				AML	AML		
KMRZ	Kaimai	1.47	249	P	Pn	18 02 40.4	+0.9
HSRZ	Hossack Road	1.49	229	P	Pn	18 02 42.2	+2.4
HSRZ				AML	AML		
HRRZ	Handcock Road	1.52	226	P	Pn	18 02 42.3	+2.1
PRGZ	Paritu Road	1.59	174	P	Pn	18 02 42.9	+2.0
GRRZ	Galatos Road	1.60	230	P	Pn	18 02 43.4	+2.4
ALRZ	Allen Road	1.61	220	P	Pn	18 02 43.2	+2.1
RAHZ	Arahi	1.64	196	P	Pn	18 02 43.8	+2.3
MTHZ	Maungataniwha	1.65	203	P	Pn	18 02 43.3	+1.7
KNZ	Kokohu	1.68	180	P	Pn	18 02 43.9	+2.0
WHHZ	Waihua	1.77	191	P	Pn	18 02 45.2	+2.3
TOZ	Tahuroa Road	1.77	257	P	Pn	18 02 44.1	+1.2
TOZ				AML	AML		
MRHZ	Matea Rd	1.79	213	P	Pn	18 02 45.4	+2.2
MHGZ	Mahia Peninsul	1.82	174	P	Pn	18 02 46.1	+2.6
KUTZ	Kaahu Road	1.86	231	P	Pn	18 02 46.6	+2.7
NMHZ	Naumai	1.89	201	P	Pn	18 02 47.0	+2.8
WHTZ	Whakaora	1.90	225	P	Pn	18 02 47.4	+2.9
WHTZ				AML	AML		
TLZ	Tolley Road	1.96	239	P	Pn	18 02 47.2	+2.1
ARHZ	Aropaoanui	2.00	195	P	Pn	18 02 47.8	+2.3
MKAZ	Moumakai	2.02	276	P	Pn	18 02 46.8	+1.1
MKAZ				AML	AML		
MKAZ				AML	AML		
BKZ	Black Stump Fm	2.05	207	P	Pn	18 02 47.6	+1.4
WATZ	Wairara	2.06	228	P	Pn	18 02 49.1	+2.9
GRZ	Great Barrier	2.08	301	P	Pn	18 02 47.2	+0.7
GRZ				AML	AML		
WIAZ	Waiheke Island	2.10	284	P	Pn	18 02 47.8	+1.0
WIAZ				AML	AML		
WIAZ				AML	AML		
RATZ	Rangitukua	2.14	224	P	Pn	18 02 50.3	+3.0
RITZ	Rihia Road	2.18	221	P	Pn	18 02 50.7	+3.1
ETAZ	East Tamaki Re	2.23	279	P	Pn	18 02 49.8	+1.5
MCHZ	McNeill Hill	2.24	200	P	Pn	18 02 50.8	+2.4
KATZ	Kakaramea	2.26	223	P	Pn	18 02 51.9	+3.1
MBAZ	Motutapu North	2.29	283	P	Pn	18 02 50.4	+1.4
MBAZ				AML	AML		
MBAZ				AML	AML		
KWHZ	Kaweka Forest	2.31	205	P	Pn	18 02 51.2	+2.0
TMVZ	Te Maari	2.36	221	P	Pn	18 02 52.9	+2.9
NTVZ	North Tongarir	2.36	221	P	Pn	18 02 53.3	+3.3
CKHZ	Cape Kidnapper	2.37	191	P	Pn	18 02 51.7	+1.8
ETVZ	East Tongariro	2.37	220	P	Pn	18 02 53.0	+2.9
OTVZ	Oturere	2.42	220	P	Pn	18 02 53.5	+2.8
WTVZ	West Tongariro	2.42	222	P	Pn	18 02 53.7	+3.0
AWAZ	Awhitu Peninsu	2.44	276	P	Pn	18 02 53.0	+2.2
AWAZ				AML	AML		
AWAZ				AML	AML		
SNVZ	South Ngauruho	2.44	220	P	Pn	18 02 53.8	+2.8
NGZ	Ngauruhoe	2.46	221	P	Pn	18 02 54.3	+3.1
TWVZ	Taurewa	2.47	225	P	Pn	18 02 54.4	+3.1
BHHZ	Black Hill Sta	2.50	210	P	Pn	18 02 53.3	+1.8
TUVZ	Tukino	2.50	219	P	Pn	18 02 54.2	+2.5
COVZ	Chateau Observ	2.51	221	P	Pn	18 02 54.7	+2.9
HIZ	Hauiti	2.52	241	P	Pn	18 02 54.6	+2.8
HIZ	Hauiti	2.52	241	P	Pn	18 02 55.0	+3.2
HIZ				AML	AML		
KRHZ	Kereru	2.52	204	P	Pn	18 02 53.3	+1.5
KAHZ	Kahuranaki	2.53	194	P	Pn	18 02 54.2	+2.2
FWVZ	Far West T-bar	2.54	220	P	Pn	18 02 54.9	+2.6
WHVZ	Whangaehu Hut	2.54	220	P	Pn	18 02 54.7	+2.3
MAVZ	Matarangi	2.55	220	P	Pn	18 02 55.1	+2.6
MOVZ	Moawhango	2.56	216	P	Pn	18 02 54.2	+1.8
WNVZ	Wahianoa	2.57	219	P	Pn	18 02 54.9	+2.2
TRVZ	Turoa	2.58	220	P	Pn	18 02 55.2	+2.5
PKVZ	Pokaka	2.67	223	P	Pn	18 02 57.0	+3.2
MTVZ	Mangateitei	2.68	220	P	Pn	18 02 56.4	+2.5
PXZ	Pawanui	2.76	193	P	Pn	18 02 56.2	+1.3
PNHZ	Pukenui	2.82	204	P	Pn	18 02 56.7	+1.0
WPHZ	Waipukurau	2.89	199	P	Pn	18 02 57.6	+1.1
VRZ	Vera Road	2.91	231	P	Pn	18 03 00.4	+3.7
WCZ	Waipu Caves	3.02	297	P	Pn	18 02 59.7	+1.6
TSZ	Takapari Road	3.03	206	P	Pn	18 02 59.2	+0.9
PRHZ	Porangahau	3.04	195	P	Pn	18 02 59.5	+1.2
DVHZ	Dannevirke	3.18	201	P	Pn	18 03 00.8	+0.6
WAZ	Wanganui	3.21	220	P	Pn	18 03 03.2	+2.7
ANWZ	Angora Road	3.26	196	P	Pn	18 03 02.1	+1.0
LREZ	Lake Rotokare	3.33	229	P	Pn	18 03 06.0	+3.9
POWZ	Post Office Ro	3.40	205	P	Pn	18 03 04.0	+1.1
PKE	Pukeiti	3.44	236	P	Pn	18 03 08.3	+4.7
PRWZ	Pori Road	3.48	202	P	Pn	18 03 05.0	+1.1
BFZ	Birch Farm	3.52	198	P	Pn	18 03 04.7	+0.2
BFZ	Birch Farm	3.52	198	S	Sn	18 03 44.3	-2.0
BFZ	Birch Farm	3.52	198	P	Pn	18 03 04.9	+0.4
NBEZ	Newall Road No	3.56	236	P	Pn	18 03 09.4	+4.3
MRZ	Mangatainoka R	3.70	206	P	Pn	18 03 07.2	+0.3
TIWZ	Tintock	3.71	202	P	Pn	18 03 07.8	+0.8
CPWZ	Castlepoint	3.75	197	P	Pn	18 03 08.8	+1.4
OUZ	Omahuta	3.92	301	P	Pn	18 03 17.0	+7.3
HOWZ	Holdsworth Sta	3.93	205	P	Pn	18 03 09.7	-0.2
OGWZ	Otaki Gorge	3.98	209	P	Pn	18 03 11.1	+0.5
TMWZ	Te Maipa	4.01	200	P	Pn	18 03 11.3	+0.3
KIW	Kapiti Island	4.12	211	P	Pn	18 03 12.7	+0.3
MTW	Mount Morrison	4.17	203	P	Pn	18 03 12.9	-0.2
TRWZ	Traveller	4.34	200	P	Pn	18 03 15.2	0.0
PAWZ	Paruwai Farm	4.40	203	P	Pn	18 03 15.8	-0.3
MSWZ	Moikau Station	4.49	204	P	Pn	18 03 16.7	-0.5
DUWZ	D’Urville Isla	4.53	219	P	Pn	18 03 18.0	+0.2
WEL	Wellington	4.54	209	P	Pn	18 03 17.6	-0.3
SNZO	South Karori	4.59	209	P	Pn	18 03 17.9	-0.6
SNZO	South Karori	4.59	209	S	Sn	18 04 09.7	-1.6
PLWZ	Palliser	4.62	203	P	Pn	18 03 18.4	-0.6
TCW	Tory Channel	4.68	213	P	Pn	18 03 19.4	-0.4
TUWZ	Tuamarina	5.01	214	P	Pn	18 03 23.8	-0.2
NNZ	Nelson	5.11	219	P	Pn	18 03 25.2	-0.2
TKNZ	Takaka Hill	5.20	223	P	Pn	18 03 26.7	0.0
BSWZ	Blackbirch Sta	5.27	213	P	Pn	18 03 26.9	-0.6
QRZ	Quartz Range	5.31	227	P	Pn	18 03 28.3	+0.3
QRZ	Quartz Range	5.31	227	P	Pn	18 03 28.4	+0.3
MRNZ	Matariki Terra	5.56	222	P	Pn	18 03 31.0	-0.5
THZ	Tophouse	5.75	218	P	Pn	18 03 33.6	-0.5
KHZ	Kahutara	5.99	211	P	Pn	18 03 36.2	-0.9
KHZ	Kahutara	5.99	211	P	Pn	18 03 36.4	-0.7
RPZ	Rata Peaks	8.12	216	P	Pn	18 04 05.1	-0.6
RPZ	Rata Peaks	8.12	216	P	Pn	18 04 05.3	-0.4

IDC ***06*** *18:06:11.8±1.1, 34°.13S×179°.03W, h0^{km}, mb4.3/5, mbtmp4.4/6, ML4.5/1, Error ellipse: s-maj=33.3km s-min=26.5km az=117.0*

NOU ***06*** *18:06:13.4, 34°.65S×178°.29W, h164^{km}, mb4.1/9, South of Kermadec Islands*

ISC 06 18:06:16.4±1.2**, 34°.6S**±0°.1×**178°.5W**±0°.2**, h51**^{km}**, n19,** σ**1^{s}69**/20**, mb4.4**/5**, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	Matakaoa Point	3.93	220	P	Pn	18 07 13.7	-0.5
MXZ	Matakaoa Point	3.93	220	S	Sn	18 08 01.7	+2.7
URZ	Urewera	5.09	223	Pn	Pn	18 07 29.2	-0.8
	18nm,0.3s,baz=61,slow=7.0,SNR=23						
URZ				Sn	Sn	18 08 30.3	+2.9
	6.1nm,0.3s,baz=194,slow=22,SNR=8.3						
	30nm,0.3s						
URZ				AML	AML		
URZ	Urewera	5.09	223	P	Pn	18 07 29.1	-1.0
URZ	Urewera	5.09	223	S	Sn	18 08 29.5	+2.0
BKZ	Black Stump Fm	6.07	220	P	Pn	18 07 42.5	-1.2
BKZ	Black Stump Fm	6.07	220	S	Sn	18 08 52.7	+0.9
OUZ	Omahuta	6.53	262	P	Pn	18 07 49.1	-0.8
BFZ	Birch Farm	7.36	213	P	Pn	18 07 59.4	-1.9
BFZ	Birch Farm	7.36	213	S	Sn	18 09 21.6	-1.8
ASAR	Alice Springs	42.64	272	P	P	18 14 06.9	-1.2
	3.2nm,0.7s,baz=111,slow=6.9,SNR=39						
ASAR				PcP	PcP	18 15 59.4	-0.1
	0.6nm,0.6s,baz=120,slow=4.0,SNR=6.3						
	3.2nm,0.7s						
WRA	Warramunga Arr	44.01	277	P	P	18 14 17.7	-1.4
	3.0nm,0.4s,baz=117,slow=7.9,SNR=72						
	3.0nm,0.4s						
FITZ	Fitzroy Crossi	52.06	273	P	P	18 15 19.7	-1.7
	2.5nm,0.6s,baz=134,slow=7.4,SNR=8.3						
	2.5nm,0.6s						
QSPA	South Pole Qui	55.52	180	P	P	18 15 52.3	+6.2
	1.5nm,0.9s,baz=25,slow=8.5,SNR=5.2						
	1.5nm,0.9s						
PETK	Petropavlovsk-	89.77	346	P	P	18 19 08.8	-0.1
	3.1nm,0.9s,baz=105,slow=7.0,SNR=6.2						
	3.1nm,0.9s						
KURBB	Kurchatov Arra	123.63	312	PKP	PKiKP	18 25 08.2	+0.2
	0.2nm,0.6s,baz=115,slow=1.9,SNR=4.2						
FINES	FINESS Array B	148.90	337	PKPbc	PKPbc	18 25 57.9	+0.3
	3.7nm,0.8s,baz=25,slow=3.7,SNR=10						
MMAI	Mount Meron Ar	151.86	276	PKPbc	PKiKP	18 26 07.5	+1.4
	0.9nm,0.5s,baz=117,slow=5.0,SNR=2.2						
NOA	NORSAR Array B	152.82	350	PKPbc	PKiKP	18 26 10.2	+3.1
	0.7nm,0.6s,baz=24,slow=3.3,SNR=3.3						

IDC ***06*** *18:15:20.6±1.0, 1°.51N×126°.35E, h0^{km}, mb3.9/9, mbtmp3.9/10, ML3.0/1, Error ellipse: s-maj=103.9km s-min=14.8km az=70.0*

DJA ***06*** *18:15:23.9±0.7, 2°N±4°×12°7E±°, h11^{km}±7^{km}, M4.0/12, mb4.3/3, MLv3.9/12*

ISC 06 18:15:27.0±0.8**, 1°.6N**±0°.1×**126°.71E**±0°.10**, h47**^{km}**, n13,** σ**0^{s}83**/14**, mb4.0**/9**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TNTI	Ternate	1.04	141	P	Pn	18 15 44.7	-0.5
TNTI				S	Sn	18 15 59.2	+0.6
MNI	Manado	1.87	266	P	Pn	18 15 55.5	-1.1
MNI				AML	AML		
GTOI	Gorontalo	3.81	256	P	Pn	18 16 24.0	+0.8
GTOI				AML	AML		
FITZ	Fitzroy Crossi	19.59	183	P	P	18 19 51.1	-0.2
	baz=356,slow=10,SNR=2.0						
	0.7nm,0.5s						
WRA	Warramunga Arr	22.66	161	P	P	18 20 23.9	-0.6
	5.0nm,0.7s,baz=338,slow=10,SNR=22						
	5.0nm,0.7s						
ASAR	Alice Springs	26.06	165	P	P	18 20 56.9	+0.7
	2.3nm,0.8s,baz=348,slow=11,SNR=39						
	2.3nm,0.8s						
STKA	Stephens Creek	36.15	158	P	P	18 22 24.7	-0.2
	1.2nm,0.5s,baz=336,slow=10.0,SNR=3.2						
	1.2nm,0.5s						
SONM	Songino Array	49.32	342	P	P	18 24 12.6	+1.1
	0.4nm,0.8s,baz=161,slow=9.2,SNR=2.5						
	0.4nm,0.8s						
MKAR	Makanchi Array	59.30	326	P	P	18 25 23.3	-0.7
	0.5nm,0.4s,baz=125,slow=8.6,SNR=14						
	0.5nm,0.4s						
KURBB	Kurchatov Arra	63.53	328	P	P	18 25 51.0	-1.4
	0.9nm,0.5s,baz=129,slow=6.1,SNR=18						
	0.9nm,0.5s						
BVAR	Borovoye Array	69.10	327	P	P	18 26 27.8	-0.3
	0.5nm,0.6s,baz=124,slow=7.2,SNR=2.6						
	0.5nm,0.6s						
NRIK	Noril'sk	72.50	346	P	P	18 26 49.2	+0.8
	2.5nm,0.5s,baz=135,slow=5.7,SNR=4.9						
	2.5nm,0.5s						
VNDA	Vanda	81.31	173	P	P	18 27 37.8	-0.1
	0.7nm,0.8s,baz=312,slow=7.9,SNR=4.8						
	0.7nm,0.8s						

UPA ***06*** *18:16:58.0±1.8, 8°.37N×83°.37W, h10^{km}±8^{km}, MW3.1, Presumed earthquake*

UCR ***06*** *18:17:02.6±0.8, 8°.29N×83°.03W, h18^{km}±7^{km}, MW3.7, Presumed earthquake*

ISC 06 18:17:01.7±1.0**, 8°.34N**±0°.04×**83°.08W**±0°.04**, h13**^{km}**, n19,** σ**1^{s}15**/28**, 2C-4D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTPA	Petro Terminal	0.25	123	*e*P	Pg	18 17 07.2	+0.2
PTPA				*e*S	Sg	18 17 11.8	+1.2
PIRO	Carate, Puerto	0.26	285	*e*P	Pb	18 17 09.2	+0.9
FITO	Golfito	0.30	346	*e*P	Pn	18 17 09.9	-1.9
FITO				*e*S	Sn	18 17 14.4	-3.6
LMNES	Limones	0.32	137	*e*P	Pb	18 17 09.0	-0.3
LMNES	Limones	0.32	137	⇓*i*P	Pb	18 17 09.3	0.0
LMNES				*e*S	Sn	18 17 18.1	-0.5
NELY	Ciudad Neily	0.34	23	*e*P	Pb	18 17 09.9	+0.2
NELY				*e*S	Sb	18 17 16.1	+1.2
NELY	Ciudad Neily	0.34	23	⇓*i*P	Pb	18 17 10.1	+0.4
NELY				*e*S	Sb	18 17 16.2	+1.2
VITO	San Vito	0.49	13	*e*S	Sn	18 17 22.8	-0.3
BRU2	Volcan	0.60	40	*e*P	Pb	18 17 14.1	0.0
BRU2	Volcan	0.60	40	⇑*i*P	Pb	18 17 14.2	+0.1
BRU2				*e*S	Sn	18 17 25.3	-0.4
CLLRA	Cordillera,	0.61	49	*e*P	Pb	18 17 14.5	0.0
CLLRA	Cordillera,	0.61	49	⇓*i*P	Pb	18 17 14.7	+0.3
CLLRA				*e*S	Sb	18 17 25.3	+2.2
BQTLY	Boquete Panama	0.74	56	*e*P	Pg	18 17 16.2	0.0
BQTLY	Boquete Panama	0.74	56	*i* P	Pg	18 17 16.4	+0.2
BGUAL	Bijagual, Pana	0.76	77	⇑*i*P	Pg	18 17 16.5	0.0
BGUAL				*e*S	Sg	18 17 27.4	+1.0
SAJE	San Jernim	1.09	337	*e*P	Pn	18 17 23.1	+0.3
KKNTU	Kakintº	1.36	68	*e*P	Pn	18 17 25.3	-1.0
KKNTU	Kakintº	1.36	68	⇓*i*P	Pn	18 17 25.4	-1.0
KKNTU				*e*S	Sn	18 17 42.7	-1.6
PIEC	Cerro El Cedra	1.54	326	*e*P	Pg	18 17 31.6	+0.2

AEIC ***06*** *18:19:24.8±2.5, 50°.94N±0°.05×179°.71W±0°.04, h26^{km}±4^{km}, Error ellipse: s-maj=7.1km s-min=3.9km az=176.0*

IDC ***06*** *18:19:25.0±4.8, 51°.09N×179°.67W, h33^{km}±35^{km}, mb4.1/31, mbtmp4.2/34, ML4.5/2, MS3.4/2, Error ellipse: s-maj=16.6km s-min=9.7km az=174.0*

NEIC ***06*** *18:19:25.9±1.9, 51°.04N±0°.08×179°.79W±0°.05, h47^{km}±6^{km}, mb4.3/107, ML4.2/10, ML4.0(AEIC), Error ellipse: s-maj=11.8km s-min=4.8km az=177.0*

ISC 06 18:19:25.5±1.3**, 51°.00N**±0°.09×**179°.74W**±0°.03**, h42**^{km}±10^{km}**, n212,** σ**1^{s}04**/188**, mb4.3**/94**, 8C-5D, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AMKA	Amchitka	0.71	303	Pn	Pn	18 19 38.1	-1.0
AMKA				Sn	Sn	18 19 48.4	-0.5
GAKI	Gareloi-Kavalg	0.81	46		Pn	18 19 39.6	-0.9
GAKI					Sn	18 19 50.7	-0.5
GASW	Gareloi Southw	0.96	35		Pn	18 19 42.7	+0.2
GASW					Sn	18 19 56.6	+1.6
GALAA	Gareloi Lava P	0.98	38		Pn	18 19 43.1	+0.3
GALAA					Sn	18 19 57.2	+1.8
GAEA	Gareloi East	1.00	38		Pn	18 19 43.4	+0.3
GAEA					Sn	18 19 57.4	+1.4
CESW	Semis’ Southwe	1.00	335		Pn	18 19 43.7	+0.6
GANO	Gareloi North	1.01	35		Pn	18 19 43.3	0.0
GANO					Sn	18 19 58.5	+2.2
CERB	Semis’ Cerberu	1.01	337		Pn	18 19 44.2	+1.0
GANE	Gareloi Northe	1.02	36		Pn	18 19 43.5	+0.1
GANE					Sn	18 19 58.7	+2.2
CEPE	Semis’ Perret	1.04	339		Pn	18 19 44.2	+0.6
TACS	Tanaga Cape Sa	1.32	49		Pn	18 19 48.0	+0.4
TACS					Sn	18 20 06.2	+2.2
TANO	Tanaga North	1.37	47		Sn	18 20 07.6	+2.5
TAFL	Tanaga Flats	1.38	56		Pn	18 19 48.5	+0.2
LSSE	Little Sitkin	1.41	312		Pn	18 19 49.7	+0.9
LSPA	Little Sitkin	1.43	313		Pn	18 19 50.1	+1.1
TAPA	Tanaga Point A	1.46	55		Pn	18 19 49.8	+0.4
TAPA					Sn	18 20 09.1	+1.8
KIMD	Kanaga Island	1.75	63		Sn	18 20 15.2	+0.8
KIWB	Kanaga Island	1.83	61		Pn	18 19 54.9	+0.4
KIWB				IAML		18 20 21.4	
	comp=N,2µm,0.9s						
KIWB				IAML		18 20 25.6	
	comp=E,3µm,0.7s						
ADK	Adak	2.11	64		Pn	18 19 58.8	+0.6
ADK				IAML		18 20 28.8	
	comp=E,2µm,0.7s						
ADAG	Mount Adagdak	2.19	62		Pn	18 20 00.0	+0.6
GSMY	Great Sitkin M	2.53	64		Pn	18 20 04.8	+0.8
ATKA	Atka Island	3.66	69		Pn	18 20 20.1	+0.5
ATKA				IAML		18 21 19.2	
	comp=E,381nm,1.1s						
KOWE	Korovin West	3.68	66		Pn	18 20 20.6	+0.7
SHEM	Shemya Is, Ala	4.19	297	Pn	Pn	18 20 27.3	+0.5
	comp=E,30nm,0.3s,baz=94,slow=1.8,SNR=23						
SHEM				Sn	Sn	18 21 17.4	+2.9
	comp=E,20nm,0.3s,baz=316,slow=20,SNR=6.7						
	comp=E,17nm,0.3s						
SHEM				AML	AML		
SHEM	Shemya Is, Ala	4.19	297	Pn	Pn	18 20 27.6	+0.7
SHEM				IAML		18 21 34.7	
	comp=E,235nm,0.9s						
SHEM				IAML		18 21 36.7	
	comp=N,185nm,1.2s						
OKTU	Okmok Mt. Tuli	7.58	67		Pn	18 21 14.6	+1.3
UNV	Unalaska Valle	8.58	65	Pn	Pn	18 21 28.9	+1.9
SDPT	Sand Point	12.34	62	Pn	Pn	18 22 17.7	-0.6
PEA0B	Petropavlovsk-	14.03	287		P	18 22 46.1	-2.3
PETK	Petropavlovsk-	14.03	287	Pn	Pn	18 22 42.5	+1.0
	comp=N,1.3nm,0.9s,baz=102,slow=19,SNR=7.8						
PETK				Sn	Sn	18 25 14.1	-1.6

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       comp=N,0.1nm,0.3s,baz=114,slow=17,SNR=1.4
KDAK  Kodiak Island     17.13  56  P       Pn       18 23 19.7 -1.7
       comp=N,1.4nm,0.3s,baz=218,slow=1.3,SNR=29
KDAK                               S       Sn       18 26 28.9 -1.7
       comp=N,8.2nm,0.8s,baz=265,slow=20,SNR=1.3
       comp=N,6.5nm,0.4s
KDAK                               AML     AML
KDAK  Kodiak Island     17.13  56  Pn      Pn       18 23 19.4 -2.0
KDAK                               IAmb    IAmb     18 23 49.1
       comp=Z,49nm,1.4s
L19K  White Mountain    17.56  41  P       P        18 23 27.0 -0.5
L19K                               IAmb    IAmb     18 23 30.0
       comp=Z,17nm,1.0s
STLK  Strandline Lak    18.57  45  P       P        18 23 38.4 -0.3
STLK                               IAmb    IAmb     18 23 42.1
       comp=Z,16nm,1.0s
J20K  Nowinta River     18.85  36          P        18 23 41.5 -0.1
J20K                               IAmb    IAmb     18 23 45.5
       comp=Z,16nm,1.2s
PPLA  Purkeypile        18.99  41  P       Pn       18 23 44.1 -0.2
PPLA                               IAmb    IAmb     18 23 59.9
       comp=Z,14nm,0.9s
KTH   Kantishna Hill    19.79  40  P       P        18 23 51.7 -0.3
C18K  Utukok River      19.85  20          P        18 23 52.7 +0.2
C18K                               IAmb    IAmb     18 23 55.0
       comp=Z,18nm,0.9s
E19K  Redstone River    19.91  26          P        18 23 52.4 -0.8
GHO   Glory Hole Cre    19.97  45  P       P        18 23 53.1 -0.9
GHO                                IAmb    IAmb     18 23 58.2
       comp=Z,9.1nm,0.8s
PWL   Port Wells        19.98  48  P       P        18 23 52.5 -1.4
PWL                                IAmb    IAmb     18 24 05.5
       comp=Z,14nm,1.2s
TRF   Thorofare Moun    20.01  40  IAmb    IAmb     18 24 21.7
       comp=Z,13nm,1.0s
SML   Sawmill           20.25  46  P       P        18 23 56.3 -0.6
SML                                IAmb    IAmb     18 24 10.5
       comp=Z,7.4nm,0.7s
D19K  Kuna River        20.44  23  P       P        18 23 57.7 -1.2
D19K                               IAmb    IAmb     18 24 00.9
       comp=Z,13nm,0.8s
GLI   Glacier Island    20.57  49  P       P        18 23 59.0 -1.3
GLI                                IAmb    IAmb     18 24 03.6
       comp=Z,12nm,0.6s
SCM   Sheep Creek Mo    20.71  46  P       P        18 24 00.6 -1.4
SCM                                IAmb    IAmb     18 24 09.8
       comp=Z,12nm,0.6s
FID   Port Fidalgo      20.83  49  P       P        18 24 02.1 -1.1
FID                                IAmb    IAmb     18 24 05.2
       comp=Z,11nm,0.8s
NEA2  Nenana            20.98  38  IAmb    IAmb     18 24 14.6
       comp=Z,15nm,0.9s
DIV   Divide            21.25  48  IAmb    IAmb     18 24 18.3
       comp=Z,9.4nm,0.7s
KLU   Klutina           21.27  47  IAmb    IAmb     18 24 18.5
       comp=Z,6.6nm,0.7s
E21K  Killik River      21.49  26  IAmb    IAmb     18 24 19.2
       comp=Z,17nm,1.2s
G23K  Bananza Creek     21.66  32  IAmb    IAmb     18 24 14.4
       comp=Z,22nm,1.4s
BMRM  Bremner River     21.77  49          P        18 24 14.1 +0.8
BMRM                               IAmb    IAmb     18 24 18.1
       comp=Z,9.8nm,0.8s
ILAR  Eielson Array     21.91  39  P       P        18 24 12.1 -2.6
       comp=Z,1.3nm,0.6s,baz=240,slow=9.3,SNR=18
ILAR                               PcP     PcP      18 28 12.4 +0.2
       comp=Z,0.4nm,0.6s,baz=279,slow=3.4,SNR=4.6
       comp=Z,1.3nm,0.6s
ILAR  Eielson Array     21.91  39  P       P        18 24 12.1 -2.6
ILAR                               PcP     PcP      18 28 11.0 -1.2
E22K  Anaktuvuk Pass    21.91  28  IAmb    IAmb     18 24 21.7
       comp=Z,5.5nm,0.7s
H24K  Noodor Dome       21.99  35          P        18 24 14.8 -0.8
H24K                               IAmb    IAmb     18 24 18.7
       comp=Z,7.5nm,0.7s
K24K  Donnelly Dome     22.01  41  IAmb    IAmb     18 24 17.1
       comp=Z,14nm,0.8s
D22K  Ayikyak River     22.13  26  IAmb    IAmb     18 24 26.9
       comp=Z,14nm,0.9s
GLB   Gilahina Butte    22.25  48          P        18 24 17.4 -1.0
VRDI  Verde Repeater    22.37  49  IAmb    IAmb     18 24 22.3
       comp=Z,8.7nm,0.6s
CRQM  Cirque            22.44  50  IAmb    IAmb     18 24 30.7
       comp=Z,8.8nm,0.8s
E23K  Chandalar         22.54  29          P        18 24 21.1 -0.4
G24K  Hadweenzic Riv    22.54  34  IAmb    IAmb     18 24 22.6
       comp=Z,14nm,0.8s
MCARA McCarthy VSAT     22.60  48  IAmb    IAmb     18 24 48.5
       comp=Z,5.9nm,0.7s
MENT  Mentasta          22.63  44  IAmb    IAmb     18 24 41.3
       comp=Z,10nm,1.0s
D23K  Nanushuk River    22.75  27  IAmb    IAmb     18 24 32.1
       comp=Z,9.2nm,0.6s
L26K  Log Cabin Wild    22.82  44  IAmb    IAmb     18 24 40.4
       comp=Z,8.3nm,0.7s
GRNC  Granite Creek     23.11  50  IAmb    IAmb     18 24 28.4
       comp=Z,5.8nm,0.7s
FYU   Fort Yukon        23.27  35  IAmb    IAmb     18 24 30.1
       comp=Z,26nm,1.5s
C23K  Itkillik River    23.31  25          P        18 24 29.1 -0.2
C23K                               IAmb    IAmb     18 24 30.1
       comp=Z,14nm,0.8s
M27K  Edge Creek, AK    23.33  46  IAmb    IAmb     18 24 31.3
       comp=Z,9.2nm,0.8s
D24K  Happy Valley      23.40  28  IAmb    IAmb     18 24 38.1
       comp=Z,18nm,1.1s
LOGN  Logan Glacier     23.49  50  P       P        18 24 30.6 -0.6
LOGN                               IAmb    IAmb     18 24 31.8
       comp=Z,5.8nm,0.6s
L27K  Beaver Creek,     23.50  45  P       P        18 24 30.4 -0.9
L27K                               IAmb    IAmb     18 24 32.0
       comp=Z,8.2nm,0.7s
BCAR  Beaver Creek A    23.52  45          P        18 24 30.8 -0.6
K27K  Chicken           23.63  42  IAmb    IAmb     18 24 33.8
       comp=Z,11nm,0.8s
PCA   Pinnacle          23.78  52  IAmb    IAmb     18 24 34.9
       comp=Z,9.7nm,0.6s
E25K  Arctic Village    23.86  31  IAmb    IAmb     18 24 36.0
       comp=Z,9.9nm,0.8s
D25K  Kavik River       24.22  28  IAmb    IAmb     18 24 47.0
       comp=Z,7.0nm,0.7s
I28M  Miner Creek       24.91  39  IAmb    IAmb     18 24 45.6
       comp=Z,11nm,0.8s
M29M  Somme Creek       24.91  47  IAmb    IAmb     18 24 45.8
       comp=Z,7.7nm,0.7s
C27K  Jago River        25.18  29  IAmb    IAmb     18 25 00.2
       comp=Z,13nm,1.4s
HYT   Haines Junctio    25.19  51          P        18 24 44.1 -2.8
K29M  Barlow Dome       25.55  44  IAmb    IAmb     18 24 53.6
       comp=Z,8.6nm,1.0s
I30M  Mount Dempster    26.30  41  IAmb    IAmb     18 24 56.4
       comp=Z,4.8nm,0.8s
E29M  Blow River        26.58  34  IAmb    IAmb     18 25 03.3
       comp=Z,6.3nm,1.1s
INK   Inuvik            28.11  35  P       P        18 25 12.1 -0.8
       comp=Z,1.2nm,0.6s,baz=303,slow=9.4,SNR=7.0
       comp=Z,1.2nm,0.6s
USRK  Ussuriysk Ar.     32.76 277  LR      LR       18 39 11.3
       comp=Z,55nm,21.2s,baz=224,slow=36
H11N2 WAKE ISLAND Hy    32.94 204  T       T        19 01 20.6
       baz=18,slow=76,SNR=37
H11N3 WAKE ISLAND Hy    32.95 204  T       T        19 01 20.6
       baz=18,slow=76,SNR=44
H11N1 WAKE ISLAND Hy    32.96 204  T       T        19 01 19.7
       baz=18,slow=76,SNR=36
MJAR  Matsushiro Arr    33.14 261  P       P        18 25 59.0 +1.5
       comp=Z,0.7nm,0.6s,baz=56,slow=7.5,SNR=2.6
       comp=Z,0.7nm,0.6s
H11S1 WAKE ISLAND Hy    34.16 203  T       T        19 02 51.4
       baz=19,slow=76,SNR=32
H11S2 WAKE ISLAND Hy    34.18 203  T       T        19 02 58.0
       baz=19,slow=76,SNR=14
H11S3 WAKE ISLAND Hy    34.18 203  T       T        19 02 57.5
       baz=19,slow=76,SNR=14
YKA   Yellowknife Ar    35.92  46  P       P        18 26 21.1 -0.2
       comp=Z,3.7nm,0.5s,baz=283,slow=7.3,SNR=36
       comp=Z,3.7nm,0.5s
YKA   Yellowknife Ar    35.92  46  P       P        18 26 19.9 -1.3
C09A  Chrisman Ranch    39.11  70  IAmb    IAmb     18 26 50.3
       comp=Z,6.5nm,0.9s
EDM   Edmonton          39.52  60          P        18 26 50.8 -1.0
YBH   Yreka Blue Hor    39.52  81  P       P        18 26 52.6 +0.5
       comp=Z,1.1nm,0.8s,baz=301,slow=5.6,SNR=5.4
       comp=Z,1.1nm,0.8s
NEW   Newport           39.57  69  P       P        18 26 52.1 -0.2
       comp=Z,6.1nm,0.8s,baz=303,slow=4.7,SNR=9.6
       comp=Z,6.1nm,0.8s
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NEW   Newport           39.57  69  IAmb    IAmb     18 26 54.1
       comp=Z,7.6nm,0.9s
G08A  Pilot Rock        39.94  74  IAmb    IAmb     18 26 57.5
       comp=Z,6.5nm,1.3s
F10A  Beach Ranch, E    40.64  72  IAmb    IAmb     18 27 06.1
       comp=Z,6.7nm,1.2s
HLID  Hailey            43.62  73          P        18 27 25.0 -0.6
HLID                               IAmb    IAmb     18 27 27.9
       comp=Z,4.6nm,0.8s
BOZ   Bozeman (W)       44.17  69          P        18 27 29.6 -0.4
NVAR  Mina Array Bea    44.19  82  P       P        18 27 30.5 +0.1
       comp=Z,0.9nm,0.7s,baz=308,slow=7.1,SNR=2.5
       comp=Z,0.9nm,0.7s
ELK   Elko              44.72  77  P       P        18 27 34.9 +0.3
       comp=Z,2.1nm,0.6s,baz=304,slow=9.9,SNR=14
       comp=Z,2.1nm,0.6s
YHL   Hebgen Lake       44.84  70  P       P        18 27 35.7 +0.1
SONM  Songino Array     46.29 296  P       P        18 27 47.3 +0.5
       comp=Z,1.2nm,0.7s,baz=68,slow=8.4,SNR=10
SONM                               PcP     PcP      18 29 22.5 +1.0
       comp=Z,1.0nm,0.6s,baz=62,slow=3.0,SNR=4.9
       comp=Z,1.2nm,0.7s
SONM  Songino Array     46.29 296  P       P        18 27 45.1 -1.6
SONM                               PcP     PcP      18 29 22.2 +0.7
TPNV  Topopah Spring    46.38  82          P        18 27 47.9 +0.2
DUG   Dugway, Tooele    46.53  76          P        18 27 48.3 -0.5
PDAR  Pinedale Array    46.99  71  P       P        18 27 53.2 +0.7
       comp=Z,4.1nm,0.5s,baz=262,slow=3.0,SNR=4.7
       comp=Z,4.1nm,0.5s
PDAR  Pinedale Array    46.99  71  P       P        18 27 52.5 +0.1
HHC   Hu-ho-hao-te      47.22 286 eP       P        18 27 54.1  0.0
HHC                                pmax    pmax
       comp=Z,38nm,0.6s
HHC                                pmax    pmax
       comp=Z,210nm,5.7s
O20A  White River Ci    49.36  73  P       P        18 28 10.6 -0.2
SPITS Spitsbergen Ar    50.71 356  P       P        18 28 20.3  0.0
       comp=Z,1.6nm,0.4s,baz=37,slow=5.7,SNR=12
       comp=Z,1.6nm,0.4s
ZALV  Zalesovo Beam     53.86 313  P       P        18 28 44.2 +0.3
       comp=Z,0.8nm,0.5s,baz=84,slow=5.7,SNR=4.5
       comp=Z,0.8nm,0.5s
LZDM  Lanzhou Array     55.10 286  P       P        18 28 54.4 +0.9
       comp=Z,3.9nm,0.4s,baz=76,slow=7.6,SNR=1.7
       comp=Z,3.9nm,0.4s
GTA2  Gaotai            55.14 292 eP       P        18 28 54.8 +1.3
GTA2                               pP      pwP      18 29 08.3 -1.3
GTA2                               pmax    pmax
       comp=Z,5.0nm,0.8s
MNTX  Cornudas Mount    56.60  79          P        18 29 02.2 -1.7
MNTX                               IAmb    IAmb     18 29 09.4
       comp=Z,2.6nm,1.0s
POST  Post              58.06  76  P       P        18 29 13.1 -1.2
ARCES ARCESS Array B    58.36 350  P       P        18 29 15.2 -0.5
       comp=Z,3.9nm,0.8s,baz=22,slow=8.6,SNR=9.9
       comp=Z,3.9nm,0.8s
ARCES ARCESS Array B    58.36 350  P       P        18 29 14.6 -1.2
KURK  Kurchatov         58.85 313          P        18 29 19.7 +0.3
KURBB Kurchatov Arra    58.96 313  P       P        18 29 21.3 +1.2
       comp=Z,5.0nm,0.5s,baz=40,slow=6.7,SNR=100
       comp=Z,5.0nm,0.5s
TXAR  Lajitas Array     59.30  80  P       P        18 29 23.5 +0.5
       comp=Z,1.0nm,0.6s,baz=304,slow=5.0,SNR=14
TXAR                               PcP     PcP      18 30 11.4 +0.6
       comp=Z,0.4nm,0.7s,baz=299,slow=3.0,SNR=1.6
       comp=Z,1.0nm,0.6s
TXAR  Lajitas Array     59.30  80  P       P        18 29 22.9 -0.1
MKAR  Makanchi Array    59.80 308  P       P        18 29 26.3 +0.1
       comp=Z,3.6nm,0.5s,baz=50,slow=6.6,SNR=38
       comp=Z,3.6nm,0.5s
MKAR  Makanchi Array    59.80 308          P        18 29 26.1  0.0
MAKZ  Makanchi          59.95 308          P        18 29 27.2  0.0
R40A  Maddies Statio    59.99  65  P       P        18 29 25.8 -1.6
SCHQ  Schefferville     60.67  38  P       P        18 29 31.2 -0.7
       comp=Z,6.9nm,1.0s,baz=312,slow=6.7,SNR=5.3
       comp=Z,6.9nm,1.0s
SCHQ  Schefferville     60.67  38  P       P        18 29 30.9 -1.0
BVAR  Borovoye Array    60.80 319  P       P        18 29 33.0 +0.2
       comp=Z,2.0nm,0.3s,baz=44,slow=6.8,SNR=19
BVAR                               PcP     PcP      18 30 17.2 +0.9
       comp=Z,1.7nm,0.6s,baz=53,slow=3.3,SNR=4.1
       comp=Z,2.0nm,0.3s
BORK  Borovoye          60.81 319  P       P        18 29 32.8 -0.1
BORK                               IAmb    IAmb     18 29 34.9
       comp=Z,2.8nm,0.8s
FINES FINESS Array B    66.02 347  P       P        18 30 06.5 -0.6
       comp=Z,3.6nm,0.7s,baz=22,slow=7.1,SNR=16
       comp=Z,3.6nm,0.7s
TKL   Tuckaleechee C    66.65  62  P       P        18 30 11.8 +0.2
       comp=Z,3.5nm,0.8s,baz=342,slow=12,SNR=2.5
       comp=Z,3.5nm,0.8s
NB2   NORSAR Subarra    67.97 354  P       P        18 30 19.3 -0.3
       comp=Z,1.0nm,0.3s,baz=7.2,slow=6.5
NOA   NORSAR Array B    67.97 354  P       P        18 30 19.7 +0.2
       comp=Z,3.3nm,0.7s,baz=1.8,slow=6.0,SNR=16
       comp=Z,3.3nm,0.7s
HFS   Hagfors           68.69 353  P       P        18 30 23.8 -0.3
       comp=Z,3.6nm,0.5s,baz=15,slow=6.3,SNR=20
       comp=Z,3.6nm,0.5s
KSH2  Kashi             68.74 306  P       P        18 30 26.6 +1.7
KSH2                               sP      pwP      18 30 40.4 -0.3
KSH2                               pmax    pmax
       comp=Z,7.0nm,1.2s
CMAR  Chiang Mai Arr    70.46 275  P       P        18 30 36.8 +1.2
       comp=Z,1.4nm,0.8s,baz=27,slow=7.1,SNR=12
       comp=Z,1.4nm,0.8s
EKA   Eskdalemuir Ar    74.00   2  P       P        18 30 56.6 +0.5
       comp=Z,3.5nm,0.7s,baz=354,slow=4.7,SNR=20
       comp=Z,3.5nm,0.7s
RNPP9 Sopachiv          75.67 344  P       P        18 31 05.4 -0.5
AK21  Malin Array Si    75.69 342  P       P        18 31 05.3 -0.7
AK22  Malin Array Si    75.70 342  P       P        18 31 05.2 -0.8
AK03  Malin Array Si    75.70 341  P       P        18 31 05.6 -0.4
AKASG Malin Array Be    75.72 341  P       P        18 31 05.9 -0.3
       comp=Z,2.0nm,0.5s,baz=21,slow=6.5,SNR=11
       comp=Z,2.0nm,0.5s
AKBB  Malin Array Si    75.72 341  P       P        18 31 05.6 -0.6
AK20  Malin Array Si    75.73 342  P       P        18 31 05.6 -0.6
KIEV  Kiev              75.73 341 ⥣P       P        18 31 06.2 -0.1
KIEV  Kiev              75.73 341  P       P        18 31 05.7 -0.5
       comp=Z,22nm,2.9s
AK01  Malin Array Si    75.74 341  P       P        18 31 05.4 -0.8
AK18  Malin Array Si    75.74 342  P       P        18 31 05.4 -0.8
AK19  Malin Array Si    75.75 342  P       P        18 31 05.5 -0.8
AK16  Malin Array Si    75.78 342  P       P        18 31 06.0 -0.5
RNPP5 Staryi Chortor    75.85 344  P       P        18 31 06.1 -0.8
LUBAR Lubar, Ukraine    76.76 342  P       P        18 31 11.3 -0.8
CLL   Collm             77.50 352 eP       P        18 31 16.0 -0.2
KWP   Kalwaria Pacla    77.93 345  P       P        18 31 19.0 +0.3
       comp=Z,24nm,1.0s
DPC   Dobruska-Polom    78.11 350  P       P        18 31 18.9 -0.8
       comp=Z,3.7nm,1.0s
KMPD  K-Podol'skiy      78.31 343  P       P        18 31 19.8 -0.9
SORM  Soroca            78.34 341  P       P        18 31 20.1 -0.8
       comp=Z,7.1nm,0.9s
KOLS  Kolonicke sedl    78.68 345 eP       P        18 31 23.9 +1.1
LANS  Liptovska Anna    78.88 347 eP       P        18 31 26.4 +2.4
BURAR Bucovina Array    79.45 343 ⥣P       P        18 31 28.4 +1.2
KHC   Kasperske Hory    79.60 351  P       P        18 31 27.5 -0.4
       comp=Z,2.9nm,0.9s
VYHS  Vyhne             79.61 348 eP       P        18 31 28.9 +1.0
GERES GERESS Array B    79.87 351  P       P        18 31 29.6 +0.2
       comp=Z,1.4nm,0.6s,baz=20,slow=4.7,SNR=14
       comp=Z,1.4nm,0.6s
GERES GERESS Array B    79.87 351  P       P        18 31 29.5  0.0
BIZ   Bicaz             79.93 342 ⥣P       P        18 31 30.1 +0.4
ARCR  ARCALIA           80.11 344 ⥣P       P        18 31 32.9 +2.2
TESR  Tescani           80.24 342  P       P        18 31 31.0 -0.3
GHRR                    80.52 341 ⥥P       P        18 31 39.5 +6.7
CONA  Conrad Observa    80.55 349 eP       P        18 31 33.4 +0.3
       comp=Z,3.5nm,0.9s
DRGR                    80.69 345 ⥣P       P        18 31 34.4 +0.6
RONA  Rosalia, Austr    80.72 349 eP       P        18 31 34.8 +0.9
       comp=Z,1.6nm,0.6s
MARR  Marisel-Cluj      80.73 344 ⥥P       P        18 31 34.9 +0.8
MOA   Molln             80.80 350 eP       P        18 31 34.6 +0.2
       comp=Z,1.5nm,0.9s
COVR  Voineasa-Covas    80.96 342 ⥥P       P        18 31 36.4 +1.1
BIOA  Bad Ischl, Aus    81.02 351 ePcP     P        18 31 36.9 +1.4
       comp=Z,3.7nm,1.1s
ARSA  Arzberg           81.25 350 eP       P        18 31 36.9 +0.2
       comp=Z,2.2nm,1.2s
WRA   Warramunga Arr    81.33 223  P       P        18 31 37.0 -0.3
       comp=Z,0.8nm,0.6s,baz=34,slow=6.2,SNR=7.1
       comp=Z,0.8nm,0.6s
MLR   Muntele Rosu      81.35 342 ⥣P       P        18 31 39.5 +2.0
LESA  Schwarzleotal     81.38 352 eP       P        18 31 38.3 +0.8
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       comp=Z,3.1nm,1.4s
WATA  Walderalm         81.56 352 ePcP     P        18 31 39.4 +0.9
       comp=Z,1.5nm,0.4s
VOIR                    81.58 343 ⥥P       P        18 31 40.0 +1.4
MOTA  Moosalm           81.59 353 eP       P        18 31 38.5 -0.2
       comp=Z,1.8nm,0.7s
WTTA  Wattenberg        81.63 352 i PcP    P        18 31 39.7 +0.7
       comp=Z,5.2nm,0.8s
KBA   Koelnbreinsper    81.66 351 ePcP     P        18 31 40.1 +1.0
       comp=Z,10nm,0.8s
SQTA  Sankt Quirin      81.71 352 eP       P        18 31 39.7 +0.4
       comp=Z,3.1nm,1.1s
SOKA  Soboth            81.87 350 i P      P        18 31 40.8 +0.7
       comp=Z,3.4nm,0.7s
FETA  Feichten          81.94 353 i P      P        18 31 40.5 -0.1
       comp=Z,4.0nm,0.9s
GZR   Gura Zlata        82.03 344 ⥣P       P        18 31 42.3 +1.3
ABTA  Abfaltersbach     82.06 352 i PcP    P        18 31 42.0 +0.9
       comp=Z,5.1nm,1.0s
MYKA  Terra Mystica     82.07 351 ePcP     P        18 31 44.6 +3.4
       comp=Z,0.9nm,0.5s
OBKA  Obir              82.09 350 ePcP     P        18 31 41.9 +0.6
       comp=Z,3.8nm,0.9s
BZK   Bozkurt           82.86 335 ⥣P       P        18 31 45.0 -0.1
FITZ  Fitzroy Crossi    83.76 231  P       P        18 31 50.5 +0.5
       comp=Z,2.0nm,0.6s,baz=6.6,slow=5.7,SNR=7.6
       comp=Z,2.0nm,0.6s
FITZ  Fitzroy Crossi    83.76 231  P       P        18 31 50.0  0.0
ASAR  Alice Springs     84.81 222  P       P        18 31 55.8 +0.5
       comp=Z,1.2nm,0.9s,baz=33,slow=5.3,SNR=10.0
       comp=Z,1.2nm,0.9s
ASAR  Alice Springs     84.81 222  P       P        18 31 55.6 +0.3
BRTR  Keskin Array B    85.04 335  P       P        18 31 56.4 -0.3
       comp=Z,1.4nm,0.9s,baz=34,slow=3.0,SNR=6.5
       comp=Z,1.4nm,0.9s
KEPZ  Antalya-Kepez     88.24 335 ⥥P       P        18 32 12.1 -0.1
MMAI  Mount Meron Ar    90.79 331  LR      LR       19 18 56.1
       comp=Z,22nm,18.1s,baz=151,slow=39
TORD  Torodi Ar. Bea   116.11 358  PKP     PKPdf    18 38 04.1  0.0
       comp=Z,0.1nm,0.4s,baz=6.6,slow=2.6,SNR=1.3
MAW   Mawson           145.82 217  PKPbc   PKPbc    18 38 58.7 +0.1
       comp=Z,0.8nm,0.6s,baz=89,slow=2.5,SNR=2.5
MAW   Mawson           145.82 217  PKPdf   PKPab    18 38 59.4 +0.4
BOSA  Boshof           150.78 310  PKPbc   PKiKP    18 39 14.3 +0.6
       comp=Z,3.6nm,0.7s,baz=44,slow=2.1,SNR=12
BOSA                               PKPab   PKPab    18 39 20.6 +0.3
       comp=Z,3.3nm,1.0s,baz=30,slow=5.7,SNR=3.8
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*TIR **06** 18:33:32.1, 41°.22N×20°.48E, h29^{km}±2^{km}, Ml2.3/7*
*SKO **06** 18:33:32.2, 41°.23N×20°.51E, h15^{km}, ML2.4*
*BEO **06** 18:33:32.9±0.3, 41°.22N×20°.60E, h0^{km}, ML2.2/6*
*PDG **06** 18:33:33.1±0.6, 41°.18N×20°.34E, h6^{km}±1^{km}, ML2.6/10,*
Error ellipse: s-maj=1.0km s-min=1.9km az=0.0
ISC 06 18:33:32.7±0.9**, 41°.23N**±0°.02×**20°.52E**±0°.02**, h15**^{km}±8^{km}**,**
n35, σ**1ˢ.09**/65**, 5C-5D, Albania**

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Code  Station Name       Δ°   AZ°    Phase ID          Time       Res
                                   Op      ISC       h  m  s     ISC
OHR   Ohrid             0.24 118 i Pg      Pg       18 33 38.0 -0.1
OHR                              i Sg      Sb       18 33 42.5 -0.5
OHR                              eLg       Lg       18 33 42.8
       comp=N,828nm,0.6s
OHR                              eLg       Lg       18 33 43.0
       comp=E,1µm,0.5s
PHP   Peshkopia         0.46 353   Pg      Pg       18 33 41.2 -0.7
PHP                                Sg      Sb       18 33 48.8 -0.5
PHP                                AML     AML      18 33 51.9
       comp=E,1.0nm,0.4s
TIR   Tirane            0.51 284 ⥥Pg      Pg       18 33 41.8 -0.9
TIR                                Sg      Sg       18 33 49.0 -0.5
TIR                                AML     AML      18 33 50.1
       comp=E,0.8nm,0.2s
TIR                                AML     AML      18 33 53.0
       comp=E,0.7nm,0.3s
KBN   Korca             0.64 161   Pg      Pb       18 33 45.6  0.0
KBN                                Sg      Sb       18 33 53.7 -0.6
KBN                                AML     AML      18 33 57.7
       comp=E,0.9nm,0.5s
SKO   Skopje            1.02  43 i Pg      Pb       18 33 51.6 -0.4
SKO                              i Sg      Sg       18 34 05.7  0.0
SDA   Shkodra           1.12 318   Pg      Pb       18 33 53.2 -0.6
SDA                                Sg      Sn       18 34 10.2 +1.2
SDA                                AML     AML      18 34 13.0
       comp=E,0.5nm,0.4s
SDA                                AML     AML      18 34 13.2
       comp=E,0.3nm,0.3s
ULC   Ulcinj            1.21 308⥥iPg      Pn       18 33 53.6 -1.4
ULC                              eSg       Sg       18 34 12.0 +0.3
ULC                                AML     AML
DRME  Dracevica, Mon    1.38 314⥣iPg      Pn       18 33 57.2 -0.2
DRME                             eSg       Sg       18 34 18.7 +1.4
DRME                               AML     AML
SRN   Sarande           1.40 196 ⥣Pn      Pg       18 34 01.1 +1.4
SRN                                Sn      Sg       18 34 18.0 +0.1
SRN                                AML     AML      18 34 24.6
       comp=E,0.1nm,0.4s
PVY   Plav              1.43 343 ePg       Pg       18 33 59.8 -0.4
PVY                              i Sg      Sg       18 34 22.3 +3.5
PVY                                AML     AML
PDG   Podgorica         1.53 322   Pn      Pb       18 34 00.7  0.0
PDG                                Sn      Sg       18 34 24.8 +2.9
PDG   Podgorica         1.53 322 ePg       Pb       18 34 00.4 -0.2
PDG                              eSg       Sg       18 34 23.1 +1.2
PDG   Podgorica         1.53 322⥥iPg      Pb       18 34 00.5 -0.2
PDG                              eSg       Sg       18 34 24.0 +2.1
PDG                                AML     AML
VAY   Valandovo         1.55  86 i Pn      Pb       18 34 00.8 -0.2
VAY                              i Sg      Sg       18 34 23.2 +0.6
VAY                              eLg       Lg       18 34 23.5
       comp=N,28nm,0.5s
VAY                              eLg       Lg       18 34 24.1
       comp=E,28nm,0.5s
KEK   Kerkira           1.61 200   Pn      Pn       18 34 00.2 -0.3
KEK                                Pn      Pb       18 34 00.3 -1.7
KEK                                Sn      Sg       18 34 23.8 -0.7
BUM   Brajici-Budva     1.62 312 ePg       Pn       18 34 01.6 +0.8
BUM                              i Sg      Sg       18 34 26.5 +1.6
BUM                                AML     AML
IGT   Igoumenitsa       1.70 185   Pn      Pb       18 34 03.8 +0.2
IGT                                Sn      Sg       18 34 28.7 +1.3
IGT                                AML     AML      18 34 34.2
       comp=E,0.1nm,0.5s
IGT   Igoumenitsa       1.70 185 ePg       Pb       18 34 03.3 -0.3
IGT                              eSg       Sg       18 34 27.5 +0.1
CEME  Cevo              1.78 318⥥iPn      Pb       18 34 04.4 -0.6
CEME                             eSn       Sg       18 34 29.9 -0.1
CEME                               AML     AML
KOME  Kolasin           1.79 336⥣iPn      Pb       18 34 05.7 +0.5
KOME                             eSn       Sg       18 34 31.1 +0.9
KOME                               AML     AML
BARS  Barje             1.86  31 ePg       Pg       18 34 07.5 -0.9
BARS                             eSg       Sg       18 34 32.0 -0.6
PEHC  Pehcevo           1.87  72 i Pn      Pb       18 34 06.3 -0.3
NKME  Niksic            1.93 323⥥iPn      Pb       18 34 07.1 -0.5
NKME                             eSn       Sg       18 34 34.7 -0.1
NKME                               AML     AML
BOSS  Bosilegrad        1.94  49 ePg       Pn       18 34 05.6 +0.5
HCY   Herceg Novi       1.94 310⥣iPn      Pb       18 34 06.6 -1.2
HCY                              eSn       Sg       18 34 34.2 -1.0
HCY                                AML     AML
THL   Klokotos Trika    2.02 145   Pn      Pn       18 34 06.1  0.0
THL                                Sn      Sn       18 34 30.4 -0.6
SELS  Selova            2.04  12 ePg       Pb       18 34 09.2 -0.3
SELS                             eSg       Sg       18 34 37.8 -0.5
SJES  Sjenica           2.07 349 ePg       Pg       18 34 11.3 -1.2
SJES                             eSg       Sg       18 34 39.4  0.0
BRY   Bratogost         2.23 319⥣iPn      Pb       18 34 11.2 -1.5
BRY                              eSn       Sb       18 34 41.1 +0.9
BRY                                AML     AML
IVAS  Ivanjica          2.36 354 ePg       Pb       18 34 13.4 -1.6
LKD2  Lefkada island    2.44 177   Pn      Pn       18 34 13.6 +1.7
NOCI  Noci              2.65 262   Pn      Pn       18 34 15.1 +0.3
NOCI                               Sn      Sn       18 34 45.4 -1.3
NOCI                               AML     AML      18 34 45.7
       comp=E,0.1nm,0.5s
STON  Ston              2.66 309 ePn       Pn       18 34 17.0 +2.0
STON                             eSn       Sb       18 34 52.6 +0.1
BBLS  Lazi&#263i        2.76 343 ePn       Pn       18 34 18.5 +2.0
SGRT  San Giovanni R    3.62 280   Pn      Pn       18 34 28.8 +0.5
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*SJA **06** 18:33:59.4±0.8, 31°.28S×68°.88W, h112^{km}±2^{km}, ML3.9,* *MW3.9*

*IDC **06** 18:34:00.1±0.6, 31°.38S×68°.64W, h112km±4km, mb3.7/9, mbtmp4.0/13, Error ellipse: s-maj=19.4km s-min=12.2km az=97.0*

*NEIC **06** 18:34:00.5±2.1, 31°.28S±0°.06×69°.1W±0°.1, h122km±6km, mb4.5/8, Error ellipse: s-maj=12.6km s-min=8.1km az=98.0*

ISC 06 18:33:59.5±0.6**, 31°.26S**±0°.03×**68°.86W**±0°.03**, h114**km±4km**, n108, σ1ˢ49**/141**, mb4.3**/11**, 1C, San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZON	**Zonda**	0.33	151	*e*P	Pn	18 34 16.1	+0.2
ZON				*e*S	Sn	18 34 28.1	-0.2
ZON				IAML		18 34 29.9	
	comp=Z,7µm,0.2s						
ZON	**Zonda**	0.33	151		Pn	18 34 16.2	+0.2
RTLL	**Cerro Villicun**	0.34	102	*e*P	Pn	18 34 15.9	-0.1
RTLL				*e*S	Sn	18 34 28.2	-0.2
RTLL				IAML		18 34 30.6	
	comp=Z,4µm,0.4s						
SJA	**San Juan**	0.37	136	*e*P	Pn	18 34 16.8	+0.6
SJA				*e*S	Sn	18 34 29.5	+0.9
SJA				IAML		18 34 32.2	
	comp=Z,4µm,0.2s						
CFA	**Coronel Fontan**	0.64	123	P	Pn	18 34 17.8	0.0
	comp=Z,579nm,0.3s,baz=284,slow=4.7,SNR=3991						
CFA				S	Sn	18 34 29.7	-1.8
	comp=Z,365nm,0.3s,baz=251,slow=23,SNR=4.5						
CFA	**Coronel Fontan**	0.64	123	*e*P	Pn	18 34 18.2	+0.4
CFA				IAML		18 34 32.7	
	comp=Z,4µm,0.1s						
RTLS	**Leoncito**	0.65	215	*e*P	Pn	18 34 18.6	+0.3
RTLS				*e*S	Sn	18 34 33.2	+0.8
RTLS				IAML		18 34 34.0	
	comp=Z,7µm,0.2s						
ACCO	**Cerro Coronel**	0.69	345	*e*P	Pn	18 34 19.5	+0.9
ACCO				IAML		18 34 35.8	
	comp=Z,2µm,0.2s						
ACDV	**Cuesta del Vie**	1.11	348	*e*P	Pn	18 34 18.3	-4.1
ACDV				IAML		18 34 41.8	
	comp=Z,2µm,0.5s						
AROD	**Rodeo**	1.21	334	*e*P	Pn	18 34 24.9	+1.3
AVFE	**Valle Fertil**	1.35	64	*e*P	Pn	18 34 20.1	-4.8
AVFE				IAML		18 34 45.6	
	comp=Z,2µm,0.4s						
ARCO	**CERRO ARCO**	1.58	182	*e*P	Pn	18 34 28.2	+0.5
ARCO				*e*S	Sn	18 34 50.7	+1.6
ARCO				IAML		18 34 52.1	
	comp=Z,2µm,0.6s						
CO03	**El Pedregal**	1.62	284	*e*P	Pn	18 34 29.1	+0.9
CO03				*e*S	Sn	18 34 46.4	-3.5
CO03				IAML		18 34 52.1	
	comp=Z,2µm,1.1s						
CO03	**El Pedregal**	1.62	284		Pn	18 34 29.0	+0.9
CO01	**Juntas del Tor**	1.66	320	*e*P	Pn	18 34 30.7	+1.9
CO01				IAML		18 34 60.0	
	comp=Z,483nm,0.8s						
CO01	**Juntas del Tor**	1.66	320		Pn	18 34 30.6	+1.9
ACAN	**Cantantal**	1.75	126	*e*P	Pn	18 34 30.5	+0.9
ACAN				IAML		18 34 59.4	
	comp=Z,3µm,0.4s						
AAGR	**Agrelo**	1.82	179	*e*P	Pn	18 34 31.0	+0.5
AAGR				*e*S	Sn	18 34 54.4	+0.2
AAGR				IAML		18 34 55.7	
	comp=Z,771nm,0.6s						
CO02	**Combarbal**	1.83	271	*e*P	Pn	18 34 31.3	+0.6
CO02				IAML		18 34 57.4	
	comp=Z,3µm,0.2s						
CO02	**Combarbal**	1.83	271		Pn	18 34 31.2	+0.5
CO04	**Los Peladeros**	1.96	246		Pn	18 34 32.5	0.0
GO04	**Tololo Observa**	1.99	302	*e*P	Pn	18 34 33.3	+0.5
GO04				IAML		18 35 04.6	
	comp=Z,2µm,0.2s						
GO04	**Tololo Observa**	1.99	302		Pn	18 34 33.3	+0.5
VA03	**San Esteban**	2.08	223	*e*P	Pn	18 34 34.4	+0.7
VA03				*e*S	Sn	18 35 02.6	+2.7
VA03				IAML		18 35 09.6	
	comp=Z,709nm,0.8s						
VA03	**San Esteban**	2.08	223		Pn	18 34 34.2	+0.5
AVIZ	**Vizcacheras**	2.23	173	*e*P	Pn	18 34 36.3	+0.6
AVIZ				*e*S	Sn	18 35 03.1	-0.3
MT08	**Bocatoma Ro**	2.39	204	*e*P	Pn	18 34 38.9	+1.0
MT08				*e*S	Sn	18 35 05.8	-1.4
MT08				IAML		18 35 11.9	
	comp=Z,363nm,0.7s						
MT08	**Bocatoma Ro**	2.39	204		Pn	18 34 38.6	+0.7
MT04	**Ro Olivares**	2.40	206	*e*P	Pn	18 34 39.1	+1.1
MT04				*e*S	Sn	18 35 07.9	+0.4
PEL	**Peldehue**	2.43	219	*e*P	Pn	18 34 38.2	0.0
PEL				*e*S	Sn	18 35 09.2	+1.1
PEL				IAML		18 35 09.8	
	comp=Z,282nm,0.6s						
PEL	**Peldehue**	2.43	219		Pn	18 34 38.0	-0.2
CO06	**Fray Jorge**	2.45	283		Pn	18 34 37.2	-1.3
ACLC	**CERRO LA CRUZ**	2.46	43	*e*P	Pn	18 34 39.7	+0.9
ACLC				*e*S	Sn	18 35 10.4	+1.5
ACLC				IAML		18 35 12.1	
	comp=Z,333nm,0.2s						
VCA	**Vinchina**	2.58	13	*e*P	Pn	18 34 41.8	+1.5
VCA				*e*S	Sn	18 35 09.5	-2.1
VCA				IAML		18 35 21.0	
	comp=Z,688nm,0.3s						
MT16	**CCHEN**	2.58	213		Pn	18 34 40.7	+0.5
MT03	**Universidad Ad**	2.63	212	*e*P	Pn	18 34 41.6	+0.7
MT03				*e*S	Sn	18 35 14.3	+1.7
MT03				IAML		18 35 18.6	
	comp=Z,409nm,0.2s						
MT03	**Universidad Ad**	2.63	212		Pn	18 34 41.3	+0.4
MT05	**Renca**	2.66	216	*e*P	Pn	18 34 41.4	+0.2
MT05				*e*S	Sn	18 35 14.4	+1.3
MT05				IAML		18 35 16.5	
	comp=Z,378nm,0.2s						
MT05	**Renca**	2.66	216		Pn	18 34 41.1	0.0
AC05	**El Transito**	2.71	333	*e*P	Pn	18 34 43.7	+1.8
AC05				IAML		18 35 29.9	
	comp=Z,234nm,1.0s						
AC05	**El Transito**	2.71	333		Pn	18 34 43.6	+1.7
LCO	**Las Campanas**	2.75	324	*e*P	Pn	18 34 43.2	+0.5
LCO				IAML		18 35 18.0	
	comp=Z,952nm,0.1s						
LCO	**Las Campanas**	2.75	324		Pn	18 34 42.8	+0.2
MT13	**San Alfonso**	2.75	206	*e*P	Pn	18 34 43.3	+0.7
MT13				*e*S	Sn	18 35 14.6	-1.0
MT13				IAML		18 35 28.2	
	comp=Z,210nm,0.7s						
MT13	**San Alfonso**	2.75	206		Pn	18 34 43.0	+0.5
MT02	**Curacav**	2.77	223	*e*P	Pn	18 34 41.6	-1.1
MT02				*e*P		18 34 41.7	
MT02				*e*S	Sn	18 35 10.0	-5.9
MT02				IAML		18 35 48.9	
	comp=Z,171nm,0.6s						
MT02	**Curacav**	2.77	223		Pn	18 34 41.6	-1.1
MRA	**San Martin**	2.92	114	*e*P	Pn	18 34 41.4	-3.2
MRA				*e*S	Sn	18 35 05.0	-14
MRA				*e*S		18 35 10.4	
MRA				IAML		18 35 10.5	
	comp=Z,573nm,0.8s						
MT09	**Talagante**	3.09	215		Pn	18 34 45.9	-1.0
BO04	**La Punta**	3.10	208		Pn	18 34 46.9	0.0
MT01	**Popeta**	3.29	217	*e*P	Pn	18 34 47.8	-1.6
MT01				*e*S	Sn	18 35 12.3	-16
MT01				IAML		18 35 31.0	
	comp=Z,137nm,0.8s						
MT01	**Popeta**	3.29	217		Pn	18 34 47.7	-1.7
TINO	**Tinogasta**	3.38	20	*e*P	Pn	18 34 52.2	+1.4
TINO				*e*S	Sn	18 35 28.2	-2.2
TINO				IAML		18 35 34.2	
	comp=Z,259nm,0.5s						
AC04	**Llanos de Chal**	3.60	327	*e*P	Pn	18 34 54.3	+0.6
AC04				IAML		18 35 40.6	
	comp=Z,130nm,0.2s						
AC04	**Llanos de Chal**	3.60	327		Pn	18 34 53.7	0.0
BO01	**Tunca**	3.64	210	*e*P	Pn	18 34 52.6	-1.5
BO01				*e*S	Sn	18 35 21.5	-15
BO01				IAML		18 35 40.8	
	comp=Z,93nm,0.6s						
BO01	**Tunca**	3.64	210		Pn	18 34 52.5	-1.7
TCA	**Tanti**	3.65	92	*e*P	Pn	18 34 54.6	+0.2
TCA				*e*S	Sn	18 35 35.6	-1.2
TCA				IAML		18 35 36.7	
	comp=Z,487nm,0.9s						
GO03	**Copiapo**	3.84	342	*e*P	Pn	18 34 57.5	+0.6
GO03				*e*S	Sn	18 35 41.8	+0.4
GO03				IAML		18 35 48.0	
	comp=Z,125nm,1.0s						
GO03	**Copiapo**	3.84	342		Pn	18 34 57.3	+0.3
CYA	**Choya**	3.87	44	*e*P	Pn	18 34 57.1	-0.1
CYA				*e*S	Sn	18 35 40.7	-1.2
CYA				IAML		18 35 41.6	
	comp=Z,151nm,0.7s						
BO02	**Sierra Bellavi**	3.88	204	*e*P	Pn	18 34 57.0	-0.3
BO02				*e*S	Sn	18 35 47.7	+5.6
BO02				IAML		18 35 49.7	
	comp=Z,127nm,0.2s						
BO02	**Sierra Bellavi**	3.88	204		Pn	18 34 56.1	-1.2
AC06	**Mina Casimiro**	4.10	341		Pn	18 35 00.2	-0.2
AC02	**Maricunga**	4.41	357	*e*P	Pn	18 35 06.4	+1.4
AC02				*e*S	Sn	18 35 56.4	+0.7
AC02				IAML		18 36 07.6	
	comp=Z,47nm,0.2s						
AC02	**Maricunga**	4.41	357		Pn	18 35 06.3	+1.4
GO05	**Hualane**	4.54	214		Pn	18 35 02.9	-3.4
ML02	**Panimavida**	4.97	205	*e*P	Pn	18 35 10.6	-1.5
ML02				*e*S	Sn	18 36 07.0	-1.4
ML02				IAML		18 36 09.1	
	comp=Z,91nm,0.8s						
ML02	**Panimavida**	4.97	205		Pn	18 35 09.7	-2.4
AC01	**Pan de Azucar**	5.32	343	*e*P	Pn	18 35 16.4	-0.4
AC01				IAML		18 36 31.6	
	comp=Z,41nm,0.8s						
AC01	**Pan de Azucar**	5.32	343		Pn	18 35 16.5	-0.2
BI02	**San Fabin de**	5.75	200		Pn	18 35 20.3	-2.3
PB14	**IPOC Station P**	6.75	348		Pn	18 35 34.2	-2.2
PB05	**IPOC Station P**	8.46	352		Pn	18 35 55.6	-3.7
GO06	**Curarrehue**	8.57	194		Pn	18 35 57.8	-3.0
PB03	**IPOC Station P**	9.21	355		Pn	18 36 05.8	-3.8
PLCA	**Paso Flores**	9.55	188	P	Pn	18 36 12.2	-1.8
	comp=Z,1.1nm,0.7s,baz=353,slow=11,SNR=11						
PLCA				S	Sn	18 38 00.9	+1.4
	comp=Z,2.1nm,0.7s,baz=4.8,slow=12,SNR=3.0						
CPUP	**Villa Florida**	11.24	67	P	Pn	18 36 35.4	-1.4
	comp=Z,2.4nm,0.9s,baz=270,slow=9.5,SNR=5.5						
CPUP				S	Sn	18 38 40.0	-0.5
	comp=Z,2.8nm,0.7s,baz=17,slow=19,SNR=1.8						
LPAZ	**La Paz**	14.92	3	P	Pn	18 37 27.5	+2.2
	comp=Z,6.0nm,0.7s,baz=181,slow=6.9,SNR=26						
LPAZ				S	Sn	18 40 13.0	+2.5
	comp=Z,1.1nm,0.3s,baz=180,slow=19,SNR=7.2						
LPAZ	**La Paz**	14.92	3	Pn	Pn	18 37 26.0	+0.7
SIV	**San Ignacio**	16.78	27	P	Pn	18 37 48.9	+1.1
	comp=Z,4.3nm,0.8s,baz=194,slow=8.9,SNR=18						
VNA3	**Neumayer Olymp**	50.91	159	P	P	18 42 48.9	+0.2
	comp=Z,3.3nm,0.7s						
VNA2	**Neumayer--Watz**	51.53	158	⇑P	P	18 42 54.0	+0.8
	comp=Z,2.9nm,0.5s,baz=286,slow=8.7						
SNAA	**Sanae**	53.13	159	P	P	18 43 04.9	-0.3
	comp=Z,1.6nm,0.5s,baz=283,slow=4.6,SNR=4.1						
	comp=Z,1.6nm,0.5s						
SNAA	**Sanae**	53.13	159	P	P	18 43 04.8	-0.3
SNAA				IAmb	IAmb	18 43 42.3	
	comp=Z,7.2nm,1.4s						
QSPA	**South Pole Qui**	58.97	180	P	P	18 43 47.7	+0.9
	comp=Z,2.6nm,0.6s,baz=143,slow=1.8,SNR=23						
	comp=Z,2.6nm,0.6s						
QSPA	**South Pole Qui**	58.97	180	P	P	18 43 47.5	+0.6
QSPA				IAmb	IAmb	18 43 48.2	
	comp=Z,3.6nm,0.7s						
VNDA	**Vanda**	67.29	191	P	P	18 44 42.0	+0.5
	comp=Z,0.4nm,0.7s,baz=117,slow=2.3,SNR=2.1						
	comp=Z,0.4nm,0.7s						
VNDA	**Vanda**	67.29	191	P	P	18 44 41.1	-0.4
TXAR	**Lajitas Array**	68.76	328	P	P	18 44 52.3	+1.0
	comp=Z,0.3nm,0.7s,baz=169,slow=7.5,SNR=3.0						
	comp=Z,0.3nm,0.7s						
WVT	**Waverly**	69.36	344	P	P	18 44 54.3	-0.4
DBIC	**Dimbokro**	71.75	70	P	P	18 45 09.3	-0.4
	comp=Z,3.7nm,0.6s,baz=240,slow=4.8,SNR=6.1						
	comp=Z,3.7nm,0.6s						
DBIC	**Dimbokro**	71.75	70	P	P	18 45 08.6	-1.2
R40A	**Maddies Statio**	72.56	341	P	P	18 45 14.3	+0.2
R40A				IAmb	IAmb	18 45 15.3	
	comp=Z,6.7nm,0.7s						
MAW	**Mawson**	75.02	163	P	P	18 45 27.5	-0.6
	comp=Z,2.6nm,0.9s,baz=275,slow=4.5,SNR=5.5						
	comp=Z,2.6nm,0.9s						
MAW	**Mawson**	75.02	163	P	P	18 45 27.5	-0.6
BOSA	**Boshof**	78.93	117	P	P	18 45 50.7	-0.3
	comp=Z,2.7nm,0.8s,baz=258,slow=6.0,SNR=4.9						
	comp=Z,2.7nm,0.8s						
BOSA	**Boshof**	78.93	117	P	P	18 45 50.2	-0.7
BOSA				IAmb	IAmb	18 46 15.9	
	comp=Z,15nm,1.5s						
TORD	**Torodi Ar. Bea**	80.74	69	P	P	18 46 01.3	+0.7
	comp=Z,2.9nm,0.9s,baz=259,slow=4.7,SNR=13						
	comp=Z,2.9nm,0.9s						
PDAR	**Pinedale Array**	82.60	331	P	P	18 46 11.8	+1.7
	comp=Z,0.4nm,0.7s,baz=162,slow=4.1,SNR=4.0						
	comp=Z,0.4nm,0.7s						
ASAR	**Alice Springs**	121.19	205	PKP	PKPdf	18 52 38.5	-1.1
	comp=Z,0.4nm,0.6s,baz=130,slow=1.8,SNR=6.2						
WRA	**Warramunga Arr**	124.43	207	PKP	PKPdf	18 52 45.3	-0.6
	comp=Z,0.9nm,0.6s,baz=155,slow=1.9,SNR=16						
PMBI	**Palembang**	145.47	169	PKPdf	PKPdf	18 53 22.9	-2.0
KURBB	**Kurchatov Arra**	149.04	42	PKPbc	PKPbc	18 53 34.8	+0.9
	comp=Z,0.9nm,0.4s,baz=300,slow=3.4,SNR=9.6						
KURBB				pPKPbc	pPKPbc	18 54 05.7	+0.7
	comp=Z,0.5nm,0.5s,baz=298,slow=3.2,SNR=3.3						
ZALV	**Zalesovo Beam**	150.48	32	PKPbc	PKPbc	18 53 37.9	+0.5
	comp=Z,5.8nm,0.6s,baz=312,slow=3.4,SNR=25						
ZALV				PKPab	PKPab	18 53 44.4	+0.1
	comp=Z,1.0nm,0.6s,baz=308,slow=5.0,SNR=3.8						
ZALV				pPKPbc	pPKPbc	18 54 08.9	+0.3
	comp=Z,2.5nm,0.6s,baz=288,slow=2.9,SNR=5.9						
MKAR	**Makanchi Array**	152.94	47	PKPbc	PKPbc	18 53 43.4	+0.2
	comp=Z,1.2nm,0.7s,baz=298,slow=1.9,SNR=9.3						
MKAR				PKPab	PKPab	18 53 55.3	+0.4
	comp=Z,1.5nm,0.6s,baz=289,slow=4.1,SNR=11						
MKAR				pPKPbc	pPKPbc	18 54 14.4	+0.1
	comp=Z,1.0nm,0.7s,baz=278,slow=3.3,SNR=4.6						
MJAR	**Matsushiro Arr**	156.96	291	PKPab	PKPab	18 54 13.4	+1.0
	comp=Z,0.5nm,0.5s,baz=109,slow=3.0,SNR=2.6						
SONM	**Songino Array**	163.05	11	PKPab	PKPab	18 54 38.5	-0.1
	comp=Z,0.6nm,0.7s,baz=308,slow=4.5,SNR=4.2						

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*IDC **06** 18:34:44.7±1.4, 42°.38N×86°.24E, h0km, mb3.4/2, mbtmp3.4/8, ML2.8/5, Error ellipse: s-maj=23.7km s-min=11.7km az=54.0*

*NNC **06** 18:34:57.4±2.7, 42°.60N×85°.56E, h22km±11km, mb3.6, mpv3.1, Error ellipse: s-maj=19.2km s-min=11.7km az=133.0*

ISC 06 18:34:46.7±1.0**, 42°.45N**±0°.09×**86°.39E**±0°.07**, h10**km**, n13, σ2ˢ81**/19**, 10C-3D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PDGK	**Podgornoye**	5.15	282	⇑Pg	Pb	18 36 20.4	+3.6
	14nm,0.8s						
PDGK				⇑Sn	Sn	18 36 56.7	-6.7
	15nm,0.6s						
PDGK				⇓Lg	Lg	18 37 22.2	
	34nm,0.7s						
MK31	**Makanchi Array**	5.24	327	⇓Pn	Pn	18 36 08.2	+3.1
	0.6nm,0.3s,baz=146,slow=14,SNR=74						
MK31				⇑Sn	Sn	18 37 04.7	-0.8
	1.3nm,0.3s,baz=323,slow=32,SNR=4.0						
MK31				⇑Lg	Lg	18 37 28.5	
	3.1nm,0.3s,baz=138,slow=30,SNR=6.5						
MKAR	**Makanchi Array**	5.24	327	Pn	Pn	18 36 05.3	+0.2
	1.2nm,0.3s,baz=147,slow=14,SNR=73						
MKAR				Sn	Sn	18 37 06.0	+0.5
	3.0nm,0.3s,baz=147,slow=18,SNR=6.2						
MKAR				Lg	Lg	18 37 27.9	
	6.9nm,0.3s,baz=139,slow=32,SNR=5.1						
	1.9nm,0.3s						
MKAR				AML	AML		
MAKZ	**Makanchi**	5.38	326	⇓Pn	Pn	18 36 10.1	+3.1
	0.5nm,0.4s						
MAKZ				⇑Sn	Sn	18 37 06.8	-2.1
	4.9nm,0.5s						
MAKZ				⇑Lg	Lg	18 37 31.7	
	16nm,0.7s						
KURBB	**Kurchatov Arra**	9.80	329	Pn	Pn	18 37 06.3	-1.3
	baz=148,slow=11,SNR=1.6						
KURBB				Sn	Sn	18 38 53.7	-4.0
	0.1nm,0.3s,baz=150,slow=17,SNR=4.2						
KURBB				Lg	Lg	18 39 51.5	
	0.1nm,0.3s,baz=151,slow=31,SNR=6.4						
	0.2nm,0.3s						
KURBB	**Kurchatov Arra**	9.80	329	⇑Pn	Pn	18 37 10.6	+3.0
	2.0nm,0.8s						
KURBB				⇑Lg	Lg	18 39 58.8	
	14nm,0.7s						
KURK	**Kurchatov**	9.84	330	⇑Pn	Pn	18 37 11.0	+2.8
	0.5nm,0.7s						
KURK				⇑Lg	Lg	18 39 52.8	
	4.1nm,0.7s						
ZALV	**Zalesovo Beam**	11.55	355	Pn	Pn	18 37 31.1	-0.5
	0.1nm,0.3s,baz=179,slow=14,SNR=1.6						
ZALV				Sn	Sn	18 39 38.4	-2.2
	0.5nm,0.3s,baz=170,slow=27,SNR=3.9						
ZALV				Lg	Lg	18 40 49.7	
	baz=164,slow=32,SNR=1.4						
	0.3nm,0.3s						
ZALV				AML	AML		
LZDM	**Lanzhou Array**	14.89	110	Pn	Pn	18 38 17.3	-0.2
	2.6nm,0.3s,baz=24,slow=14,SNR=1.3						
BVAR	**Borovoye Array**	15.06	320	Pn	Pn	18 38 17.8	-1.6
	baz=123,slow=16,SNR=2.4						
BVAR				Lg	Lg	18 42 34.4	
	baz=322,slow=41,SNR=1.3						
	0.3nm,0.5s						
SONM	**Songino Array**	15.09	62	Pn	Pn	18 38 20.7	+0.6
	0.1nm,0.3s,baz=207,slow=4.8,SNR=3.9						
SONM				Lg	Lg	18 42 42.0	
	0.1nm,0.3s,baz=26,slow=37,SNR=2.7						
	0.2nm,0.7s						
SONM				AML	AML		
AKTO	**Aktyubinsk**	21.02	302	P	P	18 39 29.8	-0.6
	0.6nm,0.4s,baz=63,slow=4.5,SNR=2.5						
	0.6nm,0.4s						
CMAR	**Chiang Mai Arr**	26.19	152	P	P	18 40 20.4	-1.1
	0.4nm,0.5s,baz=330,slow=9.5,SNR=5.9						
	0.4nm,0.5s						

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*AEIC **06** 18:39:09.4±3.2, 50°.95N±0°.05×179°.69W±0°.06, h13km±4km, Error ellipse: s-maj=7.3km s-min=5.8km az=174.0*

*NEIC **06** 18:39:10.8±2.7, 51°.00N±0°.06×179°.72W±0°.04, h40km±8km, mb4.1/38, ML3.9/12, ML3.7(AEIC), Error ellipse: s-maj=9.9km s-min=1.3km az=159.0*

*IDC **06** 18:39:12.1±3.0, 51°.05N×179°.67W, h53km±24km, mb3.7/20, mbtmp4.0/22, ML3.4/2, MS3.8/2, Error ellipse: s-maj=23.3km s-min=13.6km az=177.0*

ISC 06 18:39:10.8±1.4**, 51°.0N**±0°.1×**179°.70W**±0°.03**, h46**km±11km**, n100, σ1ˢ17**/92**, mb4.1**/36**, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AMKA	**Amchitka**	0.75	304	Pn	Pn	18 39 23.1	-2.0
AMKA				Sn	Sn	18 39 33.6	-1.9
GAKI	**Gareloi-Kavalg**	0.81	43		Pn	18 39 24.8	-1.0
GAKI					Sn	18 39 36.1	-0.7
GASW	**Gareloi Southw**	0.97	33		Pn	18 39 27.6	-0.4
GASW					Sn	18 39 41.4	+0.7
GALAA	**Gareloi Lava P**	0.99	36		Pn	18 39 28.2	-0.1
GALAA					Sn	18 39 42.4	+1.4
GAEA	**Gareloi East**	1.01	36		Pn	18 39 28.4	-0.2
GAEA					Sn	18 39 42.4	+0.7
GANO	**Gareloi North**	1.02	33		Pn	18 39 28.3	-0.5
GANO					Sn	18 39 43.0	+1.0
GANE	**Gareloi Northe**	1.03	34		Pn	18 39 28.8	-0.1
GANE					Sn	18 39 43.2	+1.0
CESW	**Semis' Southwe**	1.04	334		Pn	18 39 28.8	-0.2
CERB	**Semis' Cerberu**	1.05	337		Pn	18 39 29.7	+0.5
CEPE	**Semis' Perret**	1.08	338		Pn	18 39 29.4	-0.1
TACS	**Tanaga Cape Sa**	1.33	47		Pn	18 39 33.1	+0.2
TACS					Sn	18 39 51.5	+2.0
TASE	**Tanaga Southea**	1.36	49		Pn	18 39 33.5	+0.1
TAFL	**Tanaga Flats**	1.38	54		Sn	18 39 52.1	+1.5
TAFP	**Tanaga Falls P**	1.42	48		Pn	18 39 34.3	0.0
LSSE	**Little Sitkin**	1.46	312		Pn	18 39 35.2	+0.5
LSPA	**Little Sitkin**	1.47	313		Pn	18 39 35.3	+0.5
LSPA					Sn	18 39 55.4	+2.5
KIWB	**Kanaga Island**	1.82	60		Pn	18 39 38.0	-1.7
KIWB				IAML		18 40 09.9	
	comp=N,1µm,0.8s						
KICM	**Kanaga Island**	1.83	58		Pn	18 39 40.6	+0.8
KICM					Sn	18 40 04.0	+2.2
ADK	**Adak**	2.10	63		Pn	18 39 43.3	-0.1
ADK				IAML		18 40 13.2	
	comp=N,1µm,0.8s						
ETKA	**Kagalaska Isla**	2.25	65		Pn	18 39 45.6	+0.1
GSMY	**Great Sitkin M**	2.52	63		Pn	18 39 49.6	+0.4
ATKA	**Atka Island**	3.65	68		Pn	18 40 05.2	+0.5
ATKA	**Atka Island**	3.65	68	IAML		18 40 54.8	
	comp=N,286nm,1.1s						
ATKA				IAML		18 40 58.0	
	comp=E,235nm,0.7s						
SHEM	**Shemya Is, Ala**	4.23	297	P	Pn	18 40 13.8	+1.1
	comp=E,7.7nm,0.3s,baz=90,slow=4.6,SNR=16						
SHEM				S	Sn	18 41 01.9	+1.2
	comp=E,59nm,0.6s,baz=255,slow=19,SNR=5.5						
	comp=E,28nm,0.3s						
SHEM				AML	AML		
SHEM	**Shemya Is, Ala**	4.23	297	Pn	Pn	18 40 14.6	+1.9
SHEM				IAML		18 41 17.1	
	comp=E,106nm,0.8s						
SMY	**Shemya**	4.23	297		Pn	18 40 14.7	+2.0
SMY				IAML		18 41 22.6	
	comp=N,166nm,1.5s						
UNV	**Unalaska Valle**	8.57	65	Pn	Pn	18 41 13.0	+0.9
SDPT	**Sand Point**	12.33	62	Pn	Pn	18 42 02.4	-1.1
PETK	**Petropavlovsk-**	14.07	288	P	Pn	18 42 28.9	+1.7
	comp=N,0.2nm,0.3s,baz=95,slow=18,SNR=7.4						
	comp=N,1.4nm,0.8s						
PETK				AML	AML		
KDAK	**Kodiak Island**	17.12	56	P	Pn	18 43 03.3	-3.2
	comp=N,5.4nm,0.4s,baz=263,slow=8.1,SNR=15						
J20K	**Nowinta River**	18.86	36	P	P	18 43 26.4	-0.4
CAST	**Castle Rocks**	19.27	39		Pn	18 43 32.6	-0.1
CAST				IAmb	IAmb	18 43 33.6	
	comp=Z,11nm,0.6s						
KTH	**Kantishna Hill**	19.80	40	P	Pn	18 43 38.1	-0.9
E19K	**Redstone River**	19.93	26	P	P	18 43 37.2	-1.3
GHO	**Glory Hole Cre**	19.97	45	P	P	18 43 36.5	-2.5
GHO				IAmb	IAmb	18 43 46.7	
	comp=Z,6.8nm,0.7s						
IMAR	**Indian Mountai**	20.02	32	P	P	18 43 36.3	-3.2
D19K	**Kuna River**	20.46	23	P	P	18 43 43.7	-0.5
D19K				IAmb	IAmb	18 43 46.3	
	comp=Z,9.9nm,1.0s						
GLI	**Glacier Island**	20.57	49	P	P	18 43 44.1	-1.3
GLI				IAmb	IAmb	18 43 58.4	
	comp=Z,6.6nm,0.8s						
F21K	**Alatna River**	20.86	29	P	P	18 43 47.8	-0.7
NEA2	**Nenana**	20.99	38	P	P	18 43 49.8	-0.1
NEA2				IAmb	IAmb	18 43 59.2	
	comp=Z,8.6nm,0.9s						
D20K	**Etivluk River**	21.00	24		P	18 43 49.9	0.0
I23K	**Minto, Yukon-K**	21.13	36	P	P	18 43 50.6	-0.8
KLU	**Klutina**	21.27	47	P	P	18 43 52.6	-0.4
CCB	**Clear Creek Bu**	21.51	38	P	P	18 43 53.5	-1.9
G23K	**Bananza Creek**	21.68	32		P	18 43 55.3	-2.0
G23K				IAmb	IAmb	18 43 59.4	
	comp=Z,10nm,1.4s						
BMRM	**Bremner River**	21.77	49	P	P	18 43 56.4	-1.9
BMRM				IAmb	IAmb	18 44 08.4	
	comp=Z,5.7nm,0.8s						
ILAR	**Eielson Array**	21.92	38	P	P	18 43 58.9	-1.0
	comp=Z,0.8nm,0.7s,baz=259,slow=12,SNR=18						
	comp=Z,0.8nm,0.7s						
GLB	**Gilahina Butte**	22.25	48		P	18 44 02.1	-1.4
VRDI	**Verde Repeater**	22.37	49	P	P	18 44 04.1	-0.8
VRDI				IAmb	IAmb	18 44 07.0	
	comp=Z,4.2nm,0.8s						
G24K	**Hadweenzic Riv**	22.55	34		P	18 44 05.2	-1.3
G24K				IAmb	IAmb	18 44 07.6	
	comp=Z,7.2nm,0.7s						
SCRK	**Sand Creek**	22.82	42		P	18 44 07.2	-2.4
GRNC	**Granite Creek**	23.11	50	IAmb	IAmb	18 44 13.8	
	comp=Z,4.0nm,0.7s						
D24K	**Happy Valley**	23.42	28	IAmb	IAmb	18 44 16.6	
	comp=Z,6.1nm,0.8s						
L27K	**Beaver Creek,**	23.50	45	IAmb	IAmb	18 44 17.4	
	comp=Z,3.6nm,0.7s						
K27K	**Chicken**	23.64	42	IAmb	IAmb	18 44 18.8	
	comp=Z,5.2nm,0.9s						
O28M	**Mount Upton**	23.88	50	IAmb	IAmb	18 44 20.4	
	comp=Z,3.5nm,0.7s						
E25K	**Arctic Village**	23.88	31	IAmb	IAmb	18 44 21.5	
	comp=Z,5.0nm,0.8s						

G26K	Porcupine Rive	23.97	35	IAmb	IAmb	18 44 22.6	
	comp=Z,7.4nm,1.0s						
D25K	Kavik River	24.24	28	IAmb	IAmb	18 44 35.1	
	comp=Z,5.4nm,1.1s						
M29M	Somme Creek	24.91	47	IAmb	IAmb	18 44 30.8	
	comp=Z,4.5nm,0.6s						
I28M	Miner Creek	24.91	39		P	18 44 27.8	-1.4
I28M				IAmb	IAmb	18 44 30.6	
	comp=Z,5.7nm,0.7s						
L29M	L29M	25.16	45	IAmb	IAmb	18 44 37.9	
	comp=Z,8.3nm,1.5s						
HYT	Haines Junctio	25.19	51		P	18 44 30.5	-1.3
H11N2	WAKE ISLAND Hy	32.92	204	T	T	19 21 05.5	
	baz=17,slow=76,SNR=19						
H11N3	WAKE ISLAND Hy	32.93	204	T	T	19 21 10.7	
	baz=17,slow=76,SNR=17						
H11N1	WAKE ISLAND Hy	32.94	204	T	T	19 21 06.8	
	baz=17,slow=76,SNR=13						
H11S1	WAKE ISLAND Hy	34.14	203	T	T	19 22 37.7	
	baz=14						
H11S2	WAKE ISLAND Hy	34.16	203	T	T	19 22 40.8	
	baz=14,slow=74						
H11S3	WAKE ISLAND Hy	34.16	203	T	T	19 22 40.0	
	baz=14,slow=74						
YKA	Yellowknife Ar	35.92	46	P	P	18 46 06.1	-0.2
	comp=Z,2.5nm,0.5s,baz=284,slow=7.3,SNR=32						
	comp=Z,2.5nm,0.5s						
YKA	Yellowknife Ar	35.92	46	P	P	18 46 05.8	-0.4
NRIK	Noril'sk	44.48	330	LR	LR	19 07 26.5	
	comp=Z,53nm,18.2s,baz=126,slow=38						
SONM	Songino Array	46.33	296	P	P	18 47 32.5	+0.5
	comp=Z,0.2nm,0.4s,baz=57,slow=10,SNR=2.1						
	comp=Z,0.2nm,0.4s						
DUG	Dugway, Tooele	46.51	76		P	18 47 32.9	-0.7
PDAR	Pinedale Array	46.97	71	P	P	18 47 38.5	+1.3
	comp=Z,2.8nm,0.5s,baz=327,slow=3.4,SNR=32						
	comp=Z,2.8nm,0.5s						
PDAR	Pinedale Array	46.97	71		P	18 47 37.8	+0.5
HHC	Hu-ho-hao-te	47.26	286	*e*P	P	18 47 39.0	-0.4
HHC				pmax	pmax		
	comp=Z,5.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,270nm,5.4s						
SPITS	Spitsbergen Ar	50.75	356	P	P	18 48 04.8	-0.7
	comp=Z,6.0nm,1.0s,baz=34,slow=6.2,SNR=5.9						
	comp=Z,6.0nm,1.0s						
ARCES	ARCESS Array B	58.40	350	P	P	18 49 00.8	-0.1
	comp=Z,1.5nm,0.9s,baz=12,slow=6.4,SNR=4.8						
	comp=Z,1.5nm,0.9s						
ARCES	ARCESS Array B	58.40	350	P	P	18 48 59.8	-1.2
KURK	Kurchatov	58.90	313		P	18 49 05.6	+0.9
KURBB	Kurchatov Arra	59.00	313	P	P	18 49 06.4	+1.0
	comp=Z,1.7nm,0.4s,baz=40,slow=6.7,SNR=32						
	comp=Z,1.7nm,0.4s						
TXAR	Lajitas Array	59.28	80	P	P	18 49 07.8	0.0
	comp=Z,0.6nm,0.7s,baz=299,slow=4.9,SNR=8.7						
	comp=Z,0.6nm,0.7s						
TXAR	Lajitas Array	59.28	80	P	P	18 49 08.1	+0.3
MKAR	Makanchi Array	59.85	308	P	P	18 49 11.8	+0.5
	comp=Z,0.9nm,0.3s,baz=51,slow=6.6,SNR=21						
	comp=Z,0.9nm,0.3s						
MKAR	Makanchi Array	59.85	308	P	P	18 49 11.7	+0.3
BVAR	Borovoye Array	60.84	319	P	P	18 49 18.3	+0.3
	comp=Z,0.8nm,0.3s,baz=48,slow=7.9,SNR=5.7						
	comp=Z,0.8nm,0.3s						
FINES	FINESS Array B	66.06	347	P	P	18 49 51.6	-0.7
	comp=Z,1.4nm,0.6s,baz=15,slow=7.9,SNR=8.8						
	comp=Z,1.4nm,0.6s						
FINES	FINESS Array B	66.06	347	P	P	18 49 51.4	-0.9
AKTO	Aktyubinsk	67.69	324	P	P	18 50 03.0	+0.2
	comp=Z,1.3nm,0.7s,baz=72,slow=4.0,SNR=5.0						
	comp=Z,1.3nm,0.7s						
NB2	NORSAR Subarra	68.00	354	P	P	18 50 04.5	-0.2
	comp=Z,1.7nm,0.9s,baz=7.1,slow=6.5						
NOA	NORSAR Array B	68.00	354	P	P	18 50 04.9	+0.2
	comp=Z,1.4nm,0.7s,baz=2.0,slow=5.9,SNR=8.1						
	comp=Z,1.4nm,0.7s						
HFS	Hagfors	68.73	353	P	P	18 50 08.9	-0.3
	comp=Z,1.4nm,0.5s,baz=21,slow=6.3,SNR=10						
	comp=Z,1.4nm,0.5s						
CMAR	Chiang Mai Arr	70.49	275	P	P	18 50 21.3	+0.6
	comp=Z,0.2nm,0.5s,baz=44,slow=8.0,SNR=1.9						
	comp=Z,0.2nm,0.5s						
EKA	Eskdalemuir Ar	74.03	2	P	P	18 50 41.4	+0.1
	comp=Z,1.0nm,0.6s,baz=354,slow=4.7,SNR=8.9						
	comp=Z,1.0nm,0.6s						
AKASG	Malin Array Be	75.76	342	P	P	18 50 51.1	-0.2
	comp=Z,0.5nm,0.3s,baz=21,slow=6.5,SNR=7.1						
	comp=Z,0.5nm,0.3s						
GERES	GERESS Array B	79.91	351	P	P	18 51 14.5	0.0
	comp=Z,0.4nm,0.3s,baz=15,slow=5.8,SNR=5.8						
	comp=Z,0.4nm,0.3s						
WRA	Warramunga Arr	81.33	223	P	P	18 51 22.0	-0.2
	comp=Z,0.5nm,0.8s,baz=33,slow=6.0,SNR=3.1						
	comp=Z,0.5nm,0.8s						
ASAR	Alice Springs	84.80	222	P	P	18 51 40.8	+0.6
	comp=Z,0.3nm,0.8s,baz=30,slow=4.8,SNR=4.2						
	comp=Z,0.3nm,0.8s						
URZ	Urewera	88.89	183	LR	LR	19 25 01.4	
	comp=Z,81nm,20.0s,baz=0.5,slow=31						

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*IDC **06** 19:13:17.9±0.8, 20°.69S×174°.11W, h0^{km}, mb4.0/8, mbtmp4.0/9, ML3.9/1, MS3.5/3, Error ellipse: s-maj=28.1km s-min=19.6km az=174.0*

ISC 06 19:13:22.3±0.9**, 20°.7S**±0°.2×**174°.2W**±0°.2**, h27^{km}, n19, σ0^{s}.89**/11**, mb4.0**/8**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	Nonsavu	7.86	290	LR	LR	19 18 10.5	
	comp=Z,590nm,19.6s,baz=167,slow=37						
RAR	Rarotonga	13.51	95	Pn	Pn	19 16 20.5	-12
	5.7nm,0.3s,baz=269,slow=9.0,SNR=7.2						
	15nm,0.4s						
RAR				AML	AML		
KRVT	Keravat (AS076	36.62	292	LR	LR	19 35 29.2	
	comp=Z,55nm,18.1s,baz=160,slow=36						
STKA	Stephens Creek	40.92	245	P	P	19 21 02.1	-0.5
	4.8nm,1.1s,baz=322,slow=8.1,SNR=2.8						
	4.8nm,1.1s						
ASAR	Alice Springs	47.93	256	P	P	19 21 58.5	-0.4
	1.6nm,0.8s,baz=101,slow=8.0,SNR=15						
	1.6nm,0.8s						
WRA	Warramunga Arr	48.09	261	P	P	19 21 59.4	-0.6
	0.5nm,0.4s,baz=97,slow=8.1,SNR=17						
	0.5nm,0.4s						
VNDA	Vanda	58.10	186	P	P	19 23 13.3	+0.4
	0.7nm,0.9s,baz=21,slow=5.2,SNR=4.5						
	0.7nm,0.9s						
QSPA	South Pole Qui	69.42	180	P	P	19 24 27.7	-0.1
	2.2nm,1.0s,baz=27,slow=1.8,SNR=6.2						
	2.2nm,1.0s						
MJAR	Matsushiro Arr	72.49	321	P	P	19 24 47.0	+0.3
	0.9nm,0.6s,baz=135,slow=6.4,SNR=2.5						
	0.9nm,0.6s						
SHEM	Shemya Is, Ala	73.78	353	LR	LR	19 54 29.5	
	comp=Z,16nm,20.0s,baz=279,slow=34						
NVAR	Mina Array Bea	78.75	42	P	P	19 25 22.6	-0.2
	0.5nm,0.6s,baz=234,slow=8.9,SNR=3.8						
	0.5nm,0.6s						
H03S2	Juan Fernandez	82.96	123	T	T	20 58 13.5	
	baz=248,slow=75,SNR=7.3						
H03S1	Juan Fernandez	82.98	123	T	T	20 58 12.6	
	baz=248,slow=75,SNR=5.3						
H03S3	Juan Fernandez	82.98	123	T	T	20 58 11.2	
	baz=248,slow=75,SNR=4.9						
CMAR	Chiang Mai Arr	93.52	288	P	P	19 26 37.9	+1.6
	0.9nm,0.9s,baz=104,slow=5.5,SNR=5.7						
	0.9nm,0.9s						
AKASG	Malin Array Be	144.79	334	PKP	PKPbc	19 32 55.9	+0.3
	0.8nm,0.6s,baz=44,slow=4.4,SNR=6.7						
BRG	Berggiesshubel	149.16	350	*e*P	PKPab	19 33 11.0	-1.5
BRG				Amp		19 33 13.0	
	comp=Z,4.6nm,1.2s						
BRTR	Keskin Array B	149.52	315	PKPbc	PKPbc	19 33 10.1	+0.5
	comp=Z,0.4nm,0.6s,baz=90,slow=4.3,SNR=2.3						
GERES	GERESS Array B	151.16	349	PKPbc	PKPbc	19 33 12.8	-0.3
	comp=Z,0.3nm,0.3s,baz=60,slow=3.2,SNR=3.8						

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*IDC **06** 19:13:36.6±1.3, 60°.24N×59°.69E, h0^{km}, mb3.6/1, mbtmp3.7/12, ML3.3/11, MS3.2/3, Error ellipse: s-maj=15.5km s-min=11.1km az=21.0*

*MIRAS **06** 19:13:42.0, 60°.28N×60°.02E, h1^{km}, ML2.9/9*

ISC 06 19:13:35.4±1.0**, 60°.36N**±0°.06×**60°.03E**±0°.05**, h10^{km}, n22, σ2^{s}.27**/48**, Ural Mountains region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SVUR	Severouralsk	0.17	189	*i* P	Pg	19 13 38.3	-0.7
	993nm,0.2s						
SVUR				*i* S	Sg	19 13 39.4	-2.1
SVUR				*i* S	Sg	19 13 39.4	-2.1
SVUR				*i* S	Sg	19 13 39.4	-2.1
	841nm,0.2s						
SVUR				*i* AML	AML	19 13 40.9	
	2µm,0.5s						
PR7R	Sarany	1.93	200	*i* P	Pn	19 14 09.3	+1.1
	120nm,0.3s						
PR7R				*i* S	Sn	19 14 34.1	+1.6
	162nm,0.3s						
PR7R				*i* S	Sn	19 14 34.1	+1.6
PR7R				*i* S	Sn	19 14 34.1	+1.6
PR7R				*i* AML	AML	19 14 49.5	
	342nm,0.6s						
PR1R	Pomanovo	2.04	236	*i* P	Pb	19 14 13.3	+0.9
	107nm,0.4s						
PR1R				*i* S	Sg	19 14 39.8	-1.0
PR1R				*i* S	Sg	19 14 39.8	-1.0
PR1R				*i* S	Sg	19 14 39.8	-1.0
	100nm,0.4s						
PR1R				*i* AML	AML	19 14 50.3	
	279nm,0.3s						
PR6R	Ekimyata	2.99	224	*i* P	Pb	19 14 28.2	-0.5
	26nm,0.6s						
PR6R				*i* S	Sb	19 15 05.0	-0.2
PR6R				*i* S	Sb	19 15 05.0	-0.2
PR6R				*i* S	Sb	19 15 05.0	-0.2
	39nm,0.3s						
PR6R				*i* AML	AML	19 15 22.1	
	121nm,0.3s						
PR3R	Kungur	3.32	209	*i* P	Pn	19 14 30.2	+2.9
	42nm,0.5s						
PR3R				*i* S	Sn	19 15 10.5	+3.7
PR3R				*i* S	Sn	19 15 10.5	+3.7
PR3R				*i* S	Sn	19 15 10.5	+3.7
	42nm,0.5s						
PR3R				*i* AML	AML	19 15 13.1	
	85nm,0.5s						
SVE	Sverdlovsk	3.56	175	*i* P	Pn	19 14 32.5	+1.8
	14nm,0.2s						
SVE				*i* S	Sn	19 15 15.3	+2.5
SVE				*i* S	Sn	19 15 15.3	+2.5
SVE				*i* S	Sn	19 15 15.3	+2.5
	28nm,0.3s						
SVE				*i* AML	AML	19 15 19.2	
	47nm,0.4s						
KAUR	Kamensk Uralsk	4.02	168	*i* P	Pb	19 14 46.0	-0.2
	6.0nm,0.3s						
KAUR				*i* S	Sb	19 15 33.8	-1.0
KAUR				*i* S	Sb	19 15 33.8	-1.0
KAUR				*i* S	Sb	19 15 33.8	-1.0
	11nm,0.1s						
KAUR				*i* AML	AML	19 15 36.6	
	17nm,0.1s						
ARTI	Arti	4.08	193	Pn	Pn	19 14 39.6	+1.8
	1.4nm,0.3s,baz=13,slow=10.0,SNR=7.9						
ARTI				Sn	Sn	19 15 26.3	+0.8
	2.3nm,0.3s,baz=226,slow=21,SNR=5.7						
ARTI				Lg	Lg	19 15 39.6	
	3.1nm,0.3s,baz=13,slow=24,SNR=9.1						
	4.7nm,0.4s						
ARTI				AML	AML		
ARTI	Arti	4.08	193	*i* P	Pn	19 14 40.6	+2.9
	5.4nm,0.3s						
ARTI				*i* S	Sn	19 15 29.2	+3.6
ARTI				*i* S	Sn	19 15 29.2	+3.6
	19nm,0.5s						
ARTI				*i* S	Sn	19 15 29.2	+3.6
ARTI				*i* AML	AML	19 15 33.9	
	47nm,0.6s						
KIRV	Kirov	5.70	256	Pn	Pn	19 15 00.5	+0.6
	2.8nm,0.3s,baz=276,slow=0.7,SNR=4.3						
KIRV				Sn	Sn	19 16 03.4	-1.9
	1.6nm,0.3s,baz=267,slow=13,SNR=1.3						
KIRV				Lg	Lg	19 16 23.4	
	2.6nm,0.3s,baz=26,slow=21,SNR=1.9						
	6.6nm,0.4s						
KIRV				AML	AML		
BVAR	Borovoye Array	9.29	138	Pn	Pn	19 15 50.3	+1.0
	0.2nm,0.3s,baz=329,slow=15,SNR=54						
	13nm,0.7s						
BVAR				AML	AML		
AKTO	Aktyubinsk	10.02	187	Pn	Pn	19 15 59.7	+0.5
	0.3nm,0.3s,baz=7.0,slow=7.6,SNR=4.4						
AKTO				Sn	Sn	19 17 47.4	-4.2
	0.2nm,0.3s,baz=358,slow=21,SNR=1.6						
AKTO				Lg	Lg	19 18 40.2	
	0.1nm,0.3s,baz=283,slow=14,SNR=1.8						
	0.8nm,0.3s						
AKTO				AML	AML		
BELG	Belogornoye	10.52	226	Pn	Pn	19 16 05.8	-0.3
	1.7nm,0.3s,baz=310,slow=2.5,SNR=14						
	9.8nm,0.5s						
BELG				AML	AML		
KURBB	Kurchatov Arra	14.27	125	Pn	Pn	19 16 55.8	-1.4
	baz=319,slow=13,SNR=8.2						
	0.7nm,0.7s						
ZALV	Zalesovo Beam	14.84	105	Pn	Pn	19 17 06.9	+1.8
	0.1nm,0.3s,baz=306,slow=13,SNR=3.8						
	0.2nm,0.3s						
ZALV				AML	AML		
FINES	FINESS Array B	16.44	289	Pn	Pn	19 17 24.8	-1.0
	0.2nm,0.3s,baz=96,slow=12,SNR=7.6						
FINES				Sn	Sn	19 20 21.3	-6.8
	0.2nm,0.3s,baz=78,slow=22,SNR=5.8						
	1.2nm,0.6s						
FINES				AML	AML		
ARCES	ARCESS Array B	17.00	317	Pn	Pn	19 17 32.5	-0.4
	0.4nm,0.3s,baz=102,slow=13,SNR=18						
	2.0nm,1.0s						
ARCES				AML	AML		
KBZ	Khabaz	19.61	220	P	P	19 18 03.7	+0.2
	0.2nm,0.3s,baz=355,slow=7.6,SNR=4.7						
KBZ				LR	LR	19 27 03.6	
	comp=Z,51nm,18.1s,baz=72,slow=42						
	1.9nm,0.6s						
KBZ				AML	AML		
AKASG	Malin Array Be	19.75	254	P	P	19 18 05.6	+0.5
	0.5nm,0.3s,baz=47,slow=9.8,SNR=4.9						
	0.4nm,0.4s						
AKASG				AML	AML		
HFS	Hagfors	22.63	290	P	P	19 18 37.9	+1.8
	1.9nm,0.7s,baz=68,slow=11,SNR=6.7						
	1.9nm,0.7s						
MLR	Muntele Rosu	25.00	249	LR	LR	19 27 44.4	
	comp=Z,33nm,18.2s,baz=356,slow=34						
SJG	San Juan	90.62	310	LR	LR	20 04 39.9	
	comp=Z,17nm,20.8s,baz=126,slow=34						

KRSC 06 19:19:06.9±1.0**, 60°.92N**×**165°.81E, h25^{km}**±9^{km}**, Ml3.9, Eastern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TILK	Tilichiki	0.50	161	*i* P	Pb	19 19 17.8	+0.7
TILK				*e*S	Sb	19 19 24.6	+0.6
OSSR	Ossora	2.17	221	*e*P	Pb	19 19 44.3	-1.1
OSSR				*e*S	Sb	19 20 09.9	-1.9
PALN	Palana	3.46	241	*e*P	Pn	19 20 02.2	+3.1
BKI	Bering	5.73	179	*e*P	Pn	19 20 35.1	+4.8

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*IDC **06** 19:36:39.6±1.5, 39°.58N×139°.71E, h174^{km}±14^{km}, mb3.3/15, mbtmp3.8/18, Error ellipse: s-maj=19.3km s-min=11.0km az=74.0*

*JMA **06** 19:36:40.1±0.1, 39°.6N±0°.4×139°.9E±0°.9, h167^{km}±1^{km}, MV3.2/35, W OFF AKITA PREF*

ISC 06 19:36:39.3±0.7**, 39°.61N**±0°.04×**139°.77E**±0°.06**, h172^{km}**±5^{km}**, n35, σ0^{s}.81**/46**, mb3.4**/15**, Near west coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JYW	Yuwa	0.35	102	P	Pn	19 37 03.0	+0.4
JYW				*e*S	Sn	19 37 20.5	+0.2
JTB	Tobi-shima	0.45	201	P	Pn	19 37 03.3	+0.3
JTB				S	Sn	19 37 20.9	-0.2
JOG3	Oga3	0.61	300	P	Pn	19 37 02.8	-0.9
JOG3				S	Sn	19 37 19.9	-2.5
JRG	Rokugo	0.70	108	*i* P	Pn	19 37 04.3	+0.1
JRG				S	Sn	19 37 22.9	-0.4
JYK	Kaneyama	0.83	146	*i* P	Pn	19 37 05.3	+0.3
JYK				S	Sn	19 37 25.3	+0.5
JAH	Hinai	0.88	49	*i* P	Pn	19 37 05.5	+0.3
JAH				S	Sn	19 37 25.0	-0.4
JIW	Iwasaki	1.00	11	*i* P	Pn	19 37 06.6	+0.4
JIW				S	Sn	19 37 27.2	+0.2
JYA	Atsumi	1.02	182	P	Pn	19 37 07.0	+0.6
JOM	Ohasama	1.19	96	*i* P	Pn	19 37 07.6	-0.1
JMK	Ichinoseki	1.31	120	*i* P	Pn	19 37 08.6	-0.2
JMK				S	Sn	19 37 30.6	-0.8
JYS	Shirataka	1.41	170	P	Pn	19 37 10.4	+0.6
JYS				S	Sn	19 37 34.3	+1.1
JOU	Okura	1.43	150	P	Pn	19 37 10.3	+0.3
JANG	Nango	1.54	60	*i* P	Pn	19 37 10.8	-0.2
JOMM	Oshimamatsumae	1.92	5	*i* P	Pn	19 37 15.3	+0.5
JOT	Ohata	2.02	29	P	Pn	19 37 16.3	+0.3
JOTO	OTAMA OYAMA	2.10	168	P	Pn	19 37 17.5	+0.5
JHG	Hegura jima	2.84	233	P	Pn	19 37 26.7	+1.1
MJAR	Matsushiro Arr	3.30	202	P	Pn	19 37 32.6	+1.2
	19nm,0.6s,baz=14,slow=13,SNR=106						
MJAR				S	Sn	19 38 11.8	-0.1
	4.3nm,0.5s,baz=52,slow=5.5,SNR=0.8						
JHJ	Hachijo jima 2	6.48	180	P	Pn	19 38 11.7	-0.9
	53nm,0.3s,baz=293,slow=21,SNR=6.4						
JHJ				S	Sn	19 39 23.4	-2.5
	99nm,0.4s,baz=161,slow=6.5,SNR=6.7						
USRK	Ussuriysk Ar.	7.39	311	P	Pn	19 38 25.4	+0.9
	2.2nm,0.5s,baz=121,slow=13,SNR=5.5						
YAK	Yakutsk	23.28	348	P	P	19 41 31.9	+0.7
	3.0nm,0.4s,baz=91,slow=1.2,SNR=3.5						
	3.0nm,0.4s						
SONM	Songino Array	25.32	300	P	P	19 41 49.4	-0.7
	0.2nm,0.4s,baz=91,slow=7.8,SNR=2.7						
	0.2nm,0.4s						
ZALV	Zalesovo Beam	39.24	310	P	P	19 43 51.0	+0.3
	1.1nm,0.5s,baz=86,slow=7.6,SNR=5.6						
	1.1nm,0.5s						
MKAR	Makanchi Array	41.69	299	P	P	19 44 11.0	+0.1
	0.4nm,0.7s,baz=81,slow=10.0,SNR=3.1						
	0.4nm,0.7s						
KURBB	Kurchatov Arra	43.42	306	P	P	19 44 24.9	+0.1
	1.4nm,0.4s,baz=82,slow=8.6,SNR=7.9						
	1.4nm,0.4s						
BVAR	Borovoye Array	47.90	310	P	P	19 44 59.2	-0.6
	0.3nm,0.5s,baz=76,slow=7.8,SNR=2.8						
	0.3nm,0.5s						
ILAR	Eielson Array	48.04	34	P	P	19 45 01.4	+0.7
	0.6nm,0.7s,baz=263,slow=5.9,SNR=6.4						
	0.6nm,0.7s						
WRA	Warramunga Arr	59.46	186	P	P	19 46 23.9	-0.1
	1.1nm,0.5s,baz=5.6,slow=7.1,SNR=21						
	1.1nm,0.5s						
YKA	Yellowknife Ar	62.24	30	P	P	19 46 42.5	+0.3
	0.2nm,0.6s,baz=307,slow=7.1,SNR=1.8						
	0.2nm,0.6s						
ASAR	Alice Springs	63.19	186	P	P	19 46 49.5	+0.4
	0.8nm,0.4s,baz=0.5,slow=7.2,SNR=17						
	0.8nm,0.4s						
FINES	FINESS Array B	65.93	331	P	P	19 47 05.5	-0.8
	1.6nm,0.9s,baz=38,slow=9.6,SNR=3.7						
	1.6nm,0.9s						
AKASG	Malin Array Be	71.47	321	P	P	19 47 40.7	-0.1
	0.3nm,0.6s,baz=47,slow=7.6,SNR=2.2						
	0.3nm,0.6s						
BRTR	Keskin Array B	76.19	310	P	P	19 48 07.8	-0.9
	0.6nm,0.8s,baz=39,slow=5.6,SNR=2.4						
	0.6nm,0.8s						
PDAR	Pinedale Array	76.77	45	P	P	19 48 11.7	-0.3
	0.2nm,0.4s,baz=324,slow=10,SNR=1.4						
	0.2nm,0.4s						
TXAR	Lajitas Array	89.55	51	P	P	19 49 18.6	+1.2
	0.4nm,0.7s,baz=297,slow=3.6,SNR=5.8						
	0.4nm,0.7s						

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*IDC **06** 19:53:46.7±2.9, 30°.83S×178°.02W, h0^{km}, mb4.0/4, mbtmp4.0/4, MS3.4/2, Error ellipse: s-maj=126.8km s-min=32.1km az=152.0*

ISC 06 19:53:52.9±2.6**, 31°.0S**±0°.7×**178°.0W**±0°.4**, h46^{km}, n9, σ0^{s}.84**/8**, mb4.1**/4**, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DZM	Mont Dzumac	16.53	299	LR	LR	20 02 14.3	
	comp=Z,56nm,21.3s,baz=342,slow=31						
STKA	Stephens Creek	34.35	258	P	P	20 00 36.2	+0.7
	2.0nm,0.5s,baz=106,slow=8.2,SNR=7.6						
	2.0nm,0.5s						
ASAR	Alice Springs	43.09	268	P	P	20 01 48.4	-0.4
	0.3nm,0.4s,baz=106,slow=7.2,SNR=9.2						
ASAR				PcP	PcP	20 03 38.1	0.0
	0.6nm,1.0s,baz=123,slow=3.4,SNR=1.7						
	0.3nm,0.4s						
WRA	Warramunga Arr	44.13	273	P	P	20 01 56.3	-0.9
	1.4nm,0.5s,baz=111,slow=8.1,SNR=26						
	1.4nm,0.5s						
PETK	Petropavlovsk-	86.42	346	P	P	20 06 30.4	+0.4
	1.9nm,0.8s,baz=114,slow=6.6,SNR=4.7						
	1.9nm,0.8s						
CMIG	Matias Romero	92.94	72	LR	LR	20 38 26.2	
	comp=Z,46nm,21.5s,baz=176,slow=29						
FINES	FINESS Array B	145.74	340	PKPbc	PKPdf	20 13 24.3	-1.3
	3.2nm,0.4s,baz=50,slow=3.2,SNR=23						
NOA	NORSAR Array B	149.37	351	PKPbc	PKPbc	20 13 36.5	+0.4
	1.4nm,0.9s,baz=16,slow=4.3,SNR=3.6						
AKASG	Malin Array Be	151.80	322	PKPbc	PKPbc	20 13 42.5	+0.4
	1.5nm,0.7s,baz=50,slow=2.7,SNR=9.5						

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*IDC **06** 19:56:25.6±1.0, 48°.10N×27°.62W, h0^{km}, mb3.6/10, mbtmp3.6/12, ML4.0/2, MS3.4/7, Error ellipse: s-maj=34.7km s-min=15.8km az=9.0*

ISC 06 19:56:27.2±0.9**, 48°.2N**±0°.2×**27°.6W**±0°.1**, h10^{km}, n18, σ0^{s}.69**/12**, mb3.7**/9**, MS3.0**/7**, Northern Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
EKA	Eskdalemuir Ar	16.67	55	Pn	P	20 00 22.5	-0.5
	baz=258,slow=12						
	1.9nm,0.7s						
ESDC	Sonseca Array	18.93	108	P	Pn	20 00 49.0	+0.2
	0.3nm,0.3s,baz=300,slow=13,SNR=7.6						
	0.6nm,0.3s						
ESDC				AML	AML		
SFJD	Kangerlussuaq	22.33	336	LR	LR	20 08 20.1	
	comp=Z,62nm,20.4s,baz=124,slow=32						
SCHQ	Schefferville	25.09	300	LR	LR	20 10 30.4	
	comp=Z,45nm,18.4s,baz=163,slow=34						
NOA	NORSAR Array B	25.46	45	LR	LR	20 10 37.0	
	comp=Z,11nm,18.8s,baz=130,slow=33						
GERES	GERESS Array B	27.11	73	P	P	20 02 10.4	+0.3
	0.7nm,0.6s,baz=277,slow=11,SNR=8.7						
	0.7nm,0.6s						
VRAC	Vranov	28.83	71	LR	LR	20 12 42.2	
	comp=Z,29nm,19.1s,baz=330,slow=34						
AKASG	Malin Array Be	36.24	64	P	P	20 03 29.4	-0.7
	0.7nm,0.6s,baz=288,slow=8.8,SNR=4.8						
	0.7nm,0.6s						
TORD	Torodi Ar. Bea	42.52	135	P	P	20 04 23.0	+0.2
	0.6nm,0.8s,baz=322,slow=7.7,SNR=2.8						
	0.6nm,0.8s						
BRTR	Keskin Array B	43.81	77	P	P	20 04 33.3	0.0
	0.2nm,0.4s,baz=338,slow=6.4,SNR=1.7						
	0.2nm,0.4s						
DBIC	Dimbokro	45.62	148	LR	LR	20 21 52.9	
	comp=Z,52nm,19.2s,baz=113,slow=34						
YKA	Yellowknife Ar	47.65	321	P	P	20 05 03.0	0.0
	0.4nm,0.7s,baz=66,slow=7.7,SNR=1.7						
	0.4nm,0.7s						
PDAR	Pinedale Array	55.18	297	P	P	20 05 59.5	-0.6
	0.5nm,0.5s,baz=62,slow=7.8,SNR=5.2						
	0.5nm,0.5s						
ILAR	Eielson Array	57.97	334	P	P	20 06 20.5	+1.2
	0.3nm,0.7s,baz=39,slow=4.5,SNR=5.7						
	0.3nm,0.7s						
ELK	Elko	59.78	299	LR	LR	20 30 55.0	
	comp=Z,100nm,18.1s,baz=68,slow=35						
TXAR	Lajitas Array	59.85	281	P	P	20 06 33.1	+0.1
	1.0nm,0.8s,baz=71,slow=7.5,SNR=14						
TXAR				LR	LR	20 30 13.1	
	comp=Z,160nm,18.6s,baz=272,slow=34						
	1.0nm,0.8s						
KURBB	Kurchatov Arra	62.98	43	P	P	20 06 54.1	+0.5
	0.7nm,0.8s,baz=314,slow=7.4,SNR=6.5						
	0.7nm,0.8s						
NVAR	Mina Array Bea	63.08	298	P	P	20 06 53.7	-1.2
	0.2nm,0.3s,baz=72,slow=2.8,SNR=5.3						
	0.2nm,0.3s						

*IDC **06** 19:58:56.8±0.7, 30°.84S×67°.95W, h0^{km}, mb4.2/7, mbtmp4.0/11, ML3.7/4, MS3.2/2, Error ellipse: s-maj=23.3km s-min=10.0km az=112.0*
*SJA **06** 19:58:58.5±0.8, 30°.88S×68°.34W, h14^{km}, ML4.1, MW3.9*
*NEIC **06** 19:58:59.4±1.8, 30°.93S±0°.01×68°.20W±0°.06, h10^{km}±1^{km}, mb4.4/13, Error ellipse: s-maj=8.6km s-min=2.9km az=88.0*
*GFZ **06** 19:58:59.8±0.3, 31°S±2°×6°8W±°, h10^{km}, M4.4/12, mb4.4/12*
ISC 06 19:58:58.4±1.0, 30°.88S±0°.02×68°.22W±0°.02, h9^{km}±7^{km}, n146, σ1^{s}98/186, mb4.5/12, 1C, San Juan Province

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RTLL	**Cerro Villicun**	**0.50**	**206**	*e*P	**Pg**	**19 59 08.6**	**+0.5**
RTLL				*i* S	**Sg**	**19 59 15.3**	**+0.7**
AVFE	**Valle Fertil**	**0.69**	**72**	*e*P	**Pn**	**19 59 14.0**	**-0.5**
AVFE				*i* S	**Sn**	**19 59 25.2**	**-0.2**
SJA	**San Juan**	**0.71**	**204**	*e*P	**Pg**	**19 59 12.5**	**+0.5**
SJA				IAML		19 59 12.8	
	comp=Z,4µm,0.2s						
SJA				*e*S	**Sn**	**19 59 28.8**	**+3.1**
CFA	**Coronel Fontan**	**0.72**	**181**	Pg	**Pg**	**19 59 12.6**	**+0.2**
	comp=Z,266nm,0.3s,baz=359,slow=14,SNR=7940						
CFA				Lg	Lg	19 59 22.4	
	baz=307,slow=20						
CFA	**Coronel Fontan**	**0.72**	**181**	*e*P	**Pg**	**19 59 13.0**	**+0.6**
CFA				*i* S	**Sg**	**19 59 22.9**	**+1.1**
ZON	**Zonda**	**0.77**	**210**	*e*P	**Pg**	**19 59 12.9**	**-0.4**
ZON				*i* S	**Sg**	**19 59 23.6**	**+0.2**
ZON	**Zonda**	**0.77**	**210**		**Pg**	**19 59 12.7**	**-0.5**
ZON					**Sg**	**19 59 23.9**	**+0.6**
ZON	**Zonda**	**0.77**	**210**	P	**Pg**	**19 59 13.0**	**-0.3**
ACCO	**Cerro Coronel**	**0.78**	**292**	*e*P	**Pg**	**19 59 12.5**	**-0.9**
ACCO				*e*S	**Sg**	**19 59 22.9**	**-0.9**
ACDV	**Cuesta del Vie**	**1.05**	**312**	*e*P	**Pg**	**19 59 17.8**	**-0.7**
ACDV				*e*S	**Sg**	**19 59 30.0**	**-2.2**
AROD	**Rodeo**	**1.29**	**303**	*e*P	**Pn**	**19 59 21.6**	**-1.3**
RTLS	**Leoncito**	**1.30**	**225**	*e*P	**Pn**	**19 59 22.1**	**-0.9**
RTLS				*e*S	**Sb**	**19 59 39.5**	**-0.6**
RTLS				IAML		19 59 40.6	
	comp=Z,4µm,0.9s						
ACAN	**Cantantal**	**1.65**	**148**	*e*P	**Pg**	**19 59 30.5**	**+0.6**
ACAN				*e*S	**Sg**	**19 59 52.3**	**+1.0**
ACLC	**CERRO LA CRUZ**	**1.82**	**38**	*e*P	**Pb**	**19 59 32.8**	**+0.9**
ACLC				*e*S	**Sg**	**20 00 01.1**	**+4.2**
ACLC				IAML		20 00 03.5	
	comp=Z,3µm,0.4s						
CO01	**Juntas del Tor**	**1.85**	**299**	*e*P	**Pn**	**19 59 31.1**	**+0.6**
CO01				*i* S	**Sn**	**19 59 53.9**	**-0.3**
CO01	**Juntas del Tor**	**1.85**	**299**		**Pn**	**19 59 30.8**	**+0.3**
CO01				Sn	**Sn**	**19 59 53.7**	**-0.5**
CO01	**Juntas del Tor**	**1.85**	**299**	P	**Pn**	**19 59 31.1**	**+0.6**
ARCO	**CERRO ARCO**	**2.05**	**197**	*e*P	**Pb**	**19 59 36.1**	**+0.2**
ARCO				*e*S	**Sb**	**20 00 03.7**	**+2.2**
ARCO				IAML		20 00 05.8	
	comp=Z,1µm,1.0s						
CO03	**El Pedregal**	**2.12**	**270**	*e*P	**Pn**	**19 59 35.5**	**+1.3**
CO03				*e*S	**Sn**	**20 00 02.6**	**+1.9**
CO03				IAML		20 00 03.8	
	comp=Z,1µm,0.3s						
CO03	**El Pedregal**	**2.12**	**270**		**Pn**	**19 59 35.4**	**+1.3**
CO03				Sn	**Sn**	**20 00 00.7**	**0.0**
CO03	**El Pedregal**	**2.12**	**270**	P	**Pn**	**19 59 35.6**	**+1.4**
VCA	**Vinchina**	**2.13**	**0**	*e*P	**Pb**	**19 59 37.4**	**+0.1**
VCA				*e*S	**Sb**	**20 00 06.3**	**+2.3**
VCA				IAML		20 00 10.0	
	comp=Z,2µm,0.5s						
AAGR	**Agrelo**	**2.26**	**193**	*e*P	**Pb**	**19 59 39.0**	**-0.4**
AAGR				*e*S	**Sn**	**20 00 06.1**	**+2.0**
AAGR				IAML		20 00 12.2	
	comp=Z,837nm,0.8s						
GO04	**Tololo Observa**	**2.33**	**287**	*e*P	**Pn**	**19 59 39.4**	**+2.2**
GO04				*e*S	**Sn**	**20 00 08.9**	**+2.8**
GO04				IAML		20 00 09.4	
	comp=Z,1µm,0.2s						
GO04	**Tololo Observa**	**2.33**	**287**		**Pn**	**19 59 39.4**	**+2.2**
GO04	**Tololo Observa**	**2.33**	**287**	P	**Pn**	**19 59 39.6**	**+2.4**
CO02	**Combarbal**	**2.41**	**262**	*e*P	**Pn**	**19 59 40.7**	**+2.7**
CO02				*e*SA		20 00 10.3	
CO02	**Combarbal**	**2.41**	**262**		**Pn**	**19 59 40.4**	**+2.4**
CO02	**Combarbal**	**2.41**	**262**	P	**Pn**	**19 59 40.7**	**+2.7**
AVIZ	**Vizcacheras**	**2.60**	**185**	*e*P	**Pn**	**19 59 40.6**	**-0.1**
AVIZ				*e*S	**Sb**	**20 00 16.1**	**-1.2**
CO04	**Los Peladeros**	**2.62**	**243**	Pn	**Pn**	**19 59 43.3**	**+2.1**
CO04	**Los Peladeros**	**2.62**	**243**	P	**Pn**	**19 59 43.2**	**+2.0**
MRA	**San Martin**	**2.63**	**126**	*e*P	Pn	19 59 35.6	-5.5
MRA				*e*S	**Sn**	**20 00 09.6**	**-3.7**
MRA				IAML		20 00 20.8	
	comp=Z,2µm,0.8s						
AC05	**El Transito**	**2.71**	**318**	*e*P	Pn	19 59 31.6	-11
AC05				*e*S	**Sn**	**20 00 16.1**	**+1.0**
AC05	**El Transito**	**2.71**	**318**		**Pn**	**19 59 44.9**	**+2.7**
AC05	**El Transito**	**2.71**	**318**	P	**Pn**	**19 59 44.9**	**+2.7**
VA03	**San Esteban**	**2.73**	**226**	*e*P	**Pb**	**19 59 46.6**	**-0.9**
VA03				*e*S	**Sn**	**20 00 18.1**	**+2.3**
VA03				IAML		20 00 23.9	
	comp=Z,995nm,0.5s						
VA03	**San Esteban**	**2.73**	**226**		**Pn**	**19 59 44.0**	**+1.5**
VA03	**San Esteban**	**2.73**	**226**	P	**Pn**	**19 59 45.4**	**+2.8**
LCO	**Las Campanas**	**2.84**	**310**	*e*P	**Pn**	**19 59 46.9**	**+2.7**
LCO				*e*S	**Sb**	**20 00 24.1**	**-0.5**
LCO				IAML		20 00 26.4	
	comp=Z,2µm,0.3s						
LCO	**Las Campanas**	**2.84**	**310**		**Pn**	**19 59 46.5**	**+2.3**
LCO	**Las Campanas**	**2.84**	**310**	P	**Pn**	**19 59 46.7**	**+2.5**
TINO	**Tinogasta**	**2.86**	**12**	*e*P	**Pb**	**19 59 48.7**	**-1.0**
TINO				*e*S	**Sg**	**20 00 30.6**	**+0.3**
TINO				IAML		20 00 43.0	
	comp=Z,614nm,0.5s						
CO06	**Fray Jorge**	**2.94**	**273**		**Pn**	**19 59 46.2**	**+0.9**
MT08	**Bocatoma Ro**	**2.98**	**210**	*e*P	**Pb**	**19 59 50.5**	**-1.3**
MT08				*e*S	**Sn**	**20 00 25.1**	**+3.1**
MT08				IAML		20 00 31.4	
	comp=Z,703nm,0.8s						
MT08	**Bocatoma Ro**	**2.98**	**210**		**Pn**	**19 59 48.2**	**+2.2**
MT04	**Ro Olivares**	**3.00**	**212**	*e*P	**Pb**	**19 59 50.8**	**-1.3**
MT04				*e*S	**Sn**	**20 00 25.6**	**+3.1**
MT04				IAML		20 00 34.6	
	comp=Z,485nm,0.8s						
PEL	**Peldehue**	**3.08**	**222**	*e*P	**Pn**	**19 59 50.4**	**+3.1**
PEL				*e*S	**Sn**	**20 00 27.6**	**+3.4**
PEL				IAML		20 00 36.3	
	comp=Z,511nm,0.4s						
PEL	**Peldehue**	**3.08**	**222**		**Pn**	**19 59 47.8**	**+0.5**
PEL	**Peldehue**	**3.08**	**222**	P	**Pn**	**19 59 49.6**	**+2.3**
TCA	**Tanti**	**3.14**	**99**	*e*P	**Pb**	**19 59 51.6**	**-2.9**
TCA				*e*S	**Sb**	**20 00 33.6**	**+0.6**
TCA				IAML		20 00 41.9	
	comp=Z,738nm,0.4s						
MT16	**CCHEN**	**3.21**	**217**		**Pn**	**19 59 51.4**	**+2.4**
CYA	**Choya**	**3.21**	**42**	*e*P	**Pn**	**19 59 51.9**	**+2.8**
CYA				*e*S	**Sb**	**20 00 35.1**	**+0.1**
CYA				IAML		20 00 53.1	
	comp=Z,808nm,0.4s						
MT03	**Universidad Ad**	**3.25**	**216**	*e*P	**Pn**	**19 59 53.5**	**+3.8**
MT03				*e*S	**Sn**	**20 00 31.1**	**+2.6**
MT03				IAML		20 00 45.8	
	comp=Z,624nm,0.6s						
MT03	**Universidad Ad**	**3.25**	**216**		**Pn**	**19 59 50.5**	**+0.9**
MT05	**Renca**	**3.29**	**220**	*e*P	**Pn**	**19 59 53.6**	**+3.4**
MT05				*e*S	**Sb**	**20 00 36.0**	**-1.2**
MT05				IAML		20 00 36.1	
	comp=Z,451nm,0.6s						
MT05	**Renca**	**3.29**	**220**		**Pn**	**19 59 53.4**	**+3.2**
MT13	**San Alfonso**	**3.35**	**211**	*e*P	**Pn**	**19 59 55.1**	**+4.1**
MT13				*e*S	**Sb**	**20 00 41.2**	**+2.3**
MT13				IAML		20 00 44.9	
	comp=Z,268nm,0.4s						
MT13	**San Alfonso**	**3.35**	**211**		**Pn**	**19 59 54.9**	**+3.9**
MT02	**Curacav**	**3.43**	**225**	*e*P	**Pn**	**19 59 54.2**	**+2.2**
MT02				*e*S	**Sn**	**20 00 35.1**	**+2.3**
MT02				IAML		20 00 44.3	
	comp=Z,435nm,0.4s						
MT02	**Curacav**	**3.43**	**225**		**Pn**	**19 59 53.6**	**+1.6**
AC04	**Llanos de Chal**	**3.64**	**316**	*e*P	**Pn**	**19 59 57.2**	**+2.2**
AC04				*e*S	**Sn**	**20 00 44.1**	**+6.0**
AC04				IAML		20 00 50.7	
	comp=Z,300nm,0.8s						
AC04	**Llanos de Chal**	**3.64**	**316**	Pn	**Pn**	**19 59 56.2**	**+1.2**
AC04	**Llanos de Chal**	**3.64**	**316**	P	**Pn**	**19 59 57.3**	**+2.3**
BO04	**La Punta**	**3.70**	**212**		**Pn**	**19 59 56.8**	**+1.0**
GO03	**Copiapo**	**3.72**	**331**	*e*P	**Pn**	**19 59 58.8**	**+2.8**
GO03				*e*S	**Sn**	**20 00 44.7**	**+4.7**
GO03	**Copiapo**	**3.72**	**331**		**Pn**	**19 59 57.5**	**+1.5**
GO03	**Copiapo**	**3.72**	**331**	P	**Pn**	**19 59 58.0**	**+2.0**
MT09	**Talagante**	**3.72**	**218**		**Pn**	**19 59 56.3**	**+0.1**
MT01	**Popeta**	**3.93**	**220**	*e*P	**Pn**	**20 00 00.5**	**+1.6**
MT01				*e*S	**Sn**	**20 00 49.1**	**+4.0**
MT01				IAML		20 00 59.7	
	comp=Z,190nm,0.6s						
MT01	**Popeta**	**3.93**	**220**		**Pn**	**19 59 59.4**	**+0.6**
AC06	**Mina Casimiro**	**3.97**	**331**		**Pn**	**20 00 01.1**	**+1.6**
AC02	**Maricunga**	**4.11**	**349**	*e*P	**Pn**	**20 00 05.8**	**+4.0**
AC02				*e*S	**Sb**	**20 00 57.4**	**-3.7**
AC02	**Maricunga**	**4.11**	**349**		**Pn**	**20 00 04.0**	**+2.2**
AC02	**Maricunga**	**4.11**	**349**	P	**Pn**	**20 00 02.8**	**+1.1**
BO01	**Tunca**	**4.25**	**214**	*e*P	**Pn**	**20 00 05.5**	**+2.1**
BO01				*e*S	**Sn**	**20 00 56.9**	**+3.7**
BO01	**Tunca**	**4.25**	**214**	P	**Pn**	**20 00 04.9**	**+1.6**
BO02	**Sierra Bellavi**	**4.46**	**208**	*e*P	**Pn**	**20 00 10.8**	**+4.5**
BO02				IAML		20 01 33.0	
	comp=Z,112nm,0.8s						
BO02	**Sierra Bellavi**	**4.46**	**208**	Pn	**Pn**	**20 00 07.5**	**+1.2**
BO02	**Sierra Bellavi**	**4.46**	**208**	P	**Pn**	**20 00 08.4**	**+2.2**
BO03	**Pichilemu**	**4.79**	**220**	P	**Pn**	**20 00 11.2**	**+0.5**
FSA	**Cafayete**	**5.14**	**23**	*e*P	**Pn**	**20 00 19.4**	**+3.6**
FSA				*e*S	**Sb**	**20 01 35.6**	**+4.9**
AC01	**Pan de Azucar**	**5.16**	**335**	*e*P	**Pn**	**20 00 16.9**	**+1.1**
AC01				*e*S	**Sb**	**20 01 32.6**	**+1.7**
AC01				IAML		20 01 38.1	
	comp=Z,86nm,0.7s						
AC01	**Pan de Azucar**	**5.16**	**335**	P	**Pn**	**20 00 16.9**	**+1.1**
	comp=Z,79nm,0.9s						
GO05	**Hualane**	**5.17**	**216**	*e*P	**Pn**	**20 00 17.8**	**+1.9**
GO05				*e*S	**Sn**	**20 01 19.1**	**+3.4**
GO05				IAML		20 01 25.6	
	comp=Z,89nm,0.9s						
GO05				*e*S	**Sb**	**20 01 27.6**	**-3.5**
GO05	**Hualane**	**5.17**	**216**		**Pn**	**20 00 16.1**	**+0.1**
GO05	**Hualane**	**5.17**	**216**	P	**Pn**	**20 00 16.4**	**+0.4**
	comp=Z,84nm,0.8s						
ML02	**Panimavida**	**5.56**	**208**		**Pn**	**20 00 21.5**	**+0.2**
ML02	**Panimavida**	**5.56**	**208**	P	**Pn**	**20 00 22.4**	**+1.2**
	comp=Z,117nm,0.6s						
BI02	**San Fabin de**	**6.30**	**203**		**Pn**	**20 00 33.0**	**+1.4**
BI02	**San Fabin de**	**6.30**	**203**	P	**Pn**	**20 00 33.0**	**+1.4**
	comp=Z,38nm,0.7s						
PB14	**IPOC Station P**	**6.52**	**342**		**Pn**	**20 00 35.5**	**+0.7**
PB14	**IPOC Station P**	**6.52**	**342**	P	**Pn**	**20 00 35.7**	**+0.8**
	comp=Z,29nm,0.8s						
SALTA		**6.84**	**15**	P	**Pn**	**20 00 41.0**	**+1.7**
	comp=Z,7.5nm,1.0s						
PB05	**IPOC Station P**	**8.19**	**347**	P	**Pn**	**20 00 59.8**	**+2.3**
	comp=Z,26nm,0.7s						
PB06	**IPOC Station P**	**8.23**	**351**	Pn	**Pn**	**20 00 58.4**	**+0.3**
PB06	**IPOC Station P**	**8.23**	**351**	P	**Pn**	**20 00 59.2**	**+1.1**
	comp=Z,16nm,0.6s						
PB03	**IPOC Station P**	**8.90**	**351**		**Pn**	**20 01 06.9**	**-0.5**
PB03	**IPOC Station P**	**8.90**	**351**	P	**Pn**	**20 01 06.3**	**-1.0**
	comp=Z,15nm,0.7s						
GO06	**Curarrehue**	**9.08**	**196**	P	**Pn**	**20 01 11.7**	**+2.0**
	comp=Z,10nm,1.2s						
PB09	**IPOC Station P**	**9.09**	**354**	Pn	**Pn**	**20 01 10.1**	**+0.1**
PB09	**IPOC Station P**	**9.09**	**354**	P	**Pn**	**20 01 10.4**	**+0.5**
	comp=Z,12nm,1.3s						
PB07	**IPOC Station P**	**9.24**	**350**	Pn	**Pn**	**20 01 10.8**	**-1.2**
PB07	**IPOC Station P**	**9.24**	**350**	P	**Pn**	**20 01 11.1**	**-0.9**
	comp=Z,11nm,1.4s						
PB02	**IPOC Station P**	**9.64**	**351**	Pn	**Pn**	**20 01 16.0**	**-1.4**
PB02	**IPOC Station P**	**9.64**	**351**	P	**Pn**	**20 01 16.4**	**-1.0**
	comp=Z,17nm,1.1s						
PLCA	**Paso Flores**	**10.01**	**190**	Pn	**Pn**	**20 01 23.5**	**+1.0**
	comp=Z,0.1nm,0.3s,baz=331,slow=10,SNR=5.3						
PLCA				Lg	Lg	20 04 08.6	
	comp=Z,0.7nm,0.3s,baz=221,slow=1.0,SNR=3.7						
	comp=Z,0.8nm,0.7s						
PLCA				AML	AML		
PLCA	**Paso Flores**	**10.01**	**190**	P	**Pn**	**20 01 24.5**	**+2.1**
CPUP	**Villa Florida**	**10.59**	**67**	Pn	**Pn**	**20 01 27.4**	**-2.9**
	comp=Z,0.4nm,0.3s,baz=233,slow=16,SNR=6.8						
CPUP				Lg	Lg	20 04 20.4	
	comp=Z,1.0nm,0.3s,baz=86,slow=16,SNR=3.3						
	comp=Z,0.6nm,0.4s						
CPUP				AML	AML		
CPUP	**Villa Florida**	**10.59**	**67**		**Pn**	**20 01 32.1**	**+1.8**
CPUP	**Villa Florida**	**10.59**	**67**	P	**Pn**	**20 01 31.6**	**+1.3**
	comp=Z,6.6nm,1.5s						
LL05	**Los Muermos**	**11.33**	**201**	Pn	**Pn**	**20 01 37.2**	**-3.2**
PSGCX	**Pisagua**	**11.36**	**351**	Pn	**Pn**	**20 01 40.9**	**-0.1**
PB16	**IPOC Station P**	**12.54**	**354**	Pn	**Pn**	**20 01 56.9**	**-0.8**
LPAZ	**La Paz**	**14.53**	**0**	Pn	**Pn**	**20 02 25.1**	**+0.3**
	comp=Z,0.1nm,0.3s,baz=196,slow=9.4,SNR=4.2						
LPAZ				LR	LR	20 09 19.4	
	comp=Z,67nm,18.9s,baz=84,slow=43						
	comp=Z,1.4nm,0.6s						
LPAZ				AML	AML		
LPAZ	**La Paz**	**14.53**	**0**	P	**Pn**	**20 02 26.6**	**+1.8**
	comp=Z,4.4nm,0.6s						
SIV	**San Ignacio**	**16.20**	**25**	Pn	**Pn**	**20 02 45.3**	**-1.0**
	baz=211,slow=13,SNR=7.2						
	comp=Z,0.5nm,0.5s						
VILB	**Vilhena**	**19.32**	**24**	P	**P**	**20 03 25.0**	**+1.1**
VILB				IAmb	IAmb	20 03 32.0	
	comp=Z,12nm,0.6s						
EFI	**East Falkland**	**22.09**	**163**	P	**P**	**20 03 52.5**	**-1.1**
MG03	**Isla Dawson**	**23.01**	**183**	P	**P**	**20 04 01.7**	**-1.7**
MG03				IAmb	IAmb	20 04 17.5	
	comp=Z,11nm,1.0s						
ORCD	**Orcadas**	**33.67**	**159**	P	**P**	**20 05 38.7**	**-0.6**
PDPR	**Patillas Dam,**	**48.66**	**3**	P	**P**	**20 07 40.0**	**-2.8**
PDPR				IAmb	IAmb	20 07 42.8	
	comp=Z,18nm,1.5s						
CELP	**Cerrillos**	**48.70**	**2**	P	**P**	**20 07 40.8**	**-2.4**
BELA	**Belgrano 2**	**49.42**	**171**	P	**P**	**20 07 47.9**	**-0.2**
BELA				IAmb	IAmb	20 07 49.5	
	comp=Z,2.0nm,0.7s						
VNA3	**Neumayer Olymp**	**51.07**	**159**	⇑P	**P**	**20 08 01.1**	**+0.3**
	comp=Z,3.9nm,0.7s						
VNA2	**Neumayer--Watz**	**51.68**	**159**	P	**P**	**20 08 05.6**	**+0.4**
	comp=Z,3.8nm,0.6s,baz=283,slow=8.3						
SNAA	**Sanae**	**53.29**	**159**	P	**P**	**20 08 17.6**	**+0.3**
	comp=Z,97nm,0.8s						
SNAA	**Sanae**	**53.29**	**159**	P	**P**	**20 08 17.1**	**-0.1**
	comp=Z,3.3nm,0.7s,baz=268,slow=9.8,SNR=7.5						
	comp=Z,3.3nm,0.7s						
SNAA	**Sanae**	**53.29**	**159**	P	**P**	**20 08 16.0**	**-1.3**
SNAA				IAmb	IAmb	20 08 18.4	
	comp=Z,6.0nm,1.0s						
TROLL	**Troll, Antarti**	**55.01**	**159**	P	**P**	**20 08 30.1**	**+0.3**
	comp=Z,104nm,0.5s						
QSPA	**South Pole Qui**	**59.35**	**180**	P	**P**	**20 09 01.0**	**+0.3**
	comp=Z,3.2nm,0.6s,baz=182,slow=1.0,SNR=46						
	comp=Z,3.2nm,0.6s						
QSPA	**South Pole Qui**	**59.35**	**180**	P	**P**	**20 09 00.9**	**+0.2**
TXAR	**Lajitas Array**	**68.73**	**327**	P	**P**	**20 10 03.9**	**+1.3**
	comp=Z,0.3nm,0.8s,baz=141,slow=3.8,SNR=2.1						
	comp=Z,0.3nm,0.8s						
X40A	**Basin Creek Fa**	**69.03**	**338**	P	**P**	**20 10 04.8**	**+0.6**
X40A				IAmb	IAmb	20 10 07.2	
	comp=Z,2.0nm,0.6s						
R61A	**Willards**	**69.17**	**354**	P	**P**	**20 10 06.0**	**+0.9**
DBIC	**Dimbokro**	**71.10**	**70**	P	**P**	**20 10 16.5**	**-1.0**
	comp=Z,4.4nm,0.8s,baz=233,slow=5.2,SNR=3.6						
	comp=Z,4.4nm,0.8s						
DBIC	**Dimbokro**	**71.10**	**70**	P	**P**	**20 10 17.2**	**-0.3**
SUR	**Sutherland**	**73.47**	**118**	LR	LR	20 38 41.6	
	comp=Z,21nm,18.3s,baz=128,slow=32						
MAW	**Mawson**	**75.22**	**163**	P	**P**	**20 10 40.6**	**-0.3**
	comp=Z,2.4nm,0.6s,baz=215,slow=6.2,SNR=15						
	comp=Z,2.4nm,0.6s						
MAW	**Mawson**	**75.22**	**163**	P	**P**	**20 10 41.0**	**+0.1**
BOSA	**Boshof**	**78.61**	**116**	P	**P**	**20 11 00.3**	**-0.7**
	comp=Z,3.0nm,1.0s,baz=259,slow=4.8,SNR=4.0						
	comp=Z,3.0nm,1.0s						
TORD	**Torodi Ar. Bea**	**80.09**	**68**	P	**P**	**20 11 08.7**	**-0.3**
	comp=Z,1.5nm,1.0s,baz=267,slow=6.0,SNR=4.7						
	comp=Z,1.5nm,1.0s						
WRA	**Warramunga Arr**	**125.02**	**206**	PKP	**PKPdf**	**20 17 58.1**	**-1.6**
	comp=Z,1.1nm,0.8s,baz=162,slow=1.8,SNR=9.5						
KURBB	**Kurchatov Arra**	**148.40**	**42**	PKPbc	**PKPbc**	**20 18 44.4**	**-0.5**
	comp=Z,0.3nm,0.4s,baz=304,slow=3.2,SNR=5.5						
ZALV	**Zalesovo Beam**	**149.87**	**32**	PKPbc	**PKPbc**	**20 18 48.1**	**-0.3**
	comp=Z,1.3nm,0.6s,baz=311,slow=3.4,SNR=7.7						
MKAR	**Makanchi Array**	**152.28**	**47**	PKPbc	**PKPbc**	**20 18 53.1**	**-1.3**
	comp=Z,0.8nm,0.7s,baz=304,slow=2.6,SNR=7.5						

HEL 06 20:07:30.2±1.3, 67°.94N×33°.44E, h0^{km}, ML1.2, Explosion, Baltic States-Belarus-Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VRF	**Varrio**	**1.46**	**264**	PN	Pn	20 07 57.7	-0.2
	baz=73						
VRF				smax	smax	20 08 14.3	
	comp=Z,2.1nm,0.2s						
VRF				SN	Sn	20 08 18.3	+0.6
RAJF	**Raja-Jooseppi**	**1.99**	**288**	PG	Pb	20 08 06.3	-0.9
OLKF	**Oulanka, Finla**	**2.26**	**226**	PB	Pn	20 08 10.1	+1.3
OLKF				SN	Sn	20 08 36.1	-1.3
OLKF				smax	smax	20 08 37.1	
	comp=Z,0.9nm,0.2s						
MSF	**Maaselka**	**2.67**	**222**	SB	Sb	20 08 50.0	-2.1
KEV	**Kevo**	**2.96**	**311**	SG	Sb	20 08 59.9	-0.5
RNF	**Rovaniemi**	**3.17**	**249**	SN	Sn	20 08 59.7	-0.1
ARA0	**ARCESS Array S**	**3.31**	**303**	SN	Sn	20 08 60.0	-3.1
HEF	**Hetta**	**3.68**	**282**	SB	Sn	20 09 16.4	+4.0

KOLA 06 20:08:03.9, 67°.66N×33°.74E, h0^{km}, ML1.2, Error ellipse: s-maj=2.6km s-min=0.9km az=150.0, Khibiny, mines Kirovsk, Yukspor, Baltic States-Belarus-Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
APA	**Apatity**	**0.15**	**236**	P	Pg	20 08 06.8	-0.1
APA0	**Apatity Array**	**0.29**	**261**	P	Pg	20 08 09.1	-0.3
APA0				S	Sg	20 08 13.3	+0.1
LVZ	**Lovozero**	**0.42**	**54**	P	Pg	20 08 11.2	-0.9
LVZ				S	Sg	20 08 18.0	+0.4
KVDA	**Kovda**	**1.02**	**200**	S	Sg	20 08 35.4	-1.3
TERR	**Teriberka**	**1.63**	**17**	S	Sn	20 08 53.8	-1.8
ARCES	**ARCESS Array B**	**3.56**	**306**	P	Pn	20 08 59.9	-0.4

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*GCG **06** 20:17:50.9±1.4, 14°.23N×93°.03W, h28^{km}±11^{km}, MD4.3, Presumed earthquake*
*MEX **06** 20:17:52.0±1.1, 14°.45N×92°.91W, h96^{km}±24^{km}, MD4.0, Presumed earthquake*
ISC 06 20:17:47.9±2.3, 14°.1N±0°.1×93°.09W±0°.07, h37^{km}, n15, σ2^{s}01/25, Near coast of Chiapas

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
THIG		**1.14**	**44**	*e*P	**Pn**	**20 18 07.6**	**+0.3**
THIG				*e*S	**Sn**	**20 18 21.1**	**-0.6**
THIG		**1.14**	**44**	*e*P	**Pn**	**20 18 08.8**	**+1.5**
SMCA	**Catarina**	**1.25**	**52**	*e*P	**Pn**	**20 18 10.5**	**+1.7**
PATR	**El Naranjo**	**1.32**	**39**	*e*P	**Pn**	**20 18 10.3**	**+0.4**
PATR				*e*S	**Sn**	**20 18 23.0**	**-3.4**
CHUJ	**Union Juarez**	**1.38**	**43**	*e*P	**Pn**	**20 18 10.4**	**-0.4**
CHUJ				*e*S	**Sn**	**20 18 25.2**	**-2.7**
PAVE	**Pavencul**	**1.41**	**39**	*e*P	**Pn**	**20 18 11.4**	**+0.1**
PAVE				*e*S	**Sn**	**20 18 26.9**	**-1.8**
RTAL	**Retalhuleu**	**1.42**	**72**	*e*P	**Pn**	**20 18 13.5**	**+2.3**
RTAL				*e*S	**Sn**	**20 18 29.7**	**+1.0**
STG8	**El Palmar, Qui**	**1.72**	**78**	*e*P	**Pn**	**20 18 15.3**	**-0.3**
STG8				*e*S	**Sn**	**20 18 36.2**	**-0.3**
FG8	**Yepocapa, Chim**	**2.46**	**86**	*e*P	**Pn**	**20 18 24.6**	**-1.0**
FG16	**Alotenango, Sa**	**2.51**	**85**	*e*P	**Pn**	**20 18 25.4**	**-1.0**
TGIG		**2.67**	**359**	*e*P	**Pn**	**20 18 28.4**	**-0.1**
TGIG				*e*S	**Sn**	**20 19 01.4**	**+1.7**
TGIG		**2.67**	**359**	*e*P	**Pn**	**20 18 30.0**	**+1.5**
TGIG				*e*S	**Sn**	**20 19 01.7**	**+2.0**
APG	**El Apazote**	**2.70**	**70**	*e*P	**Pn**	**20 18 32.3**	**+3.3**
UXUV	**UXUV**	**3.37**	**343**	*e*P	**Pn**	**20 18 40.8**	**+2.8**
UXUV				*e*S	**Sn**	**20 19 14.0**	**-2.7**
CMIG	**Matias Romero**	**3.45**	**330**	*e*P	**Pn**	**20 18 40.0**	**+0.9**
CMIG				*e*S	**Sn**	**20 19 14.8**	**-4.0**

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*MEX **06** 20:24:10.4±0.8, 30°.67N×114°.16W, h2^{km}±20^{km}, MD3.9, Presumed earthquake*
*ECX **06** 20:24:11.2±0.3, 30°.64N×114°.10W, h18^{km}±3^{km}, ML3.8*
ISC 06 20:24:08.2±1.5, 30°.66N±0°.03×114°.16W±0°.03, h3^{km}±12^{km}, n20, σ0^{s}97/33, 11C-4D, Gulf of California

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SFX	**San Felipe**	**0.70**	**302**	⇑*e*P	**Pn**	**20 24 24.9**	**-0.1**
SFX				*e*S	**Sn**	**20 24 35.4**	**-0.9**
SFX				IAML		20 24 39.1	
	comp=N,3µm,0.4s						
SFX				⇑*e*		20 24 39.1	
SFX				IAML		20 24 48.5	
	comp=E,4µm,0.6s						
SFX				⇓*e*		20 24 48.5	
SFX	**San Felipe**	**0.70**	**302**	*e*P	**Pn**	**20 24 25.4**	**+0.4**
SFX				*e*S	**Sn**	**20 24 37.1**	**+0.8**
PPXB	**Puerto Peasco**	**0.81**	**34**	⇓*i*P	**Pb**	**20 24 25.5**	**+0.6**
PPXB				*e*S	**Sb**	**20 24 36.1**	**-0.1**
PPXB				*e*		20 24 38.8	
PPXB				IAML		20 24 38.8	
	comp=E,2µm,0.7s						
PPXB				IAML		20 24 39.6	
	comp=N,1µm,0.5s						
PPXB				*e*		20 24 39.6	
SLGB	**San Luis Gonza**	**0.86**	**194**	⇓*e*P	**Pb**	**20 24 25.8**	**+0.1**
SLGB				*e*S	**Sb**	**20 24 37.9**	**+0.3**
SLGB				IAML		20 24 49.3	
	comp=E,3µm,0.7s						
SLGB				⇑*e*		20 24 56.5	
SLGB				IAML		20 24 56.5	
	comp=N,4µm,0.7s						
PIX	**Pinacate**	**1.08**	**34**	⇓*e*P	**Pb**	**20 24 29.6**	**+0.1**
PIX				*e*S	**Sb**	**20 24 44.0**	**+0.1**
ECBX	**El Chinero**	**1.11**	**317**	*e*P	**Pn**	**20 24 31.0**	**+0.3**
ECBX				*e*S	**Sn**	**20 24 46.6**	**+0.1**
ECBX				⇑*e*		20 24 59.8	
ECBX				IAML		20 24 59.8	
	comp=E,1µm,0.6s						
PLIB	**Puerto Liberta**	**1.47**	**120**	*e*P	**Pn**	**20 24 35.1**	**-0.5**
PLIB				*e*S	**Sb**	**20 24 53.6**	**-1.7**
PLIB				IAML		20 25 10.1	
	comp=E,1µm,0.6s						
PLIB				*e*		20 25 10.1	
SQX	**San Quintin**	**1.48**	**267**	⇑*e*P	**Pg**	**20 24 37.0**	**+0.3**
SQX				*e*S	**Sg**	**20 24 57.0**	**+1.2**
SQX				IAML		20 25 10.2	
	comp=E,3µm,0.2s						
SQX				⇑*e*		20 25 10.2	
VTX	**Valle De La Tr**	**1.57**	**298**	*e*P	**Pg**	**20 24 38.3**	**-0.1**
LAPR	**La Primavera**	**1.59**	**95**	*e*P	**Pn**	**20 24 37.3**	**0.0**
LAPR				*e*S	**Sn**	**20 24 57.3**	**-1.1**
LAPR				IAML		20 25 07.9	
	comp=E,2µm,0.7s						
LAPR				⇑*e*		20 25 07.9	
LAPR				⇑*e*		20 25 16.1	
LAPR				IAML		20 25 16.1	
	comp=N,2µm,0.9s						
RHX	**Rio Hardy**	**1.75**	**327**	*e*P	**Pg**	**20 24 41.4**	**-0.5**
BAHB	**Baha de los**	**1.79**	**163**	*e*P	**Pb**	**20 24 40.7**	**-0.9**
BAHB				*e*S	**Sn**	**20 25 03.1**	**0.0**
BAHB	**Baha de los**	**1.79**	**163**	*e*P	**Pb**	**20 24 41.5**	**-0.1**
SV2X	**San Vicente**	**1.91**	**291**	*e*P	**Pb**	**20 24 43.5**	**-0.2**
MBIG	**Mexicali**	**1.95**	**333**	*e*P	**Pb**	**20 24 43.7**	**-0.7**
CBX	**Cerro Bola**	**2.70**	**308**	*e*P	**Pb**	**20 24 55.1**	**-2.1**
CBX				*e*S	**Sb**	**20 25 29.4**	**-1.4**
TJIG	**Tijuana**	**2.78**	**310**	*e*P	**Pn**	**20 24 55.0**	**+1.4**
TJIG				*e*S	**Sn**	**20 25 28.5**	**+0.9**
HSIG		**3.23**	**120**	*e*P	**Pn**	**20 25 01.0**	**+1.1**
HSIG				*e*S	**Sn**	**20 25 39.4**	**+0.5**
HSIG				⇑*e*		20 26 06.0	
HSIG				IAML		20 26 06.0	
	comp=N,135nm,0.8s						
HSIG				⇑*e*		20 26 15.2	
HSIG				IAML		20 26 15.2	
	comp=E,118nm,1.2s						
TUC	**Tucson**	**3.32**	**59**	*e*P	**Pn**	**20 25 00.1**	**-1.0**
TUC				*e*S	**Sn**	**20 25 43.6**	**+2.5**
GUYB	**Guaymas**	**3.98**	**133**	⇑*e*		20 26 42.1	

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*MEX **06** 20:31:13.8±0.8, 14°.69N×92°.54W, h93^{km}±12^{km}, MD3.7, Presumed earthquake*
*GCG **06** 20:31:15.6±1.6, 14°.54N×92°.41W, h57^{km}±23^{km}, MD3.7, Presumed earthquake*

ISC 06 20:31:11.9±4.5, 14°.4N±0°.2×92°.6W±0°.2, h60^{km}±31^{km}, n9, σ2^{s}.05/16, Near coast of Chiapas

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THIG		0.64	30	*e*P	Pn	20 31 26.0	+0.6
THIG				*e*S	Sn	20 31 36.5	+1.2
SMCA	Catarina	0.71	45	*i* P	Pn	20 31 27.0	+0.6
SMCA				*i* S	Sn	20 31 35.9	-0.9
PATR	El Naranjo	0.83	25	*e*P	Pn	20 31 28.1	0.0
PATR				*e*S	Sn	20 31 38.5	-1.5
CHUJ	Union Juarez	0.87	33	*e*P	Pn	20 31 28.9	+0.3
CHUJ				*e*S	Sn	20 31 40.4	-0.5
RTAL	Retalhuleu	0.89	79	*e*P	Pn	20 31 29.7	+1.1
RTAL				*e*S	Sn	20 31 43.4	+2.6
PAVE	Pavencul	0.93	26	*e*P	Pn	20 31 29.6	+0.3
PAVE				*e*S	Sn	20 31 40.1	-1.9
STG8	El Palmar, Qui	1.21	85	*i* P	Pn	20 31 31.4	-1.6
STG8				*i* S	Sn	20 31 43.9	-4.7
SOKI	Kika Raxquin	1.24	68	*i* P	Pn	20 31 35.2	+1.6
APG	El Apazote	2.16	72	*e*P	Pn	20 31 48.3	+2.5

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*IDC **06** 20:45:31.0±1.4, 3°.86N×125°.90E, h0^{km}, mb3.5/6, mbtmp3.5/6, Error ellipse: s-maj=114.5km s-min=18.8km az=70.0*

ISC 06 20:45:41.6±1.0, 3°.96N±0°.08×126°.5E±0°.3, h100^{km}, n9, σ1^{s}.90/11, mb3.3/6, Talaud Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KCP	Kidapawan	3.32	336	*e*P	Pn	20 46 32.4	+0.8
CDOP	Cateel, Davao	3.80	360	*i* P	Pn	20 46 40.5	+2.5
CDOP				*i* S	Sn	20 47 20.4	-1.4
BIPH	Bislig	4.20	359	*e*P	Pn	20 46 41.0	-2.4
BIPH				*e*S	Sn	20 47 31.7	+0.3
FITZ	Fitzroy Crossi	21.94	182	P	P	20 50 24.1	-3.0
	1.4nm,1.0s,baz=13,slow=10,SNR=0.8 1.4nm,1.0s						
WRA	Warramunga Arr	24.99	162	P	P	20 50 57.2	+1.0
	0.6nm,0.7s,baz=339,slow=10,SNR=6.6 0.6nm,0.7s						
ASAR	Alice Springs	28.41	166	P	P	20 51 28.6	+1.7
	0.1nm,0.4s,baz=349,slow=9.8,SNR=2.4 0.1nm,0.4s						
SONM	Songino Array	46.99	342	P	P	20 54 02.3	-0.5
	0.2nm,0.4s,baz=146,slow=8.5,SNR=2.0 0.2nm,0.4s						
MKAR	Makanchi Array	57.21	325	P	P	20 55 19.2	+0.9
	0.3nm,0.4s,baz=122,slow=7.5,SNR=10 0.3nm,0.4s						
KURBB	Kurchatov Arra	61.39	327	P	P	20 55 47.2	+0.1
	0.6nm,0.5s,baz=125,slow=6.0,SNR=8.7 0.6nm,0.5s						

IDC 06 20:50:29.7±9.6, 6°.43S×118°.37E, h0^{km}, mb3.6/3, mbtmp3.7/4, ML2.8/1, Error ellipse: s-maj=196.8km s-min=110.5km az=76.0, Flores Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	13.60	149	Pn	Pn	20 53 43.8	-0.2
	baz=348,slow=9.3,SNR=1.8						
FITZ				Sn	Sn	20 55 44.1	-32
	0.3nm,0.3s,baz=184,slow=19,SNR=7.9 1.8nm,0.8s						
WRA	Warramunga Arr	20.52	132	P	P	20 55 09.5	-0.3
	0.3nm,0.4s,baz=305,slow=10.0,SNR=18 0.3nm,0.4s						
ASAR	Alice Springs	22.74	141	P	P	20 55 33.2	-0.4
	1.8nm,0.6s,baz=315,slow=9.6,SNR=27 1.8nm,0.6s						
STKA	Stephens Creek	33.34	142	P	P	20 57 09.9	+0.3
	1.6nm,0.6s,baz=306,slow=11,SNR=6.0 1.6nm,0.6s						
JHJ2	Mitsune	44.28	26	P	Pn	21 34 46.5	+0.1

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*BJI **06** 20:51:40.9, 3°.93S×140°.85E, h109^{km}, mB5.5/7, mb4.7/38*

*NEIC **06** 20:51:41.2±1.6, 3°.59S±0°.08×140°.39E±0°.07, h61^{km}±6^{km}, mb5.0/84, Error ellipse: s-maj=12.3km s-min=9.4km az=202.0*

*IDC **06** 20:51:43.8±2.1, 3°.63S×140°.21E, h87^{km}±20^{km}, mb4.3/20, mbtmp4.7/24, MS3.4/6, Error ellipse: s-maj=14.8km s-min=7.8km az=93.0*

*DJA **06** 20:51:44.5±0.2, 4°S±2°×14°0E±°, h102^{km}±2^{km}, M4.9/85, mb5.1/85, mB5.4/36, MLv5.5/10, Mw(mB)4.8/36*

*GFZ **06** 20:51:44.9±0.2, 4°S±3°×14°0E±°, h90^{km}, M4.9/36, mb5.0/36, confirmed*

ISC 06 20:51:44.8±0.3, 3°.66S±0°.04×140°.33E±0°.04, h100^{km}, n279, σ1^{s}.35/283, mb4.9/91, 1D, Irian Jaya

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GENI	Genyem	1.08	351	P	Pn	20 52 05.3	-0.8
GENI	Genyem	1.08	351	S	Sn	20 52 21.4	-0.7
GENI	Genyem	1.08	351	P	Pn	20 52 05.2	-0.8
GENI				S	Sn	20 52 21.0	-1.1
GENI				AML	AML		
GENI	Genyem	1.08	351	P	Pn	20 52 05.4	-0.8
WAMI	Wamena	1.63	262	P	Pn	20 52 12.4	-0.3
WAMI				S	Sn	20 52 31.9	-2.0
WAMI				AML	AML		
MMPI	Merauke	4.77	179	P	Pn	20 52 55.3	+0.9
BAKI	Biak	4.88	300	P	Pn	20 52 56.4	+0.4
BAKI				S	Sn	20 53 49.0	-2.4
BAKI				AML	AML		
MWPI	Manokwari, Pap	6.85	293	P	Pn	20 53 24.7	+2.0
	1.2nm4µm291nm,0.9s						
MWPI				AML	AML		
MANU	Manus Island	7.21	77		Pn	20 53 22.2	-5.3
FAKI	Fak Fak	8.11	275	P	Pn	20 53 39.9	+0.2
FAKI	Fak Fak	8.11	275	S	Sn	20 55 09.7	-0.1
FAKI	Fak Fak	8.11	275		Pn	20 53 37.9	-1.9
FAKI				Sn	Sn	20 55 05.2	-4.6
FAKI	Fak Fak	8.11	275	P	Pn	20 53 40.0	+0.2
PMG	Port Moresby	8.86	130	P	Pn	20 53 50.4	+0.3
	31nm,0.4s,baz=311,slow=11,SNR=14						
PMG				S	Sn	20 55 24.7	-3.4
	23nm,0.6s,baz=36,slow=23,SNR=1.4						
PMG				LR	LR	20 58 36.9	
	comp=Z,180nm,19.8s,baz=312,slow=46						
PMG	Port Moresby	8.86	130	P	Pn	20 53 50.3	+0.3
PMG	Port Moresby	8.86	130	P	Pn	20 53 50.2	+0.2
PMG	Port Moresby	8.86	130		Pn	20 53 47.4	-2.6
PMG				Sn	Sn	20 55 22.0	-6.1
PMG	Port Moresby	8.86	130	P	Pn	20 53 49.1	-0.9
	102nm,1.0s						
PMG	Port Moresby	8.86	130	P	Pn	20 53 50.8	+0.8
	comp=Z,104nm,1.0s						
SAUI	Saumlaki	9.96	244	P	Pn	20 54 04.6	-0.3
SAUI	Saumlaki	9.96	244	Pn	Pn	20 54 00.5	-4.5
SAUI	Saumlaki	9.96	244	P	Pn	20 54 05.3	+0.4
KRVT	Keravat (AS076	11.68	94	P	Pn	20 54 28.1	-0.2
	comp=Z,24nm,0.3s,baz=282,slow=20,SNR=3.7						
RABL	Rabaul	11.81	93	Pn	Pn	20 54 26.2	-3.9
KDU	Kakadu	11.87	220	P	Pn	20 54 28.5	-2.2
	comp=Z,271nm,0.5s,comp=Z,6µm						
DRS	Darwin Rock St	12.77	226	P	Pn	20 54 41.7	-1.0
MTN	Manton Dam	12.88	224	P	Pn	20 54 42.0	-2.2
	comp=Z,197nm,0.8s,comp=Z,2µm						
MTN	Manton Dam	12.88	224		Pn	20 54 42.2	-2.0
TNTI	Ternate	13.69	289		Pn	20 54 54.1	-0.7
TNTI	Ternate	13.69	289	P	Pn	20 54 55.4	+0.6
	comp=Z,823nmcomp=Z,68nm,1.0s						
SANI	Sanana	14.42	276	P	Pn	20 55 03.5	-0.7
	comp=Z,38nm,0.5s						
MTSU	Mount Surprise	14.90	165	P	Pn	20 55 11.5	+1.2
	comp=Z,39nm,0.9s						
MTSU	Mount Surprise	14.90	165	P	Pn	20 55 11.6	+1.2
MTSU	Mount Surprise	14.90	165	P	P	20 55 12.6	-0.9
	comp=Z,39nm,0.9s						
MNI	Manado	16.30	288	P	Pn	20 55 27.8	-0.1
	comp=Z,2µmcomp=Z,133nm,0.8s						
KNRA	Kununurra	16.50	223	P	Pn	20 55 28.9	-1.3
	comp=Z,101nm,0.7s						
KNRA	Kununurra	16.50	223		Pn	20 55 28.4	-1.9
KNRA				IAmb	IAmb	20 55 33.0	
	comp=Z,87nm,0.8s						
QIS	Mount Isa	16.81	182	P	Pn	20 55 31.1	-3.0
	comp=Z,66nm,0.7s						
QIS	Mount Isa	16.81	182	P	Pn	20 55 32.5	-1.6
QIS	Mount Isa	16.81	182	P	Pn	20 55 31.8	-2.3
	comp=Z,66nm,0.7s						
WB0	Warramunga Arr	17.02	199	P	Pn	20 55 34.9	-1.9
SOEI	Soe	17.06	248	P	P	20 55 39.1	+1.5
SOEI	Soe	17.06	248		P	20 55 37.6	0.0
SOEI				IAmb	IAmb	20 55 47.1	
	comp=Z,94nm,0.6s						
SOEI	Soe	17.06	248	P	P	20 55 38.4	+0.8
	comp=Z,147nm,0.7s						
WR8	Warramunga Arr	17.16	199	P	Pn	20 55 37.1	-1.4
WRAB	Tennant Creek	17.19	199	P	Pn	20 55 38.3	-0.5
WRAB	Tennant Creek	17.19	199	P	Pn	20 55 37.3	-1.5
WRAB	Tennant Creek	17.19	199	P	Pn	20 55 37.6	-1.2
	comp=Z,320nm,0.6s						
WRA	Warramunga Arr	17.20	199	P	Pn	20 55 38.5	-0.5
	comp=Z,110nm,0.5s,baz=19,slow=13,SNR=151						
WRA				S	Sn	20 58 47.9	-2.5
	comp=Z,19nm,0.8s,baz=18,slow=24,SNR=4.8						
WRA	Warramunga Arr	17.20	199	Pn	Pn	20 55 34.8	-4.2
CTA	Charters Tower	17.32	161	P	P	20 55 40.8	+0.5
	comp=Z,6.3nm,0.8s,baz=330,slow=12,SNR=8.4						
CTA				S	S	20 58 56.0	+0.6
	comp=Z,3.9nm,0.6s,baz=18,slow=22,SNR=1.9						
CTA				LR	LR	21 01 49.3	
	comp=Z,139nm,21.3s,baz=250,slow=35						
CTAO	Charters Tower	17.32	161	P	P	20 55 39.9	-0.3
GUMO	Guam	17.72	15	LR	LR	21 03 22.2	
	comp=Z,80nm,18.3s,baz=190,slow=39						
LUWI	Luwuk	17.74	278	P	P	20 55 43.7	-1.3
LUWI				IAmb	IAmb	20 55 48.4	
	comp=Z,79nm,0.8s						
LUWI	Luwuk	17.74	278	P	Pn	20 55 46.6	+1.1
DAV	Davao City (W)	18.18	306	P	P	20 55 48.6	-1.2
	comp=Z,68nm,0.4s,baz=5.8,slow=15,SNR=1.6						
MMRI	Maumere	18.65	254	P	P	20 55 54.8	-0.2
MMRI				IAmb	IAmb	20 56 00.1	
	comp=Z,35nm,0.5s						
MMRI	Maumere	18.65	254	P	P	20 55 55.3	+0.3
	comp=Z,42nm,0.6s						
EDFI	Ende, Flores	19.20	254	P	P	20 56 00.9	-0.2
DPSS	Saipan	19.55	16	P	P	20 56 02.6	-2.1
DPSS				IAmb	IAmb	20 56 07.8	
	comp=Z,108nm,0.9s						
TOLI2	Tolitoli	20.11	283		P	20 56 11.7	+0.9
TOLI2				IAmb	IAmb	20 56 15.9	
	comp=Z,118nm,0.8s						
TOLI2	Tolitoli	20.11	283	P	Pn	20 56 12.3	-1.2
	comp=Z,168nm,1.3s						
FITZ	Fitzroy Crossi	20.32	224	P	P	20 56 13.7	+0.7
	comp=Z,11nm,0.6s						
FITZ	Fitzroy Crossi	20.32	224	P	P	20 56 13.4	+0.4
	comp=Z,21nm,0.3s,baz=43,slow=11,SNR=81						
FITZ				S	S	20 59 52.8	-2.6
	comp=Z,56nm,0.6s,baz=94,slow=9.8,SNR=5.6 comp=Z,21nm,0.3s						
FITZ	Fitzroy Crossi	20.32	224	P	P	20 56 12.5	-0.5
FITZ	Fitzroy Crossi	20.32	224	P	P	20 56 13.1	+0.1
	comp=Z,11nm,0.6s						
SPSI	Sidrap Palu	20.52	268	P	P	20 56 15.5	+0.3
KAPI	Kappang	20.57	266	P	P	20 56 15.4	-0.3
	comp=Z,6.6nm,0.2s,baz=83,slow=3.8,SNR=7.2 comp=Z,6.6nm,0.2s						
KAPI	Kappang	20.57	266	P	P	20 56 16.4	+0.6
KAPI	Kappang	20.57	266	P	Pn	20 56 17.8	-1.1
KAPI	Kappang	20.57	266	P	Pn	20 56 17.8	-1.0
	comp=Z,31nm,0.9s						
PCI	Palu	20.66	277	P	Pn	20 56 19.9	-0.1
	comp=Z,2µmcomp=Z,176nm,1.2s						
WSI	Waingapu	20.77	252	P	P	20 56 18.8	+0.9
AS15	Alice Springs	20.80	197	P	P	20 56 18.6	+0.3
	comp=Z,209nm,0.8s						
AS17	Alice Springs	20.81	197	P	P	20 56 18.7	+0.4
	comp=Z,191nm,0.6s						
AS31	Alice Springs	20.83	197	P	P	20 56 18.8	+0.3
	comp=Z,50nm,0.5s,comp=Z,808nm						
AS31	Alice Springs	20.83	197	P	P	20 56 18.0	-0.6
AS31				IAmb	IAmb	20 56 19.9	
	comp=Z,40nm,0.5s						
ASAR	Alice Springs	20.83	197	P	P	20 56 18.9	+0.3
	comp=Z,80nm,0.6s,baz=31,slow=10.0,SNR=979						
ASAR				S	S	21 00 08.4	+2.9
	comp=Z,12nm,0.7s,baz=12,slow=28,SNR=4.4 comp=Z,80nm,0.6s						
ASAR	Alice Springs	20.83	197	P	P	20 56 18.3	-0.3
AS09	Alice Springs	20.85	197	P	P	20 56 19.1	+0.3
	comp=Z,133nm,0.7s						
LBFI	Labuhan Bajo,	20.88	256	P	P	20 56 19.4	+0.3
MMSI	Mamuju	21.41	272	P	P	20 56 27.4	+2.6
	comp=Z,75nm,0.8s						
DBNI	Kabupaten Domp	22.41	257	P	P	20 56 34.6	-0.8
PLAI	Plampang	23.00	256	P	P	20 56 38.5	-2.7
	comp=Z,30nm,0.7s						
QLP	Quilpie	23.09	171	P	P	20 56 41.5	-0.5
	comp=Z,62nm,1.5s						
QLP	Quilpie	23.09	171	P	P	20 56 41.7	-0.3
	comp=Z,62nm,1.5s						
MYLDM	Lahad Datu	23.51	292	P	P	20 56 47.2	+1.1
MYLDM	Lahad Datu	23.51	292	P	P	20 56 48.0	+2.0
	comp=Z,145nm,1.1s						
MYLDM	Lahad Datu	23.51	292	P	P	20 56 48.7	+2.6
	comp=Z,145nm,1.1s						
BKB	Balikpapan	23.54	275	P	P	20 56 47.3	+1.0
BKB	Balikpapan	23.54	275	P	P	20 56 48.7	+2.4
	comp=Z,140nm,1.0s						
TWSI	Taliwang, Sumb	23.84	257	P	P	20 56 46.1	-2.9
EIDS	Eidsvold	23.93	155	P	P	20 56 51.1	+1.5
	comp=Z,182nm,0.6s,comp=Z,2µm						
EIDS	Eidsvold	23.93	155	P	P	20 56 50.9	+1.3
EIDS	Eidsvold	23.93	155	P	P	20 56 52.0	+2.4
	comp=Z,182nm,0.6s						
INKA	Innaminka	23.95	179	P	P	20 56 49.4	-0.4
WRKA	Warakurna	24.20	207	P	P	20 56 51.8	-0.3
	comp=Z,129nm,0.7s,comp=Z,1µm						
KHKI	Kahang-Kahang	25.02	258	P	P	20 57 01.7	+2.0
	comp=Z,38nm,0.8s						
KKM	Kota Kinabalu	25.94	292	P	P	20 57 07.5	-0.8
KKM				IAmb	IAmb	20 57 12.5	
	comp=Z,43nm,0.9s						
KKM	Kota Kinabalu	25.94	292	P	P	20 57 07.4	-0.8
	comp=Z,611nmcomp=Z,54nm,1.1s						
KKM	Kota Kinabalu	25.94	292	P	P	20 57 08.4	+0.2
	comp=Z,54nm,1.1s						
JAGI	Jajag, Banyuwa	26.46	258	P	P	20 57 12.0	-0.8
JAGI				IAmb	IAmb	20 57 15.2	
	comp=Z,90nm,1.6s						
MBWA	Marble Bar	26.53	227	P	P	20 57 13.8	+0.5
	comp=Z,73nm,0.7s						
MBWA	Marble Bar	26.53	227	P	P	20 57 12.4	-0.9
MBWA				IAmb	IAmb	20 57 17.4	
	comp=Z,50nm,0.6s						
MBWA	Marble Bar	26.53	227	P	P	20 57 13.8	+0.5
	comp=Z,73nm,0.7s						
STKA	Stephens Creek	28.09	178	P	P	20 57 27.6	+0.6
	comp=Z,4.0nm,0.5s,baz=339,slow=8.5,SNR=16						
STKA				LR	LR	21 10 14.1	
	comp=Z,132nm,19.5s,baz=26,slow=40 comp=Z,4.0nm,0.5s						
CMSA	Cobar Meteorol	28.18	170	P	P	20 57 28.4	+0.5
	comp=Z,26nm,1.2s						
CMSA	Cobar Meteorol	28.18	170	P	P	20 57 29.9	+2.0
	comp=Z,26nm,1.2s						
ARMA	Armidale	28.67	159	P	P	20 57 34.5	+2.1
	comp=Z,27nm,1.2s						
ARMA	Armidale	28.67	159	P	P	20 57 32.5	+0.1
ARMA				IAmb	IAmb	20 57 37.0	
	comp=Z,74nm,1.7s						
ARMA	Armidale	28.67	159	P	P	20 57 34.4	+2.1
	comp=Z,27nm,1.2s						
SNJI	Sawahan-Nganju	28.72	261	P	P	20 57 33.5	+0.4
BBOO	Buckleboo	29.27	187	P	P	20 57 36.7	-0.9
BBOO				IAmb	IAmb	20 58 34.7	
	comp=Z,33nm,1.2s						
FORT	Forrest	29.35	202	P	P	20 57 38.4	0.0
	comp=Z,38nm,0.7s						
FORT	Forrest	29.35	202	P	P	20 57 37.8	-0.5
FORT				IAmb	IAmb	20 58 39.9	
	comp=Z,28nm,0.8s						
MEEK	Meekatharra	30.89	220	P	P	20 57 49.8	-2.2
	comp=Z,30nm,1.4s						
GIRL	Giralia	31.54	231	P	P	20 57 56.8	-0.9
OUENC	Ouen Island, N	31.74	128	PcP	PcP	21 00 49.4	+0.5
CAN	Canberra	32.51	167	P	P	20 58 07.3	+1.3
	comp=Z,42nm,1.3s						
CAN	Canberra	32.51	167	P	P	20 58 05.0	-1.1
CAN				IAmb	IAmb	20 58 09.0	
	comp=Z,25nm,0.8s						
CAN	Canberra	32.51	167	P	P	20 58 08.5	+2.4
	comp=Z,42nm,1.3s						
CAN	Canberra	32.51	167	P	P	20 58 07.7	+1.6
CAN				x	x	20 58 22.1	
KMBL	Kambalda	32.58	210	P	P	20 58 07.0	+0.3
	comp=Z,14nm,1.7s						
CNB	Canberra Magne	32.59	166	P	P	20 58 08.7	+1.8
	comp=Z,1.5nm,0.8s						
TPI	Tanjungpandan	32.64	271	P	P	20 58 08.9	+1.4
	comp=Z,563nmcomp=Z,64nm,1.0s						
BBJI	Bungbulang	32.74	262	P	P	20 58 06.9	-1.6
BBJI				IAmb	IAmb	20 58 08.1	
	comp=Z,14nm,0.6s						
BBJI	Bungbulang	32.74	262	P	P	20 58 06.9	-1.6
	comp=Z,19nm,0.7s						
YHNB	Yeheng	33.66	328	P	P	20 58 14.6	-1.6
TOO	Toolangi	34.08	173	P	P	20 58 20.1	+0.4
MORW	Morawa	34.21	220	P	P	20 58 21.8	+0.9
	comp=Z,68nm,0.8s						
MORW	Morawa	34.21	220	P	P	20 58 20.9	0.0
MORW	Morawa	34.21	220	P	P	20 58 22.4	+1.5
	comp=Z,68nm,0.8s						
BLDU	Ballidu	34.87	217	P	P	20 58 27.4	+0.7
	comp=Z,67nm,1.9s						
KASI	Kota Agung	35.77	266	P	P	20 58 33.5	-1.0
	comp=Z,36nm,1.1s						
MDSI	Maura Dua	36.07	267	P	P	20 58 37.5	+0.4
	comp=Z,649nmcomp=Z,72nm,1.1s						
MDSI	Maura Dua	36.07	267	P	P	20 58 37.6	+0.5
	comp=Z,68nm,1.1s						
NWAO	Narrogin (SRO)	36.26	214	P	P	20 58 38.1	-0.3
MYKOM	Kota Tinggi	36.87	278	P	P	20 58 44.6	+0.7
	comp=Z,8.8nm,1.0s						
SDSI	Sungai Dareh	38.96	273	P	P	20 59 01.9	+0.4
	comp=Z,31nm,1.2s						
SDSI	Sungai Dareh	38.96	273	P	P	20 59 02.0	+0.5
	comp=Z,29nm,1.2s						
SSE	Sheshan	39.09	334	P	P	20 59 02.8	+0.5
BKNI	Bangkinang	39.47	275	P	P	20 59 06.6	+0.8
	comp=Z,100nm,1.1s						
TAU	Tasmania Unive	39.57	172	P	P	20 59 08.0	+1.9
PDSI	Padang	39.93	273	P	P	20 59 08.7	-0.9
	comp=Z,12nm,0.5s						
PPI	Padang Panjang	40.03	274	P	P	20 59 10.6	+0.2
MJAR	Matsushiro Arr	40.05	357	P	P	20 59 08.6	-1.6
	comp=Z,3.1nm,0.9s,baz=164,slow=9.1,SNR=5.2 comp=Z,3.1nm,0.9s						
MAJO	Matsushiro	40.05	357	P	P	20 59 08.9	-1.3
MAJO				IAmb	IAmb	21 00 23.9	
	comp=Z,57nm,2.0s						
MJB9	Matsu-Tunnel	40.05	357	P	P	20 59 09.5	-0.7
MJB9				IAmb	IAmb	21 00 12.9	
	comp=Z,47nm,1.9s						
KULM	Kulim	40.62	282	P	P	20 59 13.9	-1.4
KULM				IAmb	IAmb	20 59 31.0	
	comp=Z,38nm,1.9s						
NJ2	Nanjing	40.97	332	*e*P	P	20 59 18.8	+1.0
NJ2				pmax	pmax		
	comp=Z,40nm,1.5s						
RPSI	Rantau Prapat	41.87	278	P	P	20 59 25.1	-0.3
RPSI				IAmb	IAmb	20 59 26.5	
	comp=Z,26nm,0.9s						
RPSI	Rantau Prapat	41.87	278	P	P	20 59 25.5	0.0
	comp=Z,36nm,1.0s						
PSI	Prapat	41.88	278	P	P	20 59 25.2	-0.6
	comp=Z,36nm,1.0s						
KSRS	Korea Array	42.51	345	P	P	20 59 30.0	-0.2
	comp=Z,1.9nm,0.6s,baz=163,slow=8.4,SNR=6.7 comp=Z,1.9nm,0.6s						
GSI	Gunungsitoli	43.02	276	P	P	20 59 33.5	-1.4
GSI	Gunungsitoli	43.02	276	P	P	20 59 33.8	-1.0
TPTI		43.67	279	P	P	20 59 38.7	-1.4
	comp=Z,156nm,1.2s						
CM31	Chiang Mai Arr	46.31	300	P	P	21 00 00.3	-0.7
CMAR	Chiang Mai Arr	46.31	300	P	P	21 00 01.1	+0.1
	comp=Z,4.1nm,0.9s,baz=122,slow=6.5,SNR=18 comp=Z,4.1nm,0.9s						
CMAR	Chiang Mai Arr	46.31	300	P	P	21 00 00.3	-0.6
CHTO	Chiang Mai	46.46	300	P	P	21 00 01.4	-0.7
	comp=Z,7.8nm,1.1s						
CHTO	Chiang Mai	46.46	300	P	P	21 00 01.8	-0.3
CHTO				x	x	21 00 18.5	
TOZ	Tahuroa Road	46.72	141	P	P	21 00 03.4	-0.5
QRZ	Quartz Range	46.98	146	P	P	21 00 05.8	0.0
TKNZ	Takaka Hill	47.36	146	P	P	21 00 09.3	+0.5
MRNZ	Matariki Terra	47.50	147	P	P	21 00 10.6	+0.8
JKA	Kamikawa-asahi	47.61	2	P	P	21 00 10.3	-0.2
JKA	Kamikawa-asahi	47.61	2	P	P	21 00 12.0	+1.4
	comp=Z,12nm,1.5s						
DCZ	Deep Cove	47.79	155	P	P	21 00 13.0	+1.1
DCZ				IAmb	IAmb	21 00 15.1	
	comp=Z,34nm,1.0s						
PZH	PanZhiHua	47.87	311	P	P	21 00 13.6	+0.5
TUWZ	Tuamarina	48.18	146	P	P	21 00 16.3	+1.3
USRK	Ussuriysk Ar.	48.23	352	P	P	21 00 14.2	-1.2
	comp=Z,4.1nm,0.9s,baz=156,slow=10.0,SNR=7.5 comp=Z,4.1nm,0.9s						
RPZ	Rata Peaks	48.26	150	LR	LR	21 20 31.7	
	comp=Z,17nm,18.7s,baz=36,slow=36						
RPZ	Rata Peaks	48.26	150	P	P	21 00 16.3	+0.6
RPZ	Rata Peaks	48.26	150	P	P	21 00 17.5	+1.8
LBZ	Lake Benmore	48.33	151	P	P	21 00 16.8	+0.6
KHZ	Kahutara	48.62	147	P	P	21 00 18.6	+0.1
BJT	Baijiatuau	48.81	335	P	P	21 00 19.9	0.0
CN2	Changchun	49.11	346	*e*P	P	21 00 25.9	+3.8
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
NPW	Naypyitaw	49.27	300	P	P	21 00 25.3	+1.6
	comp=Z,11nm,1.0s						
YSS	Yuzhno-Sakhali	50.45	2	P	P	21 00 33.1	+0.9
BNX	BinXian	50.52	348	⇃⇂P	P	21 00 33.2	+0.5
BNX				pmax	pmax		
	comp=Z,22nm,1.0s						
HHC	Hu-ho-hao-te	51.52	332	*e*P	P	21 00 44.5	+4.0
HHC				pmax	pmax		
	comp=Z,12nm,0.6s						
HHC				pmax	pmax		
	comp=Z,120nm,5.1s						
XLT	XiLinHaoTe	52.13	338	*e*P	P	21 00 46.8	+1.9
XLT				pmax	pmax		
	comp=Z,340nm,4.7s						
HEH	HeiHe	54.85	350	*e*P	P	21 01 04.4	-0.2
HEH				pmax	pmax		
	comp=Z,8.0nm,1.3s						
HILR	Hailar Array B	55.93	344	P	P	21 01 12.7	+0.3
	comp=Z,5.9nm,0.5s,baz=148,slow=8.7,SNR=12 comp=Z,5.9nm,0.5s						
GTA2	Gaotai	56.88	323	*e*P	P	21 01 20.2	+0.7
GTA2				pmax	pmax		
	comp=Z,6.0nm,1.2s						
PETK	Petropavlovsk-	58.43	12	P	P	21 01 30.3	+0.5
	comp=Z,2.2nm,0.7s,baz=172,slow=6.5,SNR=3.2 comp=Z,2.2nm,0.7s						
PETK	Petropavlovsk-	58.43	12	P	P	21 01 30.2	+0.3
ULN	Ulaanbaatar	59.01	334	P	P	21 01 34.7	+0.5
ULN				IAmb	IAmb	21 01 35.6	
	comp=Z,6.0nm,0.6s						
ULN	Ulaanbaatar	59.01	334	P	P	21 01 35.2	+1.0
	comp=Z,8.5nm,2.0s						
SONM	Songino Array	59.27	334	P	P	21 01 36.6	+0.6
	comp=Z,1.2nm,0.5s,baz=157,slow=7.7,SNR=14 comp=Z,1.2nm,0.5s						
SONM	Songino Array	59.27	334	P	P	21 01 36.4	+0.4
EVN	Everest	60.31	305	P	P	21 01 43.9	-0.2
EVN				IAmb	IAmb	21 01 46.3	
	comp=Z,6.0nm,0.7s						
EVN	Everest	60.31	305	P	P	21 01 44.6	+0.5
	comp=Z,12nm,0.9s						
HYB	Hyderabad	64.43	291	*e*P	P	21 02 10.8	-0.2
HYB				*e*pP	pP	21 02 27.6	-8.4
HYB				*e*PcP	PcP	21 02 44.7	0.0
HYB				*e*PP	PP	21 04 33.2	-0.8
HYB				*e*S	S	21 10 45.2	+2.8
HYB				*e*SKSac	ScS	21 11 59.6	+3.0
CASY	Casey	65.89	193	P	P	21 02 20.8	+1.3
CASY				IAmb	IAmb	21 02 21.7	
	comp=Z,24nm,1.1s						
CASY	Casey	65.89	193	P	P	21 02 20.9	+1.3
	comp=Z,19nm,1.0s						
YAK	Yakutsk	66.02	355	P	P	21 02 20.9	+0.5
	comp=Z,15nm,1.0s						
ADK	Adak	66.25	27	P	P	21 02 22.1	+0.1
WMQ	Urumqi	66.76	321	*e*P	P	21 02 26.0	+0.4
WMQ				pmax	pmax		
	comp=Z,15nm,1.1s						
ZSN	Zaisan	70.28	324	*e*P	P	21 02 48.2	+0.8
MKAR	Makanchi Array	71.53	322	P	P	21 02 55.4	+0.4
	comp=Z,5.1nm,0.5s,baz=95,slow=8.8,SNR=105						

	comp=Z,5.1nm,0.5s						
MKAR	**Makanchi Array**	**71.53**	**322**		**P**	**21 02 55.0**	**0.0**
MAKZ	**Makanchi**	**71.73**	**322**		**P**	**21 02 56.1**	**-0.1**
MAKZ				IAmb	IAmb	21 02 57.0	
	comp=Z,14nm,0.5s						
MAKZ	**Makanchi**	**71.73**	**322**	P	**P**	**21 02 55.8**	**-0.3**
	comp=Z,20nm,0.6s						
SHLS	**Shalkode**	**71.81**	**318**	*e*P	**P**	**21 02 55.7**	**-1.2**
	comp=Z,5.1nm,0.7s						
PDGK	**Podgornoye**	**71.86**	**318**	P	**P**	**21 02 57.2**	**0.0**
UZB	**Uzynbulak**	**72.10**	**318**	*e*P	**P**	**21 02 59.2**	**+0.6**
	comp=Z,18nm,1.3s						
UNV	**Unalaska Valle**	**72.34**	**30**	P	**P**	**21 03 00.2**	**+0.6**
TARG	**Taragay, Kyrgy**	**72.39**	**316**	P	**P**	**21 03 01.7**	**+1.0**
KPKS	**Kokpek**	**72.45**	**318**	*e*P	**P**	**21 03 01.4**	**+0.7**
ASAI	**AK-SAY(Kyrgyzs**	**73.00**	**315**	P	**P**	**21 03 04.8**	**+0.5**
	comp=Z,4.5nm,0.9s						
KSH2	**Kashi**	**73.09**	**313**	P	**P**	**21 03 05.1**	**+0.5**
KSH2				pmax	pmax		
	comp=Z,7.0nm,1.1s						
NIL	**Nilore**	**73.19**	**307**		**P**	**21 03 05.0**	**-0.2**
NIL				IAmb	IAmb	21 03 06.5	
	comp=Z,12nm,0.7s						
NIL	**Nilore**	**73.19**	**307**	P	**P**	**21 03 06.1**	**+0.9**
	comp=Z,21nm,0.8s						
TDK	**Taldyqorghan**	**73.23**	**319**	*e*P	**P**	**21 03 05.9**	**+0.7**
	comp=Z,21nm,1.3s						
MDOK	**Medeo**	**73.44**	**317**	*e*P	**P**	**21 03 07.1**	**+0.5**
TNSS	**Tian-Shan**	**73.46**	**317**	*e*P	**P**	**21 03 07.3**	**+0.3**
ZAA0	**Zalesovo Array**	**73.57**	**329**		**P**	**21 03 05.8**	**-1.0**
ZALV	**Zalesovo Beam**	**73.57**	**329**	P	**P**	**21 03 06.2**	**-0.7**
	comp=Z,3.1nm,0.5s,baz=115,slow=6.6,SNR=19						
	comp=Z,3.1nm,0.5s						
ZALV	**Zalesovo Beam**	**73.57**	**329**		**P**	**21 03 06.0**	**-0.9**
BOOM	**Boomskoye usch**	**73.96**	**316**	P	**P**	**21 03 10.0**	**+0.3**
BOOM				IAmb	IAmb	21 03 11.1	
	comp=Z,20nm,0.6s						
BOOM	**Boomskoye usch**	**73.96**	**316**	P	**P**	**21 03 10.7**	**+1.1**
	comp=Z,34nm,0.9s						
KUU	**Kurty**	**74.19**	**318**	*e*P	**P**	**21 03 11.3**	**+0.6**
VNDA	**Vanda**	**74.70**	**175**	P	**P**	**21 03 14.4**	**+1.4**
	comp=Z,8.8nm,0.6s,baz=326,slow=7.0,SNR=89						
VNDA				LR	LR	21 34 54.0	
	comp=Z,43nm,18.5s,baz=326,slow=35						
	comp=Z,8.8nm,0.6s						
VNDA	**Vanda**	**74.70**	**175**		**P**	**21 03 13.7**	**+0.7**
VNDA				IAmb	IAmb	21 03 15.2	
	comp=Z,9.4nm,0.7s						
VNDA	**Vanda**	**74.70**	**175**	P	**P**	**21 03 14.0**	**+1.0**
	comp=Z,16nm,0.7s						
SGDS	**Sogindy**	**75.19**	**317**	*e*P	**P**	**21 03 17.3**	**+0.6**
KURK	**Kurchatov**	**75.42**	**325**		**P**	**21 03 17.4**	**-0.2**
KURK	**Kurchatov**	**75.42**	**325**	P	**P**	**21 03 17.5**	**-0.2**
	comp=Z,12nm,1.6s						
KURBB	**Kurchatov Arra**	**75.44**	**325**	P	**P**	**21 03 18.0**	**+0.3**
	comp=Z,2.9nm,0.6s,baz=113,slow=5.4,SNR=33						
	comp=Z,2.9nm,0.6s						
SBA	**Scott Base**	**75.44**	**174**	P	**P**	**21 03 19.6**	**+2.3**
SBA	**Scott Base**	**75.44**	**174**	P	**P**	**21 03 19.8**	**+2.5**
	comp=Z,15nm,1.5s						
OHH	**Osh**	**75.56**	**313**	P	**P**	**21 03 17.4**	**-1.4**
	comp=Z,11nm,1.4s						
ARSB	**Arslanbob**	**75.66**	**314**		**P**	**21 03 19.9**	**+0.5**
ARSB				IAmb	IAmb	21 03 20.5	
	comp=Z,7.3nm,0.6s						
KBL	**Kabul**	**76.80**	**307**	P	**P**	**21 03 25.0**	**-1.1**
KBL	**Kabul**	**76.80**	**307**	P	**P**	**21 03 25.5**	**-0.6**
	comp=Z,7.0nm,0.8s						
DZA	**Taraz**	**77.31**	**315**	*e*P	**P**	**21 03 29.2**	**+0.7**
KK31	**Karatay Array**	**77.94**	**315**	P	**P**	**21 03 31.9**	**-0.1**
KKAR	**Karatay Array**	**77.94**	**315**		**P**	**21 03 31.8**	**-0.2**
CHM	**Chimkent**	**78.36**	**314**	*e*P	**P**	**21 03 35.2**	**+0.8**
BVAR	**Borovoye Array**	**81.02**	**325**	P	**P**	**21 03 48.8**	**+0.3**
	comp=Z,16nm,0.7s,baz=110,slow=7.2,SNR=103						
	comp=Z,16nm,0.7s						
BORK	**Borovoye**	**81.06**	**325**		**P**	**21 03 49.2**	**+0.5**
BORK				IAmb	IAmb	21 03 49.8	
	comp=Z,13nm,0.6s						
NRIK	**Noril'sk**	**81.09**	**343**	P	**P**	**21 03 48.4**	**-0.1**
	comp=Z,4.2nm,0.6s,baz=106,slow=4.2,SNR=5.9						
	comp=Z,4.2nm,0.6s						
NRIK	**Noril'sk**	**81.09**	**343**	IAmb	IAmb	21 03 50.8	
	comp=Z,29nm,1.6s						
KDAK	**Kodiak Island**	**81.11**	**30**	P	**P**	**21 03 48.9**	**+0.1**
MAW	**Mawson**	**81.86**	**202**	P	**P**	**21 03 54.1**	**+1.5**
	comp=Z,0.9nm,0.7s						
MAW	**Mawson**	**81.86**	**202**	P	**P**	**21 03 53.5**	**+0.9**
	comp=Z,2.3nm,0.7s,baz=86,slow=9.0,SNR=8.3						
	comp=Z,2.3nm,0.7s						
MAW	**Mawson**	**81.86**	**202**	P	**P**	**21 03 53.6**	**+1.0**
SCM	**Sheep Creek Mo**	**84.96**	**27**	P	**P**	**21 04 08.5**	**-0.2**
D23K	**Nanushuk River**	**85.99**	**20**	P	**P**	**21 04 14.7**	**+1.1**
ILAR	**Eielson Array**	**86.03**	**24**	P	**P**	**21 04 12.7**	**-1.2**
	comp=Z,1.1nm,0.7s,baz=253,slow=5.2,SNR=6.4						
	comp=Z,1.1nm,0.7s						
ILAR	**Eielson Array**	**86.03**	**24**	P	**P**	**21 04 13.0**	**-0.9**
QSPA	**South Pole Qui**	**86.29**	**180**	P	**P**	**21 04 16.4**	**+1.1**
	comp=Z,19nm,0.9s,baz=334,slow=2.8,SNR=90						
	comp=Z,19nm,0.9s						
QSPA	**South Pole Qui**	**86.29**	**180**		**P**	**21 04 16.4**	**+1.1**
QSPA				IAmb	IAmb	21 04 17.3	
	comp=Z,19nm,0.9s						
QSPA	**South Pole Qui**	**86.29**	**180**	P	**P**	**21 04 16.6**	**+1.3**
	comp=Z,26nm,1.2s						
C23K	**Itkillik River**	**86.32**	**19**		**P**	**21 04 15.7**	**+0.5**
C23K				IAmb	IAmb	21 04 16.9	
	comp=Z,30nm,1.5s						
G24K	**Hadweenzic Riv**	**86.38**	**22**	P	**P**	**21 04 15.6**	**0.0**
G24K				IAmb	IAmb	21 07 02.3	
	comp=Z,17nm,1.8s						
F24K	**Squaw Lake**	**86.48**	**21**	P	**P**	**21 04 16.4**	**+0.4**
F24K				IAmb	IAmb	21 04 51.8	
	comp=Z,20nm,1.8s						
AB31	**Akbulak array**	**86.49**	**320**		**P**	**21 04 14.8**	**-1.6**
ABKAR	**Akbulak array**	**86.49**	**320**		**P**	**21 04 15.5**	**-1.0**
J25K	**Salcha River,**	**86.61**	**25**	P	**P**	**21 04 16.1**	**-0.7**
J25K				IAmb	IAmb	21 04 44.3	
	comp=Z,15nm,1.8s						
F25K	**Christian Rive**	**87.33**	**22**	P	**P**	**21 04 20.3**	**+0.1**
F25K				IAmb	IAmb	21 04 21.3	
	comp=Z,15nm,1.9s						
E25K	**Arctic Village**	**87.50**	**21**	P	**P**	**21 04 22.1**	**+1.1**
BMAR	**Burnt Mountain**	**87.67**	**22**		**P**	**21 04 23.0**	**+1.2**
BCAR	**Beaver Creek A**	**87.77**	**26**	P	**P**	**21 04 23.3**	**+0.9**
K27K	**Chicken**	**87.86**	**25**	IAmb	IAmb	21 05 03.0	
	comp=Z,17nm,1.6s						
F26K	**Sheenjek River**	**87.90**	**22**		**P**	**21 04 23.8**	**+0.8**
F26K				IAmb	IAmb	21 04 25.4	
	comp=Z,6.7nm,0.9s						
H27K	**Steamboat Moun**	**88.56**	**23**	P	**P**	**21 04 27.1**	**+1.0**
H27K				IAmb	IAmb	21 05 02.2	
	comp=Z,17nm,1.6s						
ARTI	**Arti**	**88.57**	**327**		**P**	**21 04 24.6**	**-1.6**
ARTI				IAmb	IAmb	21 04 25.6	
	comp=Z,10nm,0.5s						
M29M	**Somme Creek**	**89.15**	**27**	IAmb	IAmb	21 06 12.0	
	comp=Z,23nm,2.0s						
TROLL	**Troll, Antarti**	**99.75**	**192**	Pdiff	**Pdif**	**21 05 19.0**	**+1.7**
	comp=Z,58nm,0.8s						
ARCES	**ARCESS Array B**	**101.94**	**341**	P	**Pdif**	**21 05 26.4**	**-0.6**
	comp=Z,2.4nm,0.9s,baz=77,slow=5.4,SNR=5.2						
TORD	**Torodi Ar. Bea**	**138.07**	**286**	PKP	**PKPdf**	**21 10 57.2**	**-1.8**
	comp=Z,0.8nm,0.8s,baz=122,slow=1.9,SNR=3.9						
DBIC	**Dimbokro**	**145.21**	**276**	PKPbc	**PKPbc**	**21 11 11.3**	**-0.3**
	comp=Z,5.7nm,1.0s,baz=117,slow=4.5,SNR=3.8						
LPAZ	**La Paz**	**145.58**	**126**	PKPbc	**PKPdf**	**21 11 13.3**	**+0.2**
	comp=Z,2.1nm,0.6s,baz=197,slow=2.9,SNR=8.6						
CPUP	**Villa Florida**	**145.63**	**151**	PKPbc	**PKPdf**	**21 11 12.5**	**+0.3**
	comp=Z,4.7nm,1.0s,baz=227,slow=1.2,SNR=7.3						
BDFB	**Brasilia**	**159.12**	**157**	PKPab	**PKPab**	**21 12 10.4**	**+1.0**
	comp=Z,1.0nm,0.4s,baz=127,slow=5.1,SNR=4.1						

*IDC **06** 21:12:42.8±1.3, 51°.13N×173°.87E, h0^{km}, mb3.6/10, mbtmp3.6/11, ML2.9/1, Error ellipse: s-maj=29.5km s-min=14.5km az=3.0*

*NEIC **06** 21:12:44.3±1.5, 51°.11N±0°.05×173°.8E±0°.1, h10^{km}±1^{km}, mb4.0/24, ML3.2/6, ML3.6(AEIC), Error ellipse: s-maj=12.7km s-min=4.2km az=235.0*

*AEIC **06** 21:12:48.0±1.1, 51°.0N±0°.1×173°.7E±0°.1, h10^{km}±5^{km}, Error ellipse: s-maj=15.8km s-min=10.1km az=193.0*

ISC 06 21:12:43.9±0.8**, 51°.12N**±0°.09×**173°.81E**±0°.05**, h10**^{km}**, n65, σ1^{s}.02**/68**, mb4.0**/21**, Near Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHEM	**Shemya Is, Ala**	**1.62**	**6**	Pn	**Pn**	**21 13 13.0**	**+0.5**
	65nm,0.3s,baz=218,slow=17,SNR=71						
SHEM				Sn	**Sn**	**21 13 33.2**	**-0.1**
	29nm,0.3s,baz=135,slow=20,SNR=5.1						
SHEM	**Shemya Is, Ala**	**1.62**	**6**		**Pn**	**21 13 12.8**	**+0.4**
SHEM				IAML		21 13 37.4	
	comp=N,234nm,0.5s						
SMY	**Shemya**	**1.62**	**6**		**Pn**	**21 13 12.7**	**+0.3**
SMY				IAML		21 13 37.2	
	comp=N,365nm,0.4s						
SMY	**Shemya**	**1.62**	**6**		**Sn**	**21 13 33.5**	**+0.1**
LSSA	**Little Sitkin**	**3.05**	**72**		**Pn**	**21 13 32.8**	**+0.6**
LSNW	**Little Sitkin**	**3.06**	**72**		**Pn**	**21 13 32.9**	**+0.6**
LSNW					**Sn**	**21 14 06.2**	**-2.7**
LSPA	**Little Sitkin**	**3.09**	**72**		**Pn**	**21 13 33.6**	**+0.9**
LSPA					**Sn**	**21 14 08.4**	**-1.3**
AMKA	**Amchitka**	**3.46**	**84**		**Pn**	**21 13 36.6**	**-1.2**
AMKA	**Amchitka**	**3.46**	**84**	IAML		21 14 14.1	
	comp=E,62nm,0.5s						
AMKA				IAML		21 14 22.8	
	comp=N,54nm,0.6s						
CETU	**Semis' Tuman**	**3.65**	**74**		**Pn**	**21 13 41.4**	**+1.0**
CEAP	**Semis’ Anvil P**	**3.71**	**74**		**Pn**	**21 13 41.0**	**-0.2**
CEAP					Pb	21 13 41.6	-7.8
GAKI	**Gareloi-Kavalg**	**4.65**	**82**		**Pn**	**21 13 54.1**	**0.0**
GANO	**Gareloi North**	**4.67**	**79**		**Pn**	**21 13 55.0**	**+0.5**
GANE	**Gareloi Northe**	**4.69**	**79**		**Pn**	**21 13 55.3**	**+0.6**
TACS	**Tanaga Cape Sa**	**5.09**	**79**		**Pn**	**21 14 00.6**	**+0.4**
TACS					Pb	21 14 01.0	-12
TASE	**Tanaga Southea**	**5.15**	**79**		**Pn**	**21 14 01.5**	**+0.5**
TAFL	**Tanaga Flats**	**5.23**	**80**		**Pn**	**21 14 02.5**	**+0.5**
KIMD	**Kanaga Island**	**5.64**	**80**		**Pn**	**21 14 08.1**	**+0.4**
KIWB	**Kanaga Island**	**5.70**	**79**	Pn	**Pn**	**21 14 08.6**	**+0.1**
ADK	**Adak**	**5.99**	**79**		**Pn**	**21 14 12.7**	**+0.2**
ADK	**Adak**	**5.99**	**79**	Pn	**Pn**	**21 14 11.2**	**-1.3**
PEA0B	**Petropavlovsk-**	**10.11**	**288**	Pn	**Pn**	**21 15 10.0**	**+1.1**
PETK	**Petropavlovsk-**	**10.11**	**288**	Pn	**Pn**	**21 15 09.9**	**+1.0**
	comp=N,0.5nm,0.3s,baz=98,slow=16,SNR=7.8						
PETK				Sn	**Sn**	**21 16 57.2**	**-5.1**
	comp=N,0.4nm,0.3s,baz=104,slow=18,SNR=5.7						
	comp=N,1.8nm,0.4s						
PETK				AML	AML		
PETK	**Petropavlovsk-**	**10.11**	**288**		**Pn**	**21 15 09.6**	**+0.7**
UNV	**Unalaska Valle**	**12.30**	**70**	Pn	**Pn**	**21 15 40.6**	**+1.7**
L18K	**Granite Mounta**	**19.45**	**44**	P	**P**	**21 17 10.8**	**+0.5**
L18K				IAmb	IAmb	21 17 13.5	
	comp=Z,6.0nm,1.2s						
KDAK	**Kodiak Island**	**20.48**	**58**	P	**P**	**21 17 21.1**	**-0.5**
HOM	**Homer**	**21.18**	**53**	P	**P**	**21 17 28.5**	**-0.6**
J20K	**Nowinta River**	**21.26**	**40**	P	**P**	**21 17 29.2**	**-0.7**
CAST	**Castle Rocks**	**21.85**	**43**	P	**P**	**21 17 36.5**	**+0.2**
MLY	**Manley**	**22.94**	**39**	P	**P**	**21 17 48.0**	**+0.1**
PWL	**Port Wells**	**22.99**	**50**	P	**P**	**21 17 48.1**	**-0.3**
PWL				IAmb	IAmb	21 18 00.1	
	comp=Z,5.4nm,0.9s						
SML	**Sawmill**	**23.14**	**48**	P	**P**	**21 17 49.2**	**-0.8**
SML				IAmb	IAmb	21 17 57.2	
	comp=Z,5.8nm,1.0s						
NEA2	**Nenana**	**23.48**	**41**	P	**P**	**21 17 53.3**	**0.0**
NEA2				IAmb	IAmb	21 17 57.4	
	comp=Z,5.5nm,1.1s						
SCM	**Sheep Creek Mo**	**23.61**	**48**	P	**P**	**21 17 53.8**	**-0.9**
SCM				IAmb	IAmb	21 18 01.9	
	comp=Z,7.2nm,1.2s						
E22K	**Anaktuvuk Pass**	**23.83**	**32**	P	**P**	**21 17 57.0**	**+0.2**
FID	**Port Fidalgo**	**23.88**	**51**	P	**P**	**21 17 55.8**	**-1.4**
FID				IAmb	IAmb	21 17 58.0	
	comp=Z,8.7nm,1.1s						
IL31		**24.43**	**41**	P	**P**	**21 18 02.9**	**+0.7**
ILAR	**Eielson Array**	**24.43**	**41**	P	**P**	**21 18 03.0**	**+0.7**
	comp=Z,0.4nm,0.6s,baz=270,slow=8.6,SNR=4.7						
	comp=Z,0.4nm,0.6s						
ILAR	**Eielson Array**	**24.43**	**41**	P	**P**	**21 18 02.4**	**+0.1**
D23K	**Nanushuk River**	**24.60**	**30**	P	**P**	**21 18 04.5**	**+0.7**
LOGN	**Logan Glacier**	**26.56**	**51**	P	**P**	**21 18 22.0**	**+0.2**
LOGN				IAmb	IAmb	21 18 34.0	
	comp=Z,5.3nm,1.0s						
O28M	**Mount Upton**	**26.96**	**51**	P	**P**	**21 18 25.9**	**+0.4**
O28M				IAmb	IAmb	21 18 38.5	
	comp=Z,5.3nm,0.8s						
M29M	**Somme Creek**	**27.81**	**48**	P	**P**	**21 18 33.3**	**+0.3**
M29M				IAmb	IAmb	21 18 34.5	
	comp=Z,1.4nm,1.0s						
G31M	**Satah River**	**29.91**	**38**	P	**P**	**21 18 51.5**	**0.0**
G31M				IAmb	IAmb	21 19 04.8	
	comp=Z,3.4nm,1.0s						
YKA	**Yellowknife Ar**	**38.73**	**45**	P	**P**	**21 20 08.9**	**+1.2**
	comp=Z,0.3nm,0.5s,baz=285,slow=8.5,SNR=1.7						
	comp=Z,0.3nm,0.5s						
YKA	**Yellowknife Ar**	**38.73**	**45**	P	**P**	**21 20 08.2**	**+0.5**
SONM	**Songino Array**	**42.54**	**293**	P	**P**	**21 20 40.5**	**+0.9**
	comp=Z,0.2nm,0.5s,baz=60,slow=8.5,SNR=1.9						
	comp=Z,0.2nm,0.5s						
SONM	**Songino Array**	**42.54**	**293**	P	**P**	**21 20 40.2**	**+0.7**
NVAR	**Mina Array Bea**	**48.17**	**78**	P	**P**	**21 21 24.8**	**+0.4**
	comp=Z,0.3nm,0.6s,baz=310,slow=8.4,SNR=2.4						
	comp=Z,0.3nm,0.6s						
PDAR	**Pinedale Array**	**50.76**	**68**	P	**P**	**21 21 44.2**	**0.0**
	comp=Z,0.8nm,0.6s,baz=299,slow=6.8,SNR=7.5						
	comp=Z,0.8nm,0.6s						
PDAR	**Pinedale Array**	**50.76**	**68**	P	**P**	**21 21 44.0**	**-0.1**
PV13	**Radium Mtn., P**	**54.10**	**72**	P	**P**	**21 22 10.2**	**+1.2**
KURK	**Kurchatov**	**55.73**	**310**	P	**P**	**21 22 21.1**	**+0.9**
KURK				IAmb	IAmb	21 22 25.4	
	comp=Z,2.1nm,1.0s						
KURBB	**Kurchatov Arra**	**55.83**	**310**	P	**P**	**21 22 21.4**	**+0.4**
	comp=Z,0.7nm,0.8s,baz=48,slow=7.3,SNR=5.7						
	comp=Z,0.7nm,0.8s						
MKAR	**Makanchi Array**	**56.45**	**304**	P	**P**	**21 22 24.8**	**-0.7**
	comp=Z,0.3nm,0.7s,baz=46,slow=8.3,SNR=2.7						
	comp=Z,0.3nm,0.7s						
SCHQ	**Schefferville**	**62.97**	**34**	P	**P**	**21 23 09.0**	**-1.2**
	comp=Z,4.1nm,0.8s,baz=329,slow=12,SNR=2.9						
	comp=Z,4.1nm,0.8s						
SCHQ	**Schefferville**	**62.97**	**34**	P	**P**	**21 23 09.0**	**-1.2**
TXAR	**Lajitas Array**	**63.26**	**76**	P	**P**	**21 23 12.5**	**-0.2**
	comp=Z,0.6nm,0.8s,baz=323,slow=7.5,SNR=6.4						
	comp=Z,0.6nm,0.8s						
TXAR	**Lajitas Array**	**63.26**	**76**	P	**P**	**21 23 13.1**	**+0.4**
FINES	**FINESS Array B**	**64.86**	**344**	P	**P**	**21 23 23.4**	**+0.9**
	comp=Z,1.9nm,0.9s,baz=16,slow=11,SNR=2.1						
	comp=Z,1.9nm,0.9s						
FINES	**FINESS Array B**	**64.86**	**344**	P	**P**	**21 23 21.6**	**-1.0**
AB31	**Akbulak array**	**65.19**	**319**	P	**P**	**21 23 25.4**	**+0.5**
AB31				IAmb	IAmb	21 23 38.1	
	comp=Z,0.8nm,0.9s						
ABKAR	**Akbulak array**	**65.19**	**319**	P	**P**	**21 23 26.4**	**+1.4**
WHAR	**Wooly Hollow**	**65.70**	**64**	P	**P**	**21 23 28.2**	**-0.3**

*IDC **06** 21:24:38.1±1.7, 17°.08S×167°.88E, h0^{km}, mb4.0/5, mbtmp4.0/6, ML3.4/1, MS3.3/6, Error ellipse: s-maj=41.2km s-min=22.4km az=87.0*

ISC 06 21:24:42.7±1.4**, 17°.3S**±0°.1×**167°.6E**±0°.3**, h19**^{km}**, n13, σ0^{s}.97**/10**, mb4.5**/7**, MS3.1**/3**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	**4.90**	**193**	Pn	**Pn**	**21 25 56.4**	**+0.9**
	1.3nm,0.3s,baz=31,slow=19,SNR=43						
DZM				Sn	**Sn**	**21 26 50.9**	**-0.8**
	0.6nm,0.3s,baz=72,slow=20,SNR=1.5						
DZM				LR	LR	21 27 35.9	
	comp=Z,148nm,19.2s,baz=356,slow=35						
	4.4nm,0.4s						
DZM				AML	AML		
MSVF	**Nonsavu**	**9.95**	**94**	LR	LR	21 30 09.9	
	comp=Z,308nm,19.8s,baz=334,slow=34						
HNR	**Honiara**	**10.80**	**315**	LR	LR	21 30 53.9	
	comp=Z,110nm,18.9s,baz=188,slow=35						
CTA	**Charters Tower**	**20.45**	**259**	LR	LR	21 35 38.9	
	comp=Z,57nm,21.1s,baz=44,slow=32						
URZ	**Urewera**	**22.49**	**160**	LR	LR	21 36 56.3	
	comp=Z,67nm,19.8s,baz=290,slow=33						
WRA	**Warramunga Arr**	**31.64**	**260**	P	**P**	**21 31 04.7**	**-0.2**
	0.8nm,0.9s,baz=93,slow=10,SNR=2.6						
	0.8nm,0.9s						
ASAR	**Alice Springs**	**32.18**	**253**	P	**P**	**21 31 09.9**	**+0.2**
	0.6nm,0.5s,baz=85,slow=8.2,SNR=10.0						
ASAR				LR	LR	21 43 20.7	
	comp=Z,75nm,18.4s,baz=122,slow=35						
	0.6nm,0.5s						
QSPA	**South Pole Qui**	**72.77**	**180**	P	**P**	**21 36 08.7**	**-1.0**
	5.4nm,1.0s,baz=23,slow=3.9,SNR=11						
	5.4nm,1.0s						
SONM	**Songino Array**	**84.75**	**324**	P	**P**	**21 37 15.6**	**-0.1**
	0.6nm,1.0s,baz=114,slow=3.6,SNR=2.8						
	0.6nm,1.0s						
TROLL	**Troll, Antarti**	**90.37**	**185**	P	**P**	**21 37 43.8**	**+1.2**
	comp=Z,155nm,0.9s						
SNAA	**Sanae**	**91.04**	**183**	P	**P**	**21 37 44.5**	**-1.1**
	comp=Z,1.7nm,0.7s,baz=184,slow=6.8,SNR=4.2						
	comp=Z,1.7nm,0.7s						
VNA3	**Neumayer Olymp**	**91.69**	**181**	P	**P**	**21 37 48.6**	**+0.1**
	comp=Z,2.1nm,0.8s						
VNA2	**Neumayer--Watz**	**91.96**	**182**	P	**P**	**21 37 50.9**	**+1.1**
	comp=Z,2.2nm,0.8s,baz=137,slow=3.9						

JMA 06 21:33:25.0±0.1**, 38°.6N**±0°.2×**139°.5E**±0°.2**, h8**^{km}±1^{km}**, MV2.5**/38**, W OFF YAMAGATA PREF, Near west coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JYA	**Atsumi**	**0.17**	**91**	*i* P	Pg	21 33 28.6	+0.1
JYA				S	Sg	21 33 31.5	+0.6
JAW	**Awa shima**	**0.24**	**235**	P	Pg	21 33 29.9	+0.1
JAW				S	Sg	21 33 33.8	+0.7
JYYZ	**Yamagatayuza**	**0.54**	**38**	P	Pb	21 33 36.3	-0.4
JYS	**Shirataka**	**0.58**	**130**	*e*P	Pg	21 33 36.0	-0.2
JYS				S	Sg	21 33 44.2	+0.4
JTB	**Tobi-shima**	**0.60**	**4**	P	Pg	21 33 36.4	-0.2
JTB				*e*S	Sg	21 33 44.4	-0.1
JYK	**Kaneyama**	**0.74**	**64**	*i* P	Pg	21 33 39.0	-0.4
JYK				S	Sg	21 33 48.9	-0.2
JNS	**Sasagawa**	**0.79**	**191**	*e*P	Pg	21 33 39.9	-0.3
JNS				*e*S	Sg	21 33 50.7	+0.3
JOU	**Okura**	**0.94**	**104**	P	Pg	21 33 42.7	-0.4
JOU				S	Sg	21 33 55.1	-0.2

*BJI **06** 21:33:46.2, 36°.70N×141°.44E, h30^{km}, mB5.2/30, mb5.1/78, Ms4.9/64, Ms7 4.7/64*

*JMA **06** 21:33:48.4±0.1, 36°.7N±0°.3×141°.5E±0°.4, h38^{km}, MD5.2/39, MW5.0/39, E OFF IBARAKI PREF*

JMA Felt III J1 at E OFF IBARAKI PREF .

*NIED **06** 21:33:48.4, 36°.69N×141°.48E, h38^{km}, MW5.1, Moment Tensor Solution. s3 Moment tensor: Scale 10^{16}Nm; M$_{rr}$0.71; M$_{\theta\theta}$0.57; M$_{\phi\phi}$-1.28; M$_{r\theta}$0.85; M$_{\theta\phi}$-1.49; M$_{\phi r}$4.71; Fault plane solution: M$_{0}$5.05000×10^{16} NP1: ϕ_s251.00000°, δ15.00000°, λ153.00000°. NP2:ϕ_s8.00000°, δ83.00000°, λ77.00000°.*

*NEIC **06** 21:33:49.1±1.1, 36°.66N±0°.05×141°.57E±0°.08, h31^{km}±1^{km}, mb5.2/454, Mwr4.9/18, Mww5.1/11 Error ellipse: s-maj=9.9km s-min=6.9km az=117.0, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M$_{rr}$-1.09; M$_{\theta\theta}$-1.30; M$_{\phi\phi}$2.39; M$_{r\theta}$0.72; M$_{\theta\phi}$-0.38; M$_{\phi r}$2.13; Fault plane solution: M$_{0}$3.08000×10^{16} NP1:ϕ_s202.35000°, δ76.16000°, λ-60.29000°. NP2:ϕ_s315.09000°, δ32.51000°, λ-153.57000°. Principal axes: T 3.4005, Plg25.0000°, Azm270.0000°; N -0.7895, Plg29.0000°, Azm15.0000°; P -2.6110, Plg50.0000°, Azm145.0000°;*

*MOS **06** 21:33:49.6±1.0, 36°.88N×141°.39E, h43^{km}, mb5.2/48, MS4.4/7 Error ellipse: s-maj=6.3km s-min=3.9km az=117.5*

*NEIC **06** 21:33:49.6, 36°.70N×141°.49E, h30^{km}*

*GFZ **06** 21:33:49.8±0.1, 37°N±2°×14°1E±°, h34^{km}, M5.3/108, mb5.3/108, Mw5.0/18, confirmed*

*IDC **06** 21:33:50.7±1.2, 36°.64N×141°.43E, h51^{km}±10^{km}, mb4.5/52, mbtmp4.8/57, MS4.5/54, Error ellipse: s-maj=9.0km s-min=6.9km az=95.0*

*GCMT **06** 21:33:52.1±0.2, 36°.81N±0°.02×141°.48E±0°.02, h18^{km}, MW5.2/124, Moment Tensor Solution. s40,c50; s124,c193; Duration: 1^{s}.0 Moment tensor: Scale 10^{16} Nm; M$_{rr}$0.66±.13; M$_{\theta\theta}$-0.42±.10; M$_{\phi\phi}$-0.24±.08; M$_{r\theta}$0.25±.22; M$_{\theta\phi}$-1.19±.06; M$_{\phi r}$8.44±.65; Best double couple: M$_{0}$8.54200×10^{16} NP1:ϕ_s260.00000°, δ8.00000°, λ168.00000°. NP2:ϕ_s2.00000°, δ88.00000°, λ82.00000°. Principal axes: T 8.7060, Plg46.0000°, Azm264.0000°; N -0.3280, Plg8.0000°, Azm3.0000°; P -8.3780, Plg43.0000°, Azm100.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*BGR **06** 21:33:56.6, 37°.57N×139°.84E, h39^{km}±2^{km}, mb5.1, Ms4.6*

ISC 06 21:33:49.2±0.3**, 36°.69N**±0°.03×**141°.53E**±0°.03**, h35**^{km}±1^{km}**, h35**^{km}**:pP-P, n1126, σ1^{s}.30**/969**, mb5.2**/454**, MS4.7**/80**, 64C-61D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ONAJ	**Iwakimizuishiy**	**0.71**	**305**	⇓*i*P	**Pn**	**21 34 01.5**	**-1.4**
ONAJ				A	A	21 34 01.5	
	comp=N,122nm,0.4s,comp=E,152nm,0.8s						
ONAJ				⇓S	**Sn**	**21 34 11.2**	**-1.4**
JHO	**Hitachi**	**0.78**	**264**	*i* P	**Pn**	**21 34 02.0**	**-1.6**
JHO				A	A	21 34 02.0	
	comp=N,43nm,0.7s,comp=E,88nm,0.8s						
JHO				S	**Sn**	**21 34 10.9**	**-3.1**
JHYU	**Hitachinakayam**	**0.83**	**246**	A	A	21 34 03.2	
	comp=N,173nm,0.6s,comp=E,144nm,2.1s						
JFK	**Kawauchi**	**0.85**	**322**	⇓*i*P	**Pn**	**21 34 03.5**	**-1.2**
JFK				A	A	21 34 03.5	
	comp=N,60nm,1.0s,comp=E,72nm,0.7s						
JFK				⇓*e*S	**Sn**	**21 34 14.4**	**-1.7**
JFFD	**Fukushimafurud**	**0.87**	**298**	A	A	21 34 03.9	
	comp=N,49nm,0.7s,comp=E,43nm,1.4s						
JIHU	**Itakohorinouch**	**1.08**	**229**	A	A	21 34 07.1	
	comp=N,403nm,1.2s,comp=E,363nm,1.0s						
JCAJ	**Choshiashikaji**	**1.11**	**209**	A	A	21 34 07.6	
	comp=N,144nm,1.2s,comp=E,118nm,1.7s						
JMST	**Minamisoumatoc**	**1.15**	**334**	A	A	21 34 08.3	
	comp=N,79nm,0.5s,comp=E,61nm,0.5s						
JYT	**Yasato**	**1.17**	**247**	⇓*i*P	**Pn**	**21 34 07.8**	**-1.3**
JYT				A	A	21 34 07.8	
	comp=N,120nm,2.2s,comp=E,116nm,0.5s						
JOTO	**OTAMA OYAMA**	**1.29**	**313**	*i* P	**Pn**	**21 34 10.8**	**+0.1**
JOTO				A	A	21 34 10.8	
	comp=N,228nm,1.1s,comp=E,167nm,0.4s						
JOTO				S	**Sn**	**21 34 27.6**	**+0.7**
JMM	**Marumori**	**1.31**	**334**	⇓*i*P	**Pn**	**21 34 10.3**	**-0.7**
JMM				A	A	21 34 10.3	
	comp=N,62nm,1.1s,comp=E,48nm,1.1s						
JMM				⇓S	**Sn**	**21 34 27.0**	**-0.3**
JSB	**Shiboa**	**1.32**	**283**	A	A	21 34 10.6	
	comp=N,198nm,0.9s,comp=E,295nm,1.1s						
JSMT	**Sammumatsuo**	**1.36**	**220**	A	A	21 34 11.3	
	comp=N,216nm,1.1s,comp=E,216nm,2.8s						
JIKH	**Ishinomakikobu**	**1.62**	**358**	A	A	21 34 15.4	
	comp=N,14nm,0.8s,comp=E,25nm,1.5s						
JFY	**Yanaizu**	**1.62**	**297**	A	A	21 34 15.1	
	comp=N,32nm,1.0s,comp=E,43nm,1.0s						
JYAR	**Yonezawaarcadi**	**1.65**	**318**	A	A	21 34 15.5	
	comp=N,336nm,1.1s,comp=E,299nm,0.9s						
JCCN	**Chibachonan**	**1.67**	**219**	A	A	21 34 15.8	
	comp=N,133nm,3.7s,comp=E,152nm,2.6s						
JAG	**Ashikaga**	**1.69**	**262**	A	A	21 34 15.9	
	comp=N,28nm,1.0s,comp=E,27nm,1.5s						
I30JP	**ISUMI INFRASON**	**1.69**	**216**	P	**Pn**	**21 34 17.9**	**+1.7**
	baz=42,slow=18,SNR=0.8						
TOK	**Tokyo**	**1.75**	**236**	A	A	21 34 16.8	
	comp=N,145nm,4.9s,comp=E,136nm,2.8s						
JIO	**Ouri**	**1.77**	**355**	A	A	21 34 17.6	
	comp=N,13nm,2.1s,comp=E,24nm,2.4s						
JOU	**Okura**	**1.81**	**338**	A	A	21 34 18.1	
	comp=N,111nm,2.0s,comp=E,123nm,2.5s						
JKT	**Katashina**	**1.83**	**273**	A	A	21 34 18.1	
	comp=N,42nm,0.7s,comp=E,48nm,0.7s						
JKUC	**kamogawauchiur**	**1.87**	**216**	A	A	21 34 18.7	
	comp=N,79nm,2.4s,comp=E,52nm,1.9s						
JYS	**Shirataka**	**1.92**	**323**	A	A	21 34 19.5	
	comp=N,113nm,2.2s,comp=E,107nm,2.1s						
JOFO	**Osakifurukawao**	**1.97**	**346**	A	A	21 34 20.4	
	comp=N,244nm,1.5s,comp=E,374nm,2.0s						
JHU2	**Hanno**	**2.01**	**246**	A	A	21 34 20.5	
	comp=N,28nm,0.8s,comp=E,26nm,2.6s						
JUON	**Uonuma**	**2.05**	**285**	A	A	21 34 21.1	
	comp=N,23nm,2.1s,comp=E,14nm,3.3s						
JNS	**Sasagawa**	**2.09**	**303**	A	A	21 34 21.9	
	comp=N,15nm,2.2s,comp=E,22nm,2.1s						
JYO	**Yokosk**	**2.10**	**226**	A	A	21 34 21.9	
	comp=N,60nm,1.7s,comp=E,71nm,3.7s						
JKMT	**Kesennumamotoy**	**2.12**	**359**	A	A	21 34 22.6	

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      comp=N,9.0nm,1.6s,comp=E,20nm,3.2s
TATJ  Tateyama 2          2.12 219   A     A       21 34 22.3
      comp=N,104nm,2.8s,comp=E,94nm,2.4s
JSGW  Sagamiharawaka      2.17 241   A     A       21 34 22.8
      comp=N,52nm,1.5s,comp=E,37nm,0.9s
JRY   Ryogami san         2.22 253   A     A       21 34 23.6
      comp=N,52nm,1.4s,comp=E,30nm,1.9s
JMK   Ichinoseki          2.27 354   A     A       21 34 24.8
      comp=N,11nm,1.0s,comp=E,25nm,2.7s
JGK   Kuni                2.33 268   A     A       21 34 25.1
      comp=N,38nm,2.0s,comp=E,40nm,1.5s
JYA   Atsumi              2.38 323   A     A       21 34 26.2
      comp=N,62nm,0.9s,comp=E,49nm,0.7s
OFUJ  Ofunato             2.39   3   A     A       21 34 26.6
      comp=N,10.0nm,2.2s,comp=E,13nm,3.7s
JIZZ  Izumozaki           2.40 291   A     A       21 34 26.2
      comp=N,65nm,2.8s,comp=E,75nm,2.9s
JYK   Kaneyama            2.41 338   A     A       21 34 26.7
      comp=N,24nm,1.7s,comp=E,24nm,3.1s
JOD2  Odawara 2           2.44 235   A     A       21 34 26.7
      comp=N,75nm,2.5s,comp=E,41nm,2.0s
JAW   Awa shima           2.53 315   A     A       21 34 28.1
      comp=N,21nm,3.0s,comp=E,19nm,2.7s
JIM2  Oshima 3            2.60 222   A     A       21 34 29.2
      comp=N,48nm,1.5s,comp=E,44nm,1.4s
JYYZ  Yamagatayuza        2.64 332   A     A       21 34 29.9
      comp=N,59nm,4.8s,comp=E,78nm,2.6s
MJAR  Matsushiro Arr      2.67 268   P     Pn      21 34 30.3 +0.5
      comp=E,1µm,0.7s,baz=93,slow=9.7,SNR=1528
MJAR                                 S     Sn      21 35 02.2 +1.3
      comp=E,2µm,0.9s,baz=86,slow=17,SNR=4.6
MJAR                                 LR    LR      21 35 54.2
      comp=E,15µm,19.8s,baz=86,slow=48
MJAR  Matsushiro Arr      2.67 268   Pn    Pn      21 34 30.8 +1.0
MJAR                                       Sn      21 35 01.7 +0.7
MAJO  Matsushiro          2.68 268   P     Pn      21 34 31.0 +1.2
MAJO  Matsushiro          2.68 268d iP     Pn      21 34 30.3 +0.5
MAJO  Matsushiro          2.68 268         Pn      21 34 30.9 +1.2
MAJO  Matsushiro          2.68 268   P     Pn      21 34 30.8 +1.0
JHTM  Izuhatsuma          2.68 231   A     A       21 34 30.2
      comp=N,75nm,1.3s,comp=E,61nm,2.4s
MJB9  Matsu-Tunnel        2.68 268         Pn      21 34 31.3 +1.5
JYN   Shimob              2.69 245   A     A       21 34 30.4
      comp=N,70nm,1.1s,comp=E,47nm,1.9s
JJN   Nakama              2.73 280   A     A       21 34 30.8
      comp=N,26nm,2.8s,comp=E,37nm,3.2s
JFNN  Fujinakano          2.75 238   A     A       21 34 31.1
      comp=N,40nm,2.7s,comp=E,46nm,5.0s
JOM   Ohasama             2.79 356   A     A       21 34 32.2
      comp=N,9.0nm,1.2s,comp=E,13nm,2.9s
JRG   Rokugo              2.79 346   A     A       21 34 32.2
      comp=N,23nm,2.7s,comp=E,28nm,1.7s
JTHY  Toshimahigashi      2.83 221   A     A       21 34 32.4
      comp=N,42nm,2.0s,comp=E,30nm,2.5s
JNT   Takato              2.86 254   A     A       21 34 32.9
      comp=N,27nm,1.2s,comp=E,24nm,1.1s
JIZS  Izushimoda          2.92 228   A     A       21 34 33.6
      comp=N,19nm,1.7s,comp=E,16nm,2.0s
JTB   Tobi-shima          2.95 329   A     A       21 34 34.2
      comp=N,26nm,3.3s,comp=E,25nm,6.2s
JNIO  Niijimaoohara       2.97 219   A     A       21 34 34.3
      comp=N,32nm,3.4s,comp=E,46nm,2.8s
JYW   Yuwa                3.03 340   A     A       21 34 35.5
      comp=N,66nm,3.1s,comp=E,66nm,1.5s
JSZI  Iwateshizukuis      3.08 352   A     A       21 34 36.3
      comp=N,31nm,1.4s,comp=E,40nm,1.9s
SHZ3  Shizuoka 3          3.14 240   A     A       21 34 36.8
      comp=N,70nm,1.0s,comp=E,46nm,1.0s
JNY   Yasuok              3.25 247   A     A       21 34 38.4
      comp=N,38nm,1.4s,comp=E,29nm,1.1s
JTT   Ttatey              3.37 270   A     A       21 34 40.0
      comp=N,18nm,2.5s,comp=E,16nm,2.2s
JSG   Sagara              3.38 235   P     Pn      21 34 40.7 +1.2
JSG   Sagara              3.38 235         Pn      21 34 39.4 -0.1
JSG   Sagara              3.38 235   A     A       21 34 40.1
      comp=N,30nm,3.4s,comp=E,33nm,3.3s
JKKS  Kakegawashinom      3.47 237   A     A       21 34 41.4
      comp=N,30nm,2.4s,comp=E,33nm,3.2s
JKEN  Kujiedanarisaw      3.51   2   A     A       21 34 42.5
      comp=N,29nm,0.8s,comp=E,22nm,1.4s
JGF   Kuroka              3.55 253   P     Pn      21 34 43.9 +2.1
JGF   Kuroka              3.55 253         Pn      21 34 43.4 +1.6
JGF   Kuroka              3.55 253   P     Pn      21 34 44.0 +2.3
JGF   Kuroka              3.55 253   A     A       21 34 42.5
      comp=N,15nm,3.0s,comp=E,13nm,1.9s
HMMJ  Hamamatsu 2         3.59 241   A     A       21 34 43.1
      comp=N,10.0nm,2.0s,comp=E,8.0nm,2.8s
JANG  Nango               3.68 360   A     A       21 34 44.9
      comp=N,8.0nm,1.3s,comp=E,11nm,2.1s
JNTW  Noshirotokiwa       3.73 344   A     A       21 34 45.4
      comp=N,59nm,2.9s,comp=E,75nm,3.7s
JAO   Obara               3.74 249   A     A       21 34 45.3
      comp=N,19nm,4.2s,comp=E,19nm,1.5s
JOG3  Oga3                3.75 330   A     A       21 34 42.0
      comp=N,26nm,3.4s,comp=E,26nm,2.9s
JJH   Hakui               3.82 275   A     A       21 34 46.2
      comp=N,9.0nm,3.0s,comp=E,7.0nm,2.8s
JHJ2  Mitsune             3.84 202   S     Sn      21 35 29.4 -0.2
JHJ2  Mitsune             3.84 202         Pn      21 34 44.9 -0.8
JHJ2  Mitsune             3.84 202   P     Pn      21 34 45.1 -0.6
JHJ   Hachijo jima 2      3.84 202   P     Pn      21 34 46.1 +0.4
      comp=E,719nm,0.3s,baz=24,slow=18,SNR=40
JHJ                                  S     Sn      21 35 28.0 -1.7
      comp=E,2µm,0.4s,baz=52,slow=19,SNR=8.4
JHJ                                  LR    LR      21 36 32.5
      comp=E,2µm,18.8s,baz=34,slow=43
JHG   Hegura jima         3.85 289   A     A       21 34 46.8
      comp=N,6.0nm,3.0s,comp=E,9.0nm,2.9s
INU   Inuyama             3.89 251   P     Pn      21 34 47.7 +1.2
INU   Inuyama             3.89 251   S     Sn      21 35 29.8 -1.2
INU   Inuyama             3.89 251         Pn      21 34 47.9 +1.4
INU   Inuyama             3.89 251   P     Pn      21 34 48.7 +2.2
JICN  Ichinomiyachia      4.04 251   A     A       21 34 49.4
      comp=N,34nm,1.7s,comp=E,26nm,2.9s
JHHS  Hirosakihyakuz      4.06 347   A     A       21 34 50.1
      comp=N,32nm,2.5s,comp=E,27nm,3.3s
JIW   Iwasaki             4.08 343   A     A       21 34 50.3
      comp=N,8.0nm,3.3s,comp=E,12nm,3.0s
JTM   Tenmabayashi        4.11 355   P     Pn      21 34 51.6 +2.2
JTM   Tenmabayashi        4.11 355   S     Sn      21 35 38.2 +2.0
JTM   Tenmabayashi        4.11 355         Pn      21 34 51.0 +1.6
JTM   Tenmabayashi        4.11 355   P     Pn      21 34 52.0 +2.5
JAA   Atsumi              4.12 241   A     A       21 34 50.5
      comp=N,8.0nm,1.9s,comp=E,6.0nm,1.1s
JEG   Eigenji             4.45 251   A     A       21 34 55.1
      comp=N,7.0nm,4.1s,comp=E,6.0nm,3.2s
JIE   Ise                 4.55 241   A     A       21 34 56.6
      comp=N,7.0nm,1.3s,comp=E,5.0nm,4.0s
JAHD  Aomorihigashid      4.57 358   A     A       21 34 57.4
      comp=N,22nm,1.2s,comp=E,24nm,1.3s
JFM   Mihama              4.64 257   A     A       21 34 57.7
      comp=N,5.0nm,2.2s,comp=E,7.0nm,1.8s
JOT   Ohata               4.70 356   A     A       21 34 59.2
      comp=N,6.0nm,2.1s,comp=E,7.0nm,3.6s
JSR   Shiriuchi           4.91 350   A     A       21 35 02.1
      comp=N,6.0nm,3.8s,comp=E,8.0nm,2.5s
JKY   Yasaka              5.30 260   A     A       21 35 07.1
      comp=N,7.0nm,2.1s,comp=E,4.0nm,3.2s
ERM   Erimo               5.47  13   P     Pn      21 35 09.0 +0.9
ERM   Erimo               5.47  13 ceP     Pn      21 35 07.4 -0.7
ERM                                  pmax  pmax
      comp=Z,98nm,1.0s
ERM   Erimo               5.47  13         Pn      21 35 07.3 -0.8
ERM   Erimo               5.47  13   P     Pn      21 35 09.7 +1.6
      comp=Z,169nm,0.7s
JEM   Erimo               5.47  13   P     Pn      21 35 09.4 +1.3
JEM   Erimo               5.47  13   S     Sn      21 36 11.1 +1.4
JYM2  Yakumo 2            5.49 351   A     A       21 35 10.3
      comp=N,5.0nm,2.0s,comp=E,5.0nm,2.4s
JNBK  Urakawa-nobuka      5.66   9   A     A       21 35 12.8
      comp=N,7.0nm,2.8s,comp=E,7.0nm,1.6s
JSHD  Hidakashinhida      5.76   7   A     A       21 35 14.1
      comp=N,12nm,1.9s,comp=E,9.0nm,6.0s
JMN   Monobe              6.92 247   P     Pn      21 35 30.0 +1.8
JMN   Monobe              6.92 247         Pn      21 35 29.0 +0.8
JMN   Monobe              6.92 247   P     Pn      21 35 28.6 +0.5
      comp=Z,340nm,0.8s
NMR   Nemuro--Hokkai      7.41  24 ⇑iP     Pn      21 35 31.5 -3.2
NMR                                 iS     Sn      21 36 49.9 -7.6
JKA   Kamikawa-asahi      7.46   6         Pn      21 35 35.1 -0.4
JKA   Kamikawa-asahi      7.46   6   P     Pn      21 35 35.7 +0.2
      comp=Z,124nm,0.9s
RUSJ  Misakicho           7.93  20  eP     Pn      21 35 39.2 -2.7
RUSJ                                eS     Sn      21 37 06.3 -4.0
YUK   Yuzh-Kuril'sk       8.05  23  eP     Pn      21 35 40.8 -2.7
YUK                                 eS     Sn      21 37 07.7 -5.5
YUK                                  pmax  pmax
      comp=Z,327nm,0.2s
JNU   Nakatsue            9.44 251   P     Pn      21 36 02.5 -0.2
      comp=Z,84nm,1.0s,baz=70,slow=12,SNR=12
JNU                                  LR    LR      21 39 57.3
      comp=Z,3µm,18.4s,baz=66,slow=39
KUR   Kuril'sk            9.79  27  eP     Pn      21 36 07.0 -0.3
KUR                                 eS     Sn      21 37 51.7 -4.2
KUR                                  pmax  pmax
      comp=N,83nm,0.5s
KUR                                  pmax  pmax
      comp=Z,97nm,0.5s
KUR                                  pmax  pmax
      comp=E,75nm,0.8s
KUR                                  smax  smax
      comp=E,190nm,0.7s
KUR                                  smax  smax
      comp=N,135nm,0.2s
VLA   Vladivostok         9.80 314  iP     Pn      21 36 08.8 +1.3
JTU   Tsushima           10.11 261   P     Pn      21 36 08.8 -3.0
      comp=Z,70µm,1.2s
PSTR  Posyet             10.18 309  iP     Pn      21 36 13.3 +0.5
YSS   Yuzhno-Sakhali     10.30   5   P     Pn      21 36 15.1 +0.8
YSS   Yuzhno-Sakhali     10.30   5 ceP     Pn      21 36 14.6 +0.3
YSS                                  pmax  pmax
      comp=Z,37nm,0.7s
YSS   Yuzhno-Sakhali     10.30   5         Pn      21 36 13.9 -0.4
YSS   Yuzhno-Sakhali     10.30   5   P     Pn      21 36 14.3  0.0
      comp=Z,66nm,0.7s
USRK  Ussuriysk Ar.      10.44 319   P     Pn      21 36 17.4 +1.1
      comp=Z,14nm,0.9s,baz=131,slow=12,SNR=74
USRK                                 S     Sn      21 38 14.6 +2.7
      comp=Z,7.0nm,0.9s,baz=123,slow=24,SNR=0.7
USRK                                 LR    LR      21 40 04.9
      comp=Z,3µm,19.7s,baz=133,slow=36
USA0B Ussuriysk Arra     10.44 319  iP     Pn      21 36 16.9 +0.6
USA0B Ussuriysk Arra     10.44 319         Pn      21 36 17.6 +1.3
KSRS  Korea Array        10.90 278   P     Pn      21 36 26.1 +3.5
      comp=Z,125nm,1.0s,baz=92,slow=13,SNR=37
KSRS                                 LR    LR      21 40 31.6
      comp=Z,4µm,18.5s,baz=85,slow=37
TJN   Taejon             11.40 273   P     Pn      21 36 30.8 +1.3
TJN   Taejon             11.40 273   P     Pn      21 36 30.7 +1.3
INCN  Inchon             11.93 278   P     Pn      21 36 37.3 +0.6
INCN  Inchon             11.93 278         Pn      21 36 37.3 +0.6
MDJ   Mudanjiang         12.03 315   P     Pn      21 36 40.3 +2.3
MDJ                                  pmax  pmax
      comp=Z,9.0nm,1.7s
MDJ                                  L     L
      comp=Z,2µm,19.9s
MDJ                                  L     L
      comp=Z,2µm,24.5s
MDJ                                  L     L
      comp=Z,4µm,22.3s
MDJ   Mudanjiang         12.03 315   P     Pn      21 36 39.9 +1.9
BNX   BinXian            13.94 315  ⇓P     Pn      21 37 02.8 -1.3
BNX                                  pmax  pmax
      comp=Z,19nm,1.1s
BNX                                  pmax  pmax
      comp=Z,500nm,7.3s
CN2   Changchun          14.17 305  eP     Pn      21 37 09.1 +1.8
CN2                                 epP    P       21 37 17.0 +2.7
CN2                                 eS     Sn      21 39 45.0 +1.7
CN2                                  pmax  pmax
      comp=Z,10.0nm,0.7s
CN2                                  pmax  pmax
      comp=Z,200nm,5.0s
CN2                                  L     L
      comp=Z,400nm,13.0s
CN2                                  L     L
      comp=Z,600nm,13.0s
CN2                                  L     L
      comp=Z,900nm,14.0s
TYV   Tymovskoe          14.19   3  eP     P       21 37 13.7 -0.8
TYV                                  pmax  pmax
      comp=Z,31nm,0.9s
TYV                                  pmax  pmax
      comp=Z,100nm,2.4s
TYV                                  MLR   MLR
      comp=N,2µm,15.0s
TYV                                  MLR   MLR
      comp=Z,1µm,16.0s
KLR   Kul'dur            14.42 333   P     Pn      21 37 09.1 -1.5
      comp=Z,2.0nm,0.4s,baz=144,slow=14,SNR=6.0
KLR                                  LR    LR      21 42 41.7
      comp=Z,2µm,18.4s,baz=150,slow=37
KLR   Kul'dur            14.42 333  iP     Pn      21 37 10.9 +0.3
GRNR  Gornyy             14.54 347  eP     Pn      21 37 09.8 -2.5
GRNR                                 MLR   MLR
      comp=E,570nm,15.0s
JOW   Kunigami           14.94 233   P     Pn      21 37 17.1 -0.7
      comp=E,34nm,0.6s,baz=71,slow=9.3,SNR=1.4
JOW                                  LR    LR      21 42 48.6
      comp=E,1µm,21.2s,baz=14,slow=36
JOW   Kunigami           14.94 233         Pn      21 37 17.3 -0.5
DL2   Dalian             15.89 284   P     Pn      21 37 28.4 -1.6
DL2                                  S     Sn      21 40 22.6 -2.3
DL2                                  pmax  pmax
      comp=E,59nm,1.3s
DL2                                  pmax  pmax
      comp=E,750nm,7.3s
DL2                                  L     L
      comp=E,960nm,19.9s
DL2                                  L     L
      comp=E,3µm,19.0s
DL2                                  L     L
      comp=E,4µm,19.1s
OKH   Okha               16.89   3 deP     Pn      21 37 30.5 -12
OKH                                  MLR   MLR
      comp=E,800nm,16.0s
HEH   HeiHe              16.95 328  eP     Pn      21 37 40.4 -3.0
HEH                                  L     L
      comp=E,890nm,16.9s
HEH                                  L     L
      comp=E,1µm,15.9s
HEH                                  L     L
      comp=E,2µm,17.1s
NJ2   Nanjing            19.27 263  eP     P       21 38 08.8 -1.9
NJ2                                  pP    Pn      21 38 15.6 +3.7
NJ2                                  sP    pP      21 38 18.8 -0.9
NJ2                                  pmax  pmax
      comp=E,47nm,0.7s
NJ2                                  L     L
      comp=E,4µm,14.2s
NJ2                                  L     L
      comp=E,5µm,15.6s
NJ2                                  L     L
      comp=E,7µm,16.1s
TIA   Tai'an             19.63 276   P     P       21 38 12.8 -1.9
TIA                                  pmax  pmax
      comp=E,72nm,0.8s
TIA                                  L     L
      comp=E,1µm,20.6s
TIA                                  L     L
      comp=E,2µm,19.2s
TIA                                  L     L
      comp=E,3µm,17.2s
ZEA   Zeya               19.73 334  eP     P       21 38 12.6 -3.0
ZEA                                  pmax  pmax
      comp=N,20nm,0.7s
ZEA                                  pmax  pmax
      comp=E,10.0nm,0.7s
ZEA                                  pmax  pmax
      comp=Z,30nm,0.8s
ZEA                                  MLR   MLR
      comp=N,600nm,13.0s
ZEA                                  MLR   MLR
      comp=Z,800nm,16.0s
PEA0B Petropavlovsk-     19.94  29 ceP     P       21 38 17.8 -0.1
PEA0B Petropavlovsk-     19.94  29         P       21 38 16.9 -1.0
PETK  Petropavlovsk-     19.94  29   P     P       21 38 18.0 +0.1
      comp=Z,7.1nm,0.8s,baz=218,slow=6.7,SNR=11
PETK                                 LR    LR      21 45 41.2
      comp=Z,845nm,21.8s,baz=218,slow=36
      comp=Z,7.1nm,0.8s
PETK  Petropavlovsk-     19.94  29   P     P       21 38 18.0 +0.1
PETK  Petropavlovsk-     19.94  29         P       21 38 18.2 +0.3
BJI2  Beijing            20.14 287   P     P       21 38 18.9 -1.3
BJI2                                 pP    pP      21 38 27.4 -1.9
BJI2                                 sP    sP      21 38 31.8 -1.6
BJI2                                 PP    PnPn    21 38 38.7 +1.6
BJI2                                 S     S       21 41 58.0 -6.5
BJI2                                 pmax  pmax
      comp=Z,63nm,1.0s
BJI2                                 pmax  pmax
      comp=Z,150nm,4.9s
BJI2                                 L     L
      comp=Z,360nm,21.2s
BJI2                                 L     L
      comp=Z,520nm,21.5s
BJI2                                 L     L
      comp=Z,590nm,22.2s
BJT   Baijiatuau         20.14 287   P     P       21 38 19.3 -0.9
BJT   Baijiatuau         20.14 287   P     P       21 38 19.4 -0.8
BJT   Baijiatuau         20.14 287   P     P       21 38 16.6 -3.6
BJT                                  IAmb  IAmb    21 38 24.3
      comp=Z,156nm,1.2s
BJT   Baijiatuau         20.14 287   P     P       21 38 19.0 -1.3
      comp=Z,107nm,0.9s
HIA   Hailar             20.21 315   P     Pn      21 38 22.6 -0.4
HIA   Hailar             20.21 315   P     Pn      21 38 23.8 +0.7
      comp=Z,38nm,0.9s
PET   Petropavlovsk      20.26  31   P     Pn      21 38 23.0 -0.5
PET   Petropavlovsk      20.26  31κ iP     P       21 38 22.0 +0.6
PET                                 eS     S       21 41 59.6 -7.0
PET                                  pmax  pmax
      comp=Z,81nm,1.3s
PET                                  pmax  pmax
      comp=Z,400nm,6.6s
PET                                  pmax  pmax
      comp=Z,200nm,7.0s
PET                                  MLR   MLR
      comp=Z,800nm,16.0s
PET   Petropavlovsk      20.26  31   P     P       21 38 21.9 +0.6
PET                                  IAmb  IAmb    21 38 23.4
      comp=Z,103nm,1.2s
PET   Petropavlovsk      20.26  31   P     P       21 38 21.8 +0.4
      comp=Z,73nm,1.6s
PET   Petropavlovsk      20.26  31   P     P       21 38 22.2 +0.8
      comp=Z,77nm,1.6s
HILR  Hailar Array B     20.35 316   P     P       21 38 18.7 -3.8
      comp=Z,12nm,0.5s,baz=118,slow=12,SNR=22
HILR                                 LR    LR      21 46 24.7
      comp=Z,1µm,18.9s,baz=85,slow=37
XLT   XiLinHaoTe         20.65 298  eP     P       21 38 23.4 -2.4
XLT                                  pP    pP      21 38 33.2 -1.7
XLT                                  PP    PnPn    21 38 45.2 +1.1
XLT                                  SS    SnSn    21 42 38.5 +3.5
XLT                                  pmax  pmax
      comp=Z,64nm,1.0s
XLT                                  pmax  pmax
      comp=Z,440nm,4.8s
XLT                                  L     L
      comp=Z,3µm,15.1s
XLT                                  L     L
      comp=Z,3µm,14.9s
YHNB  Yeheng             21.02 241   P     P       21 38 28.3 -1.6
NACB  Ninganchiao        21.19 239   P     P       21 38 29.9 -1.7
NACB  Ninganchiao        21.19 239   P     P       21 38 28.6 -3.1
      comp=Z,46nm,0.9s
HNS   HongShan           21.40 280  ⇓P     P       21 38 31.1 -2.7
HNS                                  pmax  pmax
      comp=Z,180nm,0.8s
HNS                                  L     L
      comp=Z,1µm,15.7s
HNS                                  L     L
      comp=Z,2µm,19.8s
HNS                                  L     L
      comp=Z,2µm,20.6s
SSLB  Suanglung          21.88 240   P     P       21 38 37.5 -1.6
SSLB  Suanglung          21.88 240         P       21 38 36.7 -2.5
YULB  Yu-li              21.90 238   P     P       21 38 37.9 -1.4
YULB  Yu-li              21.90 238   P     P       21 38 35.8 -3.5
YULB  Yu-li              21.90 238   P     P       21 38 36.8 -2.5
      comp=Z,49nm,0.9s
TWGBT Beinan             22.44 238   P     P       21 38 43.3 -1.8
TWG   Pinlang            22.44 238   P     P       21 38 42.9 -2.2
TWG                                  IAmb  IAmb    21 38 55.1
      comp=Z,63nm,0.9s
TWG   Pinlang            22.44 238   P     P       21 38 42.5 -2.6
      comp=Z,53nm,0.7s
TIY   Taiyuan            23.16 281   P     P       21 38 52.3 -0.3
TIY                                  S     S       21 43 01.8  0.0
TIY                                  pmax  pmax
      comp=Z,62nm,0.7s
TIY                                  L     L
      comp=Z,1µm,15.8s
TIY                                  L     L
      comp=Z,2µm,19.9s
TIY                                  L     L
      comp=Z,2µm,18.5s
GUMO  Guam               23.20 172   P     P       21 38 51.2 -1.8
      comp=Z,90nm,1.0s,baz=337,slow=13,SNR=3.7
GUMO                                 S     S       21 43 00.4 -2.0
      comp=Z,29nm,0.3s,baz=199,slow=21,SNR=2.4
GUMO                                 LR    LR      21 47 38.0
      comp=Z,264nm,21.6s,baz=26,slow=36
      comp=Z,90nm,1.0s
GUMO  Guam               23.20 172   P     P       21 38 54.2 +1.2
GUMO  Guam               23.20 172         P       21 38 52.8 -0.1
GUMO  Guam               23.20 172   P     P       21 38 54.1 +1.1
      comp=Z,183nm,1.1s
WHN   Wuhan              23.41 263  ⇓P     P       21 38 52.9 -2.0
WHN                                  sP    pP      21 39 03.3 -1.0
WHN                                  pmax  pmax
      comp=Z,240nm,0.8s
HHC   Hu-ho-hao-te       23.67 289  eP     P       21 38 55.4 -2.2
HHC                                  S     S       21 43 06.6 -3.5
HHC                                  sS    pS      21 43 17.9 -2.4
HHC                                  pmax  pmax
      comp=Z,18nm,0.7s
HHC                                  pmax  pmax
      comp=Z,330nm,5.7s
HHC                                  L     L
      comp=Z,670nm,13.4s
HHC                                  L     L
      comp=Z,470nm,13.8s
HHC                                  L     L
      comp=Z,660nm,14.5s
MA2   Magadan            23.67  12   LR    LR      21 48 13.7
      comp=Z,391nm,21.3s,baz=202,slow=36
MA2   Magadan            23.67  12   P     P       21 38 58.5 +1.3
MA2   Magadan            23.67  12 ceP     P       21 38 56.9 -0.3
MA2                                  pmax  pmax
      comp=Z,41nm,0.9s
MA2   Magadan            23.67  12         P       21 38 57.9 +0.7
MA2                                  IAmb  IAmb    21 39 01.6
      comp=Z,51nm,1.0s
MA2   Magadan            23.67  12   P     P       21 38 57.8 +0.6
      comp=Z,57nm,0.9s
MA2   Magadan            23.67  12   P     P       21 38 58.6 +1.3
      comp=Z,50nm,0.8s
LYN   LuoYang            23.68 274   P     P       21 38 55.8 -1.8
LYN                                  pmax  pmax
      comp=Z,52nm,0.8s
LYN                                  L     L
      comp=Z,2µm,17.5s
LYN                                  L     L
      comp=Z,2µm,17.1s
LYN                                  L     L
      comp=Z,4µm,18.6s
BTO2  Baotou             24.95 289  eP     P       21 39 08.2 -1.1
BTO2                                 pP    pP      21 39 19.5 +0.4
BTO2                                 PP    PnPn    21 39 46.1 +3.1
BTO2                                 S     S       21 43 27.8 -2.9
BTO2                                 SS    SnSn    21 44 24.6 +4.2
BTO2                                 pmax  pmax
      comp=Z,86nm,1.3s
BTO2                                 pmax  pmax
      comp=Z,470nm,4.1s
BTO2                                 L     L
      comp=Z,2µm,13.6s
BTO2                                 L     L
      comp=Z,2µm,18.2s
BTO2                                 L     L
      comp=Z,3µm,15.3s
CIT   Chita              24.99 317  eP     P       21 39 08.8 -0.7
CIT                                 e              21 39 20.2
CIT                                 e              21 39 28.2
CIT                                 e              21 39 52.6
CIT                                 e              21 39 57.8
CIT                                 e              21 43 29.0
CIT                                  pmax  pmax
      comp=Z,134nm,1.8s
CNSH  ChangSha           25.51 259   P     P       21 39 12.1 -2.3
CNSH                                 pmax  pmax
      comp=Z,70nm,1.4s
YAK   Yakutsk            26.43 347   LR    LR      21 51 41.0
      comp=Z,524nm,18.1s,baz=144,slow=40
YAK   Yakutsk            26.43 347  eP     P       21 39 21.3 -1.0
YAK                                e*PP    pP      21 39 33.5 +1.4
YAK                                 e              21 40 03.1
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YAK                                  e      21 42 41.7
YAK                                  eS     S      21 43 51.8 -1.5
YAK                                  e*SS   sS     21 44 14.0 +4.4
YAK                                  eSS    SnSn   21 44 56.2 +0.4
YAK                                  e      21 50 11.1
YAK                                   pmax   pmax
         comp=Z,120nm,1.1s
YAK                                   pmax   pmax
         comp=N,32nm,1.0s
YAK                                   pmax   pmax
         comp=E,21nm,1.5s
YAK                                   pmax   pmax
         comp=Z,62nm,1.0s
YAK                                   pmax   pmax
         comp=N,49nm,1.5s
YAK                                   pmax   pmax
         comp=E,39nm,1.3s
YAK                                   smax   smax
         comp=N,332nm,2.3s
YAK                                   smax   smax
         comp=E,169nm,1.9s
YAK                                   MLR    MLR
         comp=Z,811nm,20.0s
YAK                                   MLR    MLR
         comp=E,688nm,20.0s
YAK                                   MLR    MLR
         comp=N,810nm,18.0s
YAK      Yakutsk          26.43 347          P      21 39 22.0 -0.3
YAK      Yakutsk          26.43 347   P      P      21 39 21.6 -0.7
         comp=Z,175nm,0.9s
XAN      Xi'an            26.65 274   P      P      21 39 23.8 -0.9
XAN                                   pP     pP     21 39 35.2 +0.6
XAN                                   pmax   pmax
         comp=Z,37nm,1.1s
XAN                                   L      L
         comp=Z,1µm,17.2s
XAN                                   L      L
         comp=Z,1µm,17.2s
XAN                                   L      L
         comp=Z,1µm,16.5s
SEY      Seymchan         27.11  11   LR     LR     21 50 25.1
         comp=Z,565nm,21.3s,baz=192,slow=37
SEY      Seymchan         27.11  11  eP      P      21 39 28.1 -0.3
SEY                                   pmax   pmax
         comp=Z,34nm,1.0s
ENH      Enshi            27.40 266   P      P      21 39 30.3 -1.1
ENH      Enshi            27.40 266   P      P      21 39 30.3 -1.1
         comp=Z,241nm,0.9s
ULN      Ulaanbaatar      27.62 305ceP      P      21 39 32.6 -0.9
ULN                                   pmax   pmax
         comp=Z,53nm,1.0s
ULN      Ulaanbaatar      27.62 305          P      21 39 33.5  0.0
ULN                                   IAmb   IAmb   21 39 35.0
         comp=Z,62nm,1.1s
ULN      Ulaanbaatar      27.62 305   P      P      21 39 32.5 -0.9
         comp=Z,2µmcomp=Z,200nm,0.9s
ULN                                   pP     pP     21 39 38.5 -4.8
         comp=Z,2µmcomp=Z,200nm,0.9s
ULN      Ulaanbaatar      27.62 305   P      P      21 39 32.8 -0.7
         comp=Z,51nm,0.9s
SHEM     Shemya Is, Ala   27.85  44   LR     LR     21 48 14.1
         comp=Z,596nm,21.9s,baz=284,slow=31
BOD      Bodaibo          27.87 328  eP      P      21 39 34.2 -1.1
BOD                                   pmax   pmax
         comp=Z,94nm,1.3s
H11N2    WAKE ISLAND Hy   27.89 120   T      T      22 08 57.4
         baz=313,slow=75,SNR=161
H11N1    WAKE ISLAND Hy   27.90 120   T      T      22 08 49.9
         baz=313,slow=75,SNR=676
H11N3    WAKE ISLAND Hy   27.91 120   T      T      22 08 56.2
         baz=313,slow=75,SNR=702
SONM     Songino Array    28.05 304   P      P      21 39 36.1 -1.2
         comp=Z,36nm,0.7s,baz=109,slow=7.9,SNR=110
SONM                                  PcP    PcP    21 42 51.2 +0.1
         comp=Z,1.3nm,0.6s,baz=174,slow=2.5,SNR=2.1
SONM                                  ScP    ScP    21 46 28.4 -0.9
         comp=Z,1.3nm,1.0s,baz=130,slow=4.5,SNR=3.5
SONM                                  LR     LR     21 51 21.8
         comp=Z,756nm,18.5s,baz=238,slow=38
         comp=Z,36nm,0.7s
SONM     Songino Array    28.05 304          P      21 39 36.6 -0.6
SONM                                  IAmb   IAmb   21 39 49.0
         comp=Z,33nm,0.7s
H11S1    WAKE ISLAND Hy   28.60 123   T      T      22 10 00.5
         baz=314,slow=76,SNR=594
H11S3    WAKE ISLAND Hy   28.60 123   T      T      22 09 46.7
         baz=314,slow=76,SNR=486
H11S2    WAKE ISLAND Hy   28.61 123   T      T      22 09 47.4
         baz=314,slow=76,SNR=540
LZH      Lanzhou          30.22 280  eP      P      21 39 56.3 -0.3
LZH                                   pP     pP     21 40 05.1 -1.4
LZH                                   pmax   pmax
         comp=Z,55nm,1.6s
LZH                                   L      L
         comp=Z,870nm,14.3s
LZH                                   L      L
         comp=Z,2µm,16.5s
LZH                                   L      L
         comp=Z,3µm,16.5s
LZDM     Lanzhou Array    30.36 280   P      P      21 39 57.5 -0.6
         comp=Z,20nm,0.6s,baz=108,slow=4.7,SNR=34
LZDM                                  LR     LR     21 53 02.7
         comp=Z,2µm,18.4s,baz=75,slow=38
         comp=Z,20nm,0.6s
IRK      Irkutsk          30.40 313  eP      P      21 39 55.7 -2.1
IRK                                   pmax   pmax
         comp=Z,37nm,2.2s
ZAK      Zakamensk        30.55 309  eP      P      21 39 58.3 -1.1
ZAK                                   pmax   pmax
         comp=Z,19nm,1.2s
GYA      Guiyang          31.25 261  ⇓P      P      21 40 04.8 -1.0
GYA                                   pmax   pmax
         comp=Z,110nm,1.0s
GYA                                   pmax   pmax
         comp=Z,410nm,5.7s
GYA                                   L      L
         comp=Z,1µm,20.9s
GYA                                   L      L
         comp=Z,1µm,22.2s
GYA                                   L      L
         comp=Z,2µm,22.6s
MOY      Mondy            32.23 311  eP      P      21 40 13.9 -0.2
MOY                                  e             21 41 24.6
MOY                                   pmax   pmax
         comp=Z,17nm,2.0s
GTA2     Gaotai           32.78 288   P      P      21 40 18.2 -0.9
GTA2                                  ScS    ScS    21 50 43.3 -1.7
GTA2                                  pmax   pmax
         comp=Z,25nm,0.8s
GTA2                                  L      L
         comp=Z,1µm,16.5s
GTA2                                  L      L
         comp=Z,2µm,14.1s
GTA2                                  L      L
         comp=Z,2µm,14.8s
QIZ      Qiongzhong       32.87 246   P      P      21 40 20.0 +0.1
QIZ                                   S      S      21 45 36.2 +0.9
QIZ                                   L      L
         comp=Z,600nm,18.1s
QIZ                                   L      L
         comp=Z,360nm,13.2s
QIZ                                   L      L
         comp=Z,760nm,13.9s
QIZ      Qiongzhong       32.87 246   P      P      21 40 20.4 +0.5
         comp=Z,28nm,2.1s
BILL     Bilibino         34.33  16  i P      P      21 40 33.5 +1.4
BILL                                  pmax   pmax
         comp=Z,15nm,1.3s
KMI2     Kunming          34.98 262  ⇑P      P      21 40 37.3 -1.2
KMI2                                  pP     pP     21 40 47.6 -0.9
KMI2                                  pmax   pmax
         comp=Z,50nm,1.0s
KMI2                                  pmax   pmax
         comp=Z,260nm,4.7s
KMI2                                  L      L
         comp=Z,870nm,20.1s
KMI2                                  L      L
         comp=Z,800nm,25.2s
KMI2                                  L      L
         comp=Z,1µm,22.1s
KMI      Kunming          35.00 262   P      P      21 40 37.6 -1.0
KMI                                   pP     pP     21 40 47.8 -0.9
PZH      PanZhiHua        35.16 265   P      P      21 40 38.8 -1.1
PZH                                   S      S      21 46 13.1 +2.3
PZH                                   pmax   pmax
         comp=Z,90nm,0.6s
PZH                                   pmax   pmax
         comp=Z,260nm,8.0s
PZH                                   L      L
         comp=Z,670nm,15.7s
PZH                                   L      L
         comp=Z,1µm,15.9s
PZH                                   L      L
         comp=Z,2µm,16.7s
SLVN     Son La           36.03 255   P      P      21 40 47.4 +0.1
SLVN     Son La           36.03 255          P      21 40 46.8 -0.5
SLVN                                  IAmb   IAmb   21 40 48.2
         comp=Z,29nm,1.0s
SLVN     Son La           36.03 255   P      P      21 40 47.6 +0.3
         comp=Z,29nm,0.9s
GOMU     GeErMu           37.29 284   P      P      21 40 57.8 -0.5
GOMU                                  pP     pP     21 41 01.8 -6.4
GOMU                                  sP     sP     21 41 05.8 -6.4
GOMU                                  S      S      21 46 44.1 +0.4
GOMU                                  pmax   pmax
         comp=Z,87nm,1.1s
GOMU                                  L      L
         comp=Z,1µm,12.9s
GOMU                                  L      L
         comp=Z,660nm,12.8s
GOMU                                  L      L
         comp=Z,1µm,12.9s
TNTI     Ternate          38.07 203   P      P      21 41 05.5 +1.0
TNTI     Ternate          38.07 203          P      21 41 04.7 +0.2
TNTI                                  IAmb   IAmb   21 41 19.0
         comp=Z,31nm,0.7s
TNTI     Ternate          38.07 203   P      P      21 41 06.0 +1.5
         comp=Z,830nmcomp=Z,54nm,0.7s
TNTI     Ternate          38.07 203   P      P      21 41 04.9 +0.3
         comp=Z,48nm,0.7s
MNI      Manado           38.32 208   P      P      21 41 06.8 +0.2
         comp=Z,3µmcomp=Z,125nm,0.6s
TNCH     TengChong        38.41 265  ⇑P      P      21 41 07.2 -0.4
TNCH                                  pP     pP     21 41 17.8 +0.2
TNCH                                  sP     sP     21 41 24.2 +2.6
TNCH                                  PP     PnPn   21 42 38.2 +0.4
TNCH                                  S      S      21 46 56.5 -4.0
TNCH                                  sS     pS     21 47 14.5 +2.4
TNCH                                  pmax   pmax
         comp=Z,79nm,1.2s
TNCH                                  L      L
         comp=Z,590nm,15.0s
TNCH                                  L      L
         comp=Z,470nm,15.4s
TNCH                                  L      L
         comp=Z,1µm,22.1s
SWI      Sorong           38.56 197   P      P      21 41 09.8 +1.2
SWI      Sorong           38.56 197   P      P      21 41 09.8 +1.2
DLV       Lat             38.58 239   P      P      21 41 09.8 +0.7
DLV       Lat             38.58 239   P      P      21 41 08.9 -0.2
DLV       Lat             38.58 239   P      P      21 41 09.9 +0.7
         comp=Z,72nm,0.7s
GENI     Genyem           39.10 182   P      P      21 41 15.5 +2.3
GENI     Genyem           39.10 182   P      P      21 41 14.4 +1.2
         comp=Z,83nm,0.9s
GENI     Genyem           39.10 182   P      P      21 41 15.0 +1.8
         comp=Z,82nm,1.0s
GTOI     Gorontalo        39.76 210   P      P      21 41 18.2 -0.5
         comp=Z,709nmcomp=Z,61nm,1.4s
TOLI2    Tolitoli         40.27 213   P      P      21 41 22.5 -0.4
TOLI2    Tolitoli         40.27 213          P      21 41 21.6 -1.4
TOLI2    Tolitoli         40.27 213   P      P      21 41 22.8 -0.2
         comp=Z,26nm,1.0s
FAKI     Fak Fak          40.34 194          P      21 41 23.6 +0.1
FAKI                                  IAmb   IAmb   21 41 27.4
         comp=Z,49nm,0.7s
WMQ      Urumqi           41.08 297  eP      P      21 41 30.0 +0.5
WMQ                                   pP     pP     21 41 40.7 +1.2
WMQ                                   pmax   pmax
         comp=Z,60nm,0.9s
WMQ                                   pmax   pmax
         comp=Z,250nm,3.7s
WMQ                                   L      L
         comp=Z,900nm,15.3s
SANI     Sanana           41.17 204   P      P      21 41 29.7 -0.6
SANI     Sanana           41.17 204   P      P      21 41 40.0 +10
SANI     Sanana           41.17 204   P      P      21 41 29.5 -0.8
         comp=Z,252nm,0.8s
SANI                                  pP     pP     21 41 39.7 -0.5
CHTO     Chiang Mai       41.30 256   P      P      21 41 31.3 -0.1
CHTO     Chiang Mai       41.30 256   P      P      21 41 30.9 -0.5
CHTO                                  pmax   pmax
         comp=Z,26nm,0.8s
CHTO     Chiang Mai       41.30 256          P      21 41 30.9 -0.5
CHTO                                  IAmb   IAmb   21 41 43.4
         comp=Z,26nm,0.8s
CHTO     Chiang Mai       41.30 256   P      P      21 41 30.7 -0.7
         comp=Z,36nm,0.8s
CHTO     Chiang Mai       41.30 256   P      P      21 41 31.1 -0.4
         comp=Z,36nm,0.8s
CHTO     Chiang Mai       41.30 256   P      P      21 41 31.0 -0.4
CHTO                                  pP     pP     21 41 41.0 -0.4
CM31     Chiang Mai Arr   41.50 256   P      P      21 41 32.6 -0.5
CMAR     Chiang Mai Arr   41.50 256   P      P      21 41 32.4 -0.7
         comp=Z,8.9nm,0.7s,baz=54,slow=7.8,SNR=74
         comp=Z,8.9nm,0.7s
CMAR     Chiang Mai Arr   41.50 256ceP      P      21 41 33.2 +0.1
CMAR                                  pmax   pmax
         comp=Z,10.0nm,0.7s
CMAR     Chiang Mai Arr   41.50 256          P      21 41 32.6 -0.5
NLAI     Namlea           41.94 202   P      P      21 41 39.3 +2.7
         comp=Z,1µmcomp=Z,115nm,1.0s
KRVT     Keravat (AS076   41.95 164   LR     LR     21 56 48.9
         comp=Z,192nm,20.2s,baz=307,slow=33
ZALV     Zalesovo Beam    42.21 313   P      P      21 41 37.6 -0.9
         comp=Z,18nm,0.5s,baz=99,slow=7.1,SNR=28
ZALV                                  PcP    PcP    21 43 32.1  0.0
         comp=Z,14nm,0.8s,baz=89,slow=2.3,SNR=5.1
         comp=Z,18nm,0.5s
ZALV     Zalesovo Beam    42.21 313  i P      P      21 41 38.2 -0.3
ZALV                                  pmax   pmax
         comp=Z,18nm,0.5s
ZALV     Zalesovo Beam    42.21 313   P      P      21 41 38.5  0.0
ZALV                                         PcP    21 43 32.0 -0.1
LSA      Lhasa            42.33 276   P      P      21 41 41.7 +1.3
LSA      Lhasa            42.33 276   P      P      21 41 40.8 +0.5
LSA      Lhasa            42.33 276   P      P      21 41 41.7 +1.3
         comp=Z,54nm,1.0s
LSA      Lhasa            42.33 276   P      P      21 41 41.3 +0.9
LSA                                   pP     pP     21 41 51.8 +1.4
PCI      Palu             42.48 213   P      P      21 41 40.1 -1.0
         comp=Z,61nm,1.1s
ZSN      Zaisan           42.55 303  eP      P      21 41 41.5 +0.2
ZSN                                   pmax   pmax
         comp=Z,30nm,1.3s
ZSN      Zaisan           42.55 303  eP      P      21 41 41.6 +0.2
         comp=Z,30nm,1.3s
M14K     Bethel           42.61  37   P      P      21 41 42.4 +0.9
M14K                                  IAmb   IAmb   21 41 58.2
         comp=Z,48nm,0.9s
C16K     Lisburne Hills   42.97  26          P      21 41 45.3 +0.9
NPW      Naypyitaw        42.97 260   P      P      21 41 46.4 +1.3
         comp=Z,153nm,0.9s
SHL      Shillong         43.49 270   P      P      21 41 48.8 -0.7
SHL                                   pmax   pmax
         comp=Z,29nm,0.9s
SHL      Shillong         43.49 270          P      21 41 48.8 -0.7
SHL                                   IAmb   IAmb   21 42 04.9
         comp=Z,29nm,0.9s
NRIK     Noril'sk         43.62 335   P      P      21 41 49.6  0.0
         comp=Z,4.2nm,0.4s,baz=108,slow=6.4,SNR=4.5
         comp=Z,4.2nm,0.4s
NRIK     Noril'sk         43.62 335  i P      P      21 41 50.3 +0.6
NRIK                                  pmax   pmax
         comp=Z,12nm,1.0s
RDOG     Red Dog Mine     43.77  27   P      P      21 41 51.8 +0.8
MK31     Makanchi Array   44.38 302ceP      P      21 41 56.7 +0.6
MKAR     Makanchi Array   44.38 302   P      P      21 41 55.6 -0.5
         comp=Z,19nm,0.6s,baz=84,slow=9.7,SNR=13
MKAR                                  LR     LR     22 00 51.9
         comp=Z,848nm,20.6s,baz=135,slow=37
         comp=Z,19nm,0.6s
MKAR     Makanchi Array   44.38 302ceP      P      21 41 55.7 -0.4
MKAR                                  pmax   pmax
         comp=Z,20nm,0.6s
MKAR     Makanchi Array   44.38 302   P      P      21 41 56.1 -0.1
C18K     Utukok River     44.55  26          P      21 41 57.4 +0.2
C18K                                  IAmb   IAmb   21 42 13.9
         comp=Z,38nm,0.8s
K17K     Iditarod         44.58  35          P      21 41 57.9 +0.4
K17K                                  IAmb   IAmb   21 42 00.5
         comp=Z,32nm,0.9s
MAKZ     Makanchi         44.59 302   P      P      21 41 57.8  0.0
         comp=Z,51nm,0.7s
MAKZ     Makanchi         44.59 302   P      P      21 41 57.8  0.0
MAKZ                                  pP     pP     21 42 08.2 +0.2
M17K     Holitna River    44.86  37          P      21 42 00.0 +0.3
M17K                                  IAmb   IAmb   21 42 02.7
         comp=Z,34nm,1.1s
H18K     Honhosa River    44.89  31   P      P      21 42 00.4 +0.4
G18K     Tagagawik        44.90  30          P      21 42 00.5 +0.6
BRDH     Bariadhala       45.06 266   P      P      21 42 00.5 -1.3
         comp=Z,99nm,0.3s,baz=90,slow=20,SNR=1.5
BRDH                                  LR     LR     22 01 37.5
         comp=Z,1µm,19.0s,baz=70,slow=37
SEM      Semipalatinsk    45.22 308  eP      P      21 42 02.9 -0.1
SEM                                   pmax   pmax
         comp=Z,15nm,0.9s
SEM      Semipalatinsk    45.22 308  eP      P      21 42 03.0 -0.1
         comp=Z,15nm,0.9s
C19K     Lookout Ridge    45.23  26          P      21 42 03.4 +0.8
L18K     Granite Mounta   45.28  36          P      21 42 03.4 +0.3
L18K                                  IAmb   IAmb   21 43 47.4
         comp=Z,90nm,2.0s
G19K     Purcell Mounta   45.57  30          P      21 42 05.3  0.0
N18K     Kilae Creek      45.57  38          P      21 42 05.9 +0.5
N18K                                  IAmb   IAmb   21 42 38.5
         comp=Z,77nm,1.7s
D19K     Kuna River       45.61  27   P      P      21 42 05.5 -0.1
D19K                                  IAmb   IAmb   21 42 22.7
         comp=Z,35nm,0.9s
E19K     Redstone River   45.73  28          P      21 42 07.2 +0.6
E19K                                  IAmb   IAmb   21 42 24.5
         comp=Z,30nm,0.8s
STKI     Sintang          45.86 224   P      P      21 42 09.3 +1.2
         comp=Z,59nm,1.1s
J19K     Poorman          45.92  33          P      21 42 09.1 +1.0
J19K                                  IAmb   IAmb   21 42 20.7
         comp=Z,21nm,1.0s
L19K     White Mountain   46.14  36   P      P      21 42 10.7 +0.8
PMG      Port Moresby     46.16 172   LR     LR     22 01 42.4
         comp=Z,101nm,21.0s,baz=353,slow=36
D20K     Etivluk River    46.19  26          P      21 42 10.2  0.0
D20K                                  IAmb   IAmb   21 42 27.3
         comp=Z,38nm,1.1s
KAPI     Kappang          46.21 211   P      P      21 42 12.6 +1.7
KAPI     Kappang          46.21 211          P      21 42 09.6 -1.3
KAPI     Kappang          46.21 211   P      P      21 42 11.9 +1.0
         comp=Z,31nm,0.8s
KAPI     Kappang          46.21 211   P      P      21 42 12.2 +1.3
         comp=Z,60nm,0.8s
KURK     Kurchatov        46.22 308ceP      P      21 42 10.7 +0.1
KURK                                  pmax   pmax
         comp=Z,76nm,1.0s
KURK     Kurchatov        46.22 308   P      P      21 42 10.5 -0.1
KURK     Kurchatov        46.22 308   P      P      21 42 10.5 -0.1
         comp=Z,220nm,1.0s
KURK     Kurchatov        46.22 308   P      P      21 42 10.0 -0.6
KURK                                  pP     pP     21 42 21.4 +0.6
B20K     Meade River      46.27  25          P      21 42 11.3 +0.6
KURBB    Kurchatov Arra   46.29 308   P      P      21 42 10.4 -0.7
         comp=Z,40nm,0.8s,baz=84,slow=7.9,SNR=33
KURBB                                 LR     LR     22 02 24.0
         comp=Z,1µm,19.7s,baz=159,slow=37
         comp=Z,40nm,0.8s
PKKI     Palangkaraya     46.45 220   P      P      21 42 13.3 +0.5
EVN      Everest          46.51 276   P      P      21 42 14.6 +0.6
         comp=Z,78nm,1.1s
K20K     Telida           46.56  34          P      21 42 13.1  0.0
K20K                                  IAmb   IAmb   21 42 27.4
         comp=Z,16nm,0.8s
J20K     Nowinta River    46.58  33          P      21 42 13.4 +0.2
J20K                                  IAmb   IAmb   21 42 15.9
         comp=Z,25nm,1.1s
IMAR     Indian Mountai   46.90  30   P      P      21 42 16.2 +0.5
PDGK     Podgornoye       47.02 298          P      21 42 16.7 -0.4
G21K     Allakaket        47.05  30          P      21 42 17.7 +0.7
SHLS     Shalkode         47.08 298  eP      P      21 42 15.1 -2.5
SHLS                                  pmax   pmax
         comp=Z,9.0nm,0.5s
SHLS     Shalkode         47.08 298  eP      P      21 42 15.1 -2.5
         comp=Z,9.3nm,0.5s
F21K     Alatna River     47.13  29   P      P      21 42 18.1 +0.5
H21K     Melozitna Rive   47.26  31   P      P      21 42 19.4 +0.9
KDAK     Kodiak Island    47.29  42   LR     LR     22 01 51.1
         comp=Z,604nm,21.7s,baz=236,slow=36
TDK      Taldyqorghan     47.38 301  eP      P      21 42 20.1 +0.3
TDK                                   pmax   pmax
         comp=Z,15nm,0.6s
TDK      Taldyqorghan     47.38 301  eP      P      21 42 20.1 +0.3
         comp=Z,15nm,0.6s
UZB      Uzynbulak        47.39 298  eP      P      21 42 20.0 -0.1
UZB                                   pmax   pmax
         comp=Z,14nm,1.1s
UZB      Uzynbulak        47.39 298  eP      P      21 42 20.1 -0.1
         comp=Z,14nm,1.1s
KPKS     Kokpek           47.55 299  eP      P      21 42 21.4 +0.1
KPKS     Kokpek           47.55 299  eP      P      21 42 21.4 +0.1
STLK     Strandline Lak   47.55  37   IAmb   IAmb   21 42 24.5
         comp=Z,49nm,1.9s
D22K     Ayikyak River    47.63  27   P      P      21 42 21.8 +0.4
WUS      Wushi            47.76 296   P      P      21 42 24.1 +1.1
         comp=Z,123nm,1.1s
WUS      Wushi            47.76 296   P      P      21 42 23.7 +0.7
H22K     Ishtalitna Cre   47.86  31          P      21 42 23.9 +0.6
MLY      Manley           48.09  32          P      21 42 26.1 +1.0
MLY                                   IAmb   IAmb   21 42 27.9
         comp=Z,19nm,1.0s
TRF      Thorofare Moun   48.27  34   IAmb   IAmb   21 42 45.0
         comp=Z,18nm,1.0s
D23K     Nanushuk River   48.36  27          P      21 42 27.7 +0.7
D23K                                  IAmb   IAmb   21 42 44.6
         comp=Z,19nm,0.9s
C23K     Itkillik River   48.47  25          P      21 42 28.1 +0.3
TARG     Taragay, Kyrgy   48.63 297   P      P      21 42 30.4 +0.4
TARG                                  pmax   pmax
         comp=Z,83nm,0.9s
TARG     Taragay, Kyrgy   48.63 297          P      21 42 30.4 +0.4
I23K     Minto, Yukon-K   48.68  32   P      P      21 42 29.7 +0.2
E23K     Chandalar        48.68  28          P      21 42 30.6 +1.0
E23K                                  IAmb   IAmb   21 42 42.8
         comp=Z,32nm,0.9s
KULM     Kulim            48.72 240   P      P      21 42 30.8 +0.3
KULM     Kulim            48.72 240          P      21 42 29.7 -0.8
KULM                                  IAmb   IAmb   21 42 42.3
         comp=Z,26nm,1.2s
KULM     Kulim            48.72 240   P      P      21 42 31.3 +0.8
         comp=Z,19nm,1.6s
MDOK     Medeo            48.78 299  eP      P      21 42 31.1 +0.2
MDOK     Medeo            48.78 299  eP      P      21 42 31.1 +0.2
NEA2     Nenana           48.80  32   P      P      21 42 31.1 +0.6
NEA2                                  IAmb   IAmb   21 42 33.0
         comp=Z,36nm,1.2s
PMR      Palmer           48.85  36   P      P      21 42 31.5 +0.7
PMR      Palmer           48.85  36   P      P      21 42 30.7 -0.1
PMR                                   pmax   pmax
         comp=Z,13nm,0.9s
PMR      Palmer           48.85  36   P      P      21 42 30.7 -0.1
MCK      McKinley         48.87  34   P      P      21 42 31.4 +0.4
MCK                                   pmax   pmax
         comp=Z,14nm,1.0s
MCK      McKinley         48.87  34          P      21 42 31.4 +0.4
TNSS     Tian-Shan        48.89 298  eP      P      21 42 31.6 -0.3
TNSS     Tian-Shan        48.89 298  eP      P      21 42 31.7 -0.3
RND      Reindeer         48.91  34   IAmb   IAmb   21 42 33.0
         comp=Z,22nm,1.1s
GHO      Glory Hole Cre   48.94  36   IAmb   IAmb   21 42 45.3
         comp=Z,18nm,0.8s
HNR      Honiara          49.03 156   LR     LR     22 00 09.5
         comp=Z,368nm,21.7s,baz=54,slow=32
D24K     Happy Valley     49.04  26   IAmb   IAmb   21 42 49.4
         comp=Z,33nm,0.9s
KUU      Kurty            49.09 300  eP      P      21 42 33.1 +0.1
KUU                                   pmax   pmax
         comp=Z,12nm,0.9s
KUU      Kurty            49.09 300  eP      P      21 42 33.2 +0.2
         comp=Z,12nm,0.9s
E24K     Your Creek       49.10  28   IAmb   IAmb   21 42 50.3
         comp=Z,30nm,1.1s
MYKOM    Kota Tinggi      49.13 234   P      P      21 42 35.1 +1.5
MYKOM    Kota Tinggi      49.13 234          P      21 42 32.8 -0.8
MYKOM                                 IAmb   IAmb   21 42 45.6
         comp=Z,23nm,0.9s
MYKOM    Kota Tinggi      49.13 234   P      P      21 42 34.8 +1.2
         comp=Z,28nm,0.9s
SML      Sawmill          49.22  36   IAmb   IAmb   21 42 47.5
         comp=Z,21nm,0.8s
PWL      Port Wells       49.27  37   IAmb   IAmb   21 42 46.8
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	comp=Z,46nm,1.5s						
H24K	Noodor Dome	49.30	31	IAmb	IAmb	21 42 52.1	
	comp=Z,14nm,0.8s						
LBFI	Labuhan Bajo,	49.31	209	P	P	21 42 33.9	-1.0
COLA	College	49.32	32	P	P	21 42 35.9	+1.5
COLA	College	49.32	32	P	P	21 42 35.7	+1.3
	comp=Z,22nm,0.8s						
COLA	College	49.32	32	P	P	21 42 35.9	+1.5
COLA				ScP	ScP	21 47 50.2	+1.0
TPRI	Tanjung Pinang	49.36	232	P	P	21 42 37.3	+2.0
BTDF	Bukit Timah Da	49.51	234	P	P	21 42 37.5	+1.0
SCM	Sheep Creek Mo	49.69	36	IAmb	IAmb	21 42 53.9	
	comp=Z,25nm,1.0s						
HDA	Harding Lake	49.72	33	IAmb	IAmb	21 42 38.9	
	comp=Z,17nm,1.0s						
IL31		49.74	32	IAmb	IAmb	21 42 50.7	
	comp=Z,18nm,0.9s						
ILAR	Eielson Array	49.74	32	P	P	21 42 37.1	-0.5
	comp=Z,6.6nm,0.8s,baz=271,slow=7.5,SNR=54						
	comp=Z,6.6nm,0.8s						
ILAR	Eielson Array	49.74	32		P	21 42 37.7	+0.1
KDU	Kakadu	49.85	192	P	P	21 42 39.5	+0.6
	comp=Z,18nm,0.9s,comp=Z,0.0nm,3.3s						
D25K	Kavik River	49.92	26	IAmb	IAmb	21 42 55.8	
	comp=Z,26nm,0.8s						
F25K	Christian Rive	50.18	28	IAmb	IAmb	21 42 54.6	
	comp=Z,15nm,0.8s						
TPI	Tanjungpandan	50.34	226	P	P	21 42 43.4	+0.6
	comp=Z,716nmcomp=Z,79nm,1.1s						
TPI				pP	pP	21 42 53.6	+0.6
	comp=Z,716nmcomp=Z,79nm,1.1s						
FYU	Fort Yukon	50.36	30	IAmb	IAmb	21 43 26.0	
	comp=Z,22nm,1.0s						
KLU	Klutina	50.39	36	IAmb	IAmb	21 42 58.5	
	comp=Z,16nm,1.0s						
SGDS	Sogindy	50.40	300	*e*P	P	21 42 43.2	+0.1
	comp=Z,30nm,1.5s						
DIV	Divide	50.49	37	IAmb	IAmb	21 42 59.9	
	comp=Z,19nm,0.9s						
EYAK	Cordova Ski Ar	50.57	38	P	P	21 42 45.8	+1.9
EYAK	Cordova Ski Ar	50.57	38	IAmb	IAmb	21 43 05.1	
	comp=Z,23nm,1.0s						
BMAR	Burnt Mountain	50.59	29		P	21 42 44.8	+0.7
HARP	HAARP	50.66	35	IAmb	IAmb	21 43 05.0	
	comp=Z,26nm,0.9s						
AAK	Ala-Archa	50.73	299	P	P	21 42 45.7	0.0
	comp=Z,24nm,1.0s,baz=85,slow=12,SNR=4.4						
AAK				LR	LR	22 05 32.1	
	comp=Z,2µm,19.1s,baz=99,slow=38						
	comp=Z,24nm,1.0s						
AAK	Ala-Archa	50.73	299	P	P	21 42 45.9	+0.2
F26K	Sheenjek River	50.75	28	IAmb	IAmb	21 42 59.2	
	comp=Z,23nm,0.8s						
BVAR	Borovoye Array	50.87	313	P	P	21 42 45.2	-1.2
	comp=Z,14nm,0.9s,baz=85,slow=8.2,SNR=6.1						
BVAR				PcP	PcP	21 44 02.7	+0.1
	comp=Z,15nm,0.7s,baz=88,slow=5.0,SNR=3.0						
	comp=Z,14nm,0.9s						
G26K	Porcupine Rive	50.92	29	IAmb	IAmb	21 43 02.2	
	comp=Z,52nm,1.9s						
KHKI	Kahang-Kahang	51.00	214	P	P	21 42 49.0	+1.4
KHKI				pP	pP	21 42 59.6	+1.9
SCRK	Sand Creek	51.04	33	IAmb	IAmb	21 42 49.4	
	comp=Z,22nm,1.2s						
KSH2	Kashi	51.05	294	P	P	21 42 51.8	+3.7
KSH2				pmax	pmax		
	comp=Z,41nm,1.3s						
KSH2				L	L		
	comp=Z,860nm,15.5s						
KSH2				L	L		
	comp=Z,600nm,14.6s						
KSH2				L	L		
	comp=Z,1µm,16.5s						
BMRM	Bremner River	51.08	37	IAmb	IAmb	21 43 12.6	
	comp=Z,26nm,1.0s						
RAGM	Ragged Mountai	51.12	38	IAmb	IAmb	21 43 14.8	
	comp=Z,28nm,1.1s						
MENT	Mentasta	51.27	34	P	P	21 42 51.0	+1.8
KAIM	Kayak Island	51.31	38	IAmb	IAmb	21 43 05.8	
	comp=Z,23nm,0.9s						
VRDI	Verde Repeater	51.60	37	IAmb	IAmb	21 43 06.7	
	comp=Z,50nm,1.8s						
PSI	Prapat	51.70	239	P	P	21 42 53.5	+0.3
PSI	Prapat	51.70	239	P	P	21 42 53.3	+0.1
RPSI	Rantau Prapat	51.77	239	P	P	21 42 53.0	-0.6
	comp=Z,52nm,0.8s						
MCARA	McCarthy VSAT	51.78	36	IAmb	IAmb	21 43 09.8	
	comp=Z,17nm,0.9s						
CRQM	Cirque	51.82	37	IAmb	IAmb	21 43 14.5	
	comp=Z,28nm,1.0s						
H27K	Steamboat Moun	51.87	30	IAmb	IAmb	21 42 57.1	
	comp=Z,70nm,1.9s						
BKNI	Bangkinang	52.07	235	P	P	21 42 57.6	+1.8
BKNI	Bangkinang	52.07	235	P	P	21 42 57.3	+1.5
BKNI	Bangkinang	52.07	235	P	P	21 42 57.9	+2.1
	comp=Z,361nm,0.9s						
BCAR	Beaver Creek A	52.13	34		P	21 42 56.3	+0.6
M27K	Edge Creek, AK	52.18	35	IAmb	IAmb	21 43 10.1	
	comp=Z,56nm,1.7s						
SNJI	Sawahan-Nganju	52.31	218	P	P	21 42 57.8	+0.1
	comp=Z,52nm,0.8s						
SMRI	Semarang	52.36	220	P	P	21 42 59.4	+1.5
SMRI	Semarang	52.36	220	P	P	21 42 59.4	+1.5
	comp=Z,114nm,1.0s						
I28M	Miner Creek	52.61	31	IAmb	IAmb	21 43 13.5	
	comp=Z,14nm,0.7s						
SDSI	Sungai Dareh	52.76	234	P	P	21 43 00.9	0.0
	comp=Z,2µmcomp=Z,159nm,1.0s						
DZA	Taraz	52.87	300	*e*P	P	21 43 01.5	0.0
DZA	Taraz	52.87	300	*e*P	P	21 43 01.6	0.0
E29M	Blow River	53.03	27	IAmb	IAmb	21 43 17.7	
	comp=Z,24nm,1.1s						
DAWY	Dawson	53.04	33	IAmb	IAmb	21 43 17.1	
	comp=Z,39nm,1.9s						
PPI	Padang Panjang	53.08	235	P	P	21 43 03.8	+0.6
G29M	Pine Creek	53.18	29	IAmb	IAmb	21 43 17.2	
	comp=Z,36nm,0.9s						
KNRA	Kununurra	53.46	195	P	P	21 43 06.5	+0.7
	comp=Z,35nm,0.8s,comp=Z,0.0nm,6.5s						
KNRA	Kununurra	53.46	195		P	21 43 05.7	-0.2
KNRA				IAmb	IAmb	21 43 21.3	
	comp=Z,24nm,0.7s						
GSI	Gunungsitoli	53.70	239	P	P	21 43 08.2	+0.4
GSI	Gunungsitoli	53.70	239	P	P	21 43 08.1	+0.3
GSI	Gunungsitoli	53.70	239	P	P	21 43 08.2	+0.4
	comp=Z,286nm,1.0s						
L29M	L29M	53.76	34	IAmb	IAmb	21 43 11.1	
	comp=Z,25nm,1.0s						
MDSI	Maura Dua	53.78	229	P	P	21 43 07.9	-0.5
	comp=Z,1µmcomp=Z,125nm,1.0s						
PNL	Peninsula	53.85	38	P	P	21 43 09.9	+1.5
BRLS	Borolday	53.87	300	*e*P	P	21 43 10.1	+1.3
BRLS				pmax	pmax		
	comp=Z,21nm,1.5s						
BRLS	Borolday	53.87	300	*e*P	P	21 43 10.2	+1.3
	comp=Z,21nm,1.5s						
G30M	tAoh Zraii Nji	53.87	29	IAmb	IAmb	21 43 21.5	
	comp=Z,25nm,0.9s						
K29M	Barlow Dome	53.89	33	IAmb	IAmb	21 43 12.8	
	comp=Z,16nm,0.9s						
F30M	Barrier River	53.93	28	IAmb	IAmb	21 43 26.7	
	comp=Z,26nm,0.9s						
O29M	Mount Kennedy	54.12	37	IAmb	IAmb	21 43 13.8	
	comp=Z,23nm,1.1s						
CHM	Chimkent	54.27	300	*e*P	P	21 43 12.0	+0.3
CHM	Chimkent	54.27	300	*e*P	P	21 43 12.0	+0.3
HYT	Haines Junctio	54.52	36	IAmb	IAmb	21 43 16.9	
	comp=Z,49nm,1.4s						
INK	Inuvik	54.65	27	P	P	21 43 15.6	+1.6
INK	Inuvik	54.65	27	P	P	21 43 15.2	+1.3
	comp=Z,14nm,0.9s						
P29M	Windy Craggy	54.68	38	IAmb	IAmb	21 43 17.8	
	comp=Z,18nm,0.8s						
F31M	Tsiigehtchic	54.74	28	IAmb	IAmb	21 43 29.6	
	comp=Z,56nm,1.6s						
NIL	Nilore	54.81	289	P	P	21 43 16.2	+0.4
NIL				pmax	pmax		
	comp=Z,110nm,1.1s						
NIL	Nilore	54.81	289		P	21 43 16.2	+0.4
NIL	Nilore	54.81	289	P	P	21 43 17.0	+1.2
	comp=Z,143nm,0.9s						
N31M	Braeburn, Yuko	55.18	35	IAmb	IAmb	21 43 21.3	
	comp=Z,17nm,1.0s						
SVE	Sverdlovsk	55.47	319	*e*P	P	21 43 31.1	+11
SVE				pmax	pmax		
	comp=Z,79nm,0.9s						
WHY	Whitehorse	55.81	36	IAmb	IAmb	21 43 25.6	
	comp=Z,28nm,1.0s						
SKAG	Skagway	55.91	38	P	P	21 43 25.3	+2.1
FITZ	Fitzroy Crossi	56.52	198	P	P	21 43 28.8	+0.8
	comp=Z,5.5nm,0.8s						
FITZ	Fitzroy Crossi	56.52	198	P	P	21 43 28.9	+0.9
FITZ	Fitzroy Crossi	56.52	198	P	P	21 43 28.8	+0.9
	comp=Z,5.5nm,0.8s						
WB0	Warramunga Arr	56.55	188		P	21 43 27.6	-0.6
SIT	Sitka	56.59	41	P	P	21 43 30.3	+2.2
CTA	Charters Tower	56.65	175	LR	LR	22 07 03.9	
	comp=Z,79nm,20.9s,baz=17,slow=35						
P32M	Atlin	56.66	37	IAmb	IAmb	21 43 31.7	
	comp=Z,18nm,1.1s						
JIS	Juneau Island	56.71	39	P	P	21 43 30.7	+1.8
WRAB	Tennant Creek	56.72	188	P	P	21 43 29.1	-0.3
WRAB	Tennant Creek	56.72	188	*ce*P	P	21 43 29.6	+0.2
WRAB				pmax	pmax		
	comp=Z,19nm,0.8s						
WRAB	Tennant Creek	56.72	188	P	P	21 43 28.7	-0.8
WRAB	Tennant Creek	56.72	188	P	P	21 43 29.0	-0.3
	comp=Z,31nm,1.1s						
WRAB	Tennant Creek	56.72	188	P	P	21 43 28.8	-0.6
WRA	Warramunga Arr	56.73	188	P	P	21 43 29.0	-0.5
	comp=Z,14nm,0.7s,baz=7.1,slow=7.0,SNR=62						
WRA				S	S	21 51 16.6	-3.4
	comp=Z,1.2nm,1.0s,baz=2.0,slow=13,SNR=3.7						
	comp=Z,14nm,0.7s						
WRA	Warramunga Arr	56.73	188	P	P	21 43 27.9	-1.6
ARTI	Arti	56.78	319	P	P	21 43 28.5	-1.0
	comp=Z,40nm,0.8s,baz=76,slow=8.3,SNR=4.6						
ARTI				LR	LR	22 10 05.7	
	comp=Z,581nm,18.8s,baz=74,slow=38						
	comp=Z,40nm,0.8s						
ARTI	Arti	56.78	319	*c i*P	P	21 43 30.6	+1.1
ARTI						21 44 26.5	
ARTI						21 45 31.5	
ARTI				S	S	21 51 22.2	+2.2
ARTI				SS	SS	21 55 05.5	-2.2
ARTI				pmax	pmax		
	comp=Z,63nm,0.9s						
ARTI				MLR	MLR		
	comp=Z,563nm,17.0s						
ARTI	Arti	56.78	319	P	P	21 43 29.0	-0.6
ARTI				pP	pP	21 43 39.6	-0.2
ARTI				PcP	PcP	21 44 24.6	-0.4
P33M	Teslin, Yukon	56.92	36	IAmb	IAmb	21 43 33.6	
	comp=Z,24nm,1.1s						
MMPY	Sheldon Lake,	56.94	33	IAmb	IAmb	21 43 49.8	
	comp=Z,21nm,1.3s						
QIS	Mount Isa	56.97	182	P	P	21 43 31.1	0.0
	comp=Z,16nm,1.2s,comp=Z,0.0nm,6.7s						
QIS	Mount Isa	56.97	182	P	P	21 43 30.8	-0.3
QIS	Mount Isa	56.97	182	P	P	21 43 31.1	0.0
	comp=Z,16nm,1.2s						
U33K	Whale Pass	58.04	41	P	P	21 43 39.4	+1.0
R33M	Jennings River	58.06	37	IAmb	IAmb	21 43 41.9	
	comp=Z,20nm,1.4s						
HYB	Hyderabad	58.29	269	*e*P	P	21 43 40.6	-0.1
HYB				*e*pP	pP	21 43 50.4	-0.7
HYB				*e*PcP	PcP	21 44 31.4	-0.2
HYB				*e*PP	PP	21 45 50.1	+0.2
HYB				*e*S	S	21 51 41.6	+0.9
HYB				*e*ScS	ScS	21 53 28.0	-0.1
S34M	Telegraph Cree	58.47	39	IAmb	IAmb	21 43 44.7	
	comp=Z,14nm,1.0s						
AKTO	Aktyubinsk	58.97	312	P	P	21 43 44.3	-0.7
	comp=Z,16nm,0.8s,baz=67,slow=7.7,SNR=1.5						
AKTO				LR	LR	22 10 20.9	
	comp=Z,544nm,19.1s,baz=104,slow=37						
	comp=Z,16nm,0.8s						
T35M	Bob Quinn	59.24	40	IAmb	IAmb	21 43 50.4	
	comp=Z,23nm,1.1s						
AS15	Alice Springs	60.43	188	P	P	21 43 55.4	+0.2
	comp=Z,15nm,0.8s,comp=Z,0.0nm,0.6s						
ALE	Alert	60.45	4	P	P	21 43 55.6	+0.9
AS17	Alice Springs	60.45	188	P	P	21 43 55.2	-0.1
	comp=Z,17nm,0.7s,comp=Z,0.0nm,1.3s						
AS01	Alice Springs	60.45	188	P	P	21 43 55.5	+0.1
AS31	Alice Springs	60.46	188	P	P	21 43 56.0	+0.6
	comp=Z,5.7nm,0.7s,comp=Z,0.0nm,0.1s						
AS31	Alice Springs	60.46	188		P	21 43 55.1	-0.3
ASAR	Alice Springs	60.46	188	P	P	21 43 55.3	-0.1
	comp=Z,8.2nm,0.8s,baz=8.6,slow=7.1,SNR=40						
ASAR				S	S	21 52 09.5	+1.1
	comp=Z,0.5nm,0.8s,baz=23,slow=17,SNR=2.7						
ASAR				LR	LR	22 08 48.6	
	comp=Z,93nm,21.8s,baz=7.5,slow=35						
ASAR				PKP2bc	P'P'bc	22 13 26.8	+6.8
	comp=Z,0.3nm,0.7s,baz=167,slow=3.2,SNR=2.1						
ASAR				PKP2ab	P'P'ab	22 13 37.5	+6.8
	comp=Z,1.0nm,0.8s,baz=170,slow=2.8,SNR=6.4						
	comp=Z,8.2nm,0.8s						
ASAR	Alice Springs	60.46	188		P	21 43 54.8	-0.6
AUALC	St Philip's Co	60.49	188	P	P	21 43 55.7	+0.1
AS09	Alice Springs	60.49	188	P	P	21 43 55.8	+0.2
	comp=Z,24nm,0.8s,comp=Z,0.0nm,0.8s						
KIRV	Kirov	60.58	323	P	P	21 43 55.5	-0.3
	comp=Z,29nm,0.6s,baz=90,slow=4.0,SNR=7.0						
KIRV				LR	LR	22 11 53.0	
	comp=Z,299nm,18.8s,baz=78,slow=38						
	comp=Z,29nm,0.6s						
KIRV	Kirov	60.58	323	*ce*P	P	21 43 57.8	+2.0
SPITS	Spitsbergen Ar	60.88	349	P	P	21 43 55.9	-1.8
	comp=Z,4.7nm,0.7s,baz=38,slow=7.3,SNR=1.2						
	comp=Z,4.7nm,0.7s						
MBWA	Marble Bar	61.11	203	P	P	21 43 59.8	0.0
MBWA	Marble Bar	61.11	203	P	P	21 43 59.6	-0.2
MBWA				IAmb	IAmb	21 44 12.3	
	comp=Z,22nm,0.8s						
MBWA	Marble Bar	61.11	203	P	P	21 43 59.9	0.0
MBWA				ScP	ScP	21 48 43.2	+1.9
PALK	Pallekele	62.38	258	LR	LR	22 13 43.1	
	comp=Z,346nm,20.5s,baz=1.0,slow=38						
WRKA	Warakurna	62.65	194	P	P	21 44 11.0	+0.8
	comp=Z,17nm,1.0s,comp=Z,0.0nm,7.1s						
QLP	Quilpie	62.99	177	P	P	21 44 12.4	+0.1
APA	Apatity	63.04	336	*e*P	P	21 44 09.6	-2.7
APA				*e*		21 44 43.8	
APA				*e*		21 46 29.6	
APA				*e*S	S	21 52 34.4	-5.6
APA				*e*		21 53 58.1	
APA				*e*SS	SS	21 56 51.1	+5.9
APA				pmax	pmax		
	comp=Z,11nm,1.0s						
APA				MLR	MLR		
	comp=Z,748nm,20.0s						
YKA	Yellowknife Ar	64.06	30	P	P	21 44 19.4	+0.3
	comp=Z,3.8nm,0.7s,baz=301,slow=6.9,SNR=18						
	comp=Z,3.8nm,0.7s						
YKA	Yellowknife Ar	64.06	30	*ce*P	P	21 44 19.7	+0.6
YKA				pmax	pmax		
	comp=Z,4.0nm,0.7s						
INKA	Innaminka	64.09	181		P	21 44 19.4	-0.2
INKA				IAmb	IAmb	21 44 34.7	
	comp=Z,23nm,1.4s						
KLMR	Klimovskoe	64.10	328	*e*P	P	21 44 17.3	-2.0
KLMR				pmax	pmax		
	comp=Z,32nm,1.5s						
YKAW1	Yellowknife Wh	64.11	30	IAmb	IAmb	21 44 35.8	
	comp=Z,14nm,1.1s						
BELG	Belogornoye	64.11	317	P	P	21 44 19.0	-0.6
	comp=Z,26nm,0.7s,baz=29,slow=6.6,SNR=1.9						
	comp=Z,26nm,0.7s						
MSVF	Nonsavu	64.18	141	LR	LR	22 06 12.4	
	comp=Z,380nm,21.7s,baz=345,slow=30						
ARCES	ARCESS Array B	64.35	339	P	P	21 44 21.0	+0.1
	comp=Z,3.6nm,0.6s,baz=58,slow=5.5,SNR=8.7						
	comp=Z,3.6nm,0.6s						
ARCES	ARCESS Array B	64.35	339	P	P	21 44 21.0	+0.1
ARCES	ARCESS Array B	64.35	339	P	P	21 44 21.4	+0.5
LLLB	Lillooet	66.44	44		P	21 44 34.6	-0.1
B04A	Port Angeles	66.77	47		P	21 44 37.3	+0.4
B04A				IAmb	IAmb	21 44 39.5	
	comp=Z,16nm,1.1s						
AFI	Afiamalu	66.84	130	LR	LR	22 08 39.8	
	comp=Z,295nm,19.5s,baz=330,slow=31						
GNW	Green Mountain	67.41	47	IAmb	IAmb	21 44 44.0	
	comp=Z,22nm,1.2s						
CMSA	Cobar Meteorol	67.98	176	P	P	21 44 45.4	+0.9
	comp=Z,23nm,1.3s,comp=Z,0.0nm,6.1s						
CMSA	Cobar Meteorol	67.98	176	P	P	21 44 45.7	+1.2
CMSA	Cobar Meteorol	67.98	176	P	P	21 44 45.7	+1.2
	comp=Z,15nm,1.1s						
STKA	Stephens Creek	68.21	180	P	P	21 44 45.5	-0.4
	comp=Z,4.9nm,0.8s,baz=350,slow=11,SNR=5.9						
	comp=Z,4.9nm,0.8s						
FORT	Forrest	68.29	192	P	P	21 44 47.2	+0.7
	comp=Z,30nm,0.7s,comp=Z,0.0nm,4.0s						
FORT	Forrest	68.29	192	IAmb	IAmb	21 45 07.0	
	comp=Z,21nm,0.8s						
OBN	Obninsk	68.43	323	LR	LR	22 17 40.2	
	comp=Z,293nm,18.4s,baz=180,slow=38						
OBN	Obninsk	68.43	323	⇑*e*P	P	21 44 45.2	-1.9
OBN				*e*		21 45 12.5	
OBN				*e*		21 47 19.9	
OBN				*e*S	S	21 54 05.8	+20
OBN				pmax	pmax		
	comp=Z,23nm,0.9s						
OBN				MLR	MLR		
	comp=Z,413nm,17.0s						
COR	Corvallis	68.63	50	P	P	21 44 50.2	+1.6
COR				pmax	pmax		
	comp=Z,48nm,1.0s						
COR	Corvallis	68.63	50	P	P	21 44 50.2	+1.6
COR	Corvallis	68.63	50	P	P	21 44 51.0	+2.4
COR				pP	sP	21 45 01.8	-1.3
COR				PcP	PcP	21 45 13.0	-0.4
MAK	Makhachkala	68.74	308	*e*P	P	21 44 46.6	-2.8
MAK				*e*		21 47 21.6	
MAK				*e*S	S	21 53 44.2	-6.0
MAK				*e*SS	SS	21 58 17.2	+2.5
MAK				pmax	pmax		
	comp=Z,136nm,1.4s						
MAK				MLR	MLR		
	comp=Z,573nm,16.0s						
LTY	Liberty	68.82	46	IAmb	IAmb	21 45 13.6	
	comp=Z,43nm,1.7s						
H04D	Lebanon	69.01	50	IAmb	IAmb	21 45 12.2	
	comp=Z,24nm,0.9s						
B08A	Colville Reser	69.02	45	IAmb	IAmb	21 44 52.6	
	comp=Z,16nm,1.1s						
FIA1	FINESS Array S	69.16	332	P	P	21 44 51.9	+0.2
FINES	FINESS Array B	69.16	332	P	P	21 44 51.1	-0.5
	comp=Z,7.4nm,0.7s,baz=50,slow=6.5,SNR=6.4						
FINES				LR	LR	22 17 26.4	
	comp=Z,432nm,18.6s,baz=66,slow=38						
	comp=Z,7.4nm,0.7s						
FINES	FINESS Array B	69.16	332	*ce*P	P	21 44 51.5	-0.1
FINES				pmax	pmax		
	comp=Z,7.0nm,0.7s						
FINES	FINESS Array B	69.16	332	P	P	21 44 51.6	-0.1
EPH	Ephrata	69.40	46	IAmb	IAmb	21 44 55.3	
	comp=Z,18nm,1.1s						
MXC	Moxie City	69.40	47	IAmb	IAmb	21 44 55.9	
	comp=Z,22nm,0.9s						
EDM	Edmonton	69.56	38	P	P	21 44 54.3	-0.1
EDM				pmax	pmax		
	comp=Z,21nm,0.9s						
EDM	Edmonton	69.56	38		P	21 44 54.3	-0.1
EDM				IAmb	IAmb	21 44 55.9	
	comp=Z,21nm,0.9s						
E07A	Sunnyside	69.67	47	IAmb	IAmb	21 44 57.6	
	comp=Z,20nm,1.0s						
BLKN	Baker Lake	69.67	23	IAmb	IAmb	21 45 51.5	
	comp=Z,28nm,1.1s						
L02F	Cave Junction	69.73	52	IAmb	IAmb	21 44 58.3	
	comp=Z,13nm,0.9s						
SEKA	Sheki	69.84	307	P	P	21 44 54.3	-2.0
C09A	Chrisman Ranch	69.91	45	IAmb	IAmb	21 44 58.6	
	comp=Z,15nm,0.9s						
D08A	Wollman Farm,	69.94	46	IAmb	IAmb	21 44 58.8	
	comp=Z,14nm,0.9s						
HAWA	Hanford	69.94	47	IAmb	IAmb	21 44 59.1	
	comp=Z,15nm,1.0s						
I05D	Terrebonne, OR	69.96	49	IAmb	IAmb	21 44 59.4	
	comp=Z,17nm,0.9s						
F07A	Phinny Hill Vi	69.98	47	IAmb	IAmb	21 44 59.5	
	comp=Z,25nm,0.9s						
LKRN	Lenkeran, Azer	70.10	304	P	P	21 44 57.1	-0.7
MNGR	Mingechevir, A	70.14	306	P	P	21 44 57.3	-0.7
E08A	Dider Farm, El	70.17	46	IAmb	IAmb	21 45 00.3	
	comp=Z,16nm,1.0s						
NEW	Newport	70.31	44	P	P	21 44 59.5	+0.4
	comp=Z,8.0nm,0.8s,baz=305,slow=5.1,SNR=10						
	comp=Z,8.0nm,0.8s						
NEW	Newport	70.31	44	IAmb	IAmb	21 45 01.0	
	comp=Z,13nm,0.9s						
NEW	Newport	70.31	44	P	P	21 45 00.2	+1.1
	comp=Z,16nm,1.1s						
YBH	Yreka Blue Hor	70.48	52	P	P	21 45 01.7	+1.4
	comp=Z,9.7nm,0.8s,baz=288,slow=5.2,SNR=22						
	comp=Z,9.7nm,0.8s						
YBH	Yreka Blue Hor	70.48	52	IAmb	IAmb	21 45 03.1	
	comp=Z,16nm,1.0s						
M02C	Callahan	70.57	53	IAmb	IAmb	21 45 03.9	
	comp=Z,16nm,0.9s						
GANJ	Ganja	70.70	307	P	P	21 45 00.8	-0.7
VSU	Vasula	70.80	330	*ce*P	P	21 45 01.4	-0.3
VSU				pmax	pmax		
	comp=Z,29nm,1.3s						
VSU	Vasula	70.80	330	P	P	21 45 01.7	0.0
	comp=Z,53nm,0.9s						
LNOR	Lincton Mounta	70.96	47	IAmb	IAmb	21 45 18.2	
	comp=Z,17nm,1.0s						
M03C	McCloud	71.10	52	IAmb	IAmb	21 45 06.6	
	comp=Z,29nm,0.9s						
KVAR	Kislovodsk Arr	71.19	311	P	P	21 45 04.9	+0.3
	comp=Z,18nm,1.1s,baz=298,slow=9.2,SNR=1.2						
KVAR				LR	LR	22 18 30.9	
	comp=Z,203nm,19.1s,baz=260,slow=38						
	comp=Z,18nm,1.1s						
KBZ	Khabaz	71.20	311	P	P	21 45 04.7	+0.3
	comp=Z,14nm,0.9s,baz=40,slow=7.9,SNR=3.5						
KBZ				LR	LR	22 20 55.9	
	comp=Z,389nm,18.7s,baz=54,slow=40						
	comp=Z,14nm,0.9s						
KBZ	Khabaz	71.20	311	*ce*P	P	21 45 05.8	+1.4
KBZ				pmax	pmax		
	comp=Z,18nm,1.0s						
KIV	Kislovodsk	71.20	311	*e*P	P	21 45 04.4	-0.2
KIV				pmax	pmax		
	comp=Z,33nm,1.1s						
KIV				MLR	MLR		
	comp=Z,179nm,18.0s						
KIV	Kislovodsk	71.20	311	P	P	21 45 04.6	0.0
KIV	Kislovodsk	71.20	311	P	P	21 45 04.8	+0.2
KIV	Kislovodsk	71.20	311	P	P	21 45 05.0	+0.4
	comp=Z,62nm,1.0s						
KIV	Kislovodsk	71.20	311	P	P	21 45 04.5	-0.2
O02D	Mt. Diablo Mer	71.26	54	IAmb	IAmb	21 45 07.9	
	comp=Z,20nm,0.9s						
SHME	Shamm	71.46	289	*i* P	P	21 45 06.4	+0.1
	SNR=6.4						
HATC	Hat Creek Radi	71.77	52	IAmb	IAmb	21 45 10.6	
	comp=Z,33nm,0.9s						
GNI	Garni	71.98	307	P	P	21 45 09.8	+0.3
	comp=Z,4.8nm,0.8s,baz=42,slow=14,SNR=3.4						
GNI				LR	LR	22 19 54.7	
	comp=Z,244nm,18.0s,baz=68,slow=38						
	comp=Z,4.8nm,0.8s						
GNI	Garni	71.98	307	P	P	21 45 08.9	-0.5
GNI				IAmb	IAmb	21 45 30.2	
	comp=Z,25nm,0.9s						
GNI	Garni	71.98	307	P	P	21 45 09.4	-0.1
	comp=Z,29nm,0.9s						
GDXM	Geysers	71.99	55	IAmb	IAmb	21 45 12.3	
	comp=Z,19nm,1.1s						
UOSS	Minazif	72.00	288	P	P	21 45 09.5	-0.1
UOSS				IAmb	IAmb	21 45 21.4	
	comp=Z,20nm,0.8s						
UOSS	Minazif	72.00	288	P	P	21 45 09.0	-0.7
UOSS	Minazif	72.00	288	P	P	21 45 08.5	-1.1
	comp=Z,33nm,0.9s						
UOSS	Minazif	72.00	288	P	P	21 45 09.7	+0.1
UOSS				pP	pP	21 45 20.9	+0.7
NAX	Nakhchivan	72.03	306	P	P	21 45 08.7	-0.9
BMO	Blue Mountains	72.09	47	IAmb	IAmb	21 45 12.3	
	comp=Z,18nm,1.0s						
HATD	Hatta, Dubai	72.12	288	P	P	21 45 10.4	+0.1
SOHO	SOHO	72.18	287	*i* P	P	21 45 10.5	-0.2
	SNR=5.9						
J08A	Circle Bar Ran	72.23	49	IAmb	IAmb	21 45 25.2	
	comp=Z,28nm,1.2s						
ASHO	Ashiyiah	72.25	288	*i* P	P	21 45 12.0	+0.8
	SNR=5.6						
SUTB	Sutter Butte	72.42	54	IAmb	IAmb	21 45 25.5	
	comp=Z,13nm,0.8s						
ORV	Oroville	72.43	54	IAmb	IAmb	21 45 13.6	
	comp=Z,16nm,0.9s						
EPOS	Posof	72.52	309	P	P	21 45 11.9	-0.7
	comp=Z,37nm,1.6s						
WVOR	Wild Horse Val	72.64	50	P	P	21 45 14.2	+0.9
WVOR	Wild Horse Val	72.64	50	IAmb	IAmb	21 45 28.5	

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                 comp=Z,31nm,1.4s
WVOR   Wild Horse Val   72.64  50   P       P       21 45 14.8 +1.4
                 comp=Z,15nm,1.7s
ALNE   Al Ain           72.83 287 i P       P       21 45 14.6  0.0
                 SNR=5.5
MNK    Minsk            72.83 326 i P       P       21 45 14.9 +0.9
MNK                               i                 21 45 31.7
MNK                               i                 21 47 57.0
MNK                               i PPP     PPP     21 49 41.8
MNK                               i S       S       21 54 39.4 +2.1
MNK                               i SS      SS      21 59 20.8 +4.1
MNK                                 pmax    pmax
                 comp=Z,35nm,0.8s
MNK                                 pmax    pmax
                 comp=N,38nm,0.8s
MNK                                 pmax    pmax
                 comp=E,76nm,1.0s
MNK                                 MLR     MLR
                 comp=N,140nm,15.0s
MNK                                 MLR     MLR
                 comp=E,255nm,17.0s
MNK                                 MLR     MLR
                 comp=Z,326nm,18.0s
MNK    Minsk            72.83 326 i P       P       21 45 15.0 +0.9
                 comp=E,76nm,1.0s
MNK                               i P       P       21 45 15.0 +0.9
                 comp=N,38nm,0.8s
MNK                               i P       P       21 45 15.0 +0.9
                 comp=Z,35nm,0.8s,baz=50
MNK                               i PcP     PcP     21 45 31.7 +0.6
MNK                               i PP      PP      21 47 57.1 +1.3
MNK                               i PPP     PPP     21 49 41.8
MNK                               i S       S       21 54 39.5 +2.1
MNK                               i SS      SS      21 59 20.9 +4.1
MNK                               i SSS     SSS     22 02 41.9
MNK                               i LQ      LQ      22 12 24.3
MNK                               i LR      LR      22 17 57.2
MNK                               i LRM     MLR     22 20 42.3
                 comp=N,140nm,15.4s
MNK                               i LRM     MLR     22 20 42.9
                 comp=E,255nm,17.1s
MNK                               i LRM     MLR     22 20 44.2
                 comp=Z,326nm,17.8s
MNK    Minsk            72.83 326 i SS      P       21 45 15.2 +1.1
MNK    Minsk            72.83 326 i SS      P       21 45 15.1 +1.1
BEKR   Beckworth        72.99  53   IAmb    IAmb    21 45 17.6
                 comp=Z,23nm,0.9s
OZAP   Van, Ozalp-Mer   73.29 306 ⇑P        P       21 45 18.5 +1.2
MFID   Camas Ranch      73.79  48           P       21 45 20.5 +0.4
MFID                                IAmb    IAmb    21 45 33.5
                 comp=Z,17nm,1.1s
HOMI   Horasan          73.85 308 ⇓P        P       21 45 27.7 +7.1
PABE   Paberze          73.88 328   P       P       21 45 20.6 +0.4
PABE   Paberze          73.88 328   P       P       21 45 20.8 +0.6
                 comp=Z,108nm,0.9s
PNTR   Pine Nut         73.91  53   IAmb    IAmb    21 45 35.3
                 comp=Z,26nm,1.0s
FFC    Flin Flon        73.94  33ceP        P       21 45 21.4 +0.8
FFC    Flin Flon        73.94  33   P       P       21 45 20.6 +0.1
FFC                                 IAmb    IAmb    21 45 22.2
                 comp=Z,21nm,0.8s
FFC    Flin Flon        73.94  33   P       P       21 45 21.2 +0.6
                 comp=Z,30nm,1.0s
FFC    Flin Flon        73.94  33   P       P       21 45 21.3 +0.8
CMB    Columbia Colle   73.99  54   IAmb    IAmb    21 45 35.3
                 comp=Z,30nm,1.1s
WAKR   Walker           74.35  54   IAmb    IAmb    21 45 37.9
                 comp=Z,22nm,1.1s
HFS    Hagfors          74.44 336   P       P       21 45 23.4  0.0
                 comp=Z,4.9nm,0.7s,baz=43,slow=6.5,SNR=2.5
                 comp=Z,4.9nm,0.7s
EGMT   Eagleton         74.47  41   IAmb    IAmb    21 45 42.3
                 comp=Z,17nm,0.8s
NB201  NORSAR Array S   74.51 337   IAmb    IAmb    21 45 36.8
                 comp=Z,38nm,1.1s
HLID   Hailey           74.54  47   P       P       21 45 25.8 +1.3
                 comp=Z,11nm,1.3s
NB2    NORSAR Subarra   74.54 337   P       P       21 45 23.8 -0.2
                 comp=Z,2.7nm,0.6s,baz=39,slow=6.2
NB2    NORSAR Subarra   74.54 337   P       P       21 45 23.8 -0.2
NB2                                 pmax    pmax
                 comp=Z,3.0nm,0.7s
NOA    NORSAR Array B   74.54 337   P       P       21 45 23.9 -0.2
                 comp=Z,7.1nm,0.8s,baz=39,slow=5.8,SNR=9.5
                 comp=Z,7.1nm,0.8s
AK03   Malin Array Si   74.61 322   P       P       21 45 23.5 -1.0
GURO   Guroymak-BITLI   74.62 307   IAmb    IAmb    21 45 39.2
                 comp=Z,22nm,0.9s
AKASG  Malin Array Be   74.62 322   P       P       21 45 24.0 -0.6
                 comp=Z,11nm,0.5s,baz=48,slow=6.2,SNR=36
AKASG                               LR      LR      22 21 06.3
                 comp=Z,625nm,18.8s,baz=52,slow=38
                 comp=Z,11nm,0.5s
AKASG  Malin Array Be   74.62 322ceP        P       21 45 24.1 -0.5
AKASG                               pmax    pmax
                 comp=Z,12nm,0.5s
AKASG  Malin Array Be   74.62 322   P       P       21 45 24.4 -0.2
AKBB   Malin Array Si   74.62 322ceP        P       21 45 24.1 -0.5
AKBB                                pmax    pmax
                 comp=Z,26nm,1.0s
AKBB   Malin Array Si   74.62 322   IAmb    IAmb    21 45 37.0
                 comp=Z,28nm,0.8s
AKBB   Malin Array Si   74.62 322   P       P       21 45 24.1 -0.5
AK23   Malin Array Si   74.63 322   P       P       21 45 24.3 -0.4
AK01   Malin Array Si   74.64 322   P       P       21 45 24.4 -0.3
KIEV   Kiev             74.64 322   P       P       21 45 24.2 -0.4
KIEV                                pmax    pmax
                 comp=Z,26nm,0.8s
KIEV   Kiev             74.64 322   P       P       21 45 24.2 -0.4
KIEV                                IAmb    IAmb    21 45 37.0
                 comp=Z,26nm,0.8s
KIEV   Kiev             74.64 322 ⇑P        P       21 45 25.0 +0.3
KIEV   Kiev             74.64 322   P       P       21 45 24.1 -0.6
                 comp=Z,149nm,1.0s
KIEV   Kiev             74.64 322   P       P       21 45 24.6 -0.1
                 comp=Z,38nm,1.0s
KIEV   Kiev             74.64 322   P       P       21 45 24.2 -0.4
KIEV                                pP      pP      21 45 35.1 -0.2
AK04   Malin Array Si   74.64 322   P       P       21 45 23.9 -0.8
AK09   Malin Array Si   74.65 322   P       P       21 45 24.6 -0.2
KVN    Kaiserville      74.89  52   IAmb    IAmb    21 45 40.8
                 comp=Z,31nm,1.2s
BOZ    Bozeman (W)      74.92  44   P       P       21 45 27.9 +1.2
PKD    Bear Valley Ra   75.07  56   IAmb    IAmb    21 45 41.5
                 comp=Z,29nm,1.1s
NVAR   Mina Array Bea   75.12  53   P       P       21 45 29.2 +1.2
                 comp=Z,11nm,0.8s,baz=310,slow=4.6,SNR=46
                 comp=Z,11nm,0.8s
NVAR   Mina Array Bea   75.12  53   P       P       21 45 28.7 +0.7
MZR    Muzera           75.14 288 i P       P       21 45 27.6 -0.5
                 SNR=6.8
NV11   Mina Array Sit   75.22  53   P       P       21 45 28.6 +0.1
NV11                                IAmb    IAmb    21 45 42.7
                 comp=Z,20nm,1.1s
ELK    Elko             75.70  50   P       P       21 45 32.5 +1.2
                 comp=Z,3.5nm,0.8s,baz=299,slow=4.6,SNR=17
                 comp=Z,3.5nm,0.8s
RNPP8  Varash           75.83 324   P       P       21 45 32.2 +0.7
LUBAR  Lubar, Ukraine   75.85 322   P       P       21 45 31.1 -0.6
DSP    Deep Springs     75.95  54   IAmb    IAmb    21 45 47.0
                 comp=Z,32nm,1.2s
TPH    Tonopah          76.02  53   IAmb    IAmb    21 45 47.3
                 comp=Z,38nm,1.2s
YFT    Old Faithful     76.07  45   IAmb    IAmb    21 45 41.4
                 comp=Z,15nm,0.9s
BAL3X  Bal3x, Balta     76.20 320   P       P       21 45 32.9 -0.8
GMN    Gold Mountain    76.45  54   IAmb    IAmb    21 45 50.8
                 comp=Z,30nm,1.6s
RLMT   Red Lodge        76.53  43   IAmb    IAmb    21 45 51.2
                 comp=Z,62nm,1.9s
GRAC   Grapevine Rang   76.56  54   IAmb    IAmb    21 45 50.3
                 comp=Z,23nm,0.9s
ARPR   Arapgir-MALATY   76.65 309   P       P       21 45 37.8 +1.1
                 comp=Z,47nm,1.0s
SORM   Soroca           76.72 321 ⇓P        P       21 45 36.4 -0.2
SORM   Soroca           76.72 321   P       P       21 45 35.8 -0.8
                 comp=Z,29nm,0.9s
AHID   Auburn Hatcher   76.95  46   P       P       21 45 39.5 +1.1
                 comp=Z,6.6nm,1.0s
TOKA   Tokat            77.06 311   P       P       21 45 39.2 +0.4
CLC    China Lake       77.09  55   IAmb    IAmb    21 45 53.9
                 comp=Z,26nm,1.4s
TPO    Tropico Hills    77.22  56   IAmb    IAmb    21 45 54.0
                 comp=Z,30nm,1.0s
TPNV   Topopah Spring   77.31  53   IAmb    IAmb    21 45 56.2
                 comp=Z,34nm,1.1s
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KMPD   K-Podol'skiy     77.38 322   P       P       21 45 39.0 -1.3
HWUT   Hardware Ranch   77.39  47   IAmb    IAmb    21 45 55.2
                 comp=Z,29nm,1.1s
HWUT   Hardware Ranch   77.39  47   P       P       21 45 41.9 +1.1
                 comp=Z,27nm,1.3s
CCCA   Chr Cany lake    77.42  55   IAmb    IAmb    21 45 54.3
                 comp=Z,14nm,0.9s
GWY    Greenwater Val   77.49  54   IAmb    IAmb    21 45 55.2
                 comp=Z,20nm,0.9s
DUG    Dugway, Tooele   77.51  49   P       P       21 45 43.0 +1.6
DUG    Dugway, Tooele   77.51  49   IAmb    IAmb    21 45 55.8
                 comp=Z,22nm,0.9s
DUG    Dugway, Tooele   77.51  49   P       P       21 45 43.0 +1.6
                 comp=Z,26nm,1.1s
BEL    Belsk            77.78 327   P       P       21 45 43.6 +1.1
BEL    Belsk            77.78 327   P       P       21 45 43.6 +1.1
                 comp=Z,9µm,0.9s
PD31   Pinedale Array   77.84  45   IAmb    IAmb    21 45 56.9
                 comp=Z,32nm,1.8s
PDAR   Pinedale Array   77.84  45   P       P       21 45 43.9 +0.6
                 comp=Z,2.9nm,0.8s,baz=294,slow=4.5,SNR=21
                 comp=Z,2.9nm,0.8s
PDAR   Pinedale Array   77.84  45   P       P       21 45 43.6 +0.3
PSUT   Pine Spring      77.88  51   IAmb    IAmb    21 45 57.7
                 comp=Z,23nm,1.0s
BFSC   Mount Baldy Ra   77.98  56   IAmb    IAmb    21 45 57.7
                 comp=Z,23nm,1.4s
ILGA   Ilgaz            78.27 313   IAmb    IAmb    21 46 23.6
                 comp=Z,19nm,0.9s
SHPR   Sheep Range      78.27  53   IAmb    IAmb    21 46 00.1
                 comp=Z,18nm,1.0s
BIR    Birlad           78.31 320 ⇓P        P       21 45 45.7 +0.1
BIR    Birlad           78.31 320 ⇓P        P       21 45 45.7 +0.1
MPU    Maple Canyon     78.33  49   IAmb    IAmb    21 46 00.4
                 comp=Z,20nm,1.0s
BNN    Bunyan           78.34 310   IAmb    IAmb    21 46 00.6
                 comp=Z,16nm,1.0s
VLDR   Vladesti         78.36 319 ⇓P        P       21 45 46.1 +0.2
TLCR                    78.40 318 ⇓P        P       21 45 46.3 +0.2
TLCR                    78.40 318 ⇓P        P       21 45 46.2 +0.2
GIRR   Girov            78.44 321 ⇓P        P       21 45 46.8 +0.6
KWP    Kalwaria Pacla   78.46 324 eP        P       21 45 46.6 +0.2
KWP    Kalwaria Pacla   78.46 324   P       P       21 45 46.9 +0.5
                 comp=Z,94nm,1.0s
GAZ    Gaziantep        78.51 308   IAmb    IAmb    21 46 04.9
                 comp=Z,14nm,0.8s
BURAR  Bucovina Array   78.64 322   P       P       21 45 47.1 -0.4
BURAR                               pmax    pmax
                 comp=Z,16nm,0.8s
BURAR  Bucovina Array   78.64 322   P       P       21 45 47.1 -0.4
BURAR                               IAmb    IAmb    21 46 00.6
                 comp=Z,16nm,0.8s
BURAR  Bucovina Array   78.64 322 ⇓P        P       21 45 48.2 +0.7
JURR   Jurilovca        78.64 318 ⇓P        P       21 45 47.4 +0.1
BIZ    Bicaz            78.65 321 ⇑P        P       21 45 46.8 -0.6
TESR   Tescani          78.66 320 ⇑P        P       21 45 47.6 +0.1
TESR   Tescani          78.66 320   P       P       21 45 47.3 -0.2
                 comp=Z,30nm,1.2s
CFR    Carcaliu         78.76 319 ⇑P        P       21 45 48.0 -0.1
CFR    Carcaliu         78.76 319 ⇑P        P       21 45 48.0 -0.1
PANC   Panciu           78.83 320 ⇓P        P       21 45 49.4 +1.0
TPGR   Topolog          78.83 318 ⇑P        P       21 45 48.4 -0.1
ONER   Baraj Valea Uz   78.91 320 ⇓P        P       21 45 49.4 +0.5
SZCU   Shurtz Canyon    78.93  51   IAmb    IAmb    21 46 03.6
                 comp=Z,56nm,1.9s
ODBI   Odobesti         78.95 320 ⇑P        P       21 45 42.1 -7.0
VRI    Vrincioaia       79.05 320 ⇑P        P       21 45 50.8 +1.1
VRI    Vrincioaia       79.05 320   P       P       21 45 49.9 +0.2
                 comp=Z,17nm,1.4s
DNR    Dunn Ranch,Anz   79.07  56   IAmb    IAmb    21 46 04.0
                 comp=Z,17nm,0.9s
PLOR   Plostina         79.10 320 ⇑P        P       21 45 52.2 +2.2
PLOR   Plostina         79.10 320 ⇑P        P       21 45 52.2 +2.2
BR131  Keskin Array S   79.15 312 i P       P       21 45 51.2 +0.7
BRTR   Keskin Array B   79.15 312   P       P       21 45 50.0 -0.5
                 comp=Z,10nm,1.1s,baz=90,slow=3.7,SNR=17
BRTR                                LR      LR      22 25 23.6
                 comp=Z,208nm,18.3s,baz=71,slow=39
                 comp=Z,10nm,1.1s
BRTR   Keskin Array B   79.15 312ceP        P       21 45 50.4 -0.1
BRTR                                pmax    pmax
                 comp=Z,7.0nm,1.0s
BRTR   Keskin Array B   79.15 312   P       P       21 45 50.5 -0.1
KOLS   Kolonicke sedl   79.15 324 eP        P       21 45 50.8 +0.6
KOLS                              e                 21 46 02.9
PFO    Pinyon Flats O   79.15  56   P       P       21 45 51.0 +0.4
                 comp=Z,5.5nm,1.1s,baz=292,slow=6.1,SNR=6.3
PFO                                 LR      LR      22 13 45.8
                 comp=Z,446nm,21.1s,baz=322,slow=30
                 comp=Z,5.5nm,1.1s
PFO    Pinyon Flats O   79.15  56ceP        P       21 45 51.7 +1.1
PFO    Pinyon Flats O   79.15  56   P       P       21 45 50.6 -0.1
PFO    Pinyon Flats O   79.15  56   P       P       21 45 51.5 +0.8
                 comp=Z,13nm,1.4s
PFO    Pinyon Flats O   79.15  56   P       P       21 45 51.3 +0.7
PFO                                 pP      sP      21 46 03.5 -1.7
BR106  Keskin Array S   79.16 312   P       P       21 45 50.8 +0.3
                 comp=Z,60nmcomp=Z,8.4nm,0.9s
BR104  Keskin Array S   79.16 312   P       P       21 45 50.9 +0.4
                 comp=Z,92nmcomp=Z,13nm,0.8s
SAHR   Sahastru         79.16 320 ⇑P        P       21 45 50.8 +0.4
BR105  Keskin Array S   79.17 312   P       P       21 45 50.7 +0.1
                 comp=Z,97nmcomp=Z,13nm,0.8s
PMD    Palm Desert      79.19  56   IAmb    IAmb    21 46 04.3
                 comp=Z,46nm,1.8s
LCMT   Little Creek M   79.19  52   IAmb    IAmb    21 46 05.2
                 comp=Z,19nm,1.0s
HARR   Harsova          79.20 318 ⇑P        P       21 45 50.6 +0.1
HARR   Harsova          79.20 318 ⇑P        P       21 45 50.6 +0.1
P17A   Butcher Ranch,   79.21  49   IAmb    IAmb    21 46 05.2
                 comp=Z,30nm,1.0s
RDMU   Red Mountain     79.22  47   IAmb    IAmb    21 46 05.2
                 comp=Z,37nm,1.0s
TLBR   Topalu           79.23 318 ⇓P        P       21 45 51.2 +0.5
GRER                    79.24 319 ⇓P        P       21 45 52.6 +1.8
BISRR  Bisoca           79.27 320 ⇓P        P       21 45 51.4 +0.4
BISRR  Bisoca           79.27 320   P       P       21 45 51.4 +0.4
                 comp=Z,57nm,0.8s
TURR   Turia            79.29 320 ⇓P        P       21 45 52.4 +1.3
STHS   Stebnicka Huta   79.29 325 eP        P       21 45 51.6 +0.6
Q16A   Castle Valley    79.30  49   IAmb    IAmb    21 46 05.9
                 comp=Z,55nm,1.5s
COVR   Voineasa-Covas   79.33 320 ⇓P        P       21 45 51.6 +0.3
OJC    Ojcow            79.38 326 eP        P       21 45 51.6 +0.3
OJC    Ojcow            79.38 326   P       P       21 45 51.7 +0.3
OJC                                 AP      pP      21 46 02.4 +0.3
OJC    Ojcow            79.38 326   P       P       21 45 51.7 +0.3
                 comp=Z,49nm,1.0s
OJC    Ojcow            79.38 326   P       P       21 45 51.8 +0.5
                 comp=Z,49nm,1.0s
OJC                                 pP      pP      21 46 02.4 +0.3
OZUR                    79.38 320 ⇑P        P       21 45 53.1 +1.6
P18A   Preston Nutter   79.41  48   IAmb    IAmb    21 46 08.3
                 comp=Z,16nm,0.9s
ARCR   ARCALIA          79.43 322 ⇑P        P       21 45 52.8 +1.0
KNB    Kanab            79.45  52   IAmb    IAmb    21 46 07.0
                 comp=Z,38nm,1.2s
BOSR   Bodos            79.46 320 ⇑P        P       21 45 52.9 +1.0
SRU    San Rafael Swe   79.57  49   IAmb    IAmb    21 46 06.9
                 comp=Z,17nm,0.8s
TRPA   Tarpa            79.59 323   P       P       21 45 53.4 +0.9
                 comp=Z,51nm,0.9s
ISR    Istrita          79.64 319 ⇓P        P       21 45 53.9 +0.9
ISR    Istrita          79.64 319 ⇓P        P       21 45 53.9 +0.9
ISR    Istrita          79.64 319   P       P       21 45 53.4 +0.4
                 comp=Z,33nm,1.0s
ICOR   Ion Corvin       79.65 318 ⇓P        P       21 45 53.5 +0.6
DOPR   Dopca            79.67 320 ⇑P        P       21 45 54.9 +1.8
MLR    Muntele Rosu     79.71 320   P       P       21 45 52.9 -0.6
                 comp=Z,4.7nm,1.0s,baz=36,slow=19,SNR=4.9
MLR                                 LR      LR      22 24 34.3
                 comp=Z,720nm,18.4s,baz=48,slow=38
                 comp=Z,4.7nm,1.0s
MLR    Muntele Rosu     79.71 320 ⇑P        P       21 45 53.3 -0.1
MLR    Muntele Rosu     79.71 320   IAmb    IAmb    21 46 18.6
                 comp=Z,24nm,1.4s
MLR    Muntele Rosu     79.71 320 ⇑P        P       21 45 53.3 -0.1
NIE    Niedzica         79.72 325 eP        P       21 45 54.1 +0.8
NIE    Niedzica         79.72 325   P       P       21 45 53.7 +0.4
                 comp=Z,256nmcomp=Z,16nm,1.0s
ULM    Lac du Bonnet    79.74  33   P       P       21 45 53.2 -0.1
                 comp=Z,6.2nm,0.8s,baz=336,slow=5.9,SNR=3.3
                 comp=Z,6.2nm,0.8s
ULM    Lac du Bonnet    79.74  33   IAmb    IAmb    21 46 06.3
                 comp=Z,39nm,1.4s
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RAR    Rarotonga        79.88 126   LR      LR      22 14 15.3
                 comp=Z,351nm,20.2s,baz=290,slow=30
W13A   Hualapai Mount   79.95  54   P       P       21 45 54.9 -0.1
RSSD   Black Hills      80.02  42   P       P       21 45 55.1 -0.2
RSSD                                pmax    pmax
                 comp=Z,8.0nm,0.8s
RSSD   Black Hills      80.02  42   P       P       21 45 55.1 -0.2
RSSD   Black Hills      80.02  42   P       P       21 45 55.7 +0.5
                 comp=Z,12nm,0.9s
RSSD   Black Hills      80.02  42   P       P       21 45 55.6 +0.3
RSSD                                PcP     PcP     21 46 03.3 +0.7
RSSD                                pP      pP      21 46 06.1 +0.1
CJR    Cluj-Napoca      80.06 322 ⇓P        P       21 45 56.5 +1.3
CJR    Cluj-Napoca      80.06 322 ⇓P        P       21 45 56.5 +1.3
ABAH   Abaujker         80.09 324   P       P       21 45 55.5 +0.2
                 comp=Z,22nm,0.9s
MDUB   Mudurnu          80.12 313   IAmb    IAmb    21 46 21.5
                 comp=Z,25nm,1.0s
U15A   North Rim        80.15  52   IAmb    IAmb    21 46 11.7
                 comp=Z,47nm,1.3s
HMU    Henry Mountain   80.17  50   IAmb    IAmb    21 46 10.3
                 comp=Z,32nm,0.9s
VOIR                    80.20 320 ⇓P        P       21 45 56.7 +0.6
VOIR                    80.20 320 ⇓P        P       21 45 56.7 +0.6
VOIR                    80.20 320   P       P       21 45 56.7 +0.6
                 comp=Z,4.8nm,1.0s
RUE    Ruedersdorf      80.23 331 epP       pP      21 46 07.1 +0.5
                 comp=Z,24nm,0.8s,baz=38,slow=5.2
O20A   White River Ci   80.28  47   IAmb    IAmb    21 46 10.4
                 comp=Z,20nm,1.1s
LANS   Liptovska Anna   80.30 326 eP        P       21 45 57.5 +1.1
LANS                              e                 21 46 09.1
MARR   Marisel-Cluj     80.32 322 ⇓P        P       21 45 57.5 +0.8
MTUR   Matau            80.34 320 ⇑P        P       21 45 58.5 +1.7
MTUR   Matau            80.34 320 ⇑P        P       21 45 58.5 +1.7
BLYC   Blythe           80.36  55   IAmb    IAmb    21 46 11.0
                 comp=Z,17nm,0.9s
OKC    Ostrava-Krasne   80.39 327   P       P       21 45 57.4 +0.6
OKC    Ostrava-Krasne   80.39 327   P       P       21 45 57.4 +0.6
                 comp=Z,23nm,1.1s
BSEG   Bad Segeberg     80.41 333 eP        P       21 45 57.4 +0.6
                 comp=Z,13nm,1.0s,baz=39,slow=5.2
BSEG                              epP       pP      21 46 07.8 +0.3
                 comp=Z,13nm,1.0s,baz=38,slow=5.2
KSP    Ksiaz            80.44 328 eP        P       21 45 57.2 +0.1
KSP    Ksiaz            80.44 328   P       P       21 45 57.9 +0.8
                 comp=Z,35nm,1.0s
DRGR                    80.44 322 ⇓P        P       21 45 57.9 +0.6
DRGR                    80.44 322 ⇓P        P       21 45 57.9 +0.6
DRGR                    80.44 322   P       P       21 45 57.6 +0.3
                 comp=Z,8.1nm,0.8s
ESJX   Sierra Juarez    80.46  57   IAmb    IAmb    21 46 11.9
                 comp=Z,25nm,0.9s
ARR    Arges            80.47 320 ⇓P        P       21 45 58.9 +1.4
ARR    Arges            80.47 320   P       P       21 45 59.0 +1.6
                 comp=Z,24nm,1.0s
STEB   Steborice        80.48 327 eP        P       21 45 57.8 +0.5
HAYD   Hayden           80.60  46   IAmb    IAmb    21 46 14.5
                 comp=Z,54nm,1.8s
MORC   Moravsky Berou   80.70 327 ⇓P        P       21 45 58.7 +0.1
MORC   Moravsky Berou   80.70 327   IAmb    IAmb    21 46 11.7
                 comp=Z,18nm,0.8s
MORC   Moravsky Berou   80.70 327 eP        P       21 45 58.7 +0.1
MORC   Moravsky Berou   80.70 327 ⇓P        P       21 45 58.7 +0.1
MORC   Moravsky Berou   80.70 327   P       P       21 45 59.1 +0.6
                 comp=Z,25nm,0.9s
CHVC   Chvalec          80.73 328   AMS     AMS     22 24 40.0
                 comp=Z,400nm,15.2s
LOZB   Loznitsa         80.80 318 ⇓P        P       21 45 59.6 +0.5
DPC    Dobruska-Polom   80.80 328   P       P       21 46 00.3 +1.2
DPC    Dobruska-Polom   80.80 328 eP        P       21 45 59.6 +0.5
DPC                                 AMS     AMS     22 24 50.0
                 comp=Z,400nm,18.1s
DPC    Dobruska-Polom   80.80 328   P       P       21 45 59.8 +0.7
                 comp=Z,16nm,1.3s
DPC    Dobruska-Polom   80.80 328   P       P       21 46 00.3 +1.2
                 comp=Z,16nm,1.3s
KRLC   Kraliky          80.81 328   P       P       21 45 59.7 +0.6
KRLC   Kraliky          80.81 328 eP        P       21 45 59.6 +0.5
KRLC                                AMS     AMS     22 25 10.0
                 comp=Z,400nm,16.7s
KRLC   Kraliky          80.81 328   P       P       21 45 59.7 +0.6
                 comp=Z,22nm,0.9s
UPC    Upice            80.81 328   P       P       21 45 59.7 +0.6
UPC    Upice            80.81 328 eP        P       21 45 59.5 +0.4
UPC                                 AMS     AMS     22 24 40.0
                 comp=Z,400nm,20.5s
UPC    Upice            80.81 328   P       P       21 45 59.7 +0.6
                 comp=Z,16nm,1.0s
PV21   Cone Mtn., Par   80.85  48   IAmb    IAmb    21 47 19.3
                 comp=Z,28nm,0.9s
RAYN   Ar Rayn          80.87 292   P       P       21 45 59.9  0.0
RAYN                                pmax    pmax
                 comp=Z,32nm,0.8s
RAYN   Ar Rayn          80.87 292   P       P       21 45 59.9  0.0
RAYN   Ar Rayn          80.87 292 i P       P       21 45 59.4 -0.6
                 SNR=5.4
RAYN   Ar Rayn          80.87 292   P       P       21 45 59.9  0.0
                 comp=Z,59nm,0.9s
RAYN   Ar Rayn          80.87 292   P       P       21 46 00.0 +0.1
RAYN                                PcP     PcP     21 46 06.1 -0.4
RAYN                                pP      pP      21 46 11.7 +0.9
PV22   Blue Mesa, Par   80.98  48   IAmb    IAmb    21 46 14.6
                 comp=Z,22nm,1.1s
DEV    Deva             80.98 322 ⇑P        P       21 45 59.8 -0.3
DEV    Deva             80.98 322 ⇑P        P       21 45 59.8 -0.3
PSZ    Piszkesteto      80.99 325 ⇑P        P       21 46 00.8 +0.6
PSZ    Piszkesteto      80.99 325   IAmb    IAmb    21 46 13.4
                 comp=Z,27nm,0.9s
PSZ    Piszkesteto      80.99 325 ⇑P        P       21 46 00.8 +0.6
PSZ    Piszkesteto      80.99 325   P       P       21 46 00.9 +0.7
                 comp=Z,35nm,1.0s
COPA   Copaceanca       81.01 319 ⇓P        P       21 46 00.2  0.0
VYHS   Vyhne            81.06 325 eP        P       21 46 01.0 +0.5
VYHS                              e                 21 46 12.1
EPLO   Experimental L   81.11  33   IAmb    IAmb    21 46 14.1
                 comp=Z,40nm,1.1s
PV03   Paradox Valley   81.12  49   IAmb    IAmb    21 46 15.5
                 comp=Z,32nm,1.1s
PV07   Paradox Valley   81.13  48   IAmb    IAmb    21 46 15.3
                 comp=Z,41nm,1.6s
WUAZ   Wupatki          81.30  52   IAmb    IAmb    21 46 16.6
                 comp=Z,23nm,1.0s
JAVC   Velka Javorina   81.32 326 eP        P       21 46 03.0 +1.1
JAVC   Velka Javorina   81.32 326   P       P       21 46 03.9 +2.0
                 comp=Z,27nm,0.8s
JAVC                                pP      pP      21 46 14.3 +1.6
FLTG   Flechtingen      81.33 332 eP        P       21 46 01.3 -0.5
                 comp=Z,27nm,0.9s,baz=39,slow=5.2
FLTG                              epP       pP      21 46 12.5 -0.1
                 comp=Z,27nm,0.9s,baz=38,slow=5.2
FLTG   Flechtingen      81.33 332   P       P       21 46 01.6 -0.1
                 comp=Z,32nm,1.0s
PV01   Paradox Valley   81.37  49   IAmb    IAmb    21 46 16.8
                 comp=Z,27nm,1.1s
GZR    Gura Zlata       81.39 321 ⇓P        P       21 46 01.6 -0.8
GZR    Gura Zlata       81.39 321 ⇓P        P       21 46 01.6 -0.8
BRG    Berggiesshubel   81.39 329   P       P       21 46 02.4 +0.2
BRG    Berggiesshubel   81.39 329 eP        P       21 46 02.0 -0.2
                 comp=Z,18nm,0.9s,baz=39,slow=5.2
BRG                               epP       pP      21 46 13.5 +0.5
                 comp=Z,18nm,0.9s,baz=38,slow=5.2
BRG    Berggiesshubel   81.39 329   P       P       21 46 02.4 +0.2
                 comp=Z,21nm,0.9s
BRG    Berggiesshubel   81.39 329 eP        P       21 46 02.3 +0.1
BRG                                 Amp             21 46 03.4
                 comp=Z,12nm,1.2s
BRG    Berggiesshubel   81.39 329   pP      pP      21 46 13.7 +0.7
CLL    Collm            81.44 330 i P       P       21 46 02.1 -0.3
CLL                                 pmax    pmax
                 comp=Z,34nm,0.9s
CLL    Collm            81.44 330   IAmb    IAmb    21 46 14.9
                 comp=Z,30nm,0.9s
CLL    Collm            81.44 330 eP        P       21 46 01.7 -0.7
                 comp=Z,32nm,0.9s,baz=39,slow=5.2
CLL                               epP       pP      21 46 13.4 +0.2
                 comp=Z,32nm,0.9s,baz=38,slow=5.2
CLL    Collm            81.44 330   P       P       21 46 02.4  0.0
                 comp=Z,38nm,0.9s
CLL    Collm            81.44 330   P       P       21 46 02.2 -0.2
                 comp=Z,38nm,0.9s
CLL    Collm            81.44 330 i P       P       21 46 02.1 -0.3
                 comp=Z,18nm,1.1s
CLL                               ePcP      PcP     21 46 10.0 +1.6
CLL                               i pP      pP      21 46 12.1 -1.1
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	comp=Z,34nm,0.9s						
CLL				*e*PP	PP	21 49 10.0	+2.0
CLL				L	L	22 14 00.0	
CLL				AMS	AMS	22 24 00.0	
	comp=N,400nm,17.6s						
CLL				AMS	AMS	22 24 00.0	
	comp=E,400nm,19.6s						
CLL				AMS	AMS	22 24 00.0	
	comp=Z,400nm,17.7s						
CLL				AMS	AMS	22 27 00.0	
	comp=Z,400nm,19.2s						
VRAC	Vranov	81.46	327	P	P	21 46 01.2	-1.3
	comp=Z,6.8nm,0.8s,baz=36,slow=7.1,SNR=7.9						
VRAC				LR	LR	22 26 03.8	
	comp=Z,301nm,18.4s,baz=42,slow=38						
	comp=Z,6.8nm,0.8s						
VRAC	Vranov	81.46	327	⇓P	P	21 46 03.2	+0.6
VRAC	Vranov	81.46	327	*e*P	P	21 46 03.0	+0.4
VRAC	Vranov	81.46	327	⇓P	P	21 46 03.2	+0.6
VRAC	Vranov	81.46	327	P	P	21 46 03.2	+0.6
	comp=Z,7.0nm,1.0s						
URZ	Urewera	81.50	152	LR	LR	22 17 40.5	
	comp=Z,232nm,20.8s,baz=314,slow=32						
URZ	Urewera	81.50	152	P	P	21 46 02.6	0.0
VLAD	Vladila	81.53	320	⇑P	P	21 46 04.4	+1.4
ASSE	Asse, Remlinge	81.70	332	*e*pP	pP	21 46 15.0	+0.5
	comp=Z,13nm,1.0s,baz=38,slow=5.2						
RETH	Rethem/Aller,	81.71	333	*e*P	P	21 46 03.9	+0.2
	comp=Z,21nm,1.1s,baz=39,slow=5.2						
RETH				*e*pP	pP	21 46 14.9	+0.4
	comp=Z,21nm,1.1s,baz=38,slow=5.2						
RETH	Rethem/Aller,	81.71	333	P	P	21 46 04.3	+0.6
	comp=Z,29nm,1.0s						
AMBH	Ambrzfalva	81.72	323	P	P	21 46 05.1	+1.1
	comp=Z,42nm,0.9s						
KRUC	Moravsky	81.73	327	P	P	21 46 04.5	+0.5
KRUC	Moravsky	81.73	327	*e*P	P	21 46 04.3	+0.3
KRUC	Moravsky	81.73	327	P	P	21 46 04.5	+0.5
	comp=Z,24nm,0.8s						
ASF	Jabal al Asfar	81.78	304	P	P	21 46 02.6	-2.1
	comp=Z,4.8nm,0.9s,baz=63,slow=2.3,SNR=3.4						
ASF				LR	LR	22 26 16.9	
	comp=Z,277nm,18.5s,baz=26,slow=38						
	comp=Z,4.8nm,0.9s						
SRO	Srobarova	81.80	325	P	P	21 46 05.7	+1.4
SRO	Srobarova	81.80	325	*e*P	P	21 46 05.5	+1.2
SRO				*e*		21 46 16.5	
SRO	Srobarova	81.80	325	P	P	21 46 05.7	+1.4
	comp=Z,40nm,0.9s						
HSKC	Hora Svate Kat	81.81	330	AMS	AMS	22 25 10.0	
	comp=Z,500nm,16.9s						
HSKC	Hora Svate Kat	81.81	330	P	P	21 46 04.6	+0.1
	comp=Z,35nm,1.1s						
BZS	Buzias	81.81	322	⇑P	P	21 46 05.0	+0.5
BZS	Buzias	81.81	322	⇑P	P	21 46 05.0	+0.5
BZS	Buzias	81.81	322	P	P	21 46 04.5	0.0
	comp=Z,11nm,1.0s						
PRU	Pruhonice	81.82	329	P	P	21 46 04.8	+0.4
PRU	Pruhonice	81.82	329	*e*P	P	21 46 05.0	+0.5
	comp=Z,9.4nm,0.7s						
PRU				AMS	AMS	22 25 10.0	
	comp=Z,500nm,19.2s						
PRU	Pruhonice	81.82	329	P	P	21 46 04.8	+0.4
	comp=Z,24nm,0.9s						
PLVB	Pleven	81.84	319	⇑P	P	21 46 03.8	-0.9
MODS	Modra-Piesok	81.85	326	*e*P	P	21 46 05.6	+0.9
MODS				*e*		21 46 17.2	
HERR	Herculane	81.93	321	⇑P	P	21 46 03.4	-1.8
TREC	Trest	81.95	328	P	P	21 46 05.5	+0.3
TREC	Trest	81.95	328	*e*P	P	21 46 05.7	+0.5
TREC	Trest	81.95	328	P	P	21 46 05.5	+0.3
	comp=Z,25nm,0.9s						
NEUB	Neuenburg	82.00	331	*e*P	P	21 46 05.4	0.0
	comp=Z,31nm,0.9s,baz=39,slow=5.2						
NEUB				*e*pP	pP	21 46 16.6	+0.4
	comp=Z,31nm,0.9s,baz=38,slow=5.2						
NEUB	Neuenburg	82.00	331	P	P	21 46 05.6	+0.2
	comp=Z,42nm,0.9s						
MVCO	Mesa Verde	82.01	49	P	P	21 46 07.3	+1.3
	comp=Z,13nm,1.1s						
ISCO	Idaho Springs	82.03	46	P	P	21 46 07.3	+1.2
ISCO	Idaho Springs	82.03	46	IAmb	IAmb	21 46 21.6	
	comp=Z,60nm,1.9s						
ISCO	Idaho Springs	82.03	46	P	P	21 46 07.4	+1.3
	comp=Z,12nm,1.5s						
CLZ	Clausthal	82.05	332	*e*P	P	21 46 06.1	+0.5
	comp=Z,25nm,1.0s,baz=39,slow=5.2						
CLZ				*e*pP	pP	21 46 17.2	+0.8
	comp=Z,29nm,1.0s,baz=38,slow=5.2						
CLZ	Clausthal	82.05	332	P	P	21 46 06.5	+0.8
	comp=Z,30nm,1.0s						
CLZ				pP	pP	21 46 16.9	+0.4
KEPZ	Antalya-Kepez	82.18	310	⇓P	P	21 46 06.7	+0.1
ISP	Isparta	82.23	312	*ce*P	P	21 46 07.1	+0.1
ISP				pmax	pmax		
	comp=Z,10.0nm,1.3s						
MMAI	Mount Meron Ar	82.24	305	P	P	21 46 06.2	-0.9
	comp=Z,3.9nm,0.7s,baz=31,slow=5.9,SNR=5.6						
MMAI				LR	LR	22 25 40.9	
	comp=Z,308nm,21.7s,baz=43,slow=38						
	comp=Z,3.9nm,0.7s						
CSS	Mathiatis	82.35	308	IAmb	IAmb	21 46 25.9	
	comp=Z,20nm,0.8s						
CSS	Mathiatis	82.35	308	P	P	21 46 07.8	+0.3
	comp=Z,28nm,0.9s						
CSS	Mathiatis	82.35	308	P	P	21 46 07.8	+0.3
	comp=Z,28nm,0.9s						
TANN	Tannenbergstha	82.35	330	*e*P	P	21 46 07.5	+0.2
	comp=Z,6.9nm,1.0s,baz=39,slow=5.2						
TANN				*e*pP	pP	21 46 18.3	+0.2
	comp=Z,6.9nm,1.0s,baz=38,slow=5.2						
MDVR	Moldovita	82.36	321	⇑P	P	21 46 07.1	-0.3
ZVC	Zvikov	82.39	328	*e*P	P	21 46 07.8	+0.3
ZVC				AMS	AMS	22 27 10.0	
	comp=Z,400nm,14.6s						
PLN	Plauen	82.42	330	*e*P	P	21 46 07.7	+0.1
	comp=Z,2.1nm,0.9s,baz=39,slow=5.2						
PLN				*e*pP	pP	21 46 18.8	+0.4
	comp=Z,2.1nm,0.9s,baz=38,slow=5.2						
GTTG	Gottingen	82.44	332	*e*P	P	21 46 07.6	-0.1
	comp=Z,22nm,0.9s,baz=39,slow=5.2						
GTTG				*e*pP	pP	21 46 19.1	+0.7
	comp=Z,22nm,0.9s,baz=38,slow=5.2						
GTTG	Gottingen	82.44	332	P	P	21 46 08.2	+0.5
	comp=Z,40nm,0.9s						
NKC	Novy Kostel	82.50	330	P	P	21 46 08.4	+0.4
NKC	Novy Kostel	82.50	330	AMS	AMS	22 25 40.0	
	comp=Z,400nm,14.6s						
MOX	Moxa	82.51	330	P	P	21 46 08.6	+0.5
MOX	Moxa	82.51	330	*e*P	P	21 46 07.9	-0.2
	comp=Z,13nm,1.1s,baz=39,slow=5.2						
MOX				*e*pP	pP	21 46 19.1	+0.3
	comp=Z,13nm,1.1s,baz=38,slow=5.2						
MOX				*e*L	L	22 27 17.5	
	comp=Z,335nm,18.0s						
MOX	Moxa	82.51	330	P	P	21 46 08.6	+0.5
	comp=Z,10nm,1.0s						
MPLH	Magyarpolny	82.62	325	P	P	21 46 09.4	+0.7
	comp=Z,45nm,1.0s						
IBBN	Ibbenburen	82.64	333	*e*P	P	21 46 08.7	0.0
	comp=Z,36nm,1.0s,baz=39,slow=5.2						
IBBN				*e*pP	pP	21 46 19.6	+0.1
	comp=Z,36nm,1.0s,baz=38,slow=5.2						
SOP	Sopron	82.69	326	P	P	21 46 10.3	+1.3
SOP	Sopron	82.69	326	P	P	21 46 10.3	+1.3
	comp=Z,26nm,1.0s						
INVG	Invergeldie, C	82.75	342	*e*P	P	21 46 10.2	+1.1
RONA	Rosalia, Austr	82.79	326	*i* P	P	21 46 10.5	+0.9
	comp=Z,13nm,1.1s,SNR=7.2						
CONA	Conrad Observa	82.81	327	*i* P	P	21 46 10.0	+0.2
	comp=Z,13nm,1.3s						
MORH	Mrgy, Hungar	82.82	324	⇓P	P	21 46 09.9	+0.2
MORH	Mrgy, Hungar	82.82	324	P	P	21 46 10.2	+0.5
	comp=Z,7.4nm,1.1s						
MORH	Mrgy, Hungar	82.82	324	P	P	21 46 09.4	-0.3
	comp=Z,6.0nm,0.8s						
KHC	Kasperske Hory	82.88	329	*ce*P	P	21 46 10.7	+0.6
KHC				pmax	pmax		
	comp=Z,12nm,1.3s						
KHC	Kasperske Hory	82.88	329	*e*P	P	21 46 10.2	+0.1
	comp=Z,17nm,0.8s						
KHC				*e*pP	pP	21 46 21.5	+0.6
KHC				*e*PP	PP	21 49 25.0	+5.0
KHC				AMS	AMS	22 26 00.0	
	comp=Z,400nm,19.3s						
KHC	Kasperske Hory	82.88	329	IAmb	IAmb	21 46 23.1	
	comp=Z,27nm,1.0s						
KHC	Kasperske Hory	82.88	329	P	P	21 46 10.5	+0.4
	comp=Z,27nm,1.0s						
GEC2	GERESS Array S	83.05	328	*e*P	P	21 46 10.7	-0.3
	comp=Z,13nm,0.9s,baz=39,slow=5.2						
GEC2				*e*pP	pP	21 46 22.3	+0.5
	comp=Z,13nm,0.9s,baz=38,slow=5.2						
GEC2	GERESS Array S	83.05	328	P	P	21 46 11.1	+0.1
	comp=Z,17nm,0.9s						
GERES	GERESS Array B	83.05	328	P	P	21 46 10.6	-0.4
	comp=Z,3.4nm,0.5s,baz=47,slow=5.9,SNR=22						
	comp=Z,3.4nm,0.5s						
GERES	GERESS Array B	83.05	328	P	P	21 46 10.9	-0.2
WET	Wettzell	83.17	329	P	P	21 46 12.0	+0.5
WET	Wettzell	83.17	329	*e*P	P	21 46 11.6	+0.1
	comp=Z,14nm,1.0s,baz=39,slow=5.2						
WET				*e*pP	pP	21 46 22.9	+0.6
	comp=Z,14nm,1.0s,baz=38,slow=5.2						
WET	Wettzell	83.17	329	P	P	21 46 12.0	+0.5
	comp=Z,16nm,1.0s						
GHAJ	Ghor Haditha	83.20	304	P	P	21 46 11.9	-0.1
	comp=Z,22nm,1.3s						
KASTN	Kahler Asten	83.29	332	*e*P	P	21 46 11.8	-0.3
	comp=Z,8.4nm,0.9s,baz=39,slow=5.2						
KASTN				*e*pP	pP	21 46 23.5	+0.5
	comp=Z,8.4nm,0.9s,baz=38,slow=5.2						
ELL	Elmali	83.31	311	IAmb	IAmb	21 46 26.9	
	comp=Z,19nm,0.7s						
GRA3	Grafenberg Arr	83.32	330	P	P	21 46 10.6	-1.7
	comp=Z,46nm,0.9s						
EZN	Ezine	83.34	315	P	P	21 46 12.9	+0.3
	comp=Z,931nmcomp=Z,17nm,1.0s						
GRA2	Grafenberg Arr	83.39	330	P	P	21 46 10.7	-2.0
	comp=Z,47nm,1.0s						
PGBU	Glenifferbraes	83.41	341	*e*P	P	21 46 13.6	+1.0
PGBU				IAmb	IAmb	21 46 18.3	
	comp=Z,18nm,0.8s						
GRA1	Grafenberg Arr	83.41	330	P	P	21 46 13.5	+0.7
	comp=Z,52nm,0.9s						
GRF	Grafenberg Arr	83.41	330	P	P	21 46 13.5	+0.7
GRF	Grafenberg Arr	83.41	330	*e*P	P	21 46 13.1	+0.3
	comp=Z,40nm,0.9s,baz=39,slow=5.2						
GRF				*e*pP	pP	21 46 24.5	+0.9
	comp=Z,40nm,0.9s,baz=38,slow=5.2						
GRF				*e*L	L	22 26 16.7	
	comp=Z,216nm,19.8s						
TAVA	DENIZLI_Tavas	83.43	312	⇑P	P	21 46 13.8	+0.6
GRB3	Grafenberg Arr	83.45	330	P	P	21 46 13.6	+0.6
	comp=Z,37nm,1.0s						
GRB4	Grafenberg Arr	83.45	330	P	P	21 46 13.2	+0.3
	comp=Z,37nm,0.9s						
GRB1	Grafenberg Arr	83.47	330	P	P	21 46 14.0	+0.9
	comp=Z,51nm,0.9s						
ARSA	Arzberg	83.48	326	*i* P	P	21 46 13.8	+0.6
	comp=Z,8.2nm,1.2s						
ARSA	Arzberg	83.48	326	P	P	21 46 13.6	+0.4
	comp=Z,14nm,1.0s						
EKA	Eskdalemuir Ar	83.49	341	P	P	21 46 12.4	-0.6
	comp=Z,0.9nm,0.5s,baz=27,slow=5.6,SNR=6.4						
	comp=Z,0.9nm,0.5s						
ESK	Eskdalemuir	83.51	341	P	P	21 46 14.2	+1.1
BUG	Bochum--Univer	83.52	333	*e*pP	pP	21 46 24.4	+0.3
	comp=Z,12nm,0.9s,baz=38,slow=5.2						
GRB2	Grafenberg Arr	83.56	330	P	P	21 46 14.0	+0.5
	comp=Z,44nm,0.9s						
MOA	Molln	83.57	327	*i* PcP	P	21 46 15.3	+1.7
	comp=Z,15nm,1.1s						
MOA	Molln	83.57	327	P	P	21 46 15.1	+1.4
	comp=Z,18nm,1.2s						
GRB5	Grafenberg Arr	83.69	329	P	P	21 46 14.8	+0.6
	comp=Z,27nm,0.8s						
TUC	Tucson	83.70	54	P	P	21 46 14.6	-0.1
TUC				pmax	pmax		
	comp=Z,11nm,1.2s						
TUC	Tucson	83.70	54	P	P	21 46 14.6	-0.1
TUC	Tucson	83.70	54	P	P	21 46 15.4	+0.7
	comp=Z,10nm,1.5s						
TUC	Tucson	83.70	54	P	P	21 46 15.5	+0.8
TUC				pP	pP	21 46 26.3	+1.1
GRC4	Grafenberg Arr	83.77	330	P	P	21 46 14.7	+0.1
	comp=Z,31nm,1.0s						
GRC1	Grafenberg Arr	83.84	330	P	P	21 46 14.9	-0.1
GRC1	Grafenberg Arr	83.84	330	P	P	21 46 14.9	-0.1
	comp=Z,40nm,0.9s						
GRC3	Grafenberg Arr	83.90	329	P	P	21 46 15.8	+0.5
	comp=Z,34nm,0.9s						
GRC3				pP	pP	21 46 26.1	0.0
SRS	Serrai	83.96	318	P	P	21 46 16.0	+0.2
BIOA	Bad Ischl, Aus	83.97	328	*i* P	P	21 46 16.1	+0.4
	comp=Z,16nm,1.0s,SNR=6.4						
GRC2	Grafenberg Arr	84.00	330	P	P	21 46 16.2	+0.4
	comp=Z,26nm,0.9s						
SESA	Seetaler Alpe,	84.01	327	*i* P	P	21 46 16.7	+0.5
	SNR=8.6						
ECSD	EROS Data Cent	84.13	38	IAmb	IAmb	21 46 29.0	
	comp=Z,22nm,1.1s						
ECSD	EROS Data Cent	84.13	38	P	P	21 46 16.9	+0.3
	comp=Z,13nm,0.9s						
SOKA	Soboth	84.13	326	*i* P	P	21 46 16.4	-0.2
	comp=Z,27nm,1.0s,SNR=11						
RJOB	Jochberg	84.29	328	P	P	21 46 18.2	+0.8
	comp=Z,19nm,0.9s						
SOH	Sokhos	84.30	318	P	P	21 46 17.5	0.0
KNT	Kendrikon	84.30	318	P	P	21 46 20.5	+3.0
KNT	Kendrikon	84.30	318	P	P	21 46 20.5	+3.0
	comp=Z,24nm,1.0s						
GAL1	Galloway	84.31	341	*e*P	P	21 46 17.9	+0.7
GAL1				IAmb	IAmb	21 46 19.1	
	comp=Z,7.2nm,0.8s						
PPT	Papeete	84.40	117	LR	LR	22 17 44.0	
	comp=Z,340nm,21.6s,baz=314,slow=31						
RPZ	Rata Peaks	84.41	159	LR	LR	22 17 32.4	
	comp=Z,64nm,20.7s,baz=230,slow=31						
CLGH	Cloghs, Cushen	84.47	342	*e*P	P	21 46 18.9	+0.9
CLGH				IAmb	IAmb	21 46 19.7	
	comp=Z,6.3nm,0.6s						
OBKA	Obir	84.47	326	*i* P	P	21 46 18.1	-0.3
	comp=Z,3.2nm,0.7s						
BMOL	Mol	84.48	334	*d*P	P	21 46 18.9	+0.8
	comp=Z,21nm,1.2s						
T25A	Trinidad	84.51	47	IAmb	IAmb	21 46 32.3	
	comp=Z,31nm,1.2s						
BDRM	Kayabasi	84.57	313	⇑P	P	21 46 19.3	+0.4
LESA	Schwarzleotal	84.59	328	*i* P	P	21 46 18.8	-0.1
	comp=Z,9.0nm,1.2s						
BLY	Banja Luka	84.59	324	IAmb	IAmb	21 46 48.5	
	comp=Z,11nm,0.9s						
BLY	Banja Luka	84.59	324	⇓P	P	21 46 19.5	+0.7
BLY	Banja Luka	84.59	324	P	P	21 46 19.4	+0.6
	comp=Z,14nm,0.9s						
FUR	Furstenfeldbru	84.59	329	P	P	21 46 19.6	+0.8
FUR	Furstenfeldbru	84.59	329	*e*pP	pP	21 46 29.9	+0.2
	comp=Z,38nm,0.8s,baz=38,slow=5.2						
FUR	Furstenfeldbru	84.59	329	P	P	21 46 19.6	+0.8
	comp=Z,50nm,0.9s						
EIL	Elat	84.64	303	P	P	21 46 18.9	-0.5
	comp=Z,15nm,0.9s,baz=46,slow=4.2,SNR=7.8						
EIL				LR	LR	22 27 49.6	
	comp=Z,237nm,19.4s,baz=70,slow=38						
	comp=Z,15nm,0.9s						
EIL	Elat	84.64	303	P	P	21 46 19.9	+0.5
	comp=Z,36nm,1.1s						
GRG	Griva	84.71	318	P	P	21 46 19.7	+0.1
ARG	Arkhangelos	84.73	312	P	P	21 46 17.9	-1.8
TASM	ASL Pad, Albuq	84.74	50	IAmb	IAmb	21 46 34.4	
	comp=Z,19nm,1.2s						
TASM	ASL Pad, Albuq	84.74	50	IAmb	IAmb	21 46 34.4	
	comp=Z,18nm,1.2s						
ANMO	Albuquerque	84.74	50	P	P	21 46 21.3	+1.3
	comp=Z,3.9nm,0.9s,baz=306,slow=2.3,SNR=14						
	comp=Z,3.9nm,0.9s						
ANMO	Albuquerque	84.74	50	*ce*P	P	21 46 21.5	+1.5
ANMO				pmax	pmax		
	comp=Z,7.0nm,0.8s						
ANMO	Albuquerque	84.74	50	P	P	21 46 20.3	+0.2
ANMO				IAmb	IAmb	21 46 34.3	
	comp=Z,17nm,1.2s						
ANMO	Albuquerque	84.74	50	P	P	21 46 21.4	+1.3
	comp=Z,14nm,1.3s						
ANMO				pP	sP	21 46 32.8	-1.8
ANMO	Albuquerque	84.74	50	P	P	21 46 21.1	+1.1
ALQ	Albuquerque	84.74	50	IAmb	IAmb	21 46 34.4	
	comp=Z,22nm,1.2s						
ALQ	Albuquerque	84.74	50	IAmb	IAmb	21 46 34.4	
	comp=Z,22nm,1.2s						
PAIG	Paliouri	84.75	317	P	P	21 46 19.1	-0.6
PAIG	Paliouri	84.75	317	P	P	21 46 19.1	-0.6
	comp=Z,12nm,0.9s						
PAIG				pP	pP	21 46 30.3	-0.2
MYKA	Terra Mystica	84.78	327	*e*P	P	21 46 19.3	-0.6
	comp=Z,5.6nm,0.7s						
ACOM	Acomizza, Ital	84.90	327	P	P	21 46 19.9	-0.7
	comp=Z,32nm,0.7s						
STU	Stuttgart	84.95	331	P	P	21 46 20.7	+0.1
STU	Stuttgart	84.95	331	*e*P	P	21 46 20.5	-0.1
	comp=Z,76nm,0.9s,baz=39,slow=5.2						
STU				*e*pP	pP	21 46 31.9	+0.4
	comp=Z,76nm,0.9s,baz=38,slow=5.2						
STU	Stuttgart	84.95	331	P	P	21 46 20.7	+0.1
	comp=Z,35nm,0.9s						
BCLA	Clavier	85.07	334	*d*P	P	21 46 21.9	+0.7
	comp=Z,6.4nm,1.3s						
UCC	Uccle	85.08	334	*d*P	P	21 46 21.6	+0.4
WATA	Walderalm	85.12	328	*e*P	P	21 46 22.0	+0.3
	comp=Z,7.5nm,1.1s						
WTTA	Wattenberg	85.15	328	*i* P	P	21 46 20.7	-1.2
	comp=Z,7.4nm,0.9s						
ABTA	Abfaltersbach	85.18	328	*i* P	P	21 46 21.6	-0.3
	comp=Z,9.6nm,0.9s						
PHP	Peshkopia	85.22	320	P	P	21 46 21.0	-1.2
PHP	Peshkopia	85.22	320	P	P	21 46 21.9	-0.2
	comp=Z,28nm,1.0s						
FUSE	Fusea	85.23	327	P	P	21 46 20.4	-1.6
	comp=Z,18nm,1.0s						
CWF	Charnwood Fore	85.25	338	P	P	21 46 20.9	-1.1
	comp=Z,15nm,1.4s						
LIT	Litokhoron	85.27	318	P	P	21 46 21.7	-0.7
PDG	Podgorica	85.29	321	⇑P	P	21 46 22.5	+0.1
PDG	Podgorica	85.29	321	P	P	21 46 22.4	+0.1
	comp=Z,57nm,0.9s						
PDG				pP	pP	21 46 33.4	+0.2
MOTA	Moosalm	85.31	329	*e*P	P	21 46 21.9	-0.7
	comp=Z,8.6nm,1.2s						
RCHB	Rochefort	85.31	334	*d*P	P	21 46 21.7	-0.7
	comp=Z,9.5nm,1.0s						
RCHB	Rochefort	85.31	334	P	P	21 46 22.5	+0.1
	comp=Z,15nm,1.2s						
RETA	Reutte	85.34	329	*i* P	P	21 46 22.7	0.0
	comp=Z,17nm,0.9s,SNR=6.1						
BMRD	Maredsous	85.36	334	*d*P	P	21 46 22.4	-0.2
	comp=Z,14nm,1.1s						
SQTA	Sankt Quirin	85.37	329	*e*PcP	P	21 46 24.1	+1.2
	comp=Z,9.5nm,1.3s						
WLF	Walferdange	85.39	333	*e*P	P	21 46 23.7	+1.0
	comp=Z,16nm,1.3s,baz=39,slow=5.2						
STAL	STALIGIAL	85.48	327	IAmb	IAmb	21 46 33.9	
	comp=Z,20nm,1.1s						
121A	Cookes Peak, D	85.50	52	IAmb	IAmb	21 46 37.6	
	comp=Z,18nm,1.1s						
DOU	Dourbes	85.59	334	*d*P	P	21 46 23.0	-0.7
	comp=Z,4.7nm,1.2s						
SCHQ	Schefferville	85.64	16	P	P	21 46 23.6	-0.4
	comp=Z,7.6nm,0.7s,baz=336,slow=7.9,SNR=5.2						
	comp=Z,7.6nm,0.7s						
BFO	Black Forest	85.65	331	*ce*P	P	21 46 24.6	+0.5
BFO	Black Forest	85.65	331	P	P	21 46 23.8	-0.4
BFO	Black Forest	85.65	331	*e*P	P	21 46 24.0	-0.1
	comp=Z,28nm,0.9s,baz=39,slow=5.2						
BFO				*e*pP	pP	21 46 35.3	+0.3
	comp=Z,28nm,0.9s,baz=38,slow=5.2						
BFO	Black Forest	85.65	331	P	P	21 46 24.2	+0.1
BFO				pP	pP	21 46 35.0	+0.1
FOEL	Foel Wylfa	85.66	339	*e*P	P	21 46 25.2	+1.2
FOEL				IAmb	IAmb	21 46 27.5	
	comp=Z,9.4nm,0.7s						
FOEL	Foel Wylfa	85.66	339	P	P	21 46 24.4	+0.4
	comp=Z,25nm,1.0s						
HSIG		85.69	57	IAmb	IAmb	21 46 38.4	
	comp=Z,12nm,1.0s						
FETA	Feichten	85.72	329	*i* P	P	21 46 24.7	0.0
	comp=Z,15nm,0.9s						
KBN	Korca	85.81	319	P	P	21 46 25.3	+0.2
KBN	Korca	85.81	319	P	P	21 46 25.3	+0.2
	comp=Z,72nm,0.9s						
DAVA	Damuels	85.86	329	*i* P	P	21 46 25.6	+0.2
	comp=Z,29nm,0.9s						
DAVA	Damuels	85.86	329	P	P	21 46 26.2	+0.8
	comp=Z,39nm,1.0s						
DAVA				pP	pP	21 46 36.4	+0.2
ECH	Echery	86.20	331	P	P	21 46 27.0	+0.2
ECH				AP	pP	21 46 37.3	-0.4
ECH	Echery	86.20	331	IAmb	IAmb	21 46 39.2	
	comp=Z,17nm,1.0s						
ECH	Echery	86.20	331	P	P	21 46 27.0	+0.2
	comp=Z,20nm,1.0s						
ECH				pP	pP	21 46 37.3	-0.4
ECH	Echery	86.20	331	P	P	21 46 26.7	-0.2
ECH				pP	pP	21 46 37.4	-0.3
DAVOX	Davos/Dischmat	86.27	329	P	P	21 46 25.6	-1.8
	comp=Z,2.4nm,0.9s,baz=45,slow=19,SNR=5.6						
DAVOX				LR	LR	22 28 38.6	
	comp=Z,503nm,18.1s,baz=24,slow=38						
	comp=Z,2.4nm,0.9s						
STRD	Stroud	86.35	338	*e*P	P	21 46 28.1	+0.7
STRD				IAmb	IAmb	21 46 30.1	
	comp=Z,16nm,0.8s						
MCH1	Michaelchurch	86.40	339	*e*P	P	21 46 28.3	+0.6
MCH1				IAmb	IAmb	21 46 29.0	
	comp=Z,8.6nm,0.6s						
MONM	Monmouth	86.48	339	*e*P	P	21 46 28.8	+0.7
MONM				IAmb	IAmb	21 46 30.7	
	comp=Z,8.0nm,0.7s						
BNALP	Bannalp	86.79	330	P	P	21 46 29.9	-0.1
	comp=Z,14nm,1.1s						
IDI	Anoyia	87.29	313	P	P	21 46 30.7	-1.8
	comp=Z,28nm,1.2s,baz=15,slow=7.8,SNR=9.5						
	comp=Z,28nm,1.2s						
MURB	Monte Urbino	87.90	325	IAmb	IAmb	21 46 53.8	
	comp=Z,13nm,0.9s						
TPB28		88.15	51	IAmb	IAmb	21 46 51.7	
	comp=Z,8.5nm,0.9s						
AQU	L'Aquila	88.20	324	P	P	21 46 37.3	+0.6
AQU	L'Aquila	88.20	324	P	P	21 46 36.8	+0.1
	comp=Z,245nmcomp=Z,21nm,0.9s						
AQU	L'Aquila	88.20	324	P	P	21 46 37.3	+0.6
	comp=Z,26nm,0.9s						
LOR	Lormes	88.23	333	P	P	21 46 37.6	+0.9
LOR	Lormes	88.23	333	P	P	21 46 37.6	+0.9
	comp=Z,15nm,1.1s						
DKNS	Dickens	88.96	48	IAmb	IAmb	21 46 57.2	
	comp=Z,11nm,0.9s						
TIP	Timpagrande	88.97	320	⇓P	P	21 46 39.8	-0.5
TIP	Timpagrande	88.97	320	P	P	21 46 40.3	-0.1
	comp=Z,9.2nm,1.0s						
WMOK	Wichita Mounta	89.45	46	P	P	21 46 43.4	+0.7
WMOK	Wichita Mounta	89.45	46	IAmb	IAmb	21 46 56.3	
	comp=Z,21nm,1.4s						
WMOK	Wichita Mounta	89.45	46	P	P	21 46 43.5	+0.7
	comp=Z,11nm,1.4s						
ATD	Arta Tunnel	90.04	284	LR	LR	22 30 49.2	
	comp=Z,7.3nm,20.6s,baz=48,slow=38						
SGCY	Sterling City	90.06	49	IAmb	IAmb	21 46 49.4	
	comp=Z,9.4nm,0.8s						
CEL	Celeste	90.10	320	P	P	21 46 45.4	-0.3
	comp=Z,38nm,0.9s						
TXAR	Lajitas Array	90.26	52	P	P	21 46 47.4	+0.8
	comp=Z,2.7nm,0.8s,baz=314,slow=4.7,SNR=33						
	comp=Z,2.7nm,0.8s						
TXAR	Lajitas Array	90.26	52	P	P	21 46 47.0	+0.3
S39A	Bolivar	90.28	40	IAmb	IAmb	21 46 57.9	
	comp=Z,9.4nm,1.1s						
R40A	Maddies Statio	90.37	39	IAmb	IAmb	21 46 59.2	
	comp=Z,17nm,1.2s						
LDAQ	Lac Daran	90.79	21	IAmb	IAmb	21 47 02.5	
	comp=Z,13nm,0.9s						
CCM	Cathedral Cave	91.07	39	P	P	21 46 49.0	-1.1
VAE	Valguarnera	91.46	321	LR	LR	22 32 18.4	
	comp=Z,369nm,18.5s,baz=64,slow=38						
T42A	Van Buren	91.94	40	IAmb	IAmb	21 47 07.2	
	comp=Z,14nm,1.1s						
H06N1	SOCORRO T-PHAS	92.15	65	T	T	23 29 37.9	
	SNR=4.1						
D62A	Allapoint, All	92.21	20	IAmb	IAmb	21 46 58.5	
	comp=Z,17nm,1.2s						
MIAR	Mount Ida	92.51	43	P	P	21 46 57.9	+1.1
MIAR	Mount Ida	92.51	43	P	P	21 46 57.9	+1.1
	comp=Z,23nm,1.2s						
KEST	Kesra	95.35	323	P	P	21 47 10.5	+0.5
	comp=Z,2.6nm,1.0s,baz=45,slow=20,SNR=1.8						
KEST				LR	LR	22 35 19.6	
	comp=Z,285nm,18.1s,baz=6.5,slow=39						
	comp=Z,2.6nm,1.0s						
KEST	Kesra	95.35	323	P	P	21 47 10.1	+0.1
KEST				IAmb	IAmb	21 47 23.5	
	comp=Z,8.8nm,1.1s						

TKL	Tuckaleechee C	96.61	36	P	P	21 47 15.9	+0.3
	comp=Z,0.9nm,0.2s,baz=329,slow=9.4,SNR=5.9						
TKL				LR	LR	22 35 55.4	
	comp=Z,124nm,18.2s,baz=358,slow=38						
	comp=Z,0.9nm,0.2s						
ESDC	Sonseca Array	97.64	334	P	P	21 47 19.0	-1.2
	comp=Z,0.5nm,0.8s,baz=26,slow=4.4,SNR=3.0						
ESDC				LR	LR	22 35 59.5	
	comp=Z,357nm,20.8s,baz=20,slow=38						
	comp=Z,0.5nm,0.8s						
ESDC	Sonseca Array	97.64	334	P	P	21 47 19.3	-1.0
TORD	Torodi Ar. Bea	117.64	315	PKP	PKPdf	21 52 30.9	-1.1
	comp=Z,0.4nm,0.6s,baz=29,slow=3.1,SNR=2.1						
TORD				PP	PP	21 53 38.2	-5.8
	comp=Z,1.3nm,0.9s,baz=25,slow=4.7,SNR=3.9						
SABA	Saba	121.13	28	PKPdf	PKPdf	21 52 37.0	-1.8
QSPA	South Pole Qui	126.43	180	PKP	PKPdf	21 52 47.0	-0.4
	comp=Z,3.7nm,0.8s,baz=316,slow=0.6,SNR=22						
QSPA	South Pole Qui	126.43	180		PKPdf	21 52 47.4	0.0
BOSA	Boshof	126.60	259	PKP	PKPdf	21 52 46.5	-2.5
	comp=Z,2.8nm,0.9s,baz=50,slow=3.3,SNR=3.9						
BOSA	Boshof	126.60	259		PKPdf	21 52 48.4	-0.6
DBIC	Dimbokro	126.60	317	PKP	PKPdf	21 52 49.1	-0.2
	comp=Z,2.5nm,0.7s,baz=31,slow=3.1,SNR=1.9						
DBIC	Dimbokro	126.60	317		PKPdf	21 52 48.5	-0.8
OTAV	Otavalo	127.84	54	PKIKP	PKiKP	21 52 53.2	+0.3
OTAV	Otavalo	127.84	54	PKPdf	PKiKP	21 52 53.2	+0.3
SNAA	Sanae	140.45	197	PKhKP	PKPpre	21 53 04.6	
	comp=Z,1.4nm,0.6s,baz=124,slow=3.6,SNR=3.6						
SMAI	San Martin Ant	144.68	162	PKPdf	PKPbc	21 53 20.3	+0.3
LPAZ	La Paz	146.79	60	PKPbc	PKPbc	21 53 28.9	+0.2
	comp=Z,17nm,0.7s,baz=2.9,slow=5.0,SNR=63						
LPAZ	La Paz	146.79	60	PKIKP	PKPbc	21 53 28.9	+0.2
LPAZ	La Paz	146.79	60	PKPdf	PKPdf	21 53 26.2	-0.8
PB11	IPOC Station P	147.95	67	PKPdf	PKPdf	21 53 27.4	-0.9
PB08	IPOC Station P	148.56	67	PKPdf	PKPdf	21 53 28.3	-1.2
VILB	Vilhena	149.37	45	PKPdf	PKPdf	21 53 29.7	-0.9
PB14	IPOC Station P	150.15	75	PKPdf	PKPdf	21 53 32.2	+0.3
PLCA	Paso Flores	154.72	109	PKPbc	PKPbc	21 53 45.2	-1.2
	comp=Z,0.8nm,0.8s,baz=315,slow=2.9,SNR=3.2						
PLCA				PKPab	sPKPbc	21 53 59.5	-1.9
	comp=Z,4.7nm,0.9s,baz=288,slow=3.9,SNR=9.8						
PLCA	Paso Flores	154.72	109	PKIKP	PKPbc	21 53 45.2	-1.2

MOS ***06*** *21:34:23.6±1.3, 37°.21N×55°.17E, h10^{km}, mb5.1/55, MS4.3/6, Error ellipse: s-maj=4.5km s-min=2.7km az=39.4*

IDC ***06*** *21:34:23.4±0.5, 37°.00N×55°.03E, h0^{km}, mb4.5/38, mbtmp4.5/49, ML4.5/11, MS4.5/54, Error ellipse: s-maj=10.8km s-min=7.7km az=3.0*

TEH ***06*** *21:34:23.1, 36°.94N×55°.13E, h7^{km}, ML5.1, Presumed earthquake*

DSN ***06*** *21:34:24.1±4.3, 36°.98N×55°.20E, h6^{km}±34^{km}, mb5.3/3, Ms4.4/7, Error ellipse: s-maj=6.8km s-min=4.8km az=72.0*

THR ***06*** *21:34:24.0±0.0, 36°.98N×55°.09E, h10^{km}±8^{km}, mb5.2, Presumed earthquake*

NEIC ***06*** *21:34:26.7±1.6, 36°.98N±0°.08×55°.11E±0°.07, h10^{km}±1^{km}, mb5.1/197, Mww5.3/12, Error ellipse: s-maj=14.1km s-min=9.9km az=171.0*

GCMT ***06*** *21:34:26.7±0.2, 36°.95N±0°.01×55°.16E±0°.01, h15^{km}, MW5.1/122, Moment Tensor Solution. s44,c54; s122,c235; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}1.48±.12; $M_{\theta\theta}$-5.49±.10; $M_{\phi\phi}$4.01±.09; $M_{r\theta}$0.24±.33; $M_{\theta\phi}$-0.52±.08; $M_{\phi r}$2.03±.32; Best double couple: $M_0$5.34200×10^{16} NP1:ϕ_s308.00000°,δ68.00000°, λ161.00000°. NP2:ϕ_s46.00000°,δ72.00000°,λ23.00000°. Principal axes: T 5.1480, Plg29.0000°, Azm268.0000°; N 0.3890, Plg61.0000°, Azm81.0000°; P -5.5370, Plg3.0000°, Azm176.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

GFZ ***06*** *21:34:27.0±0.1, 37°N±3°×5°5E±°, h10^{km}, M4.7/144, mB5.3/66, mb5.0/144, Mw(mB)4.7/66, confirmed*

NNC ***06*** *21:34:31.6±3.0, 37°.64N×55°.56E, h0^{km}, mb5.1, Error ellipse: s-maj=36.5km s-min=21.8km az=62.0*

BGR ***06*** *21:34:34.6, 36°.37N×53°.59E, h33^{km}, mb5.0, Ms4.0*

ISC 06 21:34:26.8±0.5**, 37°.11N**±0°.03×**55°.11E**±0°.03**, h15**^{km}±3^{km}**, h15**^{km}**:pP-P, n1140,** σ1^s.**95**/1181**, mb5.0**/357**, MS4.6**/71**, 86C-50D, Iran-Turkmenistan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IMND	Minoodasht	0.28	58	Pg	Pg	21 34 31.1	-1.6
IMND				Sg	Sb	21 34 37.5	-0.6
MRVT	Maraveh tapeh	0.95	55	Pg	Pb	21 34 43.7	-1.4
IGLO	Ghaloghah	1.20	240	Pg	Pn	21 34 45.0	-4.3
SHRO	Shahrood	1.33	147	ePg	Pn	21 34 46.3	-4.8
SHRO				IAML		21 35 36.9	
	comp=Z,2.4nm,1.0s						
BJND	Bojnord	1.83	84	Pn	Pn	21 34 58.2	+0.1
IANJ	Anjilo	1.91	211	Pg	Pn	21 34 56.9	-2.1
BJRD	Bojnurd	1.92	71	ePn	Pn	21 34 59.6	+0.5
BJRD				IAML		21 35 37.9	
	comp=Z,10µm,1.0s						
ISHM	Shahmirzad	1.96	229	Pn	Pn	21 34 58.5	-1.4
IALA	Alasht	2.12	242	Pn	Pn	21 35 01.5	-0.6
SBZV	Sabzevar	2.13	109	ePn	Pn	21 35 01.7	-0.4
SBZV				IAML		21 35 40.4	
	comp=Z,13µm,1.0s						
SBZV	Sabzevar	2.13	109	Pn	Pn	21 35 01.4	-0.7
ISFR	Sfrayin	2.31	91	Pn	Pn	21 35 04.8	+0.1
IPRN	Peran	2.39	250	Pn	Pn	21 35 05.1	-0.6
ILAS	Lasjerd	2.45	226	Pn	Pn	21 35 05.2	-1.4
TAPT	Tabas- Tapeh t	2.77	143	Pn	Pn	21 35 08.7	-2.1
IEMG	Emamgholi	2.84	83	Pn	Pn	21 35 12.2	+0.3
MZPU	Pul - Mazandar	2.92	258	Pn	Pn	21 35 12.7	-0.4
DAMV	Damavand	2.94	241	ePn	Pn	21 35 13.3	0.0
DAMV				IAML		21 36 05.2	
	comp=Z,4µm,1.0s						
IAKL	Akhelmad	2.96	99	Pn	Pn	21 35 13.2	-0.5
IPAY	Payeh	3.19	101	Pn	Pn	21 35 16.2	-0.5
TNSJ	Nastanj	3.37	158	Pn	Pn	21 35 16.7	-2.4
IMOG	Moghan	3.54	105	Pn	Pn	21 35 21.2	-0.4
TSHB	Tabas_ShorAb	3.59	162	Pn	Pn	21 35 19.5	-2.5
THKV	Tehran--Karaj	3.61	252	ePn	Pn	21 35 22.6	+0.1
THKV				IAML		21 36 34.7	
	comp=Z,3µm,1.0s						
TBHD	Torbat heydari	3.74	116	Pn	Pn	21 35 23.6	-0.6
TABS	Tabas	3.82	154	ePn	Pn	21 35 23.2	-2.1
TABS				IAML		21 36 43.6	
	comp=Z,4µm,1.0s						
TKDS	Koohdasht(Taba	3.86	154	Pn	Pn	21 35 23.7	-2.1
ANAR	Anarak	4.07	197	Pn	Pn	21 35 26.6	-2.2
GIDE	GILAN DEYLAMAN	4.17	269	ePn	Pn	21 35 28.2	-1.9
GIDE				IAML		21 36 59.5	
	comp=Z,3µm,1.0s						
NASN	Na'in	4.70	204	ePn	Pn	21 35 35.2	-2.4
YZKH	Yazd	4.73	185	ePn	Pn	21 35 35.7	-2.1
YZKH				IAML		21 37 01.9	
	comp=Z,950nm,1.0s						
IZEF	Zefreh	4.79	209	Pn	Pn	21 35 36.9	-1.8
ASAO	Ashtian	4.86	240	ePn	Pn	21 35 38.6	-1.1
ASAO				IAML		21 37 34.5	
	comp=Z,590nm,1.0s						
DOBD	Dorbid, Yazd	5.13	186	Pn	Pn	21 35 41.3	-2.1
LKRN	Lenkeran, Azer	5.26	290	P	Pn	21 35 43.2	-1.7
NDR	Nardaran	5.29	312	Pn	Pn	21 35 47.4	+2.0
KHMZ	Khomeyn	5.39	233	ePn	Pn	21 35 46.6	-0.3
KHMZ				IAML		21 37 38.6	
	comp=Z,380nm,1.0s						
TAFT	Taft - Yazd	5.43	189	Pn	Pn	21 35 45.6	-1.9
SHRT	Shahrakht	5.46	128	ePn	Pn	21 35 46.1	-1.7
SHRT				IAML		21 38 02.0	
	comp=Z,810nm,1.0s						
SHRT	Shahrakht	5.46	128	Pn	Pn	21 35 45.8	-2.0
IBAF	Bafgh	5.52	176	Pn	Pn	21 35 46.5	-2.2
SAAT	Saatly	5.92	300	Pn	Pn	21 35 55.1	+1.1
GRMI	Germi	5.95	289	ePn	Pn	21 35 53.2	-1.4
GRMI				IAML		21 37 04.4	
	comp=Z,810nm,1.0s						
BSRN	Basiran	6.11	146	ePn	Pn	21 35 54.8	-2.0
BSRN				IAML		21 38 05.3	
	comp=Z,480nm,1.0s						
HRA	Herat	6.40	113		Pn	21 35 58.9	-2.0
SNGE	Sanandaj	6.60	255	ePn	Pn	21 36 04.1	+0.5
SNGE				IAML		21 37 29.4	
	comp=Z,190nm,1.0s						
KLNJ	Kolanjah	6.75	207	ePn	Pn	21 36 05.2	-0.6
KLNJ				IAML		21 38 19.2	
	comp=Z,310nm,1.0s						
GTMR	Gotvand	6.77	229	ePn	Pn	21 36 05.0	-0.7
GTMR				IAML		21 38 19.4	
	comp=Z,340nm,1.0s						
NHDN	Nehbandan	7.02	143	Pn	Pn	21 36 07.4	-1.8
KRBR	Kerman	7.24	169	ePn	Pn	21 36 11.7	-0.8
KRBR				IAML		21 38 37.0	
	comp=Z,570nm,1.0s						
MNGR	Mingechevir, A	7.25	303	P	Pn	21 36 12.0	-0.2
SEKA	Sheki	7.39	306	P	Pn	21 36 13.8	-0.4
NGRK	Negar Kerman	7.57	169	Pn	Pn	21 36 14.5	-2.5
IMRD	Marand	7.61	285	Pn	Pn	21 36 18.2	+0.8
ISHB	Shabestar	7.62	282	Pn	Pn	21 36 18.9	+1.3
GANJ	Ganja	7.71	300	P	Pn	21 36 16.4	-2.2
SRSL	SARDASHT	7.83	266	ePn	Pn	21 36 19.6	-0.8
SRSL				IAML		21 37 28.9	
	comp=Z,50nm,1.0s						
NAX	Nakhchivan	7.86	288	P	Pn	21 36 21.1	+0.5
VSHL	Vashlovani	7.92	304	P	Pn	21 36 20.9	-0.6
VSHL				S	Sn	21 37 49.2	-1.6
ILBA	Ilam Banvizeh	8.06	247	ePn	Pn	21 36 22.2	-1.3
ILBA				IAML_BB		21 37 04.5	
	comp=Z,980nm,1.0s						
DDFL	Dedoflistskaro	8.21	305	P	Pn	21 36 25.8	+0.3
DDFL				S	Sn	21 37 57.5	-0.5
DDFL	Dedoflistskaro	8.21	305	P	Pn	21 36 25.8	+0.3
DDFL				S	Sn	21 37 57.5	-0.5
MAK	Makhachkala	8.26	317	c iP	Pn	21 36 22.9	-3.1
MAK				eS	Sn	21 37 54.8	-4.2
MAK				pmax	pmax		
	comp=Z,279nm,2.0s						
MAK				MLR	MLR		
	comp=Z,2µm,13.0s						
LGD	Lagodekhi	8.32	307	P	Pn	21 36 26.9	-0.1
LGD				S	Sn	21 37 57.0	-3.7
LGD	Lagodekhi	8.32	307	P	Pn	21 36 26.9	-0.1
LGD				S	Sn	21 37 57.0	-3.7
GNI	Garni	8.67	294	Pn	Pn	21 36 31.8	-0.1
	comp=Z,3.4nm,0.3s,baz=109,slow=10,SNR=22						
GNI				Sn	Sn	21 38 06.8	-2.6
	comp=Z,8.0nm,0.3s,baz=169,slow=10,SNR=3.7						
GNI				LR	LR	21 41 13.1	
	comp=Z,2µm,18.2s,baz=98,slow=47						
	comp=Z,67nm,0.6s						
GNI				AML	AML		
GNI	Garni	8.67	294	ceP	Pn	21 36 32.3	+0.5
GNI				pmax	pmax		
	comp=Z,141nm,1.3s						
GNI	Garni	8.67	294		Pn	21 36 31.4	-0.5
GNI	Garni	8.67	294	P	Pn	21 36 32.0	+0.2
GNI	Garni	8.67	294	Pn	Pn	21 36 31.7	-0.1
	comp=Z,2µmcomp=Z,293nm,0.8s						
GNI	Garni	8.67	294	P	Pn	21 36 32.1	+0.2
	comp=Z,2µmcomp=Z,295nm,0.8s						
DGRG	David-gareji	8.71	303	P	Pn	21 36 31.6	-0.7
DGRG				S	Sn	21 38 07.2	-3.0
DGRG	David-gareji	8.71	303	P	Pn	21 36 31.6	-0.7
DGRG				S	Sn	21 38 07.2	-3.0
HAKT	HAKKARI	9.10	276	P	Pn	21 36 40.2	+2.3
	comp=Z,2µmcomp=Z,174nm,0.9s						
CHRG	Chargali	9.42	307	P	Pn	21 36 40.4	-1.7
CHRG				S	Sn	21 38 20.7	-7.1
SHTL	Shatili	9.45	309	P	Pn	21 36 42.1	-0.4
SHTL				S	Sn	21 38 27.1	-1.5
SHTL	Shatili	9.45	309	P	Pn	21 36 42.1	-0.4
SHTL				S	Sn	21 38 27.0	-1.5
GEVA	Gevas	9.63	281		Pn	21 36 45.9	+0.8
BNDS	Bandar-Abbas	9.72	174	ePn	Pn	21 36 44.6	-1.8
BNDS				IAML_BB		21 37 32.7	
	comp=Z,700nm,1.0s						
BGD	Bogdanovka	9.85	298	P	Pn	21 36 48.7	+0.6
BGD	Bogdanovka	9.85	298	P	Pn	21 36 48.7	+0.6
LMD1	Lamerd	9.88	190	ePn	Pn	21 36 47.2	-1.2
LMD1				IAML		21 37 09.5	
	comp=Z,190nm,0.7s						
AKH	Akhalkalaki	9.98	299	P	Pn	21 36 50.8	+0.9
AKH	Akhalkalaki	9.98	299	P	Pn	21 36 50.8	+0.9
GURO	Guroymak-BITLI	10.45	282		Pn	21 36 57.4	+1.1
GARIG	Gari	10.49	305	P	Pn	21 36 56.3	-0.6
EPOS	Posof	10.55	298	P	Pn	21 36 59.1	+1.4
	comp=Z,588nmcomp=Z,46nm,1.3s						
KBZ	Khabaz	11.41	309	Pn	Pn	21 37 07.0	-2.2
	comp=Z,3.2nm,0.3s,baz=120,slow=9.6,SNR=24						
KBZ				Sn	Sn	21 39 10.4	-6.0
	comp=Z,2.4nm,0.3s,baz=112,slow=19,SNR=1.6						
	comp=Z,4.5nm,0.3s						
KBZ				AML	AML		
KBZ	Khabaz	11.41	309	ceP	Pn	21 37 07.4	-1.9
KBZ				pmax	pmax		
	comp=Z,21nm,1.0s						
SRVN	Saravan	11.47	145	ePn	Pn	21 37 09.9	-0.4
SRVN				IAML_BB		21 37 30.2	
	comp=Z,540nm,1.0s						
SHA1	Shidzhatmaz	11.57	309	ceP	Pn	21 37 12.0	+0.4
KBL	Kabul	11.60	99	P	Pn	21 37 11.6	-0.4
KBL	Kabul	11.60	99		Pn	21 37 11.6	-0.4
KBL	Kabul	11.60	99	P	Pn	21 37 13.7	+1.7
	comp=Z,497nmcomp=Z,30nm,0.9s,comp=Z,497nm						
KVAR	Kislovodsk Arr	11.66	310	Pn	Pn	21 37 11.4	-1.3
	baz=90,slow=20						
KVAR				Sn	Sn	21 39 15.6	-7.0
	baz=175,slow=11						
	comp=Z,10nm,0.5s						
KIV	Kislovodsk	11.66	310	eP	Pn	21 37 12.3	-0.5
KIV				eS	Sn	21 39 21.9	-0.8
KIV				pmax	pmax		
	comp=Z,68nm,1.0s						
KIV				MLR	MLR		
	comp=Z,419nm,13.0s						
KIV	Kislovodsk	11.66	310		Pn	21 37 10.8	-1.9
KIV	Kislovodsk	11.66	310	i P	Pn	21 37 12.7	-0.1
	SNR=25						
KIV	Kislovodsk	11.66	310	P	Pn	21 37 10.6	-2.2
	comp=Z,1µmcomp=Z,127nm,0.8s,comp=Z,1µm						
MSFE	Esma-Masafi	11.75	175	i P	Pn	21 37 11.5	-2.5
	SNR=9.0						
KOPT	Kop Dagi	11.80	289		Pn	21 37 15.3	+0.3
GOF	Gofitskoye	12.07	315	ceP	Pn	21 37 17.0	-1.3
NAZ	Nazwa, Dubai	12.09	178	i P	Pn	21 37 16.5	-2.2
	SNR=10						
UOSS	Minazif	12.16	175		Pn	21 37 17.2	-2.5
UOSS	Minazif	12.16	175	P	Pn	21 37 17.3	-2.3
UOSS	Minazif	12.16	175	P	Pn	21 37 18.3	-1.3
	comp=Z,435nmcomp=Z,36nm,0.9s						
HATD	Hatta, Dubai	12.28	176	P	Pn	21 37 18.5	-2.8
CHM	Chimkent	12.30	61	eP	Pn	21 37 18.4	-3.1
CHM	Chimkent	12.30	61	ePn	Pn	21 37 18.4	-3.1
ASHO	Ashiyiah	12.41	176	i P	Pn	21 37 20.8	-2.3
	SNR=10						
AB31	Akbulak array	12.63	15	⇓P	Pn	21 37 24.1	-1.9
	comp=Z,7.1nm,0.3s,baz=206,slow=13,SNR=430						
AB31				⇑S	Sn	21 39 40.8	-5.5
	comp=Z,57nm,0.6s,baz=197,slow=20,SNR=31						
AB31	Akbulak array	12.63	15	P	Pn	21 37 24.9	-1.1
AB31				S	Sn	21 39 40.8	-5.5
AB31	Akbulak array	12.63	15		Pn	21 37 23.4	-2.6
ABKAR	Akbulak array	12.63	15		Pn	21 37 23.7	-2.3
BTK	Batken	12.64	72	P	Pn	21 37 24.3	-1.8
BTK	Batken	12.64	72		Pn	21 37 23.7	-2.4
BTK	Batken	12.64	72	P	Pn	21 37 24.3	-1.8
	comp=Z,756nmcomp=Z,73nm,0.6s						
BRLS	Borolday	12.72	58	eP	Pn	21 37 20.9	-6.4
BRLS	Borolday	12.72	58	ePn	Pn	21 37 21.0	-6.3
KELT	Kelkit	12.77	289	P	Pn	21 37 30.4	+2.4
	comp=Z,1µmcomp=Z,103nm,1.4s,comp=Z,1µm						
ALNE	Al Ain	13.03	177	i P	Pn	21 37 28.6	-2.9
	SNR=6.0						
KK31	Karatay Array	13.21	58	⇓P	Pn	21 37 30.5	-3.5
	comp=Z,35nm,0.8s,baz=239,slow=17,SNR=150						
KK31				⇑S	Sn	21 39 56.7	-3.8
	comp=Z,33nm,0.7s,baz=246,slow=30,SNR=4.2						
KK31	Karatay Array	13.21	58	P	Pn	21 37 30.5	-3.5
KK31				S	Sn	21 39 56.7	-3.8
KK31	Karatay Array	13.21	58		Pn	21 37 30.4	-3.5
KKAR	Karatay Array	13.21	58		Pn	21 37 30.6	-3.3
ARPR	Arapgir-MALATY	13.36	284		Pn	21 37 37.2	+1.1
ARPR	Arapgir-MALATY	13.36	284	P	Pn	21 37 40.0	+3.9
	comp=Z,32nm,1.2s						
SOC	Sochi	13.40	304	eP	Pn	21 37 35.0	-1.4
SOC				e		21 40 02.7	
SOC				MLR	MLR		
	comp=Z,403nm,13.0s						
AKTO	Aktyubinsk	13.48	8	Pn	Pn	21 37 36.0	-1.5
	comp=Z,13nm,0.3s,baz=184,slow=14,SNR=181						
AKTO				Sn	Sn	21 40 00.2	-6.8
	comp=Z,10nm,0.3s,baz=182,slow=17,SNR=9.8						
	comp=Z,78nm,0.6s						
AKTO				AML	AML		
AKTO	Aktyubinsk	13.48	8	⇓P	Pn	21 37 35.7	-1.8
	comp=Z,36nm,0.6s						
AKTO				⇑S	Sn	21 40 00.7	-6.3
	comp=Z,72nm,0.8s						
DZA	Taraz	13.70	60	eP	Pn	21 37 38.7	-1.9
DZA	Taraz	13.70	60	eP	Pn	21 37 38.7	-1.9
ARK	Arkit	13.83	65	P	Pn	21 37 38.2	-4.2
	comp=Z,672nmcomp=Z,61nm,1.4s						
MZR	Muzera	14.13	186	P	Pn	21 37 43.5	-3.0
WSAR	Wadi Sarin	14.15	167	LR	LR	21 44 41.1	
	comp=Z,12nm,18.1s,baz=322,slow=44						
OHH	Osh	14.19	71	P	Pn	21 37 43.1	-4.2
	comp=Z,68nm,0.9s						
GAZ	Gaziantep	14.29	276		Pn	21 37 49.7	+1.0
ARSB	Arslanbob	14.47	68	P	Pn	21 37 48.3	-3.0
ARSB	Arslanbob	14.47	68	Pn	Pn	21 37 47.4	-3.9
TOKA	Tokat	14.90	288	Pn	Pn	21 37 57.4	+0.4
ANDN	Andirin	14.94	277	P	Pn	21 37 58.9	+1.2
	comp=Z,2µmcomp=Z,136nm,1.5s						
NIL	Nilore	15.19	98	P	Pn	21 38 01.3	+0.4
NIL				pmax	pmax		
	comp=Z,54nm,1.1s						
NIL	Nilore	15.19	98	Pn	Pn	21 38 01.3	+0.4
NIL	Nilore	15.19	98	P	Pn	21 38 01.0	+0.1
	comp=Z,1µmcomp=Z,105nm,0.9s						
BNN	Bunyan	15.30	282	Pn	Pn	21 38 02.9	+0.5
EKS2	Erkin-Say	15.35	63	P	Pn	21 38 00.2	-2.9
	SNR=16						
ASF	Jabal al Asfar	15.78	257	Pn	Pn	21 38 09.9	+1.3
	comp=Z,0.3nm,0.3s,baz=45,slow=8.6,SNR=11						
ASF				LR	LR	21 45 21.9	
	comp=Z,2µm,18.8s,baz=44,slow=42						
AAK	Ala-Archa	15.86	64	Pn	Pn	21 38 06.6	-3.0
	comp=Z,3.9nm,0.3s,baz=251,slow=5.1,SNR=34						
AAK				Sn	Sn	21 40 59.4	-5.9
	comp=Z,0.4nm,0.3s,baz=204,slow=18,SNR=3.9						
AAK				LR	LR	21 45 00.3	
	comp=Z,3µm,18.4s,baz=269,slow=40						
	comp=Z,38nm,0.6s						
AAK				AML	AML		
AAK	Ala-Archa	15.86	64	P	Pn	21 38 07.4	-2.3
	SNR=21						
AAK	Ala-Archa	15.86	64	⇓P	Pn	21 38 06.1	-3.6
	comp=Z,496nm,1.3s						
AAK				⇑S	Sn	21 40 57.1	-8.2
	comp=Z,312nm,1.1s						
AAK	Ala-Archa	15.86	64	ceP	Pn	21 38 07.8	-1.9
AAK				pmax	pmax		
	comp=Z,45nm,0.8s						
AAK	Ala-Archa	15.86	64	Pn	Pn	21 38 08.6	-1.1
AAK	Ala-Archa	15.86	64	P	Pn	21 38 07.5	-2.1
AAK	Ala-Archa	15.86	64	P	Pn	21 38 08.0	-1.7
	comp=Z,676nmcomp=Z,60nm,0.7s						
RAYN	Ar Rayn	15.87	214	P	Pn	21 38 05.3	-4.5
RAYN				pmax	pmax		
	comp=Z,63nm,0.9s						
RAYN	Ar Rayn	15.87	214	Pn	Pn	21 38 05.2	-4.5
RAYN	Ar Rayn	15.87	214	i P	Pn	21 38 05.5	-4.3
	SNR=77						
FRU1	Bishkek	16.00	63	P	Pn	21 38 09.1	-2.3
FRU1				pmax	pmax		
	comp=Z,32nm,0.8s						
FRU1	Bishkek	16.00	63	Pn	Pn	21 38 09.1	-2.3
USP	Ospenovka	16.02	61	P	Pn	21 38 08.2	-3.5
	SNR=13						
CHMS	Chumysh	16.13	63	P	Pn	21 38 11.0	-2.0
	SNR=8.6						
BELG	Belogornoye	16.16	343	Pn	Pn	21 38 09.3	-4.1
	comp=Z,1.9nm,0.3s,baz=162,slow=6.4,SNR=16						
BELG				Sn	Sn	21 40 59.0	-13
	comp=Z,5.8nm,0.3s,baz=216,slow=19,SNR=7.3						
	comp=Z,8.0nm,0.4s						
BELG				AML	AML		
BELG	Belogornoye	16.16	343	i P	Pn	21 38 10.3	-3.0
BELG				pmax	pmax		
	comp=Z,66nm,0.9s						
SGDS	Sogindy	16.17	61	eP	Pn	21 38 11.5	-2.1
SGDS				eS	Sn	21 41 10.8	-1.9
KBK	Karagaybulak	16.19	64	P	Pn	21 38 12.4	-1.5
	SNR=12						
KSH2	Kashi	16.22	77	P	Pn	21 38 10.6	-3.8
KSH2				S	Sn	21 41 18.7	+4.6
KSH2				LR	LR		
	comp=N,8µm,11.0s						
KSH2				LR	LR		
	comp=E,6µm,13.7s						
KSH2				LR	LR		
	comp=Z,7µm,15.1s						
MMAI	Mount Meron Ar	16.64	262	Pn	Pn	21 38 18.6	-1.0
	comp=Z,0.9nm,0.3s,baz=72,slow=29,SNR=1.5						
MMAI				LR	LR	21 45 37.7	
	comp=Z,980nm,18.8s,baz=56,slow=41						
	comp=Z,3.2nm,0.9s						
MMAI				AML	AML		
NRN	Naryn	16.73	69	P	Pn	21 38 17.6	-3.4
NRN				pmax	pmax		
	comp=Z,60nm,0.8s						
NRN	Naryn	16.73	69	Pn	Pn	21 38 17.6	-3.4
KIRS	Kirsehir-Merke	16.80	283	⇑P	Pn	21 38 22.7	+1.0
MMLI	Mount Malkishu	16.83	260	P	P	21 38 24.2	+0.1
	comp=Z,41nm,1.4s						
BOOM	Boomskoye usch	16.87	65	P	Pn	21 38 20.6	-2.0
BOOM				pmax	pmax		
	comp=Z,152nm,1.6s						
BOOM	Boomskoye usch	16.87	65	Pn	Pn	21 38 20.6	-2.0
BOOM	Boomskoye usch	16.87	65	P	P	21 38 23.9	-0.7
	comp=Z,69nm,1.5s						
CY604	RAF Akrotiri,	16.96	267		Pn	21 38 23.8	+0.5
BZK	Bozkurt	16.98	293	P	Pn	21 38 24.7	+1.0
	comp=Z,86nm,1.0s						
VRH	Novokhopyorsk	17.01	330	eP	Pn	21 38 21.2	-2.9
VRH				eS	Sn	21 41 23.0	-10
VRH				pmax	pmax		
	comp=Z,110nm,0.8s						
VRH				smax	smax		
	comp=E,250nm,0.7s						
BR104	Keskin Array S	17.03	285	P	P	21 38 25.7	-0.6
	comp=E,216nmcomp=E,24nm,1.1s						
BR131	Keskin Array S	17.03	285	d iP	Pn	21 38 25.2	+0.6
BR131	Keskin Array S	17.03	285	Pn	Pn	21 38 24.1	-0.5
BRTR	Keskin Array B	17.03	285	Pn	Pn	21 38 23.1	-1.5
	comp=E,0.3nm,0.3s,baz=102,slow=10,SNR=34						
BRTR				LR	LR	21 46 38.9	
	comp=E,1µm,20.1s,baz=78,slow=43						
	comp=E,1.3nm,0.8s						
BRTR				AML	AML		
BRTR	Keskin Array B	17.03	285	Pn	Pn	21 38 24.4	-0.2
BR105	Keskin Array S	17.04	285	P	P	21 38 26.3	-0.2
	comp=E,224nmcomp=E,24nm,1.1s						
BR106	Keskin Array S	17.05	285	P	P	21 38 26.2	-0.3
	comp=E,170nmcomp=E,18nm,1.0s						
ASAI	AK-SAY(Kyrgyzs	17.06	71	P	Pn	21 38 23.8	-1.3
	comp=Z,658nmcomp=Z,38nm,1.0s						
ILGA	Ilgaz	17.07	290	Pn	Pn	21 38 25.5	+0.4
ILGA				IAmb	IAmb	21 38 33.4	
	comp=Z,157nm,1.6s						
GHAJ	Ghor Haditha	17.17	256	P	P	21 38 27.2	-0.5
	comp=Z,772nmcomp=Z,30nm,1.1s						
KUU	Kurty	17.48	61	eP	Pn	21 38 28.2	-1.9
KUU	Kurty	17.48	61	eP	Pn	21 38 28.2	-1.9
KKUL	Konya-Kulu	17.58	283	P	P	21 38 34.2	+1.8
	comp=Z,906nmcomp=Z,52nm,1.6s						
SIM	Simferopol'	17.64	303	eP	Pn	21 38 31.1	-0.9
SIM				eS	Sn	21 41 42.0	-6.2
SIM				pmax	pmax		
	comp=Z,128nm,1.3s						
TNSS	Tian-Shan	17.71	64	eP	Pn	21 38 31.2	-2.0
TNSS	Tian-Shan	17.71	64	eP	Pn	21 38 31.2	-2.0
CSS	Mathiatis	17.75	270		Pn	21 38 33.2	-0.2
CSS	Mathiatis	17.75	270	P	P	21 38 35.7	+1.5
	comp=Z,836nmcomp=Z,30nm,1.1s						
CSS	Mathiatis	17.75	270	P	P	21 38 34.3	+0.1
	comp=Z,836nmcomp=Z,30nm,1.2s,comp=Z,836nm						
KNDC	Almaty	17.76	63	⇓P	P	21 38 35.7	+1.4
	comp=Z,136nm,1.2s						
KNDC	Almaty	17.76	63	P	P	21 38 35.7	+1.4
MDOK	Medeo	17.80	63	eP	Pn	21 38 32.7	-1.5
MDOK	Medeo	17.80	63	eP	Pn	21 38 32.7	-1.5
VORD	Divnogorie	17.87	326	eP	Pn	21 38 31.7	-3.0
VORD				pmax	pmax		
	comp=Z,140nm,0.8s						
VSR	Storozhevoye	18.10	326	eP	Pn	21 38 33.9	-3.7

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VSR                                 eS      Sn     21 41 50.1  -9.1
VSR                                  pmax   pmax
      comp=Z,100nm,0.7s
VSR                                  smax   smax
      comp=N,120nm,0.8s
TARG  Taragay, Kyrgy     18.11  68   P      P      21 38 39.2 +0.6
TARG                                 pmax   pmax
      comp=Z,257nm,1.9s
TARG  Taragay, Kyrgy     18.11  68          P      21 38 39.2 +0.6
TARG                                 IAmb   IAmb   21 38 46.8
      comp=Z,257nm,1.9s
HRFI  Mount Harif        18.14 253   P      P      21 38 39.1 +0.5
      comp=Z,1µmcomp=Z,43nm,1.3s
KZIT  Kziot              18.24 256   P      Pn     21 38 38.8  -0.7
      comp=Z,964nmcomp=Z,37nm,1.2s
EIL   Elat               18.38 252   P      P      21 38 38.7  -2.5
      comp=Z,0.5nm,0.3s,baz=58,slow=11,SNR=5.4
EIL                                  LR     LR     21 46 58.7
      comp=Z,2µm,20.5s,baz=71,slow=41
      comp=Z,7.9nm,1.0s
EIL                                  AML    AML
EIL   Elat               18.38 252   P      Pn     21 38 41.9 +0.7
      comp=Z,676nmcomp=Z,20nm,1.0s
VORR  Voronezh           18.41 327  eP      P      21 38 39.3  -2.0
VORR                                eS      Sn     21 42 07.3 +0.7
VORR                                 pmax   pmax
      comp=Z,230nm,0.6s
VORR                                 smax   smax
      comp=N,520nm,1.4s
KEPZ  Antalya-Kepez      18.77 276  ⇑P      Pn     21 38 47.5 +1.5
MDUB  Mudurnu            18.93 288   P      P      21 38 46.7  -0.6
KPKS  Kokpek             19.04  63  eP      P      21 38 47.0  -1.4
KPKS                                eS      Sn     21 42 20.7  -1.4
KPKS  Kokpek             19.04  63  eP      P      21 38 47.1  -1.4
KPKS                                eS      Sn     21 42 20.7  -1.4
WUS   Wushi              19.11  70   P      Pn     21 38 51.4 +1.1
      comp=Z,906nmcomp=Z,73nm,0.9s
BORK  Borovoye           19.15  29  i P     P      21 38 49.5 +0.1
BORK                                 pmax   pmax
      comp=Z,45nm,0.9s
BORK  Borovoye           19.15  29          Pn     21 38 50.1  -0.3
BORK                                 IAmb   IAmb   21 39 01.7
      comp=Z,75nm,0.8s
BVAR  Borovoye Array     19.16  29   P      P      21 38 48.4  -1.1
      comp=Z,0.6nm,0.3s,baz=217,slow=12,SNR=68
BVAR                                 S      Sn     21 42 13.5   -11
      comp=Z,4.7nm,0.6s,baz=224,slow=26,SNR=2.0
      comp=Z,14nm,0.5s
BVAR                                 AML    AML
LPSR  Galich'ya Gora     19.20 329  eP      P      21 38 48.8  -1.2
LPSR                                eS      Sn     21 42 14.9   -11
LPSR                                 pmax   pmax
      comp=Z,270nm,0.7s
LPSR                                 smax   smax
      comp=E,160nm,0.7s
TDK   Taldyqorghan       19.21  59  eP      P      21 38 48.8  -1.4
TDK   Taldyqorghan       19.21  59  eP      P      21 38 48.8  -1.4
SAHE  Sakarya_HENDEK     19.21 289  ⇑P      Pn     21 38 55.3 +4.1
UZB   Uzynbulak          19.22  64  eP      P      21 38 49.3  -1.2
UZB                                 eS      Sn     21 42 25.4  -1.2
UZB   Uzynbulak          19.22  64  eP      P      21 38 49.3  -1.2
UZB                                 eS      Sn     21 42 25.4  -1.2
ARTI  Arti               19.41   5   P      P      21 38 51.3  -0.9
      comp=E,7.0nm,0.3s,baz=188,slow=9.0,SNR=48
ARTI                                 S      Sn     21 42 16.5   -14
      comp=E,10.0nm,0.6s,baz=233,slow=20,SNR=1.2
ARTI                                 LR     LR     21 47 28.2
      comp=E,4µm,20.7s,baz=182,slow=40
      comp=E,26nm,0.5s
ARTI                                 AML    AML
ARTI  Arti               19.41   5c iP      P      21 38 52.5 +0.2
ARTI                                 S      Sn     21 42 28.9  -1.8
ARTI                                 pmax   pmax
      comp=Z,72nm,1.0s
ARTI                                 MLR    MLR
      comp=Z,4µm,21.0s
ARTI  Arti               19.41   5          P      21 38 50.9  -1.4
BORA  Eskisehir          19.48 286          P      21 38 52.7  -0.6
BORA                                 IAmb   IAmb   21 39 00.8
      comp=Z,128nm,1.8s
BCK   Bucak              19.51 278   P      P      21 38 53.4  -0.2
ISP   Isparta            19.52 280  i P     Pn     21 38 55.2 +0.1
ISP                                  pmax   pmax
      comp=Z,26nm,1.0s
ISP   Isparta            19.52 280   P      Pn     21 38 54.6  -0.5
ISP                                  IAmb   IAmb   21 39 01.5
      comp=Z,114nm,1.5s
SHLS  Shalkode           19.54  64  eP      Pn     21 38 56.6 +1.4
SHLS  Shalkode           19.54  64  eP      Pn     21 38 56.7 +1.5
PDGK  Podgornoye         19.59  64  ⇑P      P      21 38 55.0 +0.5
      comp=Z,81nm,1.1s
PDGK  Podgornoye         19.59  64   P      P      21 38 55.2 +0.7
PDGK  Podgornoye         19.59  64          P      21 38 54.7 +0.2
SVE   Sverdlovsk         20.07   9  eP      Pn     21 39 00.7  -0.6
SVE                                 eS      S      21 42 41.8  -2.6
SVE                                  pmax   pmax
      comp=Z,39nm,1.0s
SVE                                  MLR    MLR
      comp=Z,2µm,13.0s
ELL   Elmali             20.14 277   P      Pn     21 39 01.9  -0.5
ELL                                  pmax   pmax
      comp=Z,363nm,0.9s
ELL   Elmali             20.14 277          P      21 39 00.1  -0.4
ELL                                  IAmb   IAmb   21 39 13.1
      comp=Z,81nm,0.9s
YLV   Yalova             20.32 288   P      Pn     21 39 03.8  -0.7
      comp=Z,2µmcomp=Z,72nm,1.0s
NE56  Odesa              20.33 306   P      Pn     21 39 03.6  -0.8
AKAS  Kas                20.47 275   P      P      21 39 03.2  -0.9
AKAS                                 IAmb   IAmb   21 39 15.1
      comp=Z,68nm,0.9s
AKAS  Kas                20.47 275   P      P      21 39 03.6  -0.5
      comp=Z,8µmcomp=Z,416nm,0.8s,comp=Z,8µm
ISK   Istanbul-Kandi     20.58 289   P      P      21 39 05.3 +0.2
KLYT  Kilyos             20.60 290   P      Pn     21 39 06.9  -0.7
      comp=Z,1µmcomp=Z,80nm,1.5s
TAVA  DENIZLI_Tavas      20.83 279  ⇓P      P      21 39 07.4  -0.7
PURM  Purcari            20.96 305   P      P      21 39 10.2 +1.0
      comp=Z,18µmcomp=Z,232nm,0.7s
MANT  Manisa             21.01 282   P      P      21 39 07.6  -2.4
MANT                                 IAmb   IAmb   21 39 18.6
      comp=Z,74nm,1.2s
CTYL  Yalikoy Yolu       21.18 290   P      P      21 39 13.0 +1.4
      comp=Z,1µmcomp=Z,128nm,1.3s
JURR  Jurilovca          21.18 299  ⇑P      P      21 39 12.3 +0.8
EFOR  EFORIE             21.22 297  ⇑P      P      21 39 13.3 +1.2
TLCR                     21.32 300  ⇑P      P      21 39 12.8  -0.2
TLCR                     21.32 300  ⇑P      P      21 39 12.8  -0.2
MFTR  Murfatlar          21.39 298  ⇓P      P      21 39 15.3 +1.5
TIRR  Tirgusor           21.45 298  ⇓P      P      21 39 14.8 +0.4
TIRR  Tirgusor           21.45 298          P      21 39 13.6  -0.9
TIRR                                 IAmb   IAmb   21 39 21.4
      comp=Z,135nm,1.4s
TIRR  Tirgusor           21.45 298  ⇓P      P      21 39 14.8 +0.4
TIRR  Tirgusor           21.45 298   P      P      21 39 15.7 +1.3
      comp=Z,1µmcomp=Z,49nm,1.2s
TIRR  Tirgusor           21.45 298   P      P      21 39 15.2 +0.7
      comp=Z,1µmcomp=Z,49nm,1.2s
BALB  Balikesir          21.47 285          P      21 39 12.2  -2.5
KURBB Kurchatov Arra     21.50  44   P      P      21 39 15.0   0.0
      comp=Z,8.0nm,0.8s,baz=246,slow=10,SNR=23
KURBB                                LR     LR     21 48 39.3
      comp=Z,1µm,18.4s,baz=216,slow=40
      comp=Z,8.0nm,0.8s
KURBB Kurchatov Arra     21.50  44  ⇑P      P      21 39 15.0   0.0
      comp=Z,64nm,1.1s
KURBB Kurchatov Arra     21.50  44   P      P      21 39 15.2 +0.2
PSN   Preselentsi        21.51 296   P      P      21 39 15.9 +0.8
TPGR  Topolog            21.52 299  ⇓P      P      21 39 15.0  -0.3
BAL3X Bal3x, Balta       21.59 308   P      P      21 39 16.6 +0.6
KURK  Kurchatov          21.60  44  ⇓P      P      21 39 17.6 +1.5
      comp=Z,23nm,1.1s
KURK  Kurchatov          21.60  44ceP       P      21 39 17.5 +1.5
KURK                                 pmax   pmax
      comp=Z,22nm,1.0s
KURK  Kurchatov          21.60  44          P      21 39 16.2 +0.2
KURK  Kurchatov          21.60  44   P      P      21 39 16.5 +0.5
      comp=Z,766nmcomp=Z,63nm,1.0s
ARG   Arkhangelos        21.65 276   P      P      21 39 17.6 +0.9
ARG                                  pmax   pmax
      comp=Z,41nm,0.9s
ARG   Arkhangelos        21.65 276   P      P      21 39 17.6 +0.9
BALY  Balya              21.67 285   P      P      21 39 20.6 +3.7
      comp=Z,2µmcomp=Z,130nm,1.5s,comp=Z,2µm
TLBR  Topalu             21.72 298  ⇓P      P      21 39 18.2 +0.8
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CFR   Carcaliu           21.78 300  ⇓P      P      21 39 18.1 +0.1
CFR   Carcaliu           21.78 300  ⇓P      P      21 39 18.1 +0.1
KIS   Kishinev           21.79 305  ⇓P      P      21 39 17.9  -0.2
KIS   Kishinev           21.79 305  ⇓P      P      21 39 17.9  -0.2
KIS   Kishinev           21.79 305   P      P      21 39 19.0 +0.9
      comp=Z,941nmcomp=Z,97nm,0.7s
KIRV  Kirov              21.81 352   P      P      21 39 18.8 +0.6
      comp=Z,118nm,0.7s,baz=165,slow=9.8,SNR=69
KIRV                                 S      S      21 43 18.9 +0.3
      comp=Z,5.7nm,0.5s,baz=193,slow=14,SNR=1.4
KIRV                                 LR     LR     21 50 11.5
      comp=Z,4µm,18.6s,baz=163,slow=43
      comp=Z,118nm,0.7s
KIRV  Kirov              21.81 352ceP       P      21 39 18.9 +0.7
ICOR  Ion Corvin         21.82 297  ⇓P      P      21 39 20.1 +1.7
HARR  Harsova            21.83 299  ⇑P      P      21 39 19.7 +1.2
HARR  Harsova            21.83 299  ⇑P      P      21 39 19.7 +1.2
TATR  Tatarca            21.93 301  ⇑P      P      21 39 21.3 +1.6
PRD   Provadia           21.97 295   P      P      21 39 21.0 +0.9
VLDR  Vladesti           21.97 302  ⇑P      P      21 39 22.6 +2.5
SCTR  Scanteiesti        21.99 301  ⇑P      P      21 39 25.1 +4.8
OBN   Obninsk            22.00 331   P      P      21 39 20.3 +0.1
      comp=Z,70nm,0.4s,baz=132,slow=7.1,SNR=40
OBN                                  S      S      21 43 19.1  -3.4
      comp=Z,13nm,0.6s,baz=150,slow=20,SNR=2.1
OBN                                  LR     LR     21 49 41.8
      comp=Z,586nm,18.7s,baz=162,slow=42
      comp=Z,70nm,0.4s
OBN   Obninsk            22.00 331deP       P      21 39 21.0 +0.7
OBN                                 e              21 39 42.9
OBN                                 i S     S      21 43 15.6  -6.9
OBN                                  pmax   pmax
      comp=Z,73nm,1.0s
OBN                                  MLR    MLR
      comp=Z,551nm,15.0s
OBN   Obninsk            22.00 331          P      21 39 20.4 +0.1
OBN   Obninsk            22.00 331  ⇑P      P      21 39 17.1  -3.2
OBN   Obninsk            22.00 331   P      P      21 39 21.3 +1.0
      comp=Z,3µmcomp=Z,182nm,2.0s
OBN   Obninsk            22.00 331   P      P      21 39 22.7 +2.4
      comp=Z,3µmcomp=Z,184nm,2.0s,comp=Z,3µm
LEOM  Leova              22.02 304   P      P      21 39 22.9 +2.3
SCHLR Schela             22.06 301  ⇓P      P      21 39 25.0 +4.0
MOS   Moscow             22.08 333  eP      P      21 39 23.4 +2.3
MOS                                 e              21 39 46.4
MOS                                 e              21 39 56.0
MOS                                 eS      S      21 43 26.8 +2.9
MOS                                 eSS     SnSn   21 43 57.0 +6.8
MOS                                  pmax   pmax
      comp=Z,96nm,0.6s
MOS                                  pmax   pmax
      comp=N,31nm,0.6s
MOS                                  pmax   pmax
      comp=Z,112nm,0.6s
NEF   NEVSHA             22.08 295   P      P      21 39 22.8 +1.5
MAKZ  Makanchi           22.11  56  ⇓P      P      21 39 21.4  -0.2
      comp=Z,66nm,1.1s
MAKZ  Makanchi           22.11  56   P      P      21 39 21.4  -0.2
MAKZ  Makanchi           22.11  56          P      21 39 21.2  -0.4
MAKZ                                 IAmb   IAmb   21 39 31.3
      comp=Z,59nm,0.9s
MAKZ  Makanchi           22.11  56   P      P      21 39 22.1 +0.6
      comp=Z,727nmcomp=Z,72nm,1.1s
VARL  Varlezi            22.14 302  ⇓P      P      21 39 25.0 +3.1
MK31  Makanchi Array     22.31  56  ⇓P      P      21 39 24.2 +0.5
      comp=Z,16nm,0.8s,baz=244,slow=10,SNR=162
MK31  Makanchi Array     22.31  56ceP       P      21 39 24.9 +1.1
MKAR  Makanchi Array     22.31  56   P      P      21 39 23.8   0.0
      comp=Z,5.8nm,0.6s,baz=249,slow=11,SNR=32
MKAR                                 LR     LR     21 49 13.1
      comp=Z,1µm,21.2s,baz=247,slow=40
      comp=Z,5.8nm,0.6s
MKAR  Makanchi Array     22.31  56          P      21 39 23.4  -0.4
VASR  Vaslui             22.37 304  ⇓P      P      21 39 26.9 +2.6
CICN  Ciocanesti         22.38 297  ⇑P      P      21 39 26.1 +1.6
SORM  Soroca             22.45 308  ⇑P      P      21 39 26.2 +1.0
SORM  Soroca             22.45 308  ⇑P      P      21 39 26.2 +1.0
SORM  Soroca             22.45 308   P      P      21 39 26.1 +0.9
      comp=Z,736nmcomp=Z,97nm,0.9s
GHRR                     22.48 302  ⇑P      P      21 39 28.8 +3.3
GHRR                     22.48 302   P      P      21 39 26.6 +1.1
GHRR                     22.48 302   P      P      21 39 27.9 +2.3
      comp=Z,3µmcomp=Z,214nm,0.7s
KARP  Karpathos          22.55 274   P      P      21 39 25.7  -0.6
KARP                                 IAmb   IAmb   21 39 48.9
      comp=Z,80nm,0.9s
KARP  Karpathos          22.55 274   P      P      21 39 28.2 +1.8
      comp=Z,111nm,1.2s
JMB   Yambol             22.55 293   P      P      21 39 27.0 +0.7
LEHL  Lehliu             22.57 298  ⇓P      P      21 39 29.7 +3.2
LOZB  Loznitsa           22.59 295  ⇓P      P      21 39 27.5 +0.8
PANC  Panciu             22.61 302  ⇑P      P      21 39 29.8 +2.9
GRER                     22.63 300  ⇓P      P      21 39 27.9 +0.8
ODBI  Odobesti           22.65 301  ⇓P      P      21 39 31.3 +3.9
IASR  Iasi               22.66 305  ⇑P      P      21 39 29.5 +2.1
EZN   Ezine              22.66 286   P      P      21 39 29.7 +2.2
EZN   Ezine              22.66 286   P      P      21 39 29.2 +1.7
      comp=Z,999nmcomp=Z,44nm,1.1s
RAZG  Razgrad            22.67 295  ⇑P      P      21 39 31.7 +4.1
CAVK  Edirne/Enez-Ca     22.76 288  ⇑P      P      21 39 30.9 +2.3
BISRR Bisoca             22.84 301  ⇑P      P      21 39 33.8 +4.3
BISRR Bisoca             22.84 301   P      P      21 39 30.4 +0.9
      comp=Z,8µmcomp=Z,161nm,0.9s
AK09  Malin Array Si     22.86 314   P      P      21 39 28.5  -1.0
ALN   Alexandroupoli     22.86 289   P      P      21 39 30.4 +0.9
ALN                                  pmax   pmax
      comp=Z,40nm,1.3s
ALN   Alexandroupoli     22.86 289          P      21 39 30.4 +0.9
ALN   Alexandroupoli     22.86 289   P      P      21 39 32.2 +2.6
      comp=Z,946nmcomp=Z,30nm,1.4s,comp=Z,946nm
AK10  Malin Array Si     22.87 314   P      P      21 39 28.5  -1.1
AK07  Malin Array Si     22.87 314   P      P      21 39 28.6  -1.0
ISR   Istrita            22.88 299  ⇑P      P      21 39 32.5 +2.7
ISR   Istrita            22.88 299  ⇑P      P      21 39 32.5 +2.7
ISR   Istrita            22.88 299   P      P      21 39 31.5 +1.7
      comp=Z,1µmcomp=Z,125nm,1.0s
AK08  Malin Array Si     22.88 314   P      P      21 39 28.9  -0.8
SAHR  Sahastru           22.90 301  ⇑P      P      21 39 33.1 +3.0
VRI   Vrincioaia         22.90 301   P      P      21 39 32.1 +2.1
VRI   Vrincioaia         22.90 301  ⇑P      P      21 39 34.5 +4.6
VRI   Vrincioaia         22.90 301   P      P      21 39 31.0 +1.0
      comp=Z,799nmcomp=Z,68nm,1.2s
VRI   Vrincioaia         22.90 301   P      P      21 39 32.0 +2.1
      comp=Z,796nmcomp=Z,68nm,1.2s,comp=Z,796nm
AK02  Malin Array Si     22.92 314   P      P      21 39 29.4  -0.7
AKASG Malin Array Be     22.93 315   P      P      21 39 28.8  -1.4
      comp=Z,25nm,0.9s,baz=116,slow=7.9,SNR=35
AKASG                                S      S      21 43 37.3  -2.3
      comp=Z,1.1nm,0.7s,baz=121,slow=19,SNR=1.5
AKASG                                LR     LR     21 51 03.5
      comp=Z,880nm,18.5s,baz=118,slow=44
      comp=Z,25nm,0.9s
AKASG Malin Array Be     22.93 315  i P     P      21 39 29.2  -1.0
AKASG                                pmax   pmax
      comp=Z,16nm,0.6s
AKASG Malin Array Be     22.93 315   P      P      21 39 29.7  -0.5
AKASG                                IAmb   IAmb   21 39 44.9
      comp=Z,64nm,0.9s
AKBB  Malin Array Si     22.93 315ceP       P      21 39 29.6  -0.6
AKBB                                 pmax   pmax
      comp=Z,88nm,1.3s
AKBB  Malin Array Si     22.93 315          P      21 39 29.0  -1.2
AKBB  Malin Array Si     22.93 315   P      P      21 39 29.3  -0.9
AK01  Malin Array Si     22.93 315   P      P      21 39 29.3  -0.9
KIEV  Kiev               22.93 315  ⇑P      P      21 39 30.1  -0.1
KIEV  Kiev               22.93 315          P      21 39 28.8  -1.5
KIEV  Kiev               22.93 315  i P     P      21 39 29.7  -0.5
      SNR=41
KIEV  Kiev               22.93 315  ⇑P      P      21 39 30.1  -0.1
KIEV  Kiev               22.93 315   P      P      21 39 29.7  -0.5
      comp=Z,4µmcomp=Z,361nm,0.6s
KIEV  Kiev               22.93 315   P      P      21 39 29.5  -0.8
      comp=Z,962nmcomp=Z,92nm,0.6s
PLOR  Plostina           22.95 301  ⇑P      P      21 39 33.5 +3.0
PLOR  Plostina           22.95 301  ⇑P      P      21 39 33.5 +3.0
AK11  Malin Array Si     22.95 314   P      P      21 39 29.6  -0.8
AK04  Malin Array Si     22.97 315   P      P      21 39 29.4  -1.2
AK13  Malin Array Si     22.98 314   P      P      21 39 31.8 +1.0
SULR                     23.00 298  ⇑P      P      21 39 33.5 +2.4
SULR                     23.00 298   P      P      21 39 35.0 +3.9
      comp=Z,111nm,1.3s
AK23  Malin Array Si     23.01 315   P      P      21 39 30.1  -1.0
TESR  Tescani            23.10 303  ⇓P      P      21 39 35.3 +3.2
TESR  Tescani            23.10 303   P      P      21 39 32.5 +0.4
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      comp=Z,1µmcomp=Z,65nm,1.7s,comp=Z,1µm
NEHR  Nehoiu             23.11 300  ⇑P      P      21 39 33.8 +1.7
SGRR  Singureni          23.14 297  ⇑P      P      21 39 33.5 +1.1
ONER  Baraj Valea Uz     23.23 302  ⇑P      P      21 39 36.9 +3.5
COVR  Voineasa-Covas     23.25 301  ⇑P      P      21 39 36.4 +2.8
GIRR  Girov              23.30 304  ⇓P      P      21 39 35.9 +1.7
MLR   Muntele Rosu       23.36 300   P      P      21 39 34.7  -0.1
      comp=Z,10nm,0.6s,baz=96,slow=6.3,SNR=38
MLR                                  S      S      21 43 46.9  -0.4
      comp=Z,2.4nm,0.8s,baz=102,slow=20,SNR=1.8
      comp=Z,10nm,0.6s
MLR   Muntele Rosu       23.36 300          P      21 39 34.9   0.0
MLR   Muntele Rosu       23.36 300  ⇑P      P      21 39 37.0 +2.2
MLR   Muntele Rosu       23.36 300   P      P      21 39 36.5 +1.7
      comp=Z,1µmcomp=Z,111nm,1.3s
MLR   Muntele Rosu       23.36 300   P      P      21 39 36.9 +2.1
      comp=Z,1µmcomp=Z,110nm,1.3s,comp=Z,1µm
KDZ   Kurdzhali          23.39 290   P      P      21 39 36.3 +1.2
TURR  Turia              23.42 302  ⇑P      P      21 39 37.0 +1.7
LUBAR Lubar, Ukraine     23.46 312   P      P      21 39 36.4 +0.8
MI30  MI30,Zelenitsa     23.54 314   P      P      21 39 37.8 +1.4
      comp=Z,107nm,0.8s
BIZ   Bicaz              23.56 304  ⇑P      P      21 39 39.1 +2.4
OZUR                     23.59 302  ⇓P      P      21 39 38.6 +1.7
PRAR  RASCA              23.59 305  ⇑P      P      21 39 38.2 +1.3
PVL   Pavlikeni          23.59 294   P      P      21 39 38.2 +1.2
MI29  MI29, Kamyanyy     23.60 313   P      P      21 39 37.9 +0.9
      comp=Z,10µmcomp=Z,535nm,1.1s
MI29                                 pP     pP     21 39 40.5  -0.9
      comp=Z,10µmcomp=Z,535nm,1.1s
KMPD  K-Podol'skiy       23.78 308   P      P      21 39 40.0 +1.2
KMPD                                 pP     pP     21 39 43.9 +0.7
DOPR  Dopca              23.83 301  ⇓P      P      21 39 41.4 +2.1
RZN   Rozhen             23.85 290   P      P      21 39 41.1 +1.4
PLD   Plovdiv            23.85 292   P      P      21 39 42.6 +3.1
PLD                                  pmax   pmax
      comp=Z,109nm,1.6s
PLD   Plovdiv            23.85 292   P      P      21 39 40.9 +1.4
HUMR  Humele             23.88 298  ⇑P      P      21 39 41.4 +1.6
HUMR  Humele             23.88 298   P      P      21 39 41.6 +1.8
      comp=Z,76nm,0.9s
MTUR  Matau              23.93 299  ⇑P      P      21 39 41.7 +1.4
MTUR  Matau              23.93 299  ⇑P      P      21 39 41.7 +1.4
STFAR Stefanesti-Arg     23.94 298  ⇑P      P      21 39 41.2 +0.9
VOIR                     23.97 300  ⇑P      P      21 39 41.6 +0.9
VOIR                     23.97 300  ⇑P      P      21 39 41.6 +0.9
VOIR                     23.97 300   P      P      21 39 42.1 +1.4
      comp=Z,955nmcomp=Z,70nm,0.9s
VOIR                     23.97 300   P      P      21 39 41.6 +0.9
      comp=Z,923nmcomp=Z,70nm,0.9s,comp=Z,923nm
PLVB  Pleven             24.02 295  ⇓P      P      21 39 41.1 +0.1
ZSN   Zaisan             24.18  55  eP      P      21 39 41.8  -0.7
ZSN                                  pmax   pmax
      comp=Z,68nm,2.7s
ZSN   Zaisan             24.18  55  eP      P      21 39 41.9  -0.7
      comp=Z,68nm,2.7s
ARR   Arges              24.25 299  ⇓P      P      21 39 43.9 +0.7
ARR   Arges              24.25 299   P      P      21 39 44.3 +1.0
      comp=Z,657nmcomp=Z,58nm,1.0s,comp=Z,657nm
PGB   Panagyurishte      24.29 292   P      P      21 39 46.9 +3.2
BURAR Bucovina Array     24.32 305  ⇑P      P      21 39 44.8 +0.9
BURAR Bucovina Array     24.32 305          P      21 39 43.9   0.0
BURAR                                IAmb   IAmb   21 39 59.4
      comp=Z,30nm,0.7s
BURAR Bucovina Array     24.32 305  ⇑P      P      21 39 44.8 +0.9
BUR08 Bucovina Ar. S     24.33 305   P      P      21 39 43.9  -0.2
BUR08                                IAmb   IAmb   21 39 59.7
      comp=Z,32nm,0.8s
IDI   Anoyia             24.41 275   P      P      21 39 44.1  -0.8
      comp=Z,25nm,0.7s,baz=69,slow=14,SNR=11
IDI                                  S      S      21 44 02.9  -1.2
      comp=Z,5.9nm,0.8s,baz=173,slow=17,SNR=1.4
      comp=Z,25nm,0.7s
IDI   Anoyia             24.41 275          P      21 39 42.9  -1.9
IDI                                  IAmb   IAmb   21 40 00.5
      comp=Z,65nm,1.2s
OUR   Ouranopolis        24.44 287   P      P      21 39 45.1 +0.2
MMB   Musomishta         24.59 290   P      P      21 39 48.0 +1.6
MPEP  Malo Peshtene      24.66 294   P      P      21 39 49.2 +2.3
PAIG  Paliouri           24.69 286   P      P      21 39 48.0 +0.8
PAIG  Paliouri           24.69 286   P      P      21 39 48.0 +0.8
      comp=Z,230nmcomp=Z,12nm,1.5s,comp=Z,230nm
SRS   Serrai             24.71 289   P      P      21 39 47.5 +0.1
SRS                                  pmax   pmax
      comp=Z,58nm,1.4s
SRS   Serrai             24.71 289   P      P      21 39 48.0 +0.5
      comp=Z,939nmcomp=Z,60nm,1.0s,comp=Z,939nm
ARCR  ARCALIA            24.76 303  ⇓P      P      21 39 49.9 +2.0
PLNA  Plana              24.84 292   P      P      21 39 50.7 +1.9
LOT   Lotru              24.86 299  ⇓P      P      21 39 50.0 +1.1
LOT   Lotru              24.86 299   P      P      21 39 49.6 +0.7
      comp=Z,675nmcomp=Z,65nm,0.9s,comp=Z,675nm
SOH   Sokhos             24.90 288   P      P      21 39 49.8 +0.6
SOH   Sokhos             24.90 288   P      P      21 39 49.8 +0.6
      comp=Z,1µmcomp=Z,54nm,0.9s,comp=Z,1µm
VALD  Valchedram         24.90 295   P      P      21 39 50.1 +1.0
BLSH  Balsha             24.97 293   P      P      21 39 53.5 +3.7
VTS   Vitosha            24.99 293   P      P      21 39 52.3 +2.2
KKB   Krupnik            25.05 291   P      P      21 39 53.5 +3.0
RNPP5 Staryi Chortor     25.07 314   P      P      21 39 51.6 +1.1
XOR   Xorichti           25.11 285   P      P      21 39 51.9 +0.8
      comp=Z,524nmcomp=Z,29nm,0.8s,comp=Z,524nm
RNPP8 Varash             25.13 314   P      P      21 39 52.0 +0.9
SRE   Strehaia           25.16 297  ⇑P      P      21 39 51.4   0.0
SRE   Strehaia           25.16 297  ⇑P      P      21 39 51.4   0.0
CJR   Cluj-Napoca        25.19 302  ⇓P      P      21 39 52.8 +1.0
CJR   Cluj-Napoca        25.19 302  ⇓P      P      21 39 52.8 +1.0
THE   Thessaloniki       25.20 288   P      P      21 39 53.3 +1.5
THE   Thessaloniki       25.20 288   P      P      21 39 53.3 +1.5
      comp=Z,6µmcomp=Z,31nm,0.7s,comp=Z,6µm
PEHC  Pehcevo            25.22 291  i P     P      21 39 52.6 +0.4
KNT   Kendrikon          25.23 289   P      P      21 39 55.7 +3.5
KNT   Kendrikon          25.23 289   P      P      21 39 55.7 +3.5
      comp=Z,354nmcomp=Z,31nm,1.1s,comp=Z,354nm
PUNG  Punghina           25.31 297  ⇑P      P      21 39 53.5 +0.7
BMR   Baia Mare          25.46 304  ⇑P      P      21 39 54.9 +0.8
BMR   Baia Mare          25.46 304  ⇑P      P      21 39 54.9 +0.8
BMR   Baia Mare          25.46 304   P      P      21 39 55.9 +1.8
      comp=Z,1µmcomp=Z,83nm,1.1s,comp=Z,1µm
VAY   Valandovo          25.48 290  i P     P      21 39 55.0 +0.6
MNK   Minsk              25.50 322  i P     P      21 39 55.1 +0.7
MNK                                 i              21 40 29.8
MNK                                 i PPP   PPP    21 40 37.8
MNK                                 i              21 43 27.3
MNK                                 i S     S      21 44 22.3 +1.3
MNK                                  pmax   pmax
      comp=Z,24nm,0.6s
MNK                                  pmax   pmax
      comp=E,30nm,1.2s
MNK                                  pmax   pmax
      comp=N,80nm,1.2s
MNK                                  MLR    MLR
      comp=N,475nm,16.0s
MNK                                  MLR    MLR
      comp=Z,798nm,16.0s
MNK                                  MLR    MLR
      comp=E,447nm,15.0s
MNK   Minsk              25.50 322  i P     P      21 39 55.1 +0.7
      comp=E,30nm,1.2s
MNK                                 i P     P      21 39 55.1 +0.7
      comp=N,80nm,1.2s
MNK                                 i P     P      21 39 55.1 +0.7
      comp=Z,24nm,0.6s,baz=121
MNK                                 i PP    PnPn   21 40 29.8  -0.1
MNK                                 i PPP   PPP    21 40 37.8
MNK                                 i S     S      21 44 22.4 +1.3
MNK                                 i SSS   SSS    21 45 28.9
MNK                                 i LQ    LQ     21 47 53.1
MNK                                 i LR    LR     21 50 10.7
MNK                                 i LRM   MLR    21 52 12.3
      comp=N,475nm,16.1s
MNK                                 i LRM   MLR    21 52 14.8
      comp=Z,798nm,16.1s
MARR  Marisel-Cluj       25.51 302  ⇑P      P      21 39 55.1 +0.4
DEV   Deva               25.53 300  ⇑P      P      21 39 55.4 +0.7
DEV   Deva               25.53 300  ⇑P      P      21 39 55.4 +0.7
DEV   Deva               25.53 300   P      P      21 39 55.9 +1.1
      comp=Z,737nmcomp=Z,70nm,1.2s,comp=Z,737nm
GZR   Gura Zlata         25.55 299  ⇑P      P      21 39 54.8  -0.2
GZR   Gura Zlata         25.55 299  ⇑P      P      21 39 54.8  -0.2
WMQ   Urumqi             25.56  65  eP      P      21 39 58.2 +3.0
WMQ                                  pP     sP     21 40 03.9 +2.3
WMQ                                  pmax   pmax
      comp=Z,21nm,0.9s
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WMQ				pmax	pmax		
	comp=Z,160nm,3.7s						
WMQ				L	L		
	comp=Z,2µm,17.3s						
WMQ				L	L		
	comp=Z,2µm,9.5s						
WMQ				L	L		
	comp=Z,790nm,23.7s						
LIT	Litokhoron	25.59	287	P	P	21 39 56.1	+0.6
LIT				pmax	pmax		
	comp=Z,21nm,0.9s						
LIT	Litokhoron	25.59	287		P	21 39 56.1	+0.6
LIT	Litokhoron	25.59	287	P	P	21 39 56.6	+1.2
	comp=Z,409nmcomp=Z,26nm,1.5s,comp=Z,409nm						
GRG	Griva	25.61	289	P	P	21 39 56.1	+0.5
	comp=Z,1µmcomp=Z,81nm,0.9s						
KTHA	Kythira Island	25.66	278	P	P	21 39 56.0	0.0
	comp=Z,2µmcomp=Z,134nm,0.8s,comp=Z,2µm						
MESR	Meseseni	25.71	303	⇑P	P	21 39 57.3	+0.8
KLMR	Klimovskoe	25.73	342	eP	P	21 39 56.1	-0.4
KLMR				S	S	21 44 22.0	-2.7
KLMR				pmax	pmax		
	comp=Z,105nm,1.1s						
KLMR				MLR	MLR		
	comp=Z,1µm,12.0s						
HERR	Herculane	25.74	298	⇓P	P	21 39 57.5	+0.7
AGG	Agios Georgios	25.81	284	P	P	21 39 57.3	-0.1
AGG	Agios Georgios	25.81	284	P	P	21 39 57.3	-0.1
	comp=Z,527nmcomp=Z,47nm,1.1s,comp=Z,527nm						
DRGR		25.81	302	⇑P	P	21 39 58.6	+1.2
DRGR		25.81	302	⇑P	P	21 39 58.6	+1.2
DRGR		25.81	302	P	P	21 39 58.7	+1.2
	comp=Z,46nm,1.1s						
BOVS	Bovan	26.15	295	⇓P	P	21 40 01.1	+0.6
TRPA	Tarpa	26.19	305	P	P	21 40 02.1	+1.4
	comp=Z,911nmcomp=Z,66nm,1.1s,comp=Z,911nm						
MDVR	Moldovita	26.23	297	⇑P	P	21 40 01.1	-0.1
NACGM	Naroch	26.25	322	eP	P	21 40 03.7	+2.5
	comp=E,53nm,1.2s						
ITM	Ithomi	26.38	280	P	P	21 40 02.9	+0.2
ITM	Ithomi	26.38	280	P	P	21 40 02.6	0.0
	comp=Z,710nmcomp=Z,87nm,1.1s,comp=Z,710nm						
BZS	Buzias	26.38	299	⇑P	P	21 40 02.3	-0.2
BZS	Buzias	26.38	299	⇑P	P	21 40 02.3	-0.2
BZS	Buzias	26.38	299	P	P	21 40 03.5	+1.0
	comp=Z,271nmcomp=Z,20nm,0.8s,comp=Z,271nm						
KWP	Kalwaria Pacla	26.45	309	eP	P	21 40 08.6	+5.4
KWP	Kalwaria Pacla	26.45	309	P	P	21 40 05.9	+2.7
KWP	Kalwaria Pacla	26.45	309	P	P	21 40 04.2	+1.0
	comp=Z,1µmcomp=Z,93nm,1.0s						
UZHM	Uzhgorod	26.46	306	P	P	21 40 04.3	+1.1
BORR	Bors	26.48	303	⇓P	P	21 40 04.9	+1.5
ZAA0	Zalesovo Array	26.49	41		P	21 40 03.8	+0.4
ZALV	Zalesovo Beam	26.49	41	P	P	21 40 02.8	-0.6
	comp=Z,4.9nm,0.7s,baz=257,slow=9.5,SNR=21						
	comp=Z,4.9nm,0.7s						
ZALV	Zalesovo Beam	26.49	41	i P	P	21 40 03.5	+0.1
ZALV				pmax	pmax		
	comp=Z,5.0nm,0.7s						
ZALV	Zalesovo Beam	26.49	41		P	21 40 04.2	+0.8
KOLS	Kolonicke sedl	26.55	307	eP	P	21 40 07.0	+3.0
KOLS	Kolonicke sedl	26.55	307	P	P	21 40 06.3	+2.3
	comp=Z,263nmcomp=Z,31nm,0.7s,comp=Z,263nm						
BANR	Banloc	26.69	299	⇑P	P	21 40 06.9	+1.6
OHR	Ohrid	26.82	289	i P	P	21 40 07.7	+1.2
KBN	Korca	26.86	288	P	P	21 40 08.6	+1.6
KBN	Korca	26.86	288	P	P	21 40 08.6	+1.6
	comp=Z,3µmcomp=Z,36nm,1.3s						
PHP	Peshkopia	27.07	291	P	P	21 40 10.4	+1.6
PHP	Peshkopia	27.07	291	P	P	21 40 10.4	+1.6
	comp=Z,358nmcomp=Z,18nm,0.9s						
ABAH	Abaujker	27.07	305	P	P	21 40 10.0	+1.2
	comp=Z,557nmcomp=Z,30nm,1.1s,comp=Z,557nm						
AMBH	Ambrzfalva	27.09	301	P	P	21 40 13.2	+4.3
	comp=Z,1µmcomp=Z,56nm,1.3s						
LKD2	Lefkada island	27.13	284	P	P	21 40 08.9	-0.5
	comp=Z,1µmcomp=Z,131nm,0.7s,comp=Z,1µm						
IGT	Igoumenitsa	27.30	286	P	P	21 40 09.7	-1.1
IGT				pmax	pmax		
	comp=Z,98nm,0.6s						
SRN	Sarande	27.52	287	P	P	21 40 12.3	-0.5
	comp=Z,30nm,1.0s						
KEK	Kerkira	27.69	286		P	21 40 13.8	-0.5
KEK				IAmb	IAmb	21 40 45.9	
	comp=Z,28nm,0.8s						
KEK	Kerkira	27.69	286	P	P	21 40 13.1	-1.2
	comp=Z,398nmcomp=Z,23nm,1.2s						
SUW	Suwalki	27.70	318	eP	P	21 40 16.8	+2.6
SUW	Suwalki	27.70	318	P	P	21 40 16.2	+1.9
SUW	Suwalki	27.70	318	P	P	21 40 14.5	+0.2
SUW	Suwalki	27.70	318	eP	P	21 40 15.9	+1.7
ATD	Arta Tunnel	27.76	207	LR	LR	21 50 57.8	
	comp=Z,48nm,20.7s,baz=25,slow=36						
PSZ	Piszkesteto	27.89	304	P	P	21 40 17.2	+1.1
PSZ	Piszkesteto	27.89	304	P	P	21 40 17.2	+1.1
PSZ				IAmb	IAmb	21 40 50.0	
	comp=Z,22nm,0.9s						
PSZ	Piszkesteto	27.89	304	eP	P	21 40 18.2	+2.0
PSZ	Piszkesteto	27.89	304	P	P	21 40 19.3	+3.1
	comp=Z,25nm,1.7s						
NIE	Niedzica	27.92	307	eP	P	21 40 20.8	+4.5
NIE	Niedzica	27.92	307	P	P	21 40 17.2	+0.8
	comp=Z,230nmcomp=Z,8.7nm,1.0s						
PDG	Podgorica	27.93	292		P	21 40 15.6	-0.8
PDG	Podgorica	27.93	292	⇑P	P	21 40 14.8	-1.6
PDG	Podgorica	27.93	292	P	P	21 40 17.1	+0.7
	comp=Z,20nm,0.9s						
PABE	Paberze	27.95	321	P	P	21 40 16.8	+0.3
PABE	Paberze	27.95	321	eP	P	21 40 18.9	+2.4
PABE	Paberze	27.95	321	P	P	21 40 18.8	+2.4
	comp=Z,110nm,0.9s						
EVN	Everest	28.14	100		P	21 40 19.2	0.0
EVN				IAmb	IAmb	21 40 28.5	
	comp=Z,24nm,0.8s						
EVN	Everest	28.14	100	P	P	21 40 21.9	+2.7
	comp=Z,403nmcomp=Z,33nm,0.9s,comp=Z,403nm						
R9F13	Warsaw-Wawer	28.18	313	eP	P	21 40 21.9	+3.4
VSVD	Vaisvydziai	28.20	322	eP	P	21 40 19.7	+1.0
BEL	Belsk	28.26	312	eP	P	21 40 22.3	+3.0
BEL	Belsk	28.26	312	P	P	21 40 23.4	+4.1
BEL	Belsk	28.26	312	P	P	21 40 23.4	+4.1
	comp=Z,67µmcomp=Z,5µm,0.8s						
VSU	Vasula	28.26	328	eP	P	21 40 20.5	+1.3
VSU	Vasula	28.26	328	P	P	21 40 21.4	+2.2
	comp=Z,46nm,0.7s						
LANS	Liptovska Anna	28.40	306	eP	P	21 40 21.7	+1.1
OJC	Ojcow	28.42	309	eP	P	21 40 24.2	+3.4
OJC	Ojcow	28.42	309	P	P	21 40 21.3	+0.5
OJC	Ojcow	28.42	309		P	21 40 21.2	+0.5
OJC	Ojcow	28.42	309	P	P	21 40 22.0	+1.2
	comp=Z,589nmcomp=Z,23nm,0.9s						
OJC	Ojcow	28.42	309	P	P	21 40 21.6	+0.9
	comp=Z,588nmcomp=Z,23nm,0.9s						
HYB	Hyderabad	28.48	127	eP	P	21 40 20.1	-1.6
HYB				ePP	PP	21 41 24.7	-1.3
HYB				ePcP	PcP	21 43 33.1	-0.3
HYB				eS	S	21 45 09.2	+0.4
MORH	Mrgy, Hungar	28.51	300	⇓P	P	21 40 21.2	-0.4
MORH	Mrgy, Hungar	28.51	300	P	P	21 40 22.7	+1.1
	comp=Z,250nmcomp=Z,12nm,1.4s						
MORH	Mrgy, Hungar	28.51	300	P	P	21 40 22.4	+0.8
	comp=Z,284nmcomp=Z,13nm,1.4s						
VYHS	Vyhne	28.68	305	eP	P	21 40 24.3	+1.1
VYHS	Vyhne	28.68	305	P	P	21 40 24.6	+1.5
	comp=Z,5.6nm,0.9s						
SRO	Srobarova	28.93	303	eP	P	21 40 27.8	+2.6
ARBE	Arbavere	29.16	329	eP	P	21 40 29.2	+2.0
MPLH	Magyarpolny	29.37	302	P	P	21 40 30.3	+1.1
	comp=Z,63nm,1.3s						
MPLH	Magyarpolny	29.37	302	P	P	21 40 30.1	+0.9
	comp=Z,747nmcomp=Z,25nm,1.2s						
OKC	Ostrava-Krasne	29.38	307	P	P	21 40 32.8	+3.5
OKC	Ostrava-Krasne	29.38	307	P	P	21 40 32.8	+3.5
	comp=Z,14nm,0.9s						
BLY	Banja Luka	29.45	297	P	P	21 40 30.8	+0.9
BLY	Banja Luka	29.45	297	P	P	21 40 31.7	+1.7
	comp=Z,207nmcomp=Z,8.0nm,1.6s						
MAUC	Maruska	29.49	306	eP	P	21 40 34.3	+4.0
JAVC	Velka Javorina	29.51	305	eP	P	21 40 31.6	+1.1
JAVC	Velka Javorina	29.51	305	P	P	21 40 34.4	+3.9
	comp=Z,16nm,1.0s						
STEB	Steborice	29.63	308	eP	P	21 40 37.7	+6.2
MTSE	Matsula	29.66	327	eP	P	21 40 32.7	+1.1
JOF	Joensuu	29.67	338	eP	P	21 40 33.0	+1.3
MODS	Modra-Piesok	29.69	304	eP	P	21 40 33.4	+1.3
MODS	Modra-Piesok	29.69	304	P	P	21 40 34.8	+2.7
	comp=Z,43nm,0.9s						
MORC	Moravsky Berou	29.75	307	P	P	21 40 33.4	+0.8
MORC	Moravsky Berou	29.75	307		P	21 40 33.4	+0.8
MORC	Moravsky Berou	29.75	307	eP	P	21 40 33.6	+1.0
MORC	Moravsky Berou	29.75	307	⇓P	P	21 40 30.5	-2.1
MORC	Moravsky Berou	29.75	307	P	P	21 40 33.6	+1.0
	comp=Z,11nm,1.7s						
ZST	Bratislava	29.78	304	eP	P	21 40 34.5	+1.6
SOP	Sopron	30.08	303	P	P	21 40 39.7	+4.2
SOP				pmax	pmax		
	comp=Z,15nm,1.2s						
SOP	Sopron	30.08	303	P	P	21 40 36.6	+1.0
	comp=Z,13nm,1.1s						
TIP	Timpagrande	30.09	286	P	P	21 40 37.1	+1.3
	comp=Z,6.6nm,1.1s						
RONA	Rosalia, Austr	30.26	303	eP	P	21 40 38.7	+1.5
	comp=Z,8.4nm,1.0s						
VRAC	Vranov	30.28	306	P	P	21 40 36.6	-0.6
	comp=Z,1.7nm,0.6s,baz=92,slow=11,SNR=7.6						
VRAC				LR	LR	21 55 50.6	
	comp=Z,238nm,18.9s,baz=86,slow=42						
	comp=Z,1.7nm,0.6s						
VRAC	Vranov	30.28	306	eP	P	21 40 38.1	+0.8
VRAC	Vranov	30.28	306	P	P	21 40 39.4	+2.2
	comp=Z,2.5nm,1.2s						
KRLC	Kraliky	30.29	308	P	P	21 40 38.4	+1.0
KRLC	Kraliky	30.29	308	eP	P	21 40 37.9	+0.5
KRLC				AMS	AMS	21 55 50.0	
	comp=Z,400nm,14.3s						
KRLC	Kraliky	30.29	308	P	P	21 40 38.4	+1.0
	comp=Z,13nm,1.4s						
PTJ	Puntijarka	30.35	299	P	P	21 40 40.7	+2.7
KRUC	Moravsky	30.37	306	P	P	21 40 38.0	-0.1
KRUC	Moravsky	30.37	306	eP	P	21 40 39.1	+1.0
KRUC	Moravsky	30.37	306	P	P	21 40 39.0	+0.9
	comp=Z,10nm,2.4s						
FINES	FINESS Array B	30.38	333	P	P	21 40 38.4	+0.4
	comp=Z,2.7nm,0.5s,baz=131,slow=8.9,SNR=15						
FINES				LR	LR	21 55 23.2	
	comp=Z,632nm,18.4s,baz=130,slow=41						
	comp=Z,2.7nm,0.5s						
FINES	FINESS Array B	30.38	333	i P	P	21 40 41.0	+3.1
FINES				pmax	pmax		
	comp=Z,6.0nm,0.6s						
FINES	FINESS Array B	30.38	333	P	P	21 40 38.9	+1.0
CONA	Conrad Observa	30.58	303	epP	P	21 40 42.7	+2.7
	comp=Z,16nm,1.6s						
DPC	Dobruska-Polom	30.63	308	P	P	21 40 41.9	+1.5
DPC	Dobruska-Polom	30.63	308	eP	P	21 40 41.7	+1.3
DPC				AMS	AMS	21 55 50.0	
	comp=Z,400nm,14.4s						
DPC	Dobruska-Polom	30.63	308	P	P	21 40 41.5	+1.1
	comp=Z,14nm,1.3s						
DPC	Dobruska-Polom	30.63	308	P	P	21 40 41.9	+1.5
	comp=Z,14nm,1.3s						
MARCO	Tramutola	30.67	288	P	P	21 40 39.9	-1.0
	comp=Z,355nmcomp=Z,11nm,1.3s						
CRES	Cresnjevec Ost	30.70	299	i P	P	21 40 41.4	+0.3
OSTC	Ostas	30.73	308	eP	P	21 40 42.9	+1.6
OSTC				AMS	AMS	21 56 00.0	
	comp=Z,400nm,14.3s						
ARSA	Arzberg	30.74	302		P	21 40 41.4	0.0
ARSA				IAmb	IAmb	21 40 50.6	
	comp=Z,26nm,0.8s						
ARSA	Arzberg	30.74	302	i P	P	21 40 42.2	+0.8
	comp=Z,22nm,0.8s,SNR=16						
ARSA	Arzberg	30.74	302	P	P	21 40 42.2	+0.8
	comp=Z,369nmcomp=Z,42nm,1.0s,comp=Z,369nm						
KSP	Ksiaz	30.74	309	P	P	21 40 42.5	+1.2
	comp=Z,15nm,1.3s						
GKP	Gorka Klasztor	30.76	314	eP	P	21 40 42.3	+0.9
LSA	Lhasa	30.84	93	P	P	21 40 46.3	+3.4
	comp=Z,563nmcomp=Z,14nm,0.9s						
CHVC	Chvalec	30.84	308	eP	P	21 40 44.1	+1.9
CHVC				AMS	AMS	21 56 10.0	
	comp=Z,400nm,15.0s						
UPC	Upice	30.85	308	P	P	21 40 43.9	+1.6
UPC	Upice	30.85	308	eP	P	21 40 44.0	+1.6
UPC	Upice	30.85	308	P	P	21 40 43.9	+1.6
	comp=Z,531nmcomp=Z,21nm,0.9s,comp=Z,531nm						
CEL	Celeste	30.90	284	P	P	21 40 42.1	-0.8
CEL				IAmb	IAmb	21 40 49.7	
	comp=Z,19nm,0.8s						
CEL	Celeste	30.90	284	P	P	21 40 43.6	+0.6
	comp=Z,307nmcomp=Z,27nm,0.8s						
CEL	Celeste	30.90	284	P	P	21 40 42.1	-0.8
	comp=Z,308nmcomp=Z,27nm,0.8s						
TREC	Trest	30.99	306	P	P	21 40 44.8	+1.2
TREC	Trest	30.99	306	P	P	21 40 44.8	+1.2
	comp=Z,12nm,1.2s						
SOKA	Soboth	31.04	301	i P	P	21 40 44.9	+0.8
	comp=Z,20nm,1.6s,SNR=11						
SUF	Sumiainen	31.19	334	eP	P	21 40 46.2	+1.1
VNDS	Vrh nad Dolski	31.24	300	i P	P	21 40 46.3	+0.5
KEF	Keuruu	31.28	333	eP	P	21 40 48.0	+2.1
LJU	Ljubljana	31.36	299	P	P	21 40 48.9	+2.1
LJU				pmax	pmax		
	comp=Z,109nm,0.9s						
OBKA	Obir	31.36	300	i P	P	21 40 47.8	+0.8
	comp=Z,5.9nm,0.6s						
OBKA	Obir	31.36	300	P	P	21 40 47.0	0.0
	comp=Z,17nm,1.2s						
SESA	Seetaler Alpe,	31.38	302	i P	P	21 40 48.4	+1.1
	SNR=14						
PAOL	Paolisi	31.52	290		P	21 40 47.9	-0.5
CRNS	Crni Vrh	31.54	300	i P	P	21 40 48.8	+0.3
MOA	Molln	31.64	303	i P	P	21 40 49.8	+0.5
	comp=Z,3.8nm,0.6s						
MOA	Molln	31.64	303	P	P	21 40 50.0	+0.7
	comp=Z,12nm,0.8s						
PRU	Pruhonice	31.70	307	P	P	21 40 49.7	-0.1
PRU	Pruhonice	31.70	307	eP	P	21 40 49.3	-0.5
	comp=Z,0.8nm,0.4s						
PRU				AMS	AMS	21 56 40.0	
	comp=Z,500nm,14.5s						
PRU	Pruhonice	31.70	307	P	P	21 40 49.7	-0.1
	comp=Z,6.6nm,0.9s						
GOMU	GeErMu	31.70	79	P	P	21 40 52.2	+1.8
GOMU				pP	pP	21 40 55.2	+0.3
GOMU				sP	sP	21 40 59.4	+2.6
GOMU				S	S	21 46 02.3	+2.5
GOMU				pmax	pmax		
	comp=Z,2.0nm,0.4s						
GOMU				L	L		
	comp=Z,2µm,11.5s						
GOMU				L	L		
	comp=Z,630nm,11.8s						
GOMU				L	L		
	comp=Z,1µm,11.7s						
RAF	Rauma	31.80	329	eP	P	21 40 51.5	+1.1
ZVC	Zvikov	31.85	306	eP	P	21 40 51.7	+0.6
ZVC				AMS	AMS	21 55 30.0	
	comp=Z,300nm,23.1s						
INTR	Introdacqua	31.92	292		P	21 40 52.3	+0.4
INTR				IAmb	IAmb	21 41 12.3	
	comp=Z,40nm,1.5s						
DRE	Drenchia	31.98	300	P	P	21 40 52.5	+0.2
	comp=Z,31nm,0.9s						
MYKA	Terra Mystica	31.99	301	i P	P	21 40 54.5	+2.0
	comp=Z,3.0nm,0.7s						
SABO	M.te Sabotino	32.00	299	P	P	21 40 53.0	+0.4
SABO				IAmb	IAmb	21 41 06.7	
	comp=Z,22nm,0.9s						
PRED	Cave del Predi	32.04	300		P	21 40 53.5	+0.6
PRED	Cave del Predi	32.04	300	P	P	21 40 53.8	+0.9
	comp=Z,14nm,0.8s						
BIOA	Bad Ischl, Aus	32.05	303	eP	P	21 40 55.3	+2.4
	comp=Z,6.9nm,1.1s						
ACOM	Acomizza, Ital	32.08	300	P	P	21 40 54.2	+0.8
	comp=Z,25nm,0.9s						
GEC2	GERESS Array S	32.10	305	P	P	21 40 54.2	+0.7
GEC2	GERESS Array S	32.10	305	eP	P	21 40 54.1	+0.7
	comp=Z,14nm,0.9s,baz=99,slow=8.8						
GEC2	GERESS Array S	32.10	305	P	P	21 40 54.2	+0.7
	comp=Z,342nmcomp=Z,16nm,1.6s						
GERES	GERESS Array B	32.10	305	P	P	21 40 53.8	+0.3
	comp=Z,5.0nm,0.6s,baz=98,slow=8.4,SNR=26						
	comp=Z,5.0nm,0.6s						
GERES	GERESS Array B	32.10	305		P	21 40 53.2	-0.2
VAE	Valguarnera	32.20	283	P	P	21 40 54.7	+0.3
	comp=Z,4.3nm,0.6s,baz=66,slow=10.0,SNR=4.5						
VAE				LR	LR	21 55 59.8	
	comp=Z,216nm,21.0s,baz=88,slow=40						
	comp=Z,4.3nm,0.6s						
BRG	Berggiesshubel	32.21	309	P	P	21 40 55.8	+1.5
BRG	Berggiesshubel	32.21	309	eP	P	21 40 55.5	+1.3
	comp=Z,50nm,1.7s,baz=99,slow=8.8						
BRG	Berggiesshubel	32.21	309	P	P	21 40 55.8	+1.5
	comp=Z,451nmcomp=Z,15nm,1.4s						
BRG	Berggiesshubel	32.21	309	eP	P	21 40 55.6	+1.3
BRG				Amp		21 41 02.9	
	comp=Z,30nm,1.4s						
BRG	Berggiesshubel	32.21	309	Amp		21 46 15.1	
	comp=Z,18nm,0.9s						
KBA	Koelnbreinsper	32.21	301	epP	P	21 40 57.5	+2.9
	comp=Z,10nm,0.7s						
KHC	Kasperske Hory	32.21	305	ceP	P	21 40 55.7	+1.3
KHC				pmax	pmax		
	comp=Z,9.0nm,0.9s						
KHC	Kasperske Hory	32.21	305	eP	P	21 40 54.8	+0.4
	comp=Z,2.0nm,0.7s						
KHC				ePP	PP	21 42 05.5	-1.6
KHC				AMS	AMS	21 55 50.0	
	comp=Z,500nm,24.4s						
KHC	Kasperske Hory	32.21	305	P	P	21 40 54.7	+0.3
KHC				IAmb	IAmb	21 40 58.4	
	comp=Z,26nm,1.5s						
KHC	Kasperske Hory	32.21	305	P	P	21 40 55.7	+1.3
	comp=Z,12nm,1.3s						
KHC	Kasperske Hory	32.21	305	P	P	21 40 55.4	+1.0
	comp=Z,12nm,1.3s						
AQU	L'Aquila	32.26	292	P	P	21 40 54.9	0.0
AQU				pmax	pmax		
	comp=Z,37nm,1.1s						
AQU	L'Aquila	32.26	292	P	P	21 40 54.9	0.0
AQU	L'Aquila	32.26	292	P	P	21 40 56.3	+1.4
	comp=Z,383nmcomp=Z,29nm,1.0s						
AQU	L'Aquila	32.26	292	P	P	21 40 56.0	+1.1
	comp=Z,474nmcomp=Z,35nm,1.0s,comp=Z,474nm						
RAFF	Raffo Rosso	32.30	283	P	P	21 40 55.5	+0.3
FUSE	Fusea	32.43	300	P	P	21 40 57.0	+0.8
	comp=Z,19nm,1.1s						
NRCA	Norcia	32.44	293	P	P	21 40 57.1	+0.7
NRCA				IAmb	IAmb	21 41 02.6	
	comp=Z,22nm,1.1s						
FDMO	Fiordimonte	32.44	294	P	P	21 40 56.5	+0.1
FDMO				IAmb	IAmb	21 41 02.6	
	comp=Z,31nm,1.2s						
BLEU	Blekinge	32.48	319	i P	P	21 41 02.9	+6.4
HSKC	Hora Svate Kat	32.49	308	AMS	AMS	21 57 20.0	
	comp=Z,400nm,13.4s						
HSKC	Hora Svate Kat	32.49	308	P	P	21 40 57.7	+0.9
	comp=Z,359nmcomp=Z,14nm,1.3s						
MSF	Maaselka	32.59	340	P	P	21 41 00.1	+2.7
MSF	Maaselka	32.59	340	P	P	21 41 00.1	+2.7
	comp=Z,18nm,1.0s						
RUE	Ruedersdorf	32.60	311	eP	P	21 40 58.8	+1.2
	comp=Z,33nm,1.1s,baz=99,slow=8.8						
RJOB	Jochberg	32.62	303	P	P	21 40 58.4	+0.4
	comp=Z,11nm,0.8s						
VAF	Ylistaro	32.62	333	eP	P	21 40 58.8	+1.1
STAL	STALIGIAL	32.62	300	P	P	21 40 58.4	+0.4
WET	Wettzell	32.67	305	P	P	21 41 00.1	+1.7
WET	Wettzell	32.67	305	eP	P	21 40 59.0	+0.6
	comp=Z,20nm,1.6s,baz=99,slow=8.8						
WET	Wettzell	32.67	305	P	P	21 41 00.1	+1.7
	comp=Z,7.3nm,0.9s						
LESA	Schwarzleotal	32.68	302	i P	P	21 40 59.0	+0.4
	comp=Z,17nm,0.5s,SNR=22						
ABTA	Abfaltersbach	32.77	301	i P	P	21 40 59.5	+0.2
	comp=Z,19nm,1.5s						
MURB	Monte Urbino	32.84	294	P	P	21 40 60.0	0.0
CESX	Cesi	32.85	293		P	21 40 59.8	-0.2
CESX				IAmb	IAmb	21 41 08.6	
	comp=Z,29nm,1.3s						
CLL	Collm	32.87	309	i P	P	21 41 02.0	+2.0
CLL				eS	S	21 46 21.0	+4.2
CLL				pmax	pmax		
	comp=Z,20nm,1.1s						
CLL				MLR	MLR		
	comp=Z,400nm,18.7s						
CLL	Collm	32.87	309		P	21 41 00.9	+0.9
CLL				IAmb	IAmb	21 41 10.9	
	comp=Z,20nm,1.1s						
CLL	Collm	32.87	309	eP	P	21 41 01.6	+1.6
	comp=Z,19nm,1.1s,baz=99,slow=8.8						
CLL	Collm	32.87	309	P	P	21 41 01.1	+1.1
	comp=Z,15nm,0.9s						
CLL	Collm	32.87	309	P	P	21 41 02.3	+2.3
	comp=Z,15nm,0.9s						
CLL	Collm	32.87	309	i P	P	21 41 02.0	+2.0
	comp=Z,20nm,1.1s						
CLL				ePPP	PPP	21 42 22.0	
CLL				eS	S	21 46 21.0	+4.2
	comp=N,300nm,6.2s						
CLL				L	L	21 53 00.0	
CLL				AMS	AMS	21 57 00.0	
	comp=N,500nm,24.6s						
CLL				AMS	AMS	21 59 00.0	
	comp=Z,400nm,18.7s						
APA	Apatity	32.88	345	eP	P	21 41 00.4	+0.5
APA				e		21 42 07.5	
APA				e		21 43 46.6	
APA				eS	S	21 46 13.4	-3.3
APA				eSS	SnSn	21 48 21.3	+7.9
APA				pmax	pmax		
	comp=Z,12nm,1.0s						
APA				MLR	MLR		
	comp=Z,2µm,15.6s						
OUL	Oulu	32.88	338	P	P	21 41 02.8	+2.9
OUL				pmax	pmax		
	comp=Z,30nm,1.0s						
OUL	Oulu	32.88	338	P	P	21 41 01.8	+1.9
	comp=Z,30nm,1.0s						
LVZ	Lovozero	32.91	346	P	P	21 41 02.0	+1.8
LVZ				IAmb	IAmb	21 41 09.9	
	comp=Z,21nm,0.8s						
LVZ	Lovozero	32.91	346	P	P	21 41 03.4	+3.2
	comp=Z,34nm,0.9s						
UPP	Uppsala	32.99	326	eP	P	21 41 01.7	+0.8
NKC	Novy Kostel	33.07	307	P	P	21 41 02.2	+0.4
NKC	Novy Kostel	33.07	307	AMS	AMS	21 57 30.0	
	comp=Z,600nm,14.3s						
NKC	Novy Kostel	33.07	307	P	P	21 41 02.2	+0.4
	comp=Z,10nm,1.3s						
TANN	Tannenbergstha	33.08	307	eP	P	21 41 03.8	+1.8
	comp=Z,7.7nm,1.2s,baz=99,slow=8.8						
TANN	Tannenbergstha	33.08	307	P	P	21 41 03.6	+1.6
	comp=Z,8.9nm,1.0s						
CLTB	Caltabellotta	33.11	284	P	P	21 41 04.4	+2.0
	comp=Z,91nm,0.9s						
SHL	Shillong	33.25	100	P	P	21 41 03.9	+0.1
SHL				pmax	pmax		
	comp=Z,29nm,0.9s						
SHL	Shillong	33.25	100		P	21 41 03.9	+0.1
CGRP	Cima Grappa	33.26	299	P	P	21 41 03.3	-0.4
	comp=Z,16nm,1.1s						
PLN	Plauen	33.28	308	eP	P	21 41 05.4	+1.8
	comp=Z,9.3nm,1.8s,baz=99,slow=8.8						
TEOL	Teolo	33.36	298	P	P	21 41 04.3	0.0
CTI	Castel Tesino	33.36	299	P	P	21 41 03.5	-1.0
CTI				pmax	pmax		
	comp=Z,27nm,1.2s						
CTI	Castel Tesino	33.36	299		P	21 41 03.5	-1.0
CTI				IAmb	IAmb	21 41 11.1	
	comp=Z,27nm,1.2s						
WTTA	Wattenberg	33.39	302	P	P	21 41 04.8	0.0
WTTA	Wattenberg	33.39	302	i P	P	21 41 04.7	-0.1
	comp=Z,24nm,0.6s,SNR=15						
WTTA	Wattenberg	33.39	302	P	P	21 41 04.8	0.0
	comp=Z,607nmcomp=Z,65nm,0.9s,comp=Z,607nm						
GRB3	Grafenberg Arr	33.39	305	P	P	21 41 05.4	+0.8
	comp=Z,24nm,1.0s						
WATA	Walderalm	33.43	302	i P	P	21 41 04.7	-0.4
	comp=Z,18nm,1.0s,SNR=15						
GRB5	Grafenberg Arr	33.45	305	P	P	21 41 07.9	+2.7
	comp=Z,26nm,0.9s						
GRB2	Grafenberg Arr	33.47	305	P	P	21 41 05.0	-0.3
	comp=Z,30nm,0.9s						
GRB1	Grafenberg Arr	33.49	305	P	P	21 41 05.7	+0.2
GRB1	Grafenberg Arr	33.49	305	P	P	21 41 05.7	+0.2
	comp=Z,307nmcomp=Z,20nm,1.0s						
GRC3	Grafenberg Arr	33.50	305	P	P	21 41 06.2	+0.6
	comp=Z,15nm,1.5s						
LUNU	Lund	33.54	317	i P	P	21 41 10.4	+4.6
GRC1	Grafenberg Arr	33.55	305	P	P	21 41 06.3	+0.3
GRC1	Grafenberg Arr	33.55	305	P	P	21 41 06.3	+0.3
	comp=Z,16nm,0.8s						
GRC4	Grafenberg Arr	33.55	305	P	P	21 41 05.7	-0.4
	comp=Z,17nm,1.1s						
DEL	Delary	33.55	319	i P	P	21 41 12.4	+6.5

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GRB4  Grafenberg Arr   33.56 306  P        P        21 41 08.2 +2.2
            comp=Z,22nm,0.9s
NEUB  Neuenburg        33.62 309 eP        P        21 41 08.6 +2.1
            comp=Z,49nm,1.4s,baz=99,slow=8.8
NEUB  Neuenburg        33.62 309  P        P        21 41 08.4 +1.9
            comp=Z,455nmcomp=Z,26nm,1.0s,comp=Z,455nm
GRC2  Grafenberg Arr   33.64 304  P        P        21 41 07.2 +0.4
            comp=Z,24nm,1.0s
MOX   Moxa             33.65 308  P        P        21 41 07.9 +1.1
MOX   Moxa             33.65 308 eP        P        21 41 07.8 +1.0
            comp=Z,25nm,1.5s,baz=99,slow=8.8
MOX                              eL        L        21 59 36.2
            comp=Z,383nm,19.2s
MOX   Moxa             33.65 308  P        P        21 41 07.8 +1.0
            comp=Z,9.4nm,1.2s
FUR   Furstenfeldbru   33.66 303  P        P        21 41 08.4 +1.4
FUR   Furstenfeldbru   33.66 303 eP        P        21 41 08.0 +1.0
            comp=Z,19nm,1.1s,baz=99,slow=8.8
FUR   Furstenfeldbru   33.66 303  P        P        21 41 08.4 +1.4
            comp=Z,18nm,1.3s
SQTA  Sankt Quirin     33.68 302 iP        P        21 41 06.6 -0.7
            comp=Z,9.6nm,0.5s,SNR=10
GRA2  Grafenberg Arr   33.71 306  P        P        21 41 08.2 +0.8
            comp=Z,12nm,1.2s
GRA3  Grafenberg Arr   33.74 306  P        P        21 41 08.9 +1.2
            comp=Z,14nm,1.1s
MOTA  Moosalm          33.75 302 iP        P        21 41 07.3 -0.6
            comp=Z,20nm,1.1s
GRA1  Grafenberg Arr   33.80 306  P        P        21 41 10.3 +2.1
            comp=Z,16nm,1.1s
GRF   Grafenberg Arr   33.80 306  P        P        21 41 10.3 +2.1
GRF   Grafenberg Arr   33.80 306 eP        P        21 41 09.8 +1.6
            comp=Z,10nm,0.9s,baz=99,slow=8.8
GRF                              eL        L        21 59 23.7
            comp=Z,198nm,20.7s
WIMM  Wimmelburg       33.83 309  P        P        21 41 11.3 +3.0
            comp=Z,27nm,0.8s
ZCCA  Zocca            33.89 296  P        P        21 41 09.6 +0.6
RETA  Reutte           33.98 302 iP        P        21 41 09.4 -0.5
            comp=Z,7.1nm,0.8s
FETA  Feichten         34.00 301 iP        P        21 41 09.8 -0.3
            comp=Z,34nm,1.1s,SNR=17
FLTG  Flechtingen      34.11 311 eP        P        21 41 12.1 +1.4
            comp=Z,24nm,1.2s,baz=99,slow=8.8
FLTG  Flechtingen      34.11 311  P        P        21 41 13.3 +2.6
            comp=Z,21nm,0.9s
VLC   Villacollemand   34.32 296  P        P        21 41 15.5 +2.7
            comp=Z,420nmcomp=Z,27nm,1.6s
SGF   Sodankyl         34.40 341  P        P        21 41 15.6 +2.5
SGF   Sodankyl         34.40 341  P        P        21 41 15.6 +2.5
            comp=Z,20nm,1.4s
ASSE  Asse, Remlinge   34.42 310 eP        P        21 41 15.2 +1.8
            comp=Z,23nm,1.6s,baz=99,slow=8.8
ASSE  Asse, Remlinge   34.42 310  P        P        21 41 12.9 -0.6
            comp=Z,11nm,1.9s
UBR   Ueberruh         34.43 302 eP        P        21 41 13.2 -0.5
            comp=Z,21nm,1.1s,baz=99,slow=8.8
UBR   Ueberruh         34.43 302  P        P        21 41 14.8 +1.0
            comp=Z,15nm,1.1s
SJUU  Sjulsmark        34.52 336 eP        P        21 41 16.1 +2.0
CLZ   Clausthal        34.57 310 eP        P        21 41 17.9 +3.1
            comp=Z,18nm,1.1s,baz=99,slow=8.8
CLZ   Clausthal        34.57 310  P        P        21 41 18.1 +3.3
            comp=Z,18nm,1.0s
DAVA  Damuels          34.58 302 iP        P        21 41 14.7 -0.4
            comp=Z,48nm,1.1s,SNR=12
DAVA  Damuels          34.58 302  P        P        21 41 14.7 -0.4
            comp=Z,47nm,0.7s
DAVOX Davos/Dischmat   34.58 301  P        P        21 41 14.8 -0.4
            comp=Z,7.3nm,0.5s,baz=49,slow=11,SNR=28
            comp=Z,7.3nm,0.5s
UBBA  Unterbreizbach   34.68 308  P        P        21 41 14.1 -1.6
            comp=Z,440nmcomp=Z,13nm,1.5s,comp=Z,440nm
GTTG  Gottingen        34.78 309 eP        P        21 41 18.8 +2.2
            comp=Z,15nm,1.1s,baz=99,slow=8.8
GTTG  Gottingen        34.78 309  P        P        21 41 18.0 +1.3
            comp=Z,685nmcomp=Z,24nm,0.9s
HFS   Hagfors          34.90 325  P        P        21 41 17.8 +0.2
            comp=Z,13nm,0.6s,baz=111,slow=7.9,SNR=29
HFS                               LR       LR       21 58 56.2
            comp=Z,599nm,18.5s,baz=112,slow=42
            comp=Z,13nm,0.6s
BSEG  Bad Segeberg     34.92 313  P        P        21 41 18.5 +0.7
BSEG  Bad Segeberg     34.92 313 eP        P        21 41 19.6 +1.8
            comp=Z,12nm,0.8s,baz=99,slow=8.8
BSEG  Bad Segeberg     34.92 313  P        P        21 41 18.5 +0.7
            comp=Z,20nm,1.0s
TUE   Stuetta          34.95 300           P        21 41 18.0 -0.4
TUE                               IAmb     IAmb     21 41 33.9
            comp=Z,14nm,0.8s
TUE   Stuetta          34.95 300  P        P        21 41 19.3 +0.9
            comp=Z,83nm,1.3s
TUE   Stuetta          34.95 300  P        P        21 41 19.0 +0.6
            comp=Z,21nm,1.3s
STU   Stuttgart        35.07 304  P        P        21 41 20.7 +1.5
STU                               pmax     pmax
            comp=Z,20nm,0.8s
STU   Stuttgart        35.07 304  P        P        21 41 20.7 +1.5
STU                               IAmb     IAmb     21 41 26.5
            comp=Z,20nm,0.8s
STU   Stuttgart        35.07 304 eP        P        21 41 20.0 +0.8
STU   Stuttgart        35.07 304 eP        P        21 41 19.3 +0.2
            comp=Z,195nm,1.6s,baz=99,slow=8.8
STU   Stuttgart        35.07 304  P        P        21 41 19.8 +0.6
            comp=Z,20nm,0.9s
RETH  Rethem/Aller,    35.30 311 eP        P        21 41 23.1 +2.1
            comp=Z,32nm,1.5s,baz=99,slow=8.8
RETH  Rethem/Aller,    35.30 311  P        P        21 41 21.6 +0.6
            comp=Z,16nm,1.5s
PGF   Pioggiola        35.48 293  P        P        21 41 25.4 +2.5
PGF                               pmax     pmax
            comp=Z,40nm,1.3s
PGF   Pioggiola        35.48 293  P        P        21 41 22.5 -0.4
            comp=Z,40nm,1.3s
SLE   Schleitheim      35.52 302  P        P        21 41 24.8 +1.7
SLE   Schleitheim      35.52 302  P        P        21 41 24.9 +1.7
            comp=Z,11nm,1.1s
BNALP Bannalp          35.58 301  P        P        21 41 22.6 -1.2
            comp=Z,371nmcomp=Z,18nm,0.6s,comp=Z,371nm
BFO   Black Forest     35.64 303 iP        P        21 41 26.8 +2.7
BFO   Black Forest     35.64 303  P        P        21 41 23.9 -0.1
BFO   Black Forest     35.64 303 eP        P        21 41 23.7 -0.4
            comp=Z,33nm,1.9s,baz=99,slow=8.8
VSL   Villasalto       35.68 288           P        21 41 24.9 +0.4
VSL                               IAmb     IAmb     21 41 33.6
            comp=Z,18nm,0.8s
KASTN Kahler Asten     35.72 308 eP        P        21 41 27.0 +2.3
            comp=Z,27nm,1.5s,baz=99,slow=8.8
MORE  Moreh            35.82 100           P        21 41 26.4 +0.5
MORE                              IAmb     IAmb     21 41 48.6
            comp=Z,23nm,0.7s
VADS  Vadso            35.82 345 eP        P        21 41 31.6 +6.2
VADS                              IVmB_BB           21 41 45.9
            comp=Z,714nm,2.6s
VADS                             eS        S        21 46 58.8 -3.3
VADS                              IVMs_BB  IVMs_BB  21 59 01.5
            comp=Z,1µm,14.0s
LANU  Lannavaara       36.05 340 eP        P        21 41 28.7 +1.3
NC602 NORSAR Array S   36.12 325 eP        P        21 41 29.7 +1.8
NC602                            eS        S        21 47 09.4 +2.7
NC602 NORSAR Array S   36.12 325  P        P        21 41 29.3 +1.3
NORES NORESS Array B   36.12 325  P        P        21 41 30.9 +2.9
NC405 NORSAR Array S   36.17 326           P        21 41 28.8 +0.3
NC405                             IAmb     IAmb     21 42 47.7
            comp=Z,35nm,1.0s
ARA0  ARCESS Array S   36.21 343 eP        P        21 41 30.8 +2.0
ARA0                              IVmB_BB           21 41 34.1
            comp=Z,863nm,2.4s
ARA0                             eS        S        21 47 09.7 +1.6
ARA0                              IVMs_BB  IVMs_BB  21 58 31.7
            comp=Z,936nm,13.6s
ARCES ARCESS Array B   36.21 343  P        P        21 41 30.1 +1.4
            comp=Z,2.4nm,0.6s,baz=138,slow=7.9,SNR=18
ARCES                             LR       LR       21 59 08.2
            comp=Z,913nm,19.5s,baz=128,slow=41
            comp=Z,2.4nm,0.6s
ARCES ARCESS Array B   36.21 343  P        P        21 41 30.2 +1.5
IBBN  Ibbenburen       36.22 310 eP        P        21 41 31.8 +2.9
            comp=Z,22nm,1.2s,baz=99,slow=8.8
CDF   Champ du Feu     36.34 304 eP        P        21 41 29.0 -1.2
CDF                               pmax     pmax
            comp=Z,16nm,0.9s
NB201 NORSAR Array S   36.34 325           P        21 41 31.1 +1.2
NC303 NORSAR Array S   36.37 326  P        P        21 41 31.4 +1.3
NB2   NORSAR Subarra   36.37 325  P        P        21 41 29.8 -0.5
            comp=Z,6.8nm,0.7s,baz=111,slow=8.6
NB2   NORSAR Subarra   36.37 325  P        P        21 41 29.8 -0.5
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NOA   NORSAR Array B   36.37 325  P        P        21 41 29.7 -0.5
            comp=Z,3.4nm,0.6s,baz=113,slow=8.6,SNR=33
NOA                               LR       LR       21 58 56.6
            comp=Z,590nm,18.2s,baz=105,slow=40
            comp=Z,3.4nm,0.6s
SENIN Lac Senin/Sane   36.37 300           P        21 41 30.1 -0.5
SENIN                             IAmb     IAmb     21 41 38.2
            comp=Z,25nm,0.8s
BOURR Bourrignon       36.38 302  P        P        21 41 31.0 +0.5
            comp=Z,26nm,1.0s
KTK1  Kautokeino       36.39 341 eP        P        21 41 31.9 +1.7
KTK1                              IVmB              21 41 32.5
            comp=Z,389nm,2.6s
KTK1                             eS        S        21 47 13.7 +2.9
KTK1                              IVMs_BB  IVMs_BB  21 58 57.2
            comp=Z,1µm,15.2s
ECH   Echery           36.42 303  P        P        21 41 30.9 +0.1
ECH                               pmax     pmax
            comp=Z,30nm,1.1s
ECH   Echery           36.42 303           P        21 41 30.9 +0.1
ECH                               IAmb     IAmb     21 41 37.5
            comp=Z,30nm,1.1s
ECH   Echery           36.42 303  P        P        21 41 30.8  0.0
BUG   Bochum--Univer   36.45 309 eP        P        21 41 32.4 +1.5
            comp=Z,72nm,2.2s,baz=99,slow=8.8
NAO01 NORSAR Array S   36.45 325 eP        P        21 41 31.6 +0.7
NAO01 NORSAR Array S   36.45 325  P        P        21 41 32.1 +1.2
NAO01                             IAmb     IAmb     21 41 48.2
            comp=Z,42nm,1.4s
NAO01 NORSAR Array S   36.45 325  P        P        21 41 32.0 +1.2
            comp=Z,8.6nm,0.6s
SBF   Sospel           36.47 296 eP        P        21 41 32.1 +0.8
SBF                               pmax     pmax
            comp=Z,55nm,1.3s
KEST  Kesra            36.58 282  P        P        21 41 30.9 -1.5
            comp=Z,12nm,1.0s,baz=35,slow=1.7,SNR=9.7
            comp=Z,12nm,1.0s
KEST  Kesra            36.58 282           P        21 41 33.0 +0.6
KEST                              IAmb     IAmb     21 41 57.2
            comp=Z,42nm,1.4s
HINF  Hinteralfeld     36.63 303 eP        P        21 41 34.4 +1.8
HINF                              pmax     pmax
            comp=Z,12nm,1.2s
NC204 NORSAR Array S   36.66 326  P        P        21 41 34.6 +1.9
NC204                             IAmb     IAmb     21 42 47.4
            comp=Z,29nm,1.2s
KONO  Kongsberg        36.68 323 eP        P        21 41 33.9 +1.2
KONO                              IVmB_BB           21 41 37.2
            comp=Z,765nm,4.9s
KONO                             eS        S        21 47 18.3 +3.0
KONO                             eSS       SnSn     21 49 50.3 +4.8
KONO                              IVMs_BB  IVMs_BB  21 59 58.9
            comp=Z,857nm,4.2s
ISO   Isola            36.71 296  P        P        21 41 33.2 -0.2
ISO   Isola            36.71 296  P        P        21 41 33.2 -0.2
            comp=Z,24nm,1.4s
NRIK  Noril'sk         36.76  19  P        P        21 41 34.7 +1.3
            comp=Z,7.8nm,0.8s,baz=220,slow=10,SNR=7.1
NRIK                              LR       LR       21 57 08.3
            comp=Z,1µm,21.7s,baz=216,slow=37
            comp=Z,7.8nm,0.8s
NRIK  Noril'sk         36.76  19           P        21 41 35.2 +1.8
LPG   La Plagne        36.81 299 eP        P        21 41 33.5 -0.9
LPG                               pmax     pmax
            comp=Z,9.0nm,0.9s
LPL   La Plagne        36.82 299 eP        P        21 41 33.6 -0.9
LPL                               pmax     pmax
            comp=Z,8.0nm,0.6s
MBDF  Montbardon       36.86 297 eP        P        21 41 33.7 -1.0
MBDF                              pmax     pmax
            comp=Z,13nm,0.6s
HAU   Haudompre        36.96 303 eP        P        21 41 34.6 -0.8
HAU                               pmax     pmax
            comp=Z,23nm,1.0s
GIMEL St. Georges /    37.08 300  P        P        21 41 38.0 +1.5
            comp=Z,28nm,1.0s
WLF   Walferdange      37.09 306  P        P        21 41 38.0 +1.6
WLF   Walferdange      37.09 306 dP        P        21 41 37.8 +1.4
            comp=Z,12nm,1.2s
WLF   Walferdange      37.09 306 eP        P        21 41 37.6 +1.2
            comp=Z,62nm,1.6s,baz=99,slow=8.8
WLF   Walferdange      37.09 306  P        P        21 41 40.2 +3.9
            comp=Z,26nm,1.2s
CABF  La Chapelle      37.20 301 eP        P        21 41 37.0 -0.5
CABF                              pmax     pmax
            comp=Z,59nm,1.1s
MEM   Membach          37.20 307  P        P        21 41 40.2 +2.8
MEM   Membach          37.20 307 dP        P        21 41 41.9 +4.5
MEM   Membach          37.20 307  P        P        21 41 40.2 +2.8
            comp=Z,14nm,0.9s
MOR8  Moi Rana         37.32 334 eP        P        21 41 39.6 +1.5
MOR8                             eS        S        21 47 27.8 +2.8
MOR8                              IVMs_BB  IVMs_BB  22 00 54.7
            comp=Z,1µm,3.9s
NSS   Namsos           37.45 331 eP        P        21 41 40.5 +1.3
NSS                               IVmB_BB           21 41 54.9
            comp=Z,1µm,4.0s
NSS                              eS        S        21 47 28.9 +2.0
NSS                               IVMs_BB  IVMs_BB  22 04 28.4
            comp=Z,1µm,3.9s
HAMF  Hammerfest       37.45 343 eP        P        21 41 41.7 +2.5
HAMF                              IVmB_BB           21 41 43.4
            comp=Z,856nm,3.0s
HAMF                             eS        S        21 47 29.1 +2.3
HAMF                              IVMs_BB  IVMs_BB  21 59 11.0
            comp=Z,1µm,12.3s
JETT  Jettan, Norway   37.50 341 eP        P        21 41 42.3 +2.6
RAUS  Rausandaksla     37.59 334  IVmB              21 41 42.2
            comp=Z,589nm,3.8s
RAUS                             eP        P        21 41 42.3 +1.8
RAUS                             eS        S        21 47 33.2 +4.1
RAUS                              IVMs_BB  IVMs_BB  22 01 31.3
            comp=Z,1µm,4.4s
SKAR  Skarslia         37.60 324 eP        P        21 41 41.4 +0.7
SKAR                             eS        S        21 47 31.4 +1.9
SKAR                              IVMs_BB  IVMs_BB  21 58 33.6
            comp=Z,1µm,3.9s
BCLA  Clavier          37.65 307 dP        P        21 41 42.8 +1.7
            comp=Z,3.9nm,1.1s
FAUS  Fauske           37.67 336 eP        P        21 41 43.1 +2.0
FAUS                              IVmB_BB           21 41 44.0
            comp=Z,593nm,4.2s
FAUS                             eS        S        21 47 34.4 +4.1
FAUS                              IVMs_BB  IVMs_BB  21 57 57.6
            comp=Z,857nm,4.1s
DOMB  Dombas           37.69 326 eP        P        21 41 42.3 +0.9
DOMB                             eS        S        21 47 33.4 +2.7
DOMB                              IVMs_BB  IVMs_BB  22 01 41.8
            comp=Z,938nm,4.4s
RCHB  Rochefort        37.69 306 dP        P        21 41 42.3 +0.8
RCHB  Rochefort        37.69 306  P        P        21 41 43.1 +1.6
            comp=Z,25nm,1.5s
PALK  Pallekele        37.74 136  LR       LR       21 59 05.9
            comp=Z,469nm,19.9s,baz=333,slow=39
LEIR  Leirfjorden      37.75 334 eP        P        21 41 43.8 +2.0
LEIR                             eS        S        21 47 34.9 +3.3
LEIR                              IVMs_BB  IVMs_BB  21 59 48.6
            comp=Z,825nm,4.0s
STOK  Stokkvaagen      37.90 334 eP        P        21 41 44.0 +1.0
KONS  Konsvik          37.94 334 eP        P        21 41 45.1 +1.8
KONS                             eS        S        21 47 37.1 +2.7
KONS                              IVMs_BB  IVMs_BB  22 01 58.7
            comp=Z,1µm,4.9s
BMRD  Maredsous        37.99 307 dP        P        21 41 44.8 +0.7
STEI  Steigen          37.99 337 eP        P        21 41 46.0 +2.2
VAGH  Vaagaholmen      38.01 335 eP        P        21 41 46.3 +2.4
VAGH                             eS        S        21 47 36.8 +1.4
VAGH                              IVMs_BB  IVMs_BB  22 01 47.6
            comp=Z,1µm,12.9s
DOU   Dourbes          38.10 306 dP        P        21 41 47.1 +2.2
            comp=Z,12nm,0.9s
ODD1  Odda             38.19 322 eP        P        21 41 48.6 +2.9
VIVF  Saint-Julien-l   38.33 298 eP        P        21 41 46.9 -0.1
VIVF                              pmax     pmax
            comp=Z,58nm,1.9s
SSB   Saint Sauveur    38.38 299  P        P        21 41 47.1 -0.4
SSB                               pmax     pmax
            comp=Z,19nm,1.1s
SSB   Saint Sauveur    38.38 299  P        P        21 41 47.1 -0.4
SSB   Saint Sauveur    38.38 299  P        P        21 41 47.0 -0.4
            comp=Z,19nm,1.1s
MOL   Molde            38.53 327 eP        P        21 41 50.0 +1.6
MOL                              eS        S        21 47 46.6 +3.2
MOL                               IVMs_BB  IVMs_BB  22 01 06.4
            comp=Z,873nm,4.1s
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AKN   Aaknes           38.65 326 eP        P        21 41 50.0 +0.6
SONM  Songino Array    38.66  57  P        P        21 41 50.9 +1.1
            comp=Z,1.6nm,0.7s,baz=293,slow=8.6,SNR=1.8
            comp=Z,1.6nm,0.7s
SONM  Songino Array    38.66  57  P        P        21 41 50.1 +0.2
LOR   Lormes           38.68 302  P        P        21 41 52.4 +2.5
LOR                               pmax     pmax
            comp=Z,12nm,1.2s
LOR   Lormes           38.68 302  P        P        21 41 48.8 -1.1
            comp=Z,12nm,1.2s
LZDM  Lanzhou Array    38.71  77  P        P        21 41 51.4 +0.7
            comp=Z,1.2nm,0.3s,baz=251,slow=4.4,SNR=1.5
            comp=Z,1.2nm,0.3s
HYA   Hoyanger         38.73 324 eP        P        21 41 51.8 +1.7
HYA                               IVmB_BB           21 41 56.9
            comp=Z,1µm,5.1s
HYA                              eS        S        21 47 49.1 +2.7
HYA                               IVMs_BB  IVMs_BB  22 01 08.5
            comp=Z,1µm,4.1s
SMF   Signal de Mont   38.74 301 eP        P        21 41 50.2 -0.2
SMF                               pmax     pmax
            comp=Z,34nm,1.3s
TNCH  TengChong        38.77  95 ⇑P        P        21 41 53.6 +2.5
TNCH                              sP       sP       21 41 58.6 +1.1
TNCH                              S        S        21 47 50.0 +1.8
TNCH                              sS       sS       21 47 57.3 +1.5
TNCH                              pmax     pmax
            comp=Z,36nm,1.3s
TNCH                              pmax     pmax
            comp=Z,160nm,3.3s
TNCH                              L        L
            comp=Z,640nm,15.5s
TNCH                              L        L
            comp=Z,620nm,15.8s
TNCH                              L        L
            comp=Z,1µm,20.5s
LZH   Lanzhou          38.79  76 eP        P        21 41 53.7 +2.5
LZH                               pP       sP       21 41 57.7 +0.1
LZH                               pmax     pmax
            comp=Z,22nm,1.7s
SSF   Saint Saulge     38.93 301 eP        P        21 41 51.6 -0.4
SSF                               pmax     pmax
            comp=Z,31nm,1.4s
BER   Bergen           38.94 323 eP        P        21 41 53.8 +2.0
BER                              eS        S        21 47 53.0 +3.5
ASK   Askoy            39.03 323 eP        P        21 41 54.6 +2.1
ASK                               IVMs_BB  IVMs_BB  22 04 49.6
            comp=Z,1µm,4.0s
AVF   Avril sur Loir   39.06 301 eP        P        21 41 52.4 -0.7
AVF                               pmax     pmax
            comp=Z,32nm,1.0s
SUE   Sulen            39.37 324 eP        P        21 41 56.4 +0.9
FOO   Floro            39.38 325 eP        P        21 41 56.8 +1.3
FOO                              eS        S        21 47 58.7 +2.6
FOO                              eSS       SS       21 50 45.9 -3.8
FOO                               IVMs_BB  IVMs_BB  22 00 23.5
            comp=Z,1µm,4.4s
CLF   Chambon-Foret    39.70 303           P        21 41 59.1 +0.7
CLF                               IAmb     IAmb     21 42 06.0
            comp=Z,74nm,1.4s
CLF   Chambon-Foret    39.70 303  P        P        21 42 01.7 +3.3
            comp=Z,42nm,1.6s
CAF   Calviac          40.16 298 eP        P        21 42 01.9 -0.4
CAF                               pmax     pmax
            comp=Z,6.0nm,0.8s
MTLF  Montolieu        40.30 296  P        P        21 42 06.0 +2.6
MTLF  Montolieu        40.30 296  P        P        21 42 06.0 +2.6
            comp=Z,17nm,1.1s
RJF   Les Rejaudoux    40.50 299 eP        P        21 42 05.0 -0.1
RJF                               pmax     pmax
            comp=Z,66nm,0.9s
PZH   PanZhiHua        40.66  91  P        P        21 42 09.8 +3.0
LFF   La Frestale      41.09 299 eP        P        21 42 09.6 -0.3
LFF                               pmax     pmax
            comp=Z,82nm,0.6s
LDF   La Druitiere     41.24 304 eP        P        21 42 10.8 -0.4
LDF                               pmax     pmax
            comp=Z,14nm,1.0s
MFF   Saint Martin d   41.48 301 eP        P        21 42 14.4 +1.3
MFF                               pmax     pmax
            comp=Z,106nm,1.2s
MFF   Saint Martin d   41.48 301  P        P        21 42 11.5 -1.6
            comp=Z,4.9nm,1.2s
KMBO  Kilima Mbogo     41.50 208  LR       LR       21 58 56.0
            comp=Z,375nm,20.4s,baz=9.0,slow=36
GRR   Gorron           41.75 304 eP        P        21 42 14.8 -0.5
GRR                               pmax     pmax
            comp=Z,11nm,0.6s
WOL   Wolverton        41.77 308 eP        P        21 42 15.8 +0.4
KMI2  Kunming          42.09  92 ⇑P        P        21 42 20.9 +2.3
KMI2                              pmax     pmax
            comp=Z,58nm,1.0s
KMI2                              L        L
            comp=Z,540nm,15.7s
KMI2                              L        L
            comp=Z,820nm,15.7s
KMI2                              L        L
            comp=Z,940nm,16.2s
EDMD  Edmundbyers      42.15 314 eP        P        21 42 19.1 +0.6
EDMD                              IAmb     IAmb     21 42 28.2
            comp=Z,21nm,0.8s
EDMD  Edmundbyers      42.15 314  P        P        21 42 19.8 +1.3
            comp=Z,45nm,0.9s
BTO2  Baotou           42.18  68 eP        P        21 42 21.7 +2.6
BTO2                              pP       sP       21 42 26.3 +0.7
BTO2                              sP       pP       21 42 28.7 +5.0
BTO2                              S        S        21 48 42.0 +3.3
BTO2                              pmax     pmax
            comp=Z,19nm,1.1s
BTO2                              pmax     pmax
            comp=Z,410nm,8.2s
BTO2                              L        L
            comp=Z,3µm,15.3s
BTO2                              L        L
            comp=Z,3µm,16.7s
BTO2                              L        L
            comp=Z,4µm,15.9s
ETSF  Etsaut           42.38 296 eP        P        21 42 20.2 -0.4
ETSF                              pmax     pmax
            comp=Z,43nm,0.8s
ATE   Arette           42.44 296  P        P        21 42 20.5 -0.5
            comp=Z,17nm,1.2s
CMAR  Chiang Mai Arr   42.57 104  P        P        21 42 21.7 -0.6
            comp=Z,14nm,1.0s,baz=306,slow=6.4,SNR=14
            comp=Z,14nm,1.0s
CMAR  Chiang Mai Arr   42.57 104 iP        P        21 42 24.7 +2.4
CMAR                              pmax     pmax
            comp=Z,15nm,1.0s
EKA   Eskdalemuir Ar   42.84 314  P        P        21 42 24.0  0.0
            comp=Z,1.7nm,0.4s,baz=101,slow=8.0,SNR=16
EKA                               LR       LR       22 05 11.7
            comp=Z,239nm,18.3s,baz=82,slow=43
            comp=Z,1.7nm,0.4s
ESK   Eskdalemuir      42.87 314  P        P        21 42 25.2 +0.9
ESK                               pmax     pmax
            comp=Z,17nm,1.0s
ESK   Eskdalemuir      42.87 314  P        P        21 42 25.2 +0.9
ESK   Eskdalemuir      42.87 314 eP        P        21 42 25.5 +1.2
ESK                               IAmb     IAmb     21 42 33.8
            comp=Z,7.4nm,0.8s
ESK   Eskdalemuir      42.87 314  P        P        21 42 27.1 +2.8
ESK   Eskdalemuir      42.87 314  P        P        21 42 27.1 +2.8
            comp=Z,37nm,2.0s
SGMF  Saint Gilles     42.89 304 eP        P        21 42 24.5 -0.1
SGMF                              pmax     pmax
            comp=Z,77nm,1.3s
MCD   Coleburn Disti   42.95 318 eP        P        21 42 26.0 +1.1
MCD                               IAmb     IAmb     21 42 28.8
            comp=Z,7.1nm,0.6s
QUIF  Quistinic        43.34 304 eP        P        21 42 27.8 -0.4
QUIF                              pmax     pmax
            comp=Z,45nm,1.1s
ROSF  Rostrenen        43.36 304 eP        P        21 42 28.1 -0.3
ROSF                              pmax     pmax
            comp=Z,84nm,1.3s
ROSF  Rostrenen        43.36 304  P        P        21 42 28.8 +0.5
            comp=Z,48nm,1.1s
XAN   Xi'an            43.39  77  P        P        21 42 31.7 +2.8
XAN                               sP       sP       21 42 38.7 +3.4
XAN                               pmax     pmax
            comp=Z,16nm,1.6s
XAN                               L        L
            comp=Z,1µm,16.5s
XAN                               L        L
            comp=Z,1µm,15.1s
XAN                               L        L
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	comp=Z,1µm,17.2s						
HHC	Hu-ho-hao-te	43.40	67	eP	P	21 42 29.4	+0.4
HHC				pmax	pmax		
	comp=Z,24nm,0.6s						
HHC				pmax	pmax		
	comp=Z,92nm,5.2s						
NEWG	New Galloway	43.45	314	eP	P	21 42 29.8	+0.8
NEWG				IAmb	IAmb	21 42 37.4	
	comp=Z,13nm,0.8s						
EAB	Aberfoyle	43.51	316	eP	P	21 42 30.7	+1.2
EAB				IAmb	IAmb	21 42 36.0	
	comp=Z,9.9nm,0.9s						
DYA	Yadsworthy	43.55	307	eP	P	21 42 30.2	+0.3
DYA				IAmb	IAmb	21 42 34.6	
	comp=Z,11nm,0.8s						
MBAR	Mbarara	43.79	217	LR	LR	22 03 00.4	
	comp=Z,508nm,18.4s,baz=26,slow=39						
SPB2	Spitsbergen Ar	44.23	349		P	21 42 37.7	+2.6
SPB2				IAmb	IAmb	21 42 53.6	
	comp=Z,36nm,1.1s						
KPL	Plockton	44.23	317	eP	P	21 42 36.1	+0.9
KPL				IAmb	IAmb	21 42 41.9	
	comp=Z,12nm,0.8s						
SPITS	Spitsbergen Ar	44.24	349	P	P	21 42 35.4	+0.3
	comp=Z,7.3nm,0.8s,baz=133,slow=12,SNR=12						
SPITS				LR	LR	22 04 48.8	
	comp=Z,1µm,18.4s,baz=126,slow=41						
	comp=Z,7.3nm,0.8s						
GYA	Guiyang	44.61	88	⇓P	P	21 42 46.5	+7.6
GYA				pmax	pmax		
	comp=Z,16nm,0.9s						
GYA				pmax	pmax		
	comp=Z,420nm,4.8s						
GYA				LR	LR		
	comp=N,1µm,20.4s						
GYA				LR	LR		
	comp=E,810nm,25.2s						
GYA				LR	LR		
	comp=Z,1µm,17.1s						
TAM	Tamanrasset	44.80	266	P	P	21 42 41.6	+1.2
TAM	Tamanrasset	44.80	266	P	P	21 42 39.8	-0.6
TAM	Tamanrasset	44.80	266	P	P	21 42 41.6	+1.2
	comp=Z,7.8nm,1.1s						
DSB	Dublin	44.81	311	P	P	21 42 40.1	+0.2
DSB				IAmb	IAmb	21 42 47.8	
	comp=Z,50nm,1.5s						
UCM	Universidad Co	44.94	293	P	P	21 42 41.0	-0.2
	comp=Z,41nm,0.9s						
KBS	Kingsbay	45.40	349	i P	P	21 42 49.3	+5.0
ESBB	Sonseca Array	45.65	292		P	21 42 46.0	-0.8
ESDC	Sonseca Array	45.65	292	P	P	21 42 46.0	-0.9
	comp=Z,10nm,0.7s,baz=75,slow=7.5,SNR=70						
ESDC				LR	LR	22 04 05.9	
	comp=Z,132nm,21.4s,baz=61,slow=39						
	comp=Z,10nm,0.7s						
ESDC	Sonseca Array	45.65	292		P	21 42 46.0	-0.9
PAB	San Pablo	45.97	292	P	P	21 42 48.7	-0.7
PAB				pmax	pmax		
	comp=Z,33nm,1.3s						
PAB	San Pablo	45.97	292	P	P	21 42 48.7	-0.7
PAB				IAmb	IAmb	21 42 52.4	
	comp=Z,33nm,1.2s						
PAB	San Pablo	45.97	292	P	P	21 42 49.3	-0.2
	comp=Z,22nm,1.3s						
JMIC	Jan Mayen	46.84	336	LR	LR	22 04 06.5	
	comp=Z,367nm,19.6s,baz=78,slow=38						
EMAL	Malaga-Limoner	46.89	289	P	P	21 42 56.7	+0.2
	comp=Z,9.6nm,0.7s						
HILR	Hailar Array B	47.24	53	P	P	21 42 58.3	-0.9
	comp=Z,0.5nm,0.3s,baz=270,slow=13,SNR=1.7						
	comp=Z,0.5nm,0.3s						
PVRL	Vila Real	47.94	295	eP	P	21 43 04.8	+0.1
PVRL				i IAmb	IAmb	21 43 11.8	
	comp=Z,47nm,1.9s						
POLO	Lamas de Olo	47.96	296	eP	P	21 43 05.0	0.0
POLO				i IAmb	IAmb	21 43 09.0	
	comp=Z,18nm,1.6s						
MTE	Manteigas	48.07	294	eP	P	21 43 05.6	-0.2
MTE				i IAmb	IAmb	21 43 13.2	
	comp=Z,60nm,1.0s						
MTE				eS	S	21 50 09.2	+5.4
MTE	Manteigas	48.07	294		P	21 43 06.2	+0.3
MTE	Manteigas	48.07	294	P	P	21 43 06.1	+0.3
	comp=Z,51nm,1.0s						
PGAV	Gavieira, Arco	48.14	296	eP	P	21 43 06.5	+0.1
PCBR	Castelo Branco	48.19	293	eP	P	21 43 06.9	+0.3
PCBR				i IAmb	IAmb	21 43 10.3	
	comp=Z,54nm,1.3s						
PVIS	Viseu	48.23	295	eP	P	21 43 06.9	-0.2
PMRV	Marv??o	48.25	293	eP	P	21 43 07.2	0.0
PMRV				i IAmb	IAmb	21 43 10.6	
	comp=Z,39nm,1.3s						
PMRV				eS	S	21 50 07.9	+1.6
PMRV				eSS	SS	21 53 55.2	+20
PBAR	Barrancos	48.39	291	eP	P	21 43 07.3	-0.9
PBAR				i IAmb	IAmb	21 43 10.6	
	comp=Z,36nm,1.4s						
MD01	Midelt array s	48.53	284		P	21 43 09.2	-0.5
MD31	MD31	48.53	284		P	21 43 09.8	+0.3
MD31				IAmb	IAmb	21 43 16.5	
	comp=Z,18nm,1.4s						
IFR	Ifrane	48.57	285	P	P	21 43 10.1	+0.2
	comp=Z,10nm,1.5s						
PESTR	Estremoz	48.57	292	eP	P	21 43 09.3	-0.4
PESTR				i IAmb	IAmb	21 43 12.1	
	comp=Z,45nm,1.3s						
PESTR	Estremoz	48.57	292		P	21 43 10.3	+0.6
PESTR	Estremoz	48.57	292	P	P	21 43 09.5	-0.2
	comp=Z,28nm,1.4s						
PSARD	Sardoal	48.76	293	eP	P	21 43 11.6	+0.5
PSARD				i IAmb	IAmb	21 43 21.1	
	comp=Z,50nm,1.3s						
PARRA	Arraiolos	48.92	292	eP	P	21 43 11.6	-0.7
PARRA				i IAmb	IAmb	21 43 20.8	
	comp=Z,28nm,1.7s						
TIA	Tai'an	48.94	71	P	P	21 43 14.6	+2.1
TIA				pmax	pmax		
	comp=Z,10.0nm,1.1s						
WHN	Wuhan	48.96	79	P	P	21 43 14.9	+2.2
WHN				sP	sP	21 43 20.2	+1.0
PMTG	Montargil	48.98	293	eP	P	21 43 12.5	-0.3
PMTG				i IAmb	IAmb	21 43 16.6	
	comp=Z,49nm,1.4s						
EVO	Evora	48.99	292	eP	P	21 43 13.3	+0.4
PBEJ	Beja	49.05	291	eP	P	21 43 12.7	-0.6
PBEJ				i IAmb	IAmb	21 43 17.7	
	comp=Z,32nm,1.6s						
PVAQ	Vaqueiros	49.15	291	eP	P	21 43 14.4	+0.3
PVAQ				eS	S	21 50 23.2	+4.3
PVAQ				eSS	SS	21 54 05.0	+15
MOE	Montemor	49.25	292	eP	P	21 43 14.7	-0.2
MOE				i IAmb	IAmb	21 43 23.8	
	comp=Z,48nm,1.6s						
PSBE	So Bento	49.26	294	eP	P	21 43 14.9	0.0
PSBE				i IAmb	IAmb	21 43 22.5	
	comp=Z,96nm,1.9s						
PCVE	Castro Verde	49.31	291	eP	P	21 43 17.1	+1.8
PBDV	Barranco-do-Ve	49.37	290	eP	P	21 43 17.8	+2.0
MESJ	Messejana	49.38	291	eP	P	21 43 16.7	+0.8
MESJ				IAmb	IAmb	21 43 18.3	
	comp=Z,62nm,1.6s						
MESJ	Messejana	49.38	291	eP	P	21 43 16.5	+0.6
MESJ	Messejana	49.38	291	eP	P	21 43 16.7	+0.8
PLOUS	Minas do Lousa	49.46	292	eP	P	21 43 16.8	+0.3
PLOUS				i IAmb	IAmb	21 43 19.9	
	comp=Z,55nm,1.3s						
PTEO	Sao Teotonio	49.85	291	eP	P	21 43 25.7	+6.2
TIXI	Tiksi	50.16	23	LR	LR	22 07 32.4	
	comp=Z,869nm,19.0s,baz=286,slow=40						
AVE	Averroes	50.42	285	P	P	21 43 23.7	-0.1
AVE	Averroes	50.42	285	P	P	21 43 24.9	+1.1
	comp=Z,36nm,1.1s						
DAG	Danmarks Havn	50.50	343	P	P	21 43 27.6	+3.8
DAG				pmax	pmax		
	comp=Z,11nm,1.3s						
DAG	Danmarks Havn	50.50	343	i P	P	21 43 26.1	+2.4
DAG				IAmb	IAmb	21 43 28.7	
	comp=Z,8.6nm,0.8s						
DAG	Danmarks Havn	50.50	343	P	P	21 43 25.3	+1.5
	comp=Z,634nmcomp=Z,11nm,1.3s						
NOR	Nord	50.88	350	i P	P	21 43 30.0	+3.4
NOR				IAmb	IAmb	21 43 34.7	
	comp=Z,16nm,1.4s						
YAK	Yakutsk	50.94	36	LR	LR	22 08 31.6	
	comp=Z,607nm,18.4s,baz=270,slow=40						
ZEA	Zeya	51.03	47	eP	P	21 43 29.4	+1.3
ZEA				pmax	pmax		
	comp=Z,10.0nm,1.6s						
TIO	Tiouine	51.26	283	P	P	21 43 31.0	+0.6
	comp=Z,36nm,1.4s						
DL2	Dalian	51.37	66	P	P	21 43 26.2	-4.6
DL2				S	S	21 50 41.6	-8.1
DL2				pmax	pmax		
	comp=Z,36nm,1.1s						
DL2				LR	LR		
	comp=N,2µm,18.3s						
DL2				LR	LR		
	comp=E,1µm,17.1s						
DL2				LR	LR		
	comp=Z,1µm,19.6s						
BORG	Borgarnes	51.46	328	LR	LR	22 08 33.3	
	comp=Z,294nm,18.0s,baz=88,slow=40						
NJ2	Nanjing	51.86	76	eP	P	21 43 36.1	+1.5
NJ2				pmax	pmax		
	comp=Z,21nm,1.0s						
HEH	HeiHe	51.92	51	eP	P	21 43 37.7	+2.8
HEH				pmax	pmax		
	comp=Z,14nm,0.8s						
HEH				L	L		
	comp=Z,3µm,19.2s						
HEH				L	L		
	comp=Z,1µm,18.9s						
HEH				L	L		
	comp=Z,2µm,17.3s						
CN2	Changchun	52.47	59	eP	P	21 43 42.3	+3.3
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
TORD	Torodi Ar. Bea	53.14	258	P	P	21 43 41.2	-3.1
	comp=Z,2.0nm,0.8s,baz=52,slow=7.4,SNR=8.9						
	comp=Z,2.0nm,0.8s						
TORD	Torodi Ar. Bea	53.14	258	P	P	21 43 42.8	-1.5
KLR	Kul'dur	54.91	51	P	P	21 43 56.0	-0.8
	comp=Z,2.3nm,0.8s,baz=284,slow=9.1,SNR=4.2						
	comp=Z,2.3nm,0.8s						
KLR	Kul'dur	54.91	51	i P	P	21 43 58.1	+1.3
KLR				pmax	pmax		
	comp=Z,3.0nm,0.9s						
OPO	Ambohidratompo	55.88	189	LR	LR	22 06 49.2	
	comp=Z,508nm,21.5s,baz=96,slow=35						
SUMG	Summit	56.09	339	P	P	21 44 06.9	+1.5
SUMG				pmax	pmax		
	comp=Z,27nm,1.0s						
SUMG	Summit	56.09	339	P	P	21 44 06.9	+1.5
SUMG	Summit	56.09	339	i P	P	21 44 07.9	+2.4
SUMG				IAmb	IAmb	21 44 09.6	
	comp=Z,6.8nm,0.7s						
SUMG	Summit	56.09	339	P	P	21 44 09.4	+4.0
	comp=Z,35nm,1.0s						
KSRS	Korea Array	56.51	66	P	P	21 44 07.0	-1.4
	comp=Z,1.5nm,0.7s,baz=290,slow=6.8,SNR=6.5						
	comp=Z,1.5nm,0.7s						
KSRS	Korea Array	56.51	66	P	P	21 44 07.0	-1.4
KSRS	Korea Array	56.51	66	P	P	21 44 07.0	-1.4
USA0B	Ussuriysk Arra	56.77	57	P	P	21 44 11.3	+1.1
USRK	Ussuriysk Ar.	56.77	57	P	P	21 44 08.0	-2.2
	comp=Z,1.4nm,0.7s,baz=260,slow=6.7,SNR=2.1						
	comp=Z,1.4nm,0.7s						
USRK	Ussuriysk Ar.	56.77	57	P	P	21 44 09.8	-0.4
NEEM	North Greenlan	57.49	346	i P	P	21 44 18.8	+3.6
NEEM				IAmb	IAmb	21 44 23.2	
	comp=Z,27nm,1.1s						
LSZ	Lusaka	57.96	211	LR	LR	22 11 05.0	
	comp=Z,555nm,18.4s,baz=36,slow=38						
JNU	Nakatsue	60.55	69	LR	LR	22 13 11.3	
	comp=Z,585nm,18.4s,baz=274,slow=38						
SEY	Seymchan	60.79	31	LR	LR	22 13 17.7	
	comp=Z,617nm,19.6s,baz=304,slow=38						
MA2	Magadan	61.51	35	LR	LR	22 14 06.5	
	comp=Z,325nm,18.1s,baz=288,slow=39						
MA2	Magadan	61.51	35	i P	P	21 44 44.2	+1.4
MA2				pmax	pmax		
	comp=Z,13nm,1.1s						
JOW	Kunigami	61.53	77	LR	LR	22 14 53.4	
	comp=Z,430nm,19.9s,baz=206,slow=39						
SFJD	Kangerlussuaq	62.15	335	LR	LR	22 12 39.7	
	comp=Z,567nm,20.6s,baz=36,slow=37						
DBIC	Dimbokro	62.18	257	P	P	21 44 46.3	-1.6
	comp=Z,8.2nm,1.0s,baz=56,slow=7.3,SNR=6.5						
DBIC				LR	LR	22 15 07.3	
	comp=Z,488nm,18.4s,baz=55,slow=39						
	comp=Z,8.2nm,1.0s						
DBIC	Dimbokro	62.18	257	P	P	21 44 46.4	-1.6
BILL	Bilibino	63.38	23	i P	P	21 44 57.0	+1.9
BILL				pmax	pmax		
	comp=Z,13nm,0.8s						
BILL	Bilibino	63.38	23	P	P	21 44 57.7	+2.6
MJAR	Matsushiro Arr	64.31	63	P	P	21 45 00.5	-1.4
	comp=Z,1.4nm,0.8s,baz=297,slow=8.0,SNR=2.6						
	comp=Z,1.4nm,0.8s						
MJAR	Matsushiro Arr	64.31	63	P	P	21 45 02.2	+0.4
MJAR				IAmb	IAmb	21 45 15.1	
	comp=Z,19nm,1.9s						
KHWEE	KHWEE	65.06	210	P	P	21 45 05.9	-1.0
RES	Resolute Bay	66.72	352	LR	LR	22 20 02.1	
	comp=Z,581nm,18.2s,baz=18,slow=41						
LBTB	Lobatse	67.76	209	LR	LR	22 18 17.8	
	comp=Z,504nm,18.8s,baz=26,slow=39						
LBTB	Lobatse	67.76	209		P	21 45 22.7	-1.3
LBTB	Lobatse	67.76	209	P	P	21 45 23.1	-1.0
	comp=Z,16nm,0.8s						
PETK	Petropavlovsk-	68.02	39	LR	LR	22 16 04.3	
	comp=Z,439nm,18.8s,baz=295,slow=37						
LKGWB	Lokgwabe	68.76	213		P	21 45 27.3	-3.1
DAV	Davao City (W)	70.20	96	LR	LR	22 21 37.5	
	comp=Z,212nm,18.4s,baz=352,slow=40						
B20K	Meade River	70.63	11		P	21 45 43.4	+2.2
BOSA	Boshof	71.14	208	P	P	21 45 42.8	-2.1
	comp=Z,9.9nm,1.0s,baz=21,slow=7.5,SNR=10.0						
BOSA				LR	LR	22 18 02.0	
	comp=Z,732nm,21.2s,baz=33,slow=37						
	comp=Z,9.9nm,1.0s						
BOSA	Boshof	71.14	208		P	21 45 43.0	-1.9
BOSA				IAmb	IAmb	21 45 55.3	
	comp=Z,13nm,0.9s						
BOSA	Boshof	71.14	208	P	P	21 45 44.2	-0.7
	comp=Z,22nm,1.8s						
C18K	Utukok River	71.15	13		P	21 45 45.5	+1.0
A36M	Sachs Harbour	71.20	0		P	21 45 46.0	+1.4
C23K	Itkillik River	71.71	9		P	21 45 50.0	+2.2
C23K				IAmb	IAmb	21 45 52.3	
	comp=Z,18nm,0.9s						
D19K	Kuna River	71.83	12	P	P	21 45 50.0	+1.5
D20K	Etivluk River	71.88	12		P	21 45 51.5	+2.6
D20K				IAmb	IAmb	21 45 55.1	
	comp=Z,17nm,0.9s						
D23K	Nanushuk River	72.52	9		P	21 45 55.0	+2.3
D23K				IAmb	IAmb	21 45 56.9	
	comp=Z,17nm,0.8s						
D24K	Happy Valley	72.58	9	P	P	21 45 55.6	+2.6
D24K				IAmb	IAmb	21 45 59.9	
	comp=Z,11nm,0.8s						
C27K	Jago River	72.68	7	P	P	21 45 56.0	+2.4
C27K				IAmb	IAmb	21 46 00.8	
	comp=Z,13nm,0.8s						
D25K	Kavik River	72.70	8	P	P	21 45 55.5	+1.8
E19K	Redstone River	72.91	12		P	21 45 57.3	+2.3
E19K				IAmb	IAmb	21 45 58.8	
	comp=Z,16nm,0.8s						
KAPI	Kappang	73.20	110	LR	LR	22 21 34.2	
	comp=Z,139nm,20.7s,baz=308,slow=39						
D27M	Malcolm River	73.29	6		P	21 45 59.9	+2.6
D27M				IAmb	IAmb	21 46 03.6	
	comp=Z,11nm,0.9s						
E23K	Chandalar	73.51	9		P	21 46 01.0	+2.4
E23K				IAmb	IAmb	21 46 03.6	
	comp=Z,13nm,0.8s						
F20K	Avaraart Lake	73.53	12	P	P	21 46 00.4	+1.8
E24K	Your Creek	73.64	9	P	P	21 46 01.4	+2.1
E24K				IAmb	IAmb	21 46 05.8	
	comp=Z,23nm,1.2s						
F21K	Alatna River	73.73	11	P	P	21 46 01.5	+1.7
F21K				IAmb	IAmb	21 46 03.7	
	comp=Z,10nm,0.8s						
C36M	Paulatuk	73.85	360		P	21 46 02.4	+1.9
E25K	Arctic Village	73.94	8	P	P	21 46 03.6	+2.5
E25K				IAmb	IAmb	21 46 05.0	
	comp=Z,11nm,0.8s						
E28M	Babbage River	74.03	6		P	21 46 04.0	+2.4
E28M				IAmb	IAmb	21 46 07.8	
	comp=Z,13nm,1.0s						
G19K	Purcell Mounta	74.11	13		P	21 46 04.1	+2.0
G19K				IAmb	IAmb	21 46 05.4	
	comp=Z,11nm,0.8s						
COLD	Coldfoot	74.21	10	P	P	21 46 04.7	+2.0
COLD				IAmb	IAmb	21 46 09.5	
	comp=Z,17nm,0.8s						
F24K	Squaw Lake	74.24	9		P	21 46 05.7	+2.8
E27K	Coleen River	74.27	6		P	21 46 05.0	+1.9
E27K				IAmb	IAmb	21 46 09.4	
	comp=Z,24nm,1.1s						
E29M	Blow River	74.36	5	P	P	21 46 05.6	+2.1
G21K	Allakaket	74.38	11		P	21 46 05.8	+2.2
F25K	Christian Rive	74.44	8	P	P	21 46 06.4	+2.4
F25K				IAmb	IAmb	21 46 11.7	
	comp=Z,14nm,1.0s						
F26K	Sheenjek River	74.50	8		P	21 46 06.3	+1.9
INK	Inuvik	74.70	3	LR	LR	22 22 53.6	
	comp=Z,356nm,22.0s,baz=349,slow=39						
INK	Inuvik	74.70	3	P	P	21 46 07.6	+2.2
INK				pmax	pmax		
	comp=Z,7.0nm,0.7s						
INK	Inuvik	74.70	3		P	21 46 07.6	+2.2
BMAR	Burnt Mountain	74.71	8		P	21 46 06.7	+1.1
G23K	Bananza Creek	74.72	10		P	21 46 07.3	+1.7
G23K				IAmb	IAmb	21 46 11.2	
	comp=Z,44nm,1.8s						
H18K	Honhosa River	74.77	14	P	P	21 46 07.4	+1.5
H18K				IAmb	IAmb	21 46 19.7	
	comp=Z,33nm,1.4s						
IMAR	Indian Mountai	74.83	12	P	P	21 46 07.4	+1.1
F28M	Old Crow	74.98	6	P	P	21 46 08.3	+1.2
F28M				IAmb	IAmb	21 46 14.2	
	comp=Z,12nm,0.9s						
G24K	Hadweenzic Riv	75.07	9		P	21 46 09.5	+1.9
G24K				IAmb	IAmb	21 46 15.0	
	comp=Z,25nm,1.0s						
G26K	Porcupine Rive	75.26	8	P	P	21 46 10.5	+1.8
F30M	Barrier River	75.27	4		P	21 46 09.5	+0.7
H21K	Melozitna Rive	75.29	12	P	P	21 46 10.7	+1.8
H22K	Ishtalitna Cre	75.29	11		P	21 46 10.8	+1.8
F31M	Tsiigehtchic	75.55	4	P	P	21 46 11.0	+0.7
G27K	Doyon Strip	75.61	7	P	P	21 46 12.1	+1.3
G27K				IAmb	IAmb	21 46 17.5	
	comp=Z,16nm,1.0s						
SCHQ	Schefferville	75.80	330	P	P	21 46 10.4	-1.6
	comp=Z,2.1nm,0.7s,baz=41,slow=9.3,SNR=2.0						
	comp=Z,2.1nm,0.7s						
SCHQ	Schefferville	75.80	330	P	P	21 46 12.4	+0.4
G29M	Pine Creek	75.81	5	P	P	21 46 13.5	+1.5
G29M				IAmb	IAmb	21 46 17.6	
	comp=Z,13nm,1.1s						
H24K	Noodor Dome	75.84	10		P	21 46 13.6	+1.5
G30M	tAoh Zraii Nji	75.87	5		P	21 46 13.6	+1.3
G31M	Satah River	76.04	4		P	21 46 13.7	+0.6
H27K	Steamboat Moun	76.19	7		P	21 46 15.7	+1.6
H27K				IAmb	IAmb	21 46 20.8	
	comp=Z,20nm,1.1s						
MLY	Manley	76.19	11		P	21 46 16.0	+1.9
SUR	Sutherland	76.20	209	LR	LR	22 22 18.5	
	comp=Z,316nm,18.7s,baz=34,slow=38						
I23K	Minto, Yukon-K	76.29	10	P	P	21 46 15.4	+0.8
I23K				IAmb	IAmb	21 46 19.6	
	comp=Z,18nm,1.2s						
J19K	Poorman	76.33	13		P	21 46 16.2	+1.4
EPYK	Eagle Plains	76.44	5	P	P	21 46 17.0	+1.5
EPYK				IAmb	IAmb	21 46 20.9	
	comp=Z,16nm,1.1s						
H29M	Whitestone	76.47	6	P	P	21 46 17.3	+1.7
H29M				IAmb	IAmb	21 46 21.5	
	comp=Z,21nm,1.1s						
COLA	College	76.76	10	⇑P	P	21 46 19.7	+2.5
COLA	College	76.76	10	P	P	21 46 18.8	+1.6
COLA	College	76.76	10	P	P	21 46 19.8	+2.5
	comp=Z,20nm,0.8s						
I27K	Kandik River	76.79	7	P	P	21 46 19.2	+1.7
I27K				IAmb	IAmb	21 46 23.6	
	comp=Z,11nm,1.0s						
NEA2	Nenana	76.86	10	P	P	21 46 19.2	+1.4
K17K	Iditarod	76.96	15		P	21 46 19.9	+1.5
CCB	Clear Creek Bu	76.98	10	P	P	21 46 18.8	+0.2
IL31		76.99	9	P	P	21 46 19.7	+1.2
ILAR	Eielson Array	76.99	9	P	P	21 46 19.1	+0.5
	comp=Z,4.4nm,0.9s,baz=343,slow=5.3,SNR=12						
ILAR				LR	LR	22 23 33.3	
	comp=Z,318nm,21.8s,baz=284,slow=38						
	comp=Z,4.4nm,0.9s						
ILAR	Eielson Array	76.99	9		P	21 46 19.8	+1.2
I28M	Miner Creek	77.10	6		P	21 46 20.9	+1.6
I28M				IAmb	IAmb	21 46 24.9	
	comp=Z,13nm,0.8s						
H31M	Peel River	77.15	4		P	21 46 21.4	+1.9
H31M				IAmb	IAmb	21 46 29.7	
	comp=Z,15nm,0.9s						
I29M	Ogilvie Camp,	77.32	6	P	P	21 46 22.3	+1.8
I29M				IAmb	IAmb	21 46 25.8	
	comp=Z,16nm,1.1s						
J25K	Salcha River,	77.33	9	P	P	21 46 21.9	+1.3
J25K				IAmb	IAmb	21 46 26.4	
	comp=Z,12nm,0.9s						
I30M	Mount Dempster	77.60	5		P	21 46 23.7	+1.5
I30M				IAmb	IAmb	21 46 27.7	
	comp=Z,18nm,0.9s						
RND	Reindeer	78.01	11	P	P	21 46 25.6	+1.2
RND				pmax	pmax		
	comp=Z,17nm,1.0s						
RND	Reindeer	78.01	11	P	P	21 46 25.6	+1.2
RND				IAmb	IAmb	21 46 29.7	
	comp=Z,17nm,1.0s						
SCRK	Sand Creek	78.11	8		P	21 46 26.1	+1.1
SCRK				IAmb	IAmb	21 46 31.3	
	comp=Z,25nm,1.1s						
J30M	Hart River	78.25	5		P	21 46 27.2	+1.4
J30M				IAmb	IAmb	21 46 31.7	
	comp=Z,22nm,1.1s						
DAWY	Dawson	78.50	6	P	P	21 46 28.8	+1.7
DAWY				IAmb	IAmb	21 46 33.4	
	comp=Z,25nm,1.1s						
DHY	Denali Highway	78.54	10		P	21 46 28.9	+1.4
DHY				IAmb	IAmb	21 46 30.3	
	comp=Z,39nm,2.0s						
K29M	Barlow Dome	78.88	6		P	21 46 30.4	+1.1
K29M				IAmb	IAmb	21 46 35.3	
	comp=Z,15nm,0.9s						
L27K	Beaver Creek,	79.25	8	P	P	21 46 33.0	+1.8
L27K				IAmb	IAmb	21 46 37.6	
	comp=Z,15nm,0.9s						
BCAR	Beaver Creek A	79.25	8		P	21 46 32.8	+1.6
N19K	Bonanza Creek	79.46	14	P	P	21 46 34.4	+1.9
N19K				IAmb	IAmb	21 46 42.9	
	comp=Z,17nm,0.9s						
GHO	Glory Hole Cre	79.55	11	P	P	21 46 34.0	+1.1
GHO				IAmb	IAmb	21 46 36.2	
	comp=Z,20nm,0.9s						
L29M	L29M	79.56	6	P	P	21 46 34.7	+1.8
L29M				IAmb	IAmb	21 46 39.0	
	comp=Z,21nm,1.2s						
SML	Sawmill	79.61	11	P	P	21 46 34.5	+1.3
SML				pmax	pmax		
	comp=Z,22nm,0.8s						
SML	Sawmill	79.61	11	P	P	21 46 34.5	+1.3
SML				IAmb	IAmb	21 46 39.0	
	comp=Z,22nm,0.8s						
PMR	Palmer	79.69	12	P	P	21 46 34.7	+1.2
PMR				pmax	pmax		
	comp=Z,13nm,0.8s						
PMR	Palmer	79.69	12	P	P	21 46 34.7	+1.2
PMR				IAmb	IAmb	21 46 36.6	
	comp=Z,13nm,0.8s						
SCM	Sheep Creek Mo	79.73	11	P	P	21 46 35.3	+1.4
SCM				IAmb	IAmb	21 46 39.5	
	comp=Z,13nm,0.7s						
M29M	Somme Creek	80.19	6	P	P	21 46 38.0	+1.6
KLU	Klutina	80.26	10	P	P	21 46 37.8	+1.1
KLU				IAmb	IAmb	21 47 01.1	
	comp=Z,14nm,1.0s						
YKA	Yellowknife Ar	80.39	355	P	P	21 46 36.7	-0.6
	comp=Z,3.1nm,0.8s,baz=12,slow=5.5,SNR=15						
YKA				LR	LR	22 28 05.4	
	comp=Z,422nm,18.0s,baz=329,slow=40						
	comp=Z,3.1nm,0.8s						
YKA	Yellowknife Ar	80.39	355	i P	P	21 46 41.7	+4.4
YKA				pmax	pmax		
	comp=Z,4.0nm,0.7s						
YKA	Yellowknife Ar	80.39	355		P	21 46 38.7	+1.4
M31M	Drury Creek, Y	80.73	4	P	P	21 46 40.9	+1.7
M31M				IAmb	IAmb	21 46 44.9	

	comp=Z,9.9nm,0.8s						
BARN	Barnard Glacie	81.22	8	P	P	21 46 43.4	+1.4
BARN				IAmb	IAmb	21 46 48.7	
	comp=Z,15nm,1.0s						
LOGN	Logan Glacier	81.52	8	P	P	21 46 45.2	+1.6
LOGN				IAmb	IAmb	21 46 47.4	
	comp=Z,19nm,0.8s						
GRNC	Granite Creek	81.53	8	P	P	21 46 45.4	+1.6
O28M	Mount Upton	81.66	8	P	P	21 46 45.9	+1.4
GUMO	Guam	81.74	79	LR	LR	22 25 20.9	
	comp=Z,94nm,20.6s,baz=314,slow=37						
HYT	Haines Junctio	81.87	6		P	21 46 47.0	+1.6
YAH	Yahtse	81.89	8	P	P	21 46 47.2	+1.6
YAH				IAmb	IAmb	21 46 51.8	
	comp=Z,14nm,0.8s						
PCA	Pinnacle	82.32	8	P	P	21 46 49.4	+1.7
PCA				IAmb	IAmb	21 46 53.9	
	comp=Z,15nm,1.0s						
KDAK	Kodiak Island	82.64	15	LR	LR	22 29 12.3	
	comp=Z,406nm,18.8s,baz=330,slow=40						
P33M	Teslin, Yukon	82.81	4		P	21 46 51.8	+1.6
P29M	Windy Craggy	83.02	7		P	21 46 53.1	+1.8
P29M				IAmb	IAmb	21 46 57.0	
	comp=Z,8.2nm,0.9s						
P32M	Atlin	83.37	5	P	P	21 46 55.0	+1.8
R33M	Jennings River	83.72	3		P	21 46 56.2	+1.2
DLBC	Dease Lake	84.71	3	LR	LR	22 28 46.5	
	comp=Z,286nm,21.9s,baz=315,slow=38						
S34M	Telegraph Cree	85.19	3	P	P	21 47 04.3	+1.9
S34M				IAmb	IAmb	21 47 08.7	
	comp=Z,13nm,1.3s						
FITZ	Fitzroy Crossi	86.10	116	P	P	21 47 06.4	-0.9
	comp=Z,3.4nm,0.8s,baz=326,slow=3.6,SNR=2.0						
	comp=Z,3.4nm,0.8s						
FITZ	Fitzroy Crossi	86.10	116	P	P	21 47 07.4	+0.1
EDM	Edmonton	89.48	353	P	P	21 47 24.5	+1.3
EDM	Edmonton	89.48	353	P	P	21 47 24.5	+1.3
NWAO	Narrogin (SRO)	90.61	132	LR	LR	22 26 04.6	
	comp=Z,152nm,21.5s,baz=279,slow=34						
BBB	Bella Bella	91.03	2	LR	LR	22 35 04.5	
	comp=Z,194nm,19.6s,baz=348,slow=40						
WRA	Warramunga Arr	93.62	112	P	P	21 47 40.1	-2.7
	comp=Z,0.4nm,0.7s,baz=315,slow=4.8,SNR=1.1						
	comp=Z,0.4nm,0.7s						
WRA	Warramunga Arr	93.62	112	P	P	21 47 42.1	-0.7
NEW	Newport	94.72	355	LR	LR	22 34 56.3	
	comp=Z,389nm,21.4s,baz=4.0,slow=38						
ASAR	Alice Springs	95.58	115	P	P	21 47 49.1	-2.7
	comp=Z,0.8nm,0.8s,baz=310,slow=4.6,SNR=1.3						
	comp=Z,0.8nm,0.8s						
ASAR	Alice Springs	95.58	115	P	P	21 47 49.8	-1.9
PDAR	Pinedale Array	99.28	349	LR	LR	22 35 54.4	
	comp=Z,250nm,21.9s,baz=343,slow=37						
TXAR	Lajitas Array	110.97	340	PKiKP	PKiKP	21 52 58.3	-1.7
	comp=Z,0.2nm,0.5s,baz=351,slow=5.8,SNR=3.6						
TROLL	Troll, Antarti	114.84	196	PKPdf	PKPdf	21 53 00.8	-5.1
	comp=Z,224nm,0.7s						
VNA2	Neumayer--Watz	116.49	199	PKPdf	PKiKP	21 53 09.9	+0.9
	comp=Z,10nm,0.6s,baz=129,slow=3.6						
VNA1	Neumayer--Stat	116.55	199	PKPdf	PKiKP	21 53 11.7	+2.7
	comp=Z,11nm,0.8s						
VNA3	Neumayer Olymp	117.28	199	PKPdf	PKiKP	21 53 11.3	+0.8
	comp=Z,7.5nm,0.7s						
AC05	El Transito	133.98	264		PKPdf	21 53 42.5	-1.4
BO02	Sierra Bellavi	136.64	256		PKPdf	21 53 48.2	-0.3
BI02	San Fabin de	137.60	254		PKPdf	21 53 50.9	+0.6
TAOE	Nuku Hiva Isla	148.65	30	*e*LR	LR	22 43 16.8	
	comp=Z,327nm,28.0s						
PPT2	Papeete2	150.84	55	*e*LR	LR	22 44 15.6	
	comp=Z,262nm,26.2s						
PPT2				*e*LR	LR	22 44 18.1	
	comp=Z,249nm,24.5s						

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*SDD **06** 21:38:44.3±3.1, 17°.94N×66°.89W, h30^{km}±12^{km}, MD3.1, ML3.4, MW3.3, Presumed earthquake*
*NEIC **06** 21:38:46.0±0.7, 17°.85N±0°.03×66°.888W±0°.009, h10^{km}±1^{km}, ML3.7/37, Md3.5/12(RSPR), Mwr3.4/15(SLM), Error ellipse: s-maj=4.6km s-min=2.8km az=181.0*
*OSPL **06** 21:38:46.2±1.4, 17°.75N×66°.59W, h31^{km}±30^{km}, ML3.2, Presumed earthquake*
*RSPR **06** 21:38:46.9, 17°.92N×66°.91W, h10^{km}, MD3.5/12*
*NEIC **06** 21:38:46, 17°.92N×66°.91W, h11^{km}, Moment Tensor Solution. Moment tensor: Scale 10^{14}Nm; M_{rr}-0.10; $M_{\theta\theta}$0.40; $M_{\phi\phi}$-0.29; $M_{r\theta}$0.26; $M_{\theta\phi}$1.67; $M_{\phi r}$-0.32; Fault plane solution: $M_0$1.76000×10^{14} NP1:ϕ_s7.00000°, δ80.00000°, λ-170.00000°. NP2:ϕ_s275.00000°, δ80.00000°, λ-10.00000°. Principal axes: T 1.7579, Plg0.0000°, Azm141.0000°; N 0.0000, Plg76.0000°, Azm51.0000°; P -1.7580, Plg14.0000°, Azm231.0000°;*
ISC 06 21:38:46.1±1.0**, 17°.90N**±0°.06×**66°.90W**±0°.02**, h16**^{km}±5^{km}**,**
n57, σ0^{s}.78/77**, 15C-14D, Puerto Rico region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GBPR	Guanica, Bosqu	0.08	12		Pg	21 38 49.1	-0.2
GBPR	Guanica, Bosqu	0.08	12	⇑*i*P	Pg	21 38 49.1	-0.2
MLPR	Magueyes Islan	0.16	296		Pg	21 38 50.2	-0.1
MLPR				Sg	Sg	21 38 52.9	-0.1
MLPR	Magueyes Islan	0.16	296	⇑*i*P	Pg	21 38 50.4	+0.1
MLPR	Magueyes Islan	0.16	296	⇑*e*Pg	Pg	21 38 50.4	+0.1
MLPR				⇓*e*Sg	Sg	21 38 53.2	+0.2
MLPR				IAML		21 38 53.4	
	comp=N,21µm,0.3s						
CRPR	Cabo Rojo, PR	0.23	297		Pg	21 38 51.5	+0.2
CRPR				Sg	Sg	21 38 54.8	-0.1
CRPR				IAML		21 38 56.1	
	comp=N,17µm,0.2s						
CRPR				IAML		21 38 56.4	
	comp=N,11µm,0.4s						
CRPR	Cabo Rojo, PR	0.23	297	⇑*i*P	Pg	21 38 51.5	+0.2
CRPR	Cabo Rojo, PR	0.23	297	⇑*e*Pg	Pg	21 38 51.6	+0.2
CRPR				⇑*e*Sg	Sg	21 38 54.7	-0.2
CRPR				IAML		21 38 56.0	
	comp=N,19µm,0.2s						
OBIP	Obispado Ponce	0.31	63		Pg	21 38 53.1	+0.4
OBIP					Sb	21 38 58.4	+0.3
OBIP	Obispado Ponce	0.31	63	⇓*i*P	Pg	21 38 53.1	+0.4
OBIP				*e*S	Sb	21 38 58.4	+0.3
OBIP	Obispado Ponce	0.31	63	*i* P	Pg	21 38 53.0	+0.3
OBIP				*e*S	Sb	21 38 58.3	+0.2
OBIP				IAML		21 38 58.7	
	comp=Z,1µm,0.1s						
LSP	Las Mesas	0.33	327		Pg	21 38 53.2	+0.2
LSP	Las Mesas	0.33	327	⇓*e*P	Pg	21 38 53.2	+0.2
CELP	Cerrillos	0.35	60		Pg	21 38 53.6	+0.3
CELP					Sb	21 38 59.4	+0.2
CELP	Cerrillos	0.35	60	IAML		21 38 59.9	
	comp=Z,5µm,0.3s						
CELP				IAML		21 38 59.9	
	comp=Z,7µm,0.2s						
CELP	Cerrillos	0.35	60	⇓*i*P	Pg	21 38 53.6	+0.3
CELP	Cerrillos	0.35	60	⇓*e*Pg	Pb	21 38 53.8	-0.2
CELP				⇑*e*Sg	Sb	21 38 59.2	+0.1
CELP				IAML		21 38 59.8	
	comp=N,2µm,0.2s						
PRSN	Puerto Rico Se	0.39	323		Pb	21 38 54.3	-0.4
PRSN					Sb	21 39 00.2	-0.3
PRSN	Puerto Rico Se	0.39	323	IAML		21 39 02.8	
	comp=N,14µm,0.3s						
PRSN				IAML		21 39 03.0	
	comp=N,11µm,0.4s						
PRSN	Puerto Rico Se	0.39	323	⇑*e*P	Pb	21 38 54.3	-0.4
PRSN	Puerto Rico Se	0.39	323	⇑*e*Pg	Pb	21 38 54.4	-0.4
PRSN				IAML		21 39 39.5	
	comp=N,515nm,0.2s						
AOPR	Arecibo Observ	0.46	17		Pb	21 38 55.4	-0.5
AOPR	Arecibo Observ	0.46	17		Sb	21 39 01.6	-1.0
AOPR				IAML		21 39 02.2	
	comp=N,27µm,0.5s						
AOPR				IAML		21 39 06.4	
	comp=N,7µm,0.3s						
AOPR	Arecibo Observ	0.46	17	⇓*e*P	Pb	21 38 55.4	-0.5
AOPR	Arecibo Observ	0.46	17	⇓*e*Pg	Pb	21 38 55.5	-0.5
AOPR				⇓*e*Sg	Sb	21 39 01.9	-0.6
AOPR				IAML		21 39 06.3	
	comp=N,6µm,0.3s						
AGPR	Aguadilla, PR	0.60	340		Pb	21 38 57.9	-0.3
AGPR					Sb	21 39 06.2	-0.3
AGPR	Aguadilla, PR	0.60	340	IAML		21 39 06.5	
	comp=N,5µm,0.4s						
AGPR				IAML		21 39 06.9	
	comp=N,4µm,0.3s						
AGPR	Aguadilla, PR	0.60	340	⇑*i*P	Pb	21 38 57.9	-0.3
AGPR	Aguadilla, PR	0.60	340	⇑*e*Pg	Pb	21 38 58.0	-0.3
AGPR				⇓*e*Sg	Sb	21 39 06.1	-0.4
AGPR				IAML		21 39 06.4	
	comp=N,4µm,0.4s						
ECPR	Experimental S	0.66	51		Pb	21 38 58.8	-0.4
ECPR					Sb	21 39 07.9	-0.2
ECPR	Experimental S	0.66	51	IAML		21 39 09.2	
	comp=N,5µm,0.2s						
ECPR				IAML		21 39 09.4	
	comp=N,7µm,0.2s						
ECPR	Experimental S	0.66	51	⇓*e*P	Pb	21 38 58.8	-0.4
EMPR	Esperanza - Ma	0.67	31		Pb	21 38 59.7	+0.3
EMPR					Sb	21 39 08.7	+0.3
EMPR	Esperanza - Ma	0.67	31	⇓*i*P	Pb	21 38 59.7	+0.3
EMPR				*e*S	Sb	21 39 08.7	+0.3
IDE	Isla Desecheo	0.73	311		Pb	21 38 60.0	-0.5
IDE					Sb	21 39 09.5	-0.8
IDE	Isla Desecheo	0.73	311	⇑*e*P	Pb	21 38 60.0	-0.5
IDE				*e*S	Sb	21 39 09.5	-0.8
IGPR	InterUniversit	0.75	85		Pg	21 39 01.1	+0.3
IGPR					Sg	21 39 10.4	-0.4
IGPR	InterUniversit	0.75	85	⇑*e*P	Pg	21 39 01.1	+0.3
PDPR	Patillas Dam,	0.84	82		Pg	21 39 02.2	-0.2
PDPR					Sg	21 39 12.9	-0.7
PDPR	Patillas Dam,	0.84	82	⇑*e*P	Pg	21 39 02.2	-0.2
HUMP	Col San Antoni	1.02	76		Pg	21 39 04.9	-1.1
HUMP					Sg	21 39 18.4	-1.0
HUMP	Col San Antoni	1.02	76	⇑*e*P	Pg	21 39 04.9	-1.1
PCDR	Punta Cana, DR	1.54	294		Pn	21 39 13.5	+0.7
PCDR				IAML		21 39 47.6	
	comp=N,634nm,0.8s						
PCDR	Punta Cana, DR	1.54	294	*i* P	Pn	21 39 13.9	+1.1
PCDR				*e*S	Sg	21 39 35.6	-0.2
PCDR				IAML		21 39 43.1	
	comp=Z,174nm,0.4s						
PCDR	Punta Cana, DR	1.54	294	⇑*e*Pg	Pn	21 39 13.6	+0.7
PCDR				⇓*e*Sg	Sg	21 39 34.9	-0.9
PCDR				IAML		21 39 47.4	
	comp=N,341nm,0.8s						
HIDR	Higuey Centro	1.86	292	⇓*e*Pg	Pn	21 39 18.2	+0.9
HIDR				IAML		21 40 20.8	
	comp=N,80nm,0.3s						
SMDR	Samana, DR	2.58	303	⇑*e*Pg	Pb	21 39 31.4	-0.6
SMDR				IAML		21 40 59.8	
	comp=N,73nm,0.8s						
NADR	Nagua	3.16	298	⇑*e*Pg	Pb	21 39 40.9	-0.9
NADR				IAML		21 41 04.4	
	comp=N,159nm,0.6s						
BANI	BANI	3.33	279	Pn	Pn	21 39 38.3	+0.6
BANI	BANI	3.33	279	⇑*e*Pg	Pn	21 39 41.3	+3.7
BANI				IAML		21 41 03.9	
	comp=N,71nm,0.7s						
SMRT	St. Maarten	3.64	87		Pn	21 39 42.1	+0.3
SMRT				IAML		21 40 27.9	
	comp=E,148nm,0.2s						
SMRT				IAML		21 40 32.5	
	comp=N,114nm,0.3s						
ABDR	Alto Bandera	3.66	285	⇓*e*Pg	Pb	21 39 48.9	-1.7
ABDR				IAML		21 41 17.4	
	comp=N,40nm,0.8s						
SC01	Santiago de lo	3.94	293	Pn	Pn	21 39 46.8	+0.9
SC01				IAML		21 40 53.6	
	comp=E,148nm,0.7s						
LODU1	El Espartillar	4.38	277	*i* P	Pn	21 39 53.8	+1.9
LODU1				IAML		21 40 57.4	
	comp=Z,32nm,0.9s						
LONE3	El Aguacate, B	4.39	280	*i* P	Pn	21 39 54.6	+2.4
LOBH	Bahia de las A	4.52	270	*i* P	Pn	21 39 54.1	+0.2
LOBH				*e*S	Sn	21 40 46.0	0.0
LOBH				IAML		21 40 50.9	
	comp=Z,38nm,1.9s						
GRTK	Grand Turk	5.37	313	*i* P	Pn	21 40 06.7	+1.1

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*IDC **06** 21:44:56.9±0.6, 33°.07N×85°.37E, h0^{km}, mb3.9/15, mbtmp3.9/19, ML3.8/3, Error ellipse: s-maj=21.6km s-min=13.6km az=51.0*
*NDI **06** 21:44:59.1±0.4, 33°.31N×85°.26E, h10^{km}, ML4.0, mb4.1(NEIC), Presumed earthquake*
*NEIC **06** 21:45:00.6±0.9, 33°.31N±0°.10×85°.27E±0°.08, h10^{km}±1^{km}, mb4.1/16, Error ellipse: s-maj=16.5km s-min=11.3km az=194.0*
ISC 06 21:44:59.2±0.5**, 33°.12N**±0°.06×**85°.21E**±0°.06**, h10**^{km}**, n53,**
σ1^{s}.46/54**, mb4.0**/15**, Xizang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EVN	Everest	5.33	164		Pn	21 46 22.8	+3.3
PTH	Pithoragarh	5.54	232	*e*P	Pn	21 46 23.6	+1.6
PTH				*e*S	Sn	21 47 25.0	-0.9
PTH				IAmb	IAmb	21 47 30.6	
	comp=E,212nm,0.9s						
PTH				IAML		21 48 46.6	
	comp=N,373nm,8.9s						
LGTI	Lohaghat	5.74	231	*e*P	Pn	21 46 26.3	+1.6
LGTI				*e*S	Sn	21 47 29.9	-0.9
LGTI				IAML		21 47 54.7	
	comp=N,221nm,8.5s						
LGTI				IAML		21 48 00.5	
	comp=E,278nm,4.5s						
LSA	Lhasa	6.12	122		Pn	21 46 32.8	+2.7
SMLA	Simla	7.10	256	*e*S	Sn	21 48 00.2	-3.8
SMLA				IAML		21 48 12.3	
	comp=N,118nm,0.8s						
SMLA				IAML		21 48 16.6	
	comp=E,114nm,1.1s						
DHUB	DHUBRI	8.21	148	*e*P	Pn	21 46 59.6	+1.1
GAYA	Gaya	8.29	180	*e*S	Sn	21 48 30.5	-2.8
ALBI	Allahabad	8.33	202	*e*S	Sn	21 48 31.8	-2.6
SRNI	Srinagar	8.73	279	*e*P	Pn	21 47 04.9	-0.9
SRNI				*e*S	Sn	21 48 37.2	-7.1
NIL	Nilore	10.01	276	Pn	Pn	21 47 25.5	+2.3
KOHI	KOHIMA	10.70	131	*e*P	Pn	21 47 32.5	-0.2
KOHI				*e*S	Sn	21 49 25.0	-7.7
KBL	Kabul	13.52	280	Pn	Pn	21 48 11.9	+0.6
MKAR	Makanchi Array	13.83	352	Pn	Pn	21 48 16.1	+0.7
	comp=E,0.1nm,0.3s,baz=176,slow=11,SNR=1.3						
	comp=E,2.0nm,0.9s						
MKAR				AML	AML		
LZDM	Lanzhou Array	15.50	74	Pn	Pn	21 48 37.6	-0.6
	baz=261,slow=3.8						
	comp=E,0.8nm,0.3s						
KURBB	Kurchatov Arra	18.16	346	P	Pn	21 49 11.4	-0.1
	comp=E,0.2nm,0.3s,baz=158,slow=11,SNR=5.1						
	comp=E,2.9nm,0.5s						
KURBB				AML	AML		
KURK	Kurchatov	18.24	347	P	Pn	21 49 10.2	-2.1
KURK				IAmb	IAmb	21 49 20.2	
	comp=Z,35nm,1.4s						
CHTO	Chiang Mai	18.83	136	P	P	21 49 21.4	+2.1
CMAR	Chiang Mai Arr	19.11	136	P	P	21 49 21.6	-0.7
	comp=Z,1.3nm,1.0s,baz=319,slow=9.5,SNR=10						
CMAR	Chiang Mai Arr	19.11	136	P	P	21 49 23.7	+1.3
HRA	Herat	19.13	280	P	P	21 49 24.0	+1.2
SLVN	Son La	20.32	121	P	P	21 49 37.3	+1.7
SLVN				IAmb	IAmb	21 49 40.0	
	comp=Z,11nm,1.2s						
ZALV	Zalesovo Beam	20.82	359	P	P	21 49 40.2	-0.5
	comp=Z,2.2nm,0.7s,baz=180,slow=11,SNR=4.8						
	comp=Z,2.2nm,0.7s						
ZALV	Zalesovo Beam	20.82	359	P	P	21 49 39.5	-1.2
SONM	Songino Array	21.71	41	P	P	21 49 50.6	+0.1
	comp=Z,2.5nm,0.7s,baz=233,slow=11,SNR=11						
SONM				PcP	PcP	21 53 47.6	-3.6
	comp=Z,0.4nm,0.7s,baz=333,slow=1.0,SNR=2.3						
	comp=Z,2.5nm,0.7s						
SONM	Songino Array	21.71	41	P	P	21 49 49.5	-1.1
ULN	Ulaanbaatar	22.09	42	P	P	21 49 54.0	-0.7
ULN				IAmb	IAmb	21 50 02.7	
	comp=Z,9.8nm,1.1s						
BVAR	Borovoye Array	22.56	336	P	P	21 50 00.5	+1.1
	comp=Z,1.4nm,0.8s,baz=133,slow=8.3,SNR=2.8						
	comp=Z,1.4nm,0.8s						
AB31	Akbulak array	24.76	318	P	P	21 50 21.4	+0.5
AB31				IAmb	IAmb	21 50 23.6	
	comp=Z,3.6nm,0.6s						
ARTI	Arti	29.72	330	P	P	21 51 06.1	+0.8
	comp=Z,1.1nm,0.6s,baz=253,slow=23,SNR=1.2						
	comp=Z,1.1nm,0.6s						
ARTI	Arti	29.72	330	P	P	21 51 05.1	-0.2
BRTR	Keskin Array B	41.54	294	P	P	21 52 46.4	-0.7
	comp=Z,0.5nm,0.7s,baz=67,slow=11,SNR=2.4						
	comp=Z,0.5nm,0.7s						
BRTR	Keskin Array B	41.54	294	P	P	21 52 47.6	+0.6
MJAR	Matsushiro Arr	43.19	70	P	P	21 52 58.0	-2.4
	comp=Z,0.5nm,0.3s,baz=278,slow=9.7,SNR=2.0						
	comp=Z,0.5nm,0.3s						
MJAR	Matsushiro Arr	43.19	70	P	P	21 52 59.8	-0.5
MJAR				IAmb	IAmb	21 53 01.1	
	comp=Z,6.5nm,1.5s						
ELL	Elmali	44.95	291	P	P	21 53 15.0	+0.4
MLR	Muntele Rosu	46.51	304	P	P	21 53 27.8	+1.0
FINES	FINESS Array B	46.85	326	P	P	21 53 28.9	-0.2
	comp=Z,2.3nm,0.9s,baz=98,slow=10,SNR=4.7						
	comp=Z,2.3nm,0.9s						
FINES	FINESS Array B	46.85	326	P	P	21 53 29.4	+0.3
GERES	GERESS Array B	54.26	309	P	P	21 54 26.3	+0.9
	comp=Z,0.6nm,0.6s,baz=77,slow=1.3,SNR=4.8						
	comp=Z,0.6nm,0.6s						
GERES	GERESS Array B	54.26	309	P	P	21 54 25.7	+0.3
FITZ	Fitzroy Crossi	63.92	137	P	P	21 55 31.6	-0.9
	comp=Z,3.3nm,0.9s,baz=314,slow=5.0,SNR=5.2						
	comp=Z,3.3nm,0.9s						
FITZ	Fitzroy Crossi	63.92	137	P	P	21 55 32.0	-0.5
FITZ				IAmb	IAmb	21 55 44.4	
	comp=Z,1.8nm,1.3s						
ESDC	Sonseca Array	69.19	304	P	P	21 56 06.7	+0.5
	comp=Z,0.4nm,0.7s,baz=60,slow=6.7,SNR=4.3						
	comp=Z,0.4nm,0.7s						
ESDC	Sonseca Array	69.19	304	P	P	21 56 06.3	0.0
ESDC				IAmb	IAmb	21 56 07.2	
	comp=Z,1.8nm,1.1s						
WRA	Warramunga Arr	70.60	131	P	P	21 56 13.3	-1.7
	comp=Z,1.8nm,0.7s,baz=320,slow=5.9,SNR=24						
	comp=Z,1.8nm,0.7s						
WRA	Warramunga Arr	70.60	131	P	P	21 56 14.6	-0.3
ASAR	Alice Springs	73.10	134	P	P	21 56 28.3	-1.6
	comp=Z,1.0nm,0.8s,baz=321,slow=6.7,SNR=8.4						
	comp=Z,1.0nm,0.8s						
ASAR	Alice Springs	73.10	134	P	P	21 56 30.5	+0.6
ILAR	Eielson Array	74.31	21	P	P	21 56 34.0	-2.5
	comp=Z,0.4nm,0.7s,baz=301,slow=6.4,SNR=4.8						
	comp=Z,0.4nm,0.7s						
ILAR	Eielson Array	74.31	21	P	P	21 56 36.7	+0.2
TORD	Torodi Ar. Bea	77.57	278	P	P	21 56 56.3	+0.4
	comp=Z,1.4nm,0.8s,baz=60,slow=4.1,SNR=5.8						
	comp=Z,1.4nm,0.8s						
BOSA	Boshof	83.67	230	P	P	21 57 28.2	-0.2
	comp=Z,1.3nm,0.7s,baz=0.0,slow=8.1,SNR=1.4						
	comp=Z,1.3nm,0.7s						
BOSA	Boshof	83.67	230	P	P	21 57 29.8	+1.4

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*JMA **06** 22:23:11.3±0.1, 22°.9N±0°.4×120°.6E±0°.5, h0^{km}, MV3.7/14, TAIWAN REGION*
*TAP **06** 22:23:12.0, 22°.87N×120°.65E, h17^{km}, ML3.9, B*
ISC 06 22:23:13.2±0.8**, 22°.86N**±0°.01×**120°.63E**±0°.01**, h18**^{km}±5^{km}**,**
n120, σ0^{s}.84/210**, 12C-4D, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SSD	Sandimen	0.11	180	⇑*i*P	Pb	22 23 16.1	+0.7
SSD				*i* S	Sb	22 23 18.8	+2.1
SCST	Cishan	0.13	282	P	Pb	22 23 16.6	+0.7
SCST				*e*S	Sg	22 23 20.8	+0.9
SLGT	Liugui	0.13	6	⇑P	Pb	22 23 16.3	+0.3
SLGT				S	Sb	22 23 19.6	+1.7
TSMG	Majia	0.15	175	⇑P	Pb	22 23 16.6	-0.1
TSMG				S	Sb	22 23 19.6	+0.7
SGLT	Jiouru	0.19	224	⇑*i*P	Pb	22 23 18.1	+0.6
SGLT				*i* S	Sg	22 23 22.6	+1.5
TWM1	Shoushan	0.20	259	P	Pb	22 23 18.4	+0.6
TWM1				S	Sg	22 23 23.9	+2.5
SGST	Jiashian	0.23	349	*i* P	Pg	22 23 17.2	-1.3
SGST				*e*S	Sb	22 23 21.9	-0.1
MASBT	Mashibuluo	0.25	180	⇑P	Pg	22 23 18.0	-0.9
MASBT				S	Sg	22 23 22.1	-0.6
SNJT	Kaohsiung City	0.29	249	*e*P	Pb	22 23 21.1	+1.3
SNJT				*e*S	Sn	22 23 28.2	-0.2
CHN3	Shinhua	0.33	311	*i* P	Pb	22 23 21.1	+0.7
CHN3				S	Sn	22 23 29.1	-0.2
CHN1	Nanshi	0.34	344	*i* P	Pg	22 23 20.3	-0.1
CHN1				*i* S	Sb	22 23 26.7	+0.9
STYH	Taoyuan	0.34	23	*i* P	Pg	22 23 19.9	-0.4
STYH				*i* S	Sg	22 23 25.3	0.0
SSPT	Xinbi	0.38	189	*e*P	Pg	22 23 20.8	-0.2
SSPT				*e*S	Sb	22 23 27.4	+0.5
WTP	Ta-pu	0.39	358	⇑*i*P	Pg	22 23 20.9	-0.3
WTP				*i* S	Sb	22 23 27.4	+0.2
ECL	Taimali	0.40	131	⇓*i*P	Pg	22 23 20.6	-0.8
ECL				*i* S	Sg	22 23 25.5	-1.4
WSSB	Gushan	0.40	238	*e*P	Pb	22 23 22.6	+0.7
TWG	Pinlang	0.41	95	⇓*i*P	Pg	22 23 21.1	-0.5
TWG				*i* S	Sg	22 23 27.7	+0.4
TWGBT	Beinan	0.42	96	⇓P	Pg	22 23 21.1	-0.7
TWGBT				S	Sg	22 23 27.8	+0.3
SSHA	Shanhua	0.42	311	*e*P	Pb	22 23 22.7	+0.6
LONT	Longtian	0.46	84	*i* P	Pg	22 23 21.9	-0.6
LONT				*e*S	Sg	22 23 28.2	-0.7
ELDTW	Lidau	0.48	47	⇑*i*P	Pg	22 23 22.5	-0.5
ELDTW				*i* S	Sg	22 23 29.0	-0.6
SCZT	Fangliau	0.49	181	*e*P	Pg	22 23 22.1	-0.8
SCZT				S	Sg	22 23 29.2	-0.4
TTN	Taitung	0.49	102	*i* P	Pg	22 23 23.3	+0.3
TTN				*e*S	Sb	22 23 31.9	+1.9
SCLT	Jiali	0.51	308	⇑*i*P	Pg	22 23 23.5	0.0
SCLT				S	Sn	22 23 33.1	-0.7
EAST	Anshuo	0.52	157	P	Pg	22 23 23.0	-0.5
EAST				*e*S	Sg	22 23 30.1	-0.4
TAW	Tawu	0.56	154	*i* P	Pg	22 23 23.8	-0.5
TAW				*i* S	Sg	22 23 31.4	-0.3
WLCH	Liuqiu	0.56	205	*e*P	Pn	22 23 26.7	+0.5
TWP	Hsiaoliuchiu	0.57	206	*i* P	Pn	22 23 26.6	+0.3
TWP				*i* S	Sn	22 23 38.2	+3.0
WCKO	Fanlu	0.58	358	*e*P	Pg	22 23 25.1	+0.4
WCKO				*e*S	Sb	22 23 33.0	+0.4
TSCK	Chigu Township	0.58	300	*e*P	Pg	22 23 24.2	-0.5
TSCK				*i* S	Sb	22 23 34.0	+1.5
ECS	Chishang	0.59	66	*e*P	Pg	22 23 24.6	-0.4
ECS				*e*S	Sb	22 23 33.8	+0.9
ICHU	Yijhu	0.59	327	P	Pg	22 23 25.1	+0.1
ICHU				*e*S	Sn	22 23 35.1	-0.8
EHD	Haiduan	0.60	61	*i* P	Pg	22 23 24.3	-0.9
EHD				S	Sg	22 23 32.8	-0.5
CHN8	Yiju	0.62	321	*e*P	Pb	22 23 25.3	-0.1
CHN8				*i* S	Sn	22 23 35.8	-0.7
EDH	Donghe	0.63	80	*e*P	Pb	22 23 25.3	-0.3
EDH				*i* S	Sb	22 23 35.1	+1.1
SLIU	Shizi	0.66	166	*e*P	Pb	22 23 25.8	-0.2
CHY	Chiayi	0.66	343	*i* P	Pb	22 23 26.3	+0.1
CHY				S	Sn	22 23 37.0	-0.6
ALS	Alishan	0.67	14	⇓*i*P	Pb	22 23 25.7	-0.7
ALS				*i* S	Sb	22 23 36.0	+0.6
YUS	Yu-Shan	0.69	25	P	Pg	22 23 26.4	-0.6
YUS				S	Sg	22 23 35.9	-0.4
FULB	Fuli	0.70	61	*e*P	Pb	22 23 26.8	0.0
FULB				S	Sg	22 23 37.1	+0.8
CHKT	Chengkung	0.72	70	⇑*i*P	Pb	22 23 26.9	-0.2
CHKT				S	Sg	22 23 38.0	+1.2
CHN5	Tsauling	0.73	3	*e*P	Pb	22 23 27.0	-0.4
CHN5				*i* S	Sg	22 23 37.9	+0.5
WSL	Shuilin Townsh	0.76	331	*e*P	Pb	22 23 27.6	-0.2
WSL				S	Sn	22 23 39.5	-0.4
CHKH	Chenggong	0.78	65	*e*P	Pb	22 23 28.4	+0.3
CHKH				S	Sg	22 23 39.9	+1.1
TWF1	Yuli	0.79	51	⇑P	Pb	22 23 27.6	-0.7
TWF1				*i* S	Sb	22 23 37.8	-0.8
LDUT	Ludao	0.80	103	*e*P	Pb	22 23 27.7	-0.7
LDUT				*e*S	Sg	22 23 40.1	+0.8
EYUL	Yuli	0.80	52	*i* P	Pb	22 23 27.7	-0.8
EYUL				*i* S	Sb	22 23 38.4	-0.5
YULB	Yu-li	0.81	49	⇑P	Pb	22 23 27.7	-1.0
YULB				*i* S	Sb	22 23 38.1	-1.2
WDLH	Douliu	0.83	354	*i* P	Pb	22 23 28.8	-0.2
WDLH				*i* S	Sn	22 23 41.6	-0.1
WTK	Tuku	0.85	345	P	Pb	22 23 28.8	-0.6
WTK				S	Sb	22 23 41.2	+0.7
HEN	Hengchun	0.86	173	*e*P	Pb	22 23 30.0	+0.5
SMST	Manzhou Townsh	0.86	167	*e*P	Pb	22 23 29.7	+0.2
SMST				*e*S	Sn	22 23 43.2	+0.9
WHYT	Xinyi Township	0.86	14	*i* P	Pb	22 23 28.9	-0.6
WHYT				S	Sb	22 23 41.2	+0.5
WSF	Szhu	0.86	334	⇑*i*P	Pb	22 23 28.8	-0.8
WSF				*i* S	Sg	22 23 41.8	+0.4
ECBN	Changbin	0.88	59	*e*P	Pb	22 23 30.3	+0.4

ECBN				eS	Sn	22 23 43.7	+0.7
EHY	Hungye	0.90	45	iP	Pb	22 23 29.6	-0.7
EHY				S	Sb	22 23 41.5	-0.5
EHYH	Wanrong	0.91	46	P	Pb	22 23 29.8	-0.6
EHYH				S	Sb	22 23 41.9	-0.3
TWK1	Hengchun	0.93	170	eP	Pb	22 23 31.3	+0.7
TWK1				eS	Sn	22 23 45.2	+1.2
TWKBT	Hengchun	0.93	170	eP	Pb	22 23 31.3	+0.5
WJS	Zhushan	0.96	5	eP	Pb	22 23 31.4	+0.1
WJS				eS	Sg	22 23 45.0	+0.5
HGSD	Ruisui	0.96	49	P	Pb	22 23 31.1	-0.3
SSLB	Suanglung	0.97	18	iP	Pb	22 23 30.7	-0.7
SSLB				S	Sn	22 23 45.7	+0.5
WDGT	Dungji	0.98	294	iP	Pb	22 23 30.1	-1.5
WDGT				S	Sb	22 23 43.1	-1.1
TSEB	Hengchuen, Pin	0.99	165	iP	Pn	22 23 32.5	+0.4
TSEB				iS	Sn	22 23 46.6	+1.0
WNT	Mingjian	1.01	3	eP	Pb	22 23 32.0	-0.2
WNT				iS	Sb	22 23 46.1	+0.9
SMLT	Sun Moon Lake	1.05	14	iP	Pb	22 23 32.8	0.0
SMLT				eS	Sn	22 23 47.7	+0.4
WTCT	Ta-ch'eng	1.05	342	eS	Sb	22 23 46.7	+0.5
RLNB	Erlin	1.06	346	eP	Pb	22 23 32.6	-0.3
RLNB				iS	Sb	22 23 47.1	+0.7
TYC	Yuchr	1.06	11	iP	Pb	22 23 32.9	0.0
TYC				iS	Sg	22 23 48.0	+0.3
WRL	Guolierlin Hig	1.06	347	iP	Pb	22 23 31.9	-1.1
WARBT	Fenglin Townsh	1.10	39	iP	Pb	22 23 32.9	-0.8
WARBT				S	Sb	22 23 47.8	+0.1
VCHM	Qimei	1.16	288	eP	Pn	22 23 32.5	-2.0
VCHM				eS	Sb	22 23 49.0	-0.4
PHUB	P'eng-hu	1.17	304	iP	Pn	22 23 32.6	-2.1
PHUB				iS	Sb	22 23 47.9	-1.8
LAY	Lan-yu	1.18	134	eP	Pn	22 23 33.5	-1.3
LAY				S	Sn	22 23 51.0	+0.6
OWD	Renai	1.20	25	iP	Pn	22 23 34.4	-0.7
OWD				iS	Sn	22 23 51.8	+0.8
ESL	Shilin	1.20	38	iP	Pn	22 23 35.0	0.0
ESL				S	Sg	22 23 52.5	+0.3
WCH1	Changhua City	1.21	356	eS	Sn	22 23 51.4	+0.3
WUSB	Renai	1.21	22	P	Pn	22 23 35.2	-0.1
WUSB				eS	Sg	22 23 52.6	0.0
PNG	Penghu	1.22	306	P	Pn	22 23 33.1	-2.1
WCHH	Zhanghua	1.22	357	eS	Sg	22 23 52.5	-0.1
WCS	Beigang Elemen	1.22	12	P	Pn	22 23 35.0	-0.3
WCS				eS	Sn	22 23 51.8	+0.5
LYUB	Lan-yu	1.23	134	eP	Pn	22 23 32.9	-2.4
LYUB				eS	Sb	22 23 49.8	-1.5
SHUL	Shoufeng	1.26	43	eP	Pn	22 23 36.0	+0.2
TCU	Taichung	1.28	2	eP	Pn	22 23 34.9	-1.3
TCU				eS	Sb	22 23 54.0	+1.1
ETM	Tongmen	1.36	36	eP	Pn	22 23 37.8	+0.7
ETM				iS	Sg	22 23 57.1	0.0
LXIB	Xiulin Townshi	1.36	32	P	Pn	22 23 37.7	+0.3
LXIB				iS	Sb	22 23 56.2	+0.9
WHF	Hehuan Shan	1.41	24	iP	Pn	22 23 38.4	+0.2
HWA	Hwalien	1.43	39	eP	Pb	22 23 39.2	-0.1
HWA				S	Sg	22 23 59.1	-0.2
WHP	Taichung City	1.44	12	eP	Pn	22 23 38.4	0.0
WHP				S	Sb	22 23 57.9	+0.3
TDCB	Techi	1.47	19	eP	Pn	22 23 39.2	+0.3
TDCB				eS	Sb	22 23 58.5	+0.1
TWT	Tachien	1.48	20	eP	Pn	22 23 39.4	+0.5
TWT				S	Sb	22 23 59.2	+0.5
WDJ	Dajia District	1.48	0	eP	Pn	22 23 39.2	+0.3
WDJ				eS	Sb	22 23 59.7	+1.1
TWQ1	Liyutan	1.49	5	eP	Pn	22 23 39.6	+0.6
TWQ1				iS	Sb	22 23 59.6	+0.8
FUSS	Fushou	1.49	22	eP	Pn	22 23 39.5	+0.2
FUSS				eS	Sn	22 23 59.2	+0.8
TWD	Chiawan	1.50	36	eP	Pn	22 23 39.7	+0.5
TWD				S	Sb	22 23 59.8	+0.5
ETLH	Xiulin Townshi	1.55	30	eP	Pb	22 23 41.8	+0.4
ETLH				iS	Sg	22 24 03.4	+0.1
NACB	Ninganchiao	1.58	34	eP	Pn	22 23 40.3	+0.1
NACB				eS	Sb	22 24 02.4	+0.9
ETL	Fush Village	1.58	35	eP	Pn	22 23 41.4	+1.1
ETL				eS	Sb	22 24 03.2	+1.7
NNSB	Datong	1.71	24	iP	Pn	22 23 42.8	+0.7
NNSB				S	Sb	22 24 04.9	-0.4
NNS	Nan Shan	1.71	23	eP	Pn	22 23 43.4	+1.1
LIOB	Emei	1.81	11	eP	Pn	22 23 44.2	+0.7
NFF	Wufeng Townshi	1.82	14	eP	Pn	22 23 44.9	+1.2
LATG	Datong	1.86	26	P	Pn	22 23 45.3	+1.1
LATG				iS	Sb	22 24 09.9	+0.2
ENA	Nanau	1.86	33	eP	Pn	22 23 45.0	+0.8
ENA				eS	Sb	22 24 10.4	+0.7
EWUT	Wuta	1.90	33	eP	Pn	22 23 45.1	+0.5
NDT	Datong Townshi	1.91	25	eP	Pb	22 23 46.8	-0.8
NSK	Sanguang	1.93	20	eP	Pb	22 23 47.2	-0.6
YHNB	Yeheng	1.93	21	eP	Pn	22 23 45.8	+0.7
NDS	Dongshan	2.03	29	eP	Pn	22 23 48.3	+1.9
NWLT	Wulai	2.07	23	P	Pb	22 23 49.7	-0.5
TWE	Neicheng	2.08	27	eP	Pn	22 23 48.8	+1.7
FUSB	Fushanzhiwuyua	2.08	25	eP	Pb	22 23 49.6	-0.9
NCUH	Zhongli	2.16	13	eS	Sn	22 24 14.9	+0.4
JYNG	Yonagunijimaku	2.65	53	eP	Pn	22 23 56.1	+1.2
HATJ	Hateruma jima	3.15	67	eP	Pn	22 24 02.0	+0.2
HATJ				eS	Sn	22 24 38.8	-0.2
IRIF	Iriomote-Funau	3.20	62	P	Pn	22 24 03.5	+1.0
IRIF				eS	Sn	22 24 41.6	+1.4
JKRS	Kuro-shima	3.39	65	eP	Pn	22 24 05.1	0.0
JIJ	Ishigaki jima	3.55	64	eP	Pn	22 24 07.1	-0.3
JIJ				eS	Sn	22 24 48.4	-0.5
JISG	Ishigakijimahi	3.79	62	eP	Pn	22 24 11.0	+0.5
JTJ	Tarama	4.13	64	eP	Pn	22 24 16.0	+0.7

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*NEIC **06** 22:41:49.8±0.8, 16°.06S±0°.05×168°.2E±0°.1, h180^{km}±6^{km}, mb4.3/15, Error ellipse: s-maj=18.5km s-min=7.7km az=87.0*

*IDC **06** 22:41:50.6±2.9, 16°.11S×168°.05E, h186^{km}±22^{km}, mb3.8/10, mbtmp4.2/11, Error ellipse: s-maj=29.0km s-min=16.9km az=65.0*

*NOU **06** 22:41:53.2, 16°.17S×168°.04E, h151^{km}, MLv4.5/16, Vanuatu Islands*

ISC 06 22:41:49.0±0.7**, 16°.06S**±0°.07×**168°.2E**±0°.1**, h177**^{km}**, n50, σ1^s.40**/50**, mb4.2**/16**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SANVU	Saraoutou	1.12	303	P	Pn	22 42 18.5	+1.2
SANVU	Saraoutou	1.12	303	S	Sn	22 42 38.8	-0.4
SANVU	Saraoutou	1.12	303		Pn	22 42 18.3	+1.0
RTV	Rentapao	1.74	172	P	Pn	22 42 25.5	+2.4
MARNC	Mare, Loyalty	5.40	182	P	Pn	22 43 08.6	+0.5
	175nm,0.8s						
MARNC				AML	AML		
MARNC	Mare, Loyalty	5.40	182	Pn	Pn	22 43 08.6	+0.5
KOUNC	Koumac, New Ca	5.80	219		Pn	22 43 14.6	+1.2
YATNC	Mamie plateau,	6.10	191	P	Pn	22 43 20.3	+3.1
	57nm,0.7s						
YATNC				AML	AML		
DZM	Mont Dzumac	6.21	195	P	Pn	22 43 20.1	+1.3
	14nm,0.5s,baz=43,slow=19,SNR=31						
DZM				S	Sn	22 44 29.1	-0.4
	19nm,1.1s,baz=349,slow=19,SNR=1.2						
NOUC	Port Laguerre	6.27	196	P	Pn	22 43 22.0	+2.5
	38nm,1.1s						
NOUC				AML	AML		
ONTNC	Ouen Toro	6.43	194	P	Pn	22 43 24.9	+3.3
	48nm,0.8s						
ONTNC				AML	AML		
ONTNC	Ouen Toro	6.43	194		Pn	22 43 21.4	-0.2
OUENC	Ouen Island, N	6.46	191	P	Pn	22 43 24.2	+2.3
	68nm,1.1s						
OUENC				AML	AML		
OUENC	Ouen Island, N	6.46	191		Pn	22 43 22.7	+0.8
HURO	Huro Makira	8.26	312	P	Pn	22 43 49.2	+3.4
	96nm,0.5s						
NGOA	Tingoa Renbel	9.07	299	P	Pn	22 43 59.5	+3.1
	123nm,1.2s						
TATA	Tatamba Isabel	11.18	312	P	P	22 44 29.7	-1.4
	44nm,1.4s						
CTA	Charters Tower	21.23	256	P	P	22 46 21.4	+0.2
	8.5nm,0.9s,baz=72,slow=11,SNR=7.3						
	8.5nm,0.9s						
CTAO	Charters Tower	21.23	256	P	P	22 46 21.0	-0.2
CTAO				IAmb	IAmb	22 46 23.9	
	comp=Z,16nm,1.0s						
WRA	Warramunga Arr	32.39	258	P	P	22 48 00.7	-1.5
	comp=Z,0.8nm,0.7s,baz=86,slow=8.7,SNR=9.0						
	comp=Z,0.8nm,0.7s						
WRA	Warramunga Arr	32.39	258	P	P	22 48 01.3	-0.9
AS31	Alice Springs	33.05	251	P	P	22 48 07.7	-0.4
AS31				IAmb	IAmb	22 48 08.5	
	comp=Z,5.0nm,0.4s						
ASAR	Alice Springs	33.05	251	P	P	22 48 07.8	-0.3
	comp=Z,6.6nm,0.5s,baz=83,slow=8.5,SNR=107						
ASAR				ScP	ScP	22 54 13.7	-1.4
	comp=Z,0.3nm,0.5s,baz=97,slow=4.1,SNR=5.0						
	comp=Z,6.6nm,0.5s						
ASAR	Alice Springs	33.05	251	P	P	22 48 07.6	-0.4
FAKI	Fak Fak	37.68	287	P	P	22 48 46.1	-1.5
KNRA	Kununurra	37.88	265	P	P	22 48 48.1	-1.1
KNRA				IAmb	IAmb	22 48 50.8	
	comp=Z,8.6nm,1.2s						
FORT	Forrest	39.40	241	P	P	22 49 01.6	-0.1
FITZ	Fitzroy Crossi	40.66	261	P	P	22 49 11.9	-0.2
MBWA	Marble Bar	46.06	256	P	P	22 49 55.5	0.0
MBWA				IAmb	IAmb	22 50 00.7	
	comp=Z,25nm,1.4s						
MJAR	Matsushiro Arr	59.48	332	P	P	22 51 33.5	+0.1
	comp=Z,1.0nm,0.5s,baz=158,slow=6.6,SNR=2.4						
	comp=Z,1.0nm,0.5s						
MJAR	Matsushiro Arr	59.48	332	P	P	22 51 34.2	+0.8
MJAR				IAmb	IAmb	22 51 34.3	
	comp=Z,3.7nm,1.2s						
VNDA	Vanda	61.57	182	P	P	22 51 47.4	+0.5
	comp=Z,0.7nm,0.7s,baz=3.6,slow=6.8,SNR=7.4						
	comp=Z,0.7nm,0.7s						
VNDA	Vanda	61.57	182	P	P	22 51 47.5	+0.5
SBA	Scott Base	61.82	180	P	P	22 51 50.0	+1.4
SBA				IAmb	IAmb	22 51 51.3	
	comp=Z,2.7nm,0.8s						
CASY	Casey	62.64	203	P	P	22 51 54.6	+0.3
CASY				IAmb	IAmb	22 52 05.5	
	comp=Z,7.2nm,1.4s						
PEA0B	Petropavlovsk-	69.47	353	P	P	22 52 38.1	+0.3
QSPA	South Pole Qui	73.98	180	P	P	22 53 05.4	+0.5
	comp=Z,6.4nm,1.0s,baz=15,slow=1.5,SNR=21						
	comp=Z,6.4nm,1.0s						
QSPA	South Pole Qui	73.98	180	P	P	22 53 05.1	+0.2
QSPA				IAmb	IAmb	22 53 08.8	
	comp=Z,10nm,1.3s						
CMAR	Chiang Mai Arr	76.29	294	P	P	22 53 20.2	+1.4
	comp=Z,0.8nm,0.4s,baz=118,slow=6.2,SNR=7.1						
	comp=Z,0.8nm,0.4s						
CMAR	Chiang Mai Arr	76.29	294	P	P	22 53 18.5	-0.3
SONM	Songino Array	84.08	323	P	P	22 53 59.8	-0.2
	comp=Z,1.8nm,0.9s,baz=142,slow=5.4,SNR=9.1						
	comp=Z,1.8nm,0.9s						
SONM	Songino Array	84.08	323	P	P	22 53 59.9	0.0
SONM				IAmb	IAmb	22 54 01.6	
	comp=Z,2.5nm,1.0s						
TROLL	Troll, Antarti	91.62	184	P	P	22 54 32.8	-2.9
	comp=Z,104nm,0.7s						
VNA3	Neumayer Olymp	92.91	181	P	P	22 54 40.9	-0.6
	comp=Z,1.5nm,0.7s						
VNA2	Neumayer--Watz	93.19	181	P	P	22 54 42.4	-0.4
	comp=Z,1.4nm,0.7s,baz=179,slow=3.8						
MKAR	Makanchi Array	98.77	316	P	Pdif	22 55 09.1	+0.7
	comp=Z,0.5nm,0.7s,baz=85,slow=7.3,SNR=4.4						
	comp=Z,0.5nm,0.7s						
MKAR	Makanchi Array	98.77	316	P	P	22 55 08.4	0.0
ZALV	Zalesovo Beam	98.98	324	P	P	22 55 08.7	-0.4
	comp=Z,0.4nm,0.4s,baz=81,slow=4.7,SNR=1.9						
	comp=Z,0.4nm,0.4s						
LESA	Schwarzleotal	142.74	332	ePKP	PKPdf	23 01 00.7	-0.7
	comp=Z,0.7nm,0.6s						
FETA	Feichten	143.90	334	ePKP	PKPbc	23 01 02.0	+0.3
	comp=Z,3.4nm,1.0s						

IDC 06 22:50:31.5±23.0**, 17°.54S**×**177°.03W, h0**^{km}**, mb4.2**/5**, mbtmp4.2**/5**, Error ellipse: s-maj=448.8km s-min=48.5km az=58.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	21.27	193	P	P	22 55 19.6	+0.1
	4.6nm,0.4s,baz=0.0,slow=4.0,SNR=6.7						
	4.6nm,0.4s						
CTA	Charters Tower	34.80	260	P	P	22 57 25.4	+1.0
	8.2nm,1.0s,baz=66,slow=10.0,SNR=3.6						
	8.2nm,1.0s						
STKA	Stephens Creek	39.96	241	P	P	22 58 08.5	+0.6
	3.0nm,0.8s,baz=72,slow=9.6,SNR=3.1						
	3.0nm,0.8s						
WRA	Warramunga Arr	45.99	259	P	P	22 58 56.2	-0.9
	0.6nm,0.7s,baz=98,slow=7.8,SNR=5.8						
	0.6nm,0.7s						
ASAR	Alice Springs	46.16	254	P	P	22 58 57.6	-0.7
	2.5nm,0.6s,baz=94,slow=7.8,SNR=22						
	2.5nm,0.6s						

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*NEIC **06** 23:02:28.3±1.2, 19°.0N±0°.1×64°.32W±0°.06, h35^{km}±2^{km}, ML3.0/34, Md3.8/6(RSPR), Error ellipse: s-maj=21.9km s-min=8.4km az=7.0*

*RSPR **06** 23:02:31.2, 18°.93N×64°.48W, h76^{km}±12^{km}, MD3.8/6*

ISC 06 23:02:27.2±2.4**, 19°.1N**±0°.2×**64°.31W**±0°.07**, h42**^{km}**, n30, σ1^s.02**/43**, 11C-2D, Virgin Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SMRT	St. Maarten	1.58	132	Pn	Pn	23 02 52.4	-0.3
SMRT				IAML		23 03 04.6	
	comp=N,108nm,0.2s						
SMRT				IAML		23 03 28.7	
	comp=E,135nm,0.2s						
HUMP	Col San Antoni	1.75	237		Pn	23 02 55.7	+0.6
HUMP					Sn	23 03 15.5	-0.7
HUMP				IAML		23 03 21.1	
	comp=E,97nm,0.2s						
HUMP				IAML		23 03 24.1	
	comp=E,91nm,0.2s						
HUMP	Col San Antoni	1.75	237	⇑eP	Pn	23 02 55.8	+0.8
SABA	Saba	1.79	145	Pn	Pn	23 02 57.1	+1.3
SABA				IAML		23 03 29.4	
	comp=E,179nm,0.8s						
SABA				IAML		23 03 48.7	
	comp=N,135nm,0.6s						
PDPR	Patillas Dam,	1.95	236		Pn	23 02 58.8	+0.9
PDPR					Sn	23 03 20.6	-0.6
PDPR	Patillas Dam,	1.95	236	⇑eP	Pn	23 02 58.9	+1.1
IGPR	InterUniversit	2.05	237		Pn	23 03 00.6	+1.4
IGPR					Sn	23 03 21.6	-1.9
IGPR	InterUniversit	2.05	237	⇑eP	Pn	23 03 00.6	+1.4
ECPR	Experimental S	2.10	248		Pn	23 03 00.1	+0.2
ECPR					Sn	23 03 24.6	-0.2
ECPR				IAML		23 03 29.6	
	comp=N,119nm,0.2s						
ECPR	Experimental S	2.10	248	⇑eP	Pn	23 03 00.2	+0.4
EMPR	Esperanza - Ma	2.19	254		Pn	23 03 01.5	+0.3
EMPR					Sn	23 03 26.8	-0.3
EMPR	Esperanza - Ma	2.19	254	⇑eP	Pn	23 03 01.5	+0.3
EMPR				eS	Sn	23 03 26.8	-0.3
CELP	Cerrillos	2.39	245		Pn	23 03 04.6	+0.8
CELP					Sn	23 03 29.7	-2.2
CELP	Cerrillos	2.39	245	⇓eP	Pn	23 03 04.7	+0.8
AOPR	Arecibo Observ	2.44	252		Pn	23 03 05.2	+0.7
AOPR					Sn	23 03 32.3	-0.8
AOPR				IAML		23 03 39.7	
	comp=N,93nm,0.4s						
AOPR	Arecibo Observ	2.44	252	⇑eP	Pn	23 03 05.7	+1.1
AGPR	Aguadilla, PR	2.73	257		Pn	23 03 08.7	+0.2
AGPR				IAML		23 03 33.6	
	comp=N,73nm,2.5s						
AGPR				IAML		23 04 12.4	
	comp=N,70nm,1.8s						
AGPR	Aguadilla, PR	2.73	257	⇑eP	Pn	23 03 09.4	+0.9
LSP	Las Mesas	2.79	251		Pn	23 03 10.9	+1.5
LSP					Sn	23 03 40.5	-1.4
LSP	Las Mesas	2.79	251	⇑eP	Pn	23 03 10.9	+1.5
LSP				eS	Sn	23 03 40.5	-1.4
MLPR	Magueyes Islan	2.83	247		Pn	23 03 11.0	+1.0
MLPR					Sn	23 03 41.5	-1.4
MLPR	Magueyes Islan	2.83	247	⇑eP	Pn	23 03 11.0	+1.0
PRSN	Puerto Rico Se	2.83	252		Pn	23 03 10.3	+0.3
PRSN	Puerto Rico Se	2.83	252		Sn	23 03 42.0	-0.8
PRSN	Puerto Rico Se	2.83	252	⇓eP	Pn	23 03 11.3	+1.4
CRPR	Cabo Rojo, PR	2.87	248		Pn	23 03 11.5	+1.0
CRPR				IAML		23 03 49.2	
	comp=N,34nm,2.2s						
CRPR				IAML		23 03 60.0	
	comp=N,39nm,1.2s						
CRPR	Cabo Rojo, PR	2.87	248		Sn	23 03 43.6	-0.3
CRPR	Cabo Rojo, PR	2.87	248	⇑eP	Pn	23 03 11.8	+1.3
IDE	Isla Desecheo	3.08	257		Pn	23 03 13.8	+0.4
IDE					Sn	23 03 48.9	-0.2
IDE	Isla Desecheo	3.08	257	⇑eP	Pn	23 03 13.8	+0.4
IDE				eS	Sn	23 03 48.9	-0.2

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*CRAAG **06** 23:06:18.3, 36°.20N×1°.16E, Ml3.0, Algrie 08km SW Ouled-Fares*

*MDD **06** 23:06:19.1±0.7, 36°.13N×1°.21E, h15^{km}±11^{km}, Mb3.8/35, M_mb3.0/35, Error ellipse: s-maj=11.9km s-min=4.1km az=147.0*

*CNRM **06** 23:06:34.0, 36°.48N×0°.62W, h29^{km}*

ISC 06 23:06:18.6±1.1**, 36°.16N**±0°.03×**1°.18E**±0°.03**, h23**^{km}±11^{km}**, n52, σ1^s.75**/86**, 23C, Northern Algeria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EANR	'Ain N'Sour	0.22	196	P	Pb	23 06 24.5	+0.1
EBNR	Beni Rached	0.31	66	P	Pb	23 06 25.7	0.0
EKMS	Oued Kramis	0.46	289	P	Pb	23 06 27.5	-0.5
EHRZ	Djelida	0.76	87	P	Pb	23 06 33.5	+0.4
EDDR	Deurdeur	0.86	100	P	Pn	23 06 35.7	+0.5
EBGR	Bougara	0.86	134	P	Pn	23 06 36.9	+1.6
CART	Cartagena	2.25	310	P	Pn	23 06 55.4	+1.0
CART				S	Sn	23 07 21.0	-0.3
CART	Cartagena	2.25	310	P	Pn	23 06 53.9	-0.5
CART				S	Sn	23 07 09.4	-12
ETRV	Los Montesinos	2.42	321	⇑IVmb_VC		23 07 01.5	
	400nm,SNR=1.3						
ETRV				Sn	Sn	23 07 24.8	-0.7
EMUR	La Murta	2.56	312	P	Pn	23 06 59.5	+0.9
EMUR				S	Sn	23 07 28.7	-0.3
EMUR	La Murta	2.56	312	Pn	Pn	23 06 59.0	+0.3
EMUR				⇑IVmb_VC		23 06 59.6	
	68nm,SNR=1.1						
EMUR				Sn	Sn	23 07 29.8	+0.8
EBEN2	Beniarda presa	2.73	337	Pn	Pn	23 07 02.1	+1.1
EBEN2				⇑IVmb_VC		23 07 08.7	
	310nm,SNR=2.2						
EBEN2				Sn	Sn	23 07 33.5	+0.1
ENIJ	Nijar	2.84	288	P	Pn	23 07 02.6	+0.1
ENIJ	Nijar	2.84	288	Pn	Pn	23 07 03.0	+0.5
ENIJ				⇑IVmb_VC		23 07 04.2	
	118nm,SNR=1.9						
ENIJ				Sn	Sn	23 07 36.5	+0.5
AFON	Font Roja	2.85	332	Pn	Pn	23 07 03.3	+0.6
AFON				⇑IVmb_VC		23 07 09.0	
	108nm,SNR=1.3						
AFON				Sn	Sn	23 07 35.7	-0.6
EIBI	Ibiza	2.86	3	P	Pn	23 07 03.1	+0.3
EIBI				S	Sn	23 07 33.7	-2.8
EIBI	Ibiza	2.86	3	Pn	Pn	23 07 03.3	+0.5
EIBI				⇑IVmb_VC		23 07 08.0	
	220nm,SNR=1.7						
EIBI				Sn	Sn	23 07 34.1	-2.4
EZAR	Zarzadilla de	2.86	308	Pn	Pn	23 07 03.6	+0.8
EZAR				⇑IVmb_VC		23 07 04.6	
	123nm,SNR=1.8						
EZAR				Sn	Sn	23 07 37.6	+1.0
ETOB	Tobarra	3.29	320	P	Pn	23 07 09.7	+1.0
ETOB				S	Sn	23 07 45.4	-1.9
ETOB	Tobarra	3.29	320	Pn	Pn	23 07 10.2	+1.4
ETOB				⇑IVmb_VC		23 07 12.1	
	174nm,SNR=1.8						
ETOB				Sn	Sn	23 07 47.1	-0.1
EBER	Berja	3.35	284	P	Pn	23 07 09.9	+0.1
EBER				S	Sn	23 07 48.9	0.0
EBER	Berja	3.35	284	Pn	Pn	23 07 10.3	+0.6
EBER				⇑IVmb_VC		23 07 15.2	
	109nm,SNR=1.4						
EBER				Sn	Sn	23 07 48.8	-0.1
JBK	JBK	3.56	240	P	Pn	23 07 14.8	+2.2
JBK				S	Sn	23 07 48.8	-5.3
EVIV	Cofrentes, Val	3.59	330	Pn	Pn	23 07 13.8	+0.9
EVIV				⇑IVmb_VC		23 07 15.9	
	99nm,SNR=1.2						
EVIV				Sn	Sn	23 07 54.2	-0.4
ECOL	Islas Columbre	3.75	354	Sn	Sn	23 07 57.7	-0.6
EQES	Quesada	3.77	297	Pn	Pn	23 07 17.0	+1.5
EQES				⇑IVmb_VC		23 07 20.3	
	92nm,SNR=1.4						
EQES				Sn	Sn	23 07 59.1	-0.1
ECHE	Chera	3.82	334	P	Pn	23 07 16.4	+0.4
ECHE				S	Sn	23 08 00.4	+0.2
ECHE	Chera	3.82	334	Pn	Pn	23 07 17.1	+1.1
ECHE				⇑IVmb_VC		23 07 18.1	
	220nm,SNR=1.8						
ECHE				Sn	Sn	23 07 59.4	-0.8
ETOS	Mallorca	3.83	19	P	Pn	23 07 15.5	-0.5
ETOS				S	Sn	23 07 57.3	-3.0
ETOS	Mallorca	3.83	19	Pn	Pn	23 07 16.1	+0.1
ETOS				⇑IVmb_VC		23 07 22.0	
	377nm,SNR=1.3						
ETOS				Sn	Sn	23 07 59.2	-1.1
EQUE	Quentar	3.85	287	Pn	Pn	23 07 17.6	+1.1
EQUE				⇑IVmb_VC		23 07 18.5	
	89nm,SNR=2.2						
EQUE				Sn	Sn	23 08 00.7	-0.4
EQTA	Presa de Quent	3.85	287	P	Pn	23 07 17.8	+1.3
EQTA				S	Sn	23 08 02.7	+1.5
ELGU	Los Guajares,	3.93	282	P	Pn	23 07 18.0	+0.4
ELGU				S	Sn	23 08 02.7	-0.3
ELGU	Los Guajares,	3.93	282	Pn	Pn	23 07 18.0	+0.4
ELGU				⇑IVmb_VC		23 07 20.4	
	78nm,SNR=1.8						
ELGU				Sn	Sn	23 08 02.2	-0.8
EGOR	Sierra Gorda,	4.35	284	P	Pn	23 07 26.2	+2.8
EGOR				S	Sn	23 08 14.5	+0.9
EGOR	Sierra Gorda,	4.35	284	Pn	Pn	23 07 24.8	+1.4
EGOR				⇑IVmb_VC		23 07 32.5	
	68nm,SNR=1.5						
EGOR				Sn	Sn	23 08 13.0	-0.5
EMOS	Mosqueruela	4.39	343	Pn	Pn	23 07 25.3	+1.4
EMOS				⇑IVmb_VC		23 07 26.4	
	97nm,SNR=1.0						
EMOS				Sn	Sn	23 08 12.9	-1.5
AKLM	AKL	4.44	250	P	Pn	23 07 25.5	+1.0
AKLM				S	Sn	23 08 03.9	-12
FIGM	Figuig	4.50	207	P	Pb	23 07 39.7	+2.8
FIGM				S	Sb	23 08 29.9	-0.8
E0901	Celadas (Terue	4.68	338	Pn	Pn	23 07 29.1	+1.3
E0901				⇑IVmb_VC		23 07 31.2	
	126nm,SNR=1.6						
E0901				Sn	Sn	23 08 19.9	-1.5
PSIM	Granatula de C	4.73	306	Sn	Sn	23 08 21.5	-1.3
EMIJ	Mijas	4.82	277	P	Pn	23 07 28.5	-1.2
EMIJ				S	Sn	23 08 21.3	-3.5
EMIJ	Mijas	4.82	277	Pn	Pn	23 07 29.8	+0.1
EMIJ				⇑IVmb_VC		23 07 34.9	
	70nm,SNR=1.4						
EADA	Adamuz	5.01	295	P	Pn	23 07 35.1	+2.8
EADA				S	Sn	23 08 28.8	-0.7
EADA	Adamuz	5.01	295	Pn	Pn	23 07 34.0	+1.7
EADA				⇑IVmb_VC		23 07 38.5	
	59nm,SNR=1.1						
EPOB	Poblet	5.18	359	Pn	Pn	23 07 35.6	+0.8
EPOB				⇑IVmb_VC		23 07 37.4	
	185nm,SNR=1.0						
PAB	San Pablo	5.52	309	Pn	Pn	23 07 40.4	+0.9
PAB				⇑IVmb_VC		23 07 44.4	
	58nm,SNR=0.9						
ECAB	El Cabril	5.60	292	P	Pn	23 07 40.0	-0.5
ECAB				S	Sn	23 08 44.0	-0.2
ECAB	El Cabril	5.60	292	Pn	Pn	23 07 40.9	+0.4
ECAB				⇑IVmb_VC		23 07 43.4	
	59nm,SNR=0.9						
MDT	Midelt	5.83	237	P	Pn	23 07 45.9	+2.3
MDT				S	Sn	23 08 43.2	-6.6
MD31	MD31	5.90	238	P	Pn	23 07 46.7	+2.1
MD31				S	Sn	23 08 44.1	-7.5
VSL	Villasalto	7.29	60	Pn	Pn	23 08 03.9	+0.3

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*IDC **06** 23:49:32.5±0.8, 35°.02N×141°.50E, h0^{km}, mb3.9/13, mbtmp3.9/16, ML3.2/3, Error ellipse: s-maj=20.5km s-min=15.7km az=69.0*

*JMA **06** 23:49:36.5±0.1, 35°.1N±0°.3×141°.3E±0°.3, h15^{km}±1^{km}, MV3.4/29, E OFF BOSO PENINSULA*

NEIC ***06*** *23:49:38.2±1.3, 35°.32N±0°.05×141°.1E±0°.1, h41^{km}±10^{km}, mb4.4/14, Error ellipse: s-maj=14.4km s-min=6.5km az=81.0*

ISC 06 23:49:36.5±0.7, **35°.13N**±0°.06×**141°.30E**±0°.09, **h27**^{km}, **n62**, σ**1^s.81**/59, **mb4.1**/24, **Near east coast of eastern Honshu**

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Code   Station Name        Δ°   AZ°   Phase ID        Time      Res
                                      Op     ISC      h  m  s   ISC
BSO1   Boso 1             0.55 209   eP     Pb       23 49 46.0 -1.2
BSO1                                 S      Sb       23 49 54.7 +0.3
BSO3   Boso 3             0.73 243   eP     Pb       23 49 49.9 -0.5
BSO4   Boso 4             0.80 260   eP     Pb       23 49 51.5 -0.2
JYT    Yasato             1.42 321   Pn     Pn       23 49 57.6 -2.9
JHJ2   Mitsune            2.36 212   Pn     Pn       23 50 15.1 +1.6
JHJ    Hachijo jima 2     2.37 212   Pn     Pn       23 50 12.5 -1.1
       24nm,0.3s,baz=29,slow=18,SNR=7.1
JHJ                                  Sn     Sn       23 50 41.2 -0.6
       81nm,0.3s,baz=49,slow=20,SNR=5.2
       246nm,0.8s
JHJ                                  AML    AML
JSG    Sagara             2.60 261   Pn     Pn       23 50 15.7 -1.1
MJAR   Matsushiro Arr     2.88 300   Pn     Pn       23 50 22.8 +2.2
       1.0nm,0.3s,baz=98,slow=14,SNR=22
       4.7nm,0.3s
MJAR                                 AML    AML
MJAR   Matsushiro Arr     2.88 300   Pn     Pn       23 50 17.6 -3.0
MAJO   Matsushiro         2.88 300   Pn     Pn       23 50 17.5 -3.2
MJB9   Matsu-Tunnel       2.88 300   Pn     Pn       23 50 18.3 -2.4
JGF    Kuroka             3.25 279          Pn       23 50 24.4 -1.5
INU    Inuyama            3.51 275   Pn     Pn       23 50 27.7 -1.6
JTM    Tenmabayashi       5.65 358   Pn     Pn       23 50 57.0 -1.7
JMN    Monobe             6.29 259   Pn     Pn       23 51 07.7 +0.2
ERM    Erimo              7.02  11   Pn     Pn       23 51 17.0 -0.5
JKA    Kamikawa-asahi     9.03   6   Pn     Pn       23 51 44.0 -1.0
KSRS   Korea Array       11.04 286   Pn     Pn       23 52 16.6 +4.0
       0.2nm,0.3s,baz=104,slow=16,SNR=1.2
       1.5nm,0.8s
KSRS                                 AML    AML
NJ2    Nanjing           18.94 267   eP     P        23 53 45.9  -10
NJ2                                  pmax   pmax
       comp=Z,47nm,0.7s
HHC    Hu-ho-hao-te      24.05 293   eP     P        23 54 46.7 -2.8
HHC                                  pmax   pmax
       comp=Z,8.0nm,0.5s
HHC                                  pmax   pmax
       comp=Z,180nm,4.0s
H11N2  WAKE ISLAND Hy    27.30 117   T      T        00 24 04.1
       baz=309,slow=75,SNR=8.4
H11N1  WAKE ISLAND Hy    27.31 118   T      T        00 23 52.5
       baz=309,slow=75,SNR=9.2
H11N3  WAKE ISLAND Hy    27.32 117   T      T        00 23 55.0
       baz=309,slow=75,SNR=6.4
H11S3  WAKE ISLAND Hy    27.95 120   T      T        00 24 56.7
       baz=312,slow=75,SNR=9.2
H11S1  WAKE ISLAND Hy    27.95 120   T      T        00 25 21.6
       baz=312,slow=75,SNR=10
H11S2  WAKE ISLAND Hy    27.97 120   T      T        00 24 56.7
       baz=312,slow=75,SNR=8.2
SONM   Songino Array     28.81 307   P      P        23 55 32.8 +0.5
       comp=Z,0.2nm,0.4s,baz=108,slow=7.3,SNR=4.6
       comp=Z,0.2nm,0.4s
SONM   Songino Array     28.81 307   P      P        23 55 32.2 -0.2
CMAR   Chiang Mai Arr    40.96 257   P      P        23 57 16.9 -0.2
       comp=Z,0.3nm,0.3s,baz=48,slow=7.9,SNR=1.4
       comp=Z,0.3nm,0.3s
WMQ    Urumqi            41.64 299   eP     P        23 57 26.0 +3.5
WMQ                                  pmax   pmax
       comp=Z,20nm,0.7s
ZAA0   Zalesovo Array    43.14 314          P        23 57 32.6 -1.9
ZALV   Zalesovo Beam     43.14 314   P      P        23 57 35.7 +1.2
       comp=Z,2.0nm,0.7s,baz=87,slow=7.1,SNR=8.1
ZALV                                 PcP    PcP      23 59 24.6 +0.9
       comp=Z,0.8nm,0.6s,baz=99,slow=4.1,SNR=2.2
       comp=Z,2.0nm,0.7s
ZALV   Zalesovo Beam     43.14 314   P      P        23 57 31.3 -3.2
MK31   Makanchi Array    45.07 304   P      P        23 57 47.7 -2.4
MKAR   Makanchi Array    45.07 304   P      P        23 57 50.5 +0.5
       comp=Z,1.4nm,0.7s,baz=89,slow=7.6,SNR=11
MKAR                                 PcP    PcP      23 59 30.8 +0.3
       comp=Z,0.6nm,0.8s,baz=90,slow=4.3,SNR=3.0
       comp=Z,1.4nm,0.7s
MKAR   Makanchi Array    45.07 304          P        23 57 47.4 -2.6
MAKZ   Makanchi          45.28 304   P      P        23 57 49.8 -1.9
MAKZ                                 IAmb   IAmb     23 57 57.4
       comp=Z,1.9nm,0.9s
KURK   Kurchatov         47.05 309          P        23 58 02.7 -2.8
KURK                                 IAmb   IAmb     23 58 11.6
       comp=Z,3.2nm,0.6s
KURBB  Kurchatov Arra    47.12 309   P      P        23 58 08.3 +2.3
       comp=Z,2.5nm,0.6s,baz=85,slow=7.9,SNR=19
       comp=Z,2.5nm,0.6s
PDGK   Podgornoye        47.60 299   P      P        23 58 07.3 -2.8
ILAR   Eielson Array     51.15  32   PcP    PcP      23 59 51.8 -0.1
       comp=Z,0.7nm,0.7s,baz=257,slow=4.5,SNR=4.9
FITZ   Fitzroy Crossi    54.99 198   P      P        23 59 05.3 -0.1
FITZ                                 IAmb   IAmb     23 59 07.6
       comp=Z,1.1nm,0.8s
WB0    Warramunga Arr    54.99 188   P      P        23 59 05.1 -0.4
WR0    Warramunga Arr    55.16 188   P      P        23 59 06.9 +0.2
WR0                                  IAmb   IAmb     23 59 08.6
       comp=Z,11nm,0.8s
WR8    Warramunga Arr    55.16 188          P        23 59 06.1 -0.6
WB2    Warramunga Arr    55.17 188   P      P        23 59 06.8  0.0
WB2                                  IAmb   IAmb     23 59 08.2
       comp=Z,12nm,0.8s
WRA    Warramunga Arr    55.17 188   P      P        23 59 05.9 -0.9
       comp=Z,11nm,0.7s,baz=7.7,slow=7.4,SNR=63
AS31   Alice Springs     58.90 188   P      P        23 59 33.8 +0.7
AS31                                 IAmb   IAmb     23 59 40.9
       comp=Z,1.6nm,1.1s
ASAR   Alice Springs     58.90 188   P      P        23 59 33.0 -0.1
       comp=Z,1.4nm,0.8s,baz=14,slow=10,SNR=12
       comp=Z,1.4nm,0.8s
ASAR   Alice Springs     58.90 188   P      P        23 59 34.1 +0.9
AB31   Akbulak array     59.10 311   P      P        23 59 31.8 -2.5
AB31                                 IAmb   IAmb     23 59 46.8
       comp=Z,1.1nm,0.9s
ABKAR  Akbulak array     59.10 311   P      P        23 59 32.4 -1.9
MBWA   Marble Bar        59.61 203   P      P        23 59 37.5 -0.5
FORT   Forrest           66.74 192   P      P        00 00 26.6 +1.4
FORT                                 IAmb   IAmb     00 00 27.3
       comp=Z,11nm,1.0s
FINES  FINESS Array B    70.45 333   P      P        00 00 49.8 +1.8
       comp=Z,1.7nm,0.9s,baz=58,slow=5.6,SNR=4.5
       comp=Z,1.7nm,0.9s
AKASG  Malin Array Be    75.74 323   P      P        00 01 20.5 +1.0
       comp=Z,0.6nm,0.6s,baz=43,slow=7.1,SNR=4.4
       comp=Z,0.6nm,0.6s
NB2    NORSAR Subarra    75.90 337   P      P        00 01 22.4 +2.1
       comp=Z,2.6nm,0.9s,baz=39,slow=5.9
NOA    NORSAR Array B    75.90 337   P      P        00 01 22.2 +1.9
       comp=Z,1.3nm,0.7s,baz=40,slow=5.8,SNR=6.5
       comp=Z,1.3nm,0.7s
NVAR   Mina Array Bea    76.21  53   P      P        00 01 23.3 +0.6
       comp=Z,0.2nm,0.3s,baz=317,slow=12,SNR=2.1
       comp=Z,0.2nm,0.3s
PDAR   Pinedale Array    79.07  45   P      P        00 01 37.2 -1.4
       comp=Z,1.0nm,0.4s,baz=317,slow=8.0,SNR=2.0
       comp=Z,1.0nm,0.4s
BRTR   Keskin Array B    80.04 312   P      P        00 01 46.3 +2.4
       comp=Z,0.4nm,0.8s,baz=47,slow=6.3,SNR=2.0
       comp=Z,0.4nm,0.8s
GERES  GERESS Array B    84.28 328   P      P        00 02 07.9 +2.0
       comp=Z,0.3nm,0.2s,baz=31,slow=5.5,SNR=4.0
       comp=Z,0.3nm,0.2s
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IDC ***06*** *23:52:54.8±0.6, 35°.02N×141°.32E, h0^{km}, mb4.1/18, mbtmp4.0/23, ML3.3/5, MS3.4/17, Error ellipse: s-maj=15.9km s-min=13.6km az=74.0*

NEIC ***06*** *23:52:55.9±1.6, 35°.07N±0°.05×141°.59E±0°.06, h10^{km}±1^{km}, mb4.5/31, Error ellipse: s-maj=11.9km s-min=3.0km az=133.0*

NIED ***06*** *23:52:59.6, 35°.08N×141°.30E, h15^{km}, MW4.2, Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M_{rr}1.82; $M_{\theta\theta}$0.82; $M_{\phi\phi}$-2.64; $M_{r\theta}$-0.31; $M_{\theta\phi}$-0.68; $M_{\phi r}$0.97; Fault plane solution: $M_0$2.56000×10^{15} NP1: ϕ_s213.00000°, δ39.00000°, λ125.00000°. NP2: ϕ_s352.00000°, δ59.00000°, λ65.00000°.*

JMA ***06*** *23:52:59.6±0.1, 35°.1N±0°.3×141°.3E±0°.3, h15^{km}±1^{km}, MV3.6/39, E OFF BOSO PENINSULA*

ISC 06 23:52:58.5±0.5, **35°.04N**±0°.05×**141°.42E**±0°.06, **h27**^{km}, **n108**, σ**1^s.08**/98, **mb4.4**/39, **MS3.3**/12, **Near east coast of eastern Honshu**

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Code   Station Name        Δ°   AZ°   Phase ID        Time      Res
                                      Op     ISC      h  m  s   ISC
BSO1   Boso 1             0.53 223   P      Pb       23 53 09.1 +0.2
BSO2   Boso 2             0.62 242   eS     Sn       23 53 19.2 -0.8
BSO3   Boso 3             0.78 253   P      Pb       23 53 12.9 -0.4
JCAJ   Choshiashikaji     0.82 326   A      A        23 53 13.5
       comp=N,9.0nm,1.0s,comp=E,12nm,3.0s
BSO4   Boso 4             0.89 267   P      Pb       23 53 14.6 -0.6
KTR    Katsuura           0.91 277   P      Pb       23 53 15.5 -0.1
JSMT   Sammumatsuo        0.99 308   eP     Pn       23 53 17.3 +0.7
JKUC   kamogawauchiur     1.00 277   eP     Pn       23 53 15.6 -1.2
JCCN   Chibachonan        1.03 290   eP     Pb       23 53 17.9 +0.3
JYT    Yasato             1.55 320   Pn     Pn       23 53 24.4 +0.1
JHJ2   Mitsune            2.34 215   Pn     Pn       23 53 36.8 +1.7
JHJ    Hachijo jima 2     2.35 216   Pn     Pn       23 53 34.7 -0.5
       comp=E,26nm,0.3s,baz=348,slow=20,SNR=8.2
JHJ                                  Sn     Sn       23 54 00.8 -2.3
       comp=E,91nm,0.3s,baz=53,slow=16,SNR=7.3
       comp=E,131nm,0.2s
JHJ                                  AML    AML
JSG    Sagara             2.68 263          Pn       23 53 40.5 +0.6
MJAR   Matsushiro Arr     3.01 301   Pn     Pn       23 53 44.5 +0.2
       comp=E,1.3nm,0.3s,baz=95,slow=14,SNR=26
MJAR                                 LR     LR       23 55 14.9
       comp=E,875nm,18.6s,baz=110,slow=47
       comp=E,6.4nm,0.3s
MJAR                                 AML    AML
MJAR   Matsushiro Arr     3.01 301          Pn       23 53 45.5 +1.1
MAJO   Matsushiro         3.01 301          Pn       23 53 45.1 +0.8
MJB9   Matsu-Tunnel       3.01 301          Pn       23 53 45.1 +0.7
JGF    Kuroka             3.37 281          Pn       23 53 50.9 +1.6
INU    Inuyama            3.62 276   Pn     Pn       23 53 53.1 +0.4
JTM    Tenmabayashi       5.74 357          Pn       23 54 22.0 +0.1
ERM    Erimo              7.10  11   Pn     Pn       23 54 38.3 -2.2
ERM                                  Sn     Sn       23 55 59.9 -0.3
JNU    Nakatsue           8.95 261   LR     LR       23 58 58.4
       comp=E,489nm,19.7s,baz=37,slow=41
JKA    Kamikawa-asahi     9.11   5          Pn       23 55 07.3 -0.8
KSRS   Korea Array       11.16 286   Pn     Pn       23 55 37.9 +1.7
       comp=E,0.2nm,0.3s,baz=108,slow=14,SNR=2.4
KSRS                                 LR     LR       00 00 04.4
       comp=E,286nm,19.9s,baz=90,slow=39
       comp=E,2.0nm,0.8s
KSRS                                 AML    AML
KSRS                                 AML    AML
USRK   Ussuriysk Ar.     11.68 324   Pn     Pn       23 55 42.1 -1.1
       comp=E,0.2nm,0.3s,baz=138,slow=12,SNR=5.3
USRK                                 LR     LR       00 00 09.2
       comp=E,154nm,19.6s,baz=143,slow=37
       comp=E,5.2nm,0.8s
USRK                                 AML    AML
USRK                                 AML    AML
USRK   Ussuriysk Ar.     11.68 324          Pn       23 55 42.4 -0.8
KLR    Kul'dur           15.87 336   Pn     Pn       23 56 39.3 -0.5
       comp=E,0.1nm,0.3s,baz=151,slow=10,SNR=5.3
KLR                                  LR     LR       00 03 00.9
       comp=E,129nm,19.2s,baz=149,slow=38
       comp=E,1.5nm,0.6s
KLR                                  AML    AML
KLR                                  AML    AML
HEH    HeiHe             18.32 330   eP     P        23 57 07.9 -2.5
NJ2    Nanjing           19.04 267   eP     P        23 57 19.0 +0.6
NJ2                                  pmax   pmax
       comp=Z,32nm,0.9s
PETK   Petropavlovsk-    21.43  28   LR     LR       00 07 02.9
       comp=Z,59nm,19.8s,baz=215,slow=40
HILR   Hailar Array B    21.51 319   P      P        23 57 41.9 -3.3
       comp=Z,4.8nm,0.7s,baz=125,slow=12,SNR=4.5
GUMO   Guam              21.58 171   LR     LR       00 04 12.4
       comp=Z,56nm,21.3s,baz=50,slow=31
WHN    Wuhan             23.16 266   P      P        23 58 04.2 +1.4
HHC    Hu-ho-hao-te      24.18 293   eP     P        23 58 12.4 -0.2
HHC                                  pmax   pmax
       comp=Z,7.0nm,0.5s
HHC                                  pmax   pmax
       comp=Z,120nm,5.2s
MA2    Magadan           25.30  11   LR     LR       00 10 22.7
       comp=Z,63nm,18.5s,baz=235,slow=41
H11N2  WAKE ISLAND Hy    27.18 117   T      T        00 27 16.8
       baz=310,slow=75,SNR=13
H11N1  WAKE ISLAND Hy    27.18 118   T      T        00 27 15.5
       baz=310,slow=75,SNR=15
H11N3  WAKE ISLAND Hy    27.19 117   T      T        00 27 18.9
       baz=310,slow=75,SNR=12
H11S3  WAKE ISLAND Hy    27.82 120   T      T        00 28 29.4
       baz=312,slow=76,SNR=28
H11S1  WAKE ISLAND Hy    27.82 120   T      T        00 28 30.0
       baz=312,slow=76,SNR=32
H11S2  WAKE ISLAND Hy    27.84 120   T      T        00 28 32.8
       baz=312,slow=76,SNR=20
SONM   Songino Array     28.94 307   P      P        23 58 56.1 +0.6
       comp=Z,1.6nm,0.7s,baz=109,slow=10,SNR=7.2
SONM                                 LR     LR       00 09 57.3
       comp=Z,52nm,18.6s,baz=104,slow=35
       comp=Z,1.6nm,0.7s
SONM   Songino Array     28.94 307   P      P        23 58 55.9 +0.4
SHEM   Shemya Is, Ala    29.11  42   LR     LR       00 08 56.2
       comp=Z,54nm,20.1s,baz=290,slow=33
DAV    Davao City (W)    31.42 211   LR     LR       00 11 03.7
       comp=Z,41nm,20.3s,baz=3.5,slow=35
CMAR   Chiang Mai Arr    41.03 258   P      P        00 00 38.1 -1.5
       comp=Z,0.7nm,0.3s,baz=54,slow=8.0,SNR=7.3
CMAR                                 PcP    PcP      00 02 39.6 +0.3
       comp=Z,0.7nm,0.4s,baz=58,slow=3.2,SNR=4.9
CMAR                                 LR     LR       00 19 30.1
       comp=Z,72nm,18.7s,baz=55,slow=39
       comp=Z,0.7nm,0.3s
WMQ    Urumqi            41.77 299   eP     P        00 00 47.4 +1.9
WMQ                                  sP     pP       00 00 54.7 +1.8
WMQ                                  pmax   pmax
       comp=Z,10.0nm,0.7s
ZAA0   Zalesovo Array    43.28 314          P        00 00 58.0 +0.5
ZAA0                                 IAmb   IAmb     00 00 59.2
       comp=Z,4.2nm,0.8s
ZALV   Zalesovo Beam     43.28 314   P      P        00 00 57.9 +0.4
       comp=Z,3.8nm,0.7s,baz=93,slow=6.8,SNR=18
ZALV                                 PcP    PcP      00 02 46.3 +0.2
       comp=Z,1.1nm,0.6s,baz=104,slow=3.0,SNR=4.3
       comp=Z,3.8nm,0.7s
ZALV   Zalesovo Beam     43.28 314          P        00 00 57.7 +0.2
NRIK   Noril'sk          45.08 336   P      P        00 01 13.0 +1.2
       comp=Z,1.3nm,0.3s,baz=117,slow=14,SNR=1.5
NRIK                                 LR     LR       00 21 42.2
       comp=Z,68nm,18.1s,baz=110,slow=38
       comp=Z,1.3nm,0.3s
MKAR   Makanchi Array    45.20 304   P      P        00 01 12.7 -0.3
       comp=Z,3.0nm,0.7s,baz=92,slow=9.2,SNR=19
MKAR                                 PcP    PcP      00 02 52.4 -0.5
       comp=Z,1.3nm,0.9s,baz=76,slow=4.3,SNR=2.9
       comp=Z,3.0nm,0.7s
MKAR   Makanchi Array    45.20 304          P        00 01 13.6 +0.5
MAKZ   Makanchi          45.41 304          P        00 01 15.2 +0.4
MAKZ                                 IAmb   IAmb     00 01 18.4
       comp=Z,3.7nm,0.8s
KURK   Kurchatov         47.18 310   P      P        00 01 28.6 +0.1
KURK                                 IAmb   IAmb     00 01 32.7
       comp=Z,7.9nm,0.8s
KURBB  Kurchatov Arra    47.25 309   P      P        00 01 28.8 -0.3
       comp=Z,5.9nm,0.7s,baz=85,slow=7.9,SNR=33
KURBB                                PcP    PcP      00 02 58.9 -1.1
       comp=Z,0.4nm,0.7s,baz=91,slow=4.9,SNR=1.6
       comp=Z,5.9nm,0.7s
HNR    Honiara           47.58 155   LR     LR       00 19 55.6
       comp=Z,45nm,21.3s,baz=56,slow=34
PDGK   Podgornoye        47.73 300          P        00 01 33.5 +0.4
SLKM   Skilak Lake       49.73  37   P      P        00 01 46.6 -1.5
ILAR   Eielson Array     51.18  31   P      P        00 02 01.1 +2.1
       comp=Z,0.7nm,0.8s,baz=277,slow=8.0,SNR=6.2
       comp=Z,0.7nm,0.8s
AAK    Ala-Archa         51.46 300   LR     LR       00 26 00.5
       comp=Z,75nm,18.0s,baz=85,slow=39
KNRA   Kununurra         51.85 196          P        00 02 05.2 +0.9
KNRA                                 IAmb   IAmb     00 02 06.5
       comp=Z,5.0nm,0.7s
BVAR   Borovoye Array    51.93 313   P      P        00 02 04.9 +0.2
       comp=Z,2.3nm,0.9s,baz=78,slow=6.6,SNR=7.0
BVAR                                 PcP    PcP      00 03 17.8 +0.8
       comp=Z,0.8nm,0.6s,baz=72,slow=4.7,SNR=2.1
       comp=Z,2.3nm,0.9s
BMAR   Burnt Mountain    52.08  28   P      P        00 02 05.9 +0.3
F26K   Sheenjek River    52.24  28   P      P        00 02 07.8 +1.0
F26K                                 IAmb   IAmb     00 02 13.3
       comp=Z,4.3nm,1.1s
KK31   Karatay Array     54.14 301          P        00 02 21.7 +0.5
KK31                                 IAmb   IAmb     00 02 25.3
       comp=Z,5.2nm,1.1s
KKAR   Karatay Array     54.14 301          P        00 02 21.5 +0.3
WB0    Warramunga Arr    54.91 188          P        00 02 26.5 -0.3
FITZ   Fitzroy Crossi    54.93 198   P      P        00 02 27.4 +0.4
WR8    Warramunga Arr    55.09 188          P        00 02 28.3 +0.2
WRA    Warramunga Arr    55.09 188   P      P        00 02 28.3 +0.1
       comp=Z,20nm,0.8s,baz=7.7,slow=7.3,SNR=71
WRA    Warramunga Arr    55.09 188          P        00 02 27.4 -0.8
K29M   Barlow Dome       55.33  32   P      P        00 02 28.9 -0.7
G30M   tAoh Zraii Nji    55.36  28   P      P        00 02 29.7  0.0
G30M                                 IAmb   IAmb     00 02 35.5
       comp=Z,10nm,1.4s
ARTI   Arti              57.97 319   P      P        00 02 48.1 -0.2
P32M   Atlin             58.03  37   P      P        00 02 47.4 -1.3
P32M                                 IAmb   IAmb     00 02 54.1
       comp=Z,3.1nm,0.7s
ASAR   Alice Springs     58.82 188   P      P        00 02 54.6 +0.1
       comp=Z,3.0nm,0.9s,baz=13,slow=7.7,SNR=16
       comp=Z,3.0nm,0.9s
MSVF   Nonsavu           62.96 140   LR     LR       00 27 49.3
       comp=Z,40nm,18.9s,baz=156,slow=33
YKA    Yellowknife Ar    65.53  30   P      P        00 03 40.2 +1.1
       comp=Z,0.4nm,0.7s,baz=299,slow=5.9,SNR=2.2
       comp=Z,0.4nm,0.7s
FINES  FINESS Array B    70.58 333   P      P        00 04 10.3 -0.5
       comp=Z,2.1nm,0.7s,baz=63,slow=6.9,SNR=7.7
       comp=Z,2.1nm,0.7s
FINES  FINESS Array B    70.58 333   P      P        00 04 10.9 +0.1
NC405  NORSAR Array S    75.81 337   P      P        00 04 42.6 +0.8
NC405                                IAmb   IAmb     00 04 44.8
       comp=Z,5.7nm,0.9s
AKASG  Malin Array Be    75.88 323   P      P        00 04 41.9 -0.3
       comp=Z,1.3nm,0.7s,baz=50,slow=5.6,SNR=10
       comp=Z,1.3nm,0.7s
NB2    NORSAR Subarra    76.02 337   P      P        00 04 43.6 +0.6
       comp=Z,1.5nm,0.7s,baz=40,slow=5.9
NOA    NORSAR Array B    76.02 337   P      P        00 04 43.2 +0.2
       comp=Z,2.2nm,0.8s,baz=40,slow=5.8,SNR=12
       comp=Z,2.2nm,0.8s
NVAR   Mina Array Bea    76.19  53   P      P        00 04 45.5 +0.9
       comp=Z,0.7nm,0.6s,baz=315,slow=10,SNR=4.8
       comp=Z,0.7nm,0.6s
GMN    Gold Mountain     77.50  53   P      P        00 04 50.8 -1.2
PDAR   Pinedale Array    79.06  45   P      P        00 05 01.9 +1.3
       comp=Z,0.5nm,0.3s,baz=300,slow=4.8,SNR=4.6
       comp=Z,0.5nm,0.3s
PFO    Pinyon Flats O    80.15  56   LR     LR       00 34 21.2
       comp=Z,46nm,20.0s,baz=237,slow=31
BRTR   Keskin Array B    80.18 312   P      P        00 05 07.6 +1.0
       comp=Z,0.9nm,0.9s,baz=66,slow=2.4,SNR=4.9
       comp=Z,0.9nm,0.9s
OJC    Ojcow             80.69 326   P      P        00 05 10.0 +1.0
RAYN   Ar Rayn           81.42 293   P      P        00 05 13.4 +0.1
RAYN                                 IAmb   IAmb     00 05 15.9
       comp=Z,3.8nm,1.0s
PV05   Paradox Valley    82.24  49   P      P        00 05 18.1 +0.5
PV05                                 IAmb   IAmb     00 05 22.8
       comp=Z,3.1nm,0.9s
PV03   Paradox Valley    82.28  48   P      P        00 05 16.1 -1.8
PV03                                 IAmb   IAmb     00 05 22.8
       comp=Z,4.9nm,1.4s
PV07   Paradox Valley    82.29  48   P      P        00 05 16.1 -1.8
PV07                                 IAmb   IAmb     00 05 25.2
       comp=Z,3.2nm,1.1s
CLL    Collm             82.82 330  iP      P        00 05 21.1 +1.0
       comp=Z,4.0nm,0.9s
KHC    Kasperske Hory    84.24 329   eP     P        00 05 28.5 +1.0
KHC    Kasperske Hory    84.24 329   P      P        00 05 27.1 -0.4
KHC                                  IAmb   IAmb     00 05 29.2
       comp=Z,1.9nm,0.8s
GEC2   GERESS Array S    84.41 328   P      P        00 05 28.7 +0.2
GEC2                                 IAmb   IAmb     00 05 33.2
       comp=Z,4.8nm,1.4s
GERES  GERESS Array B    84.41 328   P      P        00 05 28.7 +0.2
       comp=Z,1.6nm,0.8s,baz=23,slow=3.7,SNR=8.9
       comp=Z,1.6nm,0.8s
GERES  GERESS Array B    84.41 328          P        00 05 27.7 -0.7
SDCO   Great Sand Dun    84.64  47   P      P        00 05 28.1 -2.0
TUC    Tucson            84.74  54   P      P        00 05 30.2 -0.2
GRA1   Grafenberg Arr    84.80 330   P      P        00 05 30.8 +0.5
GRA1                                 IAmb   IAmb     00 05 33.8
       comp=Z,7.7nm,1.2s
STU    Stuttgart         86.34 331   P      P        00 05 37.9 -0.1
HSIG                     86.67  57   P      P        00 05 37.5 -2.4
HSIG                                 IAmb   IAmb     00 05 47.3
       comp=Z,3.5nm,1.1s
SRIG   Santa Rosalia     86.82  59   P      P        00 05 38.1 -2.6
TXAR   Lajitas Array     91.33  52   P      P        00 06 04.4 +2.3
       comp=Z,0.3nm,0.8s,baz=306,slow=4.9,SNR=2.4
       comp=Z,0.3nm,0.8s
```

TRN 06 23:59:02.3, 17°.50N×61°.22W, h50^{km}, MD3.6, East of Barbuda., Leeward Islands

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Code   Station Name        Δ°   AZ°   Phase ID        Time      Res
                                      Op     ISC      h  m  s   ISC
ANWB   Willy Bob          0.56 287   eP     Pn       23 59 16.6 +2.3
ANWB                                 eS     Sn       23 59 24.7 +1.8
DSDZ   La Diserade, G     1.19 173   eP     Pn       23 59 23.2 +0.7
DSDZ                                 eS     Sn       23 59 40.6 +2.9
DHSZ   Broadband at M     1.33 203   eP     Pn       23 59 26.1 +1.6
DHSZ                                 eS     Sn       23 59 43.1 +2.1
MMLZ   Guadeloupe Bro     1.51 197   eS     Sn       23 59 48.4 +3.0
DSLB   Salisbury          2.06 185   eP     Pn       23 59 36.0 +1.6
DSLB                                 eS     Sn       00 00 00.3 +1.3
```

NEIC ***06*** *23:59:30.2±1.2, 17°.74S±0°.06×178°.4W±0°.2, h565^{km}±11^{km}, mb4.4/20, Error ellipse: s-maj=23.2km s-min=8.7km az=90.0*

IDC ***06*** *23:59:32.6±3.1, 17°.18S×178°.93W, h575^{km}±21^{km}, mb3.4/3, mbtmp4.2/5, Error ellipse: s-maj=113.7km s-min=33.4km az=145.0*

ISC 06 23:59:28.6±1.0, **17°.7S**±0°.1×**178°.4W**±0°.2, **h547**^{km}, **n28**, σ**1^s.40**/30, **mb4.2**/13, **Fiji Islands region**

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Code   Station Name        Δ°   AZ°   Phase ID        Time      Res
                                      Op     ISC      h  m  s   ISC
MSVF   Nonsavu            3.42 269   P      P        00 00 49.1 +2.9
       8.3nm,0.7s,baz=152,slow=15,SNR=2.5
MSVF   Nonsavu            3.42 269   P      P        00 00 49.4 +3.2
DZM    Mont Dzumac       14.93 251   P      P        00 02 39.7 +2.2
       2.8nm,0.5s,baz=83,slow=18,SNR=1.5
HNR    Honiara           22.62 289   P      P        00 03 48.3 -0.3
CTZ    Chatham Island    25.97 177   P      P        00 04 19.5 +1.7
FOZ    Fox Glacier       27.60 199   P      P        00 04 30.8 -1.3
EIDS   Eidsvold          29.37 250   P      P        00 04 47.1 -0.7
EIDS                                 IAmb   IAmb     00 04 58.3
       comp=Z,6.7nm,1.1s
ARMA   Armidale          30.07 240   P      P        00 04 53.3 -0.7
ARMA                                 IAmb   IAmb     00 04 57.0
       comp=Z,5.7nm,1.1s
CTAO   Charters Tower    33.52 260   P      P        00 05 21.1 -2.3
CTAO                                 IAmb   IAmb     00 05 31.9
       comp=Z,7.8nm,1.1s
STKA   Stephens Creek    38.76 241   P      P        00 06 06.7 +0.3
       comp=Z,2.0nm,0.5s,baz=82,slow=7.1,SNR=4.5
       comp=Z,2.0nm,0.5s
BBOO   Buckleboo         43.53 241   P      P        00 06 44.2 -0.1
BBOO                                 IAmb   IAmb     00 06 56.4
       comp=Z,11nm,1.0s
WR8    Warramunga Arr    44.56 259   P      P        00 06 51.5 -0.9
WRA    Warramunga Arr    44.71 259   P      P        00 06 51.8 -1.7
       comp=Z,1.3nm,0.6s,baz=94,slow=7.7,SNR=17
WRA                                  PcP    PcP      00 08 24.4 +0.2
       comp=Z,0.3nm,0.4s,baz=93,slow=3.4,SNR=2.2
       comp=Z,1.3nm,0.6s
WRA    Warramunga Arr    44.71 259   P      P        00 06 52.2 -1.3
AS31   Alice Springs     44.88 254   P      P        00 06 54.2 -0.7
AS31                                 IAmb   IAmb     00 06 54.9
       comp=Z,4.3nm,0.7s
ASAR   Alice Springs     44.88 254   P      P        00 06 54.3 -0.6
       comp=Z,14nm,0.6s,baz=93,slow=7.7,SNR=150
ASAR                                 PcP    PcP      00 08 24.9  0.0
       comp=Z,0.3nm,0.4s,baz=94,slow=3.4,SNR=2.3
       comp=Z,14nm,0.6s
MTN    Manton Dam        48.85 268   P      P        00 07 23.8 -1.1
MTN                                  IAmb   IAmb     00 07 27.7
       comp=Z,4.9nm,1.1s
FORT   Forrest           50.13 244   P      P        00 07 32.8 -1.2
FORT                                 IAmb   IAmb     00 07 43.3
       comp=Z,15nm,1.1s
KNRA   Kununurra         50.55 264   P      P        00 07 36.4 -0.9
FITZ   Fitzroy Crossi    53.10 260   P      P        00 07 55.2 -0.4
MBWA   Marble Bar        58.16 256   P      P        00 08 30.0 -0.8
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JMN	Monobe	68.48	318	P	P	00 09 37.1	+0.5
JMN				IAmb	IAmb	00 09 37.1	
	comp=Z,32nm,1.0s						
ADK	Adak	69.33	1	P	P	00 09 41.4	+0.3
ADK				IAmb	IAmb	00 09 41.7	
	comp=Z,32nm,1.1s						
BRLK	Bradley Lake	80.39	14	P	P	00 10 42.1	-0.9
BRLK				IAmb	IAmb	00 10 46.9	
	comp=Z,51nm,1.1s						
MID	Middleton Isla	81.20	16	P	P	00 10 48.5	+1.5
SLKM	Skilak Lake	81.20	14	P	P	00 10 47.2	0.0
BRTR	Keskin Array B	144.69	315	PKhKP	PKPpre	00 17 55.4	
	comp=Z,0.4nm,0.8s,baz=66,slow=4.9,SNR=2.2						
BRTR				PKP	PKPdf	00 18 01.8	-1.8
	comp=Z,0.2nm,0.4s,baz=90,slow=2.9,SNR=4.0						
GERES	GERESS Array B	147.45	345	PKPbc	PKPbc	00 18 10.4	-0.9
	comp=Z,0.3nm,0.3s,baz=16,slow=5.9,SNR=4.1						

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*SJA **07** 00:00:34.4±0.6, 20°.77S×67°.35W, h231km, ML3.7, MW3.7*
*NEIC **07** 00:00:36.6±1.8, 20°.79S±0°.03×67°.5W±0°.1, h213km±11km, mb4.5/7, Error ellipse: s-maj=15.0km s-min=4.0km az=88.0*
*SCB **07** 00:00:37.4±0.9, 20°.83S×67°.30W, h178km, ML4.3/2, Error ellipse: s-maj=5.0km s-min=4.3km az=1.0*
*IDC **07** 00:00:38.6±2.5, 20°.62S×67°.10W, h209km±22km, mb3.2/5, mbtmp3.8/8, Error ellipse: s-maj=27.5km s-min=17.0km az=21.0*
ISC 07 00:00:36.3±0.7, **20°.77S**±0°.04×**67°.33W**±0°.04, **h203**km±6km, **n75**, σ**1s.46**/107, **mb3.6**/5, **Southern Bolivia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PB08	IPOC Station P	1.82	290	*e*P	Pn	00 01 14.5	+0.8
PB08				*e*S	Sn	00 01 44.3	+1.7
PB08				IAML		00 01 45.0	
	comp=Z,114nm,0.2s						
PB08	IPOC Station P	1.82	290		Pn	00 01 14.3	+0.6
PB08				Sn	Sn	00 01 43.1	+0.5
PB08	IPOC Station P	1.82	290	P	Pn	00 01 13.9	+0.2
PB09	IPOC Station P	2.05	240	*e*P	Pn	00 01 16.3	+0.5
PB09				*e*S	Sn	00 01 47.5	+1.0
PB09				IAML		00 01 47.9	
	comp=Z,195nm,0.2s						
PB09	IPOC Station P	2.05	240		Pn	00 01 16.2	+0.5
PB09				Sn	Sn	00 01 46.4	-0.1
PB09	IPOC Station P	2.05	240	P	Pn	00 01 16.0	+0.3
GO01	Chusmiza	2.06	302	*e*P	Pn	00 01 17.1	+0.9
GO01				*e*S	Sn	00 01 51.2	+4.0
GO01				IAML		00 01 53.1	
	comp=Z,176nm,0.1s						
GO01	Chusmiza	2.06	302		Pn	00 01 16.7	+0.4
GO01				Sn	Sn	00 01 47.9	+0.7
GO01	Chusmiza	2.06	302	P	Pn	00 01 16.9	+0.7
GO01				S	Sn	00 01 47.0	-0.2
YJA	Yavi	2.19	130	*e*P	Pn	00 01 18.6	+1.1
YJA				*e*S	Sn	00 01 49.9	+0.3
YJA	Yavi	2.19	130	P	Pn	00 01 17.2	-0.3
SOEO	Opoqueri	2.26	347	P	Pn	00 01 18.5	+0.2
AF01	San Pedro de A	2.31	200	*e*P	Pn	00 01 31.8	+13
AF01				*e*S	Sn	00 01 53.5	+1.8
AF01				IAML		00 02 12.4	
	comp=Z,97nm,1.2s						
AF01	San Pedro de A	2.31	200		Pn	00 01 19.0	+0.4
PB11	IPOC Station P	2.40	294	*e*P	Pn	00 01 19.6	+0.1
PB11				*e*S	Sn	00 01 53.2	+0.1
PB11				IAML		00 01 54.1	
	comp=Z,379nm,0.2s						
PB11	IPOC Station P	2.40	294		Pn	00 01 18.9	-0.6
PB11	IPOC Station P	2.40	294	P	Pn	00 01 19.7	+0.2
PB11				S	Sn	00 01 52.6	-0.5
PB11				IAML		00 01 55.2	
	comp=Z,781nm,0.2s						
PB02	IPOC Station P	2.46	257	*e*P	Pn	00 01 20.1	+0.1
PB02				*e*S	Sn	00 01 53.3	-0.7
PB02	IPOC Station P	2.46	257		Pn	00 01 19.9	-0.1
PB02				Sn	Sn	00 01 52.1	-2.0
PB02	IPOC Station P	2.46	257	P	Pn	00 01 20.2	+0.2
PB02				S	Sn	00 01 52.4	-1.7
PB02				IAML		00 01 52.6	
	comp=Z,1μm,0.3s						
PB07	IPOC Station P	2.56	248	*e*P	Pn	00 01 21.4	+0.1
PB07				*e*S	Sn	00 01 54.8	-1.6
PB07				IAML		00 01 55.4	
	comp=Z,387nm,0.4s						
PB07	IPOC Station P	2.56	248		Pn	00 01 21.1	-0.2
PB07				Sn	Sn	00 01 54.4	-2.0
AOVT	TarijaAcel	2.57	108	P	Pn	00 01 21.3	0.0
AOVT				S	Sn	00 01 54.2	-2.2
PB03	IPOC Station P	2.59	240	Pn	Pn	00 01 21.2	-0.3
PB03				Sn	Sn	00 01 55.0	-1.9
TA02	Huaiquique	2.67	280	*e*P	Pn	00 01 22.4	+0.1
TA02				*e*S	Sn	00 01 56.5	-1.7
TA01	Diego Aracena	2.68	274	*e*P	Pn	00 01 22.0	-0.3
TA01				*e*S	Sn	00 01 55.8	-2.5
TA01				IAML		00 01 56.8	
	comp=Z,161nm,0.1s						
TA01	Diego Aracena	2.68	274		Pn	00 01 21.8	-0.5
TA01				Sn	Sn	00 01 55.8	-2.5
PB06	IPOC Station P	2.83	227	*e*P	Pn	00 01 24.5	+0.2
PB06				*e*S	Sn	00 02 01.4	-0.6
PB06				IAML		00 02 02.1	
	comp=Z,197nm,0.2s						
PB06	IPOC Station P	2.83	227		Pn	00 01 24.4	0.0
PB06				Sn	Sn	00 02 01.2	-0.8
PB06	IPOC Station P	2.83	227	P	Pn	00 01 24.6	+0.3
PSGCX	Pisagua	2.87	294	*e*P	Pn	00 01 24.3	-0.4
PSGCX				*e*S	Sn	00 02 00.6	-1.8
PSGCX				IAML		00 02 02.2	
	comp=Z,208nm,0.4s						
PSGCX	Pisagua	2.87	294		Pn	00 01 24.3	-0.4
PSGCX				Sn	Sn	00 02 00.4	-2.1
HJA	Humahuaca	3.01	144	*e*P	Pn	00 01 27.8	+1.2
HJA				*e*S	Sn	00 02 06.5	+0.5
HJA				IAML		00 02 06.8	
	comp=Z,100nm,0.5s						
PB16	IPOC Station P	3.18	319	*e*P	Pn	00 01 30.4	+1.6
PB16				*e*S	Sn	00 02 07.8	-2.0
PB16	IPOC Station P	3.18	319		Pn	00 01 29.3	+0.5
PB16	IPOC Station P	3.18	319	P	Pn	00 01 30.2	+1.4
PB05	IPOC Station P	3.38	232	*e*P	Pn	00 01 30.6	-0.1
PB05				*e*S	Sn	00 02 12.2	-1.1
PB05				IAML		00 02 16.2	
	comp=Z,76nm,0.2s						
PB05	IPOC Station P	3.38	232		Pn	00 01 30.3	-0.4
PB12	IPOC Station P	3.55	307	*e*P	Pn	00 01 32.1	-0.6
PB12				*e*S	Sn	00 02 14.9	-2.0
PB12				IAML		00 02 19.4	
	comp=Z,90nm,0.2s						
PB12	IPOC Station P	3.55	307		Pn	00 01 31.5	-1.3
AP01	Chacalluta	3.71	310	*e*P	Pn	00 01 35.2	+0.6
AP01				*e*S	Sn	00 02 19.2	-1.2
AP01				IAML		00 02 20.1	
	comp=Z,172nm,0.2s						
PB18	Visviri	3.76	327		Pn	00 01 36.0	+0.2
BBOJ	La Paz, Jacaqu	3.86	348	P	Pn	00 01 38.3	+1.2
SOEJ	Jacaque	3.86	348	P	Pn	00 01 38.5	+1.4
BBOD	La Paz, Gloria	4.28	344	P	Pn	00 01 44.6	+2.3
LPAZ	La Paz	4.52	350	P	Pn	00 01 47.2	+1.8
	comp=Z,2.0nm,0.4s,baz=152,slow=6.0,SNR=17						
LPAZ				S	Sn	00 02 40.0	+0.3
	comp=Z,2.0nm,0.6s,baz=155,slow=21,SNR=3.9						
LPAZ	La Paz	4.52	350	*e*P	Pn	00 01 48.0	+2.6
LPAZ	La Paz	4.52	350		Pn	00 01 46.8	+1.3
LPAZ	La Paz	4.52	350	P	Pn	00 01 47.0	+1.6
BBOB	La Paz, Bander	4.67	350	P	Pn	00 01 48.5	+1.4
PB14	IPOC Station P	4.77	216	*e*P	Pn	00 01 47.4	-0.8
PB14				*e*S	Sn	00 02 40.8	-4.0
PB14				IAML		00 02 42.5	
	comp=Z,75nm,0.2s						
PB14	IPOC Station P	4.77	216		Pn	00 01 46.9	-1.3
PB14	IPOC Station P	4.77	216	P	Pn	00 01 48.0	-0.1
AC01	Pan de Azucar	6.13	209		Pn	00 02 03.3	-2.1
AC02	Maricunga	6.26	195		Pn	00 02 05.8	-1.5
SIV	San Ignacio	7.61	52	P	Pn	00 02 23.1	-1.5
	comp=Z,9.5nm,0.4s,baz=238,slow=11,SNR=92						
SIV				S	Sn	00 03 46.2	-4.5
	comp=Z,3.6nm,0.8s,baz=306,slow=19,SNR=8.7						
SIV	San Ignacio	7.61	52	P	Pn	00 02 24.2	-0.4
AC05	El Transito	8.46	198	Pn	Pn	00 02 33.5	-2.1
PTLB	Pontes e Lacer	9.42	57		Pn	00 02 46.6	-1.4
VILB	Vilhena	10.34	42		Pn	00 03 00.1	+0.1
AQDB	Aquidauana	10.90	90	Pn	Pn	00 03 08.5	+1.4
TRCB	Terra Rica	13.80	101	Pn	Pn	00 03 44.4	+0.6
BO02	Sierra Bellavi	14.29	192	P	Pn	00 03 49.4	-0.4
BDFB	Brasilia	19.04	78	P	P	00 04 44.4	+1.0
	comp=Z,2.2nm,0.4s,baz=240,slow=9.6,SNR=7.4						
BDFB	Brasilia	19.04	78	P	P	00 04 44.2	+0.7
BDFB				IAmb	IAmb	00 05 21.0	
	comp=Z,14nm,1.4s						
BOAV	Boa Vista	23.97	17	P	P	00 05 31.6	-0.8
CELP	Cerrillos	38.61	1	P	P	00 07 38.6	-1.4
CAIB	Caibarien	44.60	344	P	P	00 08 26.3	-2.2
CAIB				IAmb	IAmb	00 09 00.4	
	comp=Z,34nm,1.5s						
TXAR	Lajitas Array	60.90	324	P	P	00 10 29.3	+1.5
	comp=Z,0.2nm,0.6s,baz=143,slow=6.9,SNR=2.0						
	comp=Z,0.2nm,0.6s						
QSPA	South Pole Qui	69.42	180	P	P	00 11 24.5	+2.3
	comp=Z,0.4nm,0.4s,baz=61,slow=1.0,SNR=6.0						
	comp=Z,0.4nm,0.4s						
QSPA	South Pole Qui	69.42	180	P	P	00 11 24.1	+1.9
QSPA				IAmb	IAmb	00 11 55.0	
	comp=Z,3.3nm,1.2s						
TORD	Torodi Ar. Bea	75.72	70	P	P	00 11 59.6	-0.4
	comp=Z,0.4nm,0.3s,baz=254,slow=5.0,SNR=8.4						
	comp=Z,0.4nm,0.3s						
NVAR	Mina Array Bea	75.84	321	P	P	00 12 02.5	+2.0
	comp=Z,0.6nm,0.6s,baz=149,slow=6.1,SNR=2.9						
	comp=Z,0.6nm,0.6s						
YKA	Yellowknife Ar	91.00	340	P	P	00 13 18.6	+1.7
	comp=Z,0.3nm,0.5s,baz=131,slow=4.9,SNR=6.0						
	comp=Z,0.3nm,0.5s						
HHC	Hu-ho-hao-te	159.96	2	*e*P	PKPdf	00 20 07.8	-3.6

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*IDC **07** 00:00:38.3±0.5, 62°.23S×57°.75W, h0km, mb4.2/14, mbtmp4.2/15, ML3.9/1, MS3.6/15, Error ellipse: s-maj=21.8km s-min=12.9km az=86.0*
*GFZ **07** 00:00:42.1±0.2, 62°S±4°×5°8W±°, h10km, M4.7/16, mb4.7/16, confirmed*
ISC 07 00:00:40.3±0.4, **62°.36S**±0°.04×**58°.27W**±0°.05, **h10**km, **n148**, σ**1s.96**/114, **mb4.7**/48, **MS3.6**/14, **5C**, **South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JUBA	Jubany	0.22	303	*i* P	Pg	00 00 43.5	-1.3
JUBA				*i* S	Sg	00 00 46.1	-1.8
JUBA				IAML		00 00 46.8	
	comp=Z,153μm,0.9s						
ESPZ	Base Esperanza	1.20	151	*i* P	Pb	00 01 02.2	-0.8
ESPZ				*i* S	Sg	00 01 18.6	-0.1
ESPZ				IAML		00 01 20.6	
	comp=Z,6μm,0.4s						
PMSA	Palmer Station	3.54	224	Pn	Pn	00 01 35.6	+0.3
	comp=Z,9.8nm,0.3s,baz=56,slow=9.4,SNR=13						
PMSA				Sn	Sb	00 02 26.7	+0.7
	comp=Z,40nm,0.3s,baz=306,slow=13,SNR=9.5						
	comp=Z,33nm,0.4s						
PMSA				AML	AML		
PMSA	Palmer Station	3.54	224	*i* P	Pn	00 01 35.7	+0.5
PMSA				*i* S	Sn	00 02 18.2	+1.0
PMSA				IAML		00 02 36.9	
	comp=Z,333nm,1.1s						
PMSA	Palmer Station	3.54	224	P	Pn	00 01 35.8	+0.5
ORCD	Orcadas	6.67	82	*e*P	Pn	00 02 18.1	0.0
ORCD				IAML		00 03 18.2	
	comp=Z,44nm,1.2s						
SMAI	San Martin Ant	6.87	209	*i* P	Pn	00 02 17.8	-3.2
SMAI				*e*S	Sn	00 03 34.5	-4.5
SMAI				IAML		00 04 16.7	
	comp=Z,33nm,0.7s						
USHA	Ushuaia	9.21	320	LR	LR	00 05 52.5	
	comp=Z,658nm,21.4s,baz=183,slow=34						
EFI	East Falkland	10.71	1	*i* P	Pn	00 03 12.4	-1.2
GO08	Villa O'Higgin	16.05	324	P	P	00 04 31.9	+2.7
	comp=Z,23nm,1.2s						
COYC	Coyhaique	18.60	328		Pn	00 05 02.8	+5.1
COYC	Coyhaique	18.60	328	P	Pn	00 05 00.0	+2.3
	comp=Z,14nm,1.8s						
COYC	Coyhaique	18.60	328	P	Pn	00 04 58.8	+1.1
	comp=Z,15nm,1.8s						
VNA3	Neumayer Olymp	20.48	136	⇑P	Pn	00 05 20.0	0.0
	comp=Z,17nm,0.8s						
VNA3	Neumayer Olymp	20.48	136	P	Pn	00 05 20.1	+0.1
	comp=Z,35nm,0.9s						
LL02	Futaleuf	20.80	331		Pn	00 05 22.9	-0.9
LL02	Futaleuf	20.80	331	P	P	00 05 22.2	+0.8
	comp=Z,17nm,0.9s						
LL02	Futaleuf	20.80	331	P	P	00 05 22.0	+0.5
	comp=Z,17nm,0.9s						
VNA1	Neumayer--Stat	20.95	134	⇑P	Pn	00 05 25.5	+0.2
	comp=Z,31nm,0.9s						
VNA2	Neumayer--Watz	21.23	135	⇑P	P	00 05 28.2	+2.3
	comp=Z,12nm,0.6s,baz=265,slow=11						
VNA2	Neumayer--Watz	21.23	135	P	P	00 05 28.3	+2.4
	comp=Z,27nm,0.8s						
SNAA	Sanae	22.65	137	⇑P	P	00 05 43.2	+2.0
	comp=Z,266nm,0.7s						
SNAA	Sanae	22.65	137	P	P	00 05 41.5	+0.3
	comp=Z,17nm,1.0s,baz=267,slow=9.2,SNR=28						
SNAA				LR	LR	00 12 55.6	
	comp=Z,208nm,21.7s,baz=250,slow=33						
	comp=Z,17nm,1.0s						
SNAA	Sanae	22.65	137	P	P	00 05 43.1	+2.0
	comp=Z,26nm,1.6s						
LL05	Los Muermos	22.87	329	IAmb	IAmb	00 05 47.3	
	comp=Z,91nm,1.1s						
LL05	Los Muermos	22.87	329	P	P	00 05 45.8	+2.2
	comp=Z,94nm,1.1s						
LL05	Los Muermos	22.87	329	P	P	00 05 45.7	+2.1
	comp=Z,94nm,1.1s						
LL05	Los Muermos	22.87	329	Pn	P	00 05 46.5	+2.9
LL03	Petrohue	22.88	332	P	P	00 05 45.4	+1.7
	comp=Z,33nm,0.9s						
LL03	Petrohue	22.88	332	Pn	P	00 05 46.1	+2.4
PLCA	Paso Flores	22.88	335				
	comp=Z,16nm,1.0s						
PLCA	Paso Flores	22.88	335	P	P	00 05 44.9	+1.0
	comp=Z,23nm,1.1s						
PLCA	Paso Flores	22.88	335	P	P	00 05 40.8	-3.1
	comp=Z,23nm,1.1s						
PLCA	Paso Flores	22.88	335	P	P	00 05 44.2	+0.3
	comp=Z,16nm,1.0s,baz=167,slow=9.8,SNR=7.8						
PLCA	Paso Flores	22.88	335	LR	LR	00 13 16.8	
	comp=Z,194nm,20.4s,baz=155,slow=33						
PLCA	Paso Flores	22.88	335		P	00 05 43.9	0.0
GO06	Curarrehue	24.17	334	IAmb	IAmb	00 06 00.8	
	comp=Z,46nm,1.1s						
GO06	Curarrehue	24.17	334	P	P	00 05 56.4	-0.2
	comp=Z,43nm,1.0s						
GO06	Curarrehue	24.17	334	P	P	00 05 55.4	-1.3
	comp=Z,43nm,1.0s						
GO06	Curarrehue	24.17	334		P	00 05 55.3	-1.3
TROLL	Troll, Antarti	24.29	139	⇑P	P	00 05 59.6	+2.1
	comp=Z,413nm,0.8s						
LR03	Panguipulli	24.31	333	Pn	P	00 05 59.8	+2.1
BI02	San Fabin de	26.96	336	P	P	00 06 23.6	+1.8
	comp=Z,17nm,1.0s						
BI02	San Fabin de	26.96	336	P	P	00 06 22.8	+0.9
	comp=Z,17nm,1.0s						
BI02	San Fabin de	26.96	336		P	00 06 23.9	+2.1
QSPA	South Pole Qui	27.87	180	P	P	00 06 31.1	+1.3
	comp=Z,4.5nm,0.7s,baz=164,slow=2.2,SNR=38						
QSPA				LR	LR	00 18 26.9	
	comp=Z,216nm,19.8s,baz=308,slow=38						
	comp=Z,4.5nm,0.7s						
QSPA	South Pole Qui	27.87	180	P	P	00 06 32.0	+2.1
	comp=Z,16nm,1.1s						
GO05	Hualane	28.69	336	IAmb	IAmb	00 06 44.0	
	comp=Z,25nm,0.9s						
GO05	Hualane	28.69	336	P	P	00 06 40.2	+3.0
	comp=Z,33nm,1.1s						
GO05	Hualane	28.69	336	P	P	00 06 39.5	+2.3
	comp=Z,33nm,1.1s						
GO05	Hualane	28.69	336	P	P	00 06 40.7	+3.5
BO02	Sierra Bellavi	28.70	338	P	P	00 06 40.2	+2.9
	comp=Z,17nm,1.1s						
BO02	Sierra Bellavi	28.70	338	P	P	00 06 38.8	+1.5
	comp=Z,17nm,1.1s						
BO02	Sierra Bellavi	28.70	338		P	00 06 40.0	+2.7
BO04	La Punta	29.45	339	P	P	00 06 45.4	+1.4
MT13	San Alfonso	29.64	339	P	P	00 06 47.0	+1.3
MT09	Talagante	29.72	338	IAmb	IAmb	00 06 54.8	
	comp=Z,27nm,0.9s						
MT09	Talagante	29.72	338		P	00 06 49.5	+3.0
MT08	Bocatoma Ro	29.88	340	P	P	00 06 48.7	+0.6
MT05	Renca	30.05	339	IAmb	IAmb	00 07 06.5	
	comp=Z,47nm,1.2s						
MT05	Renca	30.05	339	P	P	00 06 53.5	+4.1
MT02	Curacav	30.25	338	IAmb	IAmb	00 07 10.5	
	comp=Z,30nm,1.1s						
MT02	Curacav	30.25	338	P	P	00 06 53.8	+2.8
PEL	Peldehue	30.29	339	IAmb	IAmb	00 07 03.4	
	comp=Z,35nm,1.1s						
PEL	Peldehue	30.29	339	P	P	00 06 53.0	+1.5
	comp=Z,32nm,1.1s						
PEL	Peldehue	30.29	339	P	P	00 06 54.8	+3.4
VA03	San Esteban	30.64	339	IAmb	IAmb	00 07 04.3	
	comp=Z,33nm,0.9s						
VA03	San Esteban	30.64	339	P	P	00 06 56.4	+1.8
	comp=Z,41nm,1.0s						
VA03	San Esteban	30.64	339	P	P	00 06 56.5	+2.0
CO04	Los Peladeros	31.41	339	P	P	00 07 02.4	+0.7
	comp=Z,27nm,1.5s						
CFA	Coronel Fontan	31.43	344	P	P	00 07 00.8	-0.7
	comp=Z,0.6nm,0.4s,baz=202,slow=7.4,SNR=6.0						
	comp=Z,0.6nm,0.4s						
ZON	Zonda	31.55	343	IAmb	IAmb	00 07 08.6	
	comp=Z,27nm,1.5s						
ZON	Zonda	31.55	343		P	00 07 01.5	-1.1
VA04	Juan Fernndez	31.56	326	P	P	00 07 13.1	+11
	comp=Z,69nm,2.7s						
GO04	Tololo Observa	33.21	340	IAmb	IAmb	00 07 21.3	
	comp=Z,160nm,1.9s						
GO04	Tololo Observa	33.21	340	P	P	00 07 19.9	+2.5
CO01	Juntas del Tor	33.30	341	IAmb	IAmb	00 07 26.9	
	comp=Z,28nm,1.1s						
CO01	Juntas del Tor	33.30	341	P	P	00 07 19.2	+1.1
	comp=Z,24nm,1.0s						
CO01	Juntas del Tor	33.30	341	P	P	00 07 18.2	+0.1
	comp=Z,24nm,1.0s						
CO01	Juntas del Tor	33.30	341	P	P	00 07 19.4	+1.3
LCO	Las Campanas	34.34	340	P	P	00 07 26.9	-0.2
	comp=Z,18nm,1.1s						
AC05	El Transito	34.44	341	IAmb	IAmb	00 07 58.8	
	comp=Z,13nm,0.9s						
AC05	El Transito	34.44	341	P	P	00 07 27.4	-0.5
AC05	El Transito	34.44	341	P	P	00 07 31.0	+3.0
AC04	Llanos de Chal	35.19	340	IAmb	IAmb	00 07 46.9	
	comp=Z,44nm,1.0s						
AC04	Llanos de Chal	35.19	340	P	P	00 07 34.6	+0.4
	comp=Z,41nm,1.1s						
AC04	Llanos de Chal	35.19	340	P	P	00 07 38.2	+4.0
CPUP	Villa Florida	36.03	1	LR	LR	00 20 39.3	
	comp=Z,46nm,21.2s,baz=253,slow=34						
CPUP	Villa Florida	36.03	1	P	P	00 07 31.9	-10
AC02	Maricunga	36.25	343	P	P	00 07 42.1	-1.8
	comp=Z,14nm,1.2s						
SBA	Scott Base	37.38	194	P	P	00 07 55.6	+3.2
VNDA	Vanda	38.20	193	P	P	00 08 00.9	+1.5
	comp=Z,0.5nm,0.7s,baz=160,slow=14,SNR=3.8						
VNDA				LR	LR	00 22 21.0	
	comp=Z,86nm,21.6s,baz=320,slow=34						
	comp=Z,0.5nm,0.7s						
SALTA		38.51	348	P	P	00 08 03.7	+0.6
	comp=Z,8.0nm,1.2s						
SALTA		38.51	348	P	P	00 07 58.4	-4.7
	comp=Z,8.5nm,1.2s						
PB14	IPOC Station P	38.60	342	IAmb	IAmb	00 09 10.5	
	comp=Z,30nm,1.3s						
PB14	IPOC Station P	38.60	342	P	P	00 08 04.2	+0.5
	comp=Z,16nm,1.5s						
PB14	IPOC Station P	38.60	342	P	P	00 08 06.3	+2.6
PB05	IPOC Station P	40.31	343	P	P	00 08 18.9	+1.2
	comp=Z,20nm,1.2s						
PB06	IPOC Station P	40.38	344	P	P	00 08 17.6	-0.7
	comp=Z,14nm,0.8s						
PB03	IPOC Station P	41.05	344	P	P	00 08 24.0	+0.1
	comp=Z,16nm,2.3s						
PB08	IPOC Station P	42.85	345	IAmb	IAmb	00 09 13.1	
	comp=Z,32nm,1.9s						
PB08	IPOC Station P	42.85	345	P	P	00 08 42.2	+3.4
PB11	IPOC Station P	43.29	344	IAmb	IAmb	00 10 01.6	
	comp=Z,66nm,1.9s						
PB11	IPOC Station P	43.29	344	P	P	00 08 45.2	+3.1
GO01	Chusmiza	43.32	345	IAmb	IAmb	00 08 55.5	
	comp=Z,10nm,1.4s						
GO01	Chusmiza	43.32	345	P	P	00 08 45.1	+2.4
MAW	Mawson	43.56	152	P	P	00 08 43.3	-0.3
	comp=Z,2.3nm,0.9s,baz=225,slow=8.6,SNR=7.7						
MAW				LR	LR	00 26 54.3	
	comp=Z,164nm,19.7s,baz=220,slow=36						
	comp=Z,2.3nm,0.9s						
MAW	Mawson	43.56	152	P	P	00 08 45.5	+1.9
	comp=Z,1.8nm,0.9s						
PB16	IPOC Station P	44.67	345	P	P	00 08 52.4	-1.4
	comp=Z,5.9nm,1.5s						
SIV	San Ignacio	46.35	356	P	P	00 09 04.9	-1.5
	comp=Z,1.2nm,0.7s,baz=170,slow=7.3,SNR=6.3						
SIV				LR	LR	00 29 12.6	
	comp=Z,107nm,18.9s,baz=118,slow=37						
	comp=Z,1.2nm,0.7s						
LPAZ	La Paz	46.54	347	P	P	00 09 07.8	-0.8
	comp=Z,1.0nm,0.8s,baz=171,slow=16,SNR=3.8						
LPAZ				LR	LR	00 31 02.4	
	comp=Z,56nm,18.2s,baz=160,slow=39						
	comp=Z,1.0nm,0.8s						
LPAZ	La Paz	46.54	347	P	P	00 09 08.4	-0.1
PTLB	Pontes e Lacer	46.85	359	P	P	00 09 08.9	-1.4
BDFB	Brasilia	47.22	14	P	P	00 09 11.1	-2.2
	comp=Z,2.9nm,0.8s,baz=153,slow=9.0,SNR=5.2						
BDFB				LR	LR	00 27 34.4	
	comp=Z,54nm,21.8s,baz=205,slow=34						
	comp=Z,2.9nm,0.8s						
VILB	Vilhena	49.35	358	P	P	00 09 28.6	-1.1
CLDB	Colider	51.43	3	P	P	00 09 46.3	+0.9
	comp=Z,4.0nm,1.1s						
CLDB	Colider	51.43	3	P	P	00 09 42.1	-3.2
	comp=Z,4.0nm,1.1s						
ATAH	Atahualpa	57.06	336	P	P	00 10 27.3	+0.5
	comp=Z,1.9nm,0.5s,baz=90,slow=12,SNR=3.7						
	comp=Z,1.9nm,0.5s						
H10S2	ASCENSION HYDR	61.94	51	T	T	01 18 13.6	
	baz=203,slow=74,SNR=41						
H10S3	ASCENSION HYDR	61.94	51	T	T	01 18 14.2	
	baz=17,slow=74,SNR=40						
BOSA	Boshof	62.12	99	P	P	00 11 00.3	-1.0
	comp=Z,3.5nm,1.1s,baz=196,slow=7.2,SNR=2.6						
	comp=Z,3.5nm,1.1s						
H10N3	ASCENSION HYDR	63.03	50	T	T	01 19 36.3	
	baz=202,slow=74,SNR=41						
H10N1	ASCENSION HYDR	63.03	50	T	T	01 19 36.6	
	baz=202,slow=74,SNR=35						
H10N2	ASCENSION HYDR	63.04	50	T	T	01 19 37.6	
	baz=202,slow=74,SNR=62						
OTAV	Otavalo	64.27	337	P	P	00 11 15.9	-0.1
	comp=Z,6.8nm,1.2s						
ROSC	El Rosal	68.13	343	LR	LR	00 44 40.1	
	comp=Z,57nm,18.3s,baz=160,slow=39						
RAR	Rarotonga	76.62	250	LR	LR	00 42 15.2	
	comp=Z,30nm,18.4s,baz=189,slow=32						
SJG	San Juan	80.44	352	LR	LR	00 50 00.4	
	comp=Z,24nm,20.0s,baz=134,slow=37						
CMIG	Matias Romero	84.28	325	LR	LR	00 44 40.4	
	comp=Z,26nm,18.4s,baz=183,slow=31						
ARMA	Armidale	84.47	206	P	P	00 13 12.8	-0.3
	comp=Z,17nm,2.2s						
STKA	Stephens Creek	84.74	197	P	P	00 13 14.3	0.0
	comp=Z,4.2nm,0.8s,baz=142,slow=16,SNR=4.3						
	comp=Z,4.2nm,0.8s						
QLP	Quilpie	89.55	200	P	P	00 13 37.5	-0.2
	comp=Z,42nm,1.0s						
ASAR	Alice Springs	93.72	191	P	P	00 13 55.9	-1.3
	comp=Z,1.5nm,0.9s,baz=159,slow=4.6,SNR=6.7						
	comp=Z,1.5nm,0.9s						
WRA	Warramunga Arr	97.37	192	P	P	00 14 12.7	-1.1
	comp=Z,0.8nm,0.8s,baz=175,slow=4.1,SNR=5.0						
	comp=Z,0.8nm,0.8s						
TKL	Tuckaleechee C	99.82	339	LR	LR	01 03 03.7	
	comp=Z,17nm,19.1s,baz=151,slow=38						
GERES	GERESS Array B	124.66	50	PKP	PKPdf	00 19 36.6	-2.2
	comp=Z,0.7nm,0.7s,baz=223,slow=3.1,SNR=5.8						
CMAR	Chiang Mai Arr	133.35	150	PKP	PKiKP	00 19 57.2	-0.3
	comp=Z,1.4nm,0.8s,baz=235,slow=3.9,SNR=6.3						
PZH	PanZhiHua	141.76	150	PKP	PKiKP	00 20 15.4	+0.9
PZH	PanZhiHua	141.76	150	PKPbc		00 21 42.3	
ARCES	ARCESS Array B	144.12	37	PKhKP	PKPpre	00 20 09.8	
	comp=Z,6.9nm,0.9s,baz=231,slow=2.7,SNR=12						
GOMU	GeErMu	148.93	135	PKP	PKPdf	00 20 25.3	+1.3
LZDM	Lanzhou Array	151.27	148	PKPbc	PKPbc	00 20 33.3	-0.2
	comp=Z,1.0nm,0.3s,baz=185,slow=6.9,SNR=3.6						
BVAR	Borovoye Array	151.76	85	PKPbc	PKPbc	00 20 32.5	-1.2
	comp=Z,5.4nm,0.8s,baz=222,slow=1.9,SNR=13						
MKAR	Makanchi Array	152.90	107	PKPbc	PKPbc	00 20 34.2	-2.3

	comp=Z,2.2nm,0.8s,baz=251,slow=3.5,SNR=10						
GTA2	**Gaotai**	**153.50**	**140**	*e*P	**PKiKP**	**00 20 38.9**	**+0.6**
GTA2				pP	sPKPbc	00 20 41.8	-0.3
GTA2				pmax	pmax		
	comp=Z,9.0nm,0.7s						
KURBB	**Kurchatov Arra**	**153.96**	**97**	PKPbc	**PKPbc**	**00 20 37.2**	**-1.4**
	comp=Z,0.5nm,0.2s,baz=229,slow=3.1,SNR=4.6						
SONM	**Songino Array**	**163.08**	**142**	PKPab	**PKPab**	**00 21 31.2**	**-0.7**
	comp=Z,1.5nm,0.9s,baz=198,slow=5.7,SNR=6.3						
HEH	**HeiHe**	**167.47**	**197**	*e*P	**PKPab**	**00 21 49.8**	**-1.1**

NEIC 07 00:01:58.2±1.8**,52°.38S**±0°.07×**55°.27W**±0°.09**,h10**^{km}±1^{km}**,**
mb5.0/64**,Error ellipse: s-maj=13.6km s-min=7.3km**
az=150.0,Falkland Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EFI	**East Falkland**	**1.87**	**291**	Pn	Pn	00 02 29.8	-0.4
DSPA	**Despedida**	**7.97**	**253**	Pn	Pn	00 03 55.1	+1.0
MG03	**Isla Dawson**	**9.26**	**255**	Pn	Pn	00 04 10.8	-0.8
SMAI	**San Martin Ant**	**16.80**	**195**	Pn	Pn	00 05 52.7	-0.5
BELA	**Belgrano 2**	**26.68**	**170**	P	P	00 07 38.3	+1.5
QSPA	**South Pole Qui**	**37.87**	**180**	P	P	00 09 16.9	+1.9
VNDA	**Vanda**	**48.33**	**190**	P	P	00 10 38.6	-0.5
SHEL	**Horse Pasture**	**53.23**	**66**	P	P	00 11 15.8	-1.0
OTAV	**Otavalo**	**55.93**	**332**	P	P	00 11 36.5	-0.5
OTAV				IAmb	IAmb	00 11 43.8	
	comp=Z,16nm,1.6s						
TSUM	**Tsumeb**	**64.59**	**89**	P	P	00 12 35.9	+0.1
TSUM				IAmb	IAmb	00 12 46.5	
	comp=Z,47nm,1.9s						
FDFM	**Morne la Roset**	**67.03**	**354**	P	P	00 12 51.7	+0.4
ILAM	**Ilet Lapin Mar**	**67.05**	**354**	P	P	00 12 50.0	-1.4
JTS	**Las Juntas de**	**67.43**	**328**	P	P	00 12 53.8	-0.1
JTS				IAmb	IAmb	00 15 06.5	
	comp=Z,19nm,1.2s						
JUD3	**Juan Diaz 3**	**67.50**	**328**	P	P	00 12 54.7	+0.3
JUD3				IAmb	IAmb	00 15 19.7	
	comp=Z,26nm,1.3s						
GDHS	**Morne Mazeau,**	**68.60**	**353**	P	P	00 13 01.3	+0.1
MGAN	**Managua**	**69.59**	**328**	P	P	00 13 08.8	+1.5
ACRG	**Accra**	**74.20**	**58**	P	P	00 13 34.6	-0.6
NMDO	**Nuevo Mundo**	**74.64**	**341**	P	P	00 13 37.0	-0.4
NMDO				IAmb	IAmb	00 14 53.8	
	comp=Z,28nm,1.4s						
PYZ	**Puysegur Point**	**75.45**	**209**	P	P	00 13 42.6	+0.6
MLZ	**Mavora Lakes**	**75.74**	**210**	P	P	00 13 45.4	+1.6
MLZ				IAmb	IAmb	00 14 38.5	
	comp=Z,70nm,1.6s						
WKZ	**Wanaka**	**75.94**	**211**	P	P	00 13 45.6	+0.7
RPZ	**Rata Peaks**	**76.28**	**213**	P	P	00 13 46.8	-0.1
RPZ				IAmb	IAmb	00 15 42.6	
	comp=Z,40nm,1.2s						
CAIB	**Caibarien**	**77.50**	**337**	P	P	00 13 53.7	0.0
CAIB				IAmb	IAmb	00 14 23.2	
	comp=Z,46nm,1.5s						
BBSR	**BB Station**	**84.80**	**352**	P	P	00 14 32.6	+0.3
BRAL	**Brewton**	**87.73**	**333**	P	P	00 14 46.4	-0.4
CSU	**Charleston Sou**	**87.74**	**339**	P	P	00 14 47.2	+0.4
TOO	**Toolangi**	**88.61**	**196**	P	P	00 14 52.8	+1.6
TOO				IAmb	IAmb	00 17 36.6	
	comp=Z,13nm,1.6s						
HODGE	**Hodges**	**89.42**	**338**	P	P	00 14 55.9	+1.2
HODGE				IAmb	IAmb	00 16 52.8	
	comp=Z,21nm,1.7s						
146A	**Union**	**89.67**	**332**	P	P	00 14 55.6	-0.4
V61A	**Roper**	**89.76**	**343**	P	P	00 14 56.3	+0.1
V58A	**Windy Hill, Pi**	**90.25**	**341**	P	P	00 14 59.8	+1.2
V58A				IAmb	IAmb	00 15 11.7	
	comp=Z,30nm,1.8s						
S61A	**Accomac**	**91.44**	**344**	P	P	00 15 03.4	-0.6
R61A	**Willards**	**92.02**	**344**	P	P	00 15 05.3	-1.4
R58B	**Mineral**	**92.11**	**342**	P	P	00 15 07.5	+0.5
OZNA	**Ozona**	**92.13**	**322**	P	P	00 15 07.9	+0.4
OZNA				IAmb	IAmb	00 18 13.6	
	comp=Z,23nm,2.0s						
LODK	**Lodwar**	**93.07**	**88**	P	P	00 15 12.0	-0.3
LODK				IAmb	IAmb	00 18 02.5	
	comp=Z,7.0nm,1.3s						

*IDC **07** 00:18:04.0±1.1, 19°.94S×66°.37E, h0^{km}, mb3.9/10,*
mbtmp3.9/10, Error ellipse: s-maj=38.5km s-min=23.4km
az=66.0
ISC 07 00:18:06.7±1.1**,19°.9S**±0°.2×**66°.4E**±0°.3**,h16**^{km}**,n16,**
σ**0^{s}.75**/10**,mb4.0**/10**,Mauritius-Reunion region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
H08S1	**Diego Carcia H**	**13.57**	**27**	T	T	00 35 19.4	
	baz=206						
H08S2	**Diego Garcia H**	**13.58**	**27**	T	T	00 35 21.7	
	baz=206						
H08S3	**Diego Garcia H**	**13.60**	**27**	T	T	00 35 21.7	
	baz=206						
H04N2	**CROZET ISLANDS**	**28.77**	**201**	T	T	00 54 05.9	
	baz=29						
H04N1	**CROZET ISLANDS**	**28.77**	**201**	T	T	00 54 05.9	
	baz=29						
H04N3	**CROZET ISLANDS**	**28.79**	**201**	T	T	00 54 07.7	
	baz=29						
CMAR	**Chiang Mai Arr**	**49.77**	**42**	P	**P**	**00 26 59.1**	**+0.3**
	0.5nm,0.4s,baz=229,slow=9.1,SNR=4.4						
	0.5nm,0.4s						
ASAR	**Alice Springs**	**62.28**	**107**	P	**P**	**00 28 28.2**	**-0.3**
	1.3nm,0.7s,baz=266,slow=6.1,SNR=9.3						
	1.3nm,0.7s						
WRA	**Warramunga Arr**	**63.44**	**103**	P	**P**	**00 28 36.1**	**-0.2**
	1.9nm,1.0s,baz=260,slow=6.1,SNR=4.8						
	1.9nm,1.0s						
BRTR	**Keskin Array B**	**66.77**	**333**	P	**P**	**00 28 57.5**	**0.0**
	0.5nm,0.7s,baz=126,slow=6.3,SNR=3.6						
	0.5nm,0.7s						
MKAR	**Makanchi Array**	**67.96**	**12**	P	**P**	**00 29 03.3**	**-1.5**
	0.9nm,1.0s,baz=193,slow=4.7,SNR=3.7						
	0.9nm,1.0s						
QSPA	**South Pole Qui**	**70.17**	**180**	P	**P**	**00 29 18.7**	**+0.2**
	2.4nm,1.0s,baz=298,slow=4.7,SNR=4.9						
	2.4nm,1.0s						
KURBB	**Kurchatov Arra**	**71.07**	**8**	P	**P**	**00 29 24.7**	**+0.9**
	0.3nm,0.2s,baz=212,slow=7.4,SNR=1.6						
	0.3nm,0.2s						
ZALV	**Zalesovo Beam**	**75.28**	**11**	P	**P**	**00 29 48.2**	**-0.5**
	0.5nm,0.3s,baz=203,slow=6.4,SNR=3.5						
	0.5nm,0.3s						
SONM	**Songino Array**	**76.41**	**26**	P	**P**	**00 29 56.1**	**+0.7**
	0.7nm,0.8s,baz=241,slow=3.1,SNR=4.0						
	0.7nm,0.8s						
AKASG	**Malin Array Be**	**77.58**	**337**	P	**P**	**00 30 01.5**	**-0.2**
	0.2nm,0.3s,baz=162,slow=5.2,SNR=2.6						
	0.2nm,0.3s						

*IDC **07** 00:19:50.3±0.7, 19°.85S×66°.55E, h0^{km}, mb3.8/14,*
mbtmp3.8/14, MS4.0/6, Error ellipse: s-maj=26.4km
s-min=19.2km az=63.0
*GCMT **07** 00:19:54.0±0.3, 20°.12S±0°.03×66°.15E±0°.02, h12^{km},*
MW4.8/89, Moment Tensor Solution. s21,c22; s89,c117;
Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.79±.06;
$M_{\theta\theta}$0.53±.06; $M_{\phi\phi}$1.26±.06; $M_{r\theta}$-0.78±.29; $M_{\theta\phi}$-0.61±.06;
$M_{\phi r}$0.93±.25; Best double couple: $M_0$2.08800×10^{16}
NP1:ϕ_s335.00000°, δ28.00000°, λ-81.00000°. NP2:
ϕ_s145.00000°, δ63.00000°, λ-95.00000°. Principal axes:
T 1.9900, Plg18.0000°, Azm238.0000°; N 0.1960,
Plg4.0000°, Azm147.0000°; P -2.1870, Plg72.0000°,
Azm44.0000°; nsta1 refers to body waves, cutoff=40s.
nsta2 refers to surface waves, cutoff=50s. Surface-wave
location Triangular moment-rate function
ISC 07 00:19:52.9±0.7**,19°.9S**±0°.1×**66°.6E**±0°.2**,h16**^{km}**,n26,**
σ**0^{s}.81**/15**,mb3.9**/13**,MS3.9**/6**,Mauritius-Reunion region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
H08S1	**Diego Carcia H**	**13.44**	**26**	T	T	00 37 02.6	
	baz=204,slow=75,SNR=63						
H08S2	**Diego Garcia H**	**13.45**	**26**	T	T	00 37 01.4	
	baz=204,slow=75,SNR=57						
H08S3	**Diego Garcia H**	**13.46**	**26**	T	T	00 37 04.1	
	baz=204,slow=75,SNR=254						
H04N2	**CROZET ISLANDS**	**28.89**	**201**	T	T	00 55 58.6	
	baz=30,slow=75,SNR=191						
H04N1	**CROZET ISLANDS**	**28.90**	**202**	T	T	00 55 57.1	
	baz=30,slow=75,SNR=61						
H04N3	**CROZET ISLANDS**	**28.91**	**202**	T	T	00 55 55.9	
	baz=30,slow=75,SNR=77						
PALK	**Pallekele**	**30.36**	**29**	LR	LR	00 35 07.6	
	comp=Z,260nm,19.4s,baz=208,slow=30						
LBTB	**Lobatse**	**38.10**	**255**	LR	LR	00 41 17.8	
	comp=Z,220nm,18.0s,baz=100,slow=34						
BOSA	**Boshof**	**38.49**	**249**	LR	LR	00 39 37.6	
	comp=Z,208nm,19.5s,baz=64,slow=31						
MBAR	**Mbarara**	**39.95**	**294**	LR	LR	00 41 45.1	
	comp=Z,128nm,19.7s,baz=124,slow=33						
NWAO	**Narrogin (SRO)**	**46.81**	**117**	LR	LR	00 43 51.5	
	comp=Z,153nm,21.7s,baz=294,slow=31						
MAW	**Mawson**	**47.77**	**182**	P	**P**	**00 28 28.6**	**-0.4**
	0.9nm,0.6s,baz=349,slow=10,SNR=2.2						
	0.9nm,0.6s						
CMAR	**Chiang Mai Arr**	**49.61**	**42**	P	**P**	**00 28 44.0**	**+0.2**
	0.4nm,0.3s,baz=232,slow=7.3,SNR=6.7						
	0.4nm,0.3s						
ASAR	**Alice Springs**	**62.15**	**107**	P	**P**	**00 30 14.0**	**+0.2**
	1.9nm,0.8s,baz=267,slow=5.7,SNR=17						
	1.9nm,0.8s						
WRA	**Warramunga Arr**	**63.30**	**103**	P	**P**	**00 30 21.5**	**0.0**
	1.6nm,1.0s,baz=259,slow=5.5,SNR=7.7						
	1.6nm,1.0s						
BRTR	**Keskin Array B**	**66.78**	**333**	P	**P**	**00 30 43.6**	**-0.2**
	0.6nm,0.8s,baz=116,slow=11,SNR=5.9						
	0.6nm,0.8s						
MKAR	**Makanchi Array**	**67.86**	**12**	P	**P**	**00 30 49.6**	**-0.7**
	0.6nm,0.9s,baz=204,slow=11,SNR=3.9						
	0.6nm,0.9s						
QSPA	**South Pole Qui**	**70.23**	**180**	P	**P**	**00 31 05.2**	**+0.1**
	1.7nm,1.0s,baz=303,slow=2.3,SNR=3.6						
	1.7nm,1.0s						
KURBB	**Kurchatov Arra**	**70.98**	**8**	P	**P**	**00 31 10.1**	**+0.6**
	0.3nm,0.3s,baz=203,slow=6.8,SNR=4.5						
	0.3nm,0.3s						
TORD	**Torodi Ar. Bea**	**71.75**	**292**	P	**P**	**00 31 16.6**	**+1.7**
	0.6nm,0.9s,baz=167,slow=6.3,SNR=3.7						
	0.6nm,0.9s						
BVAR	**Borovoye Array**	**72.67**	**2**	P	**P**	**00 31 20.0**	**+0.4**
	0.8nm,0.6s,baz=186,slow=10,SNR=4.2						
	0.8nm,0.6s						
ZALV	**Zalesovo Beam**	**75.19**	**11**	P	**P**	**00 31 33.4**	**-0.9**
	1.0nm,0.6s,baz=207,slow=4.6,SNR=5.4						
	1.0nm,0.6s						
SONM	**Songino Array**	**76.28**	**26**	P	**P**	**00 31 41.8**	**+0.9**
	0.5nm,0.7s,baz=235,slow=5.1,SNR=2.6						
SONM				LR	LR	01 04 18.0	
	comp=Z,97nm,20.5s,baz=194,slow=35						
	0.5nm,0.7s						
AKASG	**Malin Array Be**	**77.58**	**337**	P	**P**	**00 31 46.8**	**-1.1**
	0.6nm,0.6s,baz=164,slow=4.9,SNR=6.5						
	0.6nm,0.6s						
ESDC	**Sonseca Array**	**88.43**	**313**	P	**P**	**00 32 43.7**	**-0.8**
	1.0nm,1.1s,baz=80,slow=8.3,SNR=4.1						
	1.0nm,1.1s						
ULM	**Lac du Bonnet**	**146.63**	**339**	PKPbc	**PKPbc**	**00 39 33.1**	**-0.5**
	4.9nm,0.7s,baz=327,slow=4.5,SNR=3.0						

*IDC **07** 00:30:34.6±1.6, 36°.02N×136°.12E, h0^{km}, mb3.4/2,*
mbtmp3.4/2, MS3.6/2, Error ellipse: s-maj=28.5km
s-min=18.4km az=165.0
*JMA **07** 00:30:35.4±0.1, 36°.1N±0°.2×136°.2E±0°.2, h6^{km}, MV3.3/20,*
CENTRAL FUKUI PREF
JMA Felt III J1 at CENTRAL FUKUI PREF .
ISC 07 00:30:36.0±1.0**,36°.12N**±0°.05×**136°.21E**±0°.08**,h15**^{km}**,n9,**
σ**0^{s}.96**/9**,2D,Near west coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JKG	**Kaga**	**0.19**	**32**	*i* P	**Pg**	**00 30 39.6**	**-0.9**
JKG				S	**Sg**	**00 30 42.7**	**-0.7**
JFM	**Mihama**	**0.62**	**197**	P	**Pg**	**00 30 47.3**	**-0.9**
JYTA	**Yamagatataniai**	**0.68**	**141**	⇓*i*P	**Pg**	**00 30 48.5**	**-0.7**
JYTA				⇓S	**Sg**	**00 30 58.0**	**-0.3**
JGN	**Niukaw**	**0.90**	**83**	*i* P	**Pb**	**00 30 52.9**	**-0.5**
MJAR	**Matsushiro Arr**	**1.67**	**75**	Pn	**Pn**	**00 31 06.3**	**+1.6**
	3.2nm,0.3s,baz=258,slow=18,SNR=44						
MJAR				Lg	Lg	00 31 31.0	
	1.1nm,0.3s,baz=251,slow=26,SNR=8.5						
MKAR	**Makanchi Array**	**41.06**	**302**	P	**P**	**00 38 19.1**	**+0.3**
	0.2nm,0.6s,baz=93,slow=8.7,SNR=2.1						
	0.2nm,0.6s						
ARTI	**Arti**	**54.36**	**318**	LR	LR	01 04 09.8	
	comp=Z,53nm,19.1s,baz=184,slow=37						
WRA	**Warramunga Arr**	**55.78**	**182**	P	**P**	**00 40 12.7**	**+0.3**
	0.8nm,1.0s,baz=1.4,slow=7.8,SNR=2.6						
	0.8nm,1.0s						
KIRV	**Kirov**	**58.42**	**322**	LR	LR	01 07 53.8	
	comp=Z,64nm,21.1s,baz=151,slow=38						

*IDC **07** 00:34:05.9±0.8, 36°.09N×136°.11E, h0^{km}, mb3.8/8,*
mbtmp3.8/8, MS3.3/3, Error ellipse: s-maj=21.9km
s-min=15.5km az=4.0
*JMA **07** 00:34:07.7±0.1, 36°.1N±0°.2×136°.2E±0°.2, h5^{km}, MV3.3/20,*
CENTRAL FUKUI PREF
JMA Felt II J1 at CENTRAL FUKUI PREF .
ISC 07 00:34:08.0±0.7**,36°.13N**±0°.05×**136°.20E**±0°.07**,h15**^{km}**,n16,**
σ**0^{s}.78**/15**,mb3.9**/8**,2D,Near west coast of eastern**
Honshu

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JKG	**Kaga**	**0.18**	**36**	*i* P	**Pg**	**00 34 11.9**	**-0.4**
JKG				S	**Sg**	**00 34 14.6**	**-0.7**
JFM	**Mihama**	**0.62**	**196**	*i* P	**Pg**	**00 34 19.7**	**-0.5**
JYTA	**Yamagatataniai**	**0.69**	**141**	⇓*i*P	**Pg**	**00 34 20.9**	**-0.5**
JYTA				⇓S	**Sg**	**00 34 30.5**	**0.0**
JGN	**Niukaw**	**0.91**	**84**	*i* P	**Pb**	**00 34 25.3**	**-0.1**
MJAR	**Matsushiro Arr**	**1.67**	**75**	Pn	**Pn**	**00 34 38.2**	**+1.5**
	2.9nm,0.3s,baz=260,slow=16,SNR=41						
MJAR				Lg	Lg	00 35 02.9	
	1.0nm,0.3s,baz=262,slow=26,SNR=5.2						
KLR	**Kul'dur**	**13.49**	**347**	LR	LR	00 41 40.0	
	comp=Z,38nm,18.3s,baz=158,slow=34						
SONM	**Songino Array**	**24.90**	**307**	P	**P**	**00 39 31.2**	**+0.9**
	0.8nm,0.7s,baz=107,slow=9.5,SNR=4.2						
	0.8nm,0.7s						
MKAR	**Makanchi Array**	**41.05**	**302**	P	**P**	**00 41 51.6**	**+1.0**
	0.5nm,0.7s,baz=91,slow=9.5,SNR=4.9						
	0.5nm,0.7s						
KURBB	**Kurchatov Arra**	**43.26**	**308**	P	**P**	**00 42 08.2**	**-0.4**
	1.2nm,0.9s,baz=87,slow=8.0,SNR=11						
	1.2nm,0.9s						
WRA	**Warramunga Arr**	**55.79**	**182**	P	**P**	**00 43 43.9**	**-0.5**
	1.3nm,0.7s,baz=358,slow=7.6,SNR=9.4						
	1.3nm,0.7s						
ASAR	**Alice Springs**	**59.51**	**182**	P	**P**	**00 44 11.2**	**+0.6**
	0.6nm,0.7s,baz=0.9,slow=7.6,SNR=6.0						
	0.6nm,0.7s						
ARCES	**ARCESS Array B**	**63.33**	**338**	LR	LR	01 16 46.1	
	comp=Z,35nm,18.3s,baz=79,slow=40						
FINES	**FINESS Array B**	**67.61**	**331**	P	**P**	**00 45 03.0**	**-0.7**
	2.2nm,0.9s,baz=222,slow=2.6,SNR=4.3						
	2.2nm,0.9s						
AFI	**Afiamalu**	**69.91**	**125**	LR	LR	01 12 28.2	
	comp=Z,37nm,21.0s,baz=144,slow=33						
AKASG	**Malin Array Be**	**72.38**	**320**	P	**P**	**00 45 33.3**	**+0.1**
	0.8nm,0.7s,baz=44,slow=6.7,SNR=6.5						
	0.8nm,0.7s						
TXAR	**Lajitas Array**	**93.94**	**49**	P	**P**	**00 47 24.6**	**-0.9**
	0.5nm,0.9s,baz=294,slow=4.3,SNR=4.3						
	0.5nm,0.9s						

*NEIC **07** 00:47:06, 38°.15N×117°.95W, h12^{km}, Moment Tensor*
Solution. Moment tensor: Scale 10^{14}Nm; M_{rr}0.16;
$M_{\theta\theta}$0.18; $M_{\phi\phi}$-0.35; $M_{r\theta}$0.47; $M_{\theta\phi}$0.97; $M_{\phi r}$0.10; Fault
plane solution: $M_0$1.12000×10^{14} NP1:ϕ_s100.00000°,
δ80.00000°, λ25.00000°. NP2:ϕ_s5.00000°, δ65.00000°,
λ169.00000°. Principal axes: T 1.1220, Plg25.0000°,
Azm325.0000°; N -0.0002, Plg63.0000°, Azm120.0000°;
P -1.1219, Plg10.0000°, Azm231.0000°;
*REN **07** 00:47:06.9±0.6, 38°.15N±0°.01×117°.95W±0°.01, h10^{km}±3^{km}*
Error ellipse: s-maj=1.8km s-min=1.6km az=162.0
NEIC 07 00:47:07.0±0.9**,38°.18N**±0°.02×**117°.95W**±0°.01**,h10**^{km}±1^{km}**,**
ML3.3/130**,ML3.5**/17(REN)**,Mwr3.3**/21(SLM)**,Error**
ellipse: s-maj=2.9km s-min=2.5km az=197.0,Nevada

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
COLR	**Columbus**	**0.09**	**245**		Pg	00 47 09.8	+0.1
COLR					Sg	00 47 11.9	+0.3
NV11	**Mina Array Sit**	**0.30**	**326**		Pg	00 47 13.6	+0.5
NV11					Sg	00 47 17.7	+0.6
NV06	**Mina Array Sit**	**0.35**	**313**		Pg	00 47 14.6	+0.5
NV06					Sb	00 47 20.5	-0.7
NV07	**Mina Array Sit**	**0.35**	**310**		Pg	00 47 14.7	+0.5
NV03	**Mina Array Sit**	**0.37**	**312**		Pg	00 47 14.8	+0.5
NV03					Sb	00 47 20.5	-1.1
NV08	**Mina Array Sit**	**0.37**	**307**		Pg	00 47 14.7	+0.4
NV08					Sg	00 47 20.4	+1.2
NV04	**Mina Array Sit**	**0.37**	**310**		Pg	00 47 15.0	+0.6
NV01	**Mina Array Sit**	**0.37**	**311**		Pg	00 47 14.9	+0.5
NV01					Sb	00 47 20.8	-1.0
NVAR	**Mina Array Bea**	**0.37**	**311**	Pg	Pg	00 47 14.8	+0.3
NV05	**Mina Array Sit**	**0.38**	**314**		Pg	00 47 15.0	+0.4
NV05					Sg	00 47 20.7	+1.1
NV02	**Mina Array Sit**	**0.38**	**312**		Pg	00 47 15.1	+0.5
NV02					Sb	00 47 20.9	-1.1
NV09	**Mina Array Sit**	**0.40**	**309**		Pg	00 47 15.3	+0.4
NV09					Sb	00 47 21.7	-0.8
LHV	**Little Huntoon**	**0.44**	**279**		Pg	00 47 16.1	+0.4
LHV					Sg	00 47 22.5	+0.9
TPH	**Tonopah**	**0.58**	**101**		Pg	00 47 18.1	-0.2
TPH					Sg	00 47 26.1	+0.1
TPH				IAML		00 47 26.7	
	comp=E,2µm,0.5s						
RYN	**Ryan**	**0.63**	**315**		Pg	00 47 19.7	+0.4
RYN				IAML		00 47 21.9	
	comp=N,1µm,0.3s						
RYN				IAML		00 47 34.1	
	comp=E,1µm,0.7s						
DSP	**Deep Springs**	**0.81**	**181**		Pg	00 47 22.1	-0.6
KVN	**Kaiserville**	**0.87**	**352**		Pg	00 47 23.8	-0.1
KVN				IAML		00 47 40.2	
	comp=N,860nm,0.5s						
KVN				IAML		00 47 40.2	
	comp=E,745nm,0.4s						
Q09A	**Carvers**	**0.88**	**43**		Pg	00 47 24.2	+0.2
MLAC	**Mammoth, Mammo**	**0.90**	**232**		Pg	00 47 23.9	-0.3
MCBM	**Casa Benchmark**	**0.93**	**235**		Pg	00 47 24.5	-0.3
LCH	**Last Change Ra**	**0.98**	**166**		Pg	00 47 25.1	-0.7
MDYM	**Dry Creek**	**0.99**	**238**		Pg	00 47 25.9	-0.2
GMN	**Gold Mountain**	**1.04**	**148**		Pg	00 47 26.3	-0.6
MDPB	**Devils Postpil**	**1.05**	**239**		Pg	00 47 26.6	-0.6
MDPB				IAML		00 47 41.0	
	comp=N,751nm,0.4s						
MDPB				IAML		00 47 41.2	
	comp=E,553nm,0.6s						
TIN	**Tinemaha, Big**	**1.15**	**191**		Pb	00 47 28.7	-0.3
WAKR	**Walker**	**1.22**	**286**		Pb	00 47 29.8	-0.4
GRAC	**Grapevine Rang**	**1.27**	**159**		Pn	00 47 30.6	-0.3
YERR	**Yerington**	**1.29**	**309**		Pn	00 47 30.8	-0.5
YERR				IAML		00 47 50.4	
	comp=E,831nm,0.6s						
YERR				IAML		00 47 52.1	
	comp=N,502nm,0.5s						
PNTR	**Pine Nut**	**1.58**	**305**		Pn	00 47 34.9	-0.4
PNTR				IAML		00 48 00.4	
	comp=N,291nm,0.9s						
PNTR				IAML		00 48 03.2	
	comp=E,476nm,0.9s						
WCT	**Wildcat Mounta**	**1.74**	**142**		Pn	00 47 36.8	-0.6
WCT				Sg	Sb	00 48 01.6	+0.5
WCT				IAML		00 48 03.9	
	comp=E,439nm,0.5s						
WCT				IAML		00 48 04.3	
	comp=N,454nm,0.4s						
CWC	**Cottonwood Cre**	**1.74**	**184**		Pn	00 47 36.7	-0.8
CWC				Sg	Sg	00 48 02.4	-0.7
TPNV	**Topopah Spring**	**1.83**	**132**		Pn	00 47 38.1	-0.5
TPNV				Sg	Sg	00 48 05.3	-0.5
TPNV				IAML		00 48 08.2	
	comp=N,387nm,0.4s						
TPNV				IAML		00 48 09.9	
	comp=N,433nm,0.8s						
FURC	**Furnace Creek,**	**1.92**	**153**		Pn	00 47 40.9	+1.2
FURC				Sg	Sg	00 48 08.2	-0.4
CMB	**Columbia Colle**	**1.93**	**266**		Pn	00 47 39.8	-0.2
CMB				IAML		00 48 08.7	
	comp=N,226nm,0.5s						
CPY	**CP-1**	**1.95**	**129**		Pn	00 47 39.9	-0.5
MPK	**Martis Peak**	**1.97**	**305**		Pn	00 47 39.3	-1.4
MPK				IAML		00 48 13.4	
	comp=N,206nm,0.7s						
MPK				IAML		00 48 13.7	
	comp=E,207nm,0.6s						
PEAR	**Peavine Mounta**	**2.12**	**313**		Pn	00 47 43.0	+0.3
GWY	**Greenwater Val**	**2.24**	**153**		Pn	00 47 44.0	-0.3
GWY	**Greenwater Val**	**2.24**	**153**	IAML		00 48 17.9	
	comp=N,266nm,0.5s						
BMN	**Battle Mountai**	**2.31**	**14**		Pn	00 47 45.4	+0.1
BMN	**Battle Mountai**	**2.31**	**14**	IAML		00 48 22.2	
	comp=E,174nm,0.5s						
TOW	**Tower One**	**2.38**	**176**		Pn	00 47 46.9	+0.8
QSM	**Queen of Sheba**	**2.38**	**158**		Pn	00 47 46.0	0.0
QSM	**Queen of Sheba**	**2.38**	**158**	IAML		00 48 24.5	
	comp=N,138nm,0.5s						
QSM				IAML		00 48 24.9	
	comp=E,189nm,0.5s						
PRN	**Pahroc Range**	**2.42**	**108**		Pn	00 47 46.3	-0.4
AFDM	**Forest Hills D**	**2.49**	**289**	IAML		00 48 29.5	
	comp=N,84nm,0.5s						
AFDM				IAML		00 48 30.4	
	comp=E,86nm,0.4s						
SRTC	**Snort**	**2.49**	**176**		Pn	00 47 47.9	+0.3
VES	**Vestal, Richgr**	**2.51**	**202**	IAML		00 48 25.7	
	comp=N,176nm,0.6s						
VES				IAML		00 48 26.9	
	comp=E,205nm,0.5s						
BEKR	**Beckworth**	**2.52**	**313**		Pn	00 47 49.3	+1.1
ISA	**Isabella, Lake**	**2.55**	**190**	IAML		00 48 28.9	
	comp=E,101nm,1.0s						
CCCA	**Chr Cany lake**	**2.69**	**170**	IAML		00 48 37.0	
	comp=E,140nm,1.4s						
CCCA				IAML		00 48 43.6	
	comp=N,170nm,1.1s						
LRMC	**Laurel Mtn Rad**	**2.71**	**175**	IAML		00 48 35.2	
	comp=E,69nm,0.7s						
SHPR	**Sheep Range**	**2.78**	**126**		Pn	00 47 52.4	+0.6
SHPR	**Sheep Range**	**2.78**	**126**	IAML		00 48 36.9	
	comp=E,90nm,0.8s						
PMPB	**Monarch Peak**	**3.01**	**230**	IAML		00 48 49.7	
	comp=E,108nm,0.9s						
PMPB				IAML		00 48 56.1	
	comp=N,81nm,1.4s						
GSC	**Goldstone, Bar**	**3.02**	**162**	IAML		00 48 47.0	
	comp=N,85nm,1.3s						
GSC				IAML		00 48 50.6	
	comp=E,91nm,0.7s						
MHC	**Mount Hamilton**	**3.05**	**255**	IAML		00 48 44.8	
	comp=N,139nm,0.7s						
MHC				IAML		00 48 47.3	
	comp=E,112nm,0.7s						
SUTB	**Sutter Butte**	**3.18**	**290**	IAML		00 48 54.8	
	comp=N,136nm,0.4s						
ELK	**Elko**	**3.31**	**38**		Pn	00 47 59.4	+0.3
ELK	**Elko**	**3.31**	**38**	IAML		00 48 54.1	
	comp=N,55nm,0.3s						
HULI	**Fort Hunter Li**	**3.40**	**232**	IAML		00 49 00.9	
	comp=N,46nm,1.8s						
CVS	**Carmenet Viney**	**3.56**	**274**	IAML		00 49 00.5	
	comp=N,43nm,0.7s						
CVS				IAML		00 49 04.3	
	comp=E,58nm,0.9s						
O03E	**Paynes Creek**	**3.66**	**306**	IAML		00 49 15.7	
	comp=E,36nm,0.9s						
HATC	**Hat Creek Radi**	**3.78**	**315**	IAML		00 49 19.3	
	comp=N,42nm,3.8s						
HATC				IAML		00 49 45.2	
	comp=E,35nm,2.5s						
MWC	**Mount Wilson**	**3.95**	**181**	IAML		00 49 21.3	
	comp=N,26nm,1.1s						
MOD	**Modoc Plateau**	**4.13**	**335**	IAML		00 49 24.3	
	comp=E,26nm,0.6s						
WVOR	**Wild Horse Val**	**4.28**	**353**	IAML		00 49 30.8	
	comp=E,20nm,0.8s						
WVOR				IAML		00 49 30.9	
	comp=E,22nm,1.2s						
DUG	**Dugway, Tooele**	**4.46**	**62**	IAML		00 49 29.1	
	comp=E,53nm,0.9s						
DUG				IAML		00 49 29.8	
	comp=E,38nm,0.7s						
BLYC	**Blythe**	**5.22**	**147**	IAML		00 49 59.5	
	comp=E,19nm,0.8s						
BLYC				IAML		00 50 01.3	
	comp=N,12nm,0.6s						

NNC ***07*** *00:47:50.6±0.7, 42°.92N×79°.30E, h0^{km}, mpv2.3, Error ellipse: s-maj=4.5km s-min=2.4km az=156.0*
KRNET ***07*** *00:47:50.2±0.1, 42°.87N×79°.30E, h11^{km}, mb2.6*
SOME ***07*** *00:47:51.0, 42°.92N×79°.28E, h10^{km}*
ISC 07 00:47:50.6±1.9**, 42°.89N**±0°.05×**79°.31E**±0°.05**, h1**^{km}±13^{km}**, n14, σ1^{s}22**/28**, 8C, Lake Issyk-Kul region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHLS	**Shalkode**	**0.29**	**23**	P	**Pn**	**00 48 00.6**	**-1.7**
	4.7nm,0.1s						
SHLS				S	**Sb**	**00 48 07.5**	**+3.3**
	31nm,0.3s						
SHLS	**Shalkode**	**0.29**	**23**	*e*P	**Pn**	**00 48 00.6**	**-1.7**
	4.7nm,0.1s						
SHLS				*e*S	**Sb**	**00 48 07.5**	**+3.3**
	31nm,0.3s						
UZB	**Uzynbulak**	**0.34**	**321**	P	**Pg**	**00 47 57.3**	**+0.2**
	3.0nm,0.1s						
UZB				S	**Sg**	**00 48 01.9**	**+0.5**
	27nm,0.1s						
UZB	**Uzynbulak**	**0.34**	**321**	*e*P	**Pg**	**00 47 57.3**	**+0.2**
UZB				*e*S	**Sg**	**00 48 01.9**	**+0.5**
PDGK	**Podgornoye**	**0.46**	**17**	⇑P	**Pg**	**00 47 58.9**	**-0.6**
	1.0nm,0.2s						
PDGK				⇑S	**Sg**	**00 48 05.1**	**-0.4**
	4.6nm,0.4s						
SATY	**Saty**	**0.68**	**285**	P	**Pg**	**00 48 03.7**	**0.0**
	2.1nm,0.2s						
SATY				S	**Sg**	**00 48 12.9**	**+0.4**
	13nm,0.2s						
SATY	**Saty**	**0.68**	**285**	*e*P	**Pg**	**00 48 03.7**	**0.0**
	2.1nm,0.2s						
SATY				*e*S	**Sg**	**00 48 12.9**	**+0.4**
	13nm,0.2s						
KPKS	**Kokpek**	**0.74**	**322**	P	**Pg**	**00 48 04.5**	**-0.3**
	0.1nm,0.1s						
KPKS				S	**Sg**	**00 48 14.1**	**-0.3**
	12nm,0.3s						
KPKS	**Kokpek**	**0.74**	**322**	*e*P	**Pg**	**00 48 04.5**	**-0.3**
	0.1nm,0.1s						
KPKS				*e*S	**Sg**	**00 48 14.1**	**-0.3**
	12nm,0.3s						
TARG	**Taragay, Kyrgy**	**1.60**	**224**	⇑*i*P	**Pn**	**00 48 19.9**	**-0.6**
TARG				⇑*i*S	**Sn**	**00 48 41.8**	**-0.3**
ARXS	**Arharly**	**1.71**	**321**	P	**Pn**	**00 48 21.7**	**+0.1**
ARXS				S	**Sb**	**00 48 43.8**	**-1.1**
ARXS	**Arharly**	**1.71**	**321**	*e*P	**Pn**	**00 48 21.7**	**+0.1**
	0.5nm,0.1s						
ARXS				*e*S	**Sb**	**00 48 43.8**	**-1.1**
	5.8nm,0.2s						
KDJ	**Kajisay**	**1.74**	**245**	⇑*i*P	**Pn**	**00 48 22.8**	**+0.6**
KDJ				⇑*i*S	**Sb**	**00 48 46.1**	**+0.1**
BOOM	**Boomskoye usch**	**2.51**	**262**	⇑*i*P	**Pn**	**00 48 34.1**	**+1.3**
BOOM				⇑*i*S	**Sb**	**00 49 06.8**	**-1.4**

IDC 07 00:52:03.4±3.3**, 37°.63N**×**78°.80E, h0**^{km}**, mb3.7**/1**, mbtmp3.5**/4**, ML3.1**/3**, MS3.6**/1**, Error ellipse: s-maj=95.6km s-min=37.7km az=108.0, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	**Makanchi Array**	**9.52**	**15**	Pn	Pn	00 54 23.6	+1.8
	0.5nm,0.3s,baz=202,slow=14,SNR=10						
MKAR				Sn	Sn	00 56 06.3	-3.2
	0.3nm,0.3s,baz=201,slow=23,SNR=2.9						
	0.7nm,0.3s						
MKAR				AML	AML		
BVAR	**Borovoye Array**	**16.48**	**342**	Pn	Pn	00 55 56.2	+0.3
	baz=152,slow=9.6,SNR=5.3						
	0.6nm,0.5s						
ZALV	**Zalesovo Beam**	**16.84**	**12**	Pn	P	00 56 02.2	-0.5
	0.2nm,0.3s,baz=210,slow=11,SNR=2.6						
	0.4nm,0.3s						
ZALV				AML	AML		
TIXI	**Tiksi**	**42.43**	**21**	LR	LR	01 19 56.0	
	comp=Z,71nm,20.9s,baz=242,slow=39						
YKA	**Yellowknife Ar**	**79.64**	**6**	P	P	01 04 11.7	-0.6
	0.3nm,0.5s,baz=349,slow=5.5,SNR=5.1						
	0.3nm,0.5s						

SSNC ***07*** *00:52:22.4±2.6, 19°.34N×70°.24W, h10^{km}±22^{km}, MD3.6, ML3.5, Presumed earthquake*
SDD ***07*** *00:52:23.4±3.7, 19°.50N×70°.43W, h40^{km}±18^{km}, MD3.3, ML3.3, MW3.5, Presumed earthquake*
OSPL ***07*** *00:52:27.4±2.8, 19°.48N×70°.41W, h11^{km}±9^{km}, ML3.1, Presumed earthquake*
ISC 07 00:52:25.4±1.0**, 19°.50N**±0°.03×**70°.44W**±0°.02**, h26**^{km}±9^{km}**, n44, σ1^{s}27**/67**, 21C-9D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SC01	**Santiago de lo**	**0.28**	**256**	*i* P	**Pb**	**00 52 32.5**	**+0.2**
SC01				*e*S	**Sn**	**00 52 38.4**	**-1.0**
SC01				IAML		00 52 42.0	
	comp=Z,1µm,0.6s						
SC01	**Santiago de lo**	**0.28**	**256**	⇓*e*Pg	**Pb**	**00 52 32.6**	**+0.4**
SC01				⇑*e*Sg	**Sn**	**00 52 38.5**	**-0.8**
SC01				IAML		00 52 43.9	
	comp=N,2µm,0.3s						
SODR	**Sosua Marina B**	**0.28**	**333**	⇑*e*Pg	**Pb**	**00 52 32.5**	**+0.2**
SODR				⇑*e*Sg	**Sn**	**00 52 38.7**	**-0.8**
SODR				IAML		00 52 41.5	
	comp=N,2µm,0.8s						
LUDR	**Luperon**	**0.62**	**309**	⇑*e*Pg	**Pb**	**00 52 37.8**	**0.0**
MADR	**Mao Valverde**	**0.63**	**276**	⇑*e*Pg	**Pn**	**00 52 39.3**	**+0.6**
MADR				⇓*e*Sg	**Sb**	**00 52 47.0**	**+0.7**
MADR				IAML		00 52 55.8	
	comp=N,3µm,0.3s						
ABDR	**Alto Bandera**	**0.70**	**194**	⇓*e*Pg	**Pb**	**00 52 38.8**	**-0.5**
ABDR				⇓*e*Sg	**Sn**	**00 52 49.8**	**-0.5**
ABDR				IAML		00 52 50.3	
	comp=N,1µm,0.1s						
LOPP1	**Punta Rusia, P**	**0.80**	**297**	*i* P	**Pn**	**00 52 41.1**	**0.0**
LOPP1				*e*S	**Sn**	**00 52 54.1**	**+2.0**
LOPP1				IAML		00 52 59.3	
	comp=Z,1µm,1.0s						
SDDR	**Presa de Saban**	**0.95**	**238**	*e*P	**Pb**	**00 52 42.6**	**-0.7**
SDDR				*e*S	**Sb**	**00 52 53.9**	**-1.6**
SDDR				IAML		00 52 57.7	
	comp=Z,317nm,0.3s						
SDDR				IAML		00 52 58.0	
	comp=Z,396nm,0.3s						
SDDR	**Presa de Saban**	**0.95**	**238**	*i* P	**Pb**	**00 52 42.8**	**-0.5**
SDDR				*e*S	**Sn**	**00 52 56.6**	**+0.7**
SDDR	**Presa de Saban**	**0.95**	**238**	⇑*e*Pg	**Pn**	**00 52 43.3**	**+0.1**
SDDR				⇑*e*Sg	**Sn**	**00 52 56.1**	**+0.1**
SDDR				IAML		00 52 59.5	
	comp=N,338nm,0.6s						
REDR	**Restauracion**	**0.96**	**250**	⇑*e*Pg	**Pn**	**00 52 47.1**	**+3.8**
REDR				⇑*e*Sg	**Sn**	**00 53 00.1**	**+4.1**
REDR				IAML		00 53 06.0	
	comp=N,3µm,0.1s						
BANI	**BANI**	**1.10**	**176**	⇑*e*Pg	**Pn**	**00 52 45.6**	**+0.3**
BANI				⇑*e*Sg	**Sn**	**00 53 00.8**	**+0.9**
BANI				IAML		00 53 04.3	
	comp=N,898nm,0.2s						
LOSC1	**San Cristbal**	**1.13**	**164**	*i* P	**Pb**	**00 52 46.6**	**+0.3**
LOSC1				*e*S	**Sn**	**00 53 01.0**	**+0.7**
LOSC1				IAML		00 53 04.0	
	comp=Z,908nm,1.9s						
SDD	**Santo Domingo**	**1.15**	**154**	*i* P	**Pn**	**00 52 45.8**	**-0.1**
SDD				*e*S	**Sn**	**00 53 01.1**	**+0.3**
SDD	**Santo Domingo**	**1.15**	**154**	⇑*e*Pg	**Pn**	**00 52 46.0**	**+0.1**
SDD				IAML		00 53 02.0	
	comp=N,253nm,0.3s						
LODA1	**ITESIL, Dajabo**	**1.19**	**272**	*i* P	**Pb**	**00 52 47.6**	**+0.2**
LODA1				*e*S	**Sn**	**00 53 04.2**	**+2.4**
LODA1				IAML		00 53 06.3	
	comp=Z,1µm,1.0s						
SMDR	**Samana, DR**	**1.20**	**100**	⇑*e*Pg	**Pn**	**00 52 46.6**	**0.0**
SMDR				⇓*e*Sg	**Sb**	**00 53 02.2**	**-0.4**
SMDR				IAML		00 53 07.8	
	comp=N,500nm,0.7s						
MCDR	**Montecristi**	**1.21**	**289**	⇑*e*Pg	**Pb**	**00 52 47.3**	**-0.4**
MCDR				⇓*e*Sg	**Sb**	**00 53 01.3**	**-1.7**
MCDR				IAML		00 53 13.4	
	comp=N,1µm,0.2s						
LONE3	**El Aguacate, B**	**1.31**	**227**	*i* P	**Pb**	**00 52 49.5**	**0.0**
LONE3				IAML		00 53 10.2	
	comp=Z,318nm,0.4s						
NEDR	**Neiba UASD**	**1.37**	**223**	⇑*e*Pg	**Pb**	**00 52 50.7**	**+0.4**
NEDR				⇓*e*Sg	**Sb**	**00 53 07.7**	**+0.3**
NEDR				IAML		00 53 13.0	
	comp=N,381nm,0.3s						
LODU1	**El Espartillar**	**1.50**	**221**	*i* P	**Pb**	**00 52 53.2**	**+0.6**
LODU1				IAML		00 53 18.1	
	comp=Z,348nm,0.4s						
HIDR	**Higuey Centro**	**1.86**	**119**	⇓*e*Pg	**Pb**	**00 52 58.0**	**-0.8**
HIDR				IAML		00 53 28.1	
	comp=N,457nm,0.2s						
LOVI	**El Cajuil, Ovi**	**1.90**	**208**	*i* P	**Pb**	**00 52 59.9**	**+0.3**
LOVI				IAML		00 53 27.7	
	comp=Z,58nm,0.3s						
LOBH	**Bahia de las A**	**1.98**	**215**	*i* P	**Pb**	**00 53 01.2**	**+0.3**
LOBH				IAML		00 53 33.8	
	comp=Z,95nm,2.3s						
GRTK	**Grand Turk**	**2.11**	**342**	*e*P	**Pn**	**00 52 59.3**	**+0.2**
GRTK				*e*S	**Sn**	**00 53 25.2**	**+0.8**
GRTK				IAML		00 53 28.7	
	comp=Z,418nm,0.2s						
GRTK				IAML		00 53 30.3	
	comp=Z,324nm,0.2s						
GRTK	**Grand Turk**	**2.11**	**342**	*i* P	**Pn**	**00 53 01.0**	**+1.9**
GRTK				*e*S	**Sn**	**00 53 26.0**	**+1.6**
GRTK	**Grand Turk**	**2.11**	**342**	⇑*e*Pg	**Pn**	**00 52 59.6**	**+0.5**
GRTK				IAML		00 53 38.7	
	comp=N,167nm,0.4s						
PCDR	**Punta Cana, DR**	**2.18**	**116**	⇑*e*Pg	**Pn**	**00 53 00.9**	**+0.8**
PCDR				⇑*e*Sg	**Sn**	**00 53 25.5**	**-0.8**
PCDR				IAML		00 53 40.9	
	comp=N,182nm,0.5s						
AGPR	**Aguadilla, PR**	**3.31**	**107**	⇑*e*Pg	**Pn**	**00 53 18.0**	**+2.4**
AGPR				IAML		00 54 28.9	
	comp=N,79nm,1.4s						
CRPR	**Cabo Rojo, PR**	**3.49**	**115**	*e*Pg	**Pn**	**00 53 18.5**	**+0.4**
CRPR				IAML		00 54 24.7	
	comp=N,44nm,0.8s						
MASC	**Masc**	**3.63**	**281**	*e*P	**Pn**	**00 53 19.1**	**-0.9**
MASC				*e*S	**Sn**	**00 54 02.1**	**0.0**
MASC				*e*Sg	**Sb**	**00 54 12.3**	**-0.3**
MASC	**Masc**	**3.63**	**281**	⇑*e*Pg	**Pn**	**00 53 19.3**	**-0.7**
MASC				IAML		00 54 23.3	
	comp=N,23nm,0.4s						
AOPR	**Arecibo Observ**	**3.67**	**108**	⇑*e*Pg	**Pn**	**00 53 22.1**	**+1.4**
AOPR				IAML		00 54 29.0	
	comp=N,95nm,0.3s						
CELP	**Cerrillos**	**3.92**	**111**	*e*Pg	**Pn**	**00 53 25.7**	**+1.6**
CELP				IAML		00 54 34.3	
	comp=N,12nm,0.7s						
QMBU	**Quimbuelo**	**4.17**	**280**	*e*P	**Pn**	**00 53 26.2**	**-1.3**
QMBU				*e*S	**Sn**	**00 54 15.4**	**-0.2**
QMBU	**Quimbuelo**	**4.17**	**280**	⇓*e*Pg	**Pn**	**00 53 26.5**	**-1.0**
QMBU				IAML		00 54 43.2	
	comp=N,27nm,0.8s						
NMDO	**Nuevo Mundo**	**4.40**	**285**	*e*P	**Pn**	**00 53 28.6**	**-2.0**
MOAC	**Moa**	**4.40**	**286**	*e*P	**Pn**	**00 53 28.8**	**-1.8**
GTBY	**Guantanamo Bay**	**4.42**	**276**	*e*P	**Pn**	**00 53 29.7**	**-1.2**
PINC	**Pinares de May**	**5.13**	**282**	*e*P	**Pn**	**00 53 38.2**	**-2.4**
HLGC	**Holguin**	**5.46**	**286**	*e*P	**Pn**	**00 53 45.3**	**+0.1**
YAR	**Yar**	**5.64**	**280**	*e*P	**Pn**	**00 53 45.5**	**-2.1**
CHIV	**Chivirico**	**5.65**	**276**	*e*P	**Pn**	**00 53 46.0**	**-1.8**
LMGC	**Las Mercedes**	**6.21**	**276**	*e*P	**Pn**	**00 53 54.3**	**-1.2**

MOS ***07*** *01:19:22.8±0.9, 42°.66N×145°.00E, h57^{km}, mb4.4/13, Error ellipse: s-maj=11.1km s-min=7.2km az=85.4*
NIED ***07*** *01:19:24.3, 42°.74N×144°.92E, h48^{km}, MW3.9, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}3.09; $M_{\theta\theta}$0.95; $M_{\phi\phi}$-4.03; $M_{r\theta}$5.95; $M_{\theta\phi}$-6.12; $M_{\phi r}$0.35; Fault plane solution: $M_0$9.29000×10^{14} NP1: ϕ_s176.00000°, δ47.00000°, λ19.00000°. NP2: ϕ_s72.00000°, δ76.00000°, λ135.00000°.*
SKHL ***07*** *01:19:24.6±0.1, 42°.70N×145°.00E, h62^{km}±3^{km}, mb5.2/4*
JMA ***07*** *01:19:24.3±0.1, 42°.7N±0°.2×144°.9E±0°.4, h48^{km}, MD4.0/40, MV4.3/40, OFF NEMURO PENINSULA*
JMA Felt II J1 at OFF NEMURO PENINSULA .
NEIC ***07*** *01:19:25.2±1.4, 42°.71N±0°.09×144°.9E±0°.1, h53^{km}±7^{km}, mb4.3/33, Error ellipse: s-maj=15.0km s-min=11.3km az=128.0*
IDC ***07*** *01:19:25.1±2.7, 42°.79N×144°.88E, h54^{km}±24^{km}, mb3.6/14, mbtmp3.9/18, ML3.1/4, MS3.2/5, Error ellipse: s-maj=33.1km s-min=17.0km az=174.0*
ISC 07 01:19:24.2±0.8**, 42°.73N**±0°.06×**144°.95E**±0°.04**, h45**^{km}±6^{km}**, n145, σ1^{s}09**/144**, mb4.2**/42**, MS3.1**/3**, 6C-14D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AKK	**Akkeshi**	**0.30**	**345**	*e*P	**Pn**	**01 19 33.1**	**+0.3**
AKK				*e*S	**Sn**	**01 19 39.4**	**+0.5**
JAK	**Akkeshi**	**0.33**	**325**	⇓P	**Pn**	**01 19 33.2**	**+0.1**
JAK				A	A	01 19 33.2	
	comp=N,28nm,0.4s,comp=E,59nm,0.3s						
JAK				⇓*e*S	**Sn**	**01 19 39.5**	**+0.1**
JKHN	**Kushirohamanak**	**0.39**	**23**	⇓*i*P	**Pn**	**01 19 34.4**	**+0.7**
JKHN				A	A	01 19 34.4	
	comp=N,24nm,1.1s,comp=E,26nm,0.6s						
JKHN				⇓*e*S	**Sn**	**01 19 41.6**	**+1.0**
JOB	**Onbets**	**0.84**	**283**	⇓P	**Pn**	**01 19 39.5**	**-0.1**
JOB				⇓*e*S	**Sn**	**01 19 51.1**	**+0.2**
NMR	**Nemuro--Hokkai**	**0.86**	**41**	*i* P	**Pn**	**01 19 39.9**	**0.0**
NMR				*i* S	**Sn**	**01 19 51.5**	**+0.2**
NEM2	**Nemuro 2**	**0.86**	**42**	*i* P	**Pn**	**01 19 39.9**	**0.0**
NEM2				*e*S	**Sn**	**01 19 50.9**	**-0.5**
JNK	**Nakash**	**0.88**	**349**	⇓*i*P	**Pn**	**01 19 40.0**	**-0.1**
JNK				A	A	01 19 40.0	
	comp=N,17nm,0.5s,comp=E,16nm,0.8s						
JNK				⇓*e*S	**Sn**	**01 19 51.0**	**-0.7**
JAR	**Ashorobuto**	**1.04**	**304**	⇓P	**Pn**	**01 19 42.1**	**-0.2**
JAR				A	A	01 19 42.1	
	comp=N,5.0nm,0.4s,comp=E,7.0nm,0.3s						
JNSB	**Nemuroshibetsu**	**1.05**	**2**	A	A	01 19 42.7	
	comp=N,8.0nm,1.1s,comp=E,9.0nm,0.7s						
JCH	**Churui**	**1.18**	**265**	⇓*i*P	**Pn**	**01 19 44.0**	**-0.2**
JCH				A	A	01 19 44.0	
	comp=N,8.0nm,1.2s,comp=E,6.0nm,0.8s						
JCH				⇓*e*S	**Sn**	**01 19 58.9**	**-0.1**
JRA	**Rausu**	**1.22**	**6**	P	**Pn**	**01 19 44.9**	**+0.1**
JRA				A	A	01 19 44.9	
	comp=N,3.0nm,0.4s,comp=E,5.0nm,0.3s						
JTHR	**Tokachihiroo**	**1.30**	**251**	A	A	01 19 46.2	
	comp=N,7.0nm,0.3s,comp=E,9.0nm,0.7s						
JTKR	**Abashiri--Toko**	**1.46**	**329**	⇓*i*P	**Pn**	**01 19 48.7**	**+0.6**
JTKR				⇓*e*S	**Sn**	**01 20 07.1**	**+1.2**
YUK	**Yuzh-Kuril'sk**	**1.47**	**27**	*c i*PN	**Pn**	**01 19 48.4**	**+0.2**
YUK				*i* S	Sn	01 20 53.8	+48
YUK				pmax	pmax		
	comp=E,598nm,0.2s						
YUK				pmax	pmax		
	comp=Z,2µm,0.2s						
YUK				pmax	pmax		
	comp=N,432nm,0.1s						
YUK				smax	smax		
	comp=E,2µm,0.2s						
YUK				smax	smax		
	comp=N,6µm,0.4s						
YUK	**Yuzh-Kuril'sk**	**1.47**	**27**	*i* P	**Pn**	**01 19 48.4**	**+0.2**
YUK				AMB	AMB	01 19 50.3	
	comp=N,1µm,0.2s						
YUK				*i* S	**Sn**	**01 20 05.0**	**-1.1**
YUK				A	A	01 20 07.7	
	comp=N,6µm,0.5s						
YUK				A	A	01 20 07.7	
	comp=N,4µm,0.5s						
ERM	**Erimo**	**1.51**	**242**	PN	**Pn**	**01 19 49.9**	**+1.2**
ERM	**Erimo**	**1.51**	**242**		**Pn**	**01 19 49.9**	**+1.2**
JNBK	**Urakawa-nobuka**	**1.69**	**255**	A	A	01 19 51.8	
	comp=N,4.0nm,1.1s,comp=E,4.0nm,0.7s						
SHO	**Shikotan**	**1.79**	**50**	*e*P	Pn	01 20 08.3	+16
SHO				AMB	AMB	01 20 09.4	
	comp=E,250nm,0.2s						
SHO				*e*S	Sn	01 20 29.2	+15
SHO				A	A	01 20 31.4	
	comp=E,2µm,0.3s						
SHO				A	A	01 20 31.4	
	comp=E,3µm,0.3s						
JKA	**Kamikawa-asahi**	**2.21**	**310**		**Pn**	**01 19 59.4**	**+1.1**
ASAJ	**Asahikawa**	**2.21**	**310**	PN	**Pn**	**01 19 59.4**	**+1.1**
KUR	**Kuril'sk**	**3.27**	**39**	*e*PN	**Pn**	**01 20 15.1**	**+2.2**
KUR				*e*S	**Sn**	**01 20 53.8**	**+3.2**
KUR				pmax	pmax		
	comp=N,88nm,0.3s						
KUR				pmax	pmax		
	comp=Z,231nm,0.3s						
KUR				pmax	pmax		
	comp=E,85nm,0.2s						
KUR				smax	smax		
	comp=N,526nm,0.5s						
KUR				smax	smax		
	comp=E,247nm,0.5s						
KUR	**Kuril'sk**	**3.27**	**39**	*e*P	**Pn**	**01 20 15.1**	**+2.2**
KUR				AMB	AMB	01 20 15.5	
	comp=E,230nm,0.3s						
KUR				*e*S	**Sn**	**01 20 53.8**	**+3.2**
KUR				A	A	01 21 01.5	
	comp=E,530nm,0.5s						
KUR				A	A	01 21 01.5	
	comp=E,250nm,0.5s						
REI	**Reidovoe**	**3.37**	**40**	*e*P	**Pn**	**01 20 15.5**	**+1.3**
REI				*e*rx	rx	01 20 17.3	
REI				*e*S	**Sn**	**01 20 52.3**	**-0.6**
JTM	**Tenmabayashi**	**3.49**	**238**	Pn	**Pn**	**01 20 16.0**	**0.0**
YSS	**Yuzhno-Sakhali**	**4.51**	**340**	*e*PN	**Pn**	**01 20 31.3**	**+1.4**
YSS				pmax	pmax		
	comp=Z,20nm,0.8s						
YSS				MLR	MLR		
	comp=Z,200nm,15.0s						
YSS	**Yuzhno-Sakhali**	**4.51**	**340**	*e*P	**Pn**	**01 20 31.2**	**+1.4**
YSS				*e*S	**Sn**	**01 21 21.7**	**+0.8**
MJAR	**Matsushiro Arr**	**8.07**	**222**	P	**Pn**	**01 21 17.8**	**-1.1**
	comp=Z,0.1nm,0.3s,baz=30,slow=13,SNR=6.7						
MJAR				LR	LR	01 25 05.1	
	comp=Z,138nm,20.6s,baz=345,slow=42						
	comp=Z,4.3nm,0.7s						
MJAR				AML	AML		
MJAR	**Matsushiro Arr**	**8.07**	**222**		**Pn**	**01 21 17.5**	**-1.4**
TYV	**Tymovskoe**	**8.29**	**350**	*e*P	**Pn**	**01 21 22.8**	**+1.1**
JGF	**Kuroka**	**9.24**	**222**	Pn	**Pn**	**01 21 34.6**	**-0.2**
USRK	**Ussuriysk Ar.**	**9.54**	**283**	P	**Pn**	**01 21 40.3**	**+1.4**
	comp=Z,0.3nm,0.3s,baz=83,slow=15,SNR=4.8						
	comp=Z,1.8nm,0.5s						
USRK				AML	AML		
NKL	**Nikolayevsk**	**10.81**	**346**	*e*P	**Pn**	**01 21 56.4**	**+0.2**
OKH	**Okha**	**10.91**	**354**	*e*P	**Pn**	**01 22 00.7**	**+3.1**
SKR	**Severo-Kuril's**	**11.04**	**40**	*i* PN	**Pn**	**01 22 00.8**	**+1.5**
SKR	**Severo-Kuril's**	**11.04**	**40**	*e*P	**Pn**	**01 21 59.3**	**0.0**
KLR	**Kul'dur**	**11.25**	**310**	P	**Pn**	**01 22 03.7**	**+1.5**
	comp=Z,0.1nm,0.3s,baz=119,slow=15,SNR=9.5						
KLR				LR	LR	01 26 47.5	
	comp=Z,121nm,18.2s,baz=137,slow=40						
	comp=Z,2.5nm,0.7s						
KLR				AML	AML		
KLR	**Kul'dur**	**11.25**	**310**	*e*PN	**Pn**	**01 22 04.4**	**+2.2**
KLR				pmax	pmax		
	comp=Z,1.0nm,1.4s						
KLR	**Kul'dur**	**11.25**	**310**	*e*P	**Pn**	**01 22 02.9**	**+0.7**
PAU	**Pauzhetka**	**11.89**	**39**	*e*P	**Pn**	**01 22 13.2**	**+2.2**
PEA0B	**Petropavlovsk-**	**13.43**	**35**	PN	**Pn**	**01 22 30.8**	**-1.2**
PEA0B	**Petropavlovsk-**	**13.43**	**35**	Pn	**Pn**	**01 22 30.8**	**-1.2**
PETK	**Petropavlovsk-**	**13.43**	**35**	P	**Pn**	**01 22 30.6**	**-1.4**
	comp=Z,1.2nm,0.3s,baz=199,slow=9.9,SNR=19						
	comp=Z,1.3nm,0.6s						
PETK				AML	AML		
PETK	**Petropavlovsk-**	**13.43**	**35**	Pn	**Pn**	**01 22 29.6**	**-2.3**
HHC	**Hu-ho-hao-te**	**24.88**	**277**	*e*P	**P**	**01 24 43.6**	**+0.9**
HHC				pmax	pmax		
	comp=Z,13nm,0.7s						
WHN	**Wuhan**	**27.25**	**254**	P	**P**	**01 25 07.4**	**+3.4**
SONM	**Songino Array**	**27.40**	**294**	P	**P**	**01 25 06.2**	**+0.7**
	comp=Z,0.8nm,0.7s,baz=78,slow=7.7,SNR=4.0						
	comp=Z,0.8nm,0.7s						
SONM	**Songino Array**	**27.40**	**294**	P	**P**	**01 25 04.7**	**-0.7**
BILL	**Bilibino**	**27.80**	**17**	*i* P	**P**	**01 25 10.3**	**+1.7**
BILL				pmax	pmax		
	comp=Z,4.0nm,1.1s						
BILL	**Bilibino**	**27.80**	**17**	*e*P	**P**	**01 25 10.3**	**+1.7**
GUMO	**Guam**	**29.03**	**180**	LR	LR	01 36 59.5	
	comp=Z,16nm,19.0s,baz=72,slow=36						
H11N2	**WAKE ISLAND Hy**	**29.46**	**134**	T	T	01 56 30.5	
	baz=327,slow=75,SNR=1103						
H11N1	**WAKE ISLAND Hy**	**29.47**	**134**	T	T	01 56 34.7	
	baz=327,slow=75,SNR=1137						
H11N3	**WAKE ISLAND Hy**	**29.48**	**134**	T	T	01 56 38.4	
	baz=327,slow=75,SNR=1054						
TIXI	**Tiksi**	**30.06**	**350**	LR	LR	01 37 28.5	
	comp=Z,45nm,20.3s,baz=119,slow=36						
H11S1	**WAKE ISLAND Hy**	**30.37**	**136**	T	T	01 57 41.6	
	baz=328,slow=76,SNR=1346						
H11S3	**WAKE ISLAND Hy**	**30.38**	**136**	T	T	01 57 42.0	
	baz=328,slow=76,SNR=1170						
H11S2	**WAKE ISLAND Hy**	**30.39**	**136**	T	T	01 57 37.7	
	baz=328,slow=76,SNR=802						
J17K	**VABM Dome**	**37.88**	**37**	P	**P**	**01 26 38.0**	**+1.5**
C18K	**Utukok River**	**37.98**	**29**	P	**P**	**01 26 36.1**	**-1.2**
G18K	**Tagagawik**	**38.38**	**33**	P	**P**	**01 26 40.0**	**-0.6**
PZH	**PanZhiHua**	**38.62**	**259**	P	**P**	**01 26 44.7**	**+1.5**
J19K	**Poorman**	**39.47**	**37**	P	**P**	**01 26 50.1**	**+0.4**
J19K				IAmb	IAmb	01 27 21.8	
	comp=Z,9.7nm,1.4s						
D20K	**Etivluk River**	**39.63**	**29**	P	**P**	**01 26 50.5**	**-0.6**
D20K				IAmb	IAmb	01 26 56.5	
	comp=Z,11nm,1.3s						
IMAR	**Indian Mountai**	**40.39**	**34**	P	**P**	**01 26 57.2**	**-0.2**
CAST	**Castle Rocks**	**41.02**	**38**	P	**P**	**01 27 03.1**	**+0.5**
CAST				IAmb	IAmb	01 27 05.7	
	comp=Z,4.3nm,1.0s						
C23K	**Itkillik River**	**41.90**	**28**	P	**P**	**01 27 08.6**	**-1.1**
C23K				IAmb	IAmb	01 27 09.8	
	comp=Z,8.2nm,1.2s						
MCK	**McKinley**	**42.42**	**37**	P	**P**	**01 27 12.7**	**-1.4**
MCK				pmax	pmax		
	comp=Z,8.0nm,1.2s						
MCK	**McKinley**	**42.42**	**37**	P	**P**	**01 27 12.7**	**-1.4**
MCK				IAmb	IAmb	01 27 14.0	
	comp=Z,8.0nm,1.2s						
H24K	**Noodor Dome**	**42.80**	**34**	P	**P**	**01 27 17.5**	**+0.4**
H24K				IAmb	IAmb	01 27 37.3	
	comp=Z,6.3nm,1.4s						
IL31		**43.26**	**35**	P	**P**	**01 27 20.9**	**+0.1**
ILAR	**Eielson Array**	**43.26**	**35**	P	**P**	**01 27 20.3**	**-0.5**
	comp=Z,2.3nm,0.7s,baz=271,slow=7.2,SNR=23						
	comp=Z,2.3nm,0.7s						
ILAR	**Eielson Array**	**43.26**	**35**	P	**P**	**01 27 20.6**	**-0.2**
ILAR	**Eielson Array**	**43.26**	**35**	P	**P**	**01 27 20.6**	**-0.2**
MKAR	**Makanchi Array**	**43.64**	**298**	P	**P**	**01 27 23.1**	**-1.0**
	comp=Z,0.4nm,0.5s,baz=79,slow=12,SNR=4.8						
	comp=Z,0.4nm,0.5s						
MKAR	**Makanchi Array**	**43.64**	**298**	⇑*e*P	**P**	**01 27 23.7**	**-0.5**
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
MKAR	**Makanchi Array**	**43.64**	**298**	P	**P**	**01 27 23.6**	**-0.5**
MKAR	**Makanchi Array**	**43.64**	**298**	*e*P	**P**	**01 27 23.7**	**-0.5**
PRP	**Porcupine Dome**	**43.78**	**34**	P	**P**	**01 27 25.5**	**+0.3**
PRP				IAmb	IAmb	01 27 26.7	
	comp=Z,5.0nm,0.7s						
BMAR	**Burnt Mountain**	**44.05**	**32**	P	**P**	**01 27 27.8**	**+0.6**
F26K	**Sheenjek River**	**44.20**	**31**	P	**P**	**01 27 28.9**	**+0.5**
KURK	**Kurchatov**	**44.77**	**304**	*i* P	**P**	**01 27 33.2**	**+0.1**
KURK				pmax	pmax		
	comp=Z,2.0nm,1.4s						
KURK	**Kurchatov**	**44.77**	**304**	*e*P	**P**	**01 27 33.2**	**+0.1**
KURBB	**Kurchatov Arra**	**44.85**	**304**	P	**P**	**01 27 33.0**	**-0.7**
	comp=Z,0.7nm,0.5s,baz=72,slow=9.0,SNR=10						
	comp=Z,0.7nm,0.5s						
GLB	**Gilahina Butte**	**45.03**	**40**	P	**P**	**01 27 34.9**	**-0.2**
GLB				IAmb	IAmb	01 27 48.5	
	comp=Z,4.7nm,1.2s						
H27K	**Steamboat Moun**	**45.35**	**33**	P	**P**	**01 27 38.3**	**+0.7**
BCAR	**Beaver Creek A**	**45.69**	**38**	P	**P**	**01 27 41.1**	**+0.8**
G29M	**Pine Creek**	**46.65**	**32**	P	**P**	**01 27 48.4**	**+0.7**
G29M				IAmb	IAmb	01 27 53.6	
	comp=Z,7.7nm,1.2s						
I29M	**Ogilvie Camp,**	**46.80**	**34**	P	**P**	**01 27 49.5**	**+0.6**
I29M				IAmb	IAmb	01 27 53.3	
	comp=Z,3.4nm,1.0s						
EPYK	**Eagle Plains**	**47.25**	**33**	P	**P**	**01 27 53.1**	**+0.6**
EPYK				IAmb	IAmb	01 28 03.1	
	comp=Z,8.8nm,1.3s						
G30M	**tAoh Zraii Nji**	**47.34**	**32**	P	**P**	**01 27 53.8**	**+0.7**
G30M				IAmb	IAmb	01 28 05.1	
	comp=Z,9.0nm,1.3s						
I30M	**Mount Dempster**	**47.62**	**34**	P	**P**	**01 27 56.4**	**+0.9**
I30M				IAmb	IAmb	01 27 57.0	
	comp=Z,3.1nm,0.7s						
INK	**Inuvik**	**48.09**	**30**	P	**P**	**01 27 58.2**	**-0.7**
INK				pmax	pmax		
	comp=Z,4.0nm,1.1s						

INK	Inuvik	48.09	30	P	P	01 27 58.2	-0.7
INK				IAmb	IAmb	01 28 01.3	
	comp=Z,3.6nm,1.1s						
HYT	Haines Junctio	48.15	40	P	P	01 28 01.1	+1.5
H31M	Peel River	48.32	33	P	P	01 28 01.0	+0.3
P29M	Windy Craggy	48.36	42	P	P	01 28 02.8	+1.7
BVAR	Borovoye Array	48.91	309	P	P	01 28 05.0	-0.4
	comp=Z,1.1nm,0.4s,baz=75,slow=7.7,SNR=8.8						
	comp=Z,1.1nm,0.4s						
BORK	Borovoye	48.94	309	*i* P	P	01 28 05.7	0.0
BORK				pmax	pmax		
	comp=Z,1.0nm,0.8s						
P33M	Teslin, Yukon	50.55	40	P	P	01 28 17.2	-0.7
P33M				IAmb	IAmb	01 28 20.0	
	comp=Z,5.5nm,1.3s						
ARTI	Arti	54.10	317	*d i*P	P	01 28 44.9	+0.8
ARTI						01 29 44.7	
ARTI						01 30 42.2	
ARTI				S	S	01 36 19.4	+2.2
ARTI				SS	SS	01 39 59.6	+1.1
ARTI				pmax	pmax		
	comp=Z,7.0nm,2.8s						
AB31	Akbulak array	56.45	308	P	P	01 29 00.7	-0.4
AB31				IAmb	IAmb	01 29 42.2	
	comp=Z,2.8nm,1.4s						
ABKAR	Akbulak array	56.45	308	P	P	01 29 00.7	-0.4
YKA	Yellowknife Ar	57.54	33	P	P	01 29 08.3	-0.3
	comp=Z,0.2nm,0.3s,baz=311,slow=7.2,SNR=10						
	comp=Z,0.2nm,0.3s						
YKA	Yellowknife Ar	57.54	33	*ce*P	P	01 29 09.3	+0.7
YKA	Yellowknife Ar	57.54	33	P	P	01 29 08.0	-0.6
LVZ	Lovozero	58.06	335	*ce*P	P	01 29 11.8	-0.5
LVZ				pmax	pmax		
	comp=Z,26nm,1.7s						
SUMG	Summit	64.97	1	P	P	01 29 59.3	0.0
SUMG				pmax	pmax		
	comp=Z,11nm,1.1s						
SUMG	Summit	64.97	1	P	P	01 29 59.3	0.0
FINES	FINESS Array B	65.05	332	P	P	01 29 58.3	-1.1
	comp=Z,1.1nm,0.5s,baz=46,slow=8.2,SNR=9.7						
	comp=Z,1.1nm,0.5s						
FINES	FINESS Array B	65.05	332	P	P	01 29 58.0	-1.4
BOZ	Bozeman (W)	68.82	47	P	P	01 30 24.0	+0.1
BOZ				pmax	pmax		
	comp=Z,3.0nm,1.4s						
BOZ	Bozeman (W)	68.82	47	P	P	01 30 24.0	+0.1
KIV	Kislovodsk	69.23	311	*e*P	P	01 30 25.8	-0.6
KIV				pmax	pmax		
	comp=Z,4.0nm,1.1s						
KIV	Kislovodsk	69.23	311	*e*P	P	01 30 25.8	-0.6
KBZ	Khabaz	69.26	311	*i* P	P	01 30 26.4	+0.1
KBZ				pmax	pmax		
	comp=Z,2.0nm,1.0s						
KBZ	Khabaz	69.26	311	*e*P	P	01 30 26.5	+0.1
NVAR	Mina Array Bea	69.48	56	P	P	01 30 28.6	+0.4
	comp=Z,0.7nm,0.7s,baz=288,slow=7.8,SNR=5.2						
	comp=Z,0.7nm,0.7s						
NVAR	Mina Array Bea	69.48	56	P	P	01 30 28.0	-0.2
NOA	NORSAR Array B	69.96	338	P	P	01 30 29.8	-0.8
	comp=Z,0.7nm,0.7s,baz=33,slow=6.4,SNR=4.0						
	comp=Z,0.7nm,0.7s						
HFS	Hagfors	70.00	336	P	P	01 30 29.7	-0.9
	comp=Z,2.6nm,0.8s,baz=29,slow=3.4,SNR=4.7						
	comp=Z,2.6nm,0.8s						
AKASG	Malin Array Be	71.44	323	P	P	01 30 37.5	-2.1
	comp=Z,0.5nm,0.4s,baz=44,slow=6.8,SNR=7.0						
	comp=Z,0.5nm,0.4s						
AKASG	Malin Array Be	71.44	323	*ce*P	P	01 30 38.5	-1.1
AKASG	Malin Array Be	71.44	323	P	P	01 30 37.8	-1.8
PD31	Pinedale Array	71.79	48	P	P	01 30 42.4	+0.2
PD31				IAmb	IAmb	01 30 43.3	
	comp=Z,3.6nm,1.4s						
BUR08	Bucovina Ar. S	75.48	323	P	P	01 31 03.4	-0.1
BURAR	Bucovina Array	75.49	323	P	P	01 31 03.6	0.0
BURAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BURAR	Bucovina Array	75.49	323	P	P	01 31 03.6	0.0
CLL	Collm	77.46	331	*i* P	P	01 31 14.2	-0.4
CLL	Collm	77.46	331	*i* P	P	01 31 14.2	-0.4
EKA	Eskdalemuir Ar	78.62	342	P	P	01 31 19.7	-1.2
	comp=Z,0.3nm,0.4s,baz=21,slow=5.1,SNR=6.9						
	comp=Z,0.3nm,0.4s						
KHC	Kasperske Hory	79.06	330	*ce*P	P	01 31 23.2	-0.3
KHC				pmax	pmax		
	comp=Z,7.0nm,2.5s						
TXAR	Lajitas Array	84.55	55	P	P	01 31 53.3	+0.4
	comp=Z,0.5nm,0.7s,baz=298,slow=4.0,SNR=7.7						
	comp=Z,0.5nm,0.7s						
TXAR	Lajitas Array	84.55	55	P	P	01 31 52.5	-0.3
TXAR	Lajitas Array	84.55	55	P	P	01 31 52.5	-0.3
PPT	Papeete	84.89	119	LR	LR	02 05 07.9	
	comp=Z,24nm,20.4s,baz=246,slow=32						
IDI	Anoyia	85.02	315	P	P	01 31 53.7	-1.3
	comp=Z,2.5nm,0.5s,baz=15,slow=11,SNR=5.8						
	comp=Z,2.5nm,0.5s						
IDI	Anoyia	85.02	315	P	P	01 31 53.1	-2.0
LPAZ	La Paz	141.39	57	PKHKP	PKPpre	01 38 43.9	
LPAZ	La Paz	141.39	57	PKPpre	PKPpre	01 38 43.9	
H03N2	Juan Fernandez	144.58	90	T	T	04 20 14.6	
	baz=313,slow=76,SNR=7.6						
H03N1	Juan Fernandez	144.59	90	T	T	04 20 15.8	
	baz=309,slow=76,SNR=7.8						
SIV	San Ignacio	145.28	48	PKPbc	PKPdf	01 38 57.1	-0.2
	comp=Z,1.8nm,0.8s,baz=339,slow=3.2,SNR=6.9						
CO04	Los Peladeros	149.73	81	PKPbc	PKPbc	01 39 09.0	-0.3
MT09	Talagante	150.58	84	PKPbc	PKPbc	01 39 09.4	-1.7

IDC ***07*** *01:19:57.4±1.2, 34.°18N×25.°55E, h0^{km}, mb3.7/6, mbtmp3.5/11, ML3.5/4, Error ellipse: s-maj=21.5km s-min=12.1km az=33.0*
ISK ***07*** *01:19:57.5, 34.°12N×25.°68E, h11^{km}, ML2.7/13*
ATH ***07*** *01:19:57.3±0.9, 33.°98N×25.°77E, h25^{km}, ML3.0/6, Latitude uncertainty: 5 km; Longitude uncertainty: 4 km*
AFAD ***07*** *01:20:10.4, 34.°83N×26.°15E, h8^{km}±4^{km}, ML2.6*
ISC 07 01:19:58.5±1.6**, 34.°12N**±0.°06×**25.°71E**±0.°04**, h15**^{km}±9^{km}**, n67, σ2.^{s}09**/84**, mb3.6**/5**, Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AGNA	Agios Nikolaos	1.07	0	P	Pg	01 20 18.4	-0.9
AGNA				S	Sb	01 20 34.6	+2.0
ZKR	Zakros	1.08	23	Pn	Pg	01 20 18.8	-0.6
ZKR				Sn	Sg	01 20 34.2	+0.6
ZKR				AML	AML		
ZKR	Zakros	1.08	23	P	Pg	01 20 18.5	-0.9
ZKR				S	Sg	01 20 33.8	+0.2
ZKR				AML	AML		
SIT2	Siteia	1.14	17	P	Pg	01 20 18.9	-1.5
SIT2				S	Sb	01 20 36.2	+1.8
NPS	Neapolis	1.15	356	P	Pg	01 20 19.0	-1.7
NPS				S	Sb	01 20 36.6	+1.9
SIVA	Sivas	1.17	321	P	Pg	01 20 19.6	-1.5
SIVA	Sivas	1.17	321	P	Pg	01 20 19.6	-1.5
SIVA				S	Sb	01 20 36.6	+1.3
IDI	Anoyia	1.35	330	Pn	Pn	01 20 23.5	+0.6
	2.1nm,0.3s,baz=153,slow=15,SNR=18						
IDI				Sn	Sn	01 20 43.0	+2.3
	11nm,0.3s,baz=231,slow=22,SNR=8.5						
IDI	Anoyia	1.35	330	P	Pn	01 20 23.1	+0.2
IDI	Anoyia	1.35	330	Pn	Pn	01 20 22.7	-0.2
IDI				AML	AML		
IDI	Anoyia	1.35	330	P	Pn	01 20 22.4	-0.5
IDI				AML	AML		
GVD	Gavdhos	1.52	299	P	Pn	01 20 25.0	-0.2
GVD	Gavdhos	1.52	299	Pn	Pn	01 20 24.7	-0.5
GVD				AML	AML		
GVD	Gavdhos	1.52	299	P	Pn	01 20 24.4	-0.8
GVDS	Gavdos	1.54	298	P	Pn	01 20 25.3	-0.2
GVDS	Gavdos	1.54	298	P	Pn	01 20 25.3	-0.2
VAM	Vamos	1.79	316	P	Pg	01 20 32.9	-0.1
VAM	Vamos	1.79	316	P	Pn	01 20 29.2	+0.3
VAM				AML	AML		
IMMV	Iera Moni Meta	1.96	314	P	Pb	01 20 33.1	-0.8
IMMV	Iera Moni Meta	1.96	314	Pn	Pn	01 20 31.7	+0.5
IMMV				AML	AML		
IMMV	Iera Moni Meta	1.96	314	P	Pn	01 20 30.5	-0.7
KNDR	Palaiochora Ch	2.05	304	P	Pn	01 20 31.5	-0.9
KNDR				AML	AML		
ARG	Arkhangelos	2.88	43	Pn	Pn	01 20 45.1	+1.2
ARG				AML	AML		
YAZI	Mula-Dat§a-	2.93	29	P	Pn	01 20 45.8	+1.2
DAT	Datca	3.02	30	Pn	Pn	01 20 46.8	+0.9
KTHA	Kythira Island	3.04	315	Pn	Pn	01 20 46.6	+0.4
BDRM	Kayabasi	3.26	25	P	Pn	01 20 52.9	+3.7
TURN	Turunc	3.36	37	Pn	Pn	01 20 51.8	+1.3
MLSB	Milas	3.59	27	Pn	Pn	01 20 55.1	+1.4
DALY	Dalyan (Mula)	3.61	41	Pn	Pn	01 20 55.2	+1.3
DALY	Dalyan (Mula)	3.61	41	P	Pn	01 20 56.6	+2.8
DALY				S	Sn	01 21 30.1	-6.0
DALY				IAML		01 21 56.0	
	comp=N,19nm,1.7s						
IZZE	Mula-Seydike	3.69	50	P	Pn	01 20 56.2	+1.2
IZZE				S	Sn	01 21 33.7	-4.6
IZZE				IAML		01 21 47.0	
	comp=N,24nm,0.5s						
FETY	Fethiye	3.73	47	Pn	Pn	01 20 56.8	+1.2
MULA	Mugla, Merkez-	3.79	33	P	Pn	01 21 00.6	+4.2
SABU	Mula-Dalaman	3.79	44	P	Pn	01 20 57.3	+0.9
SABU				S	Sn	01 21 37.9	-2.8
AKAS	Kas	3.83	55	P	Pn	01 20 60.0	+3.0
AKAS				S	Sn	01 21 38.6	-3.2
AKAS				IAML		01 21 54.0	
	comp=E,28nm,1.5s						
AKAS				IAML		01 21 56.0	
	comp=N,28nm,0.5s						
AYDN	Tasoluk	3.95	26	P	Pn	01 21 00.4	+1.8
KNIK	Mula-Seydike	4.16	48	P	Pn	01 21 04.4	+2.8
CAEL	Denizli, Camel	4.20	43	P	Pn	01 21 04.4	+2.3
CAEL				IAML		01 22 12.0	
	comp=E,19nm,0.6s						
CAEL				IAML		01 22 34.0	
	comp=N,30nm,1.1s						
AYDB	Zeytinkoy-Aydi	4.21	24	Pn	Pn	01 21 03.5	+1.2
TAVA	DENIZLI_Tavas	4.24	37	P	Pn	01 21 04.2	+1.6
TAVA				S	Sn	01 21 43.9	-7.9
ESEN	Aydn-Nazilli	4.25	29	P	Pn	01 21 05.3	+2.6
ESEN				S	Sn	01 21 42.1	-10
ITM	Ithomi	4.34	316	Pn	Pn	01 21 05.3	+1.3
AKUM	Antalya-Kumluc	4.38	59	P	Pn	01 21 06.0	+1.4
AKUM				S	Sn	01 21 51.2	-4.1
AKUM				IAML		01 22 24.0	
	comp=E,12nm,1.3s						
IZMR	zmir-demi	4.40	24	P	Pn	01 21 04.4	-0.4
GOLH	Golhisar	4.42	44	P	Pn	01 21 07.5	+2.4
GOLH				S	Sn	01 21 48.6	-7.8
GOLH				IAML		01 22 42.0	
	comp=N,12nm,1.7s						
GOLH				IAML		01 22 55.0	
	comp=E,10.0nm,1.1s						
DNIZ	Denizli-Tavas-	4.42	37	P	Pn	01 21 08.8	+3.7
DNIZ				IAML		01 22 11.0	
	comp=E,9.5nm,0.4s						
DNIZ				IAML		01 22 14.0	
	comp=N,12nm,0.7s						
KIRA	zmir-Kiraz	4.62	27	P	Pn	01 21 07.3	-0.5
SULTU	Buldan	4.64	31	P	Pn	01 21 10.0	+1.7
SULTU				IAML		01 22 33.0	
	comp=E,8.4nm,2.2s						
SULTU				IAML		01 23 06.0	
	comp=N,9.2nm,1.9s						
KORT	Korkueli	4.75	51	P	Pn	01 21 13.5	+3.8
KORT				S	Sn	01 22 05.9	+1.3
KORT				IAML		01 22 24.0	
	comp=E,10nm,0.8s						
KORT				IAML		01 22 38.0	
	comp=N,7.4nm,0.7s						
INCE	Denizli-Bozkur	4.76	40	P	Pn	01 21 12.0	+2.1
INCE				S	Sn	01 21 57.9	-6.9
INCE				IAML		01 22 45.0	
	comp=N,7.9nm,1.9s						
KTTT	Salihli	4.95	22	P	Pn	01 21 13.5	+1.1
KTTT				IAML		01 23 23.0	
	comp=N,6.7nm,1.7s						
PASA	Karahalli, USA	5.21	35	P	Pn	01 21 17.9	+2.0
PASA				S	Sn	01 22 11.0	-4.9
USAK	Uak-Merkez	5.31	29	P	Pn	01 21 18.4	+1.1
USAK				IAML		01 22 08.0	
	comp=E,5.5nm,1.1s						
KEPZ	Antalya-Kepez	5.55	58	P	Pn	01 21 21.5	+0.9
KEPZ				S	Sn	01 22 19.6	-4.6
SEDI	Konya, Seydise	5.93	54	P	Pn	01 21 28.6	+2.7
SEDI				S	Sn	01 22 26.5	-7.2
SEDI				IAML		01 23 00.0	
	comp=N,6.0nm,1.2s						
SEDI				IAML		01 23 13.0	
	comp=E,4.6nm,1.4s						
MMAI	Mount Meron Ar	8.16	95	Pn	Pn	01 21 59.0	+2.5
	1.0nm,0.3s,baz=259,slow=13,SNR=4.4						
MMAI				Sn	Sn	01 23 27.5	-1.0
	1.9nm,0.3s,baz=306,slow=30,SNR=5.9						
	0.9nm,0.6s						
MMAI				AML	AML		
BRTR	Keskin Array B	8.46	46	Pn	Pn	01 22 03.4	+2.7
	0.2nm,0.5s,baz=230,slow=11,SNR=2.1						
EIL	Elat	9.02	117	Pn	Pn	01 22 09.0	+0.8
	0.8nm,0.3s,baz=322,slow=12,SNR=7.8						
EIL				Sn	Sn	01 23 46.9	-2.6
	0.4nm,0.3s,baz=34,slow=14,SNR=1.9						
	2.1nm,0.4s						
EIL				AML	AML		
AKASG	Malin Array Be	16.77	8	Pn	Pn	01 23 54.5	+1.8
	0.7nm,0.3s,baz=201,slow=11,SNR=7.3						
	0.4nm,0.5s						
AKASG				AML	AML		
GERES	GERESS Array B	17.22	332	P	Pn	01 23 58.7	+0.2
	baz=151,slow=12,SNR=4.9						
	0.4nm,0.3s						
ESDC	Sonseca Array	24.31	292	P	P	01 25 15.5	0.0
	0.5nm,1.0s,baz=90,slow=8.8,SNR=2.4						
	0.5nm,1.0s						
FINES	FINESS Array B	27.35	0	P	P	01 25 42.9	+0.3
	2.0nm,0.8s,baz=174,slow=15,SNR=1.8						
	2.0nm,0.8s						
TORD	Torodi Ar. Bea	30.19	232	P	P	01 26 09.5	+1.2
	0.7nm,1.0s,baz=34,slow=9.6,SNR=2.1						
	0.7nm,1.0s						
ARCES	ARCESS Array B	35.47	360	P	P	01 26 52.9	-1.1
	2.2nm,0.9s,baz=187,slow=4.9,SNR=4.3						
	2.2nm,0.9s						
MKAR	Makanchi Array	43.98	56	P	P	01 28 05.3	+0.2
	0.5nm,0.5s,baz=266,slow=8.0,SNR=5.9						
	0.5nm,0.5s						
ZALV	Zalesovo Beam	45.40	45	P	P	01 28 16.2	-0.1
	0.4nm,0.5s,baz=285,slow=11,SNR=2.3						
	0.4nm,0.5s						

IDC 07 01:24:34.9±2.0**, 7.°49S×127.°69E, h0**^{km}**, mb3.3**/1**, mbtmp3.3**/3**, ML3.5**/2**, Error ellipse: s-maj=176.6km s-min=21.9km az=62.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	13.96	153	Pn	Pn	01 27 48.1	-6.1
	0.3nm,0.3s,baz=328,slow=13,SNR=8.0						
WRA				Sn	Sn	01 30 15.1	-15
	0.2nm,0.3s,baz=333,slow=21,SNR=5.3						
	0.2nm,0.3s						
WRA				AML	AML		
ASAR	Alice Springs	17.16	160	P	Pn	01 28 35.4	-0.9
	0.1nm,0.3s,baz=343,slow=11,SNR=4.1						
	0.4nm,0.7s						
ASAR				AML	AML		
MKAR	Makanchi Array	67.40	328	P	P	01 35 32.3	0.0
	0.2nm,0.4s,baz=113,slow=7.2,SNR=1.7						
	0.2nm,0.4s						

SJA ***07*** *01:27:45.6±0.7, 27.°88S×71.°47W, h14^{km}±2^{km}, ML4.2, MW4.1*
NEIC ***07*** *01:27:46.7±2.1, 27.°84S±0.°04×71.°40W±0.°05, h9^{km}±4^{km}, mb4.3/9, ML4.2(GUC), Error ellipse: s-maj=6.9km s-min=5.7km az=145.0*
IDC ***07*** *01:27:47.1±0.8, 27.°67S×71.°06W, h0^{km}, mb3.9/7, mbtmp4.0/11, ML4.2/4, MS3.3/5, Error ellipse: s-maj=22.1km s-min=13.4km az=79.0*
GUC ***07*** *01:27:48.9±0.8, 27.°96S×71.°11W, h30^{km}±3^{km}, ML4.2*
ISC 07 01:27:46.5±1.4**, 27.°85S**±0.°02×**71.°21W**±0.°04**, h5**^{km}±9^{km}**, n109, σ1.^{s}78**/141**, mb4.0**/7**, 5C-4D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.37	162	*e*P	Pb	01 27 56.8	+1.1
AC04				IAML		01 28 08.7	
	comp=Z,7µm,0.3s						
AC04	Llanos de Chal	0.37	162	⇑*i*P	Pb	01 27 57.3	+1.6
AC04				*i* S	Sb	01 28 01.8	-0.1
AC04				IAML		01 28 02.3	
	comp=E,137µm,0.1s						
AC04	Llanos de Chal	0.37	162		Pb	01 27 57.3	+1.6
AC04				Sg	Sb	01 28 01.7	-0.1
GO03	Copiapo	0.90	74	*e*P	Pn	01 28 07.2	+1.2
GO03				IAML		01 28 22.8	
	comp=Z,3µm,0.5s						
GO03				*e*S	Sn	01 28 22.9	+3.5
GO03	Copiapo	0.90	74	⇓*i*P	Pn	01 28 06.9	+1.0
GO03				*i* S	Sn	01 28 18.3	-1.1
GO03				IAML		01 28 23.0	
	comp=E,7µm,0.2s						
GO03	Copiapo	0.90	74	Pg	Pn	01 28 06.9	+1.0
GO03				Sg	Sn	01 28 19.2	-0.2
AC06	Mina Casimiro	0.90	57	⇓*i*P	Pn	01 28 06.8	+0.9
AC06				*i* S	Sn	01 28 19.2	-0.2
AC06	Mina Casimiro	0.90	57	Pg	Pn	01 28 06.8	+0.9
AC06				Sg	Sn	01 28 19.0	-0.4
LCO	Las Campanas	1.24	159	*e*P	Pn	01 28 11.1	+0.3
LCO				*e*S	Sb	01 28 27.0	-0.1
LCO				IAML		01 28 27.7	
	comp=Z,12µm,0.3s						
LCO	Las Campanas	1.24	159	*e*P	Pn	01 28 10.3	-0.5
LCO				*e*S	Sb	01 28 25.6	-1.4
LCO				IAML		01 28 28.0	
	comp=Z,54µm,0.2s						
LCO	Las Campanas	1.24	159	Pn	Pn	01 28 10.9	+0.1
AC05	El Transito	1.28	140	*e*P	Pg	01 28 12.2	+1.0
AC05				*e*S	Sg	01 28 28.2	+0.4
AC05				IAML		01 28 31.5	
	comp=Z,2µm,0.7s						
AC05	El Transito	1.28	140	⇑*i*P	Pg	01 28 12.1	+1.0
AC05				*i* S	Sb	01 28 26.5	-1.6
AC05				IAML		01 28 29.3	
	comp=N,4µm,0.5s						
AC05	El Transito	1.28	140	Pn	Pg	01 28 12.1	+1.0
AC01	Pan de Azucar	1.78	18	*e*P	Pb	01 28 19.8	+0.2
AC01				*e*S	Sg	01 28 44.7	+1.0
AC01				IAML		01 28 52.4	
	comp=Z,996nm,0.6s						
AC01	Pan de Azucar	1.78	18	⇑*i*P	Pb	01 28 19.9	+0.2
AC01				*i* S	Sb	01 28 42.8	+0.5
AC01				IAML		01 28 53.2	
	comp=E,1µm,0.3s						
AC02	Maricunga	2.11	62	*e*P	Pg	01 28 27.1	+0.2
AC02				*e*S	Sg	01 28 56.8	+2.5
AC02				IAML		01 29 08.1	
	comp=Z,1µm,0.9s						
AC02	Maricunga	2.11	62	⇑*i*P	Pg	01 28 27.2	+0.2
AC02				*e*S	Sg	01 28 54.3	+0.1
AC02				IAML		01 28 59.5	
	comp=N,3µm,0.3s						
CO01	Juntas del Tor	2.33	156	*e*P	Pb	01 28 28.2	-1.0
CO01				*e*S	Sb	01 28 58.5	-0.1
CO01				IAML		01 29 06.1	
	comp=Z,1µm,0.5s						
CO01	Juntas del Tor	2.33	156	*e*P	Pb	01 28 28.4	-0.9
CO01				*e*S	Sn	01 28 56.3	+1.2
CO01				IAML		01 29 05.3	
	comp=N,1µm,0.3s						
CO01	Juntas del Tor	2.33	156	Pn	Pb	01 28 28.4	-0.9
GO04	Tololo Observa	2.34	171	*e*P	Pn	01 28 27.3	+1.3
GO04				*e*S	Sn	01 28 56.4	+1.1
GO04				IAML		01 29 05.7	
	comp=Z,2µm,0.5s						
GO04	Tololo Observa	2.34	171	⇓*i*P	Pn	01 28 27.2	+1.2
GO04				*e*S	Sn	01 28 57.0	+1.8
GO04				IAML		01 29 08.2	
	comp=N,8µm,0.6s						
GO04	Tololo Observa	2.34	171	Pn	Pn	01 28 27.1	+1.2
AROD	Rodeo	2.76	147	*e*P	Pb	01 28 36.0	-0.6
AROD				*e*S	Sb	01 29 12.6	+1.6
VCA	Vinchina	2.79	109	*e*P	Pn	01 28 33.5	+1.5
VCA				*e*S	Sb	01 29 12.8	+1.2
VCA				IAML		01 29 19.6	
	comp=Z,1µm,0.3s						
VCA	Vinchina	2.79	109	*e*P	Pb	01 28 38.1	+1.2
CO06	Fray Jorge	2.84	187	⇓*i*P	Pn	01 28 32.0	-0.6
CO06				*e*S	Sn	01 29 10.9	+3.8
CO06	Fray Jorge	2.84	187	Pn	Pn	01 28 31.9	-0.6
ACDV	Cuesta del Vie	2.95	142	*e*P	Pn	01 28 35.8	+1.6
ACDV				*e*S	Sb	01 29 14.8	-1.3
ACDV				IAML		01 29 20.5	
	comp=Z,410nm,0.6s						
TINO	Tinogasta	3.23	95	*e*P	Pb	01 28 42.3	-2.0
TINO				*e*S	Sg	01 29 29.2	-1.0
TINO				IAML		01 29 38.3	
	comp=Z,384nm,0.6s						
PB14	IPOC Station P	3.29	13	*e*P	Pn	01 28 40.2	+1.1
PB14				*e*S	Sb	01 29 28.9	+2.8
PB14				IAML		01 29 39.8	
	comp=Z,393nm,0.6s						
PB14	IPOC Station P	3.29	13	⇑*e*P	Pn	01 28 39.8	+0.8
PB14	IPOC Station P	3.29	13	Pn	Pn	01 28 39.6	+0.6
ACCO	Cerro Coronel	3.31	146	*e*P	Pb	01 28 44.2	-1.7
ACCO				*e*S	Sb	01 29 25.6	-1.1
ACCO				IAML		01 29 37.5	
	comp=Z,462nm,0.4s						
CO02	Combarbal	3.35	177	*e*P	Pn	01 28 40.2	+0.6
CO02				*e*S	Sn	01 29 20.6	+0.7
CO02				IAML		01 29 44.3	
	comp=Z,1µm,0.4s						
CO02	Combarbal	3.35	177	*e*P	Pn	01 28 40.1	+0.5
CO02				*e*S	Sn	01 29 20.9	+1.0
CO02	Combarbal	3.35	177	Pn	Pn	01 28 40.1	+0.5
ACLC	CERRO LA CRUZ	4.06	114	*e*P	Pn	01 28 53.6	+4.1
ACLC				IAML		01 30 02.9	
	comp=Z,228nm,0.4s						
CO04	Los Peladeros	4.18	177	Pn	Pn	01 28 51.6	+0.3
RTLL	Cerro Villicun	4.21	146	*e*P	Pn	01 28 53.4	+2.0
RTLL				*e*S	Sn	01 29 43.5	+2.5
RTLL				IAML		01 29 53.8	
	comp=Z,289nm,0.5s						
RTLS	Leoncito	4.27	158	*e*P	Pn	01 28 56.4	+3.8
RTLS				*e*S	Sn	01 29 45.6	+2.6
ZON	Zonda	4.29	150	*e*P	Pn	01 28 54.3	+1.7
ZON				*e*S	Sn	01 29 46.0	+2.9
ZON				IAML		01 30 05.9	
	comp=Z,130nm,0.9s						
CFA	Coronel Fontan	4.55	146	Pn	Pn	01 29 00.0	+3.9
	comp=Z,9.6nm,0.3s,baz=311,slow=12,SNR=138						
CFA				Sn	Sn	01 29 54.7	+5.3
	comp=Z,13nm,0.3s,baz=223,slow=23,SNR=13						
	comp=Z,28nm,0.4s						
CFA				AML	AML		
CFA	Coronel Fontan	4.55	146	*e*P	Pn	01 29 00.4	+4.3
CFA				*e*S	Sn	01 29 51.5	+2.1
CFA				IAML		01 30 12.0	
	comp=Z,211nm,0.7s						
CYA	Choya	4.81	98	*e*P	Pn	01 29 03.7	+4.0
CYA				*e*S	Sb	01 30 02.9	-6.7
CYA				IAML		01 30 07.9	
	comp=Z,156nm,0.5s						
CYA	Choya	4.81	98	*e*P	Pn	01 29 03.3	+3.6
VA03	San Esteban	4.93	174	*e*P	Pn	01 29 02.9	+1.5
VA03				*e*S	Sb	01 30 12.9	-0.2
VA03				IAML		01 30 22.9	
	comp=Z,387nm,0.3s						
VA03	San Esteban	4.93	174	Pn	Pn	01 29 02.7	+1.3
PB05	IPOC Station P	5.06	11	*e*P	Pn	01 29 03.0	-0.2
PB05				*e*S	Sb	01 30 22.0	+5.2
PB05				IAML		01 30 34.4	
	comp=Z,163nm,0.6s						
PB05	IPOC Station P	5.06	11	Pn	Pn	01 29 03.0	-0.2
PEL	Peldehue	5.30	175		Pn	01 29 07.1	+0.8
PB06	IPOC Station P	5.33	16	*e*P	Pn	01 29 07.7	+0.8
PB06				*e*S	Sb	01 30 24.8	+0.1
PB06				IAML		01 30 51.2	
	comp=Z,181nm,0.7s						
PB06	IPOC Station P	5.33	16	Pn	Pn	01 29 07.4	+0.4
MT02	Curacav	5.39	179	Pn	Pn	01 29 07.3	-0.4
MT05	Renca	5.54	176	Pn	Pn	01 29 09.6	-0.1
MT16	CCHEN	5.59	174	Pn	Pn	01 29 11.5	+1.0
AF01	San Pedro de A	5.59	30	Pn	Pn	01 29 12.5	+1.8
MT03	Universidad Ad	5.66	174	Pn	Pn	01 29 11.8	+0.4
MT09	Talagante	5.91	178	Pn	Pn	01 29 14.9	0.0
MT13	San Alfonso	5.93	173	Pn	Pn	01 29 16.3	+1.2
MT01	Popeta	6.00	180	Pn	Pn	01 29 14.8	-1.1
BO04	La Punta	6.14	175	Pn	Pn	01 29 18.9	+1.0
BO01	Tunca	6.52	179	Pn	Pn	01 29 23.2	0.0
PB02	IPOC Station P	6.61	11	Pn	Pn	01 29 23.4	-1.1
TCA	Tanti	6.72	123	*e*P	Pn	01 29 28.0	+2.0

BO02	Sierra Bellavi	6.93	177	Pn	Pn	01 29 28.3	-0.5
GO05	Hualane	7.17	185	Pn	Pn	01 29 29.4	-2.6
TA01	Diego Aracena	7.31	8	Pn	Pn	01 29 32.4	-1.6
PB08	IPOC Station P	7.90	14	Pn	Pn	01 29 41.5	-0.9
PB11	IPOC Station P	8.18	10	Pn	Pn	01 29 43.8	-2.2
PSGCX	Pisagua	8.28	7	Pn	Pn	01 29 45.6	-1.8
GO01	Chusmiza	8.35	13	Pn	Pn	01 29 47.0	-1.8
H03N1	Juan Fernandez	8.66	228	T	T	01 38 47.4	
	baz=207,slow=74,SNR=3902						
H03N2	Juan Fernandez	8.68	228	T	T	01 38 48.8	
	baz=55,slow=74,SNR=3242						
VA04	Juan Fernndez	8.74	227	Pn	Pn	01 29 49.8	-3.7
BI02	San Fabin de	8.79	180	Pn	Pn	01 29 52.8	-1.6
PB12	IPOC Station P	9.23	5	Pn	Pn	01 29 58.4	-2.0
PB16	IPOC Station P	9.60	10	Pn	Pn	01 30 05.0	-0.9
LPAZ	La Paz	11.85	15	Pn	Pn	01 30 37.4	+0.5
	comp=Z,1.8nm,0.3s,baz=205,slow=5.4,SNR=51						
LPAZ				LR	LR	01 35 35.6	
	comp=Z,106nm,19.9s,baz=217,slow=40 comp=Z,4.7nm,0.4s						
LPAZ				AML	AML		
LPAZ	La Paz	11.85	15	Pn	Pn	01 30 36.6	-0.2
CPUP	Villa Florida	12.46	86	Pn	Pn	01 30 45.1	+0.6
	comp=Z,0.1nm,0.3s,baz=259,slow=11,SNR=3.2						
CPUP				LR	LR	01 36 00.1	
	comp=Z,97nm,19.3s,baz=256,slow=40 comp=Z,0.6nm,0.5s						
CPUP				AML	AML		
CPUP	Villa Florida	12.46	86	Pn	Pn	01 30 46.0	+1.5
PLCA	Paso Flores	12.86	178	LR	LR	01 36 02.5	
	comp=Z,178nm,20.9s,baz=353,slow=38						
SIV	San Ignacio	15.08	41	Pn	Pn	01 31 15.7	-4.7
	comp=Z,0.2nm,0.3s,baz=229,slow=12,SNR=22 comp=Z,2.9nm,0.4s						
SIV				AML	AML		
CPSB	Cacapava Do Su	15.74	104	Pn	P	01 31 31.4	-1.7
CPSB				IAmb	IAmb	01 32 02.1	
	comp=Z,15nm,1.3s						
PTLB	Pontes e Lacer	16.66	45	Pn	Pn	01 31 41.2	+0.3
VILB	Vilhena	18.04	37		Pn	01 31 57.6	-0.5
CZSB	Cruzeiro do Su	20.06	356	P	P	01 32 19.4	-1.4
CZSB				IAmb	IAmb	01 32 28.3	
	comp=Z,11nm,1.0s						
VAO	Valinhos	22.41	83		P	01 32 45.9	-0.2
VAO				IAmb	IAmb	01 32 47.0	
	comp=Z,15nm,0.8s						
BDFB	Brasilia	24.68	65	P	P	01 33 06.9	-1.9
	comp=Z,1.1nm,0.5s,baz=240,slow=5.5,SNR=3.8						
BDFB				LR	LR	01 44 11.6	
	comp=Z,101nm,20.3s,baz=42,slow=40 comp=Z,1.1nm,0.5s						
BDFB	Brasilia	24.68	65	P	P	01 33 07.2	-1.5
BDFB				IAmb	IAmb	01 33 22.0	
	comp=Z,6.5nm,1.1s						
MDP	Montagnes des	37.34	32	LR	LR	01 50 47.8	
	comp=Z,68nm,18.6s,baz=193,slow=37						
ORCD	Orcadas	37.42	159		P	01 34 59.4	-0.9
SNAA	Sanae	57.04	159	P	P	01 37 35.0	+1.8
	comp=Z,0.5nm,0.4s,baz=272,slow=12,SNR=3.6 comp=Z,0.5nm,0.4s						
QSPA	South Pole Qui	62.37	180	P	P	01 38 12.7	+2.6
	comp=Z,1.0nm,0.9s,baz=153,slow=0.9,SNR=7.2 comp=Z,1.0nm,0.9s						
QSPA	South Pole Qui	62.37	180	P	P	01 38 09.2	-0.8
QSPA				IAmb	IAmb	01 38 42.9	
	comp=Z,6.2nm,1.5s						
TXAR	Lajitas Array	64.79	329	P	P	01 38 27.9	+1.5
	comp=Z,0.4nm,0.5s,baz=153,slow=9.0,SNR=6.3 comp=Z,0.4nm,0.5s						
TXAR	Lajitas Array	64.79	329	P	P	01 38 25.2	-1.2
DBIC	Dimbokro	72.59	72	P	P	01 39 15.2	-0.1
	comp=Z,3.1nm,0.6s,baz=256,slow=5.6,SNR=5.4 comp=Z,3.1nm,0.6s						
DBIC	Dimbokro	72.59	72	P	P	01 39 14.9	-0.4
TORD	Torodi Ar. Bea	81.46	70	P	P	01 40 05.6	+0.4
	comp=Z,1.2nm,0.7s,baz=255,slow=5.1,SNR=5.3 comp=Z,1.2nm,0.7s						
YKA	Yellowknife Ar	96.48	341	P	P	01 41 16.9	+0.5
	comp=Z,0.2nm,0.5s,baz=141,slow=3.7,SNR=2.1 comp=Z,0.2nm,0.5s						
WRA	Warramunga Arr	126.44	210	PKP	PKPdf	01 46 51.0	-0.3
	comp=Z,0.5nm,1.1s,baz=157,slow=1.5,SNR=5.4						
KURBB	Kurchatov Arra	147.71	37	PKPbc	PKPbc	01 47 32.9	+0.9
	comp=Z,1.2nm,0.5s,baz=303,slow=3.1,SNR=12						
ZALV	Zalesovo Beam	148.55	27	PKPbc	PKPbc	01 47 35.1	+1.0
	comp=Z,2.6nm,0.6s,baz=296,slow=4.4,SNR=13						
ZALV	Zalesovo Beam	148.55	27		PKPbc	01 47 34.4	+0.3
MKAR	Makanchi Array	151.90	41	PKPbc	PKPbc	01 47 42.9	+0.4
	comp=Z,1.0nm,0.6s,baz=298,slow=2.2,SNR=8.9						
MKAR	Makanchi Array	151.90	41	PKPbc	PKPbc	01 47 41.9	-0.6

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*CRAAG **07** 01:31:44.6, 35°.21N×4°.62E, Ml3.8, Algrie 15km SE Khoubana*

*MDD **07** 01:31:44.6±0.5, 34°.81N×4°.84E, h19^{km}±9^{km}, Mb4.4/59, M_mb3.8/60, Error ellipse: s-maj=10.1km s-min=2.6km az=152.0*

*IDC **07** 01:31:45.8±1.0, 35°.24N×4°.59E, h0^{km}, mb3.5/5, mbtmp3.6/11, ML3.7/6, MS2.9/3, Error ellipse: s-maj=19.5km s-min=12.0km az=177.0*

*CNRM **07** 01:31:49.4, 35°.37N×4°.47E, h22^{km}*

ISC 07 01:31:47.2±0.7, 35°.20N±0°.05×4°.62E±0°.03, h10^{km}, n89, σ1^{s}.50/123, mb3.5/3, 34C, Northern Algeria

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ABSD	Ouled Sidi Bra	0.42	304	P	Pg	01 31 54.7	-0.8
CKTS	El Kantara	0.87	88	P	Pg	01 32 03.7	-0.4
ADCK	Dar Chioukh	1.01	254	P	Pg	01 32 06.1	-0.5
AKET	Djebel Ketaf	1.04	325	P	Pg	01 32 07.5	+0.2
CAZD	Ain Tagrout	1.06	24	P	Pg	01 32 06.7	-1.1
CTCHA	Tamokra	1.23	1	P	Pn	01 32 09.9	-0.6
CJSR	Ain Djasser	1.27	58	P	Pn	01 32 10.2	-0.9
ABRIN	Birine	1.30	290	P	Pn	01 32 11.0	-0.5
KEST	Kesra	3.89	81	Pn	Pn	01 32 47.2	0.0
	4.3nm,0.3s,baz=238,slow=7.4,SNR=54						
KEST				Sn	Sn	01 33 33.4	+0.4
	0.4nm,0.3s,baz=201,slow=20,SNR=1.7 14nm,0.5s						
KEST				AML	AML		
EIBI	Ibiza	4.63	327	Pn	Pn	01 32 58.0	+0.7
EIBI				⇑IVmb_VC		01 33 02.6	
	580nm,SNR=3.8						
EIBI				Sn	Sn	01 33 49.1	-2.1
ETOS	Mallorca	4.78	343	Pn	Pn	01 33 00.4	+1.1
ETOS				⇑IVmb_VC		01 33 04.4	
	379nm,SNR=1.0						
ETOS				Sn	Sn	01 33 51.5	-3.4
CART	Cartagena	5.12	299	P	Pn	01 33 02.8	-1.3
CART				S	Sn	01 33 58.7	-4.5
EXTPC	Torre Pacheco	5.16	301	Pn	Pn	01 33 03.9	-0.6
ETRV	Los Montesinos	5.17	305	Pn	Pn	01 33 04.8	+0.2
ETRV				⇑IVmb_VC		01 33 04.9	
	513nm,SNR=2.3						
ETRV				Sn	Sn	01 34 05.6	+1.3
EBEN2	Beniarda presa	5.19	313	Pn	Pn	01 33 04.8	-0.1
EBEN2				⇑IVmb_VC		01 33 08.5	
	336nm,SNR=2.0						
EBEN2				Sn	Sn	01 34 05.1	+0.3
AFON	Font Roja	5.39	311	Pn	Pn	01 33 08.3	+0.4
AFON				⇑IVmb_VC		01 33 12.0	
	196nm,SNR=2.2						
AFON				Sn	Sn	01 34 11.1	+1.1
EMUR	La Murta	5.41	301	Pn	Pn	01 33 07.2	-0.8
EMUR				⇑IVmb_VC		01 33 07.6	
	512nm,SNR=11						
EMUR				Sn	Sn	01 34 09.9	-0.4
ECOL	Islas Columbre	5.64	327	Pn	Pn	01 33 12.4	+1.4
ECOL				Sn	Sn	01 34 15.6	-0.3
ELOR	Lorca, Murcia	5.68	297	Pn	Pn	01 33 10.9	-0.8
ELOR				⇑IVmb_VC		01 33 11.4	
	724nm,SNR=4.5						
ELOR				Sn	Sn	01 34 16.2	-0.9
VSL	Villasalto	5.72	40	Pn	Pn	01 33 10.9	-1.3
VSL				Sn	Sn	01 34 13.7	-4.2
EZAR	Zarzadilla de	5.74	300	Pn	Pn	01 33 12.2	-0.4
EZAR				⇑IVmb_VC		01 33 12.7	
	670nm,SNR=6.9						
EZAR				Sn	Sn	01 34 18.1	-0.5
FIGM	Figuig	5.78	240	P	Pn	01 33 12.9	-0.3
FIGM				S	Sn	01 34 19.7	0.0
TAF	Taforalt	5.79	268	P	Pn	01 33 12.3	-1.0
TAF				S	Sn	01 34 16.7	-3.1
EXBUL	Bullas, Murcia	5.80	301	Pn	Pn	01 33 13.1	-0.3
ENIJ	Nijar	5.81	290	Pn	Pn	01 33 11.9	-1.5
ENIJ				⇑IVmb_VC		01 33 13.0	
	124nm,SNR=1.7						
ENIJ				Sn	Sn	01 34 17.5	-2.7
JBK	JBK	5.98	264	P	Pn	01 33 15.3	-0.8
JBK				S	Sn	01 34 26.1	+1.4
ETOB	Tobarra	6.02	307	Pn	Pn	01 33 16.9	+0.4
ETOB				⇑IVmb_VC		01 33 18.4	
	264nm,SNR=2.7						
ETOB				Sn	Sn	01 34 26.0	+0.5
EVIV	Cofrentes, Val	6.12	313	Pn	Pn	01 33 18.0	+0.3
EVIV				⇑IVmb_VC		01 33 19.4	
	139nm,SNR=1.6						
EVIV				Sn	Sn	01 34 28.0	+0.1
ECHE	Chera	6.25	316	Pn	Pn	01 33 20.7	+1.2
ECHE				⇑IVmb_VC		01 33 22.8	
	138nm,SNR=1.0						
ECHE				Sn	Sn	01 34 31.9	+1.0
EBER	Berja	6.32	288	Pn	Pn	01 33 19.7	-1.0
EBER				⇑IVmb_VC		01 33 19.9	
	137nm,SNR=2.0						
EMOS	Mosqueruela	6.54	323	Pn	Pn	01 33 25.5	+1.7
EMOS				⇑IVmb_VC		01 33 27.4	
	272nm,SNR=1.6						
EMOS				Sn	Sn	01 34 38.7	+0.2
EQES	Quesada	6.72	295	Pn	Pn	01 33 26.4	+0.3
EQES				⇑IVmb_VC		01 33 27.9	
	252nm,SNR=3.9						
EQES				Sn	Sn	01 34 38.4	-4.3
EPOB	Poblet	6.75	337	Pn	Pn	01 33 27.2	+0.8
EPOB				⇑IVmb_VC		01 33 28.8	
	136nm,SNR=0.5						
EPOB				Sn	Sn	01 34 40.3	-3.0
EQUE	Quentar	6.82	289	Pn	Pn	01 33 27.4	-0.1
EQUE				⇑IVmb_VC		01 33 27.7	
	140nm,SNR=3.6						
ELGU	Los Guajares,	6.89	286	Pn	Pn	01 33 27.6	-0.7
ELGU				⇑IVmb_VC		01 33 28.6	
	204nm,SNR=4.0						
AVIN	Avinyo	6.95	343	Pn	Pn	01 33 31.1	+1.9
AVIN				Sn	Sn	01 34 49.0	+0.7
E0901	Celadas (Terue	6.96	321	Pn	Pn	01 33 30.9	+1.5
E0901				⇑IVmb_VC		01 33 31.0	
	152nm,SNR=1.4						
E0901				Sn	Sn	01 34 47.7	-1.0
PALE	Palemas	7.01	273	P	Pn	01 33 28.7	-1.3
PALE				S	Sn	01 34 46.9	-2.9
AKLM	AKL	7.01	267	P	Pn	01 33 29.8	-0.2
AKLM				S	Sn	01 34 50.5	+0.6
E0802	Ubeda,Jaen	7.02	296	Pn	Pn	01 33 30.8	+0.6
E0802				Sn	Sn	01 34 47.4	-2.7
EMIR	Miracle	7.13	341	Pn	Pn	01 33 34.3	+2.7
EMIR				⇑IVmb_VC		01 33 38.0	
	346nm,SNR=1.1						
EMIR				Sn	Sn	01 34 50.8	-1.9
EGOR	Sierra Gorda,	7.32	288	Pn	Pn	01 33 34.3	0.0
EGOR				⇑IVmb_VC		01 33 36.4	
	68nm,SNR=1.5						
EJON	La Jonquera	7.36	350	Pn	Pn	01 33 35.9	+1.1
EJON				⇑IVmb_VC		01 33 36.9	
	200nm,SNR=1.2						
EJON				Sn	Sn	01 34 57.5	-0.9
PSIM	Granatula de C	7.62	301	Pn	Pn	01 33 37.8	-0.6
PSIM				Sn	Sn	01 35 02.9	-1.8
ESAC	San Caprasio	7.64	330	⇑IVmb_VC		01 33 43.3	
	467nm,SNR=1.1						
ESAC				Sn	Sn	01 35 04.6	-0.6
ETOR	Torete	7.70	319	Pn	Pn	01 33 41.0	+1.5
ETOR				⇑IVmb_VC		01 33 42.4	
	102nm,SNR=0.9						
ETOR				Sn	Sn	01 35 06.0	-0.7
EMIJ	Mijas	7.75	283	Pn	Pn	01 33 39.1	-1.0
EMIJ				⇑IVmb_VC		01 33 42.8	
	54nm,SNR=1.5						
EADA	Adamuz	7.96	295	Pn	Pn	01 33 42.9	-0.2
EADA				⇑IVmb_VC		01 33 44.4	
	37nm,SNR=0.6						
EADA				Sn	Sn	01 35 10.1	-3.2
MDT	Midelt	8.03	255	Pn	Pn	01 33 43.5	-0.6
	0.6nm,0.3s,baz=83,slow=16,SNR=19 4.6nm,0.6s						
MDT				AML	AML		
MDT	Midelt	8.03	255	P	Pn	01 33 44.0	0.0
MDT				S	Sn	01 35 13.0	-1.8
MD31	MD31	8.13	256	P	Pn	01 33 45.0	-0.5
MD31				S	Sn	01 35 15.8	-1.6
ESBB	Sonseca Array	8.16	306	Pn	Pn	01 33 45.5	-0.3
ESBB				⇑IVmb_VC		01 33 54.1	
	51nm,SNR=0.9						
ESDC	Sonseca Array	8.16	306	Pn	Pn	01 33 44.9	-0.8
	0.3nm,0.3s,baz=116,slow=13,SNR=37						
ESDC				Sn	Sn	01 35 15.0	-3.1
	0.1nm,0.3s,baz=116,slow=21,SNR=2.2						
ESDC				LR	LR	01 36 17.5	
	comp=Z,27nm,18.6s,baz=76,slow=34 1.3nm,0.4s						
ESDC				AML	AML		
ESDC	Sonseca Array	8.16	306	Pn	Pn	01 33 45.6	-0.2
ESDC				⇑IVmb_VC		01 33 54.1	
	51nm,SNR=0.9						
ECHI	Chisagues Biel	8.21	336	Pn	Pn	01 33 48.3	+1.7
ECHI				⇑IVmb_VC		01 33 57.7	
	41nm,SNR=0.4						
ARF	Arif	8.30	246	P	Pn	01 33 48.2	+0.5
ARF				S	Sn	01 35 22.0	+0.4
PAB	San Pablo	8.36	304	Pn	Pn	01 33 48.1	-0.4
PAB				⇑IVmb_VC		01 33 55.0	
	40nm,SNR=0.8						
PAB				Sn	Sn	01 35 20.9	-2.1
ECAB	El Cabril	8.57	292	Pn	Pn	01 33 50.4	-0.9
ECAB				⇑IVmb_VC		01 33 55.2	
	71nm,SNR=1.2						
GOLM	Goulmima	8.73	249	P	Pn	01 33 54.7	+1.1
GUD	Guadarrama	8.81	311	Pn	Pn	01 33 55.3	+0.5
GUD				⇑IVmb_VC		01 33 58.9	
	38nm,SNR=0.7						
CIBOR	Castaar de Ib	9.14	302	Pn	Pn	01 33 58.7	-0.5
CIBOR				Sn	Sn	01 35 38.7	-3.4
EALK	Alkurruntz	9.31	331	⇑IVmb_VC		01 34 08.4	
	162nm,SNR=1.0						
EALK				Sn	Sn	01 35 43.5	-2.9
TZRR	Tazzarine	9.62	246	P	Pn	01 34 06.2	+0.2
ZGR	Zagora	10.01	242	P	Pn	01 34 11.2	0.0
OUZM	OUZ	10.47	249	P	Pn	01 34 19.7	+2.2
ECAL	Calabor	11.15	311	Pn	Pn	01 34 27.6	+0.8
ECAL				⇑IVmb_VC		01 34 34.5	
	231nm,SNR=1.1						
DAVOX	Davos/Dischmat	12.23	17	LR	LR	01 39 06.4	
	comp=Z,46nm,20.1s,baz=96,slow=36						
DAVA	Damuels	12.70	16	*e*Pn	Pn	01 34 48.6	+0.6
	2.1nm,0.6s						
ABTA	Abfaltersbach	12.97	25	*e*Pn	Pn	01 34 52.1	+0.4
	0.1nm,0.3s						
SQTA	Sankt Quirin	12.98	20	*e*Pn	Pn	01 34 52.7	+0.8
	3.0nm,0.9s						
MOTA	Moosalm	13.07	20	*e*Pn	Pn	01 34 53.9	+0.8
	2.1nm,0.8s						
RETA	Reutte	13.11	19	*e*Pn	Pn	01 34 54.8	+1.3
	1.2nm,0.8s						
WATA	Walderalm	13.20	21	*e*Pn	Pn	01 34 56.4	+1.6
	5.4nm,1.6s						
OBKA	Obir	13.55	31	*i* Pn	Pn	01 34 59.7	+0.2
	2.3nm,0.8s						
LESA	Schwarzleotal	13.62	24	*e*Pn	Pn	01 35 01.4	+1.0
	3.1nm,1.3s						
SOKA	Soboth	13.89	31	*e*P	P	01 35 12.3	-0.2
	2.5nm,1.2s						
BIOA	Bad Ischl, Aus	14.18	26	*e*P	P	01 35 15.9	+0.2
	1.7nm,0.5s						
MOA	Molln	14.54	27	*e*P	Pn	01 35 18.9	+5.9
	4.5nm,1.3s						
ARSA	Arzberg	14.55	31	*e*P	Pn	01 35 19.4	+6.2
	1.8nm,1.0s						
GERES	GERESS Array B	15.20	23	Pn	Pn	01 35 22.7	+0.8
	baz=203,slow=13,SNR=7.3 0.3nm,0.3s						
VRAC	Vranov	16.62	28	Pn	Pn	01 35 39.4	-0.8
	0.1nm,0.3s,baz=238,slow=14,SNR=3.4 0.6nm,0.3s						
VRAC				AML	AML		
MLR	Muntele Rosu	19.17	51	P	P	01 36 10.9	-0.1
	0.2nm,0.3s,baz=134,slow=22,SNR=6.1 1.8nm,0.7s						
MLR				AML	AML		
EKA	Eskdalemuir Ar	20.84	347	P	P	01 36 28.5	-0.4
	0.7nm,0.6s,baz=164,slow=9.4,SNR=5.0 0.7nm,0.6s						
TORD	Torodi Ar. Bea	22.12	188	P	P	01 36 42.4	-0.5
	2.6nm,0.7s,baz=4.3,slow=10,SNR=12 2.6nm,0.7s						
BRTR	Keskin Array B	23.42	70	P	P	01 36 56.8	+0.1
	0.4nm,0.5s,baz=269,slow=7.2,SNR=4.4 0.4nm,0.5s						
AKASG	Malin Array Be	23.60	41	P	P	01 36 56.8	-1.3
	1.6nm,0.7s,baz=240,slow=7.8,SNR=3.8 1.6nm,0.7s						
DBIC	Dimbokro	29.70	199	LR	LR	01 50 45.0	
	comp=Z,66nm,20.3s,baz=168,slow=38						
ANGG	Ammassalik, Gr	39.31	334	*i* P	P	01 39 20.6	+4.6
MKAR	Makanchi Array	57.51	53	P	P	01 41 35.8	-0.9
	0.3nm,0.6s,baz=285,slow=5.5,SNR=3.0 0.3nm,0.6s						

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*TEH **07** 01:35:55.9, 32°.06N×47°.48E, h18^{km}±42^{km}, ML2.8, Presumed earthquake*

*ISN **07** 01:36:03.1±4.3, 32°.06N×47°.48E, h18^{km}, ML2.5, Presumed earthquake*

ISC 07 01:36:00.2±1.5, 32°.19N±0°.10×47°.68E±0°.08, h10^{km}, n10, σ1^{s}.75/12, Iran-Iraq border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IKFM	Kafar-mosalman	1.34	6	Pg	Pn	01 36 23.4	-1.6
IKFM				Sg	Sn	01 36 42.9	-0.1
AMIS	Naft Sefid	1.47	110	Pg	Pn	01 36 24.8	-2.0
IDOB	Doab	1.65	15	Pn	Pn	01 36 27.8	-1.7
IBDR	Badra	1.74	303	*i* P	Pg	01 36 36.0	+2.5
	baz=128						
IBDR				*i* S	Sn	01 36 52.1	-0.6
IBDR				IAML		01 36 53.4	
	comp=N,75nm,0.6s						
IBDR				IAML		01 36 53.7	
	comp=E,46nm,0.7s						
IGHG	Ghaleghazi	2.33	337	Pn	Pn	01 36 37.1	-1.8
SNQR	Sonqor, Kerman	2.67	359	Pn	Pn	01 36 42.9	-0.6
IDHR	Dehrash	2.73	337	Pn	Pn	01 36 41.7	-2.6
IPIR	Pirpir	2.77	79	Pn	Pn	01 36 44.3	-0.6
SNJK	Sanadaj _Korde	3.27	351	Pn	Pn	01 36 50.9	-1.0
IKLH	Kolahrood	3.48	70	Pn	Pn	01 36 54.9	+0.2

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*IDC **07** 01:39:37.9±1.7, 17°.07S×167°.66E, h0^{km}, mb4.2/6, mbtmp4.2/7, ML3.7/1, MS3.4/8, Error ellipse: s-maj=40.7km s-min=19.3km az=84.0*

*NOU **07** 01:39:39.6, 17°.20S×167°.91E, h13^{km}, MLv4.5/18, Vanuatu Islands*

*NEIC **07** 01:39:40.0±2.2, 17°.24S±0°.06×167°.69E±0°.05, h10^{km}±1^{km}, mb4.2/5, Error ellipse: s-maj=10.7km s-min=6.9km az=150.0*

ISC 07 01:39:39.0±0.8, 17°.22S±0°.07×167°.8E±0°.1, h10^{km}, n40, σ1^{s}.13/34, mb4.2/10, MS3.3/6, 3C, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTV	Rentapao	0.83	134	P	Pg	01 39 55.2	+0.1
SANVU	Saraoutou	1.85	342	P	Pn	01 40 09.7	-1.1
SANVU	Saraoutou	1.85	342		Pn	01 40 09.4	-1.3
MARNC	Mare, Loyalty	4.25	177	P	Pn	01 40 43.0	-0.8
MARNC	Mare, Loyalty	4.25	177	Pn	Pn	01 40 42.5	-1.4
KOUNC	Koumac, New Ca	4.69	224	P	Pn	01 40 51.1	+1.2
KOUNC	Koumac, New Ca	4.69	224	Pn	Pn	01 40 49.5	-0.5
YATNC	Mamie plateau,	4.89	190	P	Pn	01 40 52.5	-0.2
DZM	Mont Dzumac	4.99	195	Pn	Pn	01 40 54.3	+0.1
	2.7nm,0.3s,baz=296,slow=4.9,SNR=22						
DZM				Sn	Sn	01 41 50.8	-1.2
	2.3nm,0.3s,baz=328,slow=21,SNR=4.1						
DZM				LR	LR	01 42 32.6	
	comp=Z,140nm,19.1s,baz=77,slow=34 6.7nm,0.3s						
DZM				AML	AML		
NOUC	Port Laguerre	5.06	196	P	Pn	01 40 56.5	+1.5
ONTNC	Ouen Toro	5.22	194	P	Pn	01 40 59.5	+2.3
ONTNC	Ouen Toro	5.22	194	Pn	Pn	01 40 58.0	+0.9
OUENC	Ouen Island, N	5.25	190	P	Pn	01 40 59.1	+1.5
OUENC	Ouen Island, N	5.25	190	Pn	Pn	01 40 57.4	-0.2
NGOA	Tingoa Renbel	9.37	306	P	Pn	01 41 55.8	+1.7
MSVF	Nonsavu	9.80	95	LR	LR	01 44 55.9	
	comp=Z,132nm,21.3s,baz=102,slow=32						
CTA	Charters Tower	20.61	259	LR	LR	01 50 35.4	
	comp=Z,138nm,18.8s,baz=50,slow=32						
STKA	Stephens Creek	27.85	234	P	P	01 45 29.3	+0.4
	4.4nm,0.9s,baz=49,slow=9.3,SNR=4.2 4.4nm,0.9s						
RAR	Rarotonga	30.85	103	LR	LR	01 56 43.4	
	comp=Z,56nm,18.3s,baz=278,slow=33						
WRA	Warramunga Arr	31.80	260	P	P	01 46 03.0	-1.1
	1.4nm,0.9s,baz=88,slow=8.6,SNR=5.3 1.4nm,0.9s						
WRA	Warramunga Arr	31.80	260	P	P	01 46 01.3	-2.7
AS31	Alice Springs	32.34	253	P	P	01 46 08.2	-0.6
AS31				IAmb	IAmb	01 46 09.3	
	comp=Z,1.2nm,0.5s						
ASAR	Alice Springs	32.34	253	P	P	01 46 08.2	-0.7
	comp=Z,1.9nm,0.5s,baz=79,slow=8.5,SNR=39 comp=Z,1.9nm,0.5s						
ASAR	Alice Springs	32.34	253	P	P	01 46 07.5	-1.3
GUMO	Guam	38.07	322	LR	LR	02 00 34.6	
	comp=Z,31nm,20.1s,baz=88,slow=33						
FITZ	Fitzroy Crossi	40.11	262	LR	LR	02 02 43.1	
	comp=Z,86nm,19.5s,baz=168,slow=35						
FITZ	Fitzroy Crossi	40.11	262	P	P	01 47 15.1	-0.1
FITZ				IAmb	IAmb	01 47 25.5	
	comp=Z,2.1nm,1.1s						
MBWA	Marble Bar	45.43	257	P	P	01 47 58.2	-0.2
JHJ	Hachijo jima 2	56.76	332	LR	LR	02 09 22.4	
	comp=Z,86nm,20.9s,baz=354,slow=32						
PETK	Petropavlovsk-	70.57	354	LR	LR	02 15 37.9	
	comp=Z,18nm,19.6s,baz=125,slow=31						
QSPA	South Pole Qui	72.83	180	P	P	01 51 09.0	+1.2
	comp=Z,5.7nm,0.9s,baz=39,slow=2.0,SNR=16 comp=Z,5.7nm,0.9s						
QSPA	South Pole Qui	72.83	180	P	P	01 51 08.4	+0.6
QSPA				IAmb	IAmb	01 51 09.8	
	comp=Z,7.4nm,0.9s						
CMAR	Chiang Mai Arr	76.42	294	P	P	01 51 30.0	+0.7
	comp=Z,0.8nm,0.4s,baz=122,slow=6.6,SNR=4.1 comp=Z,0.8nm,0.4s						
SONM	Songino Array	84.78	324	P	P	01 52 13.1	-0.6
	comp=Z,1.1nm,0.8s,baz=121,slow=6.6,SNR=5.5 comp=Z,1.1nm,0.8s						
TROLL	Troll, Antarti	90.44	185	⇑P	P	01 52 41.0	+0.3
	comp=Z,208nm,1.0s						
VNA3	Neumayer Olymp	91.75	181	⇑P	P	01 52 46.4	-0.2
	comp=Z,2.0nm,0.7s						
VNA2	Neumayer--Watz	92.02	182	⇑P	P	01 52 48.7	+0.9
	comp=Z,2.3nm,0.6s,baz=177,slow=4.7						
SGRT	San Giovanni R	145.78	321	PKPdf	PKPdf	01 59 17.7	-0.5
NRCA	Norcia	146.59	325	PKPbc	PKPdf	01 59 21.0	+1.4
TIP	Timpagrande	146.62	317	PKPbc	PKPdf	01 59 20.5	+0.8

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*IDC **07** 01:45:50.6±2.3, 35°.29N×141°.97E, h0^{km}, mb3.9/5, mbtmp3.8/6, ML2.6/1, Error ellipse: s-maj=72.7km s-min=19.8km az=58.0*

*NEIC **07** 01:45:54.3±1.1, 35°.02N±0°.07×141°.54E±0°.09, h10^{km}±2^{km}, mb4.6/6, Error ellipse: s-maj=15.7km s-min=5.6km az=134.0*

*JMA **07** 01:45:57.0±0.1, 35°.1N±0°.3×141°.3E±0°.3, h17^{km}, MV3.1/33, E OFF BOSO PENINSULA*

ISC 07 01:45:54.0±1.0, 35°.09N±0°.07×141°.47E±0°.09, h10^{km}, n25, σ0^{s}.91/26, mb4.1/9, Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BSO1	Boso 1	0.59	223	*e*P	Pb	01 46 06.6	+0.4
BSO1				*e*S	Sb	01 46 15.6	+1.2
BSO3	Boso 3	0.84	250	*e*P	Pg	01 46 10.2	+0.1
BSO4	Boso 4	0.93	264	*e*P	Pg	01 46 11.8	-0.1
JKUC	kamogawauchiur	1.04	274	*e*P	Pb	01 46 13.5	-0.6
JHJ2	Mitsune	2.40	215	Pn	Pn	01 46 32.2	-1.2
MJAR	Matsushiro Arr	3.02	300	Pn	Pn	01 46 42.7	+0.9
	0.7nm,0.3s,baz=99,slow=15,SNR=15 3.1nm,0.4s						
MJAR				AML	AML		
MJAR	Matsushiro Arr	3.02	300	Pn	Pn	01 46 42.1	+0.3
MAJO	Matsushiro	3.02	300	Pn	Pn	01 46 43.1	+1.2
MJB9	Matsu-Tunnel	3.02	300	Pn	Pn	01 46 43.7	+1.8
JGF	Kuroka	3.40	280	Pn	Pn	01 46 48.5	+1.4

JTM	Tenmabayashi	5.69	357	Pn	Pn	01 47 20.3	+1.7
ERM	Erimo	7.04	10	Pn	Pn	01 47 37.2	+0.2
ZALV	Zalesovo Beam	43.27	314	P	P	01 53 55.5	0.0
	1.3nm,0.8s,baz=75,slow=7.6,SNR=4.2						
	1.3nm,0.8s						
ZALV	Zalesovo Beam	43.27	314	P	P	01 53 55.2	-0.3
MKAR	Makanchi Array	45.21	304	P	P	01 54 10.5	-0.7
	0.7nm,0.7s,baz=94,slow=9.3,SNR=5.6						
	0.7nm,0.7s						
KURBB	Kurchatov Arra	47.25	309	P	P	01 54 26.5	-0.6
	1.1nm,0.6s,baz=86,slow=8.2,SNR=11						
	1.1nm,0.6s						
WB0	Warramunga Arr	54.97	188	P	P	01 55 24.6	-0.8
WB0				IAmb	IAmb	01 55 25.8	
	comp=Z,6.3nm,0.8s						
FITZ	Fitzroy Crossi	54.99	198	P	P	01 55 25.1	-0.4
FITZ				IAmb	IAmb	01 55 43.2	
	comp=Z,1.4nm,1.4s						
WRAB	Tennant Creek	55.14	188	P	P	01 55 26.2	-0.4
WRAB				IAmb	IAmb	01 55 27.1	
	comp=Z,7.3nm,0.7s						
WR8	Warramunga Arr	55.14	188	P	P	01 55 25.9	-0.8
WRA	Warramunga Arr	55.15	188	P	P	01 55 26.2	-0.4
	comp=Z,4.7nm,0.6s,baz=7.1,slow=7.6,SNR=43						
	comp=Z,4.7nm,0.6s						
WRA	Warramunga Arr	55.15	188	P	P	01 55 25.5	-1.1
ASAR	Alice Springs	58.88	188	P	P	01 55 53.6	+0.6
	comp=Z,0.3nm,0.4s,baz=15,slow=11,SNR=6.3						
	comp=Z,0.3nm,0.4s						
ABKAR	Akbulak array	59.23	311	P	P	01 55 55.0	-0.3
MBWA	Marble Bar	59.63	204	P	P	01 55 57.3	-0.9
MBWA				IAmb	IAmb	01 56 00.1	
	comp=Z,9.9nm,1.1s						

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*MDD **07** 02:02:31.8±1.1, 34°.78N×4°.74E, h0^{km}, Mb4.3/13, M_mb3.7/13, Error ellipse: s-maj=10.1km s-min=6.2km az=158.0*

*CRAAG **07** 02:02:36.3, 35°.24N×4°.48E, Ml3.6, Algrie 13km SW Khoubana*

ISC 07 02:02:36.0±1.5, **35°.18N**±0°.08×**4°.58E**±0°.05, **h10**^{km}, **n14**, σ**1^{s}28**/18, **6C, Northern Algeria**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ABSD	Ouled Sidi Bra	0.40	310	P	Pg	02 02 43.3	-0.7
CKTS	El Kantara	0.91	87	P	Pn	02 02 56.7	+1.7
ADCK	Dar Chioukh	0.96	254	P	Pn	02 02 55.1	-0.6
CAZD	Ain Tagrout	1.10	25	P	Pn	02 02 55.9	-1.7
CTCHA	Tamokra	1.25	3	P	Pb	02 03 01.4	+1.7
ABRIN	Birine	1.27	291	P	Pb	02 03 00.4	+0.3
CJSR	Ain Djasser	1.31	58	P	Pn	02 02 59.4	-1.1
EIBI	Ibiza	4.63	327	Pn	Pn	02 03 47.6	+1.6
EIBI				⇑IVmb_VC		02 03 54.1	
	157nm,SNR=0.8						
EIBI				Sn	Sn	02 04 38.2	-1.7
ETOS	Mallorca	4.79	344	Pn	Pn	02 03 49.3	+1.0
ETOS				⇑IVmb_VC		02 03 56.0	
	394nm,SNR=1.2						
ETOS				Sn	Sn	02 04 44.7	+0.9
EMUR	La Murta	5.39	301	Pn	Pn	02 03 56.4	-0.1
EMUR				⇑IVmb_VC		02 04 02.5	
	75nm,SNR=1.6						
EZAR	Zarzadilla de	5.72	300	Pn	Pn	02 04 00.5	-0.6
EZAR				⇑IVmb_VC		02 04 02.5	
	149nm,SNR=1.7						
VSL	Villasalto	5.76	40	Pn	Pn	02 04 00.8	-0.8
VSL				Sn	Sn	02 05 05.6	-2.1
ETOB	Tobarra	6.00	307	Pn	Pn	02 04 06.0	+1.0
ETOB				⇑IVmb_VC		02 04 09.4	
	137nm,SNR=1.2						
ETOB				Sn	Sn	02 05 14.3	+0.4
EQES	Quesada	6.70	295	Pn	Pn	02 04 14.7	+0.2
EQES				⇑IVmb_VC		02 04 17.9	
	57nm,SNR=0.9						

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*SFS **07** 02:12:42.1, 36°.58N×9°.84W, h15^{km}, ML3.0/9, ML3.1/9, MLv3.1/9*

*MDD **07** 02:12:42.9±1.3, 36°.60N×9°.80W, h13^{km}±5^{km}, mb_Lg2.5/5, Error ellipse: s-maj=9.9km s-min=7.5km az=5.0*

*IGIL **07** 02:12:43.5, 36°.56N×9°.77W, h15^{km}, ML1.4*

*INMG **07** 02:12:43.8±1.3, 36°.57N×9°.76W, h15^{km}±5^{km}, ML1.3, Error ellipse: s-maj=6.6km s-min=5.6km az=104.0, #DIST_RANGE: REGIONAL #IPMA_REGION: SW Cabo S.Vicente*

*CNRM **07** 02:12:45.4, 36°.37N×9°.23W, h22^{km}*

ISC 07 02:12:38.7±2.1, **36°.41N**±0°.05×**9°.90W**±0°.08, **h25**^{km}±15^{km}, **n41**, σ**1^{s}66**/74, **1C, West of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PFVI	Vila Bisbo	1.12	50	⇑*e*P	Pn	02 13 00.6	+1.8
PFVI				*e*S	Sn	02 13 13.4	-0.1
PFVI				*i* IAML		02 13 13.9	
PFVI				*i* IAML		02 13 14.0	
PFVI				*i* IAML		02 13 14.1	
PFVI	Vila Bisbo	1.12	50	P	Pn	02 13 00.5	+1.8
PFVI				S	Sn	02 13 13.0	-0.5
PFVI	Vila Bisbo	1.12	50	P	Pb	02 13 00.2	+0.8
PFVI				S	Sn	02 13 12.9	-0.6
MORF	Marmelete	1.34	48	*e*P	Pn	02 13 03.6	+1.8
MORF				*e*S	Sn	02 13 18.1	-0.8
MORF				IAML		02 13 21.7	
	comp=E,6.0nm,0.1s						
MORF	Marmelete	1.34	48	*e*P	Pb	02 13 03.9	+0.7
MORF				*e*S	Sb	02 13 18.6	-1.4
MORF				*i* IAML		02 13 20.3	
MORF				*i* IAML		02 13 20.5	
MORF				*i* IAML		02 13 21.1	
PTEO	Sao Teotonio	1.48	39	*e*S	Sb	02 13 22.2	-1.6
PTEO				*i* IAML		02 13 22.8	
PTEO				*i* IAML		02 13 26.9	
PBDV	Barranco-do-Ve	1.79	62	P	Pn	02 13 09.7	+1.8
PBDV				S	Sn	02 13 29.5	-0.3
PBDV	Barranco-do-Ve	1.79	62	*e*P	Pn	02 13 10.1	+2.2
PBDV				*e*S	Sn	02 13 29.6	-0.2
PCVE	Castro Verde	1.93	50	P	Pn	02 13 11.0	+1.2
PCVE				S	Sn	02 13 33.2	-0.1
PCVE	Castro Verde	1.93	50	*e*P	Pn	02 13 12.2	+2.3
PCVE				*e*S	Sn	02 13 33.4	+0.1
PCVE				*i* IAML		02 13 34.7	
PCVE				*i* IAML		02 13 34.9	
PCVE				*i* IAML		02 13 50.5	
MESJ	Messejana	1.96	43	*e*P	Pn	02 13 12.0	+1.7
MESJ	Messejana	1.96	43	*e*P	Pn	02 13 12.2	+1.9
MESJ				*e*S	Sb	02 13 34.8	-2.9
MESJ				*i* IAML		02 13 36.5	
MESJ				*i* IAML		02 13 44.1	
MESJ				*i* IAML		02 13 45.3	
PLOUS	Minas do Lousa	2.00	36	*e*P	Pn	02 13 12.7	+1.8
PLOUS				*e*S	Sn	02 13 34.2	-0.9
PLOUS				*i* IAML		02 13 34.4	
PLOUS				*i* IAML		02 13 34.5	
PLOUS				*i* IAML		02 13 39.7	
PVAQ	Vaqueiros	2.01	60	*e*P	Pn	02 13 13.1	+2.2
PVAQ				*e*S	Sn	02 13 34.8	-0.5
PVAQ				*i* IAML		02 13 37.9	
PVAQ				*i* IAML		02 13 38.2	
PVAQ				*i* IAML		02 13 46.0	
PVAQ	Vaqueiros	2.01	60	P	Pn	02 13 13.0	+2.0
PVAQ				S	Sn	02 13 32.5	-2.8
EGRO	El Granado	2.24	59	P	Pn	02 13 15.8	+1.7
EGRO				S	Sn	02 13 40.7	-0.2
EGRO	El Granado	2.24	59	Pn	Pn	02 13 16.4	+2.3
EGRO				Sn	Sn	02 13 41.7	+0.8
EGRO				IVmb_Lg		02 13 51.8	
PBEJ	Beja	2.29	44	*e*S	Sn	02 13 41.8	-0.4
PBEJ				*i* IAML		02 13 42.3	
PBEJ				*i* IAML		02 13 43.6	
MOE	Montemor	2.44	30	*e*P	Pn	02 13 19.2	+2.2
MOE				*e*S	Sn	02 13 45.7	-0.3
MOE				*i* IAML		02 13 47.0	
MOE				*i* IAML		02 13 48.3	
PMAFR	Mafra	2.59	11	P	Pn	02 13 20.5	+1.5
PMAFR				S	Sn	02 13 48.2	-1.4
PMAFR	Mafra	2.59	11	*e*P	Pn	02 13 20.7	+1.7
PMAFR				*e*S	Sn	02 13 49.5	-0.1
EVO	Evora	2.60	35	*e*P	Pn	02 13 20.4	+1.4
EVO				*e*S	Sn	02 13 48.2	-1.6
PARRA	Arraiolos	2.82	31	*e*P	Pn	02 13 23.5	+1.4
PARRA				*e*S	Sn	02 13 53.5	-1.8
PARRA				*i* IAML		02 13 54.0	
PARRA				*i* IAML		02 13 55.6	
PARRA				*i* IAML		02 13 55.7	
PBAR	Barrancos	2.88	51	P	Pn	02 13 24.1	+1.1
PBAR				S	Sn	02 13 56.1	-0.7
PBAR	Barrancos	2.88	51	*e*P	Pn	02 13 25.6	+2.7
PBAR				*e*S	Sn	02 13 56.3	-0.6
PMTG	Montargil	2.97	26	*e*P	Pn	02 13 25.9	+1.8
PMTG				*e*S	Sn	02 13 57.7	-1.3
PMTG				*i* IAML		02 13 58.6	
PMTG				*i* IAML		02 13 59.5	
PMTG				*i* IAML		02 14 02.5	
PESTR	Estremoz	3.06	36	P	Pn	02 13 26.1	+0.6
PESTR				S	Sn	02 13 59.0	-2.3
PESTR	Estremoz	3.06	36	*e*S	Sn	02 13 60.0	-1.3
EBAD	Badajoz	3.28	43	P	Pn	02 13 29.3	+0.9
EBAD				S	Sn	02 14 04.8	-1.8
EBAD	Badajoz	3.28	43	Pn	Pn	02 13 29.8	+1.4
EBAD				Sn	Sn	02 14 04.7	-1.9
EBAD				IVmb_Lg		02 14 10.6	
PSARD	Sardoal	3.47	23	*e*P	Pn	02 13 32.6	+1.5
PSARD				*e*S	Sn	02 14 09.3	-2.1
PSARD				*i* IAML		02 14 12.2	
PSARD				*i* IAML		02 14 12.2	
PSARD				*i* IAML		02 14 13.1	
PMRV	Marv??o	3.61	33	*e*P	Pn	02 13 34.4	+1.4
PMRV				*e*S	Sn	02 14 12.3	-2.5
ECAB	El Cabril	3.94	64	P	Pn	02 13 39.0	+1.4
ECAB				S	Sn	02 14 21.3	-1.8
ECAB	El Cabril	3.94	64	Pn	Pn	02 13 39.6	+2.0
ECAB				Sn	Sn	02 14 22.2	-0.8
ECAB				IVmb_Lg		02 14 25.4	
EADA	Adamuz	4.59	66	S	Sn	02 14 38.5	-0.6
EADA	Adamuz	4.59	66	Sn	Sn	02 14 38.0	-1.1
EADA				IVmb_Lg		02 14 39.0	
EGOR	Sierra Gorda,	4.70	80	P	Pn	02 13 51.0	+2.9
CIBOR	Castaar de Ib	4.78	46	Pn	Pn	02 13 51.1	+2.0
CIBOR				Sn	Sn	02 14 41.2	-2.5
ELGU	Los Guajares,	5.06	83	P	Pn	02 13 55.2	+2.1
MD31	MD31	5.51	128	P	Pn	02 14 00.4	+1.1
MD31				S	Sn	02 14 59.0	-2.9
MDT	Midelt	5.64	128	P	Pn	02 14 02.0	+1.0
MDT				S	Sn	02 15 03.1	-2.0

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*TEH **07** 02:15:58.5, 27°.07N×55°.85E, h11^{km}±48^{km}, ML2.9, Presumed earthquake*

*DSN **07** 02:16:00.9±0.7, 27°.16N×56°.04E, h10^{km}, ML2.8/9, Error ellipse: s-maj=24.1km s-min=5.3km az=78.0*

*OMAN **07** 02:16:02.2±0.2, 27°.11N×55°.79E, h13^{km}±2^{km}, ml2.8/15, Error ellipse: s-maj=3.8km s-min=2.8km az=17.0*

ISC 07 02:16:00.6±1.7, **27°.11N**±0°.06×**55°.91E**±0°.10, **h4**^{km}±14^{km}, **n35**, σ**0^{s}84**/44, **Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BNDS	Bandar-Abbas	0.37	38	Pg	Pg	02 16 07.2	-0.6
IBND	Bandar-abas	0.65	59	Pg	Pg	02 16 13.6	+0.4
IBND				Sg	Sb	02 16 24.3	+0.2
SHME	Shamm	1.07	169	P	Pn	02 16 21.9	-0.5
	SNR=28						
SHME				S	Sn	02 16 38.2	+0.3
SHME	Shamm	1.07	169	P	Pb	02 16 21.7	-0.1
SHME				S	Sn	02 16 38.0	+0.1
BANOM	Banah	1.23	164	P	Pg	02 16 24.9	+0.7
BANOM				S	Sn	02 16 43.3	+1.5
BANOM	Banah	1.23	164	P	Pb	02 16 24.6	+0.1
BANOM				S	Sn	02 16 42.5	+0.7
MASF	Masafi	1.74	173	P	Pb	02 16 32.5	-0.8
	SNR=12						
MSFE	Esma-Masafi	1.75	173	P	Pn	02 16 32.3	+0.4
KHNJ	Kahnooj	1.80	62	Pn	Pn	02 16 32.5	0.0
MDH	Madha	1.83	169	P	Pb	02 16 34.1	-0.7
MDH				S	Sb	02 16 57.8	-0.3
MDH	Madha	1.83	169	P	Pn	02 16 33.0	+0.1
NAZ	Nazwa, Dubai	2.12	186	P	Pn	02 16 37.2	+0.2
NAZ	Nazwa, Dubai	2.12	186	P	Pn	02 16 37.7	+0.8
JASK	Jask - Hormozg	2.14	125	Pn	Pn	02 16 37.3	+0.1
UOSS	Minazif	2.17	173	P	Pn	02 16 38.6	+1.0
UOSS				S	Sn	02 17 04.2	-0.7
UOSS	Minazif	2.17	173	P	Pn	02 16 36.9	-0.7
HATD	Hatta, Dubai	2.28	175	P	Pn	02 16 40.0	+0.9
HATD	Hatta, Dubai	2.28	175	P	Pn	02 16 40.2	+1.1
FAQ	Al Faqa, Dubai	2.37	187	P	Pn	02 16 40.5	+0.1
ASHO	Ashiyiah	2.42	177	P	Pn	02 16 41.7	+0.7
	SNR=32						
ASHO	Ashiyiah	2.42	177	P	Pn	02 16 41.4	+0.4
ASUD	Al Ashush, Dub	2.53	192	P	Pn	02 16 43.1	+0.6
SOHO	SOHO	3.01	169	P	Pn	02 16 49.9	+0.7
KBAM	BAM	3.02	47	Pn	Pn	02 16 50.2	+0.8
ALNE	Al Ain	3.04	183	P	Pn	02 16 50.3	+0.7
CHMN	Cheshme madani	3.09	27	Pn	Pn	02 16 51.7	+1.0
ARQ	Araqi	3.79	172	P	Pn	02 17 00.7	+0.7
ARQ				S	Sn	02 17 44.8	-0.4
BSY	Bisya	4.50	165	P	Pn	02 17 11.2	+1.6
WSAR	Wadi Sarin	4.57	147	P	Pn	02 17 11.1	+0.5
WSAR				S	Sn	02 18 02.4	-1.8
JMDO	Jabal Madar	5.12	157	P	Pn	02 17 19.2	+1.0
WBK	Wadi Bani Khal	5.27	148	P	Pn	02 17 20.1	-0.1
	SNR=12						
JLN	Jalan Bani Buh	5.87	146	P	Pn	02 17 27.9	-0.6
WHFO	Wadi Hawf	9.36	193	P	Pn	02 18 15.1	-1.4
	SNR=6.9						
DMTO	DMTO	9.39	186	P	Pn	02 18 17.2	+0.4
ABTO	Aybut	10.00	195	P	Pn	02 18 23.3	-2.0

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*IDC **07** 02:18:04.2±1.0, 28°.83S×71°.89W, h0^{km}, mb4.2/5, mbtmp3.9/9, ML3.6/4, MS3.0/2, Error ellipse: s-maj=25.9km s-min=15.0km az=83.0*

*NEIC **07** 02:18:06.3±1.1, 28°.93S±0°.05×72°.03W±0°.09, h17^{km}±3^{km}, mb4.1/3, ML4.1(GUC), Error ellipse: s-maj=12.2km s-min=6.8km az=100.0*

*GUC **07** 02:18:07.6±0.5, 29°.00S×71°.72W, h52^{km}±2^{km}, ML4.1*

*SJA **07** 02:18:08.4±0.7, 28°.98S×71°.83W, h44^{km}±9^{km}, ML3.9, MW4.1*

ISC 07 02:18:04.4±2.9, **28°.94S**±0°.03×**72°.00W**±0°.05, **h6**^{km}±18^{km}, **n102**, σ**1^{s}71**/132, **mb4.2**/4, **3C-3D, Off coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	Llanos de Chal	1.09	48	*e*P	Pn	02 18 27.3	+1.0
AC04				*e*S	Sb	02 18 40.4	+0.1
AC04				IAML		02 18 40.9	
	comp=Z,4µm,0.4s						
AC04	Llanos de Chal	1.09	48	⇑*i*P	Pn	02 18 27.2	+1.0
AC04				*e*S	Sb	02 18 40.2	0.0
AC04				IAML		02 18 40.5	
	comp=N,7µm,0.7s						
AC04	Llanos de Chal	1.09	48		Pb	02 18 27.0	+1.3
AC04					Sb	02 18 39.5	-0.7
LCO	Las Campanas	1.14	94	*e*P	Pn	02 18 27.5	+0.4
LCO				*e*S	Sb	02 18 40.8	-1.0
LCO				IAML		02 18 40.8	
	comp=Z,10µm,0.7s						
LCO	Las Campanas	1.14	94	*e*P	Pn	02 18 26.7	-0.4
LCO				*e*S	Sb	02 18 39.9	-1.9
LCO				IAML		02 18 42.0	
	comp=Z,35µm,0.2s						
LCO	Las Campanas	1.14	94		Pn	02 18 27.3	+0.2
LCO				Sn	Sb	02 18 40.1	-1.7
AC05	El Transito	1.52	87	*e*P	Pn	02 18 33.1	+0.9
AC05				*e*S	Sn	02 18 50.2	-2.0
AC05	El Transito	1.52	87	⇓*i*P	Pn	02 18 33.0	+0.9
AC05				*e*S	Sn	02 18 49.2	-3.1
AC05				IAML		02 18 52.3	
	comp=N,2µm,0.4s						
AC05	El Transito	1.52	87	Pn	Pn	02 18 33.0	+0.9
GO04	Tololo Observa	1.61	140	*e*P	Pn	02 18 34.5	+0.9
GO04				*e*S	Sn	02 18 53.8	-1.1
GO04				IAML		02 18 53.8	
	comp=Z,3µm,0.2s						
GO04	Tololo Observa	1.61	140	*i* P	Pn	02 18 34.5	+0.9
GO04				*e*S	Sn	02 18 52.8	-2.0
GO04				IAML		02 18 54.8	
	comp=N,11µm,0.4s						
GO04	Tololo Observa	1.61	140	Pn	Pn	02 18 34.0	+0.4
CO06	Fray Jorge	1.76	170	*e*P	Pn	02 18 36.4	+1.0
CO06				*e*S	Sn	02 18 55.5	-2.5
CO06				IAML		02 18 58.1	
	comp=E,6µm,0.1s						
CO06	Fray Jorge	1.76	170	Pn	Pn	02 18 35.6	+0.2
CO01	Juntas del Tor	1.96	122	*e*P	Pn	02 18 39.7	+1.4
CO01				*e*S	Sn	02 19 01.9	-1.4
CO01				IAML		02 19 03.6	
	comp=Z,1µm,0.1s						
CO01	Juntas del Tor	1.96	122	⇓*i*P	Pn	02 18 39.8	+1.4
CO01				*e*S	Sn	02 19 00.6	-2.8
CO01				IAML		02 19 03.3	
	comp=N,12µm,0.1s						
CO01	Juntas del Tor	1.96	122	Pn	Pn	02 18 39.4	+1.1
GO03	Copiapo	2.06	50	*e*P	Pn	02 18 41.2	+1.7
GO03				*e*S	Sn	02 19 05.2	-0.2
GO03				IAML		02 19 06.2	
	comp=Z,618nm,0.5s						
GO03	Copiapo	2.06	50	⇑*i*P	Pn	02 18 41.0	+1.5
GO03				*i* S	Sn	02 19 04.7	-0.7
GO03				IAML		02 19 06.0	
	comp=N,1µm,0.4s						
GO03	Copiapo	2.06	50	Pn	Pn	02 18 40.4	+0.9
AC06	Mina Casimiro	2.14	43	*e*P	Pn	02 18 42.8	+2.1
AC06				*e*S	Sn	02 19 07.3	-0.3
AC06				IAML		02 19 09.2	
	comp=E,818nm,0.7s						
AC06	Mina Casimiro	2.14	43	Pn	Pn	02 18 42.2	+1.5
CO02	Combarbal	2.42	159	*e*P	Pn	02 18 46.1	+1.6
CO02				*e*S	Sn	02 19 14.2	-0.3
CO02				IAML		02 19 15.1	
	comp=Z,546nm,0.3s						
CO02	Combarbal	2.42	159	⇓*i*P	Pn	02 18 45.9	+1.4
CO02				*e*S	Sn	02 19 12.2	-2.3
CO02				IAML		02 19 15.2	
	comp=E,3µm,0.2s						
CO02	Combarbal	2.42	159	Pn	Pn	02 18 45.8	+1.2
AROD	Rodeo	2.52	120	*e*P	Pn	02 18 43.5	-2.6
AROD				*e*S	Sn	02 19 19.2	+1.9
ACDV	Cuesta del Vie	2.79	117	*e*P	Pn	02 18 47.4	-2.4
ACDV				IAML		02 19 38.7	
	comp=Z,344nm,0.7s						
ACCO	Cerro Coronel	3.04	123	*e*P	Pn	02 18 56.9	+3.7
ACCO				*e*S	Sn	02 19 33.3	+3.3
ACCO				IAML		02 19 35.4	
	comp=Z,341nm,1.3s						
AC01	Pan de Azucar	3.05	24	*e*P	Pn	02 18 54.1	+1.0
AC01				*e*S	Sn	02 19 28.5	-1.3
AC01				IAML		02 19 30.0	
	comp=Z,165nm,0.5s						
AC01	Pan de Azucar	3.05	24	*e*P	Pn	02 18 54.1	+1.0
AC01				*e*S	Sn	02 19 27.1	-2.8
AC01				IAML		02 19 28.9	
	comp=E,305nm,0.5s						
AC01	Pan de Azucar	3.05	24	Pn	Pn	02 18 53.5	+0.5
CO04	Los Peladeros	3.22	164	⇑*i*P	Pn	02 18 57.7	+2.0
CO04				*e*S	Sn	02 19 32.6	-1.8
CO04				IAML		02 19 36.8	
CO04	Los Peladeros	3.22	164	Pn	Pn	02 18 56.8	+1.1
AC02	Maricunga	3.29	51	*e*P	Pn	02 18 59.5	+2.6
AC02				*e*S	Sn	02 19 38.0	+1.3
AC02				IAML		02 19 52.0	
	comp=Z,247nm,0.6s						
AC02	Maricunga	3.29	51	*e*P	Pn	02 18 59.5	+2.6
AC02				*e*S	Sn	02 19 36.9	+0.3
AC02				IAML		02 19 51.9	
	comp=E,474nm,0.5s						
AC02	Maricunga	3.29	51	Pn	Pn	02 18 59.1	+2.1
VCA	Vinchina	3.33	87	*e*P	Pn	02 18 57.9	+0.7
VCA				*e*S	Sn	02 19 36.2	-0.9
VCA				IAML		02 19 43.2	
	comp=Z,322nm,0.4s						
VCA	Vinchina	3.33	87	*e*P	Pb	02 19 02.1	-1.9
RTLS	Leoncito	3.69	141	*e*P	Pn	02 19 06.0	+3.9
RTLS				*e*S	Sn	02 19 49.1	+3.1
RTLS				IAML		02 20 03.1	
	comp=Z,605nm,1.0s						
RTLL	Cerro Villicun	3.87	129	*e*P	Pn	02 19 08.0	+3.5
RTLL				*e*S	Sb	02 20 01.5	+1.2
RTLL				IAML		02 20 09.1	
	comp=Z,189nm,1.0s						
ZON	Zonda	3.87	133	*e*P	Pn	02 19 05.2	+0.7
ZON				*e*S	Sb	02 19 56.9	-3.4
ZON				*e*S	Sn	02 20 01.1	+11
ZON				IAML		02 20 17.2	
	comp=Z,142nm,1.5s						
ZON	Zonda	3.87	133	Pn	Pn	02 19 07.1	+2.6
TINO	Tinogasta	4.00	78	*e*P	Pn	02 19 03.9	-2.3
TINO				*e*S	Sb	02 20 05.9	+2.0
TINO				IAML		02 20 15.5	
	comp=Z,205nm,0.9s						
VA03	San Esteban	4.01	162	*e*P	Pn	02 19 08.8	+2.3
VA03				*e*S	Sn	02 19 55.1	+1.3
VA03				IAML		02 20 06.1	
	comp=Z,166nm,0.7s						
VA03	San Esteban	4.01	162	*e*P	Pn	02 19 08.7	+2.3
VA03	San Esteban	4.01	162	Pn	Pn	02 19 08.3	+1.9
CFA	Coronel Fontan	4.20	130	Pn	Pn	02 19 12.0	+3.0
	comp=Z,3.1nm,0.3s,baz=292,slow=6.3,SNR=24						
CFA				Sn	Sn	02 19 57.9	-0.5
	comp=Z,6.2nm,0.3s,baz=89,slow=19,SNR=13						
CFA				LR	LR	02 20 57.4	
	comp=Z,144nm,21.3s,baz=231,slow=41						
	comp=Z,7.2nm,0.4s						
CFA				AML	AML		
CFA	Coronel Fontan	4.20	130	*e*P	Pn	02 19 11.9	+3.0
CFA				*e*S	Sb	02 20 10.1	+0.3
CFA				IAML		02 20 16.8	
	comp=Z,131nm,0.8s						
PEL	Peldehue	4.34	165	Pn	Pn	02 19 12.3	+1.4
MT02	Curacav	4.37	170	Pn	Pn	02 19 11.7	+0.4
ACLC	CERRO LA CRUZ	4.44	97	*e*P	Pn	02 19 15.2	+2.8
ACLC				*e*S	Sn	02 20 00.2	-4.3
ACLC				IAML		02 20 27.6	
	comp=Z,109nm,0.9s						
PB14	IPOC Station P	4.53	19	*e*P	Pn	02 19 14.1	+0.3
PB14				IAML		02 20 36.1	
	comp=Z,68nm,0.6s						
PB14	IPOC Station P	4.53	19	Pn	Pn	02 19 13.5	-0.2
MT05	Renca	4.57	167	*e*P	Pn	02 19 15.9	+1.9
MT05				IAML		02 20 32.3	
	comp=Z,163nm,0.8s						
MT05	Renca	4.57	167	Pn	Pn	02 19 15.4	+1.4
MT16	CCHEN	4.65	165	Pn	Pn	02 19 16.9	+1.8
ARCO	CERRO ARCO	4.70	147	*e*P	Pn	02 19 20.4	+4.4
ARCO				IAML		02 20 34.4	
	comp=Z,142nm,1.2s						
MT03	Universidad Ad	4.72	165	*e*P	Pn	02 19 18.7	+2.6
MT03				*e*S	Sn	02 20 11.3	+0.1
MT03				IAML		02 20 14.0	
	comp=Z,182nm,0.2s						
MT03	Universidad Ad	4.72	165	Pn	Pn	02 19 17.8	+1.7
MT04	Ro Olivares	4.73	161	*e*S	Sn	02 20 12.4	+0.7
MT08	Bocatoma Ro	4.80	160	IAML		02 20 47.8	
	comp=Z,65nm,0.7s						
MT09	Talagante	4.90	170	Pn	Pn	02 19 19.9	+1.2
MT01	Popeta	4.95	173	Pn	Pn	02 19 19.7	+0.5
MT13	San Alfonso	5.01	163	Pn	Pn	02 19 22.3	+2.2
BO04	La Punta	5.17	167	Pn	Pn	02 19 23.4	+1.0
CYA	Choya	5.47	86	*e*P	Pn	02 19 28.4	+2.0
BO01	Tunca	5.49	172	Pn	Pn	02 19 26.9	+0.3
BO02	Sierra Bellavi	5.93	170	Pn	Pn	02 19 33.8	+1.0
GO05	Hualane	6.05	179	Pn	Pn	02 19 34.0	-0.4
PB05	IPOC Station P	6.27	15	Pn	Pn	02 19 36.9	-0.7
PB06	IPOC Station P	6.58	20	Pn	Pn	02 19 40.8	-1.1
ML02	Panimavida	6.82	176	Pn	Pn	02 19 45.3	+0.4
TCA	Tanti	6.84	112	*e*P	Pn	02 19 46.2	+0.9
AF01	San Pedro de A	6.88	31	Pn	Pn	02 19 46.5	+0.4
VA04	Juan Fernndez	7.49	230	Pn	Pn	02 19 54.0	-0.1
BI02	San Fabin de	7.73	176	Pn	Pn	02 19 58.0	+0.6
PSGCX	Pisagua	9.46	11	Pn	Pn	02 20 20.6	-0.7
PB12	IPOC Station P	10.39	9	Pn	Pn	02 20 34.1	+0.1
GO06	Curarrehue	10.63	178	Pn	Pn	02 20 37.8	+0.6
PB16	IPOC Station P	10.80	13	Pn	Pn	02 20 40.6	+0.5
PLCA	Paso Flores	11.83	175	Pn	Pn	02 20 54.4	+0.8
	comp=Z,0.1nm,0.3s,baz=316,slow=5.9,SNR=2.9						
	comp=Z,1.2nm,0.9s						
PLCA				AML	AML		
LPAZ	La Paz	13.09	17	Pn	Pn	02 21 10.1	-1.3
	comp=Z,0.1nm,0.3s,baz=315,slow=5.4,SNR=7.4						
	comp=Z,0.6nm,0.7s						
LPAZ				AML	AML		
LPAZ	La Paz	13.09	17		Pn	02 21 09.4	-2.0
CPUP	Villa Florida	13.26	82	LR	LR	02 26 50.0	

	comp=Z,101nm,19.7s,baz=257,slow=40						
SIV	**San Ignacio**	**16.36**	**40**	Pn	**Pn**	**02 21 51.8**	**-2.9**
	baz=216,slow=9.6,SNR=5.9						
	comp=Z,0.9nm,0.6s						
AQDB	**Aquidauana**	**17.03**	**64**		**Pn**	**02 22 04.7**	**+1.5**
AQDB				IAmb	IAmb	02 22 27.4	
	comp=Z,12nm,1.5s						
BDFB	**Brasilia**	**25.77**	**64**	P	**P**	**02 23 36.1**	**-0.2**
	comp=Z,3.2nm,0.6s,baz=243,slow=11,SNR=8.1						
	comp=Z,3.2nm,0.6s						
BDFB	**Brasilia**	**25.77**	**64**		**P**	**02 23 35.1**	**-1.2**
BDFB				IAmb	IAmb	02 23 36.3	
	comp=Z,4.8nm,0.9s						
SNAA	**Sanae**	**56.27**	**159**	P	**P**	**02 27 45.4**	**+0.1**
	comp=Z,1.3nm,0.6s,baz=208,slow=18,SNR=3.7						
	comp=Z,1.3nm,0.6s						
QSPA	**South Pole Qui**	**61.28**	**180**	P	**P**	**02 28 21.4**	**+1.1**
	comp=Z,1.4nm,0.8s,baz=127,slow=2.9,SNR=7.3						
	comp=Z,1.4nm,0.8s						
QSPA	**South Pole Qui**	**61.28**	**180**	P	**P**	**02 28 20.9**	**+0.6**
QSPA				IAmb	IAmb	02 28 54.2	
	comp=Z,4.2nm,1.4s						
BOSA	**Boshof**	**82.41**	**118**	P	**P**	**02 30 28.2**	**+0.3**
	comp=Z,3.1nm,0.9s,baz=257,slow=9.2,SNR=3.7						
	comp=Z,3.1nm,0.9s						
TORD	**Torodi Ar. Bea**	**82.48**	**71**	P	**P**	**02 30 28.4**	**+0.2**
	comp=Z,1.1nm,0.7s,baz=245,slow=5.5,SNR=5.4						
	comp=Z,1.1nm,0.7s						
WRA	**Warramunga Arr**	**125.15**	**211**	PKP	**PKiKP**	**02 37 07.1**	**+0.3**
	comp=Z,0.6nm,0.8s,baz=168,slow=1.6,SNR=2.9						
WRA	**Warramunga Arr**	**125.15**	**211**		**PKiKP**	**02 37 06.8**	**-0.1**
H11S2	**WAKE ISLAND Hy**	**125.72**	**273**	T	T	04 56 11.0	
	baz=116,slow=75,SNR=4.2						
H11S1	**WAKE ISLAND Hy**	**125.73**	**273**	T	T	04 56 07.4	
	baz=116,slow=75,SNR=3.9						
H11S3	**WAKE ISLAND Hy**	**125.74**	**273**	T	T	04 56 08.8	
	baz=116,slow=75,SNR=4.3						
KURBB	**Kurchatov Arra**	**149.00**	**37**	PKPbc	**PKiKP**	**02 37 54.0**	**-0.2**
	comp=Z,0.8nm,0.7s,baz=308,slow=3.3,SNR=7.9						
ZALV	**Zalesovo Beam**	**149.83**	**28**	PKPbc	**PKiKP**	**02 37 55.8**	**0.0**
	comp=Z,1.6nm,0.7s,baz=304,slow=3.4,SNR=6.4						
ZALV	**Zalesovo Beam**	**149.83**	**28**	PKPbc	**PKiKP**	**02 37 56.1**	**+0.2**
MKAR	**Makanchi Array**	**153.17**	**41**	PKPbc	**PKiKP**	**02 38 03.7**	**+0.7**
	comp=Z,0.2nm,0.6s,baz=298,slow=4.1,SNR=3.6						

*MDD **07** 02:40:24.0±0.8, 34°76N×4°88E, h7^{km}±12^{km}, Mb4.3/25, M_mb3.7/25, Error ellipse: s-maj=15.1km s-min=4.4km az=153.0*

*CRAAG **07** 02:40:27.7, 35°22N×4°62E, Ml3.4, Algrie 14km SE Khoubana*

*CNRM **07** 02:40:46.7, 35°04N×3°19E, h44^{km}, ML3.0*

ISC 07 02:40:28.2±1.3**, 35°16N**±0°06×**4°66E**±0°04**, h10**^{km}**, n30,** σ**1**^{s}**20**/43**, 15C, Northern Algeria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ABSD	**Ouled Sidi Bra**	**0.47**	**307**	P	**Pg**	**02 40 37.1**	**-0.2**
CKTS	**El Kantara**	**0.85**	**85**	P	**Pn**	**02 40 46.8**	**+0.5**
ADCK	**Dar Chioukh**	**1.02**	**257**	P	**Pn**	**02 40 48.6**	**-0.1**
CAZD	**Ain Tagrout**	**1.10**	**22**	P	**Pn**	**02 40 49.3**	**-0.4**
CJSR	**Ain Djasser**	**1.27**	**56**	P	**Pg**	**02 40 52.6**	**0.0**
CTCHA	**Tamokra**	**1.27**	**360**	P	**Pg**	**02 40 53.3**	**+0.7**
ABRIN	**Birine**	**1.34**	**291**	P	**Pg**	**02 40 53.9**	**0.0**
ATKJ	**Tikjda**	**1.36**	**341**	P	**Pg**	**02 40 54.0**	**-0.3**
EIBI	**Ibiza**	**4.68**	**327**	Pn	**Pn**	**02 41 40.1**	**+1.2**
EIBI				⇑IVmb_VC		02 41 44.3	
	219nm,SNR=1.8						
EIBI				Sn	**Sn**	**02 42 35.0**	**+1.7**
ETOS	**Mallorca**	**4.83**	**343**	Pn	**Pn**	**02 41 42.7**	**+1.7**
ETOS				⇑IVmb_VC		02 41 46.6	
	385nm,SNR=1.0						
ETOS				Sn	**Sn**	**02 42 38.5**	**+1.5**
EBEN2	**Beniarda presa**	**5.24**	**314**	Pn	**Pn**	**02 41 47.3**	**+0.7**
EBEN2				⇑IVmb_VC		02 41 53.5	
	169nm,SNR=1.0						
EBEN2				Sn	**Sn**	**02 42 47.7**	**+0.7**
AFON	**Font Roja**	**5.44**	**312**	Pn	**Pn**	**02 41 49.1**	**-0.4**
AFON				⇑IVmb_VC		02 41 52.8	
	125nm,SNR=1.4						
AFON				Sn	**Sn**	**02 42 54.0**	**+1.8**
EMUR	**La Murta**	**5.45**	**301**	Pn	**Pn**	**02 41 49.6**	**+0.1**
EMUR				⇑IVmb_VC		02 41 50.1	
	84nm,SNR=1.6						
EMUR				Sn	**Sn**	**02 42 53.4**	**+1.0**
VSL	**Villasalto**	**5.74**	**40**	Pn	**Pn**	**02 41 51.0**	**-2.5**
VSL				Sn	**Sn**	**02 42 55.2**	**-4.1**
FIGM	**Figuig**	**5.78**	**240**	P	**Pn**	**02 41 55.5**	**+1.3**
FIGM				S	Sn	02 42 49.5	-11
EZAR	**Zarzadilla de**	**5.79**	**300**	Pn	**Pn**	**02 41 54.4**	**+0.1**
EZAR				⇑IVmb_VC		02 41 59.2	
	138nm,SNR=1.5						
EZAR				Sn	**Sn**	**02 43 00.2**	**-0.6**
TAF	**Taforalt**	**5.81**	**269**	P	**Pn**	**02 41 53.9**	**-0.7**
TAF				S	Sn	02 42 46.8	-15
ENIJ	**Nijar**	**5.85**	**290**	Pn	**Pn**	**02 41 54.4**	**-0.6**
ENIJ				⇑IVmb_VC		02 41 57.8	
	53nm,SNR=0.7						
ENIJ				Sn	**Sn**	**02 42 59.7**	**-2.4**
JBK	**JBK**	**6.00**	**264**	P	**Pn**	**02 41 57.7**	**+0.5**
JBK				S	Sn	02 42 54.3	-12
ETOB	**Tobarra**	**6.07**	**307**	Pn	**Pn**	**02 41 58.9**	**+0.8**
ETOB				⇑IVmb_VC		02 42 00.4	
	148nm,SNR=1.2						
ETOB				Sn	**Sn**	**02 43 08.2**	**+0.6**
EVIV	**Cofrentes, Val**	**6.17**	**313**	Pn	**Pn**	**02 41 59.8**	**+0.3**
EVIV				⇑IVmb_VC		02 42 04.8	
	128nm,SNR=1.3						
EVIV				Sn	**Sn**	**02 43 10.3**	**+0.2**
ECHE	**Chera**	**6.30**	**316**	Pn	**Pn**	**02 42 01.0**	**-0.2**
ECHE				⇑IVmb_VC		02 42 09.8	
	167nm,SNR=1.0						
ECHE				Sn	**Sn**	**02 43 13.7**	**+0.5**
EBER	**Berja**	**6.36**	**288**	Pn	**Pn**	**02 42 01.4**	**-0.7**
EBER				⇑IVmb_VC		02 42 06.4	
	129nm,SNR=1.8						
EMOS	**Mosqueruela**	**6.60**	**324**	Pn	**Pn**	**02 42 06.1**	**+0.7**
EMOS				⇑IVmb_VC		02 42 09.6	
	270nm,SNR=1.5						
EMOS				Sn	**Sn**	**02 43 20.5**	**-0.3**
EQES	**Quesada**	**6.76**	**295**	Pn	**Pn**	**02 42 08.8**	**+1.2**
EQES				⇑IVmb_VC		02 42 10.2	
	50nm,SNR=0.8						
EQES				Sn	**Sn**	**02 43 23.5**	**-1.2**
EJON	**La Jonquera**	**7.41**	**350**	⇑IVmb_VC		02 42 21.6	
	196nm,SNR=0.9						
EJON				Sn	**Sn**	**02 43 40.9**	**+0.3**
PSIM	**Granatula de C**	**7.66**	**301**	Sn	**Sn**	**02 43 44.9**	**-1.9**
ESAC	**San Caprasio**	**7.69**	**330**	⇑IVmb_VC		02 42 27.0	
	342nm,SNR=0.7						
ESAC				Sn	**Sn**	**02 43 47.5**	**0.0**
MDT	**Midelt**	**8.04**	**256**	P	**Pn**	**02 42 24.4**	**-0.7**
MDT				S	Sn	02 43 42.4	-14
MD31	**MD31**	**8.14**	**256**	P	**Pn**	**02 42 26.4**	**-0.2**
MD31				S	Sn	02 43 44.0	-15

IDC 07 02:44:45.6±9.6**, 20°83S**×**179°14E, h645**^{km}±70^{km}**, mb2.6**/2**, mbtmp3.5**/3**, Error ellipse: s-maj=330.7km s-min=73.4km az=153.0, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**3.25**	**341**	P	P	02 46 10.0	-0.1
	3.2nm,0.5s,baz=159,slow=22,SNR=4.7						
ASAR	**Alice Springs**	**41.83**	**257**	P	P	02 51 41.9	-0.1
	1.1nm,0.7s,baz=94,slow=7.7,SNR=9.7						
	1.1nm,0.7s						
WRA	**Warramunga Arr**	**41.90**	**263**	P	P	02 51 42.6	+0.1
	0.4nm,0.4s,baz=95,slow=7.8,SNR=7.0						
	0.4nm,0.4s						
AKASG	**Malin Array Be**	**141.96**	**329**	PKP	PKPdf	03 03 05.5	0.0
	0.6nm,0.4s,baz=50,slow=3.7,SNR=7.1						

*IDC **07** 02:49:18.3±2.6, 55°50N×159°89W, h0^{km}, mb3.9/8, mbtmp3.9/11, ML3.6/3, Error ellipse: s-maj=63.7km s-min=16.5km az=162.0*

*AEIC **07** 02:49:22.7±1.6, 55°17N±0°03×159°49W±0°06, h38^{km}±5^{km}, Error ellipse: s-maj=5.1km s-min=4.3km az=81.0*

*NEIC **07** 02:49:22.9±1.6, 55°15N±0°04×159°50W±0°03, h47^{km}±7^{km}, mb3.9/12, ML3.7/38, ML3.6(AEIC), Error ellipse: s-maj=6.6km s-min=2.1km az=166.0*

ISC 07 02:49:22.8±0.9**, 55°13N**±0°07×**159°46W**±0°04**, h48**^{km}±9^{km}**, n140,** σ**0**^{s}**99**/151**, mb4.1**/9**, Alaska Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CNBA	**Chernabura Isl**	**0.32**	**193**		**Pn**	**02 49 31.8**	**-0.2**
CNBA				Sn	**Sn**	**02 49 38.1**	**-0.3**
CNBA				IAML		02 49 38.6	
	comp=E,4µm,0.3s						
CNBA				IAML		02 49 41.6	
	comp=N,4µm,0.3s						
SDPT	**Sand Point**	**0.62**	**291**	Pn	**Pn**	**02 49 34.5**	**-0.9**
SDPT				Sn	**Sn**	**02 49 43.1**	**-1.4**
SDPT				IAML		02 49 43.8	
	comp=N,4µm,0.8s						
SDPT				IAML		02 49 48.7	
	comp=E,2µm,0.3s						
VNKR	**Veniaminof 5**	**0.90**	**3**		**Pn**	**02 49 38.7**	**-0.5**
VNSW	**Veniaminof 7**	**0.94**	**357**		**Pn**	**02 49 39.5**	**-0.3**
VNWF	**Veniaminof 8**	**1.02**	**357**		**Pn**	**02 49 40.7**	**-0.2**
VNSS	**Veniaminof 8**	**1.09**	**0**		**Pn**	**02 49 42.1**	**+0.2**
VNFG	**Fog Glacier, M**	**1.16**	**358**	Pn	**Pn**	**02 49 42.6**	**-0.1**
VNNF	**Veniaminof 3**	**1.16**	**4**		**Pn**	**02 49 43.4**	**+0.7**
CHGN	**Chignik**	**1.31**	**26**	Pn	**Pn**	**02 49 44.4**	**-0.3**
CHGN				Sn	**Sn**	**02 50 00.8**	**-0.2**
CHGN				IAML		02 50 04.2	
	comp=N,2µm,0.3s						
PS1A	**Pavlof South-1**	**1.33**	**283**		**Pn**	**02 49 45.0**	**0.0**
PS1A					**Sn**	**02 50 02.0**	**+0.4**
DOL	**Dolgoi Island**	**1.38**	**272**		**Pn**	**02 49 45.7**	**0.0**
DOL					**Sn**	**02 50 03.4**	**+0.7**
PS4A	**Pavlof South-4**	**1.39**	**280**		**Pn**	**02 49 45.6**	**-0.1**
PS4A					**Sn**	**02 50 04.1**	**+1.2**
HAG	**Hague Volcano**	**1.41**	**278**		**Pn**	**02 49 46.1**	**+0.1**
BPBCA	**Veniaminof**	**1.57**	**21**		**Pn**	**02 49 48.4**	**+0.2**
DTNA	**Dutton South F**	**1.60**	**272**		**Pn**	**02 49 48.8**	**+0.2**
DTNA					**Sn**	**02 50 09.4**	**+1.2**
DT1	**Dutton Round H**	**1.62**	**270**		**Sn**	**02 50 10.0**	**+1.5**
ANPB	**Aniakchak Plen**	**1.80**	**21**		**Pn**	**02 49 52.0**	**+0.6**
ANPK	**Aniakchak Peak**	**1.87**	**23**		**Pn**	**02 49 53.2**	**+0.8**
R16K	**Pilot Point**	**2.66**	**23**	Pn	**Pn**	**02 50 04.0**	**+1.0**
R16K				Sn	**Sn**	**02 50 34.8**	**+0.8**
R16K				IAML		02 50 37.4	
	comp=E,358nm,1.2s						
R16K				IAML		02 50 39.0	
	comp=N,350nm,1.0s						
R17L	**Mt. Peulik Vol**	**3.04**	**33**		**Pn**	**02 50 09.9**	**+1.5**
R17L					**Sn**	**02 50 45.1**	**+1.6**
PLK1	**Peulik 1**	**3.11**	**29**		**Pn**	**02 50 10.1**	**+0.8**
PLK2	**Peulik 2**	**3.16**	**32**		**Pn**	**02 50 11.5**	**+1.5**
Q17K	**Contact Creek**	**3.71**	**31**		**Pn**	**02 50 18.4**	**+0.8**
ANCK	**Angle Creek**	**3.77**	**34**		**Pn**	**02 50 19.4**	**+1.0**
AKUT	**Akutan**	**3.80**	**257**	Pn	**Pn**	**02 50 19.9**	**+1.2**
AKUT				IAML		02 51 22.2	
	comp=N,141nm,1.0s						
AKUT				IAML		02 51 22.8	
	comp=E,108nm,1.0s						
MGLS	**Mageik Landsli**	**3.83**	**37**		**Pn**	**02 50 20.3**	**+1.0**
ACHA	**Angle Creek He**	**3.84**	**35**	Pn	**Pn**	**02 50 20.1**	**+0.7**
Q16K	**King Salmon**	**3.87**	**22**		**Pn**	**02 50 20.7**	**+1.0**
Q16K					**Sn**	**02 51 06.1**	**+2.3**
AKLV	**Akutan Long Va**	**3.90**	**258**		**Pn**	**02 50 21.7**	**+1.6**
LVA	**Lava Point**	**3.94**	**258**	Pn	**Pn**	**02 50 21.5**	**+0.8**
LVA				IAML		02 52 28.1	
	comp=E,136nm,1.5s						
P16K	**Nushagak River**	**3.99**	**11**	Pn	**Pn**	**02 50 21.3**	**-0.1**
P16K				IAML		02 51 10.7	
	comp=N,117nm,1.3s						
P16K				IAML		02 51 28.6	
	comp=E,164nm,0.6s						
KAKN	**Katmai Knife C**	**3.99**	**36**		**Pn**	**02 50 22.1**	**+0.6**
OHAK	**Old Harbor**	**4.04**	**56**	Pn	**Pn**	**02 50 21.1**	**-0.9**
OHAK				IAML		02 51 27.8	
	comp=N,52nm,1.5s						
O15K	**Ungalikthiuk R**	**4.06**	**357**	Pn	**Pn**	**02 50 21.7**	**-0.6**
KAWH	**Katmai**	**4.15**	**36**		**Pn**	**02 50 24.3**	**+0.8**
O14K	**Tigyukauivet M**	**4.25**	**347**	Pn	**Pn**	**02 50 24.1**	**-0.7**
KARR	**Katmai Rainbow**	**4.27**	**36**		**Pn**	**02 50 26.2**	**+1.0**
Q18K	**Katmai Hardscr**	**4.29**	**33**		**Pn**	**02 50 26.9**	**+1.3**
UNV	**Unalaska Valle**	**4.30**	**255**	Pn	**Pn**	**02 50 27.3**	**+1.7**
UNV				IAML		02 51 30.2	
	comp=E,54nm,1.4s						
UNV				IAML		02 51 34.0	
	comp=N,54nm,1.5s						
KAHG	**Katmai Hook Gl**	**4.32**	**37**		**Pn**	**02 50 27.1**	**+1.2**
P17K	**Kvichak River**	**4.39**	**21**	Pn	**Pn**	**02 50 27.1**	**+0.3**
O16K	**Kokwok River B**	**4.53**	**9**	Pn	**Pn**	**02 50 29.4**	**+0.6**
MAPS	**Pakushin South**	**4.56**	**256**		**Pn**	**02 50 30.3**	**+1.1**
KDAK	**Kodiak Island**	**4.65**	**52**	Pn	**Pn**	**02 50 30.5**	**+0.2**
	comp=N,2.1nm,0.3s,baz=74,slow=0.8,SNR=40						
KDAK				Sn	**Sn**	**02 51 21.3**	**-1.6**
	comp=N,3.5nm,0.3s,baz=40,slow=20,SNR=6.6						
	comp=N,5.8nm,0.3s						
KDAK				AML	AML		
KDAK	**Kodiak Island**	**4.65**	**52**	Pn	**Pn**	**02 50 30.2**	**-0.1**
KDAK				IAML		02 51 45.8	
	comp=N,54nm,1.0s						
KDAK				IAML		02 51 48.3	
	comp=N,44nm,1.5s						
O17K	**Koliganek Bris**	**4.83**	**14**		**Pn**	**02 50 32.9**	**+0.1**
N14K	**Kuskokwak Cree**	**4.95**	**347**	Pn	**Pn**	**02 50 33.4**	**-1.1**
N14K				IAML		02 52 25.2	
	comp=E,61nm,1.3s						
Q19K	**Cape Douglas,**	**4.96**	**37**	Pn	**Pn**	**02 50 34.2**	**-0.4**
N15K	**Kwethluk River**	**5.06**	**356**	Pn	**Pn**	**02 50 36.2**	**+0.2**
N15K				IAML		02 52 08.7	
	comp=E,41nm,1.3s						
N15K				IAML		02 52 09.7	
	comp=N,35nm,0.8s						
N17K	**Nushagak Hills**	**5.54**	**12**	Pn	**Pn**	**02 50 44.0**	**+1.4**
M15K	**Kasigluk River**	**5.62**	**354**		**Pn**	**02 50 43.4**	**-0.2**
M13K	**Dall Lake**	**5.69**	**340**	Pn	**Pn**	**02 50 44.9**	**+0.3**
M14K	**Bethel**	**5.79**	**348**	Pn	**Pn**	**02 50 45.8**	**-0.2**
N18K	**Kilae Creek**	**5.88**	**17**	Pn	**Pn**	**02 50 47.7**	**+0.4**
M16K	**Timber Creek**	**5.91**	**2**		**Pn**	**02 50 48.4**	**+0.7**
IVE	**Iliamna Volcan**	**6.00**	**33**		**Pn**	**02 50 50.0**	**+1.0**
ILIM	**Iliamna**	**6.07**	**33**		**Pn**	**02 50 51.5**	**+1.6**
N19K	**Bonanza Creek**	**6.28**	**23**	Pn	**Pn**	**02 50 54.5**	**+1.6**
SPIA	**Saint Paul Isl**	**6.36**	**293**	Pn	**Pn**	**02 50 54.5**	**+0.6**
M17K	**Holitna River**	**6.38**	**9**	Pn	**Pn**	**02 50 54.8**	**+0.7**
M11K	**Mekoryuk**	**6.38**	**328**	Pn	**Pn**	**02 50 53.6**	**-0.4**
L14K	**Kuka Creek**	**6.45**	**346**	Pn	**Pn**	**02 50 54.8**	**-0.3**
REF	**Redoubt East F**	**6.47**	**31**		**Pn**	**02 50 56.8**	**+1.3**
L16K	**Owhat River**	**6.60**	**360**	Pn	**Pn**	**02 50 56.5**	**-0.6**
L15K	**Ungalak Mounta**	**6.65**	**352**		**Pn**	**02 50 57.6**	**-0.2**
M18K	**Stony River**	**6.66**	**15**		**Pn**	**02 50 57.9**	**0.0**
L17K	**Donlin**	**7.05**	**4**		**Pn**	**02 51 03.2**	**-0.1**
L18K	**Granite Mounta**	**7.25**	**10**		**Pn**	**02 51 06.4**	**+0.3**
K15K	**Wolf Creek Mou**	**7.26**	**352**	Pn	**Pn**	**02 51 06.0**	**-0.2**
SEW	**Seward**	**7.33**	**43**		**Pn**	**02 51 07.9**	**+0.9**
L19K	**White Mountain**	**7.46**	**17**	Pn	**Pn**	**02 51 09.3**	**+0.3**
M20K	**Styx River**	**7.53**	**23**		**Pn**	**02 51 11.6**	**+1.6**
STLK	**Strandline Lak**	**7.54**	**29**		**Pn**	**02 51 11.0**	**+1.0**
K17K	**Iditarod**	**7.63**	**4**	Pn	**Pn**	**02 51 11.4**	**+0.2**
J14K	**Nanvaranak Lak**	**7.92**	**346**	Pn	**Pn**	**02 51 16.6**	**+1.4**
J16K	**Anvik River**	**8.20**	**356**	Pn	**Pn**	**02 51 18.7**	**-0.3**
PWL	**Port Wells**	**8.23**	**41**	Pn	**Pn**	**02 51 19.5**	**0.0**
J17K	**VABM Dome**	**8.29**	**1**	Pn	**Pn**	**02 51 20.1**	**-0.2**
J18K	**Innoko River**	**8.47**	**8**	Pn	**Pn**	**02 51 22.8**	**+0.1**
KNK	**Knik Glacier**	**8.55**	**38**		**Pn**	**02 51 23.7**	**-0.1**
K20K	**Telida**	**8.70**	**16**	Pn	**Pn**	**02 51 25.8**	**0.0**
HIN	**Hinchinbrook I**	**8.70**	**47**		**Pn**	**02 51 25.2**	**-0.7**
GLI	**Glacier Island**	**8.72**	**44**	Pn	**Pn**	**02 51 24.9**	**-1.3**
I17K	**Unalakleet**	**8.80**	**356**	Pn	**Pn**	**02 51 26.9**	**-0.4**
FID	**Port Fidalgo**	**8.90**	**46**		**Pn**	**02 51 27.2**	**-1.4**
J19K	**Poorman**	**9.10**	**11**	Pn	**Pn**	**02 51 31.7**	**+0.4**
CAST	**Castle Rocks**	**9.12**	**21**		**Pn**	**02 51 33.1**	**+1.5**
SCM	**Sheep Creek Mo**	**9.23**	**38**	Pn	**Pn**	**02 51 31.9**	**-1.4**
J20K	**Nowinta River**	**9.46**	**14**	Pn	**Pn**	**02 51 37.1**	**+0.9**
KLU	**Klutina**	**9.55**	**43**	Pn	**Pn**	**02 51 36.9**	**-0.6**
H17K	**Granite Mounta**	**9.84**	**359**	Pn	**Pn**	**02 51 40.7**	**-0.7**
GLB	**Gilahina Butte**	**10.37**	**46**	Pn	**Pn**	**02 51 48.5**	**-0.2**
G18K	**Tagagawik**	**10.80**	**2**	Pn	**Pn**	**02 51 55.2**	**+0.6**
GRNC	**Granite Creek**	**10.94**	**52**	Pn	**Pn**	**02 51 55.1**	**-1.5**
G19K	**Purcell Mounta**	**11.11**	**5**	Pn	**Pn**	**02 51 59.1**	**+0.4**
IMAR	**Indian Mountai**	**11.24**	**12**	Pn	**Pn**	**02 52 01.3**	**+0.8**
LOGN	**Logan Glacier**	**11.31**	**52**	Pn	**Pn**	**02 52 03.0**	**+1.2**
RIDG	**Independent Ri**	**11.36**	**35**	Pn	**Pn**	**02 52 03.5**	**+1.2**
ILAR	**Eielson Array**	**11.51**	**28**	Pn	**Pn**	**02 52 01.6**	**-2.7**
	comp=N,0.1nm,0.3s,baz=216,slow=14,SNR=5.5						
	comp=N,0.4nm,0.5s						
ILAR				AML	AML		
ILAR	**Eielson Array**	**11.51**	**28**	Pn	**Pn**	**02 52 02.9**	**-1.4**
O28M	**Mount Upton**	**11.67**	**53**	Pn	**Pn**	**02 52 07.0**	**+0.3**
G21K	**Allakaket**	**11.78**	**12**	Pn	**Pn**	**02 52 07.6**	**-0.2**
BCAR	**Beaver Creek A**	**12.03**	**42**	Pn	**Pn**	**02 52 10.8**	**-0.6**
O29M	**Mount Kennedy**	**12.28**	**57**	Pn	**Pn**	**02 52 15.8**	**+0.9**
E19K	**Redstone River**	**12.41**	**4**	Pn	**Pn**	**02 52 18.2**	**+1.7**
M29M	**Somme Creek**	**13.07**	**47**	Pn	**Pn**	**02 52 25.7**	**+0.1**
S31K	**Pelican**	**13.11**	**68**	Pn	**Pn**	**02 52 26.5**	**+0.5**
D20K	**Etivluk River**	**13.69**	**4**	Pn	**Pn**	**02 52 34.8**	**+0.8**
C19K	**Lookout Ridge**	**14.02**	**360**	Pn	**Pn**	**02 52 39.5**	**+1.1**
K29M	**Barlow Dome**	**14.08**	**43**	P	**P**	**02 52 48.5**	**+2.6**
I28M	**Miner Creek**	**14.09**	**35**	Pn	**Pn**	**02 52 37.8**	**-1.6**
D22K	**Ayikyak River**	**14.14**	**10**	Pn	**Pn**	**02 52 40.8**	**+0.8**
BMAR	**Burnt Mountain**	**14.20**	**24**	Pn	**Pn**	**02 52 40.3**	**-0.5**
D23K	**Nanushuk River**	**14.45**	**13**	Pn	**P**	**02 52 47.1**	**-2.7**
G27K	**Doyon Strip**	**14.47**	**29**		**P**	**02 52 48.2**	**-1.9**
I29M	**Ogilvie Camp,**	**14.58**	**37**	P	**P**	**02 52 52.4**	**+1.0**
B20K	**Meade River**	**14.97**	**3**	Pn	**Pn**	**02 52 52.3**	**+1.4**
H29M	**Whitestone**	**15.07**	**34**	P	**P**	**02 52 58.0**	**+1.3**
H29M				IAmb	IAmb	02 52 58.7	
	comp=Z,5.3nm,0.5s						
I30M	**Mount Dempster**	**15.19**	**39**	P	**P**	**02 52 59.6**	**+1.4**
C23K	**Itkillik River**	**15.28**	**12**	Pn	**Pn**	**02 52 54.3**	**-0.7**
C23K				IAmb	IAmb	02 53 00.2	
	comp=Z,14nm,1.2s						
G29M	**Pine Creek**	**15.61**	**32**	P	**P**	**02 53 02.8**	**+0.1**
G29M				IAmb	IAmb	02 53 03.8	
	comp=Z,6.2nm,0.8s						
EPYK	**Eagle Plains**	**15.70**	**35**	P	**P**	**02 53 04.6**	**+0.9**
G30M	**tAoh Zraii Nji**	**16.21**	**34**	P	**P**	**02 53 09.9**	**+0.5**
G30M				IAmb	IAmb	02 53 11.6	
	comp=Z,6.5nm,0.6s						
H31M	**Peel River**	**16.22**	**39**	Pn	**Pn**	**02 53 07.0**	**-0.1**
F30M	**Barrier River**	**16.73**	**32**	Pn	**Pn**	**02 53 13.0**	**-0.3**
G31M	**Satah River**	**16.82**	**35**	Pn	**Pn**	**02 53 13.0**	**-1.5**
G31M				IAmb	IAmb	02 53 29.3	
	comp=Z,6.5nm,1.1s						
INK	**Inuvik**	**17.83**	**32**	P	**P**	**02 53 25.7**	**-1.4**
	comp=Z,0.5nm,0.3s,baz=221,slow=15,SNR=10						
	comp=Z,2.0nm,0.4s						
INK				AML	AML		
INK	**Inuvik**	**17.83**	**32**	Pn	**P**	**02 53 25.2**	**-1.9**
C36M	**Paulatuk**	**21.33**	**34**	P	**P**	**02 54 04.2**	**-1.0**
C36M				IAmb	IAmb	02 54 26.5	
	comp=Z,11nm,1.2s						
YKA	**Yellowknife Ar**	**23.92**	**54**	P	**P**	**02 54 32.4**	**+0.6**
	comp=Z,0.3nm,0.4s,baz=275,slow=9.1,SNR=6.3						
	comp=Z,0.3nm,0.4s						
YKA	**Yellowknife Ar**	**23.92**	**54**	P	**P**	**02 54 31.7**	**-0.1**
SONM	**Songino Array**	**54.76**	**305**	P	**P**	**02 58 47.4**	**+0.2**
	comp=Z,0.4nm,0.3s,baz=72,slow=4.7,SNR=2.0						
	comp=Z,0.4nm,0.3s						
ARCES	**ARCESS Array B**	**55.59**	**358**	P	**P**	**02 58 51.6**	**-1.1**
	comp=Z,2.8nm,0.9s,baz=27,slow=8.2,SNR=4.2						
	comp=Z,2.8nm,0.9s						
ARCES	**ARCESS Array B**	**55.59**	**358**	P	**P**	**02 58 51.3**	**-1.4**
FINES	**FINESS Array B**	**63.68**	**357**	P	**P**	**02 59 47.8**	**-0.7**
	comp=Z,2.0nm,1.0s,baz=351,slow=9.7,SNR=4.7						
	comp=Z,2.0nm,1.0s						
HFS	**Hagfors**	**64.95**	**4**	P	**P**	**02 59 56.3**	**-0.5**
	comp=Z,0.8nm,0.4s,baz=28,slow=6.5,SNR=5.1						
	comp=Z,0.8nm,0.4s						
MKAR	**Makanchi Array**	**65.91**	**318**	P	**P**	**03 00 02.5**	**-0.8**
	comp=Z,0.3nm,0.5s,baz=49,slow=3.7,SNR=3.9						
	comp=Z,0.3nm,0.5s						
MKAR	**Makanchi Array**	**65.91**	**318**	P	**P**	**03 00 03.0**	**-0.3**
AKASG	**Malin Array Be**	**74.28**	**354**	P	**P**	**03 00 54.2**	**-0.2**
	comp=Z,0.5nm,0.4s,baz=9.0,slow=5.7,SNR=6.2						
	comp=Z,0.5nm,0.4s						
CMAR	**Chiang Mai Arr**	**81.48**	**290**	P	**P**	**03 01 35.7**	**+0.8**
	comp=Z,1.3nm,0.3s,baz=14,slow=6.1,SNR=5.0						
	comp=Z,1.3nm,0.3s						

*IDC **07** 03:11:25.6±9.7, 11°45N×85°34W, h188^{km}±64^{km}, mb3.2/5, mbtmp3.7/6, Error ellipse: s-maj=92.6km s-min=41.4km az=162.0*

*CATAC **07** 03:11:28.8±0.4, 11°N±6°×8°6W±°, h216^{km}±3^{km}, M3.6/24, MLv3.6/24, Error ellipse: s-maj=18.2km s-min=4.5km az=43.5, confirmed*

*UCR **07** 03:11:30.3±0.9, 11°30N×85°93W, h196^{km}±7^{km}, MW3.8, Presumed earthquake*

ISC 07 03:11:29.4±0.8**, 11°39N**±0°09×**85°77W**±0°09**, h215**^{km}±5^{km}**, n91,** σ**1**^{s}**05**/103**, mb3.4**/5**, Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAPN	**Al SSO del Vol**	**0.16**	**34**	P	**Pn**	**03 11 58.1**	**+0.7**
JAPN	**Al SSO del Vol**	**0.16**	**34**	*e*P	**Pn**	**03 11 57.8**	**+0.3**
MORN	**Al O del Volca**	**0.20**	**38**	P	**Pn**	**03 11 57.5**	**-0.1**
CARN	**Rivas**	**0.32**	**130**	P	**Pn**	**03 11 57.9**	**+0.1**
CARN				S	**S**	**03 12 20.9**	**+1.0**
CARN	**Rivas**	**0.32**	**130**	*e*P	**Pn**	**03 11 57.8**	**0.0**
LCRUZ	**La Cruz**	**0.34**	**156**	*e*P	**Pn**	**03 11 57.5**	**-0.4**
LCRUZ				*e*S	**S**	**03 12 18.7**	**-1.5**
NADN	**Granada**	**0.44**	**324**	P	**Pn**	**03 11 57.3**	**-0.7**
NADN				S	**S**	**03 12 20.2**	**-0.4**
NANN	**Nandasmo**	**0.65**	**328**	P	**Pn**	**03 11 59.7**	**+0.8**
SABN	**Sabanita**	**0.68**	**326**	P	**Pn**	**03 11 57.6**	**-1.5**
MASN	**Masaya**	**0.70**	**328**	P	**Pn**	**03 11 59.0**	**-0.1**
LAPC	**Finca la Perla**	**0.70**	**152**	*e*P	**Pn**	**03 11 57.8**	**-1.3**
VRLE	**La Escondida,**	**0.72**	**146**	*e*P	**Pn**	**03 11 59.2**	**-0.1**
MAS3	**Al N del Volca**	**0.74**	**328**	P	**Pn**	**03 11 59.2**	**-0.1**
MAS3				S	**S**	**03 12 27.8**	**+5.1**
GPS2	**Hotel Rincn d**	**0.76**	**147**	*e*P	**Pn**	**03 11 59.4**	**-0.1**
ERIA	**Liberia**	**0.82**	**157**	*e*P	**Pn**	**03 11 59.5**	**-0.2**
ALIBA	**Liberia Airpor**	**0.82**	**164**	*e*P	**Pn**	**03 11 59.5**	**-0.3**
CLARA	**Aguas Claras**	**0.84**	**136**	*e*P	**Pn**	**03 12 00.1**	**+0.3**
MESS	**Mesas**	**0.86**	**139**	*e*P	**Pn**	**03 12 00.2**	**+0.1**
VMAR	**Armenia, Volca**	**0.86**	**132**	*e*P	**Pn**	**03 12 00.0**	**0.0**
WILN	**Americas 2**	**0.87**	**332**	P	**Pn**	**03 11 59.7**	**-0.3**
MGAN	**Managua**	**0.89**	**328**	P	**Pn**	**03 11 59.8**	**-0.2**
MGAN				S	**S**	**03 12 25.2**	**+1.2**
HORNC	**Hornillas**	**0.89**	**139**	*e*P	**Pn**	**03 12 00.3**	**+0.1**
UPAL	**Upala**	**0.89**	**123**	P	**Pn**	**03 11 60.0**	**-0.1**
ABCN	**Banco Central**	**0.90**	**324**	P	**Pn**	**03 11 59.9**	**-0.2**
ABCN				S	**S**	**03 12 26.0**	**+1.8**
ALLN	**Telcor Managua**	**0.91**	**327**	P	**Pn**	**03 11 59.8**	**-0.3**
APQ2	**Apoyeque**	**0.97**	**326**	P	**Pn**	**03 12 00.3**	**-0.2**
BAGA	**Bagaces**	**0.99**	**150**	*e*P	**Pn**	**03 12 00.8**	**+0.1**
APYN	**Apoyeque**	**1.01**	**326**	P	**Pn**	**03 12 01.4**	**+0.5**
TENO	**El Achiote**	**1.03**	**131**	*e*P	**Pn**	**03 12 01.3**	**+0.2**
BOAB	**BOACO BROADBAN**	**1.06**	**6**	P	**Pn**	**03 12 00.9**	**-0.2**
AMTN	**Mateare**	**1.06**	**323**	P	**Pn**	**03 12 00.6**	**-0.5**
TIMP	**Tierras Morena**	**1.09**	**137**	*e*P	**Pn**	**03 12 01.6**	**+0.1**
TIMP				*e*S	**S**	**03 12 25.3**	**-1.0**
QUEB	**Quebradon, Cot**	**1.15**	**132**	*e*P	**Pn**	**03 12 01.9**	**+0.1**
CNAS	**Canas**	**1.16**	**145**	*e*P	**Pn**	**03 12 03.1**	**+1.2**
COTE	**Lago Cote**	**1.17**	**134**	*e*P	**Pn**	**03 12 02.1**	**+0.1**
JUD3	**Juan Diaz 3**	**1.24**	**169**	*e*P	**Pn**	**03 12 02.8**	**+0.3**
MOMN	**Momotombo**	**1.26**	**323**	P	**Pn**	**03 12 01.7**	**-0.9**
CHIK	**Chiripa**	**1.27**	**138**	*e*P	**Pn**	**03 12 03.0**	**+0.3**
TABAC	**Tabacon**	**1.32**	**132**	*e*P	**Pn**	**03 12 03.7**	**+0.5**
JTS	**Las Juntas de**	**1.36**	**144**	P	**Pn**	**03 12 03.1**	**-0.2**
JTS	**Las Juntas de**	**1.36**	**144**	*e*P	**Pn**	**03 12 03.4**	**+0.1**
JTS				*e*S	**S**	**03 12 27.6**	**-2.0**
JUNT	**Juntas**	**1.36**	**144**	*e*P	**Pn**	**03 12 03.4**	**+0.1**
CEDE	**Laguna Cedeo**	**1.38**	**130**	*e*P	**Pn**	**03 12 04.2**	**+0.6**
ARE1	**Arenal 1**	**1.39**	**132**	*e*P	**Pn**	**03 12 04.3**	**+0.7**
VARE2	**V. Arenal**	**1.39**	**132**	*e*P	**Pn**	**03 12 04.2**	**+0.6**
VACR	**Volcan Arenal**	**1.41**	**130**	*e*P	**Pn**	**03 12 04.3**	**+0.6**
CNGN	**Cerro Negro**	**1.43**	**321**	P	**Pn**	**03 12 02.9**	**-1.0**
ILCN	**San Idelfonso**	**1.49**	**322**	P	**Pn**	**03 12 03.0**	**-1.3**
ILCN				S	**S**	**03 12 32.2**	**+0.6**
PLRN	**Geotermica Pol**	**1.54**	**321**	P	**Pn**	**03 12 04.1**	**-0.7**
PLRN				S	**S**	**03 12 32.7**	**+0.5**
HERN	**Volcan Telica**	**1.59**	**320**	P	**Pn**	**03 12 04.8**	**-0.5**
HERN				S	**S**	**03 12 33.6**	**+0.3**
HERN	**Volcan Telica**	**1.59**	**320**	*e*P	**Pn**	**03 12 04.4**	**-0.9**
QUEU	**Ciudad Quesada**	**1.69**	**129**	*e*P	**Pn**	**03 12 06.5**	**+0.3**
PAQE	**Paquera**	**1.77**	**152**	*e*P	**Pn**	**03 12 07.2**	**+0.4**
VPL3	**V. Platanar**	**1.77**	**126**	*e*P	**Pn**	**03 12 07.1**	**+0.2**
VPL1	**V. Platanar**	**1.78**	**129**	*e*P	**Pn**	**03 12 07.5**	**+0.2**
SRA1	**San Ramn**	**1.81**	**136**	*e*P	**Pn**	**03 12 07.6**	**+0.1**
RAMO	**San Ramon**	**1.82**	**135**	*e*P	**Pn**	**03 12 08.4**	**+0.9**
PALD	**Palmares**	**1.87**	**135**	*e*P	**Pn**	**03 12 08.4**	**+0.5**
ATEO	**Atenas**	**1.96**	**136**	*e*P	**Pn**	**03 12 09.1**	**+0.3**
VBV1	**V. Barva**	**2.08**	**128**	*e*P	**Pn**	**03 12 10.6**	**+0.4**
SANTA	**Santa Ana**	**2.13**	**133**	*e*P	**Pn**	**03 12 10.1**	**-0.4**
ACOS	**Acosta**	**2.24**	**135**	*e*P	**Pn**	**03 12 12.0**	**+0.4**
CVIMO	**Finca Echandi**	**2.25**	**127**	*e*P	**Pn**	**03 12 16.3**	**+4.4**
PICV	**PH. Pirrs**	**2.34**	**138**	*e*P	**Pn**	**03 12 13.4**	**+0.8**

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VICA  Volcano Irazu      2.35 126 eP      Pn       03 12 13.7 +0.5
ABE2  San Pablo          2.38 135 eP      Pn       03 12 13.8 +0.6
LCR2  La Lucha 2         2.39 133 eP      Pn       03 12 13.8 +0.5
CVTR  Volcan Turrial     2.40 124 eP      Pn       03 12 14.2 +0.5
CVTQ  Turrialba Volc     2.40 125 eP      Pn       03 12 14.1 +0.5
PITB  Pirrs, San         2.43 135 eP      Pn       03 12 14.5 +0.8
RAZU  San Marcos de      2.43 135 eP      Pn       03 12 14.3 +0.5
ABRB  Las Abras (San     2.44 124 eP      Pn       03 12 14.4 +0.5
VTCV  VTCV, Calle Va     2.45 125 eP      Pn       03 12 14.6 +0.7
VERB  Verbena            2.50 125 eP      Pn       03 12 16.8 +2.5
PIEC  Cerro El Cedra     2.50 134 eP      Pn       03 12 15.2 +0.6
SVQ2  Quepos             2.51 141 eP      Pn       03 12 15.1 +0.7
EDPE  Pejibaye, P        3.10 135 eP      Pn       03 12 22.4 +1.3
EDP2  Potrero Grande     3.48 133 eP      Pn       03 12 26.6 +1.1
CDITO Canoas             4.00 134 P       Pn       03 12 32.4 +0.6
CDITO                             S       S        03 13 19.8  -0.7
PMON  Piamonte           4.16 304 P       Pn       03 12 35.1 +1.3
CEVE  Cerro Verde        4.47 303 S       S        03 13 31.9 +0.4
NUBE  Las Nubes          4.64 303 P       Pn       03 12 40.0 +0.2
FAME  Alcaldia de Sa     4.81 301 P       Pn       03 12 42.4 +0.7
CMIG  Matias Romero     10.49 304 P       Pn       03 13 54.5  -0.2
      1.6nm,0.5s,baz=142,slow=9.5,SNR=6.5
TXAR  Lajitas Array     24.44 320 P       P        03 16 30.9 +2.3
      0.6nm,0.5s,baz=135,slow=8.0,SNR=7.8
      0.6nm,0.5s
NVAR  Mina Array Bea    39.58 318 P       P        03 18 41.3 +1.2
      0.3nm,0.4s,baz=120,slow=8.3,SNR=4.2
      0.3nm,0.4s
SCHQ  Schefferville     45.84  15 P       P        03 19 28.1  -1.7
      2.3nm,0.5s,baz=208,slow=4.8,SNR=9.7
      2.3nm,0.5s
YKA   Yellowknife Ar    55.07 344 P       P        03 20 36.8  -1.9
      0.3nm,0.3s,baz=133,slow=8.3,SNR=8.6
      0.3nm,0.3s
ILAR  Eielson Array     67.65 336 P       P        03 22 01.8  -1.1
      0.2nm,0.5s,baz=95,slow=5.6,SNR=4.4
      0.2nm,0.5s
ASAR  Alice Springs    140.38 247 PKP     PKPdf    03 30 34.3 +0.7
      0.4nm,0.5s,baz=97,slow=1.9,SNR=2.0
WRA   Warramunga Arr   140.54 252 PKP     PKPdf    03 30 34.7 +0.8
      0.6nm,0.6s,baz=94,slow=2.2,SNR=7.8
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*WEL **07** 03:21:09.2, 36°.56S×177°.22E, ML4.3, Mw4.6, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}0.46; $M_{\theta\theta}$-0.03; $M_{\phi\phi}$1.27; $M_{r\theta}$-0.32; $M_{\theta\phi}$0.42; $M_{\phi r}$-0.19; Fault plane solution: $M_0$1.11000×10^{16} NP1:ϕ_s60.00000°, δ86.00000°, λ-26.00000°. NP2:ϕ_s152.00000°, δ64.00000°, λ-176.00000°. Principal axes: T 0.9033, Plg16.0000°, Azm109.0000°; N -0.0875, Plg64.0000°, Azm233.0000°; P -0.8158, Plg21.0000°, Azm13.0000°; Stations used: BKZ GRZ HAZ HIZ KNZ MKAZ MWZ MXZ OTVZ PUZ RATZ RTZ STRIKE-SLIP FAULTING*

*NOU **07** 03:21:09.9, 36°.65S×177°.22E, h0^{km}, MLv4.5/11, Off E. Coast of N. Island, N.Z.*

*WEL **07** 03:21:10.4±0.6, 37°S±4°×17°7E±°, h5^{km}, M4.3/28, ML4.2/28, MLv4.3/28, Error ellipse: s-maj=6.1km s-min=3.0km az=33.2, confirmed*

*IDC **07** 03:21:14.1±0.8, 36°.95S×176°.63E, h0^{km}, mb4.2/7, mbtmp4.2/9, ML5.4/1, MS3.8/21, Error ellipse: s-maj=28.4km s-min=15.1km az=70.0*

*NEIC **07** 03:21:16.9±1.1, 37°.15S±0°.10×177°.41E±0°.09, h10^{km}±1^{km}, mb4.6/15, Error ellipse: s-maj=18.9km s-min=8.7km az=213.0*

ISC 07 03:21:15.9±0.5, **36°.97S**±0°.05×**177°.30E**±0°.03, **h10^{km}, n144, σ2^{s}.20**/105, **mb4.6**/17, **MS3.9**/19, **4C, Off east coast of North Island**

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Code  Station Name       Δ°   AZ°   Phase ID          Time     Res
                                  Op      ISC      h  m  s    ISC
WSRZ  White Island S     0.56 190 P       Pb       03 21 27.0  -0.8
WSRZ                              S       Sb       03 21 37.5 +1.6
WSRZ                              T       T        03 22 08.7
WSRZ                              AML     AML
WSRZ                              AML     AML
WIZ   White Island       0.57 189 P       Pb       03 21 27.1  -0.9
WIZ                               S       Sb       03 21 38.1 +2.0
WIZ                               AML     AML
WIZ                               AML     AML
HAZ   Te Kaha            0.88 154 P       Pb       03 21 31.2  -2.1
HAZ                               AML     AML
HAZ                               AML     AML
MYRZ  Mayor Island       0.90 249 P       Pg       03 21 28.5  -4.8
MYRZ                              S       Sg       03 21 41.0  -4.0
MYRZ                              AML     AML
MYRZ                              AML     AML
WHRZ  Whale Island       0.92 196 P       Pn       03 21 34.5  -0.5
WHRZ                              AML     AML
WHRZ                              AML     AML
MXZ   Matakaoa Point     1.00 127 P       Pg       03 21 33.1  -2.1
MXZ   Matakaoa Point     1.00 127 S       Sn       03 21 50.1  -0.1
MXZ   Matakaoa Point     1.00 127         Pg       03 21 32.4  -2.8
MXZ   Matakaoa Point     1.00 127 P       Pg       03 21 33.0  -2.2
MXZ                               S       Sn       03 21 49.8  -0.4
MXZ                               AML     AML
MXZ                               AML     AML
RUGZ  Raukumara Rang     1.04 163 P       Pb       03 21 34.3  -1.9
RUGZ                              AML     AML
RUGZ                              AML     AML
PKGZ  Pakihiroa          1.09 145 P       Pn       03 21 35.1  -2.3
PKGZ                              AML     AML
PKGZ                              AML     AML
TGRZ  Tauranga           1.12 227 P       Pg       03 21 33.9  -3.6
TGRZ                              AML     AML
TGRZ                              AML     AML
MARZ  Manawahe           1.13 206 P       Pb       03 21 36.9  -0.7
MARZ                              AML     AML
MARZ                              AML     AML
EDRZ  Edgecumbe          1.22 201 P       Pn       03 21 39.2   0.0
EDRZ                              AML     AML
EDRZ                              AML     AML
WMGZ  Waiomatatini S     1.23 134 P       Pn       03 21 38.4  -0.9
WMGZ                              AML     AML
WMGZ                              AML     AML
LIRZ  Lichensteins R     1.26 215 P       Pb       03 21 37.9  -2.0
LIRZ                              AML     AML
LIRZ                              AML     AML
URZ   Urewera            1.30 186 Pn      Pb       03 21 37.3  -3.1
      47nm,0.3s,baz=275,slow=3.3,SNR=70
URZ                               Sn      Sn       03 21 59.5 +2.0
      120nm,0.3s,baz=194,slow=21,SNR=9.0
URZ   Urewera            1.30 186 P       Pb       03 21 37.6  -2.8
URZ   Urewera            1.30 186 P       Pb       03 21 37.4  -3.1
URZ                               AML     AML
URZ                               AML     AML
TWGZ  Tauwhareparae      1.32 156 P       Pn       03 21 40.7 +0.1
TWGZ                              AML     AML
TWGZ                              AML     AML
PUZ   Puketiti           1.34 146 P       Pn       03 21 40.2  -0.6
PUZ                               AML     AML
PUZ                               AML     AML
MKRZ  Makatiti           1.34 209 P       Pg       03 21 44.0 +2.3
KARZ  Kaharoa            1.34 218 P       Pn       03 21 39.8  -1.0
KARZ                              AML     AML
KARZ                              AML     AML
MWZ   Matawai            1.38 172 P       Pb       03 21 38.8  -3.0
MWZ                               AML     AML
MWZ                               AML     AML
KMRZ  Kaimai             1.39 230 P       Pn       03 21 38.0  -3.4
KMRZ                              AML     AML
KMRZ                              AML     AML
TARZ  Mount Tarawera     1.41 206 P       Pb       03 21 41.5  -0.9
TARZ                              AML     AML
TARZ                              AML     AML
NGRZ  Ngongotaha         1.44 218 P       Pn       03 21 41.3  -0.8
NGRZ                              AML     AML
NGRZ                              AML     AML
HLRZ  Highlands Stat     1.49 210 P       Pn       03 21 42.4  -0.3
HLRZ                              AML     AML
HLRZ                              AML     AML
UTU   Utuhina            1.49 216 P       Pn       03 21 42.3  -0.5
UTU                               AML     AML
UTU                               AML     AML
RRRZ  Republican Roa     1.50 204 P       Pn       03 21 42.4  -0.6
RRRZ                              AML     AML
RRRZ                              AML     AML
RAGZ  Rawiri             1.53 176 P       Pg       03 21 43.6  -1.7
TKGZ  Te Karaka          1.54 164 P       Pg       03 21 42.9  -2.4
MUGZ  Murupara           1.56 195 P       Pg       03 21 44.4  -1.5
HSRZ  Hossack Road       1.58 212 P       Pn       03 21 44.0  -0.1
HSRZ                              AML     AML
HSRZ                              AML     AML
TOZ   Tahuroa Road       1.62 241 P       Pn       03 21 39.7  -4.9
TOZ                               AML     AML
TOZ                               AML     AML
HRRZ  Handcock Road      1.63 209 P       Pg       03 21 45.9  -1.4
GRZ   Great Barrier      1.64 295 P       Pn       03 21 36.4  -8.4
GRZ                               S       Sn       03 21 53.9   -12
GRZ                               AML     AML
GRZ                               AML     AML
RTZ   Ruatahuna          1.67 189         Pn       03 21 41.8  -3.5
RTZ   Ruatahuna          1.67 189 P       Pb       03 21 44.8  -1.9
GRRZ  Galatos Road       1.67 214 P       Pn       03 21 44.8  -0.5
GRRZ                              AML     AML
GRRZ                              AML     AML
CNGZ  Carnagh Statio     1.68 155 P       Pg       03 21 46.2  -2.0
MKAZ  Moumakai           1.71 265 P       Pn       03 21 40.0  -5.8
MKAZ                              S       Sn       03 22 00.9  -6.9
MKAZ                              AML     AML
MKAZ                              AML     AML
WIAZ  Waiheke Island     1.74 275 P       Pn       03 21 38.8  -7.4
WIAZ                              S       Sn       03 22 00.9  -7.5
WIAZ                              AML     AML
WIAZ                              AML     AML
ALRZ  Allen Road         1.76 205 P       Pb       03 21 46.6  -1.7
ALRZ                              AML     AML
ALRZ                              AML     AML
RIGZ  Rimuhau            1.78 168 P       Pg       03 21 46.8  -3.1
ETAZ  East Tamaki Re     1.90 270 P       Pn       03 21 41.7  -6.7
ETAZ                              AML     AML
ETAZ                              AML     AML
KUTZ  Kaahu Road         1.92 217 P       Pn       03 21 46.8  -1.8
KBAZ  Karaka Road Bo     1.93 265 P       Pn       03 21 47.2  -1.6
MBAZ  Motutapu North     1.93 275 P       Pn       03 21 41.6  -7.2
MBAZ                              S       Sn       03 22 07.6  -5.6
MBAZ                              AML     AML
MBAZ                              AML     AML
TLZ   Tolley Road        1.95 225 P       Pn       03 21 45.2  -3.9
RAHZ  Arahi              1.95 185 P       Pb       03 21 49.5  -2.1
ABAZ  Army Bay           2.01 280 P       Pn       03 21 43.0  -6.9
ABAZ                              AML     AML
ABAZ                              AML     AML
EPAZ  Eden Park BICE     2.05 272 P       Pn       03 21 45.0  -5.4
HBAZ  Herne Bay Bore     2.06 272 P       Pn       03 21 45.3  -5.3
AWAZ  Awhitu Peninsu     2.12 267 P       Pn       03 21 45.1  -6.4
NMHZ  Naumai             2.16 190 P       Pb       03 21 53.3  -2.0
WTAZ  Waiatarua          2.18 270 P       Pn       03 21 46.1  -6.2
RVAZ  Riverhead Bore     2.19 274 P       Pn       03 21 45.9  -6.4
BKZ   Black Stump Fm     2.29 196 P       Pn       03 21 52.6  -1.2
HIZ   Hauiti             2.48 231 P       Pn       03 21 52.5  -3.8
HIZ   Hauiti             2.48 231         Pn       03 21 52.5  -3.8
WCZ   Waipu Caves        2.59 292 P       Pn       03 21 49.9  -8.0
WCZ                               AML     AML
WCZ                               AML     AML
OUZ   Omahuta            3.47 299 P       Pn       03 22 02.0  -7.9
OUZ   Omahuta            3.47 299 P       Pn       03 22 01.9  -8.1
OUZ                               AML     AML
OUZ                               AML     AML
KHEZ  Kahui Hut          3.48 227 P       Pn       03 22 08.8  -1.4
BFZ   Birch Farm         3.80 192 P       Pn       03 22 14.0  -0.5
MRZ   Mangatainoka R     3.92 199 Pn      Pn       03 22 13.6  -2.7
TCW   Tory Channel       4.84 208 Pn      Pn       03 22 28.6  -0.2
TKNZ  Takaka Hill        5.28 218 Pn      Pn       03 22 34.4  -0.5
QRZ   Quartz Range       5.35 223 P       Pn       03 22 34.5  -1.4
QRZ   Quartz Range       5.35 223 Pn      Pn       03 22 35.5  -0.3
MRNZ  Matariki Terra     5.66 217 Pn      Pn       03 22 38.8  -1.3
KHZ   Kahutara           6.17 207 P       Pn       03 22 45.4  -1.6
KHZ   Kahutara           6.17 207 Pn      Pn       03 22 46.3  -0.7
CTZ   Chatham Island     8.20 147 P       Pn       03 23 14.6  -0.3
CTZ   Chatham Island     8.20 147 Pn      Pn       03 23 13.8  -1.2
RPZ   Rata Peaks         8.25 213 Pn      Pn       03 23 10.6  -5.1
      1.3nm,0.5s,baz=171,slow=16,SNR=3.3
RPZ                               LR      LR       03 26 31.9
      comp=Z,131nm,19.8s,baz=202,slow=40
RPZ   Rata Peaks         8.25 213 Pn      Pn       03 23 13.8  -1.8
ODZ   Otahua Downs       9.50 210 Pn      Pn       03 23 32.2  -0.6
DZM   Mont Dzumac       17.57 325 LR      LR       03 30 06.2
      comp=Z,368nm,21.4s,baz=86,slow=31
MSVF  Nonsavu           19.17   2 P       P        03 25 38.4  -1.3
      0.5nm,0.3s,baz=176,slow=12,SNR=5.8
      18nm,0.8s
MSVF                              AML     AML
MSVF  Nonsavu           19.17   2         P        03 25 37.8  -1.9
MSVF                              IAmb    IAmb     03 25 38.5
      comp=Z,56nm,1.3s
RAR   Rarotonga         25.36  58 LR      LR       03 33 54.3
      comp=Z,105nm,21.6s,baz=236,slow=30
STKA  Stephens Creek    29.77 269 LR      LR       03 37 29.6
      comp=Z,283nm,20.2s,baz=103,slow=33
CTA   Charters Tower    31.85 293 LR      LR       03 38 48.1
      comp=Z,284nm,21.6s,baz=205,slow=34
PPT   Papeete           34.97  65 LR      LR       03 39 27.6
      comp=Z,64nm,20.6s,baz=253,slow=31
AS31  Alice Springs     39.41 277 P       P        03 28 47.2 +1.1
ASAR  Alice Springs     39.41 277 P       P        03 28 41.5  -4.6
      comp=Z,1.3nm,0.7s,baz=120,slow=7.5,SNR=13
ASAR                              LR      LR       03 44 33.8
      comp=Z,262nm,18.1s,baz=108,slow=36
      comp=Z,1.3nm,0.7s
ASAR  Alice Springs     39.41 277 P       P        03 28 44.9  -1.2
WR8   Warramunga Arr    40.89 282 P       P        03 28 59.8 +1.5
WR8                               IAmb    IAmb     03 29 04.0
      comp=Z,12nm,1.2s
FORT  Forrest           40.98 264 P       P        03 28 59.7 +0.7
FORT                              IAmb    IAmb     03 29 26.0
      comp=Z,26nm,1.2s
WRA   Warramunga Arr    41.02 282 P       P        03 28 54.2  -5.3
      comp=Z,1.4nm,0.7s,baz=122,slow=7.6,SNR=8.1
      comp=Z,1.4nm,0.7s
WRA   Warramunga Arr    41.02 282 P       P        03 29 00.9 +1.4
WB0   Warramunga Arr    41.08 283 P       P        03 29 01.5 +1.6
WB0                               IAmb    IAmb     03 29 10.9
      comp=Z,4.0nm,0.9s
VNDA  Vanda             41.20 185 P       P        03 29 00.9 +0.6
NWAO  Narrogin (SRO)    48.69 256 LR      LR       03 48 09.8
      comp=Z,85nm,19.9s,baz=126,slow=34
FITZ  Fitzroy Crossi    48.89 278 LR      LR       03 51 12.7
      comp=Z,193nm,18.2s,baz=122,slow=37
FITZ  Fitzroy Crossi    48.89 278 P       P        03 30 01.7  -0.4
FITZ                              IAmb    IAmb     03 30 06.8
      comp=Z,2.8nm,1.2s
MORW  Morawa            51.20 260 P       P        03 30 20.0 +0.4
MBWA  Marble Bar        51.99 271 P       P        03 30 26.5 +1.0
MBWA                              IAmb    IAmb     03 30 27.9
      comp=Z,24nm,1.1s
QSPA  South Pole Qui    53.16 180 P       P        03 30 32.4  -1.4
      comp=Z,4.7nm,0.8s,baz=350,slow=1.3,SNR=18
      comp=Z,4.7nm,0.8s
QSPA  South Pole Qui    53.16 180 P       P        03 30 32.5  -1.3
QSPA                              IAmb    IAmb     03 30 40.0
      comp=Z,15nm,0.8s
H11S2 WAKE ISLAND Hy    56.05 348 T       T        04 31 04.6
      baz=171,slow=76,SNR=6.5
H11S3 WAKE ISLAND Hy    56.06 348 T       T        04 31 05.2
      baz=171,slow=76,SNR=6.6
H11S1 WAKE ISLAND Hy    56.07 348 T       T        04 31 07.1
      baz=171,slow=76,SNR=7.0
MAW   Mawson            64.78 203 P       P        03 31 53.6  -0.5
      comp=Z,3.6nm,1.0s,baz=98,slow=7.2,SNR=5.7
MAW                               LR      LR       03 58 42.4
      comp=Z,149nm,18.8s,baz=110,slow=35
      comp=Z,3.6nm,1.0s
TROLL Troll, Antarti    71.26 182 P       P        03 32 38.5 +3.5
      comp=Z,290nm,0.9s
SNAA  Sanae             71.66 180 ⇑P      P        03 32 41.3 +3.8
      comp=Z,82nm,0.7s
SNAA  Sanae             71.66 180 P       P        03 32 37.8 +0.4
      comp=Z,5.1nm,1.0s,baz=146,slow=7.0,SNR=5.8
      comp=Z,5.1nm,1.0s
VNA3  Neumayer Olymp    71.98 178 ⇑P      P        03 32 42.2 +2.9
      comp=Z,8.5nm,0.8s
VNA2  Neumayer--Watz    72.36 178 ⇑P      P        03 32 44.7 +3.2
      comp=Z,7.6nm,0.6s,baz=181,slow=5.9
VNA1  Neumayer--Stat    72.61 178 ⇑P      P        03 32 46.3 +3.3
      comp=Z,7.5nm,1.0s
H03S2 Juan Fernandez    80.03 125 T       T        05 02 35.6
      baz=231,slow=74,SNR=10
H03S1 Juan Fernandez    80.04 125 T       T        05 02 34.9
      baz=231,slow=74,SNR=4.8
H03S3 Juan Fernandez    80.05 125 T       T        05 02 37.0
      baz=231,slow=74,SNR=8.0
H03N2 Juan Fernandez    80.27 125 T       T        05 02 58.9
      baz=30,SNR=26
H03N1 Juan Fernandez    80.28 125 T       T        05 02 52.7
      baz=232,SNR=32
PLCA  Paso Flores       80.81 135 P       P        03 33 31.6 +1.6
      comp=Z,1.4nm,0.9s,baz=241,slow=7.0,SNR=3.5
PLCA                              LR      LR       04 04 00.4
      comp=Z,62nm,18.0s,baz=226,slow=32
      comp=Z,1.4nm,0.9s
PLCA  Paso Flores       80.81 135 P       P        03 33 28.9  -1.0
PLCA                              IAmb    IAmb     03 33 47.3
      comp=Z,6.6nm,1.4s
IPM   Ipoh              81.78 282 P       P        03 33 36.3 +0.9
IPM                               IAmb    IAmb     03 33 37.5
      comp=Z,15nm,0.9s
RPSI  Rantau Prapat     82.34 279 P       P        03 33 38.8 +0.5
KULM  Kulim             82.57 282 P       P        03 33 40.5 +1.0
KSRS  Korea Array       86.99 323 LR      LR       04 10 07.6
      comp=Z,18nm,19.6s,baz=155,slow=34
LPIG  La Paz            91.25  61 LR      LR       04 08 22.7
      comp=Z,54nm,18.6s,baz=207,slow=31
CMAR  Chiang Mai Arr    92.00 292 P       P        03 34 21.9  -3.3
      comp=Z,0.8nm,0.3s,baz=152,slow=3.7,SNR=6.9
CMAR                              LR      LR       04 16 46.7
      comp=Z,32nm,21.9s,baz=110,slow=36
      comp=Z,0.8nm,0.3s
CMAR  Chiang Mai Arr    92.00 292 P       P        03 34 27.3 +2.1
PFO   Pinyon Flats O    93.48  50 LR      LR       04 09 49.7
      comp=Z,55nm,19.2s,baz=236,slow=31
NVAR  Mina Array Bea    95.67  45 LR      LR       04 14 10.3
      comp=Z,33nm,18.8s,baz=272,slow=33
ATAH  Atahualpa         97.04 104 LR      LR       04 09 04.2
      comp=Z,65nm,20.6s,baz=224,slow=29
CMIG  Matias Romero     98.38  75 LR      LR       04 09 21.9
      comp=Z,29nm,20.6s,baz=165,slow=29
CPUP  Villa Florida     98.74 132 LR      LR       04 12 07.2
      comp=Z,71nm,21.4s,baz=231,slow=31
LPAZ  La Paz            98.80 118 LR      LR       04 10 16.6
      comp=Z,19nm,20.4s,baz=226,slow=30
LZH   Lanzhou           99.58 308 eP      Pdif     03 34 50.4  -9.1
LZH                               pP      pP       03 35 03.5 +1.1
LZH                               pmax    pmax
      comp=Z,15nm,1.0s
PALK  Pallekele         99.59 272 LR      LR       04 19 06.7
      comp=Z,113nm,18.1s,baz=144,slow=35
KBZ   Khabaz           144.95 296 PKP     PKPbc    03 40 52.7 +0.4
      comp=Z,7.3nm,1.1s,baz=163,slow=11,SNR=6.3
FINES FINESS Array B   149.59 333 PKPbc   PKPdf    03 41 03.3 +3.1
      comp=Z,3.9nm,0.9s,baz=297,slow=0.4,SNR=7.6
FINES FINESS Array B   149.59 333 PKPbc   PKPbc    03 41 04.8   0.0
DBIC  Dimbokro         149.78 176 PKPbc   PKPbc    03 41 07.2 +0.5
      comp=Z,5.9nm,0.8s,baz=164,slow=4.3,SNR=6.8
DBIC  Dimbokro         149.78 176         PKPbc    03 41 06.5  -0.1
BRTR  Keskin Array B   151.49 287 PKPbc   PKPdf    03 41 08.2 +4.2
      comp=Z,1.2nm,0.9s,baz=132,slow=5.5,SNR=5.2
AKASG Malin Array Be   153.43 311 PKPbc   PKPbc    03 41 14.9 +1.0
      comp=Z,1.0nm,0.7s,baz=66,slow=1.6,SNR=4.9
TORD  Torodi Ar. Bea   155.96 191 PKPab   PKPab    03 41 36.0  -1.8
      comp=Z,2.5nm,0.9s,baz=176,slow=2.9,SNR=7.3
BRG   Berggiesshubel   161.70 325 ePKPab  PKPab    03 41 56.9  -5.0
BRG                               Amp              03 41 58.6
      comp=Z,3.4nm,0.9s
BRG   Berggiesshubel   161.70 325 P       PKPab    03 42 04.2 +2.4
BRG                               Amp              03 42 05.2
      comp=Z,3.5nm,1.0s
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*IDC **07** 03:29:42.5±0.9, 1°.69N×126°.65E, h0^{km}, mb4.2/8, mbtmp4.2/10, ML3.9/2, Error ellipse: s-maj=38.4km s-min=15.0km az=73.0*

*DJA **07** 03:29:46.7±0.3, 2°N±4°×12°7E±°, h10^{km}, M4.3/13, mB5.5/1, mb4.5/3, MLv4.2/13, Mw(mB)5.0/1*

*NEIC **07** 03:29:49.5±1.6, 1°.61N±0°.08×126°.73E±0°.10, h41^{km}±6^{km}, mb4.2/14, Error ellipse: s-maj=16.0km s-min=7.7km az=55.0*

ISC 07 03:29:48.4±0.6, **1°.65N**±0°.06×**126°.78E**±0°.08, **h35^{km}, n38, σ1^{s}.39**/39, **mb4.3**/14, **Northern Molucca Sea**

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Code  Station Name       Δ°   AZ°   Phase ID          Time     Res
                                  Op      ISC      h  m  s    ISC
GAMI  Galela, Maluku     1.02  80 P       Pn       03 30 07.4 +1.1
TNTI  Ternate            1.05 146         Pn       03 30 07.4 +0.7
TNTI  Ternate            1.05 146 P       Pn       03 30 08.2 +1.5
MNI   Manado             1.95 264 P       Pn       03 30 18.4  -0.7
MNI                               AML     AML
GTOI  Gorontalo          3.90 255 P       Pn       03 30 48.2 +2.3
GTOI                              AML     AML
DDMP  Don Marcelino,     4.55 346 eP      Pn       03 30 59.2 +4.4
DDMP                              eS      Sn       03 31 46.7 +0.2
LUWI  Luwuk              4.82 236 Pn      Pn       03 30 58.3  -0.3
LUWI  Luwuk              4.82 236 P       Pn       03 30 59.1 +0.6
NLAI  Namlea             4.87 176 P       Pn       03 31 01.3 +2.1
NLAI                              AML     AML
TOLI2 Tolitoli           6.02 265 Pn      Pn       03 31 14.8  -0.2
MYLDM Lahad Datu         8.98 293 Pn      Pn       03 31 57.5 +1.8
KAPI  Kappang            9.65 227 Pn      Pn       03 32 05.3 +0.4
      0.8nm,0.3s,baz=123,slow=1.1,SNR=4.1
      7.7nm,0.5s
KAPI                              AML     AML
KAPI  Kappang            9.65 227 Pn      Pn       03 32 06.1 +1.2
MTN   Manton Dam        15.04 163 Pn      Pn       03 33 18.1  -0.3
MTN                               IAmb    IAmb     03 33 22.7
      comp=Z,8.0nm,1.2s
KNRA  Kununurra         17.33 174         Pn       03 33 48.9 +1.2
FITZ  Fitzroy Crossi    19.66 183 P       P        03 34 14.2  -0.3
      comp=Z,0.4nm,0.3s,baz=30,slow=6.5,SNR=9.2
      comp=Z,3.2nm,0.7s
FITZ                              AML     AML
FITZ  Fitzroy Crossi    19.66 183 P       P        03 34 13.2  -1.2
WB0   Warramunga Arr    22.56 161 P       P        03 34 45.1  -0.6
WB0                               IAmb    IAmb     03 34 48.1
      comp=Z,10nm,0.8s
WRAB  Tennant Creek     22.70 161 P       P        03 34 46.8  -0.5
WRAB                              IAmb    IAmb     03 34 49.6
      comp=Z,10.0nm,0.8s
WRA   Warramunga Arr    22.71 161 P       P        03 34 46.2  -1.1
      comp=Z,11nm,0.8s,baz=340,slow=11,SNR=30
      comp=Z,11nm,0.8s
WRA   Warramunga Arr    22.71 161 P       P        03 34 45.1  -2.2
WR8   Warramunga Arr    22.77 161 P       P        03 34 46.7  -1.3
WR8                               IAmb    IAmb     03 34 50.4
      comp=Z,14nm,1.0s
AS31  Alice Springs     26.10 165 P       P        03 35 19.4 +0.3
AS31                              IAmb    IAmb     03 35 25.8
      comp=Z,6.4nm,1.4s
ASAR  Alice Springs     26.10 165 P       P        03 35 19.0  -0.2
      comp=Z,2.0nm,0.5s,baz=348,slow=12,SNR=22
      comp=Z,2.0nm,0.5s
ASAR  Alice Springs     26.10 165 P       P        03 35 21.0 +1.9
FORT  Forrest           32.27 178 P       P        03 36 13.9   0.0
STKA  Stephens Creek    36.19 158 P       P        03 36 47.9 +0.1
      comp=Z,3.1nm,0.6s,baz=21,slow=6.7,SNR=3.3
      comp=Z,3.1nm,0.6s
ARMA  Armidale          39.73 145 P       P        03 37 18.2 +0.3
ARMA                              IAmb    IAmb     03 38 01.1
      comp=Z,9.4nm,1.3s
SONM  Songino Array     49.27 342 P       P        03 38 31.6  -2.3
      comp=Z,0.4nm,0.5s,baz=170,slow=8.8,SNR=1.8
      comp=Z,0.4nm,0.5s
MKAR  Makanchi Array    59.29 326 P       P        03 39 45.6  -1.0
      comp=Z,1.2nm,0.4s,baz=128,slow=8.0,SNR=12
      comp=Z,1.2nm,0.4s
MKAR  Makanchi Array    59.29 326 P       P        03 39 45.0  -1.7
KURBB Kurchatov Arra    63.51 328 P       P        03 40 13.1  -2.0
      comp=Z,1.4nm,0.5s,baz=129,slow=6.2,SNR=12
      comp=Z,1.4nm,0.5s
CASY  Casey             68.77 187 P       P        03 40 48.1  -0.4
CASY                              IAmb    IAmb     03 40 49.5
      comp=Z,3.4nm,0.9s
BVAR  Borovoye Array    69.08 327 P       P        03 40 51.3 +0.5
      comp=Z,1.0nm,0.5s,baz=123,slow=10,SNR=3.0
      comp=Z,1.0nm,0.5s
VNDA  Vanda             81.37 173 P       P        03 42 01.1   0.0
      comp=Z,1.3nm,0.7s,baz=320,slow=6.0,SNR=9.9
      comp=Z,1.3nm,0.7s
VNDA  Vanda             81.37 173 P       P        03 42 01.1   0.0
VNDA                              IAmb    IAmb     03 42 24.1
      comp=Z,3.2nm,1.4s
C27K  Jago River        88.29  21 P       P        03 42 37.3 +1.3
QSPA  South Pole Qui    91.57 180 P       P        03 42 52.3 +0.8
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*IDC **07** 03:30:00.9±1.8, 17°.04S×167°.50E, h0^{km}, mb4.1/3, mbtmp4.1/4, ML3.9/1, MS3.4/7, Error ellipse: s-maj=42.5km s-min=22.9km az=86.0*

*NEIC **07** 03:30:02.3±2.2, 17°.13S±0°.06×167°.7E±0°.1, h10^{km}±1^{km},* *mb4.0/3, Error ellipse: s-maj=21.9km s-min=8.5km az=256.0*

*NOU **07** 03:30:03.4, 17°.14S×167°.70E, h22^{km}, MLv4.6/17, Vanuatu Islands*

ISC 07 03:30:04.2±0.7, **17°.15S**±0°.05×**167°.62E**±0°.07, **h25^{km}, n41, σ0^{s}.94**/33, **mb4.1**/6, **MS3.4**/7, **2C, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RTV	Rentapao	1.00	130	P	Pn	03 30 21.6	-1.1
RTV	Rentapao	1.00	130	P	Pb	03 30 22.3	-0.6
RTV	Rentapao	1.00	130	S	Sn	03 30 38.0	+2.0
SANVU	Saraoutou	1.74	347	P	Pn	03 30 32.2	-0.7
SANVU	Saraoutou	1.74	347	S	Sn	03 30 54.4	+0.1
SANVU	Saraoutou	1.74	347	P	Pn	03 30 31.6	-1.3
SANVU	Saraoutou	1.74	347		Pn	03 30 31.4	-1.5
MARNC	Mare, Loyalty	4.32	175	P	Pn	03 31 07.4	-1.0
MARNC	Mare, Loyalty	4.32	175	Pn	Pn	03 31 06.5	-1.9
KOUNC	Koumac, New Ca	4.62	222	P	Pn	03 31 12.8	+0.3
KOUNC	Koumac, New Ca	4.62	222	Pn	Pn	03 31 11.3	-1.3
YATNC	Mamie plateau,	4.93	188	P	Pn	03 31 16.7	-0.1
DZM	Mont Dzumac	5.02	193	Pn	Pn	03 31 17.4	-0.6
	4.3nm,0.3s,baz=57,slow=11,SNR=32						
DZM				Sn	Sn	03 32 13.1	-2.2
	4.1nm,0.3s,baz=313,slow=21,SNR=6.6						
	11nm,0.3s						
DZM				AML	AML		
NOUC	Port Laguerre	5.08	194	P	Pn	03 31 18.9	+0.1
ONTNC	Ouen Toro	5.24	192	P	Pn	03 31 21.2	+0.1
ONTNC	Ouen Toro	5.24	192	Pn	Pn	03 31 20.6	-0.5
OUENC	Ouen Island, N	5.29	188	P	Pn	03 31 22.2	+0.5
OUENC	Ouen Island, N	5.29	188	Pn	Pn	03 31 22.4	+0.7
NGOA	Tingoa Renbel	9.19	306	P	Pn	03 32 15.5	+0.2
TATA	Tatamba Isabel	11.57	318	P	Pn	03 32 48.4	+0.5
PMG	Port Moresby	21.33	289	LR	LR	03 41 09.4	
	comp=Z,169nm,21.8s,baz=132,slow=32						
URZ	Urewera	22.62	160	LR	LR	03 41 29.0	
	comp=Z,70nm,19.1s,baz=332,slow=30						
RPZ	Rata Peaks	26.64	174	LR	LR	03 45 31.9	
	comp=Z,38nm,18.2s,baz=37,slow=35						
WRA	Warramunga Arr	31.64	260	P	P	03 36 25.3	-0.4
	1.1nm,0.9s,baz=88,slow=8.3,SNR=2.7						
	1.1nm,0.9s						
AS31	Alice Springs	32.20	253	P	P	03 36 31.0	+0.4
AS31				IAmb	IAmb	03 36 40.1	
	comp=Z,1.2nm,0.6s						
ASAR	Alice Springs	32.20	253	P	P	03 36 30.2	-0.4
	comp=Z,1.7nm,0.5s,baz=79,slow=8.6,SNR=13						
	comp=Z,1.7nm,0.5s						
ASAR	Alice Springs	32.20	253	P	P	03 36 30.4	-0.2
FITZ	Fitzroy Crossi	39.95	262	P	P	03 37 37.1	+0.1
FITZ				IAmb	IAmb	03 37 56.9	
	comp=Z,1.3nm,1.1s						
QSPA	South Pole Qui	72.89	180	P	P	03 41 32.2	+1.2
	comp=Z,2.4nm,0.9s,baz=12,slow=2.3,SNR=6.6						
	comp=Z,2.4nm,0.9s						
QSPA	South Pole Qui	72.89	180	P	P	03 41 31.7	+0.6
QSPA				IAmb	IAmb	03 41 33.3	
	comp=Z,7.0nm,1.2s						
KLR	Kul'dur	73.35	336	LR	LR	04 12 14.4	
	comp=Z,23nm,19.6s,baz=170,slow=35						
SONM	Songino Array	84.63	324	LR	LR	04 19 27.9	
	comp=Z,14nm,19.9s,baz=101,slow=35						
TROLL	Troll, Antarti	90.49	185	⇑P	P	03 43 13.1	+9.3
	comp=Z,65nm,0.7s						
VNA3	Neumayer Olymp	91.81	181	⇑P	P	03 43 18.0	+8.3
	comp=Z,1.3nm,0.8s						
ZALV	Zalesovo Beam	99.53	324	LR	LR	04 28 01.0	
	comp=Z,17nm,20.2s,baz=94,slow=35						
YKA	Yellowknife Ar	99.53	27	LR	LR	04 22 26.6	
	comp=Z,41nm,19.8s,baz=300,slow=32						
LPAZ	La Paz	115.79	118	PKPdf	PKPdf	03 48 45.7	-0.6
ARCES	ARCESS Array B	122.67	345	PKP	PKiKP	03 48 57.8	+0.4
	comp=Z,3.4nm,1.1s,baz=30,slow=1.9,SNR=4.5						
SGRT	San Giovanni R	145.62	321	PKPdf	PKPab	03 49 42.0	+0.7
NRCA	Norcia	146.44	325	PKPbc	PKPab	03 49 44.9	+0.5
TIP	Timpagrande	146.46	317	PKPbc	PKPab	03 49 44.2	-0.3

*IDC **07** 03:30:34.1±0.7, 36°.70N×141°.60E, h0^{km}, mb3.9/15, mbtmp3.9/18, ML3.7/3, MS3.3/9, Error ellipse: s-maj=14.5km s-min=14.3km az=106.0*

*NIED **07** 03:30:38.5, 36°.70N×141°.51E, h38^{km}, MW4.1, Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M$_{rr}$0.48; M$_{\theta\theta}$0.20; M$_{\phi\phi}$-0.68; M$_{r\theta}$0.52; M$_{\theta\phi}$-0.32; M$_{\phi r}$1.49; Fault plane solution: M$_{0}$1.69000×10^{15} NP1: ϕ_s196.00000°, δ11.00000°, λ87.00000°. NP2:ϕ_s19.00000°, δ79.00000°, λ91.00000°.*

*JMA **07** 03:30:38.5±0.1, 36°.7N±0°.3×141°.5E±0°.3, h38^{km}, MD4.3/40, MV4.2/40, E OFF IBARAKI PREF*

JMA Felt I J1 at E OFF IBARAKI PREF .

*NEIC **07** 03:30:38.5±2.3, 36°.66N±0°.05×141°.68E±0°.06, h29^{km}±5^{km}, mb4.4/19, Error ellipse: s-maj=9.2km s-min=2.4km az=223.0*

ISC 07 03:30:37.8±3.1, **36°.73N**±0°.04×**141°.54E**±0°.07, **h24**^{km}±21^{km}, **n93, σ1^{s}.29**/79, **mb4.1**/27, **MS3.6**/4, **4D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ONAJ	Iwakimizuishiy	0.70	302	⇓P	Pn	03 30 51.7	-0.5
ONAJ				A	A	03 30 51.7	
	comp=N,28nm,0.3s,comp=E,31nm,0.3s						
ONAJ				⇓*e*S	Sn	03 31 01.2	-1.2
JHO	Hitachi	0.79	262	P	Pn	03 30 52.3	-1.1
JHO				*e*S	Sn	03 31 02.3	-2.2
JFK	Kawauchi	0.83	320	*i* P	Pn	03 30 53.6	-0.4
JFK				A	A	03 30 53.6	
	comp=N,10.0nm,0.7s,comp=E,5.0nm,0.6s						
JFK				*e*S	Sn	03 31 04.8	-0.7
JHYU	Hitachinakayam	0.86	243	A	A	03 30 53.7	
	comp=N,9.0nm,0.4s,comp=E,13nm,0.6s						
JCAJ	Choshiashikaji	1.15	209	A	A	03 30 58.0	
	comp=N,7.0nm,0.8s,comp=E,7.0nm,3.2s						
JYT	Yasato	1.20	246	A	A	03 30 58.7	
	comp=N,17nm,0.4s,comp=E,15nm,0.4s						
JOTO	OTAMA OYAMA	1.27	311	*i* P	Pn	03 31 01.1	+1.0
JOTO				A	A	03 31 01.1	
	comp=N,26nm,0.5s,comp=E,22nm,0.4s						
JOTO				*e*S	Sn	03 31 17.2	+0.8
JMM	Marumori	1.28	332	⇓P	Pn	03 31 00.2	+0.1
JMM				⇓*e*S	Sn	03 31 16.4	-0.2
JSB	Shiboa	1.32	281	A	A	03 31 01.0	
	comp=N,10.0nm,1.1s,comp=E,15nm,1.5s						
JYAR	Yonezawaarcadi	1.62	317	A	A	03 31 05.7	
	comp=N,23nm,0.6s,comp=E,21nm,0.7s						
JOU	Okura	1.77	337	A	A	03 31 08.1	
	comp=N,7.0nm,1.6s,comp=E,8.0nm,0.6s						
JOFO	Osakifurukawao	1.93	345	A	A	03 31 10.4	
	comp=N,11nm,1.6s,comp=E,11nm,1.8s						
MJAR	Matsushiro Arr	2.69	267	Pn	Pn	03 31 20.7	+1.2
	comp=E,5.9nm,0.3s,baz=101,slow=11,SNR=129						
MJAR				Sn	Sn	03 31 52.5	+1.2
	comp=E,6.1nm,0.3s,baz=76,slow=15,SNR=10						
MJAR				LR	LR	03 32 43.1	
	comp=E,477nm,21.5s,baz=81,slow=47						
	comp=E,52nm,0.4s						
MJAR				AML	AML		
MJAR	Matsushiro Arr	2.69	267		Pn	03 31 20.6	+1.0
MAJO	Matsushiro	2.69	267	P	Pn	03 31 21.1	+1.5
MAJO	Matsushiro	2.69	267	S	Sb	03 31 56.3	-1.4
MAJO	Matsushiro	2.69	267	Pn	Pn	03 31 20.5	+0.9
MJB9	Matsu-Tunnel	2.69	267	Pn	Pn	03 31 21.3	+1.7
JSG	Sagara	3.42	234	S	Sn	03 32 14.3	+5.0
JGF	Kuroka	3.57	253	P	Pn	03 31 33.6	+1.9
JGF	Kuroka	3.57	253	Pn	Pn	03 31 33.9	+2.3
JHJ2	Mitsune	3.88	202	P	Pn	03 31 36.0	+0.1
JHJ2	Mitsune	3.88	202	S	Sn	03 32 20.7	0.0
JHJ2	Mitsune	3.88	202	Pn	Pn	03 31 34.9	-1.0
JHJ	Hachijo jima 2	3.88	202	Pn	Pn	03 31 35.9	-0.1
	comp=E,33nm,0.3s,baz=296,slow=20,SNR=12						
JHJ				Sn	Sn	03 32 18.6	-2.2
	comp=E,48nm,0.3s,baz=234,slow=24,SNR=2.3						
	comp=E,80nm,0.3s						
JHJ				AML	AML		
INU	Inuyama	3.92	251	P	Pn	03 31 39.2	+2.8
INU	Inuyama	3.92	251	Pn	Pn	03 31 38.0	+1.5
JTM	Tenmabayashi	4.07	355	P	Pn	03 31 41.1	+2.6
JTM	Tenmabayashi	4.07	355	Pn	Pn	03 31 40.3	+1.8
ERM	Erimo	5.42	13	P	Pn	03 31 57.1	0.0
ERM	Erimo	5.42	13	Pn	Pn	03 31 57.0	-0.1
JEM	Erimo	5.42	13	P	Pn	03 31 57.2	+0.1
JKA	Kamikawa-asahi	7.42	6	Pn	Pn	03 32 24.7	+0.1
USRK	Ussuriysk Ar.	10.41	319	Pn	Pn	03 33 05.9	+0.3
	comp=E,0.8nm,0.3s,baz=126,slow=12,SNR=18						
USRK				LR	LR	03 37 03.9	
	comp=E,141nm,18.4s,baz=138,slow=37						
	comp=E,0.6nm,0.4s						
USRK				AML	AML		
KSRS	Korea Array	10.90	278	LR	LR	03 37 01.4	
	comp=E,161nm,20.3s,baz=75,slow=35						
KLR	Kul'dur	14.38	333	LR	LR	03 39 30.7	
	comp=E,74nm,18.5s,baz=186,slow=37						
PETK	Petropavlovsk-	19.90	30	LR	LR	03 42 42.3	
	comp=E,33nm,20.7s,baz=244,slow=37						
H11N2	WAKE ISLAND Hy	27.91	120	T	T	04 05 44.3	
	baz=313,slow=75,SNR=254						
H11N1	WAKE ISLAND Hy	27.91	120	T	T	04 05 39.7	
	baz=313,slow=75,SNR=176						
H11N3	WAKE ISLAND Hy	27.92	120	T	T	04 05 42.1	
	baz=313,slow=75,SNR=159						
SONM	Songino Array	28.04	304	P	P	03 36 27.9	+0.7
	comp=E,1.7nm,0.5s,baz=109,slow=8.8,SNR=10.0						
SONM				LR	LR	03 46 28.9	
	comp=E,29nm,20.8s,baz=101,slow=34						
	comp=E,1.7nm,0.5s						
SONM	Songino Array	28.04	304	P	P	03 36 28.0	+0.9
H11S1	WAKE ISLAND Hy	28.61	123	T	T	04 06 36.6	
	baz=311,slow=74,SNR=150						
H11S3	WAKE ISLAND Hy	28.61	123	T	T	04 06 33.8	
	baz=311,slow=74,SNR=142						
H11S2	WAKE ISLAND Hy	28.63	123	T	T	04 06 37.8	
	baz=311,SNR=78						
ZAA0	Zalesovo Array	42.19	313	P	P	03 38 28.6	+0.1
ZAA0				IAmb	IAmb	03 38 40.5	
	comp=Z,4.8nm,0.9s						
ZALV	Zalesovo Beam	42.19	313	P	P	03 38 28.7	+0.2
	comp=Z,1.7nm,0.5s,baz=97,slow=7.5,SNR=7.0						
	comp=Z,1.7nm,0.5s						
ZALV	Zalesovo Beam	42.19	313	P	P	03 38 28.6	+0.1
MKAR	Makanchi Array	44.37	302	P	P	03 38 46.0	-0.1
	comp=Z,1.2nm,0.6s,baz=88,slow=11,SNR=8.0						
	comp=Z,1.2nm,0.6s						
MKAR	Makanchi Array	44.37	302	P	P	03 38 45.7	-0.4
C19K	Lookout Ridge	45.18	26	P	P	03 38 52.4	0.0
B20K	Meade River	46.22	25	P	P	03 39 02.4	+1.9
KURBB	Kurchatov Arra	46.27	308	P	P	03 39 00.6	-0.6
	comp=Z,1.6nm,0.5s,baz=83,slow=8.2,SNR=18						
	comp=Z,1.6nm,0.5s						
ILAR	Eielson Array	49.70	32	P	P	03 39 28.3	+0.8
	comp=Z,0.8nm,0.8s,baz=263,slow=6.6,SNR=6.3						
	comp=Z,0.8nm,0.8s						
ILAR	Eielson Array	49.70	32	P	P	03 39 27.4	0.0
BOOM	Boomskoye usch	49.74	298	P	P	03 39 28.6	+0.2
FYU	Fort Yukon	50.32	30	P	P	03 39 34.6	+2.4
FYU				IAmb	IAmb	03 39 36.3	
	comp=Z,7.8nm,0.7s						
AAK	Ala-Archa	50.72	299	LR	LR	04 02 21.3	
	comp=Z,80nm,18.9s,baz=82,slow=38						
BVAR	Borovoye Array	50.85	313	P	P	03 39 35.9	-0.5
	comp=Z,0.7nm,0.5s,baz=47,slow=6.9,SNR=2.5						
	comp=Z,0.7nm,0.5s						
BCAR	Beaver Creek A	52.09	34	P	P	03 39 46.2	+0.6
I28M	Miner Creek	52.57	31	P	P	03 39 50.9	+1.8
I28M				IAmb	IAmb	03 40 03.4	
	comp=Z,5.3nm,1.5s						
KKAR	Karatay Array	53.36	300	P	P	03 39 54.5	-0.7
G30M	tAoh Zraii Nji	53.83	29	P	P	03 39 59.9	+1.5
G30M				IAmb	IAmb	03 40 29.8	
	comp=Z,8.0nm,1.4s						
G31M	Satah River	54.60	29	P	P	03 40 04.3	+0.5
G31M				IAmb	IAmb	03 40 34.1	
	comp=Z,10nm,1.4s						
H31M	Peel River	54.80	30	P	P	03 40 06.4	+1.1
H31M				IAmb	IAmb	03 40 07.7	
	comp=Z,4.0nm,1.0s						
FITZ	Fitzroy Crossi	56.56	198	P	P	03 40 18.0	-0.5
	comp=Z,1.1nm,0.6s,baz=4.8,slow=12,SNR=2.1						
	comp=Z,1.1nm,0.6s						
FITZ	Fitzroy Crossi	56.56	198	P	P	03 40 17.8	-0.6
WB0	Warramunga Arr	56.60	188	P	P	03 40 17.1	-1.6
WB0				IAmb	IAmb	03 40 32.7	
	comp=Z,4.1nm,1.0s						
ARTI	Arti	56.76	319	LR	LR	04 07 04.5	
	comp=Z,34nm,19.2s,baz=66,slow=39						
WR8	Warramunga Arr	56.77	188	P	P	03 40 17.9	-2.0
WRA	Warramunga Arr	56.78	188	P	P	03 40 18.4	-1.5
	comp=Z,0.9nm,0.6s,baz=6.2,slow=7.2,SNR=6.0						
	comp=Z,0.9nm,0.6s						
WRA	Warramunga Arr	56.78	188	P	P	03 40 18.2	-1.8
AB31	Akbulak array	58.21	310	P	P	03 40 28.8	-1.1
AB31				IAmb	IAmb	03 40 41.7	
	comp=Z,1.8nm,0.7s						
ABKAR	Akbulak array	58.21	310	P	P	03 40 28.7	-1.2
ASAR	Alice Springs	60.50	188	P	P	03 40 44.8	-1.1
	comp=Z,0.6nm,0.7s,baz=13,slow=7.7,SNR=2.4						
	comp=Z,0.6nm,0.7s						
DLMT	Dillon	74.48	45	P	P	03 42 14.8	+0.5
DLMT				IAmb	IAmb	03 42 16.4	
	comp=Z,3.5nm,1.3s						
NOA	NORSAR Array B	74.50	337	P	P	03 42 14.5	+0.4
	comp=Z,0.7nm,0.8s,baz=40,slow=6.0,SNR=2.6						
	comp=Z,0.7nm,0.8s						
AKASG	Malin Array Be	74.60	322	P	P	03 42 14.2	-0.5
	comp=Z,0.8nm,0.5s,baz=46,slow=6.4,SNR=11						
	comp=Z,0.8nm,0.5s						
AKBB	Malin Array Si	74.60	322	P	P	03 42 13.7	-0.9
AKBB				IAmb	IAmb	03 42 28.4	
	comp=Z,2.5nm,0.8s						
KIEV	Kiev	74.61	322	P	P	03 42 14.3	-0.4
KIEV				IAmb	IAmb	03 42 28.4	
	comp=Z,2.5nm,0.9s						
NVAR	Mina Array Bea	75.09	53	P	P	03 42 19.4	+1.4
	comp=Z,0.7nm,0.7s,baz=275,slow=5.7,SNR=6.4						
	comp=Z,0.7nm,0.7s						
PDAR	Pinedale Array	77.81	45	P	P	03 42 33.8	+0.4
	comp=Z,0.2nm,0.6s,baz=339,slow=3.5,SNR=2.5						
	comp=Z,0.2nm,0.6s						
PDAR	Pinedale Array	77.81	45	P	P	03 42 32.5	-0.9
CCUT	Cedar City	78.75	51	P	P	03 42 38.3	-0.4
BRTR	Keskin Array B	79.13	312	P	P	03 42 40.4	-0.2
	comp=Z,1.0nm,1.0s,baz=27,slow=6.8,SNR=2.6						
	comp=Z,1.0nm,1.0s						
CLL	Collm	81.41	330	*i* P	P	03 42 52.4	-0.1
	comp=Z,11nm,1.8s						
EKA	Eskdalemuir Ar	83.45	341	LR	LR	04 23 24.5	
	comp=Z,52nm,18.0s,baz=188,slow=38						
TXAR	Lajitas Array	90.22	52	P	P	03 43 37.0	+0.2
	comp=Z,0.3nm,0.9s,baz=254,slow=3.6,SNR=3.6						
	comp=Z,0.3nm,0.9s						
TXAR	Lajitas Array	90.22	52	P	P	03 43 37.1	+0.4
LPAZ	La Paz	146.76	60	PKPbc	PKPbc	03 50 19.0	0.0
	comp=Z,1.6nm,0.6s,baz=328,slow=0.3,SNR=8.7						
LPAZ	La Paz	146.76	60		PKPbc	03 50 18.2	-0.8
H03N2	Juan Fernandez	146.89	97	T	T	06 34 34.7	
	baz=291,SNR=8.5						
H03N1	Juan Fernandez	146.91	96	T	T	06 34 33.0	
	baz=331,SNR=6.9						

NOU 07 03:42:44.7, 17°.11S×167°.83E, h5^{km}, MLv4.1/12, **Vanuatu Islands, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RTV	Rentapao	0.89	140	P	Pb	03 43 02.2	-0.4
RTV	Rentapao	0.89	140	S	Sb	03 43 14.7	0.0
SANVU	Saraoutou	1.76	340	P	Pn	03 43 14.3	-1.6
SANVU	Saraoutou	1.76	340	P	Sn	03 43 39.5	+0.8
MARNC	Mare, Loyalty	4.35	178	P	Pn	03 43 50.4	-1.1
YATNC	Mamie plateau,	5.00	190	P	Pn	03 44 00.3	-0.2
NOUC	Port Laguerre	5.17	196	P	Pn	03 44 03.2	+0.4
OUENC	Ouen Island, N	5.36	190	P	Pn	03 44 06.5	+1.1

HEL 07 04:02:35.2±0.4, **65°.84N**×**24°.64E, h0^{km}, ML0.9, Suspected explosion, Finland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TOF	Tornio	0.28	332	PG	Pg	04 02 40.3	-0.2
TOF				SG	Sg	04 02 40.9	-3.2
TOF				smax	smax	04 02 44.8	
	comp=Z,1.6nm,0.2s						
KALU	Kalix	0.53	273	SG	Sg	04 02 52.3	+0.2
RANF	Ranua	0.90	78	PG	Pg	04 02 51.2	-1.2
	baz=258						
RANF				SG	Sg	04 03 03.3	-0.7
OUL	Oulu	0.92	145	PG	Pg	04 02 51.0	-1.8
RNF	Rovaniemi	0.95	35	PB	Pn	04 02 55.8	-0.1
RNF				SB	Sn	04 03 11.2	+1.1
OBF4	Vikkela, Lumij	1.05	169	smax	smax	04 03 07.1	
	comp=Z,0.5nm,0.2s						
OBF4				SB	Sg	04 03 08.7	0.0
ERTU	Ertsjaerv	1.23	307	PN	Pb	04 02 59.1	-0.1
OBF0	Syolatti, Pyha	1.36	187	smax	smax	04 03 16.2	
	comp=Z,0.8nm,0.2s						
OBF0				SN	Sb	04 03 19.3	0.0
KLF	Kolari	1.43	349	smax	smax	04 03 18.2	
	comp=Z,1.2nm,0.2s						
KLF				SN	Sn	04 03 24.8	+3.0
OUF	Merijarvi	1.48	178	smax	smax	04 03 19.5	
	comp=Z,1.0nm,0.2s						
OUF				SN	Sg	04 03 22.4	-0.1
KU2	Taivalkoski	1.49	93	PN	Pn	04 03 02.2	-1.0
KU2				SG	Sg	04 03 20.4	-2.5
MSF	Maaselka	1.81	86	SG	Sn	04 03 31.1	-0.2
BURU	Burvik	1.86	229	SG	Sb	04 03 34.2	+0.3
OLKF	Oulanka, Finla	2.00	74	smax	smax	04 03 34.5	
	comp=Z,0.9nm,0.2s						
OLKF				SG	Sb	04 03 36.9	-0.9
KU1	Kurvinen	2.05	95	SG	Sn	04 03 36.5	-0.7
HEF	Hetta	2.61	352	smax	smax	04 03 52.2	
	comp=Z,0.3nm,0.2s						
HEF				SG	Sg	04 03 57.5	-1.5
KTK1	Kautokeino	3.23	351	SB	Sn	04 04 08.5	+2.1

HEL 07 04:03:46.6±0.5, **67°.80N**×**20°.30E, h0^{km}, ML1.2, Suspected explosion, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LANU	Lannavaara	0.69	68	PB	Pg	04 04 00.4	+0.7
LANU				SG	Sg	04 04 07.4	-1.2
SALU	Saltoluokta	0.81	239	*e*P	Pg	04 03 59.3	-2.7
HEF	Hetta	1.40	63	*e*P	Pn	04 04 11.0	-2.3
HEF	Hetta	1.40	63	PN	Pn	04 04 12.6	-0.8
HEF				smax	smax	04 04 28.6	
	comp=Z,1.9nm,0.2s						
HEF				SG	Sg	04 04 31.2	-0.3
ERTU	Ertsjaerv	1.46	149	PN	Pn	04 04 13.7	-0.4
ERTU				SN	Sn	04 04 35.4	+1.6
KLF	Kolari	1.52	110	smax	smax	04 04 32.2	
	comp=Z,1.3nm,0.2s						
KLF				SN	Sn	04 04 36.4	+0.9
KTK1	Kautokeino	1.63	41	PG	Pn	04 04 15.9	-0.6
KTK1				SN	Sg	04 04 40.1	+1.3
TRO	Tromso	1.90	345	SB	Sn	04 04 44.7	-0.2
TRO	Tromso	1.90	345	SG	Sn	04 04 44.7	-0.2
KALU	Kalix	2.30	147	PB	Pn	04 04 26.2	+0.6
	baz=326						
TOF	Tornio	2.35	136	PG	Pb	04 04 28.8	-0.8
TOF				smax	smax	04 04 56.0	
	comp=Z,0.9nm,0.2s						
TOF				SG	Sb	04 05 00.0	+0.9
RNF	Rovaniemi	2.53	116	PB	Pn	04 04 30.4	+1.5
RNF				SG	Sb	04 05 04.5	+0.1
ARA0	ARCESS Array S	2.58	45	SG	Pb	04 04 31.6	-2.0
ARA0	ARCESS Array S	2.58	45	PG	Pb	04 04 31.6	-2.0
ARA0				SB	Sb	04 05 04.0	-1.8
RAJF	Raja-Jooseppi	3.07	74	SG	Sb	04 05 22.5	+2.4
KEV	Kevo	3.13	48	SB	Sn	04 05 17.1	+2.1

SCB 07 04:12:57.7±1.4, **18°.28S**×**63°.08W, h12**^{km}±12^{km}, **MB5.5, ML2.5**/1, **Error ellipse: s-maj=28.4km s-min=4.6km az=0.0, Central Bolivia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AOEA	Aiquile	2.05	272	Pg	Pg	04 13 36.8	-0.2
AOEA				Sg	Sg	04 14 03.9	+0.3
AOEA				IAML		04 14 09.9	
	32nm,0.4s						
SIV	San Ignacio	2.98	41	Pn	Pb	04 13 50.0	-0.7
SOEO	Opoqueri	4.57	266	Pn	Pn	04 14 11.8	+4.6
PTLB	Pontes e Lacer	4.71	54	Pn	Pn	04 14 13.7	+5.1
BBOJ	La Paz, Jacaqu	5.04	284	Pn	Pn	04 14 19.8	+6.1
SOEJ	Jacaque	5.04	284	Pn	Pn	04 14 18.8	+5.1
BBOB	La Paz, Bander	5.27	293	Pn	Pn	04 14 22.2	+5.3
BBOD	La Paz, Gloria	5.51	286	Pn	Pn	04 14 25.9	+5.7

*CATAC **07** 04:30:39.5±0.4, 13°N±2°×9°0W±°, h30^{km}±2^{km}, M3.8/30, MLv3.8/30, Error ellipse: s-maj=4.7km s-min=2.4km az=23.9, confirmed*

*SNET **07** 04:30:40.0±0.7, 13°.40N×90°.17W, h46^{km}±9^{km}, ML3.8, Presumed earthquake*

*GCG **07** 04:30:40.6±1.4, 13°.48N×90°.22W, h45^{km}±11^{km}, MD4.2, ML4.3, MW3.2, Presumed earthquake*

ISC 07 04:30:40.6±1.4, **13°.37N**±0°.06×**90°.19W**±0°.04, **h45**^{km}±18^{km}, **n79, σ0^{s}.97**/118, **9C, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FAME	Alcaldia de Sa	0.50	20	P	Pn	04 30 50.7	-0.9
FAME				S	Sn	04 30 59.3	-0.1
NUBE	Las Nubes	0.66	37	*i* P	Pn	04 30 53.2	-0.7
NUBE				*i* S	Sn	04 31 01.9	-1.4
NUBE	Las Nubes	0.66	37	*e*P	Pn	04 30 53.2	-0.7
NUBE				*e*S	Sn	04 31 03.1	-0.2
NUBE	Las Nubes	0.66	37	P	Pn	04 30 53.1	-0.7
NUBE				S	Sn	04 31 03.3	0.0
CEVE	Cerro Verde	0.71	51	*e*P	Pn	04 30 54.2	-0.4
CEVE	Cerro Verde	0.71	51	P	Pn	04 30 54.4	-0.3
CEVE				S	Sn	04 31 06.0	+1.2
SBLS	San Blas	0.72	50	⇑*e*P	Pn	04 30 54.2	-0.6
RTR	El Retiro	0.74	46	⇑*e*P	Pn	04 30 54.6	-0.4
RTR				*e*S	Sn	04 31 06.1	+0.8
SNJE	San Jose	0.75	49	⇑*e*P	Pn	04 30 54.6	-0.6
SLOZ	Alcaldia de Sa	0.76	31	*e*P	Pn	04 30 54.5	-0.6
SLOZ				*e*S	Sn	04 31 05.7	+0.1
SLOZ	Alcaldia de Sa	0.76	31	P	Pn	04 30 54.6	-0.5
JAYA	Jayaque - finc	0.78	69	*i* P	Pn	04 30 54.8	-0.6
JAYA				*i* S	Sn	04 31 05.5	-0.5
JAYA				IAML		04 31 08.7	
	comp=N,22μm,0.2s						
JAYA	Jayaque - finc	0.78	69	⇑*e*P	Pn	04 30 54.8	-0.6
JAYA				*e*S	Sn	04 31 05.7	-0.3
JAYA	Jayaque - finc	0.78	69	P	Pn	04 30 54.9	-0.4
JAYA				S	Sn	04 31 06.7	+0.6
LALI	Alcalda de L	0.85	82	*i* P	Pn	04 30 55.9	-0.4
LALI	Alcalda de L	0.85	82	*e*P	Pn	04 30 56.1	-0.2
LALI	Alcalda de L	0.85	82	P	Pn	04 30 56.8	+0.5
LALI				S	Sn	04 31 09.1	+1.4
PCG5	San Vicente Pa	0.86	348	*i* P	Pn	04 30 58.4	+1.9
PCG5				*i* S	Sn	04 31 10.6	+2.6
UNIC	Universidad Ca	0.87	46	P	Pn	04 30 56.0	-0.6
UNIC				S	Sn	04 31 08.4	+0.2
RBDL	Robledal	0.88	34	⇑*i*P	Pn	04 30 56.4	-0.4
CEDA	San Andres	0.89	61	⇑*e*P	Pn	04 30 56.4	-0.4
CEDA	San Andres	0.89	61	P	Pn	04 30 56.5	-0.2
CEDA				S	Sn	04 31 09.4	+0.9
PMON	Piamonte	0.92	68	*e*P	Pn	04 30 56.8	-0.4
PMON	Piamonte	0.92	68	P	Pn	04 30 56.9	-0.3
PMON				S	Sn	04 31 10.3	+0.9
MAGS	Ministerio de	0.93	71	*e*P	Pn	04 30 57.1	-0.4
FG16	Alotenango, Sa	0.95	341	*i* P	Pn	04 31 00.7	+3.0
FG8	Yepocapa, Chim	0.95	338	*i* P	Pn	04 31 01.1	+3.4
BOQS	Boqueron	0.96	68	⇑*e*P	Pn	04 30 57.6	-0.3
PIC2	El Picacho	0.98	68	*e*P	Pn	04 30 58.0	-0.2
UEES	Universidad Ev	0.99	70	*e*P	Pn	04 30 57.9	-0.3
UEES	Universidad Ev	0.99	70	P	Pn	04 30 58.0	-0.2
UEES				S	Sn	04 31 11.8	+0.8
SEMO	Seminario San	1.00	71	P	Pn	04 30 58.2	-0.1
SEMO				S	Sn	04 31 12.1	+0.8
PANCS	Alcalda de	1.01	76	*e*P	Pn	04 30 57.6	-0.9
PANCS	Alcalda de	1.01	76	P	Pn	04 30 57.8	-0.7
PANCS				S	Sn	04 31 12.2	+0.6
LOMA	Loma Larga	1.03	75	*e*P	Pn	04 30 58.3	-0.5
LOMA	Loma Larga	1.03	75	P	Pn	04 30 58.4	-0.4
LOMA				S	Sn	04 31 12.8	+0.7
JUAM	Asuncion Mita	1.07	26	*i* P	Pn	04 30 58.4	-0.8
JUAM				*i* S	Sn	04 31 12.0	-0.9
JUAM				IAML		04 31 13.7	
	comp=E,4μm,0.3s						
LFRS	El Faro	1.13	77	*e*P	Pn	04 30 59.9	-0.3
SJTE	Alcalda de S	1.18	78	*e*P	Pn	04 31 00.4	-0.4
GCG4	OSOP	1.25	345	*i* P	Pn	04 31 01.6	-0.3
GCG4				*i* S	Sn	04 31 17.2	-0.5

PAVA	Las Pavas	1.27	74	*e*P	Pn	04 31 01.9	-0.1
PAVA	Las Pavas	1.27	74	P	Pn	04 31 02.0	0.0
PAVA				S	Sn	04 31 18.8	+0.8
COEG	Centro de Oper	1.30	79	*e*P	Pn	04 31 02.1	-0.3
COEG	Centro de Oper	1.30	79	P	Pn	04 31 02.5	+0.1
COEG				S	Sn	04 31 20.0	+1.3
MTO3	Montecristo	1.30	38	*i* P	Pn	04 31 01.8	-0.8
MTO3	Montecristo	1.30	38	⇑*i*P	Pn	04 31 01.8	-0.8
MTO3	Montecristo	1.30	38	P	Pn	04 31 01.8	-0.8
MTO3				S	Sn	04 31 18.8	-0.1
TECO	Alcaldia de Te	1.38	83	*e*P	Pn	04 31 03.0	-0.5
TECO	Alcaldia de Te	1.38	83	P	Pn	04 31 03.2	-0.3
TECO				S	Sn	04 31 21.1	+0.4
ESQI	Esquipulas	1.44	35	⇑*i*P	Pn	04 31 03.8	-0.6
ESQI	Esquipulas	1.44	35	P	Pn	04 31 03.8	-0.6
ESQI				S	Sn	04 31 22.2	0.0
ZAFR2	Estanzuela, Za	1.45	34	*i* P	Pn	04 31 07.2	+2.7
P5NO	Presa 5 de nov	1.52	66	*e*P	Pn	04 31 04.4	-1.0
P5NO	Presa 5 de nov	1.52	66	P	Pn	04 31 04.3	-1.0
P5NO				S	Sn	04 31 24.4	+0.4
STG8	El Palmar, Qui	1.55	314	*i* P	Pn	04 31 10.1	+4.0
ALJI	Alcalda de J	1.58	91	*e*P	Pn	04 31 05.6	-0.6
ALJI	Alcalda de J	1.58	91	P	Pn	04 31 05.6	-0.6
ALJI				S	Sn	04 31 26.5	+1.1
APG	El Apazote	1.64	351	*i* P	Pn	04 31 06.9	-0.4
APG				*i* S	Sn	04 31 26.5	-0.8
TECA	Tecapa	1.65	86	*e*P	Pn	04 31 07.3	0.0
PACA	Pacayal	1.82	87	P	Pn	04 31 09.7	+0.1
PACA				S	Sn	04 31 33.6	+2.1
RANC	El Ranchito	1.85	88	P	Pn	04 31 10.3	+0.2
RANC				S	Sn	04 31 34.4	+2.0
RTAL	Retalhuleu	1.85	308	P	Pn	04 31 09.0	-1.0
SOKI	Kika Raxquin	1.86	321	*i* P	Pn	04 31 10.3	-0.1
SOKI				*i* S	Sn	04 31 31.1	-1.8
JUCU	Jucuar¡n	1.90	93	*e*P	Pn	04 31 10.3	-0.3
SARH	Santa Rosa de	1.97	45	*i* P	Pn	04 31 11.4	-0.2
SARH	Santa Rosa de	1.97	45	P	Pn	04 31 11.3	-0.3
SARH				S	Sn	04 31 35.9	+0.8
INTP	Intipuca	2.09	95	*e*P	Pn	04 31 13.5	+0.3
LCND	La Caada	2.24	91	*e*P	Pn	04 31 15.1	-0.2
LCND	La Caada	2.24	91	P	Pn	04 31 15.3	0.0
CNCH	Conchagua	2.30	92	*e*P	Pn	04 31 16.0	-0.2
CNCH	Conchagua	2.30	92	P	Pn	04 31 16.2	0.0
CNCH				S	Sn	04 31 44.7	+1.4
SMCA	Catarina	2.35	309	*i* P	Pn	04 31 15.3	-1.4
CSGN	Cosiguina Volc	2.59	98	P	Pn	04 31 20.2	0.0
CSGN				S	Sn	04 31 51.9	+1.3
TGUH	Tegucigalpa,Un	2.92	76	P	Pn	04 31 24.2	-0.5
CRIN	San Cristobal	3.13	102	P	Pn	04 31 28.0	+0.4
CRIN				S	Sn	04 32 05.8	+2.0
PLRN	Geotermica Pol	3.43	103	P	Pn	04 31 31.0	-0.6
PLRN				S	Sn	04 32 09.0	-2.0
ILCN	San Idelfonso	3.50	103	P	Pn	04 31 32.4	-0.1
ILCN				S	Sn	04 32 10.9	-1.8
CNGN	Cerro Negro	3.52	104	P	Pn	04 31 32.5	-0.4
CNGN				S	Sn	04 32 14.4	+1.2
MOMN	Momotombo	3.69	105	P	Pn	04 31 34.3	-0.9
MOMN				S	Sn	04 32 15.3	-2.1

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*NOU **07** 04:32:42.7, 16°.99S×167°.60E, h0^{km}, mb4.4/9, Vanuatu Islands*

*IDC **07** 04:32:43.2±1.7, 16°.98S×167°.52E, h0^{km}, mb4.0/3, mbtmp4.0/4, ML3.8/1, MS3.6/2, Error ellipse: s-maj=40.4km s-min=22.7km az=85.0*

*NEIC **07** 04:32:44.6±1.4, 17°.08S±0°.04×167°.7E±0°.1, h10^{km}±1^{km}, mb4.1/5, Error ellipse: s-maj=22.3km s-min=6.0km az=281.0*

ISC 07 04:32:46.1±0.8**, 17°.07S**±0°.05×**167°.62E**±0°.07**, h25**^{km}**, n26,** σ**1^{s}.01**/26**, mb4.1**/5**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTV	Rentapao	1.05	133	S	Sn	04 33 18.7	-0.4
RTV	Rentapao	1.05	133	P	Pn	04 33 04.5	-0.8
RTV	Rentapao	1.05	133	S	Sn	04 33 18.9	-0.2
SANVU	Saraoutou	1.67	346	P	Pb	04 33 14.5	-1.7
SANVU	Saraoutou	1.67	346	S	Sb	04 33 36.8	+0.1
SANVU	Saraoutou	1.67	346		Pn	04 33 13.7	-0.1
MARNC	Mare, Loyalty	4.40	175	Pn	Pn	04 33 49.5	-1.9
KOUNC	Koumac, New Ca	4.68	222	P	Pn	04 33 55.5	+0.2
KOUNC	Koumac, New Ca	4.68	222	Pn	Pn	04 33 54.3	-1.0
YATNC	Mamie plateau,	5.01	188	P	Pn	04 34 00.4	+0.7
DZM	Mont Dzumac	5.09	192	Pn	Pn	04 34 00.5	-0.5
	3.1nm,0.3s,baz=338,slow=17,SNR=25						
DZM				Sn	Sn	04 34 56.6	-2.5
	5.4nm,0.3s,baz=133,slow=23,SNR=6.2						
DZM				LR	LR	04 35 39.5	
	comp=Z,279nm,19.1s,baz=318,slow=34 9.1nm,0.3s						
DZM				AML	AML		
NOUC	Port Laguerre	5.15	194	P	Pn	04 34 01.4	-0.3
ONTNC	Ouen Toro	5.32	192	Pn	Pn	04 34 04.0	0.0
OUENC	Ouen Island, N	5.37	188	P	Pn	04 34 05.3	+0.6
OUENC	Ouen Island, N	5.37	188	Pn	Pn	04 34 05.4	+0.8
MSVF	Nonsavu	9.98	95	LR	LR	04 38 16.9	
	comp=Z,564nm,19.6s,baz=255,slow=33						
WB0	Warramunga Arr	31.61	260	P	P	04 39 08.0	+0.7
WB0				IAmb	IAmb	04 39 32.2	
	comp=Z,3.2nm,1.1s						
WRA	Warramunga Arr	31.66	260	P	P	04 39 07.2	-0.5
	comp=Z,0.5nm,0.7s,baz=88,slow=8.7,SNR=4.8 comp=Z,0.5nm,0.7s						
WRA	Warramunga Arr	31.66	260	P	P	04 39 07.8	0.0
ASAR	Alice Springs	32.23	253	P	P	04 39 13.4	+0.7
	comp=Z,1.8nm,0.6s,baz=79,slow=9.0,SNR=12 comp=Z,1.8nm,0.6s						
ASAR	Alice Springs	32.23	253	P	P	04 39 13.1	+0.3
FITZ	Fitzroy Crossi	39.97	262	P	P	04 40 18.6	-0.4
FITZ				IAmb	IAmb	04 40 30.9	
	comp=Z,1.9nm,1.1s						
QSPA	South Pole Qui	72.97	180	P	P	04 44 15.0	+1.6
	comp=Z,2.5nm,0.9s,baz=360,slow=1.9,SNR=13 comp=Z,2.5nm,0.9s						
QSPA	South Pole Qui	72.97	180	P	P	04 44 14.8	+1.4
QSPA				IAmb	IAmb	04 44 19.7	
	comp=Z,3.9nm,1.0s						
BELA	Belgrano 2	84.37	175	P	P	04 45 16.6	+0.8
ARCES	ARCESS Array B	122.59	345	PKP	PKiKP	04 51 39.9	+0.7
	comp=Z,2.3nm,0.9s,baz=48,slow=1.8,SNR=5.1						

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*SJA **07** 04:39:21.9±0.8, 31°.85S×71°.72W, h41^{km}±194^{km}, ML3.8, MW4.0*

*IDC **07** 04:39:23.1±0.8, 31°.82S×71°.69W, h63^{km}±6^{km}, mb3.5/5, mbtmp3.8/10, MS2.9/1, Error ellipse: s-maj=20.1km s-min=11.5km az=177.0*

*GUC **07** 04:39:23.7±0.8, 31°.82S×71°.60W, h67^{km}±6^{km}, ML4.2*

*NEIC **07** 04:39:23.4±0.9, 31°.82S±0°.04×71°.7W±0°.1, h62^{km}±9^{km}, mb4.1/8, ML4.2(GUC), Error ellipse: s-maj=15.4km s-min=5.3km az=85.0*

ISC 07 04:39:22.7±0.6**, 31°.82S**±0°.02×**71°.78W**±0°.05**, h57**^{km}±6^{km}**, n113,** σ**1^{s}.05**/140**, mb4.1**/6**, 5C-1D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CO04	Los Peladeros	0.71	108	*i* P	Pn	04 39 37.4	+0.1
CO04				*e*S	Sn	04 39 47.0	-0.9
CO04				IAML		04 39 47.9	
	comp=N,14μm,0.2s						
CO04	Los Peladeros	0.71	108		Pn	04 39 37.4	+0.1
CO04					Sn	04 39 47.0	-0.9
CO02	Combarbal	0.90	47	*e*P	Pn	04 39 39.7	+0.2
CO02				*e*S	Sn	04 39 51.6	-0.2
CO02				IAML		04 39 52.7	
	comp=Z,7μm,0.2s						
CO02	Combarbal	0.90	47	*i* P	Pn	04 39 39.8	+0.3
CO02				*e*S	Sn	04 39 51.4	-0.4
CO02				IAML		04 39 52.5	
	comp=E,22μm,0.4s						
CO02	Combarbal	0.90	47	Pn	Pn	04 39 39.6	+0.1
CO02					Sn	04 39 51.1	-0.7
CO06	Fray Jorge	1.15	6	⇑*i*P	Pn	04 39 43.9	+1.3
CO06				*e*S	Sn	04 39 58.0	+0.5
CO06				IAML		04 39 59.8	
	comp=E,3μm,0.5s						
CO06	Fray Jorge	1.15	6	Pn	Pn	04 39 43.7	+1.1
CO06				Sn	Sn	04 39 57.0	-0.5
ROCH	El Roble	1.32	151	⇑*i*P	Pn	04 39 45.3	+0.3
ROCH				*e*S	Sn	04 40 00.6	-1.2
CO03	El Pedregal	1.35	44	*e*P	Pn	04 39 45.4	+0.1
CO03				*e*S	Sn	04 40 02.2	-0.2
CO03				IAML		04 40 02.9	
	comp=Z,4μm,0.5s						
CO03	El Pedregal	1.35	44	⇓*i*P	Pn	04 39 45.5	+0.1
CO03				*e*S	Sn	04 40 01.9	-0.5
CO03				IAML		04 40 02.8	
	comp=E,12μm,0.4s						
CO03	El Pedregal	1.35	44	Pn	Pn	04 39 45.6	+0.1
CO03				Sn	Sn	04 40 01.3	-1.1
VA03	San Esteban	1.40	133	*e*P	Pn	04 39 45.6	-0.4
VA03				*e*S	Sn	04 40 02.5	-1.1
VA03				IAML		04 40 05.6	
	comp=Z,3μm,0.7s						
VA03	San Esteban	1.40	133	Pn	Pn	04 39 45.7	-0.4
MT02	Curacav	1.53	160	*e*P	Pn	04 39 47.8	0.0
MT02				*e*S	Sn	04 40 07.7	+1.1
MT02				IAML		04 40 10.1	
	comp=Z,470nm,0.2s						
MT02	Curacav	1.53	160	⇑*i*P	Pn	04 39 48.0	+0.2
MT02	Curacav	1.53	160	Pn	Pn	04 39 47.5	-0.3
PEL	Peldehue	1.61	145	*e*P	Pn	04 39 49.1	+0.2
PEL				*e*S	Sn	04 40 07.5	-1.1
PEL				IAML		04 40 12.2	
	comp=Z,835nm,0.4s						
PEL	Peldehue	1.61	145	Pn	Pn	04 39 48.7	-0.2
MT05	Renca	1.79	151	*e*P	Pn	04 39 51.8	+0.4
MT05				*e*S	Sn	04 40 12.9	-0.2
MT05				IAML		04 40 16.9	
	comp=Z,667nm,0.6s						
MT05	Renca	1.79	151	⇑*i*P	Pn	04 39 51.9	+0.4
MT05				*e*S	Sn	04 40 12.6	-0.5
MT05				IAML		04 40 13.5	
	comp=E,4μm,0.3s						
MT05	Renca	1.79	151	Pn	Pn	04 39 51.5	+0.1
GO04	Tololo Observa	1.84	27	*e*P	Pn	04 39 52.7	+0.5
GO04				*e*S	Sn	04 40 13.7	-0.9
GO04				IAML		04 40 16.6	
	comp=Z,2μm,0.5s						
GO04	Tololo Observa	1.84	27	*e*P	Pn	04 39 52.6	+0.3
GO04				*e*S	Sn	04 40 14.3	-0.3
GO04	Tololo Observa	1.84	27	Pn	Pn	04 39 52.3	+0.1
MT16	CCHEN	1.92	147	Pn	Pn	04 39 53.2	+0.1
MT03	Universidad Ad	1.98	148	*e*P	Pn	04 39 54.1	+0.1
MT03				*e*S	Sn	04 40 17.3	-0.4
MT03				IAML		04 40 18.2	
	comp=Z,925nm,0.1s						
MT03	Universidad Ad	1.98	148	*i* P	Pn	04 39 54.3	+0.3
MT03				*e*S	Sn	04 40 16.4	-1.3
MT03				IAML		04 40 19.0	
	comp=E,3μm,0.4s						
MT03	Universidad Ad	1.98	148	Pn	Pn	04 39 54.2	+0.3
MT09	Talagante	2.06	161	Pn	Pn	04 39 55.7	+0.7
MT01	Popeta	2.08	168	*e*P	Pn	04 39 56.0	+0.7
MT01				*e*S	Sn	04 40 20.1	0.0
MT01				IAML		04 40 23.1	
	comp=Z,417nm,0.1s						
MT01	Popeta	2.08	168	*e*P	Pn	04 39 56.1	+0.8
MT01	Popeta	2.08	168	Pn	Pn	04 39 55.7	+0.4
MT04	Ro Olivares	2.10	139	*e*P	Pn	04 39 56.1	+0.4
MT04				*e*S	Sn	04 40 20.9	+0.1
MT04				IAML		04 40 23.2	
	comp=Z,622nm,0.1s						
MT04	Ro Olivares	2.10	139	*e*P	Pn	04 39 56.1	+0.4
MT04				*e*S	Sn	04 40 20.5	-0.3
MT04				IAML		04 40 22.9	
	comp=E,1μm,0.2s						
RTLS	Leoncito	2.11	90	*e*P	Pn	04 39 56.6	+0.7
RTLS				*e*S	Sn	04 40 15.4	-5.8
RTLS				IAML		04 40 25.6	
	comp=Z,2μm,0.6s						
MT08	Bocatoma Ro	2.20	138	*e*P	Pn	04 39 58.2	+1.2
MT08				*e*S	Sn	04 40 24.6	+1.4
MT08				IAML		04 40 27.7	
	comp=Z,796nm,0.5s						
MT13	San Alfonso	2.29	147	*e*P	Pn	04 39 58.9	+0.7
MT13				*e*S	Sn	04 40 25.7	+0.4
MT13				IAML		04 40 27.3	
	comp=Z,654nm,0.4s						
MT13	San Alfonso	2.29	147	Pn	Pn	04 39 58.6	+0.4
CO01	Juntas del Tor	2.34	39	*e*P	Pn	04 39 59.6	+0.7
CO01				*e*S	Sn	04 40 26.1	-0.6
CO01				IAML		04 40 26.5	
	comp=Z,845nm,0.1s						
CO01	Juntas del Tor	2.34	39	⇑*i*P	Pn	04 39 59.6	+0.7
CO01				*e*S	Sn	04 40 25.8	-0.8
CO01				IAML		04 40 26.5	
CO01	Juntas del Tor	2.34	39	Pn	Pn	04 39 59.3	+0.3
BO04	La Punta	2.37	156	*e*P	Pn	04 39 60.0	+0.7
BO04				*e*S	Sn	04 40 26.3	-0.9
BO04	La Punta	2.37	156	Pn	Pn	04 39 59.7	+0.4
LMEL	Las Melosas	2.42	147	*i* P	Pn	04 40 00.7	+0.7
LMEL				*e*S	Sn	04 40 28.0	-0.4
LMEL				IAML		04 40 30.7	
	comp=N,1μm,0.2s						
AROD	Rodeo	2.57	51	*e*P	Pn	04 40 04.0	+1.8
ARCO	CERRO ARCO	2.61	114	*e*P	Pn	04 40 04.8	+2.1
ARCO				*e*S	Sn	04 40 36.9	+3.7
ARCO				IAML		04 40 38.2	
	comp=Z,264nm,0.3s						
ACCO	Cerro Coronel	2.63	63	*e*P	Pn	04 40 04.6	+1.6
ACCO				*e*S	Sn	04 40 36.0	+2.1
ACCO				IAML		04 40 36.7	
	comp=Z,502nm,0.3s						
BO01	Tunca	2.63	167	*e*P	Pn	04 40 03.4	+0.6
BO01				*e*S	Sn	04 40 16.9	-17
BO01	Tunca	2.63	167	*e*P	Pn	04 40 03.3	+0.6
BO01	Tunca	2.63	167	Pn	Pn	04 40 02.8	+0.1
ZON	Zonda	2.65	85	*e*P	Pn	04 40 04.1	+1.0
ZON				*e*S	Sn	04 40 35.5	+1.4
ZON				IAML		04 40 38.9	
	comp=Z,368nm,0.3s						
ZON	Zonda	2.65	85	Pn	Pn	04 40 03.7	+0.6
BO03	Pichilemu	2.67	183	*e*P	Pn	04 40 03.9	+0.6
SJA	San Juan	2.76	85	*e*P	Pn	04 39 51.5	-13
SJA				IAML		04 41 00.0	
	comp=Z,199nm,1.0s						
AAGR	Agrelo	2.79	118	*e*P	Pn	04 40 07.0	+2.0
AAGR				IAML		04 41 01.5	
	comp=Z,220nm,1.1s						
ACDV	Cuesta del Vie	2.81	55	*e*P	Pn	04 40 06.9	+1.5
ACDV				IAML		04 41 01.0	
	comp=Z,173nm,1.2s						
RTLL	Cerro Villicun	2.86	81	*e*P	Pn	04 40 06.3	+0.4
RTLL				IAML		04 40 53.1	
	comp=Z,211nm,0.4s						
LCO	Las Campanas	2.95	19	Pn	Pn	04 40 07.7	+0.3
CFA	Coronel Fontan	3.02	87	P	Pn	04 40 08.3	+0.2
	comp=Z,29nm,0.3s,baz=263,slow=18,SNR=283						
CFA				S	Sn	04 40 42.5	-0.7
	comp=Z,150nm,0.6s,baz=92,slow=13,SNR=14						
BO02	Sierra Bellavi	3.08	165	*e*S	Sn	04 40 45.4	+0.9
BO02				IAML		04 40 47.9	
	comp=Z,290nm,0.1s						
BO02	Sierra Bellavi	3.08	165	*e*P	Pn	04 40 09.7	+0.8
BO02	Sierra Bellavi	3.08	165	Pn	Pn	04 40 08.8	-0.1
GO05	Hualane	3.18	182	*e*S	Sn	04 40 36.9	-10
GO05				*e*S	Sn	04 40 36.9	-10
GO05				*e*S	Sn	04 40 36.9	-10
GO05				IAML		04 40 47.4	
	comp=Z,164nm,0.7s						
GO05	Hualane	3.18	182	*e*P	Pn	04 40 10.8	+0.4
GO05				*e*S	Sn	04 40 45.3	-1.8
GO05	Hualane	3.18	182	Pn	Pn	04 40 10.6	+0.3
AC05	El Transito	3.25	24	*e*P	Pn	04 40 12.3	+1.0
AC05	El Transito	3.25	24	Pn	Pn	04 40 11.8	+0.5
AC04	Llanos de Chal	3.66	10	*e*P	Pn	04 40 16.8	0.0
AC04	Llanos de Chal	3.66	10	Pn	Pn	04 40 16.4	-0.4
ML02	Panimavida	3.94	176	*e*P	Pn	04 40 21.4	+0.7
ML02	Panimavida	3.94	176	Pn	Pn	04 40 20.9	+0.2
GO03	Copiapo	4.42	18	Pn	Pn	04 40 27.1	-0.2
AC06	Mina Casimiro	4.62	16	Pn	Pn	04 40 28.8	-1.2
BI02	San Fabin de	4.85	175	Pn	Pn	04 40 33.7	+0.6
TINO	Tinogasta	5.23	45	IAML		04 42 36.5	
	comp=Z,61nm,1.4s						
TINO				IAML		04 42 36.5	
	comp=Z,61nm,1.4s						
AC02	Maricunga	5.48	26	Pn	Pn	04 40 42.1	-0.2
H03S3	Juan Fernandez	6.33	250	T	T	04 47 46.1	
	baz=82,slow=75,SNR=6.5						
H03S1	Juan Fernandez	6.33	250	T	T	04 47 40.0	
	baz=82,slow=75,SNR=6.9						
H03S2	Juan Fernandez	6.35	250	T	T	04 47 40.2	
	baz=82,slow=75,SNR=8.5						
GO06	Curarrehue	7.75	178	Pn	Pn	04 41 12.7	-0.2
PLCA	Paso Flores	8.95	174	P	Pn	04 41 30.3	+1.0
	comp=Z,1.1nm,0.4s,baz=339,slow=11,SNR=18						
PLCA	Paso Flores	8.95	174	Pn	Pn	04 41 29.4	+0.1
PB06	IPOC Station P	9.29	13	Pn	Pn	04 41 34.0	-0.1
CPUP	Villa Florida	13.76	70	P	Pn	04 42 35.3	+0.3
	comp=Z,1.1nm,0.8s,baz=308,slow=12,SNR=3.0						
CPUP				LR	LR	04 48 17.2	
	comp=Z,55nm,21.1s,baz=259,slow=39						
LPAZ	La Paz	15.82	13	P	Pn	04 43 02.9	+0.4
	comp=Z,1.1nm,0.6s,baz=191,slow=5.6,SNR=6.0						
LPAZ	La Paz	15.82	13	Pn	Pn	04 43 02.5	+0.1
AQDB	Aquidauana	18.30	56		P	04 43 29.9	-2.3
AQDB				IAmb	IAmb	04 44 02.2	
	comp=Z,6.3nm,1.1s						
SIV	San Ignacio	18.53	34	P	P	04 43 33.7	-1.0
	comp=Z,3.3nm,0.7s,baz=198,slow=9.6,SNR=21						
SIV				pP	pP	04 43 47.6	+0.3
	comp=Z,1.1nm,0.6s,baz=215,slow=14,SNR=3.8						
PTLB	Pontes e Lacer	19.96	38	P	P	04 43 48.7	-1.6
VAO	Valinhos	23.67	74	P	P	04 44 27.8	-1.4
BDFB	Brasilia	26.97	59	P	P	04 44 57.4	-1.9
	comp=Z,4.0nm,0.6s,baz=240,slow=9.3,SNR=10 comp=Z,4.0nm,0.6s						
BDFB	Brasilia	26.97	59	P	P	04 44 57.1	-2.2
BDFB				IAmb	IAmb	04 44 59.2	
	comp=Z,5.2nm,0.7s						
QSPA	South Pole Qui	58.41	180	P	P	04 49 12.1	-0.1
	comp=Z,1.3nm,1.1s,baz=166,slow=1.5,SNR=5.5 comp=Z,1.3nm,1.1s						
QSPA	South Pole Qui	58.41	180	P	P	04 49 13.0	+0.7
HNDO	Hondo	66.38	334	P	P	04 50 07.0	+1.4
HNDO				IAmb	IAmb	04 50 08.1	
	comp=Z,2.0nm,0.7s						
TXAR	Lajitas Array	67.95	330	P	P	04 50 15.7	0.0
	comp=Z,0.3nm,0.7s,baz=150,slow=8.0,SNR=3.5 comp=Z,0.3nm,0.7s						
TXAR	Lajitas Array	67.95	330	P	P	04 50 16.8	+1.1
WVT	Waverly	69.25	346	P	P	04 50 23.8	+0.3
WVT				IAmb	IAmb	04 50 24.5	
	comp=Z,3.1nm,0.8s						
NVAR	Mina Array Bea	82.23	325	P	P	04 51 39.6	+1.7
	comp=Z,0.2nm,0.5s,baz=174,slow=6.3,SNR=3.6 comp=Z,0.2nm,0.5s						
NVAR	Mina Array Bea	82.23	325	P	P	04 51 39.0	+1.1
TORD	Torodi Ar. Bea	83.26	70	P	P	04 51 44.5	+0.9
	comp=Z,0.2nm,0.6s,baz=256,slow=4.3,SNR=1.1						
TORD				pP	pP	04 51 59.4	-0.2
	comp=Z,1.0nm,0.7s,baz=266,slow=5.5,SNR=4.5 comp=Z,0.2nm,0.6s						
WRA	Warramunga Arr	122.77	210	PKP	PKPdf	04 58 11.1	-1.7
	comp=Z,0.4nm,0.7s,baz=180,slow=1.8,SNR=5.8						
H11S2	WAKE ISLAND Hy	126.00	271	T	T	07 17 26.3	
	baz=117,slow=75,SNR=12						
H11S1	WAKE ISLAND Hy	126.01	271	T	T	07 17 32.0	
	baz=117,slow=75,SNR=18						
H11S3	WAKE ISLAND Hy	126.02	271	T	T	07 17 27.6	
	baz=117,slow=75,SNR=16						
H11N3	WAKE ISLAND Hy	126.36	272	T	T	07 17 50.4	
	baz=123,slow=74,SNR=3.8						
H11N1	WAKE ISLAND Hy	126.37	272	T	T	07 17 46.6	
	baz=123						
H11N2	WAKE ISLAND Hy	126.37	272	T	T	07 17 50.7	
	baz=123,slow=74,SNR=5.3						
BVAR	Borovoye Array	145.51	41	PKPbc	PKPab	04 58 54.2	-0.2
	comp=Z,0.4nm,0.3s,baz=253,slow=0.9,SNR=1.6						
BVAR				pPKPbc	pPKPdf	04 59 10.8	+0.2
	comp=Z,1.3nm,0.6s,baz=316,slow=4.1,SNR=3.1						
KURBB	Kurchatov Arra	151.11	41	PKPbc	PKPbc	04 59 07.2	-1.7
	comp=Z,0.2nm,0.3s,baz=307,slow=3.0,SNR=1.4						
KURBB				pPKPbc	pPKPbc	04 59 26.8	+1.2
	comp=Z,0.5nm,0.3s,baz=310,slow=3.3,SNR=3.1						
ZALV	Zalesovo Beam	152.25	30	PKPbc	PKPbc	04 59 09.7	-1.8
	comp=Z,0.6nm,0.4s,baz=294,slow=1.5,SNR=3.9						
ZALV				pPKPbc	pPKPbc	04 59 29.0	+0.9
	comp=Z,1.5nm,0.6s,baz=303,slow=3.1,SNR=3.9						
ZALV	Zalesovo Beam	152.25	30	PKPbc	PKPbc	04 59 11.4	-0.1
MKAR	Makanchi Array	155.13	46	pPKPab	pPKPab	04 59 51.5	+1.1
	comp=Z,0.8nm,0.8s,baz=277,slow=2.5,SNR=3.6						

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*IDC **07** 04:41:24.6±0.6, 17°.05S×167°.72E, h0^{km}, mb4.4/15, mbtmp4.4/17, ML4.7/2, MS3.8/28, Error ellipse: s-maj=18.4km s-min=13.4km az=98.0*

*NEIC **07** 04:41:26.0±1.8, 17°.09S±0°.06×167°.78E±0°.10, h10^{km}±1^{km}, mb5.0/34, Error ellipse: s-maj=16.0km s-min=9.5km az=93.0*

*GFZ **07** 04:41:26.6±0.3, 17°S±4°×16°8E±°, h10^{km}, M4.6/15, mb4.6/15*

*NOU **07** 04:41:26.2, 17°.19S×167°.73E, h2^{km}, mb4.8/29, Vanuatu Islands*

*BJI **07** 04:41:26.5, 16°.59S×168°.05E, h18^{km}, mb4.9/18*

*GCMT **07** 04:41:28.0±0.3, 17°.25S±0°.03×167°.57E±0°.02, h23^{km}, MW4.9/102, Moment Tensor Solution. s43,c47; s102,c137; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}3.29±.17; $M_{\theta\theta}$-0.43±.10; $M_{\phi\phi}$-2.85±.11; $M_{r\theta}$0.31±.18; $M_{\theta\phi}$-0.53±.07; $M_{\phi r}$-0.65±.13; Best double couple: $M_0$3.20300×10^{16} NP1:ϕ_s18.00000°,δ40.00000°, λ100.00000°. NP2:ϕ_s185.00000°,δ51.00000°,λ82.00000°. Principal axes: T 3.3920, Plg82.0000°, Azm49.0000°; N -0.3730, Plg7.0000°, Azm190.0000°; P -3.0140, Plg5.0000°, Azm281.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 07 04:41:28.4±0.4**, 17°.14S**±0°.05×**167°.75E**±0°.06**, h25**^{km}**, n170,** σ**1^{s}.26**/155**, mb4.8**/51**, MS3.8**/24**, 8C-2D, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTV	Rentapao	0.91	135	P	Pn	04 41 44.1	-1.6
RTV	Rentapao	0.91	135	S	Sb	04 41 55.7	-1.6
SANVU	Saraoutou	1.77	343		Pn	04 41 56.1	-1.3
SANVU	Saraoutou	1.77	343	P	Pn	04 41 56.5	-0.9
MARNC	Mare, Loyalty	4.32	177	P	Pn	04 42 31.3	-1.3
MARNC	Mare, Loyalty	4.32	177	Pn	Pn	04 42 29.7	-2.9
KOUNC	Koumac, New Ca	4.72	224	P	Pn	04 42 37.4	-0.6
KOUNC	Koumac, New Ca	4.72	224	Pn	Pn	04 42 36.7	-1.3
YATNC	Mamie plateau,	4.96	189	P	Pn	04 42 40.2	-1.1
DZM	Mont Dzumac	5.05	194	Pn	Pn	04 42 42.0	-0.8
	5.1nm,0.3s,baz=50,slow=9.7,SNR=48						
DZM				Sn	Sn	04 43 37.7	-2.7
	3.9nm,0.3s,baz=91,slow=23,SNR=3.3						
DZM				LR	LR	04 44 30.1	
	comp=Z,1μm,18.5s,baz=0.0,slow=36 16nm,0.3s						
DZM				AML	AML		
NOUC	Port Laguerre	5.12	195	P	Pn	04 42 43.3	-0.2
ONTNC	Ouen Toro	5.28	193	P	Pn	04 42 46.6	+0.9
ONTNC	Ouen Toro	5.28	193	Pn	Pn	04 42 46.0	+0.3
OUENC	Ouen Island, N	5.32	189	P	Pn	04 42 46.7	+0.4
OUENC	Ouen Island, N	5.32	189	Pn	Pn	04 42 46.1	-0.1
HURO	Huro Makira	8.73	319	P	Pn	04 43 35.1	+1.9
NGOA	Tingoa Renbel	9.29	306	P	Pn	04 43 40.9	+0.1
MSVF	Nonsavu	9.85	95	Pn	Pn	04 43 51.1	+2.5
	0.5nm,0.3s,baz=173,slow=8.8,SNR=3.5						
MSVF				LR	LR	04 46 55.0	
	comp=Z,2μm,18.5s,baz=216,slow=33 25nm,1.2s						
MSVF				AML	AML		
HNR	Honiara	10.79	314	LR	LR	04 47 39.6	
	comp=Z,623nm,19.4s,baz=208,slow=35						
SAVO	Savo Central	11.08	315	P	Pn	04 44 06.9	+1.5
TATA	Tatamba Isabel	11.65	317	P	Pn	04 44 14.4	+1.2
OUZ	Omahuta	18.74	165	P	Pn	04 45 45.9	-0.1
OUZ	Omahuta	18.74	165	P	Pn	04 45 47.5	+1.6
OUZ	Omahuta	18.74	165	P	Pn	04 45 47.3	+1.3
	comp=Z,52nm,2.7s						
ARMA	Armidale	19.77	225	P	P	04 45 55.7	-1.2
	comp=Z,21nm,1.5s						
AFI	Afiamalu	19.99	84	LR	LR	04 52 15.2	
	comp=Z,199nm,21.1s,baz=161,slow=32						
CTA	Charters Tower	20.58	258	P	P	04 46 06.2	+0.5
	comp=Z,12nm,0.9s,baz=81,slow=11,SNR=5.6						
CTA				LR	LR	04 52 36.1	
	comp=Z,220nm,21.7s,baz=44,slow=33 comp=Z,12nm,0.9s						
CTAO	Charters Tower	20.58	258	P	P	04 46 06.7	+1.1
CTAO	Charters Tower	20.58	258	P	P	04 46 06.9	+1.3
	comp=Z,32nm,1.4s						
PMG	Port Moresby	21.45	288	LR	LR	04 53 14.0	
	comp=Z,314nm,18.7s,baz=106,slow=33						

TOZ	Tahuroa Road	21.61	163	P	P	04 46 17.1	+0.5
TOZ				IAmb	IAmb	04 46 22.4	
	comp=Z,48nm,0.9s						
HIZ	Hauiti	22.18	165	P	P	04 46 24.5	+1.8
HIZ				IAmb	IAmb	04 46 27.9	
	comp=Z,114nm,1.1s						
HIZ	Hauiti	22.18	165	P	P	04 46 25.4	+2.7
	comp=Z,113nm,1.3s						
MTSU	Mount Surprise	22.35	264	P	P	04 46 26.2	+1.4
	comp=Z,17nm,0.9s						
HAZ	Te Kaha	22.35	159	P	P	04 46 28.2	+3.7
URZ	Urewera	22.58	161	LR	LR	04 54 01.7	
	comp=Z,338nm,18.5s,baz=351,slow=33						
URZ	Urewera	22.58	161	P	P	04 46 28.1	+1.1
URZ	Urewera	22.58	161	P	P	04 46 29.7	+2.7
URZ	Urewera	22.58	161	P	P	04 46 28.8	+1.8
	comp=Z,41nm,1.1s						
RTZ	Ruatahuna	22.87	161	P	P	04 46 31.4	+1.3
RTZ				IAmb	IAmb	04 46 33.1	
	comp=Z,122nm,1.4s						
BKZ	Black Stump Fm	23.23	163	P	P	04 46 35.5	+1.7
QLP	Quilpie	23.72	243	P	P	04 46 38.5	-0.1
	comp=Z,46nm,1.5s						
PNHZ	Pukenui	23.85	164	P	P	04 46 40.7	+0.9
TSZ	Takapari Road	23.92	164	P	P	04 46 41.8	+1.4
KAHZ	Kahuranaki	23.92	162	P	P	04 46 42.2	+1.7
DVHZ	Dannevirke	24.20	164	P	P	04 46 44.1	+1.1
MRZ	Mangatainoka R	24.39	165	P	P	04 46 44.4	-0.4
MRZ				IAmb	IAmb	04 47 06.5	
	comp=Z,41nm,1.0s						
MRZ	Mangatainoka R	24.39	165	P	P	04 46 45.0	+0.3
BFZ	Birch Farm	24.58	164	P	P	04 46 46.7	+0.3
BFZ	Birch Farm	24.58	164	P	P	04 46 46.1	-0.3
BFZ	Birch Farm	24.58	164	P	P	04 46 46.5	+0.1
HOWZ	Holdsworth Sta	24.60	166	P	P	04 46 46.9	+0.2
CMSA	Cobar Meteorol	24.61	230	P	P	04 46 48.1	+1.2
CMSA	Cobar Meteorol	24.61	230	P	P	04 46 48.8	+2.0
	comp=Z,23nm,1.1s						
TCW	Tory Channel	24.64	168	P	P	04 46 46.5	-0.4
TUWZ	Tuamarina	24.78	169	P	P	04 46 48.9	+0.6
THZ	Tophouse	24.93	171	P	P	04 46 51.2	+1.5
PAWZ	Paruwai Farm	25.04	166	P	P	04 46 51.5	+0.9
KHZ	Kahutara	25.67	170	P	P	04 46 57.3	+1.0
KHZ	Kahutara	25.67	170	P	P	04 46 56.5	+0.2
	comp=Z,46nm,2.4s						
RPZ	Rata Peaks	26.64	175	LR	LR	04 57 22.1	
	comp=Z,109nm,18.4s,baz=11,slow=36						
QIS	Mount Isa	26.84	258	P	P	04 47 09.3	+2.1
	comp=Z,13nm,1.2s						
STKA	Stephens Creek	27.86	233	P	P	04 47 16.9	+0.7
	comp=Z,5.4nm,0.9s,baz=58,slow=9.5,SNR=5.3						
STKA				LR	LR	04 58 17.4	
	comp=Z,214nm,18.0s,baz=52,slow=36						
	comp=Z,5.4nm,0.9s						
CTZ	Chatham Island	29.63	157	P	P	04 47 33.1	+1.4
RAR	Rarotonga	30.91	103	LR	LR	04 59 26.3	
	comp=Z,41nm,19.8s,baz=270,slow=35						
WR8	Warramunga Arr	31.62	260	P	P	04 47 48.0	-1.7
WR8				IAmb	IAmb	04 48 42.6	
	comp=Z,32nm,1.6s						
WB0	Warramunga Arr	31.72	260	P	P	04 47 48.7	-1.8
WB0				IAmb	IAmb	04 48 01.1	
	comp=Z,19nm,1.4s						
WRAB	Tennant Creek	31.76	260	P	P	04 47 51.0	+0.1
WRA	Warramunga Arr	31.77	260	P	P	04 47 49.8	-1.2
	comp=Z,2.2nm,0.9s,baz=87,slow=8.0,SNR=13						
	comp=Z,2.2nm,0.9s						
WRA	Warramunga Arr	31.77	260	P	P	04 47 49.0	-2.0
AS01	Alice Springs	32.28	253	P	P	04 47 55.7	+0.2
AS31	Alice Springs	32.32	253	P	P	04 47 55.2	-0.7
ASAR	Alice Springs	32.32	253	P	P	04 47 55.1	-0.7
	comp=Z,4.5nm,0.6s,baz=80,slow=8.8,SNR=40						
ASAR				LR	LR	05 00 55.6	
	comp=Z,247nm,18.4s,baz=83,slow=36						
	comp=Z,4.5nm,0.6s						
ASAR	Alice Springs	32.32	253	P	P	04 47 55.0	-0.9
GUMO	Guam	37.99	322	LR	LR	05 06 35.7	
	comp=Z,111nm,18.1s,baz=128,slow=40						
FITZ	Fitzroy Crossi	40.08	262	LR	LR	05 04 32.8	
	comp=Z,241nm,20.5s,baz=122,slow=35						
FITZ	Fitzroy Crossi	40.08	262	P	P	04 49 02.1	-0.1
FITZ	Fitzroy Crossi	40.08	262	P	P	04 49 02.5	+0.3
	comp=Z,3.8nm,1.4s						
PPT	Papeete	40.67	97	LR	LR	05 01 49.1	
	comp=Z,158nm,21.3s,baz=290,slow=30						
MBWA	Marble Bar	45.41	257	P	P	04 49 45.4	0.0
MBWA				IAmb	IAmb	04 49 46.5	
	comp=Z,20nm,1.0s						
MBWA	Marble Bar	45.41	257	P	P	04 49 45.2	-0.1
	comp=Z,19nm,0.9s						
MEEK	Meekatharra	46.33	249	P	P	04 49 52.6	0.0
NWAO	Narrogin (SRO)	47.95	241	LR	LR	05 10 19.2	
	comp=Z,162nm,18.5s,baz=286,slow=36						
DAV	Davao City (W)	48.12	297	LR	LR	05 11 07.1	
	comp=Z,46nm,18.1s,baz=154,slow=37						
KAPI	Kappang	48.48	279	LR	LR	05 11 01.4	
	comp=Z,45nm,19.1s,baz=97,slow=37						
MORW	Morawa	48.68	246	P	P	04 50 10.6	-0.3
MJAR	Matsushiro Arr	60.25	333	P	P	04 51 33.5	-1.2
	comp=Z,3.5nm,0.9s,baz=167,slow=6.7,SNR=3.9						
MJAR				LR	LR	05 14 54.6	
	comp=Z,17nm,22.0s,baz=160,slow=33						
	comp=Z,3.5nm,0.9s						
MJAR	Matsushiro Arr	60.25	333	P	P	04 51 33.7	-1.0
MJAR				IAmb	IAmb	04 52 03.6	
	comp=Z,17nm,1.8s						
VNDA	Vanda	60.47	181	P	P	04 51 36.8	+1.1
	comp=Z,1.4nm,0.9s,baz=15,slow=7.1,SNR=5.5						
	comp=Z,1.4nm,0.9s						
VNDA	Vanda	60.47	181	P	P	04 51 35.8	+0.1
VNDA				IAmb	IAmb	04 51 48.2	
	comp=Z,31nm,1.8s						
VNDA	Vanda	60.47	181	P	P	04 51 36.2	+0.5
	comp=Z,13nm,1.6s						
SBA	Scott Base	60.74	180	P	P	04 51 39.2	+1.8
SBA	Scott Base	60.74	180	P	P	04 51 38.6	+1.1
	comp=Z,25nm,1.3s						
CASY	Casey	61.49	203	P	P	04 51 43.1	+0.5
CASY				IAmb	IAmb	04 51 59.0	
	comp=Z,28nm,1.9s						
CASY	Casey	61.49	203	P	P	04 51 42.4	-0.3
	comp=Z,9.2nm,2.4s						
NJ2	Nanjing	67.72	316	*e*P	P	04 52 25.9	+2.0
NJ2				pmax	pmax		
	comp=Z,16nm,0.5s						
USRK	Ussuriysk Ar.	69.24	333	P	P	04 52 33.9	+0.8
	comp=Z,1.4nm,0.7s,baz=170,slow=8.8,SNR=6.0						
USRK				LR	LR	05 21 17.5	
	comp=Z,31nm,20.0s,baz=162,slow=35						
	comp=Z,1.4nm,0.7s						
USRK	Ussuriysk Ar.	69.24	333	P	P	04 52 31.4	-1.7
SHEM	Shemya Is, Ala	69.80	4	LR	LR	05 18 06.9	
	comp=Z,131nm,19.9s,baz=188,slow=32						
PETK	Petropavlovsk-	70.50	354	P	P	04 52 40.2	-0.5
	comp=Z,2.0nm,0.9s,baz=160,slow=4.9,SNR=3.5						
PETK				LR	LR	05 18 48.0	
	comp=Z,67nm,19.3s,baz=154,slow=32						
	comp=Z,2.0nm,0.9s						
PETK	Petropavlovsk-	70.50	354	P	P	04 52 38.9	-1.8
RPSI	Rantau Prapat	70.65	279	P	P	04 52 42.4	-0.1
	comp=Z,11nm,1.3s						
PSI	Prapat	70.69	279	P	P	04 52 45.0	+2.1
CN2	Changchun	71.94	329	P	P	04 52 47.7	-1.9
CN2				pmax	pmax		
	comp=Z,10.0nm,0.7s						
BNX	BinXian	72.47	332	⇓P	P	04 52 52.3	-0.4
BNX				pmax	pmax		
	comp=Z,8.0nm,1.0s						
QSPA	South Pole Qui	72.90	180	P	P	04 52 56.1	+0.8
	comp=Z,23nm,1.0s,baz=17,slow=2.5,SNR=40						
	comp=Z,23nm,1.0s						
QSPA	South Pole Qui	72.90	180	P	P	04 52 54.6	-0.7
KLR	Kul'dur	73.39	336	LR	LR	05 22 49.8	
	comp=Z,32nm,20.6s,baz=161,slow=34						
CMAR	Chiang Mai Arr	76.36	294	P	P	04 53 15.3	-0.7
	comp=Z,1.0nm,0.3s,baz=141,slow=4.3,SNR=5.7						
	comp=Z,1.0nm,0.3s						
CMAR	Chiang Mai Arr	76.36	294	P	P	04 53 14.4	-1.6
PZH	PanZhiHua	77.39	303	P	P	04 53 22.4	+0.6
HHC	Hu-ho-hao-te	77.72	320	*e*P	P	04 53 24.4	+1.1
HHC				pmax	pmax		
	comp=Z,9.0nm,0.8s						
MAW	Mawson	79.83	202	P	P	04 53 34.8	+0.4
	comp=Z,2.5nm,0.3s,baz=110,slow=12,SNR=3.8						
	comp=Z,2.5nm,0.3s						
MAW	Mawson	79.83	202	P	P	04 53 34.0	-0.4
LZH	Lanzhou	80.28	312	*e*P	P	04 53 40.0	+2.5
LZH				sP	pwP	04 53 47.5	-2.1
LZH				pmax	pmax		
	comp=Z,22nm,1.0s						
ULN	Ulaanbaatar	84.35	324	P	P	04 53 59.0	+0.5
	comp=Z,7.9nm,1.2s						
YAK	Yakutsk	84.46	343	LR	LR	05 31 58.0	
	comp=Z,42nm,18.2s,baz=140,slow=36						
SONM	Songino Array	84.70	324	P	P	04 53 59.7	-0.6
	comp=Z,2.7nm,1.0s,baz=140,slow=4.6,SNR=13						
	comp=Z,2.7nm,1.0s						
SONM	Songino Array	84.70	324	P	P	04 53 58.9	-1.4
GTA2	Gaotai	84.73	314	*e*P	P	04 54 02.3	+1.6
GTA2				pP	sP	04 54 09.7	-0.2
GTA2				pmax	pmax		
	comp=Z,5.0nm,1.2s						
SMAI	San Martin Ant	86.25	162	P	P	04 54 07.3	-0.3
ORV	Oroville	86.68	47	P	P	04 54 09.0	-1.2
ORV				IAmb	IAmb	04 54 21.0	
	comp=Z,24nm,2.0s						
AFDM	Forest Hills D	86.80	48	P	P	04 54 09.3	-1.5
AFDM				IAmb	IAmb	04 54 20.7	
	comp=Z,11nm,1.6s						
YBH	Yreka Blue Hor	86.80	45	LR	LR	05 26 34.4	
	comp=Z,39nm,19.7s,baz=326,slow=31						
CMB	Columbia Colle	86.83	49	P	P	04 54 09.6	-1.4
CMB				IAmb	IAmb	04 54 21.8	
	comp=Z,11nm,1.6s						
MDPB	Devils Postpil	87.61	50	P	P	04 54 13.1	-2.0
MDPB				IAmb	IAmb	04 54 25.2	
	comp=Z,17nm,1.7s						
WAKR	Walker	87.71	49	P	P	04 54 13.8	-1.6
WAKR				IAmb	IAmb	04 54 30.1	
	comp=Z,16nm,1.6s						
ELIB	Princess Elisa	87.94	190	*d*P	P	04 54 16.6	+0.7
	comp=Z,6.9nm,1.2s						
CLC	China Lake	88.00	52	P	P	04 54 15.7	-1.0
CLC				IAmb	IAmb	04 54 27.9	
	comp=Z,19nm,1.8s						
NVAR	Mina Array Bea	88.49	49	P	P	04 54 18.4	-0.8
	comp=Z,1.4nm,0.9s,baz=229,slow=8.4,SNR=7.6						
	comp=Z,1.4nm,0.9s						
NVAR	Mina Array Bea	88.49	49	P	P	04 54 17.9	-1.3
NV11	Mina Array Sit	88.60	49	P	P	04 54 18.2	-1.4
NV11				IAmb	IAmb	04 54 33.9	
	comp=Z,15nm,1.5s						
ILAR	Eielson Array	88.67	18	LR	LR	05 32 06.1	
	comp=Z,95nm,18.1s,baz=164,slow=34						
WCT	Wildcat Mounta	89.09	51	P	P	04 54 21.5	-0.4
WVOR	Wild Horse Val	89.84	45	P	P	04 54 26.2	+0.9
	comp=Z,6.0nm,2.7s						
TROLL	Troll, Antarti	90.51	185	⇑P	P	04 54 28.5	+0.5
	comp=Z,875nm,0.9s						
G08A	Pilot Rock	90.77	43	P	P	04 54 28.4	-1.2
G08A				IAmb	IAmb	04 54 30.6	
	comp=Z,6.2nm,1.1s						
SNAA	Sanae	91.18	183	⇑P	P	04 54 31.1	+0.1
	comp=Z,201nm,1.0s						
SNAA	Sanae	91.18	183	P	P	04 54 31.4	+0.3
	comp=Z,13nm,1.1s,baz=183,slow=5.8,SNR=9.5						
	comp=Z,13nm,1.1s						
SNAA	Sanae	91.18	183	P	P	04 54 30.4	-0.6
SNAA	Sanae	91.18	183	P	P	04 54 31.3	+0.3
	comp=Z,17nm,1.3s						
VNA3	Neumayer Olymp	91.82	181	⇑P	P	04 54 33.7	-0.2
	comp=Z,13nm,0.9s						
VNA3				⇑pP	sP	04 54 43.3	-0.2
	comp=Z,13nm,0.9s						
VNA2	Neumayer--Watz	92.09	182	⇑P	P	04 54 35.2	0.0
	comp=Z,11nm,0.8s,baz=164,slow=3.6						
VNA2				⇑pP	sP	04 54 44.7	0.0
	comp=Z,11nm,0.8s,baz=162,slow=3.7						
VNA1	Neumayer--Stat	92.39	181	⇑P	P	04 54 37.0	+0.5
	comp=Z,13nm,1.0s						
VNA1				⇑pP	sP	04 54 46.4	+0.4
	comp=Z,13nm,1.0s						
TIXI	Tiksi	92.41	349	LR	LR	05 34 46.0	
	comp=Z,48nm,19.4s,baz=190,slow=35						
HYB	Hyderabad	94.26	287	*e*P	P	04 54 45.3	-0.9
HYB				*e*PP	PP	04 58 31.8	-1.7
HYB				*e*SKSac	SKSac	05 05 20.1	-0.2
HYB				*e*SKKSac	SKKSac	05 05 40.1	-1.2
WMQ	Urumqi	94.74	314	*e*P	P	04 54 49.0	+1.2
WMQ				pmax	pmax		
	comp=Z,12nm,0.7s						
MKAR	Makanchi Array	99.26	316	LR	LR	05 38 23.7	
	comp=Z,24nm,21.9s,baz=44,slow=34						
ZALV	Zalesovo Beam	99.60	323	P	Pdif	04 55 08.6	-0.9
	comp=Z,0.7nm,0.5s,baz=79,slow=3.2,SNR=4.7						
ZALV				LR	LR	05 39 24.6	
	comp=Z,16nm,20.2s,baz=72,slow=35						
	comp=Z,0.7nm,0.5s						
ZALV	Zalesovo Beam	99.60	323	P	Pdif	04 55 08.7	-0.7
ARCES	ARCESS Array B	122.69	345	PKP	PKiKP	05 00 23.1	+1.5
	comp=Z,1.4nm,0.6s,baz=349,slow=2.5,SNR=5.0						
ARCES	ARCESS Array B	122.69	345	PKPdf	PKiKP	05 00 21.7	+0.1
AKASG	Malin Array Be	132.97	325	PKP	PKiKP	05 00 42.5	-0.1
	comp=Z,0.2nm,0.4s,baz=70,slow=1.8,SNR=4.1						
NOA	NORSAR Array B	133.06	345	PKP	PKiKP	05 00 41.8	-0.9
	comp=Z,1.1nm,0.9s,baz=33,slow=1.9,SNR=3.3						
BRTR	Keskin Array B	134.41	309	PKP	PKiKP	05 00 45.6	-0.5
	comp=Z,0.6nm,0.7s,baz=132,slow=1.8,SNR=4.2						
BRTR	Keskin Array B	134.41	309	PKPdf	PKiKP	05 00 44.8	-1.3
CONA	Conrad Observa	141.63	329	*i* PKP	PKPdf	05 00 54.1	-3.6
	comp=Z,6.4nm,1.4s						
GERES	GERESS Array B	141.99	332	PKP	PKPdf	05 00 57.4	-1.0
	comp=Z,0.4nm,0.3s,baz=38,slow=3.7,SNR=4.6						
SOKA	Soboth	142.90	328	*e*PKP	PKPdf	05 00 57.2	-2.8
	comp=Z,2.2nm,0.8s						
KBA	Koelnbreinsper	143.44	330	*i* PKP	PKPbc	05 00 58.8	+0.6
	comp=Z,7.3nm,1.2s						
LESA	Schwarzleotal	143.50	331	*e*PKP	PKPdf	05 00 59.2	-1.8
	comp=Z,4.2nm,0.6s						
MYKA	Terra Mystica	143.62	330	*e*PKP	PKPbc	05 00 58.2	-0.5
	comp=Z,1.7nm,0.3s						
WATA	Walderalm	144.06	332	*e*PKP	PKPdf	05 01 01.3	-0.8
	comp=Z,8.5nm,1.4s						
ABTA	Abfaltersbach	144.07	331	*i* PKP	PKPbc	05 00 59.8	-0.2
	comp=Z,8.4nm,1.1s						
WTTA	Wattenberg	144.09	332	*e*PKP	PKPdf	05 01 02.0	-0.2
	comp=Z,14nm,1.4s						
MOTA	Moosalm	144.26	333	*e*PKP	PKPdf	05 01 01.7	-0.8
	comp=Z,6.6nm,0.8s						
RETA	Reutte	144.31	333	*i* PKP	PKPdf	05 01 01.8	-0.7
	comp=Z,5.6nm,1.4s						
SQTA	Sankt Quirin	144.31	332	*i* PKP	PKPdf	05 01 02.0	-0.6
	comp=Z,10nm,1.1s						
FETA	Feichten	144.68	332	*i* PKP	PKPdf	05 01 02.6	-0.6
	comp=Z,14nm,0.9s						
DAVA	Damuels	144.84	334	*i* PKP	PKPdf	05 01 03.0	-0.5
	comp=Z,12nm,1.0s,SNR=4.9						

IDC 07 04:47:20.4±1.3, 60°.43N×29°.01W, h0^{km}, mb3.6/3, mbtmp3.7/4, ML3.8/1, MS3.4/17, Error ellipse: s-maj=61.8km s-min=21.0km az=29.0, Reykjanes Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
BORG	Borgarnes	5.60	36	Sn	Sn	04 49 43.8	-6.0
	baz=298,slow=18,SNR=1.5						
BORG				LR	LR	04 50 22.5	
	comp=Z,456nm,19.1s,baz=233,slow=32						
SFJD	Kangerlussuaq	11.57	314	LR	LR	04 53 45.8	
	comp=Z,274nm,21.7s,baz=126,slow=33						
JMIC	Jan Mayen	13.44	30	LR	LR	04 54 22.7	
	comp=Z,169nm,19.0s,baz=99,slow=31						
EKA	Eskdalemuir Ar	14.61	99	Pn	Pn	04 50 49.0	+0.9
	baz=297,slow=8.6						
	2.9nm,0.8s						
FRB	Frobisher Bay	18.59	297	LR	LR	04 57 44.2	
	comp=Z,129nm,20.8s,baz=124,slow=34						
NOA	NORSAR Array B	19.47	71	LR	LR	04 58 47.7	
	comp=Z,31nm,18.2s,baz=260,slow=35						
HFS	Hagfors	20.91	72	LR	LR	04 59 22.4	
	comp=Z,39nm,18.5s,baz=320,slow=34						
ARCES	ARCESS Array B	23.92	45	LR	LR	04 59 45.5	
	comp=Z,80nm,20.6s,baz=230,slow=31						
ESDC	Sonseca Array	25.98	132	P	P	04 52 53.6	-0.9
	2.3nm,0.9s,baz=332,slow=10.0,SNR=13						
ESDC				LR	LR	05 00 48.5	
	comp=Z,92nm,20.2s,baz=331,slow=31						
	2.3nm,0.9s						
FINES	FINESS Array B	26.12	64	LR	LR	05 02 15.4	
	comp=Z,62nm,18.4s,baz=254,slow=34						
RES	Resolute Bay	27.01	328	LR	LR	05 03 39.3	
	comp=Z,101nm,18.5s,baz=36,slow=36						
VRAC	Vranov	27.92	93	LR	LR	05 04 57.6	
	comp=Z,32nm,19.0s,baz=320,slow=38						
KEST	Kesra	34.79	118	LR	LR	05 07 43.7	
	comp=Z,49nm,21.5s,baz=234,slow=35						
VAE	Valguarnera	35.64	110	LR	LR	05 08 44.4	
	comp=Z,50nm,18.7s,baz=312,slow=36						
ULM	Lac du Bonnet	37.73	285	LR	LR	05 09 15.5	
	comp=Z,67nm,18.0s,baz=340,slow=35						
INK	Inuvik	40.55	326	LR	LR	05 11 12.3	
	comp=Z,58nm,19.3s,baz=32,slow=35						
ILAR	Eielson Array	46.75	329	P	P	04 55 49.4	-1.3
	0.6nm,0.9s,baz=34,slow=7.4,SNR=5.1						
	0.6nm,0.9s						
AKTO	Aktyubinsk	46.84	61	LR	LR	05 13 53.4	
	comp=Z,40nm,21.6s,baz=283,slow=34						
PDAR	Pinedale Array	49.65	288	P	P	04 56 14.8	+1.2
	0.5nm,0.8s,baz=63,slow=6.8,SNR=5.3						
	0.5nm,0.8s						
ANMO	Albuquerque	54.29	279	LR	LR	05 18 21.5	
	comp=Z,52nm,18.0s,baz=295,slow=34						

IDC 07 04:48:44.8±1.4, 60°.60N×28°.81W, h0^{km}, mb3.6/3, mbtmp3.7/5, ML3.6/2, Error ellipse: s-maj=23.3km s-min=21.5km az=15.0, Reykjanes Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
BORG	Borgarnes	5.40	36	Pn	Pn	04 50 04.7	-1.8
	2.5nm,0.3s,baz=237,slow=7.5,SNR=2.0						
BORG				Sn	Sn	04 51 07.5	-1.7
	baz=134,slow=6.9						
	24nm,1.0s						
BORG				AML	AML		
EKA	Eskdalemuir Ar	14.54	100	Pn	Pn	04 52 12.4	+0.9
	baz=303,slow=9.2						
	3.6nm,0.8s						
ESDC	Sonseca Array	26.02	132	P	P	04 54 18.7	-0.6
	1.6nm,0.8s,baz=334,slow=9.3,SNR=8.5						
	1.6nm,0.8s						
ILAR	Eielson Array	46.66	329	P	P	04 57 15.9	+1.5
	0.8nm,0.8s,baz=30,slow=8.2,SNR=5.6						
	0.8nm,0.8s						
PDAR	Pinedale Array	49.70	288	P	P	04 57 37.1	-1.3
	0.2nm,0.5s,baz=52,slow=7.3,SNR=2.6						
	0.2nm,0.5s						

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*MAN **07** 05:06:59.0, 13°.36N×120°.73E, h137^{km}, MS3.3*
*IDC **07** 05:07:08.3±4.5, 13°.34N×120°.77E, h281^{km}±49^{km}, mb3.5/15, mbtmp4.2/16, Error ellipse: s-maj=24.0km s-min=11.5km az=63.0*
*NEIC **07** 05:07:08.1±0.7, 13°.40N±0°.09×120°.9E±0°.1, h274^{km}±10^{km}, mb4.2/15, Error ellipse: s-maj=19.9km s-min=10.7km az=113.0*

ISC 07 05:07:05.7±0.5, 13°.43N±0°.08×120°.8E±0°.1, h250^{km}, n38, σ0^{s}.84/38, mb3.9/23, Mindoro

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
LLP	Lapu-Lapu	4.41	134	*e*P	Pn	05 08 06.0	-8.4
LLP				*i* S	S	05 09 12.0	+2.9
KAPI	Kappang	18.35	183	P	P	05 11 03.1	+0.8
	12nm,0.3s,baz=71,slow=3.2,SNR=5.3						
CMAR	Chiang Mai Arr	21.55	286	P	P	05 11 36.0	+0.2
	2.9nm,0.3s,baz=99,slow=8.1,SNR=37						
	2.9nm,0.3s						
CMAR	Chiang Mai Arr	21.55	286		P	05 11 36.5	+0.8
CM31	Chiang Mai Arr	21.55	286	P	P	05 11 36.5	+0.8
CM31				IAmb	IAmb	05 11 38.4	
	comp=Z,13nm,0.9s						
CHTO	Chiang Mai	21.61	287		P	05 11 36.7	+0.4
CHTO				IAmb	IAmb	05 11 38.2	
	comp=Z,9.7nm,1.2s						
RPSI	Rantau Prapat	24.07	246		P	05 11 59.4	+0.6
RPSI				IAmb	IAmb	05 12 00.9	
	comp=Z,10nm,0.7s						
SHL	Shillong	29.70	298		P	05 12 49.3	+0.3
USRK	Ussuriysk Ar.	32.14	15	P	P	05 13 09.6	-0.3
	comp=Z,1.8nm,0.7s,baz=189,slow=14,SNR=2.8						
	comp=Z,1.8nm,0.7s						
MBWA	Marble Bar	34.39	182	P	P	05 13 29.1	-0.5
MBWA				IAmb	IAmb	05 13 32.1	
	comp=Z,17nm,1.1s						
EVN	Everest	34.74	300	P	P	05 13 34.2	+0.9
EVN				IAmb	IAmb	05 13 35.0	
	comp=Z,5.9nm,0.6s						
WRA	Warramunga Arr	35.76	158	P	P	05 13 39.4	-1.8
	comp=Z,1.4nm,0.6s,baz=336,slow=9.6,SNR=12						
	comp=Z,1.4nm,0.6s						
WRA	Warramunga Arr	35.76	158	P	P	05 13 39.6	-1.7
SONM	Songino Array	36.33	344	P	P	05 13 45.6	-0.4
	comp=Z,1.0nm,0.5s,baz=164,slow=9.9,SNR=4.6						
	comp=Z,1.0nm,0.5s						
SONM	Songino Array	36.33	344	P	P	05 13 45.7	-0.3
SONM				IAmb	IAmb	05 13 46.6	
	comp=Z,5.0nm,1.4s						
ASAR	Alice Springs	39.05	161	P	P	05 14 08.1	-0.7
	comp=Z,0.5nm,0.5s,baz=341,slow=6.8,SNR=5.7						
	comp=Z,0.5nm,0.5s						
MK31	Makanchi Array	46.28	324	P	P	05 15 07.0	+0.5
MKAR	Makanchi Array	46.28	324	P	P	05 15 07.3	+0.9
	comp=Z,1.5nm,0.7s,baz=116,slow=8.8,SNR=11						
	comp=Z,1.5nm,0.7s						
MKAR	Makanchi Array	46.28	324	P	P	05 15 06.8	+0.3
NIL	Nilore	47.50	303		P	05 15 15.9	-0.2
NIL				IAmb	IAmb	05 15 17.6	
	comp=Z,17nm,0.6s						
BBOO	Buckleboo	48.25	163	P	P	05 15 20.9	-0.8
PETK	Petropavlovsk-	49.24	29	P	P	05 15 29.9	+1.0
	comp=Z,2.4nm,0.8s,baz=198,slow=4.4,SNR=5.0						
	comp=Z,2.4nm,0.8s						
PETK	Petropavlovsk-	49.24	29	P	P	05 15 28.8	-0.2
STKA	Stephens Creek	49.28	156	P	P	05 15 28.6	-0.9
	comp=Z,3.1nm,0.8s,baz=148,slow=6.7,SNR=3.0						
	comp=Z,3.1nm,0.8s						
KURBB	Kurchatov Arra	50.44	326	P	P	05 15 38.4	+0.4
	comp=Z,1.6nm,0.8s,baz=128,slow=7.5,SNR=11						
	comp=Z,1.6nm,0.8s						
KURK	Kurchatov	50.44	326		P	05 15 38.7	+0.7
KURK				IAmb	IAmb	05 15 39.5	
	comp=Z,4.7nm,0.8s						
KK31	Karatay Array	52.20	315	P	P	05 15 51.2	0.0
KKAR	Karatay Array	52.20	315	P	P	05 15 51.4	+0.2
BVAR	Borovoye Array	56.02	326	P	P	05 16 18.6	+0.1
	comp=Z,0.9nm,0.5s,baz=91,slow=12,SNR=2.9						
	comp=Z,0.9nm,0.5s						
AB31	Akbulak array	60.97	319		P	05 16 52.6	-0.1
AB31				IAmb	IAmb	05 16 53.6	
	comp=Z,1.9nm,0.5s						
ABKAR	Akbulak array	60.97	319	P	P	05 16 52.4	-0.3
ARCES	ARCESS Array B	79.35	339	P	P	05 18 43.4	-0.1
	comp=Z,1.2nm,0.5s,baz=78,slow=6.3,SNR=13						
	comp=Z,1.2nm,0.5s						
ARCES	ARCESS Array B	79.35	339	P	P	05 18 44.0	+0.4
SPITS	Spitsbergen Ar	79.86	348	P	P	05 18 46.0	-0.2
	comp=Z,4.9nm,1.0s,baz=102,slow=7.8,SNR=5.5						
	comp=Z,4.9nm,1.0s						
FINES	FINESS Array B	80.55	331	P	P	05 18 49.8	-0.2
	comp=Z,1.4nm,0.5s,baz=72,slow=6.2,SNR=10						
	comp=Z,1.4nm,0.5s						
HFS	Hagfors	86.74	331	P	P	05 19 20.9	-0.4
	comp=Z,1.2nm,0.4s,baz=204,slow=3.3,SNR=6.8						
	comp=Z,1.2nm,0.4s						
NB2	NORSAR Subarra	87.52	333	P	P	05 19 24.7	-0.5
	comp=Z,1.0nm,0.7s,baz=65,slow=4.8						
NOA	NORSAR Array B	87.52	333	P	P	05 19 24.4	-0.8
	comp=Z,0.8nm,0.6s,baz=67,slow=4.6,SNR=4.1						
	comp=Z,0.8nm,0.6s						

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*ASRS **07** 05:15:12.0±1.2, 54°.26N×86°.18E, h0^{km}, M2.6(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 07 05:15:14.7±4.0, 54°.30N×86°.12E, h0^{km}, mbtmp2.9/2, ML2.7/2, Error ellipse: s-maj=33.4km s-min=12.9km az=61.0, Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	0.84	246	I	I	05 20 50.0	
	baz=65,slow=329,SNR=1.2						
ZALV	Zalesovo Beam	0.84	246	Pg	Pg	05 15 29.4	-1.5
	0.7nm,0.3s,baz=63,slow=16,SNR=9.3						
ZALV				Lg	Lg	05 15 42.6	
	4.6nm,0.3s,baz=65,slow=27,SNR=12						
KURBB	Kurchatov Arra	5.92	235	Pn	Pn	05 16 45.5	+1.9
	0.1nm,0.3s,baz=49,slow=13,SNR=4.3						

	0.7nm,0.5s						
KURBB				AML	AML		
MKAR	Makanchi Array	7.90	199	Pn	Pn	05 17 11.6	+0.8
	0.2nm,0.3s,baz=21,slow=13,SNR=6.6						
	0.3nm,0.3s						
MKAR				AML	AML		

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*IDC **07** 05:19:49.9±0.9, 14°.31N×119°.45E, h0^{km}, mb3.7/8, mbtmp3.7/8, Error ellipse: s-maj=42.3km s-min=18.3km az=64.0*

*MAN **07** 05:19:51.0, 14°.48N×119°.17E, h30^{km}, MS3.7*

ISC 07 05:19:54.8±0.9**, 14°.2N**±0°.1×**119°.34E**±0°.10**, h35^{km}, n11, σ0^s.91**/11**, mb3.8**/7**, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TIRP	Brgy. Gulod. B	1.82	86	*e*P	Pn	05 20 22.3	-1.3
TIRP				*e*S	Sn	05 20 46.5	+1.0
CAAP	Casiguran, Aur	3.25	53	*e*P	Pn	05 20 43.5	+0.1
CMAR	Chiang Mai Arr	20.02	285	P	Pn	05 24 25.8	-0.9
	0.7nm,0.3s,baz=86,slow=8.1,SNR=5.6						
	0.7nm,0.3s						
SONM	Songino Array	35.18	345	P	P	05 26 44.9	-0.7
	0.4nm,0.5s,baz=164,slow=8.7,SNR=3.8						
	0.4nm,0.5s						
WRA	Warramunga Arr	37.03	156	P	P	05 27 01.2	-0.4
	0.8nm,0.6s,baz=335,slow=9.6,SNR=9.3						
	0.8nm,0.6s						
ASAR	Alice Springs	40.27	159	P	P	05 27 29.3	+0.6
	1.1nm,0.7s,baz=341,slow=6.8,SNR=9.7						
	1.1nm,0.7s						
MKAR	Makanchi Array	44.82	324	P	P	05 28 05.2	-0.3
	0.3nm,0.6s,baz=134,slow=10,SNR=4.2						
	0.3nm,0.6s						
PETK	Petropavlovsk-	49.20	30	P	P	05 28 39.1	-0.4
	1.4nm,0.7s,baz=308,slow=5.3,SNR=2.2						
	1.4nm,0.7s						
BVAR	Borovoye Array	54.59	326	P	P	05 29 19.3	-0.4
	0.5nm,0.5s,baz=131,slow=5.9,SNR=1.2						
	0.5nm,0.5s						
NOA	NORSAR Array B	86.18	332	P	P	05 32 33.8	+1.4
	0.6nm,0.8s,baz=68,slow=5.0,SNR=3.5						
	0.6nm,0.8s						
PLCA	Paso Flores	152.23	164	PKPbc	PKiKP	05 39 48.2	+0.7
	1.1nm,0.9s,baz=150,slow=6.2,SNR=3.3						

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*IDC **07** 05:21:27.5±2.4, 25°.39S×179°.52E, h512^{km}±30^{km}, mb2.9/5, mbtmp3.9/7, Error ellipse: s-maj=29.1km s-min=22.9km az=147.0*

ISC 07 05:21:27.1±0.9**, 25°.5S**±0°.1×**179°.5E**±0°.2**, h507^{km}, n7, σ0^s.48**/7**, mb3.5**/5**, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	7.80	349	P	P	05 23 22.2	+0.3
	14nm,0.7s,baz=249,slow=23,SNR=5.2						
URZ	Urewera	12.94	189	P	P	05 24 15.1	-0.2
	6.3nm,0.5s,baz=44,slow=2.0,SNR=7.0						
ASAR	Alice Springs	41.39	262	P	P	05 28 28.9	+0.1
	0.6nm,0.6s,baz=114,slow=8.6,SNR=6.9						
	0.6nm,0.6s						
WRA	Warramunga Arr	41.91	268	P	P	05 28 32.5	-0.5
	0.9nm,0.6s,baz=100,slow=7.5,SNR=7.8						
	0.9nm,0.6s						
QSPA	South Pole Qui	64.64	180	P	P	05 31 14.8	+0.6
	1.0nm,0.6s,baz=340,slow=3.7,SNR=2.2						
	1.0nm,0.6s						
NVAR	Mina Array Bea	86.15	44	P	P	05 33 14.1	-0.4
	0.2nm,0.5s,baz=243,slow=4.9,SNR=2.5						
	0.2nm,0.5s						
TXAR	Lajitas Array	91.60	58	P	P	05 33 39.8	-0.1
	0.6nm,1.0s,baz=210,slow=7.2,SNR=4.4						
	0.6nm,1.0s						

IDC 07 05:35:12.9±4.5**, 54°.25N**×**87°.48E, h0^{km}, mbtmp2.8**/2**, ML2.5**/2**, Error ellipse: s-maj=39.0km s-min=23.4km az=55.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	1.59	260	I	I	05 44 40.0	
	baz=78,slow=326,SNR=2.3						
ZALV	Zalesovo Beam	1.59	260	Pg	Pn	05 35 40.4	-1.9
	1.6nm,0.3s,baz=80,slow=15,SNR=12						
ZALV				Lg	Lg	05 36 06.2	
	1.2nm,0.3s,baz=82,slow=22,SNR=5.7						
KURBB	Kurchatov Arra	6.56	240	Pn	Pn	05 36 52.2	+1.6
	0.1nm,0.3s,baz=54,slow=14,SNR=2.0						
	0.6nm,0.5s						
KURBB				AML	AML		
MKAR	Makanchi Array	8.16	206	Pn	Pn	05 37 13.9	+1.4
	0.1nm,0.3s,baz=27,slow=14,SNR=1.5						
	0.1nm,0.2s						
MKAR				AML	AML		

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*NOU **07** 05:38:33.6, 17°.21S×167°.66E, h2^{km}, MLv4.3/15, Vanuatu Islands*

ISC 07 05:38:35.4±1.2**, 17°.15S**±0°.07×**167°.7E**±0°.1**, h25^{km}, n11, σ0^s.97**/11**, 3D, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTV	Rentapao	0.92	134	P	Pb	05 38 51.9	-0.7
RTV	Rentapao	0.92	134	S	Sn	05 39 04.5	-0.5
SANVU	Saraoutou	1.77	343	P	Pn	05 39 04.3	-0.1
MARNC	Mare, Loyalty	4.32	176	P	Pn	05 39 38.7	-0.8
KOUNC	Koumac, New Ca	4.70	223	P	Pn	05 39 43.5	-1.3
YATNC	Mamie plateau,	4.95	189	P	Pn	05 39 49.4	+1.2
NOUC	Port Laguerre	5.11	195	P	Pn	05 39 50.2	-0.1
OUENC	Ouen Island, N	5.31	189	P	Pn	05 39 54.2	+1.1
TROLL	Troll, Antarti	90.50	185	⇓P	P	05 51 35.9	+1.0
	comp=Z,76nm,0.8s						
VNA3	Neumayer Olymp	91.81	181	⇓P	P	05 51 41.4	+0.5
	comp=Z,1.0nm,0.7s						
VNA2	Neumayer--Watz	92.09	182	⇓P	P	05 51 42.8	+0.7
	comp=Z,1.2nm,0.7s,baz=176,slow=2.3						

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*IDC **07** 05:42:43.1±3.2, 17°.31S×174°.15W, h76^{km}±31^{km}, mb3.9/6, mbtmp4.3/7, Error ellipse: s-maj=37.0km s-min=18.7km az=127.0*

*NEIC **07** 05:42:43.3±0.7, 17°.34S±0°.07×174°.0W±0°.1, h74^{km}±9^{km}, mb4.5/6, Error ellipse: s-maj=18.6km s-min=10.1km az=103.0*

ISC 07 05:42:45.4±0.7**, 17°.27S**±0°.08×**173°.91W**±0°.10**, h108^{km}, n22, σ1^s.95**/23**, mb4.4**/10**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	3.92	32	P	Pn	05 43 43.1	-0.6
	126nm,0.3s,baz=159,slow=1.5,SNR=22						
AFI				S	Sn	05 44 25.7	-3.2
	271nm,0.4s,baz=78,slow=24,SNR=11						
AFI	Afiamalu	3.92	32	Sn	Sn	05 44 26.6	-2.2
NIUE	Niue	4.19	116		Pn	05 43 45.4	-1.9
MSVF	Nonsavu	7.69	265	P	Pn	05 44 32.8	-2.0
	14nm,0.7s,baz=110,slow=15,SNR=9.7						
URZ	Urewera	22.35	199	P	P	05 47 33.7	-0.7
	12nm,0.5s,baz=45,slow=2.0,SNR=13						
	12nm,0.5s						
RTZ	Ruatahuna	22.72	199	P	P	05 47 38.5	+0.3
RTZ				IAmb	IAmb	05 47 48.2	
	comp=Z,34nm,1.2s						
BBOO	Buckleboo	47.47	241	P	P	05 51 09.3	-0.2
WRA	Warramunga Arr	48.97	258	P	P	05 51 20.1	-1.2
	comp=Z,1.2nm,0.5s,baz=97,slow=6.6,SNR=16						
	comp=Z,1.2nm,0.5s						
WRA	Warramunga Arr	48.97	258	P	P	05 51 20.6	-0.7
AS31	Alice Springs	49.09	253	P	P	05 51 21.5	-0.7
AS31				IAmb	IAmb	05 51 22.7	
	comp=Z,3.7nm,0.7s						
ASAR	Alice Springs	49.09	253	P	P	05 51 21.6	-0.6
	comp=Z,12nm,0.6s,baz=90,slow=8.6,SNR=11						
	comp=Z,12nm,0.6s						
QSPA	South Pole Qui	72.79	180	P	P	05 54 03.4	+1.4
	comp=Z,1.3nm,1.0s,baz=108,slow=2.5,SNR=2.4						
	comp=Z,1.3nm,1.0s						
QSPA	South Pole Qui	72.79	180	P	P	05 54 03.0	+1.1
J20K	Nowinta River	82.61	9	P	P	05 54 58.9	+2.8
J20K				IAmb	IAmb	05 55 08.0	
	comp=Z,8.2nm,1.4s						
PDAR	Pinedale Array	83.97	42	P	P	05 55 05.8	+1.9
	comp=Z,0.5nm,0.7s,baz=225,slow=3.4,SNR=6.4						
	comp=Z,0.5nm,0.7s						
PDAR	Pinedale Array	83.97	42	P	P	05 55 05.7	+1.7
CCB	Clear Creek Bu	84.08	11	P	P	05 55 06.2	+2.6
CCB				IAmb	IAmb	05 55 07.2	
	comp=Z,4.6nm,1.0s						
ILAR	Eielson Array	84.36	11	P	P	05 55 07.5	+2.4
	comp=Z,1.0nm,0.9s,baz=203,slow=5.0,SNR=9.2						
	comp=Z,1.0nm,0.9s						
ILAR	Eielson Array	84.36	11	P	P	05 55 07.2	+2.1
IMAR	Indian Mountai	84.38	8	P	P	05 55 08.0	+2.9
BMAR	Burnt Mountain	87.16	11	P	P	05 55 21.2	+2.3
GERES	GERESS Array B	147.90	351	PKPbc	PKiKP	06 02 18.9	-1.0
	comp=Z,1.0nm,0.2s,baz=44,slow=3.0,SNR=3.5						

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*ASRS **07** 05:45:34.0±0.8, 54°.39N×86°.79E, h0^{km}, M2.7(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 07 05:45:35.4±3.5**, 54°.45N**×**86°.84E, h0^{km}, mbtmp3.1**/2**, ML2.7**/2**, Error ellipse: s-maj=28.7km s-min=17.0km az=69.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	1.29	248	I	I	05 53 40.0	
	baz=68,slow=330,SNR=2.4						
ZALV	Zalesovo Beam	1.29	248	Pg	Pg	05 45 59.1	-1.0
	1.7nm,0.3s,baz=68,slow=16,SNR=15						
ZALV				Lg	Lg	05 46 16.3	
	1.8nm,0.3s,baz=69,slow=29,SNR=11						
KURBB	Kurchatov Arra	6.35	236	Pn	Pn	05 47 10.6	+0.4
	0.1nm,0.3s,baz=54,slow=14,SNR=9.4						
KURBB				Lg	Lg	05 48 57.5	
	0.1nm,0.3s,baz=55,slow=32,SNR=4.5						
	1.7nm,0.6s						
KURBB				AML	AML		
MKAR	Makanchi Array	8.19	202	Pn	Pn	05 47 37.2	+1.8
	0.1nm,0.3s,baz=23,slow=10,SNR=5.1						
MKAR				Sn	Sn	05 49 08.2	-0.5
	0.1nm,0.3s,baz=27,slow=26,SNR=4.4						
MKAR				Lg	Lg	05 49 52.3	
	0.1nm,0.3s,baz=24,slow=29,SNR=6.0						
	0.2nm,0.3s						
MKAR				AML	AML		
BVAR	Borovoye Array	9.85	268	Sn	Sn	05 49 43.5	-5.9
	baz=78,slow=28,SNR=2.2						

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*IDC **07** 06:08:46.2±1.3, 5°.96S×152°.19E, h0^{km}, mb4.0/4, mbtmp4.1/5, ML2.1/1, Error ellipse: s-maj=37.8km s-min=15.4km az=107.0*

*NEIC **07** 06:08:48.8±1.2, 5°.89S±0°.07×152°.1E±0°.2, h10^{km}±1^{km}, mb4.2/14, Error ellipse: s-maj=35.5km s-min=3.4km az=109.0*

ISC 07 06:08:52.2±0.9**, 5°.85S**±0°.10×**152°.0E**±0°.2**, h36^{km}, n23, σ0^s.78**/24**, mb4.1**/11**, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KRVT	Keravat (AS076	1.54	1	Pn	Pn	06 09 16.6	-0.5
	180nm,0.3s,baz=229,slow=1.5,SNR=26						
KRVT				Sn	Sn	06 09 37.5	+1.6
	565nm,0.3s,baz=307,slow=20,SNR=21						
RABL	Rabaul	1.66	6		Pn	06 09 18.3	-0.6
PMG	Port Moresby	5.95	233	Pn	Pn	06 10 17.8	0.0
	2.7nm,0.3s,baz=29,slow=11,SNR=5.1						
	22nm,0.6s						
PMG				AML	AML		
PMG	Port Moresby	5.95	233		Pn	06 10 17.9	+0.1
WB0	Warramunga Arr	22.00	229	P	P	06 13 43.2	-0.3
WB0				IAmb	IAmb	06 13 47.0	
	comp=Z,13nm,1.1s						
WR8	Warramunga Arr	22.04	229	P	P	06 13 44.0	+0.2
WR8				IAmb	IAmb	06 13 57.1	
	comp=Z,7.6nm,0.9s						
WRA	Warramunga Arr	22.15	229	P	P	06 13 43.8	-1.3
	comp=Z,5.1nm,0.8s,baz=54,slow=10,SNR=26						
	comp=Z,5.1nm,0.8s						
WRA	Warramunga Arr	22.15	229	P	P	06 13 43.7	-1.3
KNRA	Kununurra	24.79	245	P	P	06 14 10.3	-0.7
KNRA				IAmb	IAmb	06 14 29.1	
	comp=Z,3.4nm,0.8s						
AS31	Alice Springs	24.83	223	P	P	06 14 11.2	-0.2
AS31				IAmb	IAmb	06 14 14.2	
	comp=Z,2.9nm,0.9s						
ASAR	Alice Springs	24.83	223	P	P	06 14 11.5	+0.1
	comp=Z,6.3nm,0.8s,baz=56,slow=9.4,SNR=43						
	comp=Z,6.3nm,0.8s						
FITZ	Fitzroy Crossi	28.45	242	P	P	06 14 43.6	-0.4
VNDA	Vanda	71.81	178	P	P	06 20 11.5	+0.7
IL31		83.43	22	P	P	06 21 14.9	-0.7
ILAR	Eielson Array	83.43	22	P	P	06 21 14.3	-1.4
	comp=Z,0.7nm,0.7s,baz=252,slow=4.4,SNR=6.3						
	comp=Z,0.7nm,0.7s						
J25K	Salcha River,	83.93	23	P	P	06 21 18.6	+0.3
J25K				IAmb	IAmb	06 21 49.0	
	comp=Z,4.4nm,1.3s						
QSPA	South Pole Qui	84.11	180	P	P	06 21 19.4	+0.1
	comp=Z,0.9nm,0.7s,baz=23,slow=2.3,SNR=6.0						
	comp=Z,0.9nm,0.7s						
QSPA	South Pole Qui	84.11	180	P	P	06 21 19.4	+0.1
QSPA				IAmb	IAmb	06 21 52.4	
	comp=Z,2.8nm,1.2s						
G24K	Hadweenzic Riv	84.16	20	P	P	06 21 19.5	+0.1
H27K	Steamboat Moun	86.08	22	P	P	06 21 29.9	+0.8
H27K				IAmb	IAmb	06 21 42.3	
	comp=Z,3.3nm,1.4s						
I28M	Miner Creek	86.38	23	P	P	06 21 31.3	+0.7
I28M				IAmb	IAmb	06 21 38.6	
	comp=Z,0.9nm,1.1s						
H31M	Peel River	88.68	23	P	P	06 21 41.5	-0.1
TORD	Torodi Ar. Bea	149.84	286	PKPbc	PKPbc	06 28 38.7	-0.9
	comp=Z,1.0nm,0.6s,baz=73,slow=3.7,SNR=5.4						

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*PTWC **07** 06:12:37, 17°.10S×168°.50E, h10^{km}, Mwp6.6/5*

*IDC **07** 06:12:37.8±0.4, 17°.16S×168°.45E, h0^{km}, mb5.1/27, mbtmp5.1/31, ML5.3/4, MS5.9/53, Error ellipse: s-maj=11.9km s-min=11.0km az=61.0*

*MOS **07** 06:12:38.6±1.3, 17°.13S×168°.38E, h11^{km}, mb5.9/55, MS6.1/36, Error ellipse: s-maj=7.2km s-min=5.9km az=128.2*

*ISC-PP **07** 06:12:39, 17°.11S×168°.50E, h22^{km}, Mwppsm6.1, Moment Tensor Solution. s33 Moment tensor: Scale 10^{18}Nm; M$_{rr}$-0.10±.07; M$_{\theta\theta}$0.23±.13; M$_{\phi\phi}$-0.11±.14; M$_{r\theta}$-0.65±.12; M$_{\theta\phi}$-0.04±.12; M$_{\phi r}$0.21±.07; Fault plane solution: M$_0$1.82000×10^{18} NP1:φ$_s$89.60000°, δ83.10000°, λ286.60000°. NP2:φ$_s$201.50000°, δ17.90000°, λ-157.00000°.*

*NOU **07** 06:12:39.0, 17°.12S×168°.45E, h0^{km}, ML6.0/164, Vanuatu Islands*

*NEIC **07** 06:12:39.7, 17°.11S×168°.51E, h10^{km}*

*NEIC **07** 06:12:39.7±2.1, 17°.11S±0°.06×168°.50E±0°.07, h10^{km}±1^{km}, mb5.8/482, Ms_20 6.2/748, Mwb6.0/139, Mww6.2/29, Error ellipse: s-maj=11.5km s-min=9.5km az=67.0, Moment Tensor Solution. Moment tensor: Scale 10^{18}Nm; M$_{rr}$0.14; M$_{\theta\theta}$0.35; M$_{\phi\phi}$-0.48; M$_{r\theta}$-0.14; M$_{\theta\phi}$-1.05; M$_{\phi r}$-0.35; Fault plane solution: M$_0$1.20000×10^{18} NP1:φ$_s$80.24000°, δ75.76000°, λ-173.65000°. NP2:φ$_s$348.67000°, δ83.84000°, λ-14.32000°. Principal axes: T 1.0700, Plg6.0000°, Azm35.0000°; N 0.2214, Plg74.0000°, Azm146.0000°; P -1.2914, Plg14.0000°, Azm304.0000°;*

*BJI **07** 06:12:39.1, 16°.99S×168°.49E, h10^{km}, mB6.1/56, mb5.5/72, Ms6.3/93, Ms7 6.1/91*

*IPGP **07** 06:12:39.0, 17°.09S×168°.50E, h7^{km}, Mw6.3, Fault plane solution: NP1:φ$_s$258.00000°, δ84.00000°, λ171.00000°. NP2:φ$_s$349.00000°, δ81.00000°, λ6.00000°.*

*GFZ **07** 06:12:40.4, 17°.11S×168°.50E, h13^{km}, Mw6.2/27, Moment Tensor Solution. Moment tensor: Scale 10^{18}Nm; M$_{rr}$-0.15; M$_{\theta\theta}$0.87; M$_{\phi\phi}$-0.73; M$_{r\theta}$-0.13; M$_{\theta\phi}$-2.00; M$_{\phi r}$-0.11; Fault plane solution: M$_0$2.16292×10^{18} NP1: φ$_s$349.00057°, δ85.69802°, λ-2.70262°. NP2:φ$_s$79.20345°, δ87.30500°, λ-175.69325°. Principal axes: T 2.2256, Plg1.1342°, Azm214.0531°; N -0.1313, Plg84.9209°, Azm111.1821°; P -2.0943, Plg4.9502°, Azm304.1513°;*

*GFZ **07** 06:12:40.4±0.1, 17°S±2°×16°8E±°, h10^{km}, M5.9/85, mB6.3/60, mb5.6/85, Mw(mB)6.0/60*

*NEIC **07** 06:12:40.1, 17°.09S×168°.48E, h10^{km}*

*GCMT **07** 06:12:42.7±0.0, 17°.08S×168°.49E, h13^{km}, MW6.2/181, Moment Tensor Solution. s168,c373; s181,c714; Duration: 3^s.0 Moment tensor: Scale 10^{18}Nm; M$_{rr}$-0.05±.01; M$_{\theta\theta}$0.93±.01; M$_{\phi\phi}$-0.88±.01; M$_{r\theta}$0.36±.02; M$_{\theta\phi}$-2.04±.01; M$_{\phi r}$0.12±.02; Best double couple: M$_0$2.26600×10^{18} NP1:φ$_s$168.00000°, δ80.00000°, λ-1.00000°. NP2:φ$_s$258.00000°, δ89.00000°, λ-170.00000°. Principal axes: T 2.2800, Plg6.0000°, Azm33.0000°; N -0.0290, Plg80.0000°, Azm266.0000°; P -2.2510, Plg8.0000°, Azm123.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s. Triangular moment-rate function*

*NEIC **07** 06:12:47.1, 17°.11S×168°.51E, h18^{km}, Moment Tensor Solution. Duration: 5^s.1 Moment tensor: Scale 10^{18}Nm; M$_{rr}$-0.02; M$_{\theta\theta}$0.74; M$_{\phi\phi}$-0.72; M$_{r\theta}$-0.45; M$_{\theta\phi}$-1.99; M$_{\phi r}$0.20; Fault plane solution: M$_0$2.17000×10^{18} NP1: φ$_s$350.52000°, δ79.56000°, λ6.72000°. NP2:φ$_s$259.30000°, δ83.39000°, λ169.49000°. Principal axes: T 2.2310, Plg12.0000°, Azm215.0000°; N -0.1206, Plg78.0000°, Azm47.0000°; P -2.1104, Plg3.0000°, Azm305.0000°;*

ISC 07 06:12:39.9±0.2**, 17°.16S**±0°.03×**168°.44E**±0°.04**, h10^{km}, h10^{km}:pP-P, n1517, σ1^s.81**/1046**, mb5.7**/422**, MS6.2**/462**, 86C-51D, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTV	Rentapao	0.63	181	P	Pg	06 12 50.9	-1.2
RTV	Rentapao	0.63	181	P	Pg	06 12 50.7	-1.4
SANVU	Saraoutou	2.08	325	P	Pn	06 13 13.8	-1.0
SANVU	Saraoutou	2.08	325		Pn	06 13 12.3	-2.5
SANVU	Saraoutou	2.08	325	P	Pn	06 13 11.8	-3.1
SANVU	Saraoutou	2.08	325	⇓P	Pn	06 13 11.8	-3.1
SANVU	Saraoutou	2.08	325	P	Pn	06 13 11.9	-2.9
MARNC	Mare, Loyalty	4.32	185	P	Pn	06 13 44.0	-1.6
MARNC	Mare, Loyalty	4.32	185		Pn	06 13 43.8	-1.8
YATNC	Mamie plateau,	5.09	196	P	Pn	06 13 57.4	+1.1
	1μm,0.8s						
KOUNC	Koumac, New Ca	5.18	229	P	Pn	06 13 58.4	+0.9
	2μm,1.2s						
KOUNC				AML	AML		
KOUNC	Koumac, New Ca	5.18	229		Pn	06 13 57.0	-0.5
KOUNC	Koumac, New Ca	5.18	229	P	Pn	06 13 57.2	-0.3
KOUNC	Koumac, New Ca	5.18	229	⇑P	Pn	06 13 56.4	-1.2
DZM	Mont Dzumac	5.23	201	Pn	Pn	06 13 57.0	-1.3
	70nm,0.3s,baz=14,slow=4.2,SNR=267						
DZM				Sn	Sn	06 15 00.5	+1.6
	63nm,0.3s,baz=312,slow=23,SNR=11						
DZM				LR	LR	06 15 28.3	
	comp=Z,106μm,20.1s,baz=50,slow=33						
	402nm,0.5s						
DZM				AML	AML		
NOUC	Port Laguerre	5.31	202	P	Pn	06 13 58.8	-0.5
	1μm,1.4s						
NOUC				AML	AML		
NOUC	Port Laguerre	5.31	202	S	Sn	06 15 01.1	+0.5
	1μm,1.4s						
NOUC				AML	AML		
NOUC	Port Laguerre	5.31	202	P	Pn	06 13 58.1	-1.2
OUENC	Ouen Island, N	5.44	196	P	Pn	06 14 01.2	+0.1
	1μm,1.7s						
OUENC				AML	AML		
OUENC	Ouen Island, N	5.44	196	S	Sn	06 15 04.1	+0.2
	1μm,1.7s						
OUENC				AML	AML		
OUENC	Ouen Island, N	5.44	196		Pn	06 13 59.8	-1.3
OUENC	Ouen Island, N	5.44	196	P	Pn	06 13 59.9	-1.2
ONTNC	Ouen Toro	5.45	200	P	Pn	06 14 02.2	+0.9
	1μm,0.8s						
ONTNC	Ouen Toro	5.45	200		Pn	06 14 00.6	-0.7
ONTNC	Ouen Toro	5.45	200	P	Pn	06 14 01.1	-0.2
ONTNC	Ouen Toro	5.45	200	⇑P	Pn	06 14 00.1	-1.1
MSVF	Nonsavu	9.19	95	Pn	Pn	06 14 54.4	+1.7
	1.8nm,0.3s,baz=247,slow=7.7,SNR=31						
	106nm,0.9s						
MSVF				AML	AML		
MSVF	Nonsavu	9.19	95	P	Pn	06 14 54.5	+1.7
	776nm,1.9s						
MSVF	Nonsavu	9.19	95	Pn	Pn	06 14 53.8	+1.0
MSVF	Nonsavu	9.19	95	⇓P	Pn	06 14 54.3	+1.5
MSVF	Nonsavu	9.19	95	P	Pn	06 14 55.5	+2.7
	comp=Z,32μmcomp=Z,772nm,1.9s						
HURO	Huro Makira	9.19	316	P	Pn	06 14 54.3	+1.6
	comp=Z,904nm,1.0s						
HURO	Huro Makira	9.19	316	S	Sn	06 16 36.4	+0.1
	comp=Z,904nm,1.0s						
NGOA	Tingoa Renbel	9.84	303	P	Pn	06 15 01.5	-0.1
	comp=Z,3μm,0.9s						
DGTI	Dogotuki	10.86	87	P	Pn	06 15 17.3	+1.8
HNR	Honiara	11.28	312	Pn	Pn	06 15 21.1	-0.2
	comp=Z,22nm,0.3s,baz=324,slow=7.3,SNR=6.5						
HNR				LR	LR	06 19 57.9	
	comp=Z,38μm,18.1s,baz=224,slow=39						
	comp=Z,186nm,0.7s						
HNR				AML	AML		
HNR	Honiara	11.28	312	P	Pn	06 15 22.7	+1.4
	comp=Z,914nm,1.1s						
HNR	Honiara	11.28	312	Pn	Pn	06 15 17.7	-3.6
HNR	Honiara	11.28	312	P	Pn	06 15 25.2	+4.0
	comp=Z,22μmcomp=Z,1μm,1.1s						
SAVO	Savo Central	11.57	312	P	Pn	06 15 25.3	0.0
NFK	Norfolk Island	11.84	182	P	Pn	06 15 30.3	+1.5
	comp=Z,329nm,1.3s,comp=Z,0.0nm						
NFK	Norfolk Island	11.84	182	P	Pn	06 15 29.6	+0.7
NFK	Norfolk Island	11.84	182	⇑P	Pn	06 15 29.7	+0.8
TATA	Tatamba Isabel	12.12	315	P	Pn	06 15 33.1	+0.3
TATA	Tatamba Isabel	12.12	315	S	Sn	06 17 49.4	+1.4
FUNA	Funafuti	13.55	52	P	Pn	06 15 51.3	-1.0
	comp=Z,362nm,0.6s						
FUNA	Funafuti	13.55	52	S	Sn	06 18 23.5	+0.5
	comp=Z,362nm,0.6s						
FUNA	Funafuti	13.55	52		Pn	06 15 47.2	-5.1
FUNA	Funafuti	13.55	52	⇑P	Pn	06 15 50.6	-1.8
FUNA	Funafuti	13.55	52	P	Pn	06 15 50.5	-1.8
	comp=Z,484nm,0.6s						
LHI	Lord Howe Isla	16.64	209	P	Pn	06 16 32.3	-1.1
LHI				IAmb	IAmb	06 16 39.6	
	comp=Z,1μm,2.0s						
LHI	Lord Howe Isla	16.64	209	P	Pn	06 16 31.2	-2.1
LHI	Lord Howe Isla	16.64	209	⇑P	Pn	06 16 33.2	-0.1
AUBSH	Beerwah State	17.29	233	P	P	06 16 44.2	+1.3
	comp=Z,495nm,2.6s						
RIZ	Raoul Island	17.35	136	P	P	06 16 44.4	+0.8
RAO	Raoul Island	17.36	136	P	Pn	06 16 42.9	+0.4
RAO				pmax	pmax		
	comp=Z,13μm,2.0s						
RAO	Raoul Island	17.36	136	P	Pn	06 16 42.9	+0.4
GD1S	Gladstone Soft	17.48	245	P	P	06 16 45.9	+0.8
GC1S	Gold Coast 1 S	17.58	229	P	P	06 16 47.3	+1.2
EIDS	Eidsvold	18.11	240	P	P	06 16 53.4	+1.3
EIDS	Eidsvold	18.11	240	P	P	06 16 54.0	+1.9
EIDS	Eidsvold	18.11	240		P	06 16 53.5	+1.4
EIDS				IAmb	IAmb	06 17 00.3	
	comp=Z,804nm,1.5s						
EIDS	Eidsvold	18.11	240	⇑P	P	06 16 53.6	+1.6
EIDS	Eidsvold	18.11	240	P	P	06 16 54.9	+2.9
TW1H	Toowoomba 1 Ha	18.38	233	P	P	06 16 57.3	+2.1
AUTOO	Toowoomba Stat	18.39	233	P	P	06 16 57.5	+2.3
OUZ	Omahuta	18.57	167	P	Pn	06 16 57.9	+0.7
	comp=Z,317nm,2.3s						
OUZ	Omahuta	18.57	167	P	Pn	06 16 59.2	+2.0
OUZ	Omahuta	18.57	167	⇑P	Pn	06 16 58.2	+1.1
OUZ	Omahuta	18.57	167	P	Pn	06 17 01.2	+4.0
	comp=Z,11μmcomp=Z,317nm,2.3s						
AFI	Afiamalu	19.34	83	P	P	06 17 05.8	+0.1
	comp=Z,3.5nm,0.3s,baz=259,slow=20,SNR=1.2						
AFI				LR	LR	06 22 41.5	
	comp=Z,25μm,20.8s,baz=250,slow=31						
	comp=Z,19nm,0.3s						
AFI				AML	AML		
AFI	Afiamalu	19.34	83		P	06 17 02.5	-3.2
WCZ	Waipu Caves	19.43	165	P	P	06 17 07.3	+0.9
GRZ	Great Barrier	20.01	163	P	Pn	06 17 14.9	+0.4
AUAYR	Ayr State High	20.10	260	P	Pn	06 17 16.4	+0.6
ARMA	Armidale	20.23	226	P	P	06 17 16.9	+1.5
	comp=Z,321nm,2.4s,comp=Z,0.0nm						
ARMA	Armidale	20.23	226	P	Pn	06 17 18.1	+0.7
	comp=Z,322nm,2.4s						
ARMA	Armidale	20.23	226		P	06 17 15.9	+0.5
ARMA				IAmb	IAmb	06 17 29.6	
	comp=Z,886nm,1.8s						
ARMA	Armidale	20.23	226	⇑P	Pn	06 17 17.3	-0.1
ARMA	Armidale	20.23	226	P	Pn	06 17 17.9	+0.5

	comp=Z,12µmcomp=Z,322nm,2.4s,comp=Z,12µm						
RMQ	Roma	20.47	240	P	P	06 17 19.2	+1.3
	comp=Z,242nm,1.6s						
RMQ	Roma	20.47	240	P	P	06 17 19.4	+1.5
	comp=Z,242nm,1.6s						
RMQ	Roma	20.47	240	P	Pn	06 17 20.8	+0.8
	comp=Z,4µmcomp=Z,242nm,1.6s,comp=Z,4µm						
RABL	Rabaul	20.51	307	P	P	06 17 19.9	+1.5
KRVT	Keravat (AS076	20.54	307	P	P	06 17 19.6	+0.8
	comp=Z,205nm,0.3s,baz=39,slow=6.1,SNR=10						
	comp=Z,205nm,0.3s						
AUPHS	Peel High Scho	21.15	226	P	P	06 17 26.6	+1.3
	comp=Z,259nm,2.2s						
CTA	Charters Tower	21.22	259	P	P	06 17 26.9	+0.8
	comp=Z,56nm,0.6s,baz=84,slow=11,SNR=42						
	comp=Z,56nm,0.6s						
CTAO	Charters Tower	21.22	259		P	06 17 26.6	+0.5
CTAO				IAmb	IAmb	06 17 37.1	
	comp=Z,792nm,1.6s						
CTAO	Charters Tower	21.22	259	⇑P	P	06 17 27.3	+1.2
CTAO	Charters Tower	21.22	259	P	P	06 17 27.7	+1.6
	comp=Z,10µmcomp=Z,314nm,1.7s,comp=Z,10µm						
TOZ	Tahuroa Road	21.41	165		P	06 17 28.3	+0.3
TOZ				IAmb	IAmb	06 17 41.1	
	comp=Z,2µm,2.0s						
TOZ	Tahuroa Road	21.41	165	P	P	06 17 32.3	+4.3
WIZ	White Island	21.70	161	P	P	06 17 38.2	+7.1
TLZ	Tolley Road	21.99	165	P	P	06 17 37.4	+3.2
HIZ	Hauiti	22.00	166		P	06 17 35.6	+1.2
HIZ				IAMs_20	IAMs_20	06 25 57.9	
	comp=Z,104µm,18.0s						
HIZ	Hauiti	22.00	166	P	P	06 17 37.9	+3.6
HIZ	Hauiti	22.00	166	P	P	06 17 36.3	+1.9
	comp=Z,14µmcomp=Z,685nm,2.0s,comp=Z,14µm						
PMG	Port Moresby	22.08	288	P	P	06 17 36.2	+0.8
	comp=Z,118nm,1.2s,baz=97,slow=9.3,SNR=13						
PMG				LR	LR	06 25 00.1	
	comp=Z,73µm,18.6s,baz=103,slow=34						
	comp=Z,118nm,1.2s						
PMG	Port Moresby	22.08	288	P	P	06 17 36.9	+1.5
	comp=Z,303nm,1.7s						
PMG	Port Moresby	22.08	288		P	06 17 35.6	+0.3
PMG				IAmb	IAmb	06 17 54.6	
	comp=Z,318nm,1.1s						
PMG	Port Moresby	22.08	288	IAMs_20	IAMs_20	06 25 54.8	
	comp=Z,108µm,18.0s						
PMG	Port Moresby	22.08	288	⇓P	P	06 17 36.1	+0.8
PMG	Port Moresby	22.08	288	P	P	06 17 36.8	+1.4
	comp=Z,10µmcomp=Z,303nm,1.7s						
PMG	Port Moresby	22.08	288	P	P	06 17 36.3	+0.9
	comp=Z,10µmcomp=Z,310nm,1.7s						
HAZ	Te Kaha	22.10	160	P	P	06 17 42.3	+7.0
MXZ	Matakaoa Point	22.10	159	IAMs_20	IAMs_20	06 24 34.3	
	comp=Z,71µm,19.0s						
MXZ	Matakaoa Point	22.10	159	P	P	06 17 42.6	+7.2
AUKHS	Kincumber High	22.33	220	P	P	06 17 38.9	+1.0
	comp=Z,538nm,2.4s						
MGCD	Mangrove Creek	22.34	221	P	P	06 17 40.7	+2.7
MGCD	Mangrove Creek	22.34	221	P	P	06 17 39.8	+1.8
	comp=Z,126nm,1.0s						
MGCD	Mangrove Creek	22.34	221	P	P	06 17 42.0	+4.1
	comp=Z,2µmcomp=Z,123nm,1.0s,comp=Z,2µm						
URZ	Urewera	22.36	162	LR	LR	06 25 12.5	
	comp=Z,54µm,18.4s,baz=335,slow=34						
URZ	Urewera	22.36	162	⇑P	P	06 17 38.1	0.0
URZ	Urewera	22.36	162	P	P	06 17 39.0	+0.9
	comp=Z,10µmcomp=Z,275nm,1.4s,comp=Z,10µm						
AULRC	Lightning Ridg	22.37	233	P	P	06 17 39.5	+1.2
	comp=Z,184nm,1.3s						
NEZ	North Egmont	22.57	168	P	P	06 17 41.9	+1.3
KHEZ	Kahui Hut	22.58	169	P	P	06 17 42.1	+1.5
RTZ	Ruatahuna	22.65	162		P	06 17 40.9	-0.4
RTZ				IAmb	IAmb	06 17 55.6	
	comp=Z,721nm,1.6s						
TWVZ	Taurewa	22.67	166	P	P	06 17 47.0	+5.4
MTHZ	Maungataniwha	22.83	163	P	P	06 17 48.4	+5.2
WHVZ	Whangaehu Hut	22.91	166	P	P	06 17 49.0	+4.8
SYDH	Sydney Hard Ro	22.93	221	P	P	06 17 45.8	+1.6
	comp=Z,128nm,1.1s						
WNVZ	Wahianoa	22.95	166	P	P	06 17 48.8	+4.2
RAHZ	Arahi	22.96	162	P	P	06 17 52.0	+7.5
MTSU	Mount Surprise	23.00	264	P	P	06 17 46.4	+1.2
	comp=Z,146nm,1.5s						
MTSU	Mount Surprise	23.00	264	P	P	06 17 47.2	+2.0
	comp=Z,2µmcomp=Z,146nm,1.5s,comp=Z,2µm						
BKZ	Black Stump Fm	23.02	164	P	P	06 17 46.4	+1.2
	comp=Z,130nm,2.2s						
NMHZ	Naumai	23.05	163	P	P	06 17 49.0	+3.5
MOVZ	Moawhango	23.06	165	P	P	06 17 48.3	+2.6
BHHZ	Black Hill Sta	23.22	165	P	P	06 17 49.3	+2.1
KWHZ	Kaweka Forest	23.25	164	P	P	06 17 49.2	+1.7
WOLH	Wollongong Har	23.28	219	P	P	06 17 48.8	+0.9
	comp=Z,258nm,1.2s						
AUDCS	Dubbo College	23.37	226	P	P	06 17 49.5	+0.7
	comp=Z,326nm,1.9s						
KRHZ	Kereru	23.44	164	P	P	06 17 50.7	+1.3
PNHZ	Pukenui	23.65	165	P	P	06 17 51.5	0.0
KAHZ	Kahuranaki	23.72	164	P	P	06 17 53.0	+0.9
TSZ	Takapari Road	23.73	166	P	P	06 17 55.3	+3.0
PXZ	Pawanui	23.93	164	P	P	06 17 55.5	+1.3
TKNZ	Takaka Hill	24.11	172	P	P	06 17 55.5	-0.3
AUUHS	Ulladulla High	24.18	218	P	P	06 17 57.7	+1.2
	comp=Z,431nm,2.3s						
MRZ	Mangatainoka R	24.22	167	IAMs_20	IAMs_20	06 26 53.5	
	comp=Z,92µm,19.0s						
MRZ	Mangatainoka R	24.22	167	P	P	06 17 56.8	-0.1
ANWZ	Angora Road	24.24	165	P	P	06 17 58.8	+1.8
KIW	Kapiti Island	24.27	168	P	P	06 17 57.6	+0.3
OGWZ	Otaki Gorge	24.28	168	P	P	06 17 56.4	-1.0
QLP	Quilpie	24.30	243	P	P	06 17 57.4	-0.4
	comp=Z,916nm,1.6s,comp=Z,0.0nm						
QLP	Quilpie	24.30	243	P	P	06 17 57.9	+0.1
	comp=Z,916nm,1.6s						
QLP	Quilpie	24.30	243	⇑P	P	06 17 57.6	-0.2
QLP	Quilpie	24.30	243	P	P	06 17 58.7	+0.9
	comp=Z,17µmcomp=Z,916nm,1.6s,comp=Z,17µm						
NNZ	Nelson	24.35	171	IAmb	IAmb	06 18 16.9	
	comp=Z,591nm,1.7s						
BFZ	Birch Farm	24.39	166	P	P	06 17 58.7	+0.3
	comp=Z,315nm,2.1s						
BFZ	Birch Farm	24.39	166	IAMs_20	IAMs_20	06 26 42.0	
	comp=Z,66µm,19.0s						
BFZ	Birch Farm	24.39	166	P	P	06 17 58.5	0.0
BFZ	Birch Farm	24.39	166	P	P	06 17 58.2	-0.3
	comp=Z,9µmcomp=Z,315nm,2.1s,comp=Z,9µm						
HOWZ	Holdsworth Sta	24.43	167	P	P	06 17 57.9	-0.9
TCW	Tory Channel	24.49	169	P	P	06 17 59.6	+0.3
CAW	Cannon Point	24.54	168	P	P	06 18 03.9	+4.2
SNZO	South Karori	24.66	169	P	P	06 18 02.1	+1.2
DSZ	Denniston Nort	24.67	174	P	P	06 18 01.4	+0.4
DSZ	Denniston Nort	24.67	174	P	P	06 18 02.2	+1.1
MTW	Mount Morrison	24.68	167	P	P	06 18 02.3	+1.3
CNB	Canberra Magne	24.81	220	P	P	06 18 02.4	0.0
	comp=Z,9.4nm,1.0s,comp=Z,0.0nm						
THZ	Tophouse	24.82	172	P	P	06 18 01.8	-0.6
THZ				IAmb	IAmb	06 18 07.8	
	comp=Z,284nm,1.2s						
MSWZ	Moikau Station	24.87	168	P	P	06 18 01.6	-1.1
MSWZ	Moikau Station	24.87	168	P	P	06 18 02.4	-0.4
PAWZ	Paruwai Farm	24.88	167	P	P	06 18 02.4	-0.5
BSWZ	Blackbirch Sta	24.91	170	P	P	06 18 02.5	-0.6
TRWZ	Traveller	24.95	167	P	P	06 18 04.0	+0.6
AUMHS	Melrose High S	25.01	220	P	P	06 18 04.6	+0.5
	comp=Z,258nm,1.1s						
PLWZ	Palliser	25.02	168	P	P	06 18 02.4	-1.7
PLWZ	Palliser	25.02	168	P	P	06 18 03.3	-0.8
AUMTS	Mt Stromlo	25.04	220	P	P	06 18 05.3	+0.9
	comp=Z,207nm,2.4s						
CAN	Canberra	25.04	220	P	P	06 18 05.2	+0.8
	comp=Z,298nm,2.5s						
CAN	Canberra	25.04	220	P	P	06 18 04.7	+0.3
CAN	Canberra	25.04	220	IAmb	IAmb	06 18 11.8	
	comp=Z,349nm,1.4s						
CAN				IAMs_20	IAMs_20	06 26 23.2	
	comp=Z,71µm,20.0s						
CAN	Canberra	25.04	220	⇑P	P	06 18 04.8	+0.3
CAN	Canberra	25.04	220	P	P	06 18 05.2	+0.8
	comp=Z,7µmcomp=Z,195nm,2.5s,comp=Z,7µm						
CMSA	Cobar Meteorol	25.11	231	P	P	06 18 05.1	0.0
	comp=Z,155nm,1.4s,comp=Z,0.0nm						
CMSA	Cobar Meteorol	25.11	231	P	P	06 18 04.8	-0.3
	comp=Z,155nm,1.4s						
CMSA	Cobar Meteorol	25.11	231	P	P	06 18 05.1	0.0
	comp=Z,6µmcomp=Z,155nm,1.4s,comp=Z,6µm						
KHZ	Kahutara	25.55	171	P	P	06 18 09.4	+0.6
KHZ	Kahutara	25.55	171	⇑P	P	06 18 08.4	-0.4
KHZ	Kahutara	25.55	171	P	P	06 18 09.7	+0.9
	comp=Z,8µmcomp=Z,372nm,1.6s,comp=Z,8µm						
MANU	Manus Island	25.59	304	IAmb	IAmb	06 18 42.5	
	comp=Z,340nm,1.8s						
INZ	Inchbonnie	25.61	175	IAmb	IAmb	06 18 15.0	
	comp=Z,481nm,1.1s						
INZ	Inchbonnie	25.61	175	P	P	06 18 09.0	-0.5
LTZ	Lake Taylor	25.75	173	P	P	06 18 09.9	-0.8
PATS	Pohnpei	25.86	336	P	P	06 18 10.5	-1.4
	comp=Z,440nm,1.6s						
PATS	Pohnpei	25.86	336	P	P	06 18 10.7	-1.2
	comp=Z,476nm,1.6s						
PATS	Pohnpei	25.86	336	P	P	06 18 09.7	-2.2
PATS				IAmb	IAmb	06 18 21.9	
	comp=Z,430nm,1.1s						
PATS	Pohnpei	25.86	336	P	P	06 18 10.7	-1.2
	comp=Z,440nm,1.6s						
GVZ	Greta Valley S	26.02	172	P	P	06 18 12.4	-0.8
MILA	Mila	26.12	217	P	P	06 18 14.7	+0.4
	comp=Z,47nm,1.7s,comp=Z,0.0nm						
MILA	Mila	26.12	217	⇑P	P	06 18 14.6	+0.4
OXZ	Oxford	26.26	174	P	P	06 18 10.7	-4.7
FOZ	Fox Glacier	26.31	178	IAmb	IAmb	06 18 21.4	
	comp=Z,216nm,1.2s						
FOZ				IAMs_20	IAMs_20	06 27 32.2	
	comp=Z,62µm,19.0s						
RPZ	Rata Peaks	26.56	176	LR	LR	06 26 32.2	
	comp=Z,7µm,21.9s,baz=342,slow=31						
RPZ	Rata Peaks	26.56	176	IAmb	IAmb	06 18 34.8	
	comp=Z,678nm,1.7s						
MQZ	McQueen’s Vall	26.70	173	IAmb	IAmb	06 18 24.8	
	comp=Z,526nm,1.4s						
JCZ	Jackson Bay	26.83	179	P	P	06 18 21.0	+0.4
	comp=Z,322nm,1.7s						
LBZ	Lake Benmore	27.18	177	IAmb	IAmb	06 18 30.1	
	comp=Z,179nm,1.5s						
LBZ				IAMs_20	IAMs_20	06 28 10.0	
	comp=Z,57µm,19.0s						
QIS	Mount Isa	27.48	258	P	P	06 18 26.9	+0.3
	comp=Z,185nm,2.1s,comp=Z,0.0nm						
QIS	Mount Isa	27.48	258	P	P	06 18 27.2	+0.7
	comp=Z,184nm,2.1s						
QIS	Mount Isa	27.48	258	P	P	06 18 27.3	+0.7
	comp=Z,5µmcomp=Z,184nm,2.1s,comp=Z,5µm						
WKZ	Wanaka	27.59	179	IAmb	IAmb	06 18 40.3	
	comp=Z,554nm,1.6s						
WKZ				IAMs_20	IAMs_20	06 27 56.8	
	comp=Z,66µm,21.0s						
INKA	Innaminka	27.61	243	IAmb	IAmb	06 18 35.0	
	comp=Z,198nm,1.6s						
ODZ	Otahua Downs	27.86	177	IAmb	IAmb	06 18 35.2	
	comp=Z,234nm,1.7s						
ODZ	Otahua Downs	27.86	177	⇓P	P	06 18 29.1	-0.6
ODZ	Otahua Downs	27.86	177	P	P	06 18 28.8	-0.9
	comp=Z,89nm,1.4s						
MLZ	Mavora Lakes	28.12	180	IAmb	IAmb	06 18 57.3	
	comp=Z,248nm,1.5s						
MLZ				IAMs_20	IAMs_20	06 28 53.0	
	comp=Z,87µm,19.0s						
DCZ	Deep Cove	28.24	182	IAmb	IAmb	06 18 40.4	
	comp=Z,200nm,1.1s						
DCZ				IAMs_20	IAMs_20	06 28 33.1	
	comp=Z,51µm,20.0s						
STKA	Stephens Creek	28.38	234	P	P	06 18 34.6	+0.1
	comp=Z,684nm,1.9s,comp=Z,0.0nm						
STKA	Stephens Creek	28.38	234	P	P	06 18 34.5	+0.1
	comp=Z,44nm,1.0s,baz=62,slow=9.0,SNR=32						
STKA				LR	LR	06 29 55.5	
	comp=Z,39µm,18.2s,baz=58,slow=37						
	comp=Z,44nm,1.0s						
STKA	Stephens Creek	28.38	234	P	P	06 18 34.8	+0.3
	comp=Z,34nm,1.9s						
STKA	Stephens Creek	28.38	234	*c i*P	P	06 18 34.7	+0.3
STKA	Stephens Creek	28.38	234	P	P	06 18 34.8	+0.3
	comp=Z,24µmcomp=Z,684nm,1.9s,comp=Z,24µm						
TOO	Toolangi	28.65	220	P	P	06 18 36.9	0.0
	comp=Z,45nm,1.6s,comp=Z,0.0nm						
TOO	Toolangi	28.65	220	⇑P	P	06 18 37.1	+0.2
TOO	Toolangi	28.65	220	IAmb	IAmb	06 18 44.2	
	comp=Z,109nm,1.6s						
TOO	Toolangi	28.65	220	⇑P	P	06 18 37.0	+0.2
WHZ	Wether Hill Ro	28.65	181	IAmb	IAmb	06 19 06.8	
	comp=Z,198nm,1.4s						
WHZ				IAMs_20	IAMs_20	06 29 09.0	
	comp=Z,69µm,20.0s						
SYZ	Scrubby Hill	29.30	179	P	P	06 18 42.1	-0.3
	comp=Z,268nm,1.5s						
GLAD	Gladstone	29.56	212	P	P	06 18 46.4	+1.5
	comp=Z,147nm,1.0s						
RAR	Rarotonga	30.27	103	LR	LR	06 28 31.1	
	comp=Z,8µm,20.2s,baz=264,slow=32						
CORO	Coronation Par	30.34	213	P	P	06 18 53.2	+1.4
	comp=Z,58nm,1.0s						
ARPS	Mount Arapiles	30.55	225	P	P	06 18 52.7	-1.0
	comp=Z,36nm,2.1s						
AUBRN	Burnie High Sc	30.73	215	P	P	06 18 57.0	+1.8
	comp=Z,147nm,1.7s						
AUHPC	Hawkesdale P12	30.98	222	P	P	06 18 59.5	+2.1
	comp=Z,351nm,1.5s						
MOO	Moorlands	31.05	211	P	P	06 18 58.3	+0.3
	comp=Z,265nm,1.4s						
MOO	Moorlands	31.05	211	P	P	06 18 59.2	+1.2
	comp=Z,263nm,1.2s						
MOO	Moorlands	31.05	211	P	P	06 18 59.5	+1.5
	comp=Z,263nm,1.2s						
HTT	Hallett	31.07	233	P	P	06 18 58.3	-0.1
	comp=Z,48nm,1.7s						
HTT	Hallett	31.07	233	P	P	06 18 58.6	+0.1
	comp=Z,118nm,1.7s						
HTT	Hallett	31.07	233	P	P	06 18 58.5	+0.1
HTT	Hallett	31.07	233	⇑P	P	06 18 58.8	+0.3
GENI	Genyem	31.31	294	P	P	06 19 00.8	+0.1
	comp=Z,257nm,1.8s						
GENI	Genyem	31.31	294	P	P	06 19 01.2	+0.5
	comp=Z,8µmcomp=Z,6µmcomp=Z,259nm,1.8s						
GENI	Genyem	31.31	294	P	P	06 19 01.0	+0.3
	comp=Z,6µmcomp=Z,257nm,1.8s,comp=Z,6µm						
TAU	Tasmania Unive	31.33	211	P	P	06 19 02.0	+1.5
	comp=Z,130nm,2.0s						
TAU	Tasmania Unive	31.33	211	P	P	06 19 01.6	+1.1
TAU				pmax	pmax		
	comp=Z,216nm,1.4s						
TAU	Tasmania Unive	31.33	211	P	P	06 19 01.6	+1.1
TAU				IAmb	IAmb	06 19 07.2	
	comp=Z,216nm,1.4s						
TAU	Tasmania Unive	31.33	211	IAMs_20	IAMs_20	06 29 12.6	
	comp=Z,50µm,20.0s						
TAU	Tasmania Unive	31.33	211	P	P	06 19 01.4	+0.9
	comp=Z,129nm,2.0s						
AUMBR	Murray Bridge	31.53	230	P	P	06 19 02.9	+0.5
	comp=Z,141nm,1.7s						
WR0	Warramunga Arr	32.22	260	P	P	06 19 07.1	-1.5
	comp=Z,113nm,2.6s						
WR8	Warramunga Arr	32.26	260	IAmb	IAmb	06 19 15.2	
	comp=Z,315nm,1.6s						
WB0	Warramunga Arr	32.37	260	IAmb	IAmb	06 19 16.1	
	comp=Z,168nm,1.1s						
WB9	Warramunga Arr	32.37	260	P	P	06 19 07.2	-2.8
WB2	Warramunga Arr	32.40	260	P	P	06 19 08.5	-1.7
	comp=Z,117nm,2.0s						
WRAB	Tennant Creek	32.40	260	P	P	06 19 10.1	-0.1
	comp=Z,57nm,2.0s						
WRAB	Tennant Creek	32.40	260	P	P	06 19 08.5	-1.7
WRAB				pmax	pmax		
	comp=Z,259nm,1.6s						
WRAB				MLR	MLR		
	comp=Z,18µm,20.0s						
WRAB	Tennant Creek	32.40	260	P	P	06 19 08.5	-1.7
WRAB				IAmb	IAmb	06 19 16.4	
	comp=Z,259nm,1.6s						
WRAB	Tennant Creek	32.40	260	P	P	06 19 10.0	-0.3
	comp=Z,3µmcomp=Z,105nm,2.0s,comp=Z,3µm						
WB1	Warramunga Ar.	32.41	260	P	P	06 19 09.9	-0.4
	comp=Z,124nm,2.0s						
WRA	Warramunga Arr	32.41	260	P	P	06 19 09.2	-1.1
	comp=Z,14nm,0.8s,baz=90,slow=8.6,SNR=40						
WRA				LR	LR	06 30 31.0	
	comp=Z,15µm,19.9s,baz=90,slow=33						
WRA				P3KPbc		06 50 35.5	
	comp=Z,1.0nm,0.9s,baz=286,slow=3.3,SNR=4.8						
	comp=Z,14nm,0.8s						
WRA	Warramunga Arr	32.41	260	P	P	06 19 08.8	-1.5
AS17	Alice Springs	32.87	253	P	P	06 19 13.3	-1.0
	comp=Z,109nm,1.0s						
AS01	Alice Springs	32.90	253	P	P	06 19 14.1	-0.5
	comp=Z,163nm,0.8s						
ASAR	Alice Springs	32.95	253	P	P	06 19 13.4	-1.6
	comp=Z,44nm,0.7s,baz=80,slow=8.6,SNR=164						
ASAR				PKiKP	PKiKP	06 29 26.1	+0.2
	comp=Z,0.8nm,1.0s,baz=128,slow=2.2,SNR=4.1						
ASAR				LR	LR	06 31 47.6	
	comp=Z,38µm,18.5s,baz=85,slow=35						
	comp=Z,44nm,0.7s						
ASAR	Alice Springs	32.95	253	P	P	06 19 13.6	-1.4
ASAR	Alice Springs	32.95	253	P	P	06 19 13.6	-1.4
BBOO	Buckleboo	33.06	236	P	P	06 19 15.2	-0.6
	comp=Z,164nm,2.3s,comp=Z,0.0nm						
BBOO	Buckleboo	33.06	236	P	P	06 19 16.2	+0.3
	comp=Z,164nm,2.3s						
BBOO	Buckleboo	33.06	236	P	P	06 19 14.8	-1.1
BBOO	Buckleboo	33.06	236	P	P	06 19 16.2	+0.3
	comp=Z,6µmcomp=Z,164nm,2.3s						
AUCAS	Cummins Area S	33.85	233	P	P	06 19 23.5	+0.8
	comp=Z,192nm,0.7s						
KDU	Kakadu	35.00	272	P	P	06 19 32.6	-0.2
	comp=Z,34nm,2.3s						
H11S2	WAKE ISLAND Hy	35.47	357	T	T	06 57 09.2	
	baz=171,slow=76,SNR=117						
H11S3	WAKE ISLAND Hy	35.47	357	T	T	06 57 10.6	
	baz=171,slow=76,SNR=93						
H11S1	WAKE ISLAND Hy	35.49	357	T	T	06 57 11.8	
	baz=171,slow=76,SNR=86						
BAKI	Biak	35.54	293	P	P	06 19 39.6	+2.1
	comp=Z,8µmcomp=Z,5µmcomp=Z,264nm,1.4s						
MTN	Manton Dam	36.25	272	P	P	06 19 43.5	-0.1
	comp=Z,23nm,1.7s,comp=Z,0.0nm						
DRS	Darwin Rock St	36.56	272	P	P	06 19 46.8	+0.6
	comp=Z,55nm,1.1s						
H11N1	WAKE ISLAND Hy	36.68	358	T	T	06 58 38.4	
	baz=172,slow=76,SNR=102						
H11N3	WAKE ISLAND Hy	36.68	358	T	T	06 58 34.3	
	baz=172,slow=76,SNR=70						
H11N2	WAKE ISLAND Hy	36.69	358	T	T	06 58 38.7	
	baz=172,slow=76,SNR=86						
SAUI	Saumlaki	37.31	279	IAMs_20	IAMs_20	06 36 46.7	
	comp=Z,32µm,18.0s						
KNRA	Kununurra	38.04	266	P	P	06 19 58.4	-0.4
	comp=Z,76nm,1.0s						
WRKA	Warakurna	38.15	251	P	P	06 19 59.0	-0.8
	comp=Z,76nm,1.7s						
FAKI	Fak Fak	38.24	288	P	P	06 19 59.4	-1.1
FAKI				IAMs_20	IAMs_20	06 35 35.0	
	comp=Z,41µm,20.0s						
FAKI	Fak Fak	38.24	288	⇓P	P	06 19 59.8	-0.8
FAKI	Fak Fak	38.24	288	P	P	06 19 59.9	-0.6
	comp=Z,6µmcomp=Z,3µmcomp=Z,176nm,1.2s						
FAKI	Fak Fak	38.24	288	P	P	06 20 00.6	0.0
	comp=Z,3µmcomp=Z,176nm,1.3s						
GUMO	Guam	38.41	321	P	P	06 20 01.0	-0.8
	comp=Z,92nm,1.0s,baz=152,slow=4.1,SNR=4.1						
GUMO				LR	LR	06 34 15.8	
	comp=Z,19µm,21.5s,baz=136,slow=34						
	comp=Z,92nm,1.0s						
GUMO	Guam	38.41	321	P	P	06 20 01.0	-0.8
GUMO	Guam	38.41	321	P	P	06 20 00.3	-1.5
GUMO				IAmb	IAmb	06 20 02.6	
	comp=Z,327nm,1.4s						
GUMO	Guam	38.41	321	IAMs_20	IAMs_20	06 33 20.5	
	comp=Z,34µm,22.0s						
XMAS	Kiritimati	38.68	64	IAMs_20	IAMs_20	06 33 17.2	
	comp=Z,29µm,18.0s						
FORT	Forrest	39.09	242	P	P	06 20 06.2	-1.4
	comp=Z,119nm,1.2s						
FORT	Forrest	39.09	242	P	P	06 20 07.3	-0.2
DPSS	Saipan	39.19	324	P	P	06 20 05.9	-2.5
PPT	Papeete	40.02	97	P	P	06 20 16.2	+0.8
	comp=Z,36nm,1.0s,baz=272,slow=10,SNR=6.0						
PPT				LR	LR	06 32 41.4	
	comp=Z,9µm,19.4s,baz=258,slow=30						
	comp=Z,36nm,1.0s						
PPTF	Pamatai, Papee	40.02	97	P	P	06 20 16.6	+1.1
	comp=Z,143nm,1.2s						
PPTF	Pamatai, Papee	40.02	97	P	P	06 20 15.2	-0.3
	comp=Z,141nm,1.1s						
JOHN	Johnston Islan	40.07	34	IAMs_20	IAMs_20	06 33 43.2	
	comp=Z,34µm,19.0s						
FITZ	Fitzroy Crossi	40.73	262	P	P	06 20 20.6	-0.7
	comp=Z,42nm,1.6s						
FITZ	Fitzroy Crossi	40.73	262	P	P	06 20 20.9	-0.4
	comp=Z,418nm,1.6s						
FITZ	Fitzroy Crossi	40.73	262	P	P	06 20 21.1	-0.2
FITZ	Fitzroy Crossi	40.73	262	P	P	06 20 21.5	+0.2
	comp=Z,981nmcomp=Z,42nm,1.6s						
NLAI	Namlea	42.85	284	P	P	06 20 38.2	-0.5
	comp=Z,7µmcomp=Z,9µmcomp=Z,403nm,2.0s						
SOEI	Soe	43.50	274	P	P	06 20 43.6	-0.6
SOEI	Soe	43.50	274	P	P	06 20 45.6	+1.5
	comp=Z,258nm,1.8s						
SOEI	Soe	43.50	274	P	P	06 20 45.1	+0.9
SOEI				IAmb	IAmb	06 20 51.8	
	comp=Z,352nm,1.3s						
SOEI				IAMs_20	IAMs_20	06 42 06.8	
	comp=Z,28µm,18.0s						
SOEI	Soe	43.50	274	⇑P	P	06 20 45.5	+1.3
SOEI	Soe	43.50	274	P	P	06 20 45.5	+1.5
	comp=Z,5µmcomp=Z,260nm,1.8s						
SOEI	Soe	43.50	274	P	P	06 20 45.7	+1.5
	comp=Z,5µmcomp=Z,258nm,1.8s						
TNTI	Ternate	44.21	290	P	P	06 20 50.0	+0.3
TNTI				IAmb	IAmb	06 22 02.3	
	comp=Z,304nm,2.0s						
SANI	Sanana	44.32	285	P	P	06 20 49.1	-1.5
SANI	Sanana	44.32	285	P	P	06 20 50.7	+0.1
	comp=Z,188nm,1.8s						
SANI	Sanana	44.32	285	P	P	06 20 51.2	+0.6
	comp=Z,6µmcomp=Z,6µmcomp=Z,189nm,1.8s						
SANI	Sanana	44.32	285	P	P	06 20 50.9	+0.3
	comp=Z,6µmcomp=Z,188nm,1.8s						
KMBL	Kambalda	44.42	243	P	P	06 20 49.9	-1.3
	comp=Z,99nm,1.6s						
MMRI	Maumere	45.73	275	P	P	06 21 02.3	+0.5
	comp=Z,204nm,2.3s						
MMRI	Maumere	45.73	275	P	P	06 21 02.3	+0.5
MMRI	Maumere	45.73	275	P	P	06 21 02.8	+1.0
	comp=Z,4µmcomp=Z,7µmcomp=Z,205nm,2.3s						
MMRI	Maumere	45.73	275	P	P	06 21 02.4	+0.5
	comp=Z,6µmcomp=Z,204nm,2.3s						
MBWA	Marble Bar	46.04	257	P	P	06 21 04.3	+0.1
	comp=Z,165nm,1.9s						
MBWA	Marble Bar	46.04	257	P	P	06 21 04.6	+0.4
	comp=Z,95nm,1.9s						
MBWA	Marble Bar	46.04	257	P	P	06 21 04.0	-0.2
MBWA				IAmb	IAmb	06 21 10.3	
	comp=Z,152nm,1.1s						
MBWA	Marble Bar	46.04	257	IAMs_20	IAMs_20	06 39 30.3	
	comp=Z,18µm,18.0s						
MBWA	Marble Bar	46.04	257	⇑P	P	06 21 04.0	-0.2
MBWA	Marble Bar	46.04	257	P	P	06 21 04.9	+0.7
	comp=Z,165nm,1.9s						
MEEK	Meekatharra	46.94	249	P	P	06 21 10.6	-0.5
	comp=Z,396nm,1.0s						
MEEK	Meekatharra	46.94	249	P	P	06 21 10.5	-0.7
	comp=Z,396nm,1.0s						
MEEK	Meekatharra	46.94	249	P	P	06 21 11.2	0.0
	comp=Z,396nm,1.0s						
MIDW	Midway	47.16	17	P	P	06 21 10.0	-2.7
	comp=Z,218nm,1.7s						
LUWI	Luwuk	47.68	285	P	P	06 21 16.8	-0.3
LUWI	Luwuk	47.68	285	P	P	06 21 17.8	+0.7
	comp=Z,208nm,2.3s						
LUWI	Luwuk	47.68	285	P	P	06 21 16.0	-1.0
LUWI	Luwuk	47.68	285	P	P	06 21 18.0	+1.0
	comp=Z,6µmcomp=Z,5µmcomp=Z,207nm,2.3s						
LUWI	Luwuk	47.68	285	P	P	06 21 17.8	+0.7
	comp=Z,5µmcomp=Z,208nm,2.3s,comp=Z,5µm						
KLBR	Kellerberrin	47.95	243	P	P	06 21 18.3	-0.6
	comp=Z,391nm,0.9s						
KLBR	Kellerberrin	47.95	243	P	P	06 21 19.6	+0.6
	comp=Z,390nm,0.9s						
KLBR	Kellerberrin	47.95	243	P	P	06 21 19.5	+0.6
	comp=Z,4µmcomp=Z,390nm,0.9s						
LBFI	Labuhan Bajo,	48.01	274	P	P	06 21 20.2	+0.6
GTOI	Gorontalo	48.11	287	P	P	06 21 20.8	+0.4
	comp=Z,5µmcomp=Z,2µmcomp=Z,100nm,1.1s						
NWAO	Narrogin (SRO)	48.51	241	P	P	06 21 21.8	-1.4
	comp=Z,374nm,0.8s						
NWAO	Narrogin (SRO)	48.51	241	LR	LR	06 40 23.6	
	comp=Z,27µm,20.4s,baz=88,slow=34						
NWAO	Narrogin (SRO)	48.51	241	P	P	06 21 22.4	-0.9
	comp=Z,282nm,0.8s						
NWAO	Narrogin (SRO)	48.51	241	P	P	06 21 21.9	-1.4
NWAO				pmax	pmax		
	comp=Z,243nm,0.8s						

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NWAO  Narrogin (SRO)   48.51 241   P         P         06 21 21.9  -1.4
NWAO  Narrogin (SRO)   48.51 241   IAMs_20   IAMs_20   06 40 11.6
      comp=Z,24µm,19.0s
NWAO  Narrogin (SRO)   48.51 241   P         P         06 21 22.2  -1.2
      comp=Z,352nm,0.8s
DAV   Davao City (W)   48.72 296   LR        LR        06 40 54.5
      comp=Z,7µm,21.5s,baz=106,slow=35
DAV   Davao City (W)   48.72 296   P         P         06 21 24.0  -1.1
BLDU  Ballidu          48.77 244   P         P         06 21 24.2  -1.1
      comp=Z,123nm,2.0s
BLDU  Ballidu          48.77 244   P         P         06 21 25.4  +0.1
      comp=Z,123nm,2.0s
BLDU  Ballidu          48.77 244   P         P         06 21 25.3  +0.1
      comp=Z,123nm,2.0s
RKGY  Rocky Gully      48.92 239   P         P         06 21 25.9  -0.5
      comp=Z,76nm,1.5s
KAPI  Kappang          49.14 278   P         P         06 21 29.1  +0.8
      comp=Z,122nm,1.8s
KAPI  Kappang          49.14 278   P         P         06 21 28.7  +0.4
KAPI  Kappang          49.14 278 ⇓P         P         06 21 28.1  -0.2
KAPI  Kappang          49.14 278   P         P         06 21 29.3  +1.0
      comp=Z,3µmcomp=Z,3µmcomp=Z,122nm,1.9s
KAPI  Kappang          49.14 278   P         P         06 21 29.1  +0.8
      comp=Z,5µmcomp=Z,234nm,1.8s,comp=Z,5µm
MORW  Morawa           49.27 246   P         P         06 21 29.9  +0.7
      comp=Z,121nm,1.3s
MORW  Morawa           49.27 246 ⇑P         P         06 21 28.6  -0.7
MORW  Morawa           49.27 246   P         P         06 21 29.4  +0.2
      comp=Z,121nm,1.3s
MUN   Mundaring        49.29 242   P         P         06 21 27.1  -2.2
      comp=Z,187nm,1.9s
MUN   Mundaring        49.29 242   P         P         06 21 29.0  -0.4
      comp=Z,188nm,1.9s
MUN   Mundaring        49.29 242   P         P         06 21 28.9  -0.4
KEKH  Kekaha           49.87  40   P         P         06 21 31.9  -1.8
KEKH                               IAmb      IAmb      06 21 37.4
      comp=Z,230nm,1.1s
KEKH  Kekaha           49.87  40   P         P         06 21 33.5  -0.1
      comp=Z,180nm,1.1s
PLAI  Plampang         49.93 273   P         P         06 21 35.4  +1.0
      comp=Z,156nm,2.4s
PLAI  Plampang         49.93 273   P         P         06 21 35.1  +0.7
      comp=Z,5µmcomp=Z,5µmcomp=Z,155nm,2.5s
PLAI  Plampang         49.93 273   P         P         06 21 35.6  +1.2
      comp=Z,5µmcomp=Z,156nm,2.4s,comp=Z,5µm
TOLI2 Tolitoli         50.34 286   P         P         06 21 36.4  -1.1
      comp=Z,94nm,1.4s
TOLI2 Tolitoli         50.34 286   P         P         06 21 36.4  -1.1
TOLI2                              IAmb      IAmb      06 21 45.0
      comp=Z,362nm,1.9s
TOLI2 Tolitoli         50.34 286   P         P         06 21 36.9  -0.6
      comp=Z,2µmcomp=Z,94nm,1.4s
OVEH  Oceanview Est    50.40  46   P         P         06 21 35.1  -2.9
PCI   Palu             50.45 283   P         P         06 21 40.0  +1.7
      comp=Z,7µmcomp=Z,9µmcomp=Z,244nm,2.0s
KIP   Kipapa           50.51  42   P         P         06 21 39.3  +0.7
      comp=Z,42nm,1.2s
KIP   Kipapa           50.51  42   P         P         06 21 38.5  -0.1
      comp=Z,42nm,1.2s
KIP   Kipapa           50.51  42   IAMs_20   IAMs_20   06 38 16.8
      comp=Z,28µm,20.0s
MMSI  Mamuju           50.69 281   P         P         06 21 40.4  +0.3
MLOA  Mauna Loa Obse   50.79  46   P         P         06 21 41.2   0.0
      comp=Z,212nm,1.6s
HMH   Humu‘ula Sheep   50.90  46   P         P         06 21 40.5  -1.4
POHA  Pohakuloa        50.98  45   IAMs_20   IAMs_20   06 39 56.1
      comp=Z,21µm,19.0s
POHA  Pohakuloa        50.98  45   P         P         06 21 41.9  -0.5
      comp=Z,149nm,2.6s
GIRL  Giralia          51.03 255   IAmb      IAmb      06 21 51.5
      comp=Z,384nm,1.8s
JOKA  Jonika Flow      51.12  46   P         P         06 21 41.3  -1.9
KHLH  Kahului Airpor   51.17  44   P         P         06 21 42.9  -0.6
KHLH  Kahului Airpor   51.17  44   P         P         06 21 43.9  +0.4
      comp=Z,209nm,1.9s
KHKI  Kahang-Kahang    52.12 273   P         P         06 21 52.0  +1.1
      comp=Z,4µmcomp=Z,3µmcomp=Z,159nm,1.4s
IGBI  Denpasar         52.45 272   P         P         06 21 54.0  +0.7
DRV   Dumont d'Urvil   52.85 194   P         P         06 21 54.1  -1.3
JAGI  Jajag, Banyuwa   53.49 272   P         P         06 22 00.8  -0.2
      comp=Z,182nm,1.8s
JAGI  Jajag, Banyuwa   53.49 272 ⇓P         P         06 22 01.2  +0.2
JAGI  Jajag, Banyuwa   53.49 272   P         P         06 22 00.6  -0.4
      comp=Z,4µmcomp=Z,180nm,1.8s
JAGI  Jajag, Banyuwa   53.49 272   P         P         06 22 00.7  -0.2
      comp=Z,4µmcomp=Z,182nm,1.8s
ABJI  Asem Bagus       53.59 273   P         P         06 22 03.2  +1.5
      comp=Z,3µmcomp=Z,5µmcomp=Z,230nm,1.7s
MYLDM Lahad Datu       54.09 290 ⇓P         P         06 22 06.2  +0.9
MYLDM Lahad Datu       54.09 290   P         P         06 22 07.0  +1.6
      comp=Z,3µmcomp=Z,109nm,1.4s
BLJI  Banyuglugur      54.21 273   P         P         06 22 07.4  +1.1
      comp=Z,4µmcomp=Z,187nm,1.6s
BBKI  Banjar Baru      54.27 278   P         P         06 22 08.1  +1.4
      comp=Z,233nm,1.7s
SNJI  Sawahan-Nganju   55.95 272   P         P         06 22 20.3  +1.2
      comp=Z,4µmcomp=Z,245nm,1.5s
PCJI  Pacitan          56.40 271   P         P         06 22 23.3  +1.2
KKM   Kota Kinabalu    56.51 290   P         P         06 22 23.0   0.0
      comp=Z,132nm,1.7s
KKM   Kota Kinabalu    56.51 290   IAmb      IAmb      06 22 32.2
      comp=Z,211nm,1.3s
KKM   Kota Kinabalu    56.51 290   P         P         06 22 23.6  +0.6
      comp=Z,4µmcomp=Z,3µmcomp=Z,132nm,1.7s
KKM   Kota Kinabalu    56.51 290   P         P         06 22 23.0   0.0
      comp=Z,3µmcomp=Z,132nm,1.7s,comp=Z,3µm
JHJ   Hachijo jima 2   57.00 331   LR        LR        06 45 04.3
      comp=Z,4µm,19.8s,baz=146,slow=34
UGM   Wanagama         57.10 272   P         P         06 22 28.8  +1.7
      comp=Z,379nm,1.3s
UGM   Wanagama         57.10 272   P         P         06 22 28.6  +1.5
UGM   Wanagama         57.10 272   P         P         06 22 29.5  +2.4
      comp=Z,9µmcomp=Z,383nm,1.3s
SMRI  Semarang         57.41 273   P         P         06 22 30.7  +1.4
      comp=Z,227nm,1.8s
SMRI  Semarang         57.41 273   P         P         06 22 30.6  +1.3
      comp=Z,8µmcomp=Z,228nm,1.8s
SMRI  Semarang         57.41 273   P         P         06 22 31.3  +2.0
      comp=Z,8µmcomp=Z,226nm,1.8s
JOW   Kunigami         58.59 318   LR        LR        06 43 12.1
      comp=Z,8µm,20.8s,baz=122,slow=31
STKI  Sintang          58.61 281   P         P         06 22 38.9  +1.3
      comp=Z,149nm,1.5s
BBJI  Bungbulang       59.96 271   P         P         06 22 47.2  +0.1
      comp=Z,66nm,1.1s
BBJI  Bungbulang       59.96 271   P         P         06 22 45.6  -1.5
BBJI                               IAmb      IAmb      06 23 11.6
      comp=Z,110nm,1.3s
BBJI  Bungbulang       59.96 271   P         P         06 22 46.9  -0.2
      comp=Z,66nm,1.0s
BBJI  Bungbulang       59.96 271   P         P         06 22 46.5  -0.6
      comp=Z,974nmcomp=Z,66nm,1.1s
INU   Inuyama          60.13 331   P         P         06 22 48.0  +0.3
      comp=Z,118nm,1.4s
INU   Inuyama          60.13 331   P         P         06 22 47.0  -0.7
INU   Inuyama          60.13 331   P         P         06 22 48.2  +0.5
      comp=Z,118nm,1.4s
JGF   Kuroka           60.18 331   P         P         06 22 48.2  +0.1
      comp=Z,100nm,1.6s
JGF   Kuroka           60.18 331   IAmb      IAmb      06 22 48.9
      comp=Z,501nm,2.0s
JGF   Kuroka           60.18 331 ⇑P         P         06 22 47.8  -0.3
JGF   Kuroka           60.18 331   P         P         06 22 48.2  +0.1
      comp=Z,100nm,1.6s
JMN   Monobe           60.39 327   P         P         06 22 51.3  +1.7
      comp=Z,222nm,1.2s
JMN   Monobe           60.39 327   P         P         06 22 50.3  +0.7
      comp=Z,221nm,1.2s
JMN   Monobe           60.39 327   P         P         06 22 50.5  +0.9
VNDA  Vanda            60.47 182   P         P         06 22 47.9  -1.6
      comp=Z,14nm,1.1s,baz=354,slow=7.0,SNR=26
VNDA                               LR        LR        06 45 37.0
      comp=Z,10µm,19.9s,baz=18,slow=33
      comp=Z,14nm,1.1s
VNDA  Vanda            60.47 182   P         P         06 22 48.1  -1.4
VNDA                               pmax      pmax
      comp=Z,148nm,1.8s
VNDA  Vanda            60.47 182   P         P         06 22 48.0  -1.4
VNDA                               IAmb      IAmb      06 23 00.9
      comp=Z,148nm,1.8s
VNDA  Vanda            60.47 182   P         P         06 22 48.9  -0.7
      comp=Z,65nm,1.7s
MJAR  Matsushiro Arr   60.57 332   P         P         06 22 48.5  -2.2
      comp=Z,54nm,1.0s,baz=162,slow=7.4,SNR=23
MJAR                               LR        LR        06 52 03.2
      comp=Z,5µm,18.2s,baz=143,slow=39
      comp=Z,54nm,1.0s
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MJAR  Matsushiro Arr   60.57 332   P         P         06 22 48.8  -1.9
MJAR                               pmax      pmax
      comp=Z,82nm,1.2s
MJAR  Matsushiro Arr   60.57 332   P         P         06 22 48.8  -1.9
MJAR                               IAmb      IAmb      06 22 52.8
      comp=Z,82nm,1.1s
MAJO  Matsushiro       60.57 332   P         P         06 22 50.1  -0.6
      comp=Z,99nm,1.4s
MAJO  Matsushiro       60.57 332   P         P         06 22 49.2  -1.5
MAJO                               IAmb      IAmb      06 22 52.9
      comp=Z,100nm,1.1s
MAJO  Matsushiro       60.57 332 ⇑P         P         06 22 49.7  -1.0
MAJO  Matsushiro       60.57 332   P         P         06 22 49.8  -1.0
      comp=Z,99nm,1.4s
MAT   Matsushiro       60.57 332   P         P         06 22 49.4  -1.4
MJB9  Matsu-Tunnel     60.57 332   IAmb      IAmb      06 22 53.9
      comp=Z,98nm,1.1s
JSU   Suzuyama         60.58 323   P         P         06 22 52.6  +1.7
      comp=Z,173nm,1.2s
JSU   Suzuyama         60.58 323   P         P         06 22 50.0  -0.9
      comp=Z,174nm,1.2s
JMM   Marumori         60.59 335   P         P         06 22 50.2  -0.5
JGN   Niukaw           60.71 331   P         P         06 22 49.9  -1.8
SBA   Scott Base       60.72 180   P         P         06 22 51.0  -0.2
SBA                                pmax      pmax
      comp=Z,185nm,1.2s
SBA   Scott Base       60.72 180   P         P         06 22 51.0  -0.2
SBA   Scott Base       60.72 180   P         P         06 22 51.1  -0.1
      comp=Z,189nm,1.5s
YULB  Yu-li            61.20 310   P         P         06 22 56.2  +0.9
TPI   Tanjungpandan    61.31 276   P         P         06 22 56.1  -0.1
      comp=Z,3µmcomp=Z,2µmcomp=Z,96nm,1.9s
NACB  Ninganchiao      61.45 311   P         P         06 22 58.4  +1.4
      comp=Z,60nm,2.4s
NACB  Ninganchiao      61.45 311   P         P         06 22 56.4  -0.6
      comp=Z,51nm,2.4s
JNU   Nakatsue         61.54 324   LR        LR        06 45 04.6
      comp=Z,5µm,21.6s,baz=125,slow=32
JNU   Nakatsue         61.54 324   P         P         06 22 58.0  +0.5
SSLB  Suanglung        61.69 310   P         P         06 22 57.8  -0.8
      comp=Z,31nm,1.0s
SSLB  Suanglung        61.69 310   P         P         06 22 57.8  -0.8
SSLB  Suanglung        61.69 310   P         P         06 22 57.4  -1.2
      comp=Z,2µmcomp=Z,32nm,1.0s,comp=Z,2µm
CASY  Casey            61.73 203   P         P         06 22 57.4  -0.7
CASY  Casey            61.73 203   IAMs_20   IAMs_20   06 45 21.3
      comp=Z,12µm,18.0s
CASY  Casey            61.73 203 ⇑P         P         06 22 57.3  -0.9
CASY  Casey            61.73 203   P         P         06 22 57.7  -0.5
      comp=Z,2µmcomp=Z,60nm,1.7s
JOM   Ohasama          61.78 336   P         P         06 22 59.8  +0.9
YHNB  Yeheng           61.91 311   P         P         06 23 00.6  +0.4
      comp=Z,71nm,1.9s
YHNB  Yeheng           61.91 311   P         P         06 22 59.7  -0.4
      comp=Z,71nm,1.5s
TATO  Taipei           62.02 311   IAMs_20   IAMs_20   06 45 20.1
      comp=Z,15µm,22.0s
JTM   Tenmabayashi     63.01 337   P         P         06 23 08.1  +1.1
      comp=Z,76nm,1.3s
JTM   Tenmabayashi     63.01 337   IAmb      IAmb      06 23 18.4
      comp=Z,214nm,1.6s
JTM   Tenmabayashi     63.01 337   P         P         06 23 08.3  +1.3
      comp=Z,2µmcomp=Z,76nm,1.3s
ERM   Erimo            63.34 339   IAMs_20   IAMs_20   06 45 32.1
      comp=Z,22µm,21.0s
JOT   Ohata            63.53 337   P         P         06 23 11.8  +1.3
MDSI  Maura Dua        64.10 273   P         P         06 23 13.8  -1.1
      comp=Z,3µmcomp=Z,91nm,2.6s
QZH2  Quanzhou         64.11 310   P         P         06 23 15.5  +0.9
QZH2                               S         S         06 31 53.0  +1.3
QZH2                               L         L
      comp=Z,4µm,18.4s
QZH2                               L         L
      comp=Z,6µm,17.5s
QZH2                               L         L
      comp=Z,20µm,19.6s
KUR   Kuril'sk         64.85 344  eP         P         06 23 21.1  +2.1
KUR                               e                    06 23 54.2
KUR                               ePPP      PPP       06 27 15.5
KUR                               eS        S         06 31 59.3  -0.8
KUR                               eSS       SS        06 36 13.5  +1.4
KUR                                pmax      pmax
      comp=Z,280nm,1.0s
KUR                                pmax      pmax
      comp=Z,1µm,4.6s
KUR                                MLR       MLR
      comp=N,15µm,16.0s
KUR                                MLR       MLR
      comp=Z,11µm,16.0s
KUR                                MLR       MLR
      comp=E,7µm,20.0s
JKA   Kamikawa-asahi   65.40 340   IAmb      IAmb      06 23 42.9
      comp=Z,132nm,1.4s
JKA   Kamikawa-asahi   65.40 340   P         P         06 23 22.8  +0.2
      comp=Z,2µmcomp=Z,55nm,1.2s
ASAJ  Asahikawa        65.40 340   P         P         06 23 24.0  +1.4
TJN   Taejon           65.89 324   P         P         06 23 26.9  +0.9
DLV    Lat             65.91 292   P         P         06 23 28.3  +1.5
      comp=Z,44nm,1.7s
DLV    Lat             65.91 292   P         P         06 23 27.5  +0.7
      comp=Z,25µmcomp=Z,44nm,1.7s
BTDF  Bukit Timah Da   66.29 279   P         P         06 23 31.1  +2.0
      comp=Z,42nm,1.9s
BTDF  Bukit Timah Da   66.29 279   P         P         06 23 33.8  +4.7
MYKOM Kota Tinggi      66.36 280   P         P         06 23 30.1  +0.6
      comp=Z,49nm,2.8s
MYKOM Kota Tinggi      66.36 280   P         P         06 23 29.3  -0.2
MYKOM                              IAmb      IAmb      06 23 38.1
      comp=Z,225nm,1.9s
MYKOM Kota Tinggi      66.36 280   P         P         06 23 31.1  +1.6
MYKOM Kota Tinggi      66.36 280   P         P         06 23 30.2  +0.6
      comp=Z,1µmcomp=Z,49nm,2.8s
KSRS  Korea Array      66.37 326   P         P         06 23 28.9  -0.2
      comp=Z,13nm,1.0s,baz=148,slow=5.7,SNR=11
KSRS                               LR        LR        06 51 56.4
      comp=Z,4µm,18.0s,baz=140,slow=36
      comp=Z,13nm,1.0s
INCN  Inchon           67.09 325   P         P         06 23 33.2  -0.6
      comp=Z,93nm,1.5s
INCN  Inchon           67.09 325   P         P         06 23 33.1  -0.6
INCN                               pmax      pmax
      comp=Z,237nm,1.6s
INCN  Inchon           67.09 325   P         P         06 23 33.1  -0.6
INCN  Inchon           67.09 325   P         P         06 23 33.7  -0.1
      comp=Z,97nm,1.5s
GZH2  Guangzhou        67.13 306   P         P         06 23 36.1  +1.9
GZH2                               S         S         06 32 31.3  +2.5
GZH2                               SS        SS        06 36 53.1  +4.7
GZH2                               pmax      pmax
      comp=Z,47nm,2.3s
GZH2                               L         L
      comp=Z,5µm,21.2s
GZH2                               L         L
      comp=Z,7µm,25.4s
GZH2                               L         L
      comp=Z,17µm,36.2s
YSS   Yuzhno-Sakhali   67.88 341   P         P         06 23 39.4  +1.0
      comp=Z,88nm,1.1s
YSS   Yuzhno-Sakhali   67.88 341  eP         P         06 23 38.8  +0.4
YSS                               eS        S         06 32 34.1  -2.7
YSS                               eSS       SS        06 36 59.0  -0.1
YSS                                pmax      pmax
      comp=Z,80nm,0.9s
YSS                                pmax      pmax
      comp=Z,900nm,3.5s
YSS                                pmax      pmax
      comp=N,500nm,3.4s
YSS                                pmax      pmax
      comp=E,300nm,3.0s
YSS                                smax      smax
      comp=N,2µm,12.3s
YSS                                smax      smax
      comp=E,3µm,16.0s
YSS   Yuzhno-Sakhali   67.88 341   P         P         06 23 38.1  -0.3
YSS                                IAmb      IAmb      06 23 43.3
      comp=Z,78nm,1.0s
YSS                                IAMs_20   IAMs_20   06 48 48.1
      comp=Z,18µm,20.0s
YSS   Yuzhno-Sakhali   67.88 341   P         P         06 23 40.0  +1.6
      comp=Z,2µmcomp=Z,80nm,1.1s
QIZ   Qiongzhong       67.90 299   P         P         06 23 41.1  +1.9
QIZ                                S         S         06 32 40.2  +2.0
QIZ                                pmax      pmax
      comp=Z,34nm,2.7s
QIZ                                pmax      pmax
      comp=Z,650nm,11.2s
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QIZ                                L         L
      comp=Z,4µm,17.1s
QIZ                                L         L
      comp=Z,3µm,21.0s
QIZ                                L         L
      comp=Z,7µm,24.9s
NJ2   Nanjing          68.19 316 ⇑P         P         06 23 41.9  +1.2
NJ2                                S         S         06 32 43.4  +2.2
NJ2                                pmax      pmax
      comp=Z,110nm,2.4s
NJ2                                pmax      pmax
      comp=Z,3µm,8.1s
NJ2                                L         L
      comp=Z,18µm,19.9s
NJ2                                L         L
      comp=Z,19µm,21.8s
NJ2                                L         L
      comp=Z,26µm,21.8s
SKR   Severo-Kuril’s   68.41 352  eP         P         06 23 45.2  +3.5
SKR                               e                    06 26 16.8
SKR                               eS        S         06 32 42.1  -0.9
SKR                                pmax      pmax
      comp=Z,500nm,9.8s
SKR                                pmax      pmax
      comp=Z,59nm,1.9s
SKR                                MLR       MLR
      comp=Z,8µm,18.0s
BKNI  Bangkinang       68.55 277   P         P         06 23 44.0  +0.6
BKNI  Bangkinang       68.55 277   P         P         06 23 44.8  +1.4
      comp=Z,210nm,1.0s
BKNI  Bangkinang       68.55 277   P         P         06 23 47.6  +4.2
BKNI  Bangkinang       68.55 277   P         P         06 23 44.8  +1.4
      comp=Z,5µmcomp=Z,210nm,1.0s
VLA   Vladivostok      68.74 332⇑eP         P         06 23 43.6  -0.3
VLA                                pmax      pmax
      comp=Z,85nm,1.2s
VLA                                MLR       MLR
      comp=Z,6µm,18.0s
PSTR  Posyet           68.86 331ceP         P         06 23 44.5  -0.2
AMKA  Amchitka         68.90   7   IAmb      IAmb      06 23 45.6
      comp=Z,59nm,1.0s
USA0B Ussuriysk Arra   69.55 333deP         P         06 23 48.2  -0.7
USRK  Ussuriysk Ar.    69.55 333   P         P         06 23 48.2  -0.7
      comp=Z,24nm,0.9s,baz=129,slow=5.2,SNR=44
USRK                               LR        LR        06 50 16.0
      comp=Z,8µm,21.4s,baz=145,slow=32
      comp=Z,24nm,0.9s
USRK  Ussuriysk Ar.    69.55 333   P         P         06 23 48.3  -0.6
SHEM  Shemya Is, Ala   69.77   4   LR        LR        06 48 28.4
      comp=Z,10µm,21.8s,baz=194,slow=31
SMY   Shemya           69.77   4   P         P         06 23 50.4  +0.3
      comp=Z,112nm,1.0s
SMY   Shemya           69.77   4   P         P         06 23 50.0  -0.1
SMY                                pmax      pmax
      comp=Z,172nm,1.2s
SMY   Shemya           69.77   4   P         P         06 23 50.0  -0.1
SMY                                IAmb      IAmb      06 23 51.6
      comp=Z,172nm,1.2s
KIWB  Kanaga Island    69.86   9   P         P         06 23 49.6  -1.0
KIWB                               IAmb      IAmb      06 23 52.1
      comp=Z,154nm,1.2s
IPM   Ipoh             69.92 281   P         P         06 23 52.8  +0.9
      comp=Z,40nm,1.2s
IPM   Ipoh             69.92 281   P         P         06 23 51.2  -0.7
IPM                                IAmb      IAmb      06 23 59.8
      comp=Z,184nm,1.7s
IPM   Ipoh             69.92 281   P         P         06 23 52.8  +0.9
      comp=Z,1µmcomp=Z,40nm,1.2s
ADK   Adak             69.97  10   P         P         06 23 49.6  -1.6
ADK   Adak             69.97  10   IAMs_20   IAMs_20   06 48 42.5
      comp=Z,20µm,21.0s
ADK   Adak             69.97  10   P         P         06 23 50.6  -0.7
      comp=Z,152nm,2.1s
UGL   Uglegorsk        69.98 342  eP         P         06 23 53.5  +2.0
UGL                               eS        S         06 32 59.8  -1.9
UGL                                pmax      pmax
      comp=Z,80nm,1.0s
UGL                                pmax      pmax
      comp=Z,800nm,2.9s
UGL                                smax      smax
      comp=E,4µm,15.0s
UGL                                smax      smax
      comp=N,2µm,14.0s
CNSH  ChangSha         70.11 309   P         P         06 23 52.0  -0.7
CNSH                               S         S         06 33 05.1  +1.0
CNSH                               L         L
      comp=N,4µm,24.7s
CNSH                               L         L
      comp=N,4µm,22.0s
CNSH                               L         L
      comp=N,8µm,27.5s
WHN   Wuhan            70.40 312 ⇑P         P         06 23 54.4   0.0
WHN                                S         S         06 33 06.9  -0.4
WHN                                pmax      pmax
      comp=N,4µm,3.4s
WHN                                pmax      pmax
      comp=N,3µm,3.5s
WHN                                L         L
      comp=N,14µm,16.9s
WHN                                L         L
      comp=N,19µm,23.1s
WHN                                L         L
      comp=N,48µm,24.2s
PET   Petropavlovsk    70.40 354  eP         P         06 23 55.8  +1.9
PET                               eS        S         06 33 08.2  +1.8
PET                               ePS       PnS       06 33 40.2  +6.6
PET                               eSS       SS        06 37 39.1  +1.3
PET                                pmax      pmax
      comp=Z,700nm,8.4s
PET                                pmax      pmax
      comp=Z,1µm,4.7s
PET                                smax      smax
      comp=E,2µm,14.4s
PET   Petropavlovsk    70.40 354   IAMs_20   IAMs_20   06 48 22.3
      comp=Z,13µm,21.0s
GULI  GuiLin           70.54 305 ⇓P         P         06 23 54.1  -1.4
GULI                               PP        PP        06 26 37.3  +5.4
GULI                               S         S         06 33 11.4  +2.2
GULI                               pmax      pmax
      comp=Z,66nm,2.3s
GULI                               pmax      pmax
      comp=Z,770nm,6.0s
GULI                               L         L
      comp=Z,5µm,28.2s
GULI                               L         L
      comp=Z,4µm,34.7s
GULI                               L         L
      comp=Z,11µm,35.0s
KULM  Kulim            70.55 282   P         P         06 23 55.8   0.0
      comp=Z,52nm,1.4s
KULM  Kulim            70.55 282   IAmb      IAmb      06 24 18.6
      comp=Z,135nm,1.6s
KULM  Kulim            70.55 282   P         P         06 23 55.7   0.0
      comp=Z,1µmcomp=Z,52nm,1.4s
KULM  Kulim            70.55 282   P         P         06 23 55.9  +0.2
      comp=Z,1µmcomp=Z,52nm,1.4s
PEA0B Petropavlovsk-   70.59 353⇑eP         P         06 23 53.6  -1.5
PEA0B Petropavlovsk-   70.59 353   IAmb      IAmb      06 24 08.3
      comp=Z,110nm,1.4s
PETK  Petropavlovsk-   70.59 353   P         P         06 23 54.3  -0.8
      comp=Z,16nm,1.0s,baz=125,slow=7.4,SNR=20
PETK                               LR        LR        06 50 15.0
      comp=Z,16µm,20.4s,baz=163,slow=32
      comp=Z,16nm,1.0s
PETK  Petropavlovsk-   70.59 353   P         P         06 23 54.0  -1.2
ATKA  Atka Island      70.70  11   IAMs_20   IAMs_20   06 48 43.1
      comp=Z,21µm,21.0s
DL2   Dalian           70.91 323   P         P         06 23 56.8  -0.5
DL2                                S         S         06 33 13.9  +1.0
DL2                                pmax      pmax
      comp=Z,110nm,1.2s
DL2                                pmax      pmax
      comp=Z,910nm,5.0s
DL2                                L         L
      comp=Z,5µm,19.3s
DL2                                L         L
      comp=Z,9µm,16.1s
DL2                                L         L
      comp=Z,13µm,25.0s
MDJ   Mudanjiang       70.94 332   P         P         06 23 57.9  +0.4
MDJ                                S         S         06 33 16.2  +3.1
MDJ                                pmax      pmax
      comp=Z,62nm,1.4s
MDJ                                L         L
      comp=Z,9µm,21.6s
MDJ                                L         L
      comp=Z,8µm,19.8s
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MDJ                              L        L
      comp=Z,11µm,24.3s
MDJ   Mudanjiang        70.94 332  P        P          06 23 57.0  -0.5
      comp=Z,98nm,1.2s
RPSI  Rantau Prapat     71.30 279  P        P          06 23 59.7  -0.6
RPSI                               IAmb     IAmb       06 24 07.6
      comp=Z,147nm,1.6s
RPSI  Rantau Prapat     71.30 279  P        P          06 23 59.9  -0.4
      comp=Z,2µmcomp=Z,65nm,1.7s
PSI   Prapat            71.34 279  P        P          06 23 59.9  -0.8
      comp=Z,70nm,1.7s
PSI   Prapat            71.34 279  P        P          06 23 59.7  -1.0
PSI                                pmax     pmax
      comp=Z,147nm,1.6s
PSI                                MLR      MLR
      comp=Z,7µm,19.0s
PSI   Prapat            71.34 279  P        P          06 23 59.7  -1.0
      comp=Z,2µmcomp=Z,65nm,1.7s
TYV   Tymovskoe         71.42 343 eP        P          06 24 00.7  +0.5
TYV                               eS        S          06 33 18.1  -0.2
TYV                                pmax     pmax
      comp=Z,19nm,1.2s
TYV                                pmax     pmax
      comp=Z,600nm,2.7s
TYV                                smax     smax
      comp=N,900nm,7.6s
TYV                                smax     smax
      comp=E,900nm,7.6s
SNY   Shenyang          71.84 326  P        P          06 24 08.4  +5.5
SNY                                S        S          06 33 26.0  +2.4
SNY                                pmax     pmax
      comp=E,1µm,4.6s
SNY                                L        L
      comp=E,6µm,16.7s
SNY                                L        L
      comp=E,4µm,19.9s
SNY                                L        L
      comp=E,11µm,21.7s
TIA   Tai'an            71.89 318  P        P          06 24 02.9  -0.5
TIA                                sP       sP         06 24 09.6  +2.0
TIA                                PcP      PcP        06 24 24.9  +2.7
TIA                                PP       PP         06 26 49.7  +6.3
TIA                                S        S          06 33 23.4  -1.1
TIA                                pmax     pmax
      comp=E,33nm,1.6s
TIA                                L        L
      comp=E,6µm,18.9s
TIA                                L        L
      comp=E,9µm,18.4s
TIA                                L        L
      comp=E,14µm,18.8s
GSI   Gunungsitoli      72.14 277  P        P          06 24 06.8  +1.4
      comp=E,126nm,2.1s
GSI   Gunungsitoli      72.14 277  P        P          06 24 05.7  +0.3
GSI                                IAmb     IAmb       06 24 15.8
      comp=Z,218nm,1.3s
GSI                                IAMs_20  IAMs_20    06 57 45.7
      comp=Z,11µm,22.0s
GSI   Gunungsitoli      72.14 277  P        P          06 24 06.7  +1.4
      comp=Z,3µmcomp=Z,126nm,1.3s
GSI   Gunungsitoli      72.14 277  P        P          06 24 07.3  +1.9
      comp=Z,3µmcomp=Z,126nm,2.1s
CN2   Changchun         72.30 329  P        P          06 24 04.3  -1.3
CN2                                sP       sP         06 24 11.9  +2.0
CN2                                S        S          06 33 26.6  -2.2
CN2                                SS       SS         06 38 07.0  -0.3
CN2                                pmax     pmax
      comp=Z,30nm,1.4s
CN2                                pmax     pmax
      comp=Z,800nm,4.0s
CN2                                L        L
      comp=Z,3µm,16.0s
CN2                                L        L
      comp=Z,2µm,16.0s
CN2                                L        L
      comp=Z,3µm,16.0s
BNX   BinXian           72.80 331 ⇓P        P          06 24 07.1  -1.5
BNX                                S        S          06 33 38.4  +3.9
BNX                                sS       SKiKP      06 33 45.5  +2.8
BNX                                pmax     pmax
      comp=Z,45nm,1.0s
BNX                                pmax     pmax
      comp=Z,990nm,6.5s
BNX                                L        L
      comp=Z,5µm,17.3s
BNX                                L        L
      comp=Z,7µm,15.7s
BNX                                L        L
      comp=Z,7µm,19.6s
QSPA  South Pole Qui    72.88 180  P        P          06 24 07.6  -1.5
      comp=Z,37nm,1.0s,baz=16,slow=2.1,SNR=24
QSPA                               LR       LR         06 51 48.5
      comp=Z,16µm,20.3s,baz=34,slow=32
      comp=Z,37nm,1.0s
QSPA  South Pole Qui    72.88 180  P        P          06 24 07.5  -1.5
QSPA                               IAmb     IAmb       06 24 16.2
      comp=Z,179nm,1.4s
QSPA  South Pole Qui    72.88 180  IAMs_20  IAMs_20    06 51 36.6
      comp=Z,15µm,20.0s
TPTI                    73.13 279  P        P          06 24 11.7  +0.4
GRNR  Gornyy            73.25 339⇑iP        P          06 24 10.8  -0.4
GRNR                               pmax     pmax
      comp=Z,5.0nm,0.8s
KLR   Kul'dur           73.67 336  P        P          06 24 12.2  -1.5
      comp=Z,40nm,1.0s,baz=132,slow=3.6,SNR=39
      comp=Z,40nm,1.0s
KLR   Kul'dur           73.67 336d iP       P          06 24 13.4  -0.3
KLR                                pmax     pmax
      comp=Z,156nm,1.7s
ENH   Enshi             73.77 309  P        P          06 24 14.8  +0.1
      comp=Z,75nm,1.8s
ENH   Enshi             73.77 309  IAmb     IAmb       06 24 29.5
      comp=Z,253nm,1.8s
SLVN  Son La            73.91 299  P        P          06 24 16.5  +0.7
SLVN  Son La            73.91 299  P        P          06 24 19.3  +3.5
      comp=Z,951nmcomp=Z,24nm,2.8s
LYN   LuoYang           73.97 315  P        P          06 24 15.9  +0.1
LYN                                pP       sP         06 24 20.8  +0.8
LYN                                S        SKiKP      06 33 46.7  +1.8
LYN                                pmax     pmax
      comp=Z,83nm,1.8s
LYN                                pmax     pmax
      comp=Z,2µm,3.8s
LYN                                L        L
      comp=Z,11µm,20.4s
LYN                                L        L
      comp=Z,11µm,19.9s
LYN                                L        L
      comp=Z,18µm,22.7s
HNS   HongShan          74.15 318 ⇑P        P          06 24 17.2  +0.5
HNS                                S        S          06 33 50.1   0.0
HNS                                pmax     pmax
      comp=Z,65nm,1.7s
HNS                                L        L
      comp=Z,9µm,18.8s
HNS                                L        L
      comp=Z,8µm,20.8s
HNS                                L        L
      comp=Z,13µm,22.9s
BJI2  Beijing           74.84 321  P        P          06 24 20.1  -0.6
BJI2                               pP       sP         06 24 25.0  +0.1
BJI2                               sP       pP         06 24 27.2  +3.4
BJI2                               PP       PP         06 27 07.7  -0.7
BJI2                               S        S          06 33 57.5  -0.3
BJI2                               pmax     pmax
      comp=Z,31nm,1.9s
BJI2                               pmax     pmax
      comp=Z,730nm,3.5s
BJI2                               L        L
      comp=Z,5µm,24.1s
BJI2                               L        L
      comp=Z,4µm,24.1s
BJI2                               L        L
      comp=Z,9µm,28.8s
BJT   Baijiatuau        74.84 321  P        P          06 24 20.3  -0.4
BJT   Baijiatuau        74.84 321  IAmb     IAmb       06 24 37.7
      comp=Z,185nm,1.8s
RPN   Rapa Nui          75.63 114  LR       LR         06 53 05.6
      comp=Z,3µm,18.1s,baz=282,slow=32
BSI   Banda Aceh        75.63 280  P        P          06 24 26.3  +0.4
      comp=Z,3µmcomp=Z,115nm,1.9s
TIY   Taiyuan           75.80 317  P        P          06 24 27.6  +1.2
TIY                                S        S          06 34 10.8  +2.1
TIY                                SS       SS         06 38 57.5  -3.6
TIY                                pmax     pmax
      comp=Z,68nm,2.3s
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TIY                                pmax     pmax
      comp=Z,960nm,5.1s
TIY                                L        L
      comp=Z,7µm,17.6s
TIY                                L        L
      comp=Z,6µm,20.6s
TIY                                L        L
      comp=Z,9µm,20.8s
XAN   Xi'an             76.15 313 ⇑P        P          06 24 28.6  +0.1
XAN                                pP       sP         06 24 35.5  +2.8
XAN                                S        S          06 34 10.3  -2.4
XAN                                SKS      SKSac      06 34 34.4  -5.4
XAN                                SS       SS         06 39 04.8  -1.7
XAN                                pmax     pmax
      comp=Z,48nm,1.7s
XAN                                pmax     pmax
      comp=Z,1µm,7.2s
XAN                                L        L
      comp=Z,9µm,23.4s
XAN                                L        L
      comp=Z,8µm,21.3s
XAN                                L        L
      comp=Z,12µm,22.0s
SPIA  Saint Paul Isl    76.17  12  IAMs_20  IAMs_20    06 51 48.3
      comp=Z,15µm,21.0s
HEH   HeiHe             76.22 334 eP        P          06 24 28.5  +0.1
HEH                                pP       sP         06 24 33.5  +0.9
HEH                                S        S          06 34 18.0  +5.4
HEH                                pmax     pmax
      comp=Z,34nm,1.5s
HEH                                L        L
      comp=Z,4µm,19.2s
HEH                                L        L
      comp=Z,6µm,20.2s
HEH                                L        L
      comp=Z,11µm,19.5s
KMI2  Kunming           76.54 302 ⇓P        P          06 24 31.2  +0.1
KMI2                               S        S          06 34 12.9  -4.7
KMI2                               SS       SS         06 39 10.0  -3.1
KMI2                               pmax     pmax
      comp=Z,44nm,2.4s
KMI2                               pmax     pmax
      comp=Z,800nm,7.7s
KMI2                               L        L
      comp=Z,4µm,22.4s
KMI2                               L        L
      comp=Z,5µm,22.9s
KMI2                               L        L
      comp=Z,7µm,18.3s
CNBA  Chernabura Isl    76.69  18  IAMs_20  IAMs_20    06 53 48.5
      comp=Z,12µm,20.0s
CMAR  Chiang Mai Arr    76.96 294  P        P          06 24 32.3  -1.0
      comp=Z,1.8nm,0.3s,baz=117,slow=6.0,SNR=2.9
CMAR                               PKPPKP   P'P'df     06 51 49.9  +5.7
      comp=Z,0.5nm,0.3s,baz=323,slow=3.8,SNR=4.1
CMAR                               LR       LR         06 57 58.1
      comp=Z,2µm,20.3s,baz=110,slow=35
      comp=Z,1.8nm,0.3s
CMAR  Chiang Mai Arr    76.96 294  P        P          06 24 33.2  -0.1
CMAR  Chiang Mai Arr    76.96 294  P        P          06 24 33.2  -0.1
CHTO  Chiang Mai        77.10 294  P        P          06 24 35.0  +0.9
      comp=Z,18nm,2.6s
CHTO  Chiang Mai        77.10 294  P        P          06 24 34.9  +0.9
CHTO                               IAmb     IAmb       06 24 43.8
      comp=Z,92nm,1.6s
CHTO  Chiang Mai        77.10 294  P        P          06 24 35.0  +0.9
CHTO  Chiang Mai        77.10 294  P        P          06 24 34.6  +0.5
      comp=Z,1µmcomp=Z,30nm,2.6s,comp=Z,1µm
XLT   XiLinHaoTe        77.32 324 eP        P          06 24 34.9   0.0
XLT                                S        S          06 34 26.0  +0.9
XLT                                SS       SS         06 39 22.5  -1.5
XLT                                pmax     pmax
      comp=Z,63nm,1.6s
XLT                                L        L
      comp=Z,550nm,16.2s
XLT                                L        L
      comp=Z,4µm,16.7s
XLT                                L        L
      comp=Z,5µm,16.8s
MA2   Magadan           77.81 351  LR       LR         06 53 18.7
      comp=Z,11µm,22.0s,baz=170,slow=31
MA2   Magadan           77.81 351  P        P          06 24 38.1  +1.0
      comp=Z,27nm,1.2s
MA2   Magadan           77.81 351⇑eP        P          06 24 36.2  -0.9
MA2                                pmax     pmax
      comp=Z,111nm,3.0s
MA2   Magadan           77.81 351  IAMs_20  IAMs_20    06 53 40.1
      comp=Z,11µm,21.0s
MA2   Magadan           77.81 351  P        P          06 24 38.5  +1.3
      comp=Z,1µmcomp=Z,24nm,1.2s
PZH   PanZhiHua         77.95 303  P        P          06 24 40.2  +1.4
PZH                                S        S          06 34 32.6  -0.1
PZH                                pmax     pmax
      comp=Z,30nm,1.3s
PZH                                pmax     pmax
      comp=Z,740nm,8.9s
PZH                                L        L
      comp=Z,3µm,17.3s
PZH                                L        L
      comp=Z,5µm,17.1s
PZH                                L        L
      comp=Z,7µm,16.9s
VNFG  Fog Glacier, M    77.96  18  IAMs_20  IAMs_20    06 55 47.7
      comp=Z,15µm,19.0s
HHC   Hu-ho-hao-te      78.15 320⇑iP        P          06 24 40.3  +0.7
HHC                                pP       sP         06 24 44.6  +0.7
HHC                                S        S          06 34 33.2  -1.1
HHC                                pmax     pmax
      comp=Z,47nm,1.4s
HHC                                pmax     pmax
      comp=Z,510nm,6.7s
HHC                                L        L
      comp=Z,8µm,18.5s
HHC                                L        L
      comp=Z,3µm,19.3s
HHC                                L        L
      comp=Z,9µm,23.6s
CD2   Chengdu           78.37 308  P        P          06 24 41.4  +0.4
CD2                                pP       pP         06 24 44.8  +0.6
CD2                                sP       sP         06 24 47.1  +1.7
CD2                                S        S          06 34 37.1  +0.1
CD2                                sS       sS         06 34 46.2  +4.0
CD2                                SS       SS         06 39 43.6  +3.4
CD2                                pmax     pmax
      comp=Z,30nm,1.1s
CD2                                pmax     pmax
      comp=Z,940nm,3.3s
CD2                                L        L
      comp=Z,10µm,16.5s
CD2                                L        L
      comp=Z,10µm,21.2s
CD2                                L        L
      comp=Z,5µm,26.5s
HIA   Hailar            78.94 330  P        P          06 24 44.4  +0.7
      comp=Z,40nm,1.4s
HIA   Hailar            78.94 330  IAMs_20  IAMs_20    06 56 41.3
      comp=Z,9µm,21.0s
ZEA   Zeya              78.96 337 eP        P          06 24 43.8  +0.2
ZEA                               eS        S          06 34 44.0  +1.9
ZEA                                pmax     pmax
      comp=Z,30nm,1.1s
ZEA                                pmax     pmax
      comp=N,300nm,4.4s
ZEA                                pmax     pmax
      comp=Z,500nm,4.4s
HILR  Hailar Array B    79.14 330  P        P          06 24 44.4  -0.4
      comp=Z,1.2nm,0.3s,baz=207,slow=16,SNR=5.3
HILR                               LR       LR         06 56 48.2
      comp=Z,5µm,22.0s,baz=100,slow=34
      comp=Z,1.2nm,0.3s
BTO2  Baotou            79.15 319 eP        P          06 24 46.4  +1.3
BTO2                               pP       sP         06 24 50.9  +1.5
BTO2                               sP       PcP        06 24 53.5   0.0
BTO2                               S        S          06 34 46.0  +1.0
BTO2                               sS       sS         06 34 52.5  +2.2
BTO2                               pmax     pmax
      comp=Z,120nm,1.8s
BTO2                               pmax     pmax
      comp=Z,2µm,5.8s
BTO2                               L        L
      comp=Z,7µm,17.8s
BTO2                               L        L
      comp=Z,10µm,24.1s
BTO2                               L        L
      comp=Z,16µm,22.8s
R16K  Pilot Point       79.62  18  IAMs_20  IAMs_20    06 57 00.9
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      comp=Z,10µm,18.0s
NPW   Naypyitaw         79.92 294  P        P          06 24 53.2  +3.6
      comp=Z,2µmcomp=Z,62nm,1.5s
M11K  Mekoryuk          79.95  12  IAMs_20  IAMs_20    06 54 07.3
      comp=Z,14µm,20.0s
TNCH  TengChong         79.95 300  P        P          06 24 52.8  +2.9
TNCH                               sP       PcP        06 24 58.2  +0.7
TNCH                               S        S          06 34 53.2  -1.1
TNCH                               sS       SKSac      06 35 05.1  -2.7
TNCH                               SS       SS         06 40 01.4  -3.0
TNCH                               pmax     pmax
      comp=Z,200nm,1.6s
TNCH                               pmax     pmax
      comp=Z,900nm,2.7s
TNCH                               L        L
      comp=Z,2µm,21.9s
TNCH                               L        L
      comp=Z,3µm,16.8s
TNCH                               L        L
      comp=Z,9µm,32.8s
MAW   Mawson            80.06 202  P        P          06 24 48.8  -0.7
      comp=Z,10nm,2.4s
MAW   Mawson            80.06 202  P        P          06 24 48.9  -0.7
      comp=Z,11nm,0.9s,baz=121,slow=6.9,SNR=16
MAW                                LR       LR         06 54 58.6
      comp=Z,17µm,21.6s,baz=98,slow=32
      comp=Z,11nm,0.9s
MAW   Mawson            80.06 202  P        P          06 24 49.1  -0.4
MAW   Mawson            80.06 202  P        P          06 24 49.6  +0.1
      comp=Z,307nmcomp=Z,10nm,2.4s,comp=Z,307nm
O14K  Tigyukauivet M    80.07  15  IAMs_20  IAMs_20    06 53 36.5
      comp=Z,15µm,21.0s
AIS   Amsterdam Isla    80.36 233  IAMs_20  IAMs_20    06 55 51.7
      comp=Z,9µm,20.0s
O15K  Ungalikthiuk R    80.37  16  IAMs_20  IAMs_20    06 53 43.5
      comp=Z,16µm,21.0s
N14K  Kuskokwak Cree    80.55  15  IAMs_20  IAMs_20    06 53 20.2
      comp=Z,16µm,22.0s
OHAK  Old Harbor        80.67  20  P        P          06 24 52.7  -0.1
      comp=Z,88nm,1.3s
OHAK  Old Harbor        80.67  20  IAmb     IAmb       06 24 53.5
      comp=Z,85nm,1.0s
P16K  Nushagak River    80.74  17  IAMs_20  IAMs_20    06 56 51.3
      comp=Z,13µm,19.0s
LZH   Lanzhou           80.78 312  P        P          06 24 55.4  +1.3
LZH                                S        S          06 35 05.3  +2.8
LZH                                pmax     pmax
      comp=Z,89nm,1.2s
LZH                                pmax     pmax
      comp=Z,2µm,5.0s
LZH                                L        L
      comp=Z,5µm,17.0s
LZH                                L        L
      comp=Z,8µm,18.4s
LZH                                L        L
      comp=Z,13µm,19.9s
LZDM  Lanzhou Array     80.82 312  P        P          06 24 54.5   0.0
      comp=Z,2.5nm,0.4s,baz=87,slow=6.2,SNR=8.3
LZDM                               LR       LR         07 02 01.8
      comp=Z,4µm,18.2s,baz=95,slow=37
      comp=Z,2.5nm,0.4s
SEY   Seymchan          80.82 353  LR       LR         06 57 20.0
      comp=Z,20µm,20.1s,baz=164,slow=33
SEY   Seymchan          80.82 353 eP        P          06 24 50.9  -2.6
SEY                                pmax     pmax
      comp=Z,43nm,1.4s
ACHA  Angle Creek He    80.83  18  IAmb     IAmb       06 24 59.2
      comp=Z,123nm,1.3s
O16K  Kokwok River B    81.19  16  IAMs_20  IAMs_20    06 54 29.2
      comp=Z,14µm,22.0s
M14K  Bethel            81.21  14  IAmb     IAmb       06 24 59.7
      comp=Z,161nm,1.4s
M14K                               IAMs_20  IAMs_20    06 54 14.8
      comp=Z,17µm,22.0s
P17K  Kvichak River     81.31  17  IAMs_20  IAMs_20    06 57 43.5
      comp=Z,9µm,20.0s
KDAK  Kodiak Island     81.34  20  LR       LR         06 55 24.5
      comp=Z,11µm,20.0s,baz=215,slow=32
KDAK  Kodiak Island     81.34  20⇑eP        P          06 24 58.2  +1.8
KDAK                               pmax     pmax
      comp=Z,209nm,1.6s
KDAK  Kodiak Island     81.34  20  IAMs_20  IAMs_20    06 55 23.3
      comp=Z,11µm,20.0s
L14K  Kuka Creek        81.57  14  IAmb     IAmb       06 25 03.9
      comp=Z,94nm,1.3s
K13K  Kusilvak Mount    81.67  12  IAMs_20  IAMs_20    06 55 10.9
      comp=Z,14µm,21.0s
M16K  Timber Creek      82.18  15  IAmb     IAmb       06 25 13.5
      comp=Z,252nm,1.8s
M16K                               IAMs_20  IAMs_20    06 55 02.5
      comp=Z,15µm,21.0s
N17K  Nushagak Hills    82.22  16  IAMs_20  IAMs_20    06 57 58.5
      comp=Z,13µm,20.0s
J14K  Nanvaranak Lak    82.63  13  IAMs_20  IAMs_20    06 55 31.3
      comp=Z,11µm,21.0s
L16K  Owhat River       82.64  15  IAmb     IAmb       06 25 06.9
      comp=Z,157nm,1.9s
L16K                               IAMs_20  IAMs_20    06 54 56.6
      comp=Z,14µm,22.0s
K15K  Wolf Creek Mou    82.67  14  IAmb     IAmb       06 25 08.2
      comp=Z,102nm,1.1s
N18K  Kilae Creek       82.70  17  IAMs_20  IAMs_20    06 59 07.3
      comp=Z,12µm,19.0s
M17K  Holitna River     82.89  16  IAmb     IAmb       06 25 07.8
      comp=Z,194nm,1.7s
HOM   Homer             83.13  19  IAMs_20  IAMs_20    06 55 57.5
      comp=Z,11µm,20.0s
N19K  Bonanza Creek     83.21  17  IAmb     IAmb       06 25 06.5
      comp=Z,92nm,1.5s
N19K                               IAMs_20  IAMs_20    06 59 22.6
      comp=Z,10µm,20.0s
BRLK  Bradley Lake      83.45  19  IAmb     IAmb       06 25 11.5
      comp=Z,101nm,0.9s
BRLK                               IAMs_20  IAMs_20    06 56 05.6
      comp=Z,15µm,21.0s
SAIH  SAIHA             83.65 296 eP        P          06 25 08.6  -0.8
SAIH                               IAmb     IAmb       06 25 14.5
      comp=Z,44nm,0.4s
IMP   Imphal            83.69 298 eP        P          06 25 09.4  -0.1
IMP                                IAmb     IAmb       06 25 20.9
      comp=Z,46nm,0.8s
CIT   Chita             83.73 329 eP        P          06 25 08.4  -0.6
CIT                               e                    06 30 16.2
CIT                                pmax     pmax
      comp=Z,365nm,2.9s
J16K  Anvik River       83.75  14  IAmb     IAmb       06 25 19.0
      comp=Z,131nm,1.5s
L18K  Granite Mounta    83.78  16  IAmb     IAmb       06 25 10.8
      comp=Z,136nm,1.3s
K17K  Iditarod          83.79  15  IAmb     IAmb       06 25 10.7
      comp=Z,107nm,1.3s
K17K                               IAMs_20  IAMs_20    06 55 54.0
      comp=Z,13µm,21.0s
KOHI  KOHIMA            83.89 299 eP        P          06 25 10.5  -0.1
KOHI                               IAmb     IAmb       06 25 22.2
      comp=Z,44nm,1.6s
CAPN  Captain Cook N    84.16  19  IAMs_20  IAMs_20    07 00 59.5
      comp=Z,9µm,19.0s
JORH  JORHAT            84.16 300 eP        P          06 25 11.3  -0.5
JORH                               IAmb     IAmb       06 25 15.9
      comp=Z,37nm,0.2s
SEW   Seward            84.17  20  IAmb     IAmb       06 25 15.5
      comp=Z,83nm,1.1s
SEW                                IAMs_20  IAMs_20    07 03 26.2
      comp=Z,9µm,18.0s
J17K  VABM Dome         84.19  14  IAmb     IAmb       06 25 21.3
      comp=Z,84nm,1.2s
L19K  White Mountain    84.23  16  IAMs_20  IAMs_20    07 00 14.5
      comp=Z,12µm,19.0s
FARB  Farallon Islan    84.34  48  IAMs_20  IAMs_20    06 59 56.7
      comp=Z,10µm,18.0s
AZL   Aizawl            84.36 297 eP        P          06 25 13.6  +0.6
AZL                                IAmb     IAmb       06 25 19.0
      comp=Z,36nm,1.8s
O22K  Cooper Landing    84.38  19  IAMs_20  IAMs_20    06 56 33.6
      comp=Z,14µm,21.0s
M20K  Styx River        84.46  17  IAmb     IAmb       06 25 23.9
      comp=Z,77nm,1.3s
STLK  Strandline Lak    84.53  18  IAmb     IAmb       06 25 12.5
      comp=Z,49nm,1.4s
MCCM  Marconi Confer    84.63  48  IAmb     IAmb       06 25 18.3
      comp=Z,90nm,1.2s
MCCM                               IAMs_20  IAMs_20    06 54 13.2
      comp=Z,14µm,21.0s
SILR  SILCHAR           84.64 298 eP        P          06 25 13.9  -0.3
YAK   Yakutsk           84.67 343  LR       LR         07 03 11.8
      comp=Z,8µm,18.1s,baz=138,slow=36
YAK   Yakutsk           84.67 343 eP        P          06 25 14.0  +0.5
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YAK				*e*		06 25 17.3	
YAK				*e**PP	**sP**	**06 25 20.4**	**+2.6**
YAK				*e*		06 28 26.7	
YAK				*e*S	**SKSac**	**06 35 36.3**	**-1.0**
YAK				*e*SS	**SS**	**06 41 13.8**	**+1.1**
YAK				*e*SSS	SSS	06 44 37.5	
YAK				pmax	pmax		
	comp=Z,164nm,1.6s						
YAK				pmax	pmax		
	comp=N,7.0nm,1.0s						
YAK				pmax	pmax		
	comp=E,5.0nm,1.1s						
YAK				pmax	pmax		
	comp=Z,345nm,3.3s						
YAK				pmax	pmax		
	comp=E,99nm,4.1s						
YAK				pmax	pmax		
	comp=N,104nm,3.0s						
YAK				smax	smax		
	comp=N,110nm,2.9s						
YAK				smax	smax		
	comp=E,265nm,4.4s						
YAK				MLR	MLR		
	comp=Z,12µm,17.0s						
YAK				MLR	MLR		
	comp=N,4µm,13.0s						
YAK				MLR	MLR		
	comp=E,3µm,16.0s						
YAK	**Yakutsk**	**84.67**	**343**	P	**P**	**06 25 13.4**	**-0.1**
YAK	**Yakutsk**	**84.67**	**343**	IAMs_20	IAMs_20	07 03 21.8	
	comp=Z,12µm,19.0s						
YAK	**Yakutsk**	**84.67**	**343**	P	**P**	**06 25 14.5**	**+1.0**
	comp=Z,3µmcomp=Z,110nm,1.3s						
MID	**Middleton Isla**	**84.71**	**21**	IAMs_20	IAMs_20	07 02 34.5	
	comp=Z,8µm,18.0s						
L20K	**Farewell, AK**	**84.73**	**17**	IAMs_20	IAMs_20	07 00 11.6	
	comp=Z,11µm,20.0s						
ULN	**Ulaanbaatar**	**84.75**	**324**	P	**P**	**06 25 13.7**	**-0.8**
ULN				pmax	pmax		
	comp=Z,148nm,1.2s						
ULN				MLR	MLR		
	comp=Z,5µm,18.0s						
ULN	**Ulaanbaatar**	**84.75**	**324**	P	**P**	**06 25 13.7**	**-0.8**
ULN				IAmb	IAmb	06 25 18.0	
	comp=Z,148nm,1.2s						
ULN	**Ulaanbaatar**	**84.75**	**324**	⇓P	**P**	**06 25 14.0**	**-0.5**
ULN	**Ulaanbaatar**	**84.75**	**324**	P	**P**	**06 25 14.0**	**-0.5**
ULN	**Ulaanbaatar**	**84.75**	**324**	P	**P**	**06 25 13.8**	**-0.7**
	comp=Z,3µmcomp=Z,124nm,1.3s,comp=Z,3µm						
P23K	**Montague Islan**	**84.77**	**21**	IAMs_20	IAMs_20	06 56 21.9	
	comp=Z,12µm,21.0s						
ZIRO	**ZIRO**	**84.79**	**301**	*e*P	**P**	**06 25 15.1**	**-0.1**
J18K	**Innoko River**	**84.81**	**15**	IAmb	IAmb	06 25 15.6	
	comp=Z,108nm,1.2s						
J18K				IAMs_20	IAMs_20	06 56 13.0	
	comp=Z,13µm,21.0s						
RC01	**Rabbit Creek A**	**84.84**	**19**	IAmb	IAmb	06 25 26.8	
	comp=Z,125nm,1.3s						
RC01				IAMs_20	IAMs_20	06 57 51.8	
	comp=Z,13µm,20.0s						
DCMP	**DeCamp, Califo**	**84.90**	**46**	IAmb	IAmb	06 25 20.1	
	comp=Z,108nm,1.6s						
BILL	**Bilibino**	**84.97**	**359**	*di*P	**P**	**06 25 13.7**	**-1.2**
BILL				pmax	pmax		
	comp=Z,56nm,1.5s						
GDXM	**Geysers**	**84.98**	**47**	IAmb	IAmb	06 25 20.9	
	comp=Z,114nm,1.4s						
BILI	**Bilibino, Chuk**	**84.99**	**359**	P	**P**	**06 25 16.4**	**+1.4**
	comp=Z,1µmcomp=Z,35nm,1.4s,comp=Z,1µm						
CVS	**Carmenet Viney**	**85.01**	**48**	IAmb	IAmb	06 25 20.4	
	comp=Z,137nm,1.4s						
SAO	**San Andreas Ge**	**85.05**	**49**	IAmb	IAmb	06 25 20.9	
	comp=Z,119nm,1.4s						
F15K	**North Star Dit**	**85.08**	**11**	IAMs_20	IAMs_20	06 58 44.1	
	comp=Z,14µm,20.0s						
SONM	**Songino Array**	**85.11**	**323**	P	**P**	**06 25 15.5**	**-0.8**
	comp=Z,63nm,1.1s,baz=137,slow=3.5,SNR=46						
SONM				LR	LR	07 01 35.8	
	comp=Z,6µm,21.4s,baz=118,slow=34						
	comp=Z,63nm,1.1s						
SONM	**Songino Array**	**85.11**	**323**	P	**P**	**06 25 15.7**	**-0.6**
SONM				pmax	pmax		
	comp=Z,328nm,1.8s						
SONM	**Songino Array**	**85.11**	**323**	P	**P**	**06 25 15.7**	**-0.6**
PWL	**Port Wells**	**85.11**	**20**	IAmb	IAmb	06 25 20.3	
	comp=Z,89nm,1.0s						
PWL				IAMs_20	IAMs_20	07 03 53.9	
	comp=Z,8µm,18.0s						
MHC	**Mount Hamilton**	**85.15**	**49**	IAmb	IAmb	06 25 21.7	
	comp=Z,182nm,1.5s						
MHC				IAMs_20	IAMs_20	07 00 23.2	
	comp=Z,12µm,18.0s						
GTA2	**Gaotai**	**85.22**	**314**	P	**P**	**06 25 17.5**	**+0.5**
GTA2				sP	sP	06 25 23.9	+2.6
GTA2				SKS	**SKSac**	**06 35 39.7**	**-2.5**
GTA2				S	**SKKSac**	**06 35 52.4**	**+3.8**
GTA2				pmax	pmax		
	comp=Z,72nm,1.5s						
GTA2				pmax	pmax		
	comp=Z,1µm,5.8s						
GTA2				L	L		
	comp=Z,8µm,19.6s						
GTA2				L	L		
	comp=Z,6µm,23.4s						
GTA2				L	L		
	comp=Z,11µm,24.4s						
G16K	**Koyuk River**	**85.23**	**12**	IAmb	IAmb	06 25 21.4	
	comp=Z,76nm,1.2s						
G16K				IAMs_20	IAMs_20	06 58 01.1	
	comp=Z,13µm,20.0s						
M22K	**Willow**	**85.24**	**18**	IAMs_20	IAMs_20	06 58 11.3	
	comp=Z,9µm,20.0s						
PMPB	**Monarch Peak**	**85.28**	**50**	P	**P**	**06 25 16.6**	**-0.7**
TEZP	**TEZPUR**	**85.32**	**300**	*e*P	**P**	**06 25 17.4**	**-0.2**
H17K	**Granite Mounta**	**85.33**	**13**	IAmb	IAmb	06 25 19.0	
	comp=Z,230nm,2.0s						
PKD	**Bear Valley Ra**	**85.36**	**50**	IAmb	IAmb	06 25 22.6	
	comp=Z,171nm,1.4s						
HIN	**Hinchinbrook I**	**85.37**	**21**	IAMs_20	IAMs_20	06 56 28.7	
	comp=Z,13µm,21.0s						
K20K	**Telida**	**85.40**	**16**	IAmb	IAmb	06 25 19.4	
	comp=Z,237nm,1.8s						
K20K				IAMs_20	IAMs_20	06 57 00.5	
	comp=Z,12µm,21.0s						
PMR	**Palmer**	**85.42**	**19**	P	**P**	**06 25 17.5**	**+0.2**
	comp=Z,46nm,2.3s						
PMR	**Palmer**	**85.42**	**19**	IAmb	IAmb	06 25 17.9	
	comp=Z,54nm,1.2s						
KRMB	**Red Mountain**	**85.45**	**44**	IAmb	IAmb	06 25 23.4	
	comp=Z,148nm,1.5s						
KRMB				IAMs_20	IAMs_20	06 54 46.0	
	comp=Z,13µm,20.0s						
KNK	**Knik Glacier**	**85.49**	**19**	IAmb	IAmb	06 25 18.6	
	comp=Z,69nm,1.3s						
KNK				IAMs_20	IAMs_20	06 59 25.0	
	comp=Z,10µm,20.0s						
J19K	**Poorman**	**85.53**	**15**	IAMs_20	IAMs_20	06 56 34.8	
	comp=Z,12µm,22.0s						
GLI	**Glacier Island**	**85.53**	**20**	IAmb	IAmb	06 25 19.0	
	comp=Z,100nm,1.4s						
GLI				IAMs_20	IAMs_20	06 57 38.0	
	comp=Z,10µm,20.0s						
PPLA	**Purkeypile**	**85.54**	**17**	IAmb	IAmb	06 25 18.5	
	comp=Z,106nm,1.6s						
PPLA				IAMs_20	IAMs_20	07 00 38.1	
	comp=Z,11µm,19.0s						
KSXB	**Camp Six Broad**	**85.62**	**44**	IAmb	IAmb	06 25 23.9	
	comp=Z,84nm,1.4s						
GHO	**Glory Hole Cre**	**85.62**	**19**	IAmb	IAmb	06 25 29.9	
	comp=Z,53nm,1.1s						
GHO				IAMs_20	IAMs_20	06 57 16.3	
	comp=Z,12µm,20.0s						
FID	**Port Fidalgo**	**85.64**	**20**	IAMs_20	IAMs_20	06 57 18.4	
	comp=Z,12µm,20.0s						
CUT	**Chulitna**	**85.70**	**18**	IAmb	IAmb	06 25 58.5	
	comp=Z,155nm,1.4s						
CUT				IAMs_20	IAMs_20	06 58 19.5	
	comp=Z,7µm,20.0s						
SHL	**Shillong**	**85.70**	**298**	⇑P	**P**	**06 25 20.9**	**+1.1**
SHL	**Shillong**	**85.70**	**298**	*e*P	**P**	**06 25 19.8**	**0.0**
EYAK	**Cordova Ski Ar**	**85.73**	**21**	IAMs_20	IAMs_20	06 56 18.4	
	comp=Z,13µm,21.0s						
KAIM	**Kayak Island**	**85.75**	**22**	IAMs_20	IAMs_20	07 01 44.8	
	comp=Z,12µm,18.0s						
SML	**Sawmill**	**85.83**	**19**	IAmb	IAmb	06 25 59.4	
	comp=Z,195nm,2.0s						
SML				IAMs_20	IAMs_20	06 58 21.9	
	comp=Z,10µm,20.0s						
L02F	**Cave Junction**	**85.95**	**44**	IAmb	IAmb	06 25 30.9	
	comp=Z,233nm,2.0s						
CAST	**Castle Rocks**	**85.98**	**17**	IAmb	IAmb	06 25 23.9	
	comp=Z,49nm,0.9s						
CAST				IAMs_20	IAMs_20	07 01 10.0	
	comp=Z,9µm,20.0s						
RAGM	**Ragged Mountai**	**85.99**	**21**	IAMs_20	IAMs_20	06 58 17.1	
	comp=Z,13µm,21.0s						
M02C	**Callahan**	**86.10**	**45**	IAmb	IAmb	06 25 26.6	
	comp=Z,167nm,1.6s						
DIV	**Divide**	**86.15**	**20**	IAMs_20	IAMs_20	06 57 46.4	
	comp=Z,11µm,20.0s						
SCM	**Sheep Creek Mo**	**86.16**	**19**	IAmb	IAmb	06 25 32.8	
	comp=Z,54nm,1.2s						
SCM				IAMs_20	IAMs_20	07 04 29.7	
	comp=Z,7µm,18.0s						
ORV	**Oroville**	**86.21**	**47**	IAmb	IAmb	06 25 29.0	
	comp=Z,106nm,1.4s						
WELL	**Weller Preserv**	**86.28**	**48**	IAMs_20	IAMs_20	06 56 35.0	
	comp=Z,10µm,20.0s						
AFDM	**Forest Hills D**	**86.32**	**47**	IAmb	IAmb	06 25 26.9	
	comp=Z,134nm,1.4s						
O03E	**Paynes Creek**	**86.33**	**46**	IAmb	IAmb	06 25 32.1	
	comp=Z,188nm,1.4s						
YBH	**Yreka Blue Hor**	**86.35**	**44**	LR	LR	06 55 26.6	
	comp=Z,17µm,21.2s,baz=273,slow=30						
YBH	**Yreka Blue Hor**	**86.35**	**44**	IAmb	IAmb	06 25 27.6	
	comp=Z,124nm,1.5s						
CMB	**Columbia Colle**	**86.35**	**48**	⇑P	**P**	**06 25 22.3**	**-0.3**
CMB	**Columbia Colle**	**86.35**	**48**	IAmb	IAmb	06 25 27.1	
	comp=Z,112nm,1.4s						
CMB				IAMs_20	IAMs_20	07 01 09.9	
	comp=Z,10µm,18.0s						
KLU	**Klutina**	**86.37**	**20**	IAMs_20	IAMs_20	06 57 43.1	
	comp=Z,9µm,20.0s						
F17K	**Baldwin Pennin**	**86.38**	**12**	IAmb	IAmb	06 25 27.1	
	comp=Z,85nm,0.8s						
F17K				IAMs_20	IAMs_20	06 59 16.4	
	comp=Z,13µm,20.0s						
PASC	**Pasadena Art C**	**86.40**	**53**	IAmb	IAmb	06 25 27.3	
	comp=Z,187nm,1.9s						
PASC				IAMs_20	IAMs_20	06 56 42.4	
	comp=Z,13µm,20.0s						
KTH	**Kantishna Hill**	**86.41**	**17**	IAMs_20	IAMs_20	07 01 24.3	
	comp=Z,12µm,20.0s						
BMRM	**Bremner River**	**86.43**	**21**	IAMs_20	IAMs_20	06 56 16.8	
	comp=Z,10µm,21.0s						
G18K	**Tagagawik**	**86.43**	**13**	IAmb	IAmb	06 25 24.2	
	comp=Z,92nm,1.4s						
TAWA	**Tawang**	**86.45**	**300**	*e*P	**P**	**06 25 23.4**	**-0.2**
I20K	**Naaghedeneel**	**86.47**	**15**	IAmb	IAmb	06 25 31.2	
	comp=Z,88nm,1.1s						
I20K				IAMs_20	IAMs_20	06 59 25.8	
	comp=Z,12µm,20.0s						
DIB	**Dawson Inlet,**	**86.49**	**31**	IAmb	IAmb	06 25 34.7	
	comp=Z,114nm,1.3s						
H02S2	**DAWSON INLET T**	**86.49**	**31**	T	T	08 00 45.8	
	SNR=78						
H02S1	**DAWSON INLET T**	**86.49**	**31**	T	T	08 00 45.8	
	SNR=76						
TRF	**Thorofare Moun**	**86.51**	**17**	IAMs_20	IAMs_20	06 56 07.9	
	comp=Z,10µm,22.0s						
MWC	**Mount Wilson**	**86.52**	**53**	IAMs_20	IAMs_20	06 57 33.5	
	comp=Z,13µm,19.0s						
HG4B	**Hotspring**	**86.62**	**32**	IAmb	IAmb	06 25 30.9	
	comp=Z,153nm,1.5s						
SYO	**Syowa Base**	**86.70**	**196**	⇑*i*P	**P**	**06 25 21.8**	**-1.9**
SYO	**Syowa Base**	**86.70**	**196**	⇑*i*P	P	06 25 33.0	+9.3
MOBC	**Moresby Island**	**86.71**	**31**	IAmb	IAmb	06 25 32.1	
	comp=Z,173nm,1.6s						
ELS	**Elsinore Mount**	**86.77**	**53**	IAmb	IAmb	06 25 29.5	
	comp=Z,163nm,1.8s						
CRQM	**Cirque**	**86.79**	**22**	IAmb	IAmb	06 25 36.9	
	comp=Z,47nm,1.2s						
CRQM				IAMs_20	IAMs_20	07 02 11.6	
	comp=Z,10µm,19.0s						
BFSC	**Mount Baldy Ra**	**86.83**	**53**	IAmb	IAmb	06 25 30.4	
	comp=Z,141nm,1.5s						
BFSC				IAMs_20	IAMs_20	06 56 25.8	
	comp=Z,14µm,20.0s						
CBX	**Cerro Bola**	**86.85**	**55**	IAmb	IAmb	06 25 30.1	
	comp=Z,199nm,1.9s						
BBOR	**Butler Butte**	**86.89**	**43**	IAmb	IAmb	06 25 37.4	
	comp=Z,118nm,1.9s						
RND	**Reindeer**	**86.89**	**18**	IAMs_20	IAMs_20	07 00 04.8	
	comp=Z,10µm,19.0s						
TGL	**Tana Glacier**	**86.89**	**22**	IAmb	IAmb	06 25 26.1	
	comp=Z,72nm,1.6s						
TGL				IAMs_20	IAMs_20	07 03 26.1	
	comp=Z,10µm,18.0s						
DPP	**Dos Picos Cty**	**86.90**	**54**	IAmb	IAmb	06 25 30.0	
	comp=Z,214nm,1.9s						
G19K	**Purcell Mounta**	**86.98**	**13**	IAmb	IAmb	06 25 29.9	
	comp=Z,48nm,0.9s						
BAR	**Barrett**	**86.99**	**55**	IAmb	IAmb	06 25 30.4	
	comp=Z,54nm,1.4s						
BAR				IAMs_20	IAMs_20	06 56 29.1	
	comp=Z,13µm,20.0s						
VRDI	**Verde Repeater**	**87.01**	**21**	IAMs_20	IAMs_20	06 59 01.1	
	comp=Z,7µm,20.0s						
YAH	**Yahtse**	**87.01**	**22**	IAMs_20	IAMs_20	06 56 46.1	
	comp=Z,12µm,21.0s						
GLB	**Gilahina Butte**	**87.04**	**21**	IAMs_20	IAMs_20	06 56 46.8	
	comp=Z,8µm,21.0s						
DHY	**Denali Highway**	**87.08**	**19**	IAMs_20	IAMs_20	06 58 12.9	
	comp=Z,10µm,20.0s						
MCK	**McKinley**	**87.11**	**18**	IAmb	IAmb	06 25 38.0	
	comp=Z,94nm,1.8s						
BOD	**Bodaibo**	**87.14**	**334**	*e*P	**P**	**06 25 24.8**	**-1.1**
BOD				pmax	pmax		
	comp=Z,87nm,1.6s						
VTX	**Valle De La Tr**	**87.20**	**56**	IAmb	IAmb	06 25 31.9	
	comp=Z,234nm,2.0s						
COR	**Corvallis**	**87.25**	**42**	IAMs_20	IAMs_20	06 54 44.5	
	comp=Z,10µm,22.0s						
GRNC	**Granite Creek**	**87.26**	**22**	IAMs_20	IAMs_20	06 57 14.8	
	comp=Z,8µm,20.0s						
MCARA	**McCarthy VSAT**	**87.27**	**21**	IAmb	IAmb	06 25 56.6	
	comp=Z,74nm,1.6s						
C16K	**Lisburne Hills**	**87.30**	**9**	IAMs_20	IAMs_20	06 58 41.6	
	comp=Z,10µm,20.0s						
BWN	**Browne**	**87.30**	**17**	IAMs_20	IAMs_20	06 58 04.0	
	comp=Z,10µm,21.0s						
ESJX	**Sierra Juarez**	**87.30**	**55**	IAmb	IAmb	06 25 32.8	
	comp=Z,105nm,1.6s						
DNR	**Dunn Ranch,Anz**	**87.36**	**54**	IAmb	IAmb	06 25 32.6	
	comp=Z,176nm,1.8s						
CWC	**Cottonwood Cre**	**87.38**	**51**	IAmb	IAmb	06 25 32.7	
	comp=Z,197nm,1.8s						
PCA	**Pinnacle**	**87.38**	**23**	IAMs_20	IAMs_20	06 56 46.1	
	comp=Z,11µm,20.0s						
GOMU	**GeErMu**	**87.39**	**309**	P	**P**	**06 25 27.4**	**-0.7**
GOMU				sP	sP	06 25 35.4	+3.1
GOMU				L	L		
	comp=Z,4µm,19.1s						
GOMU				L	L		
	comp=Z,7µm,19.4s						
GOMU				L	L		
	comp=Z,13µm,19.4s						
BORC	**Borrego Spring**	**87.41**	**54**	IAmb	IAmb	06 25 32.6	
	comp=Z,220nm,1.9s						
I21K	**Tanana**	**87.41**	**16**	IAmb	IAmb	06 25 31.7	
	comp=Z,31nm,0.8s						
F19K	**Shaleruckik Mo**	**87.42**	**13**	IAmb	IAmb	06 25 28.4	
	comp=Z,40nm,1.1s						
PNL	**Peninsula**	**87.42**	**24**	P	**P**	**06 25 28.0**	**+0.8**
	comp=Z,29nm,1.8s						
DHUB	**DHUBRI**	**87.45**	**298**	*e*P	**P**	**06 25 27.2**	**-0.9**
DHUB				IAmb	IAmb	06 25 33.6	
	comp=Z,21nm,1.7s						
I04A	**Tendick Farm,**	**87.47**	**43**	IAmb	IAmb	06 25 32.2	
	comp=Z,164nm,1.7s						
RDOG	**Red Dog Mine**	**87.50**	**10**	IAmb	IAmb	06 25 43.5	
	comp=Z,65nm,1.5s						
RDOG				IAMs_20	IAMs_20	06 58 60.0	
	comp=Z,10µm,20.0s						
PFO	**Pinyon Flats O**	**87.50**	**54**	LR	LR	06 56 36.3	
	comp=Z,19µm,20.4s,baz=248,slow=30						
PFO	**Pinyon Flats O**	**87.50**	**54**	*de*P	**P**	**06 25 28.3**	**-0.1**
PFO				pmax	pmax		
	comp=Z,72nm,1.8s						
PFO	**Pinyon Flats O**	**87.50**	**54**	P	**P**	**06 25 26.8**	**-1.6**
PFO				IAmb	IAmb	06 25 33.2	
	comp=Z,108nm,1.8s						
PFO	**Pinyon Flats O**	**87.50**	**54**	P	**P**	**06 25 28.7**	**+0.3**
	comp=Z,36nm,2.2s						
BARN	**Barnard Glacie**	**87.52**	**22**	IAMs_20	IAMs_20	07 06 23.6	
	comp=Z,8µm,18.0s						
YUH	**Yuha Desert**	**87.56**	**55**	IAmb	IAmb	06 25 33.4	
	comp=Z,184nm,1.9s						
PMD	**Palm Desert**	**87.58**	**54**	IAmb	IAmb	06 25 33.4	
	comp=Z,120nm,1.9s						
H21K	**Melozitna Rive**	**87.58**	**15**	IAmb	IAmb	06 28 51.4	
	comp=Z,69nm,1.6s						
H21K				IAMs_20	IAMs_20	07 00 40.2	
	comp=Z,13µm,20.0s						
LOGN	**Logan Glacier**	**87.59**	**22**	IAMs_20	IAMs_20	06 57 04.7	
	comp=Z,9µm,21.0s						
S31K	**Pelican**	**87.61**	**26**	IAmb	IAmb	06 25 38.6	
	comp=Z,73nm,1.6s						
S31K				IAMs_20	IAMs_20	07 00 10.1	
	comp=Z,11µm,19.0s						
IMAR	**Indian Mountai**	**87.62**	**15**	P	**P**	**06 25 27.7**	**-0.3**
MLY	**Manley**	**87.62**	**16**	IAMs_20	IAMs_20	06 58 09.1	
	comp=Z,8µm,20.0s						
CAL	**Calcutta**	**87.70**	**294**	*e*P	**P**	**06 25 29.5**	**+0.1**
NEA2	**Nenana**	**87.73**	**17**	IAmb	IAmb	06 25 39.8	
	comp=Z,91nm,1.9s						
SFX	**San Felipe**	**87.81**	**57**	IAmb	IAmb	06 25 34.3	
	comp=Z,119nm,1.8s						
O28M	**Mount Upton**	**87.86**	**23**	IAMs_20	IAMs_20	06 57 23.6	
	comp=Z,11µm,21.0s						
U33K	**Whale Pass**	**87.86**	**29**	IAmb	IAmb	06 25 37.6	
	comp=Z,110nm,1.8s						
GSC	**Goldstone, Bar**	**87.89**	**52**	IAmb	IAmb	06 25 36.0	
	comp=Z,190nm,1.9s						
M26K	**Nabesna, AK**	**87.99**	**20**	IAMs_20	IAMs_20	06 58 04.0	
	comp=Z,10µm,21.0s						
BELC	**Belle Mtn. Jos**	**88.01**	**54**	IAMs_20	IAMs_20	06 56 20.1	
	comp=Z,14µm,20.0s						
NVAR	**Mina Array Bea**	**88.01**	**49**	P	**P**	**06 25 30.6**	**-0.2**
	comp=Z,9.9nm,0.9s,baz=226,slow=8.1,SNR=22						
NVAR				LR	LR	06 56 04.7	
	comp=Z,9µm,22.0s,baz=253,slow=30						
	comp=Z,9.9nm,0.9s						
S32K	**Killisnoo**	**88.01**	**27**	IAmb	IAmb	06 25 40.5	
	comp=Z,107nm,1.8s						
S32K				IAMs_20	IAMs_20	06 58 00.8	
	comp=Z,11µm,19.0s						
J05D	**Fort Rock, OR**	**88.01**	**43**	IAmb	IAmb	06 26 51.1	
	comp=Z,78nm,1.0s						
F20K	**Avaraart Lake**	**88.04**	**13**	IAmb	IAmb	06 25 32.5	
	comp=Z,38nm,1.4s						
ELIB	**Princess Elisa**	**88.04**	**190**	*d*P	**P**	**06 25 28.9**	**-1.5**
P29M	**Windy Craggy**	**88.04**	**24**	IAMs_20	IAMs_20	07 05 40.6	
	comp=Z,11µm,18.0s						
E19K	**Redstone River**	**88.06**	**13**	IAmb	IAmb	06 25 35.4	
	comp=Z,32nm,0.8s						
E19K				IAMs_20	IAMs_20	06 59 11.8	
	comp=Z,14µm,21.0s						
I23K	**Minto, Yukon-K**	**88.08**	**17**	IAmb	IAmb	06 28 38.8	
	comp=Z,62nm,2.0s						
I23K				IAMs_20	IAMs_20	07 03 02.3	
	comp=Z,11µm,20.0s						
QSM	**Queen of Sheba**	**88.09**	**52**	IAmb	IAmb	06 25 35.7	
	comp=Z,126nm,1.6s						
K24K	**Donnelly Dome**	**88.10**	**19**	IAMs_20	IAMs_20	06 58 23.0	
	comp=Z,11µm,21.0s						
G21K	**Allakaket**	**88.11**	**14**	IAmb	IAmb	06 28 55.4	
	comp=Z,94nm,1.9s						
V35K	**Ketchikan**	**88.11**	**30**	IAmb	IAmb	06 25 37.7	
	comp=Z,85nm,1.8s						
MENT	**Mentasta**	**88.13**	**20**	P	**P**	**06 25 30.9**	**+0.4**
	comp=Z,10nm,1.7s						
H22K	**Ishtalitna Cre**	**88.13**	**15**	IAmb	IAmb	06 28 55.5	
	comp=Z,115nm,1.9s						
O29M	**Mount Kennedy**	**88.15**	**23**	IAMs_20	IAMs_20	07 07 04.4	
	comp=Z,10µm,18.0s						
BBB	**Bella Bella**	**88.17**	**33**	LR	LR	06 59 29.8	
	comp=Z,8µm,18.9s,baz=258,slow=32						
BBB	**Bella Bella**	**88.17**	**33**	P	**P**	**06 25 30.2**	**-0.7**
	comp=Z,2µmcomp=Z,65nm,2.1s						
ZAK	**Zakamensk**	**88.17**	**324**	*e*P	**P**	**06 25 29.4**	**-1.8**
ZAK				pmax	pmax		
	comp=Z,67nm,2.0s						
HDA	**Harding Lake**	**88.20**	**18**	IAmb	IAmb	06 25 39.0	
	comp=Z,28nm,0.9s						
HDA				IAMs_20	IAMs_20	07 00 05.5	
	comp=Z,9µm,20.0s						
RUBB	**Prince Rupert**	**88.21**	**31**	IAmb	IAmb	06 25 43.4	
	comp=Z,80nm,1.5s						
COLA	**College**	**88.29**	**17**	P	**P**	**06 25 30.5**	**-0.7**
	comp=Z,17nm,1.0s						
COLA	**College**	**88.29**	**17**	P	**P**	**06 25 30.3**	**-0.9**
COLA				pmax	pmax		
	comp=Z,44nm,1.2s						
COLA				MLR	MLR		
	comp=Z,11µm,18.0s						
COLA	**College**	**88.29**	**17**	P	**P**	**06 25 30.2**	**-0.9**
COLA				IAmb	IAmb	06 25 46.2	
	comp=Z,44nm,1.2s						
COLA	**College**	**88.29**	**17**	IAMs_20	IAMs_20	07 03 37.8	
	comp=Z,11µm,18.0s						
COLA	**College**	**88.29**	**17**	P	**P**	**06 25 30.7**	**-0.5**
	comp=Z,29nm,1.0s						
BC3	**Big Chuckawall**	**88.30**	**54**	IAmb	IAmb	06 25 38.4	
	comp=Z,137nm,1.7s						
BC3				IAMs_20	IAMs_20	06 57 39.8	
	comp=Z,12µm,20.0s						
L26K	**Log Cabin Wild**	**88.31**	**20**	IAMs_20	IAMs_20	07 00 06.5	
	comp=Z,9µm,20.0s						
GMN	**Gold Mountain**	**88.32**	**50**	IAmb	IAmb	06 25 42.1	
	comp=Z,59nm,1.7s						
GWY	**Greenwater Val**	**88.33**	**51**	IAmb	IAmb	06 25 36.9	
	comp=Z,136nm,1.7s						
RIDG	**Independent Ri**	**88.34**	**19**	IAmb	IAmb	06 28 57.4	
	comp=Z,117nm,2.0s						
RIDG				IAMs_20	IAMs_20	07 07 08.3	
	comp=Z,9µm,19.0s						
WRAK	**Wrangell Islan**	**88.39**	**29**	IAmb	IAmb	06 25 37.1	
	comp=Z,77nm,1.6s						
WRAK	**Wrangell Islan**	**88.39**	**29**	IAMs_20	IAMs_20	06 57 32.9	
	comp=Z,13µm,20.0s						
KVN	**Kaiserville**	**88.40**	**48**	IAmb	IAmb	06 25 37.4	
	comp=Z,165nm,1.8s						
IL31		**88.49**	**18**	IAmb	IAmb	06 25 47.3	
	comp=Z,55nm,1.6s						
ILAR	**Eielson Array**	**88.49**	**18**	P	**P**	**06 25 30.1**	**-2.1**
	comp=Z,8.1nm,0.9s,baz=234,slow=6.2,SNR=36						
ILAR				LR	LR	07 02 02.8	
	comp=Z,12µm,19.1s,baz=225,slow=34						
	comp=Z,8.1nm,0.9s						
ILAR	**Eielson Array**	**88.49**	**18**	P	**P**	**06 25 31.1**	**-1.1**
ILAR	**Eielson Array**	**88.49**	**18**	P	**P**	**06 25 31.1**	**-1.1**
SHOC	**Shoshone, Teco**	**88.51**	**52**	IAmb	IAmb	06 25 37.6	
	comp=Z,151nm,1.6s						
R32K	**Eaglecrest**	**88.52**	**26**	IAMs_20	IAMs_20	07 00 57.2	
	comp=Z,9µm,19.0s						
H23K	**Yukon River**	**88.55**	**16**	IAmb	IAmb	06 25 49.6	
	comp=Z,51nm,1.8s						
H23K				IAMs_20	IAMs_20	07 00 19.9	
	comp=Z,14µm,20.0s						
BESE	**Bessie Mountai**	**88.56**	**26**	IAmb	IAmb	06 25 41.8	
	comp=Z,34nm,1.2s						
BESE				IAMs_20	IAMs_20	07 01 15.3	
	comp=Z,10µm,19.0s						
IRK	**Irkutsk**	**88.57**	**326**	*e*P	**P**	**06 25 30.6**	**-2.3**
IRK				pmax	pmax		
	comp=Z,138nm,3.0s						
JIS	**Juneau Island**	**88.58**	**26**	P	**P**	**06 25 33.7**	**+1.0**
	comp=Z,17nm,1.9s						
CBB	**Campbell River**	**88.58**	**36**	IAmb	IAmb	06 25 34.5	
	comp=Z,128nm,1.4s						
WCT	**Wildcat Mounta**	**88.59**	**51**	IAmb	IAmb	06 25 39.3	
	comp=Z,125nm,1.6s						
JPG	**JALPAIGURI**	**88.71**	**298**	*e*P	**P**	**06 25 36.8**	**+2.7**
JPG				IAmb	IAmb	06 25 41.3	
	comp=Z,23nm,0.4s						
CLRS	**Cowichan Lake**	**88.72**	**38**	IAmb	IAmb	06 25 38.3	
	comp=Z,76nm,1.3s						
IRM	**Iron Mountain**	**88.72**	**54**	IAmb	IAmb	06 25 40.2	
	comp=Z,181nm,1.7s						
B04A	**Port Angeles**	**88.73**	**38**	IAmb	IAmb	06 25 38.7	
	comp=Z,110nm,1.4s						
D19K	**Kuna River**	**88.77**	**12**	IAMs_20	IAMs_20	07 00 13.5	
	comp=Z,11µm,20.0s						
SCRK	**Sand Creek**	**88.78**	**19**	IAMs_20	IAMs_20	07 07 19.8	
	comp=Z,7µm,19.0s						
J25K	**Salcha River,**	**88.81**	**18**	IAMs_20	IAMs_20	07 03 24.8	
	comp=Z,12µm,19.0s						
L27K	**Beaver Creek,**	**88.83**	**20**	IAMs_20	IAMs_20	07 01 25.4	
	comp=Z,7µm,20.0s						
BCAR	**Beaver Creek A**	**88.85**	**20**	P	**P**	**06 25 32.2**	**-1.8**
MTPC	**Mountain Pass**	**88.90**	**52**	IAmb	IAmb	06 25 41.0	
	comp=Z,159nm,1.9s						

GNW	Green Mountain	88.91	39	IAmb	IAmb	06 25 39.3	
	comp=Z,136nm,1.6s						
TPNV	Topopah Spring	88.93	51	IAmb	IAmb	06 25 41.0	
	comp=Z,160nm,1.6s						
Q09A	Carvers	88.97	49	IAmb	IAmb	06 25 41.3	
	comp=Z,158nm,1.5s						
PGC	Sidney	89.03	38	IAmb	IAmb	06 25 39.6	
	comp=Z,106nm,1.4s						
BLYC	Blythe	89.06	54	IAmb	IAmb	06 25 40.7	
	comp=Z,127nm,1.6s						
G23K	Bananza Creek	89.11	15	IAmb	IAmb	06 29 03.4	
	comp=Z,65nm,1.6s						
PMSA	Palmer Station	89.11	160	LR	LR	07 00 35.2	
	comp=Z,3µm,19.0s,baz=232,slow=32						
PMSA	Palmer Station	89.11	160	IAMs_20	IAMs_20	07 02 35.5	
	comp=Z,7µm,18.0s						
LON	Longmire	89.16	40	IAmb	IAmb	06 25 47.4	
	comp=Z,102nm,1.7s						
SHBG	Sahibganj	89.19	297	*e*P	P	06 25 36.3	-0.1
LPIG	La Paz	89.21	65	LR	LR	06 59 05.6	
	comp=Z,15µm,18.2s,baz=249,slow=31						
G06A	Carlson Farm,	89.24	42	IAmb	IAmb	06 25 40.8	
	comp=Z,211nm,1.8s						
WVOR	Wild Horse Val	89.39	45	IAmb	IAmb	06 25 42.0	
	comp=Z,166nm,1.4s						
WVOR				IAMs_20	IAMs_20	06 57 17.1	
	comp=Z,13µm,21.0s						
WVOR	Wild Horse Val	89.39	45	P	P	06 25 37.1	0.0
	comp=Z,2µmcomp=Z,82nm,2.1s						
SLBS	Sierra La Lagu	89.39	65	P	P	06 25 38.9	+1.4
	comp=Z,56nm,2.6s						
K27K	Chicken	89.42	20	IAMs_20	IAMs_20	07 01 09.8	
	comp=Z,7µm,20.0s						
N30M	Aishikik Lake	89.45	23	IAMs_20	IAMs_20	06 58 03.8	
	comp=Z,9µm,21.0s						
COLD	Coldfoot	89.47	15	IAMs_20	IAMs_20	07 01 40.1	
	comp=Z,12µm,20.0s						
E21K	Killik River	89.57	13	IAmb	IAmb	06 26 52.5	
	comp=Z,78nm,1.9s						
SHPR	Sheep Range	89.58	52	IAmb	IAmb	06 25 43.3	
	comp=Z,228nm,1.9s						
M29M	Somme Creek	89.58	22	IAMs_20	IAMs_20	07 07 49.1	
	comp=Z,9µm,18.0s						
P32M	Atlin	89.64	26	IAMs_20	IAMs_20	07 01 49.7	
	comp=Z,8µm,19.0s						
G24K	Hadweenzic Riv	89.76	16	IAMs_20	IAMs_20	07 01 05.9	
	comp=Z,10µm,20.0s						
S34M	Telegraph Cree	89.78	28	IAMs_20	IAMs_20	06 58 45.6	
	comp=Z,13µm,20.0s						
WHY	Whitehorse	89.81	24	IAmb	IAmb	06 25 45.2	
	comp=Z,48nm,1.4s						
J08A	Circle Bar Ran	89.87	44	IAmb	IAmb	06 25 43.9	
	comp=Z,76nm,1.1s						
Q32M	Nakina River	89.88	26	IAMs_20	IAMs_20	07 01 50.1	
	comp=Z,9µm,19.0s						
N31M	Braeburn, Yuko	89.96	23	IAMs_20	IAMs_20	07 07 21.2	
	comp=Z,11µm,18.0s						
PALK	Pallekele	89.97	278	LR	LR	07 07 48.1	
	comp=Z,2µm,19.4s,baz=112,slow=37						
F07A	Phinny Hill Vi	89.97	42	IAmb	IAmb	06 25 44.2	
	comp=Z,69nm,1.2s						
PRN	Pahroc Range	89.99	51	IAmb	IAmb	06 25 46.4	
	comp=Z,113nm,1.5s						
A05A	Maple Falls	90.00	38	IAmb	IAmb	06 26 10.7	
	comp=Z,182nm,1.9s						
MXC	Moxie City	90.03	41	IAmb	IAmb	06 25 44.4	
	comp=Z,76nm,1.4s						
MOY	Mondy	90.06	325	*e*P	P	06 25 41.4	+1.4
MOY				pmax	pmax		
	comp=Z,220nm,3.0s						
LTY	Liberty	90.09	40	IAmb	IAmb	06 25 44.4	
	comp=Z,158nm,1.7s						
L29M	L29M	90.12	21	IAMs_20	IAMs_20	07 07 06.5	
	comp=Z,8µm,19.0s						
BOK	Bokaro	90.24	295	*e*P	P	06 25 40.9	-0.4
BOK				IAmb	IAmb	06 25 51.6	
	comp=Z,8.6nm,0.7s						
E23K	Chandalar	90.26	15	IAMs_20	IAMs_20	06 59 47.9	
	comp=Z,13µm,22.0s						
FYU	Fort Yukon	90.27	17	IAMs_20	IAMs_20	07 01 06.3	
	comp=Z,11µm,20.0s						
HSIG		90.28	60	IAmb	IAmb	06 25 46.1	
	comp=Z,117nm,1.8s						
E07A	Sunnyside	90.30	41	IAmb	IAmb	06 25 45.7	
	comp=Z,52nm,1.0s						
JMUI	Jamui	90.30	296	*e*P	P	06 25 41.3	-0.3
JMUI				IAmb	IAmb	06 25 42.9	
	comp=Z,14nm,0.3s						
G08A	Pilot Rock	90.34	42	IAmb	IAmb	06 25 46.0	
	comp=Z,91nm,1.2s						
P33M	Teslin, Yukon	90.37	25	IAMs_20	IAMs_20	07 03 27.0	
	comp=Z,8µm,18.0s						
HAWA	Hanford	90.43	41	IAmb	IAmb	06 25 46.4	
	comp=Z,65nm,1.1s						
KNTI	KHUNTI	90.53	294	*e*P	P	06 25 42.2	-0.6
TROLL	Troll, Antarti	90.54	184	⇓P	P	06 25 40.1	-2.0
	comp=Z,3µm,0.7s						
TROLL	Troll, Antarti	90.54	184	⇑S	S	06 36 35.4	-2.0
	comp=E,356nm,1.0s						
E24K	Your Creek	90.55	15	IAMs_20	IAMs_20	07 02 44.5	
	comp=Z,10µm,20.0s						
DLBC	Dease Lake	90.56	28	LR	LR	06 59 22.5	
	comp=Z,12µm,19.9s,baz=226,slow=31						
WAH2	Wahluke Slope	90.56	41	IAmb	IAmb	06 25 46.8	
	comp=Z,130nm,1.7s						
VIS	Vishakhapatnam	90.63	288	*e*P	P	06 25 43.2	-0.1
I27K	Kandik River	90.64	19	IAMs_20	IAMs_20	07 00 02.2	
	comp=Z,10µm,21.0s						
YPT	Yellepit	90.65	42	IAmb	IAmb	06 25 48.5	
	comp=Z,130nm,1.9s						
R33M	Jennings River	90.68	26	IAMs_20	IAMs_20	07 08 44.3	
	comp=Z,9µm,18.0s						
EVN	Everest	90.77	299	IAmb	IAmb	06 25 59.8	
	comp=Z,45nm,1.3s						
EVN	Everest	90.77	299	P	P	06 25 46.7	+2.1
	comp=Z,617nmcomp=Z,27nm,1.5s						
N32M	Quiet Lake	90.81	24	IAMs_20	IAMs_20	07 03 18.6	
	comp=Z,10µm,19.0s						
NVL	N'lazarevskaya	90.81	188	*e*P	P	06 25 41.3	-1.8
NVL				*e*S	SKSac	06 36 13.8	-0.9
NVL				pmax	pmax		
	comp=Z,37nm,0.9s						
NVL				MLR	MLR		
	comp=Z,11µm,15.0s						
LLLB	Lillooet	90.83	37	IAmb	IAmb	06 25 52.2	
	comp=Z,76nm,1.5s						
F25K	Christian Rive	90.91	16	IAMs_20	IAMs_20	07 01 41.1	
	comp=Z,9µm,20.0s						
M31M	Drury Creek, Y	90.92	23	IAMs_20	IAMs_20	07 08 01.6	
	comp=Z,12µm,18.0s						
G26K	Porcupine Rive	90.95	17	IAMs_20	IAMs_20	07 01 05.2	
	comp=Z,13µm,20.0s						
I28M	Miner Creek	91.06	19	IAMs_20	IAMs_20	06 59 06.1	
	comp=Z,10µm,22.0s						
BMAR	Burnt Mountain	91.07	16	P	P	06 25 43.7	-0.6
ELK	Elko	91.08	48	LR	LR	07 01 05.0	
	comp=Z,11µm,19.2s,baz=268,slow=32						
ELK	Elko	91.08	48	IAmb	IAmb	06 25 51.0	
	comp=Z,35nm,1.2s						
ELK				IAMs_20	IAMs_20	06 57 46.1	
	comp=Z,11µm,21.0s						
D08A	Wollman Farm,	91.09	41	IAmb	IAmb	06 25 55.8	
	comp=Z,184nm,1.9s						
H27K	Steamboat Moun	91.10	18	IAmb	IAmb	06 29 19.5	
	comp=Z,67nm,1.8s						
H27K				IAMs_20	IAMs_20	07 04 45.2	
	comp=Z,9µm,19.0s						
SNAA	Sanae	91.19	183	⇓P	P	06 25 42.7	-2.3
	comp=Z,458nm,0.8s						
SNAA	Sanae	91.19	183	⇑S	S	06 36 42.6	-0.6
	comp=E,22nm,0.3s						
SNAA	Sanae	91.19	183	P	P	06 25 42.7	-2.3
	comp=E,14nm,0.9s,baz=189,slow=5.2,SNR=22						
SNAA				LR	LR	07 05 12.5	
	comp=E,8µm,18.1s,baz=180,slow=35						
	comp=E,14nm,0.9s						
SNAA	Sanae	91.19	183	*ce*P	P	06 25 43.2	-1.8
SNAA				pmax	pmax		
	comp=Z,150nm,2.5s						
SNAA				MLR	MLR		
	comp=Z,9µm,17.0s						
SNAA	Sanae	91.19	183	P	P	06 25 43.0	-2.0
SNAA				IAMs_20	IAMs_20	07 02 54.5	
	comp=Z,10µm,21.0s						
SNAA	Sanae	91.19	183	P	P	06 25 43.5	-1.5
	comp=Z,1µmcomp=Z,53nm,2.5s						
LCMT	Little Creek M	91.19	52	IAmb	IAmb	06 25 50.5	
	comp=Z,135nm,2.0s						
B22K	Teshekpuk Lake	91.23	12	IAmb	IAmb	06 25 47.9	
	comp=Z,29nm,1.0s						
BMO	Blue Mountains	91.24	43	IAmb	IAmb	06 25 55.1	
	comp=Z,103nm,1.8s						
PSUT	Pine Spring	91.28	50	IAmb	IAmb	06 25 51.0	
	comp=Z,71nm,1.8s						
D24K	Happy Valley	91.29	14	IAmb	IAmb	06 25 50.6	
	comp=Z,56nm,1.9s						
E09A	Wood Farm, Sta	91.36	41	IAmb	IAmb	06 25 50.2	
	comp=Z,98nm,1.7s						
B08A	Colville Reser	91.37	39	IAmb	IAmb	06 25 50.0	
	comp=Z,75nm,1.5s						
F26K	Sheenjek River	91.38	16	IAMs_20	IAMs_20	07 02 20.6	
	comp=Z,9µm,20.0s						
G27K	Doyon Strip	91.46	18	IAMs_20	IAMs_20	07 02 13.6	
	comp=Z,10µm,20.0s						
TUC	Tucson	91.50	57	P	P	06 25 46.8	-0.4
TUC				IAmb	IAmb	06 25 53.4	
	comp=Z,52nm,1.4s						
TUC	Tucson	91.50	57	P	P	06 25 47.4	+0.3
	comp=Z,686nmcomp=Z,26nm,1.4s						
KNB	Kanab	91.51	52	IAmb	IAmb	06 25 53.3	
	comp=Z,117nm,1.5s						
SZCU	Shurtz Canyon	91.52	51	IAmb	IAmb	06 25 53.4	
	comp=Z,66nm,1.5s						
I29M	Ogilvie Camp,	91.52	20	IAmb	IAmb	06 29 21.7	
	comp=Z,50nm,1.7s						
I29M				IAMs_20	IAMs_20	07 00 36.3	
	comp=Z,7µm,20.0s						
J30M	Hart River	91.67	21	IAMs_20	IAMs_20	07 06 21.4	
	comp=Z,6µm,18.0s						
C09A	Chrisman Ranch	91.79	40	IAmb	IAmb	06 25 57.5	
	comp=Z,90nm,1.9s						
VNA3	Neumayer Olymp	91.81	181	⇓P	P	06 25 45.3	-2.5
	comp=Z,39nm,0.8s						
VNA3	Neumayer Olymp	91.81	181	P	P	06 25 45.5	-2.3
	comp=Z,2µmcomp=Z,89nm,0.9s						
D25K	Kavik River	91.99	15	IAmb	IAmb	06 29 26.5	
	comp=Z,53nm,1.9s						
D25K				IAMs_20	IAMs_20	07 00 42.8	
	comp=Z,13µm,21.0s						
PKCU	Pink Cliffs	92.04	51	IAmb	IAmb	06 26 10.9	
	comp=Z,170nm,1.9s						
H29M	Whitestone	92.05	19	IAMs_20	IAMs_20	06 59 46.4	
	comp=Z,12µm,22.0s						
VNA2	Neumayer--Watz	92.09	181	⇓P	P	06 25 46.8	-2.3
	comp=Z,25nm,0.9s,baz=175,slow=5.0						
VNA2	Neumayer--Watz	92.09	181	P	P	06 25 47.5	-1.6
	comp=Z,2µmcomp=Z,80nm,1.7s						
WUAZ	Wupatki	92.10	54	IAmb	IAmb	06 25 56.0	
	comp=Z,85nm,1.6s						
PLID	Pearl Lake	92.19	43	IAmb	IAmb	06 25 55.3	
	comp=Z,62nm,1.8s						
MMPY	Sheldon Lake,	92.35	24	IAmb	IAmb	06 25 52.5	
	comp=Z,54nm,1.9s						
VNA1	Neumayer--Stat	92.39	181	⇓P	P	06 25 48.4	-2.0
	comp=Z,23nm,1.0s						
E27K	Coleen River	92.42	17	IAMs_20	IAMs_20	07 02 31.0	
	comp=Z,12µm,20.0s						
F28M	Old Crow	92.52	18	IAMs_20	IAMs_20	07 03 54.6	
	comp=Z,10µm,20.0s						
TIXI	Tiksi	92.56	348	LR	LR	07 02 41.9	
	comp=Z,6µm,22.0s,baz=150,slow=32						
TIXI	Tiksi	92.56	348	⇑*e*P	P	06 25 52.0	+1.0
TIXI				pmax	pmax		
	comp=Z,21nm,1.5s						
TIXI	Tiksi	92.56	348	IAMs_20	IAMs_20	07 01 56.9	
	comp=Z,8µm,22.0s						
G29M	Pine Creek	92.60	19	IAMs_20	IAMs_20	07 00 25.9	
	comp=Z,9µm,22.0s						
DUG	Dugway, Tooele	92.62	49	P	P	06 25 51.6	-0.6
	comp=Z,398nmcomp=Z,9.6nm,1.5s						
EPYK	Eagle Plains	92.66	19	IAMs_20	IAMs_20	06 59 40.6	
	comp=Z,10µm,22.0s						
HLID	Hailey	92.68	45	⇑P	P	06 25 52.2	-0.3
HLID	Hailey	92.68	45	P	P	06 25 52.4	-0.1
	comp=Z,578nmcomp=Z,15nm,2.2s						
NEW	Newport	92.68	40	LR	LR	07 00 06.4	
	comp=Z,6µm,21.0s,baz=260,slow=31						
NEW	Newport	92.68	40	P	P	06 25 51.9	-0.3
	comp=Z,642nmcomp=Z,19nm,2.1s						
C27K	Jago River	92.87	15	IAMs_20	IAMs_20	07 03 08.8	
	comp=Z,11µm,20.0s						
H31M	Peel River	93.09	20	IAMs_20	IAMs_20	07 08 37.8	
	comp=Z,6µm,19.0s						
HVU	Hansel Valley	93.19	47	IAmb	IAmb	06 26 00.6	
	comp=Z,26nm,1.2s						
G30M	tAoh Zraii Nji	93.20	19	IAmb	IAmb	06 26 03.1	
	comp=Z,28nm,1.2s						
G30M				IAMs_20	IAMs_20	07 06 39.7	
	comp=Z,9µm,18.0s						
MG03	Isla Dawson	93.23	149	IAMs_20	IAMs_20	07 05 31.7	
	comp=Z,10µm,18.0s						
SPUT	South Promonto	93.26	48	IAmb	IAmb	06 26 00.0	
	comp=Z,44nm,1.6s						
E28M	Babbage River	93.27	17	IAmb	IAmb	06 26 07.0	
	comp=Z,44nm,2.0s						
E28M				IAMs_20	IAMs_20	07 03 16.4	
	comp=Z,10µm,20.0s						
D27M	Malcolm River	93.31	16	IAmb	IAmb	06 29 36.4	
	comp=Z,36nm,1.6s						
GO10	Punta Arenas	93.34	149	IAMs_20	IAMs_20	07 03 31.6	
	comp=Z,10µm,19.0s						
Q16A	Castle Valley	93.38	50	IAmb	IAmb	06 25 60.0	
	comp=Z,50nm,1.8s						
TMUT	Trail Mountain	93.48	50	IAmb	IAmb	06 26 01.6	
	comp=Z,43nm,1.9s						
DGAR	Diego Garcia	93.51	261	IAMs_20	IAMs_20	07 09 32.3	
	comp=Z,9µm,18.0s						
E29M	Blow River	93.59	17	IAMs_20	IAMs_20	07 04 37.9	
	comp=Z,11µm,20.0s						
F30M	Barrier River	93.72	19	IAMs_20	IAMs_20	07 01 11.5	
	comp=Z,10µm,22.0s						
G31M	Satah River	93.78	19	IAMs_20	IAMs_20	07 00 13.0	
	comp=Z,7µm,22.0s						
LDM	Libby Dam	93.87	40	IAmb	IAmb	06 26 00.1	
	comp=Z,43nm,1.7s						
HWUT	Hardware Ranch	93.98	48	IAMs_20	IAMs_20	06 58 56.9	
	comp=Z,10µm,22.0s						
HWUT	Hardware Ranch	93.98	48	P	P	06 25 58.1	-0.4
	comp=Z,421nmcomp=Z,8.1nm,1.1s						
MSO	Missoula	94.16	42	IAMs_20	IAMs_20	06 59 46.1	
	comp=Z,7µm,21.0s						
F31M	Tsiigehtchic	94.25	19	IAmb	IAmb	06 26 01.9	
	comp=Z,46nm,1.6s						
F31M				IAMs_20	IAMs_20	07 06 46.5	
	comp=Z,7µm,19.0s						
PV05	Paradox Valley	94.66	52	IAmb	IAmb	06 26 21.9	
	comp=Z,38nm,1.7s						
AHID	Auburn Hatcher	94.69	47	IAMs_20	IAMs_20	07 00 02.5	
	comp=Z,11µm,21.0s						
EPT	El Paso	94.79	58	IAMs_20	IAMs_20	07 04 04.9	
	comp=Z,7µm,19.0s						
INK	Inuvik	94.82	18	LR	LR	07 02 16.6	
	comp=Z,8µm,21.9s,baz=237,slow=31						
PV20	West Nyswonger	94.83	51	IAmb	IAmb	06 26 22.3	
	comp=Z,38nm,1.4s						
MVCO	Mesa Verde	94.84	53	IAMs_20	IAMs_20	06 59 15.0	
	comp=Z,12µm,22.0s						
MVCO	Mesa Verde	94.84	53	P	P	06 26 02.5	-0.1
	comp=Z,6.7nm,1.8s						
PV18	Skein Mesa, Pa	94.85	52	IAmb	IAmb	06 26 10.3	
	comp=Z,33nm,1.4s						
HYB	Hyderabad	94.90	287	*e*P	P	06 26 02.0	-1.0
HYB				*e*PKiKP	PKiKP	06 30 43.7	-1.5
HYB				*e*SKSac	SKSac	06 36 37.3	-2.0
HYB				*e*SKKSac	SKKSac	06 36 58.7	-2.9
HYB				IAMs_20	IAMs_20	07 01 55.2	
	comp=Z,4µm,31.8s						
PV02	Paradox Valley	94.97	52	IAmb	IAmb	06 26 17.5	
	comp=Z,50nm,1.8s						
GO08	Villa O'Higgin	95.15	144	IAMs_20	IAMs_20	06 58 04.6	
	comp=Z,9µm,22.0s						
GO08	Villa O'Higgin	95.15	144	P	P	06 26 04.2	+0.6
	comp=Z,18nm,1.8s						
WMQ	Urumqi	95.22	314	*e*P	P	06 26 04.9	+0.9
WMQ				pP	sP	06 26 09.4	+1.1
WMQ				sP	pP	06 26 13.5	+6.3
WMQ				PP	PP	06 29 52.2	-2.1
WMQ				SKS	SKSac	06 36 38.1	-2.0
WMQ				S	S	06 37 13.8	-5.8
WMQ				SS	SS	06 43 45.4	-1.2
WMQ				pmax	pmax		
	comp=Z,81nm,1.7s						
WMQ				pmax	pmax		
	comp=Z,660nm,3.8s						
WMQ				L	L		
	comp=Z,6µm,18.9s						
WMQ				L	L		
	comp=Z,6µm,22.1s						
WMQ				L	L		
	comp=Z,7µm,23.5s						
LKN	LUCKNOW	95.44	296	*e*P	P	06 26 04.1	-1.2
NGP	Nagpur	95.49	290	*e*P	P	06 26 03.7	-2.0
MNTX	Cornudas Mount	95.69	59	IAMs_20	IAMs_20	07 04 42.6	
	comp=Z,7µm,19.0s						
MNTX	Cornudas Mount	95.69	59	P	P	06 26 07.4	+1.1
	comp=Z,7.3nm,2.1s						
TASM	ASL Pad, Albuq	95.75	55	IAMs_20	IAMs_20	07 00 13.1	
	comp=Z,7µm,22.0s						
TASM	ASL Pad, Albuq	95.75	55	IAMs_20	IAMs_20	07 00 13.1	
	comp=Z,7µm,22.0s						
TASM	ASL Pad, Albuq	95.75	55	IAMs_20	IAMs_20	07 00 13.1	
	comp=Z,7µm,22.0s						
TASM	ASL Pad, Albuq	95.75	55	IAMs_20	IAMs_20	07 00 13.0	
	comp=Z,7µm,22.0s						
ABQ	Albuquerque	95.75	55	IAMs_20	IAMs_20	06 59 39.2	
	comp=Z,7µm,22.0s						
ALQ	Albuquerque	95.75	55	IAmb	IAmb	06 29 16.1	
	comp=Z,14nm,1.7s						
ALQ				IAMs_20	IAMs_20	07 00 12.1	
	comp=Z,7µm,22.0s						
ANMO	Albuquerque	95.75	55	LR	LR	07 00 57.3	
	comp=Z,6µm,21.4s,baz=258,slow=30						
ANMO	Albuquerque	95.75	55	P	P	06 26 05.9	-0.9
ANMO	Albuquerque	95.75	55	P	P	06 26 04.5	-2.3
ANMO	Albuquerque	95.75	55	P	P	06 26 06.1	-0.7
	comp=Z,4.0nm,1.5s						
VHRN	Van Horn	95.75	60	IAmb	IAmb	06 26 12.4	
	comp=Z,34nm,1.7s						
PDAR	Pinedale Array	95.77	47	P	P	06 26 06.2	-0.5
	comp=Z,0.5nm,0.6s,baz=244,slow=3.3,SNR=9.4						
PDAR				PP	PP	06 29 51.0	-7.8
	comp=Z,0.9nm,0.9s,baz=240,slow=6.0,SNR=4.6						
PDAR				PKPPKP	P'P'df	06 51 06.0	-1.9
	comp=Z,0.1nm,0.3s,baz=70,slow=4.3,SNR=3.7						
PDAR				LR	LR	07 02 12.2	
	comp=Z,4µm,20.4s,baz=258,slow=31						
	comp=Z,0.5nm,0.6s						
PDAR	Pinedale Array	95.77	47	P	P	06 26 04.7	-2.0
S22A	4UR Ranch, Cre	96.27	53	IAMs_20	IAMs_20	07 02 56.7	
	comp=Z,12µm,20.0s						
TX31	Lajitas Ar. Si	96.45	61	IAmb	IAmb	06 26 15.8	
	comp=Z,23nm,1.4s						
TXAR	Lajitas Array	96.45	61	P	P	06 26 09.7	-0.3
	comp=Z,1.3nm,1.1s,baz=249,slow=3.5,SNR=8.3						
TXAR				LR	LR	07 03 54.5	
	comp=Z,7µm,18.8s,baz=256,slow=32						
	comp=Z,1.3nm,1.1s						
TXAR	Lajitas Array	96.45	61	P	P	06 26 08.0	-2.0
HAYD	Hayden	96.74	50	IAMs_20	IAMs_20	07 03 06.0	
	comp=Z,10µm,20.0s						
PTH	Pithoragarh	96.80	299	*e*P	P	06 26 11.7	0.0
JHNI	Jhansi	97.05	294	*e*P	P	06 26 11.7	-0.9
JHNI				IAmb	IAmb	06 26 16.7	
	comp=Z,10nm,1.0s						
EGMT	Eagleton	97.23	42	IAMs_20	IAMs_20	07 02 23.5	
	comp=Z,7µm,22.0s						
SDCO	Great Sand Dun	97.28	53	IAMs_20	IAMs_20	07 03 20.5	
	comp=Z,10µm,20.0s						
GO07	Milladeo Hill,	97.35	139	IAMs_20	IAMs_20	06 59 29.1	
	comp=Z,10µm,22.0s						
LL07	Hotel Espejo d	97.61	139	IAMs_20	IAMs_20	06 59 36.1	
	comp=Z,7µm,22.0s						
K22A	Casper	97.87	48	IAMs_20	IAMs_20	07 02 08.8	
	comp=Z,8µm,22.0s						
Q24A	Divide	97.88	52	IAMs_20	IAMs_20	07 01 57.2	
	comp=Z,9µm,21.0s						
T25A	Trinidad	97.95	54	IAMs_20	IAMs_20	07 03 30.3	
	comp=Z,9µm,20.0s						
ZSN	Zaisan	98.20	317	*e*P	P	06 26 17.9	+0.6
ZSN				pmax	pmax		
	comp=Z,33nm,1.5s						
ZSN	Zaisan	98.20	317	*e*P	P	06 26 18.0	+0.6
	comp=Z,33nm,1.5s						
H03S2	Juan Fernandez	98.27	129	T	T	08 15 29.6	
	baz=241,slow=74,SNR=5.4						
H03S1	Juan Fernandez	98.28	129	T	T	08 15 42.3	
	baz=241,slow=74,SNR=8.0						
H03S3	Juan Fernandez	98.28	129	T	T	08 15 43.5	
	baz=241,slow=74,SNR=7.2						
LL05	Los Muermos	98.36	138	IAMs_20	IAMs_20	07 00 06.0	
	comp=Z,8µm,22.0s						
MSTX	Muleshoe	98.41	57	IAMs_20	IAMs_20	07 06 42.8	
	comp=Z,7µm,18.0s						
HNLY	HANLEY	98.66	302	*e*P	P	06 26 19.7	-0.7
HNLY				IAmb	IAmb	06 26 25.1	
	comp=Z,11nm,0.9s						
KLP	Kalpa	98.93	300	*e*P	P	06 26 20.0	-1.4
NDI	New Delhi	99.09	297	*e*P	Pdif	06 26 19.6	-2.1
A36M	Sachs Harbour	99.16	17	IAMs_20	IAMs_20	07 08 31.2	
	comp=Z,7µm,20.0s						
LAO	LASA Array	99.16	44	IAMs_20	IAMs_20	07 03 06.7	
	comp=Z,8µm,21.0s						
YKA	Yellowknife Ar	99.18	27	P	Pdif	06 26 20.3	-1.0
	comp=Z,2.1nm,0.8s,baz=255,slow=4.4,SNR=9.5						
YKA				PP	PP	06 30 27.2	+3.1
	comp=Z,1.1nm,0.8s,baz=260,slow=7.1,SNR=3.8						
YKA				LR	LR	07 05 02.8	
	comp=Z,7µm,19.9s,baz=244,slow=32						
	comp=Z,2.1nm,0.8s						
YKA	Yellowknife Ar	99.18	27	P	Pdif	06 26 20.2	-1.1
LL03	Petrohue	99.19	138	IAMs_20	IAMs_20	07 00 31.9	
	comp=Z,7µm,22.0s						
YKAW3	Yellowknife Wh	99.20	27	IAmb	IAmb	06 26 22.8	
	comp=Z,58nm,1.7s						
YKAW1	Yellowknife Wh	99.23	27	IAmb	IAmb	06 26 22.9	
	comp=Z,59nm,1.7s						
KUDL	Kundal	99.57	296	*e*P	Pdif	06 26 21.9	-1.9
MK31	Makanchi Array	99.72	316	*d i*P	Pdif	06 26 23.4	-0.8
MKAR	Makanchi Array	99.72	316	P	Pdif	06 26 23.6	-0.6
	comp=Z,7.0nm,0.9s,baz=96,slow=7.4,SNR=22						
MKAR				PP	PP	06 30 32.2	+3.5
	comp=Z,2.8nm,1.1s,baz=116,slow=8.5,SNR=3.8						
MKAR				PKKPbc	PKKPbc	06 42 46.6	0.0
	comp=Z,1.2nm,0.9s,baz=316,slow=3.3,SNR=3.7						
MKAR				LR	LR	07 09 27.9	
	comp=Z,3µm,22.0s,baz=88,slow=34						
	comp=Z,7.0nm,0.9s						
MKAR	Makanchi Array	99.72	316	*i* P	Pdif	06 26 24.0	-0.2
MKAR				pmax	pmax		
	comp=Z,6.0nm,0.9s						
KSCO	Kaye Shedlock'	99.79	52	IAMs_20	IAMs_20	07 05 21.8	
	comp=Z,10µm,20.0s						
MAKZ	Makanchi	99.94	316	P	Pdif	06 26 25.8	+0.7
	comp=Z,742nmcomp=Z,27nm,2.1s						
ZALV	Zalesovo Beam	100.00	323	P	Pdif	06 26 23.3	-1.9
	comp=Z,14nm,0.9s,baz=107,slow=5.0,SNR=24						
ZALV				PP	PP	06 30 30.1	-0.5
	comp=Z,0.5nm,0.4s,baz=104,slow=12,SNR=3.8						
ZALV	Zalesovo Beam	100.00	323	*i* P	Pdif	06 26 23.2	-2.0
ZALV				pmax	pmax		
	comp=Z,14nm,0.9s						
RSSD	Black Hills	100.00	47	IAMs_20	IAMs_20	07 08 07.2	
	comp=Z,9µm,19.0s						
EFI	East Falkland	100.39	153	IAMs_20	IAMs_20	07 02 17.9	
	comp=Z,8µm,22.0s						
PLCA	Paso Flores	100.58	139	P	Pdif	06 26 28.5	+0.1
	comp=Z,3.7nm,1.2s,baz=204,slow=9.5,SNR=3.6						
PLCA				PKKPbc	PKKPbc	06 42 46.3	+2.5
	comp=Z,2.4nm,1.0s,baz=34,slow=3.1,SNR=3.4						
ABTX	Abilene, Hawle	100.62	59	IAMs_20	IAMs_20	07 07 49.4	
	comp=Z,5µm,19.0s						
OGNE	Ogallala	100.69	50	IAMs_20	IAMs_20	07 04 20.6	
	comp=Z,10µm,20.0s						
SHLS	Shalkode	100.80	312	*e*P	Pdif	06 26 27.6	-1.6
SHLS	Shalkode	100.80	312	*e*P	Pdif	06 26 27.7	-1.5
KVTX	Kingsville	100.91	64	IAMs_20	IAMs_20	07 06 02.3	
	comp=Z,6µm,20.0s						
UZB	Uzynbulak	101.11	312	*e*P	Pdif	06 26 30.4	-0.2
UZB	Uzynbulak	101.11	312	*e*P	Pdif	06 26 30.5	-0.2
KPKS	Kokpek	101.42	312	*e*P	Pdif	06 26 31.8	-0.1
KPKS	Kokpek	101.42	312	*e*P	Pdif	06 26 31.8	-0.1
WMOK	Wichita Mounta	101.80	57	IAMs_20	IAMs_20	07 08 40.5	
	comp=Z,6µm,19.0s						
SEM	Semipalatinsk	101.89	319	*e*P	Pdif	06 26 33.8	-0.2
SEM	Semipalatinsk	101.89	319	*e*P	Pdif	06 26 33.9	-0.1
CBKS	Cedar Bluff	101.94	53	IAMs_20	IAMs_20	07 05 09.8	
	comp=Z,10µm,21.0s						
TDK	Taldyqorghan	101.95	314	*e*P	Pdif	06 26 34.2	+0.1
TDK	Taldyqorghan	101.95	314	*e*P	Pdif	06 26 34.2	+0.1
WHTX	Lake Whitney,	102.29	60	IAMs_20	IAMs_20	07 12 11.5	
	comp=Z,5µm,18.0s						
MDOK	Medeo	102.52	311	*e*P	Pdif	06 26 36.6	-0.2
MDOK	Medeo	102.52	311	*e*P	Pdif	06 26 36.7	-0.2

TNSS	**Tian-Shan**	**102.57**	**311**	*e*P	**Pdif**	**06 26 36.8**	**-0.6**
TNSS	**Tian-Shan**	**102.57**	**311**	*e*P	**Pdif**	**06 26 36.9**	**-0.5**
AAA	**Alma-Ata**	**102.63**	**311**	*e*P	**Pdif**	**06 26 37.2**	**0.0**
AAA	**Alma-Ata**	**102.63**	**311**	*e*P	**Pdif**	**06 26 37.2**	**0.0**
R32A	**Long Quarter,**	**102.64**	**54**	IAMs_20	IAMs_20	07 06 39.4	
	comp=Z,7µm,20.0s						
NRIK	**Noril'sk**	**102.73**	**339**	P	**Pdif**	**06 26 36.5**	**-0.5**
	comp=Z,2.1nm,0.4s,baz=123,slow=4.2,SNR=7.2						
NRIK				PP	**PP**	**06 30 44.8**	**-6.0**
	comp=Z,2.1nm,0.7s,baz=109,slow=7.5,SNR=3.9						
NRIK	**Noril'sk**	**102.73**	**339**	⇑*e*P	**Pdif**	**06 26 36.7**	**-0.3**
NRIK				pmax	pmax		
	comp=Z,19nm,1.5s						
NRIK				MLR	MLR		
	comp=Z,10µm,20.0s						
KSH2	**Kashi**	**102.80**	**307**	P	**Pdif**	**06 26 41.2**	**+3.0**
KSH2				SKS	**SKSac**	**06 37 19.1**	**+0.7**
KSH2				pmax	pmax		
	comp=Z,8.0nm,2.9s						
KSH2				L	L		
	comp=Z,3µm,20.6s						
KSH2				L	L		
	comp=Z,5µm,19.2s						
KSH2				L	L		
	comp=Z,5µm,22.6s						
KURK	**Kurchatov**	**102.97**	**319**	IAMs_20	IAMs_20	07 10 55.5	
	comp=Z,8µm,22.0s						
KURK	**Kurchatov**	**102.97**	**319**	P	**Pdif**	**06 26 39.5**	**+1.1**
	comp=Z,410nmcomp=Z,16nm,1.7s						
KURBB	**Kurchatov Arra**	**103.01**	**319**	Pdiff	**Pdif**	**06 26 38.4**	**-0.2**
	comp=Z,2.0nm,0.2s,baz=102,slow=3.5,SNR=11						
KURBB				PP	**PP**	**06 30 52.1**	**-1.2**
	comp=Z,2.9nm,0.2s,baz=102,slow=7.4,SNR=6.5						
KURBB				PKKPbc	**PKKPbc**	**06 42 41.6**	**+4.5**
	comp=Z,0.9nm,0.2s,baz=268,slow=3.5,SNR=5.0						
OK029	**Liberty Lake**	**103.09**	**56**	IAMs_20	IAMs_20	07 14 37.5	
	comp=Z,6µm,18.0s						
KUU	**Kurty**	**103.17**	**312**	*i* P	**Pdif**	**06 26 39.5**	**0.0**
KUU	**Kurty**	**103.17**	**312**	*e*Pdif	**Pdif**	**06 26 39.6**	**0.0**
OK048	**Pawnee Station**	**103.62**	**56**	IAMs_20	IAMs_20	07 04 40.4	
	comp=Z,7µm,22.0s						
SUSD	**Miller**	**103.64**	**47**	IAMs_20	IAMs_20	07 08 56.3	
	comp=Z,10µm,19.0s						
MDND	**Maddock**	**103.81**	**44**	IAMs_20	IAMs_20	07 22 39.7	
	comp=Z,6µm,18.0s						
T35A	**Sooner Cattle**	**104.05**	**55**	IAMs_20	IAMs_20	07 12 18.0	
	comp=Z,5µm,19.0s						
SGDS	**Sogindy**	**104.31**	**311**	*e*Pdif	**Pdif**	**06 26 44.6**	**-0.1**
NATX	**Nacogdoches**	**104.56**	**61**	IAMs_20	IAMs_20	07 14 14.9	
	comp=Z,6µm,18.0s						
Z38A	**Mt. Pleasant**	**104.59**	**59**	IAMs_20	IAMs_20	07 07 53.4	
	comp=Z,5µm,20.0s						
CO02	**Combarbal**	**105.39**	**130**	IAMs_20	IAMs_20	07 03 01.6	
	comp=Z,6µm,22.0s						
U38A	**Gravette**	**105.65**	**56**	IAMs_20	IAMs_20	07 15 27.3	
	comp=Z,8µm,18.0s						
HOPE	**Hope Point**	**105.71**	**165**	IAMs_20	IAMs_20	07 14 50.3	
	comp=Z,7µm,18.0s						
CO03	**El Pedregal**	**105.81**	**130**	IAMs_20	IAMs_20	07 03 03.6	
	comp=Z,6µm,21.0s						
MIAR	**Mount Ida**	**105.97**	**58**	IAMs_20	IAMs_20	07 11 13.0	
	comp=Z,7µm,19.0s						
DZA	**Taraz**	**106.61**	**310**	*i* P	**Pdif**	**06 26 54.8**	**0.0**
DZA	**Taraz**	**106.61**	**310**	*e*Pdif	**Pdif**	**06 26 54.9**	**0.0**
S39A	**Bolivar**	**106.69**	**55**	IAMs_20	IAMs_20	07 08 22.8	
	comp=Z,7µm,20.0s						
N38A	**Joes South For**	**107.22**	**52**	IAMs_20	IAMs_20	07 07 50.4	
	comp=Z,8µm,22.0s						
143A	**Socs Landing,**	**107.45**	**60**	IAMs_20	IAMs_20	07 10 48.2	
	comp=Z,6µm,19.0s						
IUG	**Iuzhnay**	**107.46**	**310**	*i* P	**Pdif**	**06 26 58.6**	**-0.2**
IUG	**Iuzhnay**	**107.46**	**310**	*e*Pdif	**Pdif**	**06 26 58.6**	**-0.2**
TRQA	**Tornquist**	**107.51**	**140**	IAMs_20	IAMs_20	07 05 37.8	
	comp=Z,7µm,22.0s						
R40A	**Maddies Statio**	**107.61**	**55**	IAMs_20	IAMs_20	07 07 05.9	
	comp=Z,8µm,22.0s						
BRLS	**Borolday**	**107.71**	**310**	*i* P	**Pdif**	**06 27 00.1**	**+0.3**
BRLS	**Borolday**	**107.71**	**310**	*e*Pdif	**Pdif**	**06 27 00.2**	**+0.3**
CHM	**Chimkent**	**107.79**	**310**	*i* P	**Pdif**	**06 27 00.1**	**0.0**
CHM	**Chimkent**	**107.79**	**310**	*e*Pdif	**Pdif**	**06 27 00.2**	**0.0**
SPMN	**Marine on St.**	**108.08**	**47**	IAMs_20	IAMs_20	07 11 01.9	
	comp=Z,5µm,19.0s						
VBMS	**Vicksburg**	**108.11**	**61**	IAMs_20	IAMs_20	07 14 07.8	
	comp=Z,6µm,18.0s						
BVAR	**Borovoye Array**	**108.33**	**321**	Pdiff	**Pdif**	**06 27 02.2**	**-0.1**
	comp=Z,1.3nm,0.8s,baz=101,slow=6.2,SNR=7.1						
BVAR				PKiKP	**PKiKP**	**06 31 08.2**	**-0.2**
	comp=Z,1.8nm,0.5s,baz=80,slow=1.7,SNR=8.1						
T42A	**Van Buren**	**108.35**	**56**	IAMs_20	IAMs_20	07 08 55.8	
	comp=Z,7µm,22.0s						
CCM	**Cathedral Cave**	**108.37**	**55**	IAMs_20	IAMs_20	07 12 19.3	
	comp=Z,9µm,19.0s						
BORK	**Borovoye**	**108.38**	**321**	IAMs_20	IAMs_20	07 13 11.4	
	comp=Z,6µm,22.0s						
JTS	**Las Juntas de**	**108.72**	**85**	IAMs_20	IAMs_20	07 08 02.3	
	comp=Z,4µm,18.0s						
N41A	**Harden Midland**	**109.00**	**52**	IAMs_20	IAMs_20	07 15 05.6	
	comp=Z,7µm,18.0s						
Y45A	**Yeager Farm, C**	**109.17**	**59**	IAMs_20	IAMs_20	07 09 55.6	
	comp=Z,7µm,20.0s						
FOMA	**Nahampoana Res**	**109.25**	**235**	IAMs_20	IAMs_20	07 08 58.8	
	comp=Z,9µm,22.0s						
NNA	**Nana**	**109.31**	**110**	IAMs_20	IAMs_20	07 14 13.6	
	comp=Z,5µm,18.0s						
146A	**Union**	**109.39**	**61**	IAMs_20	IAMs_20	07 17 01.8	
	comp=Z,5µm,18.0s						
G40A	**Rib Lake**	**109.92**	**47**	IAMs_20	IAMs_20	07 11 35.5	
	comp=Z,6µm,20.0s						
L42A	**Oliver, Polo**	**110.02**	**51**	IAMs_20	IAMs_20	07 14 03.6	
	comp=Z,9µm,19.0s						
HDIL	**Hopedale**	**110.17**	**52**	IAMs_20	IAMs_20	07 12 58.5	
	comp=Z,7µm,19.0s						
Z47A	**Carrollton**	**110.30**	**60**	IAMs_20	IAMs_20	07 14 03.6	
	comp=Z,5µm,20.0s						
T45A	**Paducah**	**110.30**	**56**	IAMs_20	IAMs_20	07 10 05.2	
	comp=Z,8µm,22.0s						
MSEY	**Mahe Island**	**110.36**	**258**	IAMs_20	IAMs_20	07 14 42.7	
	comp=Z,9µm,21.0s						
WVT	**Waverly**	**110.85**	**57**	IAMs_20	IAMs_20	07 18 08.0	
	comp=Z,7µm,18.0s						
BRAL	**Brewton**	**110.88**	**63**	IAMs_20	IAMs_20	07 18 29.2	
	comp=Z,5µm,19.0s						
VOI	**Vohitsoka**	**110.92**	**238**	IAMs_20	IAMs_20	07 11 23.2	
	comp=Z,8µm,20.0s						
LRAL	**Lakeview Retre**	**111.17**	**61**	IAMs_20	IAMs_20	07 21 54.7	
	comp=Z,6µm,18.0s						
X48A	**Hartselle**	**111.30**	**59**	IAMs_20	IAMs_20	07 13 51.0	
	comp=Z,6µm,20.0s						
F42A	**Maple Grove Fa**	**111.40**	**47**	IAMs_20	IAMs_20	07 10 19.6	
	comp=Z,10µm,21.0s						
V48A	**Smith Brothers**	**111.62**	**58**	IAMs_20	IAMs_20	07 12 03.4	
	comp=Z,6µm,20.0s						
250A	**Grady**	**111.65**	**62**	IAMs_20	IAMs_20	07 13 48.5	
	comp=Z,5µm,21.0s						
Y49A	**Blount Mountai**	**111.75**	**60**	IAMs_20	IAMs_20	07 14 45.1	
	comp=Z,6µm,20.0s						
SFIN	**Lafayette**	**111.82**	**53**	IAMs_20	IAMs_20	07 16 14.0	
	comp=Z,8µm,18.0s						
ABPO	**Ambohimpanom**	**111.94**	**241**	IAMs_20	IAMs_20	07 17 03.6	
	comp=Z,8µm,18.0s						
WCI	**Wyandotte Cave**	**112.27**	**55**	IAMs_20	IAMs_20	07 14 36.5	
	comp=Z,6µm,19.0s						
U49A	**Red Boiling Sp**	**112.53**	**57**	IAMs_20	IAMs_20	07 19 18.7	
	comp=Z,7µm,19.0s						
W50A	**Signal Mountai**	**112.79**	**59**	IAMs_20	IAMs_20	07 11 59.6	
	comp=Z,7µm,22.0s						
N47A	**Urbana**	**112.92**	**52**	IAMs_20	IAMs_20	07 13 28.3	
	comp=Z,8µm,20.0s						
553A	**Crawfordville**	**112.99**	**64**	IAMs_20	IAMs_20	07 23 43.2	
	comp=Z,5µm,18.0s						
X51A	**Calhoun**	**113.10**	**59**	IAMs_20	IAMs_20	07 19 28.9	
	comp=Z,6µm,18.0s						
R49A	**Shelbyville**	**113.16**	**55**	IAMs_20	IAMs_20	07 18 59.0	
	comp=Z,6µm,18.0s						
O48B	**Farmland**	**113.29**	**53**	IAMs_20	IAMs_20	07 18 46.3	
	comp=Z,8µm,18.0s						
Y52A	**Lilburn**	**113.69**	**60**	IAMs_20	IAMs_20	07 17 59.6	
	comp=Z,6µm,19.0s						
W52A	**Murphy**	**113.91**	**59**	IAMs_20	IAMs_20	07 16 18.2	
	comp=Z,8µm,20.0s						
SVE	**Sverdlovsk**	**113.93**	**325**	*i* PKIKP	**PKiKP**	**06 31 18.2**	**-0.7**
SVE				pmax	pmax		
	comp=Z,19nm,1.3s						
SVE				MLR	MLR		
	comp=Z,5µm,21.0s						
TULEG	**Thule**	**113.97**	**12**	IAMs_20	IAMs_20	07 20 40.4	
	comp=Z,5µm,20.0s						
N49A	**Columbus Grove**	**114.06**	**52**	IAMs_20	IAMs_20	07 14 22.7	
	comp=Z,8µm,20.0s						
GOGA	**Godfrey**	**114.15**	**61**	IAMs_20	IAMs_20	07 12 42.7	
	comp=Z,5µm,20.0s						
TZTN	**Tazewell**	**114.33**	**57**	IAMs_20	IAMs_20	07 13 16.1	
	comp=Z,6µm,22.0s						
S51A	**Beattyville**	**114.36**	**56**	IAMs_20	IAMs_20	07 12 38.9	
	comp=Z,7µm,22.0s						
154A	**Montrose**	**114.38**	**62**	IAMs_20	IAMs_20	07 16 16.8	
	comp=Z,7µm,20.0s						
AAM	**Ann Arbor**	**114.50**	**51**	IAMs_20	IAMs_20	07 11 57.1	
	comp=Z,7µm,22.0s						
Q51A	**Peebles**	**114.63**	**54**	IAMs_20	IAMs_20	07 13 21.8	
	comp=Z,9µm,21.0s						
M50A	**Fremont**	**114.94**	**52**	IAMs_20	IAMs_20	07 18 44.8	
	comp=Z,7µm,18.0s						
ACSO	**Alum Creek Sta**	**114.95**	**53**	IAMs_20	IAMs_20	07 14 12.3	
	comp=Z,7µm,20.0s						
LPAZ	**La Paz**	**115.09**	**118**	PKP	**PKPdf**	**06 31 23.5**	**+0.4**
	comp=Z,1.1nm,0.8s,baz=222,slow=2.0,SNR=3.7						
LPAZ				PP	**PP**	**06 32 27.0**	**+4.6**
	comp=Z,1.6nm,0.9s,baz=244,slow=5.8,SNR=4.5						
LPAZ				PKKPbc	**PKKPbc**	**06 42 01.5**	**+3.2**
	comp=Z,0.3nm,0.5s,baz=47,slow=3.5,SNR=3.6						
456A	**Hilliard**	**115.12**	**64**	IAMs_20	IAMs_20	07 17 06.5	
	comp=Z,4µm,20.0s						
ARTI	**Arti**	**115.22**	**325**	*i* PKIKP	**PKiKP**	**06 31 20.9**	**-0.5**
ARTI						06 32 20.8	
ARTI				PPP	PPP	06 34 46.7	
ARTI						06 38 32.9	
ARTI				SP	SP	06 42 05.6	+6.1
ARTI				SS	**SS**	**06 48 14.0**	**-5.0**
ARTI				MLR	MLR		
	comp=Z,6µm,20.0s						
ARTI	**Arti**	**115.22**	**325**	IAMs_20	IAMs_20	07 22 19.9	
	comp=Z,6µm,20.0s						
N51A	**Ashland**	**115.43**	**52**	IAMs_20	IAMs_20	07 17 42.9	
	comp=Z,7µm,19.0s						
Q52A	**Bidwell**	**115.46**	**55**	IAMs_20	IAMs_20	07 16 06.0	
	comp=Z,7µm,20.0s						
U54A	**Nelsons Funny**	**115.72**	**57**	IAMs_20	IAMs_20	07 16 38.9	
	comp=Z,8µm,19.0s						
O52A	**Adamsville**	**115.83**	**53**	IAMs_20	IAMs_20	07 14 59.5	
	comp=Z,8µm,20.0s						
257A	**Skidaway Islan**	**116.08**	**62**	IAMs_20	IAMs_20	07 17 51.8	
	comp=Z,5µm,20.0s						
S54A	**Dingess, Beckl**	**116.17**	**56**	IAMs_20	IAMs_20	07 21 59.9	
	comp=Z,8µm,18.0s						
M52A	**Chesterland**	**116.21**	**52**	IAMs_20	IAMs_20	07 16 37.4	
	comp=Z,7µm,20.0s						
N53A	**Lisbon**	**116.60**	**53**	IAMs_20	IAMs_20	07 19 56.8	
	comp=Z,7µm,18.0s						
Y57A	**Sumter**	**116.75**	**60**	IAMs_20	IAMs_20	07 25 25.5	
	comp=Z,5µm,18.0s						
BLA	**Blacksburg**	**116.86**	**57**	IAMs_20	IAMs_20	07 20 59.2	
	comp=Z,6µm,18.0s						
NHSC	**New Hope**	**116.87**	**61**	IAMs_20	IAMs_20	07 14 36.8	
	comp=Z,6µm,22.0s						
R55A	**Marlinton**	**117.13**	**55**	IAMs_20	IAMs_20	07 18 55.1	
	comp=Z,6µm,18.0s						
Y58A	**Scranton**	**117.34**	**60**	IAMs_20	IAMs_20	07 23 07.3	
	comp=Z,5µm,19.0s						
MCWV	**Mont Chateau**	**117.36**	**54**	IAMs_20	IAMs_20	07 14 33.9	
	comp=Z,8µm,21.0s						
SPITS	**Spitsbergen Ar**	**117.46**	**354**	PKP	**PKiKP**	**06 31 25.9**	**+0.8**
	comp=Z,3.7nm,0.5s,baz=260,slow=5.3,SNR=6.2						
SPITS	**Spitsbergen Ar**	**117.46**	**354**	PKIKP	**PKiKP**	**06 31 26.0**	**+0.8**
X58A	**Rowland**	**117.65**	**60**	IAMs_20	IAMs_20	07 22 26.2	
	comp=Z,7µm,18.0s						
CPSB	**Cacapava Do Su**	**117.86**	**139**	*e*P	**PKiKP**	**06 31 28.2**	**+0.8**
V58A	**Windy Hill, Pi**	**117.88**	**58**	IAMs_20	IAMs_20	07 17 10.1	
	comp=Z,7µm,20.0s						
S57A	**Dark Hollow, R**	**118.04**	**56**	IAMs_20	IAMs_20	07 24 23.3	
	comp=Z,5µm,18.0s						
Y60A	**Bolivia**	**118.55**	**60**	IAMs_20	IAMs_20	07 16 30.3	
	comp=Z,7µm,22.0s						
P57A	**Homestead Farm**	**118.77**	**54**	IAMs_20	IAMs_20	07 17 21.5	
	comp=Z,8µm,20.0s						
R58B	**Mineral**	**118.89**	**56**	IAMs_20	IAMs_20	07 22 23.8	
	comp=Z,6µm,18.0s						
L56A	**Greenwood**	**119.03**	**51**	IAMs_20	IAMs_20	07 20 00.0	
	comp=Z,8µm,19.0s						
T59A	**Double "B" Far**	**119.15**	**57**	IAMs_20	IAMs_20	07 17 16.8	
	comp=Z,6µm,20.0s						
CBN	**Corbin Frederi**	**119.29**	**55**	IAMs_20	IAMs_20	07 21 37.3	
	comp=Z,7µm,19.0s						
KIRV	**Kirov**	**119.52**	**328**	*d i*PKIKP	**PKPdf**	**06 31 28.4**	**-1.1**
LVZ	**Lovozero**	**121.45**	**341**	*c i*PKIKP	**PKPdf**	**06 31 32.0**	**-1.1**
LVZ				MLR	MLR		
	comp=Z,12µm,24.0s						
SUR	**Sutherland**	**121.80**	**212**	IAMs_20	IAMs_20	07 25 28.8	
	comp=Z,5µm,19.0s						
TRY	**Troy**	**121.86**	**50**	IAMs_20	IAMs_20	07 23 53.8	
	comp=Z,8µm,19.0s						
APA	**Apatity**	**122.03**	**341**	*i* PKIKP	**PKPdf**	**06 31 32.7**	**-1.4**
APA				*e*		06 33 06.9	
APA				*e*		06 38 32.1	
APA				*e*PS	**PS**	**06 42 58.9**	**-3.7**
APA				pmax	pmax		
	comp=Z,15nm,1.1s						
BELG	**Belogornoye**	**122.13**	**322**	*d i*PKIKP	**PKPdf**	**06 31 34.0**	**-0.7**
BOSA	**Boshof**	**122.22**	**219**	PKP	**PKPdf**	**06 31 36.0**	**+0.1**
	comp=Z,4.5nm,1.0s,baz=300,slow=2.4,SNR=4.9						
ADZR	**Andozero**	**122.38**	**336**	*e*PKIKP	**PKPdf**	**06 31 32.8**	**-2.1**
ADZR				pmax	pmax		
	comp=Z,23nm,1.1s						
SUMG	**Summit**	**122.45**	**9**	PKP	**PKPdf**	**06 31 34.7**	**-0.7**
SUMG	**Summit**	**122.45**	**9**	IAMs_20	IAMs_20	07 25 15.3	
	comp=Z,6µm,20.0s						
ILULI	**Ilulissat**	**122.49**	**16**	IAMs_20	IAMs_20	07 17 37.6	
	comp=Z,8µm,22.0s						
ARCES	**ARCESS Array B**	**122.88**	**345**	PKP	**PKPdf**	**06 31 34.8**	**-1.0**
	comp=Z,6.0nm,0.6s,baz=94,slow=1.7,SNR=16						
ARCES	**ARCESS Array B**	**122.88**	**345**	PKIKP	**PKPdf**	**06 31 35.1**	**-0.7**
ARCES	**ARCESS Array B**	**122.88**	**345**		**PKPdf**	**06 31 35.1**	**-0.7**
PTLB	**Pontes e Lacer**	**122.98**	**122**		**PKPdf**	**06 31 35.9**	**-1.6**
PTLB	**Pontes e Lacer**	**122.98**	**122**	*e*P	**PKPdf**	**06 31 37.5**	**-0.1**
KLMR	**Klimovskoe**	**123.35**	**333**	*e*PKIKP	**PKPdf**	**06 31 34.1**	**-2.7**
KLMR				pmax	pmax		
	comp=Z,83nm,1.5s						
KLMR				MLR	MLR		
	comp=Z,6µm,19.0s						
VILB	**Vilhena**	**123.41**	**119**		**PKPdf**	**06 31 38.0**	**-0.5**
VILB	**Vilhena**	**123.41**	**119**	*e*P	**PKPdf**	**06 31 37.9**	**-0.5**
TRCB	**Terra Rica**	**123.52**	**133**	*e*P	**PKiKP**	**06 31 40.1**	**+1.4**
BCX	**Boston College**	**123.74**	**50**	IAMs_20	IAMs_20	07 17 33.5	
	comp=Z,7µm,22.0s						
TEFE	**Tefe**	**123.75**	**106**	*e*P	**PKPdf**	**06 31 38.5**	**-0.6**
L64A	**Middleborough**	**124.03**	**51**	IAMs_20	IAMs_20	07 27 52.8	
	comp=Z,5µm,18.0s						
MAK	**Makhachkala**	**124.05**	**311**	*c e*P	**Pdif**	**06 28 02.1**	**-10**
MAK				*e*		06 33 18.7	
MAK				*e*PPP	PPP	06 36 01.0	
MAK				*e*		06 38 37.6	
MAK				*e*PS	PS	06 43 13.7	-7.8
MAK				*e*SS	SS	06 50 10.7	-2.8
MAK				*e*SSS	SSS	06 54 52.8	
MAK				pmax	pmax		
	comp=Z,100nm,0.7s						
SFJD	**Kangerlussuaq**	**124.15**	**17**	IAMs_20	IAMs_20	07 27 28.7	
	comp=Z,7µm,19.0s						
D62A	**Allapoint, All**	**124.42**	**44**	IAMs_20	IAMs_20	07 19 39.9	
	comp=Z,8µm,20.0s						
PP1B	**Ponte de Pedra**	**125.12**	**127**	*e*P	**PKiKP**	**06 31 43.4**	**+1.5**
SALV	**Santo Antonio**	**125.48**	**125**	*e*P	**PKiKP**	**06 31 43.5**	**+0.8**
VRH	**Novokhopyorsk**	**125.98**	**321**	*e*PKIKP	**PKPdf**	**06 31 41.7**	**-0.5**
VRH				pmax	pmax		
	comp=Z,51nm,1.3s						
SCO	**Scoresbysund**	**126.31**	**4**	IAMs_20	IAMs_20	07 22 26.5	
	comp=Z,5µm,22.0s						
RAYN	**Ar Rayn**	**126.40**	**287**	PKIKP	**PKPdf**	**06 31 44.4**	**+0.5**
RAYN				MLR	MLR		
	comp=Z,4µm,22.0s						
RAYN	**Ar Rayn**	**126.40**	**287**		**PKPdf**	**06 31 44.4**	**+0.5**
RAYN	**Ar Rayn**	**126.40**	**287**	IAMs_20	IAMs_20	07 25 31.2	
	comp=Z,4µm,22.0s						
SPB	**Sao Paulo**	**126.44**	**138**	IAMs_20	IAMs_20	07 17 35.6	
	comp=Z,4µm,22.0s						
MOS	**Moscow**	**126.53**	**328**	*i* PKIKP	**PKPdf**	**06 31 42.7**	**-0.4**
MOS				*e*		06 33 38.6	
MOS				*e*PPP	PPP	06 36 21.5	
MOS				pmax	pmax		
	comp=Z,31nm,0.6s						
GOF	**Gofitskoye**	**126.82**	**314**	*c e*PKIKP	**PKPdf**	**06 31 43.6**	**-0.4**
LPSR	**Galich'ya Gora**	**127.11**	**324**	*e*PKIKP	**PKPdf**	**06 31 44.4**	**+0.1**
LPSR				pmax	pmax		
	comp=Z,117nm,1.2s						
ATD	**Arta Tunnel**	**127.12**	**272**	IAMs_20	IAMs_20	07 23 11.1	
	comp=Z,5µm,21.0s						
KBZ	**Khabaz**	**127.22**	**312**	PKP	**PKiKP**	**06 31 45.9**	**+0.6**
	comp=Z,8.9nm,1.1s,baz=62,slow=1.3,SNR=7.7						
KBZ	**Khabaz**	**127.22**	**312**	*d i*PKIKP	**PKPdf**	**06 31 44.7**	**-0.1**
KBZ				MLR	MLR		
	comp=Z,6µm,20.0s						
OZAP	**Van, Ozalp-Mer**	**127.28**	**306**	⇑P	**PKiKP**	**06 31 46.5**	**+0.6**
VORR	**Voronezh**	**127.30**	**323**	*e*PKIKP	**PKPdf**	**06 31 45.1**	**+0.4**
VORR				pmax	pmax		
	comp=Z,110nm,1.3s						
KIV	**Kislovodsk**	**127.32**	**313**	*i* PKIKP	**PKPdf**	**06 31 45.0**	**-0.1**
KIV				*e*		06 33 44.0	
KIV				*e*PS	PS	06 43 48.9	-1.6
KIV				*e*SS	SS	06 50 55.0	+0.3
KIV				pmax	pmax		
	comp=Z,20nm,1.0s						
KIV				MLR	MLR		
	comp=Z,3µm,23.0s						
KIV	**Kislovodsk**	**127.32**	**313**	IAMs_20	IAMs_20	07 34 25.5	
	comp=Z,4µm,21.0s						
OBN	**Obninsk**	**127.34**	**327**	*d i*PKIKP	**PKPdf**	**06 31 44.1**	**-0.5**
OBN				*e*		06 33 46.0	
OBN				*i* SS	SS	06 50 51.1	-2.6
OBN				pmax	pmax		
	comp=Z,89nm,1.3s						
OBN				MLR	MLR		
	comp=Z,6µm,20.0s						
OBN	**Obninsk**	**127.34**	**327**	IAMs_20	IAMs_20	07 27 38.3	
	comp=Z,7µm,21.0s						
KIBK	**Kibwezi**	**127.38**	**253**	PKP	**PKPdf**	**06 31 45.9**	**-0.2**
SHA1	**Shidzhatmaz**	**127.39**	**312**	*c i*PKIKP	**PKPdf**	**06 31 45.7**	**+0.2**
VSR	**Storozhevoye**	**127.49**	**322**	*e*PKIKP	**PKPdf**	**06 31 44.5**	**-0.6**
VSR				pmax	pmax		
	comp=Z,48nm,1.2s						
VORD	**Divnogorie**	**127.50**	**322**	*i* PKIKP	**PKPdf**	**06 31 43.2**	**-1.9**
VORD				pmax	pmax		
	comp=Z,30nm,1.3s						
VORD				MLR	MLR		
	comp=Z,3µm,19.0s						
SJG	**San Juan**	**128.13**	**80**	PKIKP	**PKPdf**	**06 31 45.4**	**-1.9**
SJG	**San Juan**	**128.13**	**80**		**PKPdf**	**06 31 45.4**	**-1.9**
CLDB	**Colider**	**128.16**	**119**	*e*P	**PKiKP**	**06 31 49.0**	**+0.9**
FIA1	**FINESS Array S**	**128.38**	**338**		**PKPdf**	**06 31 46.6**	**+0.1**
FINES	**FINESS Array B**	**128.38**	**338**	PKP	**PKPdf**	**06 31 46.8**	**+0.3**
	comp=Z,31nm,1.2s,baz=70,slow=2.2,SNR=13						
FINES	**FINESS Array B**	**128.38**	**338**		**PKPdf**	**06 31 46.0**	**-0.4**
KMBO	**Kilima Mbogo**	**128.59**	**254**	⇓*i*PKIKP	**PKPdf**	**06 31 48.4**	**-0.3**
HOMI	**Horasan**	**128.67**	**308**	⇑P	**PKPdf**	**06 31 47.5**	**-0.5**
VSLR	**Vesyoloye**	**129.31**	**312**	⇑*i*PKIKP	**PKPdf**	**06 31 47.0**	**-1.8**
SOC	**Sochi**	**129.50**	**313**	*e*PKIKP	**PKPdf**	**06 31 48.9**	**-0.3**
SOC				*e*		06 34 00.5	
SOC				*e*PPP	PPP	06 36 47.7	
BOAV	**Boa Vista**	**129.74**	**101**		**PKPdf**	**06 31 50.0**	**-0.6**
BOAV	**Boa Vista**	**129.74**	**101**	*e*P	**PKPdf**	**06 31 51.2**	**+0.7**
VSU	**Vasula**	**130.08**	**335**	*d i*PKIKP	**PKPdf**	**06 31 47.8**	**-2.0**
VSU				pmax	pmax		
	comp=Z,50nm,1.3s						
VSU				MLR	MLR		
	comp=Z,7µm,21.0s						
FURI	**Furi**	**130.48**	**267**	IAMs_20	IAMs_20	07 25 38.0	
	comp=Z,5µm,20.0s						
ANN	**Anapa**	**130.73**	**315**	*i* PKIKP	**PKiKP**	**06 31 52.6**	**+0.3**
SNDB	**Serra Nova Dou**	**131.22**	**124**	*e*P	**PKiKP**	**06 31 54.4**	**+0.2**
BDFB	**Brasilia**	**131.48**	**130**	PKP	**PKPdf**	**06 31 54.5**	**+0.6**
	comp=Z,4.0nm,0.9s,baz=336,slow=5.7,SNR=3.5						
WIN	**Windhoek**	**131.57**	**216**	IAMs_20	IAMs_20	07 19 53.1	
	comp=Z,6µm,21.0s						
MNK	**Minsk**	**131.97**	**330**	*i* PKIKP	**PKiKP**	**06 31 55.1**	**+0.6**
MNK				*i*		06 34 18.6	
MNK				*i* PPP	PPP	06 37 10.4	
MNK				pmax	pmax		
	comp=N,10.0nm,0.7s						
MNK				pmax	pmax		
	comp=Z,18nm,0.8s						
MNK				pmax	pmax		
	comp=E,16nm,0.8s						
MNK	**Minsk**	**131.97**	**330**	*i* PKiKP	**PKiKP**	**06 31 55.2**	**+0.6**
	comp=E,16nm,0.8s						
MNK				*i* PKiKP	**PKiKP**	**06 31 55.2**	**+0.6**
	comp=N,10.0nm,0.7s						
MNK				*i* PKiKP	**PKiKP**	**06 31 55.2**	**+0.6**
	comp=Z,18nm,0.8s,baz=55						
MNK				*i* PP	**PP**	**06 34 18.7**	**+4.3**
MNK				*i* SKP		06 34 59.6	
MNK				*i* PKS	**PKSdf**	**06 35 30.2**	**+0.5**
MNK				*i* PPP	PPP	06 37 10.4	
MNK				*i* SKS		06 37 41.5	
MNK				*i* SS	**SS**	**06 52 01.1**	**+10**
MNK				*i* SSS	SSS	06 56 55.9	
MNK				*i* LQ	LQ	07 22 56.2	
LODK	**Lodwar**	**132.00**	**259**	IAMs_20	IAMs_20	07 29 34.4	
	comp=Z,4µm,18.0s						
SIM	**Simferopol'**	**132.91**	**316**	*i* PKIKP	**PKPdf**	**06 31 54.8**	**-0.8**
SIM				pmax	pmax		
	comp=Z,12nm,1.0s						
SIM				pmax	pmax		
	comp=Z,20nm,3.3s						
PABE	**Paberze**	**133.14**	**333**	IAMs_20	IAMs_20	07 30 52.9	
	comp=Z,7µm,21.0s						
NB2	**NORSAR Subarra**	**133.25**	**345**	PKPdf	**PKPdf**	**06 31 55.8**	**0.0**
	comp=Z,2.1nm,0.7s,baz=27,slow=1.8						
NOA	**NORSAR Array B**	**133.25**	**345**	PKP	**PKPdf**	**06 31 55.7**	**0.0**
	comp=Z,1.8nm,0.7s,baz=36,slow=2.0,SNR=7.7						
AKASG	**Malin Array Be**	**133.36**	**325**	PKP	**PKPdf**	**06 31 55.3**	**-1.0**
	comp=Z,3.3nm,0.7s,baz=53,slow=2.4,SNR=12						
AKASG				PP	**PP**	**06 34 22.9**	**-0.6**
	comp=Z,0.5nm,0.5s,baz=47,slow=6.6,SNR=4.4						
AKASG				SKPbc	**SKPbc**	**06 35 25.6**	**+1.0**
	comp=Z,2.8nm,1.0s,baz=46,slow=2.2,SNR=6.7						
AKASG	**Malin Array Be**	**133.36**	**325**	PKIKP	**PKPdf**	**06 31 55.8**	**-0.4**
AKASG	**Malin Array Be**	**133.36**	**325**		**PKPdf**	**06 31 55.8**	**-0.4**
AKBB	**Malin Array Si**	**133.36**	**325**	*d i*PKIKP	**PKPdf**	**06 31 55.6**	**-0.6**
AKBB	**Malin Array Si**	**133.36**	**325**		**PKPdf**	**06 31 55.8**	**-0.4**
HFS	**Hagfors**	**133.36**	**343**	PKP	**PKPdf**	**06 31 54.9**	**-1.1**
	comp=Z,8.6nm,1.1s,baz=209,slow=4.9,SNR=4.0						
AK09	**Malin Array Si**	**133.37**	**325**	PKP	**PKPdf**	**06 31 55.4**	**-0.9**
AK01	**Malin Array Si**	**133.38**	**325**	PKP	**PKPdf**	**06 31 56.0**	**-0.3**
KIEV	**Kiev**	**133.38**	**325**	PKIKP	**PKPdf**	**06 31 55.8**	**-0.5**
KIEV	**Kiev**	**133.38**	**325**		**PKPdf**	**06 31 55.8**	**-0.5**
KIEV	**Kiev**	**133.38**	**325**	IAMs_20	IAMs_20	07 35 11.8	
	comp=Z,4µm,18.0s						
KIEV	**Kiev**	**133.38**	**325**	⇑P	**PKPdf**	**06 31 53.9**	**-2.4**
AK08	**Malin Array Si**	**133.38**	**325**	PKP	**PKPdf**	**06 31 55.5**	**-0.8**
AK04	**Malin Array Si**	**133.38**	**325**	PKP	**PKPdf**	**06 31 55.4**	**-0.9**
AK02	**Malin Array Si**	**133.40**	**325**	PKP	**PKPdf**	**06 31 55.3**	**-1.0**
AK05	**Malin Array Si**	**133.42**	**325**	PKP	**PKPdf**	**06 31 55.3**	**-1.0**
TSUM	**Tsumeb**	**133.89**	**220**	IAMs_20	IAMs_20	07 35 10.8	
	comp=Z,6µm,19.0s						
LUBAR	**Lubar, Ukraine**	**134.57**	**325**	PKP	**PKPdf**	**06 31 58.1**	**-0.4**
RNPP9	**Sopachiv**	**134.74**	**328**	PKP	**PKPdf**	**06 31 58.0**	**-0.8**
MBAR	**Mbarara**	**134.75**	**251**	IAMs_20	IAMs_20	07 28 55.8	
	comp=Z,5µm,19.0s						
RNPP5	**Staryi Chortor**	**134.85**	**327**	PKP	**PKPdf**	**06 31 58.8**	**-0.2**
KONO	**Kongsberg**	**134.86**	**345**	IAMs_20	IAMs_20	07 30 35.2	
	comp=Z,6µm,22.0s						
KIRS	**Kirsehir-Merke**	**134.88**	**308**	⇑P	**PKPdf**	**06 32 00.6**	**+1.0**
BR131	**Keskin Array S**	**134.93**	**309**	*c i*PKIKP	**PKPdf**	**06 32 00.3**	**+0.6**
BRTR	**Keskin Array B**	**134.93**	**309**	PKP	**PKPdf**	**06 31 59.5**	**-0.3**
	comp=Z,7.6nm,1.1s,baz=144,slow=2.3,SNR=14						
BRTR	**Keskin Array B**	**134.93**	**309**		**PKPdf**	**06 32 00.5**	**+0.7**
BR106	**Keskin Array S**	**134.94**	**309**	PKP	**PKPdf**	**06 31 59.1**	**-0.7**
BR105	**Keskin Array S**	**134.94**	**309**	PKP	**PKPdf**	**06 31 59.1**	**-0.7**
MMAI	**Mount Meron Ar**	**135.01**	**300**	PKP	**PKPdf**	**06 31 59.8**	**-0.2**
	comp=Z,0.7nm,0.2s,baz=170,slow=2.5,SNR=5.8						
SORM	**Soroca**	**135.15**	**322**	⇑P	**PKPdf**	**06 31 59.0**	**-0.7**
SMTB	**Santa Maria do**	**135.99**	**123**	*e*P	**PKPdf**	**06 32 03.2**	**+0.9**
TPGR	**Topolog**	**136.65**	**318**	⇑P	**PKPdf**	**06 32 02.4**	**-0.2**
CFR	**Carcaliu**	**136.68**	**319**	⇑PKIKP	**PKPdf**	**06 32 00.4**	**-2.2**
CFR	**Carcaliu**	**136.68**	**319**	⇑P	**PKPdf**	**06 32 00.4**	**-2.2**
TIRR	**Tirgusor**	**136.83**	**318**	⇓PKIKP	**PKPdf**	**06 32 03.8**	**+0.9**
TIRR	**Tirgusor**	**136.83**	**318**	IAMs_20	IAMs_20	07 39 17.5	
	comp=Z,6µm,19.0s						
TIRR	**Tirgusor**	**136.83**	**318**	⇓P	**PKPdf**	**06 32 03.8**	**+0.9**
HARR	**Harsova**	**137.03**	**318**	⇑PKIKP	**PKPdf**	**06 32 04.8**	**+1.5**
HARR	**Harsova**	**137.03**	**318**	⇑P	**PKPdf**	**06 32 04.8**	**+1.5**
BIZ	**Bicaz**	**137.07**	**322**	⇓P	PKPpre	06 31 54.2	
ONER	**Baraj Valea Uz**	**137.20**	**321**	⇑P	PKPpre	06 31 52.9	
BURAR	**Bucovina Array**	**137.22**	**323**	⇑PKIKP	**PKPdf**	**06 32 05.0**	**+1.3**
BURAR	**Bucovina Array**	**137.22**	**323**		**PKPdf**	**06 32 03.6**	**-0.1**
BURAR	**Bucovina Array**	**137.22**	**323**	⇑P	**PKPdf**	**06 32 05.0**	**+1.3**
VRI	**Vrincioaia**	**137.23**	**320**	⇓P	PKPpre	06 31 56.1	
KEPZ	**Antalya-Kepez**	**137.25**	**306**	⇑P	**PKPdf**	**06 32 05.5**	**+1.5**

PLOR	Plostina	137.29	320	⇑PKIKP	PKPdf	06 32 02.1	-1.7
PLOR	Plostina	137.29	320	⇑P	PKPdf	06 32 02.1	-1.7
SAHR	Sahastru	137.32	320	⇓P	PKPdf	06 32 03.6	-0.3
BISRR	Bisoca	137.40	320	⇑P	PKPdf	06 32 04.3	+0.3
GKP	Gorka Klasztor	137.53	335	*e*PKiKP	PKiKP	06 32 05.9	0.0
ISR	Istrita	137.71	320	⇑PKIKP	PKPdf	06 32 05.8	+1.2
ISR	Istrita	137.71	320	⇑P	PKPdf	06 32 05.8	+1.2
ISP	Isparta	137.81	308	IAMs_20	IAMs_20	07 38 24.0	
	comp=Z,3µm,20.0s						
DOPR	Dopca	137.99	321	⇑P	PKPpre	06 31 53.0	
RGN	Rugen	138.04	338	IAMs_20	IAMs_20	07 32 22.9	
	comp=Z,7µm,21.0s						
KOLS	Kolonicke sedl	138.08	327	*e*PKP	PKPdf	06 32 05.9	+0.8
STHS	Stebnicka Huta	138.32	328	*e*PKP	PKiKP	06 32 07.5	-0.1
VOIR		138.47	321	⇑P	PKPpre	06 31 58.3	
OJC	Ojcow	138.52	330	*e*PKiKP	PKiKP	06 32 10.2	+2.2
ARR	Arges	138.75	321	⇑P	PKPpre	06 31 58.8	
NIE	Niedzica	138.79	328	*e*PKiKP	PKiKP	06 32 10.4	+1.8
MARR	Marisel-Cluj	138.94	323	⇑P	PKPpre	06 31 58.1	
DRGR		139.10	324	⇓PKIKP	PKPdf	06 32 05.1	-2.1
DRGR		139.10	324	⇓P	PKPdf	06 32 05.1	-2.1
KECS	Kecovo	139.29	327	*e*PKP	PKPdf	06 32 08.3	+0.9
LANS	Liptovska Anna	139.38	329	*e*PKP	PKiKP	06 32 11.3	+1.4
OKC	Ostrava-Krasne	139.56	330	*e*PKIKP	PKPdf	06 32 09.1	+1.3
OKC				MLR	MLR		
	comp=Z,5µm,25.2s						
OKC	Ostrava-Krasne	139.56	330	*e*PKPDF	PKPdf	06 32 09.1	+1.3
OKC				*e*SS	SS	06 53 39.1	+18
OKC				AMS	AMS	07 30 50.0	
	comp=Z,5µm,25.2s						
KSP	Ksiaz	139.70	333	*e*PKiKP	PKiKP	06 32 11.4	+1.0
GZR	Gura Zlata	139.85	322	⇑PKIKP	PKPpre	06 32 02.8	
GZR	Gura Zlata	139.85	322	⇑P	PKPpre	06 32 02.8	
MORC	Moravsky Berou	139.89	331	*e*PP	PP	06 35 05.9	+1.7
MORC	Moravsky Berou	139.89	331	⇑P	PKPdf	06 32 04.3	-4.1
MORC	Moravsky Berou	139.89	331	*e*PKP	PKPpre	06 32 03.0	
OSTC	Ostas	139.94	332	*e*PKIKP	PKiKP	06 32 10.6	-0.3
OSTC				MLR	MLR		
	comp=Z,7µm,26.3s						
OSTC	Ostas	139.94	332	*e*PKPDF	PKiKP	06 32 10.6	-0.3
OSTC				*e*SS	SS	06 53 38.7	+13
OSTC				AMS	AMS	07 28 20.0	
	comp=Z,7µm,26.3s						
PSZ	Piszkesteto	139.96	327	PKIKP	PKPdf	06 32 04.6	-4.1
PSZ				MLR	MLR		
	comp=Z,11µm,21.0s						
PSZ	Piszkesteto	139.96	327		PKPdf	06 32 04.6	-4.1
PSZ	Piszkesteto	139.96	327	⇑P	PKPdf	06 32 04.6	-4.1
CHVC	Chvalec	139.99	333	*e*PKIKP	PKiKP	06 32 11.2	+0.2
CHVC				MLR	MLR		
	comp=Z,6µm,24.9s						
CHVC	Chvalec	139.99	333	*e*PKPDF	PKiKP	06 32 11.2	+0.2
CHVC				AMS	AMS	07 28 30.0	
	comp=Z,6µm,24.9s						
KRLC	Kraliky	140.03	332	*e*PKIKP	PKPdf	06 32 07.0	-1.7
KRLC				*e*SS	SS	06 53 59.1	+32
KRLC				MLR	MLR		
	comp=Z,10µm,22.4s						
KRLC	Kraliky	140.03	332	*e*PKPDF	PKPdf	06 32 07.0	-1.7
KRLC				*e*SS	SS	06 53 59.1	+32
KRLC				AMS	AMS	07 32 50.0	
	comp=Z,10µm,22.4s						
DPC	Dobruska-Polom	140.04	332	*e*PKIKP	PKiKP	06 32 12.3	+1.1
DPC				MLR	MLR		
	comp=Z,7µm,25.4s						
DPC	Dobruska-Polom	140.04	332	*e*PKPDF	PKiKP	06 32 12.3	+1.1
DPC				*e*SS	SS	06 53 39.5	+12
DPC				AMS	AMS	07 29 00.0	
	comp=Z,7µm,25.4s						
UPC	Upice	140.07	333	*e*PKIKP	PKPdf	06 32 07.3	-1.4
UPC				MLR	MLR		
	comp=Z,6µm,26.2s						
UPC	Upice	140.07	333	*e*PKPDF	PKPdf	06 32 07.3	-1.4
UPC				*e*SS	SS	06 53 39.5	+12
UPC				AMS	AMS	07 28 40.0	
	comp=Z,6µm,26.2s						
NBPN	Ponto Novo - B	140.31	133	*e*P	PKPdf	06 32 09.9	-0.3
HERR	Herculane	140.34	321	⇑P	PKPdf	06 32 03.0	-6.3
BZS	Buzias	140.40	323	⇑PKIKP	PKPdf	06 32 09.2	-0.2
BZS	Buzias	140.40	323	⇑P	PKPdf	06 32 09.2	-0.2
JAVC	Velka Javorina	140.46	330	*e*PKP	PKPdf	06 32 04.5	-5.0
FLTG	Flechtingen	140.57	338	*e*PKP	PKPdf	06 32 07.8	-1.7
	baz=38,slow=2.2						
VRAC	Vranov	140.66	331	*e*PKP	PKPdf	06 32 09.3	-0.5
VRAC				*e*PP	PP	06 35 09.3	+0.4
VRAC	Vranov	140.66	331	*e*SS	SS	06 53 43.3	+9.0
BRG	Berggiesshubel	140.68	334	*e*PKP	PKPdf	06 32 04.0	-5.8
	baz=38,slow=2.2						
BRG	Berggiesshubel	140.68	334	Amp		06 32 06.7	
	comp=Z,3.4nm,0.8s						
BRG	Berggiesshubel	140.68	334	Amp		06 32 11.7	
	comp=Z,7.4nm,1.0s						
BRG	Berggiesshubel	140.68	334	P	PKiKP	06 32 14.8	+2.5
BRG				Amp		06 32 17.7	
	comp=Z,16nm,1.2s						
BRG	Berggiesshubel	140.68	334	⇓*e*PKPf		06 32 03.5	
BRG	Berggiesshubel	140.68	334	P	PKPdf	06 32 10.7	+0.9
CLL	Collm	140.72	336	*i* PKIKP	PKPdf	06 32 08.8	-1.0
CLL				pmax	pmax		
	comp=Z,15nm,1.1s						
CLL				MLR	MLR		
	comp=Z,5µm,24.3s						
CLL	Collm	140.72	336	IAMs_20	IAMs_20	07 38 22.1	
	comp=Z,4µm,20.0s						
CLL	Collm	140.72	336	*e*PKP	PKPdf	06 32 05.5	-4.3
	baz=38,slow=2.2						
CLL	Collm	140.72	336	*i* PKPpre	PKPpre	06 32 06.5	
CLL				*i* PKPdf	PKPdf	06 32 08.8	-1.0
	comp=Z,15nm,1.1s						
CLL				*e*x	x	06 32 15.0	
	comp=Z,24nm,1.2s						
CLL				*i* x	x	06 32 20.6	
	comp=Z,129nm,2.2s						
CLL				*e*PPlp		06 34 59.0	
CLL				*e*PP	PP	06 35 12.0	+2.9
CLL				*e*SKPdf	SKPbc	06 35 45.0	-1.5
CLL				*e*x	x	06 35 54.0	
CLL				*e*PPP	PPP	06 38 12.0	
CLL				*e*SKSac	SKSac	06 39 24.0	-1.8
CLL				*e*SKKSac	SKKSac	06 41 54.0	-9.3
CLL				*e*Sdif	Sdif	06 43 30.0	-10
CLL				*e*PSKS		06 45 12.0	
CLL				*e*SS	SS	06 53 33.0	-1.7
CLL				*e*SKSSKSac	S'S'ac	06 55 17.0	+3.7
CLL				*e*SSS	SSS	06 58 47.0	
CLL				*e*x	x	07 03 18.0	
CLL				LH		07 09 00.0	
CLL				LV		07 14 00.0	
CLL				AMS	AMS	07 19 00.0	
	comp=N,1µm,27.5s						
CLL				AMS	AMS	07 19 00.0	
	comp=E,5µm,33.1s						
CLL				AMS	AMS	07 31 00.0	
	comp=Z,5µm,24.3s						
MDVR	Moldovita	140.81	322	⇑P	PKPdf	06 32 08.3	-2.0
RICC	Richard	140.86	334	*e*SS	SS	06 53 53.1	+17
RICC				AMS	AMS	07 40 40.0	
	comp=Z,6µm,18.7s						
RETH	Rethem/Aller,	140.88	340	*e*PKP	PKPdf	06 32 07.0	-3.0
	baz=38,slow=2.2						
KRUC	Moravsky	140.93	331	*e*PKP	PKPdf	06 32 06.9	-3.4
KRUC				*e*PP	PP	06 35 08.2	-2.3
ASSE	Asse, Remlinge	140.93	338	*e*PKP	PKPdf	06 32 07.5	-2.6
	baz=38,slow=2.2						
MODS	Modra-Piesok	140.98	329	*e*PKP	PKPdf	06 32 10.3	-0.1
HSKC	Hora Svate Kat	141.09	335	*e*PKPDF	PKPdf	06 32 07.3	-3.3
HSKC				*e*SS	SS	06 53 57.1	+18
HSKC				AMS	AMS	07 32 00.0	
	comp=Z,5µm,23.6s						
PRU	Pruhonice	141.09	333	*e*PKIKP	PKPdf	06 32 11.6	+1.1
PRU				MLR	MLR		
	comp=Z,7µm,22.4s						
PRU	Pruhonice	141.09	333	*e*PKPDF	PKPdf	06 32 11.6	+1.1
PRU				*e*SS	SS	06 53 52.3	+13
PRU				AMS	AMS	07 32 30.0	
	comp=Z,7µm,22.4s						
TREC	Trest	141.18	332	*e*PKIKP	PKPdf	06 32 11.8	+1.0
TREC				MLR	MLR		
	comp=Z,7µm,24.2s						
TREC	Trest	141.18	332	*e*PKPDF	PKPdf	06 32 11.8	+1.0
TREC				*e*SS	SS	06 53 51.5	+11
TREC				AMS	AMS	07 31 40.0	
	comp=Z,7µm,24.2s						
ZST	Bratislava	141.19	329	*e*PP	PP	06 35 17.6	+5.4
NEUB	Neuenburg	141.27	337	*e*PKP	PKPdf	06 32 08.5	-2.3
	baz=38,slow=2.2						
CLZ	Clausthal	141.28	338	*e*PKP	PKPdf	06 32 07.5	-3.4
	baz=38,slow=2.2						
EKA	Eskdalemuir Ar	141.36	352	PKP	PKPdf	06 32 08.4	-2.5
	comp=Z,3.9nm,0.9s,baz=14,slow=1.7,SNR=4.4						
ESK	Eskdalemuir	141.38	352	IAMs_20	IAMs_20	07 46 03.1	
	comp=Z,3µm,20.0s						
BOVS	Bovan	141.45	320	⇑P	PKPdf	06 32 10.0	-1.3
TANN	Tannenbergstha	141.63	335	*e*PKP	PKPdf	06 32 05.9	-5.7
	baz=38,slow=2.2						
PEHC	Pehcevo	141.65	317	*i* P	PKPdf	06 32 08.6	-3.4
ZVC	Zvikov	141.65	333	*e*PKPDF	PKPdf	06 32 07.9	-3.7
ZVC				*e*SS	SS	06 53 57.5	+12
ZVC				AMS	AMS	07 32 10.0	
	comp=Z,7µm,21.2s						
GTTG	Gottingen	141.66	338	*e*PKP	PKPdf	06 32 06.8	-4.7
	baz=38,slow=2.2						
MORH	Mrgy, Hungar	141.70	326	⇓P	PKPdf	06 32 06.2	-5.5
PLN	Plauen	141.70	336	*e*PKP	PKPdf	06 32 06.3	-5.4
	baz=38,slow=2.2						
WINA	Alland / Wiene	141.75	330	*i* PKiKP	PKPdf	06 32 11.2	-0.6
	SNR=7.5						
IBBN	Ibbenburen	141.76	341	*e*PKP	PKPdf	06 32 10.2	-1.5
	baz=38,slow=2.2						
NKC	Novy Kostel	141.78	335	*e*PKIKP	PKPdf	06 32 10.1	-1.7
NKC	Novy Kostel	141.78	335	*e*PKPDF	PKPdf	06 32 10.1	-1.7
NKC				*e*SS	SS	06 53 55.9	+8.8
NKC				AMS	AMS	07 32 10.0	
	comp=Z,5µm,27.7s						
MOX	Moxa	141.78	336	*e*PKP	PKPdf	06 32 05.7	-6.1
	baz=38,slow=2.2						
MOX				*e*L	L	07 39 02.6	
	comp=Z,5µm,20.9s						
RONA	Rosalia, Austr	141.92	329	*i* PKP	PKPdf	06 32 07.9	-4.3
	comp=Z,18nm,1.0s,SNR=6.9						
CONA	Conrad Observa	141.97	330	*i* PKP	PKPdf	06 32 07.7	-4.6
	comp=Z,49nm,1.5s,SNR=18						
VAY	Valandovo	142.09	317	*i* P	PKPdf	06 32 07.8	-4.8
KHC	Kasperske Hory	142.15	333	*ce*PKIKP	PKPdf	06 32 08.6	-3.9
KHC				MLR	MLR		
	comp=Z,5µm,21.0s						
KHC	Kasperske Hory	142.15	333	*e*PKPDF	PKPdf	06 32 12.1	-0.4
KHC				*e*x	x	06 35 15.0	
KHC				*e*SS	SS	06 54 02.6	+11
KHC				AMS	AMS	07 40 00.0	
	comp=Z,7µm,19.5s						
GEC2	GERESS Array S	142.31	333	*e*PKP	PKPdf	06 32 07.4	-5.5
	baz=38,slow=2.2						
GERES	GERESS Array B	142.31	333	PKhKP	PKPpre	06 32 07.9	
	comp=Z,3.8nm,0.6s,baz=48,slow=2.0,SNR=18						
WET	Wettzell	142.44	334	*e*PKP	PKPdf	06 32 08.2	-4.8
	baz=38,slow=2.2						
KASTN	Kahler Asten	142.49	339	*e*PKP	PKPdf	06 32 09.8	-3.2
	baz=38,slow=2.2						
ARSA	Arzberg	142.61	329	*e*PKP	PKPdf	06 32 09.5	-3.9
	comp=Z,20nm,1.3s						
BUG	Bochum--Univer	142.66	341	*e*PKP	PKPdf	06 32 09.5	-3.7
	baz=38,slow=2.2						
GRA1	Grafenberg Arr	142.69	335	IAMs_20	IAMs_20	07 35 54.3	
	comp=Z,4µm,21.0s						
GRF	Grafenberg Arr	142.69	335	*e*PKP	PKPdf	06 32 08.8	-4.7
	baz=38,slow=2.2						
GRF				*e*L	L	07 35 53.7	
	comp=Z,4µm,21.6s						
GRFO	Grafenberg	142.70	335	IAMs_20	IAMs_20	07 35 54.4	
	comp=Z,4µm,21.0s						
LIT	Litokhoron	142.72	315	PKIKP	PKPdf	06 32 11.5	-2.3
LIT	Litokhoron	142.72	315		PKPdf	06 32 11.5	-2.3
MOA	Molln	142.78	331	*i* PKP	PKPdf	06 32 10.0	-3.7
	comp=Z,48nm,1.3s,SNR=24						
IDI	Anoyia	142.91	306	PKP	PKPdf	06 32 10.6	-3.8
NBTA	Tacaratu-PE	143.01	133	*e*P	PKPdf	06 32 16.2	+1.1
SESA	Seetaler Alpe,	143.17	330	*i* PKP	PKPab	06 32 11.3	+1.1
	SNR=34						
BIOA	Bad Ischl, Aus	143.19	331	*i* PKP	PKPbc	06 32 11.7	+0.4
	comp=Z,29nm,1.1s,SNR=7.2						
SOKA	Soboth	143.25	329	*i* PKP	PKPab	06 32 11.1	+0.7
	comp=Z,68nm,1.5s,SNR=31						
OHR	Ohrid	143.35	317	*i* P	PKPab	06 32 12.1	+1.2
BLY	Banja Luka	143.42	325	IAMs_20	IAMs_20	07 35 53.9	
	comp=Z,6µm,21.0s						
BLY	Banja Luka	143.42	325	⇓P	PKPab	06 32 12.1	+1.1
BOPT	Opiter	143.45	342	*d*PKP	PKPdf	06 32 16.6	+2.0
BMOL	Mol	143.52	342	*d*PKPdf	PKPbc	06 32 13.8	+1.8
NBPS	Pedro II - PI	143.53	123	*e*P	PKPbc	06 32 15.0	+1.7
OBKA	Obir	143.61	329	*i* PKP	PKPab	06 32 11.4	-0.4
	comp=Z,32nm,1.2s						
PDG	Podgorica	143.61	320	IAMs_20	IAMs_20	07 39 38.5	
	comp=Z,6µm,22.0s						
PDG	Podgorica	143.61	320	⇓P	PKPab	06 32 10.5	-1.2
NBMA	Muriti-CE	143.71	130	*e*P	PKPdf	06 32 17.3	+1.0
DSB	Dublin	143.76	355	PKP	PKPab	06 32 11.6	-0.4
DSB	Dublin	143.76	355	IAMs_20	IAMs_20	07 43 34.0	
	comp=Z,4µm,18.0s						
KBA	Koelnbreinsper	143.77	331	*i* PKP	PKPab	06 32 12.7	+0.2
	comp=Z,78nm,1.4s,SNR=15						
MEM	Membach	143.78	341	*d*PKPdf	PKPbc	06 32 13.6	+0.8
LESA	Schwarzleotal	143.82	332	*i* PKP	PKPab	06 32 13.4	+0.8
	comp=Z,101nm,1.5s,SNR=34						
LJU	Ljubljana	143.95	329	*i* PKPdf	PKPab	06 32 12.9	-0.1
LJU				*e*		06 34 13.2	
LJU				*e*		06 39 57.7	
BOJS	Bojanci	143.95	327	*e*PKPdf	PKPab	06 32 13.1	0.0
MYKA	Terra Mystica	143.96	330	*i* PKP	PKPab	06 32 12.7	-0.4
	comp=Z,74nm,1.2s,SNR=22						
BOST	Ostende	144.09	344	*d*PKP	PKiKP	06 32 19.0	-0.3
UCC	Uccle	144.10	343	*d*PKPdf	PKPbc	06 32 14.8	+1.0
BCLA	Clavier	144.16	342	*d*PKPdf	PKPdf	06 32 15.8	-0.2
CEY	Cerknica	144.21	328	*e*PKPdf	PKPab	06 32 13.9	-0.1
STU	Stuttgart	144.22	336	IAMs_20	IAMs_20	07 40 23.7	
	comp=Z,5µm,20.0s						
STU	Stuttgart	144.22	336	*e*PKP	PKPab	06 32 14.2	+0.3
	baz=38,slow=2.2						
WATA	Walderalm	144.38	333	*i* pPKP	PKPab	06 32 15.1	+0.3
	comp=Z,85nm,1.4s,SNR=10						
ABTA	Abfaltersbach	144.40	331	*i* PKP	PKPab	06 32 12.9	-1.9
	comp=Z,189nm,1.6s,SNR=72						
WTTA	Wattenberg	144.41	333	*i* pPKP	PKPab	06 32 15.2	+0.3
	comp=Z,155nm,1.3s,SNR=41						
RCHB	Rochefort	144.42	341	*d*PKPdf	PKPab	06 32 14.2	-0.3
ITM	Ithomi	144.42	311		PKPab	06 32 14.6	-0.5
BMRD	Maredsous	144.43	342	*d*PKPdf	PKPab	06 32 15.3	+0.7
WLF	Walferdange	144.55	340	PKP	PKPab	06 32 14.5	-0.7
WLF	Walferdange	144.55	340	IAMs_20	IAMs_20	07 43 11.0	
	comp=Z,5µm,19.0s						
WLF	Walferdange	144.55	340	*d*PKP	PKPab	06 32 14.9	-0.2
WLF	Walferdange	144.55	340	*e*PKP	PKPab	06 32 13.3	-1.8
	baz=38,slow=2.2						
TRI	Trieste	144.56	329	PKIKP	PKPab	06 32 14.5	-0.8
TRI	Trieste	144.56	329		PKPab	06 32 14.5	-0.8
MOTA	Moosalm	144.58	333	*i* pPKP	PKPab	06 32 15.5	0.0
	comp=Z,138nm,1.1s,SNR=55						
RETA	Reutte	144.62	334	*i* pPKP	PKPab	06 32 15.5	0.0
	comp=Z,102nm,1.2s,SNR=32						
SQTA	Sankt Quirin	144.63	333	*i* pPKP	PKPab	06 32 15.5	-0.1
	comp=Z,189nm,1.4s,SNR=48						
DOU	Dourbes	144.66	342	*d*PKPdf	PKPab	06 32 14.7	-0.7
KEK	Kerkira	144.72	316		PKPab	06 32 15.1	-1.0
UBR	Ueberruh	144.74	334	*e*PKP	PKPab	06 32 15.5	-0.4
	baz=38,slow=2.2						
BFO	Black Forest	144.92	337	PKIKP	PKPab	06 32 14.6	-1.9
BFO	Black Forest	144.92	337		PKPab	06 32 14.6	-1.9
BFO				IAMs_20	IAMs_20	07 40 45.0	
	comp=Z,4µm,20.0s						
BFO	Black Forest	144.92	337	*e*PKP	PKPab	06 32 15.4	-1.2
	baz=38,slow=2.2						
FETA	Feichten	144.99	333	*i* pPKP	PKPab	06 32 15.9	-1.2
	comp=Z,212nm,1.1s,SNR=92						
DAVA	Damuels	145.15	334	*i* pPKP	PKPbc	06 32 17.0	-0.5
	comp=Z,333nm,1.4s,SNR=91						
VAL	Valentia	145.28	359	PKP	PKPbc	06 32 15.7	-1.8
NBMO	Morrinhos-CE	145.30	123	*e*P	PKPbc	06 32 18.8	0.0
CTI	Castel Tesino	145.32	331	PKIKP	PKPbc	06 32 16.7	-1.3
CTI	Castel Tesino	145.32	331		PKPbc	06 32 16.7	-1.3
ECH	Echery	145.44	338	IAMs_20	IAMs_20	07 43 27.8	
	comp=Z,3µm,20.0s						
TUE	Stuetta	146.01	334		PKPdf	06 32 18.9	-0.7
TUE				IAMs_20	IAMs_20	07 41 42.3	
	comp=Z,6µm,22.0s						
SGRT	San Giovanni R	146.12	322		PKPdf	06 32 18.8	-0.9
MATE	Matera	146.20	320	⇑P	PKPdf	06 32 18.7	-1.0
SHEL	Horse Pasture	146.59	190	IAMs_20	IAMs_20	07 30 33.6	
	comp=Z,4µm,18.0s						
NBPV	Pedro Velho	146.85	133	*e*P	PKPdf	06 32 22.8	+1.1
TIP	Timpagrande	147.00	317		PKPdf	06 32 20.7	-0.6
TIP				IAMs_20	IAMs_20	07 39 26.3	
	comp=Z,6µm,22.0s						
TIP	Timpagrande	147.00	317	⇑P	PKPdf	06 32 21.1	-0.2
AQU	L'Aquila	147.06	325	PKP	PKPdf	06 32 20.4	-0.9
VLC	Villacollemand	147.33	330	PKP	PKPdf	06 32 19.6	-2.1
CEL	Celeste	148.07	317		PKPdf	06 32 24.9	+1.8
CEL				IAMs_20	IAMs_20	07 40 45.8	
	comp=Z,4µm,21.0s						
SSB	Saint Sauveur	148.89	338	PKP2	PKPbc	06 32 26.8	-1.3
SSB	Saint Sauveur	148.89	338		PKPbc	06 32 26.8	-1.3
SSB	Saint Sauveur	148.89	338	IAMs_20	IAMs_20	07 44 55.0	
	comp=Z,4µm,20.0s						
RAFF	Raffo Rosso	149.65	316		PKPdf	06 32 28.2	+2.5
WDD	Wied Dalam	150.30	314	IAMs_20	IAMs_20	07 54 48.6	
	comp=Z,3µm,20.0s						
VSL	Villasalto	151.24	325	IAMs_20	IAMs_20	07 53 12.8	
	comp=Z,3µm,20.0s						
EJON	La Jonquera	151.93	337	PKP	PKPdf	06 32 28.9	-0.1
MAHO	Mahon	153.50	332	PKP	PKPdf	06 32 31.1	-0.3
MAHO	Mahon	153.50	332	IAMs_20	IAMs_20	07 57 18.7	
	comp=Z,3µm,20.0s						
KEST	Kesra	153.78	319	PKPbc	PKPbc	06 32 38.2	-1.6
	comp=Z,13nm,0.9s,baz=300,slow=2.2,SNR=11						
KEST				PKPab	PKPab	06 32 54.1	+1.4
	comp=Z,67nm,1.2s,baz=282,slow=5.5,SNR=7.0						
KEST	Kesra	153.78	319		PKPbc	06 32 40.2	+0.3
ASCN	Ascension	154.91	173	IAMs_20	IAMs_20	07 34 11.7	
	comp=Z,4µm,21.0s						
ECAL	Calabor	154.96	351	PKP	PKPdf	06 32 36.9	+3.4
PGAV	Gavieira, Arco	155.12	354	*e*LR	LR	07 26 20.0	
PGAV				*i* IAMs_20	IAMs_20	07 45 16.8	
	comp=Z,7µm,20.0s						
POLO	Lamas de Olo	155.65	353	*e*PKPdf	PKPdf	06 32 33.1	-1.4
PVRL	Vila Real	155.74	353	*e*PKPdf	PKPdf	06 32 32.2	-2.2
UCM	Universidad Co	155.83	344	PKP	PKPdf	06 32 35.3	+0.7
PVIS	Viseu	156.31	353	*e*PKPab	PKPab	06 33 02.5	-0.7
MTE	Manteigas	156.58	352	*e*PKPab	PKPab	06 33 02.3	-2.1
MTE				*e*LR	LR	07 27 17.3	
MTE				*i* IAMs_20	IAMs_20	07 43 07.3	
	comp=Z,6µm,22.0s						
ESDC	Sonseca Array	156.61	345	PKP	PKPdf	06 32 35.1	-0.6
	comp=Z,0.8nm,0.9s,baz=337,slow=3.4,SNR=4.7						
ESDC				PKPab	PKPab	06 33 03.6	-0.9
	comp=Z,2.8nm,0.9s,baz=16,slow=3.8,SNR=8.9						
ESDC				PP	PP	06 36 44.5	+3.0
	comp=Z,1.2nm,1.0s,baz=33,slow=5.7,SNR=4.3						
ESDC	Sonseca Array	156.61	345		PKPdf	06 32 35.2	-0.5
PAB	San Pablo	156.83	346	IAMs_20	IAMs_20	07 47 55.3	
	comp=Z,4µm,20.0s						
PCBR	Castelo Branco	157.12	352	*e*PKPdf	PKPdf	06 32 35.8	-0.5
PSARD	Sardoal	157.45	353	*e*PKPdf	PKPdf	06 32 40.1	+3.3
PMRV	Marv??o	157.52	352	*e*LR	LR	07 27 32.7	
PMRV				*i* IAMs_20	IAMs_20	07 44 54.0	
	comp=Z,4µm,22.0s						
PSBE	So Bento	157.60	354	*e*PKPdf	PKPdf	06 32 39.9	+3.0
CART	Cartagena	157.63	338	IAMs_20	IAMs_20	07 44 51.2	
	comp=Z,4µm,22.0s						
PMTG	Montargil	157.98	353	*e*PKPab	PKPab	06 33 13.8	+3.5
PARRA	Arraiolos	158.21	353	*e*PKPab	PKPab	06 33 10.4	-0.9
EVO	Evora	158.48	352	*e*PKPdf	PKPdf	06 32 41.4	+3.4
EVO				*e*PKPab	sPKPab	06 33 17.6	+0.8
MOE	Montemor	158.53	353	*e*PKPdf	PKPdf	06 32 39.8	+1.7
MOE				*e*PKPab	pPKPab	06 33 17.1	+1.1
PBAR	Barrancos	158.69	350	*e*PKPdf	PKPdf	06 32 37.5	-0.7
PBAR				*e*PKPab	PKPab	06 33 11.4	-2.0
MESJ	Messejana	159.19	353	*e*PKPdf	PKPdf	06 32 38.4	-0.5
MESJ				*e*PKPab	PKPab	06 33 14.9	-0.7
PCVE	Castro Verde	159.37	352	*e*PKPdf	PKPdf	06 32 38.0	-1.0
PCVE				*e*PKPab	PKPab	06 33 16.4	0.0
PVAQ	Vaqueiros	159.55	351	*e*LR	LR	07 29 31.7	
PVAQ				*i* IAMs_20	IAMs_20	07 46 48.6	
	comp=Z,6µm,20.0s						
MD01	Midelt array s	163.20	340		PKPdf	06 32 42.4	-1.1
PMOZ	Porto Moniz, M	163.60	17	*e*LR	LR	07 28 03.5	
PMOZ				*i* IAMs_20	IAMs_20	07 43 30.8	
	comp=Z,4µm,18.0s						
TORD	Torodi Ar. Bea	166.59	254	PKP	PKPdf	06 32 45.6	-1.0
	comp=Z,6.4nm,1.0s,baz=286,slow=2.2,SNR=12						
TORD				PKPab	PKPab	06 33 49.8	+0.8
	comp=Z,6.3nm,0.8s,baz=98,slow=3.7,SNR=9.2						
DBIC	Dimbokro	167.69	213	PKP	PKPdf	06 32 46.5	-1.0
	comp=Z,12nm,1.0s,baz=148,slow=5.2,SNR=5.2						

IDC ***07*** *06:29:11.9±0.4, 17°.18S×168°.62E, h0^{km}, mb5.0/26, mbtmp5.0/29, ML4.9/2, MS5.4/29, Error ellipse: s-maj=12.8km s-min=12.0km az=134.0*

BJI ***07*** *06:29:13.0, 17°.20S×168°.50E, h10^{km}, mB5.8/13, mb5.2/52, Ms5.9/19, Ms7 5.7/19*

MOS ***07*** *06:29:13.1±1.1, 17°.16S×168°.48E, h12^{km}, mb5.5/33, Error ellipse: s-maj=8.2km s-min=7.6km az=38.6*

NOU ***07*** *06:29:13.9, 17°.16S×168°.55E, h0^{km}, mb5.3/116, Vanuatu Islands*

GFZ ***07*** *06:29:14.9±0.2, 17°S±3°×16°9E±°, h10^{km}, M5.6/41, mb5.3/41*

NEIC ***07*** *06:29:14.9±1.7, 17°.16S±0°.06×168°.51E±0°.07, h10^{km}±1^{km}, mb5.5/218, Mww5.7/38, Error ellipse: s-maj=11.6km s-min=9.9km az=71.0*

GFZ ***07*** *06:29:15.1, 17°.10S×168°.47E, h10^{km}, Mw5.6/17, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}-0.13; $M_{\theta\theta}$1.57; $M_{\phi\phi}$-1.44; $M_{r\theta}$-1.08; $M_{\theta\phi}$-2.65; $M_{\phi r}$-0.78; Fault plane solution: $M_0$3.32834×10^{17} NP1: ϕ_s343.59160°, δ68.38119°, λ-7.73964°. NP2: ϕ_s76.45819°, δ82.80779°, λ-158.20100°. Principal axes: T 3.2094, Plg9.9036°, Azm208.2537°; N 0.2263, Plg67.1002°, Azm93.8401°; P -3.4357, Plg20.4291°, Azm301.9824°;*

NEIC ***07*** *06:29:15.3, 17°.17S×168°.48E, h10^{km}*

GCMT ***07*** *06:29:15.9±0.1, 17°.07S±0°.01×168°.54E±0°.01, h12^{km}, MW5.7/164, Moment Tensor Solution. s30,c34; s164,c329; Duration: 1^{s}.7 Moment tensor: Scale 10^{17} Nm; M_{rr}-0.05±.06; $M_{\theta\theta}$2.12±.06; $M_{\phi\phi}$-2.06±.05; $M_{r\theta}$1.73±.18; $M_{\theta\phi}$-3.58±.04; $M_{\phi r}$0.83±.18; Best double couple: $M_0$4.56400×10^{17} NP1: ϕ_s164.00000°, δ66.00000°, λ-4.00000°. NP2: ϕ_s255.00000°, δ87.00000°, λ-156.00000°. Principal axes: T 4.4560, Plg14.0000°, Azm27.0000°; N 0.2230, Plg65.0000°, Azm263.0000°; P -4.6720, Plg19.0000°, Azm122.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

NEIC ***07*** *06:29:20.7, 17°.17S×168°.58E, h12^{km}, Moment Tensor Solution. Duration: 3^{s}.5 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.68; $M_{\theta\theta}$2.17; $M_{\phi\phi}$-1.49; $M_{r\theta}$0.96; $M_{\theta\phi}$-3.21; $M_{\phi r}$0.01; Fault plane solution: $M_0$3.86000×10^{17} NP1: ϕ_s165.35000°, δ75.78000°, λ-0.48000°. NP2: ϕ_s255.47000°, δ89.53000°, λ-165.78000°. Principal axes: T 4.1768, Plg10.0000°, Azm30.0000°; N -0.7278, Plg76.0000°, Azm257.0000°; P -3.4490, Plg10.0000°, Azm121.0000°;*

ISC 07 06:29:14.6±0.3**, 17°.16S**±0°.04×**168°.54E**±0°.04**, h10^{km}, n660,** σ**1^{s}.36**/519**, mb5.4**/230**, MS5.6**/34**, 27C-34D, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
RTV	Rentapao	0.64	190	P	Pg	06 29 25.2	-1.8
SANVU	Saraoutou	2.13	323	P	Pn	06 29 48.9	-1.4
SANVU	Saraoutou	2.13	323	Pn	Pn	06 29 47.5	-2.7
SANVU	Saraoutou	2.13	323	P	Pn	06 29 47.2	-3.0
MARNC	Mare, Loyalty	4.32	186	P	Pn	06 30 21.5	+1.1
MARNC	Mare, Loyalty	4.32	186		Pn	06 30 18.5	-1.9
YATNC	Mamie plateau,	5.11	197	P	Pn	06 30 31.4	+0.1
KOUNC	Koumac, New Ca	5.25	229	P	Pn	06 30 33.3	+0.1
	1µm,0.9s						
KOUNC				AML	AML		
KOUNC	Koumac, New Ca	5.25	229	S	Sn	06 31 35.2	+1.4
	1µm,0.9s						
KOUNC				AML	AML		
KOUNC	Koumac, New Ca	5.25	229		Pn	06 30 32.1	-1.1
DZM	Mont Dzumac	5.27	202	Pn	Pn	06 30 32.9	-0.6
	341nm,0.3s,baz=50,slow=16						
DZM				Sn	Sn	06 31 33.8	-0.5
	40nm,0.3s,baz=304,slow=20,SNR=12						
NOUC	Port Laguerre	5.35	203	P	Pn	06 30 34.1	-0.4
	688nm,0.9s						
NOUC				AML	AML		
NOUC	Port Laguerre	5.35	203	S	Sn	06 31 36.8	+0.6
	688nm,0.9s						

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NOUC                                 AML   AML
OUENC Ouen Island, N      5.47 197   P     Pn     06 30 35.7 -0.5
      706nm,0.9s
OUENC                                AML   AML
OUENC Ouen Island, N      5.47 197   S     Sn     06 31 41.0 +1.8
      706nm,0.9s
OUENC                                AML   AML
OUENC Ouen Island, N      5.47 197         Pn     06 30 35.0 -1.1
ONTNC Ouen Toro           5.48 201   P     Pn     06 30 37.2 +0.8
ONTNC Ouen Toro           5.48 201   S     Sn     06 31 41.6 +2.1
ONTNC Ouen Toro           5.48 201         Pn     06 30 35.7 -0.6
MSVF  Nonsavu             9.10  95   Pn    Pn     06 31 27.6 +1.5
      0.7nm,0.3s,baz=268,slow=9.9,SNR=12
      61nm,1.0s
MSVF                                 AML   AML
MSVF  Nonsavu             9.10  95   P     Pn     06 31 27.6 +1.5
      234nm,2.0s
MSVF  Nonsavu             9.10  95   S     Sn     06 33 09.4 +0.7
      234nm,2.0s
MSVF  Nonsavu             9.10  95         Pn     06 31 26.8 +0.7
MSVF  Nonsavu             9.10  95   P     Pn     06 31 28.8 +2.7
      comp=Z,241nm,1.9s
HURO  Huro Makira         9.26 315   P     Pn     06 31 28.9 +0.6
NGOA  Tingoa Renbel       9.92 303   P     Pn     06 31 37.5 +0.2
      comp=Z,889nm,1.0s
HNR   Honiara            11.35 312   LR    LR     06 36 00.7
      comp=Z,10µm,19.9s,baz=230,slow=36
SAVO  Savo Central       11.64 312   P     Pn     06 32 01.6 +0.7
TATA  Tatamba Isabel     12.19 315   P     Pn     06 32 09.2 +0.9
RAO   Raoul Island       17.30 136   P     Pn     06 33 16.8 +0.6
RAO                                  pmax  pmax
      comp=Z,2µm,1.4s
RAO   Raoul Island       17.30 136   P     Pn     06 33 16.8 +0.6
AUBSH Beerwah State      17.36 234   P     Pn     06 33 18.5 +1.4
GD1S  Gladstone Soft     17.57 245   P     Pn     06 33 19.9 +0.2
EIDS  Eidsvold           18.19 240   P     Pn     06 33 29.6 +2.3
      comp=Z,174nm,2.2s
EIDS  Eidsvold           18.19 240   P     Pn     06 33 28.9 +1.5
EIDS  Eidsvold           18.19 240   P     Pn     06 33 28.5 +1.1
EIDS                                 IAmb  IAmb   06 33 31.6
      comp=Z,445nm,1.6s
EIDS  Eidsvold           18.19 240   P     Pn     06 33 30.1 +2.7
      comp=Z,174nm,2.2s
TW1H  Toowoomba 1 Ha     18.46 233   P     P      06 33 31.6 +0.9
AUTOO Toowoomba Stat     18.46 233   P     P      06 33 32.6 +1.9
      comp=Z,479nm,1.5s
AFI   Afiamalu           19.24  83   P     P      06 33 38.4 -0.9
      comp=Z,1.2nm,0.3s,baz=65,slow=20,SNR=3.7
AFI                                  LR    LR     06 39 22.4
      comp=Z,5µm,18.4s,baz=254,slow=32
      comp=Z,37nm,0.9s
AFI                                  AML   AML
AFI   Afiamalu           19.24  83   P     P      06 33 39.2 -0.1
AFI                                  pmax  pmax
      comp=Z,219nm,1.3s
AFI   Afiamalu           19.24  83   P     P      06 33 39.2 -0.1
AFI                                  IAmb  IAmb   06 33 50.7
      comp=Z,219nm,1.3s
AUAYR Ayr State High     20.20 260   P     P      06 33 50.8 +1.2
ARMA  Armidale           20.30 226   P     P      06 33 51.5 +0.7
      comp=Z,109nm,2.1s
ARMA  Armidale           20.30 226   P     P      06 33 52.0 +1.2
      comp=Z,109nm,2.1s
ARMA  Armidale           20.30 226         P      06 33 52.2 +1.4
ARMA  Armidale           20.30 226   P     P      06 33 53.6 +2.7
      comp=Z,100nm,1.3s
RMQ   Roma               20.55 240   P     P      06 33 54.7 +1.2
RMQ   Roma               20.55 240   P     P      06 33 57.2 +3.7
      comp=Z,90nm,1.1s
KRVT  Keravat (AS076     20.62 306   P     P      06 33 55.5 +1.2
      comp=Z,68nm,0.4s,baz=117,slow=6.6,SNR=7.1
      comp=Z,68nm,0.4s
AUPHS Peel High Scho     21.22 226   P     P      06 34 01.2 +0.5
CTA   Charters Tower     21.31 259   P     P      06 34 00.9 -0.9
      comp=Z,99nm,1.1s
CTA   Charters Tower     21.31 259   P     P      06 34 02.0 +0.2
      comp=Z,159nm,0.9s,baz=80,slow=12,SNR=52
      comp=Z,159nm,0.9s
CTA   Charters Tower     21.31 259   P     P      06 34 03.4 +1.6
      comp=Z,7.3nm,1.2s
CTAO  Charters Tower     21.31 259   P     P      06 34 03.3 +1.5
      comp=Z,90nm,1.1s
CTAO  Charters Tower     21.31 259   P     P      06 34 02.8 +1.0
CTAO                                 pmax  pmax
      comp=Z,206nm,1.0s
CTAO  Charters Tower     21.31 259         P      06 34 02.8 +1.0
CTAO                                 IAmb  IAmb   06 34 06.7
      comp=Z,206nm,0.9s
CTAO  Charters Tower     21.31 259   P     P      06 34 03.3 +1.6
      comp=Z,249nm,1.1s
TOZ   Tahuroa Road       21.39 165         P      06 34 02.5 +0.2
TOZ                                  IAmb  IAmb   06 34 09.7
      comp=Z,199nm,1.5s
HIZ   Hauiti             21.98 167   P     P      06 34 09.2 +0.5
HIZ                                  IAmb  IAmb   06 34 14.4
      comp=Z,188nm,1.1s
HIZ   Hauiti             21.98 167   P     P      06 34 10.9 +2.1
      comp=Z,185nm,1.0s
PMG   Port Moresby       22.17 288   P     P      06 34 11.1 +0.1
      comp=Z,74nm,1.0s,baz=72,slow=5.7,SNR=9.9
PMG                                  LR    LR     06 41 35.0
      comp=Z,11µm,20.7s,baz=104,slow=33
      comp=Z,74nm,1.0s
PMG   Port Moresby       22.17 288   P     P      06 34 12.0 +1.0
      comp=Z,107nm,1.2s
PMG   Port Moresby       22.17 288⇑eP    P      06 34 10.7 -0.3
PMG                                  pmax  pmax
      comp=Z,129nm,1.1s
PMG   Port Moresby       22.17 288   P     P      06 34 11.7 +0.7
PMG                                  IAmb  IAmb   06 34 27.1
      comp=Z,138nm,1.1s
PMG   Port Moresby       22.17 288   P     P      06 34 11.8 +0.8
      comp=Z,107nm,1.2s
PMG   Port Moresby       22.17 288   P     P      06 34 12.1 +1.0
      comp=Z,110nm,1.2s
URZ   Urewera            22.32 162   P     P      06 34 15.6 +3.1
      comp=Z,104nm,2.1s
AUKHS Kincumber High     22.40 220   P     P      06 34 14.8 +1.6
MGCD  Mangrove Creek     22.40 221   P     P      06 34 14.6 +1.3
      comp=Z,66nm,0.9s
MGCD  Mangrove Creek     22.40 221   P     P      06 34 14.6 +1.3
      comp=Z,67nm,0.9s
MGCD  Mangrove Creek     22.40 221   P     P      06 34 14.5 +1.2
      comp=Z,66nm,0.9s
AULRC Lightning Ridg     22.44 233   P     P      06 34 14.8 +1.0
      comp=Z,143nm,1.5s
RTZ   Ruatahuna          22.62 163   P     P      06 34 15.7  0.0
SYDH  Sydney Hard Ro     22.99 221   P     P      06 34 20.9 +1.3
      comp=Z,59nm,0.8s
BKZ   Black Stump Fm     23.00 164   P     P      06 34 20.2 +0.6
MTSU  Mount Surprise     23.10 264   P     P      06 34 21.9 +1.1
      comp=Z,95nm,1.1s
MTSU  Mount Surprise     23.10 264   P     P      06 34 21.7 +0.8
      comp=Z,94nm,1.1s
MTSU  Mount Surprise     23.10 264   P     P      06 34 22.0 +1.1
      comp=Z,94nm,1.1s
WOLH  Wollongong Har     23.34 219   P     P      06 34 24.6 +1.5
AUDCS Dubbo College      23.44 227   P     P      06 34 25.7 +1.6
AUUHS Ulladulla High     24.24 218   P     P      06 34 32.3 +0.6
      comp=Z,144nm,0.9s
QLP   Quilpie            24.39 243   P     P      06 34 33.3 +0.1
      comp=Z,468nm,1.5s
QLP   Quilpie            24.39 243   P     P      06 34 34.0 +0.8
      comp=Z,469nm,1.5s
QLP   Quilpie            24.39 243   P     P      06 34 33.8 +0.6
      comp=Z,468nm,1.5s
MRNZ  Matariki Terra     24.43 172   P     P      06 34 33.9 +0.5
TCW   Tory Channel       24.47 170   P     P      06 34 33.1 -0.7
DSZ   Denniston Nort     24.66 174   P     P      06 34 35.4 -0.2
DSZ                                  IAmb  IAmb   06 34 38.4
      comp=Z,107nm,1.0s
THZ   Tophouse           24.80 172   IAmb  IAmb   06 34 39.1
      comp=Z,118nm,1.1s
MSWZ  Moikau Station     24.85 168   P     P      06 34 36.4 -0.9
CNB   Canberra Magne     24.87 220   P     P      06 34 37.3 -0.3
      comp=Z,3.0nm,0.9s
AUMHS Melrose High S     25.07 220   P     P      06 34 40.6 +1.3
      comp=Z,83nm,1.0s
AUMTS Mt Stromlo         25.10 220   P     P      06 34 41.1 +1.5
      comp=Z,57nm,2.6s
CAN   Canberra           25.10 220   P     P      06 34 39.9 +0.2
      comp=Z,54nm,1.2s
CAN   Canberra           25.10 220   P     P      06 34 40.8 +1.2
      comp=Z,86nm,1.8s
CAN   Canberra           25.10 220   P     P      06 34 41.1 +1.4
CAN   Canberra           25.10 220   P     P      06 34 41.0 +1.4
      comp=Z,56nm,1.8s
CMSA  Cobar Meteorol     25.19 231   P     P      06 34 40.3 -0.1
      comp=Z,55nm,1.5s
CMSA  Cobar Meteorol     25.19 231   P     P      06 34 40.1 -0.3
      comp=Z,55nm,1.5s
CMSA  Cobar Meteorol     25.19 231   P     P      06 34 40.7 +0.3
      comp=Z,55nm,1.5s
KHZ   Kahutara           25.53 171   IAmb  IAmb   06 34 44.5
      comp=Z,83nm,1.0s
KHZ   Kahutara           25.53 171   P     P      06 34 44.0 +0.6
      comp=Z,132nm,1.0s
PATS  Pohnpei            25.90 336   P     P      06 34 43.6 -3.3
      comp=Z,130nm,1.7s
PATS  Pohnpei            25.90 336   P     P      06 34 48.0 +1.1
      comp=Z,141nm,1.7s
PATS  Pohnpei            25.90 336   P     P      06 34 47.6 +0.7
PATS  Pohnpei            25.90 336   P     P      06 34 44.7 -2.3
      comp=Z,129nm,1.7s
OXZ   Oxford             26.25 174   IAmb  IAmb   06 34 52.6
      comp=Z,77nm,1.1s
FOZ   Fox Glacier        26.31 178   IAmb  IAmb   06 34 52.6
      comp=Z,76nm,1.0s
RPZ   Rata Peaks         26.56 176   LR    LR     06 43 04.2
      comp=Z,2µm,18.9s,baz=342,slow=31
MQZ   McQueen's Vall     26.69 173   IAmb  IAmb   06 34 55.4
      comp=Z,81nm,1.1s
JCZ   Jackson Bay        26.83 180   P     P      06 34 56.2 +1.0
QIS   Mount Isa          27.57 258   P     P      06 35 02.4 +0.4
      comp=Z,93nm,1.5s
QIS   Mount Isa          27.57 258   P     P      06 35 02.5 +0.4
      comp=Z,93nm,1.5s
QIS   Mount Isa          27.57 258   P     P      06 35 03.0 +0.9
      comp=Z,92nm,1.5s
INKA  Innaminka          27.70 243   IAmb  IAmb   06 35 08.1
      comp=Z,71nm,1.4s
ODZ   Otahua Downs       27.86 177   P     P      06 35 04.5 +0.2
      comp=Z,50nm,2.9s
ODZ   Otahua Downs       27.86 177   P     P      06 35 04.6 +0.2
ODZ   Otahua Downs       27.86 177   AML   AML
STKA  Stephens Creek     28.45 234   P     P      06 35 09.7 -0.1
      comp=Z,461nm,1.9s
STKA  Stephens Creek     28.45 234   P     P      06 35 10.1 +0.2
      comp=Z,44nm,0.8s,baz=60,slow=6.9,SNR=36
STKA                                 LR    LR     06 44 54.3
      comp=Z,8µm,18.6s,baz=50,slow=33
      comp=Z,44nm,0.8s
STKA  Stephens Creek     28.45 234   P     P      06 35 10.6 +0.8
      comp=Z,23nm,1.9s
STKA  Stephens Creek     28.45 234   P     P      06 35 10.4 +0.6
      comp=Z,468nm,1.9s
TOO   Toolangi           28.71 220   P     P      06 35 12.1  0.0
      comp=Z,17nm,2.4s
TOO   Toolangi           28.71 220   P     P      06 35 11.7 -0.4
TOO                                  pmax  pmax
      comp=Z,17nm,1.3s
TOO   Toolangi           28.71 220   P     P      06 35 11.7 -0.4
RAR   Rarotonga          30.17 103   LR    LR     06 44 43.4
      comp=Z,4µm,21.7s,baz=261,slow=31
ARPS  Mount Arapiles     30.62 225   P     P      06 35 26.2 -2.7
      comp=Z,10nm,1.6s
MOO   Moorlands          31.10 211   P     P      06 35 33.1  0.0
      comp=Z,91nm,1.9s
HTT   Hallett            31.15 233   P     P      06 35 33.5 -0.3
      comp=Z,29nm,1.6s
HTT   Hallett            31.15 233   P     P      06 35 34.0 +0.2
HTT   Hallett            31.15 233   P     P      06 35 34.0 +0.2
GENI  Genyem             31.40 294   P     P      06 35 36.8 +0.7
GENI  Genyem             31.40 294   P     P      06 35 35.4 -0.7
      comp=Z,9µmcomp=Z,120nm,1.1s
GENI  Genyem             31.40 294   P     P      06 35 34.5 -1.6
      comp=Z,115nm,1.2s
AUMBR Murray Bridge      31.61 230   P     P      06 35 38.4 +0.7
WR0   Warramunga Arr     32.32 260   P     P      06 35 43.1 -1.1
WR8   Warramunga Arr     32.36 260   IAmb  IAmb   06 35 47.4
      comp=Z,94nm,1.3s
WB9   Warramunga Arr     32.47 260   P     P      06 35 44.4 -1.1
      comp=Z,99nm,1.3s
WB2   Warramunga Arr     32.50 260   P     P      06 35 44.6 -1.1
      comp=Z,61nm,1.8s
WRAB  Tennant Creek      32.50 260   P     P      06 35 45.5 -0.2
WRAB  Tennant Creek      32.50 260deP    P      06 35 44.7 -1.0
WRAB                                 pmax  pmax
      comp=Z,95nm,1.4s
WRAB  Tennant Creek      32.50 260   P     P      06 35 44.1 -1.6
WRAB                                 IAmb  IAmb   06 35 45.8
      comp=Z,102nm,1.4s
WRAB  Tennant Creek      32.50 260   P     P      06 35 45.0 -0.7
      comp=Z,55nm,1.8s
WB1   Warramunga Ar.     32.50 260   P     P      06 35 47.1 +1.3
      comp=Z,71nm,3.0s
WR1   Warramunga Arr     32.51 260   P     P      06 35 44.9 -0.9
      comp=Z,55nm,1.8s
WRA   Warramunga Arr     32.51 260   P     P      06 35 44.5 -1.3
      comp=Z,32nm,1.0s,baz=89,slow=8.7,SNR=66
      comp=Z,32nm,1.0s
WRA   Warramunga Arr     32.51 260   P     P      06 35 44.4 -1.4
AS17  Alice Springs      32.96 253   P     P      06 35 49.2 -0.5
      comp=Z,73nm,0.9s
AS01  Alice Springs      33.00 253   P     P      06 35 50.9 +0.8
      comp=Z,82nm,1.0s
AS09  Alice Springs      33.01 253   P     P      06 35 49.7 -0.5
      comp=Z,104nm,1.1s
AS15  Alice Springs      33.03 253   P     P      06 35 49.2 -1.2
      comp=Z,85nm,0.9s
AS31  Alice Springs      33.04 253   P     P      06 35 49.9 -0.5
      comp=Z,30nm,0.9s
AS31  Alice Springs      33.04 253   IAmb  IAmb   06 35 57.6
      comp=Z,22nm,0.6s
ASAR  Alice Springs      33.04 253   P     P      06 35 49.4 -1.1
      comp=Z,60nm,0.9s,baz=80,slow=9.0,SNR=197
      comp=Z,60nm,0.9s
BBOO  Buckleboo          33.14 236   P     P      06 35 50.6 -0.6
      comp=Z,135nm,1.9s
BBOO  Buckleboo          33.14 236   P     P      06 35 51.4 +0.2
      comp=Z,136nm,1.9s
BBOO  Buckleboo          33.14 236   P     P      06 35 50.5 -0.7
BBOO  Buckleboo          33.14 236   P     P      06 35 51.2  0.0
      comp=Z,136nm,1.9s
AUCAS Cummins Area S     33.92 234   P     P      06 35 57.5 -0.5
KDU   Kakadu             35.10 272   P     P      06 36 07.2 -1.2
H11S2 WAKE ISLAND Hy     35.47 357   T     T      07 13 34.7
      baz=176,slow=74,SNR=59
H11S3 WAKE ISLAND Hy     35.48 357   T     T      07 13 36.1
      baz=176,slow=74,SNR=66
H11S1 WAKE ISLAND Hy     35.49 357   T     T      07 13 37.7
      baz=176,slow=76,SNR=56
BAKI  Biak               35.63 293   P     P      06 36 13.6 +0.7
      comp=Z,129nm,1.3s
MTN   Manton Dam         36.35 272   P     P      06 36 18.1 -1.0
      comp=Z,21nm,1.2s
DRS   Darwin Rock St     36.65 272   P     P      06 36 22.6 +0.9
H11N1 WAKE ISLAND Hy     36.68 357   T     T      07 15 14.2
      baz=172,slow=76,SNR=71
H11N3 WAKE ISLAND Hy     36.68 357   T     T      07 15 12.7
      baz=172,slow=76,SNR=62
H11N2 WAKE ISLAND Hy     36.70 357   T     T      07 15 11.9
      baz=172,slow=76,SNR=39
KNRA  Kununurra          38.14 266   P     P      06 36 32.8 -1.5
      comp=Z,95nm,1.3s
KNRA  Kununurra          38.14 266   IAmb  IAmb   06 36 37.8
      comp=Z,101nm,1.1s
WRKA  Warakurna          38.24 251   P     P      06 36 34.0 -1.2
      comp=Z,38nm,2.0s
FAKI  Fak Fak            38.33 288   P     P      06 36 36.4 +0.5
      comp=Z,121nm,1.2s
FAKI  Fak Fak            38.33 288   P     P      06 36 34.6 -1.3
FAKI                                 IAmb  IAmb   06 36 39.0
      comp=Z,105nm,0.9s
FAKI  Fak Fak            38.33 288   P     P      06 36 34.8 -1.1
      comp=Z,120nm,1.2s
FAKI  Fak Fak            38.33 288   P     P      06 36 35.2 -0.7
      comp=Z,121nm,1.2s
GUMO  Guam               38.47 321   LR    LR     06 52 30.8
      comp=Z,3µm,18.1s,baz=138,slow=36
FORT  Forrest            39.18 242   P     P      06 36 42.4 -0.5
      comp=Z,69nm,1.4s
PPT   Papeete            39.92  97   LR    LR     06 49 36.3
      comp=Z,2µm,20.3s,baz=258,slow=31
FITZ  Fitzroy Crossi     40.83 262   P     P      06 36 56.9 +0.1
      comp=Z,45nm,1.1s
FITZ  Fitzroy Crossi     40.83 262   P     P      06 36 56.4 -0.4
      comp=Z,199nm,1.0s,baz=91,slow=9.5,SNR=97
FITZ                                 LR    LR     06 53 31.7
      comp=Z,9µm,18.0s,baz=92,slow=36
      comp=Z,199nm,1.0s
FITZ  Fitzroy Crossi     40.83 262   P     P      06 36 57.3 +0.6
      comp=Z,449nm,1.1s
FITZ  Fitzroy Crossi     40.83 262   P     P      06 36 56.5 -0.2
FITZ  Fitzroy Crossi     40.83 262   P     P      06 36 56.8 +0.1
      comp=Z,46nm,1.1s
NLAI  Namlea             42.94 284   P     P      06 37 13.6 -0.5
      comp=Z,162nm,1.6s
SOEI  Soe                43.60 274   P     P      06 37 19.8 +0.2
      comp=Z,141nm,1.3s
SOEI  Soe                43.60 274   P     P      06 37 19.4 -0.2
SOEI  Soe                43.60 274   P     P      06 37 19.7 +0.2
      comp=Z,141nm,1.3s
SOEI  Soe                43.60 274   P     P      06 37 20.3 +0.8
      comp=Z,141nm,1.3s
KMBL  Kambalda           44.50 243   P     P      06 37 25.7 -0.8
      comp=Z,47nm,1.1s
MBWA  Marble Bar         46.14 257   P     P      06 37 39.6  0.0
      comp=Z,87nm,1.1s
MBWA  Marble Bar         46.14 257   P     P      06 37 39.6  0.0
      comp=Z,50nm,1.1s
MBWA  Marble Bar         46.14 257   P     P      06 37 39.1 -0.4
MBWA  Marble Bar         46.14 257   P     P      06 37 39.6  0.0
      comp=Z,87nm,1.1s
MEEK  Meekatharra        47.02 249   P     P      06 37 46.2 -0.3
      comp=Z,154nm,1.0s
MEEK  Meekatharra        47.02 249   P     P      06 37 47.5 +1.0
      comp=Z,154nm,1.0s
MEEK  Meekatharra        47.02 249   P     P      06 37 46.2 -0.3
      comp=Z,154nm,1.0s
KLBR  Kellerberrin       48.03 243   P     P      06 37 53.5 -0.8
      comp=Z,124nm,0.8s
KLBR  Kellerberrin       48.03 243   P     P      06 37 54.7 +0.4
      comp=Z,124nm,0.8s
KLBR  Kellerberrin       48.03 243   P     P      06 37 53.5 -0.8
      comp=Z,124nm,0.8s
LBFI  Labuhan Bajo,      48.10 274   P     P      06 37 54.2 -0.8
NWAO  Narrogin (SRO)     48.60 241   P     P      06 37 58.5 -0.1
      comp=Z,173nm,0.9s
NWAO  Narrogin (SRO)     48.60 241   P     P      06 37 58.5 -0.1
      comp=Z,283nm,0.9s
NWAO  Narrogin (SRO)     48.60 241   LR    LR     06 56 48.3
      comp=Z,5µm,20.5s,baz=80,slow=34
NWAO  Narrogin (SRO)     48.60 241   P     P      06 37 58.4 -0.2
NWAO  Narrogin (SRO)     48.60 241   P     P      06 37 59.0 +0.4
NWAO  Narrogin (SRO)     48.60 241   P     P      06 37 58.0 -0.6
NWAO                                 pmax  pmax
      comp=Z,126nm,0.9s
NWAO  Narrogin (SRO)     48.60 241   P     P      06 37 58.0 -0.6
NWAO  Narrogin (SRO)     48.60 241   P     P      06 37 58.1 -0.5
      comp=Z,164nm,0.9s
DAV   Davao City (W)     48.81 296   LR    LR     06 58 41.3
      comp=Z,2µm,18.0s,baz=100,slow=36
KAPI  Kappang            49.23 278   P     P      06 38 03.0 -0.7
      comp=Z,101nm,1.1s,baz=84,slow=5.0,SNR=10
      comp=Z,101nm,1.1s
KAPI  Kappang            49.23 278   P     P      06 38 04.2 +0.5
      comp=Z,52nm,1.4s
KAPI  Kappang            49.23 278c iP    P      06 38 03.1 -0.6
KAPI                                 pmax  pmax
      comp=Z,89nm,1.1s
KAPI  Kappang            49.23 278   P     P      06 38 03.5 -0.2
KAPI  Kappang            49.23 278   P     P      06 38 03.7  0.0
      comp=Z,52nm,1.1s
MORW  Morawa             49.36 246   P     P      06 38 03.6 -0.9
      comp=Z,58nm,1.4s
MORW  Morawa             49.36 246   P     P      06 38 05.1 +0.6
      comp=Z,58nm,1.4s
PLAI  Plampang           50.03 273   P     P      06 38 11.0 +1.2
      comp=Z,100nm,1.4s
PLAI  Plampang           50.03 273   P     P      06 38 09.5 -0.3
PLAI  Plampang           50.03 273   P     P      06 38 09.7 -0.1
      comp=Z,100nm,1.4s
TOLI2 Tolitoli           50.43 286   P     P      06 38 13.0 +0.2
      comp=Z,54nm,1.1s
TOLI2 Tolitoli           50.43 286   P     P      06 38 11.7 -1.2
TOLI2                                IAmb  IAmb   06 38 15.6
      comp=Z,41nm,0.9s
TOLI2 Tolitoli           50.43 286   P     P      06 38 11.7 -1.2
      comp=Z,54nm,1.1s
PCI   Palu               50.54 283   P     P      06 38 14.5 +0.8
      comp=Z,131nm,0.9s
KHKI  Kahang-Kahang      52.22 273   P     P      06 38 26.2  0.0
      comp=Z,84nm,1.3s
IGBI  Denpasar           52.55 272   P     P      06 38 28.5 -0.2
DRV   Dumont d'Urvil     52.87 194   P     P      06 38 29.5 -0.8
JAGI  Jajag, Banyuwa     53.58 272   P     P      06 38 37.7 +1.3
      comp=Z,113nm,1.1s
JAGI  Jajag, Banyuwa     53.58 272   P     P      06 38 34.7 -1.7
      comp=Z,113nm,1.1s
JAGI  Jajag, Banyuwa     53.58 272   P     P      06 38 31.5 -4.9
      comp=Z,114nm,1.1s
ABJI  Asem Bagus         53.68 273   P     P      06 38 36.3 -0.7
      comp=Z,167nm,1.1s
MYLDM Lahad Datu         54.18 290   P     P      06 38 41.8 +1.2
      comp=Z,59nm,1.5s
MYLDM Lahad Datu         54.18 290   P     P      06 38 40.6  0.0
BBKI  Banjar Baru        54.37 278   P     P      06 38 43.4 +1.3
      comp=Z,158nm,1.3s
SNJI  Sawahan-Nganju     56.05 272   P     P      06 38 54.8 +0.4
PCJI  Pacitan            56.50 271   P     P      06 38 57.6 +0.2
KKM   Kota Kinabalu      56.60 289   P     P      06 38 59.2 +0.9
      comp=Z,40nm,1.1s
KKM   Kota Kinabalu      56.60 289   P     P      06 38 57.8 -0.4
KKM                                  IAmb  IAmb   06 39 01.2
      comp=Z,39nm,1.0s
KKM   Kota Kinabalu      56.60 289   P     P      06 38 58.2 -0.1
      comp=Z,40nm,1.1s
KKM   Kota Kinabalu      56.60 289   P     P      06 38 57.8 -0.4
      comp=Z,40nm,1.1s
UGM   Wanagama           57.20 272   P     P      06 39 03.3 +0.9
      comp=Z,216nm,1.1s
SMRI  Semarang           57.51 273   P     P      06 39 05.7 +1.1
      comp=Z,143nm,1.7s
SMRI  Semarang           57.51 273   P     P      06 39 04.5 -0.1
      comp=Z,143nm,1.6s
SMRI  Semarang           57.51 273   P     P      06 39 05.3 +0.7
      comp=Z,143nm,1.7s
STKI  Sintang            58.70 281   P     P      06 39 13.2 +0.2
      comp=Z,98nm,1.0s
BBJI  Bungbulang         60.06 271   P     P      06 39 22.2 -0.3
      comp=Z,58nm,0.9s
BBJI  Bungbulang         60.06 271   P     P      06 39 21.1 -1.3
BBJI                                 IAmb  IAmb   06 39 22.1
      comp=Z,48nm,0.9s
BBJI  Bungbulang         60.06 271   P     P      06 39 21.4 -1.1
      comp=Z,2µmcomp=Z,59nm,0.9s
BBJI  Bungbulang         60.06 271   P     P      06 39 21.5 -0.9
      comp=Z,59nm,0.9s
INU   Inuyama            60.18 330   P     P      06 39 22.4 -0.2
      comp=Z,63nm,1.4s
INU   Inuyama            60.18 330   P     P      06 39 22.5 -0.2
INU   Inuyama            60.18 330   P     P      06 39 22.1 -0.6
      comp=Z,64nm,1.4s
JGF   Kuroka             60.22 331   P     P      06 39 23.8 +0.7
      comp=Z,58nm,2.0s
JMN   Monobe             60.44 327   P     P      06 39 25.3 +0.7
VNDA  Vanda              60.48 182   P     P      06 39 22.6 -1.6
      comp=Z,3.6nm,0.8s,baz=0.8,slow=6.8,SNR=18
VNDA                                 LR    LR     07 01 50.1
      comp=Z,2µm,21.1s,baz=1.5,slow=32
      comp=Z,3.6nm,0.8s
VNDA  Vanda              60.48 182   P     P      06 39 23.3 -0.9
VNDA                                 pmax  pmax
      comp=Z,13nm,1.1s
VNDA  Vanda              60.48 182         P      06 39 23.3 -0.9
VNDA  Vanda              60.48 182   P     P      06 39 23.6 -0.5
      comp=Z,13nm,1.1s
MJAR  Matsushiro Arr     60.61 332   P     P      06 39 24.2 -1.5
      comp=Z,37nm,1.1s,baz=163,slow=6.8,SNR=19
MJAR                                 LR    LR     07 07 50.9
      comp=Z,2µm,18.2s,baz=144,slow=38
      comp=Z,37nm,1.1s
MJAR  Matsushiro Arr     60.61 332         P      06 39 23.9 -1.7
MAJO  Matsushiro         60.61 332   P     P      06 39 25.9 +0.2
      comp=Z,38nm,1.1s
MAJO  Matsushiro         60.61 332   P     P      06 39 24.4 -1.3
MAJO                                 pmax  pmax
      comp=Z,61nm,1.3s
MAJO  Matsushiro         60.61 332   P     P      06 39 24.4 -1.3
MAJO                                 IAmb  IAmb   06 39 27.9
      comp=Z,61nm,1.2s
MAJO  Matsushiro         60.61 332   P     P      06 39 24.7 -1.0
      comp=Z,38nm,1.1s
MJB9  Matsu-Tunnel       60.62 332   IAmb  IAmb   06 39 28.9
      comp=Z,63nm,1.3s
SBA   Scott Base         60.73 180   P     P      06 39 25.7 -0.2
SBA                                  pmax  pmax
      comp=Z,38nm,1.0s
SBA   Scott Base         60.73 180   P     P      06 39 25.7 -0.2
SBA                                  IAmb  IAmb   06 39 28.0
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       comp=Z,38nm,1.0s
SBA    Scott Base         60.73 180  P       P       06 39 25.7 -0.2
       comp=Z,40nm,1.0s
TPI    Tanjungpandan      61.40 276  P       P       06 39 31.1 -0.4
       comp=Z,56nm,1.3s
JNU    Nakatsue           61.60 324  LR      LR      07 03 37.7
       comp=Z,3µm,19.7s,baz=119,slow=34
CASY   Casey              61.76 203  P       P       06 39 32.0 -1.0
CASY                                 IAmb    IAmb    06 39 41.0
       comp=Z,86nm,1.9s
CASY   Casey              61.76 203  P       P       06 39 32.4 -0.7
       comp=Z,23nm,2.3s
YHNB   Yeheng             61.99 311  P       P       06 39 36.6 +1.3
       comp=Z,67nm,2.2s
MDSI   Maura Dua          64.20 273  P       P       06 39 48.1 -2.1
       comp=Z,27nm,1.2s
JKA    Kamikawa-asahi     65.43 340          P       06 39 57.5  0.0
JKA                                  IAmb    IAmb    06 40 06.0
       comp=Z,71nm,1.5s
JKA    Kamikawa-asahi     65.43 340  P       P       06 39 58.2 +0.7
       comp=Z,28nm,1.5s
ASAJ   Asahikawa          65.43 340  P       P       06 39 57.6 +0.1
ASAJ                                 pmax    pmax
       comp=Z,71nm,1.5s
KSRS   Korea Array        66.42 326  P       P       06 40 03.1 -0.9
       comp=Z,9.2nm,1.1s,baz=140,slow=8.0,SNR=7.0
       comp=Z,9.2nm,1.1s
YSS    Yuzhno-Sakhali     67.91 341  P       P       06 40 13.9 +0.6
       comp=Z,47nm,1.2s
YSS    Yuzhno-Sakhali     67.91 341 eP       P       06 40 13.9 +0.6
YSS                                  pmax    pmax
       comp=Z,40nm,1.1s
YSS    Yuzhno-Sakhali     67.91 341          P       06 40 13.7 +0.5
YSS                                  IAmb    IAmb    06 40 19.0
       comp=Z,41nm,1.0s
YSS    Yuzhno-Sakhali     67.91 341  P       P       06 40 14.2 +0.9
       comp=Z,43nm,1.2s
NJ2    Nanjing            68.26 316 eP       P       06 40 16.9 +1.1
NJ2                                  pmax    pmax
       comp=Z,34nm,0.5s
VLA    Vladivostok        68.78 332⇓eP       P       06 40 18.5 -0.3
VLA                                  pmax    pmax
       comp=Z,49nm,0.8s
PSTR   Posyet             68.91 331⇓eP       P       06 40 18.1 -1.5
USA0B  Ussuriysk Arra     69.59 333ceP       P       06 40 22.9 -0.9
USRK   Ussuriysk Ar.      69.59 333  P       P       06 40 23.8  0.0
       comp=Z,17nm,0.9s,baz=132,slow=7.0,SNR=16
       comp=Z,17nm,0.9s
IPM    Ipoh               70.01 281  P       P       06 40 28.4 +1.3
       comp=Z,21nm,1.1s
IPM    Ipoh               70.01 281  P       P       06 40 26.3 -0.9
IPM                                  IAmb    IAmb    06 40 35.4
       comp=Z,50nm,1.5s
IPM    Ipoh               70.01 281  P       P       06 40 26.6 -0.5
       comp=Z,21nm,1.1s
WHN    Wuhan              70.47 312  P       P       06 40 31.3 +1.8
PEA0B  Petropavlovsk-     70.60 353deP       P       06 40 30.5 +0.7
PEA0B  Petropavlovsk-     70.60 353  IAmb    IAmb    06 40 47.5
       comp=Z,34nm,1.2s
PETK   Petropavlovsk-     70.60 353  P       P       06 40 30.4 +0.6
       comp=Z,6.5nm,0.7s,baz=123,slow=5.5,SNR=11
PETK                                 LR      LR      07 06 48.3
       comp=Z,3µm,20.2s,baz=175,slow=32
       comp=Z,6.5nm,0.7s
PETK   Petropavlovsk-     70.60 353          P       06 40 30.0 +0.1
KULM   Kulim              70.64 282  P       P       06 40 31.9 +0.9
       comp=Z,18nm,1.1s
KULM   Kulim              70.64 282  P       P       06 40 30.3 -0.7
       comp=Z,18nm,1.1s
KULM   Kulim              70.64 282  P       P       06 40 30.0 -0.9
       comp=Z,18nm,1.1s
DL2    Dalian             70.96 323 eP       P       06 40 23.9 -8.5
DL2                                  pmax    pmax
       comp=Z,77nm,1.1s
MDJ    Mudanjiang         70.99 332  P       P       06 40 32.3 -0.1
MDJ                                  pmax    pmax
       comp=Z,37nm,1.1s
MDJ    Mudanjiang         70.99 332  P       P       06 40 33.0 +0.6
       comp=Z,58nm,1.2s
MDJ    Mudanjiang         70.99 332  IAmb    IAmb    06 40 35.9
       comp=Z,59nm,1.1s
RPSI   Rantau Prapat      71.40 279          P       06 40 33.8 -1.8
RPSI   Rantau Prapat      71.40 279  P       P       06 40 34.4 -1.2
       comp=Z,16nm,1.0s
PSI    Prapat             71.43 279  P       P       06 40 35.5 -0.4
       comp=Z,17nm,1.0s
PSI    Prapat             71.43 279  P       P       06 40 33.8 -2.1
PSI                                  pmax    pmax
       comp=Z,20nm,1.1s
PSI    Prapat             71.43 279  P       P       06 40 34.6 -1.3
       comp=Z,16nm,1.0s
TYV    Tymovskoe          71.44 343 eP       P       06 40 35.4 +0.4
TYV                                  pmax    pmax
       comp=Z,10.0nm,1.1s
TYV                                  pmax    pmax
       comp=Z,300nm,4.5s
GSI    Gunungsitoli       72.23 277  P       P       06 40 41.2 +0.6
GSI    Gunungsitoli       72.23 277  P       P       06 40 40.5 -0.1
       comp=Z,43nm,1.1s
GSI    Gunungsitoli       72.23 277  P       P       06 40 40.5 -0.1
       comp=Z,44nm,1.1s
CN2    Changchun          72.35 329  P       P       06 40 39.6 -1.0
CN2                                  pmax    pmax
       comp=Z,10.0nm,0.7s
BNX    BinXian            72.84 331 ⇓P       P       06 40 42.7 -0.8
BNX                                  pmax    pmax
       comp=Z,26nm,0.7s
BNX                                  pmax    pmax
       comp=Z,620nm,4.6s
QSPA   South Pole Qui     72.88 180  P       P       06 40 42.2 -1.5
       comp=Z,37nm,1.0s,baz=18,slow=2.3,SNR=53
QSPA                                 LR      LR      07 08 22.1
       comp=Z,4µm,19.9s,baz=26,slow=32
       comp=Z,37nm,1.0s
QSPA   South Pole Qui     72.88 180  P       P       06 40 42.7 -1.1
QSPA                                 IAmb    IAmb    06 40 44.6
       comp=Z,45nm,1.1s
KLR    Kul'dur            73.71 336 eP       P       06 40 46.6 -2.0
KLR                                  pmax    pmax
       comp=Z,8.0nm,1.4s
ENH    Enshi              73.84 309  P       P       06 40 51.6 +1.8
       comp=Z,25nm,1.1s
LYN    LuoYang            74.04 315  P       P       06 40 50.4 -0.4
LYN                                  pmax    pmax
       comp=Z,45nm,1.3s
LYN                                  L       L
       comp=Z,2µm,15.6s
LYN                                  L       L
       comp=Z,2µm,14.7s
LYN                                  L       L
       comp=Z,3µm,18.0s
HNS    HongShan           74.22 318 ⇓P       P       06 40 51.9 +0.1
HNS                                  pmax    pmax
       comp=Z,21nm,1.0s
BJI2   Beijing            74.90 321  P       P       06 40 55.0 -0.7
BJI2                                 sP      pP      06 41 02.0 +3.3
BJI2                                 pmax    pmax
       comp=Z,13nm,1.5s
BJT    Baijiatuau         74.90 321  P       P       06 40 56.8 +1.1
       comp=Z,24nm,1.0s
BJT    Baijiatuau         74.90 321  IAmb    IAmb    06 40 59.3
       comp=Z,41nm,1.4s
BSI    Banda Aceh         75.73 280  P       P       06 41 01.5 +0.4
       comp=Z,50nm,1.3s
XAN    Xi'an              76.22 312  P       P       06 41 00.7 -2.8
XAN                                  pP      pP      06 41 05.6 -0.9
XAN                                  pmax    pmax
       comp=Z,11nm,1.4s
HEH    HeiHe              76.26 334 eP       P       06 41 02.2 -1.1
KMI2   Kunming            76.62 302  P       P       06 41 08.3 +2.1
KMI2                                 pmax    pmax
       comp=Z,22nm,1.3s
KMI2                                 L       L
       comp=Z,2µm,18.2s
CMAR   Chiang Mai Arr     77.05 294  P       P       06 41 07.3 -1.1
       comp=Z,5.3nm,1.1s,baz=128,slow=4.4,SNR=13
CMAR                                 PKPPKP  P'P'df  07 08 21.2 +2.6
       comp=Z,1.2nm,0.3s,baz=283,slow=3.6,SNR=5.1
       comp=Z,5.3nm,1.1s
CMAR   Chiang Mai Arr     77.05 294ceP       P       06 41 11.5 +3.1
CMAR                                 pmax    pmax
       comp=Z,4.0nm,0.9s
CMAR   Chiang Mai Arr     77.05 294          P       06 41 08.1 -0.3
CHTO   Chiang Mai         77.19 294  P       P       06 41 10.0 +0.8
       comp=Z,5.9nm,1.0s
CHTO   Chiang Mai         77.19 294  P       P       06 41 09.1 -0.1
CHTO                                 pmax    pmax
       comp=Z,9.0nm,1.0s
CHTO   Chiang Mai         77.19 294          P       06 41 09.1 -0.1
CHTO   Chiang Mai         77.19 294  P       P       06 41 08.7 -0.5
CHTO   Chiang Mai         77.19 294  P       P       06 41 09.2  0.0
       comp=Z,9.8nm,1.0s
XLT    XiLinHaoTe         77.38 324 eP       P       06 41 09.8 -0.1
XLT                                  sP      sP      06 41 17.1 +3.1
XLT                                  pmax    pmax
       comp=Z,17nm,1.0s
XLT                                  pmax    pmax
       comp=Z,640nm,8.8s
MA2    Magadan            77.82 351  LR      LR      07 09 18.1
       comp=Z,2µm,21.2s,baz=177,slow=31
MA2    Magadan            77.82 351ceP       P       06 41 11.0 -0.8
MA2                                  pmax    pmax
       comp=Z,52nm,2.6s
PZH    PanZhiHua          78.03 303  P       P       06 41 15.7 +1.8
HHC    Hu-ho-hao-te       78.22 319⇓iP       P       06 41 14.8 +0.2
HHC                                  sP      sP      06 41 21.9 +3.2
HHC                                  pmax    pmax
       comp=Z,26nm,1.3s
CD2    Chengdu            78.45 307  P       P       06 41 16.2 +0.1
CD2                                  pmax    pmax
       comp=Z,30nm,1.0s
HIA    Hailar             78.99 330  P       P       06 41 20.0 +1.4
       comp=Z,17nm,1.2s
ZEA    Zeya               79.00 336 eP       P       06 41 18.9 +0.4
ZEA                                  pmax    pmax
       comp=Z,10.0nm,1.6s
HILR   Hailar Array B     79.18 330  P       P       06 41 18.9 -0.7
       comp=Z,0.9nm,0.4s,baz=150,slow=6.3,SNR=3.9
       comp=Z,0.9nm,0.4s
BTO2   Baotou             79.21 319 eP       P       06 41 20.4 +0.3
BTO2                                 pmax    pmax
       comp=Z,1µm,6.6s
NPW    Naypyitaw          80.00 294  P       P       06 41 27.1 +2.3
       comp=Z,30nm,1.0s
MAW    Mawson             80.10 202  P       P       06 41 24.5 +0.1
       comp=Z,3.0nm,0.9s
MAW    Mawson             80.10 202  P       P       06 41 23.6 -0.8
       comp=Z,6.9nm,0.8s,baz=111,slow=5.7,SNR=18
MAW                                  LR      LR      07 11 54.4
       comp=Z,3µm,20.4s,baz=86,slow=32
       comp=Z,6.9nm,0.8s
MAW    Mawson             80.10 202  P       P       06 41 24.2 -0.2
MAW                                  pmax    pmax
       comp=Z,8.0nm,1.5s
MAW    Mawson             80.10 202          P       06 41 24.2 -0.2
MAW    Mawson             80.10 202  P       P       06 41 23.9 -0.5
       comp=Z,3.0nm,0.9s
SEY    Seymchan           80.83 353  LR      LR      07 13 13.0
       comp=Z,4µm,19.9s,baz=178,slow=33
SEY    Seymchan           80.83 353 eP       P       06 41 27.8 -0.4
SEY                                  pmax    pmax
       comp=Z,13nm,1.6s
LZH    Lanzhou            80.85 312 eP       P       06 41 30.3 +1.2
LZH                                  sP      PcP     06 41 38.3 +2.6
LZH                                  pmax    pmax
       comp=Z,62nm,1.0s
LZDM   Lanzhou Array      80.89 312  P       P       06 41 29.4 -0.1
       comp=Z,1.6nm,0.3s,baz=78,slow=14,SNR=6.0
       comp=Z,1.6nm,0.3s
SAIH   SAIHA              83.74 296 eP       P       06 41 42.4 -2.1
SAIH                                 IAmb    IAmb    06 41 58.0
       comp=Z,132nm,1.2s
L18K   Granite Mounta     83.75  16  IAmb    IAmb    06 41 49.0
       comp=Z,45nm,1.3s
IMP    Imphal             83.78 298 eP       P       06 41 42.4 -2.2
IMP                                  IAmb    IAmb    06 42 01.5
       comp=Z,136nm,1.2s
JORH   JORHAT             84.24 300 eP       P       06 41 45.4 -1.5
JORH                                 IAmb    IAmb    06 41 46.7
       comp=Z,200nm,0.1s
AZL    Aizawl             84.44 297 eP       P       06 41 46.0 -2.0
AZL                                  IAmb    IAmb    06 41 53.8
       comp=Z,120nm,1.1s
YAK    Yakutsk            84.70 343 eP       P       06 41 47.7 -0.6
YAK                                 e*PP     pP      06 41 50.0 -1.4
YAK                                 e                06 41 51.7
YAK                                 e                06 45 00.8
YAK                                 ePPP     PPP     06 46 56.2
YAK                                 eS       SKSac   06 52 09.6 -2.5
YAK                                  pmax    pmax
       comp=Z,19nm,1.3s
YAK                                  pmax    pmax
       comp=N,4.0nm,1.3s
YAK                                  pmax    pmax
       comp=E,3.0nm,1.0s
YAK                                  pmax    pmax
       comp=Z,163nm,3.5s
YAK                                  pmax    pmax
       comp=N,57nm,2.9s
YAK                                  pmax    pmax
       comp=E,25nm,2.5s
YAK                                  smax    smax
       comp=E,3µm,15.4s
YAK                                  MLR     MLR
       comp=Z,3µm,16.0s
YAK                                  MLR     MLR
       comp=E,1µm,13.0s
YAK                                  MLR     MLR
       comp=N,2µm,19.0s
SILR   SILCHAR            84.73 298 eP       P       06 41 47.5 -1.8
KMPM   Mount Pierce       84.73  45          P       06 41 48.6 -0.5
KMPM                                 IAmb    IAmb    06 41 54.9
       comp=Z,45nm,1.2s
KCPM   Cahto Peak         84.76  46  P       P       06 41 49.3  0.0
ULN    Ulaanbaatar        84.81 324  P       P       06 41 49.2 -0.2
ULN                                  pmax    pmax
       comp=Z,90nm,1.3s
ULN    Ulaanbaatar        84.81 324          P       06 41 49.2 -0.2
ULN    Ulaanbaatar        84.81 324  P       P       06 41 49.3 -0.2
ZIRO   ZIRO               84.87 301 eP       P       06 41 47.9 -2.3
ZIRO                                 IAmb    IAmb    06 41 57.6
       comp=Z,122nm,1.0s
GDXM   Geysers            84.91  47  IAmb    IAmb    06 41 55.8
       comp=Z,33nm,1.4s
CVS    Carmenet Viney     84.94  47  IAmb    IAmb    06 41 55.2
       comp=Z,52nm,1.2s
SAO    San Andreas Ge     84.97  49  P       P       06 41 51.7 +1.4
SAO    San Andreas Ge     84.97  49  IAmb    IAmb    06 41 58.3
       comp=Z,25nm,1.1s
BILL   Bilibino           84.97 359⇓eP       P       06 41 50.5 +0.9
BILL                                 pmax    pmax
       comp=Z,18nm,1.1s
MHC    Mount Hamilton     85.08  49  IAmb    IAmb    06 41 56.5
       comp=Z,37nm,1.3s
SONM   Songino Array      85.17 323  P       P       06 41 51.0 -0.2
       comp=Z,29nm,1.1s,baz=142,slow=5.6,SNR=54
       comp=Z,29nm,1.1s
SONM   Songino Array      85.17 323  P       P       06 41 51.0 -0.2
SONM   Songino Array      85.17 323          P       06 41 50.6 -0.6
KHMM   Horse Mountain     85.21  45  IAmb    IAmb    06 41 57.3
       comp=Z,45nm,1.4s
PMPB   Monarch Peak       85.21  50  IAmb    IAmb    06 41 57.3
       comp=Z,48nm,1.3s
PKD    Bear Valley Ra     85.28  50  IAmb    IAmb    06 41 57.4
       comp=Z,26nm,1.0s
GTA2   Gaotai             85.29 314  P       P       06 41 51.7 -0.3
GTA2                                 pP      PcP     06 41 54.8 -0.3
GTA2                                 pmax    pmax
       comp=Z,70nm,1.5s
GTA2                                 L       L
       comp=Z,1µm,16.5s
GTA2                                 L       L
       comp=Z,2µm,18.2s
GTA2                                 L       L
       comp=Z,2µm,19.6s
TEZP   TEZPUR             85.40 299 eP       P       06 41 50.5 -2.2
TEZP                                 IAmb    IAmb    06 41 58.1
       comp=Z,136nm,1.1s
KHBM   Hayfork Bally      85.45  45  IAmb    IAmb    06 41 58.3
       comp=Z,35nm,1.4s
J19K   Poorman            85.50  15  IAmb    IAmb    06 42 00.9
       comp=Z,44nm,1.5s
O02D   Mt. Diablo Mer     85.53  46  IAmb    IAmb    06 41 59.0
       comp=Z,42nm,1.2s
SHL    Shillong           85.79 298 eP       P       06 41 51.9 -2.9
SHL                                 ex       x       06 41 51.9
SHL                                  IAmb    IAmb    06 42 00.5
       comp=Z,58nm,0.8s
SUTB   Sutter Butte       85.80  47  IAmb    IAmb    06 41 59.2
       comp=Z,67nm,1.5s
J20K   Nowinta River      86.02  15  IAmb    IAmb    06 42 21.1
       comp=Z,38nm,1.7s
M02C   Callahan           86.03  45  IAmb    IAmb    06 42 02.2
       comp=Z,66nm,1.4s
AFDM   Forest Hills D     86.25  47  IAmb    IAmb    06 42 01.7
       comp=Z,36nm,1.2s
O03E   Paynes Creek       86.26  46  IAmb    IAmb    06 42 01.7
       comp=Z,54nm,1.3s
CMB    Columbia Colle     86.28  48  IAmb    IAmb    06 42 01.8
       comp=Z,30nm,1.2s
YBH    Yreka Blue Hor     86.28  44  LR      LR      07 12 09.4
       comp=Z,3µm,21.5s,baz=276,slow=30
YBH    Yreka Blue Hor     86.28  44  IAmb    IAmb    06 42 02.3
       comp=Z,51nm,1.5s
G18K   Tagagawik          86.41  13  IAmb    IAmb    06 41 58.8
       comp=Z,46nm,1.6s
H02S2  DAWSON INLET T     86.44  31  T       T       08 17 25.6
       SNR=46
DIB    Dawson Inlet,      86.44  31  IAmb    IAmb    06 42 04.7
       comp=Z,51nm,1.3s
H02S1  DAWSON INLET T     86.44  31  T       T       08 17 25.8
       SNR=40
MWC    Mount Wilson       86.44  53  IAmb    IAmb    06 42 03.7
       comp=Z,52nm,1.4s
TAWA   Tawang             86.53 300 eP       P       06 41 56.4 -2.4
ISA    Isabella, Lake     86.70  51  IAmb    IAmb    06 42 04.3
       comp=Z,43nm,1.4s
SYO    Syowa Base         86.73 196⇓eP       P       06 41 56.2 -2.3
L04D   Klamath Falls      86.77  44  IAmb    IAmb    06 42 04.4
       comp=Z,46nm,1.3s
MDPB   Devils Postpil     87.05  49  IAmb    IAmb    06 42 06.2
       comp=Z,40nm,1.2s
WAKR   Walker             87.15  48  IAmb    IAmb    06 42 06.9
       comp=Z,40nm,1.2s
PNTR   Pine Nut           87.28  48  IAmb    IAmb    06 42 07.3
       comp=Z,54nm,1.4s
CWC    Cottonwood Cre     87.30  51  IAmb    IAmb    06 42 08.3
       comp=Z,31nm,1.6s
F19K   Shaleruckik Mo     87.40  13  IAmb    IAmb    06 42 07.1
       comp=Z,45nm,1.6s
PFO    Pinyon Flats O     87.43  54  LR      LR      07 13 28.4
       comp=Z,4µm,20.3s,baz=258,slow=30
PFO    Pinyon Flats O     87.43  54⇓eP       P       06 42 02.9 +0.2
PFO                                  pmax    pmax
       comp=Z,31nm,2.2s
GOMU   GeErMu             87.46 309  P       P       06 42 00.6 -2.5
GOMU                                 sP      PcP     06 42 08.2 +3.1
GOMU                                 pmax    pmax
       comp=Z,3.0nm,0.5s
YERR   Yerington          87.49  48  IAmb    IAmb    06 42 08.1
       comp=Z,39nm,1.4s
DHUB   DHUBRI             87.54 298 eP       P       06 42 01.2 -2.0
DHUB                                 IAmb    IAmb    06 42 04.3
       comp=Z,56nm,0.4s
MPMC   Manual Prospec     87.59  51  IAmb    IAmb    06 42 14.0
       comp=Z,35nm,1.6s
LHV    Little Huntoon     87.72  49  IAmb    IAmb    06 42 13.0
       comp=Z,42nm,1.3s
DSP    Deep Springs       87.75  50  IAmb    IAmb    06 42 10.4
       comp=Z,49nm,1.6s
GSC    Goldstone, Bar     87.81  52  IAmb    IAmb    06 42 10.6
       comp=Z,32nm,1.4s
WIFE   Three Sisters-     87.91  43  IAmb    IAmb    06 42 10.0
       comp=Z,38nm,1.3s
BELC   Belle Mtn. Jos     87.93  54  IAmb    IAmb    06 42 11.4
       comp=Z,25nm,1.1s
K05A   Summer Lake        87.93  44  IAmb    IAmb    06 42 10.4
       comp=Z,41nm,1.4s
NVAR   Mina Array Bea     87.94  49  P       P       06 42 04.5 -0.7
       comp=Z,4.9nm,0.9s,baz=231,slow=7.8,SNR=30
NVAR                                 LR      LR      07 12 36.8
       comp=Z,2µm,21.7s,baz=269,slow=30
       comp=Z,4.9nm,0.9s
NVAR   Mina Array Bea     87.94  49  P       P       06 42 04.2 -0.9
H04A   Detroit Lake       87.95  42  IAmb    IAmb    06 42 10.3
       comp=Z,47nm,1.4s
MOD    Modoc Plateau      87.97  45  IAmb    IAmb    06 42 10.2
       comp=Z,23nm,1.1s
QSM    Queen of Sheba     88.02  51  IAmb    IAmb    06 42 10.4
       comp=Z,16nm,1.1s
NV11   Mina Array Sit     88.04  49  IAmb    IAmb    06 42 10.8
       comp=Z,47nm,1.4s
ELIB   Princess Elisa     88.06 190 dP       P       06 42 03.0 -2.1
       comp=Z,7.9nm,1.1s
CCB    Clear Creek Bu     88.10  17  IAmb    IAmb    06 44 08.1
       comp=Z,28nm,2.0s
BBB    Bella Bella        88.11  33  LR      LR      07 15 44.2
       comp=Z,2µm,19.2s,baz=249,slow=32
FURC   Furnace Creek,     88.22  51  IAmb    IAmb    06 42 12.5
       comp=Z,40nm,1.3s
BC3    Big Chuckawall     88.22  54  IAmb    IAmb    06 42 13.0
       comp=Z,28nm,1.5s
ZAK    Zakamensk          88.23 324 eP       P       06 42 05.0 -1.1
ZAK                                  pmax    pmax
       comp=Z,22nm,1.7s
GWY    Greenwater Val     88.25  51  IAmb    IAmb    06 42 12.5
       comp=Z,38nm,1.7s
COLA   College            88.26  17  P       P       06 42 06.0 +0.3
       comp=Z,7.2nm,1.1s
COLA   College            88.26  17⇓eP       P       06 42 04.5 -1.2
COLA                                 pmax    pmax
       comp=Z,15nm,1.1s
KVN    Kaiserville        88.33  48  IAmb    IAmb    06 42 12.1
       comp=Z,21nm,1.4s
I05D   Terrebonne, OR     88.34  42  IAmb    IAmb    06 42 11.8
       comp=Z,30nm,1.2s
PINE   Pine Mountain      88.36  43  IAmb    IAmb    06 42 12.4
       comp=Z,31nm,1.2s
ILAR   Eielson Array      88.46  18  P       P       06 42 04.0 -2.6
       comp=Z,2.6nm,0.9s,baz=233,slow=5.5,SNR=14
       comp=Z,2.6nm,0.9s
ILAR   Eielson Array      88.46  18  P       P       06 42 04.7 -2.0
ILAR   Eielson Array      88.46  18          P       06 42 04.7 -2.0
BESE   Bessie Mountai     88.52  26  IAmb    IAmb    06 42 12.9
       comp=Z,23nm,1.5s
WCT    Wildcat Mounta     88.52  51  IAmb    IAmb    06 42 13.9
       comp=Z,45nm,1.8s
JIS    Juneau Island      88.53  26  P       P       06 42 07.7 +0.6
       comp=Z,7.4nm,1.7s
TPH    Tonopah            88.58  49  IAmb    IAmb    06 42 13.3
       comp=Z,29nm,1.4s
IRM    Iron Mountain      88.64  54  IAmb    IAmb    06 42 14.8
       comp=Z,30nm,1.4s
GNW    Green Mountain     88.85  39  IAmb    IAmb    06 42 14.0
       comp=Z,35nm,1.2s
TPNV   Topopah Spring     88.86  51  IAmb    IAmb    06 42 15.7
       comp=Z,24nm,1.3s
SKAG   Skagway            88.86  25  P       P       06 42 09.7 +1.1
       comp=Z,7.2nm,1.7s
PGC    Sidney             88.97  38          P       06 42 09.4  0.0
PMSA   Palmer Station     89.08 160          P       06 42 09.2 -0.6
PMSA                                 IAmb    IAmb    06 42 10.4
       comp=Z,24nm,0.9s
LPIG   La Paz             89.12  65  LR      LR      07 15 19.7
       comp=Z,4µm,18.5s,baz=272,slow=31
D05A   Enumclaw           89.19  40  P       P       06 42 11.0 +0.5
WVOR   Wild Horse Val     89.32  45  P       P       06 42 12.7 +1.3
WVOR   Wild Horse Val     89.32  45  IAmb    IAmb    06 42 16.7
       comp=Z,35nm,1.3s
A04D   Lummi Island       89.44  38          P       06 42 11.3 -0.4
BMN    Battle Mountai     89.50  47  IAmb    IAmb    06 42 17.6
       comp=Z,43nm,1.4s
SHPR   Sheep Range        89.50  52  IAmb    IAmb    06 42 20.9
       comp=Z,40nm,1.8s
J08A   Circle Bar Ran     89.81  44  IAmb    IAmb    06 42 18.7
       comp=Z,33nm,1.2s
MXC    Moxie City         89.97  41  IAmb    IAmb    06 42 19.2
       comp=Z,26nm,1.3s
LTY    Liberty            90.03  40  IAmb    IAmb    06 42 19.2
       comp=Z,36nm,1.5s
G08A   Pilot Rock         90.28  42  IAmb    IAmb    06 42 20.8
       comp=Z,40nm,1.3s
HAWA   Hanford            90.37  41  IAmb    IAmb    06 42 21.9
       comp=Z,43nm,1.2s
WAH2   Wahluke Slope      90.50  41  IAmb    IAmb    06 42 22.3
       comp=Z,33nm,1.2s
DLBC   Dease Lake         90.51  28  LR      LR      07 17 12.2
       comp=Z,3µm,19.1s,baz=239,slow=32
TROLL  Troll, Antarti     90.55 184 ⇑P       P       06 42 14.9 -1.9
       comp=Z,2µm,0.9s
LLLB   Lillooet           90.77  37  IAmb    IAmb    06 42 22.7
       comp=Z,22nm,1.2s
NVL    N'lazarevskaya     90.82 188 eP       P       06 42 16.8 -1.0
NVL                                  MLR     MLR
       comp=Z,3µm,16.0s
EVN    Everest            90.86 299  IAmb    IAmb    06 42 38.3
       comp=Z,22nm,1.4s
ELK    Elko               91.01  48  LR      LR      07 15 01.2
       comp=Z,3µm,21.1s,baz=262,slow=30
D08A   Wollman Farm,      91.03  41  IAmb    IAmb    06 42 24.2
       comp=Z,46nm,1.7s
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BMO	Blue Mountains	91.17	43	P	P	06 42 20.7	+0.7
BMO	Blue Mountains	91.17	43	IAmb	IAmb	06 42 24.7	
	comp=Z,18nm,1.3s						
SNAA	Sanae	91.20	183	⇑P	P	06 42 17.8	-1.9
	comp=Z,373nm,0.9s						
SNAA	Sanae	91.20	183	P	P	06 42 17.4	-2.2
	comp=Z,23nm,1.0s,baz=188,slow=6.0,SNR=18						
	comp=Z,23nm,1.0s						
SNAA	Sanae	91.20	183	P	P	06 42 18.3	-1.4
	comp=Z,29nm,1.2s						
E09A	Wood Farm, Sta	91.29	41	IAmb	IAmb	06 42 25.9	
	comp=Z,40nm,1.5s						
TUC	Tucson	91.42	57	P	P	06 42 20.7	-0.7
TUC				pmax	pmax		
	comp=Z,16nm,1.5s						
TUC	Tucson	91.42	57	P	P	06 42 20.7	-0.7
KNB	Kanab	91.44	52	IAmb	IAmb	06 42 28.0	
	comp=Z,25nm,1.4s						
VNA3	Neumayer Olymp	91.81	181	⇑P	P	06 42 20.2	-2.3
	comp=Z,22nm,0.8s						
WUAZ	Wupatki	92.03	54	IAmb	IAmb	06 42 30.6	
	comp=Z,24nm,1.6s						
VNA2	Neumayer--Watz	92.10	181	⇑P	P	06 42 21.7	-2.1
	comp=Z,18nm,0.9s,baz=174,slow=3.3						
VNA1	Neumayer--Stat	92.39	181	P	P	06 42 23.2	-1.9
	comp=Z,24nm,1.1s						
BLSP	Bilaspur	93.06	292	*e*P	P	06 42 27.1	-2.0
PV04	Paradox Valley	94.82	51	IAmb	IAmb	06 42 54.1	
	comp=Z,40nm,1.8s						
HYB	Hyderabad	94.99	287	*e*P	P	06 42 37.2	-0.9
HYB				*e*PKiKP	PKiKP	06 47 19.1	-0.9
HYB				*e*SKSac	SKSac	06 53 12.8	-1.7
HYB				*e*SKKSac	SKKSac	06 53 34.1	-2.8
HYB				IAMs_20	IAMs_20	07 17 00.4	
	comp=Z,3µm,16.5s						
WMQ	Urumqi	95.29	314	⇓P	P	06 42 39.0	0.0
WMQ				pP	pP	06 42 45.4	+3.4
WMQ				SS	SS	07 00 19.1	-3.1
WMQ				pmax	pmax		
	comp=Z,34nm,1.1s						
WMQ				pmax	pmax		
	comp=Z,88nm,3.8s						
ANMO	Albuquerque	95.67	55	LR	LR	07 16 33.1	
	comp=Z,1µm,21.9s,baz=272,slow=30						
PDAR	Pinedale Array	95.70	47	P	P	06 42 39.4	-1.7
	comp=Z,0.3nm,0.6s,baz=232,slow=3.6,SNR=4.0						
PDAR				LR	LR	07 20 33.4	
	comp=Z,861nm,19.8s,baz=294,slow=32						
	comp=Z,0.3nm,0.6s						
PDAR	Pinedale Array	95.70	47	P	P	06 42 39.0	-2.1
TXAR	Lajitas Array	96.36	61	P	P	06 42 43.5	-0.7
	comp=Z,1.1nm,1.0s,baz=224,slow=3.5,SNR=7.0						
	comp=Z,1.1nm,1.0s						
H03S2	Juan Fernandez	98.19	129	T	T	08 32 09.7	
	baz=249						
H03S1	Juan Fernandez	98.20	129	T	T	08 32 10.6	
	baz=249						
H03S3	Juan Fernandez	98.21	129	T	T	08 32 11.3	
	baz=249						
BISR	Bishrakh	98.95	297	*e*P	P	06 42 53.0	-2.8
YKA	Yellowknife Ar	99.14	27	P	Pdif	06 42 55.2	-0.5
	comp=Z,1.3nm,0.8s,baz=244,slow=4.8,SNR=4.2						
YKA				LR	LR	07 19 54.2	
	comp=Z,2µm,21.9s,baz=280,slow=31						
	comp=Z,1.3nm,0.8s						
YKA	Yellowknife Ar	99.14	27	P	Pdif	06 42 55.6	-0.2
YKA	Yellowknife Ar	99.14	27	P	Pdif	06 42 55.6	-0.2
MK31	Makanchi Array	99.79	316	*ce*P	Pdif	06 42 58.5	-0.6
MKAR	Makanchi Array	99.79	316	P	Pdif	06 42 58.4	-0.8
	comp=Z,3.1nm,0.6s,baz=94,slow=5.9,SNR=11						
MKAR				PP	PP	06 47 04.8	+0.9
	comp=Z,2.4nm,1.1s,baz=90,slow=6.1,SNR=4.3						
	comp=Z,3.1nm,0.6s						
MKAR	Makanchi Array	99.79	316	*i* P	Pdif	06 43 02.0	+2.9
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.6s						
MAKZ	Makanchi	100.00	316	P	Pdif	06 42 59.7	-0.4
ZALV	Zalesovo Beam	100.06	323	P	Pdif	06 42 58.7	-1.4
	comp=Z,5.2nm,0.8s,baz=111,slow=6.5,SNR=17						
NRIK	Noril'sk	102.77	339	P	Pdif	06 43 09.1	-2.7
	comp=Z,1.2nm,0.3s,baz=116,slow=0.3,SNR=3.8						
NRIK	Noril'sk	102.77	339	⇓*e*P	Pdif	06 43 10.7	-1.1
NRIK				pmax	pmax		
	comp=Z,12nm,1.4s						
KURK	Kurchatov	103.03	319	⇓*e*P	Pdif	06 43 15.2	+1.8
KURK				pmax	pmax		
	comp=Z,11nm,1.4s						
KURBB	Kurchatov Arra	103.07	319	Pdiff	Pdif	06 43 11.6	-2.0
	comp=Z,1.1nm,0.2s,baz=100,slow=4.0,SNR=4.9						
KURBB				PP	PP	06 47 25.8	-2.7
	comp=Z,1.0nm,0.2s,baz=101,slow=7.1,SNR=4.1						
KURBB				PKiKP	PKiKP	06 47 32.6	-0.8
	comp=Z,1.0nm,0.2s,baz=94,slow=1.9,SNR=6.3						
BVAR	Borovoye Array	108.39	321	PKiKP	PKiKP	06 47 41.6	-1.6
	comp=Z,1.4nm,0.6s,baz=125,slow=2.3,SNR=4.0						
ARTI	Arti	115.27	325	PKP	PKiKP	06 47 53.7	-2.4
	comp=Z,6.8nm,0.8s,baz=344,slow=3.1,SNR=5.6						
ARTI	Arti	115.27	325	*i* PKIKP	PKiKP	06 47 55.0	-1.1
ARTI						06 48 54.6	
ARTI						06 55 07.1	
ARTI				SP	SP	06 58 33.5	-1.2
ARTI				SS	SS	07 05 00.3	+5.9
ARTI	Arti	115.27	325		PKiKP	06 47 55.2	-0.9
AKTO	Aktyubinsk	116.09	318	PKP	PKPdf	06 47 55.5	-2.4
	comp=Z,4.0nm,0.6s,baz=57,slow=1.6,SNR=11						
SPITS	Spitsbergen Ar	117.47	354	PP	PP	06 49 14.4	+2.8
	comp=Z,3.0nm,0.5s,baz=338,slow=8.1,SNR=16						
KIRV	Kirov	119.57	328	*d i*PKIKP	PKPdf	06 48 03.2	-1.1
SIV	San Ignacio	121.03	121	PKP	PKPdf	06 48 07.1	-1.4
	comp=Z,1.7nm,0.8s,baz=216,slow=2.1,SNR=6.4						
APA	Apatity	122.06	341	*i* PKIKP	PKPdf	06 48 06.1	-2.8
APA				*e*		06 49 42.7	
APA				*e*PS	PS	06 59 36.3	-1.2
APA				pmax	pmax		
	comp=Z,7.0nm,1.1s						
BELG	Belogornoye	122.19	322	*c i*PKIKP	PKPdf	06 48 08.3	-1.2
BOSA	Boshof	122.28	218	PKP	PKPdf	06 48 09.3	-1.4
	comp=Z,3.1nm,0.9s,baz=56,slow=6.4,SNR=3.1						
ARCES	ARCESS Array B	122.90	345	PKP	PKPdf	06 48 09.0	-1.4
	comp=Z,4.9nm,0.9s,baz=51,slow=1.9,SNR=18						
KLMR	Klimovskoe	123.39	333	*e*PKIKP	PKPdf	06 48 08.0	-3.6
KLMR				pmax	pmax		
	comp=Z,48nm,1.4s						
VRH	Novokhopyorsk	126.04	321	PKIKP	PKPdf	06 48 16.0	-0.9
VRH				pmax	pmax		
	comp=Z,19nm,0.9s						
RAYN	Ar Rayn	126.50	287	⇑PKIKP	PKPdf	06 48 17.7	-1.1
MOS	Moscow	126.58	328	*i* PKIKP	PKPdf	06 48 19.0	+1.2
MOS				pmax	pmax		
	comp=Z,35nm,0.9s						
LPSR	Galich'ya Gora	127.17	324	PKIKP	PKPdf	06 48 19.0	-0.1
LPSR				pmax	pmax		
	comp=Z,59nm,1.3s						
KBZ	Khabaz	127.29	312	PKP	PKPdf	06 48 18.8	-0.8
	comp=Z,6.6nm,1.0s,baz=162,slow=2.9,SNR=6.7						
KBZ	Khabaz	127.29	312	⇑*i*PKIKP	PKPdf	06 48 17.9	-1.7
VORR	Voronezh	127.36	323	PKIKP	PKPdf	06 48 19.2	-0.3
VORR				pmax	pmax		
	comp=Z,55nm,1.3s						
KIV	Kislovodsk	127.39	313	*e*PKIKP	PKPdf	06 48 20.1	+0.2
KIV				pmax	pmax		
	comp=Z,16nm,1.1s						
OBN	Obninsk	127.40	327	*d i*PKIKP	PKPdf	06 48 18.7	-0.7
OBN				*e*		06 50 17.7	
OBN				pmax	pmax		
	comp=Z,39nm,1.3s						
OBN				MLR	MLR		
	comp=Z,6µm,20.0s						
SHA1	Shidzhatmaz	127.46	312	*d i*PKIKP	PKPdf	06 48 19.9	-0.3
VSR	Storozhevoye	127.55	322	*e*PKIKP	PKPdf	06 48 19.2	-0.6
VSR				pmax	pmax		
	comp=Z,32nm,1.4s						
VORD	Divnogorie	127.56	322	*e*PKIKP	PKPdf	06 48 17.6	-2.3
VORD				pmax	pmax		
	comp=Z,10.0nm,1.2s						
FINES	FINESS Array B	128.42	338	PKP	PKPdf	06 48 19.6	-1.6
	comp=Z,24nm,1.2s,baz=147,slow=4.5,SNR=8.5						
FINES	FINESS Array B	128.42	338	*c i*PKIKP	PKPdf	06 48 21.1	-0.1
FINES				pmax	pmax		
	comp=Z,24nm,1.3s						
KMBO	Kilima Mbogo	128.68	254	⇑*i*PKIKP	PKPdf	06 48 22.7	-0.8
MNK	Minsk	132.02	330	*i* PKIKP	PKPdf	06 48 27.5	-0.7
MNK				*i*		06 48 30.1	
MNK				*i*		06 50 49.3	
MNK				*i* PPP	PPP	06 53 39.9	
MNK				*i*		06 55 38.8	
MNK				*i* SS	SS	07 08 27.9	+2.0
MNK				*i* SSS	SSS	07 13 21.0	
MNK				pmax	pmax		
	comp=E,7.0nm,0.9s						
MNK				pmax	pmax		
	comp=N,9.0nm,0.9s						
MNK				pmax	pmax		
	comp=Z,12nm,0.9s						
MNK	Minsk	132.02	330	*i* PKP	PKPdf	06 48 27.5	-0.7
	comp=E,7.0nm,0.9s						
MNK				*i* PKP	PKPdf	06 48 27.5	-0.7
	comp=N,9.0nm,0.9s						
MNK				*i* PKP	PKPdf	06 48 27.5	-0.7
	comp=Z,12nm,0.9s,baz=55						
MNK				*i* PKiKP	PKiKP	06 48 30.1	+0.8
	comp=Z,9.0nm,0.8s						
MNK				*i* PP	PP	06 50 49.3	0.0
MNK				*i* SKP	SKPdf	06 52 07.5	+3.8
MNK				*i* PKS	PKSdf	06 52 12.0	+7.6
MNK				*i* PPP	PPP	06 53 40.0	
MNK				*i* SKS	SKSac	06 55 38.9	-0.3
MNK				*i* SS	SS	07 08 27.9	+2.1
MNK				*i* SSS	SSS	07 13 21.0	
NB2	NORSAR Subarra	133.28	345	PKPdf	PKPdf	06 48 30.0	-0.5
	comp=Z,3.5nm,1.0s,baz=36,slow=1.7						
NOA	NORSAR Array B	133.28	345	PKP	PKPdf	06 48 29.8	-0.7
	comp=Z,1.2nm,0.7s,baz=34,slow=1.9,SNR=4.7						
AKASG	Malin Array Be	133.42	325	PKP	PKPdf	06 48 29.9	-1.1
	comp=Z,4.7nm,0.8s,baz=60,slow=2.3,SNR=19						
AKBB	Malin Array Si	133.42	325	*de*PKIKP	PKPdf	06 48 29.7	-1.3
KIEV	Kiev	133.43	325	⇑PKIKP	PKPdf	06 48 29.7	-1.3
KIEV	Kiev	133.43	325	⇑P	PKPdf	06 48 29.7	-1.3
AK08	Malin Array Si	133.44	325	PKP	PKPdf	06 48 30.0	-1.0
AK10	Malin Array Si	133.46	325	PKP	PKPdf	06 48 30.0	-1.1
LUBAR	Lubar, Ukraine	134.63	325	PKP	PKPdf	06 48 32.5	-0.8
RNPP9	Sopachiv	134.79	328	PKP	PKPdf	06 48 33.0	-0.5
RNPP8	Varash	134.86	328	PKP	PKPdf	06 48 34.1	+0.4
RNPP5	Staryi Chortor	134.90	327	PKP	PKPdf	06 48 33.4	-0.4
KIRS	Kirsehir-Merke	134.96	309	⇓P	PKPdf	06 48 34.8	+0.4
BR131	Keskin Array S	135.00	309	⇑*e*PKIKP	PKPdf	06 48 33.7	-0.8
BRTR	Keskin Array B	135.00	309	PKP	PKPdf	06 48 33.9	-0.6
	comp=Z,3.8nm,1.0s,baz=134,slow=3.6,SNR=11						
BR104	Keskin Array S	135.00	309	PKP	PKPdf	06 48 34.0	-0.5
BR106	Keskin Array S	135.01	309	PKP	PKPdf	06 48 33.8	-0.8
TPGR	Topolog	136.71	318	⇓P	PKPdf	06 48 33.1	-4.3
BIZ	Bicaz	137.12	322	⇓P	PKPdf	06 48 37.7	-0.4
BURAR	Bucovina Array	137.28	323	⇓PKIKP	PKPdf	06 48 38.8	+0.3
BURAR	Bucovina Array	137.28	323	⇓P	PKPdf	06 48 38.8	+0.3
KEPZ	Antalya-Kepez	137.32	306	⇓P	PKPdf	06 48 38.1	-0.7
MLR	Muntele Rosu	137.96	320	PKIKP	PKPdf	06 48 39.0	-0.8
MLR	Muntele Rosu	137.96	320		PKPdf	06 48 39.0	-0.8
MLR	Muntele Rosu	137.96	320	⇑P	PKPdf	06 48 36.3	-3.5
DOPR	Dopca	138.05	321	⇑P	PKPdf	06 48 38.0	-1.8
KOLS	Kolonicke sedl	138.14	327	*e*PKP	PKPdf	06 48 40.9	+1.0
STHS	Stebnicka Huta	138.37	328	*e*PKP	PKiKP	06 48 44.8	+2.4
VOIR		138.53	321	⇑PKIKP	PKPdf	06 48 40.8	0.0
VOIR		138.53	321	⇑P	PKPdf	06 48 40.8	0.0
ARR	Arges	138.81	321	⇑P	PKPdf	06 48 41.2	-0.1
JMB	Yambol	138.99	316	PKP	PKPdf	06 48 41.3	-0.3
SZH	Strazhitsa	139.00	317	PKP	PKPdf	06 48 41.4	-0.2
LANS	Liptovska Anna	139.43	329	*e*PKP	PKPdf	06 48 45.0	+2.7
YER	Yerkesik	139.79	308	PKP	PKPdf	06 48 42.8	-0.5
GZR	Gura Zlata	139.91	322	⇑PKIKP	PKPdf	06 48 39.4	-3.9
GZR	Gura Zlata	139.91	322	⇑P	PKPdf	06 48 39.4	-3.9
MORC	Moravsky Berou	139.94	331	*e*PKP	PKPdf	06 48 39.3	-3.9
ENEZ	Enez	140.00	314	PKP	PKPdf	06 48 43.2	-0.3
ALN	Alexandroupoli	140.01	314	PKP	PKPdf	06 48 43.7	+0.2
KRLC	Kraliky	140.08	332	*e*PKIKP	PKPdf	06 48 44.6	+1.2
KRLC	Kraliky	140.08	332	*e*PKP	PKPdf	06 48 44.6	+1.2
MAUC	Maruska	140.09	330	*e*PKP	PKPdf	06 48 45.9	+2.4
KDZ	Kurdzhali	140.17	315	PKP	PKPdf	06 48 43.5	-0.3
VYHS	Vyhne	140.18	328	*e*PKP	PKPdf	06 48 45.3	+1.7
BLCB	Balcova	140.29	310	PKP	PKPdf	06 48 43.8	-0.3
GADA	Gvkgeada	140.41	313	PKP	PKPdf	06 48 43.9	-0.4
BZS	Buzias	140.46	323	⇓PKIKP	PKPdf	06 48 41.5	-2.7
BZS	Buzias	140.46	323	⇓P	PKPdf	06 48 41.5	-2.7
DAT	Datca	140.46	307	PKP	PKPdf	06 48 44.0	-0.6
JAVC	Velka Javorina	140.51	330	*e*PKP	PKPdf	06 48 41.3	-3.0
PRK	Paraskevi	140.52	312	PKP	PKPdf	06 48 44.2	-0.3
RZN	Rozhen	140.54	316	PKP	PKPdf	06 48 44.6	-0.1
VRAC	Vranov	140.71	331	*e*PKP	PKPdf	06 48 43.1	-1.5
BRG	Berggiesshubel	140.72	335	*e*PKPdf	PKPdf	06 48 40.5	-4.0
	baz=38,slow=1.9						
BRG	Berggiesshubel	140.72	335	P	PKiKP	06 48 50.0	+2.9
BRG				Amp		06 48 51.5	
	comp=Z,6.8nm,0.9s						
CLL	Collm	140.76	336	*i* PKIKP	PKPdf	06 48 44.9	+0.3
CLL				pmax	pmax		
	comp=Z,10.0nm,1.0s						
CLL	Collm	140.76	336	*e*PKPdf	PKPdf	06 48 45.1	+0.6
	baz=38,slow=1.9						
CLL	Collm	140.76	336	*i* PKPdf	PKPdf	06 48 44.9	+0.3
	comp=Z,10.0nm,1.0s						
MDVR	Moldovita	140.87	322	⇑P	PKPdf	06 48 43.4	-1.6
KRUC	Moravsky	140.97	331	*e*PKP	PKPdf	06 48 42.4	-2.6
MODS	Modra-Piesok	141.03	329	*e*PKP	PKPdf	06 48 45.6	+0.4
CLZ	Clausthal	141.31	338	*e*PKPdf	PKPdf	06 48 47.4	+1.8
	baz=38,slow=1.9						
EKA	Eskdalemuir Ar	141.37	352	PKP	PKPdf	06 48 42.5	-3.0
	comp=Z,2.4nm,0.8s,baz=14,slow=1.0,SNR=3.9						
TANN	Tannenbergstha	141.67	335	*e*PKPdf	PKPdf	06 48 43.2	-3.1
	baz=38,slow=1.9						
PLN	Plauen	141.74	336	*e*PKPdf	PKPdf	06 48 43.5	-2.8
	baz=38,slow=1.9						
MOX	Moxa	141.82	336	*e*PKPdf	PKPdf	06 48 43.9	-2.6
	baz=38,slow=1.9						
RONA	Rosalia, Austr	141.97	329	*e*PKP	PKPdf	06 48 45.3	-1.6
	comp=Z,7.4nm,0.9s						
CONA	Conrad Observa	142.02	330	*i* PKP	PKPdf	06 48 43.4	-3.7
	comp=Z,12nm,1.0s						
KHC	Kasperske Hory	142.19	333	*e*PKIKP	PKPdf	06 48 46.1	-1.2
KHC	Kasperske Hory	142.19	333	*e*PKP	PKPdf	06 48 46.1	-1.2
UBBA	Unterbreizbach	142.29	338	*e*PKPdf	PKPdf	06 48 46.2	-1.0
	baz=38,slow=1.9						
GEC2	GERESS Array S	142.35	333	*e*PKPdf	PKPdf	06 48 44.0	-3.6
	baz=38,slow=1.9						
GERES	GERESS Array B	142.35	333	PKhKP	PKPpre	06 48 42.8	
	comp=Z,3.1nm,0.7s,baz=31,slow=3.1,SNR=12						
GERES	GERESS Array B	142.35	333	PKIKP	PKPdf	06 48 43.8	-3.9
GERES	GERESS Array B	142.35	333		PKPdf	06 48 43.8	-3.9
WET	Wettzell	142.48	334	*e*PKPdf	PKPdf	06 48 44.0	-3.8
	baz=38,slow=1.9						
ARSA	Arzberg	142.66	329	*i* PKP	PKPdf	06 48 45.9	-2.2
	comp=Z,10nm,1.1s						
MOA	Molln	142.83	331	*i* PKP	PKPdf	06 48 44.5	-4.0
	comp=Z,21nm,1.0s						
SESA	Seetaler Alpe,	143.22	330	*i* PKP	PKPab	06 48 45.7	+0.6
	SNR=14						
BIOA	Bad Ischl, Aus	143.24	331	*i* PKP	PKPab	06 48 45.7	+0.9
	comp=Z,20nm,1.1s						
SOKA	Soboth	143.30	329	*i* PKP	PKPab	06 48 45.7	+0.5
	comp=Z,23nm,1.1s,SNR=12						
BLY	Banja Luka	143.47	325	⇓P	PKPab	06 48 45.9	+0.1
OBKA	Obir	143.66	329	*i* PKP	PKPab	06 48 46.1	-0.5
	comp=Z,9.5nm,0.9s						
MEM	Membach	143.81	341	*d*PKPdf	PKPab	06 48 48.6	+1.7
KBA	Koelnbreinsper	143.82	331	*i* PKP	PKPab	06 48 47.4	0.0
	comp=Z,67nm,1.5s						
LESA	Schwarzleotal	143.87	332	*i* PKP	PKPab	06 48 47.8	+0.4
	comp=Z,32nm,0.8s,SNR=26						
LJU	Ljubljana	144.00	329	*i* PKPdf	PKPab	06 48 47.7	-0.1
MYKA	Terra Mystica	144.01	330	*i* PKP	PKPab	06 48 47.0	-0.9
	comp=Z,43nm,1.4s,SNR=10						
CEY	Cerknica	144.26	328	*i* PKPdf	PKPab	06 48 48.6	-0.3
STU	Stuttgart	144.26	336	*e*PKPdf	PKPab	06 48 48.5	-0.2
	baz=38,slow=1.9						
WATA	Walderalm	144.43	333	*i* PKP	PKPab	06 48 49.4	-0.2
	comp=Z,43nm,1.3s,SNR=11						
RCHB	Rochefort	144.45	341	*d*PKPdf	PKPab	06 48 49.5	+0.2
ABTA	Abfaltersbach	144.45	331	*i* PKP	PKPab	06 48 48.7	-0.9
	comp=Z,78nm,1.1s,SNR=29						
WTTA	Wattenberg	144.45	333	*i* PKP	PKPab	06 48 49.6	-0.1
	comp=Z,70nm,1.3s,SNR=18						
BMRD	Maredsous	144.46	342	*d*PKPdf	PKPab	06 48 49.5	+0.1
WLF	Walferdange	144.59	340	*d*PKPdf	PKPab	06 48 50.3	+0.5
WLF	Walferdange	144.59	340	*e*PKPdf	PKPab	06 48 50.7	+0.8
	baz=38,slow=1.9						
MOTA	Moosalm	144.62	333	*i* PKP	PKPab	06 48 49.8	-0.6
	comp=Z,100nm,1.4s,SNR=32						
RETA	Reutte	144.66	334	*i* PKP	PKPab	06 48 49.8	-0.5
	comp=Z,50nm,1.3s,SNR=18						
SQTA	Sankt Quirin	144.67	333	*i* PKP	PKPab	06 48 50.2	-0.3
	comp=Z,60nm,0.9s,SNR=19						
DOU	Dourbes	144.69	342	*d*P	PKPab	06 48 50.5	+0.3
UBR	Ueberruh	144.78	334	*e*PKPdf	PKPab	06 48 50.1	-0.7
	baz=38,slow=1.9						
KEK	Kerkira	144.78	316		PKPab	06 48 49.5	-1.5
BFO	Black Forest	144.96	337	PKIKP	PKPab	06 48 49.3	-2.0
BFO	Black Forest	144.96	337		PKPab	06 48 49.3	-2.0
BFO	Black Forest	144.96	337	*e*PKPdf	PKPab	06 48 50.7	-0.6
	baz=38,slow=1.9						
FETA	Feichten	145.04	333	*i* PKP	PKPbc	06 48 51.5	-0.4
	comp=Z,132nm,1.2s,SNR=50						
DAVA	Damuels	145.19	334	*i* PKP	PKPbc	06 48 51.8	-0.5
	comp=Z,184nm,1.4s,SNR=43						
CTI	Castel Tesino	145.37	331	PKIKP	PKPbc	06 48 51.6	-1.3
CTI	Castel Tesino	145.37	331		PKPbc	06 48 51.6	-1.3
TUE	Stuetta	146.06	334		PKPdf	06 48 54.0	-0.3
MATE	Matera	146.26	320	⇑P	PKPdf	06 48 53.7	-0.9
NRCA	Norcia	146.95	326		PKPdf	06 48 57.0	+1.3
TIP	Timpagrande	147.06	317		PKPdf	06 48 55.8	-0.3
TIP	Timpagrande	147.06	317	⇓P	PKPdf	06 48 57.5	+1.5
CEL	Celeste	148.13	317		PKPdf	06 48 59.4	+1.6
KEST	Kesra	153.84	319	PKPbc	PKPdf	06 49 12.2	+5.5
	comp=Z,10nm,0.9s,baz=338,slow=4.8,SNR=7.1						
KEST				PKPab	PKPab	06 49 27.9	+0.2
	comp=Z,38nm,1.2s,baz=204,slow=2.3,SNR=6.4						
KEST	Kesra	153.84	319		PKPbc	06 49 14.4	-0.3
ESDC	Sonseca Array	156.64	345	PKP	PKPdf	06 49 09.3	-1.1
	comp=Z,0.2nm,0.5s,baz=29,slow=3.4,SNR=4.5						
ESDC				PKPab	PKPab	06 49 38.0	-1.4
	comp=Z,1.9nm,0.7s,baz=10,slow=4.1,SNR=8.5						
ESDC	Sonseca Array	156.64	345		PKPab	06 49 39.1	-0.2
MD01	Midelt array s	163.23	340		PKPdf	06 49 17.9	-0.3
TORD	Torodi Ar. Bea	166.69	254	PKP	PKPdf	06 49 20.3	-1.1
	comp=Z,4.4nm,0.9s,baz=156,slow=1.0,SNR=15						
TORD				PKPab	PKPab	06 50 22.8	-1.2
	comp=Z,3.1nm,0.8s,baz=96,slow=4.5,SNR=6.9						

ROM 07 06:29:40.9±0.1**, 43°.175N**±0°.003×**12°.662E**±0°.004**, h8^{km}, ML1.0**/10**, 1D, Error ellipse: s-maj=0.3km s-min=0.3km az=253.0, Central Italy**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ATCC	AVT- Casa Cast	0.02	303	P	Pg	06 29 42.7	+0.1
ATCC				S	Sg	06 29 43.7	+0.1
ATCC				AML	AML		
	comp=N,1026µm,0.2s						
ATCC				AML	AML		
	comp=E,1245µm,0.1s						
ASSB	Assisi San Ben	0.13	181	P	Pg	06 29 44.4	+0.6
ASSB				S	Sg	06 29 46.9	+1.0
ASSB				AML	AML		
	comp=N,160µm,0.3s						
ASSB				AML	AML		
	comp=N,160µm,1.7s						
ASSB				AML	AML		
	comp=E,81µm,0.2s						
MURB	Monte Urbino	0.13	311	P	Pg	06 29 44.4	+0.4
MURB				S	Sg	06 29 46.9	+0.8
MURB				AML	AML		
	comp=N,188µm,0.8s						
MURB				AML	AML		
	comp=E,308µm,0.4s						
FOSV	Fossato di Vic	0.14	31	P	Pg	06 29 44.5	+0.5
FOSV				AML	AML		
	comp=E,57µm,0.9s						
FOSV				AML	AML		
	comp=E,57µm,0.9s						
FOSV				AML	AML		
	comp=N,52µm,0.9s						
FOSV				AML	AML		
	comp=E,57µm,1.1s						
ATFO	Monte Foce - G	0.20	341	P	Pg	06 29 46.0	+0.9
SNTG	Esanatoglia	0.22	68	P	Pg	06 29 46.0	+0.6
SNTG				S	Sg	06 29 50.0	+1.6
SNTG				AML	AML		
	comp=N,51µm,0.3s						
SNTG				AML	AML		
	comp=E,70µm,0.3s						
SNTG				AML	AML		
	comp=N,51µm,0.3s						
MML1	Montelago di S	0.23	105	P	Pg	06 29 46.4	+0.7
MML1				S	Sg	06 29 50.4	+1.5
CESI	CESI - Serrava	0.25	134	P	Pg	06 29 46.5	+0.7
ATSC	Scheggia e Pas	0.25	4	P	Pg	06 29 46.5	+0.5
ATSC				S	Sg	06 29 50.9	+1.5
FDMO	Fiordimonte	0.34	114	⇓P	Pg	06 29 48.2	+0.6
FDMO				S	Sb	06 29 53.9	-0.9
FDMO				AML	AML		
	comp=E,28µm,0.6s						
FDMO				AML	AML		
	comp=N,22µm,0.4s						
FDMO				AML	AML		
	comp=E,28µm,0.6s						
EL6	Elcito	0.36	64	P	Pb	06 29 49.1	-0.4
CSP1	Cessapalombo	0.41	102	P	Pb	06 29 49.7	-0.7

TEH ***07*** *06:30:38.0, 34°.30N×45°.76E, h9^{km}±21^{km}, ML3.4, Presumed earthquake*

ISN ***07*** *06:30:41.4±1.3, 34°.30N×45°.76E, h9^{km}, ML3.1, Presumed earthquake*

ISC 07 06:30:39.7±1.0**, 34°.33N**±0°.04×**45°.84E**±0°.04**, h10^{km}, n13, σ0^{s}.98**/16**, Iran-Iraq border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IDHR	Dehrash	0.59	50	Pg	Pg	06 30 50.8	-0.3
IGHG	Ghaleghazi	0.61	90	Pg	Pg	06 30 51.4	-0.1
IGHG				Sg	Sb	06 31 01.4	+0.2
ILBA	Ilam Banvizeh	0.77	156	Pg	Pg	06 30 53.1	-1.4
KCHF	Cheshme Sefid,	1.00	93	Pg	Pg	06 30 58.3	-0.6
IBDR	Badra	1.22	176	*i* P	Pg	06 31 03.7	+0.6
IBDR				*i* S	Sn	06 31 20.1	+0.9
	baz=353						
IBDR				IAML		06 31 22.1	
	comp=E,518nm,0.7s						
IBDR				IAML		06 31 23.1	
	comp=N,260nm,0.5s						
SNJK	Sanadaj _Korde	1.50	43	Pg	Pg	06 31 08.0	-0.6
SNQR	Sonqor, Kerman	1.57	70	Pg	Pg	06 31 09.4	-0.4
IKRK	Kirkuk	1.63	311	*i* P	Pg	06 31 09.7	-1.3
IKRK				*i* S	Sg	06 31 33.1	+0.9
IKRK				IAML		06 31 36.3	
	comp=E,372nm,0.2s						
IKRK				IAML		06 31 37.4	
	comp=N,300nm,0.4s						
IBZA	Bozab	1.68	85	Pg	Pb	06 31 10.7	-0.2
IKFM	Kafar-mosalman	1.85	115	Pn	Pb	06 31 12.6	-1.0
IDOB	Doab	2.02	105	Pn	Pb	06 31 14.8	-1.7
IAZR	Azarshahr	3.35	2	Pn	Pn	06 31 32.9	+0.6
ISRB	Sarab	3.79	22	Pn	Pn	06 31 39.6	+1.2

WEL 07 06:34:33.6±0.5**, 45°S**±3°×**16°8E**±°**, h5^{km}, M2.8**/6**, ML2.8**/9**, MLv2.8**/6**, Error ellipse: s-maj=4.4km s-min=2.8km az=131.3, confirmed, South Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSZ	Milford Sound	0.30	248	P	Pg	06 34 40.5	+0.9
MSZ				S	Sg	06 34 44.9	+1.4
MSZ				AML	AML		
MSZ				AML	AML		
GLNY	Glenorchy	0.31	169	P	Pg	06 34 40.3	+0.7
GLNY				S	Sg	06 34 44.0	+0.3
QTPS	Queenstown Pol	0.53	153	P	Pg	06 34 44.1	+0.2
WKZ	Wanaka	0.56	118	P	Pg	06 34 44.9	+0.5
WKZ				S	Sg	06 34 52.8	+1.0
WKZ				AML	AML		
WKZ				AML	AML		
JCZ	Jackson Bay	0.59	35	P	Pg	06 34 44.9	-0.1
JCZ				S	Sg	06 34 52.4	-0.3
JCZ				AML	AML		
JCZ				AML	AML		
MECS	Makarora Emerg	0.73	64	P	Pb	06 34 48.4	-0.5
MLZ	Mavora Lakes	0.82	190	P	Pg	06 34 49.4	0.0
MLZ				S	Sg	06 35 00.4	+0.5
MLZ				AML	AML		
MLZ				AML	AML		
HDWS	Haast DOC Work	0.85	38	P	Pg	06 34 49.8	-0.2
EAZ	Earnscleugh	0.97	134	P	Pg	06 34 52.0	-0.2
EAZ				AML	AML		
MOSS	Mossburn Schoo	1.11	183	P	Pg	06 34 54.9	0.0
DCZ	Deep Cove	1.23	222	P	Pg	06 34 56.1	-1.0

DCZ				S	Sg	06 35 12.4	-0.6
DCZ				AML	AML		
DCZ				AML	AML		
LBZ	**Lake Benmore**	1.35	83	P	Pb	06 34 59.3	0.0
LBZ				S	Sg	06 35 16.1	-0.7
LBZ				AML	AML		
WHZ	**Wether Hill Ro**	1.36	191	P	Pn	06 34 58.8	-0.5
WHZ				S	Sb	06 35 17.0	-0.2
WHZ				AML	AML		
FOZ	**Fox Glacier**	1.49	47	P	Pn	06 35 01.2	+0.2
FOZ				AML	AML		
TUZ	**Tuapeka**	1.67	147	P	Pb	06 35 04.5	-0.4
TUZ				S	Sn	06 35 25.5	+0.1
TUZ				AML	AML		
TUZ				AML	AML		

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*ASRS **07** 06:35:48.0±0.5, 54°.12N×86°.44E, h0^{km}, M2.4(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 07 06:35:49.2±4.0**, 54°.17N×86°.50E, h0**^{km}**, mbtmp3.0**/2**, ML2.7**/2**, Error ellipse: s-maj=33.4km s-min=14.8km az=69.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	**ZALESOVO INFRA**	1.01	258	I	I	06 42 10.0	
	baz=78,slow=328,SNR=1.3						
ZALV	**Zalesovo Beam**	1.01	258	Pg	Pg	06 36 07.2	-1.4
	0.8nm,0.3s,baz=77,slow=17,SNR=8.6						
ZALV				Lg	Lg	06 36 23.1	
	1.6nm,0.3s,baz=75,slow=28,SNR=12						
KURBB	**Kurchatov Arra**	6.03	237	Pn	Pn	06 37 21.5	+1.9
	0.2nm,0.3s,baz=54,slow=14,SNR=1.7						
	0.7nm,0.3s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	7.86	202	Pn	Pn	06 37 45.4	+0.7
	0.1nm,0.3s,baz=25,slow=14,SNR=6.2						
	0.2nm,0.2s						
MKAR				AML	AML		

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*ASRS **07** 06:48:10.0±0.6, 53°.72N×88°.15E, h0^{km}, M2.5(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 07 06:48:15.8±3.3**, 53°.70N×87°.89E, h0**^{km}**, mbtmp2.8**/2**, ML2.5**/2**, Error ellipse: s-maj=26.4km s-min=21.9km az=71.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	**ZALESOVO INFRA**	1.84	279	I	I	07 01 10.0	
	0.1nm,0.8s,baz=93,slow=330,SNR=15						
ZALV	**Zalesovo Beam**	1.84	279	Pn	Pn	06 48 48.9	+0.3
	1.0nm,0.3s,baz=100,slow=12,SNR=19						
ZALV				Lg	Lg	06 49 16.1	
	1.8nm,0.3s,baz=101,slow=25,SNR=15						
KURBB	**Kurchatov Arra**	6.53	246	Pn	Pn	06 49 53.6	+0.6
	0.1nm,0.3s,baz=72,slow=10,SNR=1.4						
KURBB				Lg	Lg	06 51 41.6	
	0.1nm,0.3s,baz=54,slow=37,SNR=4.6						
	0.4nm,0.4s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	7.78	210	Pn	Pn	06 50 12.0	+1.7
	0.1nm,0.3s,baz=26,slow=11,SNR=1.8						
	0.3nm,0.5s						
MKAR				AML	AML		

WEL 07 06:51:21.7±1.1**, 33°S**±6°**×18°0E**±1°4**, h12**^{km}**, M4.4**/6**, mB4.8**/5**, ML4.3**/10**, MLv4.5**/6**, Mw(mB)4.1**/5**, Error ellipse: s-maj=18.3km s-min=7.5km az=94.5, confirmed, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	4.83	194	P	Pn	06 52 35.5	+1.3
MXZ				S	Sn	06 53 30.7	+0.7
WMGZ	**Waiomatatini S**	5.05	192	P	Pn	06 52 39.0	+1.7
WMGZ				S	Sn	06 53 35.2	-0.4
WMGZ				AML	AML		
HAZ	**Te Kaha**	5.13	197	P	Pn	06 52 38.8	+0.4
HAZ				S	Sn	06 53 40.4	+3.0
HAZ				AML	AML		
PKGZ	**Pakihiroa**	5.17	195	P	Pn	06 52 39.8	+1.0
PKGZ				S	Sn	06 53 42.9	+4.6
PKGZ				AML	AML		
PUZ	**Puketiti**	5.33	193	P	Pn	06 52 41.1	0.0
PUZ				S	Sn	06 53 43.3	+0.8
PUZ				AML	AML		
RUGZ	**Raukumara Rang**	5.35	198	P	Pn	06 52 41.9	+0.4
RUGZ				S	Sn	06 53 45.6	+2.5
RUGZ				AML	AML		
RUGZ				AML	AML		
WCZ	**Waipu Caves**	5.40	234	P	Pn	06 52 42.7	+0.7
TWGZ	**Tauwhareparae**	5.49	195	P	Pn	06 52 44.6	+1.3
TWGZ				S	Sn	06 53 48.2	+1.9
TWGZ				AML	AML		
TWGZ				AML	AML		
OUZ	**Omahuta**	5.60	244	P	Pn	06 52 45.2	+0.4
CNGZ	**Carnagh Statio**	5.74	192	P	Pn	06 52 47.1	+0.4
CNGZ				AML	AML		
MWZ	**Matawai**	5.74	198	P	Pn	06 52 45.7	-1.0
MWZ				S	Sn	06 53 52.7	+0.1
TKGZ	**Te Karaka**	5.76	195	P	Pn	06 52 47.3	+0.3
TKGZ				S	Sn	06 53 53.7	+0.6
TKGZ				AML	AML		
URZ	**Urewera**	5.79	201	P	Pn	06 52 46.3	-1.1
URZ				S	Sn	06 53 52.7	-0.9
URZ				AML	AML		
RIGZ	**Rimuhau**	6.04	195	P	Pn	06 52 49.6	-1.2
RIGZ				AML	AML		
RIGZ				AML	AML		
MUGZ	**Murupara**	6.09	202	P	Pn	06 52 49.4	-2.2
MUGZ				S	Sn	06 54 00.9	-0.3
MUGZ				AML	AML		
MUGZ				AML	AML		
PRGZ	**Paritu Road**	6.22	193	P	Pn	06 52 53.0	-0.3
PRGZ				S	Sn	06 54 03.6	-0.9
PRGZ				AML	AML		
RAHZ	**Arahi**	6.40	199	P	Pn	06 52 53.4	-2.5
RAHZ				AML	AML		
RAHZ				AML	AML		
TLZ	**Tolley Road**	6.43	211	P	Pn	06 52 57.4	+1.2
TLZ				AML	AML		
NMHZ	**Naumai**	6.65	200	P	Pn	06 52 57.4	-1.9
NMHZ				AML	AML		
HIZ	**Hauiti**	6.88	214	P	Pn	06 53 02.9	+0.5
KWHZ	**Kaweka Forest**	7.07	201	P	Pn	06 53 01.8	-3.2
OTVZ	**Oturere**	7.09	206	P	Pn	06 53 02.8	-2.6
TWVZ	**Taurewa**	7.10	208	P	Pn	06 53 02.4	-3.1
SNVZ	**South Ngauruho**	7.12	207	P	Pn	06 53 03.0	-2.8
WHVZ	**Whangaehu Hut**	7.22	206	P	Pn	06 53 03.9	-3.4
BHHZ	**Black Hill Sta**	7.24	203	P	Pn	06 53 03.5	-3.8
WNVZ	**Wahianoa**	7.26	206	P	Pn	06 53 04.4	-3.3
MOVZ	**Moawhango**	7.27	205	P	Pn	06 53 03.8	-4.1
KRHZ	**Kereru**	7.28	201	P	Pn	06 53 03.3	-4.6
KAHZ	**Kahuranaki**	7.28	198	P	Pn	06 53 04.5	-3.4
PXZ	**Pawanui**	7.51	197	P	Pn	06 53 06.6	-4.4
PNHZ	**Pukenui**	7.58	201	P	Pn	06 53 06.7	-5.3
TSZ	**Takapari Road**	7.79	202	P	Pn	06 53 09.3	-5.6
PRHZ	**Porangahau**	7.79	198	P	Pn	06 53 09.7	-5.2
DVHZ	**Dannevirke**	7.95	200	P	Pn	06 53 11.5	-5.5
BFZ	**Birch Farm**	8.28	199	P	Pn	06 53 15.7	-5.9

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*IDC **07** 06:54:50.8±2.3, 12°.77N×58°.23E, h0^{km}, mb3.7/5, mbtmp3.7/5, Error ellipse: s-maj=77.9km s-min=30.8km az=63.0*

*OMAN **07** 06:55:06.2±2.4, 14°.09N×58°.04E, h10^{km}, mb3.7/10, ml3.5/1, Error ellipse: s-maj=28.9km s-min=10.4km az=125.0*

ISC 07 06:54:52.9±1.5**, 13°.0N**±0°.2**×58°.3E**±0°.1**, h10**^{km}**, n22, σ1ˢ03**/19**, mb3.6**/5**, Owen Fracture Zone region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHAO	**Shalim**	5.61	333	P	Pn	06 56 15.0	-1.5
DMTO	**DMTO**	5.68	326	P	Pn	06 56 16.3	-1.1
	SNR=40						
WHFO	**Wadi Hawf**	6.54	319	P	Pn	06 56 28.8	-0.5
MHTO	**MHTO**	7.94	358	P	Pn	06 56 46.6	-2.0
	SNR=12						
JLN	**Jalan Bani Buh**	9.16	7	P	Pn	06 57 04.5	-0.7
JLN				S	Sn	06 58 35.6	-13
JMDO	**Jabal Madar**	9.32	359	P	Pn	06 57 06.3	-1.1
	SNR=20						
JMDO				S	Sn	06 58 43.3	-9.0
WBK	**Wadi Bani Khal**	9.57	4	P	Pn	06 57 10.0	-1.0
	SNR=6.0						
WBK				S	Sn	06 58 48.1	-11
BSY	**Bisya**	9.74	354	P	Pn	06 57 13.0	-0.2
	SNR=6.9						
SMDO	**Samad**	10.00	359	P	Pn	06 57 15.8	-1.1
	SNR=9.2						
WSAR	**Wadi Sarin**	10.18	2	P	Pn	06 57 18.8	-0.4
	SNR=6.7						
ARQ	**Araqi**	10.41	351	P	Pn	06 57 22.1	-0.3
	SNR=5.4						
HOQ	**Hoqain**	10.56	355	P	Pn	06 57 24.3	-0.1
SOHO	**SOHO**	11.19	352	P	Pn	06 57 33.2	+0.2
ASHO	**Ashiyiah**	11.81	350	P	Pn	06 57 40.8	-0.7
	SNR=6.3						
KURBB	**Kurchatov Arra**	40.99	20	P	P	07 02 36.7	+0.8
	0.4nm,0.3s,baz=222,slow=7.5,SNR=4.2						
	0.4nm,0.3s						
AKASG	**Malin Array Be**	44.41	334	P	P	07 03 04.5	+0.8
	0.1nm,0.3s,baz=150,slow=7.7,SNR=4.3						
	0.1nm,0.3s						
ZALV	**Zalesovo Beam**	45.91	22	P	P	07 03 17.2	+1.6
	0.8nm,0.4s,baz=208,slow=12,SNR=3.8						
	0.8nm,0.4s						
H01W3	**Cape Leeuwin H**	71.19	134	T	T	08 23 42.0	
	baz=302,slow=75,SNR=20						
H01W2	**Cape Leeuwin H**	71.19	134	T	T	08 23 42.3	
	baz=302,slow=75,SNR=19						
H01W1	**Cape Leeuwin H**	71.20	134	T	T	08 23 43.9	
	baz=302,slow=75,SNR=27						
WRA	**Warramunga Arr**	81.65	113	P	P	07 07 11.2	-0.8
	0.5nm,0.8s,baz=288,slow=4.9,SNR=4.6						
	0.5nm,0.8s						
ASAR	**Alice Springs**	82.38	116	P	P	07 07 15.2	-0.5
	0.5nm,0.8s,baz=282,slow=3.4,SNR=4.9						
	0.5nm,0.8s						

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*ASRS **07** 07:05:43.0±0.6, 54°.11N×86°.46E, h0^{km}, M2.5(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 07 07:05:44.9±3.9**, 54°.16N×86°.57E, h0**^{km}**, mbtmp3.2**/2**, ML2.9**/2**, Error ellipse: s-maj=33.1km s-min=15.4km az=68.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	**ZALESOVO INFRA**	1.05	259	I	I	07 12 30.0	
	baz=78,slow=330,SNR=1.7						
ZALV	**Zalesovo Beam**	1.05	259	Pg	Pg	07 06 03.6	-1.4
	1.7nm,0.3s,baz=82,slow=17,SNR=10						
ZALV				Lg	Lg	07 06 21.0	
	1.8nm,0.3s,baz=77,slow=31,SNR=7.2						
KURBB	**Kurchatov Arra**	6.06	238	Pn	Pn	07 07 16.7	+1.0
	0.2nm,0.3s,baz=54,slow=14,SNR=5.3						
	1.0nm,0.5s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	7.86	202	Pn	Pn	07 07 41.8	+1.4
	0.3nm,0.3s,baz=25,slow=13,SNR=9.3						
	0.5nm,0.3s						
MKAR				AML	AML		

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*IDC **07** 07:32:28.7±0.8, 14°.24N×146°.98E, h0^{km}, mb4.3/13, mbtmp4.3/14, ML4.2/1, MS4.4/3, Error ellipse: s-maj=24.5km s-min=16.6km az=98.0*

*NEIC **07** 07:32:32.5±1.1, 14°.16N±0°.05×146°.75E±0°.06, h10^{km}±1^{km}, mb4.8/51, Error ellipse: s-maj=12.3km s-min=5.6km az=228.0*

ISC 07 07:32:31.3±0.5**, 14°.14N**±0°.07**×146°.79E**±0°.07**, h10**^{km}**, n91, σ0ˢ93**/86**, mb4.7**/42**, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DPSS	**Saipan**	1.46	319	Pn	Pn	07 32 58.5	+0.7
GUMO	**Guam**	1.95	254	Pn	Pn	07 33 05.4	+1.0
	76nm,0.3s,baz=125,slow=6.4,SNR=37						
GUMO				Sn	Sb	07 33 31.9	+0.6
	67nm,0.3s,baz=206,slow=20,SNR=4.2						
GUMO				LR	LR	07 34 31.5	
	comp=Z,1µm,18.2s,baz=73,slow=57						
	258nm,0.4s						
GUMO				AML	AML		
FAKI	**Fak Fak**	22.25	221	P	P	07 37 29.0	+0.4
FAKI				IAmb	IAmb	07 37 56.1	
	comp=Z,37nm,1.2s						
JSU	**Suzuyama**	22.87	322	P	P	07 37 35.1	0.0
INU	**Inuyama**	22.88	339	P	P	07 37 35.4	+0.3
INU				IAmb	IAmb	07 37 47.5	
	comp=Z,70nm,1.5s						
JGF	**Kuroka**	23.00	340	P	P	07 37 36.6	+0.3
JGF				IAmb	IAmb	07 37 44.6	
	comp=Z,29nm,1.4s						
MJAR	**Matsushiro Arr**	23.60	343	P	P	07 37 41.0	-1.4
	comp=Z,2.1nm,0.6s,baz=161,slow=8.6,SNR=2.7						
	comp=Z,2.1nm,0.6s						
MJAR	**Matsushiro Arr**	23.60	343	P	P	07 37 41.7	-0.7
YULB	**Yu-li**	25.80	295	P	P	07 38 02.4	-0.4
SSLB	**Suanglung**	26.21	295	P	P	07 38 06.8	+0.2
SSLB				IAmb	IAmb	07 38 10.9	
	comp=Z,17nm,1.2s						
KSRS	**Korea Array**	28.66	328	P	P	07 38 26.6	-1.7
	comp=Z,4.9nm,1.0s,baz=143,slow=10.0,SNR=7.1						
	comp=Z,4.9nm,1.0s						
MYLDM	**Lahad Datu**	29.25	255	P	P	07 38 33.2	-0.5
MYLDM				IAmb	IAmb	07 38 56.9	
	comp=Z,12nm,0.8s						
MTN	**Manton Dam**	30.97	211	P	P	07 38 48.9	-0.1
NJ2	**Nanjing**	31.14	310	*e*P	P	07 38 50.3	0.0
NJ2				pmax	pmax		
	comp=Z,33nm,0.5s						
KNRA	**Kununurra**	34.57	212	P	P	07 39 20.4	-0.1
WB0	**Warramunga Arr**	35.83	200	P	P	07 39 31.7	+0.4
WB0				IAmb	IAmb	07 39 49.5	
	comp=Z,11nm,1.2s						
WRAB	**Tennant Creek**	36.00	200	P	P	07 39 32.6	-0.2
WRAB				IAmb	IAmb	07 39 51.0	
	comp=Z,17nm,1.4s						
WRA	**Warramunga Arr**	36.02	200	P	P	07 39 32.3	-0.6
	comp=Z,2.2nm,0.9s,baz=22,slow=9.4,SNR=16						
	comp=Z,2.2nm,0.9s						
WRA	**Warramunga Arr**	36.02	200	P	P	07 39 33.1	+0.3
FITZ	**Fitzroy Crossi**	38.23	214	P	P	07 39 51.5	-0.1
HEH	**HeiHe**	39.33	340	*e*P	P	07 40 02.9	+2.3
AS31	**Alice Springs**	39.63	199	P	P	07 40 04.2	+0.7
ASAR	**Alice Springs**	39.63	199	P	P	07 40 03.0	-0.4
	comp=Z,0.6nm,0.6s,baz=27,slow=9.5,SNR=13						
	comp=Z,0.6nm,0.6s						
HHC	**Hu-ho-hao-te**	40.60	318	*e*P	P	07 40 12.8	+1.3
HHC				pmax	pmax		
	comp=Z,16nm,0.7s						
PZH	**PanZhiHua**	43.79	294	P	P	07 40 38.6	+0.9
LZH	**Lanzhou**	44.15	308	*e*P	P	07 40 41.0	+0.5
LZH				sP	pwP	07 40 51.5	+0.7
LZH				pmax	pmax		
	comp=Z,23nm,1.0s						
CMAR	**Chiang Mai Arr**	46.03	282	P	P	07 40 55.5	0.0
	comp=Z,1.1nm,0.3s,baz=86,slow=5.7,SNR=7.3						
	comp=Z,1.1nm,0.3s						
CMAR	**Chiang Mai Arr**	46.03	282	P	P	07 40 56.0	+0.5
SONM	**Songino Array**	47.38	324	P	P	07 41 05.7	-0.2
	comp=Z,2.6nm,0.8s,baz=138,slow=8.2,SNR=9.7						
	comp=Z,2.6nm,0.8s						
SONM	**Songino Array**	47.38	324	P	P	07 41 05.7	-0.2
ATKA	**Atka Island**	49.06	31	P	P	07 41 19.2	+0.7
MORW	**Morawa**	52.23	214	P	P	07 41 42.2	-0.6
NIUE	**Niue**	53.91	127	P	P	07 41 55.5	+0.1
XMAS	**Kiritimati**	56.35	97	P	P	07 42 13.7	+0.6
WMQ	**Urumqi**	58.12	313	*e*P	P	07 42 23.9	-1.4
WMQ				pmax	pmax		
	comp=Z,11nm,0.7s						
ZALV	**Zalesovo Beam**	62.28	324	P	P	07 42 52.2	-1.2
	comp=Z,3.0nm,0.6s,baz=103,slow=6.5,SNR=9.7						
	comp=Z,3.0nm,0.6s						
ZALV	**Zalesovo Beam**	62.28	324		P	07 42 52.9	-0.5
MK31	**Makanchi Array**	62.40	316	P	P	07 42 54.6	+0.1
MKAR	**Makanchi Array**	62.40	316	P	P	07 42 54.3	-0.2
	comp=Z,1.6nm,0.6s,baz=86,slow=9.3,SNR=19						
	comp=Z,1.6nm,0.6s						
MKAR	**Makanchi Array**	62.40	316		P	07 42 54.5	0.0
MAKZ	**Makanchi**	62.62	316	P	P	07 42 56.0	+0.1
MAKZ				IAmb	IAmb	07 42 56.8	
	comp=Z,3.5nm,0.6s						
H18K	**Honhosa River**	62.87	23	P	P	07 42 56.9	-0.4
L19K	**White Mountain**	63.05	27	P	P	07 42 59.8	+1.1
L19K				IAmb	IAmb	07 43 28.2	
	comp=Z,13nm,1.4s						
J20K	**Nowinta River**	64.11	25	P	P	07 43 05.7	+0.2
J20K				IAmb	IAmb	07 43 08.0	
	comp=Z,9.7nm,1.4s						
KURK	**Kurchatov**	65.38	320		P	07 43 13.6	-0.4
KURBB	**Kurchatov Arra**	65.42	319	P	P	07 43 13.4	-0.9
	comp=Z,9.4nm,0.7s,baz=99,slow=6.7,SNR=76						
	comp=Z,9.4nm,0.7s						
PWL	**Port Wells**	65.59	29	P	P	07 43 16.6	+1.4
SML	**Sawmill**	65.84	28	P	P	07 43 17.7	+0.8
SCM	**Sheep Creek Mo**	66.31	28	P	P	07 43 21.0	+1.1
BOOM	**Boomskoye usch**	66.50	310	P	P	07 43 20.2	-1.4
COLD	**Coldfoot**	66.73	22	P	P	07 43 23.8	+1.4
CCB	**Clear Creek Bu**	66.86	25	P	P	07 43 24.1	+0.8
CCB				IAmb	IAmb	07 43 25.6	
	comp=Z,4.3nm,1.1s						
D23K	**Nanushuk River**	67.17	20		P	07 43 26.4	+1.2
D23K				IAmb	IAmb	07 43 32.4	
	comp=Z,11nm,1.2s						
E23K	**Chandalar**	67.23	21		P	07 43 27.6	+1.9
E23K				IAmb	IAmb	07 43 31.1	
	comp=Z,8.1nm,1.0s						
IL31		67.28	25	P	P	07 43 26.6	+0.7
IL31				IAmb	IAmb	07 43 43.1	
	comp=Z,6.7nm,1.2s						
ILAR	**Eielson Array**	67.28	25	P	P	07 43 24.3	-1.6
	comp=Z,0.8nm,0.4s,baz=252,slow=4.6,SNR=14						
	comp=Z,0.8nm,0.4s						
ILAR	**Eielson Array**	67.28	25	P	P	07 43 25.9	-0.1
G24K	**Hadweenzic Riv**	67.59	23	P	P	07 43 29.1	+1.2
G24K				IAmb	IAmb	07 43 36.0	
	comp=Z,9.8nm,1.4s						
D24K	**Happy Valley**	67.87	20	P	P	07 43 30.2	+0.6
D25K	**Kavik River**	68.75	21	P	P	07 43 36.2	+1.0
D25K				IAmb	IAmb	07 43 40.0	
	comp=Z,8.3nm,1.2s						
BMAR	**Burnt Mountain**	68.88	23	P	P	07 43 37.8	+1.8
DAWY	**Dawson**	70.31	27	P	P	07 43 45.9	+1.0
DAWY				IAmb	IAmb	07 44 03.3	
	comp=Z,9.6nm,1.4s						
KKAR	**Karatay Array**	70.50	311	P	P	07 43 45.9	-0.6
BVAR	**Borovoye Array**	70.66	322	P	P	07 43 46.2	-0.9
	comp=Z,7.8nm,0.7s,baz=99,slow=7.7,SNR=21						
	comp=Z,7.8nm,0.7s						
BORK	**Borovoye**	70.70	322		P	07 43 47.2	-0.2
BORK				IAmb	IAmb	07 43 48.6	
	comp=Z,6.2nm,0.8s						
L29M	**L29M**	70.75	28	IAmb	IAmb	07 43 54.5	
	comp=Z,10nm,1.4s						
HYT	**Haines Junctio**	70.79	30	IAmb	IAmb	07 43 54.5	
	comp=Z,7.4nm,1.2s						
WTLY	**Watson Lake, Y**	75.08	31	IAmb	IAmb	07 44 31.3	
	comp=Z,11nm,1.4s						
AB31	**Akbulak array**	77.39	318		P	07 44 25.9	-0.7
ABKAR	**Akbulak array**	77.39	318	P	P	07 44 25.7	-0.9
ARTI	**Arti**	77.48	325	P	P	07 44 26.4	-0.6
ARTI				IAmb	IAmb	07 44 32.7	
	comp=Z,4.0nm,0.5s						
PGC	**Sidney**	79.37	42	P	P	07 44 36.4	-1.2
PGC				IAmb	IAmb	07 44 38.7	
	comp=Z,18nm,1.4s						
RES	**Resolute Bay**	83.58	14	LR	LR	08 26 13.2	
	comp=Z,618nm,18.4s,baz=76,slow=39						
SPITS	**Spitsbergen Ar**	83.81	351	LR	LR	08 27 41.0	
	comp=Z,462nm,18.0s,baz=196,slow=40						
ELK	**Elko**	86.81	49	P	P	07 45 17.2	+0.6
ELK				IAmb	IAmb	07 45 20.6	
	comp=Z,6.4nm,1.4s						
ARCES	**ARCESS Array B**	87.13	342	P	P	07 45 15.1	-2.2
	comp=Z,1.6nm,0.6s,baz=40,slow=9.6,SNR=5.1						
	comp=Z,1.6nm,0.6s						
ARCES	**ARCESS Array B**	87.13	342	P	P	07 45 16.6	-0.6
PSUT	**Pine Spring**	88.46	51	P	P	07 45 24.4	-0.1
PDAR	**Pinedale Array**	90.25	46	P	P	07 45 33.3	+0.4
FINES	**FINESS Array B**	91.45	336	P	P	07 45 35.5	-2.2
	comp=Z,4.5nm,0.6s,baz=64,slow=6.6,SNR=16						
	comp=Z,4.5nm,0.6s						
PV02	**Paradox Valley**	92.38	50	P	P	07 45 43.3	+0.4
PV02				IAmb	IAmb	07 45 57.5	
	comp=Z,5.5nm,1.2s						
TXAR	**Lajitas Array**	99.50	57	P	Pdif	07 46 15.5	+0.3
PSGCX	**Pisagua**	144.31	104	PKPdf	PKPab	07 52 08.1	+1.5
PB06	**IPOC Station P**	144.54	109	PKPdf	PKPab	07 52 08.9	+1.4
PB11	**IPOC Station P**	144.74	104		PKPab	07 52 08.1	-0.3
PB16	**IPOC Station P**	144.94	102	PKPbc	PKPab	07 52 08.8	-0.9
PB09	**IPOC Station P**	144.95	108	PKPbc	PKPbc	07 52 08.3	-0.8
DBIC	**Dimbokro**	145.09	304	PKPbc	PKPbc	07 52 09.4	-0.1
	comp=Z,8.4nm,0.9s,baz=54,slow=3.6,SNR=8.7						
DBIC	**Dimbokro**	145.09	304		PKPbc	07 52 08.7	-0.8
LPAZ	**La Paz**	146.26	98	PKPbc	PKPdf	07 52 13.1	+0.3
	comp=Z,1.9nm,0.7s,baz=195,slow=1.0,SNR=9.5						
LPAZ	**La Paz**	146.26	98	PKPdf	PKPdf	07 52 11.8	-1.0

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*DNK **07** 07:37:37.9±4.5, 70°.87N×8°.24W, h18^{km}±189^{km}, ML1.9, Presumed earthquake*

*BER **07** 07:37:40.0±3.1, 70°.99N×7°.54W, h10^{km}, ML3.4, Mw3.8, Confirmed Earthquake*

ISC 07 07:37:34.4±0.7**, 71°.12N**±0°.06**×7°.09W**±0°.04**, h10**^{km}**, n23, σ3ˢ07**/37**, 4D, Jan Mayen Island region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JNE	**Jan Mayen East**	0.41	252	⇓*i*P	Pb	07 37 44.7	+1.0
JNE				*e*S	Sb	07 37 49.7	-0.4
JNE				IAML		07 37 50.2	
	comp=Z,6µm,0.3s						
JNW	**Jan Mayen West**	0.45	259	⇓*i*P	Pb	07 37 45.3	+1.0
JNW				*e*S	Sb	07 37 50.7	-0.2
JNW				IAML		07 37 50.9	
	comp=Z,11µm,0.3s						
JMIC	**Jan Mayen**	0.48	255	⇓*i*P	Pb	07 37 45.5	+0.7
JMIC				*e*S	Sg	07 37 51.2	+1.2
JMIC				IAML		07 37 51.5	
	comp=Z,4µm,0.2s						
JMI	**Jan Mayen**	0.57	251	⇓*i*P	Pb	07 37 47.1	+0.7
JMI				*e*S	Sg	07 37 53.8	+1.0
JMI				IAML		07 37 56.0	
	comp=Z,2µm,0.7s						
DBG	**Daneborg**	5.05	315	*e*P	Pn	07 38 51.2	+1.2
DBG				*e*S	Sn	07 39 44.5	-3.8
DBG	**Daneborg**	5.05	315	*i* P	Pn	07 38 51.1	+1.2
DBG				*i* S	Sn	07 39 44.3	-3.9
DBG				IAML		07 39 47.9	
	comp=Z,3.4nm,0.2s						
DAG	**Danmarks Havn**	6.51	336	*e*P	Pn	07 39 12.2	+2.2
DAG				*e*S	Sn	07 40 21.2	-2.9
DAG	**Danmarks Havn**	6.51	336	*i* P	Pn	07 39 12.0	+2.1
DAG				*i* S	Sn	07 40 21.0	-3.0
DAG				IAML		07 40 24.8	
	comp=Z,6.1nm,0.3s						
LOF	**Lofoten**	7.78	103	*e*P	Pn	07 39 33.3	+5.9
STEI	**Steigen**	8.43	101	*e*P	Pn	07 39 38.8	+2.6
VAGH	**Vaagaholmen**	8.52	111	*e*P	Pn	07 39 41.0	+3.4
KONS	**Konsvik**	8.63	113	*e*P	Pn	07 39 41.8	+2.7
KONS				*e*S	Sn	07 41 11.4	-4.8
KONS				IAML		07 41 21.0	
	comp=Z,3.3nm,0.6s						
STOK	**Stokkvaagen**	8.71	114	*e*P	Pn	07 39 43.2	+3.0
STOK				*e*S	Sn	07 41 13.9	-4.3
STOK				IAML		07 41 22.2	
	comp=Z,3.2nm,0.9s						
FAUS	**Fauske**	8.75	104	*e*P	Pn	07 39 44.0	+3.4
LEIR	**Leirfjorden**	8.89	114	*e*P	Pn	07 39 45.3	+2.7
LEIR				*e*S	Sn	07 41 18.5	-4.2
LEIR				IAML		07 41 27.0	
	comp=Z,2.1nm,0.4s						
RAUS	**Rausandaksla**	8.95	111	*e*P	Pn	07 39 45.9	+2.4
RAUS				*e*S	Sn	07 41 19.5	-4.6
RAUS				IAML		07 41 25.4	
	comp=Z,2.2nm,0.8s						
KBS	**Kingsbay**	9.18	23	*e*P	Pn	07 39 50.8	+4.2
KBS				*e*S	Sn	07 41 30.4	+0.6
KBS				IAML		07 41 41.1	
	comp=Z,1.4nm,1.0s						
KBS	**Kingsbay**	9.18	23	*i* P	Pn	07 39 51.3	+4.7
KBS				*i* S	Sn	07 41 28.3	-1.5
SPA0	**Spitsbergen Ar**	9.33	30	*e*P	Pn	07 39 54.8	+6.2
SPA0				*e*S	Sn	07 41 33.0	-0.3
SPA0				IAML		07 41 44.3	
	comp=Z,1.5nm,0.6s						

JETT	Jettan, Norway	9.36	86	eP	Pn	07 39 51.7	+2.6
KIF	Kilpisjarvi	9.71	89	eP	Pn	07 39 56.9	+3.1
NSS	Namsos	9.73	123	eP	Pn	07 39 56.0	+1.9
NSS				eS	Sn	07 41 37.0	-6.3
NSS				IAML		07 41 45.7	
	comp=Z,2.7nm,0.5s						
SALU	Saltoluokta	9.77	100	eP	Pn	07 39 58.4	+3.6

NOU 07 07:53:40.1,17°.21S×168°.54E,h13^{km},MLv4.4/24, Vanuatu Islands,Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RTV	Rentapao	0.59	191	P	Pb	07 53 52.6	+0.3
RTV	Rentapao	0.59	191	S	Sg	07 53 59.9	+0.4
SANVU	Saraoutou	2.17	324	P	Pn	07 54 16.8	+0.8
SANVU	Saraoutou	2.17	324	S	Sn	07 54 44.4	+1.6
YATNC	Mamie plateau,	5.07	198	P	Pn	07 54 56.1	+0.3
	25nm,1.0s						
YATNC				AML	AML		
YATNC	Mamie plateau,	5.07	198	S	Sn	07 55 53.3	-1.0
	25nm,1.0s						
YATNC				AML	AML		
KOUNC	Koumac, New Ca	5.22	230	P	Pn	07 54 59.3	+1.4
	33nm,0.7s						
KOUNC				AML	AML		
NOUC	Port Laguerre	5.30	203	P	Pn	07 55 00.1	+1.1
	33nm,0.6s						
NOUC				AML	AML		
NOUC	Port Laguerre	5.30	203	S	Sn	07 56 00.1	+0.1
	33nm,0.6s						
NOUC				AML	AML		
OUENC	Ouen Island, N	5.42	197	P	Pn	07 55 02.1	+1.4
	21nm,1.4s						
OUENC				AML	AML		
OUENC	Ouen Island, N	5.42	197	P	Sn	07 56 05.5	+2.5
	21nm,1.4s						
OUENC				AML	AML		
ONTNC	Ouen Toro	5.44	201	P	Pn	07 55 02.4	+1.5
	41nm,1.0s						
ONTNC				AML	AML		
ONTNC	Ouen Toro	5.44	201	S	Sn	07 56 05.6	+2.2
	41nm,1.0s						
ONTNC				AML	AML		

*IDC **07** 08:06:49.0±1.9,0°.16N×124°.15E,h94^{km}±17^{km},mb4.1/25, mbtmp4.5/27,MS3.1/1,Error ellipse: s-maj=20.2km s-min=9.2km az=80.0*

*NEIC **07** 08:06:49.0±1.5,0°.13N±0°.06×124°.35E±0°.05,h91^{km}±5^{km}, mb4.7/65,Error ellipse: s-maj=9.1km s-min=7.4km az=173.0*

*DJA **07** 08:06:51.4±0.2,0°S±3°×12°4E±°,h65^{km}±11^{km},M4.7/32, mB5.0/7,mb4.7/13,MLv5.0/32,Mw(mB)4.3/7*

ISC 07 08:06:49.8±0.7,0°.09N±0°.04×124°.42E±0°.04,h104^{km}±6^{km}, n182,σ1^{s}39/197,mb4.6/58,Minahassa Peninsula, Sulawesi

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MNI	Manado	1.41	17	P	Pn	08 07 16.9	+1.6
MNI				AML	AML		
GTOI	Gorontalo	1.51	291	P	Pn	08 07 18.8	+2.4
LUWI	Luwuk	1.99	236	P	Pn	08 07 21.4	-1.1
LUWI	Luwuk	1.99	236		Pn	08 07 21.6	-0.9
LUWI				Sn	Sn	08 07 52.3	+4.9
LUWI	Luwuk	1.99	236	P	Pn	08 07 22.2	-0.3
LUWI				AML	AML		
SANI	Sanana	2.64	144	P	Pn	08 07 29.7	-1.2
SANI	Sanana	2.64	144	S	Sn	08 07 57.4	-5.1
SANI	Sanana	2.64	144	P	Pn	08 07 29.7	-1.2
SANI				AML	AML		
APSI	Ampana	2.94	250	P	Pn	08 07 36.6	+1.7
TNTI	Ternate	3.02	77	P	Pn	08 07 37.9	+1.9
TNTI	Ternate	3.02	77	S	Sn	08 08 11.3	-0.3
TNTI	Ternate	3.02	77		Pn	08 07 36.0	0.0
TNTI				Sn	Sn	08 08 12.3	+0.7
TNTI	Ternate	3.02	77	P	Pn	08 07 36.8	+0.8
TNTI				AML	AML		
TOLI2	Tolitoli	3.78	286	P	Pn	08 07 47.7	+1.6
TOLI2	Tolitoli	3.78	286	S	Sn	08 08 32.2	+2.5
TOLI2	Tolitoli	3.78	286		Pn	08 07 46.2	+0.1
TOLI2				Sn	Sn	08 08 28.7	-0.9
GAMI	Galela, Maluku	3.79	63	P	Pn	08 07 48.0	+1.7
NLAI	Namlea	4.25	141	P	Pn	08 07 53.8	+1.3
KDI	Kendari	4.40	204	P	Pn	08 07 53.3	-1.3
KDI				AML	AML		
PCI	Palu	4.69	258	P	Pn	08 08 00.7	+2.3
PCI				AML	AML		
KKSI	Kolaka, Sulawe	5.05	213	P	Pn	08 08 02.4	-1.0
DDMP	Don Marcelino,	6.11	12	eP	Pn	08 08 20.8	+3.1
DDMP				eS	Sn	08 09 23.8	-2.6
MMSI	Mamuju	6.16	243	P	Pn	08 08 18.9	+0.5
	0.3nm54nm,0.6s						
MMSI				AML	AML		
KAPI	Kappang	6.89	223	P	Pn	08 08 26.7	-1.6
	57nm,0.5s,baz=53,slow=5.1,SNR=27						
KAPI				S	Sn	08 09 41.6	-3.6
	21nm,0.4s,baz=24,slow=20,SNR=1.4						
KAPI				LR	LR	08 11 35.0	
	comp=Z,165nm,21.8s,baz=278,slow=42						
KAPI	Kappang	6.89	223	P	Pn	08 08 28.2	0.0
KAPI	Kappang	6.89	223		Pn	08 08 27.4	-0.9
KAPI				Sn	Sn	08 09 43.1	-2.1
KAPI	Kappang	6.89	223	P	Pn	08 08 28.7	+0.5
	489nm40nm,0.6s						
KCP	Kidapawan	6.91	6	eP	Pn	08 08 32.5	+3.9
MKS	Makassar	7.23	223	P	Pn	08 08 32.9	0.0
MKS				AML	AML		
BSSI	Bau Bau, Buton	7.33	212	P	Pn	08 08 35.1	+0.8
MYLDM	Lahad Datu	7.78	311	P	Pn	08 08 43.5	+3.1
MYLDM	Lahad Datu	7.78	311	S	Sn	08 10 11.8	+4.9
MYLDM	Lahad Datu	7.78	311		Pn	08 08 38.5	-1.9
MYLDM	Lahad Datu	7.78	311	P	Pn	08 08 43.1	+2.7
	0.5nm67nm,0.8s						
MYLDM				AML	AML		
CDOP	Cateel, Davao	7.91	15	i P	Pn	08 08 42.7	+0.6
CDOP				i S	Sn	08 10 09.3	-0.6
BIPH	Bislig	8.27	13	eP	Pn	08 08 48.6	+1.5
FAKI	Fak Fak	8.38	111	P	Pn	08 08 48.3	-0.3
FAKI	Fak Fak	8.38	111	Pn	Pn	08 08 48.2	-0.3
FAKI	Fak Fak	8.38	111	P	Pn	08 08 48.3	-0.3
MMRI	Maumere	8.94	194	Pn	Pn	08 08 55.0	-1.1
EDFI	Ende, Flores	9.19	197	P	Pn	08 08 59.0	-0.7
SOEI	Soe	9.78	181	P	Pn	08 09 05.6	-2.1
SOEI	Soe	9.78	181	Pn	Pn	08 09 06.3	-1.4
KKM	Kota Kinabalu	10.10	306	P	Pn	08 09 16.0	+3.9
KKM	Kota Kinabalu	10.10	306	Pn	Pn	08 09 09.6	-2.5
MTN	Manton Dam	14.47	153	Pn	Pn	08 10 10.0	+0.2
KNRA	Kununurra	16.24	165		Pn	08 10 32.8	+0.8
FITZ	Fitzroy Crossi	18.11	176	P	P	08 10 53.3	-0.5
	10nm,0.8s,baz=351,slow=5.2,SNR=16						
FITZ				S	S	08 14 16.4	+0.3
	3.1nm,1.0s,baz=0.0,slow=16,SNR=2.3						
FITZ	Fitzroy Crossi	18.11	176	P	P	08 10 54.0	+0.2
FITZ	Fitzroy Crossi	18.11	176	P	P	08 10 54.1	+0.4
BBJI	Bungbulang	18.33	245	P	Pn	08 10 58.3	+0.8
BBJI	Bungbulang	18.33	245		P	08 10 54.9	-1.4
BBJI				IAmb	IAmb	08 10 59.8	
	comp=Z,18nm,0.7s						
MYKOM	Kota Tinggi	20.64	275	P	P	08 11 19.8	-1.5
MBWA	Marble Bar	21.61	192	P	P	08 11 32.4	+0.8
MBWA	Marble Bar	21.61	192	P	P	08 11 30.9	-0.8
WB0	Warramunga Arr	22.02	154	P	P	08 11 36.0	0.0
WRAB	Tennant Creek	22.15	155	P	P	08 11 38.0	+0.6
WRA	Warramunga Arr	22.15	155	P	P	08 11 37.4	0.0
	comp=Z,4.3nm,0.5s,baz=334,slow=10.0,SNR=60						
WRA				PcP	PcP	08 15 31.4	+0.5
	comp=Z,0.9nm,0.5s,baz=338,slow=1.6,SNR=6.2						
WRA				ScP	ScP	08 18 59.7	+0.7
	comp=Z,0.8nm,0.8s,baz=352,slow=2.9,SNR=4.7						
	comp=Z,4.3nm,0.5s						
WRA	Warramunga Arr	22.15	155	P	P	08 11 35.7	-1.7
WR8	Warramunga Arr	22.23	154	P	P	08 11 38.3	0.0
YULB	Yu-li	23.36	353	P	P	08 11 48.3	-1.0
NACB	Ninganchiao	24.10	354	P	P	08 11 55.7	-0.2
NACB				IAmb	IAmb	08 12 32.5	
	comp=Z,13nm,0.7s						
QIS	Mount Isa	25.33	145	P	P	08 12 09.0	+1.7
AS31	Alice Springs	25.35	159	P	P	08 12 07.8	+0.5
ASAR	Alice Springs	25.35	159	P	P	08 12 09.1	+1.7
	comp=Z,2.0nm,0.4s,baz=342,slow=8.8,SNR=53						
ASAR				PcP	PcP	08 15 38.6	+0.9
	comp=Z,2.6nm,0.5s,baz=349,slow=2.1,SNR=17						
ASAR				ScP	ScP	08 19 08.1	+0.4
	comp=Z,0.9nm,0.7s,baz=351,slow=2.7,SNR=6.4						
	comp=Z,2.0nm,0.4s						
ASAR	Alice Springs	25.35	159	P	P	08 12 07.6	+0.3
ASAR					PcP	08 15 38.4	+0.8
AS01	Alice Springs	25.36	159	P	P	08 12 08.6	+1.1
RPSI	Rantau Prapat	25.62	276	P	P	08 12 08.8	-1.1
RPSI				IAmb	IAmb	08 12 09.9	
	comp=Z,10nm,0.9s						
GSI	Gunungsitoli	26.87	273	P	P	08 12 19.0	-2.2
GSI				IAmb	IAmb	08 12 20.7	
	comp=Z,18nm,1.1s						
MORW	Morawa	30.08	195	P	P	08 12 49.0	-0.5
MORW				IAmb	IAmb	08 13 18.8	
	comp=Z,28nm,1.4s						
CMAR	Chiang Mai Arr	30.98	308	P	P	08 12 57.1	-0.5
	comp=Z,1.3nm,0.3s,baz=135,slow=7.7,SNR=18						
CMAR				PcP	PcP	08 15 52.1	+0.6
	comp=Z,2.1nm,0.7s,baz=180,slow=2.1,SNR=10						
	comp=Z,1.3nm,0.3s						
CMAR	Chiang Mai Arr	30.98	308	P	P	08 12 57.2	-0.4
CMAR					PcP	08 15 52.3	+0.7
CHTO	Chiang Mai	31.17	308	P	P	08 12 58.9	-0.4
CHTO				IAmb	IAmb	08 13 00.6	
	comp=Z,11nm,0.8s						
NJ2	Nanjing	32.22	351	eP	P	08 13 10.9	+2.6
NJ2				pmax	pmax		
	comp=Z,37nm,0.5s						
NWAO	Narrogin (SRO)	33.53	191	P	P	08 13 19.6	-0.1
	comp=Z,11nm,0.9s,baz=338,slow=5.4,SNR=1.6						
	comp=Z,11nm,0.9s						
PZH	PanZhiHua	34.16	322	P	P	08 13 27.7	+2.3
STKA	Stephens Creek	35.71	155	P	P	08 13 39.2	+0.7
	comp=Z,2.0nm,0.7s,baz=8.3,slow=4.3,SNR=2.9						
	comp=Z,2.0nm,0.7s						
KSRS	Korea Array	37.32	5	P	P	08 13 52.6	+0.5
	comp=Z,1.1nm,0.5s,baz=180,slow=10.0,SNR=2.3						
	comp=Z,1.1nm,0.5s						
MJAR	Matsushiro Arr	38.46	18	P	P	08 14 01.8	0.0
	comp=Z,5.5nm,0.8s,baz=190,slow=8.8,SNR=8.5						
	comp=Z,5.5nm,0.8s						
MJAR	Matsushiro Arr	38.46	18	P	P	08 14 01.4	-0.4
MAJO	Matsushiro	38.46	18	P	P	08 14 01.8	+0.1
MAJO				IAmb	IAmb	08 14 03.2	
	comp=Z,9.4nm,0.8s						
MJB9	Matsu-Tunnel	38.46	18	P	P	08 14 02.6	+0.8
MJB9				IAmb	IAmb	08 14 04.1	
	comp=Z,8.9nm,0.8s						
JYT	Yasato	38.83	21	P	P	08 14 05.8	+1.1
LZH	Lanzhou	40.60	334	pP	Pn	08 14 55.6	+6.5
LZH	Lanzhou	40.60	334	pmax	pmax		
	comp=Z,25nm,0.9s						
LZH	Lanzhou	40.60	334	eP	P	08 14 32.3	-15
HHC	Hu-ho-hao-te	42.22	345	eP	P	08 14 35.1	+2.3
HHC				pmax	pmax		
	comp=Z,10.0nm,0.7s						
USA0B	Ussuriysk Arra	44.44	8	P	P	08 14 50.8	+0.4
USA0B				IAmb	IAmb	08 14 51.8	
	comp=Z,9.2nm,0.9s						
USRK	Ussuriysk Ar.	44.44	8	P	P	08 14 51.0	+0.7
	comp=Z,5.9nm,0.4s,baz=194,slow=7.0,SNR=18						
	comp=Z,5.9nm,0.4s						
USRK	Ussuriysk Ar.	44.44	8	P	P	08 14 51.2	+0.8
MDJ	Mudanjiang	44.57	5	P	P	08 14 50.7	-0.8
MDJ				IAmb	IAmb	08 15 30.8	
	comp=Z,35nm,1.5s						
GTA2	Gaotai	45.23	333	eP	P	08 14 57.1	+0.1
GTA2				pP	pP	08 15 21.0	-0.4
GTA2				pmax	pmax		
	comp=Z,19nm,0.9s						
EVN	Everest	45.45	311		P	08 14 58.7	-0.8
EVN				IAmb	IAmb	08 15 01.0	
	comp=Z,14nm,0.5s						
ONTNC	Ouen Toro	46.59	121	P	P	08 15 08.1	+0.3
KLR	Kul'dur	49.36	6	P	P	08 15 28.4	-0.3
	comp=Z,5.6nm,0.5s,baz=189,slow=4.7,SNR=16						
	comp=Z,5.6nm,0.5s						
HILR	Hailar Array B	49.44	356	P	P	08 15 29.1	-0.2
	comp=Z,3.8nm,0.4s,baz=183,slow=12,SNR=6.8						
	comp=Z,3.8nm,0.4s						
HEH	HeiHe	50.04	3	eP	P	08 15 33.9	+0.1
SONM	Songino Array	50.07	344	P	P	08 15 33.2	-1.1
	comp=Z,1.9nm,0.5s,baz=155,slow=9.4,SNR=9.5						
SONM				PcP	PcP	08 16 52.4	-0.2
	comp=Z,0.5nm,0.4s,baz=211,slow=1.7,SNR=1.5						
	comp=Z,1.9nm,0.5s						
SONM	Songino Array	50.07	344	P	P	08 15 33.6	-0.7
SONM					PcP	08 16 51.8	-0.7
NIL	Nilore	58.41	310	P	P	08 16 33.4	-1.5
NIL				IAmb	IAmb	08 16 34.5	
	comp=Z,16nm,1.4s						
PDGK	Podgornoye	58.82	323	P	P	08 16 36.4	-1.4
MKAR	Makanchi Array	59.29	328	P	P	08 16 39.5	-1.3
	comp=Z,4.3nm,0.3s,baz=124,slow=7.9,SNR=56						
MKAR				PcP	PcP	08 17 27.3	-0.5
	comp=Z,2.3nm,0.8s,baz=129,slow=4.7,SNR=5.2						
	comp=Z,4.3nm,0.3s						
KDJ	Kajisay	59.60	321	P	P	08 16 42.7	-0.5
PEA0B	Petropavlovsk-	59.65	23	P	P	08 16 43.3	+0.3
PEA0B				IAmb	IAmb	08 16 50.2	
	comp=Z,20nm,1.4s						
PETK	Petropavlovsk-	59.65	23	P	P	08 16 44.5	+1.4
	comp=Z,2.0nm,0.6s,baz=209,slow=3.2,SNR=7.6						
	comp=Z,2.0nm,0.6s						
PETK	Petropavlovsk-	59.65	23	P	P	08 16 42.9	-0.2
PET	Petropavlovsk	59.96	23	P	P	08 16 45.7	+0.5
THZ	Tophouse	60.34	140	P	P	08 16 49.4	+1.3
BOOM	Boomskoye usch	60.57	321	P	P	08 16 49.6	-0.2
TUWZ	Tuamarina	60.85	139	P	P	08 16 52.6	+1.2
YAK	Yakutsk	61.91	3	P	P	08 16 58.3	+0.1
ARSB	Arslanbob	61.93	318	P	P	08 16 57.2	-1.8
ARSB				IAmb	IAmb	08 17 23.7	
	comp=Z,5.5nm,1.0s						
KBL	Kabul	61.97	310	P	P	08 16 57.6	-1.9
KBL				IAmb	IAmb	08 16 58.1	
	comp=Z,7.4nm,0.7s						
MIDW	Midway	62.25	58	P	P	08 17 01.5	+0.4
MA2	Magadan	62.78	15	P	P	08 17 04.2	+0.1
MA2				IAmb	IAmb	08 17 19.5	
	comp=Z,9.4nm,1.0s						
ZAA0	Zalesovo Array	62.83	335	P	P	08 17 02.6	-1.8
ZAA0				IAmb	IAmb	08 17 04.5	
	comp=Z,3.7nm,0.9s						
ZALV	Zalesovo Beam	62.83	335	P	P	08 17 02.1	-2.3
	comp=Z,2.3nm,0.4s,baz=124,slow=4.8,SNR=8.7						
	comp=Z,2.3nm,0.4s						
BTK	Batken	62.84	316	P	P	08 17 02.7	-2.3
BTK				IAmb	IAmb	08 17 08.4	
	comp=Z,4.7nm,1.1s						
KURBB	Kurchatov Arra	63.61	329	P	P	08 17 07.5	-2.2
	comp=Z,6.7nm,0.8s,baz=133,slow=5.9,SNR=18						
	comp=Z,6.7nm,0.8s						
KURK	Kurchatov	63.62	329	P	P	08 17 08.2	-1.5
KURK				IAmb	IAmb	08 17 11.0	
	comp=Z,13nm,0.7s						
KK31	Karatay Array	64.37	319	P	P	08 17 13.8	-1.1
KKAR	Karatay Array	64.37	319	P	P	08 17 13.9	-1.0
BVAR	Borovoye Array	69.14	328	P	P	08 17 43.5	-1.5
	comp=Z,2.4nm,0.3s,baz=138,slow=9.4,SNR=8.6						
	comp=Z,2.4nm,0.3s						
BORK	Borovoye	69.19	328	P	P	08 17 43.9	-1.3
BORK				IAmb	IAmb	08 17 45.7	
	comp=Z,4.3nm,0.7s						
TIXI	Tiksi	71.50	1	P	P	08 17 58.8	-0.2
TIXI				IAmb	IAmb	08 17 59.5	
	comp=Z,7.8nm,0.8s						
NRIK	Noril'sk	73.42	347	P	P	08 18 09.5	-0.8
	comp=Z,7.0nm,0.6s,baz=141,slow=7.0,SNR=9.8						
	comp=Z,7.0nm,0.6s						
NRIK	Noril'sk	73.42	347	P	P	08 18 09.9	-0.5
NRIK				IAmb	IAmb	08 18 10.6	
	comp=Z,7.6nm,0.6s						
AB31	Akbulak array	73.53	322	P	P	08 18 09.4	-2.0
AB31				IAmb	IAmb	08 18 11.8	
	comp=Z,2.6nm,0.6s						
ABKAR	Akbulak array	73.53	322	P	P	08 18 09.6	-1.8
ARTI	Arti	76.87	329	P	P	08 18 28.6	-1.9
ARTI				IAmb	IAmb	08 18 30.9	
	comp=Z,13nm,0.6s						
VOI	Vohitsoka	78.56	248	P	P	08 18 40.5	-0.2
VOI				IAmb	IAmb	08 18 41.3	
	comp=Z,38nm,1.4s						
MAW	Mawson	79.56	200	P	P	08 18 45.9	+0.9
	comp=Z,2.3nm,0.6s,baz=66,slow=2.9,SNR=10						
	comp=Z,2.3nm,0.6s						
MAW	Mawson	79.56	200	P	P	08 18 46.1	+1.1
VNDA	Vanda	80.14	172	P	P	08 18 48.4	+0.4
M14K	Bethel	81.96	28	P	P	08 18 58.3	+0.3
M14K				IAmb	IAmb	08 19 01.8	
	comp=Z,25nm,1.1s						
O15K	Ungalikthiuk R	82.64	30	P	P	08 19 02.7	+1.2
GEVA	Gevas	83.16	308	P	P	08 19 04.1	-0.8
KBZ	Khabaz	83.80	314	P	P	08 19 06.8	-1.1
	comp=Z,1.8nm,0.5s,baz=20,slow=12,SNR=4.0						
	comp=Z,1.8nm,0.5s						
C19K	Lookout Ridge	84.94	20	P	P	08 19 13.8	+0.7
C19K				IAmb	IAmb	08 19 23.1	
	comp=Z,11nm,1.5s						
G19K	Purcell Mounta	85.27	24	P	P	08 19 15.2	+0.5
G19K				IAmb	IAmb	08 19 33.0	
	comp=Z,14nm,1.4s						
IMAR	Indian Mountai	86.59	24	P	P	08 19 22.5	+1.2
CCB	Clear Creek Bu	88.96	25	P	P	08 19 33.0	+0.4
ILAR	Eielson Array	89.36	25	P	P	08 19 33.5	-1.0
	comp=Z,0.2nm,0.5s,baz=254,slow=3.9,SNR=4.3						
	comp=Z,0.2nm,0.5s						
ILAR	Eielson Array	89.36	25	P	P	08 19 33.4	-1.1
CY604	RAF Akrotiri,	89.87	304	P	P	08 19 36.8	-0.4
F25K	Christian Rive	89.89	23	P	P	08 19 38.2	+1.2
F25K				IAmb	IAmb	08 20 10.3	
	comp=Z,3.2nm,1.4s						
QSPA	South Pole Qui	90.02	180	P	P	08 19 38.3	+0.6
	comp=Z,1.2nm,0.9s,baz=309,slow=1.5,SNR=5.3						
	comp=Z,1.2nm,0.9s						
QSPA	South Pole Qui	90.02	180	P	P	08 19 38.2	+0.6
QSPA				IAmb	IAmb	08 20 14.2	
	comp=Z,6.7nm,1.4s						
FYU	Fort Yukon	90.06	24	P	P	08 19 38.0	+0.3
FYU				IAmb	IAmb	08 20 13.5	
	comp=Z,16nm,1.3s						
BMAR	Burnt Mountain	90.31	23	P	P	08 19 40.3	+1.3
BRTR	Keskin Array B	90.55	310	P	P	08 19 38.9	-1.9
	comp=Z,0.9nm,0.6s,baz=126,slow=6.3,SNR=4.8						
	comp=Z,0.9nm,0.6s						
BRTR	Keskin Array B	90.55	310	P	P	08 19 38.7	-2.1
BCAR	Beaver Creek A	91.65	27	P	P	08 19 45.6	+0.4
BARN	Barnard Glacie	91.83	29	P	P	08 19 46.4	+0.1
ARCES	ARCESS Array B	93.04	340	P	P	08 19 49.6	-1.9
	comp=Z,2.0nm,0.7s,baz=95,slow=6.6,SNR=6.6						
	comp=Z,2.0nm,0.7s						
ARCES	ARCESS Array B	93.04	340	P	P	08 19 50.6	-0.9
SPB2	Spitsbergen Ar	93.58	349	P	P	08 19 54.0	+0.2
SPITS	Spitsbergen Ar	93.58	349	P	P	08 19 52.9	-0.9
	comp=Z,1.5nm,0.3s,baz=89,slow=8.4,SNR=11						
	comp=Z,1.5nm,0.3s						
HYT	Haines Junctio	93.87	29	P	P	08 19 55.6	-0.1
HYT				IAmb	IAmb	08 20 37.6	
	comp=Z,7.2nm,1.4s						
FINES	FINESS Array B	93.92	332	P	P	08 19 53.3	-2.3
	comp=Z,1.5nm,0.8s,baz=79,slow=4.1,SNR=4.0						
	comp=Z,1.5nm,0.8s						
FINES	FINESS Array B	93.92	332	P	P	08 19 55.2	-0.5
A36M	Sachs Harbour	96.12	17	P	P	08 20 05.5	0.0
BURAR	Bucovina Array	96.15	318	P	P	08 20 05.5	-0.9
BURAR				IAmb	IAmb	08 20 06.1	
	comp=Z,1.4nm,1.0s						
NVAR	Mina Array Bea	111.04	48	PKiKP	PKiKP	08 25 13.2	+1.3
	comp=Z,0.4nm,0.6s,baz=285,slow=1.8,SNR=4.5						
PDAR	Pinedale Array	115.60	41	PKP	PKiKP	08 25 20.6	+0.1
	comp=Z,0.4nm,0.6s,baz=110,slow=1.2,SNR=6.5						
TORD	Torodi Ar. Bea	121.75	285	PKP	PKPdf	08 25 32.4	-0.4
	comp=Z,3.1nm,0.7s,baz=66,slow=1.7,SNR=16						
SCHQ	Schefferville	124.48	8	PKP	PKPdf	08 25 37.5	+0.5
	comp=Z,4.1nm,0.9s,baz=252,slow=3.2,SNR=5.3						
TXAR	Lajitas Array	125.63	53	PKP	PKiKP	08 25 41.4	+1.0
	comp=Z,0.6nm,0.9s,baz=202,slow=2.4,SNR=5.8						
DBIC	Dimbokro	128.95	279	PKP	PKPdf	08 25 46.2	-0.4
	comp=Z,2.1nm,0.5s,baz=27,slow=4.5,SNR=2.2						
PLCA	Paso Flores	137.32	163	PKP	PKPdf	08 26 01.7	0.0
	comp=Z,0.6nm,0.6s,baz=236,slow=3.6,SNR=3.8						
MT13	San Alfonso	143.78	159	PKPdf	PKPbc	08 26 13.0	+1.5
MT02	Curacav	143.90	158	PKPdf	PKPdf	08 26 13.4	-0.3
MT16	CCHEN	143.98	158	PKPdf	PKPab	08 26 11.2	-0.2
MT08	Bocatoma Ro	144.15	159	PKPdf	PKPab	08 26 12.8	+0.6
PEL	Peldehue	144.18	158	PKPdf	PKPdf	08 26 14.2	-0.1
VA03	San Esteban	144.57	158	PKPdf	PKPdf	08 26 15.1	0.0
CO06	Fray Jorge	145.97	155	PKPab	PKPbc	08 26 19.0	+0.8
ZON	Zonda	146.34	160	PKPab	PKPab	08 26 21.4	+1.1
GO04	Tololo Observa	146.76	156	PKPdf	PKPdf	08 26 18.3	-0.7
CAIB	Caibarien	147.67	44	PKPab	PKPbc	08 26 24.8	+1.5
CPUP	Villa Florida	153.86	176	PKP	PKPdf	08 26 31.0	+1.1
	comp=Z,0.9nm,0.8s,baz=123,slow=4.9,SNR=3.2						
CPUP				PKPbc	PKiKP	08 26 39.1	+1.2
	comp=Z,0.8nm,0.6s,baz=121,slow=4.2,SNR=4.4						
LPAZ	La Paz	159.69	143	PKP	PKPdf	08 26 38.9	+0.5
	comp=Z,2.2nm,1.1s,baz=244,slow=3.8,SNR=3.6						
LPAZ				PKPab	PKPab	08 27 19.8	+2.5
	comp=Z,0.8nm,0.7s,baz=240,slow=3.0,SNR=5.4						

*ASRS **07** 08:10:05.0±1.4,53°.56N×87°.96E,h0^{km},M2.6(MOS),The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 07 08:10:05.9±3.5,53°.61N×87°.81E,h0^{km},mbtmp2.9/2, ML2.7/2,1C-3D,Error ellipse: s-maj=31.6km s-min=18.6km az=76.0,Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	ZALESOVO INFRA	1.81	282	I	I	08 22 14.5	
	baz=97,slow=325,SNR=4.4						
ZALV	Zalesovo Beam	1.81	282	Pn	Pb	08 10 39.1	-0.7
	0.8nm,0.3s,baz=98,slow=15,SNR=8.4						
ZALV				Lg	Lg	08 11 04.1	
	2.1nm,0.3s,baz=99,slow=28,SNR=13						
KURK	Kurchatov	6.35	247	⇑Pg	Pn	08 11 46.8	+6.1
	0.2nm,0.3s						
KURK				⇓Lg	Lg	08 12 16.6	
	1.6nm,0.6s						
KURBB	Kurchatov Arra	6.45	246	Pn	Pn	08 11 42.8	+0.9
	0.1nm,0.3s,baz=61,slow=13,SNR=8.5						
	0.4nm,0.3s						
KURBB				AML	AML		
KURBB	Kurchatov Arra	6.45	246	⇓Pg	Pn	08 11 45.6	+3.6
	0.6nm,0.3s,baz=112,slow=17						
KURBB				⇓Lg	Lg	08 12 17.8	
	13nm,1.0s,baz=115,slow=29						
MKAR	Makanchi Array	7.68	210	Pn	Pn	08 12 00.3	+1.4
	0.2nm,0.3s,baz=28,slow=14,SNR=6.0						
MKAR				Lg	Lg	08 14 04.4	
	0.1nm,0.3s,baz=24,slow=32,SNR=1.5						
	0.3nm,0.4s						
MKAR				AML	AML		

*IDC **07** 08:17:10.8±3.6,11°.58N×142°.22E,h55^{km}±35^{km},mb3.7/12, mbtmp4.0/13,ML4.1/1,Error ellipse: s-maj=29.0km s-min=19.2km az=93.0*

*NEIC **07** 08:17:11.1±0.8,11°.5N±0°.1×142°.3E±0°.2,h68^{km}±10^{km}, mb4.5/11,Error ellipse: s-maj=23.3km s-min=14.2km az=116.0*

ISC 07 08:17:09.2±0.6,11°.46N±0°.09×142°.14E±0°.10,h49^{km},n31, σ1^{s}30/34,mb4.1/17,South of Mariana Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUMO	Guam	3.40	51	P	Pn	08 17 59.9	+0.2
	19nm,0.3s,baz=171,slow=8.8,SNR=10						
GUMO				S	Sn	08 18 41.9	+3.0
	24nm,0.3s,baz=205,slow=24,SNR=1.1						
	85nm,0.5s						
GUMO				AML	AML		
GUMO	Guam	3.40	51	Pn	Pn	08 18 00.3	+0.6
GUMO				Sn	Sn	08 18 37.2	-1.7
PMG	Port Moresby	21.33	166	P	P	08 21 51.4	-0.7
PMG				IAmb	IAmb	08 22 16.9	
	comp=Z,22nm,0.9s						
JHJ2	Mitsune	21.65	355	P	P	08 21 54.3	-1.2
INU	Inuyama	24.23	350	P	P	08 22 20.0	-1.4
MAJO	Matsushiro	25.22	353	P	P	08 22 30.9	+0.4
MAJO				IAmb	IAmb	08 22 37.6	
	comp=Z,23nm,1.4s						
MJB9	Matsu-Tunnel	25.22	353	P	P	08 22 31.0	+0.5
MJB9				IAmb	IAmb	08 22 38.6	
	comp=Z,25nm,1.4s						
WR8	Warramunga Arr	32.12	194	P	P	08 23 31.6	-0.4
WR8				IAmb	IAmb	08 23 49.9	
	comp=Z,11nm,1.4s						
WRA	Warramunga Arr	32.14	194	P	P	08 23 34.5	+2.2

	comp=Z,1.4nm,1.3s,baz=14,slow=9.4,SNR=2.4						
	comp=Z,1.4nm,1.3s						
USRK	Ussuriysk Ar.	33.77	347	P	P	08 23 46.4	+0.1
	comp=Z,2.9nm,0.6s,baz=175,slow=6.8,SNR=5.7						
	comp=Z,2.9nm,0.6s						
USRK	Ussuriysk Ar.	33.77	347	P	P	08 23 45.4	-0.9
USA0B	Ussuriysk Arra	33.77	347	P	P	08 23 45.7	-0.5
USA0B				IAmb	IAmb	08 24 06.1	
	comp=Z,16nm,1.3s						
ASAR	Alice Springs	35.83	193	P	P	08 24 05.2	+1.0
	comp=Z,0.3nm,0.7s,baz=18,slow=12,SNR=1.8						
	comp=Z,0.3nm,0.7s						
KLR	Kul'dur	38.63	349	P	P	08 24 27.6	-0.1
	comp=Z,1.2nm,0.4s,baz=122,slow=6.9,SNR=4.3						
	comp=Z,1.2nm,0.4s						
CMAR	Chiang Mai Arr	42.23	285	P	P	08 24 59.7	+1.9
	comp=Z,1.0nm,0.3s,baz=62,slow=8.1,SNR=2.0						
	comp=Z,1.0nm,0.3s						
HILR	Hailar Array B	42.26	338	P	P	08 24 57.6	-0.1
	comp=Z,1.2nm,0.4s,baz=142,slow=7.3,SNR=2.1						
	comp=Z,1.2nm,0.4s						
BBOO	Buckleboo	44.41	187	P	P	08 25 14.9	-0.2
EVN	Everest	54.16	296	P	P	08 26 30.4	-0.2
EVN				PcP	PcP	08 27 31.4	-3.4
MKAR	Makanchi Array	61.20	317	P	P	08 27 20.7	+1.6
	comp=Z,0.3nm,0.7s,baz=88,slow=8.9,SNR=6.6						
	comp=Z,0.3nm,0.7s						
MKAR	Makanchi Array	61.20	317	P	P	08 27 19.0	0.0
KURBB	Kurchatov Arra	64.55	321	P	P	08 27 41.5	+0.4
	comp=Z,0.7nm,0.5s,baz=108,slow=6.6,SNR=13						
	comp=Z,0.7nm,0.5s						
BVAR	Borovoye Array	69.95	322	P	P	08 28 16.8	+1.4
	comp=Z,0.9nm,0.7s,baz=92,slow=10,SNR=2.1						
	comp=Z,0.9nm,0.7s						
IL31		71.62	25	P	P	08 28 24.4	-0.7
ILAR	Eielson Array	71.62	25	P	P	08 28 25.0	-0.2
	comp=Z,1.3nm,0.6s,baz=249,slow=6.0,SNR=17						
	comp=Z,1.3nm,0.6s						
ILAR	Eielson Array	71.62	25	P	P	08 28 24.4	-0.9
ARCES	ARCESS Array B	88.26	342	P	P	08 29 55.2	+0.2
	comp=Z,2.3nm,1.0s,baz=63,slow=5.2,SNR=6.0						
	comp=Z,2.3nm,1.0s						
ARCES	ARCESS Array B	88.26	342	P	P	08 29 54.7	-0.3
FINES	FINESS Array B	91.94	334	P	P	08 30 11.8	-0.5
	comp=Z,1.4nm,0.5s,baz=66,slow=4.9,SNR=9.9						
	comp=Z,1.4nm,0.5s						
FINES	FINESS Array B	91.94	334	P	P	08 30 11.9	-0.3
AC02	Maricunga	146.86	122	PKPdf	PKPdf	08 36 43.3	-2.3
LPAZ	La Paz	150.24	103	PKPbc	PKiKP	08 36 58.9	+1.5
	comp=Z,0.6nm,0.5s,baz=246,slow=3.6,SNR=2.2						

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*IDC **07** 08:18:55.5±0.7, 17°.04S×168°.86E, h0^{km}, mb4.3/16, mbtmp4.3/18, ML4.6/2, MS3.8/6, Error ellipse: s-maj=18.8km s-min=13.7km az=117.0*

*NOU **07** 08:18:55.5, 17°.07S×168°.82E, h14^{km}, MLv5.0/22, Vanuatu Islands*

*NEIC **07** 08:18:57.2±1.8, 17°.02S±0°.06×168°.80E±0°.09, h10^{km}±1^{km}, mb4.6/27, Error ellipse: s-maj=14.2km s-min=10.0km az=69.0*

ISC 07 08:18:56.9±0.4**, 17°.07S**±0°.04×**168°.77E**±0°.07**, h10**^{km}**, n93, σ0^{s}.89**/88**, mb4.5**/25**, MS3.7**/4**, 2C, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTV	Rentapao	0.79	205	P	Pg	08 19 10.9	-1.2
SANVU	Saraoutou	2.21	317	P	Pn	08 19 32.7	-0.9
SANVU	Saraoutou	2.21	317	S	Sn	08 20 00.8	-0.2
SANVU	Saraoutou	2.21	317		Pn	08 19 32.9	-0.8
MARNC	Mare, Loyalty	4.44	189		Pn	08 20 03.9	-0.4
YATNC	Mamie plateau,	5.26	199	P	Pn	08 20 14.2	-1.5
YATNC	Mamie plateau,	5.26	199	S	Sn	08 21 14.3	-2.2
DZM	Mont Dzumac	5.43	203	Pn	Pn	08 20 18.3	+0.2
	21nm,0.3s,baz=357,slow=13,SNR=79						
DZM				Sn	Sn	08 21 20.1	-0.6
	11nm,0.3s,baz=306,slow=20,SNR=6.2						
DZM				LR	LR	08 21 57.8	
	comp=Z,1μm,19.0s,baz=18,slow=33						
	61nm,0.4s						
DZM				AML	AML		
KOUNC	Koumac, New Ca	5.47	230	P	Pn	08 20 18.7	+0.1
KOUNC	Koumac, New Ca	5.47	230	S	Sn	08 21 21.7	0.0
KOUNC	Koumac, New Ca	5.47	230		Pn	08 20 18.8	+0.2
NOUC	Port Laguerre	5.51	205	P	Pn	08 20 18.8	-0.3
NOUC	Port Laguerre	5.51	205	S	Sn	08 21 21.3	-1.3
OUENC	Ouen Island, N	5.62	199	P	Pn	08 20 19.1	-1.4
OUENC	Ouen Island, N	5.62	199	S	Sn	08 21 25.8	+0.6
OUENC	Ouen Island, N	5.62	199	Pn	Pn	08 20 20.4	-0.2
ONTNC	Ouen Toro	5.64	202	P	Pn	08 20 20.2	-0.7
ONTNC	Ouen Toro	5.64	202	S	Sn	08 21 26.6	+0.8
ONTNC	Ouen Toro	5.64	202		Pn	08 20 21.1	+0.2
MSVF	Nonsavu	8.88	96	Pn	Pn	08 21 05.6	+0.1
	0.2nm,0.3s,baz=315,slow=20,SNR=2.9						
	13nm,1.0s						
MSVF				AML	AML		
MSVF	Nonsavu	8.88	96		Pn	08 21 04.2	-1.3
HNR	Honiara	11.46	310	LR	LR	08 25 42.6	
	comp=Z,238nm,18.9s,baz=106,slow=35						
EIDS	Eidsvold	18.43	240	P	P	08 23 11.6	-1.0
ARMA	Armidale	20.52	227	P	P	08 23 35.2	-0.3
ARMA				IAmb	IAmb	08 24 02.2	
	comp=Z,13nm,1.0s						
TOZ	Tahuroa Road	21.41	165	P	P	08 23 44.6	-0.4
TOZ				IAmb	IAmb	08 23 52.8	
	comp=Z,15nm,0.8s						
CTA	Charters Tower	21.55	259	P	P	08 23 47.8	+1.2
	comp=Z,6.7nm,0.7s,baz=98,slow=8.6,SNR=9.2						
CTA				LR	LR	08 31 03.2	
	comp=Z,268nm,18.1s,baz=50,slow=34						
	comp=Z,6.7nm,0.7s						
CTAO	Charters Tower	21.55	259	P	P	08 23 46.2	-0.4
CTAO				IAmb	IAmb	08 24 22.4	
	comp=Z,18nm,1.1s						
URZ	Urewera	22.34	163	LR	LR	08 30 38.4	
	comp=Z,480nm,19.9s,baz=350,slow=31						
PMG	Port Moresby	22.36	287	LR	LR	08 31 57.5	
	comp=Z,316nm,18.3s,baz=20,slow=35						
RPZ	Rata Peaks	26.63	176	LR	LR	08 34 18.9	
	comp=Z,79nm,18.8s,baz=204,slow=35						
STKA	Stephens Creek	28.68	234	P	P	08 24 55.0	+0.8
	comp=Z,2.9nm,0.8s,baz=66,slow=9.2,SNR=8.6						
	comp=Z,2.9nm,0.8s						
WR8	Warramunga Arr	32.59	260	P	P	08 25 27.9	-1.0
WR8				IAmb	IAmb	08 25 39.6	
	comp=Z,10nm,1.2s						
WRA	Warramunga Arr	32.74	260	P	P	08 25 29.9	-0.3
	comp=Z,1.1nm,0.9s,baz=92,slow=9.2,SNR=8.4						
	comp=Z,1.1nm,0.9s						
WRA	Warramunga Arr	32.74	260	P	P	08 25 29.8	-0.3
AS31	Alice Springs	33.27	253	P	P	08 25 34.4	-0.4
AS31				IAmb	IAmb	08 25 39.4	
	comp=Z,3.3nm,0.6s						
ASAR	Alice Springs	33.27	253	P	P	08 25 34.6	-0.3
	comp=Z,6.7nm,0.6s,baz=79,slow=8.9,SNR=39						
	comp=Z,6.7nm,0.6s						
BBOO	Buckleboo	33.37	236	P	P	08 25 35.4	-0.2
BBOO				IAmb	IAmb	08 26 08.7	
	comp=Z,33nm,1.3s						
KNRA	Kununurra	38.36	266		P	08 26 18.2	-0.3
KNRA				IAmb	IAmb	08 26 22.2	
	comp=Z,4.1nm,0.6s						
FORT	Forrest	39.41	242	P	P	08 26 27.1	-0.1
FORT				IAmb	IAmb	08 26 40.0	
	comp=Z,14nm,0.9s						
FITZ	Fitzroy Crossi	41.06	262	P	P	08 26 40.9	-0.1
NWAO	Narrogin (SRO)	48.83	241	P	P	08 27 44.4	+1.7
	comp=Z,19nm,0.9s,baz=68,slow=5.1,SNR=7.1						
	comp=Z,19nm,0.9s						
MORW	Morawa	49.60	246	P	P	08 27 48.1	-0.6
VNDA	Vanda	60.57	182	P	P	08 29 07.7	+0.5
	comp=Z,1.1nm,0.8s,baz=326,slow=3.7,SNR=3.6						
	comp=Z,1.1nm,0.8s						
VNDA	Vanda	60.57	182	P	P	08 29 08.0	+0.8
MJAR	Matsushiro Arr	60.64	332	P	P	08 29 08.9	+0.8
	comp=Z,3.7nm,1.0s,baz=166,slow=6.0,SNR=4.3						
	comp=Z,3.7nm,1.0s						
MJAR	Matsushiro Arr	60.64	332	P	P	08 29 07.6	-0.6
MJAR				IAmb	IAmb	08 29 42.6	
	comp=Z,3.9nm,1.2s						
SBA	Scott Base	60.81	180	P	P	08 29 09.1	+0.3
SBA				IAmb	IAmb	08 29 16.2	
	comp=Z,10nm,1.1s						
NACB	Ninganchiao	61.64	310	P	P	08 29 15.0	-0.2
SHEM	Shemya Is, Ala	69.66	3	P	P	08 30 04.8	-1.6
SMY	Shemya	69.66	3	P	P	08 30 04.9	-1.4
IPM	Ipoh	70.21	281	P	P	08 30 10.1	-0.6
IPM				IAmb	IAmb	08 30 50.8	
	comp=Z,12nm,1.3s						
PET	Petropavlovsk	70.35	354	P	P	08 30 10.1	-0.5
PETK	Petropavlovsk-	70.54	353	P	P	08 30 13.5	+1.7
	comp=Z,0.7nm,0.4s,baz=229,slow=8.1,SNR=1.2						
	comp=Z,0.7nm,0.4s						
PETK	Petropavlovsk-	70.54	353	P	P	08 30 12.2	+0.4
QSPA	South Pole Qui	72.97	180	P	P	08 30 27.3	+0.8
	comp=Z,4.3nm,1.0s,baz=39,slow=1.0,SNR=10						
	comp=Z,4.3nm,1.0s						
QSPA	South Pole Qui	72.97	180	P	P	08 30 27.6	+1.0
QSPA				IAmb	IAmb	08 30 32.2	
	comp=Z,12nm,1.3s						
CMAR	Chiang Mai Arr	77.22	294	P	P	08 30 52.1	+0.4
	comp=Z,1.6nm,0.3s,baz=108,slow=3.4,SNR=4.3						
	comp=Z,1.6nm,0.3s						
MAW	Mawson	80.26	202	P	P	08 31 07.8	+0.2
	comp=Z,1.7nm,0.9s,baz=85,slow=3.5,SNR=3.8						
	comp=Z,1.7nm,0.9s						
MAW	Mawson	80.26	202	P	P	08 31 08.4	+0.8
SONM	Songino Array	85.23	323	P	P	08 31 34.1	+0.3
	comp=Z,2.1nm,0.9s,baz=145,slow=5.6,SNR=7.2						
	comp=Z,2.1nm,0.9s						
SONM	Songino Array	85.23	323	P	P	08 31 34.3	+0.5
SONM				IAmb	IAmb	08 31 35.8	
	comp=Z,4.2nm,1.2s						
CAST	Castle Rocks	85.81	17	P	P	08 31 36.9	+0.7
CAST				IAmb	IAmb	08 31 38.5	
	comp=Z,4.0nm,0.8s						
SMAI	San Martin Ant	86.01	162	P	P	08 31 37.6	+0.3
NVAR	Mina Array Bea	87.71	49	P	P	08 31 46.5	+0.1
	comp=Z,0.4nm,0.6s,baz=225,slow=8.1,SNR=4.3						
	comp=Z,0.4nm,0.6s						
ILAR	Eielson Array	88.31	17	P	P	08 31 48.2	-0.1
	comp=Z,0.7nm,1.0s,baz=242,slow=4.9,SNR=5.7						
	comp=Z,0.7nm,1.0s						
ILAR	Eielson Array	88.31	17	P	P	08 31 49.2	+0.9
TROLL	Troll, Antarti	90.65	184	⇑P	P	08 32 00.7	+1.2
	comp=Z,139nm,0.7s						
SNAA	Sanae	91.29	183	P	P	08 32 03.0	+0.5
	comp=Z,1.3nm,0.6s,baz=111,slow=3.8,SNR=2.5						
	comp=Z,1.3nm,0.6s						
SNAA	Sanae	91.29	183	P	P	08 32 03.5	+1.0
SNAA				IAmb	IAmb	08 32 04.0	
	comp=Z,6.0nm,1.3s						
VNA3	Neumayer Olymp	91.90	181	⇑P	P	08 32 05.9	+0.7
	comp=Z,2.8nm,0.8s						
ESPZ	Base Esperanza	92.28	161	P	P	08 32 08.1	+1.1
MKAR	Makanchi Array	99.88	316	P	Pdif	08 32 42.0	+0.1
	comp=Z,1.1nm,0.9s,baz=88,slow=6.2,SNR=4.3						
	comp=Z,1.1nm,0.9s						
MKAR	Makanchi Array	99.88	316		Pdif	08 32 40.9	-0.9
MAKZ	Makanchi	100.10	316	Pdif	Pdif	08 32 40.2	-2.6
ZAA0	Zalesovo Array	100.12	323	Pdif	Pdif	08 32 41.0	-1.7
ZALV	Zalesovo Beam	100.12	323	P	Pdif	08 32 41.9	-0.8
	comp=Z,0.7nm,0.3s,baz=125,slow=4.0,SNR=2.0						
ZALV	Zalesovo Beam	100.12	323		Pdif	08 32 41.1	-1.6
BI05	Punta Hualpn	100.80	134	Pdif	Pdif	08 32 44.0	-2.2
BRTR	Keskin Array B	135.12	310	PKP	PKPdf	08 38 17.2	+0.2
	comp=Z,0.2nm,0.3s,baz=348,slow=3.4,SNR=1.9						
RONA	Rosalia, Austr	142.01	330	*e*PKP	PKiKP	08 38 32.0	-0.3
	comp=Z,1.3nm,0.6s						
CONA	Conrad Observa	142.06	330	*i* PKP	PKiKP	08 38 32.8	+0.4
	comp=Z,4.3nm,1.3s						
MOA	Molln	142.86	331	*e*PKP	PKiKP	08 38 33.4	-0.6
	comp=Z,3.0nm,0.8s						
SOKA	Soboth	143.34	329	*e*PKP	PKiKP	08 38 35.0	-0.1
	comp=Z,1.6nm,0.6s						
OBKA	Obir	143.70	330	*e*PKP	PKiKP	08 38 34.8	-1.0
	comp=Z,13nm,1.8s						
KBA	Koelnbreinsper	143.85	331	*i* PKP	PKPdf	08 38 33.0	+0.3
	comp=Z,4.4nm,1.4s						
LESA	Schwarzleotal	143.90	332	*e*PKP	PKPdf	08 38 34.2	+1.5
	comp=Z,2.9nm,0.6s						
ABTA	Abfaltersbach	144.48	332	*e*PKP	PKPbc	08 38 32.7	+0.5
	comp=Z,0.4nm,0.3s						
MOTA	Moosalm	144.65	333	*i* PKP	PKPdf	08 38 34.0	-0.1
	comp=Z,4.3nm,0.6s						
RETA	Reutte	144.68	334	*e*PKP	PKPdf	08 38 34.0	-0.1
	comp=Z,1.3nm,0.5s						
SQTA	Sankt Quirin	144.70	333	*e*PKP	PKPdf	08 38 34.8	+0.6
	comp=Z,6.0nm,0.6s						
BFO	Black Forest	144.96	337	PKPdf	PKPbc	08 38 34.1	+0.4
FETA	Feichten	145.06	333	*e*PKP	PKPdf	08 38 35.1	+0.2
	comp=Z,9.6nm,0.8s						
DAVA	Damuels	145.21	335	*e*PKP	PKPdf	08 38 35.7	+0.6
	comp=Z,14nm,1.0s						

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*ISK **07** 08:23:56.9, 37°.97N×42°.94E, h5^{km}, ML2.9/7*

*AFAD **07** 08:23:57.2, 37°.93N×43°.04E, h7^{km}±5^{km}, ML2.5*

ISC 07 08:23:58.0±1.2**, 37°.94N**±0°.04×**43°.00E**±0°.03**, h3**^{km}±13^{km}**, n14, σ0^{s}.93**/24**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PERV	Siirt/Pervari-	0.36	271	P	Pg	08 24 04.7	-0.3
PERV				S	Sg	08 24 11.5	+1.8
GEVA	Gevas	0.37	8	P	Pg	08 24 04.3	-0.9
GEVA				S	Sg	08 24 10.6	+0.5
GEVA				IAML		08 24 12.0	
	comp=N,679nm,0.4s						
GEVA				IAML		08 24 12.0	
	comp=E,696nm,0.3s						
AKDM	Akdamar-Van	0.39	358	Pg	Pg	08 24 05.0	-0.5
AKDM				Sg	Sg	08 24 11.3	+0.7
AKDM				AML	AML		
TVAN	Van	0.67	29	P	Pg	08 24 10.4	-0.5
TVAN				S	Sb	08 24 23.0	+0.8
TVAN				IAML		08 24 28.0	
	comp=E,237nm,0.6s						
TVAN				IAML		08 24 36.0	
	comp=N,225nm,0.8s						
HAKT	HAKKARI	0.68	124	P	Pg	08 24 10.4	-0.7
HAKT				S	Sb	08 24 23.3	+0.6
HAKT				IAML		08 24 29.0	
	comp=N,248nm,0.4s						
HAKT				IAML		08 24 31.0	
	comp=E,262nm,0.4s						
BLIS	Bitlis-Merkez	0.84	304	P	Pg	08 24 12.5	-1.6
BLIS				S	Sb	08 24 28.0	+0.9
BLIS				IAML		08 24 31.0	
	comp=N,319nm,0.3s						
CUKT	Cukurca	0.85	145	Pg	Pb	08 24 15.3	-0.2
CUKT				AML	AML		
SRTM	Siirt_Merkez	0.85	274	P	Pg	08 24 13.3	-1.0
SRTM				S	Sb	08 24 28.3	+0.9
SRTM				IAML		08 24 34.0	
	comp=E,252nm,0.6s						
SRTM				IAML		08 24 36.0	
	comp=N,272nm,0.5s						
ADCV	BITLIS_Adilcev	0.89	346	P	Pg	08 24 14.2	-0.9
ADCV				S	Sg	08 24 28.0	+1.4
ADCV				IAML		08 24 30.0	
	comp=E,162nm,0.8s						
ADCV				IAML		08 24 33.0	
	comp=N,158nm,0.6s						
GURO	Guroymak-BITLI	0.97	309	Pg	Pg	08 24 15.6	-1.1
GURO				Sg	Sg	08 24 29.5	+0.2
GURO				AML	AML		
SVAN	Silvan-Diyarba	1.44	279	Pn	Pn	08 24 24.3	-0.7
SVAN				Sn	Sg	08 24 44.9	+0.8
SVAN				AML	AML		
AGRB	Hanur-Agry	1.63	360	Pn	Pn	08 24 27.5	-0.3
AGRB				AML	AML		
BNGB	Bingl	2.10	301	Pn	Pn	08 24 33.8	-0.4
BNGB				AML	AML		
DYBB	Diyarbakir	2.26	271	Pn	Pn	08 24 36.2	-0.1
DYBB				AML	AML		

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*TIF **07** 08:47:46.3, 38°.72N×41°.99E, h3^{km}±1^{km}*

*ISK **07** 08:47:46.4, 38°.73N×41°.97E, h5^{km}, ML4.0/21*

*AFAD **07** 08:47:46.0, 38°.74N×41°.97E, h10^{km}±10^{km}, MW4.1*

*IDC **07** 08:47:47.6±0.8, 38°.51N×42°.16E, h0^{km}, mb3.9/9, mbtmp3.8/18, ML3.9/6, MS3.1/2, Error ellipse: s-maj=14.0km s-min=7.8km az=134.0*

*NEIC **07** 08:47:50.0±1.2, 38°.59N±0°.05×42°.09E±0°.05, h10^{km}±1^{km}, mb4.2/16, Error ellipse: s-maj=9.7km s-min=5.3km az=213.0*

ISC 07 08:47:47.2±0.6**, 38°.74N**±0°.02×**41°.98E**±0°.02**, h2**^{km}±4^{km}**, n110, σ2^{s}.13**/118**, mb4.0**/12**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GURO	Guroymak-BITLI	0.20	169	Pg	Pg	08 47 50.9	-0.1
GURO				Sg	Sg	08 47 54.2	+0.7
GURO				AML	AML		
GURO	Guroymak-BITLI	0.20	169	Pg	Pg	08 47 51.4	+0.4
BLIS	Bitlis-Merkez	0.34	162	P	Pb	08 47 53.8	-2.4
BLIS				S	Sg	08 47 58.6	+0.3
BLIS				IAML		08 47 59.0	
	comp=E,3μm,0.3s						
BLIS				IAML		08 48 02.0	
	comp=N,3μm,0.4s						
MUSM	Mu-Merkez	0.37	267	P	Pg	08 47 53.7	-0.6
MUSM				S	Sg	08 47 59.0	-0.2
MUSM				IAML		08 47 59.0	
	comp=E,6μm,0.5s						
MUSM				IAML		08 48 05.0	
	comp=N,3μm,0.9s						
ADCV	BITLIS_Adilcev	0.58	83	P	Pb	08 47 59.0	-1.3
ADCV				S	Sb	08 48 08.6	-0.5
ADCV				IAML		08 48 15.0	
	comp=N,3μm,0.6s						
ADCV				IAML		08 48 21.0	
	comp=E,3μm,0.4s						
VRTB	Varto-Mus	0.59	316	Pg	Pb	08 47 58.9	-1.5
VRTB				Sg	Sn	08 48 08.7	-4.4
VRTB				AML	AML		
VRTB	Varto-Mus	0.59	316	P	Pb	08 47 59.1	-1.3
VRTB				S	Sb	08 48 07.4	-1.8
VRTB				IAML		08 48 53.0	
	comp=E,2μm,1.2s						
VRTB				IAML		08 48 53.0	
	comp=N,8μm,2.1s						
MLAZ	Malazgirt-MUS	0.59	48	Pg	Pb	08 47 59.6	-0.9
MLAZ				Sg	Sn	08 48 09.3	-4.0
MLAZ				AML	AML		
SRTM	Siirt_Merkez	0.75	184	P	Pn	08 48 02.2	-2.8
SRTM				S	Sn	08 48 13.5	-3.5
SRTM				IAML		08 48 21.0	
	comp=E,6μm,0.6s						
SRTM				IAML		08 48 27.0	
	comp=N,5μm,0.6s						
SVAN	Silvan-Diyarba	0.85	226	Pg	Pn	08 48 03.7	-2.7
SVAN				Sg	Sn	08 48 16.4	-3.1
SVAN				AML	AML		
AKDM	Akdamar-Van	0.88	118	Pg	Pb	08 48 03.9	-1.5
AKDM				AML	AML		
DORK	Agr/Tutak/Do	0.89	44	P	Pb	08 48 04.1	-1.5
DORK				S	Sb	08 48 17.0	-1.1
DORK				IAML		08 48 20.0	
	comp=N,3μm,0.6s						
DORK				IAML		08 48 24.0	
	comp=E,4μm,0.6s						
PERV	Siirt/Pervari-	0.91	151	P	Pn	08 48 04.8	-2.3
PERV				S	Sn	08 48 18.3	-2.7
PERV				IAML		08 48 20.0	
	comp=N,2μm,1.0s						
PERV				IAML		08 48 22.0	
	comp=E,1μm,0.5s						
KARO	Karliova-Bingo	0.92	308	Pg	Pn	08 48 05.1	-2.4
KARO				AML	AML		
GEVA	Gevas	0.95	117	P	Pn	08 48 05.3	-2.4
GEVA				S	Sb	08 48 18.4	-1.2
GEVA				IAML		08 48 20.0	
	comp=N,7μm,0.8s						
GEVA				IAML		08 48 24.0	
	comp=E,8μm,0.8s						
GEVA	Gevas	0.95	117		Pn	08 48 05.3	-2.4
BNGB	Bingl	1.05	284	Pg	Pb	08 48 06.3	-1.9
BNGB				AML	AML		
ERCV	ERCIS-VAN	1.09	75	Pn	Pn	08 48 08.9	-0.9
ERCV				AML	AML		
TVAN	Van	1.13	100	P	Pn	08 48 09.0	-1.3
TVAN				S	Sn	08 48 25.2	-1.4
TVAN				IAML		08 48 26.0	
	comp=E,2μm,0.8s						
TVAN				IAML		08 48 40.0	
	comp=N,3μm,0.8s						
AGRB	Hanur-Agry	1.14	43	Pn	Pn	08 48 09.3	-1.2
AGRB				AML	AML		
EATA	Eleskirt	1.19	19	P	Pn	08 48 09.9	-1.3
EATA				S	Sn	08 48 27.6	-0.5
EATA				IAML		08 48 30.0	
	comp=E,4μm,0.8s						
KOPR	Koprukoy-ERZUR	1.25	355	Pn	Pg	08 48 10.9	-0.3
KOPR				AML	AML		
VMUR	Van-Muradiye	1.26	78	P	Pg	08 48 11.7	+0.2
VMUR				S	Sn	08 48 29.4	-0.5
VMUR				IAML		08 48 37.0	
	comp=E,2μm,1.2s						
VMUR				IAML		08 48 37.0	
	comp=N,2μm,0.8s						
SIRN	Sırnak	1.29	165	P	Pg	08 48 11.9	0.0
SIRN				S	Sn	08 48 29.6	-0.7
SIRN				IAML		08 48 35.0	
	comp=N,5μm,1.0s						
SIRN				IAML		08 48 36.0	
	comp=E,7μm,0.6s						
ATA5	Erzurum, Merke	1.29	334	Pn	Pg	08 48 12.4	+0.3
YEDI	Yedisu-Bingol	1.32	302	Pn	Pg	08 48 12.8	+0.3
YEDI				AML	AML		
DYDN	Diyadin	1.55	58	P	Pg	08 48 17.2	+0.3
DYDN				S	Sg	08 48 37.9	+0.9
DYDN				IAML		08 48 42.0	
	comp=N,1μm,0.9s						
DYDN				IAML		08 48 52.0	
	comp=E,1μm,1.0s						
CLDR	Caldiran	1.56	75	Pn	Pg	08 48 16.6	-0.5
CLDR				AML	AML		
CLDR	Caldiran	1.56	75	P	Pg	08 48 16.4	-0.8
CLDR				S	Sg	08 48 38.9	+1.5
CLDR				IAML		08 48 53.0	
	comp=N,982nm,1.1s						
CLDR				IAML		08 48 57.0	
	comp=E,1μm,0.7s						
OZAP	Van, Ozalp-Mer	1.57	92	P	Pg	08 48 17.0	-0.4
OZAP				S	Sg	08 48 40.7	+2.9
OZAP				IAML		08 48 52.0	
	comp=N,714nm,1.2s						
OZAP				IAML		08 49 01.0	
	comp=E,984nm,0.8s						
DYBB	Diyarbakir	1.65	242	Pn	Pg	08 48 17.2	-1.7
DYBB				AML	AML		
KOPT	Kop Dagi	1.72	318	Pn	Pg	08 48 20.9	+0.7
SENK	Senkaya-Erzuru	1.84	9	Pn	Pb	08 48 20.6	-1.1
SENK				AML	AML		
ERZN	Erzincan	1.95	296	Pn	Pb	08 48 21.9	-1.7
CUKT	Cukurca	1.97	139	Pn	Pb	08 48 22.3	-1.6
CUKT				AML	AML		
CUKT	Cukurca	1.97	139	P	Pg	08 48 25.2	+0.2
CUKT				S	Sg	08 48 52.2	+1.7
CUKT				IAML		08 48 57.0	
	comp=N,2μm,0.8s						
CUKT				IAML		08 49 02.0	
	comp=E,2μm,1.0s						
IGDI	IGDIR	1.98	55	P	Pg	08 48 23.3	-1.8
IGDI				S	Sg	08 48 49.1	-1.6
IGDI				IAML		08 48 59.0	
	comp=N,487nm,1.0s						
IGDI				IAML		08 48 59.0	
	comp=E,385nm,0.7s						
KARS	Kars	2.06	24	Pn	Pb	08 48 23.8	-1.7
KARS				AML	AML		
SVRC	Sivrice-ELAZID	2.13	261	Pn	Pb	08 48 24.4	-2.3
SVRC				AML	AML		
TASB	TASBURUN-IGDIR	2.14	54	Pn	Pb	08 48 25.0	-1.8
TASB				AML	AML		
ESGZ	Sivrice-Elazig	2.31	263	Pn	Pb	08 48 26.7	-3.0
GNI	Garni	2.56	56	Pn	Pb	08 48 31.1	-2.8
	20nm,0.3s,baz=265,slow=5.0,SNR=15						
GNI				Pg	Pg	08 48 35.0	-1.2
	26nm,0.3s,baz=330,slow=1.9,SNR=5.8						
GNI				Lg	Lg	08 49 11.1	
	20nm,0.3s,baz=185,slow=22,SNR=5.1						
GNI				LR	LR	08 49 41.7	
	comp=Z,259nm,21.4s,baz=224,slow=44						
	178nm,0.7s						
GNI				AML	AML		
GNI	Garni	2.56	56	Pn	Pb	08 48 30.9	-3.0
GNI				AML	AML		
GNI	Garni	2.56	56	Pn	Pb	08 48 31.4	-2.5
ILIC	ilic-Erzincan	2.75	286	Pn	Pb	08 48 33.3	-3.9
BGD	Bogdanovka	2.81	26	P	Pb	08 48 35.7	-2.5
URFA	Urfa	2.81	243	Pn	Pb	08 48 33.8	-4.5
URFA				AML	AML		

KTUT	Trabzon	2.82	323	Pn	Pb	08 48 34.4	-3.9
ARPR	Arapgir-MALATY	2.87	278	Pn	Pb	08 48 35.1	-4.1
ARPR				AML	AML		
ARPR	Arapgir-MALATY	2.87	278	Pn	Pb	08 48 37.6	-1.7
BATM	Batumi	2.87	356	P	Pb	08 48 35.7	-3.4
BATM	Batumi	2.87	356	Pn	Pb	08 48 35.1	-4.0
AKH	Akhalkalaki	2.91	23	P	Pb	08 48 36.5	-3.4
DGRG	David-gareji	3.75	43	P	Pb	08 48 48.8	-5.4
GARIG	Gari	4.02	16	P	Pb	08 48 52.7	-6.1
GAZ	Gaziantep	4.08	249	Pn	Pn	08 48 52.6	+1.8
DDFL	Dedoflistskaro	4.17	48	P	Pb	08 48 57.1	-4.1
VSHL	Vashlovani	4.21	52	P	Pb	08 48 56.1	-5.9
CHRG	Chargali	4.23	31	P	Pn	08 48 55.1	+2.3
LGD	Lagodekhi	4.49	45	P	Pg	08 49 10.5	-2.7
TOKA	Tokat	4.54	292	Pn	Pb	08 49 00.4	-7.3
SHTL	Shatili	4.59	31	P	Pb	08 49 01.7	-6.9
BNN	Bunyan	4.80	273	Pn	Pn	08 49 03.8	+3.2
KBZ	Khabaz	5.03	8	Pn	Pb	08 49 10.8	-5.2
	2.6nm,1.0s,baz=201,slow=8.7,SNR=5.6						
KBZ				Pg	Pg	08 49 23.6	0.0
	0.3nm,0.3s,baz=177,slow=18,SNR=4.4						
KBZ				Lg	Lg	08 50 34.4	
	0.2nm,0.3s,baz=252,slow=19,SNR=1.1						
KBZ				LR	LR	08 51 11.2	
	comp=Z,218nm,18.5s,baz=254,slow=39						
KIV	Kislovodsk	5.24	6	Pn	Pn	08 49 08.5	+1.8
KVAR	Kislovodsk Arr	5.24	6	Pn	Pb	08 49 12.2	-7.4
	3.0nm,0.7s,baz=217,slow=18,SNR=1.5						
KVAR				Pg	Pg	08 49 30.3	+2.8
	baz=268,slow=21						
BR131	Keskin Array S	6.55	281	Pn	Pn	08 49 27.4	+2.6
BRTR	Keskin Array B	6.55	281	Pn	Pn	08 49 29.3	+4.5
	0.8nm,0.7s,baz=105,slow=9.4,SNR=5.3						
BRTR				Pg	Pg	08 49 52.0	-0.8
	0.1nm,0.3s,baz=104,slow=14,SNR=6.9						
BRTR	Keskin Array B	6.55	281		Pn	08 49 28.0	+3.3
BZK	Bozkurt	6.89	300	Pn	Pn	08 49 32.1	+2.9
CY604	RAF Akrotiri,	7.45	236		Pn	08 49 38.0	+1.4
ASF	Jabal al Asfar	7.76	214	Pn	Pn	08 49 42.1	+0.8
	0.5nm,0.3s,baz=17,slow=19,SNR=5.8						
ASF				Lg	Lg	08 51 54.2	
	1.4nm,0.3s,baz=78,slow=20,SNR=8.2						
	3.8nm,0.7s						
ASF				AML	AML		
MMAI	Mount Meron Ar	7.82	225	Pn	Pn	08 49 42.4	+0.3
	2.1nm,0.3s,baz=52,slow=17,SNR=2.0						
MMAI				Lg	Lg	08 51 59.7	
	5.5nm,0.3s,baz=19,slow=23,SNR=4.3						
	1.4nm,0.4s						
MMAI				AML	AML		
EIL	Elat	10.76	215	Lg	Lg	08 53 28.8	
	0.6nm,0.3s,baz=68,slow=19,SNR=1.2						
KARP	Karpathos	12.25	259	Pn	Pn	08 50 44.7	+1.9
MLR	Muntele Rosu	13.67	305	Pn	P	08 51 06.6	-4.6
	0.3nm,0.3s,baz=86,slow=19,SNR=3.1						
	0.9nm,0.4s						
MLR				AML	AML		
MLR	Muntele Rosu	13.67	305		P	08 51 05.4	-5.9
AKASG	Malin Array Be	14.98	327	Pn	P	08 51 20.9	-4.7
	0.8nm,0.3s,baz=140,slow=11,SNR=9.8						
	0.2nm,0.2s						
AKASG				AML	AML		
AKASG	Malin Array Be	14.98	327	Pn	P	08 51 23.4	-2.1
BURAR	Bucovina Array	15.08	311	Pn	P	08 51 24.5	-2.4
AKTO	Aktyubinsk	16.30	39	Pn	P	08 51 38.8	-1.5
	0.1nm,0.3s,baz=204,slow=7.4,SNR=4.2						
	2.0nm,0.7s						
AKTO				AML	AML		
AB31	Akbulak array	16.61	45	Pn	P	08 51 41.9	-1.8
ABKAR	Akbulak array	16.61	45	Pn	P	08 51 41.7	-2.1
KEK	Kerkira	17.21	280	Pn	P	08 51 51.2	+0.7
UOSS	Minazif	18.27	135	P	P	08 52 01.6	-0.7
UOSS				IAmb	IAmb	08 52 12.7	
	comp=Z,14nm,1.1s						
ARTI	Arti	20.74	26	P	Pn	08 52 30.6	-0.7
	comp=Z,2.4nm,0.4s,baz=218,slow=19,SNR=4.2						
	comp=Z,2.4nm,0.4s						
ARTI	Arti	20.74	26	P	Pn	08 52 31.3	0.0
ARTI				IAmb	IAmb	08 52 34.6	
	comp=Z,5.5nm,0.6s						
KK31	Karatay Array	21.94	69		P	08 52 43.3	+1.2
KK31				IAmb	IAmb	08 52 55.0	
	comp=Z,7.2nm,1.1s						
KKAR	Karatay Array	21.94	69		P	08 52 43.2	+1.1
WDD	Wied Dalam	22.01	271	P	P	08 52 44.1	+1.4
KBL	Kabul	22.08	93	P	P	08 52 44.3	+0.4
KBL				IAmb	IAmb	08 52 48.6	
	comp=Z,12nm,1.2s						
BTK	Batken	22.28	77	P	P	08 52 46.3	+0.5
BTK				IAmb	IAmb	08 53 15.4	
	comp=Z,3.8nm,0.9s						
GERES	GERESS Array B	22.66	306	P	P	08 52 52.9	+3.2
	comp=Z,0.9nm,0.2s,baz=101,slow=10,SNR=3.5						
	comp=Z,0.9nm,0.2s						
GERES	GERESS Array B	22.66	306	P	P	08 52 52.7	+2.9
TEOL	Teolo	23.37	296	P	P	08 52 58.9	+1.8
CASP	Castiglione de	23.84	290	P	P	08 53 04.2	+2.5
GRA1	Grafenberg Arr	24.45	307	P	P	08 53 09.4	+2.0
GRA1				IAmb	IAmb	08 53 13.0	
	comp=Z,16nm,1.1s						
FINES	FINESS Array B	24.77	342	P	P	08 53 14.4	+4.2
	comp=Z,1.6nm,0.9s,baz=185,slow=9.8,SNR=0.9						
	comp=Z,1.6nm,0.9s						
FINES	FINESS Array B	24.77	342	P	P	08 53 11.8	+1.6
KEST	Kesra	26.08	274	P	P	08 53 25.9	+3.5
	comp=Z,5.9nm,0.9s,baz=25,slow=4.6,SNR=4.0						
	comp=Z,5.9nm,0.9s						
KEST	Kesra	26.08	274	P	P	08 53 24.2	+1.9
KEST				IAmb	IAmb	08 53 30.3	
	comp=Z,14nm,1.2s						
HFS	Hagfors	27.84	329	P	P	08 53 41.0	+3.2
	comp=Z,2.2nm,0.8s,baz=108,slow=9.5,SNR=2.1						
	comp=Z,2.2nm,0.8s						
KURBB	Kurchatov Arra	28.28	53	P	P	08 53 42.9	+1.1
	comp=Z,0.3nm,0.3s,baz=262,slow=9.0,SNR=6.1						
	comp=Z,0.3nm,0.3s						
KURK	Kurchatov	28.35	53	P	P	08 53 44.3	+1.8
KURK				IAmb	IAmb	08 53 44.7	
	comp=Z,2.0nm,0.9s						
MKAR	Makanchi Array	30.39	61	P	P	08 54 01.4	+0.7
	comp=Z,1.4nm,0.7s,baz=272,slow=7.4,SNR=8.3						
	comp=Z,1.4nm,0.7s						
MKAR	Makanchi Array	30.39	61	P	P	08 54 01.7	+1.1
TORD	Torodi Ar. Bea	43.78	246	P	P	08 55 55.1	+0.5
	comp=Z,0.7nm,0.8s,baz=63,slow=6.2,SNR=3.2						
	comp=Z,0.7nm,0.8s						
TORD	Torodi Ar. Bea	43.78	246	P	P	08 55 55.1	+0.5
CMAR	Chiang Mai Arr	53.07	95	P	P	08 57 06.6	+0.4
	comp=Z,1.0nm,0.3s,baz=303,slow=2.9,SNR=1.5						
	comp=Z,1.0nm,0.3s						
CMAR	Chiang Mai Arr	53.07	95	P	P	08 57 06.2	0.0

IDC 07 08:53:36.1±3.7**, 53°.68N×87°.18E, h0^{km}, mbtmp2.7**/2**, ML2.4**/2**, Error ellipse: s-maj=36.4km s-min=21.4km az=78.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	ZALESOVO INFRA	1.43	282	I	I	09 02 50.0	
	baz=100,slow=326,SNR=1.2						
ZALV	Zalesovo Beam	1.43	282	Pg	Pn	08 54 01.9	-1.4
	0.4nm,0.3s,baz=104,slow=17,SNR=3.8						
ZALV				Lg	Lg	08 54 23.2	
	0.8nm,0.3s,baz=100,slow=34,SNR=6.6						
KURBB	Kurchatov Arra	6.14	244	Pn	Pn	08 55 08.6	+0.5
	0.1nm,0.3s,baz=62,slow=14,SNR=2.3						
	0.4nm,0.4s						
KURBB				AML	AML		
MKAR	Makanchi Array	7.57	206	Pn	Pn	08 55 29.5	+1.8
	baz=26,slow=14,SNR=1.2						
	0.1nm,0.3s						

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*UCR **07** 09:00:06.2±0.6, 8°.34N×83°.06W, h2^{km}±3^{km}, MW4.1, Presumed earthquake*

*UPA **07** 09:00:06.8±1.8, 8°.36N×83°.02W, h0^{km}±3^{km}, MW3.6, Presumed earthquake*

*CATAC **07** 09:00:09.2±0.4, 8°N±3°×8°3W±°, h3^{km}±1^{km}, M3.6/9, MLv3.6/9, Error ellipse: s-maj=7.5km s-min=3.4km az=171.6, confirmed*

ISC 07 09:00:07.3±0.9**, 8°.37N**±0°.03×**83°.05W**±0°.02**, h12**^{km}±7^{km}**, n82, σ0^{s}88**/111**, 1C-10D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTPM	Petroterminale	0.23	133	⇓iP	Pg	09 00 12.6	+0.4
PTPM				eS	Sg	09 00 15.8	+0.3
PTPA	Petro Terminal	0.24	133	eP	Pg	09 00 12.5	+0.1
PTPA				eS	Sg	09 00 15.6	-0.2
CDITO	Canoas	0.27	41	P	Pb	09 00 13.3	-0.9
CDITO				S	Sb	09 00 18.7	0.0
FITO	Golfito	0.28	338	eP	Pg	09 00 12.5	-0.4
FITO				eS	Sg	09 00 17.1	+0.3
PIRO	Carate, Puerto	0.28	278	P	Pg	09 00 12.6	-0.5
PIRO				S	Sb	09 00 18.1	-1.0
PIRO	Carate, Puerto	0.28	278	eP	Pg	09 00 12.5	-0.6
PIRO	Carate, Puerto	0.28	278	eP	Pg	09 00 12.7	-0.5
NELY	Ciudad Neily	0.30	20	eP	Pb	09 00 13.8	-0.9
NELY	Ciudad Neily	0.30	20	⇓iP	Pb	09 00 13.8	-0.8
JIME	Puerto Jimenez	0.32	302	eP	Pg	09 00 13.4	-0.4
LIMO3	Limones	0.32	145	eP	Pg	09 00 13.9	+0.1
LMNES	Limones	0.33	144	eP	Pg	09 00 13.8	-0.1
LMNES	Limones	0.33	144	⇓iP	Pg	09 00 13.9	0.0
VITO	San Vito	0.46	10	eP	Pb	09 00 16.9	-0.4
VITO	San Vito	0.46	10	⇓iP	Pb	09 00 17.0	-0.4
VITO				eS	Sb	09 00 25.0	+0.7
MLIR3	Monte Lirio, C	0.48	28	eP	Pb	09 00 17.5	-0.3
MLIR3				eS	Sb	09 00 26.6	+1.7
SCLRA	Santa Clara, W	0.54	30	eP	Pg	09 00 17.7	-0.1
SCLRA	Santa Clara, W	0.54	30	⇓iP	Pb	09 00 18.4	-0.3
BRU2	Volcan	0.55	40	P	Pg	09 00 18.3	+0.1
BRU2				S	Sb	09 00 27.3	+0.2
BRU2	Volcan	0.55	40	eP	Pb	09 00 18.4	-0.7
BRU2	Volcan	0.55	40	⇓iP	Pb	09 00 18.6	-0.5
BRU2				eS	Sb	09 00 28.2	+1.1
CLLRA	Cordillera,	0.57	49	eP	Pb	09 00 18.8	-0.6
CLLRA	Cordillera,	0.57	49	⇓iP	Pb	09 00 18.9	-0.5
CLLRA				eS	Sn	09 00 29.9	-1.1
DVD	David	0.60	83	eP	Pg	09 00 18.8	-0.2
DVD				eS	Sb	09 00 29.1	+1.0
PTAR3	Potrerillos Ar	0.64	59	eP	Pb	09 00 20.1	-0.4
PTAR3				eS	Sb	09 00 30.2	+0.8
LOMA3	Las Lomas, Chi	0.66	84	⇑eP	Pg	09 00 19.8	-0.3
LOMA3				eS	Sb	09 00 30.7	+0.9
EDP2	Potrero Grande	0.66	349	eP	Pb	09 00 20.1	-0.6
BQTLY	Boquete Panama	0.70	56	eP	Pg	09 00 20.6	-0.3
BQTLY	Boquete Panama	0.70	56	⇓iP	Pg	09 00 20.7	-0.3
BQTLY				eS	Sn	09 00 33.4	-0.7
CHIR3	Chiriqui UPA,	0.71	88	eP	Pg	09 00 20.7	-0.5
CHIR3				eS	Sb	09 00 32.6	+1.1
PANP	Palmar Norte	0.71	326	ePn	Pg	09 00 20.3	-0.9
BQSF3	Alto Boquete,	0.72	59	eP	Pg	09 00 20.9	-0.4
BQSF3				eS	Sn	09 00 33.6	-0.8
LNBQ3	Los Naranjos,	0.74	55	eP	Pg	09 00 21.0	-0.6
LNBQ3				eS	Sn	09 00 34.2	-0.7
DRK0	Durika	0.91	348	eP	Pg	09 00 10.4	-14
DRK0				eS	Sg	09 00 26.0	-11
EDPE	Pejibaye, P	0.94	327	eP	Pg	09 00 24.0	-1.5
RBALA	Bur	1.02	60	eP	Pg	09 00 25.8	-1.2
RBALA	Bur	1.02	60	⇓iP	Pg	09 00 25.8	-1.2
RBALA				eS	Sb	09 00 40.3	-0.1
CHGR2	Aguacate	1.06	58	eP	Pb	09 00 26.2	-1.5
CHGR2				eS	Sn	09 00 42.2	-0.6
SAJE	San Jernim	1.07	335	eP	Pg	09 00 26.2	-1.8
CNI2	El Empalme, Bo	1.20	29	eP	Pb	09 00 28.8	-1.2
CNI2				eS	Sn	09 00 47.0	+0.8
CEUA	Cerro Uatsi, L	1.25	5	eP	Pg	09 00 31.1	-0.3
RGM0	Gandoca	1.29	20	P	Pb	09 00 31.4	-0.2
RGM0	Gandoca	1.29	20	eP	Pg	09 00 32.2	0.0
RGM0				eS	Sg	09 00 50.6	+1.6
KKNTU	Kakintº	1.32	69	eP	Pn	09 00 30.0	-1.6
KKNTU	Kakintº	1.32	69	⇓iP	Pn	09 00 30.1	-1.5
KKNTU				eS	Sb	09 00 47.9	-1.0
QUEP	Quepos	1.53	314	P	Pn	09 00 34.0	-0.4
QUEP	Quepos	1.53	314	eP	Pn	09 00 34.1	-0.4
PIEC	Cerro El Cedra	1.54	324	eP	Pn	09 00 34.1	-0.7
RAZU	San Marcos de	1.60	323	eP	Pn	09 00 35.5	-0.1
ABE2	San Pablo	1.66	323	eP	Pn	09 00 36.4	-0.1
LCR2	La Lucha 2	1.66	325	P	Pn	09 00 36.2	-0.3
LCR2	La Lucha 2	1.66	325	eP	Pn	09 00 36.0	-0.5
LCR2	La Lucha 2	1.66	325	eP	Pn	09 00 36.9	+0.5
LCR2				eS	Sg	09 01 01.1	+0.3
REPA	Paraso	1.66	331	eP	Pn	09 00 36.1	-0.4
PCAYA	Pacayas	1.71	334	eP	Pn	09 00 37.5	+0.3
VTCV	VTCV, Calle Va	1.74	338	eP	Pn	09 00 37.7	+0.1
RAFA	San Farael, Vo	1.75	335	eP	Pn	09 00 38.0	+0.2
ABRB	Las Abras (San	1.76	338	eP	Pn	09 00 38.4	+0.6
CVTQ	Turrialba Volc	1.77	337	eP	Pb	09 00 39.0	-1.1
VTR0	Volcan Turrial	1.78	337	eP	Pn	09 00 39.0	+0.6
LUJA	Lujan	1.85	327	eP	Pn	09 00 39.7	+0.7
CORON	Coronado	1.85	330	eP	Pn	09 00 39.9	+0.8
GMAL	Guarumal, Vera	1.90	108	eP	Pn	09 00 38.3	-1.2
GMAL	Guarumal, Vera	1.90	108	eP	Pn	09 00 38.4	-1.2
GMAL				eS	Sb	09 01 04.9	-0.7
HEME	Heredia, Merce	1.94	327	eP	Pb	09 00 41.4	-1.4
SAFE3	Santa Fe, Vera	1.96	85	eP	Pn	09 00 40.9	+0.5
SAFE3				eS	Sb	09 01 06.7	-0.7
PILE	Guapiles	1.98	338	eP	Pb	09 00 42.0	-1.3
ATEO	Atenas	2.07	321	eP	Pn	09 00 42.6	+0.6
TCS1	Tacares	2.07	324	P	Pb	09 00 44.6	-0.4
CALO3	Calobre, Verag	2.19	91	eP	Pn	09 00 43.9	+0.4
CACAO	El Cacao, Vera	2.40	115	eP	Pn	09 00 46.4	0.0
CHIT3	Chitre	2.64	99	eP	Pn	09 00 50.9	+1.1
CHIT3				eS	Sn	09 01 22.1	+0.3
JTS	Las Juntas de	2.68	316	P	Pn	09 00 51.9	+1.6
JTS				S	Sn	09 01 23.4	+0.6
JTS	Las Juntas de	2.68	316	eP	Pn	09 00 52.2	+1.8
JTS				eS	Sn	09 01 24.6	+1.8
PNME	Penonome	2.70	87	eP	Pn	09 00 51.5	+1.0
AZU	Azuero	2.81	102	ePn	Pn	09 00 53.5	+1.4
AZU	Azuero	2.81	102	eP	Pn	09 00 53.5	+1.4
AZU				eS	Sn	09 01 26.9	+1.0
JUD3	Juan Diaz 3	3.04	306	eP	Pn	09 00 55.7	+0.3
BCIP	Isla Barro Col	3.27	76	eP	Pn	09 00 59.2	+0.8
BCIP	Isla Barro Col	3.27	76	eP	Pn	09 00 59.3	+0.8
BCIP				eS	Sn	09 01 37.3	-0.1
ALIBA	Liberia Airpor	3.31	312	eP	Pn	09 01 01.3	+2.3
BOAB	BOACO BROADBAN	4.80	328	P	Pn	09 01 21.8	+2.3

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*TRN **07** 09:07:15.0, 10°.25N×62°.13W, h16^{km}, MD3.4, Gulf of Paria.*

*FUNV **07** 09:07:46.3, 9°.93N×61°.94W, h35^{km}, MW3.3, Presumed earthquake*

ISC 07 09:07:44.9±1.7**, 10°.1N**±0°.1×**62°.09W**±0°.09**, h31**^{km}±16^{km}**, n10, σ1^{s}24**/19**, Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DMDM	Guralp CMG5TDE	0.81	41	eP	Pb	09 07 60.0	-0.6
DMDM				eS	Sb	09 08 10.5	-0.7
PSGH	Port of Spain	0.81	45	eP	Pn	09 08 00.5	+0.3
PSGH				eS	Sb	09 08 11.3	0.0
TRN	Trinidad (W)	0.88	50	eP	Pn	09 08 01.7	+0.6
TRN				eS	Sb	09 08 13.8	+0.6
TRN	Trinidad (W)	0.88	50	eP	Pn	09 08 01.9	+0.8
TRN				eS	Sb	09 08 13.5	+0.3
GRW	Mount Saint Ca	2.11	12	eP	Pn	09 08 18.0	-0.1
GRHS	Sauteurs	2.17	12	eP	Pn	09 08 20.1	+1.2
GRHS				eS	Sn	09 08 44.3	-0.5
GRSS	Sisters	2.25	12	eP	Pn	09 08 21.8	+1.8
GRSS				eS	Sn	09 08 46.8	0.0
TACV	Tcata	4.86	271	eP	Pn	09 08 57.8	+1.9
TACV				eS	Sn	09 09 49.3	-1.9
BENV	Beln	5.42	269	eP	Pn	09 09 04.8	+1.1
BENV				eS	Sn	09 10 03.6	-1.6
TURV	Turiamo	5.67	274	eP	Pn	09 09 08.6	+1.6
TURV				eS	Sn	09 10 09.4	-1.6

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*SDD **07** 09:26:05.8±2.0, 20°.16N×70°.15W, h50^{km}±18^{km}, MD3.1, ML2.6, MW2.9, Presumed earthquake*

*OSPL **07** 09:26:07.9±2.2, 20°.11N×70°.12W, h0^{km}±13^{km}, ML2.4, Presumed earthquake*

ISC 07 09:26:05.8±1.4**, 20°.17N**±0°.05×**70°.11W**±0°.04**, h7**^{km}±12^{km}**, n14, σ0^{s}78**/22**, 10C-3D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SODR	Sosua Marina B	0.60	227	⇑ePg	Pg	09 26 17.7	+0.4
SODR				⇓eSg	Sb	09 26 27.8	+0.6
SODR				IAML		09 26 30.6	
	comp=N,265nm,1.2s						
LUDR	Luperon	0.83	251	⇑ePg	Pg	09 26 21.6	-0.2
NADR	Nagua	0.84	163	⇑ePg	Pb	09 26 22.3	-0.4
NADR				⇓eSg	Sn	09 26 35.6	-1.0
NADR				IAML		09 26 48.7	
	comp=N,166nm,0.8s						
SC01	Santiago de lo	0.94	218	i P	Pg	09 26 23.4	-0.3
LOPP1	Punta Rusia, P	1.07	253	i P	Pg	09 26 25.9	-0.3
LOPP1				eS	Sb	09 26 40.4	-0.3
LOPP1				IAML		09 26 47.0	
	comp=Z,76nm,3.1s						
SMDR	Samana, DR	1.23	135	⇑ePg	Pg	09 26 29.4	0.0
SMDR				⇑eSg	Sn	09 26 46.8	+0.5
SMDR				IAML		09 26 51.5	
	comp=N,43nm,0.2s						
REDR	Restauracion	1.56	231	⇑ePg	Pg	09 26 35.8	+0.1
REDR				⇑eSg	Sg	09 26 57.7	+1.6
REDR				IAML		09 26 58.9	
	comp=N,147nm,0.2s						
SDDR	Presa de Saban	1.62	223	i P	Pn	09 26 34.6	-0.1
SDDR	Presa de Saban	1.62	223	⇑ePg	Pn	09 26 34.2	-0.6
SDDR				IAML		09 27 02.3	
	comp=N,25nm,0.6s						
GRTK	Grand Turk	1.64	325	i P	Pb	09 26 36.6	+0.2
GRTK				eS	Sg	09 26 58.1	-0.5
BANI	BANI	1.78	187	⇓ePg	Pn	09 26 37.7	+0.6
BANI				⇑eSg	Sn	09 27 00.3	+0.3
BANI				IAML		09 27 16.4	
	comp=N,105nm,0.7s						
LONE3	El Aguacate, B	2.01	219	i P	Pn	09 26 40.7	+0.6
LONE3				eS	Sn	09 27 06.5	+0.9
LONE3				IAML		09 27 08.3	
	comp=Z,24nm,2.1s						
NEDR	Neiba UASD	2.08	217	⇑ePg	Pb	09 26 42.5	-1.3
NEDR				IAML		09 27 19.4	
	comp=N,52nm,0.1s						
LODU1	El Espartillar	2.21	216	i P	Pb	09 26 44.7	-1.4
LODU1				IAML		09 27 14.4	
	comp=Z,44nm,1.8s						

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*ASRS **07** 09:26:21.0±1.3, 53°.66N×86°.90E, h0^{km}, M2.3(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 07 09:26:25.6±3.4**, 53°.73N×86°.88E, h0^{km}, mbtmp2.8**/2**, ML2.5**/2**, Error ellipse: s-maj=33.7km s-min=17.5km az=82.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	ZALESOVO INFRA	1.24	281	I	I	09 34 50.0	
	baz=98,slow=322,SNR=1.8						
ZALV	Zalesovo Beam	1.24	281	Pg	Pg	09 26 49.0	-0.4
	1.0nm,0.3s,baz=98,slow=17,SNR=9.9						
ZALV				Lg	Lg	09 27 06.2	
	0.9nm,0.3s,baz=103,slow=32,SNR=4.9						
KURBB	Kurchatov Arra	6.00	242	Pn	Pn	09 27 56.4	+0.8
	0.1nm,0.3s,baz=58,slow=14,SNR=1.3						
	0.2nm,0.3s						
KURBB				AML	AML		
MKAR	Makanchi Array	7.54	205	Pn	Pn	09 28 18.0	+1.3
	0.1nm,0.3s,baz=24,slow=13,SNR=7.1						
	0.3nm,0.2s						
MKAR				AML	AML		

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*IDC **07** 09:27:52.2±1.1, 16°.94S×168°.60E, h0^{km}, mb4.1/9, mbtmp4.1/10, ML4.2/1, MS4.0/16, Error ellipse: s-maj=29.5km s-min=17.1km az=109.0*

*NOU **07** 09:27:52.5, 17°.07S×168°.50E, h14^{km}, MLv4.7/18, Vanuatu Islands*

*NEIC **07** 09:27:54.3±2.2, 16°.99S±0°.06×168°.6E±0°.1, h10^{km}±1^{km}, mb4.5/8, Error ellipse: s-maj=18.0km s-min=10.8km az=84.0*

ISC 07 09:27:54.5±0.7**, 17°.09S**±0°.04×**168°.6E**±0°.1**, h10^{km}, n51,** σ**1^{s}55**/37**, mb4.4**/16**, MS4.1**/13**, 4C, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RTV	Rentapao	0.71	190	P	Pg	09 28 06.6	-1.7
RTV	Rentapao	0.71	190	S	Sg	09 28 17.0	-0.7
SANVU	Saraoutou	2.08	321	P	Pn	09 28 27.5	-2.0
SANVU	Saraoutou	2.08	321		Pn	09 28 28.0	-1.5
MARNC	Mare, Loyalty	4.40	186	P	Pn	09 28 59.9	-1.5
MARNC	Mare, Loyalty	4.40	186	S	Sn	09 29 49.5	-3.2
MARNC	Mare, Loyalty	4.40	186	Pn	Pn	09 29 01.3	-0.1
YATNC	Mamie plateau,	5.19	197	P	Pn	09 29 11.4	-0.9
YATNC	Mamie plateau,	5.19	197	S	Sn	09 30 11.8	-0.4
KOUNC	Koumac, New Ca	5.31	229		Pn	09 29 14.6	+0.7
DZM	Mont Dzumac	5.34	201	Pn	Pn	09 29 14.0	-0.5
	8.3nm,0.3s,baz=20,slow=17,SNR=42						
DZM				Sn	Sn	09 30 14.7	-1.4
	3.1nm,0.3s,baz=324,slow=19,SNR=6.4						
	38nm,0.4s						
DZM				AML	AML		
OUENC	Ouen Island, N	5.54	197	P	Pn	09 29 16.2	-0.9
OUENC	Ouen Island, N	5.54	197	Pn	Pn	09 29 18.5	+1.4
ONTNC	Ouen Toro	5.56	200		Pn	09 29 17.3	0.0
MSVF	Nonsavu	9.09	95	LR	LR	09 32 48.0	
	comp=Z,1µm,19.7s,baz=241,slow=33						
HNR	Honiara	11.31	311	LR	LR	09 34 48.6	
	comp=Z,590nm,18.1s,baz=217,slow=37						
AFI	Afiamalu	19.22	83	LR	LR	09 37 53.5	
	comp=Z,447nm,20.7s,baz=250,slow=31						
CTA	Charters Tower	21.34	258	P	P	09 32 42.9	+0.9
	6.0nm,0.7s,baz=98,slow=13,SNR=6.2						
	6.0nm,0.7s						
URZ	Urewera	22.39	162	LR	LR	09 39 43.6	
	comp=Z,565nm,19.2s,baz=323,slow=32						
RPZ	Rata Peaks	26.63	176	LR	LR	09 43 07.1	
	comp=Z,127nm,18.3s,baz=352,slow=34						
STKA	Stephens Creek	28.51	234	P	P	09 33 50.5	+0.3
	2.3nm,0.8s,baz=42,slow=8.5,SNR=5.1						
STKA				LR	LR	09 43 36.7	
	comp=Z,337nm,18.2s,baz=42,slow=33						
	2.3nm,0.8s						
WR8	Warramunga Arr	32.38	260	P	P	09 34 24.1	-0.5
WR8				IAmb	IAmb	09 34 26.6	
	comp=Z,6.2nm,1.0s						
WRA	Warramunga Arr	32.53	260	P	P	09 34 26.7	+0.8
	comp=Z,0.9nm,0.6s,baz=87,slow=9.3,SNR=2.7						
	comp=Z,0.9nm,0.6s						
WRA	Warramunga Arr	32.53	260	IAmb	IAmb	09 34 31.7	
	comp=Z,0.2nm,0.9s						
ASAR	Alice Springs	33.07	253	P	P	09 34 29.9	-0.7
	comp=Z,3.2nm,0.7s,baz=81,slow=8.7,SNR=8.5						
ASAR				LR	LR	09 47 34.0	
	comp=Z,366nm,18.9s,baz=76,slow=36						
	comp=Z,3.2nm,0.7s						
GUMO	Guam	38.42	321	LR	LR	09 53 22.8	
	comp=Z,56nm,18.2s,baz=154,slow=40						
FITZ	Fitzroy Crossi	40.85	262	P	P	09 35 36.1	-0.7
	comp=Z,7.4nm,0.9s,baz=140,slow=6.9,SNR=4.0						
FITZ				LR	LR	09 51 34.5	
	comp=Z,386nm,20.2s,baz=90,slow=35						
	comp=Z,7.4nm,0.9s						
FITZ	Fitzroy Crossi	40.85	262	P	P	09 35 36.7	-0.1
MJAR	Matsushiro Arr	60.55	332	P	P	09 38 02.9	-2.3
	comp=Z,0.8nm,0.6s,baz=201,slow=6.5,SNR=1.8						
	comp=Z,0.8nm,0.6s						
MJAR	Matsushiro Arr	60.55	332	IAmb	IAmb	09 38 10.2	
	comp=Z,9.2nm,1.4s						
ASAJ	Asahikawa	65.36	340	LR	LR	10 02 10.9	
	comp=Z,143nm,21.4s,baz=168,slow=32						
QSPA	South Pole Qui	72.96	180	P	P	09 39 24.8	+0.7
	comp=Z,3.3nm,1.0s,baz=76,slow=3.5,SNR=5.2						
	comp=Z,3.3nm,1.0s						
QSPA	South Pole Qui	72.96	180	P	P	09 39 23.6	-0.5
LZH	Lanzhou	80.81	312	eP	P	09 40 13.1	+4.3
LZH				pP	PcP	09 40 17.8	+2.3
LZH				pmax	pmax		
	comp=Z,18nm,1.3s						
LZDM	Lanzhou Array	80.85	312	LR	LR	10 13 20.6	
	comp=Z,98nm,22.0s,baz=90,slow=34						
BELA	Belgrano 2	84.29	175	P	P	09 40 27.3	+1.2
BELA				IAmb	IAmb	09 40 34.5	
	comp=Z,3.0nm,1.1s						
YAK	Yakutsk	84.63	343	LR	LR	10 18 50.6	
	comp=Z,37nm,18.0s,baz=147,slow=36						
SONM	Songino Array	85.11	323	P	P	09 40 30.2	-0.6
	comp=Z,0.6nm,0.7s,baz=145,slow=5.3,SNR=3.8						
SONM				LR	LR	10 19 15.9	
	comp=Z,66nm,18.3s,baz=111,slow=36						
	comp=Z,0.6nm,0.7s						
SONM	Songino Array	85.11	323	IAmb	IAmb	09 40 37.7	
	comp=Z,4.4nm,1.5s						

GTA2	Gaotai	85.25	314	eP	P	09 40 33.1	+1.4
GTA2				pP	sP	09 40 37.4	+1.3
GTA2				pmax	pmax		
	comp=Z,6.0nm,1.2s						
NVAR	Mina Array Bea	87.88	49	P	P	09 40 43.4	-1.4
	comp=Z,0.5nm,0.7s,baz=261,slow=5.5,SNR=4.1						
	comp=Z,0.5nm,0.7s						
TROLL	Troll, Antarti	90.62	184	⇑P	P	09 40 59.5	+2.4
	comp=Z,194nm,1.0s						
ELK	Elko	90.95	48	LR	LR	10 16 40.8	
	comp=Z,106nm,18.8s,baz=246,slow=32						
BMAR	Burnt Mountain	90.97	16	P	P	09 41 00.1	+1.7
F26K	Sheenjek River	91.28	16	P	P	09 40 59.7	-0.1
VNA3	Neumayer Olymp	91.89	181	⇑P	P	09 41 04.4	+1.6
	comp=Z,2.9nm,0.9s						
VNA2	Neumayer--Watz	92.17	181	⇑P	P	09 41 06.1	+2.0
	comp=Z,2.7nm,0.7s,baz=178,slow=3.6						
VNA1	Neumayer--Stat	92.47	181	⇑P	P	09 41 07.3	+2.0
	comp=Z,2.8nm,1.0s						
TIXI	Tiksi	92.51	348	LR	LR	10 18 32.2	
	comp=Z,69nm,20.9s,baz=155,slow=33						
ZALV	Zalesovo Beam	100.01	323	LR	LR	10 25 50.4	
	comp=Z,39nm,20.5s,baz=95,slow=35						
ARCES	ARCESS Array B	122.83	345	PKP	PKPdf	09 46 49.1	-1.1
	comp=Z,2.5nm,0.8s,baz=37,slow=4.9,SNR=3.8						

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*IDC **07** 09:28:08.5±0.8, 3°.47S×140°.45E, h0^{km}, mb4.0/10, mbtmp4.1/13, ML4.0/2, MS4.2/1, Error ellipse: s-maj=29.3km s-min=17.0km az=85.0*

*NEIC **07** 09:28:16.4±1.3, 3°.57S±0°.09×140°.38E±0°.08, h52^{km}±6^{km}, mb4.2/19, Error ellipse: s-maj=15.9km s-min=6.7km az=222.0*

*DJA **07** 09:28:20.1±1.0, 4°S±5°×14°0E±°, h66^{km}±9^{km}, M4.8/6, mB6.3/1, mb4.9/2, MLv4.8/6, Mw(mB)6.0/1*

ISC 07 09:28:16.2±0.5**, 3°.76S**±0°.05×**140°.31E**±0°.07**, h50**^{km}**, n40, σ1^{s}.75**/41**, mb4.3**/13**, 1C, Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GENI	Genyem	1.17	353	P	Pn	09 28 36.8	+0.6
GENI				S	Sn	09 28 51.5	+0.5
WAMI	Wamena	1.60	265	P	Pn	09 28 45.4	+3.3
WAMI				AML	AML		
BAKI	Biak	4.92	301	P	Pn	09 29 33.6	+6.0
BAKI				S	Sn	09 30 25.0	+1.8
BAKI				AML	AML		
FAKI	Fak Fak	8.10	276	Pn	Pn	09 30 12.0	+0.8
FAKI				Sn	Sn	09 31 40.5	-0.9
PMG	Port Moresby	8.81	130	Pn	Pn	09 30 20.7	-0.3
	27nm,1.1s,baz=317,slow=18,SNR=1.2						
MTN	Manton Dam	12.80	225		Pn	09 31 17.5	+2.0
KNRA	Kununurra	16.41	223		Pn	09 32 04.2	+1.0
KNRA				IAmb	IAmb	09 32 18.4	
	comp=Z,8.1nm,0.7s						
WB0	Warramunga Arr	16.93	199		Pn	09 32 11.9	+2.2
WB0				IAmb	IAmb	09 32 24.2	
	comp=Z,12nm,1.0s						
WR8	Warramunga Arr	17.07	199		Pn	09 32 13.2	+1.8
WR8				IAmb	IAmb	09 32 38.7	
	comp=Z,9.5nm,0.6s						
WRAB	Tennant Creek	17.10	199	P	Pn	09 32 13.6	+1.8
WRA	Warramunga Arr	17.11	199	P	Pn	09 32 13.7	+1.7
	comp=Z,1.1nm,0.3s,baz=14,slow=13,SNR=39						
WRA				S	Sn	09 35 17.1	-4.3
	comp=Z,2.9nm,0.6s,baz=12,slow=22,SNR=6.8						
	comp=Z,4.7nm,0.6s						
WRA				AML	AML		
WRA	Warramunga Arr	17.11	199		Pn	09 32 11.8	-0.2
CTA	Charters Tower	17.23	161	P	Pn	09 32 13.5	0.0
	comp=Z,0.1nm,0.3s,baz=353,slow=16,SNR=1.9						
CTA				LR	LR	09 38 47.4	
	comp=Z,824nm,21.2s,baz=59,slow=37						
	comp=Z,5.4nm,1.0s						
CTA				AML	AML		
CTAO	Charters Tower	17.23	161		Pn	09 32 12.8	-0.7
CTAO				IAmb	IAmb	09 32 51.5	
	comp=Z,17nm,1.1s						
TOLI2	Tolitoli	20.11	284	P	P	09 32 46.2	+0.2
TOLI2				IAmb	IAmb	09 33 11.4	
	comp=Z,18nm,0.9s						
FITZ	Fitzroy Crossi	20.24	224	P	P	09 32 48.3	+0.9
	comp=Z,1.6nm,0.4s,baz=46,slow=12,SNR=11						
FITZ				S	S	09 36 27.2	-4.6
	comp=Z,7.1nm,0.8s,baz=45,slow=17,SNR=4.1						
	comp=Z,1.6nm,0.4s						
AS31	Alice Springs	20.74	197		P	09 32 54.6	+1.9
AS31				IAmb	IAmb	09 33 10.9	
	comp=Z,6.1nm,0.6s						
ASAR	Alice Springs	20.74	197	P	P	09 32 54.1	+1.4
	comp=Z,3.2nm,0.7s,baz=29,slow=11,SNR=69						
ASAR				S	S	09 36 41.6	-0.2
	comp=Z,1.5nm,0.9s,baz=18,slow=22,SNR=4.9						
	comp=Z,3.2nm,0.7s						
EIDS	Eidsvold	23.85	155	P	P	09 33 25.6	+0.6
EIDS				IAmb	IAmb	09 33 43.8	
	comp=Z,14nm,1.2s						
TUWZ	Tuamarina	48.11	146	P	P	09 36 51.5	+0.4
BNX	BinXian	50.60	348	⇑P	P	09 37 09.8	-0.2
BNX				pmax	pmax		
	comp=Z,11nm,0.9s						
PETK	Petropavlovsk-	58.52	12	P	P	09 38 05.5	-1.8
	comp=Z,2.4nm,0.8s,baz=249,slow=4.1,SNR=5.4						
	comp=Z,2.4nm,0.8s						
KAAM	Kaadhehdhoo	67.41	272	P	P	09 39 05.8	-1.3
MKAR	Makanchi Array	71.59	322	P	P	09 39 31.7	-0.6
	comp=Z,0.3nm,0.6s,baz=97,slow=9.0,SNR=1.7						
	comp=Z,0.3nm,0.6s						
MKAR	Makanchi Array	71.59	322	P	P	09 39 31.2	-1.2
MAKZ	Makanchi	71.79	322	P	P	09 39 32.4	-1.2
MAKZ				IAmb	IAmb	09 39 37.7	
	comp=Z,6.8nm,1.4s						
VNDA	Vanda	74.60	175	P	P	09 39 51.1	+1.6
	comp=Z,0.4nm,0.6s,baz=339,slow=8.2,SNR=2.4						
	comp=Z,0.4nm,0.6s						
VNDA	Vanda	74.60	175	IAmb	IAmb	09 40 02.7	
	comp=Z,2.8nm,1.3s						
KURK	Kurchatov	75.49	325	P	P	09 39 53.5	-1.6
KURK	Kurchatov	75.49	325	IAmb	IAmb	09 40 34.0	
	comp=Z,5.8nm,1.5s						
KURBB	Kurchatov Arra	75.50	325	P	P	09 39 53.5	-1.6
	comp=Z,0.4nm,0.4s,baz=113,slow=6.1,SNR=2.6						
	comp=Z,0.4nm,0.4s						
BVAR	Borovoye Array	81.08	325	P	P	09 40 24.6	-1.4
	comp=Z,1.2nm,0.7s,baz=121,slow=7.8,SNR=4.4						
	comp=Z,1.2nm,0.7s						
L18K	Granite Mounta	81.10	25	P	P	09 40 25.8	-0.1
MAW	Mawson	81.76	202	P	P	09 40 30.6	+1.4
	comp=Z,3.0nm,1.1s,baz=28,slow=6.3,SNR=4.1						
	comp=Z,3.0nm,1.1s						
MAW	Mawson	81.76	202	IAmb	IAmb	09 40 31.9	
	comp=Z,0.8nm,1.1s						
J19K	Poorman	82.30	24	P	P	09 40 30.5	-1.7
ILAR	Eielson Array	86.12	24	P	P	09 40 48.1	-3.4
	comp=Z,0.7nm,0.6s,baz=253,slow=4.7,SNR=6.7						
	comp=Z,0.7nm,0.6s						
QSPA	South Pole Qui	86.19	180	P	P	09 40 53.0	+0.9
	comp=Z,3.1nm,0.8s,baz=308,slow=4.7,SNR=11						
	comp=Z,3.1nm,0.8s						
QSPA	South Pole Qui	86.19	180	IAmb	IAmb	09 40 53.9	
	comp=Z,4.6nm,0.9s						
F24K	Squaw Lake	86.57	21	P	P	09 40 53.7	-0.1
F24K				IAmb	IAmb	09 40 54.6	
	comp=Z,4.3nm,1.1s						

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*ASRS **07** 09:30:13.0±0.8, 53°.61N×87°.91E, h0^{km}, M2.8(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 07 09:30:14.3±3.5**, 53°.58N×87°.82E, h0**^{km}**, mbtmp3.1**/2**, ML2.9**/2**, Error ellipse: s-maj=31.9km s-min=18.5km az=76.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	ZALESOVO INFRA	1.82	283	I	I	09 42 10.0	
	baz=97,slow=326,SNR=9.9						
ZALV	Zalesovo Beam	1.82	283	Pn	Pn	09 30 47.4	+0.5
	5.4nm,0.3s,baz=104,slow=15,SNR=48						
ZALV				Lg	Lg	09 31 12.7	
	4.9nm,0.3s,baz=101,slow=27,SNR=10						
KURBB	Kurchatov Arra	6.44	246	Pn	Pn	09 31 51.8	+1.4
	0.2nm,0.3s,baz=62,slow=14,SNR=7.1						
	1.0nm,0.4s						
KURBB				AML	AML		
MKAR	Makanchi Array	7.66	210	Pn	Pn	09 32 08.2	+1.1
	0.2nm,0.3s,baz=28,slow=14,SNR=5.9						
MKAR				Lg	Lg	09 34 12.3	
	0.1nm,0.3s,baz=28,slow=25,SNR=1.9						
	0.3nm,0.3s						
MKAR				AML	AML		

KRSC 07 09:33:17.1±1.2**, 52°.02N**×**154°.57E, h505**^{km}±13^{km}**, Ml4.0, Northwest of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PAU	Pauzhetka	1.50	111	eP	P	09 34 22.0	+1.6
SKR	Severo-Kuril's	1.65	143	eP	P	09 34 22.4	+1.3
ASAK	Asacha	2.08	79	eP	P	09 34 25.5	+2.4
KDTR	Khodutka, Kamc	2.19	94	eP	P	09 34 25.0	+1.5
KDTR				eS	S	09 35 16.8	-0.8
GRL	Gorelyy	2.22	75	eP	P	09 34 25.0	+1.2
MTVR	Mutnovka	2.27	77	eP	P	09 34 26.2	+2.1
MTVR				eS	S	09 35 19.5	+0.7
KRMR	Karymshinskiy	2.33	68	eS	S	09 35 19.4	+0.3
RUS	Russkaya	2.46	79	eP	P	09 34 26.9	+1.9
RUS				eS	S	09 35 20.6	+0.1
GNL	Ganaly	2.65	49	eP	P	09 34 27.3	+1.1
GNL				eS	S	09 35 22.3	-0.5
SPN	Mys Shipunski	3.50	70	eP	P	09 34 34.9	+3.0
SPN				eS	S	09 35 31.5	-1.5
ESO	Esso	4.61	30	eP	P	09 34 41.6	+0.8
TUMR	Tumrok	4.66	43	eP	P	09 34 43.8	+2.5
MKZ	Mys Kozlova	4.99	57	eP	P	09 34 46.6	+2.5
KMNR	Kamenistaya	5.03	40	eP	P	09 34 47.3	+2.8
SRDR	Sredinnyy	5.26	33	eP	P	09 34 48.6	+2.1
BZWR	Bezymyannyi-We	5.28	39	eP	P	09 34 47.3	+0.5
BZGR	Bezymyannyi-Gr	5.34	40	eP	P	09 34 50.5	+3.2
KBTR	Krutoberegovo	6.41	46	eP	P	09 34 58.0	+0.6
BKI	Bering	7.50	60	eS	S	09 36 39.4	0.0

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*ASRS **07** 09:50:22.0±1.0, 53°.62N×88°.00E, h0^{km}, M2.5(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 07 09:50:25.8±3.9**, 53°.66N**×**87°.93E, h0**^{km}**, mbtmp2.8**/2**, ML2.5**/2**, Error ellipse: s-maj=35.9km s-min=22.8km az=62.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	ZALESOVO INFRA	1.87	280	I	I	10 02 30.0	
	baz=97,slow=330,SNR=7.1						
ZALV	Zalesovo Beam	1.87	280	Pn	Pb	09 51 00.1	-0.7
	0.6nm,0.3s,baz=98,slow=10,SNR=1.9						
ZALV				Lg	Lg	09 51 26.0	
	2.4nm,0.3s,baz=98,slow=28,SNR=6.6						
KURBB	Kurchatov Arra	6.54	246	Pn	Pn	09 52 03.5	+0.4
	0.1nm,0.3s,baz=63,slow=14,SNR=2.6						
	0.3nm,0.3s						
KURBB				AML	AML		
MKAR	Makanchi Array	7.76	210	Pn	Pn	09 52 21.3	+1.3
	0.1nm,0.3s,baz=30,slow=13,SNR=1.9						
	0.2nm,0.3s						
MKAR				AML	AML		

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*IDC **07** 09:53:25.6±0.7, 39°.54N×145°.05E, h0^{km}, mb3.9/15, mbtmp3.9/21, ML3.1/5, MS3.6/3, Error ellipse: s-maj=16.1km s-min=12.2km az=93.0*

*NIED **07** 09:53:28.1, 39°.58N×144°.93E, h18^{km}, MW4.0, Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M_{rr}-1.09; $M_{\theta\theta}$0.43; $M_{\phi\phi}$0.66; $M_{r\theta}$0.54; $M_{\theta\phi}$0.25; $M_{\phi r}$0.61; Fault plane solution: $M_0$1.26000×10^{15} NP1:ϕ_s31.00000°, δ25.00000°, λ-97.00000°. NP2:ϕ_s218.00000°, δ65.00000°, λ-87.00000°.*

*JMA **07** 09:53:28.1±0.1, 39°.6N±0°.3×144°.9E±0°.7, h18^{km}±1^{km}, MV4.2/24, FAR E OFF NORTH HONSHU*

*NEIC **07** 09:53:29.7±1.9, 39°.63N±0°.06×144°.9E±0°.2, h27^{km}±6^{km}, mb4.3/6, Error ellipse: s-maj=20.0km s-min=8.8km az=82.0*

ISC 07 09:53:31.4±0.8**, 39°.69N**±0°.07×**144°.9E**±0°.1**, h38**^{km}**, n39, σ1^{s}.60**/36**, mb4.0**/17**, Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ERM	Erimo	2.66	332		Pn	09 54 11.2	-0.5
JTM	Tenmabayashi	3.10	292		Pn	09 54 16.9	-0.8
JKA	Kamikawa-asahi	4.73	340		Pn	09 54 39.6	-0.5
JKA	Kamikawa-asahi	4.73	340		Sn	09 55 30.5	-3.3
ASAJ	Asahikawa	4.74	340	Pn	Pn	09 54 39.2	-0.9
	1.4nm,0.3s,baz=182,slow=14,SNR=9.3						
ASAJ				Sn	Sn	09 55 30.5	-3.3
	2.6nm,0.3s,baz=195,slow=20,SNR=7.3						
	3.3nm,0.3s						
ASAJ				AML	AML		
MAJO	Matsushiro	6.10	241		Pn	09 54 58.3	-0.8
MJAR	Matsushiro Arr	6.10	241	Pn	Pn	09 54 57.6	-1.4
	0.4nm,0.3s,baz=71,slow=12,SNR=22						
	11nm,0.8s						
MJAR				AML	AML		
MJB9	Matsu-Tunnel	6.11	241		Pn	09 54 59.1	+0.1
JGF	Kuroka	7.21	238	Pn	Pn	09 55 13.9	-0.3
JHJ	Hachijo jima 2	7.72	213	Pn	Pn	09 55 16.9	-4.3
	59nm,0.4s,baz=41,slow=18,SNR=1.8						
USA0B	Ussuriysk Arra	10.59	299	Pn	Pn	09 55 58.8	-1.6
USRK	Ussuriysk Ar.	10.59	299	Pn	Pn	09 55 59.8	-0.6
	0.7nm,0.3s,baz=94,slow=15,SNR=9.8						
USRK				LR	LR	09 59 56.6	
	comp=Z,151nm,20.1s,baz=147,slow=36						
	3.5nm,0.6s						
USRK				AML	AML		
KLR	Kul'dur	13.35	320	Pn	Pn	09 56 38.8	+0.7
	0.1nm,0.3s,baz=114,slow=15,SNR=3.1						
	0.4nm,0.3s						
KLR				AML	AML		
PETK	Petropavlovsk-	16.05	29	Pn	Pn	09 57 12.1	-2.0
	baz=206,slow=16,SNR=2.7						
	1.2nm,0.9s						
HILR	Hailar Array B	20.32	307	P	P	09 58 03.8	-0.2
	1.3nm,0.4s,baz=129,slow=13,SNR=2.3						
	1.3nm,0.4s						
SONM	Songino Array	28.70	299	P	P	09 59 26.1	+1.2
	0.4nm,0.4s,baz=94,slow=8.7,SNR=2.6						
	0.4nm,0.4s						
ZALV	Zalesovo Beam	42.19	310	PcP	PcP	10 03 14.0	+0.2
	0.7nm,0.4s,baz=72,slow=4.7,SNR=2.5						
CMAR	Chiang Mai Arr	44.78	255	P	P	10 01 43.4	+2.0
	0.9nm,0.3s,baz=52,slow=7.1,SNR=1.4						
	0.9nm,0.3s						
MKAR	Makanchi Array	45.05	301	P	P	10 01 44.1	+0.7
	0.4nm,0.6s,baz=72,slow=9.3,SNR=2.8						
	0.4nm,0.6s						
ILAR	Eielson Array	45.80	34	P	P	10 01 49.0	0.0
	0.7nm,0.7s,baz=260,slow=6.5,SNR=8.9						
	0.7nm,0.7s						
KURK	Kurchatov	46.47	307	P	P	10 01 55.9	+1.5
KURK	Kurchatov	46.47	307	IAmb	IAmb	10 02 07.3	
	comp=Z,2.1nm,0.7s						
KURBB	Kurchatov Arra	46.55	307	P	P	10 01 55.9	+0.9
	comp=Z,0.9nm,0.7s,baz=78,slow=8.1,SNR=7.2						
	comp=Z,0.9nm,0.7s						
BVAR	Borovoye Array	50.82	311	P	P	10 02 29.3	+1.5
	comp=Z,0.8nm,0.5s,baz=69,slow=7.9,SNR=2.7						
	comp=Z,0.8nm,0.5s						
ARTI	Arti	56.28	318	P	P	10 03 08.9	+1.1
	comp=Z,2.2nm,0.5s,baz=117,slow=2.3,SNR=6.1						
	comp=Z,2.2nm,0.5s						
WR8	Warramunga Arr	60.11	191	P	P	10 03 33.0	-1.9
WRAB	Tennant Creek	60.11	191	P	P	10 03 33.3	-1.6
WB2	Warramunga Arr	60.12	191	P	P	10 03 32.6	-2.4
WB2				IAmb	IAmb	10 04 10.2	
	comp=Z,5.5nm,1.1s						
WRA	Warramunga Arr	60.12	191	P	P	10 03 33.2	-1.7
	comp=Z,2.6nm,0.7s,baz=14,slow=7.2,SNR=17						
	comp=Z,2.6nm,0.7s						
WRA	Warramunga Arr	60.12	191	IAmb	IAmb	10 03 33.7	
	comp=Z,0.1nm,0.8s						
FITZ	Fitzroy Crossi	60.22	201	P	P	10 03 34.5	-1.1
FITZ				IAmb	IAmb	10 03 47.0	
	comp=Z,2.1nm,1.3s						
ASAR	Alice Springs	63.85	191	P	P	10 03 58.9	-1.0
	comp=Z,1.3nm,0.8s,baz=15,slow=8.8,SNR=11						
	comp=Z,1.3nm,0.8s						
KVAR	Kislovodsk Arr	71.18	312	LR	LR	10 40 53.2	
	comp=Z,64nm,19.9s,baz=282,slow=40						
KBZ	Khabaz	71.20	311	P	P	10 04 47.3	+1.1
	comp=Z,1.1nm,0.4s,baz=90,slow=10,SNR=3.7						
	comp=Z,1.1nm,0.4s						
NVAR	Mina Array Bea	71.25	55	P	P	10 04 47.6	+0.6
	comp=Z,0.4nm,0.8s,baz=298,slow=7.7,SNR=4.1						
	comp=Z,0.4nm,0.8s						
NOA	NORSAR Array B	72.75	338	P	P	10 04 56.1	+0.7
	comp=Z,1.2nm,0.8s,baz=40,slow=6.0,SNR=3.7						
	comp=Z,1.2nm,0.8s						
AKASG	Malin Array Be	73.82	323	P	P	10 05 02.6	+0.9
	comp=Z,1.2nm,0.6s,baz=46,slow=6.2,SNR=9.0						
	comp=Z,1.2nm,0.6s						
PDAR	Pinedale Array	73.89	48	P	P	10 05 02.9	+0.3
	comp=Z,0.3nm,0.6s,baz=313,slow=2.3,SNR=3.6						
	comp=Z,0.3nm,0.6s						
DAVOX	Davos/Dischmat	85.00	331	LR	LR	10 46 18.7	
	comp=Z,48nm,21.9s,baz=66,slow=37						

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*ASRS **07** 09:56:38.0±1.5, 53°.58N×87°.98E, h0^{km}, M2.4(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 07 09:56:38.8±3.8**, 53°.62N**×**87°.95E, h0**^{km}**, mbtmp3.1**/2**, ML2.6**/2**, Error ellipse: s-maj=36.5km s-min=22.7km az=60.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	ZALESOVO INFRA	1.89	281	I	I	10 08 50.0	
	baz=98,slow=330,SNR=2.3						
ZALV	Zalesovo Beam	1.89	281	Pn	Pn	09 57 12.5	+0.2
	1.4nm,0.3s,baz=103,slow=15,SNR=9.1						
ZALV				Lg	Lg	09 57 39.9	
	2.7nm,0.3s,baz=102,slow=27,SNR=11						
KURBB	Kurchatov Arra	6.53	246	Pn	Pn	09 58 17.1	+1.0
	0.1nm,0.3s,baz=58,slow=13,SNR=1.9						
	1.4nm,0.3s						
KURBB				AML	AML		
MKAR	Makanchi Array	7.73	210	Pn	Pn	09 58 33.9	+1.3
	0.1nm,0.3s,baz=29,slow=12,SNR=1.9						
	0.1nm,0.3s						
MKAR				AML	AML		

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*FCIAR **07** 09:59:58.0, 79°.86N×6°.32E, h10^{km}, station OMEGA has station magnitude of 4.10*

*IDC **07** 10:00:01.6±1.2, 79°.18N×2°.23E, h0^{km}, mb3.5/6, mbtmp3.7/11, ML2.8/4, MS3.4/4, Error ellipse: s-maj=21.3km s-min=16.1km az=1.0*

*NAO **07** 10:00:01.3±0.8, 79°.25N×3°.07E, h10^{km}, ML3.9*

*BER **07** 10:00:02.0±3.1, 79°.13N×2°.75E, h10^{km}, Mw4.6, ML3.9(NAO), Confirmed Earthquake*

*DNK **07** 10:00:03.3±1.6, 79°.02N×2°.92E, h36^{km}±14^{km}, ML2.6, Presumed earthquake*

*KOLA **07** 10:00:06.3, 78°.62N×4°.84E, h0^{km}, ML3.1, Error ellipse: s-maj=29.9km s-min=22.4km az=130.0, Greenland sea,Knipovich ridge, north*

ISC 07 10:00:01.0±0.6**, 79°.01N**±0°.05×**2°.57E**±0°.04**, h10**^{km}**, n67, σ3^{s}.22**/93**, mb3.4**/5**, MS3.6**/3**, 2C, Greenland Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBS	Kingsbay	1.81	88	Pn	Pn	10 00 31.0	-1.0
KBS				Sn	Sn	10 00 50.8	-4.2
KBS	Kingsbay	1.81	88	⇑iP	Pn	10 00 30.9	-1.2
KBS				eS	Sn	10 00 50.3	-4.6
KBS				IAML		10 00 51.7	
	comp=Z,459nm,0.3s						
KBS	Kingsbay	1.81	88	P	Pn	10 00 30.4	-1.6
KBS				S	Sn	10 00 50.2	-4.8
KBS	Kingsbay	1.81	88	⇑iP	Pn	10 00 30.9	-1.2
KBS				i S	Sn	10 00 50.4	-4.6
BRBB	Barentsburg B	2.50	106	Pn	Pn	10 00 41.0	-0.6
BRBB				Sn	Sn	10 01 08.6	-3.4
BRBB	Barentsburg B	2.50	106	eP	Pn	10 00 40.8	-0.8
BRBB				eS	Sn	10 01 08.0	-3.9
BRBB	Barentsburg B	2.50	106	P	Pn	10 00 40.7	-0.8
BRBB				S	Sn	10 01 05.3	-6.7
BRBA	Barentsburg A	2.51	107	Pn	Pn	10 00 41.1	-0.6
BRBA				Sn	Sn	10 01 09.0	-3.4
BRBA	Barentsburg A	2.51	107	eP	Pn	10 00 41.1	-0.6
BRBA				eS	Sn	10 01 08.7	-3.6
BRBA				IAML		10 01 13.2	
	comp=Z,225nm,0.5s						
SPA0	Spitsbergen Ar	2.86	100	Pn	Pn	10 00 46.9	+0.3
	baz=291,slow=12						
SPA0				Sn	Sn	10 01 18.4	-2.7
	baz=293,slow=18						
SPA0	Spitsbergen Ar	2.86	100	eP	Pn	10 00 45.2	-1.4
SPA0				eS	Sn	10 01 17.1	-3.9
SPA0	Spitsbergen Ar	2.86	100	Pn	Pn	10 00 46.9	+0.3
SPA0				Sn	Sn	10 01 18.4	-2.7
SPITS	Spitsbergen Ar	2.86	100	Pn	Pn	10 00 46.8	+0.2
	comp=Z,187nm,0.3s,baz=284,slow=10,SNR=4115						
SPITS				Sn	Sn	10 01 19.6	-1.5
	baz=301,slow=24						
SPITS	Spitsbergen Ar	2.86	100	P	Pn	10 00 46.3	-0.3
SPITS				S	Sn	10 01 18.0	-3.0
NOR	Nord	4.14	318	Pn	Pn	10 01 02.9	-1.3
NOR				Sn	Sn	10 01 48.2	-4.3
NOR	Nord	4.14	318	eP	Pn	10 01 00.5	-3.7
NOR				eS	Sn	10 01 48.6	-4.0
NOR	Nord	4.14	318	eP	Pn	10 01 02.7	-1.5
NOR				eS	Sn	10 01 48.3	-4.3
NOR	Nord	4.14	318	i P	Pn	10 01 02.8	-1.3
NOR				i S	Sn	10 01 48.8	-3.8
NOR				IAML		10 01 50.6	
	comp=Z,15nm,0.2s						
DAG	Danmarks Havn	4.98	254	eP	Pn	10 01 14.8	-0.8
DAG				eS	Sn	10 02 07.3	-5.7
DAG	Danmarks Havn	4.98	254	i P	Pn	10 01 15.7	+0.1
DAG				i S	Sn	10 02 07.7	-5.3
DAG				IAML		10 02 15.8	
	comp=Z,39nm,0.3s						
HOPEN	Hopen	5.36	106	Pn	Pn	10 01 20.1	-0.7
HOPEN				Sn	Sn	10 02 17.2	-5.2
HOPEN	Hopen	5.36	106	eP	Pn	10 01 18.6	-2.3
HOPEN				eS	Sn	10 02 17.1	-5.3
HOPEN	Hopen	5.36	106	eP	Pn	10 01 20.1	-0.7
HOPEN				eS	Sn	10 02 16.3	-6.2
HOPEN				IAML		10 02 20.1	
	comp=Z,46nm,0.4s						
BJO1	Bjornoya	5.87	132	Pn	Pn	10 01 29.9	+2.1
BJO1	Bjornoya	5.87	132	eP	Pn	10 01 28.1	+0.3
BJO1	Bjornoya	5.87	132	eP	Pn	10 01 30.1	+2.3
BEAR	Bear Island, N	5.87	132	Pn	Pn	10 01 29.8	+2.0
	baz=330,slow=18						
DBG	Daneborg	7.01	240	Pn	Pn	10 01 43.3	-0.2
DBG				Sn	Sn	10 02 56.4	-6.8
DBG	Daneborg	7.01	240	eP	Pn	10 01 42.9	-0.6
DBG				eS	Sn	10 02 55.8	-7.3
DBG	Daneborg	7.01	240	eP	Pn	10 01 43.4	-0.1
DBG				i S	Sn	10 02 55.9	-7.2
DBG				IAML		10 03 03.6	
	comp=Z,28nm,0.3s						
OMEGA	Omega	7.95	56	eP	Pn	10 01 53.8	-2.5
OMEGA				eS	Sn	10 03 12.9	-13
	comp=Z,62nm,1.9s						
OMEGA				AML	AML		
JNW	Jan Mayen West	8.49	205	eP	Pn	10 02 05.5	+1.9
JNW				eS	Sn	10 03 35.3	-4.0
JNW				IAML		10 04 22.4	
	comp=Z,25nm,0.9s						
JNE	Jan Mayen East	8.51	205	eP	Pn	10 02 09.6	+5.6
JMIC	Jan Mayen	8.53	205	Pn	Pn	10 02 05.2	+0.9
	comp=Z,23nm,0.3s,baz=336,slow=15,SNR=9.3						
JMIC	Jan Mayen	8.53	205	eP	Pn	10 02 05.6	+1.3
HAMF	Hammerfest	9.96	136	eP	Pn	10 02 23.9	+0.1
JETT	Jettan, Norway	10.57	144	eP	Pn	10 02 33.2	+0.9
ARA0	ARCESS Array S	11.22	135	eP	Pn	10 02 41.5	+0.4
ARA0				Pn	Pn	10 02 42.7	+1.5
ARCES	ARCESS Array B	11.22	135	Pn	Pn	10 02 42.7	+1.5
	comp=Z,0.3nm,0.3s,baz=347,slow=12,SNR=20						
ARCES				Sn	Sn	10 04 44.8	-1.7
	comp=Z,0.1nm,0.3s,baz=355,slow=19,SNR=1.4						
	comp=Z,2.6nm,0.7s						
ARCES				AML	AML		
ARCES	ARCESS Array B	11.22	135	P	Pn	10 02 40.6	-0.6
ARCES				S	Sn	10 04 36.6	-10
KEV	Kevo	11.23	132	Pn	Pn	10 02 43.1	+1.9
KEV	Kevo	11.23	132	eP	Pn	10 02 40.8	-0.4
VADS	Vadso	11.24	128	Pn	Pn	10 02 41.8	+0.4
VADS	Vadso	11.24	128	eP	Pn	10 02 41.1	-0.3
VADS				eS	Sn	10 04 38.2	-8.7
VADS	Vadso	11.24	128	P	Pn	10 02 40.6	-0.8
VADS				S	Sn	10 04 36.6	-10
KTK1	Kautokeino	11.42	140	eP	Pn	10 02 45.3	+1.4
SUMG	Summit	11.64	259	i P	Pn	10 02 47.3	+0.1

SUMG				*i* S	Sn	10 04 45.8	-11
STEI	**Steigen**	**11.65**	**156**	*e*P	**Pn**	**10 02 47.8**	**+0.8**
HEF	**Hetta**	**12.04**	**140**	*e*P	**Pn**	**10 02 54.6**	**+2.2**
FAUS	**Fauske**	**12.20**	**156**	*e*P	**Pn**	**10 02 58.8**	**+4.4**
VAGH	**Vaagaholmen**	**12.70**	**160**	*e*P	**Pn**	**10 03 04.9**	**+3.7**
KONS	**Konsvik**	**12.92**	**161**	*e*P	**Pn**	**10 03 08.3**	**+4.1**
STOK	**Stokkvaagen**	**13.07**	**161**	*e*P	**Pn**	**10 03 10.9**	**+4.5**
LEIR	**Leirfjorden**	**13.30**	**161**	*e*P	**Pn**	**10 03 13.2**	**+3.7**
NSS	**Namsos**	**14.81**	**164**	*e*P	**Pn**	**10 03 26.3**	**-3.7**
KVDA	**Kovda**	**14.92**	**129**	P	**Pn**	**10 03 29.3**	**-2.2**
KVDA				S	Sn	10 06 02.3	-14
NOA	**NORSAR Array B**	**18.25**	**166**	P	**P**	**10 04 16.9**	**+2.7**
	baz=15,slow=12,SNR=1.9						
NOA				LR	LR	10 10 23.5	
	comp=Z,36nm,21.0s,baz=180,slow=34						
	comp=Z,0.8nm,0.8s						
FINES	**FINESS Array B**	**19.05**	**144**	P	**Pn**	**10 04 25.8**	**+2.3**
	comp=Z,0.1nm,0.3s,baz=343,slow=12,SNR=4.8						
	comp=Z,1.9nm,0.7s						
FINES				AML	AML		
HFS	**Hagfors**	**19.28**	**163**	P	**Pn**	**10 04 29.2**	**+2.7**
	comp=Z,0.3nm,0.3s,baz=302,slow=8.4,SNR=6.5						
	comp=Z,2.1nm,0.5s						
HFS				AML	AML		
AKASG	**Malin Array Be**	**29.95**	**145**	P	**P**	**10 06 11.2**	**+2.5**
	comp=Z,0.3nm,0.3s,baz=349,slow=9.2,SNR=4.3						
	comp=Z,0.3nm,0.3s						
KURBB	**Kurchatov Arra**	**38.17**	**90**	P	**P**	**10 07 22.9**	**+2.9**
	comp=Z,0.5nm,0.7s,baz=347,slow=7.6,SNR=4.8						
KURBB				LR	LR	10 24 50.6	
	comp=Z,81nm,21.7s,baz=192,slow=39						
	comp=Z,0.5nm,0.7s						
MKAR	**Makanchi Array**	**42.56**	**88**	P	**P**	**10 07 58.9**	**+2.5**
	comp=Z,0.6nm,0.8s,baz=357,slow=8.7,SNR=2.9						
	comp=Z,0.6nm,0.8s						
KDAK	**Kodiak Island**	**42.66**	**341**	LR	LR	10 24 33.6	
	comp=Z,78nm,21.9s,baz=220,slow=35						
TXAR	**Lajitas Array**	**64.44**	**292**	P	**P**	**10 10 38.8**	**+1.6**
	comp=Z,0.1nm,0.7s,baz=2.6,slow=10,SNR=2.8						
	comp=Z,0.1nm,0.7s						
TORD	**Torodi Ar. Bea**	**65.88**	**181**	P	**P**	**10 10 49.7**	**+3.3**
	comp=Z,0.4nm,0.7s,baz=4.2,slow=5.9,SNR=1.8						
	comp=Z,0.4nm,0.7s						
CMAR	**Chiang Mai Arr**	**73.22**	**80**	P	**P**	**10 11 34.6**	**+2.8**
	comp=Z,0.4nm,0.3s,baz=343,slow=4.3,SNR=4.1						
	comp=Z,0.4nm,0.3s						
JTS	**Las Juntas de**	**79.49**	**270**	LR	LR	10 50 08.8	
	comp=Z,37nm,19.1s,baz=295,slow=38						

STR 07 10:08:11.5±1.3**, 43°N**±7°×°±°**, h0**^{km}**, MLv1.9**/9**, LOCSAT earthModelID auvergne_taup-2.11 preliminary, Near south coast of France**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ARTF	**Artigues**	**0.38**	**314**	Pg	Pg	10 08 18.2	-0.6
TRIGF	**Trigance**	**0.45**	**21**	Pg	Pg	10 08 19.5	-0.7
TRIGF				Sg	Sg	10 08 26.0	0.0
MVIF	**Mont Vial**	**0.91**	**50**	Pg	Pg	10 08 28.8	0.0
MVIF				Sg	Sb	10 08 43.2	+0.4
TURF	**col de Turini**	**1.09**	**53**	Pg	Pg	10 08 32.0	-0.4
TURF				Sg	Sg	10 08 46.5	0.0
CREF	**Crivoux**	**1.27**	**14**	Pg	Pg	10 08 33.7	-2.0
CREF				Sg	Sb	10 08 53.5	+0.3
PIAF	**les Granges de**	**1.30**	**52**	Pg	Pg	10 08 35.5	-1.0
PIAF				Sg	Sg	10 08 53.7	+0.3

STR 07 10:08:47.5±0.6**, 44°N**±3°×°±°**, h0**^{km}**, MLv1.4**/7**, LOCSAT earthModelID auvergne_taup-2.11 preliminary, France**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LAJAS	**L'Hospitalet-d**	**0.52**	**181**	Pg	Pg	10 08 57.6	+0.2
LAJAS				Sg	Sg	10 09 04.0	0.0
TRBF	**Trabuc cave**	**0.65**	**126**	Pg	Pg	10 08 59.3	-0.7
SLVF	**La Salvetat-Pe**	**0.82**	**249**	Pg	Pg	10 09 02.5	-0.7
SLVF	**La Salvetat-Pe**	**0.82**	**249**	Pg	Pg	10 09 02.5	-0.6
SLVF				Sg	Sb	10 09 16.6	+0.5
FRNF	**Fournols**	**1.02**	**333**	Pg	Pg	10 09 06.6	-0.5
FRNF				Sg	Sb	10 09 22.4	+0.4
FRNF	**Fournols**	**1.02**	**333**	Pg	Pg	10 09 06.9	-0.2
FRNF				Sg	Sb	10 09 22.4	+0.4
COLF	**Collangettes**	**1.08**	**18**	Pg	Pg	10 09 07.6	-0.7
COLF				Sg	Sg	10 09 21.9	-0.4

JSN ***07*** *10:09:22.7±0.5, 18°.15N×77°.45W, h21^{km}±2^{km}, MD2.8, Confirmed Earthquake*

SSNC ***07*** *10:09:23.0±1.1, 18°.26N×77°.45W, h7^{km}±11^{km}, MD3.3, ML1.6, Presumed earthquake*

ISC 07 10:09:21.4±1.1**, 18°.24N**±0°.05×**77°.43W**±0°.06**, h29**^{km}±9^{km}**, n12, σ1**^{s}**13**/25**, 4C-1D, Jamaica region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CVJ	**Coleyville**	**0.10**	**261**	⇑*i*P	**Pb**	**10 09 26.9**	**+0.1**
CVJ				*i* S	**Sb**	**10 09 29.8**	**-0.6**
MCJ	**Malvern**	**0.40**	**218**	*i* P	**Pb**	**10 09 29.6**	**-0.7**
PCJ	**Portland Cotta**	**0.56**	**152**	⇑*i*P	**Pb**	**10 09 31.8**	**-1.1**
STH	**Stony Hill**	**0.61**	**105**	*i* P	**Pb**	**10 09 33.9**	**+0.1**
STH				⇑*i*P	**Pb**	**10 09 33.9**	**+0.1**
STH				*i* S	**Sn**	**10 09 42.8**	**-0.4**
GWJ	**Greenwich**	**0.69**	**104**	⇓*i*P	**Pb**	**10 09 35.2**	**+0.1**
GWJ				*i* P	**Pn**	**10 09 35.3**	**-0.1**
GWJ				*i* S	**Sb**	**10 09 44.8**	**+0.4**
HOJ	**Hope**	**0.69**	**110**	*i* P	**Pb**	**10 09 35.1**	**+0.2**
HOJ				⇑*i*P	**Pb**	**10 09 35.2**	**+0.2**
LMGC	**Las Mercedes**	**1.86**	**13**	*e*P	**Pn**	**10 09 52.4**	**+1.1**
LMGC				*e*S	**Sn**	**10 10 13.8**	**0.0**
LMGC				IAML		10 10 15.9	
	comp=E,7.3nm,0.1s						
LMGC				*e*Sg	**Sb**	**10 10 16.1**	**-1.4**
LMGC				IAML		10 10 16.4	
	comp=N,11nm,0.1s						
CHIV	**Chivirico**	**1.98**	**29**	*e*P	**Pn**	**10 09 53.5**	**+0.6**
CHIV				*e*S	**Sn**	**10 10 16.9**	**+0.2**
CHIV				IAML		10 10 17.5	
	comp=E,3.7nm,0.1s						
CHIV				IAML		10 10 17.6	
	comp=N,3.9nm,0.1s						
YAR	**Yar**	**2.35**	**25**	*e*P	**Pn**	**10 09 59.5**	**+1.5**
YAR				*e*S	**Sn**	**10 10 26.2**	**+0.3**
YAR				IAML		10 10 27.2	
	comp=E,1.0nm,0.1s						
YAR				IAML		10 10 27.5	
	comp=N,0.4nm,0.1s						
PINC	**Pinares de May**	**2.72**	**34**	*e*P	**Pn**	**10 10 05.4**	**+2.2**
PINC				*e*S	**Sn**	**10 10 36.6**	**+1.6**
PINC				IAML		10 10 37.7	
	comp=E,3.9nm,0.1s						
PINC				IAML		10 10 37.7	
	comp=N,11nm,0.1s						
GTBY	**Guantanamo Bay**	**2.76**	**52**	*e*P	**Pb**	**10 10 07.4**	**-2.8**
GTBY				*e*S	**Sn**	**10 10 36.8**	**+0.6**
GTBY				IAML		10 10 37.6	
	comp=N,2.1nm,0.1s						
GTBY				IAML		10 10 37.6	
	comp=N,2.5nm,0.2s						
QMBU	**Quimbuelo**	**3.15**	**51**	*e*P	**Pn**	**10 10 10.0**	**+0.9**
QMBU				*e*S	**Sn**	**10 10 44.4**	**-1.4**
QMBU				IAML		10 10 44.8	
	comp=N,1.1nm,0.1s						
QMBU				IAML		10 10 45.1	
	comp=E,1.4nm,0.1s						

SJA ***07*** *10:12:01.8±0.8, 28°.05S×71°.42W, h15^{km}±7^{km}, ML3.6, MW3.6*

GUC ***07*** *10:12:03.7±0.8, 28°.03S×71°.40W, h22^{km}±4^{km}, ML3.2*

ISC 07 10:12:01.5±2.4**, 28°.03S**±0°.04×**71°.46W**±0°.09**, h16**^{km}±14^{km}**, n17, σ0**^{s}**78**/27**, 1C, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	**Llanos de Chal**	**0.39**	**117**	*e*P	**Pb**	**10 12 10.3**	**+0.3**
AC04	**Llanos de Chal**	**0.39**	**117**	*i* P	**Pb**	**10 12 10.4**	**+0.4**
AC04				*e*S	**Sb**	**10 12 15.2**	**-0.6**
AC04				IAML		10 12 15.9	
	comp=E,4µm,0.4s						
GO03	**Copiapo**	**1.17**	**69**	*e*P	**Pn**	**10 12 23.6**	**+0.2**
GO03				*e*S	**Sg**	**10 12 39.9**	**+0.4**
GO03				IAML		10 12 42.7	
	comp=Z,879nm,0.5s						
GO03	**Copiapo**	**1.17**	**69**	*i* P	**Pn**	**10 12 23.5**	**+0.2**
GO03				*e*S	**Sb**	**10 12 38.0**	**-0.5**
GO03				IAML		10 12 43.0	
	comp=N,1µm,0.4s						
LCO	**Las Campanas**	**1.19**	**146**	*e*P	**Pn**	**10 12 23.7**	**-0.1**
LCO				*e*S	**Sg**	**10 12 40.9**	**+0.9**
LCO				IAML		10 12 44.6	
	comp=Z,1µm,0.3s						
LCO	**Las Campanas**	**1.19**	**146**	*e*P	**Pn**	**10 12 23.5**	**-0.3**
AC06	**Mina Casimiro**	**1.19**	**56**	*e*P	**Pn**	**10 12 23.5**	**-0.1**
AC06				*e*S	**Sg**	**10 12 40.4**	**+0.4**
AC06				IAML		10 12 46.3	
	comp=E,838nm,0.2s						
AC05	**El Transito**	**1.32**	**128**	*e*P	**Pn**	**10 12 25.9**	**+0.4**
AC05				*e*S	**Sg**	**10 12 43.3**	**-1.0**
AC05	**El Transito**	**1.32**	**128**	⇑*e*P	**Pn**	**10 12 25.9**	**+0.4**
AC05				*e*S	**Sn**	**10 12 43.0**	**+0.1**
AC05				IAML		10 12 46.3	
	comp=E,586nm,0.5s						
AC01	**Pan de Azucar**	**2.02**	**23**	*e*P	**Pn**	**10 12 35.2**	**+0.1**
AC01				IAML		10 13 12.6	
	comp=N,154nm,0.3s						
GO04	**Tololo Observa**	**2.21**	**165**	*e*P	**Pn**	**10 12 39.3**	**+1.4**
GO04				*e*S	**Sb**	**10 13 10.1**	**+1.4**
GO04				IAML		10 13 16.6	
	comp=Z,801nm,0.7s						
GO04	**Tololo Observa**	**2.21**	**165**	*e*P	**Pn**	**10 12 39.1**	**+1.2**
CO01	**Juntas del Tor**	**2.28**	**149**	*e*P	**Pb**	**10 12 41.5**	**-1.1**
CO01				*e*S	**Sb**	**10 13 09.7**	**-1.0**
CO01				IAML		10 13 13.7	
	comp=Z,362nm,0.8s						
CO01	**Juntas del Tor**	**2.28**	**149**	*e*P	**Pb**	**10 12 41.5**	**-1.1**
CO01				*e*S	**Sb**	**10 13 10.5**	**-0.2**
CO01				IAML		10 13 14.3	
	comp=N,438nm,0.5s						
AC02	**Maricunga**	**2.39**	**61**	*e*P	**Pb**	**10 12 43.7**	**-0.8**
AC02				*e*S	**Sb**	**10 13 15.2**	**+1.1**
AC02				IAML		10 13 18.2	
	comp=N,576nm,0.1s						
CO06	**Fray Jorge**	**2.64**	**183**	*e*P	**Pn**	**10 12 43.1**	**-0.4**
PB14	**IPOC Station P**	**3.52**	**16**	IAML		10 14 03.4	
	comp=E,37nm,0.5s						

CATAC ***07*** *10:26:32.6±0.7, 13°N±5°×8°9W±°, h31^{km}±5^{km}, M3.1/10, MLv3.1/10, Error ellipse: s-maj=10.3km s-min=4.6km az=20.4, confirmed*

SNET ***07*** *10:26:33.0±0.8, 13°.03N×88°.72W, h63^{km}±7^{km}, ML2.9, Presumed earthquake*

GCG ***07*** *10:26:34.2±0.6, 13°.09N×88°.90W, h68^{km}±30^{km}, MD3.8, Presumed earthquake*

ISC 07 10:26:32.2±2.0**, 12°.9N**±0°.1×**88°.79W**±0°.05**, h56**^{km}±18^{km}**, n36, σ0**^{s}**40**/51**, 1C-1D, Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ALJI	**Alcalda de J**	**0.47**	**27**	⇑*i*P	**Pn**	**10 26 43.6**	**+0.1**
ALJI				*e*S	**Sn**	**10 26 51.8**	**+0.2**
JUCU	**Jucuar¡n**	**0.62**	**57**	⇓*e*P	**Pn**	**10 26 45.0**	**-0.4**
JUCU				*e*S	**Sn**	**10 26 55.0**	**+0.1**
TECO	**Alcaldia de Te**	**0.62**	**0**	S	**Sn**	**10 26 54.6**	**-0.3**
TECA	**Tecapa**	**0.64**	**25**	*e*P	**Pn**	**10 26 45.6**	**-0.1**
TECA				*e*S	**Sn**	**10 26 55.5**	**-0.1**
LCY	**Lacayo**	**0.70**	**43**	*e*P	**Pn**	**10 26 46.4**	**+0.1**
RANC	**El Ranchito**	**0.71**	**43**	*e*P	**Pn**	**10 26 46.5**	**0.0**
COEG	**Centro de Oper**	**0.71**	**353**	*e*P	**Pn**	**10 26 46.7**	**+0.2**
COEG	**Centro de Oper**	**0.71**	**353**	P	**Pn**	**10 26 46.6**	**+0.1**
COEG				S	**Sn**	**10 26 56.2**	**-0.6**
PACA	**Pacayal**	**0.72**	**39**	*e*P	**Pn**	**10 26 46.6**	**0.0**
PACA	**Pacayal**	**0.72**	**39**	P	**Pn**	**10 26 46.7**	**+0.2**
PACA				S	**Sn**	**10 26 57.4**	**+0.3**
SJTE	**Alcalda de S**	**0.73**	**343**	*e*P	**Pn**	**10 26 46.4**	**-0.3**
SJTE				*e*S	**Sn**	**10 26 56.9**	**-0.5**
INTP	**Intipuca**	**0.77**	**68**	*e*P	**Pn**	**10 26 46.9**	**-0.2**
PAVA	**Las Pavas**	**0.81**	**350**	*e*P	**Pn**	**10 26 47.9**	**+0.2**
PAVA	**Las Pavas**	**0.81**	**350**	P	**Pn**	**10 26 48.0**	**+0.2**
PAVA				S	**Sn**	**10 26 59.4**	**+0.2**
LFU	**La Fuente**	**0.89**	**339**	*e*P	**Pn**	**10 26 49.0**	**+0.2**
UEES	**Universidad Ev**	**0.92**	**331**	P	**Pn**	**10 26 49.5**	**+0.4**
UEES				S	**Sn**	**10 27 01.4**	**-0.2**
PIC2	**El Picacho**	**0.95**	**331**	*e*P	**Pn**	**10 26 50.3**	**+0.6**
PMON	**Piamonte**	**0.95**	**327**	P	**Pn**	**10 26 50.1**	**+0.5**
PMON				S	**Sn**	**10 27 02.4**	**0.0**
BOQS	**Boqueron**	**0.95**	**330**	*e*P	**Pn**	**10 26 50.7**	**+1.0**
LCND	**La Caada**	**0.96**	**65**	*e*P	**Pn**	**10 26 49.5**	**0.0**
LCND	**La Caada**	**0.96**	**65**	P	**Pn**	**10 26 49.6**	**+0.1**
JAYA	**Jayaque - finc**	**0.98**	**319**	*i* P	**Pn**	**10 26 49.9**	**-0.2**
JAYA	**Jayaque - finc**	**0.98**	**319**	*e*P	**Pn**	**10 26 50.1**	**0.0**
JAYA	**Jayaque - finc**	**0.98**	**319**	P	**Pn**	**10 26 50.2**	**+0.1**
JAYA				S	**Sn**	**10 27 03.0**	**-0.2**
CNCH	**Conchagua**	**1.00**	**68**	*e*P	**Pn**	**10 26 50.0**	**-0.1**
CNCH	**Conchagua**	**1.00**	**68**	P	**Pn**	**10 26 50.2**	**0.0**
CNCH				S	**Sn**	**10 27 03.9**	**+0.5**
P5NO	**Presa 5 de nov**	**1.07**	**1**	*e*P	**Pn**	**10 26 50.8**	**-0.3**
P5NO	**Presa 5 de nov**	**1.07**	**1**	P	**Pn**	**10 26 51.0**	**-0.1**
P5NO				S	**Sn**	**10 27 05.0**	**0.0**
CEVE	**Cerro Verde**	**1.23**	**318**	P	**Pn**	**10 26 53.6**	**+0.2**
CEVE				S	**Sn**	**10 27 10.5**	**+1.4**
SBLS	**San Blas**	**1.23**	**319**	*e*P	**Pn**	**10 26 53.9**	**+0.4**
NUBE	**Las Nubes**	**1.38**	**316**	*i* P	**Pn**	**10 26 55.4**	**0.0**
NUBE				*i* S	**Sn**	**10 27 12.0**	**-0.7**
NUBE	**Las Nubes**	**1.38**	**316**	*e*P	**Pn**	**10 26 55.4**	**0.0**
RBDL	**Robledal**	**1.48**	**324**	*e*P	**Pn**	**10 26 56.9**	**+0.2**
FAME	**Alcaldia de Sa**	**1.52**	**308**	P	**Pn**	**10 26 57.1**	**+0.1**
FAME				S	**Sn**	**10 27 14.7**	**-1.1**
MTO3	**Montecristo**	**1.58**	**339**	*i* P	**Pn**	**10 26 58.0**	**-0.2**
SARH	**Santa Rosa de**	**1.86**	**1**	*i* P	**Pn**	**10 27 01.8**	**+0.1**

IDC ***07*** *11:03:15.7±0.6, 7°.71N×37°.24W, h0^{km}, mb4.2/16, mbtmp4.2/16, MS4.0/58, Error ellipse: s-maj=24.5km s-min=13.7km az=137.0*

NEIC ***07*** *11:03:17.0±2.1, 7°.6N±0°.1×37°.4W±0°.1, h10^{km}±1^{km}, mb4.7/46, Error ellipse: s-maj=19.9km s-min=15.1km az=141.0*

INMG ***07*** *11:03:18.0±2.6, 7°.75N×37°.37W, h10^{km}, M4.8, mb4.9, Ms4.0, #DIST_RANGE: DISTANT*

GCMT ***07*** *11:03:21.0±0.2, 7°.77N±0°.01×37°.20W±0°.01, h24^{km}, MW5.1/122, Moment Tensor Solution. s53,c74; s122,c206; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.71±.14; $M_{\theta\theta}$-0.15±.12; $M_{\phi\phi}$0.86±.11; $M_{r\theta}$0.54±.27; $M_{\theta\phi}$-5.33±.11; $M_{\phi r}$1.02±.25; Best double couple: $M_0$5.49600×10^{16} NP1:ϕ_s273.00000°, δ78.00000°, λ-173.00000°. NP2:ϕ_s182.00000°, δ83.00000°, λ-12.00000°. Principal axes: T 5.7350, Plg4.0000°, Azm228.0000°; N -0.4770, Plg76.0000°, Azm333.0000°; P -5.2580, Plg13.0000°, Azm137.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 07 11:03:16.6±0.4**, 7°.72N**±0°.07×**37°.32W**±0°.07**, h10**^{km}**, n147, σ1**^{s}**27**/96**, mb4.7**/35**, MS4.1**/58**, Central Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NBMO	**Morrinhos-CE**	**11.29**	**194**	*e*P	**Pn**	**11 05 57.4**	**-0.8**
NBPS	**Pedro II - PI**	**12.72**	**199**	*e*P	**Pn**	**11 06 16.9**	**-0.9**
NBPV	**Pedro Velho**	**14.19**	**172**	*e*P	**Pn**	**11 06 39.1**	**+1.3**
NBMA	**Muriti-CE**	**15.06**	**186**	*e*P	**Pn**	**11 06 50.7**	**+1.0**
SACV	**Santiago Islan**	**15.24**	**61**	Pn	**Pn**	**11 06 46.8**	**-5.3**
MDP	**Montagnes des**	**15.45**	**261**	Pn	**Pn**	**11 06 54.2**	**-0.6**
	0.3nm,0.3s,baz=80,slow=8.2,SNR=4.6						
MDP				Sn	Sn	11 09 27.7	-18
	0.2nm,0.3s,baz=230,slow=6.5,SNR=1.7						
MDP				LR	LR	11 11 35.9	
	comp=Z,491nm,21.7s,baz=66,slow=32						
NBPN	**Ponto Novo - B**	**18.67**	**189**	*e*P	**Pn**	**11 07 36.3**	**+0.9**
SMTB	**Santa Maria do**	**19.39**	**212**	*e*P	**P**	**11 07 42.3**	**-0.7**
SDBA	**SAO DESIDERIO**	**21.37**	**201**	*e*P	**P**	**11 08 04.7**	**+0.1**
ITTB	**Itaituba**	**21.95**	**237**	*e*P	**P**	**11 08 10.6**	**-0.1**
JANB	**Januaria**	**23.67**	**197**	*e*P	**P**	**11 08 29.4**	**+0.8**
BOAV	**Boa Vista**	**23.70**	**258**	P	**P**	**11 08 26.6**	**-2.4**
BOAV				IAmb	IAmb	11 08 32.0	
	comp=Z,34nm,0.9s						
BOAV	**Boa Vista**	**23.70**	**258**	*e*P	**P**	**11 08 29.8**	**+0.8**
SNDB	**Serra Nova Dou**	**24.00**	**216**	*e*P	**P**	**11 08 32.7**	**+0.9**
H05S1	**Guadeloupe/Mar**	**24.01**	**288**	T	T	11 33 22.6	
	SNR=11						
H05N1	**Guadeloupe/Mar**	**24.72**	**292**	T	T	11 34 17.1	
	SNR=5.0						
MAGL	**Barre de l'ile**	**24.82**	**291**	P	**P**	**11 08 37.3**	**-1.9**
TDBA	**Terre de Bas,**	**25.12**	**291**	P	**P**	**11 08 40.8**	**-1.1**
BDFB	**Brasilia**	**25.52**	**205**	P	**P**	**11 08 46.0**	**+0.4**
	comp=Z,5.0nm,0.6s,baz=30,slow=13,SNR=8.0						
BDFB				LR	LR	11 17 42.9	
	comp=Z,410nm,21.4s,baz=38,slow=34						
	comp=Z,5.0nm,0.6s						
BDFB	**Brasilia**	**25.52**	**205**	P	**P**	**11 08 44.4**	**-1.3**
BDFB				IAmb	IAmb	11 09 19.9	
	comp=Z,24nm,1.4s						
MACA	**Manacapuru-AM**	**25.70**	**246**	*e*P	**P**	**11 08 48.2**	**+1.0**
CLDB	**Colider**	**26.07**	**225**	*e*P	**P**	**11 08 50.6**	**0.0**
ARAG	**Araguaiana, MT**	**27.35**	**212**	*e*P	**P**	**11 09 04.0**	**+1.9**
H10N3	**ASCENSION HYDR**	**27.50**	**124**	T	T	11 37 46.9	
	baz=304,slow=75,SNR=9.5						
H10N2	**ASCENSION HYDR**	**27.51**	**124**	T	T	11 37 47.9	
	baz=304,slow=75,SNR=17						
H10N1	**ASCENSION HYDR**	**27.52**	**124**	T	T	11 37 54.4	
	baz=304,slow=75,SNR=28						
H10S3	**ASCENSION HYDR**	**28.00**	**126**	T	T	11 38 27.6	
	baz=299,slow=74,SNR=8.9						
H10S2	**ASCENSION HYDR**	**28.02**	**126**	T	T	11 38 27.7	
	baz=281,slow=74,SNR=10						
TEFE	**Tefe**	**29.45**	**249**	*e*P	**P**	**11 09 22.1**	**+1.1**
SJG	**San Juan**	**29.89**	**293**	LR	LR	11 20 24.3	
	comp=Z,288nm,18.3s,baz=104,slow=34						
ECPR	**Experimental S**	**30.14**	**293**	P	**P**	**11 09 24.7**	**-2.3**
ECPR				IAmb	IAmb	11 09 55.1	
	comp=Z,31nm,1.3s						
CELP	**Cerrillos**	**30.27**	**293**	P	**P**	**11 09 26.7**	**-1.5**
CELP				IAmb	IAmb	11 09 42.7	
	comp=Z,13nm,0.9s						
PRSN	**Puerto Rico Se**	**30.83**	**293**	P	**P**	**11 09 32.1**	**-0.9**
PTLB	**Pontes e Lacer**	**31.58**	**223**	P	**P**	**11 09 39.6**	**-0.1**
PTLB	**Pontes e Lacer**	**31.58**	**223**	*e*P	**P**	**11 09 41.6**	**+1.9**
DBIC	**Dimbokro**	**32.22**	**90**	LR	LR	11 20 37.9	
	comp=Z,204nm,18.2s,baz=264,slow=32						
SIV	**San Ignacio**	**33.29**	**225**	LR	LR	11 22 46.3	
	comp=Z,461nm,19.8s,baz=118,slow=35						
GRTK	**Grand Turk**	**35.37**	**296**	P	**P**	**11 10 11.8**	**-1.0**
ROSC	**El Rosal**	**36.88**	**268**	P	**P**	**11 10 27.3**	**+1.1**
	comp=Z,10nm,0.6s,baz=41,slow=18,SNR=4.6						
	comp=Z,10nm,0.6s						
ROSC	**El Rosal**	**36.88**	**268**	P	**P**	**11 10 25.9**	**-0.3**
ROSC				IAmb	IAmb	11 10 30.2	
	comp=Z,13nm,0.8s						
CZSB	**Cruzeiro do Su**	**38.48**	**247**	P	**P**	**11 10 38.0**	**-1.2**
CZSB				IAmb	IAmb	11 10 40.8	
	comp=Z,30nm,1.0s						
CZSB	**Cruzeiro do Su**	**38.48**	**247**	*e*P	**P**	**11 10 39.7**	**+0.5**
GTBY	**Guantanamo Bay**	**38.55**	**292**	P	**P**	**11 10 38.0**	**-1.7**
TORD	**Torodi Ar. Bea**	**38.71**	**79**	P	**P**	**11 10 40.6**	**-0.6**
	comp=Z,3.3nm,0.9s,baz=266,slow=5.6,SNR=9.0						
	comp=Z,3.3nm,0.9s						
LPAZ	**La Paz**	**38.72**	**232**	P	**P**	**11 10 43.5**	**+1.6**
	comp=Z,13nm,0.8s,baz=49,slow=6.9,SNR=54						
LPAZ				LR	LR	11 25 51.5	
	comp=Z,261nm,21.5s,baz=49,slow=35						
	comp=Z,13nm,0.8s						
LPAZ	**La Paz**	**38.72**	**232**		**P**	**11 10 40.5**	**-1.4**
LPAZ				IAmb	IAmb	11 10 44.8	
	comp=Z,17nm,0.9s						
LPAZ	**La Paz**	**38.72**	**232**	*e*P	**P**	**11 10 40.3**	**-1.6**
CPUP	**Villa Florida**	**39.03**	**209**	LR	LR	11 26 22.6	
	comp=Z,279nm,19.0s,baz=50,slow=36						
MD31	**MD31**	**39.19**	**46**		**P**	**11 10 45.5**	**+0.4**
MD01	**Midelt array s**	**39.19**	**46**		**P**	**11 10 45.9**	**+0.7**
MDT	**Midelt**	**39.27**	**46**	LR	LR	11 26 50.0	
	comp=Z,188nm,18.2s,baz=242,slow=36						
PVAQ	**Vaqueiros**	**39.92**	**38**	*e*LR	LR	11 21 06.8	
PVAQ				*i* IAMs_20	IAMs_20	11 23 43.5	
	comp=Z,229nm,20.0s						
EVO	**Evora**	**40.48**	**36**	*e*P	**P**	**11 10 57.2**	**+1.6**
EVO				*i* IAmb	IAmb	11 11 08.3	
	comp=Z,27nm,1.5s						
PARRA	**Arraiolos**	**40.65**	**36**	*e*P	**P**	**11 10 59.0**	**+1.9**
PB16	**IPOC Station P**	**40.98**	**230**	P	**P**	**11 10 59.5**	**-1.2**
PMRV	**Marv??o**	**41.44**	**36**	*e*P	**P**	**11 11 05.0**	**+1.5**
PMRV				*i* IAmb	IAmb	11 11 07.0	
	comp=Z,34nm,1.3s						
PMRV				*e*LR	LR	11 22 14.3	
PMRV				*i* IAMs_20	IAMs_20	11 24 25.4	
	comp=Z,206nm,22.0s						
GO01	**Chusmiza**	**41.55**	**229**	P	**P**	**11 11 02.8**	**-2.4**
OTAV	**Otavalo**	**41.67**	**262**	P	**P**	**11 11 05.2**	**-1.2**
OTAV	**Otavalo**	**41.67**	**262**	*e*P	**P**	**11 11 08.2**	**+1.8**
PB12	**IPOC Station P**	**41.77**	**231**	P	**P**	**11 11 05.1**	**-1.6**
PB12				IAmb	IAmb	11 11 44.7	
	comp=Z,20nm,1.3s						
MTE	**Manteigas**	**42.00**	**35**	*e*P	**P**	**11 11 09.5**	**+1.3**
MTE				*e*LR	LR	11 22 12.1	
MTE				*i* IAMs_20	IAMs_20	11 24 52.8	
	comp=Z,260nm,20.0s						
MTE	**Manteigas**	**42.00**	**35**	P	**P**	**11 11 08.6**	**+0.3**
MTE				IAmb	IAmb	11 11 09.9	
	comp=Z,13nm,0.9s						
POLO	**Lamas de Olo**	**42.53**	**33**	*e*P	**P**	**11 11 13.3**	**+0.7**
PGAV	**Gavieira, Arco**	**42.69**	**32**	*e*P	**P**	**11 11 15.7**	**+1.8**
PGAV				*i* IAmb	IAmb	11 11 19.9	
	comp=Z,57nm,1.7s						
PGAV				*e*LR	LR	11 22 48.5	
PGAV				*i* IAMs_20	IAMs_20	11 24 12.0	
	comp=Z,160nm,22.0s						
TA01	**Diego Aracena**	**42.83**	**228**	P	**P**	**11 11 13.9**	**-1.2**
PBRG	**Braganca**	**43.40**	**34**	*e*P	**P**	**11 11 20.7**	**+1.1**
PBRG				*i* IAmb	IAmb	11 11 22.7	
	comp=Z,31nm,1.8s						
ATAH	**Atahualpa**	**43.54**	**251**	LR	LR	11 31 17.2	
	comp=Z,198nm,18.3s,baz=72,slow=39						
ESDC	**Sonseca Array**	**43.63**	**38**	P	**P**	**11 11 22.1**	**+0.7**
	comp=Z,2.6nm,1.1s,baz=237,slow=9.4,SNR=8.9						
ESDC				LR	LR	11 25 32.9	
	comp=Z,234nm,21.4s,baz=220,slow=31						
	comp=Z,2.6nm,1.1s						
ESDC	**Sonseca Array**	**43.63**	**38**	P	**P**	**11 11 21.7**	**+0.2**
TAM	**Tamanrasset**	**43.78**	**65**	P	**P**	**11 11 23.0**	**0.0**
NNA	**Nana**	**43.91**	**244**	LR	LR	11 29 29.6	
	comp=Z,330nm,21.9s,baz=66,slow=36						
JTS	**Las Juntas de**	**47.08**	**277**	LR	LR	11 33 25.8	
	comp=Z,56nm,18.7s,baz=98,slow=38						
CFA	**Coronel Fontan**	**49.02**	**216**	P	**P**	**11 12 05.0**	**+1.2**
	comp=Z,0.9nm,0.5s,baz=29,slow=10,SNR=3.7						
	comp=Z,0.9nm,0.5s						
TKL	**Tuckaleechee C**	**50.69**	**310**	LR	LR	11 29 21.8	
	comp=Z,210nm,21.3s,baz=120,slow=31						
KEST	**Kesra**	**50.88**	**50**	P	**P**	**11 12 18.8**	**+0.7**
	comp=Z,6.1nm,1.0s,baz=281,slow=12,SNR=3.6						
KEST				LR	LR	11 34 26.8	
	comp=Z,259nm,19.1s,baz=264,slow=37						
	comp=Z,6.1nm,1.0s						
KEST	**Kesra**	**50.88**	**50**	P	**P**	**11 12 17.6**	**-0.5**
KEST				IAmb	IAmb	11 12 23.9	
	comp=Z,17nm,1.3s						
SADO	**Sadowa**	**51.70**	**323**	P	**P**	**11 12 25.3**	**+1.3**
SCHQ	**Schefferville**	**52.56**	**339**	LR	LR	11 31 36.5	
	comp=Z,72nm,19.6s,baz=142,slow=32						
ML02	**Panimavida**	**53.86**	**214**	P	**P**	**11 12 40.5**	**+0.4**
EKA	**Eskdalemuir Ar**	**54.68**	**23**	LR	LR	11 32 44.6	
	comp=Z,63nm,19.1s,baz=190,slow=32						
VAE	**Valguarnera**	**55.30**	**49**	LR	LR	11 35 05.0	
	comp=Z,380nm,20.6s,baz=296,slow=35						
DAVOX	**Davos/Dischmat**	**55.96**	**37**	LR	LR	11 33 05.7	
	comp=Z,314nm,21.4s,baz=255,slow=32						
GO06	**Curarrehue**	**56.70**	**211**	P	**P**	**11 13 00.8**	**+0.2**
GO06				IAmb	IAmb	11 13 02.1	
	comp=Z,5.0nm,0.8s						
PLCA	**Paso Flores**	**57.10**	**210**	P	**P**	**11 13 04.0**	**+0.6**
	comp=Z,2.4nm,0.9s,baz=31,slow=8.9,SNR=5.3						
PLCA				LR	LR	11 37 44.0	
	comp=Z,323nm,18.3s,baz=45,slow=36						
	comp=Z,2.4nm,0.9s						
CLL	**Collm**	**59.93**	**34**	*e*S	**S**	**11 21 38.0**	**+3.0**
CLL				*e*SS	**SS**	**11 25 30.0**	**-1.4**
CLL				*e*SSS	SSS	11 28 18.0	
CLL				L	L	11 31 00.0	
CLL				AMS	AMS	11 34 00.0	
	comp=Z,200nm,21.5s						
FRB	**Frobisher Bay**	**60.23**	**345**	LR	LR	11 35 13.6	
	comp=Z,80nm,21.7s,baz=128,slow=32						
TSUM	**Tsumeb**	**60.34**	**117**	LR	LR	11 33 05.2	
	comp=Z,199nm,19.5s,baz=325,slow=30						
VRAC	**Vranov**	**61.12**	**37**	LR	LR	11 36 22.0	
	comp=Z,163nm,21.8s,baz=250,slow=32						
BRDY	**Brady**	**61.87**	**301**	P	**P**	**11 13 37.4**	**+0.8**

BRDY				IAmb	IAmb	11 13 58.5	
	comp=Z,3.5nm,1.0s						
LIT	**Litokhoron**	**62.10**	**49**	P	**P**	**11 13 38.3**	**+0.3**
LIT				IAmb	IAmb	11 13 39.3	
	comp=Z,7.9nm,1.2s						
IDI	**Anoyia**	**62.95**	**54**	LR	LR	11 41 59.4	
	comp=Z,41nm,21.1s,baz=274,slow=37						
NOA	**NORSAR Array B**	**64.15**	**24**	LR	LR	11 36 44.2	
	comp=Z,87nm,21.7s,baz=230,slow=31						
ULM	**Lac du Bonnet**	**64.26**	**323**	LR	LR	11 37 17.8	
	comp=Z,86nm,21.2s,baz=152,slow=32						
HFS	**Hagfors**	**64.68**	**25**	LR	LR	11 37 23.1	
	comp=Z,76nm,21.8s,baz=242,slow=32						
TXAR	**Lajitas Array**	**65.66**	**299**	P	**P**	**11 14 02.8**	**+1.1**
	comp=Z,0.4nm,0.6s,baz=103,slow=6.4,SNR=7.7						
TXAR				LR	LR	11 42 23.6	
	comp=Z,27nm,21.9s,baz=74,slow=36						
	comp=Z,0.4nm,0.6s						
TXAR	**Lajitas Array**	**65.66**	**299**	P	**P**	**11 14 02.5**	**+0.8**
TX31	**Lajitas Ar. Si**	**65.66**	**299**	P	**P**	**11 14 01.9**	**+0.3**
MLR	**Muntele Rosu**	**65.89**	**43**	LR	LR	11 40 57.8	
	comp=Z,76nm,21.3s,baz=284,slow=34						
MLR	**Muntele Rosu**	**65.89**	**43**		**P**	**11 14 03.9**	**+1.0**
BUR08	**Bucovina Ar. S**	**65.95**	**41**	P	**P**	**11 14 04.3**	**+1.1**
BURAR	**Bucovina Array**	**65.95**	**41**	P	**P**	**11 14 04.3**	**+1.1**
SUR	**Sutherland**	**68.19**	**129**	LR	LR	11 36 57.0	
	comp=Z,120nm,18.8s,baz=296,slow=30						
ANMO	**Albuquerque**	**68.53**	**304**	LR	LR	11 40 41.5	
	comp=Z,210nm,21.2s,baz=101,slow=33						
KIEV	**Kiev**	**69.26**	**39**	P	**P**	**11 14 22.5**	**-1.4**
KIEV				IAmb	IAmb	11 14 35.7	
	comp=Z,7.5nm,1.3s						
AKASG	**Malin Array Be**	**69.27**	**39**	P	**P**	**11 14 24.0**	**0.0**
	comp=Z,1.6nm,0.8s,baz=256,slow=6.1,SNR=9.0						
AKASG				LR	LR	11 42 10.2	
	comp=Z,53nm,22.0s,baz=240,slow=34						
	comp=Z,1.6nm,0.8s						
AKASG	**Malin Array Be**	**69.27**	**39**	P	**P**	**11 14 23.6**	**-0.4**
AKBB	**Malin Array Si**	**69.27**	**39**	P	**P**	**11 14 22.6**	**-1.4**
AKBB				IAmb	IAmb	11 14 35.7	
	comp=Z,9.2nm,1.4s						
LBTB	**Lobatse**	**69.31**	**120**	LR	LR	11 38 20.8	
	comp=Z,152nm,18.3s,baz=282,slow=30						
BOSA	**Boshof**	**70.26**	**124**	P	**P**	**11 14 31.1**	**+0.5**
	comp=Z,6.0nm,1.0s,baz=232,slow=1.8,SNR=4.4						
BOSA				LR	LR	11 39 53.6	
	comp=Z,28nm,20.4s,baz=346,slow=31						
	comp=Z,6.0nm,1.0s						
BOSA	**Boshof**	**70.26**	**124**	P	**P**	**11 14 29.2**	**-1.4**
BOSA				IAmb	IAmb	11 14 32.2	
	comp=Z,12nm,1.2s						
BR131	**Keskin Array S**	**70.47**	**51**	P	**P**	**11 14 31.1**	**-0.7**
BR131				IAmb	IAmb	11 14 33.6	
	comp=Z,6.6nm,1.2s						
BRTR	**Keskin Array B**	**70.47**	**51**	P	**P**	**11 14 32.5**	**+0.7**
	comp=Z,1.3nm,0.7s,baz=256,slow=5.0,SNR=6.7						
BRTR				LR	LR	11 45 20.1	
	comp=Z,76nm,21.8s,baz=246,slow=36						
	comp=Z,1.3nm,0.7s						
BRTR	**Keskin Array B**	**70.47**	**51**		**P**	**11 14 31.2**	**-0.6**
FINES	**FINESS Array B**	**70.71**	**27**	P	**P**	**11 14 33.2**	**+0.6**
	comp=Z,1.6nm,0.8s,baz=270,slow=3.8,SNR=4.8						
FINES				LR	LR	11 40 53.2	
	comp=Z,114nm,21.5s,baz=246,slow=32						
	comp=Z,1.6nm,0.8s						
FINES	**FINESS Array B**	**70.71**	**27**	P	**P**	**11 14 32.3**	**-0.3**
EIL	**Elat**	**70.83**	**61**	LR	LR	11 44 58.2	
	comp=Z,284nm,21.2s,baz=272,slow=35						
MMAI	**Mount Meron Ar**	**71.36**	**58**	LR	LR	11 45 48.5	
	comp=Z,54nm,21.6s,baz=248,slow=36						
PDAR	**Pinedale Array**	**71.76**	**312**	LR	LR	11 42 08.0	
	comp=Z,108nm,21.9s,baz=108,slow=32						
FXWY	**Fox Creek**	**72.92**	**313**	P	**P**	**11 14 45.5**	**-1.1**
HWUT	**Hardware Ranch**	**73.14**	**311**		**P**	**11 14 47.6**	**-0.3**
HWUT				IAmb	IAmb	11 15 02.7	
	comp=Z,5.3nm,1.0s						
YHL	**Hebgen Lake**	**73.16**	**314**	P	**P**	**11 14 47.8**	**-0.3**
YHL				IAmb	IAmb	11 15 12.2	
	comp=Z,11nm,1.4s						
ARCES	**ARCESS Array B**	**73.49**	**19**	LR	LR	11 42 51.1	
	comp=Z,80nm,19.9s,baz=249,slow=32						
SPUT	**South Promonto**	**73.78**	**311**	P	**P**	**11 14 51.6**	**0.0**
SPUT				IAmb	IAmb	11 15 07.2	
	comp=Z,8.7nm,1.4s						
BGU	**Big Grassy Mou**	**74.19**	**310**	P	**P**	**11 14 54.1**	**0.0**
BGU				IAmb	IAmb	11 15 10.6	
	comp=Z,8.2nm,1.4s						
OBN	**Obninsk**	**74.50**	**35**	LR	LR	11 46 23.7	
	comp=Z,68nm,19.4s,baz=225,slow=35						
PMSA	**Palmer Station**	**75.01**	**192**	LR	LR	11 47 59.5	
	comp=Z,20nm,19.5s,baz=38,slow=36						
SPITS	**Spitsbergen Ar**	**75.42**	**10**	LR	LR	11 40 18.5	
	comp=Z,65nm,19.8s,baz=242,slow=30						
PFO	**Pinyon Flats O**	**76.74**	**303**	LR	LR	11 47 13.3	
	comp=Z,71nm,19.3s,baz=96,slow=34						
YKA	**Yellowknife Ar**	**77.32**	**332**	LR	LR	11 45 16.1	
	comp=Z,128nm,21.0s,baz=102,slow=33						
NEW	**Newport**	**77.49**	**318**	LR	LR	11 45 13.3	
	comp=Z,36nm,20.9s,baz=102,slow=32						
KBZ	**Khabaz**	**77.64**	**47**	P	**P**	**11 15 14.3**	**+0.9**
	comp=Z,2.8nm,0.8s,baz=313,slow=6.4,SNR=3.6						
KBZ				LR	LR	11 49 02.0	
	comp=Z,35nm,21.7s,baz=286,slow=35						
	comp=Z,2.8nm,0.8s						
NVAR	**Mina Array Bea**	**78.19**	**308**	LR	LR	11 48 47.5	
	comp=Z,59nm,18.4s,baz=92,slow=35						
GNI	**Garni**	**79.01**	**51**	LR	LR	11 50 57.2	
	comp=Z,59nm,21.9s,baz=294,slow=36						
MOD	**Modoc Plateau**	**79.68**	**311**	P	**P**	**11 15 25.0**	**0.0**
MOD				IAmb	IAmb	11 15 42.1	
	comp=Z,10nm,1.3s						
YBH	**Yreka Blue Hor**	**81.48**	**311**	LR	LR	11 48 15.4	
	comp=Z,126nm,21.8s,baz=104,slow=33						
KIRV	**Kirov**	**81.76**	**32**	LR	LR	11 48 22.9	
	comp=Z,91nm,21.6s,baz=294,slow=33						
SNAA	**Sanae**	**82.42**	**170**	P	**P**	**11 15 39.4**	**+0.7**
	comp=Z,2.6nm,0.8s,baz=32,slow=3.6,SNR=4.1						
SNAA				LR	LR	11 44 17.9	
	comp=Z,76nm,19.8s,baz=227,slow=30						
	comp=Z,2.6nm,0.8s						
SNAA	**Sanae**	**82.42**	**170**	P	**P**	**11 15 38.1**	**-0.6**
SNAA				IAmb	IAmb	11 16 05.5	
	comp=Z,4.0nm,0.7s						
BBB	**Bella Bella**	**84.45**	**322**	LR	LR	11 50 39.4	
	comp=Z,76nm,20.2s,baz=83,slow=34						
DLBC	**Dease Lake**	**84.90**	**328**	LR	LR	11 49 35.3	
	comp=Z,86nm,20.9s,baz=66,slow=33						
INK	**Inuvik**	**85.18**	**338**	LR	LR	11 51 11.8	
	comp=Z,152nm,19.6s,baz=72,slow=34						
ARTI	**Arti**	**86.78**	**34**	LR	LR	11 51 39.5	
	comp=Z,88nm,21.6s,baz=251,slow=34						
ILAR	**Eielson Array**	**91.24**	**336**	P	**P**	**11 16 22.4**	**+0.4**
	comp=Z,0.6nm,1.0s,baz=45,slow=4.8,SNR=4.6						
ILAR				LR	LR	11 54 34.7	
	comp=Z,91nm,20.2s,baz=70,slow=34						
	comp=Z,0.6nm,1.0s						
ILAR	**Eielson Array**	**91.24**	**336**	P	**P**	**11 16 23.1**	**+1.1**
IMAR	**Indian Mountai**	**93.37**	**338**	P	**P**	**11 16 33.5**	**+1.7**
KDAK	**Kodiak Island**	**96.54**	**331**	LR	LR	11 57 16.8	
	comp=Z,99nm,21.4s,baz=60,slow=34						
KURBB	**Kurchatov Arra**	**99.92**	**36**	LR	LR	12 03 18.3	
	comp=Z,51nm,18.3s,baz=169,slow=36						

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*IDC **07** 11:13:42.9±1.4, 31°.69S×67°.02W, h114^{km}±14^{km}, mb3.1/2, mbtmp3.7/6, Error ellipse: s-maj=27.8km s-min=21.3km az=110.0*

*SJA **07** 11:13:42.8±0.7, 31°.71S×67°.07W, h113^{km}±3^{km}, ML3.6, MW3.6*

ISC 07 11:13:43.5±0.8**, 31°.70S**±0°.03×**67°.05W**±0°.03**, h117**^{km}±7^{km}**, n46, σ1^{s}.08**/75**, San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ACAN	**Cantantal**	**0.58**	**192**	*e*P	**Pn**	**11 14 03.2**	**+1.4**
ACAN				IAML		11 14 19.5	
	comp=Z,4μm,0.4s						
CFA	**Coronel Fontan**	**1.02**	**275**	P	**Pn**	**11 14 05.3**	**-0.2**
	comp=Z,234nm,0.3s,baz=108,slow=10.0,SNR=2750						
CFA				S	**Sn**	**11 14 21.4**	**-0.7**
	comp=Z,178nm,0.2s,baz=295,slow=6.7,SNR=7.3						
CFA	**Coronel Fontan**	**1.02**	**275**	*e*P	**Pn**	**11 14 05.0**	**-0.4**
CFA				*e*S	**Sn**	**11 14 21.3**	**-0.8**
CFA				IAML		11 14 21.8	
	comp=Z,1μm,0.3s						
AVFE	**Valle Fertil**	**1.10**	**341**	*e*P	**Pn**	**11 14 07.4**	**+1.1**
AVFE				*e*S	**Sn**	**11 14 24.6**	**+1.0**
AVFE				IAML		11 14 25.5	
	comp=Z,766nm,0.1s						
RTLL	**Cerro Villicun**	**1.27**	**287**	*e*P	**Pn**	**11 14 08.1**	**-0.1**
RTLL				*e*S	**Sn**	**11 14 26.3**	**-0.6**
RTLL				IAML		11 14 28.2	
	comp=Z,708nm,0.2s						
SJA	**San Juan**	**1.30**	**277**	*e*P	**Pn**	**11 14 08.8**	**+0.3**
SJA				*e*S	**Sn**	**11 14 27.2**	**-0.3**
SJA				IAML		11 14 29.6	
	comp=Z,407nm,0.2s						
MRA	**San Martin**	**1.34**	**123**	*e*P	**Pn**	**11 14 07.0**	**-2.0**
MRA				*e*S	**Sn**	**11 14 26.9**	**-1.5**
MRA				IAML		11 14 27.4	
	comp=Z,676nm,0.1s						
ZON	**Zonda**	**1.40**	**276**	*e*P	**Pn**	**11 14 09.6**	**0.0**
ZON				*e*S	**Sn**	**11 14 29.0**	**-0.4**
ZON				IAML		11 14 29.5	
	comp=Z,461nm,0.2s						
RTLS	**Leoncito**	**1.92**	**267**	*e*P	**Pn**	**11 14 16.1**	**+0.1**
RTLS				*e*S	**Sn**	**11 14 40.7**	**-0.1**
RTLS				IAML		11 14 41.7	
	comp=Z,793nm,0.4s						
ARCO	**CERRO ARCO**	**1.96**	**234**	*e*P	**Pn**	**11 14 16.5**	**+0.1**
ARCO				*e*S	**Sn**	**11 14 42.2**	**+0.7**
ARCO				IAML		11 14 43.5	
	comp=Z,789nm,0.3s						
AAGR	**Agrelo**	**2.04**	**227**	*e*P	**Pn**	**11 14 17.6**	**+0.2**
AAGR				*e*S	**Sn**	**11 14 44.3**	**+0.9**
AAGR				IAML		11 14 45.2	
	comp=Z,265nm,0.2s						
ACCO	**Cerro Coronel**	**2.05**	**302**	*e*P	**Pn**	**11 14 18.2**	**+0.4**
ACCO				*e*S	**Sn**	**11 14 41.4**	**-2.6**
ACCO				IAML		11 14 45.1	
	comp=Z,680nm,0.3s						
TCA	**Tanti**	**2.13**	**81**	*e*P	**Pn**	**11 14 20.4**	**+1.9**
TCA				*e*S	**Sn**	**11 14 45.9**	**+0.6**
TCA				IAML		11 14 47.9	
	comp=Z,559nm,0.2s						
AVIZ	**Vizcacheras**	**2.15**	**215**	*e*P	**Pn**	**11 14 19.5**	**+0.7**
AVIZ				*e*S	**Sn**	**11 14 46.9**	**+0.9**
ACLC	**CERRO LA CRUZ**	**2.27**	**2**	*e*P	**Pn**	**11 14 21.0**	**+0.6**
ACLC				*e*S	**Sn**	**11 14 49.1**	**+0.4**
ACLC				IAML		11 14 49.7	
	comp=Z,386nm,0.6s						
ACDV	**Cuesta del Vie**	**2.34**	**310**	*e*P	**Pn**	**11 14 21.6**	**+0.3**
ACDV				*e*S	**Sn**	**11 14 50.5**	**+0.2**
ACDV				IAML		11 14 51.8	
	comp=Z,326nm,0.4s						
AROD	**Rodeo**	**2.58**	**306**	*e*P	**Pn**	**11 14 24.9**	**+0.4**
AROD				*e*S	**Sn**	**11 14 55.8**	**-0.3**
PIL	**Pilar**	**2.70**	**90**	*e*P	Pn	11 14 17.6	-8.1
MT08	**Bocatoma Ro**	**3.05**	**234**	*e*P	**Pn**	**11 14 31.0**	**+0.5**
MT08				*e*S	**Sn**	**11 15 07.9**	**+1.2**
MT08				IAML		11 15 09.3	
	comp=Z,64nm,0.2s						
MT04	**Ro Olivares**	**3.11**	**236**	*e*P	**Pn**	**11 14 31.7**	**+0.3**
MT04				*e*S	**Sn**	**11 15 09.0**	**+0.8**
MT04				IAML		11 15 10.4	
	comp=Z,67nm,0.2s						
VCA	**Vinchina**	**3.12**	**341**	*e*P	**Pn**	**11 14 32.6**	**+1.1**
VCA				*e*S	**Sn**	**11 15 09.5**	**+1.0**
VCA				IAML		11 15 13.0	
	comp=Z,398nm,0.4s						
CO01	**Juntas del Tor**	**3.13**	**303**	*e*P	**Pn**	**11 14 32.6**	**+1.0**
CO01				*e*S	**Sn**	**11 15 08.6**	**-0.2**
CO01				IAML		11 15 10.1	
	comp=Z,217nm,0.3s						
VA03	**San Esteban**	**3.15**	**249**	*e*P	Pn	11 14 23.4	-8.4
VA03				*e*S	**Sn**	**11 15 12.9**	**+4.0**
VA03				IAML		11 15 13.3	
	comp=Z,114nm,0.3s						
PEL	**Peldehue**	**3.39**	**244**	*e*P	**Pn**	**11 14 34.9**	**0.0**
PEL				*e*S	**Sn**	**11 15 15.3**	**+0.7**
PEL				IAML		11 15 17.4	
	comp=Z,63nm,0.7s						
MT13	**San Alfonso**	**3.40**	**232**	*e*P	**Pn**	**11 14 35.8**	**+0.7**
MT13				IAML		11 15 43.3	
	comp=Z,50nm,0.8s						
CO02	**Combarbal**	**3.41**	**277**	*e*P	**Pn**	**11 14 35.4**	**+0.1**
CO02				*e*S	**Sn**	**11 15 14.2**	**-1.0**
CO02				IAML		11 15 16.6	
	comp=Z,375nm,0.3s						
MT03	**Universidad Ad**	**3.42**	**238**	*e*P	**Pn**	**11 14 35.6**	**+0.2**
MT03				*e*S	**Sn**	**11 15 17.9**	**+2.5**
MT03				IAML		11 15 25.0	
	comp=Z,50nm,0.1s						
CYA	**Choya**	**3.43**	**19**	*e*P	**Pn**	**11 14 35.8**	**+0.4**
CYA				*e*S	**Sn**	**11 15 15.2**	**-0.3**
CYA				IAML		11 15 16.5	
	comp=Z,336nm,0.4s						
MT05	**Renca**	**3.54**	**241**	*e*P	**Pn**	**11 14 36.9**	**0.0**
MT05				IAML		11 15 20.8	
	comp=Z,89nm,0.5s						
GO04	**Tololo Observa**	**3.56**	**294**	*e*P	**Pn**	**11 14 37.5**	**+0.1**
GO04				*e*S	Sn	11 15 05.3	-14
GO04				IAML		11 15 21.6	
	comp=Z,286nm,0.7s						
TINO	**Tinogasta**	**3.66**	**353**	*e*P	**Pn**	**11 14 40.2**	**+1.7**
TINO				*e*S	Sn	11 15 10.3	-11
TINO				IAML		11 15 23.5	
	comp=Z,168nm,0.6s						
MT02	**Curacav**	**3.79**	**245**	*e*P	**Pn**	**11 14 38.6**	**-1.5**
MT02				*e*S	**Sn**	**11 15 24.1**	**+0.1**
MT02				IAML		11 15 24.5	
	comp=Z,49nm,0.5s						
AC05	**El Transito**	**3.99**	**315**	*e*P	**Pn**	**11 14 44.2**	**+1.3**
AC05				*e*S	**Sn**	**11 15 29.2**	**+0.1**
AC05				IAML		11 15 30.9	
	comp=Z,63nm,0.6s						
LCO	**Las Campanas**	**4.14**	**309**	*e*P	**Pn**	**11 14 45.3**	**+0.2**
LCO				*e*S	**Sn**	**11 15 31.8**	**-1.1**
LCO				IAML		11 15 36.7	
	comp=Z,196nm,0.2s						
MT01	**Popeta**	**4.14**	**238**	*e*P	**Pn**	**11 14 43.0**	**-1.9**
MT01				*e*S	**Sn**	**11 15 32.0**	**-0.4**
MT01				IAML		11 16 05.3	
	comp=Z,26nm,0.8s						
BO01	**Tunca**	**4.32**	**231**	*e*P	**Pn**	**11 14 45.9**	**-1.3**
BO02	**Sierra Bellavi**	**4.39**	**224**	*e*P	**Pn**	**11 14 48.3**	**+0.1**
AC04	**Llanos de Chal**	**4.93**	**314**	*e*P	**Pn**	**11 14 54.9**	**-0.6**
AC04				IAML		11 16 00.5	
	comp=Z,35nm,0.9s						
GO03	**Copiapo**	**4.94**	**325**	*e*P	**Pn**	**11 14 56.0**	**+0.3**
GO03				*e*S	**Sn**	**11 15 50.0**	**-1.9**
GO03				IAML		11 15 53.2	
	comp=Z,57nm,0.3s						
AC02	**Maricunga**	**5.18**	**339**	*e*P	**Pn**	**11 15 00.9**	**+1.6**
AC02				*e*S	**Sn**	**11 15 57.1**	**-1.1**
PLCA	**Paso Flores**	**9.44**	**196**	P	**Pn**	**11 15 55.1**	**-1.3**
	comp=Z,0.6nm,0.4s,baz=357,slow=12,SNR=6.4						
CPUP	**Villa Florida**	**10.05**	**60**	P	**Pn**	**11 16 03.4**	**-1.3**
	comp=Z,1.8nm,0.6s,baz=230,slow=12,SNR=5.4						
LPAZ	**La Paz**	**15.38**	**356**	P	**Pn**	**11 17 14.5**	**-0.3**
	comp=Z,0.9nm,0.5s,baz=202,slow=9.9,SNR=1.9						
SIV	**San Ignacio**	**16.56**	**21**	P	**Pn**	**11 17 28.5**	**-0.4**
	comp=Z,4.9nm,0.8s,baz=204,slow=12,SNR=15						
QSPA	**South Pole Qui**	**58.53**	**180**	P	**P**	**11 23 27.9**	**+0.6**
	comp=Z,0.5nm,0.7s,baz=140,slow=7.9,SNR=1.6						
	comp=Z,0.5nm,0.7s						
TXAR	**Lajitas Array**	**69.97**	**326**	P	**P**	**11 24 41.9**	**-0.4**
	comp=Z,0.3nm,0.7s,baz=145,slow=8.1,SNR=4.4						
	comp=Z,0.3nm,0.7s						

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*BJI **07** 11:34:39.9, 1°.01N×90°.75E, h10^{km}, mB5.0/3, mb4.6/30, Ms4.5/12, Ms7 4.2/8*

*IDC **07** 11:34:45.8±0.6, 1°.77N×91°.10E, h0^{km}, mb4.2/19, mbtmp4.2/21, ML4.4/2, MS3.8/48, Error ellipse: s-maj=19.4km s-min=12.6km az=52.0*

*GFZ **07** 11:34:46.2±0.3, 2°N±4°×9°1E±°, h10^{km}, M5.2/26, mb4.9/26, Mw4.7/9, confirmed*

*NEIC **07** 11:34:47.1±1.1, 1°.72N±0°.09×90°.95E±0°.07, h10^{km}±1^{km}, mb4.8/40, Error ellipse: s-maj=15.1km s-min=11.5km az=188.0*

*BKK **07** 11:34:48.0±0.8, 2°N±10°×9°1E±°, h94^{km}±8^{km}, M4.4/18, mB5.0/9, mb4.7/18, Mw(mB)4.3/9*

*GCMT **07** 11:34:50.1±0.4, 1°.76N±0°.02×91°.08E±0°.02, h12^{km}, MW4.8/84, Moment Tensor Solution. s4,c4; s84,c105; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}0.01±.07; $M_{\theta\theta}$-1.56±.06; $M_{\phi\phi}$1.54±.06; $M_{r\theta}$-1.07±.19; $M_{\theta\phi}$-0.09±.06; $M_{\phi r}$-0.21±.20; Best double couple: $M_0$1.84000×10^{16} NP1: ϕ_s137.00000°, δ65.00000°, λ-166.00000°. NP2: ϕ_s41.00000°, δ78.00000°, λ-26.00000°. Principal axes: T 1.5700, Plg9.0000°, Azm91.0000°; N 0.5340, Plg61.0000°, Azm198.0000°; P -2.1090, Plg27.0000°, Azm357.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*DJA **07** 11:34:58.8±0.9, 2°N±3°×9°2E±°, h10^{km}, M5.3/19, mB5.7/17, mb5.6/19, MLv5.5/12, Mw(mB)5.2/17*

ISC 07 11:34:46.5±0.4**, 1°.69N**±0°.05×**90°.98E**±0°.05**, h10**^{km}**, n203, σ1^{s}.40**/161**, mb4.6**/56**, MS4.0**/52**, North Indian Ocean**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MLSI	**Meulaboh, Aceh**	**5.99**	**65**	P	**Pn**	**11 36 15.5**	**+0.2**
TPTI		**6.39**	**76**	P	**Pn**	**11 36 20.3**	**-0.4**
	5μm484nm,0.7s						
TPTI				S	Sn	11 37 24.3	-10
	5μm484nm,0.7s						
GSI	**Gunungsitoli**	**6.61**	**93**		**Pn**	**11 36 23.2**	**-0.5**
GSI	**Gunungsitoli**	**6.61**	**93**	P	**Pn**	**11 36 23.3**	**-0.5**
	1.4nm345nm,0.8s						
GSI				AML	AML		
GSI	**Gunungsitoli**	**6.61**	**93**	P	**Pn**	**11 36 23.5**	**-0.2**
	comp=Z,347nm,0.8s						
LHMI	**Lhok Sumawe**	**6.92**	**59**		**Pn**	**11 36 29.1**	**+1.0**
LHMI	**Lhok Sumawe**	**6.92**	**59**	P	**Pn**	**11 36 29.8**	**+1.8**
	comp=Z,2.3nmcomp=Z,5μmcomp=Z,429nm,0.8s						
LHMI				AML	AML		
LHMI	**Lhok Sumawe**	**6.92**	**59**	P	**Pn**	**11 36 29.8**	**+1.8**
	comp=Z,430nm,0.8s						
KCSI	**Kotacane, Aceh**	**7.03**	**75**	P	**Pn**	**11 36 30.8**	**+1.3**
PBSI	**Pulau Batu**	**7.50**	**103**	P	**Pn**	**11 36 35.9**	**-0.1**
	comp=Z,6μmcomp=Z,635nm,0.6s						
RPSI	**Rantau Prapat**	**8.00**	**83**		**Pn**	**11 36 43.1**	**+0.2**
RPSI	**Rantau Prapat**	**8.00**	**83**	P	**Pn**	**11 36 43.4**	**+0.5**
	comp=Z,152nm,1.0s						
PSI	**Prapat**	**8.02**	**82**	P	**Pn**	**11 36 43.2**	**0.0**
MNSI	**Mandailing Nat**	**8.64**	**96**	P	**Pn**	**11 36 51.6**	**-0.1**
PPI	**Padang Panjang**	**9.65**	**103**	P	**Pn**	**11 37 05.5**	**-0.1**
PDSI	**Padang**	**9.83**	**105**	P	**Pn**	**11 37 07.4**	**-0.6**
	comp=Z,172nm,0.6s						
KULM	**Kulim**	**10.29**	**69**		**Pn**	**11 37 13.9**	**-0.5**
KULM	**Kulim**	**10.29**	**69**	P	**Pn**	**11 37 14.0**	**-0.4**
KULM	**Kulim**	**10.29**	**69**	P	**Pn**	**11 37 13.9**	**-0.5**
	comp=Z,122nm,0.8s						
IPM	**Ipoh**	**10.41**	**74**		**Pn**	**11 37 16.2**	**+0.3**
IPM	**Ipoh**	**10.41**	**74**	P	**Pn**	**11 37 15.8**	**-0.2**
IPM	**Ipoh**	**10.41**	**74**	P	**Pn**	**11 37 16.4**	**+0.5**
	comp=Z,85nm,0.7s						
RNTT	**Ranong**	**10.69**	**44**	P	**Pn**	**11 37 19.4**	**-0.3**
	comp=Z,983nmcomp=Z,97nm,1.0s						
SDSI	**Sungai Dareh**	**10.77**	**104**	P	**Pn**	**11 37 20.7**	**-0.1**
HALK	**Hakmana**	**11.16**	**293**	P	**Pn**	**11 37 24.9**	**-1.4**
	comp=Z,80nm,0.6s						
DGPR	**DIGLIPUR**	**11.58**	**10**	*e*P	**Pn**	**11 37 31.5**	**-0.5**
DGPR				IAmb	IAmb	11 38 01.2	
	comp=Z,21nm,0.6s						
DGPR				*e*S	**Sn**	**11 39 42.4**	**+0.9**
PALK	**Pallekele**	**11.65**	**299**	Pn	**Pn**	**11 37 32.0**	**-1.0**
	comp=Z,5.5nm,0.3s,baz=136,slow=12,SNR=18						
PALK				Sn	Sn	11 39 31.1	-12
	comp=Z,7.8nm,0.3s,baz=262,slow=16,SNR=6.4						
PALK				LR	LR	11 41 18.3	
	comp=Z,581nm,21.3s,baz=118,slow=34						
	comp=Z,25nm,0.5s						
PALK				AML	AML		
PALK	**Pallekele**	**11.65**	**299**		**Pn**	**11 37 31.7**	**-1.3**
PALK	**Pallekele**	**11.65**	**299**	P	**Pn**	**11 37 32.0**	**-1.0**
	comp=Z,56nm,0.7s						
MALK	**Mahakanadarawa**	**12.35**	**303**	P	**Pn**	**11 37 41.9**	**-0.6**
	comp=Z,47nm,0.7s						
MYKOM	**Kota Tinggi**	**12.87**	**89**		**Pn**	**11 37 49.6**	**0.0**
MYKOM	**Kota Tinggi**	**12.87**	**89**	P	**Pn**	**11 37 52.4**	**+2.8**
	comp=Z,28nm,1.3s						
MNAI	**Manna**	**13.39**	**117**	Pn	**Pn**	**11 37 56.9**	**+0.2**
MDSI	**Maura Dua**	**14.54**	**115**	P	**Pn**	**11 38 09.4**	**-3.1**
MDRS	**Chennai**	**15.52**	**317**	*e*P	**Pn**	**11 38 24.9**	**-0.6**
MDRS				IAmb	IAmb	11 38 33.2	
	comp=Z,44nm,0.8s						
MDRS				*e*S	**Sn**	**11 41 17.3**	**-0.4**
UTHA	**Uthaitani**	**16.12**	**31**	P	**Pn**	**11 38 30.5**	**-2.8**
VIS	**Vishakhapatnam**	**17.62**	**335**	*e*P	**Pn**	**11 38 50.9**	**-1.4**
VIS				IAmb	IAmb	11 38 56.1	
VIS				*e*S	**Sn**	**11 42 07.7**	**-1.0**
KAAM	**Kaadhehdhoo**	**18.02**	**266**		**Pn**	**11 38 56.8**	**-0.5**
CM05	**Chiang Mai Arr**	**18.36**	**25**	P	**Pn**	**11 38 55.9**	**-5.5**
CM31	**Chiang Mai Arr**	**18.41**	**25**	P	**P**	**11 39 01.4**	**-0.6**
CMAR	**Chiang Mai Arr**	**18.41**	**25**	P	**P**	**11 39 00.8**	**-1.1**
	comp=Z,0.3nm,0.3s,baz=218,slow=13,SNR=39						
CMAR				LR	LR	11 45 46.5	
	comp=Z,171nm,20.7s,baz=210,slow=36						
	comp=Z,7.1nm,1.0s						
CMAR				AML	AML		
CMAR	**Chiang Mai Arr**	**18.41**	**25**	P	**P**	**11 39 01.1**	**-0.9**
UTTA	**Uttaradit**	**18.52**	**30**	P	**P**	**11 38 58.2**	**-5.0**
	comp=Z,27nm,0.9s						
NPW	**Naypyitaw**	**18.68**	**15**	P	**Pn**	**11 39 07.8**	**+2.6**
	comp=Z,62nm,1.1s						
CHTO	**Chiang Mai**	**18.73**	**24**	P	**P**	**11 39 00.7**	**-4.8**
	comp=Z,9.6nm,0.8s						
CHTO	**Chiang Mai**	**18.73**	**24**		**P**	**11 39 05.1**	**-0.4**
CHTO	**Chiang Mai**	**18.73**	**24**	P	**P**	**11 39 05.2**	**-0.3**
	comp=Z,9.6nm,0.8s						
BBJI	**Bungbulang**	**18.95**	**119**		**Pn**	**11 39 08.5**	**-0.2**
BBJI	**Bungbulang**	**18.95**	**119**	P	**Pn**	**11 39 08.5**	**-0.2**
	comp=Z,40nm,1.1s						
CMAI	**Chiengmai2**	**19.78**	**23**	P	**P**	**11 39 10.9**	**-6.3**
	comp=Z,22nm,1.1s						
HYB	**Hyderabad**	**19.84**	**323**	*e*P	**P**	**11 39 17.5**	**-0.2**
HYB				*e*S	**S**	**11 43 01.4**	**0.0**
DLV	**Lat**	**20.13**	**59**	P	**P**	**11 39 21.5**	**+0.4**
DLV				IAmb	IAmb	11 39 25.5	
	comp=Z,34nm,1.0s						
STKI	**Sintang**	**20.56**	**94**	P	Pn	11 39 27.7	-0.1
H08S2	**Diego Garcia H**	**20.64**	**243**	T	T	12 00 42.6	
	baz=63						
H08S3	**Diego Garcia H**	**20.64**	**243**	T	T	12 00 42.0	
	baz=63,slow=74,SNR=283						
H08S1	**Diego Carcia H**	**20.66**	**243**	T	T	12 00 41.5	
	baz=63,slow=74,SNR=281						
SAIH	**SAIHA**	**20.77**	**5**	*e*P	**P**	**11 39 27.4**	**-0.5**
SAIH				IAmb	IAmb	11 39 47.2	
	comp=Z,46nm,1.2s						
SAIH				*e*S	**S**	**11 43 20.1**	**+0.2**
BRDH	**Bariadhala**	**20.88**	**2**	LR	LR	11 48 40.4	
	comp=Z,417nm,19.2s,baz=158,slow=40						
MORE	**Moreh**	**22.65**	**8**	P	**P**	**11 39 47.1**	**-0.8**
MORE				IAmb	IAmb	11 39 57.6	
	comp=Z,32nm,0.7s						
SHL	**Shillong**	**23.76**	**2**		**P**	**11 39 58.5**	**-0.9**
SHL				IAmb	IAmb	11 40 21.5	
	comp=Z,20nm,0.9s						
QIZ	**Qiongzhong**	**25.27**	**46**	P	**P**	**11 40 14.6**	**+1.4**
QIZ				S	**S**	**11 44 41.6**	**+2.4**
QIZ				L	L		
	comp=Z,760nm,17.1s						
QIZ				L	L		
	comp=Z,640nm,18.4s						
QIZ				L	L		
	comp=Z,330nm,13.0s						
KKM	**Kota Kinabalu**	**25.54**	**80**	P	**P**	**11 40 15.0**	**-0.8**
KKM				IAmb	IAmb	11 40 19.2	
	comp=Z,33nm,1.1s						
KMI2	**Kunming**	**25.94**	**25**	P	**P**	**11 40 22.8**	**+3.3**
KMI2				pmax	pmax		
	comp=Z,11nm,1.3s						
KMI2				L	L		
	comp=Z,220nm,18.7s						
KMI2				L	L		
	comp=Z,340nm,14.4s						
EVN	**Everest**	**26.43**	**352**	P	**P**	**11 40 23.7**	**-0.6**
EVN	**Everest**	**26.43**	**352**	P	**P**	**11 40 25.9**	**+1.6**
	comp=Z,14nm,1.2s						
PZH	**PanZhiHua**	**26.76**	**22**	P	**P**	**11 40 29.6**	**+2.9**
MYLDM	**Lahad Datu**	**27.68**	**82**		**P**	**11 40 34.7**	**-0.3**
MYLDM				IAmb	IAmb	11 40 46.1	
	comp=Z,36nm,1.1s						
MYLDM	**Lahad Datu**	**27.68**	**82**	P	**P**	**11 40 37.5**	**+2.4**
	comp=Z,33nm,1.1s						
LSA	**Lhasa**	**27.86**	**0**	P	**P**	**11 40 35.5**	**-1.5**
	comp=Z,21nm,0.7s						
KAPI	**Kappang**	**29.50**	**103**	LR	LR	11 53 03.8	
	comp=Z,172nm,19.1s,baz=264,slow=37						
HKPS	**Hong Kong Po S**	**30.43**	**46**	P	**P**	**11 40 58.5**	**-0.9**

CD2	**Chengdu**	**31.48**	**21**	P	**P**	**11 41 09.3**	**+0.7**
CD2				S	**S**	**11 46 19.7**	**+2.8**
CD2				pmax	pmax		
	comp=Z,20nm,0.6s						
CD2				L	L		
	comp=Z,440nm,13.0s						
CD2				L	L		
	comp=Z,600nm,13.2s						
CD2				L	L		
	comp=Z,390nm,13.2s						
MMRI	**Maumere**	**32.80**	**109**	P	**P**	**11 41 19.7**	**-0.6**
GOMU	**GeErMu**	**34.52**	**5**	P	**P**	**11 41 35.1**	**-0.4**
GOMU				pP	sP	11 41 39.1	+1.2
GOMU				sP	pwP	11 41 42.9	-0.1
GOMU				pmax	pmax		
	comp=Z,4.0nm,0.4s						
DAV	**Davao City (W)**	**34.90**	**80**	LR	LR	11 58 40.1	
	comp=Z,80nm,18.5s,baz=248,slow=41						
SOEI	**Soe**	**35.04**	**110**	P	**P**	**11 41 39.4**	**-0.6**
NIL	**Nilore**	**35.87**	**334**		**P**	**11 41 47.2**	**+0.5**
NIL				IAmb	IAmb	11 41 48.3	
	comp=Z,13nm,0.7s						
NIL	**Nilore**	**35.87**	**334**	P	**P**	**11 41 47.5**	**+0.7**
	comp=Z,20nm,0.9s						
LZDM	**Lanzhou Array**	**36.08**	**18**	P	**P**	**11 41 48.7**	**-0.2**
	comp=Z,3.0nm,0.4s,baz=212,slow=14,SNR=2.1						
LZDM				LR	LR	11 57 09.6	
	comp=Z,111nm,21.1s,baz=105,slow=37						
	comp=Z,3.0nm,0.4s						
LZH	**Lanzhou**	**36.25**	**18**	*e*P	**P**	**11 41 50.7**	**+0.6**
LZH				sP	pwP	11 41 59.4	+1.8
LZH				pmax	pmax		
	comp=Z,12nm,1.1s						
LZH				L	L		
	comp=Z,340nm,15.3s						
LZH				L	L		
	comp=Z,340nm,14.4s						
LZH				L	L		
	comp=Z,250nm,13.9s						
NACB	**Ninganchiao**	**37.10**	**50**	P	**P**	**11 41 56.9**	**-0.4**
NACB				IAmb	IAmb	11 42 35.2	
	comp=Z,16nm,0.8s						
GTA2	**Gaotai**	**38.47**	**11**	*e*P	**P**	**11 42 10.1**	**+1.3**
GTA2				sP	pwP	11 42 17.5	+1.1
GTA2				pmax	pmax		
	comp=Z,10.0nm,1.0s						
MORW	**Morawa**	**38.87**	**144**	P	**P**	**11 42 12.4**	**+0.2**
MORW				IAmb	IAmb	11 43 29.2	
	comp=Z,84nm,1.9s						
FITZ	**Fitzroy Crossi**	**39.38**	**122**	P	**P**	**11 42 16.8**	**+0.2**
FITZ	**Fitzroy Crossi**	**39.38**	**122**	LR	LR	11 59 18.8	
	comp=Z,128nm,19.1s,baz=336,slow=38						
FITZ	**Fitzroy Crossi**	**39.38**	**122**	P	**P**	**11 42 16.4**	**-0.2**
	comp=Z,2.6nm,2.5s						
KSH2	**Kashi**	**39.85**	**341**	P	**P**	**11 42 20.6**	**+0.1**
KSH2				pP	pwP	11 42 27.1	-0.9
KSH2				pmax	pmax		
	comp=Z,7.0nm,0.8s						
NJ2	**Nanjing**	**40.03**	**38**	*e*P	**P**	**11 42 23.0**	**+1.2**
NJ2				pmax	pmax		
	comp=Z,20nm,0.6s						
KNRA	**Kununurra**	**41.14**	**116**	P	**P**	**11 42 29.7**	**-1.5**
	comp=Z,7.2nm,2.1s,comp=Z,0.0nm,7.5s						
KNRA	**Kununurra**	**41.14**	**116**	P	**P**	**11 42 31.3**	**+0.1**
KNRA				IAmb	IAmb	11 43 45.5	
	comp=Z,21nm,1.8s						
ASAI	**AK-SAY(Kyrgyzs**	**41.19**	**343**	P	**P**	**11 42 30.5**	**-1.2**
	comp=Z,6.5nm,0.7s						
WMQ	**Urumqi**	**42.06**	**356**	*e*P	**P**	**11 42 40.0**	**+1.5**
WMQ				pP	pwP	11 42 45.6	-0.4
H01W3	**Cape Leeuwin H**	**42.36**	**151**	T	T	12 27 50.4	
	baz=326,slow=74,SNR=17						
BTK	**Batken**	**42.36**	**337**	P	**P**	**11 42 41.8**	**+0.7**
	comp=Z,12nm,0.7s						
H01W2	**Cape Leeuwin H**	**42.37**	**151**	T	T	12 27 56.8	
	baz=326,slow=74,SNR=22						
H01W1	**Cape Leeuwin H**	**42.38**	**151**	T	T	12 27 47.3	
	baz=326,slow=74,SNR=22						
MTN	**Manton Dam**	**42.38**	**111**	P	**P**	**11 42 41.4**	**-0.1**
MTN				IAmb	IAmb	11 43 34.5	
	comp=Z,33nm,1.7s						
BTO2	**Baotou**	**42.48**	**21**	*e*P	**P**	**11 42 42.0**	**0.0**
BTO2				pP	**sP**	**11 42 46.6**	**+2.1**
BTO2				sP	**pwP**	**11 42 49.2**	**-0.4**
BTO2				pmax	pmax		
	comp=Z,17nm,0.6s						
BTO2				L	L		
	comp=Z,470nm,11.0s						
BTO2				L	L		
	comp=Z,630nm,14.9s						
BTO2				L	L		
	comp=Z,420nm,15.4s						
HHC	**Hu-ho-hao-te**	**43.21**	**23**	*e*P	**P**	**11 42 50.8**	**+2.9**
HHC				sP	pwP	11 43 01.8	+6.3
HHC				pmax	pmax		
	comp=Z,18nm,0.6s						
HHC				pmax	pmax		
	comp=Z,88nm,6.7s						
HHC				L	L		
	comp=Z,87nm,10.9s						
HHC				L	L		
	comp=Z,370nm,14.3s						
HHC				L	L		
	comp=Z,150nm,15.1s						
AAK	**Ala-Archa**	**43.37**	**342**	LR	LR	12 01 04.1	
	comp=Z,190nm,21.5s,baz=194,slow=36						
AAK	**Ala-Archa**	**43.37**	**342**	P	**P**	**11 42 48.4**	**-0.8**
AAK	**Ala-Archa**	**43.37**	**342**	P	**P**	**11 42 50.4**	**+1.1**
	comp=Z,5.9nm,0.7s						
KDU	**Kakadu**	**43.59**	**110**	P	**P**	**11 42 49.5**	**-1.7**
	comp=Z,6.7nm,1.5s,comp=Z,0.0nm,7.5s						
WRKA	**Warakurna**	**44.86**	**129**	P	**P**	**11 43 01.0**	**-0.4**
	comp=Z,0.0nm,7.1s						
KK31	**Karatay Array**	**45.11**	**339**		**P**	**11 43 03.6**	**+0.5**
KK31				IAmb	IAmb	11 43 12.1	
	comp=Z,7.6nm,0.8s						
KKAR	**Karatay Array**	**45.11**	**339**		**P**	**11 43 03.5**	**+0.5**
MKAR	**Makanchi Array**	**45.56**	**352**	P	**P**	**11 43 06.6**	**0.0**
	comp=Z,4.7nm,0.8s,baz=172,slow=8.6,SNR=22						
	comp=Z,4.7nm,0.8s						
MKAR	**Makanchi Array**	**45.56**	**352**		**P**	**11 43 06.3**	**-0.3**
WRA	**Warramunga Arr**	**47.64**	**119**	P	**P**	**11 43 23.6**	**+0.3**
	comp=Z,2.6nm,0.8s,baz=297,slow=8.6,SNR=14						
	comp=Z,2.6nm,0.8s						
WRA	**Warramunga Arr**	**47.64**	**119**	P	**P**	**11 43 23.2**	**-0.1**
WRAB	**Tennant Creek**	**47.65**	**119**	P	**P**	**11 43 22.4**	**-1.0**
	comp=Z,10nm,0.8s						
WR8	**Warramunga Arr**	**47.78**	**119**	P	**P**	**11 43 23.9**	**-0.5**
WR8	**Warramunga Arr**	**47.78**	**119**		**P**	**11 43 25.1**	**+0.7**
WR8				IAmb	IAmb	11 43 40.8	
	comp=Z,10nm,0.8s						
SONM	**Songino Array**	**47.87**	**14**	P	**P**	**11 43 25.7**	**+0.9**
	comp=Z,10nm,0.6s,baz=196,slow=9.3,SNR=47						
SONM				LR	LR	12 05 23.9	
	comp=Z,184nm,20.5s,baz=254,slow=38						
	comp=Z,10nm,0.6s						
SONM	**Songino Array**	**47.87**	**14**		**P**	**11 43 25.7**	**+0.9**
ULN	**Ulaanbaatar**	**48.06**	**15**	P	**P**	**11 43 27.2**	**+0.9**
ULN				IAmb	IAmb	11 43 35.3	
	comp=Z,7.0nm,0.8s						
ULN	**Ulaanbaatar**	**48.06**	**15**	P	**P**	**11 43 26.9**	**+0.6**
	comp=Z,11nm,0.8s						
ASAR	**Alice Springs**	**48.74**	**124**	P	**P**	**11 43 31.9**	**0.0**
	comp=Z,0.6nm,0.8s,baz=296,slow=7.7,SNR=7.8						
ASAR				PcP	**PcP**	**11 44 57.6**	**+0.7**
	comp=Z,0.8nm,0.7s,baz=299,slow=3.4,SNR=4.7						
	comp=Z,0.6nm,0.8s						
ASAR	**Alice Springs**	**48.74**	**124**	P	**P**	**11 43 31.1**	**-0.7**
JNU	**Nakatsue**	**48.74**	**46**	LR	LR	12 03 40.9	
	comp=Z,89nm,21.9s,baz=238,slow=36						
RAYN	**Ar Rayn**	**49.09**	**300**		**P**	**11 43 33.7**	**-0.8**
RAYN				IAmb	IAmb	11 43 43.6	
	comp=Z,8.3nm,0.7s						
RAYN	**Ar Rayn**	**49.09**	**300**	P	**P**	**11 43 35.4**	**+1.0**
	comp=Z,15nm,0.7s						
KSRS	**Korea Array**	**49.20**	**39**	LR	LR	12 07 32.1	
	comp=Z,73nm,18.4s,baz=300,slow=40						
KURBB	**Kurchatov Arra**	**49.89**	**350**	P	**P**	**11 43 39.9**	**-0.2**
	comp=Z,3.1nm,0.7s,baz=172,slow=7.4,SNR=34						
	comp=Z,3.1nm,0.7s						
KURK	**Kurchatov**	**49.96**	**350**		**P**	**11 43 40.5**	**-0.1**
KURK	**Kurchatov**	**49.96**	**350**	P	**P**	**11 43 40.6**	**0.0**
	comp=Z,5.9nm,0.8s						
ZAA0	**Zalesovo Array**	**52.34**	**355**		**P**	**11 43 58.0**	**-0.4**
ZAA0				IAmb	IAmb	11 44 06.1	
	comp=Z,6.5nm,0.6s						
ZALV	**Zalesovo Beam**	**52.34**	**355**	P	**P**	**11 43 58.1**	**-0.3**
	comp=Z,4.6nm,0.6s,baz=181,slow=7.5,SNR=19						
ZALV				LR	LR	12 07 37.2	
	comp=Z,161nm,21.9s,baz=192,slow=38						
	comp=Z,4.6nm,0.6s						
ZALV	**Zalesovo Beam**	**52.34**	**355**		**P**	**11 43 58.2**	**-0.2**
KMBO	**Kilima Mbogo**	**53.79**	**267**	LR	LR	12 04 58.1	
	comp=Z,139nm,18.1s,baz=100,slow=34						
BVAR	**Borovoye Array**	**53.95**	**345**	P	**P**	**11 44 09.6**	**-0.7**
	comp=Z,2.4nm,0.8s,baz=148,slow=8.7,SNR=8.3						
	comp=Z,2.4nm,0.8s						
AB31	**Akbulak array**	**54.32**	**335**		**P**	**11 44 12.9**	**-0.2**
AB31				IAmb	IAmb	11 44 22.2	
	comp=Z,5.5nm,0.9s						
ABKAR	**Akbulak array**	**54.32**	**335**	P	**P**	**11 44 13.3**	**+0.2**
GUMO	**Guam**	**54.58**	**75**	LR	LR	12 06 22.6	
	comp=Z,85nm,21.4s,baz=242,slow=35						
MJAR	**Matsushiro Arr**	**55.67**	**46**	LR	LR	12 06 50.3	
	comp=Z,55nm,21.5s,baz=274,slow=35						
AKTO	**Aktyubinsk**	**56.03**	**335**	LR	LR	12 10 41.4	
	comp=Z,54nm,18.0s,baz=82,slow=38						
GNI	**Garni**	**56.72**	**319**	LR	LR	12 10 32.0	
	comp=Z,55nm,20.6s,baz=137,slow=38						
PMG	**Port Moresby**	**57.03**	**102**	LR	LR	12 13 24.8	
	comp=Z,50nm,18.8s,baz=164,slow=41						
HEH	**HeiHe**	**57.41**	**27**	*e*P	P	11 44 40.3	+5.1
STKA	**Stephens Creek**	**58.38**	**129**	P	**P**	**11 44 43.1**	**+0.7**
	comp=Z,3.1nm,0.9s,baz=303,slow=13,SNR=4.1						
	comp=Z,3.1nm,0.9s						
KLR	**Kul'dur**	**58.78**	**30**	LR	LR	12 13 19.2	
	comp=Z,96nm,18.4s,baz=243,slow=39						
H04N2	**CROZET ISLANDS**	**58.83**	**211**	T	T	12 48 27.4	
	baz=48,slow=75,SNR=26						
H04N1	**CROZET ISLANDS**	**58.84**	**211**	T	T	12 48 25.6	
	baz=48,slow=75,SNR=82						
H04N3	**CROZET ISLANDS**	**58.85**	**211**	T	T	12 48 24.2	
	baz=48,slow=75,SNR=75						
ASF	**Jabal al Asfar**	**59.15**	**307**	LR	LR	12 11 12.3	
	comp=Z,215nm,18.0s,baz=206,slow=37						
H04S1	**CROZET ISLANDS**	**59.23**	**210**	T	T	12 48 59.3	
	baz=46,slow=75,SNR=4.9						
H04S3	**CROZET ISLANDS**	**59.24**	**210**	T	T	12 48 55.2	
	baz=46,slow=75,SNR=8.7						
H04S2	**CROZET ISLANDS**	**59.25**	**210**	T	T	12 49 01.6	
	baz=46,slow=75,SNR=6.6						
KBZ	**Khabaz**	**59.72**	**321**	P	**P**	**11 44 53.0**	**+1.6**
	comp=Z,0.7nm,0.4s,baz=127,slow=5.1,SNR=0.9						
	comp=Z,0.7nm,0.4s						
EIL	**Elat**	**59.97**	**304**	LR	LR	12 10 53.2	
	comp=Z,126nm,18.8s,baz=92,slow=36						
MBAR	**Mbarara**	**60.28**	**268**	LR	LR	12 06 34.4	
	comp=Z,106nm,21.7s,baz=58,slow=32						
ARTI	**Arti**	**60.49**	**340**	LR	LR	12 12 25.6	
	comp=Z,101nm,18.6s,baz=143,slow=37						
MMAI	**Mount Meron Ar**	**60.62**	**307**	LR	LR	12 12 02.7	
	comp=Z,160nm,18.0s,baz=111,slow=37						
BRTR	**Keskin Array B**	**64.24**	**314**	P	**P**	**11 45 24.2**	**+2.0**
	comp=Z,0.6nm,0.5s,baz=137,slow=8.9,SNR=5.4						
BRTR				LR	LR	12 14 36.4	
	comp=Z,64nm,19.1s,baz=127,slow=37						
	comp=Z,0.6nm,0.5s						
BRTR	**Keskin Array B**	**64.24**	**314**	P	**P**	**11 45 22.3**	**+0.2**
BR131	**Keskin Array S**	**64.24**	**314**	P	**P**	**11 45 22.1**	**-0.1**
BR131				IAmb	IAmb	11 45 50.5	
	comp=Z,3.6nm,0.8s						
LSZ	**Lusaka**	**64.31**	**252**	LR	LR	12 08 17.8	
	comp=Z,138nm,21.9s,baz=123,slow=31						
CAN	**Canberra**	**65.41**	**130**	P	**P**	**11 45 30.6**	**+0.9**
YAK	**Yakutsk**	**66.83**	**19**	LR	LR	12 18 08.5	
	comp=Z,81nm,19.3s,baz=256,slow=39						
NRIK	**Noril'sk**	**67.58**	**359**	LR	LR	12 17 05.6	
	comp=Z,117nm,21.9s,baz=192,slow=38						
LBTB	**Lobatse**	**68.56**	**242**	LR	LR	12 13 00.8	
	comp=Z,184nm,18.4s,baz=70,slow=33						
LBTB	**Lobatse**	**68.56**	**242**	P	**P**	**11 45 49.0**	**-1.0**
LBTB				IAmb	IAmb	11 46 09.3	
	comp=Z,12nm,1.1s						
IDI	**Anoyia**	**69.62**	**307**	P	**P**	**11 45 57.1**	**+0.6**
BOSA	**Boshof**	**69.67**	**239**	P	**P**	**11 45 57.8**	**+0.8**
	comp=Z,1.1nm,0.5s,baz=109,slow=6.2,SNR=7.3						
BOSA				LR	LR	12 13 42.5	
	comp=Z,82nm,19.3s,baz=34,slow=34						
	comp=Z,1.1nm,0.5s						
BOSA	**Boshof**	**69.67**	**239**	P	**P**	**11 45 56.7**	**-0.2**
AKASG	**Malin Array Be**	**71.13**	**324**	P	**P**	**11 46 05.8**	**+0.6**
	comp=Z,0.1nm,0.3s,baz=94,slow=4.5,SNR=4.1						
AKASG				LR	LR	12 21 33.5	
	comp=Z,62nm,18.4s,baz=187,slow=40						
	comp=Z,0.1nm,0.3s						
AKASG	**Malin Array Be**	**71.13**	**324**	P	**P**	**11 46 05.2**	**-0.1**
MLR	**Muntele Rosu**	**71.49**	**318**	LR	LR	12 19 03.2	
	comp=Z,50nm,21.1s,baz=10,slow=37						
MAW	**Mawson**	**71.89**	**191**	P	**P**	**11 46 11.6**	**+2.2**
	comp=Z,1.5nm,0.7s,baz=27,slow=6.8,SNR=4.9						
MAW				LR	LR	12 11 35.2	
	comp=Z,71nm,18.4s,baz=24,slow=31						
	comp=Z,1.5nm,0.7s						
MAW	**Mawson**	**71.89**	**191**	P	**P**	**11 46 10.4**	**+1.0**
GRG	**Griva**	**72.81**	**312**	P	**P**	**11 46 15.7**	**+0.1**
	comp=Z,15nm,0.9s						
TIXI	**Tiksi**	**73.88**	**12**	LR	LR	12 19 39.6	
	comp=Z,60nm,18.9s,baz=251,slow=36						
TIXI	**Tiksi**	**73.88**	**12**		**P**	**11 46 20.6**	**-0.6**
TIXI				IAmb	IAmb	11 46 28.6	
	comp=Z,7.5nm,0.8s						
SUR	**Sutherland**	**74.25**	**236**	LR	LR	12 12 22.5	
	comp=Z,88nm,20.8s,baz=82,slow=30						
KOLS	**Kolonicke sedl**	**74.85**	**320**	*e*P	P	11 46 32.7	+5.3
TSUM	**Tsumeb**	**74.91**	**250**	LR	LR	12 16 55.9	
	comp=Z,37nm,19.0s,baz=151,slow=34						
FINES	**FINESS Array B**	**76.74**	**333**	P	**P**	**11 46 38.2**	**+0.4**
	comp=Z,2.1nm,0.9s,baz=134,slow=8.2,SNR=6.0						
FINES				LR	LR	12 25 03.7	
	comp=Z,28nm,18.4s,baz=100,slow=39						
	comp=Z,2.1nm,0.9s						
FINES	**FINESS Array B**	**76.74**	**333**	P	**P**	**11 46 37.8**	**-0.1**
VYHS	**Vyhne**	**76.96**	**319**	*e*P	P	11 46 44.4	+5.0
TREC	**Trest**	**79.28**	**320**	P	**P**	**11 46 52.3**	**0.0**
	comp=Z,147nm,0.6s						
ARCES	**ARCESS Array B**	**80.02**	**341**	P	**P**	**11 46 57.3**	**+1.4**
	comp=Z,1.4nm,0.8s,baz=76,slow=5.8,SNR=1.3						
ARCES				LR	LR	12 24 22.0	
	comp=Z,90nm,18.0s,baz=114,slow=37						
	comp=Z,1.4nm,0.8s						
ARCES	**ARCESS Array B**	**80.02**	**341**	P	**P**	**11 46 56.2**	**+0.3**
GEC2	**GERESS Array S**	**80.37**	**319**	P	**P**	**11 46 57.4**	**-0.9**
	comp=Z,10nm,1.4s						
GERES	**GERESS Array B**	**80.37**	**319**	P	**P**	**11 46 59.9**	**+1.6**
	comp=Z,0.9nm,0.2s,baz=122,slow=5.0,SNR=5.9						
	comp=Z,0.9nm,0.2s						
GERES	**GERESS Array B**	**80.37**	**319**	P	**P**	**11 46 57.8**	**-0.5**
CLL	**Collm**	**81.17**	**322**	LH		12 13 00.0	
CLL				LV		12 18 00.0	
HFS	**Hagfors**	**82.22**	**330**	P	**P**	**11 47 08.8**	**+1.0**
	comp=Z,1.4nm,0.8s,baz=168,slow=7.4,SNR=1.5						
HFS				LR	LR	12 26 08.2	
	comp=Z,62nm,19.0s,baz=94,slow=38						
	comp=Z,1.4nm,0.8s						
KEST	**Kesra**	**82.22**	**306**	LR	LR	12 24 56.5	
	comp=Z,15nm,21.0s,baz=261,slow=37						
DAVOX	**Davos/Dischmat**	**82.67**	**317**	LR	LR	12 27 03.6	
	comp=Z,35nm,20.2s,baz=54,slow=38						
NOA	**NORSAR Array B**	**83.57**	**331**	LR	LR	12 26 56.8	
	comp=Z,30nm,20.0s,baz=105,slow=38						
SPITS	**Spitsbergen Ar**	**85.22**	**348**	LR	LR	12 29 16.1	
	comp=Z,91nm,21.1s,baz=111,slow=38						
VNDA	**Vanda**	**87.55**	**168**	LR	LR	12 22 23.5	
	comp=Z,77nm,18.6s,baz=311,slow=33						
EKA	**Eskdalemuir Ar**	**90.99**	**325**	LR	LR	12 30 35.9	
	comp=Z,23nm,22.0s,baz=191,slow=37						
QSPA	**South Pole Qui**	**91.63**	**180**	P	**P**	**11 47 54.9**	**+1.2**
	comp=Z,2.8nm,1.1s,baz=331,slow=0.9,SNR=4.0						
QSPA				LR	LR	12 24 21.0	
	comp=Z,78nm,19.3s,baz=306,slow=32						
	comp=Z,2.8nm,1.1s						
QSPA	**South Pole Qui**	**91.63**	**180**	P	**P**	**11 47 54.3**	**+0.5**
MDT	**Midelt**	**93.80**	**303**	LR	LR	12 30 54.8	
	comp=Z,66nm,20.2s,baz=59,slow=36						
DBIC	**Dimbokro**	**95.60**	**277**	LR	LR	12 29 56.1	
	comp=Z,67nm,19.2s,baz=120,slow=35						
FW13	**Cleburne**	**145.22**	**13**	PKPbc	**PKPbc**	**11 54 22.8**	**-1.9**
WHTX	**Lake Whitney,**	**145.56**	**13**	PKPdf	**PKPdf**	**11 54 23.2**	**-2.5**
TXAR	**Lajitas Array**	**146.12**	**23**	PKPbc	**PKPab**	**11 54 28.4**	**+0.1**
	comp=Z,2.4nm,0.7s,baz=307,slow=2.5,SNR=4.3						
TXAR	**Lajitas Array**	**146.12**	**23**	PKPdf	**PKPdf**	**11 54 25.6**	**-1.3**
SAND	**Sanderson**	**146.14**	**21**	PKPdf	**PKPdf**	**11 54 24.4**	**-2.5**
JCT	**Junction City**	**146.40**	**17**	PKPdf	**PKPdf**	**11 54 25.8**	**-1.5**

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*NEIC **07** 11:53:47.7±1.0, 19°.1N±0°.1×64°.76W±0°.06, h23^{km}±16^{km}, ML2.8/29, Md3.8/4(RSPR), Error ellipse: s-maj=21.2km s-min=7.5km az=186.0*

*RSPR **07** 11:53:48.8, 19°.15N×64°.73W, h61^{km}±14^{km}, MD3.8/4*

ISC 07 11:53:46.6±2.7**, 19°.1N**±0°.2×**64°.67W**±0°.10**, h24**^{km}±25^{km}**, n22, σ0^{s}.51**/32**, 8C-1D, Virgin Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HUMP	**Col San Antoni**	**1.44**	**231**		**Pn**	**11 54 11.1**	**-0.2**
HUMP					**Sb**	**11 54 30.6**	**0.0**
HUMP				IAML		11 54 34.9	
	95nm,0.2s						
HUMP				IAML		11 54 38.5	
	84nm,0.2s						
HUMP	**Col San Antoni**	**1.44**	**231**	⇑*e*P	**Pn**	**11 54 11.1**	**-0.2**
PDPR	**Patillas Dam,**	**1.64**	**232**		**Pn**	**11 54 14.5**	**+0.5**
PDPR					**Sn**	**11 54 34.9**	**+0.5**
PDPR				IAML		11 54 42.7	
	67nm,0.6s						
PDPR	**Patillas Dam,**	**1.64**	**232**	⇑*e*P	**Pn**	**11 54 14.6**	**+0.5**
SJG	**San Juan**	**1.69**	**237**	Pn	**Pn**	**11 54 14.8**	**+0.2**
ECPR	**Experimental S**	**1.76**	**246**		**Pn**	**11 54 15.8**	**+0.1**
ECPR					**Sn**	**11 54 37.0**	**-0.4**
ECPR				IAML		11 54 42.7	
	133nm,0.2s						
ECPR				IAML		11 54 44.5	
	154nm,0.2s						
ECPR	**Experimental S**	**1.76**	**246**	⇑*e*P	**Pn**	**11 54 15.9**	**+0.1**
SMRT	**St. Maarten**	**1.81**	**123**	Pn	**Pb**	**11 54 18.9**	**-0.2**
SMRT				IAML		11 54 48.1	
	comp=E,122nm,0.2s						
EMPR	**Esperanza - Ma**	**1.85**	**252**		**Pn**	**11 54 17.4**	**+0.4**
EMPR					**Sn**	**11 54 39.5**	**-0.1**
EMPR	**Esperanza - Ma**	**1.85**	**252**	⇓*e*P	**Pn**	**11 54 17.4**	**+0.4**
EMPR				*e*S	**Sn**	**11 54 39.5**	**-0.1**
CELP	**Cerrillos**	**2.05**	**242**		**Pn**	**11 54 20.3**	**+0.5**
CELP					**Sn**	**11 54 44.1**	**-0.6**
CELP				IAML		11 54 49.6	
	comp=E,57nm,0.9s						
CELP	**Cerrillos**	**2.05**	**242**	⇑*e*P	**Pn**	**11 54 20.4**	**+0.6**
OBIP	**Obispado Ponce**	**2.09**	**242**		**Pn**	**11 54 20.9**	**+0.6**
OBIP					**Sn**	**11 54 45.0**	**-0.6**
OBIP	**Obispado Ponce**	**2.09**	**242**	⇑*e*P	**Pn**	**11 54 20.4**	**+0.2**
OBIP				*e*S	**Sn**	**11 54 44.9**	**-0.6**
AOPR	**Arecibo Observ**	**2.10**	**251**		**Pn**	**11 54 20.4**	**+0.1**
AOPR				IAML		11 54 59.5	
	comp=E,91nm,0.3s						
AOPR	**Arecibo Observ**	**2.10**	**251**	⇑*e*P	**Pn**	**11 54 20.8**	**+0.5**
AGPR	**Aguadilla, PR**	**2.38**	**256**	Pn	**Pn**	**11 54 24.3**	**0.0**
AGPR				IAML		11 54 40.4	
	comp=E,61nm,2.3s						
AGPR				IAML		11 54 47.8	
	comp=E,59nm,2.1s						
PRSN	**Puerto Rico Se**	**2.49**	**251**	Pn	**Pn**	**11 54 25.4**	**-0.3**
MLPR	**Magueyes Islan**	**2.50**	**245**		**Pn**	**11 54 26.5**	**+0.7**
MLPR					**Sn**	**11 54 55.3**	**-0.2**
MLPR				IAML		11 55 03.6	
	comp=E,28nm,0.5s						
MLPR	**Magueyes Islan**	**2.50**	**245**	⇑*e*P	**Pn**	**11 54 26.5**	**+0.7**
CRPR	**Cabo Rojo, PR**	**2.54**	**246**		**Pn**	**11 54 27.5**	**+1.1**
CRPR					**Sn**	**11 54 56.1**	**-0.5**
CRPR				IAML		11 55 04.4	
	comp=E,28nm,0.7s						
CRPR	**Cabo Rojo, PR**	**2.54**	**246**	⇑*e*P	**Pn**	**11 54 27.2**	**+0.8**

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*TEH **07** 11:54:34.0, 38°.02N×48°.02E, h8^{km}±69^{km}, ML2.8, Presumed earthquake*

*AZER **07** 11:54:35.6, 38°.13N×48°.09E, h8^{km}, ml2.6*

ISC 07 11:54:34.1±1.5**, 38°.03N**±0°.04×**48°.07E**±0°.05**, h3**^{km}±14^{km}**, n16, σ1^{s}.04**/25**, Iran-Armenia-Azerbaijan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ISRB	**Sarab**	**0.38**	**237**	Pg	**Pg**	**11 54 41.5**	**+0.1**
LRK	**Lerik**	**0.65**	**19**	P	**Pb**	**11 54 47.8**	**-0.4**
LRK				S	**Sb**	**11 54 57.2**	**-0.5**
ASTR	**Astara**	**0.78**	**47**	P	**Pb**	**11 54 50.6**	**+0.3**
ASTR				S	**Sn**	**11 55 02.5**	**-1.7**
GRMI	**Germi**	**0.79**	**350**	Pg	**Pb**	**11 54 49.7**	**-0.9**
IHRS	**Heris**	**0.86**	**290**	Pg	**Pg**	**11 54 50.2**	**-0.4**
IHRS				Sg	**Sg**	**11 55 01.7**	**0.0**
LKRN	**Lenkeran, Azer**	**0.88**	**39**	P	**Pb**	**11 54 52.3**	**+0.3**
LKRN				S	**Sn**	**11 55 05.7**	**-1.0**
YRD	**Yardimli**	**0.90**	**9**	P	**Pb**	**11 54 52.6**	**+0.2**
YRD				S	**Sn**	**11 55 05.2**	**-2.2**
IHSH	**Hashtrud**	**0.96**	**222**	Pg	**Pg**	**11 54 51.8**	**-0.8**
GLBA	**Clilabad**	**1.24**	**12**	P	**Pn**	**11 54 59.6**	**+1.3**
GLBA				S	**Sn**	**11 55 18.2**	**+2.7**
ZNJK	**Zanjan**	**1.45**	**160**	Pg	**Pn**	**11 55 01.7**	**+0.3**
GIDE	**GILAN DEYLAMAN**	**1.84**	**126**	Pn	**Pb**	**11 55 09.1**	**+0.6**
ORD	**Ordubad**	**1.86**	**299**	Pn	**Pg**	**11 55 10.3**	**+0.6**
ORD				Sn	**Sg**	**11 55 33.8**	**0.0**
ISHB	**Shabestar**	**1.95**	**278**	Pn	**Pb**	**11 55 11.1**	**+0.7**
IMRD	**Marand**	**1.98**	**291**	Pn	**Pb**	**11 55 10.2**	**-0.7**
AGDM	**Agdam**	**2.21**	**341**	Pn	**Pb**	**11 55 15.0**	**+0.4**
AGDM				Sn	**Sg**	**11 55 44.6**	**-0.4**
SBZ	**Shahbuz**	**2.39**	**306**	Pn	**Pb**	**11 55 18.6**	**+0.6**
SBZ				Sn	**Sg**	**11 55 50.3**	**-0.8**

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*IDC **07** 12:14:04.8±2.5, 22°.08N×94°.18E, h0^{km}, mb3.6/2, mbtmp3.6/3, ML3.7/1, MS3.4/1, Error ellipse: s-maj=77.7km s-min=15.5km az=49.0*

*GFZ **07** 12:14:13.5±0.6, 22°N±5°×9°4E±°, h64^{km}±14^{km}, mb4.1/2*

ISC 07 12:14:12.3±1.2**, 22°.2N**±0°.2×**94°.6E**±0°.3**, h50**^{km}**, n7, σ0^{s}.56**/6**, Myanmar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NPW	**Naypyitaw**	**2.85**	**149**	P	**Pn**	**12 14 55.2**	**-0.2**
CHTO	**Chiang Mai**	**5.33**	**129**	P	**Pn**	**12 15 29.8**	**+0.3**
	comp=Z,9.0nm,0.7s						
CMAR	**Chiang Mai Arr**	**5.57**	**132**	Pn	**Pn**	**12 15 32.9**	**+0.2**
	comp=Z,0.6nm,0.3s,baz=305,slow=14,SNR=24						
CMAR				Lg	Lg	12 17 04.6	
	comp=Z,0.1nm,0.3s,baz=297,slow=30,SNR=4.6						
	comp=Z,2.9nm,0.6s						
CMAR				AML	AML		
EVN	**Everest**	**9.04**	**311**	P	**Pn**	**12 16 21.2**	**+0.4**
	comp=Z,12nm,0.8s						
MKAR	**Makanchi Array**	**26.44**	**341**	P	**P**	**12 19 43.8**	**-0.7**
	comp=Z,0.5nm,0.7s,baz=164,slow=8.4,SNR=3.7						
	comp=Z,0.5nm,0.7s						
ZALV	**Zalesovo Beam**	**32.52**	**349**	P	**P**	**12 20 37.9**	**-0.3**
	comp=Z,0.5nm,0.3s,baz=176,slow=7.1,SNR=4.1						
	comp=Z,0.5nm,0.3s						
NRIK	**Noril'sk**	**47.30**	**357**	LR	LR	12 44 51.1	
	comp=Z,35nm,18.6s,baz=35,slow=39						

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*IDC **07** 12:17:16.4±1.0, 39°.47N×145°.12E, h0^{km}, mb3.6/4, mbtmp3.6/7, ML3.2/3, Error ellipse: s-maj=22.8km s-min=15.5km az=88.0*

*JMA **07** 12:17:18.9±0.1, 39°.6N±0°.3×144°.9E±0°.6, h18^{km}±1^{km}, MV3.6/23, FAR E OFF NORTH HONSHU*

ISC 07 12:17:21.7±1.1**, 39°.71N**±0°.09×**144°.8E**±0°.1**, h38**^{km}**, n7, σ1^{s}.78**/8**, mb3.7**/4**, Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ASAJ	**Asahikawa**	**4.71**	**340**	Pn	**Pn**	**12 18 30.2**	**+0.1**
	1.0nm,0.3s,baz=145,slow=9.7,SNR=16						
ASAJ				Sn	**Sn**	**12 19 21.1**	**-2.4**
	1.3nm,0.3s,baz=205,slow=19,SNR=5.7						
	2.7nm,0.4s						
ASAJ				AML	AML		
MJAR	**Matsushiro Arr**	**6.09**	**241**	Pn	**Pn**	**12 18 48.1**	**-1.0**
	0.2nm,0.3s,baz=76,slow=12,SNR=7.3						
	2.0nm,0.4s						
MJAR				AML	AML		
USRK	**Ussuriysk Ar.**	**10.55**	**299**	Pn	**Pn**	**12 19 52.5**	**+2.2**
	0.3nm,0.3s,baz=90,slow=14,SNR=2.8						
	1.6nm,0.6s						
USRK				AML	AML		
ILAR	**Eielson Array**	**45.80**	**34**	P	**P**	**12 25 40.1**	**+0.8**
	0.4nm,0.7s,baz=251,slow=7.0,SNR=6.3						
	0.4nm,0.7s						
WRA	**Warramunga Arr**	**60.14**	**191**	P	**P**	**12 27 24.0**	**-1.3**
	0.8nm,0.7s,baz=14,slow=7.1,SNR=7.0						
	0.8nm,0.7s						

ASAR	Alice Springs	63.86	191	P	P	12 27 49.3	-1.0
	1.0nm,1.0s,baz=6.0,slow=7.6,SNR=4.9						
	1.0nm,1.0s						
TXAR	Lajitas Array	86.39	54	P	P	12 30 01.1	+0.9
	0.2nm,0.6s,baz=272,slow=2.6,SNR=3.9						
	0.2nm,0.6s						

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*SJA **07** 12:40:41.1±1.2, 27°.74S×71°.98W, h29^{km}±41^{km}, ML3.9, MW3.5*

*GUC **07** 12:40:46.1±0.7, 28°.10S×71°.37W, h27^{km}±5^{km}, ML3.4*

ISC 07 12:40:42.0±1.4**, 28°.08S**±0°.04×**71°.53W**±0°.09**, h10**^{km}**, n24, σ2^{s}69**/25**, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.42	107	eP	Pb	12 40 53.2	+1.6
AC04				eS	Sb	12 40 57.9	0.0
AC04				IAML		12 40 58.4	
	comp=E,5μm,0.3s						
LCO	Las Campanas	1.18	142	eP	Pg	12 41 05.9	+1.2
LCO				eS	Sg	12 41 20.8	+0.7
LCO				IAML		12 41 26.0	
	comp=E,8μm,0.4s						
GO03	Copiapo	1.24	67	eP	Pb	12 41 06.3	+0.6
GO03				IAML		12 41 25.7	
	comp=N,2μm,0.4s						
AC06	Mina Casimiro	1.27	56	eP	Pb	12 41 06.5	+0.5
AC06				IAML		12 41 29.3	
	comp=E,733nm,0.5s						
AC05	El Transito	1.34	125	eP	Pb	12 41 08.7	+1.4
AC05				IAML		12 41 29.6	
	comp=E,887nm,0.5s						
AC01	Pan de Azucar	2.10	24	eP	Pn	12 41 18.1	+0.9
AC01				IAML		12 41 55.5	
	comp=N,245nm,0.6s						
GO04	Tololo Observa	2.18	163	iP	Pb	12 41 24.6	+2.9
GO04				IAML		12 41 59.4	
	comp=Z,1μm,0.3s						
GO04	Tololo Observa	2.18	163	eP	Pn	12 41 21.9	+3.3
CO01	Juntas del Tor	2.27	147	eP	Pn	12 41 24.1	+4.3
CO01				IAML		12 41 56.3	
	comp=E,719nm,0.4s						
AC02	Maricunga	2.47	60	eP	Pn	12 41 26.9	+4.1
AC02				IAML		12 42 02.4	
	comp=N,448nm,0.3s						
CO06	Fray Jorge	2.58	182	eP	Pn	12 41 25.8	+1.9
CO06				IAML		12 42 11.8	
	comp=E,369nm,0.7s						
AROD	Rodeo	2.75	140	iP	Pb	12 41 32.4	+0.9
VCA	Vinchina	3.00	103	iP	Pb	12 41 37.0	+1.4
VCA				IAML		12 42 20.3	
	comp=Z,138nm,1.0s						
CO02	Combarbal	3.15	172	eP	Pn	12 41 34.6	+2.8
ACCO	Cerro Coronel	3.30	140	iP	Pb	12 41 40.9	+0.1
ACCO				iS	Sg	12 42 26.6	-1.3
ACCO				IAML		12 42 36.0	
	comp=Z,156nm,0.5s						
TINO	Tinogasta	3.50	91	iP	Pn	12 41 42.3	+5.7
TINO				IAML		12 42 36.2	
	comp=Z,64nm,0.5s						
CO04	Los Peladeros	3.98	173	eP	Pn	12 41 46.5	+3.1
RTLL	Cerro Villicun	4.19	141	iP	Pb	12 41 54.4	-1.5
RTLL				IAML		12 42 59.0	
	comp=Z,116nm,0.5s						
ZON	Zonda	4.25	145	iP	Pb	12 41 54.9	-2.0
ZON				IAML		12 43 07.3	
	comp=Z,44nm,0.9s						
AVFE	Valle Fertil	4.39	127	iP	Pn	12 41 53.4	+4.6
AVFE				iS	Sb	12 42 49.9	-2.3
AVFE				IAML		12 42 55.3	
	comp=Z,128nm,0.5s						
AUSP	Uspallata	4.53	156	iP	Pn	12 41 57.6	+6.7
AUSP				iS	Sb	12 42 56.0	-0.4
ARCO	CERRO ARCO	5.25	155	iP	Pn	12 42 08.4	+7.7
ARCO				IAML		12 43 35.2	
	comp=Z,73nm,1.0s						
ACAN	Cantantal	5.62	139	iP	Pn	12 42 13.2	+7.6
ACAN				iS	Sb	12 43 21.6	-6.1
ACAN				IAML		12 43 52.5	
	comp=Z,145nm,0.6s						
TCA	Tanti	6.85	120	iP	Pn	12 42 28.4	+5.8
TCA				IAML		12 44 03.9	
	comp=Z,20nm,1.2s						

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*IDC **07** 12:45:11.8±1.8, 20°.82S×178°.77W, h608^{km}±20^{km}, mb3.1/9, mbtmp4.0/11, Error ellipse: s-maj=21.6km s-min=17.3km az=109.0*

ISC 07 12:45:12.2±0.8**, 20°.9S**±0°.1×**178°.8W**±0°.2**, h619**^{km}**, n15, σ1^{s}36**/16**, mb3.6**/9**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	4.30	316	P	P	12 46 39.8	-1.6
	5.8nm,0.3s,baz=159,slow=14,SNR=16						
DZM	Mont Dzumac	13.76	262	P	P	12 48 08.3	0.0
	10.0nm,1.1s,baz=106,slow=17,SNR=2.1						
URZ	Urewera	17.66	191	P	P	12 48 40.6	-3.2
	4.0nm,0.3s,baz=16,slow=15,SNR=10						
ASAR	Alice Springs	43.67	257	P	P	12 52 25.3	+0.8
	4.6nm,0.9s,baz=99,slow=7.8,SNR=48						
ASAR				PcP	PcP	12 53 58.3	+0.9
	0.5nm,0.7s,baz=90,slow=5.0,SNR=3.8						
	4.6nm,0.9s						
WRA	Warramunga Arr	43.78	263	P	P	12 52 25.9	+0.6
	1.4nm,0.3s,baz=97,slow=7.5,SNR=192						
	1.4nm,0.3s						
VNDA	Vanda	57.46	185	P	P	12 54 04.5	+1.3
	0.6nm,0.7s,baz=4.4,slow=5.0,SNR=5.6						
	0.6nm,0.7s						
QSPA	South Pole Qui	69.18	180	P	P	12 55 18.9	+0.8
	2.0nm,0.8s,baz=14,slow=0.4,SNR=15						
	2.0nm,0.8s						
PETK	Petropavlovsk-	76.45	346	P	P	12 56 00.6	+1.1
	1.2nm,0.6s,baz=175,slow=6.4,SNR=3.6						
	1.2nm,0.6s						
NVAR	Mina Array Bea	81.84	44	P	P	12 56 29.1	+0.6
	0.3nm,0.6s,baz=224,slow=9.2,SNR=3.9						
	0.3nm,0.6s						
ILAR	Eielson Array	88.86	13	P	P	12 57 00.5	-0.8
	0.5nm,0.8s,baz=221,slow=6.1,SNR=4.5						
	0.5nm,0.8s						
CMAR	Chiang Mai Arr	89.51	290	P	P	12 57 05.9	+0.4
	0.5nm,0.3s,baz=145,slow=1.9,SNR=6.3						
	0.5nm,0.3s						
PDAR	Pinedale Array	89.78	44	P	P	12 57 06.4	0.0
	0.3nm,0.3s,baz=295,slow=5.6,SNR=2.9						
	0.3nm,0.3s						
AKASG	Malin Array Be	142.97	330	PKP	PKPdf	13 03 34.5	-2.1
	1.4nm,0.5s,baz=44,slow=4.2,SNR=16						
BRTR	Keskin Array B	146.52	311	PKPbc	PKPbc	13 03 45.8	-0.1
	0.8nm,0.7s,baz=143,slow=4.2,SNR=4.2						
GERES	GERESS Array B	150.35	343	PKPbc	PKiKP	13 03 56.1	+0.7
	0.6nm,0.2s,baz=2.6,slow=4.1,SNR=3.5						

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*NOU **07** 12:53:55.1, 14°.39S×167°.27E, h154^{km}, mb4.5/42, Vanuatu Islands*

*NEIC **07** 12:53:55.5±1.5, 14°.49S±0°.08×167°.3E±0°.1, h153^{km}±3^{km}, mb4.6/36, Error ellipse: s-maj=15.5km s-min=10.8km az=99.0*

*GFZ **07** 12:53:55.2±0.6, 14°S±4°×16°7E±°, h157^{km}±5^{km}, M4.5/18, mb4.5/18, Error ellipse: s-maj=11.2km s-min=9.6km az=80.2, confirmed*

*IDC **07** 12:53:55.1±1.7, 14°.51S×167°.31E, h155^{km}±15^{km}, mb3.9/18, mbtmp4.3/20, Error ellipse: s-maj=14.9km s-min=11.0km az=111.0*

ISC 07 12:53:54.8±0.4**, 14°.44S**±0°.05×**167°.26E**±0°.06**, h150**^{km}**, n158, σ1^{s}18**/164**, mb4.5**/50**, 4D, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SANVU	Saraoutou	1.00	183	P	Pn	12 54 19.8	+0.2
SANVU	Saraoutou	1.00	183	P	Sn	12 54 39.7	+1.2
SANVU	Saraoutou	1.00	183	Pn	Pn	12 54 19.9	+0.3
SANVU				Sn	Sn	12 54 39.0	+0.5
SANVU	Saraoutou	1.00	183	P	Pn	12 54 20.3	+0.7
DVP	Devils Point	3.38	165	P	Pn	12 54 48.2	+1.2
DVP	Devils Point	3.38	165	S	Sn	12 55 29.6	+2.0
HURO	Huro Makira	6.56	306	P	Pn	12 55 29.6	+0.6
HURO	Huro Makira	6.56	306	S	Sn	12 56 43.5	+0.7
KOUNC	Koumac, New Ca	6.70	205	Pn	Pn	12 55 29.9	-0.9
KOUNC				Sn	Sn	12 56 45.2	-1.0
MARNC	Mare, Loyalty	7.04	174	P	Pn	12 55 37.8	+2.5
MARNC	Mare, Loyalty	7.04	174	S	Sn	12 56 56.0	+1.8
MARNC	Mare, Loyalty	7.04	174	Pn	Pn	12 55 34.5	-0.8
NGOA	Tingoa Renbel	7.58	291	P	Pn	12 55 44.0	+1.4
YATNC	Mamie plateau,	7.58	183	P	Pn	12 55 44.7	+2.1
YATNC	Mamie plateau,	7.58	183	S	Sn	12 57 09.8	+2.4
DZM	Mont Dzumac	7.63	186	P	Pn	12 55 43.4	+0.1
	5.1nm,0.3s,baz=41,slow=18,SNR=19						
DZM				S	Sn	12 57 08.9	+0.4
	10nm,0.5s,baz=119,slow=19,SNR=1.5						
ONTNC	Ouen Toro	7.86	185	P	Pn	12 55 48.9	+2.6
ONTNC	Ouen Toro	7.86	185	S	Sn	12 57 16.8	+2.8
ONTNC	Ouen Toro	7.86	185	Pn	Pn	12 55 46.0	-0.3
OUENC	Ouen Island, N	7.94	183	S	Sn	12 57 19.2	+3.2
OUENC	Ouen Island, N	7.94	183	P	Pn	12 55 49.6	+2.2
OUENC	Ouen Island, N	7.94	183	Pn	Pn	12 55 48.2	+0.7
HNR	Honiara	8.72	304	Pn	Pn	12 55 59.3	+1.4
MSVF	Nonsavu	10.87	109	P	Pn	12 56 25.7	-0.8
	7.9nm,0.8s,baz=146,slow=5.3,SNR=3.6						
EIDS	Eidsvold	18.68	232	P	P	12 58 02.2	+0.7
EIDS				IAmb	IAmb	12 58 04.5	
	comp=Z,12nm,0.6s						
EIDS	Eidsvold	18.68	232	P	Pn	12 58 03.7	+0.1
	comp=Z,15nm,0.6s						
CTA	Charters Tower	20.82	251	P	P	12 58 25.3	+0.6
	comp=Z,2.5nm,0.5s,baz=77,slow=11,SNR=9.6						
	comp=Z,2.5nm,0.5s						
CTAO	Charters Tower	20.82	251	P	P	12 58 26.3	+1.6
CTAO	Charters Tower	20.82	251	P	P	12 58 24.0	-0.6
CTAO				IAmb	IAmb	12 59 02.3	
	comp=Z,35nm,1.4s						
ARMA	Armidale	21.44	220	P	P	12 58 30.2	-1.1
MTSU	Mount Surprise	22.32	257	P	P	12 58 40.6	+0.2
MTSU	Mount Surprise	22.32	257	P	P	12 58 41.0	+0.6
	comp=Z,6.0nm,1.0s						
PATS	Pohnpei	22.93	337	P	P	12 58 46.0	-0.1
MANU	Manus Island	23.19	300	P	P	12 58 48.8	+0.3
MANU				IAmb	IAmb	12 59 12.7	
	comp=Z,25nm,1.3s						
QLP	Quilpie	24.67	237	P	P	12 59 01.8	0.0
QLP	Quilpie	24.67	237	P	P	12 59 02.1	+0.3
	comp=Z,27nm,0.8s						
BKZ	Black Stump Fm	25.93	163	P	P	12 59 13.3	+0.1
CMSA	Cobar Meteorol	26.06	226	P	P	12 59 14.9	+0.5
CMSA	Cobar Meteorol	26.06	226	P	P	12 59 14.6	+0.2
	comp=Z,9.1nm,0.9s						
INKA	Innaminka	27.98	238		P	12 59 32.2	+0.7
STKA	Stephens Creek	29.17	229	P	P	12 59 43.0	+0.9
	comp=Z,11nm,0.4s,baz=56,slow=8.5,SNR=21						
	comp=Z,11nm,0.4s						
STKA	Stephens Creek	29.17	229	P	P	12 59 42.7	+0.6
	comp=Z,109nm,0.6s						
GLAD	Gladstone	31.31	209	P	P	13 00 01.6	+0.8
WR8	Warramunga Arr	31.74	255	P	P	13 00 03.8	-1.1
WRAB	Tennant Creek	31.88	255	P	P	13 00 04.4	-1.7
WRAB	Tennant Creek	31.88	255	P	P	13 00 04.7	-1.4
WRA	Warramunga Arr	31.89	255	P	P	13 00 04.8	-1.4
	comp=Z,1.1nm,0.4s,baz=85,slow=9.0,SNR=43						
WRA				PcP	PcP	13 02 52.7	-0.7
	comp=Z,0.2nm,0.3s,baz=83,slow=3.2,SNR=1.9						
WRA				S	S	13 05 07.1	+0.9
	comp=Z,1.8nm,1.1s,baz=76,slow=14,SNR=4.7						
	comp=Z,1.1nm,0.4s						
WRA	Warramunga Arr	31.89	255	P	P	13 00 04.5	-1.7
WRA					PcP	13 02 52.8	-0.5
HTT	Hallett	31.90	229	P	P	13 00 06.8	+0.7
RAR	Rarotonga	32.05	107	P	P	13 00 06.1	-1.4
AS01	Alice Springs	32.72	249	P	P	13 00 12.2	-1.3
AS31	Alice Springs	32.77	249		P	13 00 12.5	-1.3
AS31				IAmb	IAmb	13 00 14.4	
	comp=Z,3.0nm,0.4s						
ASAR	Alice Springs	32.77	249	P	P	13 00 12.5	-1.3
	comp=Z,3.7nm,0.4s,baz=74,slow=9.6,SNR=164						
ASAR				PcP	PcP	13 02 54.5	-1.2
	comp=Z,1.1nm,1.1s,baz=71,slow=3.8,SNR=2.8						
ASAR				S	S	13 05 15.2	-4.6
	comp=Z,1.1nm,1.1s,baz=80,slow=17,SNR=4.5						
	comp=Z,3.7nm,0.4s						
ASAR	Alice Springs	32.77	249	P	P	13 00 12.8	-1.0
ASAR					PcP	13 02 54.7	-1.0
BBOO	Buckleboo	33.75	232	P	P	13 00 22.5	+0.3
BBOO	Buckleboo	33.75	232	P	P	13 00 22.4	+0.3
BBOO	Buckleboo	33.75	232	P	P	13 00 22.2	+0.1
	comp=Z,36nm,0.6s						
KNRA	Kununurra	37.16	263	P	P	13 00 51.1	-0.4
KNRA				IAmb	IAmb	13 01 30.2	
	comp=Z,13nm,1.5s						
FORT	Forrest	39.44	239	P	P	13 01 09.7	-0.7
FORT				IAmb	IAmb	13 01 44.3	
	comp=Z,12nm,0.9s						
FITZ	Fitzroy Crossi	40.06	259	P	P	13 01 15.6	-0.1
FITZ	Fitzroy Crossi	40.06	259	P	P	13 01 15.0	-0.7
FITZ	Fitzroy Crossi	40.06	259	P	P	13 01 15.4	-0.3
	comp=Z,1.3nm,1.2s						
MBWA	Marble Bar	45.61	254	P	P	13 02 00.3	-0.1
MBWA	Marble Bar	45.61	254	P	P	13 02 00.3	-0.1
MBWA				IAmb	IAmb	13 02 01.2	
	comp=Z,11nm,1.1s						
MBWA	Marble Bar	45.61	254	P	P	13 01 60.0	-0.4
MEEK	Meekatharra	46.89	247	P	P	13 02 09.9	-0.4
MEEK	Meekatharra	46.89	247	P	P	13 02 09.7	-0.6
KLBR	Kellerberrin	48.23	240	P	P	13 02 19.6	-1.0
KLBR	Kellerberrin	48.23	240	P	P	13 02 19.3	-1.3
	comp=Z,18nm,1.6s						
PLAI	Plampang	48.71	271	P	P	13 02 24.5	0.0
NWAO	Narrogin (SRO)	48.89	239	P	P	13 02 24.5	-1.1
NWAO	Narrogin (SRO)	48.89	239	P	P	13 02 24.8	-0.8
MORW	Morawa	49.38	244	P	P	13 02 28.6	-0.8
MORW	Morawa	49.38	244	P	P	13 02 29.0	-0.4
MORW				IAmb	IAmb	13 02 51.9	
	comp=Z,41nm,1.4s						
KKM	Kota Kinabalu	54.56	288	P	P	13 03 08.2	+0.2
	comp=Z,23nm,1.1s						
UGM	Wanagama	55.92	270	P	P	13 03 17.6	-0.1
JGF	Kuroka	57.27	331	P	P	13 03 26.8	0.0
MJAR	Matsushiro Arr	57.65	332	P	P	13 03 29.0	-0.4
	comp=Z,1.0nm,0.4s,baz=169,slow=10,SNR=6.4						
	comp=Z,1.0nm,0.4s						
MJAR	Matsushiro Arr	57.65	332	P	P	13 03 29.0	-0.4
MJAR				IAmb	IAmb	13 03 29.7	
	comp=Z,3.5nm,0.9s						
MAJO	Matsushiro	57.65	332	P	P	13 03 29.4	-0.1
MAJO				IAmb	IAmb	13 03 31.2	
	comp=Z,5.5nm,0.8s						
MAJO	Matsushiro	57.65	332	P	P	13 03 29.3	-0.1
	comp=Z,16nm,1.7s						
MJB9	Matsu-Tunnel	57.66	332	P	P	13 03 29.9	+0.4
MJB9				IAmb	IAmb	13 04 07.8	
	comp=Z,15nm,1.4s						
SSLB	Suanglung	59.09	309	P	P	13 03 39.5	-0.2
SSLB				IAmb	IAmb	13 04 21.7	
	comp=Z,24nm,1.5s						
SSLB	Suanglung	59.09	309	P	P	13 03 38.5	-1.2
	comp=Z,9.4nm,1.0s						
YHNB	Yeheng	59.29	311	P	P	13 03 40.9	-0.2
	comp=Z,33nm,2.3s						
TATO	Taipei	59.39	311	P	P	13 03 42.4	+0.7
JTM	Tenmabayashi	60.08	337	P	P	13 03 46.1	0.0
JTM	Tenmabayashi	60.08	337	P	P	13 03 46.4	+0.3
	comp=Z,24nm,0.4s						
JKA	Kamikawa-asahi	62.47	340		P	13 04 03.4	+1.3
JKA				IAmb	IAmb	13 04 04.0	
	comp=Z,22nm,1.5s						
JKA	Kamikawa-asahi	62.47	340	P	P	13 04 03.1	+1.0
	comp=Z,7.8nm,1.3s						
ASAJ	Asahikawa	62.47	340	P	P	13 04 03.6	+1.5
	comp=Z,3.7nm,0.7s,baz=212,slow=5.4,SNR=14						
	comp=Z,3.7nm,0.7s						
VNDA	Vanda	63.15	181	P	P	13 04 06.0	-0.2
	comp=Z,1.7nm,0.8s,baz=351,slow=7.2,SNR=7.8						
	comp=Z,1.7nm,0.8s						
VNDA	Vanda	63.15	181		P	13 04 06.2	+0.1
VNDA				IAmb	IAmb	13 04 07.6	
	comp=Z,5.8nm,1.3s						
VNDA	Vanda	63.15	181	P	P	13 04 06.2	+0.1
SBA	Scott Base	63.42	180	P	P	13 04 08.8	+0.9
SBA				IAmb	IAmb	13 04 09.6	
	comp=Z,8.4nm,0.9s						
SBA	Scott Base	63.42	180	P	P	13 04 09.0	+1.1
KSRS	Korea Array	63.50	326	P	P	13 04 09.7	+0.7
	comp=Z,2.5nm,0.8s,baz=139,slow=7.2,SNR=5.5						
	comp=Z,2.5nm,0.8s						
CASY	Casey	63.79	202	P	P	13 04 10.6	+0.1
CASY	Casey	63.79	202	P	P	13 04 10.1	-0.4
	comp=Z,4.8nm,2.1s						
YSS	Yuzhno-Sakhali	64.96	342	P	P	13 04 19.0	+0.7
	comp=Z,9.8nm,1.2s						
NJ2	Nanjing	65.47	316	eP	P	13 04 25.1	+3.2
NJ2				pmax	pmax		
	comp=Z,20nm,0.5s						
USRK	Ussuriysk Ar.	66.63	333	P	P	13 04 30.4	+1.4
	comp=Z,1.4nm,0.6s,baz=128,slow=8.6,SNR=1.9						
	comp=Z,1.4nm,0.6s						
USRK	Ussuriysk Ar.	66.63	333	P	P	13 04 29.9	+0.8
SHEM	Shemya Is, Ala	67.16	5	P	P	13 04 32.5	+0.3
SMY	Shemya	67.16	5	P	P	13 04 32.2	0.0
PET	Petropavlovsk	67.60	354	P	P	13 04 36.4	+1.4
PET				IAmb	IAmb	13 05 02.3	
	comp=Z,20nm,1.5s						
PEA0B	Petropavlovsk-	67.78	354	P	P	13 04 36.5	+0.4
PEA0B				IAmb	IAmb	13 04 37.5	
	comp=Z,11nm,1.1s						
PETK	Petropavlovsk-	67.78	354	P	P	13 04 36.5	+0.3
	comp=Z,4.5nm,0.8s,baz=140,slow=7.7,SNR=10						
	comp=Z,4.5nm,0.8s						
BNX	BinXian	69.89	331	⇓P	P	13 04 49.8	+0.5
BNX				pmax	pmax		
	comp=Z,10.0nm,0.7s						
CMAR	Chiang Mai Arr	74.83	294	P	P	13 05 20.1	+0.8
	comp=Z,1.4nm,0.4s,baz=122,slow=4.4,SNR=15						
	comp=Z,1.4nm,0.4s						
CMAR	Chiang Mai Arr	74.83	294		P	13 05 19.8	+0.5
CHTO	Chiang Mai	74.95	294	P	P	13 05 19.8	-0.2
	comp=Z,6.3nm,1.2s						
HHC	Hu-ho-hao-te	75.36	320	eP	P	13 05 23.7	+1.7
HHC				pmax	pmax		
	comp=Z,14nm,0.7s						
PZH	PanZhiHua	75.54	303	P	P	13 05 25.4	+2.1
QSPA	South Pole Qui	75.58	180	P	P	13 05 22.2	-0.7
	comp=Z,4.5nm,1.0s,baz=9.1,slow=0.3,SNR=18						
	comp=Z,4.5nm,1.0s						
QSPA	South Pole Qui	75.58	180		P	13 05 22.1	-0.7
QSPA				IAmb	IAmb	13 05 23.4	
	comp=Z,9.7nm,1.2s						
QSPA	South Pole Qui	75.58	180	P	P	13 05 22.2	-0.7
	comp=Z,10nm,1.9s						
NPW	Naypyitaw	77.77	294	P	P	13 05 37.3	+1.5
	comp=Z,14nm,1.1s						
LZH	Lanzhou	78.12	312	eP	P	13 05 39.1	+1.4
LZH				pmax	pmax		
	comp=Z,28nm,1.1s						
MAW	Mawson	82.14	202	P	P	13 05 58.1	-0.3
	comp=Z,2.0nm,0.6s,baz=132,slow=3.6,SNR=13						
	comp=Z,2.0nm,0.6s						
MAW	Mawson	82.14	202	P	P	13 05 58.5	+0.1
MAW	Mawson	82.14	202	P	P	13 05 58.5	+0.1
	comp=Z,1.1nm,1.7s						
SONM	Songino Array	82.26	324	P	P	13 05 59.4	-0.1
	comp=Z,0.8nm,0.6s,baz=145,slow=5.4,SNR=5.6						
	comp=Z,0.8nm,0.6s						
SONM	Songino Array	82.26	324	P	P	13 05 59.7	+0.2
PPLA	Purkeypile	83.29	17	P	P	13 06 05.6	+1.1
ILAR	Eielson Array	86.26	18	P	P	13 06 17.7	-1.4
	comp=Z,1.4nm,0.8s,baz=234,slow=5.5,SNR=12						
	comp=Z,1.4nm,0.8s						
ILAR	Eielson Array	86.26	18	P	P	13 06 18.6	-0.6
NVAR	Mina Array Bea	87.09	49	P	P	13 06 24.0	-0.1
	comp=Z,0.5nm,0.8s,baz=220,slow=4.9,SNR=3.8						
	comp=Z,0.5nm,0.8s						
NVAR	Mina Array Bea	87.09	49	P	P	13 06 23.6	-0.5
EVN	Everest	88.47	299	P	P	13 06 31.0	-0.4
	comp=Z,6.2nm,0.8s						
TROLL	Troll, Antarti	93.14	185	⇓P	P	13 06 50.7	-0.9
	comp=Z,114nm,0.6s						
SNAA	Sanae	93.83	183	P	P	13 06 53.3	-1.5
VNA3	Neumayer Olymp	94.50	181	⇓P	P	13 06 55.9	-1.8
	comp=Z,2.9nm,0.6s						
VNA3	Neumayer Olymp	94.50	181	P	P	13 06 55.6	-2.2
	comp=Z,5.7nm,1.4s						
VNA2	Neumayer--Watz	94.76	182	⇓P	P	13 06 57.4	-1.5
	comp=Z,3.2nm,0.8s,baz=185,slow=5.7						
VNA2	Neumayer--Watz	94.76	182	P	P	13 06 57.1	-1.8
MKAR	Makanchi Array	96.99	316	P	P	13 07 09.2	-0.2
	comp=Z,1.4nm,0.8s,baz=101,slow=6.3,SNR=7.6						
	comp=Z,1.4nm,0.8s						
ZALV	Zalesovo Beam	97.16	324	P	P	13 07 09.6	-0.4
	comp=Z,0.4nm,0.6s,baz=134,slow=4.3,SNR=4.7						
	comp=Z,0.4nm,0.6s						
ZALV	Zalesovo Beam	97.16	324	P	P	13 07 08.6	-1.3
KSH2	Kashi	100.26	308	P	Pdif	13 07 29.1	+4.7
KSH2				pmax	pmax		
	comp=Z,4.0nm,1.8s						
ARCES	ARCESS Array B	119.97	345	PKP	PKPdf	13 12 26.0	-0.9
	comp=Z,1.7nm,0.3s,baz=66,slow=1.8,SNR=72						
FINES	FINESS Array B	125.46	338	PKP	PKPdf	13 12 36.7	-1.0
	comp=Z,0.8nm,0.3s,baz=99,slow=2.7,SNR=9.5						
NB2	NORSAR Subarra	130.35	345	SKPa		13 15 57.4	
	comp=Z,5.4nm,1.0s,baz=38,slow=4.8						
NB2	NORSAR Subarra	130.35	345	SKPa		13 15 57.4	
NOA	NORSAR Array B	130.35	345	SKPbc	SKPab	13 15 56.7	+0.2
	comp=Z,2.7nm,0.8s,baz=33,slow=3.0,SNR=5.0						
HFS	Hagfors	130.45	343	SKPbc	SKPbc	13 15 56.7	-0.2
	comp=Z,3.0nm,0.8s,baz=132,slow=2.2,SNR=4.2						
AKASG	Malin Array Be	130.50	326	PKP	PKPdf	13 12 47.8	+0.3
	comp=Z,0.2nm,0.4s,baz=81,slow=0.9,SNR=4.7						
AKASG				SKPbc	SKPbc	13 15 56.4	-1.0
	comp=Z,1.1nm,0.7s,baz=52,slow=2.8,SNR=8.0						
CLL	Collm	137.79	336	ePKPdf	PKPdf	13 13 03.0	+1.8
GERES	GERESS Array B	139.39	333	PKP	PKPdf	13 13 04.6	+0.2
	comp=Z,0.7nm,0.2s,baz=48,slow=1.5,SNR=4.0						
ZCCA	Zocca	144.00	331	PKPdf	PKPbc	13 13 12.3	+1.4
NRCA	Norcia	144.02	327	PKPdf	PKPbc	13 13 12.3	+1.2
CASP	Castiglione de	145.21	329	PKPdf	PKPdf	13 13 13.9	-0.9
CEL	Celeste	145.31	318	PKPdf	PKPdf	13 13 13.5	-1.7
SSB	Saint Sauveur	145.96	338	PKPdf	PKPdf	13 13 15.2	-0.9
VSL	Villasalto	148.37	326	PKPdf	PKPdf	13 13 18.6	-1.6
KEST	Kesra	150.99	321	PKPbc	PKPbc	13 13 29.9	-0.5
	comp=Z,4.1nm,0.5s,baz=129,slow=1.5,SNR=11						
KEST	Kesra	150.99	321		PKPbc	13 13 30.9	+0.5
ESDC	Sonseca Array	153.71	345	PKPbc	PKPbc	13 13 35.6	-0.8
	comp=Z,0.9nm,0.9s,baz=2.9,slow=3.0,SNR=4.1						

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*IDC **07** 13:10:21.5±1.0, 51°.48N×167°.80W, h0^{km}, mb3.7/8, mbtmp3.7/10, ML3.1/2, MS2.6/1, Error ellipse: s-maj=29.5km s-min=19.4km az=173.0*

*NEIC **07** 13:10:22.8±2.9, 51°.63N±0°.04×167°.74W±0°.08, h5^{km}±1^{km}, mb3.8/26, ML3.1/8, ML2.8(AEIC), Error ellipse: s-maj=8.5km s-min=7.6km az=273.0*

*AEIC **07** 13:10:24.7±2.6, 51°.55N±0°.08×167°.64W±0°.07, h2^{km}±4^{km}, Error ellipse: s-maj=12.5km s-min=2.9km az=151.0*

ISC 07 13:10:23.1±0.6**, 51°.64N**±0°.07×**167°.74W**±0°.05**, h10**^{km}**, n73, σ1^{s}28**/74**, mb3.8**/12**, Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OKSP	Okmok Steeple	1.65	348		Pn	13 10 51.3	-0.9
CLCO	Concord Point,	1.68	314		Pn	13 10 51.7	-0.8
CLCO					Sn	13 11 12.3	-1.6
OKTU	Okmok Mt. Tuli	1.76	354		Pn	13 10 52.9	-0.7
CLES	Cleveland East	1.78	313	Pn	Pn	13 10 53.8	-0.1
CLES	Cleveland East	1.78	313		Sn	13 11 16.1	-0.4
OKFG	Magazine Ridge	1.78	357		Pn	13 10 53.0	-0.8
OKER	Okmok East Rim	1.83	354		Pn	13 10 53.9	-0.8
OKWE	Okmok W'ng Wal	1.86	351		Pn	13 10 54.4	-0.6
MGOD	Makushin Gods	2.23	13		Pn	13 10 58.9	-1.1
MGOD					Sn	13 11 25.5	-2.1
MAPS	Pakushin South	2.23	12		Pn	13 10 59.3	-0.7
UNV	Unalaska Valle	2.34	18	Pn	Pn	13 11 01.6	+0.1
UNV	Unalaska Valle	2.34	18		Sn	13 11 27.7	-2.5
MNAT	Makushin Natee	2.34	16		Pn	13 11 00.7	-0.9
MNAT					Sn	13 11 28.4	-2.0
AKRB	Akutan Reef Bi	2.69	21		Sn	13 11 36.6	-2.5
AKBBA	Akutan Broad B	2.70	23		Pn	13 11 05.1	-1.4
LVA	Lava Point	2.73	22	Pn	Pn	13 11 07.4	+0.4
LVA	Lava Point	2.73	22		Sn	13 11 38.1	-1.9
AKLV	Akutan Long Va	2.75	22		Pn	13 11 05.9	-1.4
AKUT	Akutan	2.77	25	Pn	Pn	13 11 07.3	-0.1
AKUT				IAML		13 11 40.6	
	comp=N,45nm,0.7s						
AKUT				IAML		13 12 05.1	
	comp=E,61nm,1.0s						
KOFP	Korovin Flat P	3.98	282		Pn	13 11 22.5	-1.7
KOFP					Sn	13 12 08.4	-2.6
ATKA	Atka Island	4.04	281	Pn	Pn	13 11 24.6	-0.2
ATKA				IAML		13 12 24.2	
	comp=N,43nm,1.2s						
ATKA				IAML		13 13 14.8	
	comp=E,30nm,1.1s						
ATKA	Atka Island	4.04	281		Sn	13 12 09.5	-2.6

ADK	Adak	5.56	276	Pn	Pn	13 11 45.8	0.0
KDAK	Kodiak Island	10.70	49	Pn	Pn	13 12 54.1	-2.1
	comp=E,0.3nm,0.3s,baz=260,slow=11,SNR=5.7						
	comp=E,17nm,1.1s						
KDAK				AML	AML		
KDAK	Kodiak Island	10.70	49		Pn	13 12 54.7	-1.5
Q19K	Cape Douglas,	10.84	42	Pn	Pn	13 12 59.3	+1.1
L19K	White Mountain	12.67	28	Pn	Pn	13 13 25.1	+1.9
H18K	Honhosa River	14.39	16	P	P	13 13 55.2	+1.6
J20K	Nowinta River	14.45	24	Pn	Pn	13 13 49.0	+1.5
G18K	Tagagawik	15.03	14	P	P	13 14 01.5	+0.8
RND	Reindeer	15.47	33	Pn	Pn	13 14 02.7	+1.5
F19K	Shaleruckik Mo	16.04	14	P	P	13 14 12.4	+0.7
F19K				IAmb	IAmb	13 14 13.8	
	comp=Z,5.1nm,0.9s						
IMAR	Indian Mountai	16.04	21	P	P	13 14 12.8	+0.9
E18K	Tukpahlearik C	16.22	10	P	P	13 14 15.7	+1.8
CRQM	Cirque	16.36	47		P	13 14 14.6	-1.1
VRDI	Verde Repeater	16.41	45	Pn	Pn	13 14 14.0	+0.6
H22K	Ishtalitna Cre	16.54	24	P	P	13 14 18.7	+1.3
F20K	Avaraart Lake	16.57	17	P	P	13 14 19.4	+1.6
ILAR	Eielson Array	17.02	31	Pn	Pn	13 14 18.1	-2.8
	baz=239,slow=12,SNR=1.8						
	comp=Z,0.1nm,0.4s						
ILAR	Eielson Array	17.02	31	P	P	13 14 24.6	+1.8
F21K	Alatna River	17.15	19	P	P	13 14 25.6	+1.3
G23K	Bananza Creek	17.52	24		P	13 14 28.6	+0.4
G23K				IAmb	IAmb	13 14 34.4	
	comp=Z,8.5nm,1.5s						
D20K	Etivluk River	17.95	13		P	13 14 33.8	+0.9
D20K				IAmb	IAmb	13 14 44.2	
	comp=Z,7.8nm,0.8s						
D22K	Ayikyak River	18.74	17	P	Pn	13 14 43.0	+0.9
D22K				IAmb	IAmb	13 15 10.9	
	comp=Z,10nm,1.2s						
M29M	Somme Creek	19.07	44	P	Pn	13 14 46.8	+0.6
L29M	L29M	19.45	42	Pn	Pn	13 14 52.6	+1.8
BMAR	Burnt Mountain	19.50	27	P	Pn	13 14 51.3	0.0
F26K	Sheenjek River	19.81	27	P	Pn	13 14 55.0	0.0
F26K				IAmb	IAmb	13 15 21.2	
	comp=Z,5.1nm,1.4s						
K29M	Barlow Dome	20.00	41		Pn	13 14 58.6	+1.3
K29M				IAmb	IAmb	13 15 09.7	
	comp=Z,7.0nm,1.1s						
H29M	Whitestone	20.75	34	P	Pn	13 15 05.0	-1.0
H29M				IAmb	IAmb	13 15 23.3	
	comp=Z,5.2nm,1.1s						
PEA0B	Petropavlovsk-	21.03	288	P	P	13 15 06.9	+0.2
PETK	Petropavlovsk-	21.03	288	P	P	13 15 06.8	0.0
	comp=Z,2.7nm,0.8s,baz=83,slow=14,SNR=12						
	comp=Z,2.7nm,0.8s						
C27K	Jago River	21.27	23	P	P	13 15 10.3	+1.1
C27K				IAmb	IAmb	13 15 21.0	
	comp=Z,2.5nm,0.7s						
MMPY	Sheldon Lake,	22.31	46	P	P	13 15 21.8	+1.3
MMPY				IAmb	IAmb	13 15 27.6	
	comp=Z,5.8nm,0.9s						
YKAW1	Yellowknife Wh	30.03	48	P	P	13 16 32.8	+1.1
ASAJ	Asahikawa	33.59	277	LR	LR	13 33 33.3	
	comp=Z,9.0nm,18.4s,baz=348,slow=42						
KVN	Kaiserville	36.39	90	P	P	13 17 28.4	+0.8
KVN				IAmb	IAmb	13 17 29.2	
	comp=Z,1.3nm,1.0s						
NVAR	Mina Array Bea	36.64	91	P	P	13 17 30.4	+0.6
	comp=Z,0.8nm,0.8s,baz=284,slow=9.0,SNR=4.2						
	comp=Z,0.8nm,0.8s						
NVAR	Mina Array Bea	36.64	91	P	P	13 17 30.0	+0.2
PRN	Pahroc Range	39.30	90	P	P	13 17 52.8	+0.7
PRN				IAmb	IAmb	13 17 54.4	
	comp=Z,2.9nm,0.9s						
PDAR	Pinedale Array	39.55	79	P	P	13 17 54.4	+0.1
	comp=Z,0.5nm,0.8s,baz=264,slow=1.5,SNR=3.9						
	comp=Z,0.5nm,0.8s						
PDAR	Pinedale Array	39.55	79	P	P	13 17 53.7	-0.6
CCUT	Cedar City	40.26	89	P	P	13 17 59.5	-0.7
ECSD	EROS Data Cent	46.77	70	P	P	13 18 51.2	-1.2
XMAS	Kiritimati	50.17	167	P	P	13 19 17.9	-0.9
TXAR	Lajitas Array	51.75	90	P	P	13 19 30.9	+0.2
	comp=Z,0.3nm,0.7s,baz=312,slow=4.6,SNR=3.8						
	comp=Z,0.3nm,0.7s						
TXAR	Lajitas Array	51.75	90	P	P	13 19 30.6	-0.1
BVAR	Borovoye Array	64.88	325	P	P	13 21 03.6	+1.5
	comp=Z,0.5nm,0.4s,baz=35,slow=5.3,SNR=2.9						
	comp=Z,0.5nm,0.4s						
FINES	FINESS Array B	66.73	353	P	P	13 21 14.6	+0.8
	comp=Z,0.5nm,0.4s,baz=10,slow=8.5,SNR=4.7						
	comp=Z,0.5nm,0.4s						
HFS	Hagfors	68.58	359	P	P	13 21 26.2	+0.7
	comp=Z,1.0nm,0.5s,baz=119,slow=5.2,SNR=1.5						
	comp=Z,1.0nm,0.5s						
ABKAR	Akbulak array	71.58	329	P	P	13 21 44.8	+0.7
ASAR	Alice Springs	90.71	231	P	P	13 23 25.3	-0.6
	comp=Z,0.4nm,0.6s,baz=28,slow=4.3,SNR=10						
	comp=Z,0.4nm,0.6s						
MAW	Mawson	150.92	218	PKPbc	PKPbc	13 30 13.8	-0.5
	comp=Z,0.8nm,0.7s,baz=84,slow=6.8,SNR=2.2						

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*IDC **07** 13:33:21.0±1.2, 37°.07N×141°.51E, h0^{km}, mb3.6/5, mbtmp3.6/8, ML3.3/3, MS2.4/1, Error ellipse: s-maj=23.0km s-min=12.6km az=111.0*

*JMA **07** 13:33:27.6±0.1, 37°.1N±0°.3×141°.2E±0°.4, h48^{km}±1^{km}, MV3.8/33, E OFF FUKUSHIMA PREF*

JMA Felt II J1 at E OFF FUKUSHIMA PREF .

ISC 07 13:33:24.4±1.9**, 37°.01N**±0°.05×**141°.50E**±0°.09**, h29**^{km}±12^{km}**, n20,** σ1^s.**34**/23**, mb3.5**/5**, 10D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ONAJ	Iwakimizuishiy	0.56	280	⇓iP	Pb	13 33 36.9	+1.0
ONAJ				⇓S	Sb	13 33 43.4	-0.3
JFK	Kawauchi	0.61	306	⇓iP	Pb	13 33 37.6	+0.9
JFK				⇓eS	Sb	13 33 44.4	-0.6
JFFD	Fukushimafurud	0.75	277	⇓iP	Pb	13 33 39.0	0.0
JFFD				⇓eS	Sb	13 33 47.0	-1.9
JHO	Hitachi	0.84	242	⇓iP	Pn	13 33 40.6	+0.3
JHO				⇓eS	Sb	13 33 49.7	-1.7
JMM	Marumori	1.02	327	⇓iP	Pn	13 33 43.5	+0.7
JMM				⇓eS	Sn	13 33 54.9	-1.3
JOTO	OTAMA OYAMA	1.08	301	i P	Pn	13 33 44.2	+0.7
JOTO				eS	Sn	13 33 55.7	-1.9
MJAR	Matsushiro Arr	2.68	261	Pn	Pn	13 34 06.2	+0.6
	1.1nm,0.3s,baz=81,slow=18,SNR=28						
MJAR				Sn	Sn	13 34 38.1	+1.0
	1.1nm,0.3s,baz=56,slow=22,SNR=7.5						
MJAR				LR	LR	13 35 24.7	
	comp=Z,69nm,19.3s,baz=148,slow=46						
	6.0nm,0.3s						
MJAR				AML	AML		
JHJ	Hachijo jima 2	4.12	200	Pn	Pn	13 34 27.1	+1.7
	19nm,0.3s,baz=76,slow=13,SNR=2.1						
JHJ				Sn	Sn	13 35 10.2	-2.5
	21nm,0.3s,baz=248,slow=21,SNR=2.0						
	127nm,0.5s						
JHJ				AML	AML		
ASAJ	Asahikawa	7.15	6	Pn	Pn	13 35 07.8	+0.8
	0.6nm,0.3s,baz=217,slow=9.8,SNR=12						
ASAJ				Sn	Sn	13 36 24.7	-2.5
	0.2nm,0.3s,baz=285,slow=18,SNR=1.2						
	1.4nm,0.3s						
ASAJ				AML	AML		
H11N2	WAKE ISLAND Hy	28.08	121	T	T	14 09 18.4	
	baz=314,slow=76,SNR=24						
H11N1	WAKE ISLAND Hy	28.09	121	T	T	14 09 11.6	
	baz=314,slow=76,SNR=28						
H11N3	WAKE ISLAND Hy	28.10	121	T	T	14 09 36.7	
	baz=314,slow=76,SNR=26						
H11S1	WAKE ISLAND Hy	28.79	123	T	T	14 10 12.6	
	baz=315,slow=76,SNR=11						
H11S3	WAKE ISLAND Hy	28.79	123	T	T	14 10 14.0	
	baz=315,slow=76,SNR=8.5						
H11S2	WAKE ISLAND Hy	28.81	123	T	T	14 10 03.6	
	baz=315,slow=76,SNR=17						
ZALV	Zalesovo Beam	41.98	312	P	P	13 41 12.7	0.0
	1.0nm,0.6s,baz=87,slow=7.4,SNR=4.5						
	1.0nm,0.6s						
MKAR	Makanchi Array	44.19	302	P	P	13 41 30.5	-0.1
	0.3nm,0.4s,baz=79,slow=10,SNR=4.2						
	0.3nm,0.4s						
KURBB	Kurchatov Arra	46.07	308	P	P	13 41 45.1	-0.3
	0.8nm,0.5s,baz=84,slow=7.9,SNR=10.0						
	0.8nm,0.5s						
ILAR	Eielson Array	49.48	32	P	P	13 42 12.6	+0.9
	0.4nm,0.8s,baz=275,slow=7.7,SNR=2.7						
	0.4nm,0.8s						
WRA	Warramunga Arr	57.04	188	P	P	13 43 08.4	+0.6
	0.2nm,0.5s,baz=7.0,slow=7.3,SNR=1.8						
	0.2nm,0.5s						

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*ISU **07** 14:14:58, 41°.41N×65°.77E, h8^{km}*

*IDC **07** 14:14:59.9±1.2, 41°.46N×65°.80E, h0^{km}, mb3.9/6, mbtmp3.8/12, ML3.4/6, Error ellipse: s-maj=17.5km s-min=11.9km az=5.0*

*NEIC **07** 14:15:02.8±1.7, 41°.64N±0°.10×65°.9E±0°.1, h15^{km}±4^{km}, mb4.9/3, Error ellipse: s-maj=15.6km s-min=11.4km az=216.0*

*NNC **07** 14:15:06.4±3.1, 42°.13N×66°.05E, h3^{km}±13^{km}, mb4.0, mpv4.0, Error ellipse: s-maj=34.1km s-min=12.0km az=16.0*

ISC 07 14:15:01.8±0.5**, 41°.65N**±0°.04×**65°.87E**±0°.03**, h10**^{km}**, n57,** σ1^s.**78**/71**, mb4.7**/10**, 10C-1D, Central Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TMD	Tamdy-Bulak	0.92	277	P	Pg	14 15 20.0	+0.5
TMD				S	Sg	14 15 33.3	+1.8
AGL	Agalyk	2.27	160	P	Pn	14 15 38.4	-0.9
AGL				S	Sn	14 16 04.0	-3.3
GZLY	Gazly	2.38	231	P	Pb	14 15 44.9	+0.2
GZLY				S	Sn	14 16 11.4	+1.4
TVKS	Tavaksay	2.84	90	P	Pn	14 15 47.7	+0.5
TVKS				S	Sn	14 16 21.7	+0.2
CHRV	Charvak	3.06	89	P	Pn	14 15 51.3	+1.0
CHRV				S	Sn	14 16 27.1	+0.1
CHMG	Chimgan	3.11	90	P	Pn	14 15 50.1	-0.9
CHMG				S	Sn	14 16 26.2	-2.1
PKMR	Pachkamar	3.13	172	P	Pn	14 15 46.8	-4.4
PKMR				S	Sn	14 16 20.3	-8.3
IUG	Iuzhnay	3.15	80	Pg	Pb	14 16 00.1	+2.3
	169nm,0.2s						
IUG				Lg	Lg	14 16 40.8	
	189nm,0.2s						
BRLS	Borolday	3.25	64	Pg	Pb	14 15 59.6	0.0
	26nm,0.3s						
BRLS				Lg	Lg	14 16 39.5	
	146nm,0.2s						
PSK	Pskem	3.38	84	P	Pn	14 15 55.4	+0.7
PSK				S	Sn	14 16 34.8	-0.2
ZRB	Zarabog	3.56	175	P	Pn	14 15 58.7	+1.5
KK31	Karatay Array	3.74	66	⇑Pn	Pn	14 16 00.5	+1.0
	3.6nm,0.2s,baz=238,slow=15,SNR=80						
KK31				⇑Pg	Pb	14 16 09.3	+1.5
	14nm,0.4s,baz=244,slow=16,SNR=20						
KK31				⇑Sn	Sn	14 16 42.9	-0.6
	13nm,0.3s,baz=243,slow=26						
KK31				⇑Lg	Lg	14 16 57.8	
	78nm,0.5s,baz=243,slow=27,SNR=9.2						
KK31	Karatay Array	3.74	66		Pn	14 15 59.9	+0.4
KKAR	Karatay Array	3.74	66		Pn	14 16 00.1	+0.6
MINT	Mingtut	4.04	105	S	Sn	14 16 54.3	+3.3
BTK	Batken	4.08	111		Pn	14 16 03.9	-0.3
KSNS	Kasansay	4.28	95	S	Sn	14 16 58.6	+1.5
FRG	Fergana	4.66	104	S	Sn	14 17 03.3	-2.9
TSTA	Tashata	5.11	100	S	Pg	14 16 39.2	-0.4
ARSB	Arslanbob	5.36	91		Pn	14 16 21.9	+0.1
MRKS	Merke	5.58	76	Pg	Pb	14 16 43.7	+4.5
	8.8nm,0.3s						
MRKS				Lg	Lg	14 17 55.5	
	39nm,0.2s						
AAK	Ala-Archa	6.49	78	Pn	Pn	14 16 40.3	+2.8
	1.7nm,0.3s,baz=292,slow=3.0,SNR=6.0						
AAK				Pg	Pb	14 16 58.8	+4.0
	1.3nm,0.3s,baz=242,slow=17,SNR=4.6						
AAK				Lg	Lg	14 18 24.7	
	2.5nm,0.3s,baz=23,slow=14,SNR=3.7						
	2.8nm,0.3s						
AAK				AML	AML		
AAK	Ala-Archa	6.49	78	⇑Pn	Pn	14 16 39.5	+2.0
	0.3nm,0.3s						
AAK				⇑Pg	Pg	14 17 01.0	-5.0
	6.7nm,0.7s						
AAK				⇓Lg	Lg	14 18 28.3	
	18nm,0.8s						
AAK	Ala-Archa	6.49	78	Pn	Pn	14 16 38.1	+0.7
BOOM	Boomskoye usch	7.54	80	Pn	Pn	14 16 51.0	-0.9
NRN	Naryn	7.61	88	Pn	Pn	14 16 51.2	-1.7
AB31	Akbulak array	8.67	333	Pn	Pn	14 17 07.1	0.0
	1.7nm,0.3s,baz=160,slow=14,SNR=106						
AB31				⇑Sn	Sn	14 18 45.3	+0.4
	1.1nm,0.3s						
AB31				Lg	Lg	14 19 35.9	
	16nm,0.7s,baz=152,slow=26,SNR=8.0						
AB31	Akbulak array	8.67	333		Pn	14 17 06.5	-0.6
ABKAR	Akbulak array	8.67	333		Pn	14 17 06.6	-0.5
AKTO	Aktyubinsk	10.34	331	Pn	Pn	14 17 30.9	+0.9
	0.4nm,0.3s,baz=129,slow=6.9,SNR=5.0						
AKTO				Sn	Sn	14 19 22.4	-3.5
	1.0nm,0.3s,baz=174,slow=16,SNR=4.1						
AKTO				Lg	Lg	14 20 34.7	
	1.0nm,0.3s,baz=60,slow=20,SNR=6.6						
	1.2nm,0.4s						
AKTO				AML	AML		
AKTO	Aktyubinsk	10.34	331	⇑Pn	Pn	14 17 30.1	+0.1
	0.4nm,0.4s						
AKTO				⇑Sn	Sn	14 19 23.7	-2.2
	2.1nm,0.6s						
AKTO				⇑Lg	Lg	14 20 25.4	
	7.5nm,0.8s						
BVA0	Borovoye Array	11.79	13	Pn	Pn	14 17 49.4	-0.4
	0.2nm,0.3s,baz=196,slow=14,SNR=26						
BVAR	Borovoye Array	11.79	13	Pn	Pn	14 17 49.5	-0.3
	0.3nm,0.3s,baz=192,slow=12,SNR=23						
BVAR				Sn	Sn	14 19 54.0	-7.3
	baz=212,slow=13,SNR=1.3						
BVAR				Lg	Lg	14 21 16.0	
	baz=206,slow=32						
	1.9nm,0.3s						
BVAR				AML	AML		
BORK	Borovoye	11.79	13		Pn	14 17 49.6	-0.3
KURBB	Kurchatov Arra	12.54	40	Pn	Pn	14 17 58.5	-1.6
	0.1nm,0.3s,baz=244,slow=10,SNR=5.2						
KURBB				Lg	Lg	14 21 33.9	
	0.1nm,0.3s,baz=249,slow=27,SNR=4.1						
	0.3nm,0.3s						
KURBB				AML	AML		
KURK	Kurchatov	12.65	40		Pn	14 17 58.5	-3.0
MKAR	Makanchi Array	12.85	61	Pn	Pn	14 18 03.8	-0.6
	0.3nm,0.3s,baz=250,slow=15,SNR=7.4						
MKAR				Sn	Sn	14 20 28.8	+1.3
	0.1nm,0.3s,baz=277,slow=24,SNR=1.5						
MKAR				Lg	Lg	14 21 46.3	
	0.1nm,0.3s,baz=257,slow=30,SNR=3.8						
	0.6nm,0.4s						
MKAR				AML	AML		
MKAR	Makanchi Array	12.85	61	Pn	Pn	14 18 03.5	-1.0
ARTI	Arti	15.53	344	Lg	Lg	14 23 12.2	
	0.4nm,0.3s,baz=338,slow=19,SNR=1.5						
WMQ	Urumqi	16.18	75	eP	Pn	14 18 50.8	+1.6
ZALV	Zalesovo Beam	17.64	39	Pn	Pn	14 19 06.2	-1.1
	0.3nm,0.3s,baz=239,slow=13,SNR=4.9						
	0.7nm,0.4s						
ZALV				AML	AML		
ZALV	Zalesovo Beam	17.64	39		Pn	14 19 07.0	-0.4
HYB	Hyderabad	26.49	152	eP	P	14 20 39.0	-0.3
HYB				epP	pP	14 20 43.7	+1.3
HYB				ePcP	PcP	14 24 03.0	-1.2
HYB				eS	S	14 25 13.5	+0.1
LZH	Lanzhou	29.92	88	eP	P	14 20 55.4	-15
LZH				pP	pP	14 21 00.3	-13
LZH				pmax	pmax		
	comp=Z,15nm,1.1s						
FINES	FINESS Array B	30.98	323	P	P	14 21 19.8	+1.0
	comp=Z,0.4nm,0.3s,baz=118,slow=8.9,SNR=5.9						
	comp=Z,0.4nm,0.3s						
PZH	PanZhiHua	33.07	106	P	P	14 21 38.3	+0.6
HHC	Hu-ho-hao-te	34.06	76	eP	P	14 21 46.2	0.0
HHC				pmax	pmax		
	comp=Z,9.0nm,0.6s						
ARCES	ARCESS Array B	34.85	337	P	P	14 21 53.1	+0.4
	comp=Z,1.9nm,0.8s,baz=112,slow=9.1,SNR=2.0						
	comp=Z,1.9nm,0.8s						
ARCES	ARCESS Array B	34.85	337	IAmb	IAmb	14 23 01.4	
	comp=Z,103nm,2.0s						
HFS	Hagfors	36.56	318	P	P	14 22 08.6	+1.2
	comp=Z,2.8nm,1.0s,baz=123,slow=10,SNR=0.9						
	comp=Z,2.8nm,1.0s						
YAK	Yakutsk	42.29	39	P	P	14 22 54.5	-0.6
YAK				IAmb	IAmb	14 24 11.1	
	comp=Z,8.1nm,0.6s						
NJ2	Nanjing	42.88	85	eP	P	14 22 58.3	-2.0
NJ2				pmax	pmax		
	comp=Z,30nm,0.5s						
TORD	Torodi Ar. Bea	62.11	263	P	P	14 25 22.8	-0.3
	comp=Z,0.2nm,0.4s,baz=54,slow=5.9,SNR=2.3						
	comp=Z,0.2nm,0.4s						
IMAR	Indian Mountai	68.42	16	P	P	14 26 03.7	+0.4
INK	Inuvik	69.40	8	P	P	14 26 09.9	+0.6
INK				IAmb	IAmb	14 26 54.5	
	comp=Z,8.5nm,1.1s						
YKA	Yellowknife Ar	76.21	0	P	P	14 26 50.5	+0.7
	comp=Z,2.1nm,1.0s,baz=2.4,slow=6.0,SNR=3.2						
	comp=Z,2.1nm,1.0s						
ASAR	Alice Springs	90.42	122	P	P	14 28 02.0	-1.5
	comp=Z,0.3nm,0.6s,baz=319,slow=4.6,SNR=7.3						
	comp=Z,0.3nm,0.6s						

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*AZER **07** 15:02:10.9, 39°.53N×44°.61E, h10^{km}, ml2.7*

*AFAD **07** 15:02:10.7, 39°.53N×44°.56E, h7^{km}±1^{km}, ML3.0*

*ISK **07** 15:02:10.6, 39°.51N×44°.50E, h2^{km}, ML3.0/4*

*TEH **07** 15:02:11.5, 39°.50N×44°.75E, h10^{km}, ML2.9, Presumed earthquake*

ISC 07 15:02:11.2±0.9**, 39°.51N**±0°.02×**44°.56E**±0°.02**, h17**^{km}±9^{km}**, n30,** σ1^s.**04**/52**, Iran-Armenia-Azerbaijan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HYR	Heyderabad	0.30	47	P	Pb	15 02 18.0	-0.3
HYR				S	Sb	15 02 23.4	+0.4
IGDI	IGDIR	0.52	314	P	Pg	15 02 20.9	-0.6
IGDI				S	Sg	15 02 28.1	-0.5
TASB	TASBURUN-IGDIR	0.53	332	Pg	Pg	15 02 21.7	-0.2
TASB				Sg	Sg	15 02 29.7	+0.6
TASB				AML	AML		
CLDR	Caldiran	0.62	234	Pg	Pg	15 02 22.9	-0.7
CLDR				Sg	Sg	15 02 31.8	-0.2
CLDR				AML	AML		
CLDR	Caldiran	0.62	234	P	Pg	15 02 23.1	-0.5
CLDR				S	Sg	15 02 31.4	-0.6
CLDR				IAML		15 02 34.0	
	comp=N,673nm,0.3s						
CLDR				IAML		15 02 34.0	
	comp=E,745nm,0.3s						
GNI	Garni	0.65	12	Pg	Pb	15 02 24.3	0.0
GNI				Sg	Sb	15 02 34.7	+1.5
GNI	Garni	0.65	12	Pg	Pb	15 02 24.4	0.0
DYDN	Diyadin	0.68	273	P	Pg	15 02 24.7	+0.1
DYDN				S	Sg	15 02 33.9	+0.2
SBZ	Shahbuz	0.77	98	P	Pb	15 02 26.6	+0.2
SBZ				S	Sn	15 02 38.5	-0.4
NAX	Nakhchivan	0.80	115	P	Pb	15 02 26.8	+0.1
NAX				S	Sn	15 02 38.8	-0.7
NAX				S	Sb	15 02 39.0	+1.7
VMUR	Van-Muradiye	0.93	236	P	Pb	15 02 28.5	-0.6
VMUR				S	Sb	15 02 40.1	-1.2
OZAP	Van, Ozalp-Mer	0.96	208	P	Pb	15 02 29.7	+0.1
OZAP				S	Sn	15 02 43.6	0.0
KOTA	Agri, Merkez-K	1.09	286	P	Pb	15 02 31.5	-0.3
IMRD	Marand	1.19	132	Pg	Pb	15 02 33.4	-0.2
AGRB	Hanur-Agry	1.22	273	Pn	Pn	15 02 34.0	+0.3
AGRB				AML	AML		
ORD	Ordubad	1.25	117	P	Pg	15 02 35.6	+0.1
ORD				S	Sg	15 02 52.9	+1.1
TVAN	Van	1.33	223	P	Pg	15 02 37.2	+0.2
ISHB	Shabestar	1.48	146	Pg	Pb	15 02 38.5	0.0
GDB	GEDABAY	1.51	37	Pn	Pg	15 02 39.7	-0.7
GDB				Sn	Sg	15 03 00.9	+0.8
QZX	Qazax, Azerbai	1.66	22	Pn	Pb	15 02 42.0	+0.6
QZX				Sn	Sg	15 03 07.0	+2.1
AKDM	Akdamar-Van	1.71	227	Pn	Pb	15 02 42.0	-0.4
AKDM				AML	AML		
GANJ	Ganja	1.76	49	Pn	Pg	15 02 44.0	-1.1
GANJ				Sn	Sg	15 03 07.7	-0.2
ITBZ	Tabriz	1.78	135	Pg	Pb	15 02 42.4	-1.1
HAKT	HAKKARI	2.06	199	Pn	Pb	15 02 49.5	+1.1
HAKT				Sn	Sg	15 03 19.2	+1.5
QRD	Qoradiz	2.13	91	Pn	Pg	15 02 50.8	-1.4
QRD				Sn	Sg	15 03 19.7	-0.1
MNGR	Mingechevir, A	2.31	56	Sg	Sg	15 03 29.1	+3.8
ZKTA	Zakatala	2.64	36	Pg	Pb	15 02 57.7	-0.4
ZKTA				Sg	Sg	15 03 35.8	-0.2
YRD	Yardimli	2.92	101	Pg	Pb	15 03 04.5	+1.5
YRD				Sg	Sg	15 03 43.8	-1.2
XNQ	Khinaliq	3.20	58	Pg	Pg	15 03 11.0	-1.5
XNQ				Sg	Sg	15 03 51.7	-2.2
PQL	Pirkuli	3.34	66	Pg	Pb	15 03 09.9	-0.2
PQL				Sg	Sg	15 03 57.7	-0.8

IDC 07 15:03:45.0±47.0**, 15°.99S**×**174°.06W, h0**^{km}**, mb4.2**/3**, mbtmp4.2**/3**, Error ellipse: s-maj=908.0km s-min=183.0km az=78.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	43.20	240	P	P	15 11 48.3	+0.3
	3.0nm,0.9s,baz=82,slow=11,SNR=3.0						
	3.0nm,0.9s						
WRA	Warramunga Arr	49.09	257	P	P	15 12 34.2	-0.4
	0.5nm,0.5s,baz=94,slow=7.2,SNR=23						
	0.5nm,0.5s						
ASAR	Alice Springs	49.33	252	P	P	15 12 36.3	-0.1
	5.6nm,0.6s,baz=90,slow=8.2,SNR=204						
	5.6nm,0.6s						

IDC 07 15:12:51.7±4.1**, 17°.98N**×**148°.34E, h0**^{km}**, mb3.7**/5**, mbtmp3.7**/5**, Error ellipse: s-maj=173.1km s-min=25.6km az=86.0, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	40.11	201	P	P	15 20 29.0	-0.3
	0.7nm,1.0s,baz=25,slow=8.7,SNR=5.3						
	0.7nm,1.0s						
ASAR	Alice Springs	43.73	199	P	P	15 20 58.9	0.0
	0.3nm,0.7s,baz=19,slow=7.3,SNR=5.0						
	0.3nm,0.7s						
KURBB	Kurchatov Arra	63.53	318	P	P	15 23 23.6	-0.2
	0.7nm,0.7s,baz=97,slow=6.9,SNR=7.7						
	0.7nm,0.7s						
BVAR	Borovoye Array	68.62	321	P	P	15 23 56.9	+0.3
	1.1nm,0.7s,baz=82,slow=11,SNR=4.5						
	1.1nm,0.7s						
FINES	FINESS Array B	88.57	336	P	P	15 25 46.2	-0.1
	0.7nm,0.6s,baz=66,slow=4.6,SNR=3.7						
	0.7nm,0.6s						

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*RSPR **07** 16:43:42.8, 19°.23N×64°.41W, h46^{km}±19^{km}, MD3.5/6*

*NEIC **07** 16:43:42.5±1.4, 19°.3N±0°.2×64°.70W±0°.02, h11^{km}±17^{km}, ML2.7/28, Md3.5/6(RSPR), Error ellipse: s-maj=25.8km s-min=2.4km az=181.0*

ISC 07 16:43:45.7±2.5**, 19°.2N**±0°.2×**64°.66W**±0°.05**, h35**^{km}**, n25,** σ1^s.**44**/25**, 5C-1D, Virgin Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HUMP	Col San Antoni	1.56	227		Sn	16 44 30.6	+0.7
HUMP	Col San Antoni	1.56	227		Pn	16 44 08.7	-2.3
HUMP	Col San Antoni	1.56	227	IAML		16 44 31.8	
	58nm,0.2s						
HUMP				IAML		16 44 34.9	
	51nm,0.2s						
HUMP	Col San Antoni	1.56	227	⇓eP	Pn	16 44 09.2	-1.8
PDPR	Patillas Dam,	1.76	228		Pn	16 44 11.8	-1.9
PDPR				IAML		16 44 30.2	
	66nm,3.3s						
PDPR				IAML		16 44 30.3	
	56nm,1.1s						
PDPR	Patillas Dam,	1.76	228	⇑eP	Pn	16 44 12.3	-1.4
ECPR	Experimental S	1.85	241		Sn	16 44 38.4	+1.3
ECPR	Experimental S	1.85	241		Pn	16 44 13.1	-1.9
ECPR	Experimental S	1.85	241	IAML		16 44 45.7	
	94nm,0.2s						
ECPR				IAML		16 44 46.0	
	81nm,0.3s						
ECPR	Experimental S	1.85	241	⇑eP	Pn	16 44 14.0	-0.9
IGPR	InterUniversit	1.86	228		Pn	16 44 14.3	-0.7
IGPR	InterUniversit	1.86	228	⇑eP	Pn	16 44 14.3	-0.7
SMRT	St. Maarten	1.90	127	Pn	Pn	16 44 14.5	-1.1
SMRT					Sn	16 44 40.3	+2.0

SMRT				IAML		16 44 44.7	
	comp=N,104nm,0.5s						
EMPR	Esperanza - Ma	1.92	248		Pn	16 44 15.2	-0.7
EMPR					Sn	16 44 40.0	+1.2
EMPR	Esperanza - Ma	1.92	248	⇑eP	Pn	16 44 15.2	-0.7
EMPR				eS	Sn	16 44 40.0	+1.2
CELP	Cerrillos	2.15	238		Sn	16 44 45.8	+1.3
CELP	Cerrillos	2.15	238		Pn	16 44 18.1	-1.0
CELP	Cerrillos	2.15	238	IAML		16 44 49.2	
	comp=N,31nm,0.8s						
CELP				IAML		16 44 49.2	
	comp=N,24nm,0.5s						
CELP	Cerrillos	2.15	238	⇑eP	Pn	16 44 18.5	-0.6
AOPR	Arecibo Observ	2.17	247	Pn	Pn	16 44 17.7	-1.6
AOPR				IAML		16 45 03.7	
	comp=N,67nm,0.3s						
AGPR	Aguadilla, PR	2.44	253	Pn	Pn	16 44 22.1	-1.0
AGPR				IAML		16 45 14.9	
	comp=N,57nm,2.2s						
AGPR				IAML		16 45 16.9	
	comp=N,52nm,1.8s						
LSP	Las Mesas	2.53	246		Sn	16 44 55.7	+1.8
LSP	Las Mesas	2.53	246	eS	Sn	16 44 55.7	+1.8
MLPR	Magueyes Islan	2.58	242	Pn	Pn	16 44 23.8	-1.2
MLPR				IAML		16 45 16.3	
	comp=N,24nm,2.2s						
CRPR	Cabo Rojo, PR	2.62	243	Pn	Pn	16 44 25.1	-0.4
CRPR				IAML		16 45 09.1	
	comp=N,29nm,1.1s						

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*IDC **07** 16:59:27.0±3.3, 7°.51S×128°.28E, h126^{km}±30^{km}, mb4.0/12, mbtmp4.5/15, MS3.5/3, Error ellipse: s-maj=29.4km s-min=11.6km az=73.0*

*GFZ **07** 16:59:30.1±0.3, 8°S±2°×12°8E±°, h178^{km}±3^{km}, M4.3/19, mb4.5/19, Error ellipse: s-maj=5.6km s-min=5.1km az=123.4, confirmed*

*NEIC **07** 16:59:30.8±1.5, 7°.53S±0°.05×128°.36E±0°.06, h167^{km}±6^{km}, mb4.5/26, Error ellipse: s-maj=10.8km s-min=4.3km az=54.0*

*DJA **07** 16:59:31.0±0.2, 8°S±2°×12°8E±°, h172^{km}±6^{km}, M4.6/19, mb4.6/19, mB5.0/8, MLv5.0/17, Mw(mB)4.3/8*

ISC 07 16:59:28.8±0.3**, 7°.70S**±0°.04×**128°.30E**±0°.05**, h150^{km}, n119,** σ**2.^{s}13**/122**, mb4.4**/35**, 1D, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SAUI	Saumlaki	2.99	96	Pn	Pn	17 00 19.5	+3.5
SAUI				Sn	Sn	17 00 53.8	+1.3
SAUI	Saumlaki	2.99	96	P	Pn	17 00 20.1	+4.1
SAUI				AML	AML		
BNDI	Bandanaira	3.54	27	P	Pn	17 00 23.9	+0.9
AAI	Ambon	3.99	359	P	Pn	17 00 30.7	+1.7
SOEI	Soe	4.48	243		Pn	17 00 39.5	+4.1
SOEI	Soe	4.48	243	P	Pn	17 00 39.6	+4.1
SOEI				AML	AML		
SOEI	Soe	4.48	243	P	Pn	17 00 39.5	+4.1
NLAI	Namlea	4.59	345	P	Pn	17 00 40.6	+3.8
NLAI	Namlea	4.59	345	P	Pn	17 00 38.7	+1.9
MTN	Manton Dam	5.82	152		Pn	17 00 56.3	+3.1
MMRI	Maumere	6.07	261		Pn	17 00 59.6	+3.1
MMRI	Maumere	6.07	261	P	Pn	17 00 59.9	+3.4
	0.7nm2µm113nm,0.7s						
MMRI				AML	AML		
MMRI	Maumere	6.07	261	P	Pn	17 00 59.4	+2.9
	comp=Z,116nm,0.7s						
FAKI	Fak Fak	6.17	40		Pn	17 00 56.5	-1.3
FAKI	Fak Fak	6.17	40	P	Pn	17 00 56.7	-1.1
	comp=Z,0.3nmcomp=Z,2µmcomp=Z,62nm,0.5s						
FAKI				AML	AML		
FAKI	Fak Fak	6.17	40	P	Pn	17 00 57.6	-0.1
	comp=Z,61nm,0.5s						
EDFI	Ende, Flores	6.62	260	P	Pn	17 01 07.2	+3.3
SWI	Sorong	7.40	24	P	Pn	17 01 14.9	+0.6
	comp=Z,70nm,0.7s						
SWI	Sorong	7.40	24	P	Pn	17 01 13.8	-0.5
	comp=Z,63nm,0.8s						
KNRA	Kununurra	7.94	177		Pn	17 01 24.2	+2.7
WSI	Waingapu	8.15	256	P	Pn	17 01 25.5	+1.3
LBFI	Labuhan Bajo,	8.36	264	P	Pn	17 01 31.2	+4.1
LBFI	Labuhan Bajo,	8.36	264	P	Pn	17 01 30.3	+3.3
	comp=Z,35nm,0.7s						
MWPI	Manokwari, Pap	8.83	41	P	Pn	17 01 32.8	-0.5
	comp=Z,97nm,0.7s						
WBSI	Waikabubak, Su	9.02	257	P	Pn	17 01 37.9	+2.1
MNI	Manado	9.71	339	P	Pn	17 01 48.2	+3.1
DBNI	Kabupaten Domp	9.92	265	P	Pn	17 01 49.4	+1.6
BAKI	Biak	10.12	51	P	Pn	17 01 53.2	+2.8
PLAI	Plampang	10.47	263	P	Pn	17 01 56.3	+1.1
	comp=Z,55nm,1.0s						
PLAI	Plampang	10.47	263	P	Pn	17 01 56.7	+1.6
	comp=Z,56nm,1.0s						
MMSI	Mamuju	10.59	298	P	Pn	17 01 42.3	-14
FITZ	Fitzroy Crossi	10.66	194	P	Pn	17 01 58.4	+0.8
	comp=Z,45nm,0.6s,baz=25,slow=10,SNR=85						
FITZ				S	Sn	17 03 51.1	-4.3
	comp=Z,32nm,0.4s,baz=82,slow=20,SNR=12						
FITZ	Fitzroy Crossi	10.66	194	Pn	Pn	17 01 58.3	+0.8
FITZ					Sn	17 03 53.0	-2.4
FITZ	Fitzroy Crossi	10.66	194	P	Pn	17 01 58.6	+1.1
	comp=Z,16nm,0.7s						
WAMI	Wamena	11.03	70	P	P	17 02 19.2	+8.2
WB0	Warramunga Arr	13.37	154		Pn	17 02 33.3	+0.4
WRAB	Tennant Creek	13.50	155		Pn	17 02 35.4	+0.9
WRAB	Tennant Creek	13.50	155	P	Pn	17 02 36.2	+1.7
	comp=Z,28nm,0.8s						
WRA	Warramunga Arr	13.51	155	P	Pn	17 02 34.8	+0.3
	comp=Z,5.9nm,0.4s,baz=324,slow=14,SNR=100						
WRA				S	Sn	17 04 58.2	-6.0
	comp=Z,69nm,0.7s,baz=334,slow=22,SNR=24						
WRA	Warramunga Arr	13.51	155	Pn	Pn	17 02 33.8	-0.8
WR8	Warramunga Arr	13.59	154		Pn	17 02 36.0	+0.5
JAGI	Jajag, Banyuwa	14.03	266		P	17 02 44.4	+0.1
MBWA	Marble Bar	15.73	211		Pn	17 03 04.3	+2.0
MYLDM	Lahad Datu	16.10	322	P	Pn	17 03 07.0	+0.1
MYLDM				IAmb	IAmb	17 03 24.2	
	comp=Z,30nm,1.1s						
SNJI	Sawahan-Nganju	16.39	269	P	Pn	17 03 11.5	+0.9
AS31	Alice Springs	16.76	162	P	P	17 03 16.1	+1.5
AS31				IAmb	IAmb	17 03 20.0	
	comp=Z,16nm,0.6s						
ASAR	Alice Springs	16.76	162	P	Pn	17 03 16.9	+2.0
	comp=Z,37nm,0.7s,baz=342,slow=10,SNR=500						
ASAR				S	S	17 06 16.2	-5.2
	comp=Z,3.3nm,0.4s,baz=324,slow=22,SNR=8.2						
QIS	Mount Isa	16.83	141	P	P	17 03 15.5	+0.2
	comp=Z,17nm,1.0s						
KKM	Kota Kinabalu	18.21	318	P	P	17 03 30.1	-0.5
KKM				IAmb	IAmb	17 03 44.2	
	comp=Z,27nm,0.9s						
KKM	Kota Kinabalu	18.21	318	P	P	17 03 29.7	-0.9
	comp=Z,35nm,0.8s						
STKI	Sintang	18.46	294	P	P	17 03 33.1	-0.1
	comp=Z,52nm,0.9s						
MTSU	Mount Surprise	18.73	125	P	P	17 03 35.0	-1.1
	comp=Z,12nm,0.6s						
PMG	Port Moresby	18.73	97	P	Pn	17 03 42.6	+4.2
	comp=Z,20nm,0.8s,baz=270,slow=5.1,SNR=5.9						
PMG				S	S	17 07 03.4	+1.8
	comp=Z,13nm,0.9s,baz=266,slow=19,SNR=1.7						
PMG	Port Moresby	18.73	97	IAmb	IAmb	17 03 43.5	
	comp=Z,28nm,0.8s						
BBJI	Bungbulang	20.47	269	P	P	17 03 54.1	-0.9
BBJI				IAmb	IAmb	17 04 23.7	
	comp=Z,41nm,1.5s						
BBJI	Bungbulang	20.47	269	P	P	17 03 54.6	-0.4
	comp=Z,20nm,1.1s						
INKA	Innaminka	23.16	151	P	P	17 04 22.7	+0.7
INKA				IAmb	IAmb	17 04 28.2	
	comp=Z,13nm,1.1s						
QLP	Quilpie	24.13	143	P	P	17 04 29.9	-1.0
	comp=Z,20nm,1.9s						
BLDU	Ballidu	25.25	204	P	P	17 04 40.8	-0.3
	comp=Z,45nm,2.5s						
GUMO	Guam	26.80	38	P	P	17 04 51.4	-3.6
	comp=Z,128nm,1.4s						
STKA	Stephens Creek	27.06	155	P	P	17 04 59.5	+2.2
	comp=Z,1.3nm,0.5s,baz=314,slow=8.7,SNR=4.2						
	comp=Z,1.3nm,0.5s						
PPSI	Pulau Pagai	28.58	278	P	P	17 05 10.3	-0.7
	comp=Z,188nm,1.3s						
CMSA	Cobar Meteorol	28.74	148	P	P	17 05 10.5	-1.7
RPSI	Rantau Prapat	31.07	288	P	P	17 05 32.4	-0.6
RPSI				IAmb	IAmb	17 05 37.2	
	comp=Z,11nm,0.6s						
RPSI	Rantau Prapat	31.07	288	P	P	17 05 32.0	-1.0
	comp=Z,14nm,0.8s						
HNR	Honiara	31.34	95	LR	LR	17 19 12.3	
	comp=Z,30nm,18.3s,baz=359,slow=38						
SSLB	Suanglung	32.10	347	P	P	17 05 39.4	-2.6
	comp=Z,8.0nm,1.0s						
YHNB	Yeheng	32.87	348	P	P	17 05 47.2	-1.5
LHI	Lord Howe Isla	37.20	134	P	P	17 06 25.8	+0.1
SLVN	Son La	37.50	321	P	P	17 06 27.6	-0.7
MOO	Moorlands	38.41	157	P	P	17 06 34.9	-0.8
	comp=Z,33nm,1.6s						
CMAR	Chiang Mai Arr	38.91	312	P	P	17 06 40.7	+0.5
	comp=Z,2.0nm,0.7s,baz=140,slow=7.0,SNR=18						
CMAR				PcP	PcP	17 08 48.6	+0.6
	comp=Z,1.0nm,1.0s,baz=173,slow=2.9,SNR=4.5						
	comp=Z,2.0nm,0.7s						
CMAR	Chiang Mai Arr	38.91	312	P	P	17 06 39.5	-0.7
CHTO	Chiang Mai	39.14	313	P	P	17 06 41.2	-0.9
	comp=Z,5.3nm,0.7s						
WHN	Wuhan	40.31	341	⇓P	P	17 06 51.4	-0.1
NJ2	Nanjing	40.54	348	eP	P	17 06 53.8	+0.4
NJ2				pmax	pmax		
	comp=Z,43nm,0.5s						
NPW	Naypyitaw	41.81	311	P	P	17 07 02.9	-1.0
	comp=Z,5.7nm,1.5s						
JHJ	Hachijo jima 2	42.04	14	LR	LR	17 24 29.4	
	comp=Z,50nm,19.0s,baz=122,slow=36						
PZH	PanZhiHua	42.66	324	P	P	17 07 12.7	+1.8
KSRS	Korea Array	44.92	360	P	P	17 07 27.9	-0.6
	comp=Z,1.0nm,0.4s,baz=180,slow=9.1,SNR=8.0						
	comp=Z,1.0nm,0.4s						
SHL	Shillong	48.45	314		P	17 07 55.4	-1.2
SHL				IAmb	IAmb	17 07 58.2	
	comp=Z,6.5nm,0.7s						
BJI2	Beijing	48.78	348	P	P	17 07 57.4	-1.2
BJI2				pP	pwP	17 08 36.4	+0.4
BJI2				sP	sP	17 08 55.2	+7.3
BJI2				PP	PP	17 09 53.4	+0.1
BJI2				ScP	ScP	17 12 55.4	-6.8
BJI2				pmax	pmax		
	comp=Z,5.0nm,1.0s						
LZH	Lanzhou	49.25	334	eP	P	17 07 57.9	-4.5
LZH				sP	sP	17 08 54.9	+4.0
LZH				pmax	pmax		
	comp=Z,17nm,1.1s						
HHC	Hu-ho-hao-te	50.71	344	eP	P	17 08 15.4	+2.2
HHC				pmax	pmax		
	comp=Z,9.0nm,0.6s						
USRK	Ussuriysk Ar.	51.76	3	P	P	17 08 20.3	-0.6
	comp=Z,3.7nm,0.6s,baz=179,slow=5.5,SNR=10						
	comp=Z,3.7nm,0.6s						
JKA	Kamikawa-asahi	53.17	13	P	P	17 08 30.2	-1.1
JKA				IAmb	IAmb	17 08 30.8	
	comp=Z,12nm,1.3s						
GTA2	Gaotai	53.88	333	eP	P	17 08 36.4	-0.3
GTA2				pP	pP	17 08 41.8	-28
GTA2				pmax	pmax		
	comp=Z,7.0nm,0.8s						
SONM	Songino Array	58.59	343	P	P	17 09 09.7	-0.2
	comp=Z,2.3nm,0.8s,baz=160,slow=5.9,SNR=11						
	comp=Z,2.3nm,0.8s						
SONM	Songino Array	58.59	343	IAmb	IAmb	17 09 10.9	
	comp=Z,4.5nm,1.0s						
AFI	Afiamalu	59.06	102	LR	LR	17 32 49.8	
	comp=Z,86nm,19.5s,baz=155,slow=34						
PEA0B	Petropavlovsk-	65.52	19	P	P	17 09 55.2	-0.8
PETK	Petropavlovsk-	65.52	19	P	P	17 09 55.7	-0.2
	comp=Z,4.2nm,0.9s,baz=180,slow=2.7,SNR=11						
	comp=Z,4.2nm,0.9s						
PETK	Petropavlovsk-	65.52	19	P	P	17 09 55.2	-0.8
KSH2	Kashi	67.48	318	P	P	17 10 08.4	-0.5
KSH2				pmax	pmax		
	comp=Z,5.0nm,0.6s						
MKAR	Makanchi Array	67.90	328	P	P	17 10 10.7	-0.5
	comp=Z,1.5nm,0.5s,baz=121,slow=8.2,SNR=38						
	comp=Z,1.5nm,0.5s						
MKAR	Makanchi Array	67.90	328		P	17 10 10.1	-1.1
KDJ	Kajisay	68.05	321	P	P	17 10 11.4	-1.0
MAKZ	Makanchi	68.07	328	P	P	17 10 11.7	-0.6
YAK	Yakutsk	69.53	1		P	17 10 19.9	-1.0
ARSB	Arslanbob	70.29	319	P	P	17 10 24.9	-1.3
ARSB				IAmb	IAmb	17 10 26.8	
	comp=Z,3.5nm,0.6s						
ZAA0	Zalesovo Array	71.47	335		P	17 10 31.0	-1.9
ZAA0				IAmb	IAmb	17 10 32.5	
	comp=Z,7.1nm,0.8s						
ZALV	Zalesovo Beam	71.47	335	P	P	17 10 31.9	-1.0
	comp=Z,5.2nm,0.6s,baz=128,slow=4.6,SNR=29						
	comp=Z,5.2nm,0.6s						
ZALV	Zalesovo Beam	71.47	335		P	17 10 31.1	-1.7
VNDA	Vanda	71.97	173	P	P	17 10 37.4	+1.9
	comp=Z,0.5nm,0.4s,baz=222,slow=7.6,SNR=8.9						
	comp=Z,0.5nm,0.4s						
KURBB	Kurchatov Arra	72.23	329	P	P	17 10 37.1	-0.4
	comp=Z,10nm,0.7s,baz=131,slow=5.0,SNR=93						
	comp=Z,10nm,0.7s						
KURK	Kurchatov	72.24	329		P	17 10 36.8	-0.7
KURK				IAmb	IAmb	17 10 37.9	
	comp=Z,13nm,0.8s						
BVAR	Borovoye Array	77.76	328	P	P	17 11 08.8	-0.4
	comp=Z,7.3nm,0.8s,baz=123,slow=5.5,SNR=28						
	comp=Z,7.3nm,0.8s						
BORK	Borovoye	77.81	328		P	17 11 08.5	-0.9
BORK				IAmb	IAmb	17 11 09.7	
	comp=Z,7.0nm,0.8s						
TIXI	Tiksi	79.18	0	P	P	17 11 15.2	-1.3
TIXI				IAmb	IAmb	17 11 16.3	
	comp=Z,3.9nm,0.6s						
AB31	Akbulak array	82.01	322		P	17 11 30.3	-1.8
ABKAR	Akbulak array	82.01	322		P	17 11 30.2	-1.8
QSPA	South Pole Qui	82.28	180	P	P	17 11 35.2	+1.8
	comp=Z,1.2nm,0.7s,baz=272,slow=1.8,SNR=7.7						
	comp=Z,1.2nm,0.7s						
QSPA	South Pole Qui	82.28	180	P	P	17 11 33.9	+0.5
ARTI	Arti	85.49	328		P	17 11 48.0	-1.6
TXAR	Lajitas Array	126.73	59	PKP	PKPdf	17 18 16.1	+0.7
	comp=Z,0.1nm,0.6s,baz=336,slow=2.7,SNR=4.4						
TORD	Torodi Ar. Bea	127.28	281	PKP	PKPdf	17 18 17.0	+0.4
	comp=Z,1.2nm,0.7s,baz=81,slow=1.8,SNR=6.1						
CPUP	Villa Florida	145.74	171	PKPbc	PKPbc	17 18 52.5	+1.6
	comp=Z,1.6nm,0.7s,baz=108,slow=3.2,SNR=4.0						
LPAZ	La Paz	151.15	146	PKPbc	PKiKP	17 19 08.0	+1.4
	comp=Z,2.6nm,0.4s,baz=66,slow=2.6,SNR=15						
LPAZ	La Paz	151.15	146		PKiKP	17 19 08.2	+1.6

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*IDC **07** 17:18:06.6±2.4, 34°.70N×86°.09E, h0^{km}, mb3.6/3, mbtmp3.6/6, ML2.8/3, Error ellipse: s-maj=135.3km s-min=20.1km az=65.0*

ISC 07 17:18:08.3±2.0**, 34°.7N**±0°.3×**86°.1E**±0°.6**, h10^{km}, n6,** σ**0.^{s}50**/6**, mb3.5**/3**, Xizang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	Makanchi Array	12.38	348	Pn	Pn	17 21 04.2	-0.2
	0.1nm,0.3s,baz=167,slow=13,SNR=3.2						
	0.8nm,0.9s						
MKAR				AML	AML		
KURBB	Kurchatov Arra	16.80	343	Pn	Pn	17 22 04.2	+0.7
	0.1nm,0.3s,baz=157,slow=11,SNR=5.8						
	1.4nm,0.9s						
KURBB				AML	AML		
ZALV	Zalesovo Beam	19.22	358	P	P	17 22 32.4	+0.1
	0.1nm,0.3s,baz=181,slow=9.8,SNR=6.1						
	1.0nm,0.6s						
ZALV				AML	AML		
BVAR	Borovoye Array	21.41	333	P	P	17 22 55.9	-0.3
	1.5nm,0.8s,baz=143,slow=11,SNR=6.1						
	1.5nm,0.8s						
WRA	Warramunga Arr	71.12	132	P	P	17 29 26.8	-0.2
	1.1nm,1.0s,baz=327,slow=6.4,SNR=6.7						
	1.1nm,1.0s						
ASAR	Alice Springs	73.70	135	P	P	17 29 42.6	+0.2
	0.3nm,0.8s,baz=314,slow=5.1,SNR=2.7						
	0.3nm,0.8s						

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*SDD **07** 17:22:30.8±2.3, 18°.81N×69°.48W, h86^{km}±11^{km}, MD3.6, ML3.6, MW3.7, Presumed earthquake*

*OSPL **07** 17:22:31.7±2.3, 18°.75N×69°.38W, h96^{km}±11^{km}, ML3.4, Presumed earthquake*

*NEIC **07** 17:22:32.9±1.0, 18°.95N±0°.06×69°.42W±0°.05, h35^{km}±2^{km}, ML3.5/34, Error ellipse: s-maj=10.4km s-min=7.5km az=201.0*

ISC 07 17:22:29.2±1.3**, 18°.82N**±0°.05×**69°.49W**±0°.03**, h111^{km}**±7^{km}**, n54,** σ**1.^{s}81**/73**, 8C-7D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SDD	Santo Domingo	0.54	228		Pn	17 22 46.1	-0.3
SDD				Sn	Sn	17 22 56.7	-2.6
SDD				IAML		17 22 57.6	
	comp=E,3µm,0.2s						
SDD	Santo Domingo	0.54	228	iP	Pn	17 22 46.1	-0.3
SDD				eS	Sn	17 22 57.2	-2.1
SDD				IAML		17 22 58.1	
	comp=Z,2µm,0.1s						
SDD	Santo Domingo	0.54	228	⇓ePg	Pn	17 22 46.1	-0.3
SDD				⇑eSg	Sn	17 22 57.2	-2.1
SDD				IAML		17 22 57.5	
	comp=E,948nm,0.3s						
SDD				IAML		17 22 57.9	
	comp=N,512nm,0.2s						
SMDR	Samana, DR	0.55	31	⇓ePg	Pn	17 22 46.7	+0.2
SMDR				IAML		17 23 02.4	
	comp=N,2µm,0.5s						
SMDR				IAML		17 23 03.9	
	comp=E,2µm,0.5s						
NADR	Nagua	0.63	327	⇓ePg	Pn	17 22 48.0	+0.9
NADR				⇑eSg	Sn	17 23 01.5	+1.0
NADR				IAML		17 23 03.6	
	comp=N,6µm,0.3s						
NADR				IAML		17 23 03.8	
	comp=E,4µm,0.2s						
LOSC1	San Cristbal	0.72	235	iP	Pn	17 22 48.2	+0.4
LOSC1				eS	Sn	17 23 00.7	-1.1
LOSC1				IAML		17 23 01.6	
	comp=Z,1µm,0.2s						
HIDR	Higuey Centro	0.77	107	⇑ePg	Pn	17 22 48.2	0.0
HIDR				⇑eSg	Sn	17 23 01.4	-1.0
HIDR				IAML		17 23 02.7	
	comp=N,4µm,0.2s						
HIDR				IAML		17 23 03.1	
	comp=E,3µm,0.2s						
SFDR	San Fco. de Ma	0.85	303	ePg	Pn	17 22 50.7	+1.8
SFDR				IAML		17 23 07.0	
	comp=N,5µm,0.2s						
SFDR				IAML		17 23 10.9	
	comp=E,4µm,0.3s						
BANI	BANI	0.93	243	Pn	Pn	17 22 51.0	+1.1
BANI	BANI	0.93	243	ePg	Pn	17 22 51.0	+1.1
BANI				⇑eSg	Sn	17 23 05.9	+0.4
BANI				IAML		17 23 09.5	
	comp=N,4µm,0.2s						
BANI				IAML		17 23 10.2	
	comp=E,2µm,0.1s						
ABDR	Alto Bandera	1.08	270	ePg	Pn	17 22 53.2	+1.5
ABDR				⇓eSg	Sn	17 23 09.0	+0.4
ABDR				IAML		17 23 10.4	
	comp=N,2µm,0.2s						
ABDR				IAML		17 23 10.5	
	comp=E,1µm,0.2s						
PCDR	Punta Cana, DR	1.09	106		Pn	17 22 52.0	+0.5
PCDR				IAML		17 23 10.1	
	comp=N,1µm,0.8s						
PCDR	Punta Cana, DR	1.09	106	iP	Pn	17 22 51.9	+0.5
PCDR				IAML		17 23 11.4	
	comp=Z,375nm,0.7s						
PCDR	Punta Cana, DR	1.09	106	⇓ePg	Pn	17 22 52.4	+0.9
PCDR				IAML		17 23 09.8	
	comp=E,286nm,1.0s						
PCDR				IAML		17 23 11.7	
	comp=N,572nm,0.5s						
SC01	Santiago de lo	1.32	297		Pn	17 22 56.0	+2.0
SC01				IAML		17 23 18.3	
	comp=N,893nm,0.4s						
SC01				IAML		17 23 20.6	
	comp=E,863nm,0.3s						
SC01	Santiago de lo	1.32	297	iP	Pn	17 22 56.2	+2.3
SC01				eS	Sn	17 23 16.1	+3.4
SC01				IAML		17 23 18.3	
	comp=Z,408nm,0.3s						
SC01	Santiago de lo	1.32	297	⇓ePg	Pn	17 22 56.4	+2.4
SC01				IAML		17 23 18.2	
	comp=N,864nm,0.2s						
SC01				IAML		17 23 22.9	
	comp=E,731nm,0.6s						
SDDR	Presa de Saban	1.71	276		Pn	17 23 01.0	+2.3
SDDR				IAML		17 23 27.9	
	comp=E,566nm,0.5s						
SDDR				IAML		17 23 31.6	
	comp=E,401nm,0.5s						
SDDR	Presa de Saban	1.71	276	eP	Pn	17 23 01.3	+2.6
SDDR				eS	Sn	17 23 24.4	+3.2
SDDR				IAML		17 23 26.2	
	comp=E,194nm,0.3s						
SDDR				IAML		17 23 26.6	
	comp=E,291nm,0.4s						
SDDR	Presa de Saban	1.71	276	iP	Pn	17 23 01.4	+2.6
SDDR	Presa de Saban	1.71	276	⇓ePg	Pn	17 23 02.0	+3.3
SDDR				IAML		17 23 27.7	
	comp=N,528nm,0.5s						
SDDR				IAML		17 23 31.4	
	comp=E,378nm,0.3s						
LUDR	Luperon	1.75	308	⇑ePg	Pn	17 23 00.9	+1.8
LUDR				IAML		17 23 32.7	
	comp=E,2µm,0.3s						
PODR	Polo	1.82	249	ePg	Pn	17 23 01.9	+1.7
PODR				IAML		17 23 30.2	
	comp=E,512nm,0.2s						
PODR				IAML		17 23 33.5	
	comp=N,369nm,0.2s						
REDR	Restauracion	1.84	281	ePg	Pn	17 23 05.6	+5.5
REDR				IAML		17 23 34.5	
	comp=E,377nm,0.1s						
REDR				IAML		17 23 35.7	
	comp=N,646nm,0.1s						
LONE3	El Aguacate, B	1.88	264	iP	Pn	17 23 03.0	+2.1
LONE3				IAML		17 23 34.3	
	comp=Z,101nm,0.4s						
LOPP1	Punta Rusia, P	1.91	303	iP	Pn	17 23 02.5	+1.4
LOPP1				eS	Sn	17 23 26.9	+1.4
LOPP1				IAML		17 23 35.6	
	comp=Z,256nm,0.3s						
LODU1	El Espartillar	1.94	256	iP	Pn	17 23 04.2	+2.7
LODU1				IAML		17 23 34.7	
	comp=Z,147nm,0.6s						
LOVI	El Cajuil, Ovi	2.06	241	iP	Pn	17 23 03.9	+0.9
LOVI				eS	Sn	17 23 28.1	-0.6
LOVI				IAML		17 23 29.4	
	comp=Z,204nm,0.3s						
LODA1	ITESIL, Dajabo	2.21	289	iP	Pn	17 23 06.6	+1.6
LODA1				eS	Sn	17 23 33.4	+1.1
LODA1				IAML		17 23 34.2	
	comp=Z,809nm,1.2s						
LOBH	Bahia de las A	2.25	245	iP	Pn	17 23 07.7	+2.2
LOBH				IAML		17 23 37.8	
	comp=Z,101nm,0.4s						
JIDR	Jimani	2.26	262	ePg	Pn	17 23 08.1	+2.4
JIDR				IAML		17 23 38.1	
	comp=E,137nm,0.7s						
JIDR				IAML		17 23 49.6	
	comp=N,74nm,0.6s						
AGPR	Aguadilla, PR	2.28	99		Pn	17 23 07.4	+1.5
AGPR				IAML		17 23 44.9	
	comp=N,237nm,0.3s						
AGPR				IAML		17 23 45.6	
	comp=N,279nm,0.4s						
AGPR	Aguadilla, PR	2.28	99	ePg	Pn	17 23 07.7	+1.8
AGPR				IAML		17 23 44.9	
	comp=N,183nm,0.3s						
AGPR				IAML		17 23 45.5	
	comp=E,202nm,0.4s						
PRSN	Puerto Rico Se	2.30	105		Pn	17 23 08.2	+2.1
CRPR	Cabo Rojo, PR	2.40	109		Pn	17 23 09.2	+1.9
CRPR	Cabo Rojo, PR	2.40	109	ePg	Pn	17 23 09.6	+2.2
CRPR				IAML		17 23 47.6	
	comp=E,78nm,0.3s						
CRPR				IAML		17 23 54.5	
	comp=N,78nm,0.5s						
MLPR	Magueyes Islan	2.47	110		Pn	17 23 10.0	+1.7
AOPR	Arecibo Observ	2.64	100		Pn	17 23 12.6	+2.1
CELP	Cerrillos	2.86	105		Pn	17 23 15.3	+1.9
CELP				IAML		17 23 58.3	
	comp=N,153nm,0.3s						
CELP				IAML		17 23 59.3	
	comp=N,230nm,0.3s						
ECPR	Experimental S	3.01	99		Pn	17 23 15.6	+0.2
GRTK	Grand Turk	3.09	330	eP	Pn	17 23 16.7	+0.3

GRTK				eS	Sn	17 23 50.5	-2.3
GRTK				IAML		17 23 52.1	
	comp=N,137nm,0.1s						
GRTK				IAML		17 23 52.2	
	comp=N,92nm,0.2s						
GRTK	Grand Turk	3.09	330	i P	Pn	17 23 16.8	+0.4
GRTK				eS	Sn	17 23 52.0	-0.8
GRTK	Grand Turk	3.09	330	⇑ePg	Pn	17 23 17.1	+0.7
GRTK				⇑eSg	Sn	17 23 52.0	-0.8
GRTK				IAML		17 23 53.9	
	comp=N,196nm,0.2s						
GRTK				IAML		17 23 54.7	
	comp=E,270nm,0.4s						
PDPR	Patillas Dam,	3.39	103		Pn	17 23 21.4	+1.1
PDPR				IAML		17 25 11.4	
	comp=E,122nm,0.1s						
PDPR				IAML		17 25 11.4	
	comp=E,127nm,0.1s						
HUMP	Col San Antoni	3.52	101		Pn	17 23 23.1	+0.9
HUMP				IAML		17 24 09.2	
	comp=E,99nm,0.2s						
MASC	Masc	4.67	288	eP	Pn	17 23 38.5	+0.8
MASC				eS	Sn	17 24 29.8	-1.0
MASC				eSg		17 24 30.8	
QMBU	Quimbuelo	5.21	286	eP	Pn	17 23 43.0	-1.8
QMBU				eS	Sn	17 24 41.3	-2.5
GTBY	Guantanamo Bay	5.42	283	eP	Pn	17 23 47.2	-0.6
GTBY				eS	Sn	17 24 46.7	-2.2
NMDO	Nuevo Mundo	5.46	289	Pn	Pn	17 23 45.7	-2.5
NMDO	Nuevo Mundo	5.46	289	eP	Pn	17 23 47.0	-1.2
NMDO				eS	Sn	17 24 46.9	-2.9
MOAC	Moa	5.47	290	eP	Pn	17 23 42.8	-5.6
MOAC				eS	Sn	17 24 47.2	-2.8
PINC	Pinares de May	6.17	287	eP	Pn	17 23 55.9	-1.9
PINC				eS	Sn	17 25 04.5	-2.5
HLGC	Holguin	6.52	289	eS	Sn	17 25 16.1	+0.4
CCCC	Cccc	8.13	288	eS	Sn	17 25 42.2	-13

*SJA **07** 17:34:50.2±0.6, 24°.05S×66°.87W, h211^{km}±6^{km}, ML3.4, MW3.5*

*GUC **07** 17:34:52.1±0.6, 23°.96S×67°.22W, h244^{km}±10^{km}, ML3.7*

ISC 07 17:34:52.0±1.3**, 24°.01S**±0°.04×**66°.95W**±0°.06**, h200**^{km}**, n27, σ1^{s}.75**/40**, 2C, Salta Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SALTA		0.60	111	eP	Pn	17 35 19.4	-0.7
SLA	San Lorenzo	1.50	119	eP	Pn	17 35 24.9	-0.9
AF01	San Pedro de A	1.54	313	eP	Pn	17 35 38.6	+12
AF01				eS	Sn	17 35 59.6	+6.6
AF01				IAML		17 36 35.1	
	comp=Z,53nm,0.6s						
YJA	Yavi	2.25	36	eP	Pn	17 35 33.7	0.0
FSA	Cafayete	2.27	157	eP	Pn	17 35 32.4	-1.2
PB06	IPOC Station P	2.73	298	eP	Pn	17 35 39.2	+0.5
PB06				eS	Sn	17 36 15.4	+0.3
PB06				IAML		17 36 21.4	
	comp=Z,117nm,0.2s						
PB06	IPOC Station P	2.73	298	⇑eP	Pn	17 35 39.4	+0.7
PB06				eS	Sn	17 36 14.8	-0.3
PB06				IAML		17 36 18.6	
	comp=N,198nm,0.4s						
PB09	IPOC Station P	3.05	316	eP	Pn	17 35 43.4	+1.0
PB09				eS	Sn	17 36 22.1	+0.3
PB09				IAML		17 36 25.8	
	comp=Z,57nm,0.2s						
PB09	IPOC Station P	3.05	316	eP	Pn	17 35 43.4	+1.0
PB09				eS	Sn	17 36 20.9	-0.9
PB09				IAML		17 36 24.6	
	comp=N,80nm,0.2s						
AHML	Horco Molle	3.13	152	eP	Pn	17 35 27.6	-16
PB05	IPOC Station P	3.20	290	eP	Pn	17 35 44.6	+0.5
PB05				eS	Sn	17 36 23.9	-0.9
PB05				IAML		17 36 26.8	
	comp=Z,34nm,0.3s						
PB05	IPOC Station P	3.20	290	⇑eP	Pn	17 35 44.2	+0.1
PB05				eS	Sn	17 36 23.1	-1.7
PB05				IAML		17 36 27.6	
	comp=N,76nm,0.2s						
PB14	IPOC Station P	3.21	258	eP	Pn	17 35 44.8	+0.4
PB14				eS	Sn	17 36 24.6	-0.7
PB14				IAML		17 36 26.3	
	comp=Z,38nm,0.3s						
PB14	IPOC Station P	3.21	258	eP	Pn	17 35 44.3	-0.1
AC02	Maricunga	3.44	214	eP	Pn	17 35 47.3	0.0
AC02				eS	Sn	17 36 36.4	+5.7
AC02	Maricunga	3.44	214	eP	Pn	17 35 47.1	-0.2
PB07	IPOC Station P	3.53	309	eP	Pn	17 35 48.3	+0.1
PB07				eS	Sn	17 36 31.5	-0.7
PB07				IAML		17 36 33.8	
	comp=Z,103nm,0.2s						
PB07	IPOC Station P	3.53	309	eP	Pn	17 35 48.2	0.0
PB07				eS	Sn	17 36 30.5	-1.7
PB02	IPOC Station P	3.81	314	eP	Pn	17 35 51.8	+0.2
PB02				eS	Sn	17 36 36.5	-1.8
PB02				IAML		17 36 41.2	
	comp=Z,127nm,0.4s						
PB02	IPOC Station P	3.81	314	eP	Pn	17 35 51.6	0.0
PB02				eS	Sn	17 36 36.1	-2.3
AC01	Pan de Azucar	3.93	236	eP	Pn	17 35 51.8	-1.1
AC01				IAML		17 37 24.1	
	comp=Z,32nm,0.1s						
TINO	Tinogasta	4.08	188	eP	Pn	17 35 54.3	-0.5
TA01	Diego Aracena	4.55	318	eP	Pn	17 36 00.8	+0.2
TA01				eS	Sn	17 36 52.9	-1.8
TA01				IAML		17 36 55.7	
	comp=Z,19nm,0.5s						
TA01	Diego Aracena	4.55	318	eP	Pn	17 35 59.8	-0.8
GO03	Copiapo	4.64	219	eP	Pn	17 35 59.8	-2.0
GO01	Chusmiza	4.79	334	eP	Pn	17 36 05.9	+1.7
GO01				eS	Sn	17 37 01.8	+0.7
GO01				IAML		17 37 05.3	
	comp=Z,24nm,0.9s						
ACLC	CERRO LA CRUZ	5.40	180	eP	Pn	17 36 10.2	-1.4

*SDD **07** 17:35:00.7±2.2, 18°.83N×66°.79W, h59^{km}±21^{km}, MD3.1, ML2.4, MW2.8, Presumed earthquake*

*NEIC **07** 17:35:02.4±0.5, 18°.86N±0°.09×66°.69W±0°.04, h56^{km}±7^{km}, ML2.7/28, Md3.2/15(RSPR), Error ellipse: s-maj=13.3km s-min=5.1km az=187.0*

*RSPR **07** 17:35:03.2, 18°.87N×66°.66W, h53^{km}±2^{km}, MD3.2/15*

ISC 07 17:35:01.5±1.9**, 18°.91N**±0°.10×**66°.68W**±0°.04**, h58**^{km}±13^{km}**, n38, σ0^{s}.39**/54**, 8C-14D, Puerto Rico region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EMPR	Esperanza - Ma	0.45	162		Pn	17 35 13.3	+0.4
EMPR					Sn	17 35 21.4	+0.4
EMPR	Esperanza - Ma	0.45	162	⇓eP	Pn	17 35 13.3	+0.4
EMPR				eS	Sn	17 35 21.4	+0.4
AOPR	Arecibo Observ	0.57	187		Pn	17 35 14.1	0.0
AOPR					Sn	17 35 22.8	-0.4
AOPR	Arecibo Observ	0.57	187	⇓eP	Pn	17 35 14.1	0.0
AOPR	Arecibo Observ	0.57	187	⇓ePg	Pn	17 35 13.9	-0.2
AOPR				⇓eSg	Sn	17 35 22.6	-0.6
AOPR				IAML		17 35 25.5	
	comp=N,418nm,0.2s						
AOPR				IAML		17 35 27.5	
	comp=E,682nm,0.3s						
AGPR	Aguadilla, PR	0.60	223		Pn	17 35 14.3	-0.1
AGPR					Sn	17 35 23.7	-0.2
AGPR	Aguadilla, PR	0.60	223	IAML		17 35 25.2	
	comp=E,309nm,0.3s						
AGPR				IAML		17 35 26.3	
	comp=E,282nm,0.3s						
AGPR	Aguadilla, PR	0.60	223	⇑eP	Pn	17 35 14.3	-0.1
AGPR	Aguadilla, PR	0.60	223	⇑ePg	Pn	17 35 14.4	-0.1
AGPR				⇑eSg	Sn	17 35 23.7	-0.2
AGPR				IAML		17 35 25.1	
	comp=N,225nm,0.3s						
AGPR				IAML		17 35 26.3	
	comp=E,216nm,0.2s						
ECPR	Experimental S	0.66	153		Pn	17 35 15.3	+0.1
ECPR					Sn	17 35 24.3	-0.8
ECPR	Experimental S	0.66	153	⇓eP	Pn	17 35 15.3	+0.1
PRSN	Puerto Rico Se	0.82	213		Pn	17 35 16.8	-0.3
LSP	Las Mesas	0.83	208		Pn	17 35 17.4	+0.1
LSP					Sn	17 35 28.9	+0.1
LSP	Las Mesas	0.83	208	⇑eP	Pn	17 35 17.4	+0.1
LSP				eS	Sn	17 35 28.9	+0.1
CELP	Cerrillos	0.84	174		Pn	17 35 17.4	0.0
CELP					Sn	17 35 28.3	-0.7
CELP	Cerrillos	0.84	174	IAML		17 35 29.2	
	comp=E,182nm,0.3s						
CELP	Cerrillos	0.84	174	⇓eP	Pn	17 35 17.4	0.0
CELP	Cerrillos	0.84	174	⇓ePg	Pn	17 35 17.4	0.0
CELP				⇑eSg	Sn	17 35 28.5	-0.5
CELP				IAML		17 35 28.7	
	comp=E,36nm,0.4s						
CELP				IAML		17 35 30.0	
	comp=N,65nm,0.2s						
IDE	Isla Desecheo	0.92	235		Pn	17 35 19.0	+0.6
IDE					Sn	17 35 31.5	+0.6
IDE	Isla Desecheo	0.92	235	⇓eP	Pn	17 35 19.0	+0.6
IDE				eS	Sn	17 35 31.5	+0.6
GBPR	Guanica, Bosqu	0.95	192		Pn	17 35 19.2	+0.4
GBPR					Sn	17 35 31.8	+0.2
GBPR	Guanica, Bosqu	0.95	192	⇓eP	Pn	17 35 19.2	+0.4
GBPR				eS	Sn	17 35 31.8	+0.2
CRPR	Cabo Rojo, PR	0.99	205		Pn	17 35 19.4	0.0
CRPR					Sn	17 35 32.7	+0.2
CRPR	Cabo Rojo, PR	0.99	205	⇓eP	Pn	17 35 19.4	0.0
CRPR	Cabo Rojo, PR	0.99	205	⇓ePg	Pn	17 35 19.4	0.0
CRPR				IAML		17 35 34.0	
	comp=E,131nm,0.3s						
CRPR				IAML		17 35 35.0	
	comp=N,109nm,0.2s						
MLPR	Magueyes Islan	1.00	200		Pn	17 35 19.6	+0.1
MLPR					Sn	17 35 32.5	-0.3
MLPR	Magueyes Islan	1.00	200	IAML		17 35 33.0	
	comp=N,127nm,0.3s						
MLPR	Magueyes Islan	1.00	200	⇓eP	Pn	17 35 19.6	+0.1
MLPR	Magueyes Islan	1.00	200	⇓ePg	Pn	17 35 19.6	+0.1
MLPR				⇓eSg	Sn	17 35 32.5	-0.3
MLPR				IAML		17 35 32.9	
	comp=E,47nm,0.4s						
MLPR				IAML		17 35 33.2	
	comp=N,40nm,0.2s						
PDPR	Patillas Dam,	1.08	145		Pn	17 35 21.0	+0.4
PDPR					Sn	17 35 34.4	-0.4
PDPR	Patillas Dam,	1.08	145	IAML		17 35 34.8	
	comp=N,133nm,0.2s						
PDPR				IAML		17 35 36.3	
	comp=N,160nm,0.1s						
PDPR	Patillas Dam,	1.08	145	⇑eP	Pn	17 35 21.0	+0.4
IGPR	InterUniversit	1.08	150		Pn	17 35 20.8	+0.2
IGPR					Sn	17 35 34.1	-0.7
IGPR	InterUniversit	1.08	150	⇑eP	Pn	17 35 20.8	+0.2
HUMP	Col San Antoni	1.10	134		Pn	17 35 21.2	+0.4
HUMP					Sn	17 35 34.9	-0.1
HUMP	Col San Antoni	1.10	134	IAML		17 35 36.5	
	comp=N,216nm,0.2s						
HUMP	Col San Antoni	1.10	134	⇑eP	Pn	17 35 21.2	+0.4
SMDR	Samana, DR	2.40	279	eSg	Sn	17 36 05.6	-1.2
SMDR				IAML		17 36 09.4	
	comp=N,33nm,1.0s						

*NDI **07** 17:36:04.8±1.0, 26°.45N×93°.41E, h30^{km}, ML3.3, MW3.5, Presumed earthquake*

ISC 07 17:36:03.6±1.8**, 26°.49N**±0°.07×**93°.30E**±0°.08**, h27**^{km}±26^{km}**, n16, σ1^{s}.54**/31**, Northeastern India**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JORH	JORHAT	0.89	73	eP	Pb	17 36 19.2	-1.3
JORH				eS	Sb	17 36 32.0	+0.1
JORH				IAML		17 36 32.9	
	comp=N,1µm,0.2s						
JORH				IAML		17 36 34.2	
	comp=E,1µm,0.2s						
KOHI	KOHIMA	1.05	136	eP	Pn	17 36 23.0	+0.2
KOHI				eS	Sn	17 36 35.9	-0.8
KOHI				IAML		17 36 37.0	
	comp=N,675nm,0.3s						
KOHI				IAML		17 36 37.3	
	comp=E,864nm,0.2s						
MOKO	MOKOCHONG	1.10	98	eP	Pb	17 36 23.9	-0.3
MOKO				eS	Sb	17 36 37.1	-1.1
MOKO				IAML		17 36 38.4	
	comp=E,415nm,0.2s						
MOKO				IAML		17 36 38.8	
	comp=N,818nm,0.2s						
ZIRO	ZIRO	1.14	25	eP	Pb	17 36 25.6	+0.7
ZIRO				eS	Sb	17 36 40.0	+0.6
ZIRO				IAML		17 36 42.3	
	comp=E,662nm,0.0s						
ZIRO				IAML		17 36 42.5	
	comp=N,516nm,0.0s						
SHL	Shillong	1.57	235	eP	Pn	17 36 30.9	+1.0
SHL				eS	Sn	17 36 50.1	+0.6
SHL				IAML		17 36 50.5	
	comp=E,342nm,0.1s						
SHL				IAML		17 36 50.6	
	comp=N,425nm,0.1s						
IMP	Imphal	1.75	160	eP	Pn	17 36 33.2	+0.9
AZL	Aizawl	2.79	192	eP	Pn	17 36 47.2	+0.5
AZL				eS	Sn	17 37 18.6	-1.0
AZL				IAML		17 37 20.3	
	comp=N,196nm,0.4s						
AZL				IAML		17 37 20.5	
	comp=E,247nm,0.1s						
ODAN	Odare	5.30	275	Pn	Pn	17 37 23.3	+2.0
	baz=270,slow=0.0						
ODAN				Sn	Sn	17 38 22.3	+0.7
	comp=E,37nm,0.2s,baz=270,slow=0.0						
ODAN				AML	AML		
RAMN	Ramite	6.01	276	Pn	Pn	17 37 33.1	+2.1
	baz=272,slow=0.0						
RAMN				Sn	Sn	17 38 39.9	+0.8
	comp=E,19nm,0.3s,baz=272,slow=0.0						
RAMN				AML	AML		
GUN	Gumba	6.76	284	Pn	Pn	17 37 42.9	+1.5
	baz=280,slow=0.0						
GUN				Sn	Sn	17 38 56.2	-1.5
	comp=E,43nm,0.5s,baz=280,slow=0.0						
GUN				AML	AML		
PKI	Pulchoki	7.12	280	Pn	Pn	17 37 47.2	+0.8
	baz=277,slow=0.0						
PKI				Sn	Sn	17 39 05.1	-1.5
	comp=E,14nm,0.4s,baz=277,slow=0.0						
PKI				AML	AML		
PKIN	Phulchoki	7.13	281	Pn	Pn	17 37 47.5	+1.0
	baz=277,slow=0.0						
PKIN				Sn	Sn	17 39 06.2	-0.6
	comp=E,18nm,0.3s,baz=277,slow=0.0						
PKIN				AML	AML		
KKN	Kakani	7.26	282	Pn	Pn	17 37 49.8	+1.6
	baz=278,slow=0.0						
KKN				Sn	Sn	17 39 08.9	-1.0
	comp=E,14nm,0.2s,baz=278,slow=0.0						
KKN				AML	AML		
DMN	Daman	7.39	281	Pn	Pn	17 37 51.8	+1.8
	baz=277,slow=0.0						
DMN				Sn	Sn	17 39 10.9	-2.3
	comp=E,12nm,0.3s,baz=277,slow=0.0						
DMN				AML	AML		
GKN	Gorkha	7.86	283	Pn	Pn	17 37 57.3	+1.0
	baz=280,slow=0.0						
GKN				Sn	Sn	17 39 22.1	-2.4
	comp=E,28nm,0.3s,baz=280,slow=0.0						
GKN				AML	AML		
DANN	Dangsing	8.68	284	Pn	Pn	17 38 07.8	+0.1
	baz=281,slow=0.0						
DANN				Sn	Sn	17 39 40.4	-4.5
	comp=E,8.4nm,0.3s,baz=281,slow=0.0						
DANN				AML	AML		

*IDC **07** 17:40:41.4±0.5, 24°.39S×112°.18W, h0^{km}, mb4.7/16, mbtmp4.6/17, ML4.3/1, MS5.0/50, Error ellipse: s-maj=20.6km s-min=12.0km az=65.0*

*MOS **07** 17:40:42.4±1.3, 24°.34S×111°.95W, h10^{km}, mb5.5/24, MS5.2/17, Error ellipse: s-maj=11.6km s-min=7.9km az=86.3*

*GFZ **07** 17:40:44.2, 24°.40S×112°.08W, h12^{km}, Mw5.6/74, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}-0.29; $M_{\theta\theta}$-1.90; $M_{\phi\phi}$2.18; $M_{r\theta}$-1.50; $M_{\theta\phi}$1.48; $M_{\phi r}$0.18; Fault plane solution: $M_0$2.94766×10^{17} NP1: ϕ_s156.60177°, δ65.98039°, λ-164.34713°. NP2: ϕ_s60.09501°, δ75.73278°, λ-24.83481°. Principal axes: T 2.6953, Plg6.5208°, Azm109.8623°; N 0.4525, Plg61.5859°, Azm212.0595°; P -3.1477, Plg27.5221°, Azm16.4478°;*

*NEIC **07** 17:40:44.2±2.2, 24°.51S±0°.09×112°.0W±0°.1, h10^{km}±1^{km}, mb5.4/477, Ms_20 5.2/534, Mww5.6/22 Error ellipse: s-maj=18.0km s-min=13.2km az=234.0*

*NEIC **07** 17:40:44.1, 24°.47S×112°.01W, h10^{km}*

*ISC-PP **07** 17:40:44, 24°.51S×111°.99W, h26^{km}, Mwppsm6.1, Moment Tensor Solution. s48 Moment tensor: Scale 10^{18}Nm; M_{rr}0.05±.13; $M_{\theta\theta}$-0.65±.15; $M_{\phi\phi}$0.63±.16; $M_{r\theta}$-0.22±.25; $M_{\theta\phi}$0.19±.14; $M_{\phi r}$0.01±.15; Fault plane solution: $M_0$1.95000×10^{18} NP1: ϕ_s314.90000°, δ89.30000°, λ155.70000°. NP2: ϕ_s45.20000°, δ65.70000°, λ0.80000°.*

*GFZ **07** 17:40:44.2±0.2, 24°S±3°×11°2W±°, h10^{km}, M5.2/48, mb5.0/48*

*GCMT **07** 17:40:48.2±0.1, 24°.38S±0°.01×111°.93W±0°.01, h15^{km}, MW5.6/167, Moment Tensor Solution. s138, c247; s167, c337; Duration: 1^{s}.6 Moment tensor: Scale 10^{17} Nm; M_{rr}-0.26±.03; $M_{\theta\theta}$-2.37±.03; $M_{\phi\phi}$2.63±.03; $M_{r\theta}$-0.16±.09; $M_{\theta\phi}$2.05±.03; $M_{\phi r}$-0.03±.09; Best double couple: $M_0$3.23700×10^{17} NP1: ϕ_s155.00000°, δ87.00000°, λ-179.00000°. NP2: ϕ_s65.00000°, δ89.00000°, λ-3.00000°. Principal axes: T 3.3650, Plg1.0000°, Azm110.0000°; N -0.2550, Plg87.0000°, Azm223.0000°; P -3.1100, Plg3.0000°, Azm20.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*NEIC **07** 17:40:53.7, 24°.47S×112°.01W, h12^{km}, Moment Tensor Solution. Duration: 3^{s}.2 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.16; $M_{\theta\theta}$-2.13; $M_{\phi\phi}$2.29; $M_{r\theta}$-0.55; $M_{\theta\phi}$1.80; $M_{\phi r}$1.20; Fault plane solution: $M_0$3.15000×10^{17} NP1: ϕ_s64.43000°, δ65.07000°, λ-1.59000°. NP2: ϕ_s155.10000°, δ88.56000°, λ-155.06000°. Principal axes: T 3.2108, Plg16.0000°, Azm287.0000°; N -0.1306, Plg65.0000°, Azm158.0000°; P -3.0802, Plg18.0000°, Azm23.0000°;*

ISC 07 17:40:43.2±0.3**, 24°.52S**±0°.05×**111°.99W**±0°.06**, h10**^{km}**, n788, σ1^{s}.41**/358**, mb5.3**/262**, MS5.2**/323**, 10C-12D, Easter Island region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VA02	Isla de Pascua	3.49	139		Pn	17 41 36.4	-1.1
VA02				Sn	Sn	17 42 21.5	+2.6
VA02	Isla de Pascua	3.49	139	P	Pn	17 41 36.6	-0.9
RPN	Rapa Nui	3.53	138	Pn	Pn	17 41 36.1	-1.9
	22nm,0.3s,baz=329,slow=16,SNR=10						
RPN				Sn	Sn	17 42 17.6	-2.2
	10nm,0.3s,baz=127,slow=18,SNR=3.9						
	59nm,0.4s						
RPN				AML	AML		
RPN	Rapa Nui	3.53	138	P	Pn	17 41 38.4	+0.4
RPN				S	Sb	17 42 24.7	-3.9
RPN	Rapa Nui	3.53	138		Pn	17 41 35.5	-2.6
RPN				Sn	Sn	17 42 21.2	+1.4
RPN	Rapa Nui	3.53	138	P	Pn	17 41 37.5	-0.6
H03N2	Juan Fernandez	30.15	115	T	T	18 18 51.6	
	baz=336,slow=74,SNR=212						
H03N1	Juan Fernandez	30.16	115	T	T	18 18 54.0	
	baz=286,slow=74,SNR=191						
VA04	Juan Fernndez	30.26	115	P	P	17 46 52.2	-2.2
TAOE	Nuku Hiva Isla	31.05	295	P	P	17 47 01.6	-0.1
PAYG	Puerto Ayora	31.67	45	IAMs_20	IAMs_20	17 55 57.2	
	comp=Z,6µm,22.0s						
NNA	Nana	35.52	76	LR	LR	17 58 24.5	
	comp=Z,4µm,18.9s,baz=244,slow=30						
NNA	Nana	35.52	76	⇑eP	P	17 47 40.4	-0.2
NNA				pmax	pmax		
	comp=Z,98nm,1.7s						
NNA	Nana	35.52	76	P	P	17 47 40.0	-0.6
NNA				IAmb	IAmb	17 48 22.4	
	comp=Z,121nm,1.8s						
NNA	Nana	35.52	76	IAMs_20	IAMs_20	17 57 44.2	
	comp=Z,5µm,20.0s						
GO05	Hualane	36.10	116	P	P	17 47 46.1	+0.8
GO05				IAmb	IAmb	17 48 11.6	
	comp=Z,82nm,1.8s						
ATAH	Atahualpa	36.50	67	LR	LR	17 58 45.3	
	comp=Z,3µm,21.7s,baz=240,slow=30						
MT01	Popeta	36.56	114	P	P	17 47 48.8	-0.5
ML02	Panimavida	36.59	117	P	P	17 47 50.4	+0.9
ML02				IAmb	IAmb	17 48 43.2	
	comp=Z,77nm,1.6s						
MT02	Curacav	36.62	113	P	P	17 47 51.8	+2.0
CO04	Los Peladeros	36.72	111	P	P	17 47 51.5	+0.5
CO04				IAmb	IAmb	17 48 03.9	
	comp=Z,88nm,1.8s						
BO01	Tunca	36.74	115		P	17 47 51.5	+0.7
BO01	Tunca	36.74	115	P	P	17 47 53.6	+2.8
	comp=Z,34nm,1.7s						
LL03	Petrohue	36.80	127	IAMs_20	IAMs_20	17 58 37.3	
	comp=Z,5µm,22.0s						
BI02	San Fabin de	36.82	119		P	17 47 50.7	-0.9
BI02	San Fabin de	36.82	119	P	P	17 47 53.1	+1.5
	comp=Z,11nm,1.4s						
MT05	Renca	36.96	113	P	P	17 47 54.1	+1.4
MT05				IAmb	IAmb	17 48 10.9	
	comp=Z,107nm,1.4s						
PEL	Peldehue	36.99	113	P	P	17 47 54.4	+1.3
PEL				pmax	pmax		
	comp=Z,56nm,1.4s						
PEL				MLR	MLR		
	comp=Z,10µm,22.0s						
PEL	Peldehue	36.99	113	P	P	17 47 54.4	+1.3
PEL	Peldehue	36.99	113	P	P	17 47 56.1	+3.1
	comp=Z,20nm,1.7s						
LCO	Las Campanas	37.00	106	P	P	17 47 53.9	+0.5
LCO				pmax	pmax		
	comp=Z,86nm,1.9s						
LCO				MLR	MLR		
	comp=Z,11µm,22.0s						
LCO	Las Campanas	37.00	106	P	P	17 47 53.9	+0.5
LCO				IAmb	IAmb	17 47 56.7	
	comp=Z,86nm,1.9s						
BO02	Sierra Bellavi	37.02	116		P	17 47 54.6	+1.4
BO02				IAMs_20	IAMs_20	17 59 10.1	
	comp=Z,5µm,19.0s						
BO02	Sierra Bellavi	37.02	116	P	P	17 47 56.1	+2.9
	comp=Z,27nm,1.7s						
VA03	San Esteban	37.09	112	P	P	17 47 55.3	+1.3
BO04	La Punta	37.10	114	IAMs_20	IAMs_20	17 58 47.4	
	comp=Z,5µm,21.0s						
MT16	CCHEN	37.14	113	P	P	17 47 55.6	+1.2
MT16				IAmb	IAmb	17 47 57.9	
	comp=Z,114nm,1.5s						
GO06	Curarrehue	37.15	124		P	17 47 55.4	+1.0
GO06	Curarrehue	37.15	124	P	P	17 47 57.6	+3.2
AC01	Pan de Azucar	37.33	101	IAMs_20	IAMs_20	17 58 49.5	
	comp=Z,5µm,22.0s						
MT13	San Alfonso	37.36	114	P	P	17 47 57.9	+1.6
MT13				IAmb	IAmb	17 48 28.8	
	comp=Z,89nm,1.8s						
AC05	El Transito	37.38	106		P	17 47 57.4	+0.9
AC05				IAmb	IAmb	17 48 09.5	
	comp=Z,130nm,1.9s						
AC05	El Transito	37.38	106	P	P	17 47 59.0	+2.5
	comp=Z,33nm,2.0s						
AC06	Mina Casimiro	37.42	104	P	P	17 47 57.9	+1.1
AC06				IAmb	IAmb	17 48 00.2	
	comp=Z,98nm,1.6s						
AC06				IAMs_20	IAMs_20	17 59 02.9	
	comp=Z,5µm,20.0s						
GO03	Copiapo	37.51	104	P	P	17 47 58.5	+1.0
GO03	Copiapo	37.51	104	P	P	17 47 58.6	+1.2
	comp=Z,30nm,1.5s						
MT08	Bocatoma Ro	37.57	113	P	P	17 47 58.7	+0.5
LL02	Futaleuf	37.74	130	P	P	17 48 00.8	+1.6
PLCA	Paso Flores	38.07	125	P	P	17 48 03.7	+1.6
	comp=Z,11nm,1.2s,baz=273,slow=9.1,SNR=9.5						
PLCA				LR	LR	17 59 40.0	
	comp=Z,6µm,21.5s,baz=278,slow=30						
	comp=Z,11nm,1.2s						
PLCA	Paso Flores	38.07	125	P	P	17 48 03.5	+1.3
PLCA	Paso Flores	38.07	125	eP	P	17 48 05.3	+3.1
PLCA	Paso Flores	38.07	125	P	P	17 48 05.8	+3.7
	comp=Z,25nm,1.6s						
PB05	IPOC Station P	38.20	96	P	P	17 48 04.5	+1.0
PB05				IAmb	IAmb	17 48 06.0	
	comp=Z,120nm,1.6s						
PB05				IAMs_20	IAMs_20	17 59 08.4	
	comp=Z,5µm,21.0s						
PB05	IPOC Station P	38.20	96	P	P	17 48 05.0	+1.6
	comp=Z,45nm,1.8s						

COYC	Coyhaique	38.32	133	P	P	17 48 04.5	+0.4
COYC	Coyhaique	38.32	133	P	P	17 48 07.8	+3.8
	comp=Z,25nm,1.6s						
AC02	Maricunga	38.56	103		P	17 48 07.1	+0.2
AC02				IAMs_20	IAMs_20	17 59 41.1	
	comp=Z,5µm,20.0s						
AC02	Maricunga	38.56	103	P	P	17 48 09.5	+2.6
	comp=Z,29nm,2.0s						
ZON	Zonda	38.67	110	P	P	17 48 08.4	+1.1
ZON				pmax	pmax		
	comp=Z,48nm,1.3s						
ZON	Zonda	38.67	110	P	P	17 48 08.4	+1.1
ZON	Zonda	38.67	110	P	P	17 48 10.0	+2.7
	comp=E,27nm,1.7s						
TA01	Diego Aracena	38.71	93	IAMs_20	IAMs_20	17 59 46.9	
	comp=Z,3µm,19.0s						
PB07	IPOC Station P	38.71	95	P	P	17 48 08.4	+0.6
PB07				IAMs_20	IAMs_20	17 59 20.0	
	comp=Z,5µm,22.0s						
PB03	IPOC Station P	38.77	95	IAMs_20	IAMs_20	17 59 22.4	
	comp=Z,5µm,22.0s						
PB02	IPOC Station P	38.79	94	P	P	17 48 08.6	+0.2
PB02				IAMs_20	IAMs_20	17 59 22.2	
	comp=Z,5µm,22.0s						
PB06	IPOC Station P	38.80	96	IAMs_20	IAMs_20	18 02 25.3	
	comp=Z,3µm,18.0s						
PSGCX	Pisagua	39.00	91	P	P	17 48 10.9	+0.7
PSGCX				IAMs_20	IAMs_20	17 59 24.7	
	comp=Z,4µm,22.0s						
CFA	Coronel Fontan	39.04	110	LR	LR	18 00 16.7	
	comp=Z,5µm,21.2s,baz=296,slow=30						
GO08	Villa O'Higgin	39.08	138	P	P	17 48 11.0	+0.7
GO08				IAMs_20	IAMs_20	18 00 12.5	
	comp=Z,3µm,21.0s						
PB12	IPOC Station P	39.08	90	P	P	17 48 10.6	-0.2
PB12				IAMs_20	IAMs_20	17 59 43.7	
	comp=Z,2µm,19.0s						
PB12	IPOC Station P	39.08	90	P	P	17 48 11.1	+0.3
	comp=Z,30nm,2.0s						
PB09	IPOC Station P	39.28	95		P	17 48 13.6	+0.9
PB09				IAMs_20	IAMs_20	18 00 10.1	
	comp=Z,3µm,20.0s						
PB09	IPOC Station P	39.28	95	P	P	17 48 15.4	+2.8
	comp=Z,48nm,1.8s						
PB11	IPOC Station P	39.38	92	P	P	17 48 13.8	+0.3
PB11				IAMs_20	IAMs_20	17 59 47.8	
	comp=Z,3µm,21.0s						
PB11	IPOC Station P	39.38	92	P	P	17 48 14.3	+0.8
	comp=Z,37nm,1.6s						
PB08	IPOC Station P	39.74	92	IAMs_20	IAMs_20	18 00 01.3	
	comp=Z,4µm,19.0s						
GO01	Chusmiza	39.83	92	P	P	17 48 18.4	+0.8
GO01				IAMs_20	IAMs_20	18 00 11.6	
	comp=Z,4µm,20.0s						
GO01	Chusmiza	39.83	92	P	P	17 48 13.7	-3.9
	comp=Z,20nm,3.0s						
PB16	IPOC Station P	39.90	90		P	17 48 18.9	+0.6
PB16	IPOC Station P	39.90	90	P	P	17 48 19.6	+1.3
	comp=Z,20nm,1.6s						
AF01	San Pedro de A	40.01	97	IAMs_20	IAMs_20	18 01 02.4	
	comp=Z,4µm,18.0s						
SLOR	San Lorenzo -	40.11	59	P	P	17 48 20.9	+1.0
PIAT	Ana Tenorio	40.13	59	P	P	17 48 21.5	+1.5
	comp=Z,964nmcomp=Z,22nm,1.2s						
PB18	Visviri	40.14	89	IAMs_20	IAMs_20	18 01 41.9	
	comp=Z,3µm,18.0s						
OTAV	Otavalo	40.75	58	P	P	17 48 25.7	+0.5
OTAV				pmax	pmax		
	comp=Z,60nm,1.9s						
OTAV	Otavalo	40.75	58	P	P	17 48 25.7	+0.5
OTAV	Otavalo	40.75	58	P	P	17 48 25.6	+0.4
	comp=Z,671nmcomp=Z,23nm,2.1s						
OTAV	Otavalo	40.75	58	P	P	17 48 26.9	+1.7
	comp=Z,23nm,2.1s						
CZSB	Cruzeiro do Su	41.07	73	P	P	17 48 28.2	+0.8
CZSB				IAmb	IAmb	17 48 29.4	
	comp=Z,72nm,1.1s						
CZSB	Cruzeiro do Su	41.07	73	P	P	17 48 29.3	+1.9
	comp=Z,1µmcomp=Z,68nm,1.7s						
CZSB	Cruzeiro do Su	41.07	73	*e*P	P	17 48 27.5	+0.1
SALTA		41.43	99	P	P	17 48 33.8	+3.0
	comp=Z,21nm,1.4s						
LPAZ	La Paz	41.77	87	P	P	17 48 35.2	+1.4
	comp=Z,17nm,1.1s,baz=252,slow=6.0,SNR=40						
LPAZ				LR	LR	18 02 17.9	
	comp=Z,2µm,19.1s,baz=250,slow=31						
	comp=Z,17nm,1.1s						
LPAZ	La Paz	41.77	87	P	P	17 48 34.5	+0.7
LPAZ	La Paz	41.77	87	P	P	17 48 35.3	+1.5
	comp=Z,702nmcomp=Z,37nm,1.5s						
LPAZ	La Paz	41.77	87	*e*P	P	17 48 34.0	+0.2
LPAZ	La Paz	41.77	87	P	P	17 48 35.9	+2.1
	comp=Z,37nm,1.5s						
JTS	Las Juntas de	43.52	41	LR	LR	18 02 03.9	
	comp=Z,4µm,21.0s,baz=214,slow=30						
JTS	Las Juntas de	43.52	41	P	P	17 48 47.8	+0.6
JTS				pmax	pmax		
	comp=Z,33nm,1.3s						
JTS				MLR	MLR		
	comp=Z,3µm,19.0s						
JTS	Las Juntas de	43.52	41	P	P	17 48 47.8	+0.6
JTS	Las Juntas de	43.52	41	IAMs_20	IAMs_20	18 01 52.8	
	comp=Z,3µm,19.0s						
JTS	Las Juntas de	43.52	41	P	P	17 48 48.9	+1.7
	comp=Z,24nm,1.4s						
POPC	Popayan, Colom	43.58	57	P	P	17 48 48.2	+0.2
	comp=Z,534nmcomp=Z,26nm,1.3s						
PTLC	Puerto Leguiza	43.58	61	P	P	17 48 48.2	+0.4
	comp=Z,2µmcomp=Z,45nm,1.1s						
LCR2	La Lucha 2	43.65	42	P	P	17 48 48.8	+0.2
BRU2	Volcan	43.74	44	P	P	17 48 49.3	+0.1
BRU2	Volcan	43.74	44	P	P	17 48 51.5	+2.3
	comp=Z,33nm,1.4s						
HDC	Heredia	43.79	42	IAMs_20	IAMs_20	18 02 05.1	
	comp=Z,2µm,20.0s						
TLIG	Tlapa	43.83	19	P	P	17 48 50.1	+0.3
RAR	Rarotonga	43.99	264	LR	LR	18 02 00.6	
	comp=Z,2µm,19.9s,baz=104,slow=29						
CRIN	San Cristobal	44.29	36	P	P	17 48 53.8	+0.4
	comp=Z,4µmcomp=Z,242nm,0.7s						
CRIN	San Cristobal	44.29	36	P	P	17 48 54.0	+0.5
	comp=Z,253nm,0.6s						
MTO3	Montecristo	44.55	32	IAmb	IAmb	17 48 58.6	
	comp=Z,55nm,1.3s						
APG	El Apazote	44.55	30	LR	LR	18 02 50.1	
	comp=Z,198nm,20.5s,baz=267,slow=30						
CMIG	Matias Romero	44.60	24	LR	LR	18 03 02.9	
	comp=Z,3µm,20.5s,baz=182,slow=30						
ESQI	Esquipulas	44.70	32	P	P	17 48 56.1	-0.6
BOAB	BOACO BROADBAN	44.84	38	P	P	17 48 56.5	-1.2
BOAB	BOACO BROADBAN	44.84	38	P	P	17 48 59.0	+1.3
	comp=Z,50nm,1.7s						
MOIG	Morelia	45.17	14	P	P	17 48 59.3	-1.3
TGUH	Tegucigalpa,Un	45.30	35	P	P	17 49 01.2	-0.4
ORTC	Ortega, Tolima	45.55	57	P	P	17 49 04.6	+1.1
	comp=Z,775nmcomp=Z,33nm,1.4s						
CBOC	Ciudad Bolivar	46.26	54	P	P	17 49 11.7	+2.4
	comp=Z,1µmcomp=Z,49nm,1.3s						
ROSC	El Rosal	46.85	57	P	P	17 49 16.0	+1.8
	comp=Z,10nm,0.5s,baz=219,slow=5.3,SNR=4.7						
ROSC				LR	LR	18 04 54.6	
	comp=Z,574nm,19.2s,baz=232,slow=31						
	comp=Z,10nm,0.5s						
ANCO	Parque Anchore	47.58	115	*e*P	P	17 49 21.0	+1.7
SLBS	Sierra La Lagu	47.96	3	P	P	17 49 21.4	-0.9
SLBS				IAmb	IAmb	17 49 23.6	
	comp=Z,28nm,1.1s						
PSAL	Palomas, Salto	48.15	111	*e*P	P	17 49 24.4	+0.7
SIV	San Ignacio	48.29	90	LR	LR	18 07 05.6	
	comp=Z,1µm,19.5s,baz=270,slow=33						
LPIG	La Paz	48.37	2	LR	LR	18 04 54.4	
	comp=Z,3µm,19.8s,baz=184,slow=30						
RUSC	La Rusia	48.47	57	P	P	17 49 27.1	+0.2
	comp=Z,723nmcomp=Z,23nm,1.2s						
BARC	Barichara	48.84	56	P	P	17 49 30.3	+0.8
	comp=Z,69nm,1.0s						
CPUP	Villa Florida	49.09	104	P	P	17 49 31.8	+0.8
	comp=Z,5.4nm,1.0s,baz=267,slow=9.8,SNR=6.1						
CPUP				LR	LR	18 06 31.9	
	comp=Z,2µm,21.3s,baz=254,slow=32						
	comp=Z,5.4nm,1.0s						
CPUP	Villa Florida	49.09	104	P	P	17 49 31.1	+0.1
CPUP	Villa Florida	49.09	104	P	P	17 49 32.2	+1.3
	comp=Z,14nm,2.0s						
SGC2	Sao Gabriel da	49.83	68	P	P	17 49 35.9	-0.9
	comp=Z,626nmcomp=Z,20nm,1.3s						
SGC2	Sao Gabriel da	49.83	68	*e*P	P	17 49 36.5	-0.3
TEIG	Tepich	50.11	29	P	P	17 49 38.2	-0.5
TEIG				IAmb	IAmb	17 49 40.3	
	comp=Z,74nm,1.5s						
TEIG				IAMs_20	IAMs_20	18 06 55.4	
	comp=Z,2µm,18.0s						
TEIG	Tepich	50.11	29	P	P	17 49 37.7	-1.0
	comp=Z,1µmcomp=Z,32nm,1.4s						
TEIG	Tepich	50.11	29	P	P	17 49 38.7	0.0
	comp=Z,33nm,1.4s						
VILB	Vilhena	50.12	87	P	P	17 49 38.5	-0.5
VILB	Vilhena	50.12	87	*e*P	P	17 49 39.5	+0.5
COIM	Forte Coimbra	50.13	96	*e*P	P	17 49 39.3	+0.3
PTLB	Pontes e Lacer	50.23	90	IAmb	IAmb	17 49 41.6	
	comp=Z,48nm,1.3s						
PTLB	Pontes e Lacer	50.23	90	*e*P	P	17 49 40.5	+0.8
SJPY	San Joaquin	50.43	103	*e*P	P	17 49 41.7	+0.5
PMSA	Palmer Station	50.62	156	LR	LR	18 06 08.6	
	comp=Z,1µm,18.3s,baz=298,slow=30						
PMSA	Palmer Station	50.62	156	IAMs_20	IAMs_20	18 05 08.5	
	comp=Z,2µm,20.0s						
BDQN	Bodoquena, MS	50.92	97	*e*P	P	17 49 45.7	+0.7
SMAI	San Martin Ant	51.35	160	P	P	17 49 48.6	+1.1
HPIG		51.52	7	P	P	17 49 50.1	+0.7
	comp=Z,15nm,1.4s						
CPSB	Cacapava Do Su	51.80	110	*e*P	P	17 49 53.0	+1.6
AQDB	Aquidauana	51.86	97	IAmb	IAmb	17 49 54.0	
	comp=Z,61nm,1.4s						
AQDB	Aquidauana	51.86	97	*e*P	P	17 49 53.3	+1.3
AQDB	Aquidauana	51.86	97	P	P	17 49 53.3	+1.3
	comp=Z,31nm,1.9s						
SDV	Santo Domingo	52.24	56	LR	LR	18 07 35.0	
	comp=Z,941nm,21.7s,baz=218,slow=31						
SDV	Santo Domingo	52.24	56	P	P	17 49 55.4	+0.2
SDV	Santo Domingo	52.24	56	P	P	17 49 55.3	+0.2
	comp=Z,156nm,2.1s						
SALV	Santo Antonio	53.22	92	*e*P	P	17 50 03.0	+0.8
HSIG		53.24	1	IAmb	IAmb	17 50 04.3	
	comp=Z,87nm,1.8s						
PP1B	Ponte de Pedra	53.43	94	*e*P	P	17 50 04.7	+1.0
KVTX	Kingsville	53.52	16	IAMs_20	IAMs_20	18 09 35.5	
	comp=Z,2µm,19.0s						
MACA	Manacapuru-AM	53.76	75	P	P	17 50 05.4	-0.7
MACA	Manacapuru-AM	53.76	75	*e*P	P	17 50 05.9	-0.2
833A	Chaparral WMA,	53.92	14	IAmb	IAmb	17 50 13.8	
	comp=Z,59nm,1.4s						
PTGB	Pitanga	54.07	104	*e*P	P	17 50 09.5	+1.0
TX31	Lajitas Ar. Si	54.14	9	IAmb	IAmb	17 50 14.4	
	comp=Z,65nm,2.0s						
TXAR	Lajitas Array	54.14	9	P	P	17 50 08.1	-0.6
	comp=Z,4.2nm,1.0s,baz=184,slow=9.8,SNR=25						
TXAR				LR	LR	18 08 58.5	
	comp=Z,2µm,18.2s,baz=166,slow=31						
	comp=Z,4.2nm,1.0s						
MTDJ	Mount Denham	54.16	42	IAMs_20	IAMs_20	18 08 30.3	
	comp=Z,2µm,19.0s						
735A	Kenedy	54.80	15	IAMs_20	IAMs_20	18 09 48.2	
	comp=Z,3µm,22.0s						
SOR	Soroa	54.81	33	P	P	17 50 14.3	+0.8
SOR	Soroa	54.81	33	IAmb	IAmb	17 50 17.8	
	comp=Z,79nm,1.5s						
SOR	Soroa	54.81	33	P	P	17 50 14.3	+0.8
	comp=Z,40nm,1.4s						
CLDB	Colider	54.89	86	*e*P	P	17 50 14.1	-0.3
CLDB	Colider	54.89	86	P	P	17 50 14.2	-0.1
	comp=Z,22nm,2.0s						
C2SB	Chapadao do Su	54.93	96	*e*P	P	17 50 15.0	+0.4
C2SB	Chapadao do Su	54.93	96	P	P	17 50 16.9	+2.3
	comp=Z,76nm,1.4s						
SAND	Sanderson	54.99	10	P	P	17 50 13.9	-0.9
HNDO	Hondo	55.11	14	IAmb	IAmb	17 50 17.7	
	comp=Z,35nm,1.1s						
LDASE	Londrina, Braz	55.23	102	*e*P	P	17 50 17.7	+0.9
VHRN	Van Horn	55.40	7	IAmb	IAmb	17 50 20.6	
	comp=Z,77nm,1.7s						
TPB05	Hovey Rd	55.75	9	IAmb	IAmb	17 50 21.8	
	comp=Z,26nm,0.9s						
PIX	Pinacate	55.78	358	P	P	17 50 19.2	-1.2
PIX				IAmb	IAmb	17 50 28.6	
	comp=Z,45nm,1.2s						
OZNA	Ozona	56.10	11	IAmb	IAmb	17 50 24.8	
	comp=Z,48nm,1.7s						
EPT	El Paso	56.22	6	IAMs_20	IAMs_20	18 09 27.9	
	comp=Z,3µm,21.0s						
MNHN	Monahans	56.24	9	IAmb	IAmb	17 50 25.6	
	comp=Z,90nm,1.9s						
MNTX	Cornudas Mount	56.26	7	IAmb	IAmb	17 50 25.4	
	comp=Z,46nm,1.5s						
MNTX				IAMs_20	IAMs_20	18 09 30.9	
	comp=Z,1µm,19.0s						
MNTX	Cornudas Mount	56.26	7	P	P	17 50 22.7	-1.2
	comp=Z,20nm,1.5s						
TPB13	Reeves - Culbe	56.30	8	IAmb	IAmb	17 50 25.4	
	comp=Z,46nm,1.3s						
TPB28		56.33	8	IAmb	IAmb	17 50 26.1	
	comp=Z,48nm,1.4s						
ESJX	Sierra Juarez	56.34	356	P	P	17 50 23.8	-0.8
ESJX				IAmb	IAmb	17 50 43.0	
	comp=Z,63nm,2.0s						
HKT	Hockley	56.34	17	P	P	17 50 25.3	+1.0
HKT				pmax	pmax		
	comp=Z,26nm,1.7s						
HKT	Hockley	56.34	17	IAMs_20	IAMs_20	18 12 27.5	
	comp=Z,2µm,18.0s						
HKT	Hockley	56.34	17	P	P	17 50 25.1	+0.8
	comp=Z,36nm,1.7s						
CAIB	Caibarien	56.40	37	IAmb	IAmb	17 50 28.0	
	comp=Z,58nm,1.3s						
TUC	Tucson	56.53	1	P	P	17 50 24.9	-0.9
TUC				pmax	pmax		
	comp=Z,15nm,1.2s						
TUC				MLR	MLR		
	comp=Z,3µm,19.0s						
TUC	Tucson	56.53	1	P	P	17 50 24.9	-0.9
TUC	Tucson	56.53	1	P	P	17 50 26.4	+0.6
	comp=Z,12nm,1.1s						
BOAV	Boa Vista	56.64	69	*e*P	P	17 50 26.3	-0.7
CBX	Cerro Bola	56.69	355	P	P	17 50 26.4	-0.6
CBX				IAmb	IAmb	17 50 52.6	
	comp=Z,90nm,1.9s						
ARAG	Araguaiana, MT	56.81	93	*e*P	P	17 50 28.7	+0.5
BRDY	Brady	56.87	13	IAmb	IAmb	17 50 29.0	
	comp=Z,35nm,1.0s						
121A	Cookes Peak, D	56.88	4	IAmb	IAmb	17 50 30.2	
	comp=Z,28nm,1.1s						
GTBY	Guantanamo Bay	56.93	42	IAMs_20	IAMs_20	18 10 11.2	
	comp=Z,2µm,19.0s						
YUH	Yuha Desert	56.98	356	IAmb	IAmb	17 50 41.8	
	comp=Z,61nm,1.6s						
ODSA	Odessa	57.04	10	IAmb	IAmb	17 50 30.1	
	comp=Z,44nm,1.1s						
BAR	Barrett	57.06	355	IAmb	IAmb	17 50 32.4	
	comp=Z,61nm,1.5s						
BAR				IAMs_20	IAMs_20	18 08 59.0	
	comp=Z,1µm,19.0s						
AFI	Afiamalu	57.07	269	LR	LR	18 09 13.0	
	comp=Z,4µm,18.1s,baz=104,slow=30						
DPP	Dos Picos Cty	57.40	355	IAmb	IAmb	17 50 34.0	
	comp=Z,31nm,1.3s						
ITTB	Itaituba	57.60	79	*e*P	P	17 50 33.0	-0.7
BORC	Borrego Spring	57.62	356	P	P	17 50 33.0	-0.4
BORC				IAmb	IAmb	17 50 35.0	
	comp=Z,31nm,1.0s						
129A	Stewart Farms,	57.65	10	IAmb	IAmb	17 50 35.3	
	comp=Z,35nm,1.4s						
ORCD	Orcadas	57.82	148	P	P	17 50 35.5	+1.0
WHTX	Lake Whitney,	57.89	15	IAmb	IAmb	17 50 36.2	
	comp=Z,32nm,1.0s						
BC3	Big Chuckawall	57.95	357	P	P	17 50 36.1	+0.3
BC3				IAmb	IAmb	17 50 37.6	
	comp=Z,34nm,1.0s						
BC3				IAMs_20	IAMs_20	18 10 01.6	
	comp=Z,2µm,18.0s						
PFO	Pinyon Flats O	57.97	356	LR	LR	18 10 06.3	
	comp=Z,1µm,18.1s,baz=178,slow=30						
PFO	Pinyon Flats O	57.97	356⇑	*e*P	P	17 50 36.1	+0.1
PFO				pmax	pmax		
	comp=Z,55nm,2.5s						
PFO	Pinyon Flats O	57.97	356	P	P	17 50 35.5	-0.6
PFO				IAmb	IAmb	17 50 42.1	
	comp=Z,46nm,1.8s						
PFO	Pinyon Flats O	57.97	356	P	P	17 50 36.4	+0.3
	comp=Z,15nm,1.1s						
BLYC	Blythe	58.00	358	P	P	17 50 35.5	-0.5
BLYC				IAmb	IAmb	17 50 37.8	
	comp=Z,30nm,1.0s						
ABTX	Abilene, Hawle	58.04	12	IAmb	IAmb	17 50 37.0	
	comp=Z,22nm,0.9s						
545A	Edgard	58.05	22	IAMs_20	IAMs_20	18 15 57.4	
	comp=Z,2µm,18.0s						
POST	Post	58.13	10	IAmb	IAmb	17 50 37.6	
	comp=Z,33nm,0.9s						
SN07	Snyder 07	58.26	11	IAmb	IAmb	17 50 38.4	
	comp=Z,20nm,0.8s						
BELC	Belle Mtn. Jos	58.33	356	P	P	17 50 37.6	-1.0
BELC				IAmb	IAmb	17 50 40.5	
	comp=Z,28nm,1.1s						
BELC				IAMs_20	IAMs_20	18 10 01.5	
	comp=Z,2µm,18.0s						
Y22A	Socorro	58.33	5	IAmb	IAmb	17 50 40.9	
	comp=Z,44nm,1.4s						
NATX	Nacogdoches	58.37	17	IAMs_20	IAMs_20	18 14 46.8	
	comp=Z,1µm,18.0s						
IRM	Iron Mountain	58.43	357	IAMs_20	IAMs_20	18 10 18.4	
	comp=Z,2µm,18.0s						
SPB	Sao Paulo	58.45	104	IAMs_20	IAMs_20	18 12 30.9	
	comp=Z,3µm,21.0s						
SNDB	Serra Nova Dou	58.58	89	*e*P	P	17 50 40.7	+0.1
SDDR	Presa de Saban	58.67	46	IAmb	IAmb	17 50 57.0	
	comp=Z,84nm,1.9s						
PASC	Pasadena Art C	58.67	354	IAMs_20	IAMs_20	18 09 45.5	
	comp=Z,2µm,19.0s						
BFSC	Mount Baldy Ra	58.69	354	IAMs_20	IAMs_20	18 09 47.0	
	comp=Z,2µm,20.0s						
MWC	Mount Wilson	58.71	354	IAmb	IAmb	17 50 42.8	
	comp=Z,22nm,1.1s						
MWC				IAMs_20	IAMs_20	18 09 47.6	
	comp=Z,2µm,19.0s						
MSTX	Muleshoe	58.83	9	IAMs_20	IAMs_20	18 11 25.9	
	comp=Z,2µm,19.0s						
OSI	Osito Audit: C	59.16	354	IAMs_20	IAMs_20	18 09 58.6	
	comp=Z,2µm,20.0s						
IPMB	Ipameri, GO	59.35	97	*e*P	P	17 50 46.4	+0.4
ALQ	Albuquerque	59.37	5	IAmb	IAmb	17 50 49.2	
	comp=Z,8.5nm,1.2s						
ALQ				IAMs_20	IAMs_20	18 11 17.3	
	comp=Z,3µm,21.0s						
TPO	Tropico Hills	59.37	354	IAmb	IAmb	17 50 47.6	
	comp=Z,26nm,1.0s						
TASM	ASL Pad, Albuq	59.38	5	IAmb	IAmb	17 50 53.9	
	comp=Z,20nm,1.6s						
TASM	ASL Pad, Albuq	59.38	5	IAMs_20	IAMs_20	18 11 18.3	
	comp=Z,3µm,21.0s						
TASM	ASL Pad, Albuq	59.38	5	IAMs_20	IAMs_20	18 11 18.4	
	comp=Z,3µm,21.0s						
TASM	ASL Pad, Albuq	59.38	5	IAMs_20	IAMs_20	18 11 18.3	
	comp=Z,3µm,21.0s						
ANMO	Albuquerque	59.38	5	LR	LR	18 11 48.5	
	comp=Z,3µm,18.6s,baz=188,slow=32						
ANMO	Albuquerque	59.38	5	P	P	17 50 44.5	-1.4
ANMO				pmax	pmax		
	comp=Z,10.0nm,1.2s						
ANMO				MLR	MLR		
	comp=Z,3µm,21.0s						
ANMO	Albuquerque	59.38	5	P	P	17 50 44.5	-1.4
ANMO	Albuquerque	59.38	5	P	P	17 50 46.0	+0.1
	comp=Z,11nm,2.6s						
GSC	Goldstone, Bar	59.67	355	IAmb	IAmb	17 50 49.5	
	comp=Z,30nm,1.1s						
WUAZ	Wupatki	59.72	1	IAmb	IAmb	17 50 56.6	
	comp=Z,29nm,1.4s						
MTPC	Mountain Pass	59.78	357	IAmb	IAmb	17 50 50.5	
	comp=Z,23nm,1.2s						
LRMC	Laurel Mtn Rad	59.92	355	IAmb	IAmb	17 50 51.0	
	comp=Z,23nm,1.1s						
CCCA	Chr Cany lake	59.94	355	IAmb	IAmb	17 51 02.7	
	comp=Z,32nm,1.0s						
DWPF	Disney Wildern	60.04	31	P	P	17 50 50.1	-0.2
ISA	Isabella, Lake	60.17	354	IAMs_20	IAMs_20	18 10 33.4	
	comp=Z,2µm,20.0s						
SHOC	Shoshone, Teco	60.23	356	IAMs_20	IAMs_20	18 11 01.0	
	comp=Z,1µm,19.0s						
WMOK	Wichita Mounta	60.25	13	P	P	17 50 50.8	-0.9
WMOK	Wichita Mounta	60.25	13	P	P	17 50 50.8	-0.9
	comp=Z,7.5nm,0.7s						
BDFB	Brasilia	60.29	95	P	P	17 50 53.6	+1.0
	comp=Z,4.3nm,0.7s,baz=296,slow=8.1,SNR=7.3						
BDFB				LR	LR	18 15 05.1	
	comp=Z,2µm,18.4s,baz=257,slow=34						
	comp=Z,4.3nm,0.7s						
BDFB	Brasilia	60.29	95	P	P	17 50 52.8	+0.2
BDFB				IAmb	IAmb	17 50 54.4	
	comp=Z,32nm,1.4s						
451A	Vernon	60.32	26	IAMs_20	IAMs_20	18 12 51.7	
	comp=Z,2µm,20.0s						
QSM	Queen of Sheba	60.34	355	IAmb	IAmb	17 50 53.9	
	comp=Z,28nm,1.0s						
VES	Vestal, Richgr	60.41	353	IAMs_20	IAMs_20	18 10 56.7	
	comp=Z,2µm,18.0s						
MPMC	Manual Prospec	60.48	355	IAmb	IAmb	17 50 55.0	
	comp=Z,24nm,1.1s						
MPMC				IAMs_20	IAMs_20	18 11 04.5	
	comp=Z,1µm,18.0s						
553A	Crawfordville	60.48	27	IAMs_20	IAMs_20	18 12 08.2	
	comp=Z,2µm,22.0s						
GWY	Greenwater Val	60.54	356	IAmb	IAmb	17 50 55.4	
	comp=Z,26nm,1.1s						
PKD	Bear Valley Ra	60.68	352	IAmb	IAmb	17 50 56.0	
	comp=Z,24nm,1.1s						
PKD				IAMs_20	IAMs_20	18 10 41.9	
	comp=Z,2µm,19.0s						
URZ	Urewera	60.72	239	LR	LR	18 10 46.6	
	comp=Z,903nm,20.8s,baz=101,slow=30						
SHPR	Sheep Range	60.77	357	IAmb	IAmb	17 50 57.6	
	comp=Z,40nm,1.0s						
PMNB	Patos De Minas	60.78	98	*e*P	P	17 50 57.2	+1.3
PMNB	Patos De Minas	60.78	98	P	P	17 50 57.4	+1.5
	comp=Z,27nm,1.5s						
FURC	Furnace Creek,	60.84	355	IAmb	IAmb	17 50 57.5	
	comp=Z,32nm,1.1s						
HULI	Fort Hunter Li	60.85	351	IAMs_20	IAMs_20	18 10 15.3	
	comp=Z,2µm,20.0s						
MLPR	Magueyes Islan	60.85	50	P	P	17 50 54.9	-1.1
CWC	Cottonwood Cre	60.91	354	IAMs_20	IAMs_20	18 11 27.8	
	comp=Z,2µm,19.0s						
FNO	Franklin	61.04	14	IAmb	IAmb	17 50 57.6	
	comp=Z,30nm,0.9s						
W35A	Tecumseh	61.05	14	IAmb	IAmb	17 50 57.2	
	comp=Z,21nm,0.8s						
POHA	Pohakuloa	61.11	312	IAMs_20	IAMs_20	18 09 51.6	
	comp=Z,2µm,22.0s						
WCT	Wildcat Mounta	61.14	356	IAmb	IAmb	17 51 00.1	
	comp=Z,28nm,1.0s						
RTBA	Rita Blanca	61.26	8	IAmb	IAmb	17 51 00.2	
	comp=Z,44nm,1.5s						
TPNV	Topopah Spring	61.27	356	IAmb	IAmb	17 51 07.7	
	comp=Z,38nm,1.4s						
TPNV				IAMs_20	IAMs_20	18 10 56.6	
	comp=Z,1µm,21.0s						
MIAR	Mount Ida	61.29	17	P	P	17 50 58.1	-0.6
MIAR	Mount Ida	61.29	17	IAmb	IAmb	17 50 59.5	
	comp=Z,50nm,1.4s						
MIAR				IAMs_20	IAMs_20	18 14 46.2	
	comp=Z,1µm,19.0s						
MIAR	Mount Ida	61.29	17	P	P	17 50 58.1	-0.6
	comp=Z,23nm,2.0s						
GRAC	Grapevine Rang	61.40	355	IAmb	IAmb	17 51 01.6	
	comp=Z,33nm,1.1s						
352A	Blakely	61.41	26	IAMs_20	IAMs_20	18 13 23.6	
	comp=Z,1µm,20.0s						
X40A	Basin Creek Fa	61.44	18	IAmb	IAmb	17 51 05.8	
	comp=Z,42nm,1.7s						
MVCO	Mesa Verde	61.49	3	IAMs_20	IAMs_20	18 12 06.1	
	comp=Z,2µm,22.0s						
MVCO	Mesa Verde	61.49	3	P	P	17 51 00.3	-0.1
	comp=Z,42nm,1.5s						
TIN	Tinemaha, Big	61.53	354	IAMs_20	IAMs_20	18 11 47.3	
	comp=Z,2µm,19.0s						
SJG	San Juan	61.58	51	LR	LR	18 14 17.6	
	comp=Z,492nm,18.6s,baz=225,slow=33						
FORD	Fort Ord Natur	61.58	351	IAMs_20	IAMs_20	18 10 53.6	
	comp=Z,1µm,20.0s						
SAO	San Andreas Ge	61.61	351	IAMs_20	IAMs_20	18 10 39.4	
	comp=Z,2µm,22.0s						
PRN	Pahroc Range	61.67	357	IAmb	IAmb	17 51 04.3	
	comp=Z,38nm,1.3s						
T25A	Trinidad	61.75	7	IAMs_20	IAMs_20	18 12 59.1	
	comp=Z,2µm,20.0s						
CCUT	Cedar City	61.76	359	IAmb	IAmb	17 51 04.2	
	comp=Z,20nm,1.0s						
SZCU	Shurtz Canyon	61.80	359	IAmb	IAmb	17 51 04.3	
	comp=Z,22nm,1.1s						
DSP	Deep Springs	61.82	355	IAmb	IAmb	17 51 04.9	
	comp=Z,34nm,1.3s						
OK052	Battle Ridge R	61.88	14	IAmb	IAmb	17 51 02.9	

	comp=Z,34nm,1.0s						
OK038	West end E0370	61.95	12	IAMs_20	IAMs_20	18 13 52.6	
	comp=Z,2µm,20.0s						
HOPE	Hope Point	62.09	140	IAMs_20	IAMs_20	18 12 30.2	
	comp=Z,2µm,22.0s						
S22A	4UR Ranch, Cre	62.13	5	IAmb	IAmb	17 51 12.8	
	comp=Z,25nm,1.4s						
HMU	Henry Mountain	62.14	1	IAmb	IAmb	17 51 07.8	
	comp=Z,44nm,1.2s						
MHC	Mount Hamilton	62.20	351	IAmb	IAmb	17 51 07.6	
	comp=Z,50nm,1.5s						
MHC				IAMs_20	IAMs_20	18 11 14.1	
	comp=Z,2µm,20.0s						
SDCO	Great Sand Dun	62.24	6	IAmb	IAmb	17 51 07.2	
	comp=Z,36nm,1.5s						
PV05	Paradox Valley	62.33	3	IAmb	IAmb	17 51 11.7	
	comp=Z,34nm,1.4s						
TCW	Tory Channel	62.40	235	P	P	17 51 06.5	+0.1
TPH	Tonopah	62.46	355	IAmb	IAmb	17 51 09.6	
	comp=Z,48nm,1.3s						
PV02	Paradox Valley	62.47	3	IAmb	IAmb	17 51 08.6	
	comp=Z,40nm,1.3s						
PV03	Paradox Valley	62.52	3	IAmb	IAmb	17 51 15.9	
	comp=Z,39nm,1.7s						
PV17	East Wray Mesa	62.54	3	IAmb	IAmb	17 51 19.8	
	comp=Z,62nm,2.0s						
152A	Waverly Hall	62.54	26	IAmb	IAmb	17 51 09.1	
	comp=Z,41nm,1.3s						
152A				IAMs_20	IAMs_20	18 14 21.5	
	comp=Z,1µm,20.0s						
PV16	Nyswonger Mesa	62.57	3	IAmb	IAmb	17 51 12.8	
	comp=Z,30nm,1.5s						
PV20	West Nyswonger	62.60	3	IAmb	IAmb	17 51 10.2	
	comp=Z,37nm,1.3s						
PV15	Paradox Valley	62.62	3	IAmb	IAmb	17 51 08.9	
	comp=Z,22nm,1.0s						
PV10	Paradox Valley	62.63	3	IAmb	IAmb	17 51 20.9	
	comp=Z,44nm,1.3s						
PV04	Paradox Valley	62.65	3	IAmb	IAmb	17 51 10.3	
	comp=Z,39nm,1.5s						
CMB	Columbia Colle	62.73	353	IAMs_20	IAMs_20	18 12 16.0	
	comp=Z,2µm,19.0s						
LHV	Little Huntoon	62.74	354	IAmb	IAmb	17 51 23.0	
	comp=Z,47nm,1.2s						
PV21	Cone Mtn., Par	62.82	3	IAmb	IAmb	17 51 22.6	
	comp=Z,33nm,1.3s						
T35A	Sooner Cattle	62.83	14	IAmb	IAmb	17 51 10.2	
	comp=Z,52nm,1.6s						
HHAR	Hobbs	62.83	16	IAmb	IAmb	17 51 14.6	
	comp=Z,56nm,1.6s						
NV11	Mina Array Sit	62.89	355	IAmb	IAmb	17 51 12.2	
	comp=Z,38nm,1.1s						
NVAR	Mina Array Bea	62.90	354	P	P	17 51 09.5	-0.3
	comp=Z,27nm,1.0s,baz=182,slow=9.4,SNR=69						
NVAR				LR	LR	18 12 53.9	
	comp=Z,2µm,18.2s,baz=178,slow=31						
	comp=Z,27nm,1.0s						
NVAR	Mina Array Bea	62.90	354	P	P	17 51 09.7	-0.1
Y49A	Blount Mountai	62.95	24	IAmb	IAmb	17 51 10.7	
	comp=Z,20nm,1.1s						
FCAR	Ozark Folk Cen	62.95	18	IAmb	IAmb	17 51 10.7	
	comp=Z,28nm,1.3s						
WAKR	Walker	63.08	353	IAmb	IAmb	17 51 24.4	
	comp=Z,26nm,1.4s						
Q16A	Castle Valley	63.11	1	IAmb	IAmb	17 51 13.9	
	comp=Z,59nm,1.5s						
SMTB	Santa Maria do	63.12	88	*e*P	P	17 51 12.2	+0.7
WELL	Weller Preserv	63.16	352	IAMs_20	IAMs_20	18 12 00.6	
	comp=Z,2µm,21.0s						
MCCM	Marconi Confer	63.17	350	IAMs_20	IAMs_20	18 12 03.7	
	comp=Z,1µm,18.0s						
CVS	Carmenet Viney	63.30	351	IAmb	IAmb	17 51 14.2	
	comp=Z,39nm,1.2s						
CVS				IAMs_20	IAMs_20	18 13 02.3	
	comp=Z,1µm,18.0s						
SRU	San Rafael Swe	63.32	1	IAmb	IAmb	17 51 14.0	
	comp=Z,44nm,1.2s						
THZ	Tophouse	63.32	234	P	P	17 51 12.8	+0.3
LCAR	Lake Charles	63.40	19	IAmb	IAmb	17 51 15.2	
	comp=Z,51nm,1.7s						
TMUT	Trail Mountain	63.49	1	IAmb	IAmb	17 51 26.6	
	comp=Z,48nm,1.5s						
MRNZ	Matariki Terra	63.49	234	P	P	17 51 13.8	+0.2
257A	Skidaway Islan	63.49	29	IAMs_20	IAMs_20	18 15 58.8	
	comp=Z,1µm,18.0s						
KVN	Kaiserville	63.50	355	IAmb	IAmb	17 51 26.9	
	comp=Z,38nm,1.4s						
BELA	Belgrano 2	63.54	167	IAmb	IAmb	17 51 17.2	
	comp=Z,36nm,1.2s						
YERR	Yerington	63.54	354	IAmb	IAmb	17 51 16.0	
	comp=Z,27nm,1.1s						
PNTR	Pine Nut	63.68	353	IAmb	IAmb	17 51 16.9	
	comp=Z,22nm,0.9s						
GOGA	Godfrey	63.69	26	P	P	17 51 14.7	-0.2
GOGA	Godfrey	63.69	26	IAmb	IAmb	17 51 15.6	
	comp=Z,17nm,0.9s						
GOGA	Godfrey	63.69	26	IAMs_20	IAMs_20	18 14 21.0	
	comp=Z,2µm,22.0s						
GOGA	Godfrey	63.69	26	P	P	17 51 14.7	-0.2
	comp=Z,20nm,1.0s						
AFDM	Forest Hills D	63.70	352	IAmb	IAmb	17 51 34.2	
	comp=Z,53nm,1.7s						
QRZ	Quartz Range	63.77	235	P	P	17 51 15.0	-0.5
KSCO	Kaye Shedlock'	63.81	8	IAMs_20	IAMs_20	18 17 10.7	
	comp=Z,1µm,18.0s						
GDXM	Geysers	63.81	351	IAmb	IAmb	17 51 20.5	
	comp=Z,27nm,1.4s						
JANB	Januaria	63.84	95	*e*P	P	17 51 17.2	+0.8
Y52A	Lilburn	63.85	26	IAmb	IAmb	17 51 16.7	
	comp=Z,23nm,1.0s						
Y52A				IAMs_20	IAMs_20	18 15 01.2	
	comp=Z,1µm,20.0s						
SUTB	Sutter Butte	64.08	352	IAMs_20	IAMs_20	18 13 31.8	
	comp=Z,1µm,18.0s						
NLU	North Lily Min	64.14	360	IAmb	IAmb	17 51 20.2	
	comp=Z,37nm,1.4s						
X51A	Calhoun	64.16	25	IAmb	IAmb	17 51 23.8	
	comp=Z,53nm,1.4s						
MPU	Maple Canyon	64.20	0	IAmb	IAmb	17 51 20.4	
	comp=Z,40nm,1.5s						
INZ	Inchbonnie	64.22	233	P	P	17 51 19.4	+1.1
SDBA	SAO DESIDERIO	64.24	92	*e*P	P	17 51 20.0	+1.0
ISCO	Idaho Springs	64.27	5	P	P	17 51 18.8	-0.1
ISCO	Idaho Springs	64.27	5	P	P	17 51 18.6	-0.3
	comp=Z,14nm,1.2s						
T42A	Van Buren	64.31	18	IAmb	IAmb	17 51 19.2	
	comp=Z,30nm,1.3s						
RPZ	Rata Peaks	64.33	232	LR	LR	18 12 06.6	
	comp=Z,194nm,21.3s,baz=86,slow=29						
S39A	Bolivar	64.33	16	IAmb	IAmb	17 51 26.3	
	comp=Z,36nm,1.2s						
SBA	Scott Base	64.36	193	P	P	17 51 19.4	+0.7
SBA				pmax	pmax		
	comp=Z,44nm,1.5s						
SBA				MLR	MLR		
	comp=Z,2µm,20.0s						
SBA	Scott Base	64.36	193	P	P	17 51 19.4	+0.7
SBA				IAmb	IAmb	17 51 22.3	
	comp=Z,44nm,1.4s						
SBA	Scott Base	64.36	193	IAMs_20	IAMs_20	18 12 37.1	
	comp=Z,2µm,20.0s						
SBA	Scott Base	64.36	193	P	P	17 51 21.3	+2.6
	comp=Z,23nm,1.9s						
ORV	Oroville	64.36	352	IAmb	IAmb	17 51 32.2	
	comp=Z,47nm,1.6s						
ORV				IAMs_20	IAMs_20	18 12 34.3	
	comp=Z,1µm,21.0s						
ODZ	Otahua Downs	64.39	230	P	P	17 51 19.3	-0.1
DUG	Dugway, Tooele	64.39	359	P	P	17 51 19.6	+0.1
DUG	Dugway, Tooele	64.39	359	IAmb	IAmb	17 51 33.1	
	comp=Z,32nm,1.3s						
DUG				IAMs_20	IAMs_20	18 14 34.0	
	comp=Z,2µm,18.0s						
DUG	Dugway, Tooele	64.39	359	P	P	17 51 19.6	+0.1
	comp=Z,19nm,1.3s						
O20A	White River Ci	64.42	3	IAmb	IAmb	17 51 22.6	
	comp=Z,50nm,1.6s						
O20A				IAMs_20	IAMs_20	18 14 44.8	
	comp=Z,2µm,18.0s						
WVT	Waverly	64.50	22	P	P	17 51 19.7	-0.4
WVT				pmax	pmax		
	comp=Z,56nm,1.7s						
WVT				MLR	MLR		
	comp=Z,1µm,20.0s						
WVT	Waverly	64.50	22	P	P	17 51 19.7	-0.4
WVT				IAmb	IAmb	17 51 20.4	
	comp=Z,56nm,1.6s						
WVT	Waverly	64.50	22	IAMs_20	IAMs_20	18 17 50.3	
	comp=Z,1µm,20.0s						
WVT	Waverly	64.50	22	P	P	17 51 19.2	-0.8
	comp=Z,18nm,1.5s						
BSUT	Blindstream Ca	64.73	1	IAmb	IAmb	17 51 23.1	
	comp=Z,23nm,1.0s						
MDP	Montagnes des	64.78	71	LR	LR	18 16 37.4	
	comp=Z,2µm,18.5s,baz=271,slow=33						
KCPM	Cahto Peak	64.79	350	IAMs_20	IAMs_20	18 12 35.6	
	comp=Z,2µm,18.0s						
BMN	Battle Mountai	64.80	356	IAmb	IAmb	17 51 24.6	
	comp=Z,51nm,1.4s						
NHSC	New Hope	64.83	29	IAMs_20	IAMs_20	18 16 50.2	
	comp=Z,1µm,18.0s						
HAYD	Hayden	64.86	4	IAmb	IAmb	17 51 30.9	
	comp=Z,25nm,1.3s						
HODGE	Hodges	64.90	27	IAmb	IAmb	17 51 23.8	
	comp=Z,26nm,1.3s						
KSU1	Kansas State U	64.91	13	IAmb	IAmb	17 51 23.4	
	comp=Z,13nm,0.8s						
W52A	Murphy	64.98	25	IAmb	IAmb	17 51 29.6	
	comp=Z,29nm,1.1s						
W52A				IAMs_20	IAMs_20	18 15 38.2	
	comp=Z,1µm,20.0s						
ELK	Elko	65.00	357	LR	LR	18 14 01.5	
	comp=Z,1µm,20.4s,baz=182,slow=31						
ELK	Elko	65.00	357	P	P	17 51 23.5	-0.1
ELK	Elko	65.00	357	IAMs_20	IAMs_20	18 14 34.3	
	comp=Z,1µm,18.0s						
MSVF	Nonsavu	65.02	261	LR	LR	18 15 42.2	
	comp=Z,482nm,18.2s,baz=110,slow=32						
T45A	Paducah	65.05	20	IAMs_20	IAMs_20	18 18 20.6	
	comp=Z,1µm,19.0s						
CPCT	Cooper Cave	65.07	25	IAmb	IAmb	17 51 29.8	
	comp=Z,43nm,1.4s						
BGU	Big Grassy Mou	65.12	359	IAmb	IAmb	17 51 26.3	
	comp=Z,30nm,1.3s						
O02D	Mt. Diablo Mer	65.15	351	P	P	17 51 23.9	-0.5
O02D				IAmb	IAmb	17 51 52.4	
	comp=Z,36nm,1.6s						
R40A	Maddies Statio	65.17	17	IAmb	IAmb	17 51 24.9	
	comp=Z,34nm,1.0s						
CCM	Cathedral Cave	65.22	18	P	P	17 51 23.8	-1.0
CCM				pmax	pmax		
	comp=Z,29nm,1.0s						
CCM				MLR	MLR		
	comp=Z,2µm,18.0s						
CCM	Cathedral Cave	65.22	18	P	P	17 51 23.8	-1.0
CCM				IAmb	IAmb	17 51 25.2	
	comp=Z,29nm,0.9s						
CCM	Cathedral Cave	65.22	18	IAMs_20	IAMs_20	18 16 59.4	
	comp=Z,2µm,18.0s						
CCM	Cathedral Cave	65.22	18	P	P	17 51 24.4	-0.4
	comp=Z,35nm,1.4s						
FOZ	Fox Glacier	65.24	232	P	P	17 51 24.9	-0.1
TCUT	Toone Canyon	65.31	0	IAmb	IAmb	17 52 25.3	
	comp=Z,26nm,0.9s						
KMRM	Mail Ridge	65.33	350	P	P	17 51 25.9	+0.4
KMRM				IAmb	IAmb	17 51 39.0	
	comp=Z,44nm,1.3s						
FVM	French Village	65.39	19	IAmb	IAmb	17 51 33.5	
	comp=Z,33nm,1.3s						
VNDA	Vanda	65.41	194	P	P	17 51 27.2	+1.7
	comp=Z,2.7nm,1.1s,baz=107,slow=6.2,SNR=6.6						
VNDA				LR	LR	18 14 29.8	
	comp=Z,2µm,18.3s,baz=96,slow=31						
	comp=Z,2.7nm,1.1s						
VNDA	Vanda	65.41	194	P	P	17 51 26.8	+1.2
VNDA	Vanda	65.41	194	P	P	17 51 28.0	+2.5
	comp=Z,8.9nm,2.6s						
SJMB	Sao Joao De Ma	65.45	100	*e*P	P	17 51 28.1	+1.3
TKL	Tuckaleechee C	65.54	25	LR	LR	18 15 45.9	
	comp=Z,2µm,21.9s,baz=210,slow=32						
WKZ	Wanaka	65.56	230	P	P	17 51 26.8	-0.3
PAULI	Pauline	65.59	27	IAmb	IAmb	17 51 29.0	
	comp=Z,54nm,1.4s						
HATC	Hat Creek Radi	65.60	352	IAMs_20	IAMs_20	18 13 14.0	
	comp=Z,1µm,21.0s						
QSPA	South Pole Qui	65.64	180	P	P	17 51 28.2	+0.8
	comp=Z,21nm,1.0s,baz=113,slow=3.9,SNR=48						
QSPA				LR	LR	18 15 25.0	
	comp=Z,2µm,20.9s,baz=108,slow=32						
	comp=Z,21nm,1.0s						
QSPA	South Pole Qui	65.64	180	P	P	17 51 28.3	+0.9
QSPA	South Pole Qui	65.64	180	P	P	17 51 30.0	+2.6
	comp=Z,44nm,1.2s						
KHBM	Hayfork Bally	65.69	351	IAmb	IAmb	17 51 53.1	
	comp=Z,24nm,1.2s						
KHBM				IAMs_20	IAMs_20	18 12 50.3	
	comp=Z,1µm,20.0s						
HWUT	Hardware Ranch	65.80	0	P	P	17 51 28.4	-0.3
	comp=Z,11nm,1.6s						
V53A	Saluda	65.92	26	IAMs_20	IAMs_20	18 15 53.1	
	comp=Z,1µm,21.0s						
HVU	Hansel Valley	65.97	359	IAmb	IAmb	17 51 37.0	
	comp=Z,36nm,2.0s						
KHMM	Horse Mountain	65.97	350	IAMs_20	IAMs_20	18 14 04.9	
	comp=Z,1µm,19.0s						
BIRD	Birdtown, Kers	66.01	28	IAmb	IAmb	17 51 32.6	
	comp=Z,51nm,1.4s						
P38A	Dawn	66.10	16	IAmb	IAmb	17 51 30.8	
	comp=Z,21nm,0.8s						
M03C	McCloud	66.14	352	IAmb	IAmb	17 51 43.2	
	comp=Z,39nm,1.4s						
USIN	University of	66.22	21	IAmb	IAmb	17 51 32.7	
	comp=Z,33nm,1.1s						
M02C	Callahan	66.35	351	IAmb	IAmb	17 51 45.2	
	comp=Z,56nm,1.6s						
M02C				IAMs_20	IAMs_20	18 13 33.9	
	comp=Z,2µm,20.0s						
P40A	Paris	66.39	17	IAmb	IAmb	17 51 32.6	
	comp=Z,59nm,1.7s						
TZTN	Tazewell	66.40	25	IAMs_20	IAMs_20	18 16 43.8	
	comp=Z,1µm,20.0s						
TZTN	Tazewell	66.40	25	P	P	17 51 32.4	0.0
	comp=Z,32nm,1.4s						
MOD	Modoc Plateau	66.54	353	IAmb	IAmb	17 51 46.3	
	comp=Z,43nm,1.4s						
MOD				IAMs_20	IAMs_20	18 15 15.9	
	comp=Z,1µm,18.0s						
YBH	Yreka Blue Hor	66.66	351	LR	LR	18 14 06.7	
	comp=Z,1µm,20.6s,baz=174,slow=30						
WVOR	Wild Horse Val	66.90	355	P	P	17 51 36.0	+0.3
WVOR	Wild Horse Val	66.90	355	IAmb	IAmb	17 51 48.9	
	comp=Z,57nm,1.6s						
WVOR				IAMs_20	IAMs_20	18 14 52.6	
	comp=Z,2µm,20.0s						
WVOR	Wild Horse Val	66.90	355	P	P	17 51 36.1	+0.5
	comp=Z,19nm,1.1s						
WCI	Wyandotte Cave	66.92	22	P	P	17 51 34.4	-1.3
WCI				pmax	pmax		
	comp=Z,64nm,1.9s						
WCI				MLR	MLR		
	comp=Z,800nm,22.0s						
WCI	Wyandotte Cave	66.92	22		P	17 51 34.4	-1.3
WCI				IAmb	IAmb	17 52 16.2	
	comp=Z,64nm,1.9s						
WCI	Wyandotte Cave	66.92	22	P	P	17 51 34.3	-1.3
	comp=Z,17nm,1.4s						
KSXB	Camp Six Broad	66.93	350	IAMs_20	IAMs_20	18 14 08.3	
	comp=Z,1µm,19.0s						
AHID	Auburn Hatcher	66.96	1	IAmb	IAmb	17 51 36.1	
	comp=Z,18nm,1.1s						
AHID				IAMs_20	IAMs_20	18 15 23.0	
	comp=Z,1µm,20.0s						
AHID	Auburn Hatcher	66.96	1	P	P	17 51 34.8	-1.3
	comp=Z,18nm,1.0s						
BW06	Boulder Array	66.99	2	IAMs_20	IAMs_20	18 15 48.9	
	comp=Z,1µm,20.0s						
PDAR	Pinedale Array	66.99	2	P	P	17 51 34.8	-1.6
	comp=Z,4.3nm,0.7s,baz=174,slow=6.8,SNR=30						
PDAR				LR	LR	18 15 49.6	
	comp=Z,826nm,20.8s,baz=169,slow=32						
	comp=Z,4.3nm,0.7s						
PDAR	Pinedale Array	66.99	2		P	17 51 34.4	-2.0
K22A	Casper	67.03	4	IAmb	IAmb	17 51 37.2	
	comp=Z,36nm,1.1s						
K22A				IAMs_20	IAMs_20	18 16 33.9	
	comp=Z,1µm,18.0s						
U54A	Nelsons Funny	67.06	26	IAMs_20	IAMs_20	18 16 26.1	
	comp=Z,1µm,21.0s						
P43A	Skaggs, Pawnee	67.19	19	IAMs_20	IAMs_20	18 18 14.1	
	comp=Z,2µm,18.0s						
W59A	Clinton	67.34	29	IAMs_20	IAMs_20	18 18 00.6	
	comp=Z,1µm,18.0s						
S51A	Beattyville	67.35	24	IAMs_20	IAMs_20	18 17 36.8	
	comp=Z,1µm,20.0s						
U56A	King	67.50	27	IAmb	IAmb	17 51 42.1	
	comp=Z,46nm,1.3s						
V58A	Windy Hill, Pi	67.57	29	IAmb	IAmb	17 51 40.6	
	comp=Z,56nm,1.5s						
V58A				IAMs_20	IAMs_20	18 18 41.7	
	comp=Z,928nm,18.0s						
R50A	Paris	67.65	23	IAMs_20	IAMs_20	18 18 39.7	
	comp=Z,1µm,20.0s						
SNOW	Snow King Moun	67.66	1	IAmb	IAmb	17 51 47.9	
	comp=Z,32nm,1.4s						
SNOW				IAMs_20	IAMs_20	18 15 37.5	
	comp=Z,1µm,22.0s						
MFID	Camas Ranch	67.69	357	IAmb	IAmb	17 51 42.5	
	comp=Z,30nm,1.2s						
HLID	Hailey	67.78	358	IAmb	IAmb	17 51 42.8	
	comp=Z,21nm,0.9s						
HLID				IAMs_20	IAMs_20	18 15 49.9	
	comp=Z,1µm,19.0s						
HLID	Hailey	67.78	358	P	P	17 51 41.0	-0.3
	comp=Z,26nm,1.0s						
J08A	Circle Bar Ran	67.81	355	IAmb	IAmb	17 51 54.7	
	comp=Z,46nm,1.4s						
FXWY	Fox Creek	67.83	1	IAmb	IAmb	17 51 46.3	
	comp=Z,34nm,1.4s						
P48A	Milroy	68.32	22	IAmb	IAmb	17 51 45.1	
	comp=Z,31nm,1.3s						
S54A	Dingess, Beckl	68.37	26	IAMs_20	IAMs_20	18 16 55.8	
	comp=Z,1µm,22.0s						
PINE	Pine Mountain	68.47	353	IAmb	IAmb	17 51 47.3	
	comp=Z,17nm,1.0s						
Q51A	Peebles	68.67	24	IAmb	IAmb	17 51 52.3	
	comp=Z,23nm,1.0s						
RSSD	Black Hills	68.69	6	P	P	17 51 45.8	-1.2
RSSD				pmax	pmax		
	comp=Z,18nm,1.0s						
RSSD				MLR	MLR		
	comp=Z,3µm,21.0s						
RSSD	Black Hills	68.69	6		P	17 51 45.8	-1.2
RSSD				IAmb	IAmb	17 51 47.7	
	comp=Z,18nm,0.9s						
RSSD	Black Hills	68.69	6	P	P	17 51 45.8	-1.2
	comp=Z,21nm,1.3s						
V61A	Roper	68.70	30	IAMs_20	IAMs_20	18 18 57.7	
	comp=Z,1µm,18.0s						
LKWY	Lake	68.77	1	IAMs_20	IAMs_20	18 17 39.5	
	comp=Z,1µm,19.0s						
WIFE	Three Sisters-	68.84	352	IAmb	IAmb	17 51 49.5	
	comp=Z,19nm,1.1s						
L40A	Anamosa	68.98	16	IAMs_20	IAMs_20	18 18 31.8	
	comp=Z,2µm,20.0s						
Q52A	Bidwell	69.01	24	IAMs_20	IAMs_20	18 17 55.7	
	comp=Z,1µm,21.0s						
YHL	Hebgen Lake	69.04	1	IAmb	IAmb	17 51 57.5	
	comp=Z,22nm,1.2s						
I05D	Terrebonne, OR	69.06	353	IAmb	IAmb	17 51 50.8	
	comp=Z,25nm,1.1s						
P51A	Williamsport	69.17	24	IAmb	IAmb	17 51 50.9	
	comp=Z,65nm,1.6s						
BMO	Blue Mountains	69.21	356	P	P	17 51 50.2	+0.1
BMO	Blue Mountains	69.21	356	IAmb	IAmb	17 52 02.7	
	comp=Z,36nm,1.6s						
BMO				IAMs_20	IAMs_20	18 16 49.6	
	comp=Z,1µm,19.0s						
T59A	Double "B" Far	69.24	29	IAMs_20	IAMs_20	18 19 16.9	
	comp=Z,942nm,18.0s						
L42A	Oliver, Polo	69.34	18	IAmb	IAmb	17 51 51.6	
	comp=Z,45nm,1.3s						
O49A	Covington	69.34	22	IAMs_20	IAMs_20	18 20 06.5	
	comp=Z,1µm,19.0s						
RLMT	Red Lodge	69.35	2	IAMs_20	IAMs_20	18 17 05.4	
	comp=Z,1µm,21.0s						
ECSD	EROS Data Cent	69.37	12	IAmb	IAmb	17 51 51.7	
	comp=Z,46nm,1.7s						
ECSD	EROS Data Cent	69.37	12	P	P	17 51 50.1	-0.9
	comp=Z,14nm,1.2s						
DLMT	Dillon	69.55	360	IAMs_20	IAMs_20	18 17 20.6	
	comp=Z,1µm,20.0s						
Q54A	Coxs Mills	69.58	25	IAMs_20	IAMs_20	18 17 44.8	
	comp=Z,1µm,22.0s						
SUSD	Miller	69.66	10	IAMs_20	IAMs_20	18 18 28.6	
	comp=Z,1µm,19.0s						
G08A	Pilot Rock	69.77	355	IAmb	IAmb	17 52 06.8	
	comp=Z,66nm,1.8s						
BOZ	Bozeman (W)	69.78	0	P	P	17 51 53.8	+0.1
BOZ	Bozeman (W)	69.78	0	IAmb	IAmb	17 52 06.8	
	comp=Z,38nm,1.9s						
BOZ				IAMs_20	IAMs_20	18 18 07.8	
	comp=Z,1µm,18.0s						
P53A	Whipple	69.80	25	IAMs_20	IAMs_20	18 18 05.7	
	comp=Z,1µm,22.0s						
L44A	Lake County Fo	70.00	19	IAMs_20	IAMs_20	18 19 47.8	
	comp=Z,2µm,18.0s						
JFWS	Jewell Farm	70.03	17	IAMs_20	IAMs_20	18 19 15.6	
	comp=Z,2µm,20.0s						
G04A	Mulino	70.05	352	IAmb	IAmb	17 51 55.7	
	comp=Z,30nm,0.8s						
N49A	Columbus Grove	70.05	22	IAMs_20	IAMs_20	18 20 37.2	
	comp=Z,879nm,18.0s						
HOOD	Mount Hood Mea	70.06	353	IAmb	IAmb	17 52 03.1	
	comp=Z,58nm,1.7s						
O52A	Adamsville	70.18	24	IAMs_20	IAMs_20	18 18 31.7	
	comp=Z,1µm,22.0s						
Q56A	Snyder Ridge,	70.29	27	IAmb	IAmb	17 52 23.8	
	comp=Z,84nm,2.0s						
CBN	Corbin Frederi	70.34	28	IAMs_20	IAMs_20	18 20 36.2	
	comp=Z,1µm,18.0s						
NBPS	Pedro II - PI	70.49	86	*e*P	P	17 51 58.9	+0.2
O53A	New Philadelph	70.53	25	IAmb	IAmb	17 52 06.3	
	comp=Z,52nm,1.2s						
MCWV	Mont Chateau	70.55	26	IAMs_20	IAMs_20	18 18 12.5	
	comp=Z,1µm,22.0s						
N51A	Ashland	70.68	23	IAMs_20	IAMs_20	18 19 23.0	
	comp=Z,1µm,20.0s						
O54A	Avella	70.79	25	IAMs_20	IAMs_20	18 18 33.9	
	comp=Z,1µm,21.0s						
I40A	Norwalk	70.85	16	IAMs_20	IAMs_20	18 19 29.2	
	comp=Z,2µm,21.0s						
VNA3	Neumayer Olymp	70.87	160	⇓P	P	17 52 00.6	+0.6
	comp=Z,16nm,0.8s						
VNA3	Neumayer Olymp	70.87	160	P	P	17 52 00.9	+0.9
	comp=Z,26nm,0.8s						
M50A	Fremont	70.87	23	IAMs_20	IAMs_20	18 20 04.0	
	comp=Z,1µm,21.0s						
HAWA	Hanford	70.91	354	IAMs_20	IAMs_20	18 17 17.6	
	comp=Z,2µm,20.0s						
E08A	Dider Farm, El	70.97	355	IAmb	IAmb	17 52 13.7	
	comp=Z,38nm,1.5s						
MSO	Missoula	71.04	359	IAMs_20	IAMs_20	18 18 14.0	
	comp=Z,1µm,18.0s						
LAO	LASA Array	71.07	4	IAmb	IAmb	17 52 02.0	
	comp=Z,21nm,0.9s						
N53A	Lisbon	71.15	25	IAMs_20	IAMs_20	18 19 10.5	
	comp=Z,1µm,21.0s						
I42A	Draeger Farm,	71.30	17	IAMs_20	IAMs_20	18 20 17.1	
	comp=Z,2µm,19.0s						
AAM	Ann Arbor	71.46	22	IAMs_20	IAMs_20	18 20 30.4	
	comp=Z,1µm,21.0s						
E28A	Huff	71.50	8	IAMs_20	IAMs_20	18 20 27.2	
	comp=Z,2µm,18.0s						
M52A	Chesterland	71.60	24	IAMs_20	IAMs_20	18 19 49.2	
	comp=Z,1µm,20.0s						
VNA2	Neumayer--Watz	71.68	160	⇓P	P	17 52 05.6	+0.8
	comp=Z,9.9nm,0.9s,baz=248,slow=6.0						
VNA2	Neumayer--Watz	71.68	160	P	P	17 52 05.8	+1.0
	comp=Z,25nm,1.2s						
J47A	Sunmer	71.91	21	IAMs_20	IAMs_20	18 20 53.5	
	comp=Z,1µm,20.0s						
H43A	Windswept, Lux	72.15	18	IAMs_20	IAMs_20	18 20 44.6	
	comp=Z,1µm,20.0s						
SSPA	Standing Stone	72.17	27	IAMs_20	IAMs_20	18 22 02.0	
	comp=Z,1µm,19.0s						
K50A	Casco	72.23	22	IAMs_20	IAMs_20	18 21 40.9	
	comp=Z,1µm,18.0s						
EGMT	Eagleton	72.24	2	IAmb	IAmb	17 52 10.5	
	comp=Z,55nm,1.4s						
EGMT				IAMs_20	IAMs_20	18 18 35.8	
	comp=Z,963nm,20.0s						
G40A	Rib Lake	72.24	16	IAMs_20	IAMs_20	18 20 30.0	
	comp=Z,2µm,19.0s						
PAGS	Pennsylvania G	72.31	28	IAmb	IAmb	17 52 09.7	
	comp=Z,27nm,0.9s						
BBSR	BB Station	72.37	41	IAMs_20	IAMs_20	18 18 21.2	
	comp=Z,952nm,20.0s						
NEW	Newport	72.60	356	P	P	17 52 10.6	+0.1
NEW	Newport	72.60	356	IAmb	IAmb	17 52 12.5	
	comp=Z,52nm,1.4s						
NEW	Newport	72.60	356	IAMs_20	IAMs_20	18 19 23.2	
	comp=Z,1µm,18.0s						
NEW	Newport	72.60	356	P	P	17 52 10.8	+0.3
	comp=Z,30nm,1.7s						

P61A	**Hammonton**	**72.69**	**29**	IAMs_20	IAMs_20	18 21 41.3	
	comp=Z,1µm,18.0s						
SNAA	**Sanae**	**72.72**	**162**	P	**P**	**17 52 12.4**	**+1.3**
	comp=Z,4.3nm,0.3s,baz=232,slow=6.8,SNR=6.4						
SNAA				LR	LR	18 18 06.1	
	comp=Z,413nm,21.0s,baz=238,slow=31						
	comp=Z,4.3nm,0.3s						
SNAA	**Sanae**	**72.72**	**162**	⇓*e*P	**P**	**17 52 11.5**	**+0.4**
SNAA				pmax	pmax		
	comp=Z,21nm,1.2s						
N58A	**Sunbury**	**72.82**	**27**	IAmb	IAmb	17 52 14.7	
	comp=Z,43nm,1.4s						
MDND	**Maddock**	**72.89**	**9**	IAMs_20	IAMs_20	18 21 10.2	
	comp=Z,1µm,21.0s						
M57A	**Sunshine Farm,**	**73.07**	**27**	IAMs_20	IAMs_20	18 23 30.2	
	comp=Z,1000nm,19.0s						
F42A	**Maple Grove Fa**	**73.23**	**17**	IAMs_20	IAMs_20	18 21 06.3	
	comp=Z,2µm,21.0s						
L56A	**Greenwood**	**73.57**	**26**	IAMs_20	IAMs_20	18 22 49.4	
	comp=Z,980nm,18.0s						
AGMN	**Agassiz Nation**	**73.92**	**11**	P	**P**	**17 52 19.7**	**+1.4**
	comp=Z,18nm,1.4s						
TROLL	**Troll, Antarti**	**74.05**	**163**	⇓P	**P**	**17 52 20.1**	**+1.0**
	comp=Z,443nm,0.9s						
BINY	**Binghamton**	**74.26**	**27**	IAmb	IAmb	17 52 23.6	
	comp=Z,85nm,1.6s						
BINY				IAMs_20	IAMs_20	18 23 36.7	
	comp=Z,863nm,19.0s						
BINY	**Binghamton**	**74.26**	**27**	P	**P**	**17 52 21.2**	**+0.8**
	comp=Z,25nm,1.1s						
L59A	**Walton**	**74.64**	**28**	IAmb	IAmb	17 52 29.2	
	comp=Z,41nm,1.2s						
E46A	**Sault Ste Mari**	**74.89**	**19**	IAMs_20	IAMs_20	18 22 37.1	
	comp=Z,1µm,20.0s						
J57A	**Williamstown**	**75.26**	**26**	IAMs_20	IAMs_20	18 24 50.2	
	comp=Z,949nm,18.0s						
ULM	**Lac du Bonnet**	**75.80**	**11**	P	**P**	**17 52 28.2**	**-0.9**
	comp=Z,6.9nm,0.8s,baz=201,slow=7.2,SNR=5.1						
ULM				LR	LR	18 23 17.7	
	comp=Z,1µm,18.1s,baz=178,slow=34						
	comp=Z,6.9nm,0.8s						
ULM	**Lac du Bonnet**	**75.80**	**11**	IAmb	IAmb	17 52 41.0	
	comp=Z,79nm,2.0s						
M65A	**Busby, Falmout**	**76.09**	**31**	IAMs_20	IAMs_20	18 22 30.5	
	comp=Z,971nm,21.0s						
L64A	**Middleborough**	**76.30**	**30**	IAMs_20	IAMs_20	18 23 42.7	
	comp=Z,1µm,18.0s						
HRV	**Adam Dziewonsk**	**76.42**	**30**	IAMs_20	IAMs_20	18 23 50.0	
	comp=Z,947nm,20.0s						
J61A	**Chester**	**76.65**	**28**	IAMs_20	IAMs_20	18 24 18.1	
	comp=Z,899nm,18.0s						
HNH	**Hanover**	**77.05**	**28**	IAMs_20	IAMs_20	18 25 17.7	
	comp=Z,849nm,18.0s						
NVL	**N'lazarevskaya**	**77.21**	**164**	*e*P	**P**	**17 52 37.8**	**+0.9**
NVL				*e*S	**S**	**18 02 21.8**	**-4.3**
NVL				pmax	pmax		
	comp=Z,7.0nm,1.0s						
NVL				MLR	MLR		
	comp=Z,370nm,18.0s						
FLET	**Fletcher**	**77.59**	**27**	IAmb	IAmb	17 52 54.0	
	comp=Z,49nm,1.5s						
I62A	**Tamworth**	**77.60**	**29**	IAMs_20	IAMs_20	18 24 30.3	
	comp=Z,938nm,18.0s						
BBB	**Bella Bella**	**77.67**	**350**	LR	LR	18 21 56.9	
	comp=Z,316nm,18.1s,baz=174,slow=32						
TRQ	**Mont Tremblant**	**78.16**	**26**	IAmb	IAmb	17 52 45.3	
	comp=Z,50nm,1.5s						
H62A	**Milan**	**78.24**	**29**	IAMs_20	IAMs_20	18 24 34.3	
	comp=Z,939nm,19.0s						
G62A	**West of Eustis**	**79.02**	**28**	IAMs_20	IAMs_20	18 25 23.9	
	comp=Z,1µm,18.0s						
ELIB	**Princess Elisa**	**79.03**	**167**	*d*P	**P**	**17 52 48.0**	**+0.7**
	comp=Z,6.3nm,0.0s						
F64A	**Sherman**	**80.48**	**29**	IAmb	IAmb	17 53 09.4	
	comp=Z,81nm,1.9s						
E62A	**Clayton Lake**	**80.56**	**28**	IAMs_20	IAMs_20	18 25 53.9	
	comp=Z,1µm,19.0s						
LMQ	**La Malbaie**	**80.95**	**27**	IAmb	IAmb	17 53 11.6	
	comp=Z,44nm,1.4s						
D62A	**Allapoint, All**	**81.12**	**28**	IAmb	IAmb	17 53 06.9	
	comp=Z,93nm,1.9s						
D62A				IAMs_20	IAMs_20	18 26 19.5	
	comp=Z,1µm,19.0s						
V35K	**Ketchikan**	**81.28**	**349**	IAmb	IAmb	17 53 12.2	
	comp=Z,65nm,1.6s						
U33K	**Whale Pass**	**82.30**	**348**	IAmb	IAmb	17 53 18.2	
	comp=Z,34nm,1.5s						
U33K				IAMs_20	IAMs_20	18 21 32.1	
	comp=Z,877nm,19.0s						
WRAK	**Wrangell Islan**	**82.45**	**349**	IAMs_20	IAMs_20	18 21 41.0	
	comp=Z,780nm,19.0s						
SIT	**Sitka**	**83.61**	**347**	P	**P**	**17 53 14.7**	**+3.4**
SIT	**Sitka**	**83.61**	**347**	P	**P**	**17 53 11.5**	**+0.2**
SIT				pmax	pmax		
	comp=Z,36nm,1.3s						
SIT	**Sitka**	**83.61**	**347**	P	**P**	**17 53 11.4**	**+0.2**
SIT				IAmb	IAmb	17 53 24.3	
	comp=Z,36nm,1.3s						
S34M	**Telegraph Cree**	**83.67**	**350**	IAmb	IAmb	17 53 24.9	
	comp=Z,23nm,1.4s						
CASY	**Casey**	**83.92**	**196**	P	**P**	**17 53 13.9**	**+0.8**
DLBC	**Dease Lake**	**84.00**	**351**	LR	LR	18 24 25.8	
	comp=Z,417nm,19.6s,baz=140,slow=31						
HNR	**Honiara**	**84.40**	**262**	LR	LR	18 22 37.9	
	comp=Z,1µm,21.8s,baz=214,slow=30						
HNR	**Honiara**	**84.40**	**262**	IAMs_20	IAMs_20	18 22 16.6	
	comp=Z,1µm,22.0s						
JIS	**Juneau Island**	**84.58**	**348**	P	**P**	**17 53 18.6**	**+2.4**
R32K	**Eaglecrest**	**84.60**	**348**	IAMs_20	IAMs_20	18 22 28.8	
	comp=Z,793nm,21.0s						
Q32M	**Nakina River**	**84.85**	**350**	IAmb	IAmb	17 53 31.0	
	comp=Z,35nm,1.4s						
R33M	**Jennings River**	**85.06**	**350**	IAmb	IAmb	17 53 31.7	
	comp=Z,29nm,1.4s						
P32M	**Atlin**	**85.69**	**349**	IAMs_20	IAMs_20	18 24 05.7	
	comp=Z,774nm,19.0s						
P33M	**Teslin, Yukon**	**86.13**	**350**	IAMs_20	IAMs_20	18 23 59.3	
	comp=Z,811nm,20.0s						
YKAW1	**Yellowknife Wh**	**86.73**	**359**	IAmb	IAmb	17 53 39.9	
	comp=Z,32nm,1.4s						
YKA	**Yellowknife Ar**	**86.74**	**359**	P	**P**	**17 53 25.6**	**-1.3**
	comp=Z,10.0nm,0.9s,baz=174,slow=4.6,SNR=6.8						
YKA				LR	LR	18 28 04.1	
	comp=Z,1µm,18.8s,baz=176,slow=33						
	comp=Z,10.0nm,0.9s						
YKAW3	**Yellowknife Wh**	**86.81**	**359**	IAmb	IAmb	17 53 27.9	
	comp=Z,19nm,1.0s						
N32M	**Quiet Lake**	**87.07**	**350**	IAMs_20	IAMs_20	18 24 38.0	
	comp=Z,795nm,19.0s						
HYT	**Haines Junctio**	**87.54**	**348**	IAmb	IAmb	17 53 44.5	
	comp=Z,27nm,1.4s						
N31M	**Braeburn, Yuko**	**87.83**	**349**	IAMs_20	IAMs_20	18 25 19.3	
	comp=Z,723nm,20.0s						
SCHQ	**Schefferville**	**88.00**	**24**	P	**P**	**17 53 31.8**	**-1.4**
	comp=Z,3.3nm,0.8s,baz=256,slow=4.2,SNR=3.0						
SCHQ				LR	LR	18 29 15.8	
	comp=Z,639nm,21.2s,baz=219,slow=33						
	comp=Z,3.3nm,0.8s						
SCHQ	**Schefferville**	**88.00**	**24**	IAmb	IAmb	17 56 09.9	
	comp=Z,50nm,1.9s						
O28M	**Mount Upton**	**88.03**	**347**	P	**P**	**17 53 33.0**	**-0.6**
O28M				IAmb	IAmb	17 53 34.8	
	comp=Z,18nm,1.0s						
MAW	**Mawson**	**88.07**	**178**	P	**P**	**17 53 32.4**	**-1.2**
	comp=Z,2.2nm,1.0s,baz=169,slow=4.4,SNR=4.0						
MAW				LR	LR	18 30 19.4	
	comp=Z,2µm,18.1s,baz=182,slow=34						
	comp=Z,2.2nm,1.0s						
MAW	**Mawson**	**88.07**	**178**	P	**P**	**17 53 33.8**	**+0.3**
MAW				pmax	pmax		
	comp=Z,5.0nm,2.0s						
MAW	**Mawson**	**88.07**	**178**	P	**P**	**17 53 33.8**	**+0.3**
LOGN	**Logan Glacier**	**88.25**	**346**	IAMs_20	IAMs_20	18 24 43.4	
	comp=Z,684nm,19.0s						
M31M	**Drury Creek, Y**	**88.27**	**350**	IAMs_20	IAMs_20	18 25 12.8	
	comp=Z,718nm,19.0s						
GRNC	**Granite Creek**	**88.34**	**346**	IAMs_20	IAMs_20	18 24 42.6	
	comp=Z,944nm,19.0s						
BARN	**Barnard Glacie**	**88.61**	**346**	IAMs_20	IAMs_20	18 25 10.8	
	comp=Z,684nm,19.0s						
KDAK	**Kodiak Island**	**88.74**	**340**	LR	LR	18 23 37.4	
	comp=Z,694nm,21.8s,baz=142,slow=29						
L29M	**L29M**	**89.76**	**348**	IAMs_20	IAMs_20	18 25 28.2	
	comp=Z,633nm,19.0s						
H11S2	**WAKE ISLAND Hy**	**89.97**	**290**	T	T	19 33 15.1	
	baz=116,slow=75,SNR=636						
KLU	**Klutina**	**89.98**	**344**	IAMs_20	IAMs_20	18 24 58.0	
	comp=Z,967nm,20.0s						
H11S1	**WAKE ISLAND Hy**	**89.98**	**290**	T	T	19 33 16.3	
	baz=116,slow=75,SNR=482						
H11S3	**WAKE ISLAND Hy**	**89.99**	**290**	T	T	19 33 16.4	
	baz=116,slow=75,SNR=490						
STKA	**Stephens Creek**	**90.12**	**235**	LR	LR	18 28 54.2	
	comp=Z,428nm,18.2s,baz=113,slow=32						
H11N3	**WAKE ISLAND Hy**	**90.33**	**291**	T	T	19 33 40.4	
	baz=116,slow=75,SNR=98						
K29M	**Barlow Dome**	**90.33**	**349**	IAmb	IAmb	17 53 57.0	
	comp=Z,18nm,1.2s						
K29M				IAMs_20	IAMs_20	18 26 45.9	
	comp=Z,577nm,18.0s						
H11N1	**WAKE ISLAND Hy**	**90.34**	**291**	T	T	19 33 46.4	
	baz=116,slow=75,SNR=38						
H11N2	**WAKE ISLAND Hy**	**90.34**	**291**	T	T	19 33 47.0	
	baz=116,slow=75,SNR=163						
KNK	**Knik Glacier**	**90.55**	**343**	IAMs_20	IAMs_20	18 25 09.8	
	comp=Z,906nm,20.0s						
I30M	**Mount Dempster**	**91.42**	**350**	IAMs_20	IAMs_20	18 28 21.6	
	comp=Z,624nm,19.0s						
H31M	**Peel River**	**91.66**	**351**	IAmb	IAmb	17 54 03.2	
	comp=Z,14nm,1.1s						
H31M				IAMs_20	IAMs_20	18 30 15.3	
	comp=Z,665nm,19.0s						
DHY	**Denali Highway**	**91.69**	**345**	IAMs_20	IAMs_20	18 27 24.9	
	comp=Z,975nm,19.0s						
SCRK	**Sand Creek**	**91.70**	**346**	IAMs_20	IAMs_20	18 26 24.2	
	comp=Z,709nm,20.0s						
CUT	**Chulitna**	**91.85**	**343**	IAMs_20	IAMs_20	18 25 50.3	
	comp=Z,734nm,21.0s						
I29M	**Ogilvie Camp,**	**91.86**	**349**	IAmb	IAmb	17 53 53.2	
	comp=Z,9.4nm,0.6s						
I29M				IAMs_20	IAMs_20	18 26 59.7	
	comp=Z,636nm,19.0s						
CTA	**Charters Tower**	**91.92**	**247**	LR	LR	18 27 46.5	
	comp=Z,499nm,22.0s,baz=100,slow=31						
RND	**Reindeer**	**92.33**	**344**	IAMs_20	IAMs_20	18 26 22.2	
	comp=Z,902nm,20.0s						
EPYK	**Eagle Plains**	**92.54**	**350**	IAMs_20	IAMs_20	18 29 07.6	
	comp=Z,636nm,19.0s						
J25K	**Salcha River,**	**92.56**	**346**	IAMs_20	IAMs_20	18 26 58.8	
	comp=Z,619nm,20.0s						
MCK	**McKinley**	**92.62**	**344**	IAMs_20	IAMs_20	18 26 31.6	
	comp=Z,925nm,20.0s						
H29M	**Whitestone**	**92.66**	**350**	IAMs_20	IAMs_20	18 27 36.5	
	comp=Z,645nm,19.0s						
G31M	**Satah River**	**92.70**	**351**	IAmb	IAmb	17 54 06.8	
	comp=Z,28nm,1.4s						
PPLA	**Purkeypile**	**92.77**	**343**	IAMs_20	IAMs_20	18 30 17.8	
	comp=Z,727nm,19.0s						
KTH	**Kantishna Hill**	**92.97**	**344**	IAMs_20	IAMs_20	18 26 28.1	
	comp=Z,668nm,20.0s						
ILAR	**Eielson Array**	**93.03**	**346**	P	**P**	**17 53 55.2**	**-1.2**
	comp=Z,1.3nm,1.1s,baz=196,slow=4.0,SNR=5.7						
ILAR				LR	LR	18 28 00.0	
	comp=Z,487nm,19.2s,baz=122,slow=31						
	comp=Z,1.3nm,1.1s						
WRH	**Wood River Hil**	**93.04**	**345**	IAMs_20	IAMs_20	18 27 35.1	
	comp=Z,956nm,19.0s						
CCB	**Clear Creek Bu**	**93.13**	**345**	IAMs_20	IAMs_20	18 27 12.2	
	comp=Z,713nm,19.0s						
G29M	**Pine Creek**	**93.24**	**350**	IAMs_20	IAMs_20	18 27 56.2	
	comp=Z,580nm,19.0s						
COLA	**College**	**93.33**	**345**	IAMs_20	IAMs_20	18 27 46.7	
	comp=Z,687nm,19.0s						
NEA2	**Nenana**	**93.38**	**345**	IAMs_20	IAMs_20	18 27 07.5	
	comp=Z,750nm,20.0s						
F30M	**Barrier River**	**93.56**	**351**	IAMs_20	IAMs_20	18 29 20.1	
	comp=Z,590nm,19.0s						
KRVT	**Keravat (AS076**	**93.67**	**264**	LR	LR	18 30 05.4	
	comp=Z,844nm,19.5s,baz=113,slow=32						
G27K	**Doyon Strip**	**93.76**	**349**	IAMs_20	IAMs_20	18 38 40.9	
	comp=Z,648nm,20.0s						
INK	**Inuvik**	**93.91**	**352**	LR	LR	18 29 45.7	
	comp=Z,593nm,20.9s,baz=158,slow=31						
I23K	**Minto, Yukon-K**	**93.91**	**345**	IAMs_20	IAMs_20	18 27 53.6	
	comp=Z,785nm,18.0s						
MLY	**Manley**	**94.14**	**345**	IAMs_20	IAMs_20	18 28 52.8	
	comp=Z,788nm,19.0s						
H24K	**Noodor Dome**	**94.15**	**346**	IAMs_20	IAMs_20	18 28 16.0	
	comp=Z,725nm,20.0s						
FYU	**Fort Yukon**	**94.22**	**347**	IAMs_20	IAMs_20	18 39 21.2	
	comp=Z,700nm,18.0s						
FRB	**Frobisher Bay**	**94.33**	**18**	LR	LR	18 33 47.8	
	comp=Z,2µm,18.9s,baz=222,slow=34						
H23K	**Yukon River**	**94.52**	**345**	IAMs_20	IAMs_20	18 28 23.7	
	comp=Z,730nm,19.0s						
I21K	**Tanana**	**94.57**	**344**	IAMs_20	IAMs_20	18 28 01.1	
	comp=Z,718nm,20.0s						
E29M	**Blow River**	**94.58**	**351**	IAMs_20	IAMs_20	18 29 14.3	
	comp=Z,700nm,21.0s						
H22K	**Ishtalitna Cre**	**95.00**	**345**	IAMs_20	IAMs_20	18 29 11.5	
	comp=Z,802nm,18.0s						
E28M	**Babbage River**	**95.03**	**350**	IAMs_20	IAMs_20	18 32 51.1	
	comp=Z,534nm,18.0s						
H21K	**Melozitna Rive**	**95.16**	**344**	IAMs_20	IAMs_20	18 29 14.6	
	comp=Z,708nm,19.0s						
G23K	**Bananza Creek**	**95.36**	**346**	IAMs_20	IAMs_20	18 29 46.4	
	comp=Z,648nm,19.0s						
F24K	**Squaw Lake**	**95.58**	**347**	IAMs_20	IAMs_20	18 40 13.8	
	comp=Z,614nm,18.0s						
E25K	**Arctic Village**	**95.64**	**348**	IAMs_20	IAMs_20	18 29 25.6	
	comp=Z,674nm,19.0s						
PMG	**Port Moresby**	**95.87**	**257**	LR	LR	18 31 05.4	
	comp=Z,1µm,19.6s,baz=104,slow=32						
PMG	**Port Moresby**	**95.87**	**257**	⇓*e*P	**P**	**17 54 10.9**	**+0.2**
PMG				pmax	pmax		
	comp=Z,18nm,1.0s						
G21K	**Allakaket**	**96.02**	**345**	IAMs_20	IAMs_20	18 29 25.4	
	comp=Z,625nm,20.0s						
E23K	**Chandalar**	**96.40**	**347**	IAMs_20	IAMs_20	18 40 50.3	
	comp=Z,662nm,18.0s						
F21K	**Alatna River**	**96.58**	**345**	IAMs_20	IAMs_20	18 29 27.1	
	comp=Z,695nm,20.0s						
A36M	**Sachs Harbour**	**96.69**	**356**	IAMs_20	IAMs_20	18 31 29.9	
	comp=Z,717nm,20.0s						
E22K	**Anaktuvuk Pass**	**96.93**	**346**	IAMs_20	IAMs_20	18 30 13.4	
	comp=Z,666nm,19.0s						
COEN	**Coen**	**97.33**	**251**	P	Pdif	17 54 22.0	+4.6
D23K	**Nanushuk River**	**97.37**	**347**	IAMs_20	IAMs_20	18 30 33.0	
	comp=Z,698nm,18.0s						
E21K	**Killik River**	**97.66**	**346**	IAMs_20	IAMs_20	18 31 09.8	
	comp=Z,665nm,19.0s						
E19K	**Redstone River**	**97.68**	**344**	IAMs_20	IAMs_20	18 32 52.2	
	comp=Z,534nm,18.0s						
D22K	**Ayikyak River**	**97.72**	**346**	IAMs_20	IAMs_20	18 31 25.4	
	comp=Z,783nm,19.0s						
C23K	**Itkillik River**	**98.07**	**347**	IAMs_20	IAMs_20	18 31 20.5	
	comp=Z,686nm,19.0s						
D20K	**Etivluk River**	**98.48**	**345**	IAMs_20	IAMs_20	18 31 34.5	
	comp=Z,725nm,19.0s						
B22K	**Teshekpuk Lake**	**99.05**	**347**	IAMs_20	IAMs_20	18 31 46.7	
	comp=Z,707nm,20.0s						
C19K	**Lookout Ridge**	**99.49**	**344**	IAMs_20	IAMs_20	18 32 35.2	
	comp=Z,564nm,19.0s						
RES	**Resolute Bay**	**99.59**	**5**	LR	LR	18 35 53.7	
	comp=Z,757nm,21.4s,baz=192,slow=33						
B20K	**Meade River**	**99.60**	**346**	IAMs_20	IAMs_20	18 32 34.9	
	comp=Z,611nm,18.0s						
SHEM	**Shemya Is, Ala**	**100.03**	**324**	LR	LR	18 30 31.9	
	comp=Z,546nm,21.4s,baz=124,slow=30						
PET	**Petropavlovsk**	**108.83**	**320**	IAMs_20	IAMs_20	18 34 04.4	
	comp=Z,773nm,22.0s						
BILL	**Bilibino**	**109.47**	**337**	IAMs_20	IAMs_20	18 47 53.5	
	comp=Z,569nm,20.0s						
FAKI	**Fak Fak**	**112.00**	**256**	IAMs_20	IAMs_20	18 43 12.1	
	comp=Z,612nm,20.0s						
SEY	**Seymchan**	**114.08**	**330**	⇑*i*PKIKP	**PKiKP**	**17 59 24.3**	**+2.3**
MA2	**Magadan**	**114.44**	**326**	IAMs_20	IAMs_20	18 38 59.2	
	comp=Z,510nm,20.0s						
EDA	**Edea**	**120.70**	**101**	IAMs_20	IAMs_20	18 43 35.5	
	comp=Z,730nm,22.0s						
TIXI	**Tiksi**	**122.14**	**341**	IAMs_20	IAMs_20	18 53 43.9	
	comp=Z,414nm,19.0s						
TAM	**Tamanrasset**	**123.18**	**78**	IAMs_20	IAMs_20	18 54 49.3	
	comp=Z,620nm,18.0s						
YAK	**Yakutsk**	**124.60**	**330**	⇓*e*PKIKP	**PKiKP**	**17 59 43.5**	**+0.9**
YAK	**Yakutsk**	**124.60**	**330**	IAMs_20	IAMs_20	18 44 19.6	
	comp=Z,560nm,21.0s						
KLR	**Kul'dur**	**125.16**	**314**	⇓*e*PKIKP	**PKPdf**	**17 59 36.9**	**-6.9**
KLR				pmax	pmax		
	comp=Z,17nm,2.5s						
ECH	**Echery**	**127.12**	**47**	IAMs_20	IAMs_20	18 55 43.8	
	comp=Z,640nm,19.0s						
ZEA	**Zeya**	**127.50**	**320**	*e*PKIKP	PKiKP	17 59 57.0	+8.4
ZEA				pmax	pmax		
	comp=Z,10.0nm,0.9s						
KASTN	**Kahler Asten**	**127.65**	**43**	*e*SS	SS	18 19 04.0	+2.5
	baz=276,slow=12						
BFO	**Black Forest**	**127.89**	**47**	IAMs_20	IAMs_20	18 55 31.1	
	comp=Z,476nm,20.0s						
BFO	**Black Forest**	**127.89**	**47**	*e*SS	SS	18 19 02.6	-2.3
	baz=276,slow=12						
GTTG	**Gottingen**	**128.56**	**43**	*e*SS	SS	18 19 13.9	+1.1
	baz=276,slow=12						
UBBA	**Unterbreizbach**	**128.69**	**44**	*e*SS	SS	18 19 11.9	-2.3
	baz=276,slow=12						
TUE	**Stuetta**	**128.73**	**49**	IAMs_20	IAMs_20	18 58 16.5	
	comp=Z,543nm,18.0s						
CLZ	**Clausthal**	**128.77**	**42**	*e*SS	SS	18 19 15.8	+0.4
	baz=276,slow=12						
KEV	**Kevo**	**128.77**	**17**	IAMs_20	IAMs_20	18 53 20.4	
	comp=Z,535nm,20.0s						
UBR	**Ueberruh**	**129.15**	**48**	*e*SS	SS	18 19 17.3	-3.1
	baz=276,slow=12						
GRF	**Grafenberg Arr**	**129.63**	**45**	*e*PKPdf	**PKiKP**	**17 59 53.1**	**0.0**
GRF				*e*L	L	18 49 32.0	
	comp=Z,318nm,21.5s						
MOX	**Moxa**	**129.73**	**44**	*e*SS	SS	18 19 26.1	-1.2
	baz=276,slow=12						
MOX				*e*L	L	19 02 10.3	
	comp=Z,312nm,18.2s						
PLN	**Plauen**	**130.10**	**44**	*e*SS	SS	18 19 33.0	+1.1
	baz=276,slow=12						
TANN	**Tannenbergstha**	**130.31**	**44**	*e*SS	SS	18 19 34.5	0.0
	baz=276,slow=12						
CLL	**Collm**	**130.48**	**43**	*i* PKIKP	**PKiKP**	**17 59 54.5**	**-0.2**
CLL				pmax	pmax		
	comp=Z,4.0nm,1.1s						
CLL	**Collm**	**130.48**	**43**	*e*SS	SS	18 19 34.9	-1.4
	baz=276,slow=12						
CLL	**Collm**	**130.48**	**43**	*i* PKPdf	**PKiKP**	**17 59 54.5**	**-0.2**
	comp=Z,4.0nm,1.1s						
CLL				*e*PP	**PP**	**18 02 09.0**	**+0.6**
CLL				*e*SKPbc	**SKPab**	**18 03 16.0**	**-1.4**
CLL				*e*SKPdf	**SKiKP**	**18 03 29.0**	**-1.8**
CLL				*e*SKKSac	**SKKSac**	**18 09 07.0**	**+2.1**
CLL				*e*SS	**SS**	**18 19 37.0**	**+0.7**
CLL				*e*SSS	SSS	18 24 30.0	
CLL				*e*SSSS		18 28 06.0	
CLL				LQ	LQ	18 34 00.0	
CLL				AMS	AMS	18 35 00.0	
	comp=N,700nm,42.0s						
CLL				AMS	AMS	18 35 00.0	
	comp=E,200nm,38.1s						
CLL				L	L	18 44 00.0	
	comp=Z,500nm,37.8s						
CLL				AMS	AMS	18 55 00.0	
	comp=Z,300nm,20.2s						
WET	**Wettzell**	**130.78**	**45**	*e*SS	SS	18 19 40.8	+0.5
	baz=276,slow=12						
BRG	**Berggiesshubel**	**131.15**	**43**	*e*SS	SS	18 19 44.3	-0.3
	baz=276,slow=12						
BRG	**Berggiesshubel**	**131.15**	**43**	⇓*e*PKPf		17 59 56.2	
BRG				Amp		17 59 57.4	
	comp=Z,5.2nm,1.1s						
BRG	**Berggiesshubel**	**131.15**	**43**	SS	SS	18 19 48.0	+3.4
KHC	**Kasperske Hory**	**131.24**	**45**	*e*PKIKP	**PKiKP**	**17 59 56.9**	**+0.5**
KHC	**Kasperske Hory**	**131.24**	**45**	*e*PKP	**PKiKP**	**17 59 56.9**	**+0.5**
KHC	**Kasperske Hory**	**131.24**	**45**	IAMs_20	IAMs_20	19 04 33.4	
	comp=Z,377nm,18.0s						
GEC2	**GERESS Array S**	**131.37**	**46**	*e*SS	SS	18 19 47.2	-0.5
	baz=276,slow=12						
GERES	**GERESS Array B**	**131.37**	**46**	PKP	**PKPdf**	**17 59 55.3**	**-0.5**
	comp=Z,0.3nm,0.3s,baz=258,slow=1.2,SNR=4.6						
APA	**Apatity**	**131.98**	**17**	*i* PKIKP	**PKPdf**	**17 59 53.1**	**-3.1**
APA				*e*		18 02 18.6	
LVZ	**Lovozero**	**132.06**	**16**	IAMs_20	IAMs_20	18 55 08.5	
	comp=Z,507nm,20.0s						
KRUC	**Moravsky**	**133.07**	**45**	*e*PKP	**PKPdf**	**17 59 56.2**	**-2.6**
KRLC	**Kraliky**	**133.09**	**43**	*e*PKIKP	**PKPdf**	**17 59 59.4**	**+0.5**
KRLC	**Kraliky**	**133.09**	**43**	*e*PKP	**PKPdf**	**17 59 59.4**	**+0.5**
VRAC	**Vranov**	**133.14**	**45**	*e*PKP	**PKPdf**	**17 59 55.8**	**-3.2**
FINES	**FINESS Array B**	**133.44**	**26**	PKP	**PKPdf**	**17 59 58.8**	**-0.3**
	comp=Z,5.8nm,1.1s,baz=300,slow=2.7,SNR=2.6						
MORC	**Moravsky Berou**	**133.64**	**44**	*e*PKP	**PKPdf**	**17 59 53.5**	**-6.4**
COCO	**West Island**	**133.92**	**221**	P	**PKiKP**	**18 00 03.2**	**+0.4**
KNMB	**Chin-men Tao**	**134.37**	**281**	IAMs_20	IAMs_20	18 50 57.9	
	comp=Z,484nm,20.0s						
BLY	**Banja Luka**	**134.39**	**51**	IAMs_20	IAMs_20	19 08 49.4	
	comp=Z,407nm,19.0s						
TIP	**Timpagrande**	**134.65**	**58**	IAMs_20	IAMs_20	19 06 27.1	
	comp=Z,573nm,18.0s						
NJ2	**Nanjing**	**134.94**	**292**	*e*PKP	**PKiKP**	**18 00 04.2**	**-0.1**
NJ2				L	L		
	comp=Z,1µm,19.9s						
NJ2				L	L		
	comp=Z,1µm,19.9s						
NJ2				L	L		
	comp=Z,2µm,19.9s						
PABE	**Paberze**	**135.39**	**34**	IAMs_20	IAMs_20	18 48 51.0	
	comp=Z,491nm,22.0s						
PUL	**Pulkovo**	**136.11**	**27**	⇑*e*PKIKP	**PKiKP**	**18 00 05.2**	**-0.6**
PDG	**Podgorica**	**136.22**	**54**	IAMs_20	IAMs_20	19 06 44.2	
	comp=Z,324nm,19.0s						
BJT	**Baijiatuau**	**136.97**	**303**	IAMs_20	IAMs_20	18 49 40.3	
	comp=Z,577nm,22.0s						
MNK	**Minsk**	**137.86**	**34**	*i* PKIKP	**PKPdf**	**18 00 08.1**	**+0.6**
MNK				*i*		18 00 10.5	
MNK				*i*		18 02 55.9	
MNK				*i* PPP	PPP	18 05 55.9	
MNK				*i* PS	SP	18 15 05.8	
MNK				*i* SS	**SS**	**18 21 07.3**	**+2.6**
MNK				*i* SSS	SSS	18 26 14.6	
MNK				pmax	pmax		
	comp=Z,11nm,0.8s						
MNK				pmax	pmax		
	comp=E,6.0nm,0.9s						
MNK				pmax	pmax		
	comp=N,9.0nm,1.0s						
MNK				pmax	pmax		
	comp=Z,5.0nm,0.8s						
MNK				MLR	MLR		
	comp=N,260nm,16.0s						
MNK				MLR	MLR		
	comp=Z,322nm,17.0s						
MNK				MLR	MLR		
	comp=E,183nm,16.0s						
MNK	**Minsk**	**137.86**	**34**	*i* PKP	**PKPdf**	**18 00 08.2**	**+0.6**
	comp=E,6.0nm,0.9s						
MNK				*i* PKP	**PKPdf**	**18 00 08.2**	**+0.6**
	comp=Z,11nm,0.8s,baz=298						
MNK				*i* PKiKP	**pPKPdf**	**18 00 10.6**	**+0.3**
	comp=Z,5.0nm,0.8s						
MNK				*i* PP	**PP**	**18 02 55.9**	**+0.9**
MNK				*i* SKP	**SKPdf**	**18 03 43.1**	**+0.4**
MNK				*i* PKS		18 03 57.5	
MNK				*i* PPP	PPP	18 05 55.9	
MNK				*i* SKS	SKSdf	18 07 03.6	-15
MNK				*i* SP	SP	18 13 03.8	-17
MNK				*i* SS	**SS**	**18 21 07.3**	**+2.6**
MNK				*i* SSS	SSS	18 26 14.6	
MNK				*i* LRM	MLR	19 00 59.5	
	comp=N,260nm,16.5s						
MNK				*i* LRM	MLR	19 01 04.8	
	comp=Z,322nm,16.7s						
KLMR	**Klimovskoe**	**138.75**	**21**	*e*PKIKP	**PKPdf**	**18 00 07.5**	**-1.5**
KLMR				pmax	pmax		
	comp=Z,14nm,1.3s						
BUR08	**Bucovina Ar. S**	**139.10**	**45**		**PKPdf**	**18 00 10.0**	**-0.2**
DLV	**Lat**	**139.72**	**259**	IAMs_20	IAMs_20	18 51 01.9	
	comp=Z,345nm,20.0s						
AK21	**Malin Array Si**	**140.22**	**39**	PKP	**PKPdf**	**18 00 10.9**	**-1.1**
AK19	**Malin Array Si**	**140.22**	**39**	PKP	**PKPdf**	**18 00 11.6**	**-0.4**
AK18	**Malin Array Si**	**140.26**	**39**	PKP	**PKPdf**	**18 00 11.2**	**-0.9**
MLR	**Muntele Rosu**	**140.26**	**48**	IAMs_20	IAMs_20	19 05 20.4	
	comp=Z,455nm,20.0s						
AK04	**Malin Array Si**	**140.31**	**39**	PKP	**PKPdf**	**18 00 11.4**	**-0.8**
HHC	**Hu-ho-hao-te**	**140.33**	**305**	*e*PKP	**PKPdf**	**18 00 09.8**	**-2.9**
AK03	**Malin Array Si**	**140.34**	**39**	PKP	**PKPdf**	**18 00 11.8**	**-0.4**
KIEV	**Kiev**	**140.35**	**39**	PKIKP	**PKPdf**	**18 00 11.3**	**-0.9**
KIEV				MLR	MLR		
	comp=Z,500nm,20.0s						
KIEV	**Kiev**	**140.35**	**39**		**PKPdf**	**18 00 11.3**	**-0.9**
KIEV	**Kiev**	**140.35**	**39**	IAMs_20	IAMs_20	19 00 44.8	
	comp=Z,539nm,20.0s						
AKASG	**Malin Array Be**	**140.36**	**39**	PKP	**PKPdf**	**18 00 11.5**	**-0.7**
	comp=Z,4.0nm,0.7s,baz=285,slow=2.8,SNR=16						
AKASG	**Malin Array Be**	**140.36**	**39**		**PKPdf**	**18 00 11.3**	**-0.9**
AKBB	**Malin Array Si**	**140.36**	**39**	⇑*e*PKIKP	**PKPdf**	**18 00 11.4**	**-0.8**
QIZ	**Qiongzhong**	**140.88**	**270**	IAMs_20	IAMs_20	18 56 31.6	
	comp=Z,594nm,20.0s						
OBN	**Obninsk**	**141.66**	**29**	⇓*e*PKIKP	**PKPdf**	**18 00 14.8**	**+0.4**

OBN				eSS	SS	18 21 47.0	-2.0
OBN				eSSS	SSS	18 27 00.9	
OBN				pmax	pmax		
	comp=Z,37nm,1.5s						
OBN				MLR	MLR		
	comp=Z,561nm,19.0s						
MOS	Moscow	141.70	27	ePKIKP	PKiKP	18 00 18.3	+1.0
SONM	Songino Array	141.82	317	PKP	PKPdf	18 00 14.3	-0.9
	comp=Z,2.5nm,0.8s,baz=130,slow=1.8,SNR=4.8						
KARP	Karpathos	143.20	63	IAMs_20	IAMs_20	19 11 04.8	
	comp=Z,478nm,19.0s						
KIRV	Kirov	143.49	16⇑	ePKIKP	PKPdf	18 00 17.6	0.0
LPSR	Galich'ya Gora	144.35	31	ePKIKP	PKPab	18 00 15.8	-1.5
LPSR				pmax	pmax		
	comp=Z,20nm,0.9s						
VORR	Voronezh	145.08	32	ePKIKP	PKPbc	18 00 19.4	-0.6
VORR				pmax	pmax		
	comp=Z,19nm,0.8s						
GYA	Guiyang	145.14	282	⇓PKPbc	PKPab	18 00 21.2	-0.1
VSR	Storozhevoye	145.35	32	ePKP2	PKPbc	18 00 18.7	-2.2
VSR				pmax	pmax		
	comp=Z,40nm,0.9s						
ISP	Isparta	145.52	58	IAMs_20	IAMs_20	19 13 50.5	
	comp=Z,393nm,20.0s						
VORD	Divnogorie	145.57	33	ePKP2	PKPdf	18 00 19.3	-2.1
VORD				pmax	pmax		
	comp=Z,40nm,0.9s						
SIM	Simferopol'	145.84	45	i PKP2	PKPab	18 00 23.9	+0.8
SIM						18 03 49.0	
VRH	Novokhopyorsk	146.57	30	ePKP2	PKPbc	18 00 24.4	-0.2
VRH				pmax	pmax		
	comp=Z,45nm,0.9s						
SLVN	Son La	146.85	272	PKPdf	PKPdf	18 00 22.6	-2.1
ILGA	Ilgaz	147.05	52		PKPdf	18 00 24.4	-0.2
LZH	Lanzhou	147.16	299	ePKPbc	PKPdf	18 00 24.0	-0.9
LZH				L	L		
	comp=Z,470nm,19.2s						
LZH				L	L		
	comp=Z,740nm,18.9s						
LZH				L	L		
	comp=Z,1µm,23.4s						
SVE	Sverdlovsk	147.29	8	ePKP2	PKPbc	18 00 25.8	-0.7
SVE				pmax	pmax		
	comp=Z,25nm,1.6s						
LZDM	Lanzhou Array	147.31	299	PKPbc	PKPdf	18 00 26.4	+1.0
	comp=Z,3.0nm,0.3s,baz=142,slow=4.9,SNR=1.3						
ARTI	Arti	147.40	10	i PKP2	PKPdf	18 00 25.3	+0.9
ARTI						18 03 49.4	
ARTI				SS	SS	18 22 54.2	+0.1
ARTI	Arti	147.40	10		PKPdf	18 00 25.1	+0.7
ARTI	Arti	147.40	10	IAMs_20	IAMs_20	19 07 34.6	
	comp=Z,526nm,19.0s						
BR131	Keskin Array S	147.41	54⇑	ePKP2	PKPdf	18 00 26.2	+1.1
BRTR	Keskin Array B	147.41	54	PKPbc	PKPbc	18 00 27.0	-0.6
	comp=Z,4.9nm,0.8s,baz=241,slow=1.3,SNR=26						
BRTR	Keskin Array B	147.41	54	PKP2	PKPdf	18 00 25.9	+0.7
BRTR	Keskin Array B	147.41	54		PKPdf	18 00 25.9	+0.7
CD2	Chengdu	147.82	289	PKPbc	PKiKP	18 00 30.7	-0.1
CD2				PP	PP	18 03 56.7	+0.3
CD2				SKS	SKSdf	18 07 34.2	-0.6
CD2				PPMZ			
	comp=Z,350nm,10.1s						
CD2				L	L		
	comp=Z,750nm,21.6s						
CD2				L	L		
	comp=Z,1µm,21.2s						
CD2				L	L		
	comp=Z,1µm,24.5s						
ZAA0	Zalesovo Array	148.03	341		PKPdf	18 00 25.7	+0.2
ZALV	Zalesovo Beam	148.03	341	PKPbc	PKPdf	18 00 26.8	+1.3
	comp=Z,7.2nm,0.7s,baz=24,slow=2.6,SNR=16						
BELG	Belogornoye	148.14	24⇑	ePKIKP	PKPdf	18 00 26.0	+0.3
CSS	Mathiatis	148.28	63	IAMs_20	IAMs_20	19 13 22.3	
	comp=Z,296nm,20.0s						
KMI2	Kunming	148.52	279	PKPbc	PKPbc	18 00 31.0	-0.1
KMI2				L	L		
	comp=Z,350nm,22.2s						
KMI2				L	L		
	comp=Z,580nm,19.2s						
KMI2				L	L		
	comp=Z,630nm,24.2s						
GTA2	Gaotai	149.41	307	PKPbc	PKPbc	18 00 32.5	-0.3
GTA2				L	L		
	comp=Z,280nm,18.2s						
GTA2				L	L		
	comp=Z,630nm,21.3s						
GTA2				L	L		
	comp=Z,850nm,22.3s						
PZH	PanZhiHua	149.54	281	PKPbc	PKPdf	18 00 29.3	+0.3
CMAR	Chiang Mai Arr	150.64	264	PKPbc	PKPbc	18 00 36.0	-0.2
	comp=Z,7.3nm,0.8s,baz=134,slow=0.7,SNR=7.3						
CMAR	Chiang Mai Arr	150.64	264	PKIKP	PKPbc	18 00 36.1	-0.2
CMAR	Chiang Mai Arr	150.64	264		PKPbc	18 00 36.1	-0.2
CHTO	Chiang Mai	150.74	265	PKIKP	PKPbc	18 00 35.3	-1.2
CHTO				MLR	MLR		
	comp=Z,400nm,20.0s						
CHTO	Chiang Mai	150.74	265	PKPdf	PKPdf	18 00 28.6	-2.3
CHTO				PKPbc	PKPbc	18 00 35.3	-1.2
CHTO				IAMs_20	IAMs_20	19 04 59.7	
	comp=Z,365nm,20.0s						
KIV	Kislovodsk	151.65	41⇑	ePKIKP	PKPdf	18 00 31.5	-0.2
KIV	Kislovodsk	151.65	41	IAMs_20	IAMs_20	19 21 41.9	
	comp=Z,278nm,20.0s						
KBZ	Khabaz	151.91	41	PKPbc	PKPbc	18 00 38.5	+0.1
	comp=Z,13nm,0.8s,baz=237,slow=2.0,SNR=26						
KBZ	Khabaz	151.91	41⇑	ePKIKP	PKPdf	18 00 31.0	-0.9
TNCH	TengChong	152.32	277	PKPbc	PKPdf	18 00 33.0	-0.4
TNCH				sPKP	sPKPdf	18 00 40.4	+3.4
TNCH				PKPab	PKPab	18 00 50.2	0.0
TNCH				PP	PP	18 04 29.0	+6.2
TNCH				PPMZ			
	comp=Z,200nm,6.3s						
TNCH				L	L		
	comp=Z,210nm,17.7s						
TNCH				L	L		
	comp=Z,290nm,28.4s						
TNCH				L	L		
	comp=Z,890nm,26.8s						
KURK	Kurchatov	152.59	345	PKIKP	PKPbc	18 00 38.8	-0.9
KURK				MLR	MLR		
	comp=Z,900nm,21.0s						
KURK	Kurchatov	152.59	345		PKPbc	18 00 38.8	-0.9
KURBB	Kurchatov Arra	152.70	345	PKPbc	PKPbc	18 00 38.8	-1.1
	comp=Z,6.0nm,0.8s,baz=12,slow=1.8,SNR=12						
ATD	Arta Tunnel	152.86	114	IAMs_20	IAMs_20	19 04 16.3	
	comp=Z,510nm,20.0s						
WMQ	Urumqi	154.90	325	ePKPbc	PKPdf	18 00 36.7	+0.3
WMQ				L	L		
	comp=Z,430nm,23.9s						
WMQ				L	L		
	comp=Z,490nm,23.9s						
WMQ				L	L		
	comp=Z,840nm,21.9s						
MKAR	Makanchi Array	155.01	336	PKPbc	PKPdf	18 00 44.3	+7.9
	comp=Z,3.2nm,0.9s,baz=14,slow=1.8,SNR=2.4						
MAK	Makhachkala	155.03	38d	iPKIKP	PKPdf	18 00 31.3	-5.1
MAK				eSS	SS	18 24 15.9	-3.9
MAK				eSSS	SSS	18 30 11.3	
MAK				pmax	pmax		
	comp=Z,279nm,1.1s						
MORE	Moreh	156.06	275	IAMs_20	IAMs_20	19 02 06.7	
	comp=Z,488nm,22.0s						
LSA	Lhasa	158.78	289	IAMs_20	IAMs_20	19 04 09.7	
	comp=Z,430nm,21.0s						
RAYN	Ar Rayn	159.41	88	PKIKP	PKPdf	18 00 43.7	+1.0
HYB	Hyderabad	167.88	236	eSKKSac	SKKSac	18 12 33.0	-1.1

NEIC ***07*** *17:49:15.7±1.5, 9°.22S±0°.02×106°.97E±0°.07, h10^{km}±1^{km}, mb4.7/61, Error ellipse: s-maj=12.6km s-min=3.2km az=257.0*

IDC ***07*** *17:49:15.2±0.6, 9°.17S×106°.94E, h0^{km}, mb4.2/19, mbtmp4.2/19, MS4.2/9, Error ellipse: s-maj=25.3km s-min=12.3km az=64.0*

GFZ ***07*** *17:49:16.3±0.2, 9°S±3°×10°7E±°, h10^{km}, M4.9/33, mb4.8/33*

DJA ***07*** *17:49:18.4±0.4, 9°S±4°×10°7E±°, h10^{km}, M4.9/47, mB5.5/16, mb5.3/20, MLv4.8/47, Mw(mB)4.9/16*

ISC 07 17:49:16.9±0.5**, 9°.24S**±0°.05×**106°.92E**±0°.05**, h18**^{km}±2^{km}**, h18**^{km}**:pP-P, n214, σ1**^{s}**.51**/208**, mb4.7**/63**, MS4.7**/15**, 5C-2D, South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BBJI	Bungbulang	1.91	22	P	Pn	17 49 49.0	+0.3
BBJI	Bungbulang	1.91	22		Pn	17 49 48.7	-0.1
BBJI				Sn	Sn	17 50 10.5	-1.9
BBJI	Bungbulang	1.91	22	P	Pn	17 49 48.3	-0.4
BBJI				S	Sn	17 50 11.7	-0.7
BBJI	Bungbulang	1.91	22	P	Pn	17 49 49.1	+0.4
CNJI	Cibinong	1.93	6	P	Pn	17 49 48.9	-0.1
CNJI				AML	AML		
CNJI	Cibinong	1.93	6	P	Pn	17 49 48.9	-0.1
CMJI	Cimerak	2.09	46	P	Pn	17 49 51.5	+0.3
CMJI	Cimerak	2.09	46	P	Pn	17 49 52.1	+1.0
SKJI	Sukabumi	2.25	351	P	Pn	17 49 53.4	0.0
SKJI	Sukabumi	2.25	351	P	Pn	17 49 53.2	-0.2
KPJI	Karang Pucung	2.75	46	P	Pn	17 50 02.0	+1.8
KPJI	Karang Pucung	2.75	46	P	Pn	17 50 02.6	+2.4
CGJI	Cibinong	2.88	335	P	Pn	17 50 02.3	+0.2
CGJI	Cibinong	2.88	335	P	Pn	17 50 02.7	+0.7
TNG	Tangerang	3.06	355	P	Pn	17 50 04.6	+0.1
TNG				P	Pb	17 50 05.8	-5.2
TNG				AML	AML		
TNG	Tangerang	3.06	355	P	Pn	17 50 06.1	+1.5
CTJI	Waduk Cacaban	3.15	45	P	Pn	17 50 07.9	+2.1
CTJI	Waduk Cacaban	3.15	45	P	Pn	17 50 07.5	+1.7
SBJI	Serang	3.20	346	P	Pn	17 50 06.4	0.0
SBJI	Serang	3.20	346	P	Pn	17 50 06.8	+0.4
YOGI	Yogyakarta	3.62	67	P	Pn	17 50 17.3	+5.1
YOGI				AML	AML		
YOGI	Yogyakarta	3.62	67	P	Pn	17 50 13.2	+1.0
UGM	Wanagama	3.80	70	P	Pn	17 50 15.5	+0.9
UGM	Wanagama	3.80	70		Pn	17 50 14.0	-0.7
UGM					Sn	17 50 56.2	-2.7
UGM	Wanagama	3.80	70	P	Pn	17 50 15.6	+0.9
UGM				AML	AML		
UGM	Wanagama	3.80	70	P	Pn	17 50 15.5	+0.9
SMRI	Semarang	4.11	58	P	Pn	17 50 22.1	+3.2
SMRI	Semarang	4.11	58		Pn	17 50 17.3	-1.6
SMRI	Semarang	4.11	58	P	Pn	17 50 21.4	+2.5
SMRI				AML	AML		
SMRI	Semarang	4.11	58	P	Pn	17 50 20.7	+1.8
WOJI	Wonogiri, Jawa	4.20	71	P	Pn	17 50 17.7	-2.4
PCJI	Pacitan	4.33	76	P	Pn	17 50 23.4	+1.4
PCJI				AML	AML		
PCJI	Pacitan	4.33	76	P	Pn	17 50 23.5	+1.5
KASI	Kota Agung	4.41	327	P	Pn	17 50 22.0	-1.1
SNJI	Sawahan-Nganju	5.00	73	P	Pn	17 50 34.7	+3.4
	0.8nm3µm209nm,0.6s						
SNJI				AML	AML		
MDSI	Maura Dua	5.46	330	P	Pn	17 50 37.1	-0.3
MDSI	Maura Dua	5.46	330	P	Pn	17 50 36.2	-1.2
	comp=Z,66nm,0.8s						
MNAI	Manna	6.25	321	P	Pn	17 50 47.0	-1.4
MNAI	Manna	6.25	321	Pn	Pn	17 50 46.6	-1.8
MNAI	Manna	6.25	321	P	Pn	17 50 47.4	-1.0
	comp=Z,465nm,1.1s						
LHSI	Lahat	6.35	328	P	Pn	17 50 54.8	+5.0
	comp=Z,1µmcomp=Z,89nm,1.0s						
TPI	Tanjungpandan	6.49	6	P	Pn	17 50 53.0	+1.4
TPI				AML	AML		
BLJI	Banyuglugur	6.76	78	P	Pb	17 51 12.3	-1.8
KSI	Kapahiang	7.03	322	P	Pn	17 50 59.3	+0.2
	comp=Z,4µmcomp=Z,388nm,0.7s						
JAGI	Jajag, Banyuwa	7.18	84	P	Pn	17 51 03.0	+1.8
JAGI	Jajag, Banyuwa	7.18	84		Pn	17 51 02.8	+1.6
JAGI				Sn	Sn	17 52 21.1	-1.4
JAGI	Jajag, Banyuwa	7.18	84	P	Pn	17 51 03.3	+2.1
JAGI	Jajag, Banyuwa	7.18	84	P	Pn	17 51 04.4	+3.2
	comp=Z,416nm,0.7s						
ABJI	Asem Bagus	7.37	79	P	Pb	17 51 18.9	-5.5
ABJI	Asem Bagus	7.37	79	P	Pn	17 51 06.5	+2.8
	comp=Z,144nm,1.0s						
RTBI	Rangdo, Negare	7.96	85	P	Pn	17 51 15.0	+3.0
	comp=Z,385nm,0.7s						
IGBI	Denpasar	8.13	88	P	Pn	17 51 16.0	+1.8
	comp=Z,2µm,1.1s						
KHKI	Kahang-Kahang	8.63	85	P	Pn	17 51 41.0	+20
PDSI	Padang	10.48	322	P	Pn	17 51 44.1	-2.4
	comp=Z,12nm,0.8s						
PLAI	Plampang	10.73	89	P	Pn	17 51 52.6	+2.8
PLAI	Plampang	10.73	89	P	Pn	17 51 50.3	+0.5
	comp=Z,87nm,1.0s						
LBFI	Labuhan Bajo,	12.84	88	P	Pn	17 52 20.7	+2.0
	comp=Z,24nm,0.7s						
KAPI	Kappang	13.40	73	LR	LR	17 58 42.3	
	comp=Z,371nm,19.2s,baz=242,slow=42						
KAPI	Kappang	13.40	73	Pn	Pn	17 52 25.6	-0.8
GSI	Gunungsitoli	14.02	318	Pn	Pn	17 52 31.4	-3.5
RPSI	Rantau Prapat	14.29	326	Pn	Pn	17 52 34.0	-4.6
RPSI	Rantau Prapat	14.29	326	P	Pn	17 52 37.4	-1.2
	comp=Z,11nm,0.8s						
GIRL	Giralia	15.06	153	Pn	Pn	17 52 44.3	-4.7
MMRI	Maumere	15.14	89	Pn	Pn	17 52 47.8	-2.3
MBWA	Marble Bar	17.10	135	P	Pn	17 53 14.2	-1.1
MBWA	Marble Bar	17.10	135	Pn	Pn	17 53 11.2	-4.2
MBWA	Marble Bar	17.10	135	P	Pn	17 53 14.3	-1.1
	comp=Z,14nm,0.8s						
SOEI	Soe	17.11	93	Pn	Pn	17 53 13.0	-2.6
SOEI				IAmb	IAmb	17 53 51.2	
	comp=Z,50nm,0.9s						
SOEI	Soe	17.11	93	P	Pn	17 53 18.1	+2.5
	comp=Z,49nm,0.8s						
TOLI2	Tolitoli	17.21	54	P	P	17 53 20.1	+1.9
TOLI2	Tolitoli	17.21	54	P	Pn	17 53 15.6	-1.1
TOLI2	Tolitoli	17.21	54	P	Pn	17 53 18.4	+1.7
	comp=Z,26nm,1.0s						
KKM	Kota Kinabalu	17.79	32	P	P	17 53 26.7	+2.1
KKM	Kota Kinabalu	17.79	32	P	Pn	17 53 21.9	-2.1
KKM	Kota Kinabalu	17.79	32	P	Pn	17 53 25.8	+1.9
	comp=Z,16nm,0.9s						
MYLDM	Lahad Datu	18.40	39		P	17 53 29.4	-1.9
MYLDM				IAmb	IAmb	17 53 44.2	
	comp=Z,31nm,1.0s						
MYLDM	Lahad Datu	18.40	39	P	P	17 53 32.6	+1.4
	comp=Z,30nm,1.4s						
FITZ	Fitzroy Crossi	20.19	118	P	P	17 53 52.1	+1.2
	comp=Z,8.4nm,0.8s,baz=300,slow=9.9,SNR=14						
FITZ				S	S	17 57 23.5	-13
	comp=Z,1.2nm,0.7s,baz=9.0,slow=19,SNR=1.5						
	comp=Z,8.4nm,0.8s						
FITZ	Fitzroy Crossi	20.19	118	P	P	17 53 49.6	-1.2
FITZ	Fitzroy Crossi	20.19	118	P	P	17 53 50.4	-0.5
	comp=Z,2.8nm,0.7s						
MEEK	Meekatharra	20.54	149	P	P	17 53 54.9	+0.2
MEEK	Meekatharra	20.54	149	P	P	17 53 56.1	+1.5
	comp=Z,20nm,1.4s						
NLAI	Namlea	20.92	75	P	P	17 54 01.0	+2.2
	comp=Z,27nm,0.9s						
MORW	Morawa	21.50	158	P	P	17 54 02.4	-2.6
MORW				IAmb	IAmb	17 54 28.9	
	comp=Z,22nm,1.1s						
KNRA	Kununurra	22.25	109	P	P	17 54 10.5	-2.6
TNTI	Ternate	22.66	65	P	P	17 54 19.5	+1.9
TNTI	Ternate	22.66	65		P	17 54 14.8	-2.8
TNTI	Ternate	22.66	65	P	P	17 54 17.4	-0.2
	comp=Z,43nm,1.0s						
DAV	Davao City (W)	24.66	50	LR	LR	18 07 00.4	
	comp=Z,240nm,18.5s,baz=228,slow=43						
NWAO	Narrogin (SRO)	25.42	159	LR	LR	18 05 09.1	
	comp=Z,235nm,18.7s,baz=311,slow=37						
FAKI	Fak Fak	25.94	78	P	P	17 54 46.7	-1.9
FAKI				IAmb	IAmb	17 55 02.5	
	comp=Z,36nm,1.1s						
H01W3	Cape Leeuwin H	26.36	167	T	T	18 23 16.1	
	baz=341,slow=76,SNR=9.3						
H01W1	Cape Leeuwin H	26.38	167	T	T	18 23 24.5	
	baz=341,slow=76,SNR=9.9						
H01W2	Cape Leeuwin H	26.38	167	T	T	18 23 16.2	
	baz=341,slow=76,SNR=9.9						
WRA	Warramunga Arr	28.54	115	P	P	17 55 12.9	+1.0
	comp=Z,1.0nm,0.8s,baz=285,slow=12,SNR=14						
WRA				PcP	PcP	17 58 24.6	+1.1
	comp=Z,0.2nm,0.5s,baz=298,slow=1.8,SNR=1.0						
	comp=Z,1.0nm,0.8s						
WRA	Warramunga Arr	28.54	115	P	P	17 55 10.2	-1.8
WRAB	Tennant Creek	28.54	115	P	P	17 55 12.3	+0.3
WRAB	Tennant Creek	28.54	115	P	P	17 55 13.9	+1.9
CM31	Chiang Mai Arr	28.63	344	P	P	17 55 11.0	-1.7
CM31				IAmb	IAmb	17 55 18.6	
	comp=Z,6.7nm,0.9s						
CMAR	Chiang Mai Arr	28.63	344	P	P	17 55 12.4	-0.3
	comp=Z,3.4nm,0.8s,baz=178,slow=8.7,SNR=29						
CMAR				PcP	PcP	17 58 25.1	+1.5
	comp=Z,0.3nm,0.3s,baz=178,slow=3.1,SNR=1.8						
CMAR				LR	LR	18 06 51.6	
	comp=Z,122nm,19.8s,baz=180,slow=37						
	comp=Z,3.4nm,0.8s						
CMAR	Chiang Mai Arr	28.63	344	P	P	17 55 11.2	-1.5
WR8	Warramunga Arr	28.68	115	P	P	17 55 11.4	-1.9
WR8				IAmb	IAmb	17 55 34.5	
	comp=Z,15nm,1.4s						
CHTO	Chiang Mai	28.97	344		P	17 55 14.1	-1.6
CHTO	Chiang Mai	28.97	344	P	P	17 55 16.1	+0.4
	comp=Z,7.1nm,1.0s						
ASAR	Alice Springs	29.50	122	P	P	17 55 21.3	+0.8
	comp=Z,2.3nm,1.0s,baz=299,slow=8.5,SNR=12						
ASAR				PcP	PcP	17 58 27.6	+1.7
	comp=Z,0.8nm,0.7s,baz=319,slow=2.5,SNR=6.1						
	comp=Z,2.3nm,1.0s						
ASAR	Alice Springs	29.50	122	P	P	17 55 19.3	-1.2
AS31	Alice Springs	29.50	122	P	P	17 55 19.4	-1.1
HALK	Hakmana	30.27	299	P	P	17 55 27.8	+0.5
	comp=Z,26nm,2.6s						
SLVN	Son La	30.53	354		P	17 55 28.4	-1.2
SLVN				IAmb	IAmb	17 55 42.9	
	comp=Z,5.2nm,0.8s						
SLVN	Son La	30.53	354	P	P	17 55 29.6	+0.1
	comp=Z,7.6nm,0.9s						
NPW	Naypyitaw	30.73	340	P	P	17 55 32.1	+0.9
	comp=Z,8.7nm,1.1s						
MALK	Mahakanadarawa	31.58	303	P	P	17 55 37.5	-1.4
	comp=Z,16nm,1.7s						
QIS	Mount Isa	33.45	113	P	P	17 55 56.3	+1.0
	comp=Z,8.2nm,2.1s						
H08S2	Diego Garcia H	34.09	270	T	T	18 31 52.8	
	baz=95,slow=75						
H08S3	Diego Garcia H	34.10	270	T	T	18 32 35.0	
	baz=95						
H08S1	Diego Carcia H	34.11	270	T	T	18 31 51.7	
	baz=95,slow=75						
KMI2	Kunming	34.42	353	P	P	17 56 04.2	+0.4
KMI2				pmax	pmax		
	comp=Z,18nm,0.9s						
KMI2				L	L		
	comp=Z,1µm,12.7s						
KMI2				L	L		
	comp=Z,420nm,10.6s						
KMI2				L	L		
	comp=Z,1µm,11.7s						
TNCH	TengChong	35.03	347	P	P	17 56 10.5	+1.4
TNCH				pP	pP	17 56 13.6	+0.3
TNCH				S	S	18 01 40.6	-0.2
TNCH				SS	SnSn	18 03 59.1	+1.9
TNCH				pmax	pmax		
	comp=Z,19nm,0.9s						
TNCH				pmax	pmax		
	comp=Z,220nm,5.7s						
TNCH				L	L		
	comp=Z,830nm,12.5s						
TNCH				L	L		
	comp=Z,600nm,12.9s						
TNCH				L	L		
	comp=Z,1µm,11.9s						
BRDH	Bariadhala	35.08	335	LR	LR	18 11 49.1	
	comp=Z,172nm,19.5s,baz=163,slow=39						
YULB	Yu-li	35.35	23	P	P	17 56 11.3	-0.3
YULB				IAmb	IAmb	17 56 24.4	
	comp=Z,18nm,1.1s						
MORE	Moreh	35.48	340	P	P	17 56 12.4	-0.4
SSLB	Suanglung	35.58	22	P	P	17 56 12.9	-0.7
SSLB	Suanglung	35.58	22	P	P	17 56 14.5	+0.9
	comp=Z,26nm,1.1s						
PZH	PanZhiHua	35.89	352	P	P	17 56 18.7	+2.4
SHL	Shillong	37.57	337	P	P	17 56 30.7	0.0
SHL				IAmb	IAmb	17 56 43.3	
	comp=Z,16nm,0.7s						
STKA	Stephens Creek	39.23	130	P	P	17 56 45.9	+1.3
	comp=Z,4.9nm,0.8s,baz=298,slow=11,SNR=6.7						
	comp=Z,4.9nm,0.8s						
PMG	Port Moresby	39.69	94	P	P	17 56 47.5	-1.1
CD2	Chengdu	40.04	356	P	P	17 56 51.6	+0.4
CD2				S	S	18 02 59.8	+3.4
CD2				pmax	pmax		
	comp=Z,20nm,0.9s						
CD2				L	L		
	comp=Z,480nm,10.2s						
CD2				L	L		
	comp=Z,580nm,12.7s						
CD2				L	L		
	comp=Z,600nm,14.1s						
LSA	Lhasa	41.59	339	IAmb	IAmb	17 57 16.6	
	comp=Z,12nm,0.8s						
LSA	Lhasa	41.59	339	P	P	17 57 05.0	+0.4
	comp=Z,13nm,0.8s						
EVN	Everest	41.79	333	P	P	17 57 05.3	-1.1
EVN				IAmb	IAmb	17 57 20.4	
	comp=Z,13nm,0.8s						
EVN	Everest	41.79	333	P	P	17 57 06.1	-0.3
CMSA	Cobar Meteorol	42.24	127	P	P	17 57 10.6	+1.2
	comp=Z,17nm,0.8s						
NJ2	Nanjing	42.62	15	eP	P	17 57 12.8	+0.5
NJ2				pmax	pmax		
	comp=Z,68nm,0.6s						
XAN	Xi'an	43.09	2	P	P	17 57 16.6	+0.4
XAN				pmax	pmax		
	comp=Z,16nm,0.9s						
XAN				L	L		
	comp=Z,520nm,11.7s						
XAN				L	L		
	comp=Z,290nm,11.0s						
XAN				L	L		
	comp=Z,520nm,13.1s						
LYN	LuoYang	43.87	7	eP	P	17 57 24.1	+1.7
LYN				L	L		
	comp=Z,490nm,14.7s						
LYN				L	L		
	comp=Z,480nm,13.7s						
LYN				L	L		
	comp=Z,460nm,17.1s						
LZDM	Lanzhou Array	45.06	356	P	P	17 57 32.7	+0.4
	comp=Z,2.6nm,0.4s,baz=158,slow=8.9,SNR=1.2						
	comp=Z,2.6nm,0.4s						
LZH	Lanzhou	45.18	356	eP	P	17 57 36.8	+3.7
LZH				sP	pwP	17 57 44.5	+1.7
LZH				pmax	pmax		
	comp=Z,19nm,1.2s						
LZH				L	L		
	comp=Z,450nm,15.1s						
LZH				L	L		
	comp=Z,350nm,14.4s						
LZH				L	L		
	comp=Z,340nm,15.3s						
TIA	Tai'an	46.22	11	P	P	17 57 41.4	+0.3
TIA				pmax	pmax		
	comp=Z,13nm,1.1s						
BJT	Baijiatuau	49.75	9	P	P	17 58 08.9	+0.5
	comp=Z,12nm,1.2s						
BJI2	Beijing	49.76	9	P	P	17 58 09.8	+1.4
BJI2				pP	sP	17 58 14.4	0.0
BJI2				pmax	pmax		
	comp=Z,5.0nm,1.1s						
BTO2	Baotou	49.81	3	eP	P	17 58 10.5	+1.5
BTO2				pP	sP	17 58 15.1	+0.1
BTO2				sP	pwP	17 58 17.4	-1.4
BTO2				pmax	pmax		
	comp=Z,17nm,1.0s						
BTO2				pmax	pmax		
	comp=Z,190nm,4.0s						
BTO2				L	L		
	comp=Z,730nm,12.6s						
BTO2				L	L		
	comp=Z,610nm,11.4s						
BTO2				L	L		
	comp=Z,770nm,13.2s						
HHC	Hu-ho-hao-te	50.02	5	eP	P	17 58 12.3	+1.7
HHC				pmax	pmax		
	comp=Z,16nm,0.7s						
KSRS	Korea Array	50.45	22	P	P	17 58 13.6	0.0
	comp=Z,1.5nm,0.9s,baz=207,slow=6.2,SNR=1.4						
	comp=Z,1.5nm,0.9s						
MJAR	Matsushiro Arr	54.21	31	P	P	17 58 39.4	-2.3
JYT	Yasato	55.01	33	P	P	17 58 46.0	-1.4
WMQ	Urumqi	55.63	343	eP	P	17 58 53.8	+1.9
WMQ				sP	pwP	17 59 01.7	-0.5
WMQ				pmax	pmax		
	comp=Z,12nm,0.7s						
WUS	Wushi	56.30	335	P	P	17 58 57.9	+1.0
	comp=Z,15nm,0.8s						
KBL	Kabul	56.42	323	P	P	17 58 57.4	-0.6
KBL				IAmb	IAmb	17 59 22.1	
	comp=Z,3.9nm,0.7s						
SONM	Songino Array	56.83	360	P	P	17 59 01.5	+1.1
	comp=Z,2.2nm,0.8s,baz=169,slow=9.0,SNR=12						

	comp=Z,2.2nm,0.8s						
SONM	Songino Array	56.83	360	P	P	17 59 00.9	+0.4
SONM				IAmb	IAmb	17 59 13.7	
	comp=Z,8.6nm,1.1s						
ULN	Ulaanbaatar	56.86	0	P	P	17 59 00.4	-0.3
ULN				IAmb	IAmb	17 59 13.6	
	comp=Z,11nm,0.9s						
ULN	Ulaanbaatar	56.86	0	P	P	17 59 01.6	+0.9
	comp=Z,14nm,0.9s						
ULN				P	P	17 59 01.6	+0.9
CASY	Casey	57.01	178	P	P	17 59 01.5	+0.1
CASY				IAmb	IAmb	17 59 27.2	
	comp=Z,6.8nm,1.2s						
BNX	BinXian	57.74	17	⇑P	P	17 59 08.2	+1.4
BNX				pmax	pmax		
	comp=Z,11nm,1.1s						
USRK	Ussuriysk Ar.	57.84	21	P	P	17 59 08.2	+0.7
	comp=Z,2.9nm,0.8s,baz=217,slow=5.9,SNR=1.5						
	comp=Z,2.9nm,0.8s						
NRN	Naryn	57.89	333	P	P	17 59 07.9	-0.5
NRN				IAmb	IAmb	17 59 21.8	
	comp=Z,6.5nm,0.8s						
DRK	Karamyk	58.41	328	P	P	17 59 10.8	-1.1
DRK				IAmb	IAmb	17 59 26.0	
	comp=Z,9.2nm,0.9s						
DRK	Karamyk	58.41	328	P	P	17 59 12.7	+0.7
	comp=Z,10nm,0.6s						
ARSB	Arslanbob	59.21	331	P	P	17 59 17.2	-0.1
BTK	Batken	59.34	328	P	P	17 59 18.1	-0.1
BTK				IAmb	IAmb	17 59 48.5	
	comp=Z,6.2nm,1.1s						
H04N2	CROZET ISLANDS	59.53	221	T	T	19 03 54.2	
	baz=70,slow=75,SNR=15						
H04N1	CROZET ISLANDS	59.55	221	T	T	19 03 56.4	
	baz=70,slow=75,SNR=16						
H04N3	CROZET ISLANDS	59.55	221	T	T	19 03 51.2	
	baz=70,slow=75,SNR=19						
MKAR	Makanchi Array	59.96	341	P	P	17 59 23.2	+0.9
	comp=Z,5.4nm,0.6s,baz=146,slow=8.1,SNR=52						
	comp=Z,5.4nm,0.6s						
MKAR	Makanchi Array	59.96	341	P	P	17 59 22.3	+0.1
MAKZ	Makanchi	60.08	340	P	P	17 59 23.4	+0.3
MAKZ				IAmb	IAmb	17 59 35.1	
	comp=Z,4.4nm,0.9s						
MAKZ	Makanchi	60.08	340	P	P	17 59 24.0	+0.9
	comp=Z,5.9nm,1.0s						
KK31	Karatay Array	61.76	330	P	P	17 59 34.0	-0.6
KKAR	Karatay Array	61.76	330	P	P	17 59 33.8	-0.8
HEH	HeiHe	61.88	15	*e*P	P	17 59 35.4	+0.2
YSS	Yuzhno-Sakhali	64.40	26	P	P	17 59 50.8	-1.2
YSS				IAmb	IAmb	18 00 02.9	
	comp=Z,7.9nm,1.0s						
KURBB	Kurchatov Arra	64.52	340	P	P	17 59 53.6	+0.9
	comp=Z,7.7nm,0.8s,baz=157,slow=5.7,SNR=72						
	comp=Z,7.7nm,0.8s						
KURK	Kurchatov	64.57	341	P	P	17 59 53.3	+0.3
KURK	Kurchatov	64.57	341	P	P	17 59 54.1	+1.0
	comp=Z,20nm,0.9s						
INZ	Inchbonnie	65.11	133	P	P	17 59 54.8	-2.0
MAW	Mawson	65.21	197	P	P	17 59 58.6	+1.6
	comp=Z,1.9nm,0.5s,baz=56,slow=7.0,SNR=4.2						
	comp=Z,1.9nm,0.5s						
MAW	Mawson	65.21	197	P	P	17 59 57.8	+0.8
OXZ	Oxford	65.65	133	P	P	17 59 59.1	-1.2
ZAA0	Zalesovo Array	65.67	346	P	P	17 59 59.5	-0.6
ZALV	Zalesovo Beam	65.67	346	P	P	18 00 00.4	+0.3
	comp=Z,2.6nm,0.5s,baz=162,slow=6.0,SNR=14						
	comp=Z,2.6nm,0.5s						
ZALV	Zalesovo Beam	65.67	346	P	P	17 59 59.8	-0.3
LTZ	Lake Taylor	65.72	133	P	P	18 00 00.4	-0.5
GVZ	Greta Valley S	66.31	133	P	P	18 00 04.4	-0.2
RTZ	Ruatahuna	68.72	128	P	P	18 00 18.6	-1.4
BVAR	Borovoye Array	69.39	337	P	P	18 00 24.4	+0.7
	comp=Z,4.3nm,0.6s,baz=140,slow=8.8,SNR=28						
	comp=Z,4.3nm,0.6s						
BORK	Borovoye	69.44	337	P	P	18 00 23.1	-0.8
AB31	Akbulak array	71.29	330	P	P	18 00 35.4	0.0
ABKAR	Akbulak array	71.29	330	P	P	18 00 35.4	0.0
YAK	Yakutsk	73.23	11		P	18 00 45.9	-0.7
YAK				IAmb	IAmb	18 00 57.8	
	comp=Z,8.6nm,0.7s						
YAK	Yakutsk	73.23	11	P	P	18 00 46.9	+0.2
	comp=Z,12nm,0.8s						
VNDA	Vanda	73.79	169	P	P	18 00 51.6	+1.8
	comp=Z,0.6nm,0.6s,baz=295,slow=5.0,SNR=4.8						
	comp=Z,0.6nm,0.6s						
VNDA	Vanda	73.79	169	P	P	18 00 50.7	+0.8
VNDA				IAmb	IAmb	18 01 30.8	
	comp=Z,3.6nm,0.5s						
GNI	Garni	75.49	316	P	P	18 00 59.8	-0.7
PEA0B	Petropavlovsk-	75.58	29	P	P	18 00 59.9	-0.6
PETK	Petropavlovsk-	75.58	29	P	P	18 01 00.9	+0.4
	comp=Z,1.5nm,0.6s,baz=270,slow=1.5,SNR=4.1						
PETK				LR	LR	18 34 47.1	
	comp=Z,764nm,21.6s,baz=117,slow=36						
	comp=Z,1.5nm,0.6s						
PETK	Petropavlovsk-	75.58	29	P	P	18 00 59.6	-1.0
ARTI	Arti	76.65	335	P	P	18 01 05.6	-1.0
QSPA	South Pole Qui	80.76	180	P	P	18 01 30.2	+0.9
	comp=Z,1.6nm,0.8s,baz=307,slow=5.1,SNR=6.9						
	comp=Z,1.6nm,0.8s						
QSPA	South Pole Qui	80.76	180	P	P	18 01 28.7	-0.6
QSPA				IAmb	IAmb	18 01 30.5	
	comp=Z,6.2nm,1.2s						
TIXI	Tiksi	82.03	7	P	P	18 01 34.5	-1.1
TIXI				IAmb	IAmb	18 01 48.9	
	comp=Z,9.7nm,1.4s						
BRTR	Keskin Array B	83.26	312	P	P	18 01 43.2	+0.3
	comp=Z,0.8nm,0.7s,baz=142,slow=5.4,SNR=0.9						
	comp=Z,0.8nm,0.7s						
IDI	Anoyia	88.84	306	P	P	18 02 09.1	-1.4
VNA2	Neumayer--Watz	89.02	197	⇓P	P	18 02 13.3	+2.7
	comp=Z,1.7nm,0.8s,baz=104,slow=4.3						
VNA2				⇑pP	sP	18 02 17.2	+0.8
	comp=Z,2.2nm,0.7s,baz=106,slow=4.6						
VNA2				⇑sP	pwP	18 02 22.7	+1.1
	comp=Z,3.1nm,0.7s,baz=117,slow=4.8						
AKASG	Malin Array Be	89.39	322	P	P	18 02 13.5	+0.9
	comp=Z,0.2nm,0.3s,baz=85,slow=5.0,SNR=1.3						
	comp=Z,0.2nm,0.3s						
AKASG	Malin Array Be	89.39	322	IAmb	IAmb	18 02 24.4	
	comp=Z,2.9nm,1.1s						
VNA3	Neumayer Olymp	89.54	197	⇓P	P	18 02 15.5	+2.5
	comp=Z,1.1nm,0.8s						
VNA3				⇑pP	sP	18 02 19.3	+0.5
	comp=Z,1.2nm,0.7s						
VNA3				⇑sP	pwP	18 02 24.3	+0.3
	comp=Z,2.4nm,0.8s						
MLR	Muntele Rosu	90.26	316	P	P	18 02 17.6	+0.7
	comp=Z,7.6nm,1.2s						
BURAR	Bucovina Array	91.21	318	P	P	18 02 20.5	-0.8
ARCES	ARCESS Array B	95.60	340	LR	LR	18 53 20.1	
	comp=Z,505nm,19.8s,baz=305,slow=40						
VRAC	Vranov	97.14	319	LR	LR	18 49 58.9	
	comp=Z,300nm,21.7s,baz=273,slow=38						
HFS	Hagfors	99.55	330	LR	LR	18 54 40.3	
	comp=Z,325nm,18.7s,baz=281,slow=39						
BDFB	Brasilia	144.96	225	PKPbc	PKPdf	18 08 55.0	+0.6
	comp=Z,4.0nm,0.7s,baz=127,slow=5.1,SNR=3.0						
LPAZ	La Paz	154.16	191	PKPbc	PKiKP	18 09 19.8	+2.1
	comp=Z,0.6nm,0.7s,baz=315,slow=1.4,SNR=1.6						

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*AZER **07** 18:19:57.4, 41°.68N×46°.22E, h4^{km}, ml2.0*
*MOS **07** 18:19:58.2, 41°.89N×46°.38E, h7^{km}, MPVA3.2*
*DRS **07** 18:19:59.3, 41°.86N×46°.22E, h24^{km}*
*NORS **07** 18:19:59.5, 42°.00N×46°.34E, h4^{km}, MPVA3.1*
ISC 07 18:19:59.0±1.0**, 41°.83N**±0°.02×**46°.24E**±0°.02**, h11**^{km}±9^{km}**,**
n29, σ1^s.43/56**, Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZKTA	Zakatala	0.35	124	P	Pg	18 20 05.5	-0.5
ZKTA				S	Sg	18 20 10.6	0.0
KMKR	Kumukh	0.71	65	*e*Pg	Pg	18 20 11.9	-0.9
KMKR				*e*Sg	Sb	18 20 21.6	-1.7
GNBR	Gunib	0.78	44	*e*Pg	Pb	18 20 13.2	-1.4
GNBR				*e*Sg	Sb	18 20 23.9	-1.2
XNZR	Khunzakh	0.79	26	*e*Pg	Pb	18 20 14.0	-0.8
XNZR				*e*Sg	Sb	18 20 25.0	-0.6
BTLR	Botlikh	0.83	359	*e*Pg	Pg	18 20 14.6	-0.5
BTLR				*e*Sg	Sb	18 20 25.6	-1.1
SEKA	Sheki	0.95	130	P	Pg	18 20 16.8	-0.5
SEKA				S	Sb	18 20 31.0	+0.9
ARKR	Arakani	0.95	36	*e*Pg	Pb	18 20 16.6	-1.0
ARKR				*e*Sg	Sb	18 20 29.4	-0.8
UNCR	Uncukul	0.97	25	*e*Pg	Pb	18 20 17.0	-0.9
UNCR				*e*Sg	Sb	18 20 30.0	-0.8
QZX	Qazax, Azerbai	1.01	220	P	Pg	18 20 17.4	-1.1
QZX				S	Sg	18 20 32.8	+1.2
URKR	Urkarakh	1.09	72	*e*Pg	Pb	18 20 19.0	-1.0
URKR				*e*Sg	Sn	18 20 34.2	-1.3
KRNR	Karanay	1.11	26	*e*Pg	Pb	18 20 19.6	-0.7
KRNR				*e*Sg	Sn	18 20 34.1	-1.8
GDB	GEDABAY	1.17	198	P	Pg	18 20 19.1	-2.3
GDB				S	Sg	18 20 35.4	-1.2
AKT	Akhty	1.17	107	*e*Pg	Pg	18 20 20.6	-1.0
AKT				*e*Sg	Sb	18 20 36.3	-0.2
GANJ	Ganja	1.19	177	P	Pn	18 20 19.7	-1.8
GANJ				S	Sg	18 20 36.1	-1.0
BUJR	Buynaksk	1.19	33	*e*Pg	Pn	18 20 21.2	-0.3
BUJR				*e*Sg	Sn	18 20 37.3	-0.3
MNGR	Mingechevir, A	1.23	149	S	Sn	18 20 40.2	+1.5
DBC	Dubki	1.27	20	*e*Pg	Pn	18 20 22.6	-0.1
DBC				*e*Sg	Sn	18 20 39.6	-0.1
DLMR	Dylym	1.27	13	*e*Pg	Pb	18 20 22.3	-0.6
DLMR				*e*Sg	Sn	18 20 40.2	+0.4
GROC	Groznyy	1.41	347	*e*Pg	Pg	18 20 25.7	-0.4
GROC				*e*Sg	Sg	18 20 45.8	+1.5
KSMR	Kasumkent	1.44	99	*e*Pg	Pb	18 20 25.1	-0.6
KSMR				*e*Sg	Sg	18 20 45.0	-0.2
QBL	Gabala	1.49	126	Pn	Pn	18 20 26.0	+0.2
QBL				Sn	Sg	18 20 47.9	+0.8
QSAR	Qusar	1.55	101	Pn	Pg	18 20 28.5	-0.3
QSAR				Sn	Sg	18 20 53.9	+5.0
XNQ	Khinaliq	1.57	114	Pn	Pb	18 20 27.8	-0.4
XNQ				Sn	Sg	18 20 52.1	+2.5
BRDA	Brd	1.72	155	Sn	Sg	18 20 55.7	+1.4
LACR	Lac	1.75	305	*e*Pg	Pn	18 20 30.0	+0.7
LACR				*e*Sg	Sb	18 20 54.3	+1.2
QUBA	Quba, Azerbaij	1.76	105	Pn	Pb	18 20 31.4	+0.1
QUBA				Sn	Sg	18 20 58.7	+3.2
IML	Ismayilli	1.80	125	Pn	Pn	18 20 31.3	+1.4
IML				Sn	Sg	18 20 58.3	+1.6
AGDM	Agdam	1.84	159	Pn	Pn	18 20 32.3	+1.7
AGDM				Sn	Sb	18 20 57.8	+2.1
KORR	Kora	2.04	309	*e*Pg	Pg	18 20 39.6	+1.6
KORR				*e*Sg	Sg	18 21 06.7	+2.2

IDC 07 18:40:28.8±2.6**, 29°.33S**×**177°.89W, h0**^{km}**, mb3.8**/4**,**
mbtmp3.8/4**, Error ellipse: s-maj=75.0km s-min=36.0km**
az=34.0, Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	34.83	255	P	P	18 47 20.8	-0.8
	1.7nm,0.7s,baz=98,slow=7.1,SNR=2.4						
	1.7nm,0.7s						
ASAR	Alice Springs	43.28	266	P	P	18 48 32.2	-0.2
	0.2nm,0.3s,baz=106,slow=7.4,SNR=16						
ASAR				PcP	PcP	18 50 20.4	-1.2
	0.2nm,0.7s,baz=124,slow=3.7,SNR=1.4						
	0.2nm,0.3s						
WRA	Warramunga Arr	44.17	271	P	P	18 48 40.1	+0.5
	0.6nm,0.3s,baz=110,slow=8.1,SNR=44						
	0.6nm,0.3s						
QSPA	South Pole Qui	60.78	180	P	P	18 50 42.6	+0.3
	0.7nm,0.7s,baz=338,slow=0.8,SNR=6.5						
	0.7nm,0.7s						
H03S2	Juan Fernandez	80.97	124	T	T	20 21 57.8	
	baz=238,slow=74,SNR=5.0						
H03S1	Juan Fernandez	80.99	124	T	T	20 21 55.6	
	baz=238,slow=74,SNR=4.9						
H03S3	Juan Fernandez	80.99	124	T	T	20 21 54.4	
	baz=238,slow=74,SNR=5.0						
FINES	FINESS Array B	144.17	341	PKP	PKPdf	19 00 05.3	-0.5
	1.5nm,0.6s,baz=27,slow=2.8,SNR=12						

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*IDC **07** 18:44:30.0±0.6, 17°.15N×147°.35E, h0^{km}, mb4.2/19,*
mbtmp4.2/20, ML4.4/1, Error ellipse: s-maj=21.5km
s-min=11.8km az=93.0
*NEIC **07** 18:44:31.8±2.0, 17°.17N±0°.09×147°.4E±0°.1, h10^{km}±1^{km},*
mb4.6/40, Error ellipse: s-maj=19.0km s-min=12.4km
az=121.0
ISC 07 18:44:35.5±0.5**, 17°.08N**±0°.06×**147°.39E**±0°.10**, h41**^{km}**, n76,**
σ**0^s.93**/70**, mb4.5**/34**, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DPSS	Saipan	2.39	220		Pn	18 45 12.8	+0.6
DPSS				Sn	Sn	18 45 44.0	+3.7
GUMO	Guam	4.24	215	Pn	Pn	18 45 37.1	-0.5
	22nm,0.3s,baz=146,slow=5.5,SNR=17						
GUMO				Sn	Sn	18 46 24.0	-1.9
	45nm,0.3s,baz=26,slow=23,SNR=7.5						
	49nm,0.3s						
GUMO				AML	AML		
GUMO	Guam	4.24	215	Pn	Pn	18 45 37.3	-0.3
PATS	Pohnpei	14.75	132	Pn	Pn	18 47 53.2	-8.3
H11S3	WAKE ISLAND Hy	18.43	83	T	T	19 07 33.3	
	baz=268,slow=74,SNR=4.5						
H11S1	WAKE ISLAND Hy	18.45	83	T	T	19 07 34.9	
	baz=268,slow=74,SNR=6.0						
H11S2	WAKE ISLAND Hy	18.45	83	T	T	19 07 36.6	
	baz=268,slow=74,SNR=5.9						
H11N1	WAKE ISLAND Hy	18.69	79	T	T	19 07 49.2	
	baz=265,slow=74,SNR=7.9						
H11N2	WAKE ISLAND Hy	18.70	79	T	T	19 07 53.0	
	baz=265,slow=74,SNR=6.9						
H11N3	WAKE ISLAND Hy	18.71	79	T	T	19 07 52.3	
	baz=265,slow=74,SNR=8.3						
INU	Inuyama	20.41	335	P	P	18 49 09.4	+0.3
INU				IAmb	IAmb	18 49 14.8	
	comp=Z,31nm,1.0s						
JGF	Kuroka	20.49	336		P	18 49 09.8	-0.2
JGF				IAmb	IAmb	18 49 18.3	
	comp=Z,27nm,0.8s						
MJAR	Matsushiro Arr	21.02	339	P	P	18 49 14.8	-0.9
	comp=Z,7.5nm,0.8s,baz=171,slow=11,SNR=14						
	comp=Z,7.5nm,0.8s						
MJAR	Matsushiro Arr	21.02	339		P	18 49 16.6	+0.9
MAJO	Matsushiro	21.02	339	P	P	18 49 15.2	-0.6
MAJO				IAmb	IAmb	18 49 28.9	
	comp=Z,15nm,0.8s						
MJB9	Matsu-Tunnel	21.02	339	P	P	18 49 15.6	-0.2
MJB9				IAmb	IAmb	18 49 28.9	
	comp=Z,14nm,0.8s						
KSRS	Korea Array	26.56	324	P	P	18 50 09.7	+0.1
	comp=Z,2.1nm,0.9s,baz=151,slow=9.6,SNR=4.7						
	comp=Z,2.1nm,0.9s						
HEH	HeiHe	36.78	339	*e*P	P	18 51 40.5	+1.3
PETK	Petropavlovsk-	36.85	10	P	P	18 51 40.2	+0.5
	comp=Z,1.1nm,0.9s,baz=181,slow=8.0,SNR=1.9						
	comp=Z,1.1nm,0.9s						
WB0	Warramunga Arr	38.78	200	P	P	18 51 56.2	-0.2
WR8	Warramunga Arr	38.92	200		P	18 51 56.6	-1.0
WRAB	Tennant Creek	38.95	200	P	P	18 51 57.0	-0.8
WRA	Warramunga Arr	38.97	200	P	P	18 51 57.8	-0.1
	comp=Z,3.5nm,0.6s,baz=23,slow=9.1,SNR=43						
WRA				PcP	PcP	18 54 07.6	-0.3
	comp=Z,0.6nm,0.8s,baz=24,slow=3.3,SNR=2.1						
	comp=Z,3.5nm,0.6s						
WRA	Warramunga Arr	38.97	200	P	P	18 51 57.3	-0.6
FITZ	Fitzroy Crossi	40.99	212	P	P	18 52 14.8	+0.1
	comp=Z,1.1nm,0.4s,baz=20,slow=8.8,SNR=15						
	comp=Z,1.1nm,0.4s						
FITZ	Fitzroy Crossi	40.99	212	P	P	18 52 14.7	-0.1
ASAR	Alice Springs	42.59	198	P	P	18 52 27.9	+0.1
	comp=Z,0.8nm,0.6s,baz=14,slow=9.4,SNR=14						
ASAR				PcP	PcP	18 54 20.7	+1.1
	comp=Z,0.7nm,0.8s,baz=22,slow=3.0,SNR=2.9						
	comp=Z,0.8nm,0.6s						
ASAR	Alice Springs	42.59	198	P	P	18 52 27.6	-0.2
DZM	Mont Dzumac	43.16	154	P	P	18 52 34.1	+1.6
	comp=Z,12nm,0.9s,baz=66,slow=9.6,SNR=3.0						
	comp=Z,12nm,0.9s						
SONM	Songino Array	45.40	322	P	P	18 52 49.8	-0.5
	comp=Z,2.3nm,1.0s,baz=134,slow=8.4,SNR=7.2						
	comp=Z,2.3nm,1.0s						
SONM	Songino Array	45.40	322	P	P	18 52 50.2	0.0
CHTO	Chiang Mai	46.01	280		P	18 52 54.9	-0.4
CM31	Chiang Mai Arr	46.05	279	P	P	18 52 55.2	-0.4
CM31				IAmb	IAmb	18 53 08.3	
	comp=Z,7.2nm,0.9s						
CMAR	Chiang Mai Arr	46.05	279	P	P	18 52 55.9	+0.3
	comp=Z,4.8nm,1.0s,baz=70,slow=6.5,SNR=30						
	comp=Z,4.8nm,1.0s						
CMAR	Chiang Mai Arr	46.05	279		P	18 52 55.2	-0.4
YAK	Yakutsk	46.60	349	P	P	18 52 59.2	0.0
	comp=Z,4.2nm,0.6s,baz=247,slow=2.8,SNR=3.9						
	comp=Z,4.2nm,0.6s						
YAK	Yakutsk	46.60	349		P	18 52 59.5	+0.3
MORE	Moreh	49.94	288		P	18 53 23.8	-1.9
MORE				IAmb	IAmb	18 53 36.1	
	comp=Z,4.5nm,0.8s						
HLK	Haleakala	53.22	77	P	P	18 53 51.2	+0.7
MORW	Morawa	54.98	214	P	P	18 54 02.9	+0.2
K15K	Wolf Creek Mou	57.39	26	P	P	18 54 21.4	+1.9
NWAO	Narrogin (SRO)	57.48	210	P	P	18 54 20.4	-0.2
ZAA0	Zalesovo Array	60.27	323		P	18 54 40.1	+0.5
ZAA0				IAmb	IAmb	18 54 43.0	
	comp=Z,3.8nm,1.0s						
ZALV	Zalesovo Beam	60.27	323	P	P	18 54 38.8	-0.9
	comp=Z,2.6nm,0.7s,baz=101,slow=7.7,SNR=11						
	comp=Z,2.6nm,0.7s						
ZALV	Zalesovo Beam	60.27	323		P	18 54 40.1	+0.5
MKAR	Makanchi Array	60.74	314	P	P	18 54 43.3	+0.2
	comp=Z,1.1nm,0.5s,baz=93,slow=7.5,SNR=22						
	comp=Z,1.1nm,0.5s						
MKAR	Makanchi Array	60.74	314		P	18 54 43.0	-0.1
MAKZ	Makanchi	60.95	314		P	18 54 44.4	-0.1
MAKZ				IAmb	IAmb	18 54 49.5	
	comp=Z,4.1nm,1.1s						
C19K	Lookout Ridge	61.38	19	P	P	18 54 48.5	+1.3
CAST	Castle Rocks	61.81	26	P	P	18 54 49.8	-0.2
CAST				IAmb	IAmb	18 55 10.7	
	comp=Z,5.5nm,1.1s						
RTZ	Ruatahuna	61.96	154	P	P	18 54 50.0	-1.4
KURK	Kurchatov	63.54	319		P	18 55 02.6	+0.8
KURK				IAmb	IAmb	18 55 04.2	
	comp=Z,6.3nm,1.1s						
KURBB	Kurchatov Arra	63.59	318	P	P	18 55 01.8	-0.3
	comp=Z,4.4nm,0.7s,baz=98,slow=6.7,SNR=23						
	comp=Z,4.4nm,0.7s						
ILAR	Eielson Array	64.39	26	P	P	18 55 06.4	-0.7
	comp=Z,0.9nm,1.0s,baz=246,slow=4.9,SNR=5.6						
	comp=Z,0.9nm,1.0s						
NIL	Nilore	67.72	300		P	18 55 28.2	-1.0
BVAR	Borovoye Array	68.74	321	P	P	18 55 35.0	-0.1
	comp=Z,5.8nm,0.7s,baz=101,slow=7.7,SNR=21						
	comp=Z,5.8nm,0.7s						
BORK	Borovoye	68.78	321		P	18 55 34.8	-0.6
KKAR	Karatay Array	69.03	310		P	18 55 37.0	-0.1
KBL	Kabul	71.08	301		P	18 55 50.7	+0.6
KBL				IAmb	IAmb	18 55 53.7	
	comp=Z,8.3nm,1.0s						
ARTI	Arti	75.41	325	P	P	18 56 15.3	+0.3
	comp=Z,4.7nm,0.9s,baz=102,slow=1.7,SNR=8.5						
	comp=Z,4.7nm,0.9s						
ARTI	Arti	75.41	325		P	18 56 14.6	-0.4
ARTI				IAmb	IAmb	18 56 19.2	
	comp=Z,6.5nm,0.9s						
AB31	Akbulak array	75.61	317		P	18 56 15.2	-1.0
ABKAR	Akbulak array	75.61	317		P	18 56 15.9	-0.3
PINE	Pine Mountain	79.56	47	P	P	18 56 36.9	-1.7
PINE				IAmb	IAmb	18 56 40.8	
	comp=Z,5.5nm,0.8s						
BEKR	Beckworth	80.94	51		P	18 56 45.8	-0.3
BEKR				IAmb	IAmb	18 56 50.7	
	comp=Z,4.3nm,1.1s						
NVAR	Mina Array Bea	82.86	52	P	P	18 56 57.2	+0.9
	comp=Z,0.9nm,0.6s,baz=279,slow=5.4,SNR=6.2						
	comp=Z,0.9nm,0.6s						
NVAR	Mina Array Bea	82.86	52	P	P	18 56 56.7	+0.4
ELK	Elko	84.46	49		P	18 57 02.1	-2.4
ELK				IAmb	IAmb	18 57 13.6	
	comp=Z,3.2nm,1.0s						
ARCES	ARCESS Array B	84.51	343	P	P	18 57 04.2	+0.3
	comp=Z,1.2nm,0.6s,baz=54,slow=6.2,SNR=7.3						
	comp=Z,1.2nm,0.6s						
ARCES	ARCESS Array B	84.51	343	P	P	18 57 03.8	0.0
PSUT	Pine Spring	86.16	51	IAmb	IAmb	18 57 22.0	
	comp=Z,3.5nm,0.9s						
SRU	San Rafael Swe	88.42	50	IAmb	IAmb	18 57 25.2	
	comp=Z,2.9nm,0.7s						
FINES	FINESS Array B	89.01	336	P	P	18 57 26.0	+0.1
	comp=Z,2.1nm,0.8s,baz=152,slow=9.7,SNR=7.3						
	comp=Z,2.1nm,0.8s						
WUAZ	Wupatki	89.04	53	IAmb	IAmb	18 57 36.5	
	comp=Z,3.3nm,0.9s						
LPAZ	La Paz	145.99	94	PKPbc	PKPab	19 04 13.5	+0.4
	comp=Z,3.5nm,0.9s,baz=292,slow=4.0,SNR=7.6						
LPAZ	La Paz	145.99	94		PKPdf	19 04 10.4	-1.4

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*UCR **07** 18:50:29.1±0.7, 8°.30N×83°.04W, h5^{km}±7^{km}, MW3.9,*
Presumed earthquake
*CATAC **07** 18:50:30.1±0.6, 8°N±4°×8°3W±°, h3^{km}±1^{km}, M3.6/13,*
MLv3.6/13, Error ellipse: s-maj=8.1km s-min=3.9km
az=178.4, confirmed
*UPA **07** 18:50:30.0±1.0, 8°.33N×82°.99W, h10^{km}±3^{km}, MW4.0,*
Presumed earthquake
ISC 07 18:50:30.0±0.8**, 8°.31N**±0°.03×**83°.01W**±0°.02**, h15**^{km}±6^{km}**,**
n57, σ**0^s.97**/84**, 2C-4D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTPM	Petroterminale	0.17	127	⇑*i*P	Pg	18 50 34.3	+0.2
PTPM				*e*S	Sg	18 50 37.7	+0.8
LIMO3	Limones	0.25	144	*i* P	Pb	18 50 36.2	-0.1
LIMO3				*e*S	Sg	18 50 39.5	+0.4
LMNES	Limones	0.26	143	*e*P	Pg	18 50 35.6	+0.1
LMNES	Limones	0.26	143	*i* P	Pg	18 50 35.8	+0.3
CDITO	Canoas	0.30	28	P	Pg	18 50 36.1	-0.2
CDITO				S	Sg	18 50 41.1	+0.5
PIRO	Carate, Puerto	0.33	287	P	Pg	18 50 36.2	-0.7
PIRO				S	Sg	18 50 40.1	-1.5
PIRO	Carate, Puerto	0.33	287	*e*P	Pg	18 50 36.0	-0.9
PIRO				*e*S	Sg	18 50 39.7	-1.9
PIRO	Carate, Puerto	0.33	287	⇑*i*P	Pg	18 50 36.2	-0.7
PIRO				*e*S	Sb	18 50 42.7	-0.2
FITO	Golfito	0.34	336	*e*P	Pg	18 50 35.5	-1.7
FITO				*e*S	Sg	18 50 41.0	-0.9
NELY	Ciudad Neily	0.35	11	*e*P	Pg	18 50 36.8	-0.4
NELY				*e*S	Sb	18 50 42.9	-0.4
NELY	Ciudad Neily	0.35	11	⇓*i*P	Pg	18 50 36.9	-0.2
NELY				*e*S	Sb	18 50 43.3	0.0
JIME	Puerto Jimenez	0.38	307	*e*P	Pg	18 50 36.8	-1.0
VITO	San Vito	0.51	5	*e*P	Pg	18 50 40.0	-0.2
VITO	San Vito	0.51	5	*e*P	Pg	18 50 40.1	-0.1
VITO				*e*S	Sb	18 50 47.7	-0.5
MLIR3	Monte Lirio, C	0.52	21	*i* P	Pg	18 50 40.2	-0.1
MLIR3				*e*S	Sg	18 50 47.3	0.0
SCLRA	Santa Clara, W	0.57	24	*e*P	Pg	18 50 40.8	-0.5
SCLRA	Santa Clara, W	0.57	24	*e*P	Pg	18 50 41.3	0.0
DVD	David	0.57	77	*e*P	Pg	18 50 40.3	-1.0
BRU2	Volcan	0.58	33	P	Pg	18 50 41.4	-0.1
BRU2				S	Sg	18 50 49.7	+0.4
BRU2	Volcan	0.58	33	*e*P	Pg	18 50 41.2	-0.4
BRU2	Volcan	0.58	33	⇓*i*P	Pg	18 50 41.4	-0.2
BRU2				*e*S	Sb	18 50 50.8	+0.6
CLLRA	Cordillera,	0.59	42	*e*P	Pg	18 50 41.5	-0.2
CLLRA	Cordillera,	0.59	42	*e*P	Pg	18 50 41.2	-0.5
CLLRA				⇓*i*P	Pb	18 50 42.2	0.0
LOMA3	Las Lomas, Chi	0.63	79	*e*P	Pg	18 50 41.7	-0.7
LOMA3				*e*S	Sg	18 50 50.5	-0.2
PTAR3	Potrerillos Ar	0.64	53	*e*P	Pg	18 50 42.1	-0.6
PTAR3				*e*S	Sg	18 50 51.8	+0.7
CHIR3	Chiriqui UPA,	0.68	83	*e*P	Pg	18 50 42.8	-0.5
CHIR3				*e*S	Sg	18 50 53.0	+0.5
BQTLY	Boquete Panama	0.71	51	*e*P	Pg	18 50 43.0	-0.9
BQTLY	Boquete Panama	0.71	51	*e*P	Pg	18 50 43.0	-0.9
BQSF3	Alto Boquete,	0.72	53	*e*P	Pg	18 50 43.4	-0.7
BQSF3				*e*S	Sg	18 50 52.8	-0.9
EDP2	Potrero Grande	0.72	347	*e*P	Pg	18 50 43.5	-0.7
LNBQ3	Los Naranjos,	0.74	50	*e*P	Pg	18 50 44.7	+0.1
LNBQ3				*e*S	Sg	18 50 54.7	+0.3
DRK0	Durika	0.98	347	⇓*i*P	Pg	18 50 33.8	-15
DRK0				*e*S	Sg	18 50 47.2	-15
OCHAL	Ojochal	1.00	322	P	Pg	18 50 48.2	-1.2
OCHAL				S	Sb	18 51 02.9	+0.7
EDPE	Pejibaye, P	1.01	327	*e*P	Pg	18 50 47.5	-2.1
RBALA	Bur	1.02	56	*e*P	Pg	18 50 48.3	-1.5
RBALA	Bur	1.02	56	*i* P	Pg	18 50 48.4	-1.5
RBALA				*e*S	Sg	18 51 02.5	-0.7
CHGR2	Aguacate	1.06	54	*e*P	Pg	18 50 48.1	-2.5
KKNTU	Kakintº	1.31	66	*e*P	Pn	18 50 52.5	-1.3
KKNTU	Kakintº	1.31	66	*i* P	Pn	18 50 52.5	-1.3
KKNTU				*e*S	Sb	18 51 09.5	-1.5
CEUA	Cerro Uatsi, L	1.31	3	*e*P	Pn	18 50 54.6	+0.7
RGM0	Gandoca	1.34	17	P	Pn	18 50 54.8	+0.6
QUEP	Quepos	1.59	315	P	Pb	18 50 58.9	-0.3

QUEP				S	Sn	18 51 19.2	+1.1
LCR2	La Lucha 2	1.73	326	P	Pn	18 50 59.9	+0.1
LCR2				S	Sb	18 51 23.4	+0.1
LCR2	La Lucha 2	1.73	326	eP	Pn	18 50 59.9	+0.1
LCR2	La Lucha 2	1.73	326	eP	Pn	18 51 00.3	+0.5
ABRB	Las Abras (San	1.82	338	eP	Pn	18 51 01.5	+0.4
CVTQ	Turrialba Volc	1.84	336	eP	Pn	18 51 02.0	+0.4
GMAL	Guarumal, Vera	1.84	107	eP	Pn	18 50 59.9	-1.3
GMAL				eS	Sn	18 51 23.4	-1.0
VICA	Volcano Irazu	1.86	334	eP	Pn	18 51 02.4	+0.6
HDC	Heredia	2.00	327	P	Pn	18 51 04.6	+1.1
HDC				S	Sb	18 51 31.7	+0.6
TRB2	Turrubares	2.13	319	P	Pn	18 51 06.2	+1.0
TRB2				S	Sn	18 51 33.3	+1.7
TCS1	Tacares	2.14	324	P	Pn	18 51 06.6	+1.2
JTS	Las Juntas de	2.75	316	P	Pn	18 51 15.4	+1.8
JTS				S	Sn	18 51 49.3	+2.6
JTS	Las Juntas de	2.75	316	eP	Pn	18 51 13.6	-0.1
COVE	Coope Vega, Sa	2.76	330	P	Pn	18 51 15.9	+2.1
CMARA	Lajas Hojancha	2.92	306	P	Pn	18 51 16.5	+0.4
BCIP	Isla Barro Col	3.25	75	P	Pn	18 51 22.4	+1.8

NEIC ***07*** *19:12:42.3±1.4, 51°.7N±0°.1×160°.3E±0°.1, h10km±1km, mb4.3/9, Error ellipse: s-maj=18.6km s-min=11.0km az=209.0*

KRSC ***07*** *19:12:45.9±1.2, 52°.11N×160°.48E, h58km±19km, Ml4.2*

MOS ***07*** *19:12:46.7±0.8, 52°.07N×160°.50E, h52km, mb4.3/5, Error ellipse: s-maj=9.6km s-min=4.6km az=109.1*

IDC ***07*** *19:12:57.7±6.0, 52°.40N×159°.23E, h90km±22km, mb3.6/8, mbtmp4.0/10, MS3.6/2, Error ellipse: s-maj=88.5km s-min=34.8km az=134.0*

ISC 07 19:12:45.3±1.6**, 52°.11N**±0°.04×**160°.42E**±0°.05**, h18**km±9km**, n109,** σ1ˢ.**33**/119**, mb4.1**/12**, 4C, Off east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SPN	Mys Shipunski	1.02	346	PN	Pg	19 13 05.1	0.0
SPN				S	Sg	19 13 17.9	-0.6
SPN	Mys Shipunski	1.02	346	eP	Pg	19 13 05.1	0.0
SPN				eS	Sg	19 13 18.0	-0.6
RUS	Russkaya	1.22	286	PN	Pg	19 13 08.5	-0.3
RUS				S	Sg	19 13 24.6	-0.1
RUS	Russkaya	1.22	286	eP	Pg	19 13 08.5	-0.3
RUS				eS	Sg	19 13 24.6	-0.1
NLC	Nalytchevo	1.25	329	PN	Pb	19 13 08.5	+0.2
NLC				S	Sg	19 13 25.7	0.0
NLC	Nalytchevo	1.25	329	eP	Pb	19 13 08.6	+0.2
NLC				eS	Sg	19 13 25.8	0.0
DALK	Dalny	1.38	313	PN	Pb	19 13 10.5	+0.1
DALK				S	Sb	19 13 28.7	+1.1
DALK	Dalny	1.38	313	eP	Pb	19 13 10.5	+0.1
DALK				eS	Sb	19 13 28.8	+1.1
PET	Petropavlovsk	1.42	311	⇑iPN	Pb	19 13 11.3	+0.1
PET				eS	Sb	19 13 30.0	+1.2
PET				pmax	pmax		
	comp=Z,398nm,0.6s						
PET				smax	smax		
	comp=N,536nm,0.6s						
PET				smax	smax		
	comp=E,896nm,0.5s						
PET	Petropavlovsk	1.42	311		Pb	19 13 11.1	0.0
PET	Petropavlovsk	1.42	311	eP	Pb	19 13 11.3	+0.1
PET				eS	Sb	19 13 29.5	+0.7
MTVR	Mutnovka	1.43	286	PN	Pb	19 13 11.9	+0.5
MTVR				S	Sg	19 13 30.7	-0.7
MTVR	Mutnovka	1.43	286	eP	Pb	19 13 12.0	+0.5
MTVR				eS	Sg	19 13 30.7	-0.7
INSR	Institute	1.47	312	PN	Pb	19 13 11.9	-0.1
INSR	Institute	1.47	312	eP	Pb	19 13 11.9	-0.1
UGLR	Uglovaya	1.47	319	PN	Pb	19 13 12.6	+0.5
UGLR	Uglovaya	1.47	319	eP	Pb	19 13 12.6	+0.5
KDTR	Khodutka, Kamc	1.48	259	PN	Pb	19 13 12.5	+0.2
KDTR				S	Sb	19 13 30.9	+0.2
KDTR	Khodutka, Kamc	1.48	259	eP	Pb	19 13 12.5	+0.2
KDTR				eS	Sb	19 13 30.9	+0.2
SDLR	Sedlovina	1.50	322	PN	Pb	19 13 12.7	+0.1
SDLR	Sedlovina	1.50	322	eP	Pb	19 13 12.8	+0.1
GRL	Gorelyy	1.51	288	PN	Pg	19 13 14.3	-0.1
GRL	Gorelyy	1.51	288	eP	Pg	19 13 14.3	-0.1
SMAR	Somma	1.52	320	PN	Pb	19 13 13.0	0.0
SMAR	Somma	1.52	320	eP	Pb	19 13 13.1	0.0
AVH	Avacha	1.55	319	PN	Pb	19 13 13.8	+0.4
AVH	Avacha	1.55	319	eP	Pb	19 13 13.8	+0.4
KRER	Koryakskii	1.57	320	PN	Pb	19 13 13.9	0.0
KRER	Koryakskii	1.57	320	eP	Pb	19 13 14.0	0.0
ASAK	Asacha	1.58	281	PN	Pb	19 13 14.5	+0.6
ASAK	Asacha	1.58	281	eP	Pb	19 13 14.6	+0.6
KRMR	Karymshinskiy	1.58	298	PN	Pb	19 13 13.7	-0.2
KRMR				S	Sb	19 13 33.2	-0.3
KRMR	Karymshinskiy	1.58	298	eP	Pb	19 13 13.7	-0.2
KRMR				eS	Sb	19 13 33.3	-0.3
KOK	Koryaka	1.61	318	PN	Pb	19 13 14.5	+0.1
KOK	Koryaka	1.61	318	eP	Pb	19 13 14.6	+0.1
KRX	Arik	1.65	320	PN	Pb	19 13 14.9	-0.4
KRX	Arik	1.65	320	eP	Pb	19 13 14.9	-0.4
PEA0B	Petropavlovsk-	1.94	302	c iPN	Pb	19 13 18.8	-1.3
PEA0B	Petropavlovsk-	1.94	302		Pb	19 13 18.9	-1.1
PETK	Petropavlovsk-	1.94	302	P	Pb	19 13 19.3	-0.8
	comp=E,54nm,0.5s,baz=108,slow=18,SNR=229						
PETK				S	Sb	19 13 43.6	-0.3
	comp=E,42nm,0.4s,baz=107,slow=14,SNR=4.4						
PETK	Petropavlovsk-	1.94	302		Pb	19 13 19.1	-1.0
KII	Karymskiy	2.02	343	PN	Pb	19 13 20.2	-1.2
KII	Karymskiy	2.02	343	eP	Pb	19 13 20.2	-1.2
GNL	Ganaly	2.19	318	PN	Pb	19 13 23.0	-1.4
GNL	Ganaly	2.19	318	eP	Pb	19 13 23.0	-1.4
MIPR	Malaya Ipel'ka	2.26	276	PN	Pb	19 13 25.0	-0.5
MIPR	Malaya Ipel'ka	2.26	276	eP	Pb	19 13 25.1	-0.5
PAU	Pauzhetka	2.33	255	PN	Pn	19 13 23.8	+1.1
PAU	Pauzhetka	2.33	255	eP	Pn	19 13 23.9	+1.1
MKZ	Mys Kozlova	2.57	17	PN	Pn	19 13 27.4	+1.4
MKZ	Mys Kozlova	2.57	17	eP	Pn	19 13 27.4	+1.4
SKR	Severo-Kuril's	3.05	244	⇑ePN	Pn	19 13 34.1	+1.5
SKR	Severo-Kuril's	3.05	244	eP	Pn	19 13 34.4	+1.8
TUMD	Tumrok D	3.10	360	eS	Sn	19 14 10.5	+0.6
TUMR	Tumrok	3.18	357	PN	Pn	19 13 35.9	+1.4
TUMR	Tumrok	3.18	357	eP	Pn	19 13 35.9	+1.4
KMNR	Kamenistaya	3.66	358	PN	Pn	19 13 43.5	+2.6
KMNR	Kamenistaya	3.66	358	eP	Pn	19 13 43.6	+2.6
BZGR	Bezymyannyi-Gr	3.84	2	PN	Pn	19 13 45.4	+1.9
BZGR	Bezymyannyi-Gr	3.84	2	eP	Pn	19 13 45.4	+1.9
ZLN	Zelenaya	3.92	3	PN	Pn	19 13 48.1	+3.5
ZLN	Zelenaya	3.92	3	eP	Pn	19 13 48.1	+3.5
ESO	Esso	3.96	346	PN	Pn	19 13 47.4	+2.4
ESO	Esso	3.96	346	eP	Pn	19 13 47.4	+2.4
KOZ	Kozyrevsk	3.97	356	PN	Pn	19 13 49.4	+4.2
KOZ	Kozyrevsk	3.97	356	eP	Pn	19 13 49.4	+4.2
KBTR	Krutoberegovo	4.34	18	PN	Pn	19 13 51.2	+0.9
KBTR	Krutoberegovo	4.34	18	eP	Pn	19 13 51.2	+0.9
SHEM	Shemya Is, Ala	8.39	80	Pn	Pn	19 14 46.3	+0.5
SMY	Shemya	8.39	80	PN	Pn	19 14 46.2	+0.4
SMY	Shemya	8.39	80	Pn	Pn	19 14 46.2	+0.4
MA2	Magadan	9.24	328	LR	LR	19 18 46.8	
	comp=E,153nm,19.5s,baz=136,slow=40						
JKA	Kamikawa-asahi	14.32	243	P	Pn	19 16 08.3	+1.4
ASAJ	Asahikawa	14.32	243	P	Pn	19 16 08.6	+1.7
	comp=E,1.8nm,0.6s,baz=77,slow=11,SNR=4.6						
ASAJ	Asahikawa	14.32	243	P	Pn	19 16 08.3	+1.4
YAK	Yakutsk	19.25	313	P	P	19 17 06.0	-2.3
	comp=E,4.3nm,0.4s,baz=258,slow=0.5,SNR=4.6						
YAK	Yakutsk	19.25	313	eP	P	19 17 07.0	-1.3
YAK				pmax	pmax		
	comp=Z,9.0nm,1.0s						
YAK	Yakutsk	19.25	313	P	P	19 17 05.8	-2.5
TNA	Tin City	20.89	38	P	Pn	19 17 29.5	+0.8
K15K	Wolf Creek Mou	22.64	48	P	P	19 17 47.2	+2.2
K15K				IAmb	IAmb	19 18 13.6	
	comp=Z,15nm,1.4s						
TIXI	Tiksi	24.06	336	P	P	19 17 56.5	-2.5
TIXI				pmax	pmax		
	comp=Z,7.0nm,1.4s						
TIXI	Tiksi	24.06	336	P	P	19 17 56.5	-2.5
H11N2	WAKE ISLAND Hy	32.71	169	T	T	19 54 42.2	
	baz=354						
H11N3	WAKE ISLAND Hy	32.72	169	T	T	19 54 43.9	
	baz=354,slow=74,SNR=17						
H11N1	WAKE ISLAND Hy	32.73	169	T	T	19 54 42.2	
	baz=354,slow=74,SNR=16						
SONM	Songino Array	34.33	285	LR	LR	19 33 54.4	
	comp=Z,189nm,18.8s,baz=262,slow=38						
SPITS	Spitsbergen Ar	48.14	351	P	P	19 21 24.4	+0.8
	comp=Z,4.2nm,0.8s,baz=45,slow=7.6,SNR=6.3						
	comp=Z,4.2nm,0.8s						
SPB2	Spitsbergen Ar	48.14	351	P	P	19 21 23.9	+0.4
KURK	Kurchatov	48.43	303	P	P	19 21 24.9	-1.2
KURK				pmax	pmax		
	comp=Z,2.0nm,0.8s						
KURK	Kurchatov	48.43	303	P	P	19 21 24.9	-1.2
KURK				IAmb	IAmb	19 21 26.5	
	comp=Z,1.6nm,0.8s						
KURBB	Kurchatov Arra	48.53	303	P	P	19 21 25.4	-1.4
	comp=Z,1.0nm,0.8s,baz=62,slow=7.8,SNR=6.0						
	comp=Z,1.0nm,0.8s						
MK31	Makanchi Array	48.77	297	⇑eP	P	19 21 24.8	-4.0
MKAR	Makanchi Array	48.77	297	P	P	19 21 27.4	-1.4
	comp=Z,0.4nm,0.5s,baz=53,slow=6.7,SNR=10						
	comp=Z,0.4nm,0.5s						
MKAR	Makanchi Array	48.77	297	i P	P	19 21 27.8	-1.0
MKAR	Makanchi Array	48.77	297	P	P	19 21 27.6	-1.2
BVAR	Borovoye Array	51.16	309	P	P	19 21 45.0	-1.9
	comp=Z,0.7nm,0.5s,baz=64,slow=7.1,SNR=5.7						
	comp=Z,0.7nm,0.5s						
BVAR	Borovoye Array	51.16	309	P	P	19 21 45.0	-1.9
ARCES	ARCESS Array B	54.29	342	P	P	19 22 09.6	-0.1
	comp=Z,2.5nm,0.9s,baz=19,slow=8.8,SNR=2.4						
	comp=Z,2.5nm,0.9s						
ARCES	ARCESS Array B	54.29	342	P	P	19 22 09.2	-0.5
ARCES				pmax	pmax		
	comp=Z,13nm,1.4s						
ARCES	ARCESS Array B	54.29	342	P	P	19 22 09.2	-0.5
ARCES				IAmb	IAmb	19 22 17.4	
	comp=Z,13nm,1.4s						
FINES	FINESS Array B	61.10	337	P	P	19 22 58.4	+0.7
	comp=Z,0.9nm,0.4s,baz=24,slow=8.7,SNR=16						
	comp=Z,0.9nm,0.4s						
FINES	FINESS Array B	61.10	337	P	P	19 22 58.0	+0.3
NOA	NORSAR Array B	64.54	344	P	P	19 23 21.7	+1.0
	comp=Z,0.7nm,0.7s,baz=16,slow=3.7,SNR=2.0						
	comp=Z,0.7nm,0.7s						
AKASG	Malin Array Be	69.56	329	P	P	19 23 52.7	+0.1
	comp=Z,0.3nm,0.4s,baz=24,slow=6.7,SNR=2.3						
	comp=Z,0.3nm,0.4s						
AKASG	Malin Array Be	69.56	329	P	P	19 23 52.7	+0.1
AKASG				pmax	pmax		
	comp=Z,3.0nm,1.3s						
AKASG	Malin Array Be	69.56	329	IAmb	IAmb	19 24 10.2	
	comp=Z,2.5nm,1.2s						
TX31	Lajitas Ar. Si	70.84	67	P	P	19 24 00.5	-0.5
TX31				IAmb	IAmb	19 24 39.3	
	comp=Z,2.6nm,1.4s						
TXAR	Lajitas Array	70.84	67	P	P	19 24 01.4	+0.4
TXAR	Lajitas Array	70.84	67	P	P	19 24 01.4	+0.4

IDC ***07*** *19:38:37.8±1.1, 24°.33S×115°.40W, h0km, mb4.3/4, mbtmp4.3/4, MS3.8/22, Error ellipse: s-maj=55.3km s-min=25.9km az=31.0*

NEIC ***07*** *19:38:40.6±2.0, 24°.48S±0°.09×115°.3W±0°.2, h10km±1km, mb4.6/15, Error ellipse: s-maj=26.9km s-min=10.0km az=299.0*

ISC 07 19:38:39.5±0.9**, 24°.5S**±0°.2×**115°.4W**±0°.2**, h10**km**, n56,** σ1ˢ.**31**/29**, mb4.6**/10**, MS3.8**/22**, Southern East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PPT	Papeete	32.58	276	LR	LR	19 55 27.1	
	comp=Z,137nm,18.8s,baz=148,slow=31						
H03N2	Juan Fernandez	32.98	114	T	T	20 20 23.0	
	baz=340,slow=74,SNR=227						
H03N1	Juan Fernandez	33.00	114	T	T	20 20 24.6	
	baz=282,slow=74,SNR=226						
NNA	Nana	38.53	78	LR	LR	19 58 03.7	
	comp=Z,242nm,18.9s,baz=250,slow=30						
ATAH	Atahualpa	39.38	70	LR	LR	19 59 18.9	
	comp=Z,114nm,18.6s,baz=242,slow=32						
BI02	San Fabin de	39.56	118	P	P	19 46 10.3	-0.6
CO04	Los Peladeros	39.62	111	P	P	19 46 11.9	+0.2
CO04				IAmb	IAmb	19 46 15.9	
	comp=Z,25nm,1.1s						
PLCA	Paso Flores	40.63	125	P	P	19 46 19.9	0.0
	comp=Z,6.0nm,1.1s,baz=255,slow=9.4,SNR=5.6						
PLCA				LR	LR	19 59 02.4	
	comp=Z,258nm,21.2s,baz=268,slow=30						
	comp=Z,6.0nm,1.1s						
RAR	Rarotonga	40.90	265	LR	LR	19 58 39.2	
	comp=Z,93nm,19.6s,baz=91,slow=29						
ZON	Zonda	41.59	111	P	P	19 46 31.1	+3.3
ZON				IAmb	IAmb	19 46 32.7	
	comp=Z,19nm,1.2s						
CZSB	Cruzeiro do Su	44.04	75	P	P	19 46 46.8	-1.0
LPAZ	La Paz	44.87	89	P	P	19 46 55.9	+0.8
	comp=Z,7.7nm,1.0s,baz=245,slow=4.1,SNR=14						
LPAZ				LR	LR	20 01 24.4	
	comp=Z,69nm,18.7s,baz=244,slow=30						
	comp=Z,7.7nm,1.0s						
LPAZ	La Paz	44.87	89	P	P	19 46 56.5	+1.4
LPAZ				IAmb	IAmb	19 46 58.2	
	comp=Z,8.7nm,0.9s						
JTS	Las Juntas de	45.58	44	LR	LR	20 00 55.0	
	comp=Z,95nm,20.5s,baz=293,slow=29						
CMIG	Matias Romero	45.91	28	LR	LR	20 01 28.5	
	comp=Z,99nm,18.4s,baz=218,slow=30						
LPIG	La Paz	48.55	6	LR	LR	20 02 38.1	
	comp=Z,98nm,21.7s,baz=33,slow=30						
CPUP	Villa Florida	52.09	105	LR	LR	20 06 22.1	
	comp=Z,73nm,18.4s,baz=254,slow=32						
VILB	Vilhena	53.21	88	P	P	19 47 56.4	-2.0
PTLB	Pontes e Lacer	53.33	91	P	P	19 47 59.0	-0.2
PTLB				IAmb	IAmb	19 48 01.2	
	comp=Z,4.9nm,1.1s						
AFI	Afiamalu	53.97	270	LR	LR	20 05 02.1	
	comp=Z,120nm,19.4s,baz=128,slow=29						
SDV	Santo Domingo	54.83	58	LR	LR	20 06 35.2	
	comp=Z,35nm,20.0s,baz=109,slow=31						
SDV	Santo Domingo	54.83	58	P	P	19 48 10.5	+0.1
SDV				IAmb	IAmb	19 48 13.5	
	comp=Z,5.6nm,0.8s						
SAND	Sanderson	55.61	14	P	P	19 48 14.9	-0.6
735A	Kenedy	55.67	19	P	P	19 48 14.5	-1.4
JCT	Junction City	56.66	16	P	P	19 48 23.2	+0.2
JCT				IAmb	IAmb	19 48 31.0	
	comp=Z,5.5nm,0.6s						
MNTX	Cornudas Mount	56.68	10	P	P	19 48 24.9	+1.8
MNTX				IAmb	IAmb	19 48 27.5	
	comp=Z,6.2nm,1.4s						
GDL2	Guadalupe Moun	57.34	11	P	P	19 48 30.0	+2.1
ANMO	Albuquerque	59.71	8	LR	LR	20 09 52.8	
	comp=Z,53nm,18.5s,baz=3.0,slow=32						
CCUT	Cedar City	61.74	2		P	19 48 58.8	+0.5
RPZ	Rata Peaks	61.91	232	LR	LR	20 09 52.7	
	comp=Z,18nm,19.7s,baz=198,slow=30						
NVAR	Mina Array Bea	62.64	357	P	P	19 49 03.7	-0.7
	comp=Z,0.5nm,0.5s,baz=182,slow=7.2,SNR=4.0						
	comp=Z,0.5nm,0.5s						
BDFB	Brasilia	63.38	96	P	P	19 49 10.2	+0.5
	comp=Z,1.3nm,0.3s,baz=289,slow=5.2,SNR=4.2						
BDFB				LR	LR	20 12 28.0	
	comp=Z,102nm,20.8s,baz=2.8,slow=32						
	comp=Z,1.3nm,0.3s						
BDFB	Brasilia	63.38	96	P	P	19 49 09.3	-0.3
BDFB				IAmb	IAmb	19 49 11.3	
	comp=Z,4.0nm,0.9s						
VNDA	Vanda	64.70	194	LR	LR	20 11 17.9	
	comp=Z,98nm,21.6s,baz=278,slow=30						
QSPA	South Pole Qui	65.67	180	LR	LR	20 14 08.8	
	comp=Z,87nm,19.5s,baz=268,slow=32						
HNR	Honiara	81.33	264	LR	LR	20 18 55.5	
	comp=Z,53nm,22.0s,baz=194,slow=30						
H11S2	WAKE ISLAND Hy	87.06	292	T	T	21 27 23.2	
	baz=118,slow=75,SNR=323						
H11S1	WAKE ISLAND Hy	87.08	292	T	T	21 27 23.2	
	baz=118,slow=75,SNR=236						
H11S3	WAKE ISLAND Hy	87.08	292	T	T	21 27 23.4	
	baz=118,slow=75,SNR=174						
H11N3	WAKE ISLAND Hy	87.44	293	T	T	21 27 50.8	
	baz=118,slow=75,SNR=19						
H11N1	WAKE ISLAND Hy	87.46	293	T	T	21 27 56.0	
	baz=118,slow=75,SNR=15						
H11N2	WAKE ISLAND Hy	87.46	293	T	T	21 27 48.2	
	baz=118,slow=75,SNR=64						
MAW	Mawson	88.18	179	LR	LR	20 26 04.4	
	comp=Z,72nm,20.4s,baz=102,slow=32						
SCHQ	Schefferville	89.27	26	LR	LR	20 29 58.9	
	comp=Z,23nm,18.8s,baz=290,slow=35						
KRVT	Keravat (AS076	90.59	265	LR	LR	20 24 16.3	
	comp=Z,52nm,21.9s,baz=30,slow=30						
RES	Resolute Bay	99.82	5	LR	LR	20 32 41.7	
	comp=Z,38nm,21.3s,baz=6.5,slow=32						
ZALV	Zalesovo Beam	146.91	338	PKPbc	PKPdf	19 58 20.6	+0.7
	comp=Z,1.7nm,0.8s,baz=31,slow=3.5,SNR=6.4						
ZALV	Zalesovo Beam	146.91	338		PKPdf	19 58 20.0	+0.1
CMAR	Chiang Mai Arr	147.55	266	PKPbc	PKPbc	19 58 25.4	+0.7
	comp=Z,1.1nm,1.0s,baz=141,slow=0.7,SNR=6.8						
CMAR	Chiang Mai Arr	147.55	266		PKPdf	19 58 21.1	-1.0
BRTR	Keskin Array B	149.87	52	PKPbc	PKPbc	19 58 28.0	-2.2
	comp=Z,1.4nm,1.0s,baz=286,slow=2.1,SNR=6.2						
BRTR	Keskin Array B	149.87	52		PKPdf	19 58 27.3	+1.8
BVAR	Borovoye Array	151.17	353	PKPbc	PKPbc	19 58 31.2	-1.5
	comp=Z,2.0nm,0.8s,baz=358,slow=4.5,SNR=5.5						
KURK	Kurchatov	151.66	341		PKPdf	19 58 28.8	+1.2
KURBB	Kurchatov Arra	151.77	341	PKPbc	PKPbc	19 58 33.4	-0.8
	comp=Z,0.6nm,0.7s,baz=17,slow=1.3,SNR=4.8						
MKAR	Makanchi Array	153.62	332	PKPbc	PKiKP	19 58 38.8	+0.2
	comp=Z,0.4nm,0.7s,baz=41,slow=4.6,SNR=2.6						

IDC ***07*** *19:48:28.0±1.9, 1°.60N×127°.19E, h0km, mb3.3/4, mbtmp3.4/4, Error ellipse: s-maj=169.8km s-min=22.5km az=67.0*

DJA ***07*** *19:48:43.3±0.8, 2°N±5°×12°7E±°, h117km±11km, M3.6/13, mb3.7/3, MLv3.5/13*

ISC 07 19:48:43.8±1.3**, 1°.4N**±0°.1×**127°.2E**±0°.1**, h150**km**, n10,** σ1ˢ.**63**/10**, mb3.3**/4**, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TNTI	Ternate	0.66	166	P	Pn	19 49 03.7	-2.3
MNI	Manado	2.37	271	P	Pn	19 49 20.8	-2.5
MNI				AML	AML		
SANI	Sanana	3.65	199	P	Pn	19 49 37.7	-1.8
SANI				AML	AML		
GTOI	Gorontalo	4.26	260	P	Pn	19 49 47.5	0.0
GTOI				AML	AML		
NLAI	Namlea	4.62	181	P	Pn	19 49 52.0	-0.2
KDI	Kendari	7.03	221	P	Pn	19 50 23.6	-0.7
	34nm,1.0s						
WRA	Warramunga Arr	22.35	162	P	P	19 53 30.2	+0.7
	0.3nm,0.3s,baz=340,slow=10,SNR=10						
	0.3nm,0.3s						
ASAR	Alice Springs	25.77	166	P	P	19 54 01.7	+0.9
	0.2nm,0.6s,baz=352,slow=6.8,SNR=1.6						
	0.2nm,0.6s						
MKAR	Makanchi Array	59.72	326	P	P	19 58 33.5	+0.8
	0.5nm,0.8s,baz=117,slow=7.0,SNR=7.4						
	0.5nm,0.8s						
KURBB	Kurchatov Arra	63.94	328	P	P	19 59 02.0	+1.2
	0.2nm,0.3s,baz=123,slow=6.8,SNR=4.7						
	0.2nm,0.3s						

IDC ***07*** *20:08:41.8±1.1, 55°.26N×158°.59W, h0km, mb3.8/9, mbtmp3.7/12, ML3.5/3, MS3.3/2, Error ellipse: s-maj=27.9km s-min=17.8km az=159.0*

NEIC ***07*** *20:08:47.3±1.3, 55°.13N±0°.03×158°.13W±0°.05, h35km±2km, mb3.9/4, ML3.6/26, ML3.5(AEIC), Error ellipse: s-maj=5.9km s-min=4.6km az=224.0*

AEIC ***07*** *20:08:47.4±1.4, 55°.12N±0°.05×158°.1W±0°.1, h26km±5km, Error ellipse: s-maj=10.8km s-min=4.3km az=127.0*

ISC 07 20:08:46.0±0.7**, 55°.16N**±0°.06×**158°.09W**±0°.04**, h35**km**, n97,** σ1ˢ.**94**/91**, mb3.8**/9**, Alaska Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CNBA	Chernabura Isl	0.93	249		Pn	20 09 02.5	-0.1
CNBA	Chernabura Isl	0.93	249		Sn	20 09 14.9	+0.3
CNBA	Chernabura Isl	0.93	249	IAML		20 09 16.9	
	comp=E,1μm,1.0s						
CNBA				IAML		20 09 17.0	
	comp=N,1μm,0.6s						
VNKR	Veniaminof 5	1.13	321		Pn	20 09 06.3	+0.9
VNKR					Sn	20 09 21.2	+1.5
CHGN	Chignik	1.16	351	Pn	Pn	20 09 06.2	+0.6
CHGN				IAML		20 09 26.4	
	comp=E,2μm,0.3s						
CHGN				IAML		20 09 26.4	
	comp=N,2μm,0.6s						
CHGN	Chignik	1.16	351		Sn	20 09 21.9	+1.7
VNSW	Veniaminof 7	1.23	318		Pn	20 09 08.2	+1.4
VNSS	Veniaminof 8	1.32	325		Pn	20 09 09.7	+1.6
SDPT	Sand Point	1.38	279		Pn	20 09 08.9	+0.2
SDPT	Sand Point	1.38	279		Sn	20 09 26.3	+0.6
SDPT	Sand Point	1.38	279	IAML		20 09 31.7	
	comp=E,784nm,0.8s						
SDPT				IAML		20 09 32.8	
	comp=N,650nm,0.7s						
VNFG	Fog Glacier, M	1.40	324		Pn	20 09 10.9	+1.9
BPBCA	Veniaminof	1.44	352		Pn	20 09 11.2	+1.6
ANPB	Aniakchak Plen	1.65	356		Pn	20 09 14.3	+1.9
ANPK	Aniakchak Peak	1.68	359		Pn	20 09 14.9	+1.9
AZAC	Aniakchak	1.74	357		Pn	20 09 16.1	+2.4
PS1A	Pavlof South-1	2.11	279		Pn	20 09 19.5	+0.8
PVV	Pavlof Volcano	2.13	277		Pn	20 09 19.8	+0.8
PS4A	Pavlof South-4	2.17	276		Pn	20 09 20.3	+0.8
PS4A					Sn	20 09 46.8	+1.6
DOL	Dolgoi Island	2.17	271		Pn	20 09 20.2	+0.6
DOL					Sn	20 09 47.0	+1.8
PN7A	Pavlof North-7	2.25	278		Pn	20 09 21.9	+1.1
DTNA	Dutton South F	2.39	271		Pn	20 09 23.3	+0.7
DTNA					Sn	20 09 52.2	+1.6
DT1	Dutton Round H	2.41	270		Sn	20 09 52.6	+1.6
R16K	Pilot Point	2.43	7	Pn	Pn	20 09 24.9	+1.8
R16K				IAML		20 10 12.3	
	comp=N,266nm,0.8s						
R16K				IAML		20 10 17.3	
	comp=E,308nm,1.0s						
R17L	Mt. Peulik Vol	2.65	21		Pn	20 09 28.8	+2.5
PLK1	Peulik 1	2.77	17		Pn	20 09 29.8	+2.0
CAHL	Cahill	3.28	27		Pn	20 09 36.7	+1.8
OHAK	Old Harbor	3.38	50	Pn	Pn	20 09 37.6	+1.4
MGLS	Mageik Landsli	3.39	27		Pn	20 09 38.1	+1.8
SSLS	Shishaldin Sou	3.44	265		Pn	20 09 38.5	+1.3
Q18K	Katmai Hardscr	3.88	25		Pn	20 09 44.9	+1.8
KDAK	Kodiak Island	4.03	47	Pn	Pn	20 09 46.3	+1.2
	comp=E,1.3nm,0.3s,baz=200,slow=4.3,SNR=30						
KDAK				Sn	Sn	20 10 29.5	-1.4
	comp=E,1.0nm,0.3s,baz=300,slow=9.7,SNR=1.3						
	comp=E,7.2nm,0.7s						
KDAK				AML	AML		
KDAK	Kodiak Island	4.03	47	Pn	Pn	20 09 45.8	+0.8
KDAK				IAML		20 11 06.9	
	comp=E,52nm,1.1s						
O15K	Ungalikthiuk R	4.13	347	Pn	Pn	20 09 47.6	+1.1
O15K				IAML		20 11 08.6	
	comp=E,51nm,0.9s						
O16K	Kokwok River B	4.44	360	Pn	Pn	20 09 53.6	+2.8
O14K	Tigyukauivet M	4.45	338	Pn	Pn	20 09 52.5	+1.7
O14K				IAML		20 11 14.4	
	comp=N,59nm,1.0s						
O14K				IAML		20 11 15.3	
	comp=E,46nm,1.1s						
Q19K	Cape Douglas,	4.49	31	Pn	Pn	20 09 55.4	+4.0
AKLV	Akutan Long Va	4.68	261		Pn	20 09 54.9	+0.9
AKGG	Akutan Green G	4.69	261		Pn	20 09 55.2	+1.1
N15K	Kwethluk River	5.13	349		Pn	20 10 04.0	+3.8
N15K				IAML		20 11 37.7	
	comp=E,47nm,1.1s						
N15K				IAML		20 11 44.2	
	comp=N,42nm,0.8s						
N14K	Kuskokwak Cree	5.15	339	Pn	Pn	20 10 02.8	+2.3
MNAT	Makushin Natee	5.17	259		Pn	20 10 01.2	+0.4
MSW	Makushin Switc	5.22	260		Pn	20 10 01.8	+0.4
ILSW	Iliamna Southw	5.51	27	Pn	Pn	20 10 09.4	+3.8
N18K	Kilae Creek	5.65	11	Pn	Pn	20 10 10.1	+2.6
M15K	Kasigluk River	5.72	347		Pn	20 10 10.1	+1.9
M16K	Timber Creek	5.89	356		Pn	20 10 12.5	+1.8
M13K	Dall Lake	5.97	334		Pn	20 10 13.8	+2.1
M14K	Bethel	5.97	341		Pn	20 10 13.1	+1.4
N19K	Bonanza Creek	5.98	17	Pn	Pn	20 10 14.7	+2.7
M17K	Holitna River	6.26	3	Pn	Pn	20 10 18.1	+2.3
L16K	Owhat River	6.61	354		Pn	20 10 22.5	+2.1
L14K	Kuka Creek	6.65	341		Pn	20 10 22.4	+1.3
L15K	Ungalak Mounta	6.77	346		Pn	20 10 24.2	+1.4
L17K	Donlin	6.99	359		Pn	20 10 27.4	+1.7
L18K	Granite Mounta	7.11	5	Pn	Pn	20 10 30.0	+2.5
M20K	Styx River	7.22	19		Pn	20 10 32.3	+3.3
L19K	White Mountain	7.24	12		Pn	20 10 30.6	+1.5

K15K	Wolf Creek Mou	7.37	347	Pn	Pn	20 10 32.9	+2.0
K17K	Iditarod	7.58	359		Pn	20 10 36.2	+2.4
K13K	Kusilvak Mount	7.60	336		Pn	20 10 35.8	+1.7
PWL	Port Wells	7.70	38	Pn	Pn	20 10 37.3	+1.7
GHO	Glory Hole Cre	8.18	32	Pn	Pn	20 10 44.6	+2.6
J16K	Anvik River	8.25	352		Pn	20 10 44.7	+1.7
SCM	Sheep Creek Mo	8.73	36	Pn	Pn	20 10 51.6	+1.9
I17K	Unalakleet	8.85	352	Pn	Pn	20 10 53.1	+2.0
KLU	Klutina	9.00	40	Pn	Pn	20 10 54.8	+1.4
ILAR	Eielson Array	11.13	26	Pn	Pn	20 11 21.1	-1.3
	comp=N,0.2nm,0.3s,baz=216,slow=13,SNR=10						
ILAR				Sn	Sn	20 13 17.4	-8.0
	baz=217,slow=21,SNR=1.3						
	comp=N,0.4nm,0.4s						
ILAR				AML	AML		
M31M	Drury Creek, Y	14.13	51	P	P	20 12 11.8	+1.3
INK	Inuvik	17.39	31	Pn	Pn	20 12 43.4	-2.0
	comp=N,0.4nm,0.3s,baz=215,slow=11,SNR=5.4						
	comp=N,3.0nm,0.7s						
INK				AML	AML		
INK	Inuvik	17.39	31	P	P	20 12 47.1	+0.7
PETK	Petropavlovsk-	25.66	284	P	P	20 14 10.9	-1.2
	comp=N,2.3nm,0.8s,baz=67,slow=11,SNR=3.9						
	comp=N,2.3nm,0.8s						
H11N2	WAKE ISLAND Hy	44.15	231	T	T	21 03 51.7	
	baz=28,slow=76,SNR=3.8						
H11N3	WAKE ISLAND Hy	44.15	231	T	T	21 03 49.8	
	baz=28,slow=76,SNR=4.5						
H11N1	WAKE ISLAND Hy	44.17	231	T	T	21 03 51.1	
	baz=28,slow=76,SNR=3.7						
H11S1	WAKE ISLAND Hy	45.31	230	T	T	21 05 14.6	
	baz=28,slow=76,SNR=5.6						
H11S2	WAKE ISLAND Hy	45.32	230	T	T	21 05 15.4	
	baz=28,slow=76,SNR=6.8						
H11S3	WAKE ISLAND Hy	45.33	230	T	T	21 05 15.9	
	baz=28,slow=76,SNR=3.9						
TXAR	Lajitas Array	46.31	101	P	P	20 17 11.2	+2.9
	comp=N,0.4nm,0.8s,baz=309,slow=5.8,SNR=4.5						
	comp=N,0.4nm,0.8s						
SFJD	Kangerlussuaq	46.73	31	LR	LR	20 39 08.3	
	comp=N,33nm,21.0s,baz=247,slow=39						
SONM	Songino Array	55.39	305	P	P	20 18 15.3	-1.1
	comp=N,0.5nm,0.6s,baz=50,slow=6.0,SNR=2.9						
	comp=N,0.5nm,0.6s						
SONM	Songino Array	55.39	305	IAmb	IAmb	20 18 17.6	
	comp=Z,0.5nm,0.6s						
ARCES	ARCESS Array B	55.58	358	P	P	20 18 17.0	-0.3
	comp=Z,0.2nm,0.4s,baz=40,slow=6.3,SNR=4.7						
	comp=Z,0.2nm,0.4s						
ARCES	ARCESS Array B	55.58	358	P	P	20 18 18.1	+0.7
FINES	FINESS Array B	63.69	358	P	P	20 19 13.7	+0.6
	comp=Z,1.6nm,0.6s,baz=358,slow=13,SNR=8.0						
	comp=Z,1.6nm,0.6s						
FINES	FINESS Array B	63.69	358	P	P	20 19 13.4	+0.2
BVAR	Borovoye Array	64.98	330	P	P	20 19 22.2	+0.4
	comp=Z,0.8nm,0.5s,baz=34,slow=7.1,SNR=6.9						
	comp=Z,0.8nm,0.5s						
MKAR	Makanchi Array	66.41	319	P	P	20 19 30.2	-0.9
	comp=Z,0.2nm,0.5s,baz=31,slow=5.4,SNR=1.9						
	comp=Z,0.2nm,0.5s						
MKAR	Makanchi Array	66.41	319	P	P	20 19 31.4	+0.3
AKASG	Malin Array Be	74.33	355	P	P	20 20 19.2	-0.1
	comp=Z,0.4nm,0.3s,baz=12,slow=6.5,SNR=5.1						
	comp=Z,0.4nm,0.3s						
AKASG	Malin Array Be	74.33	355	IAmb	IAmb	20 20 40.5	
	comp=Z,3.1nm,1.4s						
VRAC	Vranov	75.80	4	LR	LR	20 58 13.6	
	comp=Z,20nm,18.2s,baz=310,slow=39						
CMAR	Chiang Mai Arr	82.21	291	P	P	20 21 02.6	-0.8
	comp=Z,0.6nm,0.3s,baz=18,slow=4.6,SNR=5.2						
	comp=Z,0.6nm,0.3s						
CMAR	Chiang Mai Arr	82.21	291	P	P	20 21 03.6	+0.1
QSPA	South Pole Qui	144.94	180	PKPbc	PKPdf	20 28 18.6	+0.8
	comp=Z,1.1nm,0.8s,baz=13,slow=1.6,SNR=6.3						
QSPA	South Pole Qui	144.94	180		PKiKP	20 28 18.9	-2.7
HOPE	Hope Point	147.11	113	PKPbc	PKiKP	20 28 26.8	+0.5

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*IDC **07** 20:12:15.2±1.4, 5°.87S×129°.40E, h0^{km}, mb3.9/3, mbtmp4.0/6, ML4.2/3, MS3.5/1, Error ellipse: s-maj=60.1km s-min=17.7km az=79.0*

ISC 07 20:12:33.4±1.1**, 7°.08S**±0°.09×**129°.63E**±0°.07**, h200^{km}, n16, σ2^s.28**/17**, mb3.6**/3**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SAUI	Saumlaki	1.89	118	P	Pn	20 13 09.9	-0.9
SAUI	Saumlaki	1.89	118	S	Sn	20 13 40.5	+0.7
FAKI	Fak Fak	4.89	32	P	Pn	20 13 39.5	-7.0
DRS	Darwin Rock St	5.46	167	P	Pn	20 13 56.3	+2.5
SOEI	Soe	5.93	243	P	Pn	20 14 00.6	+0.7
SOEI	Soe	5.93	243	S	Sn	20 15 09.8	+1.5
FITZ	Fitzroy Crossi	11.62	199	Pn	Pn	20 15 13.3	-0.2
	0.6nm,0.3s,baz=21,slow=14,SNR=22						
FITZ				Sn	Sn	20 17 19.4	-3.7
	1.5nm,0.3s,baz=171,slow=23,SNR=6.1						
	1.4nm,0.3s						
FITZ				AML	AML		
WRAB	Tennant Creek	13.57	161	P	P	20 15 40.9	+0.3
WRA	Warramunga Arr	13.58	161	Pn	Pn	20 15 38.1	-0.1
	1.5nm,0.3s,baz=337,slow=12,SNR=47						
WRA				Sn	S	20 18 06.2	-3.4
	1.1nm,0.3s,baz=336,slow=22,SNR=7.3						
	0.8nm,0.4s						
WRA				AML	AML		
QIS	Mount Isa	16.52	145	P	Pn	20 16 16.5	+2.4
ASAR	Alice Springs	17.00	166	Pn	Pn	20 16 22.6	+2.9
	1.2nm,0.3s,baz=344,slow=9.8,SNR=78						
ASAR				Sn	S	20 19 28.6	+3.3
	0.3nm,0.3s,baz=226,slow=16,SNR=5.6						
	6.5nm,0.5s						
ASAR				AML	AML		
MTSU	Mount Surprise	18.05	129	P	Pn	20 16 33.1	+1.0
SONM	Songino Array	58.40	342	LR	LR	20 49 15.4	
	comp=Z,44nm,20.7s,baz=94,slow=39						
MKAR	Makanchi Array	68.09	327	P	P	20 23 10.4	-1.1
	0.6nm,0.3s,baz=115,slow=8.2,SNR=18						
	0.6nm,0.3s						
ZALV	Zalesovo Beam	71.49	334	P	P	20 23 29.5	-2.6
	0.4nm,0.4s,baz=116,slow=6.6,SNR=2.6						
	0.4nm,0.4s						
KURBB	Kurchatov Arra	72.38	329	P	P	20 23 36.0	-1.4
	0.7nm,0.5s,baz=128,slow=5.0,SNR=6.1						
	0.7nm,0.5s						

MAN 07 20:28:16.0, 5°.87N×126°.36E, h98^{km}, MS3.1, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DDMP	Don Marcelino,	0.69	290	*e*S	Sn	20 28 48.5	+2.6
DDMP	Don Marcelino,	0.69	290	*e*P	Pn	20 28 34.8	+1.7
GSPH	General Santos	1.42	279	*i* S	Sn	20 28 53.5	-6.9
GSPH	General Santos	1.42	279	*i* P	Pn	20 28 40.0	-1.3
CDOP	Cateel, Davao	1.90	2	*i* S	Sn	20 29 11.9	+0.9
CDOP	Cateel, Davao	1.90	2	*e*P	Pn	20 28 48.5	+1.3
BIPH	Bislig	2.30	0	*i* S	Sn	20 29 19.1	-1.2
BIPH	Bislig	2.30	0	*e*P	Pn	20 28 53.3	+0.8

IDC 07 20:31:40.4±2.0**, 4°.15N×124°.34E, h0^{km}, mb3.5**/4**, mbtmp3.5**/4**, Error ellipse: s-maj=151.2km s-min=25.6km az=67.0, Celebes Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	22.14	177	P	P	20 36 38.3	+0.4
	2.6nm,1.1s,baz=340,slow=9.8,SNR=2.1						
	2.6nm,1.1s						
WRA	Warramunga Arr	25.88	158	P	P	20 37 14.4	+0.3
	0.3nm,0.4s,baz=337,slow=9.6,SNR=6.7						
	0.3nm,0.4s						
ASAR	Alice Springs	29.18	162	P	P	20 37 43.0	-0.7
	0.2nm,0.4s,baz=335,slow=7.9,SNR=5.5						
	0.2nm,0.4s						
MKAR	Makanchi Array	55.87	326	P	P	20 41 19.9	0.0
	0.2nm,0.3s,baz=120,slow=7.7,SNR=4.9						
	0.2nm,0.3s						

IDC 07 20:48:01.1±1.9**, 7°.47S×126°.52E, h0^{km}, mb3.4**/1**, mbtmp3.7**/3**, ML3.9**/2**, Error ellipse: s-maj=213.3km s-min=26.3km az=60.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	14.53	149	Pn	Pn	20 51 21.0	-7.2
	0.6nm,0.3s,baz=321,slow=14,SNR=22						
WRA				Sn	Sn	20 53 46.6	-24
	1.0nm,0.3s,baz=331,slow=23,SNR=11						
	1.0nm,0.5s						
WRA				AML	AML		
ASAR	Alice Springs	17.59	157	Pn	Pn	20 52 04.8	-3.0
	0.3nm,0.3s,baz=341,slow=11,SNR=24						
ASAR				Sn	Sn	20 55 04.8	-20
	0.3nm,0.3s,baz=318,slow=16,SNR=6.5						
	1.6nm,0.6s						
ASAR				AML	AML		
MKAR	Makanchi Array	66.78	329	P	P	20 58 54.5	0.0
	0.3nm,0.8s,baz=124,slow=7.6,SNR=2.0						
	0.3nm,0.8s						

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*IDC **07** 21:06:03.0±1.0, 24°.36S×112°.80W, h0^{km}, mb3.6/4, mbtmp3.6/4, MS3.7/5, Error ellipse: s-maj=96.3km s-min=29.0km az=94.0*

ISC 07 21:06:04.0±1.0**, 24°.4S**±0°.2×**112°.4W**±0°.7**, h10^{km}, n22, σ0^s.89**/9**, mb3.9**/4**, MS3.7**/5**, Easter Island region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TAOE	Nuku Hiva Isla	30.69	296	*e*LR	LR	21 20 12.3	
	245nm,25.3s						
PPT2	Papeete2	35.31	274	*e*LR	LR	21 22 05.8	
	119nm,31.2s						
PPT2				*e*LR	LR	21 22 12.7	
	148nm,32.0s						
PLCA	Paso Flores	38.42	125	LR	LR	21 24 47.6	
	comp=Z,75nm,20.2s,baz=278,slow=29						
RAR	Rarotonga	43.65	264	LR	LR	21 26 55.8	
	comp=Z,89nm,21.2s,baz=102,slow=29						
LPIG	La Paz	48.27	3	LR	LR	21 30 03.2	
	comp=Z,100nm,22.0s,baz=206,slow=30						
TXAR	Lajitas Array	54.09	9	P	P	21 15 29.1	-0.1
	0.1nm,0.4s,baz=173,slow=11,SNR=1.1						
	0.1nm,0.4s						
PFO	Pinyon Flats O	57.84	356	LR	LR	21 35 32.6	
	comp=Z,78nm,18.5s,baz=145,slow=31						
URZ	Urewera	60.48	239	LR	LR	21 35 47.1	
	comp=Z,53nm,18.3s,baz=274,slow=30						
NVAR	Mina Array Bea	62.76	355	P	P	21 16 30.6	+1.0
	1.3nm,0.9s,baz=178,slow=10,SNR=4.6						
	1.3nm,0.9s						
QSPA	South Pole Qui	65.74	180	P	P	21 16 48.9	0.0
	2.0nm,1.0s,baz=101,slow=6.8,SNR=3.9						
	2.0nm,1.0s						
PDAR	Pinedale Array	66.90	2	P	P	21 16 55.5	-1.1
	0.5nm,0.8s,baz=182,slow=6.0,SNR=4.8						
	0.5nm,0.8s						
H11S2	WAKE ISLAND Hy	89.61	290	T	T	22 58 34.3	
	baz=116,slow=75,SNR=31						
H11S1	WAKE ISLAND Hy	89.62	290	T	T	22 58 33.8	
	baz=116,slow=75,SNR=17						
H11S3	WAKE ISLAND Hy	89.62	290	T	T	22 58 37.6	
	baz=116,slow=75,SNR=18						
H11N3	WAKE ISLAND Hy	89.97	292	T	T	22 59 02.1	
	baz=117,slow=76,SNR=7.7						
H11N1	WAKE ISLAND Hy	89.98	292	T	T	22 59 11.4	
	baz=117,slow=76,SNR=5.3						
H11N2	WAKE ISLAND Hy	89.98	292	T	T	22 58 59.9	
	baz=117,slow=76,SNR=9.0						
BRTR	Keskin Array B	147.63	54	PKPbc	PKPab	21 25 52.1	+0.9
	1.3nm,1.1s,baz=274,slow=3.6,SNR=5.9						
ZALV	Zalesovo Beam	147.82	341	PKPbc	PKPbc	21 25 49.4	+0.6
	0.3nm,0.3s,baz=31,slow=3.3,SNR=4.8						
CMAR	Chiang Mai Arr	150.30	265	PKPbc	PKiKP	21 25 57.0	0.0
	0.6nm,0.8s,baz=114,slow=1.3,SNR=4.3						
BVAR	Borovoye Array	151.36	357	PKPbc	PKPbc	21 25 57.0	-0.7
	1.0nm,0.5s,baz=29,slow=3.4,SNR=5.5						
KURBB	Kurchatov Arra	152.51	345	PKPbc	PKPbc	21 25 59.4	-1.0
	0.8nm,0.8s,baz=3.7,slow=1.7,SNR=7.3						

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*NEIC **07** 21:18:60.0±1.4, 7°.87N±0°.09×37°.0W±0°.1, h10^{km}±1^{km}, mb4.8/37, Error ellipse: s-maj=23.5km s-min=11.5km az=120.0*

*IDC **07** 21:19:00.7±0.7, 7°.37N×36°.69W, h0^{km}, mb4.0/10, mbtmp4.0/10, Error ellipse: s-maj=40.1km s-min=15.1km az=136.0*

*BGR **07** 21:19:00.0, 7°.65N×38°.20W, h33^{km}, mb4.4*

*GCMT **07** 21:19:04.0±0.3, 7°.79N±0°.02×37°.08W±0°.02, h24^{km}±1^{km}, MW4.8/90, Moment Tensor Solution. s26,c28; s90,c122; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.42±.13; $M_{\theta\theta}$0.42±.11; $M_{\phi\phi}$0.00±.09; $M_{r\theta}$-0.28±.14; $M_{\theta\phi}$-2.37±.09; $M_{\phi r}$0.01±.13; Best double couple: $M_0$2.39600×10^{16} NP1:ϕ_s357.00000°,δ83.00000°,λ-1.00000°. NP2: ϕ_s88.00000°,δ89.00000°,λ-173.00000°. Principal axes: T 2.6040, Plg4.0000°, Azm222.0000°; N -0.4160, Plg83.0000°, Azm98.0000°; P -2.1880, Plg6.0000°, Azm313.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 07 21:18:59.2±0.5**, 7°.70N**±0°.07×**37°.03W**±0°.08**, h10^{km}, n90, σ1^s.86**/82**, mb4.6**/43**, Central Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NBMO	Morrinhos-CE	11.34	195	*e*P	Pn	21 21 40.7	-0.8
NBMO				*e*S	Sn	21 23 37.5	-11
NBPS	Pedro II - PI	12.80	200	*e*P	Pn	21 21 59.6	-1.9
NBPS				*e*S	Sn	21 24 12.0	-12
NBPV	Pedro Velho	14.13	173	*e*P	Pn	21 22 22.0	+2.4
NBPV				*e*S	Sn	21 24 51.4	-5.2
SACV	Santiago Islan	15.01	60		Pn	21 22 28.7	-2.8
NBMA	Muriti-CE	15.06	187	*e*P	Pn	21 22 32.7	+0.4
NBMA				*e*S	Sn	21 25 08.1	-11
SMTB	Santa Maria do	19.53	213	*e*P	P	21 23 27.1	0.0
SDBA	SAO DESIDERIO	21.46	201	*e*P	P	21 23 49.0	+1.0
ITTB	Itaituba	22.18	238	*e*P	P	21 23 55.4	-0.4
BOAV	Boa Vista	23.98	259		P	21 24 13.9	-0.3
BOAV	Boa Vista	23.98	259	*e*P	P	21 24 15.1	+0.9
H05S1	Guadeloupe/Mar	24.29	288	T	T	21 49 21.7	
	SNR=8.8						
H05N1	Guadeloupe/Mar	24.99	292	T	T	21 50 09.1	
	SNR=2.7						
BDFB	Brasilia	25.62	205	P	P	21 24 32.6	+3.4
	5.0nm,0.8s,baz=27,slow=9.2,SNR=5.5						
	5.0nm,0.8s						
BDFB	Brasilia	25.62	205	P	P	21 24 30.5	+1.3
MACA	Manacapuru-AM	25.95	246	P	P	21 24 32.9	+0.7
MACA				IAmb	IAmb	21 24 36.5	
	comp=Z,15nm,0.7s						
H10N3	ASCENSION HYDR	27.25	124	T	T	21 53 26.9	
	baz=304,slow=75,SNR=15						
H10N2	ASCENSION HYDR	27.26	124	T	T	21 53 27.3	
	baz=304,slow=75,SNR=16						
H10N1	ASCENSION HYDR	27.27	124	T	T	21 53 28.4	
	baz=304,slow=75,SNR=14						
VILB	Vilhena	30.84	228	P	P	21 25 17.5	+1.7
VILB				IAmb	IAmb	21 26 03.8	
	comp=Z,8.6nm,1.0s						
MLPR	Magueyes Islan	30.95	292	P	P	21 25 16.1	-0.6
MLPR				IAmb	IAmb	21 26 16.3	
	comp=Z,17nm,1.1s						
CRPR	Cabo Rojo, PR	31.02	292	P	P	21 25 18.2	+0.9
CRPR				IAmb	IAmb	21 25 20.6	
	comp=Z,35nm,1.2s						
SIV	San Ignacio	33.48	225	P	P	21 25 41.7	+2.7
	comp=Z,2.1nm,0.6s,baz=54,slow=12,SNR=13						
	comp=Z,2.1nm,0.6s						
TORD	Torodi Ar. Bea	38.44	79	P	P	21 26 22.9	+1.4
	comp=Z,1.4nm,0.6s,baz=275,slow=8.4,SNR=10.0						
	comp=Z,1.4nm,0.6s						
CZSB	Cruzeiro do Su	38.73	247	P	P	21 26 25.3	+1.3
CZSB				IAmb	IAmb	21 26 26.0	
	comp=Z,13nm,0.8s						
NMDO	Nuevo Mundo	38.85	293	P	P	21 26 23.7	-1.2
NMDO				IAmb	IAmb	21 26 43.9	
	comp=Z,13nm,1.0s						
LPAZ	La Paz	38.93	232	P	P	21 26 28.9	+2.6
	comp=Z,5.2nm,0.8s,baz=51,slow=6.8,SNR=13						
	comp=Z,5.2nm,0.8s						
LPAZ	La Paz	38.93	232	P	P	21 26 26.2	-0.1
LPAZ	La Paz	38.93	232	*e*P	P	21 26 27.5	+1.1
MD31	MD31	39.00	46	P	P	21 26 24.1	-2.0
MD01	Midelt array s	39.00	46	P	P	21 26 24.7	-1.5
PB16	IPOC Station P	41.19	231	P	P	21 26 45.2	+0.2
PB16				IAmb	IAmb	21 26 46.7	
	comp=Z,22nm,1.6s						
PSGCX	Pisagua	42.40	230	P	P	21 26 56.0	+1.6
ESDC	Sonseca Array	43.48	38	P	P	21 27 05.4	+2.6
	comp=Z,0.9nm,1.1s,baz=228,slow=8.2,SNR=4.8						
	comp=Z,0.9nm,1.1s						
BIRD	Birdtown, Kers	48.03	310	P	P	21 27 38.6	-0.3
BIRD				IAmb	IAmb	21 29 23.4	
	comp=Z,22nm,1.6s						
M57A	Sunshine Farm,	48.82	320	P	P	21 27 44.1	-0.7
CFA	Coronel Fontan	49.17	216	P	P	21 27 49.0	+1.4
	comp=Z,0.8nm,0.4s,baz=89,slow=3.5,SNR=5.1						
	comp=Z,0.8nm,0.4s						
LDAQ	Lac Daran	49.51	330	P	P	21 27 49.5	-0.6
LDAQ				IAmb	IAmb	21 29 04.8	
	comp=Z,13nm,0.8s						
GO04	Tololo Observa	49.69	219	P	P	21 27 53.3	+1.4
V53A	Saluda	50.20	311	P	P	21 27 55.3	-0.3
V53A				IAmb	IAmb	21 28 18.1	
	comp=Z,8.0nm,1.2s						
W50A	Signal Mountai	51.94	309	P	P	21 28 07.9	-0.7
W50A				IAmb	IAmb	21 28 11.5	
	comp=Z,25nm,1.8s						
N51A	Ashland	52.07	317	P	P	21 28 09.8	+0.3
ML02	Panimavida	54.00	215	P	P	21 28 25.2	+1.5
BI02	San Fabin de	54.58	214	P	P	21 28 29.1	+1.1
BI02				IAmb	IAmb	21 28 30.5	
	comp=Z,7.1nm,0.8s						
TUE	Stuetta	55.33	37	P	P	21 28 32.7	-0.8
TUE				IAmb	IAmb	21 28 57.5	
	comp=Z,21nm,1.9s						
DAVA	Damuels	56.05	37	*e*P	P	21 28 40.8	+2.2
	comp=Z,5.8nm,0.9s						
AQU	L'Aquila	56.13	43	P	P	21 28 38.8	-0.3
AQU				IAmb	IAmb	21 28 46.9	
	comp=Z,11nm,1.2s						
CTI	Castel Tesino	56.54	39	P	P	21 28 41.0	-1.1
CTI				IAmb	IAmb	21 28 45.4	
	comp=Z,5.8nm,0.9s						
RETA	Reutte	56.67	37	*i* P	P	21 28 45.9	+2.9
	comp=Z,5.9nm,1.3s						
MOTA	Moosalm	56.81	37	*e*P	P	21 28 46.6	+2.6
	comp=Z,4.5nm,1.1s						
SQTA	Sankt Quirin	56.81	37	*i* P	P	21 28 46.7	+2.7
	comp=Z,6.3nm,0.9s						
WATA	Walderalm	57.09	37	*i* P	P	21 28 47.7	+1.8
	comp=Z,3.0nm,1.0s						
WTTA	Wattenberg	57.09	38	*e*P	P	21 28 47.3	+1.2
	comp=Z,6.3nm,1.1s						
ABTA	Abfaltersbach	57.39	38	*i* P	P	21 28 51.0	+2.9
	comp=Z,7.3nm,1.5s						
LESA	Schwarzleotal	57.80	38	*e*P	P	21 28 51.0	+0.1
	comp=Z,3.5nm,0.9s						
GRA1	Grafenberg Arr	58.01	35	P	P	21 28 52.4	+0.2
GRA1				IAmb	IAmb	21 29 04.3	
	comp=Z,19nm,1.5s						
GRF	Grafenberg Arr	58.01	35	*e*P	P	21 28 55.2	+3.0
	comp=Z,3.5nm,0.9s,baz=236,slow=6.5						
KBA	Koelnbreinsper	58.05	38	*i* P	P	21 28 55.4	+2.6
	comp=Z,4.5nm,1.2s						
BIOA	Bad Ischl, Aus	58.50	38	*i* P	P	21 28 58.1	+2.3
	comp=Z,4.0nm,0.9s						
OBKA	Obir	58.56	39	*i* P	P	21 28 59.7	+3.5
	comp=Z,17nm,1.6s						
MOA	Molln	58.95	38	*i* P	P	21 29 01.4	+2.5
	comp=Z,6.3nm,1.3s						
ARSA	Arzberg	59.47	39	*e*P	P	21 29 05.0	+2.5
	comp=Z,3.4nm,1.1s						
CLL	Collm	59.78	34	*e*S	S	21 37 16.0	+0.2
CLL				*e*SSS	SSS	21 43 54.0	
CLL				L	L	21 47 00.0	
CONA	Conrad Observa	59.96	38	*e*P	P	21 29 09.1	+3.2
	comp=Z,2.9nm,1.2s						
RONA	Rosalia, Austr	60.13	39	*i* P	P	21 29 10.2	+3.2
	comp=Z,7.4nm,1.3s						
KRUC	Moravsky	60.74	37	*e*P	P	21 29 13.3	+2.2
VRAC	Vranov	60.96	37	*e*P	P	21 29 15.5	+2.8
JAVC	Velka Javorina	61.43	38	*e*P	P	21 29 22.9	+7.0
MORC	Moravsky Berou	61.72	37	*e*P	P	21 29 19.7	+1.9
NOA	NORSAR Array B	64.05	24	P	P	21 29 38.8	+5.7
	comp=Z,0.8nm,0.7s,baz=232,slow=6.9,SNR=1.6						
	comp=Z,0.8nm,0.7s						
MLR	Muntele Rosu	65.71	43	P	P	21 29 43.5	-0.9
MLR				IAmb	IAmb	21 29 52.8	
	comp=Z,19nm,1.6s						
BURAR	Bucovina Array	65.78	41	P	P	21 29 44.2	-0.5
TXAR	Lajitas Array	65.92	299	P	P	21 29 53.2	+7.2
	comp=Z,0.2nm,0.2s,baz=93,slow=6.9,SNR=1.8						
	comp=Z,0.2nm,0.2s						
ALPN	Alpine	65.98	300	P	P	21 29 44.8	-1.6
ALPN				IAmb	IAmb	21 30 03.5	
	comp=Z,13nm,1.8s						
AKASG	Malin Array Be	69.11	39	P	P	21 30 07.5	+2.0
	comp=Z,0.3nm,0.2s,baz=257,slow=6.2,SNR=4.5						
	comp=Z,0.3nm,0.2s						
BR131	Keskin Array S	70.26	51	P	P	21 30 12.4	-0.7
BRTR	Keskin Array B	70.26	51	P	P	21 30 15.8	+2.6
	comp=Z,1.7nm,0.8s,baz=258,slow=6.6,SNR=9.8						
	comp=Z,1.7nm,0.8s						
BRTR	Keskin Array B	70.26	51	P	P	21 30 12.3	-0.8
BZK	Bozkurt	70.80	48	P	P	21 30 16.4	+0.3
PV02	Paradox Valley	70.91	308	P	P	21 30 15.0	-2.2
PV02				IAmb	IAmb	21 30 28.5	
	comp=Z,17nm,0.9s						
HWUT	Hardware Ranch	73.37	311	P	P	21 30 30.9	-0.9
F10A	Beach Ranch, E	77.70	315	P	P	21 30 55.5	-1.0
KVN	Kaiserville	78.27	308	P	P	21 30 59.0	-1.0
NVAR	Mina Array Bea	78.44	308	P	P	21 30 59.6	-1.3
MOD	Modoc Plateau	79.91	311	P	P	21 31 07.5	-1.3
P32M	Atlin	86.80	330	P	P	21 31 43.4	-0.4
G24K	Hadweenzic Riv	90.89	338	P	P	21 32 01.8	-1.2
PPT2	Papeete2	113.73	254	*e*LR	LR	22 11 44.6	
	comp=Z,42nm,25.5s						
HHC	Hu-ho-hao-te	123.71	28	*e*P	PKPdf	21 37 55.0	-2.9
PZH	PanZhiHua	127.51	48	PKP	PKiKP	21 38 06.4	+0.3
NJ2	Nanjing	134.25	29	*e*P	PKiKP	21 38 19.4	+0.1
NJ2				pmax	pmax		
	comp=Z,22nm,0.5s						

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*IDC **07** 21:22:41.5±0.8, 7°.51N×36°.83W, h0^{km}, mb3.9/11, mbtmp3.9/11, MS3.8/47, Error ellipse: s-maj=33.6km s-min=16.2km az=137.0*

*NEIC **07** 21:22:43.1±1.9, 7°.6N±0°.2×37°.0W±0°.1, h10^{km}±1^{km}, mb4.6/15, Error ellipse: s-maj=30.3km s-min=7.6km az=147.0*

*GCMT **07** 21:22:46.1±0.3, 7°.84N±0°.02×37°.04W±0°.01, h18^{km}±1^{km}, MW4.9/103, Moment Tensor Solution. s36,c41; s103,c149; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.40±.11; $M_{\theta\theta}$-0.13±.10; $M_{\phi\phi}$0.53±.08; $M_{r\theta}$0.63±.21; $M_{\theta\phi}$-2.61±.09; $M_{\phi r}$-0.26±.18; Best double couple: $M_0$2.70900×10^{16} NP1:ϕ_s184.00000°,δ77.00000°, λ1.00000°. NP2:ϕ_s94.00000°,δ89.00000°,λ167.00000°. Principal axes: T 2.9430, Plg10.0000°, Azm48.0000°; N -0.4680, Plg77.0000°, Azm269.0000°; P -2.4750, Plg9.0000°, Azm140.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 07 21:22:42.2±0.5**, 7°.35N**±0°.06×**36°.96W**±0°.09**, h10^{km}, n83, σ2^s.53**/43**, mb4.2**/18**, MS3.8**/47**, Central Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NBMO	Morrinhos-CE	11.03	196	*e*P	Pn	21 25 21.8	+1.7
NBMO				*e*S	Sn	21 27 18.2	-5.5
NBPS	Pedro II - PI	12.50	201	*e*P	Pn	21 25 41.6	+1.2
NBPS				*e*S	Sn	21 27 53.3	-6.4
NBPV	Pedro Velho	13.78	173	*e*P	Pn	21 26 02.4	+4.6
NBPV				*e*S	Sn	21 28 30.5	-0.5
NBMA	Muriti-CE	14.73	187	*e*P	Pn	21 26 13.7	+2.8
NBMA				*e*S	Sn	21 28 51.0	-3.2
SACV	Santiago Islan	15.12	59	Pn	Pn	21 26 10.2	-6.0
MDP	Montagnes des	15.75	263	LR	LR	21 31 14.3	
	comp=Z,281nm,18.2s,baz=70,slow=32						
SMTB	Santa Maria do	19.28	214	*e*P	Pn	21 27 09.0	+0.7
SMTB				*e*S	Sn	21 30 35.6	-9.0
SDBA	SAO DESIDERIO	21.16	202	*e*P	P	21 27 29.7	+1.9
SDBA				*e*S	S	21 31 19.7	-3.6
ITTB	Itaituba	22.06	239	*e*P	P	21 27 38.1	+0.7
BOAV	Boa Vista	23.98	259	P	P	21 27 56.5	-0.7
BOAV	Boa Vista	23.98	259	*e*P	P	21 27 56.6	-0.5
H05S1	Guadeloupe/Mar	24.46	289	T	T	21 52 54.4	
	SNR=14						
H05N1	Guadeloupe/Mar	25.18	293	T	T	21 53 49.8	
	SNR=4.7						
BDFB	Brasilia	25.33	206	P	P	21 28 13.8	+4.3

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       2.6nm,0.5s,baz=27,slow=11,SNR=4.0
       2.6nm,0.5s
BDFB   Brasilia          25.33 206  P      P      21 28 12.3 +2.8
H10N3  ASCENSION HYDR27.00 124      T      T      21 57 04.3
       baz=304,slow=75,SNR=6.6
H10N2  ASCENSION HYDR27.01 123      T      T      21 57 06.4
       baz=304,slow=75,SNR=11
H10N1  ASCENSION HYDR27.03 124      T      T      21 57 09.7
       baz=304,slow=75,SNR=12
CELP   Cerrillos         30.74 293  P      P      21 28 56.3 -1.6
CELP                                IAmb   IAmb   21 29 20.3
       comp=Z,15nm,1.1s
SIV    San Ignacio       33.28 226  P      P      21 29 22.8 +2.5
       comp=Z,2.2nm,0.7s,baz=57,slow=6.1,SNR=7.8
SIV                                 LR     LR     21 42 24.5
       comp=Z,246nm,19.2s,baz=102,slow=35
       comp=Z,2.2nm,0.7s
TORD   Torodi Ar. Bea    38.44  78  P      P      21 30 04.3 -0.2
       comp=Z,1.2nm,0.7s,baz=264,slow=8.5,SNR=6.2
       comp=Z,1.2nm,0.7s
LPAZ   La Paz            38.77 233  P      P      21 30 09.7 +1.7
       comp=Z,3.4nm,0.9s,baz=54,slow=4.3,SNR=7.7
LPAZ                                LR     LR     21 45 30.2
       comp=Z,98nm,20.1s,baz=51,slow=35
       comp=Z,3.4nm,0.9s
LPAZ   La Paz            38.77 233  P      P      21 30 08.8 +0.8
LPAZ                                IAmb   IAmb   21 30 13.2
       comp=Z,11nm,1.4s
LPAZ   La Paz            38.77 233 eP      P      21 30 08.7 +0.8
CPUP   Villa Florida     38.88 210  LR     LR     21 45 49.5
       comp=Z,115nm,19.7s,baz=56,slow=36
MDT    Midelt            39.27  45  LR     LR     21 44 24.6
       comp=Z,119nm,19.7s,baz=234,slow=33
PB16   IPOC Station P    41.02 231  P      P      21 30 27.6 +1.0
ESDC   Sonseca Array     43.71  37  P      P      21 30 46.8 -0.9
       comp=Z,0.4nm,0.7s,baz=231,slow=8.1,SNR=4.1
ESDC                                LR     LR     21 44 55.3
       comp=Z,138nm,21.1s,baz=242,slow=31
       comp=Z,0.4nm,0.7s
ATAH   Atahualpa         43.76 252  LR     LR     21 50 35.5
       comp=Z,142nm,18.1s,baz=61,slow=38
NNA    Nana              44.07 244  LR     LR     21 48 58.0
       comp=Z,179nm,21.8s,baz=76,slow=36
CFA    Coronel Fontan    48.92 216  P      P      21 31 30.2 +1.5
       comp=Z,0.7nm,0.4s,baz=31,slow=5.9,SNR=2.4
       comp=Z,0.7nm,0.4s
GO04   Tololo Observa    49.47 219  P      P      21 31 33.1  0.0
CO02   Combarbal         50.30 219  P      P      21 31 39.9 +0.6
KEST   Kesra             50.85  49  LR     LR     21 51 23.5
       comp=Z,252nm,21.6s,baz=263,slow=34
TKL    Tuckaleechee C    51.20 310  LR     LR     21 48 40.9
       comp=Z,104nm,21.3s,baz=103,slow=30
MT09   Talagante         52.09 216  P      P      21 31 52.8  0.0
MT09                                IAmb   IAmb   21 32 20.5
       comp=Z,27nm,1.4s
BO02   Sierra Bellavi    52.70 215  P      P      21 31 58.9 +1.7
BO02                                IAmb   IAmb   21 32 03.4
       comp=Z,5.2nm,0.8s
SCHQ   Schefferville     53.04 339  LR     LR     21 51 12.3
       comp=Z,38nm,19.7s,baz=121,slow=32
BI02   San Fabin de      54.33 214  P      P      21 32 10.3 +1.2
BI02                                IAmb   IAmb   21 32 11.5
       comp=Z,4.7nm,0.7s
EKA    Eskdalemuir Ar    54.88  23  LR     LR     21 52 17.3
       comp=Z,52nm,19.1s,baz=190,slow=32
VAE    Valguarnera       55.28  49  LR     LR     21 54 38.7
       comp=Z,172nm,21.0s,baz=290,slow=35
DAVOX  Davos/Dischmat    56.04  37  LR     LR     21 52 49.6
       comp=Z,188nm,20.7s,baz=253,slow=32
CTI    Castel Tesino     56.77  39  P      P      21 32 25.2 -1.5
CTI                                 IAmb   IAmb   21 32 30.2
       comp=Z,3.4nm,0.8s
PLCA   Paso Flores       56.96 210  LR     LR     21 57 10.8
       comp=Z,177nm,18.2s,baz=42,slow=36
TSUM   Tsumeb            59.86 117  LR     LR     21 52 14.4
       comp=Z,112nm,18.9s,baz=330,slow=30
CLL    Collm             60.04  34 eS      S      21 41 07.0 +5.0
CLL                                 L      L      21 50 00.0
CLL                                 AMS    AMS    21 53 00.0
       comp=N,100nm,21.7s
CLL                                 AMS    AMS    21 53 00.0
       comp=E,100nm,25.1s
CLL                                 AMS    AMS    21 53 00.0
       comp=Z,100nm,20.4s
FRB    Frobisher Bay     60.68 345  LR     LR     21 54 42.2
       comp=Z,65nm,21.1s,baz=142,slow=32
VRAC   Vranov            61.20  37  LR     LR     21 55 33.7
       comp=Z,118nm,21.9s,baz=261,slow=32
WMOK   Wichita Mounta    62.75 305  P      P      21 33 06.5 -1.5
WMOK                                IAmb   IAmb   21 33 11.6
       comp=Z,3.5nm,0.8s
NOA    NORSAR Array B    64.34  24  P      P      21 33 18.7 +0.7
       comp=Z,1.7nm,0.9s,baz=269,slow=10.0,SNR=1.6
NOA                                 LR     LR     21 56 07.9
       comp=Z,54nm,21.7s,baz=230,slow=31
       comp=Z,1.7nm,0.9s
ULM    Lac du Bonnet     64.77 323  LR     LR     21 56 37.4
       comp=Z,39nm,20.1s,baz=356,slow=32
HFS    Hagfors           64.86  25  LR     LR     21 56 12.6
       comp=Z,49nm,20.3s,baz=236,slow=31
MLR    Muntele Rosu      65.91  43  LR     LR     22 01 02.6
       comp=Z,80nm,20.0s,baz=324,slow=35
MLR    Muntele Rosu      65.91  43  P      P      21 33 28.4 -0.2
MLR                                 IAmb   IAmb   21 33 35.9
       comp=Z,6.9nm,1.3s
BUR08  Bucovina Ar. S    65.99  41  P      P      21 33 28.9 -0.2
BUR08                               IAmb   IAmb   21 33 51.2
       comp=Z,4.4nm,1.2s
TXAR   Lajitas Array     66.14 299  P      P      21 33 32.3 +1.9
       comp=Z,0.2nm,0.2s,baz=79,slow=6.3,SNR=4.8
       comp=Z,0.2nm,0.2s
TXAR   Lajitas Array     66.14 299  P      P      21 33 31.1 +0.8
SUR    Sutherland        67.68 129  LR     LR     21 56 40.3
       comp=Z,103nm,20.3s,baz=280,slow=30
LSZ    Lusaka            68.34 110  LR     LR     22 00 25.5
       comp=Z,43nm,18.2s,baz=300,slow=33
LBTB   Lobatse           68.82 120  LR     LR     22 00 21.3
       comp=Z,25nm,20.1s,baz=286,slow=33
ANMO   Albuquerque       69.03 305  LR     LR     22 00 00.9
       comp=Z,134nm,21.6s,baz=98,slow=32
AKASG  Malin Array Be    69.34  38  P      P      21 33 49.0 -0.9
       comp=Z,1.5nm,0.7s,baz=260,slow=6.1,SNR=2.3
AKASG                               LR     LR     22 01 44.7
       comp=Z,37nm,21.9s,baz=238,slow=34
       comp=Z,1.5nm,0.7s
BRTR   Keskin Array B    70.43  51  P      P      21 33 56.1 -1.0
       comp=Z,0.6nm,0.7s,baz=252,slow=5.8,SNR=5.2
BRTR                                LR     LR     22 04 08.3
       comp=Z,61nm,22.0s,baz=307,slow=35
       comp=Z,0.6nm,0.7s
BRTR   Keskin Array B    70.43  51  P      P      21 33 56.5 -0.7
EIL    Elat              70.69  61  LR     LR     22 06 31.4
       comp=Z,148nm,18.4s,baz=272,slow=37
FINES  FINESS Array B    70.88  27  LR     LR     22 01 29.5
       comp=Z,81nm,18.8s,baz=250,slow=33
MMAI   Mount Meron Ar    71.25  58  LR     LR     22 04 59.9
       comp=Z,46nm,21.7s,baz=253,slow=36
PDAR   Pinedale Array    72.27 312  P      P      21 34 09.1 +0.7
       comp=Z,0.1nm,0.3s,baz=123,slow=4.4,SNR=3.7
PDAR                                LR     LR     22 01 48.0
       comp=Z,37nm,21.6s,baz=108,slow=32
       comp=Z,0.1nm,0.3s
ASF    Jabal al Asfar    72.47  59  LR     LR     22 08 28.3
       comp=Z,23nm,18.0s,baz=206,slow=38
ARCES  ARCESS Array B    73.72  19  LR     LR     22 02 43.2
       comp=Z,52nm,19.5s,baz=259,slow=33
RES    Resolute Bay      74.78 347  LR     LR     22 05 14.5
       comp=Z,25nm,18.5s,baz=352,slow=34
SPITS  Spitsbergen Ar    75.73  10  LR     LR     21 59 42.5
       comp=Z,41nm,20.6s,baz=245,slow=29
ELK    Elko              76.36 310  LR     LR     22 07 03.4
       comp=Z,51nm,18.1s,baz=99,slow=35
PFO    Pinyon Flats O    77.24 303  LR     LR     22 06 43.4
       comp=Z,55nm,19.0s,baz=106,slow=34
YKA    Yellowknife Ar    77.81 332  LR     LR     22 04 43.6
       comp=Z,75nm,21.2s,baz=68,slow=32
NVAR   Mina Array Bea    78.70 308  LR     LR     22 05 40.1
       comp=Z,42nm,21.2s,baz=92,slow=33
KIRV   Kirov             81.89  32  LR     LR     22 07 36.3
       comp=Z,44nm,21.9s,baz=274,slow=33
YBH    Yreka Blue Hor    81.99 311  LR     LR     22 09 22.6
       comp=Z,55nm,19.3s,baz=144,slow=34
BBB    Bella Bella       84.96 322  LR     LR     22 13 10.0
       comp=Z,34nm,18.2s,baz=112,slow=36
DLBC   Dease Lake        85.40 328  LR     LR     22 09 16.2
       comp=Z,42nm,21.2s,baz=36,slow=33
INK    Inuvik            85.65 338  LR     LR     22 10 09.7
       comp=Z,101nm,20.2s,baz=75,slow=33
ILAR   Eielson Array     91.72 336  LR     LR     22 14 02.7
       comp=Z,66nm,20.1s,baz=276,slow=34
KDAK   Kodiak Island     97.03 331  LR     LR     22 16 33.4
       comp=Z,70nm,21.8s,baz=62,slow=33
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*BJI **07** 21:37:44.8, 12.°87N×93.°21E, h28km, mB4.7/8, mb4.6/31, Ms4.5/1, Ms7 4.2/1*

*NDI **07** 21:37:47.0±1.2, 13.°15N×93.°20E, h40km, ML4.4, MW4.8, mb4.7(NEIC), Presumed earthquake*

*BKK **07** 21:37:48.1±1.5, 13°N±6°×9°3E±1°6, h11km±23km, M4.0/13, mB4.4/11, mb4.6/13, Mjma3.6/13, ML4.5/7, MLv4.4/13, Mw(mB)3.6/11*

*IDC **07** 21:37:49.6±4.3, 13.°05N×93.°29E, h43km±38km, mb3.9/22, mbtmp4.1/23, ML4.6/1, MS3.2/6, Error ellipse: s-maj=24.6km s-min=13.7km az=52.0*

*NEIC **07** 21:37:50.4±1.7, 13.°15N±0.°06×93.°19E±0.°10, h41km±6km, mb4.7/37, Error ellipse: s-maj=14.4km s-min=7.8km az=68.0*

ISC 07 21:37:48.6±0.4, **13.°07N**±0.°05×**93.°12E**±0.°05, **h32**km, **n129**, σ**1.°17**/135, **mb4.4**/52, **MS3.3**/4, **2D, Andaman Islands region**

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Code   Station Name       Δ°   AZ°    Phase ID         Time      Res
                                    Op     ISC     h  m  s     ISC
DGPR   DIGLIPUR           0.21 301 eP      Pb     21 37 54.2 -1.1
DGPR                               eS      Sn     21 38 01.9 +1.8
DGPR                                IAML          21 38 12.7
       comp=N,28μm,0.4s
DGPR                                IAML          21 38 13.9
       comp=E,29μm,0.2s
PBA    Port Blair         1.45 195 eS      Sn     21 38 30.2 -0.4
KHLT   Khaolaem Dam       5.58  71  P      Pn     21 39 10.6 +1.1
       comp=E,0.3nmcomp=E,0.2nmcomp=E,59nm,0.7s
KHLT                                AML    AML
KHLT                                AML    AML
RNTT   Ranong             6.40 124  P      Pn     21 39 22.4 +1.7
RNTT                                AML    AML
RNTT                                AML    AML
UTHA   Uthaitani          6.61  67  P      Pn     21 39 24.5 +0.8
MHMT   Maesarieng         6.88  42  P      Pn     21 39 28.2 +0.9
       comp=E,0.3nmcomp=E,0.2nmcomp=E,37nm,0.5s
MHMT                                AML    AML
CM13   Chiang Mai Arr     7.71  46  P      Pn     21 39 39.6 +0.9
       comp=E,0.1nmcomp=E,0.0nmcomp=E,19nm,0.7s
CM13                                AML    AML
CM05   Chiang Mai Arr     7.72  46  P      Pn     21 39 39.6 +0.7
       comp=E,0.1nmcomp=E,0.0nmcomp=E,175nmcomp=E,24nm,0.8s
CM05                                AML    AML
CM01   Chiang Mai Arr     7.74  46  P      Pn     21 39 40.3 +1.1
       comp=E,0.1nmcomp=E,0.1nmcomp=E,228nmcomp=E,27nm,0.6s
CM01                                AML    AML
CM04   Chiang Mai Arr     7.74  46  P      Pn     21 39 39.9 +0.7
       comp=E,0.1nmcomp=E,0.1nmcomp=E,221nmcomp=E,26nm,1.0s
CM04                                AML    AML
CM02   Chiang Mai Arr     7.74  46  P      Pn     21 39 40.3 +1.1
       comp=E,0.1nmcomp=E,0.0nmcomp=E,192nmcomp=E,28nm,0.7s
CM02                                AML    AML
CM31   Chiang Mai Arr     7.75  46  Pn     Pn     21 39 39.8 +0.4
CMAR   Chiang Mai Arr     7.75  46  P      Pn     21 39 40.0 +0.7
       comp=E,2.5nm,0.3s,baz=236,slow=15,SNR=74
CMAR                                S      Sn     21 41 03.6 -2.5
       comp=E,5.4nm,0.8s,baz=234,slow=29,SNR=4.6
CMAR                                LR     LR     21 43 21.0
       comp=E,34nm,21.0s,baz=235,slow=43
       comp=E,8.9nm,0.6s
CMAR                                AML    AML
CMAR   Chiang Mai Arr     7.75  46         Pn     21 39 40.0 +0.7
CM09   Chiang Mai Arr     7.78  46  P      Pn     21 39 40.7 +1.0
       comp=E,0.1nmcomp=E,0.0nmcomp=E,223nmcomp=E,30nm,0.8s
CM09                                AML    AML
CHTO   Chiang Mai         8.00  44         Pn     21 39 43.0 +0.2
LAMP   Lampang            8.29  48  P      Pn     21 39 48.0 +1.3
UTTA   Uttaradit          8.54  56  P      Pn     21 39 51.4 +1.2
LHMI   Lhok Sumawe        8.66 154  Pn     Pn     21 39 53.8 +2.1
VIS    Vishakhapatnam    10.51 297 eP      Pn     21 40 14.3 -2.9
VIS                                eS      Sn     21 42 01.9  -12
MORE   Moreh             11.17   6         Pn     21 40 24.5 -1.6
SHL    Shillong          12.49 355         Pn     21 40 41.6 -2.8
GSI    Gunungsitoli      12.49 159  Pn     Pn     21 40 46.1 +1.8
MDRS   Chennai           12.54 271 eP      Pn     21 40 44.0 -1.0
MDRS                               eS      Sn     21 42 52.2  -11
TNCH   TengChong         12.95  22 ⇓P      Pn     21 40 51.8 +1.2
TNCH                                pP     P      21 40 59.4 -1.4
TNCH                                sP            21 41 03.0
TNCH                                S      Sn     21 43 17.6 +3.9
TNCH                                pmax   pmax
       comp=E,15nm,0.7s
TNCH                                pmax   pmax
       comp=E,93nm,4.3s
SLVN   Son La            13.18  50  Pn     Pn     21 40 53.3 -0.4
PALK   Pallekele         13.51 246  LR     LR     21 45 35.9
       comp=E,95nm,21.7s,baz=104,slow=34
HYB    Hyderabad         14.70 289 eP      P      21 41 21.2 +0.9
HYB                                eS      S      21 44 15.8 +1.3
KMI2   Kunming           15.06  36  P      P      21 41 25.9 +1.5
KMI2                                pmax   pmax
       comp=Z,9.0nm,1.3s
PZH    PanZhiHua         15.63  30  P      Pn     21 41 28.3 +1.6
EVN    Everest           15.94 339         Pn     21 41 30.6 -0.7
LSA    Lhasa             16.65 354         Pn     21 41 37.8 -2.4
CD2    Chengdu           20.29  27  P      P      21 42 22.1 +0.3
CD2                                 pmax   pmax
       comp=Z,20nm,0.5s
CD2                                 pmax   pmax
       comp=Z,190nm,4.7s
ENH    Enshi             22.85  39         P      21 42 46.7 -2.6
ENH                                 IAmb   IAmb   21 42 48.7
       comp=Z,19nm,0.8s
KKM    Kota Kinabalu     23.80 105  P      P      21 43 00.1 +1.2
KKM                                 IAmb   IAmb   21 43 07.7
       comp=Z,15nm,1.1s
LZDM   Lanzhou Array     24.70  21  P      P      21 43 07.1 -0.2
       comp=Z,2.0nm,0.3s,baz=182,slow=7.2,SNR=5.6
       comp=Z,2.0nm,0.3s
LZH    Lanzhou           24.87  21 eP      P      21 43 08.5 -0.1
LZH                                 sP     sP     21 43 21.0 -0.7
LZH                                 pmax   pmax
       comp=Z,24nm,1.1s
XAN    Xi'an             25.34  32  P      P      21 43 12.3 -0.5
XAN                                 pmax   pmax
       comp=Z,13nm,0.8s
GTA2   Gaotai            26.96  11  P      P      21 43 28.5 +1.0
GTA2                                sP     sP     21 43 38.9 -1.6
GTA2                                pmax   pmax
       comp=Z,8.0nm,1.2s
NJ2    Nanjing           30.23  47 eP      P      21 43 57.6 +1.1
NJ2                                 pmax   pmax
       comp=Z,24nm,0.6s
KSH2   Kashi             30.27 332  P      P      21 43 57.4 +0.5
KSH2                                pmax   pmax
       comp=Z,3.0nm,0.7s
WMQ    Urumqi            31.00 352 eP      P      21 44 05.2 +2.0
HHC    Hu-ho-hao-te      32.05  27 eP      P      21 44 15.5 +2.9
HHC                                 pmax   pmax
       comp=Z,15nm,0.7s
HHC                                 pmax   pmax
       comp=Z,110nm,7.6s
ARSB   Arslanbob         33.19 332  P      P      21 44 24.0 +1.3
ARSB                                IAmb   IAmb   21 44 24.9
       comp=Z,11nm,1.4s
BTK    Batken            33.28 328  P      P      21 44 24.9 +1.6
BTK                                 IAmb   IAmb   21 44 27.2
       comp=Z,2.7nm,0.6s
MKAR   Makanchi Array    34.83 347  P      P      21 44 36.7  0.0
       comp=Z,3.2nm,0.8s,baz=158,slow=8.1,SNR=19
MKAR                                PcP    PcP    21 47 09.1 -0.3
       comp=Z,0.5nm,0.7s,baz=158,slow=3.1,SNR=2.6
       comp=Z,3.2nm,0.8s
MAKZ   Makanchi          34.92 347  P      P      21 44 38.0 +0.7
MAKZ                                IAmb   IAmb   21 44 39.7
       comp=Z,2.1nm,0.6s
KKAR   Karatay Array     35.73 331  P      P      21 44 44.7 +0.3
SONM   Songino Array     36.39  15  P      P      21 44 49.9 -0.3
       comp=Z,2.3nm,0.9s,baz=198,slow=7.7,SNR=10
SONM                                PcP    PcP    21 47 14.0 -0.1
       comp=Z,0.4nm,0.6s,baz=186,slow=2.9,SNR=2.5
SONM                                LR     LR     22 01 23.6
       comp=Z,27nm,20.2s,baz=226,slow=39
       comp=Z,2.3nm,0.9s
SONM   Songino Array     36.39  15  P      P      21 44 49.8 -0.3
KURBB  Kurchatov Arra    39.30 345  P      P      21 45 14.6 +0.1
       comp=Z,2.6nm,0.7s,baz=163,slow=7.9,SNR=25
KURBB                               PcP    PcP    21 47 22.5 -0.3
       comp=Z,0.3nm,0.6s,baz=175,slow=2.3,SNR=2.4
       comp=Z,2.6nm,0.7s
KURK   Kurchatov         39.36 345  P      P      21 45 14.8 -0.2
KSRS   Korea Array       39.40  46  P      P      21 45 13.9 -1.5
       comp=Z,3.6nm,0.7s,baz=242,slow=8.5,SNR=7.9
KSRS                                LR     LR     22 04 23.6
       comp=Z,31nm,18.2s,baz=115,slow=41
       comp=Z,3.6nm,0.7s
ZAA0   Zalesovo Array    41.31 353  P      P      21 45 30.7 -0.4
ZAA0                                IAmb   IAmb   21 45 32.0
       comp=Z,3.5nm,0.6s
ZALV   Zalesovo Beam     41.31 353  P      P      21 45 31.4 +0.3
       comp=Z,3.9nm,0.6s,baz=178,slow=8.4,SNR=20
       comp=Z,3.9nm,0.6s
ZALV   Zalesovo Beam     41.31 353         P      21 45 30.8 -0.2
BNX    BinXian           43.60  35 ⇓P      P      21 45 48.6 -1.2
BNX                                 pmax   pmax
       comp=Z,13nm,1.0s
BVAR   Borovoye Array    43.79 340  P      P      21 45 51.4 +0.1
       comp=Z,1.5nm,0.6s,baz=131,slow=18,SNR=6.2
       comp=Z,1.5nm,0.6s
FITZ   Fitzroy Crossi    44.59 133  P      P      21 45 56.5 -1.6
AB31   Akbulak array     45.24 330  P      P      21 46 02.4 -0.6
ABKAR  Akbulak array     45.24 330  P      P      21 46 02.4 -0.6
AKTO   Aktyubinsk        46.96 330  LR     LR     22 07 28.9
       comp=Z,46nm,20.5s,baz=133,slow=38
ARTI   Arti              50.80 336  P      P      21 46 45.6 -0.1
ARTI                                IAmb   IAmb   21 46 46.3
       comp=Z,5.5nm,0.5s
WB0    Warramunga Arr    52.11 128  P      P      21 46 54.5 -1.6
WB0                                 IAmb   IAmb   21 48 40.7
       comp=Z,15nm,1.4s
WRA    Warramunga Arr    52.17 128  P      P      21 46 54.4 -2.1
       comp=Z,0.6nm,0.5s,baz=310,slow=7.8,SNR=20
WRA                                 PcP    PcP    21 48 07.0 -1.1
       comp=Z,0.5nm,0.5s,baz=311,slow=3.7,SNR=10
       comp=Z,0.6nm,0.5s
WRA    Warramunga Arr    52.17 128  P      P      21 46 55.0 -1.6
WRAB   Tennant Creek     52.17 128  P      P      21 46 54.5 -2.1
WRAB                                IAmb   IAmb   21 46 56.0
       comp=Z,23nm,1.6s
WR8    Warramunga Arr    52.30 128  P      P      21 46 55.9 -1.6
WR8                                 IAmb   IAmb   21 47 10.0
       comp=Z,22nm,1.7s
KIV    Kislovodsk        52.87 316  P      P      21 47 02.6 +1.1
KIV    Kislovodsk        52.87 316  P      P      21 47 01.5 -0.1
       comp=Z,4.6nm,0.9s
ASAR   Alice Springs     54.07 132  P      P      21 47 08.5 -2.0
       comp=Z,0.5nm,0.4s,baz=308,slow=6.6,SNR=13
ASAR                                PcP    PcP    21 48 14.4 -0.9
       comp=Z,0.6nm,0.6s,baz=306,slow=3.6,SNR=4.4
       comp=Z,0.5nm,0.4s
ASAR   Alice Springs     54.07 132  P      P      21 47 11.5 +0.9
BR104  Keskin Array S    58.35 309  P      P      21 47 39.7 -1.4
       comp=Z,1.2nm,1.0s
BRTR   Keskin Array B    58.35 309  P      P      21 47 41.3 +0.1
       comp=Z,0.5nm,0.7s,baz=131,slow=4.0,SNR=4.3
       comp=Z,0.5nm,0.7s
BRTR   Keskin Array B    58.35 309  P      P      21 47 40.7 -0.5
BR105  Keskin Array S    58.37 309  P      P      21 47 40.4 -0.8
       comp=Z,1.9nm,1.0s
BR106  Keskin Array S    58.37 309  P      P      21 47 40.4 -0.8
       comp=Z,1.4nm,1.0s
MANT   Manisa            62.11 307  P      P      21 48 06.2 -0.8
MANT                                IAmb   IAmb   21 50 10.0
       comp=Z,25nm,2.0s
TIXI   Tiksi             62.38  12  P      P      21 48 06.3 -1.5
TIXI                                IAmb   IAmb   21 48 09.7
       comp=Z,3.4nm,0.8s
KARP   Karpathos         63.02 303  P      P      21 48 13.0 +0.2
       comp=Z,31nm,0.9s
AK09   Malin Array Si    63.45 320  P      P      21 48 14.7 -0.7
AK05   Malin Array Si    63.51 320  P      P      21 48 16.1 +0.4
AKBB   Malin Array Si    63.51 320  P      P      21 48 15.5 -0.2
KIEV   Kiev              63.52 320  P      P      21 48 15.5 -0.3
       comp=Z,14nm,2.2s
AK11   Malin Array Si    63.54 320  P      P      21 48 14.0 -1.9
ISR    Istrita           64.35 314  P      P      21 48 19.5 -2.0
       comp=Z,8.7nm,0.7s
MLR    Muntele Rosu      64.81 314  P      P      21 48 26.2 +1.6
MLR                                 IAmb   IAmb   21 49 31.5
       comp=Z,15nm,1.9s
MLR    Muntele Rosu      64.81 314  P      P      21 48 23.0 -1.6
KMPD   K-Podol'skiy      64.89 318  P      P      21 48 24.4 -0.4
BURAR  Bucovina Array    65.58 316  P      P      21 48 29.4  0.0
BUR08  Bucovina Ar. S    65.59 317  P      P      21 48 30.2 +0.6
BUR08                               IAmb   IAmb   21 50 50.4
       comp=Z,15nm,1.9s
FIA1   FINESS Array S    67.69 331  P      P      21 48 42.6 +0.1
FINES  FINESS Array B    67.69 331  P      P      21 48 42.2 -0.3
       comp=Z,3.0nm,0.6s,baz=104,slow=6.5,SNR=15
       comp=Z,3.0nm,0.6s
ARCES  ARCESS Array B    70.07 340  P      P      21 48 57.2 -0.1
       comp=Z,1.8nm,0.7s,baz=95,slow=4.9,SNR=11
       comp=Z,1.8nm,0.7s
ARCES  ARCESS Array B    70.07 340  P      P      21 48 57.0 -0.3
LSZ    Lusaka            70.14 248  LR     LR     22 17 34.4
       comp=Z,39nm,18.9s,baz=152,slow=34
BRG    Berggiesshubel    73.16 319 eP      P      21 49 17.3 +1.1
BRG                                 Amp           21 49 18.0
       comp=Z,3.5nm,1.0s
GEC2   GERESS Array S    73.33 317  P      P      21 49 17.7 +0.3
GEC2                                IAmb   IAmb   21 49 19.2
       comp=Z,5.0nm,1.2s
GERES  GERESS Array B    73.33 317  P      P      21 49 17.8 +0.5
       comp=Z,2.0nm,0.7s,baz=87,slow=5.5,SNR=17
       comp=Z,2.0nm,0.7s
GERES  GERESS Array B    73.33 317  P      P      21 49 18.1 +0.8
KHC    Kasperske Hory    73.41 318 eP      P      21 49 17.3 -0.4
HFS    Hagfors           73.50 329  P      P      21 49 17.8 -0.2
       comp=Z,2.6nm,0.6s,baz=87,slow=14,SNR=7.5
       comp=Z,2.6nm,0.6s
NC405  NORSAR Array S    74.51 330  P      P      21 49 22.7 -1.2
SPB2   Spitsbergen Ar    74.58 348  P      P      21 49 23.4 -0.6
SPITS  Spitsbergen Ar    74.58 348  P      P      21 49 23.7 -0.3
       comp=Z,1.0nm,0.5s,baz=116,slow=13,SNR=4.9
       comp=Z,1.0nm,0.5s
NB2    NORSAR Subarra    74.75 330  P      P      21 49 25.0 -0.3
       comp=Z,0.7nm,0.5s,baz=90,slow=5.9
NOA    NORSAR Array B    74.75 330  P      P      21 49 24.7 -0.6
       comp=Z,1.5nm,0.7s,baz=90,slow=5.8,SNR=4.5
       comp=Z,1.5nm,0.7s
BOSA   Boshof            77.54 237  P      P      21 49 43.2 +1.3
       comp=Z,1.1nm,0.6s,baz=59,slow=5.9,SNR=4.0
       comp=Z,1.1nm,0.6s
BOSA   Boshof            77.54 237  P      P      21 49 42.6 +0.8
BOSA                                IAmb   IAmb   21 51 03.5
       comp=Z,32nm,1.8s
EKA    Eskdalemuir Ar    82.91 325  P      P      21 50 10.4 +0.3
       comp=Z,1.6nm,0.7s,baz=75,slow=5.6,SNR=3.8
       comp=Z,1.6nm,0.7s
MAW    Mawson            83.39 191  P      P      21 50 12.9 +0.7
MIDW   Midway            83.51  63  P      P      21 50 13.0 -0.8
C19K   Lookout Ridge     83.93  20  P      P      21 50 15.6 +0.4
D20K   Etivluk River     85.07  20  P      P      21 50 21.3 +0.3
D20K                                IAmb   IAmb   21 50 21.7
       comp=Z,16nm,1.4s
D23K   Nanushuk River    86.89  19  P      P      21 50 30.3 +0.3
D23K                                IAmb   IAmb   21 50 31.3
       comp=Z,17nm,1.2s
ESDC   Sonseca Array     87.13 310  P      P      21 50 31.8  0.0
       comp=Z,0.6nm,0.7s,baz=58,slow=4.4,SNR=5.9
       comp=Z,0.6nm,0.7s
IMAR   Indian Mountai    87.23  22  P      P      21 50 31.0 -0.6
G23K   Bananza Creek     88.22  21  P      P      21 50 36.8 +0.4
TORD   Torodi Ar. Bea    88.44 283  P      P      21 50 38.7 +0.2
       comp=Z,0.8nm,0.8s,baz=59,slow=2.9,SNR=3.3
       comp=Z,0.8nm,0.8s
BMAR   Burnt Mountain    89.64  19  P      P      21 50 43.5 +0.4
G26K   Porcupine Rive    90.17  19  P      P      21 50 46.6 +1.2
G26K                                IAmb   IAmb   21 50 47.0
       comp=Z,3.4nm,0.7s
ILAR   Eielson Array     90.33  22  P      P      21 50 45.0 -1.3
       comp=Z,0.4nm,0.6s,baz=311,slow=4.4,SNR=4.8
       comp=Z,0.4nm,0.6s
ILAR   Eielson Array     90.33  22  P      P      21 50 45.4 -0.9
INK    Inuvik            92.30  16  P      P      21 50 55.2 -0.1
       comp=Z,1.2nm,0.6s,baz=345,slow=5.2,SNR=4.2
       comp=Z,1.2nm,0.6s
INK    Inuvik            92.30  16  P      P      21 50 55.3 -0.1
PDAR   Pinedale Array   120.67  19  PKP    PKPdf  21 56 37.2 -0.8
       comp=Z,0.2nm,0.4s,baz=0.0,slow=1.5,SNR=3.8
PDAR   Pinedale Array   120.67  19         PKPdf  21 56 37.0 -1.0
TXAR   Lajitas Array    134.84  21  PKP    PKiKP  21 57 06.2 -0.3
       comp=Z,0.4nm,0.7s,baz=89,slow=0.9,SNR=5.2
TXAR   Lajitas Array    134.84  21         PKPdf  21 57 05.0 -0.2
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*IDC **07** 21:50:07.4±1.0, 10°.82N×91°.90E, h0^{km}, mb3.7/7, mbtmp3.6/9, ML3.4/2, Error ellipse: s-maj=20.5km s-min=17.6km az=151.0*

ISC 07 21:50:11.1±1.0**, 10°.8N**±0°.1×**91°.8E**±0°.1**, h27^{km}, n18, σ0^{s}.23**/9**, mb3.5**/7**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	10.27	41	Pn	Pn	21 52 36.6	-0.1
	0.1nm,0.3s,baz=236,slow=15,SNR=7.3						
	0.5nm,0.5s						
CMAR				AML	AML		
PALK	Pallekele	11.53	253	Pn	Pn	21 52 54.0	0.0
	0.2nm,0.3s,baz=72,slow=16,SNR=1.1						
PALK				Sn	Sn	21 54 51.1	-11
	2.1nm,0.3s,baz=157,slow=18,SNR=6.2						
	3.1nm,0.6s						
PALK				AML	AML		
H08S3	Diego Garcia H	26.56	227	T	T	22 23 35.0	
	baz=46,slow=75,SNR=226						
H08S2	Diego Garcia H	26.56	227	T	T	22 23 37.4	
	baz=46,slow=75,SNR=48						
H08S1	Diego Carcia H	26.58	227	T	T	22 23 39.8	
	baz=46,slow=75,SNR=32						
MKAR	Makanchi Array	36.78	349	P	P	21 57 16.9	+0.4
	1.5nm,0.7s,baz=171,slow=8.7,SNR=11						
	1.5nm,0.7s						
SONM	Songino Array	38.91	16	P	P	21 57 34.6	+0.1
	0.5nm,0.5s,baz=202,slow=7.7,SNR=3.7						
	0.5nm,0.5s						
KURBB	Kurchatov Arra	41.20	347	P	P	21 57 53.4	+0.1
	0.8nm,0.7s,baz=159,slow=7.8,SNR=4.8						
	0.8nm,0.7s						
ZALV	Zalesovo Beam	43.41	354	P	P	21 58 11.4	+0.1
	1.0nm,0.6s,baz=171,slow=8.5,SNR=5.8						
	1.0nm,0.6s						
BVAR	Borovoye Array	45.52	342	P	P	21 58 27.9	-0.3
	0.5nm,0.6s,baz=150,slow=6.0,SNR=2.4						
	0.5nm,0.6s						
WRA	Warramunga Arr	51.81	126	P	P	21 59 17.0	-0.1
	0.2nm,0.4s,baz=308,slow=7.8,SNR=6.8						
	0.2nm,0.4s						
ASAR	Alice Springs	53.53	130	P	P	21 59 29.9	+0.1
	0.5nm,0.9s,baz=304,slow=6.5,SNR=4.2						
	0.5nm,0.9s						
H04N2	CROZET ISLANDS	67.09	209	T	T	23 14 13.4	
	baz=42,slow=76,SNR=98						
H04N1	CROZET ISLANDS	67.10	209	T	T	23 14 14.3	
	baz=42,slow=76,SNR=118						
H04N3	CROZET ISLANDS	67.11	209	T	T	23 14 10.5	
	baz=42,slow=76,SNR=86						
H04S1	CROZET ISLANDS	67.54	208	T	T	23 14 48.3	
	baz=48						
H04S3	CROZET ISLANDS	67.54	208	T	T	23 14 45.3	
	baz=48						
H04S2	CROZET ISLANDS	67.55	208	T	T	23 14 50.1	
	baz=48						

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*IDC **07** 21:59:11.4±5.3, 3°.14S×138°.61E, h124^{km}±50^{km}, mb3.3/5, mbtmp3.7/7, Error ellipse: s-maj=38.4km s-min=14.5km az=113.0*

ISC 07 21:59:08.6±1.1**, 3°.0S**±0°.1×**138°.7E**±0°.3**, h100^{km}, n7, σ1^{s}.73**/9**, mb3.5**/5**, Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	17.32	194	P	Pn	22 03 02.5	-1.6
	0.6nm,0.5s,baz=14,slow=13,SNR=21						
WRA				S	Sn	22 06 06.0	-11
	2.1nm,0.7s,baz=11,slow=22,SNR=7.1						
FITZ	Fitzroy Crossi	19.66	220	P	P	22 03 30.6	+0.9
	1.2nm,0.6s,baz=47,slow=10,SNR=6.5						
FITZ				S	S	22 07 04.0	-2.3
	6.2nm,0.8s,baz=199,slow=15,SNR=10						
ASAR	Alice Springs	21.01	192	P	P	22 03 44.4	+0.1
	0.5nm,0.3s,baz=12,slow=10,SNR=10						
ASAR				S	S	22 07 35.4	+2.5
	0.7nm,0.6s,baz=9.2,slow=27,SNR=4.5						
	0.5nm,0.3s						
MKAR	Makanchi Array	70.01	323	P	P	22 10 10.8	+1.2
	0.4nm,0.6s,baz=115,slow=6.5,SNR=7.3						
	0.4nm,0.6s						
BVAR	Borovoye Array	79.55	325	P	P	22 11 04.3	-0.1
	0.6nm,0.5s,baz=102,slow=5.2,SNR=5.2						
	0.6nm,0.5s						
ILAR	Eielson Array	86.16	24	P	P	22 11 37.1	-1.2
	0.2nm,0.6s,baz=258,slow=4.8,SNR=2.2						
	0.2nm,0.6s						
QSPA	South Pole Qui	86.91	180	P	P	22 11 42.7	+0.5
	0.9nm,0.7s,baz=357,slow=5.1,SNR=9.1						
	0.9nm,0.7s						

IDC 07 22:20:07.6±1.9**, 4°.77S×134°.09E, h0^{km}, mb3.7**/2**, mbtmp3.6**/5**, ML3.6**/3**, Error ellipse: s-maj=66.0km s-min=16.7km az=86.0, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	15.08	179	Pn	Pn	22 23 38.2	-4.0
	0.2nm,0.3s,baz=356,slow=13,SNR=6.1						
WRA				Sn	Sn	22 26 15.2	-15
	0.2nm,0.3s,baz=356,slow=24,SNR=4.9						
WRA				Lg	Lg	22 28 02.6	
	baz=7.3,slow=30						
	0.3nm,0.4s						
WRA				AML	AML		
FITZ	Fitzroy Crossi	15.61	211	Pn	Pn	22 23 45.0	-4.1
	0.4nm,0.3s,baz=32,slow=12,SNR=8.5						
FITZ				Sn	Sn	22 26 26.5	-16
	1.0nm,0.3s,baz=174,slow=14,SNR=11						
	1.5nm,0.5s						
FITZ				AML	AML		
ASAR	Alice Springs	18.79	181	P	P	22 24 28.3	-0.4
	0.2nm,0.3s,baz=5.2,slow=11,SNR=6.0						
	0.9nm,0.8s						
ASAR				AML	AML		
MKAR	Makanchi Array	68.69	325	P	P	22 31 14.0	+0.9
	0.5nm,0.7s,baz=111,slow=7.7,SNR=7.3						
	0.5nm,0.7s						
ZALV	Zalesovo Beam	71.47	332	P	P	22 31 28.6	-1.4
	0.4nm,0.4s,baz=127,slow=5.7,SNR=2.8						
	0.4nm,0.4s						

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*IDC **07** 22:22:20.8±1.5, 20°.61S×178°.80W, h618^{km}±17^{km}, mb3.2/10, mbtmp4.3/12, Error ellipse: s-maj=19.3km s-min=14.8km az=136.0*

*NEIC **07** 22:22:20.3±1.7, 20°.9S±0°.1×178°.7W±0°.2, h605^{km}±8^{km}, mb4.3/21, Error ellipse: s-maj=22.4km s-min=16.8km az=128.0*

ISC 07 22:22:19.6±0.5**, 20°.80S**±0°.09×**178°.77W**±0°.09**, h600^{km}, n54, σ1^{s}.04**/52**, mb4.1**/24**, 4C-1D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	Nonsavu	4.28	315	P	P	22 23 49.3	+2.0
	20nm,0.8s,baz=143,slow=9.2,SNR=9.7						
MSVF	Nonsavu	4.28	315	P	P	22 23 49.7	+2.4
AFI	Afiamalu	9.56	45	P	P	22 24 32.7	-1.6
	30nm,0.4s,baz=100,slow=9.0,SNR=3.6						
URZ	Urewera	17.76	191	P	P	22 25 52.4	-0.5
	6.8nm,0.5s,baz=18,slow=4.8,SNR=5.4						
RTZ	Ruatahuna	18.13	191	P	P	22 25 55.2	-1.2
BFZ	Birch Farm	20.27	191	P	P	22 26 15.2	-0.4
QRZ	Quartz Range	21.29	198	P	P	22 26 24.6	-0.1
THZ	Tophouse	22.05	197	P	P	22 26 30.6	-1.0
THZ				IAmb	IAmb	22 26 32.7	
	comp=Z,28nm,1.3s						
WHZ	Wether Hill Ro	27.30	200	P	P	22 27 19.3	+1.5
CTA	Charters Tower	32.75	265	P	P	22 28 05.3	+0.5
	comp=Z,2.6nm,0.5s,baz=82,slow=7.1,SNR=1.9						
	comp=Z,2.6nm,0.5s						
CTAO	Charters Tower	32.75	265	P	P	22 28 05.5	+0.6
TOO	Toolangi	35.14	234	P	P	22 28 24.0	-0.6
TOO				IAmb	IAmb	22 28 25.9	
	comp=Z,16nm,1.4s						
STKA	Stephens Creek	37.01	244	P	P	22 28 40.5	+0.4
	comp=Z,4.6nm,0.7s,baz=73,slow=11,SNR=5.9						
	comp=Z,4.6nm,0.7s						
BBOO	Buckleboo	41.77	244	P	P	22 29 18.3	+0.2
BBOO				IAmb	IAmb	22 29 55.3	
	comp=Z,32nm,1.4s						
WR8	Warramunga Arr	43.70	263	P	P	22 29 33.3	0.0
WR8				IAmb	IAmb	22 29 47.1	
	comp=Z,10nm,1.5s						
AS31	Alice Springs	43.75	257	P	P	22 29 33.9	+0.2
ASAR	Alice Springs	43.75	257	P	P	22 29 33.8	+0.1
	comp=Z,4.5nm,0.5s,baz=98,slow=7.5,SNR=45						
ASAR				S	S	22 35 20.4	-1.6
	comp=Z,2.1nm,0.8s,baz=96,slow=16,SNR=11						
	comp=Z,4.5nm,0.5s						
ASAR	Alice Springs	43.75	257	P	P	22 29 33.2	-0.5
WB0	Warramunga Arr	43.83	263	P	P	22 29 34.3	0.0
WB0				IAmb	IAmb	22 29 36.6	
	comp=Z,7.3nm,1.1s						
WRAB	Tennant Creek	43.84	263	P	P	22 29 34.2	-0.1
WRAB				IAmb	IAmb	22 29 39.2	
	comp=Z,7.3nm,1.2s						
WRA	Warramunga Arr	43.85	263	P	P	22 29 34.0	-0.5
	comp=Z,1.5nm,0.3s,baz=97,slow=7.8,SNR=28						
WRA				S	S	22 35 21.4	-1.9
	comp=Z,0.4nm,0.8s,baz=101,slow=14,SNR=1.6						
	comp=Z,1.5nm,0.3s						
WRA	Warramunga Arr	43.85	263	P	P	22 29 33.6	-0.8
FORT	Forrest	48.52	247	P	P	22 30 09.5	0.0
FORT				IAmb	IAmb	22 30 23.6	
	comp=Z,17nm,1.4s						
FITZ	Fitzroy Crossi	52.28	263	P	P	22 30 36.4	-0.5
VNDA	Vanda	57.55	185	P	P	22 31 13.9	+1.3
	comp=Z,0.7nm,0.7s,baz=15,slow=6.6,SNR=6.0						
	comp=Z,0.7nm,0.7s						
VNDA	Vanda	57.55	185	P	P	22 31 13.7	+1.1
QSPA	South Pole Qui	69.27	180	P	P	22 32 28.2	+0.6
	comp=Z,2.5nm,0.7s,baz=36,slow=6.3,SNR=20						
	comp=Z,2.5nm,0.7s						
QSPA	South Pole Qui	69.27	180	P	P	22 32 28.0	+0.4
QSPA				IAmb	IAmb	22 32 29.5	
	comp=Z,5.7nm,1.2s						
MJAR	Matsushiro Arr	70.03	324	P	P	22 32 31.0	-1.4
	comp=Z,1.3nm,0.6s,baz=149,slow=6.1,SNR=2.8						
	comp=Z,1.3nm,0.6s						
BELA	Belgrano 2	79.36	173	P	P	22 33 23.0	-0.8
OHAK	Old Harbor	80.61	14	P	P	22 33 29.9	-0.4
OHAK				IAmb	IAmb	22 33 55.2	
	comp=Z,37nm,1.4s						
M02C	Callahan	80.68	39	P	P	22 33 32.1	+0.8
M02C				IAmb	IAmb	22 34 05.3	
	comp=Z,13nm,1.5s						
YBH	Yreka Blue Hor	80.97	39	P	P	22 33 33.8	+0.9
YBH				IAmb	IAmb	22 33 34.7	
	comp=Z,4.3nm,1.0s						
ELIB	Princess Elisa	86.26	187	*d*P	P	22 33 58.1	-0.4
	comp=Z,2.3nm,0.6s						
TROLL	Troll, Antarti	87.43	180	⇑P	P	22 34 03.7	-0.3
	comp=Z,45nm,0.6s						
TXAR	Lajitas Array	87.82	58	P	P	22 34 07.2	+0.7
	comp=Z,0.5nm,0.7s,baz=234,slow=4.3,SNR=6.4						
	comp=Z,0.5nm,0.7s						
TXAR	Lajitas Array	87.82	58	P	P	22 34 07.0	+0.4
VNA3	Neumayer Olymp	87.89	176	⇑P	P	22 34 05.1	-0.9
	comp=Z,2.4nm,0.6s						
VNA2	Neumayer--Watz	88.32	177	⇑P	P	22 34 07.5	-0.5
	comp=Z,2.0nm,0.8s,baz=187,slow=4.4						
VNA1	Neumayer--Stat	88.55	177	⇑P	P	22 34 08.5	-0.6
	comp=Z,1.8nm,0.7s						
ILAR	Eielson Array	88.77	13	P	P	22 34 08.6	-1.4
	comp=Z,1.2nm,0.9s,baz=221,slow=5.5,SNR=8.1						
	comp=Z,1.2nm,0.9s						
ILAR	Eielson Array	88.77	13	P	P	22 34 08.9	-1.1
PDAR	Pinedale Array	89.67	44	P	P	22 34 14.4	-0.6
	comp=Z,0.8nm,0.7s,baz=198,slow=4.0,SNR=6.2						
	comp=Z,0.8nm,0.7s						
PDAR	Pinedale Array	89.67	44	P	P	22 34 14.9	-0.1
FINES	FINESS Array B	135.85	343	PKP	PKPdf	22 40 32.8	+0.2
	comp=Z,2.2nm,1.0s,baz=37,slow=4.8,SNR=3.8						
AKASG	Malin Array Be	142.92	330	PKP		22 40 41.7	
	comp=Z,1.9nm,0.4s,baz=43,slow=4.2,SNR=26						
AKBB	Malin Array Si	142.92	330		PKPpre	22 40 41.9	
KIEV	Kiev	142.93	330	PKPpre	PKPpre	22 40 41.9	
ARPR	Arapgir-MALATY	143.36	308		PKPab	22 40 45.5	-0.1
BRTR	Keskin Array B	146.50	312	PKPbc	PKPdf	22 40 53.9	+1.5
	comp=Z,0.5nm,0.5s,baz=67,slow=3.7,SNR=3.9						
MMAI	Mount Meron Ar	147.33	299	PKPbc	PKPbc	22 40 56.7	-0.6
	comp=Z,1.5nm,0.6s,baz=66,slow=2.8,SNR=4.4						
CLL	Collm	148.18	346	*i* PKPbc	PKPbc	22 40 58.1	-0.7
GERES	GERESS Array B	150.28	343	PKPbc	PKPdf	22 41 01.3	+3.1
	comp=Z,0.3nm,0.2s,baz=359,slow=6.1,SNR=6.0						
GERES	GERESS Array B	150.28	343	PKPbc	PKPbc	22 41 03.1	-0.9

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*MOS **07** 22:23:46.2±0.7, 53°.98N×169°.17E, h3^{km}, mb4.4/2, Error ellipse: s-maj=12.5km s-min=6.2km az=13.7*

*IDC **07** 22:23:48.1±1.1, 54°.33N×169°.25E, h0^{km}, mb3.8/6, mbtmp3.8/8, ML3.6/2, MS3.3/7, Error ellipse: s-maj=33.5km s-min=14.6km az=180.0*

*KRSC **07** 22:23:48.8±1.1, 53°.91N×168°.97E, h48^{km}±23^{km}, Ml4.3*

*NEIC **07** 22:23:50.7±1.9, 54°.19N±0°.08×169°.1E±0°.1, h19^{km}±5^{km}, mb4.1/17, Error ellipse: s-maj=14.9km s-min=6.1km az=218.0*

ISC 07 22:23:50.7±0.6**, 54°.03N**±0°.08×**169°.02E**±0°.05**, h25^{km}, n117, σ1^{s}.30**/108**, mb4.0**/15**, MS3.4**/6**, Komandorsky Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BKI	Bering	2.13	305	PN	Pn	22 24 24.0	-0.6
BKI	Bering	2.13	305	*e*P	Pn	22 24 24.0	-0.6
BKI				*e*S	Sn	22 24 49.4	-0.8
SHEM	Shemya Is, Ala	3.31	111	Pn	Pn	22 24 40.3	-0.6
	11nm,0.3s,baz=295,slow=3.6,SNR=8.6						
SHEM				Sn	Sn	22 25 20.2	+0.9
	14nm,0.3s,baz=79,slow=23,SNR=5.8						
	23nm,0.3s						
SHEM				AML	AML		
SHEM	Shemya Is, Ala	3.31	111		Pn	22 24 40.7	-0.1
SMY	Shemya	3.31	111	PN	Pn	22 24 40.4	-0.4
SMY	Shemya	3.31	111	Pn	Pn	22 24 40.4	-0.4
KBTR	Krutoberegovo	4.17	304	PN	Pn	22 24 54.4	+1.7
KBTR	Krutoberegovo	4.17	304	*e*P	Pn	22 24 54.4	+1.7
MKZ	Mys Kozlova	4.30	280	PN	Pn	22 24 54.8	+0.3
MKZ	Mys Kozlova	4.30	280	*e*P	Pn	22 24 54.8	+0.3
ZLN	Zelenaya	5.13	296	PN	Pn	22 25 08.0	+2.1
ZLN	Zelenaya	5.13	296	*e*P	Pn	22 25 08.0	+2.1
TUMD	Tumrok D	5.15	287	*e*S	Sn	22 26 04.7	0.0
BZGR	Bezymyannyi-Gr	5.16	295	PN	Pn	22 25 08.1	+1.8
BZGR	Bezymyannyi-Gr	5.16	295	*e*P	Pn	22 25 08.2	+1.8
CIRR	Tsirk	5.19	297	PN	Pn	22 25 09.3	+2.5
CIRR	Tsirk	5.19	297	*e*P	Pn	22 25 09.4	+2.5
BZMR	Bezymyannaya	5.27	295	PN	Pn	22 25 10.5	+2.6
BZMR	Bezymyannaya	5.27	295	*e*P	Pn	22 25 10.6	+2.6
BZWR	Bezymyannyi-We	5.28	295	PN	Pn	22 25 09.6	+1.6
BZWR	Bezymyannyi-We	5.28	295	*e*P	Pn	22 25 09.6	+1.6
TUMR	Tumrok	5.30	287	PN	Pn	22 25 08.4	+0.1
TUMR	Tumrok	5.30	287	*e*P	Pn	22 25 08.5	+0.1
KMNR	Kamenistaya	5.36	292	PN	Pn	22 25 10.6	+1.6
KMNR	Kamenistaya	5.36	292	*e*P	Pn	22 25 10.6	+1.6
KPT	Kopyto	5.42	294	PN	Pn	22 25 11.6	+1.7
KPT	Kopyto	5.42	294	*e*P	Pn	22 25 11.6	+1.7
SPN	Mys Shipunski	5.44	264	PN	Pn	22 25 11.5	+1.4
SPN	Mys Shipunski	5.44	264	*e*P	Pn	22 25 11.6	+1.4
SPN				*e*S	Sn	22 26 11.2	-0.8
KII	Karymskiy	5.64	274	PN	Pn	22 25 14.1	+1.2
KII	Karymskiy	5.64	274	*e*P	Pn	22 25 14.1	+1.2
SRDR	Sredinnyy	5.80	297	PN	Pn	22 25 19.0	+3.9
SRDR	Sredinnyy	5.80	297	*e*P	Pn	22 25 19.0	+3.9
NLC	Nalytchevo	5.83	265	PN	Pn	22 25 14.9	-0.4
NLC	Nalytchevo	5.83	265	*e*P	Pn	22 25 15.0	-0.4
SDLR	Sedlovina	6.08	267	PN	Pn	22 25 20.0	+1.1
SDLR	Sedlovina	6.08	267	*e*P	Pn	22 25 20.0	+1.1
UGLR	Uglovaya	6.12	266	PN	Pn	22 25 20.9	+1.3
UGLR	Uglovaya	6.12	266	*e*P	Pn	22 25 21.0	+1.3
SMAR	Somma	6.13	267	PN	Pn	22 25 20.7	+1.0
SMAR	Somma	6.13	267	*e*P	Pn	22 25 20.7	+1.0
KRER	Koryakskii	6.15	267	PN	Pn	22 25 21.4	+1.4
KRER	Koryakskii	6.15	267	*e*P	Pn	22 25 21.4	+1.4
AVH	Avacha	6.16	267	PN	Pn	22 25 21.6	+1.5
AVH	Avacha	6.16	267	*e*P	Pn	22 25 21.7	+1.5
KRX	Arik	6.20	268	PN	Pn	22 25 21.4	+0.8
KRX	Arik	6.20	268	*e*P	Pn	22 25 21.5	+0.8
DALK	Dalny	6.21	265	PN	Pn	22 25 21.9	+1.3
DALK	Dalny	6.21	265	*e*P	Pn	22 25 21.9	+1.3
KOK	Koryaka	6.22	267	PN	Pn	22 25 22.1	+1.2
KOK	Koryaka	6.22	267	*e*P	Pn	22 25 22.1	+1.2
PET	Petropavlovsk	6.27	265	*e*PN	Pn	22 25 23.0	+1.6
PET				MLR	MLR		
	comp=Z,100nm,15.0s						
PET	Petropavlovsk	6.27	265	Pn	Pn	22 25 22.1	+0.7
PET	Petropavlovsk	6.27	265	*e*S	Sn	22 26 31.8	-0.3
RUS	Russkaya	6.51	260	PN	Pn	22 25 25.9	+1.2
RUS	Russkaya	6.51	260	*e*P	Pn	22 25 25.9	+1.2
GNL	Ganaly	6.56	272	PN	Pn	22 25 27.5	+1.9
GNL	Ganaly	6.56	272	*e*P	Pn	22 25 27.6	+1.9
KRMR	Karymshinskiy	6.62	264	PN	Pn	22 25 27.9	+1.6
KRMR	Karymshinskiy	6.62	264	*e*P	Pn	22 25 27.9	+1.6
KRMR				*e*S	Sn	22 26 39.0	-1.9
MTVR	Mutnovka	6.69	261	PN	Pn	22 25 29.0	+1.7
MTVR	Mutnovka	6.69	261	*e*P	Pn	22 25 29.0	+1.7
GRL	Gorelyy	6.73	262	PN	Pn	22 25 30.2	+2.3
GRL	Gorelyy	6.73	262	*e*P	Pn	22 25 30.2	+2.3
AMKA	Amchitka	6.79	109	Pn	Pn	22 25 29.3	+0.7
PEA0B	Petropavlovsk-	6.81	267	PN	Pn	22 25 30.6	+1.7
PEA0B	Petropavlovsk-	6.81	267	Pn	Pn	22 25 30.9	+2.1
PETK	Petropavlovsk-	6.81	267	Pn	Pn	22 25 30.8	+1.9
	comp=Z,3.7nm,0.3s,baz=73,slow=18,SNR=111						
PETK				Sn	Sn	22 26 46.4	+0.9
	comp=Z,1.4nm,0.3s,baz=180,slow=7.4,SNR=3.7						
PETK				LR	LR	22 28 11.2	
	comp=Z,44nm,20.3s,baz=52,slow=38						
	comp=Z,5.3nm,0.4s						
PETK				AML	AML		
PETK	Petropavlovsk-	6.81	267	PN	Pn	22 25 30.5	+1.6
PETK	Petropavlovsk-	6.81	267	Pn	Pn	22 25 30.5	+1.6
KDTR	Khodutka, Kamc	6.98	256	PN	Pn	22 25 32.3	+1.1
KDTR	Khodutka, Kamc	6.98	256	*e*P	Pn	22 25 32.3	+1.1
KIWB	Kanaga Island	8.63	99	Pn	Pn	22 25 55.4	+1.5
ADK	Adak	8.89	98	PN	Pn	22 25 57.4	-0.1
ADK	Adak	8.89	98	Pn	Pn	22 25 57.4	-0.1
ATKA	Atka Island	10.26	93	Pn	Pn	22 26 16.3	+0.2
K13K	Kusilvak Mount	15.95	50	Pn	Pn	22 27 31.5	-1.6
K13K				IAmb	IAmb	22 27 57.1	
	comp=Z,28nm,1.4s						
H17K	Granite Mounta	18.95	43	P	Pn	22 28 08.5	-1.9
H17K				IAmb	IAmb	22 28 21.5	
	comp=Z,22nm,1.5s						
G18K	Tagagawik	19.79	40	P	Pn	22 28 19.0	-1.3
F19K	Shaleruckik Mo	20.47	38	P	Pn	22 28 26.2	-2.1
F21K	Alatna River	22.18	39	P	P	22 28 44.0	-0.6
E22K	Anaktuvuk Pass	23.07	37	P	P	22 28 53.8	-0.2
KLR	Kul'dur	23.44	273	LR	LR	22 37 14.7	
	comp=Z,38nm,20.7s,baz=304,slow=34						
D23K	Nanushuk River	23.73	35	P	P	22 29 00.8	+0.4
SCM	Sheep Creek Mo	24.03	54	P	P	22 29 02.7	-0.7
SCM				pmax	pmax		
	comp=Z,35nm,1.5s						
SCM	Sheep Creek Mo	24.03	54	P	P	22 29 02.7	-0.7
IL31		24.34	46	P	P	22 29 05.7	-0.4
IL31				IAmb	IAmb	22 29 07.6	
	comp=Z,7.5nm,1.3s						
ILAR	Eielson Array	24.34	46	P	P	22 29 05.0	-1.1
	comp=Z,1.5nm,1.0s,baz=254,slow=7.2,SNR=14						
	comp=Z,1.5nm,1.0s						
ILAR	Eielson Array	24.34	46	P	P	22 29 05.3	-0.8
ILAR	Eielson Array	24.34	46	P	P	22 29 05.3	-0.8
D25K	Kavik River	25.31	36	P	P	22 29 13.4	-1.5
D25K				IAmb	IAmb	22 29 23.8	
	comp=Z,3.5nm,0.9s						
E25K	Arctic Village	25.33	39	P	P	22 29 14.1	-1.0
E25K				IAmb	IAmb	22 29 44.6	
	comp=Z,4.0nm,1.1s						
BMAR	Burnt Mountain	25.59	40	P	P	22 29 17.6	+0.1
K29M	Barlow Dome	28.42	48	P	P	22 29 41.7	-1.3
K29M				IAmb	IAmb	22 29 43.8	
	comp=Z,2.7nm,0.8s						
MMPY	Sheldon Lake,	31.40	50	P	P	22 30 09.7	+0.4
MMPY				IAmb	IAmb	22 30 14.2	
	comp=Z,3.7nm,1.2s						
H11N2	WAKE ISLAND Hy	34.28	184	T	T	23 07 10.0	
	baz=2.2,slow=76,SNR=774						
H11N3	WAKE ISLAND Hy	34.29	184	T	T	23 07 11.0	
	baz=2.2,slow=76,SNR=739						
H11N1	WAKE ISLAND Hy	34.30	184	T	T	23 07 12.5	
	baz=2.2,slow=76,SNR=665						
H11S1	WAKE ISLAND Hy	35.50	184	T	T	23 08 43.4	
	baz=2.4,slow=76,SNR=333						
H11S3	WAKE ISLAND Hy	35.52	184	T	T	23 08 32.1	
	baz=2.4,slow=76,SNR=163						
H11S2	WAKE ISLAND Hy	35.52	184	T	T	23 08 44.2	
	baz=2.4,slow=76,SNR=350						
MKAR	Makanchi Array	52.42	300	P	P	22 33 00.0	-0.7
	comp=Z,0.5nm,0.7s,baz=51,slow=7.9,SNR=2.5						
MKAR				LR	LR	22 56 31.5	
	comp=Z,20nm,19.2s,baz=153,slow=38						
	comp=Z,0.5nm,0.7s						
BVAR	Borovoye Array	53.84	312	P	P	22 33 10.7	-0.4
	comp=Z,1.8nm,0.6s,baz=59,slow=8.0,SNR=7.2						
	comp=Z,1.8nm,0.6s						
BORK	Borovoye	53.86	312	P	P	22 33 10.6	-0.5
BORK				pmax	pmax		
	comp=Z,3.0nm,0.7s						
BORK	Borovoye	53.86	312	P	P	22 33 10.6	-0.5
ARCES	ARCESS Array B	53.91	345	LR	LR	22 57 44.4	
	comp=Z,33nm,18.9s,baz=296,slow=38						
PV18	Skein Mesa, Pa	55.81	71	P	P	22 33 26.6	+0.8
ANMO	Albuquerque	59.56	72	LR	LR	23 01 03.9	
	comp=Z,24nm,18.1s,baz=318,slow=38						
AB31	Akbulak array	61.07	315	P	P	22 34 02.3	+0.2
AB31				IAmb	IAmb	22 34 25.6	
	comp=Z,2.8nm,1.4s						
ABKAR	Akbulak array	61.07	315	P	P	22 34 01.8	-0.2
FINES	FINESS Array B	61.19	341	P	P	22 34 02.9	+0.3
	comp=Z,1.0nm,0.8s,baz=22,slow=7.3,SNR=1.6						
	comp=Z,1.0nm,0.8s						
BELG	Belogornoye	63.27	324	LR	LR	23 04 03.5	
	comp=Z,106nm,20.7s,baz=96,slow=38						
NOA	NORSAR Array B	63.92	348	P	P	22 34 20.1	-0.8
	comp=Z,0.6nm,0.7s,baz=15,slow=6.8,SNR=1.3						
	comp=Z,0.6nm,0.7s						
TX31	Lajitas Ar. Si	65.31	74	P	P	22 34 30.9	+0.4
TX31				IAmb	IAmb	22 34 32.8	
	comp=Z,1.9nm,1.4s						
TXAR	Lajitas Array	65.31	74	P	P	22 34 31.2	+0.7
	comp=Z,0.5nm,0.6s,baz=293,slow=5.1,SNR=10						
	comp=Z,0.5nm,0.6s						
TXAR	Lajitas Array	65.31	74	P	P	22 34 30.7	+0.2
CMIG	Matias Romero	79.87	75	LR	LR	23 10 12.9	
	comp=Z,63nm,18.1s,baz=118,slow=35						

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*DSN **07** 22:30:36.1±2.0, 26°.17N×58°.38E, h10^{km}, ML2.7/8, Error ellipse: s-maj=28.0km s-min=10.7km az=19.0*

*TEH **07** 22:30:39.2, 26°.42N×58°.11E, h15^{km}±52^{km}, ML3.1, Presumed earthquake*

ISC 07 22:30:38.2±1.2**, 26°.24N**±0°.06×**58°.18E**±0°.05**, h10^{km}, n16, σ1^{s}.01**/18**, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JASK	Jask - Hormozg	0.47	218	Pg	Pn	22 30 50.8	-0.2
BANOM	Banah	1.72	260	P	Pn	22 31 09.0	+0.7
BANOM				S	Sb	22 31 33.1	+1.3
KHNJ	Kahnooj	1.75	346	Pg	Pn	22 31 07.7	-1.0
SHME	Shamm	1.84	265	P	Pn	22 31 10.8	+0.8
SHME				S	Sb	22 31 36.6	+1.4
IBND	Bandar-abas	1.90	310	Pg	Pn	22 31 10.3	-0.3
MDH	Madha	1.94	242	P	Pn	22 31 09.8	-1.5
MSFE	Esma-Masafi	2.02	245	P	Pn	22 31 11.8	-0.7
BNDS	Bandar-Abbas	2.14	303	Pn	Pn	22 31 13.8	-0.3
GENO	Geno	2.14	303	Pn	Pn	22 31 13.9	-0.2
CHBR	Chabahar	2.17	107	Pn	Pg	22 31 18.6	-1.2
UOSS	Minazif	2.20	235	P	Pn	22 31 14.3	-0.6
HATD	Hatta, Dubai	2.33	233	P	Pn	22 31 16.0	-0.6
ASHO	Ashiyiah	2.47	232	P	Pn	22 31 19.6	+1.0
KBAM	BAM	2.89	5	Pn	Pn	22 31 24.2	-0.2
NGRK	Negar Kerman	3.63	340	Pn	Pn	22 31 35.0	+0.2
SRVN	Saravan	3.94	72	Pn	Pn	22 31 40.6	+1.7

IDC 07 22:53:16.1±2.3**, 4°.78S×134°.32E, h0^{km}, mb3.6**/1**, mbtmp3.6**/4**, ML3.6**/3**, MS3.2**/1**, Error ellipse: s-maj=62.5km s-min=20.1km az=87.0, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAPI	Kappang	14.52	268	LR	LR	23 02 37.1	
	comp=Z,98nm,18.5s,baz=276,slow=39						
WRA	Warramunga Arr	15.07	180	Pn	Pn	22 56 46.1	-4.4
	0.2nm,0.3s,baz=357,slow=13,SNR=6.0						
WRA				Sn	Sn	22 59 26.8	-11
	0.1nm,0.3s,baz=358,slow=23,SNR=3.8						
WRA				Lg	Lg	23 01 09.5	
	baz=5.5,slow=29						
	0.3nm,0.5s						

WRA				AML	AML		
FITZ	**Fitzroy Crossi**	**15.72**	**212**	Pn	Pn	22 56 53.8	-5.4
	0.4nm,0.3s,baz=30,slow=8.0,SNR=13						
FITZ				Sn	Sn	22 59 37.3	-17
	0.5nm,0.3s,baz=185,slow=17,SNR=5.8						
	1.6nm,0.5s						
FITZ				AML	AML		
ASAR	**Alice Springs**	**18.78**	**181**	Pn	Pn	22 57 37.5	0.0
	0.3nm,0.3s,baz=360,slow=13,SNR=12						
ASAR				Sn	Sn	23 00 57.5	-11
	baz=0.6,slow=27						
	1.3nm,0.7s						
ASAR				AML	AML		
MKAR	**Makanchi Array**	**68.84**	**324**	P	P	23 04 22.5	0.0
	0.6nm,0.8s,baz=130,slow=6.7,SNR=4.3						
	0.6nm,0.8s						

IDC 07 23:17:26.1±2.4**,4°.78S×134°.01E,h0^{km},mb3.6**/1**,mbtmp3.6**/4**,ML3.6**/3**,MS3.5**/1**,Error ellipse: s-maj=60.7km s-min=20.6km az=85.0,Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**15.07**	**179**	Pn	Pn	23 20 57.3	-3.3
	0.2nm,0.3s,baz=357,slow=12,SNR=9.1						
WRA				Sn	Sn	23 23 34.1	-14
	0.2nm,0.3s,baz=360,slow=23,SNR=5.8						
WRA				Lg	Lg	23 25 17.1	
	baz=7.6,slow=28						
	0.3nm,0.5s						
WRA				AML	AML		
FITZ	**Fitzroy Crossi**	**15.56**	**211**	Pn	Pn	23 21 02.1	-4.9
	0.2nm,0.3s,baz=32,slow=12,SNR=9.2						
FITZ				Sn	Sn	23 23 45.3	-15
	0.6nm,0.3s,baz=168,slow=16,SNR=9.8						
	1.6nm,0.5s						
FITZ				AML	AML		
ASAR	**Alice Springs**	**18.77**	**180**	Pn	P	23 21 45.2	-1.8
	0.2nm,0.3s,baz=6.1,slow=11,SNR=13						
ASAR				Sn	Sn	23 25 08.2	-10
	baz=4.1,slow=27						
ASAR				LR	LR	23 28 31.3	
	comp=Z,159nm,21.4s,baz=297,slow=35						
	1.9nm,0.8s						
ASAR				AML	AML		
MKAR	**Makanchi Array**	**68.66**	**325**	P	P	23 28 31.0	-0.3
	0.5nm,0.9s,baz=104,slow=5.6,SNR=2.2						
	0.5nm,0.9s						

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*NNC **08** 00:17:17.9±3.5,38°.12N×72°.95E,h0^{km},mb4.4,mpv4.2, Error ellipse: s-maj=29.3km s-min=21.2km az=10.0*

*IDC **08** 00:17:23.6±4.2,38°.06N×73°.77E,h139^{km}±33^{km},mb3.7/10, mbtmp4.1/16,Error ellipse: s-maj=41.2km s-min=30.4km az=126.0*

*NEIC **08** 00:17:25.0±1.9,38°.18N±0°.05×73°.59E±0°.06,h153^{km}±8^{km}, mb4.3/20,Error ellipse: s-maj=7.5km s-min=6.1km az=209.0*

*MOS **08** 00:17:24.2±1.1,38°.15N×73°.58E,h156^{km},mb4.4/10,Error ellipse: s-maj=8.0km s-min=4.7km az=95.2*

ISC 08 00:17:24.1±0.4**,38°.15N**±0°.04×**73°.55E**±0°.04**,h150^{km},n145,** σ**1^s.86**/170**,mb4.1**/24**,17C-7D,Tajikistan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH2	**Kashi**	**1.87**	**57**	Pg	**Pn**	**00 18 00.6**	**+2.7**
KSH2				Sg	**Sn**	**00 18 26.5**	**+2.7**
KSH2				smax	smax		
	comp=N,3µm,0.9s						
KSH2				smax	smax		
	comp=E,3µm,0.7s						
BTK	**Batken**	**2.85**	**313**	PN	**Pn**	**00 18 11.7**	**+2.0**
BTK						00 18 46.0	
BTK	**Batken**	**2.85**	**313**		**Pn**	**00 18 11.7**	**+2.0**
BTK				Sn	**Sn**	**00 18 46.0**	**+1.0**
ARSB	**Arslanbob**	**3.20**	**352**	PN	**Pn**	**00 18 15.3**	**+1.1**
ARSB	**Arslanbob**	**3.20**	**352**		**Pn**	**00 18 15.3**	**+1.1**
ARSB				Sn	**Sn**	**00 18 51.5**	**-1.5**
NRN	**Naryn**	**3.79**	**29**	PN	**Pn**	**00 18 22.4**	**+0.5**
NRN	**Naryn**	**3.79**	**29**		**Pn**	**00 18 22.4**	**+0.5**
NRN				Sn	**Sn**	**00 19 04.9**	**-1.8**
NIL	**Nilore**	**4.49**	**183**	PN	**Pn**	**00 18 32.6**	**+1.7**
NIL				S	**Sn**	**00 19 23.9**	**+1.0**
NIL	**Nilore**	**4.49**	**183**		**Pn**	**00 18 32.6**	**+1.7**
NIL				Sn	**Sn**	**00 19 23.9**	**+1.0**
EKS2	**Erkin-Say**	**4.51**	**2**	P	**Pn**	**00 18 33.0**	**+1.8**
	SNR=249						
AAK	**Ala-Archa**	**4.54**	**9**	P	**Pn**	**00 18 33.2**	**+1.7**
	comp=E,15nm,0.3s,baz=185,slow=12,SNR=31						
AAK				S	**Sn**	**00 19 24.3**	**+0.1**
	comp=E,32nm,0.4s,baz=311,slow=16,SNR=10						
AAK	**Ala-Archa**	**4.54**	**9**	P	**Pn**	**00 18 33.3**	**+1.7**
	SNR=21						
AAK	**Ala-Archa**	**4.54**	**9**	⇑Pn	**Pn**	**00 18 30.3**	**-1.3**
	comp=E,5.6nm,0.5s						
AAK				⇑Sn	**Sn**	**00 19 24.5**	**+0.3**
	comp=E,51nm,0.8s						
AAK	**Ala-Archa**	**4.54**	**9**	*c i*PN	**Pn**	**00 18 33.1**	**+1.5**
AAK				pmax	pmax		
	comp=Z,18nm,0.7s						
AAK	**Ala-Archa**	**4.54**	**9**		**Pn**	**00 18 32.2**	**+0.6**
AAK				Sn	**Sn**	**00 19 23.7**	**-0.5**
ULHL	**Ulahol**	**4.58**	**26**	P	**Pn**	**00 18 33.4**	**+1.2**
	SNR=9.9						
KBK	**Karagaybulak**	**4.63**	**13**	P	**Pn**	**00 18 34.6**	**+1.8**
	SNR=16						
BOOM	**Boomskoye usch**	**4.71**	**22**	PN	**Pn**	**00 18 35.4**	**+1.6**
BOOM	**Boomskoye usch**	**4.71**	**22**		**Pn**	**00 18 35.4**	**+1.6**
BOOM				Sn	**Sn**	**00 19 27.0**	**-1.1**
FRU1	**Bishkek**	**4.73**	**10**	PN	**Pn**	**00 18 34.5**	**+0.5**
FRU1				S	**Sn**	**00 19 28.7**	**+0.2**
FRU1	**Bishkek**	**4.73**	**10**		**Pn**	**00 18 34.5**	**+0.5**
FRU1				Sn	**Sn**	**00 19 28.7**	**+0.2**
TARG	**Taragay, Kyrgy**	**4.85**	**41**	PN	**Pn**	**00 18 36.6**	**+0.7**
TARG	**Taragay, Kyrgy**	**4.85**	**41**		**Pn**	**00 18 36.6**	**+0.7**
KDJ	**Kajisay**	**4.86**	**34**	PN	**Pn**	**00 18 36.1**	**+0.3**
KDJ	**Kajisay**	**4.86**	**34**		**Pn**	**00 18 36.1**	**+0.3**
CHMS	**Chumysh**	**4.93**	**10**	P	**Pn**	**00 18 38.2**	**+1.6**
	SNR=18						
TKM2	**Tokmak 2**	**5.02**	**17**	P	**Pn**	**00 18 39.5**	**+1.6**
	SNR=50						
KBL	**Kabul**	**5.12**	**227**	PN	**Pn**	**00 18 40.4**	**+1.1**
KBL	**Kabul**	**5.12**	**227**		**Pn**	**00 18 40.4**	**+1.1**
KBL				Sn	**Sn**	**00 19 37.8**	**0.0**
USP	**Ospenovka**	**5.17**	**8**	P	**Pn**	**00 18 41.2**	**+1.5**
	SNR=7.8						
WUS	**Wushi**	**5.33**	**53**		**Pn**	**00 18 43.5**	**+1.5**
JMU	**Jammu**	**5.46**	**169**	*e*P	**Pn**	**00 18 45.8**	**+2.1**
JMU				*e*S	**Sn**	**00 19 43.9**	**-1.8**
JMU				IAML		00 19 48.9	
	comp=E,705nm,0.2s						
JMU				IAML		00 19 51.4	
	comp=N,728nm,0.5s						
KK31	**Karatay Array**	**5.46**	**336**	Pn	**Pn**	**00 18 39.8**	**-3.8**
	comp=N,39nm,0.3s,baz=158,slow=16,SNR=461						
KK31				⇑Sn	**Sn**	**00 19 42.0**	**-3.8**
	comp=N,160nm,0.6s,baz=166,slow=24						
KK31	**Karatay Array**	**5.46**	**336**	PN	**Pn**	**00 18 44.2**	**+0.6**
KK31	**Karatay Array**	**5.46**	**336**		**Pn**	**00 18 44.2**	**+0.6**
KK31				Sn	**Sn**	**00 19 42.2**	**-3.5**
KKAR	**Karatay Array**	**5.46**	**336**	PN	**Pn**	**00 18 44.3**	**+0.7**
KKAR	**Karatay Array**	**5.46**	**336**		**Pn**	**00 18 44.3**	**+0.7**
KKAR				Sn	**Sn**	**00 19 42.1**	**-3.7**
PRZ	**Przheval'sk**	**5.70**	**39**	PN	**Pn**	**00 18 48.2**	**+1.2**
PRZ	**Przheval'sk**	**5.70**	**39**		**Pn**	**00 18 48.2**	**+1.2**
TSSA	**Tissa**	**5.71**	**157**	*e*P	**Pn**	**00 18 49.5**	**+2.4**
TSSA				*e*S	**Sn**	**00 19 49.9**	**-2.1**
TSSA				IAML		00 19 52.8	
	comp=N,549nm,0.5s						
TSSA				IAML		00 19 53.4	
	comp=E,547nm,0.6s						
TLWR	**Talawar**	**6.49**	**162**	*e*P	**Pn**	**00 18 59.4**	**+2.0**
TLWR				*e*S	**Sn**	**00 20 07.5**	**-2.9**
PDGK	**Podgornoye**	**6.87**	**39**	P	**Pn**	**00 19 03.5**	**+1.1**
PDGK	**Podgornoye**	**6.87**	**39**	PN	**Pn**	**00 19 03.5**	**+1.1**
PDGK	**Podgornoye**	**6.87**	**39**		**Pn**	**00 19 02.5**	**+0.1**
BHK	**Bhakra**	**7.13**	**160**	*e*S	**Sn**	**00 20 25.7**	**-0.1**
BHK				IAML		00 20 27.1	
	comp=E,305nm,0.2s						
BHK				IAML		00 20 28.1	
	comp=N,352nm,0.2s						
SMLA	**Simla**	**7.61**	**156**	*e*P	**Pn**	**00 19 14.3**	**+2.0**
SMLA				*e*S	**Sn**	**00 20 33.4**	**-3.9**
SMLA				IAML		00 20 37.4	
	comp=N,156nm,0.3s						
SMLA				IAML		00 20 39.8	
	comp=E,152nm,0.3s						
KLP	**Kalpa**	**7.65**	**148**	*e*P	**Pn**	**00 19 14.4**	**+1.3**
KLP				*e*S	**Sn**	**00 20 33.8**	**-4.8**
KLP				IAML		00 20 41.8	
	comp=E,113nm,0.8s						
KLP				IAML		00 20 42.2	
	comp=N,116nm,0.4s						
HRA	**Herat**	**9.87**	**251**	Pn	**Pn**	**00 19 43.5**	**+1.0**
MAKZ	**Makanchi**	**10.65**	**33**	⇑P	**Pn**	**00 19 55.0**	**+2.4**
	comp=N,8.2nm,1.1s						
MAKZ	**Makanchi**	**10.65**	**33**	P	**Pn**	**00 19 52.0**	**-0.7**
MAKZ	**Makanchi**	**10.65**	**33**		**Pn**	**00 19 52.0**	**-0.7**
MK31	**Makanchi Array**	**10.78**	**34**	P	**Pn**	**00 19 56.3**	**+2.0**
	comp=N,2.4nm,0.7s,baz=204,slow=14,SNR=21						
MK31	**Makanchi Array**	**10.78**	**34**	*d i*P	**Pn**	**00 19 55.0**	**+0.7**
MKAR	**Makanchi Array**	**10.78**	**34**	P	**Pn**	**00 19 54.6**	**+0.3**
	comp=N,2.4nm,0.7s,baz=213,slow=15,SNR=20						
MKAR	**Makanchi Array**	**10.78**	**34**	*i* P	**Pn**	**00 19 55.4**	**+1.1**
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
MKAR	**Makanchi Array**	**10.78**	**34**		**Pn**	**00 19 52.4**	**-2.0**
AJM	**Ajmer**	**11.72**	**175**	*e*S	**Sn**	**00 22 09.2**	**-7.4**
AJM				IAML		00 22 11.0	
	comp=E,119nm,0.1s						
AJM				IAML		00 22 11.1	
	comp=N,125nm,0.1s						
WMQ	**Urumqi**	**12.10**	**58**	*e*P	**Pn**	**00 20 12.9**	**+1.3**
KURBB	**Kurchatov Arra**	**12.97**	**14**	P	**Pn**	**00 20 21.6**	**-1.1**
	comp=N,0.9nm,0.6s,baz=205,slow=11,SNR=6.3						
KURBB	**Kurchatov Arra**	**12.97**	**14**	⇓P	**P**	**00 20 25.9**	**-1.7**
	comp=N,4.2nm,0.6s						
KURBB	**Kurchatov Arra**	**12.97**	**14**	P	**P**	**00 20 25.9**	**-1.7**
KURK	**Kurchatov**	**13.07**	**14**	⇑P	**P**	**00 20 26.9**	**-1.8**
	comp=N,1.2nm,0.6s						
KURK	**Kurchatov**	**13.07**	**14**	⇑*i*P	**Pn**	**00 20 22.6**	**-1.4**
KURK				pmax	pmax		
	comp=Z,11nm,3.8s						
KURK	**Kurchatov**	**13.07**	**14**		**Pn**	**00 20 24.7**	**+0.7**
AB31	**Akbulak array**	**14.81**	**323**	P	**Pn**	**00 20 45.1**	**-0.9**
	comp=Z,3.4nm,0.5s,baz=132,slow=12,SNR=120						
AB31				⇓S	**Sn**	**00 23 29.4**	**-0.8**
	comp=Z,9.9nm,0.6s						
AB31	**Akbulak array**	**14.81**	**323**	P	**Pn**	**00 20 45.1**	**-0.9**
AB31				S	**Sn**	**00 23 29.4**	**-0.8**
AB31	**Akbulak array**	**14.81**	**323**		**Pn**	**00 20 44.6**	**-1.4**
ABKAR	**Akbulak array**	**14.81**	**323**		**Pn**	**00 20 44.7**	**-1.3**
BVA0	**Borovoye Array**	**15.04**	**353**	P	**P**	**00 20 52.7**	**+2.1**
BVA0	**Borovoye Array**	**15.04**	**353**	P	**P**	**00 20 52.7**	**+2.1**
BVAR	**Borovoye Array**	**15.04**	**353**	P	**Pn**	**00 20 48.2**	**-0.6**
	comp=Z,2.5nm,0.4s,baz=154,slow=9.2,SNR=34						
BVAR				S	**Sn**	**00 23 31.1**	**-4.7**
	comp=Z,1.7nm,0.6s,baz=179,slow=26,SNR=4.0						
EVN	**Everest**	**15.05**	**129**		**Pn**	**00 20 48.5**	**-1.3**
EVN				IAmb	IAmb	00 20 50.9	
	comp=Z,23nm,0.6s						
BORK	**Borovoye**	**15.07**	**352**	⇑*e*P	**P**	**00 20 50.1**	**-0.8**
BORK				pmax	pmax		
	comp=Z,9.0nm,0.9s						
BORK	**Borovoye**	**15.07**	**352**		**Pn**	**00 20 49.2**	**0.0**
BORK				IAmb	IAmb	00 20 54.4	
	comp=Z,6.0nm,0.6s						
AKTO	**Aktyubinsk**	**16.53**	**323**	P	**Pn**	**00 21 07.9**	**+0.8**
	comp=Z,11nm,0.7s,baz=119,slow=10,SNR=29						
AKTO				S	**S**	**00 24 01.6**	**-9.0**
	comp=Z,6.6nm,0.7s,baz=67,slow=9.5,SNR=7.1						
AKTO	**Aktyubinsk**	**16.53**	**323**	⇓P	**Pn**	**00 21 07.4**	**+0.4**
	comp=Z,9.2nm,0.9s						
AKTO				⇑S	**S**	**00 24 09.5**	**-1.0**
	comp=Z,3.6nm,0.8s						
ZAA0	**Zalesovo Array**	**17.60**	**22**	P	**P**	**00 21 17.5**	**-1.2**
ZALV	**Zalesovo Beam**	**17.60**	**22**	P	**Pn**	**00 21 19.0**	**-0.9**
	comp=Z,6.5nm,0.5s,baz=209,slow=12,SNR=42						
ZALV	**Zalesovo Beam**	**17.60**	**22**	*i* P	**Pn**	**00 21 20.1**	**+0.2**
ZALV				pmax	pmax		
	comp=Z,7.0nm,0.5s						
ZALV	**Zalesovo Beam**	**17.60**	**22**	P	**P**	**00 21 18.2**	**-0.5**
SVE	**Sverdlovsk**	**20.56**	**340**	*e*P	Pn	00 21 52.6	-2.1
SVE				pmax	pmax		
	comp=Z,13nm,0.8s						
ARTI	**Arti**	**20.86**	**336**	P	Pn	00 21 55.9	-2.5
	comp=Z,17nm,0.7s,baz=153,slow=6.4,SNR=35						
	comp=Z,17nm,0.7s						
ARTI	**Arti**	**20.86**	**336**	*d i*P	**P**	**00 21 55.5**	**+1.5**
ARTI						00 22 32.0	
ARTI				S	**S**	**00 25 40.4**	**+2.3**
ARTI				pmax	pmax		
	comp=Z,17nm,0.7s						
ARTI	**Arti**	**20.86**	**336**	P	**P**	**00 21 53.8**	**-0.2**
GNI	**Garni**	**22.39**	**284**	P	**P**	**00 22 10.2**	**0.0**
GNI				pmax	pmax		
	comp=Z,14nm,1.3s						
GNI	**Garni**	**22.39**	**284**	P	**P**	**00 22 10.2**	**0.0**
GNI				IAmb	IAmb	00 22 22.1	
	comp=Z,14nm,1.2s						
BELG	**Belogornoye**	**22.98**	**317**	⇑*e*P	**P**	**00 22 16.9**	**+1.5**
BELG				pmax	pmax		
	comp=Z,2.0nm,0.8s						
NCK	**Nalchik**	**23.21**	**293**	⇑*e*P	**P**	**00 22 18.8**	**+1.1**
NCK				pmax	pmax		
	comp=Z,6.0nm,0.8s						
NEUR	**Neytrino**	**23.86**	**292**	⇑*e*P	**P**	**00 22 25.6**	**+1.8**
NEUR				pmax	pmax		
	comp=Z,3.0nm,1.2s						
KIV	**Kislovodsk**	**23.90**	**294**	*e*P	**P**	**00 22 23.9**	**-0.1**
KIV				pmax	pmax		
	comp=Z,4.0nm,1.0s						
KIV	**Kislovodsk**	**23.90**	**294**	P	**P**	**00 22 23.1**	**-0.9**
KIV				IAmb	IAmb	00 22 50.0	
	comp=Z,7.5nm,0.7s						
SHA1	**Shidzhatmaz**	**23.91**	**293**	⇑*e*P	**P**	**00 22 24.9**	**+0.6**
PZH	**PanZhiHua**	**26.40**	**108**	P	**P**	**00 22 47.8**	**+0.9**
HHC	**Hu-ho-hao-te**	**29.31**	**73**	*e*P	**P**	**00 23 13.2**	**+0.6**
HHC				pmax	pmax		
	comp=Z,8.0nm,0.7s						
HHC				pmax	pmax		
	comp=Z,59nm,4.6s						
CMAR	**Chiang Mai Arr**	**29.58**	**124**	P	**P**	**00 23 15.7**	**+0.7**
CMAR	**Chiang Mai Arr**	**29.58**	**124**	P	**P**	**00 23 15.7**	**+0.7**
OBN	**Obninsk**	**30.08**	**316**	P	**P**	**00 23 18.9**	**0.0**
OBN				IAmb	IAmb	00 23 36.0	
	comp=Z,13nm,0.8s						
BR131	**Keskin Array S**	**30.91**	**286**	⇑*e*P	**P**	**00 23 28.1**	**+1.4**
BR131	**Keskin Array S**	**30.91**	**286**	P	**P**	**00 23 27.4**	**+0.7**
BRTR	**Keskin Array B**	**30.91**	**286**	P	**P**	**00 23 29.8**	**+3.0**
	comp=Z,0.5nm,0.4s,baz=90,slow=11,SNR=6.1						
	comp=Z,0.5nm,0.4s						
BRTR	**Keskin Array B**	**30.91**	**286**	P	**P**	**00 23 27.0**	**+0.3**
AKBB	**Malin Array Si**	**33.55**	**306**	P	**P**	**00 23 49.6**	**+0.2**
AKBB				pmax	pmax		
	comp=Z,4.0nm,0.9s						
AKBB	**Malin Array Si**	**33.55**	**306**	P	**P**	**00 23 49.6**	**+0.2**
KIEV	**Kiev**	**33.56**	**306**	P	**P**	**00 23 50.4**	**+0.9**
KIEV	**Kiev**	**33.56**	**306**	P	**P**	**00 23 50.4**	**+0.9**
ELL	**Elmali**	**34.44**	**281**	P	**P**	**00 23 57.7**	**+0.2**
ELL				pmax	pmax		
	comp=Z,7.0nm,1.2s						
ELL	**Elmali**	**34.44**	**281**	P	**P**	**00 23 57.6**	**+0.2**
ELL				IAmb	IAmb	00 24 27.4	
	comp=Z,7.3nm,1.2s						
MANT	**Manisa**	**35.03**	**285**	P	**P**	**00 24 01.1**	**-1.5**
MANT				IAmb	IAmb	00 24 01.9	
	comp=Z,3.5nm,0.8s						
BURAR	**Bucovina Array**	**36.14**	**301**	P	**P**	**00 24 12.5**	**+0.7**
BURAR	**Bucovina Array**	**36.14**	**301**	P	**P**	**00 24 12.4**	**+0.7**
FINES	**FINESS Array B**	**37.29**	**324**	P	**P**	**00 24 23.3**	**+2.1**
	comp=Z,2.7nm,0.3s,baz=117,slow=9.6,SNR=39						
	comp=Z,2.7nm,0.3s						
FINES	**FINESS Array B**	**37.29**	**324**	*i* P	**P**	**00 24 23.2**	**+2.0**
FINES				pmax	pmax		
	comp=Z,3.0nm,0.3s						
FINES	**FINESS Array B**	**37.29**	**324**	P	**P**	**00 24 22.6**	**+1.4**
OJC	**Ojcow**	**39.56**	**306**	P	**P**	**00 24 41.2**	**+0.8**
OJC	**Ojcow**	**39.56**	**306**	P	**P**	**00 24 41.2**	**+0.8**
ARCES	**ARCESS Array B**	**40.43**	**336**	P	**P**	**00 24 49.4**	**+2.1**
	comp=Z,1.9nm,0.5s,baz=109,slow=8.3,SNR=24						
	comp=Z,1.9nm,0.5s						
ARCES	**ARCESS Array B**	**40.43**	**336**	P	**P**	**00 24 48.5**	**+1.3**
ARCES	**ARCESS Array B**	**40.43**	**336**	P	**P**	**00 24 48.8**	**+1.5**
ARCES				IAmb	IAmb	00 24 49.7	
	comp=Z,7.5nm,1.1s						
ITM	**Ithomi**	**40.44**	**285**	P	**P**	**00 24 47.7**	**-0.1**
ITM				IAmb	IAmb	00 25 04.3	
	comp=Z,6.5nm,1.2s						
DPC	**Dobruska-Polom**	**41.78**	**306**	*e*P	**P**	**00 25 01.6**	**+3.0**
DPC	**Dobruska-Polom**	**41.78**	**306**	*e*P	**P**	**00 25 01.6**	**+3.0**
KLR	**Kul'dur**	**42.54**	**56**	⇓*e*P	**P**	**00 25 03.6**	**-1.1**
KLR				pmax	pmax		
	comp=Z,10.0nm,2.2s						
GSI	**Gunungsitoli**	**42.79**	**143**	P	**P**	**00 25 07.0**	**-0.1**
HFS	**Hagfors**	**43.05**	**321**	P	**P**	**00 25 10.5**	**+1.8**
	comp=Z,5.0nm,0.5s,baz=99,slow=9.5,SNR=29						
	comp=Z,5.0nm,0.5s						
BRG	**Berggiesshubel**	**43.23**	**307**	*e*P	**P**	**00 25 13.1**	**+2.9**
BRG				Amp		00 25 13.4	
	comp=Z,2.9nm,0.7s						
BRG				⇓*e*Pif		00 59 30.3	
BRG				Amp		00 59 32.5	
	comp=Z,5.8nm,1.2s						
TWG	**Pinlang**	**43.24**	**97**	P	**P**	**00 25 10.2**	**-0.5**
ZVC	**Zvikov**	**43.25**	**305**	*e*P	**P**	**00 25 13.4**	**+3.0**
GERES	**GERESS Array B**	**43.66**	**304**	P	**P**	**00 25 16.1**	**+2.3**
	comp=Z,0.4nm,0.4s,baz=61,slow=8.2,SNR=5.4						
	comp=Z,0.4nm,0.4s						
KHC	**Kasperske Hory**	**43.70**	**305**	⇑*e*P	**P**	**00 25 13.1**	**-0.9**
KHC				pmax	pmax		
	comp=Z,13nm,2.6s						
KHC	**Kasperske Hory**	**43.70**	**305**	*e*P	**P**	**00 25 16.9**	**+2.9**
	comp=Z,1.3nm,0.4s						
CLL	**Collm**	**43.76**	**308**	*i* P	**P**	**00 25 16.9**	**+2.4**
CLL				pmax	pmax		
	comp=Z,3.0nm,0.5s						
CLL	**Collm**	**43.76**	**308**	*i* P	**P**	**00 25 16.9**	**+2.4**
NORES	**NORESS Array B**	**44.15**	**321**	P	**P**	**00 25 19.2**	**+1.8**
NB2	**NORSAR Subarra**	**44.31**	**322**	P	**P**	**00 25 20.4**	**+1.7**
	comp=Z,1.2nm,0.5s,baz=91,slow=7.9						
NOA	**NORSAR Array B**	**44.31**	**322**	P	**P**	**00 25 20.5**	**+1.7**
	comp=Z,1.9nm,0.6s,baz=92,slow=7.7,SNR=7.3						
	comp=Z,1.9nm,0.6s						
NAO01	**NORSAR Array S**	**44.47**	**322**	P	**P**	**00 25 19.0**	**-0.9**
KONO	**Kongsberg**	**45.11**	**320**	⇑*e*P	**P**	**00 25 26.2**	**+1.2**
KBS	**Kingsbay**	**47.47**	**347**	*ce*P	**P**	**00 25 45.5**	**+2.3**
KBS				pmax	pmax		
	comp=Z,10.0nm,1.0s						
WLF	**Walferdange**	**48.36**	**307**	P	**P**	**00 25 49.2**	**-1.2**
WLF				pmax	pmax		
	comp=Z,16nm,1.4s						
WLF	**Walferdange**	**48.36**	**307**	P	**P**	**00 25 49.2**	**-1.2**
WLF				IAmb	IAmb	00 26 27.2	
	comp=Z,16nm,1.4s						
MNAI	**Manna**	**50.33**	**140**	P	**P**	**00 26 04.3**	**-1.4**
EKA	**Eskdalemuir Ar**	**52.53**	**316**	P	**P**	**00 26 23.4**	**+1.7**
	comp=Z,0.7nm,0.6s,baz=84,slow=7.6,SNR=3.9						
	comp=Z,0.7nm,0.6s						
ESDC	**Sonseca Array**	**58.48**	**298**	P	**P**	**00 27 06.7**	**+2.2**
	comp=Z,0.8nm,0.7s,baz=56,slow=6.9,SNR=5.6						
	comp=Z,0.8nm,0.7s						
TORD	**Torodi Ar. Bea**	**67.78**	**269**	P	**P**	**00 28 06.9**	**+0.9**
	comp=Z,1.6nm,0.6s,baz=47,slow=5.5,SNR=26						
	comp=Z,1.6nm,0.6s						
FFC	**Flin Flon**	**87.42**	**357**	*i* P	**P**	**00 29 53.1**	**-1.1**

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*IDC **08** 00:20:54.0±1.5,1°.68N×126°.55E,h0^{km},mb3.7/5, mbtmp3.7/6,ML3.4/1,Error ellipse: s-maj=113.2km s-min=19.5km az=68.0*

*DJA **08** 00:20:58.1±0.3,2°N±4°×12°6E±°,h10^{km},M3.6/8,MLv3.6/8*

ISC 08 00:21:00.4±1.3**,1°.6N**±0°.2×**126°.45E**±0°.10**,h47^{km},n9,** σ**1^s.04**/9**,mb3.8**/5**,Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TNTI	**Ternate**	**1.25**	**133**	P	**Pn**	**00 21 21.8**	**+0.4**
MNI	**Manado**	**1.62**	**264**	P	**Pn**	**00 21 25.4**	**-1.2**
GTOI	**Gorontalo**	**3.58**	**254**	P	**Pn**	**00 21 55.1**	**+1.7**
FITZ	**Fitzroy Crossi**	**19.61**	**182**	P	**P**	**00 25 24.5**	**-0.5**
	0.1nm,0.3s,baz=351,slow=13,SNR=1.5						
	1.2nm,0.8s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**22.79**	**161**	P	**P**	**00 25 58.5**	**-0.7**
	1.4nm,0.6s,baz=340,slow=10,SNR=9.7						
	1.4nm,0.6s						
ASAR	**Alice Springs**	**26.16**	**164**	P	**P**	**00 26 31.2**	**+0.7**
	0.4nm,0.5s,baz=342,slow=7.8,SNR=5.2						
	0.4nm,0.5s						
STKA	**Stephens Creek**	**36.28**	**158**	P	**P**	**00 27 58.6**	**-0.8**
	2.6nm,0.8s,baz=330,slow=14,SNR=2.9						
	2.6nm,0.8s						
MKAR	**Makanchi Array**	**59.13**	**326**	P	**P**	**00 30 56.7**	**+0.4**
	0.4nm,0.5s,baz=117,slow=6.9,SNR=4.2						
	0.4nm,0.5s						
KURBB	**Kurchatov Arra**	**63.36**	**328**	P	**P**	**00 31 24.9**	**+0.2**
	0.5nm,0.5s,baz=128,slow=6.2,SNR=6.4						
	0.5nm,0.5s						

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*MOS **08** 00:45:16.8±0.8,4°.92S×129°.66E,h152^{km},mb6.1/84,Error ellipse: s-maj=7.9km s-min=4.4km az=110.0*

*NEIC **08** 00:45:20.8,4°.88S×129°.76E,h172^{km}*

*NEIC **08** 00:45:20.9±1.6,4°.87S±0°.04×129°.76E±0°.06,h172^{km}±1^{km}, mb6.1/398,Mwb6.1/110,Mww5.9/10,Error ellipse: s-maj=10.4km s-min=6.3km az=118.0,Moment Tensor Solution. Moment tensor: Scale 10^{18}Nm; M$_{rr}$0.18; M$_{\theta\theta}$-0.12; M$_{\phi\phi}$-0.06; M$_{r\theta}$-0.24; M$_{\theta\phi}$0.52; M$_{\phi r}$1.56; Fault plane solution: M$_0$1.67000×10^{18} NP1:φ$_s$350.86000°, δ86.42000°,λ107.43000°. NP2:φ$_s$92.11000°,δ17.78000°, λ11.81000°. Principal axes: T 1.6452, Plg46.0000°, Azm279.0000°; N 0.0472, Plg17.0000°, Azm170.0000°; P -1.6924, Plg39.0000°, Azm65.0000°;*

*NEIC **08** 00:45:20.8,4°.92S×129°.77E,h173^{km}*

*GFZ **08** 00:45:21.9,4°.88S×129°.72E,h186^{km},Mw6.1/88,Moment Tensor Solution. Moment tensor: Scale 10^{18}Nm; M$_{rr}$0.09; M$_{\theta\theta}$-0.15; M$_{\phi\phi}$0.06; M$_{r\theta}$-0.23; M$_{\theta\phi}$0.47; M$_{\phi r}$1.51; Fault plane solution: M$_0$1.60761×10^{18} NP1:φ$_s$86.50785°, δ17.41903°,λ5.80041°. NP2:φ$_s$350.97174°,δ88.26630°, λ107.33520°. Principal axes: T 1.6054, Plg44.1127°, Azm278.0365°; N 0.0044, Plg17.3270°, Azm170.4307°; P -1.6098, Plg40.7899°, Azm64.8140°;*

*BJI **08** 00:45:21.1,4°.81S×129°.85E,h200^{km},mB5.9/60,mb6.0/95*

*PTWC **08** 00:45:21,5°.00S×129°.90E,h171^{km},Mwp6.0/10*

*DJA **08** 00:45:21.6±0.1,5°S±2°×13°0E±°,h200^{km}±2^{km},M6.1/107, mB6.5/103,mb6.3/107,MLv6.8/29,Mw6.1/50, Mw(mB)6.3/103,MwMwp5.9/94,Mwp6.0/94*

*IPGP **08** 00:45:21.0,4°.90S×129°.76E,h182^{km},Mw6.2,Fault plane solution: NP1:φ$_s$96.00000°,δ21.00000°,λ17.00000°. NP2:φ$_s$350.00000°,δ84.00000°,λ110.00000°.*

*GFZ **08** 00:45:22.1±0.2,5°S±2°×13°0E±°,h192^{km}±3^{km},M5.9/37, mb6.0/37*

*IDC **08** 00:45:22.4±0.7,4°.90S×129°.66E,h187^{km}±5^{km},mb5.6/38, mbtmp6.1/42,MS5.0/34,Error ellipse: s-maj=9.8km s-min=6.3km az=73.0*

*GCMT **08** 00:45:23.9±0.0,4°.77S×129°.80E,h193^{km},MW6.1/178, Moment Tensor Solution. s172,c412; s178,c664; Duration: 2^s.8 Moment tensor: Scale 10^{18}Nm; M$_{rr}$0.12±.01; M$_{\theta\theta}$-0.20±.01; M$_{\phi\phi}$0.08±.01; M$_{r\theta}$-0.28±.01; M$_{\theta\phi}$0.61±.01; M$_{\phi r}$1.67±.01; Best double couple: M$_0$1.80800×10^{18} NP1:φ$_s$86.00000°,δ20.00000°, λ6.00000°. NP2:φ$_s$350.00000°,δ88.00000°,λ110.00000°. Principal axes: T 1.8000, Plg44.0000°, Azm280.0000°; N 0.0150, Plg20.0000°, Azm169.0000°; P -1.8150, Plg40.0000°, Azm62.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s. Triangular moment-rate function*

*NEIC **08** 00:45:27.2,4°.88S×129°.76E,h190^{km},Moment Tensor Solution. Duration: 4^s.4 Moment tensor: Scale 10^{17}Nm; M$_{rr}$0.36; M$_{\theta\theta}$-0.54; M$_{\phi\phi}$0.18; M$_{r\theta}$-1.06; M$_{\theta\phi}$1.13; M$_{\phi r}$7.89; Fault plane solution: M$_0$8.05000×10^{17} NP1:φ$_s$88.17000°, δ8.53000°,λ6.35000°. NP2:φ$_s$351.88000°,δ89.06000°, λ98.48000°. Principal axes: T 8.1583, Plg45.0000°, Azm270.0000°; N -0.2202, Plg8.0000°, Azm172.0000°; P -7.9381, Plg43.0000°, Azm74.0000°;*

ISC 08 00:45:22.1±0.2**,4°.90S**±0°.02×**129°.72E**±0°.03**,h190^{km}**±1^{km}**, h190^{km}:pP-P,n1926,** σ**1^s.58**/2231**,mb6.0**/380**,158C-75D, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BNDI	**Bandanaira**	**0.42**	**25**	P	**Pn**	**00 45 47.6**	**-0.1**
BNDI	**Bandanaira**	**0.42**	**25**	S	**Sn**	**00 46 05.6**	**-1.9**

BNDI	Bandanaira	0.42	25	P	Pn	00 45 47.2	-0.5
BNDI				S	Sn	00 46 07.0	-0.5
BNDI	Bandanaira	0.42	25	P	Pn	00 45 47.7	0.0
MSAI	Masohi	1.74	333	P	Pn	00 45 56.7	-0.5
MSAI				S	Sn	00 46 22.4	-2.1
MSAI				AML	AML		
NLAI	Namlea	3.10	302	P	Pn	00 46 13.3	+0.9
NLAI				AML	AML		
FAKI	Fak Fak	3.20	52	P	Pn	00 46 12.0	-1.6
FAKI	Fak Fak	3.20	52	P	Sn	00 46 50.3	-3.6
FAKI	Fak Fak	3.20	52		Pn	00 46 12.0	-1.6
FAKI				Sn	Sn	00 46 50.2	-3.7
FAKI	Fak Fak	3.20	52	P	Pn	00 46 12.2	-1.4
FAKI	Fak Fak	3.20	52	P	Pn	00 46 12.2	-1.4
FAKI				S	Sn	00 46 49.1	-4.8
FAKI				AML	AML		
FAKI	Fak Fak	3.20	52	P	Pn	00 46 12.2	-1.4
SAUI	Saumlaki	3.44	153	P	Pn	00 46 16.1	-0.5
SAUI	Saumlaki	3.44	153	S	Sn	00 46 57.7	-1.5
SAUI	Saumlaki	3.44	153		Pn	00 46 15.5	-1.1
SAUI				Sn	Sn	00 46 54.3	-4.9
SAUI	Saumlaki	3.44	153	P	Pn	00 46 16.0	-0.5
SAUI	Saumlaki	3.44	153	⇑P	Pn	00 46 15.9	-0.7
SAUI	Saumlaki	3.44	153	P	Pn	00 46 15.9	-0.7
SAUI				AML	AML		
SAUI	Saumlaki	3.44	153	P	Pn	00 46 16.1	-0.5
KMPI	Kaimana, Papua	4.16	73	P	Pn	00 46 23.7	-1.8
SANI	Sanana	4.68	307	P	Pn	00 46 32.1	-0.2
SANI				S	Sn	00 47 23.2	-4.2
SANI	Sanana	4.68	307	S	Sn	00 47 24.4	-3.0
SANI	Sanana	4.68	307	⇑P	Pn	00 46 31.9	-0.4
SANI	Sanana	4.68	307	P	Pn	00 46 31.7	-0.5
SANI				AML	AML		
SANI	Sanana	4.68	307	P	Pn	00 46 32.0	-0.2
MWPI	Manokwari, Pap	5.84	48	P	Pn	00 46 46.8	-0.4
TNTI	Ternate	6.11	337	P	Pn	00 46 50.8	+0.1
TNTI	Ternate	6.11	337		Pn	00 46 50.3	-0.4
TNTI	Ternate	6.11	337	P	Pn	00 46 50.9	+0.2
TNTI	Ternate	6.11	337	⇑P	Pn	00 46 50.8	+0.1
TNTI	Ternate	6.11	337	P	Pn	00 46 49.5	-1.2
	17nm2µm,0.8s						
TNTI				AML	AML		
TNTI	Ternate	6.11	337	P	Pn	00 46 50.9	+0.2
	comp=Z,2µm,0.9s						
KDI	Kendari	7.15	277	P	Pn	00 47 05.8	+1.6
KDI				AML	AML		
SOEI	Soe	7.25	228	P	Pn	00 47 07.6	+1.8
SOEI				S	Sn	00 48 29.6	+1.9
SOEI	Soe	7.25	228		Pn	00 47 05.9	+0.2
SOEI				Sn	Sn	00 48 27.0	-0.8
SOEI	Soe	7.25	228	P	Pn	00 47 07.5	+1.8
SOEI	Soe	7.25	228	P	Pn	00 47 07.5	+1.8
	comp=Z,55nmcomp=Z,105µmcomp=Z,55µmcomp=Z,4µm,1.4s						
SOEI				AML	AML		
SOEI	Soe	7.25	228	P	Pn	00 47 07.7	+2.0
	comp=Z,4µm,1.4s						
BAKI	Biak	7.36	60	P	Pn	00 47 07.3	+0.2
	comp=Z,44nmcomp=Z,149µmcomp=Z,12µm,1.1s						
BAKI				AML	AML		
DRS	Darwin Rock St	7.57	171	P	Pn	00 47 07.8	-2.0
LUWI	Luwuk	7.93	299	P	Pn	00 47 15.1	+0.6
LUWI				S	Sn	00 48 42.5	-1.3
LUWI	Luwuk	7.93	299	P	Pn	00 47 14.8	+0.3
LUWI	Luwuk	7.93	299		Pn	00 47 15.1	+0.6
LUWI	Luwuk	7.93	299	⇑P	Pn	00 47 15.1	+0.6
LUWI	Luwuk	7.93	299	P	Pn	00 47 14.5	0.0
	comp=Z,31nmcomp=Z,41µmcomp=Z,72µmcomp=Z,6µm,1.7s						
LUWI				AML	AML		
LUWI	Luwuk	7.93	299	P	Pn	00 47 15.3	+0.8
	comp=Z,6µm,1.7s						
MNI	Manado	7.97	322	P	Pn	00 47 14.6	-0.5
MNI				AML	AML		
MTN	Manton Dam	8.01	170	P	Pn	00 47 13.2	-2.4
	comp=Z,906nm,0.4s,comp=Z,24µmcomp=Z,32154µm						
	comp=Z,0.0nm						
MTN				AML	AML		
MTN	Manton Dam	8.01	170		Pn	00 47 14.1	-1.5
MTN	Manton Dam	8.01	170	P	Pn	00 47 13.4	-2.2
KDU	Kakadu	8.20	161	P	Pn	00 47 15.4	-2.6
	comp=Z,2µm,0.9s,comp=Z,33µmcomp=Z,0.0nm						
MMRI	Maumere	8.31	243	P	Pn	00 47 21.2	+1.7
MMRI	Maumere	8.31	243		Pn	00 47 21.1	+1.7
MMRI	Maumere	8.31	243	P	Pn	00 47 22.6	+3.1
MMRI	Maumere	8.31	243	⇓P	Pn	00 47 22.3	+2.8
MMRI	Maumere	8.31	243	P	Pn	00 47 22.3	+2.8
	comp=Z,41µmcomp=Z,68µmcomp=Z,3µm,1.1s						
MMRI	Maumere	8.31	243	P	Pn	00 47 22.5	+3.1
	comp=Z,3µm,1.1s						
GTOI	Gorontalo	8.67	309	P	Pn	00 47 26.7	+2.4
KAPI	Kappang	9.94	269	P	Pn	00 47 42.3	+1.5
	comp=Z,248nm,0.6s,baz=92,slow=7.1,SNR=61						
KAPI				S	Sn	00 49 35.4	+3.7
	comp=Z,138nm,0.7s,baz=53,slow=18,SNR=1.0						
KAPI	Kappang	9.94	269	P	Pn	00 47 42.9	+2.1
KAPI	Kappang	9.94	269	P	Pn	00 47 41.1	+0.3
KAPI	Kappang	9.94	269	P	Pn	00 47 41.7	+0.9
KAPI	Kappang	9.94	269		Pn	00 47 41.7	+0.9
KAPI	Kappang	9.94	269	P	Pn	00 47 42.9	+2.1
KAPI	Kappang	9.94	269	⇑P	Pn	00 47 42.9	+2.1
KAPI	Kappang	9.94	269	P	Pn	00 47 41.9	+1.2
KAPI	Kappang	9.94	269	P	Pn	00 47 43.0	+2.3
	comp=Z,2µm,1.4s						
WSI	Waingapu	10.48	243	P	Pn	00 47 48.4	+0.6
PCI	Palu	10.64	292	P	Pn	00 47 51.7	+1.8
	comp=Z,36µmcomp=Z,56µmcomp=Z,6µm,1.2s						
GENI	Genyem	10.67	78	P	Pn	00 47 50.7	+0.4
GENI	Genyem	10.67	78	P	Pn	00 47 48.6	-1.6
GENI	Genyem	10.67	78	⇓P	Pn	00 47 48.5	-1.8
GENI	Genyem	10.67	78	P	Pn	00 47 48.8	-1.5
	comp=Z,21µmcomp=Z,25µmcomp=Z,3µm,1.0s						
GENI	Genyem	10.67	78	P	Pn	00 47 48.7	-1.6
	comp=Z,3µm,1.4s						
TOLI2	Tolitoli	10.75	304	P	Pn	00 47 49.1	-2.2
TOLI2	Tolitoli	10.75	304	S	S	00 49 51.7	+0.1
TOLI2	Tolitoli	10.75	304		Pn	00 47 50.9	-0.4
TOLI2	Tolitoli	10.75	304	P	Pn	00 47 51.5	+0.3
TOLI2	Tolitoli	10.75	304	P	Pn	00 47 51.6	+0.3
	comp=Z,3µm,1.4s						
KNRA	Kununurra	10.75	185	P	Pn	00 47 48.3	-2.9
	comp=Z,735nm,0.7s,comp=Z,8µmcomp=Z,0.0nm						
KNRA	Kununurra	10.75	185		Pn	00 47 48.6	-2.6
KNRA	Kununurra	10.75	185	P	Pn	00 47 48.4	-2.9
MMSI	Mamuju	11.01	281	P	Pn	00 47 56.6	+1.9
MMPI	Merauke	11.16	109	P	Pn	00 47 54.6	-2.0
	comp=Z,53µmcomp=Z,3µm,1.3s						
JAY	Jayapura	11.21	78	P	Pn	00 47 54.4	-2.9
PLAI	Plampang	12.49	251	P	Pn	00 48 13.9	+0.4
PLAI	Plampang	12.49	251	P	Pn	00 48 13.3	-0.2
	comp=Z,28µmcomp=Z,41µmcomp=Z,3µm,1.4s						
PLAI	Plampang	12.49	251	P	Pn	00 48 13.5	0.0
	comp=Z,3µm,1.4s						
DAV	Davao City (W)	12.59	341	P	Pn	00 48 15.1	+0.3
	comp=Z,548nm,0.7s,baz=123,slow=2.9,SNR=15						
DAV	Davao City (W)	12.59	341	P	Pn	00 48 15.0	+0.1
DAV	Davao City (W)	12.59	341		Pn	00 48 14.7	-0.2
DAV	Davao City (W)	12.59	341	P	Pn	00 48 13.9	-0.9
	comp=Z,19µmcomp=Z,36µmcomp=Z,4µm,0.9s						
DAV	Davao City (W)	12.59	341	P	Pn	00 48 15.3	+0.5
	comp=Z,4µm,0.9s						
DAV	Davao City (W)	12.59	341	P	Pn	00 48 14.0	-0.9
BKB	Balikpapan	13.31	285	P	Pn	00 48 24.4	+0.5
BKB	Balikpapan	13.31	285	P	Pn	00 48 25.2	+1.3
BKB	Balikpapan	13.31	285	P	P	00 48 26.8	-0.2
BKB	Balikpapan	13.31	285	⇑P	P	00 48 26.9	-0.2
BKB	Balikpapan	13.31	285	P	P	00 48 26.3	-0.7
	comp=Z,49µmcomp=Z,40µmcomp=Z,4µm,1.1s						
BKB	Balikpapan	13.31	285	P	P	00 48 27.3	+0.3
	comp=Z,4µm,1.2s						
FITZ	Fitzroy Crossi	13.71	197	P	Pn	00 48 26.9	-2.0
	comp=Z,390nm,1.2s,comp=Z,4µm						
FITZ	Fitzroy Crossi	13.71	197	P	Pn	00 48 26.3	-2.6
	comp=Z,64nm,0.3s,baz=34,slow=12,SNR=203						
FITZ				S	Sn	00 50 52.0	-10
	comp=Z,873nm,0.7s,baz=101,slow=12,SNR=10.0						
FITZ				LR	LR	00 54 04.0	
	comp=Z,6µm,21.0s,baz=21,slow=38						
FITZ	Fitzroy Crossi	13.71	197	P	Pn	00 48 29.2	+0.3
FITZ	Fitzroy Crossi	13.71	197	P	Pn	00 48 27.2	-1.7
FITZ	Fitzroy Crossi	13.71	197	⇑P	Pn	00 48 27.2	-1.7
FITZ	Fitzroy Crossi	13.71	197	P	Pn	00 48 27.4	-1.4
	comp=Z,390nm,1.2s						
KHKI	Kahang-Kahang	14.44	255	P	Pn	00 48 38.2	+0.3
	comp=Z,39µmcomp=Z,64µmcomp=Z,4µm,1.5s						
TARAI	Tarakan	14.64	304	P	Pn	00 48 40.6	+0.2
	comp=Z,50µmcomp=Z,116µmcomp=Z,9µm,1.1s						
BBKI	Banjar Baru	14.91	275	P	P	00 48 45.5	+0.7
	comp=Z,119µmcomp=Z,8µm,1.4s						
IGBI	Denpasar	14.99	254	P	Pn	00 48 43.7	-1.0
	comp=Z,30µmcomp=Z,41µmcomp=Z,3µm,0.5s						
MYLDM	Lahad Datu	15.03	312	P	P	00 48 47.6	+1.5
MYLDM	Lahad Datu	15.03	312	P	P	00 48 47.2	+1.1
MYLDM	Lahad Datu	15.03	312	⇑P	P	00 48 47.8	+1.7
MYLDM	Lahad Datu	15.03	312	P	P	00 48 47.1	+1.0
	comp=Z,58µmcomp=Z,5µm,1.3s						
MYLDM	Lahad Datu	15.03	312	P	P	00 48 48.0	+1.9
	comp=Z,5µm,1.3s						
RTBI	Rangdo, Negare	15.10	256	P	Pn	00 48 46.4	+0.3
	comp=Z,42µmcomp=Z,40µmcomp=Z,3µm,1.4s						
WB0	Warramunga Arr	15.46	163	Pn	Pn	00 48 48.0	-2.5
WRAB	Tennant Creek	15.61	164	P	Pn	00 48 50.3	-1.9
WRAB	Tennant Creek	15.61	164	c iP	Pn	00 48 49.5	-2.8
WRAB				pmax	pmax		
	comp=Z,188nm,0.8s						
WRAB	Tennant Creek	15.61	164	P	Pn	00 48 49.8	-2.4
WRAB	Tennant Creek	15.61	164	P	Pn	00 48 49.4	-2.8
WRAB	Tennant Creek	15.61	164	P	Pn	00 48 49.5	-2.8
	comp=Z,942nm,1.0s						
WRA	Warramunga Arr	15.61	164	P	Pn	00 48 49.3	-3.0
	comp=Z,216nm,0.7s,baz=347,slow=13,SNR=158						
WRA				S	S	00 51 36.0	-10
	comp=Z,975nm,1.0s,baz=344,slow=22,SNR=13						
WRA				LR	LR	00 55 26.1	
	comp=Z,12µm,21.0s,baz=28,slow=39						
WRA				ScS	ScS	01 00 34.9	-1.6
	comp=Z,44nm,1.0s,baz=346,slow=7.4,SNR=4.9						
WRA				P3KPbc		01 24 10.0	
	comp=Z,2.4nm,0.9s,baz=164,slow=4.3,SNR=12						
WRA				P4KP		01 32 42.6	
	comp=Z,1.8nm,0.8s,baz=353,slow=4.8,SNR=9.0						
WRA	Warramunga Arr	15.61	164		Pn	00 48 48.6	-3.7
WB2	Warramunga Arr	15.62	164	Pn	Pn	00 48 48.9	-3.5
ABJI	Asem Bagus	15.66	259	P	P	00 48 54.6	+1.5
	comp=Z,101µmcomp=Z,6µm,1.2s						
WR8	Warramunga Arr	15.67	163	P	Pn	00 48 49.9	-3.1
WR8	Warramunga Arr	15.67	163	Pn	Pn	00 48 50.3	-2.7
JAGI	Jajag, Banyuwa	15.87	256	P	P	00 48 55.1	-0.3
JAGI	Jajag, Banyuwa	15.87	256	P	P	00 48 53.0	-2.3
JAGI	Jajag, Banyuwa	15.87	256	⇑P	P	00 48 53.1	-2.3
JAGI	Jajag, Banyuwa	15.87	256	P	P	00 48 54.1	-1.3
	comp=Z,35µmcomp=Z,31µmcomp=Z,3µm,0.8s						
JAGI	Jajag, Banyuwa	15.87	256	P	P	00 48 54.3	-1.1
	comp=Z,3µm,0.9s						
PKKI	Palangkaraya	15.94	279	P	Pn	00 48 56.5	+0.1
	comp=Z,61µmcomp=Z,5µm,1.0s						
BLJI	Banyuglugur	16.28	259	P	Pn	00 49 00.6	+0.2
	comp=Z,66µmcomp=Z,3µm,0.6s						
BWJI	Bawean	17.02	266	P	Pn	00 49 10.5	+1.2
	comp=Z,44µmcomp=Z,101µmcomp=Z,7µm,1.4s						
KKM	Kota Kinabalu	17.32	309	P	Pn	00 49 13.3	+0.3
KKM	Kota Kinabalu	17.32	309	P	Pn	00 49 12.8	-0.2
KKM	Kota Kinabalu	17.32	309	⇑P	Pn	00 49 13.1	+0.1
KKM	Kota Kinabalu	17.32	309	P	Pn	00 49 12.9	-0.1
	comp=Z,37µmcomp=Z,62µmcomp=Z,6µm,1.2s						
MANU	Manus Island	17.84	81	P	P	00 49 15.9	-1.1
MANU	Manus Island	17.84	81	P	Pn	00 49 19.3	+0.4
MANU	Manus Island	17.84	81	⇓P	Pn	00 49 19.2	+0.4
PMG	Port Moresby	17.86	105	P	P	00 49 18.1	+0.8
	comp=Z,246nm,0.6s,baz=61,slow=0.4,SNR=47						
PMG				ScP	ScP	00 57 03.0	+0.8
	comp=Z,371nm,1.0s,baz=277,slow=3.4,SNR=9.8						
PMG	Port Moresby	17.86	105	P	Pn	00 49 19.6	+0.3
PMG	Port Moresby	17.86	105	S	S	00 52 35.3	+2.5
PMG	Port Moresby	17.86	105	P	Pn	00 49 19.5	+0.3
PMG	Port Moresby	17.86	105	S	S	00 52 35.4	+2.6
PMG	Port Moresby	17.86	105	d iP	P	00 49 16.4	-0.9
PMG				pmax	pmax		
	comp=Z,158nm,0.9s						
PMG	Port Moresby	17.86	105	P	P	00 49 16.0	-1.3
PMG	Port Moresby	17.86	105	⇓P	P	00 49 15.6	-1.7
PMG	Port Moresby	17.86	105	P	P	00 49 14.9	-2.4
	comp=Z,24µmcomp=Z,21µmcomp=Z,2µm,1.4s						
PMG	Port Moresby	17.86	105	P	Pn	00 49 18.7	-0.5
	comp=Z,2µm,1.4s						
SNJI	Sawahan-Nganju	18.08	260	P	P	00 49 20.3	+0.4
	comp=Z,19µmcomp=Z,1µm,1.4s						
QIS	Mount Isa	18.29	149	P	P	00 49 22.6	+0.7
	comp=Z,2µm,0.7s,comp=Z,17µmcomp=Z,0.0nm						
QIS	Mount Isa	18.29	149	P	P	00 49 22.7	+0.8
QIS	Mount Isa	18.29	149	S	S	00 52 43.3	+2.1
QIS	Mount Isa	18.29	149	P	P	00 49 22.5	+0.7
QIS	Mount Isa	18.29	149	P	P	00 49 22.5	+0.7
	comp=Z,2µm,0.7s						
NGJI	Ngawi	18.32	261	P	Pn	00 49 23.8	-0.8
	comp=Z,55µmcomp=Z,4µm,1.4s						
PCJI	Pacitan	18.71	259	P	P	00 49 24.5	-2.0
	comp=Z,37µmcomp=Z,5µm,1.0s						
MBWA	Marble Bar	18.85	210	P	P	00 49 27.8	-0.1
	comp=Z,1µm,1.3s,comp=Z,18µmcomp=Z,0.0nm						
MBWA	Marble Bar	18.85	210	P	P	00 49 27.7	-0.1
MBWA	Marble Bar	18.85	210	P	P	00 49 27.8	-0.1
MBWA	Marble Bar	18.85	210	P	P	00 49 27.3	-0.6
MBWA	Marble Bar	18.85	210	⇑P	P	00 49 27.6	-0.4
MBWA	Marble Bar	18.85	210	P	P	00 49 27.8	-0.1
	comp=Z,1µm,1.3s						
STKI	Sintang	18.88	285	P	P	00 49 28.3	-0.1
	comp=Z,35µmcomp=Z,19µmcomp=Z,1µm,0.9s						
WOJI	Wonogiri, Jawa	18.91	260	P	P	00 49 28.8	+0.2
AS31	Alice Springs	19.09	168	P	P	00 49 31.3	+0.8
	comp=Z,973nm,0.8s,comp=Z,9µmcomp=Z,0.0nm						
AS31	Alice Springs	19.09	168	P	P	00 49 30.2	-0.3
ASAR	Alice Springs	19.09	168	P	P	00 49 31.4	+0.8
	comp=Z,2µm,0.9s,baz=350,slow=11,SNR=878						
ASAR				S	S	00 52 54.9	-2.1
	comp=Z,320nm,0.7s,baz=350,slow=19,SNR=8.2						
ASAR				ScP	ScP	00 57 05.3	+0.5
	comp=Z,164nm,0.8s,baz=331,slow=1.9,SNR=7.2						
ASAR				LR	LR	00 57 29.3	
	comp=Z,10µm,18.8s,baz=344,slow=38						
ASAR				ScS	ScS	01 00 44.6	-2.1
	comp=Z,61nm,1.0s,baz=328,slow=3.6,SNR=9.3						
ASAR				P3KPbc		01 23 54.9	
	comp=Z,1.4nm,0.6s,baz=164,slow=4.1,SNR=17						
ASAR				P4KP		01 32 57.7	
	comp=Z,4.5nm,0.9s,baz=350,slow=3.8,SNR=19						
ASAR	Alice Springs	19.09	168	P	P	00 49 30.5	-0.1
AS01	Alice Springs	19.09	168	P	P	00 49 31.7	+1.1
AS17	Alice Springs	19.10	168	P	P	00 49 31.5	+0.8
	comp=Z,2µm,0.9s						
SMRI	Semarang	19.30	263	P	P	00 49 34.3	+1.4
SMRI	Semarang	19.30	263	P	P	00 49 33.0	+0.1
SMRI	Semarang	19.30	263	⇑P	P	00 49 32.3	-0.5
SMRI	Semarang	19.30	263	P	P	00 49 33.6	+0.7
	comp=Z,46µmcomp=Z,44µmcomp=Z,3µm,1.4s						
SMRI	Semarang	19.30	263	P	P	00 49 34.2	+1.4
	comp=Z,3µm,1.0s						
UGM	Wanagama	19.31	260	P	P	00 49 33.6	+0.6
UGM	Wanagama	19.31	260	S	S	00 53 05.0	+3.4
UGM	Wanagama	19.31	260	P	P	00 49 32.0	-1.1
UGM	Wanagama	19.31	260	P	P	00 49 32.7	-0.3
	comp=Z,42µmcomp=Z,20µmcomp=Z,2µm,1.2s						
UGM	Wanagama	19.31	260	P	P	00 49 33.1	+0.1
	comp=Z,2µm,1.3s						
MTSU	Mount Surprise	19.40	134	P	P	00 49 34.5	+0.5
	comp=Z,432nm,0.7s						
MTSU	Mount Surprise	19.40	134	P	P	00 49 34.9	+0.9
MTSU	Mount Surprise	19.40	134	S	S	00 53 07.5	+4.2
MTSU	Mount Surprise	19.40	134	P	P	00 49 34.4	+0.5
	comp=Z,432nm,0.7s						
YOGI	Yogyakarta	19.52	260	P	P	00 49 36.2	+0.9
	comp=Z,43µmcomp=Z,46µmcomp=Z,3µm,1.1s						
WRKA	Warakurna	20.07	184	P	P	00 49 41.5	+0.5
	comp=Z,732nm,0.8s,comp=Z,7µmcomp=Z,0.0nm						
BULU	Kimbe	20.52	93	P	P	00 49 47.0	+1.1
CMJI	Cimerak	21.34	261	P	P	00 49 51.5	-3.1
	comp=Z,26µmcomp=Z,23µmcomp=Z,2µm,1.3s						
CTA	Charters Tower	22.06	135	P	P	00 50 02.0	+0.2
	comp=Z,378nm,0.8s,baz=311,slow=11,SNR=101						
CTA				LR	LR	00 59 48.1	
	comp=Z,4µm,19.3s,baz=319,slow=39						
	comp=Z,378nm,0.8s						
CTAO	Charters Tower	22.06	135	P	P	00 50 02.5	+0.6
CTAO	Charters Tower	22.06	135	P	P	00 50 01.5	-0.4
CTAO				pmax	pmax		
	comp=Z,654nm,1.0s						
CTAO	Charters Tower	22.06	135	P	P	00 50 01.5	-0.4
CTAO				IAmb	IAmb	00 50 06.9	
	comp=Z,654nm,1.0s						
CTAO	Charters Tower	22.06	135	⇓P	P	00 50 01.3	-0.6
CTAO	Charters Tower	22.06	135	P	P	00 50 02.3	+0.4
	comp=Z,718nm,1.0s						
BBJI	Bungbulang	22.09	262	P	P	00 50 00.8	-1.5
BBJI	Bungbulang	22.09	262	S	S	00 53 54.2	+2.0
BBJI	Bungbulang	22.09	262	P	P	00 49 59.5	-2.8
	comp=Z,13µmcomp=Z,35µmcomp=Z,3µm,1.6s						
BBJI	Bungbulang	22.09	262	P	P	00 49 59.4	-3.0
	comp=Z,3µm,1.6s						
TPI	Tanjungpandan	22.12	275	P	P	00 50 00.4	-2.2
RABL	Rabaul	22.38	89	P	P	00 50 03.7	-1.3
RABL	Rabaul	22.38	89	⇓P	P	00 50 03.4	-1.6
AUAYR	Ayr State High	22.58	132	P	P	00 50 08.1	+1.4
CNJI	Cibinong	22.59	263	P	P	00 50 03.5	-3.4
SKJI	Sukabumi	23.14	264	P	P	00 50 09.7	-2.1
GIRL	Giralia	23.14	219	P	P	00 50 13.1	+1.4
	comp=Z,895nm,1.7s,comp=Z,14µmcomp=Z,0.0nm						
GIRL	Giralia	23.14	219	P	P	00 50 10.8	-0.9
GIRL				IAmb	IAmb	00 50 15.6	
	comp=Z,1µm,1.3s						
GUMO	Guam	23.74	39	P	P	00 50 17.1	-0.1
	comp=Z,4µm,1.0s,baz=195,slow=7.7,SNR=33						
GUMO				S	S	00 54 20.6	+2.0
	comp=Z,137nm,0.8s,baz=119,slow=23,SNR=6.5						
GUMO				ScP	ScP	00 57 16.8	+0.3
	comp=Z,77nm,0.4s,baz=167,slow=2.8,SNR=7.3						
	comp=Z,4µm,1.0s						
GUMO	Guam	23.74	39	P	P	00 50 18.3	+1.1
GUMO	Guam	23.74	39	P	P	00 50 16.7	-0.5
GUMO	Guam	23.74	39	⇓P	P	00 50 17.2	0.0
GUMO	Guam	23.74	39	P	P	00 50 17.3	+0.1
	comp=Z,6µm,1.2s						
CGJI	Cibinong	23.97	265	P	P	00 50 17.5	-1.9
MEEK	Meekatharra	24.08	205	P	P	00 50 19.9	-0.4
	comp=Z,779nm,0.9s,comp=Z,9µmcomp=Z,0.0nm						
MEEK	Meekatharra	24.08	205	P	P	00 50 19.7	-0.6
MEEK	Meekatharra	24.08	205	P	P	00 50 19.9	-0.4
	comp=Z,779nm,0.9s						
SZP	Santa	24.11	338	P	P	00 50 21.7	+1.1
SZP	Santa	24.11	338	P	P	00 50 19.7	-0.9
SZP				IAmb	IAmb	00 50 40.8	
	comp=Z,897nm,1.1s						
SZP	Santa	24.11	338	⇓P	P	00 50 20.8	+0.3
SZP	Santa	24.11	338	P	P	00 50 20.9	+0.3
	comp=Z,768nm,1.1s						
BLSI	Bandar Lampung	24.39	268	P	P	00 50 22.6	-0.6
PMBI	Palembang	24.97	274	P	P	00 50 29.7	+1.2
PMBI	Palembang	24.97	274	P	P	00 50 29.1	+0.6
PMBI	Palembang	24.97	274	P	P	00 50 29.4	+0.9
	comp=Z,2µm,1.1s						
INKA	Innaminka	25.02	156	P	P	00 50 27.9	-0.8
DPSS	Saipan	25.57	38	P	P	00 50 32.1	-1.7
QLP	Quilpie	25.63	149	P	P	00 50 34.9	+0.5
	comp=Z,671nm,1.3s,comp=Z,9µm						
QLP	Quilpie	25.63	149	P	P	00 50 35.4	+1.1
QLP	Quilpie	25.63	149	⇓P	P	00 50 34.6	+0.3
QLP	Quilpie	25.63	149	P	P	00 50 34.8	+0.5
	comp=Z,671nm,1.3s						
FORT	Forrest	25.79	183	P	P	00 50 35.8	+0.1
	comp=Z,267nm,0.7s,comp=Z,3µmcomp=Z,0.0nm						
FORT	Forrest	25.79	183	P	P	00 50 34.7	-0.9
FORT				IAmb	IAmb	00 51 22.3	
	comp=Z,264nm,0.8s						
BTDF	Bukit Timah Da	26.66	283	P	P	00 50 44.9	+1.2
MNAI	Manna	26.69	270	P	P	00 50 42.5	-1.4
MNAI	Manna	26.69	270	⇑P	P	00 50 43.0	-0.9
MNAI	Manna	26.69	270	P	P	00 50 43.1	-0.9
	comp=Z,637nm,0.9s						
MYKOM	Kota Tinggi	26.69	284	P	P	00 50 44.7	+0.8
MYKOM	Kota Tinggi	26.69	284	P	P	00 50 43.7	-0.3
MYKOM				IAmb	IAmb	00 50 49.0	
	comp=Z,649nm,1.1s						
MYKOM	Kota Tinggi	26.69	284	⇑P	P	00 50 43.9	0.0
MYKOM	Kota Tinggi	26.69	284	P	P	00 50 44.1	+0.2
	comp=Z,568nm,1.1s						
DLV	Lat	26.95	309	P	P	00 50 47.9	+1.5
DLV	Lat	26.95	309	P	P	00 50 46.1	-0.3
DLV				IAmb	IAmb	00 50 50.4	
	comp=Z,731nm,1.3s						
DLV	Lat	26.95	309	⇑P	P	00 50 47.2	+0.8
DLV	Lat	26.95	309	P	P	00 50 47.3	+0.9
	comp=Z,440nm,1.7s						
MORW	Morawa	27.31	207	P	P	00 50 49.1	-0.3
	comp=Z,412nm,1.7s,comp=Z,8µmcomp=Z,0.0nm						
MORW	Morawa	27.31	207	P	P	00 50 48.7	-0.6
MORW	Morawa	27.31	207	P	P	00 50 48.1	-1.2
MORW				IAmb	IAmb	00 50 51.4	
	comp=Z,406nm,1.1s						
MORW	Morawa	27.31	207	⇑P	P	00 50 48.6	-0.6
MORW	Morawa	27.31	207	P	P	00 50 49.0	-0.3
	comp=Z,412nm,1.7s						
KMBL	Kambalda	27.34	195	P	P	00 50 49.6	+0.1
	comp=Z,142nm,1.1s,comp=Z,3µm						
GD1S	Gladstone Soft	27.96	134	P	P	00 50 56.3	+1.2
BLDU	Ballidu	28.37	204	P	P	00 50 58.5	-0.1
	comp=Z,525nm,1.7s,comp=Z,8µm						
BLDU	Ballidu	28.37	204	P	P	00 50 58.4	-0.2
BLDU	Ballidu	28.37	204	P	P	00 50 58.5	-0.1
	comp=Z,525nm,1.7s						
BBOO	Buckleboo	28.39	169	P	P	00 50 59.4	+0.6
	comp=Z,181nm,0.9s,comp=Z,4µm						
BBOO	Buckleboo	28.39	169	P	P	00 50 59.4	+0.6
BBOO	Buckleboo	28.39	169	P	P	00 50 59.2	+0.4
BBOO	Buckleboo	28.39	169	P	P	00 50 59.6	+0.8
	comp=Z,181nm,0.9s						
TWGBT	Beinan	28.82	343	P	P	00 51 00.9	-1.8
TWG	Pinlang	28.82	343	P	P	00 51 00.3	-2.5
	comp=Z,129nm,0.8s						
KLBR	Kellerberrin	28.83	202	P	P	00 51 02.8	+0.1
	comp=Z,1µm,0.9s						
KLBR	Kellerberrin	28.83	202	P	P	00 51 02.8	+0.1
KLBR	Kellerberrin	28.83	202	P	P	00 51 02.8	+0.1
	comp=Z,1µm,0.9s						
EIDS	Eidsvold	28.88	137	P	P	00 51 03.7	+0.5
	comp=Z,82nm,1.1s,comp=Z,3µmcomp=Z,0.0nm						
EIDS	Eidsvold	28.88	137	P	P	00 51 04.0	+0.8
EIDS	Eidsvold	28.88	137	P	P	00 51 02.1	-1.1
EIDS	Eidsvold	28.88	137	⇑P	P	00 51 02.8	-0.4
EIDS	Eidsvold	28.88	137	P	P	00 51 03.7	+0.5
	comp=Z,82nm,1.1s						
STKA	Stephens Creek	29.05	159	P	P	00 51 05.3	+0.6
	comp=Z,612nm,1.2s,comp=Z,0.0nm						
STKA	Stephens Creek	29.05	159	P	P	00 51 05.2	+0.6
	comp=Z,45nm,0.4s,baz=328,slow=9.1,SNR=54						
STKA				LR	LR	01 04 02.5	
	comp=Z,9µm,20.1s,baz=329,slow=38						
	comp=Z,45nm,0.4s						
STKA	Stephens Creek	29.05	159	P	P	00 51 05.3	+0.6
STKA	Stephens Creek	29.05	159	d iP	P	00 51 04.6	-0.1
STKA	Stephens Creek	29.05	159	P	P	00 51 05.4	+0.7
	comp=Z,612nm,1.2s						
BKNI	Bangkinang	29.12	279	P	P	00 51 04.3	-1.2
BKNI	Bangkinang	29.12	279	P	P	00 51 06.9	+1.4
BKNI	Bangkinang	29.12	279	P	P	00 51 05.0	-0.5
BKNI	Bangkinang	29.12	279	⇑P	P	00 51 04.7	-0.9
BKNI	Bangkinang	29.12	279	P	P	00 51 06.2	+0.6
	comp=Z,1µm,1.3s						
YULB	Yu-li	29.30	344	P	P	00 51 05.5	-1.5
YULB	Yu-li	29.30	344	P	P	00 51 04.2	-2.8
YULB	Yu-li	29.30	344	P	P	00 51 04.8	-2.2
	comp=Z,113nm,0.6s						
HTT	Hallett	29.65	164	P	P	00 51 11.9	+1.9
	comp=Z,31nm,1.5s,comp=Z,1µm						
HTT	Hallett	29.65	164	P	P	00 51 11.2	+1.2
HTT	Hallett	29.65	164	P	P	00 51 09.9	-0.1
HTT	Hallett	29.65	164	⇑P	P	00 51 11.2	+1.2
AUCAS	Cummins Area S	29.74	170	P	P	00 51 13.2	+2.5
MUN	Mundaring	29.77	204	P	P	00 51 11.1	+0.1
	comp=Z,573nm,1.3s						
MUN	Mundaring	29.77	204	P	P	00 51 10.5	-0.5
MUN	Mundaring	29.77	204	P	P	00 51 11.1	+0.1
SSLB	Suanglung	29.77	344	P	P	00 51 09.2	-1.9
SSLB	Suanglung	29.77	344	P	P	00 51 08.9	-2.2
SSLB				IAmb	IAmb	00 51 12.3	
	comp=Z,300nm,1.1s						
SSLB	Suanglung	29.77	344	P	P	00 51 09.3	-1.8
	comp=Z,267nm,1.1s						
JMJ	Miyako jima 2	29.85	352	P	P	00 51 13.1	+1.3
AULRC	Lightning Ridg	29.89	147	P	P	00 51 12.5	+0.4
MTKN	Mount Kenneth	29.90	204	P	P	00 51 13.7	+1.5
YOJ	Yonaguni jima	29.91	348	P	P	00 51 13.1	+0.8
YOJ	Yonaguni jima	29.91	348	P	P	00 51 11.3	-1.0
YOJ				pmax	pmax		
	comp=Z,347nm,0.6s						
YOJ	Yonaguni jima	29.91	348	P	P	00 51 11.3	-1.0
YOJ				IAmb	IAmb	00 51 21.6	

	comp=Z,347nm,0.6s						
YOJ	Yonaguni jima	29.91	348	⇑P	P	00 51 12.4	+0.2
YOJ	Yonaguni jima	29.91	348	P	P	00 51 12.6	+0.3
	comp=Z,476nm,0.8s						
NACB	Ninganchiao	29.96	345	P	P	00 51 11.5	-1.3
NACB	Ninganchiao	29.96	345	P	P	00 51 10.9	-1.9
NACB	Ninganchiao	29.96	345	P	P	00 51 11.1	-1.7
	comp=Z,134nm,1.4s						
TATA	Tatamba Isabel	30.07	98	P	P	00 51 13.3	-0.6
IPM	Ipoh	30.14	288	P	P	00 51 15.0	+0.4
IPM	Ipoh	30.14	288	P	P	00 51 14.3	-0.3
IPM	Ipoh	30.14	288	⇑P	P	00 51 14.3	-0.3
SAVO	Savo Central	30.15	100	P	P	00 51 14.1	-0.5
NWAO	Narrogin (SRO)	30.22	201	P	P	00 51 15.3	+0.3
	comp=Z,585nm,0.9s,comp=Z,8µm						
NWAO	Narrogin (SRO)	30.22	201	P	P	00 51 15.3	+0.3
	comp=Z,949nm,0.9s,comp=Z,13µm						
NWAO	Narrogin (SRO)	30.22	201	P	P	00 51 15.1	+0.1
	comp=Z,233nm,0.7s,baz=25,slow=7.5,SNR=51						
NWAO				ScP	ScP	00 57 36.5	+0.8
	comp=Z,219nm,0.9s,baz=7.9,slow=2.1,SNR=8.2						
NWAO				LR	LR	01 04 40.8	
	comp=Z,8µm,18.7s,baz=24,slow=38						
	comp=Z,233nm,0.7s						
NWAO	Narrogin (SRO)	30.22	201	P	P	00 51 15.2	+0.3
NWAO	Narrogin (SRO)	30.22	201	P	P	00 51 15.7	+0.7
NWAO	Narrogin (SRO)	30.22	201	P	P	00 51 15.0	+0.1
NWAO	Narrogin (SRO)	30.22	201	P	P	00 51 14.2	-0.8
NWAO	Narrogin (SRO)	30.22	201	P	P	00 51 15.3	+0.3
	comp=Z,558nm,0.9s						
NWAO	Narrogin (SRO)	30.22	201	P	P	00 51 15.3	+0.3
NWAO				pP	pP	00 51 53.6	+0.9
NWAO				ScP	ScP	00 57 36.4	+0.7
HNR	Honiara	30.31	100	P	P	00 51 17.3	+1.3
HNR	Honiara	30.31	100	P	P	00 51 14.9	-1.1
HNR				pmax	pmax		
	comp=Z,1µm,1.2s						
HNR	Honiara	30.31	100	P	P	00 51 14.9	-1.1
HNR	Honiara	30.31	100	⇓P	P	00 51 15.4	-0.6
CMSA	Cobar Meteorol	30.44	152	P	P	00 51 17.8	+0.8
	comp=Z,228nm,1.0s,comp=Z,0.0nm						
CMSA	Cobar Meteorol	30.44	152	P	P	00 51 17.5	+0.5
CMSA	Cobar Meteorol	30.44	152	P	P	00 51 17.6	+0.7
	comp=Z,228nm,1.0s						
YHNB	Yeheng	30.50	345	P	P	00 51 17.0	-0.6
YHNB	Yeheng	30.50	345	P	P	00 51 16.2	-1.4
YHNB	Yeheng	30.50	345	P	P	00 51 16.9	-0.6
	comp=Z,217nm,1.3s						
JMZ	Minamidaito 2	30.57	3	P	P	00 51 19.4	+1.3
JMZ	Minamidaito 2	30.57	3	P	P	00 51 17.5	-0.6
JMZ				IAmb	IAmb	00 52 16.3	
	comp=Z,556nm,1.0s						
JMZ	Minamidaito 2	30.57	3	⇓P	P	00 51 19.6	+1.5
NGOA	Tingoa Renbel	30.72	104	P	P	00 51 20.7	+1.1
TATO	Taipei	30.76	345	P	P	00 51 17.5	-2.2
QIZ	Qiongzhong	30.80	321	⇑iP	P	00 51 20.9	+0.7
QIZ				PP	PP	00 52 33.7	-0.2
QIZ				S	S	00 56 10.3	+0.5
QIZ				pmax	pmax		
	comp=Z,470nm,1.3s						
QIZ				pmax	pmax		
	comp=Z,3µm,9.3s						
QIZ				L	L		
	comp=Z,5µm,15.1s						
QIZ				L	L		
	comp=Z,2µm,22.4s						
QIZ				L	L		
	comp=Z,4µm,17.3s						
QIZ	Qiongzhong	30.80	321	P	P	00 51 21.0	+0.7
QIZ	Qiongzhong	30.80	321	P	P	00 51 20.9	+0.7
QIZ				ScP	ScP	00 57 38.5	+0.6
PATS	Pohnpei	30.82	68	P	P	00 51 21.1	+0.5
	comp=Z,1µm,1.3s,comp=Z,0.0nm						
PATS	Pohnpei	30.82	68	P	P	00 51 21.3	+0.8
AUHAR	St Anne's Scho	30.87	203	P	P	00 51 22.2	+1.5
TW1H	Toowoomba 1 Ha	30.92	139	P	P	00 51 22.8	+1.5
AUTOO	Toowoomba Stat	30.92	139	P	P	00 51 23.2	+1.9
HKPS	Hong Kong Po S	31.02	331	P	P	00 51 22.7	+0.6
HKPS	Hong Kong Po S	31.02	331	P	P	00 51 21.3	-0.8
HKPS				IAmb	IAmb	00 51 23.7	
	comp=Z,643nm,1.4s						
HKC	Hong Kong Obse	31.02	331	⇑P	P	00 51 22.0	-0.1
MCO	Taipa Grande	31.17	330	P	P	00 51 24.0	+0.5
KNMB	Chin-men Tao	31.21	340	P	P	00 51 23.1	-0.6
KNMB	Chin-men Tao	31.21	340	P	P	00 51 24.0	+0.3
	comp=Z,659nm,1.2s						
AUMBR	Murray Bridge	31.36	165	P	P	00 51 27.1	+2.2
JOW	Kunigami	31.58	358	P	P	00 51 27.0	+0.1
	comp=Z,542nm,0.9s,baz=167,slow=8.2,SNR=81						
JOW				ScP	ScP	00 57 40.8	+0.5
	comp=Z,40nm,1.0s,baz=173,slow=5.0,SNR=4.4						
	comp=Z,542nm,0.9s						
JOW	Kunigami	31.58	358	P	P	00 51 28.0	+1.1
JOW	Kunigami	31.58	358	P	P	00 51 26.3	-0.7
JOW	Kunigami	31.58	358	⇓P	P	00 51 27.1	+0.2
JOW	Kunigami	31.58	358	P	P	00 51 28.4	+1.5
	comp=Z,956nm,1.0s						
QZH2	Quanzhou	31.58	340	⇑iP	P	00 51 27.2	+0.2
QZH2				S	S	00 56 19.8	-1.9
QZH2				ScS	ScS	01 01 37.8	-0.9
QZH2				pmax	pmax		
	comp=Z,560nm,1.2s						
QZH2				pmax	pmax		
	comp=Z,2µm,3.0s						
RPSI	Rantau Prapat	31.68	283	P	P	00 51 26.4	-1.7
RPSI				IAmb	IAmb	00 51 32.0	
	comp=Z,597nm,1.0s						
PSI	Prapat	31.71	283	P	P	00 51 26.6	-1.9
PSI	Prapat	31.71	283	P	P	00 51 26.4	-2.1
PSI				pmax	pmax		
	comp=Z,597nm,1.0s						
RKGY	Rocky Gully	31.83	200	P	P	00 51 31.0	+1.9
	comp=Z,235nm,1.5s,comp=Z,4µm						
HURO	Huro Makira	32.35	102	P	P	00 51 32.8	-1.1
GZH2	Guangzhou	32.42	332	P	P	00 51 33.8	-0.6
GZH2				PP	PP	00 52 52.6	+0.8
GZH2				S	S	00 56 32.6	-2.2
GZH2				pmax	pmax		
	comp=Z,500nm,1.3s						
GZH2				pmax	pmax		
	comp=Z,2µm,6.1s						
AUDCS	Dubbo College	32.44	149	P	P	00 51 34.6	+0.1
GSI	Gunungsitoli	32.70	280	P	P	00 51 35.2	-1.8
GSI	Gunungsitoli	32.70	280	P	P	00 51 34.7	-2.3
GSI	Gunungsitoli	32.70	280	⇑P	P	00 51 34.5	-2.5
GSI	Gunungsitoli	32.70	280	P	P	00 51 34.8	-2.2
	comp=Z,1µm,1.4s						
ARMA	Armidale	32.72	143	P	P	00 51 38.5	+1.4
	comp=Z,190nm,1.9s,comp=Z,3µmcomp=Z,0.0nm						
ARMA	Armidale	32.72	143	P	P	00 51 38.6	+1.6
ARMA	Armidale	32.72	143	P	P	00 51 35.6	-1.4
ARMA				IAmb	IAmb	00 51 40.5	
	comp=Z,815nm,1.9s						
ARMA	Armidale	32.72	143	⇓P	P	00 51 37.6	+0.6
H01W3	Cape Leeuwin H	33.14	204	P	P	00 51 42.0	+1.8
	baz=39,slow=5.9,SNR=9.5						
H01W1	Cape Leeuwin H	33.14	204	P	P	00 51 42.0	+1.7
	baz=39,slow=5.9,SNR=8.1						
H01W2	Cape Leeuwin H	33.15	204	P	P	00 51 42.4	+2.0
	baz=39,slow=5.9,SNR=5.5						
ARPS	Mount Arapiles	33.61	162	P	P	00 51 45.3	+0.8
	comp=Z,56nm,1.4s						
MGBR	Mount Gambier	34.14	165	P	P	00 51 48.2	-0.9
LHMI	Lhok Sumawe	34.25	287	P	P	00 51 51.0	+0.7
LHMI	Lhok Sumawe	34.25	287	P	P	00 51 49.4	-0.9
LHMI	Lhok Sumawe	34.25	287	⇑P	P	00 51 49.7	-0.6
MGCD	Mangrove Creek	34.50	147	P	P	00 51 53.6	+1.4
	comp=Z,251nm,0.7s						
MGCD	Mangrove Creek	34.50	147	P	P	00 51 53.9	+1.6
SYDH	Sydney Hard Ro	34.73	148	P	P	00 51 55.6	+1.4
AUKHS	Kincumber High	34.84	147	P	P	00 51 57.3	+2.2
BRAT	Ballarat	34.99	160	P	P	00 51 57.8	+1.4
AUMTC	Mt Clear Colle	35.03	160	P	P	00 51 58.1	+1.4
AUMTS	Mt Stromlo	35.12	152	P	P	00 51 58.9	+1.3
CAN	Canberra	35.12	152	P	P	00 51 58.7	+1.2
	comp=Z,345nm,0.8s,comp=Z,4µmcomp=Z,0.0nm						
CAN	Canberra	35.12	152	P	P	00 51 58.8	+1.2
CAN	Canberra	35.12	152	P	P	00 51 57.3	-0.3
CAN				pmax	pmax		
	comp=Z,1µm,1.8s						
CAN	Canberra	35.12	152	P	P	00 51 57.2	-0.3
CAN				IAmb	IAmb	00 52 01.9	
	comp=Z,1µm,1.8s						
CAN	Canberra	35.12	152	⇓P	P	00 51 58.9	+1.3
CAN	Canberra	35.12	152	P	P	00 51 58.8	+1.2
CAN				x	x	00 52 44.9	
CAN				ScP	ScP	00 57 52.8	+0.2
AUMHS	Melrose High S	35.19	152	P	P	00 51 59.5	+1.3
CNB	Canberra Magne	35.28	152	P	P	00 51 59.8	+0.8
	comp=Z,5.1nm,1.8s,comp=Z,86nm						
WOLH	Wollongong Har	35.31	149	P	P	00 52 00.7	+1.6
GULI	GuiLin	35.42	329	⇑P	P	00 52 00.0	-0.2
GULI				S	S	00 57 19.2	-1.7
GULI				pmax	pmax		
	comp=Z,310nm,1.3s						
GULI				L	L		
	comp=Z,3µm,16.8s						
GULI				L	L		
	comp=Z,4µm,15.2s						
GULI				L	L		
	comp=Z,5µm,17.4s						
TOO	Toolangi	35.57	158	P	P	00 52 03.1	+1.7
	comp=Z,42nm,0.8s						
TOO	Toolangi	35.57	158	P	P	00 52 00.5	-0.9
TOO				pmax	pmax		
	comp=Z,25nm,0.7s						
TOO	Toolangi	35.57	158	P	P	00 52 00.5	-0.9
AUSMG	Snowy Mountain	35.85	154	P	P	00 52 04.9	+1.1
JSU	Suzuyama	36.21	1	P	P	00 52 07.5	+0.7
JSU	Suzuyama	36.21	1	P	P	00 52 05.0	-1.8
JSU				IAmb	IAmb	00 52 10.1	
	comp=Z,749nm,1.1s						
JSU	Suzuyama	36.21	1	⇑P	P	00 52 07.8	+0.9
SLVN	Son La	36.34	317	P	P	00 52 08.7	+0.5
SLVN	Son La	36.34	317	P	P	00 52 08.1	-0.1
SLVN				IAmb	IAmb	00 52 11.6	
	comp=Z,614nm,1.3s						
MILA	Mila	36.62	154	P	P	00 52 12.1	+1.8
	comp=Z,55nm,1.0s,comp=Z,798nm						
MILA	Mila	36.62	154	P	P	00 52 11.7	+1.4
MILA	Mila	36.62	154	⇓P	P	00 52 12.2	+1.9
CNSH	ChangSha	36.66	335	P	P	00 52 11.2	+0.5
CNSH				PP	PnPn	00 53 41.5	+0.6
CNSH				S	S	00 57 39.8	+0.1
CNSH				pmax	pmax		
	comp=Z,180nm,1.3s						
CNSH				L	L		
	comp=Z,4µm,16.0s						
CNSH				L	L		
	comp=Z,6µm,19.2s						
CNSH				L	L		
	comp=Z,5µm,15.8s						
SSE	Sheshan	36.71	348	P	P	00 52 11.7	+0.7
SSE				S	S	00 57 39.7	-0.7
SSE				pmax	pmax		
	comp=Z,140nm,1.1s						
SSE				pmax	pmax		
	comp=Z,610nm,3.5s						
SSE				L	L		
	comp=Z,900nm,11.5s						
SSE				L	L		
	comp=Z,1µm,11.9s						
KOUNC	Koumac, New Ca	37.01	118	P	P	00 52 14.6	+0.9
KOUNC	Koumac, New Ca	37.01	118	P	P	00 52 12.3	-1.4
KOUNC	Koumac, New Ca	37.01	118	⇓P	P	00 52 13.7	0.0
JNU	Nakatsue	37.83	2	P	P	00 52 20.9	+0.4
	comp=Z,229nm,0.9s,baz=184,slow=3.9,SNR=55						
JNU				S	S	00 57 57.9	+0.5
	comp=Z,57nm,0.9s,baz=262,slow=23,SNR=10						
	comp=Z,229nm,0.9s						
NJ2	Nanjing	38.18	345	⇑iP	P	00 52 24.4	+1.1
NJ2				S	S	00 58 03.2	+0.7
NJ2				ScS	ScS	01 02 13.6	-0.5
NJ2				pmax	pmax		
	comp=Z,360nm,0.9s						
NJ2				pmax	pmax		
	comp=Z,570nm,3.5s						
LHI	Lord Howe Isla	38.19	137	P	P	00 52 22.3	-1.2
WHN	Wuhan	38.19	338	⇑iP	P	00 52 24.8	+1.3
WHN				PP	PnPn	00 54 00.4	+1.4
WHN				S	S	00 58 03.9	+1.1
WHN				ScS	ScS	01 02 13.8	-0.4
WHN				pmax	pmax		
	comp=Z,3µm,1.2s						
CM31	Chiang Mai Arr	38.20	308	P	P	00 52 25.1	+1.3
	SNR=434						
CM31	Chiang Mai Arr	38.20	308	P	P	00 52 24.6	+0.8
CMAR	Chiang Mai Arr	38.20	308	P	P	00 52 24.1	+0.3
	comp=Z,604nm,1.1s,baz=138,slow=6.9,SNR=469						
CMAR				PcP	PcP	00 54 35.8	+1.3
	comp=Z,28nm,0.8s,baz=160,slow=2.8,SNR=5.0						
CMAR				ScP	ScP	00 58 05.8	+1.4
	comp=Z,39nm,0.8s,baz=154,slow=3.1,SNR=11						
	comp=Z,604nm,1.1s						
CMAR	Chiang Mai Arr	38.20	308	ceP	P	00 52 25.0	+1.2
CMAR				pmax	pmax		
	comp=Z,639nm,1.0s						
CMAR	Chiang Mai Arr	38.20	308	P	P	00 52 23.9	+0.1
SANVU	Saraoutou	38.28	109	P	P	00 52 25.7	+1.2
SANVU	Saraoutou	38.28	109	P	P	00 52 23.4	-1.1
SANVU	Saraoutou	38.28	109	⇓P	P	00 52 25.2	+0.7
SANVU	Saraoutou	38.28	109	P	P	00 52 25.0	+0.5
SANVU				ScP	ScP	00 58 07.7	+3.0
GYA	Guiyang	38.35	326	P	P	00 52 25.8	+0.7
GYA				pP	pP	00 53 10.2	+5.4
GYA				PP	PnPn	00 54 00.8	-0.3
GYA				S	S	00 58 03.9	-1.7
GYA				SS	SS	01 00 56.6	-6.3
GYA				pmax	pmax		
	comp=Z,440nm,0.9s						
GYA				pmax	pmax		
	comp=Z,2µm,8.3s						
GYA				L	L		
	comp=Z,3µm,18.6s						
GYA				L	L		
	comp=Z,2µm,11.9s						
GYA				L	L		
	comp=Z,4µm,19.1s						
CHTO	Chiang Mai	38.40	309	P	P	00 52 26.4	+0.9
CHTO	Chiang Mai	38.40	309	P	P	00 52 26.6	+1.1
CHTO	Chiang Mai	38.40	309	P	P	00 52 25.9	+0.4
CHTO				pmax	pmax		
	comp=Z,2µm,1.1s						
CHTO	Chiang Mai	38.40	309	P	P	00 52 25.9	+0.4
CHTO	Chiang Mai	38.40	309	⇑P	P	00 52 26.4	+0.9
JHJ	Hachijo jima 2	39.00	13	P	P	00 52 30.1	-0.1
	comp=Z,193nm,0.8s,baz=192,slow=8.0,SNR=4.6						
JHJ				LR	LR	01 06 14.6	
	comp=Z,3µm,19.3s,baz=149,slow=32						
	comp=Z,193nm,0.8s						
JHJ2	Mitsune	39.00	14	P	P	00 52 28.4	-1.7
JTU	Tsushima	39.22	360	P	P	00 52 33.1	+1.2
JTU	Tsushima	39.22	360	⇑P	P	00 52 32.7	+0.8
NOUC	Port Laguerre	39.30	119	P	P	00 52 34.2	+1.3
DZM	Mont Dzumac	39.42	119	LR	LR	01 10 01.8	
	comp=Z,2µm,18.2s,baz=342,slow=38						
ONTNC	Ouen Toro	39.51	119	P	P	00 52 36.0	+1.4
ONTNC	Ouen Toro	39.51	119	P	P	00 52 33.8	-0.8
ONTNC				IAmb	IAmb	00 52 37.1	
	comp=Z,1µm,1.9s						
ONTNC	Ouen Toro	39.51	119	⇑P	P	00 52 35.4	+0.8
KMI	Kunming	39.73	320	P	P	00 52 37.9	+1.3
KMI				ScP	ScP	00 58 10.8	+0.4
KMI2	Kunming	39.74	320	⇑P	P	00 52 38.1	+1.3
KMI2				PP	PnPn	00 54 15.1	-2.3
KMI2				S	S	00 58 27.5	+0.8
KMI2				pmax	pmax		
	comp=Z,820nm,1.4s						
KMI2				pmax	pmax		
	comp=Z,3µm,4.8s						
KMI2				L	L		
	comp=Z,1µm,22.9s						
KMI2				L	L		
	comp=Z,2µm,12.7s						
KMI2				L	L		
	comp=Z,3µm,23.7s						
YATNC	Mamie plateau,	39.80	119	P	P	00 52 38.3	+1.2
OUENC	Ouen Island, N	39.88	119	P	P	00 52 39.2	+1.5
OUENC	Ouen Island, N	39.88	119	P	P	00 52 37.5	-0.2
RTV	Rentapao	39.95	112	P	P	00 52 39.4	+1.1
ENH	Enshi	39.99	332	P	P	00 52 38.7	+0.3
ENH	Enshi	39.99	332	IAmb	IAmb	00 52 40.6	
	comp=Z,348nm,0.7s						
JSG	Sagara	40.16	11	P	P	00 52 40.9	+1.1
JSG	Sagara	40.16	11	P	P	00 52 39.8	0.0
JSG				IAmb	IAmb	00 52 43.0	
	comp=Z,890nm,1.1s						
KWJN	Gagan, Kwajale	40.22	70	P	P	00 52 41.8	+1.2
PBA	Port Blair	40.30	294	P	P	00 52 40.5	-0.7
	SNR=24						
PBA	Port Blair	40.30	294	P	P	00 52 39.6	-1.6
PBA				IAmb	IAmb	00 53 12.0	
	comp=Z,743nm,0.9s						
PBA	Port Blair	40.30	294	⇑P	P	00 52 39.9	-1.3
PBA	Port Blair	40.30	294	eP	P	00 52 38.3	-2.8
PBA				IAmb	IAmb	00 52 42.5	
	comp=Z,265nm,0.9s						
MOO	Moorlands	40.48	160	P	P	00 52 44.2	+1.9
	comp=Z,102nm,1.0s						
MOO	Moorlands	40.48	160	P	P	00 52 45.6	+3.3
MOO	Moorlands	40.48	160	P	P	00 52 43.7	+1.4
MARNC	Mare, Loyalty	40.61	118	P	P	00 52 44.0	+0.2
MARNC	Mare, Loyalty	40.61	118	P	P	00 52 43.2	-0.5
MARNC	Mare, Loyalty	40.61	118	⇑P	P	00 52 43.9	+0.2
INU	Inuyama	40.62	9	P	P	00 52 44.3	+0.8
INU	Inuyama	40.62	9	P	P	00 52 43.2	-0.3
INU	Inuyama	40.62	9	⇑P	P	00 52 44.3	+0.8
INU	Inuyama	40.62	9	P	P	00 52 44.4	+0.9
INU				ScP	ScP	00 58 12.8	-0.5
JGF	Kuroka	40.92	10	P	P	00 52 46.5	+0.5
JGF	Kuroka	40.92	10	P	P	00 52 45.9	-0.1
JGF				IAmb	IAmb	00 52 48.2	
	comp=Z,373nm,1.1s						
JGF	Kuroka	40.92	10	⇑P	P	00 52 46.4	+0.3
TJN	Taejon	41.12	357	P	P	00 52 48.4	+0.8
TJN	Taejon	41.12	357	c iP	P	00 52 48.4	+0.8
TJN	Taejon	41.12	357	P	P	00 52 48.2	+0.6
PZH	PanZhiHua	41.34	320	P	PKiKP	01 01 59.2	+7.4
PZH	PanZhiHua	41.34	320	P	P	00 52 49.8	+0.1
PZH				PP	PnPn	00 54 33.4	-2.4
PZH				S	S	00 58 48.6	-1.5
PZH				pmax	pmax		
	comp=Z,510nm,1.0s						
PZH				pmax	pmax		
	comp=Z,2µm,4.6s						
PZH				L	L		
	comp=Z,1µm,15.7s						
PZH				L	L		
	comp=Z,1µm,17.8s						
PZH				L	L		
	comp=Z,1µm,12.8s						
MJAR	Matsushiro Arr	41.98	10	P	P	00 52 54.2	-0.5
	comp=Z,420nm,0.9s,baz=185,slow=9.4,SNR=214						
MJAR				ScP	ScP	00 58 19.1	+0.3
	comp=Z,20nm,0.8s,baz=190,slow=3.9,SNR=7.5						
MJAR				S	S	00 58 54.9	-4.1
	comp=Z,18nm,1.0s,baz=184,slow=13,SNR=6.7						
MJAR				LR	LR	01 09 35.4	
	comp=Z,1µm,20.3s,baz=182,slow=35						
	comp=Z,420nm,0.9s						
MJAR	Matsushiro Arr	41.98	10	P	P	00 52 54.1	-0.5
MJAR				IAmb	IAmb	00 52 56.6	
	comp=Z,465nm,0.9s						
MAJO	Matsushiro	41.98	10	P	P	00 52 54.4	-0.2
MAJO	Matsushiro	41.98	10	c iP	P	00 52 54.3	-0.3
MAJO				pmax	pmax		
	comp=Z,681nm,0.9s						
MAJO	Matsushiro	41.98	10	P	P	00 52 53.4	-1.2
MAJO				IAmb	IAmb	00 52 56.5	
	comp=Z,806nm,0.9s						
MAJO	Matsushiro	41.98	10	⇑P	P	00 52 53.3	-1.3
MAJO	Matsushiro	41.98	10	P	P	00 52 54.4	-0.2
MAJO				pP	pP	00 53 34.1	-0.2
MAJO				PcP	PcP	00 54 48.5	+2.2
MAJO				ScP	ScP	00 58 18.0	-0.8
MJB9	Matsu-Tunnel	41.99	10	P	P	00 52 53.7	-1.0
MJB9				IAmb	IAmb	00 52 56.5	
	comp=Z,729nm,0.9s						
KSAR	Wonju Array Be	42.16	358	P	P	00 52 57.2	+1.2
KSAR	Wonju Array Be	42.16	358	P	P	00 52 57.2	+1.2
KSRS	Korea Array	42.17	358	P	P	00 52 57.3	+1.2
	comp=Z,109nm,0.9s,baz=180,slow=8.0,SNR=74						
KSRS				PcP	PcP	00 54 47.1	+0.3
	comp=Z,24nm,0.9s,baz=192,slow=3.2,SNR=4.8						
KSRS				ScP	ScP	00 58 20.0	+0.6
	comp=Z,17nm,0.8s,baz=186,slow=3.7,SNR=7.1						
	comp=Z,109nm,0.9s						
KS19	Wonju Array Si	42.22	358	P	P	00 52 56.8	+0.3
INCN	Inchon	42.26	356	P	P	00 52 58.3	+1.4
INCN	Inchon	42.26	356	P	P	00 52 56.7	-0.2
INCN				pmax	pmax		
	comp=Z,576nm,1.3s						
INCN	Inchon	42.26	356	P	P	00 52 56.7	-0.2
INCN				IAmb	IAmb	00 53 00.6	
	comp=Z,576nm,1.2s						
INCN	Inchon	42.26	356	⇑P	P	00 52 58.2	+1.3
LYN	LuoYang	42.48	339	⇑P	P	00 52 59.2	+0.5
LYN				pP	pwP	00 53 41.5	-1.7
LYN				S	S	00 59 06.4	+0.1
LYN				sS	sS	01 00 23.0	+7.4
LYN				pmax	pmax		
	comp=Z,710nm,1.3s						
TNCH	TengChong	42.49	316	⇑iP	P	00 52 59.5	+0.4
TNCH				pP	pwP	00 53 41.7	-0.7
TNCH				sP	sP	00 54 03.5	+3.1
TNCH				PP	PP	00 54 39.7	-2.0
TNCH				PcP	PcP	00 54 47.3	-1.1
TNCH				sS	sS	01 00 24.5	+8.1
TNCH				ScS	ScS	01 02 39.0	-1.7
TNCH				pmax	pmax		
	comp=Z,540nm,1.3s						
TNCH				pmax	pmax		
	comp=Z,3µm,3.3s						
TIA	Tai'an	42.57	345	P	P	00 52 59.1	-0.2
TIA				PcP	PcP	00 54 50.0	+1.8
TIA				S	S	00 59 05.5	-2.1
TIA				pmax	pmax		
	comp=Z,190nm,1.1s						
TIA				pmax	pmax		
	comp=Z,1µm,3.5s						
TIA				L	L		
	comp=Z,1µm,12.1s						
TIA				L	L		
	comp=Z,1µm,18.9s						
TIA				L	L		
	comp=Z,2µm,19.0s						
HJU	Haeju	42.89	355	P	P	00 53 02.3	+0.5
HJU				pP	pwP	00 53 44.5	-2.0
HJU				S	S	00 59 13.2	+1.1
HJU				AmB			
	comp=Z,3µm,2.5s						
CD2	Chengdu	43.40	327	P	P	00 53 05.9	-0.3
CD2				PP	PP	00 54 52.0	+0.8
CD2				S	S	00 59 16.0	-4.0
CD2				pmax	pmax		
	comp=Z,490nm,1.1s						
CD2				pmax	pmax		
	comp=Z,3µm,5.5s						
CD2				L	L		
	comp=Z,4µm,13.9s						
CD2				L	L		
	comp=Z,4µm,13.9s						
CD2				L	L		
	comp=Z,2µm,8.2s						
XAN	Xi'an	43.43	335	⇑P	P	00 53 06.1	-0.3
XAN				PP	PP	00 54 52.4	+0.9
XAN				S	S	00 59 18.7	-1.7
XAN				ScS	ScS	01 02 45.7	-0.2
XAN				pmax	pmax		
	comp=Z,850nm,1.3s						
XAN				L	L		
	comp=Z,1µm,11.7s						
XAN				L	L		
	comp=Z,2µm,13.1s						
XAN				L	L		
	comp=Z,2µm,19.2s						
XAN	Xi'an	43.43	335	P	P	00 53 06.1	-0.3
XAN				ScP	ScP	00 58 24.7	-0.1
WAKE	Wake Island	43.57	55	P	P	00 53 09.5	+1.9
WAKE	Wake Island	43.57	55	P	P	00 53 07.9	+0.3
WAKE	Wake Island	43.57	55	⇓P	P	00 53 08.1	+0.5
TARA	Tarawa	43.60	83	P	P	00 53 09.9	+1.9
TARA	Tarawa	43.60	83	P	P	00 53 05.9	-2.1
TARA	Tarawa	43.60	83	⇓P	P	00 53 08.8	+0.8
PYAG	Pyongyang	43.88	356	P	P	00 53 10.8	+1.0
PYAG				S	S	00 59 28.0	+1.4
PYAG				AmB			
	comp=Z,1µm,2.3s						
H11N1	WAKE ISLAND Hy	43.98	55	P	P	00 53 11.5	+0.9
	baz=244,slow=11,SNR=11						
H11N2	WAKE ISLAND Hy	43.99	55	P	P	00 53 13.1	+2.3
	baz=244,slow=11,SNR=8.1						

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H11N3 WAKE ISLAND Hy 44.00  55    P       P        00 53 13.2 +2.4
      baz=244,slow=11,SNR=17
DL2   Dalian          44.23 351⇑iP      P        00 53 13.0 +0.5
DL2                               PP      PP       00 54 59.3 -0.5
DL2                               S       S        00 59 30.3 -1.2
DL2                               SS      ScS      01 02 49.1 -1.5
DL2                               pmax    pmax
      comp=Z,380nm,0.9s
DL2                               pmax    pmax
      comp=Z,2µm,5.3s
HNS   HongShan        44.35 343 ⇑P      P        00 53 13.8 +0.3
HNS                               S       S        00 59 28.5 -4.8
HNS                               SS      ScS      01 02 51.8 +0.4
HNS                               pmax    pmax
      comp=Z,660nm,1.2s
HNS                               L       L
      comp=Z,1µm,14.5s
HNS                               L       L
      comp=Z,2µm,15.3s
HNS                               L       L
      comp=Z,2µm,19.6s
HHU   Hamhung         44.65 358   P       P        00 53 16.3 +0.4
HHU                               S       S        00 59 38.8 +1.2
HHU                               AmB
      comp=Z,2µm,2.4s
SUJ   Sinuiju         45.04 354   P       P        00 53 19.9 +1.0
MORE  Moreh           45.04 312   P       P        00 53 18.8 -0.5
MORE                              IAmb    IAmb     00 53 20.7
      comp=Z,913nm,1.1s
SAIH  SAIHA           45.07 309  eP       P        00 53 17.3 -2.4
SAIH                              IAmb    IAmb     00 53 21.6
      comp=Z,263nm,1.2s
TIY   Taiyuan         45.35 341  eP       P        00 53 21.9 +0.4
TIY                               S       S        00 59 46.0 -1.9
TIY                               ScS     ScS      01 02 57.6 -0.5
TIY                               pmax    pmax
      comp=Z,380nm,0.8s
IMP   Imphal          45.65 312  eP       P        00 53 21.4 -2.7
IMP                               IAmb    IAmb     00 53 25.7
      comp=Z,390nm,0.7s
AZL   Aizawl          45.98 310  eP       P        00 53 24.6 -2.1
AZL                               IAmb    IAmb     00 53 29.4
      comp=Z,782nm,0.6s
KOHI  KOHIMA          46.05 313  eP       P        00 53 24.6 -2.7
KOHI                              IAmb    IAmb     00 53 29.0
      comp=Z,493nm,0.6s
MOKO  MOKOCHONG       46.11 314  eP       P        00 53 25.5 -2.3
MOKO                              IAmb    IAmb     00 53 29.0
      comp=Z,552nm,1.4s
BRDH  Bariadhala      46.22 308   P       P        00 53 29.2 +0.7
      comp=Z,780nm,0.6s,baz=85,slow=6.7,SNR=83
BRDH                              LR      LR       01 14 50.5
      comp=Z,2µm,21.9s,baz=150,slow=38
      comp=Z,780nm,0.6s
BJI2  Beijing         46.41 346   P       P        00 53 30.2 +0.5
BJI2                              PP      PP       00 55 22.0 +0.5
BJI2                              S       S        01 00 00.5 -2.3
BJI2                              ScS     ScS      01 03 03.8 -0.9
BJI2                              pmax    pmax
      comp=Z,310nm,1.1s
BJI2                              pmax    pmax
      comp=Z,1µm,3.0s
BJI2                              L       L
      comp=Z,640nm,12.7s
BJI2                              L       L
      comp=Z,780nm,14.3s
BJI2                              L       L
      comp=Z,670nm,14.0s
BJT   Baijiatuau      46.41 346   P       P        00 53 30.0 +0.3
BJT   Baijiatuau      46.41 346   IAmb    IAmb     00 53 31.4
      comp=Z,1µm,1.5s
BJT   Baijiatuau      46.41 346   P       P        00 53 30.2 +0.6
BJT                               ScP     ScP      00 58 37.5 +0.7
SILR  SILCHAR         46.47 311  eP       P        00 53 28.6 -1.8
SILR                              IAmb    IAmb     00 53 33.5
      comp=Z,402nm,1.0s
JORH  JORHAT          46.56 314  eP       P        00 53 29.4 -1.7
JORH                              IAmb    IAmb     00 53 31.7
      comp=Z,336nm,1.3s
JTM   Tenmabayashi    46.64  12   P       P        00 53 32.5 +1.1
JTM   Tenmabayashi    46.64  12   P       P        00 53 31.6 +0.1
JTM   Tenmabayashi    46.64  12 ⇓P      P        00 53 32.2 +0.8
SNY   Shenyang        46.84 354 ⇑P      P        00 53 33.3 +0.3
SNY                               S       S        01 00 08.4 -0.5
SNY                               pmax    pmax
      comp=Z,1µm,0.9s
SNY                               L       L
      comp=Z,2µm,14.1s
SNY                               L       L
      comp=Z,1µm,14.9s
SNY                               L       L
      comp=Z,2µm,19.4s
PSTR  Posyet          47.34   1c iP       P        00 53 37.8 +1.0
LZDM  Lanzhou Array   47.41 331   P       P        00 53 38.7 +0.8
      comp=Z,155nm,0.5s,baz=165,slow=12,SNR=91
LZDM                              ScP     ScP      00 58 42.0 +0.5
      comp=Z,11nm,0.4s,baz=131,slow=5.9,SNR=5.5
LZDM                              S       S        01 00 16.8 -0.9
      comp=Z,13nm,0.7s,baz=221,slow=22,SNR=5.7
      comp=Z,155nm,0.5s
LZH   Lanzhou         47.44 331   P       P        00 53 39.0 +1.1
LZH                               PP      PP       00 55 30.7 -0.4
LZH                               S       S        01 00 17.2 -0.7
LZH                               pmax    pmax
      comp=Z,770nm,1.1s
LZH                               pmax    pmax
      comp=Z,3µm,4.6s
SHL   Shillong        47.60 311   P       P        00 53 39.4  0.0
      SNR=16
SHL   Shillong        47.60 311 ⇑P      P        00 53 39.1 -0.3
SHL   Shillong        47.60 311  eP       P        00 53 35.8 -3.6
SHL                               IAmb    IAmb     00 53 41.6
      comp=Z,384nm,0.9s
VLA   Vladivostok     47.84   2ceP       P        00 53 41.1 +0.5
VLA                               pmax    pmax
      comp=Z,439nm,1.0s
ERM   Erimo           48.27  13d iP       P        00 53 46.0 +2.0
ERM                               pmax    pmax
      comp=Z,239nm,0.9s
ERM   Erimo           48.27  13   P       P        00 53 44.4 +0.4
ERM   Erimo           48.27  13   P       P        00 53 46.1 +2.2
HHC   Hu-ho-hao-te    48.48 342⇑iP      P        00 53 46.3 +0.6
HHC                               S       S        01 00 32.9 +0.6
HHC                               ScS     ScS      01 03 18.0 -0.7
HHC                               SS      SS       01 04 03.4 -1.6
HHC                               pmax    pmax
      comp=Z,220nm,1.4s
HHC                               pmax    pmax
      comp=Z,270nm,5.1s
HHC                               L       L
      comp=Z,570nm,20.2s
HHC                               L       L
      comp=Z,760nm,15.1s
HHC                               L       L
      comp=Z,830nm,13.5s
CN2   Changchun       48.63 356⇑iP      P        00 53 46.7  0.0
CN2                               S       S        01 00 31.7 -2.3
CN2                               pmax    pmax
      comp=Z,80nm,1.0s
USA0B Ussuriysk Arra  48.92   2c iP       P        00 53 49.8 +0.9
USA0B Ussuriysk Arra  48.92   2   IAmb    IAmb     00 53 52.1
      comp=Z,306nm,0.9s
USRK  Ussuriysk Ar.   48.92   2   P       P        00 53 49.8 +0.9
      comp=Z,229nm,0.8s,baz=181,slow=7.0,SNR=133
USRK                              ScP     ScP      00 58 46.6 -0.7
      comp=Z,28nm,0.9s,baz=228,slow=3.8,SNR=5.4
USRK                              S       S        01 00 37.7 -0.3
      comp=Z,30nm,1.0s,baz=183,slow=14,SNR=6.2
      comp=Z,229nm,0.8s
USRK  Ussuriysk Ar.   48.92   2   P       P        00 53 47.9 -1.0
MSVF  Nonsavu         48.92 109   P       P        00 53 51.5 +2.0
MSVF  Nonsavu         48.92 109d iP       P        00 53 50.8 +1.3
MSVF                              pmax    pmax
      comp=Z,212nm,1.3s
MSVF  Nonsavu         48.92 109   P       P        00 53 49.8 +0.3
MSVF                              IAmb    IAmb     00 53 54.1
      comp=Z,578nm,1.6s
BTO2  Baotou          48.94 340  eP       P        00 53 49.0 -0.3
BTO2                              pP      pP       00 54 31.2 +1.1
BTO2                              PP      PP       00 55 45.5 +0.9
BTO2                              S       S        01 00 37.3 -1.4
BTO2                              sS      sS       01 01 52.8 +3.2
BTO2                              pmax    pmax
      comp=Z,160nm,1.3s
BTO2                              pmax    pmax
      comp=Z,3µm,7.9s
BTO2                              L       L
      comp=Z,2µm,23.5s
BTO2                              L       L
      comp=Z,3µm,20.3s
BTO2                              L       L
      comp=Z,3µm,17.8s
FUNA  Funafuti        49.24  97   P       P        00 53 53.5 +1.6
FUNA  Funafuti        49.24  97   P       P        00 53 51.5 -0.4
FUNA                              IAmb    IAmb     00 53 54.6
      comp=Z,810nm,1.2s
DHUB  DHUBRI          49.27 311  eP       P        00 53 50.0 -1.9
DHUB                              IAmb    IAmb     00 53 54.4
      comp=Z,232nm,0.7s
MDJ   Mudanjiang      49.29 360   P       P        00 53 52.6 +0.9
MDJ                               S       S        01 00 45.1 +1.8
MDJ                               pmax    pmax
      comp=Z,170nm,1.1s
MDJ                               L       L
      comp=Z,5µm,24.7s
MDJ                               L       L
      comp=Z,9µm,23.1s
MDJ   Mudanjiang      49.29 360   P       P        00 53 52.6 +0.9
MDJ   Mudanjiang      49.29 360   IAmb    IAmb     00 53 55.2
      comp=Z,369nm,1.0s
BWNR  Bhubaneshwar    49.84 302  eP       P        00 53 54.7 -1.6
XLT   XiLinHaoTe      50.11 347  eP       P        00 53 58.6 +0.6
XLT                               S       S        01 00 53.2 -1.6
XLT                               ScS     ScS      01 03 28.7 -0.9
XLT                               pmax    pmax
      comp=Z,280nm,1.2s
XLT                               pmax    pmax
      comp=Z,2µm,7.3s
XLT                               L       L
      comp=Z,1µm,14.1s
XLT                               L       L
      comp=Z,940nm,14.9s
ASAJ  Asahikawa       50.15  12   P       P        00 53 58.6 +0.4
ASAJ                              pmax    pmax
      comp=Z,776nm,1.0s
JKA   Kamikawa-asahi  50.15  12   P       P        00 53 58.6 +0.4
JKA                               IAmb    IAmb     00 54 01.5
      comp=Z,776nm,1.0s
HALK  Hakmana         50.17 282 ⇑P      P        00 53 57.9 -1.0
DGTI  Dogotuki        50.31 107   P       P        00 54 01.1 +1.1
PALK  Pallekele       50.39 284   P       P        00 53 59.9 -0.7
      comp=Z,256nm,1.1s,baz=107,slow=7.8,SNR=39
PALK                              ScP     ScP      00 58 54.3 -0.1
      comp=Z,47nm,0.9s,baz=76,slow=4.8,SNR=6.9
      comp=Z,256nm,1.1s
PALK  Pallekele       50.39 284   P       P        00 54 00.2 -0.4
PALK  Pallekele       50.39 284c iP       P        00 53 59.1 -1.5
PALK                              pmax    pmax
      comp=Z,225nm,1.4s
PALK  Pallekele       50.39 284   P       P        00 53 59.9 -0.7
PALK                              IAmb    IAmb     00 54 04.3
      comp=Z,745nm,1.3s
PALK  Pallekele       50.39 284  i P      P        00 53 59.9 -0.7
      SNR=43
PALK  Pallekele       50.39 284   P       P        00 54 00.3 -0.3
PALK                              ScP     ScP      00 58 56.0 +1.5
OUZ   Omahuta         50.44 133   P       P        00 54 02.2 +1.6
OUZ   Omahuta         50.44 133 ⇓P      P        00 54 02.6 +2.0
BNX   BinXian         50.46 358 ⇑P      P        00 54 00.2 -0.3
BNX                               PP      PP       00 55 58.5 +0.3
BNX                               S       S        01 00 56.5 -2.9
BNX                               SS      SS       01 04 35.1 -0.9
BNX                               pmax    pmax
      comp=Z,220nm,1.8s
BNX                               pmax    pmax
      comp=Z,660nm,4.6s
BNX                               L       L
      comp=Z,2µm,19.0s
BNX                               L       L
      comp=Z,3µm,16.8s
BNX                               L       L
      comp=Z,1µm,21.1s
LSA   Lhasa           50.51 315   P       P        00 54 02.8 +1.0
LSA   Lhasa           50.51 315   IAmb    IAmb     00 54 05.1
      comp=Z,476nm,1.0s
LSA   Lhasa           50.51 315   P       P        00 54 02.9 +1.1
SHBG  Sahibganj       50.68 308  eP       P        00 54 00.6 -1.8
MALK  Mahakanadarawa  50.80 285   P       P        00 54 02.5 -1.1
MALK  Mahakanadarawa  50.80 285 ⇑P      P        00 54 03.1 -0.5
YUK   Yuzh-Kuril'sk   50.84  15d iP       P        00 54 04.4 +1.1
VIS   Vishakhapatnam  51.00 297  eP       P        00 54 02.7 -2.3
BOK   Bokaro          51.37 306  eP       P        00 54 05.8 -2.0
RAGD  RAYAGADA        51.47 299  eP       P        00 54 06.7 -1.8
JMUI  Jamui           51.64 307  eP       P        00 54 07.6 -2.0
MSZ   Milford Sound   51.82 146   P       P        00 54 12.0 +1.3
DCZ   Deep Cove       51.89 147   P       P        00 54 11.0 -0.2
DCZ   Deep Cove       51.89 147   P       P        00 54 12.2 +1.0
JCZ   Jackson Bay     51.94 145   P       P        00 54 13.6 +1.9
JCZ   Jackson Bay     51.94 145   P       P        00 54 13.2 +1.5
LKBA  Tubou, Lakemba  51.95 109   P       P        00 54 13.2 +1.2
PYZ   Puysegur Point  52.09 148   P       P        00 54 13.5 +0.8
GTA2  Gaotai          52.10 331 ⇑P      P        00 54 13.9 +0.9
GTA2                              S       S        01 01 21.0 -1.4
GTA2                              ScS     ScS      01 03 42.9 -0.7
GTA2                              pmax    pmax
      comp=Z,510nm,1.2s
GTA2                              pmax    pmax
      comp=Z,2µm,8.6s
GTA2                              L       L
      comp=Z,2µm,17.5s
GTA2                              L       L
      comp=Z,2µm,18.9s
GTA2                              L       L
      comp=Z,2µm,17.5s
FUTU  Fugatoga        52.16 104   P       P        00 54 15.3 +1.6
FUTU  Fugatoga        52.16 104   P       P        00 54 12.2 -1.5
FUTU                              IAmb    IAmb     00 54 18.7
      comp=Z,443nm,1.2s
FOZ   Fox Glacier     52.22 144   P       P        00 54 12.4 -1.2
FOZ   Fox Glacier     52.22 144   P       P        00 54 14.3 +0.7
GRZ   Great Barrier   52.26 133   P       P        00 54 15.6 +1.5
MDRS  Chennai         52.28 291  eP       P        00 54 12.4 -2.1
GOMU  GeErMu          52.34 324   P       P        00 54 15.5 +0.4
GOMU                              pP      pwP      00 55 04.0 +4.2
GOMU                              S       S        01 01 21.1 -5.1
GOMU                              pmax    pmax
      comp=Z,72nm,1.3s
GOMU                              L       L
      comp=Z,1µm,17.5s
GOMU                              L       L
      comp=Z,1µm,17.9s
GOMU                              L       L
      comp=Z,1µm,17.8s
MLZ   Mavora Lakes    52.36 146   P       P        00 54 13.8 -0.9
MLZ   Mavora Lakes    52.36 146   P       P        00 54 15.4 +0.7
GAYA  Gaya            52.37 306  eP       P        00 54 13.2 -1.9
QRZ   Quartz Range    52.41 139   P       P        00 54 15.4 +0.3
QRZ   Quartz Range    52.41 139   P       P        00 54 16.3 +1.2
DSZ   Denniston Nort  52.43 141   P       P        00 54 16.0 +0.7
KUR   Kuril'sk        52.48  16d iP       P        00 54 16.3 +0.8
KUR                              i S      S        01 01 25.1 -1.9
KUR                              i                 01 03 46.5
KUR                              eSS      SS       01 05 03.6 -4.4
KUR                               pmax    pmax
      comp=Z,2µm,1.3s
KUR                               pmax    pmax
      comp=N,427nm,1.2s
KUR                               pmax    pmax
      comp=E,314nm,1.0s
KUR                               pmax    pmax
      comp=Z,3µm,3.4s
WVZ   Waitaha Valley  52.51 143   P       P        00 54 16.6 +0.9
WKZ   Wanaka          52.53 145   P       P        00 54 16.3 +0.3
WHZ   Wether Hill Ro  52.59 147   P       P        00 54 16.6 +0.2
WHZ   Wether Hill Ro  52.59 147   P       P        00 54 16.8 +0.4
KHEZ  Kahui Hut       52.63 137   P       P        00 54 18.2 +1.4
NEZ   North Egmont    52.67 137   P       P        00 54 22.7 +5.5
INZ   Inchbonnie      52.74 142   P       P        00 54 17.9 +0.4
HIZ   Hauiti          52.84 136   P       P        00 54 19.9 +1.6
MRNZ  Matariki Terra  52.85 140   P       P        00 54 18.7 +0.3
YSS   Yuzhno-Sakhali  52.90  11   P       P        00 54 19.1 +0.6
YSS   Yuzhno-Sakhali  52.90  11c iP       P        00 54 19.1 +0.6
YSS                               pmax    pmax
      comp=Z,247nm,0.9s
YSS   Yuzhno-Sakhali  52.90  11   P       P        00 54 18.8 +0.2
YSS                               IAmb    IAmb     00 54 21.5
      comp=Z,279nm,0.9s
YSS   Yuzhno-Sakhali  52.90  11   P       P        00 54 19.2 +0.6
YSS                               x       x        00 55 07.2
YSS                               PcP     PcP      00 55 26.8 +1.9
LBZ   Lake Benmore    52.94 144   P       P        00 54 19.1 +0.2
LBZ   Lake Benmore    52.94 144   P       P        00 54 19.6 +0.7
TOZ   Tahuroa Road    52.94 135   P       P        00 54 20.4 +1.4
VJD   Vijayawada      52.98 295  eP       P        00 54 17.7 -1.9
VRZ   Vera Road       53.05 136   P       P        00 54 21.7 +1.8
RPZ   Rata Peaks      53.06 143   LR      LR       01 17 14.8
      comp=Z,460nm,19.4s,baz=280,slow=36
RPZ   Rata Peaks      53.06 143   P       P        00 54 22.0 +2.1
RPZ   Rata Peaks      53.06 143   IAmb    IAmb     00 55 11.6
      comp=Z,319nm,1.3s
RPZ   Rata Peaks      53.06 143   P       P        00 54 20.5 +0.6
THZ   Tophouse        53.14 140   P       P        00 54 20.7 +0.2
THZ   Tophouse        53.14 140   P       P        00 54 21.3 +0.8
NNZ   Nelson          53.16 139   P       P        00 54 20.9 +0.3
APZ   The Paps        53.21 148   P       P        00 54 21.7 +0.7
TLZ   Tolley Road     53.23 135   P       P        00 54 22.7 +1.5
LTZ   Lake Taylor     53.28 142   P       P        00 54 22.4 +0.9
LTZ                               IAmb    IAmb     00 55 13.8
      comp=Z,563nm,1.8s
LTZ   Lake Taylor     53.28 142   P       P        00 54 21.7 +0.1
DUWZ  D’Urville Isla  53.31 139   P       P        00 54 22.7 +1.0
TMZ   Timaru          53.41 144   P       P        00 54 22.5 +0.1
OXZ   Oxford          53.44 142   P       P        00 54 23.3 +0.7
TWVZ  Taurewa         53.50 136   P       P        00 54 24.3 +1.1
TUZ   Tuapeka         53.56 146   P       P        00 54 23.6 +0.2
ODZ   Otahua Downs    53.59 145   P       P        00 54 25.2 +1.6
ODZ   Otahua Downs    53.59 145   P       P        00 54 23.7  0.0
WTVZ  West Tongariro  53.62 136   P       P        00 54 25.9 +1.7
TUWZ  Tuamarina       53.63 139   P       P        00 54 24.8 +0.8
SYZ   Scrubby Hill    53.64 147   P       P        00 54 26.0 +2.0
SYZ   Scrubby Hill    53.64 147   P       P        00 54 24.5 +0.5
NGZ   Ngauruhoe       53.66 136   P       P        00 54 25.8 +1.4
OTVZ  Oturere         53.70 136   P       P        00 54 26.4 +1.6
WHVZ  Whangaehu Hut   53.70 136   P       P        00 54 27.7 +2.8
ETVZ  East Tongariro  53.72 136   P       P        00 54 27.0 +2.2
WNVZ  Wahianoa        53.73 136   P       P        00 54 26.2 +1.2
BSWZ  Blackbirch Sta  53.74 140   P       P        00 54 24.1 -0.7
GVZ   Greta Valley S  53.86 141   P       P        00 54 26.2 +0.5
SALM  Salem           53.86 288  eP       P        00 54 23.6 -2.5
KHZ   Kahutara        53.88 141   P       P        00 54 26.0 +0.2
KLR   Kul'dur         53.94   2   P       P        00 54 26.9 +0.9
      comp=Z,228nm,1.0s,baz=200,slow=5.0,SNR=126
KLR                               ScP     ScP      00 59 08.7 -0.2
      comp=Z,34nm,0.9s,baz=242,slow=2.8,SNR=6.4
      comp=Z,228nm,1.0s
KLR   Kul'dur         53.94   2c iP       P        00 54 26.8 +0.8
KLR                               pmax    pmax
      comp=Z,553nm,1.2s
CMWZ  Cape Campbell   53.97 140   P       P        00 54 27.4 +0.9
MQZ   McQueen’s Vall  54.02 142   P       P        00 54 26.8  0.0
MQZ   McQueen’s Vall  54.02 142   P       P        00 54 27.4 +0.6
HHSZ  Highcliff Hill  54.05 146   P       P        00 54 28.9 +1.9
SNZO  South Karori    54.07 139   P       P        00 54 27.6 +0.4
SNZO  South Karori    54.07 139   P       P        00 54 26.5 -0.7
SNZO  South Karori    54.07 139 ⇓P      P        00 54 27.1 -0.1
BHHZ  Black Hill Sta  54.12 136   P       P        00 54 27.8 +0.1
KOD   Kodaikanal      54.17 286  eP       P        00 54 26.6 -2.1
BHW   Baring Head     54.23 139   P       P        00 54 26.9 -1.4
BKZ   Black Stump Fm  54.27 136   P       P        00 54 28.8  0.0
TRD   Trivandrum      54.28 284  eP       P        00 54 27.2 -1.9
URZ   Urewera         54.31 134   LR      LR       01 19 37.2
      comp=Z,2µm,18.7s,baz=310,slow=38
URZ   Urewera         54.31 134   P       P        00 54 28.8 -0.2
TSZ   Takapari Road   54.31 137   P       P        00 54 28.8 -0.3
MRZ   Mangatainoka R  54.34 138   P       P        00 54 28.2 -0.9
MRZ   Mangatainoka R  54.34 138   P       P        00 54 28.1 -1.1
RTZ   Ruatahuna       54.37 135   IAmb    IAmb     00 54 32.4
      comp=Z,397nm,1.5s
RTZ   Ruatahuna       54.37 135   P       P        00 54 29.1 -0.4
HAZ   Te Kaha         54.58 134   P       P        00 54 30.4 -0.5
MWZ   Matawai         54.64 134   P       P        00 54 31.1 -0.3
HIA   Hailar          54.64 352   P       P        00 54 31.8 +0.6
HIA   Hailar          54.64 352   P       P        00 54 31.4 +0.2
HIA                               ScP     ScP      00 59 11.9 -0.2
VLK   Valmikinagar    54.66 309  eP       P        00 54 30.1 -1.5
BFZ   Birch Farm      54.80 138   P       P        00 54 31.9 -0.6
BFZ   Birch Farm      54.80 138   P       P        00 54 32.0 -0.4
UGL   Uglegorsk       54.83  10  eP       P        00 54 33.9 +1.5
UGL                              eS       S        01 01 57.3 -1.1
UGL                              e                 01 04 03.8
UGL                               pmax    pmax
      comp=Z,4µm,1.7s
UGL                               pmax    pmax
      comp=Z,1µm,1.1s
UGL                               smax    smax
      comp=N,6µm,9.2s
UGL                               smax    smax
      comp=E,7µm,9.2s
MXZ   Matakaoa Point  54.88 133   P       P        00 54 34.6 +1.5
MXZ   Matakaoa Point  54.88 133   P       P        00 54 32.0 -1.1
MXZ   Matakaoa Point  54.88 133   P       P        00 54 33.3 +0.2
PXZ   Pawanui         54.91 137   P       P        00 54 32.0 -1.3
HILR  Hailar Array B  54.92 352   P       P        00 54 34.1 +0.9
      comp=E,33nm,0.4s,baz=165,slow=8.4,SNR=45
HILR                              ScP     ScP      00 59 13.1 -0.2
      comp=E,18nm,0.8s,baz=176,slow=7.0,SNR=4.1
      comp=E,33nm,0.4s
HEH   HeiHe           54.97 358  eP       P        00 54 33.4  0.0
HEH                               pP      pwP      00 55 22.0 +1.4
HEH                               ScP     ScP      00 59 14.2 +0.8
HEH                               S       S        01 01 58.4 -1.9
HEH                               ScS     ScS      01 04 00.9 -2.2
HEH                               pmax    pmax
      comp=E,410nm,1.8s
PUZ   Puketiti        55.05 134   P       P        00 54 34.4  0.0
HYB   Hyderabad       55.17 295  eP       P        00 54 33.8 -1.7
HYB   Hyderabad       55.17 295  eP       P        00 54 35.0 -0.5
HYB                               IAMs_20 IAMs_20  00 54 36.7
      comp=Z,3µm,6.6s
HYB                              epP      pP       00 55 14.7 -3.0
HYB                              ePcP     PcP      00 55 34.1 -0.2
HYB                              ePP      PP       00 56 40.7 -0.4
HYB                              eS       S        01 02 05.7 +1.6
HYB                              eScS     ScS      01 04 06.8 +0.8
ALBI  Allahabad       55.36 305  eP       P        00 54 35.0 -1.7
ALBI                              IAmb    IAmb     00 54 38.8
      comp=Z,516nm,0.9s
GRNR  Gornyy          55.75   5⇑iP      P        00 54 40.3 +1.3
GRNR                              pmax    pmax
      comp=Z,120nm,0.9s
NGP   Nagpur          56.02 299  eP       P        00 54 39.7 -1.8
ULN   Ulaanbaatar     56.20 342   P       P        00 54 44.0 +1.5
ULN   Ulaanbaatar     56.20 342c iP       P        00 54 43.7 +1.2
ULN                               pmax    pmax
      comp=Z,592nm,1.3s
ULN   Ulaanbaatar     56.20 342   P       P        00 54 43.0 +0.6
ULN   Ulaanbaatar     56.20 342   P       P        00 54 43.9 +1.5
ULN                               PcP     PcP      00 55 37.3 -0.5
ULN                               ScP     ScP      00 59 19.6 +0.5
SONM  Songino Array   56.38 341   P       P        00 54 44.9 +1.2
      comp=Z,111nm,0.6s,baz=162,slow=6.3,SNR=373
SONM                              PcP     PcP      00 55 38.9 +0.3
      comp=Z,23nm,0.8s,baz=147,slow=4.1,SNR=4.2
SONM                              ScP     ScP      00 59 17.6 -2.3
      comp=Z,64nm,1.1s,baz=169,slow=4.0,SNR=9.8
SONM                              S       S        01 02 18.7 -0.7
      comp=Z,6.1nm,0.9s,baz=169,slow=8.8,SNR=6.2
SONM                              ScS     ScS      01 04 14.3 +0.6
      comp=Z,14nm,1.2s,baz=300,slow=2.9,SNR=4.5
SONM                              PKPPKP  P'P'df   01 24 44.4 +7.7
      comp=Z,3.9nm,1.0s,baz=323,slow=2.4,SNR=6.1
SONM                              P4KPbc           01 31 56.9
      comp=Z,0.6nm,0.5s,baz=159,slow=4.5,SNR=4.2
      comp=Z,111nm,0.6s
SONM  Songino Array   56.38 341   P       P        00 54 44.7 +1.0
SONM                              IAmb    IAmb     00 54 46.5
      comp=Z,494nm,1.3s
BRCI  Bahraich        56.53 308  eP       P        00 54 43.5 -1.5
BNDA  BANDA           56.64 305  eP       P        00 54 44.1 -1.7
TYV   Tymovskoe       56.65  10  eP       P        00 54 47.1 +1.8
TYV                              eS       S        01 02 24.7 +2.2
TYV                               pmax    pmax
      comp=Z,267nm,1.1s
TYV                               pmax    pmax
      comp=Z,2µm,3.2s
TYV                               smax    smax
      comp=N,61nm,2.0s
TYV                               smax    smax
      comp=E,83nm,2.0s
TYV                               smax    smax
      comp=N,6µm,6.0s
TYV                               smax    smax
```

	comp=E,4µm,6.0s						
LKN	**LUCKNOW**	**56.75**	**306**	eP	**P**	**00 54 44.7**	**-1.9**
KAAM	**Kaadhehdhoo**	**56.92**	**274**	P	**P**	**00 54 48.8**	**+0.8**
KAAM	**Kaadhehdhoo**	**56.92**	**274**	IAmb	IAmb	00 54 58.3	
	comp=Z,554nm,1.1s						
H08S2	**Diego Garcia H**	**56.92**	**264**	P	**P**	**00 54 48.1**	**+0.4**
	baz=63,slow=9.8,SNR=13						
H08S3	**Diego Garcia H**	**56.93**	**264**	P	**P**	**00 54 48.0**	**+0.3**
	baz=63,slow=9.8,SNR=58						
H08S1	**Diego Carcia H**	**56.94**	**264**	P	**P**	**00 54 48.3**	**+0.4**
	baz=63,slow=9.8,SNR=11						
DGAR	**Diego Garcia**	**56.97**	**264**	P	**P**	**00 54 48.8**	**+0.5**
DGAR	**Diego Garcia**	**56.97**	**264**	d iP	**P**	**00 54 48.1**	**-0.2**
DGAR				pmax	pmax		
	comp=Z,792nm,1.0s						
DGAR	**Diego Garcia**	**56.97**	**264**	P	**P**	**00 54 48.5**	**+0.2**
MNGI	**Mangalore**	**57.28**	**289**	eP	**P**	**00 54 48.6**	**-1.9**
HMDM	**Hanimaadhoo**	**57.62**	**281**	P	**P**	**00 54 53.8**	**+0.9**
	SNR=12						
HMDM	**Hanimaadhoo**	**57.62**	**281**	P	**P**	**00 54 53.1**	**+0.3**
AKL	**Akola**	**57.63**	**298**	eP	**P**	**00 54 51.0**	**-1.8**
AKL				IAmb	IAmb	00 54 55.2	
	comp=Z,405nm,1.4s						
JHNI	**Jhansi**	**58.05**	**304**	eP	**P**	**00 54 54.1**	**-1.5**
AFI	**Afiamalu**	**58.27**	**103**	P	**P**	**00 54 58.9**	**+1.4**
AFI	**Afiamalu**	**58.27**	**103**	P	**P**	**00 54 59.9**	**+2.4**
AFI				pmax	pmax		
	comp=Z,778nm,1.3s						
AFI	**Afiamalu**	**58.27**	**103**	P	**P**	**00 54 59.9**	**+2.4**
AFI	**Afiamalu**	**58.27**	**103**	P	**P**	**00 54 59.4**	**+1.9**
CIT	**Chita**	**58.36**	**348**	eP	**P**	**00 54 58.6**	**+1.2**
CIT				e		00 55 33.2	
CIT				e		00 55 46.0	
CIT				e		00 57 08.8	
CIT				eS	**S**	**01 02 45.8**	**+0.9**
CIT				e		01 04 27.8	
CIT				pmax	pmax		
	comp=Z,672nm,2.2s						
ZEA	**Zeya**	**58.46**	**358**	eP	**P**	**00 54 58.6**	**+0.7**
ZEA				e		00 55 53.3	
ZEA				eS	**S**	**01 02 48.8**	**+2.8**
ZEA				e		01 04 28.6	
ZEA				pmax	pmax		
	comp=N,300nm,2.2s						
ZEA				pmax	pmax		
	comp=Z,800nm,2.4s						
ZEA				pmax	pmax		
	comp=E,30nm,0.7s						
ZEA				pmax	pmax		
	comp=N,150nm,1.0s						
ZEA				pmax	pmax		
	comp=Z,400nm,1.0s						
PTH	**Pithoragarh**	**58.55**	**309**	eP	**P**	**00 54 57.7**	**-1.6**
LGTI	**Lohaghat**	**58.56**	**309**	eP	**P**	**00 54 57.7**	**-1.6**
NKL	**Nikolayevsk**	**58.57**	**8**	eP	**P**	**00 54 58.7**	**0.0**
NKL				eS	**S**	**01 02 47.4**	**0.0**
NKL				pmax	pmax		
	comp=N,548nm,1.1s						
NKL				pmax	pmax		
	comp=E,509nm,1.1s						
NKL				pmax	pmax		
	comp=Z,2µm,1.1s						
NKL				smax	smax		
	comp=N,2µm,2.9s						
NKL				smax	smax		
	comp=E,4µm,2.9s						
GUNA	**GUNA**	**58.80**	**303**	eP	**P**	**00 54 59.6**	**-1.3**
GOA	**Goa**	**58.93**	**291**	eP	**P**	**00 55 00.4**	**-1.5**
KAD	**Karad**	**59.10**	**293**	eP	**P**	**00 55 01.3**	**-1.8**
AGRA	**Agra**	**59.32**	**306**	eP	**P**	**00 55 01.1**	**-3.3**
AGRA				IAmb	IAmb	00 55 04.9	
	comp=Z,586nm,0.5s						
JOSI	**Joshimath**	**59.49**	**310**	eP	**P**	**00 55 04.3**	**-1.5**
ZAK	**Zakamensk**	**59.60**	**341**	eP	**P**	**00 55 06.4**	**+0.4**
ZAK				pmax	pmax		
	comp=Z,147nm,1.4s						
POO	**Poona**	**59.77**	**295**	eP	**P**	**00 55 06.0**	**-1.6**
SKR	**Severo-Kuril's**	**59.85**	**19**	eP	**P**	**00 55 08.3**	**+0.8**
SKR				e		00 55 57.3	
SKR				eS	**S**	**01 02 59.4**	**-4.5**
SKR				pmax	pmax		
	comp=Z,700nm,3.3s						
SKR				pmax	pmax		
	comp=Z,371nm,1.5s						
ASOR	**Ausora**	**60.09**	**307**	eP	**P**	**00 55 08.0**	**-1.6**
ASOR				IAmb	IAmb	00 55 12.6	
	comp=Z,703nm,1.3s						
MERT	**Meerut**	**60.22**	**307**	eP	**P**	**00 55 09.2**	**-1.3**
NIUE	**Niue**	**60.41**	**109**	P	**P**	**00 55 13.7**	**+1.7**
	comp=Z,596nm,1.5s						
NIUE	**Niue**	**60.41**	**109**	P	**P**	**00 55 13.5**	**+1.5**
UTK	**UTTARKASHI**	**60.43**	**309**	eP	**P**	**00 55 10.5**	**-1.6**
LDR	**Lodi Road**	**60.47**	**307**	eP	**P**	**00 55 10.9**	**-1.3**
NDI	**New Delhi**	**60.51**	**307**	eP	**P**	**00 55 10.8**	**-1.7**
NPLP	**NPLP New Delhi**	**60.52**	**307**	eP	**P**	**00 55 11.5**	**-1.1**
MIDW	**Midway**	**60.63**	**54**	P	**P**	**00 55 15.4**	**+2.1**
MIDW	**Midway**	**60.63**	**54**	P	**P**	**00 55 13.5**	**+0.2**
GNR	**GANAUR**	**60.85**	**307**	eP	**P**	**00 55 13.4**	**-1.4**
KUDL	**Kundal**	**60.87**	**306**	eP	**P**	**00 55 13.6**	**-1.3**
CTZ	**Chatham Island**	**60.89**	**138**	P	**P**	**00 55 16.3**	**+1.5**
CTZ	**Chatham Island**	**60.89**	**138**	P	**P**	**00 55 14.9**	**+0.1**
CTZ				IAmb	IAmb	00 55 18.0	
	comp=Z,683nm,1.9s						
CTZ	**Chatham Island**	**60.89**	**138**	P	**P**	**00 55 14.6**	**-0.2**
IRK	**Irkutsk**	**60.91**	**342**	eP	**P**	**00 55 15.1**	**+0.4**
IRK				pmax	pmax		
	comp=Z,559nm,2.6s						
KLP	**Kalpa**	**60.94**	**310**	eP	**P**	**00 55 14.4**	**-1.4**
RTK	**Rohtak**	**61.29**	**307**	eP	**P**	**00 55 16.3**	**-1.4**
MOY	**Mondy**	**61.46**	**340**	eP	**P**	**00 55 20.1**	**+1.5**
MOY				pmax	pmax		
	comp=Z,692nm,2.3s						
WMQ	**Urumqi**	**61.50**	**327**	⇑P	**P**	**00 55 20.0**	**+1.0**
WMQ				S	**S**	**01 03 26.2**	**+0.8**
WMQ				ScS	**SKKSac**	**01 04 50.6**	**-1.2**
WMQ				pmax	pmax		
	comp=Z,770nm,1.1s						
WMQ				pmax	pmax		
	comp=Z,1µm,3.7s						
WMQ				L	L		
	comp=Z,2µm,24.3s						
WMQ				L	L		
	comp=Z,1µm,16.9s						
WMQ				L	L		
	comp=Z,880nm,20.3s						
WMQ	**Urumqi**	**61.50**	**327**	P	**P**	**00 55 20.3**	**+1.4**
SMLA	**Simla**	**61.59**	**309**	eP	**P**	**00 55 18.3**	**-1.3**
CGRH	**CHANDIGARH**	**61.72**	**309**	eP	**P**	**00 55 19.6**	**-1.0**
AJM	**Ajmer**	**61.73**	**303**	eP	**P**	**00 55 19.8**	**-1.0**
AJM				IAmb	IAmb	00 55 22.6	
	comp=Z,678nm,1.0s						
UDPR	**Udaipur**	**61.84**	**301**	eP	**P**	**00 55 20.0**	**-1.5**
DRV	**Dumont d'Urvil**	**62.07**	**175**	P	**P**	**00 55 22.4**	**+0.2**
DRV	**Dumont d'Urvil**	**62.07**	**175**	P	**P**	**00 55 23.3**	**+1.1**
DRV				pP	**pP**	**00 56 05.5**	**+0.4**
DRV				ScP	**ScP**	**00 59 45.1**	**+0.6**
BHK	**Bhakra**	**62.31**	**309**	eP	**P**	**00 55 20.2**	**-4.3**
BHK				IAmb	IAmb	00 55 26.7	
	comp=Z,388nm,3.5s						
PEA0B	**Petropavlovsk-**	**62.43**	**19**	d iP	**P**	**00 55 25.7**	**+0.8**
PETK	**Petropavlovsk-**	**62.43**	**19**	P	**P**	**00 55 25.9**	**+1.0**
	comp=Z,455nm,1.0s,baz=187,slow=4.2,SNR=190						
PETK				LR	LR	01 21 06.9	
	comp=Z,735nm,20.9s,baz=209,slow=34						
PETK				PKPPKP	P'P'df	01 24 35.7	+8.6
	comp=Z,2.6nm,0.9s,baz=260,slow=8.4,SNR=3.6						
	comp=Z,455nm,1.0s						
PET	**Petropavlovsk**	**62.67**	**19**	P	**P**	**00 55 27.5**	**+1.1**
PET	**Petropavlovsk**	**62.67**	**19**	deP	**P**	**00 55 27.2**	**+0.8**
PET				i S	**S**	**01 03 40.9**	**+1.5**
PET				e*SS	**sS**	**01 04 55.5**	**0.0**
PET				pmax	pmax		
	comp=Z,600nm,2.5s						
PET				pmax	pmax		
	comp=Z,2µm,2.4s						
PET				pmax	pmax		
	comp=Z,710nm,1.1s						
PET	**Petropavlovsk**	**62.67**	**19**	P	**P**	**00 55 27.2**	**+0.8**
PET	**Petropavlovsk**	**62.67**	**19**	P	**P**	**00 55 27.4**	**+1.1**
CASY	**Casey**	**62.72**	**189**	P	**P**	**00 55 26.8**	**+0.2**
CASY	**Casey**	**62.72**	**189**	P	**P**	**00 55 27.8**	**+1.2**
CASY				x	x	00 56 10.6	
TLWR	**Talawar**	**62.88**	**310**	eP	**P**	**00 55 26.9**	**-1.4**
ALCI	**Alchi Leh**	**62.95**	**312**	eP	**P**	**00 55 27.5**	**-1.7**
ALCI				IAmb	IAmb	00 55 31.5	
	comp=Z,682nm,0.7s						
TSSA	**Tissa**	**63.11**	**311**	eP	**P**	**00 55 28.3**	**-1.8**
THN	**Thein Dam**	**63.24**	**310**	eP	**P**	**00 55 30.1**	**-0.6**
BKNR	**BIKANER**	**63.43**	**305**	eP	**P**	**00 55 29.2**	**-2.8**
BKNR				IAmb	IAmb	00 55 33.8	
	comp=Z,488nm,1.0s						
SRGN	**SRI GANGA NAGA**	**63.67**	**307**	eP	**P**	**00 55 32.3**	**-1.2**
JOHN	**Johnston Islan**	**63.75**	**69**	P	**P**	**00 55 35.5**	**+1.3**
JOHN	**Johnston Islan**	**63.75**	**69**	P	**P**	**00 55 33.5**	**-0.8**
JMU	**Jammu**	**64.09**	**310**	eP	**P**	**00 55 35.3**	**-1.0**
SRNI	**Srinagar**	**64.65**	**311**	eP	**P**	**00 55 37.6**	**-2.4**
BHUJ	**Bhuj**	**64.92**	**298**	eP	**P**	**00 55 40.2**	**-1.5**
BHUJ				IAmb	IAmb	00 55 44.4	
	comp=Z,229nm,1.9s						
WUS	**Wushi**	**65.01**	**320**	P	**P**	**00 55 42.8**	**+0.6**
ZSN	**Zaisan**	**65.35**	**328**	c iP	**P**	**00 55 45.0**	**+1.0**
ZSN				eS	**S**	**01 04 15.1**	**+2.3**
ZSN				pmax	pmax		
	comp=Z,126nm,1.1s						
ZSN	**Zaisan**	**65.35**	**328**	⇑iP	**P**	**00 55 45.1**	**+1.0**
	comp=Z,126nm,1.1s						
ZSN				eS	**S**	**01 04 15.2**	**+2.3**
NIL	**Nilore**	**65.65**	**310**	P	**P**	**00 55 47.0**	**+0.7**
NIL	**Nilore**	**65.65**	**310**	P	**P**	**00 55 46.7**	**+0.4**
NIL				pmax	pmax		
	comp=Z,447nm,0.7s						
NIL	**Nilore**	**65.65**	**310**	P	**P**	**00 55 46.7**	**+0.4**
SHLS	**Shalkode**	**65.90**	**322**	c iP	**P**	**00 55 46.9**	**-0.9**
SHLS				eS	**S**	**01 04 18.8**	**-1.1**
SHLS				pmax	pmax		
	comp=Z,266nm,0.8s						
SHLS	**Shalkode**	**65.90**	**322**	⇑iP	**P**	**00 55 47.0**	**-0.9**
	comp=Z,266nm,0.8s						
SHLS				eS	**S**	**01 04 18.8**	**-1.1**
PDGK	**Podgornoye**	**65.98**	**322**	P	**P**	**00 55 48.4**	**+0.1**
ROCAM	**Rodrigues Isla**	**66.11**	**251**	P	**P**	**00 55 48.8**	**-0.7**
UZB	**Uzynbulak**	**66.17**	**322**	c iP	**P**	**00 55 50.2**	**+0.7**
UZB				eS	**S**	**01 04 25.2**	**+2.1**
UZB				pmax	pmax		
	comp=Z,155nm,0.8s						
UZB	**Uzynbulak**	**66.17**	**322**	⇑iP	**P**	**00 55 50.3**	**+0.7**
	comp=Z,155nm,0.8s						
UZB				eS	**S**	**01 04 25.3**	**+2.1**
TARG	**Taragay, Kyrgy**	**66.19**	**320**	P	**P**	**00 55 50.2**	**+0.2**
TARG				pmax	pmax		
	comp=Z,279nm,1.1s						
TARG	**Taragay, Kyrgy**	**66.19**	**320**	P	**P**	**00 55 50.2**	**+0.2**
TARG				IAmb	IAmb	00 56 03.0	
	comp=Z,279nm,1.1s						
MK31	**Makanchi Array**	**66.33**	**326**	eP	**P**	**00 55 51.3**	**+0.9**
MKAR	**Makanchi Array**	**66.33**	**326**	P	**P**	**00 55 51.3**	**+0.9**
	comp=Z,226nm,0.5s,baz=115,slow=8.9,SNR=2702						
MKAR				S	**S**	**01 04 25.7**	**+0.9**
	comp=Z,32nm,1.0s,baz=134,slow=12,SNR=13						
MKAR				PKPPKP	**P'P'df**	**01 24 15.9**	**-5.5**
	comp=Z,2.3nm,0.9s,baz=292,slow=3.8,SNR=9.1						
MKAR				LR	LR	01 25 18.6	
	comp=Z,709nm,21.9s,baz=107,slow=36						
MKAR				P4KPbc		01 32 37.1	
	comp=Z,1.1nm,0.9s,baz=130,slow=4.9,SNR=5.8						
	comp=Z,226nm,0.5s						
MKAR	**Makanchi Array**	**66.33**	**326**	ceP	**P**	**00 55 51.2**	**+0.8**
MKAR				pmax	pmax		
	comp=Z,231nm,0.5s						
MKAR	**Makanchi Array**	**66.33**	**326**	P	**P**	**00 55 50.5**	**+0.1**
KSH2	**Kashi**	**66.40**	**317**	P	**P**	**00 55 51.8**	**+0.7**
KSH2				PP	**PP**	**00 58 17.5**	**-2.5**
KSH2				S	**S**	**01 04 25.7**	**-0.4**
KSH2				pmax	pmax		
	comp=Z,370nm,0.9s						
KSH2				pmax	pmax		
	comp=Z,2µm,8.2s						
KSH2				L	L		
	comp=Z,940nm,16.3s						
KSH2				L	L		
	comp=Z,1µm,20.0s						
KSH2				L	L		
	comp=Z,2µm,16.4s						
MA2	**Magadan**	**66.41**	**12**	LR	LR	01 24 27.3	
	comp=Z,849nm,20.5s,baz=205,slow=35						
MA2	**Magadan**	**66.41**	**12**	P	**P**	**00 55 51.8**	**+1.3**
MA2	**Magadan**	**66.41**	**12**	c iP	**P**	**00 55 51.9**	**+1.4**
MA2				pmax	pmax		
	comp=Z,714nm,1.3s						
MA2	**Magadan**	**66.41**	**12**	P	**P**	**00 55 51.4**	**+0.9**
MA2				IAmb	IAmb	00 55 54.2	
	comp=Z,592nm,1.1s						
SATY	**Saty**	**66.50**	**321**	c iP	**P**	**00 55 52.4**	**+0.8**
SATY				eS	**S**	**01 04 29.3**	**+2.2**
SATY				pmax	pmax		
	comp=Z,260nm,0.9s						
SATY	**Saty**	**66.50**	**321**	⇑iP	**P**	**00 55 52.5**	**+0.8**
	comp=Z,260nm,0.9s						
SATY				eS	**S**	**01 04 29.3**	**+2.2**
MAKZ	**Makanchi**	**66.52**	**326**	P	**P**	**00 55 51.7**	**+0.2**
MAKZ				pmax	pmax		
	comp=Z,1µm,1.4s						
MAKZ	**Makanchi**	**66.52**	**326**	P	**P**	**00 55 51.7**	**+0.2**
MAKZ	**Makanchi**	**66.52**	**326**	P	**P**	**00 55 52.1**	**+0.6**
KPKS	**Kokpek**	**66.55**	**322**	eP	**P**	**00 55 52.8**	**+0.9**
KPKS	**Kokpek**	**66.55**	**322**	eP	**P**	**00 55 52.9**	**+0.9**
YAK	**Yakutsk**	**66.74**	**360**	c iP	**P**	**00 55 53.3**	**+0.7**
YAK				pmax	pmax		
	comp=Z,1µm,0.8s						
YAK	**Yakutsk**	**66.74**	**360**	P	**P**	**00 55 53.4**	**+0.9**
YAK	**Yakutsk**	**66.74**	**360**	P	**P**	**00 55 53.2**	**+0.7**
YAK				x	x	00 56 45.7	
KDJ	**Kajisay**	**66.80**	**320**	IAmb	IAmb	00 55 56.9	
	comp=Z,430nm,1.1s						
NRN	**Naryn**	**67.21**	**319**	IAmb	IAmb	00 55 59.7	
	comp=Z,187nm,0.9s						
TNSS	**Tian-Shan**	**67.41**	**321**	eP	**P**	**00 55 58.2**	**+0.5**
TNSS	**Tian-Shan**	**67.41**	**321**	eP	**P**	**00 55 58.3**	**+0.5**
MDOK	**Medeo**	**67.41**	**321**	eP	**P**	**00 55 58.2**	**+0.8**
MDOK				eS	**S**	**01 04 40.1**	**+2.1**
MDOK	**Medeo**	**67.41**	**321**	eP	**P**	**00 55 58.3**	**+0.8**
MDOK				eS	**S**	**01 04 40.1**	**+2.1**
ULHL	**Ulahol**	**67.46**	**320**	P	**P**	**00 55 58.9**	**+1.1**
	SNR=23						
AAA	**Alma-Ata**	**67.51**	**321**	eP	**P**	**00 55 58.8**	**+0.9**
AAA				pmax	pmax		
	comp=Z,419nm,1.3s						
AAA	**Alma-Ata**	**67.51**	**321**	eP	**P**	**00 55 58.9**	**+0.9**
	comp=Z,419nm,1.3s						
TDK	**Taldyqorghan**	**67.54**	**323**	c iP	**P**	**00 55 59.0**	**+1.0**
TDK	**Taldyqorghan**	**67.54**	**323**	⇑iP	**P**	**00 55 59.1**	**+1.0**
TKM2	**Tokmak 2**	**68.20**	**320**	P	**P**	**00 56 03.4**	**+1.0**
	SNR=32						
KUU	**Kurty**	**68.22**	**321**	eP	**P**	**00 56 03.2**	**+0.9**
KUU				pmax	pmax		
	comp=Z,213nm,0.9s						
KUU	**Kurty**	**68.22**	**321**	eP	**P**	**00 56 03.3**	**+0.9**
	comp=Z,213nm,0.9s						
KBK	**Karagaybulak**	**68.49**	**320**	P	**P**	**00 56 05.4**	**+1.2**
	SNR=49						
SHEM	**Shemya Is, Ala**	**68.55**	**27**	LR	LR	01 26 45.1	
	comp=Z,485nm,18.3s,baz=249,slow=36						
SMY	**Shemya**	**68.55**	**27**	P	**P**	**00 56 06.4**	**+2.4**
SMY	**Shemya**	**68.55**	**27**	P	**P**	**00 56 04.1**	**+0.1**
SMY				pmax	pmax		
	comp=Z,1µm,1.1s						
SMY	**Shemya**	**68.55**	**27**	P	**P**	**00 56 04.1**	**+0.1**
FRU1	**Bishkek**	**68.77**	**320**	IAmb	IAmb	00 56 08.4	
	comp=Z,368nm,1.6s						
AAK	**Ala-Archa**	**68.78**	**319**	P	**P**	**00 56 07.2**	**+1.3**
	comp=Z,123nm,0.7s,baz=121,slow=5.0,SNR=210						
AAK				S	**S**	**01 04 55.7**	**+1.4**
	comp=Z,2.7nm,0.4s,baz=21,slow=17,SNR=11						
	comp=Z,123nm,0.7s						
AAK	**Ala-Archa**	**68.78**	**319**	P	**P**	**00 56 07.3**	**+1.3**
	SNR=7.0						
AAK	**Ala-Archa**	**68.78**	**319**	P	**P**	**00 56 06.6**	**+0.7**
AAK	**Ala-Archa**	**68.78**	**319**	c iP	**P**	**00 56 07.1**	**+1.1**
AAK				pmax	pmax		
	comp=Z,373nm,1.3s						
AAK	**Ala-Archa**	**68.78**	**319**	P	**P**	**00 56 06.7**	**+0.8**
AAK				IAmb	IAmb	00 56 10.0	
	comp=Z,318nm,1.1s						
AAK	**Ala-Archa**	**68.78**	**319**	i P	**P**	**00 56 07.2**	**+1.3**
	SNR=185						
AAK	**Ala-Archa**	**68.78**	**319**	P	**P**	**00 56 07.1**	**+1.1**
CHMS	**Chumysh**	**68.78**	**320**	P	**P**	**00 56 06.7**	**+0.8**
	SNR=7.5						
USP	**Ospenovka**	**69.07**	**320**	P	**P**	**00 56 08.6**	**+1.0**
	SNR=17						
SGDS	**Sogindy**	**69.08**	**320**	⇑iP	**P**	**00 56 08.4**	**+0.7**
SGDS				eS	**S**	**01 04 59.7**	**+2.1**
KBL	**Kabul**	**69.22**	**310**	P	**P**	**00 56 09.4**	**+0.5**
	SNR=240						
KBL	**Kabul**	**69.22**	**310**	P	**P**	**00 56 09.3**	**+0.4**
KBL				pmax	pmax		
	comp=Z,458nm,1.0s						
KBL	**Kabul**	**69.22**	**310**	P	**P**	**00 56 09.3**	**+0.4**
KBL				IAmb	IAmb	00 56 11.9	
	comp=Z,458nm,1.0s						
EKS2	**Erkin-Say**	**69.25**	**319**	P	**P**	**00 56 10.3**	**+1.4**
	SNR=21						
ZALV	**Zalesovo Beam**	**69.59**	**334**	P	**P**	**00 56 10.5**	**0.0**
	comp=Z,190nm,0.6s,baz=131,slow=5.7,SNR=742						
ZALV				S	**S**	**01 05 00.3**	**-2.6**
	comp=Z,43nm,1.0s,baz=122,slow=11,SNR=14						
ZALV				PKPPKP	**P'P'df**	**01 24 15.4**	**0.0**
	comp=Z,2.3nm,0.9s,baz=255,slow=4.5,SNR=6.1						
	comp=Z,190nm,0.6s						
ZALV	**Zalesovo Beam**	**69.59**	**334**	i P	**P**	**00 56 10.5**	**0.0**
ZALV				pmax	pmax		
	comp=Z,189nm,0.6s						
SEY	**Seymchan**	**69.81**	**11**	LR	LR	01 25 54.7	
	comp=Z,595nm,20.9s,baz=183,slow=35						
SEY	**Seymchan**	**69.81**	**11**	d iP	**P**	**00 56 12.8**	**+1.2**
SEY				pmax	pmax		
	comp=Z,948nm,1.0s						
RAR	**Rarotonga**	**70.07**	**111**	P	**P**	**00 56 15.8**	**+1.8**
	comp=Z,77nm,1.2s,baz=104,slow=1.6,SNR=3.6						
	comp=Z,77nm,1.2s						
RAR	**Rarotonga**	**70.07**	**111**	P	**P**	**00 56 15.7**	**+1.6**
RAR	**Rarotonga**	**70.07**	**111**	P	**P**	**00 56 15.9**	**+1.8**
RAR				pmax	pmax		
	comp=Z,250nm,1.6s						
BTK	**Batken**	**70.09**	**316**	IAmb	IAmb	00 56 16.9	
	comp=Z,223nm,0.8s						
AMKA	**Amchitka**	**70.20**	**30**	IAmb	IAmb	00 56 17.4	
	comp=Z,373nm,1.0s						
CCD	**Concordia, Ant**	**70.24**	**182**	P	**P**	**00 56 16.8**	**+2.2**
CCD				pP	**pP**	**00 56 59.4**	**+0.9**
KURBB	**Kurchatov Arra**	**70.59**	**328**	P	**P**	**00 56 17.4**	**+0.8**
	comp=Z,449nm,0.8s,baz=129,slow=5.2,SNR=1904						
KURBB				PP	**PP**	**00 58 57.3**	**+1.6**
	comp=Z,53nm,1.1s,baz=132,slow=8.4,SNR=4.6						
KURBB				S	**S**	**01 05 10.0**	**-4.8**
	comp=Z,23nm,0.9s,baz=139,slow=13,SNR=20						
KURBB				PKPPKP	**P'P'df**	**01 24 13.1**	**-1.0**
	comp=Z,2.6nm,1.0s,baz=307,slow=4.0,SNR=13						
	comp=Z,449nm,0.8s						
KURBB	**Kurchatov Arra**	**70.59**	**328**	P	**P**	**00 56 16.6**	**0.0**
KURK	**Kurchatov**	**70.60**	**328**	P	**P**	**00 56 17.5**	**+0.9**
KURK	**Kurchatov**	**70.60**	**328**	c iP	**P**	**00 56 17.3**	**+0.7**
KURK				pmax	pmax		
	comp=Z,1µm,1.1s						
KURK	**Kurchatov**	**70.60**	**328**	P	**P**	**00 56 17.6**	**+0.9**
KURK	**Kurchatov**	**70.60**	**328**	P	**P**	**00 56 17.5**	**+0.9**
DZA	**Taraz**	**70.96**	**319**	eP	**P**	**00 56 20.0**	**+0.9**
DZA				pmax	pmax		
	comp=Z,234nm,1.2s						
DZA	**Taraz**	**70.96**	**319**	eP	**P**	**00 56 20.0**	**+0.9**
	comp=Z,234nm,1.2s						
IUG	**Iuzhnay**	**71.51**	**317**	c iP	**P**	**00 56 23.3**	**+0.8**
IUG				eS	**S**	**01 05 28.0**	**+2.1**
IUG				pmax	pmax		
	comp=Z,318nm,0.9s						
IUG	**Iuzhnay**	**71.51**	**317**	⇑iP	**P**	**00 56 23.4**	**+0.8**
	comp=Z,318nm,0.9s						
IUG				eS	**S**	**01 05 28.1**	**+2.1**
KK31	**Karatay Array**	**71.59**	**318**	i P	**P**	**00 56 23.2**	**+0.3**
KK31	**Karatay Array**	**71.59**	**318**	IAmb	IAmb	00 56 26.4	
	comp=Z,466nm,1.1s						
KKAR	**Karatay Array**	**71.59**	**318**	P	**P**	**00 56 23.4**	**+0.5**
KKAR	**Karatay Array**	**71.59**	**318**	P	**P**	**00 56 23.4**	**+0.5**
CHM	**Chimkent**	**71.87**	**317**	eP	**P**	**00 56 25.5**	**+1.0**
CHM				pmax	pmax		
	comp=Z,306nm,1.3s						
CHM	**Chimkent**	**71.87**	**317**	eP	**P**	**00 56 25.5**	**+1.0**
	comp=Z,306nm,1.3s						
BRLS	**Borolday**	**72.01**	**318**	c iP	**P**	**00 56 26.3**	**+0.9**
BRLS				pmax	pmax		
	comp=Z,258nm,1.6s						
BRLS	**Borolday**	**72.01**	**318**	⇑iP	**P**	**00 56 26.3**	**+0.9**
	comp=Z,258nm,1.6s						
KIWB	**Kanaga Island**	**72.28**	**31**	P	**P**	**00 56 27.0**	**+0.3**
NGCH	**Negor - Chabah**	**72.97**	**298**	P	**P**	**00 56 32.7**	**+1.4**
	SNR=13						
GSTR	**Great Sitkin T**	**72.98**	**32**	P	**P**	**00 56 31.1**	**+0.2**
XMAS	**Kiritimati**	**73.08**	**86**	P	**P**	**00 56 35.7**	**+3.4**
XMAS	**Kiritimati**	**73.08**	**86**	P	**P**	**00 56 31.9**	**-0.4**
XMAS				IAmb	IAmb	00 56 36.8	
	comp=Z,644nm,1.2s						
XMAS	**Kiritimati**	**73.08**	**86**	P	**P**	**00 56 34.7**	**+2.5**
RER	**Riviere de l'E**	**73.31**	**249**	P	**P**	**00 56 34.0**	**+0.4**
JLN	**Jalan Bani Buh**	**73.78**	**295**	P	**P**	**00 56 37.0**	**+0.8**
	SNR=29						
MSEY	**Mahe Island**	**73.95**	**267**	P	**P**	**00 56 38.7**	**+1.3**
MSEY	**Mahe Island**	**73.95**	**267**	P	**P**	**00 56 37.9**	**+0.6**
MSEY				pmax	pmax		
	comp=Z,771nm,1.1s						
MSEY	**Mahe Island**	**73.95**	**267**	P	**P**	**00 56 37.9**	**+0.6**
MSEY	**Mahe Island**	**73.95**	**267**	i P	**P**	**00 56 37.9**	**+0.6**
	SNR=70						
MSEY	**Mahe Island**	**73.95**	**267**	P	**P**	**00 56 38.5**	**+1.1**
ATKA	**Atka Island**	**74.02**	**32**	P	**P**	**00 56 38.4**	**+1.5**
ATKA	**Atka Island**	**74.02**	**32**	P	**P**	**00 56 36.9**	**0.0**
WBK	**Wadi Bani Khal**	**74.27**	**295**	P	**P**	**00 56 40.2**	**+1.2**
	SNR=63						
HRA	**Herat**	**74.46**	**308**	IAmb	IAmb	00 56 43.6	
	comp=Z,555nm,1.1s						
VNDA	**Vanda**	**74.55**	**173**	P	**P**	**00 56 39.6**	**+0.1**
	comp=Z,14nm,0.5s,baz=321,slow=6.7,SNR=104						
VNDA				S	**S**	**01 05 54.3**	**-4.5**
	comp=Z,2.8nm,1.2s,baz=322,slow=12,SNR=3.2						
VNDA				PKPPKP	**P'P'df**	**01 24 10.2**	**+3.4**
	comp=Z,0.9nm,0.9s,baz=354,slow=1.8,SNR=3.2						
VNDA				LR	LR	01 28 19.4	
	comp=Z,2µm,21.8s,baz=344,slow=35						
	comp=Z,14nm,0.5s						
VNDA	**Vanda**	**74.55**	**173**		**P**	**00 56 39.5**	**-0.1**
VNDA	**Vanda**	**74.55**	**173**	P	**P**	**00 56 41.1**	**+1.6**
VNDA				pP	**pP**	**00 57 23.6**	**-0.3**
WSAR	**Wadi Sarin**	**74.71**	**296**	P	**P**	**00 56 42.5**	**+1.0**
	SNR=147						
MHTO	**MHTO**	**74.86**	**293**	P	**P**	**00 56 43.0**	**+0.6**
	SNR=131						
JMDO	**Jabal Madar**	**75.01**	**295**	P	**P**	**00 56 44.1**	**+0.9**
	SNR=88						
SMDO	**Samad**	**75.20**	**295**	P	**P**	**00 56 45.2**	**+0.8**
	SNR=101						
BIDO	**Bidbid**	**75.22**	**296**	P	**P**	**00 56 45.6**	**+1.2**
	SNR=290						
KIP	**Kipapa**	**75.40**	**66**	P	**P**	**00 56 48.1**	**+2.6**
KIP	**Kipapa**	**75.40**	**66**	P	**P**	**00 56 48.2**	**+2.7**
KIP	**Kipapa**	**75.40**	**66**	c iP	**P**	**00 56 47.0**	**+1.5**
KIP				pmax	pmax		
	comp=Z,544nm,1.3s						
KIP	**Kipapa**	**75.40**	**66**	P	**P**	**00 56 45.9**	**+0.4**
KIP				IAmb	IAmb	00 56 49.4	
	comp=Z,727nm,1.2s						
SBA	**Scott Base**	**75.44**	**172**	P	**P**	**00 56 45.7**	**+1.1**
SBA				pmax	pmax		
	comp=Z,82nm,1.4s						
SBA	**Scott Base**	**75.44**	**172**	P	**P**	**00 56 45.7**	**+1.1**
SBA	**Scott Base**	**75.44**	**172**	P	**P**	**00 56 46.7**	**+2.1**
SBA				pP	**pP**	**00 57 29.4**	**+0.4**
BSY	**Bisya**	**75.90**	**295**	P	**P**	**00 56 49.2**	**+0.9**
	SNR=69						
JASK	**Jask - Hormozg**	**75.95**	**298**	P	**P**	**00 56 50.9**	**+2.3**
	SNR=41						
HOQ	**Hoqain**	**75.97**	**296**	P	**P**	**00 56 50.0**	**+1.3**
	SNR=260						
BVAR	**Borovoye Array**	**76.15**	**328**	P	**P**	**00 56 49.7**	**+0.6**
	comp=Z,172nm,0.8s,baz=126,slow=7.5,SNR=248						
BVAR				S	**S**	**01 06 16.7**	**-0.5**
	comp=Z,24nm,0.9s,baz=147,slow=8.5,SNR=12						
	comp=Z,172nm,0.8s						
BORK	**Borovoye**	**76.20**	**328**	c iP	**P**	**00 56 49.8**	**+0.5**
BORK				pmax	pmax		
	comp=Z,302nm,0.9s						
BORK	**Borovoye**	**76.20**	**328**	P	**P**	**00 56 50.0**	**+0.7**
BORK				IAmb	IAmb	00 56 52.6	
	comp=Z,226nm,0.8s						
TIXI	**Tiksi**	**76.41**	**360**	c iP	**P**	**00 56 49.4**	**-0.7**
TIXI				pmax	pmax		
	comp=Z,198nm,1.0s						

TIXI	**Tiksi**	76.41	360	P	P	00 56 49.8	-0.3
TIXI				IAmb	IAmb	00 56 51.4	
	comp=Z,175nm,0.7s						
SHAO	**Shalim**	76.49	290	P	P	00 56 52.8	+1.1
	SNR=22						
SHAO	**Shalim**	76.49	290	*i* P	P	00 56 52.4	+0.7
	SNR=41						
CLES	**Cleveland East**	76.62	33	P	P	00 56 51.8	+0.1
ARQ	**Araqi**	76.63	295	P	P	00 56 53.3	+0.9
	SNR=108						
KHLH	**Kahului Airpor**	76.76	67	P	P	00 56 53.0	-0.2
SOHO	**SOHO**	76.78	296	P	P	00 56 54.1	+0.9
SOHO	**SOHO**	76.78	296	*i* P	P	00 56 53.8	+0.6
	SNR=394						
MAW	**Mawson**	76.79	201	P	P	00 56 52.7	+0.4
	comp=Z,46nm,1.3s,comp=Z,568nm						
MAW	**Mawson**	76.79	201	P	P	00 56 53.0	+0.6
	comp=Z,183nm,1.1s,baz=70,slow=7.4,SNR=93						
MAW				S	S	01 06 23.1	-0.5
	comp=Z,8.9nm,1.1s,baz=178,slow=18,SNR=5.2						
MAW				PKKPbc	PKKPbc	01 16 03.2	-0.6
	comp=Z,2.6nm,0.9s,baz=314,slow=5.5,SNR=4.0						
MAW				SKKPbc		01 19 20.8	
	comp=Z,0.8nm,0.7s,baz=290,slow=7.3,SNR=4.2						
MAW				PKPPKP	P'P'df	01 24 05.9	+2.8
	comp=Z,4.0nm,1.0s,baz=209,slow=1.6,SNR=4.4						
MAW				LR	LR	01 26 55.2	
	comp=Z,2µm,22.0s,baz=67,slow=32						
	comp=Z,183nm,1.1s						
MAW	**Mawson**	76.79	201	P	P	00 56 53.0	+0.6
HLK	**Haleakala**	76.90	67	P	P	00 56 52.8	-1.4
HLK				IAmb	IAmb	00 56 58.0	
	comp=Z,634nm,1.1s						
KHLU	**Kahalu`u**	77.02	69	P	P	00 56 54.6	-0.2
OVEH	**Oceanview Est**	77.06	69	P	P	00 56 55.0	-0.1
OVEH				IAmb	IAmb	00 56 58.7	
	comp=Z,781nm,1.3s						
DMTO	**DMTO**	77.07	289	P	P	00 56 55.5	+0.6
	SNR=8.8						
HUH	**Hualalai**	77.09	69	IAmb	IAmb	00 56 59.2	
	comp=Z,884nm,1.5s						
MHA	**Mahukona**	77.11	68	P	P	00 56 56.3	+1.2
MHA	**Mahukona**	77.11	68	P	P	00 56 56.3	+1.2
SPT	**South Point**	77.12	69	P	P	00 56 55.7	+0.5
BILL	**Bilibino**	77.15	13	*c i*P	P	00 56 54.7	+0.4
BILL				pmax	pmax		
	comp=Z,51nm,1.0s						
BILL	**Bilibino**	77.15	13	P	P	00 56 54.9	+0.6
BILL	**Bilibino**	77.15	13	P	P	00 56 54.9	+0.6
MDH	**Madha**	77.22	297	P	P	00 56 55.5	-0.1
	SNR=32						
MDH	**Madha**	77.22	297	*i* P	P	00 56 55.4	-0.3
	SNR=19						
UOSS	**Minazif**	77.23	297	P	P	00 56 56.6	+0.8
UOSS	**Minazif**	77.23	297	P	P	00 56 55.8	0.0
UOSS				IAmb	IAmb	00 56 58.7	
	comp=Z,516nm,0.9s						
UOSS	**Minazif**	77.23	297	*i* P	P	00 56 55.9	+0.2
	SNR=56						
HATD	**Hatta, Dubai**	77.27	297	P	P	00 56 57.1	+1.1
	SNR=125						
HATD	**Hatta, Dubai**	77.27	297	*i* P	P	00 56 56.8	+0.9
	SNR=294						
MWH	**Mokuaweoweo**	77.28	69	P	P	00 56 55.7	-1.0
MWH				IAmb	IAmb	00 57 00.2	
	comp=Z,536nm,1.2s						
MLOA	**Mauna Loa Obse**	77.31	69	P	P	00 56 56.0	-0.7
TRH	**Trail**	77.31	69	P	P	00 56 57.0	+0.2
ASHO	**Ashiyiah**	77.31	297	P	P	00 56 57.3	+1.0
	SNR=132						
ASHO	**Ashiyiah**	77.31	297	*i* P	P	00 56 57.0	+0.8
	SNR=150						
WOH	**Wood Valley**	77.33	69	P	P	00 56 56.4	0.0
BANOM	**Banah**	77.35	298	P	P	00 56 58.1	+1.7
BANOM	**Banah**	77.35	298	*i* P	P	00 56 57.6	+1.2
	SNR=90						
MSFE	**Esma-Masafi**	77.36	297	*i* P	P	00 56 56.9	+0.5
	SNR=88						
MASF	**Masafi**	77.36	297	P	P	00 56 57.9	+1.4
	SNR=128						
POHA	**Pohakuloa**	77.38	69	P	P	00 56 58.3	+1.3
POHA	**Pohakuloa**	77.38	69	P	P	00 56 55.9	-1.0
DES	**Desert**	77.45	69	P	P	00 56 57.6	+0.5
ALNE	**Al Ain**	77.46	296	P	P	00 56 58.0	+1.0
	SNR=191						
ALNE	**Al Ain**	77.46	296	*i* P	P	00 56 57.9	+0.9
	SNR=88						
MLH	**Mauna Loa**	77.47	69	P	P	00 56 57.8	+0.3
CPK	**Cone Peak**	77.51	69	P	P	00 56 57.5	-0.1
SHME	**Shamm**	77.51	298	P	P	00 56 58.7	+1.5
	SNR=44						
SHME	**Shamm**	77.51	298	*i* P	P	00 56 58.3	+1.0
	SNR=141						
HLP	**Hilina Pali**	77.51	69	P	P	00 56 56.9	-0.6
BYL	**Byron's Ledge**	77.58	69	IAmb	IAmb	00 57 01.5	
	comp=Z,723nm,1.4s						
HATHI	**Halema‘uma‘u T**	77.58	69	IAmb	IAmb	00 57 01.5	
	comp=Z,733nm,1.3s						
PUH	**Pauahi**	77.61	69	IAmb	IAmb	00 57 01.6	
	comp=Z,966nm,1.4s						
STCH	**Steam Cracks**	77.70	69	P	P	00 56 57.6	-0.9
STCH				IAmb	IAmb	00 57 02.0	
	comp=Z,778nm,1.3s						
NAZ	**Nazwa, Dubai**	77.72	297	P	P	00 56 59.3	+0.8
	SNR=71						
NAZ	**Nazwa, Dubai**	77.72	297	*i* P	P	00 56 59.1	+0.7
	SNR=176						
FAQ	**Al Faqa, Dubai**	77.74	296	P	P	00 56 59.5	+0.9
	SNR=88						
FAQ	**Al Faqa, Dubai**	77.74	296	*i* P	P	00 56 59.3	+0.8
	SNR=175						
RBK	**Rabkut**	77.74	289	P	P	00 56 59.4	+0.7
	SNR=53						
JOKA	**Jonika Flow**	77.82	69	P	P	00 56 58.0	-1.1
JOKA				IAmb	IAmb	00 57 02.7	
	comp=Z,333nm,1.3s						
UMQ	**Umm Al-Quwin**	77.83	297	P	P	00 57 00.4	+1.4
	SNR=13						
UMQ	**Umm Al-Quwin**	77.83	297	*i* P	P	00 57 00.6	+1.6
	SNR=18						
ASUD	**Al Ashush, Dub**	77.95	296	P	P	00 57 00.9	+1.3
	SNR=60						
ASUD	**Al Ashush, Dub**	77.95	296	*i* P	P	00 57 01.0	+1.3
	SNR=81						
CRZF	**Crozet Islands**	78.10	224	P	P	00 57 00.2	+0.1
WHFO	**Wadi Hawf**	78.21	289	P	P	00 57 01.5	+0.1
	SNR=45						
AJN	**Ajban**	78.24	296	P	P	00 57 02.2	+0.9
	SNR=40						
AJN	**Ajban**	78.24	296	*i* P	P	00 57 01.7	+0.4
	SNR=70						
ABTO	**Aybut**	78.57	289	P	P	00 57 04.0	+0.6
	SNR=73						
UNV	**Unalaska Valle**	78.90	33	P	P	00 57 05.8	+1.6
UNV	**Unalaska Valle**	78.90	33	IAmb	IAmb	00 57 08.6	
	comp=Z,430nm,1.2s						
LVA	**Lava Point**	79.28	33	P	P	00 57 06.1	-0.3
LVA				IAmb	IAmb	00 57 09.4	
	comp=Z,540nm,0.8s						
MZR	**Muzera**	79.32	294	P	P	00 57 08.3	+1.1
	SNR=95						
MZR	**Muzera**	79.32	294	*i* P	P	00 57 08.1	+0.8
	SNR=263						
AKUT	**Akutan**	79.41	33	P	P	00 57 08.8	+1.8
AKUT	**Akutan**	79.41	33	P	P	00 57 07.2	+0.2
PAE	**Paea**	79.68	107	*e*P	P	00 57 10.7	+1.5
	comp=Z,695nm,1.3s						
PPT2	**Papeete2**	79.68	107	*e*P	P	00 57 12.5	+3.1
	comp=Z,295nm,1.1s						
PPT2				*e*PP	PP	01 00 05.8	-7.3
	comp=Z,591nm,29.0s						
PPT2				*e*S	S	01 06 48.4	-8.1
	comp=Z,2µm,26.2s						
PPT2				*e*LQ	LQ	01 18 47.0	
	comp=Z,3µm,28.2s						
PPT2				*e*LR	LR	01 22 17.4	
	comp=Z,3µm,35.2s						
PPT2				*e*LR	LR	01 22 18.1	
	comp=Z,1µm,41.8s						
PPT	**Papeete**	79.68	107	P	P	00 57 11.7	+2.4
	comp=Z,240nm,0.8s,baz=311,slow=6.1,SNR=14						
	comp=Z,240nm,0.8s						
PPTF	**Pamatai, Papee**	79.69	107	P	P	00 57 12.1	+2.7
PPTF	**Pamatai, Papee**	79.69	107	P	P	00 57 08.0	-1.5
PPTF				IAmb	IAmb	00 57 16.6	
	comp=Z,284nm,0.9s						
TIAR	**Tiarei**	79.90	107	*e*P	P	00 57 13.6	+3.1
	comp=Z,5µm,1.6s						
TVO	**Taravao**	79.99	107	*e*P	P	00 57 14.2	+3.2
	comp=Z,738nm,1.4s						
JRN	**Qarnain Island**	80.22	296	P	P	00 57 12.7	+0.7
	SNR=42						
AB31	**Akbulak array**	80.71	321	*i* P	P	00 57 14.3	+0.2
ABKAR	**Akbulak array**	80.71	321	P	P	00 57 14.1	0.0
GAMB	**Gambell**	81.10	23	P	P	00 57 15.5	-0.2
SLWR	**Sila**	81.12	295	P	P	00 57 17.6	+0.8
ABPO	**Ambohimpanom**	81.34	252	P	P	00 57 17.8	-0.5
ABPO	**Ambohimpanom**	81.34	252	P	P	00 57 17.8	-0.5
ABPO	**Ambohimpanom**	81.34	252	P	P	00 57 18.4	+0.1
ABPO	**Ambohimpanom**	81.34	252	⇑P	P	00 57 18.5	+0.1
FOMA	**Nahampoana Res**	81.38	246	P	P	00 57 17.8	-0.4
FOMA				IAmb	IAmb	00 57 21.4	
	comp=Z,234nm,0.9s						
PMOR	**Pomariorio Ree**	81.40	104	*e*P	P	00 57 21.5	+3.0
	comp=Z,938nm,1.3s						
VOI	**Vohitsoka**	81.64	249	P	P	00 57 20.4	+0.6
	SNR=20						
VOI	**Vohitsoka**	81.64	249	P	P	00 57 19.0	-0.8
VOI				IAmb	IAmb	00 57 22.4	
	comp=Z,320nm,0.7s						
VOI	**Vohitsoka**	81.64	249	P	P	00 57 20.2	+0.4
VAH	**Vaihoa**	81.65	105	*e*P	P	00 57 22.7	+3.0
	comp=Z,677nm,1.3s						
M11K	**Mekoryuk**	81.80	27	P	P	00 57 19.2	-0.3
AKTO	**Aktyubinsk**	82.26	322	P	P	00 57 22.5	+0.3
	comp=Z,118nm,0.7s,baz=108,slow=4.9,SNR=149						
AKTO				S	S	01 07 20.6	-1.1
	comp=Z,12nm,0.9s,baz=222,slow=20,SNR=31						
	comp=Z,118nm,0.7s						
AKTO	**Aktyubinsk**	82.26	322	P	P	00 57 22.9	+0.7
SAKB	**Bahrain**	82.46	297	P	P	00 57 24.4	+0.6
SDPT	**Sand Point**	82.71	33	P	P	00 57 25.5	+1.1
SVE	**Sverdlovsk**	82.84	329	*d i*P	P	00 57 25.6	+0.5
SVE				*e*		01 00 36.7	
SVE				*i* S	S	01 07 24.9	-2.4
SVE				*e*		01 08 40.1	
SVE				pmax	pmax		
	comp=Z,456nm,1.4s						
CNBA	**Chernabura Isl**	83.02	33	P	P	00 57 26.4	+0.3
CNBA				IAmb	IAmb	00 57 28.1	
	comp=Z,437nm,1.2s						
CHNA	**Chernabura Isl**	83.03	33	P	P	00 57 27.8	+1.8
M13K	**Dall Lake**	83.10	27	IAmb	IAmb	00 57 29.7	
	comp=Z,364nm,1.1s						
K13K	**Kusilvak Mount**	83.12	26	P	P	00 57 27.1	+0.7
K13K				IAmb	IAmb	00 57 30.5	
	comp=Z,531nm,1.4s						
TNA	**Tin City**	83.39	22	P	P	00 57 27.8	+0.2
TNA				IAmb	IAmb	00 57 31.1	
	comp=Z,386nm,1.2s						
O14K	**Tigyukauivet M**	83.65	29	P	P	00 57 29.6	+0.4
O14K				IAmb	IAmb	00 57 32.6	
	comp=Z,454nm,1.5s						
N14K	**Kuskokwak Cree**	83.69	28	P	P	00 57 29.5	+0.2
N14K				IAmb	IAmb	00 57 32.9	
	comp=Z,770nm,1.6s						
L14K	**Kuka Creek**	83.76	27	IAmb	IAmb	00 57 33.5	
	comp=Z,491nm,1.1s						
ARTI	**Arti**	83.87	328	P	P	00 57 30.1	-0.2
	comp=Z,150nm,0.9s,baz=118,slow=2.9,SNR=131						
ARTI				S	SKSac	01 07 30.3	-4.8
	comp=Z,24nm,1.1s,baz=246,slow=23,SNR=12						
ARTI				LR	LR	01 37 08.2	
	comp=Z,416nm,20.9s,baz=117,slow=37						
	comp=Z,150nm,0.9s						
ARTI	**Arti**	83.87	328	*c i*P	P	00 57 30.0	-0.3
ARTI						01 00 41.5	
ARTI				PPP	PPP	01 02 37.1	
ARTI				S	SKSac	01 07 34.7	-0.5
ARTI				*SS	sS	01 08 58.4	+0.5
ARTI				SS	SS	01 13 06.8	-3.1
ARTI				pmax	pmax		
	comp=Z,348nm,1.2s						
ARTI	**Arti**	83.87	328	P	P	00 57 29.8	-0.6
ARTI				IAmb	IAmb	00 57 31.6	
	comp=Z,601nm,1.5s						
ARTI	**Arti**	83.87	328	P	P	00 57 30.1	-0.2
ANM	**Nome**	83.92	23	P	P	00 57 30.9	+0.5
ANM				pmax	pmax		
	comp=Z,273nm,1.2s						
ANM	**Nome**	83.92	23	P	P	00 57 30.9	+0.5
ANM				IAmb	IAmb	00 57 34.2	
	comp=Z,273nm,1.2s						
J14K	**Nanvaranak Lak**	83.92	25	IAmb	IAmb	00 57 34.5	
	comp=Z,685nm,1.3s						
O15K	**Ungalikthiuk R**	84.32	29	P	P	00 57 33.5	+0.9
O15K				IAmb	IAmb	00 57 36.1	
	comp=Z,339nm,1.2s						
N15K	**Kwethluk River**	84.53	28	IAmb	IAmb	00 57 37.4	
	comp=Z,840nm,1.4s						
K15K	**Wolf Creek Mou**	84.62	26	P	P	00 57 34.2	+0.2
F15K	**North Star Dit**	84.67	22	P	P	00 57 34.6	+0.4
F15K				IAmb	IAmb	00 57 37.9	
	comp=Z,473nm,1.5s						
QSPA	**South Pole Qui**	85.06	180	P	P	00 57 36.1	-0.2
	comp=Z,32nm,0.5s,baz=292,slow=0.7,SNR=86						
QSPA				S	SKSac	01 07 39.2	-3.5
	comp=Z,10nm,0.9s,baz=110,slow=21,SNR=19						
QSPA				PKKPbc	PKKPbc	01 15 43.1	-2.7
	comp=Z,2.4nm,0.5s,baz=238,slow=0.7,SNR=12						
QSPA				SKKPbc	SKKPbc	01 19 01.3	-3.9
	comp=Z,7.0nm,1.0s,baz=218,slow=0.2,SNR=9.8						
QSPA				LR	LR	01 37 00.3	
	comp=Z,2µm,18.4s,baz=346,slow=36						
	comp=Z,32nm,0.5s						
QSPA	**South Pole Qui**	85.06	180	P	P	00 57 35.8	-0.5
QSPA	**South Pole Qui**	85.06	180	P	P	00 57 37.2	+0.9
QSPA				pP	pP	00 58 20.9	-0.6
P16K	**Nushagak River**	85.17	30	P	P	00 57 37.1	+0.3
O16K	**Kokwok River B**	85.30	29	P	P	00 57 37.7	+0.3
O16K				IAmb	IAmb	00 57 40.8	
	comp=Z,532nm,1.1s						
L16K	**Owhat River**	85.33	27	P	P	00 57 37.5	0.0
J16K	**Anvik River**	85.37	25	P	P	00 57 39.1	+1.4
J16K				IAmb	IAmb	00 57 41.6	
	comp=Z,448nm,1.1s						
G16K	**Koyuk River**	85.43	23	P	P	00 57 38.5	+0.6
G16K				IAmb	IAmb	00 57 41.2	
	comp=Z,375nm,1.8s						
SYO	**Syowa Base**	85.51	201	⇑*i*P	P	00 57 38.0	-0.3
I17K	**Unalakleet**	85.54	25	P	P	00 57 40.0	+1.5
I17K				IAmb	IAmb	00 57 42.6	
	comp=Z,497nm,1.4s						
P17K	**Kvichak River**	85.99	30	IAmb	IAmb	00 57 43.9	
	comp=Z,303nm,1.0s						
LKRN	**Lenkeran, Azer**	86.00	309	P	P	00 57 42.0	+0.7
J17K	**VABM Dome**	86.06	25	IAmb	IAmb	00 57 44.9	
	comp=Z,306nm,1.2s						
M17K	**Holitna River**	86.16	27	IAmb	IAmb	00 57 45.7	
	comp=Z,563nm,1.2s						
H17K	**Granite Mounta**	86.22	24	IAmb	IAmb	00 57 46.6	
	comp=Z,345nm,1.8s						
RDOG	**Red Dog Mine**	86.25	20	IAmb	IAmb	00 57 44.9	
	comp=Z,222nm,1.0s						
ACHA	**Angle Creek He**	86.28	31	IAmb	IAmb	00 57 46.8	
	comp=Z,241nm,1.2s						
RAYN	**Ar Rayn**	86.65	294	P	P	00 57 45.8	+0.8
RAYN	**Ar Rayn**	86.65	294	P	P	00 57 45.5	+0.6
RAYN				pmax	pmax		
	comp=Z,868nm,1.1s						
RAYN	**Ar Rayn**	86.65	294	P	P	00 57 45.5	+0.6
RAYN	**Ar Rayn**	86.65	294	*i* P	P	00 57 45.6	+0.6
	SNR=872						
RAYN	**Ar Rayn**	86.65	294	P	P	00 57 45.4	+0.4
N18K	**Kilae Creek**	86.67	28	IAmb	IAmb	00 57 47.9	
	comp=Z,550nm,1.4s						
C18K	**Utukok River**	87.06	20	IAmb	IAmb	00 57 48.5	
	comp=Z,209nm,1.2s						
L19K	**White Mountain**	87.55	27	IAmb	IAmb	00 57 52.7	
	comp=Z,441nm,1.2s						
KDAK	**Kodiak Island**	87.59	32	LR	LR	01 33 35.6	
	comp=Z,838nm,19.7s,baz=244,slow=33						
KDAK	**Kodiak Island**	87.59	32	*c i*P	P	00 57 49.1	+0.6
KDAK				pmax	pmax		
	comp=Z,498nm,1.1s						
KDAK	**Kodiak Island**	87.59	32	P	P	00 57 49.8	+1.3
KDAK				IAmb	IAmb	00 57 51.7	
	comp=Z,565nm,1.2s						
SEKA	**Sheki**	87.59	312	P	P	00 57 49.3	+0.2
MNGR	**Mingechevir, A**	87.61	311	P	P	00 57 49.8	+0.7
MAK	**Makhachkala**	87.63	313	*e*P	P	00 57 45.7	-3.4
MAK				*e*		01 01 11.0	
MAK				*e*		01 07 54.9	
MAK				*e**SS	sS	01 09 17.6	-18
MAK				*e*SS	SS	01 14 11.8	+6.3
MAK				*e*SSS	SSS	01 17 37.8	
MAK				pmax	pmax		
	comp=Z,388nm,1.9s						
G19K	**Purcell Mounta**	87.73	23	IAmb	IAmb	00 57 52.0	
	comp=Z,259nm,1.1s						
ATD	**Arta Tunnel**	87.92	282	P	P	00 57 53.5	+2.3
	SNR=25						
ATD	**Arta Tunnel**	87.92	282	IAmb	IAmb	00 57 56.1	
	comp=Z,316nm,1.0s						
E19K	**Redstone River**	88.07	22	IAmb	IAmb	00 57 53.5	
	comp=Z,285nm,1.1s						
D19K	**Kuna River**	88.07	21	IAmb	IAmb	00 57 53.3	
	comp=Z,385nm,1.1s						
GANJ	**Ganja**	88.16	311	P	P	00 57 52.3	+0.5
J20K	**Nowinta River**	88.38	25	IAmb	IAmb	00 57 56.0	
	comp=Z,174nm,1.0s						
I20K	**Naaghedeneel**	88.40	25	IAmb	IAmb	00 57 55.9	
	comp=Z,237nm,1.2s						
NAX	**Nakhchivan**	88.60	309	P	P	00 57 54.4	+0.5
CNPM	**China Poot**	88.65	30	IAmb	IAmb	00 57 56.2	
	comp=Z,457nm,1.3s						
D20K	**Etivluk River**	88.66	21	IAmb	IAmb	00 57 56.1	
	comp=Z,465nm,1.2s						
BRLK	**Bradley Lake**	88.87	30	IAmb	IAmb	00 57 57.1	
	comp=Z,482nm,1.6s						
IMAR	**Indian Mountai**	88.99	23	P	P	00 57 55.2	+0.2
BELG	**Belogornoye**	89.03	323	P	P	00 57 54.4	-1.1
	comp=Z,91nm,0.6s,baz=1.7,slow=1.2,SNR=42						
BELG				S	SKSac	01 08 03.6	-3.4
	comp=Z,116nm,1.1s,baz=153,slow=6.2,SNR=3.9						
	comp=Z,91nm,0.6s						
BELG	**Belogornoye**	89.03	323	*c i*P	P	00 57 54.2	-1.3
BELG				pmax	pmax		
	comp=Z,26nm,1.4s						
KIRV	**Kirov**	89.11	329	P	P	00 57 54.4	-1.3
	comp=Z,66nm,0.6s,baz=56,slow=0.7,SNR=26						
KIRV				PP	PP	01 01 29.4	+0.8
	comp=Z,33nm,0.9s,baz=105,slow=14,SNR=5.1						
KIRV				S	SKSac	01 08 04.2	-3.0
	comp=Z,3.8nm,0.5s,baz=280,slow=23,SNR=16						
	comp=Z,66nm,0.6s						
KIRV	**Kirov**	89.11	329	*c i*P	P	00 57 54.3	-1.4
G21K	**Allakaket**	89.22	23	IAmb	IAmb	00 57 58.8	
	comp=Z,201nm,1.4s						
H21K	**Melozitna Rive**	89.29	24	IAmb	IAmb	00 57 59.3	
	comp=Z,200nm,1.5s						
GNI	**Garni**	89.30	310	LR	LR	01 45 09.7	
	comp=Z,217nm,20.6s,baz=94,slow=40						
GNI	**Garni**	89.30	310	*e*P	P	00 57 58.1	+0.8
GNI	**Garni**	89.30	310	P	P	00 57 58.4	+1.2
GNI	**Garni**	89.30	310	*c i*P	P	00 57 58.3	+1.0
GNI				pmax	pmax		
	comp=Z,152nm,1.3s						
GNI	**Garni**	89.30	310	P	P	00 57 58.5	+1.3
GNI	**Garni**	89.30	310	P	P	00 57 58.4	+1.2
GNI	**Garni**	89.30	310	P	P	00 57 58.6	+1.3
SLKM	**Skilak Lake**	89.35	29	IAmb	IAmb	00 57 60.0	
	comp=Z,463nm,1.2s						
TAOE	**Nuku Hiva Isla**	89.38	99	*e*PKP1	P	00 58 01.4	+3.3
	comp=Z,484nm,1.2s						
TAOE				*e*S	S	01 08 24.8	-7.8
	comp=Z,1µm,28.9s						
TAOE				*e*LQ	LQ	01 22 47.5	
	comp=Z,2µm,33.1s						
TAOE				*e*LR	LR	01 26 48.4	
	comp=Z,1µm,26.8s						
TAOE	**Nuku Hiva Isla**	89.38	99	P	P	00 57 59.9	+1.8
TBLG	**Delisi**	89.49	312	*e*P	P	00 57 58.6	+0.7
TBLG	**Delisi**	89.49	312	P	P	00 57 55.8	-2.1
I21K	**Tanana**	89.52	24	IAmb	IAmb	00 58 00.5	
	comp=Z,250nm,1.6s						
O22K	**Cooper Landing**	89.58	29	IAmb	IAmb	00 58 06.3	
	comp=Z,280nm,0.8s						
KTH	**Kantishna Hill**	89.62	26	IAmb	IAmb	00 58 00.1	
	comp=Z,197nm,1.2s						
M22K	**Willow**	89.63	28	IAmb	IAmb	00 58 04.4	
	comp=Z,190nm,0.9s						
SEW	**Seward**	89.65	30	IAmb	IAmb	00 58 04.7	
	comp=Z,150nm,1.1s						
TASB	**TASBURUN-IGDIR**	89.66	310	*e*P	P	00 58 00.2	+1.4
RC01	**Rabbit Creek A**	89.69	29	IAmb	IAmb	00 58 01.7	
	comp=Z,162nm,1.1s						
OZAP	**Van, Ozalp-Mer**	89.70	309	⇑P	P	00 58 00.5	+1.3
CLDR	**Caldiran**	89.81	309	*e*P	P	00 58 01.2	+1.4
CUKT	**Cukurca**	89.85	307	*e*P	P	00 58 00.4	+0.6
TRF	**Thorofare Moun**	89.88	26	IAmb	IAmb	00 58 01.4	
	comp=Z,212nm,1.4s						
H22K	**Ishtalitna Cre**	89.92	24	IAmb	IAmb	00 58 02.4	
	comp=Z,202nm,1.5s						
PMR	**Palmer**	90.07	28	P	P	00 58 01.3	+1.2
PMR	**Palmer**	90.07	28	P	P	00 58 01.3	+1.2
D22K	**Ayikyak River**	90.09	21	IAmb	IAmb	00 58 03.2	
	comp=Z,256nm,1.4s						
B22K	**Teshekpuk Lake**	90.18	19	IAmb	IAmb	00 58 03.1	
	comp=Z,298nm,1.1s						
BGD	**Bogdanovka**	90.29	311	*e*P	P	00 58 03.4	+1.5
PWL	**Port Wells**	90.32	29	IAmb	IAmb	00 58 06.5	
	comp=Z,135nm,1.1s						
KNK	**Knik Glacier**	90.36	28	IAmb	IAmb	00 58 06.5	
	comp=Z,141nm,1.1s						
BWN	**Browne**	90.38	26	P	P	00 58 02.6	+1.1
ELIB	**Princess Elisa**	90.40	197	*d*P	P	00 58 02.8	+1.1
	comp=Z,109nm,1.1s						
AKDM	**Akdamar-Van**	90.45	308	*e*P	P	00 58 03.9	+1.2
SML	**Sawmill**	90.48	28	IAmb	IAmb	00 58 04.5	
	comp=Z,247nm,1.2s						
RND	**Reindeer**	90.51	26	IAmb	IAmb	00 58 03.8	
	comp=Z,288nm,1.2s						
MCK	**McKinley**	90.53	26	IAmb	IAmb	00 58 04.1	
	comp=Z,422nm,1.4s						
NCK	**Nalchik**	90.53	313	*c i*P	P	00 58 03.0	+0.3
NCK				pmax	pmax		
	comp=Z,67nm,1.0s						
AGRB	**Hanur-Agry**	90.57	309	*e*P	P	00 58 04.7	+1.5
KARS	**Kars**	90.61	311	*e*P	P	00 58 04.7	+1.4
G23K	**Bananza Creek**	90.62	23	IAmb	IAmb	00 58 05.7	
	comp=Z,217nm,1.1s						
P23K	**Montague Islan**	90.64	30	IAmb	IAmb	01 01 00.9	
	comp=Z,497nm,1.6s						
MLAZ	**Malazgirt-MUS**	90.87	309	*e*P	P	00 58 05.9	+1.3
GLI	**Glacier Island**	90.92	29	P	P	00 58 03.7	-0.4
GLI				IAmb	IAmb	00 58 09.3	
	comp=Z,127nm,1.1s						
SCM	**Sheep Creek Mo**	90.95	28	IAmb	IAmb	00 58 06.9	
	comp=Z,309nm,1.3s						
C23K	**Itkillik River**	91.01	20	P	P	00 58 04.0	-0.3
C23K				IAmb	IAmb	00 58 07.0	
	comp=Z,290nm,1.2s						
WRH	**Wood River Hil**	91.02	25	IAmb	IAmb	00 58 06.1	
	comp=Z,340nm,1.2s						
E23K	**Chandalar**	91.02	22	IAmb	IAmb	00 58 07.6	
	comp=Z,428nm,1.4s						
KBZ	**Khabaz**	91.06	314	P	P	00 58 04.1	-1.0
	comp=Z,36nm,0.8s,baz=358,slow=1.2,SNR=33						
KBZ				PP	PP	01 01 45.1	+0.7
	comp=Z,12nm,1.1s,baz=95,slow=15,SNR=3.6						
KBZ				S	SKSac	01 08 18.8	-0.4
	comp=Z,3.0nm,0.9s,baz=297,slow=19,SNR=1.5						
KBZ				LR	LR	01 44 42.2	
	comp=Z,348nm,20.4s,baz=91,slow=39						
	comp=Z,36nm,0.8s						
KBZ	**Khabaz**	91.06	314	*c i*P	P	00 58 04.7	-0.4
KBZ				pmax	pmax		
	comp=Z,51nm,0.9s						
GOF	**Gofitskoye**	91.09	315	*c i*P	P	00 58 04.9	-0.4
GOF				*e*S	SKSac	01 08 18.4	-1.0
DHY	**Denali Highway**	91.12	27	IAmb	IAmb	00 58 07.6	
	comp=Z,238nm,1.2s						
NEUR	**Neytrino**	91.16	313	*c i*P	P	00 58 06.5	+0.6
NEUR				pmax	pmax		
	comp=Z,44nm,1.2s						
SENK	**Senkaya-Erzuru**	91.16	310	*e*P	P	00 58 07.2	+1.2
CCB	**Clear Creek Bu**	91.17	25		P	00 58 04.5	-0.7
CCB				IAmb	IAmb	00 58 06.5	
	comp=Z,340nm,1.2s						
COLA	**College**	91.18	25	P	P	00 58 05.4	+0.2
COLA	**College**	91.18	25	*d i*P	P	00 58 05.0	-0.2
COLA				pmax	pmax		
	comp=Z,66nm,1.1s						
COLA	**College**	91.18	25	P	P	00 58 05.1	-0.1
FID	**Port Fidalgo**	91.21	29	P	P	00 58 05.3	-0.2
FID				IAmb	IAmb	01 01 43.5	

	comp=Z,137nm,1.3s						
GURO	Guroymak-BITLI	91.22	308	*e*P	P	00 58 07.6	+1.4
KVAR	Kislovodsk Arr	91.23	314	LR	LR	01 45 00.2	
	comp=Z,376nm,19.7s,baz=264,slow=39						
KIV	Kislovodsk	91.23	314	*e*P	P	00 58 05.3	-0.8
KIV	Kislovodsk	91.23	314	P	P	00 58 07.2	+1.1
KIV	Kislovodsk	91.23	314	*e*P	P	00 58 05.9	-0.1
KIV				*e*		01 01 44.8	
KIV				*e*		01 08 19.8	
KIV				pmax	pmax		
	comp=Z,135nm,3.6s						
KIV				pmax	pmax		
	comp=Z,44nm,1.1s						
KIV				MLR	MLR		
	comp=Z,410nm,20.0s						
KIV	Kislovodsk	91.23	314	P	P	00 58 06.0	-0.1
KIV	Kislovodsk	91.23	314	*i* P	P	00 58 06.0	-0.1
	SNR=18						
KIV	Kislovodsk	91.23	314	⇑P	P	00 58 01.2	-4.9
SHA1	Shidzhatmaz	91.23	314	*c i*P	P	00 58 05.9	-0.4
H24K	Noodor Dome	91.32	24	IAmb	IAmb	00 58 08.7	
	comp=Z,317nm,1.2s						
HOMI	Horasan	91.45	310	⇑P	P	00 58 09.2	+1.8
KIBK	Kibwezi	91.47	268	P	P	00 58 08.3	+0.5
KIBK	Kibwezi	91.47	268	P	P	00 58 09.1	+1.2
	SNR=42						
KIBK	Kibwezi	91.47	268	IAmb	IAmb	00 58 11.8	
	comp=Z,247nm,1.3s						
KOPR	Koprukoy-ERZUR	91.48	310	*e*P	P	00 58 08.3	+0.9
HDA	Harding Lake	91.50	26	IAmb	IAmb	00 58 07.9	
	comp=Z,118nm,1.0s						
EYAK	Cordova Ski Ar	91.54	29	P	P	00 58 07.2	+0.3
KLU	Klutina	91.57	29	P	P	00 58 07.1	-0.1
IL31		91.58	25	IAmb	IAmb	00 58 07.9	
	comp=Z,127nm,1.2s						
ILAR	Eielson Array	91.58	25	P	P	00 58 05.8	-1.3
	comp=Z,58nm,1.1s,baz=290,slow=3.7,SNR=151						
ILAR				PP	PP	01 01 49.5	+1.5
	comp=Z,34nm,1.3s,baz=258,slow=5.8,SNR=5.4						
ILAR				PKKPbc	PKKPdf	01 15 27.1	+1.4
	comp=Z,2.1nm,0.9s,baz=36,slow=0.9,SNR=7.2						
ILAR				SKKPbc	SKKPbc	01 18 47.9	-3.2
	comp=Z,2.0nm,0.9s,baz=8.8,slow=1.9,SNR=7.2						
ILAR				PKPPKP	P'P'df	01 23 38.2	+2.7
	comp=Z,0.7nm,0.9s,baz=2.8,slow=4.3,SNR=5.1						
ILAR				LR	LR	01 36 12.7	
	comp=Z,360nm,19.8s,baz=264,slow=33						
	comp=Z,58nm,1.1s						
F24K	Squaw Lake	91.58	22	P	P	00 58 07.6	+0.5
F24K				IAmb	IAmb	00 58 10.3	
	comp=Z,247nm,1.2s						
DIV	Divide	91.60	29	P	P	00 58 07.6	+0.3
DIV				IAmb	IAmb	00 58 17.5	
	comp=Z,168nm,1.0s						
G24K	Hadweenzic Riv	91.62	23	P	P	00 58 07.1	-0.2
G24K				IAmb	IAmb	00 58 10.2	
	comp=Z,269nm,1.1s						
VRTB	Varto-Mus	91.72	309	*e*P	P	00 58 10.2	+1.7
BATM	Batumi	91.75	311	*e*P	P	00 58 09.1	+0.7
BATM	Batumi	91.75	311	P	P	00 58 07.1	-1.3
BATM	Batumi	91.75	311	⇓P	P	00 58 09.3	+0.9
SVAN	Silvan-Diyarba	91.83	308	*e*P	P	00 58 10.0	+1.1
K24K	Donnelly Dome	91.93	26	IAmb	IAmb	00 58 10.8	
	comp=Z,209nm,1.2s						
HARP	HAARP	92.04	28	IAmb	IAmb	00 58 26.7	
	comp=Z,175nm,1.1s						
KARO	Karliova-Bingo	92.05	309	*e*P	P	00 58 11.6	+1.5
RAGM	Ragged Mountai	92.05	30	P	P	00 58 08.5	-0.9
RAGM				IAmb	IAmb	00 58 12.3	
	comp=Z,179nm,1.4s						
KAIM	Kayak Island	92.12	30	P	P	00 58 10.3	+0.6
KAIM				IAmb	IAmb	00 58 12.8	
	comp=Z,198nm,1.0s						
BMRM	Bremner River	92.14	29	P	P	00 58 09.3	-0.5
BMRM				IAmb	IAmb	00 58 13.2	
	comp=Z,167nm,1.2s						
J25K	Salcha River,	92.20	25	IAmb	IAmb	00 58 11.6	
	comp=Z,181nm,1.4s						
BNGB	Bingl	92.31	309	*e*P	P	00 58 11.8	+0.6
RIDG	Independent Ri	92.33	26	IAmb	IAmb	00 58 12.8	
	comp=Z,375nm,1.4s						
KMBO	Kilima Mbogo	92.37	269	LR	LR	01 34 56.5	
	comp=Z,974nm,21.6s,baz=108,slow=32						
KMBO	Kilima Mbogo	92.37	269	*c i*P	P	00 58 12.6	+0.4
F25K	Christian Rive	92.44	22	P	P	00 58 11.7	+0.6
F25K				IAmb	IAmb	00 58 14.3	
	comp=Z,138nm,1.1s						
FYU	Fort Yukon	92.48	24	P	P	00 58 11.5	+0.3
KOPT	Kop Dagi	92.52	310	IAmb	IAmb	00 58 17.2	
	comp=Z,238nm,1.4s						
BERG	Berg Lake	92.53	30	P	P	00 58 11.9	+0.3
BERG				IAmb	IAmb	00 58 14.4	
	comp=Z,125nm,1.0s						
VRH	Novokhopyorsk	92.53	321	*e*P	P	00 58 10.7	-1.0
VRH				pmax	pmax		
	comp=Z,26nm,0.8s						
E25K	Arctic Village	92.54	22	P	P	00 58 12.0	+0.5
E25K				IAmb	IAmb	00 58 14.7	
	comp=Z,309nm,1.2s						
GLB	Gilahina Butte	92.57	29	P	P	00 58 11.9	0.0
GLB				IAmb	IAmb	00 58 15.8	
	comp=Z,142nm,1.1s						
DYBB	Diyarbakir	92.65	308	*e*P	P	00 58 13.8	+1.0
LABN	Labinsk	92.70	314	*e*P	P	00 58 12.4	-0.3
LABN				*e*		01 01 58.1	
LABN				*e*		01 08 28.1	
LABN				pmax	pmax		
	comp=Z,44nm,1.3s						
VRDI	Verde Repeater	92.73	29	P	P	00 58 12.3	-0.4
VRDI				IAmb	IAmb	00 58 15.3	
	comp=Z,169nm,1.7s						
SCRK	Sand Creek	92.74	26	IAmb	IAmb	00 58 15.0	
	comp=Z,163nm,1.4s						
MENT	Mentasta	92.76	27	P	P	00 58 14.5	+1.9
MENT	Mentasta	92.76	27	P	P	00 58 13.1	+0.5
MENT				IAmb	IAmb	00 58 15.3	
	comp=Z,120nm,1.2s						
BMAR	Burnt Mountain	92.83	23	P	P	00 58 13.4	+0.5
CRQM	Cirque	92.84	29	P	P	00 58 13.3	+0.1
CRQM				IAmb	IAmb	00 58 16.0	
	comp=Z,126nm,1.1s						
L26K	Log Cabin Wild	92.93	27	IAmb	IAmb	00 58 16.1	
	comp=Z,109nm,1.2s						
ERBR	Yeremizino-Bor	92.94	315	*e*P	P	00 58 13.2	-0.6
ERBR				*e*		01 01 59.4	
ERBR				*e*		01 08 28.4	
ERBR				pmax	pmax		
	comp=Z,56nm,1.2s						
MCARA	McCarthy VSAT	92.95	29	IAmb	IAmb	00 58 21.6	
	comp=Z,114nm,1.2s						
TGL	Tana Glacier	92.99	29	P	P	00 58 13.9	+0.1
F26K	Sheenjek River	93.03	22	IAmb	IAmb	00 58 17.1	
	comp=Z,222nm,1.2s						
M26K	Nabesna, AK	93.04	28	IAmb	IAmb	00 58 16.8	
	comp=Z,178nm,1.6s						
VSLR	Vesyoloye	93.11	313	*d i*P	P	00 58 14.6	0.0
VSLR				pmax	pmax		
	comp=Z,171nm,1.3s						
KTUT	Trabzon	93.15	311	*e*P	P	00 58 17.2	+2.4
KTUT	Trabzon	93.15	311	⇑P	P	00 58 19.0	+4.1
SVRC	Sivrice-ELAZID	93.34	308	*e*P	P	00 58 17.0	+1.0
SOC	Sochi	93.35	313	*e*P	P	00 58 14.7	-1.0
SOC				*e**PP	pP	00 58 58.8	-2.8
SOC				*e*		01 02 01.6	
SOC				*e*PPP	PPP	01 04 00.1	
SOC				*e*S	SKSac	01 08 30.1	-1.9
SOC				*e*SSS	SSS	01 19 09.5	
SOC				pmax	pmax		
	comp=Z,38nm,0.8s						
C27K	Jago River	93.36	20	IAmb	IAmb	00 58 18.4	
	comp=Z,292nm,1.3s						
GRNC	Granite Creek	93.51	29	IAmb	IAmb	00 58 19.3	
	comp=Z,405nm,1.9s						
M27K	Edge Creek, AK	93.56	28	IAmb	IAmb	00 58 19.4	
	comp=Z,115nm,1.2s						
BARN	Barnard Glacie	93.58	29	IAmb	IAmb	00 58 19.9	
	comp=Z,417nm,1.7s						
L27K	Beaver Creek,	93.63	27	IAmb	IAmb	00 58 19.6	
	comp=Z,168nm,1.1s						
BCAR	Beaver Creek A	93.65	27	P	P	00 58 16.3	-0.4
URFA	Urfa	93.66	307	*e*P	P	00 58 14.5	-2.9
G27K	Doyon Strip	93.92	23	IAmb	IAmb	00 58 21.2	
	comp=Z,190nm,1.2s						
ILIC	ilic-Erzincan	93.97	309	*e*P	P	00 58 19.5	+0.6
VORD	Divnogorie	94.04	321	*e*P	P	00 58 15.8	-2.9
VORD				*e*		01 02 07.4	
VORD				pmax	pmax		
	comp=Z,50nm,1.0s						
VORR	Voronezh	94.13	321	*e*P	P	00 58 18.3	-0.8
VORR				pmax	pmax		
	comp=Z,49nm,1.2s						
ARPR	Arapgir-MALATY	94.13	309	*e*P	P	00 58 19.9	+0.2
VSR	Storozhevoye	94.13	321	*e*P	P	00 58 18.0	-1.1
VSR				pmax	pmax		
	comp=Z,38nm,1.2s						
NVL	N'lazarevskaya	94.27	197	*e*P	P	00 58 21.4	+2.0
NVL				pmax	pmax		
	comp=Z,37nm,0.9s						
NVL				MLR	MLR		
	comp=Z,1µm,15.0s						
LPSR	Galich'ya Gora	94.34	322	*e*P	P	00 58 19.0	-1.0
LPSR				pmax	pmax		
	comp=Z,52nm,1.2s						
KLMR	Klimovskoe	94.34	331	*e*P	P	00 58 17.1	-2.8
KLMR				S	SKSac	01 08 33.6	-3.0
KLMR				pmax	pmax		
	comp=Z,177nm,1.3s						
LODK	Lodwar	94.63	273	P	P	00 58 23.4	+1.0
	SNR=17						
PNL	Peninsula	94.64	31	P	P	00 58 21.6	+0.3
POGA	Pongola	94.87	242	P	P	00 58 24.4	+1.3
GAZ	Gaziantep	94.93	307	*e*P	P	00 58 24.0	+0.8
GAZ	Gaziantep	94.93	307	IAmb	IAmb	00 58 25.7	
	comp=Z,92nm,1.2s						
ASF	Jabal al Asfar	94.97	302	LR	LR	01 48 22.0	
	comp=Z,386nm,18.9s,baz=33,slow=40						
ASF	Jabal al Asfar	94.97	302	P	P	00 58 24.7	+1.1
ADZR	Andozero	95.00	334	*e*P	P	00 58 19.2	-3.6
ADZR				*e*		01 02 12.4	
ADZR				*e*S	SKSac	01 08 37.3	-2.7
ADZR				pmax	pmax		
	comp=Z,56nm,1.3s						
ANN	Anapa	95.05	314	*e*P	P	00 58 22.6	-0.8
ANN				*e*		01 02 15.7	
ANN				*e*		01 08 40.5	
ANN				pmax	pmax		
	comp=Z,42nm,0.6s						
M29M	Somme Creek	95.15	28	IAmb	IAmb	00 58 26.9	
	comp=Z,137nm,1.2s						
KMRS	Kahramanmaras	95.19	307	*e*P	P	00 58 23.7	-0.7
MOS	Moscow	95.20	325	*e*P	P	00 58 22.1	-1.8
MOS				*e*		01 08 40.0	
MOS				*i* S	S	01 09 14.2	-8.3
MOS				*e*PS	PS	01 10 46.1	-19
MOS				pmax	pmax		
	comp=Z,58nm,0.9s						
MOS				smax	smax		
	comp=N,1µm,2.8s						
MOS				smax	smax		
	comp=E,1µm,3.0s						
SVSK	Karacayir	95.20	310	*e*P	P	00 58 25.1	+0.8
E29M	Blow River	95.40	22	IAmb	IAmb	00 58 26.9	
	comp=Z,232nm,1.4s						
TOKT	Tokat	95.56	310	*e*P	P	00 58 25.2	-0.8
HSUJ	Al Zarqa	95.56	302	P	P	00 58 28.7	+2.5
HYT	Haines Junctio	95.60	29	P	P	00 58 25.9	+0.1
SARI	SarD1z-Kayseri	95.60	308	*e*P	P	00 58 26.8	+0.4
BEIL	Beino	95.66	304	*e*P	P	00 58 26.9	+0.3
OBN	Obninsk	95.80	325	LR	LR	01 47 29.5	
	comp=Z,324nm,18.6s,baz=101,slow=39						
OBN	Obninsk	95.80	325	*c i*P	P	00 58 25.2	-1.4
OBN				*i*		01 02 24.2	
OBN				*i*		01 08 43.3	
OBN				*i* S	S	01 09 20.1	-7.5
OBN				*i* PS	PS	01 10 50.3	-21
OBN				*e*PPS	PPS	01 11 53.7	
OBN				*i* SS	SS	01 16 01.2	-0.7
OBN				pmax	pmax		
	comp=Z,65nm,1.1s						
OBN				MLR	MLR		
	comp=Z,646nm,20.0s						
OBN	Obninsk	95.80	325	P	P	00 58 25.0	-1.6
OBN				IAmb	IAmb	00 58 27.0	
	comp=Z,95nm,0.6s						
HWQ	Hawqa	95.85	304	*e*P	P	00 58 27.6	+0.1
RCY	Rachaya	95.92	303	*e*P	P	00 58 28.2	+0.3
HSNJ	Maan	95.93	300	P	P	00 58 29.8	+1.8
KHAM	Kharkiv	95.96	320	P	P	00 58 28.0	+0.4
HOED	Hoedspruit, Li	95.97	245	*e*P	P	00 58 28.2	0.0
SHBL	Chebaa	95.99	303	*e*P	P	00 58 28.4	+0.2
KOZT	Kozan	96.05	307	*e*P	P	00 58 28.0	-0.2
GEM	Giv'at Ha'Em	96.05	303	P	P	00 58 29.8	+1.5
I30M	Mount Dempster	96.06	25	IAmb	IAmb	00 58 30.2	
	comp=Z,119nm,1.1s						
BNN	Bunyan	96.06	308	*e*P	P	00 58 28.5	+0.1
GHAJ	Ghor Haditha	96.07	301	IAmb	IAmb	00 58 31.4	
	comp=Z,106nm,0.9s						
GHAJ	Ghor Haditha	96.07	301	P	P	00 58 29.8	+1.4
BHL	Bhannes	96.08	303	*e*P	P	00 58 27.6	-1.0
QRNJ	Al-Qirein	96.10	302	P	P	00 58 30.0	+1.5
TROLL	Troll, Antarti	96.11	194	⇑P	P	00 58 28.5	+0.6
	comp=Z,2µm,0.8s						
TROLL				⇑SKSac	SKSac	01 08 45.6	-0.5
	comp=N,30µm,3.2s						
TROLL				S	S	01 09 30.1	-0.1
	comp=N,136µm,7.8s						
TROLL				PKKPbc	PKKPdf	01 15 14.3	-2.8
	comp=Z,124nm,0.6s						
TROLL				SKKPdf	SKKPdf	01 18 36.0	+2.1
	comp=Z,302nm,1.0s						
LISJ	El Lisan	96.14	301	P	P	00 58 31.3	+2.6
UJAP	Al Uja	96.18	301	P	P	00 58 26.4	-2.5
MSBI	Mazada	96.25	301	P	P	00 58 37.6	+8.4
MMAI	Mount Meron Ar	96.26	303	P	P	00 58 27.8	-1.6
	comp=Z,10nm,0.6s,baz=52,slow=7.5,SNR=22						
MMAI				LR	LR	01 49 48.9	
	comp=Z,367nm,18.9s,baz=98,slow=40						
	comp=Z,10nm,0.6s						
SALP	Salfit	96.41	302	P	P	00 58 31.4	+1.4
LVZ	Lovozero	96.42	338	*ce*P	P	00 58 27.7	-1.6
LVZ				pmax	pmax		
	comp=Z,28nm,0.9s						
LVZ	Lovozero	96.42	338	P	P	00 58 28.0	-1.2
N31M	Braeburn, Yuko	96.43	29	IAmb	IAmb	00 58 32.4	
	comp=Z,106nm,1.5s						
AQBJ	Aqaba	96.46	299	P	P	00 58 31.6	+1.4
HRFI	Mount Harif	96.48	300	P	P	00 58 31.3	+0.9
YOZ	Yozgat	96.49	309	*e*P	P	00 58 29.4	-1.0
PRNI	Paran	96.52	300	P	P	00 58 31.4	+0.9
EIL	Elat	96.54	299	LR	LR	01 46 22.7	
	comp=Z,656nm,21.1s,baz=109,slow=38						
EIL	Elat	96.54	299	*e*P	P	00 58 29.8	-0.8
EIL	Elat	96.54	299	P	P	00 58 31.5	+0.9
AMAZ	Amatzia	96.63	301	P	P	00 58 33.1	+2.1
SKAG	Skagway	96.71	31	P	P	00 58 32.1	+1.5
CMRD	Camardi-Nigde	96.71	307	*e*P	P	00 58 31.3	-0.1
KOZK	Kozakli-Nevseh	96.83	309	*e*P	P	00 58 30.9	-1.0
H31M	Peel River	96.88	24	IAmb	IAmb	00 58 33.7	
	comp=Z,181nm,1.2s						
WHY	Whitehorse	96.89	30	IAmb	IAmb	00 58 33.8	
	comp=Z,97nm,1.2s						
APA	Apatity	96.92	337	*e*P	P	00 58 28.4	-3.0
APA				*e*		01 02 29.7	
APA				*e*PS	PS	01 11 23.5	+0.3
APA				pmax	pmax		
	comp=Z,20nm,1.1s						
APA				MLR	MLR		
	comp=Z,908nm,22.0s						
CY604	RAF Akrotiri,	97.04	304	P	Pdif	00 58 34.7	+2.3
CY604				IAmb	IAmb	00 58 35.4	
	comp=Z,65nm,1.1s						
M31M	Drury Creek, Y	97.06	28	IAmb	IAmb	00 58 34.9	
	comp=Z,90nm,1.6s						
KZIT	Kziot	97.06	300	P	Pdif	00 58 33.7	+0.7
JIS	Juneau Island	97.25	32	P	Pdif	00 58 34.8	+1.7
SIM	Simferopol'	97.41	315	*e*P	P	00 58 33.4	-0.8
SIM						01 02 36.0	
SIM				*e*S	SKSac	01 08 52.8	-0.6
SIM				pmax	pmax		
	comp=Z,110nm,1.4s						
SIM				pmax	pmax		
	comp=Z,100nm,3.6s						
SIM				pmax	pmax		
	comp=Z,300nm,1.6s						
SIM				smax	smax		
	comp=E,470nm,4.1s						
BZK	Bozkurt	97.50	312	*e*P	P	00 58 33.9	-0.8
BZK	Bozkurt	97.50	312	IAmb	IAmb	00 58 54.2	
	comp=Z,79nm,1.2s						
BZK	Bozkurt	97.50	312	⇓P	Pdif	00 58 35.8	+1.1
KIRS	Kirsehir-Merke	97.57	309	⇓P	P	00 58 35.0	-0.2
SNAA	Sanae	97.63	194	⇑P	Pdif	00 58 36.2	+1.5
	comp=Z,295nm,0.8s						
SNAA				SKSac	SKSac	01 08 52.8	-0.9
	comp=E,10µm,2.7s						
SNAA				S	S	01 09 40.7	-2.3
	comp=E,5µm,2.5s						
SNAA				PKKPbc	PKKPbc	01 15 10.1	-3.2
	comp=Z,86nm,0.5s						
SNAA				SKKPdf	SKKPdf	01 18 31.7	+0.6
	comp=Z,176nm,0.8s						
SNAA	Sanae	97.63	194	P	P	00 58 33.9	-0.8
	comp=Z,22nm,1.1s,baz=143,slow=3.6,SNR=23						
SNAA				PP	PP	01 02 34.9	+0.5
	comp=Z,6.8nm,1.1s,baz=122,slow=7.4,SNR=5.3						
SNAA				S	SKSac	01 08 52.1	-1.7
	comp=Z,3.7nm,0.8s,baz=192,slow=18,SNR=14						
SNAA				PKKPbc	PKKPbc	01 15 10.9	-2.4
	comp=Z,4.0nm,0.7s,baz=300,slow=1.5,SNR=6.7						
SNAA				SKKPbc	SKKPdf	01 18 31.8	+0.6
	comp=Z,9.0nm,0.9s,baz=343,slow=1.4,SNR=12						
SNAA				LR	LR	01 40 29.7	
	comp=Z,2µm,21.0s,baz=114,slow=34						
	comp=Z,22nm,1.1s						
SNAA	Sanae	97.63	194	*c i*P	Pdif	00 58 34.9	+0.2
SNAA				pmax	pmax		
	comp=Z,32nm,1.3s						
YESY	Yesilyurt	97.70	307	*e*P	Pdif	00 58 36.9	+1.0
KEBE	Keben-Mersin	97.72	306	*e*P	Pdif	00 58 35.9	0.0
ILGA	Ilgaz	97.72	311	IAmb	IAmb	01 02 28.7	
	comp=Z,57nm,1.3s						
BR104	Keskin Array S	97.78	309	P	P	00 58 35.5	-0.7
	comp=Z,135nmcomp=Z,19nm,1.0s						
BR131	Keskin Array S	97.79	309	*e*P	P	00 58 35.9	-0.3
BR131	Keskin Array S	97.79	309	P	P	00 58 35.8	-0.4
	SNR=19						
BR131	Keskin Array S	97.79	309	*c i*P	P	00 58 34.9	-1.3
BRTR	Keskin Array B	97.79	309	P	P	00 58 35.2	-1.0
	comp=Z,15nm,0.9s,baz=112,slow=4.2,SNR=46						
BRTR				PP	PP	01 02 36.0	-1.0
	comp=Z,25nm,1.1s,baz=103,slow=10,SNR=6.2						
BRTR				PKKPbc	PKKPbc	01 15 12.7	+0.8
	comp=Z,1.2nm,0.8s,baz=186,slow=3.4,SNR=5.7						
BRTR				LR	LR	01 49 59.2	
	comp=Z,212nm,19.1s,baz=86,slow=40						
	comp=Z,15nm,0.9s						
BRTR	Keskin Array B	97.79	309	*ce*P	P	00 58 35.2	-1.0
BRTR				pmax	pmax		
	comp=Z,16nm,0.9s						
BRTR	Keskin Array B	97.79	309	P	P	00 58 35.0	-1.3
BECE	Buyukeceli-Mer	97.84	306	*e*P	P	00 58 35.2	-1.1
TEVE	Tevekalti-Mers	97.94	306	*e*P	P	00 58 36.1	-0.8
RUST	Rust De Winter	98.01	244	*e*P	P	00 58 37.3	-0.1
CSS	Mathiatis	98.02	304	*e*P	P	00 58 36.3	-0.9
CSS	Mathiatis	98.02	304	IAmb	IAmb	00 58 39.5	
	comp=Z,48nm,1.0s						
CSS	Mathiatis	98.02	304	P	Pdif	00 58 37.8	+0.6
CRAG	Craig	98.07	35	P	Pdif	00 58 38.6	+1.7
VADS	Vadso	98.11	340	*e*P	P	00 58 36.5	-0.2
VADS				IVmB_BB		00 58 41.4	
	comp=Z,730nm,2.3s						
VADS				*e*PP	PP	01 02 38.7	+0.5
VADS				*e*SKSac	SKSac	01 08 54.0	-1.8
VADS				*e*SS	SS	01 16 32.3	-1.4
BERE	Bereket-Mersin	98.11	306	*e*P	Pdif	00 58 37.9	+0.1
HOPEN	Hopen	98.16	347	*e*Pdif	P	00 58 34.6	-2.3
HOPEN				*e*SKSac	SKSac	01 08 59.2	+3.2
HOPEN				*e*SS	SS	01 16 36.5	+2.3
TEKE	Tekeli-Mersin	98.20	306	*e*P	P	00 58 36.9	-1.0
AFSR	Afar-Bala (An	98.23	309	*e*P	P	00 58 37.8	-0.3
GRHM	Grahamstown, E	98.42	235	IAmb	IAmb	00 58 42.7	
	comp=Z,62nm,0.9s						
LOD	Lodumlu	98.46	309	*e*P	P	00 58 38.9	-0.2
MMPY	Sheldon Lake,	98.48	27	IAmb	IAmb	00 58 41.8	
	comp=Z,114nm,1.5s						
DIB	Dawson Inlet,	98.58	37	P	P	00 58 39.1	0.0
DIB				IAmb	IAmb	00 58 41.6	
	comp=Z,44nm,1.0s						
H02S1	DAWSON INLET T	98.58	37	P	Pdif	00 58 40.2	+1.0
	SNR=15						
H02S2	DAWSON INLET T	98.58	37	P	Pdif	00 58 40.1	+0.9
	SNR=15						
CRAIL	Swartwater, Li	98.64	246	*e*P	P	00 58 40.2	-0.2
HRAO	HartRAO	98.65	243	*e*P	Pdif	00 58 40.8	+0.4
HDMB	Hadim	98.71	307	*e*P	P	00 58 39.7	-0.8
KONT	Konya--Tatoy	98.80	307	*e*P	P	00 58 40.1	-0.5
GAZI	Gazipasa	98.85	306	*e*P	P	00 58 40.0	-0.9
MBAR	Mbarara	98.90	269	P	Pdif	00 58 42.8	+1.0
MBAR	Mbarara	98.90	269	*c i*P	P	00 58 41.6	-0.2
MBAR				pmax	pmax		
	comp=Z,41nm,1.0s						
MBAR	Mbarara	98.90	269	P	P	00 58 41.7	-0.1
MBAR	Mbarara	98.90	269	P	Pdif	00 58 42.6	+0.9
R33M	Jennings River	98.94	31	IAmb	IAmb	01 02 35.3	
	comp=Z,68nm,1.6s						
KEV	Kevo	98.97	340	P	P	00 58 40.0	-0.6
KEV				pmax	pmax		
	comp=Z,136nm,1.9s						
KEV	Kevo	98.97	340	P	P	00 58 40.0	-0.6
KEV				IAmb	IAmb	01 00 43.8	
	comp=Z,136nm,1.9s						
S34M	Telegraph Cree	98.99	32	P	Pdif	00 58 41.0	+0.1
S34M				IAmb	IAmb	01 02 34.7	
	comp=Z,61nm,1.4s						
KIZT	Kizilcal	99.16	308	*e*P	Pdif	00 58 41.5	-0.8
VNA2	Neumayer--Watz	99.20	193	⇑Pdiff	Pdif	00 58 41.8	+0.2
	comp=Z,7.2nm,0.6s,baz=136,slow=4.9						
VNA2				⇓SKSac	SKSac	01 09 00.6	-0.9
	comp=N,379nm,1.8s						
VNA2				PKKPbc	PKKPbc	01 15 05.6	-3.2
	comp=Z,4.4nm,0.6s,baz=347,slow=4.9						
VNA2				SKKPdf	SKKPdf	01 18 27.5	-0.7
	comp=Z,6.9nm,0.8s,baz=355,slow=7.1						
SEYD	Seydisehir-KON	99.22	307	*e*P	Pdif	00 58 42.3	-0.3
YUVA	Yuva-Kibriscik	99.28	310	*e*P	Pdif	00 58 40.9	-1.9
HG4B	Hotspring	99.41	38	Pdif	Pdif	00 58 43.5	+0.6
HG4B				IAmb	IAmb	00 58 45.8	
	comp=Z,56nm,1.2s						
KEPZ	Antalya-Kepez	99.41	306	⇑P	Pdif	00 58 43.2	-0.2
SVRH	Sivrihisar-ESK	99.43	309	*e*P	Pdif	00 58 46.0	+2.5
VNA3	Neumayer Olymp	99.46	192	⇑Pdiff	Pdif	00 58 43.7	+0.8
	comp=Z,9.7nm,0.9s						
VNA3				⇑SKSac	SKSac	01 09 01.6	-1.3
	comp=N,376nm,2.0s						
VNA3				PKKPbc	PKKPbc	01 15 04.7	-3.4
	comp=Z,5.4nm,0.6s						
VNA3				SKKPdf	SKKPdf	01 18 26.5	-1.3
	comp=Z,5.9nm,0.9s						
SPB2	Spitsbergen Ar	99.47	349	Pdif	Pdif	00 58 42.4	-0.3
SPB2				IAmb	IAmb	00 58 43.3	
	comp=Z,117nm,1.7s						
SPA0	Spitsbergen Ar	99.47	349	*e*P	Pdif	00 58 42.6	-0.1
SPA0				IVmB_BB		00 58 50.1	
	comp=Z,726nm,2.4s						
SPA0				*e*PP	PP	01 02 49.5	+1.0
SPA0				*e*SKSac	SKSac	01 09 01.5	-1.1
SPA0				*e*SS	SS	01 16 54.7	+2.3
SPITS	Spitsbergen Ar	99.47	349	P	Pdif	00 58 41.5	-1.2
	comp=Z,3.6nm,0.4s,baz=84,slow=7.6,SNR=22						
SPITS				PKKPbc	PKKPdf	01 15 10.5	-1.0
	comp=Z,8.4nm,1.1s,baz=165,slow=6.9,SNR=6.0						
	comp=Z,3.6nm,0.4s						
SPITS	Spitsbergen Ar	99.47	349	P	Pdif	00 58 42.9	+0.2
SPITS				pmax	pmax		
	comp=Z,49nm,1.2s						
ARA0	ARCESS Array S	99.53	340	*e*P	Pdif	00 58 42.3	-0.8
ARA0				IVmB		00 58 43.8	
	comp=Z,429nm,1.3s						
ARA0				*e*PP	PP	01 02 51.2	+2.1
ARA0				*e*SKSac	SKSac	01 09 02.7	-0.4
ARA0				*e*SS	SS	01 16 57.5	+3.9
ARCES	ARCESS Array B	99.53	340	P	Pdif	00 58 42.3	-0.8
	comp=Z,19nm,0.5s,baz=82,slow=5.9,SNR=132						
ARCES				PKiKP	PKiKP	01 03 11.7	+0.5
	comp=Z,4.4nm,0.7s,baz=122,slow=2.3,SNR=6.8						
ARCES				S	SKSac	01 09 00.5	-2.5
	comp=Z,7.6nm,0.9s,baz=119,slow=4.7,SNR=6.8						
ARCES				PKKPbc	PKKPbc	01 15 05.4	-2.6
	comp=Z,1.4nm,0.5s,baz=260,slow=2.8,SNR=15						
ARCES				SKKPbc	SKKPbc	01 18 28.4	-3.1
	comp=Z,4.2nm,1.1s,baz=304,slow=2.2,SNR=4.6						
ARCES	ARCESS Array B	99.53	340	P	Pdif	00 58 42.9	-0.2
ARCES				pmax	pmax		
	comp=Z,41nm,1.1s						

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ARCES  ARCESS Array B     99.53 340  Pdif      Pdif      00 58 42.9 -0.2
T35M   Bob Quinn          99.56  33  Pdif      Pdif      00 58 43.6 +0.1
SGF    Sodankyl           99.56 338  P         Pdif      00 58 43.9 +0.6
SGF                                  pmax      pmax
       comp=Z,35nm,1.0s
VNA1   Neumayer--Stat     99.60 193 ⇑Pdiff     Pdif      00 58 44.7 +1.3
       comp=Z,16nm,1.1s
VNA1                                 PKKPbc    PKKPbc    01 15 04.6 -3.0
       comp=Z,13nm,0.9s
VNA1                                 SKKPdf    SKKPdf    01 18 27.1 -0.4
       comp=Z,18nm,0.9s
MDUB   Mudurnu            99.65 310            Pdif      00 58 43.8 -0.6
MDUB                                 IAmb      IAmb      01 02 19.6
       comp=Z,49nm,1.1s
BROLN  Tlhalogang         99.75 248  P         Pdif      00 58 45.3  0.0
LSZ    Lusaka             99.79 254  LR        LR        01 38 54.8
       comp=Z,584nm,21.4s,baz=116,slow=32
LSZ    Lusaka             99.79 254  P         Pdif      00 58 46.6 +1.0
LSZ    Lusaka             99.79 254  P         Pdif      00 58 45.9 +0.3
LSZ                                  pmax      pmax
       comp=Z,91nm,1.2s
LSZ    Lusaka             99.79 254  Pdif      Pdif      00 58 45.9 +0.3
LSZ                                  IAmb      IAmb      00 58 49.2
       comp=Z,91nm,1.1s
LSZ    Lusaka             99.79 254  P         Pdif      00 58 46.6 +1.0
RUBB   Prince Rupert      99.81  36  Pdif      Pdif      00 58 44.5 -0.1
RUBB                                 IAmb      IAmb      00 58 47.7
       comp=Z,108nm,1.9s
HAMF   Hammerfest         99.89 341 eP         Pdif      00 58 44.9 +0.2
HAMF                                 IVmB                00 58 45.4
       comp=Z,346nm,0.6s
HAMF                                ePP        PP        01 02 52.2 +0.4
HAMF                                eSS        SS        01 17 01.9 +3.4
WTLY   Watson Lake, Y     99.95  30  Pdif      Pdif      00 58 45.7 +0.5
WTLY                                 IAmb      IAmb      00 58 48.1
       comp=Z,73nm,1.4s
KBS    Kingsbay           99.97 350deP         Pdif      00 58 45.4 +0.5
KBS                                  pmax      pmax
       comp=Z,21nm,1.7s
KBS    Kingsbay           99.97 350 eP         Pdif      00 58 44.9  0.0
KBS                                  IVmB_BB             00 59 12.1
       comp=Z,424nm,2.6s
KBS                                 ePP        PP        01 02 52.3 +0.1
KBS                                 eSKSac     SKSac     01 09 04.5 -0.4
KBS                                 eSS        SS        01 17 03.3 +4.1
KBS    Kingsbay           99.97 350  Pdif      Pdif      00 58 46.1 +1.2
KBS                                  IAmb      IAmb      01 01 25.6
       comp=Z,78nm,1.8s
KBS    Kingsbay           99.97 350 i P        Pdif      00 58 44.5 -0.4
HSPB   Hornsund (broa    100.08 348 eP         Pdif      00 58 43.8 -1.7
BJO1   Bjornoya          100.17 345 eP         Pdif      00 58 45.1 -0.7
BJO1                                ePP        PP        01 02 54.4 +0.6
BJO1                                eSS        SS        01 17 03.3 +1.1
GULT   Gulveren          100.17 310 eP         Pdif      00 58 45.9 -0.8
SHUT   Suhut-Afyon       100.21 308 eP         Pdif      00 58 49.2 +2.2
OUL    Oulu              100.24 335  P         Pdif      00 58 46.6 +0.3
OUL                                  pmax      pmax
       comp=Z,28nm,1.4s
C36M   Paulatuk          100.25  20  Pdif      Pdif      00 58 46.5 +0.3
ISP    Isparta           100.25 307ceP         Pdif      00 58 46.1 -1.1
ISP                                  pmax      pmax
       comp=Z,15nm,0.6s
BOSA   Boshof            100.28 240  P         Pdif      00 58 46.7 -0.9
       comp=Z,44nm,0.9s,baz=104,slow=3.1,SNR=66
BOSA                                 PP        PP        01 02 57.6 +1.6
       comp=Z,45nm,1.4s,baz=94,slow=8.3,SNR=4.6
BOSA                                 PKKPbc    PKKPbc    01 15 05.5 +1.1
       comp=Z,4.7nm,0.9s,baz=227,slow=3.7,SNR=5.1
BOSA   Boshof            100.28 240  P         Pdif      00 58 48.2 +0.6
BOSA   Boshof            100.28 240  Pdif      Pdif      00 58 48.2 +0.6
BOSA   Boshof            100.28 240 eP         Pdif      00 58 47.4 -0.1
BOSA   Boshof            100.28 240  P         Pdif      00 58 47.6 +0.1
PURM   Purcari           100.32 316 ⇑P         Pdif      00 58 47.5 +0.4
PURM   Purcari           100.32 316  P         Pdif      00 58 46.9 -0.2
       comp=Z,3µmcomp=Z,91nm,1.1s
KORT   Korkueli          100.42 307 eP         Pdif      00 58 47.2 -0.8
AKASG  Malin Array Be    100.43 321  P         Pdif      00 58 45.7 -1.8
       comp=Z,4.7nm,0.5s,baz=70,slow=4.9,SNR=14
AKASG                                PP        PP        01 02 56.1 -0.3
       comp=Z,17nm,0.9s,baz=71,slow=6.4,SNR=4.8
AKASG                                PKKPbc    PKKPbc    01 15 04.2 -0.5
       comp=Z,0.4nm,0.4s,baz=290,slow=3.5,SNR=4.3
AKASG  Malin Array Be    100.43 321ceP         Pdif      00 58 46.2 -1.3
AKASG                                pmax      pmax
       comp=Z,5.0nm,0.5s
AKASG  Malin Array Be    100.43 321            Pdif      00 58 46.7 -0.8
AKBB   Malin Array Si    100.43 321⇓eP         Pdif      00 58 46.3 -1.2
KTK1   Kautokeino        100.43 339 eP         Pdif      00 58 46.1 -1.1
KTK1                                ePP        PP        01 02 56.4 +0.4
KTK1                                eSKSac     SKSac     01 09 06.3 -1.2
KIEV   Kiev              100.44 321  P         Pdif      00 58 47.0 -0.5
KIEV                                 pmax      pmax
       comp=Z,55nm,0.8s
KIEV   Kiev              100.44 321  P         Pdif      00 58 46.8 -0.7
KIEV   Kiev              100.44 321 ⇓P         Pdif      00 58 46.8 -0.7
LBTB   Lobatse           100.66 244 eP         Pdif      00 58 50.9 +1.6
LBTB   Lobatse           100.66 244  P         Pdif      00 58 50.9 +1.6
ADVT   Abdulvahap        100.76 310 eP         Pdif      00 58 48.8 -0.4
ELL    Elmali            100.78 306 eP         Pdif      00 58 49.3 -0.3
ELL    Elmali            100.78 306  P         Pdif      00 58 50.3 +0.7
ELL                                  pmax      pmax
       comp=Z,79nm,1.4s
HRT    Hereke            100.80 310 eP         Pdif      00 58 47.4 -2.1
FINES  FINESS Array B    100.80 332  P         Pdif      00 58 47.2 -1.7
       comp=Z,14nm,0.5s,baz=53,slow=5.4,SNR=133
FINES                                PP        PP        01 03 03.1 +4.2
       comp=Z,7.3nm,0.8s,baz=89,slow=10,SNR=4.9
FINES                                PKiKP     PKiKP     01 03 14.8 +1.1
       comp=Z,6.4nm,0.5s,baz=101,slow=3.3,SNR=10
FINES                                S         SKSac     01 09 07.3 -2.2
       comp=Z,24nm,1.1s,baz=96,slow=5.7,SNR=9.2
FINES                                PKKPbc    PKKPbc    01 15 02.4 -1.6
       comp=Z,2.8nm,0.7s,baz=251,slow=2.2,SNR=7.7
FINES  FINESS Array B    100.80 332 i P        Pdif      00 58 47.7 -1.2
FINES                                pmax      pmax
       comp=Z,14nm,0.5s
MNK    Minsk             100.85 324 i P        Pdif      00 58 48.7 -0.5
MNK                                 i                    01 02 59.1
MNK                                 i PPP      PPP       01 05 08.5
MNK                                 i                    01 10 05.3
MNK                                 i S        Sdif      01 10 10.0 -0.4
MNK                                 i SS       SS        01 17 10.6 -1.9
MNK                                 i SSS      SSS       01 21 04.6
MNK                                  pmax      pmax
       comp=E,9.0nm,0.8s
MNK                                  pmax      pmax
       comp=N,17nm,0.9s
MNK                                  pmax      pmax
       comp=Z,69nm,0.9s
MNK    Minsk             100.85 324 i P        Pdif      00 58 48.8 -0.5
       comp=E,9.0nm,0.8s
MNK                                 i P        Pdif      00 58 48.8 -0.5
       comp=N,17nm,0.9s
MNK                                 i P        Pdif      00 58 48.8 -0.5
       comp=Z,69nm,0.9s,baz=83
MNK                                 i pP       pPdif     00 59 33.8 -1.4
MNK                                 i sP       sPdif     00 59 52.9 -1.7
MNK                                 i PP       PP        01 02 59.2 -0.3
MNK                                 i PPP      PPP       01 05 08.5
MNK                                 i SKS                01 10 05.3
MNK                                 i S        Sdif      01 10 10.1 -0.4
MNK                                 i sS       sS        01 11 30.6 -2.0
MNK                                 i SS       SS        01 17 10.7 -1.9
MNK                                 i SSS      SSS       01 21 04.6
MNK                                 i LR       LR        01 40 37.3
VSU    Vasula            100.95 329⇑eP         Pdif      00 58 48.1 -1.5
VSU                                  pmax      pmax
       comp=Z,8.0nm,0.7s
JURR   Jurilovca         101.14 315 ⇑P         Pdif      00 58 51.2 +0.5
TLCR                     101.15 315 ⇑P         Pdif      00 58 51.3 +0.5
TLCR                     101.15 315 ⇑P         PP        01 03 01.1 -0.9
SORM   Soroca            101.22 318 ⇓P         Pdif      00 58 50.4 -0.7
ISK    Istanbul-Kandi    101.24 311 eP         Pdif      00 58 49.5 -1.9
JETT   Jettan, Norway    101.26 340 eP         Pdif      00 58 51.2 +0.4
JETT                                ePP        PP        01 03 02.8 +0.6
LEOM   Leova             101.44 316  P         Pdif      00 58 51.5 -0.6
TPGR   Topolog           101.45 315 ⇑P         Pdif      00 58 52.9 +0.6
TPGR   Topolog           101.45 315 ⇓P         PP        01 03 06.0 +1.6
TIRR   Tirgusor          101.49 314 eP         Pdif      00 58 51.5 -0.9
TIRR   Tirgusor          101.49 314  P         Pdif      00 58 53.3 +0.9
TIRR                                 pmax      pmax
       comp=Z,37nm,1.0s
TIRR   Tirgusor          101.49 314 ⇑P         Pdif      00 58 52.8 +0.5
TIRR   Tirgusor          101.49 314 ⇓P         PP        01 03 06.7 +2.1
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MFTR   Murfatlar         101.50 314 ⇑P         PP        01 03 06.6 +1.9
CFR    Carcaliu          101.63 315 ⇑P         Pdif      00 58 53.3 +0.4
CFR    Carcaliu          101.63 315 ⇓P         PP        01 03 07.9 +2.3
TRO    Tromso            101.73 340 eP         Pdif      00 58 51.8 -1.0
TRO                                  IVmB                00 58 56.0
       comp=Z,655nm,2.5s
TRO                                 ePP        PP        01 03 06.8 +1.2
TRO                                 eSKSac     SKSac     01 09 15.0 +1.3
TRO                                 ePS        PS        01 12 09.4 -5.0
TRO                                 eSS        SS        01 17 29.4 +5.5
PSN    Preselentsi       101.75 313  P         PP        01 03 06.4 -0.2
HARR   Harsova           101.81 314 ⇑P         Pdif      00 58 54.6 +0.8
HARR   Harsova           101.81 314 ⇓P         PP        01 03 07.2 +0.1
NOR    Nord              101.89 355 i P        Pdif      00 58 53.5  0.0
NOR                                  IAmb      IAmb      00 58 56.1
       comp=Z,30nm,1.4s
VAF    Ylistaro          102.05 334  P         Pdif      00 58 54.0 -0.4
VAF                                  pmax      pmax
       comp=Z,75nm,1.0s
YER    Yerkesik          102.06 307  P         Pdif      00 58 54.2 -1.0
ODEM   Odemis-Izmir      102.16 308 eP         Pdif      00 58 55.8 +0.2
ARG    Arkhangelos       102.23 306  P         Pdif      00 58 55.7 -0.2
PRD    Provadia          102.32 313  P         PP        01 03 06.4 -4.5
NEF    NEVSHA            102.41 313  P         PP        01 03 08.0 -3.6
RNPP9  Sopachiv          102.44 321  P         Pdif      00 58 55.7 -0.7
TESR   Tescani           102.54 316 ⇓P         Pdif      00 58 57.3 +0.3
TESR   Tescani           102.54 316  P         Pdif      00 58 57.3 +0.3
       comp=Z,67nm,0.9s
VRI    Vrincioaia        102.55 316 eP         Pdif      00 58 57.4 +0.3
VRI    Vrincioaia        102.55 316  P         Pdif      00 58 57.2 +0.1
VRI    Vrincioaia        102.55 316 ⇑P         Pdif      00 58 59.6 +2.5
VRI    Vrincioaia        102.55 316 ⇑P         PP        01 03 07.1 -5.4
SAHR   Sahastru          102.59 316 ⇑P         Pdif      00 58 57.8 +0.5
PLOR   Plostina          102.61 316 ⇓P         Pdif      00 58 57.6 +0.2
PLOR   Plostina          102.61 316 ⇑P         PP        01 03 09.6 -3.4
PRAR   RASCA             102.73 317 ⇑P         Pdif      00 58 58.3 +0.4
ONER   Baraj Valea Uz    102.73 316 ⇓P         PP        01 03 11.8 -2.1
LOZB   Loznitsa          102.89 313 ⇓P         Pdif      00 58 59.1 +0.4
LOZB   Loznitsa          102.89 313 ⇑P         PP        01 03 09.9 -5.3
COVR   Voineasa-Covas    102.92 316 ⇑P         Pdif      00 58 59.0 +0.2
BLCB   Balcova           102.97 308  P         Pdif      00 58 58.1 -1.0
JMB    Yambol            103.02 312  P         Pdif      00 58 58.9 -0.4
TURR   Turia             103.02 316 ⇑P         Pdif      00 58 59.8 +0.6
MLR    Muntele Rosu      103.14 315  P         Pdif      00 59 00.6 +0.7
MLR                                  pmax      pmax
       comp=Z,31nm,1.2s
MLR    Muntele Rosu      103.14 315 ⇑P         Pdif      00 59 00.9 +1.0
MLR    Muntele Rosu      103.14 315 ⇓P         PP        01 03 12.8 -4.3
OZUR                     103.18 316 ⇑P         Pdif      00 59 02.5 +2.6
SUR    Sutherland        103.18 235  P         Pdif      00 59 01.7 +1.2
BOSR   Bodos             103.27 316 ⇑P         Pdif      00 58 58.3 -2.0
BURAR  Bucovina Array    103.38 318 ⇑P         Pdif      00 59 01.7 +0.8
EZN    Ezine             103.41 310  P         Pdif      00 59 00.6 -0.4
EZN    Ezine             103.41 310  P         Pdif      00 59 00.7 -0.4
ENEZ   Enez              103.46 311  P         Pdif      00 59 00.4 -0.8
DOPR   Dopca             103.47 316 ⇑P         Pdif      00 59 00.4 -0.8
DOPR   Dopca             103.47 316 ⇓P         PKiKP     01 03 17.1 -1.9
PRK    Paraskevi         103.50 309  P         Pdif      00 59 01.0 -0.4
ALN    Alexandroupoli    103.53 311  P         Pdif      00 59 01.1 -0.4
STEI   Steigen           103.57 339 eP         Pdif      00 59 00.5 -0.6
SUW    Suwalki           103.65 324 ePdif      Pdif      00 59 01.1 -0.7
FAUS   Fauske            103.75 339 eP         Pdif      00 59 00.7 -1.1
FAUS                                 IVmB                00 59 09.0
       comp=Z,412nm,1.6s
FAUS                                ePP        PP        01 03 21.5 +0.8
FAUS                                eSKSac     SKSac     01 09 24.6 +1.4
FAUS                                eSS        SS        01 17 56.2 +4.5
VOIR                     103.77 315 ⇓P         Pdif      00 59 02.9 +0.3
VOIR                     103.77 315 ⇓P         PP        01 03 25.3 +3.6
SMTH   Samothraki Isl    103.96 310  P         Pdif      00 59 02.6 -0.9
KDZ    Kurdzhali         103.99 312  P         Pdif      00 59 02.4 -1.1
ARCR   ARCALIA           104.03 317 ⇑P         PP        01 03 28.3 +4.9
ARR    Arges             104.07 315 ⇓P         Pdif      00 59 02.8 -1.1
ARR    Arges             104.07 315 ⇓P         PP        01 03 28.1 +4.2
LOF    Lofoten           104.09 340 eP         Pdif      00 59 01.3 -2.0
MDB    Medias            104.14 316 ⇑P         PP        01 03 23.7 -0.7
RZN    Rozhen            104.43 312  P         Pdif      00 59 04.4 -1.4
MOR8   Moi Rana          104.50 338 eP         Pdif      00 59 02.8 -2.6
MOR8                                 IVmB                00 59 13.7
       comp=Z,1µm,2.7s
MOR8                                ePP        PP        01 03 25.4 -0.9
MOR8                                eSKSac     SKSac     01 09 25.7 -1.0
RAUS   Rausandaksla      104.56 338 eP         Pdif      00 59 04.5 -1.0
RAUS                                eSKSac     SKSac     01 09 28.7 +1.8
RAUS                                eSS        SS        01 18 06.4 +3.6
THAS   Thassos island    104.56 311  P         Pdif      00 59 04.7 -1.4
CJR    Cluj-Napoca       104.60 317 ⇑P         Pdif      00 59 06.9 +0.7
CJR    Cluj-Napoca       104.60 317 ⇑P         PKiKP     01 03 16.6 -4.5
LOT    Lotru             104.66 316 ⇓P         Pdif      00 59 07.5 +0.9
KWP    Kalwaria Pacla    104.72 320 ePdif      Pdif      00 59 06.7  0.0
KWP                                 ePP        PP        01 03 33.5 +5.0
KWP    Kalwaria Pacla    104.72 320  P         Pdif      00 59 07.3 +0.7
VAGH   Vaagaholmen       104.73 338 eP         Pdif      00 59 05.6 -0.6
VAGH                                eSS        SS        01 18 08.6 +3.5
IDI    Anoyia            104.92 305  P         Pdif      00 59 07.3 -0.7
IDI    Anoyia            104.92 305  P         Pdif      00 59 06.3 -1.7
MARR   Marisel-Cluj      104.93 317 ⇑P         Pdif      00 59 08.9 +1.1
MPEP   Malo Peshtene     104.96 313  P         PKiKP     01 03 23.3 +1.5
LEIR   Leirfjorden       105.03 338 eP         Pdif      00 59 07.4 -0.2
LEIR                                eSKSac     SKSac     01 09 32.4 +3.4
LEIR                                eSS        SKKPbc    01 18 13.1 -3.6
KARY   Karystos          105.04 308  P         Pdif      00 59 06.8 -1.5
KOLS   Kolonicke sedl    105.12 319 eP         Pdif      00 59 09.1 +0.6
KOLS                                e                    01 03 26.5
KOLS   Kolonicke sedl    105.12 319 ePDIFF     Pdif      00 59 09.1 +0.6
KOLS                                ePP        PKiKP     01 03 26.5 +4.5
NVR    Nevrokopi         105.12 311  P         Pdif      00 59 07.2 -1.5
UZHM   Uzhgorod          105.16 319  P         Pdif      00 59 08.9 +0.3
MMB    Musomishta        105.18 312  P         Pdif      00 59 07.4 -1.5
DRGR                     105.19 317 ⇓P         Pdif      00 59 09.4 +0.5
DEV    Deva              105.20 316 ⇑P         Pdif      00 59 10.0 +1.2
KYMI   Kymi, Euboea I    105.25 309  P         Pdif      00 59 07.7 -1.5
SRS    Serrai            105.35 311  P         Pdif      00 59 08.2 -1.5
AOS    Alonnisos         105.36 309  P         Pdif      00 59 08.4 -1.4
GZR    Gura Zlata        105.36 316 ⇓P         Pdif      00 59 10.8 +1.1
VTS    Vitosha           105.43 313  P         Pdif      00 59 08.5 -1.6
VAM    Vamos             105.47 305  P         Pdif      00 59 12.0 +1.7
PLG    Polygyros         105.55 310  P         Pdif      00 59 10.3 -0.3
KKB    Krupnik           105.61 312  P         Pdif      00 59 10.5 -0.2
IMMV   Iera Moni Meta    105.65 305  P         Pdif      00 59 10.7 -0.3
STHS   Stebnicka Huta    105.70 320 ePP        PP        01 03 34.7 -1.0
NEO    Neokhori          105.85 309  P         Pdif      00 59 11.5 -0.4
KNT    Kendrikon         105.87 311  P         Pdif      00 59 13.8 +1.9
KNDR   Palaiochora Ch    105.96 305  P         Pdif      00 59 11.8 -0.6
YKA    Yellowknife Ar    106.00  26  Pdiff     Pdif      00 59 11.7 -0.3
       comp=Z,8.9nm,1.0s,baz=300,slow=4.5,SNR=8.9
YKA                                  PKiKP     PKiKP     01 03 23.7 +0.5
       comp=Z,5.6nm,0.6s,baz=296,slow=2.0,SNR=23
YKA                                  SKiKP     SKiKP     01 06 40.8 +0.3
       comp=Z,17nm,0.8s,baz=291,slow=1.9,SNR=17
YKA                                  PKKPbc    PKKPbc    01 14 47.5 -1.2
       comp=Z,7.4nm,0.8s,baz=115,slow=3.2,SNR=7.8
YKA                                  SKKPbc    SKKPbc    01 18 11.9 -2.0
       comp=Z,3.6nm,0.9s,baz=103,slow=1.9,SNR=3.5
NSS    Namsos            106.09 337 eP         Pdif      00 59 11.4 -1.0
NSS                                 eSS        SS        01 18 28.4 +4.7
BZS    Buzias            106.13 316 ⇓P         Pdif      00 59 13.3 +0.3
DAG    Danmarks Havn     106.14 353 i P        Pdif      00 59 12.0 -0.4
MDVR   Moldovita         106.20 315 ⇑P         Pdif      00 59 18.5 +5.1
NIE    Niedzica          106.30 320 ePdif      Pdif      00 59 14.6 +0.8
NIE                                 ePP        PP        01 03 46.7 +6.5
LIT    Litokhoron        106.31 310  P         Pdif      00 59 12.3 -1.7
LIT    Litokhoron        106.31 310  P         Pdif      00 59 12.7 -1.3
OJC    Ojcow             106.45 321 ePdif      Pdif      00 59 14.2 -0.2
OJC                                 ePP        PP        01 03 47.1 +5.9
VLX    Vlachokerasia     106.74 307  P         Pdif      00 59 14.2 -1.8
THL    Klokotos Trika    106.75 310  P         Pdif      00 59 14.3 -1.6
KALE   Kalithea          106.80 309  P         Pdif      00 59 14.5 -1.7
KLV    Kalavryta, Ach    106.83 308  P         Pdif      00 59 14.7 -1.7
SERG   Sergoula          106.86 309  P         Pdif      00 59 14.8 -1.7
ANX    Ano Chora         106.94 309  P         Pdif      00 59 15.2 -1.8
EFP    Efpalio           106.98 309  P         Pdif      00 59 15.3 -1.6
EVR    Evrytania         106.99 309  P         Pdif      00 59 15.4 -1.8
HFS    Hagfors           107.00 332  Pdiff     Pdif      00 59 15.2 -1.3
       comp=Z,6.7nm,0.5s,baz=126,slow=2.6,SNR=30
HFS                                  PKKPbc    PKKPbc    01 14 42.5 -3.0
       comp=Z,1.4nm,0.5s,baz=197,slow=2.5,SNR=10
ITM    Ithomi            107.12 307  P         Pdif      00 59 15.9 -1.7
DRO    Drossia           107.19 308  P         Pdif      00 59 16.3 -1.7
KPRO   Kipourio          107.19 310  P         Pdif      00 59 16.2 -1.7
AMT    Artemida-Makis    107.25 308  P         Pdif      00 59 16.5 -1.7
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PVO    Paravola          107.25 309  P         Pdif      00 59 16.5 -1.6
GKP    Gorka Klasztor    107.26 324 ePdif      Pdif      00 59 16.6 -1.2
TETR   Tetrakomo, Epi    107.34 310  P         Pdif      00 59 16.9 -1.7
PLEV   Plevrona-Mesol    107.37 309  P         Pdif      00 59 17.0 -1.6
RLS    Riolos of Patr    107.37 308  P         Pdif      00 59 17.1 -1.6
AXS    Araxos            107.42 308  P         Pdif      00 59 17.3 -1.6
VYHS   Vyhne             107.44 319 ePP        PP        01 03 48.1 -0.4
AMPL   Ampelaki          107.45 309  P         Pdif      00 59 17.4 -1.6
PRMD   Pramanda          107.45 310  P         Pdif      00 59 17.4 -1.7
NEEM   North Greenlan    107.50   0 i P        Pdif      00 59 19.7 +0.8
PDO    Prodromos         107.52 309  P         Pdif      00 59 17.7 -1.6
NC602  NORSAR Array S    107.77 333 eP         Pdif      00 59 18.9 -1.0
NC602                                IVmB                00 59 22.8
       comp=Z,587nm,3.2s
NC602                               ePP        PP        01 03 49.4 -1.0
NC602                               eSKSac     SKSac     01 09 42.0 +0.7
NC602                               eSP        SP        01 12 53.1  0.0
NORES  NORESS Array B    107.77 333  P         Pdif      00 59 19.9  0.0
NORES                                pmax      pmax
       comp=Z,1.0nm,0.5s
NB2    NORSAR Subarra    107.80 333  P         Pdif      00 59 19.1 -1.0
       comp=Z,5.9nm,0.8s,baz=72,slow=4.4
NB2                                  PKKP      PKKPbc    01 14 41.6 -1.5
       comp=Z,1.0nm,0.7s,baz=238,slow=2.7
NB2                                  SKKP      SKKPbc    01 18 05.7 -3.2
       comp=Z,1.3nm,0.7s,baz=233,slow=2.1
NB2    NORSAR Subarra    107.80 333  P         Pdif      00 59 17.2 -2.9
NB2                                  pmax      pmax
       comp=Z,1.0nm,0.6s
NB2    NORSAR Subarra    107.80 333  P         Pdif      00 59 19.1 -1.0
NOA    NORSAR Array B    107.80 333  Pdiff     Pdif      00 59 19.3 -0.8
       comp=Z,1.9nm,0.5s,baz=77,slow=4.3,SNR=17
NOA                                  PKiKP     PKiKP     01 03 26.9 +0.3
       comp=Z,0.7nm,0.7s,baz=246,slow=2.9,SNR=5.7
NOA                                  PP        PP        01 03 54.3 +3.6
       comp=Z,5.2nm,1.0s,baz=74,slow=7.8,SNR=4.2
NOA                                  PKKPbc    PKKPbc    01 14 41.6 -1.5
       comp=Z,1.9nm,0.8s,baz=68,slow=3.3,SNR=5.1
NOA                                  SKKPbc    SKKPbc    01 18 05.9 -2.9
       comp=Z,1.8nm,0.7s,baz=249,slow=2.3,SNR=6.9
NYDR   Nydri-Lefkada     107.88 309  P         Pdif      00 59 19.3 -1.6
LTHK   Lithakia          107.91 308  P         Pdif      00 59 20.2 -0.9
SRO    Srobarova         107.93 319 ePP        PP        01 03 50.8 -1.2
MORC   Moravsky Berou    107.97 321 ePDIFF     Pdif      00 59 21.5 +0.4
MORC                                ePP        PP        01 03 55.1 +2.8
MORC                                eSKS       SKSac     01 09 40.6 -2.2
MORC   Moravsky Berou    107.97 321 ⇑P         Pdif      00 59 22.4 +1.2
ORTH   Orthonies,Zaky    108.00 308  P         Pdif      00 59 20.6 -1.0
MORH   Mrgy, Hungar      108.06 317 ⇑P         Pdif      00 59 19.4 -2.2
JAVC   Velka Javorina    108.11 320 ePDIFF     Pdif      00 59 23.9 +2.1
JAVC                                ePP        PP        01 03 56.8 +3.4
DOMB   Dombas            108.32 335 ePdif      Pdif      00 59 23.2 +0.8
DOMB                                 IVmB_BB             00 59 32.8
       comp=Z,2µm,4.2s
DOMB                                ePP        PP        01 03 54.6 +0.2
DOMB                                eSKSac     SKSac     01 09 46.2 +2.5
DOMB                                eSS        SS        01 18 57.7 +3.7
PDG    Podgorica         108.36 313 ⇑P         Pdif      00 59 23.2 +0.2
KRLC   Kraliky           108.37 321 ePP        PP        01 03 56.7 +1.5
OSL    Oslo              108.45 332 eP         Pdif      00 59 23.2 +0.2
OSL                                 ePP        PP        01 03 57.5 +2.2
MODS   Modra-Piesok      108.48 319 ePP        PP        01 03 56.8 +0.8
DPC    Dobruska-Polom    108.58 322 i P        Pdif      00 59 24.6 +0.7
DPC                                 e                    01 03 57.7
DPC                                 e                    01 12 59.5
DPC                                 e                    01 19 08.0
DPC    Dobruska-Polom    108.58 322 ePDIFF     Pdif      00 59 24.6 +0.7
DPC                                 ePP        PP        01 03 57.7 +0.9
DPC                                 eSP        SP        01 12 59.5 -2.7
DPC                                 ex         x         01 19 08.0
OSTC   Ostas             108.59 322 ePP        PP        01 04 00.8 +4.0
ZST    Bratislava        108.63 319 ePP        PP        01 03 57.8 +0.7
VRAC   Vranov            108.68 321 ePDIFF     Pdif      00 59 24.2 -0.1
VRAC                                ePP        PP        01 03 57.7 +0.2
VRAC                                eSKS       SKSac     01 09 43.7 -2.1
MOL    Molde             108.72 336 eP         Pdif      00 59 24.9 +0.8
MOL                                  IVmB_BB             00 59 46.0
       comp=Z,977nm,5.0s
MOL                                 ePP        PP        01 03 57.6 +0.4
MOL                                 eSKSac     SKSac     01 09 47.8 +2.6
UPC    Upice             108.73 322 i P        Pdif      00 59 26.0 +1.5
UPC                                 e                    01 03 58.7
UPC                                  MLR       MLR
       comp=Z,500nm,18.3s
UPC    Upice             108.73 322 ePDIFF     Pdif      00 59 26.0 +1.5
UPC                                 ePP        PP        01 03 58.7 +0.9
UPC                                  AMS       AMS       01 49 10.0
       comp=Z,500nm,18.3s
KRUC   Moravsky          108.87 320 ePDIFF     Pdif      00 59 25.4 +0.3
KRUC                                ePP        PP        01 04 01.5 +2.7
KRUC                                eSKS       SKSac     01 09 46.5 -0.1
KONO   Kongsberg         109.09 332 eP         Pdif      00 59 25.1 -0.7
KONO                                 IVmB_BB             00 59 25.3
       comp=Z,2µm,4.2s
KONO                                ePP        PP        01 04 00.5 +0.5
KONO                                eSKSac     SKSac     01 09 47.2 +0.2
KONO                                eSS        SS        01 19 05.6 +1.2
RGN    Rugen             109.09 326 ePP        PP        01 03 55.0 -5.2
       baz=63,slow=6.8
RGN                                 eSP        SP        01 13 02.2 -4.7
       baz=66,slow=9.3
SKAR   Skarslia          109.24 334 eP         Pdif      00 59 27.2 +0.7
SKAR                                eSP        SP        01 13 12.6 +4.5
SKAR                                eSS        SS        01 19 11.8 +5.3
RONA   Rosalia, Austr    109.28 319 ePKiKP     PKiKP     01 03 30.1 +0.3
       comp=Z,3.0nm,0.5s
RONA                                ePP        PP        01 04 01.2 -0.6
       comp=Z,268nm,2.5s
WINA   Alland / Wiene    109.32 319 ePKiKP     PKiKP     01 03 30.3 +0.5
       comp=Z,3.6nm,0.5s
WINA                                ePP        PP        01 04 01.6 -0.5
       comp=Z,752nm,5.1s
BLY    Banja Luka        109.37 316 ⇓P         PKiKP     01 03 31.4 +1.4
RUE    Ruedersdorf       109.50 324 ePP        PP        01 04 02.4 -0.7
       baz=63,slow=6.8
RUE                                 eSP        SP        01 13 07.7 -3.2
       baz=66,slow=9.3
CONA   Conrad Observa    109.51 319 ePKiKP     PKiKP     01 03 30.4 +0.2
       comp=Z,2.5nm,0.5s
CONA                                ePP        PP        01 04 03.8 +0.2
       comp=Z,223nm,2.1s
BRG    Berggiesshubel    109.89 323 ePP        PP        01 04 06.4 +0.3
       baz=63,slow=6.8
BRG                                 eSP        SP        01 13 10.8 -4.0
       baz=66,slow=9.3
BRG    Berggiesshubel    109.89 323  SP        SP        01 13 14.0 -0.8
BRG    Berggiesshubel    109.89 323  PS        PS        01 13 40.0 +2.3
BRG                                  PKKP      PKKPbc    01 14 19.6  -16
BRG                                  Amp                 01 14 23.0
       comp=Z,5.5nm,1.2s
ARSA   Arzberg           109.90 319 ePKiKP     PKiKP     01 03 31.3 +0.4
       comp=Z,3.4nm,0.5s
ARSA                                ePP        PP        01 04 02.8 -3.5
       comp=Z,264nm,3.2s
ZVC    Zvikov            110.16 321 ePDIFF     Pdif      00 59 31.7 +0.9
ZVC                                 ePP        PP        01 04 07.0 -1.1
ZVC                                 ex         x         01 13 43.1
HOMB   Homborsund        110.18 331 eP         Pdif      00 59 31.2 +0.6
HOMB                                ePP        PP        01 04 09.3 +1.5
HOMB                                eSP        SP        01 13 16.8 -0.1
NVAR   Mina Array Bea    110.20  51  Pdiff     Pdif      00 59 32.5 +0.9
       comp=Z,8.6nm,1.0s,baz=263,slow=3.9,SNR=10.0
NVAR                                 PKiKP     PKiKP     01 03 33.7 +1.6
       comp=Z,2.0nm,0.7s,baz=280,slow=2.3,SNR=4.4
NVAR                                 PP        PP        01 04 09.6 +0.5
       comp=Z,11nm,0.9s,baz=260,slow=8.9,SNR=6.6
NVAR                                 SKiKP     SKiKP     01 06 50.8 +1.2
       comp=Z,19nm,0.9s,baz=269,slow=2.2,SNR=13
NVAR                                 PKKPbc    PKKPbc    01 14 36.9 +2.0
       comp=Z,3.0nm,0.9s,baz=127,slow=3.7,SNR=8.3
CKRC   Cesky Krumlov     110.26 320 i P        Pdif      00 59 29.3 -2.0
CKRC                                e                    01 04 05.5
CKRC                                e                    01 13 38.7
CKRC   Cesky Krumlov     110.26 320 ePDIFF     Pdif      00 59 29.3 -2.0
CKRC                                ePP        PP        01 04 05.5 -3.4
CKRC                                ex         x         01 13 38.7
HSKC   Hora Svate Kat    110.28 322 ePP        PP        01 04 14.5 +5.6
CLL    Collm             110.32 323 i PKIKP    PKiKP     01 03 33.5 +1.9
CLL                                 i                    01 09 52.4
CLL                                  pmax      pmax
       comp=Z,18nm,1.1s
CLL                                  MLR       MLR
       comp=Z,600nm,20.3s
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CLL   Collm            110.32 323 ePKiKP   PKiKP   01 03 33.2 +1.7
      baz=73,slow=1.8
CLL                               ePP      PP      01 04 08.7 -0.4
      baz=63,slow=6.8
CLL                               eSP      SP      01 13 14.4 -4.3
      baz=66,slow=9.3
CLL   Collm            110.32 323 i Pdif   Pdif    00 59 31.2 -0.3
      comp=Z,7.0nm,1.4s
CLL                               esPdif   sPdif   01 00 30.0 -6.8
CLL                               i x      x       01 00 48.6
CLL                               i PKiKP  PKiKP   01 03 33.5 +1.9
      comp=Z,18nm,1.1s
CLL                               i PP     PP      01 04 08.7 -0.4
      comp=Z,76nm,1.8s
CLL                               ePPlp            01 04 13.0
      comp=Z,300nm,7.0s
CLL                               ePPP     PPP     01 06 24.0
CLL                               i SKSac  SKSac   01 09 52.4 -0.1
CLL                               i SKKSac SKKSac  01 10 54.0 +1.1
CLL                               eSdif    Sdif    01 11 26.0 -3.6
      comp=N,700nm,23.1s
CLL                               eSdif    Sdif    01 11 26.0 -3.6
      comp=E,500nm,22.5s
CLL                               esSdif   sSdif   01 12 45.0 -6.6
CLL                               eSP      SP      01 13 17.0 -1.8
CLL                               ePS      PS      01 13 42.0 +0.4
CLL                               ePPS     PPS     01 14 44.0
CLL                               eSS      SS      01 19 24.0 +2.6
CLL                               esSS             01 20 30.0
CLL                               eSSS     SSS     01 23 30.0
CLL                               esSSS            01 24 42.0
CLL                               eSSSS            01 27 00.0
CLL                               ex       x       01 30 18.0
CLL                                L       L       01 36 00.0
CLL                                AMS     AMS     01 52 00.0
      comp=Z,600nm,20.3s
LEGS  Legarje          110.37 317 ePKiKP   PKiKP   01 03 31.9 +0.1
SOKA  Soboth           110.37 318 ePKiKP   PKiKP   01 03 32.2 +0.3
      comp=Z,3.9nm,0.6s
MOA   Molln            110.56 319 ePKiKP   PKiKP   01 03 31.5 -0.7
      comp=Z,4.2nm,0.6s
MOA                               ePP      PP      01 04 08.4 -2.6
      comp=Z,449nm,4.7s
SESA  Seetaler Alpe,   110.57 319 ePKiKP   PKiKP   01 03 32.3 -0.2
      comp=Z,10.0nm,0.5s
SESA                              ePP      PP      01 04 08.8 -2.6
      comp=Z,800nm,3.8s
MUD   Monsted U'grnd   110.60 329 i P      Pdif    00 59 32.5  0.0
KHC   Kasperske Hory   110.63 321 i P      Pdif    00 59 33.6 +0.6
KHC                               e                01 04 09.8
KHC                               e                01 13 40.6
KHC                               e                01 19 39.8
KHC                                MLR     MLR
      comp=Z,600nm,22.1s
KHC   Kasperske Hory   110.63 321 ePDIFF   Pdif    00 59 33.6 +0.6
KHC                               ePP      PP      01 04 09.8 -1.7
KHC                               ePS      PS      01 13 40.6 -4.1
KHC                               ex       x       01 19 39.8
KHC                                AMS     AMS     01 53 10.0
      comp=Z,600nm,22.1s
GEC2  GERESS Array S   110.64 321 ePKiKP   PKiKP   01 03 32.7 +0.3
      baz=73,slow=1.8
GEC2                              ePP      PP      01 04 11.2 -0.4
      baz=63,slow=6.8
GEC2                              eSP      SP      01 13 21.5 -0.5
      baz=66,slow=9.3
GERES GERESS Array B   110.64 321  Pdiff   Pdif    00 59 33.5 +0.4
      comp=Z,0.8nm,0.5s,baz=57,slow=4.9,SNR=8.1
GERES                              PKiKP   PKiKP   01 03 32.4  0.0
      comp=Z,8.7nm,0.5s,baz=90,slow=1.3,SNR=47
GERES                              SKiKP   SKiKP   01 06 51.8 +1.8
      comp=Z,4.9nm,0.6s,baz=79,slow=0.7,SNR=6.7
GERES                              SKKPbc  SKKPbc  01 17 58.5 -1.7
      comp=Z,0.5nm,0.3s,baz=207,slow=2.7,SNR=4.3
OBKA  Obir             110.74 318 ePKiKP   PKiKP   01 03 34.3 +1.7
      comp=Z,2.6nm,0.5s
OBKA                              ePP      PP      01 04 11.9 -0.6
      comp=Z,172nm,1.9s
GORT1 Trebel           110.75 325 eSP      SP      01 13 17.3 -5.2
      baz=66,slow=9.3
LJU   Ljubljana        110.88 318 ePKiKP   PKiKP   01 03 32.7 -0.1
LJU                               eSKSac   SKSac   01 09 53.0 -2.0
LJU                               e                01 10 53.6
LJU                               e                01 11 34.8
LJU                               e                01 13 46.5
TANN  Tannenbergstha   110.93 322 ePP      PP      01 04 14.4 +0.8
      baz=63,slow=6.8
TANN                              eSP      SP      01 13 20.4 -4.1
      baz=66,slow=9.3
BSEG  Bad Segeberg     110.96 327 ePP      PP      01 04 09.8 -3.8
      baz=63,slow=6.8
BSEG                              eSP      SP      01 13 19.9 -4.5
      baz=66,slow=9.3
NKC   Novy Kostel      111.00 322  AMS     AMS     01 48 30.0
      comp=Z,700nm,20.5s
BIOA  Bad Ischl, Aus   111.01 319 ePKiKP   PKiKP   01 03 32.6 -0.4
      comp=Z,4.7nm,0.4s
BIOA                              ePP      PP      01 04 11.9 -2.4
      comp=Z,141nm,1.9s
FLTG  Flechtingen      111.02 325 ePKiKP   PKiKP   01 03 33.2 +0.4
      baz=73,slow=1.8
FLTG                              eSP      SP      01 13 20.1 -4.9
      baz=66,slow=9.3
WET   Wettzell         111.07 321 ePP      PP      01 04 14.5 -0.1
      baz=63,slow=6.8
WET                               eSP      SP      01 13 23.5 -2.3
      baz=66,slow=9.3
NEUB  Neuenburg        111.08 323 ePP      PP      01 04 14.5 -0.1
      baz=63,slow=6.8
NEUB                              eSP      SP      01 13 21.1 -4.7
      baz=66,slow=9.3
PLN   Plauen           111.09 323 ePP      PP      01 04 15.0 +0.3
      baz=63,slow=6.8
PLN                               eSP      SP      01 13 21.6 -4.3
      baz=66,slow=9.3
GORS  Gorjuse          111.16 318 ePKiKP   PKiKP   01 03 32.9 -0.6
MYKA  Terra Mystica    111.31 318 ePKiKP   PKiKP   01 03 33.8 +0.1
      comp=Z,4.6nm,0.5s
MYKA                              ePP      PP      01 04 15.8 -0.7
      comp=Z,260nm,2.7s
MOX   Moxa             111.37 323 ePP      PP      01 04 16.8 +0.1
      baz=63,slow=6.8
MOX                               eSP      SP      01 13 24.2 -4.2
      baz=66,slow=9.3
KBA   Koelnbreinsper   111.38 319 ePKiKP   PKiKP   01 03 33.8 -0.2
      comp=Z,4.9nm,0.5s
KBA                               ePP      PP      01 04 16.6 -0.6
      comp=Z,523nm,4.3s
KBA                               eSKS     SKSac   01 09 59.0 +1.6
      comp=Z,8.8nm,0.9s
KBA                               ePKKP    PKKPbc  01 14 29.2 -2.1
      comp=Z,10nm,1.7s
ASSE  Asse, Remlinge   111.41 325 ePP      PP      01 04 13.7 -3.1
      baz=63,slow=6.8
ASSE                              eSP      SP      01 13 23.7 -4.9
      baz=66,slow=9.3
CLZ   Clausthal        111.69 324 ePKiKP   PKiKP   01 03 35.0 +0.8
      baz=73,slow=1.8
CLZ                               ePP      PP      01 04 17.4 -1.6
      baz=63,slow=6.8
CLZ                               eSP      SP      01 13 26.5 -4.8
      baz=66,slow=9.3
LESA  Schwarzleotal    111.71 319 ePKiKP   PKiKP   01 03 34.6 +0.2
      comp=Z,6.0nm,0.5s
LESA                              ePP      PP      01 04 19.3 -0.1
      comp=Z,170nm,2.0s
LESA                              eSKP     SKPdf   01 06 52.5 +0.4
      comp=Z,15nm,1.0s
GRF   Grafenberg Arr   111.92 322 ePP      PP      01 04 20.6 -0.1
      baz=63,slow=6.8
GRF                               eSP      SP      01 13 29.2 -4.4
      baz=66,slow=9.3
RETH  Rethem/Aller,    111.94 326 ePP      PP      01 04 17.5 -3.0
      baz=63,slow=6.8
RETH                              eSP      SP      01 13 27.1 -6.3
      baz=66,slow=9.3
SUMG  Summit           112.01 356  PKP     PKiKP   01 03 35.6 +0.9
ABTA  Abfaltersbach    112.02 319 i PKiKP  PKiKP   01 03 34.7 -0.3
      comp=Z,11nm,0.5s,SNR=8.6
ABTA                              ePP      PP      01 04 21.8 +0.2
      comp=Z,115nm,1.8s
ABTA                              eSKP     SKPdf   01 06 52.4 -0.3
      comp=Z,20nm,1.1s
ABTA                              eSKS     SKSac   01 09 58.6 -1.2
      comp=Z,13nm,0.9s
GTTG  Gottingen        112.03 324 ePKiKP   PKiKP   01 03 35.7 +0.9
      baz=73,slow=1.8
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GTTG                              ePP      PP      01 04 20.1 -1.3
      baz=63,slow=6.8
GTTG                              eSP      SP      01 13 29.8 -4.6
      baz=66,slow=9.3
ELK   Elko             112.06  48  PKKPbc  PKKPbc  01 14 30.6 +1.7
      comp=Z,3.4nm,0.9s,baz=167,slow=0.9,SNR=5.9
HLG   Helgoland        112.19 327 ePP      PP      01 04 19.3 -3.0
      baz=63,slow=6.8
UBBA  Unterbreizbach   112.27 323 ePP      PP      01 04 19.1 -3.8
      baz=63,slow=6.8
FUR   Furstenfeldbru   112.38 320 ePKiKP   PKiKP   01 03 36.3 +0.7
      baz=73,slow=1.8
FUR                               ePP      PP      01 04 22.9 -1.1
      baz=63,slow=6.8
WTTA  Wattenberg       112.44 319 i PKiKP  PKiKP   01 03 35.9 -0.1
      comp=Z,19nm,0.4s,SNR=13
WTTA                              eSKP     SKPdf   01 06 53.7 +0.1
      comp=Z,39nm,1.2s
WTTA                              eSKS     SKSac   01 10 01.6 -0.1
      comp=Z,24nm,0.9s
WATA  Walderalm        112.45 320 ePKiKP   PKiKP   01 03 35.6 -0.4
      comp=Z,5.7nm,0.5s
WATA                              eSKP     SKPdf   01 06 53.8 +0.3
      comp=Z,24nm,1.7s
WATA                              eSKS     SKSac   01 10 01.9 +0.2
      comp=Z,13nm,1.2s
PFO   Pinyon Flats O   112.49  56⇑iPKIKP   PKiKP   01 03 37.1 +0.7
AQU   L'Aquila         112.61 314  PKP     PKiKP   01 03 38.3 +2.0
SQTA  Sankt Quirin     112.73 320 i PKiKP  PKiKP   01 03 36.0 -0.4
      comp=Z,3.4nm,0.4s,SNR=5.6
SQTA                              epPKiKP  pPKiKP  01 04 21.1 -3.5
      comp=Z,71nm,1.9s
SQTA                              eSKP     SKPdf   01 06 54.6 +0.5
      comp=Z,9.5nm,0.8s
SQTA                              eSKS     SKSac   01 10 02.6 -0.2
      comp=Z,22nm,1.2s
MOTA  Moosalm          112.75 320 ePKiKP   PKiKP   01 03 36.2 -0.4
      comp=Z,12nm,0.5s
MOTA                              eSKP     SKPdf   01 06 54.3 +0.1
      comp=Z,18nm,1.2s
MOTA                              eSKS     SKSac   01 10 02.8 -0.1
      comp=Z,11nm,1.1s
MOTA                              ePKKP    PKKPbc  01 14 26.0 -0.7
      comp=Z,9.5nm,1.2s
RETA  Reutte           112.93 320 ePKiKP   PKiKP   01 03 36.7 -0.1
      comp=Z,6.3nm,0.6s
RETA                              epPKiKP  pPKiKP  01 04 22.8 -2.2
      comp=Z,39nm,1.1s
IBBN  Ibbenburen       113.01 326 ePKiKP   PKiKP   01 03 37.5 +0.9
      baz=73,slow=1.8
IBBN                              ePP      PP      01 04 24.6 -3.6
      baz=63,slow=6.8
KASTN Kahler Asten     113.06 324 ePKiKP   PKiKP   01 03 37.8 +0.9
      baz=73,slow=1.8
KASTN                             ePP      PP      01 04 23.1 -5.6
      baz=63,slow=6.8
FETA  Feichten         113.10 319 ePKiKP   PKiKP   01 03 37.1 -0.1
      comp=Z,4.6nm,0.5s
FETA                              eSKP     SKPdf   01 06 55.5 +0.6
      comp=Z,8.2nm,0.8s
FETA                              eSKS     SKSac   01 10 04.7 +0.4
      comp=Z,21nm,1.4s
FETA                              ePKKP    PKKPbc  01 14 23.0 -2.6
      comp=Z,10nm,1.6s
UBR   Ueberruh         113.28 320 ePKiKP   PKiKP   01 03 37.5  0.0
      baz=73,slow=1.8
UBR                               ePP      PP      01 04 29.6 -0.9
      baz=63,slow=6.8
STU   Stuttgart        113.48 322 ePKiKP   PKiKP   01 03 38.6 +0.9
      baz=73,slow=1.8
STU                               ePP      PP      01 04 32.1 +0.4
      baz=63,slow=6.8
STU                               eSP      SP      01 13 45.8 -2.1
      baz=66,slow=9.3
DAVA  Damuels          113.56 320 i PKiKP  PKiKP   01 03 38.0 -0.1
      comp=Z,8.3nm,0.4s,SNR=9.6
DAVA                              eSKP     SKPdf   01 06 55.7 -0.1
      comp=Z,25nm,1.2s
DAVA                              eSKS     SKSac   01 10 06.7 +0.6
      comp=Z,17nm,1.4s
DAVA                              ePKKP    PKKPbc  01 14 21.3 -2.8
      comp=Z,9.2nm,1.1s
BUG   Bochum--Univer   113.63 325 ePKiKP   PKiKP   01 03 38.8 +0.9
      baz=73,slow=1.8
BUG                               ePP      PP      01 04 28.9 -3.7
      baz=63,slow=6.8
BUG                               eSP      SP      01 13 44.2 -4.8
      baz=66,slow=9.3
DAVOX Davos/Dischmat   113.73 319  PKKPbc  PKKPbc  01 14 24.7 +1.2
      comp=Z,1.7nm,0.6s,baz=214,slow=9.6,SNR=6.1
BFO   Black Forest     114.18 321 i PKIKP  PKiKP   01 03 41.2 +2.1
BFO   Black Forest     114.18 321 ePKiKP   PKPdf   01 03 38.8 -0.3
      baz=73,slow=1.8
BFO                               ePP      PP      01 04 36.1 -0.6
      baz=63,slow=6.8
BFO                               eSP      SP      01 13 52.7 -1.6
      baz=66,slow=9.3
VLC   Villacollemand   114.22 317  PKP     PKiKP   01 03 39.4 +0.1
MEM   Membach          114.70 324 dPKPdf   PKiKP   01 03 40.7 +0.8
BOPT  Opiter           114.70 325 dPKP     PKiKP   01 03 41.0 +1.1
WLF   Walferdange      115.00 323  PKP     PKPdf   01 03 41.6 +1.1
WLF   Walferdange      115.00 323 dPKPdf   PKPdf   01 03 41.6 +1.0
WLF   Walferdange      115.00 323 ePP      PP      01 04 39.4 -2.9
      baz=63,slow=6.8
WLF                               eSP      SP      01 13 59.5 -2.1
      baz=66,slow=9.3
BCLA  Clavier          115.19 324 dPKiKP   PKPdf   01 03 41.3 +0.4
FFC   Flin Flon        115.30  30  PKIKP   PKPdf   01 03 42.0 +1.0
FFC   Flin Flon        115.30  30          PKPdf   01 03 42.0 +1.0
RCHB  Rochefort        115.34 324 dPKPdf   PKPdf   01 03 42.0 +0.9
RCHB                              dPP      PP      01 04 46.2 +1.5
BMRD  Maredsous        115.55 324 dPKP     PKiKP   01 03 42.2 +0.6
UCC   Uccle            115.57 325  PKIKP   PKiKP   01 03 42.4 +0.8
UCC   Uccle            115.57 325          PKiKP   01 03 42.4 +0.8
UCC   Uccle            115.57 325 dPKPdf   PKiKP   01 03 42.0 +0.4
UCC                               dPP      PP      01 04 47.9 +1.6
PDAR  Pinedale Array   115.61  45  PKP     PKPdf   01 03 41.7 -0.6
      comp=Z,4.0nm,0.7s,baz=229,slow=1.6,SNR=19
PDAR                               PP      PP      01 04 49.5 +2.3
      comp=Z,5.1nm,0.9s,baz=288,slow=1.4,SNR=4.4
PDAR                               SKP     SKPdf   01 07 00.5 +0.6
      comp=Z,9.6nm,0.8s,baz=214,slow=1.0,SNR=11
PDAR                               PKKPbc  PKKPbc  01 14 15.4 -1.6
      comp=Z,9.0nm,0.8s,baz=116,slow=5.4,SNR=22
PDAR                               SKKPbc  SKKPbc  01 17 43.4 -1.9
      comp=Z,2.6nm,0.9s,baz=104,slow=6.3,SNR=3.7
DOU   Dourbes          115.73 324 dPKP     PKiKP   01 03 42.5 +0.6
EDMD  Edmundbyers      116.91 331 eP       PKiKP   01 03 44.2 +0.1
INVG  Invergeldie, C   116.97 333 eP       PKiKP   01 03 44.3 +0.1
EKA   Eskdalemuir Ar   117.20 332  PKP     PKPdf   01 03 44.2 -0.4
      comp=Z,5.3nm,0.4s,baz=33,slow=2.5,SNR=44
EKA                                PP      PP      01 05 02.7 +5.3
      comp=Z,11nm,1.0s,baz=64,slow=7.6,SNR=5.7
EKA                                SKP     SKPdf   01 07 03.3 +1.1
      comp=Z,4.3nm,0.7s,baz=38,slow=4.2,SNR=3.7
EKA                                PKKPbc  PKKPbc  01 14 11.7 +0.2
      comp=Z,1.7nm,0.5s,baz=242,slow=2.8,SNR=11
EKA                                SKKPbc  SKKPbc  01 17 38.9 -1.7
      comp=Z,2.6nm,0.7s,baz=255,slow=1.6,SNR=5.6
HPK   Haverah Park     117.22 330 eP       PKiKP   01 03 45.1 +0.4
ESK   Eskdalemuir      117.23 332 eP       PKiKP   01 03 45.1 +0.5
EAB   Aberfoyle        117.24 333 eP       PKiKP   01 03 44.9 +0.2
KEST  Kesra            117.34 308  PKP     PKiKP   01 03 46.1 +0.4
      comp=Z,10nm,0.9s,baz=346,slow=5.4,SNR=5.9
KEST                               PP      PP      01 04 59.0 -0.4
      comp=Z,128nm,1.0s,baz=79,slow=5.0,SNR=17
KEST                               SKP     SKPdf   01 07 04.8 +1.5
      comp=Z,29nm,0.9s,baz=6.1,slow=1.6,SNR=4.7
CWF   Charnwood Fore   117.72 329 eP       PKiKP   01 03 45.8 +0.1
SSB   Saint Sauveur    117.74 319  PKIKP   PKiKP   01 03 46.2 +0.1
SSB   Saint Sauveur    117.74 319          PKiKP   01 03 46.2 +0.1
SFJD  Kangerlussuaq    118.01   0  PKIKP   PKiKP   01 03 45.9 +0.1
SFJD  Kangerlussuaq    118.01   0          PKiKP   01 03 45.9 +0.1
GAL1  Galloway         118.20 332 eP       PKiKP   01 03 46.7 +0.1
FOEL  Foel Wylfa       118.60 330 eP       PKPdf   01 03 47.4  0.0
HLM1  Long Mynd        118.64 329 eP       PKiKP   01 03 47.8 +0.3
RSSD  Black Hills      118.89  42  PKIKP   PKiKP   01 03 48.8 +0.2
RSSD  Black Hills      118.89  42          PKiKP   01 03 48.8 +0.2
WLF1  Llynfaes         118.97 330 eP       PKiKP   01 03 48.3 +0.2
MCH1  Michaelchurch    118.99 329 eP       PKiKP   01 03 48.8 +0.6
EJON  La Jonquera      119.95 317  PKP     PKPdf   01 03 48.8 -1.6
ANMO  Albuquerque      120.26  52d iPKIKP  PKiKP   01 03 52.2 +0.7
ANMO                               pmax    pmax
      comp=Z,43nm,1.3s
ANMO  Albuquerque      120.26  52          PKiKP   01 03 52.6 +1.1
DYA   Yadsworthy       120.34 328 eP       PKPdf   01 03 50.5 -0.3
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SBD   Saint Breward    120.67 328 eP       PKiKP   01 03 52.0 +0.4
ULM   Lac du Bonnet    120.84  32  PKP     PKPdf   01 03 51.6 -0.1
      comp=Z,20nm,0.5s,baz=315,slow=1.9,SNR=41
ULM                                SKP     SKPdf   01 07 09.2 -0.2
      comp=Z,47nm,0.9s,baz=299,slow=2.1,SNR=15
ULM                                PKKPbc  PKKPab  01 13 56.5 -1.4
      comp=Z,16nm,0.7s,baz=116,slow=2.2,SNR=15
ULM   Lac du Bonnet    120.84  32 i PKIKP  PKPdf   01 03 51.5 -0.3
ETOS  Mallorca         121.02 314  PKP     PKiKP   01 03 53.4 +0.8
NRS   Narsarsuaq       123.75 357  PKIKP   PKiKP   01 03 57.3  0.0
TXAR  Lajitas Array    124.07  58  PKhKP   PKPpre  01 03 48.0
      comp=Z,0.2nm,0.4s,baz=246,slow=2.4,SNR=6.3
TXAR                               PKP     PKPdf   01 03 58.5 -0.2
      comp=Z,8.4nm,0.7s,baz=207,slow=2.5,SNR=34
TXAR                               SKPbc   SKPbc   01 06 54.3
      comp=Z,7.6nm,0.9s,baz=256,slow=2.1,SNR=5.3
TXAR                               SKP     SKPdf   01 07 17.2 +0.9
      comp=Z,23nm,0.9s,baz=276,slow=2.1,SNR=7.9
TXAR                               PKKPbc  PKKPbc  01 13 45.6 +0.4
      comp=Z,10nm,0.9s,baz=117,slow=5.4,SNR=22
TXAR  Lajitas Array    124.07  58  PKIKP   PKiKP   01 03 59.4 +0.4
TXAR  Lajitas Array    124.07  58          PKiKP   01 03 59.4 +0.4
UCM   Universidad Co   125.03 317  PKP     PKiKP   01 04 00.8 +0.2
ESDC  Sonseca Array    125.81 317  PKP     PKPdf   01 04 01.5 -0.3
      comp=Z,3.2nm,0.5s,baz=23,slow=2.1,SNR=22
ESDC                               PP      PP      01 05 59.3 +2.9
      comp=Z,31nm,1.1s,baz=65,slow=6.3,SNR=15
ESDC                               SKPbc   SKPbc   01 07 01.0
      comp=Z,9.2nm,0.8s,baz=35,slow=3.1,SNR=6.6
ESDC                               SKKPbc  SKKPbc  01 17 13.9 +2.0
      comp=Z,1.3nm,0.9s,baz=255,slow=3.1,SNR=4.9
ESDC  Sonseca Array    125.81 317          PKPdf   01 03 58.9 -2.9
COYC  Coyhaique        126.11 161          PKiKP   01 04 04.1 +1.6
PAB   San Pablo        126.14 317  PKIKP   PKiKP   01 04 04.1 +1.2
PAB   San Pablo        126.14 317          PKiKP   01 04 04.0 +1.2
PBRG  Braganca         126.61 320 ePKPdf   PKiKP   01 04 03.8 +0.1
PBRG                              ePP      PP      01 06 04.0 +2.4
EMAL  Malaga-Limoner   127.44 313  PKP     PKiKP   01 04 05.5 +0.1
PCAB  Cabril           127.48 321 ePKPdf   PKiKP   01 04 05.8 +0.4
PCAB                              etx      tx      01 07 05.6
PGAV  Gavieira, Arco   127.50 321 ePKPdf   PKiKP   01 04 06.1 +0.6
PGAV                              ePP      PP      01 06 11.7 +4.3
POLO  Lamas de Olo     127.51 320 ePKPdf   PKiKP   01 04 05.7 +0.1
POLO                              ePP      PP      01 06 11.9 +4.4
POLO                              etx      tx      01 07 03.1
PVRL  Vila Real        127.51 320 ePKPdf   PKiKP   01 04 06.0 +0.6
MTE   Manteigas        127.86 319 ePKPdf   PKiKP   01 04 06.2  0.0
MTE                               ePP      PP      01 06 13.2 +3.4
MTE                               etx      tx      01 07 06.0
PVIS  Viseu            127.92 319 ePKPdf   PKiKP   01 04 07.2 +0.8
PVIS                              ePP      PP      01 06 12.0 +1.8
PVIS                              etx      tx      01 07 06.5
PCBR  Castelo Branco   128.10 318 ePKPdf   PKiKP   01 04 07.6 +1.0
PCBR                              ePP      PP      01 06 09.2 -2.1
PCBR                              etx      tx      01 07 07.9
TORD  Torodi Ar. Bea   128.11 283  PKhKP   PKPpre  01 03 55.1
      comp=Z,1.2nm,0.5s,baz=63,slow=1.8,SNR=6.7
TORD                               PKP     PKPdf   01 04 06.1 -0.6
      comp=Z,2.3nm,0.5s,baz=104,slow=2.4,SNR=8.9
TORD                               PP      PP      01 06 09.2 -3.4
      comp=Z,11nm,0.8s,baz=72,slow=6.3,SNR=5.9
TORD                               SKPbc   SKPbc   01 07 08.0
      comp=Z,192nm,0.9s,baz=74,slow=3.6,SNR=30
TORD                               SKKPbc  SKKPbc  01 17 06.7 +3.8
      comp=Z,6.1nm,1.1s,baz=301,slow=3.1,SNR=4.6
PTO   Porto            128.15 320 ePKPdf   PKiKP   01 04 07.0 +0.3
PTO                               ePP      PP      01 06 12.6 +1.1
PTO                               etx      tx      01 07 07.7
PMRV  Marv??o          128.25 318 ePKPdf   PKiKP   01 04 07.6 +0.6
PMRV                              ePP      PP      01 06 14.6 +2.2
PMRV                              etx      tx      01 07 06.4
SCHQ  Schefferville    128.45  12  PKP     PKiKP   01 04 07.1 +0.2
      comp=Z,22nm,0.6s,baz=8.2,slow=1.3,SNR=30
SCHQ                               PP      PP      01 06 15.2 +2.6
      comp=Z,12nm,0.8s,baz=53,slow=2.6,SNR=4.0
SCHQ                               SKPbc   SKPbc   01 07 08.9
      comp=Z,120nm,0.8s,baz=358,slow=3.6,SNR=31
PBAR  Barrancos        128.63 316 ePKPdf   PKiKP   01 04 08.2 +0.4
PBAR                              ePP      PP      01 06 12.5 -2.4
PBAR                              etx      tx      01 07 09.3
PCAS  Casmilo, Conde   128.66 319 ePKPdf   PKiKP   01 04 08.3 +0.5
PCAS                              ePP      PP      01 06 15.0  0.0
PCAS                              etx      tx      01 07 10.3
PESTR Estremoz         128.67 317 ePKPdf   PKiKP   01 04 08.5 +0.7
PESTR                             ePP      PP      01 06 18.0 +2.9
PESTR                             etx      tx      01 07 09.0
PSARD Sardoal          128.68 318 ePKPdf   PKiKP   01 04 09.0 +1.2
PSARD                             ePP      PP      01 06 17.7 +2.6
PSARD                             etx      tx      01 07 10.7
CNIL  Conil            128.79 314  PKP     PKPdf   01 04 07.5 +0.1
PMTG  Montargil        128.99 318 ePKPdf   PKiKP   01 04 08.7 +0.2
PMTG                              ePP      PP      01 06 20.6 +3.4
PMTG                              etx      tx      01 07 10.8
PARRA Arraiolos        129.00 317 ePKPdf   PKiKP   01 04 09.0 +0.5
PARRA                             ePP      PP      01 06 20.4 +3.2
PARRA                             etx      tx      01 07 10.9
EVO   Evora            129.12 317  PKP     PKiKP   01 04 09.0 +0.3
EVO   Evora            129.12 317 ePKPdf   PKiKP   01 04 09.9 +1.2
EVO                               ePP      PP      01 06 21.2 +3.1
EVO                               etx      tx      01 07 12.4
PSBE  So Bento         129.14 319 ePKPdf   PKiKP   01 04 10.0 +1.2
PSBE                              ePP      PP      01 06 16.9 -1.3
PSBE                              etx      tx      01 07 10.7
PBEJ  Beja             129.28 317 ePKPdf   PKiKP   01 04 10.1 +1.0
PBEJ                              ePP      PP      01 06 20.7 +1.6
PBEJ                              etx      tx      01 07 12.8
MD01  Midelt array s   129.30 309          PKiKP   01 04 09.1 -0.3
IFR   Ifrane           129.32 310  PKP     PKiKP   01 04 10.2 +0.6
MOE   Montemor         129.36 317 ePKPdf   PKiKP   01 04 09.9 +0.7
MOE                               ePP      PP      01 06 18.7 -0.8
MOE                               etx      tx      01 07 11.5
PVAQ  Vaqueiros        129.48 316 ePKPdf   PKiKP   01 04 10.5 +1.0
PVAQ                              ePP      PP      01 06 21.8 +1.4
PVAQ                              etx      tx      01 07 12.6
PCVE  Castro Verde     129.59 316 ePKPdf   PKiKP   01 04 10.2 +0.5
PCVE                              ePP      PP      01 06 23.0 +1.9
PCVE                              etx      tx      01 07 13.7
MESJ  Messejana        129.61 316 ePKPdf   PKPdf   01 04 08.7 -0.3
MESJ                              ePP      PP      01 06 21.6 +0.4
MESJ  Messejana        129.61 316 ePKPdf   PKiKP   01 04 10.8 +1.0
MESJ                              ePP      PP      01 06 23.5 +2.2
MESJ                              eSKP     SKPbc   01 07 13.5 +0.3
PLOUS Minas do Lousa   129.65 317 ePKPdf   PKiKP   01 04 10.6 +0.8
PLOUS                             ePP      PP      01 06 24.4 +2.9
PLOUS                             etx      tx      01 07 13.9
PBDV  Barranco-do-Ve   129.71 316 ePKPdf   PKiKP   01 04 11.3 +1.3
PBDV                              ePP      PP      01 06 22.9 +0.9
PBDV                              etx      tx      01 07 13.5
PMAFR Mafra            129.76 318 ePP      PP      01 06 23.5 +1.3
PMAFR                             etx      tx      01 07 14.2
LIS   Lisbon           129.79 318 ePP      PP      01 06 22.7 +0.3
LIS   Lisbon           129.79 318 ePP      PP      01 06 25.8 +3.4
LIS                               eSKP     SKPbc   01 07 14.7 +0.9
PTEO  Sao Teotonio     130.10 316 ePP      PP      01 06 27.7 +3.3
PTEO                              etx      tx      01 07 15.2
MORF  Marmelete        130.18 316 ePKPdf   PKPdf   01 04 09.9 -0.2
MORF                              ePP      PP      01 06 25.2 +0.3
MORF  Marmelete        130.18 316 ePKPdf   PKiKP   01 04 12.0 +1.0
MORF                              ePP      PP      01 06 26.3 +1.3
MORF                              etx      tx      01 07 15.6
MORF  Marmelete        130.18 316 ePKIKP   PKiKP   01 04 11.9 +1.0
CCM   Cathedral Cave   130.24  43  PKIKP   PKPdf   01 04 03.1 -7.0
CCM   Cathedral Cave   130.24  43          PKPpre  01 04 03.1
HKT   Hockley          130.37  54  PKHKP   PKPpre  01 04 00.8
HKT   Hockley          130.37  54          PKPpre  01 04 00.8
PFVI  Vila Bisbo       130.38 316 ePKPdf   PKiKP   01 04 12.3 +1.0
PFVI                              ePP      PP      01 06 29.4 +3.1
PFVI                              etx      tx      01 07 16.3
PLCA  Paso Flores      130.93 160  PKhKP   PKPpre  01 04 05.3
      comp=Z,1.2nm,0.6s,baz=216,slow=1.7,SNR=4.8
PLCA                               PKP     PKiKP   01 04 13.0 +0.6
      comp=Z,18nm,0.9s,baz=257,slow=0.8,SNR=31
PLCA                               SKPbc   SKPab   01 07 18.4 -0.1
      comp=Z,143nm,0.9s,baz=211,slow=4.2,SNR=55
PLCA                               SKKPbc  SKKPbc  01 16 53.2 -0.4
      comp=Z,7.6nm,1.1s,baz=19,slow=3.2,SNR=4.0
PLCA  Paso Flores      130.93 160  PKIKP   PKiKP   01 04 12.5 +0.1
PLCA  Paso Flores      130.93 160          PKiKP   01 04 12.5 +0.1
PLCA  Paso Flores      130.93 160 eP       PKPdf   01 04 11.2 -0.3
AVE   Averroes         131.15 311  PKP     PKiKP   01 04 13.3 +0.3
TIO   Tiouine          132.03 308  PKP     PKiKP   01 04 15.0  0.0
DBIC  Dimbokro         134.79 275  PKhKP   PKPpre  01 04 06.0
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Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
	comp=Z,29nm,0.6s,baz=117,slow=1.7,SNR=8.2						
DBIC				PKP	PKPdf	01 04 19.2	-0.1
	comp=Z,20nm,0.6s,baz=50,slow=1.3,SNR=7.7						
DBIC				PP	PP	01 06 54.3	-1.4
	comp=Z,78nm,1.2s,baz=90,slow=7.1,SNR=12						
DBIC				SKPbc	SKPbc	01 07 32.0	0.0
	comp=Z,127nm,0.8s,baz=94,slow=3.8,SNR=19						
TKL	Tuckaleechee C	136.54	41	SKPbc	SKPbc	01 07 37.7	+0.8
	comp=Z,80nm,1.0s,baz=174,slow=3.5,SNR=8.6						
PMAR	Madeira	138.34	316	ePKPdf	PKiKP	01 04 28.9	+1.1
PMAR				ePP	PP	01 07 22.1	+5.3
PMAR				etx	tx	01 07 44.4	
PMOZ	Porto Moniz, M	138.48	316	ePKPdf	PKPdf	01 04 24.5	-1.4
APG	El Apazote	139.23	73	SKPbc	SKPbc	01 07 45.4	+0.1
	comp=Z,6.0nm,1.1s,baz=285,slow=2.5,SNR=9.5						
CFA	Coronel Fontan	139.86	156	PKhKP	PKPpre	01 04 21.4	
	comp=Z,6.1nm,0.5s,baz=223,slow=3.3,SNR=15						
CFA				PKP	PKiKP	01 04 30.1	-0.7
	comp=Z,25nm,0.8s,baz=190,slow=3.1,SNR=13						
CFA				SKPbc	SKPbc	01 07 46.3	-0.2
	comp=Z,42nm,0.8s,baz=256,slow=4.0,SNR=18						
CFA				SKKPbc	SKKPbc	01 16 19.8	-0.2
	comp=Z,11nm,1.0s,baz=17,slow=6.4,SNR=4.3						
BART	Pico Bartolome	140.06	328	ePP	PP	01 07 35.8	+9.1
CMLA	Cha da Macela	140.25	329	ePP	PP	01 07 34.0	+6.2
PAGU	Agualva, Azore	140.30	331	ePP	PP	01 07 34.5	+6.5
PSET	Sete Cidades	140.31	329	ePP	PP	01 07 32.0	+3.8
ANCO	Parque Anchore	140.36	170	eP	PKPdf	01 04 26.9	-2.1
ADH	Angra Heroismo	140.42	331	ePP	PP	01 07 29.5	+0.8
PGRA	Graciosa	140.47	332	ePP	PP	01 07 34.5	+5.5
SRBC	Serra Branca	140.49	332	ePP	PP	01 07 29.5	+0.4
PSMN	Pico do Norte,	140.58	328	ePP	PP	01 07 32.5	+2.6
ROSA	Rosais	140.84	332	ePP	PP	01 07 33.1	+1.9
PICO	Pico	141.10	332	ePP	PP	01 07 38.2	+5.3
Y60A	Bolivia	141.12	38		PKPpre	01 04 25.1	
CALA	Caldeira	141.16	333	ePP	PP	01 07 42.2	+8.9
ASCN	Ascension	141.97	251		PKPdf	01 04 30.2	-2.3
H10N1	ASCENSION HYDR	142.11	251	PKP	PKPdf	01 04 31.7	-0.8
	baz=356,slow=74,SNR=12						
H10N2	ASCENSION HYDR	142.12	251	PKP	PKPdf	01 04 31.5	-0.9
	baz=320,slow=74,SNR=6.7						
H10N3	ASCENSION HYDR	142.13	251	PKP	PKPdf	01 04 31.5	-0.9
DWPF	Disney Wildern	142.47	49		PKPdf	01 04 30.6	-2.4
COPN	Copaltepe	143.40	76	eP	PKPbc	01 04 33.5	+0.7
PSAL	Palomas, Salto	143.54	169	eP	PKPbc	01 04 33.2	+0.5
NADN	Granada	144.00	77	eP	PKPdf	01 04 36.3	+0.2
JAPN	Al SSO del Vol	144.38	77	eP	PKPdf	01 04 36.3	-0.5
LCRUZ	La Cruz	144.48	78	eP	PKPdf	01 04 36.7	-0.3
CARN	Rivas	144.57	78	eP	PKPab	01 04 36.1	0.0
ALIBA	Liberia Airpor	144.62	79	eP	PKPdf	01 04 37.9	+0.8
JUD3	Juan Diaz 3	144.67	79	eP	PKPdf	01 04 37.4	0.0
LAPC	Finca la Perla	144.71	78	eP	PKPbc	01 04 36.9	+0.2
PB14	IPOC Station P	144.71	147	PKP	PKPdf	01 04 37.8	+0.3
CPSB	Cacapava Do Su	144.76	175	eP	PKPab	01 04 36.1	-0.2
VRLE	La Escondida,	144.77	78	eP	PKPdf	01 04 37.8	+0.3
VORI	VORI	144.79	78	eP	PKPdf	01 04 37.8	+0.1
GPS2	Hotel Rincn d	144.79	78	eP	PKPdf	01 04 37.9	+0.4
CMARA	Lajas Hojancha	144.80	80	eP	PKPdf	01 04 37.9	+0.4
CMARA				eP	PKPdf	01 04 38.0	+0.4
ACON	Acoyapa	144.80	76	eP	PKPdf	01 04 37.4	-0.1
ACON				eP	PKPab	01 04 37.5	+0.6
PEJA	Penjamo Buenos	144.81	78	eP	PKPdf	01 04 37.8	+0.3
BAGA	Bagaces	144.90	79	eP	PKPdf	01 04 38.3	+0.6
MESS	Mesas	144.94	78	eP	PKPdf	01 04 37.8	0.0
CLARA	Aguas Claras	144.96	78	eP	PKPdf	01 04 38.1	+0.3
HORNC	Hornillas	144.96	78	eP	PKPdf	01 04 38.1	+0.2
CUI	Cuipilapa	144.98	78	eP	PKPdf	01 04 38.2	+0.3
VMAR	Armenia, Volca	145.01	78	eP	PKPdf	01 04 38.1	+0.2
CANAL	Canalete	145.07	78	eP	PKPab	01 04 38.3	+0.3
CNAS	Canas	145.08	79	eP	PKiKP	01 04 39.9	-1.9
UPAL	Upala	145.10	78	eP	PKPab	01 04 39.4	+1.3
TIMP	Tierras Morena	145.13	79	eP	PKPab	01 04 38.6	+0.3
TENO	El Achiote	145.16	78	eP	PKPab	01 04 38.8	+0.4
JUNT	Juntas	145.23	79	eP	PKPab	01 04 39.1	+0.5
JTS	Las Juntas de	145.23	79	SKPbc	SKiKP	01 08 01.6	+1.0
	comp=Z,92nm,1.0s,baz=54,slow=4.0,SNR=9.1						
JTS	Las Juntas de	145.23	79	eP	PKPab	01 04 39.2	+0.6
COTE	Lago Cote	145.24	79	eP	PKPab	01 04 38.8	+0.1
QUEB	Quebradon, Cot	145.25	78	eP	PKPab	01 04 38.6	-0.1
LCHIL	Los Chiles	145.38	78	eP	PKPab	01 04 39.6	+0.5
TABAC	Tabacon	145.39	79	eP	PKPab	01 04 39.5	+0.2
CASO	Castillo	145.43	79	eP	PKPab	01 04 39.4	-0.1
ARE1	Arenal 1	145.44	79	eP	PKPab	01 04 39.6	+0.2
CEDE	Laguna Cedeo	145.45	79	eP	PKPab	01 04 39.9	+0.4
VACR	Volcan Arenal	145.48	79	eP	PKPab	01 04 39.6	0.0
FORC	Fortuna	145.49	79	eP	PKPab	01 04 39.9	+0.3
ARZA	Esparza	145.54	80	eP	PKiKP	01 04 41.6	-1.3
PALD	Palmares	145.76	79	eP	PKPbc	01 04 39.8	-0.3
TRB2	Turrubares	145.76	80	eP	PKPab	01 04 41.4	+0.7
VPL1	V. Platanar	145.81	79	eP	PKPab	01 04 41.5	+0.4
ATEO	Atenas	145.82	80	eP	PKPab	01 04 42.1	+1.1
VPL3	V. Platanar	145.85	79	eP	PKPab	01 04 41.6	+0.6
TCS1	Tacares	145.90	79	eP	PKPab	01 04 42.1	+0.8
VPS5	V. Poas	145.95	79	eP	PKPab	01 04 42.6	+0.9
HEME	Heredia, Merce	146.06	79	eP	PKPab	01 04 42.6	+0.7
HDC	Heredia	146.08	79	eP	PKPab	01 04 42.2	+0.2
HDC	Heredia	146.08	79	eP	PKPdf	01 04 38.7	-1.1
VBV1	V. Barva	146.09	79	eP	PKPbc	01 04 41.7	+0.4
SVQ2	Quepos	146.09	80	eP	PKiKP	01 04 43.1	-0.8
SVQ2				eP	PKPab	01 04 43.7	+1.9
LUJA	Lujan	146.13	80	eP	PKiKP	01 04 43.5	-0.8
AMPA	Desamparados	146.15	80	eP	PKiKP	01 04 44.4	+0.1
BLUN	Bluefields	146.15	76	PKP	PKPdf	01 04 39.6	-0.1
	comp=Z,78nm,1.6s						
BLUN				PKP	PKPab	01 04 42.2	+0.1
	comp=Z,78nm,1.6s						
BILN	Bilwi Airport	146.15	72	eP	PKPab	01 04 41.9	-0.2
ABE2	San Pablo	146.17	80	eP	PKPbc	01 04 41.9	+0.5
LCR2	La Lucha 2	146.22	80	eP	PKPbc	01 04 42.0	+0.4
PIEC	Cerro El Cedra	146.28	80	eP	PKPab	01 04 42.4	-0.5
REPA	Paraso	146.34	80	eP	PKPab	01 04 43.6	+0.5
VICA	Volcano Irazu	146.35	79	eP	PKPbc	01 04 42.6	+0.4
PILE	Guapiles	146.38	79	eP	PKPab	01 04 43.7	+0.7
RAFA	San Farael, Vo	146.38	79	eP	PKPab	01 04 43.5	0.0
VTR0	Volcan Turrial	146.43	79	eP	PKPbc	01 04 42.2	-0.3
VINA	Juan Vinas	146.46	80	eP	PKPab	01 04 44.2	+0.7
VTCV	VTCV, Calle Va	146.46	79	eP	PKPbc	01 04 42.6	+0.4
ABRB	Las Abras (San	146.47	79	eP	PKPab	01 04 43.5	-0.2
RVLA	Villa Bonita	146.59	79	eP	PKPab	01 04 43.4	-0.4
LCOCO	El Coco	146.62	79	eP	PKPab	01 04 43.3	-0.6
EDPE	Pejibaye, P	146.70	81	eP	PKPbc	01 04 41.8	-0.9
PIRO	Carate, Puerto	146.99	82	eP	PKPbc	01 04 43.6	+0.1
EDP2	Potrero Grande	147.10	81	eP	PKPbc	01 04 43.6	-0.2
CEUA	Cerro Uatsi, L	147.27	80	eP	PKPab	01 04 47.2	+0.6
PTPA	Petro Terminal	147.46	82	eP	PKPbc	01 04 45.0	+0.2
SCLRA	Santa Clara, W	147.50	81	eP	PKPdf	01 04 42.0	-0.2
BRU2	Volcan	147.59	81		PKPbc	01 04 45.4	+0.1
BRU2	Volcan	147.59	81	eP	PKPdf	01 04 43.5	+1.0
CLLRA	Cordillera,	147.67	81	eP	PKPbc	01 04 44.9	-0.7
BQTLY	Boquete Panama	147.82	81	eP	PKPdf	01 04 43.0	+0.2
CPUP	Villa Florida	148.21	168	PKPbc	PKPbc	01 04 46.1	-0.3
	comp=Z,36nm,0.8s,baz=192,slow=2.5,SNR=43						
CPUP				SKPbc	SKiKP	01 08 07.6	+1.1
	comp=Z,47nm,1.0s,baz=203,slow=3.9,SNR=5.0						
CPUP				SKKPbc	SKKPbc	01 15 44.6	
	comp=Z,3.1nm,0.9s,baz=20,slow=7.8,SNR=3.2						
KKNTU	Kakintº	148.46	81	eP	PKPdf	01 04 43.2	-0.4
NNA	Nana	148.70	123	PKIKP	PKPbc	01 04 46.7	-1.4
NNA	Nana	148.70	123		PKPbc	01 04 46.7	-1.4
PB08	IPOC Station P	148.96	144	PKP	PKPdf	01 04 46.4	+1.6
GMAL	Guarumal, Vera	149.11	83	eP	PKPbc	01 04 48.0	-1.0
SJPY	San Joaquin	149.75	169	eP	PKPdf	01 04 44.5	-0.9
MCJ	Malvern	150.24	62	iP	PKiKP	01 04 52.8	+0.3
CVJ	Coleyville	150.25	61	iP	PKiKP	01 04 52.5	-0.1
ZANG	Zanguenga, Cho	150.36	81	eP	PKPdf	01 04 45.6	-1.1
BCIP	Isla Barro Col	150.37	80	PKP	PKPdf	01 04 46.7	+0.1
	comp=Z,5µmcomp=Z,317nm,1.5s						
BCIP				PKP	PKPdf	01 04 46.8	+0.1
	comp=Z,5µmcomp=Z,317nm,1.5s						
BCIP	Isla Barro Col	150.37	80	eP	PKPdf	01 04 46.2	-0.5
PTGB	Pitanga	150.51	177	eP	PKPdf	01 04 46.1	-0.6
PCJ	Portland Cotta	150.77	62	⇓iP	PKiKP	01 04 54.1	+0.7
PET01	Itanhaem-SP	150.84	186	eP	PKPdf	01 04 46.0	-1.1
STH	Stony Hill	150.95	61	iP	PKiKP	01 04 53.6	-0.3
STH				iP	PKPbc	01 04 54.4	+1.0
GWJ	Greenwich	151.02	61	iP	PKPbc	01 04 53.8	+0.1
GWJ				iP	PKiKP	01 04 53.9	-0.3
OTAV	Otavalo	151.48	99	eP	PKPdf	01 04 45.2	-3.8
SPB	Sao Paulo	151.54	185	eP	PKPdf	01 04 46.9	-1.3
GTBY	Guantanamo Bay	151.59	56	⇑iP	PKiKP	01 04 55.8	+0.7
LDASE	Londrina, Braz	151.87	178	eP	PKPdf	01 04 47.7	-1.1
FRTB	Fartura	151.92	181	eP	PKPdf	01 04 47.7	-1.2
VAO	Valinhos	152.08	187		PKPbc	01 04 55.9	0.0
VAO	Valinhos	152.08	187	eP	PKPdf	01 04 48.1	-1.1
CAM01	Campos-RJ	152.13	197	eP	PKPdf	01 04 47.9	-1.2
LPAZ	La Paz	152.52	140	PKP	PKPdf	01 04 52.0	+1.3
	comp=Z,13nm,1.0s,baz=98,slow=1.0,SNR=22						
LPAZ				PKPbc	PKiKP	01 04 59.4	+1.5
	comp=Z,45nm,0.5s,baz=209,slow=1.3,SNR=40						
LPAZ	La Paz	152.52	140	PKIKP	PKPdf	01 04 52.0	+1.3
LPAZ	La Paz	152.52	140	eP	PKPdf	01 04 48.6	-2.0
BSCB	Bom Sucesso	153.70	192	eP	PKPdf	01 04 49.1	-2.5
BDQN	Bodoquena, MS	154.02	166	eP	PKPdf	01 04 50.5	-1.4
RIB01	Linhares ES	154.04	202	eP	PKPdf	01 04 50.9	-1.1
BB19B	Bebedouro	154.14	184	eP	PKPdf	01 04 51.0	-1.2
AQDB	Aquidauana	154.22	168	eP	PKPdf	01 04 51.0	-1.3
COIM	Forte Coimbra	154.26	164	eP	PKPdf	01 04 53.7	+1.4
CZSB	Cruzeiro do Su	154.34	119	eP	PKPdf	01 04 51.2	-1.4
BSFB	Barra de Sao F	154.65	201	eP	PKPdf	01 04 51.6	-1.2
CANS	Sao Roque de M	154.68	189	eP	PKPdf	01 04 51.2	-1.8
SJMB	Sao Joao De Ma	154.89	201	eP	PKPdf	01 04 52.0	-1.2
ROSC	El Rosal	156.04	89	PKP	PKPdf	01 04 56.3	+0.9
	comp=Z,19nm,0.8s,baz=69,slow=3.2,SNR=14						
ROSC				PKPab	PKPab	01 05 25.8	+2.1
	comp=Z,42nm,0.6s,baz=352,slow=2.6,SNR=14						
DIAM	Diamantina, MG	156.05	196	eP	PKPdf	01 04 53.3	-1.6
GUA01	Guaratinga, BA	156.27	206	eP	PKPdf	01 04 54.0	-1.0
PMNB	Patos De Minas	156.40	189	eP	PKPdf	01 04 54.0	-1.3
SIV	San Ignacio	156.65	153	PKP	PKPdf	01 04 56.0	+0.3
	comp=Z,12nm,1.1s,baz=227,slow=1.1,SNR=28						
SIV				PKPab	PKPab	01 05 26.9	+1.4
	comp=Z,15nm,0.7s,baz=182,slow=3.1,SNR=11						
IPMB	Ipameri, GO	157.17	185	eP	PKPdf	01 04 55.0	-1.3
PP1B	Ponte de Pedra	157.18	169	eP	PKPdf	01 04 55.0	-1.2
CMC01	Camacan, BA	157.22	208	eP	PKPdf	01 04 55.0	-1.2
NBIT	Itapeh - BA	157.56	208	eP	PKPdf	01 04 55.4	-1.4
MC01	Montes Claros	157.63	196	eP	PKPdf	01 04 55.6	-1.2
PTLB	Pontes e Lacer	157.96	157	eP	PKPdf	01 04 56.0	-1.1
SALV	Santo Antonio	158.65	166	eP	PKPdf	01 04 56.9	-1.1
JANB	Januaria	159.31	197	eP	PKPdf	01 04 57.6	-1.3
BDFB	Brasilia	159.47	186	PKP	PKPdf	01 04 59.1	-0.1
	comp=Z,7.5nm,0.7s,baz=97,slow=2.9,SNR=9.1						
BDFB				PKPab	PKPab	01 05 38.8	+1.1
	comp=Z,8.6nm,0.9s,baz=106,slow=2.0,SNR=4.3						
ARAG	Araguaiana, MT	159.47	176	eP	PKPdf	01 04 57.9	-1.1
SJG	San Juan	159.67	48	PKP	PKPdf	01 04 59.1	-0.1
	comp=Z,20nm,0.9s,baz=33,slow=2.6,SNR=14						
SJG				PKPab	PKPab	01 05 39.4	+0.8
	comp=Z,173nm,1.1s,baz=333,slow=4.9,SNR=20						
SJG	San Juan	159.67	48	PKIKP	PKPdf	01 05 00.3	+1.2
SJG	San Juan	159.67	48		PKPdf	01 05 00.3	+1.2
VILB	Vilhena	159.71	151	eP	PKPdf	01 04 58.1	-1.2
NBPV	Pedro Velho	161.29	233	eP	PKPdf	01 04 59.9	-1.2
NBPN	Ponto Novo - B	161.41	213	eP	PKPdf	01 04 59.9	-1.4
NBTA	Tacaratu-PE	161.50	221	eP	PKPdf	01 04 60.0	-1.4
SDBA	SAO DESIDERIO	161.99	197	eP	PKPdf	01 05 00.7	-1.2
SNDB	Serra Nova Dou	163.20	177	eP	PKPdf	01 05 01.8	-1.2
CLDB	Colider	163.39	161	eP	PKPdf	01 05 02.0	-1.1
TEFE	Tefe	163.40	120	eP	PKPdf	01 05 02.0	-1.2
SMTB	Santa Maria do	166.07	191	eP	PKPdf	01 05 04.3	-1.2
MACA	Manacapuru-AM	166.88	127	eP	PKPdf	01 05 05.0	-1.2
NBPS	Pedro II - PI	167.23	224	eP	PKPdf	01 05 04.7	-1.8
ITTB	Itaituba	169.30	149	eP	PKPdf	01 05 06.4	-1.4
BOAV	Boa Vista	169.48	103	eP	PKPdf	01 05 06.7	-1.2
MDP	Montagnes des	177.63	85	PKP	PKPdf	01 05 10.2	-0.7
	comp=Z,36nm,1.0s,baz=230,slow=1.6,SNR=8.6						
MDP				PKPab	PKPab	01 06 59.3	+0.9
	comp=Z,40nm,1.2s,baz=288,slow=4.9,SNR=8.1						

JMA 08 00:52:42.8±0.0**, 36.˚3N**±0.˚1×**137.˚6E**±0.˚1**, h4^{km}, MV0.9**/21**,**
HIDA MOUNTAINS REGION, Eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JGN	Niukaw	0.26	259	P	Pg	00 52 48.2	+0.3
JGN				eS	Sg	00 52 51.8	+0.4
JNG	Nsakai	0.40	71	iP	Pg	00 52 50.9	+0.5
MAT	Matsushiro	0.53	60	P	Pg	00 52 53.3	+0.2

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*IDC **08** 00:55:44.8±2.4, 27.˚95N×139.˚85E, h450^{km}±25^{km}, mb3.6/9, mbtmp4.4/10, Error ellipse: s-maj=66.7km s-min=24.6km az=84.0*
*JMA **08** 00:55:44.8±0.3, 28˚N±1˚×14˚0E±˚, h441^{km}±4^{km}, MV4.3/29, W OFF OGASAWARA*
*NEIC **08** 00:55:46.7±2.1, 28.˚18N±0.˚05×139.˚9E±0.˚1, h468^{km}±9^{km}, mb4.7/18, Error ellipse: s-maj=17.3km s-min=3.6km az=66.0*
ISC 08 00:55:44.0±0.6**, 28.˚04N**±0.˚06×**140.˚09E**±0.˚09**, h450^{km}, n52,**
σ**1§67**/56**, mb4.3**/16**, Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	Chichi jima	2.09	116	eP	P	00 56 44.6	-0.5
CBIJ				eS	S	00 57 31.4	-3.1
JHH2	Haha-jima-NKT2	2.33	127	eP	P	00 56 46.4	-0.2
JHH2				eS	S	00 57 35.0	-2.1
JHJ2	Mitsune	5.06	357	P	P	00 57 10.2	+1.4
JHJ2	Mitsune	5.06	357	eP	P	00 57 10.1	+1.3
JHJ2				eS	S	00 58 16.4	-1.6
JHJ	Hachijo jima 2	5.07	357	P	P	00 57 10.3	+1.4
	60nm,0.6s,baz=273,slow=23,SNR=9.0						
JHJ				S	S	00 58 15.2	-3.1
	133nm,0.3s,baz=268,slow=23,SNR=5.8						
BSO1	Boso 1	6.63	6	eP	P	00 57 26.1	+2.0
BSO3	Boso 3	6.75	3	eP	P	00 57 27.1	+1.4
BSO3				eS	S	00 58 48.8	-0.2
BSO4	Boso 4	6.93	2	eP	P	00 57 28.9	+1.1
HMMJ	Hamamatsu 2	7.09	344	eP	P	00 57 31.1	+1.6
JOD2	Odawara 2	7.25	353	eP	P	00 57 32.5	+1.3
INU	Inuyama	7.74	341	P	P	00 57 38.0	+1.5
JGF	Kuroka	7.88	344	P	P	00 57 39.3	+1.2
JRY	Ryogami san	8.01	353	eP	P	00 57 40.1	+0.6
JYT	Yasato	8.16	1	eP	P	00 57 42.3	+1.3
JMZ	Minamidaito 2	8.22	256	P	P	00 57 41.3	-0.5
JAG	Ashikaga	8.38	356	eP	P	00 57 44.4	+1.1
JHO	Hitachi	8.55	3	eP	P	00 57 46.7	+1.4
MJAR	Matsushiro Arr	8.62	350	P	P	00 57 47.5	+1.5
MAJO	Matsushiro	8.62	350	P	P	00 57 46.9	+0.8
MJB9	Matsu-Tunnel	8.63	350	P	P	00 57 47.0	+0.9
JOW	Kunigami	10.56	266	P	P	00 58 06.2	-1.2
JTM	Tenmabayashi	12.74	3	P	P	00 58 33.7	+3.0
TJN	Taejon	13.60	311	P	P	00 58 40.1	+0.1
ERM	Erimo	14.16	9	P	P	00 58 49.4	+3.4
YHNB	Yeheng	17.10	263	P	P	00 59 17.3	-0.3
YHNB				IAmb	IAmb	00 59 17.4	
	comp=Z,17nm,1.0s						
YULB	Yu-li	17.55	259	P	P	00 59 20.9	-1.4
YULB				IAmb	IAmb	00 59 37.2	
	comp=Z,19nm,1.1s						
SSLB	Suanglung	17.72	261	P	P	00 59 23.7	-0.4
SSLB				IAmb	IAmb	00 59 25.0	
	comp=Z,18nm,0.6s						
KNMB	Chin-men Tao	19.78	265	P	P	00 59 42.7	-0.8
MYLDM	Lahad Datu	30.62	226	P	P	01 01 20.1	+0.1
MYLDM				IAmb	IAmb	01 01 21.0	
	comp=Z,63nm,1.1s						
SHEM	Shemya Is, Ala	35.23	36	P	P	01 01 59.0	+0.2
SMY	Shemya	35.23	36	P	P	01 01 59.0	+0.2
CHTO	Chiang Mai	38.70	265	P	P	01 02 27.1	-1.0
KIWB	Kanaga Island	39.70	41	P	P	01 02 39.1	+3.4
KIWB				IAmb	IAmb	01 02 41.0	
	comp=Z,15nm,0.6s						
WRA	Warramunga Arr	48.03	187	P	P	01 03 40.8	-0.2
	comp=Z,2.0nm,0.7s,baz=3.8,slow=7.5,SNR=1.1						
	comp=Z,2.0nm,0.7s						
CTAO	Charters Tower	48.22	172	P	P	01 03 46.5	+4.0
CTAO				IAmb	IAmb	01 03 47.4	
	comp=Z,23nm,1.1s						
KURBB	Kurchatov Arra	51.05	314	P	P	01 04 03.5	+0.4
	comp=Z,2.1nm,0.6s,baz=94,slow=7.0,SNR=1.5						
	comp=Z,2.1nm,0.6s						
M20K	Styx River	54.76	32	P	P	01 04 25.7	-4.0
BVAR	Borovoye Array	56.09	317	P	P	01 04 39.3	+0.2
	comp=Z,5.8nm,0.8s,baz=108,slow=9.3,SNR=2.3						
	comp=Z,5.8nm,0.8s						
SPITS	Spitsbergen Ar	69.12	349	P	P	01 06 04.9	+1.6
	comp=Z,8.6nm,1.0s,baz=77,slow=12,SNR=5.6						
	comp=Z,8.6nm,1.0s						
ARCES	ARCESS Array B	72.03	340	P	P	01 06 21.9	+1.1
	comp=Z,2.3nm,0.8s,baz=60,slow=4.8,SNR=5.5						
	comp=Z,2.3nm,0.8s						
FINES	FINESS Array B	76.27	333	P	P	01 06 46.0	+1.0
	comp=Z,2.4nm,0.4s,baz=69,slow=5.6,SNR=14						
	comp=Z,2.4nm,0.4s						
AKASG	Malin Array Be	80.75	323	P	P	01 07 09.5	+0.2
	comp=Z,0.6nm,0.3s,baz=54,slow=5.1,SNR=4.2						
	comp=Z,0.6nm,0.3s						
HFS	Hagfors	81.81	336	P	P	01 07 14.9	+0.3
	comp=Z,4.2nm,0.7s,baz=90,slow=3.4,SNR=8.6						
	comp=Z,4.2nm,0.7s						
NC405	NORSAR Array S	81.81	337	P	P	01 07 15.1	+0.5
NB201	NORSAR Array S	82.00	337	P	P	01 07 16.0	+0.4
NB201				IAmb	IAmb	01 07 29.2	
	comp=Z,26nm,1.1s						
NC204	NORSAR Array S	82.02	338	P	P	01 07 15.9	+0.2
NC204				IAmb	IAmb	01 07 23.1	
	comp=Z,18nm,1.1s						
NB2	NORSAR Subarra	82.03	338	P	P	01 07 16.6	+0.8
	comp=Z,0.2nm,0.3s,baz=48,slow=4.8						
NOA	NORSAR Array B	82.03	338	P	P	01 07 15.7	-0.1
	comp=Z,1.3nm,0.5s,baz=29,slow=3.5,SNR=4.0						
	comp=Z,1.3nm,0.5s						
NBO00	NORSAR Array S	82.19	338	P	P	01 07 15.6	-1.0
YPP	Pitchstone Pla	83.25	43	P	P	01 07 18.9	-3.8
YPP				IAmb	IAmb	01 07 20.6	
	comp=Z,31nm,0.9s						
SPUT	South Promonto	83.81	46	P	P	01 07 18.9	-6.4
SPUT				IAmb	IAmb	01 07 20.2	
	comp=Z,12nm,0.6s						
QSPA	South Pole Qui	117.81	180	PKPdf	PKiKP	01 13 38.5	+0.9

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*NEIC **08** 01:17:39.1±1.3, 19.˚0N±0.˚1×64.˚3W±0.˚1, h35^{km}±2^{km}, ML3.0/28, Md3.7/11(RSPR), Error ellipse: s-maj=26.7km s-min=14.9km az=145.0*
RSPR 08 01:17:42.8, 19.˚05N×64.˚45W, h37^{km}±23^{km}, MD3.7/11**,**
9C-3D, Virgin Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HUMP	Col San Antoni	1.60	236		Pn	01 18 05.3	-3.2
HUMP				IAML		01 18 28.8	
	122nm,0.4s						
HUMP				IAML		01 18 29.2	
	105nm,0.2s						
HUMP	Col San Antoni	1.60	236		Sn	01 18 26.6	-1.4
HUMP	Col San Antoni	1.60	236	⇑eP	Pn	01 18 07.2	-1.3
PDPR	Patillas Dam,	1.81	236		Pn	01 18 09.1	-2.2
PDPR				IAML		01 18 39.7	
	85nm,0.5s						
IGPR	InterUniversit	1.90	236		Pn	01 18 12.2	-0.5
IGPR					Sn	01 18 34.2	-1.2
IGPR	InterUniversit	1.90	236	⇓eP	Pn	01 18 12.2	-0.5
ECPR	Experimental S	1.95	248		Pn	01 18 10.9	-2.4
ECPR				IAML		01 18 41.5	
	127nm,0.3s						
ECPR	Experimental S	1.95	248		Sn	01 18 35.5	-1.0
ECPR	Experimental S	1.95	248	⇑eP	Pn	01 18 12.3	-1.0
EMPR	Esperanza - Ma	2.05	254		Pn	01 18 13.1	-1.5
EMPR					Sn	01 18 38.0	-0.9
EMPR	Esperanza - Ma	2.05	254	⇑eP	Pn	01 18 13.1	-1.5
EMPR				eS	Sn	01 18 38.0	-0.9
CELP	Cerrillos	2.24	245		Pn	01 18 15.2	-2.0
CELP				IAML		01 18 56.1	
	53nm,0.9s						
CELP	Cerrillos	2.24	245		Sn	01 18 42.3	-1.4
CELP	Cerrillos	2.24	245	⇓eP	Pn	01 18 16.6	-0.7
AOPR	Arecibo Observ	2.29	253		Pn	01 18 15.8	-2.2
AOPR	Arecibo Observ	2.29	253		Sn	01 18 44.3	-0.6
AOPR	Arecibo Observ	2.29	253	⇑eP	Pn	01 18 17.4	-0.6
GBPR	Guanica, Bosqu	2.54	245		Pn	01 18 20.6	-0.8
GBPR					Sn	01 18 50.6	-0.4
GBPR	Guanica, Bosqu	2.54	245	⇑eP	Pn	01 18 20.6	-0.8
GBPR				eS	Sn	01 18 50.6	-0.4
AGPR	Aguadilla, PR	2.58	257		Pn	01 18 19.7	-2.3
AGPR				IAML		01 18 51.2	
	57nm,1.6s						
AGPR				IAML		01 19 21.9	
	67nm,1.4s						
AGPR	Aguadilla, PR	2.58	257		Sn	01 18 51.1	-1.0
AGPR	Aguadilla, PR	2.58	257	⇓eP	Pn	01 18 21.9	-0.1
LSP	Las Mesas	2.64	251		Pn	01 18 22.6	-0.3
LSP					Sn	01 18 52.6	-1.1
LSP	Las Mesas	2.64	251	⇑eP	Pn	01 18 22.6	-0.3
LSP				eS	Sn	01 18 52.6	-1.1
MLPR	Magueyes Islan	2.68	247		Pn	01 18 21.3	-2.0
MLPR	Magueyes Islan	2.68	247		Sn	01 18 54.6	0.0
MLPR	Magueyes Islan	2.68	247	⇑eP	Pn	01 18 22.6	-0.7
CRPR	Cabo Rojo, PR	2.73	248		Pn	01 18 23.0	-1.0
CRPR					Sn	01 18 55.9	+0.2
CRPR	Cabo Rojo, PR	2.73	248	⇑eP	Pn	01 18 23.0	-1.0
IDE	Isla Desecheo	2.94	257		Pn	01 18 25.6	-1.3
IDE					Sn	01 18 59.9	-1.1
IDE	Isla Desecheo	2.94	257	⇑eP	Pn	01 18 25.6	-1.3
IDE				eS	Sn	01 18 59.9	-1.1

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*RSPR **08** 01:19:54.5, 19.˚12N×64.˚40W, h38^{km}±24^{km}, MD3.8/14*
*NEIC **08** 01:19:54.6±1.2, 19.˚0N±0.˚1×64.˚67W±0.˚04, h8^{km}±17^{km}, ML3.4/46, Md3.8/14(RSPR), Error ellipse: s-maj=20.7km s-min=1.0km az=193.0*
ISC 08 01:19:51.4±3.3**, 19.˚2N**±0.˚1×**64.˚53W**±0.˚04**, h7^{km}**±24^{km}**, n58,**
σ**1§39**/70**, 8C-6D, Virgin Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HUMP	Col San Antoni	1.63	230		Pn	01 20 19.9	-0.6
HUMP					Sn	01 20 39.9	-1.9
HUMP	Col San Antoni	1.63	230	⇑eP	Pn	01 20 20.1	-0.4
SMRT	St. Maarten	1.79	129		Pn	01 20 23.6	+0.9
SMRT				IAML		01 21 03.4	
	comp=N,330nm,0.5s						
SMRT				IAML		01 21 03.5	
	comp=E,422nm,0.5s						
PDPR	Patillas Dam,	1.83	231		Pn	01 20 23.1	-0.2
PDPR	Patillas Dam,	1.83	231		Sn	01 20 45.4	-1.4
PDPR	Patillas Dam,	1.83	231	IAML		01 20 52.1	
	comp=E,208nm,0.5s						
PDPR				IAML		01 20 52.9	
	comp=E,251nm,0.5s						
PDPR	Patillas Dam,	1.83	231	⇑eP	Pn	01 20 23.3	0.0
SJG	San Juan	1.87	235	Pn	Pn	01 20 23.1	-0.8
SJG				IAML		01 20 51.6	
	comp=E,273nm,0.4s						
IGPR	InterUniversit	1.93	231		Pn	01 20 24.8	+0.2
IGPR					Sn	01 20 48.5	-0.7
IGPR	InterUniversit	1.93	231	⇓eP	Pn	01 20 24.8	+0.2
ECPR	Experimental S	1.94	244		Pn	01 20 24.1	-0.7
ECPR					Sn	01 20 47.7	-1.8
ECPR				IAML		01 20 54.0	
	comp=E,530nm,0.2s						
ECPR				IAML		01 20 55.5	
	comp=E,379nm,0.2s						
ECPR	Experimental S	1.94	244	⇑eP	Pn	01 20 24.4	-0.4
SABA	Saba	1.99	142		Pb	01 20 28.2	+0.3
SABA				IAML		01 21 21.4	
	comp=N,279nm,0.5s						
SABA	Saba	1.99	142	eP	Pn	01 20 26.2	+0.7
SABA				eS	Sn	01 20 50.5	-0.2
EMPR	Esperanza - Ma	2.02	250		Pn	01 20 26.3	+0.4
EMPR					Sn	01 20 51.6	+0.2
EMPR	Esperanza - Ma	2.02	250	⇓eP	Pn	01 20 26.3	+0.4
EMPR				eS	Sn	01 20 51.6	+0.2
CELP	Cerrillos	2.23	241		Pn	01 20 29.1	+0.2
CELP	Cerrillos	2.23	241		Sn	01 20 56.3	-0.5
CELP	Cerrillos	2.23	241	IAML		01 21 00.5	
	comp=N,130nm,0.6s						
CELP				IAML		01 21 09.1	
	comp=N,167nm,0.6s						
CELP	Cerrillos	2.23	241	⇓eP	Pn	01 20 29.3	+0.4
AOPR	Arecibo Observ	2.27	249		Pn	01 20 29.1	-0.2
AOPR	Arecibo Observ	2.27	249		Sn	01 20 58.8	+1.3
AOPR	Arecibo Observ	2.27	249	IAML		01 21 07.7	
	comp=N,730nm,0.4s						
AOPR				IAML		01 21 08.2	
	comp=N,334nm,0.4s						
AOPR	Arecibo Observ	2.27	249	⇑eP	Pn	01 20 29.7	+0.4
SKI	Saint Kitts	2.52	137	eP	Pn	01 20 35.0	+2.2
SKI				eS	Sn	01 21 05.4	+1.7
GBPR	Guanica, Bosqu	2.53	242		Pn	01 20 34.2	+1.2
GBPR					Sn	01 21 04.6	+0.5
GBPR	Guanica, Bosqu	2.53	242	⇑eP	Pn	01 20 34.2	+1.2
GBPR				eS	Sn	01 21 04.6	+0.5
AGPR	Aguadilla, PR	2.54	254		Pn	01 20 32.9	-0.2
AGPR	Aguadilla, PR	2.54	254		Sn	01 21 04.3	-0.1

AGPR	Aguadilla, PR	2.54	254	IAML		01 21 08.0	
	comp=N,130nm,0.8s						
AGPR				IAML		01 21 26.2	
	comp=N,159nm,0.8s						
AGPR	Aguadilla, PR	2.54	254	⇑eP	Pn	01 20 33.6	+0.4
LSP	Las Mesas	2.62	248		Pn	01 20 35.5	+1.3
LSP					Sn	01 21 07.6	+1.2
LSP	Las Mesas	2.62	248	⇑eP	Pn	01 20 35.5	+1.3
LSP				eS	Sn	01 21 07.6	+1.2
PRSN	Puerto Rico Se	2.66	249		Pn	01 20 35.0	+0.3
PRSN					Sn	01 21 05.8	-1.4
PRSN	Puerto Rico Se	2.66	249	⇓eP	Pn	01 20 36.4	+1.7
MLPR	Magueyes Islan	2.67	243		Pn	01 20 33.7	-1.2
MLPR	Magueyes Islan	2.67	243		Sn	01 21 07.1	-0.5
MLPR	Magueyes Islan	2.67	243	IAML		01 21 11.8	
	comp=N,77nm,0.5s						
MLPR				IAML		01 21 12.2	
	comp=N,72nm,0.8s						
MLPR	Magueyes Islan	2.67	243	⇑eP	Pn	01 20 35.8	+0.9
CRPR	Cabo Rojo, PR	2.71	245		Pn	01 20 35.5	0.0
CRPR	Cabo Rojo, PR	2.71	245		Sn	01 21 09.1	+0.5
CRPR	Cabo Rojo, PR	2.71	245	⇓eP	Pn	01 20 35.8	+0.4
IDE	Isla Desecheo	2.90	254		Pn	01 20 38.5	+0.5
IDE					Sn	01 21 13.1	-0.1
IDE	Isla Desecheo	2.90	254	⇓eP	Pn	01 20 38.5	+0.5
IDE				eS	Sn	01 21 13.1	-0.1
ANWB	Willy Bob	3.02	120	eP	Pn	01 20 36.5	-3.1
ANWB				eS	Sn	01 21 14.1	-2.0
MLYT	Lee's Yard	3.32	137	eP	Pn	01 20 43.2	-0.7
PCDR	Punta Cana, DR	3.71	260	Pn	Pn	01 20 50.0	+0.8
PCDR				IAML		01 21 45.2	
	comp=E,42nm,2.3s						
PCDR				IAML		01 22 01.5	
	comp=N,80nm,1.3s						
DHSZ	Broadband at M	3.92	137	eP	Pb	01 20 58.6	-2.3
DHSZ				eS	Sn	01 21 39.6	+1.2
GDHS	Morne Mazeau,	3.92	137	Pn	Pn	01 20 54.0	+1.8
GDHS				IAML		01 21 47.0	
	comp=N,90nm,0.6s						
ABD	La Joyeuse, An	3.96	132	Pn	Pn	01 20 55.4	+2.7
ABD				IAML		01 22 21.1	
	comp=N,80nm,2.4s						
MMLZ	Guadeloupe Bro	4.16	138	eP	Pn	01 20 59.1	+3.8
CBE	Ff, Capester	4.17	138		Pn	01 20 57.3	+1.6
DSDZ	La Diserade, G	4.37	130	eP	Pb	01 21 08.4	-0.2
DSDZ				eS	Sn	01 21 45.6	-3.9
MAGL	Barre de l'ile	4.47	136	Pn	Pn	01 21 03.1	+3.4
DSLB	Salisbury	4.77	141	eP	Pn	01 21 04.9	+1.1
CXM	Morne La Croix	5.42	143	Pn	Pn	01 21 13.7	+0.9
BANI	BANI	5.57	263	Pn	Pn	01 21 17.2	+2.3
SDDR	Presa de Saban	6.39	269		Pn	01 21 27.2	+1.1

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*GUC **08** 01:21:33.8±0.7, 21.°09S×68.°25W, h154^{km}±6^{km}, ML3.2*
*SCB **08** 01:21:33.7±1.3, 21.°10S×68.°20W, h131^{km}±27^{km}, ML3.6/2, Error ellipse: s-maj=11.8km s-min=9.3km az=1.0*
ISC 08 01:21:33.0±1.9**, 21.°08S**±0.°05×**68.°32W**±0.°09**, h159**^{km}±18^{km}**, n26,** σ**0^{s}60**/36**, 3C, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB09	IPOC Station P	1.11	230	eP	Pn	01 22 00.4	+0.6
PB09				eS	Sn	01 22 20.8	+0.4
PB09				IAML		01 22 21.5	
	comp=N,120nm,0.3s						
PB09	IPOC Station P	1.11	230	P	Pn	01 22 00.4	+0.6
PB08	IPOC Station P	1.22	320	⇑iP	Pn	01 22 01.3	+0.2
PB08	IPOC Station P	1.22	320	P	Pn	01 22 01.4	+0.3
PB02	IPOC Station P	1.49	261	eP	Pn	01 22 03.6	+0.3
PB02				eS	Sn	01 22 26.4	-0.2
PB02				IAML		01 22 28.2	
	comp=N,665nm,0.1s						
PB02	IPOC Station P	1.49	261	P	Pn	01 22 03.8	+0.5
PB02				S	Sn	01 22 26.6	0.0
PB02				IAML		01 22 28.1	
	comp=N,580nm,0.2s						
PB07	IPOC Station P	1.59	246	eP	Pn	01 22 04.7	+0.3
PB07				eS	Sn	01 22 28.3	-0.3
PB07				IAML		01 22 28.8	
	comp=N,439nm,0.3s						
GO01	Chusmiza	1.63	330	⇑iP	Pn	01 22 05.2	0.0
GO01	Chusmiza	1.63	330	P	Pn	01 22 05.3	+0.1
PB03	IPOC Station P	1.65	234	eP	Pn	01 22 05.3	+0.3
PB03				eS	Sn	01 22 29.0	-0.6
PB03				IAML		01 22 29.6	
	comp=N,147nm,0.5s						
TA01	Diego Aracena	1.82	286	eP	Pn	01 22 06.5	-0.1
TA01				eS	Sn	01 22 31.8	-0.7
TA01				IAML		01 22 34.2	
	comp=E,208nm,0.2s						
PB11	IPOC Station P	1.82	316	⇑iP	Pn	01 22 06.8	-0.1
PB11				eS	Sn	01 22 32.6	-0.3
PB11				IAML		01 22 35.2	
	comp=E,286nm,0.2s						
PB11	IPOC Station P	1.82	316	P	Pn	01 22 06.8	-0.1
PB11				S	Sn	01 22 32.8	-0.1
PB11				IAML		01 22 35.0	
	comp=E,265nm,0.2s						
TA02	Huaiquique	1.88	295	eP	Pn	01 22 07.8	+0.4
PB06	IPOC Station P	1.99	216	eP	Pn	01 22 09.0	+0.2
PB06				eS	Sn	01 22 36.0	-0.4
PB06				IAML		01 22 37.0	
	comp=E,137nm,0.7s						
PB06	IPOC Station P	1.99	216	P	Pn	01 22 08.9	+0.2
PSGCX	Pisagua	2.25	311	eP	Pn	01 22 11.2	-0.5
PSGCX				eS	Sn	01 22 40.8	-0.8
PB05	IPOC Station P	2.48	224	eP	Pn	01 22 14.7	+0.2
SOEO	Opoqueri	2.54	9	P	Pn	01 22 15.9	+0.3
PB16	IPOC Station P	2.95	338	P	Pn	01 22 21.8	+1.0
PB12	IPOC Station P	3.10	322	eP	Pn	01 22 21.1	-1.0
BBOJ	La Paz, Jacaqu	4.09	2	P	Pn	01 22 36.0	+0.8
AOEA	Aiquile	4.10	46	P	Pn	01 22 34.0	-1.1
BBOD	La Paz, Gloria	4.43	357	P	Pn	01 22 41.0	+1.3
LPAZ	La Paz	4.77	2	P	Pn	01 22 45.4	+1.2
BBOB	La Paz, Bander	4.92	2	P	Pn	01 22 46.8	+0.7

ASRS 08 01:30:39.6±0.2**, 51°N**±2°×**9°8E**±°**, h8**^{km}**, MLh3.5**/8**, Error ellipse: s-maj=4.9km s-min=2.6km az=16.6, confirmed, Tuva-Buryatia-Mongolia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KNGR	Kungurtug, Tuv	0.73	198	Pg	Pn	01 30 55.8	-0.4
KNGR				Sg	Sb	01 31 04.9	+0.2
KNGR				AML	AML		
TDJR	Todzha	1.56	316	Pg	Pg	01 31 14.6	+5.1
TDJR				Sg	Sg	01 31 37.2	+7.4
TDJR				AML	AML		
MOY	Mondy	1.98	78	Pg	Pg	01 31 19.0	+1.4
MOY				Sg	Sg	01 31 45.0	+1.7
MOY				AML	AML		
KZLR	Kyzyl	2.18	282	Pg	Pg	01 31 21.3	0.0
KZLR				Sg	Sg	01 31 52.2	+2.6
KZLR				AML	AML		
ZAK	Zakamensk	3.54	103	Pg	Pg	01 31 46.0	-1.5
ZAK				Sg	Sg	01 32 30.3	-3.0
ZAK				AML	AML		
CERR	Cheremushki	4.28	294	Sg	Sg	01 32 57.6	+0.6
DJO	Djoy, Khakassi	4.37	293	Pg	Pg	01 32 04.7	+1.4
DJO				Sg	Sg	01 33 01.1	+1.2
DJO				AML	AML		
TEL	Teeli	4.84	270	Pn	Pn	01 31 58.5	+5.7
TEL				Pg	Pg	01 32 14.8	+2.5
TEL				Sg	Sg	01 33 13.2	-1.7
TEL				AML	AML		
VEH	Verkhnyaya Baz	5.04	296	Pn	Pn	01 31 59.5	+4.0
VEH				Pg	Pg	01 32 14.6	-1.5
VEH				Sg	Sg	01 33 25.3	+4.0
VEH				AML	AML		
LUZB	Luzhba, Kemero	5.98	297	Pn	Pn	01 32 11.8	+3.5
LUZB				Pg	Pg	01 32 31.0	-2.9
LUZB				Sg	Sg	01 33 52.4	+1.1
LUZB				AML	AML		
CUR	Chagan-Uzun	6.17	263	Pg	Pg	01 32 36.8	-0.9
CUR				Sg	Sg	01 33 55.3	-2.3
ULGR	Ulagan, Altay	6.30	268	Sg	Sg	01 33 55.3	-6.5
AKAR	Aktash	6.58	265	Pg	Pg	01 32 41.2	-4.2
AKAR				Sg	Sg	01 34 05.9	-4.6
CHBI	Chibit, Altay	6.65	266	Sg	Sg	01 34 10.5	-2.4
DGZ	Jazzator, Alta	6.85	261	Sg	Sg	01 34 19.8	+0.4
ELDR	Elanda	7.40	274	Sg	Sg	01 34 37.1	+0.2

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*IDC **08** 01:34:17.9±0.6, 27.°75N×53.°21E, h0^{km}, mb4.3/33, mbtmp4.3/37, ML4.1/4, Error ellipse: s-maj=15.2km s-min=10.3km az=0.0*
*TEH **08** 01:34:18.3, 27.°77N×53.°24E, h8^{km}±26^{km}, ML4.3, Presumed earthquake*
*MOS **08** 01:34:18.2±0.9, 27.°76N×53.°17E, h13^{km}, mb4.6/33, Error ellipse: s-maj=5.8km s-min=4.3km az=90.9*
*NEIC **08** 01:34:19.8±1.6, 27.°78N±0.°08×53.°21E±0.°08, h10^{km}±1^{km}, mb4.4/50, Error ellipse: s-maj=12.9km s-min=11.3km az=191.0*
*THR **08** 01:34:19.1±0.0, 27.°76N×53.°14E, h10^{km}±4^{km}, ML4.4, Presumed earthquake*
*GFZ **08** 01:34:20.0±0.3, 28°N±5°×5°3E±°, h10^{km}, M4.5/23, mb4.5/23*
*OMAN **08** 01:34:21.3±0.1, 27.°62N×53.°20E, h10^{km}, mb3.8/14, ml4.4/20, Mwp5.0/5, Error ellipse: s-maj=3.4km s-min=2.7km az=20.0*
*DSN **08** 01:34:22.1±1.1, 27.°58N×53.°22E, h10^{km}, ML3.9/17, Error ellipse: s-maj=14.1km s-min=7.1km az=4.0*
ISC 08 01:34:19.4±1.1**, 27.°76N**±0.°03×**53.°22E**±0.°03**, h9**^{km}±7^{km}**, n385,** σ**1^{s}18**/420**, mb4.4**/106**, 25C-12D, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KHL1	Khalili_Fars	0.14	148	Pg	Pg	01 34 21.3	-1.3
LMD1	Lamerd	0.42	186	ePg	Pg	01 34 27.5	-0.2
LMD1				IAML		01 34 45.1	
	comp=Z,18µm,1.0s						
LMD1	Lamerd	0.42	186	Pg	Pg	01 34 27.3	-0.3
JHRM	Jahrom	0.81	23	Pg	Pg	01 34 33.4	-1.7
DSBU	Dashti - Bushe	1.83	290	Pn	Pb	01 34 52.3	-0.7
SHI	Shiraz	1.98	342	P	Pn	01 34 54.2	+1.0
SHI	Shiraz	1.98	342	Pn	Pn	01 34 54.1	+1.0
KAZ2	Kazeron-Fars-I	2.30	324	Pn	Pn	01 34 58.5	+0.9
BNDS	Bandar-Abbas	2.65	97	ePn	Pn	01 35 04.9	+2.4
BNDS				IAML		01 36 09.3	
	comp=Z,800nm,1.0s						
GENO	Geno	2.65	97	Pn	Pn	01 35 03.7	+1.2
JRN	Qarnain Island	2.82	187	P	Pn	01 35 05.0	+0.3
	SNR=34						
SAKB	Bahrain	2.98	234	P	Pn	01 35 07.5	+0.7
SHME	Shamm	3.12	122	P	Pn	01 35 10.3	+1.6
SHME				S	Sn	01 35 45.6	-0.5
SHME	Shamm	3.12	122	P	Pn	01 35 09.7	+0.9
UMQ	Umm Al-Quwin	3.12	135	P	Pn	01 35 10.0	+1.2
UMQ				S	Sn	01 35 47.8	+1.6
BANOM	Banah	3.31	123	P	Pn	01 35 12.6	+1.2
BANOM	Banah	3.31	123	i P	Pn	01 35 12.3	+0.9
	SNR=6.2						
NAZ	Nazwa, Dubai	3.53	141	P	Pn	01 35 16.2	+1.9
	SNR=7.1						
NAZ				S	Sn	01 35 53.9	-2.3
NAZ	Nazwa, Dubai	3.53	141	i P	Pn	01 35 15.8	+1.5
	SNR=15						
MASF	Masafi	3.55	131	P	Pn	01 35 16.4	+1.6
	SNR=13						
MASF				S	Sn	01 35 56.3	-0.6
AJN	Ajban	3.56	153	P	Pn	01 35 17.5	+2.7
	SNR=7.5						
AJN				S	Sn	01 35 57.4	+0.5
AJN	Ajban	3.56	153	i P	Pn	01 35 17.1	+2.3
	SNR=7.1						
MSFE	Esma-Masafi	3.56	132	i P	Pn	01 35 16.4	+1.5
	SNR=12						
NGRK	Negar Kerman	3.62	58	Pn	Pn	01 35 16.8	+0.9
ASUD	Al Ashush, Dub	3.65	148	P	Pn	01 35 17.9	+1.8
	SNR=16						
ASUD				S	Sn	01 35 59.9	+0.6
ASUD	Al Ashush, Dub	3.65	148	i P	Pn	01 35 17.3	+1.2
	SNR=16						
FAQ	Al Faqa, Dubai	3.68	144	P	Pn	01 35 17.8	+1.3
FAQ				S	Sn	01 36 02.0	+1.9
MDH	Madha	3.69	131	P	Pn	01 35 18.5	+1.9
MDH				S	Sn	01 36 00.7	+0.4
MDH	Madha	3.69	131	P	Pn	01 35 18.0	+1.3
GHWR	Ruwais	3.79	185	P	Pn	01 35 19.1	+1.1
GHWR				S	Sn	01 36 03.8	+1.1
KRBR	Kerman	3.82	54	ePn	Pn	01 35 22.0	+3.3
KRBR				IAML		01 36 37.7	
	comp=Z,670nm,1.0s						
IMEH	Mehriz	3.82	18	Pn	Pn	01 35 19.9	+1.2
KHGB	Koh Gabri	3.87	47	Pn	Pn	01 35 20.3	+1.0
UOSS	Minazif	3.88	136	P	Pn	01 35 20.7	+1.4
UOSS				S	Sn	01 36 05.3	+0.4
UOSS	Minazif	3.88	136		Pn	01 35 18.6	-0.6
UOSS	Minazif	3.88	136	i P	Pn	01 35 19.4	+0.2
	SNR=16						
UOSS	Minazif	3.88	136	P	Pn	01 35 20.2	+1.0
SLWR	Sila	3.92	201	P	Pn	01 35 20.7	+0.9
SLWR				S	Sn	01 36 06.9	+1.0
HATD	Hatta, Dubai	3.92	137	P	Pn	01 35 21.2	+1.3
	SNR=16						
HATD				S	Sn	01 36 07.1	+1.1
HATD	Hatta, Dubai	3.92	137	i P	Pn	01 35 20.9	+1.0
	SNR=16						
KHNJ	Kahnooj	3.98	86	Pn	Pn	01 35 20.8	+0.1
ASHO	Ashiyiah	3.99	140	P	Pn	01 35 22.0	+1.2
	SNR=31						
ASHO				S	Sn	01 36 07.5	-0.1
ASHO	Ashiyiah	3.99	140	i P	Pn	01 35 21.6	+0.8
	SNR=24						
ASHO				S	Sn	01 36 06.8	-0.8
MZWR	Madinat Zayed	4.03	171	P	Pn	01 35 23.0	+1.7
MZWR				S	Sn	01 36 08.9	+0.4
IBAF	Bafgh	4.33	28	Pn	Pn	01 35 26.9	+1.3
ALNE	Al Ain	4.34	148	P	Pn	01 35 26.1	+0.5
	SNR=6.2						
ALNE				S	Sn	01 36 16.2	0.0
ALNE	Al Ain	4.34	148	i P	Pn	01 35 26.0	+0.5
	SNR=7.2						
DOBD	Dorbid, Yazd	4.37	15	Pn	Pn	01 35 27.2	+1.1
KRM1	Kerman Provinc	4.48	51	Pn	Pn	01 35 28.5	+0.8
JASK	Jask - Hormozg	4.56	113	P	Pn	01 35 29.7	+1.0
	SNR=7.8						
JASK	Jask - Hormozg	4.56	113	Pn	Pn	01 35 29.3	+0.6
SOHO	SOHO	4.69	140	P	Pn	01 35 31.2	+0.8
SOHO				S	Sn	01 36 25.3	+0.5
SOHO	SOHO	4.69	140	i P	Pn	01 35 31.0	+0.6
	SNR=22						
MZR	Muzera	4.74	177	P	Pn	01 35 31.3	+0.2
	SNR=15						
MZR	Muzera	4.74	177	i P	Pn	01 35 31.4	+0.3
	SNR=15						
YZKH	Yazd	4.77	14	ePn	Pn	01 35 33.3	+1.8
YZKH				IAML		01 36 57.6	
	comp=Z,120nm,1.0s						
KBAM	BAM	4.81	72	Pn	Pn	01 35 33.5	+1.4
NASN	Na'in	5.04	356	ePn	Pn	01 35 36.4	+1.0
NASN				IAML		01 36 58.3	
	comp=Z,100nm,1.0s						
ARQ	Araqi	5.32	145	P	Pn	01 35 39.9	+0.8
	SNR=43						
ARQ				S	Sn	01 36 38.4	-2.1
UMZA	Um Al Zommool	5.32	160	P	Pn	01 35 39.8	+0.7
UMZA				S	Sn	01 36 40.4	-0.1
HOQ	Hoqain	5.56	137	P	Pn	01 35 43.4	+0.9
HOQ				S	Sn	01 36 44.9	-1.6
GTMR	Gotvand	5.89	324	ePn	Pn	01 35 47.0	+0.1
GTMR				IAML		01 38 05.2	
	comp=Z,150nm,1.0s						
BIDO	Bidbid	6.12	132	P	Pn	01 35 50.8	+0.8
BIDO				S	Sn	01 36 58.0	-2.2
BSY	Bisya	6.16	143	P	Pn	01 35 51.6	+1.0
	SNR=47						
BSY				S	Sn	01 37 02.0	+0.8
SMDO	Samad	6.40	136	P	Pn	01 35 54.7	+0.7
	SNR=24						
SMDO				S	Sn	01 37 06.0	-1.4
KHMZ	Khomeyn	6.59	336	ePn	Pn	01 35 57.8	+1.2
KHMZ				IAML		01 37 14.8	
	comp=Z,100nm,1.0s						
BSRN	Basiran	6.63	49	ePn	Pn	01 35 59.3	+2.2
BSRN				IAML		01 38 18.7	
	comp=Z,53nm,1.0s						
WSAR	Wadi Sarin	6.65	131	P	Pn	01 35 57.7	+0.4
	SNR=19						
WSAR				S	Sn	01 37 10.6	-2.7
TABS	Tabas	6.76	29	ePn	Pn	01 36 00.1	+1.1
TABS				IAML		01 38 18.4	
	comp=Z,59nm,1.0s						
JMDO	Jabal Madar	6.96	139	P	Pn	01 36 02.1	+0.5
	SNR=14						
JMDO				S	Sn	01 37 19.1	-1.8
ASAO	Ashtian	7.30	339	ePn	Pn	01 36 07.3	+0.9
ASAO				IAML		01 37 33.8	
	comp=Z,72nm,1.0s						
WBK	Wadi Bani Khal	7.31	133	P	Pn	01 36 06.2	-0.2
	SNR=18						
NGCH	Negor - Chabah	7.49	107	P	Pn	01 36 09.1	+0.3
DAMV	Damavand	7.92	353	ePn	Pn	01 36 15.3	+0.3
DAMV				IAML		01 37 43.5	
	comp=Z,57nm,1.0s						
JLN	Jalan Bani Buh	7.92	133	P	Pn	01 36 14.8	0.0
MHTO	MHTO	8.01	146	P	Pn	01 36 16.1	0.0
	SNR=32						
RAYN	Ar Rayn	8.14	240	P	Pn	01 36 17.4	-0.4
RAYN	Ar Rayn	8.14	240	P	Pn	01 36 17.7	-0.1
RAYN	Ar Rayn	8.14	240		Pn	01 36 17.7	-0.1
RAYN	Ar Rayn	8.14	240	i P	Pn	01 36 17.5	-0.3
	SNR=40						
RAYN	Ar Rayn	8.14	240	P	Pn	01 36 17.4	-0.4
	comp=Z,21nm,0.6s						
SRVN	Saravan	8.16	90	ePn	Pn	01 36 20.8	+2.6
ILBA	Ilam Banvizeh	8.40	316	ePn	Pn	01 36 21.5	+0.1
SHRT	Shahrakht	8.46	44	ePn	Pn	01 36 24.2	+2.0
SHRO	Shahrood	8.54	15	ePn	Pn	01 36 25.0	+1.6
SNGE	Sanandaj	8.86	327	ePn	Pn	01 36 28.3	+0.4
SBZV	Sabzevar	9.38	22	ePn	Pn	01 36 37.9	+3.0
WHFO	Wadi Hawf	9.81	177	P	Pn	01 36 39.0	-1.7
	SNR=16						
DMTO	DMTO	10.12	171	P	Pn	01 36 43.7	-1.3
	SNR=10						
MRVT	Maraveh tapeh	10.16	13	ePn	Pn	01 36 47.1	+1.5
RBK	Rabkut	10.25	175	P	Pn	01 36 46.9	+0.2
ABTO	Aybut	10.36	180	P	Pn	01 36 47.2	-1.1
BJRD	Bojnurd	10.52	19	i P	Pn	01 36 51.8	+1.3
SRSL	SARDASHT	10.70	324	i P	Pn	01 36 53.5	+0.4
HAKT	HAKKARI	12.63	323	P	Pn	01 37 18.0	-1.4
	comp=Z,32nm,1.3s						
GNI	Garni	14.21	333	Pn	Pn	01 37 44.8	+3.9
	comp=Z,2.2nm,0.3s,baz=262,slow=0.1,SNR=9.5						
GNI	Garni	14.21	333	⇑eP	Pn	01 37 40.4	-0.6
GNI				pmax	pmax		
	comp=Z,6.0nm,1.2s						
GNI	Garni	14.21	333		Pn	01 37 42.5	+1.6
GURO	Guroymak-BITLI	14.25	322		Pn	01 37 38.3	-3.3
AKT	Akhty	14.41	343	eP	P	01 37 53.1	+2.5
AKT				pmax	pmax		
	comp=Z,7.0nm,0.5s						
ASF	Jabal al Asfar	14.81	291	Pn	Pn	01 37 47.6	-1.5
	comp=Z,0.8nm,0.3s,baz=83,slow=9.8,SNR=8.3						
	comp=Z,2.2nm,0.3s						
ASF				AML	AML		
ASF	Jabal al Asfar	14.81	291	P	Pn	01 37 50.6	+1.5
	comp=Z,0.3nmcomp=Z,75nm,0.7s						
ASF				AML	AML		
KBL	Kabul	15.14	60	P	Pn	01 37 56.2	+2.6
	SNR=5.9						
KBL	Kabul	15.14	60	P	Pn	01 37 55.4	+1.8
KBL				pmax	pmax		
	comp=Z,13nm,1.2s						
KBL	Kabul	15.14	60		Pn	01 37 55.4	+1.8
KBL	Kabul	15.14	60	P	Pn	01 37 56.2	+2.6
	comp=Z,9.8nm,1.2s						
HSUJ	Al Zarqa	15.38	290	P	P	01 38 03.8	+2.4
HSNJ	Maan	15.54	283	P	P	01 38 05.9	+2.7
	comp=Z,0.4nmcomp=Z,127nm,0.8s						
HSNJ				AML	AML		
QRNJ	Al-Qirein	15.94	291	P	Pn	01 38 05.3	+1.4
	comp=Z,6.1nmcomp=Z,18µmcomp=Z,2µm,0.8s						
QRNJ				AML	AML		
UJAP	Al Uja	15.96	289	P	P	01 38 09.9	+2.2
	comp=Z,0.1nmcomp=Z,36nm,0.8s						
UJAP				AML	AML		
UJAP	Al Uja	15.96	289	P	Pn	01 38 03.9	-0.2
	comp=Z,36nm,0.8s						
GEM	Giv'at Ha'Em	16.07	294	P	P	01 38 08.5	-0.5
HRFI	Mount Harif	16.08	282	P	P	01 38 11.5	+2.3
	comp=Z,0.1nmcomp=Z,29nm,1.3s						
HRFI				AML	AML		
HRFI	Mount Harif	16.08	282	P	Pn	01 38 05.8	-0.1
	comp=Z,29nm,1.3s						
PRNI	Paran	16.13	284	P	P	01 38 10.6	+0.8
	comp=Z,0.5nmcomp=Z,137nm,1.1s						
PRNI				AML	AML		
KOPT	Kop Dagi	16.13	323		P	01 38 09.0	-1.0
EIL	Elat	16.14	281	Pn	Pn	01 38 05.2	-1.3
	comp=Z,0.8nm,0.3s,baz=102,slow=6.0,SNR=12						
	comp=Z,5.1nm,0.9s						
EIL				AML	AML		
EIL	Elat	16.14	281	P	P	01 38 11.7	+1.9
	comp=Z,15nm,0.8s						
EIL	Elat	16.14	281	P	P	01 38 09.2	-0.6
	comp=Z,15nm,0.8s						
EPOS	Posof	16.18	331	P	P	01 38 12.2	+1.9
	comp=Z,12nm,1.1s						
SALP	Salfit	16.20	290	P	P	01 38 13.0	+2.5
	comp=Z,0.1nmcomp=Z,23nm,0.9s						
SALP				AML	AML		
MMAI	Mount Meron Ar	16.23	293	Pn	Pn	01 38 05.2	-2.6
	comp=Z,1.8nm,0.3s,baz=98,slow=15,SNR=6.9						
	comp=Z,2.6nm,0.5s						
MMAI				AML	AML		
GAZ	Gaziantep	16.43	309	P	P	01 38 14.3	+1.2
KZIT	Kziot	16.71	285	P	P	01 38 15.4	-0.7
	comp=Z,20nm,1.2s						
KZIT	Kziot	16.71	285	P	Pn	01 38 14.7	+0.9
	comp=Z,20nm,1.2s						
ARPR	Arapgir-MALATY	16.77	316		Pn	01 38 14.2	-0.5
ARPR				IAmb	IAmb	01 38 20.1	
	comp=Z,21nm,0.9s						
ARPR	Arapgir-MALATY	16.77	316	P	Pn	01 38 15.2	+0.5
	comp=Z,24nm,0.7s						
ANDN	Andirin	17.23	309	P	P	01 38 24.0	+2.0
	comp=Z,54nm,0.9s						
NCK	Nalchik	17.52	336	⇑eP	Pn	01 38 24.3	+0.4
NCK				pmax	pmax		
	comp=Z,4.0nm,1.0s						
NEUR	Neytrino	17.66	334	⇑eP	Pn	01 38 25.1	-0.6
NEUR				pmax	pmax		
	comp=Z,3.0nm,1.0s						
KBZ	Khabaz	17.98	335	P	P	01 38 30.4	+0.4
	comp=Z,0.2nm,0.3s,baz=154,slow=8.8,SNR=6.2						
	comp=Z,3.4nm,0.9s						
KBZ				AML	AML		
KBZ	Khabaz	17.98	335	⇓eP	Pn	01 38 29.8	+0.3
SHA1	Shidzhatmaz	18.07	335	deP	Pn	01 38 31.0	0.0
NIL	Nilore	18.19	66	P	P	01 38 33.0	+0.4
NIL				pmax	pmax		
	comp=Z,84nm,1.0s						
NIL	Nilore	18.19	66		P	01 38 33.0	+0.4
NIL	Nilore	18.19	66	P	P	01 38 33.3	+0.7
	comp=Z,101nm,1.1s						
BNN	Bunyan	18.22	312	P	P	01 38 33.2	+0.3
KIV	Kislovodsk	18.25	335	P	P	01 38 34.9	+1.7
KIV	Kislovodsk	18.25	335	eP	Pn	01 38 32.6	-0.4
KIV				pmax	pmax		
	comp=Z,9.0nm,1.0s						
KIV	Kislovodsk	18.25	335		Pn	01 38 32.2	-0.7
KIV	Kislovodsk	18.25	335	⇑P	P	01 38 35.0	+1.8
KIV	Kislovodsk	18.25	335	P	P	01 38 35.2	+2.0
	comp=Z,18nm,1.3s						
CSS	Mathiatis	18.42	298		P	01 38 33.9	-1.1
CSS				IAmb	IAmb	01 38 35.4	
	comp=Z,16nm,0.8s						
CSS	Mathiatis	18.42	298	P	P	01 38 35.1	+0.1
CSS	Mathiatis	18.42	298	P	P	01 38 34.9	-0.2
	comp=Z,20nm,0.8s						
VSLR	Vesyoloye	18.94	329	deP	Pn	01 38 43.6	+2.3
VSLR				pmax	pmax		
	comp=Z,25nm,1.0s						
BTK	Batken	19.04	45	P	P	01 38 41.3	-0.6
BTK				pmax	pmax		
	comp=Z,9.0nm,0.7s						
BTK	Batken	19.04	45	P	P	01 38 41.2	-0.6
GOF	Gofitskoye	19.08	337	ceP	P	01 38 38.4	-3.8
KIRS	Kirsehir-Merke	19.66	310	⇑P	Pn	01 38 50.7	+0.8
CHM	Chimkent	19.73	38	eP	P	01 38 49.9	+0.7
CHM	Chimkent	19.73	38	eP	P	01 38 50.0	+0.7
IUG	Iuzhnay	19.85	39	eP	P	01 38 51.4	+0.7
IUG	Iuzhnay	19.85	39	eP	P	01 38 51.5	+0.7
BR131	Keskin Array S	20.14	311	P	P	01 38 54.7	+0.8
	SNR=6.8						

BR131	Keskin Array S	20.14	311	*ce*P	P	01 38 54.1	+0.2
BR131	Keskin Array S	20.14	311	P	P	01 38 53.9	0.0
BRTR	Keskin Array B	20.14	311	P	P	01 38 54.6	+0.7
	comp=Z,2.2nm,0.5s,baz=134,slow=13,SNR=21						
	comp=Z,2.2nm,0.5s						
BRTR	Keskin Array B	20.14	311	P	P	01 38 51.6	-2.3
BRLS	Borolday	20.33	37	*e*P	P	01 38 53.8	-2.1
BRLS				pmax	pmax		
	comp=Z,11nm,1.9s						
BRLS	Borolday	20.33	37	*e*P	P	01 38 53.8	-2.1
	comp=Z,11nm,1.9s						
KKUL	Konya-Kulu	20.36	309	P	Pn	01 38 58.2	-0.1
	comp=Z,22nm,0.9s						
KEPZ	Antalya-Kepez	20.38	302	⇑P	Pn	01 38 58.2	-0.2
KK31	Karatay Array	20.75	38	P	P	01 39 00.1	-0.3
KK31				pmax	pmax		
	comp=Z,15nm,1.0s						
KK31	Karatay Array	20.75	38	P	P	01 39 00.1	-0.3
KK31				IAmb	IAmb	01 39 11.5	
	comp=Z,15nm,1.0s						
KKAR	Karatay Array	20.75	38	P	P	01 38 59.9	-0.5
KKAR	Karatay Array	20.75	38		P	01 38 59.9	-0.5
ILGA	Ilgaz	20.79	315	P	P	01 39 01.8	+0.7
DZA	Taraz	21.06	39	*e*P	P	01 39 04.3	+0.5
DZA				pmax	pmax		
	comp=Z,8.0nm,0.7s						
DZA	Taraz	21.06	39	*e*P	P	01 39 04.4	+0.5
	comp=Z,8.1nm,0.7s						
ARSB	Arslanbob	21.11	45	P	P	01 39 03.7	-0.7
ARSB				pmax	pmax		
	comp=Z,24nm,1.2s						
ARSB	Arslanbob	21.11	45		P	01 39 03.7	-0.7
ARSB				IAmb	IAmb	01 39 06.6	
	comp=Z,24nm,1.2s						
ELL	Elmali	21.61	300	P	P	01 39 09.1	-0.8
ELL				pmax	pmax		
	comp=Z,25nm,0.8s						
ELL	Elmali	21.61	300	P	P	01 39 09.1	-0.8
AKAS	Kas	21.69	299	P	P	01 39 06.6	-4.2
KSH2	Kashi	21.78	53	P	P	01 39 10.4	-1.3
KSH2				pmax	pmax		
	comp=Z,12nm,0.6s						
AB31	Akbulak array	22.08	12	P	P	01 39 14.7	0.0
AB31				IAmb	IAmb	01 39 19.8	
	comp=Z,7.9nm,0.7s						
ABKAR	Akbulak array	22.08	12	P	P	01 39 14.5	-0.1
MDUB	Mudurnu	22.13	311	P	P	01 39 15.3	-0.2
MDUB				IAmb	IAmb	01 39 43.9	
	comp=Z,20nm,1.0s						
BORA	Eskisehir	22.38	309	P	P	01 39 17.4	-0.6
BORA				IAmb	IAmb	01 39 23.5	
	comp=Z,12nm,0.9s						
TAVA	DENIZLI_Tavas	22.59	302	⇓P	P	01 39 20.8	+0.5
AAK	Ala-Archa	22.77	44	P	P	01 39 23.5	+1.2
	comp=Z,1.6nm,0.4s,baz=244,slow=13,SNR=5.2						
	comp=Z,1.6nm,0.4s						
AAK	Ala-Archa	22.77	44	⇑*e*P	P	01 39 22.9	+0.6
AAK				pmax	pmax		
	comp=Z,14nm,1.4s						
AAK	Ala-Archa	22.77	44	P	P	01 39 22.6	+0.3
AAK				IAmb	IAmb	01 39 37.3	
	comp=Z,16nm,1.4s						
AAK	Ala-Archa	22.77	44	P	P	01 39 24.3	+1.9
	comp=Z,9.7nm,0.8s						
AKTO	Aktyubinsk	22.94	8	P	P	01 39 24.6	+0.8
	comp=Z,9.4nm,0.6s,baz=180,slow=11,SNR=34						
	comp=Z,9.4nm,0.6s						
NRN	Naryn	23.11	48	P	P	01 39 24.3	-1.7
NRN				pmax	pmax		
	comp=Z,7.0nm,0.8s						
NRN	Naryn	23.11	48		P	01 39 24.2	-1.7
NRN				IAmb	IAmb	01 39 29.3	
	comp=Z,7.1nm,0.8s						
ASAI	AK-SAY(Kyrgyzs	23.21	50	P	P	01 39 27.9	+0.8
	comp=Z,16nm,1.2s						
SGDS	Sogindy	23.32	42	*e*P	P	01 39 28.7	+0.9
TNSS	Tian-Shan	24.51	45	*e*P	P	01 39 40.1	+0.5
TNSS	Tian-Shan	24.51	45	*e*P	P	01 39 40.1	+0.5
AAA	Alma-Ata	24.58	45	*e*P	P	01 39 40.7	+0.9
AAA	Alma-Ata	24.58	45	*e*P	P	01 39 40.7	+0.9
MDOK	Medeo	24.64	45	*e*P	P	01 39 41.1	+0.7
MDOK				*e*S	S	01 44 02.8	+0.8
MDOK	Medeo	24.64	45	*e*P	P	01 39 41.2	+0.7
MDOK				*e*S	S	01 44 02.9	+0.9
BELG	Belogornoye	24.96	352	P	P	01 39 42.8	-0.2
	comp=Z,8.8nm,0.5s,baz=301,slow=1.2,SNR=10						
	comp=Z,8.8nm,0.5s						
BELG	Belogornoye	24.96	352	*de*P	P	01 39 42.4	-0.6
BELG				pmax	pmax		
	comp=Z,2.0nm,0.7s						
VRH	Novokhopyorsk	24.98	343	*e*P	P	01 39 43.3	+0.1
VRH				pmax	pmax		
	comp=Z,22nm,1.0s						
IDI	Anoyia	25.23	294	P	P	01 39 46.9	+1.2
	comp=Z,36nm,0.7s,baz=82,slow=9.9,SNR=40						
	comp=Z,36nm,0.7s						
IDI	Anoyia	25.23	294		P	01 39 44.3	-1.4
SATY	Saty	25.45	47	*e*P	P	01 39 48.5	+0.7
SATY				pmax	pmax		
	comp=Z,6.0nm,1.2s						
SATY	Saty	25.45	47	*e*P	P	01 39 48.5	+0.7
	comp=Z,6.2nm,1.2s						
VORD	Divnogorie	25.47	339	*e*P	P	01 39 46.0	-1.6
VORD				pmax	pmax		
	comp=Z,20nm,0.9s						
VSR	Storozhevoye	25.73	339	*e*P	P	01 39 49.8	-0.1
VSR				pmax	pmax		
	comp=Z,17nm,1.0s						
JURR	Jurilovca	25.80	318	⇑P	P	01 39 52.0	+1.3
KPKS	Kokpek	25.83	46	*e*P	P	01 39 51.7	+0.6
KPKS	Kokpek	25.83	46	*e*P	P	01 39 51.8	+0.6
ALN	Alexandroupoli	25.86	307	P	P	01 39 51.1	-0.2
ALN				pmax	pmax		
	comp=Z,12nm,0.8s						
ALN	Alexandroupoli	25.86	307		P	01 39 51.1	-0.2
ALN				IAmb	IAmb	01 39 54.4	
	comp=Z,12nm,0.8s						
ALN	Alexandroupoli	25.86	307	P	P	01 39 53.6	+2.2
	comp=Z,18nm,0.8s						
UZB	Uzynbulak	25.89	47	*e*P	P	01 39 52.5	+0.7
UZB				pmax	pmax		
	comp=Z,5.0nm,1.1s						
UZB	Uzynbulak	25.89	47	*e*P	P	01 39 52.5	+0.7
	comp=Z,4.9nm,1.1s						
VORR	Voronezh	26.11	340	*e*P	P	01 39 52.6	-0.8
VORR				pmax	pmax		
	comp=Z,21nm,1.0s						
TPGR	Topolog	26.12	317	⇑P	P	01 39 54.3	+0.6
SHLS	Shalkode	26.18	47	*e*P	P	01 39 57.7	+3.4
SHLS				pmax	pmax		
	comp=Z,13nm,1.6s						
SHLS	Shalkode	26.18	47	*e*P	P	01 39 57.8	+3.4
	comp=Z,13nm,1.6s						
PURM	Purcari	26.24	322	⇑P	P	01 39 56.4	+1.7
PDGK	Podgornoye	26.28	47	P	P	01 39 55.3	0.0
PDGK	Podgornoye	26.28	47	P	P	01 39 55.2	0.0
TDK	Taldyqorghan	26.44	43	*e*P	P	01 39 57.4	+0.9
TDK				pmax	pmax		
	comp=Z,6.0nm,0.6s						
TDK	Taldyqorghan	26.44	43	*e*P	P	01 39 57.4	+0.9
	comp=Z,5.6nm,0.6s						
CFR	Carcaliu	26.46	318	⇓P	P	01 40 00.1	+3.4
LOZB	Loznitsa	26.52	313	⇑P	P	01 39 59.2	+1.9
LPSR	Galich'ya Gora	27.01	341	P	P	01 40 01.2	-0.3
LPSR				pmax	pmax		
	comp=Z,17nm,0.9s						
SRS	Serrai	27.68	306	P	P	01 40 08.0	+0.3
SRS	Serrai	27.68	306	P	P	01 40 09.0	+1.2
	comp=Z,6.2nm,0.8s						
PLOR	Plostina	27.70	318	⇓P	P	01 40 09.1	+1.2
SOH	Sokhos	27.75	306	P	P	01 40 09.9	+1.5
SOH	Sokhos	27.75	306	P	P	01 40 09.9	+1.5
	comp=Z,7.5nm,0.8s						
ITM	Ithomi	27.91	298	P	P	01 40 09.5	-0.4
ITM				IAmb	IAmb	01 40 21.2	
	comp=Z,8.0nm,0.9s						
COVR	Voineasa-Covas	27.97	317	⇓P	P	01 40 11.4	+1.1
SORM	Soroca	28.04	323	⇑P	P	01 40 09.6	-1.3
BORK	Borovoye	28.27	22	⇑*e*P	P	01 40 12.7	-0.2
BORK				pmax	pmax		
	comp=Z,5.0nm,0.6s						
BVAR	Borovoye Array	28.28	22	P	P	01 40 13.1	+0.2
	comp=Z,3.7nm,0.6s,baz=186,slow=6.0,SNR=8.7						
BVAR				PcP	PcP	01 43 25.6	-0.3
	comp=Z,1.7nm,0.7s,baz=225,slow=0.6,SNR=4.4						
BVAR				ScP	ScP	01 47 05.7	-1.5
	comp=Z,0.6nm,0.5s,baz=235,slow=4.7,SNR=3.9						
	comp=Z,3.7nm,0.6s						
VOIR		28.47	316	⇑P	P	01 40 16.3	+1.5
VOIR		28.47	316	P	P	01 40 15.4	+0.5
	comp=Z,4.5nm,0.8s						
ARTI	Arti	28.85	6	P	P	01 40 31.6	+14
LKD2	Lefkada island	29.21	300	P	P	01 40 21.3	-0.1
	comp=Z,20nm,0.7s						
AKASG	Malin Array Be	29.26	328	P	P	01 40 21.0	-0.6
	comp=Z,1.4nm,0.4s,baz=134,slow=7.7,SNR=14						
	comp=Z,1.4nm,0.4s						
AKASG	Malin Array Be	29.26	328	P	P	01 40 20.7	-1.0
AKBB	Malin Array Si	29.26	328	⇑*e*P	P	01 40 20.6	-1.0
AKBB	Malin Array Si	29.26	328		P	01 40 21.1	-0.5
KIEV	Kiev	29.26	328	P	P	01 40 20.9	-0.8
KIEV				pmax	pmax		
	comp=Z,9.0nm,0.5s						
KIEV	Kiev	29.26	328	P	P	01 40 20.9	-0.8
KIEV	Kiev	29.26	328	P	P	01 40 20.8	-0.9
	comp=Z,14nm,0.5s						
BURAR	Bucovina Array	29.48	320	⇑P	P	01 40 24.8	+1.1
BUR08	Bucovina Ar. S	29.50	320		P	01 40 22.5	-1.5
MAKZ	Makanchi	29.50	42	P	P	01 40 23.4	-0.5
MAKZ				pmax	pmax		
	comp=Z,7.0nm,1.4s						
MAKZ	Makanchi	29.50	42	P	P	01 40 23.4	-0.5
MAKZ				IAmb	IAmb	01 40 25.2	
	comp=Z,7.0nm,1.4s						
MK31	Makanchi Array	29.68	42	*c i*P	P	01 40 25.6	+0.1
MKAR	Makanchi Array	29.68	42	P	P	01 40 25.7	+0.1
	comp=Z,0.8nm,0.5s,baz=229,slow=9.4,SNR=10						
MKAR				PcP	PcP	01 43 28.7	-0.9
	comp=Z,0.7nm,0.6s,baz=233,slow=3.2,SNR=3.8						
	comp=Z,0.8nm,0.5s						
MKAR	Makanchi Array	29.68	42	P	P	01 40 23.7	-1.8
MKAR					PcP	01 43 29.4	-0.3
KURBB	Kurchatov Arra	29.84	33	P	P	01 40 27.3	+0.5
	comp=Z,1.2nm,0.6s,baz=234,slow=8.9,SNR=9.3						
	comp=Z,1.2nm,0.6s						
GZR	Gura Zlata	29.87	314	⇓P	P	01 40 29.6	+2.3
KURK	Kurchatov	29.94	33	⇑*e*P	P	01 40 27.9	+0.2
KURK				pmax	pmax		
	comp=Z,3.0nm,1.1s						
KURK	Kurchatov	29.94	33	P	P	01 40 26.8	-0.9
MARR	Marisel-Cluj	30.24	317	⇑P	P	01 40 30.2	-0.4
DRGR		30.54	317	P	P	01 40 34.2	+1.0
DRGR		30.54	317	⇑P	P	01 40 33.8	+0.6
DRGR		30.54	317	P	P	01 40 34.2	+1.0
	comp=Z,4.3nm,1.0s						
SEM	Semipalatinsk	30.56	35	*e*P	P	01 40 34.2	+0.8
SEM	Semipalatinsk	30.56	35	*e*P	P	01 40 34.2	+0.8
KIRV	Kirov	30.93	356	P	P	01 40 37.0	+0.7
	comp=Z,11nm,0.5s,baz=200,slow=6.3,SNR=7.2						
	comp=Z,11nm,0.5s						
KIRV	Kirov	30.93	356	⇓*e*P	P	01 40 37.3	+1.0
ZSN	Zaisan	31.54	43	*e*P	P	01 40 42.8	+0.9
ZSN				pmax	pmax		
	comp=Z,3.0nm,1.4s						
ZSN	Zaisan	31.54	43	*e*P	P	01 40 42.9	+0.9
	comp=Z,3.2nm,1.4s						
KOLS	Kolonicke sedl	31.84	320	P	P	01 40 46.1	+1.6
KOLS	Kolonicke sedl	31.84	320	P	P	01 40 46.1	+1.6
	comp=Z,8.6nm,0.7s						
WMQ	Urumqi	31.96	51	*e*P	P	01 40 47.6	+1.9
WMQ				pmax	pmax		
	comp=Z,17nm,1.1s						
MNK	Minsk	32.49	332	*i* P	P	01 40 49.2	-0.9
MNK				*i*		01 41 56.6	
MNK				*i* S	S	01 46 04.0	-0.9
MNK				*i* SS	SnSn	01 47 59.3	+1.3
MNK				pmax	pmax		
	comp=E,9.0nm,1.0s						
MNK				pmax	pmax		
	comp=N,9.0nm,0.9s						
MNK				pmax	pmax		
	comp=Z,6.0nm,0.6s						
MNK	Minsk	32.49	332	*i* P	P	01 40 49.2	-0.9
	comp=E,9.0nm,1.0s						
MNK				*i* P	P	01 40 49.2	-0.9
	comp=N,9.0nm,0.9s						
MNK				*i* P	P	01 40 49.2	-0.9
	comp=Z,6.0nm,0.6s,baz=135						
MNK				*i* PP	PnPn	01 41 56.6	-0.5
MNK				*i* PPP	PPP	01 42 06.5	
MNK				*i* S	S	01 46 04.0	-0.9
MNK				*i* SS	SnSn	01 47 59.4	+1.3
MNK				*i* SSS	SSS	01 48 14.6	
MNK				*i* LQ	LQ	01 51 32.3	
MNK				*i* LR	LR	01 54 00.7	
MORH	Mrgy, Hungar	32.85	313	⇓P	P	01 40 53.3	0.0
MARCO	Tramutola	33.19	302	P	P	01 40 55.9	-0.7
	comp=Z,12nm,1.1s						
OJC	Ojcow	33.88	321	P	P	01 41 03.1	+0.8
OJC	Ojcow	33.88	321	P	P	01 41 03.1	+0.8
OJC	Ojcow	33.88	321	P	P	01 41 02.8	+0.5
	comp=Z,7.6nm,1.0s						
MPLH	Magyarpolny	33.91	315	P	P	01 41 03.2	+0.6
	comp=Z,6.0nm,1.2s						
KLMR	Klimovskoe	34.36	348	*e*P	P	01 41 04.5	-1.8
KLMR				pmax	pmax		
	comp=Z,14nm,1.4s						
PABE	Paberze	34.82	331		P	01 41 10.0	-0.3
ZAA0	Zalesovo Array	34.93	33	P	P	01 41 11.1	-0.3
ZAA0				IAmb	IAmb	01 41 15.9	
	comp=Z,3.4nm,0.8s						
ZALV	Zalesovo Beam	34.93	33	P	P	01 41 11.4	+0.1
	comp=Z,1.6nm,0.4s,baz=239,slow=9.3,SNR=10						
	comp=Z,1.6nm,0.4s						
ZALV	Zalesovo Beam	34.93	33	*i* P	P	01 41 11.3	-0.1
ZALV				pmax	pmax		
	comp=Z,2.0nm,0.4s						
ZALV	Zalesovo Beam	34.93	33	P	P	01 41 10.8	-0.5
MORC	Moravsky Berou	34.97	319	P	P	01 41 10.4	-1.4
MORC				pmax	pmax		
	comp=Z,8.0nm,1.4s						
MORC	Moravsky Berou	34.97	319	P	P	01 41 10.4	-1.4
MORC				IAmb	IAmb	01 41 50.6	
	comp=Z,7.5nm,1.4s						
VRAC	Vranov	35.33	318	P	P	01 41 14.5	-0.4
	comp=Z,1.0nm,0.3s,baz=143,slow=9.6,SNR=3.4						
	comp=Z,1.0nm,0.3s						
MOA	Molln	36.23	314	*e*P	P	01 41 22.5	-0.1
	comp=Z,6.4nm,1.5s						
KBA	Koelnbreinsper	36.58	313	P	P	01 41 28.2	+2.4
KBA	Koelnbreinsper	36.58	313	*e*P	P	01 41 25.2	-0.6
	comp=Z,0.5nm,0.3s						
KBA	Koelnbreinsper	36.58	313	P	P	01 41 28.2	+2.4
	comp=Z,9.8nm,1.1s						
BIOA	Bad Ischl, Aus	36.58	314	*e*P	P	01 41 25.5	-0.1
	comp=Z,1.7nm,0.5s						
GERES	GERESS Array B	36.92	316	P	P	01 41 28.7	+0.1
	comp=Z,0.6nm,0.4s,baz=340,slow=23,SNR=5.3						
	comp=Z,0.6nm,0.4s						
GERES	GERESS Array B	36.92	316	P	P	01 41 27.5	-1.1
ABTA	Abfaltersbach	37.03	312	*e*P	P	01 41 29.3	-0.3
	comp=Z,1.4nm,0.8s						
KHC	Kasperske Hory	37.10	316	⇓*e*P	P	01 41 29.3	-0.8
KHC				pmax	pmax		
	comp=Z,5.0nm,1.5s						
LESA	Schwarzleotal	37.11	313	*e*P	P	01 41 30.0	-0.3
	comp=Z,2.3nm,0.6s						
WTTA	Wattenberg	37.75	312	P	P	01 41 35.5	-0.2
WTTA	Wattenberg	37.75	312	*e*P	P	01 41 35.3	-0.5
	comp=Z,5.5nm,0.8s						
WTTA	Wattenberg	37.75	312	P	P	01 41 35.5	-0.2
	comp=Z,11nm,0.9s						
WATA	Walderalm	37.80	313	*e*P	P	01 41 35.9	-0.3
	comp=Z,4.1nm,0.7s						
KEST	Kesra	37.89	293	P	P	01 41 36.9	-0.2
	comp=Z,4.7nm,0.8s,baz=61,slow=3.8,SNR=8.0						
	comp=Z,4.7nm,0.8s						
KEST	Kesra	37.89	293	P	P	01 41 36.4	-0.6
KEST				IAmb	IAmb	01 41 41.9	
	comp=Z,12nm,1.1s						
SQTA	Sankt Quirin	38.01	312	*e*P	P	01 41 37.6	-0.4
	comp=Z,4.7nm,0.5s						
MOTA	Moosalm	38.12	312	*e*P	P	01 41 38.2	-0.6
	comp=Z,4.6nm,1.0s						
FINES	FINESS Array B	38.26	339	P	P	01 41 39.2	-0.3
	comp=Z,2.6nm,0.3s,baz=144,slow=9.7,SNR=43						
	comp=Z,2.6nm,0.3s						
FETA	Feichten	38.28	312	*e*P	P	01 41 39.7	-0.5
	comp=Z,3.3nm,0.8s						
RETA	Reutte	38.38	312	*e*P	P	01 41 40.5	-0.4
	comp=Z,3.8nm,0.7s						
DAVOX	Davos/Dischmat	38.78	311	P	P	01 41 44.0	-0.5
	comp=Z,1.6nm,0.4s,baz=320,slow=22,SNR=5.6						
	comp=Z,1.6nm,0.4s						
DAVOX	Davos/Dischmat	38.78	311	P	P	01 41 44.0	-0.5
DAVA	Damuels	38.91	312	*e*P	P	01 41 44.7	-0.8
	comp=Z,6.3nm,0.5s						
GTA2	Gaotai	40.08	61	P	P	01 41 56.3	+0.9
GTA2				pP	pP	01 41 59.5	+1.0
GTA2				pmax	pmax		
	comp=Z,23nm,1.0s						
HFS	Hagfors	41.99	332	P	P	01 42 10.1	-0.6
	comp=Z,2.3nm,0.3s,baz=115,slow=10.0,SNR=22						
	comp=Z,2.3nm,0.3s						
CHTO	Chiang Mai	42.74	92	P	P	01 42 17.0	-0.3
CHTO				pmax	pmax		
	comp=Z,10.0nm,0.8s						
CHTO	Chiang Mai	42.74	92	P	P	01 42 16.9	-0.3
CHTO				IAmb	IAmb	01 42 19.7	
	comp=Z,9.9nm,0.8s						
CMAR	Chiang Mai Arr	42.86	92	P	P	01 42 19.2	+0.9
	comp=Z,3.9nm,0.8s,baz=284,slow=9.8,SNR=22						
	comp=Z,3.9nm,0.8s						
CMAR	Chiang Mai Arr	42.86	92	P	P	01 42 18.0	-0.3
PZH	PanZhiHua	42.98	80	P	P	01 42 20.4	+1.1
TAM	Tamanrasset	43.20	274	P	P	01 42 21.6	+0.5
TAM				pmax	pmax		
	comp=Z,33nm,0.3s						
TAM	Tamanrasset	43.20	274	P	P	01 42 21.6	+0.5
LZDM	Lanzhou Array	43.25	66	P	P	01 42 21.0	-0.6
	comp=Z,3.0nm,0.4s,baz=256,slow=10,SNR=4.1						
	comp=Z,3.0nm,0.4s						
LZH	Lanzhou	43.36	66	*e*P	P	01 42 23.7	+1.4
LZH				pP	sP	01 42 32.2	+5.5
LZH				pmax	pmax		
	comp=Z,42nm,1.3s						
NB2	NORSAR Subarra	43.51	332	P	P	01 42 21.8	-1.2
	comp=Z,0.9nm,0.5s,baz=121,slow=8.6						
NOA	NORSAR Array B	43.51	332	P	P	01 42 22.0	-1.0
	comp=Z,1.4nm,0.6s,baz=127,slow=9.0,SNR=6.7						
	comp=Z,1.4nm,0.6s						
NOA	NORSAR Array B	43.51	332	P	P	01 42 22.0	-1.0
ARCES	ARCESS Array B	44.80	347	P	P	01 42 32.8	-0.4
	comp=Z,0.9nm,0.4s,baz=149,slow=8.5,SNR=18						
	comp=Z,0.9nm,0.4s						
ARCES	ARCESS Array B	44.80	347	P	P	01 42 33.0	-0.2
ARCES				pmax	pmax		
	comp=Z,14nm,1.5s						
ARCES	ARCESS Array B	44.80	347	P	P	01 42 33.0	-0.2
ARCES				IAmb	IAmb	01 43 07.4	
	comp=Z,14nm,1.5s						
SONM	Songino Array	45.56	49	P	P	01 42 40.2	+0.5
	comp=Z,3.8nm,0.8s,baz=269,slow=8.5,SNR=16						
	comp=Z,3.8nm,0.8s						
SONM	Songino Array	45.56	49	P	P	01 42 39.9	+0.2
SONM				IAmb	IAmb	01 42 41.7	
	comp=Z,3.5nm,0.9s						
ULN	Ulaanbaatar	46.00	49	*ce*P	P	01 42 43.4	+0.2
ULN				pmax	pmax		
	comp=Z,4.0nm,0.6s						
ULN	Ulaanbaatar	46.00	49	P	P	01 42 43.1	-0.1
ULN				IAmb	IAmb	01 42 44.9	
	comp=Z,5.3nm,0.9s						
ESDC	Sonseca Array	48.29	300	P	P	01 43 00.9	-0.2
	comp=Z,2.6nm,1.0s,baz=61,slow=7.7,SNR=23						
	comp=Z,2.6nm,1.0s						
ESDC	Sonseca Array	48.29	300	P	P	01 43 00.0	-1.1
PAB	San Pablo	48.60	300	P	P	01 43 03.3	-0.2
PAB				pmax	pmax		
	comp=Z,5.0nm,0.8s						
PAB	San Pablo	48.60	300	P	P	01 43 03.3	-0.2
PAB				IAmb	IAmb	01 43 04.2	
	comp=Z,4.8nm,0.8s						
EKA	Eskdalemuir Ar	48.65	321	P	P	01 43 02.2	-1.3
	comp=Z,0.9nm,0.4s,baz=102,slow=8.1,SNR=9.6						
	comp=Z,0.9nm,0.4s						
HHC	Hu-ho-hao-te	49.11	59	*e*P	P	01 43 08.6	+1.2
HHC				pmax	pmax		
	comp=Z,8.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,150nm,5.9s						
MD01	Midelt array s	49.78	291	P	P	01 43 13.3	+0.6
MD31	MD31	49.78	291	P	P	01 43 13.0	+0.4
MD31				IAmb	IAmb	01 43 16.0	
	comp=Z,3.2nm,0.8s						
TORD	Torodi Ar. Bea	50.07	264	P	P	01 43 14.1	-0.8
	comp=Z,6.1nm,0.7s,baz=63,slow=7.5,SNR=22						
	comp=Z,6.1nm,0.7s						
PBRG	Braganca	50.25	303	*e*P	P	01 43 15.5	-0.5
PBRG				*i* IAmb	IAmb	01 43 36.3	
	comp=Z,24nm,1.8s						
PBAR	Barrancos	50.82	298	*e*P	P	01 43 20.1	-0.2
PBAR				*i* IAmb	IAmb	01 43 39.1	
	comp=Z,14nm,1.3s						
PMRV	Marv??o	50.95	300	*e*P	P	01 43 20.8	-0.6
PMRV				*i* IAmb	IAmb	01 43 43.2	
	comp=Z,17nm,1.8s						
MTE	Manteigas	50.97	301	*e*P	P	01 43 21.5	-0.1
PCBR	Castelo Branco	50.98	300	*e*P	P	01 43 21.1	-0.3
PCBR				*i* IAmb	IAmb	01 43 44.2	
	comp=Z,21nm,1.7s						
PVRL	Vila Real	51.02	302	*e*P	P	01 43 22.4	+0.5
PVRL				*i* IAmb	IAmb	01 43 49.1	
	comp=Z,30nm,1.5s						
POLO	Lamas de Olo	51.07	302	*e*P	P	01 43 22.9	+0.5
PVIS	Viseu	51.21	301	*e*P	P	01 43 23.7	+0.4
PGAV	Gavieira, Arco	51.38	303	*e*P	P	01 43 24.9	+0.3
PBEJ	Beja	51.49	298	*e*P	P	01 43 25.7	+0.3
PBEJ				*i* IAmb	IAmb	01 43 41.6	
	comp=Z,19nm,2.2s						
PSARD	Sardoal	51.53	300	*e*P	P	01 43 25.7	+0.1
PSARD				*i* IAmb	IAmb	01 44 01.1	
	comp=Z,25nm,1.7s						
EVO	Evora	51.54	299	*e*P	P	01 43 25.7	-0.1
EVO				*i* IAmb	IAmb	01 43 44.8	
	comp=Z,18nm,1.8s						
PMTG	Montargil	51.64	299	*e*P	P	01 43 27.2	+0.7
PMTG				*i* IAmb	IAmb	01 43 35.2	
	comp=Z,21nm,1.7s						
PCAS	Casmilo, Conde	51.73	301	*e*P	P	01 43 27.5	+0.3
PCAS				*i* IAmb	IAmb	01 43 54.8	
	comp=Z,35nm,1.8s						
MESJ	Messejana	51.79	298	*e*P	P	01 43 27.2	-0.5
PLOUS	Minas do Lousa	51.92	298	*e*P	P	01 43 28.7	+0.1
SPITS	Spitsbergen Ar	53.16	351	P	P	01 43 36.7	-0.5
	comp=Z,3.4nm,0.7s,baz=131,slow=10,SNR=7.3						
	comp=Z,3.4nm,0.7s						
DBIC	Dimbokro	58.73	260	P	P	01 44 18.0	0.0
	comp=Z,11nm,0.7s,baz=54,slow=6.4,SNR=12						
	comp=Z,11nm,0.7s						
DBIC	Dimbokro	58.73	260	P	P	01 44 17.2	-0.8
LBTB	Lobatse	58.83	209	P	P	01 44 19.4	+0.9
LBTB				pmax	pmax		
	comp=Z,7.0nm,1.3s						
LBTB	Lobatse	58.83	209	P	P	01 44 19.4	+0.9
LBTB				IAmb	IAmb	01 44 44.1	
	comp=Z,7.4nm,1.3s						
MAKGR	Makgori	59.87	210	P	P	01 44 26.4	+0.7
MAKGR				IAmb	IAmb	01 44 26.5	
	comp=Z,7.7nm,1.3s						
LKGWB	Lokgwabe	60.10	214	P	P	01 44 26.1	-1.1
BOSA	Boshof	62.13	208	P	P	01 44 42.0	+1.0
	comp=Z,1.6nm,0.8s,baz=51,slow=14,SNR=3.1						
	comp=Z,1.6nm,0.8s						
BOSA	Boshof	62.13	208	P	P	01 44 42.0	+1.0
BOSA	Boshof	62.13	208	P	P	01 44 41.1	+0.1
KSRS	Korea Array	62.19	60	P	P	01 44 40.0	-1.3
	comp=Z,1.6nm,0.7s,baz=303,slow=7.3,SNR=4.5						
	comp=Z,1.6nm,0.7s						
KLR	Kul'dur	62.27	47	P	P	01 44 41.3	-0.4
	comp=Z,3.3nm,0.8s,baz=279,slow=7.7,SNR=8.1						
	comp=Z,3.3nm,0.8s						
KLR	Kul'dur	62.27	47	*e*P	P	01 44 40.7	-1.0
KLR				pmax	pmax		
	comp=Z,1.0nm,1.1s						
SUMG	Summit	64.28	340	P	P	01 44 55.2	+0.1
SUMG				pmax	pmax		
	comp=Z,8.0nm,1.2s						
SUMG	Summit	64.28	340	P	P	01 44 55.2	+0.1
SEY	Seymchan	69.67	29	⇑*e*P	P	01 45 28.4	-0.6
SEY				pmax	pmax		
	comp=Z,3.0nm,0.9s						
YSS	Yuzhno-Sakhali	69.98	47	⇑*e*P	P	01 45 31.1	-0.1
YSS				pmax	pmax		
	comp=Z,15nm,0.9s						
G19K	Purcell Mounta	83.57	12	P	P	01 46 47.0	-0.6
FITZ	Fitzroy Crossi	83.60	114	P	P	01 46 48.2	-0.3

G27K	Doyon Strip	85.06	6	P	P	01 46 55.7	+0.5
G27K				IAmb	IAmb	01 47 19.6	
	comp=Z,3.4nm,1.4s						
ILAR	Eielson Array	86.45	8	P	P	01 47 01.8	-0.3
	comp=Z,0.7nm,0.7s,baz=314,slow=4.4,SNR=8.0						
	comp=Z,0.7nm,0.7s						
ILAR	Eielson Array	86.45	8	P	P	01 47 01.4	-0.7
WRA	Warramunga Arr	91.63	112	P	P	01 47 27.2	-0.1
	comp=Z,0.6nm,0.8s,baz=306,slow=4.9,SNR=4.6						
	comp=Z,0.6nm,0.8s						
WRA	Warramunga Arr	91.63	112	P	P	01 47 25.8	-1.6
ASAR	Alice Springs	93.06	115	P	P	01 47 32.7	-1.2
	comp=Z,0.7nm,0.8s,baz=296,slow=5.2,SNR=6.9						
	comp=Z,0.7nm,0.8s						
ASAR	Alice Springs	93.06	115	P	P	01 47 32.5	-1.4
VNDA	Vanda	120.92	166	PKP	PKiKP	01 53 11.6	+0.3
	comp=Z,1.0nm,0.9s,baz=227,slow=2.1,SNR=5.7						
VNDA	Vanda	120.92	166		PKPdf	01 53 09.9	-1.3

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*MEX **08** 01:40:00.7±0.6, 19°.67N×92°.45W, h10^{km}, MD4.5,
Presumed earthquake*

*NEIC **08** 01:40:00.1±1.8, 19°.47N±0°.05×92°.41W±0°.05, h10^{km}±2^{km},
mb4.2/72, Md4.5/49(MEX), Error ellipse: s-maj=9.3km
s-min=8.0km az=3.0*

ISC 08 01:39:59.2±0.6**, 19°.57N**±0°.04×**92°.44W**±0°.04**, h10**^{km}**, n146,
σ2**^{s}**.00**/189**, mb4.3**/20**, Bay of Campeche**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SCIG	Sabancuy	1.33	117	*e*P	Pn	01 40 21.6	-2.2
SCIG				*e*S	Sb	01 40 39.6	-1.7
SCIG	Sabancuy	1.33	117		Pn	01 40 21.6	-2.2
SCIG					Sb	01 40 39.6	-1.7
UXUV	UXUV	2.77	216	*e*P	Pn	01 40 44.2	+0.6
UXUV				*e*S	Sn	01 41 15.4	-1.6
UXUV	UXUV	2.77	216		Pn	01 40 44.2	+0.6
UXUV					Sn	01 41 15.4	-1.6
TGIG		2.85	193	*e*P	Pn	01 40 45.0	+0.2
TGIG				*e*S	Sn	01 41 18.8	-0.5
TGIG		2.85	193		Pn	01 40 45.0	+0.2
TGIG					Sn	01 41 18.8	-0.5
CMIG	Matias Romero	3.39	224	*e*P	Pn	01 40 52.0	-0.2
CMIG				*e*S	Sn	01 41 31.6	-0.9
CMIG	Matias Romero	3.39	224		Pn	01 40 52.0	-0.2
CMIG					Sn	01 41 31.6	-0.9
NEUV	Arroyo Zacate	3.69	240	*e*P	Pn	01 40 55.6	-0.6
NEUV				*e*S	Sn	01 41 38.1	-1.7
NEUV	Arroyo Zacate	3.69	240		Pn	01 40 55.6	-0.6
NEUV					Sn	01 41 38.1	-1.7
TEIG	Tepich	3.97	80	*e*P	Pn	01 40 59.6	-0.6
TEIG				*e*S	Sn	01 41 44.7	-2.1
TEIG	Tepich	3.97	80		Pn	01 40 60.0	-0.2
TEIG	Tepich	3.97	80		Sn	01 41 44.7	-2.1
JAUV	Jalcomulco	4.12	268	*e*P	Pn	01 41 01.4	-0.9
JAUV				*e*S	Sn	01 41 49.1	-1.5
JAUV	Jalcomulco	4.12	268		Pn	01 41 01.4	-0.9
JAUV					Sn	01 41 49.1	-1.5
HUEH	Huehuetenango	4.32	168	*e*P	Pn	01 41 05.8	+0.6
HUEH				*e*S	Sn	01 41 53.9	-1.9
HUEH	Huehuetenango	4.32	168		Pn	01 41 04.8	-0.5
HUEH	Huehuetenango	4.32	168		Sn	01 41 53.9	-1.9
PAVE	Pavencul	4.36	177	*e*P	Pn	01 41 05.3	-0.4
PAVE				*e*S	Sn	01 41 54.1	-2.7
PAVE	Pavencul	4.36	177		Pn	01 41 05.3	-0.4
PAVE					Sn	01 41 54.1	-2.7
PATR	El Naranjo	4.43	177	*e*P	Pn	01 41 06.6	-0.2
PATR				*e*S	Sn	01 41 58.0	-0.6
PATR	El Naranjo	4.43	177		Pn	01 41 06.6	-0.2
PATR					Sn	01 41 58.0	-0.6
CHUJ	Union Juarez	4.46	176	*e*P	Pn	01 41 06.9	-0.3
CHUJ				*e*S	Sn	01 41 57.3	-2.0
TOIG	Toxpalan	4.62	252	*e*P	Pn	01 41 12.0	+2.8
TOIG				*e*S	Sn	01 42 04.3	+1.3
TOIG	Toxpalan	4.62	252		Pn	01 41 12.0	+2.8
TOIG					Sn	01 42 04.3	+1.3
OXIG	Oaxaca	4.78	239		Pn	01 41 12.4	+0.9
OXIG					Sn	01 42 05.0	-2.0
VHO	Vista Hermosa	4.78	239	*e*P	Pn	01 41 12.4	+0.9
VHO				*e*S	Sn	01 42 05.0	-2.0
CXUV	Coxquihui	4.88	278	*e*P	Pn	01 41 11.8	-1.0
CXUV				*e*S	Sn	01 42 08.2	-1.3
CXUV	Coxquihui	4.88	278		Pn	01 41 11.8	-1.0
CXUV					Sn	01 42 08.2	-1.3
RTAL	Retalhuleu	5.07	172	*e*P	Pn	01 41 14.7	-0.6
RTAL				*e*S	Sn	01 42 15.7	+1.8
RTAL	Retalhuleu	5.07	172	Pn	Pn	01 41 14.7	-0.6
HUIG	Huatulco	5.15	223	*e*P	Pn	01 41 15.1	-1.3
HUIG				*e*S	Sn	01 42 14.1	-1.9
HUIG	Huatulco	5.15	223		Pn	01 41 15.1	-1.3
HUIG					Sn	01 42 14.1	-1.9
HLIG	Huajuapan de L	5.37	252	*e*P	Pn	01 41 18.9	-0.7
HLIG				*e*S	Sn	01 42 23.4	+1.7
HLIG	Huajuapan de L	5.37	252		Pn	01 41 18.9	-0.7
HLIG					Sn	01 42 23.4	+1.7
YOIG	Yosondua	5.55	242	*e*P	Pn	01 41 24.0	+1.8
YOIG				*e*S	Sn	01 42 23.0	-3.3
YOIG	Yosondua	5.55	242		Pn	01 41 24.0	+1.8
YOIG					Sn	01 42 23.0	-3.3
TXIG	Tlaxiaco	5.56	246	*e*P	Pn	01 41 23.7	+1.4
TXIG				*e*S	Sn	01 42 23.6	-2.8
TXIG	Tlaxiaco	5.56	246		Pn	01 41 23.7	+1.4
TXIG					Sn	01 42 23.6	-2.8
FTIG	Fresnillo de T	5.64	254	*e*P	Pn	01 41 25.0	+1.7
FTIG				*e*S	Sn	01 42 30.2	+1.9
FTIG	Fresnillo de T	5.64	254		Pn	01 41 25.0	+1.7
FTIG					Sn	01 42 30.2	+1.9
PEIG	Puerto Escondi	5.72	232	*e*S	Sn	01 42 33.4	+3.3
PEIG	Puerto Escondi	5.72	232		Sn	01 42 33.4	+3.3
ESQI	Esquipulas	5.80	149	Pn	Pn	01 41 24.9	-0.5
CTUV	Llano Grande	5.86	290	*e*P	Pn	01 41 26.5	+0.4
CTUV				*e*S	Sn	01 42 29.1	-4.4
CTUV	Llano Grande	5.86	290		Pn	01 41 26.5	+0.4
CTUV					Sn	01 42 29.1	-4.4
MTO3	Montecristo	5.93	150		Pn	01 41 25.9	-1.4
TLIG	Tlapa	6.15	252	*e*P	Pn	01 41 31.1	+0.9
TLIG				*e*S	Sn	01 42 35.6	-5.1
TLIG	Tlapa	6.15	252		Pn	01 41 31.1	+0.9
TLIG					Sn	01 42 35.6	-5.1
GTIG	Gomez Farias	7.17	300	*e*P	Pn	01 41 40.8	-3.5
GTIG				*e*S	Sn	01 42 59.8	-6.0
GTIG	Gomez Farias	7.17	300		Pn	01 41 40.8	-3.5
GTIG					Sn	01 42 59.8	-6.0
TGUH	Tegucigalpa,Un	7.38	137	Pn	Pn	01 41 46.4	-0.9
LNIG	Linares	8.39	310	*e*P	Pn	01 42 01.4	+0.4
LNIG				*e*S	Sn	01 43 29.4	-6.5
LNIG	Linares	8.39	310		Pn	01 42 01.4	+0.4
LNIG					Sn	01 43 29.4	-6.5
SOR	Soroa	9.36	68	Pn	Pn	01 42 16.2	+1.9
735A	Kenedy	10.46	333	Pn	Pn	01 42 30.1	+0.8
EF04	Eagle Ford 04	10.76	334	Pn	Pn	01 42 33.7	+0.3
833A	Chaparral WMA,	10.78	325		Pn	01 42 33.9	+0.2
HNDO	Hondo	11.70	329		Pn	01 42 47.3	+0.9
JCT	Junction City	12.74	330		Pn	01 43 00.8	+0.2
BRDY	Brady	13.08	334		Pn	01 43 06.4	+1.3
WHTX	Lake Whitney,	13.16	341		Pn	01 43 09.1	+2.8
FW13	Cleburne	13.49	342	Pn	Pn	01 43 12.2	+1.4
250A	Grady	13.54	23	Pn	Pn	01 43 11.6	+0.2
SAND	Sanderson	13.57	322		Pn	01 43 12.9	+1.1
OZNA	Ozona	13.76	327	Pn	Pn	01 43 16.6	+2.1
WLAR	White Oak Lake	14.07	358		Pn	01 43 19.6	+0.9
TX31	Lajitas Ar. Si	14.10	316		Pn	01 43 21.9	+2.7
PLPT	Palo Pinto	14.20	339		Pn	01 43 23.0	+2.6
ABTX	Abilene, Hawle	14.51	335		Pn	01 43 27.0	+2.2
152A	Waverly Hall	14.76	26		Pn	01 43 30.7	+2.6
ALPN	Alpine	14.78	319		Pn	01 43 30.5	+2.0
X40A	Basin Creek Fa	14.86	359	Pn	Pn	01 43 30.8	+1.4
MIAR	Mount Ida	14.95	356		Pn	01 43 31.8	+1.1
MIAR				IAmb	IAmb	01 43 49.6	
	comp=Z,16nm,1.4s						
MNHN	Monahans	14.96	324		Pn	01 43 33.2	+2.3
MNHN				IAmb	IAmb	01 44 01.6	
	comp=Z,4.9nm,0.5s						
WTFS	Witchita Falls	15.12	340		Pn	01 43 33.4	+0.4
SN07	Snyder 07	15.44	332		Pn	01 43 39.0	+1.8
SN07				IAmb	IAmb	01 44 06.6	
	comp=Z,20nm,1.1s						
POST	Post	15.69	331	Pn	Pn	01 43 42.1	+1.6
POST				IAmb	IAmb	01 44 05.1	
	comp=Z,14nm,0.9s						
Y52A	Lilburn	16.07	26		Pn	01 43 47.5	+2.2
Y52A				IAmb	IAmb	01 43 52.9	
	comp=Z,6.5nm,0.4s						
WMOK	Wichita Mounta	16.12	341	P	P	01 43 49.2	0.0
TPB11	China Draw	16.13	322		P	01 43 49.6	+0.2
TPB28		16.21	320	P	P	01 43 51.1	+0.6
TPB28				IAmb	IAmb	01 44 01.8	
	comp=Z,5.5nm,1.3s						
CLNB	Carlsbad	16.28	323	Pn	P	01 43 50.9	-0.3
HTMS	Hat Mesa	16.30	324	Pn	Pn	01 43 50.6	+2.2
GDL2	Guadalupe Moun	16.52	322		P	01 43 53.8	0.0
HHAR	Hobbs	16.70	356	Pn	Pn	01 43 55.6	+2.3
HHAR				IAmb	IAmb	01 44 03.2	
	comp=Z,19nm,1.2s						
W50A	Signal Mountai	16.80	21	P	Pn	01 43 56.8	+2.2
V48A	Smith Brothers	16.85	16		Pn	01 43 57.6	+2.3
U38A	Gravette	16.89	355		P	01 43 58.2	+0.4
SMWD	Samnorwood	16.94	338	Pn	Pn	01 43 57.1	+0.7
MSTX	Muleshoe	17.04	329		P	01 44 00.4	+0.9
MSTX				IAmb	IAmb	01 44 06.6	
	comp=Z,24nm,1.4s						
T42A	Van Buren	17.44	4	P	P	01 44 05.2	+1.5
BG3	Lake Jocassee	17.52	27		Pn	01 44 04.7	+1.1
BG3				IAmb	IAmb	01 44 11.2	
	comp=Z,30nm,1.4s						
T35A	Sooner Cattle	17.65	349		P	01 44 07.2	+1.0
TKL	Tuckaleechee C	17.75	24		P	01 44 08.7	+1.3
TKL				IAmb	IAmb	01 44 14.1	
	comp=Z,19nm,1.4s						
U49A	Red Boiling Sp	17.86	18		P	01 44 09.8	+1.3
U49A				IAmb	IAmb	01 44 15.2	
	comp=Z,19nm,1.3s						
S39A	Bolivar	18.07	358		Pn	01 44 12.0	+1.5
V53A	Saluda	18.15	26		P	01 44 14.0	+2.2
KMSC	Kings Mountain	18.36	30		Pn	01 44 16.3	+2.4
ALQ	Albuquerque	19.71	324		P	01 44 29.6	+0.5
ALQ	Albuquerque	19.71	324	P	P	01 44 29.3	+0.3
ALQ				IAmb	IAmb	01 44 39.2	
	comp=Z,7.9nm,1.4s						
ANMO	Albuquerque	19.71	324	P	P	01 44 29.3	+0.3
TASM	ASL Pad, Albuq	19.71	324	P	P	01 44 28.4	-0.7
TASM	ASL Pad, Albuq	19.71	324	P	P	01 44 29.2	+0.1
TASM				IAmb	IAmb	01 44 34.9	
	comp=Z,7.5nm,1.5s						
R50A	Paris	19.93	19		P	01 44 33.2	+1.9
R50A				IAmb	IAmb	01 44 39.3	
	comp=Z,22nm,1.5s						
T25A	Trinidad	20.40	332	P	P	01 44 38.0	+1.4
T25A				IAmb	IAmb	01 44 48.9	
	comp=Z,17nm,1.0s						
P46A	Rosedale	20.48	12	P	P	01 44 38.5	+1.4
TUC	Tucson	20.77	311	P	Pn	01 44 42.7	-0.2
TUC				IAmb	IAmb	01 44 49.1	
	comp=Z,9.3nm,1.1s						
Q51A	Peebles	20.92	20	P	P	01 44 43.0	+1.0
Q51A				IAmb	IAmb	01 44 47.6	
	comp=Z,15nm,1.1s						
Q52A	Bidwell	21.23	22	P	P	01 44 46.0	+0.6
Q52A				IAmb	IAmb	01 44 50.9	
	comp=Z,24nm,1.2s						
SDCO	Great Sand Dun	21.39	331	P	P	01 44 48.8	+1.5
P51A	Williamsport	21.43	20	P	P	01 44 48.7	+1.3
O48B	Farmland	21.55	15	P	P	01 44 49.7	+1.0
O49A	Covington	21.70	17		P	01 44 52.1	+1.8
O49A				IAmb	IAmb	01 44 57.9	
	comp=Z,15nm,1.0s						
P53A	Whipple	22.02	23		P	01 44 55.2	+1.5
ACSO	Alum Creek Sta	22.14	20		P	01 44 56.6	+1.6
O52A	Adamsville	22.41	22	P	P	01 44 59.2	+1.2
O53A	New Philadelph	22.75	23	P	P	01 45 03.6	+2.0
PV01	Paradox Valley	23.21	326	P	P	01 45 08.9	+2.3
PV01				IAmb	IAmb	01 45 14.7	
	comp=Z,6.8nm,1.3s						
PV15	Paradox Valley	23.32	327	P	P	01 45 09.7	+1.9
PV15				IAmb	IAmb	01 45 19.3	
	comp=Z,8.9nm,0.9s						
PV02	Paradox Valley	23.35	326	P	P	01 45 10.7	+2.6
PV13	Radium Mtn., P	23.36	326	P	P	01 45 09.7	+1.5
PV13				IAmb	IAmb	01 45 16.5	
	comp=Z,11nm,1.2s						
PV03	Paradox Valley	23.45	326	P	P	01 45 11.6	+2.6
PV03				IAmb	IAmb	01 45 16.6	
	comp=Z,9.1nm,1.2s						
PV12	Saucer Basin,	23.47	326	P	P	01 45 10.8	+1.5
PV18	Skein Mesa, Pa	23.47	326	P	P	01 45 11.6	+2.3
PV07	Paradox Valley	23.48	327	P	P	01 45 11.4	+2.1
PV07				IAmb	IAmb	01 45 18.4	
	comp=Z,16nm,1.3s						
PV16	Nyswonger Mesa	23.52	326	P	P	01 45 11.3	+1.5
PV16				IAmb	IAmb	01 45 17.8	
	comp=Z,15nm,1.4s						
PV19	Morning Glory	23.56	326	P	P	01 45 11.8	+1.6
PV19				IAmb	IAmb	01 45 17.4	
	comp=Z,7.0nm,1.0s						
PV20	West Nyswonger	23.57	326	P	P	01 45 12.2	+1.9
PV20				IAmb	IAmb	01 45 21.3	
	comp=Z,11nm,1.1s						
PV04	Paradox Valley	23.58	326	P	P	01 45 11.8	+1.5
OTAV	Otavalo	23.60	143	P	P	01 45 10.0	-1.0
OTAV				IAmb	IAmb	01 45 18.7	
	comp=Z,12nm,1.1s						
PV22	Blue Mesa, Par	23.62	327	P	P	01 45 12.0	+1.3
PV10	Paradox Valley	23.64	326	P	P	01 45 11.6	+0.7
PV10				IAmb	IAmb	01 45 25.2	
	comp=Z,12nm,1.1s						
PV21	Cone Mtn., Par	23.74	326	P	P	01 45 12.4	+0.5
PV21				IAmb	IAmb	01 45 19.9	
	comp=Z,11nm,1.4s						
HMU	Henry Mountain	24.26	323	P	P	01 45 18.1	+1.2
HMU				IAmb	IAmb	01 45 24.4	
	comp=Z,11nm,1.3s						
ECSD	EROS Data Cent	24.35	353		P	01 45 18.2	+0.9
ECSD				IAmb	IAmb	01 45 24.1	
	comp=Z,8.4nm,1.2s						
SLOR	San Lorenzo -	24.37	144	P	P	01 45 15.7	-2.6
SLOR				IAmb	IAmb	01 45 27.5	
	comp=Z,8.8nm,0.8s						
BC3	Big Chuckawall	24.83	309		P	01 45 23.3	+1.4
IRM	Iron Mountain	24.85	310	P	P	01 45 23.1	+1.1
IRM				IAmb	IAmb	01 45 31.1	
	comp=Z,7.6nm,1.1s						
SRU	San Rafael Swe	24.97	325	P	P	01 45 24.0	+0.8
SRU				IAmb	IAmb	01 45 32.0	
	comp=Z,3.5nm,0.9s						
P18A	Preston Nutter	25.20	326	P	P	01 45 26.7	+1.4
P17A	Butcher Ranch,	25.34	325	P	P	01 45 27.1	+0.6
P17A				IAmb	IAmb	01 45 34.2	
	comp=Z,6.8nm,1.1s						
TMUT	Trail Mountain	25.47	325	P	P	01 45 27.5	-0.4
TMUT				IAmb	IAmb	01 45 35.2	
	comp=Z,3.8nm,1.1s						
SPMN	Marine on St.	25.59	359		P	01 45 28.9	+0.5
HHC	Hu-ho-hao-te	115.88	340	*e*P	PKiKP	01 58 36.0	-6.6
KSH2	Kashi	120.52	11	PKP	PKiKP	01 58 54.1	+2.3

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*IDC **08** 01:54:02.5±1.5, 4°.47S×69°.24E, h0^{km}, mb3.9/8,
mbtmp3.9/9, ML4.3/1, MS4.2/2, Error ellipse: s-maj=41.4km
s-min=24.8km az=53.0*

*NEIC **08** 01:54:08.1±0.9, 4°.00S±0°.09×70°.0E±0°.1, h10^{km}±1^{km},
mb4.4/12, Error ellipse: s-maj=24.2km s-min=14.3km
az=261.0*

ISC 08 01:54:06.3±0.9**, 4°.05S**±0°.09×**69°.8E**±0°.1**, h10**^{km}**, n33,
σ1**^{s}**.33**/31**, mb4.2**/13**, Chagos Archipelago region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DGAR	Diego Garcia	4.28	142	Pn	Pn	01 55 11.5	0.0
KAAM	Kaadhehdhoo	5.54	36	Pn	Pn	01 55 27.7	-1.2
PALK	Pallekele	15.67	44	Pn	Pn	01 57 47.8	+0.5
	1.1nm,0.3s,baz=224,slow=13,SNR=5.4						
	4.6nm,0.4s						
PALK				AML	AML		
PALK	Pallekele	15.67	44		Pn	01 57 46.6	-0.8
CMAR	Chiang Mai Arr	36.42	51	P	P	02 01 15.7	+4.3
	1.2nm,0.3s,baz=233,slow=8.3,SNR=5.7						
	1.2nm,0.3s						
CMAR	Chiang Mai Arr	36.42	51	P	P	02 01 11.0	-0.5
MORE	Moreh	36.88	39	P	P	02 01 14.8	-0.5
MORE				IAmb	IAmb	02 01 26.2	
	comp=Z,11nm,1.0s						
NIL	Nilore	37.64	5	P	P	02 01 20.8	-0.9
NIL				IAmb	IAmb	02 01 26.0	
	comp=Z,5.9nm,0.9s						
BBJI	Bungbulang	37.83	97	P	P	02 01 22.5	-1.1
KBL	Kabul	38.39	359	P	P	02 01 28.8	+0.7
NRN	Naryn	45.62	7	P	P	02 02 26.2	-1.0
NRN				IAmb	IAmb	02 02 42.9	
	comp=Z,4.8nm,1.3s						
MMAI	Mount Meron Ar	49.17	321	LR	LR	02 20 52.3	
	comp=Z,111nm,18.4s,baz=148,slow=33						
MKAR	Makanchi Array	51.82	11	P	P	02 03 15.7	+1.1
	comp=Z,0.8nm,0.8s,baz=194,slow=7.4,SNR=4.9						
	comp=Z,0.8nm,0.8s						
MKAR	Makanchi Array	51.82	11	P	P	02 03 14.5	0.0
AB31	Akbulak array	53.77	352	P	P	02 03 29.9	+1.1
AB31				IAmb	IAmb	02 03 33.1	
	comp=Z,3.0nm,0.8s						
ABKAR	Akbulak array	53.77	352	P	P	02 03 30.5	+1.7
BRTR	Keskin Array B	54.78	326	P	P	02 03 35.2	-1.3
	comp=Z,0.1nm,0.3s,baz=142,slow=12,SNR=5.3						
	comp=Z,0.1nm,0.3s						
BRTR	Keskin Array B	54.78	326	P	P	02 03 36.3	-0.3
KURBB	Kurchatov Arra	54.97	7	P	P	02 03 39.8	+2.3
	comp=Z,1.1nm,0.3s,baz=200,slow=7.7,SNR=5.3						
	comp=Z,1.1nm,0.3s						
KURK	Kurchatov	55.08	7	P	P	02 03 39.3	+1.0
KURK				IAmb	IAmb	02 03 48.1	
	comp=Z,6.6nm,1.2s						
ZALV	Zalesovo Beam	59.14	10	P	P	02 04 07.7	+0.6
	comp=Z,0.8nm,0.4s,baz=212,slow=5.3,SNR=3.9						
	comp=Z,0.8nm,0.4s						
ZALV	Zalesovo Beam	59.14	10	P	P	02 04 08.1	+1.0
SONM	Songino Array	60.82	27	P	P	02 04 20.4	+1.5
	comp=Z,0.6nm,0.4s,baz=199,slow=7.2,SNR=3.9						
	comp=Z,0.6nm,0.4s						
SONM	Songino Array	60.82	27	P	P	02 04 19.4	+0.5
SONM				IAmb	IAmb	02 04 28.7	
	comp=Z,2.4nm,1.0s						
ASAR	Alice Springs	64.72	114	P	P	02 04 45.6	+0.3
	comp=Z,0.7nm,0.9s,baz=282,slow=6.0,SNR=5.1						
	comp=Z,0.7nm,0.9s						
ASAR	Alice Springs	64.72	114	P	P	02 04 44.5	-0.8
WRA	Warramunga Arr	64.74	110	P	P	02 04 45.4	-0.1
	comp=Z,1.4nm,0.8s,baz=284,slow=6.2,SNR=7.0						
	comp=Z,1.4nm,0.8s						
WRA	Warramunga Arr	64.74	110	P	P	02 04 44.9	-0.5
WB2	Warramunga Arr	64.75	110	P	P	02 04 45.1	-0.4
WB0	Warramunga Arr	64.77	110	P	P	02 04 45.8	+0.1
DBIC	Dimbokro	75.25	278	LR	LR	02 37 34.3	
	comp=Z,269nm,20.4s,baz=299,slow=35						
TXAR	Lajitas Array	154.09	347	PKPbc	PKPbc	02 14 04.8	-2.5
	comp=Z,0.6nm,1.1s,baz=222,slow=1.7,SNR=4.4						
TXAR	Lajitas Array	154.09	347	PKPdf	PKPdf	02 13 58.1	-1.1

IDC 08 02:04:24.1±9.2**, 7°.46S×150°.56E, h65**^{km}±69^{km}**, mb3.0**/2**,
mbtmp3.4**/3**, ML1.4**/1**, Error ellipse: s-maj=87.5km
s-min=60.8km az=138.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	Port Moresby	3.88	240	P	Pn	02 05 21.2	-0.1
	1.9nm,0.3s,baz=85,slow=11,SNR=4.2						
PMG				S	Sn	02 06 06.6	+0.9
	43nm,0.9s,baz=148,slow=19,SNR=7.4						
	26nm,0.8s						
PMG				AML	AML		
WRA	Warramunga Arr	20.03	230	P	P	02 08 51.5	-0.5
	0.8nm,0.6s,baz=55,slow=11,SNR=9.2						
	0.8nm,0.6s						
ASAR	Alice Springs	22.70	223	P	P	02 09 20.8	+0.2
	0.7nm,0.8s,baz=50,slow=10,SNR=2.4						
	0.7nm,0.8s						
TORD	Torodi Ar. Bea	148.87	283	PKPbc	PKPbc	02 24 05.1	-0.4
	0.2nm,0.3s,baz=76,slow=3.9,SNR=4.3						

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*IDC **08** 02:06:08.3±0.5, 7°.44S×106°.55E, h0^{km}, mb4.3/20,
mbtmp4.3/20, MS3.7/5, Error ellipse: s-maj=24.2km
s-min=12.0km az=63.0*

*DJA **08** 02:06:13.1±0.3, 8°S±3°×10°7E±°, h10^{km}, M5.1/55,
mB5.6/16, mb5.1/18, MLv4.9/55, Mw(mB)5.2/16*

*GFZ **08** 02:06:14.8±0.4, 8°S±5°×10°6E±°, h45^{km}±5^{km}, M4.8/13,
mb4.9/13, Error ellipse: s-maj=11.3km s-min=3.5km
az=27.9, confirmed*

*NEIC **08** 02:06:15.9±1.3, 7°.50S±0°.10×106°.63E±0°.06, h53^{km}±6^{km},
mb4.5/27, Error ellipse: s-maj=14.7km s-min=8.1km
az=199.0*

ISC 08 02:06:16.5±0.4**, 7°.63S**±0°.06×**106°.55E**±0°.06**, h66**^{km}**, n154,
σ1**^{s}**.48**/143**, mb4.4**/40**, 1D, Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SKJI	Sukabumi	0.62	1	P	Pn	02 06 28.8	-1.4
CNJI	Cibinong	0.66	61	P	Pn	02 06 28.4	-2.2
CNJI				AML	AML		
CNJI	Cibinong	0.66	61	P	Pn	02 06 28.0	-2.6
BBJI	Bungbulang	1.10	81		Pn	02 06 33.8	-2.4
BBJI				Sn	Sn	02 06 47.1	-3.8
BBJI	Bungbulang	1.10	81	P	Pn	02 06 33.7	-2.4
BBJI	Bungbulang	1.10	81	P	Pn	02 06 33.7	-2.4
CGJI	Cibinong	1.32	320	P	Pn	02 06 38.2	-0.8
TNG	Tangerang	1.45	4	P		02 06 41.9	
TNG				P	Pn	02 06 41.7	+1.0
TNG				AML	AML		
TNG	Tangerang	1.45	4	P	Pn	02 06 41.9	+1.2
SBJI	Serang	1.56	344	P	Pn	02 06 43.0	+0.8
CMJI	Cimerak	1.89	95	P	Pn	02 06 44.1	-2.4
CMJI				AML	AML		
CMJI	Cimerak	1.89	95	P	Pn	02 06 44.1	-2.4
KPJI	Karang Pucung	2.38	83	P	Pn	02 06 53.1	-0.2
BLSI	Bandar Lampung	2.60	330	P	Pn	02 06 57.1	+0.9
CTJI	Waduk Cacaban	2.69	77	P	Pn	02 06 57.0	-0.3
KASI	Kota Agung	2.92	316	P	Pn	02 07 00.1	-0.6
YOGI	Yogyakarta	3.72	93	P	Pn	02 07 10.6	-0.9
YOGI				AML	AML		
YOGI	Yogyakarta	3.72	93	P	Pn	02 07 12.2	+0.8
SMRI	Semarang	3.90	82		Pn	02 07 11.9	-2.2
SMRI	Semarang	3.90	82	P	Pn	02 07 15.0	+1.0
SMRI				AML	AML		
SMRI	Semarang	3.90	82	P	Pn	02 07 14.4	+0.4
MDSI	Maura Dua	3.92	323	P	Pn	02 07 15.4	+1.2
MDSI				AML	AML		
MDSI	Maura Dua	3.92	323	P	Pn	02 07 15.0	+0.8
UGM	Wanagama	3.95	94		Pn	02 07 12.9	-1.7
UGM	Wanagama	3.95	94	P	Pn	02 07 13.5	-1.2
UGM				AML	AML		
UGM	Wanagama	3.95	94	P	Pn	02 07 14.3	-0.4
WOJI	Wonogiri, Jawa	4.34	93	P	Pn	02 07 19.8	-0.2
PCJI	Pacitan	4.62	97	P	Pn	02 07 22.2	-1.6
PCJI	Pacitan	4.62	97	P	Pn	02 07 22.5	-1.3
MNAI	Manna	4.83	312	Pn	Pn	02 07 26.4	-0.3
MNAI	Manna	4.83	312	P	Pn	02 07 28.4	+1.7
MNAI				AML	AML		
NGJI	Ngawi	4.88	87	P	Pn	02 07 27.6	+0.3
NGJI				AML	AML		
TPI	Tanjungpandan	4.97	13	P	Pn	02 07 30.8	+2.2
	0.6nm103nm,0.6s						
TPI				AML	AML		
SNJI	Sawahan-Nganju	5.17	92	P	Pn	02 07 31.5	+0.1
	1.1nm3μm192nm,0.6s						
SNJI				AML	AML		
SJI	Sawahan	5.17	91	P	Pn	02 07 31.6	+0.1
PPBI	Pangkal Pinang	5.45	356	P	Pn	02 07 36.0	+0.8
KSI	Kapahiang	5.58	315	P	Pn	02 07 38.3	+1.3
MASI	Maura Aman, Be	6.19	316	P	Pn	02 07 46.4	+1.1
BLJI	Banyuglugur	6.98	91	P	Pn	02 07 57.6	+1.4
	0.5nm2μm111nm,0.5s						
BLJI				AML	AML		
DSRI	Dabo	7.37	344	P	Pn	02 08 04.2	+2.7
DSRI				AML	AML		
DSRI	Dabo	7.37	344	P	Pn	02 08 02.6	+1.1
	comp=Z,42nm,0.6s						
JAGI	Jajag, Banyuwa	7.58	97		Pn	02 08 03.9	-0.4
JAGI	Jajag, Banyuwa	7.58	97	P	Pn	02 08 04.2	-0.1
	comp=Z,4μmcomp=Z,110nm,0.5s						
JAGI	Jajag, Banyuwa	7.58	97	P	Pn	02 08 03.8	-0.5
	comp=Z,91nm,0.5s						
ABJI	Asem Bagus	7.62	92	P	Pn	02 08 06.4	+1.5
ABJI	Asem Bagus	7.62	92	P	Pn	02 08 05.6	+0.7
	comp=Z,259nm,0.7s						
PPSI	Pulau Pagai	8.11	306	P	Pn	02 08 10.1	-1.5
	comp=Z,256nm,0.8s						
RTBI	Rangdo, Negare	8.35	96	P	Pn	02 08 16.4	+1.4
SDSI	Sungai Dareh	8.39	322	P	Pn	02 08 16.3	+0.9

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SDSI   Sungai Dareh        8.39 322  P       Pn      02 08 13.6  -1.8
              comp=Z,8.5nm,0.5s
IGBI   Denpasar            8.59  98  P       Pn      02 08 17.4  -0.8
              comp=Z,5µmcomp=Z,218nm,0.8s
IGBI   Denpasar            8.59  98  P       Pn      02 08 18.1   0.0
              comp=Z,3µm,0.8s
SRBI   Singaraja           8.60  94  P       Pn      02 08 16.8  -1.5
KHKI   Kahang-Kahang       9.00  95  P       Pn      02 08 23.0  -0.8
              comp=Z,73nm,0.7s
PDSI   Padang              9.02 317  P       Pn      02 08 21.7  -2.4
              comp=Z,21nm,0.5s
SISI   Saibi               9.72 310  P       Pn      02 08 30.5  -3.2
              comp=Z,53nm,0.6s
GSI    Gunungsitoli       12.61 314          Pn      02 09 08.8  -4.2
GSI    Gunungsitoli       12.61 314  P       Pn      02 09 09.3  -3.8
              comp=Z,56nm,0.5s
TPTI                      14.30 319  P       Pn      02 09 34.4  -1.3
              comp=Z,150nm,0.9s
EDFI   Ende, Flores       15.03  95  P       Pn      02 09 42.4  -2.9
MPSI   Mapaga             15.49  60  P       P       02 09 52.7  -1.5
TOLI2  Tolitoli           16.64  59  P       P       02 10 05.7  -1.4
              comp=Z,9.8nm,1.5s
GIRL   Giralia            16.66 154  Pn      Pn      02 10 02.4  -3.4
KKM    Kota Kinabalu      16.66  36  P       P       02 10 06.5  -0.8
              comp=Z,24nm,1.4s
MBWA   Marble Bar         18.52 138  P       P       02 10 27.3  -0.5
FITZ   Fitzroy Crossi     21.30 121  P       P       02 10 59.0  +1.1
              comp=Z,5.8nm,0.6s,baz=286,slow=7.8,SNR=15
              comp=Z,5.8nm,0.6s
FITZ   Fitzroy Crossi     21.30 121  P       P       02 10 58.2  +0.3
FITZ   Fitzroy Crossi     21.30 121  P       P       02 10 58.3  +0.3
              comp=Z,3.8nm,0.9s
MEEK   Meekatharra        22.11 150  P       P       02 11 06.1  -0.4
MORW   Morawa             23.12 158  P       P       02 11 17.7  +0.6
MORW                                 IAmb    IAmb    02 11 39.4
              comp=Z,21nm,1.2s
KNRA   Kununurra          23.16 112  P       P       02 11 17.4  -0.2
CMAR   Chiang Mai Arr     26.99 344  P       P       02 11 50.2  -2.1
              comp=Z,1.6nm,0.3s,baz=179,slow=8.7,SNR=10
CMAR                                 ScP     ScP     02 18 52.0  +4.5
              comp=Z,1.4nm,0.3s,baz=200,slow=3.2,SNR=6.8
CMAR                                 LR      LR      02 24 46.9
              comp=Z,88nm,19.1s,baz=200,slow=42
              comp=Z,1.6nm,0.3s
CMAR   Chiang Mai Arr     26.99 344  P       P       02 11 50.8  -1.5
CMAR                                         ScP     02 18 47.0  -0.4
NWAO   Narrogin (SRO)     27.05 160  LR      LR      02 21 33.2
              comp=Z,141nm,21.1s,baz=343,slow=34
H01W3  Cape Leeuwin H     28.00 167  T       T       02 41 42.7
              baz=345,slow=76,SNR=217
H01W1  Cape Leeuwin H     28.02 167  T       T       02 41 25.2
              baz=345,slow=76,SNR=135
H01W2  Cape Leeuwin H     28.02 167  T       T       02 41 29.3
              baz=345,slow=76,SNR=233
WRA    Warramunga Arr     29.57 117  P       P       02 12 15.6  +0.2
              comp=Z,1.3nm,0.5s,baz=290,slow=11,SNR=15
              comp=Z,1.3nm,0.5s
WRA    Warramunga Arr     29.57 117  P       P       02 12 14.9  -0.5
WR8    Warramunga Arr     29.72 117  P       P       02 12 16.9  +0.1
WR8                                  IAmb    IAmb    02 12 31.5
              comp=Z,8.6nm,1.1s
PALK   Pallekele          29.73 299  P       P       02 12 16.5  -0.3
              comp=Z,19nm,1.5s
FORT   Forrest            30.58 142  P       P       02 12 24.6  +0.4
FORT                                 IAmb    IAmb    02 13 00.5
              comp=Z,7.3nm,0.9s
ASAR   Alice Springs      30.70 124  eP      P       02 12 25.8  +0.4
              comp=Z,0.8nm,0.4s,baz=303,slow=7.8,SNR=9.0
              comp=Z,0.8nm,0.4s
ASAR   Alice Springs      30.70 124  P       P       02 12 25.5  +0.1
H08S2  Diego Garcia H     33.75 268  T       T       02 48 15.7
              baz=91,slow=75,SNR=64
H08S3  Diego Garcia H     33.76 268  T       T       02 48 24.2
              baz=91,slow=75,SNR=257
H08S1  Diego Carcia H     33.77 268  T       T       02 48 22.0
              baz=91,slow=75,SNR=54
PZH    PanZhiHua          34.25 352  P       P       02 12 58.7  +2.3
QIS    Mount Isa          34.45 115  P       P       02 12 58.5  +0.3
EVN    Everest            40.20 332  P       P       02 13 46.3  -1.1
              comp=Z,6.4nm,0.7s
STKA   Stephens Creek     40.56 131  P       P       02 13 50.9  +1.2
              comp=Z,6.2nm,0.5s,baz=300,slow=7.4,SNR=12
              comp=Z,6.2nm,0.5s
STKA   Stephens Creek     40.56 131  P       P       02 13 50.6  +1.0
              comp=Z,58nm,1.0s
NJ2    Nanjing            41.17  16  eP      P       02 13 56.9  +2.3
NJ2                                  pmax    pmax
              comp=Z,7.0nm,0.5s
CMSA   Cobar Meteorol     43.52 128  P       P       02 14 15.3  +1.5
              comp=Z,16nm,1.1s
HHC    Hu-ho-hao-te       48.46   5  eP      P       02 14 55.2  +2.7
HHC                                  pmax    pmax
              comp=Z,13nm,0.6s
HHC                                  pmax    pmax
              comp=Z,85nm,5.4s
KSRS   Korea Array        49.10  23  P       P       02 14 56.8  -0.6
              comp=Z,2.0nm,0.7s,baz=216,slow=7.7,SNR=5.4
              comp=Z,2.0nm,0.7s
CN2    Changchun          53.98  17  P       P       02 15 32.9  -0.8
CN2                                  pmax    pmax
              comp=Z,20nm,0.7s
WMQ    Urumqi             53.99 343  eP      P       02 15 32.2  -1.6
WMQ                                  sP      pP      02 15 48.0  -3.0
WMQ                                  pmax    pmax
              comp=Z,31nm,1.1s
KSH2   Kashi              54.70 331  P       P       02 15 48.8  +10
KSH2                                 pmax    pmax
              comp=Z,4.0nm,0.7s
KBL    Kabul              54.92 322          P       02 15 40.6  -0.4
KBL                                  IAmb    IAmb    02 15 42.8
              comp=Z,5.7nm,0.6s
SONM   Songino Array      55.22 360  P       P       02 15 42.0  -0.8
              comp=Z,0.5nm,0.4s,baz=182,slow=8.2,SNR=4.7
SONM                                 PcP     PcP     02 16 43.7  +0.7
              comp=Z,2.3nm,0.6s,baz=170,slow=4.0,SNR=6.7
              comp=Z,0.5nm,0.4s
SONM   Songino Array      55.22 360  P       P       02 15 42.0  -0.8
SONM                                         PcP     02 16 42.0  -1.1
BNX    BinXian            56.32  17 ⇓P       P       02 15 49.9  -0.6
BNX                                  pmax    pmax
              comp=Z,16nm,0.8s
KDJ    Kajisay            56.33 334  P       P       02 15 48.5  -2.4
KDJ                                  IAmb    IAmb    02 16 22.2
              comp=Z,9.7nm,1.1s
PDGK   Podgornoye         56.36 337          P       02 15 50.6  -0.4
USA0B  Ussuriysk Arra     56.48  22  P       P       02 15 50.6  -1.1
USRK   Ussuriysk Ar.      56.48  22  P       P       02 15 50.9  -0.8
              comp=Z,2.9nm,0.7s,baz=201,slow=5.8,SNR=5.3
              comp=Z,2.9nm,0.7s
USRK   Ussuriysk Ar.      56.48  22  P       P       02 15 51.4  -0.3
MKAR   Makanchi Array     58.33 341  P       P       02 16 03.3  -1.4
              comp=Z,2.3nm,0.5s,baz=144,slow=7.9,SNR=23
              comp=Z,2.3nm,0.5s
CASY   Casey              58.62 178  P       P       02 16 07.0  +0.6
CASY                                 IAmb    IAmb    02 16 33.4
              comp=Z,5.8nm,1.3s
HEH    HeiHe              60.43  15  eP      P       02 16 18.1  -1.0
H04N2  CROZET ISLANDS     60.49 221  T       T       03 22 14.1
              baz=68,slow=75,SNR=115
H04N1  CROZET ISLANDS     60.51 221  T       T       03 22 14.3
              baz=68,slow=75,SNR=104
H04N3  CROZET ISLANDS     60.51 221  T       T       03 22 13.1
              baz=68,slow=75,SNR=107
H04S1  CROZET ISLANDS     60.67 220  T       T       03 22 24.5
              baz=67,slow=77,SNR=32
H04S3  CROZET ISLANDS     60.69 220  T       T       03 22 26.2
              baz=67,slow=77,SNR=8.9
H04S2  CROZET ISLANDS     60.69 220  T       T       03 22 23.9
              baz=67,slow=77,SNR=12
KURBB  Kurchatov Arra     62.89 340  P       P       02 16 34.6  -1.0
              comp=Z,3.3nm,0.8s,baz=154,slow=6.0,SNR=18
              comp=Z,3.3nm,0.8s
KURK   Kurchatov          62.94 340          P       02 16 34.5  -1.4
ZAA0   Zalesovo Array     64.03 346  P       P       02 16 41.1  -2.0
ZAA0                                 IAmb    IAmb    02 16 44.4
              comp=Z,3.6nm,1.1s
ZALV   Zalesovo Beam      64.03 346  P       P       02 16 41.4  -1.7
              comp=Z,1.0nm,0.3s,baz=132,slow=2.2,SNR=6.7
              comp=Z,1.0nm,0.3s
RPZ    Rata Peaks         66.41 134  LR      LR      02 46 36.0
              comp=Z,31nm,18.6s,baz=234,slow=36
MAW    Mawson             66.64 197  P       P       02 17 01.8  +2.1
              comp=Z,2.7nm,0.6s,baz=57,slow=4.5,SNR=15
              comp=Z,2.7nm,0.6s
MAW    Mawson             66.64 197  P       P       02 17 01.5  +1.8
BVAR   Borovoye Array     67.77 337  P       P       02 17 06.3  -0.9
              comp=Z,5.3nm,0.6s,baz=147,slow=8.1,SNR=15
              comp=Z,5.3nm,0.6s
BORK   Borovoye           67.82 337          P       02 17 06.5  -0.9
BORK                                 IAmb    IAmb    02 17 09.2
              comp=Z,4.7nm,0.7s
AB31   Akbulak array      69.72 329          P       02 17 19.0  -0.3
ABKAR  Akbulak array      69.72 329          P       02 17 19.1  -0.2
URZ    Urewera            70.06 128  LR      LR      02 50 14.1
              comp=Z,82nm,18.5s,baz=50,slow=38
ARTI   Arti               75.05 335          P       02 17 51.6  +0.7
VNDA   Vanda              75.43 169  P       P       02 17 54.3  +1.4
              comp=Z,0.3nm,0.4s,baz=323,slow=5.4,SNR=4.5
              comp=Z,0.3nm,0.4s
VNDA   Vanda              75.43 169  P       P       02 17 54.2  +1.4
SBA    Scott Base         76.51 169  P       P       02 18 00.8  +1.8
SBA                                  IAmb    IAmb    02 18 22.0
              comp=Z,3.0nm,0.9s
KBZ    Khabaz             76.82 318  P       P       02 18 01.6  +0.3
              comp=Z,3.4nm,0.9s,baz=110,slow=4.8,SNR=6.3
              comp=Z,3.4nm,0.9s
BR131  Keskin Array S     81.91 312          P       02 18 29.3   0.0
BR131                                IAmb    IAmb    02 18 35.3
              comp=Z,2.3nm,0.8s
BRTR   Keskin Array B     81.91 312  P       P       02 18 29.9  +0.6
              comp=Z,1.8nm,0.8s,baz=148,slow=7.6,SNR=9.5
              comp=Z,1.8nm,0.8s
BRTR   Keskin Array B     81.91 312  P       P       02 18 29.8  +0.5
QSPA   South Pole Qui     82.36 180  P       P       02 18 32.1  +1.0
              comp=Z,0.7nm,0.4s,baz=116,slow=0.6,SNR=20
              comp=Z,0.7nm,0.4s
QSPA   South Pole Qui     82.36 180  P       P       02 18 32.1  +1.0
QSPA                                 IAmb    IAmb    02 19 00.2
              comp=Z,6.2nm,1.3s
GRTLG  Ghanzi             82.94 249  P       P       02 18 33.6  -1.4
GRTLG                                IAmb    IAmb    02 18 36.2
              comp=Z,6.5nm,1.3s
AKASG  Malin Array Be     87.91 322  P       P       02 19 00.0  +1.1
              comp=Z,0.8nm,0.5s,baz=89,slow=4.9,SNR=5.6
              comp=Z,0.8nm,0.5s
AKASG  Malin Array Be     87.91 322  P       P       02 18 59.2  +0.2
AKASG                                IAmb    IAmb    02 19 17.3
              comp=Z,3.8nm,1.2s
LIT    Litokhoron         90.34 310          P       02 19 11.6  +0.9
VNA2   Neumayer--Watz     90.44 197  P       P       02 19 12.2  +1.7
              comp=Z,1.3nm,0.7s,baz=134,slow=2.0
FINES  FINESS Array B     92.11 332  P       P       02 19 19.3  +1.0
              comp=Z,1.0nm,0.6s,baz=90,slow=3.8,SNR=5.7
              comp=Z,1.0nm,0.6s
FINES  FINESS Array B     92.11 332  P       P       02 19 18.0  -0.3
ARCES  ARCESS Array B     93.97 340  P       P       02 19 27.1  +0.3
              comp=Z,1.6nm,0.8s,baz=103,slow=3.9,SNR=5.5
ARCES                                LR      LR      03 06 01.7
              comp=Z,66nm,20.1s,baz=242,slow=38
              comp=Z,1.6nm,0.8s
ARCES  ARCESS Array B     93.97 340  P       P       02 19 27.2  +0.4
PDAR   Pinedale Array    132.77  36  PKP     PKiKP   02 25 26.0  +0.2
              comp=Z,0.6nm,0.6s,baz=262,slow=4.2,SNR=4.1
PDAR   Pinedale Array    132.77  36          PKiKP   02 25 25.3  -0.5
TXAR   Lajitas Array     144.32  49  PKP     PKPdf   02 25 46.6  +0.7
              comp=Z,0.9nm,0.6s,baz=286,slow=1.1,SNR=17
TXAR   Lajitas Array     144.32  49          PKPdf   02 25 46.9  +0.9
BDFB   Brasilia          145.80 227  PKPbc   PKiKP   02 25 52.1  -0.8
              comp=Z,2.0nm,0.6s,baz=79,slow=4.1,SNR=4.6
BDFB   Brasilia          145.80 227          PKPbc   02 25 49.6  +0.2
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*IDC **08** 02:15:51.4±0.8, 41.°03S×91.°85W, h0^{km}, mb4.0/9, mbtmp4.0/10, ML3.7/1, MS3.8/1, Error ellipse: s-maj=27.4km s-min=18.3km az=93.0*

*NEIC **08** 02:15:52.9±1.9, 41.°1S±0.°1×91.°6W±0.°2, h10^{km}±1^{km}, mb4.4/16, Error ellipse: s-maj=24.8km s-min=19.3km az=280.0*

ISC 08 02:15:52.8±0.7**, 41.°04S**±0.°10×**91.°6W**±0.°1**, h10**^{km}**, n38, σ0.^{s}85**/33**, mb4.3**/15**, 2D, Southeast of Easter Island**

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Code   Station Name        Δ°   AZ°   Phase ID         Time       Res
                                      Op      ISC       h  m  s    ISC
H03S2  Juan Fernandez     12.38  59  T       T       02 31 46.2
              baz=230,slow=73,SNR=1656
H03S1  Juan Fernandez     12.39  59  T       T       02 31 37.2
              baz=230,slow=73,SNR=1621
H03S3  Juan Fernandez     12.39  59  T       T       02 31 47.3
              baz=230,slow=73,SNR=1441
H03N2  Juan Fernandez     12.63  57  T       T       02 31 56.8
              baz=31,slow=74,SNR=1841
H03N1  Juan Fernandez     12.64  57  T       T       02 31 55.0
              baz=230,slow=74,SNR=1316
COYC   Coyhaique          14.91 114  Pn      Pn      02 19 23.1  -0.5
GO06   Curarrehue         15.44  91  Pn      Pn      02 19 28.9  -1.8
PLCA   Paso Flores        15.93  96  Pn      Pn      02 19 35.8  -1.3
              0.1nm,0.3s,baz=273,slow=12,SNR=6.0
PLCA                                 LR      LR      02 24 23.7
              comp=Z,340nm,21.7s,baz=320,slow=32
              1.5nm,0.8s
PLCA                                 AML     AML
PLCA   Paso Flores        15.93  96  Pn      Pn      02 19 35.8  -1.3
BI02   San Fabin de       16.43  81          Pn      02 19 44.5  +1.0
ML02   Panimavida         16.67  78  P       Pn      02 19 47.7  +1.2
ML02                                 IAmb    IAmb    02 19 51.3
              comp=Z,40nm,1.3s
CFA    Coronel Fontan     21.00  71  P       P       02 20 37.1  +0.6
              comp=Z,2.9nm,0.6s,baz=238,slow=11,SNR=12
              comp=Z,2.9nm,0.6s
AC05   El Transito        21.25  62          P       02 20 39.9  +0.7
AC02   Maricunga          23.34  60          P       02 21 02.1  +0.4
AC02                                 IAmb    IAmb    02 21 04.6
              comp=Z,10nm,0.8s
LPAZ   La Paz             31.94  46  P       P       02 22 20.8  +1.3
              comp=Z,1.2nm,0.6s,baz=229,slow=3.8,SNR=7.1
              comp=Z,1.2nm,0.6s
LPAZ   La Paz             31.94  46  P       P       02 22 18.3  -1.1
AQDB   Aquidauana         36.69  67          P       02 22 59.5  -0.4
PTLB   Pontes e Lacer     37.95  57          P       02 23 10.6   0.0
PTLB                                 IAmb    IAmb    02 23 19.4
              comp=Z,8.1nm,1.3s
OTAV   Otavalo            42.79  20  P       P       02 23 51.1  -0.1
OTAV                                 IAmb    IAmb    02 24 00.4
              comp=Z,8.7nm,1.1s
QSPA   South Pole Qui     49.19 180  P       P       02 24 41.2  +0.4
              comp=Z,0.8nm,0.7s,baz=196,slow=1.2,SNR=8.3
              comp=Z,0.8nm,0.7s
QSPA   South Pole Qui     49.19 180  P       P       02 24 40.6  -0.2
QSPA                                 IAmb    IAmb    02 24 56.9
              comp=Z,4.1nm,1.2s
VNA3   Neumayer Olymp     49.21 155 ⇓P       P       02 24 41.3  +0.5
              comp=Z,5.8nm,0.9s
VNA2   Neumayer--Watz     50.00 155  P       P       02 24 47.4  +0.7
              comp=Z,6.2nm,1.0s,baz=266,slow=9.2
SNAA   Sanae              51.27 156  P       P       02 24 57.9  +1.5
              comp=Z,0.9nm,0.6s,baz=202,slow=3.1,SNR=6.0
              comp=Z,0.9nm,0.6s
SNAA   Sanae              51.27 156  P       P       02 24 57.3  +0.9
SNAA                                 IAmb    IAmb    02 25 06.3
              comp=Z,3.6nm,0.9s
BOAV   Boa Vista          51.68  41  P       P       02 24 59.5  -0.5
TROLL  Troll, Antarti     52.79 157 ⇓P       P       02 25 08.4  +0.7
              comp=Z,247nm,0.9s
VNDA   Vanda              53.73 195  P       P       02 25 14.1  -0.3
              comp=Z,1.3nm,0.9s,baz=95,slow=6.1,SNR=6.7
              comp=Z,1.3nm,0.9s
VNDA   Vanda              53.73 195  P       P       02 25 14.4  -0.1
VNDA                                 IAmb    IAmb    02 25 16.1
              comp=Z,3.3nm,1.1s
MAW    Mawson             69.96 170  P       P       02 27 03.1  -0.7
              comp=Z,3.2nm,0.9s,baz=208,slow=9.1,SNR=5.1
              comp=Z,3.2nm,0.9s
MAW    Mawson             69.96 170  P       P       02 27 03.0  -0.7
TXAR   Lajitas Array      70.91 349  P       P       02 27 09.2  -0.8
              comp=Z,2.1nm,1.0s,baz=172,slow=9.6,SNR=8.0
              comp=Z,2.1nm,1.0s
TXAR   Lajitas Array      70.91 349  P       P       02 27 09.6  -0.5
ALPN   Alpine             71.93 349  P       P       02 27 16.2   0.0
ALPN                                 IAmb    IAmb    02 27 25.8
              comp=Z,4.4nm,1.1s
NVAR   Mina Array Bea     82.77 339  P       P       02 28 17.3  +0.4
              comp=Z,1.6nm,0.9s,baz=190,slow=6.0,SNR=7.3
              comp=Z,1.6nm,0.9s
NVAR   Mina Array Bea     82.77 339  P       P       02 28 17.8  +0.8
PDAR   Pinedale Array     84.99 347  P       P       02 28 28.9  +0.7
              comp=Z,4.1nm,0.9s,baz=159,slow=6.3,SNR=15
              comp=Z,4.1nm,0.9s
PDAR   Pinedale Array     84.99 347          P       02 28 27.9  -0.3
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*IDC **08** 02:20:44.0±1.4, 27.°93S×71.°62W, h0^{km}, mb3.8/1, mbtmp3.6/3, ML3.1/2, Error ellipse: s-maj=49.4km s-min=21.2km az=62.0*

*NEIC **08** 02:20:43.8±1.8, 28.°02S±0.°02×71.°71W±0.°04, h10^{km}±1^{km}, mb4.4/5, Error ellipse: s-maj=6.9km s-min=4.1km az=72.0*

*GUC **08** 02:20:45.9±0.8, 28.°05S×71.°50W, h30^{km}±4^{km}, ML3.1*

ISC 08 02:20:42.4±2.0**, 27.°98S**±0.°04×**71.°73W**±0.°06**, h4**^{km}±11^{km}**, n41, σ1.^{s}38**/50**, mb4.2**/3**, 1D, Near coast of northern Chile**

```
Code   Station Name        Δ°   AZ°   Phase ID         Time       Res
                                      Op      ISC       h  m  s    ISC
AC04   Llanos de Chal      0.62 111 ⇓iP      Pg      02 20 55.4  +1.0
AC04                                 eS      Sg      02 21 02.0  -0.4
AC04                                  IAML           02 21 03.3
              comp=E,3µm,0.2s
AC04   Llanos de Chal      0.62 111          Pg      02 20 55.3  +1.0
AC04                                  Sg     Sg      02 21 01.4  -1.0
AC06   Mina Casimiro       1.37  63  eP      Pn      02 21 08.7  +0.3
AC06                                 eS      Sb      02 21 25.9  -0.6
AC06                                  IAML           02 21 33.8
              comp=N,210nm,0.5s
AC06   Mina Casimiro       1.37  63          Pn      02 21 08.7  +0.3
LCO    Las Campanas        1.37 139  eP      Pn      02 21 07.9  -0.7
LCO                                  eS      Sb      02 21 24.4  -2.4
LCO                                   IAML           02 21 27.1
              comp=N,2µm,0.2s
LCO    Las Campanas        1.37 139          Pn      02 21 07.8  -0.8
GO03   Copiapo             1.38  74  eP      Pn      02 21 07.9  -0.6
GO03                                 eS      Sb      02 21 25.3  -1.5
GO03                                  IAML           02 21 33.0
              comp=E,458nm,0.6s
GO03   Copiapo             1.38  74          Pn      02 21 08.7  +0.2
AC05   El Transito         1.54 124  eP      Pn      02 21 10.9   0.0
AC05                                 eS      Sn      02 21 29.0  -2.4
AC05                                  IAML           02 21 35.8
              comp=E,277nm,0.2s
AC05   El Transito         1.54 124          Pn      02 21 10.8   0.0
AC01   Pan de Azucar       2.08  29  eP      Pn      02 21 18.9  +0.7
AC01   Pan de Azucar       2.08  29          Pn      02 21 18.6  +0.4
GO04   Tololo Observa      2.33 160  eP      Pn      02 21 22.3  +0.4
GO04                                 eS      Sn      02 21 48.9  -2.1
GO04                                  IAML           02 21 59.3
              comp=E,721nm,0.6s
GO04   Tololo Observa      2.33 160          Pn      02 21 22.2  +0.4
CO01   Juntas del Tor      2.45 145  eP      Pn      02 21 25.3  +1.8
CO01                                 eS      Sn      02 21 53.7  -0.4
CO01                                  IAML           02 21 58.0
              comp=E,148nm,0.3s
CO01   Juntas del Tor      2.45 145          Pn      02 21 24.7  +1.2
AC02   Maricunga           2.58  64  eP      Pn      02 21 27.9  +2.5
AC02                                  IAML           02 22 07.1
              comp=N,239nm,0.7s
AC02   Maricunga           2.58  64          Pn      02 21 26.1  +0.7
CO06   Fray Jorge          2.69 178  eP      Pn      02 21 25.8  -0.7
CO06                                  IAML           02 21 58.8
              comp=N,44nm,0.4s
CO06   Fray Jorge          2.69 178  Pn      Pn      02 21 25.5  -1.0
CO03   El Pedregal         2.99 163          Pn      02 21 30.4  -0.3
CO02   Combarbal           3.28 169  Pn      Pn      02 21 34.6  -0.1
PB14   IPOC Station P      3.54  20          Pn      02 21 38.0  -0.6
CO04   Los Peladeros       4.10 171  Pn      Pn      02 21 46.2   0.0
CFA    Coronel Fontan      4.72 141  Pn      Pn      02 21 56.2  +1.8
              comp=N,0.7nm,0.3s,baz=352,slow=13,SNR=12
CFA                                  Sn      Sn      02 22 51.8  +2.1
              comp=N,0.5nm,0.3s,baz=245,slow=5.8,SNR=3.7
              comp=N,1.1nm,0.4s
CFA                                  AML     AML
VA03   San Esteban         4.88 168  Pn      Pn      02 21 58.1  +1.4
MT02   Curacav             5.29 175  Pn      Pn      02 22 02.6  +0.3
MT08   Bocatoma Ro         5.64 165  Pn      Pn      02 22 07.5  +0.2
MT09   Talagante           5.81 174  Pn      Pn      02 22 09.5  -0.1
PLCA   Paso Flores        12.76 176  Pn      Pn      02 23 46.8  +2.1
              baz=356,slow=21,SNR=2.8
              comp=N,3.2nm,1.1s
NNA    Nana               16.61 342  Pn      Pn      02 24 32.1  -4.3
NNA                                  IAmb    IAmb    02 24 50.4
              comp=Z,38nm,1.3s
VAO    Valinhos           22.88  83  P       P       02 25 45.7  -1.5
VAO                                  IAmb    IAmb    02 25 48.4
              comp=Z,37nm,1.4s
MG03   Isla Dawson        25.86 178  P       P       02 26 16.5  +1.5
BOAV   Boa Vista          32.07  21  P       P       02 27 09.8  -0.7
BOAV                                 IAmb    IAmb    02 27 28.1
              comp=Z,3.4nm,1.1s
QSPA   South Pole Qui     62.24 180  P       P       02 31 06.8  +1.6
              comp=Z,0.9nm,0.8s,baz=145,slow=1.0,SNR=6.0
              comp=Z,0.9nm,0.8s
QSPA   South Pole Qui     62.24 180  P       P       02 31 07.0  +1.8
WRA    Warramunga Arr    126.10 211  PKP     PKiKP   02 39 48.2  +1.0
              comp=Z,0.4nm,0.8s,baz=156,slow=1.9,SNR=1.6
WRA    Warramunga Arr    126.10 211          PKPdf   02 39 46.7  -0.1
ZALV   Zalesovo Beam     148.87  27  PKPbc   PKiKP   02 40 33.5  +1.1
              comp=Z,0.8nm,0.6s,baz=276,slow=2.8,SNR=3.8
MKAR   Makanchi Array    152.29  40  PKPbc   PKiKP   02 40 41.3  +1.6
              comp=Z,0.2nm,0.5s,baz=305,slow=5.1,SNR=2.5
MKAR   Makanchi Array    152.29  40          PKiKP   02 40 41.0  +1.2
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*SDD **08** 02:29:43.0±3.0, 20.°19N×70.°76W, h24^{km}±9^{km}, MD2.8, ML2.3, MW2.8, Presumed earthquake*

*OSPL **08** 02:29:49.6±1.7, 20.°06N×70.°74W, h10^{km}±8^{km}, ML1.8, Presumed earthquake*

ISC 08 02:29:46.5±1.3**, 20.°10N**±0.°04×**70.°73W**±0.°04**, h14**^{km}±10^{km}**, n12, σ0.^{s}69**/21**, 9C-4D, Dominican Republic region**

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Code   Station Name        Δ°   AZ°   Phase ID         Time       Res
                                      Op      ISC       h  m  s    ISC
LUDR   Luperon             0.29 227 ⇑iP      Pg      02 29 51.6  -1.1
LUDR                                ⇑iS      Sb      02 29 59.1  +0.7
SODR   Sosua Marina B      0.37 158 ⇑iP      Pg      02 29 54.1  +0.2
SODR                                ⇓iS      Sn      02 30 03.7  -0.8
SODR                                  IAML           02 30 20.3
              comp=N,122nm,1.2s
LOPP1  Punta Rusia, P      0.51 242  i P     Pn      02 29 58.6  -0.8
LOPP1                                eS      Sb      02 30 05.1  +0.6
LOPP1                                 IAML           02 30 06.4
              comp=Z,53nm,0.3s
SC01   Santiago de lo      0.67 180  eS      Sb      02 30 10.0  +1.0
SC01   Santiago de lo      0.67 180 ⇑iP      Pn      02 30 01.3  -0.3
SC01                                ⇓iS      Sn      02 30 11.7  -0.2
SC01                                  IAML           02 30 14.0
              comp=N,49nm,0.4s
REDR   Restauracion        1.12 214 ⇓iP      Pb      02 30 07.6  -0.1
REDR                                ⇑iS      Sg      02 30 24.3  +1.6
REDR                                  IAML           02 30 27.2
              comp=N,148nm,0.1s
SDDR   Presa de Saban      1.23 206  i P     Pg      02 30 10.4  +0.2
SDDR                                 eS      Sb      02 30 25.3  -0.1
ABDR   Alto Bandera        1.28 176 ⇑iP      Pb      02 30 10.6   0.0
ABDR                                  IAML           02 30 48.2
              comp=N,32nm,2.5s
GRTK   Grand Turk          1.46 345  i P     Pg      02 30 14.8  +0.3
LONE3  El Aguacate, B      1.64 205  i P     Pn      02 30 15.2  +0.1
LONE3                                eS      Sb      02 30 37.1  -0.1
LONE3                                 IAML           02 30 39.7
              comp=Z,14nm,0.3s
SMDR   Samana, DR          1.66 119 ⇑iP      Pn      02 30 14.4  -0.7
SMDR                                ⇑iS      Sb      02 30 38.0  +0.4
SMDR                                  IAML           02 30 47.2
              comp=N,39nm,1.5s
BANI   BANI                1.73 168 ⇓iP      Pn      02 30 16.8  +0.4
BANI                                ⇑iS      Sg      02 30 41.8  -0.5
BANI                                  IAML           02 30 46.4
              comp=N,22nm,0.6s
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*IDC **08** 02:37:10.6±1.2, 62.°16S×58.°22W, h0^{km}, mb3.7/5, mbtmp3.7/5, Error ellipse: s-maj=64.0km s-min=21.8km az=72.0*

ISC 08 02:37:12.5±1.0**, 62.°1S**±0.°2×**58.°4W**±0.°3**, h10**^{km}**, n13, σ0.^{s}86**/13**, mb3.8**/7**, South Shetland Islands**

```
Code   Station Name        Δ°   AZ°   Phase ID         Time       Res
                                      Op      ISC       h  m  s    ISC
VNA3   Neumayer Olymp     20.67 137  P       P       02 41 53.1  +1.0
              comp=Z,2.9nm,0.7s
VNA1   Neumayer--Stat     21.14 135  P       P       02 41 57.9  +0.9
              comp=Z,4.8nm,0.9s
VNA2   Neumayer--Watz     21.42 136  P       P       02 42 00.7  +0.6
              comp=Z,2.8nm,0.7s,baz=268,slow=11
PLCA   Paso Flores        22.66 335  P       P       02 42 13.4  -0.3
              comp=Z,2.0nm,0.9s,baz=192,slow=12,SNR=3.2
              comp=Z,2.0nm,0.9s
SNAA   Sanae              22.85 138  P       P       02 42 14.7  -0.7
              comp=Z,75nm,0.7s
SNAA   Sanae              22.85 138  P       P       02 42 14.9  -0.5
              comp=Z,2.7nm,0.8s,baz=254,slow=12,SNR=6.1
```

	comp=Z,2.7nm,0.8s						
TROLL	**Troll, Antarti**	**24.48**	**139**	P	**P**	**02 42 31.9**	**+0.4**
	comp=Z,107nm,0.8s						
QSPA	**South Pole Qui**	**28.09**	**180**	P	**P**	**02 43 04.4**	**+0.4**
	comp=Z,0.7nm,0.7s,baz=167,slow=7.5,SNR=3.6						
	comp=Z,0.7nm,0.7s						
LPAZ	**La Paz**	**46.31**	**347**	P	**P**	**02 45 39.7**	**+0.8**
	comp=Z,0.6nm,0.8s,baz=147,slow=10,SNR=1.6						
	comp=Z,0.6nm,0.8s						
BDFB	**Brasilia**	**47.01**	**14**	P	**P**	**02 45 44.3**	**+0.4**
	comp=Z,1.0nm,0.5s,baz=169,slow=5.2,SNR=1.8						
	comp=Z,1.0nm,0.5s						
ARCES	**ARCESS Array B**	**143.97**	**36**	PKP	**PKPab**	**02 56 43.0**	**-0.7**
	comp=Z,2.2nm,0.7s,baz=234,slow=3.0,SNR=5.8						
BVAR	**Borovoye Array**	**151.78**	**85**	PKPbc	**PKPbc**	**02 57 05.0**	**-0.9**
	comp=Z,1.7nm,0.6s,baz=203,slow=1.1,SNR=7.3						
MKAR	**Makanchi Array**	**153.00**	**106**	PKPbc	**PKPbc**	**02 57 07.5**	**-1.4**
	comp=Z,0.5nm,0.6s,baz=230,slow=2.3,SNR=4.1						

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*IDC **08** 02:55:20.8±1.1, 12°.90N×139°.29E, h0^{km}, mb4.0/7, mbtmp4.0/7, MS3.8/1, Error ellipse: s-maj=37.4km s-min=20.5km az=82.0*

ISC 08 02:55:26.0±1.3, 12°.9N±0°.2×139°.3E±0°.2, h35^{km}, n9, σ0^{s}.87/8, mb4.1/7, Western Caroline Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TWGBT	**Beinan**	**19.97**	**302**	P	**Pn**	**02 59 58.1**	**+0.7**
WRA	**Warramunga Arr**	**32.95**	**189**	P	**P**	**03 01 58.4**	**+0.8**
	1.0nm,0.8s,baz=7.4,slow=9.0,SNR=8.3						
	1.0nm,0.8s						
ASAR	**Alice Springs**	**36.68**	**188**	P	**P**	**03 02 29.0**	**-0.7**
	0.5nm,0.6s,baz=13,slow=8.2,SNR=11						
	0.5nm,0.6s						
CMAR	**Chiang Mai Arr**	**39.22**	**283**	P	**P**	**03 02 51.1**	**-0.2**
	1.0nm,0.3s,baz=89,slow=6.4,SNR=10						
	1.0nm,0.3s						
PALK	**Pallekele**	**57.89**	**271**	LR	LR	03 32 38.4	
	comp=Z,72nm,18.4s,baz=60,slow=39						
MKAR	**Makanchi Array**	**58.32**	**317**	P	**P**	**03 05 17.8**	**+0.2**
	1.8nm,0.9s,baz=99,slow=8.9,SNR=8.9						
	1.8nm,0.9s						
KURBB	**Kurchatov Arra**	**61.74**	**321**	P	**P**	**03 05 40.0**	**-0.9**
	1.8nm,0.2s,baz=102,slow=7.2,SNR=11						
	1.8nm,0.2s						
BVAR	**Borovoye Array**	**67.18**	**322**	P	**P**	**03 06 15.5**	**-1.0**
	1.4nm,0.8s,baz=98,slow=7.8,SNR=5.2						
	1.4nm,0.8s						
ILAR	**Eielson Array**	**71.56**	**26**	P	**P**	**03 06 43.8**	**+0.4**
	0.8nm,0.7s,baz=258,slow=5.7,SNR=8.3						
	0.8nm,0.7s						

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*JMA **08** 02:55:41.1±0.1, 27°.3N±0°.3×14°2E±°, h69^{km}, MV3.8/11, NEAR CHICHIJIMA ISLAND*

*IDC **08** 02:56:00.9±3.9, 23°.52N×141°.61E, h0^{km}, mb3.9/3, mbtmp3.9/3, MS3.7/1, Error ellipse: s-maj=325.5km s-min=29.2km az=88.0*

ISC 08 02:55:38.8±1.4, 27°.21N±0°.10×141°.5E±0°.1, h35^{km}, n8, σ1^{s}.22/7, mb4.1/3, Bonin Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CBIJ	**Chichi jima**	**0.65**	**100**	P	**Pn**	**02 55 51.8**	**+0.3**
CBIJ				*e*S	**Sn**	**02 55 59.7**	**-0.8**
JHH2	**Haha-jima-NKT2**	**0.85**	**132**	P	**Pn**	**02 55 55.6**	**+1.3**
JHH2				S	**Sn**	**02 56 06.2**	**+0.7**
BSO1	**Boso 1**	**7.44**	**357**	*e*P	**Pn**	**02 57 25.3**	**+1.0**
JMJ	**Miyako jima 2**	**14.74**	**264**	P	P	02 59 41.4	+31
KAPI	**Kappang**	**38.30**	**216**	LR	LR	03 17 31.1	
	comp=Z,136nm,21.0s,baz=1.5,slow=36						
WRA	**Warramunga Arr**	**47.38**	**189**	P	**P**	**03 04 08.9**	**-0.7**
	3.2nm,0.7s,baz=11,slow=8.1,SNR=18						
	3.2nm,0.7s						
ASAR	**Alice Springs**	**51.10**	**189**	P	**P**	**03 04 36.9**	**-1.2**
	0.4nm,0.7s,baz=8.9,slow=7.1,SNR=4.1						
	0.4nm,0.7s						
ARCES	**ARCESS Array B**	**73.23**	**341**	P	P	03 07 53.8	+48
	1.7nm,0.8s,baz=63,slow=5.2,SNR=7.0						
	1.7nm,0.8s						

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*BJI **08** 02:58:09.6, 26°.78N×128°.15E, h60^{km}, mB4.9/28, mb4.8/72, Ms4.3/59, Ms7 4.1/60*

*BGR **08** 02:58:12.7, 26°.86N×127°.67E, h33^{km}, mb5.6, Ms4.8*

*IDC **08** 02:58:13.4±0.5, 27°.04N×127°.94E, h55^{km}±5^{km}, mb4.6/31, mbtmp4.9/33, MS3.9/43, Error ellipse: s-maj=14.2km s-min=8.8km az=67.0*

*MOS **08** 02:58:13.4±0.9, 27°.00N×127°.84E, h66^{km}, mb5.4/71, MS4.7/11, Error ellipse: s-maj=6.4km s-min=3.6km az=118.7*

*NIED **08** 02:58:14.6, 27°.06N×127°.90E, h61^{km}, MW4.9, Moment Tensor Solution. s3 Moment tensor: Scale 10^{16}Nm; M_{rr}0.00; $M_{\theta\theta}$-0.87; $M_{\phi\phi}$0.86; $M_{r\theta}$2.01; $M_{\theta\phi}$-0.44; $M_{\phi r}$1.58; Fault plane solution: $M_0$2.69000×10^{16} NP1: ϕ_s310.00000°, δ18.00000°, λ172.00000°. NP2: ϕ_s47.00000°, δ88.00000°, λ72.00000°.*

*NEIC **08** 02:58:14.6±1.8, 27°.04N±0°.06×127°.88E±0°.07, h58^{km}±5^{km}, mb5.3/331, Mww5.0/10 Error ellipse: s-maj=9.4km s-min=8.6km az=192.0*

*JMA **08** 02:58:14.6±0.1, 27°.1N±0°.6×127°.9E±0°.6, h61^{km}±1^{km}, MD4.7/23, MV4.9/23, NEAR OKINAWAJIMA ISLAND*

JMA Felt II J1 at NEAR OKINAWAJIMA ISLAND .

*GFZ **08** 02:58:15.2±0.3, 27°N±3°×12°8E±°, h62^{km}±3^{km}, M4.8/20, mb5.0/20*

*GCMT **08** 02:58:16.6±0.3, 27°.05N±0°.02×127°.88E±0°.02, h48^{km}±2^{km}, MW5.0/93, Moment Tensor Solution. s26,c30; s93,c139; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}3.06±.29; $M_{\theta\theta}$-1.66±.21; $M_{\phi\phi}$-1.40±.20; $M_{r\theta}$3.17±.18; $M_{\theta\phi}$-1.11±.12; $M_{\phi r}$2.07±.15; Best double couple: $M_0$4.73900×10^{16} NP1: ϕ_s224.00000°, δ19.00000°, λ80.00000°. NP2: ϕ_s55.00000°, δ72.00000°, λ93.00000°. Principal axes: T 4.9610, Plg63.0000°, Azm330.0000°; N -0.4440, Plg3.0000°, Azm234.0000°; P -4.5170, Plg26.0000°, Azm142.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 08 02:58:14.2±0.3, 27°.03N±0°.03×127°.94E±0°.03, h61^{km}±2^{km}, h61^{km}:pP-P, n844, σ1^{s}.38/784, mb5.2/336, 65C-67D, Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JIH	**Iheya**	**0.03**	**69**	*i* P	**Pn**	**02 58 23.7**	**+0.5**
JIH				A	A	02 58 23.7	
	comp=N,283nm,0.5s,comp=E,436nm,1.9s						
JIH				S	**Sn**	**02 58 30.2**	**+0.5**
JOW	**Kunigami**	**0.35**	**123**	P	**Pn**	**02 58 25.6**	**+0.7**
	comp=E,39μm,0.5s,baz=284,slow=28						
JOW				S	**Sn**	**02 58 33.4**	**+0.8**
	comp=E,36μm,0.3s,baz=93,slow=26,SNR=15						
JOW	**Kunigami**	**0.35**	**123**	P	**Pn**	**02 58 25.6**	**+0.7**
JOW	**Kunigami**	**0.35**	**123**	*i* P	**Pn**	**02 58 25.6**	**+0.7**
JOW				A	A	02 58 25.6	
	comp=N,111nm,1.0s,comp=E,102nm,0.3s						
JOW				S	**Sn**	**02 58 33.4**	**+0.8**
JYRO	**Yoronjima**	**0.46**	**90**	*i* P	**Pn**	**02 58 26.7**	**+0.9**
JYRO				A	A	02 58 26.7	
	comp=N,117nm,0.8s,comp=E,132nm,0.5s						
JYRO				S	**Sn**	**02 58 35.2**	**+1.1**
JNTH	**Nagotoyohara**	**0.51**	**172**	*i* P	**Pn**	**02 58 27.1**	**+0.7**
JNTH				A	A	02 58 27.1	
	comp=N,98nm,0.8s,comp=E,102nm,2.7s						
JNTH				S	**Sn**	**02 58 36.4**	**+1.2**
JOKE	**Okinoerabujima**	**0.65**	**59**	*i* P	**Pn**	**02 58 28.5**	**+0.5**
JOKE				A	A	02 58 28.5	
	comp=N,101nm,2.3s,comp=E,46nm,0.7s						
JOKE				*e*S	**Sn**	**02 58 38.4**	**+0.4**
JAGN	**Aguni-jima**	**0.76**	**235**	*i* P	**Pn**	**02 58 29.3**	**+0.1**
JAGN				A	A	02 58 29.3	
	comp=N,136nm,1.1s,comp=E,123nm,1.6s						
JAGN				*e*S	**Sn**	**02 58 40.3**	**0.0**
JJT3	**Tamagusuku3**	**0.89**	**189**	*i* P	**Pn**	**02 58 32.3**	**+1.4**
JJT3				A	A	02 58 32.3	
	comp=N,258nm,2.4s,comp=E,186nm,1.1s						
JJT3				S	**Sn**	**02 58 45.8**	**+2.6**
JTK	**Tokunoshima**	**1.18**	**50**	*i* P	**Pn**	**02 58 35.3**	**+0.7**
JTK				A	A	02 58 35.3	
	comp=N,50nm,0.7s,comp=E,26nm,0.8s						
JTK				*e*S	**Sn**	**02 58 50.2**	**+0.4**
JKE	**Kume jima 2**	**1.25**	**236**	P	**Pn**	**02 58 35.5**	**0.0**
JKE				A	A	02 58 35.5	
	comp=N,27nm,2.2s,comp=E,23nm,2.1s						
JKE				S	**Sn**	**02 58 51.7**	**+0.2**
JAMN	**Amaminishikomi**	**1.63**	**42**	*i* P	**Pn**	**02 58 41.4**	**+0.7**
JAMN				A	A	02 58 41.4	
	comp=N,16nm,2.4s,comp=E,15nm,1.5s						
JAMN				*e*S	**Sn**	**02 59 00.6**	**-0.2**
JAM	**Amami Oshima**	**2.02**	**47**	*i* P	**Pn**	**02 58 47.4**	**+1.4**
JAM				A	A	02 58 47.4	
	comp=N,8.0nm,0.8s,comp=E,8.0nm,2.0s						
JAM				*e*S	**Sn**	**02 59 10.9**	**+0.7**
JZK	**Kikaishima**	**2.21**	**54**	P	**Pn**	**02 58 50.4**	**+1.8**
JZK				A	A	02 58 50.4	
	comp=N,49nm,3.0s,comp=E,47nm,1.7s						
JTAJ	**Takarajima**	**2.40**	**27**	*e*P	**Pn**	**02 58 52.2**	**+1.1**
JTAJ				*e*S	**Sn**	**02 59 20.6**	**+1.4**
JMZ	**Minamidaito 2**	**3.18**	**111**		**Pn**	**02 59 00.9**	**-0.9**
JMZ	**Minamidaito 2**	**3.18**	**111**	P	**Pn**	**02 59 01.4**	**-0.5**
JMZ	**Minamidaito 2**	**3.18**	**111**	P	**Pn**	**02 59 00.6**	**-1.2**
JKDJ	**Kitadaitoujima**	**3.19**	**109**	P	**Pn**	**02 59 01.2**	**-0.8**
JKDJ				A	A	02 59 01.2	
	comp=N,19nm,3.1s,comp=E,12nm,1.2s						
JKDJ				*e*S	**Sn**	**02 59 36.7**	**-2.1**
JNN	**Nakanoshima**	**3.28**	**31**	*e*P	**Pn**	**02 59 05.0**	**+1.8**
JYAK	**Yakushimahirau**	**3.92**	**35**	P	**Pn**	**02 59 12.8**	**+0.9**
JYAK				*e*S	**Sn**	**02 59 56.5**	**-0.1**
JKC	**Kuchinoerabu**	**3.96**	**30**	*e*P	**Pn**	**02 59 14.7**	**+2.3**
JMTN	**Minamitane**	**4.25**	**37**	*e*P	**Pn**	**02 59 17.3**	**+0.9**
JMTN				*e*S	**Sn**	**03 00 05.2**	**+0.5**
JTN	**Tanegashima 3**	**4.49**	**36**	P	**Pn**	**02 59 20.7**	**+0.9**
JSU	**Suzuyama**	**4.97**	**26**		**Pn**	**02 59 28.0**	**+1.6**
JSU	**Suzuyama**	**4.97**	**26**	P	**Pn**	**02 59 30.1**	**+3.7**
	comp=Z,234nm,0.9s						
YOJ	**Yonaguni jima**	**5.13**	**241**	P	**Pn**	**02 59 29.1**	**+0.6**
YOJ	**Yonaguni jima**	**5.13**	**241**	P	**Pn**	**02 59 28.4**	**-0.1**
YOJ	**Yonaguni jima**	**5.13**	**241**		**Pn**	**02 59 28.4**	**-0.1**
YOJ	**Yonaguni jima**	**5.13**	**241**	P	**Pn**	**02 59 30.8**	**+2.3**
	comp=Z,282nm,1.1s						
TATO	**Taipei**	**6.15**	**252**	P	**Pn**	**02 59 46.1**	**+3.6**
TATO	**Taipei**	**6.15**	**252**		**Pn**	**02 59 46.0**	**+3.4**
TATO	**Taipei**	**6.15**	**252**	P	**Pn**	**02 59 45.7**	**+3.1**
	comp=Z,165nm,0.8s						
YHNB	**Yeheng**	**6.36**	**250**	P	**Pn**	**02 59 45.4**	**-0.1**
YHNB	**Yeheng**	**6.36**	**250**		**Pn**	**02 59 45.1**	**-0.4**
YHNB	**Yeheng**	**6.36**	**250**	P	**Pn**	**02 59 47.7**	**+2.2**
	comp=Z,258nm,0.9s						
NACB	**Ninganchiao**	**6.39**	**245**	P	**Pn**	**02 59 44.5**	**-1.3**
NACB	**Ninganchiao**	**6.39**	**245**		**Pn**	**02 59 44.7**	**-1.1**
NACB	**Ninganchiao**	**6.39**	**245**	P	**Pn**	**02 59 47.0**	**+1.2**
	comp=Z,103nm,1.0s						
JNU	**Nakatsue**	**6.59**	**22**	P	**Pn**	**02 59 50.6**	**+2.1**
	comp=Z,46nm,0.4s,baz=196,slow=8.1,SNR=42						
JNU				S	**Sn**	**03 01 04.2**	**+2.0**
	comp=Z,47nm,0.9s,baz=216,slow=11,SNR=0.9						
JNU				LR	LR	03 02 43.4	
	comp=Z,432nm,20.6s,baz=204,slow=41						
YULB	**Yu-li**	**7.02**	**240**	P	**Pn**	**02 59 51.2**	**-3.2**
YULB	**Yu-li**	**7.02**	**240**		**Pn**	**02 59 51.4**	**-3.0**
YULB	**Yu-li**	**7.02**	**240**	P	**Pn**	**02 59 51.9**	**-2.6**
	comp=Z,64nm,0.7s						
SSLB	**Suanglung**	**7.09**	**244**	P	**Pn**	**02 59 53.9**	**-1.5**
SSLB	**Suanglung**	**7.09**	**244**		**Pn**	**02 59 53.4**	**-2.0**
SSLB	**Suanglung**	**7.09**	**244**	P	**Pn**	**02 59 55.1**	**-0.3**
	comp=Z,89nm,0.9s						
SSE	**Sheshan**	**7.17**	**306**	P	**Pn**	**02 59 58.2**	**+1.8**
SSE				S	**Sn**	**03 01 15.9**	**-0.5**
SSE				pmax	pmax		
	comp=Z,50nm,0.8s						
TWG	**Pinlang**	**7.51**	**238**		**Pn**	**02 59 58.0**	**-3.1**
TWG	**Pinlang**	**7.51**	**238**	P	**Pn**	**02 59 58.7**	**-2.5**
KNMB	**Chin-men Tao**	**8.98**	**256**		**Pn**	**03 00 21.4**	**+0.1**
KNMB	**Chin-men Tao**	**8.98**	**256**	P	**Pn**	**03 00 22.4**	**+1.1**
	comp=Z,91nm,0.9s						
TJN	**Taejon**	**9.34**	**357**	P	**Pn**	**03 00 28.7**	**+2.7**
TJN	**Taejon**	**9.34**	**357**		**Pn**	**03 00 28.7**	**+2.7**
TJN	**Taejon**	**9.34**	**357**	P	**Pn**	**03 00 29.5**	**+3.5**
	comp=Z,426nm,2.4s						
NJ2	**Nanjing**	**9.36**	**304**	*e*P	**Pn**	**03 00 28.4**	**+2.0**
NJ2				S	**Sn**	**03 02 18.6**	**+8.4**
NJ2				pmax	pmax		
	comp=Z,34nm,0.7s						
NJ2				pmax	pmax		
	comp=Z,280nm,4.0s						
NJ2				L	L		
	comp=Z,640nm,7.1s						
NJ2				L	L		
	comp=Z,1μm,14.7s						
NJ2				L	L		
	comp=Z,2μm,19.4s						
KSAR	**Wonju Array Be**	**10.39**	**360**	P	**Pn**	**03 00 43.2**	**+2.8**
KSAR	**Wonju Array Be**	**10.39**	**360**		**Pn**	**03 00 43.2**	**+2.8**
KSRS	**Korea Array**	**10.40**	**360**	P	**Pn**	**03 00 42.7**	**+2.2**
	comp=Z,19nm,0.9s,baz=180,slow=12,SNR=25						
KSRS				LR	LR	03 04 56.8	
	comp=Z,884nm,18.5s,baz=185,slow=39						
INCN	**Inchon**	**10.48**	**354**	P	**Pn**	**03 00 44.9**	**+3.1**
INCN	**Inchon**	**10.48**	**354**		**Pn**	**03 00 44.9**	**+3.1**
WHN	**Wuhan**	**12.42**	**290**	⇓P	**Pn**	**03 01 10.5**	**+2.2**
WHN				L	L		
	comp=Z,2μm,15.2s						
MAJO	**Matsushiro**	**12.89**	**40**	P	**Pn**	**03 01 17.4**	**+2.9**
MAJO	**Matsushiro**	**12.89**	**40**		**Pn**	**03 01 17.4**	**+2.9**
MJAR	**Matsushiro Arr**	**12.89**	**40**	P	**Pn**	**03 01 15.5**	**+0.9**
	comp=Z,1.9nm,0.6s,baz=239,slow=15,SNR=5.2						
MJAR				LR	LR	03 06 13.9	
	comp=Z,193nm,20.3s,baz=226,slow=37						
MJAR	**Matsushiro Arr**	**12.89**	**40**	P	**Pn**	**03 01 18.9**	**+4.3**
MJAR	**Matsushiro Arr**	**12.89**	**40**		**Pn**	**03 01 18.9**	**+4.3**
MJB9	**Matsu-Tunnel**	**12.89**	**40**		**Pn**	**03 01 17.5**	**+3.0**
DL2	**Dalian**	**12.97**	**338**	P	**Pn**	**03 01 19.0**	**+3.3**
DL2				*e*S	**Sn**	**03 03 45.4**	**+7.1**
DL2				pmax	pmax		
	comp=Z,90nm,1.4s						
DL2				pmax	pmax		
	comp=Z,540nm,6.7s						
DL2				L	L		
	comp=Z,840nm,17.1s						
DL2				L	L		
	comp=Z,820nm,13.3s						
DL2				L	L		
	comp=Z,1μm,22.0s						
TIA	**Tai'an**	**12.98**	**318**	P	**Pn**	**03 01 18.3**	**+2.4**
TIA				pmax	pmax		
	comp=Z,20nm,1.4s						
TIA				L	L		
	comp=Z,660nm,21.6s						
TIA				L	L		
	comp=Z,940nm,22.8s						
TIA				L	L		
	comp=Z,2μm,32.4s						
CNSH	**ChangSha**	**13.36**	**278**	P	**Pn**	**03 01 20.8**	**-0.2**
CNSH				S	**Sn**	**03 03 55.6**	**+7.7**
CNSH				pmax	pmax		
	comp=Z,20nm,1.3s						
CNSH				L	L		
	comp=Z,610nm,13.1s						
CNSH				L	L		
	comp=Z,610nm,11.3s						
CNSH				L	L		
	comp=Z,630nm,13.5s						
HNS	**HongShan**	**15.23**	**316**	⇑P	**Pn**	**03 01 47.1**	**+1.6**
HNS				pP	**P**	**03 01 55.1**	**+5.8**
HNS				sP	**pP**	**03 02 05.1**	**+3.2**
HNS				S	**Sn**	**03 04 31.8**	**-1.3**
HNS				SS	**S**	**03 04 52.8**	**+6.0**
HNS				pmax	pmax		
	comp=Z,57nm,1.2s						
HNS				L	L		
	comp=Z,580nm,15.9s						
HNS				L	L		
	comp=Z,900nm,15.1s						
HNS				L	L		
	comp=Z,1μm,17.3s						
LYN	**LuoYang**	**15.26**	**303**	P	**Pn**	**03 01 47.0**	**+1.1**
LYN				sS	S	03 04 51.1	+3.7
LYN				pmax	pmax		
	comp=Z,42nm,0.8s						
LYN				pmax	pmax		
	comp=Z,500nm,4.6s						
LYN				L	L		
	comp=Z,1μm,14.8s						
LYN				L	L		
	comp=Z,2μm,18.0s						
BJI2	**Beijing**	**16.23**	**326**	P	**P**	**03 02 00.1**	**-0.3**
BJI2				pP	**pP**	**03 02 10.5**	**-2.6**
BJI2				PP	**sP**	**03 02 15.1**	**-5.7**
BJI2				sP	Pn	03 02 19.9	+22
BJI2				S	**Sn**	**03 04 57.4**	**-0.1**
BJI2				pmax	pmax		
	comp=Z,26nm,1.0s						
BJI2				pmax	pmax		
	comp=Z,250nm,5.9s						
BJI2				L	L		
	comp=Z,350nm,20.0s						
BJI2				L	L		
	comp=Z,250nm,22.0s						
BJI2				L	L		
	comp=Z,430nm,18.7s						
BJT	**Baijiatuau**	**16.23**	**326**	P	**Pn**	**03 01 58.2**	**-0.1**
BJT				pmax	pmax		
	comp=Z,42nm,1.0s						
BJT	**Baijiatuau**	**16.23**	**326**	Pn	**Pn**	**03 01 58.2**	**-0.1**
CN2	**Changchun**	**16.86**	**354**	P	**P**	**03 02 08.3**	**+1.0**
CN2				pmax	pmax		
	comp=Z,20nm,1.3s						
TIY	**Taiyuan**	**16.86**	**313**	*e*P	**P**	**03 02 08.2**	**+0.7**
TIY				pmax	pmax		
	comp=Z,290nm,3.8s						
USA0B	**Ussuriysk Arra**	**17.45**	**10**	⇑*e*P	**P**	**03 02 13.7**	**-0.1**
USRK	**Ussuriysk Ar.**	**17.45**	**10**	P	**P**	**03 02 14.1**	**+0.3**
	comp=Z,2.8nm,0.4s,baz=185,slow=9.1,SNR=7.9						
USRK	**Ussuriysk Ar.**	**17.45**	**10**	P	**Pn**	**03 02 13.1**	**-0.2**
XAN	**Xi'an**	**17.80**	**298**	P	**P**	**03 02 18.0**	**+0.1**
XAN				pP	pP	03 02 32.9	+2.4
XAN				S	**S**	**03 05 37.5**	**-1.5**
XAN				SS	**SnSn**	**03 06 00.1**	**+10**
XAN				pmax	pmax		
	comp=Z,43nm,1.2s						
XAN				L	L		
	comp=Z,470nm,15.1s						
XAN				L	L		
	comp=Z,790nm,19.9s						
XAN				L	L		
	comp=Z,890nm,17.9s						
QIZ	**Qiongzhong**	**18.45**	**248**	P	**P**	**03 02 25.2**	**+0.2**
QIZ				S	**Sn**	**03 05 50.2**	**-1.1**
QIZ				pmax	pmax		
	comp=Z,290nm,8.7s						
QIZ				L	L		
	comp=Z,270nm,13.5s						
QIZ				L	L		
	comp=Z,180nm,15.1s						
BNX	**BinXian**	**18.68**	**359**	⇓P	**P**	**03 02 27.8**	**+0.4**
BNX				pmax	pmax		
	comp=Z,9.0nm,1.1s						
GYA	**Guiyang**	**19.01**	**273**	P	**Pn**	**03 02 34.8**	**+2.2**
GYA				S	**S**	**03 06 03.3**	**-0.8**
GYA				pmax	pmax		
	comp=Z,15nm,0.6s						
GYA				pmax	pmax		
	comp=Z,370nm,9.8s						
GYA				L	L		
	comp=Z,350nm,13.8s						
GYA				L	L		
	comp=Z,610nm,18.2s						
GYA				L	L		
	comp=Z,730nm,22.6s						
HHC	**Hu-ho-hao-te**	**19.31**	**320**	*e*P	**Pn**	**03 02 35.7**	**-0.3**
HHC				pP	pP	03 02 47.9	+0.6
HHC				pmax	pmax		
	comp=Z,36nm,1.2s						
HHC				pmax	pmax		
	comp=Z,290nm,4.2s						
HHC				L	L		
	comp=Z,550nm,17.2s						
HHC				L	L		
	comp=Z,420nm,18.3s						
HHC				L	L		
	comp=Z,680nm,17.8s						
XLT	**XiLinHaoTe**	**19.38**	**333**	*e*P	**P**	**03 02 35.5**	**+0.4**
XLT				S	**S**	**03 06 11.9**	**+0.8**
XLT				SS	**SnSn**	**03 06 35.7**	**+7.1**
XLT				pmax	pmax		
	comp=Z,37nm,1.2s						
XLT				L	L		
	comp=Z,43nm,19.2s						
XLT				L	L		
	comp=Z,380nm,17.7s						
XLT				L	L		
	comp=Z,630nm,19.6s						
ERM	**Erimo**	**19.47**	**36**	P	**P**	**03 02 33.4**	**-2.6**
ERM				pmax	pmax		
	comp=Z,21nm,0.9s						
ERM	**Erimo**	**19.47**	**36**	P	**P**	**03 02 33.4**	**-2.6**
DAV	**Davao City (W)**	**19.97**	**187**	LR	LR	03 12 12.4	
	comp=Z,336nm,18.6s,baz=354,slow=42						
BTO2	**Baotou**	**20.25**	**317**	*e*P	**P**	**03 02 44.8**	**+0.2**
BTO2				pP	**pP**	**03 02 57.9**	**+0.4**
BTO2				sP	**sP**	**03 03 06.1**	**+1.0**
BTO2				S	**S**	**03 06 27.5**	**-1.0**
BTO2				sS	**sS**	**03 06 44.1**	**-5.7**
BTO2				pmax	pmax		
	comp=Z,43nm,2.0s						
BTO2				pmax	pmax		
	comp=Z,750nm,7.1s						
BTO2				L	L		
	comp=Z,930nm,15.5s						
BTO2				L	L		
	comp=Z,940nm,15.9s						
BTO2				L	L		
	comp=Z,1μm,24.8s						
GUMO	**Guam**	**20.72**	**127**	LR	LR	03 09 19.1	
	comp=Z,172nm,20.8s,baz=302,slow=32						
ASAJ	**Asahikawa**	**20.75**	**31**	P	**P**	**03 02 51.0**	**+1.1**
ASAJ				pmax	pmax		
	comp=Z,11nm,0.8s						
JKA	**Kamikawa-asahi**	**20.75**	**31**	P	**P**	**03 02 51.0**	**+1.0**
CD2	**Chengdu**	**21.50**	**286**	P	**P**	**03 02 55.7**	**-2.4**
CD2				pP	pP	03 03 09.6	-1.5
CD2				sP	sP	03 03 19.5	+0.9
CD2				S	**S**	**03 06 52.8**	**-0.5**
CD2				sS	sS	03 07 10.6	-4.2
CD2				pmax	pmax		
	comp=Z,20nm,0.8s						
CD2				pmax	pmax		
	comp=Z,90nm,7.0s						
CD2				L	L		
	comp=Z,810nm,10.7s						
CD2				L	L		
	comp=Z,490nm,10.7s						
CD2				L	L		
	comp=Z,580nm,11.8s						
YUK	**Yuzh-Kuril'sk**	**22.30**	**36**	⇓*e*P	**P**	**03 03 06.4**	**-0.1**
KLR	**Kul'dur**	**22.36**	**7**	P	**P**	**03 03 06.8**	**-0.4**
	comp=Z,2.9nm,0.8s,baz=172,slow=3.8,SNR=4.5						
KLR	**Kul'dur**	**22.36**	**7**	*e*P	**P**	**03 03 06.9**	**-0.3**
LZH	**Lanzhou**	**22.39**	**300**	*e*P	**P**	**03 03 07.9**	**+0.2**
LZH				pP	pP	03 03 16.1	-4.7
LZH				pmax	pmax		
	comp=Z,23nm,1.4s						
LZH				pmax	pmax		
	comp=Z,240nm,6.9s						
LZH				L	L		
	comp=Z,310nm,20.3s						
LZH				L	L		
	comp=Z,470nm,16.1s						
LZH				L	L		
	comp=Z,770nm,19.9s						
LZDM	**Lanzhou Array**	**22.46**	**299**	P	**P**	**03 03 08.9**	**+0.1**
	comp=Z,12nm,0.5s,baz=126,slow=10.0,SNR=8.6						
LZDM				LR	LR	03 12 32.4	
	comp=Z,413nm,21.5s,baz=150,slow=38						
	comp=Z,12nm,0.5s						
SLVN	**Son La**	**22.63**	**261**	P	**P**	**03 03 09.8**	**-0.5**
SLVN	**Son La**	**22.63**	**261**	P	**P**	**03 03 10.5**	**+0.2**
	comp=Z,16nm,0.8s						
KMI2	**Kunming**	**22.70**	**271**	P	**P**	**03 03 11.4**	**+0.2**
KMI2				S	**S**	**03 07 13.7**	**-1.7**
KMI2				sS	Sn	03 07 33.4	-0.1
KMI2				pmax	pmax		
	comp=Z,26nm,1.0s						
KMI2				L	L		
	comp=Z,200nm,14.1s						
KMI2				L	L		
	comp=Z,350nm,16.0s						
KMI2				L	L		
	comp=Z,310nm,18.2s						
YSS	**Yuzhno-Sakhali**	**23.07**	**27**	*de*P	**P**	**03 03 14.7**	**+0.2**
YSS				pmax	pmax		
	comp=Z,26nm,1.1s						

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YSS   Yuzhno-Sakhali   23.07  27   P      P      03 03 14.8 +0.2
      comp=Z,46nm,1.8s
HILR  Hailar Array B   23.37 346   P      P      03 03 17.4  0.0
      comp=Z,3.1nm,0.5s,baz=161,slow=16,SNR=4.6
      comp=Z,3.1nm,0.5s
PZH   PanZhiHua        23.39 275   P      P      03 03 16.8 -1.1
PZH                                pmax   pmax
      comp=Z,7.0nm,1.0s
TNTI  Ternate          26.11 181   P      P      03 03 43.8 +1.2
      comp=Z,26nm,0.8s
TNTI  Ternate          26.11 181   P      P      03 03 43.5 +0.9
TYV   Tymovskoe        26.31  21  eP      P      03 03 49.9 +5.8
TYV                                pmax   pmax
      comp=Z,9.0nm,1.1s
TYV                                pmax   pmax
      comp=Z,100nm,4.7s
ULN   Ulaanbaatar      26.45 327   P      P      03 03 46.8 +1.2
ULN                                pmax   pmax
      comp=Z,40nm,1.1s
ULN   Ulaanbaatar      26.45 327   P      P      03 03 46.8 +1.2
ULN   Ulaanbaatar      26.45 327   P      P      03 03 46.5 +0.9
ULN   Ulaanbaatar      26.45 327   P      P      03 03 46.7 +1.2
      comp=Z,37nm,1.2s
GTA2  Gaotai           26.52 305  eP      P      03 03 44.3 -2.0
GTA2                               pP     pP     03 03 56.8 -4.1
GTA2                               pmax   pmax
      comp=Z,17nm,0.8s
GTA2                               pmax   pmax
      comp=Z,160nm,10.0s
GTA2                               L      L
      comp=Z,310nm,16.8s
GTA2                               L      L
      comp=Z,690nm,19.6s
GTA2                               L      L
      comp=Z,880nm,18.9s
GTOI  Gorontalo        26.66 191   P      P      03 03 46.5 -1.1
TOLI2 Tolitoli         26.67 196   P      P      03 03 47.9 +0.3
TOLI2 Tolitoli         26.67 196   P      P      03 03 50.6 +2.9
      comp=Z,34nm,1.1s
SONM  Songino Array    26.75 327   P      P      03 03 48.7 +0.4
      comp=Z,11nm,0.5s,baz=142,slow=10,SNR=38
SONM                               ScP    ScP    03 10 44.0 -1.0
      comp=Z,0.9nm,0.8s,baz=146,slow=4.4,SNR=4.6
SONM                               LR     LR     03 16 08.4
      comp=Z,482nm,18.1s,baz=126,slow=40
      comp=Z,11nm,0.5s
SONM  Songino Array    26.75 327   P      P      03 03 47.6 -0.7
CHTO  Chiang Mai       27.88 259   P      P      03 03 57.3 -1.2
CHTO                               pmax   pmax
      comp=Z,23nm,0.8s
CHTO  Chiang Mai       27.88 259   P      P      03 03 57.3 -1.2
CHTO  Chiang Mai       27.88 259   P      P      03 03 58.9 +0.4
      comp=Z,34nm,1.4s
CHTO  Chiang Mai       27.88 259   P      P      03 03 59.0 +0.4
      comp=Z,34nm,1.4s
CMAR  Chiang Mai Arr   28.02 258   P      P      03 04 00.6 +0.8
      comp=Z,6.8nm,0.8s,baz=58,slow=7.2,SNR=24
CMAR                               PcP    PcP    03 07 15.0 +1.5
      comp=Z,1.2nm,0.5s,baz=44,slow=1.8,SNR=6.4
CMAR                               LR     LR     03 15 37.3
      comp=Z,122nm,20.5s,baz=75,slow=37
      comp=Z,6.8nm,0.8s
CMAR  Chiang Mai Arr   28.02 258   P      P      03 03 58.6 -1.1
MWPI  Manokwari, Pap   28.41 167   P      P      03 04 03.3 +0.1
GOMU  GeErMu           29.54 296   P      P      03 04 13.7 +0.2
GOMU                               S      S      03 09 01.5 -2.9
GOMU                               pmax   pmax
      comp=Z,13nm,0.7s
GOMU                               L      L
      comp=Z,160nm,13.4s
GOMU                               L      L
      comp=Z,140nm,13.4s
GOMU                               L      L
      comp=Z,210nm,13.7s
FAKI  Fak Fak          30.06 171   P      P      03 04 17.9 +0.1
FAKI                               IAmb   IAmb   03 04 46.0
      comp=Z,51nm,1.2s
FAKI  Fak Fak          30.06 171   P      P      03 04 17.6 -0.2
SKR   Severo-Kuril's   31.90  35deP      P      03 04 34.0 +0.3
SHL   Shillong         32.29 276   P      P      03 04 37.0 -0.7
SHL   Shillong         32.29 276   P      P      03 04 37.0 -0.7
BRDH  Bariadhala       33.15 271   LR     LR     03 18 42.4
      comp=Z,275nm,21.2s,baz=132,slow=37
PEA0B Petropavlovsk-   34.16  32deP      P      03 04 53.3 -0.1
PEA0B Petropavlovsk-   34.16  32   P      P      03 04 53.4  0.0
PEA0B                              IAmb   IAmb   03 04 54.1
      comp=Z,48nm,1.0s
PETK  Petropavlovsk-   34.16  32   P      P      03 04 53.2 -0.2
      comp=Z,27nm,0.8s,baz=222,slow=5.5,SNR=33
      comp=Z,27nm,0.8s
PETK  Petropavlovsk-   34.16  32   P      P      03 04 53.7 +0.3
PETK  Petropavlovsk-   34.16  32   P      P      03 04 53.7 +0.3
YAK   Yakutsk          35.02   1   P      P      03 04 60.0 -0.7
      comp=Z,42nm,0.7s,baz=194,slow=2.3,SNR=9.6
      comp=Z,42nm,0.7s
YAK   Yakutsk          35.02   1d iP      P      03 04 59.8 -0.9
YAK                                pmax   pmax
      comp=Z,58nm,1.0s
YAK   Yakutsk          35.02   1   P      P      03 05 00.2 -0.5
YAK                                IAmb   IAmb   03 05 01.7
      comp=Z,51nm,0.9s
YAK   Yakutsk          35.02   1   P      P      03 05 00.4 -0.3
      comp=Z,58nm,0.9s
MA2   Magadan          36.15  20   LR     LR     03 20 11.2
      comp=Z,58nm,18.8s,baz=236,slow=36
EVN   Everest          36.37 281   P      P      03 05 12.1 -1.4
H11N2 WAKE ISLAND Hy   36.38  93   T      T      03 43 18.9
      baz=290,slow=75,SNR=49
H11N1 WAKE ISLAND Hy   36.38  93   T      T      03 43 30.3
      baz=290,slow=75,SNR=42
H11N3 WAKE ISLAND Hy   36.39  93   T      T      03 43 19.5
      baz=290,slow=75,SNR=48
WMQ   Urumqi           36.42 308  eP      P      03 05 13.5 +0.4
WMQ                                PP     PnPn   03 06 39.5 +2.6
WMQ                                pmax   pmax
      comp=Z,48nm,1.3s
WMQ                                L      L
      comp=Z,210nm,20.7s
WMQ                                L      L
      comp=Z,310nm,16.1s
WMQ                                L      L
      comp=Z,460nm,24.2s
WMQ   Urumqi           36.42 308   P      P      03 05 12.6 -0.5
WMQ                                pP     pP     03 05 27.2 -0.7
H11S3 WAKE ISLAND Hy   36.61  95   T      T      03 43 54.6
      baz=290,slow=75,SNR=23
H11S1 WAKE ISLAND Hy   36.62  95   T      T      03 43 53.7
      baz=290,slow=75,SNR=15
H11S2 WAKE ISLAND Hy   36.63  95   T      T      03 43 53.7
      baz=290,slow=75,SNR=15
PSI   Prapat           36.77 234   P      P      03 05 17.2 +0.9
PSI                                pmax   pmax
      comp=Z,35nm,1.7s
RPSI  Rantau Prapat    36.84 234   P      P      03 05 17.2 +0.4
RPSI  Rantau Prapat    36.84 234   P      P      03 05 17.2 +0.4
      comp=Z,11nm,1.3s
RABL  Rabaul           38.87 139   P      P      03 05 35.6 +1.6
KRVT  Keravat (AS076   38.89 140   LR     LR     03 18 18.2
      comp=Z,109nm,21.5s,baz=168,slow=31
ZSN   Zaisan           39.27 313  eP      P      03 05 37.2 +0.3
ZSN   Zaisan           39.27 313  eP      P      03 05 37.3 +0.3
SEY   Seymchan         39.34  17   LR     LR     03 21 35.0
      comp=Z,150nm,20.9s,baz=340,slow=36
SEY   Seymchan         39.34  17⇓eP      P      03 05 37.0 -0.3
SEY                                pmax   pmax
      comp=Z,12nm,1.7s
MTN   Manton Dam       39.75 175   P      P      03 05 41.3 +0.1
      comp=Z,16nm,1.0s
MTN   Manton Dam       39.75 175   P      P      03 05 40.3 -0.8
PMG   Port Moresby     40.73 150   LR     LR     03 24 25.1
      comp=Z,65nm,18.4s,baz=2.0,slow=39
PMG   Port Moresby     40.73 150⇑eP      P      03 05 47.8 -1.5
PMG                                pmax   pmax
      comp=Z,49nm,1.3s
MK31  Makanchi Array   40.81 311c iP      P      03 05 49.5 -0.3
MK31                               pmax   pmax
      comp=Z,13nm,0.7s
MKAR  Makanchi Array   40.81 311   P      P      03 05 49.0 -0.8
      comp=Z,17nm,0.7s,baz=96,slow=9.1,SNR=70
MKAR                               PcP    PcP    03 07 49.2 -0.5
      comp=Z,1.8nm,0.6s,baz=74,slow=2.7,SNR=3.8
MKAR                               ScP    ScP    03 11 33.2 -1.0
      comp=Z,1.9nm,0.9s,baz=104,slow=5.1,SNR=6.3
MKAR                               LR     LR     03 24 13.6
      comp=Z,106nm,19.7s,baz=54,slow=38
      comp=Z,17nm,0.7s
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MKAR  Makanchi Array   40.81 311ceP      P      03 05 48.2 -1.6
MKAR                               pmax   pmax
      comp=Z,17nm,0.7s
MAKZ  Makanchi         41.03 311   P      P      03 05 50.9 -0.7
MAKZ                               pmax   pmax
      comp=Z,43nm,1.1s
MAKZ  Makanchi         41.03 311   P      P      03 05 50.9 -0.7
MAKZ                               IAmb   IAmb   03 05 53.0
      comp=Z,43nm,1.1s
MAKZ  Makanchi         41.03 311   P      P      03 05 51.3 -0.2
MAKZ                               ScP    ScP    03 11 33.9 -1.2
ZAA0  Zalesovo Array   41.46 322   P      P      03 05 54.0 -0.9
ZALV  Zalesovo Beam    41.46 322   P      P      03 05 54.3 -0.7
      comp=Z,16nm,0.5s,baz=113,slow=8.8,SNR=56
ZALV                               ScP    ScP    03 11 35.6 -0.9
      comp=Z,3.8nm,0.8s,baz=134,slow=4.3,SNR=8.1
ZALV                               LR     LR     03 24 57.7
      comp=Z,446nm,18.2s,baz=64,slow=39
      comp=Z,16nm,0.5s
ZALV  Zalesovo Beam    41.46 322  i P      P      03 05 54.2 -0.7
ZALV                               pmax   pmax
      comp=Z,17nm,0.5s
ZALV  Zalesovo Beam    41.46 322   P      P      03 05 54.0 -0.9
ZALV                               PcP    PcP    03 07 50.8 -0.9
PDGK  Podgornoye       42.20 306   P      P      03 06 00.2 -1.1
PDGK  Podgornoye       42.20 306          P      03 06 00.2 -1.1
SHLS  Shalkode         42.20 305  eP      P      03 05 58.9 -2.4
SHLS  Shalkode         42.20 305  eP      P      03 05 59.0 -2.4
WUS   Wushi            42.21 302   P      P      03 06 01.6 +0.1
WUS   Wushi            42.21 302   P      P      03 06 02.2 +0.7
KNRA  Kununurra        42.45 179   P      P      03 06 04.3 +1.0
      comp=Z,19nm,1.3s
KNRA  Kununurra        42.45 179   P      P      03 06 03.5 +0.2
UZB   Uzynbulak        42.52 305  eP      P      03 06 04.2 +0.3
UZB   Uzynbulak        42.52 305  eP      P      03 06 04.2 +0.3
SHEM  Shemya Is, Ala   42.73  40   P      P      03 06 04.4 -0.8
KPKS  Kokpek           42.80 306  eP      P      03 06 06.2 +0.1
KPKS  Kokpek           42.80 306  eP      P      03 06 06.3 +0.1
SATY  Saty             42.96 305  eP      P      03 06 07.1 -0.4
SATY  Saty             42.96 305  eP      P      03 06 07.1 -0.4
SEM   Semipalatinsk    42.98 316  eP      P      03 06 07.4 -0.3
SEM                                pmax   pmax
      comp=Z,31nm,1.3s
SEM   Semipalatinsk    42.98 316  eP      P      03 06 07.4 -0.3
      comp=Z,31nm,1.3s
TDK   Taldyqorghan     43.18 308  eP      P      03 06 09.2 +0.2
TDK                                pmax   pmax
      comp=Z,23nm,0.6s
TDK   Taldyqorghan     43.18 308  eP      P      03 06 09.3 +0.2
      comp=Z,23nm,0.6s
TARG  Taragay, Kyrgy   43.31 303   P      P      03 06 09.8 -0.8
TARG                               pmax   pmax
      comp=Z,23nm,0.9s
TARG  Taragay, Kyrgy   43.31 303          P      03 06 09.8 -0.8
TARG  Taragay, Kyrgy   43.31 303   P      P      03 06 10.9 +0.3
      comp=Z,29nm,0.9s
MDOK  Medeo            43.96 305  eP      P      03 06 15.7 +0.1
MDOK  Medeo            43.96 305  eP      P      03 06 15.8 +0.1
TNSS  Tian-Shan        44.03 305  eP      P      03 06 16.3 -0.1
TNSS  Tian-Shan        44.03 305  eP      P      03 06 16.3 -0.1
AAA   Alma-Ata         44.06 305  eP      P      03 06 16.5 +0.2
AAA                                pmax   pmax
      comp=Z,17nm,0.5s
AAA   Alma-Ata         44.06 305  eP      P      03 06 16.5 +0.2
      comp=Z,17nm,0.5s
KURK  Kurchatov        44.07 316   P      P      03 06 15.2 -0.9
KURK                                             03 07 59.3
KURK  Kurchatov        44.07 316   P      P      03 06 15.1 -1.0
KURK  Kurchatov        44.07 316   P      P      03 06 15.6 -0.5
      comp=Z,31nm,1.3s
KURK  Kurchatov        44.07 316   P      P      03 06 15.9 -0.2
KURK                               pP     pP     03 06 31.3 -0.1
KURBB Kurchatov Arra   44.10 316   P      P      03 06 15.2 -1.2
      comp=Z,11nm,0.5s,baz=105,slow=7.5,SNR=28
KURBB                              PcP    PP     03 07 59.3 -0.6
      comp=Z,3.1nm,0.7s,baz=114,slow=3.6,SNR=5.1
KURBB                              LR     LR     03 26 22.8
      comp=Z,423nm,18.1s,baz=200,slow=38
      comp=Z,11nm,0.5s
KURBB Kurchatov Arra   44.10 316   P      P      03 06 15.5 -0.8
ASAI  AK-SAY(Kyrgyzs   44.24 302   P      P      03 06 17.5 -0.5
      comp=Z,17nm,0.9s
KUU   Kurty            44.53 306  eP      P      03 06 20.0 +0.1
KUU   Kurty            44.53 306  eP      P      03 06 20.1 +0.1
TIXI  Tiksi            44.67   0⇑eP      P      03 06 19.9 -0.6
TIXI                               pmax   pmax
      comp=Z,17nm,1.0s
TIXI  Tiksi            44.67   0   P      P      03 06 19.4 -1.1
FITZ  Fitzroy Crossi   44.91 183   P      P      03 06 23.9 +0.8
      comp=Z,6.2nm,0.8s
FITZ  Fitzroy Crossi   44.91 183   LR     LR     03 25 12.5
      comp=Z,70nm,21.8s,baz=352,slow=36
FITZ  Fitzroy Crossi   44.91 183   P      P      03 06 23.6 +0.5
KSH2  Kashi            44.96 299   P      P      03 06 23.8 +0.2
KSH2                               pmax   pmax
      comp=Z,19nm,1.0s
KSH2                               L      L
      comp=Z,250nm,16.3s
KSH2                               L      L
      comp=Z,220nm,16.9s
KSH2                               L      L
      comp=Z,270nm,20.6s
AMKA  Amchitka         45.47  43   P      P      03 06 27.1 -0.1
AMKA                               IAmb   IAmb   03 06 29.4
      comp=Z,99nm,1.8s
SGDS  Sogindy          45.74 305  eP      P      03 06 29.9 +0.2
AAK   Ala-Archa        45.81 304   LR     LR     03 27 17.8
      comp=Z,255nm,21.2s,baz=72,slow=38
AAK   Ala-Archa        45.81 304   P      P      03 06 29.2 -1.0
AAK                                pmax   pmax
      comp=Z,6.0nm,0.6s
AAK   Ala-Archa        45.81 304   P      P      03 06 29.2 -1.0
AAK   Ala-Archa        45.81 304   P      P      03 06 30.1 -0.1
      comp=Z,8.5nm,0.7s
AAK   Ala-Archa        45.81 304   P      P      03 06 30.5 +0.3
AAK                                ScP    ScP    03 11 54.3 -0.5
WB0   Warramunga Arr   46.93 172          P      03 06 39.5 +0.5
WB0                                IAmb   IAmb   03 06 40.3
      comp=Z,28nm,0.8s
BILL  Bilibino         47.00  19⇑eP      P      03 06 38.7 -0.3
BILL                               pmax   pmax
      comp=Z,30nm,1.1s
BILL  Bilibino         47.00  19   P      P      03 06 38.6 -0.4
BILL                               IAmb   IAmb   03 06 40.0
      comp=Z,26nm,1.0s
WRAB  Tennant Creek    47.09 172   P      P      03 06 40.0 -0.2
WRAB                               pmax   pmax
      comp=Z,26nm,0.8s
WRAB  Tennant Creek    47.09 172   P      P      03 06 40.0 -0.2
WRAB                               IAmb   IAmb   03 06 41.7
      comp=Z,26nm,0.8s
WRAB  Tennant Creek    47.09 172   P      P      03 06 41.2 +1.0
      comp=Z,43nm,1.7s
WRAB  Tennant Creek    47.09 172   P      P      03 06 40.8 +0.6
WRA   Warramunga Arr   47.10 172   P      P      03 06 40.4 +0.1
      comp=Z,22nm,0.7s,baz=353,slow=8.2,SNR=80
WRA                                S      S      03 13 27.6 -0.7
      comp=Z,2.1nm,1.1s,baz=357,slow=14,SNR=5.6
      comp=Z,22nm,0.7s
WRA   Warramunga Arr   47.10 172   P      P      03 06 39.7 -0.6
WR8   Warramunga Arr   47.13 172   P      P      03 06 40.9 +0.3
      comp=Z,37nm,0.8s
WR8   Warramunga Arr   47.13 172   P      P      03 06 40.9 +0.3
WR8                                IAmb   IAmb   03 06 42.0
      comp=Z,26nm,0.8s
NIL   Nilore           47.20 292   P      P      03 06 40.9 -0.3
NIL                                pmax   pmax
      comp=Z,29nm,1.0s
NIL   Nilore           47.20 292   P      P      03 06 40.9 -0.3
NIL                                IAmb   IAmb   03 06 41.6
      comp=Z,29nm,0.9s
NIL   Nilore           47.20 292   P      P      03 06 41.1 -0.1
      comp=Z,39nm,1.0s
MTSU  Mount Surprise   47.62 159   P      P      03 06 46.4 +2.0
      comp=Z,37nm,1.0s
MTSU  Mount Surprise   47.62 159   P      P      03 06 46.6 +2.2
      comp=Z,37nm,1.0s
HNR   Honiara          47.72 135   LR     LR     03 28 41.1
      comp=Z,34nm,18.1s,baz=58,slow=38
DRK   Karamyk          47.87 300   P      P      03 06 46.1 -0.4
DRK                                pmax   pmax
      comp=Z,38nm,1.2s
DRK   Karamyk          47.87 300   P      P      03 06 46.1 -0.4
DRK                                IAmb   IAmb   03 06 47.9
      comp=Z,38nm,1.2s
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DZA   Taraz            48.14 305  eP      P      03 06 48.6 +0.4
DZA   Taraz            48.14 305  eP      P      03 06 48.7 +0.4
BTK   Batken           48.59 301   P      P      03 06 51.1 -0.8
BTK                                pmax   pmax
      comp=Z,13nm,1.0s
BTK   Batken           48.59 301   P      P      03 06 51.1 -0.8
QIS   Mount Isa        48.63 165   P      P      03 06 53.3 +1.1
      comp=Z,45nm,0.9s
QIS   Mount Isa        48.63 165   P      P      03 06 53.2 +1.1
      comp=Z,46nm,0.9s
KK31  Karatay Array    48.74 305  i P      P      03 06 52.7 -0.2
KK31  Karatay Array    48.74 305          P      03 06 53.1 +0.2
KKAR  Karatay Array    48.74 305   P      P      03 06 52.7 -0.2
KKAR                                             03 08 16.3
KKAR  Karatay Array    48.74 305   P      P      03 06 52.7 -0.2
KKAR                               PcP    PcP    03 08 16.3 -0.9
PALK  Pallekele        48.88 255⇓eP      P      03 06 53.8 -0.5
PALK                               pmax   pmax
      comp=Z,24nm,1.1s
IUG   Iuzhnay          49.11 304  eP      P      03 06 56.1 +0.3
IUG                                pmax   pmax
      comp=Z,11nm,0.8s
IUG   Iuzhnay          49.11 304  eP      P      03 06 56.2 +0.3
      comp=Z,11nm,0.8s
BRLS  Borolday         49.24 305  eP      P      03 06 57.7 +1.0
BRLS  Borolday         49.24 305  eP      P      03 06 57.8 +1.0
CHM   Chimkent         49.42 304  eP      P      03 06 58.3 +0.2
CHM                                pmax   pmax
      comp=Z,15nm,0.6s
CHM   Chimkent         49.42 304  eP      P      03 06 58.3 +0.2
      comp=Z,15nm,0.6s
BVAR  Borovoye Array   49.51 318   P      P      03 06 58.2 -0.4
      comp=Z,27nm,0.7s,baz=90,slow=8.9,SNR=65
BVAR                               PcP    PcP    03 08 19.6 -0.1
      comp=Z,7.5nm,0.6s,baz=99,slow=2.9,SNR=6.6
BVAR                               ScP    ScP    03 12 09.4 -0.5
      comp=Z,1.6nm,0.7s,baz=116,slow=3.4,SNR=3.7
      comp=Z,27nm,0.7s
BORK  Borovoye         49.56 318   P      P      03 06 58.2 -0.7
BORK                               pmax   pmax
      comp=Z,50nm,0.9s
BORK  Borovoye         49.56 318   P      P      03 06 58.2 -0.7
CTA   Charters Tower   50.09 157   LR     LR     03 28 50.7
      comp=Z,57nm,19.6s,baz=16,slow=37
CTAO  Charters Tower   50.09 157   P      P      03 07 04.4 +1.1
CTAO                               pmax   pmax
      comp=Z,22nm,1.0s
CTAO  Charters Tower   50.09 157   P      P      03 07 04.4 +1.1
CTAO                               IAmb   IAmb   03 07 05.6
      comp=Z,22nm,0.9s
CTAO  Charters Tower   50.09 157   P      P      03 07 04.7 +1.4
KBL   Kabul            50.54 294   P      P      03 07 06.3 -0.6
KBL                                pmax   pmax
      comp=Z,81nm,1.4s
KBL   Kabul            50.54 294   P      P      03 07 06.3 -0.6
AS31  Alice Springs    50.72 173   P      P      03 07 08.7 +0.7
      comp=Z,4.7nm,0.7s
AS31  Alice Springs    50.72 173   P      P      03 07 08.8 +0.7
ASAR  Alice Springs    50.72 173   P      P      03 07 09.0 +1.0
      comp=Z,14nm,0.8s,baz=2.5,slow=14,SNR=96
ASAR                               LR     LR     03 29 46.8
      comp=Z,104nm,19.3s,baz=314,slow=37
      comp=Z,14nm,0.8s
ASAR  Alice Springs    50.72 173   P      P      03 07 08.4 +0.4
AS09  Alice Springs    50.76 173   P      P      03 07 08.7 +0.4
      comp=Z,40nm,0.8s
WRKA  Warakurna        51.76 180   P      P      03 07 16.2 +0.5
      comp=Z,8.3nm,0.9s
TNA   Tin City         55.05  27   P      P      03 07 40.0 +0.6
SVE   Sverdlovsk       55.48 322  eP      P      03 07 42.5 -0.1
SVE                                pmax   pmax
      comp=Z,36nm,1.0s
AB31  Akbulak array    55.92 313  i P      P      03 07 45.1 -0.8
AB31  Akbulak array    55.92 313   P      P      03 07 45.1 -0.8
AB31                               IAmb   IAmb   03 07 46.4
      comp=Z,20nm,0.8s
ABKAR Akbulak array    55.92 313   P      P      03 07 44.9 -0.9
K13K  Kusilvak Mount   55.92  32   P      P      03 07 46.3 +0.6
HRA   Herat            56.10 295          P      03 07 47.2 -0.6
HRA                                IAmb   IAmb   03 07 48.9
      comp=Z,36nm,1.4s
F15K  North Star Dit   56.41  27   P      P      03 07 49.8 +0.6
ARTI  Arti             56.71 321   LR     LR     03 34 35.0
      comp=Z,456nm,18.6s,baz=91,slow=38
ARTI  Arti             56.71 321c iP      P      03 07 50.5 -0.9
ARTI                               *PP    pP     03 08 07.1 -0.1
ARTI                                             03 08 45.4
ARTI                               S      S      03 15 36.2 -3.2
ARTI                               SS     SS     03 19 21.2 -6.3
ARTI                               pmax   pmax
      comp=Z,11nm,0.5s
ARTI  Arti             56.71 321   P      P      03 07 50.6 -0.8
ARTI  Arti             56.71 321   P      P      03 07 50.5 -0.9
ARTI                               ScP    ScP    03 12 42.2 +1.1
L14K  Kuka Creek       56.81  33          P      03 07 51.0 -0.9
L14K                               IAmb   IAmb   03 07 54.9
      comp=Z,61nm,1.5s
AKTO  Aktyubinsk       57.09 314   LR     LR     03 34 27.7
      comp=Z,249nm,18.1s,baz=80,slow=38
AKTO  Aktyubinsk       57.09 314   P      P      03 07 53.4 -0.8
G16K  Koyuk River      57.32  28   P      P      03 07 56.4 +0.9
G16K                               IAmb   IAmb   03 07 57.8
      comp=Z,60nm,1.4s
RDOG  Red Dog Mine     57.44  25   P      P      03 07 57.2 +0.8
F17K  Baldwin Pennin   57.88  27          P      03 08 00.3 +0.9
I17K  Unalakleet       57.90  30   P      P      03 08 00.5 +0.9
N15K  Kwethluk River   58.03  34   P      P      03 08 01.7 +1.0
N15K                               IAmb   IAmb   03 08 03.1
      comp=Z,20nm,0.8s
C18K  Utukok River     58.15  24          P      03 08 02.1 +0.6
E18K  Tukpahlearik C   58.23  26   P      P      03 08 02.8 +0.9
E18K                               IAmb   IAmb   03 08 04.4
      comp=Z,34nm,1.0s
H17K  Granite Mounta   58.30  28   P      P      03 08 03.8 +1.3
H17K                               IAmb   IAmb   03 08 05.2
      comp=Z,38nm,1.1s
J17K  VABM Dome        58.59  30   IAmb   IAmb   03 08 08.7
      comp=Z,23nm,0.8s
O16K  Kokwok River B   59.04  35   IAmb   IAmb   03 08 09.5
      comp=Z,19nm,0.9s
F19K  Shaleruckik Mo   59.29  26   IAmb   IAmb   03 08 11.8
      comp=Z,27nm,1.1s
M17K  Holitna River    59.33  33   IAmb   IAmb   03 08 12.6
      comp=Z,35nm,1.1s
N17K  Nushagak Hills   59.47  34   IAmb   IAmb   03 08 13.6
      comp=Z,28nm,1.1s
E19K  Redstone River   59.53  26   P      P      03 08 12.2 +1.2
G19K  Purcell Mounta   59.54  27   IAmb   IAmb   03 08 13.1
      comp=Z,43nm,1.1s
J18K  Innoko River     59.66  30   IAmb   IAmb   03 08 14.9
      comp=Z,28nm,1.3s
D20K  Etivluk River    59.83  24   P      P      03 08 14.3 +1.3
STKA  Stephens Creek   60.00 167   P      P      03 08 14.9 +0.3
      comp=Z,1.9nm,0.3s,baz=353,slow=7.5,SNR=5.5
STKA                               LR     LR     03 33 56.2
      comp=Z,92nm,21.7s,baz=11,slow=36
      comp=Z,1.9nm,0.3s
F20K  Avaraart Lake    60.10  26   IAmb   IAmb   03 08 18.1
      comp=Z,38nm,1.4s
J19K  Poorman          60.14  30   IAmb   IAmb   03 08 18.3
      comp=Z,32nm,1.0s
O18K  Koktuh Hills     60.49  34   IAmb   IAmb   03 08 20.3
      comp=Z,32nm,1.0s
L19K  White Mountain   60.54  32   IAmb   IAmb   03 08 20.7
      comp=Z,20nm,1.2s
CMSA  Cobar Meteorol   60.65 163   P      P      03 08 21.2 +2.2
      comp=Z,17nm,2.2s
M19K  Big River Lodg   60.77  32   IAmb   IAmb   03 08 22.6
      comp=Z,36nm,1.4s
IMAR  Indian Mountai   60.90  27   P      P      03 08 21.3 +0.9
F21K  Alatna River     60.98  26   IAmb   IAmb   03 08 22.9
      comp=Z,24nm,1.1s
DZM   Mont Dzumac      61.40 139   LR     LR     03 30 58.3
      comp=Z,74nm,21.8s,baz=356,slow=32
KIRV  Kirov            61.45 324deP      P      03 08 22.7 -1.4
ARMA  Armidale         61.45 157   P      P      03 08 25.5 +0.9
      comp=Z,16nm,0.7s
KDAK  Kodiak Island    62.03  37⇑eP      P      03 08 28.6 +0.5
KDAK                               pmax   pmax
      comp=Z,81nm,0.9s
KDAK  Kodiak Island    62.03  37   P      P      03 08 28.8 +0.7
KDAK  Kodiak Island    62.03  37   P      P      03 08 28.9 +0.8
MLY   Manley           62.20  28   IAmb   IAmb   03 08 32.5
      comp=Z,35nm,1.2s
KTH   Kantishna Hill   62.25  30   IAmb   IAmb   03 08 32.8
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	comp=Z,49nm,1.6s						
G23K	Bananza Creek	62.36	26	IAmb	IAmb	03 08 32.8	
	comp=Z,32nm,1.1s						
I23K	Minto, Yukon-K	62.77	28	IAmb	IAmb	03 08 35.4	
	comp=Z,35nm,1.4s						
E24K	Your Creek	62.85	25	IAmb	IAmb	03 08 36.0	
	comp=Z,32nm,1.0s						
F24K	Squaw Lake	63.12	25	IAmb	IAmb	03 08 37.8	
	comp=Z,22nm,0.7s						
RND	Reindeer	63.19	30	IAmb	IAmb	03 08 37.1	
	comp=Z,30nm,0.8s						
H24K	Noodor Dome	63.31	27	IAmb	IAmb	03 08 39.5	
	comp=Z,39nm,1.3s						
BELG	Belogornoye	63.31	317	deP	P	03 08 35.9	-0.8
BELG				pmax	pmax		
	comp=Z,3.0nm,0.8s						
G24K	Hadweenzic Riv	63.37	26	IAmb	IAmb	03 08 39.8	
	comp=Z,23nm,0.9s						
WRH	Wood River Hil	63.39	29	IAmb	IAmb	03 08 39.9	
	comp=Z,34nm,1.5s						
D25K	Kavik River	63.49	23	IAmb	IAmb	03 08 39.9	
	comp=Z,32nm,1.1s						
ILAR	Eielson Array	63.86	28	P	P	03 08 39.7	-0.4
	comp=Z,1.6nm,0.8s,baz=261,slow=4.9,SNR=21						
	comp=Z,1.6nm,0.8s						
ILAR	Eielson Array	63.86	28	P	P	03 08 39.9	-0.3
ILAR	Eielson Array	63.86	28	P	P	03 08 39.9	-0.3
HDA	Harding Lake	63.89	29	IAmb	IAmb	03 08 41.3	
	comp=Z,18nm,0.8s						
E25K	Arctic Village	63.93	25	IAmb	IAmb	03 08 43.4	
	comp=Z,34nm,1.1s						
F25K	Christian Rive	63.97	25	IAmb	IAmb	03 08 44.0	
	comp=Z,28nm,1.0s						
SCM	Sheep Creek Mo	64.11	32	IAmb	IAmb	03 08 45.7	
	comp=Z,46nm,1.3s						
C27K	Jago River	64.38	23	IAmb	IAmb	03 08 46.2	
	comp=Z,53nm,1.2s						
BMAR	Burnt Mountain	64.40	25	P	P	03 08 45.4	+1.7
F26K	Sheenjek River	64.52	25	IAmb	IAmb	03 08 47.6	
	comp=Z,43nm,1.0s						
G26K	Porcupine Rive	64.78	26	IAmb	IAmb	03 08 50.0	
	comp=Z,48nm,1.3s						
RIDG	Independent Ri	64.91	29	IAmb	IAmb	03 08 49.2	
	comp=Z,90nm,1.8s						
DIV	Divide	64.96	32	IAmb	IAmb	03 08 49.5	
	comp=Z,31nm,0.9s						
SCRK	Sand Creek	65.24	29	IAmb	IAmb	03 08 50.7	
	comp=Z,93nm,1.8s						
E27K	Coleen River	65.39	24	IAmb	IAmb	03 08 52.8	
	comp=Z,28nm,1.1s						
D27M	Malcolm River	65.41	23	IAmb	IAmb	03 08 52.9	
	comp=Z,38nm,1.1s						
MAK	Makhachkala	65.44	307	eP	P	03 08 49.9	-0.8
MAK				e*PP	pP	03 09 06.4	-0.5
MAK				e*SP	sP	03 09 13.0	-0.6
MAK				e		03 11 17.7	
MAK				eS	S	03 17 29.6	-1.1
MAK				e*SS	sS	03 17 59.3	+1.5
MAK				eSS	SS	03 21 46.7	+2.1
MAK				pmax	pmax		
	comp=Z,83nm,0.8s						
MAK				MLR	MLR		
	comp=Z,178nm,17.0s						
BMRM	Bremner River	65.55	32	IAmb	IAmb	03 08 57.3	
	comp=Z,60nm,1.4s						
LKRN	Lenkeran, Azer	65.62	302	P	P	03 08 52.9	+0.9
AKT	Akhty	65.66	306	eP	P	03 08 52.0	-0.4
AKT				e*PP	pP	03 09 08.1	-0.4
AKT				e*SP	sP	03 09 15.5	+0.3
AKT				e		03 09 22.9	
AKT				ePPP	PPP	03 12 51.4	
AKT				pmax	pmax		
	comp=Z,25nm,1.0s						
AKT				MLR	MLR		
	comp=Z,188nm,19.0s						
H27K	Steamboat Moun	65.81	26	IAmb	IAmb	03 08 56.7	
	comp=Z,65nm,1.8s						
GLB	Gilahina Butte	65.83	32	IAmb	IAmb	03 08 55.0	
	comp=Z,23nm,1.1s						
MSVF	Nonsavu	65.89	127	LR	LR	03 34 11.6	
	comp=Z,46nm,21.8s,baz=107,slow=33						
I27K	Kandik River	65.90	27	IAmb	IAmb	03 08 56.2	
	comp=Z,56nm,1.1s						
M26K	Nabesna, AK	66.00	31	IAmb	IAmb	03 08 56.2	
	comp=Z,32nm,0.9s						
KLMR	Klimovskoe	66.04	328	eP	P	03 08 51.2	-3.1
KLMR				e*PP	pP	03 09 07.5	-3.0
KLMR				pmax	pmax		
	comp=Z,36nm,1.2s						
KLMR				MLR	MLR		
	comp=Z,283nm,16.0s						
E28M	Babbage River	66.05	24	IAmb	IAmb	03 08 56.9	
	comp=Z,36nm,1.1s						
K27K	Chicken	66.05	29	IAmb	IAmb	03 08 56.7	
	comp=Z,24nm,1.2s						
SEKA	Sheki	66.11	305	P	P	03 08 55.3	0.0
F28M	Old Crow	66.14	25	IAmb	IAmb	03 08 57.7	
	comp=Z,45nm,1.2s						
MCARA	McCarthy VSAT	66.21	32	IAmb	IAmb	03 08 58.4	
	comp=Z,29nm,1.0s						
MNGR	Mingechevir, A	66.32	305	P	P	03 08 57.0	+0.6
BCAR	Beaver Creek A	66.39	30	P	P	03 08 57.9	+1.2
I28M	Miner Creek	66.62	27	IAmb	IAmb	03 09 00.8	
	comp=Z,64nm,1.5s						
E29M	Blow River	66.68	24	IAmb	IAmb	03 09 00.8	
	comp=Z,29nm,1.2s						
HOPEN	Hopen	66.89	346	eP	P	03 08 59.5	0.0
GANJ	Ganja	66.91	305	P	P	03 09 00.6	+0.3
APA	Apatity	67.03	335	eP	P	03 08 58.2	-2.3
APA				e		03 09 25.2	
APA				e		03 11 26.3	
APA				eS	S	03 17 45.5	-3.7
APA				e		03 18 46.8	
APA				eSS	SS	03 22 12.9	+4.7
APA				pmax	pmax		
	comp=Z,12nm,0.9s						
APA				MLR	MLR		
	comp=Z,734nm,5.2s						
H29M	Whitestone	67.05	26	IAmb	IAmb	03 09 03.3	
	comp=Z,36nm,1.2s						
VRH	Novokhopyorsk	67.15	317	eP	P	03 09 00.2	-1.4
VRH				pmax	pmax		
	comp=Z,21nm,1.0s						
I29M	Ogilvie Camp,	67.30	27	IAmb	IAmb	03 09 04.7	
	comp=Z,31nm,1.2s						
EPYK	Eagle Plains	67.66	26	IAmb	IAmb	03 09 06.6	
	comp=Z,59nm,1.2s						
PCA	Pinnacle	67.85	33	IAmb	IAmb	03 09 08.1	
	comp=Z,28nm,0.9s						
NAX	Nakhchivan	67.94	304	P	P	03 09 07.1	+0.2
GOF	Gofitskoye	67.97	310	ceP	P	03 09 06.7	-0.2
L29M	L29M	67.99	29	IAmb	IAmb	03 09 09.7	
	comp=Z,19nm,0.8s						
SPB2	Spitsbergen Ar	68.00	348	P	P	03 09 06.1	-0.4
SPB2				IAmb	IAmb	03 09 06.9	
	comp=Z,41nm,1.0s						
SPA0	Spitsbergen Ar	68.00	348	eP	P	03 09 06.1	-0.4
SPA0				IAmb	IAmb	03 09 06.7	
	comp=Z,53nm,1.1s						
SPITS	Spitsbergen Ar	68.00	348	P	P	03 09 06.2	-0.3
	comp=Z,14nm,0.7s,baz=78,slow=7.8,SNR=25						
	comp=Z,14nm,0.7s						
NCK	Nalchik	68.04	309	⇓iP	P	03 09 07.0	-0.4
NCK				pmax	pmax		
	comp=Z,21nm,1.1s						
I30M	Mount Dempster	68.12	27	IAmb	IAmb	03 09 10.0	
	comp=Z,54nm,1.6s						
GNI	Garni	68.21	305	LR	LR	03 42 55.0	
	comp=Z,146nm,20.3s,baz=70,slow=39						
GNI	Garni	68.21	305	P	P	03 09 09.4	+0.7
GNI				pmax	pmax		
	comp=Z,32nm,1.2s						
GNI	Garni	68.21	305	P	P	03 09 09.3	+0.7
GNI				IAmb	IAmb	03 09 10.3	
	comp=Z,32nm,1.1s						
GNI	Garni	68.21	305	P	P	03 09 09.4	+0.7
INK	Inuvik	68.26	23	IAmb	IAmb	03 09 10.9	
	comp=Z,44nm,1.2s						
MOS	Moscow	68.29	323	eP	P	03 09 07.9	-0.7
MOS				pmax	pmax		
	comp=Z,52nm,0.8s						
KBS	Kingsbay	68.42	349	P	P	03 09 08.8	-0.3
KBS				pmax	pmax		
	comp=Z,24nm,1.0s						
KBS	Kingsbay	68.42	349	eP	P	03 09 09.0	-0.1
KBS				IAmb	IAmb	03 09 09.3	
	comp=Z,23nm,1.0s						
KBS	Kingsbay	68.42	349	P	P	03 09 08.8	-0.3
KBS				IAmb	IAmb	03 09 09.7	
	comp=Z,24nm,1.0s						
KBS	Kingsbay	68.42	349	i P	P	03 09 08.4	-0.7
G31M	Satah River	68.42	25	IAmb	IAmb	03 09 10.8	
	comp=Z,48nm,1.6s						
LPSR	Galich'ya Gora	68.44	319	eP	P	03 09 09.0	-0.6
LPSR				pmax	pmax		
	comp=Z,33nm,1.0s						
KBZ	Khabaz	68.46	309	P	P	03 09 10.3	+0.3
	comp=Z,36nm,0.8s,baz=101,slow=4.7,SNR=81						
KBZ				LR	LR	03 42 02.7	
	comp=Z,168nm,20.6s,baz=62,slow=38						
	comp=Z,36nm,0.8s						
KBZ	Khabaz	68.46	309	d iP	P	03 09 10.2	+0.3
KBZ				pmax	pmax		
	comp=Z,40nm,0.9s						
KVAR	Kislovodsk Arr	68.53	309	LR	LR	03 41 57.2	
	comp=Z,82nm,20.5s,baz=270,slow=38						
VORR	Voronezh	68.53	318	P	P	03 09 09.1	-1.2
VORR				pmax	pmax		
	comp=Z,40nm,1.2s						
KIV	Kislovodsk	68.54	309	eP	P	03 09 10.0	-0.6
KIV				pmax	pmax		
	comp=Z,57nm,1.1s						
KIV				MLR	MLR		
	comp=Z,132nm,17.0s						
KIV	Kislovodsk	68.54	309	P	P	03 09 10.6	0.0
KIV	Kislovodsk	68.54	309	⇑P	P	03 09 11.0	+0.4
KIV	Kislovodsk	68.54	309	P	P	03 09 10.9	+0.4
KIV				pP	pP	03 09 28.4	+1.6
KEV	Kevo	68.60	338	P	P	03 09 09.6	-0.8
KEV				pmax	pmax		
	comp=Z,65nm,1.7s						
KEV	Kevo	68.60	338	P	P	03 09 09.6	-0.8
KEV				IAmb	IAmb	03 10 38.3	
	comp=Z,65nm,1.7s						
SHA1	Shidzhatmaz	68.62	309	d iP	P	03 09 11.5	+0.2
VORD	Divnogorie	68.69	317	i P	P	03 09 07.8	-3.4
VORD				pmax	pmax		
	comp=Z,5.0nm,0.9s						
VSR	Storozhevoye	68.69	318	eP	P	03 09 10.1	-1.1
VSR				pmax	pmax		
	comp=Z,53nm,2.1s						
NEUR	Neytrino	68.73	309	⇑iP	P	03 09 11.1	-0.8
NEUR				pmax	pmax		
	comp=Z,7.0nm,1.0s						
H31M	Peel River	68.75	26	IAmb	IAmb	03 09 13.3	
	comp=Z,46nm,1.2s						
OBN	Obninsk	69.04	322	d iP	P	03 09 12.4	-0.9
OBN				e*PP	pP	03 09 28.2	-1.4
OBN				e*SP	sP	03 09 35.8	-0.5
OBN				S	S	03 18 20.0	+6.4
OBN				i *SS	sS	03 18 38.8	-2.1
OBN				pmax	pmax		
	comp=Z,22nm,1.1s						
OBN				MLR	MLR		
	comp=Z,415nm,19.0s						
OBN	Obninsk	69.04	322	P	P	03 09 12.2	-1.2
OBN	Obninsk	69.04	322	P	P	03 09 12.5	-0.9
	comp=Z,40nm,0.9s						
ARA0	ARCESS Array S	69.17	338	eP	P	03 09 13.0	-1.0
ARCES	ARCESS Array B	69.17	338	P	P	03 09 13.2	-0.7
	comp=Z,1.8nm,0.5s,baz=78,slow=7.5,SNR=25						
	comp=Z,1.8nm,0.5s						
ARCES	ARCESS Array B	69.17	338	P	P	03 09 13.4	-0.6
ARCES				pmax	pmax		
	comp=Z,75nm,2.0s						
ARCES	ARCESS Array B	69.17	338	P	P	03 09 13.4	-0.6
ARCES				IAmb	IAmb	03 10 01.3	
	comp=Z,75nm,1.9s						
OZAP	Van, Ozalp-Mer	69.22	304	⇑P	P	03 09 15.9	+0.8
ERBR	Yeremizino-Bor	69.50	312	eP	P	03 09 15.5	-0.9
ERBR				pmax	pmax		
	comp=Z,24nm,0.9s						
LABN	Labinsk	69.67	310	eP	P	03 09 16.9	-0.6
LABN				pmax	pmax		
	comp=Z,21nm,0.6s						
BATM	Batumi	69.95	307	P	P	03 09 19.6	+0.3
BATM	Batumi	69.95	307	⇓P	P	03 09 19.6	+0.3
GEVA	Gevas	70.02	304	P	P	03 09 19.9	-0.1
GEVA				IAmb	IAmb	03 09 20.9	
	comp=Z,28nm,0.8s						
NOR	Nord	70.12	355	i P	P	03 09 18.4	-1.1
NOR				IAmb	IAmb	03 09 19.7	
	comp=Z,17nm,1.2s						
KTK1	Kautokeino	70.12	338	eP	P	03 09 19.1	-0.7
KTK1				IAmb	IAmb	03 09 25.7	
	comp=Z,407nm,3.5s						
WHY	Whitehorse	70.22	31	IAmb	IAmb	03 09 23.1	
	comp=Z,36nm,1.0s						
HOMI	Horasan	70.31	306	⇑P	P	03 09 22.5	+0.7
VSLR	Vesyoloye	70.52	309	d iP	P	03 09 22.5	-0.2
VSLR				pmax	pmax		
	comp=Z,53nm,1.2s						
SOC	Sochi	70.70	310	c iP	P	03 09 22.8	-0.9
SOC				e		03 12 00.1	
SOC				ePPP	PPP	03 13 44.5	
SOC				eS	S	03 18 32.1	-1.3
SOC				eSS	SS	03 23 05.7	-0.1
SOC				pmax	pmax		
	comp=Z,46nm,0.7s						
SOC				MLR	MLR		
	comp=Z,773nm,15.0s						
GURO	Guroymak-BITLI	70.70	304	IAmb	IAmb	03 09 25.3	
	comp=Z,26nm,0.8s						
PUL	Pulkovo	70.73	328	⇓eP	P	03 09 23.4	-0.2
PUL				pmax	pmax		
	comp=Z,52nm,0.8s						
JETT	Jettan, Norway	70.81	339	eP	P	03 09 24.0	0.0
N32M	Quiet Lake	70.87	30	IAmb	IAmb	03 09 26.8	
	comp=Z,19nm,0.8s						
TRO	Tromso	71.24	340	eP	P	03 09 25.4	-1.1
TRO				IAmb	IAmb	03 09 29.3	
	comp=Z,20nm,1.1s						
AFI	Afiamalu	71.25	117	LR	LR	03 32 50.1	
	comp=Z,163nm,21.1s,baz=47,slow=29						
KOPT	Kop Dagi	71.33	306	IAmb	IAmb	03 09 30.3	
	comp=Z,47nm,1.2s						
KTUT	Trabzon	71.53	307	⇓P	P	03 09 29.8	+0.9
ANN	Anapa	71.83	311	eP	P	03 09 30.0	-0.6
ANN				pmax	pmax		
	comp=Z,41nm,0.8s						
ANN				MLR	MLR		
	comp=Z,217nm,22.0s						
FINES	FINESS Array B	72.05	330	P	P	03 09 30.8	-0.7
	comp=Z,12nm,0.4s,baz=65,slow=5.3,SNR=92						
	comp=Z,12nm,0.4s						
FINES	FINESS Array B	72.05	330		P	03 09 30.7	-0.9
VSU	Vasula	72.94	327	ceP	P	03 09 35.3	-1.6
VSU				pmax	pmax		
	comp=Z,49nm,0.9s						
WTLY	Watson Lake, Y	73.22	31	IAmb	IAmb	03 09 41.0	
	comp=Z,17nm,0.8s						
ARPR	Arapgir-MALATY	73.22	306	IAmb	IAmb	03 09 40.6	
	comp=Z,28nm,1.1s						
STEI	Steigen	73.24	339	eP	P	03 09 36.5	-1.9
RAYN	Ar Rayn	73.31	288	P	P	03 09 39.8	0.0
RAYN				pmax	pmax		
	comp=Z,38nm,1.2s						
RAYN	Ar Rayn	73.31	288	P	P	03 09 39.8	0.0
RAYN				IAmb	IAmb	03 09 40.6	
	comp=Z,38nm,1.2s						
RAYN	Ar Rayn	73.31	288	P	P	03 09 39.8	0.0
FAUS	Fauske	73.51	338	eP	P	03 09 39.1	-0.9
MNK	Minsk	73.96	323	i P	P	03 09 42.3	-0.6
MNK				i *PP	pP	03 09 58.8	-0.6
MNK				i *SP	sP	03 10 05.8	-0.3
MNK				i		03 12 27.7	
MNK				i PPP	PPP	03 14 13.0	
MNK				i S	S	03 19 11.2	+0.8
MNK				i *SS	sS	03 19 39.0	+0.9
MNK				i SS	SS	03 23 52.1	-3.0
MNK				i SSS	SSS	03 27 11.9	
MNK				pmax	pmax		
	comp=Z,46nm,0.9s						
MNK				pmax	pmax		
	comp=E,21nm,1.0s						
MNK				pmax	pmax		
	comp=N,22nm,1.0s						
MNK				MLR	MLR		
	comp=N,170nm,17.0s						
MNK				MLR	MLR		
	comp=Z,276nm,15.0s						
MNK				MLR	MLR		
	comp=E,131nm,17.0s						
MNK	Minsk	73.96	323	i P	P	03 09 42.4	-0.6
	comp=E,21nm,1.0s						
MNK				i P	P	03 09 42.4	-0.6
	comp=N,22nm,1.0s						
MNK				i P	P	03 09 42.4	-0.6
	comp=Z,46nm,0.9s,baz=66						
MNK				i pP	pP	03 09 58.9	-0.6
MNK				i sP	sP	03 10 05.8	-0.3
MNK				i PP	PP	03 12 27.8	-0.4
MNK				i PPP	PPP	03 14 13.0	
MNK				i S	S	03 19 11.2	+0.8
MNK				i sS	sS	03 19 39.1	+0.9
MNK				i SS	SS	03 23 52.2	-3.0
MNK				i SSS	SSS	03 27 12.0	
MNK				i LQ	LQ	03 37 04.5	
MNK				i LR	LR	03 43 01.8	
MNK				i LRM	MLR	03 45 06.4	
	comp=N,170nm,16.6s						
MNK				i LRM	MLR	03 45 12.3	
	comp=Z,276nm,15.0s						
MNK				i LRM	MLR	03 45 18.2	
	comp=E,131nm,17.5s						
WRGLY	Wrigley	74.09	27	IAmb	IAmb	03 09 45.7	
	comp=Z,27nm,1.0s						
TOKA	Tokat	74.10	307	IAmb	IAmb	03 09 45.1	
	comp=Z,25nm,0.9s						
NACGM	Naroch	74.38	324	eP	P	03 09 45.2	-0.2
	comp=N,28nm,0.9s						
RAUS	Rausandaksla	74.42	338	eP	P	03 09 44.3	-1.2
RAUS				IAmb	IAmb	03 09 45.7	
	comp=Z,65nm,1.2s						
MOR8	Moi Rana	74.43	337	eP	P	03 09 43.5	-2.0
DAG	Danmarks Havn	74.44	352	i P	P	03 09 44.0	-1.4
DAG				IAmb	IAmb	03 09 45.4	
	comp=Z,37nm,0.9s						
GAZ	Gaziantep	74.76	304	IAmb	IAmb	03 09 49.3	
	comp=Z,46nm,0.9s						
AKASG	Malin Array Be	74.76	319	P	P	03 09 46.6	-1.1
	comp=Z,7.4nm,0.4s,baz=56,slow=6.1,SNR=49						
	comp=Z,7.4nm,0.4s						
AKASG	Malin Array Be	74.76	319	ceP	P	03 09 46.5	-1.2
AKASG				pmax	pmax		
	comp=Z,7.0nm,0.4s						
AKASG	Malin Array Be	74.76	319	P	P	03 09 46.7	-0.9
AKBB	Malin Array Si	74.76	319	ceP	P	03 09 46.5	-1.2
AKBB	Malin Array Si	74.76	319	IAmb	IAmb	03 09 47.6	
	comp=Z,40nm,1.1s						
AK08	Malin Array Si	74.77	319	P	P	03 09 46.7	-1.0
KIEV	Kiev	74.77	319	P	P	03 09 46.4	-1.3
KIEV				pmax	pmax		
	comp=Z,40nm,1.2s						
KIEV	Kiev	74.77	319	P	P	03 09 46.4	-1.3
KIEV				IAmb	IAmb	03 09 47.6	
	comp=Z,40nm,1.2s						
KIEV	Kiev	74.77	319	⇑P	P	03 09 46.5	-1.3
KIEV	Kiev	74.77	319	P	P	03 09 46.7	-1.1
	comp=Z,143nm,1.0s						
KIEV	Kiev	74.77	319	P	P	03 09 46.6	-1.2
RES	Resolute Bay	74.82	11	P	P	03 09 48.3	+0.7
STOK	Stokkvaagen	74.83	338	eP	P	03 09 46.3	-1.4
AK14	Malin Array Si	74.86	319	P	P	03 09 47.4	-0.8
LEIR	Leirfjorden	74.91	337	eP	P	03 09 46.9	-1.4
BNN	Bunyan	75.11	306	IAmb	IAmb	03 09 51.1	
	comp=Z,32nm,1.0s						
ILGA	Ilgaz	75.76	309	IAmb	IAmb	03 09 55.0	
	comp=Z,22nm,1.0s						
NEEM	North Greenlan	75.77	360	i P	P	03 09 53.0	-0.3
NEEM				IAmb	IAmb	03 09 54.0	
	comp=Z,65nm,1.2s						
NSS	Namsos	76.19	336	eP	P	03 09 54.5	-1.2
NSS				IAmb	IAmb	03 09 56.0	
	comp=Z,15nm,0.9s						
BR131	Keskin Array S	76.34	308	d iP	P	03 09 56.9	-0.2
BR131	Keskin Array S	76.34	308	IAmb	IAmb	03 09 57.8	
	comp=Z,50nm,1.0s						
BRTR	Keskin Array B	76.34	308	P	P	03 09 57.1	-0.1
	comp=Z,27nm,0.8s,baz=97,slow=5.1,SNR=151						
BRTR				LR	LR	03 47 18.0	
	comp=Z,58nm,20.1s,baz=78,slow=39						
	comp=Z,27nm,0.8s						
BRTR	Keskin Array B	76.34	308	P	P	03 09 57.0	-0.2
SORM	Soroca	76.35	317	P	P	03 09 55.9	-0.9
SORM	Soroca	76.35	317	⇓P	P	03 09 56.0	-0.9
SORM	Soroca	76.35	317	P	P	03 09 55.8	-1.0
	comp=Z,33nm,1.2s						
BR106	Keskin Array S	76.35	308	P	P	03 09 57.0	-0.2
	comp=Z,294nmcomp=Z,40nm,1.1s						
BR105	Keskin Array S	76.36	308	P	P	03 09 57.0	-0.3
	comp=Z,357nmcomp=Z,45nm,1.0s						
RNPP9	Sopachiv	76.36	321	P	P	03 09 56.4	-0.5
KIRS	Kirsehir-Merke	76.38	307	⇓P	P	03 09 57.3	0.0
RNPP8	Varash	76.42	321	P	P	03 09 56.7	-0.5
SUW	Suwalki	76.66	324	eP	P	03 09 58.2	-0.2
DBG	Daneborg	76.78	352	i P	P	03 09 58.2	-0.6
DBG				IAmb	IAmb	03 09 59.5	
	comp=Z,64nm,1.1s						
TLCR		77.32	314	P	P	03 10 02.1	-0.2
TLCR		77.32	314	⇓P	P	03 10 02.1	-0.2
TPGR	Topolog	77.72	314	⇑P	P	03 10 04.7	0.0
MDUB	Mudurnu	77.74	309	IAmb	IAmb	03 10 05.4	
	comp=Z,25nm,0.8s						
CFR	Carcaliu	77.76	315	⇓P	P	03 10 04.4	-0.3
MMAI	Mount Meron Ar	77.77	301	P	P	03 10 05.1	-0.1
	comp=Z,7.1nm,0.7s,baz=52,slow=16,SNR=10						
MMAI				LR	LR	03 50 33.4	
	comp=Z,44nm,21.9s,baz=54,slow=40						
	comp=Z,7.1nm,0.7s						
SAHE	Sakarya_HENDEK	77.82	310	⇑P	P	03 10 04.0	-1.3
YKAW3	Yellowknife Wh	77.87	25	IAmb	IAmb	03 10 06.9	
	comp=Z,30nm,0.9s						
TIRR	Tirgusor	77.89	314	P	P	03 10 05.5	0.0
TIRR				pmax	pmax		
	comp=Z,17nm,1.1s						
TIRR	Tirgusor	77.89	314	IAmb	IAmb	03 10 06.3	
	comp=Z,24nm,1.2s						
TIRR	Tirgusor	77.89	314	⇓P	P	03 10 05.5	0.0
TIRR	Tirgusor	77.89	314	P	P	03 10 05.3	-0.3
	comp=Z,277nmcomp=Z,17nm,1.1s						
CY604	RAF Akrotiri,	77.90	302	P	P	03 10 05.6	+0.2
YKA	Yellowknife Ar	77.92	25	P	P	03 10 05.9	+0.6
	comp=Z,12nm,0.7s,baz=304,slow=5.3,SNR=16						
YKA				LR	LR	03 49 19.7	
	comp=Z,32nm,18.3s,baz=290,slow=39						
	comp=Z,12nm,0.7s						
YKA	Yellowknife Ar	77.92	25	P	P	03 10 05.5	+0.1
PRAR	RASCA	77.97	317	⇓P	P	03 10 05.5	-0.5
HFS	Hagfors	78.00	332	P	P	03 10 04.9	-1.0
	comp=Z,12nm,0.7s,baz=81,slow=9.2,SNR=22						
	comp=Z,12nm,0.7s						
TESR	Tescani	78.10	316	⇓P	P	03 10 06.5	-0.2
TESR	Tescani	78.10	316	P	P	03 10 06.4	-0.3
	comp=Z,42nm,1.4s						
HARR	Harsova	78.10	314	P	P	03 10 06.4	-0.3
HARR	Harsova	78.10	314	⇓P	P	03 10 06.5	-0.3
NC405	NORSAR Array S	78.25	334		P	03 10 06.7	-0.5
ONER	Baraj Valea Uz	78.33	316	⇑P	P	03 10 08.0	0.0
VRI	Vrincioaia	78.34	316	P	P	03 10 09.0	+1.0
VRI	Vrincioaia	78.34	316	⇓P	P	03 10 09.0	+1.0
PLOR	Plostina	78.39	316	P	P	03 10 08.6	+0.2
PLOR	Plostina	78.39	316	⇓P	P	03 10 08.7	+0.2
SAHR	Sahastru	78.43	315	⇓P	P	03 10 09.6	+1.0
ICOR	Ion Corvin	78.44	314	⇓P	P	03 10 09.2	+0.7
BUR08	Bucovina Ar. S	78.47	318	P	P	03 10 08.6	-0.2
BUR08				IAmb	IAmb	03 10 09.7	
	comp=Z,25nm,1.1s						
BURAR	Bucovina Array	78.47	318	P	P	03 10 08.7	-0.1
BURAR	Bucovina Array	78.47	318	P	P	03 10 08.7	-0.1
BURAR				IAmb	IAmb	03 10 10.0	
	comp=Z,24nm,1.0s						
BURAR	Bucovina Array	78.47	318	⇓P	P	03 10 08.9	0.0
NB2	NORSAR Subarra	78.49	334	P	P	03 10 07.4	-1.2
	comp=Z,26nm,0.7s,baz=55,slow=5.6						
NB2	NORSAR Subarra	78.49	334	P	P	03 10 07.4	-1.2
NOA	NORSAR Array B	78.49	334	P	P	03 10 07.8	-0.8
	comp=Z,33nm,0.9s,baz=52,slow=5.6,SNR=48						
	comp=Z,33nm,0.9s						
BORA	Eskisehir	78.51	309	IAmb	IAmb	03 10 09.4	
	comp=Z,32nm,0.8s						
CSS	Mathiatis	78.53	303	P	P	03 10 08.9	-0.4
	comp=Z,664nmcomp=Z,82nm,0.9s						
NC602	NORSAR Array S	78.53	333	eP	P	03 10 07.5	-1.3
NC602				IAmb	IAmb	03 10 08.2	
	comp=Z,36nm,1.2s						

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NORES  NORESS Array B   78.53 333   P      P      03 10 07.6 -1.2
NORES                               pmax   pmax
       comp=Z,1.0nm,0.4s
KULLO  Kullorsuaq       78.59   1 i P      P      03 10 08.2 -0.6
KULLO                               IAmb   IAmb   03 10 09.2
       comp=Z,41nm,0.9s
NBO00  NORSAR Array S   78.67 334   IAmb   IAmb   03 10 09.6
       comp=Z,30nm,0.9s
COVR   Voineasa-Covas   78.67 316 ⇑P       P      03 10 10.6 +0.7
TURR   Turia            78.70 316 ⇓P       P      03 10 11.0 +1.0
DOMB   Dombas           78.72 335 eP       P      03 10 09.1 -0.8
DOMB                                IAmb   IAmb   03 10 09.8
       comp=Z,62nm,1.0s
OZUR                    78.82 316 ⇓P       P      03 10 10.9 +0.2
BOSR   Bodos            78.91 316 ⇓P       P      03 10 12.0 +0.8
YLV    Yalova           78.96 310   P      P      03 10 10.9 -0.7
       comp=Z,327nmcomp=Z,35nm,1.1s
KEPZ   Antalya-Kepez    78.97 306 ⇑P       P      03 10 10.8 -0.9
BEL    Belsk            78.98 323 eP       P      03 10 11.8 +0.4
KWP    Kalwaria Pacla   78.99 320 eP       P      03 10 11.4 -0.2
KWP    Kalwaria Pacla   78.99 320   P      P      03 10 11.9 +0.3
KWP    Kalwaria Pacla   78.99 320   P      P      03 10 12.1 +0.5
       comp=Z,84nm,1.1s
MLR    Muntele Rosu     79.00 315   P      P      03 10 11.4 -0.4
MLR    Muntele Rosu     79.00 315   IAmb   IAmb   03 10 13.3
       comp=Z,44nm,1.2s
MLR    Muntele Rosu     79.00 315 ⇓P       P      03 10 11.9  0.0
DOPR   Dopca            79.12 316 ⇑P       P      03 10 13.0 +0.6
OSL    Oslo             79.33 333 eP       P      03 10 12.7 -0.5
ISP    Isparta          79.35 307ceP       P      03 10 12.4 -1.5
ISP                                 pmax   pmax
       comp=Z,46nm,1.7s
EIL    Elat             79.51 298   LR     LR     03 50 25.8
       comp=Z,67nm,20.1s,baz=88,slow=39
RAZG   Razgrad          79.52 314 ⇓P       P      03 10 14.8 +0.3
LOZB   Loznitsa         79.56 313 ⇓P       P      03 10 14.6 -0.1
KOLS   Kolonicke sedl   79.58 320 eP       P      03 10 14.5 -0.3
KOLS                                pmax   pmax
       comp=Z,10.0nm,0.9s
KOLS   Kolonicke sedl   79.58 320 eP       P      03 10 14.5 -0.3
VOIR                    79.58 316   P      P      03 10 14.7 -0.2
VOIR                    79.58 316 ⇓P       P      03 10 14.7 -0.2
VOIR                    79.58 316   P      P      03 10 14.5 -0.5
       comp=Z,8.5nm,1.1s
URZ    Urewera          79.61 143   LR     LR     03 38 51.4
       comp=Z,114nm,20.6s,baz=284,slow=31
MDB    Medias           79.66 317 ⇓P       P      03 10 16.4 +1.1
SKAR   Skarslia         79.84 334 eP       P      03 10 16.0  0.0
SKAR                                IAmb   IAmb   03 10 16.6
       comp=Z,40nm,1.0s
CJR    Cluj-Napoca      79.87 317   P      P      03 10 17.3 +0.9
ARR    Arges            79.87 316 ⇑P       P      03 10 17.0 +0.4
BAND   Balkesir-Ban     79.92 310 ⇓P       P      03 10 16.7  0.0
STHS   Stebnicka Huta   79.93 321 eP       P      03 10 17.0 +0.3
STHS                                pmax   pmax
       comp=Z,13nm,1.1s
STHS   Stebnicka Huta   79.93 321 eP       P      03 10 17.0 +0.3
KONO   Kongsberg        79.96 333   P      P      03 10 16.3 -0.3
KONO   Kongsberg        79.96 333 eP       P      03 10 15.8 -0.8
TNR    Turnu Rosu       79.96 316   P      P      03 10 17.6 +0.7
TNR    Turnu Rosu       79.96 316 ⇓P       P      03 10 17.6 +0.7
MESR   Meseseni         80.05 318 ⇑P       P      03 10 18.5 +1.2
HUMR   Humele           80.05 315 ⇑P       P      03 10 16.8 -0.6
COPA   Copaceanca       80.09 315 ⇓P       P      03 10 18.0 +0.5
MARR   Marisel-Cluj     80.17 318 ⇑P       P      03 10 18.4 +0.3
SUMG   Summit           80.23 356   P      P      03 10 19.3 +1.0
SUMG                                pmax   pmax
       comp=Z,61nm,1.1s
SUMG   Summit           80.23 356   IAmb   IAmb   03 10 19.9
       comp=Z,72nm,1.2s
SUMG   Summit           80.23 356 i P      P      03 10 19.0 +0.7
SUMG                                IAmb   IAmb   03 10 20.2
       comp=Z,58nm,1.1s
BSD    Bornholm Skovb   80.24 328 i P      P      03 10 18.1 -0.1
BSD                                 IAmb   IAmb   03 10 18.4
       comp=Z,33nm,0.8s
ELL    Elmali           80.26 306   P      P      03 10 18.1 -0.8
ELL                                 pmax   pmax
       comp=Z,163nm,1.2s
ELL    Elmali           80.26 306   IAmb   IAmb   03 10 19.1
       comp=Z,42nm,0.9s
OJC    Ojcow            80.33 322 eP       P      03 10 18.7 -0.1
OJC    Ojcow            80.33 322   P      P      03 10 18.9 +0.1
OJC    Ojcow            80.33 322   P      P      03 10 19.2 +0.4
       comp=Z,783nmcomp=Z,75nm,1.1s
HYA    Hoyanger         80.34 335 eP       P      03 10 17.9 -0.7
DRGR                    80.36 318   P      P      03 10 19.4 +0.3
DRGR                    80.36 318 ⇓P       P      03 10 19.4 +0.3
LOT    Lotru            80.37 316 ⇑P       P      03 10 19.3 +0.1
BALB   Balikesir        80.39 310   IAmb   IAmb   03 10 19.9
       comp=Z,47nm,1.2s
NIE    Niedzica         80.46 321 eP       P      03 10 20.0 +0.5
VLAD   Vladila          80.67 315 ⇓P       P      03 10 21.3 +0.6
DEV    Deva             80.69 317   P      P      03 10 21.3 +0.5
DEV    Deva             80.69 317 ⇑P       P      03 10 21.3 +0.5
AKAS   Kas              80.71 306   IAmb   IAmb   03 10 20.5
       comp=Z,43nm,1.0s
RPZ    Rata Peaks       80.74 150   LR     LR     03 43 27.0
       comp=Z,13nm,19.9s,baz=330,slow=34
PLVB   Pleven           80.82 314 ⇓P       P      03 10 21.7 +0.2
SUE    Sulen            80.94 336 eP       P      03 10 21.6 -0.1
SUE                                 IAmb   IAmb   03 10 22.6
       comp=Z,122nm,1.1s
GZR    Gura Zlata       81.01 316 ⇓P       P      03 10 22.7 +0.1
ALN    Alexandroupoli   81.06 311   IAmb   IAmb   03 10 23.4
       comp=Z,36nm,1.0s
LANS   Liptovska Anna   81.06 321 eP       P      03 10 22.2 -0.6
LANS                                pmax   pmax
       comp=Z,8.0nm,0.7s
LANS   Liptovska Anna   81.06 321 eP       P      03 10 22.2 -0.6
CAVK   Edirne/Enez-Ca   81.07 311 ⇓P       P      03 10 23.0 +0.1
SRE    Strehaia         81.10 316   P      P      03 10 23.7 +0.7
SRE    Strehaia         81.10 316 ⇓P       P      03 10 23.7 +0.7
BLS5   Blasjo           81.36 334 eP       P      03 10 24.0 -0.1
BLS5                                IAmb   IAmb   03 10 24.5
       comp=Z,55nm,1.0s
EZN    Ezine            81.37 310   P      P      03 10 24.4 -0.1
OKC    Ostrava-Krasne   81.44 322 eP       P      03 10 24.8 +0.1
PSZ    Piszkesteto      81.46 320   IAmb   IAmb   03 10 28.6
       comp=Z,40nm,1.4s
PSZ    Piszkesteto      81.46 320 ⇓P       P      03 10 24.7 -0.2
PUNG   Punghina         81.46 315 ⇓P       P      03 10 25.5 +0.6
HERR   Herculane        81.48 316 ⇑P       P      03 10 25.1 +0.1
STEB   Steborice        81.59 322 eP       P      03 10 25.9 +0.4
BZS    Buzias           81.61 317   P      P      03 10 25.0 -0.6
BZS    Buzias           81.61 317 ⇓P       P      03 10 25.1 -0.6
SNART  Snartemo         81.75 333   IAmb   IAmb   03 10 24.6
       comp=Z,308nm,1.9s
SNART                             eP       P      03 10 25.9 -0.3
VYHS   Vyhne            81.76 321 eP       P      03 10 27.1 +0.6
VYHS   Vyhne            81.76 321 eP       P      03 10 27.1 +0.6
MORC   Moravsky Berou   81.80 322   P      P      03 10 26.7 +0.1
MORC                                pmax   pmax
       comp=Z,29nm,1.3s
MORC   Moravsky Berou   81.80 322   IAmb   IAmb   03 10 27.9
       comp=Z,32nm,1.1s
MORC   Moravsky Berou   81.80 322 eP       P      03 10 26.8 +0.1
MORC   Moravsky Berou   81.80 322 ⇑P       P      03 10 27.1 +0.4
MAUC   Maruska          81.87 322 eP       P      03 10 27.3 +0.3
KSP    Ksiaz            81.90 323 eP       P      03 10 27.1  0.0
MDVR   Moldovita        81.97 316 ⇑P       P      03 10 27.6 -0.1
A05A   Maple Falls      81.98  39   IAmb   IAmb   03 10 29.7
       comp=Z,36nm,1.5s
KRLC   Kraliky          82.06 323 eP       P      03 10 28.0  0.0
KRLC   Kraliky          82.06 323 eP       P      03 10 28.0  0.0
MUD    Monsted U'grnd   82.09 331 i P      P      03 10 27.6 -0.3
MUD                                 IAmb   IAmb   03 10 28.5
       comp=Z,66nm,1.0s
OSTC   Ostas            82.10 323 eP       P      03 10 28.4 +0.2
OSTC   Ostas            82.10 323 eP       P      03 10 28.4 +0.2
DPC    Dobruska-Polom   82.15 323 eP       P      03 10 29.1 +0.6
DPC                                 MLR    MLR
       comp=Z,300nm,13.3s
DPC    Dobruska-Polom   82.15 323 eP       P      03 10 29.1 +0.6
DPC                                 AMS    AMS    03 50 00.0
       comp=Z,300nm,13.3s
CHVC   Chvalec          82.17 323 eP       P      03 10 29.0 +0.4
CHVC                                MLR    MLR
       comp=Z,300nm,17.3s
CHVC   Chvalec          82.17 323 eP       P      03 10 29.0 +0.4
CHVC                                AMS    AMS    03 50 00.0
       comp=Z,300nm,17.3s
BUD    Budapest         82.19 320   P      P      03 10 29.9 +1.2
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JAVC   Velka Javorina   82.22 321 eP       P      03 10 30.4 +1.5
UPC    Upice            82.23 323 eP       P      03 10 29.3 +0.4
UPC    Upice            82.23 323 eP       P      03 10 29.3 +0.4
RUE    Ruedersdorf      82.28 326 eP       P      03 10 30.0 +1.0
       comp=Z,59nm,1.1s,baz=53,slow=5.0
SRO    Srobarova        82.42 320 eP       P      03 10 31.0 +1.1
SRO    Srobarova        82.42 320 eP       P      03 10 31.0 +1.1
SAATT  Saattut          82.44 360 i P      P      03 10 29.7 +0.2
SAATT                               IAmb   IAmb   03 10 31.6
       comp=Z,39nm,1.3s
NIAQ   Niaqornat        82.45   1 i P      P      03 10 30.4 +0.8
NIAQ                                IAmb   IAmb   03 10 32.5
       comp=Z,160nm,1.6s
SMOL   Smolenice        82.55 321 eP       P      03 10 31.7 +1.2
SMOL                                pmax   pmax
       comp=Z,15nm,0.9s
BOVS   Bovan            82.55 315 ⇓P       P      03 10 30.6  0.0
VRAC   Vranov           82.58 322   P      P      03 10 31.6 +0.9
VRAC   Vranov           82.58 322 eP       P      03 10 31.0 +0.3
VRAC   Vranov           82.58 322 ⇑P       P      03 10 31.6 +0.9
MODS   Modra-Piesok     82.71 321 eP       P      03 10 32.3 +0.9
MODS                                pmax   pmax
       comp=Z,83nm,1.2s
MODS   Modra-Piesok     82.71 321 eP       P      03 10 32.3 +0.9
PEHC   Pehcevo          82.71 313 i P      P      03 10 31.4 -0.2
KRUC   Moravsky         82.82 322   P      P      03 10 32.5 +0.5
KRUC   Moravsky         82.82 322 eP       P      03 10 32.3 +0.3
FRGS   Fruska Gora      82.94 317⇑iP       P      03 10 32.0 -0.7
MORH   Mrgy, Hungar     83.08 319 ⇓P       P      03 10 33.3  0.0
MORH   Mrgy, Hungar     83.08 319⇑iP       P      03 10 32.3 -1.0
BSEG   Bad Segeberg     83.11 328 eP       P      03 10 33.8 +0.5
       comp=Z,32nm,1.0s,baz=53,slow=5.0
BRG    Berggiesshubel   83.12 324 eP       P      03 10 33.6 +0.1
       comp=Z,13nm,1.0s,baz=53,slow=5.0
BRG    Berggiesshubel   83.12 324 i P      P      03 10 33.9 +0.4
BRG                                 Amp           03 10 34.7
       comp=Z,14nm,1.0s
BRG                                 pP     pP     03 10 48.9 -1.3
BRG                                 Amp           03 10 50.0
       comp=Z,7.9nm,0.9s
VAY    Valandovo        83.15 313 i P      P      03 10 33.6 -0.2
TREC   Trest            83.19 322 eP       P      03 10 34.3 +0.4
TREC   Trest            83.19 322 eP       P      03 10 34.3 +0.4
SAQQ   Saqqaq           83.24 360 i P      P      03 10 34.1 +0.4
SAQQ                                IAmb   IAmb   03 10 34.5
       comp=Z,33nm,1.0s
PRU    Pruhonice        83.31 323 eP       P      03 10 34.4  0.0
PRU                                 pmax   pmax
       comp=Z,6.0nm,0.7s
PRU                                 MLR    MLR
       comp=Z,400nm,19.2s
PRU    Pruhonice        83.31 323 eP       P      03 10 34.4  0.0
       comp=Z,6.1nm,0.7s
PRU                                 AMS    AMS    03 50 50.0
       comp=Z,400nm,19.2s
CLL    Collm            83.35 325⇑iP       P      03 10 34.4 -0.2
CLL                                 pmax   pmax
       comp=Z,61nm,1.1s
CLL                                 MLR    MLR
       comp=Z,500nm,18.8s
CLL    Collm            83.35 325   IAmb   IAmb   03 10 35.6
       comp=Z,50nm,1.0s
CLL    Collm            83.35 325 eP       P      03 10 34.8 +0.2
       comp=Z,44nm,0.9s,baz=53,slow=5.0
CLL    Collm            83.35 325⇑iP       P      03 10 34.4 -0.2
       comp=Z,61nm,1.1s
CLL                               ePP      PP     03 13 47.0 +0.5
CLL                                 LV            03 37 00.0
CLL                                 AMS    AMS    03 51 00.0
       comp=N,200nm,18.0s
CLL                                 AMS    AMS    03 51 00.0
       comp=E,300nm,19.5s
CLL                                 AMS    AMS    03 51 00.0
       comp=Z,500nm,18.8s
TEKS   Tekeris          83.42 317⇑iP       P      03 10 33.6 -1.6
WINA   Alland / Wiene   83.53 321 i P      P      03 10 36.6 +1.0
       comp=Z,22nm,1.1s,SNR=10
HSKC   Hora Svate Kat   83.54 324 eP       P      03 10 35.9 +0.2
HSKC                                AMS    AMS    03 51 10.0
       comp=Z,400nm,23.9s
RONA   Rosalia, Austr   83.63 321 eP       P      03 10 35.5 -0.7
       comp=Z,8.1nm,1.1s
FLTG   Flechtingen      83.64 327 eP       P      03 10 36.1  0.0
       comp=Z,72nm,1.0s,baz=53,slow=5.0
CONA   Conrad Observa   83.74 321 eP       P      03 10 36.0 -0.8
       comp=Z,16nm,0.7s,SNR=19
ZVC    Zvikov           83.81 323 eP       P      03 10 37.4 +0.4
SJES   Sjenica          83.82 316⇑iP       P      03 10 37.2 -0.2
BBLS   Lazi&#263i      83.86 316⇑iP       P      03 10 36.9 -0.6
GDH    Godhavn          84.00   1 i P      P      03 10 37.3 -0.2
GDH                                 IAmb   IAmb   03 10 45.5
       comp=Z,47nm,1.1s
BEHE   Becsehely        84.03 320⇑iP       P      03 10 37.7 -0.5
ASSE   Asse, Remlinge   84.03 327 eP       P      03 10 38.5 +0.5
       comp=Z,55nm,1.2s,baz=53,slow=5.0
NEUB   Neuenburg        84.03 325 eP       P      03 10 38.2 +0.1
       comp=Z,89nm,0.9s,baz=53,slow=5.0
ILULI  Ilulissat        84.04 360 i P      P      03 10 38.3 +0.5
EDM    Edmonton         84.06  32   IAmb   IAmb   03 10 40.4
       comp=Z,28nm,1.3s
CKRC   Cesky Krumlov    84.10 323 eP       P      03 10 39.0 +0.5
CKRC                                MLR    MLR
       comp=Z,400nm,16.0s
CKRC   Cesky Krumlov    84.10 323 eP       P      03 10 39.0 +0.5
CKRC                                AMS    AMS    03 51 10.0
       comp=Z,400nm,16.0s
PLE    Pljevlja         84.15 316⇑iP       P      03 10 38.7 -0.3
TANN   Tannenbergstha   84.15 325 eP       P      03 10 38.8  0.0
       comp=Z,38nm,1.1s,baz=53,slow=5.0
PVY    Plav             84.18 315⇑iP       P      03 10 36.6 -2.6
NKC    Novy Kostel      84.27 324 eP       P      03 10 39.7 +0.3
NKC    Novy Kostel      84.27 324 eP       P      03 10 39.7 +0.3
PLN    Plauen           84.27 325 eP       P      03 10 39.5 +0.2
       comp=Z,13nm,1.0s,baz=53,slow=5.0
EPH    Ephrata          84.28  39   IAmb   IAmb   03 10 41.5
       comp=Z,27nm,1.4s
RETH   Rethem/Aller,    84.30 328 eP       P      03 10 39.5 +0.1
       comp=Z,57nm,1.1s,baz=53,slow=5.0
ARSA   Arzberg          84.31 321 eP       P      03 10 38.8 -0.9
       comp=Z,14nm,1.2s
KHC    Kasperske Hory   84.31 323c iP      P      03 10 39.3 -0.4
KHC                                 pmax   pmax
       comp=Z,45nm,1.7s
KHC    Kasperske Hory   84.31 323 eP       P      03 10 39.9 +0.2
       comp=Z,2.3nm,0.5s
KHC                               ex       x      03 10 59.0
KHC                                 AMS    AMS    03 51 10.0
       comp=Z,300nm,17.1s
KHC    Kasperske Hory   84.31 323   IAmb   IAmb   03 10 41.0
       comp=Z,46nm,1.4s
KOME   Kolasin          84.32 315⇑iP       P      03 10 39.7 -0.2
CLZ    Clausthal        84.36 326 eP       P      03 10 40.3 +0.5
       comp=Z,102nm,0.9s,baz=53,slow=5.0
GEC2   GERESS Array S   84.41 323 eP       P      03 10 40.1 -0.1
       comp=Z,48nm,1.4s,baz=53,slow=5.0
GERES  GERESS Array B   84.41 323   P      P      03 10 40.2 -0.1
       comp=Z,13nm,0.9s,baz=46,slow=3.9,SNR=67
       comp=Z,13nm,0.9s
OHR    Ohrid            84.41 313 i P      P      03 10 40.2 -0.1
MOX    Moxa             84.45 325 eP       P      03 10 40.4 +0.1
       comp=Z,28nm,0.9s,baz=53,slow=5.0
MOX                               eL       L      03 52 32.1
       comp=Z,394nm,18.3s
E07A   Sunnyside        84.58  40   IAmb   IAmb   03 10 44.3
       comp=Z,46nm,1.7s
I04A   Tendick Farm,    84.58  43   IAmb   IAmb   03 11 30.4
       comp=Z,26nm,1.3s
MOA    Molln            84.67 322 i P      P      03 10 41.5  0.0
       comp=Z,29nm,1.0s,SNR=14
WET    Wettzell         84.68 323 eP       P      03 10 41.4 -0.1
       comp=Z,27nm,1.2s,baz=53,slow=5.0
PDG    Podgorica        84.71 315 ⇑P       P      03 10 41.6 -0.1
PDG    Podgorica        84.71 315⇑iP       P      03 10 40.8 -0.9
PDG    Podgorica        84.71 315⇑iP       P      03 10 40.8 -0.9
NKME   Niksic           84.72 316⇑iP       P      03 10 41.0 -0.8
BLY    Banja Luka       84.73 318 ⇓P       P      03 10 42.2 +0.4
BLY    Banja Luka       84.73 318⇑iP       P      03 10 41.0 -0.8
KLINJ  Klinje           84.73 316 eP       P      03 10 40.3 -1.7
GTTG   Gottingen        84.74 326 eP       P      03 10 42.7 +1.0
       comp=Z,78nm,0.9s,baz=53,slow=5.0
C09A   Chrisman Ranch   84.76  38   IAmb   IAmb   03 10 44.2
       comp=Z,28nm,1.6s
RAR    Rarotonga        84.80 117   LR     LR     03 39 15.6
       comp=Z,110nm,21.7s,baz=288,slow=29
CEME   Cevo             84.86 315⇑iP       P      03 10 41.8 -0.8
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DRME   Dracevica, Mon   84.88 315⇑iP       P      03 10 41.9 -0.7
DRME   Dracevica, Mon   84.88 315⇑iP       P      03 10 41.9 -0.7
PERS   Pernice          84.89 320 eP       P      03 10 42.2 -0.4
BRY    Bratogost        84.90 316⇑iP       P      03 10 42.2 -0.6
BRY    Bratogost        84.90 316⇑iP       P      03 10 42.3 -0.6
SOKA   Soboth           84.91 320 eP       P      03 10 41.9 -0.9
       comp=Z,36nm,1.3s,SNR=13
SESA   Seetaler Alpe,   84.93 321 i P      P      03 10 43.5 +0.5
       comp=Z,112nm,0.8s,SNR=35
ULC    Ulcinj           84.96 315⇑iP       P      03 10 42.0 -1.0
BUM    Brajici-Budva    85.00 315⇑iP       P      03 10 42.6 -0.7
E08A   Dider Farm, El   85.07  40   IAmb   IAmb   03 10 46.0
       comp=Z,20nm,1.4s
BIOA   Bad Ischl, Aus   85.11 322 i P      P      03 10 43.4 -0.3
       comp=Z,47nm,1.3s,SNR=15
TREB   Trebinje         85.12 316⇑iP       P      03 10 42.6 -1.2
NEW    Newport          85.13  37   P      P      03 10 45.1 +1.3
HCY    Herceg Novi      85.17 316⇑iP       P      03 10 43.2 -0.9
HCY    Herceg Novi      85.17 316⇑iP       P      03 10 43.2 -0.9
GRF    Grafenberg Arr   85.23 324 eP       P      03 10 45.0 +0.8
       comp=Z,88nm,1.0s,baz=53,slow=5.0
GRF                               eL       L      03 52 16.3
       comp=Z,294nm,19.7s
GRFO   Grafenberg       85.23 324   P      P      03 10 45.0 +0.8
PDKS   Podkum           85.28 320 eP       P      03 10 43.7 -0.9
OBKA   Obir             85.28 321 i P      P      03 10 43.9 -0.8
       comp=Z,33nm,1.0s,SNR=7.1
IBBN   Ibbenburen       85.33 328 eP       P      03 10 45.1 +0.5
       comp=Z,57nm,1.0s,baz=53,slow=5.0
PINE   Pine Mountain    85.47  43   P      P      03 10 47.5 +1.7
PINE                                IAmb   IAmb   03 10 49.5
       comp=Z,38nm,1.4s
L04D   Klamath Falls    85.49  45   IAmb   IAmb   03 10 48.4
       comp=Z,43nm,1.3s
M02C   Callahan         85.59  45   IAmb   IAmb   03 10 49.4
       comp=Z,18nm,1.4s
KBA    Koelnbreinsper   85.63 321 eP       P      03 10 45.7 -0.7
       comp=Z,40nm,1.2s,SNR=9.6
GBRS   Gornja Briga     85.69 320 eP       P      03 10 46.5 -0.1
KASTN  Kahler Asten     85.71 327 eP       P      03 10 47.4 +0.8
       comp=Z,22nm,0.9s,baz=53,slow=5.0
MYKA   Terra Mystica    85.72 321 eP       P      03 10 45.9 -1.0
       comp=Z,13nm,0.7s,SNR=7.4
LESA   Schwarzleotal    85.80 322 eP       P      03 10 46.4 -0.8
       comp=Z,39nm,0.9s,SNR=34
PRED   Cave del Predi   85.88 321   IAmb   IAmb   03 10 47.6
       comp=Z,8.3nm,0.7s
K05A   Summer Lake      86.09  44   IAmb   IAmb   03 10 51.8
       comp=Z,18nm,1.2s
FUR    Furstenfeldbru   86.11 323 eP       P      03 10 49.8 +1.1
       comp=Z,126nm,1.0s,baz=53,slow=5.0
M03C   McCloud          86.12  45   IAmb   IAmb   03 10 51.3
       comp=Z,24nm,1.1s
SFJD   Kangerlussuaq    86.27 359   P      P      03 10 48.9 -0.1
SFJD                                pmax   pmax
       comp=Z,32nm,1.2s
SFJD   Kangerlussuaq    86.27 359   P      P      03 10 48.9 -0.1
SFJD                                IAmb   IAmb   03 10 50.7
       comp=Z,32nm,1.1s
SFJD   Kangerlussuaq    86.27 359 i P      P      03 10 48.8 -0.1
SFJD                                IAmb   IAmb   03 10 49.1
       comp=Z,27nm,1.1s
O02D   Mt. Diablo Mer   86.28  46   IAmb   IAmb   03 10 53.3
       comp=Z,19nm,1.2s
ABTA   Abfaltersbach    86.29 322 eP       P      03 10 48.4 -1.2
       comp=Z,27nm,0.9s,SNR=18
WATA   Walderalm        86.45 322 eP       P      03 10 49.8 -0.7
       comp=Z,35nm,1.0s,SNR=14
WTTA   Wattenberg       86.46 322 i P      P      03 10 49.9 -0.7
       comp=Z,29nm,1.0s,SNR=23
MOTA   Moosalm          86.70 323 i P      P      03 10 50.9 -0.8
       comp=Z,37nm,0.9s,SNR=19
SQTA   Sankt Quirin     86.72 322 i P      P      03 10 51.0 -0.8
       comp=Z,42nm,1.0s,SNR=24
HATC   Hat Creek Radi   86.78  45   IAmb   IAmb   03 10 54.6
       comp=Z,30nm,1.2s
RETA   Reutte           86.80 323 eP       P      03 10 51.1 -1.1
       comp=Z,8.2nm,0.8s,SNR=10
STU    Stuttgart        86.84 324   P      P      03 10 52.6 +0.4
STU                                 pmax   pmax
       comp=Z,128nm,0.9s
STU    Stuttgart        86.84 324 eP       P      03 10 52.5 +0.3
       comp=Z,83nm,0.9s,baz=53,slow=5.0
O03E   Paynes Creek     86.85  46   IAmb   IAmb   03 10 54.3
       comp=Z,24nm,1.6s
BMO    Blue Mountains   87.02  40   P      P      03 10 53.2 -0.1
BMO                                 pmax   pmax
       comp=Z,7.0nm,1.2s
BMO    Blue Mountains   87.02  40   P      P      03 10 53.2 -0.1
UBR    Ueberruh         87.03 323 eP       P      03 10 53.5 +0.3
       comp=Z,52nm,0.9s,baz=53,slow=5.0
FETA   Feichten         87.10 322 eP       P      03 10 52.7 -1.0
       comp=Z,13nm,0.8s,SNR=14
CTI    Castel Tesino    87.18 321   IAmb   IAmb   03 10 54.7
       comp=Z,24nm,0.9s
MEM    Membach          87.26 327 dP       P      03 10 54.2  0.0
       comp=Z,9.1nm,1.0s
DAVA   Damuels          87.40 323 eP       P      03 10 54.2 -0.9
       comp=Z,32nm,0.7s,SNR=14
BFO    Black Forest     87.56 324   P      P      03 10 55.8 +0.1
BFO                                 pmax   pmax
       comp=Z,56nm,1.6s
BFO    Black Forest     87.56 324   P      P      03 10 55.8 +0.1
BFO    Black Forest     87.56 324 eP       P      03 10 55.4 -0.3
       comp=Z,45nm,1.5s,baz=53,slow=5.0
BFO    Black Forest     87.56 324   P      P      03 10 55.9 +0.2
BCLA   Clavier          87.73 327 dP       P      03 10 54.8 -1.6
       comp=Z,5.7nm,1.1s
WLF    Walferdange      87.81 326   P      P      03 10 57.6 +0.8
WLF                                 pmax   pmax
       comp=Z,27nm,1.1s
WLF    Walferdange      87.81 326   IAmb   IAmb   03 10 58.8
       comp=Z,22nm,1.0s
WLF    Walferdange      87.81 326 dP       P      03 10 56.7 -0.1
       comp=Z,15nm,1.1s
WLF    Walferdange      87.81 326 eP       P      03 10 57.0 +0.1
       comp=Z,26nm,1.1s,baz=53,slow=5.0
UCC    Uccle            87.93 328 dP       P      03 10 56.3 -1.0
RCHB   Rochefort        87.94 327 dP       P      03 10 56.8 -0.6
       comp=Z,10nm,1.0s
EKA    Eskdalemuir Ar   87.94 334   P      P      03 10 56.4 -1.0
       comp=Z,1.5nm,0.4s,baz=49,slow=4.5,SNR=19
       comp=Z,1.5nm,0.4s
FFC    Flin Flon        88.00  26   P      P      03 10 57.8 +0.2
FFC                                 pmax   pmax
       comp=Z,29nm,0.9s
FFC    Flin Flon        88.00  26   P      P      03 10 57.8 +0.2
FFC    Flin Flon        88.00  26   P      P      03 10 58.2 +0.6
TIP    Timpagrande      88.06 314   IAmb   IAmb   03 11 00.4
       comp=Z,42nm,1.6s
TIP    Timpagrande      88.06 314 ⇓P       P      03 10 58.3 -0.1
BMRD   Maredsous        88.06 328 dP       P      03 10 57.5 -0.5
       comp=Z,8.7nm,1.0s
AFDM   Forest Hills D   88.13  47   P      P      03 10 59.3 +0.7
ECH    Echery           88.24 325   P      P      03 10 58.8 -0.1
ECH    Echery           88.24 325   IAmb   IAmb   03 11 00.7
       comp=Z,19nm,1.2s
ECH    Echery           88.24 325   P      P      03 10 58.9 -0.1
ECH                                 pP     pP     03 11 16.2 +0.4
DOU    Dourbes          88.28 327 dP       P      03 10 58.4 -0.6
       comp=Z,9.2nm,1.0s
AQU    L'Aquila         88.35 318   P      P      03 11 00.3 +0.7
AQU                                 pmax   pmax
       comp=Z,59nm,1.0s
AQU    L'Aquila         88.35 318⇑iP       P      03 10 59.6  0.0
CESX   Cesi             88.69 318   IAmb   IAmb   03 11 01.6
       comp=Z,37nm,1.4s
MFID   Camas Ranch      88.73  41   IAmb   IAmb   03 11 04.2
       comp=Z,28nm,1.8s
EGMT   Eagleton         89.14  35   IAmb   IAmb   03 11 05.5
       comp=Z,28nm,1.4s
SENIN  Lac Senin/Sane   89.36 323   IAmb   IAmb   03 11 06.3
       comp=Z,10nm,1.1s
BOZ    Bozeman (W)      89.73  37   P      P      03 11 07.3 +1.1
NVAR   Mina Array Bea   90.14  46   P      P      03 11 09.3 +1.0
       comp=Z,0.4nm,0.5s,baz=72,slow=1.9,SNR=5.3
       comp=Z,0.4nm,0.5s
NVAR   Mina Array Bea   90.14  46   P      P      03 11 08.2 -0.1
VAE    Valguarnera      90.54 313   LR     LR     03 54 58.1
       comp=Z,99nm,19.4s,baz=114,slow=38
TPH    Tonopah          91.04  46   IAmb   IAmb   03 11 16.9
       comp=Z,8.1nm,1.2s
YMP    Mirror Lake Pl   91.08  37   IAmb   IAmb   03 11 16.0
       comp=Z,29nm,1.4s
KMBO   Kilima Mbogo     91.12 269   LR     LR     03 56 13.7
       comp=Z,57nm,18.1s,baz=94,slow=38
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KMBO	**Kilima Mbogo**	**91.12**	**269**	⇑*e*P	**P**	**03 11 12.7**	**-0.6**
RLMT	**Red Lodge**	**91.31**	**37**	IAmb	IAmb	03 11 17.0	
	comp=Z,8.8nm,1.1s						
FXWY	**Fox Creek**	**91.32**	**38**	IAmb	IAmb	03 11 16.8	
	comp=Z,11nm,1.6s						
PPT	**Papeete**	**91.39**	**109**	LR	LR	03 43 45.9	
	comp=Z,54nm,21.5s,baz=301,slow=30						
LAO	**LASA Array**	**91.82**	**34**	IAmb	IAmb	03 11 18.2	
	comp=Z,16nm,1.0s						
AHID	**Auburn Hatcher**	**91.84**	**39**	IAmb	IAmb	03 11 19.2	
	comp=Z,18nm,1.8s						
HWUT	**Hardware Ranch**	**92.32**	**40**	IAmb	IAmb	03 11 21.1	
	comp=Z,12nm,1.4s						
GWY	**Greenwater Val**	**92.51**	**47**	IAmb	IAmb	03 11 22.2	
	comp=Z,12nm,1.4s						
QSM	**Queen of Sheba**	**92.51**	**47**	IAmb	IAmb	03 11 21.4	
	comp=Z,8.4nm,1.1s						
PDAR	**Pinedale Array**	**92.70**	**38**	P	**P**	**03 11 21.1**	**+1.0**
	comp=Z,1.0nm,0.6s,baz=321,slow=2.1,SNR=6.0						
PDAR				PKiKP	**PKiKP**	**03 16 12.2**	**+4.2**
	comp=Z,1.6nm,0.4s,baz=128,slow=2.6,SNR=5.4						
	comp=Z,1.0nm,0.6s						
PDAR	**Pinedale Array**	**92.70**	**38**	P	**P**	**03 11 20.9**	**+0.8**
PRN	**Pahroc Range**	**92.82**	**45**	IAmb	IAmb	03 11 24.1	
	comp=Z,12nm,1.6s						
GSC	**Goldstone, Bar**	**92.94**	**48**	IAmb	IAmb	03 11 24.8	
	comp=Z,13nm,1.5s						
MTPC	**Mountain Pass**	**93.65**	**47**	IAmb	IAmb	03 11 26.9	
	comp=Z,11nm,1.4s						
ULM	**Lac du Bonnet**	**93.82**	**26**	P	**P**	**03 11 24.6**	**-0.2**
	comp=Z,8.3nm,0.9s,baz=291,slow=6.3,SNR=5.9						
ULM				LR	LR	03 56 21.6	
	comp=Z,30nm,18.2s,baz=325,slow=37						
	comp=Z,8.3nm,0.9s						
ULM	**Lac du Bonnet**	**93.82**	**26**	⇓*e*P	**P**	**03 11 25.1**	**+0.3**
ULM	**Lac du Bonnet**	**93.82**	**26**	IAmb	IAmb	03 11 25.7	
	comp=Z,9.9nm,0.9s						
PFO	**Pinyon Flats O**	**94.17**	**49**	*de*P	**P**	**03 11 28.0**	**+1.1**
PFO				pmax	pmax		
	comp=Z,16nm,1.4s						
PMD	**Palm Desert**	**94.20**	**49**	IAmb	IAmb	03 11 29.9	
	comp=Z,18nm,1.6s						
RSSD	**Black Hills**	**94.71**	**35**	P	**P**	**03 11 30.2**	**+0.9**
RSSD				pmax	pmax		
	comp=Z,11nm,1.4s						
RSSD	**Black Hills**	**94.71**	**35**	P	**P**	**03 11 30.2**	**+0.9**
RSSD				IAmb	IAmb	03 11 31.9	
	comp=Z,11nm,1.4s						
BC3	**Big Chuckawall**	**94.81**	**48**	IAmb	IAmb	03 11 33.6	
	comp=Z,8.1nm,1.2s						
KEST	**Kesra**	**94.85**	**314**	P	**P**	**03 11 29.2**	**-0.7**
	comp=Z,7.2nm,0.9s,baz=318,slow=3.3,SNR=6.7						
KEST				LR	LR	03 58 24.1	
	comp=Z,80nm,20.5s,baz=22,slow=38						
	comp=Z,7.2nm,0.9s						
KEST	**Kesra**	**94.85**	**314**	IAmb	IAmb	03 11 31.8	
	comp=Z,9.1nm,1.0s						
ESDC	**Sonseca Array**	**99.93**	**324**	P	**Pdif**	**03 11 52.1**	**-0.6**
	comp=Z,2.1nm,1.0s,baz=22,slow=4.8,SNR=8.2						
ESDC				LR	LR	04 02 18.6	
	comp=Z,154nm,18.4s,baz=43,slow=38						
	comp=Z,2.1nm,1.0s						
ESDC	**Sonseca Array**	**99.93**	**324**		**Pdif**	**03 11 49.9**	**-2.8**
TORD	**Torodi Ar. Bea**	**114.31**	**300**	PKP	PKPdf	03 16 46.9	-1.0
	comp=Z,1.4nm,1.0s,baz=78,slow=2.3,SNR=4.7						
QSPA	**South Pole Qui**	**116.80**	**180**	PKP	**PKPdf**	**03 16 50.6**	**-0.5**
	comp=Z,0.9nm,0.9s,baz=251,slow=2.6,SNR=5.8						
TROLL	**Troll, Antarti**	**126.17**	**198**	⇓PKPdf	**PKiKP**	**03 17 09.8**	**+0.2**
	comp=Z,124nm,0.9s						
VNA2	**Neumayer--Watz**	**129.45**	**197**	PKPdf	**PKPdf**	**03 17 15.4**	**+0.2**
	comp=Z,2.2nm,0.7s,baz=116,slow=1.3						
BOAV	**Boa Vista**	**149.63**	**17**	PKPdf	**PKPdf**	**03 17 52.1**	**-1.1**
CZSB	**Cruzeiro do Su**	**152.58**	**49**	PKPdf	**PKPdf**	**03 17 57.0**	**-0.7**
H03N1	**Juan Fernandez**	**155.97**	**112**	T	T	06 13 06.7	
	baz=265,slow=74,SNR=3.8						
LPAZ	**La Paz**	**161.66**	**58**	PKP	**PKPdf**	**03 18 10.3**	**+0.5**
	comp=Z,1.0nm,0.8s,baz=18,slow=7.6,SNR=4.0						
LPAZ				PKPab	**PKPab**	**03 18 54.9**	**-0.1**
	comp=Z,4.5nm,1.2s,baz=353,slow=8.1,SNR=4.7						
PTLB	**Pontes e Lacer**	**166.73**	**31**	PKPdf	**PKPdf**	**03 18 09.9**	**-3.7**

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*NNC **08** 03:09:54.1±0.9, 42°.89N×77°.15E, h0^{km}, mpv2.8, Error ellipse: s-maj=8.5km s-min=2.2km az=23.0*

*KRNET **08** 03:09:54.0±0.1, 42°.90N×76°.94E, h23^{km}, mb1.9*

*SOME **08** 03:09:54.1, 42°.92N×77°.10E, h10^{km}*

ISC 08 03:09:53.8±0.9, **42°.88N**±0°.04×**77°.02E**±0°.03, **h15**^{km}±8^{km}, **n15**, σ**1^{s}.20**/29, **8C-6D, Lake Issyk-Kul region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TNSS	**Tian-Shan**	**0.17**	**340**	P	**Pg**	**03 09 58.3**	**0.0**
	4.4nm,0.1s						
TNSS				S	**Sg**	**03 10 01.3**	**0.0**
	5.2nm,0.1s						
TNSS	**Tian-Shan**	**0.17**	**340**	*e*P	**Pg**	**03 09 58.3**	**0.0**
	4.4nm,0.1s						
TNSS				*e*S	**Sg**	**03 10 01.3**	**0.0**
	5.2nm,0.1s						
MDOK	**Medeo**	**0.28**	**4**	Pg	**Pg**	**03 09 59.6**	**-0.3**
	11nm,0.1s						
MDOK				Lg	Lg	03 10 03.4	
	23nm,0.1s						
MDOK	**Medeo**	**0.28**	**4**	*e*P	**Pg**	**03 09 59.6**	**-0.3**
	11nm,0.1s						
MDOK				*e*S	**Sg**	**03 10 03.4**	**-0.7**
	23nm,0.1s						
ANVS	**Anan'yevo**	**0.48**	**101**	⇓*e*P	**Pb**	**03 10 05.0**	**+0.9**
ANVS				⇓*e*S	**Sb**	**03 10 12.8**	**+1.7**
KDJ	**Kajisay**	**0.76**	**171**	⇓*i*P	**Pb**	**03 10 09.1**	**+0.3**
KDJ				⇓*i*S	**Sb**	**03 10 20.2**	**+1.2**
ULHL	**Ulahol**	**0.86**	**223**	⇑*i*P	**Pg**	**03 10 10.0**	**-0.5**
ULHL				⇑*i*S	**Sg**	**03 10 21.3**	**-0.5**
BOOM	**Boomskoye usch**	**0.89**	**244**	⇑*i*P	**Pg**	**03 10 10.0**	**-1.0**
BOOM				⇑*i*S	**Sg**	**03 10 21.5**	**-1.2**
SATY	**Saty**	**1.03**	**80**	P	**Pg**	**03 10 12.0**	**-1.7**
	2.0nm,0.1s						
SATY				S	**Sg**	**03 10 24.8**	**-2.4**
	5.0nm,0.1s						
SATY	**Saty**	**1.03**	**80**	*e*P	**Pg**	**03 10 12.0**	**-1.7**
	2.0nm,0.1s						
SATY				*e*S	**Sg**	**03 10 24.8**	**-2.4**
	5.0nm,0.1s						
TKM2	**Tokmak 2**	**1.05**	**273**	⇑*i*P	**Pg**	**03 10 12.3**	**-1.8**
TKM2				⇑*i*S	**Sg**	**03 10 25.8**	**-2.0**
TARG	**Taragay, Kyrgy**	**1.29**	**153**	⇑*i*P	**Pg**	**03 10 18.5**	**-0.2**
TARG				⇑*i*S	**Sn**	**03 10 36.1**	**+1.3**
UZB	**Uzynbulak**	**1.49**	**79**	P	**Pn**	**03 10 20.6**	**+0.5**
	1.1nm,0.2s						
UZB				S	**Sn**	**03 10 39.7**	**+0.3**
	1.4nm,0.2s						
UZB	**Uzynbulak**	**1.49**	**79**	*e*P	**Pn**	**03 10 20.6**	**+0.5**
UZB				*e*S	**Sn**	**03 10 39.7**	**+0.3**
KBK	**Karagaybulak**	**1.54**	**262**	⇓*i*P	**Pn**	**03 10 21.1**	**+0.2**
KBK				⇓*i*S	**Sn**	**03 10 40.6**	**-0.1**

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*GCG **08** 03:31:04.5±1.3, 13°.70N×90°.77W, h35^{km}±999^{km}, MD3.8, Presumed earthquake*

*SNET **08** 03:31:04.8±1.5, 13°.56N×90°.73W, h19^{km}, ML3.0, Presumed earthquake*

ISC 08 03:31:05.0±2.2, **13°.8N**±0°.1×**90°.58W**±0°.08, **h2**^{km}±13^{km}, **n10**, σ**0^{s}.51**/15, **Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FG8	**Yepocapa, Chim**	**0.47**	**2**	*i* P	**Pn**	**03 31 19.1**	**+0.2**
FG16	**Alotenango, Sa**	**0.48**	**8**	*i* P	**Pn**	**03 31 19.2**	**0.0**
NUBE	**Las Nubes**	**0.79**	**82**	*i* P	**Pb**	**03 31 22.2**	**+0.6**
NUBE				*i* S	**Sn**	**03 31 35.4**	**-0.4**
NUBE	**Las Nubes**	**0.79**	**82**	*e*P	**Pn**	**03 31 22.7**	**-0.6**
CEVE	**Cerro Verde**	**0.93**	**88**	*e*P	**Pn**	**03 31 25.2**	**-0.2**
CEVE				*e*S	**Sn**	**03 31 40.4**	**+1.0**
STG8	**El Palmar, Qui**	**0.99**	**311**	*i* P	**Pn**	**03 31 26.2**	**-0.1**
JAYA	**Jayaque - finc**	**1.11**	**97**	*i* P	**Pg**	**03 31 26.4**	**+0.1**
JAYA				*i* S	**Sg**	**03 31 41.0**	**+0.3**
JAYA	**Jayaque - finc**	**1.11**	**97**	*e*P	**Pg**	**03 31 26.4**	**+0.1**
JAYA				*e*S	**Sn**	**03 31 43.0**	**-0.7**
APG	**El Apazote**	**1.21**	**5**	*i* P	**Pg**	**03 31 28.0**	**-0.4**
COEG	**Centro de Oper**	**1.66**	**96**	*e*P	**Pb**	**03 31 36.5**	**0.0**
COEG				*e*S	**Sg**	**03 31 58.0**	**-0.5**

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*IDC **08** 03:56:41.1±1.0, 72°.11N×127°.22W, h0^{km}, mb3.7/2, mbtmp4.0/7, ML4.0/5, MS2.9/2, Error ellipse: s-maj=21.1km s-min=12.8km az=127.0*

*NEIC **08** 03:56:41.6±1.0, 71°.98N±0°.07×126°.78W±0°.10, h10^{km}±2^{km}, mb4.2/8, Error ellipse: s-maj=12.3km s-min=4.0km az=16.0*

*PGC **08** 03:56:44.8±9.7, 71°.85N×126°.96W, h19^{km}, ML4.0/9, Mw4.0, mb4.1(NEIC), ML4.2(PMR), ML1.6(NEIC), 61km west of Sachs Harbour, Nt Nw Territories - Nunavut, Canada*

ISC 08 03:56:41.2±0.7, **71°.89N**±0°.07×**127°.10W**±0°.05, **h10**^{km}, **n143**, σ**2^{s}.27**/155, **mb4.2**/5, **Beaufort Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
A36M	**Sachs Harbour**	**0.58**	**80**	P	**Pn**	**03 56 55.1**	**-0.4**
A36M				S	**Sb**	**03 57 02.2**	**+0.3**
A36M	**Sachs Harbour**	**0.58**	**80**		**Pn**	**03 56 55.1**	**-0.4**
A36M				Sg	**Sb**	**03 57 01.9**	**+0.1**
C36M	**Paulatuk**	**2.75**	**157**	Pn	**Pn**	**03 57 26.1**	**+0.9**
C36M	**Paulatuk**	**2.75**	**157**		**Pn**	**03 57 26.2**	**+0.9**
INK	**Inuvik**	**4.22**	**214**	Pn	**Pn**	**03 57 48.0**	**+2.5**
	9.9nm,0.3s,baz=23,slow=21,SNR=273						
INK				Sn	**Sn**	**03 58 35.0**	**+0.4**
	12nm,0.3s,baz=126,slow=32,SNR=6.0						
INK				Lg	Lg	03 58 56.0	
	20nm,0.3s,baz=135,slow=30,SNR=7.7						
	37nm,0.4s						
INK				AML	AML		
INK	**Inuvik**	**4.22**	**214**	Pn	**Pn**	**03 57 47.9**	**+2.5**
INK	**Inuvik**	**4.22**	**214**		**Pn**	**03 57 47.8**	**+2.4**
D28M	**Stokes Point**	**4.65**	**242**	Sn	**Sn**	**03 58 44.8**	**-0.5**
F31M	**Tsiigehtchic**	**5.03**	**211**	Pn	**Pn**	**03 57 58.0**	**+1.3**
F31M	**Tsiigehtchic**	**5.03**	**211**		**Pn**	**03 57 59.5**	**+2.9**
E29M	**Blow River**	**5.09**	**232**	Pn	**Pn**	**03 57 59.3**	**+1.9**
E29M				Sn	**Sn**	**03 58 54.9**	**-1.2**
E29M	**Blow River**	**5.09**	**232**		**Pn**	**03 57 59.3**	**+1.9**
F30M	**Barrier River**	**5.25**	**219**	Pn	**Pn**	**03 58 01.7**	**+2.1**
F30M	**Barrier River**	**5.25**	**219**		**Pn**	**03 58 02.4**	**+2.8**
D27M	**Malcolm River**	**5.33**	**247**	Pn	**Pn**	**03 58 03.4**	**+2.6**
D27M				Sn	**Sn**	**03 59 00.1**	**-2.2**
D27M	**Malcolm River**	**5.33**	**247**		**Pn**	**03 58 03.4**	**+2.6**
E28M	**Babbage River**	**5.35**	**238**	Pn	**Pn**	**03 58 03.1**	**+2.1**
E28M				Sn	**Sn**	**03 58 60.0**	**-2.6**
E28M	**Babbage River**	**5.35**	**238**		**Pn**	**03 58 03.1**	**+2.1**
G31M	**Satah River**	**5.59**	**210**	Pn	**Pn**	**03 58 06.2**	**+1.9**
G31M	**Satah River**	**5.59**	**210**		**Pn**	**03 58 06.8**	**+2.5**
KUKN	**Kugluktuk,NWT**	**5.81**	**129**	Pn	**Pn**	**03 58 07.3**	**-0.1**
G30M	**tAoh Zraii Nji**	**5.88**	**217**		**Pn**	**03 58 10.8**	**+2.4**
C27K	**Jago River**	**5.94**	**256**	Pn	**Pn**	**03 58 11.6**	**+2.5**
C27K	**Jago River**	**5.94**	**256**		**Pn**	**03 58 11.6**	**+2.5**
C26K	**Camden Bay**	**6.16**	**260**	Pn	**Pn**	**03 58 15.4**	**+3.3**
C26K				Sn	**Sn**	**03 59 21.0**	**-1.5**
F28M	**Old Crow**	**6.16**	**232**	Pn	**Pn**	**03 58 14.0**	**+1.8**
F28M	**Old Crow**	**6.16**	**232**		**Pn**	**03 58 13.9**	**+1.8**
E27K	**Coleen River**	**6.19**	**240**	Pn	**Pn**	**03 58 14.6**	**+2.0**
E27K				Sn	**Sn**	**03 59 19.0**	**-4.4**
E27K	**Coleen River**	**6.19**	**240**		**Pn**	**03 58 14.7**	**+2.1**
G29M	**Pine Creek**	**6.30**	**223**	Pn	**Pn**	**03 58 16.2**	**+2.1**
G29M	**Pine Creek**	**6.30**	**223**		**Pn**	**03 58 16.4**	**+2.3**
EPYK	**Eagle Plains**	**6.52**	**216**	Pn	**Pn**	**03 58 18.9**	**+1.9**
EPYK				Sn	**Sn**	**03 59 28.7**	**-2.6**
EPYK	**Eagle Plains**	**6.52**	**216**		**Pn**	**03 58 18.9**	**+1.9**
H31M	**Peel River**	**6.65**	**207**	Pn	**Pn**	**03 58 20.2**	**+1.4**
H31M	**Peel River**	**6.65**	**207**		**Pn**	**03 58 20.7**	**+1.9**
D25K	**Kavik River**	**6.90**	**257**	Pn	**Pn**	**03 58 24.5**	**+2.2**
D25K				Sn	**Sn**	**03 59 37.4**	**-3.4**
D25K	**Kavik River**	**6.90**	**257**		**Pn**	**03 58 24.5**	**+2.2**
H29M	**Whitestone**	**6.97**	**221**	Pn	**Pn**	**03 58 25.1**	**+1.8**
H29M	**Whitestone**	**6.97**	**221**		**Pn**	**03 58 25.3**	**+2.0**
G27K	**Doyon Strip**	**7.23**	**232**	Pn	**Pn**	**03 58 28.2**	**+1.5**
G27K	**Doyon Strip**	**7.23**	**232**		**Pn**	**03 58 28.6**	**+1.8**
F26K	**Sheenjek River**	**7.23**	**243**	Pn	**Pn**	**03 58 29.4**	**+2.5**
F26K				Sn	**Sn**	**03 59 44.5**	**-4.4**
F26K	**Sheenjek River**	**7.23**	**243**		**Pn**	**03 58 29.6**	**+2.7**
E25K	**Arctic Village**	**7.35**	**248**	Pn	**Pn**	**03 58 31.1**	**+2.6**
E25K				Sn	**Sn**	**03 59 48.5**	**-3.4**
E25K	**Arctic Village**	**7.35**	**248**		**Pn**	**03 58 31.4**	**+2.9**
C24K	**Franklin Bluff**	**7.42**	**263**		**Pn**	**03 58 32.0**	**+2.6**
I30M	**Mount Dempster**	**7.50**	**211**	Pn	**Pn**	**03 58 31.6**	**+1.0**
I30M	**Mount Dempster**	**7.50**	**211**		**Pn**	**03 58 33.0**	**+2.3**
BMAR	**Burnt Mountain**	**7.54**	**242**		**Pn**	**03 58 33.6**	**+2.6**
H27K	**Steamboat Moun**	**7.66**	**229**	Pn	**Pn**	**03 58 34.4**	**+1.7**
H27K	**Steamboat Moun**	**7.66**	**229**		**Pn**	**03 58 34.6**	**+1.9**
G26K	**Porcupine Rive**	**7.67**	**238**	Pn	**Pn**	**03 58 34.1**	**+1.3**
G26K				Sn	**Sn**	**03 59 53.9**	**-5.6**
G26K	**Porcupine Rive**	**7.67**	**238**		**Pn**	**03 58 34.3**	**+1.6**
I29M	**Ogilvie Camp,**	**7.72**	**217**	Pn	**Pn**	**03 58 34.8**	**+1.3**
I29M	**Ogilvie Camp,**	**7.72**	**217**		**Pn**	**03 58 34.7**	**+1.3**
F25K	**Christian Rive**	**7.72**	**245**	Pn	**Pn**	**03 58 36.1**	**+2.5**
F25K				Sn	**Sn**	**03 59 56.5**	**-4.5**
F25K	**Christian Rive**	**7.72**	**245**		**Pn**	**03 58 36.2**	**+2.7**
I28M	**Miner Creek**	**7.96**	**222**	Pn	**Pn**	**03 58 38.2**	**+1.2**
I28M	**Miner Creek**	**7.96**	**222**		**Pn**	**03 58 38.5**	**+1.5**
C23K	**Itkillik River**	**7.97**	**266**		**Pn**	**03 58 39.7**	**+2.8**
J30M	**Hart River**	**8.10**	**209**	Pn	**Pn**	**03 58 40.6**	**+1.8**
J30M	**Hart River**	**8.10**	**209**		**Pn**	**03 58 40.5**	**+1.8**
I27K	**Kandik River**	**8.20**	**227**		**Pn**	**03 58 41.7**	**+1.6**
E24K	**Your Creek**	**8.24**	**253**		**Pn**	**03 58 43.1**	**+2.4**
FYU	**Fort Yukon**	**8.34**	**239**		**Pn**	**03 58 44.2**	**+2.2**
D23K	**Nanushuk River**	**8.41**	**261**		**Pn**	**03 58 45.1**	**+2.2**
F24K	**Squaw Lake**	**8.42**	**249**		**Pn**	**03 58 45.3**	**+2.2**
G25K	**Bearman Lake**	**8.43**	**242**	Sn	**Sn**	**04 00 12.2**	**-6.1**
J29N	**Klondike Camp**	**8.52**	**214**		**Pn**	**03 58 46.6**	**+2.0**
E23K	**Chandalar**	**8.59**	**254**		**Pn**	**03 58 48.3**	**+2.8**
B22K	**Teshekpuk Lake**	**8.64**	**272**		**Pn**	**03 58 48.8**	**+2.8**
WRGLY	**Wrigley**	**8.81**	**169**		**Pn**	**03 58 48.7**	**+0.3**
G24K	**Hadweenzic Riv**	**8.86**	**244**		**Pn**	**03 58 51.3**	**+2.2**
K29M	**Barlow Dome**	**8.97**	**211**		**Pn**	**03 58 52.7**	**+1.9**
D22K	**Ayikyak River**	**9.07**	**263**		**Pn**	**03 58 54.7**	**+2.7**
DAWY	**Dawson**	**9.09**	**216**	Pn	**Pn**	**03 58 53.1**	**+0.8**
DAWY				Sn	**Sn**	**04 00 29.5**	**-5.0**
DAWY	**Dawson**	**9.09**	**216**		**Pn**	**03 58 54.0**	**+1.7**
PRP	**Porcupine Dome**	**9.22**	**235**		**Pn**	**03 58 56.3**	**+2.1**
COLD	**Coldfoot**	**9.29**	**251**	Sn	**Sn**	**04 00 33.6**	**-5.7**
MMPY	**Sheldon Lake,**	**9.45**	**192**	Pn	**Pn**	**03 58 58.0**	**+0.8**
MMPY	**Sheldon Lake,**	**9.45**	**192**		**Pn**	**03 58 58.3**	**+1.1**
G23K	**Bananza Creek**	**9.58**	**249**		**Pn**	**03 59 01.4**	**+2.3**
RES	**Resolute Bay**	**9.59**	**58**	Pn	**Pn**	**03 58 56.1**	**-2.9**
	1.5nm,0.3s,baz=258,slow=12,SNR=13						
RES				Sn	Sn	04 00 32.4	-14
	4.7nm,0.3s,baz=173,slow=23,SNR=7.7						
	4.5nm,0.3s						
RES				AML	AML		
RES	**Resolute Bay**	**9.59**	**58**	Sn	Sn	04 00 32.3	-14
RES	**Resolute Bay**	**9.59**	**58**		**Pn**	**03 58 56.3**	**-2.8**
H24K	**Noodor Dome**	**9.60**	**241**		**Pn**	**03 59 00.9**	**+1.6**
L29M	**L29M**	**9.76**	**211**		**Pn**	**03 59 02.8**	**+1.4**
J25K	**Salcha River,**	**9.91**	**232**		**Pn**	**03 59 05.5**	**+1.9**
B20K	**Meade River**	**9.94**	**274**		**Pn**	**03 59 06.4**	**+2.6**
SCRK	**Sand Creek**	**10.12**	**227**		**Pn**	**03 59 08.4**	**+1.8**
M31M	**Drury Creek, Y**	**10.13**	**200**		**Pn**	**03 59 08.2**	**+1.7**
IL31		**10.17**	**235**		**Pn**	**03 59 09.2**	**+2.2**
ILAR	**Eielson Array**	**10.17**	**235**	Pn	**Pn**	**03 59 08.5**	**+1.5**
	0.5nm,0.3s,baz=34,slow=14,SNR=16						
ILAR				Sn	**Sn**	**04 00 55.7**	**-5.2**
	0.5nm,0.3s,baz=38,slow=25,SNR=4.8						
	1.5nm,0.5s						
ILAR				AML	AML		
ILAR	**Eielson Array**	**10.17**	**235**		**Pn**	**03 59 08.7**	**+1.7**
F21K	**Alatna River**	**10.28**	**256**		**Pn**	**03 59 10.5**	**+2.1**
COLA	**College**	**10.34**	**237**		**Pn**	**03 59 11.6**	**+2.4**
D20K	**Etivluk River**	**10.38**	**267**		**Pn**	**03 59 12.1**	**+2.2**
M29M	**Somme Creek**	**10.44**	**210**		**Pn**	**03 59 12.4**	**+1.6**
BCAR	**Beaver Creek A**	**10.46**	**220**		**Pn**	**03 59 12.3**	**+1.3**
L27K	**Beaver Creek,**	**10.47**	**220**		**Pn**	**03 59 12.4**	**+1.3**
HDA	**Harding Lake**	**10.48**	**234**		**Pn**	**03 59 13.4**	**+2.2**
CCB	**Clear Creek Bu**	**10.51**	**237**		**Pn**	**03 59 14.0**	**+2.4**
RIDG	**Independent Ri**	**10.53**	**228**		**Pn**	**03 59 13.9**	**+2.0**
I23K	**Minto, Yukon-K**	**10.53**	**241**		**Pn**	**03 59 13.6**	**+1.6**
H22K	**Ishtalitna Cre**	**10.55**	**247**		**Pn**	**03 59 14.6**	**+2.4**
YKA	**Yellowknife Ar**	**10.58**	**147**	Pn	**Pn**	**03 59 12.2**	**-0.4**
	1.4nm,0.3s,baz=335,slow=13,SNR=31						
YKA				Sn	Sn	04 01 00.6	-10
	5.0nm,0.3s,baz=341,slow=23,SNR=13						
YKA				Lg	Lg	04 02 09.9	
	baz=334,slow=29						
YKA				LR	LR	04 03 35.0	
	comp=Z,50nm,18.6s,baz=286,slow=38						
	4.3nm,0.6s						
YKA				AML	AML		
YKA	**Yellowknife Ar**	**10.58**	**147**		**Pn**	**03 59 11.9**	**-0.6**
G21K	**Allakaket**	**10.74**	**253**		**Pn**	**03 59 16.3**	**+1.5**
L26K	**Log Cabin Wild**	**10.81**	**223**		**Pn**	**03 59 17.8**	**+2.0**
BVCY	**Beaver Creek**	**10.88**	**216**	P	**Pn**	**03 59 17.2**	**+0.5**
NEA2	**Nenana**	**10.88**	**239**		**Pn**	**03 59 18.8**	**+2.0**
D19K	**Kuna River**	**10.97**	**267**		**Pn**	**03 59 19.8**	**+1.9**
N31M	**Braeburn, Yuko**	**10.98**	**202**		**Pn**	**03 59 20.0**	**+1.8**
N32M	**Quiet Lake**	**11.04**	**195**		**Pn**	**03 59 20.4**	**+1.5**
F20K	**Avaraart Lake**	**11.07**	**258**		**Pn**	**03 59 21.3**	**+2.0**
C19K	**Lookout Ridge**	**11.11**	**271**		**Pn**	**03 59 21.9**	**+1.9**
E19K	**Redstone River**	**11.28**	**262**		**Pn**	**03 59 23.9**	**+1.7**
M26K	**Nabesna, AK**	**11.30**	**221**		**Pn**	**03 59 23.4**	**+0.9**
YUK2	**White River**	**11.45**	**215**	P	**Pn**	**03 59 24.6**	**-0.1**
YUK4	**Talbot Arm**	**11.51**	**209**	P	**Pn**	**03 59 24.5**	**-1.0**
DHY	**Denali Highway**	**11.69**	**231**		**Pn**	**03 59 30.0**	**+2.0**
F19K	**Shaleruckik Mo**	**11.83**	**260**		**Pn**	**03 59 30.6**	**+0.9**
HYT	**Haines Junctio**	**11.84**	**206**	P	**Pn**	**03 59 31.0**	**+0.9**
HYT	**Haines Junctio**	**11.84**	**206**		**Pn**	**03 59 31.6**	**+1.5**
C18K	**Utukok River**	**11.85**	**271**		**Pn**	**03 59 32.8**	**+2.8**
G19K	**Purcell Mounta**	**12.07**	**256**		**Pn**	**03 59 33.9**	**+0.9**
MCARA	**McCarthy VSAT**	**12.23**	**219**		**Pn**	**03 59 37.3**	**+2.1**
O28M	**Mount Upton**	**12.29**	**211**		**Pn**	**03 59 37.9**	**+1.6**
J20K	**Nowinta River**	**12.61**	**246**		**Pn**	**03 59 42.5**	**+2.1**
DLBC	**Dease Lake**	**13.56**	**187**	Pn	Pn	03 59 59.3	+5.8
	0.1nm,0.3s,baz=11,slow=16,SNR=2.8						
J16K	**Anvik River**	**15.17**	**252**	Pn	**Pn**	**04 00 18.7**	**+3.5**
J16K				IAmb	IAmb	04 00 41.1	
	comp=Z,12nm,1.2s						
J14K	**Nanvaranak Lak**	**16.46**	**255**	Pn	**Pn**	**04 00 33.5**	**+1.7**
J14K				IAmb	IAmb	04 00 49.8	
	comp=Z,25nm,1.4s						
KDAK	**Kodiak Island**	**17.58**	**230**	P	**P**	**04 00 49.8**	**+2.8**
	comp=Z,0.7nm,0.3s,baz=28,slow=6.4,SNR=7.5						
	comp=Z,9.7nm,1.1s						
KDAK				AML	AML		
KDAK	**Kodiak Island**	**17.58**	**230**		**P**	**04 00 48.3**	**+1.3**
EDM	**Edmonton**	**19.68**	**155**	P	**P**	**04 01 10.9**	**+0.8**
EDM				IAmb	IAmb	04 01 45.8	
	comp=Z,6.5nm,0.6s						
CLRS	**Cowichan Lake**	**23.19**	**175**	P	**P**	**04 01 49.3**	**+1.6**
ARCES	**ARCESS Array B**	**37.67**	**15**	LR	LR	04 20 14.9	
	comp=Z,20nm,19.3s,baz=210,slow=38						
KURK	**Kurchatov**	**56.35**	**341**	P	**P**	**04 06 21.8**	**0.0**
KURK				IAmb	IAmb	04 06 21.9	
	comp=Z,1.6nm,0.6s						
KURBB	**Kurchatov Arra**	**56.45**	**341**	P	**P**	**04 06 21.9**	**-0.6**
	comp=Z,0.9nm,0.5s,baz=9.4,slow=6.9,SNR=9.2						
	comp=Z,0.9nm,0.5s						
MKAR	**Makanchi Array**	**59.80**	**337**	P	**P**	**04 06 45.7**	**-0.3**
	comp=Z,0.1nm,0.3s,baz=20,slow=4.6,SNR=4.1						
	comp=Z,0.1nm,0.3s						
MKAR	**Makanchi Array**	**59.80**	**337**	P	**P**	**04 06 45.5**	**-0.5**
HHC	**Hu-ho-hao-te**	**60.30**	**312**	*e*P	**P**	**04 06 52.1**	**+2.5**
HHC				pmax	pmax		
	comp=Z,7.0nm,0.5s						
HHC				pmax	pmax		
	comp=Z,23nm,5.1s						
WMQ	**Urumqi**	**62.00**	**332**	*e*P	P	04 07 06.0	+5.0
WMQ				pmax	pmax		
	comp=Z,16nm,0.7s						

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*IDC **08** 04:04:10.0±1.4, 6°.50S×129°.09E, h0^{km}, mb4.1/2, mbtmp3.9/4, ML3.8/2, Error ellipse: s-maj=104.2km s-min=17.7km az=67.0*

*DJA **08** 04:04:20.0±0.4, 6°S±3°×13°1E±°, h153^{km}±11^{km}, M4.2/13, mB4.8/3, mb4.0/6, MLv4.2/13, Mw(mB)4.0/3*

*NEIC **08** 04:04:21.0±1.8, 6°.46S±0°.07×131°.3E±0°.2, h154^{km}±8^{km}, mb4.1/6, Error ellipse: s-maj=25.4km s-min=9.7km az=100.0*

ISC 08 04:04:20.0±0.7, **6°.47S**±0°.06×**130°.76E**±0°.10, **h150**^{km}, **n28**, σ**2^{s}.31**/28, **mb4.1**/6, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SAUI	**Saumlaki**	**1.60**	**160**	Pn	**Pn**	**04 04 50.7**	**+0.1**
SAUI				Sn	**Sn**	**04 05 14.0**	**-0.2**
SAUI	**Saumlaki**	**1.60**	**160**	P	**Pn**	**04 04 51.7**	**+1.0**
SAUI				AML	AML		
BNDI	**Bandanaira**	**2.11**	**336**	P	**Pn**	**04 04 54.3**	**-2.2**
MSAI	**Masohi**	**3.60**	**329**	P	**Pn**	**04 05 13.2**	**-1.9**
MSAI				AML	AML		
FAKI	**Fak Fak**	**3.83**	**23**	Pn	**Pn**	**04 05 16.1**	**-2.0**
FAKI	**Fak Fak**	**3.83**	**23**	P	**Pn**	**04 05 16.8**	**-1.3**
FAKI				AML	AML		
KMPI	**Kaimana, Papua**	**4.05**	**47**	P	**Pn**	**04 05 20.9**	**0.0**
MTN	**Manton Dam**	**6.35**	**177**		**Pn**	**04 05 52.8**	**+1.4**
SANI	**Sanana**	**6.47**	**313**	P	**Pn**	**04 05 51.8**	**-1.3**
	0.1nm18nm,0.8s						
SANI				AML	AML		
SOEI	**Soe**	**7.21**	**243**	P	**Pn**	**04 06 03.1**	**+0.1**
SOEI				AML	AML		
KNRA	**Kununurra**	**9.36**	**192**		**Pn**	**04 06 31.0**	**-0.5**
FITZ	**Fitzroy Crossi**	**12.59**	**203**	Pn	Pn	04 07 06.8	-7.3
WB0	**Warramunga Arr**	**13.68**	**165**	Pn	**Pn**	**04 07 26.0**	**-2.1**
WRA	**Warramunga Arr**	**13.84**	**166**	Pn	**Pn**	**04 07 28.5**	**-1.5**
	0.4nm,0.3s,baz=339,slow=14,SNR=15						
WRA				Sn	Sn	04 09 57.0	-6.4
	1.5nm,0.3s,baz=336,slow=22,SNR=12						
	0.6nm,0.4s						
WRA				AML	AML		
WRA	**Warramunga Arr**	**13.84**	**166**		Pn	04 07 26.4	-3.6
WR8	**Warramunga Arr**	**13.89**	**165**	Pn	**Pn**	**04 07 29.6**	**-1.1**
AS31	**Alice Springs**	**17.36**	**170**	P	**P**	**04 08 12.7**	**+0.2**
ASAR	**Alice Springs**	**17.36**	**170**	P	**Pn**	**04 08 16.1**	**+2.7**
	0.4nm,0.3s,baz=351,slow=11,SNR=14						
ASAR				S	**S**	**04 11 18.4**	**-7.4**
	1.0nm,0.6s,baz=359,slow=27,SNR=5.3						
	0.8nm,0.5s						
ASAR				AML	AML		
ASAR	**Alice Springs**	**17.36**	**170**	P	**P**	**04 08 11.6**	**-0.8**
MKAR	**Makanchi Array**	**68.20**	**326**	P	**P**	**04 15 07.5**	**+3.2**
	2.0nm,0.4s,baz=123,slow=7.7,SNR=22						
	2.0nm,0.4s						
MKAR	**Makanchi Array**	**68.20**	**326**	P	**P**	**04 15 07.2**	**+2.9**
MAKZ	**Makanchi**	**68.38**	**326**	P	**P**	**04 15 08.3**	**+2.9**
MAKZ				IAmb	IAmb	04 15 08.9	
	comp=Z,2.2nm,0.5s						
KURBB	**Kurchatov Arra**	**72.46**	**328**	P	**P**	**04 15 32.4**	**+2.3**
	comp=Z,0.6nm,0.5s,baz=129,slow=5.1,SNR=9.0						
	comp=Z,0.6nm,0.5s						
HRA	**Herat**	**76.23**	**308**	P	**P**	**04 15 51.9**	**-0.6**
HRA				IAmb	IAmb	04 16 19.2	
	comp=Z,3.4nm,0.8s						
CLES	**Cleveland East**	**77.38**	**32**	P	**P**	**04 15 57.3**	**-0.9**
AB31	**Akbulak array**	**82.56**	**321**	P	**P**	**04 16 28.3**	**+2.1**
AB31				IAmb	IAmb	04 16 59.5	
	comp=Z,1.5nm,1.1s						
ABKAR	**Akbulak array**	**82.56**	**321**	P	**P**	**04 16 28.3**	**+2.1**
QSPA	**South Pole Qui**	**83.50**	**180**	P	**P**	**04 16 31.4**	**+0.5**
QSPA				IAmb	IAmb	04 17 00.5	
	comp=Z,4.5nm,1.4s						

NDI 08 04:20:49.4±1.6, **19°.99N**×**72°.79E**, **h10**^{km}, **ML3.9**, **MW3.7**, **Presumed earthquake, Southern India**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
POO	**Poona**	**1.77**	**145**	*e*P	Pn	04 21 19.5	-0.6
POO				*e*x	Sn	04 21 37.1	-5.6
POO				IAML		04 21 38.9	
	comp=E,560nm,0.2s						
POO				IAML		04 21 39.0	
	comp=N,437nm,0.5s						
KAD	**Karad**	**2.98**	**153**	*e*P	Pn	04 21 35.7	-1.1
KAD				*e*S	Sn	04 22 11.9	-0.8
KAD				IAML		04 22 17.4	
	comp=E,2µm,0.4s						
KAD				IAML		04 22 17.5	
	comp=N,2µm,0.1s						
BHUJ	**Bhuj**	**4.36**	**319**	*e*S	Sn	04 22 44.7	-2.0
BHUJ				IAML		04 22 59.4	
	comp=E,148nm,0.8s						
BHUJ				IAML		04 23 00.3	
	comp=N,99nm,0.5s						
GOA	**Goa**	**4.58**	**167**	*e*P	Pn	04 21 59.4	+0.6
GOA				*e*S	Sn	04 22 49.4	-2.8
GOA				IAML		04 23 08.4	
	comp=E,625nm,0.6s						
GOA				IAML		04 23 08.7	
	comp=N,465nm,0.3s						
HYB	**Hyderabad**	**6.03**	**114**	*e*P	Pn	04 22 18.9	+0.1
HYB				*e*S	Sn	04 23 23.6	-4.4
HYB				IAML		04 23 48.6	
	comp=N,212nm,0.6s						

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
HYB				IAML		04 23 51.3	
	comp=E,140nm,0.4s						
MDRS	**Chennai**	**9.92**	**133**	eS	Sn	04 24 56.2	-7.5
MDRS				IAML		04 25 50.2	
	comp=N,41nm,0.2s						
MDRS				IAML		04 25 50.9	
	comp=E,70nm,1.1s						
VIS	**Vishakhapatnam**	**10.23**	**101**	eP	Pn	04 23 14.5	-1.8
VIS				eS	Sn	04 25 02.3	-8.9
VIS				IAML		04 26 11.6	
	comp=E,22nm,0.3s						
VIS				IAML		04 26 12.6	
	comp=N,44nm,1.0s						

BJI ***08*** *04:36:54.6, 1°87S×98°66E, h10^{km}, mB5.1/11, mb4.9/58, Ms4.4/20, Ms7 4.3/24*
GFZ ***08*** *04:37:00.8±0.4, 1°S±5°×9°8E±°, h10^{km}, M4.8/20, mb5.0/20*
IDC ***08*** *04:37:00.8±0.8, 1°06S×98°48E, h0^{km}, mb4.6/22, mbtmp4.6/23, ML4.8/1, MS3.8/42, Error ellipse: s-maj=24.8km s-min=13.3km az=49.0*
NEIC ***08*** *04:37:02.6±1.5, 1°14S±0°07×98°50E±0°05, h10^{km}±1^{km}, mb5.0/39, Error ellipse: s-maj=11.8km s-min=8.7km az=15.0*
DJA ***08*** *04:37:04.8±0.8, 1°S±2°×9°9E±°, h17^{km}±8^{km}, M5.1/45, mB5.6/11, mb5.0/21, MLv5.1/45, Mw4.7/34, Mw(mB)5.1/11*
ISC 08 04:37:02.0±0.4**, 1°18S**±0°05×**98°46E**±0°07**, h10^{km}, n208,** σ**1^{s}16**/173**, mb4.9**/65**, MS4.0**/49**, 4C-1D, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SISI	**Saibi**	**0.65**	**103**	P	**Pn**	**04 37 17.9**	**+0.7**
PBSI	**Pulau Batu**	**1.13**	**351**	P	**Pb**	**04 37 23.0**	**-0.7**
PBSI				AML	AML		
PDSI	**Padang**	**2.02**	**82**	P	**Pn**	**04 37 35.6**	**-0.5**
PPI	**Padang Panjang**	**2.06**	**70**	P	**Pn**	**04 37 36.0**	**-0.7**
PPSI	**Pulau Pagai**	**2.21**	**135**	P	**Pb**	**04 37 41.1**	**-0.9**
GSI	**Gunungsitoli**	**2.62**	**340**		**Pn**	**04 37 44.4**	**0.0**
GSI	**Gunungsitoli**	**2.62**	**340**	P	**Pn**	**04 37 44.4**	**0.0**
GSI	**Gunungsitoli**	**2.62**	**340**	P	**Pn**	**04 37 44.5**	**+0.1**
SDSI	**Sungai Dareh**	**2.98**	**85**	P	**Pn**	**04 37 49.6**	**+0.3**
BKNI	**Bangkinang**	**2.98**	**60**		**Pn**	**04 37 49.4**	**0.0**
BKNI	**Bangkinang**	**2.98**	**60**	P	**Pn**	**04 37 48.9**	**-0.5**
BKNI				AML	AML		
BKNI	**Bangkinang**	**2.98**	**60**	P	**Pn**	**04 37 50.6**	**+1.2**
RPSI	**Rantau Prapat**	**3.88**	**7**		**Pn**	**04 38 00.8**	**-0.9**
RPSI	**Rantau Prapat**	**3.88**	**7**	P	**Pn**	**04 38 01.8**	**+0.1**
RGRI	**Rengat**	**3.96**	**78**	P	**Pn**	**04 38 01.9**	**-0.9**
PSI	**Prapat**	**3.98**	**7**	P	**Pn**	**04 38 01.3**	**-2.0**
KSI	**Kapahiang**	**4.80**	**121**	P	**Pn**	**04 38 17.7**	**+3.2**
KSI				AML	AML		
JMBI	**JAMBI**	**5.20**	**95**	P	**Pn**	**04 38 20.5**	**+0.6**
	2.4nm179nm,0.4s						
JMBI				AML	AML		
MNAI	**Manna**	**5.49**	**125**	Pn	**Pn**	**04 38 24.1**	**+0.3**
MNAI	**Manna**	**5.49**	**125**	P	**Pn**	**04 38 25.7**	**+1.8**
	2.9nm286nm,0.9s						
MNAI				AML	AML		
BTDF	**Bukit Timah Da**	**5.88**	**65**	P	**Pn**	**04 38 28.4**	**-0.9**
MYKOM	**Kota Tinggi**	**6.14**	**61**		**Pn**	**04 38 32.5**	**-0.4**
MYKOM	**Kota Tinggi**	**6.14**	**61**	P	**Pn**	**04 38 32.5**	**-0.4**
MYKOM				AML	AML		
MYKOM	**Kota Tinggi**	**6.14**	**61**	P	**Pn**	**04 38 33.1**	**+0.2**
	comp=Z,32nm,1.1s						
IPM	**Ipoh**	**6.18**	**24**		**Pn**	**04 38 33.7**	**+0.3**
IPM	**Ipoh**	**6.18**	**24**	P	**Pn**	**04 38 32.0**	**-1.4**
	comp=Z,0.8nmcomp=Z,1μmcomp=Z,101nm,0.9s						
IPM				AML	AML		
IPM	**Ipoh**	**6.18**	**24**	P	**Pn**	**04 38 34.1**	**+0.7**
	comp=Z,100nm,0.9s						
LHMI	**Lhok Sumawe**	**6.54**	**347**	P	**Pn**	**04 38 38.2**	**-0.2**
	comp=Z,0.8nmcomp=Z,111nm,1.0s						
LHMI				AML	AML		
MDSI	**Maura Dua**	**6.59**	**120**	P	**Pn**	**04 38 41.7**	**+2.8**
	comp=Z,54nm,0.8s						
KULM	**Kulim**	**6.79**	**19**		**Pn**	**04 38 43.2**	**+1.5**
KULM	**Kulim**	**6.79**	**19**	P	**Pn**	**04 38 40.7**	**-1.1**
	comp=Z,0.5nmcomp=Z,2μmcomp=Z,116nm,0.8s						
KULM				AML	AML		
KULM	**Kulim**	**6.79**	**19**	P	**Pn**	**04 38 43.7**	**+1.9**
	comp=Z,116nm,0.8s						
BSI	**Banda Aceh**	**7.35**	**335**	P	**Pn**	**04 38 49.4**	**0.0**
	comp=Z,0.5nmcomp=Z,81nm,1.1s						
BSI				AML	AML		
TPI	**Tanjungpandan**	**9.32**	**100**	P	**Pn**	**04 39 17.4**	**+0.9**
	comp=Z,47nm,1.0s						
BBJI	**Bungbulang**	**11.08**	**125**	Pn	**Pn**	**04 39 39.8**	**-0.9**
UGM	**Wanagama**	**13.75**	**119**	Pn	**Pn**	**04 40 17.9**	**+0.7**
KKM	**Kota Kinabalu**	**19.12**	**68**		**P**	**04 41 25.4**	**-0.1**
KKM				IAmb	IAmb	04 41 29.1	
	comp=Z,30nm,0.8s						
CM31	**Chiang Mai Arr**	**19.52**	**1**	P	**P**	**04 41 29.4**	**-0.3**
CM31				IAmb	IAmb	04 41 32.5	
	comp=Z,31nm,0.8s						
CMAR	**Chiang Mai Arr**	**19.52**	**1**	P	**P**	**04 41 29.1**	**-0.6**
	comp=Z,1.2nm,0.3s,baz=190,slow=12,SNR=59						
CMAR				LR	LR	04 49 45.2	
	comp=Z,519nm,19.0s,baz=185,slow=39						
	comp=Z,17nm,0.7s						
CMAR				AML	AML		
CMAR	**Chiang Mai Arr**	**19.52**	**1**	P	**P**	**04 41 28.6**	**-1.1**
PALK	**Pallekele**	**19.61**	**296**	LR	LR	04 48 50.7	
	comp=Z,219nm,18.0s,baz=113,slow=36						
CHTO	**Chiang Mai**	**19.88**	**1**		**P**	**04 41 33.0**	**-0.6**
CHTO	**Chiang Mai**	**19.88**	**1**	P	**P**	**04 41 34.0**	**+0.4**
	comp=Z,22nm,0.7s						
NPW	**Naypyitaw**	**20.95**	**354**	P	Pn	04 41 48.0	+0.2
	comp=Z,68nm,1.0s						
KAPI	**Kappang**	**21.59**	**101**	P	**P**	**04 41 54.3**	**+2.1**
	comp=Z,23nm,0.9s,baz=270,slow=13,SNR=6.8						
	comp=Z,23nm,0.9s						
KAPI	**Kappang**	**21.59**	**101**	P	**P**	**04 41 55.1**	**+2.9**
TOLI2	**Tolitoli**	**22.43**	**84**		**P**	**04 41 59.5**	**-1.8**
TOLI2				IAmb	IAmb	04 42 07.6	
	comp=Z,25nm,0.9s						
TOLI2	**Tolitoli**	**22.43**	**84**	P	**P**	**04 42 00.2**	**-1.1**
	comp=Z,33nm,0.9s						
QIZ	**Qiongzhong**	**22.99**	**29**	P	**P**	**04 42 07.6**	**+0.5**
QIZ				S	**S**	**04 46 19.1**	**+1.4**
QIZ				L	L		
	comp=Z,300nm,15.1s						
QIZ				L	L		
	comp=Z,240nm,17.1s						
QIZ				L	L		
	comp=Z,400nm,15.5s						
SLVN	**Son La**	**23.00**	**13**	P	**P**	**04 42 07.3**	**+0.1**
SLVN				IAmb	IAmb	04 42 08.9	
	comp=Z,63nm,0.9s						
SLVN	**Son La**	**23.00**	**13**	P	**P**	**04 42 07.9**	**+0.7**
	comp=Z,86nm,1.0s						
BRDH	**Bariadhala**	**24.63**	**345**	LR	LR	04 53 40.5	
	comp=Z,321nm,19.1s,baz=168,slow=41						
MORE	**Moreh**	**25.59**	**351**	P	**P**	**04 42 30.6**	**-0.9**
KMI2	**Kunming**	**26.50**	**9**	⇑P	**P**	**04 42 40.8**	**+0.8**
KMI2				sP	sP	04 42 48.6	+4.5
KMI2				pmax	pmax		
	comp=Z,37nm,1.3s						
KMI2				L	L		
	comp=Z,330nm,21.3s						
KMI2				L	L		
	comp=Z,230nm,19.0s						
KMI2				L	L		
	comp=Z,420nm,19.1s						
H08S2	**Diego Garcia H**	**26.66**	**255**	T	T	05 10 28.6	
	baz=76,slow=76,SNR=2654						
H08S3	**Diego Garcia H**	**26.67**	**255**	T	T	05 10 28.9	
	baz=76,slow=76,SNR=2085						
H08S1	**Diego Carcia H**	**26.68**	**255**	T	T	05 10 29.9	
	baz=76,slow=76,SNR=1201						
HYB	**Hyderabad**	**26.95**	**314**	eP	**P**	**04 42 44.0**	**+0.1**
HYB				ePcP	**PcP**	**04 46 05.4**	**-0.6**
HYB				eS	**S**	**04 47 22.1**	**+0.8**
SHL	**Shillong**	**27.34**	**347**	P	**P**	**04 42 46.5**	**-1.1**
PZH	**PanZhiHua**	**27.70**	**6**	P	**P**	**04 42 53.6**	**+2.9**
DAV	**Davao City (W)**	**28.27**	**73**	LR	LR	04 56 39.6	
	comp=Z,203nm,18.2s,baz=204,slow=42						
GYA	**Guiyang**	**28.60**	**15**	P	**P**	**04 42 58.3**	**-0.4**
GYA				pmax	pmax		
	comp=Z,19nm,0.8s						
EVN	**Everest**	**31.06**	**340**	P	**P**	**04 43 19.1**	**-2.0**
LSA	**Lhasa**	**31.49**	**348**	P	**P**	**04 43 23.9**	**-0.8**
LSA				IAmb	IAmb	04 43 26.9	
	comp=Z,22nm,0.8s						
FITZ	**Fitzroy Crossi**	**31.54**	**124**	LR	LR	04 57 43.4	
	comp=Z,139nm,21.5s,baz=335,slow=39						
FITZ	**Fitzroy Crossi**	**31.54**	**124**	P	**P**	**04 43 23.9**	**-0.8**
CD2	**Chengdu**	**32.31**	**9**	P	**P**	**04 43 30.5**	**-0.9**
CD2				pP	sP	04 43 35.3	-0.2
CD2				sP	pP	04 43 37.0	+2.7
CD2				S	**S**	**04 48 50.3**	**+5.1**
CD2				pmax	pmax		
	comp=Z,40nm,0.8s						
CD2				pmax	pmax		
	comp=Z,150nm,4.9s						
CD2				L	L		
	comp=Z,470nm,11.6s						
CD2				L	L		
	comp=Z,640nm,13.3s						
CD2				L	L		
	comp=Z,530nm,13.3s						
ENH	**Enshi**	**33.00**	**18**	P	**P**	**04 43 34.9**	**-2.5**
	comp=Z,22nm,0.8s						
FAKI	**Fak Fak**	**33.81**	**93**	P	**P**	**04 43 42.7**	**-2.0**
XAN	**Xi'an**	**36.39**	**15**	P	**P**	**04 44 05.5**	**-1.2**
XAN				sP	sP	04 44 12.5	+1.7
XAN				pmax	pmax		
	comp=Z,53nm,0.8s						
XAN				L	L		
	comp=Z,540nm,15.8s						
XAN				L	L		
	comp=Z,190nm,18.5s						
XAN				L	L		
	comp=Z,540nm,13.7s						
H01W3	**Cape Leeuwin H**	**36.58**	**158**	T	T	05 22 37.5	
	baz=332,slow=74,SNR=22						
H01W2	**Cape Leeuwin H**	**36.59**	**158**	T	T	05 22 34.8	
	baz=332,slow=74,SNR=23						
H01W1	**Cape Leeuwin H**	**36.59**	**158**	T	T	05 22 40.7	
	baz=332,SNR=24						
LZDM	**Lanzhou Array**	**37.27**	**7**	P	**P**	**04 44 13.4**	**-1.0**
	comp=Z,3.0nm,0.3s,baz=184,slow=8.9,SNR=9.6						
	comp=Z,3.0nm,0.3s						
GOMU	**GeErMu**	**37.34**	**355**	P	**P**	**04 44 16.3**	**+1.1**
GOMU				pP	sP	04 44 19.4	+0.1
GOMU				sP	pP	04 44 23.3	+5.2
GOMU				pmax	pmax		
	comp=Z,4.0nm,0.5s						
LZH	**Lanzhou**	**37.41**	**7**	eP	**P**	**04 44 15.6**	**+0.1**
LZH				sP	sP	04 44 23.5	+3.8
LZH				pmax	pmax		
	comp=Z,36nm,1.1s						
LZH				L	L		
	comp=Z,390nm,16.1s						
LZH				L	L		
	comp=Z,200nm,15.6s						
LZH				L	L		
	comp=Z,430nm,16.8s						
LYN	**LuoYang**	**37.90**	**19**	P	**P**	**04 44 18.9**	**-0.5**
LYN				pmax	pmax		
	comp=Z,66nm,0.9s						
NJ2	**Nanjing**	**38.28**	**29**	eP	**P**	**04 44 24.2**	**+1.5**
NJ2				pmax	pmax		
	comp=Z,11nm,0.7s						
WRA	**Warramunga Arr**	**39.73**	**120**	P	**P**	**04 44 35.4**	**+0.3**
	comp=Z,8.5nm,1.0s,baz=303,slow=8.9,SNR=31						
	comp=Z,8.5nm,1.0s						
WRA	**Warramunga Arr**	**39.73**	**120**	P	**P**	**04 44 34.7**	**-0.4**
WRAB	**Tennant Creek**	**39.74**	**120**	P	**P**	**04 44 33.0**	**-2.1**
	comp=Z,9.1nm,0.6s						
WR8	**Warramunga Arr**	**39.88**	**120**	P	**P**	**04 44 35.7**	**-0.6**
GTA2	**Gaotai**	**40.49**	**2**	eP	**P**	**04 44 41.1**	**-0.1**
GTA2				pP	pP	04 44 43.3	-0.9
GTA2				PcP	**PcP**	**04 46 44.6**	**+0.7**
GTA2				pmax	pmax		
	comp=Z,8.0nm,1.0s						
GTA2				L	L		
	comp=Z,290nm,16.5s						
GTA2				L	L		
	comp=Z,140nm,16.8s						
GTA2				L	L		
	comp=Z,280nm,16.5s						
ASAR	**Alice Springs**	**40.98**	**126**	P	**P**	**04 44 46.3**	**+0.9**
	comp=Z,2.8nm,0.9s,baz=298,slow=7.6,SNR=20						
ASAR				PcP	**PcP**	**04 46 46.1**	**+0.4**
	comp=Z,1.3nm,0.9s,baz=325,slow=4.4,SNR=3.7						
ASAR				LR	LR	05 04 08.1	
	comp=Z,150nm,20.3s,baz=299,slow=40						
	comp=Z,2.8nm,0.9s						
ASAR	**Alice Springs**	**40.98**	**126**	P	**P**	**04 44 45.7**	**+0.3**
HNS	**HongShan**	**41.23**	**20**	⇓P	**P**	**04 44 47.0**	**-0.2**
HNS				S	**S**	**04 51 02.3**	**+1.3**
HNS				pmax	pmax		
	comp=Z,25nm,0.9s						
HNS				L	L		
	comp=Z,290nm,15.9s						
HNS				L	L		
	comp=Z,210nm,16.3s						
NIL	**Nilore**	**41.99**	**328**	P	**P**	**04 44 53.6**	**+0.1**
NIL				IAmb	IAmb	04 44 54.5	
	comp=Z,15nm,0.7s						
NIL	**Nilore**	**41.99**	**328**	P	**P**	**04 44 53.8**	**+0.2**
	comp=Z,23nm,0.8s						
BTO2	**Baotou**	**43.01**	**13**	eP	**P**	**04 45 01.7**	**-0.1**
BTO2				pP	**sP**	**04 45 06.1**	**+0.2**
BTO2				sP	**pP**	**04 45 08.7**	**+3.9**
BTO2				pmax	pmax		
	comp=Z,39nm,1.5s						
BTO2				pmax	pmax		
	comp=Z,210nm,5.2s						
BTO2				L	L		
	comp=Z,470nm,21.4s						
BTO2				L	L		
	comp=Z,360nm,12.0s						
BTO2				L	L		
	comp=Z,570nm,18.1s						
HHC	**Hu-ho-hao-te**	**43.50**	**14**	eP	**P**	**04 45 06.4**	**+0.6**
HHC				pmax	pmax		
	comp=Z,14nm,0.6s						
HHC				pmax	pmax		
	comp=Z,120nm,4.9s						
HHC				L	L		
	comp=Z,390nm,19.4s						
HHC				L	L		
	comp=Z,170nm,16.0s						
HHC				L	L		
	comp=Z,310nm,15.1s						
BJT	**Baijiatuau**	**44.09**	**20**	P	**P**	**04 45 09.2**	**-1.2**
BJT				IAmb	IAmb	04 45 11.2	
	comp=Z,15nm,0.8s						
BJI2	**Beijing**	**44.09**	**20**	P	**P**	**04 45 10.4**	**0.0**
BJI2				sP	**sP**	**04 45 17.0**	**+2.5**
BJI2				pmax	pmax		
	comp=Z,12nm,1.1s						
WUS	**Wushi**	**45.66**	**340**	P	**P**	**04 45 22.9**	**-0.2**
WUS				IAmb	IAmb	04 45 25.2	
	comp=Z,24nm,1.3s						
WUS	**Wushi**	**45.66**	**340**	P	**P**	**04 45 24.2**	**+1.1**
	comp=Z,18nm,1.1s						
JNU	**Nakatsue**	**45.80**	**39**	LR	LR	05 04 53.2	
	comp=Z,99nm,20.3s,baz=208,slow=37						
WMQ	**Urumqi**	**45.83**	**349**	eP	**P**	**04 45 25.9**	**+1.6**
WMQ				sP	sP	04 45 33.4	+4.9
WMQ				pmax	pmax		
	comp=Z,30nm,1.1s						
ASAI	**AK-SAY(Kyrgyzs**	**46.41**	**337**	P	**P**	**04 45 31.0**	**+1.7**
	comp=Z,4.6nm,1.8s						
TARG	**Taragay, Kyrgy**	**46.63**	**339**		**P**	**04 45 31.0**	**0.0**
TARG				IAmb	IAmb	04 45 51.1	
	comp=Z,9.5nm,1.0s						
TARG	**Taragay, Kyrgy**	**46.63**	**339**	P	**P**	**04 45 32.7**	**+1.7**
	comp=Z,9.8nm,1.1s						
NRN	**Naryn**	**47.06**	**337**		**P**	**04 45 34.0**	**-0.3**
NRN				IAmb	IAmb	04 45 51.9	
	comp=Z,8.2nm,0.7s						
KSAR	**Wonju Array Be**	**47.10**	**32**	P	**P**	**04 45 33.3**	**-1.0**
KSRS	**Korea Array**	**47.13**	**32**	P	**P**	**04 45 32.2**	**-2.3**
	comp=Z,6.5nm,0.9s,baz=225,slow=9.4,SNR=15						
KSRS				LR	LR	05 06 44.0	
	comp=Z,132nm,19.6s,baz=220,slow=38						
	comp=Z,6.5nm,0.9s						
KDJ	**Kajisay**	**47.21**	**338**		**P**	**04 45 35.6**	**+0.3**
KDJ				IAmb	IAmb	04 45 38.6	
	comp=Z,18nm,1.1s						
SHLS	**Shalkode**	**47.33**	**341**	eP	**P**	**04 45 36.3**	**+0.2**
	comp=Z,5.9nm,0.8s						
UZB	**Uzynbulak**	**47.46**	**341**	⇑iP	**P**	**04 45 38.4**	**+1.2**
	comp=Z,4.1nm,0.6s						
PDGK	**Podgornoye**	**47.47**	**341**	P	**P**	**04 45 38.2**	**+0.9**
XLT	**XiLinHaoTe**	**47.57**	**17**	eP	**P**	**04 45 37.5**	**-0.5**
XLT				pmax	pmax		
	comp=Z,15nm,0.9s						
SATY	**Saty**	**47.59**	**340**	⇑iP	**P**	**04 45 39.3**	**+1.1**
	comp=Z,11nm,1.0s						
TNSS	**Tian-Shan**	**48.08**	**339**	eP	**P**	**04 45 43.3**	**+1.0**
MDOK	**Medeo**	**48.16**	**339**	eP	**P**	**04 45 43.9**	**+1.3**
AAA	**Alma-Ata**	**48.24**	**339**	eP	**P**	**04 45 44.4**	**+1.2**
AAK	**Ala-Archa**	**48.67**	**336**	LR	LR	05 07 45.0	
	comp=Z,131nm,21.4s,baz=154,slow=38						
KUU	**Kurty**	**49.05**	**339**	eP	**P**	**04 45 50.8**	**+1.5**
SONM	**Songino Array**	**49.31**	**7**	P	**P**	**04 45 51.8**	**+0.5**
	comp=Z,18nm,0.8s,baz=189,slow=8.7,SNR=73						
	comp=Z,18nm,0.8s						
SONM	**Songino Array**	**49.31**	**7**	P	**P**	**04 45 51.8**	**+0.5**
SONM				IAmb	IAmb	04 45 54.0	
	comp=Z,16nm,0.8s						
SGDS	**Sogindy**	**49.31**	**337**	eP	**P**	**04 45 52.7**	**+1.3**
ULN	**Ulaanbaatar**	**49.42**	**8**	P	**P**	**04 45 51.5**	**-0.7**
ULN				IAmb	IAmb	04 46 01.8	
	comp=Z,18nm,0.9s						
ULN	**Ulaanbaatar**	**49.42**	**8**	P	**P**	**04 45 52.7**	**+0.4**
	comp=Z,22nm,1.0s						
MKAR	**Makanchi Array**	**49.84**	**346**	P	**P**	**04 45 55.9**	**+0.5**
	comp=Z,21nm,0.8s,baz=152,slow=8.0,SNR=115						
MKAR				LR	LR	05 11 54.9	
	comp=Z,62nm,18.2s,baz=153,slow=42						
	comp=Z,21nm,0.8s						
MKAR	**Makanchi Array**	**49.84**	**346**		**P**	**04 45 55.7**	**+0.3**
ZSN	**Zaisan**	**49.87**	**348**	eP	**P**	**04 45 56.9**	**+1.4**
	comp=Z,9.8nm,0.8s						
MAKZ	**Makanchi**	**49.94**	**345**	P	**P**	**04 45 56.3**	**+0.3**
MAKZ				IAmb	IAmb	04 45 57.4	
	comp=Z,13nm,0.8s						
MAKZ	**Makanchi**	**49.94**	**345**	P	**P**	**04 45 56.5**	**+0.5**
	comp=Z,18nm,0.9s						
IUG	**Iuzhnay**	**50.20**	**333**	eP	**P**	**04 45 59.5**	**+1.3**
	comp=Z,14nm,1.0s						
CTA	**Charters Tower**	**50.34**	**115**	LR	LR	05 09 49.5	
	comp=Z,133nm,19.6s,baz=228,slow=39						
CHM	**Chimkent**	**50.53**	**332**	eP	**P**	**04 46 02.0**	**+1.4**
KKAR	**Karatay Array**	**50.74**	**334**	P	**P**	**04 46 01.8**	**-0.4**
STKA	**Stephens Creek**	**50.84**	**131**	P	**P**	**04 46 04.2**	**+1.1**
	comp=Z,2.6nm,0.5s,baz=314,slow=5.4,SNR=7.7						
STKA				LR	LR	05 09 35.7	
	comp=Z,177nm,20.3s,baz=262,slow=38						
	comp=Z,2.6nm,0.5s						
CN2	**Changchun**	**50.88**	**25**	P	**P**	**04 46 01.8**	**-1.4**
CN2				pmax	pmax		
	comp=Z,10.0nm,1.0s						
BRLS	**Borolday**	**50.98**	**333**	eP	**P**	**04 46 04.1**	**+0.1**
MJAR	**Matsushiro Arr**	**52.63**	**40**	P	**P**	**04 46 14.7**	**-1.7**
	comp=Z,4.5nm,1.0s,baz=214,slow=7.1,SNR=5.5						
MJAR				LR	LR	05 09 15.1	
	comp=Z,73nm,20.4s,baz=242,slow=37						
	comp=Z,4.5nm,1.0s						
BNX	**BinXian**	**53.27**	**25**	⇑P	**P**	**04 46 19.5**	**-1.4**
BNX				pmax	pmax		
	comp=Z,17nm,0.9s						
HILR	**Hailar Array B**	**53.76**	**17**	P	**P**	**04 46 24.4**	**-0.2**
	comp=Z,3.7nm,0.6s,baz=165,slow=7.7,SNR=4.3						
	comp=Z,3.7nm,0.6s						
USA0B	**Ussuriysk Arra**	**54.18**	**29**	P	**P**	**04 46 27.2**	**-0.4**
USRK	**Ussuriysk Ar.**	**54.18**	**29**	P	**P**	**04 46 27.0**	**-0.6**
	comp=Z,22nm,0.8s,baz=229,slow=5.5,SNR=37						
USRK				LR	LR	05 12 46.0	
	comp=Z,310nm,18.1s,baz=208,slow=40						
	comp=Z,22nm,0.8s						
KURBB	**Kurchatov Arra**	**54.34**	**345**	P	**P**	**04 46 28.9**	**+0.2**
	comp=Z,7.8nm,0.8s,baz=166,slow=7.2,SNR=51						
KURBB				LR	LR	05 12 30.1	
	comp=Z,64nm,21.4s,baz=172,slow=39						
	comp=Z,7.8nm,0.8s						
KURK	**Kurchatov**	**54.41**	**345**	P	**P**	**04 46 29.2**	**+0.1**
KURK				IAmb	IAmb	04 46 30.8	
	comp=Z,15nm,0.9s						
KURK	**Kurchatov**	**54.41**	**345**	P	**P**	**04 46 29.5**	**+0.4**
	comp=Z,18nm,1.2s						
ZAA0	**Zalesovo Array**	**56.10**	**350**		**P**	**04 46 40.8**	**-0.5**
ZALV	**Zalesovo Beam**	**56.10**	**350**	P	**P**	**04 46 41.4**	**+0.1**
	comp=Z,20nm,0.8s,baz=180,slow=5.9,SNR=70						
ZALV				LR	LR	05 13 13.8	
	comp=Z,54nm,18.1s,baz=104,slow=39						
	comp=Z,20nm,0.8s						
HEH	**HeiHe**	**56.91**	**22**	eP	**P**	**04 46 46.6**	**-0.6**
KLR	**Kul'dur**	**57.83**	**25**	LR	LR	05 13 45.3	
	comp=Z,212nm,19.4s,baz=224,slow=38						
BVAR	**Borovoye Array**	**58.90**	**341**	P	**P**	**04 47 00.6**	**-0.5**
	comp=Z,11nm,0.7s,baz=143,slow=8.3,SNR=51						
	comp=Z,11nm,0.7s						
BORK	**Borovoye**	**58.94**	**341**	P	**P**	**04 47 00.8**	**-0.6**
BORK				IAmb	IAmb	04 47 01.7	
	comp=Z,9.6nm,0.7s						
AB31	**Akbulak array**	**60.20**	**332**	P	**P**	**04 47 09.8**	**-0.3**
AB31				IAmb	IAmb	04 47 10.8	
	comp=Z,12nm,0.9s						
ABKAR	**Akbulak array**	**60.20**	**332**	P	**P**	**04 47 09.9**	**-0.2**
H04N2	**CROZET ISLANDS**	**60.55**	**215**	T	T	05 53 00.6	
	baz=56,slow=75,SNR=3727						
H04N1	**CROZET ISLANDS**	**60.56**	**215**	T	T	05 53 01.1	
	baz=56,slow=75,SNR=4631						
H04N3	**CROZET ISLANDS**	**60.57**	**215**	T	T	05 52 59.8	
	baz=56,slow=75,SNR=4485						
H04S1	**CROZET ISLANDS**	**60.86**	**215**	T	T	05 53 19.2	
	baz=55,slow=75,SNR=1466						
H04S3	**CROZET ISLANDS**	**60.87**	**215**	T	T	05 53 16.8	
	baz=55,slow=75,SNR=1768						
H04S2	**CROZET ISLANDS**	**60.88**	**215**	T	T	05 53 15.1	
	baz=55,slow=75,SNR=785						
YSS	**Yuzhno-Sakhali**	**61.62**	**33**	P	**P**	**04 47 17.2**	**-2.6**
	comp=Z,30nm,0.7s						
HNR	**Honiara**	**61.69**	**100**	LR	LR	05 16 26.6	
	comp=Z,36nm,20.1s,baz=346,slow=38						
CASY	**Casey**	**65.53**	**175**	P	**P**	**04 47 46.0**	**+0.7**
CASY				IAmb	IAmb	04 47 56.6	
	comp=Z,20nm,1.5s						
CASY	**Casey**	**65.53**	**175**	P	P	04 47 39.0	-6.3
	comp=Z,9.1nm,2.0s						
ARTI	**Arti**	**65.89**	**337**	P	**P**	**04 47 47.1**	**-0.7**
KBZ	**Khabaz**	**66.69**	**319**	P	**P**	**04 47 53.1**	**-0.1**
	comp=Z,6.9nm,0.8s,baz=115,slow=6.4,SNR=15						
	comp=Z,6.9nm,0.8s						
ASF	**Jabal al Asfar**	**66.87**	**306**	LR	LR	05 18 16.7	
	comp=Z,57nm,18.7s,baz=27,slow=37						
KIV	**Kislovodsk**	**66.92**	**320**	P	**P**	**04 47 54.5**	**-0.3**
KOUNC	**Koumac, New Ca**	**66.99**	**112**	P	**P**	**04 47 54.5**	**-1.1**
YAK	**Yakutsk**	**67.35**	**15**	LR	LR	05 20 38.9	
	comp=Z,104nm,19.2s,baz=206,slow=39						
YAK	**Yakutsk**	**67.35**	**15**	P	**P**	**04 47 55.3**	**-1.7**
MBAR	**Mbarara**	**67.72**	**270**	LR	LR	05 12 31.7	
	comp=Z,49nm,21.3s,baz=85,slow=32						
EIL	**Elat**	**67.79**	**303**	LR	LR	05 17 38.5	
	comp=Z,90nm,19.1s,baz=92,slow=36						
LSZ	**Lusaka**	**70.67**	**254**	LR	LR	05 15 12.4	
	comp=Z,62nm,19.9s,baz=186,slow=32						
MAW	**Mawson**	**70.70**	**194**	LR	LR	05 15 00.1	
	comp=Z,98nm,18.6s,baz=32,slow=32						
KIRV	**Kirov**	**70.99**	**335**	LR	LR	05 22 42.3	
	comp=Z,66nm,18.9s,baz=123,slow=39						
BRTR	**Keskin Array B**	**71.64**	**313**	P	**P**	**04 48 23.1**	**-1.1**
	comp=Z,1.1nm,0.8s,baz=132,slow=7.1,SNR=7.2						
BRTR				LR	LR	05 19 26.5	
	comp=Z,24nm,21.4s,baz=114,slow=36						
	comp=Z,1.1nm,0.8s						
BRTR	**Keskin Array B**	**71.64**	**313**	P	**P**	**04 48 23.4**	**-0.8**
MA2	**Magadan**	**72.93**	**25**	LR	LR	05 22 41.7	
	comp=Z,113nm,18.1s,baz=222,slow=38						
PETK	**Petropavlovsk-**	**73.03**	**33**	P	**P**	**04 48 31.4**	**-0.7**
	comp=Z,4.9nm,0.8s,baz=251,slow=4.5,SNR=4.7						
PETK				LR	LR	05 19 50.4	
	comp=Z,47nm,21.8s,baz=210,slow=35						
	comp=Z,4.9nm,0.8s						
LBTB	**Lobatse**	**73.99**	**244**	LR	LR	05 17 14.2	
	comp=Z,143nm,21.7s,baz=102,slow=33						
BOSA	**Boshof**	**74.71**	**241**	LR	LR	05 15 46.0	
	comp=Z,97nm,20.0s,baz=117,slow=31						
TIXI	**Tiksi**	**75.30**	**10**	LR	LR	05 26 35.5	
	comp=Z,116nm,18.4s,baz=200,slow=40						
RPZ	**Rata Peaks**	**76.64**	**135**	LR	LR	05 22 48.1	
	comp=Z,24nm,20.9s,baz=246,slow=36						
AKASG	**Malin Array Be**	**77.90**	**323**	P	**P**	**04 48 59.4**	**-0.7**
	comp=Z,0.2nm,0.3s,baz=89,slow=4.4,SNR=4.3						
	comp=Z,0.2nm,0.3s						
AKASG	**Malin Array Be**	**77.90**	**323**	P	**P**	**04 48 59.6**	**-0.5**
MLR	**Muntele Rosu**	**78.65**	**317**	P	**P**	**04 49 05.1**	**+0.6**
MLR				IAmb	IAmb	04 49 06.5	
	comp=Z,8.8nm,1.0s						

MLR	Muntele Rosu	78.65	317	P	P	04 49 05.4	+0.8
	comp=Z,10nm,1.6s						
SUR	Sutherland	78.94	237	LR	LR	05 17 19.4	
	comp=Z,111nm,18.7s,baz=126,slow=31						
BURAR	Bucovina Array	79.63	319	P	P	04 49 11.0	+1.2
BUR08	Bucovina Ar. S	79.65	319	P	P	04 49 11.2	+1.2
MSVF	Nonsavu	79.72	108	LR	LR	05 28 34.2	
	comp=Z,41nm,18.3s,baz=179,slow=39						
URZ	Urewera	80.36	128	LR	LR	05 26 49.0	
	comp=Z,81nm,19.7s,baz=263,slow=37						
FINES	FINESS Array B	82.68	333	P	P	04 49 25.4	-0.2
	comp=Z,2.0nm,0.6s,baz=123,slow=4.9,SNR=7.6						
FINES				LR	LR	05 29 39.7	
	comp=Z,63nm,18.1s,baz=71,slow=38						
	comp=Z,2.0nm,0.6s						
FINES	FINESS Array B	82.68	333	P	P	04 49 25.0	-0.6
VNDA	Vanda	83.26	169	LR	LR	05 19 34.3	
	comp=Z,68nm,21.9s,baz=305,slow=31						
ARCES	ARCESS Array B	85.19	340	P	P	04 49 38.7	+0.4
	comp=Z,3.2nm,0.9s,baz=66,slow=4.1,SNR=4.3						
ARCES				LR	LR	05 32 24.4	
	comp=Z,64nm,18.2s,baz=163,slow=39						
	comp=Z,3.2nm,0.9s						
ARCES	ARCESS Array B	85.19	340	P	P	04 49 38.2	-0.1
GERES	GERESS Array B	87.42	319	P	P	04 49 50.8	+0.9
	comp=Z,0.5nm,0.3s,baz=92,slow=4.0,SNR=7.1						
	comp=Z,0.5nm,0.3s						
GERES	GERESS Array B	87.42	319	P	P	04 49 48.8	-1.0
HFS	Hagfors	88.40	330	LR	LR	05 31 44.5	
	comp=Z,33nm,21.2s,baz=72,slow=37						
QSPA	South Pole Qui	88.78	180	P	P	04 49 56.8	+0.9
QSPA				IAmb	IAmb	04 51 16.0	
	comp=Z,21nm,1.9s						
SPITS	Spitsbergen Ar	89.52	348	P	P	04 49 58.6	-0.5
	comp=Z,3.9nm,0.7s,baz=122,slow=9.0,SNR=4.3						
SPITS				LR	LR	05 36 51.5	
	comp=Z,46nm,18.9s,baz=94,slow=40						
	comp=Z,3.9nm,0.7s						
NOA	NORSAR Array B	89.69	331	LR	LR	05 33 17.8	
	comp=Z,36nm,21.7s,baz=85,slow=38						
EKA	Eskdalemuir Ar	97.58	326	LR	LR	05 40 55.2	
	comp=Z,22nm,18.0s,baz=26,slow=39						
PPT2	Papeete2	110.52	109	*e*LR	LR	05 28 13.2	
	comp=Z,84nm,24.2s						
PPT2				*e*LR	LR	05 28 16.7	
	comp=Z,108nm,32.0s						
CPUP	Villa Florida	144.03	219	PKP	PKPdf	04 56 38.9	+0.2
	comp=Z,1.6nm,0.7s,baz=188,slow=4.8,SNR=4.9						
CPUP	Villa Florida	144.03	219		PKPbc	04 56 38.0	+1.4
TXAR	Lajitas Array	144.95	35	PKP	PKPbc	04 56 40.1	+0.6
	comp=Z,4.0nm,0.6s,baz=271,slow=1.3,SNR=70						
TXAR	Lajitas Array	144.95	35		PKPab	04 56 39.3	-0.2
JCT	Junction City	146.10	29		PKPbc	04 56 43.2	+0.2
X48A	Hartselle	146.50	8	PKPdf	PKPdf	04 56 42.2	-0.6
X51A	Calhoun	146.64	5	PKPdf	PKPdf	04 56 42.5	-0.5
Y49A	Blount Mountai	147.18	7	PKPbc	PKPdf	04 56 45.4	+1.5
Y58A	Scranton	147.40	357		PKPdf	04 56 44.3	0.0
Y52A	Lilburn	147.40	4	PKPdf	PKPdf	04 56 43.9	-0.4

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*IDC **08** 05:00:46.4±3.6, 54°.36N×87°.22E, h0km, mbtmp2.8/2, ML2.6/2, Error ellipse: s-maj=29.2km s-min=23.0km az=63.0*

ASRS 08 05:00:46.0±0.6**, 54°.24N×87°.11E, h0km, M2.7**(MOS)**, The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	1.38	259	I	I	05 10 00.0	
	baz=75,slow=320,SNR=9.4						
ZALV	Zalesovo Beam	1.38	259	Pg	Pb	05 01 13.6	+0.9
	1.1nm,0.3s,baz=72,slow=13,SNR=7.7						
ZALV				Lg	Lg	05 01 33.9	
	1.3nm,0.3s,baz=72,slow=25,SNR=7.5						
KURBB	Kurchatov Arra	6.37	239	Pn	Pn	05 02 23.4	+2.4
	0.1nm,0.3s,baz=52,slow=14,SNR=6.5						
KURBB				Lg	Lg	05 04 13.1	
	baz=50,slow=31,SNR=4.1						
	0.3nm,0.2s						
KURBB				AML	AML		
MKAR	Makanchi Array	8.06	204	Pn	Pn	05 02 48.4	+4.1
	0.1nm,0.3s,baz=26,slow=14,SNR=2.4						
	0.2nm,0.4s						
MKAR				AML	AML		

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*NEIC **08** 05:03:50.3±2.0, 8°.98N±0°.07×126°.57E±0°.03, h35km±1km, mb4.5/34, Error ellipse: s-maj=12.7km s-min=3.8km az=164.0*

*IDC **08** 05:03:51.5±3.0, 8°.98N×126°.61E, h56km±29km, mb3.7/11, mbtmp4.0/12, ML4.9/2, MS3.1/3, Error ellipse: s-maj=24.1km s-min=15.8km az=73.0*

*MAN **08** 05:03:51.0, 8°.97N×126°.44E, h22km, MS3.8*

ISC 08 05:03:48.8±1.5**, 8°.97N**±0°.04×**126°.61E**±0°.05**, h29**km±11km**, n81, σ1°.21**/96**, mb4.3**/26**, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BIPH	Bislig	0.82	198	*i* P	Pn	05 04 04.7	+0.2
BIPH				*i* S	Sn	05 04 14.5	-1.3
GLSP	General Luna,	0.94	329	*e*P	Pb	05 04 06.5	0.0
GLSP				*e*S	Sb	05 04 18.3	-0.3
CDOP	Cateel, Davao	1.20	188	*e*P	Pn	05 04 10.3	+0.7
CDOP				*e*S	Sn	05 04 21.7	-3.2
SCPH	Surigao	1.37	306	*i* P	Pn	05 04 12.2	+0.1
SCPH				*i* S	Sn	05 04 15.2	-14
BUKP	Musuan	1.88	235	*i* P	Pn	05 04 20.5	+1.4
BUKP				*i* S	Sn	05 04 44.6	+2.6
CGP	Cagayan de Oro	1.96	255	*i* P	Pn	05 04 20.8	+0.6
CGP				*i* S	Sn	05 04 42.6	-1.3
DAV	Davao City (W)	2.15	208	P	Pn	05 04 23.6	+0.8
	141nm,0.3s,baz=287,slow=12,SNR=4.5						
DAV				S	Sn	05 04 51.5	+2.9
	545nm,0.5s,baz=252,slow=23,SNR=9.7						
DAV				LR	LR	05 05 28.3	
	comp=Z,562nm,19.9s,baz=354,slow=45						
	170nm,0.3s						
DAV				AML	AML		
DAV	Davao City (W)	2.15	208		Pn	05 04 23.2	+0.4
KCP	Kidapawan	2.47	218	*i* P	Pn	05 04 29.4	+2.1
KCP				*i* S	Sn	05 04 57.2	+0.7
PLP	Palo	2.71	324	*e*P	Pn	05 04 32.1	+1.6
PLP				*e*S	Sn	05 05 03.6	+1.3
TBP	Tagbilaran	2.81	285	*e*P	Pn	05 04 32.5	+0.6
TBP				*i* S	Sn	05 05 04.2	-0.6
CTBH	Cotabato--PC H	2.92	234	*i* P	Pn	05 04 35.4	+1.9
CTBH				*i* S	Sn	05 05 10.2	+2.6
LLP	Lapu-Lapu	2.93	297	*e*P	Pn	05 04 35.5	+1.9
LLP				*e*S	Sn	05 05 09.1	+1.3
LSIP	Lazi, Siquijor	2.95	273	*i* P	Pn	05 04 34.3	+0.5
LSIP				*e*S	Sn	05 05 05.3	-3.0
DDMP	Don Marcelino,	2.99	197	*e*P	Pn	05 04 37.5	+3.1
DDMP				*e*S	Sn	05 05 10.6	+1.4
DCPH	Dipolog City	3.25	263	*i* P	Pn	05 04 38.6	+0.7
DCPH				*i* S	Sn	05 05 14.9	-0.7
SNPH	Sibulan	3.35	277	*i* P	Pn	05 04 40.7	+1.2
SNPH				*i* S	Sn	05 05 18.9	+0.6
TOLI2	Tolitoli	9.73	217	Pn	Pn	05 06 07.1	+0.1
LUWI	Luwuk	10.66	201	Pn	Pn	05 06 19.0	-0.8
SSLB	Suanglung	15.69	340	Pn	Pn	05 07 27.1	-1.0
TATO	Taipei	16.65	344	Pn	Pn	05 07 38.6	-1.6
TATO				IAmb	IAmb	05 07 54.7	
	comp=Z,76nm,1.2s						
GUMO	Guam	18.48	74	P	Pn	05 08 04.1	+1.2
	comp=Z,8.0nm,0.3s,baz=29,slow=5.0,SNR=3.6						
GUMO				LR	LR	05 13 42.9	
	comp=Z,84nm,19.9s,baz=230,slow=32						
GUMO				AML	AML		
GUMO	Guam	18.48	74	P	P	05 08 02.0	-0.7
JAGI	Jajag, Banyuwa	21.32	216	P	P	05 08 32.8	-0.9
JAGI				IAmb	IAmb	05 08 59.3	
	comp=Z,52nm,1.3s						
MTN	Manton Dam	22.14	168	P	P	05 08 41.4	-1.0
KNRA	Kununurra	24.59	175	P	P	05 09 07.9	+1.3
IPM	Ipoh	25.79	262	P	P	05 09 16.5	-1.3
IPM				IAmb	IAmb	05 09 24.1	
	comp=Z,6.5nm,0.6s						
FITZ	Fitzroy Crossi	26.92	182	P	P	05 09 28.3	+0.5
RPSI	Rantau Prapat	28.23	259	P	P	05 09 38.8	-0.8
RPSI				IAmb	IAmb	05 09 41.9	
	comp=Z,6.6nm,0.8s						
KSRS	Korea Array	28.38	2	LR	LR	05 20 28.7	
	comp=Z,23nm,20.5s,baz=40,slow=35						
KS19	Wonju Array Si	28.42	2	P	P	05 09 40.4	-0.7
CMAR	Chiang Mai Arr	28.45	292	P	P	05 09 42.6	+1.1
	comp=Z,1.5nm,0.3s,baz=106,slow=7.1,SNR=7.3						
	comp=Z,1.5nm,0.3s						
CMAR	Chiang Mai Arr	28.45	292	P	P	05 09 41.1	-0.5
WB0	Warramunga Arr	29.57	165	P	P	05 09 50.1	-1.4
WB0				IAmb	IAmb	05 10 15.2	
	comp=Z,5.8nm,1.3s						
WRA	Warramunga Arr	29.73	165	P	P	05 09 51.5	-1.3
	comp=Z,0.5nm,0.8s,baz=348,slow=9.3,SNR=5.1						
	comp=Z,0.5nm,0.8s						
WRA	Warramunga Arr	29.73	165	P	P	05 09 50.5	-2.4
WR8	Warramunga Arr	29.78	165	P	P	05 09 52.6	-0.7
WR8				IAmb	IAmb	05 10 19.9	
	comp=Z,15nm,1.4s						
AS31	Alice Springs	33.21	168	P	P	05 10 24.1	+0.6
ASAR	Alice Springs	33.21	168	P	P	05 10 22.9	-0.6
	comp=Z,0.4nm,0.6s,baz=346,slow=6.9,SNR=7.3						
ASAR				PcP	PcP	05 13 05.5	-0.4
	comp=Z,0.3nm,0.6s,baz=355,slow=2.8,SNR=4.2						
	comp=Z,0.4nm,0.6s						
ASAR	Alice Springs	33.21	168	P	P	05 10 23.2	-0.3
ASAR				PcP	PcP	05 13 05.3	-0.6
USRK	Ussuriysk Ar.	35.40	7	P	P	05 10 42.7	+0.5
	comp=Z,3.1nm,0.8s,baz=188,slow=9.6,SNR=4.1						
	comp=Z,3.1nm,0.8s						
USRK	Ussuriysk Ar.	35.40	7	P	P	05 10 41.7	-0.5
H11S3	WAKE ISLAND Hy	39.98	72	T	T	05 54 22.2	
	baz=261,slow=75,SNR=55						
H11S1	WAKE ISLAND Hy	39.99	72	T	T	05 54 18.3	
	baz=261,slow=75,SNR=41						
H11S2	WAKE ISLAND Hy	40.00	72	T	T	05 54 17.1	
	baz=261,slow=75,SNR=45						
SONM	Songino Array	42.34	340	P	P	05 11 40.8	+0.3
	comp=Z,0.3nm,0.4s,baz=123,slow=5.3,SNR=1.9						
	comp=Z,0.3nm,0.4s						
SONM	Songino Array	42.34	340	P	P	05 11 40.8	+0.3
BBOO	Buckleboo	42.52	168	P	P	05 11 43.1	+1.2
BBOO				IAmb	IAmb	05 11 54.8	
	comp=Z,11nm,1.2s						
SANVU	Saraoutou	46.97	121	P	P	05 12 18.0	+0.4
OUENC	Ouen Island, N	50.27	129	P	P	05 12 41.9	-1.1
PEA0B	Petropavlovsk-	50.68	24	P	P	05 12 45.2	-0.4
PETK	Petropavlovsk-	50.68	24	P	P	05 12 45.2	-0.4
MKAR	Makanchi Array	53.26	323	P	P	05 13 03.8	-1.3
	comp=Z,2.4nm,0.7s,baz=120,slow=7.9,SNR=13						
MKAR				PcP	PcP	05 14 13.5	+1.0
	comp=Z,1.1nm,0.6s,baz=93,slow=3.4,SNR=5.8						
	comp=Z,2.4nm,0.7s						
MKAR	Makanchi Array	53.26	323	P	P	05 13 04.3	-0.7
MKAR					PcP	05 14 14.3	+1.8
ZAA0	Zalesovo Array	55.92	332	P	P	05 13 23.5	-0.7
ZAA0				IAmb	IAmb	05 13 23.6	
	comp=Z,1.6nm,0.7s						
ZALV	Zalesovo Beam	55.92	332	P	P	05 13 22.6	-1.5
	comp=Z,1.2nm,0.7s,baz=131,slow=6.1,SNR=3.9						
	comp=Z,1.2nm,0.7s						
ZALV	Zalesovo Beam	55.92	332	P	P	05 13 23.5	-0.7
KURK	Kurchatov	57.32	326	P	P	05 13 33.5	-0.6
KURK				IAmb	IAmb	05 13 36.3	
	comp=Z,3.4nm,0.7s						
KURBB	Kurchatov Arra	57.33	326	P	P	05 13 32.9	-1.3
	comp=Z,1.5nm,0.5s,baz=125,slow=6.5,SNR=12						
	comp=Z,1.5nm,0.5s						
KK31	Karatay Array	59.40	315	P	P	05 13 49.3	+0.4
KK31				IAmb	IAmb	05 13 50.5	
	comp=Z,1.7nm,0.7s						
KKAR	Karatay Array	59.40	315	P	P	05 13 48.5	-0.4
BVAR	Borovoye Array	62.92	326	P	P	05 14 11.6	-0.9
	comp=Z,1.7nm,0.8s,baz=120,slow=8.8,SNR=6.2						
	comp=Z,1.7nm,0.8s						
BORK	Borovoye	62.97	326	P	P	05 14 12.9	+0.1
BORK				IAmb	IAmb	05 14 15.2	
	comp=Z,2.7nm,0.7s						
ATKA	Atka Island	64.31	36	P	P	05 14 22.6	+0.9
AB31	Akbulak array	68.07	320	P	P	05 14 46.8	+0.9
ABKAR	Akbulak array	68.07	320	P	P	05 14 46.3	+0.4
NIUE	Niue	68.46	115	P	P	05 14 49.5	+0.7
L14K	Kuka Creek	72.95	28	P	P	05 15 15.8	+0.4
M16K	Timber Creek	74.66	29	P	P	05 15 25.8	+0.3
M16K				IAmb	IAmb	05 15 46.1	
	comp=Z,12nm,1.3s						
O18K	Koktuh Hills	76.35	31	P	P	05 15 35.5	+0.3
O18K				IAmb	IAmb	05 15 49.3	
	comp=Z,7.0nm,0.9s						
ILSW	Iliamna Southw	77.40	31	P	P	05 15 42.3	+1.0
IMAR	Indian Mountai	77.64	24	P	P	05 15 43.0	+0.7
C23K	Itkillik River	79.14	21	P	P	05 15 51.8	+1.2
C23K				IAmb	IAmb	05 16 17.3	
	comp=Z,14nm,1.2s						
ILAR	Eielson Array	80.45	26	P	P	05 15 57.6	-0.1
	comp=Z,0.5nm,0.6s,baz=243,slow=4.4,SNR=8.2						
	comp=Z,0.5nm,0.6s						
ILAR	Eielson Array	80.45	26	P	P	05 15 57.3	-0.5
FINES	FINESS Array B	87.19	332	P	P	05 16 30.2	-2.0
	comp=Z,1.5nm,0.9s,baz=90,slow=5.7,SNR=5.0						
	comp=Z,1.5nm,0.9s						
FINES	FINESS Array B	87.19	332	P	P	05 16 31.4	-0.8
VNDA	Vanda	88.61	173	P	P	05 16 38.5	-0.1
VNDA				IAmb	IAmb	05 16 41.3	
	comp=Z,4.7nm,1.5s						
T35M	Bob Quinn	89.61	32	P	P	05 16 44.7	+0.8
T35M				IAmb	IAmb	05 16 45.2	
	comp=Z,3.2nm,1.2s						
PLCA	Paso Flores	144.89	157	PKP	PKPab	05 23 22.8	0.0
	comp=Z,1.3nm,0.6s,baz=74,slow=2.7,SNR=4.8						
VA04	Juan Fernndez	146.06	140	PKPdf	PKPdf	05 23 25.3	-0.5

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*IDC **08** 05:25:07.7±1.6, 7°.18S×129°.16E, h0km, mb4.3/1, mbtmp4.1/4, ML4.2/3, MS3.9/1, Error ellipse: s-maj=44.9km s-min=18.7km az=84.0*

*DJA **08** 05:25:16.0±0.3, 8°S±2°×12°9E±°, h71km±25km, M4.4/17, mB5.4/2, mb4.3/9, MLv4.4/17, Mw(mB)4.8/2, MwMwp4.7/1, Mwp5.1/1*

ISC 08 05:25:09.8±0.9**, 7°.85S**±0°.06×**129°.31E**±0°.06**, h10**km**, n14, σ3°.59**/17**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SAUI	Saumlaki	1.98	94	P	Pg	05 25 50.3	+2.5
SAUI				S	Sg	05 26 15.4	+2.0
BNDI	Bandanaira	3.36	10	P	Pn	05 26 01.2	-1.3
BNDI				S	Sn	05 26 38.2	-4.3
BNDI				AML	AML		
MSAI	Masohi	4.49	355	P	Pn	05 26 16.2	-1.8
MSAI				AML	AML		
NLAI	Namlea	5.08	334	P	Pn	05 26 26.7	+0.6
NLAI				AML	AML		
SOEI	Soe	5.33	249	P	Pn	05 26 33.9	+4.3
	0.3nm4μm61nm,0.8s						
SOEI				AML	AML		
FAKI	Fak Fak	5.71	31	P	Pn	05 26 34.7	-0.1
	0.3nm28nm,0.5s						
FAKI				AML	AML		
KMPI	Kaimana, Papua	6.04	47	P	Pn	05 26 40.7	+1.4
SANI	Sanana	6.65	330	P	Pn	05 26 46.8	-0.8
	0.1nm13nm,0.6s						
SANI				AML	AML		
MMRI	Maumere	7.04	263	P	Pn	05 26 55.8	+2.7
	0.3nm47nm,0.8s						
MMRI				AML	AML		
FITZ	Fitzroy Crossi	10.79	199	Pn	Pn	05 27 48.2	+3.7
	1.3nm,0.3s,baz=11,slow=7.5,SNR=27						
FITZ				Sn	Sn	05 29 42.9	-2.5
	3.5nm,0.3s,baz=68,slow=20,SNR=8.4						
	2.6nm,0.3s						
FITZ				AML	AML		
WRA	Warramunga Arr	12.97	158	Pn	Pn	05 28 15.9	+1.5
	1.2nm,0.3s,baz=338,slow=13,SNR=33						
WRA				Sn	Sn	05 30 33.7	-5.1
	2.7nm,0.3s,baz=332,slow=21,SNR=16						
	1.0nm,0.3s						
WRA				AML	AML		
ASAR	Alice Springs	16.33	165	Pn	Pn	05 29 01.9	+2.5
	0.7nm,0.3s,baz=336,slow=9.3,SNR=14						
ASAR				Sn	Sn	05 31 52.9	-8.0
	0.2nm,0.3s,baz=329,slow=18,SNR=5.0						
	1.1nm,0.4s						
ASAR				AML	AML		
HILR	Hailar Array B	57.78	353	LR	LR	06 00 36.4	
	comp=Z,103nm,21.9s,baz=30,slow=37						
MKAR	Makanchi Array	68.56	327	P	P	05 36 08.1	-4.8
	2.5nm,0.8s,baz=117,slow=8.2,SNR=8.1						
	2.5nm,0.8s						

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*BJI **08** 05:30:14.0, 27°.12N×103°.08E, h9km, mB4.3/2, mb4.4/11, ML4.2/11, Ms3.9/5, Ms7 3.9/10*

*IDC **08** 05:30:14.4±0.7, 27°.17N×103°.22E, h0km, mb4.0/13, mbtmp4.0/15, ML4.1/2, MS3.6/20, Error ellipse: s-maj=23.7km s-min=14.0km az=72.0*

*NEIC **08** 05:30:17.2±1.1, 27°.19N±0°.07×103°.17E±0°.06, h10km±1km, mb4.5/31, Error ellipse: s-maj=11.8km s-min=8.6km az=199.0*

ISC 08 05:30:16.6±0.4**, 27°.17N**±0°.05×**103°.18E**±0°.05**, h10**km**, n81, σ0°.98**/72**, mb4.4**/28**, MS3.5**/20**, Yunnan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PZH	PanZhiHua	1.45	243	Pg	Pn	05 30 38.6	-4.3
PZH				Sg	Sn	05 31 00.9	-1.2
PZH				AML	AML		
	330nm,0.7s						
PZH				AML	AML		
	660nm,0.8s						
CD2	Chengdu	3.76	8	Pn	Pn	05 31 17.2	+2.5
CD2				Pg	Pb	05 31 25.0	+1.9
CD2				Sg	Sg	05 32 14.9	-2.5
CD2				AML	AML		
	830nm,0.8s						
CD2				AML	AML		
	1μm,0.6s						
SLVN	Son La	5.85	173	Pn	Pn	05 31 44.2	+0.8
ENH	Enshi	6.34	59		Pn	05 31 51.2	+1.1
CRAI	Chiangrai	7.37	201	Pn	Pn	05 32 04.9	+0.6
XAN	Xi'an	8.45	34	P	Pn	05 32 18.7	-0.3
XAN				pmax	pmax		
	comp=Z,29nm,1.0s						
XAN				L	L		
	comp=Z,520nm,5.8s						
CNSH	ChangSha	8.70	81	P	Pn	05 32 23.1	+0.6
CNSH				S	Sn	05 34 00.3	-0.4
CNSH				AML	AML		
	62nm,0.8s						
CNSH				AML	AML		
	89nm,0.7s						
LZDM	Lanzhou Array	8.77	3	Pn	Pn	05 32 24.9	+1.1
	baz=186,slow=13						
	2.5nm,0.3s						
CMAR	Chiang Mai Arr	9.51	205	Pn	Pn	05 32 36.0	+2.3
	0.3nm,0.3s,baz=16,slow=13,SNR=10						
CMAR				LR	LR	05 36 38.3	
	comp=Z,224nm,19.9s,baz=20,slow=40						
	1.0nm,0.3s						
CMAR				AML	AML		
CMAR	Chiang Mai Arr	9.51	205		Pn	05 32 34.9	+1.2
GZH2	Guangzhou	10.09	108	P	Pn	05 32 41.0	-0.6
GZH2				S	Sn	05 34 37.5	+2.6
QIZ	Qiongzhong	10.16	142	P	Pn	05 32 40.3	-2.2
QIZ				S	Sn	05 34 37.0	+0.5
QIZ				L	L		
	comp=N,510nm,8.0s						
QIZ				L	L		
	comp=Z,880nm,8.0s						
GTA2	Gaotai	12.61	348	*e*P	Pn	05 33 17.0	+0.8
GTA2				sP		05 33 23.5	
GTA2				pmax	pmax		
	comp=Z,5.0nm,1.0s						
YOJ	Yonaguni jima	18.05	94	IAmb	IAmb	05 34 40.0	
	comp=Z,89nm,1.1s						
SONM	Songino Array	20.78	6	P	P	05 34 58.5	+0.6
	comp=Z,2.1nm,0.6s,baz=192,slow=11,SNR=8.3						
	comp=Z,2.1nm,0.6s						
SONM	Songino Array	20.78	6	P	P	05 34 58.6	+0.7
WMQ	Urumqi	20.80	327	*e*P	Pn	05 35 00.9	+0.4
WMQ				pmax	pmax		
	comp=Z,20nm,1.1s						
WMQ				L	L		
	comp=Z,160nm,24.0s						
ULN	Ulaanbaatar	20.88	7		P	05 34 59.5	+0.5
JOW	Kunigami	22.35	85	P	P	05 35 15.1	+0.3
JOW				IAmb	IAmb	05 35 41.8	
	comp=Z,25nm,1.3s						
KSRS	Korea Array	23.23	58	P	P	05 35 23.4	-0.5
	comp=Z,2.5nm,0.7s,baz=243,slow=11,SNR=5.9						
KSRS				LR	LR	05 45 47.0	
	comp=Z,120nm,19.8s,baz=240,slow=40						
	comp=Z,2.5nm,0.7s						
JNU	Nakatsue	24.63	69	LR	LR	05 45 27.9	
	comp=Z,95nm,18.6s,baz=224,slow=37						
HYB	Hyderabad	24.73	252	*e*P	P	05 35 38.6	+0.2
HYB				*e*PcP	PcP	05 39 15.0	-0.3
HYB				*e*S	S	05 40 01.6	+1.1
PDGK	Podgornoye	25.06	316		P	05 35 42.2	+0.9
TARG	Taragay, Kyrgy	25.35	311		P	05 35 45.1	+0.8
TARG				IAmb	IAmb	05 35 47.4	
	comp=Z,12nm,1.2s						
MKAR	Makanchi Array	25.59	325	P	P	05 35 45.6	-0.3
	comp=Z,7.2nm,0.8s,baz=132,slow=8.7,SNR=30						
MKAR				LR	LR	05 46 54.6	
	comp=Z,222nm,19.9s,baz=135,slow=39						
	comp=Z,7.2nm,0.8s						
MKAR	Makanchi Array	25.59	325		P	05 35 45.8	-0.1
MAKZ	Makanchi	25.76	325		P	05 35 47.8	+0.4
KSH2	Kashi	25.92	304	P	P	05 35 50.4	+1.3
KSH2				pmax	pmax		
	comp=Z,10.0nm,0.8s						
KDJ	Kajisay	25.95	312		P	05 35 49.2	-0.2
KDJ				IAmb	IAmb	05 35 53.3	
	comp=Z,7.8nm,0.8s						
NRN	Naryn	26.45	310	P	P	05 35 53.2	-0.9
NIL	Nilore	26.55	291		P	05 35 53.9	-0.9
NIL				IAmb	IAmb	05 35 57.1	
	comp=Z,11nm,0.9s						
BOOM	Boomskoye usch	26.93	312	P	P	05 35 57.9	-0.4
BOOM				IAmb	IAmb	05 36 03.9	
	comp=Z,17nm,1.4s						
AAK	Ala-Archa	27.96	311	LR	LR	05 48 47.8	
	comp=Z,90nm,21.6s,baz=133,slow=40						
AAK	Ala-Archa	27.96	311	P	P	05 36 07.1	-0.4
PALK	Pallekele	29.10	231	LR	LR	05 49 38.5	
	comp=Z,101nm,18.1s,baz=129,slow=40						
ZALV	Zalesovo Beam	29.99	338	P	P	05 36 24.6	-0.5
	comp=Z,0.9nm,0.6s,baz=138,slow=11,SNR=1.4						
ZALV				LR	LR	05 49 04.9	
	comp=Z,85nm,19.3s,baz=190,slow=38						
	comp=Z,0.9nm,0.6s						
ZALV	Zalesovo Beam	29.99	338	P	P	05 36 24.4	-0.7
KURBB	Kurchatov Arra	30.02	328	P	P	05 36 24.8	-0.6
	comp=Z,5.4nm,0.8s,baz=137,slow=9.3,SNR=34						
	comp=Z,5.4nm,0.8s						
KURK	Kurchatov	30.04	328		P	05 36 25.2	-0.3
KURK				IAmb	IAmb	05 36 26.9	
	comp=Z,7.9nm,0.7s						
KBL	Kabul	30.11	293	P	P	05 36 25.9	-0.8
KBL				IAmb	IAmb	05 36 57.3	
	comp=Z,3.2nm,0.6s						
KKAR	Karatay Array	30.85	310	P	P	05 36 32.9	0.0
TOLI2	Tolitoli	30.93	144	P	P	05 36 33.6	-0.2
TOLI2				IAmb	IAmb	05 36 48.4	
	comp=Z,4.5nm,0.8s						
MJB9	Matsu-Tunnel	31.04	64	P	P	05 36 33.8	-0.9
MJB9				IAmb	IAmb	05 36 41.3	
	comp=Z,12nm,1.2s						
MJAR	Matsushiro Arr	31.04	64	LR	LR	05 50 16.0	
	comp=Z,99nm,19.4s,baz=234,slow=39						
KLR	Kul'dur	31.14	37	LR	LR	05 49 24.7	
	comp=Z,78nm,20.9s,baz=218,slow=37						
BVAR	Borovoye Array	35.48	326	P	P	05 37 12.8	-0.4
	comp=Z,2.5nm,0.8s,baz=115,slow=10,SNR=4.0						
	comp=Z,2.5nm,0.8s						
AB31	Akbulak array	39.79	315		P	05 37 50.3	+0.6
ABKAR	Akbulak array	39.79	315		P	05 37 50.5	+0.8
MMRI	Maumere	40.10	150	P	P	05 37 52.7	+0.1
ARTI	Arti	43.19	325	LR	LR	05 57 19.9	
	comp=Z,77nm,21.1s,baz=146,slow=38						
ARTI	Arti	43.19	325		P	05 38 18.0	+0.5
ARTI				IAmb	IAmb	05 38 18.8	
	comp=Z,15nm,1.4s						
TIXI	Tiksi	46.76	11	LR	LR	05 59 54.4	
	comp=Z,57nm,18.4s,baz=282,slow=38						
KIRV	Kirov	48.49	326	LR	LR	06 00 34.1	
	comp=Z,54nm,21.4s,baz=92,slow=38						
MBWA	Marble Bar	50.64	160	P	P	05 39 16.4	+0.3
WRA	Warramunga Arr	55.72	144	P	P	05 39 53.1	-0.4
	comp=Z,2.4nm,0.6s,baz=333,slow=8.2,SNR=26						
	comp=Z,2.4nm,0.6s						
WRA	Warramunga Arr	55.72	144	P	P	05 39 53.2	-0.4
WR8	Warramunga Arr	55.81	144	P	P	05 39 54.3	+0.1
WR8				IAmb	IAmb	05 39 58.7	

	comp=Z,6.3nm,0.9s						
ASAR	Alice Springs	58.60	147	P	P	05 40 13.1	-0.8
	comp=Z,1.3nm,0.6s,baz=328,slow=6.4,SNR=15						
	comp=Z,1.3nm,0.6s						
ASAR	Alice Springs	58.60	147	P	P	05 40 14.4	+0.5
AKASG	Malin Array Be	59.53	315	P	P	05 40 19.3	-0.8
	comp=Z,0.2nm,0.3s,baz=70,slow=7.1,SNR=4.2						
	comp=Z,0.2nm,0.3s						
AKASG	Malin Array Be	59.53	315	P	P	05 40 19.8	-0.3
AKASG				IAmb	IAmb	05 40 27.9	
	comp=Z,3.0nm,1.1s						
FINES	FINESS Array B	60.41	327	P	P	05 40 25.4	-0.5
	comp=Z,2.3nm,0.8s,baz=108,slow=6.2,SNR=5.5						
	comp=Z,2.3nm,0.8s						
ARCES	ARCESS Array B	60.52	337	P	P	05 40 26.3	-0.3
	comp=Z,1.7nm,0.7s,baz=91,slow=7.3,SNR=4.0						
ARCES				LR	LR	06 11 00.9	
	comp=Z,29nm,18.1s,baz=92,slow=40						
	comp=Z,1.7nm,0.7s						
ARCES	ARCESS Array B	60.52	337	P	P	05 40 27.2	+0.7
ELL	Elmali	61.54	299	P	P	05 40 34.1	-0.1
MLR	Muntele Rosu	62.53	309	LR	LR	06 12 11.0	
	comp=Z,68nm,20.5s,baz=358,slow=40						
FURI	Furi	63.34	266	P	P	05 40 46.1	-0.6
HFS	Hagfors	66.60	327	LR	LR	06 10 51.2	
	comp=Z,40nm,18.0s,baz=43,slow=37						
NB2	NORSAR Subarra	67.55	328	P	P	05 41 11.8	-1.1
	comp=Z,1.9nm,0.7s,baz=76,slow=6.2						
NOA	NORSAR Array B	67.55	328	P	P	05 41 12.2	-0.7
	comp=Z,1.0nm,0.6s,baz=74,slow=9.2,SNR=4.9						
NOA				LR	LR	06 11 54.9	
	comp=Z,24nm,19.2s,baz=95,slow=37						
	comp=Z,1.0nm,0.6s						
D20K	Etivluk River	68.58	23		P	05 41 19.8	+0.5
G18K	Tagagawik	68.77	26	P	P	05 41 20.7	+0.3
G18K				IAmb	IAmb	05 41 44.1	
	comp=Z,9.7nm,1.5s						
F19K	Shaleruckik Mo	68.80	25	P	P	05 41 20.3	-0.3
F19K				IAmb	IAmb	05 41 25.1	
	comp=Z,3.6nm,1.1s						
F21K	Alatna River	70.22	24	P	P	05 41 29.6	+0.2
F21K				IAmb	IAmb	05 41 33.5	
	comp=Z,2.8nm,0.7s						
G21K	Allakaket	70.49	24		P	05 41 31.2	+0.1
G21K				IAmb	IAmb	05 41 32.9	
	comp=Z,4.5nm,0.8s						
DAVOX	Davos/Dischmat	72.86	314	LR	LR	06 19 46.4	
	comp=Z,23nm,18.1s,baz=83,slow=41						
ILAR	Eielson Array	73.73	25	P	P	05 41 48.0	-2.5
	comp=Z,0.2nm,0.5s,baz=291,slow=4.3,SNR=5.9						
	comp=Z,0.2nm,0.5s						
ILAR	Eielson Array	73.73	25	P	P	05 41 49.3	-1.2
KDAK	Kodiak Island	74.56	33	LR	LR	06 16 41.3	
	comp=Z,55nm,18.3s,baz=182,slow=37						
EKA	Eskdalemuir Ar	76.73	326	LR	LR	06 18 15.6	
	comp=Z,39nm,18.8s,baz=73,slow=38						
SFJD	Kangerlussuaq	84.06	350	LR	LR	06 25 19.8	
	comp=Z,32nm,18.2s,baz=14,slow=39						

**JMA 08 05:34:18.3±0.3,25°N±1°×123°.4E±0°.5,h25km±4km,
MV1.4/10,NW OFF ISHIGAKIJIMA IS,Southwestern
Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
YOJ	Yonaguni jima	0.54	219	*e*P	Pb	05 34 28.9	-0.3
YOJ	Yonaguni jima	0.54	219		Pb	05 34 28.9	-0.4
JYNG	Yonagunijimaku	0.59	223	*e*P	Pb	05 34 29.8	-0.2
IRIF	Iriomote-Funau	0.63	150	*e*P	Pb	05 34 30.4	-0.3
JKRS	Kuro-shima	0.86	139	P	Pb	05 34 34.0	-0.5
JKRS				*e*S	Sb	05 34 45.5	-0.1
JISG	Ishigakijimahi	0.89	109	*e*S	Sb	05 34 46.0	-0.6
HATJ	Hateruma jima	0.91	155	P	Pb	05 34 34.9	-0.5
HATJ				*e*S	Sb	05 34 47.1	+0.1
JTJ	Tarama	1.22	101	*i* S	Sb	05 34 57.2	+1.1
JIKM	Ikemajima	1.69	88	*e*S	Sn	05 35 06.2	-0.8

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*IDC **08** 05:43:13.0±1.3,44°.87N×149°.57E,h0km,mb3.5/4,
mbtmp3.5/4,Error ellipse: s-maj=49.2km s-min=30.2km
az=109.0*
*SKHL **08** 05:43:19.6±0.4,45°.00N×149°.50E,h50km±4km,mb4.4/4*
*JMA **08** 05:43:22.6±1.3,45°N±3°×14°9E±°,h30km,MV3.8/16,SE
OFF ETOROFU*
**ISC 08 05:43:20.9±1.2,45°.01N±0°.09×149°.41E±0°.10,h60km,n24,
σ0.96/22,mb3.5/4,Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
REI	Reidovoe	1.02	285	*e*P	Pn	05 43 38.4	-0.7
REI				AMB	AMB	05 43 40.3	
	120nm,0.5s						
REI				*e*S	Sn	05 43 52.2	-0.4
REI				A	A	05 43 53.3	
	80nm,0.2s						
REI				A	A	05 43 53.3	
	100nm,0.2s						
KUR	Kuril'sk	1.11	282	*e*P	Pn	05 43 39.0	-1.4
KUR				AMB	AMB	05 43 40.5	
	150nm,0.3s						
KUR				*e*S	Sn	05 43 55.5	+0.6
KUR				A	A	05 43 58.5	
	460nm,0.2s						
KUR				A	A	05 43 58.5	
	330nm,0.2s						
YUK	Yuzh-Kuril'sk	2.72	250	*e*P	Pn	05 44 02.1	0.0
YUK				AMB	AMB	05 44 04.0	
	90nm,0.3s						
YUK				*e*S	Sn	05 44 33.0	-0.8
YUK				A	A	05 44 41.2	
	290nm,0.6s						
YUK				A	A	05 44 41.2	
	350nm,0.6s						
NEM2	Nemuro 2	3.11	239	P	Pn	05 44 05.5	-1.9
NMR	Nemuro--Hokkai	3.12	239	*e*P	Pn	05 44 07.5	0.0
NMR				*e*S	Sn	05 44 43.1	-0.4
JRA	Rausu	3.25	252	P	Pn	05 44 10.6	+1.3
JNK	Nakash	3.66	249	*e*P	Pn	05 44 15.9	+1.0
AKK	Akkeshi	3.85	240	*e*P	Pn	05 44 18.8	+1.2
AKK				*e*S	Sn	05 45 00.5	-1.0
JAK	Akkeshi	3.95	241	*e*P	Pn	05 44 18.1	-0.8
JAR	Ashorobuto	4.41	249	*e*P	Pn	05 44 25.8	+0.6
JOB	Onbets	4.54	244	*e*P	Pn	05 44 27.6	+0.6
JCH	Churui	4.99	243	P	Pn	05 44 34.5	+1.3
JCH				*e*S	Sn	05 45 29.2	-0.3
H11N2	WAKE ISLAND Hy	29.09	144	T	T	06 19 56.1	
	baz=335,slow=76,SNR=441						
H11N1	WAKE ISLAND Hy	29.10	144	T	T	06 20 01.5	
	baz=335,slow=76,SNR=306						
H11N3	WAKE ISLAND Hy	29.11	144	T	T	06 20 03.4	
	baz=335,slow=76,SNR=286						
H11S1	WAKE ISLAND Hy	30.11	146	T	T	06 21 19.7	
	baz=336,slow=76,SNR=433						
H11S3	WAKE ISLAND Hy	30.12	146	T	T	06 21 19.4	
	baz=336,slow=76,SNR=299						
H11S2	WAKE ISLAND Hy	30.13	146	T	T	06 21 20.3	
	baz=336,slow=76,SNR=294						
ILAR	Eielson Array	39.51	37	P	P	05 50 45.1	-0.1
	0.3nm,0.6s,baz=270,slow=9.6,SNR=4.0						
	0.3nm,0.6s						
MKAR	Makanchi Array	45.44	297	P	P	05 51 34.6	+1.0
	0.3nm,0.7s,baz=62,slow=7.4,SNR=2.3						
	0.3nm,0.7s						
WRA	Warramunga Arr	66.09	196	P	P	05 54 00.7	-0.9
	0.9nm,0.8s,baz=15,slow=6.6,SNR=4.6						
	0.9nm,0.8s						
ASAR	Alice Springs	69.80	195	P	P	05 54 24.9	+0.1
	0.6nm,0.8s,baz=16,slow=6.5,SNR=5.2						
	0.6nm,0.8s						
H03N2	Juan Fernandez	141.34	90	T	T	08 40 12.1	
	baz=313,slow=76,SNR=4.4						
H03N1	Juan Fernandez	141.35	90	T	T	08 40 20.7	
	baz=309,slow=76,SNR=5.2						

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*IDC **08** 05:57:05.8±1.0,55°.50N×166°.27E,h0km,mb3.8/7,
mbtmp3.9/8,ML3.5/1,Error ellipse: s-maj=37.0km
s-min=16.9km az=163.0*
*KRSC **08** 05:57:07.1±1.3,55°.43N×166°.03E,h33km±11km,Ml4.3*
*MOS **08** 05:57:08.4±0.8,55°.44N×166°.19E,h31km,mb3.9/1,Error
ellipse: s-maj=12.0km s-min=6.5km az=150.1*
**ISC 08 05:57:08.6±0.9,55°.51N±0°.05×166°.15E±0°.08,h20km,n72,
σ1.11/78,mb3.9/7,Komandorsky Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BKI	Bering	0.32	198	PN	Pb	05 57 14.4	-1.2
BKI				S	Sb	05 57 19.8	-0.6
BKI	Bering	0.32	198	*i* P	Pb	05 57 14.4	-1.2
BKI				*e*S	Sb	05 57 19.8	-0.6
KBTR	Krutoberegovo	2.00	292	PN	Pn	05 57 38.9	-2.4
KBTR				S	Sn	05 58 03.6	-2.1
KBTR	Krutoberegovo	2.00	292	*e*P	Pn	05 57 38.9	-2.4
KBTR				*e*S	Sn	05 58 03.7	-2.1
MKZ	Mys Kozlova	2.72	251	PN	Pn	05 57 50.3	-0.7
MKZ				S	Sn	05 58 20.8	-2.4
MKZ	Mys Kozlova	2.72	251	*e*P	Pn	05 57 50.4	-0.7
MKZ				*e*S	Sn	05 58 20.9	-2.4
ZLN	Zelenaya	3.06	282	PN	Pn	05 57 56.2	+0.3
ZLN	Zelenaya	3.06	282	*e*P	Pn	05 57 56.2	+0.3
BZGR	Bezymyannyi-Gr	3.11	280	PN	Pn	05 57 56.7	+0.1
BZGR	Bezymyannyi-Gr	3.11	280	*e*P	Pn	05 57 56.8	+0.1
BZWR	Bezymyannyi-We	3.23	280	PN	Pn	05 57 58.2	-0.1
BZWR	Bezymyannyi-We	3.23	280	*e*P	Pn	05 57 58.2	-0.1
BZMR	Bezymyannaya	3.23	280	PN	Pn	05 57 57.9	-0.3
BZMR	Bezymyannaya	3.23	280	*e*P	Pn	05 57 58.0	-0.3
TUMD	Tumrok D	3.30	267	PN	Pn	05 57 59.4	+0.4
TUMD				S	Sn	05 58 38.3	+0.7
TUMD	Tumrok D	3.30	267	*e*P	Pn	05 57 59.5	+0.4
TUMD				*e*S	Sn	05 58 38.4	+0.7
KMNR	Kamenistaya	3.36	277	PN	Pn	05 58 00.8	+0.8
KMNR	Kamenistaya	3.36	277	*e*P	Pn	05 58 00.9	+0.8
TUMR	Tumrok	3.43	269	PN	Pn	05 58 02.0	+1.0
TUMR	Tumrok	3.43	269	*e*P	Pn	05 58 02.1	+1.0
KOZ	Kozyrevsk	3.58	281	PN	Pn	05 58 03.8	+0.8
KOZ	Kozyrevsk	3.58	281	*e*P	Pn	05 58 03.8	+0.8
SRDR	Sredinnyy	3.71	285	PN	Pn	05 58 05.6	+0.8
SRDR	Sredinnyy	3.71	285	*e*P	Pn	05 58 05.6	+0.8
SPN	Mys Shipunski	4.33	239	PN	Pn	05 58 13.4	+0.2
SPN	Mys Shipunski	4.33	239	*e*P	Pn	05 58 13.4	+0.2
SPN				*e*S	Sn	05 59 00.8	-2.2
SDLR	Sedlovina	4.80	245	PN	Pn	05 58 20.3	+0.5
SDLR	Sedlovina	4.80	245	*e*P	Pn	05 58 20.3	+0.5
SMAR	Somma	4.85	245	PN	Pn	05 58 21.2	+0.7
SMAR	Somma	4.85	245	*e*P	Pn	05 58 21.3	+0.7
KRER	Koryakskii	4.85	246	PN	Pn	05 58 21.7	+1.1
KRER	Koryakskii	4.85	246	*e*P	Pn	05 58 21.7	+1.1
UGLR	Uglovaya	4.86	245	PN	Pn	05 58 21.7	+1.0
UGLR	Uglovaya	4.86	245	*e*P	Pn	05 58 21.7	+1.0
AVH	Avacha	4.88	246	PN	Pn	05 58 21.9	+1.1
AVH	Avacha	4.88	246	*e*P	Pn	05 58 22.0	+1.1
KRX	Arik	4.88	247	PN	Pn	05 58 21.7	+0.8
KRX	Arik	4.88	247	*e*P	Pn	05 58 21.7	+0.8
KOK	Koryaka	4.92	246	PN	Pn	05 58 22.4	+1.0
KOK	Koryaka	4.92	246	*e*P	Pn	05 58 22.4	+1.0
DALK	Dalny	4.99	243	PN	Pn	05 58 22.8	+0.5
DALK	Dalny	4.99	243	*e*P	Pn	05 58 22.9	+0.5
PET	Petropavlovsk	5.05	244	PN	Pn	05 58 23.5	+0.4
PET	Petropavlovsk	5.05	244	*e*P	Pn	05 58 23.5	+0.4
GNL	Ganaly	5.11	253	PN	Pn	05 58 25.2	+1.2
GNL	Ganaly	5.11	253	*e*P	Pn	05 58 25.3	+1.2
KRMR	Karymshinskiy	5.42	244	PN	Pn	05 58 29.1	+0.9
KRMR	Karymshinskiy	5.42	244	*e*P	Pn	05 58 29.2	+0.9
KRMR				*e*S	Sn	05 59 31.5	+1.6
RUS	Russkaya	5.46	239	PN	Pn	05 58 28.8	+0.1
RUS	Russkaya	5.46	239	*e*P	Pn	05 58 28.9	+0.1
PEA0B	Petropavlovsk-	5.50	248	PN	Pn	05 58 30.3	+1.0
PETK	Petropavlovsk-	5.50	248	Pn	Pn	05 58 30.3	+1.0
	6.6nm,0.3s,baz=72,slow=17,SNR=36						
PETK				Sn	Sn	05 59 34.6	+2.6
	1.7nm,0.3s,baz=87,slow=13,SNR=2.1						
	15nm,0.4s						
PETK				AML	AML		
MTVR	Mutnovka	5.59	240	PN	Pn	05 58 31.7	+1.0
MTVR	Mutnovka	5.59	240	*e*P	Pn	05 58 31.7	+1.0
MTVR				*e*S	Sn	05 59 32.0	-2.4
GRL	Gorelyy	5.61	241	PN	Pn	05 58 32.1	+1.2
GRL	Gorelyy	5.61	241	*e*P	Pn	05 58 32.1	+1.2
KDTR	Khodutka, Kamc	6.06	236	PN	Pn	05 58 36.6	-0.4
KDTR	Khodutka, Kamc	6.06	236	*e*P	Pn	05 58 36.6	-0.4
KLR	Kul'dur	21.75	268	P	P	06 01 59.9	+1.2
	1.9nm,0.8s,baz=28,slow=5.0,SNR=4.5						
	1.9nm,0.8s						
ILAR	Eielson Array	24.57	49	P	P	06 02 26.6	-0.2
	1.1nm,0.9s,baz=257,slow=9.0,SNR=7.3						
	1.1nm,0.9s						
H11N2	WAKE ISLAND Hy	35.73	179	T	T	06 41 45.6	
	baz=359,slow=76,SNR=104						
H11N3	WAKE ISLAND Hy	35.74	179	T	T	06 41 52.8	
	baz=359,slow=76,SNR=118						
H11N1	WAKE ISLAND Hy	35.74	179	T	T	06 41 30.5	
	baz=359,slow=76,SNR=143						
SONM	Songino Array	36.79	284	P	P	06 04 16.2	+1.3
	2.0nm,0.7s,baz=56,slow=8.2,SNR=9.3						
	2.0nm,0.7s						
H11S1	WAKE ISLAND Hy	36.94	179	T	T	06 43 14.4	
	baz=357,SNR=3.2						
H11S3	WAKE ISLAND Hy	36.95	179	T	T	06 43 26.3	
	baz=357						
H11S2	WAKE ISLAND Hy	36.96	179	T	T	06 43 16.4	
	baz=357						
KURK	Kurchatov	49.42	303	P	P	06 05 57.3	+0.6
KURBB	Kurchatov Arra	49.53	303	P	P	06 05 57.3	-0.2
	0.6nm,0.2s,baz=51,slow=7.5,SNR=5.8						
	0.6nm,0.2s						
BVAR	Borovoye Array	51.61	310	P	P	06 06 13.7	+0.5
	1.3nm,0.8s,baz=63,slow=6.8,SNR=3.8						
	1.3nm,0.8s						
TXAR	Lajitas Array	66.47	72	P	P	06 07 56.9	+0.3
	0.6nm,0.5s,baz=300,slow=5.3,SNR=11						
	0.6nm,0.5s						
ASAR	Alice Springs	83.52	209	P	P	06 09 34.9	+0.1
	0.4nm,0.5s,baz=14,slow=5.7,SNR=5.6						
	0.4nm,0.5s						

**IDC 08 05:57:39.0±1.4,27°.65N×104°.54E,h0km,mb3.3/4,
mbtmp3.4/4,Error ellipse: s-maj=90.0km s-min=24.7km
az=64.0,Yunnan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SONM	Songino Array	20.20	4	P	P	06 02 15.3	-0.1
	0.4nm,0.5s,baz=194,slow=11,SNR=3.6						
	0.4nm,0.5s						
MKAR	Makanchi Array	25.91	323	P	P	06 03 12.7	+0.1
	0.6nm,0.7s,baz=130,slow=10,SNR=5.5						
	0.6nm,0.7s						
WRA	Warramunga Arr	55.41	145	P	P	06 07 15.7	+0.3
	0.5nm,0.9s,baz=335,slow=7.8,SNR=1.7						
	0.5nm,0.9s						
ASAR	Alice Springs	58.36	148	P	P	06 07 35.8	-0.4
	0.1nm,0.3s,baz=336,slow=8.1,SNR=4.8						
	0.1nm,0.3s						

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*ASRS **08** 06:00:50.0±1.1,54°.24N×87°.13E,h0km,M2.7(MOS),The
earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*
**IDC 08 06:00:49.3±4.4,54°.28N×86°.99E,h0km,mbtmp2.9/2,
ML2.6/2,Error ellipse: s-maj=42.3km s-min=21.7km
az=66.0,Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	1.32	256	I	I	06 10 00.0	
	baz=75,slow=323,SNR=5.5						
ZALV	Zalesovo Beam	1.32	256	Pg	Pg	06 01 13.8	-0.7
	1.2nm,0.3s,baz=78,slow=16,SNR=11						
ZALV				Lg	Lg	06 01 32.3	
	1.0nm,0.3s,baz=75,slow=28,SNR=5.9						
KURBB	Kurchatov Arra	6.33	238	Pn	Pn	06 02 24.7	+0.9
	0.1nm,0.3s,baz=59,slow=15,SNR=4.4						
	1.0nm,0.3s						
KURBB				AML	AML		
MKAR	Makanchi Array	8.07	204	Pn	Pn	06 02 49.1	+1.5
	0.1nm,0.3s,baz=26,slow=14,SNR=2.3						
	0.1nm,0.4s						
MKAR				AML	AML		

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*NEIC **08** 06:35:39.3±1.0,19°.3N±0°.1×64°.54W±0°.03,h35km±2km,
ML3.4/36,Md3.8/10(RSPR),Error ellipse: s-maj=18.4km
s-min=3.1km az=13.0*
*RSPR **08** 06:35:40.3,19°.32N×64°.57W,h37km±26km,MD3.8/10*
**ISC 08 06:35:35.8±2.1,19°.4N±0°.1×64°.50W±0°.04,h27km,n40,
σ1.42/64,10C-4D,Virgin Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HUMP	Col San Antoni	1.82	225		Pn	06 36 04.2	-1.2
HUMP					Sn	06 36 25.6	-1.9
HUMP	Col San Antoni	1.82	225	⇑*e*P	Pn	06 36 04.4	-1.0
SMRT	St. Maarten	1.93	135		Pn	06 36 08.0	+1.2
SMRT				IAML		06 36 39.2	
	comp=N,360nm,0.5s						
SMRT				IAML		06 36 42.9	
	comp=E,451nm,0.4s						
SMRT	St. Maarten	1.93	135	*e*P	Pn	06 36 08.1	+1.2
SMRT				*e*S	Sn	06 36 28.9	-1.4
PDPR	Patillas Dam,	2.02	226		Pn	06 36 07.4	-0.8
PDPR				Sn	Sn	06 36 30.2	-2.3
PDPR	Patillas Dam,	2.02	226	⇑*e*P	Pn	06 36 08.1	-0.1
ECPR	Experimental S	2.09	238		Pn	06 36 09.7	+0.5
ECPR					Sn	06 36 32.5	-1.7
ECPR				IAML		06 36 38.5	
	comp=E,350nm,0.3s						
ECPR				IAML		06 36 40.2	
	comp=E,280nm,0.3s						
ECPR	Experimental S	2.09	238	⇑*e*P	Pn	06 36 09.7	+0.5
IGPR	InterUniversit	2.12	226		Pn	06 36 09.6	+0.1
IGPR					Sn	06 36 34.6	-0.3
IGPR	InterUniversit	2.12	226	⇓*e*P	Pn	06 36 09.6	+0.1
EMPR	Esperanza - Ma	2.15	244		Pn	06 36 10.7	+0.7
EMPR					Sn	06 36 35.8	0.0
EMPR	Esperanza - Ma	2.15	244	⇑*e*P	Pn	06 36 10.7	+0.7
EMPR				*e*S	Sn	06 36 35.8	0.0
SABA	Saba	2.16	146	Pn	Pn	06 36 10.6	+0.4
SABA				IAML		06 36 49.9	
	comp=N,238nm,0.5s						
SABA	Saba	2.16	146	*e*P	Pn	06 36 11.9	+1.7
SABA				*e*S	Sn	06 36 36.8	+0.7
CELP	Cerrillos	2.40	236		Pn	06 36 13.7	+0.4
CELP					Sn	06 36 40.7	-1.2
CELP				IAML		06 36 45.1	
	comp=N,227nm,0.5s						
CELP				IAML		06 36 45.1	
	comp=N,162nm,0.6s						
CELP	Cerrillos	2.40	236	⇑*e*P	Pn	06 36 14.0	+0.7
AOPR	Arecibo Observ	2.40	243		Pn	06 36 14.1	+0.7
AOPR					Sn	06 36 41.6	-0.3
AOPR				IAML		06 36 59.2	
	comp=N,243nm,0.4s						
AOPR	Arecibo Observ	2.40	243	⇓*e*P	Pn	06 36 14.9	+1.6
AGPR	Aguadilla, PR	2.66	249	Pn	Pn	06 36 18.1	+1.2
AGPR				IAML		06 37 10.7	
	comp=N,118nm,0.6s						
AGPR	Aguadilla, PR	2.66	249	⇑*e*P	Pn	06 36 18.2	+1.2
SKI	Saint Kitts	2.68	141	*e*P	Pn	06 36 17.7	+0.4
SKI				*e*S	Sn	06 36 48.9	+0.1
GBPR	Guanica, Bosqu	2.69	238		Pn	06 36 19.0	+1.7
GBPR					Sn	06 36 47.9	-1.1
GBPR	Guanica, Bosqu	2.69	238	⇑*e*P	Pn	06 36 19.0	+1.7
GBPR				*e*S	Sn	06 36 47.9	-1.1
LSP	Las Mesas	2.76	243		Pn	06 36 19.8	+1.4
LSP					Sn	06 36 50.9	+0.1
LSP	Las Mesas	2.76	243	⇑*e*P	Pn	06 36 19.8	+1.4
LSP				*e*S	Sn	06 36 50.9	+0.1
PRSN	Puerto Rico Se	2.79	245		Pn	06 36 19.8	+1.0
PRSN				Sn	Sn	06 36 50.8	-0.7
PRSN	Puerto Rico Se	2.79	245	⇑*e*P	Pn	06 36 20.2	+1.5
MLPR	Magueyes Islan	2.82	239		Pn	06 36 20.3	+1.1
MLPR	Magueyes Islan	2.82	239	⇓*e*P	Pn	06 36 20.3	+1.1
CRPR	Cabo Rojo, PR	2.86	241		Pn	06 36 20.1	+0.4
CRPR				Sn	Sn	06 36 52.2	-1.0
CRPR				IAML		06 37 03.7	
	comp=N,91nm,0.7s						
CRPR	Cabo Rojo, PR	2.86	241	⇓*e*P	Pn	06 36 20.9	+1.2
IDE	Isla Desecheo	3.01	250		Pn	06 36 22.5	+0.7
IDE					Sn	06 36 56.3	-0.6
IDE	Isla Desecheo	3.01	250	⇑*e*P	Pn	06 36 22.5	+0.7
IDE				*e*S	Sn	06 36 56.3	-0.6
ANWB	Willy Bob	3.12	124	*e*P	Pn	06 36 22.1	-1.1
ANWB				*e*S	Sn	06 36 56.0	-3.5
MLYT	Lee's Yard	3.48	141	*e*P	Pn	06 36 30.0	+1.8
DHSZ	Broadband at M	4.08	140	*e*P	Pn	06 36 37.2	+0.7
DHSZ				*e*S	Sn	06 37 26.7	+3.2
GDHS	Morne Mazeau,	4.08	140	Pn	Pn	06 36 38.4	+1.8
MMLZ	Guadeloupe Bro	4.32	141	*e*P	Pn	06 36 41.4	+1.7
MMLZ				*e*S	Sn	06 37 26.7	-2.6
DSDZ	La Diserade, G	4.51	133	*e*P	Pn	06 36 40.1	-2.3
DSDZ				*e*S	Sn	06 37 30.9	-3.0
DSLB	Salisbury	4.94	143	*e*P	Pn	06 36 49.2	+0.8
DSLB				*e*S	Sn	06 37 47.9	+3.2

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*IDC **08** 06:55:37.7±0.7,62°.14S×57°.85W,h0km,mb4.1/8,
mbtmp4.1/9,ML3.7/1,MS3.7/19,Error ellipse:
s-maj=25.1km s-min=17.9km az=110.0*
*NEIC **08** 06:55:39.3±1.3,62°.38S±0°.05×58°.1W±0°.2,h10km±1km,
mb4.7/30,Error ellipse: s-maj=13.3km s-min=5.7km
az=59.0*
*GFZ **08** 06:55:40.7±0.2,62°S±4°×5°8W±°,h10km,M4.6/16,
mb4.6/16,confirmed*
**ISC 08 06:55:39.3±0.4,62°.32S±0°.05×58°.30W±0°.05,h10km,n119,
σ1.18/103,mb4.6/27,MS3.8/18,3C,South Shetland
Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JUBA	Jubany	0.19	295	*e*P	Pg	06 55 42.6	-0.8
JUBA				*i* S	Sg	06 55 44.8	-1.3
JUBA				IAML		06 55 45.3	
	comp=Z,57µm,0.6s						
ESPZ	Base Esperanza	1.24	152	*e*P	Pn	06 56 01.4	-1.1
ESPZ				*i* S	Sb	06 56 18.5	-0.2
ESPZ	Base Esperanza	1.24	152		Pn	06 56 01.5	-1.1
ESPZ				Sn	Sb	06 56 16.1	-2.6
PMSA	Palmer Station	3.56	224	Pn	Pn	06 56 35.4	+0.8
	comp=Z,5.3nm,0.3s,baz=49,slow=12,SNR=23						
PMSA				Sn	Sb	06 57 26.0	+0.4
	comp=Z,9.1nm,0.3s,baz=123,slow=23,SNR=6.0						
PMSA				LR	LR	06 58 19.3	
	comp=Z,381nm,18.5s,baz=44,slow=42						
	comp=Z,11nm,0.4s						
PMSA				AML	AML		
PMSA	Palmer Station	3.56	224	*e*P	Pn	06 56 35.4	+0.8
PMSA				*i* S	Sb	06 57 22.1	-3.5
PMSA	Palmer Station	3.56	224		Pn	06 56 35.3	+0.7
PMSA	Palmer Station	3.56	224	P	Pn	06 56 37.6	+3.0
ORCD	Orcadas	6.67	82	*e*P	Pn	06 57 18.5	+1.2
ORCD	Orcadas	6.67	82	Pn	Pn	06 57 16.9	-0.4
DSPA	Despedida	9.89	323	Pn	Pn	06 58 03.1	+1.7
EFI	East Falkland	10.67	1	*e*P	Pn	06 58 13.1	+1.0
EFI				*e*S	Sn	07 00 12.2	+0.8
EFI				IAML		07 01 03.7	
	comp=Z,69nm,2.5s						
EFI	East Falkland	10.67	1	Pn	Pn	06 58 12.2	+0.1
MG02	Cerro Sombrero	11.20	324	Pn	Pn	06 58 19.5	+0.2
GO08	Villa O'Higgin	16.01	324	Pn	Pn	06 59 25.5	+1.1
BELA	Belgrano 2	17.31	163	Pn	Pn	06 59 39.8	-0.9
COYC	Coyhaique	18.56	328	P	Pn	06 59 56.9	+0.6
VNA3	Neumayer Olymp	20.52	136	⇑P	Pn	07 00 19.3	-0.1
	comp=Z,7.7nm,0.8s						
VNA3	Neumayer Olymp	20.52	136	P	Pn	07 00 19.9	+0.5
	comp=Z,14nm,0.9s						
LL02	Futaleuf	20.76	331	P	P	07 00 21.5	+1.4
VNA1	Neumayer--Stat	20.98	134	P	P	07 00 23.3	+1.0
	comp=Z,9.2nm,0.9s						
VNA2	Neumayer--Watz	21.26	135	⇑P	P	07 00 27.3	+2.1
	comp=Z,4.1nm,0.6s,baz=255,slow=11						
VNA2	Neumayer--Watz	21.26	135	P	P	07 00 28.0	+2.7
	comp=Z,8.8nm,1.1s						
LL07	Hotel Espejo d	21.48	328	P	P	07 00 29.4	+1.6
SNAA	Sanae	22.69	137	⇑P	P	07 00 42.5	+1.8
	comp=Z,101nm,0.6s						
SNAA	Sanae	22.69	137	P	P	07 00 40.7	+0.1
	comp=Z,7.5nm,0.9s,baz=264,slow=6.9,SNR=11						
SNAA				LR	LR	07 08 07.8	
	comp=Z,276nm,20.7s,baz=264,slow=33						
	comp=Z,7.5nm,0.9s						
SNAA	Sanae	22.69	137	P	P	07 00 39.2	-1.4
SNAA				IAmb	IAmb	07 00 45.3	
	comp=Z,15nm,1.1s						
SNAA	Sanae	22.69	137	P	P	07 00 42.4	+1.8
	comp=Z,16nm,1.4s						
LL05	Los Muermos	22.83	329	P	P	07 00 43.0	+0.8
PLCA	Paso Flores	22.84	335	P	P	07 00 42.1	-0.3
	comp=Z,11nm,1.1s,baz=162,slow=7.8,SNR=6.8						
PLCA				LR	LR	07 08 48.7	

	comp=Z,193nm,20.7s,baz=172,slow=35						
	comp=Z,11nm,1.1s						
PLCA	Paso Flores	22.84	335	P	P	07 00 41.8	-0.7
PLCA				IAmb	IAmb	07 00 47.7	
	comp=Z,20nm,1.2s						
PLCA	Paso Flores	22.84	335	P	P	07 00 43.5	+1.1
	comp=Z,18nm,1.2s						
GO06	Curarrehue	24.13	334	P	P	07 00 55.6	+0.3
GO06				IAmb	IAmb	07 00 59.8	
	comp=Z,42nm,1.1s						
GO06	Curarrehue	24.13	334	P	P	07 00 56.5	+1.3
	comp=Z,36nm,1.1s						
TROLL	Troll, Antarti	24.33	139	P	P	07 00 59.0	+2.2
	comp=Z,160nm,0.7s						
BI02	San Fabin de	26.92	336	P	P	07 01 21.1	+0.6
BI02				IAmb	IAmb	07 01 26.6	
	comp=Z,11nm,1.0s						
BI02	San Fabin de	26.92	336	P	P	07 01 22.5	+2.0
	comp=Z,14nm,1.0s						
ML02	Panimavida	27.82	337	P	P	07 01 29.1	+0.6
ML02				IAmb	IAmb	07 01 34.9	
	comp=Z,17nm,0.8s						
ML02	Panimavida	27.82	337	P	P	07 01 30.0	+1.5
	comp=Z,24nm,1.0s						
QSPA	South Pole Qui	27.91	180	P	P	07 01 31.5	+2.2
	comp=Z,1.0nm,0.6s,baz=174,slow=2.0,SNR=11						
	comp=Z,1.0nm,0.6s						
QSPA	South Pole Qui	27.91	180	P	P	07 01 29.2	0.0
QSPA				IAmb	IAmb	07 01 44.2	
	comp=Z,7.3nm,1.1s						
QSPA	South Pole Qui	27.91	180	P	P	07 01 31.3	+2.1
	comp=Z,12nm,1.0s						
GO05	Hualane	28.65	336	P	P	07 01 36.3	+0.4
GO05				IAmb	IAmb	07 01 49.2	
	comp=Z,15nm,1.1s						
GO05	Hualane	28.65	336	P	P	07 01 35.7	-0.2
	comp=Z,12nm,1.5s						
BO02	Sierra Bellavi	28.65	338	P	P	07 01 35.5	-0.5
BO02				IAmb	IAmb	07 01 56.4	
	comp=Z,15nm,1.1s						
BO01	Tunca	29.10	338	P	P	07 01 39.7	-0.2
BO01				IAmb	IAmb	07 02 01.3	
	comp=Z,23nm,1.4s						
MT09	Talagante	29.68	338	P	P	07 01 45.6	+0.5
MT08	Bocatoma Ro	29.84	340	P	P	07 01 47.6	+0.8
MT08				IAmb	IAmb	07 01 51.8	
	comp=Z,29nm,1.4s						
VA03	San Esteban	30.60	339	P	P	07 01 52.8	-0.4
	comp=Z,28nm,1.0s						
CO02	Combarbal	32.20	339	P	P	07 02 08.0	+0.6
	comp=Z,26nm,1.7s						
CO03	El Pedregal	32.50	340	P	P	07 02 10.3	+0.3
GO04	Tololo Observa	33.17	340	P	P	07 02 15.9	-0.1
	comp=Z,21nm,2.4s						
CO01	Juntas del Tor	33.25	341	P	P	07 02 18.3	+1.5
	comp=Z,16nm,1.6s						
CPUP	Villa Florida	35.99	1	LR	LR	07 18 27.7	
	comp=Z,51nm,18.2s,baz=233,slow=38						
CPUP	Villa Florida	35.99	1	P	P	07 02 39.3	-0.8
	comp=Z,7.4nm,1.7s						
VNDA	Vanda	38.24	193	LR	LR	07 19 48.5	
	comp=Z,123nm,18.3s,baz=157,slow=38						
SALTA		38.47	348	P	P	07 03 02.0	+0.3
	comp=Z,5.3nm,1.9s						
PB06	IPOC Station P	40.33	344	P	P	07 03 16.9	-0.1
	comp=Z,20nm,2.4s						
MAW	Mawson	43.60	152	LR	LR	07 21 44.8	
	comp=Z,288nm,19.9s,baz=211,slow=36						
SIV	San Ignacio	46.31	356	LR	LR	07 24 20.6	
	comp=Z,106nm,19.9s,baz=138,slow=37						
LPAZ	La Paz	46.50	347	LR	LR	07 25 28.5	
	comp=Z,96nm,18.5s,baz=165,slow=39						
BDFB	Brasilia	47.19	14	P	P	07 04 10.8	-1.2
	comp=Z,1.2nm,0.4s,baz=170,slow=6.3,SNR=4.7						
BDFB				LR	LR	07 25 15.5	
	comp=Z,39nm,18.6s,baz=239,slow=38						
	comp=Z,1.2nm,0.4s						
BDFB	Brasilia	47.19	14	P	P	07 04 11.8	-0.3
BDFB				IAmb	IAmb	07 04 15.3	
	comp=Z,9.2nm,1.4s						
CZSB	Cruzeiro do Su	55.50	343	P	P	07 05 14.4	+0.2
CZSB				IAmb	IAmb	07 05 36.7	
	comp=Z,9.3nm,1.0s						
SUR	Sutherland	56.91	97	LR	LR	07 23 56.0	
	comp=Z,82nm,20.8s,baz=190,slow=30						
ATAH	Atahualpa	57.02	336	LR	LR	07 27 12.7	
	comp=Z,49nm,18.6s,baz=167,slow=33						
H10S2	ASCENSION HYDR	61.92	51	T	T	08 13 25.0	
	baz=17,slow=74,SNR=15						
H10S3	ASCENSION HYDR	61.92	51	T	T	08 13 24.5	
	baz=203,slow=74,SNR=14						
BOSA	Boshof	62.13	99	P	P	07 06 00.1	-0.4
	comp=Z,0.6nm,0.4s,baz=196,slow=9.7,SNR=1.5						
BOSA				LR	LR	07 26 06.2	
	comp=Z,42nm,21.3s,baz=198,slow=30						
	comp=Z,0.6nm,0.4s						
BOSA	Boshof	62.13	99	P	P	07 06 00.2	-0.2
BOSA				IAmb	IAmb	07 06 08.8	
	comp=Z,15nm,1.5s						
H10N3	ASCENSION HYDR	63.01	50	T	T	08 14 28.5	
	baz=202,slow=75,SNR=36						
H10N1	ASCENSION HYDR	63.01	50	T	T	08 14 30.7	
	baz=202,slow=75,SNR=44						
H10N2	ASCENSION HYDR	63.03	50	T	T	08 14 29.8	
	baz=202,slow=75,SNR=45						
OTAV	Otavalo	64.23	338	P	P	07 06 15.1	+0.2
OTAV				IAmb	IAmb	07 06 17.1	
	comp=Z,9.6nm,1.5s						
BOAV	Boa Vista	64.56	358	P	P	07 06 15.5	-0.9
LBTB	Lobatse	65.36	97	LR	LR	07 29 18.5	
	comp=Z,63nm,20.5s,baz=180,slow=31						
ROSC	El Rosal	68.09	343	LR	LR	07 39 15.0	
	comp=Z,119nm,18.2s,baz=248,slow=38						
SDV	Santo Domingo	71.63	347	LR	LR	07 40 51.4	
	comp=Z,53nm,19.8s,baz=191,slow=38						
PIRO	Carate, Puerto	73.13	334	P	P	07 07 10.4	+0.8
BCIP	Isla Barro Col	73.20	338	P	P	07 07 08.8	-1.3
	comp=Z,6.8nm,1.3s						
LCR2	La Lucha 2	74.56	334	P	P	07 07 18.4	0.0
LCR2				IAmb	IAmb	07 07 20.8	
	comp=Z,5.8nm,1.0s						
PPT	Papeete	75.21	261	LR	LR	07 32 03.9	
	comp=Z,60nm,20.3s,baz=154,slow=29						
TDBA	Terre de Bas,	77.95	357	P	P	07 07 37.9	+0.6
MTO3	Montecristo	80.26	330	P	P	07 07 49.7	-0.6
SJG	San Juan	80.40	352	LR	LR	07 45 59.1	
	comp=Z,46nm,18.8s,baz=154,slow=38						
RTAL	Retalhuleu	80.95	327	P	P	07 07 53.6	-0.1
CMIG	Matias Romero	84.24	325	LR	LR	07 38 23.7	
	comp=Z,46nm,19.9s,baz=150,slow=30						
TEIG	Tepich	85.64	332	P	P	07 08 17.5	-0.2
TORD	Torodi Ar. Bea	88.41	58	P	P	07 08 31.0	-0.3
	comp=Z,0.3nm,0.5s,baz=197,slow=4.5,SNR=4.4						
	comp=Z,0.3nm,0.5s						
QLP	Quilpie	89.58	200	P	P	07 08 39.8	+2.9
	comp=Z,20nm,1.6s						
ASAR	Alice Springs	93.76	191	P	P	07 08 55.9	-0.4
	comp=Z,0.8nm,0.9s,baz=171,slow=4.6,SNR=4.7						
	comp=Z,0.8nm,0.9s						
ASAR	Alice Springs	93.76	191	P	P	07 08 55.3	-1.1
AS31	Alice Springs	93.76	191	P	P	07 08 55.7	-0.6
WRA	Warramunga Arr	97.41	192	P	Pdif	07 09 13.9	+0.8
	comp=Z,0.8nm,0.7s,baz=179,slow=4.6,SNR=4.7						
	comp=Z,0.8nm,0.7s						
WRAB	Tennant Creek	97.41	192	P	P	07 09 12.9	-0.1
	comp=Z,10nm,0.7s						
TKL	Tuckaleechee C	99.78	339	LR	LR	07 56 30.9	
	comp=Z,25nm,21.8s,baz=167,slow=37						
ILAR	Eielson Array	142.56	315	PKhKP	PKPpre	07 15 05.5	
	comp=Z,0.2nm,0.7s,baz=170,slow=2.0,SNR=4.7						
ILAR				PKP	PKPdf	07 15 11.1	+0.3
	comp=Z,0.2nm,0.5s,baz=174,slow=2.7,SNR=4.1						
ARCES	ARCESS Array B	144.10	37	PKP	PKPab	07 15 10.0	-1.0
	comp=Z,2.7nm,0.6s,baz=233,slow=2.1,SNR=13						
E25K	Arctic Village	144.24	320	PKPdf	PKPdf	07 15 13.3	-0.3
AB31	Akbulak array	144.37	82	PKPdf	PKPab	07 15 11.0	-1.6
ABKAR	Akbulak array	144.37	82	PKPdf	PKPab	07 15 10.9	-1.6
L18K	Granite Mounta	144.40	307	PKPdf	PKPdf	07 15 13.6	-0.4
I21K	Tanana	144.52	313	PKPdf	PKPab	07 15 12.0	-0.6
KK31	Karatay Array	144.73	99	PKPdf	PKPab	07 15 14.5	+0.4
KKAR	Karatay Array	144.73	99	PKPdf	PKPab	07 15 14.0	-0.1
J19K	Poorman	145.08	310	PKPbc	PKPbc	07 15 14.4	-0.3
IMAR	Indian Mountai	145.59	314	PKPdf	PKPdf	07 15 15.7	-0.2
G21K	Allakaket	145.81	315	PKPdf	PKPdf	07 15 16.5	+0.2
LVZ	Lovozero	145.85	42	PKPdf	PKPdf	07 15 16.3	-0.1
E22K	Anaktuvuk Pass	146.16	318	PKPdf	PKPdf	07 15 17.5	+0.5
J16K	Anvik River	146.49	307	PKPdf	PKPbc	07 15 18.9	-0.2
KBS	Kingsbay	146.83	19	PKPdf	PKPdf	07 15 18.9	+1.2
KDJ	Kajisay	147.00	107	PKPdf	PKPdf	07 15 19.5	+0.2
D19K	Kuna River	148.35	316	PKPdf	PKPdf	07 15 22.6	+2.0
BVAR	Borovoye Array	151.77	85	PKPbc	PKPbc	07 15 31.7	-1.1
	comp=Z,4.9nm,0.9s,baz=232,slow=1.7,SNR=8.7						
MKAR	Makanchi Array	152.92	107	PKPbc	PKPbc	07 15 33.7	-1.9
	comp=Z,0.8nm,0.5s,baz=230,slow=2.7,SNR=9.9						
MKAR	Makanchi Array	152.92	107		PKPbc	07 15 34.6	-1.0
KURBB	Kurchatov Arra	153.97	97	PKPbc	PKPbc	07 15 36.3	-1.4
	comp=Z,0.4nm,0.7s,baz=228,slow=3.4,SNR=4.8						
KURK	Kurchatov	154.08	97		PKPbc	07 15 36.3	-1.6
SONM	Songino Array	163.12	142	PKPab	PKPab	07 16 32.0	+1.0
	comp=Z,0.7nm,0.7s,baz=266,slow=2.2,SNR=4.8						

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*IDC **08** 07:00:17.6±1.0, 62°.09S×57°.78W, h0^{km}, mb4.0/4, mbtmp3.9/5, ML3.4/1, Error ellipse: s-maj=30.2km s-min=20.7km az=105.0*

ISC 08 07:00:19.1±0.9**, 62°.2S**±0°.1×**58°.4W**±0°.1**, h10^{km}, n12,** σ**0^{s}.90**/13**, mb3.9**/6**, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMSA	Palmer Station	3.66	221	Pn	Pn	07 01 15.9	+0.2
	2.9nm,0.3s,baz=42,slow=13,SNR=7.7						
PMSA				Sn	Sb	07 02 07.8	-0.4
	5.6nm,0.3s,baz=82,slow=4.3,SNR=5.0						
	2.9nm,0.5s						
PMSA				AML	AML		
VNA3	Neumayer Olymp	20.68	136	P	P	07 04 59.8	+1.0
	comp=Z,3.7nm,0.8s						
VNA1	Neumayer--Stat	21.14	135	P	P	07 05 04.1	+0.4
	comp=Z,5.0nm,0.8s						
VNA2	Neumayer--Watz	21.42	136	P	P	07 05 07.3	+0.6
	comp=Z,2.6nm,0.6s,baz=265,slow=11						
PLCA	Paso Flores	22.66	335	P	P	07 05 21.3	+0.9
	comp=Z,5.7nm,1.1s,baz=156,slow=10.0,SNR=4.1						
	comp=Z,5.7nm,1.1s						
SNAA	Sanae	22.85	138	P	P	07 05 21.4	-0.6
	comp=Z,2.2nm,0.6s,baz=260,slow=12,SNR=4.8						
	comp=Z,2.2nm,0.6s						
TROLL	Troll, Antarti	24.49	139	P	P	07 05 39.0	+0.9
	comp=Z,102nm,0.8s						
QSPA	South Pole Qui	28.08	180	P	P	07 06 11.2	+0.6
	comp=Z,1.3nm,0.9s,baz=137,slow=0.7,SNR=2.4						
	comp=Z,1.3nm,0.9s						
BDFB	Brasilia	47.03	14	P	P	07 08 50.6	0.0
	comp=Z,1.3nm,0.3s,baz=190,slow=6.1,SNR=3.7						
	comp=Z,1.3nm,0.3s						
BVAR	Borovoye Array	151.80	85	PKPbc	PKPbc	07 20 11.7	-0.9
	comp=Z,1.1nm,0.4s,baz=224,slow=4.0,SNR=6.3						
MKAR	Makanchi Array	153.01	106	PKPbc	PKPbc	07 20 14.6	-1.0
	comp=Z,0.5nm,0.7s,baz=219,slow=1.4,SNR=5.5						
KURBB	Kurchatov Arra	154.04	96	PKPbc	PKPbc	07 20 16.1	-1.5
	comp=Z,0.2nm,0.5s,baz=234,slow=2.6,SNR=4.1						

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*IDC **08** 07:35:12.5±1.4, 55°.74N×166°.12E, h0^{km}, mb3.6/4, mbtmp3.7/5, ML3.2/1, MS3.0/2, Error ellipse: s-maj=54.0km s-min=15.9km az=156.0*

*KRSC **08** 07:35:13.0±1.1, 55°.44N×166°.04E, h34^{km}±11^{km}, Ml4.2*

ISC 08 07:35:14.6±1.0**, 55°.53N**±0°.06×**166°.12E**±0°.08**, h20^{km}, n41,** σ**1^{s}.14**/44**, mb3.6**/4**, Komandorsky Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BKI	Bering	0.34	194	*i* P	Pb	07 35 20.3	-1.6
BKI				*e*S	Sb	07 35 25.8	-1.0
KBTR	Krutoberegovo	1.98	291	*e*P	Pn	07 35 45.0	-1.9
KBTR				*e*S	Sn	07 36 08.9	-2.1
MKZ	Mys Kozlova	2.71	251	*e*P	Pn	07 35 56.6	-0.3
MKZ				*e*S	Sn	07 36 28.4	-0.6
ZLN	Zelenaya	3.04	281	*e*P	Pn	07 36 02.6	+1.0
BZGR	Bezymyannyi-Gr	3.09	280	*e*P	Pn	07 36 03.1	+0.8
KLY	Klyuchi	3.17	287	*e*P	Pn	07 36 01.3	-2.0
BZWR	Bezymyannyi-We	3.21	280	*e*P	Pn	07 36 04.4	+0.5
BZMR	Bezymyannaya	3.21	280	*e*P	Pn	07 36 04.5	+0.6
TUMD	Tumrok D	3.28	267	*e*P	Pn	07 36 05.8	+1.0
TUMD				*e*S	Sn	07 36 44.2	+1.0
KIRR	Kirishev	3.29	280	*e*P	Pn	07 36 05.3	+0.2
KPT	Kopyto	3.36	280	*e*P	Pn	07 36 06.9	+1.0
TUMR	Tumrok	3.41	268	*e*P	Pn	07 36 08.2	+1.4
KOZ	Kozyrevsk	3.56	281	*e*P	Pn	07 36 09.5	+0.8
SRDR	Sredinnyy	3.69	285	*e*P	Pn	07 36 10.9	+0.5
ESO	Esso	4.21	278	*e*P	Pn	07 36 19.5	+1.9
SPN	Mys Shipunski	4.32	238	*e*P	Pn	07 36 19.3	+0.2
SPN				*e*S	Sn	07 37 07.6	-1.2
NLC	Nalytchevo	4.61	242	*e*S	Sn	07 37 14.8	-1.2
SDLR	Sedlovina	4.79	245	*e*P	Pn	07 36 26.6	+0.9
SMAR	Somma	4.84	245	*e*P	Pn	07 36 27.0	+0.6
KRER	Koryakskii	4.85	246	*e*P	Pn	07 36 27.5	+1.0
UGLR	Uglovaya	4.86	244	*e*P	Pn	07 36 27.3	+0.7
KRX	Arik	4.87	247	*e*P	Pn	07 36 27.8	+1.0
AVH	Avacha	4.87	245	*e*P	Pn	07 36 27.8	+1.0
KOK	Koryaka	4.91	246	*e*P	Pn	07 36 28.4	+1.1
DALK	Dalny	4.99	243	*e*P	Pn	07 36 29.1	+0.8
PET	Petropavlovsk	5.04	243	*e*P	Pn	07 36 29.3	+0.3
GNL	Ganaly	5.10	252	*e*P	Pn	07 36 31.0	+1.2
KRMR	Karymshinskiy	5.42	243	*e*P	Pn	07 36 35.4	+1.3
KRMR				*e*S	Sn	07 37 35.1	-0.6
RUS	Russkaya	5.46	238	*e*P	Pn	07 36 35.1	+0.5
PETK	Petropavlovsk-	5.49	247	Pn	Pn	07 36 36.2	+1.1
	3.7nm,0.3s,baz=79,slow=18,SNR=35						
PETK				Sn	Sn	07 37 39.4	+1.6
	0.9nm,0.3s,baz=80,slow=40,SNR=4.1						
PETK				LR	LR	07 38 32.6	
	comp=Z,44nm,20.2s,baz=58,slow=36						
	10nm,0.5s						
PETK				AML	AML		
MTVR	Mutnovka	5.59	240	*e*P	Pn	07 36 38.1	+1.5
GRL	Gorelyy	5.60	241	*e*P	Pn	07 36 38.1	+1.3
KDTR	Khodutka, Kamc	6.06	235	*e*P	Pn	07 36 43.1	+0.1
ILAR	Eielson Array	24.57	49	P	P	07 40 32.3	-0.4
	1.7nm,1.0s,baz=259,slow=8.8,SNR=11						
	1.7nm,1.0s						
H11N2	WAKE ISLAND Hy	35.75	179	T	T	08 19 51.7	
	baz=359,slow=76,SNR=111						
H11N3	WAKE ISLAND Hy	35.76	179	T	T	08 19 52.8	
	baz=359,slow=76,SNR=89						
H11N1	WAKE ISLAND Hy	35.77	179	T	T	08 19 45.9	
	baz=359,slow=76,SNR=101						
SONM	Songino Array	36.77	284	P	P	07 42 22.1	+1.5
	0.8nm,0.6s,baz=67,slow=8.2,SNR=3.9						
	0.8nm,0.6s						
KURBB	Kurchatov Arra	49.50	303	P	P	07 44 02.7	-0.5
	0.2nm,0.3s,baz=50,slow=7.6,SNR=4.8						
	0.2nm,0.3s						
FRB	Frobisher Bay	53.80	27	LR	LR	08 10 36.1	
	comp=Z,36nm,18.1s,baz=144,slow=40						
TXAR	Lajitas Array	66.48	72	P	P	07 46 03.8	+1.2
	0.2nm,0.5s,baz=298,slow=4.6,SNR=5.1						
	0.2nm,0.5s						

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*NNC **08** 07:35:33.6±0.7, 49°.95N×78°.71E, h0^{km}, mb3.4, mpv3.2, Error ellipse: s-maj=10.4km s-min=3.5km az=79.0, Suspected Mining explosion.*

*IDC **08** 07:35:36.1±3.9, 50°.00N×78°.86E, h0^{km}, mbtmp2.7/2, ML2.1/2, Error ellipse: s-maj=45.2km s-min=14.2km az=91.0*

ISC 08 07:35:36.1±0.9**, 50°.06N**±0°.05×**78°.77E**±0°.07**, h0^{km}, n22,** σ**0^{s}.93**/30**, 13C-9D, Eastern Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR07	Kurchatov Arra	0.55	343	⇓P	Pg	07 35 45.8	-0.8
KUR06	Kurchatov Arra	0.56	344	⇓P	Pg	07 35 45.8	-1.1
KUR06				⇑S	Sg	07 35 55.3	+1.1
KUR14	Kurchatov Arra	0.56	348	⇑P	Pg	07 35 46.1	-0.8
KUR14				⇑S	Sb	07 35 57.3	-0.2
KUR15	Kurchatov Arra	0.57	346	⇑P	Pg	07 35 46.3	-0.8
KUR15				⇓S	Sb	07 35 56.6	-1.1
KURBB	Kurchatov Arra	0.58	345	⇓S	Sb	07 35 57.4	-0.6
	92nm,0.7s						
KUR16	Kurchatov Arra	0.59	343	⇑P	Pg	07 35 46.7	-0.7
KUR16				⇑S	Sg	07 35 55.7	+0.7
KUR05	Kurchatov Arra	0.60	345	⇓P	Pg	07 35 46.6	-1.0
KUR05				⇓S	Sg	07 35 56.2	+0.9
KUR17	Kurchatov Arra	0.60	341	⇑P	Pg	07 35 46.6	-1.0
KUR17				⇓S	Sg	07 35 56.5	+1.1
KUR04	Kurchatov Arra	0.62	346	⇑P	Pg	07 35 46.7	-1.2
KUR04				⇑S	Sg	07 35 56.5	+0.6
KURK	Kurchatov	0.66	351	⇑P	Pg	07 35 48.0	-0.8
	5.3nm,0.7s,baz=174,slow=16						
KURK				⇑S	Sb	07 35 59.2	-1.0
	26nm,0.8s						
MAKZ	Makanchi	3.89	146	⇓Pg	Pb	07 36 45.4	-0.1
	3.2nm,0.9s						
MAKZ				⇑Lg	Lg	07 37 36.7	
	13nm,0.8s						
MK31	Makanchi Array	4.02	143	⇑Pg	Pb	07 36 47.2	-0.6
	0.2nm,0.3s,baz=338,slow=16,SNR=10						
MK31				⇓Lg	Lg	07 37 41.5	
	11nm,0.8s,baz=337,slow=28						
MKAR	Makanchi Array	4.02	143	Pn	Pn	07 36 38.7	-0.3
	0.1nm,0.3s,baz=354,slow=11,SNR=4.5						
MKAR				Pg	Pb	07 36 46.7	-1.1
	0.3nm,0.3s,baz=325,slow=15,SNR=12						
MKAR				Lg	Lg	07 37 39.2	
	0.2nm,0.3s,baz=336,slow=32,SNR=6.6						
	0.4nm,0.6s						
MKAR				AML	AML		
ZSN	Zaisan	4.80	121	Pg	Pb	07 37 01.4	+0.3
	6.4nm,0.3s						
ZSN				Lg	Lg	07 38 05.3	
	6.8nm,0.3s						
I46RU	ZALESOVO INFRA	5.39	41	I	I	08 12 00.0	
	baz=225,slow=320,SNR=2.5						
ZALV	Zalesovo Beam	5.39	41	Pn	Pn	07 36 59.0	+1.4
	0.4nm,0.3s,baz=230,slow=13,SNR=6.9						
ZALV				Lg	Lg	07 38 27.5	
	0.3nm,0.3s,baz=215,slow=28,SNR=2.1						
	1.0nm,0.3s						
ZALV				AML	AML		
KNOS	Konyrlen	5.71	177	Pg	Pb	07 37 17.7	+1.0
	0.8nm,0.3s						
KNOS				Lg	Lg	07 38 32.8	
	3.2nm,0.5s						
DJR	Jarkent	5.78	173	Pg	Pb	07 37 18.3	+0.6
	0.6nm,0.1s						
DJR				Lg	Lg	07 38 34.1	
	2.2nm,0.6s						
ARXS	Arharly	5.89	187	Pg	Pb	07 37 21.4	+1.8
	1.1nm,0.2s						
ARXS				Lg	Lg	07 38 39.3	
	8.1nm,0.8s						
BTLS	Baital	5.96	214	Pg	Pb	07 37 19.9	-0.8
	0.9nm,0.1s						
BTLS				Lg	Lg	07 38 36.5	
	4.4nm,1.0s						
BLB	Baldybastay	5.97	182	Pg	Pb	07 37 21.7	+0.6
	1.4nm,0.1s						
BLB				Lg	Lg	07 38 40.2	
	13nm,0.9s						
BVAR	Borovoye Array	6.01	303	Sn	Sn	07 38 15.9	+0.1
	0.1nm,0.3s,baz=111,slow=23,SNR=7.5						
BVAR				Lg	Lg	07 38 46.3	
	0.1nm,0.3s,baz=116,slow=26,SNR=7.4						

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*IDC **08** 07:36:34.0±1.9, 6°.92S×154°.94E, h0^{km}, mb3.6/3, mbtmp3.9/5, ML2.3/1, MS3.4/3, Error ellipse: s-maj=34.3km s-min=23.3km az=75.0*

ISC 08 07:36:39.7±1.9**, 6°.9S**±0°.1×**154°.9E**±0°.2**, h41^{km}, n10,** σ**0^{s}.80**/7**, mb3.4**/3**, Bougainville-Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KRVT	Keravat (AS076	3.83	312	Pn	Pn	07 37 35.6	-0.5
	83nm,0.3s,baz=14,slow=20,SNR=1.5						
KRVT				Sn	Sn	07 38 20.6	+0.7
	84nm,0.3s,baz=313,slow=20,SNR=4.0						
PMG	Port Moresby	8.03	251	Pn	Pn	07 38 33.4	-0.5
	2.1nm,0.3s,baz=94,slow=13,SNR=2.0						
PMG				LR	LR	07 41 47.0	
	comp=Z,142nm,19.6s,baz=120,slow=39						
	9.5nm,0.4s						
PMG				AML	AML		
WRA	Warramunga Arr	23.77	235	P	P	07 41 48.6	-0.1
	0.6nm,0.5s,baz=56,slow=10,SNR=10						
	0.6nm,0.5s						
ASAR	Alice Springs	26.15	228	P	P	07 42 11.2	+0.8
	0.3nm,0.4s,baz=60,slow=8.9,SNR=6.9						
ASAR				LR	LR	07 52 35.2	
	comp=Z,78nm,18.1s,baz=254,slow=37						
	0.3nm,0.4s						
STKA	Stephens Creek	27.77	205	LR	LR	07 54 07.0	
	comp=Z,130nm,18.1s,baz=225,slow=38						
H11S3	WAKE ISLAND Hy	27.79	25	T	T	08 10 13.9	
	baz=207,slow=74,SNR=24						
H11S2	WAKE ISLAND Hy	27.80	25	T	T	08 10 14.0	
	baz=207,slow=74,SNR=10.0						
H11S1	WAKE ISLAND Hy	27.81	25	T	T	08 10 14.4	
	baz=207,slow=74,SNR=14						
MKAR	Makanchi Array	83.25	319	P	P	07 49 01.5	-0.6
	0.7nm,0.8s,baz=110,slow=5.3,SNR=4.9						
	0.7nm,0.8s						
TORD	Torodi Ar. Bea	152.88	285	PKPbc	PKiKP	07 56 34.5	+0.8
	3.0nm,1.0s,baz=72,slow=1.9,SNR=10						

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*IDC **08** 07:45:18.2±1.5, 55°.77S×26°.78W, h0^{km}, mb3.9/3, mbtmp3.9/3, Error ellipse: s-maj=71.0km s-min=28.4km az=69.0*

ISC 08 07:45:26.4±1.6**, 55°.8S**±0°.3×**26°.8W**±0°.4**, h63^{km}, n8,** σ**0^{s}.47**/8**, mb4.0**/3**, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNA1	Neumayer--Stat	16.92	159	P	Pn	07 49 18.9	+0.4
VNA3	Neumayer Olymp	17.13	161	P	Pn	07 49 21.1	-0.1
	comp=Z,0.3nm,0.2s						
VNA2	Neumayer--Watz	17.32	158	P	Pn	07 49 22.6	-0.9
	baz=316,slow=13						
QSPA	South Pole Qui	34.43	180	P	P	07 52 07.4	-0.1
	comp=Z,1.8nm,0.8s,baz=167,slow=3.4,SNR=9.8						
	comp=Z,1.8nm,0.8s						
VNDA	Vanda	46.81	183	P	P	07 53 49.3	+0.3
	comp=Z,0.6nm,0.6s,baz=181,slow=5.8,SNR=2.2						
	comp=Z,0.6nm,0.6s						
LPAZ	La Paz	50.44	305	P	P	07 54 18.1	-0.1
	comp=Z,1.1nm,0.7s,baz=128,slow=4.6,SNR=7.1						
	comp=Z,1.1nm,0.7s						
ILAR	Eielson Array	150.14	312	PKPbc	PKPbc	08 05 08.4	0.0
	comp=Z,1.2nm,0.8s,baz=126,slow=1.9,SNR=12						
SONM	Songino Array	150.48	86	PKPbc	PKiKP	08 05 10.9	+0.2
	comp=Z,0.3nm,0.5s,baz=215,slow=4.6,SNR=1.3						

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*OSPL **08** 07:56:16.3±0.6, 20°.30N×70°.09W, h0^{km}±3^{km}, ML1.9, Presumed earthquake*

*SDD **08** 07:56:17.2±1.6, 19°.98N×70°.27W, h18^{km}±16^{km}, MD2.9, ML2.1, MW3.5, Presumed earthquake*

ISC 08 07:56:18.9±2.4**, 20°.2N**±0°.1×**70°.19W**±0°.06**, h31^{km}**±15^{km}**, n5,** σ**1^{s}.75**/10**, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LOPP1	Punta Rusia, P	1.01	250	*i* P	Pb	07 56 36.5	-1.4
LOPP1				*e*S	Sn	07 56 51.4	+1.2
LOPP1				IAML		07 56 55.5	
	comp=Z,21nm,2.8s						
SMDR	Samana, DR	1.31	134	*i* P	Pn	07 56 40.7	-0.4
SMDR				*i* S	Sb	07 57 01.2	+1.7
SMDR				IAML		07 57 07.4	
	comp=N,28nm,3.2s						
ABDR	Alto Bandera	1.45	197	*i* P	Pn	07 56 42.9	-0.4
ABDR				*i* S	Sn	07 57 00.5	-0.9
REDR	Restauracion	1.54	228	*i* P	Pb	07 56 46.7	-0.1
REDR				*i* S	Sb	07 57 08.6	+2.7
REDR				IAML		07 57 11.1	
	comp=N,29nm,0.2s						
LONE3	El Aguacate, B	1.99	217	*i* P	Pn	07 56 51.2	+0.6
LONE3				IAML		07 57 16.0	
	comp=Z,8.2nm,1.7s						
LONE3				*e*S	Sb	07 57 17.4	-1.7

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*CATAC **08** 08:05:13.0±0.4, 19°N±2°×8°0W±°, h10^{km}±2^{km}, M4.2/10, mb4.4/7, mB5.0/3, MLv4.2/10, Mw(mB)4.3/3, Error ellipse: s-maj=5.0km s-min=3.1km az=160.3, confirmed*

*SSNC **08** 08:05:14.3±2.3, 19°.03N×80°.25W, h7^{km}±11^{km}, MD3.5, ML3.8, Presumed earthquake*

*JSN **08** 08:05:16.2±1.2, 18°.93N×79°.93W, h0^{km}±52^{km}, MD4.4, Presumed earthquake*

ISC 08 08:05:12.2±1.3**, 19°.07N**±0°.04×**80°.22W**±0°.04**, h10^{km}**±10^{km}**, n36,** σ**1^{s}.84**/64**, 2C-9D, Cuba region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC

LCCY	Blossom Villag	0.60	12	⇓eP	Pb	08 05 25.6	+0.7
LCCY				eS	Sb	08 05 34.1	+0.7
CBCY	The Bluff, Cay	0.79	33	P	Pb	08 05 28.6	+0.5
CBCY				S	Sb	08 05 38.7	-0.1
CBCY	The Bluff, Cay	0.79	33	eP	Pb	08 05 28.5	+0.5
CBCY				eS	Sg	08 05 38.3	+0.5
FSCY	Frank Sound, G	0.94	285	P	Pg	08 05 29.7	-0.6
FSCY				S	Sg	08 05 41.6	-1.0
FSCY	Frank Sound, G	0.94	285	eP	Pg	08 05 29.4	-0.9
MCJ	Malvern	2.66	115	⇓iP	Pn	08 05 55.3	0.0
CVJ	Coleyville	2.68	108	⇑iP	Pn	08 05 55.0	-0.6
CVJ				⇓iS	Sn	08 06 22.3	-5.9
CVJ				iS	Sn	08 06 24.0	-4.2
MGV	Manicaragua	3.03	4	eP	Pn	08 05 59.4	-0.8
MGV				eS	Sn	08 06 34.2	-2.4
MGV				IAML		08 06 35.8	
	comp=N,595nm,0.3s						
MGV				IAML		08 06 35.8	
	comp=E,892nm,0.4s						
CCCC	Cccc	3.13	47	eP	Pb	08 06 06.7	-1.3
CCCC				eS	Sb	08 06 44.6	-1.6
LMGC	Las Mercedes	3.19	71	eP	Pn	08 06 03.1	+0.7
LMGC				eS	Sn	08 06 38.0	-2.5
LMGC				IAML		08 06 39.3	
	comp=E,88nm,0.1s						
LMGC				IAML		08 06 39.5	
	comp=N,34nm,0.1s						
PCJ	Portland Cotta	3.20	114	⇓iP	Pn	08 06 02.4	-0.1
PCJ				iS	Sn	08 06 38.1	-2.6
STH	Stony Hill	3.38	106	iP	Pn	08 06 04.9	-0.2
STH				⇑iP	Pn	08 06 05.0	-0.2
STH				iS	Sn	08 06 41.4	-4.0
GWJ	Greenwich	3.46	106	iP	Pn	08 06 05.9	-0.4
GWJ				⇓iP	Pn	08 06 06.2	0.0
GWJ				iS	Sn	08 06 44.4	-3.0
HOJ	Hope	3.46	107	⇓iP	Pn	08 06 06.4	+0.2
HOJ				⇓iP	Pn	08 06 06.4	+0.2
CAIB	Caibarien	3.47	11	P	Pn	08 06 08.1	+1.8
CAIB				S	Sn	08 06 48.5	+0.9
CAIB	Caibarien	3.47	11	eP	Pn	08 06 08.1	+1.8
CAIB				eS	Sn	08 06 47.5	-0.1
CHIV	Chivirico	3.70	75	P	Pn	08 06 09.8	+0.3
CHIV	Chivirico	3.70	75	eP	Pn	08 06 08.9	-0.6
CHIV				eS	Sn	08 06 50.9	-2.2
YAR	Yar	3.86	70	⇓eP	Pn	08 06 12.9	+1.2
YAR				eS	Sn	08 06 54.7	-2.3
CAMR	Camarioca	4.11	345	P	Pn	08 06 16.3	+1.2
CAMR				S	Sn	08 07 03.2	0.0
CAMR	Camarioca	4.11	345	eS	Sn	08 07 01.9	-1.3
PINC	Pinares de May	4.40	71	⇓eP	Pn	08 06 20.6	+1.5
SOR	Soroa	4.53	325	eP	Pn	08 06 21.4	+0.6
SOR				eS	Sn	08 07 10.5	-3.0
GTBY	Guantanamo Bay	4.89	79	iP	Pn	08 06 27.3	+1.4
GTBY	Guantanamo Bay	4.89	79	P	Pn	08 06 26.8	+1.0
GTBY				S	Sn	08 07 24.1	+1.5
GTBY	Guantanamo Bay	4.89	79	eP	Pn	08 06 27.0	+1.1
NMDO	Nuevo Mundo	5.15	72	P	Pn	08 06 30.3	+0.9
NMDO				S	Sn	08 07 31.2	+2.4
QMBU	Quimbuelo	5.22	77	P	Pn	08 06 31.0	+0.6
QMBU				S	Sn	08 07 32.1	+1.4
QMBU	Quimbuelo	5.22	77	eP	Pn	08 06 31.9	+1.5
QMBU				eS	Sn	08 07 28.0	-2.6
MASC	Masc	5.75	78	P	Pn	08 06 40.2	+2.5
MASC				S	Sn	08 07 46.4	+2.6
MASC	Masc	5.75	78	eP	Pn	08 06 39.6	+1.9
MASC				eS	Sn	08 07 41.6	-2.1
PRVC	Isla de Provid	5.77	191	P	Pn	08 06 39.4	+1.5
BILN	Bilwi Airport	5.84	212	P	Pn	08 06 40.4	+1.5
SIUN	Universidad Ur	6.89	220	S	Sn	08 08 14.4	+2.5
TEIG	Tepich	7.68	280	P	Pn	08 07 03.7	-0.5
TEIG				S	Sn	08 08 30.5	-0.8
BOAB	BOACO BROADBAN	8.42	219	P	Pn	08 07 16.4	+2.1

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*SJA **08** 08:13:45.8±0.7, 27°.90S×71°.35W, h19^{km}±3^{km}, ML3.4, MW3.5*
*GUC **08** 08:13:48.1±0.8, 27°.91S×71°.23W, h30^{km}±2^{km}, ML3.5*
ISC 08 08:13:44.0±1.4**, 27°.87S**±0°.02×**71°.32W**±0°.05**, h1**^{km}±11^{km}**, n35,** σ**1^{s}83**/66**, 2C-3D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	Llanos de Chal	0.40	147	eP	Pn	08 13 55.2	-1.7
AC04				IAML		08 14 02.2	
	comp=Z,1µm,0.3s						
AC04	Llanos de Chal	0.40	147	⇑iP	Pn	08 13 55.4	-1.5
AC04				eS	Sb	08 14 00.2	-0.3
AC04				IAML		08 14 00.8	
	comp=E,17µm,0.1s						
AC06	Mina Casimiro	1.00	60	⇓iP	Pn	08 14 04.5	-0.6
AC06				eS	Sb	08 14 17.5	-0.3
GO03	Copiapo	1.00	74	eP	Pn	08 14 05.0	-0.3
GO03				eS	Sn	08 14 20.1	0.0
GO03				IAML		08 14 21.1	
	comp=Z,783nm,0.6s						
GO03	Copiapo	1.00	74	⇓iP	Pn	08 14 04.7	-0.6
GO03				iS	Sg	08 14 15.1	-1.1
GO03				IAML		08 14 21.9	
	comp=E,994nm,0.3s						
LCO	Las Campanas	1.26	154	eP	Pg	08 14 09.6	+1.4
LCO				eS	Sg	08 14 25.5	+0.9
LCO				IAML		08 14 27.0	
	comp=Z,2µm,0.3s						
LCO	Las Campanas	1.26	154	eP	Pg	08 14 09.1	+0.9
LCO				eS	Sb	08 14 24.6	-1.0
LCO				IAML		08 14 26.9	
	comp=Z,8µm,0.2s						
AC05	El Transito	1.33	136	eP	Pg	08 14 10.6	+0.9
AC05				eS	Sb	08 14 27.0	-0.6
AC05				IAML		08 14 29.5	
	comp=Z,272nm,0.5s						
AC05	El Transito	1.33	136	⇓iP	Pg	08 14 10.5	+0.9
AC05				iS	Sb	08 14 26.1	-1.5
AC05				IAML		08 14 29.5	
	comp=N,615nm,0.4s						
AC01	Pan de Azucar	1.83	21	eP	Pb	08 14 17.7	-0.6
AC01				eS	Sg	08 14 46.1	+3.2
AC01				IAML		08 14 50.0	
	comp=Z,118nm,0.6s						
AC01	Pan de Azucar	1.83	21	eP	Pb	08 14 17.7	-0.6
AC01				iS	Sn	08 14 39.0	-1.5
AC02	Maricunga	2.21	63	eP	Pb	08 14 25.1	+0.1
AC02				eS	Sb	08 14 53.5	+0.5
AC02				IAML		08 14 55.0	
	comp=Z,196nm,0.3s						
AC02	Maricunga	2.21	63	⇑iP	Pb	08 14 24.9	-0.1
AC02				eS	Sb	08 14 52.0	-1.0
AC02				IAML		08 14 54.8	
	comp=N,459nm,0.3s						
GO04	Tololo Observa	2.34	169	eP	Pb	08 14 25.9	-1.3
GO04				eS	Sn	08 14 54.3	+0.9
GO04				IAML		08 15 06.5	
	comp=Z,273nm,0.5s						
GO04	Tololo Observa	2.34	169	eP	Pb	08 14 25.8	-1.4
GO04				eS	Sb	08 14 54.7	-2.0
GO04				IAML		08 15 08.1	
	comp=N,978nm,0.4s						
CO01	Juntas del Tor	2.36	153	eP	Pb	08 14 26.9	-0.6
CO01				eP	Pg	08 14 27.0	-2.3
CO01				eS	Sb	08 14 56.1	-1.1
CO01				IAML		08 15 04.2	
	comp=Z,168nm,0.3s						
CO01	Juntas del Tor	2.36	153	eP	Pb	08 14 26.7	-0.8
CO01				eS	Sn	08 14 54.4	+0.5
CO01				IAML		08 15 04.2	
	comp=E,164nm,0.5s						
AROD	Rodeo	2.80	145	eP	Pb	08 14 33.2	-1.9
AROD				eS	Sb	08 15 06.7	-3.4
CO06	Fray Jorge	2.81	185	eP	Pn	08 14 30.4	+0.3
VCA	Vinchina	2.88	108	eP	Pn	08 14 32.5	+1.3
VCA				eS	Sg	08 15 19.3	+2.7
VCA				IAML		08 15 21.0	
	comp=Z,159nm,0.6s						
ACDV	Cuesta del Vie	3.00	140	eP	Pb	08 14 37.2	-1.0
ACDV				eS	Sb	08 15 14.4	-1.1
ACDV				IAML		08 15 27.6	
	comp=Z,49nm,0.4s						
CO03	El Pedregal	3.01	170	eP	Pn	08 14 35.0	+2.1
CO03				eS	Sb	08 15 13.4	-2.3
CO03				IAML		08 15 28.8	
	comp=Z,105nm,0.8s						
CO03	El Pedregal	3.01	170	eP	Pn	08 14 34.8	+1.9
CO03				eS	Sn	08 15 10.8	+1.2
CO03				IAML		08 15 21.1	
	comp=E,152nm,0.3s						
TINO	Tinogasta	3.33	94	eP	Pb	08 14 40.4	-3.5
TINO				eS	Sg	08 15 28.7	-2.2
TINO				IAML		08 15 32.4	
	comp=Z,61nm,0.5s						
CO02	Combarbal	3.33	175	eP	Pn	08 14 38.6	+1.3
CO02				eS	Sb	08 15 21.1	-4.1
CO02				IAML		08 15 35.0	
	comp=Z,222nm,0.4s						
PB14	IPOC Station P	3.33	15	eP	Pn	08 14 37.9	+0.3
PB14				eS	Sg	08 15 32.4	+1.2
PB14				IAML		08 15 34.9	
	comp=Z,60nm,0.5s						
ACCO	Cerro Coronel	3.35	144	eP	Pb	08 14 42.9	-1.5
ACCO				eS	Sg	08 15 32.8	+1.1
ACCO				IAML		08 15 35.4	
	comp=Z,67nm,0.3s						
ACLC	CERRO LA CRUZ	4.14	113	eP	Pn	08 14 51.8	+3.2
ACLC				eS	Sb	08 15 44.9	-3.6
ACLC				IAML		08 15 47.1	
	comp=Z,24nm,0.4s						
RTLL	Cerro Villicun	4.25	145	eP	Pn	08 14 54.2	+4.3
RTLL				eS	Sn	08 15 41.7	+1.6
RTLL				IAML		08 15 58.7	
	comp=Z,32nm,0.3s						
RTLS	Leoncito	4.29	156	eS	Sn	08 15 43.8	+2.2
RTLS				IAML		08 16 05.5	
	comp=Z,142nm,0.9s						
CFA	Coronel Fontan	4.59	145	eP	Pn	08 14 58.4	+3.8
CFA				eS	Sn	08 15 50.4	+1.8
CFA				IAML		08 16 12.4	
	comp=Z,29nm,1.1s						
CYA	Choya	4.91	98	IAML		08 16 02.6	
	comp=Z,19nm,1.0s						
VA03	San Esteban	4.92	172	eP	Pn	08 15 01.4	+2.2
VA03				eS	Sb	08 16 10.2	-0.6
VA03				IAML		08 16 22.8	
	comp=Z,35nm,1.0s						
PB05	IPOC Station P	5.10	12	eP	Pn	08 15 01.0	-0.6
PB05				eS	Sg	08 16 26.0	-1.8
PB05				IAML		08 16 31.3	
	comp=Z,29nm,1.9s						
PB06	IPOC Station P	5.38	18	eP	Pn	08 15 06.0	+0.5
PB06				eS	Sb	08 16 26.1	+2.0
PB06				IAML		08 16 48.5	
	comp=Z,26nm,0.7s						

IDC 08 08:15:39.0±46.0**, 18°.18S**×**179°.39E, h534**^{km}±244^{km}**, mb3.0**/3**, mbtmp4.0**/3**, Error ellipse: s-maj=1072.0km s-min=127.0km az=81.0, Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	Nonsavu	1.35	289	P	P	08 16 44.8	0.0
	10nm,0.8s,baz=169,slow=21,SNR=5.1						
STKA	Stephens Creek	36.66	241	P	P	08 22 00.9	+0.3
	1.4nm,0.7s,baz=80,slow=6.1,SNR=2.0						
	1.4nm,0.7s						
WRA	Warramunga Arr	42.52	260	P	P	08 22 47.4	-0.4
	0.5nm,0.6s,baz=95,slow=8.0,SNR=9.2						
	0.5nm,0.6s						
ASAR	Alice Springs	42.70	255	P	P	08 22 49.0	-0.2
	4.2nm,0.5s,baz=93,slow=7.8,SNR=96						
	4.2nm,0.5s						

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*KRSC **08** 08:25:35.6±2.0, 58°.97N×158°.37E, h23^{km}±16^{km}, Ml4.0*
*NERS **08** 08:25:51.4, 59°.06N×158°.00E, h33^{km}*
ISC 08 08:25:38.2±0.9**, 58°.90N**±0°.05×**158°.61E**±0°.04**, h10**^{km}**, n16,** σ**1^{s}27**/17**, Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALN	Palana	0.73	74	eP	Pg	08 25 51.9	-0.3
PALN				eS	Sg	08 26 01.6	-0.1
TIGL	Tigil	1.14	178	eP	Pn	08 25 58.6	-1.6
TIGL				eS	Sb	08 26 14.6	-0.2
OSSR	Ossora	2.32	79	eP	Pn	08 26 17.2	+0.8
SRDR	Sredinnyy	2.66	167	eP	Pn	08 26 20.4	-0.7
ESO	Esso	2.98	179	eP	Pn	08 26 25.3	-0.2
ESO				eS	Sn	08 27 03.7	+2.3
ZLN	Zelenaya	3.12	157	eP	Pn	08 26 28.0	+0.4
BZMR	Bezymyannaya	3.14	160	eP	Pn	08 26 28.0	+0.2
BZGR	Bezymyannyi-Gr	3.17	158	eP	Pn	08 26 28.9	+0.7
GADL	Gadlja	3.82	285	ePg	Pg	08 26 56.9	+5.6
GADL				eSg	Sg	08 27 43.0	+2.3
GADL				Sgmax		08 28 05.6	
	370nm,0.7s						
TLAR	Talaya	3.84	308	eP	Pb	08 26 43.8	-2.2
TLAR				ePg	Pg	08 26 57.9	+6.2
TLAR				Pgmax		08 27 07.1	
	30nm,0.5s						
TLAR				eSg	Sg	08 27 44.1	+2.8
TLAR				Sgmax		08 28 03.8	
	110nm,0.7s						
MA2	Magadan	4.09	283	ePg	Pg	08 27 00.6	+4.2
MA2				Pgmax		08 27 08.3	
	20nm,0.7s						
MA2				eSg	Sg	08 27 49.7	+0.4
MA2				Sgmax		08 28 04.5	
	60nm,0.8s						
MGD	Magadan 1	4.18	289	eSg	Sg	08 27 55.0	+2.6
MGD				Sgmax		08 28 00.2	
	60nm,0.4s						
SEY	Seymchan	5.06	326	ePg	Pg	08 27 20.3	+5.3
SEY				Pgmax		08 27 30.9	
	10.0nm,0.7s						
SEY				eSg	Sg	08 28 22.4	+1.9
SEY				Sgmax		08 28 59.7	
	30nm,0.8s						
TLON	Talon	5.17	284	eSg	Sg	08 28 25.1	+1.1
TLON				Sgmax		08 28 56.3	
	140nm,0.8s						
GNL	Ganaly	5.23	184	eP	Pn	08 26 57.9	+1.4
SUUS	Susuman	6.42	312	eSg	Sg	08 29 04.8	+0.9
SUUS				Sgmax		08 29 22.7	
	40nm,0.9s						

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*IDC **08** 08:28:50.3±0.4, 15°.19S×173°.44W, h0^{km}, mb4.8/21, mbtmp4.8/23, ML4.4/2, MS4.7/61, Error ellipse: s-maj=15.9km s-min=12.5km az=141.0*
*BJI **08** 08:28:50.0, 15°.15S×172°.86W, h13^{km}, mB5.3/4, mb5.1/19, Ms5.0/15, Ms7 4.8/15*
*MOS **08** 08:28:50.9±1.3, 15°.25S×173°.03W, h16^{km}, mb5.5/33, MS5.0/7, Error ellipse: s-maj=11.1km s-min=8.1km az=63.1*
*GFZ **08** 08:28:51.8±0.1, 15°S±4°×17°3W±°, h10^{km}, M5.1/35, mb5.1/35, confirmed*
*NEIC **08** 08:28:51.3, 15°.18S×172°.99W, h10^{km}*
*GFZ **08** 08:28:51.8, 15°.21S×173°.41W, h10^{km}, Mw5.4/26, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}-0.50; $M_{\theta\theta}$0.79; $M_{\phi\phi}$-0.29; $M_{r\theta}$-1.29; $M_{\theta\phi}$0.45; $M_{\phi r}$0.90; Fault plane solution: $M_0$1.77495×10^{17} NP1: ϕ_s114.69032°, δ82.38529°, λ-65.35908°. NP2: ϕ_s220.80346°, δ25.72033°, λ-162.22140°. Principal axes: T 1.5940, Plg32.9119°, Azm184.1311°; N 0.3187, Plg24.4094°, Azm291.2120°; P -1.9127, Plg46.9492°, Azm50.2765°;*
*NOU **08** 08:28:52.8, 15°.27S×173°.12W, h22^{km}, mb5.1/42, Tonga Islands*
*NEIC **08** 08:28:53.5±1.9, 15°.17S±0°.07×172°.98W±0°.07, h25^{km}±1^{km}, mb5.3/297, Mwb5.2/52, Mww5.4/11, Error ellipse: s-maj=12.8km s-min=9.4km az=134.0, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}-0.42; $M_{\theta\theta}$-1.90; $M_{\phi\phi}$2.31; $M_{r\theta}$-8.76; $M_{\theta\phi}$2.20; $M_{\phi r}$-0.84; Fault plane solution: $M_0$9.31000×10^{16} NP1:ϕ_s168.08000°, δ17.57000°, λ177.97000°. NP2:ϕ_s260.01000°, δ89.39000°, λ72.44000°. Principal axes: T 8.3710, Plg43.0000°, Azm153.0000°; N 1.6620, Plg18.0000°, Azm260.0000°; P -10.0330, Plg42.0000°, Azm7.0000°;*
*BGR **08** 08:28:53.1, 16°.81S×175°.40W, h33^{km}*
*GCMT **08** 08:28:59.3±0.1, 15°.07S±0°.01×173°.41W±0°.01, h12^{km}, MW5.5/146, Moment Tensor Solution. s103,c162; s146,c251; Duration: 1^{s}4 Moment tensor: Scale 10^{17} Nm; M_{rr}-0.20±.01; $M_{\theta\theta}$0.42±.01; $M_{\phi\phi}$-0.22±.01; $M_{r\theta}$-2.40±.03; $M_{\theta\phi}$0.51±.01; $M_{\phi r}$0.19±.03; Best double couple: $M_0$2.48500×10^{17} NP1:ϕ_s198.00000°, δ13.00000°, λ-167.00000°. NP2:ϕ_s95.00000°, δ87.00000°, λ-77.00000°. Principal axes: T 2.5580, Plg41.0000°, Azm173.0000°; N -0.1460, Plg13.0000°, Azm274.0000°; P -2.4120, Plg47.0000°, Azm18.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
ISC 08 08:28:53.7±0.2**, 15°.31S**±0°.04×**173°.09W**±0°.05**, h29**^{km}**, n660,** σ**1^{s}73**/531**, mb5.3**/222**, MS4.9**/71**, 30C-15D, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	1.88	43	Pn	Pn	08 29 21.0	-3.1
	756nm,0.3s,baz=198,slow=0.1,SNR=172						
AFI				Sn	Sn	08 29 39.9	-7.0
	5µm,0.3s,baz=72,slow=24,SNR=15						
AFI				LR	LR	08 30 05.1	
	comp=Z,20µm,18.2s,baz=212,slow=36						
	2µm,0.3s						
AFI				AML	AML		
AFI	Afiamalu	1.88	43	P	Pn	08 29 22.1	-2.0
AFI	Afiamalu	1.88	43	P	Pn	08 29 21.4	-2.6
AFI						08 29 40.7	
AFI	Afiamalu	1.88	43		Pn	08 29 21.4	-2.6
AFI				Sn	Sn	08 29 40.7	-6.2
AFI	Afiamalu	1.88	43	P	Pn	08 29 21.5	-2.5
AFI				S	Sn	08 29 39.4	-7.5
AFI				AML	AML		
AFI				AML	AML		
AFI	Afiamalu	1.88	43	P	Pn	08 29 21.6	-2.5
NIUE	Niue	4.81	142	P	Pn	08 30 04.7	+0.4
NIUE	Niue	4.81	142		Pn	08 30 04.6	+0.2
NIUE				Sn	Sn	08 30 56.4	-2.8
NIUE	Niue	4.81	142	P	Pn	08 30 04.5	+0.2
NIUE				S	Sn	08 30 55.2	-4.0
NIUE				AML	AML		
NIUE				AML	AML		
NIUE	Niue	4.81	142	P	Pn	08 30 05.4	+1.1
	comp=Z,2µm,0.5s						
FUTU	Fugatoga	4.97	281		Pn	08 30 07.2	+0.8
TAVE	Taveuni	6.70	257	P	Pn	08 30 30.0	-0.2
DGTI	Dogotuki	6.97	261	P	Pn	08 30 34.6	+0.6
MSVF	Nonsavu	8.83	253	Pn	Pn	08 31 05.8	+6.2
	comp=Z,2.6nm,0.3s,baz=75,slow=14,SNR=29						
MSVF				LR	LR	08 33 57.8	
	comp=Z,11µm,19.1s,baz=78,slow=36						
MSVF	Nonsavu	8.83	253	P	Pn	08 31 07.3	+7.7
MSVF	Nonsavu	8.83	253		Pn	08 31 07.3	+7.7
RAR	Rarotonga	13.94	117	Pn	Pn	08 32 08.7	-0.7
	comp=Z,3.2nm,0.3s,baz=252,slow=9.1,SNR=14						
RAR				LR	LR	08 36 18.8	
	comp=Z,2µm,20.1s,baz=293,slow=31						
	comp=Z,15nm,0.4s						
RAR				AML	AML		
RAR	Rarotonga	13.94	117	P	Pn	08 32 09.9	+0.5
RAR	Rarotonga	13.94	117	Pn	Pn	08 32 08.4	-1.0
RAR	Rarotonga	13.94	117	P	Pn	08 32 09.6	+0.1
RAR				S	Sn	08 34 30.6	-13
GLKZ	Green Lake	14.59	197	P	Pn	08 32 17.6	-0.6
GLKZ				S	Sn	08 34 53.8	-5.2
MARNC	Mare, Loyalty	18.93	248	P	Pn	08 33 12.8	-0.4
MARNC	Mare, Loyalty	18.93	248	P	P	08 33 12.2	-0.2
YATNC	Mamie plateau,	20.11	247	P	P	08 33 25.7	+0.3
OUENC	Ouen Island, N	20.25	247	P	Pn	08 33 28.3	-0.7
OUENC	Ouen Island, N	20.25	247	P	P	08 33 27.0	+0.1
OUENC				IAmb	IAmb	08 33 32.8	
	comp=Z,168nm,1.2s						
DZM	Mont Dzumac	20.51	248	P	P	08 33 29.1	-0.7
	comp=Z,21nm,0.9s,baz=66,slow=21,SNR=12						
DZM				LR	LR	08 40 12.1	
	comp=Z,4µm,19.5s,baz=72,slow=34						
	comp=Z,21nm,0.9s						
ONTNC	Ouen Toro	20.57	247	P	Pn	08 33 31.2	-1.4
NOUC	Port Laguerre	20.64	248	P	P	08 33 31.4	+0.2
PPT	Papeete	22.66	99	LR	LR	08 40 17.6	
	comp=Z,606nm,21.8s,baz=269,slow=30						
OUZ	Omahuta	23.15	209	P	P	08 33 58.4	+0.6
OUZ	Omahuta	23.15	209	P	P	08 33 58.9	+1.1
OUZ	Omahuta	23.15	209	P	P	08 34 00.4	+2.7
	comp=Z,104nm,1.4s						
WCZ	Waipu Caves	23.42	206	P	P	08 34 01.8	+1.4
MXZ	Matakaoa Point	23.44	197	P	P	08 34 01.7	+1.1
MXZ	Matakaoa Point	23.44	197	P	P	08 34 03.1	+2.5
MXZ				IAmb	IAmb	08 34 21.6	
	comp=Z,96nm,1.3s						
MXZ	Matakaoa Point	23.44	197	P	P	08 34 00.7	+0.1
WMGZ	Waiomatatini S	23.65	197	P	P	08 34 05.2	+2.6
HAZ	Te Kaha	23.78	198	P	P	08 34 05.2	+1.4
PKGZ	Pakihiroa	23.79	198	P	P	08 34 05.0	+0.9
WIAZ	Waiheke Island	23.83	204	P	P	08 34 05.6	+1.2
MBAZ	Motutapu North	23.90	204	P	P	08 34 07.6	+2.6
PUZ	Puketiti	23.93	197	P	P	08 34 05.0	-0.4
RUGZ	Raukumara Rang	24.00	198	P	P	08 34 08.3	+2.2
ETAZ	East Tamaki Re	24.05	204	P	P	08 34 05.8	-0.6
MKAZ	Moumakai	24.09	204	P	P	08 34 07.9	+1.1
TWGZ	Tauwhareparae	24.11	197	P	P	08 34 09.3	+2.3
WTAZ	Waiatarua	24.17	205	P	P	08 34 09.4	+1.8
AWAZ	Awhitu Peninsu	24.26	204	P	P	08 34 09.1	+0.7
MWZ	Matawai	24.39	198	P	P	08 34 11.5	+2.0
TKGZ	Te Karaka	24.39	197	P	P	08 34 11.5	+2.0
URZ	Urewera	24.45	199	LR	LR	08 42 28.6	
	comp=Z,5µm,19.7s,baz=15,slow=34						
URZ	Urewera	24.45	199	P	P	08 34 09.4	-0.7
URZ	Urewera	24.45	199	P	P	08 34 09.7	-0.4
URZ	Urewera	24.45	199	P	P	08 34 09.4	-0.7
	comp=Z,62nm,0.9s						
TOZ	Tahuroa Road	24.51	202	P	P	08 34 12.4	+1.8
RIGZ	Rimuhau	24.66	197	P	P	08 34 11.9	-0.2
MUGZ	Murupara	24.75	199	P	P	08 34 13.7	+0.9
RTZ	Ruatahuna	24.81	199	P	P	08 34 15.7	+2.2
PRRZ	Plateau Road	24.89	200	P	P	08 34 16.0	+1.9
TLZ	Tolley Road	25.03	201	P	P	08 34 16.8	+1.3
RAHZ	Arahi	25.06	198	P	P	08 34 17.1	+1.5
HIZ	Hauiti	25.44	202	P	P	08 34 19.8	+0.7
HIZ	Hauiti	25.44	202	P	P	08 34 21.6	+2.5
HIZ	Hauiti	25.44	202	P	P	08 34 20.5	+1.5
	comp=Z,54nm,1.2s						
BKZ	Black Stump Fm	25.47	199	P	P	08 34 18.7	-0.7
NGZ	Ngauruhoe	25.77	201	P	P	08 34 22.1	-0.1
VRZ	Vera Road	26.02	202	P	P	08 34 26.8	+2.5
PXZ	Pawanui	26.15	198	P	P	08 34 27.4	+2.0
KHEZ	Kahui Hut	26.44	203	P	P	08 34 28.7	+0.5
KHEZ	Kahui Hut	26.44	203	S	S	08 39 02.0	+1.8
TSZ	Takapari Road	26.45	199	P	P	08 34 27.5	-0.7
BFZ	Birch Farm	26.93	198	P	P	08 34 32.6	+0.1
BFZ	Birch Farm	26.93	198	P	P	08 34 32.4	-0.1
HNR	Honiara	26.96	279	LR	LR	08 43 55.1	
	comp=Z,269nm,18.1s,baz=210,slow=34						
MRZ	Mangatainoka R	27.12	199	P	P	08 34 33.9	-0.3
QRZ	Quartz Range	28.33	203	P	P	08 34 44.8	-0.3
QRZ	Quartz Range	28.33	203	P	P	08 34 45.0	-0.1
QRZ				IAmb	IAmb	08 35 24.7	
	comp=Z,89nm,1.4s						
QRZ	Quartz Range	28.33	203	P	P	08 34 45.0	-0.1
THZ	Tophouse	29.01	202	P	P	08 34 50.4	-0.7
KHZ	Kahutara	29.36	200	P	P	08 34 53.7	-0.5
KHZ	Kahutara	29.36	200	P	P	08 34 52.9	-1.2
DSZ	Denniston Nort	29.40	203	P	P	08 34 54.4	-0.2
GVZ	Greta Valley S	30.02	201	P	P	08 34 59.6	-0.5
LTZ	Lake Taylor	30.13	202	P	P	08 34 59.2	-1.8
INZ	Inchbonnie	30.38	203	P	P	08 35 02.3	-0.9
WVZ	Waitaha Valley	30.95	203	P	P	08 35 07.1	-1.1
RPZ	Rata Peaks	31.38	202	LR	LR	08 47 31.3	
	comp=Z,1µm,19.3s,baz=20,slow=36						
RPZ	Rata Peaks	31.38	202	P	P	08 35 12.3	+0.3
FOZ	Fox Glacier	31.69	204	P	P	08 35 13.1	-1.6
JCZ	Jackson Bay	32.55	205	P	P	08 35 21.7	-0.8
JCZ	Jackson Bay	32.55	205	P	P	08 35 21.6	-0.8
ODZ	Otahua Downs	32.67	202	P	P	08 35 23.5	+0.1
MLZ	Mavora Lakes	33.89	204	P	P	08 35 34.8	+0.8
WHZ	Wether Hill Ro	34.40	204	P	P	08 35 40.3	+1.9
EIDS	Eidsvold	34.96	248	P	P	08 35 42.2	-1.3
ARMA	Armidale	35.65	239		P	08 35 47.9	-1.6
ARMA	Armidale	35.65	239	P	P	08 35 47.3	-2.2
	comp=Z,18nm,0.9s						
PATS	Pohnpei	35.88	306	P	P	08 35 50.9	-0.6
KRVT	Keravat (AS076	36.01	284	LR	LR	08 48 30.0	
	comp=Z,511nm,21.3s,baz=124,slow=33						
CTA	Charters Tower	38.95	257	LR	LR	08 50 31.1	
	comp=Z,496nm,18.7s,baz=77,slow=34						

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H11S2 WAKE ISLAND Hy 39.04 329  T      T      09 17 39.4
      baz=147,slow=76,SNR=9.1
H11S3 WAKE ISLAND Hy 39.05 329  T      T      09 17 42.9
      baz=147,slow=76,SNR=8.1
H11S1 WAKE ISLAND Hy 39.06 329  T      T      09 17 38.6
      baz=147,slow=76,SNR=10
PMG   Port Moresby   39.23 274  LR     LR     08 50 16.8
      comp=Z,891nm,18.8s,baz=76,slow=33
PMG   Port Moresby   39.23 274  P      P      08 36 20.8 +0.9
PMG                             pmax   pmax
      comp=Z,64nm,1.4s
PMG   Port Moresby   39.23 274  P      P      08 36 20.8 +0.9
PMG                             IAmb   IAmb   08 37 41.9
      comp=Z,64nm,1.4s
CAN   Canberra       39.32 232  P      P      08 36 19.1  -1.4
CAN   Canberra       39.32 232  P      P      08 36 20.4  -0.1
CAN                             pmax   pmax
      comp=Z,31nm,1.3s
CAN   Canberra       39.32 232  P      P      08 36 20.4  -0.1
CAN   Canberra       39.32 232  P      P      08 36 18.3  -2.3
      comp=Z,22nm,1.4s
H11N3 WAKE ISLAND Hy 39.98 330  T      T      09 18 42.7
      baz=150,slow=76,SNR=15
H11N1 WAKE ISLAND Hy 39.98 330  T      T      09 18 57.5
      baz=150,slow=76,SNR=22
H11N2 WAKE ISLAND Hy 40.00 330  T      T      09 18 57.8
      baz=150,slow=76,SNR=13
MTSU  Mount Surprise 40.83 260  P      P      08 36 31.7  -1.5
      comp=Z,19nm,0.9s
CMSA  Cobar Meteorol 40.86 239  P      P      08 36 31.1  -2.1
CMSA  Cobar Meteorol 40.86 239  P      P      08 36 31.1  -2.1
      comp=Z,26nm,0.8s
QLP   Quilpie        41.23 247  P      P      08 36 36.1  -0.3
QLP   Quilpie        41.23 247  P      P      08 36 34.3  -2.1
      comp=Z,37nm,1.5s
TOO   Toolangi       42.76 231  P      P      08 36 47.6  -1.1
TOO                             pmax   pmax
      comp=Z,17nm,1.1s
TOO   Toolangi       42.76 231         P      08 36 47.6  -1.1
STKA  Stephens Creek 44.34 240  P      P      08 36 59.3  -2.2
      comp=Z,22nm,1.0s,baz=71,slow=7.9,SNR=17
STKA                            PcP    PcP    08 38 46.2 +0.8
      comp=Z,4.1nm,0.8s,baz=80,slow=3.7,SNR=2.1
STKA                            LR     LR     08 52 50.0
      comp=Z,945nm,21.5s,baz=73,slow=33
      comp=Z,22nm,1.0s
STKA  Stephens Creek 44.34 240 eP      P      08 36 59.1  -2.5
STKA                            pmax   pmax
      comp=Z,22nm,1.0s
STKA  Stephens Creek 44.34 240  P      P      08 36 59.5  -2.1
      comp=Z,133nm,1.1s
INKA  Innaminka      44.45 246  P      P      08 37 02.9 +0.5
QIS   Mount Isa      45.19 256  P      P      08 37 06.5  -2.0
QIS   Mount Isa      45.19 256  P      P      08 37 06.8  -1.7
      comp=Z,13nm,1.4s
HTT   Hallett        46.85 238  P      P      08 37 20.6  -0.8
BBOO  Buckleboo      49.12 240  P      P      08 37 37.2  -1.8
BBOO  Buckleboo      49.12 240  P      P      08 37 37.2  -1.8
WR8   Warramunga Arr 50.00 257  P      P      08 37 43.7  -2.2
WR8                             IAmb   IAmb   08 37 57.4
      comp=Z,45nm,1.2s
WB0   Warramunga Arr 50.12 257  P      P      08 37 44.5  -2.2
WB0                             IAmb   IAmb   08 37 58.2
      comp=Z,47nm,1.1s
WRAB  Tennant Creek  50.15 257  P      P      08 37 44.7  -2.3
WRAB  Tennant Creek  50.15 257  P      P      08 37 44.9  -2.1
WRAB                            pmax   pmax
      comp=Z,50nm,1.3s
WRAB  Tennant Creek  50.15 257  P      P      08 37 44.9  -2.1
WRAB                            IAmb   IAmb   08 37 58.4
      comp=Z,50nm,1.2s
WRAB  Tennant Creek  50.15 257  P      P      08 37 44.7  -2.3
      comp=Z,37nm,1.5s
WRAB                            P      P      08 37 44.7  -2.3
WRA   Warramunga Arr 50.16 257  P      P      08 37 44.3  -2.8
      comp=Z,7.3nm,0.7s,baz=94,slow=6.9,SNR=95
WRA                             PcP    PcP    08 39 06.7 +0.4
      comp=Z,3.5nm,0.9s,baz=91,slow=3.3,SNR=2.9
      comp=Z,7.3nm,0.7s
WRA   Warramunga Arr 50.16 257 eP      P      08 37 44.3  -2.8
WRA                             pmax   pmax
      comp=Z,5.0nm,0.5s
WRA   Warramunga Arr 50.16 257  P      P      08 37 44.1  -2.9
AS01  Alice Springs  50.38 252  P      P      08 37 46.7  -2.0
AS31  Alice Springs  50.42 252         P      08 37 46.8  -2.3
ASAR  Alice Springs  50.42 252  P      P      08 37 46.4  -2.7
      comp=Z,24nm,0.7s,baz=86,slow=8.5,SNR=303
ASAR                            LR     LR     08 57 38.5
      comp=Z,1µm,22.0s,baz=90,slow=34
      comp=Z,24nm,0.7s
ASAR  Alice Springs  50.42 252 eP      P      08 37 46.3  -2.7
ASAR                            pmax   pmax
      comp=Z,26nm,0.7s
ASAR  Alice Springs  50.42 252         P      08 37 46.8  -2.3
GUMO  Guam           50.54 302  LR     LR     08 56 48.0
      comp=Z,289nm,18.7s,baz=115,slow=33
MTN   Manton Dam     54.04 265  P      P      08 38 14.4  -1.6
SAUI  Saumlaki       54.83 271  P      P      08 38 21.6  -0.2
FORT  Forrest        55.72 243         P      08 38 25.8  -2.2
KNRA  Kununurra      55.88 261  P      P      08 38 27.6  -1.6
FITZ  Fitzroy Crossi 58.52 258  P      P      08 38 46.9  -1.0
      comp=Z,1.1nm,0.5s,baz=109,slow=8.5,SNR=5.0
FITZ                            LR     LR     09 02 13.5
      comp=Z,537nm,19.2s,baz=101,slow=34
      comp=Z,1.1nm,0.5s
FITZ  Fitzroy Crossi 58.52 258  P      P      08 38 46.7  -1.2
SOEI  Soe            61.23 267  P      P      08 39 05.5  -1.3
SOEI  Soe            61.23 267  P      P      08 39 03.1  -3.7
      comp=Z,57nm,1.2s
SANI  Sanana         61.45 276  P      P      08 39 04.1  -4.0
      comp=Z,15nm,1.3s
SBA   Scott Base     63.37 185  P      P      08 39 21.9 +2.0
SBA                             pmax   pmax
      comp=Z,84nm,1.3s
SBA   Scott Base     63.37 185  P      P      08 39 21.9 +2.0
SBA   Scott Base     63.37 185  P      P      08 39 23.0 +3.1
      comp=Z,73nm,1.6s
VNDA  Vanda          63.50 186  P      P      08 39 23.1 +2.3
      comp=Z,22nm,1.0s,baz=7.1,slow=6.4,SNR=59
VNDA                            LR     LR     09 01 42.8
      comp=Z,369nm,21.4s,baz=22,slow=31
      comp=Z,22nm,1.0s
VNDA  Vanda          63.50 186  P      P      08 39 23.0 +2.3
VNDA                            pmax   pmax
      comp=Z,46nm,1.2s
VNDA  Vanda          63.50 186         P      08 39 23.0 +2.3
VNDA  Vanda          63.50 186  P      P      08 39 23.4 +2.6
      comp=Z,43nm,1.3s
MBWA  Marble Bar     63.67 254  P      P      08 39 22.4  -0.5
MEEK  Meekatharra    64.13 248  P      P      08 39 23.8  -2.1
      comp=Z,22nm,1.2s
KLBR  Kellerberrin   64.55 242  P      P      08 39 26.3  -2.2
      comp=Z,93nm,1.3s
DAV   Davao City (W) 64.70 286  LR     LR     09 06 01.2
      comp=Z,401nm,18.5s,baz=62,slow=35
DAV   Davao City (W) 64.70 286  P      P      08 39 24.6  -5.1
LUWI  Luwuk          64.81 276  P      P      08 39 26.1  -4.3
      comp=Z,1µmcomp=Z,47nm,0.8s
NWAO  Narrogin (SRO) 64.92 241  LR     LR     09 05 28.8
      comp=Z,909nm,21.2s,baz=93,slow=34
NWAO  Narrogin (SRO) 64.92 241  P      P      08 39 30.8  -0.1
NWAO                            pmax   pmax
      comp=Z,99nm,1.5s
NWAO  Narrogin (SRO) 64.92 241  P      P      08 39 30.8  -0.1
WSI   Waingapu       65.07 266  P      P      08 39 28.9  -3.2
JHJ   Hachijo jima 2 65.90 318  LR     LR     09 03 26.9
      comp=Z,186nm,21.5s,baz=150,slow=32
MORW  Morawa         66.19 245  P      P      08 39 38.6  -0.6
MORW                            IAmb   IAmb   08 39 51.0
      comp=Z,52nm,1.4s
KAPI  Kappang        66.67 271  LR     LR     09 07 19.6
      comp=Z,97nm,21.6s,baz=99,slow=35
KAPI  Kappang        66.67 271  P      P      08 39 38.4  -4.1
ATKA  Atka Island    67.23 359  P      P      08 39 44.8  -0.3
SHEM  Shemya Is, Ala 68.66 352  LR     LR     09 03 07.3
      comp=Z,2µm,22.0s,baz=132,slow=30
JGF   Kuroka         69.02 318  P      P      08 39 56.8   0.0
JGF                             IAmb   IAmb   08 42 11.8
      comp=Z,51nm,1.7s
MJA0  Matsu Arr-Jizo 69.04 320 eP      P      08 39 57.0 +0.1
MJA0                            pmax   pmax
      comp=Z,2.0nm,0.8s
MJAR  Matsushiro Arr 69.06 320  P      P      08 39 56.2  -0.9
      comp=Z,6.7nm,1.3s,baz=167,slow=7.3,SNR=5.0
MJAR                            LR     LR     09 04 40.5
      comp=Z,1µm,21.6s,baz=112,slow=31
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      comp=Z,6.7nm,1.3s
MJAR  Matsushiro Arr 69.06 320 eP      P      08 39 57.0   0.0
MJAR                            pmax   pmax
      comp=Z,2.0nm,0.8s
UNV   Unalaska Valle 69.10   4  P      P      08 39 56.3  -0.5
AKUT  Akutan         69.44   5  P      P      08 39 58.8  -0.1
CASY  Casey          70.62 205         P      08 40 07.0 +0.9
CASY                            IAmb   IAmb   08 40 07.5
      comp=Z,38nm,1.1s
CASY  Casey          70.62 205  P      P      08 40 06.1  -0.1
      comp=Z,32nm,1.4s
JOW   Kunigami       70.67 306  LR     LR     09 04 43.7
      comp=Z,708nm,21.9s,baz=68,slow=31
SAO   San Andreas Ge 71.06  42  P      P      08 40 07.9  -1.4
SAO                             pmax   pmax
      comp=Z,17nm,1.1s
SAO   San Andreas Ge 71.06  42  P      P      08 40 07.9  -1.4
PKD   Bear Valley Ra 71.17  43  P      P      08 40 08.2  -1.8
PKD                             IAmb   IAmb   08 40 14.4
      comp=Z,28nm,1.3s
SDPT  Sand Point     71.19   8  P      P      08 40 10.0 +0.4
SDPT  Sand Point     71.19   8  P      P      08 40 08.0  -1.6
JKA   Kamikawa-asahi 71.62 328  P      P      08 40 12.5   0.0
JKA                             IAmb   IAmb   08 40 15.0
      comp=Z,18nm,0.9s
JKA   Kamikawa-asahi 71.62 328  P      P      08 40 13.9 +1.5
ASAJ  Asahikawa      71.62 328  P      P      08 40 12.5   0.0
ASAJ                            pmax   pmax
      comp=Z,18nm,0.9s
KMPM  Mount Pierce   71.69  37  P      P      08 40 12.6  -0.5
KMPM                            IAmb   IAmb   08 40 17.7
      comp=Z,31nm,1.0s
CBX   Cerro Bola     71.80  48  P      P      08 40 12.3  -1.7
CBX                             IAmb   IAmb   08 40 19.9
      comp=Z,50nm,1.6s
KMRM  Mail Ridge     71.80  38  P      P      08 40 12.3  -1.4
JNU   Nakatsue       71.95 313  LR     LR     09 06 30.1
      comp=Z,359nm,21.2s,baz=128,slow=32
VTX   Valle De La Tr 71.95  49  P      P      08 40 14.2  -0.7
VTX                             IAmb   IAmb   08 40 20.9
      comp=Z,36nm,1.6s
DPP   Dos Picos Cty  71.97  47  P      P      08 40 12.6  -2.3
ELS   Elsinore Mount 71.98  46  P      P      08 40 13.8  -1.2
ELS                             IAmb   IAmb   08 40 18.4
      comp=Z,39nm,1.5s
VES   Vestal, Richgr 72.07  44  P      P      08 40 14.6  -0.8
TPO   Tropico Hills  72.11  45  P      P      08 40 13.4  -2.3
TPO                             IAmb   IAmb   08 40 20.1
      comp=Z,28nm,1.2s
VNFG  Fog Glacier, M 72.22   8  P      P      08 40 14.8  -1.2
PET   Petropavlovsk  72.28 343 eP      P      08 40 19.4 +3.2
PET                            eS      S      08 49 41.1 +3.9
PET                            ePS     PnS    08 50 24.3  +14
PET                             pmax   pmax
      comp=Z,300nm,10.2s
PET                             pmax   pmax
      comp=Z,200nm,10.1s
PET                             MLR    MLR
      comp=Z,400nm,17.0s
O02D  Mt. Diablo Mer 72.32  38  P      P      08 40 15.8  -1.1
O02D                            IAmb   IAmb   08 40 21.8
      comp=Z,73nm,1.6s
SUTB  Sutter Butte   72.34  40  P      P      08 40 16.0  -0.9
KHBM  Hayfork Bally  72.37  38  P      P      08 40 17.0  -0.4
KHBM                            IAmb   IAmb   08 40 21.0
      comp=Z,31nm,1.2s
CHGN  Chignik        72.39   9  P      P      08 40 16.8   0.0
BORC  Borrego Spring 72.49  47  P      P      08 40 17.2  -0.7
PEA0B Petropavlovsk- 72.63 342 i P     P      08 40 18.7 +0.3
PEA0B Petropavlovsk- 72.63 342         P      08 40 18.3  -0.1
PEA0B                           IAmb   IAmb   08 40 24.7
      comp=Z,40nm,1.1s
PETK  Petropavlovsk- 72.63 342  P      P      08 40 18.8 +0.4
      comp=Z,9.9nm,0.7s,baz=132,slow=6.8,SNR=16
PETK                            LR     LR     09 07 41.0
      comp=Z,336nm,21.1s,baz=155,slow=32
      comp=Z,9.9nm,0.7s
PFO   Pinyon Flats O 72.64  47  LR     LR     09 05 49.8
      comp=Z,1µm,19.5s,baz=242,slow=30
PFO   Pinyon Flats O 72.64  47  P      P      08 40 18.7  -0.3
PFO                             pmax   pmax
      comp=Z,18nm,1.3s
PFO   Pinyon Flats O 72.64  47  P      P      08 40 18.7  -0.3
PFO   Pinyon Flats O 72.64  47  P      P      08 40 21.5 +2.5
      comp=Z,13nm,1.5s
AFDM  Forest Hills D 72.67  40  P      P      08 40 17.3  -1.7
ORV   Oroville       72.72  39  P      P      08 40 18.2  -0.9
ORV                             pmax   pmax
      comp=Z,19nm,1.3s
ORV   Oroville       72.72  39  P      P      08 40 18.2  -0.9
PMD   Palm Desert    72.72  47  P      P      08 40 17.7  -1.6
LPIG  La Paz         72.73  58  LR     LR     09 03 58.2
      comp=Z,461nm,21.3s,baz=240,slow=29
KSXB  Camp Six Broad 72.74  36  P      P      08 40 18.4  -1.0
KSXB                            IAmb   IAmb   08 40 25.2
      comp=Z,55nm,1.2s
SLBS  Sierra La Lagu 72.85  59  P      P      08 40 22.9 +2.5
      comp=Z,15nm,1.5s
O03E  Paynes Creek   72.99  39  P      P      08 40 19.6  -1.2
O03E                            IAmb   IAmb   08 40 24.9
      comp=Z,67nm,1.4s
M02C  Callahan       73.05  37  P      P      08 40 20.1  -1.1
M02C                            IAmb   IAmb   08 40 25.2
      comp=Z,27nm,1.1s
CCCA  Chr Cany lake  73.05  45  P      P      08 40 19.3  -2.0
CCCA                            IAmb   IAmb   08 40 25.8
      comp=Z,52nm,1.4s
CLC   China Lake     73.05  44  P      P      08 40 19.6  -1.8
CLC                             pmax   pmax
      comp=Z,52nm,1.8s
CLC   China Lake     73.05  44  P      P      08 40 19.6  -1.8
CLC                             IAmb   IAmb   08 40 25.8
      comp=Z,52nm,1.8s
CWC   Cottonwood Cre 73.08  44  P      P      08 40 20.4  -1.2
MDPB  Devils Postpil 73.10  42  P      P      08 40 19.8  -2.0
BELC  Belle Mtn. Jos 73.17  47  P      P      08 40 20.8  -1.3
BELC                            IAmb   IAmb   08 40 26.4
      comp=Z,31nm,1.3s
MPMC  Manual Prospec 73.26  44  P      P      08 40 20.9  -1.8
MPMC                            IAmb   IAmb   08 40 27.2
      comp=Z,38nm,1.5s
GSC   Goldstone, Bar 73.31  45  P      P      08 40 21.3  -1.6
GSC                             pmax   pmax
      comp=Z,20nm,1.1s
GSC   Goldstone, Bar 73.31  45  P      P      08 40 21.3  -1.6
YBH   Yreka Blue Hor 73.34  37  LR     LR     09 04 55.0
      comp=Z,1µm,21.9s,baz=242,slow=30
YBH   Yreka Blue Hor 73.34  37  P      P      08 40 21.6  -1.3
YBH                             pmax   pmax
      comp=Z,36nm,1.2s
YBH   Yreka Blue Hor 73.34  37  P      P      08 40 21.6  -1.3
YBH                             IAmb   IAmb   08 40 26.8
      comp=Z,36nm,1.1s
WAKR  Walker         73.38  41  IAmb   IAmb   08 40 27.0
      comp=Z,65nm,1.8s
YSS   Yuzhno-Sakhali 73.55 330 i P     P      08 40 24.5 +0.6
YSS                             pmax   pmax
      comp=Z,34nm,0.9s
YSS   Yuzhno-Sakhali 73.55 330         P      08 40 22.6  -1.2
YSS                             IAmb   IAmb   08 40 26.1
      comp=Z,40nm,1.0s
GWY   Greenwater Val 73.89  45  P      P      08 40 24.8  -1.5
L04D  Klamath Falls  73.89  37         P      08 40 24.5  -1.7
NVAR  Mina Array Bea 74.06  42  P      P      08 40 28.7 +1.3
      comp=Z,3.6nm,0.7s,baz=224,slow=7.5,SNR=18
NVAR                            LR     LR     09 05 22.2
      comp=Z,1µm,21.6s,baz=271,slow=30
      comp=Z,3.6nm,0.7s
NVAR  Mina Array Bea 74.06  42  P      P      08 40 25.5  -1.9
BBOR  Butler Butte   74.09  36  P      P      08 40 25.6  -1.8
OHAK  Old Harbor     74.11  11  P      P      08 40 27.4 +0.5
NV11  Mina Array Sit 74.16  42  P      P      08 40 26.6  -1.3
NV11                            IAmb   IAmb   08 40 32.1
      comp=Z,54nm,1.4s
WCT   Wildcat Mounta 74.25  44  P      P      08 40 26.5  -1.9
TPH   Tonopah        74.56  43  P      P      08 40 29.7  -0.6
TPH                             pmax   pmax
      comp=Z,49nm,1.3s
TPH   Tonopah        74.56  43  P      P      08 40 29.7  -0.6
TPH                             IAmb   IAmb   08 40 37.6
      comp=Z,49nm,1.3s
TPNV  Topopah Spring 74.58  44  P      P      08 40 29.0  -1.4
TPNV                            pmax   pmax
      comp=Z,17nm,1.2s
TPNV  Topopah Spring 74.58  44  P      P      08 40 29.0  -1.4
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ACHA  Angle Creek He 74.70  10  P      P      08 40 29.5  -1.0
QSPA  South Pole Qui 74.74 180  P      P      08 40 32.5 +1.7
      comp=Z,92nm,1.0s,baz=45,slow=2.1,SNR=122
QSPA                            LR     LR     09 08 27.4
      comp=Z,410nm,22.0s,baz=38,slow=32
      comp=Z,92nm,1.0s
QSPA  South Pole Qui 74.74 180  P      P      08 40 32.7 +1.9
KDAK  Kodiak Island  74.77  11  LR     LR     09 06 15.2
      comp=Z,1µm,21.9s,baz=210,slow=30
KDAK  Kodiak Island  74.77  11 i P     P      08 40 31.8 +1.0
KDAK                            pmax   pmax
      comp=Z,91nm,1.8s
KDAK  Kodiak Island  74.77  11         P      08 40 30.4  -0.3
I04A  Tendick Farm,  74.82  35  P      P      08 40 30.2  -1.3
I04A                            IAmb   IAmb   08 40 34.6
      comp=Z,50nm,1.1s
O16K  Kokwok River B 75.63   8  IAmb   IAmb   08 40 37.6
      comp=Z,45nm,1.4s
BMN   Battle Mountai 75.89  41  IAmb   IAmb   08 40 41.2
      comp=Z,32nm,1.1s
TUC   Tucson         76.10  51  P      P      08 40 41.7 +2.6
TUC   Tucson         76.10  51  P      P      08 40 41.9 +2.8
      comp=Z,26nm,1.6s
WVOR  Wild Horse Val 76.18  38  P      P      08 40 41.1 +1.7
WVOR  Wild Horse Val 76.18  38  P      P      08 40 41.3 +1.9
      comp=Z,41nm,1.5s
KSRS  Korea Array    76.30 315  P      P      08 40 40.2 +0.2
      comp=Z,3.7nm,0.8s,baz=130,slow=6.6,SNR=11
KSRS                            LR     LR     09 08 25.1
      comp=Z,382nm,21.9s,baz=110,slow=31
      comp=Z,3.7nm,0.8s
TYV   Tymovskoe      76.40 333 eP      P      08 40 41.3 +1.0
TYV                            eS      S      08 50 26.1 +2.5
TYV                             pmax   pmax
      comp=Z,19nm,1.0s
TYV                             pmax   pmax
      comp=Z,200nm,3.6s
TYV                             smax   smax
      comp=N,200nm,8.2s
TYV                             smax   smax
      comp=E,400nm,8.2s
ILSW  Iliamna Southw 76.75  10  P      P      08 40 42.4 +0.2
O19K  Port Alsworth  76.75  10  P      P      08 40 42.2 +0.2
J08A  Circle Bar Ran 76.82  38  IAmb   IAmb   08 40 47.1
      comp=Z,54nm,1.2s
L14K  Kuka Creek     76.84   5  IAmb   IAmb   08 40 46.2
      comp=Z,44nm,1.2s
GNW   Green Mountain 77.01  32  IAmb   IAmb   08 40 47.9
      comp=Z,46nm,1.5s
LON   Longmire       77.02  33  IAmb   IAmb   08 40 48.4
      comp=Z,40nm,1.7s
K13K  Kusilvak Mount 77.27   4  IAmb   IAmb   08 40 48.7
      comp=Z,44nm,1.4s
N19K  Bonanza Creek  77.31   9  IAmb   IAmb   08 40 47.7
      comp=Z,74nm,1.6s
ELK   Elko           77.32  41  LR     LR     09 07 21.9
      comp=Z,831nm,21.8s,baz=232,slow=30
ELK   Elko           77.32  41  P      P      08 40 47.5 +1.5
ELK   Elko           77.32  41  IAmb   IAmb   08 40 50.0
      comp=Z,32nm,1.4s
CBB   Campbell River 77.40  29         P      08 40 47.7 +1.7
CBB                             IAmb   IAmb   08 40 49.8
      comp=Z,32nm,1.1s
M17K  Holitna River  77.46   8  IAmb   IAmb   08 40 49.8
      comp=Z,42nm,1.2s
USRK  Ussuriysk Ar.  77.49 323  LR     LR     09 08 19.1
      comp=Z,1µm,21.8s,baz=110,slow=31
L16K  Owhat River    77.52   7  IAmb   IAmb   08 40 49.5
      comp=Z,58nm,1.4s
BBB   Bella Bella    77.67  26  LR     LR     09 09 12.4
      comp=Z,637nm,19.0s,baz=232,slow=31
G08A  Pilot Rock     77.68  36         P      08 40 49.0 +1.2
G08A                            IAmb   IAmb   08 40 51.8
      comp=Z,59nm,1.2s
HPIG                 77.73  58  P      P      08 40 51.1 +2.6
      comp=Z,15nm,1.6s
HAWA  Hanford        78.03  35  IAmb   IAmb   08 40 53.5
      comp=Z,70nm,1.5s
CRAG  Craig          78.14  22  P      P      08 40 49.9   0.0
WAH2  Wahluke Slope  78.23  34  IAmb   IAmb   08 40 56.2
      comp=Z,74nm,1.7s
STLK  Strandline Lak 78.39  10  IAmb   IAmb   08 40 53.1
      comp=Z,21nm,0.9s
MFID  Camas Ranch    78.43  39  IAmb   IAmb   08 40 55.7
      comp=Z,37nm,1.1s
PWL   Port Wells     78.45  12  IAmb   IAmb   08 40 54.1
      comp=Z,36nm,1.2s
M20K  Styx River     78.54   9  IAmb   IAmb   08 40 53.7
      comp=Z,56nm,1.8s
EPH   Ephrata        78.58  34  IAmb   IAmb   08 40 55.5
      comp=Z,33nm,1.2s
V35K  Ketchikan      78.59  23  IAmb   IAmb   08 40 55.4
      comp=Z,28nm,1.1s
DUG   Dugway, Tooele 78.59  43  P      P      08 40 54.1 +1.1
DUG                             pmax   pmax
      comp=Z,36nm,1.3s
DUG   Dugway, Tooele 78.59  43         P      08 40 54.1 +1.1
DUG                             IAmb   IAmb   08 40 57.0
      comp=Z,36nm,1.2s
DUG   Dugway, Tooele 78.59  43  P      P      08 40 55.1 +2.2
      comp=Z,25nm,1.4s
U33K  Whale Pass     78.64  22  IAmb   IAmb   08 40 55.8
      comp=Z,29nm,1.0s
ZAIG  Zacatecas      78.70  63  P      P      08 40 57.8 +3.7
      comp=Z,10nm,1.5s
E09A  Wood Farm, Sta 78.87  35  IAmb   IAmb   08 40 57.7
      comp=Z,38nm,1.3s
SKT   Skwentna       78.90  10  IAmb   IAmb   08 40 55.8
      comp=Z,75nm,1.8s
PMR   Palmer         78.97  11  P      P      08 40 54.9 +0.6
PMR   Palmer         78.97  11  IAmb   IAmb   08 40 57.0
      comp=Z,41nm,1.2s
F10A  Beach Ranch, E 79.07  36  IAmb   IAmb   08 40 58.1
      comp=Z,52nm,1.2s
GHO   Glory Hole Cre 79.18  11  IAmb   IAmb   08 41 00.6
      comp=Z,34nm,1.1s
J17K  VABM Dome      79.21   6  IAmb   IAmb   08 40 59.0
      comp=Z,37nm,1.2s
SML   Sawmill        79.32  12  IAmb   IAmb   08 40 59.1
      comp=Z,46nm,1.4s
HLID  Hailey         79.37  39  IAmb   IAmb   08 41 01.4
      comp=Z,38nm,0.9s
HLID  Hailey         79.37  39  P      P      08 40 59.3 +2.1
      comp=Z,50nm,1.1s
YAH   Yahtse         79.52  15  IAmb   IAmb   08 41 00.9
      comp=Z,50nm,1.2s
J18K  Innoko River   79.55   7  IAmb   IAmb   08 41 01.1
      comp=Z,38nm,1.1s
SCM   Sheep Creek Mo 79.55  12  IAmb   IAmb   08 41 00.4
      comp=Z,55nm,1.2s
C09A  Chrisman Ranch 79.57  34  IAmb   IAmb   08 41 00.8
      comp=Z,26nm,1.1s
TGL   Tana Glacier   79.59  15  IAmb   IAmb   08 41 00.9
      comp=Z,47nm,1.1s
Y22A  Socorro        79.69  51  IAmb   IAmb   08 41 03.2
      comp=Z,29nm,1.2s
K20K  Telida         79.80   9  IAmb   IAmb   08 41 02.0
      comp=Z,57nm,1.4s
VRDI  Verde Repeater 79.85  14         P      08 41 00.1 +0.7
VRDI                            IAmb   IAmb   08 41 02.3
      comp=Z,60nm,1.3s
MNTX  Cornudas Mount 79.93  53  P      P      08 41 02.3 +2.0
      comp=Z,21nm,1.4s
GLB   Gilahina Butte 79.96  14  IAmb   IAmb   08 41 02.7
      comp=Z,45nm,1.2s
BESE  Bessie Mountai 80.00  19  IAmb   IAmb   08 41 03.6
      comp=Z,63nm,1.6s
MVCO  Mesa Verde     80.06  47  P      P      08 41 02.4 +1.2
      comp=Z,13nm,1.5s
MCARA McCarthy VSAT  80.09  14  IAmb   IAmb   08 41 03.5
      comp=Z,33nm,1.1s
LOGN  Logan Glacier  80.10  15  IAmb   IAmb   08 41 03.9
      comp=Z,47nm,1.3s
HWUT  Hardware Ranch 80.13  42  IAmb   IAmb   08 41 04.3
      comp=Z,29nm,1.2s
HWUT  Hardware Ranch 80.13  42  P      P      08 41 02.8 +1.4
      comp=Z,21nm,1.7s
CAST  Castle Rocks   80.16   9  P      P      08 41 00.0  -0.8
MA2   Magadan        80.17 342  LR     LR     09 11 54.9
      comp=Z,409nm,20.4s,baz=136,slow=32
J19K  Poorman        80.19   8  IAmb   IAmb   08 41 04.9
      comp=Z,72nm,1.8s
O29M  Mount Kennedy  80.31  17         P      08 40 59.8  -2.1
O29M                            IAmb   IAmb   08 41 04.6
      comp=Z,26nm,1.0s
TXAR  Lajitas Array  80.31  56  P      P      08 41 04.5 +1.9
      comp=Z,11nm,1.0s,baz=216,slow=6.2,SNR=73
```

TXAR				LR	LR	09 10 08.5	
	comp=Z,526nm,19.4s,baz=250,slow=31						
	comp=Z,11nm,1.0s						
TXAR	**Lajitas Array**	**80.31**	**56**	P	**P**	**08 41 01.6**	**-1.0**
TXAR	**Lajitas Array**	**80.31**	**56**	P	**P**	**08 41 01.6**	**-1.0**
PV04	**Paradox Valley**	**80.33**	**46**	P	**P**	**08 41 00.6**	**-1.9**
PV04				IAmb	IAmb	08 41 06.0	
	comp=Z,34nm,1.0s						
T35M	**Bob Quinn**	**80.34**	**22**	P	**P**	**08 41 00.4**	**-1.6**
NJ2	**Nanjing**	**80.35**	**307**	*e*P	**P**	**08 41 02.2**	**-0.3**
NJ2				pmax	pmax		
	comp=Z,8.0nm,0.6s						
PV02	**Paradox Valley**	**80.36**	**46**	P	**P**	**08 41 00.8**	**-2.0**
PV01	**Paradox Valley**	**80.44**	**46**	IAmb	IAmb	08 41 07.4	
	comp=Z,62nm,1.4s						
NEW	**Newport**	**80.46**	**34**	LR	LR	09 09 02.8	
	comp=Z,559nm,21.4s,baz=226,slow=30						
NEW	**Newport**	**80.46**	**34**	P	**P**	**08 41 04.1**	**+1.2**
NEW	**Newport**	**80.46**	**34**	P	**P**	**08 41 04.0**	**+1.2**
	comp=Z,14nm,2.3s						
KTH	**Kantishna Hill**	**80.47**	**10**	IAmb	IAmb	08 41 05.3	
	comp=Z,30nm,1.1s						
TRF	**Thorofare Moun**	**80.48**	**10**	P	**P**	**08 41 02.0**	**-0.7**
TRF				IAmb	IAmb	08 41 06.1	
	comp=Z,32nm,1.1s						
ALQ	**Albuquerque**	**80.51**	**50**	IAmb	IAmb	08 41 07.5	
	comp=Z,16nm,1.0s						
ANMO	**Albuquerque**	**80.51**	**50**	LR	LR	09 08 47.6	
	comp=Z,711nm,21.9s,baz=233,slow=30						
ANMO	**Albuquerque**	**80.51**	**50**	P	**P**	**08 41 03.3**	**-0.4**
ANMO				pmax	pmax		
	comp=Z,21nm,1.2s						
ANMO	**Albuquerque**	**80.51**	**50**	P	**P**	**08 41 03.2**	**-0.4**
ANMO	**Albuquerque**	**80.51**	**50**	P	**P**	**08 41 05.9**	**+2.2**
	comp=Z,21nm,1.2s						
PV15	**Paradox Valley**	**80.60**	**46**	IAmb	IAmb	08 41 07.6	
	comp=Z,21nm,0.9s						
KLR	**Kul'dur**	**80.60**	**327**	P	**P**	**08 41 03.4**	**-0.1**
	comp=Z,3.1nm,0.9s,baz=174,slow=2.6,SNR=4.6						
KLR				LR	LR	09 11 18.1	
	comp=Z,582nm,21.3s,baz=136,slow=32						
	comp=Z,3.1nm,0.9s						
DHY	**Denali Highway**	**80.67**	**12**	IAmb	IAmb	08 41 08.0	
	comp=Z,32nm,1.3s						
S34M	**Telegraph Cree**	**80.72**	**21**	IAmb	IAmb	08 41 07.7	
	comp=Z,29nm,1.1s						
M26K	**Nabesna, AK**	**80.99**	**14**	IAmb	IAmb	08 41 08.4	
	comp=Z,51nm,1.2s						
AHID	**Auburn Hatcher**	**81.01**	**41**	P	**P**	**08 41 07.8**	**+1.7**
	comp=Z,34nm,1.5s						
HYT	**Haines Junctio**	**81.04**	**17**	IAmb	IAmb	08 41 09.3	
	comp=Z,35nm,1.1s						
BNX	**BinXian**	**81.04**	**322**	⇓P	**P**	**08 41 06.0**	**+0.1**
BNX				pmax	pmax		
	comp=Z,12nm,1.1s						
CN2	**Changchun**	**81.21**	**320**	P	**P**	**08 41 07.8**	**+0.9**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.7s						
CN2				L	L		
	comp=Z,400nm,20.0s						
CN2				L	L		
	comp=Z,500nm,20.0s						
CN2				L	L		
	comp=Z,400nm,20.0s						
MSO	**Missoula**	**81.43**	**37**		**P**	**08 41 07.7**	**-0.5**
MSO				IAmb	IAmb	08 41 11.2	
	comp=Z,43nm,1.2s						
DLMT	**Dillon**	**81.43**	**38**	P	**P**	**08 41 06.5**	**-1.8**
L26K	**Log Cabin Wild**	**81.45**	**13**	P	**P**	**08 41 07.7**	**-0.1**
FXWY	**Fox Creek**	**81.50**	**40**	IAmb	IAmb	08 41 12.9	
	comp=Z,45nm,1.2s						
DLBC	**Dease Lake**	**81.51**	**21**	LR	LR	09 12 53.0	
	comp=Z,567nm,18.3s,baz=216,slow=32						
LDM	**Libby Dam**	**81.56**	**35**	IAmb	IAmb	08 41 12.3	
	comp=Z,43nm,1.0s						
SNOW	**Snow King Moun**	**81.58**	**41**	IAmb	IAmb	08 41 13.3	
	comp=Z,48nm,1.1s						
WHY	**Whitehorse**	**81.66**	**18**	IAmb	IAmb	08 41 11.7	
	comp=Z,44nm,1.2s						
SMAI	**San Martin Ant**	**81.74**	**159**		**P**	**08 41 10.2**	**+0.8**
SMAI				IAmb	IAmb	08 41 13.5	
	comp=Z,28nm,1.2s						
NEA2	**Nenana**	**81.75**	**10**	IAmb	IAmb	08 41 10.8	
	comp=Z,53nm,1.8s						
RIDG	**Independent Ri**	**81.77**	**12**	P	**P**	**08 41 09.8**	**+0.3**
RIDG				IAmb	IAmb	08 41 12.3	
	comp=Z,46nm,1.3s						
I21K	**Tanana**	**81.83**	**9**	IAmb	IAmb	08 41 12.5	
	comp=Z,36nm,1.4s						
BCAR	**Beaver Creek A**	**81.84**	**14**		**P**	**08 41 09.2**	**-0.7**
PD31	**Pinedale Array**	**82.00**	**42**	IAmb	IAmb	08 41 14.2	
	comp=Z,28nm,1.1s						
PDAR	**Pinedale Array**	**82.00**	**42**	P	**P**	**08 41 12.4**	**+1.1**
	comp=Z,11nm,0.9s,baz=210,slow=2.8,SNR=33						
PDAR				LR	LR	09 12 14.7	
	comp=Z,608nm,19.4s,baz=190,slow=32						
	comp=Z,11nm,0.9s						
PDAR	**Pinedale Array**	**82.00**	**42**		**P**	**08 41 09.9**	**-1.4**
CCB	**Clear Creek Bu**	**82.02**	**11**	IAmb	IAmb	08 41 12.5	
	comp=Z,34nm,1.1s						
N31M	**Braeburn, Yuko**	**82.06**	**17**	IAmb	IAmb	08 41 14.4	
	comp=Z,32nm,1.1s						
BOZ	**Bozeman (W)**	**82.13**	**39**	IAmb	IAmb	08 41 16.0	
	comp=Z,61nm,1.4s						
I23K	**Minto, Yukon-K**	**82.21**	**10**	IAmb	IAmb	08 41 14.2	
	comp=Z,68nm,1.6s						
COLA	**College**	**82.22**	**11**	P	**P**	**08 41 12.3**	**+0.6**
COLA	**College**	**82.22**	**11**	P	**P**	**08 41 11.0**	**-0.7**
COLA				pmax	pmax		
	comp=Z,26nm,0.9s						
COLA	**College**	**82.22**	**11**	P	**P**	**08 41 11.0**	**-0.7**
COLA				IAmb	IAmb	08 41 14.1	
	comp=Z,26nm,0.8s						
COLA	**College**	**82.22**	**11**	P	**P**	**08 41 12.1**	**+0.4**
	comp=Z,47nm,1.7s						
IL31		**82.30**	**11**	P	**P**	**08 41 11.8**	**-0.3**
IL31				IAmb	IAmb	08 41 14.8	
	comp=Z,35nm,1.3s						
ILAR	**Eielson Array**	**82.30**	**11**	P	**P**	**08 41 12.0**	**-0.2**
	comp=Z,2.8nm,0.6s,baz=215,slow=5.1,SNR=40						
	comp=Z,2.8nm,0.6s						
ILAR	**Eielson Array**	**82.30**	**11**		**P**	**08 41 12.0**	**-0.2**
IMAR	**Indian Mountai**	**82.34**	**8**	P	**P**	**08 41 12.5**	**+0.2**
J25K	**Salcha River,**	**82.44**	**12**	P	**P**	**08 41 12.2**	**-0.8**
J25K				IAmb	IAmb	08 41 15.9	
	comp=Z,47nm,1.4s						
HAYD	**Hayden**	**82.45**	**45**	P	**P**	**08 41 12.6**	**-1.2**
HAYD				IAmb	IAmb	08 41 18.1	
	comp=Z,28nm,1.2s						
LYMT	**Lyon Mountain**	**82.46**	**37**	P	**P**	**08 41 12.7**	**-1.0**
SEY	**Seymchan**	**82.51**	**345**	LR	LR	09 12 55.0	
	comp=Z,795nm,21.0s,baz=147,slow=32						
SEY	**Seymchan**	**82.51**	**345**	*e*P	**P**	**08 41 13.2**	**-0.1**
SEY				pmax	pmax		
	comp=Z,27nm,1.6s						
YMP	**Mirror Lake Pl**	**82.59**	**40**	P	**P**	**08 41 12.5**	**-2.0**
YMP				IAmb	IAmb	08 41 35.0	
	comp=Z,30nm,1.1s						
F19K	**Shaleruckik Mo**	**82.69**	**6**		**P**	**08 41 13.4**	**-0.7**
YNE	**Yellowstone No**	**82.82**	**40**	P	**P**	**08 41 14.8**	**-0.8**
YNE				IAmb	IAmb	08 41 23.7	
	comp=Z,25nm,0.9s						
T25A	**Trinidad**	**82.95**	**49**	P	**P**	**08 41 14.8**	**-1.7**
T25A				IAmb	IAmb	08 41 19.8	
	comp=Z,18nm,1.0s						
OZNA	**Ozona**	**82.96**	**55**	P	**P**	**08 41 14.9**	**-1.6**
M31M	**Drury Creek, Y**	**83.03**	**17**	P	**P**	**08 41 15.2**	**-0.8**
F20K	**Avaraart Lake**	**83.12**	**7**	IAmb	IAmb	08 41 19.0	
	comp=Z,29nm,1.5s						
QIZ	**Qiongzhong**	**83.15**	**292**	P	**P**	**08 41 18.1**	**+0.5**
QIZ				S	**SKSac**	**08 51 40.2**	**+2.1**
QIZ				L	L		
	comp=Z,190nm,19.8s						
QIZ				L	L		
	comp=Z,270nm,20.2s						
QIZ				L	L		
	comp=Z,450nm,21.6s						
ISCO	**Idaho Springs**	**83.25**	**46**	P	**P**	**08 41 20.0**	**+1.9**
ISCO	**Idaho Springs**	**83.25**	**46**	IAmb	IAmb	08 41 21.6	
	comp=Z,24nm,1.4s						
ISCO	**Idaho Springs**	**83.25**	**46**	P	**P**	**08 41 20.1**	**+1.9**
	comp=Z,12nm,1.4s						
DAWY	**Dawson**	**83.26**	**14**	IAmb	IAmb	08 41 20.5	
	comp=Z,25nm,1.1s						
RLMT	**Red Lodge**	**83.33**	**40**	IAmb	IAmb	08 41 22.4	
	comp=Z,33nm,1.1s						
HEH	**HeiHe**	**83.50**	**326**	*e*P	**P**	**08 41 19.5**	**+0.8**
K29M	**Barlow Dome**	**83.53**	**15**	IAmb	IAmb	08 41 21.6	
	comp=Z,32nm,1.1s						
F21K	**Alatna River**	**83.55**	**8**	IAmb	IAmb	08 41 21.1	
	comp=Z,44nm,1.8s						
G23K	**Bananza Creek**	**83.55**	**9**	IAmb	IAmb	08 41 21.1	
	comp=Z,57nm,1.7s						
CMIG	**Matias Romero**	**83.57**	**70**	LR	LR	09 10 27.4	
	comp=Z,341nm,19.7s,baz=252,slow=30						
JCT	**Junction City**	**83.85**	**56**	P	**P**	**08 41 20.6**	**-0.4**
JCT				pmax	pmax		
	comp=Z,9.0nm,1.0s						
JCT	**Junction City**	**83.85**	**56**	P	**P**	**08 41 20.6**	**-0.4**
RTBA	**Rita Blanca**	**83.89**	**50**		**P**	**08 41 20.3**	**-0.9**
RTBA				IAmb	IAmb	08 41 24.4	
	comp=Z,34nm,1.2s						
I27K	**Kandik River**	**84.08**	**13**	IAmb	IAmb	08 41 24.7	
	comp=Z,24nm,1.3s						
PMSA	**Palmer Station**	**84.14**	**156**	LR	LR	09 10 13.7	
	comp=Z,616nm,21.6s,baz=268,slow=29						
PMSA	**Palmer Station**	**84.14**	**156**	P	**P**	**08 41 22.7**	**+0.9**
PMSA	**Palmer Station**	**84.14**	**156**	P	**P**	**08 41 24.1**	**+2.3**
	comp=Z,31nm,1.5s						
MMPY	**Sheldon Lake,**	**84.27**	**18**	IAmb	IAmb	08 41 25.3	
	comp=Z,36nm,1.2s						
I28M	**Miner Creek**	**84.31**	**13**	IAmb	IAmb	08 41 24.9	
	comp=Z,47nm,1.7s						
J30M	**Hart River**	**84.43**	**15**	IAmb	IAmb	08 41 25.9	
	comp=Z,36nm,1.6s						
BILI	**Bilibino, Chuk**	**84.45**	**352**	P	**P**	**08 41 24.6**	**+1.5**
	comp=Z,18nm,0.5s						
BILL	**Bilibino**	**84.46**	**352**	*i* P	**P**	**08 41 23.9**	**+0.7**
BILL				pmax	pmax		
	comp=Z,23nm,1.5s						
EGMT	**Eagleton**	**84.48**	**37**	IAmb	IAmb	08 41 27.4	
	comp=Z,36nm,1.1s						
I29M	**Ogilvie Camp,**	**84.60**	**14**	IAmb	IAmb	08 41 26.9	
	comp=Z,26nm,1.2s						
F24K	**Squaw Lake**	**84.63**	**9**	IAmb	IAmb	08 41 27.0	
	comp=Z,26nm,1.4s						
H27K	**Steamboat Moun**	**84.64**	**12**	IAmb	IAmb	08 41 27.8	
	comp=Z,38nm,1.6s						
H03S2	**Juan Fernandez**	**85.00**	**124**	T	T	10 15 55.1	
	baz=252,slow=75,SNR=40						
H03S1	**Juan Fernandez**	**85.02**	**124**	T	T	10 16 03.4	
	baz=252,slow=75,SNR=34						
H03S3	**Juan Fernandez**	**85.02**	**124**	T	T	10 15 57.0	
	baz=252,slow=75,SNR=28						
E24K	**Your Creek**	**85.05**	**9**	IAmb	IAmb	08 41 29.2	
	comp=Z,57nm,1.9s						
F25K	**Christian Rive**	**85.07**	**10**	IAmb	IAmb	08 41 29.6	
	comp=Z,23nm,1.3s						
BMAR	**Burnt Mountain**	**85.11**	**11**		**P**	**08 41 26.7**	**+0.1**
G27K	**Doyon Strip**	**85.11**	**12**	IAmb	IAmb	08 41 29.4	
	comp=Z,36nm,1.6s						
EDM	**Edmonton**	**85.25**	**31**	P	**P**	**08 41 27.3**	**-0.3**
EDM				pmax	pmax		
	comp=Z,54nm,1.3s						
EDM	**Edmonton**	**85.25**	**31**		**P**	**08 41 27.2**	**-0.3**
H29M	**Whitestone**	**85.31**	**13**	IAmb	IAmb	08 41 30.0	
	comp=Z,19nm,1.0s						
F26K	**Sheenjek River**	**85.42**	**11**	IAmb	IAmb	08 41 31.4	
	comp=Z,23nm,1.2s						
E25K	**Arctic Village**	**85.55**	**10**	IAmb	IAmb	08 41 31.8	
	comp=Z,17nm,0.9s						
D23K	**Nanushuk River**	**85.56**	**8**	IAmb	IAmb	08 41 41.7	
	comp=Z,21nm,1.1s						
BJI2	**Beijing**	**85.62**	**313**	P	**P**	**08 41 31.6**	**+1.9**
BJI2				SKS	**SKSac**	**08 51 54.3**	**+1.2**
BJI2				pmax	pmax		
	comp=Z,5.0nm,1.8s						
BJI2				pmax	pmax		
	comp=Z,190nm,5.5s						
BJI2				L	L		
	comp=Z,110nm,19.4s						
BJI2				L	L		
	comp=Z,170nm,22.7s						
BJI2				L	L		
	comp=Z,230nm,21.6s						
HNS	**HongShan**	**85.63**	**310**	⇑P	**P**	**08 41 32.4**	**+2.7**
HNS				S	S	08 52 09.7	+10
HNS				pmax	pmax		
	comp=Z,15nm,0.6s						
HNS				L	L		
	comp=Z,200nm,17.2s						
HNS				L	L		
	comp=Z,220nm,19.7s						
HNS				L	L		
	comp=Z,480nm,23.7s						
EPYK	**Eagle Plains**	**85.81**	**14**	IAmb	IAmb	08 41 32.4	
	comp=Z,26nm,1.2s						
USHA	**Ushuaia**	**85.83**	**146**	LR	LR	09 10 26.9	
	comp=Z,921nm,21.2s,baz=244,slow=29						
H31M	**Peel River**	**85.92**	**15**	IAmb	IAmb	08 41 32.6	
	comp=Z,48nm,1.7s						
G29M	**Pine Creek**	**85.96**	**13**	IAmb	IAmb	08 41 33.0	
	comp=Z,19nm,1.1s						
RSSD	**Black Hills**	**86.19**	**42**	P	**P**	**08 41 31.1**	**-1.6**
RSSD				pmax	pmax		
	comp=Z,37nm,1.3s						
RSSD	**Black Hills**	**86.19**	**42**		**P**	**08 41 31.1**	**-1.6**
RSSD				IAmb	IAmb	08 41 35.9	
	comp=Z,37nm,1.3s						
RSSD	**Black Hills**	**86.19**	**42**	P	**P**	**08 41 34.3**	**+1.6**
	comp=Z,21nm,1.5s						
WMOK	**Wichita Mounta**	**86.21**	**53**	P	**P**	**08 41 29.6**	**-3.2**
WMOK				pmax	pmax		
	comp=Z,15nm,1.4s						
WMOK	**Wichita Mounta**	**86.21**	**53**	P	**P**	**08 41 29.6**	**-3.2**
WMOK	**Wichita Mounta**	**86.21**	**53**	P	**P**	**08 41 34.4**	**+1.7**
	comp=Z,5.1nm,1.6s						
LYN	**LuoYang**	**86.24**	**307**	P	**P**	**08 41 35.1**	**+2.2**
LYN				pmax	pmax		
	comp=Z,23nm,0.6s						
G30M	**tAoh Zraii Nji**	**86.42**	**14**	IAmb	IAmb	08 41 35.2	
	comp=Z,37nm,1.2s						
HKT	**Hockley**	**86.88**	**58**	P	**P**	**08 41 37.4**	**+1.4**
HKT	**Hockley**	**86.88**	**58**	P	**P**	**08 41 37.6**	**+1.6**
	comp=Z,12nm,1.7s						
APG	**El Apazote**	**87.01**	**74**	LR	LR	09 13 14.2	
	comp=Z,16nm,20.3s,baz=256,slow=30						
XLT	**XiLinHaoTe**	**87.26**	**317**	*e*P	**P**	**08 41 39.8**	**+2.0**
XLT				S	**S**	**08 52 21.3**	**+5.3**
XLT				pmax	pmax		
	comp=Z,11nm,0.7s						
HILR	**Hailar Array B**	**87.43**	**323**	P	**P**	**08 41 38.7**	**+0.4**
	comp=Z,2.3nm,0.5s,baz=121,slow=5.6,SNR=2.0						
HILR				LR	LR	09 15 13.4	
	comp=Z,689nm,21.9s,baz=95,slow=32						
	comp=Z,2.3nm,0.5s						
ESPZ	**Base Esperanza**	**87.53**	**156**	P	**P**	**08 41 39.5**	**+0.9**
MAW	**Mawson**	**87.97**	**199**	P	**P**	**08 41 41.5**	**+0.8**
	comp=Z,30nm,1.0s,baz=119,slow=6.5,SNR=33						
MAW				LR	LR	09 18 39.7	
	comp=Z,1µm,20.1s,baz=114,slow=34						
	comp=Z,30nm,1.0s						
MAW	**Mawson**	**87.97**	**199**		**P**	**08 41 41.8**	**+1.1**
MAW	**Mawson**	**87.97**	**199**	P	**P**	**08 41 41.7**	**+1.1**
	comp=Z,6.9nm,1.1s						
INK	**Inuvik**	**88.11**	**14**	LR	LR	09 14 06.3	
	comp=Z,737nm,21.7s,baz=228,slow=31						
NATX	**Nacogdoches**	**88.43**	**57**	P	**P**	**08 41 42.1**	**-1.4**
PBSI	**Pulau Batu**	**88.66**	**270**	P	**P**	**08 41 40.8**	**-4.2**
	comp=Z,90nm,1.0s						
PSI	**Prapat**	**88.79**	**273**	P	P	08 41 40.3	-5.5
	comp=Z,6.6nm,1.2s						
YAK	**Yakutsk**	**89.15**	**337**	LR	LR	09 15 04.6	
	comp=Z,302nm,21.4s,baz=124,slow=31						
YAK	**Yakutsk**	**89.15**	**337**	*i* P	**P**	**08 41 46.2**	**+0.1**
YAK				pmax	pmax		
	comp=Z,15nm,0.9s						
HHC	**Hu-ho-hao-te**	**89.18**	**313**	*e*P	**P**	**08 41 49.0**	**+2.0**
HHC				S	**S**	**08 52 41.1**	**+6.6**
HHC				pmax	pmax		
	comp=Z,13nm,0.6s						
HHC				pmax	pmax		
	comp=Z,71nm,4.0s						
HHC				L	L		
	comp=Z,120nm,15.1s						
HHC				L	L		
	comp=Z,140nm,21.0s						
HHC				L	L		
	comp=Z,240nm,19.3s						
PLCA	**Paso Flores**	**89.35**	**132**	LR	LR	09 13 18.1	
	comp=Z,440nm,20.6s,baz=252,slow=30						
YKA	**Yellowknife Ar**	**89.89**	**23**	P	**P**	**08 41 51.2**	**+1.6**
	comp=Z,3.5nm,0.8s,baz=236,slow=4.5,SNR=3.9						
YKA				LR	LR	09 16 45.2	
	comp=Z,851nm,19.4s,baz=228,slow=32						
	comp=Z,3.5nm,0.8s						
BI02	**San Fabin de**	**90.17**	**128**	P	**P**	**08 41 54.4**	**+2.6**
	comp=Z,20nm,1.6s						
ML02	**Panimavida**	**90.35**	**127**	P	**P**	**08 41 55.9**	**+3.3**
	comp=Z,36nm,1.6s						
TPTI		**90.59**	**273**	P	P	08 41 49.0	-5.0
	comp=Z,30nm,0.9s						
JTS	**Las Juntas de**	**90.90**	**80**	LR	LR	09 13 31.2	
	comp=Z,302nm,20.8s,baz=255,slow=29						
ECSD	**EROS Data Cent**	**90.98**	**45**		**P**	**08 41 54.9**	**-0.3**
ECSD				IAmb	IAmb	08 41 57.0	
	comp=Z,20nm,1.6s						
ECSD	**EROS Data Cent**	**90.98**	**45**	P	**P**	**08 41 55.8**	**+0.6**
	comp=Z,5.3nm,2.1s						
BO01	**Tunca**	**91.06**	**126**	P	**P**	**08 41 59.1**	**+3.2**
	comp=Z,22nm,1.8s						
MT09	**Talagante**	**91.34**	**125**	IAmb	IAmb	08 42 01.2	
	comp=Z,26nm,1.2s						
PEL	**Peldehue**	**91.78**	**125**	P	**P**	**08 42 02.8**	**+3.4**
	comp=Z,44nm,1.3s						
CD2	**Chengdu**	**92.02**	**301**	P	**P**	**08 42 01.6**	**+1.2**
ELIB	**Princess Elisa**	**92.25**	**185**	*d*P	**P**	**08 42 01.8**	**+0.9**
	comp=Z,37nm,1.3s						
R40A	**Maddies Statio**	**92.34**	**51**	IAmb	IAmb	08 42 08.8	
	comp=Z,27nm,1.5s						
PZH	**PanZhiHua**	**92.50**	**297**	P	**P**	**08 42 04.4**	**+1.6**
ATAH	**Atahualpa**	**92.64**	**98**	LR	LR	09 16 10.5	
	comp=Z,346nm,18.7s,baz=262,slow=30						
NNA	**Nana**	**92.79**	**103**	LR	LR	09 14 54.4	
	comp=Z,98nm,21.5s,baz=244,slow=30						
TROLL	**Troll, Antarti**	**92.84**	**179**	⇑P	**P**	**08 42 04.8**	**+1.2**
	comp=Z,1µm,1.1s						
T42A	**Van Buren**	**92.86**	**53**	IAmb	IAmb	08 42 10.3	
	comp=Z,19nm,1.6s						
CMAR	**Chiang Mai Arr**	**92.87**	**288**	P	**P**	**08 42 05.5**	**+1.0**
	comp=Z,1.0nm,0.3s,baz=109,slow=2.8,SNR=4.4						
CMAR				LR	LR	09 19 02.1	
	comp=Z,162nm,21.4s,baz=95,slow=33						
	comp=Z,1.0nm,0.3s						
P40A	**Paris**	**92.87**	**50**	IAmb	IAmb	08 42 06.7	
	comp=Z,27nm,1.5s						
VNA3	**Neumayer Olymp**	**92.92**	**175**	⇑P	**P**	**08 42 05.0**	**+1.2**
	comp=Z,30nm,0.9s						
SNAA	**Sanae**	**92.98**	**177**	⇑P	**P**	**08 42 05.1**	**+1.1**
	comp=Z,333nm,1.1s						
SNAA	**Sanae**	**92.98**	**177**	P	**P**	**08 42 05.2**	**+1.1**
	comp=Z,21nm,1.1s,baz=198,slow=4.7,SNR=19						
SNAA				LR	LR	09 18 31.4	
	comp=Z,501nm,21.7s,baz=208,slow=32						
	comp=Z,21nm,1.1s						
SNAA	**Sanae**	**92.98**	**177**	*i* P	**P**	**08 42 05.0**	**+0.9**
SNAA				pmax	pmax		
	comp=Z,42nm,1.3s						
SNAA	**Sanae**	**92.98**	**177**		**P**	**08 42 05.1**	**+1.1**
SNAA	**Sanae**	**92.98**	**177**	P	**P**	**08 42 05.4**	**+1.3**
	comp=Z,27nm,1.3s						
VNA2	**Neumayer--Watz**	**93.42**	**175**	⇑P	**P**	**08 42 07.6**	**+1.6**
	comp=Z,29nm,0.9s,baz=131,slow=1.3						
VNA1	**Neumayer--Stat**	**93.62**	**175**	⇑P	**P**	**08 42 08.6**	**+1.7**
	comp=Z,64nm,1.0s						
ULM	**Lac du Bonnet**	**93.67**	**39**	LR	LR	09 19 31.5	
	comp=Z,1µm,19.1s,baz=250,slow=32						
NVL	**N'lazarevskaya**	**94.08**	**182**	*e*P	**P**	**08 42 09.4**	**+0.4**
NVL				pmax	pmax		
	comp=Z,18nm,0.8s						
NVL				MLR	MLR		
	comp=Z,389nm,15.0s						
SONM	**Songino Array**	**94.97**	**318**	P	**P**	**08 42 14.0**	**+0.3**
	comp=Z,0.7nm,0.6s,baz=134,slow=6.2,SNR=2.6						
SONM				PP	**PP**	**08 46 01.0**	**-2.3**
	comp=Z,0.3nm,0.5s,baz=132,slow=6.4,SNR=3.7						
SONM				LR	LR	09 19 46.3	
	comp=Z,396nm,22.0s,baz=95,slow=32						
	comp=Z,0.7nm,0.6s						
SONM	**Songino Array**	**94.97**	**318**	P	**P**	**08 42 14.0**	**+0.3**
TIXI	**Tiksi**	**95.00**	**344**	LR	LR	09 21 24.8	
	comp=Z,606nm,20.8s,baz=144,slow=33						
LPAZ	**La Paz**	**99.56**	**110**	LR	LR	09 18 31.2	
	comp=Z,101nm,21.7s,baz=244,slow=30						
ZALV	**Zalesovo Beam**	**109.33**	**322**	PKiKP	**PKiKP**	**08 47 22.0**	**+1.0**
	comp=Z,0.3nm,0.3s,baz=93,slow=2.9,SNR=2.0						
MKAR	**Makanchi Array**	**110.97**	**315**	PKiKP	**PKiKP**	**08 47 24.5**	**+0.1**
	comp=Z,0.4nm,0.6s,baz=48,slow=1.8,SNR=4.0						
MKAR				PKKPbc	**PKKPbc**	**08 58 25.3**	**+2.3**
	comp=Z,0.4nm,0.9s,baz=262,slow=2.5,SNR=4.1						
HYB	**Hyderabad**	**111.60**	**283**	*e*PKiKP	**PKiKP**	**08 47 25.7**	**-0.7**
HYB				*e*SKSac	**SKSac**	**08 54 05.2**	**-0.9**
HYB				*e*SKKSac	**SKKSac**	**08 55 07.2**	**-2.0**
KURK	**Kurchatov**	**113.27**	**319**	*i* PKIKP	**PKiKP**	**08 47 29.3**	**+0.8**
KURBB	**Kurchatov Arra**	**113.33**	**319**	PKiKP	**PKiKP**	**08 47 29.3**	**+0.6**
	comp=Z,0.5nm,0.3s,baz=92,slow=1.9,SNR=5.0						
SPITS	**Spitsbergen Ar**	**116.94**	**358**	PKKPbc	PKKPbc	08 58 06.3	+3.0
	comp=Z,0.5nm,0.3s,baz=192,slow=14,SNR=13						
ARTI	**Arti**	**123.53**	**329**	*i* PKIKP	**PKiKP**	**08 47 48.7**	**+0.4**
ARTI						08 49 31.4	
ARTI						08 55 00.3	
ARTI				SS	SS	09 06 17.6	+2.7
ARCES	**ARCESS Array B**	**124.56**	**352**	PKP	**PKiKP**	**08 47 50.2**	**+0.1**
	comp=Z,2.6nm,0.6s,baz=37,slow=0.9,SNR=10.0						
ARCES	**ARCESS Array B**	**124.56**	**352**	*e*PKIKP	**PKiKP**	**08 47 51.3**	**+1.2**
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.6s						
APA	**Apatity**	**125.01**	**348**	*i* PKIKP	**PKiKP**	**08 47 50.4**	**-0.6**
APA				*e*		08 49 38.7	
APA				pmax	pmax		
	comp=Z,6.0nm,1.1s						
KIRV	**Kirov**	**126.59**	**334**	*i* PKIKP	**PKiKP**	**08 47 54.4**	**+0.1**
KLMR	**Klimovskoe**	**128.81**	**340**	*e*PKIKP	**PKPdf**	**08 47 55.0**	**-3.0**
KLMR				pmax	pmax		
	comp=Z,25nm,1.5s						
KLMR				MLR	MLR		
	comp=Z,371nm,19.0s						
BELG	**Belogornoye**	**130.96**	**328**	*i* PKIKP	**PKiKP**	**08 48 02.6**	**-0.7**
FINES	**FINESS Array B**	**131.92**	**348**	PKP	**PKiKP**	**08 48 05.0**	**0.0**
	comp=Z,3.9nm,0.9s,baz=202,slow=1.0,SNR=4.5						
FINES	**FINESS Array B**	**131.92**	**348**	PKIKP	**PKiKP**	**08 48 05.0**	**0.0**
OBN	**Obninsk**	**134.15**	**337**	⇑*e*PKIKP	**PKPdf**	**08 48 07.4**	**-0.9**
OBN				*i*		08 48 09.3	
OBN				PPP	PPP	08 53 35.0	
OBN				*e*SS	SS	09 08 35.1	+10
OBN				pmax	pmax		
	comp=Z,9.0nm,0.4s						
OBN				pmax	pmax		
	comp=Z,5.0nm,0.4s						
OBN				MLR	MLR		
	comp=Z,365nm,21.0s						
MAK	**Makhachkala**	**135.73**	**317**	*e*P	**Pdif**	**08 45 09.8**	**-5.3**
MAK				*e*		08 55 17.4	
MAK				*e*SS	SS	09 08 46.3	+0.5
MAK				*e*SSS	SSS	09 13 54.4	
MAK				pmax	pmax		
	comp=Z,181nm,1.3s						
MAK				MLR	MLR		
	comp=Z,381nm,17.0s						
KIV	**Kislovodsk**	**138.32**	**321**	*i* PKIKP	**PKiKP**	**08 48 18.9**	**+0.2**
KIV				pmax	pmax		
	comp=Z,5.0nm,1.1s						
KIV				MLR	MLR		
	comp=Z,339nm,24.0s						
AKASG	**Malin Array Be**	**140.37**	**338**	PKP	**PKPdf**	**08 48 20.7**	**+0.8**
	comp=Z,2.1nm,0.8s,baz=32,slow=1.9,SNR=6.7						
AKBB	**Malin Array Si**	**140.37**	**338**	PKP	**PKPdf**	**08 48 20.2**	**+0.2**
AK11	**Malin Array Si**	**140.41**	**338**	PKP	**PKPdf**	**08 48 19.4**	**-0.6**
AK18	**Malin Array Si**	**140.41**	**338**	PKP	**PKPdf**	**08 48 19.4**	**-0.6**
AK17	**Malin Array Si**	**140.44**	**338**	PKP	**PKPdf**	**08 48 19.8**	**-0.3**
AK14	**Malin Array Si**	**140.47**	**338**	PKP	**PKPdf**	**08 48 19.8**	**-0.3**
RNPP9	**Sopachiv**	**140.90**	**341**	PKP	**PKPdf**	**08 48 21.1**	**+0.2**
LUBAR	**Lubar, Ukraine**	**141.54**	**338**	PKP	**PKiKP**	**08 48 24.1**	**-0.8**
BAL3X	**Bal3x, Balta**	**142.45**	**335**	PKP	**PKiKP**	**08 48 24.9**	**-1.9**
SORM	**Soroca**	**142.79**	**336**	⇓P	**PKPdf**	**08 48 21.9**	**-2.5**
KMPD	**K-Podol'skiy**	**143.15**	**338**	PKP	PKPbc	08 48 21.5	-0.4
CLL	**Collm**	**143.76**	**354**	*i* PKIKP	**PKPdf**	**08 48 25.1**	**-0.9**
CLL				pmax	pmax		
	comp=Z,4.0nm,0.7s						
CLL				MLR	MLR		
	comp=Z,400nm,19.0s						
CLL	**Collm**	**143.76**	**354**	*e*PKPdf	PKPbc	08 48 24.0	+0.5
	comp=Z,4.0nm,0.7s						
CLL				L	L	09 38 00.0	
CLL				AMS	AMS	09 55 00.0	
	comp=Z,400nm,19.0s						
STHS	**Stebnicka Huta**	**144.02**	**344**	*e*PKIKP	**PKPdf**	**08 48 26.3**	**-0.3**
STHS	**Stebnicka Huta**	**144.02**	**344**	*e*PKP	**PKPdf**	**08 48 26.3**	**-0.3**
TSUM	**Tsumeb**	**144.13**	**197**		**PKPdf**	**08 48 26.8**	**-1.0**

DPC	Dobruska-Polom	144.22	350	*e*PKIKP	PKPdf	08 48 27.8	+0.9
DPC	Dobruska-Polom	144.22	350	*e*PKP	PKPdf	08 48 27.8	+0.9
STEB	Steborice	144.35	348	*e*PKP	PKPdf	08 48 27.0	-0.1
BUR08	Bucovina Ar. S	144.37	339		PKPdf	08 48 26.8	-0.6
BURAR	Bucovina Array	144.39	339		PKPdf	08 48 26.3	-1.0
BURAR	Bucovina Array	144.39	339	⇑P	PKPdf	08 48 27.6	+0.2
MORC	Moravsky Berou	144.55	348	PKIKP	PKPdf	08 48 26.7	-0.8
MORC	Moravsky Berou	144.55	348		PKPdf	08 48 26.7	-0.8
MORC	Moravsky Berou	144.55	348	*e*PKP	PKPdf	08 48 28.2	+0.7
MORC	Moravsky Berou	144.55	348	⇑P	PKPdf	08 48 28.4	+0.9
KIBK	Kibwezi	144.55	243		PKPbc	08 48 27.4	+0.1
BZK	Bozkurt	144.64	324	PKPdf	PKPdf	08 48 27.1	-0.7
BIZ	Bicaz	144.64	337	⇓P	PKPdf	08 48 28.2	+0.5
PLN	Plauen	144.66	354	*e*PKPbc	PKPdf	08 48 27.7	+0.1
	baz=12,slow=3.0						
TANN	Tannenbergstha	144.70	354	*e*PKPbc	PKPdf	08 48 28.0	+0.2
	baz=12,slow=3.0						
LANS	Liptovska Anna	144.72	346	*e*PKIKP	PKiKP	08 48 29.8	-1.7
LANS	Liptovska Anna	144.72	346	*e*PKP	PKiKP	08 48 29.8	-1.7
TESR	Tescani	144.79	336	⇑P	PKPdf	08 48 28.5	+0.6
MAUC	Maruska	144.88	348	*e*PKP	PKiKP	08 48 30.0	-1.9
TLCR		144.95	333	⇑P	PKPdf	08 48 28.5	+0.3
ONER	Baraj Valea Uz	145.03	336	⇓P	PKPdf	08 48 29.9	+1.5
KECS	Kecovo	145.08	344	*e*PKIKP	PKPdf	08 48 29.2	+0.8
KECS	Kecovo	145.08	344	*e*PKP	PKPdf	08 48 29.2	+0.8
VRAC	Vranov	145.18	349	*e*PKP	PKPdf	08 48 30.0	+1.4
CFR	Carcaliu	145.25	333	⇑P	PKPab	08 48 28.1	-0.5
VRI	Vrincioaia	145.29	335	⇑P	PKPdf	08 48 30.1	+1.3
PLOR	Plostina	145.33	335	⇑P	PKPdf	08 48 29.3	+0.3
TPGR	Topolog	145.38	333	⇑P	PKPdf	08 48 29.4	+0.3
ILGA	Ilgaz	145.39	323	PKPbc	PKPab	08 48 29.2	-0.3
JAVC	Velka Javorina	145.39	347	*e*PKP	PKiKP	08 48 30.7	-2.3
BNN	Bunyan	145.42	318	PKPbc	PKPab	08 48 29.4	-0.2
SAHR	Sahastru	145.42	335	⇑P	PKPbc	08 48 28.4	-0.7
GAZ	Gaziantep	145.42	315	PKPbc	PKPbc	08 48 28.2	-1.2
ZVC	Zvikov	145.44	352	*e*PKP	PKPab	08 48 30.4	+1.2
KRUC	Moravsky	145.45	349	*e*PKP	PKPab	08 48 29.7	+0.5
OZUR		145.47	337	⇓P	PKPab	08 48 28.9	-0.5
VYHS	Vyhne	145.48	346	*e*PKIKP	PKPab	08 48 30.4	+1.0
VYHS	Vyhne	145.48	346	*e*PKP	PKPab	08 48 30.4	+1.0
COVR	Voineasa-Covas	145.51	336	⇑P	PKPab	08 48 30.5	+0.9
GRF	Grafenberg Arr	145.53	355	*e*PKPbc	PKiKP	08 48 31.0	-2.2
	baz=12,slow=3.0						
TIRR	Tirgusor	145.69	332	PKIKP	PKPdf	08 48 28.7	-0.8
TIRR	Tirgusor	145.69	332	PKPdf	PKPdf	08 48 28.7	-0.8
TIRR	Tirgusor	145.69	332	⇑P	PKPab	08 48 30.9	+0.6
DOPR	Dopca	145.72	337	⇓P	PKPab	08 48 31.2	+0.9
HARR	Harsova	145.73	333	⇑P	PKPab	08 48 31.2	+0.9
PSZ	Piszkesteto	145.75	344	⇓P	PKiKP	08 48 32.3	-1.5
PSZ	Piszkesteto	145.75	344	PKP2	PKPdf	08 48 29.1	-0.6
PSZ	Piszkesteto	145.75	344	PKPdf	PKPdf	08 48 29.1	-0.6
PSZ	Piszkesteto	145.75	344	⇓P	PKiKP	08 48 32.3	-1.5
SMOL	Smolenice	145.77	348	*e*PKP2	PKiKP	08 48 32.1	-1.6
TLBR	Topalu	145.79	333	⇑P	PKPdf	08 48 28.4	-1.3
KHC	Kasperske Hory	145.83	352	PKIKP	PKPdf	08 48 28.6	-1.1
KHC	Kasperske Hory	145.83	352	*e*PKP	PKPab	08 48 31.4	+0.7
KHC				*e*x	x	08 48 51.5	
KHC	Kasperske Hory	145.83	352	PKPdf	PKPdf	08 48 28.6	-1.1
WET	Wettzell	145.90	353	*e*PKPbc	PKPab	08 48 31.2	+0.3
	baz=12,slow=3.0						
MLR	Muntele Rosu	145.91	336	PKIKP	PKPdf	08 48 28.9	-1.2
MLR	Muntele Rosu	145.91	336		PKPdf	08 48 28.9	-1.2
MLR	Muntele Rosu	145.91	336	⇓P	PKPab	08 48 31.9	+0.7
MARR	Marisel-Cluj	145.92	340	⇑P	PKPab	08 48 31.4	+0.2
MODS	Modra-Piesok	145.94	348	*e*PKP2	PKiKP	08 48 32.7	-1.3
MODS	Modra-Piesok	145.94	348	*e*PKP	PKiKP	08 48 32.7	-1.3
DRGR		145.95	340	⇑P	PKPab	08 48 31.3	+0.1
ISR	Istrita	145.97	335	⇑P	PKPab	08 48 31.9	+0.6
CKRC	Cesky Krumlov	146.03	351	*e*PKP2	PKPab	08 48 32.1	+0.7
CKRC	Cesky Krumlov	146.03	351	*e*PKP	PKPab	08 48 32.1	+0.7
GEC2	GERESS Array S	146.09	352	PKPdf	PKPdf	08 48 30.1	-0.1
GEC2	GERESS Array S	146.09	352	*e*PKPbc	PKPab	08 48 32.2	+0.4
	baz=12,slow=3.0						
GERES	GERESS Array B	146.09	352	PKPbc	PKPab	08 48 31.3	-0.4
	comp=Z,9.5nm,0.7s,baz=29,slow=3.0,SNR=38						
GERES	GERESS Array B	146.09	352	PKIKP	PKPdf	08 48 29.7	-0.6
GERES	GERESS Array B	146.09	352	PKPdf	PKPdf	08 48 29.7	-0.6
BR131	Keskin Array S	146.27	321	PKIKP	PKPdf	08 48 28.9	-2.0
BR131	Keskin Array S	146.27	321	PKPdf	PKPdf	08 48 28.9	-2.0
BRTR	Keskin Array B	146.27	321	PKPbc	PKPab	08 48 32.8	-0.1
	comp=Z,14nm,0.9s,baz=108,slow=2.4,SNR=47						
BRTR	Keskin Array B	146.27	321	PKIKP	PKPdf	08 48 29.4	-1.5
BRTR	Keskin Array B	146.27	321		PKPdf	08 48 29.4	-1.5
VOIR		146.30	337	⇑P	PKPab	08 48 32.9	+0.3
WINA	Alland / Wiene	146.43	349	*e*pPKP	PKiKP	08 48 34.3	-0.8
	comp=Z,14nm,0.8s						
KIRS	Kirsehir-Merke	146.47	320	⇓P	PKPab	08 48 33.1	-0.4
ARR	Arges	146.52	337	⇑P	PKiKP	08 48 34.3	-1.1
CONA	Conrad Observa	146.64	349	*e*pPKP	PKiKP	08 48 34.7	-0.9
	comp=Z,15nm,0.8s						
RONA	Rosalia, Austr	146.78	348	*i* pPKP	PKiKP	08 48 35.3	-0.6
	comp=Z,17nm,0.8s,SNR=8.5						
MOA	Molln	146.99	351	*e*PKPbc	PKPab	08 48 34.9	-0.2
	baz=12,slow=3.0						
MOA	Molln	146.99	351	*i* pPKP	PKiKP	08 48 35.4	-0.8
	comp=Z,17nm,0.9s,SNR=9.8						
BFO	Black Forest	147.05	358	*e*PKPbc	PKPab	08 48 35.2	-0.2
	baz=12,slow=3.0						
GZR	Gura Zlata	147.16	339	⇑P	PKPbc	08 48 34.2	-0.2
BIOA	Bad Ischl, Aus	147.23	352	*e*PKPbc	PKPab	08 48 35.2	-0.9
	baz=12,slow=3.0						
BIOA	Bad Ischl, Aus	147.23	352	*e*PKiKP	PKiKP	08 48 36.0	-0.8
	comp=Z,13nm,0.9s						
BZS	Buzias	147.35	341	⇑P	PKPbc	08 48 33.4	-1.4
ARSA	Arzberg	147.35	349	*e*PKP	PKPab	08 48 36.2	-0.4
	comp=Z,18nm,1.3s						
UBR	Ueberruh	147.61	356	*e*PKPbc	PKPab	08 48 36.7	-1.0
	baz=12,slow=3.0						
LESA	Schwarzleotal	147.62	353	*e*PKPbc	PKiKP	08 48 36.4	-1.2
	baz=12,slow=3.0						
LESA	Schwarzleotal	147.62	353	*e*PKP	PKiKP	08 48 36.6	-1.0
	comp=Z,6.8nm,0.8s						
SESA	Seetaler Alpe,	147.65	350	*i* PKP	PKPbc	08 48 36.2	+0.4
	comp=Z,49nm,0.9s,SNR=14						
MORH	Mrgy, Hungar	147.66	345	⇓P	PKiKP	08 48 36.2	-1.4
MORH	Mrgy, Hungar	147.66	345	⇓P	PKiKP	08 48 36.2	-1.4
HERR	Herculane	147.73	339	⇑P	PKPbc	08 48 36.1	+0.3
RETA	Reutte	147.75	355	*e*PKPbc	PKiKP	08 48 37.2	-0.6
	baz=12,slow=3.0						
RETA	Reutte	147.75	355	*e*PKiKP	PKiKP	08 48 37.5	-0.4
	comp=Z,14nm,1.1s						
WATA	Walderalm	147.83	354	*e*PKiKP	PKiKP	08 48 37.6	-0.6
	comp=Z,5.1nm,0.6s						
MOTA	Moosalm	147.87	355	*e*PKPbc	PKiKP	08 48 37.8	-0.5
	baz=12,slow=3.0						
MOTA	Moosalm	147.87	355	*e*PKiKP	PKiKP	08 48 37.7	-0.5
	comp=Z,20nm,1.0s						
KBA	Koelnbreinsper	147.87	352	*e*PKPbc	PKiKP	08 48 37.1	-1.2
	baz=12,slow=3.0						
KBA	Koelnbreinsper	147.87	352	*e*PKP	PKiKP	08 48 37.2	-1.1
	comp=Z,5.8nm,0.8s						
WTTA	Wattenberg	147.90	354	*e*PKPbc	PKiKP	08 48 37.2	-1.2
	baz=12,slow=3.0						
WTTA	Wattenberg	147.90	354	*e*PKP	PKiKP	08 48 37.3	-1.1
	comp=Z,8.0nm,0.6s						
SQTA	Sankt Quirin	147.98	354	*e*PKPbc	PKiKP	08 48 38.1	-0.4
	baz=12,slow=3.0						
SQTA	Sankt Quirin	147.98	354	*e*PKiKP	PKiKP	08 48 38.0	-0.4
	comp=Z,14nm,1.1s						
SOKA	Soboth	148.00	349	*i* PKP	PKiKP	08 48 37.5	-0.9
	comp=Z,11nm,0.9s,SNR=6.9						
DAVA	Damuels	148.02	356	*e*PKPbc	PKiKP	08 48 38.2	-0.3
	baz=12,slow=3.0						
DAVA	Damuels	148.02	356	*i* PKiKP	PKiKP	08 48 38.3	-0.3
	comp=Z,22nm,1.0s,SNR=5.9						
MDVR	Moldovita	148.06	340	⇓P	PKiKP	08 48 37.7	-0.8
FETA	Feichten	148.22	355	*e*PKPbc	PKiKP	08 48 38.7	-0.3
	baz=12,slow=3.0						
FETA	Feichten	148.22	355	*e*PKiKP	PKiKP	08 48 38.7	-0.3
	comp=Z,7.0nm,0.8s						
OBKA	Obir	148.24	350	*e*PKPbc	PKiKP	08 48 38.1	-0.9
	baz=12,slow=3.0						
OBKA	Obir	148.24	350	*e*PKiKP	PKiKP	08 48 38.0	-0.9
	comp=Z,12nm,0.8s						
MYKA	Terra Mystica	148.27	351	*e*PKiKP	PKiKP	08 48 37.7	-1.3
	comp=Z,5.4nm,0.7s						
ABTA	Abfaltersbach	148.31	353	*i* PKiKP	PKPbc	08 48 37.7	+0.3
	comp=Z,10nm,0.8s,SNR=11						
MMAI	Mount Meron Ar	148.74	309	PKPbc	PKiKP	08 48 40.5	+0.2
	comp=Z,1.1nm,0.3s,baz=72,slow=4.7,SNR=2.2						
BOVS	Bovan	149.07	339	⇑P	PKPbc	08 48 38.5	-0.8
KEPZ	Antalya-Kepez	149.28	319	⇑P	PKiKP	08 48 40.5	-0.8
PDG	Podgorica	150.96	341	⇓P	PKPbc	08 48 43.2	-0.7
ESDC	Sonseca Array	153.92	19	PKP	PKPdf	08 48 44.9	+2.1
	comp=Z,1.1nm,0.8s,baz=341,slow=1.9,SNR=6.1						
ESDC				PKPbc	pPKPdf	08 48 52.8	+1.4
	comp=Z,0.5nm,0.6s,baz=5.3,slow=13,SNR=3.6						
ESDC				PKPab	PKPab	08 49 05.1	+1.2
	comp=Z,3.3nm,0.9s,baz=321,slow=3.2,SNR=9.6						
ESDC	Sonseca Array	153.92	19		PKPab	08 49 05.5	+1.6
TORD	Torodi Ar. Bea	174.51	112	PKP	PKPdf	08 49 02.3	+0.6
	comp=Z,3.3nm,1.1s,baz=341,slow=2.4,SNR=3.8						
TORD				PKPab	PKPab	08 50 37.0	+2.2
	comp=Z,2.3nm,1.2s,baz=246,slow=3.8,SNR=3.7						

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*ASRS **08** 08:35:18.0±0.9, 54°.56N×83°.66E, h0^{km}, M2.3(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 08 08:35:19.4±2.6**, 54°.69N×83°.70E, h0^{km}, mbtmp2.7**/2**, ML2.4**/2**, Error ellipse: s-maj=22.9km s-min=11.8km az=155.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	0.99	138	I	I	08 41 20.0	
	baz=317,slow=324,SNR=3.3						
ZALV	Zalesovo Beam	0.99	138	Pg	Pg	08 35 37.5	-0.8
	1.6nm,0.3s,baz=320,slow=17,SNR=18						
ZALV				Lg	Lg	08 35 50.7	
	11nm,0.3s,baz=317,slow=29,SNR=65						
KURBB	Kurchatov Arra	5.15	220	Pn	Pn	08 36 38.0	+0.5
	0.1nm,0.3s,baz=41,slow=14,SNR=4.1						
KURBB				Pg	Pg	08 36 54.6	-3.4
	0.1nm,0.3s,baz=37,slow=15,SNR=6.0						
KURBB				Lg	Lg	08 38 02.4	
	0.1nm,0.3s,baz=42,slow=32,SNR=5.1						
	0.5nm,0.5s						
KURBB				AML	AML		
MKAR	Makanchi Array	7.96	187	Pn	Pn	08 37 17.1	+0.9
	0.1nm,0.3s,baz=8.0,slow=14,SNR=2.1						
MKAR				Lg	Lg	08 39 31.8	
	baz=10,slow=25,SNR=2.7						
	0.3nm,0.5s						
MKAR				AML	AML		

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*UCC **08** 08:45:27.9, 51°.89N×0°.74W, h10^{km}, ML4.0*

*DNK **08** 08:45:27.3±1.6, 52°.05N×1°.40W, h15^{km}, ML3.9, Presumed earthquake*

*IDC **08** 08:45:27.6±1.5, 51°.94N×0°.86W, h0^{km}, mb3.5/1, mbtmp3.6/5, ML3.4/4, MS4.2/2, Error ellipse: s-maj=23.3km s-min=14.1km az=65.0*

*NEIC **08** 08:45:27.3±2.4, 51°.82N±0°.06×0°.7W±0°.1, h10^{km}±2^{km}, mb3.9/7, Error ellipse: s-maj=12.9km s-min=9.6km az=235.0*

*BGS **08** 08:45:28.9±1.4, 51°.93N×0°.74W, h10^{km}, ML3.5*

*LDG **08** 08:45:29.5±0.2, 51°.85N×0°.78W, h6^{km}, Ml3.9/34, Error ellipse: s-maj=3.7km s-min=2.7km az=179.0*

*BER **08** 08:45:29.5±1.7, 51°.94N×0°.72W, h13^{km}±29^{km}, ML3.1, ML3.5(BGS), Confirmed Earthquake*

ISC 08 08:45:25.8±0.5**, 51°.91N**±0°.02×**0°.65W**±0°.02**, h10^{km}, n173, σ2^{s}52**/275**, 9C-24D, United Kingdom**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BUW	Bucklebury Wes	0.62	216	⇑*i*P	Pb	08 45 39.2	+0.6
BUW				*e*S	Sb	08 45 47.7	+0.3
BUW				IAML		08 45 51.8	
	comp=E,4µm,0.3s						
BUW				IAML		08 45 54.8	
	comp=N,4µm,0.5s						
BUW	Bucklebury Wes	0.62	216	⇑*i*P	Pb	08 45 39.2	+0.6
BUW				*e*S	Sb	08 45 47.7	+0.3
BUW				IAML		08 45 51.8	
	comp=E,4µm,0.3s						
WOL	Wolverton	0.70	211	⇑*i*P	Pb	08 45 40.7	+0.7
WOL				*e*S	Sb	08 45 50.3	+0.6
WOL				IAML		08 45 56.1	
	comp=N,1µm,0.3s						
WOL				IAML		08 45 56.3	
	comp=E,1µm,0.5s						
WOL	Wolverton	0.70	211	⇑*i*P	Pb	08 45 40.7	+0.7
WOL				*e*S	Sb	08 45 50.3	+0.6
WOL				IAML		08 45 56.1	
	comp=N,1µm,0.3s						
SWN1	Swindon	0.82	241	⇑*i*P	Pn	08 45 43.2	-0.2
SWN1				*e*S	Sn	08 45 54.9	-0.7
SWN1				IAML		08 46 00.8	
	comp=N,1µm,0.5s						
SWN1				IAML		08 46 02.7	
	comp=E,1µm,0.7s						
SWN1	Swindon	0.82	241	⇑*i*P	Pn	08 45 43.2	-0.2
SWN1				*e*S	Sn	08 45 54.9	-0.7
SWN1				IAML		08 46 00.8	
	comp=N,1µm,0.5s						
CWF	Charnwood Fore	0.92	334	⇓*i*P	Pn	08 45 45.1	+0.4
CWF				IAML		08 45 59.3	
	comp=E,1µm,0.3s						
CWF				IAML		08 46 00.1	
	comp=N,740nm,0.2s						
CWF	Charnwood Fore	0.92	334	⇓*i*P	Pn	08 45 45.1	+0.4
CWF				IAML		08 45 59.3	
	comp=E,1µm,0.3s						
STRD	Stroud	0.95	262	⇑*i*P	Pn	08 45 45.4	+0.2
STRD				*e*S	Sn	08 45 57.9	-0.9
STRD				IAML		08 46 02.8	
	comp=N,886nm,0.4s						
STRD				IAML		08 46 05.0	
	comp=E,1µm,0.3s						
STRD	Stroud	0.95	262	⇑*i*P	Pn	08 45 45.4	+0.2
STRD				*e*S	Sn	08 45 57.9	-0.9
STRD				IAML		08 46 02.8	
	comp=N,886nm,0.4s						
ELMS	Elmsett, Ipswi	1.03	79	⇑*i*P	Pn	08 45 48.1	+1.9
ELMS				IAML		08 46 03.6	
	comp=N,4µm,0.4s						
ELMS				IAML		08 46 04.1	
	comp=E,3µm,0.2s						
WACR	West Acre	1.13	43	*e*P	Pn	08 45 49.9	+2.3
WACR				IAML		08 46 06.5	
	comp=N,2µm,0.2s						
WACR				IAML		08 46 08.6	
	comp=E,2µm,0.1s						
WACR	West Acre	1.13	43	*e*P	Pn	08 45 49.9	+2.3
WACR				IAML		08 46 06.5	
	comp=N,2µm,0.2s						
OLDB	Oldbury-Upon-S	1.21	259	*e*P	Pg	08 45 49.7	+0.7
OLDB	Oldbury-Upon-S	1.21	259	*e*P	Pg	08 45 49.7	+0.7
HMNX	Herstmonceux	1.22	149	*e*P	Pg	08 45 51.4	+2.3
HMNX				IAML		08 46 10.4	
	comp=E,2µm,0.3s						
HMNX				IAML		08 46 18.6	
	comp=N,1µm,0.4s						
HMNX	Herstmonceux	1.22	149	*e*P	Pg	08 45 51.4	+2.3
HMNX				IAML		08 46 10.4	
	comp=E,2µm,0.3s						
MONM	Monmouth	1.34	268	*e*P	Pg	08 45 51.9	+0.5
MONM				IAML		08 46 11.2	
	comp=N,2µm,0.3s						
MONM				IAML		08 46 11.4	
	comp=E,2µm,0.4s						
MONM	Monmouth	1.34	268	*e*P	Pg	08 45 51.9	+0.5
MONM				IAML		08 46 11.2	
	comp=N,2µm,0.3s						
ELSH	Elham, Standar	1.35	124	*e*P	Pg	08 45 54.0	+2.3
ELSH				IAML		08 46 15.9	
	comp=N,869nm,0.2s						
ELSH				IAML		08 46 16.1	
	comp=E,1µm,0.2s						
ELSH	Elham, Standar	1.35	124	*e*P	Pg	08 45 54.0	+2.3
ELSH				IAML		08 46 15.9	
	comp=N,869nm,0.2s						
MCH1	Michaelchurch	1.46	274	*e*P	Pg	08 45 53.9	+0.2
MCH1				*e*S	Sg	08 46 12.1	-0.4
MCH1				IAML		08 46 14.3	
	comp=N,948nm,0.3s						
MCH1				IAML		08 46 14.8	
	comp=E,1µm,0.5s						
MCH1	Michaelchurch	1.46	274	*e*P	Pg	08 45 53.9	+0.2
MCH1				*e*S	Sg	08 46 12.1	-0.4
MCH1				IAML		08 46 14.3	
	comp=N,948nm,0.3s						
DOV	Dover Castle,	1.46	122	*e*P	Pg	08 45 55.9	+2.1
DOV				*e*S	Sg	08 46 15.1	+2.3
DOV				IAML		08 46 16.6	
	comp=E,753nm,0.3s						
DOV				IAML		08 46 20.3	
	comp=N,648nm,0.3s						
HLM1	Long Mynd	1.50	295	*e*P	Pg	08 45 54.5	0.0
HLM1				*e*S	Sg	08 46 13.5	-0.5
HLM1				IAML		08 46 15.7	
	comp=N,1µm,0.4s						
HLM1				IAML		08 46 15.7	
	comp=E,2µm,0.3s						
HLM1	Long Mynd	1.50	295	*e*P	Pg	08 45 54.5	0.0
HLM1				*e*S	Sg	08 46 13.5	-0.5
HLM1				IAML		08 46 15.7	
	comp=N,1µm,0.4s						
STNC	Stoke	1.52	322	*e*P	Pg	08 45 55.5	+0.6
STNC				IAML		08 46 16.3	
	comp=E,1µm,0.3s						
STNC				IAML		08 46 19.9	
	comp=N,841nm,0.3s						
STNC	Stoke	1.52	322	*e*P	Pg	08 45 55.5	+0.6
STNC				IAML		08 46 16.3	
	comp=E,1µm,0.3s						
LMK	Market Rasen	1.56	7	*e*P	Pg	08 45 56.8	+1.2
LMK	Market Rasen	1.56	7	*e*P	Pg	08 45 56.8	+1.2
FOEL	Foel Wylfa	1.84	303	*e*P	Pb	08 46 00.1	+0.6
FOEL				IAML		08 46 25.4	
	comp=E,476nm,0.3s						
FOEL				IAML		08 46 25.9	
	comp=N,590nm,0.4s						
FOEL	Foel Wylfa	1.84	303	*e*P	Pb	08 46 00.1	+0.6
FOEL				IAML		08 46 25.4	
	comp=E,476nm,0.3s						
BOST	Ostende	2.34	105	*d*P	Pb	08 46 07.8	-0.1
BOST				*d*S	Sg	08 46 40.6	-0.3
GDLE	Glaisdale, N Y	2.52	358	*e*P	Pb	08 46 09.2	-1.7
GDLE				*e*S	Sn	08 46 39.7	+2.3
DYA	Yadsworthy	2.54	236	*e*P	Pn	08 46 08.6	+1.5
DYA				IAML		08 46 49.7	
	comp=E,183nm,0.3s						
DYA				IAML		08 46 54.1	
	comp=N,244nm,0.4s						
DYA	Yadsworthy	2.54	236	*e*P	Pn	08 46 08.6	+1.5
DYA				IAML		08 46 49.7	
	comp=E,183nm,0.3s						
HTL	Hartland	2.57	251	*e*P	Pn	08 46 09.0	+1.6
HTL				IAML		08 46 51.5	
	comp=E,161nm,0.4s						
HTL				IAML		08 46 55.9	
	comp=N,274nm,0.6s						
HTL	Hartland	2.57	251	*e*P	Pn	08 46 09.0	+1.6
HTL				IAML		08 46 51.5	
	comp=E,161nm,0.4s						
WLF1	Llynfaes	2.67	303	*e*P	Pn	08 46 10.9	+2.2
WLF1				IAML		08 46 50.2	
	comp=E,141nm,0.3s						
WLF1				IAML		08 46 52.0	
	comp=N,211nm,0.3s						
WLF1	Llynfaes	2.67	303	*e*P	Pn	08 46 10.9	+2.2
WLF1				IAML		08 46 50.2	
	comp=E,141nm,0.3s						
SBD	Saint Breward	2.87	244	*e*P	Pn	08 46 12.8	+1.2
SBD				IAML		08 47 02.5	
	comp=E,114nm,0.6s						
SBD				IAML		08 47 03.5	
	comp=N,164nm,0.3s						
SBD	Saint Breward	2.87	244	*e*P	Pn	08 46 12.8	+1.2
SBD				IAML		08 47 02.5	
	comp=E,114nm,0.6s						
EDMD	Edmundbyers	3.03	345	*e*P	Pn	08 46 15.9	+2.2
EDMD				IAML		08 47 07.5	
	comp=E,386nm,0.3s						
EDMD				IAML		08 47 09.9	
	comp=N,261nm,0.3s						
EDMD	Edmundbyers	3.03	345	*e*P	Pn	08 46 15.8	+2.1
EDMD				*e*S	Sn	08 46 50.8	+0.8
EDMD				IAML		08 47 07.5	
	comp=E,386nm,0.3s						
KESW	Keswick, Cumbr	3.06	332	*e*P	Pn	08 46 16.1	+2.0
KESW				IAML		08 47 06.8	
	comp=E,112nm,0.4s						
KESW				IAML		08 47 13.0	
	comp=N,105nm,0.7s						
KESW	Keswick, Cumbr	3.06	332	*e*P	Pn	08 46 16.1	+2.0
KESW				IAML		08 47 06.8	
	comp=E,112nm,0.4s						
FLN	La Foliniere	3.16	178	*e*Pn	Pn	08 46 17.7	+2.2
FLN				*e*Pg	Pg	08 46 26.8	+0.6
FLN				*e*Sg	Sb	08 47 02.8	+2.4
	comp=E,228nm,0.3s						
FLN				AML	AML		
BSKQ	Steenkerk	3.23	111	*d*P	Pb	08 46 20.4	-2.8
BBOU	Bougnies	3.27	116	*d*P	Pn	08 46 20.0	+3.0
BRQR	Ronquire	3.33	111	*d*P	Pn	08 46 19.4	+1.5
UCC	Uccle	3.33	108	Pn	Pn	08 46 18.2	+0.3
UCC	Uccle	3.33	108	*d*P	Pn	08 46 20.2	+2.3
UCC	Uccle	3.33	108	*d*P	Pn	08 46 20.1	+2.2
IOMK	Kirk Michael	3.33	316	*e*P	Pn	08 46 19.7	+1.8
IOMK				IAML		08 47 12.2	
	comp=N,18nm,0.4s						
IOMK				IAML		08 47 16.3	
	comp=E,22nm,0.5s						
IOMK	Kirk Michael	3.33	316	*e*P	Pn	08 46 19.7	+1.8
IOMK				IAML		08 47 12.2	
	comp=N,18nm,0.4s						
LDF	La Druitiere	3.34	174	*e*Pg	Pg	08 46 30.5	+0.8
LDF				*e*Sg	Sg	08 47 13.2	+0.2
	comp=N,96nm,0.3s						
LDF				AML	AML		
CCA1	Carnmenellis	3.37	241	*e*P	Pn	08 46 19.4	+1.0
CCA1				IAML		08 47 16.4	
	comp=E,63nm,0.4s						
CCA1				IAML		08 47 21.5	
	comp=N,72nm,0.5s						
CCA1	Carnmenellis	3.37	241	*e*P	Pn	08 46 19.4	+1.0
CCA1				IAML		08 47 16.4	
	comp=E,63nm,0.4s						
TGA	Tangissart	3.50	110	*d*P	Pb	08 46 25.1	-2.7
GRR	Gorron	3.53	182	*e*Pn	Pn	08 46 22.6	+2.0
GRR				*e*Sn	Sn	08 47 02.6	+0.2
GRR				*e*Sg	Sg	08 47 16.7	-2.4
	comp=E,83nm,0.2s						
GRR				AML	AML		
BAIF	Baives	3.59	119	*e*Pn	Pn	08 46 24.6	+3.2
BAIF				*e*Pg	Pg	08 46 35.7	+1.3
BAIF				*e*Sn	Sn	08 47 03.4	-0.4
BAIF				*e*Sg	Sg	08 47 19.8	-1.1
	comp=E,49nm,0.2s						
BAIF				AML	AML		
BDSL	Dessel	3.63	99	*d*P	Pn	08 46 26.0	+4.0
ESK	Eskdalemuir	3.73	337	*e*P	Pn	08 46 25.9	+2.5
ESK	Eskdalemuir	3.73	337	*e*P	Pn	08 46 25.6	+2.2
ESK				*e*S	Sn	08 47 06.7	-0.7
ESK	Eskdalemuir	3.73	337	Pn	Pn	08 46 25.9	+2.5
EKA	Eskdalemuir Ar	3.74	337	Pn	Pn	08 46 25.8	+2.3
	baz=161,slow=14						
EKA				Sn	Sn	08 47 07.7	+0.2
	baz=159,slow=25						
EKA				Lg	Lg	08 47 25.1	
	baz=158,slow=26						
	comp=E,2.4nm,0.3s						
DSB	Dublin	3.74	293	Pn	Pn	08 46 24.4	+1.0
EKB	Eskdalemuir	3.75	337	Pn	Pn	08 46 25.8	+2.2
BMRD	Maredsous	3.77	113	*d*P	Pn	08 46 26.8	+2.8
DOU	Dourbes	3.78	117	*e*P	Pn	08 46 27.9	+3.9
DOU	Dourbes	3.78	117	*e*P	Pn	08 46 27.9	+3.9
DOU	Dourbes	3.78	117	*d*P	Pn	08 46 28.1	+4.1
GAL1	Galloway	3.83	322	*e*P	Pn	08 46 26.1	+1.4
GAL1	Galloway	3.83	322	*e*P	Pn	08 46 26.1	+1.4
SGMF	Saint Gilles	3.86	199	*e*Pn	Pn	08 46 25.7	+0.5
SGMF				*e*Sn	Sn	08 47 09.5	-1.1
SGMF				*e*Sg	Sg	08 47 26.9	-2.9
	comp=E,46nm,0.3s						
SGMF				AML	AML		
GIVF	Givet	3.90	116	*e*Pn	Pn	08 46 29.8	+4.1
GIVF				*e*Pg	Pg	08 46 45.0	+4.5
GIVF				*e*Sg	Sg	08 47 29.5	-1.5
	comp=E,47nm,0.2s						
GIVF				AML	AML		
BGES	Gesves	3.92	111	*d*P	Pn	08 46 30.0	+4.0
ROSF	Rostrenen	3.96	206	*e*Pn	Pn	08 46 26.8	+0.3
ROSF				*e*Pg	Pg	08 46 45.2	+3.6
ROSF				*e*Sg	Sg	08 47 30.4	-2.4
	comp=E,75nm,0.3s						
ROSF				AML	AML		
BOPT	Opiter	4.01	99	*d*P	Pn	08 46 30.7	+3.6
BCLA	Clavier	4.03	109	*d*P	Pn	08 46 31.9	+4.4
ILTH	Belurgan, Co L	4.04	304	*e*P	Pn	08 46 29.2	+1.7
RCHB	Rochefort	4.11	113	*d*P	Pn	08 46 31.0	+2.5

BEBN	Eben Emael	4.12	103	*d*P	Pn	08 46 31.2	+2.5
QUIF	Quistinic	4.32	203	*e*Pn	Pn	08 46 31.7	+0.3
QUIF				*e*Sn	Sn	08 47 22.4	+0.6
QUIF				*e*Sg	Sg	08 47 40.1	-4.3
	comp=E,130nm,0.5s						
QUIF				AML	AML		
CLF	Chambon-Foret	4.32	153	Pn	Pn	08 46 30.8	-0.7
MEM	Membach	4.38	105	*d*P	Pn	08 46 35.2	+2.9
MEM				*d*P	Pn	08 46 35.4	+3.1
BHOU	Houvegnez	4.47	108	*d*P	Pn	08 46 36.9	+3.3
CLGH	Cloghs, Cushen	4.55	316	*e*P	Pn	08 46 35.7	+1.1
CLGH				IAML		08 47 28.7	
	comp=E,16nm,0.3s						
CLGH				IAML		08 47 29.2	
	comp=N,22nm,0.3s						
CLGH	Cloghs, Cushen	4.55	316	*e*P	Pn	08 46 35.7	+1.1
CLGH				IAML		08 47 28.7	
	comp=E,16nm,0.3s						
LKLB	Kalborn	4.64	110	*d*P	Pn	08 46 39.6	+3.8
LKLB				*d*S	Sn	08 47 31.7	+2.0
WLF	Walferdange	4.87	115	Pn	Pn	08 46 39.7	+0.8
WLF	Walferdange	4.87	115	*d*P	Pg	08 47 01.1	+2.2
SAVF	Savonnieres en	4.96	129	*e*Pn	Pn	08 46 43.9	+3.6
SAVF				*e*Sn	Sn	08 47 39.5	+1.9
MEZF	Maizieres J'vi	5.01	131	*e*Pn	Pn	08 46 43.8	+2.9
MEZF				*e*Pg	Pg	08 47 00.9	-0.7
MEZF				*e*Sn	Sn	08 47 39.4	+0.7
	comp=E,15nm,0.2s						
MEZF				*e*Sg	Sg	08 48 05.5	-0.9
MEZF				AML	AML		
HYF	Humbligny	5.12	154	*e*Pn	Pn	08 46 46.5	+4.1
HYF				*e*Pg	Pg	08 47 04.9	+1.2
HYF				*e*Sn	Sn	08 47 39.7	-1.8
HYF				*e*Sg	Sg	08 48 14.3	+4.3
	comp=E,422nm,0.3s						
HYF				AML	AML		
DRUM	Mains of Drumt	5.12	349	*e*P	Pn	08 46 44.4	+2.0
DRUM	Mains of Drumt	5.12	349	*e*P	Pn	08 46 44.4	+2.0
DRUM				*e*S	Sn	08 47 40.3	-1.3
SFTF	Sexfontaines	5.21	133	*e*Pn	Pn	08 46 46.6	+2.8
SFTF				*e*Pg	Pg	08 47 04.8	-0.8
SFTF				*e*Sn	Sn	08 47 42.9	-1.0
SFTF				*e*Sg	Sg	08 48 16.2	+3.1
	comp=E,12nm,0.2s						
SFTF				AML	AML		
PAGF	Fort de Pagny	5.29	127	*e*Pn	Pn	08 46 47.7	+2.9
PAGF	Fort de Pagny	5.29	127	*e*Pn	Pn	08 46 47.8	+2.9
PAGF				*e*Pg	Pg	08 47 06.4	-0.7
PAGF				*e*Sn	Sn	08 47 45.1	-0.8
	comp=E,27nm,0.4s						
PAGF				*e*Sn	Sn	08 47 46.8	+0.9
PAGF				*e*Sg	Sg	08 48 16.1	+0.5
	comp=E,57nm,0.6s						
PAGF				AML	AML		
PAGF				AML	AML		
MFF	Saint Martin d	5.33	176	*e*Pn	Pn	08 46 45.7	+0.4
MFF				*e*Pg	Pg	08 47 08.1	+0.4
MFF				*e*Sn	Sn	08 47 45.4	-1.3
MFF				*e*Sg	Sg	08 48 15.3	-1.4
	comp=E,49nm,0.5s						
MFF				AML	AML		
LOR	Lormes	5.50	146	*e*Pn	Pn	08 46 47.1	-0.5
LOR				*e*Pg	Pg	08 47 10.0	-1.0
LOR				*e*Sn	Sn	08 47 47.6	-3.3
LOR				*e*Sg	Sg	08 48 21.7	-0.4
	comp=E,17nm,0.2s						
LOR				AML	AML		
SSF	Saint Saulge	5.56	149	*e*Pn	Pn	08 46 49.5	+1.0
SSF				*e*Pg	Pg	08 47 11.1	-1.1
SSF				*e*Sn	Sn	08 47 50.0	-2.4
SSF				*e*Sg	Sg	08 48 20.7	-3.4
	comp=E,67nm,0.5s						
SSF				AML	AML		
AVF	Avril sur Loir	5.75	151	*e*Pn	Pn	08 46 52.9	+1.7
AVF				*e*Pg	Pg	08 47 15.3	-0.6
AVF				*e*Sn	Sn	08 47 52.6	-4.6
AVF				*e*Sg	Sg	08 48 30.7	+0.3
	comp=E,21nm,0.4s						
AVF				AML	AML		
BGF	Bois d'Agland	5.83	156	*e*Pn	Pn	08 46 54.7	+2.5
BGF				*e*Sn	Sn	08 47 57.3	-1.7
BGF				*e*Sg	Sg	08 48 32.8	+0.1
	comp=E,129nm,0.5s						
BGF				AML	AML		
TCF	Toulx Ste Croi	5.94	160	*e*Pn	Pn	08 46 56.0	+2.3
TCF				*e*Pg	Pg	08 47 21.2	+1.8
TCF				*e*Sn	Sn	08 47 57.0	-4.7
TCF				*e*Sg	Sg	08 48 35.8	-0.4
	comp=E,39nm,0.5s						
TCF				AML	AML		
HAU	Haudompre	5.97	128	*e*Pn	Pn	08 46 56.7	+2.5
HAU				*e*Sn	Sn	08 48 01.3	-1.3
	comp=E,22nm,0.3s						
HAU				*e*Sg	Sg	08 48 34.8	-2.6
	comp=E,28nm,0.3s						
HAU				AML	AML		
HAU				AML	AML		
SMF	Signal de Mont	6.04	149	*e*Pn	Pn	08 46 57.5	+2.5
SMF				*e*Pg	Pg	08 47 20.3	-1.0
SMF				*e*Sn	Sn	08 48 01.1	-3.0
SMF				*e*Sg	Sg	08 48 40.0	+0.6
	comp=E,22nm,0.4s						
SMF				AML	AML		
KPL	Plockton	6.16	334	*e*P	Pn	08 46 58.9	+2.1
KPL				*e*S	Sn	08 48 03.3	-3.9
CDF	Champ du Feu	6.18	121	*e*Pn	Pn	08 46 59.0	+1.9
CDF				*e*Sn	Sn	08 48 04.3	-3.5
	comp=E,6.7nm,0.2s						
CDF				*e*Sg	Sg	08 48 36.9	-7.1
CDF				AML	AML		
ECH	Echery	6.24	123	Pn	Pn	08 46 59.0	+1.1
HINF	Hinteralfeld	6.35	127	*e*Pn	Pn	08 47 00.9	+1.5
HINF				*e*Sn	Sn	08 48 10.8	-1.1
	comp=E,13nm,0.4s						
HINF				*e*Sg	Sg	08 48 45.5	-4.0
HINF				AML	AML		
RJF	Les Rejaudoux	6.77	167	*e*Pn	Pn	08 47 05.1	0.0
RJF				*e*Sn	Sn	08 48 19.7	-2.5
RJF				*e*Sg	Sg	08 49 06.7	+3.8
	comp=E,36nm,0.5s						
RJF				AML	AML		
BFO	Black Forest	6.79	118	Pn	Pn	08 47 06.1	+0.6
CABF	La Chapelle	6.90	138	*e*Pn	Pn	08 47 08.9	+2.0
CABF				*e*Sn	Sn	08 48 24.1	-1.4
	comp=E,10nm,0.3s						
CABF				*e*Sg	Sg	08 49 07.4	+0.4
	comp=E,28nm,0.6s						
CABF				AML	AML		
CABF				AML	AML		
LFF	La Frestale	7.04	172	*e*Pn	Pn	08 47 08.9	+0.1
LFF				*e*Sn	Sn	08 48 23.3	-5.5
LFF				*e*Sg	Sg	08 49 07.7	-3.9
STU	Stuttgart	7.04	113	Pn	Pn	08 47 09.0	+0.2
CAF	Calviac	7.22	164	*e*Pn	Pn	08 47 11.8	+0.4
CAF				*e*Sn	Sn	08 48 28.9	-4.5
CAF				*e*Sg	Sg	08 49 15.9	-1.5
	comp=E,30nm,0.5s						
CAF				AML	AML		
SSB	Saint Sauveur	7.48	151	Pn	Pn	08 47 14.0	-0.9
GRA1	Grafenberg Arr	7.84	102	Pn	Pn	08 47 21.5	+1.6
SNART	Snartemo	7.85	32	*e*S	Sn	08 48 43.7	-5.1
SNART				IAML		08 48 52.8	
	comp=Z,10.0nm,1.1s						
SNART	Snartemo	7.85	32	*i* S	Sn	08 48 44.0	-4.8
VIVF	Saint-Julien-l	7.90	151	*e*Pn	Pn	08 47 22.7	+2.1
VIVF				*e*Sn	Sn	08 48 45.5	-4.5
KMY	Karmoy	8.04	22	*e*P	Pn	08 47 23.9	+1.5
KMY				*e*S	Sn	08 48 47.2	-6.1
KMY				IAML		08 48 51.4	
	comp=Z,12nm,0.7s						
ORIF	Oris-en-Rattie	8.23	146	*e*Pn	Pn	08 47 27.6	+2.3
ORIF				*e*Sn	Sn	08 48 49.1	-9.3
	comp=Z,6.3nm,0.2s						
ORIF				AML	AML		
HOMB	Homborsund	8.25	36	*e*P	Pn	08 47 26.7	+1.4
HOMB				IAML		08 49 16.2	
	comp=Z,8.5nm,0.5s						
HOMB	Homborsund	8.25	36	*i* P	Pn	08 47 27.5	+2.2
HOMB				*i* S	Sn	08 48 54.3	-4.2
LASF	Ste Croix	8.40	157	*e*Pn	Pn	08 47 29.1	+1.6
LASF				*e*Sg	Sg	08 49 50.3	-4.9
	comp=Z,13nm,0.6s						
LASF				AML	AML		
TUE	Stuetta	8.51	126	Pn	Pn	08 47 29.0	-0.2
CLL	Collm	8.52	89	*i* Sg	Sg	08 50 02.6	+3.6
BLS5	Blasjo	8.53	25	*e*P	Pn	08 47 30.4	+1.3
BLS5				*e*S	Sn	08 48 59.2	-6.1
BLS5				IAML		08 49 16.1	
	comp=Z,7.3nm,0.4s						
RGN	Rugen	8.79	67	Pn	Pn	08 47 36.2	+3.5
MTLF	Montolieu	8.79	166	*e*Pn	Pn	08 47 34.4	+1.5
MTLF				*e*Sn	Sn	08 49 08.7	-3.3
	comp=Z,8.0nm,0.3s						
MTLF				*e*Sg	Sg	08 50 03.3	-4.4
MTLF				AML	AML		
SJPF	Ste Jean	8.81	183	*e*Pn	Pn	08 47 34.4	+1.2
SJPF				*e*Sn	Sn	08 49 01.9	-11
SJPF				*e*Sg	Sg	08 50 04.8	-3.6
	comp=Z,28nm,0.8s						
SJPF				AML	AML		
EPF	Esparros	8.91	175	*e*Pn	Pn	08 47 34.3	-0.3
EPF				*e*Sn	Sn	08 49 10.8	-4.2
	comp=Z,6.9nm,0.3s						
EPF				*e*Sg	Sg	08 50 09.3	-2.3
EPF				AML	AML		
ODD1	Odda	8.99	24	*e*P	Pn	08 47 37.3	+1.8
ODD1				*e*S	Sn	08 49 10.8	-6.0
ODD1				IAML		08 49 22.4	
	comp=Z,8.9nm,0.6s						
ETSF	Etsaut	9.02	180	*e*Pn	Pn	08 47 37.3	+1.2
ETSF				*e*Sn	Sn	08 49 11.3	-6.4
ETSF				*e*Sg		08 50 08.6	
ONAU	Onsala	9.12	48	*e*P	Pn	08 47 38.8	+1.6
ONAU				*e*S	Sn	08 49 14.8	-4.9
ONAU	Onsala	9.12	48	*i* P	Pn	08 47 38.5	+1.3
ONAU				*i* S	Sn	08 49 16.1	-3.7
ASK	Askoy	9.18	18	*e*P	Pn	08 47 37.8	-0.3
ASK				*e*S	Sn	08 49 14.3	-7.0
FABU	Falkenberg	9.30	52	*i* P	Pn	08 47 43.0	+3.4
FABU				*i* S	Sn	08 49 21.9	-2.3
TJOU	Tjoern	9.34	44	*i* P	Pn	08 47 42.4	+2.1
TJOU				*i* S	Sn	08 49 21.2	-4.0
CEST	Esterri de Car	9.41	171	Pn	Pn	08 47 42.3	+0.8
DEL	Delary	9.65	56	*e*P	Pn	08 47 46.1	+1.5
DEL				*i* S	Sn	08 49 28.3	-4.6
KONO	Kongsberg	9.65	33	*e*P	Pn	08 47 46.8	+2.2
KONO				*e*S	Sn	08 49 28.5	-4.4
KONO				IAML		08 49 51.2	
	comp=Z,3.7nm,1.0s						
GERES	GERESS Array B	9.67	103	Pn	Pn	08 47 49.5	+4.5
	comp=Z,0.1nm,0.3s,baz=297,slow=15,SNR=4.1						
	comp=Z,1.0nm,0.2s						
GERES				AML	AML		
GERES	GERESS Array B	9.67	103	Pn	Pn	08 47 46.7	+1.8
STRU	Stroemstad	9.79	39	*e*S	Sn	08 49 28.8	-7.4
STRU	Stroemstad	9.79	39	*i* P	Pn	08 47 47.5	+1.1
STRU				*i* S	Sn	08 49 29.7	-6.5
BSD	Bornholm Skovb	9.81	65	*i* S	Sn	08 49 33.8	-2.9
BSD				IAML		08 49 36.4	
	comp=Z,28nm,1.3s						
CORI	Orista	10.11	168	Pn	Pn	08 47 52.0	+1.1
PRMA	PARMA	10.21	130	Pn	Pn	08 47 53.3	+1.0
TEOL	Teolo	10.45	124	Pn	Pn	08 47 57.5	+1.9
BLEU	Blekinge	10.61	59	*i* P	Pn	08 48 00.3	+2.6
NOA	NORSAR Array B	11.23	31	LR	LR	08 52 44.8	
	comp=Z,20nm,19.5s,baz=340,slow=39						
NB201	NORSAR Array S	11.27	31	Pn	Pn	08 48 10.0	+3.3
HFS	Hagfors	11.47	39	Sn	Sn	08 50 15.3	-2.3
	comp=Z,0.6nm,0.3s,baz=226,slow=22,SNR=5.9						
HFS				LR	LR	08 53 01.3	
	comp=Z,35nm,18.4s,baz=250,slow=39						
CASP	Castiglione de	12.00	135	Pn	Pn	08 48 18.2	+1.4
ESDC	Sonseca Array	12.46	192	Pn	Pn	08 48 24.7	+1.6
	comp=Z,0.1nm,0.3s,baz=7.2,slow=14,SNR=3.0						
	comp=Z,0.5nm,0.4s						
ESDC				AML	AML		
NRCA	Norcia	13.00	129	Pn	Pn	08 48 31.4	+0.9
INTR	Introdacqua	14.00	129	Pn	Pn	08 48 45.8	+1.6
PABE	Paberze	14.98	66	Pn	Pn	08 49 00.4	+3.0
BURAR	Bucovina Array	17.22	94		P	08 49 28.7	+0.9
BURAR				IAmb	IAmb	08 49 33.3	
	comp=Z,2.3nm,1.1s						
FINES	FINESS Array B	17.38	46	P	P	08 49 32.7	+3.2
	comp=Z,0.1nm,0.3s,baz=244,slow=8.6,SNR=3.9						
	comp=Z,2.2nm,0.9s						
FINES				AML	AML		
FINES	FINESS Array B	17.38	46		P	08 49 31.2	+1.7
FIA1	FINESS Array S	17.38	46		P	08 49 31.4	+2.0
FIA1				IAmb	IAmb	08 50 04.8	
	comp=Z,29nm,1.0s						
KEST	Kesra	17.68	152	Pn	Pn	08 49 31.6	-0.5
KEST				IAmb	IAmb	08 49 35.0	
	comp=Z,13nm,1.1s						
MLR	Muntele Rosu	18.63	100	P	Pn	08 49 44.3	+0.6
MLR				IAmb	IAmb	08 49 48.4	
	comp=Z,5.7nm,0.9s						
TIRR	Tirgusor	20.66	100	P	Pn	08 50 07.8	+0.1
TIRR				IAmb	IAmb	08 50 35.0	
	comp=Z,10nm,1.1s						
ARCES	ARCESS Array B	21.50	25	P	P	08 50 17.6	+3.3
	comp=Z,2.1nm,0.8s,baz=216,slow=9.0,SNR=2.4						
	comp=Z,2.1nm,0.8s						
ARCES	ARCESS Array B	21.50	25	P	P	08 50 17.5	+3.3
SDV	Santo Domingo	70.73	260	LR	LR	09 22 14.2	
	comp=Z,104nm,19.9s,baz=251,slow=31						
OPO	Ambohidratompo	81.61	135	LR	LR	09 37 56.1	
	comp=Z,171nm,18.1s,baz=83,slow=38						

*SDD **08** 08:47:15.1±2.4, 18°.77N×70°.38W, h91^{km}±11^{km}, MD2.9, ML2.3, MW2.9, Presumed earthquake*
*OSPL **08** 08:47:17.2±2.3, 18°.42N×70°.53W, h31^{km}±36^{km}, ML1.9, Presumed earthquake*
ISC 08 08:47:11.8±2.2**, 18°.43N**±0°.08×**70°.58W**±0°.05**, h113**^{km}±14^{km}**, n14, σ3^{s}66**/21**, 1C, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BANI	BANI	0.21	101	*i* P	Pn	08 47 31.2	+3.4
BANI				*i* S	Sn	08 47 42.1	+2.3
BANI				IAML		08 47 44.4	
	comp=N,156nm,0.2s						
ABDR	Alto Bandera	0.38	353	*i* P	Pn	08 47 30.2	+1.4
ABDR				IAML		08 47 40.0	
	comp=N,53nm,0.6s						
ABDR				*i* S	Sn	08 47 40.4	-1.2
SDD	Santo Domingo	0.63	88	*i* P	Pn	08 47 30.5	+0.6
SDD				*i* S	Sn	08 47 42.1	-1.5
SDD				IAML		08 47 42.5	
	comp=N,19nm,0.6s						
LONE3	El Aguacate, B	0.85	282	*i* P	Pn	08 47 33.0	+1.1
LONE3				*e*S	Sn	08 47 42.0	-5.1
LONE3				IAML		08 47 43.3	
	comp=Z,7.1nm,2.1s						
LODU1	El Espartillar	0.85	265	*i* P	Pn	08 47 31.9	+0.1
LODU1				*e*S	Sn	08 47 40.9	-6.0
LODU1				IAML		08 47 41.2	
	comp=Z,42nm,1.1s						
SC01	Santiago de lo	1.00	352	*i* P	Pn	08 47 33.7	+0.4
SC01				IAML		08 47 49.1	
	comp=Z,27nm,0.3s						
SC01	Santiago de lo	1.00	352	*i* P	Pn	08 47 33.4	0.0
SC01				*i* S	Sn	08 47 47.1	-2.5
SC01				IAML		08 47 48.3	
	comp=N,50nm,0.3s						
REDR	Restauracion	1.06	314	*i* P	Pn	08 47 39.3	+5.4
REDR				*i* S	Sn	08 47 58.7	+8.1
REDR				IAML		08 48 03.6	
	comp=N,27nm,0.1s						
NADR	Nagua	1.15	37	*i* P	Pn	08 47 33.4	-1.4
NADR				⇑*i*S	Sn	08 47 47.8	-4.4
NADR				IAML		08 47 48.9	
	comp=N,765nm,0.2s						
LOPP1	Punta Rusia, P	1.53	338	*i* P	Pn	08 47 41.3	+2.1
LOPP1				*e*S	Sn	08 47 58.7	-1.3
LOPP1				IAML		08 48 04.7	
	comp=Z,19nm,1.7s						
SMDR	Samana, DR	1.57	57	*i* P	Pn	08 47 38.3	-1.4
SMDR				*i* S	Sn	08 47 55.9	-4.9
SMDR				IAML		08 47 58.9	
	comp=N,44nm,0.8s						
HIDR	Higuey Centro	1.78	85	*i* P	Pn	08 47 42.5	+0.4
HIDR				*i* S	Sn	08 48 03.6	-1.6
HIDR				IAML		08 48 08.5	
	comp=N,30nm,0.2s						
PCDR	Punta Cana, DR	2.09	87	*i* P	Pn	08 47 48.2	+2.1
PCDR				IAML		08 48 16.1	
	comp=Z,20nm,1.6s						
PCDR	Punta Cana, DR	2.09	87	*i* P	Pn	08 47 49.5	+3.5
PCDR				IAML		08 48 44.3	
	comp=N,31nm,2.5s						

VIE 08 08:47:26.9±0.2**, 49°.43N**×**16°.03E, h0**^{km}**, mb1.8**/3**, ml2.1**/5**, Error ellipse: s-maj=1.4km s-min=1.4km az=158.0 52 km WNW of Brno Suspected Mining explosion., Czech and Slovak Republics**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VRAC	Vranov	0.39	107	*e*PG	Pg	08 47 34.5	+0.1
VRAC				*e*SG	Sg	08 47 39.3	-0.1
KRUC	Moravsky	0.44	146	*e*PG	Pg	08 47 35.5	+0.2
KRUC				*e*SG	Sg	08 47 41.5	+0.6
MORC	Moravsky Berou	1.05	70	*e*PG	Pg	08 47 46.9	-0.1
JAVC	Velka Javorina	1.22	117	*e*PG	Pn	08 47 51.3	0.0
WINA	Alland / Wiene	1.32	179	*e*Pg	Pg	08 47 52.1	-0.1
	0.7nm,0.1s						
WINA				*e*Sg	Sb	08 48 10.3	+0.2
	2.0nm,0.2s						
CONA	Conrad Observa	1.50	184	*e*Pn	Pn	08 47 55.0	-0.2
	0.9nm,0.2s						
CONA				*e*Sn	Sn	08 48 15.5	0.0
	5.3nm,0.3s						
RONA	Rosalia, Austr	1.73	174	*e*Pn	Pn	08 47 58.1	-0.3
	0.7nm,0.1s						
RONA				*e*Sn	Sn	08 48 21.2	0.0
	1.6nm,0.2s						

*MAN **08** 09:02:55.0, 13°.46N×125°.12E, h2^{km}, MS4.3*
*IDC **08** 09:02:55.9±0.6, 13°.19N×124°.94E, h0^{km}, mb4.1/15, mbtmp4.1/15, MS3.4/3, Error ellipse: s-maj=32.0km s-min=13.7km az=70.0*
*NEIC **08** 09:03:00.7±0.9, 13°.3N±0°.1×125°.0E±0°.2, h25^{km}±5^{km}, mb4.5/12, Error ellipse: s-maj=25.9km s-min=16.3km az=63.0*
ISC 08 09:02:59.6±1.8**, 13°.22N**±0°.05×**125°.07E**±0°.07**, h23**^{km}±13^{km}**, n60, σ1^{s}71**/66**, mb4.2**/21**, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MMPH	Masbate	1.65	239	*e*P	Pb	09 03 28.7	-0.5
MMPH				*e*S	Sn	09 03 44.9	-2.7
PLP	Palo	2.05	182	*e*P	Pb	09 03 35.1	-1.0
PLP				*e*S	Sb	09 04 00.6	-0.5
MECP	Medelin, Cebu	2.31	208	*e*P	Pb	09 03 39.1	-1.5
MECP				*e*S	Sb	09 04 12.6	+3.8
GQP	Guinayangan	2.63	285	*e*P	Pn	09 03 40.2	-0.5
GQP				*i* S	Sb	09 04 18.8	+0.7
LLP	Lapu-Lapu	3.08	201	*e*P	Pn	09 03 47.2	+0.3
LLP				*i* S	Sb	09 04 32.5	+1.5
BOAC	Boac	3.14	275	*e*P	Pn	09 03 49.2	+1.5
BOAC				*e*S	Sb	09 04 27.4	-5.3
IBAJ	Ibajay, Aklan	3.15	244	*i* P	Pn	09 03 50.0	+2.2
LQP	Lukban	3.54	285	*e*P	Pn	09 03 54.5	+1.2
GLSP	General Luna,	3.57	163	*e*P	Pn	09 03 56.5	+2.9
GLSP				*e*S	Sn	09 04 03.9	-31
TBP	Tagbilaran	3.70	199	*e*P	Pb	09 04 01.2	-3.1
TIRP	Brgy. Gulod. B	3.91	287	*e*P	Pn	09 03 57.5	-0.6
TIRP				*e*S	Sn	09 04 47.1	+3.9
PCPS	Palayan City	4.14	291	*e*P	Pn	09 04 03.4	+2.0
PCPS				*e*S	Sb	09 05 06.8	+5.4
CAAP	Casiguran, Aur	4.17	316	*e*P	Pn	09 04 01.3	-0.5
SNPH	Sibulan	4.25	205	*e*P	Pn	09 04 06.8	+3.8
BIPH	Bislig	5.17	166	*e*P	Pn	09 04 18.9	+3.3
BIPH				*e*S	Sn	09 05 11.7	-2.7
SZP	Santa	6.19	315	Pn	Pn	09 04 29.8	+0.3
YULB	Yu-li	10.73	341	Pn	Pn	09 05 31.3	-0.5
GUMO	Guam	19.27	87	LR	LR	09 13 47.2	
	comp=Z,109nm,20.8s,baz=230,slow=34						
KSRS	Korea Array	24.27	6	P	P	09 08 16.1	+1.2
	1.4nm,0.8s,baz=172,slow=7.2,SNR=3.2						
	1.4nm,0.8s						
CMAR	Chiang Mai Arr	25.65	285	P	P	09 08 25.9	-1.8
	1.2nm,0.4s,baz=95,slow=7.7,SNR=8.5						
	1.2nm,0.4s						
USRK	Ussuriysk Ar.	31.43	10	P	P	09 09 18.5	-0.5
	2.5nm,0.7s,baz=222,slow=10,SNR=4.0						
	2.5nm,0.7s						
WRA	Warramunga Arr	34.20	164	P	P	09 09 42.5	-0.9
	0.5nm,0.7s,baz=343,slow=9.0,SNR=6.3						
WRA				PcP	PcP	09 12 20.3	+0.1
	1.2nm,0.9s,baz=339,slow=3.0,SNR=7.2						
	0.5nm,0.7s						
WRA	Warramunga Arr	34.20	164	P	P	09 09 43.8	+0.3
AS31	Alice Springs	37.67	167		P	09 10 13.6	+0.3
ASAR	Alice Springs	37.67	167	P	P	09 10 13.3	+0.1
	1.3nm,0.6s,baz=351,slow=7.5,SNR=23						
ASAR				PcP	PcP	09 12 30.6	+0.1
	1.3nm,0.6s,baz=339,slow=2.5,SNR=10						
	1.3nm,0.6s						
SONM	Songino Array	37.86	339	P	P	09 10 14.2	-0.5
	2.3nm,0.7s,baz=158,slow=10.0,SNR=8.0						
	2.3nm,0.7s						
SONM	Songino Array	37.86	339	P	P	09 10 14.3	-0.3
H11S3	WAKE ISLAND Hy	40.31	77	T	T	09 53 51.3	
	baz=270						
H11S1	WAKE ISLAND Hy	40.33	77	T	T	09 53 56.2	
	baz=270						
H11S2	WAKE ISLAND Hy	40.33	77	T	T	09 54 18.0	
	baz=270						
H11N1	WAKE ISLAND Hy	40.55	75	T	T	09 54 31.2	
	baz=267,slow=74,SNR=46						
H11N2	WAKE ISLAND Hy	40.55	75	T	T	09 54 28.7	
	baz=267,slow=74,SNR=31						
H11N3	WAKE ISLAND Hy	40.56	75	T	T	09 54 32.5	
	baz=267,slow=74,SNR=37						
HNR	Honiara	41.31	121	LR	LR	09 25 54.6	
	comp=Z,102nm,19.8s,baz=54,slow=33						
PETK	Petropavlovsk-	47.49	26	P	P	09 11 32.5	-0.1
	2.4nm,1.0s,baz=230,slow=9.0,SNR=1.6						
	2.4nm,1.0s						
PETK	Petropavlovsk-	47.49	26	P	P	09 11 32.7	0.0
STKA	Stephens Creek	47.56	161	P	P	09 11 33.0	-0.4
	1.8nm,0.7s,baz=317,slow=7.0,SNR=3.1						
	1.8nm,0.7s						
MKAR	Makanchi Array	48.98	322	P	P	09 11 43.9	-0.4
	4.9nm,0.8s,baz=113,slow=9.3,SNR=38						
MKAR				PcP	PcP	09 13 07.5	-0.6
	1.1nm,0.7s,baz=107,slow=3.3,SNR=3.9						
	4.9nm,0.8s						
MKAR	Makanchi Array	48.98	322		P	09 11 44.6	+0.3
MKAR					PcP	09 13 08.0	-0.2
MAKZ	Makanchi	49.18	322		P	09 11 45.8	0.0
MAKZ				IAmb	IAmb	09 11 47.3	
	comp=Z,4.0nm,1.0s						
ZALV	Zalesovo Beam	51.49	331	P	P	09 12 02.8	-0.3
	comp=Z,0.9nm,0.4s,baz=114,slow=7.3,SNR=6.9						
	comp=Z,0.9nm,0.4s						
ZALV	Zalesovo Beam	51.49	331	P	P	09 12 02.6	-0.5
KURK	Kurchatov	52.98	325		P	09 12 14.9	+0.6
KURBB	Kurchatov Arra	52.99	325	P	P	09 12 14.8	+0.5
	comp=Z,12nm,0.7s,baz=122,slow=7.7,SNR=91						
	comp=Z,12nm,0.7s						
KK31	Karatay Array	55.36	314	P	P	09 12 31.5	-0.3
KK31				IAmb	IAmb	09 12 32.6	
	comp=Z,2.5nm,1.1s						
KKAR	Karatay Array	55.36	314	P	P	09 12 31.3	-0.5
KKAR				PcP	PcP	09 13 32.2	0.0
BVAR	Borovoye Array	58.58	325	P	P	09 12 54.7	+0.2
	comp=Z,2.6nm,0.5s,baz=134,slow=6.4,SNR=10.0						
	comp=Z,2.6nm,0.5s						
BORK	Borovoye	58.63	325		P	09 12 55.3	+0.5
AB31	Akbulak array	63.89	319		P	09 13 30.1	-0.3
AB31				IAmb	IAmb	09 13 31.0	
	comp=Z,3.0nm,0.7s						
ABKAR	Akbulak array	63.89	319	P	P	09 13 30.1	-0.4
ABKAR				PcP	PcP	09 14 05.8	-0.2
D23K	Nanushuk River	75.69	22	P	P	09 14 44.8	+2.1
D23K				IAmb	IAmb	09 15 24.7	
	comp=Z,11nm,1.5s						
ATD	Arta Tunnel	79.96	280	LR	LR	09 49 24.0	
	comp=Z,10nm,19.4s,baz=88,slow=35						
ARCES	ARCESS Array B	81.03	339	P	P	09 15 12.4	+0.2
	comp=Z,0.7nm,0.5s,baz=79,slow=6.3,SNR=5.5						
	comp=Z,0.7nm,0.5s						
ARCES	ARCESS Array B	81.03	339	P	P	09 15 12.6	+0.3
FINES	FINESS Array B	82.75	331	P	P	09 15 20.4	-1.0

	comp=Z,1.9nm,0.8s,baz=249,slow=26,SNR=2.0						
	comp=Z,1.9nm,0.8s						
FINES	FINESS Array B	82.75	331	P	P	09 15 21.9	+0.5
AKASG	Malin Array Be	83.55	320	P	P	09 15 24.7	-1.0
	comp=Z,0.2nm,0.3s,baz=70,slow=3.0,SNR=1.3						
	comp=Z,0.2nm,0.3s						
BURAR	Bucovina Array	86.86	318	P	P	09 15 41.8	-0.8
BURAR				IAmb	IAmb	09 15 43.7	
	comp=Z,3.4nm,0.8s						
BUR08	Bucovina Ar. S	86.87	318	P	P	09 15 42.2	-0.4
BUR08				IAmb	IAmb	09 15 43.9	
	comp=Z,3.1nm,0.8s						
PLCA	Paso Flores	149.37	156	PKPbc	PKPbc	09 22 47.2	+0.2
	comp=Z,1.9nm,0.8s,baz=274,slow=2.3,SNR=9.0						

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*SJA **08** 09:04:45.1±0.6, 21°.59S×68°.65W, h135^{km}±8^{km}, ML3.5, MW3.6*

*GUC **08** 09:04:46.7±0.7, 21°.60S×68°.60W, h124^{km}±5^{km}, ML3.4*

ISC 08 09:04:45.1±2.2, **21°.61S**±0°.04×**68°.66W**±0°.09, **h138**^{km}±17^{km}, **n21**, σ**1^{s}01**/36, **2C-3D, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB09	IPOC Station P	0.57	251	eP	Pn	09 05 06.0	+0.3
PB09				IAML		09 05 22.7	
	comp=Z,462nm,0.2s						
PB09	IPOC Station P	0.57	251	⇑iP	Pn	09 05 05.8	+0.1
PB09				eS	Sn	09 05 20.9	-0.5
PB09				IAML		09 05 22.9	
	comp=E,559nm,0.3s						
PB03	IPOC Station P	1.11	247	eP	Pn	09 05 10.9	+1.0
PB03				eS	Sn	09 05 28.8	0.0
PB03				eP	Sn	09 05 28.8	0.0
PB03				IAML		09 05 29.1	
	comp=Z,863nm,0.3s						
PB03	IPOC Station P	1.11	247	eP	Pn	09 05 10.4	+0.5
PB03				eS	Sn	09 05 28.6	-0.2
PB07	IPOC Station P	1.15	264	eP	Pn	09 05 10.9	+0.6
PB07				eS	Sn	09 05 29.9	+0.5
PB07				IAML		09 05 31.6	
	comp=Z,873nm,0.1s						
PB02	IPOC Station P	1.19	284	eP	Pn	09 05 11.1	+0.4
PB02	IPOC Station P	1.19	284	⇑iP	Pn	09 05 10.9	+0.2
PB02				eS	Sn	09 05 30.0	0.0
PB02				IAML		09 05 35.5	
	comp=E,972nm,0.2s						
PB06	IPOC Station P	1.38	218	eP	Pn	09 05 13.3	+0.6
PB06				eS	Sn	09 05 28.8	-4.9
PB06				eS		09 05 34.5	
PB06				IAML		09 05 34.6	
	comp=Z,414nm,0.5s						
PB06	IPOC Station P	1.38	218	⇓iP	Pn	09 05 13.3	+0.6
PB06				eS	Sn	09 05 34.0	+0.3
PB06				IAML		09 05 34.6	
	comp=E,950nm,0.2s						
AF01	San Pedro de A	1.41	162	eP	Pn	09 05 13.8	+0.7
PB08	IPOC Station P	1.53	342	eP	Pn	09 05 15.1	+0.5
PB08	IPOC Station P	1.53	342	i P	Pn	09 05 15.0	+0.4
PB08				eS	Sn	09 05 36.8	-0.3
PB08				IAML		09 05 38.9	
	comp=N,457nm,0.4s						
TA01	Diego Aracena	1.76	306	eP	Pn	09 05 17.1	+0.4
TA01				eS	Sn	09 05 41.3	+0.4
TA01	Diego Aracena	1.76	306	⇓eP	Pn	09 05 16.8	+0.1
TA01				eS	Sn	09 05 40.3	-0.6
TA01				IAML		09 05 41.4	
	comp=E,314nm,0.3s						
PB05	IPOC Station P	1.89	229	eP	Pn	09 05 19.2	+0.9
PB05	IPOC Station P	1.89	229	eP	Pn	09 05 19.1	+0.8
PB05				eS	Sn	09 05 43.7	-0.2
PB05				IAML		09 05 47.6	
	comp=E,116nm,0.3s						
GO01	Chusmiza	2.00	345	eP	Pn	09 05 20.4	+0.4
GO01	Chusmiza	2.00	345	eP	Pn	09 05 20.3	+0.3
GO01				eS	Sn	09 05 47.1	+0.5
PB11	IPOC Station P	2.06	333	eP	Pn	09 05 20.4	-0.2
PB11				eS	Sn	09 05 47.5	-0.1
PB11				IAML		09 05 48.2	
	comp=Z,218nm,0.2s						
PB11	IPOC Station P	2.06	333	eP	Pn	09 05 20.3	-0.2
PB11				eS	Sn	09 05 46.9	-0.6
PB11				IAML		09 05 48.4	
	comp=E,588nm,0.2s						
PSGCX	Pisagua	2.43	325	⇓eP	Pn	09 05 24.0	-0.9

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*NOU **08** 09:25:34.8, 27°.19S×174°.24W, h219^{km}, mb4.5/8, Kermadec Islands Region*

*WEL **08** 09:27:02.6±0.5, 33°S±8°×18°0W±1°8, h12^{km}, M4.7/13, mB5.3/13, ML4.3/15, MLv4.7/12, Mw(mB)4.7/13, Error ellipse: s-maj=25.1km s-min=4.4km az=111.1, confirmed*

ISC 08 09:27:00.7±1.2, **32°.78S**±0°.08×**179°.4W**±0°.2, **h10**^{km}, **n105**, σ**1^{s}90**/89, **South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GLKZ	Green Lake	3.72	20	P	Pn	09 27 58.4	+0.2
GLKZ				S	Sn	09 28 42.6	+0.6
GLKZ				AML	AML		
MXZ	Matakaoa Point	5.14	201	P	Pn	09 28 21.0	+3.3
	36nm,0.5s						
MXZ	Matakaoa Point	5.14	201	P	Pn	09 28 21.2	+3.5
MXZ				S	Sn	09 29 18.7	+1.7
MXZ				AML	AML		
MXZ				AML	AML		
WMGZ	Waiomatatini S	5.35	199	P	Pn	09 28 23.0	+2.5
WMGZ				AML	AML		
WMGZ				AML	AML		
HAZ	Te Kaha	5.49	204	P	Pn	09 28 25.4	+2.9
HAZ				AML	AML		
HAZ				AML	AML		
PKGZ	Pakihiroa	5.49	202	P	Pn	09 28 24.9	+2.4
PKGZ				AML	AML		
PKGZ				AML	AML		
PUZ	Puketiti	5.63	199	P	Pn	09 28 26.3	+1.8
PUZ				S	Sn	09 29 29.1	-0.1
PUZ				AML	AML		
PUZ				AML	AML		
RUGZ	Raukumara Rang	5.71	204	P	Pn	09 28 28.3	+2.6
RUGZ				S	Sn	09 29 30.2	-1.1
RUGZ				AML	AML		
RUGZ				AML	AML		
TWGZ	Tauwhareparae	5.80	201	P	Pn	09 28 30.1	+3.2
TWGZ				S	Sn	09 29 35.0	+1.4
TWGZ				AML	AML		
TWGZ				AML	AML		
WHRZ	Whale Island	5.88	209	P	Pn	09 28 32.3	+4.4
CNGZ	Carnagh Statio	6.03	198	P	Pn	09 28 33.6	+3.7
CNGZ				AML	AML		
CNGZ				AML	AML		
WCZ	Waipu Caves	6.08	237	P	Pn	09 28 30.4	-0.2
WCZ				AML	AML		
TKGZ	Te Karaka	6.09	201	P	Pn	09 28 33.4	+2.6
TKGZ				S	Sn	09 29 39.8	-0.6
TKGZ				AML	AML		
TKGZ				AML	AML		
MWZ	Matawai	6.09	204	P	Pn	09 28 31.6	+0.7
MWZ				AML	AML		
MWZ				AML	AML		
URZ	Urewera	6.18	207	P	Pn	09 28 33.6	+1.7
URZ	Urewera	6.18	207	P	Pn	09 28 32.6	+0.6
URZ				S	Sn	09 29 39.5	-3.1
URZ				AML	AML		
URZ				AML	AML		
RAGZ	Rawiri	6.28	204	P	Pn	09 28 35.6	+2.2
RAGZ				AML	AML		
RAGZ				AML	AML		
MKRZ	Makatiti	6.33	211	P	Pn	09 28 37.5	+3.3
MKRZ				AML	AML		
MKRZ				AML	AML		
RIGZ	Rimuhau	6.36	201	P	Pn	09 28 34.3	-0.2
RIGZ				AML	AML		
RIGZ				AML	AML		
TARZ	Mount Tarawera	6.40	211	P	Pn	09 28 32.0	-3.1
TOZ	Tahuroa Road	6.48	219	P	Pn	09 28 39.8	+3.6
TOZ				AML	AML		
RRRZ	Republican Roa	6.48	210	P	Pn	09 28 38.3	+2.1
MUGZ	Murupara	6.50	208	P	Pn	09 28 36.7	+0.3
MUGZ				AML	AML		
MUGZ				AML	AML		
PRGZ	Paritu Road	6.53	199	P	Pn	09 28 39.1	+2.3
PRGZ				AML	AML		
PRGZ				AML	AML		
RTZ	Ruatahuna	6.54	206	P	Pn	09 28 35.7	-1.3
HRRZ	Handcock Road	6.62	211	P	Pn	09 28 40.0	+1.8
PRRZ	Plateau Road	6.67	210	P	Pn	09 28 39.9	+1.1
KNZ	Kokohu	6.68	200	P	Pn	09 28 39.8	+1.0
MHGZ	Mahia Peninsul	6.73	198	P	Pn	09 28 41.2	+1.6
ALRZ	Allen Road	6.74	210	P	Pn	09 28 40.8	+1.0
RAHZ	Arahi	6.77	204	P	Pn	09 28 40.3	+0.2
MTHZ	Maungataniwha	6.80	206	P	Pn	09 28 40.8	+0.3
WHHZ	Waihua	6.86	203	P	Pn	09 28 41.5	+0.1
TLZ	Tolley Road	6.92	215	P	Pn	09 28 44.1	+1.9
MRHZ	Matea Rd	6.94	208	P	Pn	09 28 42.4	-0.1
NMHZ	Naumai	7.03	205	P	Pn	09 28 44.1	+0.4
ARHZ	Aropaoanui	7.11	203	P	Pn	09 28 44.4	-0.3
BKZ	Black Stump Fm	7.20	207	P	Pn	09 28 45.6	-0.5
RITZ	Rihia Road	7.30	211	P	Pn	09 28 47.5	+0.2
KATZ	Kakaramea	7.37	212	P	Pn	09 28 48.9	+0.5
MCHZ	McNeill Hill	7.37	204	P	Pn	09 28 48.0	-0.4
HIZ	Hauiti	7.40	218	P	Pn	09 28 51.1	+2.3
	54nm,0.5s						
HIZ	Hauiti	7.40	218	P	Pn	09 28 50.9	+2.1
CKHZ	Cape Kidnapper	7.44	202	P	Pn	09 28 48.7	-0.7
KWHZ	Kaweka Forest	7.45	206	P	Pn	09 28 48.3	-1.2
NTVZ	North Tongarir	7.48	211	P	Pn	09 28 49.6	-0.4
TMVZ	Te Maari	7.48	211	P	Pn	09 28 49.1	-0.9
KRVZ	Karewarewa	7.49	211	P	Pn	09 28 49.9	-0.2
ETVZ	East Tongariro	7.49	211	P	Pn	09 28 49.1	-1.1
WTVZ	West Tongariro	7.53	211	P	Pn	09 28 50.0	-0.6
OTVZ	Oturere	7.54	211	P	Pn	09 28 48.7	-2.1
TWVZ	Taurewa	7.56	212	P	Pn	09 28 50.9	-0.2
SNVZ	South Ngauruho	7.56	211	P	Pn	09 28 50.1	-1.1
NGZ	Ngauruhoe	7.57	211	P	Pn	09 28 50.6	-0.7
COVZ	Chateau Observ	7.62	211	P	Pn	09 28 51.6	-0.2
TUVZ	Tukino	7.63	210	P	Pn	09 28 50.8	-1.2
KAHZ	Kahuranaki	7.63	202	P	Pn	09 28 51.1	-0.9
BHHZ	Black Hill Sta	7.65	208	P	Pn	09 28 50.2	-2.0
FWVZ	Far West T-bar	7.66	211	P	Pn	09 28 51.4	-1.2
KRHZ	Kereru	7.67	205	P	Pn	09 28 50.0	-2.5
MAVZ	Matarangi	7.67	211	P	Pn	09 28 51.8	-0.9
WHVZ	Whangaehu Hut	7.67	211	P	Pn	09 28 51.5	-1.2
TRVZ	Turoa	7.70	211	P	Pn	09 28 52.2	-0.9
MOVZ	Moawhango	7.70	209	P	Pn	09 28 50.6	-2.3
PKVZ	Pokaka	7.78	212	P	Pn	09 28 52.9	-1.1
MTVZ	Mangateitei	7.80	211	P	Pn	09 28 53.2	-1.2
PXZ	Pawanui	7.85	202	P	Pn	09 28 53.2	-1.7
VRZ	Vera Road	7.92	215	P	Pn	09 28 55.8	-0.1
PNHZ	Pukenui	7.97	205	P	Pn	09 28 53.1	-3.5
WPHZ	Waipukurau	8.02	204	P	Pn	09 28 55.1	-2.1
PRHZ	Porangahau	8.13	202	P	Pn	09 28 56.7	-2.2
TSZ	Takapari Road	8.18	206	P	Pn	09 28 56.4	-3.1
WAZ	Wanganui	8.32	212	P	Pn	09 28 59.0	-2.4
DVHZ	Dannevirke	8.32	204	P	Pn	09 28 58.4	-3.0
ANWZ	Angora Road	8.36	202	P	Pn	09 28 59.6	-2.4
PKE	Pukeiti	8.36	218	P	Pn	09 29 02.3	+0.3
NEZ	North Egmont	8.36	217	P	Pn	09 29 02.2	+0.1
KHEZ	Kahui Hut	8.42	218	P	Pn	09 29 01.9	-1.0
	168nm,1.6s						
KHEZ	Kahui Hut	8.42	218	P	Pn	09 29 02.8	0.0
POWZ	Post Office Ro	8.54	206	P	Pn	09 29 01.5	-3.0
PRWZ	Pori Road	8.62	204	P	Pn	09 29 02.5	-3.0
BFZ	Birch Farm	8.64	203	P	Pn	09 29 02.8	-2.9
	33nm,0.7s						
BFZ	Birch Farm	8.64	203	P	Pn	09 29 02.5	-3.2
MRZ	Mangatainoka R	8.85	206	P	Pn	09 29 04.1	-4.5
HOWZ	Holdsworth Sta	9.08	205	P	Pn	09 29 07.0	-4.8
TMWZ	Te Maipa	9.14	203	P	Pn	09 29 08.2	-4.4
OGWZ	Otaki Gorge	9.14	207	P	Pn	09 29 06.4	-6.2
KIW	Kapiti Island	9.28	208	P	Pn	09 29 09.4	-5.2
MTW	Mount Morrison	9.31	205	P	Pn	09 29 09.9	-5.1
CAW	Cannon Point	9.43	207	P	Pn	09 29 10.9	-5.6
PAWZ	Paruwai Farm	9.54	204	P	Pn	09 29 12.7	-5.4
MSWZ	Moikau Station	9.63	205	P	Pn	09 29 13.5	-5.9
DUWZ	D’Urville Isla	9.64	212	P	Pn	09 29 13.4	-6.1
WEL	Wellington	9.69	207	P	Pn	09 29 14.4	-5.8
TCW	Tory Channel	9.83	209	P	Pn	09 29 15.4	-6.6
NNZ	Nelson	10.22	212	P	Pn	09 29 20.3	-7.1
TKNZ	Takaka Hill	10.27	214	P	Pn	09 29 21.1	-7.0
QRZ	Quartz Range	10.32	217	P	Pn	09 29 22.7	-6.1
	22nm,2.1s						
QRZ	Quartz Range	10.32	217	P	Pn	09 29 21.6	-7.2
BSWZ	Blackbirch Sta	10.41	209	P	Pn	09 29 23.3	-6.8
MRNZ	Matariki Terra	10.65	214	P	Pn	09 29 26.0	-7.4
THZ	Tophouse	10.87	212	P	Pn	09 29 29.0	-7.4
KHZ	Kahutara	11.14	208	P	Pn	09 29 31.6	-8.4
	18nm,0.6s						
KHZ	Kahutara	11.14	208	P	Pn	09 29 31.7	-8.3
CTZ	Chatham Island	11.15	170	P	Pn	09 29 52.7	+13

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*IDC **08** 09:29:45.2±1.2, 30°.51S×71°.71W, h0^{km}, mb3.4/2, mbtmp3.5/7, ML3.4/5, Error ellipse: s-maj=21.2km s-min=15.8km az=41.0*

*SJA **08** 09:29:46.9±0.8, 30°.36S×71°.59W, h10^{km}±3^{km}, ML3.6, MW3.5*

*GUC **08** 09:29:48.9±0.7, 30°.40S×71°.57W, h37^{km}±3^{km}, ML3.7*

ISC 08 09:29:46.2±1.4, **30°.41S**±0°.03×**71°.67W**±0°.05, **h14**^{km}±9^{km}, **n45**, σ**1^{s}34**/56, **1C, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CO06	Fray Jorge	0.27	174	i P	Pn	09 29 56.2	+0.4
CO06				eS	Sn	09 30 01.5	-0.2
CO06				IAML		09 30 02.1	
	comp=E,38µm,0.3s						
GO04	Tololo Observa	0.79	73	eP	Pb	09 30 01.6	-0.3
GO04				eS	Sb	09 30 11.9	-0.6
GO04				IAML		09 30 13.8	
	comp=Z,8µm,0.8s						
GO04	Tololo Observa	0.79	73	eP	Pn	09 30 02.6	-0.6
GO04				eS	Sg	09 30 12.6	+0.7
CO03	El Pedregal	0.95	117	eP	Pb	09 30 04.8	+0.3
CO03				eS	Sg	09 30 17.5	+0.5
CO03				IAML		09 30 19.3	
	comp=Z,1µm,0.3s						
CO03	El Pedregal	0.95	117	i P	Pg	09 30 04.9	+0.4
CO03				eS	Sb	09 30 12.8	-4.1
CO03				IAML		09 30 19.1	
	comp=E,2µm,0.2s						
CO02	Combarbal	0.98	144	eP	Pg	09 30 06.1	+0.9
CO02				eS	Sn	09 30 19.5	0.0
CO02				IAML		09 30 19.8	
	comp=Z,3µm,0.5s						
CO02	Combarbal	0.98	144	i P	Pg	09 30 06.1	+0.9
CO02				eS	Sn	09 30 19.5	0.0
CO02				IAML		09 30 20.9	
	comp=E,14µm,0.4s						
CO01	Juntas del Tor	1.43	73	eP	Pn	09 30 12.3	+0.3
CO01				eS	Sg	09 30 31.6	-0.7
CO01				IAML		09 30 33.2	
	comp=Z,507nm,0.3s						
CO01	Juntas del Tor	1.43	73	eP	Pb	09 30 12.7	-0.1
CO01				eS	Sg	09 30 31.6	-0.7
CO01				IAML		09 30 32.5	
	comp=N,912nm,0.4s						
LCO	Las Campanas	1.63	31	i P	Pb	09 30 16.0	-0.2
LCO				eS	Sg	09 30 37.6	-1.1
LCO				IAML		09 30 39.7	
	comp=Z,2µm,0.4s						
LCO	Las Campanas	1.63	31	eP	Pb	09 30 15.8	-0.4
LCO				eS	Sb	09 30 37.4	+0.7
CO04	Los Peladeros	1.73	160	i P	Pb	09 30 18.1	0.0
CO04				eS	Sb	09 30 40.5	+0.6
CO04				IAML		09 30 44.0	
	comp=N,2µm,0.3s						
AROD	Rodeo	1.91	83	eP	Pb	09 30 21.1	0.0
AROD				eS	Sg	09 30 46.7	-1.2
AC05	El Transito	1.98	38	eP	Pb	09 30 21.6	-0.6
AC05				eS	Sb	09 30 47.5	+0.7
AC05				IAML		09 30 58.9	
	comp=Z,366nm,0.9s						
AC05	El Transito	1.98	38	eP	Pb	09 30 21.7	-0.5
AC05				eS	Sb	09 30 46.0	-0.8
ACDV	Cuesta del Vie	2.22	85	eP	Pb	09 30 25.9	-0.3
ACDV				IAML		09 31 01.9	
	comp=Z,226nm,0.7s						
ACCO	Cerro Coronel	2.25	95	eP	Pb	09 30 26.2	-0.7
ACCO				IAML		09 30 58.1	
	comp=Z,232nm,0.5s						
AC04	Llanos de Chal	2.25	13	eP	Pn	09 30 23.6	+0.5
VA03	San Esteban	2.54	158	eP	Pn	09 30 29.7	+2.6
VA03				eS	Sb	09 31 01.6	-1.1
ROCH	El Roble	2.62	168	eP	Pn	09 30 29.8	+1.4
ROCH				eP	Pb	09 30 32.8	-0.2
PEL	Peldehue	2.85	163	eP	Pb	09 30 35.4	-1.6
MT10	Hacienda Santa	3.02	162	eP	Pn	09 30 35.9	+2.2
CFA	Coronel Fontan	3.18	113	Pn	Pn	09 30 39.2	+3.3
	comp=Z,7.4nm,0.3s,baz=294,slow=16,SNR=75						
CFA				Lg	Lg	09 31 22.8	
	comp=Z,7.2nm,0.3s,baz=60,slow=17,SNR=8.8						
	comp=Z,36nm,0.5s						
CFA				AML	AML		
MT08	Bocatoma Ro	3.34	156	eP	Pb	09 30 42.6	-2.7
MT09	Talagante	3.41	170	eP	Pn	09 30 40.7	+1.6
VCA	Vinchina	3.44	62	⇑eP	Pb	09 30 44.5	-2.7
TCA	Tanti	6.15	100	eP	Pn	09 31 17.6	+0.8
H03N1	Juan Fernandez	6.86	242	Pn	Pn	09 31 26.1	-0.1
	baz=265,slow=74						
H03N1				T	T	09 38 27.7	
	baz=193,slow=74,SNR=1165						
H03N2	Juan Fernandez	6.88	242	Pn	Pn	09 31 26.1	-0.3
	baz=357,slow=74						
H03N2				T	T	09 38 28.8	
	baz=69,slow=74,SNR=635						
H03S3	Juan Fernandez	7.03	239	Pn	Pn	09 31 27.2	-1.3
H03S1	Juan Fernandez	7.03	239	Pn	Pn	09 31 27.0	-1.6
H03S2	Juan Fernandez	7.04	239	Pn	Pn	09 31 27.1	-1.5
PLCA	Paso Flores	10.34	175	Pn	Pn	09 32 14.2	-0.1
	baz=21,slow=17,SNR=1.2						
	comp=Z,1.5nm,1.0s						
CPUP	Villa Florida	13.26	76	Pn	Pn	09 32 56.0	+1.9
	comp=Z,0.1nm,0.3s,baz=252,slow=13,SNR=2.2						
	comp=Z,1.4nm,0.9s						
CPUP				AML	AML		
LPAZ	La Paz	14.42	14	Pn	P	09 33 15.1	-2.5
	comp=Z,0.1nm,0.3s,baz=185,slow=6.6,SNR=4.1						
	comp=Z,0.4nm,0.5s						
LPAZ				AML	AML		
SIV	San Ignacio	17.32	36	P	P	09 33 49.3	+0.1
	baz=193,slow=15,SNR=4.3						
	comp=Z,0.6nm,0.6s						
QSPA	South Pole Qui	59.82	180	P	P	09 39 51.2	+0.2
	comp=Z,0.8nm,0.7s,baz=145,slow=2.4,SNR=2.0						
	comp=Z,0.8nm,0.7s						
TXAR	Lajitas Array	66.78	330	P	P	09 40 39.3	+1.9
	comp=Z,0.2nm,0.8s,baz=150,slow=6.9,SNR=3.7						
	comp=Z,0.2nm,0.8s						
H11S2	WAKE ISLAND Hy	126.06	272	T	T	12 07 32.3	
	baz=114,slow=75,SNR=43						
H11S1	WAKE ISLAND Hy	126.08	272	T	T	12 07 33.6	
	baz=114,slow=75,SNR=70						
H11S3	WAKE ISLAND Hy	126.08	272	T	T	12 07 34.0	
	baz=114,slow=75,SNR=60						
H11N3	WAKE ISLAND Hy	126.39	273	T	T	12 07 58.8	
	baz=116,slow=74,SNR=8.1						
H11N1	WAKE ISLAND Hy	126.40	273	T	T	12 08 01.2	
	baz=116						
H11N2	WAKE ISLAND Hy	126.40	273	T	T	12 08 01.9	
	baz=116,slow=74,SNR=13						
ZALV	Zalesovo Beam	150.98	29	PKPbc	PKPbc	09 49 37.8	-0.4
	comp=Z,1.3nm,0.6s,baz=310,slow=3.8,SNR=6.8						

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*SJA **08** 09:35:10.2±0.7, 29°.39S×72°.10W, h17^{km}±2^{km}, ML4.2, MW4.1*

*IDC **08** 09:35:10.9±1.2, 29°.26S×72°.23W, h0^{km}, mb4.0/4, mbtmp3.9/9, ML4.0/5, MS3.6/1, Error ellipse: s-maj=24.0km s-min=15.6km az=87.0*

*GUC **08** 09:35:13.5±0.7, 29°.45S×71°.86W, h28^{km}±4^{km}, ML4.2*

*NEIC **08** 09:35:13.5±2.0, 29°.41S±0°.04×71°.9W±0°.1, h10^{km}±2^{km}, mb4.3/5, ML4.2(GUC), Error ellipse: s-maj=17.3km s-min=7.1km az=274.0*

ISC 08 09:35:11.2±1.8, **29°.45S**±0°.03×**71°.99W**±0°.04, **h1**^{km}±12^{km}, **n99**, σ**1^{s}77**/122, **mb4.1**/4, **3C-2D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LCO	Las Campanas	1.21	69	eP	Pn	09 35 34.9	-0.6
LCO				eS	Sg	09 35 52.6	+2.6
LCO				IAML		09 35 53.8	
	comp=Z,11µm,0.3s						
LCO	Las Campanas	1.21	69	eP	Pn	09 35 34.8	-0.8
LCO				eS	Sn	09 35 51.2	-1.6
LCO	Las Campanas	1.21	69		Pn	09 35 34.9	-0.6
CO06	Fray Jorge	1.26	166	eP	Pb	09 35 36.1	+0.3
CO06	Fray Jorge	1.26	166		Pb	09 35 36.2	+0.5
GO04	Tololo Observa	1.26	125	eP	Pb	09 35 35.9	-0.1
GO04				eS	Sn	09 35 52.6	-1.5
GO04				IAML		09 35 58.7	
	comp=Z,5µm,0.3s						
GO04	Tololo Observa	1.26	125	i P	Pb	09 35 35.8	-0.1
GO04				eS	Sb	09 35 51.3	-1.5
GO04				IAML		09 35 59.5	
	comp=N,26µm,0.3s						
GO04	Tololo Observa	1.26	125		Pb	09 35 35.8	-0.1
AC04	Llanos de Chal	1.48	33	eP	Pn	09 35 37.9	-1.1
AC04				eS	Sn	09 35 57.7	-1.3
AC04				IAML		09 36 07.1	
	comp=Z,2µm,0.6s						
AC04	Llanos de Chal	1.48	33	⇑iP	Pn	09 35 38.8	-0.2
AC04				IAML		09 36 07.2	
	comp=E,4µm,0.5s						
AC04	Llanos de Chal	1.48	33		Pn	09 35 38.8	-0.2
AC05	El Transito	1.62	68	eP	Pb	09 35 41.8	-0.2
AC05				eS	Sg	09 36 04.0	+0.7
AC05				IAML		09 36 05.2	
	comp=Z,2µm,0.7s						
AC05	El Transito	1.62	68	i P	Pb	09 35 42.0	0.0
AC05				eS	Sb	09 36 03.3	+0.2
AC05				IAML		09 36 04.4	
	comp=N,4µm,0.4s						
AC05	El Transito	1.62	68		Pb	09 35 41.9	-0.2
CO01	Juntas del Tor	1.73	108	eP	Pb	09 35 43.4	-0.6
CO01				eS	Sb	09 36 06.5	+0.1
CO01				IAML		09 36 08.0	
	comp=Z,2µm,0.8s						
CO01	Juntas del Tor	1.73	108	⇓iP	Pb	09 35 43.2	-0.7
CO01				eS	Sn	09 36 04.2	-1.5
CO01				IAML		09 36 08.3	
	comp=N,3µm,0.4s						
CO01	Juntas del Tor	1.73	108		Pb	09 35 43.3	-0.7
CO03	El Pedregal	1.79	141	eP	Pb	09 35 44.2	-0.7
CO03				eS	Sb	09 36 07.8	-0.1
CO03				IAML		09 36 16.9	
	comp=Z,1µm,0.5s						
CO03	El Pedregal	1.79	141	eP	Pb	09 35 44.1	-0.7
CO03	El Pedregal	1.79	141		Pb	09 35 44.1	-0.7
CO02	Combarbal	1.95	154	eP	Pb	09 35 47.0	-0.7
CO02				eS	Sb	09 36 12.7	+0.2
CO02				IAML		09 36 18.1	
	comp=Z,2µm,0.4s						
CO02	Combarbal	1.95	154	eP	Pb	09 35 46.9	-0.7
CO02				eS	Sb	09 36 12.3	-0.2
CO02				IAML		09 36 15.9	
	comp=E,10µm,0.3s						
CO02	Combarbal	1.95	154		Pb	09 35 46.4	-1.2
AROD	Rodeo	2.30	109	eP	Pb	09 35 53.7	0.0
AROD				eS	Sb	09 36 23.2	+0.3
GO03	Copiapo	2.41	40	eP	Pn	09 35 52.3	+0.5
GO03				eS	Sn	09 36 22.3	+0.3
GO03				IAML		09 36 34.8	
	comp=Z,946nm,0.4s						
GO03	Copiapo	2.41	40	⇓iP	Pn	09 35 52.3	+0.5
GO03				eS	Sb	09 36 23.5	-2.2
GO03				IAML		09 36 34.2	
	comp=N,1µm,0.4s						
GO03	Copiapo	2.41	40		Pn	09 35 52.0	+0.2
AC06	Mina Casimiro	2.53	35	i P	Pn	09 35 54.3	+0.8
AC06	Mina Casimiro	2.53	35		Pn	09 35 54.2	+0.8
ACDV	Cuesta del Vie	2.60	107	eP	Pb	09 35 57.6	-1.1
ACDV				eS	Sb	09 36 29.7	-1.5
ACDV				IAML		09 36 38.0	
	comp=Z,548nm,0.8s						
CO04	Los Peladeros	2.73	162	eP	Pn	09 35 58.1	+1.6
CO04				eS	Sn	09 36 31.1	+0.8
CO04				IAML		09 36 40.2	
	comp=N,1µm,0.4s						
CO04	Los Peladeros	2.73	162		Pn	09 35 57.7	+1.2
ACCO	Cerro Coronel	2.78	115	eP	Pb	09 36 01.3	-0.6
ACCO				eS	Sg	09 36 38.7	-1.9
ACCO				IAML		09 36 45.0	

	comp=Z,455nm,0.6s						
RTLS	Leoncito	3.30	136	eP	Pb	09 36 08.2	-2.5
RTLS				eS	Sb	09 36 48.4	-3.2
RTLS				IAML		09 36 58.2	
	comp=Z,908nm,0.6s						
VCA	Vinchina	3.39	79	eP	Pn	09 36 05.7	+0.3
VCA				eS	Sn	09 36 47.2	+0.8
VCA				IAML		09 37 08.7	
	comp=Z,604nm,1.5s						
AC01	Pan de Azucar	3.51	21	eP	Pn	09 36 06.1	-0.9
AC01				eS	Sg	09 37 04.0	0.0
AC01				IAML		09 37 13.3	
	comp=Z,317nm,0.6s						
AC01	Pan de Azucar	3.51	21⇑	eP	Pn	09 36 05.8	-1.1
AC01	Pan de Azucar	3.51	21		Pn	09 36 06.1	-0.9
VA03	San Esteban	3.53	160	eP	Pn	09 36 09.7	+2.4
VA03				eS	Sb	09 36 52.6	-5.3
VA03				IAML		09 37 10.2	
	comp=Z,424nm,0.4s						
VA03	San Esteban	3.53	160		Pn	09 36 09.4	+2.1
RTLL	Cerro Villicun	3.57	123	eP	Pb	09 36 11.6	-3.6
RTLL				eS	Sb	09 36 54.2	-5.0
RTLL				IAML		09 37 14.7	
	comp=Z,310nm,0.8s						
ROCH	El Roble	3.61	167	eP	Pn	09 36 09.7	+1.1
AC02	Maricunga	3.63	45⇑	eP	Pn	09 36 10.4	+1.4
AC02	Maricunga	3.63	45		Pn	09 36 10.3	+1.3
PEL	Peldehue	3.85	163	eP	Pn	09 36 13.6	+1.9
MT02	Curacav	3.87	169	eP	Pn	09 36 13.0	+1.1
MT02				eS	Sb	09 37 06.9	-0.8
MT02				IAML		09 37 19.6	
	comp=Z,207nm,0.4s						
MT02	Curacav	3.87	169	eP	Pn	09 36 12.8	+1.0
MT02	Curacav	3.87	169		Pn	09 36 12.4	+0.5
CFA	Coronel Fontan	3.89	125	Pn	Pn	09 36 15.4	+3.3
	comp=Z,6.3nm,0.3s,baz=317,slow=13,SNR=51						
CFA				Sn	Sb	09 37 06.7	-1.6
	comp=Z,14nm,0.3s,baz=75,slow=22,SNR=5.7						
	comp=Z,21nm,0.2s						
CFA				AML	AML		
MT10	Hacienda Santa	4.01	162	eP	Pn	09 36 15.9	+1.9
MT05	Renca	4.08	165	eP	Pn	09 36 17.4	+2.7
MT05				eS	Sb	09 37 16.6	+2.9
MT05				IAML		09 37 29.2	
	comp=Z,376nm,0.8s						
MT05	Renca	4.08	165		Pn	09 36 16.0	+1.2
MT03	Universidad Ad	4.23	163	eP	Pn	09 36 19.6	+2.7
MT03				eS	Sb	09 37 11.2	-6.8
MT03				IAML		09 37 37.4	
	comp=Z,300nm,0.5s						
MT03	Universidad Ad	4.23	163		Pn	09 36 18.9	+2.0
MT04	Ro Olivares	4.25	159	eP	Pn	09 36 20.8	+3.4
MT04				eS	Sb	09 37 21.7	+2.8
MT04				IAML		09 37 31.0	
	comp=Z,155nm,0.9s						
MT08	Bocatoma Ro	4.33	158	eP	Pn	09 36 18.0	-0.4
MT08				eS	Sb	09 37 18.0	-3.0
MT08				IAML		09 37 39.8	
	comp=Z,189nm,0.8s						
MT09	Talagante	4.40	169		Pn	09 36 20.6	+1.3
MT01	Popeta	4.45	172	eP	Pn	09 36 20.7	+0.8
MT01				eS	Sg	09 37 32.5	-1.6
MT01				IAML		09 37 41.6	
	comp=Z,145nm,0.7s						
MT01	Popeta	4.45	172		Pn	09 36 20.3	+0.4
MT13	San Alfonso	4.52	162	eP	Pn	09 36 23.8	+2.8
MT13				eS	Sn	09 37 18.9	+4.6
MT13				IAML		09 37 38.4	
	comp=Z,217nm,0.5s						
BO01	Tunca	4.99	171		Pn	09 36 27.7	+0.4
PB14	IPOC Station P	5.01	17	eP	Pn	09 36 26.1	-1.7
BO02	Sierra Bellavi	5.43	169		Pn	09 36 34.2	+0.8
ML02	Panimavida	6.32	176	Pn	Pn	09 36 46.2	+0.7
TCA	Tanti	6.66	108	eP	Pn	09 36 51.1	+0.8
H03N1	Juan Fernandez	7.13	234	Pn	Pn	09 36 56.1	-0.3
H03N1				T	T	09 44 34.9	
	baz=199,slow=74,SNR=1511						
H03N2	Juan Fernandez	7.14	234	Pn	Pn	09 36 56.1	-0.4
H03N2				T	T	09 44 42.9	
	baz=63,slow=74,SNR=1760						
BI02	San Fabin de	7.22	175	Pn	Pn	09 36 58.8	+0.8
H03S3	Juan Fernandez	7.34	232	Pn	Pn	09 36 57.4	-1.8
H03S1	Juan Fernandez	7.34	232	Pn	Pn	09 36 57.3	-2.0
H03S2	Juan Fernandez	7.35	232	Pn	Pn	09 36 57.5	-2.0
PB03	IPOC Station P	7.64	16	Pn	Pn	09 37 04.1	+0.3
GO06	Curarrehue	10.12	178	Pn	Pn	09 37 39.3	+1.5
PLCA	Paso Flores	11.32	174	Pn	Pn	09 37 55.8	+1.6
	comp=Z,0.1nm,0.3s,baz=331,slow=12,SNR=9.5						
	comp=Z,2.4nm,1.1s						
PLCA				AML	AML		
CPUP	Villa Florida	13.34	80	Pn	Pn	09 38 24.7	+3.0
	comp=Z,0.4nm,0.3s,baz=254,slow=13,SNR=6.2						
	comp=Z,1.1nm,0.4s						
CPUP				AML	AML		
CPUP	Villa Florida	13.34	80	Pn	Pn	09 38 24.4	+2.7
LPAZ	La Paz	13.57	16	Pn	Pn	09 38 23.7	-1.8
	comp=Z,0.6nm,0.3s,baz=190,slow=7.7,SNR=22						
	comp=Z,0.5nm,0.4s						
LPAZ				AML	AML		
SIV	San Ignacio	16.74	39	Pn	Pn	09 39 07.4	+0.3
	baz=221,slow=9.7,SNR=13						
	comp=Z,2.4nm,0.6s						
PTLB	Pontes e Lacer	18.29	43	P	P	09 39 26.6	+0.1
VILB	Vilhena	19.73	36	P	P	09 39 42.3	-0.1
VILB				IAmb	IAmb	09 39 43.8	
	comp=Z,15nm,1.2s						
BDFB	Brasilia	25.99	63	P	P	09 40 45.3	-0.6
	comp=Z,1.5nm,0.4s,baz=264,slow=12,SNR=3.2						
	comp=Z,1.5nm,0.4s						
VA02	Isla de Pascua	32.95	265	P	P	09 41 49.5	+2.0
SJG	San Juan	47.62	8	LR	LR	10 02 08.0	
	comp=Z,78nm,21.8s,baz=345,slow=34						
VNA2	Neumayer--Watz	54.20	159	P	P	09 44 36.6	-1.4
	comp=Z,0.9nm,0.5s,baz=280,slow=8.3						
SNAA	Sanae	55.79	159	P	P	09 44 50.0	+0.4
	comp=Z,0.6nm,0.3s,baz=318,slow=2.5,SNR=2.0						
	comp=Z,0.6nm,0.3s						
SNAA	Sanae	55.79	159	P	P	09 44 50.4	+0.8
SNAA				IAmb	IAmb	09 44 52.0	
	comp=Z,3.4nm,1.0s						
QSPA	South Pole Qui	60.77	180	P	P	09 45 24.8	+0.2
	comp=Z,1.1nm,1.0s,baz=116,slow=12,SNR=2.0						
	comp=Z,1.1nm,1.0s						
QSPA	South Pole Qui	60.77	180	P	P	09 45 25.1	+0.5
QSPA				IAmb	IAmb	09 45 34.5	
	comp=Z,4.3nm,1.2s						
TORD	Torodi Ar. Bea	82.64	71	P	P	09 47 35.5	-1.3
	comp=Z,1.4nm,0.8s,baz=267,slow=3.8,SNR=4.9						
	comp=Z,1.4nm,0.8s						
H11S2	WAKE ISLAND Hy	125.75	272	T	T	12 13 02.8	
	baz=114,slow=74,SNR=13						
H11S1	WAKE ISLAND Hy	125.76	272	T	T	12 13 05.2	
	baz=114,slow=74,SNR=10						
H11S3	WAKE ISLAND Hy	125.77	272	T	T	12 13 04.0	
	baz=114,slow=74,SNR=9.1						
H11N3	WAKE ISLAND Hy	126.05	274	T	T	12 13 29.4	
	baz=116						
H11N1	WAKE ISLAND Hy	126.06	274	T	T	12 13 34.6	
	baz=116						
H11N2	WAKE ISLAND Hy	126.06	274	T	T	12 13 31.8	
	baz=116,SNR=5.4						
ZALV	Zalesovo Beam	150.28	28	PKPbc	PKiKP	09 55 04.9	+0.4
	comp=Z,3.4nm,0.7s,baz=300,slow=2.9,SNR=13						
WMQ	Urumqi	158.37	43	ePKP	PKPdf	09 55 11.1	+0.8
WMQ				LR	LR		
	comp=N,350nm,15.5s						
WMQ				LR	LR		
	comp=E,160nm,15.5s						
WMQ				LR	LR		
	comp=Z,130nm,20.1s						
HHC	Hu-ho-hao-te	168.26	347	eP	PKPdf	09 55 16.6	-3.2
PZH	PanZhiHua	173.73	116	PKP	PKPdf	09 55 13.6	-10

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*IDC **08** 09:43:49.7±0.6, 1°.70N×126°.74E, h0^{km}, mb4.0/13, mbtmp4.1/14, ML3.7/1, Error ellipse: s-maj=29.8km s-min=13.6km az=82.0*

*DJA **08** 09:43:53.1±0.3, 2°N±5°×12°7E±°, h10^{km}, M4.4/12, mB5.7/1, mb4.8/3, MLv4.2/12, Mw(mB)5.2/1*

*NEIC **08** 09:43:55.4±0.6, 1°.73N±0°.09×126°.8E±0°.1, h35^{km}±2^{km}, mb4.2/12, Error ellipse: s-maj=21.3km s-min=10.0km az=48.0*

ISC 08 09:43:54.9±0.5, **1°.74N**±0°.06×**126°.84E**±0°.09, **h35**^{km}, **n44**, σ**1^{s}.33**/48, **mb4.1**/17, **Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TNTI	Ternate	1.10	151	P	Pn	09 44 14.5	+0.6
TNTI	Ternate	1.10	151	Pn	Pn	09 44 14.4	+0.6
TNTI				Sn	Sn	09 44 28.5	+0.7
TNTI	Ternate	1.10	151	P	Pn	09 44 14.3	+0.5
MNI	Manado	2.02	262	P	Pn	09 44 24.8	-1.7
MNI				AML	AML		
SANI	Sanana	3.86	193	P	Pn	09 44 53.9	+2.0
SANI	Sanana	3.86	193	P	Pn	09 44 51.6	-0.3
GTOI	Gorontalo	3.98	254	P	Pn	09 44 53.6	+0.1
GTOI				AML	AML		
DDMP	Don Marcelino,	4.48	345	eP	Pn	09 45 05.0	+4.7
DDMP				eS	Sn	09 45 50.5	-0.6
LUWI	Luwuk	4.92	236	P	Pn	09 45 10.0	+3.6
LUWI	Luwuk	4.92	236	Pn	Pn	09 45 07.2	+0.8
NLAI	Namlea	4.96	177	P	Pn	09 45 07.6	+0.7
NLAI				AML	AML		
TOLI2	Tolitoli	6.09	264	P	Pn	09 45 20.6	-1.9
TOLI2	Tolitoli	6.09	264	Pn	Pn	09 45 21.0	-1.4
MYLDM	Lahad Datu	8.99	293		Pn	09 46 06.1	+3.7
KAPI	Kappang	9.76	226	Pn	Pn	09 46 13.3	+0.5
	0.8nm,0.3s,baz=154,slow=1.3,SNR=3.6						
	7.0nm,0.3s						
KAPI				AML	AML		
WB0	Warramunga Arr	22.63	161		P	09 48 52.5	-0.5
WRAB	Tennant Creek	22.77	161	P	P	09 48 54.2	-0.2
WRAB				IAmb	IAmb	09 48 57.6	
	comp=Z,10nm,0.9s						
WRA	Warramunga Arr	22.77	162	P	P	09 48 53.6	-0.9
	comp=Z,7.2nm,0.7s,baz=339,slow=11,SNR=19						
WRA				PcP	PcP	09 52 46.5	+0.9
	comp=Z,0.6nm,0.7s,baz=328,slow=1.9,SNR=2.4						
	comp=Z,7.2nm,0.7s						
WRA	Warramunga Arr	22.77	162	P	P	09 48 52.6	-1.9
WR8	Warramunga Arr	22.84	161	P	P	09 48 54.2	-1.0
WR8				IAmb	IAmb	09 49 00.7	
	comp=Z,9.8nm,0.7s						
AS31	Alice Springs	26.18	165	P	P	09 49 26.1	-0.2
ASAR	Alice Springs	26.18	165	P	P	09 49 25.8	-0.5
	comp=Z,3.5nm,0.6s,baz=346,slow=12,SNR=35						
ASAR				PcP	PcP	09 52 53.6	+0.6
	comp=Z,0.5nm,0.6s,baz=350,slow=2.3,SNR=2.9						
	comp=Z,3.5nm,0.6s						
ASAR	Alice Springs	26.18	165	P	P	09 49 26.2	-0.1
KSRS	Korea Array	35.55	1	P	P	09 50 48.0	-0.7
	comp=Z,0.8nm,0.7s,baz=184,slow=9.3,SNR=2.2						
	comp=Z,0.8nm,0.7s						
MJAR	Matsushiro Arr	36.19	16	P	P	09 50 54.2	-0.1
	comp=Z,0.8nm,0.5s,baz=106,slow=24,SNR=2.8						
	comp=Z,0.8nm,0.5s						
MJAR	Matsushiro Arr	36.19	16	P	P	09 50 54.9	+0.6
MJAR				IAmb	IAmb	09 50 58.9	
	comp=Z,2.5nm,0.9s						
STKA	Stephens Creek	36.25	159	P	P	09 50 54.6	-0.3
	comp=Z,1.4nm,0.6s,baz=321,slow=6.5,SNR=3.8						
	comp=Z,1.4nm,0.6s						
SONM	Songino Array	49.20	342	P	P	09 52 39.4	-0.5
	comp=Z,0.5nm,0.6s,baz=145,slow=8.4,SNR=3.5						
	comp=Z,0.5nm,0.6s						
PETK	Petropavlovsk-	57.22	22	P	P	09 53 39.1	+0.5
	comp=Z,2.0nm,0.8s,baz=221,slow=7.2,SNR=1.7						
	comp=Z,2.0nm,0.8s						
MKAR	Makanchi Array	59.24	326	P	P	09 53 52.6	-0.3
	comp=Z,1.6nm,0.5s,baz=120,slow=8.8,SNR=16						
	comp=Z,1.6nm,0.5s						
KURBB	Kurchatov Arra	63.46	328	P	P	09 54 21.5	+0.2
	comp=Z,1.3nm,0.5s,baz=129,slow=6.4,SNR=13						
	comp=Z,1.3nm,0.5s						
KURK	Kurchatov	63.47	328	P	P	09 54 20.8	-0.5
KK31	Karatay Array	64.76	318	P	P	09 54 29.6	-0.4
KK31				IAmb	IAmb	09 55 01.4	
	comp=Z,2.4nm,1.1s						
KKAR	Karatay Array	64.76	318	P	P	09 54 29.8	-0.1
BVAR	Borovoye Array	69.04	327	P	P	09 54 58.6	+1.6
	comp=Z,0.7nm,0.4s,baz=134,slow=11,SNR=3.8						
	comp=Z,0.7nm,0.4s						
AB31	Akbulak array	73.75	321	P	P	09 55 25.4	-0.2
AB31				IAmb	IAmb	09 55 49.3	
	comp=Z,2.4nm,1.2s						
ABKAR	Akbulak array	73.75	321	P	P	09 55 25.0	-0.5
VNDA	Vanda	81.45	173	P	P	09 56 08.7	+0.7
	comp=Z,0.9nm,0.5s,baz=309,slow=5.6,SNR=6.0						
	comp=Z,0.9nm,0.5s						
VNDA	Vanda	81.45	173	P	P	09 56 07.2	-0.8
VNDA				IAmb	IAmb	09 56 15.4	
	comp=Z,4.3nm,1.4s						
MAW	Mawson	81.94	200	P	P	09 56 10.3	-0.3
	comp=Z,0.4nm,0.4s,baz=39,slow=20,SNR=1.7						
	comp=Z,0.4nm,0.4s						
MAW	Mawson	81.94	200	P	P	09 56 10.8	+0.2
QSPA	South Pole Qui	91.66	180	P	P	09 56 57.9	-0.5
	comp=Z,0.4nm,0.6s,baz=96,slow=4.9,SNR=1.4						
	comp=Z,0.4nm,0.6s						
QSPA	South Pole Qui	91.66	180	P	P	09 56 57.8	-0.6
TXAR	Lajitas Array	122.71	53	PKP	PKiKP	10 02 49.0	+0.9
	comp=Z,0.1nm,0.5s,baz=298,slow=2.5,SNR=2.0						

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*IDC **08** 09:52:11.0±2.2, 21°.31S×178°.87W, h595^{km}±22^{km}, mb3.0/5, mbtmp4.0/7, Error ellipse: s-maj=37.5km s-min=26.0km az=50.0*

ISC 08 09:52:12.0±2.1, **21°.3S**±0°.2×**179°.0W**±0°.3, **h602**^{km}, **n8**, σ**1^{s}.17**/8, **mb3.6**/5, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	4.54	321	P	P	09 53 41.1	-0.6
	16nm,0.6s,baz=319,slow=24,SNR=18						
URZ	Urewera	17.22	190	P	P	09 55 38.1	-2.1
	2.7nm,0.3s,baz=49,slow=11,SNR=11						
STKA	Stephens Creek	36.61	245	P	P	09 58 29.4	+0.3
	1.0nm,0.7s,baz=70,slow=15,SNR=1.3						
	1.0nm,0.7s						
ASAR	Alice Springs	43.45	258	P	P	09 59 23.9	+0.2
	2.1nm,0.7s,baz=96,slow=7.7,SNR=38						
ASAR				PcP	PcP	10 00 58.2	+0.3
	0.2nm,0.6s,baz=96,slow=3.0,SNR=4.3						
	2.1nm,0.7s						
WRA	Warramunga Arr	43.59	263	P	P	09 59 24.2	-0.5
	1.3nm,0.6s,baz=98,slow=7.8,SNR=28						
	1.3nm,0.6s						
FITZ	Fitzroy Crossi	52.02	263	P	P	10 00 27.9	+0.5
	1.3nm,0.7s,baz=87,slow=6.8,SNR=5.9						
	1.3nm,0.7s						
QSPA	South Pole Qui	68.75	180	P	P	10 02 17.9	+1.2
	1.1nm,0.7s,baz=65,slow=2.2,SNR=2.1						
	1.1nm,0.7s						
AKASG	Malin Array Be	143.27	330	PKP	PKPab	10 10 35.8	-1.0
	1.0nm,0.4s,baz=47,slow=4.0,SNR=7.3						

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*IDC **08** 10:04:55.4±1.4, 36°.04N×120°.73E, h0^{km}, mb3.8/4, mbtmp3.8/5, ML3.9/1, MS3.1/1, Error ellipse: s-maj=41.3km s-min=13.2km az=172.0*

*KEA **08** 10:04:59.8, 36°.22N×121°.31E, h1^{km}, ML4.1/5*

ISC 08 10:04:56.1±1.3, **36°.0N**±0°.1×**121°.03E**±0°.08, **h10**^{km}, **n11**, σ**1^{s}.29**/12, **mb3.9**/4, **Yellow Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HJU	Haeju	4.28	60	Sg	Sg	10 07 12.7	-0.9
HJU				AML	AML		
	comp=N,411nm,0.3s						
HJU				AML	AML		
	comp=E,161nm,0.2s						
HJU				AML	AML		
	comp=Z,161nm,0.4s						
SRW	Sariwon	4.52	55	Sg	Sg	10 07 22.0	+0.6
SRW				AML	AML		
	comp=N,474nm,0.3s						
SRW				AML	AML		
	comp=E,786nm,0.2s						
SRW				AML	AML		
	comp=Z,44nm,0.2s						
PYAG	Pyongyang	4.84	50	Pg	Pg	10 06 27.3	-1.6
PYAG				Sg	Sg	10 07 31.8	+0.2
PYAG				AML	AML		
	comp=N,278nm,0.3s						
PYAG				AML	AML		
	comp=E,170nm,0.3s						
PYAG				AML	AML		
	comp=Z,235nm,0.4s						
SUJ	Sinuiju	4.93	33	Pg	Pg	10 06 29.7	-0.9
SUJ				Sg	Sg	10 07 35.3	+0.8
SUJ				AML	AML		
	comp=N,854nm,0.7s						
SUJ				AML	AML		
	comp=E,815nm,1.8s						
SUJ				AML	AML		
	comp=Z,114nm,0.4s						
PYS	Pyongsong	5.03	48	Pg	Pg	10 06 30.8	-1.6
PYS				Sg	Sg	10 07 37.8	+0.4
PYS				AML	AML		
	comp=N,541nm,0.5s						
PYS				AML	AML		
	comp=E,481nm,0.8s						
PYS				AML	AML		
	comp=Z,278nm,0.8s						
KSRS	Korea Array	5.73	73	Pn	Pn	10 06 23.4	+2.3
	comp=Z,2.9nm,0.3s,baz=260,slow=13,SNR=18						
KSRS				Pg	Pg	10 06 44.5	-1.4
	comp=Z,3.3nm,0.3s,baz=255,slow=18,SNR=8.9						
KSRS				Lg	Lg	10 07 59.7	
	comp=Z,6.9nm,0.3s,baz=258,slow=31,SNR=3.0						
	comp=Z,5.6nm,0.3s						
KSRS				AML	AML		
SONM	Songino Array	16.05	322	LR	LR	10 15 09.3	
	comp=Z,65nm,18.8s,baz=276,slow=39						
CMAR	Chiang Mai Arr	26.18	234	P	P	10 10 30.6	-0.3
	comp=Z,1.4nm,0.3s,baz=30,slow=10.0,SNR=4.4						
	comp=Z,1.4nm,0.3s						
MKAR	Makanchi Array	30.71	303	P	P	10 11 09.4	-1.7
	comp=Z,0.2nm,0.5s,baz=97,slow=7.4,SNR=1.9						
	comp=Z,0.2nm,0.5s						
KURBB	Kurchatov Arra	33.71	309	P	P	10 11 37.1	-0.2
	comp=Z,0.9nm,0.8s,baz=101,slow=9.1,SNR=4.0						
	comp=Z,0.9nm,0.8s						
BRTR	Keskin Array B	66.36	303	P	P	10 15 44.1	-1.2
	comp=Z,0.7nm,0.5s,baz=52,slow=5.7,SNR=2.7						
	comp=Z,0.7nm,0.5s						

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*MOS **08** 10:05:14.5±0.8, 52°.62N×169°.62E, h13^{km}, mb4.5/5, Error ellipse: s-maj=11.0km s-min=5.4km az=32.6*

*IDC **08** 10:05:14.6±0.8, 52°.65N×169°.73E, h0^{km}, mb4.1/16, mbtmp4.1/19, ML3.8/3, MS3.2/9, Error ellipse: s-maj=20.8km s-min=12.5km az=177.0*

*NEIC **08** 10:05:16.0±1.4, 52°.6N±0°.2×169°.7E±0°.1, h10^{km}±1^{km}, mb4.3/36, Error ellipse: s-maj=27.5km s-min=11.1km az=182.0*

*KRSC **08** 10:05:19.4±1.7, 52°.73N×168°.83E, h16^{km}±56^{km}, Ml4.6*

ISC 08 10:05:16.2±0.6, **52°.66N**±0°.07×**169°.58E**±0°.05, **h10**^{km}, **n149**, σ**1^{s}.70**/156, **mb4.3**/33, **MS3.1**/7, **South of Aleutian Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHEM	Shemya Is, Ala	2.75	87	Pn	Pn	10 05 59.0	-1.2
	21nm,0.3s,baz=247,slow=4.5,SNR=9.4						
SHEM				Sn	Sn	10 06 29.9	-3.6
	34nm,0.3s,baz=288,slow=17,SNR=11						
SHEM				LR	LR	10 07 11.5	
	comp=Z,452nm,18.2s,baz=277,slow=44						
	108nm,0.5s						
SHEM				AML	AML		
SHEM	Shemya Is, Ala	2.75	87		Pn	10 05 58.5	-1.7
SMY	Shemya	2.75	87		Pn	10 05 58.7	-1.5
BKI	Bering	3.32	321	P	Pn	10 06 07.2	-0.9
BKI				S	Sn	10 06 45.3	-2.3
BKI	Bering	3.32	321	eP	Pn	10 06 07.3	-0.9
BKI				eS	Sn	10 06 45.1	-2.4
MKZ	Mys Kozlova	5.05	295	P	Pn	10 06 31.8	0.0
MKZ				S	Sn	10 07 25.9	-4.2
MKZ	Mys Kozlova	5.05	295	eP	Pn	10 06 31.6	-0.2
MKZ				eS	Sn	10 07 25.9	-4.2
KBTR	Krutoberegovo	5.31	315	P	Pn	10 06 35.4	0.0
KBTR	Krutoberegovo	5.31	315	eP	Pn	10 06 35.5	0.0
SPN	Mys Shipunski	5.81	278	P	Pn	10 06 43.0	+0.8
SPN				S	Sn	10 07 44.8	-4.0
SPN	Mys Shipunski	5.81	278	eP	Pn	10 06 43.2	+1.0
SPN				eS	Sn	10 07 45.3	-3.5
TUMD	Tumrok D	5.99	299	P	Pn	10 06 46.2	+1.4
TUMD				S	Sn	10 07 51.2	-2.2
TUMD	Tumrok D	5.99	299	eP	Pn	10 06 47.3	+2.5
ZLN	Zelenaya	6.13	307	P	Pn	10 06 48.3	+1.4
ZLN				S	Sn	10 07 55.8	-1.3
ZLN	Zelenaya	6.13	307	eP	Pn	10 06 48.9	+2.0
ZLN				eS	Sn	10 07 55.3	-1.7
AMKA	Amchitka	6.14	98	Pn	Pn	10 06 45.9	-0.9
BZGR	Bezymyannyi-Gr	6.15	306	P	Pn	10 06 47.6	+0.5
BZGR	Bezymyannyi-Gr	6.15	306	eP	Pn	10 06 48.2	+1.1
TUMR	Tumrok	6.16	299	P	Pn	10 06 49.5	+2.3
TUMR				S	Sn	10 07 55.3	-2.3
TUMR	Tumrok	6.16	299	eP	Pn	10 06 48.8	+1.7
NLC	Nalytchevo	6.22	279	P	Pn	10 06 48.3	+0.5
NLC	Nalytchevo	6.22	279	eP	Pn	10 06 48.1	+0.3
NLC				eS	Sn	10 07 53.4	-5.5
KII	Karymskiy	6.22	287	P	Pn	10 06 48.5	+0.4
KII	Karymskiy	6.22	287	eP	Pn	10 06 48.9	+0.8
BZMR	Bezymyannaya	6.25	305	P	Pn	10 06 50.0	+1.5
BZMR	Bezymyannaya	6.25	305	eP	Pn	10 06 50.2	+1.7
KLY	Klyuchi	6.36	309	eP	Pn	10 06 49.6	-0.2
KLY				eS	Sn	10 07 56.9	-5.5
KPT	Kopyto	6.40	305	eP	Pn	10 06 52.7	+2.3
SDLR	Sedlovina	6.49	280	P	Pn	10 06 52.6	+0.8
UGLR	Uglovaya	6.53	279	P	Pn	10 06 53.2	+0.9
UGLR	Uglovaya	6.53	279	eP	Pn	10 06 53.1	+0.9
SMAR	Somma	6.54	280	P	Pn	10 06 52.9	+0.3
SMAR	Somma	6.54	280	eP	Pn	10 06 52.9	+0.3
DALK	Dalny	6.57	278	P	Pn	10 06 53.0	+0.2
DALK	Dalny	6.57	278	eP	Pn	10 06 53.0	+0.2
KRER	Koryakskii	6.58	280	P	Pn	10 06 53.6	+0.6
KRER	Koryakskii	6.58	280	eP	Pn	10 06 53.6	+0.6
AVH	Avacha	6.58	280	P	Pn	10 06 53.7	+0.7
AVH	Avacha	6.58	280	eP	Pn	10 06 53.9	+1.0
KOZ	Kozyrevsk	6.62	305	P	Pn	10 06 55.5	+2.1
KOZ	Kozyrevsk	6.62	305	eP	Pn	10 06 56.0	+2.7
PET	Petropavlovsk	6.63	277	eP	Pn	10 06 54.6	+1.0
PET				eS	Sn	10 08 05.3	-3.9
PET				pmax	pmax		
	comp=Z,52nm,0.5s						
PET				smax	smax		
	comp=E,78nm,0.6s						
PET				smax	smax		
	comp=N,98nm,0.6s						
PET	Petropavlovsk	6.63	277		Pn	10 06 54.0	+0.4
PET	Petropavlovsk	6.63	277	eP	Pn	10 06 54.4	+0.8
PET				eS	Sn	10 08 04.8	-4.4
KRX	Arik	6.64	280	P	Pn	10 06 54.2	+0.4
KRX	Arik	6.64	280	eP	Pn	10 06 54.6	+0.8
KOK	Koryaka	6.64	280	P	Pn	10 06 54.2	+0.4
KOK	Koryaka	6.64	280	eP	Pn	10 06 54.4	+0.6
RUS	Russkaya	6.76	272	P	Pn	10 06 55.6	+0.3
RUS	Russkaya	6.76	272	eP	Pn	10 06 55.6	+0.3
SRDR	Sredinnyy	6.81	306	P	Pn	10 06 58.1	+2.0
SRDR	Sredinnyy	6.81	306	eP	Pn	10 06 58.9	+2.8
MTVR	Mutnovka	6.95	273	P	Pn	10 06 59.0	+0.9
MTVR	Mutnovka	6.95	273	eP	Pn	10 06 59.0	+0.9
MTVR				eS	Sn	10 08 11.2	-6.1
KRMR	Karymshinskiy	6.96	276	P	Pn	10 06 58.4	+0.4
KRMR				S	Sn	10 08 13.2	-3.9
KRMR	Karymshinskiy	6.96	276	eP	Pn	10 06 58.5	+0.5
GRL	Gorelyy	7.01	274	P	Pn	10 07 00.0	+1.1
GRL	Gorelyy	7.01	274	eP	Pn	10 07 00.4	+1.4
GNL	Ganaly	7.08	283	P	Pn	10 07 01.1	+1.3
GNL	Ganaly	7.08	283	eP	Pn	10 07 01.2	+1.4
KDTR	Khodutka, Kamc	7.12	268	P	Pn	10 06 59.6	-0.7
KDTR	Khodutka, Kamc	7.12	268	eP	Pn	10 07 00.2	0.0
ESO	Esso	7.16	301	P	Pn	10 07 02.0	+1.2
ESO	Esso	7.16	301	eP	Pn	10 07 01.8	+1.0
PEA0B	Petropavlovsk-	7.21	278	P	Pn	10 07 02.5	+1.0
PEA0B	Petropavlovsk-	7.21	278		Pn	10 07 02.5	+1.0
PETK	Petropavlovsk-	7.21	278	Pn	Pn	10 07 02.7	+1.2
	comp=N,14nm,0.3s,baz=89,slow=18,SNR=226						
PETK				Sn	Sn	10 08 21.9	-1.4
	comp=N,2.4nm,0.3s,baz=65,slow=19,SNR=1.1						
PETK				LR	LR	10 10 18.7	
	comp=N,52nm,19.0s,baz=98,slow=42						
	comp=N,43nm,0.5s						
PETK				AML	AML		
APC	Apacha	7.54	277	P	Pn	10 07 08.0	+2.0
APC				S	Sn	10 08 27.2	-4.3
APC	Apacha	7.54	277	eP	Pn	10 07 09.0	+3.0
APC				eS	Sn	10 08 27.5	-4.0
PAU	Pauzhetka	7.96	266	P	Pn	10 07 12.7	+0.9
PAU	Pauzhetka	7.96	266	eP	Pn	10 07 13.4	+1.6
ATKA	Atka Island	9.92	86	Pn	Pn	10 07 37.4	-1.3

SEY	Seymchan	13.73	325	Pn	Pn	10 08 32.8	+2.2
	comp=N,0.2nm,0.3s,baz=102,slow=12,SNR=6.2						
	comp=N,1.1nm,0.6s						
SEY				AML	AML		
K13K	Kusilvak Mount	16.62	46		P	10 09 09.9	-1.4
K13K				IAmb	IAmb	10 09 37.3	
	comp=Z,35nm,1.5s						
SDPT	Sand Point	17.73	69		Pn	10 09 22.1	-0.8
CNBA	Chernabura Isl	18.29	71	P	Pn	10 09 28.7	-1.0
CHGN	Chignik	18.85	66	P	P	10 09 33.9	-2.0
CHGN				IAmb	IAmb	10 09 50.9	
	comp=Z,22nm,1.0s						
J16K	Anvik River	18.86	44	P	Pn	10 09 36.3	-0.3
M17K	Holitna River	19.76	51	P	P	10 09 45.1	-0.8
M17K				IAmb	IAmb	10 09 47.0	
	comp=Z,17nm,1.3s						
G18K	Tagagawik	20.64	38		P	10 09 55.8	+0.3
K20K	Telida	21.70	46	P	P	10 10 07.2	+0.2
K20K				IAmb	IAmb	10 10 16.1	
	comp=Z,15nm,1.4s						
J20K	Nowinta River	21.86	44	P	P	10 10 08.7	0.0
KDAK	Kodiak Island	21.96	61	P	P	10 10 08.9	-0.8
	comp=Z,3.8nm,0.5s,baz=90,slow=2.4,SNR=61						
KDAK				LR	LR	10 18 32.3	
	comp=Z,71nm,20.4s,baz=269,slow=36						
	comp=Z,3.8nm,0.5s						
KDAK	Kodiak Island	21.96	61	P	P	10 10 08.6	-1.2
KDAK				pmax	pmax		
	comp=Z,29nm,1.5s						
KDAK	Kodiak Island	21.96	61	P	P	10 10 08.6	-1.2
KDAK				IAmb	IAmb	10 10 40.9	
	comp=Z,29nm,1.4s						
D20K	Etivluk River	22.61	32	IAmb	IAmb	10 10 41.9	
	comp=Z,19nm,1.4s						
PMR	Palmer	23.73	52	P	P	10 10 26.7	-1.4
PMR				pmax	pmax		
	comp=Z,13nm,1.4s						
PMR	Palmer	23.73	52	P	P	10 10 26.7	-1.4
PMR				IAmb	IAmb	10 11 03.9	
	comp=Z,13nm,1.4s						
KLR	Kul'dur	23.90	277	P	P	10 10 31.4	+1.7
	comp=Z,3.1nm,0.8s,baz=53,slow=10,SNR=3.9						
KLR				LR	LR	10 19 25.2	
	comp=Z,90nm,20.2s,baz=119,slow=35						
	comp=Z,3.1nm,0.8s						
KLR	Kul'dur	23.90	277	*e*P	P	10 10 30.7	+0.9
KLR				pmax	pmax		
	comp=Z,2.0nm,1.2s						
NEA2	Nenana	24.11	44	IAmb	IAmb	10 10 34.5	
	comp=Z,3.6nm,0.5s						
G23K	Bananza Creek	24.19	39		P	10 10 32.4	0.0
WRH	Wood River Hil	24.51	45	P	P	10 10 34.7	-0.5
WRH				IAmb	IAmb	10 10 37.6	
	comp=Z,6.2nm,1.1s						
CCB	Clear Creek Bu	24.66	44		P	10 10 36.4	-0.2
D23K	Nanushuk River	24.67	34	IAmb	IAmb	10 10 41.8	
	comp=Z,13nm,1.1s						
C23K	Itkillik River	25.02	32	P	P	10 10 39.4	-0.4
IL31		25.06	44	P	P	10 10 39.7	-0.5
ILAR	Eielson Array	25.06	44	P	P	10 10 39.2	-1.1
	comp=Z,1.7nm,0.6s,baz=252,slow=7.0,SNR=33						
ILAR				LR	LR	10 20 35.4	
	comp=Z,54nm,18.7s,baz=286,slow=37						
	comp=Z,1.7nm,0.6s						
ILAR	Eielson Array	25.06	44	P	P	10 10 39.7	-0.5
E24K	Your Creek	25.14	36		P	10 10 42.0	+0.9
E24K				IAmb	IAmb	10 10 43.5	
	comp=Z,5.1nm,0.9s						
F25K	Christian Rive	26.07	38		P	10 10 48.3	-1.1
HEH	HeiHe	26.12	282	*e*P	P	10 10 52.1	+2.2
D25K	Kavik River	26.25	34	P	P	10 10 50.7	-0.3
D25K				IAmb	IAmb	10 10 52.2	
	comp=Z,6.5nm,0.6s						
BMAR	Burnt Mountain	26.43	38		P	10 10 52.8	+0.1
G26K	Porcupine Rive	26.65	40		P	10 10 54.4	-0.2
G26K				IAmb	IAmb	10 11 00.5	
	comp=Z,4.5nm,0.8s						
L27K	Beaver Creek,	27.18	48		P	10 11 00.3	+0.9
L27K				IAmb	IAmb	10 11 04.5	
	comp=Z,12nm,1.4s						
MJAR	Matsushiro Arr	27.26	246	LR	LR	10 20 46.6	
	comp=Z,29nm,21.9s,baz=0.5,slow=34						
GRNC	Granite Creek	27.32	53	P	P	10 11 01.4	+0.4
HYT	Haines Junctio	29.38	53	P	P	10 11 19.4	+0.2
HYT				IAmb	IAmb	10 11 24.8	
	comp=Z,6.8nm,1.2s						
M31M	Drury Creek, Y	30.67	50	P	P	10 11 31.2	+0.7
M31M				IAmb	IAmb	10 11 33.9	
	comp=Z,5.7nm,0.9s						
P33M	Teslin, Yukon	31.77	53		P	10 11 40.0	-0.2
P33M				IAmb	IAmb	10 11 58.6	
	comp=Z,4.3nm,0.9s						
KSRS	Korea Array	32.61	259	LR	LR	10 25 43.9	
	comp=Z,11nm,19.4s,baz=70,slow=38						
H11N2	WAKE ISLAND Hy	32.94	185	T	T	10 46 35.8	
	baz=2.8,slow=74						
H11N3	WAKE ISLAND Hy	32.95	185	T	T	10 46 37.9	
	baz=2.8,slow=74						
H11N1	WAKE ISLAND Hy	32.95	185	T	T	10 46 38.5	
	baz=2.8						
H11S1	WAKE ISLAND Hy	34.16	185	T	T	10 48 47.5	
	baz=5.3,slow=76						
H11S3	WAKE ISLAND Hy	34.17	185	T	T	10 48 48.7	
	baz=5.3,slow=76						
H11S2	WAKE ISLAND Hy	34.18	185	T	T	10 48 49.0	
	baz=5.3,slow=76						
SONM	Songino Array	39.54	289	P	P	10 12 47.8	+0.7
	comp=Z,1.0nm,0.5s,baz=58,slow=8.2,SNR=4.6						
	comp=Z,1.0nm,0.5s						
HHC	Hu-ho-hao-te	40.41	277	*e*P	P	10 12 55.7	+1.4
HHC				pmax	pmax		
	comp=Z,8.0nm,0.7s						
HHC				pmax	pmax		
	comp=Z,110nm,4.6s						
GTA2	Gaotai	48.33	283	*e*P	P	10 13 59.1	+1.4
GTA2				pP	sP	10 14 02.7	+2.9
GTA2				pmax	pmax		
	comp=Z,6.0nm,0.9s						
SPITS	Spitsbergen Ar	48.40	353	P	P	10 13 58.0	+0.4
	comp=Z,5.1nm,0.8s,baz=27,slow=13,SNR=5.6						
	comp=Z,5.1nm,0.8s						
KURK	Kurchatov	52.72	307	P	P	10 14 30.7	+0.1
KURK				pmax	pmax		
	comp=Z,4.0nm,0.9s						
KURK	Kurchatov	52.72	307	P	P	10 14 30.7	+0.1
KURK				IAmb	IAmb	10 14 31.9	
	comp=Z,4.0nm,0.9s						
KURBB	Kurchatov Arra	52.82	307	P	P	10 14 31.0	-0.4
	comp=Z,2.1nm,0.8s,baz=50,slow=7.4,SNR=11						
	comp=Z,2.1nm,0.8s						
MKAR	Makanchi Array	53.41	301	P	P	10 14 35.3	-0.6
	comp=Z,0.3nm,0.5s,baz=60,slow=8.7,SNR=3.2						
	comp=Z,0.3nm,0.5s						
BVAR	Borovoye Array	55.02	313	P	P	10 14 47.7	+0.3
	comp=Z,2.4nm,0.5s,baz=52,slow=7.7,SNR=12						
	comp=Z,2.4nm,0.5s						
BORK	Borovoye	55.04	313	P	P	10 14 47.6	+0.1
BORK				pmax	pmax		
	comp=Z,7.0nm,1.1s						
BORK	Borovoye	55.04	313	P	P	10 14 47.6	+0.1
ARCES	ARCESS Array B	55.32	345	P	P	10 14 48.5	-0.8
	comp=Z,4.9nm,1.0s,baz=51,slow=6.5,SNR=2.6						
	comp=Z,4.9nm,1.0s						
ARCES	ARCESS Array B	55.32	345	P	P	10 14 49.1	-0.2
FRB	Frobisher Bay	55.44	27	LR	LR	10 40 54.4	
	comp=Z,81nm,20.4s,baz=110,slow=39						
PZH	PanZhiHua	56.09	270	P	P	10 14 56.7	+1.1
AB31	Akbulak array	62.29	316	P	P	10 15 38.3	+0.3
ABKAR	Akbulak array	62.29	316	P	P	10 15 38.4	+0.4
FINES	FINESS Array B	62.59	341	P	P	10 15 39.3	-0.6
	comp=Z,2.3nm,0.9s,baz=28,slow=6.7,SNR=1.8						
	comp=Z,2.3nm,0.9s						
FINES	FINESS Array B	62.59	341	P	P	10 15 39.7	-0.2
CMAR	Chiang Mai Arr	63.82	266	P	P	10 15 49.8	+1.2
	comp=Z,0.6nm,0.4s,baz=27,slow=8.0,SNR=4.8						
	comp=Z,0.6nm,0.4s						
PMG	Port Moresby	64.74	205	LR	LR	10 45 23.1	
	comp=Z,28nm,18.1s,baz=96,slow=37						
TXAR	Lajitas Array	65.37	74	P	P	10 15 59.5	+0.8
	comp=Z,1.1nm,0.7s,baz=294,slow=4.1,SNR=19						
	comp=Z,1.1nm,0.7s						
TXAR	Lajitas Array	65.37	74	P	P	10 15 59.2	+0.4
TXAR	Lajitas Array	65.37	74	P	P	10 15 59.2	+0.4
KBZ	Khabaz	73.59	323	P	P	10 16 50.7	+1.5
	comp=Z,2.5nm,0.8s,baz=53,slow=5.1,SNR=4.4						
	comp=Z,2.5nm,0.8s						
WRA	Warramunga Arr	78.52	214	P	P	10 17 17.4	0.0
	comp=Z,1.0nm,0.7s,baz=29,slow=6.2,SNR=6.0						
	comp=Z,1.0nm,0.7s						
BRTR	Keskin Array B	80.37	327	P	P	10 17 28.1	+0.4
	comp=Z,1.1nm,0.8s,baz=56,slow=3.1,SNR=5.3						
	comp=Z,1.1nm,0.8s						
BRTR	Keskin Array B	80.37	327	P	P	10 17 27.7	+0.1
BRTR	Keskin Array B	80.37	327	P	P	10 17 27.7	+0.1
ASAR	Alice Springs	82.12	213	P	P	10 17 36.4	-0.4
	comp=Z,1.2nm,0.9s,baz=17,slow=5.4,SNR=9.5						
	comp=Z,1.2nm,0.9s						
ASAR	Alice Springs	82.12	213	P	P	10 17 36.9	+0.1

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*ISK **08** 10:44:06.8, 38°.17N×38°.71E, h3^{km}, ML4.6/19*

*IDC **08** 10:44:07.8±0.5, 38°.10N×38°.65E, h0^{km}, mb4.2/14, mbtmp4.2/26, ML3.9/11, MS4.0/63, Error ellipse: s-maj=9.4km s-min=7.0km az=131.0*

*MOS **08** 10:44:07.9±1.0, 38°.21N×38°.76E, h5^{km}, mb4.7/27, Error ellipse: s-maj=5.1km s-min=3.5km az=109.8*

*AFAD **08** 10:44:07.2, 38°.18N×38°.69E, h11^{km}±2^{km}, MW4.6*

*MCSM **08** 10:44:08.8±0.4, 38°N±4°×3°9E±°, h10^{km}±2^{km}, mb4.6, mB4.8, MLv4.8, Mw(mB)4.1*

*MED_RC **08** 10:44:08.0, 38°.16N×38°.70E, h16^{km}, Mw4.8, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}-0.12±.09; $M_{\theta\theta}$-1.57±.08; $M_{\phi\phi}$0.00±.09; $M_{r\theta}$0.43±.18; $M_{\theta\phi}$1.24±.07; $M_{\phi r}$0.70±.15; Fault plane solution: $M_0$2.18000×10^{16} NP1:ϕ_s332.00000°, δ73.00000°, λ171.00000°. NP2:ϕ_s65.00000°, δ82.00000°, λ17.00000°. Principal axes: T 2.3600, Plg18.0000°, Azm289.0000°; N -0.3500, Plg71.0000°, Azm89.0000°; P -2.0100, Plg6.0000°, Azm197.0000°;*

*NEIC **08** 10:44:09.4, 37°.99N×38°.79E, h10^{km}*

*NEIC **08** 10:44:09.6±2.1, 38°.06N±0°.07×38°.78E±0°.06, h10^{km}±1^{km}, mb4.7/32, Mwr4.7/12, Error ellipse: s-maj=11.6km s-min=8.0km az=172.0, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}-0.04; $M_{\theta\theta}$-1.08; $M_{\phi\phi}$1.12; $M_{r\theta}$0.61; $M_{\theta\phi}$0.26; $M_{\phi r}$-0.36; Fault plane solution: $M_0$1.34000×10^{16} NP1:ϕ_s322.83000°, δ82.78000°, λ-150.68000°. NP2:ϕ_s228.79000°, δ60.94000°, λ-8.27000°. Principal axes: T 1.2313, Plg15.0000°, Azm92.0000°; N 0.1903, Plg60.0000°, Azm335.0000°; P -1.4216, Plg26.0000°, Azm190.0000°;*

*BGR **08** 10:44:09.1, 37°.36N×38°.38E, h33^{km}, mb4.6*

*GFZ **08** 10:44:10.3, 38°.16N×38°.75E, h14^{km}, Mw4.7/56, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}0.05; $M_{\theta\theta}$-0.98; $M_{\phi\phi}$0.94; $M_{r\theta}$-0.09; $M_{\theta\phi}$0.98; $M_{\phi r}$0.32; Fault plane solution: $M_0$1.40909×10^{16} NP1: ϕ_s337.51331°, δ88.01674°, λ166.29049°. NP2: ϕ_s67.99702°, δ76.29886°, λ2.04138°. Principal axes: T 1.3964, Plg11.0669°, Azm291.9386°; N 0.0250, Plg76.1505°, Azm149.4390°; P -1.4214, Plg8.2222°, Azm23.5581°;*

*GFZ **08** 10:44:10.5±0.3, 38°N±3°×3°9E±°, h10^{km}, M4.3/43, mb4.4/43*

*GCMT **08** 10:44:11.6±0.3, 38°.18N±0°.02×38°.60E±0°.02, h15^{km}±1^{km}, MW4.8/103, Moment Tensor Solution. s13,c13; s103,c139; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.06±.08; $M_{\theta\theta}$-1.62±.07; $M_{\phi\phi}$1.69±.08; $M_{r\theta}$0.82±.28; $M_{\theta\phi}$1.00±.06; $M_{\phi r}$-0.72±.25; Best double couple: $M_0$2.20700×10^{16} NP1:ϕ_s238.00000°, δ63.00000°, λ-7.00000°. NP2:ϕ_s332.00000°, δ83.00000°, λ-153.00000°. Principal axes: T 2.0840, Plg14.0000°, Azm102.0000°; N 0.2560, Plg62.0000°, Azm344.0000°; P -2.3300, Plg24.0000°, Azm198.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*GII **08** 10:44:42.2±0.0, 38°.21N±0°.03×38°.643E±0°.010, h0^{km}, Mws4.7, confirmed*

ISC 08 10:44:09.7±0.3**, 38°.16N**±0°.01×**38°.71E**±0°.01**, h10^{km}, n520,** σ**1^{s}59**/518**, mb4.6**/80**, MS4.1**/64**, 21C-7D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MAYA	Malatya/Merkez	0.28	306	P	Pg	10 44 12.7	-2.7
MAYA				S	Sg	10 44 16.9	-2.3
MAYA				IAML		10 44 17.0	
	comp=E,8µm,0.2s						
MAYA				IAML		10 44 22.0	
	comp=N,8µm,0.9s						
NARI	Adyaman-Kaht	0.28	172	P	Pg	10 44 13.3	-2.1
NARI				S	Sg	10 44 18.5	-0.7
NARI				IAML		10 44 20.0	
	comp=E,8µm,1.7s						
NARI				IAML		10 44 22.0	
	comp=N,4µm,0.8s						
MDYL	Doganyol-Malat	0.30	59	Pg	Pg	10 44 13.8	-2.0
MDYL				Sg	Sg	10 44 18.9	-1.0
ESGZ	Sivrice-Elazig	0.39	46	Pg	Pg	10 44 15.2	-2.2
ELZG	Elazig	0.40	33	P	Pg	10 44 15.0	-2.7
ELZG				S	Sg	10 44 21.3	-1.7
ELZG				IAML		10 44 25.0	
	comp=N,3µm,0.7s						
ELZG				IAML		10 44 28.0	
	comp=E,2µm,1.5s						
CNGT	ngs	0.47	83	P	Pg	10 44 16.2	-2.7
CNGT				S	Sb	10 44 25.9	-1.2
AZEY	Adyaman-Merk	0.51	226	P	Pg	10 44 17.7	-1.9
AZEY				S	Sg	10 44 25.6	-0.7
AZEY				IAML		10 44 29.0	
	comp=E,6µm,0.8s						
AZEY				IAML		10 44 30.0	
	comp=N,5µm,1.6s						
SVRC	Sivrice-ELAZID	0.52	65	Pg	Pg	10 44 17.2	-2.6
SVRC				Sg	Sg	10 44 25.5	-1.2
SVRC				AML	AML		
SVRC	Sivrice-ELAZID	0.52	65	P	Pg	10 44 17.2	-2.6
SVRC				S	Sg	10 44 25.1	-1.5
SVRC				IAML		10 44 28.0	
	comp=N,9µm,0.8s						
SVRC				IAML		10 44 33.0	
	comp=E,5µm,0.6s						
HANM	anlurfa/Hi	0.59	167	P	Pg	10 44 19.3	-2.0
HANM				S	Sg	10 44 27.9	-1.2
HANM				IAML		10 44 40.0	
	comp=N,2µm,1.0s						
HANM				IAML		10 44 45.0	
	comp=E,1µm,1.9s						
AKCD	Akcadag	0.64	282	P	Pg	10 44 19.4	-2.7
AKCD				S	Sg	10 44 28.1	-2.3
AKCD				IAML		10 44 30.0	
	comp=N,6µm,0.2s						
AKCD				IAML		10 44 30.0	
	comp=E,4µm,0.4s						
ELZ	Elazig	0.66	36	P	Pg	10 44 19.6	-2.8
ELZ				S	Sg	10 44 27.7	-3.4
ELZ				IAML		10 44 37.0	
	comp=N,8µm,0.7s						
ELZ				IAML		10 44 40.0	
	comp=E,8µm,0.8s						
URFA	Urfa	0.72	173	P	Pg	10 44 18.0	-5.7
URFA				S	Sg	10 44 26.9	-6.3
URFA				IAML		10 44 57.0	
	comp=E,2µm,1.4s						
URFA				IAML		10 44 59.0	
	comp=N,1µm,1.5s						
ATAB	Bozova	0.77	206	P	Pg	10 44 22.5	-2.0
ATAB				S	Sg	10 44 33.6	-0.9
ATAB				IAML		10 44 49.0	
	comp=E,1µm,2.0s						
MDNT	Maden	0.80	73	P	Pg	10 44 22.7	-2.5
MDNT				S	Sg	10 44 35.2	-0.4
AKCA	Adyaman/G¶l	0.89	246	P	Pg	10 44 25.1	-1.8
AKCA				S	Sb	10 44 38.6	-0.6
AKCA				IAML		10 44 43.0	
	comp=E,5µm,0.9s						
AKCA				IAML		10 44 44.0	
	comp=N,5µm,0.7s						
HEKM	Malatya_Hekimh	0.93	321	P	Pg	10 44 24.9	-2.7
HEKM				S	Sg	10 44 36.4	-3.4
HEKM				IAML		10 44 39.0	
	comp=E,3µm,0.7s						
HEKM				IAML		10 44 41.0	
	comp=N,2µm,0.5s						
ARPR	Arapgir-MALATY	0.98	343	Pg	Pg	10 44 25.5	-3.0
ARPR				Sg	Sg	10 44 40.4	-0.9
ARPR				AML	AML		
ARPR	Arapgir-MALATY	0.98	343	Pg	Pg	10 44 25.2	-3.3
ARPR				Sg	Sg	10 44 40.4	-0.9
SANL	SANLIURFA_Merk	1.01	167	P	Pg	10 44 27.3	-1.9
SANL				S	Sb	10 44 42.0	-0.8
SANL				IAML		10 44 45.0	
	comp=N,2µm,0.9s						
SANL				IAML		10 45 21.0	
	comp=E,2µm,1.7s						
KOVA	Elazig, Kovanc	1.02	58	P	Pg	10 44 27.3	-2.1
KOVA				S	Sn	10 44 48.6	+3.9
KOVA				IAML		10 44 53.0	
	comp=E,3µm,1.5s						
KOVA				IAML		10 45 02.0	
	comp=N,4µm,2.3s						
DIYA	Diyarbakir	1.14	102	P	Pb	10 44 29.6	-2.0
DIYA				S	Sn	10 44 47.4	-0.1
DIYA				IAML		10 44 52.0	
	comp=E,1µm,1.1s						
DIYA				IAML		10 45 06.0	
	comp=N,8µm,1.3s						
DYBB	Diyarbakir	1.15	100	Pn	Pb	10 44 29.7	-2.0
DYBB				AML	AML		
TNCL	Tunceli-Merkez	1.15	34	P	Pb	10 44 28.3	-3.5
TNCL				S	Sb	10 44 45.6	-1.4
TNCL				IAML		10 44 55.0	
	comp=E,4µm,0.6s						
TNCL				IAML		10 45 04.0	
	comp=N,4µm,0.7s						
GZT	Gaziantep	1.21	229	P	Pn	10 44 32.1	-0.8
GZT				S	Sg	10 44 48.1	-0.8
GZT				IAML		10 44 50.0	
	comp=N,6µm,0.9s						
GZT				IAML		10 44 51.0	
	comp=E,3µm,0.8s						
ELBS	KAHRAMANMARAS_	1.25	278	P	Pn	10 44 30.9	-2.6
ELBS				S	Sg	10 44 49.3	-0.8
ELBS				IAML		10 44 56.0	
	comp=E,4µm,0.8s						
ELBS				IAML		10 44 57.0	
	comp=N,3µm,0.9s						
CUGUR	Gurin_SVAS	1.26	297	P	Pn	10 44 30.4	-3.1
CUGUR				S	Sb	10 44 48.1	-2.0
CUGUR				IAML		10 44 56.0	
	comp=E,2µm,0.8s						
CUGUR				IAML		10 44 57.0	
	comp=N,2µm,0.8s						
SURC	SANLIURFA_SURC	1.28	184	P	Pn	10 44 32.2	-1.6
SURC				S	Sb	10 44 48.4	-2.1
SURC				IAML		10 44 53.0	
	comp=E,2µm,0.7s						
SURC				IAML		10 44 53.0	
	comp=N,2µm,0.9s						
ILIC	ilic-Erzincan	1.29	355	Pn	Pn	10 44 31.2	-2.8
ILIC				AML	AML		
NZIP	Nizip/Gaziante	1.39	217	P	Pn	10 44 33.5	-1.7
NZIP				S	Sn	10 44 52.6	-1.0
NZIP				IAML		10 45 09.0	
	comp=N,1µm,0.7s						
NZIP				IAML		10 45 22.0	
	comp=E,2µm,0.9s						
KHMN	Narli-Kahraman	1.45	239	P	Pn	10 44 34.7	-1.4
KHMN				S	Sn	10 44 53.5	-1.7
KHMN				IAML		10 44 56.0	
	comp=E,1µm,0.6s						
KHMN				IAML		10 44 59.0	
	comp=N,2µm,0.8s						
KAHM	Kahramanmaras,	1.51	245	P	Pn	10 44 35.3	-1.5
KAHM				S	Sn	10 44 55.5	-1.1
KAHM				IAML		10 44 58.0	
	comp=E,6µm,1.0s						
KAHM				IAML		10 45 01.0	
	comp=N,9µm,0.9s						
GAZ	Gaziantep	1.55	231	Pn	Pn	10 44 36.4	-1.0
GAZ	Gaziantep	1.55	231	P	Pb	10 44 38.0	-0.5
GAZ				S	Sg	10 44 58.0	-1.5
GAZ				IAML		10 45 09.0	
	comp=E,2µm,0.9s						
GAZ				IAML		10 45 10.0	
	comp=N,1µm,0.8s						
GAZ	Gaziantep	1.55	231		Pn	10 44 35.3	-2.1
GAZ				Sn	Sg	10 44 58.8	-0.7
BINT	Bingol	1.57	62	P	Pg	10 44 39.1	-0.7
KMRS	Kahramanmaras	1.58	246	Pn	Pn	10 44 36.6	-1.2
KMRS				Sn	Sb	10 44 58.1	-0.9
KMRS				AML	AML		
KMRS	Kahramanmaras	1.58	246	P	Pn	10 44 36.3	-1.5
KMRS				S	Sb	10 44 58.0	-0.9
KMRS				IAML		10 45 03.0	
	comp=N,1µm,0.8s						
KMRS				IAML		10 45 06.0	
	comp=E,7µm,0.9s						
ERZN	Erzincan	1.63	29	Pn	Pn	10 44 37.1	-1.5
ERZN	Erzincan	1.63	29	P	Pn	10 44 36.8	-1.8
ERZN				S	Sn	10 44 58.3	-1.4
ERZN				IAML		10 45 07.0	
	comp=E,2µm,2.1s						
ERZN				IAML		10 45 11.0	
	comp=N,864nm,1.6s						
EZC	Erzincan	1.67	17	P	Pn	10 44 37.4	-1.7
EUZM	Uzumlu	1.73	26	P	Pn	10 44 39.5	-0.4
EUZM				S	Sb	10 45 03.6	+0.2
EUZM				IAML		10 45 13.0	
	comp=E,1µm,0.9s						
EUZM				IAML		10 45 20.0	
	comp=N,1µm,1.1s						
BNGB	Bingl	1.75	61	Pn	Pn	10 44 39.1	-1.2
BNGB	Bingl	1.75	61	P	Pn	10 44 40.6	+0.3
BNGB				S	Sg	10 45 05.5	-0.5
BNGB				IAML		10 45 14.0	
	comp=E,3µm,1.5s						
BNGB				IAML		10 45 18.0	
	comp=N,2µm,1.2s						
SARI	SarD1z-Kayseri	1.82	278	Pn	Pn	10 44 39.9	-1.4
SARI				AML	AML		
SARI	SarD1z-Kayseri	1.82	278	P	Pn	10 44 41.0	-0.3
SARI				S	Sn	10 45 03.9	-0.6
SARI				IAML		10 45 17.0	
	comp=E,6µm,0.8s						
SARI				IAML		10 45 18.0	
	comp=N,6µm,1.0s						
KAMA	Osmaniye	1.89	240	P	Pn	10 44 40.6	-1.6
KAMA				S	Sb	10 45 06.8	-1.3
KAMA				IAML		10 45 12.0	
	comp=E,3µm,0.9s						
KAMA				IAML		10 45 14.0	
	comp=N,3µm,0.8s						
CUAYA	Sivas-Altinyay	1.89	306	P	Pn	10 44 41.8	-0.4
CUAYA				S	Sb	10 45 07.8	-0.4
CUAYA				IAML		10 45 14.0	
	comp=E,3µm,1.0s						
CUAYA				IAML		10 45 20.0	
	comp=N,3µm,0.9s						
KUZU	Kuzuini	1.90	224	P	Pb	10 44 44.3	-0.2
KUZU				S	Sb	10 45 07.0	-1.3
KUZU				IAML		10 45 14.0	
	comp=N,1µm,0.6s						
KUZU				IAML		10 45 18.0	
	comp=E,2µm,0.9s						
YEDI	Yedisu-Bingol	1.92	48	Pn	Pn	10 44 41.1	-1.5
ANDN	Andirin	1.96	254	P	Pn	10 44 42.4	-0.7
ANDN				S	Sb	10 45 08.8	-1.3
ANDN				IAML		10 45 23.0	
	comp=N,5µm,0.8s						
ANDN				IAML		10 45 26.0	
	comp=E,7µm,0.9s						
ANDN	Andirin	1.96	254	P	Pn	10 44 41.3	-1.8
SVAN	Silvan-Diyarba	1.96	90	Pn	Pn	10 44 41.8	-1.3
SVAN				AML	AML		
SVAN	Silvan-Diyarba	1.96	90	P	Pn	10 44 41.6	-1.5
SVAN				S	Sb	10 45 09.4	-0.7
SLHN	Bingol, Solhan	1.98	66	P	Pn	10 44 44.0	+0.6
SLHN				S	Sg	10 45 14.3	+0.9
SLHN				IAML		10 45 27.0	
	comp=E,3µm,2.3s						
SLHN				IAML		10 45 27.0	
	comp=N,2µm,1.8s						
KELT	Kelkit	2.03	12	P	Pn	10 44 44.1	-0.1
KELT				S	Sb	10 45 11.1	-1.2
KELT	Kelkit	2.03	12	P	Pn	10 44 43.8	-0.4
BTMN	Batman	2.04	97	P	Pn	10 44 43.4	-0.8
BTMN				S	Sb	10 45 10.9	-1.5
BTMN				IAML		10 45 36.0	
	comp=N,5µm,1.1s						
BTMN				IAML		10 46 20.0	
	comp=E,4µm,1.8s						

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SAIM  ADANA            2.08 266  P      Pn     10 44 44.1 -0.7
SAIM                             S      Sb     10 45 13.6 -0.1
SAIM                             IAML          10 45 22.0
      comp=N,4µm,1.0s
SAIM                             IAML          10 45 27.0
      comp=E,3µm,1.0s
SUSE  Susehri          2.08 349  P      Pn     10 44 44.7 -0.2
SUSE                             S      Sn     10 45 12.1 +1.2
SUSE                             IAML          10 45 29.0
      comp=E,642nm,0.8s
SUSE                             IAML          10 45 29.0
      comp=N,2µm,2.0s
SCER  sogukcermik      2.10 325  P      Pn     10 44 46.0 +1.0
SCER                             S      Sn     10 45 11.1 -0.3
SCER                             IAML          10 45 20.0
      comp=E,3µm,0.8s
SCER                             IAML          10 45 27.0
      comp=N,4µm,0.9s
KARO  Karliova-Bingo   2.16  57  Pn     Pn     10 44 45.0 -0.9
KARO                             AML    AML
SVSK  Karacayir        2.20 323  Pn     Pn     10 44 45.5 -0.8
SVSK                             AML    AML
SVSK  Karacayir        2.20 323  P      Pn     10 44 46.7 +0.3
SVSK                             S      Sb     10 45 15.6 -1.4
SVSK                             IAML          10 45 23.0
      comp=E,1µm,0.8s
SVSK                             IAML          10 45 23.0
      comp=N,2µm,1.0s
MIDY  Mardin/Midyat-   2.26 109  P      Pn     10 44 48.4 +1.2
MIDY                             S      Sn     10 45 15.4 +0.3
MIDY                             IAML          10 45 36.0
      comp=E,4µm,1.0s
MIDY                             IAML          10 45 40.0
      comp=N,2µm,1.0s
HASA  Hatay-Hassa-Ha   2.26 232  P      Pb     10 44 50.8 +0.1
HASA                             S      Sb     10 45 18.5 -0.2
HASA                             IAML          10 45 32.0
      comp=N,1µm,0.9s
HASA                             IAML          10 45 32.0
      comp=E,6µm,0.6s
MUSM  Mu-Merkez        2.27  75  P      Pn     10 44 46.5 -0.9
MUSM                             S      Sb     10 45 19.0  0.0
KOPT  Kop Dagi         2.32  36  P      Pn     10 44 48.4 +0.2
KOPT                             S      Sg     10 45 28.8 +4.6
KOPT                             IAML          10 45 44.0
      comp=E,798nm,2.1s
KOPT                             IAML          10 45 48.0
      comp=N,713nm,1.3s
KOPT  Kop Dagi         2.32  36         Pn     10 44 48.3 +0.1
BNN   Bunyan           2.35 288  Pn     Pn     10 44 47.6 -0.9
BNN                              AML    AML
BNN   Bunyan           2.35 288  P      Pn     10 44 48.7 +0.1
BNN                              S      Sg     10 45 23.8 -1.5
BNN                              IAML          10 45 34.0
      comp=N,2µm,1.4s
BNN                              IAML          10 45 35.0
      comp=E,3µm,1.0s
BNN   Bunyan           2.35 288         Pn     10 44 48.4 -0.1
VRTB  Varto-Mus        2.37  64  Pn     Pn     10 44 47.7 -1.1
VRTB                             AML    AML
VRTB  Varto-Mus        2.37  64  P      Pb     10 44 52.0 -0.6
VRTB                             S      Sg     10 45 27.3 +1.5
KOZT  Kozan            2.38 254  Pn     Pn     10 44 47.9 -1.0
KOZT  Kozan            2.38 254  P      Pn     10 44 48.9  0.0
KOZT                             S      Sg     10 45 24.4 -1.9
KOZT                             IAML          10 45 32.0
      comp=E,4µm,0.9s
KOZT                             IAML          10 45 36.0
      comp=N,4µm,1.0s
GUNE  Kayseri          2.53 288  P      Pn     10 44 52.5 +1.5
GUNE                             S      Sg     10 45 34.3 +3.2
GUNE                             IAML          10 45 50.0
      comp=N,5µm,1.1s
GUNE                             IAML          10 45 58.0
      comp=E,9µm,1.3s
RHAN  Hatay/Reyhanl    2.54 222  P      Pn     10 44 49.2 -1.7
RHAN                             S      Sg     10 45 28.5 -2.7
RHAN                             IAML          10 45 37.0
      comp=E,9µm,1.0s
RHAN                             IAML          10 45 38.0
      comp=N,1µm,1.2s
SRTM  Siirt_Merkez     2.54  93  P      Pb     10 44 54.6 -0.9
SRTM                             S      Sg     10 45 30.2 -1.1
SRTM                             IAML          10 45 45.0
      comp=E,6µm,0.9s
SRTM                             IAML          10 45 58.0
      comp=N,3µm,1.0s
GURO  Guroymak-BITLI   2.64  80  Pn     Pn     10 44 51.7 -0.8
GURO                             AML    AML
GURO  Guroymak-BITLI   2.64  80         Pn     10 44 50.7 -1.8
TOKT  Tokat            2.73 323  Pn     Pn     10 44 53.1 -0.6
TOKT                             AML    AML
TOKA  Tokat            2.77 322  P      Pn     10 44 55.5 +1.3
TOKA                             S      Sb     10 45 30.6 -2.7
TOKA                             IAML          10 45 41.0
      comp=N,2µm,1.0s
TOKA                             IAML          10 45 41.0
      comp=E,1µm,0.8s
TOKA  Tokat            2.77 322         Pn     10 44 55.1 +0.9
KTUT  Trabzon          2.94  16  Pn     Pn     10 44 55.8 -0.7
KTUT                             AML    AML
KTUT  Trabzon          2.94  16 ⇑P      Pn     10 44 58.1 +1.7
CMRD  Camardi-Nigde    2.98 262  Pn     Pn     10 44 56.9 -0.3
CMRD                             AML    AML
YOZ   Yozgat           3.03 300  Pn     Pn     10 44 57.3 -0.6
YOZ                              AML    AML
PERV  Siirt/Pervari-   3.03  93  P      Pb     10 45 05.1 +1.2
PERV                             S      Sg     10 45 46.6 -0.5
PERV                             IAML          10 46 03.0
      comp=E,4µm,0.7s
PERV                             IAML          10 46 04.0
      comp=N,4µm,1.1s
KOPR  Koprukoy-ERZUR   3.05  52  Pn     Pn     10 44 57.7 -0.5
KOPR                             AML    AML
HOMI  Horasan          3.12  52 ⇑P      Pn     10 45 00.2 +1.1
MLAZ  Malazgirt-MUS    3.16  71  Pn     Pn     10 44 59.0 -0.7
KOZK  Kozakli-Nevseh   3.18 290  Pn     Pn     10 44 59.7 -0.3
AKDM  Akdamar-Van      3.37  86  Pn     Pn     10 45 02.4 -0.1
AKDM                             AML    AML
GEVA  Gevas            3.43  86         Pn     10 45 01.6 -1.8
AGRB  Hanur-Agry       3.63  66  Pn     Pn     10 45 06.1  0.0
AGRB                             AML    AML
SENK  Senkaya-Erzuru   3.70  49  Pn     Pn     10 45 06.9 -0.3
KIRS  Kirsehir-Merke   3.88 286 ⇓P      Pn     10 45 10.5 +1.0
CUKT  Cukurca          3.99 102  Pn     Pn     10 45 10.6 -0.5
HAKT  HAKKARI          4.00  97  P      Pn     10 45 10.1 -1.2
BATM  Batumi           4.13  33  P      Pn     10 45 11.4 -1.5
BATM  Batumi           4.13  33 ⇑P      Pn     10 45 13.7 +0.7
BEIL  Beino            4.15 210 eP      Pn     10 45 12.1 -1.0
OZAP  Van, Ozalp-Mer   4.18  82 ⇑P      Pn     10 45 16.6 +2.9
BR104 Keskin Array S   4.24 293  P      Pn     10 45 14.3 -0.3
BR104                            AML    AML
BR131 Keskin Array S   4.25 293 i P     Pn     10 45 15.0 +0.3
BR131 Keskin Array S   4.25 293         Pn     10 45 15.1 +0.3
BRTR  Keskin Array B   4.25 293  Pn     Pn     10 45 14.8 +0.1
      2.9nm,0.3s,baz=116,slow=11,SNR=63
BRTR                             Pg     Pg     10 45 27.4 -3.8
      5.7nm,0.3s,baz=115,slow=16,SNR=17
BRTR                             Lg     Lg     10 46 26.0
      2.1nm,0.3s,baz=114,slow=27,SNR=4.2
BRTR                             LR     LR     10 47 11.6
      comp=Z,4µm,20.7s,baz=110,slow=43
      25nm,0.9s
BRTR                             AML    AML
BRTR  Keskin Array B   4.25 293  P      Pn     10 45 15.0 +0.3
BRTR  Keskin Array B   4.25 293         Pn     10 45 15.0 +0.3
BR105 Keskin Array S   4.26 293  P      Pn     10 45 14.5 -0.4
BR105                            AML    AML
BR106 Keskin Array S   4.27 293  P      Pn     10 45 14.5 -0.4
BR106                            AML    AML
HWQ   Hawqa            4.47 211 eP      Pn     10 45 16.3 -1.4
EPOS  Posof            4.55  42  P      Pn     10 45 20.4 +1.7
KKUL  Konya-Kulu       4.64 284  P      Pn     10 45 21.0 +1.0
ILGA  Ilgaz            4.82 308         Pn     10 45 23.2 +0.7
ZAHL  Zahle            4.87 209 eP      Pn     10 45 22.6 -0.5
BHL   Bhannes          4.92 211 eP      Pn     10 45 23.2 -0.6
GNI   Garni            5.09  65  Pg     Pg     10 45 44.0 -3.2
      16nm,0.3s,baz=161,slow=5.2,SNR=6.5
GNI                              Lg     Lg     10 46 58.1
      5.8nm,0.3s,baz=41,slow=14,SNR=3.1
CY604 RAF Akrotiri,    5.10 223         Pn     10 45 24.2 -1.8
DQRL  Deir Qamar       5.12 211 eP      Pn     10 45 26.7 +0.1
RCY   Rachaya          5.21 208 eP      Pn     10 45 27.5 -0.3
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QRWL  Qaraoun           5.22 209 eP     Pn     10 45 27.7 -0.3
BZK   Bozkurt           5.24 318        Pn     10 45 29.6 +1.5
BZK   Bozkurt           5.24 318 ⇑P     Pn     10 45 29.2 +1.2
BZK   Bozkurt           5.24 318  P     Pn     10 45 29.2 +1.2
      1.1nm2µm197nm,1.6s
BZK                               AML   AML
SHBL  Chebaa            5.37 208 eP     Pn     10 45 29.7 -0.4
CSS   Mathiatis         5.38 235        Pn     10 45 29.2 -0.9
CSS   Mathiatis         5.38 235  P     Pn     10 45 27.5 -2.6
      0.6nm820nm77nm,1.1s
CSS                               AML   AML
CSS   Mathiatis         5.38 235  P     Pn     10 45 30.2 +0.2
      comp=Z,77nm,1.1s
SOC   Sochi             5.47   8 eP     Pn     10 45 31.5 +0.2
SOC                              e             10 46 37.5
SOC                               pmax  pmax
      comp=Z,11nm,0.8s
SOC                               smax  smax
      comp=N,42nm,0.9s
SOC                               MLR   MLR
      comp=Z,632nm,13.0s
CIDE  Kastamonu/Cide    5.78 312 ⇑P     Pn     10 45 37.0 +1.5
KEPZ  Antalya-Kepez     5.79 260 ⇓P     Pn     10 45 37.5 +1.8
MMAI  Mount Meron Ar    5.80 209  Pn    Pn     10 45 34.2 -1.6
      comp=Z,7.3nm,0.3s,baz=48,slow=20,SNR=7.8
MMAI                              Pg    Pg     10 45 56.1 -4.7
      comp=Z,9.6nm,0.3s,baz=29,slow=21,SNR=9.8
MMAI                              Lg    Lg     10 47 13.2
      comp=Z,8.6nm,0.3s,baz=28,slow=24,SNR=1.5
MMAI                              LR    LR     10 48 07.4
      comp=Z,3µm,19.6s,baz=10,slow=42
      comp=Z,3.1nm,0.3s
MMAI                              AML   AML
NEUR  Neytrino          5.93  29 i P    Pn     10 45 37.4 -0.4
ASF   Jabal al Asfar    6.16 194  Pn    Pn     10 45 40.1 -0.7
      comp=Z,1.3nm,0.3s,baz=18,slow=3.8,SNR=30
ASF                               Lg    Lg     10 47 25.6
      comp=Z,4.9nm,0.3s,baz=0.0,slow=20,SNR=3.3
ASF                               LR    LR     10 48 18.7
      comp=Z,3µm,20.1s,baz=23,slow=41
      comp=Z,63nm,1.1s
ASF                               AML   AML
MDUB  Mudurnu           6.27 294  Pn    Pn     10 45 43.0 +0.7
MMLI  Mount Malkishu    6.31 206  P     Pn     10 45 43.6 +0.7
      comp=Z,424nm,1.2s
SHA1  Shidzhatmaz       6.32  27 i P    Pn     10 45 43.0 -0.2
KBZ   Khabaz            6.40  28  Pn    Pn     10 45 45.8 +1.8
      comp=Z,0.3nm,0.3s,baz=272,slow=8.8,SNR=4.6
      comp=Z,0.9nm,0.5s
KBZ                               AML   AML
KBZ   Khabaz            6.40  28 i P    Pn     10 45 44.9 +0.9
ISP   Isparta           6.48 270 i P    Pn     10 45 46.4 +1.2
ISP   Isparta           6.48 270  Pn    Pn     10 45 46.8 +1.6
NCK   Nalchik           6.49  33 i P    Pn     10 45 46.6 +1.3
KIV   Kislovodsk        6.52  26 eP     Pn     10 45 46.3 +0.5
KIV                               pmax  pmax
      comp=Z,11nm,1.0s
KIV                               MLR   MLR
      comp=Z,587nm,10.0s
KIV   Kislovodsk        6.52  26  Pn    Pn     10 45 48.7 +2.9
LABN  Labinsk           6.65  13 eP     Pn     10 45 47.4  0.0
LABN                              pmax  pmax
      comp=Z,32nm,0.6s
LABN                              MLR   MLR
      comp=Z,2µm,12.0s
BORA  Eskisehir         6.66 288        Pn     10 45 49.0 +1.4
ANN   Anapa             6.70 352 eP     Pn     10 45 49.6 +1.4
ANN                              eS     Sn     10 47 09.7 +5.2
ANN                               pmax  pmax
      comp=Z,15nm,0.8s
ANN                               MLR   MLR
      comp=Z,922nm,12.0s
UJAP  Al Uja            6.74 204  P     Pn     10 45 48.8  0.0
      comp=Z,261nm,1.2s
ALMO  Almog             6.89 204  P     Pg     10 46 25.1 +3.4
ALMO                              S     Sg     10 47 44.3 -6.6
MZS   Mizpe Shalem      7.12 203  P     Pg     10 46 28.2 +2.2
MZS                               S     Sg     10 47 50.4 -7.7
AMAZ  Amatzia           7.31 206  P     Pg     10 46 30.6 +0.9
AMAZ                              S     Sg     10 47 54.9 -9.5
GHAJ  Ghor Haditha      7.31 202  P     Pn     10 45 59.7 +3.1
      comp=Z,121nm,2.0s
MSBI  Mazada            7.37 203  P     Pg     10 46 31.9 +1.1
MSBI                              S     Sg     10 47 56.8 -9.4
YLV   Yalova            7.62 291  P     Pn     10 46 01.5 +0.6
      comp=Z,0.3nmcomp=Z,527nmcomp=Z,26nm,1.1s
YLV                               AML   AML
ERBR  Yeremizino-Bor    7.66   9 eP     Pn     10 45 59.0 -2.4
ERBR                             eS     Sn     10 47 26.3 -1.9
ERBR                              pmax  pmax
      comp=Z,20nm,0.6s
AKT   Akhty             7.69  62 eP     Pn     10 46 07.1 +5.2
AKT                               MLR   MLR
      comp=Z,488nm,10.0s
MANT  Manisa            7.99 275        Pn     10 46 06.2 +0.1
KZIT  Kziot             8.06 207  P     Pg     10 46 41.3 -2.8
KZIT                              S     Sb     10 48 14.1 +8.5
MAK   Makhachkala       8.23  52c iP    Pn     10 46 03.9 -5.2
MAK                              eS     Sn     10 47 35.7 -6.5
MAK                               pmax  pmax
      comp=Z,162nm,1.2s
MAK                               MLR   MLR
      comp=Z,3µm,11.0s
YER   Yerkesik          8.34 266  P     Pn     10 46 13.9 +3.2
HRFI  Mount Harif       8.66 202  P     Pn     10 46 16.4 +1.3
      comp=Z,33nm,0.9s
HRFI  Mount Harif       8.66 202  P     Pg     10 46 49.4 -6.1
HRFI                              S     Sg     10 48 28.5  -19
EIL   Elat              9.03 201  Pn    Pn     10 46 19.6 -0.5
      comp=Z,0.4nm,0.3s,baz=356,slow=12,SNR=4.5
EIL                               Lg    Lg     10 48 52.1
      comp=Z,0.7nm,0.3s,baz=67,slow=22,SNR=2.4
EIL                               LR    LR     10 50 10.2
      comp=Z,4µm,19.4s,baz=2.0,slow=40
      comp=Z,4.7nm,0.7s
EIL                               AML   AML
EIL   Elat              9.03 201  P     Pn     10 46 54.3  +34
EIL                               S     Sn     10 48 37.4  +36
EZN   Ezine             9.79 284  P     Pn     10 46 33.0 +2.5
TPGR  Topolog          10.21 314 ⇑P     Pn     10 46 35.7 -0.6
CFR   Carcaliu         10.56 315  P     Pn     10 46 40.9 -0.2
CFR   Carcaliu         10.56 315 ⇓P     Pn     10 46 41.0 -0.2
ISR   Istrita          11.45 311  P     Pn     10 46 53.1 -0.1
ISR   Istrita          11.45 311 ⇑P     Pn     10 46 53.1 -0.1
ISR   Istrita          11.45 311  P     Pn     10 46 54.4 +1.1
      comp=Z,72nm,1.3s
IDI   Anoyia           11.46 260  Pn    Pn     10 46 52.5 -0.9
      comp=Z,8.5nm,0.6s,baz=357,slow=9.0,SNR=7.9
IDI                               LR    LR     10 51 12.0
      comp=Z,558nm,21.1s,baz=77,slow=37
VRI   Vrincioaia       11.77 315  P     Pn     10 46 58.2 +0.6
VRI   Vrincioaia       11.77 315 ⇓P     Pn     10 46 58.2 +0.6
VRI   Vrincioaia       11.77 315  P     Pn     10 46 58.0 +0.4
      comp=Z,8.8nm,1.1s
PLOR  Plostina         11.80 314  P     Pn     10 46 58.0 -0.1
PLOR  Plostina         11.80 314 ⇓P     Pn     10 46 58.1 -0.1
MLR   Muntele Rosu     12.00 312  Pn    Pn     10 47 00.5 -0.4
      comp=Z,0.2nm,0.3s,baz=54,slow=8.7,SNR=5.9
MLR                               LR    LR     10 52 51.8
      comp=Z,1µm,19.8s,baz=118,slow=44
      comp=Z,2.3nm,0.8s
MLR                               AML   AML
MLR   Muntele Rosu     12.00 312  P     Pn     10 47 02.3 +1.4
MLR   Muntele Rosu     12.00 312        Pn     10 47 02.3 +1.4
MLR   Muntele Rosu     12.00 312 ⇓P     Pn     10 47 01.1 +0.1
MLR   Muntele Rosu     12.00 312  P     Pn     10 47 01.9 +1.0
      comp=Z,7.5nm,1.4s
MLR   Muntele Rosu     12.00 312  P     Pn     10 47 02.9 +1.9
      comp=Z,8.9nm,1.2s
COVR  Voineasa-Covas   12.05 314 ⇑P     Pn     10 47 01.8 +0.3
TESR  Tescani          12.21 317  P     Pn     10 47 03.3 -0.3
      comp=Z,23nm,1.3s
TESR  Tescani          12.21 317  P     Pn     10 47 03.9 +0.3
      comp=Z,23nm,1.0s
ONER  Baraj Valea Uz   12.24 316 ⇓P     Pn     10 47 03.7 -0.3
VOIR                   12.51 310  P     Pn     10 47 09.0 +1.2
VOIR                   12.51 310 ⇑P     Pn     10 47 09.0 +1.2
VOIR                   12.51 310  P     Pn     10 47 08.3 +0.5
      comp=Z,9.8nm,1.6s
VOIR                   12.51 310  P     Pn     10 47 09.6 +1.7
      comp=Z,9.7nm,1.6s
DOPR  Dopca            12.59 313 ⇑P     Pn     10 47 09.4 +0.6
BIZ   Bicaz            12.77 317 ⇑P     Pn     10 47 11.4 +0.2
VORD  Divnogorie       12.81   2 eP     Pn     10 47 22.8  +11
VORD                              pmax  pmax
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      comp=Z,9.0nm,1.0s
VSR   Storozhevoye     13.06   1  P     P      10 47 20.7 -4.9
VSR                               pmax  pmax
      comp=Z,20nm,1.2s
VRH   Novokhopyorsk    13.21   8  P     Pn     10 47 16.8 -0.5
VRH                               pmax  pmax
      comp=Z,17nm,1.1s
ITM   Ithomi           13.34 271        Pn     10 47 19.2 +0.1
VORR  Voronezh         13.52   1  P     Pn     10 47 22.2 +0.8
VORR                              pmax  pmax
      comp=Z,16nm,0.6s
BURAR Bucovina Array   13.66 318  P     Pn     10 47 23.7 +0.2
BURAR Bucovina Array   13.66 318        Pn     10 47 23.7 +0.2
BURAR Bucovina Array   13.66 318 ⇑P     Pn     10 47 23.7 +0.2
KMPD  K-Podol'skiy     13.68 323  P     Pn     10 47 24.0 +0.4
BUR08 Bucovina Ar. S   13.69 318        Pn     10 47 24.0 +0.1
GZR   Gura Zlata       13.90 306 ⇑P     Pn     10 47 27.7 +0.9
AK07  Malin Array Si   14.11 334  P     Pn     10 47 30.5 +0.9
LUBAR Lubar, Ukraine   14.13 330  P     Pn     10 47 29.6 -0.2
AK09  Malin Array Si   14.14 335  P     Pn     10 47 31.0 +1.0
AK08  Malin Array Si   14.17 335  P     Pn     10 47 29.6 -0.7
AK05  Malin Array Si   14.17 335  P     Pn     10 47 30.9 +0.5
AK02  Malin Array Si   14.20 335  P     Pn     10 47 30.8  0.0
AK12  Malin Array Si   14.21 334  P     Pn     10 47 30.8 -0.1
AK14  Malin Array Si   14.21 334  P     Pn     10 47 30.8 -0.2
AKASG Malin Array Be   14.23 335  Pn    Pn     10 47 30.6 -0.6
      comp=Z,0.1nm,0.3s,baz=146,slow=13,SNR=7.3
AKASG                             LR    LR     10 53 25.2
      comp=Z,224nm,21.7s,baz=152,slow=39
      comp=Z,0.4nm,0.5s
AKASG                             AML   AML
AKBB  Malin Array Si   14.23 335 i P    Pn     10 47 33.0 +1.8
AKBB  Malin Array Si   14.23 335        Pn     10 47 33.2 +2.0
AKBB  Malin Array Si   14.23 335  P     Pn     10 47 32.4 +1.2
KIEV  Kiev             14.23 335  P     Pn     10 47 33.4 +2.2
KIEV  Kiev             14.23 335        Pn     10 47 33.4 +2.2
KIEV  Kiev             14.23 335  P     Pn     10 47 32.4 +1.2
      comp=Z,54nm,1.5s
KIEV  Kiev             14.23 335  P     P      10 47 34.6 -4.1
      comp=Z,14nm,1.2s
AK16  Malin Array Si   14.25 334  P     Pn     10 47 31.6 +0.2
AK04  Malin Array Si   14.27 335  P     Pn     10 47 33.1 +1.3
MARR  Marisel-Cluj     14.30 311 ⇑P     Pn     10 47 33.1 +0.8
AK18  Malin Array Si   14.31 334  P     Pn     10 47 32.5 +0.3
AK19  Malin Array Si   14.32 334  P     Pn     10 47 32.0 -0.5
AK22  Malin Array Si   14.34 335  P     Pn     10 47 33.0 +0.4
AK20  Malin Array Si   14.34 334  P     Pn     10 47 32.3 -0.4
MDVR  Moldovita        14.35 303 ⇑P     Pn     10 47 33.7 +0.8
AK21  Malin Array Si   14.36 335  P     Pn     10 47 32.6 -0.4
IGT   Igoumenitsa      14.39 281  P     P      10 47 41.9 +1.4
IGT                               pmax  pmax
      comp=Z,33nm,1.1s
LPSR  Galich'ya Gora   14.44   1 eP     P      10 47 39.2 -1.7
LPSR                              pmax  pmax
      comp=Z,30nm,1.1s
PHP   Peshkopia        14.45 290  P     P      10 47 43.4 +2.2
SRN   Sarande          14.65 283  P     P      10 47 40.0 -3.3
      comp=Z,30nm,1.1s
KEK   Kerkira          14.80 282  Pn    Pn     10 47 39.1  0.0
KEK   Kerkira          14.80 282  P     Pn     10 47 40.1 +1.0
      comp=Z,42nm,1.5s
PDG   Podgorica        15.44 292  P     P      10 47 50.2 -1.9
      comp=Z,21nm,1.7s
BELG  Belogornoye      15.53  21  Pn    Pn     10 47 48.9 +0.2
      comp=Z,1.0nm,0.3s,baz=24,slow=6.5,SNR=5.9
BELG                              LR    LR     10 54 27.3
      comp=Z,307nm,19.2s,baz=134,slow=40
      comp=Z,9.6nm,0.7s
BELG                              AML   AML
RNPP5 Staryi Chortor   15.90 329  P     Pn     10 47 52.7 -0.7
RNPP9 Sopachiv         16.04 330  P     Pn     10 47 55.9 +0.7
PSZ   Piszkesteto      16.82 311  P     P      10 48 10.5 +3.0
PSZ                               pmax  pmax
      comp=Z,13nm,1.4s
PSZ   Piszkesteto      16.82 311  P     P      10 48 07.4 -0.1
      comp=Z,9.9nm,1.0s
MORH  Mrgy, Hungar     16.88 305  P     P      10 48 06.7 -1.3
      comp=Z,255nmcomp=Z,15nm,1.4s
MORH  Mrgy, Hungar     16.88 305  P     P      10 48 07.8 -0.2
      comp=Z,17nm,1.3s
OBN   Obninsk          17.02 356  Pn    P      10 48 08.7 -0.7
      comp=Z,5.8nm,0.3s,baz=150,slow=8.7,SNR=4.8
OBN                               LR    LR     10 55 28.9
      comp=Z,234nm,18.1s,baz=178,slow=40
      comp=Z,31nm,0.4s
OBN                               AML   AML
OBN   Obninsk          17.02 356⇑eP     P      10 48 08.8 -0.7
OBN                              i S    Sn     10 51 13.4 -3.3
OBN                               pmax  pmax
      comp=Z,30nm,1.5s
OBN                               MLR   MLR
      comp=Z,345nm,21.0s
OBN   Obninsk          17.02 356  P     Pn     10 48 07.6  0.0
TIP   Timpagrande      17.17 280        P      10 48 12.0 +0.5
TIP   Timpagrande      17.17 280  P     Pn     10 48 09.9 +0.1
      comp=Z,712nmcomp=Z,58nm,1.5s
TIP   Timpagrande      17.17 280  P     P      10 48 12.2 +0.7
      comp=Z,72nm,1.5s
MATE  Matera           17.18 285  P     P      10 48 10.3 -1.1
      comp=Z,58nm,1.1s
NIE   Niedzica         17.36 316  P     P      10 48 12.6 -0.8
      comp=Z,5.8nm,1.3s
MOS   Moscow           17.60 358 eP     Pn     10 48 14.4 -0.5
MOS                               pmax  pmax
      comp=Z,58nm,1.3s
VYHS  Vyhne            17.72 312 eP     P      10 48 18.5 +1.2
VYHS                              pmax  pmax
      comp=Z,8.0nm,1.4s
VYHS  Vyhne            17.72 312 eP     P      10 48 18.5 +1.2
VYHS  Vyhne            17.72 312  P     P      10 48 18.9 +1.5
      comp=Z,6.6nm,1.7s
MARCO Tramutola        17.87 284  P     P      10 48 21.1 +2.1
      comp=Z,38nm,1.0s
CEL   Celeste          17.93 277  P     P      10 48 19.5 -0.2
CEL   Celeste          17.93 277  P     P      10 48 18.9 -0.9
      comp=Z,24nm,1.1s
CEL   Celeste          17.93 277  P     P      10 48 20.6 +0.8
      comp=Z,24nm,1.1s
MNK   Minsk            17.94 339 i P    P      10 48 20.5 +0.9
MNK                              i S    Sn     10 51 40.9 +2.0
MNK                               pmax  pmax
      comp=E,14nm,0.8s
MNK                               pmax  pmax
      comp=N,26nm,0.8s
MNK                               pmax  pmax
      comp=Z,7.0nm,0.5s
MNK                               MLR   MLR
      comp=Z,238nm,17.0s
MNK   Minsk            17.94 339 i P    P      10 48 20.5 +0.9
      comp=E,14nm,0.8s
MNK                              i P    P      10 48 20.5 +0.9
      comp=N,26nm,0.8s
MNK                              i P    P      10 48 20.5 +0.9
      comp=Z,7.0nm,0.5s,baz=151
MNK                              i PP   PnPn   10 48 31.3 +1.5
MNK                              i PPP  PPP    10 48 39.0
MNK                              i S    Sn     10 51 41.0 +2.0
MNK                              i SS   SnSn   10 51 56.4 +3.8
MNK                              i SSS  SSS    10 52 09.1
MNK                              i LQ   LQ     10 53 40.6
MNK                              i LR   LR     10 55 02.5
MNK                              i LRM  MLR    10 57 05.0
      comp=Z,238nm,17.1s
MPLH  Magyarpolny      17.94 307  P     P      10 48 19.7 -0.1
      comp=Z,20nm,1.1s
MPLH  Magyarpolny      17.94 307  P     P      10 48 21.2 +1.5
      comp=Z,7.5nm,1.1s
OJC   Ojcow            18.08 318 eP     P      10 48 22.9 +1.6
OJC                              eS     S      10 51 54.8 +6.3
OJC   Ojcow            18.08 318  P     P      10 48 22.9 +1.6
OJC   Ojcow            18.08 318  P     P      10 48 21.4 +0.1
      comp=Z,424nmcomp=Z,20nm,1.7s
OJC   Ojcow            18.08 318  P     P      10 48 22.9 +1.6
      comp=Z,20nm,1.7s
AKTO  Aktyubinsk       18.41  42  P     P      10 48 23.5 -1.5
      comp=Z,0.3nm,0.3s,baz=233,slow=11,SNR=16
AKTO                              LR    LR     10 57 07.2
      comp=Z,310nm,20.9s,baz=238,slow=42
      comp=Z,4.2nm,0.8s
AKTO                              AML   AML
AKTO  Aktyubinsk       18.41  42  P     P      10 48 24.1 -0.8
JAVC  Velka Javorina   18.57 312 eP     Pn     10 48 28.6 +1.6
JAVC  Velka Javorina   18.57 312  P     Pn     10 48 29.9 +3.0
      comp=Z,16nm,1.4s
MODS  Modra-Piesok     18.59 310 eP     Pn     10 48 28.5 +1.3
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MODS				pmax	pmax		
	comp=Z,35nm,1.5s						
MODS	**Modra-Piesok**	**18.59**	**310**	*e*P	**Pn**	**10 48 28.5**	**+1.3**
MODS	**Modra-Piesok**	**18.59**	**310**	P	**Pn**	**10 48 28.7**	**+1.6**
	comp=Z,29nm,1.2s						
OKC	**Ostrava-Krasne**	**18.77**	**315**	*e*S	**S**	**10 52 06.1**	**+3.7**
PAOL	**Paolisi**	**18.81**	**286**	P	**Pn**	**10 48 31.4**	**+1.5**
PAOL				IAmb	IAmb	10 48 33.2	
	comp=Z,65nm,1.5s						
AB31	**Akbulak array**	**18.87**	**47**	*i* P	**P**	**10 48 29.2**	**-0.7**
AB31	**Akbulak array**	**18.87**	**47**		**P**	**10 48 29.3**	**-0.7**
ABKAR	**Akbulak array**	**18.87**	**47**		**P**	**10 48 29.6**	**-0.3**
RONA	**Rosalia, Austr**	**18.92**	**307**	*i* Pn	**Pn**	**10 48 32.5**	**+1.3**
	comp=Z,17nm,1.3s,SNR=5.8						
MORC	**Moravsky Berou**	**19.08**	**314**	P	**P**	**10 48 30.0**	**-2.4**
MORC	**Moravsky Berou**	**19.08**	**314**	IAmb	IAmb	10 49 11.2	
	comp=Z,26nm,0.5s						
MORC	**Moravsky Berou**	**19.08**	**314**	*e*P	**Pn**	**10 48 33.6**	**+0.5**
MORC	**Moravsky Berou**	**19.08**	**314**	P	**Pn**	**10 48 34.5**	**+1.4**
	comp=Z,28nm,0.5s						
VAE	**Valguarnera**	**19.20**	**275**	LR	LR	10 57 33.0	
	comp=Z,541nm,18.2s,baz=101,slow=42						
WINA	**Alland / Wiene**	**19.22**	**308**	*e*P	**Pn**	**10 48 35.4**	**+0.7**
	comp=Z,11nm,1.2s						
ARSA	**Arzberg**	**19.25**	**306**	*i* Pn	**Pn**	**10 48 35.6**	**+0.4**
	comp=Z,7.1nm,1.5s						
CONA	**Conrad Observa**	**19.28**	**308**	*e*Pn	**Pn**	**10 48 35.9**	**+0.4**
	comp=Z,10nm,1.5s						
INTR	**Introdacqua**	**19.34**	**289**		**Pn**	**10 48 36.5**	**+0.1**
INTR				IAmb	IAmb	10 48 38.4	
	comp=Z,44nm,1.1s						
SOKA	**Soboth**	**19.39**	**304**	*e*Pn	**Pn**	**10 48 37.8**	**+0.9**
	comp=Z,7.3nm,1.4s						
VRAC	**Vranov**	**19.41**	**312**	P	**P**	**10 48 34.6**	**-1.3**
	comp=Z,0.2nm,0.3s,baz=106,slow=14,SNR=6.8						
VRAC				LR	LR	10 57 50.0	
	comp=Z,562nm,19.4s,baz=109,slow=42						
	comp=Z,1.2nm,0.3s						
VRAC				AML	AML		
VRAC	**Vranov**	**19.41**	**312**	*e*P	**Pn**	**10 48 36.1**	**-0.9**
VRAC	**Vranov**	**19.41**	**312**	P	**Pn**	**10 48 37.7**	**+0.7**
	comp=Z,3.3nm,1.4s						
KRUC	**Moravsky**	**19.41**	**311**	P	**Pn**	**10 48 38.1**	**+1.0**
KRUC	**Moravsky**	**19.41**	**311**	*e*P	**Pn**	**10 48 36.9**	**-0.2**
KRUC	**Moravsky**	**19.41**	**311**	P	**Pn**	**10 48 38.1**	**+1.0**
	comp=Z,11nm,1.6s						
KRLC	**Kraliky**	**19.66**	**314**	*e*P	**Pn**	**10 48 41.2**	**+1.2**
KRLC	**Kraliky**	**19.66**	**314**	*e*P	**Pn**	**10 48 41.2**	**+1.2**
KRLC	**Kraliky**	**19.66**	**314**	P	**Pn**	**10 48 40.1**	**+0.1**
	comp=Z,25nm,1.2s						
OBKA	**Obir**	**19.66**	**303**	*e*Pn	**Pn**	**10 48 41.0**	**+0.9**
	comp=Z,24nm,1.4s						
OBKA	**Obir**	**19.66**	**303**	P	**Pn**	**10 48 41.8**	**+1.6**
	comp=Z,20nm,1.4s						
AQU	**L'Aquila**	**19.74**	**290**	P	**Pn**	**10 48 41.5**	**+0.4**
AQU	**L'Aquila**	**19.74**	**290**	P	**P**	**10 48 39.2**	**-0.4**
	comp=Z,668nmcomp=Z,60nm,1.4s						
AQU	**L'Aquila**	**19.74**	**290**	P	**Pn**	**10 48 41.9**	**+0.8**
	comp=Z,74nm,1.4s						
SESA	**Seetaler Alpe,**	**19.82**	**305**	*e*Pn	**Pn**	**10 48 42.7**	**+0.5**
	comp=Z,35nm,1.7s						
NRCA	**Norcia**	**19.99**	**292**	P	**P**	**10 48 42.1**	**-0.2**
NRCA				IAmb	IAmb	10 48 45.5	
	comp=Z,34nm,1.1s						
PABE	**Paberze**	**19.99**	**335**	*e*P	P	10 48 34.8	-7.4
DPC	**Dobruska-Polom**	**20.05**	**315**	*e*P	Pn	10 48 44.9	+0.2
DPC				*e*S	Sn	10 52 31.3	+1.2
DPC				MLR	MLR		
	comp=Z,500nm,14.1s						
DPC	**Dobruska-Polom**	**20.05**	**315**	*e*P	Pn	10 48 44.9	+0.2
DPC				*e*S	Sn	10 52 31.3	+1.2
DPC				AMS	AMS	10 58 20.0	
	comp=Z,500nm,14.1s						
DPC	**Dobruska-Polom**	**20.05**	**315**	P	Pn	10 48 43.4	-1.3
	comp=Z,14nm,1.7s						
DPC	**Dobruska-Polom**	**20.05**	**315**	P	Pn	10 48 44.6	-0.1
	comp=Z,14nm,1.7s						
TREC	**Trest**	**20.05**	**311**	AMS	AMS	10 59 00.0	
	comp=Z,700nm,14.0s						
CLTB	**Caltabellotta**	**20.12**	**276**	P	Pn	10 48 45.0	-0.6
	comp=Z,130nm,1.3s						
SABO	**M.te Sabotino**	**20.16**	**301**	P	**P**	**10 48 44.4**	**+0.3**
DRE	**Drenchia**	**20.17**	**301**	P	Pn	10 48 46.4	+0.2
	comp=Z,45nm,1.3s						
MOA	**Molln**	**20.26**	**306**	*i* Pn	Pn	10 48 47.6	+0.5
	comp=Z,18nm,1.1s,SNR=7.9						
MOA	**Molln**	**20.26**	**306**	P	Pn	10 48 47.3	+0.1
	comp=Z,27nm,1.1s						
MYKA	**Terra Mystica**	**20.29**	**303**	*i* Pn	Pn	10 48 48.1	+0.5
	comp=Z,10nm,0.9s,SNR=5.8						
UPC	**Upice**	**20.30**	**315**	P	Pn	10 48 46.9	-0.7
UPC	**Upice**	**20.30**	**315**	P	Pn	10 48 46.9	-0.7
	comp=Z,26nm,1.5s						
KSP	**Ksiaz**	**20.31**	**316**	*e*P	Pn	10 48 47.3	-0.4
KSP				*e*S	Sn	10 52 35.1	-1.1
KSP	**Ksiaz**	**20.31**	**316**	P	**P**	**10 48 46.1**	**+0.4**
	comp=Z,13nm,0.9s						
CHVC	**Chvalec**	**20.31**	**315**	*e*P	Pn	10 48 47.2	-0.6
CHVC	**Chvalec**	**20.31**	**315**	*e*P	Pn	10 48 47.2	-0.6
ACOM	**Acomizza, Ital**	**20.36**	**302**	P	Pn	10 48 49.1	+0.7
	comp=Z,74nm,1.4s						
CESX	**Cesi**	**20.36**	**291**		Pn	10 48 47.4	-1.0
CESX				IAmb	IAmb	10 48 53.7	
	comp=Z,31nm,0.9s						
CKRC	**Cesky Krumlov**	**20.57**	**309**	*e*P	Pn	10 48 50.0	-0.8
CKRC				*e*S	Sn	10 52 40.8	-1.9
CKRC				MLR	MLR		
	comp=Z,500nm,12.2s						
CKRC	**Cesky Krumlov**	**20.57**	**309**	*e*P	Pn	10 48 50.0	-0.8
CKRC				*e*S	Sn	10 52 40.8	-1.9
CKRC				AMS	AMS	10 58 50.0	
	comp=Z,500nm,12.2s						
BIOA	**Bad Ischl, Aus**	**20.61**	**306**	*e*Pn	Pn	10 48 51.2	0.0
	comp=Z,14nm,1.1s						
KBA	**Koelnbreinsper**	**20.61**	**304**	P	Pn	10 48 51.4	-0.1
KBA				pmax	pmax		
	comp=Z,25nm,1.0s						
KBA	**Koelnbreinsper**	**20.61**	**304**	*i* Pn	Pn	10 48 51.4	0.0
	comp=Z,19nm,1.1s,SNR=11						
KBA	**Koelnbreinsper**	**20.61**	**304**	P	Pn	10 48 51.5	+0.1
	comp=Z,30nm,1.0s						
STAL	**STALIGIAL**	**20.82**	**301**	IAmb	IAmb	10 48 53.4	
	comp=Z,40nm,1.2s						
PRU	**Pruhonice**	**20.90**	**312**	AMS	AMS	10 58 40.0	
	comp=Z,700nm,15.8s						
PRU	**Pruhonice**	**20.90**	**312**	P	Pn	10 48 53.5	-1.1
	comp=Z,22nm,1.3s						
GEC2	**GERESS Array S**	**20.96**	**309**	P	Pn	10 48 53.7	-1.7
GEC2	**GERESS Array S**	**20.96**	**309**	*e*P	**P**	**10 48 53.4**	**+0.5**
	comp=Z,17nm,1.1s,baz=112,slow=10						
GEC2	**GERESS Array S**	**20.96**	**309**	P	Pn	10 48 53.6	-1.7
	comp=Z,14nm,1.3s						
GERES	**GERESS Array B**	**20.96**	**309**	P	**P**	**10 48 52.8**	**0.0**
	comp=Z,7.0nm,0.8s,baz=115,slow=9.4,SNR=32						
	comp=Z,7.0nm,0.8s						
GERES	**GERESS Array B**	**20.96**	**309**	P	**P**	**10 48 53.3**	**+0.5**
GERES	**GERESS Array B**	**20.96**	**309**		**P**	**10 48 53.3**	**+0.5**
ABTA	**Abfaltersbach**	**21.07**	**302**	*e*Pn	**P**	**10 48 56.1**	**+2.0**
	comp=Z,12nm,1.5s						
KHC	**Kasperske Hory**	**21.14**	**309**	*i* P	**P**	**10 48 55.6**	**+0.9**
KHC				pmax	pmax		
	comp=Z,14nm,1.2s						
KHC	**Kasperske Hory**	**21.14**	**309**	*e*P	**P**	**10 48 54.9**	**+0.2**
KHC				*e*S	**S**	**10 52 51.5**	**+1.7**
KHC				AMS	AMS	10 59 20.0	
	comp=Z,500nm,12.5s						
KHC	**Kasperske Hory**	**21.14**	**309**	P	**P**	**10 48 54.7**	**0.0**
	comp=Z,9.9nm,1.3s						
KHC	**Kasperske Hory**	**21.14**	**309**	P	**P**	**10 48 55.1**	**+0.4**
	comp=Z,9.9nm,1.3s						
LESA	**Schwarzleotal**	**21.15**	**304**	*i* Pn	**P**	**10 48 56.5**	**+1.7**
	comp=Z,14nm,1.1s,SNR=9.0						
RJOB	**Jochberg**	**21.16**	**305**	P	**P**	**10 48 55.7**	**+0.7**
	comp=Z,10nm,1.0s						
CGRP	**Cima Grappa**	**21.36**	**300**	P	**P**	**10 48 58.2**	**+0.9**
	comp=Z,35nm,1.3s						
CTI	**Castel Tesino**	**21.50**	**300**	P	**P**	**10 48 59.8**	**+1.2**
CTI				pmax	pmax		
	comp=Z,46nm,1.1s						
CTI	**Castel Tesino**	**21.50**	**300**		**P**	**10 48 59.8**	**+1.2**
CTI				IAmb	IAmb	10 49 01.1	
	comp=Z,46nm,1.1s						
WET	**Wettzell**	**21.57**	**309**	P	**P**	**10 49 00.2**	**+0.9**
WET	**Wettzell**	**21.57**	**309**	*e*P	**P**	**10 48 60.0**	**+0.6**
	comp=Z,18nm,1.2s,baz=112,slow=10						
WET	**Wettzell**	**21.57**	**309**	P	**P**	**10 49 00.2**	**+0.9**
	comp=Z,13nm,1.4s						
KIRV	**Kirov**	**21.59**	**15**	P	**P**	**10 48 59.2**	**-0.2**
	comp=Z,14nm,0.9s,baz=207,slow=12,SNR=8.9						
KIRV				LR	LR	10 57 53.3	
	comp=Z,331nm,20.0s,baz=210,slow=38						
	comp=Z,14nm,0.9s						
KIRV	**Kirov**	**21.59**	**15**	*ce*P	**P**	**10 48 58.9**	**-0.4**
BRG	**Berggiesshubel**	**21.64**	**314**	P	**P**	**10 49 01.9**	**+1.9**
BRG	**Berggiesshubel**	**21.64**	**314**	*e*P	**P**	**10 49 01.3**	**+1.3**
	comp=Z,50nm,1.6s,baz=112,slow=10						
BRG	**Berggiesshubel**	**21.64**	**314**	P	**P**	**10 49 01.9**	**+1.9**
	comp=Z,17nm,1.6s						
BRG	**Berggiesshubel**	**21.64**	**314**	*e*P	**P**	**10 49 01.4**	**+1.5**
BRG				Amp		10 49 07.4	
	comp=Z,22nm,1.2s						
BRG	**Berggiesshubel**	**21.64**	**314**	S	Sn	10 53 08.0	-0.2
WTTA	**Wattenberg**	**21.79**	**303**	P	**P**	**10 49 03.2**	**+1.4**
WTTA	**Wattenberg**	**21.79**	**303**	*i* P	**P**	**10 49 03.3**	**+1.4**
	comp=Z,34nm,1.6s,SNR=12						
HSKC	**Hora Svate Kat**	**21.81**	**313**	*e*P	**P**	**10 49 04.4**	**+2.5**
HSKC				AMS	AMS	10 59 30.0	
	comp=Z,800nm,18.5s						
HSKC	**Hora Svate Kat**	**21.81**	**313**	P	**P**	**10 49 03.6**	**+1.7**
	comp=Z,20nm,1.1s						
WATA	**Walderalm**	**21.84**	**304**	*e*P	**P**	**10 49 03.9**	**+1.5**
	comp=Z,22nm,1.0s						
SQTA	**Sankt Quirin**	**22.06**	**303**	*i* P	**P**	**10 49 06.1**	**+1.4**
	comp=Z,16nm,1.0s,SNR=6.7						
MOTA	**Moosalm**	**22.16**	**303**	*i* P	**P**	**10 49 07.5**	**+1.7**
	comp=Z,28nm,1.0s,SNR=9.8						
NKC	**Novy Kostel**	**22.23**	**311**	P	**P**	**10 49 08.9**	**+2.4**
NKC	**Novy Kostel**	**22.23**	**311**	AMS	AMS	11 00 10.0	
	comp=Z,500nm,16.8s						
NKC	**Novy Kostel**	**22.23**	**311**	P	**P**	**10 49 08.9**	**+2.4**
	comp=Z,35nm,1.5s						
TANN	**Tannenbergstha**	**22.30**	**312**	*e*P	**P**	**10 49 08.5**	**+1.3**
	comp=Z,41nm,1.4s,baz=112,slow=10						
TANN	**Tannenbergstha**	**22.30**	**312**	P	**P**	**10 49 08.1**	**+1.0**
	comp=Z,38nm,1.4s						
FETA	**Feichten**	**22.33**	**302**	*i* P	**P**	**10 49 09.1**	**+1.5**
	comp=Z,19nm,1.1s,SNR=6.1						
CLL	**Collm**	**22.36**	**314**	*i* P	**P**	**10 49 08.6**	**+0.9**
CLL				*e*S	**S**	**10 53 13.0**	**-0.3**
CLL				pmax	pmax		
	comp=Z,22nm,1.2s						
CLL				MLR	MLR		
	comp=Z,600nm,16.2s						
CLL	**Collm**	**22.36**	**314**	*e*P	**P**	**10 49 08.9**	**+1.2**
	comp=Z,22nm,1.2s,baz=112,slow=10						
CLL	**Collm**	**22.36**	**314**	P	**P**	**10 49 08.4**	**+0.7**
	comp=Z,397nmcomp=Z,15nm,1.2s						
CLL	**Collm**	**22.36**	**314**	*i* P	**P**	**10 49 08.6**	**+0.9**
	comp=Z,22nm,1.2s						
CLL				*i* x	x	10 49 24.4	
CLL				*e*PP	**PnPn**	**10 49 33.0**	**+2.6**
CLL				*e*S	**S**	**10 53 13.0**	**-0.3**
CLL				LH		10 54 00.0	
CLL				LV		10 55 00.0	
CLL				AMS	AMS	10 57 00.0	
	comp=N,300nm,21.6s						
CLL				AMS	AMS	10 57 00.0	
	comp=E,600nm,24.3s						
CLL				AMS	AMS	10 59 00.0	
	comp=Z,600nm,16.2s						
RETA	**Reutte**	**22.42**	**304**	*e*P	**P**	**10 49 09.6**	**+1.1**
	comp=Z,23nm,1.4s						
ARTI	**Arti**	**22.45**	**29**	LR	LR	11 00 12.6	
	comp=Z,192nm,18.1s,baz=232,slow=43						
ARTI	**Arti**	**22.45**	**29**	*c i*P	**P**	**10 49 08.2**	**-0.5**
ARTI						10 49 28.8	
ARTI				S	**S**	**10 53 15.7**	**+0.7**
ARTI				SS	**SnSn**	**10 53 43.6**	**+0.3**
ARTI				pmax	pmax		
	comp=Z,33nm,1.4s						
ARTI	**Arti**	**22.45**	**29**		**P**	**10 49 08.0**	**-0.7**
ARTI				IAmb	IAmb	10 49 17.6	
	comp=Z,24nm,1.1s						
PLN	**Plauen**	**22.50**	**312**	*e*P	**P**	**10 49 11.0**	**+1.7**
	comp=Z,3.8nm,1.2s,baz=112,slow=10						
KLMR	**Klimovskoe**	**22.72**	**1**	*e*P	**P**	**10 49 09.2**	**-2.3**
KLMR				pmax	pmax		
	comp=Z,45nm,1.3s						
GRA3	**Grafenberg Arr**	**22.74**	**309**	P	**P**	**10 49 13.0**	**+1.1**
	comp=Z,28nm,1.5s						
GRA1	**Grafenberg Arr**	**22.77**	**309**	IAmb	IAmb	10 49 17.3	
	comp=Z,28nm,1.0s						
GRF	**Grafenberg Arr**	**22.77**	**309**	*e*P	**P**	**10 49 13.0**	**+0.8**
	comp=Z,30nm,1.1s,baz=112,slow=10						
DAVOX	**Davos/Dischmat**	**22.84**	**301**	LR	LR	10 59 19.5	
	comp=Z,341nm,19.0s,baz=80,slow=40						
MOX	**Moxa**	**22.89**	**312**	P	**P**	**10 49 15.0**	**+1.6**
MOX	**Moxa**	**22.89**	**312**	*e*P	**P**	**10 49 15.6**	**+2.2**
	comp=Z,14nm,1.2s,baz=112,slow=10						
MOX	**Moxa**	**22.89**	**312**	P	**P**	**10 49 16.0**	**+2.6**
	comp=Z,9.2nm,1.4s						
UBR	**Ueberruh**	**22.89**	**304**	*e*P	**P**	**10 49 14.3**	**+0.8**
	comp=Z,28nm,1.3s,baz=112,slow=10						
UBR	**Ueberruh**	**22.89**	**304**	P	**P**	**10 49 14.4**	**+0.8**
	comp=Z,18nm,1.8s						
DAVA	**Damuels**	**22.95**	**303**	*i* P	**P**	**10 49 14.7**	**+0.5**
	comp=Z,59nm,1.9s,SNR=11						
PGF	**Pioggiola**	**23.00**	**290**	*e*P	**P**	**10 49 15.1**	**+0.4**
PGF				pmax	pmax		
	comp=Z,46nm,1.2s						
TUE	**Stuetta**	**23.14**	**300**		**P**	**10 49 16.8**	**+0.5**
TUE				IAmb	IAmb	10 49 19.0	
	comp=Z,32nm,1.4s						
TUE	**Stuetta**	**23.14**	**300**	P	**P**	**10 49 16.5**	**+0.2**
	comp=Z,83nm,1.6s						
TUE	**Stuetta**	**23.14**	**300**	P	**P**	**10 49 17.6**	**+1.3**
	comp=Z,21nm,1.6s						
KEST	**Kesra**	**23.55**	**273**	P	**P**	**10 49 19.8**	**-0.6**
	comp=Z,38nm,1.1s,baz=54,slow=2.0,SNR=20						
KEST				LR	LR	11 01 03.3	
	comp=Z,295nm,18.1s,baz=78,slow=43						
	comp=Z,38nm,1.1s						
KEST	**Kesra**	**23.55**	**273**		**P**	**10 49 21.4**	**+1.1**
SVE	**Sverdlovsk**	**23.65**	**31**	*e*P	**P**	**10 49 21.3**	**+0.3**
SVE				*e*S	**S**	**10 53 37.8**	**+2.3**
SVE				pmax	pmax		
	comp=Z,29nm,1.5s						
SVE				MLR	MLR		
	comp=Z,603nm,16.0s						
BNALP	**Bannalp**	**23.84**	**301**	P	**P**	**10 49 23.7**	**+0.5**
	comp=Z,35nm,1.3s						
UBBA	**Unterbreizbach**	**23.90**	**311**	*e*P	**P**	**10 49 20.0**	**-3.4**
	comp=Z,26nm,1.5s,baz=112,slow=10						
SLE	**Schleitheim**	**23.97**	**303**	P	**P**	**10 49 24.5**	**+0.2**
SLE	**Schleitheim**	**23.97**	**303**	P	**P**	**10 49 24.5**	**+0.2**
	comp=Z,59nm,1.2s						
ASSE	**Asse, Remlinge**	**24.02**	**315**	*e*P	**P**	**10 49 27.0**	**+2.5**
	comp=Z,11nm,1.0s,baz=112,slow=10						
CLZ	**Clausthal**	**24.07**	**314**	*e*P	**P**	**10 49 26.0**	**+0.8**
	comp=Z,32nm,1.2s,baz=112,slow=10						
SBF	**Sospel**	**24.19**	**294**	*e*P	**P**	**10 49 27.6**	**+1.3**
SBF				pmax	pmax		
	comp=Z,53nm,1.2s						
GTTG	**Gottingen**	**24.19**	**313**	*e*P	**P**	**10 49 27.3**	**+1.1**
	comp=Z,30nm,1.3s,baz=112,slow=10						
BFO	**Black Forest**	**24.21**	**305**	P	**P**	**10 49 26.0**	**-0.4**
BFO	**Black Forest**	**24.21**	**305**	*e*P	**P**	**10 49 26.0**	**-0.4**
	comp=Z,35nm,1.6s,baz=112,slow=10						
SENIN	**Lac Senin/Sane**	**24.52**	**300**	IAmb	IAmb	10 49 30.5	
	comp=Z,19nm,1.1s						
KK31	**Karatay Array**	**24.55**	**68**	P	**P**	**10 49 29.8**	**+0.2**
KK31				pmax	pmax		
	comp=Z,21nm,1.2s						
KK31	**Karatay Array**	**24.55**	**68**	P	**P**	**10 49 29.8**	**+0.2**
KK31				IAmb	IAmb	10 49 37.5	
	comp=Z,21nm,1.1s						
KKAR	**Karatay Array**	**24.55**	**68**	P	**P**	**10 49 29.5**	**-0.1**
KKAR	**Karatay Array**	**24.55**	**68**	P	**P**	**10 49 29.5**	**-0.1**
FINES	**FINESS Array B**	**24.60**	**345**	P	**P**	**10 49 29.1**	**-0.7**
	comp=Z,8.3nm,0.9s,baz=147,slow=11,SNR=11						
FINES				LR	LR	11 00 45.1	
	comp=Z,185nm,18.4s,baz=149,slow=40						
	comp=Z,8.3nm,0.9s						
FINES	**FINESS Array B**	**24.60**	**345**	*i* P	**P**	**10 49 32.7**	**+2.9**
FINES				pmax	pmax		
	comp=Z,8.0nm,0.8s						
FINES	**FINESS Array B**	**24.60**	**345**	P	**P**	**10 49 29.0**	**-0.8**
MBDF	**Montbardon**	**24.72**	**296**	*e*P	**P**	**10 49 32.0**	**+0.8**
MBDF				pmax	pmax		
	comp=Z,29nm,1.1s						
BOURR	**Bourrignon**	**24.74**	**302**	P	**P**	**10 49 31.9**	**+0.6**
	comp=Z,48nm,1.5s						
LMR	**La Mourre**	**24.84**	**292**	*e*P	**P**	**10 49 34.0**	**+1.8**
LMR				pmax	pmax		
	comp=Z,75nm,1.9s						
CDF	**Champ du Feu**	**24.91**	**304**	*e*P	**P**	**10 49 33.3**	**+0.4**
CDF				pmax	pmax		
	comp=Z,13nm,1.0s						
ECH	**Echery**	**24.95**	**304**	P	**P**	**10 49 33.3**	**+0.2**
ECH				pmax	pmax		
	comp=Z,26nm,1.0s						
ECH	**Echery**	**24.95**	**304**		**P**	**10 49 33.3**	**+0.2**
KASTN	**Kahler Asten**	**24.98**	**311**	*e*P	**P**	**10 49 34.4**	**+1.0**
	comp=Z,23nm,1.2s,baz=112,slow=10						
RETH	**Rethem/Aller,**	**25.00**	**315**	*e*P	**P**	**10 49 34.7**	**+1.2**
	comp=Z,20nm,1.1s,baz=112,slow=10						
BSEG	**Bad Segeberg**	**25.01**	**318**	*e*P	**P**	**10 49 35.1**	**+1.6**
	comp=Z,18nm,1.1s,baz=112,slow=10						
HINF	**Hinteralfeld**	**25.07**	**303**	*e*P	**P**	**10 49 34.4**	**+0.2**
HINF				pmax	pmax		
	comp=Z,7.0nm,0.8s						
GIMEL	**St. Georges /**	**25.26**	**300**	P	**P**	**10 49 35.4**	**-0.6**
	comp=Z,15nm,0.9s						
ORIF	**Oris-en-Rattie**	**25.36**	**296**	*e*P	**P**	**10 49 38.3**	**+1.3**
ORIF				pmax	pmax		
	comp=Z,37nm,1.4s						
MNAS	**Manas**	**26.02**	**70**	P	**P**	**10 49 46.1**	**+3.0**
VIVF	**Saint-Julien-l**	**26.22**	**296**	*e*P	**P**	**10 49 44.7**	**0.0**
VIVF				pmax	pmax		
	comp=Z,20nm,1.2s						
SSB	**Saint Sauveur**	**26.33**	**297**	P	**P**	**10 49 45.9**	**+0.2**
SSB	**Saint Sauveur**	**26.33**	**297**	IAmb	IAmb	10 49 49.0	
	comp=Z,20nm,1.3s						
BVAR	**Borovoye Array**	**26.42**	**45**	P	**P**	**10 49 47.1**	**+0.8**
	comp=Z,1.6nm,0.7s,baz=243,slow=6.3,SNR=7.9						
	comp=Z,1.6nm,0.7s						
ATD	**Arta Tunnel**	**26.78**	**171**	LR	LR	10 59 46.6	
	comp=Z,18nm,18.6s,baz=358,slow=35						
LOR	**Lormes**	**26.99**	**301**	*e*P	**P**	**10 49 51.5**	**-0.1**
LOR				pmax	pmax		
	comp=Z,10.0nm,1.1s						
HFS	**Hagfors**	**27.10**	**332**	P	**P**	**10 49 53.6**	**+1.2**
	comp=Z,5.0nm,0.8s,baz=109,slow=18,SNR=4.1						
HFS				LR	LR	11 02 03.0	
	comp=Z,299nm,21.5s,baz=140,slow=40						
	comp=Z,5.0nm,0.8s						
SSF	**Saint Saulge**	**27.20**	**300**	*e*P	**P**	**10 49 53.6**	**+0.1**
SSF				pmax	pmax		
	comp=Z,14nm,1.2s						
AVF	**Avril sur Loir**	**27.28**	**300**	*e*P	**P**	**10 49 54.2**	**0.0**
AVF				pmax	pmax		
	comp=Z,13nm,1.0s						
AAK	**Ala-Archa**	**27.48**	**69**	LR	LR	11 03 09.5	
	comp=Z,340nm,18.1s,baz=286,slow=41						
TCF	**Toulx Ste Croi**	**28.02**	**299**	*e*P	**P**	**10 50 01.4**	**+0.5**
TCF				pmax	pmax		
	comp=Z,14nm,1.3s						
NOA	**NORSAR Array B**	**28.62**	**332**	LR	LR	11 03 35.1	
	comp=Z,168nm,19.1s,baz=150,slow=41						
NRN	**Naryn**	**28.69**	**72**	P	**P**	**10 50 06.0**	**-1.2**
NRN				pmax	pmax		
	comp=Z,7.0nm,1.0s						
NRN	**Naryn**	**28.69**	**72**	P	**P**	**10 50 06.0**	**-1.2**
MFF	**Saint Martin d**	**29.67**	**299**	*e*P	**P**	**10 50 15.2**	**-0.3**
MFF				pmax	pmax		
	comp=Z,63nm,1.4s						
ETSF	**Etsaut**	**30.03**	**292**	*e*P	**P**	**10 50 19.8**	**+1.0**
ETSF				pmax	pmax		
	comp=Z,130nm,1.6s						
KURBB	**Kurchatov Arra**	**30.68**	**53**	P	**P**	**10 50 25.5**	**+1.1**
	comp=Z,2.3nm,0.2s,baz=269,slow=9.3,SNR=14						
	comp=Z,2.3nm,0.2s						
KURK	**Kurchatov**	**30.75**	**53**	P	**P**	**10 50 27.6**	**+2.6**
KURK	**Kurchatov**	**30.75**	**53**	P	**P**	**10 50 26.3**	**+1.3**
PDGK	**Podgornoye**	**31.10**	**67**	P	**P**	**10 50 28.0**	**-0.3**
PDGK	**Podgornoye**	**31.10**	**67**	P	**P**	**10 50 28.0**	**-0.3**
ARCES	**ARCESS Array B**	**32.23**	**351**	LR	LR	11 05 29.6	
	comp=Z,265nm,18.1s,baz=174,slow=40						
EKA	**Eskdalemuir Ar**	**32.82**	**315**	P	**P**	**10 50 42.8**	**-0.3**
	comp=Z,1.9nm,0.6s,baz=113,slow=8.2,SNR=6.7						
EKA				LR	LR	11 07 20.6	
	comp=Z,327nm,18.2s,baz=116,slow=42						
	comp=Z,1.9nm,0.6s						
MK31	**Makanchi Array**	**32.92**	**61**	*i* P	**P**	**10 50 44.6**	**+0.5**
MK31	**Makanchi Array**	**32.92**	**61**	P	**P**	**10 50 44.4**	**+0.2**
MKAR	**Makanchi Array**	**32.92**	**61**	P	**P**	**10 50 43.6**	**-0.5**
	comp=Z,3.6nm,0.9s,baz=265,slow=5.7,SNR=21						
MKAR				LR	LR	11 06 02.8	
	comp=Z,298nm,20.1s,baz=265,slow=40						
	comp=Z,3.6nm,0.9s						
ESDC	**Sonseca Array**	**33.01**	**286**	P	**P**	**10 50 43.7**	**-1.3**
	comp=Z,4.8nm,1.1s,baz=70,slow=8.9,SNR=15						
ESDC				LR	LR	11 05 36.3	
	comp=Z,160nm,19.6s,baz=100,slow=39						
	comp=Z,4.8nm,1.1s						
ESDC	**Sonseca Array**	**33.01**	**286**		**P**	**10 50 44.3**	**-0.7**
ESDC				IAmb	IAmb	10 50 49.7	
	comp=Z,10nm,1.3s						
ZALV	**Zalesovo Beam**	**34.98**	**48**	P	**P**	**10 51 01.0**	**-0.8**
	comp=Z,0.4nm,0.4s,baz=263,slow=9.7,SNR=5.0						
ZALV				LR	LR	11 07 23.4	
	comp=Z,232nm,18.3s,baz=260,slow=40						
	comp=Z,0.4nm,0.4s						
ZALV	**Zalesovo Beam**	**34.98**	**48**	P	**P**	**10 51 02.2**	**+0.3**
ZALV	**Zalesovo Beam**	**34.98**	**48**	P	**P**	**10 51 02.2**	**+0.3**
MDT	**Midelt**	**35.43**	**275**	LR	LR	11 09 13.6	
	comp=Z,79nm,18.1s,baz=80,slow=42						
MD01	**Midelt array s**	**35.53**	**275**	P	**P**	**10 51 06.3**	**-0.8**
WMQ	**Urumqi**	**36.97**	**65**	*e*P	**P**	**10 51 20.9**	**+1.8**
WMQ				S	**S**	**10 57 10.8**	**+6.5**
WMQ				LR	LR		
	comp=N,590nm,16.7s						
WMQ				LR	LR		
	comp=E,380nm,23.3s						
WMQ				LR	LR		
	comp=Z,220nm,20.7s						
MBAR	**Mbarara**	**39.27**	**193**	LR	LR	11 08 05.3	
	comp=Z,299nm,18.4s,baz=34,slow=37						
JMIC	**Jan Mayen**	**40.82**	**338**	LR	LR	11 10 10.0	
	comp=Z,93nm,18.5s,baz=92,slow=38						
TORD	**Torodi Ar. Bea**	**41.22**	**243**	P	**P**	**10 51 53.2**	**-1.7**
	comp=Z,1.8nm,1.0s,baz=41,slow=10,SNR=8.2						
	comp=Z,1.8nm,1.0s						
BORG	**Borgarnes**	**43.56**	**327**	LR	LR	11 11 47.1	
	comp=Z,98nm,20.8s,baz=110,slow=38						
PALK	**Pallekele**	**48.80**	**118**	LR	LR	11 14 12.8	
	comp=Z,263nm,19.3s,baz=302,slow=37						
SONM	**Songino Array**	**48.98**	**56**	LR	LR	11 16 15.1	
	comp=Z,327nm,18.4s,baz=290,slow=39						
ULN	**Ulaanbaatar**	**49.40**	**56**	P	**P**	**10 53 00.2**	**+0.6**
ULN				pmax	pmax		
	comp=Z,3.0nm,0.7s						
ULN	**Ulaanbaatar**	**49.40**	**56**	P	**P**	**10 53 00.2**	**+0.6**
DBIC	**Dimbokro**	**50.33**	**243**	LR	LR	11 18 49.5	
	comp=Z,95nm,20.3s,baz=35,slow=41						
LZDM	**Lanzhou Array**	**50.94**	**71**	LR	LR	11 17 27.0	
	comp=Z,189nm,20.4s,baz=80,slow=39						
LZH	**Lanzhou**	**51.00**	**71**	*e*P	P	10 53 05.8	-6.2
LZH				pP	pP	10 53 12.4	-3.1
LZH				pmax	pmax		
	comp=Z,18nm,0.9s						
LZH				LR	LR		
	comp=N,380nm,17.0s						
LZH				LR	LR		
	comp=E,160nm,15.5s						
LZH				LR	LR		
	comp=Z,260nm,19.2s						
PZH	**PanZhiHua**	**53.60**	**83**	P	**P**	**10 53 31.6**	**+0.3**
LSZ	**Lusaka**	**54.06**	**193**	LR	LR	11 16 54.0	
	comp=Z,280nm,19.1s,baz=343,slow=36						
TIXI	**Tiksi**	**54.34**	**23**	LR	LR	11 20 11.3	
	comp=Z,85nm,19.8s,baz=327,slow=40						
TIXI	**Tiksi**	**54.34**	**23**	*ce*P	**P**	**10 53 36.7**	**+0.8**
TIXI				pmax	pmax		
	comp=Z,5.0nm,1.5s						
HHC	**Hu-ho-hao-te**	**54.75**	**63**	*e*P	**P**	**10 53 38.9**	**-0.6**
HHC				pmax	pmax		
	comp=Z,9.0nm,0.5s						
HHC				pmax	pmax		
	comp=Z,73nm,5.4s						
HHC				LR	LR		
	comp=N,300nm,17.7s						
HHC				LR	LR		
	comp=E,190nm,16.0s						
HHC				LR	LR		
	comp=Z,110nm,18.5s						
CMAR	**Chiang Mai Arr**	**55.59**	**93**	P	**P**	**10 53 45.0**	**-0.7**
	comp=Z,0.6nm,0.3s,baz=292,slow=8.7,SNR=6.4						
CMAR				LR	LR	11 23 37.2	
	comp=Z,70nm,18.9s,baz=295,slow=43						

	comp=Z,0.6nm,0.3s						
CMAR	Chiang Mai Arr	55.59	93	*i* P	P	10 53 46.7	+1.0
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
CMAR	Chiang Mai Arr	55.59	93	P	P	10 53 45.3	-0.5
YAK	Yakutsk	57.56	34	LR	LR	11 23 03.6	
	comp=Z,268nm,18.2s,baz=278,slow=40						
TSUM	Tsumeb	60.41	203	LR	LR	11 21 33.7	
	comp=Z,503nm,19.8s,baz=329,slow=37						
RES	Resolute Bay	63.34	348	LR	LR	11 23 28.9	
	comp=Z,108nm,19.8s,baz=23,slow=37						
NJ2	Nanjing	63.92	69	*e*P	P	10 54 42.2	-0.8
NJ2				pmax	pmax		
	comp=Z,4.0nm,0.6s						
LBTB	Lobatse	64.04	193	LR	LR	11 23 20.1	
	comp=Z,290nm,19.2s,baz=12,slow=37						
KLR	Kul'dur	64.07	47	LR	LR	11 27 06.7	
	comp=Z,228nm,18.1s,baz=303,slow=40						
SEY	Seymchan	66.27	27	*i* P	P	10 54 58.1	+0.4
SEY				pmax	pmax		
	comp=Z,3.0nm,0.9s						
BILL	Bilibino	67.08	19	*i* P	P	10 55 02.9	+0.1
BILL				pmax	pmax		
	comp=Z,10.0nm,1.4s						
KSRS	Korea Array	67.59	59	P	P	10 55 06.5	0.0
	comp=Z,7.0nm,1.2s,baz=294,slow=5.6,SNR=7.2						
KSRS				LR	LR	11 28 02.4	
	comp=Z,202nm,18.5s,baz=315,slow=39						
	comp=Z,7.0nm,1.2s						
BOSA	Boshof	67.61	193	LR	LR	11 25 27.4	
	comp=Z,254nm,20.1s,baz=18,slow=37						
SCHQ	Schefferville	67.69	323	LR	LR	11 24 45.9	
	comp=Z,62nm,21.6s,baz=118,slow=36						
MA2	Magadan	67.73	31	LR	LR	11 29 32.6	
	comp=Z,148nm,18.5s,baz=292,slow=40						
JNU	Nakatsue	71.96	62	LR	LR	11 29 37.4	
	comp=Z,108nm,21.9s,baz=312,slow=38						
SUR	Sutherland	72.14	196	LR	LR	11 27 46.3	
	comp=Z,340nm,19.0s,baz=346,slow=36						
E29M	Blow River	73.74	359	P	P	10 55 44.5	+1.0
E29M				IAmb	IAmb	10 55 46.2	
	comp=Z,6.8nm,1.2s						
PETK	Petropavlovsk-	74.89	33	LR	LR	11 31 40.0	
	comp=Z,114nm,20.0s,baz=293,slow=38						
MJAR	Matsushiro Arr	74.93	55	LR	LR	11 30 35.4	
	comp=Z,135nm,21.8s,baz=318,slow=37						
ILAR	Eielson Array	77.31	2	LR	LR	11 32 51.2	
	comp=Z,38nm,21.9s,baz=316,slow=38						
J30M	Hart River	77.53	358		P	10 56 06.6	+1.2
J30M				IAmb	IAmb	10 56 09.0	
	comp=Z,9.8nm,1.4s						
JHJ	Hachijo jima 2	78.02	57	LR	LR	11 33 20.0	
	comp=Z,90nm,20.9s,baz=324,slow=38						
MENT	Mentasta	79.22	1	P	P	10 56 13.5	-1.2
SADO	Sadowa	80.24	320	LR	LR	11 33 59.8	
	comp=Z,85nm,18.0s,baz=72,slow=37						
SHEM	Shemya Is, Ala	81.54	26	LR	LR	11 38 04.3	
	comp=Z,108nm,18.5s,baz=76,slow=40						
DLBC	Dease Lake	83.30	354	LR	LR	11 38 17.4	
	comp=Z,39nm,18.7s,baz=3.0,slow=39						
ULM	Lac du Bonnet	83.31	333	LR	LR	11 37 22.3	
	comp=Z,68nm,20.5s,baz=14,slow=38						
KDAK	Kodiak Island	83.95	6	LR	LR	11 39 08.9	
	comp=Z,69nm,18.4s,baz=357,slow=39						
MDP	Montagnes des	87.95	275	LR	LR	11 35 29.8	
	comp=Z,41nm,20.9s,baz=30,slow=35						
TKL	Tuckaleechee C	89.29	317	LR	LR	11 38 21.4	
	comp=Z,38nm,18.8s,baz=37,slow=36						
SJG	San Juan	90.12	293	LR	LR	11 33 56.0	
	comp=Z,18nm,21.6s,baz=57,slow=33						
NEW	Newport	91.31	344	LR	LR	11 41 18.6	
	comp=Z,57nm,18.0s,baz=1.0,slow=38						
ELK	Elko	97.93	340	LR	LR	11 45 43.6	
	comp=Z,90nm,18.4s,baz=8.5,slow=38						
YBH	Yreka Blue Hor	98.70	346	LR	LR	11 44 06.2	
	comp=Z,57nm,21.2s,baz=9.0,slow=36						
SDV	Santo Domingo	99.42	289	LR	LR	11 41 36.4	
	comp=Z,34nm,19.1s,baz=70,slow=35						

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*IDC **08** 11:02:32.5±2.5, 24.°47S×179.°94W, h485^{km}±36^{km}, mb2.9/4, mbtmp3.9/6, Error ellipse: s-maj=42.8km s-min=23.7km az=49.0*

ISC 08 11:02:33.2±0.7, **24.°47S**±0.°07×**179.°89W**±0.°10, **h505**^{km}, **n42**, σ**2^{s}.41**/47, **mb3.5**/4, **South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GLKZ	Green Lake	5.09	160	P	P	11 03 56.4	-4.8
GLKZ				S	S	11 05 11.0	-2.1
GLKZ				AML	AML		
MSVF	Nonsavu	6.97	344	P	P	11 04 18.6	-0.9
	5.2nm,0.6s,baz=131,slow=19,SNR=2.1						
NIUE	Niue	10.70	62	P	P	11 04 57.8	-0.3
NIUE				S	S	11 06 59.7	+2.4
NFK	Norfolk Island	11.79	245	P	P	11 05 06.8	-2.7
OUZ	Omahuta	12.11	206	P	P	11 05 15.6	+2.8
WCZ	Waipu Caves	12.47	202	P	P	11 05 19.7	+3.1
AFI	Afiamalu	12.99	38	P	P	11 05 20.9	-1.6
MXZ	Matakaoa Point	13.15	186	P	P	11 05 28.7	+5.1
HAZ	Te Kaha	13.40	188	P	P	11 05 26.9	+0.6
RUGZ	Raukumara Rang	13.62	188	P	P	11 05 31.4	+2.7
PUZ	Puketiti	13.65	186	P	P	11 05 32.1	+3.0
TWGZ	Tauwhareparae	13.79	187	P	P	11 05 29.7	-0.8
TWGZ				S	S	11 07 58.3	+1.7
TOZ	Tahuroa Road	13.80	195	P	P	11 05 31.9	+1.4
URZ	Urewera	13.99	190	P	P	11 05 30.2	-2.2
	3.1nm,0.3s,baz=12,slow=18,SNR=19						
URZ				S	S	11 08 00.2	-0.1
	7.2nm,0.6s,baz=204,slow=20,SNR=12						
URZ	Urewera	13.99	190	P	P	11 05 29.7	-2.8
URZ				S	S	11 08 00.3	0.0
MWZ	Matawai	14.00	188	P	P	11 05 34.4	+1.7
MWZ				S	S	11 08 00.8	+0.1
TKGZ	Te Karaka	14.06	187	P	P	11 05 36.2	+2.9
HLRZ	Highlands Stat	14.11	192	P	P	11 05 35.8	+1.9
MUGZ	Murupara	14.25	191	P	P	11 05 36.7	+1.4
RTZ	Ruatahuna	14.36	190	P	P	11 05 39.1	+2.7
TLZ	Tolley Road	14.36	195	P	P	11 05 40.8	+4.4
MTHZ	Maungataniwha	14.61	190	P	P	11 05 42.4	+3.3
MTHZ				S	S	11 08 07.3	-5.1
HIZ	Hauiti	14.70	196	P	P	11 05 45.2	+5.2
NMHZ	Naumai	14.85	190	P	P	11 05 44.6	+2.9
NTVZ	North Tongarir	15.06	193	P	P	11 05 45.5	+1.5
TMVZ	Te Maari	15.07	193	P	P	11 05 46.6	+2.6
TWVZ	Taurewa	15.09	194	P	P	11 05 47.0	+2.9
ETVZ	East Tongariro	15.09	193	P	P	11 05 45.9	+1.7
OTVZ	Oturere	15.13	193	P	P	11 05 45.8	+1.2
NGZ	Ngauruhoe	15.15	194	P	P	11 05 49.0	+4.1
SNVZ	South Ngauruho	15.16	193	P	P	11 05 47.2	+2.3
MCHZ	McNeill Hill	15.21	190	P	P	11 05 46.6	+1.3
VRZ	Vera Road	15.30	196	P	P	11 05 49.4	+3.2
WNVZ	Wahianoa	15.30	193	P	P	11 05 46.9	+0.5
NEZ	North Egmont	15.61	198	P	P	11 05 52.1	+2.5
PXZ	Pawanui	15.76	189	P	P	11 05 52.0	+1.1
WAZ	Wanganui	15.84	195	P	P	11 05 53.9	+1.9
TSZ	Takapari Road	15.94	192	P	P	11 05 54.0	+1.1
STKA	Stephens Creek	34.61	249	P	P	11 08 40.6	+1.1
	1.1nm,0.3s,baz=105,slow=8.5,SNR=4.4						
	1.1nm,0.3s						
ASAR	Alice Springs	42.04	261	P	P	11 09 40.7	+0.5
	0.3nm,0.5s,baz=94,slow=6.9,SNR=9.2						
	0.3nm,0.5s						
WRA	Warramunga Arr	42.47	267	P	P	11 09 43.2	-0.4
	0.4nm,0.4s,baz=97,slow=8.4,SNR=15						
	0.4nm,0.4s						
QSPA	South Pole Qui	65.62	180	P	P	11 12 27.7	+1.1
	2.0nm,1.1s,baz=339,slow=1.6,SNR=8.3						
	2.0nm,1.1s						

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*IDC **08** 11:21:09.5±0.9, 6.°36S×152.°53E, h0^{km}, mb4.1/9, mbtmp4.1/10, ML2.3/1, MS3.4/10, Error ellipse: s-maj=26.1km s-min=13.3km az=108.0*

*NEIC **08** 11:21:11.1±1.4, 6.°25S±0.°09×152.°49E±0.°07, h10^{km}±1^{km}, mb4.2/12, Error ellipse: s-maj=16.2km s-min=9.9km az=151.0*

ISC 08 11:21:13.2±0.9, **6.°26S**±0.°08×**152.°4E**±0.°1, **h23**^{km}, **n39**, σ**0^{s}.96**/32, **mb4.1**/15, **MS3.3**/8, **New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KRVT	Keravat (AS076	1.97	349	Pn	Pn	11 21 45.0	-0.2
	590nm,0.3s,baz=122,slow=9.5,SNR=98						
KRVT				Sn	Sn	11 22 08.9	-0.3
	282nm,0.3s,baz=292,slow=23,SNR=7.2						
RABL	Rabaul	2.06	353	Pn	Pn	11 21 45.9	-0.6
PMG	Port Moresby	6.06	239	Pn	Pn	11 22 41.2	-0.3
	4.6nm,0.3s,baz=71,slow=13,SNR=12						
PMG				Sn	Sn	11 23 50.3	0.0
	4.6nm,0.3s,baz=352,slow=17,SNR=2.1						
	19nm,0.4s						
PMG				AML	AML		
PMG	Port Moresby	6.06	239	Pn	Pn	11 22 41.7	+0.2
HNR	Honiara	8.12	113	LR	LR	11 25 48.6	
	comp=Z,76nm,18.1s,baz=17,slow=35						
CTA	Charters Tower	14.99	203	LR	LR	11 29 30.0	
	comp=Z,181nm,21.6s,baz=20,slow=34						
DZM	Mont Dzumac	20.77	141	LR	LR	11 32 00.7	
	comp=Z,118nm,20.6s,baz=333,slow=32						
WB0	Warramunga Arr	22.06	231	P	P	11 26 05.2	-1.5
WB0				IAmb	IAmb	11 26 18.6	
	comp=Z,7.3nm,0.8s						
WR8	Warramunga Arr	22.09	230	P	P	11 26 05.8	-1.1
WR8				IAmb	IAmb	11 26 18.9	
	comp=Z,5.5nm,0.8s						
WRAB	Tennant Creek	22.19	231	P	P	11 26 07.1	-0.9
WRAB				IAmb	IAmb	11 26 20.2	
	comp=Z,7.6nm,0.9s						
WRA	Warramunga Arr	22.20	231	P	P	11 26 08.0	-0.2
	comp=Z,2.7nm,0.9s,baz=56,slow=10,SNR=11						
	comp=Z,2.7nm,0.9s						
WRA	Warramunga Arr	22.20	231	P	P	11 26 08.8	+0.5
AS31	Alice Springs	24.82	224	P	P	11 26 34.0	0.0
ASAR	Alice Springs	24.82	224	P	P	11 26 34.0	0.0
	comp=Z,1.7nm,0.6s,baz=57,slow=9.1,SNR=16						
ASAR				LR	LR	11 35 03.5	
	comp=Z,86nm,20.1s,baz=300,slow=34						
	comp=Z,1.7nm,0.6s						
KNRA	Kununurra	25.00	246	P	P	11 26 35.5	-0.1
KNRA				IAmb	IAmb	11 26 52.9	
	comp=Z,6.7nm,0.8s						
STKA	Stephens Creek	27.42	200	P	P	11 26 57.5	+0.2
	comp=Z,2.1nm,0.8s,baz=14,slow=12,SNR=2.8						
	comp=Z,2.1nm,0.8s						
FITZ	Fitzroy Crossi	28.63	243	P	P	11 27 07.6	-0.7
DAV	Davao City (W)	29.86	296	LR	LR	11 39 39.5	
	comp=Z,113nm,19.3s,baz=352,slow=37						
URZ	Urewera	38.95	148	LR	LR	11 42 23.0	
	comp=Z,103nm,18.4s,baz=280,slow=33						
RPZ	Rata Peaks	40.76	159	LR	LR	11 43 43.6	
	comp=Z,32nm,18.2s,baz=204,slow=33						
MJAR	Matsushiro Arr	44.60	344	LR	LR	11 45 07.9	
	comp=Z,52nm,21.7s,baz=170,slow=32						
KSRS	Korea Array	49.12	334	LR	LR	11 48 09.1	
	comp=Z,14nm,21.6s,baz=180,slow=33						
KLR	Kul'dur	58.12	344	LR	LR	11 55 40.7	
	comp=Z,44nm,18.7s,baz=256,slow=36						
F19K	Shaleruckik Mo	81.12	18	P	P	11 33 25.7	-0.7
F19K				IAmb	IAmb	11 33 56.3	
	comp=Z,6.5nm,1.3s						
MK31	Makanchi Array	81.16	319	P	P	11 33 25.8	-1.2
MK31				IAmb	IAmb	11 33 30.4	
	comp=Z,1.9nm,1.1s						
MKAR	Makanchi Array	81.16	319	P	P	11 33 29.0	+1.9
	comp=Z,1.2nm,0.9s,baz=96,slow=6.7,SNR=6.5						
	comp=Z,1.2nm,0.9s						
MKAR	Makanchi Array	81.16	319	P	P	11 33 26.7	-0.4
IMAR	Indian Mountai	81.88	20	P	P	11 33 31.6	+1.2
D19K	Kuna River	82.09	16	P	P	11 33 32.5	+0.9
ZALV	Zalesovo Beam	82.14	327	P	P	11 33 33.7	+1.7
	comp=Z,1.7nm,0.6s,baz=100,slow=4.8,SNR=8.4						
	comp=Z,1.7nm,0.6s						
ZALV	Zalesovo Beam	82.14	327	P	P	11 33 31.9	-0.1
ILAR	Eielson Array	83.65	22	P	P	11 33 39.5	-0.1
	comp=Z,0.9nm,0.7s,baz=244,slow=5.5,SNR=13						
	comp=Z,0.9nm,0.7s						
ILAR	Eielson Array	83.65	22	P	P	11 33 38.9	-0.8
QSPA	South Pole Qui	83.72	180	P	P	11 33 39.4	-0.8
	comp=Z,3.3nm,0.8s,baz=299,slow=1.3,SNR=17						
	comp=Z,3.3nm,0.8s						
QSPA	South Pole Qui	83.72	180	P	P	11 33 39.8	-0.4
D23K	Nanushuk River	84.55	18	P	P	11 33 46.0	+1.8
KURBB	Kurchatov Arra	84.69	322	P	P	11 33 46.6	+1.4
	comp=Z,0.8nm,0.3s,baz=110,slow=4.0,SNR=9.6						
	comp=Z,0.8nm,0.3s						
BVAR	Borovoye Array	90.16	323	P	P	11 34 12.9	+1.3
	comp=Z,0.8nm,0.5s,baz=125,slow=2.3,SNR=1.8						
	comp=Z,0.8nm,0.5s						
TORD	Torodi Ar. Bea	150.34	286	PKPbc	PKPbc	11 41 02.8	-1.0
	comp=Z,2.1nm,0.9s,baz=67,slow=3.3,SNR=9.3						

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*IDC **08** 11:21:34.8±1.7, 18.°54S×178.°87W, h567^{km}±19^{km}, mb3.4/5, mbtmp4.4/8, Error ellipse: s-maj=25.3km s-min=21.1km az=15.0*

*NOU **08** 11:21:35.7, 18.°77S×179.°04W, h535^{km}, mb4.2/19, Fiji Islands Region*

ISC 08 11:21:33.7±1.0, **18.°5S**±0.°1×**178.°7W**±0.°1, **h550**^{km}, **n42**, σ**1^{s}.86**/42, **mb3.8**/5, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LKBA	Tubou, Lakemba	0.32	339	P	P	11 22 40.8	+1.8
TAVE	Taveuni	2.16	327	P	P	11 22 45.1	+0.9
DGTI	Dogotuki	2.68	326	P	P	11 22 47.1	+0.1
MSVF	Nonsavu	3.20	284	P	P	11 22 52.0	+1.8
	126nm,0.5s,baz=110,slow=12,SNR=98						
DZM	Mont Dzumac	14.38	253	P	P	11 24 35.8	-1.1
	14nm,1.1s,baz=79,slow=19,SNR=2.0						
OUZ	Omahuta	17.97	201	P	P	11 25 11.6	+0.4
OUZ	Omahuta	17.97	201	P	P	11 25 14.6	+3.5
GRZ	Great Barrier	18.39	195	P	P	11 25 17.9	+2.9
WCZ	Waipu Caves	18.40	198	P	P	11 25 18.7	+3.7
WIAZ	Waiheke Island	18.98	195	P	P	11 25 23.1	+2.7
MBAZ	Motutapu North	19.02	196	P	P	11 25 23.8	+3.1
MXZ	Matakaoa Point	19.14	187	P	P	11 25 22.8	+1.0
ETAZ	East Tamaki Re	19.19	196	P	P	11 25 25.2	+2.9
MKAZ	Moumakai	19.27	195	P	P	11 25 25.6	+2.6
HAZ	Te Kaha	19.40	188	P	P	11 25 20.9	-3.3
RUGZ	Raukumara Rang	19.62	189	P	P	11 25 23.7	-2.6
PUZ	Puketiti	19.65	187	P	P	11 25 26.0	-0.5
TWGZ	Tauwhareparae	19.78	188	P	P	11 25 28.6	+0.8
TOZ	Tahuroa Road	19.79	194	P	P	11 25 30.7	+3.0
URZ	Urewera	19.99	190	P	P	11 25 28.7	-0.8
	2.6nm,0.3s,baz=258,slow=3.5,SNR=14						
URZ	Urewera	19.99	190	P	P	11 25 29.0	-0.5
URZ	Urewera	19.99	190	P	P	11 25 27.7	-1.8
MWZ	Matawai	20.00	189	P	P	11 25 30.1	+0.4
TLZ	Tolley Road	20.35	193	P	P	11 25 35.5	+2.6
BKZ	Black Stump Fm	20.98	191	P	P	11 25 37.7	-0.8
VRZ	Vera Road	21.29	194	P	P	11 25 44.2	+2.9
QRZ	Quartz Range	23.46	197	P	P	11 26 01.3	+0.7
KHZ	Kahutara	24.70	194	P	P	11 26 10.7	-0.9
JCZ	Jackson Bay	27.55	200	P	P	11 26 36.8	0.0
ODZ	Otahua Downs	27.89	196	P	P	11 26 39.2	-0.4
ARMA	Armidale	29.40	241	P	P	11 26 52.1	-1.0
BULU	Kimbe	32.88	289	P	P	11 27 23.8	+0.9
CAN	Canberra	33.11	233	P	P	11 27 24.9	+0.2
CMSA	Cobar Meteorol	34.61	241	P	P	11 27 37.0	-0.3
STKA	Stephens Creek	38.09	242	P	P	11 28 05.6	-0.4
	3.4nm,0.4s,baz=93,slow=8.7,SNR=9.7						
	3.4nm,0.4s						
STKA	Stephens Creek	38.09	242	P	P	11 28 06.1	+0.1
HTT	Hallett	40.60	240	P	P	11 28 26.1	-0.1
BBOO	Buckleboo	42.87	242	P	P	11 28 43.4	-0.7
WRA	Warramunga Arr	44.26	260	P	P	11 28 52.6	-2.4
	1.0nm,0.3s,baz=96,slow=8.1,SNR=36						
	1.0nm,0.3s						
ASAR	Alice Springs	44.37	255	P	P	11 28 54.5	-1.4
	11nm,0.5s,baz=90,slow=8.5,SNR=96						
	11nm,0.5s						
QSPA	South Pole Qui	71.52	180	P	P	11 31 59.1	0.0
	1.7nm,0.8s,baz=9.4,slow=0.2,SNR=12						
	1.7nm,0.8s						
TXAR	Lajitas Array	86.56	58	P	P	11 33 19.2	0.0
	0.5nm,0.7s,baz=216,slow=5.2,SNR=8.5						
	0.5nm,0.7s						

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*NEIC **08** 11:50:42.8±2.2, 5.°10S±0.°08×153.°44E±0.°09, h41^{km}±7^{km}, mb4.3/19, Error ellipse: s-maj=13.7km s-min=11.9km az=67.0*

*IDC **08** 11:50:43.1±0.7, 5.°12S×153.°42E, h51^{km}±5^{km}, mb3.9/13, mbtmp4.2/14, MS3.2/1, Error ellipse: s-maj=14.2km s-min=8.4km az=40.0*

ISC 08 11:50:43.8±0.5, **5.°08S**±0.°06×**153.°37E**±0.°08, **h56**^{km}, **n48**, σ**0^{s}.97**/55, **mb4.2**/22, **New Ireland region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RABL	Rabaul	1.49	306		Pn	11 51 08.5	+0.1
RABL				Sn	Sn	11 51 27.1	+0.2
KRVT	Keravat (AS076	1.55	300	P	Pn	11 51 08.9	-0.1
	307nm,0.3s,baz=146,slow=1.3,SNR=33						
KRVT				S	Sn	11 51 29.1	+1.0
	890nm,0.4s,baz=195,slow=22,SNR=8.8						
PMG	Port Moresby	7.51	235	P	Pn	11 52 30.8	0.0
	9.7nm,0.3s,baz=68,slow=9.6,SNR=14						
PMG				S	Sn	11 53 54.3	-0.4
	47nm,0.4s,baz=192,slow=20,SNR=15						
PMG	Port Moresby	7.51	235	Pn	Pn	11 52 31.4	+0.5
PATS	Pohnpei	12.82	23	Pn	Pn	11 53 40.9	-2.6
CTA	Charters Tower	16.45	204	LR	LR	12 00 14.3	
	comp=Z,80nm,18.8s,baz=30,slow=35						
DZM	Mont Dzumac	21.11	144	P	P	11 55 23.4	-0.6
	8.2nm,0.5s,baz=256,slow=8.2,SNR=16						
	8.2nm,0.5s						
WB0	Warramunga Arr	23.55	230	P	P	11 55 48.9	-0.5
WB0				IAmb	IAmb	11 56 23.3	
	comp=Z,8.9nm,1.2s						
WR8	Warramunga Arr	23.58	230	P	P	11 55 49.9	+0.3
WR8				IAmb	IAmb	11 55 52.8	
	comp=Z,10.0nm,1.4s						
WRA	Warramunga Arr	23.69	230	P	P	11 55 50.5	-0.2
	comp=Z,1.9nm,0.6s,baz=52,slow=9.4,SNR=27						
WRA				PcP	PcP	11 59 33.9	0.0
	comp=Z,0.4nm,0.5s,baz=57,slow=2.4,SNR=3.3						
	comp=Z,1.9nm,0.6s						
WRA	Warramunga Arr	23.69	230	P	P	11 55 49.1	-1.6
INKA	Innaminka	25.54	207	P	P	11 56 07.6	+0.2
AS31	Alice Springs	26.33	224	P	P	11 56 13.6	-1.1
ASAR	Alice Springs	26.33	224	P	P	11 56 14.0	-0.7
	comp=Z,0.5nm,0.5s,baz=56,slow=9.5,SNR=11						
ASAR				pP	pP	11 56 26.9	-0.9
	comp=Z,0.8nm,0.5s,baz=51,slow=8.5,SNR=4.6						
ASAR				PcP	PcP	11 59 39.8	0.0
	comp=Z,0.7nm,0.7s,baz=56,slow=2.1,SNR=7.5						
	comp=Z,0.5nm,0.5s						
ASAR	Alice Springs	26.33	224	P	P	11 56 13.0	-1.7
ASAR				PcP	PcP	11 59 40.1	+0.3
KNRA	Kununurra	26.36	245	P	P	11 56 14.3	-0.7
KNRA				IAmb	IAmb	11 56 34.0	
	comp=Z,9.4nm,1.4s						
H11S3	WAKE ISLAND Hy	26.85	29	T	T	12 24 34.0	
	baz=208,slow=76						
H11S2	WAKE ISLAND Hy	26.86	29	T	T	12 24 33.5	
	baz=208,slow=76						
H11S1	WAKE ISLAND Hy	26.87	29	T	T	12 24 33.7	
	baz=208,slow=76						
FITZ	Fitzroy Crossi	30.03	242	P	P	11 56 47.2	-0.5
FORT	Forrest	34.94	220	P	P	11 57 30.2	-0.3
FORT				IAmb	IAmb	11 58 04.2	
	comp=Z,8.7nm,1.1s						
MBWA	Marble Bar	36.33	241	P	P	11 57 42.4	-0.2
TCW	Tory Channel	40.55	156	P	P	11 58 18.1	+0.4
BSWZ	Blackbirch Sta	40.81	156	P	P	11 58 20.1	+0.2
PETK	Petropavlovsk-	58.09	3	P	P	12 00 32.2	+1.0
	comp=Z,1.8nm,0.7s,baz=176,slow=4.5,SNR=4.6						
	comp=Z,1.8nm,0.7s						
CM31	Chiang Mai Arr	58.51	295	P	P	12 00 34.9	0.0
CM31				IAmb	IAmb	12 01 17.3	
	comp=Z,5.8nm,1.1s						
CMAR	Chiang Mai Arr	58.51	295	P	P	12 00 36.1	+1.2
	comp=Z,0.7nm,0.5s,baz=101,slow=7.7,SNR=5.1						
	comp=Z,0.7nm,0.5s						
CMAR	Chiang Mai Arr	58.51	295	P	P	12 00 35.4	+0.5
SONM	Songino Array	66.86	328	P	P	12 01 30.4	+0.2
	comp=Z,1.3nm,0.5s,baz=147,slow=6.1,SNR=7.2						
	comp=Z,1.3nm,0.5s						
SONM	Songino Array	66.86	328	P	P	12 01 30.0	-0.1
SONM				IAmb	IAmb	12 01 30.9	
	comp=Z,1.1nm,0.5s						
VNDA	Vanda	72.53	178	P	P	12 02 04.8	+0.4
	comp=Z,1.2nm,0.8s,baz=345,slow=8.0,SNR=8.5						
	comp=Z,1.2nm,0.8s						
VNDA	Vanda	72.53	178	P	P	12 02 05.0	+0.6
VNDA				IAmb	IAmb	12 02 06.2	
	comp=Z,1.6nm,0.8s						
CNPM	China Poot	77.72	25	P	P	12 02 36.5	+1.9
PWL	Port Wells	79.66	25	P	P	12 02 47.3	+2.2
PWL				IAmb	IAmb	12 03 10.9	
	comp=Z,8.8nm,1.0s						
MKAR	Makanchi Array	80.91	319	P	P	12 02 52.1	-0.2
	comp=Z,1.7nm,0.5s,baz=95,slow=7.6,SNR=20						
MKAR				pP	pP	12 03 07.8	+1.2
	comp=Z,1.2nm,0.5s,baz=93,slow=7.9,SNR=7.7						
	comp=Z,1.7nm,0.5s						
MKAR	Makanchi Array	80.91	319	P	P	12 02 52.0	-0.2
ZAA0	Zalesovo Array	81.70	326	P	P	12 02 55.3	-0.9
ZAA0				IAmb	IAmb	12 02 55.8	
	comp=Z,1.9nm,0.7s						
ZALV	Zalesovo Beam	81.70	326	P	P	12 02 54.9	-1.3
	comp=Z,2.0nm,0.7s,baz=99,slow=5.0,SNR=10.0						
ZALV				pP	pP	12 03 10.5	-0.3
	comp=Z,1.3nm,0.6s,baz=106,slow=5.8,SNR=3.8						
	comp=Z,2.0nm,0.7s						
ZALV	Zalesovo Beam	81.70	326	P	P	12 02 55.2	-1.0
ILAR	Eielson Array	82.20	22	P	P	12 02 59.3	+0.7
	comp=Z,0.4nm,0.6s,baz=247,slow=5.0,SNR=5.1						
	comp=Z,0.4nm,0.6s						
J25K	Salcha River,	82.70	22	P	P	12 03 03.1	+1.9
J25K				IAmb	IAmb	12 03 30.7	
	comp=Z,1.4nm,0.8s						
KURK	Kurchatov	84.34	322	P	P	12 03 08.8	-1.1
KURK				IAmb	IAmb	12 03 26.3	
	comp=Z,4.2nm,1.1s						
KURBB	Kurchatov Arra	84.37	322	P	P	12 03 09.4	-0.6
	comp=Z,1.2nm,0.9s,baz=105,slow=4.4,SNR=9.8						
KURBB				pP	pP	12 03 24.4	-0.2
	comp=Z,1.7nm,0.8s,baz=107,slow=4.3,SNR=8.9						
	comp=Z,1.2nm,0.9s						
QSPA	South Pole Qui	84.88	180	P	P	12 03 12.9	+0.4
	comp=Z,3.2nm,0.5s,baz=311,slow=0.7,SNR=48						
	comp=Z,3.2nm,0.5s						
QSPA	South Pole Qui	84.88	180	P	P	12 03 12.8	+0.2
H31M	Peel River	87.44	23	P	P	12 03 27.4	+2.5
BVAR	Borovoye Array	89.81	323	P	P	12 03 35.0	-1.3
	comp=Z,3.0nm,0.7s,baz=95,slow=7.4,SNR=12						
	comp=Z,3.0nm,0.7s						
TORD	Torodi Ar. Bea	150.94	288	PKPbc	PKPbc	12 10 30.9	-0.5
	comp=Z,5.6nm,0.8s,baz=64,slow=2.4,SNR=27						
TORD				pPKPbc	pPKPbc	12 10 46.4	-0.6
	comp=Z,0.8nm,0.3s,baz=86,slow=1.9,SNR=5.2						

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*BUT **08** 12:24:14.2±1.1, 44.°37N±0.°02×115.°19W±0.°04, h9^{km}±8^{km}, Error ellipse: s-maj=4.7km s-min=2.6km az=60.0*

NEIC 08 12:24:13.4±0.7, **44.°38N**±0.°02×**115.°17W**±0.°04, **h16**^{km}±2^{km}, **ML3.1**/65, **ML3.6**/26(BUT), **Error ellipse: s-maj=4.7km s-min=2.8km az=62.0, Western Idaho**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLID	Pearl Lake	0.93	321		Pb	12 24 31.0	-0.3
PLID				Sg	Sb	12 24 43.4	0.0
PLID				IAML		12 24 48.0	
	876nm,0.2s						
HLID	Hailey	0.98	146		Pb	12 24 32.0	-0.2
HLID					Sb	12 24 44.3	-0.6
HLID				IAML		12 24 50.0	
	866nm,0.3s						
MFID	Camas Ranch	1.07	206		Pb	12 24 33.7	+0.1
MFID					Sb	12 24 47.5	0.0
BCYI	Bear Canyon	1.27	92		Pg	12 24 37.9	0.0
BMO	Blue Mountains	1.60	288		Pb	12 24 42.1	-0.5
BMO	Blue Mountains	1.60	288	IAML		12 25 06.5	
	218nm,0.3s						
BMO				IAML		12 25 07.3	
	253nm,0.2s						
MCMT	McKenzie Canyo	1.72	74		Pb	12 24 44.6	-0.3
MOMT	Monida	2.00	83		Pb	12 24 49.4	-0.2
DLMT	Dillon	2.08	61		Pb	12 24 49.6	-1.3
F10A	Beach Ranch, E	2.16	318		Pb	12 24 50.7	-1.5
VCMT	Victor	2.18	18		Pb	12 24 51.0	-1.6
HBMT	Mount Humbug	2.31	51		Pn	12 24 52.8	+1.7
BGMT	Barton Gulch	2.39	68		Pb	12 24 54.3	-1.9
BPMT	Black Pine Rid	2.40	30		Pn	12 24 53.5	+1.3
LRM	Limekiln Ridge	2.41	52		Pn	12 24 54.1	+1.6
BUT	Butte	2.47	47		Pn	12 24 54.3	+1.1
BUT				IAML		12 25 36.5	
	comp=E,180nm,0.4s						
J08A	Circle Bar Ran	2.59	248		Pn	12 24 56.1	+1.2
J08A				IAML		12 25 38.6	
	comp=E,98nm,0.6s						

J08A				IAML		12 25 46.9	
	comp=N,107nm,0.8s						
MSO	**Missoula**	**2.60**	**19**		Pn	12 24 56.4	+1.4
MSO				IAML		12 25 36.9	
	comp=N,136nm,0.5s						
MSO				IAML		12 25 37.6	
	comp=N,91nm,0.5s						
LNOR	**Lincton Mounta**	**2.66**	**305**		Pn	12 24 56.5	+0.7
LNOR				IAML		12 25 42.2	
	comp=N,54nm,1.4s						
QLMT	**Earthquake Lak**	**2.71**	**79**	Pn	Pn	12 24 58.4	+1.8
BOZ	**Bozeman (W)**	**2.79**	**63**		Pn	12 24 59.4	+1.7
BOZ				IAML		12 25 43.7	
	comp=N,135nm,0.4s						
G08A	**Pilot Rock**	**2.84**	**290**		Pn	12 24 59.8	+1.5
G08A				IAML		12 25 45.8	
	comp=E,42nm,0.7s						
CHMT	**Chamberlain Mo**	**2.88**	**27**		Pn	12 25 00.3	+1.5
PCMT	**Pistol Creek**	**2.95**	**15**		Pn	12 25 01.5	+1.7
E09A	**Wood Farm, Sta**	**2.99**	**317**		Pn	12 25 02.8	+2.5
E09A				IAML		12 25 49.9	
	comp=N,49nm,0.6s						
E09A				IAML		12 25 51.1	
	comp=E,57nm,1.2s						
FBMT	**Ferry Basin**	**3.08**	**10**		Pn	12 25 03.0	+1.4
FXWY	**Fox Creek**	**3.08**	**102**		Pn	12 25 04.4	+2.7
SLMT	**Seeley Lake**	**3.10**	**22**		Pn	12 25 03.3	+1.4
YFT	**Old Faithful**	**3.11**	**87**		Pn	12 25 03.6	+1.6
YHH	**Holmes Hill**	**3.12**	**81**		Pn	12 25 04.4	+2.2
HVU	**Hansel Valley**	**3.13**	**145**		Pb	12 25 05.7	-3.2
YPP	**Pitchstone Pla**	**3.14**	**90**		Pn	12 25 03.9	+1.4
YPT	**Yellepit**	**3.16**	**303**		Pn	12 25 04.9	+2.4
YPT				IAML		12 25 54.8	
	comp=E,31nm,0.8s						
YPT				IAML		12 25 55.5	
	comp=N,36nm,1.1s						
WVOR	**Wild Horse Val**	**3.18**	**234**	Pn	Pn	12 25 03.5	+0.5
WVOR				IAML		12 26 01.3	
	comp=N,33nm,1.3s						
YNR	**Norris Junctio**	**3.23**	**82**		Pn	12 25 06.2	+2.5
LYMT	**Lyon Mountain**	**3.29**	**37**		Pn	12 25 05.9	+1.3
AHID	**Auburn Hatcher**	**3.37**	**117**		Pn	12 25 07.2	+1.6
AHID				IAML		12 26 06.7	
	comp=N,35nm,0.6s						
JTMT	**Jette**	**3.43**	**10**	Pn	Pn	12 25 07.8	+1.5
E08A	**Dider Farm, El**	**3.46**	**309**		Pn	12 25 07.8	+1.2
E08A				IAML		12 26 04.1	
	comp=E,34nm,0.8s						
E08A				IAML		12 26 06.1	
	comp=N,25nm,0.6s						
HAWA	**Hanford**	**3.67**	**305**		Pn	12 25 11.0	+1.4
YNE	**Yellowstone No**	**3.74**	**78**		Pn	12 25 12.3	+1.6
YNE				IAML		12 26 16.6	
	comp=N,58nm,0.4s						
YNE				IAML		12 26 19.5	
	comp=E,34nm,0.3s						
WAH2	**Wahluke Slope**	**3.90**	**309**		Pn	12 25 14.2	+1.5
E07A	**Sunnyside**	**3.95**	**305**		Pn	12 25 15.1	+1.7
E07A				IAML		12 26 03.7	
	comp=N,38nm,0.3s						
E07A				IAML		12 26 34.5	
	comp=E,27nm,0.5s						
C09A	**Chrisman Ranch**	**4.05**	**329**		Pn	12 25 16.7	+1.9
NEW	**Newport**	**4.12**	**342**		Pn	12 25 17.3	+1.5
NEW				IAML		12 26 26.6	
	comp=E,31nm,0.8s						
NEW				IAML		12 26 28.6	
	comp=E,44nm,0.7s						
PINE	**Pine Mountain**	**4.20**	**264**		Pn	12 25 18.4	+1.5
PINE				IAML		12 26 00.5	
	comp=N,17nm,2.8s						
PINE				IAML		12 26 02.4	
	comp=E,21nm,3.3s						
MXC	**Moxie City**	**4.22**	**303**		Pn	12 25 19.3	+2.2
MXC				IAML		12 26 37.5	
	comp=N,14nm,1.8s						
MXC				IAML		12 26 39.8	
	comp=E,15nm,1.1s						
EPH	**Ephrata**	**4.29**	**316**	Pn	Pn	12 25 18.1	0.0
EPH				IAML		12 26 35.0	
	comp=E,26nm,1.4s						
EPH				IAML		12 26 37.7	
	comp=N,20nm,1.1s						
BSUT	**Blindstream Ca**	**5.04**	**138**	IAML		12 27 02.6	
	comp=E,7.6nm,1.7s						

IDC 08 12:33:54.8±534.0**,57°.32N×30°.18E,h0^{km},Error ellipse: s-maj=204.8km s-min=82.8km az=94.0,Baltic States-Belarus-Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I43RU	**DUBNA INFRASON**	**3.89**	**96**	I	I	12 58 50.0	
	baz=280,slow=318,SNR=3.1						
I37NO	**I37NO**	**12.86**	**341**	I	I	13 46 40.0	
	baz=145,slow=325,SNR=0.5						
I31KZ	**AKTYUBINSK INF**	**17.73**	**101**	I	I	14 20 30.0	
	baz=306,slow=329,SNR=0.7						
I46RU	**ZALESOVO INFRA**	**30.32**	**73**	I	I	15 43 20.0	
	baz=298,slow=326,SNR=2.5						

*REN **08** 12:35:17.4±1.9,38°.15N±0°.01×118°.04W±0°.02,h2^{km}±1^{km}, Error ellipse: s-maj=2.1km s-min=1.7km az=48.0*

*NEIC **08** 12:35:17,38°.15N×118°.04W,h3^{km},Moment Tensor Solution. Moment tensor: Scale 10^{14}Nm; M$_{rr}$-0.51; M$_{\theta\theta}$-0.64; M$_{\phi\phi}$1.15; M$_{r\theta}$-0.63; M$_{\theta\phi}$0.60; M$_{\phi r}$0.15; Fault plane solution: M$_0$1.33000×10^{14} NP1:φ$_s$55.00000°, δ65.00000°,λ-30.00000°. NP2:φ$_s$159.00000°,δ63.00000°, λ-152.00000°. Principal axes: T 1.3328, Plg1.0000°, Azm107.0000°; N 0.0004, Plg52.0000°, Azm199.0000°; P -1.3331, Plg38.0000°, Azm16.0000°;*

NEIC 08 12:35:17.1±1.8**,38°.15N**±0°.01×**118°.02W**±0°.01**,h4**^{km}±2^{km}**,ML3.2**/114**,ML3.5**/18(REN)**,Mwr3.4**/25(SLM) **Error ellipse: s-maj=1.9km s-min=1.5km az=178.0, California-Nevada border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COLR	**Columbus**	**0.03**	**261**		Pg	12 35 17.5	-0.7
COLR					Sg	12 35 19.0	0.0
NV11	**Mina Array Sit**	**0.30**	**339**		Pg	12 35 23.6	+0.5
NV11				Sg	Sg	12 35 27.8	+0.8
NV11				IAML		12 35 30.8	
	comp=E,3μm,0.9s						
NV06	**Mina Array Sit**	**0.34**	**323**		Pg	12 35 24.6	+0.8
NV07	**Mina Array Sit**	**0.34**	**320**		Pg	12 35 24.5	+0.7
NV07					Sg	12 35 29.6	+1.3
NV08	**Mina Array Sit**	**0.35**	**317**		Pg	12 35 24.6	+0.6
NV08					Sg	12 35 30.1	+1.5
NV03	**Mina Array Sit**	**0.35**	**322**		Pg	12 35 24.8	+0.7
NV03					Sg	12 35 30.0	+1.3
NV04	**Mina Array Sit**	**0.36**	**320**		Pg	12 35 24.9	+0.8
NV01	**Mina Array Sit**	**0.36**	**321**		Pg	12 35 24.9	+0.7
NVAR	**Mina Array Bea**	**0.36**	**321**		Pg	12 35 24.6	+0.5
NV02	**Mina Array Sit**	**0.37**	**322**		Pg	12 35 25.1	+0.8
NV05	**Mina Array Sit**	**0.37**	**324**		Pg	12 35 24.9	+0.6
NV09	**Mina Array Sit**	**0.38**	**319**		Pg	12 35 25.3	+0.8
NV09					Sg	12 35 31.0	+1.4
LHV	**Little Huntoon**	**0.40**	**285**		Pg	12 35 25.5	+0.7
LHV				IAML		12 35 33.8	
	comp=E,4μm,0.7s						
LHV				IAML		12 35 34.9	
	comp=N,4μm,0.8s						
RYN	**Ryan**	**0.62**	**320**		Pg	12 35 29.7	+0.6
RYN	**Ryan**	**0.62**	**320**		Sg	12 35 38.5	+1.3
RYN	**Ryan**	**0.62**	**320**	IAML		12 35 40.4	
	comp=E,1μm,0.5s						
RYN				IAML		12 35 45.1	
	comp=N,1μm,0.4s						
TPH	**Tonopah**	**0.63**	**97**		Pg	12 35 30.0	+0.7
TPH				Sg	Sg	12 35 38.7	+1.2
TPH				IAML		12 35 39.8	
	comp=N,2μm,0.6s						
DSP	**Deep Springs**	**0.78**	**177**		Pg	12 35 32.5	+0.4
DSP				Sg	Sb	12 35 43.2	-1.0
MLAC	**Mammoth, Mammo**	**0.83**	**232**		Pb	12 35 33.7	-0.6
MLAC					Sb	12 35 45.6	-0.3
MCBM	**Casa Benchmark**	**0.86**	**234**		Pb	12 35 34.5	-0.3
MCBM					Sb	12 35 46.7	-0.1
KVN	**Kaiserville**	**0.90**	**356**		Pg	12 35 34.6	+0.1
KVN	**Kaiserville**	**0.90**	**356**		Sb	12 35 48.6	+0.6
MDYM	**Dry Creek**	**0.93**	**238**		Pb	12 35 36.0	0.0
Q09A	**Carvers**	**0.95**	**44**	Pg	Pg	12 35 35.6	+0.2
Q09A				Sg	Sb	12 35 48.7	-0.5
LCH	**Last Change Ra**	**0.96**	**162**		Pb	12 35 36.2	-0.2
LCH					Sn	12 35 52.6	+0.8
MDPB	**Devils Postpil**	**0.99**	**239**		Pg	12 35 36.1	+0.1
MDPB				Sg	Sg	12 35 49.0	+0.1
MDPB				IAML		12 35 50.0	
	comp=N,471nm,0.4s						
GMN	**Gold Mountain**	**1.04**	**144**		Pb	12 35 37.5	-0.3
GMN	**Gold Mountain**	**1.04**	**144**		Sb	12 35 52.0	+0.1
GMN	**Gold Mountain**	**1.04**	**144**	IAML		12 35 56.2	
	comp=N,2μm,0.6s						
GMN				IAML		12 35 56.8	
	comp=E,967nm,1.0s						
TIN	**Tinemaha, Big**	**1.11**	**189**		Pg	12 35 38.5	+0.1
TIN	**Tinemaha, Big**	**1.11**	**189**		Sb	12 35 54.3	+0.6
TIN	**Tinemaha, Big**	**1.11**	**189**	IAML		12 36 02.5	
	comp=E,2μm,0.9s						
TIN				IAML		12 36 04.5	
	comp=N,1μm,0.7s						
WAKR	**Walker**	**1.17**	**288**		Pg	12 35 39.6	0.0
WAKR				IAML		12 36 06.6	
	comp=N,347nm,0.9s						
GRAC	**Grapevine Rang**	**1.26**	**156**		Pn	12 35 41.7	+0.1
YERR	**Yerington**	**1.27**	**311**		Pg	12 35 41.3	-0.3
YERR	**Yerington**	**1.27**	**311**		Sn	12 35 59.6	+0.1
YERR	**Yerington**	**1.27**	**311**	IAML		12 36 02.0	
	comp=E,914nm,0.7s						
YERR				IAML		12 36 02.5	
	comp=N,934nm,0.5s						
PNTR	**Pine Nut**	**1.56**	**308**		Pn	12 35 46.1	+0.2
PNTR				IAML		12 36 13.7	
	comp=N,527nm,0.8s						
CWC	**Cottonwood Cre**	**1.71**	**182**		Pb	12 35 49.3	+0.1
WCT	**Wildcat Mounta**	**1.75**	**140**		Pn	12 35 49.0	+0.6
WCT				IAML		12 36 16.0	
	comp=N,282nm,0.6s						
WCT				IAML		12 36 18.1	
	comp=E,292nm,0.8s						
TPNV	**Topopah Spring**	**1.85**	**130**		Pn	12 35 50.5	+0.7
TPNV				IAML		12 36 23.1	
	comp=E,278nm,0.9s						
TPNV				IAML		12 36 28.8	
	comp=E,267nm,0.8s						
FURC	**Furnace Creek,**	**1.91**	**151**		Pb	12 35 51.6	-1.0
MPK	**Martis Peak**	**1.95**	**307**		Pn	12 35 52.0	+0.8
CPY	**CP-1**	**1.98**	**127**		Pn	12 35 52.5	+1.0
MPMC	**Manual Prospec**	**2.13**	**168**		Pn	12 35 53.9	+0.2
GWY	**Greenwater Val**	**2.24**	**151**		Pn	12 35 55.0	-0.1
GWY				IAML		12 36 33.3	
	comp=E,180nm,0.8s						
GWY				IAML		12 36 34.5	
	comp=N,133nm,0.6s						
CLC	**China Lake**	**2.35**	**172**		Pn	12 35 57.1	+0.5
BMN	**Battle Mountai**	**2.36**	**15**		Pn	12 35 56.7	-0.2
BMN				IAML		12 36 45.1	
	comp=N,87nm,1.2s						
QSM	**Queen of Sheba**	**2.37**	**157**		Pn	12 35 57.1	+0.4
QSM				IAML		12 36 46.8	
	comp=E,101nm,1.0s						
AFDM	**Forest Hills D**	**2.45**	**290**		Pn	12 35 58.3	+0.4
PRN	**Pahroc Range**	**2.46**	**107**		Pn	12 35 58.5	+0.2
BEKR	**Beckworth**	**2.50**	**314**		Pn	12 35 58.9	0.0
BEKR				IAML		12 36 39.0	
	comp=E,74nm,0.9s						
SHOC	**Shoshone, Teco**	**2.64**	**148**		Pn	12 36 00.6	0.0
CCCA	**Chr Cany lake**	**2.67**	**169**		Pn	12 36 01.9	+0.9
CCCA				IAML		12 36 57.9	
	comp=N,150nm,0.9s						
CCCA				IAML		12 37 07.6	
	comp=E,89nm,0.9s						
LRMC	**Laurel Mtn Rad**	**2.68**	**174**		Pn	12 36 01.3	+0.1
SHPR	**Sheep Range**	**2.81**	**125**		Pn	12 36 04.0	+1.0
SHPR				IAML		12 36 58.2	
	comp=N,54nm,1.0s						
BBGB	**Big Mountain B**	**2.87**	**238**	Pn	Pn	12 36 04.2	+0.3
PMPB	**Monarch Peak**	**2.94**	**230**	Pn	Pn	12 36 05.7	+0.9
MHC	**Mount Hamilton**	**2.98**	**255**		Pn	12 36 05.5	+0.1
MHC				IAML		12 36 58.5	
	comp=N,67nm,1.6s						
MHC				IAML		12 36 59.2	
	comp=E,62nm,1.6s						
PKD	**Bear Valley Ra**	**2.99**	**223**	Pn	Pn	12 36 07.0	+1.7
PKD				IAML		12 37 01.4	
	comp=N,98nm,1.6s						
PKD				IAML		12 37 07.2	
	comp=E,88nm,1.1s						
GSC	**Goldstone, Bar**	**3.00**	**161**		Pn	12 36 05.9	+0.3
GSC				IAML		12 36 56.4	
	comp=E,68nm,1.1s						
GSC				IAML		12 36 57.9	
	comp=N,64nm,0.8s						
ORV	**Oroville**	**3.06**	**298**		Pn	12 36 07.0	+0.7
SAO	**San Andreas Ge**	**3.06**	**244**	Pn	Pn	12 36 05.8	-0.5
SUTB	**Sutter Butte**	**3.14**	**291**		Pn	12 36 09.4	+1.9
SUTB				IAML		12 37 03.4	
	comp=N,94nm,0.6s						
SUTB				IAML		12 37 06.9	
	comp=E,106nm,0.8s						
ELK	**Elko**	**3.37**	**39**		Pn	12 36 11.6	+0.8
O03E	**Paynes Creek**	**3.64**	**307**	Pn	Pn	12 36 13.9	-0.4
O03E				IAML		12 37 24.5	
	comp=N,43nm,1.9s						
O03E				IAML		12 37 24.6	
	comp=E,64nm,0.8s						
HATC	**Hat Creek Radi**	**3.77**	**316**	IAML		12 37 21.3	
	comp=E,60nm,1.8s						
HATC				IAML		12 37 39.2	
	comp=N,61nm,1.4s						
MWC	**Mount Wilson**	**3.92**	**181**	Pn	Pn	12 36 17.5	-0.8
MWC				IAML		12 37 34.0	
	comp=E,23nm,1.6s						
MWC				IAML		12 37 38.9	
	comp=N,25nm,1.9s						
MOD	**Modoc Plateau**	**4.14**	**336**	Pn	Pn	12 36 22.2	+0.9
MOD				IAML		12 37 36.6	
	comp=E,45nm,0.8s						
MOD				IAML		12 37 40.5	
	comp=N,26nm,0.9s						

*ISK **08** 12:38:59.9,38°.14N×38°.71E,h2^{km},ML4.4/21*

*AFAD **08** 12:39:00.4,38°.17N×38°.66E,h7^{km}±2^{km},MW4.2*

*IDC **08** 12:39:01.2±0.6,38°.07N×38°.61E,h0^{km},mb3.8/12, mbtmp3.8/21,ML4.0/7,MS3.7/27,Error ellipse: s-maj=10.2km s-min=7.7km az=113.0*

*NEIC **08** 12:39:02.1±1.7,38°.17N±0°.02×38°.68E±0°.05,h10^{km}±1^{km}, mb4.2/22,Error ellipse: s-maj=7.4km s-min=2.9km az=78.0*

*GFZ **08** 12:39:02.5±0.5,38°N±5°×3°9E±°,h10^{km},M4.1/19, mb4.1/19*

*GII **08** 12:39:33.7±0.0,38°.193N±0°.003×38°.434E±0°.001, h0^{km},Mws4.2,confirmed*

ISC 08 12:39:01.6±0.9**,38°.16N**±0°.02×**38°.67E**±0°.02**,h5**^{km}±6^{km}**, n202,**σ1§**80**/209**,mb4.2**/32**,MS3.5**/21**,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MAYA	**Malatya/Merkez**	**0.25**	**310**	P	**Pg**	**12 39 05.8**	**-0.8**
MAYA				S	**Sg**	**12 39 09.4**	**-0.6**
MAYA				IAML		12 39 10.0	
	comp=E,3μm,0.5s						
MAYA				IAML		12 39 13.0	
	comp=N,2μm,0.7s						
NARI	**Adyaman-Kaht**	**0.29**	**165**	P	**Pg**	**12 39 06.5**	**-0.8**
NARI				S	**Sg**	**12 39 11.7**	**+0.7**
NARI				IAML		12 39 13.0	
	comp=E,3μm,1.0s						
NARI				IAML		12 39 15.0	
	comp=N,2μm,0.9s						
MDYL	**Doganyol-Malat**	**0.33**	**62**	Pg	**Pg**	**12 39 07.1**	**-0.9**
MDYL				Sg	**Sg**	**12 39 12.9**	**+0.5**
ESGZ	**Sivrice-Elazig**	**0.41**	**49**	Pg	**Pg**	**12 39 08.6**	**-1.0**
ESGZ				Sg	**Sg**	**12 39 15.1**	**+0.1**
ELZG	**Elazig**	**0.42**	**36**	P	**Pg**	**12 39 08.8**	**-1.0**
ELZG				S	**Sg**	**12 39 15.3**	**0.0**
ELZG				IAML		12 39 16.0	
	comp=E,1μm,0.3s						
ELZG				IAML		12 39 18.0	
	comp=N,9μm,0.6s						
AZEY	**Adyaman-Merk**	**0.48**	**224**	P	**Pg**	**12 39 10.5**	**-0.5**
AZEY				S	**Sg**	**12 39 17.5**	**+0.3**
AZEY				IAML		12 39 21.0	
	comp=E,3μm,0.8s						
AZEY				IAML		12 39 22.0	
	comp=N,1μm,1.0s						
CNGT	**ngs**	**0.50**	**84**	P	**Pg**	**12 39 10.2**	**-1.1**
CNGT				S	**Sg**	**12 39 17.4**	**-0.4**
CNGT				IAML		12 39 23.0	
	comp=N,3μm,0.5s						
CNGT				IAML		12 39 24.0	
	comp=E,3μm,0.9s						
SVRC	**Sivrice-ELAZID**	**0.55**	**67**	Pg	**Pg**	**12 39 11.1**	**-1.1**
SVRC				Sg	**Sg**	**12 39 19.3**	**0.0**
SVRC				AML	AML		
AKCD	**Akcadag**	**0.60**	**283**	P	**Pg**	**12 39 12.3**	**-1.0**
AKCD				S	**Sg**	**12 39 20.9**	**-0.2**
AKCD				IAML		12 39 24.0	
	comp=E,2μm,0.5s						
AKCD				IAML		12 39 26.0	
	comp=N,3μm,0.4s						
ELZ	**Elazig**	**0.67**	**39**	P	**Pg**	**12 39 13.4**	**-1.2**
ELZ				S	**Sg**	**12 39 22.3**	**-1.1**
ELZ				IAML		12 39 34.0	
	comp=E,3μm,1.2s						
ATAB	**Bozova**	**0.75**	**203**	P	**Pg**	**12 39 14.9**	**-1.1**
ATAB				S	**Sg**	**12 39 25.5**	**-0.3**
ATAB				IAML		12 39 31.0	
	comp=E,6μm,0.5s						
ATAB				IAML		12 39 31.0	
	comp=N,5μm,0.6s						
MDNT	**Maden**	**0.83**	**74**	P	**Pg**	**12 39 16.4**	**-1.2**
MDNT				S	**Sg**	**12 39 26.6**	**-1.7**
AKCA	**Adyaman/G¶l**	**0.86**	**245**	P	**Pg**	**12 39 17.5**	**-0.6**
AKCA				S	**Sg**	**12 39 29.9**	**+0.6**
AKCA				IAML		12 39 35.0	
	comp=E,2μm,0.9s						
AKCA				IAML		12 39 38.0	
	comp=N,2μm,0.8s						
HEKM	**Malatya_Hekimh**	**0.91**	**322**	P	**Pg**	**12 39 17.6**	**-1.4**
HEKM				IAML		12 39 31.0	
	comp=E,2μm,0.9s						
HEKM				IAML	**S**	**12 39 31.0**	**+0.1**
	comp=N,1μm,0.4s						
HEKM				S	**S**	**12 39 31.0**	**+0.1**
ARPR	**Arapgir-MALATY**	**0.96**	**344**	Pg	**Pg**	**12 39 18.7**	**-1.5**
ARPR				Sg	**Sg**	**12 39 32.9**	**+0.2**
SANL	**SANLIURFA_Merk**	**1.02**	**166**	P	**Pg**	**12 39 21.1**	**-0.1**
SANL				S	**Sg**	**12 39 33.3**	**-1.2**
SANL				IAML		12 39 38.0	
	comp=N,5μm,1.6s						
SANL				IAML		12 40 04.0	
	comp=E,4μm,2.1s						
KOVA	**Elazig, Kovanc**	**1.05**	**58**	P	**Pg**	**12 39 21.8**	**0.0**
KOVA				S	**Sn**	**12 39 40.9**	**+2.7**
KOVA				IAML		12 39 55.0	
	comp=N,1μm,2.9s						
KOVA				IAML		12 39 57.0	
	comp=E,950nm,1.3s						
DIYA	**Diyarbakir**	**1.17**	**101**	P	**Pg**	**12 39 23.4**	**-0.7**
DIYA				S	**Sn**	**12 39 40.8**	**-0.3**
DIYA				IAML		12 39 44.0	
	comp=E,2μm,1.2s						
DIYA				IAML		12 40 13.0	
	comp=N,2μm,2.0s						
TNCL	**Tunceli-Merkez**	**1.17**	**35**	P	**Pg**	**12 39 22.0**	**-2.1**
TNCL				S	**Sg**	**12 39 37.8**	**-1.5**
TNCL				IAML		12 39 49.0	
	comp=E,1μm,0.6s						
TNCL				IAML		12 39 56.0	
	comp=N,1μm,0.7s						
DYBB	**Diyarbakir**	**1.18**	**100**	Pn	**Pg**	**12 39 22.7**	**-1.5**
DYBB				AML	AML		
GZT	**Gaziantep**	**1.19**	**228**	P	**Pg**	**12 39 24.1**	**-0.4**
GZT				S	**Sb**	**12 39 40.8**	**+0.3**
GZT				IAML		12 39 42.0	
	comp=N,2μm,0.9s						
GZT				IAML		12 39 42.0	
	comp=E,1μm,1.0s						
ELBS	**KAHRAMANMARAS_**	**1.22**	**278**	P	**Pg**	**12 39 22.7**	**-2.3**
ELBS				S	**Sb**	**12 39 41.3**	**-0.1**
ELBS				IAML		12 39 45.0	
	comp=N,1μm,0.7s						
ELBS				IAML		12 39 48.0	
	comp=E,2μm,0.8s						
CUGUR	**Gurin_SVAS**	**1.23**	**297**	P	**Pg**	**12 39 23.1**	**-2.2**
CUGUR				S	**Sg**	**12 39 40.4**	**-0.9**
CUGUR				IAML		12 39 49.0	
	comp=N,6μm,0.6s						
CUGUR				IAML		12 39 50.0	
	comp=E,9μm,0.6s						
NZIP	**Nizip/Gaziante**	**1.37**	**216**	P	**Pn**	**12 39 26.6**	**-0.9**
NZIP				S	**Sb**	**12 39 44.9**	**-0.6**
NZIP				IAML		12 40 01.0	
	comp=N,5μm,0.7s						
NZIP				IAML		12 40 14.0	
	comp=E,5μm,0.9s						
KHMN	**Narli-Kahraman**	**1.42**	**238**	Pn	**Pn**	**12 39 27.9**	**-0.3**
KHMN				Sn	**Sg**	**12 39 47.9**	**+0.5**
KHMN	**Narli-Kahraman**	**1.42**	**238**	P	**Pn**	**12 39 27.9**	**-0.3**
KHMN				S	**Sb**	**12 39 47.0**	**-0.1**
KHMN				IAML		12 39 48.0	
	comp=E,6μm,0.5s						
KHMN				IAML		12 39 49.0	
	comp=N,6μm,0.9s						
KAHM	**Kahramanmaras,**	**1.48**	**245**	P	**Pn**	**12 39 28.2**	**-0.7**
KAHM				S	**Sn**	**12 39 47.4**	**-1.2**
KAHM				IAML		12 39 50.0	
	comp=E,2μm,0.7s						
KAHM				IAML		12 39 54.0	
	comp=N,4μm,0.8s						
GAZ	**Gaziantep**	**1.52**	**230**	Pn	**Pn**	**12 39 29.3**	**-0.2**
GAZ				Sn	**Sg**	**12 39 50.6**	**+0.1**
GAZ				AML	AML		
GAZ	**Gaziantep**	**1.52**	**230**		**Pn**	**12 39 28.2**	**-1.3**
GAZ				Sn	**Sn**	**12 39 49.2**	**-0.6**
KMRS	**Kahramanmaras**	**1.55**	**245**	Pn	**Pn**	**12 39 29.6**	**-0.3**
KMRS				AML	AML		
ERZN	**Erzincan**	**1.64**	**30**	Pn	**Pn**	**12 39 30.5**	**-0.8**
BNGB	**Bingl**	**1.78**	**62**	Pn	**Pn**	**12 39 32.8**	**-0.3**
SARI	**SarD1z-Kayseri**	**1.79**	**279**	Pn	**Pn**	**12 39 33.8**	**+0.5**
SARI				AML	AML		
ANDN	**Andirin**	**1.93**	**253**	P	**Pn**	**12 39 34.1**	**-1.1**
YEDI	**Yedisu-Bingol**	**1.94**	**48**	Pn	**Pn**	**12 39 34.9**	**-0.5**
SVAN	**Silvan-Diyarba**	**1.99**	**90**	Pn	**Pn**	**12 39 35.1**	**-0.9**
KELT	**Kelkit**	**2.04**	**13**	P	**Pn**	**12 39 37.3**	**+0.6**
SVSK	**Karacayir**	**2.18**	**324**	Pn	**Pn**	**12 39 38.9**	**+0.4**
SVSK				AML	AML		
BNN	**Bunyan**	**2.32**	**288**	Pn	**Pn**	**12 39 40.9**	**+0.3**
BNN				AML	AML		
BNN	**Bunyan**	**2.32**	**288**		**Pn**	**12 39 41.6**	**+1.0**
KOPT	**Kop Dagi**	**2.34**	**37**		**Pn**	**12 39 41.3**	**+0.4**
KOZT	**Kozan**	**2.35**	**254**	Pn	**Pn**	**12 39 41.1**	**+0.2**
KOZT				AML	AML		
VRTB	**Varto-Mus**	**2.40**	**65**	Pn	**Pn**	**12 39 41.5**	**-0.2**
VRTB				AML	AML		
GURO	**Guroymak-BITLI**	**2.67**	**81**	Pn	**Pn**	**12 39 44.9**	**-0.5**
GURO				AML	AML		
GURO	**Guroymak-BITLI**	**2.67**	**81**	Pn	**Pn**	**12 39 44.8**	**-0.7**
TOKT	**Tokat**	**2.71**	**323**	Pn	**Pn**	**12 39 46.6**	**+0.7**
TOKT				AML	AML		
TOKA	**Tokat**	**2.75**	**322**		**Pn**	**12 39 46.5**	**+0.1**
KTUT	**Trabzon**	**2.95**	**16**	Pn	**Pn**	**12 39 49.6**	**+0.6**
KTUT				AML	AML		
CMRD	**Camardi-Nigde**	**2.95**	**261**	Pn	**Pn**	**12 39 49.9**	**+0.6**
CMRD				AML	AML		
YOZ	**Yozgat**	**3.00**	**300**	Pn	**Pn**	**12 39 50.7**	**+0.7**
YOZ				AML	AML		
KRTS	**Karatas**	**3.07**	**240**	Pn	**Pn**	**12 39 51.1**	**+0.4**
KOPR	**Koprukoy-ERZUR**	**3.08**	**53**	Pn	**Pn**	**12 39 51.1**	**+0.1**
KOPR				AML	AML		
KOZK	**Kozakli-Nevseh**	**3.15**	**291**	Pn	**Pn**	**12 39 52.9**	**+0.9**
KOZK				AML	AML		
MLAZ	**Malazgirt-MUS**	**3.19**	**71**	Pn	**Pn**	**12 39 52.6**	**0.0**
MLAZ				AML	AML		
AKDM	**Akdamar-Van**	**3.40**	**86**	Pn	**Pn**	**12 39 55.5**	**+0.1**
AKDM				AML	AML		
GEVA	**Gevas**	**3.46**	**86**	Pn	**Pn**	**12 39 56.7**	**+0.4**
GULA	**Gulagac**	**3.50**	**274**	Pn	**Pn**	**12 39 57.6**	**+0.9**
GULA				AML	AML		
AGRB	**Hanur-Agry**	**3.66**	**66**	Pn	**Pn**	**12 39 59.2**	**+0.2**
AGRB				AML	AML		
CUKT	**Cukurca**	**4.02**	**102**	Pn	**Pn**	**12 40 04.1**	**+0.1**
CUKT				AML	AML		
HAKT	**HAKKARI**	**4.03**	**97**	P	**Pn**	**12 40 03.8**	**-0.5**

BEIL	Beino	4.13	210	*e*P	Pn	12 40 04.8	-0.6
BR131	Keskin Array S	4.22	293		Pn	12 40 07.1	+0.4
BRTR	Keskin Array B	4.22	293	Pn	Pn	12 40 06.9	+0.1
	1.6nm,0.3s,baz=123,slow=9.0,SNR=44						
BRTR				Pg	Pb	12 40 17.8	+1.3
	2.5nm,0.3s,baz=118,slow=15,SNR=16						
BRTR				Lg	Lg	12 41 17.2	
	1.9nm,0.3s,baz=126,slow=29,SNR=6.9						
BRTR				LR	LR	12 42 03.6	
	comp=Z,2µm,19.6s,baz=84,slow=43						
	7.9nm,0.8s						
BRTR				AML	AML		
BRTR	Keskin Array B	4.22	293		Pn	12 40 07.2	+0.5
HWQ	Hawqa	4.46	210	*e*P	Pn	12 40 09.8	-0.1
KKUL	Konya-Kulu	4.61	284	P	Pn	12 40 14.0	+1.9
ILGA	Ilgaz	4.79	309	Pn	Pn	12 40 14.6	-0.1
BHL	Bhannes	4.90	211	*e*P	Pn	12 40 15.8	-0.2
DQRL	Deir Qamar	5.11	210	*e*P	Pn	12 40 18.7	-0.2
GNI	Garni	5.12	65	Pg	Pg	12 40 37.8	-1.9
	9.8nm,0.3s,baz=319,slow=20,SNR=4.2						
RCY	Rachaya	5.19	207	*e*P	Pn	12 40 19.9	-0.3
BZK	Bozkurt	5.21	318	Pn	Pn	12 40 22.1	+1.9
CSS	Mathiatis	5.35	235	Pn	Pn	12 40 21.2	-1.0
CSS	Mathiatis	5.35	235	P	Pn	12 40 23.4	+1.3
	comp=Z,26nm,0.8s						
SHBL	Chebaa	5.36	207	*e*P	Pn	12 40 22.6	+0.2
MMAI	Mount Meron Ar	5.78	208	Pn	Pn	12 40 27.8	-0.4
	comp=Z,4.3nm,0.3s,baz=21,slow=14,SNR=3.7						
MMAI				Pg	Pg	12 40 48.8	-3.7
	comp=Z,6.2nm,0.3s,baz=31,slow=16,SNR=9.9						
MMAI				Lg	Lg	12 42 04.8	
	comp=Z,4.6nm,0.3s,baz=24,slow=43,SNR=3.8						
MMAI				LR	LR	12 42 59.6	
	comp=Z,1µm,18.9s,baz=357,slow=42						
	comp=Z,1.2nm,0.3s						
MMAI				AML	AML		
HNTI	Hanita	5.81	210	P	Pg	12 41 00.4	+7.4
HNTI				S	Sg	12 42 07.6	-0.7
KNHM	Kefar Nahum	5.84	206	P	Pg	12 41 00.3	+6.8
KNHM				S	Sg	12 42 07.6	-1.5
RMOT	Ramot	5.84	206	P	Pg	12 41 01.0	+7.6
RMOT				S	Sg	12 42 08.6	-0.5
BLGI	Bet Lehem HaGe	6.12	209	P	Pg	12 41 04.5	+5.7
BLGI				S	Sg	12 42 15.4	-2.6
ASF	Jabal al Asfar	6.15	194	Pn	Pn	12 40 31.5	-1.7
	comp=Z,0.6nm,0.3s,baz=350,slow=3.6,SNR=9.0						
ASF				Pg	Pb	12 40 52.2	+3.0
	comp=Z,2.1nm,0.3s,baz=3.1,slow=19,SNR=7.0						
ASF				Lg	Lg	12 42 18.2	
	comp=Z,4.0nm,0.3s,baz=180,slow=24,SNR=13						
ASF				LR	LR	12 43 11.4	
	comp=Z,830nm,20.1s,baz=26,slow=41						
	comp=Z,19nm,1.1s						
ASF				AML	AML		
MDUB	Mudurnu	6.24	294	Pn	Pn	12 40 34.0	-0.3
KBZ	Khabaz	6.42	29	Pn	Pn	12 40 38.4	+1.7
	comp=Z,0.7nm,0.5s,baz=222,slow=12,SNR=1.3						
ROII	Roi	6.45	205	P	Pg	12 41 09.8	+4.6
ROII				S	Sg	12 42 23.1	-5.6
RGMN	Argaman	6.51	204	P	Pg	12 41 10.3	+3.9
RGMN				S	Sg	12 42 24.9	-5.8
KVAR	Kislovodsk Arr	6.54	26	LR	LR	12 43 47.7	
	comp=Z,354nm,19.1s,baz=77,slow=43						
SLTI	Sal'it	6.61	208	P	Pg	12 41 11.9	+3.6
SLTI				S	Sg	12 42 27.9	-6.1
BORA	Eskisehir	6.62	288	Pn	Pn	12 40 39.3	-0.4
ARIL	Ariel Universi	6.67	206	P	Pg	12 41 12.9	+3.4
ARIL				S	Sg	12 42 29.6	-6.4
UJAP	Al Uja	6.73	204	P	Pg	12 41 12.8	+2.3
UJAP				S	Sg	12 42 31.4	-6.3
MSBI	Mazada	7.36	203	P	Pg	12 41 22.3	-0.2
MSBI				S	Sb	12 42 46.1	+8.4
HRFI	Mount Harif	8.65	201	P	Pg	12 41 40.1	-7.1
HRFI				S	Sg	12 43 18.2	-21
EIL	Elat	9.02	201	Pg	Pn	12 41 46.6	+34
	comp=Z,0.4nm,0.3s,baz=347,slow=14,SNR=6.1						
EIL				Lg	Lg	12 43 44.8	
	comp=Z,0.3nm,0.3s,baz=20,slow=20,SNR=1.1						
EIL				LR	LR	12 45 02.8	
	comp=Z,1µm,19.7s,baz=81,slow=41						
EIL	Elat	9.02	201	P	Pn	12 41 45.3	+33
EIL				S	Sn	12 43 26.9	+33
IDI	Anoyia	11.43	260	Pn	Pn	12 41 46.2	+0.7
	comp=Z,6.4nm,0.7s,baz=70,slow=12,SNR=1.8						
MLR	Muntele Rosu	11.98	312	Pn	Pn	12 41 55.5	+2.4
	comp=Z,0.7nm,0.3s,baz=341,slow=5.5,SNR=3.8						
MLR				LR	LR	12 47 34.4	
	comp=Z,431nm,20.4s,baz=130,slow=43						
	comp=Z,2.6nm,0.6s						
MLR				AML	AML		
VOIR		12.48	310	P	Pn	12 42 02.6	+2.7
	comp=Z,5.4nm,1.7s						
BURAR	Bucovina Array	13.64	318	Pn	Pn	12 42 15.8	+0.1
BUR08	Bucovina Ar. S	13.67	318	Pn	Pn	12 42 16.9	+0.9
KIEV	Kiev	14.22	335	Pn	Pn	12 42 22.9	-0.6
AKASG	Malin Array Be	14.22	335	Pn	Pn	12 42 23.6	0.0
	comp=Z,1.2nm,0.3s,baz=151,slow=12,SNR=1.8						
	comp=Z,0.2nm,0.3s						
AKASG				AML	AML		
AKBB	Malin Array Si	14.22	335	Pn	Pn	12 42 21.6	-1.9
ABAH	Abaujker	16.21	314	P	P	12 42 56.6	+3.4
STHS	Stebnicka Huta	16.83	318	*e*P	P	12 43 02.3	+2.2
MORH	Mrgy, Hungar	16.85	305	P	P	12 43 00.1	-0.2
	comp=Z,5.1nm,0.9s						
TIP	Timpagrande	17.14	280	P	P	12 43 03.8	+0.2
TIP				IAmb	IAmb	12 43 06.9	
	comp=Z,30nm,1.2s						
TIP	Timpagrande	17.14	280	P	P	12 43 04.4	+0.7
	comp=Z,22nm,1.4s						
VYHS	Vyhne	17.69	312	*e*P	P	12 43 12.0	+2.4
AKTO	Aktyubinsk	18.43	42	P	Pn	12 43 18.1	+0.4
	comp=Z,0.3nm,0.3s,baz=248,slow=12,SNR=6.0						
AKTO				LR	LR	12 52 23.4	
	comp=Z,129nm,18.0s,baz=40,slow=43						
	comp=Z,1.0nm,0.3s						
AKTO				AML	AML		
JAVC	Velka Javorina	18.55	312	P	Pn	12 43 24.0	+4.8
	comp=Z,10nm,1.6s						
MODS	Modra-Piesok	18.57	310	P	Pn	12 43 21.6	+2.2
	comp=Z,16nm,1.1s						
ZST	Bratislava	18.60	310	*e*P	P	12 43 18.8	-0.7
PAOL	Paolisi	18.78	286	P	P	12 43 21.6	-0.1
PAOL				IAmb	IAmb	12 43 31.2	
	comp=Z,14nm,1.1s						
AB31	Akbulak array	18.89	47	P	P	12 43 22.6	-0.1
ABKAR	Akbulak array	18.89	47	P	P	12 43 22.5	-0.3
RONA	Rosalia, Austr	18.90	307	*e*P	Pn	12 43 25.6	+2.2
	comp=Z,5.2nm,0.9s						
MORC	Moravsky Berou	19.06	314	P	P	12 43 24.3	-0.4
CONA	Conrad Observa	19.25	308	*i* P	Pn	12 43 29.7	+1.9
	comp=Z,2.3nm,0.7s						
VRAC	Vranov	19.38	312	P	Pn	12 43 29.3	+0.1
	comp=Z,0.3nm,0.3s,baz=117,slow=9.4,SNR=3.7						
VRAC				LR	LR	12 52 32.0	
	comp=Z,184nm,20.3s,baz=104,slow=42						
	comp=Z,1.5nm,0.3s						
VRAC				AML	AML		
KRUC	Moravsky	19.39	311	P	Pn	12 43 31.0	+1.7
	comp=Z,7.7nm,1.4s						
AQU	L'Aquila	19.71	290	P	P	12 43 30.8	-1.1
NRCA	Norcia	19.96	292	P	P	12 43 34.3	-0.2
NRCA				IAmb	IAmb	12 43 38.1	
	comp=Z,18nm,1.3s						
DPC	Dobruska-Polom	20.02	315	P	P	12 43 35.8	+0.5
	comp=Z,6.8nm,1.2s						
DRE	Drenchia	20.14	301	P	Pn	12 43 38.7	+0.3
	comp=Z,19nm,1.0s						
MOA	Molln	20.23	306	*e*P	Pn	12 43 38.7	-0.7
	comp=Z,15nm,1.1s						
MOA	Molln	20.23	306	P	Pn	12 43 39.7	+0.4
	comp=Z,17nm,1.4s						
PRED	Cave del Predi	20.27	302	P	P	12 43 37.2	-0.7
UPC	Upice	20.27	315	P	Pn	12 43 39.9	+0.1
	comp=Z,11nm,1.6s						
ACOM	Acomizza, Ital	20.33	302	P	Pn	12 43 41.9	+1.2
	comp=Z,24nm,1.4s						
BIOA	Bad Ischl, Aus	20.58	306	*e*P	Pn	12 43 43.6	+0.1
	comp=Z,12nm,1.3s						
KBA	Koelnbreinsper	20.59	304	*e*P	Pn	12 43 44.1	+0.4
	comp=Z,11nm,1.0s						
KBA	Koelnbreinsper	20.59	304	P	Pn	12 43 44.3	+0.6
	comp=Z,14nm,1.1s						
FUSE	Fusea	20.64	302	P	Pn	12 43 43.9	-0.2
	comp=Z,19nm,1.3s						
PRU	Pruhonice	20.88	312	P	Pn	12 43 46.4	-0.5
	comp=Z,9.9nm,1.3s						
GEC2	GERESS Array S	20.93	309	P	P	12 43 41.6	-3.6
GEC2	GERESS Array S	20.93	309	P	Pn	12 43 46.5	-1.1
GERES	GERESS Array B	20.93	309	P	P	12 43 45.6	+0.5
	comp=Z,1.0nm,0.2s,baz=132,slow=7.4,SNR=14						
	comp=Z,1.0nm,0.2s						
GERES	GERESS Array B	20.93	309		P	12 43 42.7	-2.4
KHC	Kasperske Hory	21.11	309	IAmb	IAmb	12 43 50.9	
	comp=Z,15nm,1.5s						
KHC	Kasperske Hory	21.11	309	P	P	12 43 48.2	+1.2
	comp=Z,4.9nm,2.0s						
LESA	Schwarzleotal	21.12	304	*e*P	P	12 43 49.6	+2.4
	comp=Z,11nm,1.2s						
CTI	Castel Tesino	21.47	300		P	12 43 50.1	-0.9
CTI				IAmb	IAmb	12 43 58.3	
	comp=Z,12nm,1.0s						
WET	Wettzell	21.54	309	P	P	12 43 53.1	+1.5
	comp=Z,7.7nm,1.5s						
KIRV	Kirov	21.59	15	LR	LR	12 52 56.3	
	comp=Z,119nm,19.1s,baz=223,slow=38						
BRG	Berggiesshubel	21.61	314	*e*P	P	12 43 56.0	+3.7
BRG				Amp		12 43 57.9	
	comp=Z,3.4nm,0.8s						
BRG	Berggiesshubel	21.61	314	S	Sn	12 47 58.0	-2.4
WTTA	Wattenberg	21.76	303	*e*pP	P	12 43 56.1	+2.0
	comp=Z,20nm,1.7s						
WTTA	Wattenberg	21.76	303	P	P	12 43 55.8	+1.6
	comp=Z,12nm,1.0s						
WATA	Walderalm	21.82	304	*i* P	P	12 43 56.0	+1.3
	comp=Z,9.6nm,1.3s						
SQTA	Sankt Quirin	22.03	303	*i* pP	P	12 43 58.9	+1.9
	comp=Z,7.8nm,1.0s						
MOTA	Moosalm	22.13	303	*e*P	P	12 43 56.6	-1.5
	comp=Z,13nm,1.3s						
NKC	Novy Kostel	22.21	311	P	P	12 44 02.1	+3.3
	comp=Z,15nm,1.5s						
TANN	Tannenbergstha	22.27	312	P	P	12 44 01.6	+2.1
	comp=Z,9.4nm,1.0s						
FETA	Feichten	22.30	302	*e*pP	P	12 43 60.0	+0.1
	comp=Z,8.0nm,1.1s						
CLL	Collm	22.34	314	P	P	12 43 59.4	-0.7
CLL				IAmb	IAmb	12 44 14.3	
	comp=Z,14nm,1.4s						
CLL	Collm	22.34	314	*e*P	P	12 44 02.0	+1.9
	comp=Z,8.0nm,1.1s						
CLL				*e*x	x	12 44 12.0	
CLL				L	L	12 50 00.0	
CLL				AMS	AMS	12 54 00.0	
	comp=Z,200nm,16.8s						
RETA	Reutte	22.39	304	*e*pP	P	12 44 01.9	+1.1
	comp=Z,12nm,1.4s						
ARTI	Arti	22.47	29	LR	LR	12 53 59.3	
	comp=Z,69nm,19.0s,baz=220,slow=40						
ARTI	Arti	22.47	29		P	12 44 00.8	-0.7
ARTI				IAmb	IAmb	12 44 09.7	
	comp=Z,6.5nm,0.7s						
DAVOX	Davos/Dischmat	22.82	301	LR	LR	12 54 55.0	
	comp=Z,116nm,18.8s,baz=86,slow=42						
DAVA	Damuels	22.92	303	*e*pP	P	12 44 07.4	+0.8
	comp=Z,15nm,1.1s						
DAVA	Damuels	22.92	303	P	P	12 44 07.1	+0.6
	comp=Z,20nm,1.7s						
TUE	Stuetta	23.12	300		P	12 44 08.0	-0.6
TUE				IAmb	IAmb	12 44 24.2	
	comp=Z,14nm,1.4s						
TUE	Stuetta	23.12	300	P	P	12 44 04.4	-4.2
	comp=Z,6.8nm,1.3s						
KEST	Kesra	23.52	273	P	P	12 44 13.9	+1.3
	comp=Z,15nm,1.1s,baz=71,slow=5.2,SNR=7.9						
	comp=Z,15nm,1.1s						
KEST	Kesra	23.52	273		P	12 44 12.4	-0.2
KEST				IAmb	IAmb	12 44 16.2	
	comp=Z,17nm,1.1s						
BNALP	Bannalp	23.81	301	P	P	12 44 16.0	+0.5
	comp=Z,15nm,1.3s						
SLE	Schleitheim	23.95	303	P	P	12 44 17.2	+0.6
	comp=Z,26nm,1.1s						
KK31	Karatay Array	24.58	68	P	P	12 44 22.7	+0.3
KK31				IAmb	IAmb	12 44 34.3	
	comp=Z,5.1nm,0.9s						
KKAR	Karatay Array	24.58	68		P	12 44 20.5	-2.0
FINES	FINESS Array B	24.59	345	P	P	12 44 24.3	+1.9
	comp=Z,6.1nm,1.0s,baz=144,slow=16,SNR=5.4						
FINES				LR	LR	12 54 30.8	
	comp=Z,64nm,19.0s,baz=116,slow=38						
	comp=Z,6.1nm,1.0s						
FINES	FINESS Array B	24.59	345	P	P	12 44 21.7	-0.6
BOURR	Bourrignon	24.71	302	P	P	12 44 25.0	+1.4
	comp=Z,18nm,1.1s						
ECH	Echery	24.92	304		P	12 44 25.0	-0.5
ECH				IAmb	IAmb	12 44 33.8	
	comp=Z,6.3nm,0.8s						
BVAR	Borovoye Array	26.44	46	P	P	12 44 40.9	+1.8
	comp=Z,0.3nm,0.3s,baz=258,slow=7.2,SNR=1.9						
	comp=Z,0.3nm,0.3s						
ATD	Arta Tunnel	26.78	171	LR	LR	12 53 52.7	
	comp=Z,4.0nm,18.2s,baz=15,slow=33						
HFS	Hagfors	27.08	332	LR	LR	12 56 20.3	
	comp=Z,154nm,18.6s,baz=147,slow=38						
AAK	Ala-Archa	27.51	69	LR	LR	12 58 04.5	
	comp=Z,126nm,18.3s,baz=280,slow=41						
NOA	NORSAR Array B	28.60	332	P	P	12 45 00.3	+1.8
	comp=Z,1.2nm,0.9s,baz=144,slow=14,SNR=1.7						
NOA				LR	LR	12 57 17.2	
	comp=Z,93nm,21.3s,baz=145,slow=38						
	comp=Z,1.2nm,0.9s						
KURBB	Kurchatov Arra	30.71	53	P	P	12 45 19.0	+1.8
	comp=Z,0.3nm,0.3s,baz=266,slow=9.0,SNR=6.6						
	comp=Z,0.3nm,0.3s						
EKA	Eskdalemuir Ar	32.80	315	P	P	12 45 35.3	-0.2
	comp=Z,1.3nm,0.6s,baz=110,slow=9.8,SNR=5.6						
EKA				LR	LR	13 02 04.6	
	comp=Z,132nm,18.8s,baz=103,slow=42						
	comp=Z,1.3nm,0.6s						
MKAR	Makanchi Array	32.95	61	P	P	12 45 38.2	+1.2
	comp=Z,0.7nm,0.8s,baz=267,slow=7.3,SNR=4.5						
MKAR				LR	LR	13 00 56.6	
	comp=Z,78nm,19.7s,baz=260,slow=40						
	comp=Z,0.7nm,0.8s						
MKAR	Makanchi Array	32.95	61	P	P	12 45 35.1	-1.9
ESDC	Sonseca Array	32.98	286	P	P	12 45 37.2	-0.2
	comp=Z,3.3nm,1.1s,baz=72,slow=8.6,SNR=8.3						
ESDC				LR	LR	13 00 18.2	
	comp=Z,54nm,18.8s,baz=126,slow=39						
	comp=Z,3.3nm,1.1s						
ESDC	Sonseca Array	32.98	286		P	12 45 35.6	-1.8
ZAA0	Zalesovo Array	35.00	48	P	P	12 45 53.9	-0.9
ZALV	Zalesovo Beam	35.00	48	P	P	12 45 56.6	+1.9
	comp=Z,0.3nm,0.5s,baz=267,slow=8.5,SNR=2.0						
ZALV				LR	LR	13 02 26.6	
	comp=Z,69nm,18.1s,baz=254,slow=40						
	comp=Z,0.3nm,0.5s						
ZALV	Zalesovo Beam	35.00	48	P	P	12 45 53.9	-0.9
MDT	Midelt	35.40	275	LR	LR	13 01 09.7	
	comp=Z,38nm,18.2s,baz=78,slow=38						
SPB2	Spitsbergen Ar	41.19	353	P	P	12 46 45.2	-1.4
TORD	Torodi Ar. Bea	41.19	243	P	P	12 46 46.1	-1.1
	comp=Z,0.5nm,0.8s,baz=44,slow=6.7,SNR=2.5						
	comp=Z,0.5nm,0.8s						
EVN	Everest	41.22	90	P	P	12 46 46.9	-1.2
EVN				IAmb	IAmb	12 46 57.3	
	comp=Z,2.9nm,0.7s						
SONM	Songino Array	49.00	56	LR	LR	13 11 09.3	
	comp=Z,198nm,18.1s,baz=269,slow=39						
TIXI	Tiksi	54.35	23	LR	LR	13 16 25.6	
	comp=Z,57nm,18.2s,baz=292,slow=41						
CMAR	Chiang Mai Arr	55.62	93	P	P	12 48 38.8	+0.2
	comp=Z,0.3nm,0.4s,baz=296,slow=8.9,SNR=1.2						
	comp=Z,0.3nm,0.4s						
YAK	Yakutsk	57.58	34	LR	LR	13 17 57.0	
	comp=Z,84nm,18.6s,baz=247,slow=40						
MA2	Magadan	67.74	31	LR	LR	13 21 40.6	
	comp=Z,67nm,21.3s,baz=290,slow=38						
JNU	Nakatsue	71.99	62	LR	LR	13 28 15.1	
	comp=Z,55nm,18.6s,baz=214,slow=41						
IMAR	Indian Mountai	75.74	5	P	P	12 50 47.9	+0.1
J17K	VABM Dome	77.79	8	P	P	12 50 58.3	-1.1
PDAR	Pinedale Array	94.43	337	LR	LR	13 37 46.7	
	comp=Z,68nm,19.7s,baz=62,slow=37						
BDFB	Brasilia	96.95	256	LR	LR	13 35 35.7	
	comp=Z,74nm,21.6s,baz=274,slow=35						

IDC ***08*** *12:42:35.5±1.0, 38°.48S×78°.51E, h0^{km}, mb4.1/9, mbtmp4.1/9, MS4.1/38, Error ellipse: s-maj=34.2km s-min=19.1km az=107.0*

NEIC ***08*** *12:42:37.0±1.2, 38°.41S±0°.09×78°.3E±0°.1, h10^{km}±1^{km}, mb4.6/21, Error ellipse: s-maj=22.1km s-min=9.4km az=231.0*

GCMT ***08*** *12:42:41.0±0.2, 38°.48S±0°.01×78°.45E±0°.02, h22^{km}±1^{km}, MW5.0/110, Moment Tensor Solution. s28,c36; s110,c145; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.23±.17; $M_{\theta\theta}$-4.35±.15; $M_{\phi\phi}$4.58±.16; $M_{r\theta}$0.89±.27; $M_{\theta\phi}$0.20±.13; $M_{\phi r}$0.07±.22; Best double couple: $M_0$4.56300×10^{16} NP1:ϕ_s317.00000°, δ81.00000°, λ-172.00000°. NP2:ϕ_s226.00000°, δ83.00000°, λ-9.00000°. Principal axes: T 4.5860, Plg1.0000°, Azm271.0000°; N -0.0460, Plg78.0000°, Azm6.0000°; P -4.5390, Plg12.0000°, Azm181.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 08 12:42:36.8±0.6**, 38°.39S**±0°.08×**78°.4E**±0°.1**, h11^{km}, n84, σ0^{s}.61**/39**, mb4.5**/21**, MS4.2**/38**, 2C, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AIS	Amsterdam Isla	0.90	311		Pg	12 42 53.9	-0.3
H04N2	CROZET ISLANDS	21.10	240	T	T	13 09 23.3	
	baz=77,slow=74,SNR=6114						
H04N1	CROZET ISLANDS	21.12	240	T	T	13 09 25.2	
	baz=77,slow=74,SNR=7903						
H04N3	CROZET ISLANDS	21.12	240	T	T	13 09 22.1	
	baz=77,slow=74,SNR=7182						
H04S1	CROZET ISLANDS	21.18	238	T	T	13 09 28.8	
	baz=68,slow=74,SNR=13						
H04S2	CROZET ISLANDS	21.20	238	T	T	13 09 24.7	
	baz=68,slow=74,SNR=16						
H04S3	CROZET ISLANDS	21.20	238	T	T	13 09 33.0	
	baz=68,slow=74,SNR=15						
H01W2	Cape Leeuwin H	28.75	94	T	T	13 18 25.5	
	baz=252,slow=75,SNR=4958						
H01W3	Cape Leeuwin H	28.76	94	T	T	13 18 24.9	
	baz=252,slow=75,SNR=3008						
H01W1	Cape Leeuwin H	28.77	94	T	T	13 18 25.8	
	baz=252,slow=75,SNR=3666						
MAW	Mawson	30.53	192	P	P	12 48 49.1	-0.6
	3.3nm,0.9s,baz=360,slow=11,SNR=5.0						
MAW				LR	LR	12 58 45.1	
	comp=Z,530nm,19.0s,baz=15,slow=32						
	3.3nm,0.9s						
H08S2	Diego Garcia H	31.08	349	T	T	13 21 40.5	
	baz=171,slow=76,SNR=175						
H08S1	Diego Carcia H	31.08	349	T	T	13 21 39.7	
	baz=171,slow=76,SNR=83						
H08S3	Diego Garcia H	31.10	349	T	T	13 21 41.9	
	baz=171,slow=76,SNR=300						
NWAO	Narrogin (SRO)	31.84	92	LR	LR	12 58 56.8	
	comp=Z,878nm,19.1s,baz=264,slow=31						
CASY	Casey	33.40	157	P	P	12 49 15.1	+0.2
CASY				IAmb	IAmb	12 49 16.5	
	comp=Z,15nm,1.4s						
OPO	Ambohidratompo	33.58	297	LR	LR	13 00 15.6	
	comp=Z,94nm,20.2s,baz=68,slow=32						
BOSA	Boshof	44.86	266	LR	LR	13 06 05.6	
	comp=Z,298nm,19.5s,baz=120,slow=31						
PALK	Pallekele	45.48	3	LR	LR	13 05 31.5	
	comp=Z,282nm,21.6s,baz=182,slow=30						
FITZ	Fitzroy Crossi	45.68	77	LR	LR	13 06 42.9	
	comp=Z,392nm,19.8s,baz=214,slow=32						
LBTB	Lobatse	46.30	271	LR	LR	13 06 58.9	
	comp=Z,503nm,19.4s,baz=117,slow=32						
SUR	Sutherland	46.70	259	LR	LR	13 06 06.9	
	comp=Z,407nm,21.4s,baz=138,slow=30						
ASAR	Alice Springs	49.07	89	P	P	12 51 24.0	-0.2
	comp=Z,3.5nm,1.0s,baz=231,slow=7.3,SNR=16						
ASAR				LR	LR	13 10 51.0	
	comp=Z,230nm,18.1s,baz=254,slow=35						
	comp=Z,3.5nm,1.0s						
ASAR	Alice Springs	49.07	89	P	P	12 51 24.2	0.0
AS31	Alice Springs	49.07	89	P	P	12 51 24.4	+0.2
KNRA	Kununurra	49.52	77	P	P	12 51 27.1	-0.5
KNRA				IAmb	IAmb	12 51 40.5	
	comp=Z,11nm,1.1s						
TROLL	Troll, Antarti	49.66	203	⇑P	P	12 51 28.4	+0.2
	comp=Z,299nm,0.8s						
LSZ	Lusaka	49.68	283	LR	LR	13 09 08.4	
	comp=Z,266nm,19.8s,baz=149,slow=32						
KAPI	Kappang	50.09	59	LR	LR	13 08 33.0	
	comp=Z,181nm,21.7s,baz=210,slow=31						
STKA	Stephens Creek	51.19	103	LR	LR	13 08 52.7	
	comp=Z,420nm,21.6s,baz=218,slow=31						
SNAA	Sanae	51.36	204	P	P	12 51 40.8	-0.1
	comp=Z,1.1nm,0.5s,baz=97,slow=8.1,SNR=3.6						
SNAA				LR	LR	13 09 49.2	
	comp=Z,127nm,20.4s,baz=65,slow=32						
	comp=Z,1.1nm,0.5s						
SNAA	Sanae	51.36	204	P	P	12 51 40.2	-0.8
WRA	Warramunga Arr	51.39	86	P	P	12 51 41.5	-0.4
	comp=Z,6.6nm,1.0s,baz=235,slow=7.1,SNR=17						
	comp=Z,6.6nm,1.0s						
WRA	Warramunga Arr	51.39	86	P	P	12 51 42.2	+0.4
VNDA	Vanda	51.45	164	P	P	12 51 41.0	-0.4
	comp=Z,4.3nm,1.1s,baz=263,slow=6.0,SNR=12						
VNDA				LR	LR	13 11 26.7	
	comp=Z,439nm,19.3s,baz=267,slow=34						
	comp=Z,4.3nm,1.1s						
VNDA	Vanda	51.45	164	P	P	12 51 42.1	+0.7
VNDA				IAmb	IAmb	12 51 42.8	
	comp=Z,7.0nm,1.1s						
WR8	Warramunga Arr	51.51	86	P	P	12 51 42.8	+0.1
WB0	Warramunga Arr	51.53	85	P	P	12 51 42.9	0.0
WB0				IAmb	IAmb	12 51 50.1	
	comp=Z,9.2nm,0.9s						
QSPA	South Pole Qui	51.77	180	P	P	12 51 44.0	-0.2
	comp=Z,6.9nm,1.2s,baz=289,slow=3.0,SNR=7.3						
QSPA				LR	LR	13 12 03.9	
	comp=Z,684nm,19.3s,baz=293,slow=34						
	comp=Z,6.9nm,1.2s						
QSPA	South Pole Qui	51.77	180	P	P	12 51 43.6	-0.6
QSPA				IAmb	IAmb	12 51 55.5	
	comp=Z,15nm,1.4s						
SBA	Scott Base	52.46	165	P	P	12 51 48.8	-0.2
SBA				IAmb	IAmb	12 52 22.1	
	comp=Z,13nm,1.4s						
KMBO	Kilima Mbogo	52.88	304	LR	LR	13 11 42.2	
	comp=Z,113nm,18.1s,baz=104,slow=33						
VNA2	Neumayer--Watz	52.92	204	P	P	12 51 53.5	+1.1
	comp=Z,3.1nm,0.7s,baz=107,slow=6.2						
VNA1	Neumayer--Stat	53.26	205	P	P	12 51 56.1	+1.2
	comp=Z,2.4nm,0.3s						
VNA3	Neumayer Olymp	53.58	204	⇑P	P	12 51 57.2	-0.1
	comp=Z,5.2nm,0.9s						
TOLI2	Tolitoli	55.34	55	P	P	12 52 10.3	-0.5
TOLI2				IAmb	IAmb	12 52 11.6	
	comp=Z,7.5nm,1.1s						
TSUM	Tsumeb	55.66	272	LR	LR	13 12 25.2	
	comp=Z,602nm,20.6s,baz=151,slow=32						
MBAR	Mbarara	57.63	299	LR	LR	13 13 12.4	
	comp=Z,223nm,19.9s,baz=95,slow=32						
CM31	Chiang Mai Arr	59.74	23	P	P	12 52 41.1	-0.5
CM31				IAmb	IAmb	12 52 49.3	
	comp=Z,7.3nm,1.1s						
CMAR	Chiang Mai Arr	59.74	23	P	P	12 52 42.7	+1.0
	comp=Z,0.7nm,0.3s,baz=220,slow=6.9,SNR=7.4						
	comp=Z,0.7nm,0.3s						
CMAR	Chiang Mai Arr	59.74	23	P	P	12 52 41.7	0.0
CTA	Charters Tower	60.67	93	LR	LR	13 16 34.6	
	comp=Z,439nm,20.3s,baz=226,slow=34						
BRDH	Bariadhala	62.00	14	LR	LR	13 15 58.1	
	comp=Z,153nm,20.1s,baz=179,slow=32						
DAV	Davao City (W)	62.95	55	LR	LR	13 22 29.4	
	comp=Z,66nm,18.1s,baz=196,slow=38						
MORE	Moreh	64.06	16	P	P	12 53 10.8	+0.2
SHL	Shillong	64.86	13	P	P	12 53 15.3	-0.7
RPZ	Rata Peaks	66.44	128	LR	LR	13 17 02.4	
	comp=Z,56nm,20.9s,baz=203,slow=31						
PMG	Port Moresby	67.56	84	LR	LR	13 21 58.7	
	comp=Z,154nm,18.1s,baz=236,slow=35						
SMAI	San Martin Ant	70.69	193	P	P	12 53 52.6	+0.5
SMAI				IAmb	IAmb	12 53 54.5	
	comp=Z,4.8nm,1.1s						
ESPZ	Base Esperanza	72.53	199	P	P	12 54 03.2	0.0
PMSA	Palmer Station	73.04	196	LR	LR	13 25 04.7	
	comp=Z,150nm,20.0s,baz=154,slow=35						
URZ	Urewera	73.26	126	LR	LR	13 19 46.8	
	comp=Z,106nm,18.5s,baz=242,slow=30						
KRVT	Keravat (AS076	74.49	83	LR	LR	13 27 41.2	
	comp=Z,88nm,18.3s,baz=220,slow=36						
DZM	Mont Dzumac	75.15	106	LR	LR	13 22 05.4	
	comp=Z,155nm,19.8s,baz=196,slow=32						
HNR	Honiara	77.59	92	LR	LR	13 27 49.5	
	comp=Z,130nm,18.1s,baz=334,slow=35						
BTK	Batken	78.39	354	P	P	12 54 37.0	-0.1

ARSB	Arslanbob	79.49	356	P	P	12 54 42.0	-1.3
AAK	Ala-Archa	80.73	357	LR	LR	13 26 44.1	
	comp=Z,216nm,21.7s,baz=179,slow=33						
KK31	Karatay Array	81.44	354	P	P	12 54 54.3	+0.8
KK31				IAmb	IAmb	12 54 59.1	
	comp=Z,8.0nm,1.3s						
KKAR	Karatay Array	81.44	354	P	P	12 54 54.3	+0.8
MKAR	Makanchi Array	84.88	3	P	P	12 55 11.6	+0.4
	comp=Z,0.5nm,0.7s,baz=168,slow=6.2,SNR=5.1						
	comp=Z,0.5nm,0.7s						
MKAR	Makanchi Array	84.88	3	P	P	12 55 11.0	-0.2
MAKZ	Makanchi	84.88	2	P	P	12 55 10.8	-0.4
MAKZ				IAmb	IAmb	12 55 15.4	
	comp=Z,4.0nm,1.2s						
KURBB	Kurchatov Arra	88.64	0	P	P	12 55 30.5	+1.1
	comp=Z,0.1nm,0.4s,baz=196,slow=4.9,SNR=6.2						
	comp=Z,0.1nm,0.4s						
KURK	Kurchatov	88.73	0	P	P	12 55 30.7	+0.9
DBIC	Dimbokro	88.86	279	LR	LR	13 33 10.8	
	comp=Z,92nm,18.4s,baz=138,slow=34						
SONM	Songino Array	89.40	18	LR	LR	13 34 22.4	
	comp=Z,72nm,18.9s,baz=198,slow=35						
AKTO	Aktyubinsk	90.26	347	LR	LR	13 32 33.9	
	comp=Z,80nm,20.6s,baz=146,slow=33						
JHJ	Hachijo jima 2	91.16	47	LR	LR	13 32 11.8	
	comp=Z,20nm,20.1s,baz=76,slow=33						
ZALV	Zalesovo Beam	92.14	4	LR	LR	13 34 17.7	
	comp=Z,127nm,21.9s,baz=217,slow=34						
MJAR	Matsushiro Arr	92.76	44	LR	LR	13 34 14.5	
	comp=Z,37nm,19.2s,baz=274,slow=33						
KEST	Kesra	97.54	310	LR	LR	13 41 09.1	
	comp=Z,80nm,18.0s,baz=282,slow=36						
KLR	Kul'dur	99.17	32	LR	LR	13 41 04.5	
	comp=Z,39nm,19.0s,baz=238,slow=35						
RAR	Rarotonga	99.43	127	LR	LR	13 33 32.5	
	comp=Z,49nm,18.4s,baz=255,slow=31						

IDC ***08*** *12:43:55.4±1.7, 9°.39S×119°.67E, h0^{km}, mb3.3/2, mbtmp3.3/5, ML3.5/3, Error ellipse: s-maj=157.7km s-min=20.2km az=56.0*

DJA ***08*** *12:44:05.8±0.8, 10°S±6°×12°0E±°, h29^{km}±9^{km}, M4.0/14, mb3.9/2, MLv4.0/14*

ISC 08 12:44:05.4±0.9**, 9°.99S**±0°.09×**119°.57E**±0°.04**, h35^{km}, n25, σ0^{s}.97**/24**, Sumba region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WSI	Waingapu	0.78	66	P	Pn	12 44 20.6	+0.7
WSI				S	Sn	12 44 31.1	+0.7
WSI				AML	AML		
LBFI	Labuhan Bajo,	1.53	12	P	Pn	12 44 29.4	-0.8
PLAI	Plampang	2.11	303	P	Pn	12 44 38.7	+0.5
PLAI	Plampang	2.11	303	S	Sn	12 45 03.5	+0.3
PLAI	Plampang	2.11	303	P	Pn	12 44 38.7	+0.5
PLAI				AML	AML		
TWSI	Taliwang, Sumb	2.93	295	P	Pn	12 44 49.3	-0.1
TWSI				AML	AML		
MMRI	Maumere	2.96	63	P	Pn	12 44 50.0	+0.2
MMRI	Maumere	2.96	63	P	Pn	12 44 49.4	-0.4
MMRI				AML	AML		
KHKI	Kahang-Kahang	4.23	292	P	Pn	12 45 07.5	+0.1
KHKI				AML	AML		
DNP	Denpasar	4.50	286	P	Pn	12 45 11.3	+0.3
IGBI	Denpasar	4.52	285	P	Pn	12 45 12.1	+0.8
SOEI	Soe	4.63	88	P	Pn	12 45 14.1	+1.1
SOEI	Soe	4.63	88	P	Pn	12 45 13.7	+0.7
SOEI				AML	AML		
JAGI	Jajag, Banyuwa	5.56	285	P	Pn	12 45 24.6	-1.0
JAGI	Jajag, Banyuwa	5.56	285	P	Pn	12 45 25.7	+0.1
	0.4nm49nm,1.3s						
JAGI				AML	AML		
FITZ	Fitzroy Crossi	9.98	145	Pn	Pn	12 46 24.7	-1.7
	0.5nm,0.3s,baz=323,slow=9.6,SNR=32						
FITZ				Sn	Sn	12 48 05.8	-11
	1.4nm,0.3s,baz=177,slow=19,SNR=15						
	2.4nm,0.6s						
FITZ				AML	AML		
FITZ	Fitzroy Crossi	9.98	145	P	Pn	12 46 25.7	-0.7
MBWA	Marble Bar	11.11	179	P	Pn	12 46 42.0	+0.2
MEEK	Meekatharra	16.59	183	P	Pn	12 47 55.8	+0.4
WRA	Warramunga Arr	17.35	126	P	Pn	12 48 02.5	-2.5
	0.1nm,0.3s,baz=301,slow=13,SNR=8.9						
WRA				S	Sn	12 51 01.4	-16
	0.2nm,0.3s,baz=23,slow=3.1,SNR=6.7						
	0.3nm,0.5s						
WRA				AML	AML		
ASAR	Alice Springs	19.30	137	P	P	12 48 26.1	-1.3
	0.1nm,0.3s,baz=313,slow=11,SNR=12						
ASAR				S	S	12 51 53.3	-11
	0.6nm,0.8s,baz=309,slow=22,SNR=4.0						
	0.4nm,0.5s						
ASAR				AML	AML		
AS01	Alice Springs	19.33	137	P	P	12 48 28.7	+0.9
QLP	Quilpie	28.56	129	P	P	12 49 59.4	+1.3
MKAR	Makanchi Array	65.58	333	P	P	12 54 38.4	-7.2
	0.2nm,0.5s,baz=121,slow=5.6,SNR=2.6						
	0.2nm,0.5s						
KURBB	Kurchatov Arra	70.09	334	P	P	12 55 05.7	-8.2
	0.1nm,0.5s,baz=133,slow=6.3,SNR=2.1						
	0.1nm,0.5s						

GFZ ***08*** *13:00:03.4±0.3, 19°N±5°×8°0W±°, h10^{km}, M4.6/10, mb4.5/10, confirmed*

IDC ***08*** *13:00:04.3±0.8, 19°.00N×80°.11W, h0^{km}, mb4.1/8, mbtmp4.2/12, ML4.0/4, MS3.5/25, Error ellipse: s-maj=18.0km s-min=16.0km az=124.0*

NEIC ***08*** *13:00:06.0±1.6, 19°.09N±0°.06×80°.16W±0°.07, h10^{km}±1^{km}, mb4.5/57, Error ellipse: s-maj=11.1km s-min=10.6km az=274.0*

CATAC ***08*** *13:00:06.7±0.6, 19°N±2°×8°0W±°, h27^{km}±5^{km}, M4.9/14, mb4.9/13, mB5.4/9, MLv4.8/14, Mw(mB)4.9/9, Error ellipse: s-maj=5.5km s-min=2.7km az=142.5, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}1.64; $M_{\theta\theta}$-2.48; $M_{\phi\phi}$0.84; $M_{r\theta}$-1.19; $M_{\theta\phi}$3.98; $M_{\phi r}$1.52; Fault plane solution: $M_0$4.93520×10^{15} NP1:ϕ_s346.33538°, δ86.38527°, λ155.65964°. NP2:ϕ_s77.96903°, δ65.71120°, λ3.96630°. Principal axes: T 3.7126, Plg19.5993°, Azm299.4827°; N 1.8878, Plg65.4089°, Azm158.4011°; P -5.6005, Plg14.2573°, Azm34.6739°; confirmed*

SSNC ***08*** *13:00:06.2±1.5, 19°.02N×80°.26W, h8^{km}±9^{km}, MB4.6, ML4.3, Presumed earthquake*

JSN ***08*** *13:00:09.4±1.1, 18°.69N×80°.15W, h75^{km}±112^{km}, MD4.6, Presumed earthquake*

ISC 08 13:00:04.0±0.9**, 18°.98N**±0°.03×**80°.19W**±0°.03**, h10^{km}**±6^{km}**, n170, σ2^{s}.21**/163**, mb4.4**/29**, MS3.5**/20**, 2C, North of Honduras**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LCCY	Blossom Villag	0.69	8	eP	Pg	13 00 17.9	+0.5
LCCY				eS	Sg	13 00 26.3	-0.2
LCCY				IAML		13 00 37.8	
	comp=N,6μm,0.5s						
LCCY				IAML		13 00 38.1	
	comp=E,5μm,0.4s						
CBCY	The Bluff, Cay	0.86	28	P	Pg	13 00 20.7	+0.2
CBCY				S	Sg	13 00 30.8	-0.9
CBCY	The Bluff, Cay	0.86	28	eP	Pg	13 00 20.7	+0.2
CBCY				eS	Sg	13 00 31.0	-0.8
CBCY				IAML		13 00 31.6	
	comp=N,5μm,0.3s						
CBCY				IAML		13 00 31.6	
	comp=E,9μm,0.5s						
FSCY	Frank Sound, G	1.00	290	P	Pg	13 00 22.2	-1.0
FSCY				S	Sg	13 00 32.7	-3.4
FSCY	Frank Sound, G	1.00	290	eP	Pg	13 00 22.0	-1.2
FSCY				eS	Sg	13 00 32.9	-3.3
FSCY				IAML		13 00 34.3	
	comp=N,12μm,0.3s						
FSCY				IAML		13 00 34.5	
	comp=E,26μm,0.3s						
MCJ	Malvern	2.60	113	⇑iP	Pn	13 00 47.1	+1.0
CVJ	Coleyville	2.63	106	i P	Pn	13 00 47.2	+0.6
CVJ				i S	Sn	13 01 13.4	-5.3
CVJ				i S	Sb	13 01 16.5	-7.1
MTDJ	Mount Denham	2.63	106	eP	Pn	13 00 47.2	+0.7
MTDJ				eS	Sn	13 01 17.3	-1.4
MTDJ				IAML		13 01 17.7	
	comp=E,867nm,0.6s						
MTDJ				IAML		13 01 17.9	
	comp=E,1μm,0.5s						
MTDJ	Mount Denham	2.63	106	P	Pn	13 00 47.3	+0.7
MGV	Manicaragua	3.12	4	eP	Pn	13 00 52.1	-1.2
MGV				eS	Sn	13 01 27.2	-3.5
MGV				IAML		13 01 28.4	
	comp=E,2μm,0.3s						
MGV				IAML		13 01 28.6	
	comp=N,3μm,0.3s						
PCJ	Portland Cotta	3.13	113	i P	Pn	13 00 54.5	+1.1
CCCC	Cccc	3.17	45	eP	Pb	13 00 58.0	-2.5
LMGC	Las Mercedes	3.19	70	eP	Pn	13 00 55.6	+1.3
STH	Stony Hill	3.33	105	i P	Pn	13 00 56.6	+0.4
STH				i P	Pb	13 00 57.0	-6.2
STH				i S	Sn	13 01 32.5	-3.4
GWJ	Greenwich	3.41	105	i P	Pn	13 00 57.9	+0.5
GWJ				i P	Pb	13 00 58.2	-6.4
GWJ				i S	Sn	13 01 35.1	-2.8
HOJ	Hope	3.41	106	i P	Pn	13 00 57.3	+0.1
HOJ				i P	Pb	13 00 58.6	-5.8
CAIB	Caibarien	3.56	11		Pn	13 01 00.1	+0.8
CAIB	Caibarien	3.56	11	P	Pn	13 01 00.1	+0.8
CAIB				S	Sn	13 01 40.0	-1.5
CAIB	Caibarien	3.56	11	eP	Pn	13 00 58.8	-0.5
CHIV	Chivirico	3.70	74		Pn	13 01 00.8	-0.5
CHIV	Chivirico	3.70	74	P	Pn	13 01 00.7	-0.5
CHIV				S	Sn	13 01 43.2	-1.7
CHIV	Chivirico	3.70	74	eP	Pn	13 01 01.2	0.0
YAR	Yar	3.87	68	eP	Pn	13 01 05.1	+1.5
CAMR	Camarioca	4.21	345		Pn	13 01 08.1	-0.2
CAMR	Camarioca	4.21	345	P	Pn	13 01 10.9	+2.6
CAMR				S	Sn	13 01 53.3	-4.2
CAMR	Camarioca	4.21	345	eP	Pn	13 01 08.1	-0.2
HLGC	Holguin	4.33	63	eP	Pn	13 01 09.3	-0.6
PINC	Pinares de May	4.41	69	eP	Pn	13 01 12.7	+1.7
SOR	Soroa	4.62	326		Pn	13 01 13.2	-0.7
SOR	Soroa	4.62	326	eP	Pn	13 01 13.8	-0.2
SOR	Soroa	4.62	326	P	Pn	13 01 14.9	+0.9
	comp=Z,76nm,0.6s						
GTBY	Guantanamo Bay	4.88	78	i P	Pn	13 01 20.1	+2.5
GTBY	Guantanamo Bay	4.88	78	P	Pn	13 01 19.8	+2.3
GTBY				S	Sn	13 02 11.9	-2.3
GTBY	Guantanamo Bay	4.88	78	eP	Pn	13 01 18.5	+0.9
GTBY	Guantanamo Bay	4.88	78	P	Pn	13 01 18.8	+1.3
	comp=Z,103nm,0.7s						
NMDO	Nuevo Mundo	5.15	71		Pn	13 01 21.3	+0.1
NMDO	Nuevo Mundo	5.15	71	P	Pn	13 01 22.2	+1.0
NMDO				S	Sn	13 02 20.3	-0.4
QMBU	Quimbuelo	5.21	76	P	Pn	13 01 22.4	+0.3
QMBU				S	Sb	13 02 31.3	-6.8
QMBU	Quimbuelo	5.21	76	eP	Pn	13 01 23.6	+1.5
PRVC	Isla de Provid	5.68	192	P	Pn	13 01 31.1	+2.5
	comp=Z,0.2nmcomp=Z,954nmcomp=Z,55nm,0.8s						
PRVC				S	Sn	13 02 32.8	-1.1
	comp=Z,0.2nmcomp=Z,954nmcomp=Z,55nm,0.8s						
PRVC				AML	AML		
PRVC				AML	AML		
PRVC	Isla de Provid	5.68	192	P	Pn	13 01 31.3	+2.7
PRVC				S	Sn	13 02 34.6	+0.6
MASC	Masc	5.74	77	P	Pn	13 01 31.7	+2.3
MASC				S	Sn	13 02 40.2	+4.8
MASC	Masc	5.74	77	eP	Pn	13 01 31.2	+1.9
MASC	Masc	5.74	77	P	Pn	13 01 32.0	+2.6
	comp=Z,69nm,0.8s						
BILN	Bilwi Airport	5.78	212		Pn	13 01 32.4	+2.6
BILN	Bilwi Airport	5.78	212	P	Pn	13 01 32.9	+3.0
BILN				S	Sn	13 02 37.8	+1.6
SIUN	Universidad Ur	6.84	221		Pn	13 01 46.9	+2.5
SIUN	Universidad Ur	6.84	221	P	Pn	13 01 45.9	+1.5
TEIG	Tepich	7.72	281	P	Pn	13 01 56.3	-0.3
TEIG				S	Sn	13 03 17.9	-6.3
TEIG	Tepich	7.72	281	P	Pn	13 01 55.9	-0.7
	comp=Z,679nm,0.6s						
BLUN	Bluefields	7.75	207	P	Pn	13 02 00.8	+3.9
ESPN	Las Esperanzas	7.82	211	P	Pn	13 02 01.8	+3.8
RCVN	Varillal2	7.87	228	P	Pn	13 02 01.3	+2.6
RCFN	Al S de San Ju	7.92	228	P	Pn	13 02 02.4	+2.9
OCON	Estacion meteo	8.04	230	P	Pn	13 02 00.7	-0.3
MATN	Matagalpa	8.16	223	P	Pn	13 02 02.7	+0.1
BOAB	BOACO BROADBAN	8.36	220		Pn	13 02 08.9	+3.5
BOAB	BOACO BROADBAN	8.36	220	P	Pn	13 02 09.1	+3.7
TGUH	Tegucigalpa,Un	8.37	235	P	Pn	13 02 17.7	+12
SDDR	Presa de Saban	8.42	89		Pn	13 02 08.5	+2.2
SDDR	Presa de Saban	8.42	89	⇑iP	Pn	13 02 07.8	+1.6
SDDR	Presa de Saban	8.42	89	P	Pn	13 02 08.9	+2.7
SDDR				S	Sn	13 03 40.0	-1.5
SDDR	Presa de Saban	8.42	89	P	Pn	13 02 09.2	+3.0
	comp=Z,52nm,0.7s						
ACON	Acoyapa	8.46	215	P	Pn	13 02 10.8	+4.0
CRIN	San Cristobal	9.08	228	P	Pn	13 02 06.6	-8.8
CRIN	San Cristobal	9.08	228	P	Pn	13 02 07.3	-8.0
	comp=Z,146nm,0.7s						
BANI	BANI	9.34	92	Pn	Pn	13 02 20.7	+1.9
SMRC	Santa Marta, M	9.67	143	P	Pn	13 02 23.8	+0.5
	comp=Z,22nm,0.9s						
SMRC				S	Sn	13 04 09.7	-2.4
	comp=Z,22nm,0.9s						
BCIP	Isla Barro Col	9.76	178		Pn	13 02 25.6	+1.1
BCIP	Isla Barro Col	9.76	178	P	Pn	13 02 25.7	+1.1
	comp=Z,18nm,1.4s						
BCIP				S	Sn	13 04 07.6	-6.7
	comp=Z,18nm,1.4s						
JTS	Las Juntas de	9.79	209	Pn	Pn	13 02 27.4	+2.4
	comp=Z,1.9nm,0.3s,baz=337,slow=12,SNR=5.1						
JTS				LR	LR	13 06 21.8	
	comp=Z,212nm,20.6s,baz=50,slow=38						
	comp=Z,2.3nm,0.4s						
JTS				AML	AML		
LCR2	La Lucha 2	9.90	202	Pn	Pn	13 02 29.9	+3.3
SJCC	San Jacinto, C	10.25	151	P	Pn	13 02 33.9	+2.6
	comp=Z,20nm,1.1s						
SJCC				S	Sn	13 04 23.2	-3.2
	comp=Z,20nm,1.1s						
APG	El Apazote	10.59	250	Pn	Pn	13 02 39.5	+3.3
	baz=75,slow=16,SNR=6.7						
URIC	Uribia, Colomb	10.71	131	P	Pn	13 02 39.6	+2.0
	comp=Z,469nmcomp=Z,23nm,0.9s						
URIC				S	Sn	13 04 31.9	-5.8
	comp=Z,469nmcomp=Z,23nm,0.9s						
URI	Uribia	10.72	131	P	Pn	13 02 40.0	+2.3
APAC	Apartado, Choc	11.56	162	P	Pn	13 02 52.7	+3.5
	comp=Z,24nm,0.5s						
APAC				S	Sn	13 04 56.1	-2.3
	comp=Z,24nm,0.5s						
UREC	San Jos de Ur	12.04	157	P	Pn	13 02 57.0	+1.2
	comp=Z,7.5nm,0.8s						
SJG	San Juan	13.34	91	LR	LR	13 07 56.3	
	comp=Z,160nm,21.3s,baz=280,slow=36						
SDV	Santo Domingo	13.65	136	Pn	Pn	13 03 19.1	+1.0
	comp=Z,3.7nm,0.3s,baz=329,slow=15,SNR=2.6						
SDV				LR	LR	13 08 47.0	
	comp=Z,167nm,21.4s,baz=284,slow=38						
	comp=Z,8.7nm,0.3s						
SDV				AML	AML		
PAMC	Pamplona, Colo	13.67	147	P	Pn	13 03 19.4	+0.9
CMIG	Matias Romero	14.10	265	Pn	Pn	13 03 24.1	+0.1
	comp=Z,1.2nm,0.3s,baz=83,slow=16,SNR=9.1						
	comp=Z,3.3nm,0.3s						
CMIG				AML	AML		
GUY2C	Guyana, Caldas	14.46	160	P	P	13 03 33.4	-2.8
	comp=Z,9.9nm,0.6s						
GUY2C				S	Sn	13 06 08.9	-1.1
	comp=Z,9.9nm,0.6s						
SPBC	San Pablo de B	14.53	155	P	Pn	13 03 30.8	+0.9
	comp=Z,6.0nm,0.4s						
RUSC	La Rusia	14.73	151	P	P	13 03 37.5	-1.8
	comp=Z,8.5nm,0.9s						
RUSC				S	Sn	13 06 15.8	-1.0
	comp=Z,8.5nm,0.9s						
ROSC	El Rosal	15.17	157	LR	LR	13 10 13.3	
	comp=Z,197nm,18.5s,baz=283,slow=40						
LRAL	Lakeview Retre	15.27	338		Pn	13 03 38.1	-1.6
LRAL				IAmb	IAmb	13 03 39.2	
	comp=Z,7.3nm,0.4s						
ORTC	Ortega, Tolima	15.74	162	P	P	13 03 51.2	+1.2
Y49A	Blount Mountai	15.83	341	Pn	Pn	13 03 45.9	-1.1
TKL	Tuckaleechee C	16.92	350	Pn	Pn	13 03 59.8	-1.1
	comp=Z,0.3nm,0.3s,baz=166,slow=12,SNR=3.7						
TKL				LR	LR	13 09 56.7	
	comp=Z,82nm,19.9s,baz=180,slow=35						
	comp=Z,5.8nm,0.9s						
TKL				AML	AML		
TKL	Tuckaleechee C	16.92	350	Pn	Pn	13 04 00.0	-0.9
TZTN	Tazewell	17.75	351	P	P	13 04 13.1	+1.0
	comp=Z,13nm,1.1s						
HKT	Hockley	17.93	311		Pn	13 04 14.3	+0.8
HKT	Hockley	17.93	311	P	P	13 04 14.6	+0.6
	comp=Z,14nm,0.9s						
MLDN	Muldoon	18.74	308	IAmb	IAmb	13 04 36.7	
	comp=Z,32nm,0.9s						
HBVL	Hebbronville	18.80	299		P	13 04 24.8	+1.0
HBVL				IAmb	IAmb	13 04 50.3	
	comp=Z,31nm,0.9s						
WHAR	Wooly Hollow	19.46	329		Pn	13 04 32.4	+0.3
WHAR				IAmb	IAmb	13 05 04.0	
	comp=Z,26nm,1.4s						
MIAR	Mount Ida	19.55	325		P	13 04 32.6	+0.7
MIAR	Mount Ida	19.55	325	P	P	13 04 33.2	+1.4
	comp=Z,10nm,0.8s						
833A	Chaparral WMA,	19.88	301	P	P	13 04 36.6	+1.1
WHTX	Lake Whitney,	20.23	313	IAmb	IAmb	13 04 46.6	
	comp=Z,40nm,1.1s						
FW06	Azle	20.89	315	IAmb	IAmb	13 04 55.7	
	comp=Z,28nm,0.9s						
BRDY	Brady	20.94	309	IAmb	IAmb	13 05 09.5	
	comp=Z,8.8nm,0.7s						
HHAR	Hobbs	21.07	328	IAmb	IAmb	13 05 02.6	
	comp=Z,9.8nm,0.8s						
JCT	Junction City	21.14	307	IAmb	IAmb	13 05 29.5	
	comp=Z,14nm,0.7s						
PLPT	Palo Pinto	21.30	314	IAmb	IAmb	13 05 01.2	
	comp=Z,16nm,0.7s						
CCM	Cathedral Cave	21.31	335		P	13 04 51.4	+0.3
CCM	Cathedral Cave	21.31	335	P	P	13 04 52.7	+1.6
	comp=Z,9.8nm,0.7s						
W35A	Tecumseh	21.86	321	IAmb	IAmb	13 05 13.5	
	comp=Z,24nm,1.1s						
OZNA	Ozona	22.36	306		P	13 05 03.3	+0.9
SAND	Sanderson	22.72	303	IAmb	IAmb	13 05 08.4	
	comp=Z,13nm,0.8s						
TX31	Lajitas Ar. Si	23.73	300		P	13 05 17.7	+1.1
TX31				IAmb	IAmb	13 05 18.8	
	comp=Z,18nm,1.4s						
TXAR	Lajitas Array	23.73	300	P	P	13 05 17.5	+1.0
	comp=Z,3.5nm,0.7s,baz=116,slow=11,SNR=46						
	comp=Z,3.5nm,0.7s						
TXAR	Lajitas Array	23.73	300		P	13 05 17.3	+0.7
MNHN	Monahans	23.80	306		P	13 05 18.2	+1.0
MNHN				IAmb	IAmb	13 05 31.7	
	comp=Z,8.8nm,0.8s						
SMWD	Samnorwood	23.95	316	P	P	13 05 19.0	+0.4
SMWD				IAmb	IAmb	13 05 32.4	
	comp=Z,6.7nm,0.9s						
TPB05	Hovey Rd	24.06	304	IAmb	IAmb	13 05 21.7	
	comp=Z,9.2nm,0.8s						
ALPN	Alpine	24.09	303		pwP	13 05 31.8	+1.7
ALPN				IAmb	IAmb	13 05 40.0	
	comp=Z,7.5nm,0.7s						
PECS	Pecos	24.67	305	IAmb	IAmb	13 05 28.0	
	comp=Z,5.8nm,0.8s						
HPIG		24.73	293	P	P	13 05 27.5	+1.6
	comp=Z,12nm,0.8s						
AMTX	Amarillo	24.78	314	P	P	13 05 27.2	+0.9
MSTX	Muleshoe	25.05	311	P	P	13 05 29.4	+0.7
MSTX				IAmb	IAmb	13 05 54.6	
	comp=Z,17nm,1.1s						
VHRN	Van Horn	25.32	302		P	13 05 32.1	+0.9
VHRN				IAmb	IAmb	13 05 46.0	
	comp=Z,7.5nm,0.6s						
SADO	Sadowa	25.73	2	LR	LR	13 15 55.5	
	comp=Z,93nm,19.3s,baz=202,slow=37						
MNTX	Cornudas Mount	25.98	304	P	P	13 05 38.2	+1.1
MNTX	Cornudas Mount	25.98	304	P	P	13 05 38.4	+1.3
	comp=Z,5.3nm,1.0s						
ANMO	Albuquerque	28.18	310	LR	LR	13 18 44.6	
	comp=Z,67nm,21.9s,baz=128,slow=40						
LPIG	La Paz	28.44	286	LR	LR	13 17 29.6	
	comp=Z,56nm,18.3s,baz=92,slow=37						
MDP	Montagnes des	30.20	114	LR	LR	13 18 18.0	
	comp=Z,33nm,21.4s,baz=249,slow=36						
PV18	Skein Mesa, Pa	31.49	314	IAmb	IAmb	13 06 30.4	
	comp=Z,8.3nm,1.1s						
ULM	Lac du Bonnet	33.62	342	LR	LR	13 20 00.6	
	comp=Z,114nm,20.5s,baz=156,slow=36						
PDAR	Pinedale Array	34.31	320	P	P	13 06 52.5	+1.5
	comp=Z,0.6nm,0.5s,baz=130,slow=8.4,SNR=1.6						
	comp=Z,0.6nm,0.5s						
PFO	Pinyon Flats O	35.43	302	LR	LR	13 22 37.3	
	comp=Z,22nm,21.9s,baz=126,slow=38						
TPNV	Topopah Spring	36.26	307	P	P	13 07 09.4	+1.6
LPAZ	La Paz	37.00	161	LR	LR	13 23 06.4	
	comp=Z,47nm,19.1s,baz=314,slow=37						
SCHQ	Schefferville	37.22	13	P	P	13 07 17.4	+2.0
	comp=Z,8.4nm,0.7s,baz=202,slow=8.7,SNR=5.0						
SCHQ				LR	LR	13 23 45.4	
	comp=Z,54nm,19.4s,baz=4.5,slow=38						
	comp=Z,8.4nm,0.7s						
HLID	Hailey	37.74	318	P	P	13 07 22.1	+1.8
	comp=Z,4.0nm,2.8s						
NVAR	Mina Array Bea	38.29	309	LR	LR	13 23 30.4	
	comp=Z,56nm,21.8s,baz=112,slow=37						
LYMT	Lyon Mountain	38.32	324	P	P	13 07 25.9	+0.7
SIV	San Ignacio	39.52	150	LR	LR	13 24 06.7	
	comp=Z,91nm,20.5s,baz=302,slow=36						
BEKR	Beckworth	40.28	310	P	P	13 07 39.7	-1.9
YBH	Yreka Blue Hor	42.57	312	LR	LR	13 27 05.2	
	comp=Z,64nm,21.2s,baz=66,slow=38						
WIFE	Three Sisters-	42.78	315	P	P	13 08 00.0	-2.1
LON	Longmire	43.85	319	P	P	13 08 10.0	-0.5
LON				IAmb	IAmb	13 08 29.9	
	comp=Z,9.7nm,1.4s						
FRB	Frobisher Bay	45.44	7	LR	LR	13 28 32.0	
	comp=Z,62nm,18.4s,baz=283,slow=38						
YKA	Yellowknife Ar	49.55	340	LR	LR	13 29 27.2	
	comp=Z,64nm,19.6s,baz=290,slow=36						
BBB	Bella Bella	49.82	323	LR	LR	13 34 10.1	
	comp=Z,50nm,18.7s,baz=110,slow=41						
SFJD	Kangerlussuaq	51.63	14	LR	LR	13 31 39.2	
	comp=Z,54nm,19.4s,baz=200,slow=37						
RPN	Rapa Nui	53.84	213	LR	LR	13 28 13.4	
	comp=Z,75nm,18.1s,baz=330,slow=31						
BO02	Sierra Bellavi	54.22	170	P	P	13 09 31.5	+1.5
BO02				IAmb	IAmb	13 09 46.1	
	comp=Z,8.9nm,1.1s						
SKAG	Skagway	56.35	330	P	P	13 09 45.1	+0.1
GO06	Curarrehue	58.82	172	P	P	13 10 04.6	+1.8
INK	Inuvik	59.33	340	LR	LR	13 35 36.7	
	comp=Z,66nm,18.8s,baz=116,slow=36						
PLCA	Paso Flores	60.08	172	P	P	13 10 13.9	+2.5
	comp=Z,2.7nm,0.9s,baz=297,slow=11,SNR=2.9						
	comp=Z,2.7nm,0.9s						
BCAR	Beaver Creek A	60.48	333	P	P	13 10 15.4	+1.5
ILAR	Eielson Array	63.10	334	P	P	13 10 34.6	+3.1
	comp=Z,0.5nm,0.8s,baz=112,slow=5.7,SNR=6.1						
	comp=Z,0.5nm,0.8s						
F24K	Squaw Lake	64.12	337	P	P	13 10 38.2	-0.1
F24K				IAmb	IAmb	13 10 41.1	
	comp=Z,7.0nm,1.4s						
ESDC	Sonseca Array	67.70	54	P	P	13 11 04.0	+2.2
	comp=Z,0.4nm,0.6s,baz=276,slow=5.2,SNR=2.2						
	comp=Z,0.4nm,0.6s						
NOA	NORSAR Array B	74.27	30	LR	LR	13 40 41.4	
	comp=Z,23nm,21.8s,baz=110,slow=33						
ARCES	ARCESS Array B	77.73	20	P	P	13 12 02.1	+1.2
	comp=Z,2.5nm,0.9s,baz=302,slow=5.0,SNR=4.6						
	comp=Z,2.5nm,0.9s						
ARCES	ARCESS Array B	77.73	20	IAmb	IAmb	13 12 09.6	
	comp=Z,21nm,1.4s						
FINES	FINESS Array B	81.02	28	P	P	13 12 20.0	+1.1
	comp=Z,4.2nm,1.0s,baz=270,slow=5.6,SNR=3.5						
	comp=Z,4.2nm,1.0s						
TIXI	Tiksi	87.44	351	LR	LR	13 55 04.9	
	comp=Z,61nm,18.4s,baz=263,slow=38						
MA2	Magadan	91.44	337	LR	LR	13 55 08.4	
	comp=Z,42nm,18.8s,baz=146,slow=36						
WMQ	Urumqi	116.53	10	PKP	PKPdf	13 18 50.2	+1.6
HHC	Hu-ho-hao-te	119.49	350	eP	PKPdf	13 18 50.4	-4.0
NJ2	Nanjing	126.08	340	eP	PKPdf	13 19 07.5	+0.3
NJ2				pmax	pmax		
	comp=Z,5.0nm,0.5s						
PZH	PanZhiHua	134.75	358	PKP	PKPdf	13 19 23.6	-0.3
WRA	Warramunga Arr	147.46	262	PKPbc	PKPbc	13 19 49.4	+0.2
	comp=Z,0.9nm,0.8s,baz=88,slow=3.5,SNR=9.1						
ASAR	Alice Springs	147.95	256	PKPbc	PKPbc	13 19 51.0	+0.6
	comp=Z,1.0nm,0.9s,baz=104,slow=4.3,SNR=9.7						

UPP ***08*** *13:00:15.5±0.2, 55°.71N×13°.39E, h0^{km}, ML2.5, Suspected explosion*

DNK 08 13:00:15.5±1.5**, 55°.72N×13°.34E, h0^{km}, ML1.9, 1C,**

Explosion,Sweden

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LUNU	Lund	0.11	146	P	Pg	13 00 17.3	-0.2
	baz=327						
LUNU				S	Sg	13 00 18.9	-0.1
LUNU	Lund	0.11	146	⇑iP	Pg	13 00 17.3	-0.2
LUNU				S	Sg	13 00 18.9	-0.1
DEL	Delary	0.81	21	P	Pg	13 00 30.7	-0.3
DEL				S	Sg	13 00 41.9	+0.4
DEL	Delary	0.81	21	iP	Pg	13 00 30.4	-0.6
DEL				iS	Sg	13 00 41.6	+0.2
BSD	Bornholm Skovb	1.08	123	iP	Pg	13 00 35.1	-1.2
BSD				eS	Sg	13 00 50.0	-0.3
BSD				IAML		13 00 52.2	
	comp=Z,9.6nm,0.3s						
FABU	Falkenberg	1.33	345	P	Pg	13 00 40.4	-0.6
FABU	Falkenberg	1.33	345	P	Pg	13 00 40.4	-0.6
VXJU	Vaexsjoe	1.50	36	P	Pn	13 00 43.1	-0.5
VXJU	Vaexsjoe	1.50	36	P	Pn	13 00 43.1	-0.5
BLEU	Blekinge	1.51	66	P	Pn	13 00 42.7	-1.1
BLEU	Blekinge	1.51	66	iP	Pn	13 00 42.4	-1.3
BLEU				iS	Sg	13 01 01.8	-2.1
ONAU	Onsala	1.85	335	eS	Sn	13 01 09.9	-2.7

DNK 08 13:00:38.4±1.9**,55°.71N**×**13°.40E,h0**km**,ML2.3,**
Explosion,Sweden

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LUNU	Lund	0.08	158	e	Pg	13 00 38.0	-1.9
	baz=339,slow=12						
LUNU				P		13 00 39.4	
	baz=339						
LUNU				S	Sg	13 00 40.9	0.0
DEL	Delary	0.81	19	iP	Pb	13 00 54.8	-0.5
DEL				eS	Sg	13 01 04.0	-0.4
BSD	Bornholm Skovb	1.05	124	iP	Pg	13 00 57.7	-0.8
BSD				eS	Sg	13 01 11.4	-0.6
BSD				IAML		13 01 15.2	
	comp=Z,32nm,0.3s						
FABU	Falkenberg	1.35	344	iS	Sg	13 01 19.9	-1.9
BLEU	Blekinge	1.48	65	iS	Sg	13 01 25.1	-1.0
ONAU	Onsala	1.88	335	iP	Pg	13 01 14.6	+0.1
ONAU				iS	Sn	13 01 35.2	-1.0

*IDC **08** 13:01:18.2±1.1,38°.37N×145°.01E,h0km,mb3.8/8, mbtmp3.9/11,ML3.6/3,MS3.1/5,Error ellipse: s-maj=19.7km s-min=16.5km az=105.0*
*NEIC **08** 13:01:20.9±1.6,38°.37N±0°.08×144°.6E±0°.1,h10km±1km, mb4.8/14,Error ellipse: s-maj=17.6km s-min=12.1km az=110.0*
*NIED **08** 13:01:21.7,38°.39N×144°.81E,h24km,MW3.9,Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}-7.35; $M_{\theta\theta}$2.54; $M_{\phi\phi}$4.82; $M_{r\theta}$1.70; $M_{\theta\phi}$1.80; $M_{\phi r}$5.05; Fault plane solution: $M_0$8.46000×10^{14} NP1:ϕ_s32.00000°, δ26.00000°,λ-82.00000°. NP2:ϕ_s203.00000°,δ64.00000°, λ-94.00000°.*
*JMA **08** 13:01:21.5±0.1,38°.4N±0°.3×144°.8E±0°.7,h25km±1km, MV4.0/22,FAR E OFF NORTH HONSHU*
ISC 08 13:01:23.2±0.8**,38°.30N**±0°.07×**144°.63E**±0°.10**,h29**km**,n44,**
σ**1ˢ32**/37**,mb4.2**/15**,MS3.3**/3**,Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JTM	Tenmabayashi	3.71	313		Pn	13 02 17.2	-1.3
ERM	Erimo	3.88	344		Pn	13 02 19.2	-1.6
MJAR	Matsushiro Arr	5.40	253	Pn	Pn	13 02 43.2	+1.4
	0.5nm,0.3s,baz=85,slow=16,SNR=21						
MJAR				Sn	Sn	13 03 42.5	-0.5
	0.3nm,0.3s,baz=315,slow=31,SNR=4.5						
MJAR				LR	LR	13 05 10.1	
	comp=Z,59nm,21.7s,baz=16,slow=41						
	4.1nm,0.4s						
MJAR				AML	AML		
MJAR	Matsushiro Arr	5.40	253		Pn	13 02 43.1	+1.3
MAJO	Matsushiro	5.40	253		Pn	13 02 41.5	-0.4
MJB9	Matsu-Tunnel	5.40	253		Pn	13 02 41.4	-0.5
JKA	Kamikawa-asahi	6.01	346	Pn	Pn	13 02 48.9	-1.3
JGF	Kuroka	6.41	247	Pn	Pn	13 02 56.8	+1.1
JHJ2	Mitsune	6.49	219	Pn	Pn	13 02 56.5	-0.2
JHJ	Hachijo jima 2	6.50	219	Pn	Pn	13 02 56.5	-0.3
	16nm,0.3s,baz=251,slow=22,SNR=12						
JHJ				Sn	Sn	13 04 04.1	-5.9
	28nm,0.3s,baz=227,slow=22,SNR=7.1						
	30nm,0.3s						
JHJ				AML	AML		
USRK	Ussuriysk Ar.	11.19	306	Pn	Pn	13 04 02.4	+1.3
	0.2nm,0.3s,baz=98,slow=13,SNR=4.1						
	1.6nm,0.4s						
USRK				AML	AML		
KSRS	Korea Array	13.23	272	LR	LR	13 08 44.7	
	comp=Z,40nm,21.4s,baz=185,slow=33						
JMZ	Minamidaito 2	16.82	226	P	P	13 05 19.4	+0.8
HILR	Hailar Array B	21.05	310	P	P	13 06 05.3	+0.5
	3.1nm,0.6s,baz=113,slow=14,SNR=2.6						
HILR				LR	LR	13 15 25.7	
	comp=Z,87nm,20.8s,baz=75,slow=40						
	3.1nm,0.6s						
H11N2	WAKE ISLAND Hy	26.75	128	T	T	13 34 50.6	
	baz=319,slow=74,SNR=9.8						
H11N1	WAKE ISLAND Hy	26.75	128	T	T	13 34 48.6	
	baz=319,slow=74,SNR=6.7						
H11N3	WAKE ISLAND Hy	26.76	128	T	T	13 34 44.2	
	baz=319,slow=74,SNR=8.8						
H11S1	WAKE ISLAND Hy	27.55	130	T	T	13 35 52.2	
	baz=322						
H11S3	WAKE ISLAND Hy	27.55	130	T	T	13 35 52.8	
	baz=322						
H11S2	WAKE ISLAND Hy	27.56	130	T	T	13 35 57.3	
	baz=322						
ADK	Adak	30.12	51	P	P	13 07 29.9	-0.2
C19K	Lookout Ridge	42.71	26	P	P	13 09 17.6	+0.3
C19K				IAmb	IAmb	13 09 24.8	
	comp=Z,16nm,1.3s						
ZALV	Zalesovo Beam	42.97	311	P	P	13 09 19.0	-0.4
	comp=Z,0.2nm,0.3s,baz=95,slow=10,SNR=1.5						
	comp=Z,0.2nm,0.3s						
ZALV	Zalesovo Beam	42.97	311	P	P	13 09 18.8	-0.7
E19K	Redstone River	43.15	29	P	P	13 09 20.6	-0.2
B20K	Meade River	43.77	25	P	P	13 09 26.2	+0.5
MKAR	Makanchi Array	45.62	302	P	P	13 09 41.1	+0.3
	comp=Z,0.3nm,0.4s,baz=87,slow=9.1,SNR=5.3						
	comp=Z,0.3nm,0.4s						
MKAR	Makanchi Array	45.62	302	P	P	13 09 39.2	-1.6
C23K	Itkillik River	45.95	26	P	P	13 09 43.8	+0.7
SCM	Sheep Creek Mo	46.93	37	P	P	13 09 50.5	-0.5
ILAR	Eielson Array	47.06	33	P	P	13 09 50.0	-1.8
	comp=Z,0.9nm,1.0s,baz=266,slow=6.3,SNR=6.1						
	comp=Z,0.9nm,1.0s						
KURK	Kurchatov	47.17	308	P	P	13 09 53.5	+0.6
KURK				IAmb	IAmb	13 10 03.5	
	comp=Z,1.8nm,0.7s						
KURBB	Kurchatov Arra	47.24	308	P	P	13 09 54.1	+0.6
	comp=Z,1.3nm,0.5s,baz=81,slow=8.1,SNR=14						
	comp=Z,1.3nm,0.5s						
D25K	Kavik River	47.38	27	P	P	13 09 54.5	+0.1
D25K				IAmb	IAmb	13 10 33.0	
	comp=Z,22nm,1.8s						
C27K	Jago River	48.33	26	P	P	13 10 02.4	+0.7
C27K				IAmb	IAmb	13 10 31.8	
	comp=Z,19nm,1.6s						
BVAR	Borovoye Array	51.61	312	P	P	13 10 27.3	+0.5
	comp=Z,1.1nm,0.6s,baz=64,slow=6.6,SNR=3.8						
	comp=Z,1.1nm,0.6s						
WB0	Warramunga Arr	58.55	191	P	P	13 11 17.2	+0.1
WB0				IAmb	IAmb	13 11 49.3	
	comp=Z,17nm,1.6s						
WR8	Warramunga Arr	58.72	191	P	P	13 11 18.4	+0.1
WR8				IAmb	IAmb	13 11 54.5	
	comp=Z,16nm,1.6s						
WRA	Warramunga Arr	58.73	191	P	P	13 11 18.2	-0.2
	comp=Z,1.5nm,0.6s,baz=13,slow=7.3,SNR=15						
	comp=Z,1.5nm,0.6s						
WRA	Warramunga Arr	58.73	191	P	P	13 11 18.4	0.0
ASAR	Alice Springs	62.45	191	P	P	13 11 44.1	+0.4
	comp=Z,0.8nm,0.8s,baz=11,slow=7.5,SNR=7.2						
	comp=Z,0.8nm,0.8s						
INKA	Innaminka	65.80	184	P	P	13 12 06.2	+0.7
INKA				IAmb	IAmb	13 14 03.3	
	comp=Z,11nm,1.8s						
HFS	Hagfors	73.96	337	LR	LR	13 53 29.7	
	comp=Z,34nm,18.1s,baz=116,slow=42						
NOA	NORSAR Array B	73.98	338	LR	LR	13 50 33.6	
	comp=Z,14nm,19.6s,baz=110,slow=40						

*JSN **08** 13:05:22.5±0.5,19°.28N×79°.95W,h4km±50km,MD4.2, Presumed earthquake*
*SSNC **08** 13:05:22.3±0.9,19°.09N×80°.29W,h5km±8km,MD3.8, ML3.2,Presumed earthquake*
ISC 08 13:05:18.9±1.1**,18°.98N**±0°.05×**80°.26W**±0°.04**,h10**km**,n16,**
σ**1ˢ73**/25**,2D,North of Honduras**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LCCY	Blossom Villag	0.70	14	eP	Pg	13 05 33.5	+1.0
LCCY				eS	Sg	13 05 41.5	-0.2
LCCY				IAML		13 05 43.7	
	comp=E,498nm,0.2s						
LCCY				IAML		13 05 43.8	
	comp=N,502nm,0.3s						
CBCY	The Bluff, Cay	0.89	32	eP	Pg	13 05 35.9	-0.1
CBCY				eS	Sg	13 05 46.2	-1.4
CBCY				IAML		13 05 47.0	
	comp=N,1µm,0.3s						
CBCY				IAML		13 05 48.4	
	comp=E,917nm,0.3s						
FSCY	Frank Sound, G	0.94	291	eP	Pg	13 05 37.5	+0.6
FSCY				eS	Sg	13 05 48.4	-0.7
FSCY				IAML		13 05 50.7	
	comp=N,654nm,0.4s						
FSCY				IAML		13 05 51.3	
	comp=Z,453nm,0.3s						
MCJ	Malvern	2.66	113	⇓iP	Pn	13 06 03.1	+1.2
CVJ	Coleyville	2.69	106	iP	Pn	13 06 02.9	+0.6
MGV	Manicaragua	3.12	5	eP	Pn	13 06 08.1	-0.1
MGV				eS	Sn	13 06 42.8	-2.8
MGV				IAML		13 06 43.8	
	comp=E,408nm,0.4s						
MGV				IAML		13 06 44.1	
	comp=N,217nm,0.3s						
PCJ	Portland Cotta	3.19	112	iP	Pn	13 06 10.4	+1.2
PCJ				iS	Sn	13 06 46.8	-0.4
CCCC	Cccc	3.22	46	eP	Pn	13 06 14.2	+4.7
LMGC	Las Mercedes	3.25	70	eP	Pn	13 06 11.5	+1.5
STH	Stony Hill	3.39	105	iP	Pn	13 06 12.7	+0.8
STH				⇓iP	Pn	13 06 12.7	+0.8
STH				iS	Sn	13 06 50.0	-2.3
GWJ	Greenwich	3.47	105	iP	Pn	13 06 13.7	+0.6
GWJ				iP	Pn	13 06 14.0	+0.9
GWJ				iS	Sn	13 06 52.2	-2.1
CHIV	Chivirico	3.76	74	eP	Pn	13 06 18.4	+1.5
YAR	Yar	3.92	69	eP	Pn	13 06 21.1	+1.9
HLGC	Holguin	4.38	64	eP	Pn	13 06 25.3	-0.3
PINC	Pinares de May	4.47	70	eP	Pn	13 06 28.6	+1.9
GTBY	Guantanamo Bay	4.95	78	eP	Pn	13 06 35.4	+2.1

*IDC **08** 13:19:51.8±0.9,38°.04N×38°.60E,h0km,mb3.5/5, mbtmp3.5/10,ML3.3/5,Error ellipse: s-maj=16.5km s-min=10.6km az=111.0*
*ISK **08** 13:19:51.3,38°.14N×38°.69E,h5km,ML3.9/19*
*AFAD **08** 13:19:51.4,38°.16N×38°.67E,h7km±1km,MW3.9*
ISC 08 13:19:52.2±1.2**,38°.16N**±0°.03×**38°.67E**±0°.02**,h1**km±9km**,**
n56,σ**0ˢ84**/64**,mb3.5**/4**,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MAYA	Malatya/Merkez	0.25	310	P	Pg	13 19 56.8	-0.2
MAYA				S	Sg	13 20 00.6	+0.4
NARI	Adyaman-Kaht	0.29	165	P	Pg	13 19 57.2	-0.5
NARI				S	Sg	13 20 02.9	+1.4
MDYL	Doganyol-Malat	0.33	63	Pg	Pg	13 19 58.4	-0.1
MDYL				Sg	Sg	13 20 03.5	+0.7
ESGZ	Sivrice-Elazig	0.41	49	Pg	Pg	13 19 59.8	-0.3
ELZG	Elazig	0.42	37	P	Pg	13 20 00.0	-0.2
ELZG				S	Sg	13 20 06.0	+0.4
AZEY	Adyaman-Merk	0.48	223	P	Pg	13 20 01.2	-0.2
AZEY				S	Sb	13 20 09.1	-2.0
CNGT	ngs	0.50	84	P	Pg	13 20 01.1	-0.7
SVRC	Sivrice-ELAZID	0.55	67	Pg	Pg	13 20 02.2	-0.5
SVRC				Sg	Sg	13 20 10.3	+0.5
SVRC				AML	AML		
AKCD	Akcadag	0.60	283	P	Pg	13 20 03.4	-0.3
AKCD				S	Sb	13 20 12.3	-2.3
ELZ	Elazig	0.68	39	P	Pg	13 20 04.7	-0.4
ATAB	Bozova	0.75	203	P	Pg	13 20 06.2	-0.4
AKCA	Adyaman/G¶l	0.86	245	P	Pg	13 20 08.0	-0.6
AKCA				S	Sb	13 20 21.5	-0.4
HEKM	Malatya_Hekimh	0.91	322	P	Pg	13 20 08.8	-0.7
DYBB	Diyarbakir	1.18	100	Pn	Pg	13 20 14.0	-0.8
DYBB				AML	AML		
CUGUR	Gurin_SVAS	1.23	297	P	Pg	13 20 14.5	-1.3
CUGUR				S	Sn	13 20 32.8	-1.2
ILIC	ilic-Erzincan	1.29	357	Pn	Pn	13 20 16.4	-1.0
ILIC				AML	AML		
KHMN	Narli-Kahraman	1.42	238	Pn	Pn	13 20 18.4	-0.8
KHMN				AML	AML		
GAZ	Gaziantep	1.52	230	Pn	Pn	13 20 19.8	-0.8
GAZ				AML	AML		
KMRS	Kahramanmaras	1.55	245	Pn	Pn	13 20 20.3	-0.6
KMRS				AML	AML		
ERZN	Erzincan	1.64	30	Pn	Pb	13 20 21.7	-1.6
BNGB	Bingl	1.78	62	Pn	Pn	13 20 23.5	-0.7
SARI	SarD1z-Kayseri	1.79	279	Pn	Pn	13 20 23.9	-0.4
SARI				AML	AML		
YEDI	Yedisu-Bingol	1.94	48	Pn	Pn	13 20 25.8	-0.6
SVAN	Silvan-Diyarba	2.00	90	Pn	Pn	13 20 26.4	-0.6
SVAN				AML	AML		
SVSK	Karacayir	2.18	324	Pn	Pn	13 20 29.7	+0.2
SVSK				AML	AML		
BNN	Bunyan	2.32	288	Pn	Pn	13 20 31.6	0.0
BNN				AML	AML		
KOZT	Kozan	2.35	254	Pn	Pn	13 20 31.9	0.0
KOZT				AML	AML		
GURO	Guroymak-BITLI	2.67	81	Pn	Pn	13 20 36.2	-0.3
GURO				AML	AML		
TOKT	Tokat	2.71	323	Pn	Pn	13 20 37.3	+0.4
TOKT				AML	AML		
KTUT	Trabzon	2.94	16	Pn	Pn	13 20 40.5	+0.4
CMRD	Camardi-Nigde	2.95	261	Pn	Pn	13 20 40.4	+0.1
YOZ	Yozgat	3.00	300	Pn	Pn	13 20 41.4	+0.4
YOZ				AML	AML		
KOPR	Koprukoy-ERZUR	3.08	53	Pn	Pn	13 20 42.0	-0.1
KOPR				AML	AML		
KOZK	Kozakli-Nevseh	3.15	291	Pn	Pn	13 20 43.5	+0.5
KOZK				AML	AML		
MLAZ	Malazgirt-MUS	3.19	71	Pn	Pn	13 20 43.6	0.0
MLAZ				AML	AML		
AKDM	Akdamar-Van	3.40	86	Pn	Pn	13 20 46.4	-0.1
AKDM				AML	AML		
AGRB	Hanur-Agry	3.66	66	Pn	Pn	13 20 50.3	+0.3
AGRB				AML	AML		
CUKT	Cukurca	4.02	102	Pn	Pn	13 20 55.4	+0.4
BEIL	Beino	4.13	210	eP	Pn	13 20 56.1	-0.3
BRTR	Keskin Array B	4.22	293	Pn	Pn	13 20 58.3	+0.6
	1.5nm,0.3s,baz=135,slow=14,SNR=17						
BRTR				Pg	Pb	13 21 08.8	+1.6
	2.2nm,0.3s,baz=119,slow=17,SNR=12						
	2.6nm,0.3s						
BRTR				AML	AML		
HWQ	Hawqa	4.46	210	eP	Pn	13 21 00.9	0.0
BHL	Bhannes	4.90	211	eP	Pn	13 21 07.4	+0.3
DQRL	Deir Qamar	5.11	210	eP	Pn	13 21 10.2	+0.3
GNI	Garni	5.12	65	Lg	Lg	13 22 42.1	
	8.9nm,0.3s,baz=353,slow=18,SNR=3.4						
RCY	Rachaya	5.19	207	eP	Pn	13 21 11.7	+0.6
QRWL	Qaraoun	5.20	209	eP	Pn	13 21 11.4	+0.2
SHBL	Chebaa	5.36	207	eP	Pn	13 21 13.6	+0.2
MMAI	Mount Meron Ar	5.78	208	Pn	Pn	13 21 18.5	-0.6
	2.6nm,0.3s,baz=22,slow=16,SNR=5.0						
MMAI				Lg	Lg	13 22 53.3	
	6.5nm,0.3s,baz=27,slow=32,SNR=2.6						
	0.9nm,0.2s						
MMAI				AML	AML		
ASF	Jabal al Asfar	6.15	194	Pn	Pn	13 21 23.6	-0.6
	0.3nm,0.3s,baz=330,slow=9.9,SNR=4.1						
ASF				Lg	Lg	13 23 02.7	
	2.3nm,0.3s,baz=8.9,slow=16,SNR=4.0						
	2.9nm,0.7s						
ASF				AML	AML		
KBZ	Khabaz	6.42	29	Pn	Pn	13 21 30.3	+2.6
	0.2nm,0.3s,baz=195,slow=12,SNR=1.5						
	0.6nm,0.3s						
KBZ				AML	AML		
AKTO	Aktyubinsk	18.43	42	P	P	13 24 08.8	0.0
	0.2nm,0.3s,baz=225,slow=12,SNR=3.9						
	0.8nm,0.3s						
AKTO				AML	AML		
GERES	GERESS Array B	20.93	309	P	Pn	13 24 36.4	-2.3
	0.9nm,0.5s,baz=110,slow=12,SNR=5.0						
	0.9nm,0.5s						
FINES	FINESS Array B	24.59	345	P	P	13 25 14.9	+1.5
	2.6nm,0.9s,baz=156,slow=9.0,SNR=4.2						
	2.6nm,0.9s						
KURBB	Kurchatov Arra	30.71	53	P	P	13 26 08.6	+0.2
	0.6nm,0.9s,baz=267,slow=9.0,SNR=5.9						
	0.6nm,0.9s						
MKAR	Makanchi Array	32.95	61	P	P	13 26 29.7	+1.5
	0.3nm,0.7s,baz=272,slow=7.0,SNR=3.7						
	0.3nm,0.7s						
ESDC	Sonseca Array	32.98	286	P	P	13 26 28.5	-0.1
	0.8nm,1.0s,baz=69,slow=12,SNR=2.2						
	0.8nm,1.0s						

*ISK **08** 13:21:01.9,38°.20N×38°.69E,h5km,ML4.0/21*
*AFAD **08** 13:21:01.0,38°.18N×38°.66E,h10km±16km,MW4.1*
*IDC **08** 13:21:04.1±1.1,38°.20N×38°.64E,h0km,mb3.7/4, mbtmp3.7/10,ML3.4/6,MS3.5/5,Error ellipse: s-maj=16.4km s-min=12.4km az=140.0*
*GII **08** 13:21:09.7±0.0,40°.086N±0°.005×36°.353E±0°.001, h0km,Mws4.0,confirmed*
ISC 08 13:21:02.9±1.1**,38°.21N**±0°.02×**38°.68E**±0°.02**,h2**km±9km**,**
n68,σ**1ˢ58**/84**,mb3.7**/3**,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MAYA	Malatya/Merkez	0.23	300	P	Pg	13 21 07.3	0.0
MAYA				S	Sg	13 21 10.8	+0.5
MAYA				IAML		13 21 12.0	
	comp=N,2µm,0.3s						
MAYA				IAML		13 21 13.0	
	comp=E,2µm,0.6s						
MDYL	Doganyol-Malat	0.30	70	Pg	Pg	13 21 09.2	+0.5
MDYL				Sg	Sb	13 21 14.3	-2.2
MDYL				AML	AML		
NARI	Adyaman-Kaht	0.34	169	P	Pg	13 21 08.0	-1.3
NARI				S	Sg	13 21 12.6	-1.0
NARI				IAML		13 21 14.0	
	comp=E,1µm,0.8s						
NARI				IAML		13 21 15.0	
	comp=N,1µm,0.6s						
ESGZ	Sivrice-Elazig	0.37	54	Pg	Pg	13 21 10.1	+0.1
ESGZ				Sg	Sb	13 21 16.9	-1.7
ESGZ				AML	AML		
ELZG	Elazig	0.37	40	P	Pg	13 21 10.3	+0.3
ELZG				S	Sg	13 21 16.2	+1.2
ELZG				IAML		13 21 18.0	
	comp=N,2µm,0.7s						
ELZG				IAML		13 21 18.0	
	comp=E,3µm,0.3s						
CNGT	ngs	0.49	90	P	Pg	13 21 11.7	-0.6
CNGT				S	Sg	13 21 19.3	+0.7
CNGT				IAML		13 21 24.0	
	comp=E,2µm,0.7s						
CNGT				IAML		13 21 25.0	
	comp=N,2µm,0.6s						
SVRC	Sivrice-ELAZID	0.52	71	Pg	Pg	13 21 12.7	-0.2
SVRC				Sg	Sb	13 21 20.9	-2.0
SVRC				AML	AML		
AZEY	Adyaman-Merk	0.53	220	P	Pg	13 21 11.8	-1.2
AZEY				S	Sg	13 21 19.3	-0.4
AZEY				IAML		13 21 24.0	
	comp=N,4µm,0.7s						
AZEY				IAML		13 21 25.0	
	comp=E,5µm,1.4s						
ESIJ	Sivrice-Elazig	0.55	65	Pg	Pg	13 21 13.8	+0.4
ESIJ				Sg	Sb	13 21 22.5	-1.2
ESIJ				AML	AML		
AKCD	Akcadag	0.60	278	P	Pg	13 21 13.7	-0.7
AKCD				S	Sg	13 21 22.6	+0.5
AKCD				IAML		13 21 26.0	
	comp=E,7µm,0.5s						
AKCD				IAML		13 21 27.0	
	comp=N,1µm,0.4s						
ELZ	Elazig	0.63	41	P	Pg	13 21 14.5	-0.5
ELZ				S	Sg	13 21 24.1	+0.9
ELZ				IAML		13 21 30.0	
	comp=N,8µm,0.4s						
ELZ				IAML		13 21 31.0	
	comp=E,9µm,0.5s						
ATAB	Bozova	0.80	202	P	Pg	13 21 15.6	-2.6
ATAB				S	Sb	13 21 29.4	-1.4
ATAB				IAML		13 21 31.0	
	comp=E,3µm,0.6s						
ATAB				IAML		13 21 32.0	
	comp=N,2µm,0.4s						
MDNT	Maden	0.81	77	P	Pg	13 21 18.0	-0.4
MDNT				S	Sg	13 21 28.2	-0.7
MDNT				IAML		13 21 34.0	
	comp=N,6µm,0.5s						
MDNT				IAML		13 21 40.0	
	comp=E,4µm,0.8s						
HEKM	Malatya_Hekimh	0.87	320	P	Pg	13 21 19.2	-0.4
HEKM				S	Sb	13 21 31.9	-1.1
HEKM				IAML		13 21 33.0	
	comp=E,9µm,0.7s						
HEKM				IAML		13 21 33.0	
	comp=N,6µm,0.4s						
AKCA	Adyaman/G¶l	0.89	242	P	Pg	13 21 18.9	-0.9
AKCA				S	Sb	13 21 33.2	-0.2
AKCA				IAML		13 21 37.0	
	comp=E,4µm,0.8s						
AKCA				IAML		13 21 38.0	
	comp=N,3µm,0.5s						
ARPR	Arapgir-MALATY	0.92	343	Pg	Pg	13 21 20.1	-0.4
ARPR				Sg	Sn	13 21 34.9	-2.0
ARPR				AML	AML		
KOVA	Elazig, Kovanc	1.02	61	P	Pb	13 21 22.7	-0.5
KOVA				S	Sn	13 21 38.5	-0.7
KOVA				IAML		13 21 42.0	
	comp=E,2µm,1.3s						
KOVA				IAML		13 21 47.0	
	comp=N,3µm,0.7s						
SANL	SANLIURFA_Merk	1.07	167	P	Pg	13 21 22.5	-0.9
SANL				S	Sg	13 21 35.7	-1.4
SANL				IAML		13 21 38.0	
	comp=E,3µm,0.4s						
SANL				IAML		13 21 38.0	
	comp=N,3µm,0.4s						
TNCL	Tunceli-Merkez	1.13	37	P	Pb	13 21 23.4	-1.7
TNCL				S	Sb	13 21 39.8	-0.5
TNCL				IAML		13 21 45.0	
	comp=E,3µm,0.6s						
TNCL				IAML		13 21 49.0	
	comp=N,4µm,0.6s						
DYBB	Diyarbakir	1.18	102	Pn	Pb	13 21 25.2	-0.8
DYBB				Sn	Sn	13 21 42.7	-0.5
DYBB				AML	AML		
CUGUR	Gurin_SVAS	1.22	295	P	Pn	13 21 25.1	-2.0
CUGUR				S	Sb	13 21 41.4	-1.5
CUGUR				IAML		13 21 49.0	
	comp=N,3µm,0.4s						
CUGUR				IAML		13 21 50.0	
	comp=E,4µm,0.6s						
ELBS	KAHRAMANMARAS	1.22	276	P	Pn	13 21 25.9	-1.2
ELBS				S	Sn	13 21 42.9	-1.4
ELBS				IAML		13 21 48.0	
	comp=N,3µm,0.7s						
ELBS				IAML		13 21 50.0	
	comp=E,4µm,0.7s						
GZT	Gaziantep	1.23	226	P	Pn	13 21 25.7	-1.6
GZT				S	Sb	13 21 41.8	-1.5
GZT				IAML		13 21 44.0	
	comp=N,5µm,0.5s						
GZT				IAML		13 21 44.0	
	comp=E,5µm,0.4s						
ILIC	ilic-Erzincan	1.24	356	Pn	Pn	13 21 26.5	-0.9
ILIC				AML	AML		
KHMN	Narli-Kahraman	1.46	236	Pn	Pb	13 21 29.9	-0.8
GAZ	Gaziantep	1.56	229	Pn	Pb	13 21 31.7	-0.8
GAZ				AML	AML		
KMRS	Kahramanmaras	1.57	244	Pn	Pb	13 21 32.3	-0.4
KMRS				AML	AML		
ERZN	Erzincan	1.59	30	Pn	Pb	13 21 32.1	-1.0
ERZN				AML	AML		

BNGB	Bingl	1.75	63	Pn	Pb	13 21 34.8	-1.0
BNGB				AML	AML		
SARI	SarD1z-Kayseri	1.79	277	Pn	Pb	13 21 35.4	-1.1
YEDI	Yedisu-Bingol	1.90	49	Pn	Pb	13 21 36.9	-1.5
YEDI				AML	AML		
SVAN	Silvan-Diyarba	1.99	91	Pn	Pb	13 21 38.1	-1.7
SVAN				AML	AML		
SVSK	Karacayir	2.15	323	Pn	Pb	13 21 40.7	-1.7
SVSK				AML	AML		
BNN	Bunyan	2.31	287	Pn	Pn	13 21 42.9	+0.8
VRTB	Varto-Mus	2.37	66	Pn	Pn	13 21 43.4	+0.5
VRTB				AML	AML		
KOZT	Kozan	2.37	253	Pn	Pn	13 21 43.7	+0.9
GURO	Guroymak-BITLI	2.66	82	Pn	Pn	13 21 47.9	+1.1
GURO				AML	AML		
TOKT	Tokat	2.68	322	Pn	Pn	13 21 48.3	+1.3
TOKT				AML	AML		
KTUT	Trabzon	2.90	17	Pn	Pn	13 21 51.1	+1.1
CMRD	Camardi-Nigde	2.97	260	Pn	Pn	13 21 51.9	+0.8
YOZ	Yozgat	2.98	300	Pn	Pn	13 21 52.7	+1.4
KOPR	Koprukoy-ERZUR	3.04	53	Pn	Pn	13 21 53.3	+1.1
KOPR				AML	AML		
MLAZ	Malazgirt-MUS	3.17	72	Pn	Pn	13 21 54.8	+0.9
MLAZ				AML	AML		
AKDM	Akdamar-Van	3.39	87	Pn	Pn	13 21 57.6	+0.7
AKDM				AML	AML		
AGRB	Hanur-Agry	3.63	67	Pn	Pn	13 22 00.8	+0.5
AGRB				AML	AML		
BRTR	Keskin Array B	4.21	293	Pn	Pn	13 22 10.6	+2.4
	1.8nm,0.3s,baz=333,slow=31,SNR=5.8						
BRTR				Lg	Lg	13 23 18.6	
	baz=116,slow=26						
BRTR				LR	LR	13 24 06.4	
	comp=Z,609nm,20.1s,baz=114,slow=44 27nm,1.2s						
BRTR				AML	AML		
CSS	Mathiatis	5.39	235	P	Pb	13 22 35.4	-2.4
NATI	Neve Ativ	5.49	207	P	Pg	13 22 51.8	+3.7
GEM	Giv'at Ha'Em	5.56	207	P	Pg	13 22 51.8	+2.3
ZRT	Zar'it	5.80	209	P	Pg	13 22 53.4	-0.5
MMA0B	Mount Meron ar	5.83	208	P	Pg	13 22 55.3	+0.7
MMA0B				S	Sg	13 24 17.1	+6.9
MMAI	Mount Meron Ar	5.83	208	Pn	Pn	13 22 32.8	+2.3
	5.5nm,0.3s,baz=26,slow=15,SNR=2.3						
MMAI				Lg	Lg	13 24 11.1	
	6.0nm,0.3s,baz=32,slow=47,SNR=3.0 2.5nm,0.4s						
MMAI				AML	AML		
KNHM	Kefar Nahum	5.89	206	P	Pg	13 22 57.2	+1.6
ASF	Jabal al Asfar	6.20	194	Lg	Lg	13 24 23.7	
	3.4nm,0.3s,baz=164,slow=20,SNR=3.2						
MMLI	Mount Malkishu	6.35	206	P	Pg	13 23 02.3	-2.2
MMLI				S	Sg	13 24 31.0	+4.3
KBZ	Khabaz	6.37	29	Pn	Pn	13 22 43.1	+5.5
	0.2nm,0.3s,baz=239,slow=3.4,SNR=4.9 1.6nm,0.7s						
KBZ				AML	AML		
KVAR	Kislovodsk Arr	6.49	27	Pn	Pn	13 22 43.8	+4.3
	baz=213,slow=17 5.3nm,0.6s						
HRFI	Mount Harif	8.70	201	P	Pg	13 23 36.5	-13
HRFI				S	Sg	13 25 31.1	-11
EIL	Elat	9.06	201	LR	LR	13 27 04.3	
	comp=Z,468nm,19.2s,baz=74,slow=40						
MLR	Muntele Rosu	11.95	312	LR	LR	13 29 46.4	
	comp=Z,204nm,18.5s,baz=155,slow=44						
AKASG	Malin Array Be	14.18	335	Pn	Pn	13 24 24.7	+0.2
	0.5nm,0.3s,baz=149,slow=13,SNR=1.6 0.5nm,0.5s						
AKASG				AML	AML		
AKTO	Aktyubinsk	18.39	42	P	P	13 25 18.9	-0.1
	0.2nm,0.3s,baz=243,slow=13,SNR=5.7 1.0nm,0.3s						
AKTO				AML	AML		
VRAC	Vranov	19.35	312	LR	LR	13 34 43.7	
	comp=Z,102nm,18.8s,baz=104,slow=42						
GERES	GERESS Array B	20.90	309	P	Pn	13 25 47.4	-1.6
	0.9nm,0.2s,baz=110,slow=11,SNR=4.6 0.9nm,0.2s						
NOA	NORSAR Array B	28.56	332	P	P	13 27 00.2	+0.3
	0.5nm,0.4s,baz=105,slow=8.0,SNR=2.0 0.5nm,0.4s						
KURBB	Kurchatov Arra	30.67	53	P	P	13 27 19.6	+1.0
	0.8nm,0.8s,baz=267,slow=9.1,SNR=5.9 0.8nm,0.8s						
MKAR	Makanchi Array	32.92	61	P	P	13 27 40.0	+1.5
	0.8nm,0.8s,baz=281,slow=7.7,SNR=5.5 0.8nm,0.8s						
JMIC	Jan Mayen	40.76	338	LR	LR	13 47 11.2	
	comp=Z,74nm,21.3s,baz=303,slow=38						

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*UCR **08** 13:28:59.7±0.8, 8°.24N×83°.70W, h13^{km}±13^{km}, MW4.8, Presumed earthquake*

*IDC **08** 13:28:59.0±2.0, 8°.12N×83°.72W, h0^{km}, mb3.6/3, mbtmp3.8/7, ML3.2/3, MS3.3/9, Error ellipse: s-maj=72.3km s-min=16.5km az=34.0*

*UPA **08** 13:29:01.4±1.3, 8°.32N×83°.62W, h10^{km}, MW4.3, Presumed earthquake*

*RSNC **08** 13:29:01.7±0.4, 8°N±2°×8°4W±°, h0^{km}±3^{km}, M4.4, mB5.1, mb4.4, ML3.7, Mw(mB)4.4*

*CATAC **08** 13:29:02.2±0.5, 8°N±3°×8°4W±°, h4^{km}±1^{km}, M4.8/35, mb5.4/2, mB5.5/2, MLv4.6/35, Mw(mB)4.9/2, Error ellipse: s-maj=8.1km s-min=2.3km az=29.2, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}1.19; $M_{\theta\theta}$-0.84; $M_{\phi\phi}$-0.36; $M_{r\theta}$-0.47; $M_{\theta\phi}$2.99; $M_{\phi r}$0.55; Fault plane solution: $M_0$3.25778×10^{15} NP1:ϕ_s177.71550°, δ87.26246°, λ-170.98129°. NP2:ϕ_s87.28117°, δ80.99167°, λ-2.77176°. Principal axes: T 2.4130, Plg4.4130°, Azm312.1779°; N 1.2927, Plg80.5783°, Azm194.4628°; P -3.7057, Plg8.3077°, Azm42.8236°; confirmed*

*NEIC **08** 13:29:03.1±1.1, 8°.50N±0°.07×83°.54W±0°.02, h10^{km}±6^{km}, mb4.6/6 Error ellipse: s-maj=10.4km s-min=3.1km az=173.0*

ISC 08 13:28:59.9±1.3, **8°.30N**±0°.04×**83°.68W**±0°.03, **h5**^{km}±8^{km}, **n175**, σ**1^{s}.70**/209, **mb3.8**/3, **MS3.4**/4, **3C, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PIRO	Carate, Puerto	0.35	73		Pb	13 29 08.0	-0.7
PIRO	Carate, Puerto	0.35	73	P	Pb	13 29 08.0	-0.7
PIRO				S	Sb	13 29 13.9	-0.7
PIRO	Carate, Puerto	0.35	73	eP	Pb	13 29 07.9	-0.7
PIRO				eS	Sb	13 29 13.6	-1.0
PIRO	Carate, Puerto	0.35	73	⇑iP	Pb	13 29 08.0	-0.7
PIRO				eP	Pg	13 29 08.1	+1.3
PIRO				eS	Sb	13 29 13.9	-0.7
JIME	Puerto Jimenez	0.42	56	eP	Pb	13 29 09.1	-0.8
JIME				eS	Sb	13 29 16.4	-0.2
FITO	Golfito	0.61	58	eP	Pg	13 29 10.6	-1.0
PANP	Palmar Norte	0.69	18	eP	Pb	13 29 13.4	-1.0
OCHAL	Ojochal	0.79	2	P	Pb	13 29 15.4	-0.9
OCHAL				S	Sb	13 29 26.2	-1.0
PTPM	Petroterminale	0.80	97	eP	Pg	13 29 15.5	+0.2
NELY	Ciudad Neily	0.80	64	eP	Pg	13 29 15.2	-0.1
NELY				eS	Sb	13 29 26.7	-0.8
NELY	Ciudad Neily	0.80	64	eP	Pb	13 29 15.8	-0.6
NELY				eS	Sb	13 29 27.3	-0.3
LIMO3	Limones	0.83	104	eP	Pg	13 29 15.9	0.0
LMNES	Limones	0.83	104	eP	Pg	13 29 15.4	-0.5
LMNES	Limones	0.83	104	iP	Pg	13 29 16.0	+0.1
LMNES				eS	Sg	13 29 26.5	-0.3
CDITO	Canoas	0.84	71	P	Pg	13 29 15.9	-0.1
CDITO				S	Sb	13 29 28.2	-0.5
EDPE	Pejibaye, P	0.86	7	eP	Pg	13 29 16.4	0.0
EDP2	Potrero Grande	0.86	35	eP	Pg	13 29 16.6	0.0
VITO	San Vito	0.87	54	eP	Pb	13 29 17.0	-0.6
VITO	San Vito	0.87	54	eP	Pb	13 29 17.2	-0.4
VITO				eS	Sb	13 29 29.7	+0.1
MLIR3	Monte Lirio, C	0.97	60	eP	Pn	13 29 19.7	-0.7
MLIR3				eS	Sn	13 29 33.3	-1.4
SCLRA	Santa Clara, W	1.03	59	eP	Pg	13 29 19.7	0.0
SCLRA	Santa Clara, W	1.03	59	iP	Pb	13 29 19.9	-0.5
SCLRA				eS	Sb	13 29 34.4	+0.1
ZEDO	Perez Zeledon	1.05	360	eP	Pn	13 29 20.3	-1.1
BRU2	Volcan	1.09	63	Pg	Pg	13 29 20.4	-0.6
BRU2	Volcan	1.09	63	P	Pg	13 29 20.6	-0.3
BRU2	Volcan	1.09	63	eP	Pg	13 29 20.3	-0.6
BRU2	Volcan	1.09	63	⇑iP	Pg	13 29 20.3	-0.6
BRU2				eS	Sb	13 29 35.4	-0.7
CLLRA	Cordillera,	1.14	67	eP	Pb	13 29 21.1	-1.2
CLLRA	Cordillera,	1.14	67	iP	Pb	13 29 21.2	-1.0
CLLRA				eS	Sg	13 29 36.7	0.0
QUEP	Quepos	1.22	337	P	Pn	13 29 22.0	-1.7
QUEP				S	Sn	13 29 39.4	-1.2
QUEP	Quepos	1.22	337	eP	Pn	13 29 21.6	-2.2
SVQ2	Quepos	1.22	337	eP	Pg	13 29 25.5	+2.1
DVD	David	1.22	84	eP	Pn	13 29 22.3	-1.4
PTAR3	Potrerillos Ar	1.23	72	eP	Pn	13 29 22.1	-1.8
LOMA3	Las Lomas, Chi	1.28	84	eP	Pn	13 29 23.2	-1.3
BQTLY	Boquete Panama	1.29	69	iP	Pn	13 29 23.3	-1.4
BQTLY				eS	Sb	13 29 40.0	-1.7
BQSF3	Alto Boquete,	1.31	70	eP	Pn	13 29 23.7	-1.3
LNBQ3	Los Naranjos,	1.32	68	eP	Pn	13 29 23.8	-1.4
CHIR3	Chiriqui UPA,	1.34	86	eP	Pn	13 29 23.9	-1.4
PIEC	Cerro El Cedra	1.34	348	eP	Pn	13 29 23.9	-1.7
GUAL3	Gualaca, Chiri	1.38	80	eP	Pn	13 29 24.8	-1.2
RAZU	San Marcos de	1.39	346	eP	Pn	13 29 24.8	-1.4
ABE2	San Pablo	1.44	345	eP	Pn	13 29 25.8	-1.2
LCR2	La Lucha 2	1.47	347		Pn	13 29 26.1	-1.2
LCR2	La Lucha 2	1.47	347	P	Pn	13 29 26.1	-1.2
LCR2				S	Sb	13 29 46.3	-0.6
LCR2	La Lucha 2	1.47	347	eP	Pn	13 29 25.7	-1.6
LCR2	La Lucha 2	1.47	347	eS	Sg	13 29 47.3	+0.2
CEUA	Cerro Uatsi, L	1.50	29	eP	Pb	13 29 28.1	-0.2
RBALA	Bur	1.61	69	iP	Pn	13 29 28.3	-0.8
RBALA				eS	Sn	13 29 48.2	-2.1
CNI2	El Empalme, Bo	1.63	47	eP	Pn	13 29 29.1	-0.3
CHGR2	Aguacate	1.64	67	eP	Pn	13 29 28.9	-0.6
RAFA	San Farael, Vo	1.65	355		Pn	13 29 29.4	-0.5
RGM0	Gandoca	1.66	39		Pn	13 29 28.8	-0.9
RGM0	Gandoca	1.66	39	P	Pb	13 29 30.7	-0.3
RGM0				S	Sg	13 29 54.9	+1.5
RGM0	Gandoca	1.66	39	eP	Pb	13 29 31.0	0.0
VTCV	VTCV, Calle Va	1.67	358	eP	Pn	13 29 29.5	-0.6
VICA	Volcano Irazu	1.68	354	eP	Pn	13 29 29.7	-0.7
ABRB	Las Abras (San	1.69	359	eP	Pn	13 29 30.1	-0.3
CVTQ	Turrialba Volc	1.69	357	eP	Pn	13 29 30.1	-0.4
VTR0	Volcan Turrial	1.71	357	eP	Pn	13 29 30.3	-0.5
HDC	Heredia	1.74	346		Pn	13 29 30.4	-0.7
HDC	Heredia	1.74	346	P	Pn	13 29 30.6	-0.4
HDC				S	Sb	13 29 53.2	-1.6
HDC	Heredia	1.74	346	eP	Pn	13 29 29.6	-1.4
TRB2	Turrubares	1.77	335	P	Pb	13 29 32.0	-1.0
TRB2				S	Sb	13 29 54.5	-1.1
LCOCO	El Coco	1.77	4	eP	Pn	13 29 31.3	-0.1
TCS1	Tacares	1.83	340	P	Pb	13 29 32.8	-1.3
VBV1	V. Barva	1.85	347	eP	Pn	13 29 31.9	-0.8
KKNTU	Kakintº	1.93	74	⇑iP	Pn	13 29 32.7	-0.7
KKNTU				eS	Sn	13 29 56.8	-1.3
PDCAN	Manzana , Fuen	1.96	90	iP	Pn	13 29 32.8	-1.1
JTS	Las Juntas de	2.34	328	Pn	Pb	13 29 40.1	-2.6
	261nm,0.4s,baz=156,slow=10.0,SNR=159						
JTS				LR	LR	13 30 07.0	
	comp=Z,150nm,19.9s,baz=15,slow=27						
JTS				Sn	Sn	13 30 08.2	-0.2
	140nm,0.3s,baz=229,slow=17,SNR=11						
JTS	Las Juntas de	2.34	328		Pn	13 29 39.5	+0.3
JTS	Las Juntas de	2.34	328	P	Pb	13 29 40.5	-2.2
JTS				S	Sn	13 30 08.3	-0.1
JTS	Las Juntas de	2.34	328	P	Pb	13 29 40.1	-2.6
JTS				S	Sn	13 30 08.5	+0.1
JTS	Las Juntas de	2.34	328	eP	Pb	13 29 40.2	-2.6
CMARA	Lajas Hojancha	2.42	315	P	Pn	13 29 40.9	+0.5
CMARA				S	Sn	13 30 08.8	-1.7
CMARA	Lajas Hojancha	2.42	315	eP	Pn	13 29 40.2	-0.1
GMAL	Guarumal, Vera	2.48	102	P	Pn	13 29 39.6	-1.4
GMAL				S	Sn	13 30 12.1	+0.3
GMAL	Guarumal, Vera	2.48	102	eP	Pn	13 29 39.6	-1.4
COVE	Coope Vega, Sa	2.51	343	P	Pn	13 29 41.7	+0.3
COVE				S	Sb	13 30 17.6	+0.9
RSUS3	Rio de Jesus,	2.51	97	eP	Pn	13 29 41.5	0.0
SAFE3	Santa Fe, Vera	2.58	85	eP	Pn	13 29 42.0	-0.5
JUD3	Juan Diaz 3	2.61	315		Pn	13 29 42.7	-0.2
STIA3	Santiago, Vera	2.69	94	eP	Pn	13 29 44.5	+0.6
CALO3	Calobre, Verag	2.81	89	eP	Pn	13 29 46.1	+0.5
UPAL	Upala	2.90	333	P	Pb	13 29 49.0	-3.1
UPAL				S	Sb	13 30 23.9	-4.0
CACAO	El Cacao, Vera	2.95	109	P	Pn	13 29 46.0	-1.5
CACAO				S	Sn	13 30 22.1	-1.2
CACAO	El Cacao, Vera	2.95	109	eP	Pn	13 29 46.3	-1.2
CHIT3	Chitre	3.25	96	eP	Pn	13 29 52.0	+0.4
PNME	Penonome	3.32	87	P	Pn	13 29 54.4	+1.8
PNME				S	Sn	13 30 35.1	+2.6
PNME	Penonome	3.32	87	eP	Pn	13 29 53.8	+1.2
PNME				eS	Sb	13 30 36.3	-3.9
LCRUZ	La Cruz	3.36	325	eP	Pn	13 29 54.5	+1.2
CARN	Rivas	3.39	328		Pn	13 29 54.7	+1.1
CARN	Rivas	3.39	328	P	Pn	13 29 55.6	+1.9
CARN				S	Sb	13 30 39.7	-2.6
AZU	Azuero	3.41	98	P	Pn	13 29 53.9	+0.1
AZU				S	Sn	13 30 36.9	+2.2
AZU	Azuero	3.41	98	eP	Pn	13 29 53.5	-0.3
AZU				eS	Sg	13 30 47.3	-2.2
VTON	El Valle, Cocl	3.54	85	eP	Pb	13 30 01.6	-1.6
VTON				eS	Sb	13 30 44.4	-2.2
ACHO3	Achotines, Los	3.58	104	eP	Pn	13 29 56.1	-0.1
BLUN	Bluefields	3.68	359	P	Pb	13 30 01.4	-4.1
BLUN				S	Sn	13 30 42.8	+1.4
BLUN	Bluefields	3.68	359	P	Pn	13 29 58.2	+0.6
BLUN				S	Sb	13 30 47.2	-3.3
JAPN	Al SSO del Vol	3.76	329	P	Pn	13 30 00.4	+1.7
MORN	Al O del Volca	3.76	329	P	Pn	13 30 00.6	+1.8
ARIN	Rivas	3.79	326	P	Pb	13 30 05.5	-1.8
ZANG	Zanguenga, Cho	3.82	80	eP	Pn	13 30 00.0	+0.5
ZANG				eS	Sn	13 30 37.1	-7.8
BCIP	Isla Barro Col	3.89	77		Pn	13 30 00.6	0.0
BCIP	Isla Barro Col	3.89	77	P	Pn	13 30 00.8	+0.3
BCIP				S	Sb	13 30 52.8	-3.8
BCIP	Isla Barro Col	3.89	77	P	Pn	13 30 01.1	+0.6
BCIP				S	Sn	13 30 47.5	+0.8
BCIP	Isla Barro Col	3.89	77	eP	Pn	13 30 00.5	0.0
MLIR	Monte Lirio	3.89	76	eP	Pn	13 30 00.1	-0.4
ESPN	Las Esperanzas	3.92	351	P	Pb	13 30 04.9	-4.7
ESPN				S	Sb	13 30 56.8	-0.5
ACON	Acoyapa	3.93	338	P	Pn	13 30 03.0	+1.9
ACON				S	Sn	13 30 49.9	+2.4
GAMB1	Gamboa	4.01	78	eP	Pn	13 30 02.8	+0.8
FRIJ	El Hiral	4.01	77	eP	Pn	13 30 03.1	+1.0
NADN	Granada	4.14	326	P	Pn	13 30 05.5	+1.7
UPA	Univ. de Panam	4.15	80	P	Pn	13 30 05.1	+1.0
UPA				S	Sb	13 30 59.0	-5.1
NANN	Nandasmo	4.34	327	P	Pn	13 30 09.8	+3.1
NANN				S	Sn	13 31 00.2	+2.4
BOAB	BOACO BROADBAN	4.56	335		Pn	13 30 10.5	+0.8
BOAB	BOACO BROADBAN	4.56	335	P	Pn	13 30 11.0	+1.3
BOAB				S	Sb	13 31 09.8	-6.1
WILN	Americas 2	4.56	327	P	Pn	13 30 11.5	+1.8
MGAN	Managua	4.58	327		Pn	13 30 11.8	+1.8
MGAN	Managua	4.58	327	P	Pn	13 30 11.8	+1.8
MGAN	Managua	4.58	327	P	Pn	13 30 12.1	+2.2
TISN	Laguna Tiscapa	4.59	326	P	Pn	13 30 11.3	+1.1
APYN	Apoyeque	4.71	326	P	Pn	13 30 14.8	+3.0
COPN	Copaltepe	4.80	324	P	Pn	13 30 14.8	+1.8
CNGN	Cerro Negro	5.12	325	P	Pn	13 30 19.3	+1.8
	653nm,0.7s						
CNGN				S	Sn	13 31 17.8	+0.7
	653nm,0.7s						
CNGN				AML	AML		
CRIN	San Cristobal	5.49	323		Pn	13 30 23.1	+0.6
CRIN	San Cristobal	5.49	323	P	Pn	13 30 24.3	+1.8
CRIN				S	Sn	13 31 25.9	-0.2
SIUN	Universidad Ur	5.49	349		Pn	13 30 22.4	0.0
PRVC	Isla de Provid	5.53	24	P	Pn	13 30 25.4	+2.4
	28nm,0.5s						
PRVC				S	Sn	13 31 27.0	-0.1
	28nm,0.5s						
PRVC				AML	AML		
RCVN	Varillal2	5.80	335	P	Pn	13 30 28.0	+1.1
TGUH	Tegucigalpa,Un	6.72	329		Pn	13 30 40.6	+1.1
TGUH	Tegucigalpa,Un	6.72	329	P	Pn	13 30 41.4	+1.9
	39nm,0.7s						
DBBC	Dabeiba	7.51	99	P	Pn	13 30 48.7	-1.7
CBOC	Ciudad Bolivar	7.98	107	P	Pn	13 30 55.9	-1.0
	5.3nm,0.6s						
UREC	San Jos de Ur	8.09	93	P	Pn	13 31 00.2	+2.0
	15nm,0.7s						
MTO3	Montecristo	8.23	318		Pn	13 31 02.3	+2.0
SJCC	San Jacinto, C	8.54	79	P	Pn	13 31 05.6	+1.1
	41nm,1.0s						
SJCC				S	Sn	13 32 44.0	+2.6
	41nm,1.0s						
GUY2C	Guyana, Caldas	8.80	110	P	Pn	13 31 09.5	+1.1
	15nm,0.7s						
BBAC	Balboa, Cauca	8.94	134	P	Pn	13 31 12.6	+2.5
	22nm,1.0s						
POPC	Popayan, Colom	9.02	129	P	Pn	13 31 14.0	+2.8
	11nm,1.4s						
PTBC	PUERTO BERRIO,	9.31	100	P	Pn	13 31 17.3	+2.3
	8.3nm,1.2s						
APG	El Apazote	9.41	316	Pn	Pn	13 31 19.2	+2.7
	0.2nm,0.3s,baz=138,slow=11,SNR=14 1.7nm,0.7s						
APG				AML	AML		
ORTC	Ortega, Tolima	9.45	117	P	Pn	13 31 19.4	+2.5
	20nm,0.8s						
PRAC	Prado	9.86	117	P	Pn	13 31 28.0	+5.5
ROSC	El Rosal	9.91	110	Pn	Pn	13 31 26.3	+2.8
	2.0nm,0.3s,baz=270,slow=20,SNR=3.5						
ROSC				LR	LR	13 35 01.6	
	comp=Z,246nm,21.9s,baz=292,slow=37 5.2nm,0.4s						
ROSC				AML	AML		
BETC	Betania	9.92	124	P	Pn	13 31 26.7	+3.3
SLOR	San Lorenzo -	10.35	150		Pn	13 31 33.5	+3.8
CHIC	Chingaza	10.53	110	P	Pn	13 31 35.6	+3.5
	14nm,0.8s						
PIAT	Ana Tenorio	10.70	149	P	Pn	13 31 39.3	+4.9
SDV	Santo Domingo	12.91	86	LR	LR	13 37 46.5	
	comp=Z,184nm,21.1s,baz=276,slow=41						
CMIG	Matias Romero	13.99	310	Pn	Pn	13 32 21.3	+2.3
	0.4nm,0.3s,baz=129,slow=14,SNR=5.2 2.7nm,0.6s						
CMIG				AML	AML		
ATAH	Atahualpa	16.21	161	LR	LR	13 38 10.0	
	comp=Z,115nm,21.1s,baz=328,slow=34						
GRTK	Grand Turk	17.85	41	P	P	13 33 09.4	-0.6
GRTK				IAmb	IAmb	13 33 17.0	
	comp=Z,210nm,1.9s						
MLPR	Magueyes Islan	18.82	58		Pn	13 33 20.7	-0.4
SJG	San Juan	19.64	58	LR	LR	13 41 26.8	
	comp=Z,58nm,21.1s,baz=252,slow=38						
352A	Blakely	23.09	357	P	P	13 34 05.6	-1.1
TKL	Tuckaleechee C	27.23	360	LR	LR	13 46 08.7	
	comp=Z,62nm,18.3s,baz=219,slow=38						
HPIG		27.89	314	P	P	13 34 52.1	+0.9
HPIG				IAmb	IAmb	13 35 17.1	
	comp=Z,3.9nm,0.8s						
H06S1	SOCORRO T	28.43	294	T	T	14 04 35.2	
H06N1	SOCORRO T-PHAS	28.50	294	T	T	14 04 43.2	
	SNR=5.5						
H03N2	Juan Fernandez	41.76	174	T	T	14 21 26.0	
	baz=352,slow=74,SNR=24						
H03N1	Juan Fernandez	41.76	174	T	T	14 21 29.4	
	baz=269,slow=74,SNR=26						
ILAR	Eielson Array	71.29	336	P	P	13 40 20.9	+0.6
	comp=Z,0.3nm,0.8s,baz=108,slow=6.5,SNR=2.6 comp=Z,0.3nm,0.8s						
ILSW	Iliamna Southw	72.63	330	P	P	13 40 29.9	+1.3
ESDC	Sonseca Array	76.84	51	P	P	13 40 53.5	+0.2
	comp=Z,0.6nm,0.7s,baz=268,slow=4.9,SNR=4.6 comp=Z,0.6nm,0.7s						
TORD	Torodi Ar. Bea	83.67	78	P	P	13 41 30.1	-0.4
	comp=Z,0.5nm,0.8s,baz=289,slow=4.4,SNR=2.2 comp=Z,0.5nm,0.8s						
SPITS	Spitsbergen Ar	83.99	12	LR	LR	14 20 59.0	
	comp=Z,42nm,18.0s,baz=247,slow=37						
NOA	NORSAR Array B	85.17	29	LR	LR	14 18 14.0	
	comp=Z,9.6nm,18.9s,baz=320,slow=35						
VRAC	Vranov	90.40	40	LR	LR	14 18 49.3	
	comp=Z,20nm,20.1s,baz=308,slow=33						
H11S1	WAKE ISLAND Hy	105.67	292	T	T	15 41 13.0	
	baz=77,slow=74,SNR=9.6						
H11S2	WAKE ISLAND Hy	105.67	292	T	T	15 41 11.5	
	baz=77,slow=74,SNR=12						
H11S3	WAKE ISLAND Hy	105.69	292	T	T	15 41 14.5	
	baz=77,slow=74,SNR=12						
ASAR	Alice Springs	140.93	243	PKP	PKPdf	13 48 30.5	-1.7
	comp=Z,0.4nm,0.7s,baz=101,slow=2.2,SNR=4.9						
WRA	Warramunga Arr	141.46	248	PKP	PKiKP	13 48 34.2	-1.8
	comp=Z,0.4nm,0.8s,baz=99,slow=2.5,SNR=2.6						
CMAR	Chiang Mai Arr	153.28	354	PKPbc	PKiKP	13 49 01.6	+1.2
	comp=Z,0.4nm,0.3s,baz=19,slow=3.3,SNR=1.8						

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*IDC **08** 13:43:33.7±1.0, 52°.23N×176°.73E, h88^{km}±7^{km}, mb3.8/17, mbtmp4.1/19, MS2.7/1, Error ellipse: s-maj=17.7km s-min=10.1km az=6.0*

*AEIC **08** 13:43:34.7±1.9, 51°.9N±0°.1×176°.46E±0°.08, h86^{km}±6^{km}, Error ellipse: s-maj=16.5km s-min=6.0km az=191.0*

*NEIC **08** 13:43:34.4±1.8, 52°.1N±0°.1×176°.51E±0°.08, h93^{km}±7^{km}, mb4.1/54, ML3.9/10, ML3.6(AEIC), Error ellipse: s-maj=17.6km s-min=5.9km az=192.0*

ISC 08 13:43:34.2±0.6, **52°.1N**±0°.1×**176°.52E**±0°.03, **h92**^{km}±6^{km}, **n114**, σ**0^{s}.95**/111, **mb4.1**/37, **1C, Rat Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LSNW	Little Sitkin	1.24	94		Pn	13 43 56.6	-0.1
LSNW					Sn	13 44 13.9	+0.2
LSSA	Little Sitkin	1.24	95		Pn	13 43 56.8	0.0
LSSA					Sn	13 44 13.9	+0.1
LSPA	Little Sitkin	1.27	95		Pn	13 43 57.0	-0.1
LSPA					Sn	13 44 15.1	+0.6
LSSE	Little Sitkin	1.27	96		Pn	13 43 57.2	0.0
LSSE					Sn	13 44 14.7	+0.2
SHEM	Shemya Is, Ala	1.62	295	P	Pn	13 44 00.8	-0.6
	934nm,0.3s,baz=112,slow=3.0,SNR=263						
SHEM				S	Sn	13 44 23.0	+0.8
	958nm,0.3s,baz=283,slow=18,SNR=36						
SHEM				LR	LR	13 44 38.1	
	comp=Z,208nm,19.6s,baz=124,slow=38						
SHEM	Shemya Is, Ala	1.62	295		Pn	13 44 01.3	-0.2
SHEM	Shemya Is, Ala	1.62	295	IAML		13 44 24.8	
	comp=N,889nm,0.6s						
SHEM				IAML		13 44 25.5	
	comp=E,2µm,0.6s						
SMY	Shemya	1.62	295		Pn	13 44 01.3	-0.1
SMY				Sn	Sn	13 44 21.2	-0.9
CETU	Semis' Tuman	1.84	92		Pn	13 44 04.1	-0.2
CETU					Sn	13 44 27.4	+0.2
AMKA	Amchitka	1.87	111		Pn	13 44 03.6	-1.0
AMKA				Sn	Sn	13 44 25.8	-2.0
AMKA				IAML		13 44 29.8	
	comp=N,1µm,0.6s						
AMKA				IAML		13 44 29.9	
	comp=E,806nm,0.6s						
CEAP	Semis’ Anvil P	1.89	91		Pn	13 44 04.0	-0.9
CEAP					Sn	13 44 28.2	-0.1
CESW	Semis’ Southwe	1.89	94		Pn	13 44 04.4	-0.6
CESW					Sn	13 44 28.0	-0.3
GASW	Gareloi Southw	2.88	94		Pn	13 44 17.9	-0.1
GASW					Sn	13 44 50.5	-1.3
GANO	Gareloi North	2.90	93		Pn	13 44 18.2	-0.2
GANO					Sn	13 44 51.1	-1.4
GANE	Gareloi Northe	2.92	93		Sn	13 44 51.4	-1.5
GAKI	Gareloi-Kavalg	2.94	99		Sn	13 44 51.9	-1.5
TACS	Tanaga Cape Sa	3.31	92		Pn	13 44 23.9	0.0
TACS					Sn	13 45 01.9	-0.4
TASE	Tanaga Southea	3.38	92		Sn	13 45 03.5	-0.4
TAFL	Tanaga Flats	3.47	93		Sn	13 45 05.9	-0.1
KIMD	Kanaga Island	3.88	92		Sn	13 45 15.1	-0.8
KICM	Kanaga Island	3.89	90		Pn	13 44 31.7	+0.1
KICM					Sn	13 45 16.5	+0.4
KIWB	Kanaga Island	3.92	91		Sn	13 45 17.5	+0.6
KIWB	Kanaga Island	3.92	91		Pn	13 44 31.7	-0.4
KIWB	Kanaga Island	3.92	91	IAML		13 45 25.7	
	comp=E,93nm,0.6s						
KIWB				IAML		13 45 37.3	
	comp=N,93nm,0.8s						
ADK	Adak	4.21	90		Pn	13 44 35.5	-0.4
ADK	Adak	4.21	90	IAML		13 45 48.2	
	comp=N,80nm,0.7s						
ETKA	Kagalaska Isla	4.38	90		Pn	13 44 38.5	+0.3
GSCK	Great Sitkin C	4.52	88		Pn	13 44 40.1	-0.1
GSIG	Igitkin Island	4.67	88		Pn	13 44 42.1	-0.1
KOKL	Mount Kliuchef	5.71	84		Pn	13 44 56.8	+0.4
ATKA	Atka Island	5.72	85	Pn	Pn	13 44 56.7	+0.3
MGOD	Makushin Gods	10.17	74		Pn	13 45 58.4	+1.3
MSW	Makushin Switc	10.23	73		Pn	13 45 58.9	+1.0
UNV	Unalaska Valle	10.39	74		Pn	13 46 01.7	+1.7
LVA	Lava Point	10.69	72	Pn	Pn	13 46 05.3	+1.1
PETK	Petropavlovsk-	11.49	283	P	Pn	13 46 16.8	+1.8
	comp=N,3.4nm,0.9s,baz=95,slow=18,SNR=25						

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
PETK				S	Sn	13 48 17.8	-3.6
	comp=N,2.9nm,0.5s,baz=80,slow=18,SNR=6.7						
PETK				LR	LR	13 50 29.3	
	comp=N,39nm,21.6s,baz=86,slow=36						
SDPT	Sand Point	13.99	67	Pn	Pn	13 46 47.6	-0.4
ANM	Nome	15.63	30	P	P	13 47 12.6	+1.4
L16K	Owhat River	16.18	44	P	P	13 47 18.2	+1.0
L16K				IAmb	IAmb	13 47 38.7	
	comp=Z,13nm,1.2s						
ACHA	Angle Creek He	17.14	58	P	P	13 47 29.2	+1.3
ACHA				IAmb	IAmb	13 47 31.6	
	comp=Z,16nm,1.3s						
G16K	Koyuk River	17.14	31	P	P	13 47 29.0	+1.2
G16K				IAmb	IAmb	13 47 29.9	
	comp=Z,11nm,0.8s						
L18K	Granite Mounta	17.59	44	P	Pn	13 47 34.1	+1.2
N19K	Bonanza Creek	18.11	50	P	P	13 47 39.7	+1.0
N19K				IAmb	IAmb	13 47 46.9	
	comp=Z,28nm,1.4s						
Q19K	Cape Douglas,	18.12	56	P	P	13 47 39.4	+0.7
C16K	Lisburne Hills	18.44	21	P	P	13 47 43.2	+1.1
KDAK	Kodiak Island	18.54	60	P	P	13 47 41.3	-1.8
	comp=Z,12nm,0.5s,baz=267,slow=12,SNR=49						
KDAK	Kodiak Island	18.54	60		P	13 47 42.2	-1.0
G18K	Tagagawik	18.65	33	P	P	13 47 45.7	+1.3
G18K				IAmb	IAmb	13 47 45.9	
	comp=Z,8.9nm,1.1s						
J20K	Nowinta River	19.43	40		P	13 47 54.0	+1.1
F19K	Shaleruckik Mo	19.50	31		P	13 47 54.5	+0.9
C18K	Utukok River	19.72	24	P	P	13 47 57.1	+1.1
C18K				IAmb	IAmb	13 47 57.6	
	comp=Z,10nm,0.7s						
CAST	Castle Rocks	19.99	43	P	P	13 48 00.1	+1.1
F20K	Avaraart Lake	20.28	32	P	P	13 48 02.8	+0.8
IMAR	Indian Mountai	20.40	36	P	P	13 48 04.0	+0.7
C19K	Lookout Ridge	20.46	25	P	P	13 48 04.8	+0.8
C19K				IAmb	IAmb	13 48 09.9	
	comp=Z,8.4nm,0.8s						
KTH	Kantishna Hill	20.53	43	P	P	13 48 05.8	+1.0
KTH				IAmb	IAmb	13 48 08.7	
	comp=Z,9.6nm,1.2s						
TRF	Thorofare Moun	20.77	44	P	P	13 48 08.2	+0.7
TRF				IAmb	IAmb	13 48 33.4	
	comp=Z,17nm,1.4s						
PWL	Port Wells	21.07	52	P	P	13 48 11.8	+1.2
PWL				IAmb	IAmb	13 48 51.4	
	comp=Z,19nm,1.2s						
F21K	Alatna River	21.11	33		P	13 48 11.8	+0.8
E21K	Killik River	21.62	30	IAmb	IAmb	13 48 42.8	
	comp=Z,12nm,1.5s						
NEA2	Nenana	21.64	41	P	P	13 48 17.5	+0.9
G23K	Bananza Creek	22.07	36		P	13 48 21.1	-0.2
KLU	Klutina	22.31	50	P	P	13 48 24.4	+0.5
KLU				IAmb	IAmb	13 48 25.4	
	comp=Z,4.2nm,0.6s						
H24K	Noodor Dome	22.53	39	IAmb	IAmb	13 48 28.8	
	comp=Z,6.3nm,0.7s						
ILAR	Eielson Array	22.59	42	P	P	13 48 24.2	-2.4
	comp=Z,1.9nm,0.7s,baz=244,slow=8.9,SNR=30						
	comp=Z,1.9nm,0.7s						
ILAR	Eielson Array	22.59	42	P	P	13 48 25.7	-0.9
E23K	Chandalar	22.81	33		P	13 48 29.4	+0.4
E23K				IAmb	IAmb	13 48 30.0	
	comp=Z,8.4nm,0.8s						
D23K	Nanushuk River	22.91	30	IAmb	IAmb	13 48 31.1	
	comp=Z,7.6nm,0.6s						
RIDG	Independent Ri	23.19	45	IAmb	IAmb	13 49 01.3	
	comp=Z,14nm,1.5s						
SCRK	Sand Creek	23.61	44		P	13 48 35.5	-1.2
SCRK				IAmb	IAmb	13 48 36.4	
	comp=Z,5.3nm,0.5s						
F25K	Christian Rive	23.99	35		P	13 48 40.4	+0.5
E25K	Arctic Village	24.21	34	IAmb	IAmb	13 48 44.5	
	comp=Z,5.5nm,1.1s						
L27K	Beaver Creek,	24.42	47		P	13 48 43.8	+0.1
G26K	Porcupine Rive	24.45	37		P	13 48 44.6	+0.7
G26K				IAmb	IAmb	13 48 47.3	
	comp=Z,7.2nm,0.8s						
F26K	Sheenjek River	24.56	36	IAmb	IAmb	13 48 47.8	
	comp=Z,6.2nm,0.7s						
O28M	Mount Upton	25.03	53	IAmb	IAmb	13 49 14.7	
	comp=Z,7.2nm,0.9s						
I28M	Miner Creek	25.60	42	IAmb	IAmb	13 48 54.7	
	comp=Z,3.7nm,0.8s						
DAWY	Dawson	25.63	45	IAmb	IAmb	13 48 56.0	
	comp=Z,7.5nm,0.8s						
M29M	Somme Creek	25.91	49	IAmb	IAmb	13 48 58.0	
	comp=Z,3.1nm,0.5s						
HYT	Haines Junctio	26.35	53		P	13 49 01.9	+0.5
HYT				IAmb	IAmb	13 49 06.8	
	comp=Z,4.3nm,0.8s						
K29M	Barlow Dome	26.43	46		P	13 49 02.3	+0.3
YAK	Yakutsk	26.75	310	P	P	13 49 04.3	-0.5
J30M	Hart River	27.00	44	P	P	13 49 07.4	+0.2
USRK	Ussuriysk Ar.	30.34	273	P	P	13 49 37.5	+0.7
	comp=Z,1.4nm,0.5s,baz=68,slow=12,SNR=5.1						
	comp=Z,1.4nm,0.5s						
BNX	BinXian	32.38	279	⇑P	P	13 49 54.8	+0.1
BNX				pmax	pmax		
	comp=Z,8.0nm,0.7s						
H11N2	WAKE ISLAND Hy	33.15	197	T	T	14 25 29.1	
	baz=11,slow=76,SNR=239						
H11N3	WAKE ISLAND Hy	33.16	197	T	T	14 25 29.9	
	baz=11,slow=76,SNR=313						
H11N1	WAKE ISLAND Hy	33.17	197	T	T	14 25 30.4	
	baz=11,slow=76,SNR=333						
H11S1	WAKE ISLAND Hy	34.38	197	T	T	14 26 52.1	
	baz=11,slow=76,SNR=84						
H11S3	WAKE ISLAND Hy	34.40	197	T	T	14 26 52.7	
	baz=11,slow=76,SNR=58						
H11S2	WAKE ISLAND Hy	34.40	197	T	T	14 26 52.8	
	baz=11,slow=76,SNR=49						
NEW	Newport	41.34	68	P	P	13 51 10.9	+0.3
NEW				IAmb	IAmb	13 51 29.7	
	comp=Z,5.5nm,1.4s						
SONM	Songino Array	43.71	294	P	P	13 51 30.7	+0.7
	comp=Z,3.0nm,0.5s,baz=59,slow=7.5,SNR=17						
	comp=Z,3.0nm,0.5s						
SONM	Songino Array	43.71	294	IAmb	IAmb	13 51 31.8	
	comp=Z,2.4nm,0.6s						
SPITS	Spitsbergen Ar	49.44	355	P	P	13 52 13.0	-1.1
	comp=Z,1.2nm,0.4s,baz=38,slow=7.3,SNR=14						
	comp=Z,1.2nm,0.4s						
ZALV	Zalesovo Beam	51.40	311	P	P	13 52 28.5	-0.6
	comp=Z,0.5nm,0.3s,baz=60,slow=8.5,SNR=2.6						
	comp=Z,0.5nm,0.3s						
GTA2	Gaotai	52.58	288	P	P	13 52 39.4	+1.1
GTA2				pP	pP	13 53 03.7	+3.3
GTA2				pmax	pmax		
	comp=Z,18nm,0.7s						
KURK	Kurchatov	56.39	311		P	13 53 05.7	+0.1
KURBB	Kurchatov Arra	56.50	311	P	P	13 53 05.9	-0.4
	comp=Z,6.7nm,0.6s,baz=44,slow=6.6,SNR=64						
KURBB				pP	pP	13 53 27.5	-1.3
	comp=Z,0.8nm,0.7s,baz=48,slow=7.4,SNR=2.8						
	comp=Z,6.7nm,0.6s						
MKAR	Makanchi Array	57.28	305	P	P	13 53 11.6	-0.4
	comp=Z,1.7nm,0.5s,baz=47,slow=6.3,SNR=26						
MKAR				pP	pP	13 53 34.4	0.0
	comp=Z,0.4nm,0.4s,baz=55,slow=6.4,SNR=3.2						
	comp=Z,1.7nm,0.5s						
BVAR	Borovoye Array	58.43	317	P	P	13 53 19.8	-0.1
	comp=Z,7.2nm,0.3s,baz=52,slow=7.6,SNR=36						
	comp=Z,7.2nm,0.3s						
TXAR	Lajitas Array	61.39	78	P	P	13 53 38.9	-1.6
	comp=Z,0.3nm,0.5s,baz=298,slow=4.2,SNR=4.1						
	comp=Z,0.3nm,0.5s						
FINES	FINESS Array B	64.39	345	P	P	13 53 58.1	-1.7
	comp=Z,2.0nm,0.5s,baz=21,slow=7.3,SNR=17						
	comp=Z,2.0nm,0.5s						
FINES	FINESS Array B	64.39	345	P	P	13 53 59.1	-0.7
KSH2	Kashi	66.20	303	P	P	13 54 13.3	+1.2
KSH2				pmax	pmax		
	comp=Z,6.0nm,0.7s						
NOA	NORSAR Array B	66.62	352	P	P	13 54 13.2	-1.0
	comp=Z,0.5nm,0.3s,baz=10.0,slow=6.5,SNR=6.7						
	comp=Z,0.5nm,0.3s						
HFS	Hagfors	67.28	351	P	P	13 54 17.6	-0.8
	comp=Z,0.7nm,0.3s,baz=15,slow=6.5,SNR=8.1						
	comp=Z,0.7nm,0.3s						
CMAR	Chiang Mai Arr	68.06	272	P	P	13 54 24.9	+1.0
	comp=Z,1.2nm,0.6s,baz=25,slow=6.8,SNR=9.3						
	comp=Z,1.2nm,0.6s						
CMAR	Chiang Mai Arr	68.06	272	P	P	13 54 23.9	0.0
EKA	Eskdalemuir Ar	72.95	360	P	P	13 54 52.5	-0.6
	comp=Z,0.4nm,0.4s,baz=5.5,slow=4.4,SNR=4.0						
	comp=Z,0.4nm,0.4s						
AKASG	Malin Array Be	73.91	339	P	P	13 54 58.5	-0.3
	comp=Z,1.3nm,0.3s,baz=26,slow=6.3,SNR=4.9						
	comp=Z,1.3nm,0.3s						
AKASG	Malin Array Be	73.91	339	IAmb	IAmb	13 55 07.3	
	comp=Z,3.6nm,1.2s						
WRA	Warramunga Arr	80.60	220	P	P	13 55 37.1	+0.6
	comp=Z,0.5nm,0.7s,baz=32,slow=6.4,SNR=6.3						
	comp=Z,0.5nm,0.7s						
ASAR	Alice Springs	84.13	219	P	P	13 55 55.5	+0.7
	comp=Z,0.3nm,0.7s,baz=32,slow=4.9,SNR=5.2						
ASAR				pP	pP	13 56 19.2	+0.7
	comp=Z,0.3nm,0.6s,baz=19,slow=5.9,SNR=2.4						
	comp=Z,0.3nm,0.7s						

NOU 08 14:14:19.0, 17°.13S×167°.74E, h0^{km}, MLv4.5/21, Vanuatu Islands, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DVP	Devils Point	0.73	144	P	Pb	14 14 34.2	-0.4
DVP	Devils Point	0.73	144	S	Sg	14 14 42.6	+0.1
RTV	Rentapao	0.93	135	P	Pg	14 14 36.6	-0.2
RTV	Rentapao	0.93	135	S	Sg	14 14 49.6	+0.7
SANVU	Saraoutou	1.75	343	P	Pn	14 14 49.7	-0.9
SANVU	Saraoutou	1.75	343	S	Sn	14 15 12.5	-1.2
MARNC	Mare, Loyalty	4.34	176	P	Pn	14 15 25.1	-1.1
YATNC	Mamie plateau,	4.97	189	P	Pn	14 15 34.4	-0.5
ONTNC	Ouen Toro	5.29	193	P	Pn	14 15 40.8	+1.5
OUENC	Ouen Island, N	5.33	189	P	Pn	14 15 38.2	-1.7

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*JMA **08** 14:40:41.8±0.3, 28°.0N±0°.6×127°.9E±0°.8, h9^{km}±3^{km}, MV3.1/13, NW OFF OKINAWAJIMA IS*

*IDC **08** 14:40:42.1±1.0, 27°.76N×127°.64E, h0^{km}, mb3.4/5, mbtmp3.5/6, ML3.2/1, MS2.9/2, Error ellipse: s-maj=25.4km s-min=14.5km az=71.0*

ISC 08 14:40:43.0±1.6, **27°.90N**±0°.05×**127°.96E**±0°.05, **h15**^{km}±10^{km}, **n21**, σ**0^{s}68**/28, **mb3.4**/5, **Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JOKE	Okinoerabujima	0.76	135	*i* P	Pb	14 40 57.6	-0.4
JOKE				S	Sg	14 41 09.0	+1.1
JIH	Iheya	0.86	180	P	Pg	14 40 59.4	-0.3
JIH				S	Sn	14 41 12.3	-0.5
JTK	Tokunoshima	0.88	97	*i* P	Pb	14 40 59.4	-0.6
JTK				S	Sb	14 41 11.8	+0.2
JYRO	Yoronjima	0.97	153	*i* P	Pn	14 41 01.6	-0.5
JYRO				S	Sn	14 41 15.9	+0.3
JOW	Kunigami	1.10	165	Pn	Pn	14 41 03.5	-0.4
	63nm,0.3s,baz=334,slow=15,SNR=158						
JOW				Sn	Sg	14 41 19.0	+0.4
	42nm,0.3s,baz=288,slow=29,SNR=16						
JOW	Kunigami	1.10	165	P	Pn	14 41 03.8	-0.1
JOW				*e*S	Sg	14 41 19.2	+0.6
JAMN	Amaminishikomi	1.12	72	P	Pn	14 41 03.7	-0.5
JNTH	Nagotoyohara	1.38	178	P	Pb	14 41 08.0	-0.5
JNTH				S	Sg	14 41 27.2	-0.2
JAGN	Aguni-jima	1.46	206	P	Pn	14 41 08.4	-0.3
JAGN				*e*S	Sn	14 41 26.2	-1.3
JAM	Amami Oshima	1.54	70	P	Pn	14 41 09.9	0.0
JAM				*e*S	Sb	14 41 30.7	+0.2
JTAJ	Takarajima	1.66	41	*e*P	Pn	14 41 10.5	-1.0
JKE	Kume jima 2	1.89	214	*e*P	Pn	14 41 14.5	-0.1
JKDJ	Kitadaitoujima	3.56	122	*e*P	Pn	14 41 37.4	-0.2
JKDJ				*e*S	Sn	14 42 18.1	-1.2
JNU	Nakatsue	5.78	25	Pn	Pb	14 42 16.3	-7.2
	0.7nm,0.3s,baz=199,slow=5.4,SNR=17						
	27nm,0.8s						
JNU				AML	AML		
MJAR	Matsushiro Arr	12.22	43	LR	LR	14 48 35.7	
	comp=Z,42nm,18.8s,baz=214,slow=38						
GUMO	Guam	21.24	129	LR	LR	14 51 55.3	
	comp=Z,34nm,21.1s,baz=328,slow=32						
SONM	Songino Array	26.03	326	P	P	14 46 16.9	+1.3
	0.7nm,0.8s,baz=129,slow=8.8,SNR=3.8						
	0.7nm,0.8s						
MKAR	Makanchi Array	40.26	310	P	P	14 48 19.2	-0.1
	0.4nm,0.7s,baz=101,slow=7.6,SNR=5.4						
	0.4nm,0.7s						
KURBB	Kurchatov Arra	43.49	315	P	P	14 48 45.6	0.0
	0.3nm,0.6s,baz=101,slow=8.4,SNR=4.1						
	0.3nm,0.6s						
WRA	Warramunga Arr	47.96	172	P	P	14 49 22.3	+1.1
	0.6nm,1.0s,baz=354,slow=7.9,SNR=2.5						
	0.6nm,1.0s						
ASAR	Alice Springs	51.59	173	P	P	14 49 48.9	+0.2
	0.4nm,0.9s,baz=360,slow=7.7,SNR=4.1						
	0.4nm,0.9s						

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*WEL **08** 14:57:39.9±1.1, 35°S±5°×17°9E±1°1, h12^{km}, M4.3/24, ML4.0/29, MLv4.3/24, Error ellipse: s-maj=14.1km s-min=6.4km az=78.9, confirmed*

*IDC **08** 14:57:40.0±7.6, 34°.88S×178°.66E, h166^{km}±48^{km}, mb3.6/3, mbtmp4.1/4, Error ellipse: s-maj=82.1km s-min=20.8km az=48.0*

*NEIC **08** 14:57:43.8±1.2, 35°.2S±0°.1×178°.5E±0°.2, h187^{km}±11^{km}, mb4.0/8, Error ellipse: s-maj=19.4km s-min=16.9km az=65.0*

ISC 08 14:57:47.2±1.5, **35°.7S**±0°.1×**178°.7E**±0°.1, **h240**^{km}±7^{km}, **n127**, σ**1^{s}57**/135, **mb4.0**/7, **Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	1.92	190		Pn	14 58 25.3	-2.7
MXZ				Sn	S	14 58 56.9	-3.4
MXZ	Matakaoa Point	1.92	190	P	Pn	14 58 25.7	-2.4
MXZ				S	S	14 58 59.7	-0.6
MXZ				AML	AML		
MXZ				AML	AML		
WMGZ	Waiomatatini S	2.16	186	P	Pn	14 58 29.1	-1.3
WMGZ				S	S	14 59 05.3	+1.0
WMGZ				AML	AML		
WMGZ				AML	AML		
HAZ	Te Kaha	2.22	199	P	Pn	14 58 29.0	-1.9
HAZ				S	S	14 59 07.7	+2.4
HAZ				AML	AML		
HAZ				AML	AML		
WIZ	White Island	2.23	213	P	Pn	14 58 30.3	-0.6
WIZ				AML	AML		
WIZ				AML	AML		
PKGZ	Pakihiroa	2.25	193	P	Pn	14 58 30.1	-1.2
PKGZ				S	S	14 59 07.6	+1.6
PKGZ				AML	AML		
PKGZ				AML	AML		
PUZ	Puketiti	2.43	188	P	Pn	14 58 31.4	-1.6
PUZ				S	S	14 59 09.9	+0.8
PUZ				AML	AML		
PUZ				AML	AML		
RUGZ	Raukumara Rang	2.44	200	P	Pn	14 58 31.7	-1.6
RUGZ				AML	AML		
RUGZ				AML	AML		
MYRZ	Mayor Island	2.56	230	P	Pn	14 58 34.4	+0.1
MYRZ				AML	AML		
MYRZ				AML	AML		
TWGZ	Tauwhareparae	2.58	193	P	Pn	14 58 33.8	-0.8
TWGZ				S	S	14 59 14.4	+2.5
TWGZ				AML	AML		
TWGZ				AML	AML		
WHRZ	Whale Island	2.59	212	P	Pn	14 58 35.5	+0.8
WHRZ				AML	AML		
WHRZ				AML	AML		
MWZ	Matawai	2.83	199	P	Pn	14 58 36.3	-0.9
MWZ				AML	AML		
MWZ				AML	AML		
MARZ	Manawahe	2.83	215	P	Pn	14 58 37.3	0.0
MARZ				AML	AML		
MARZ				AML	AML		
CNGZ	Carnagh Statio	2.84	188	P	Pn	14 58 36.6	-0.7
CNGZ				AML	AML		
CNGZ				AML	AML		
TGRZ	Tauranga	2.85	223	P	Pn	14 58 37.4	0.0
TGRZ				AML	AML		
TGRZ				AML	AML		
TKGZ	Te Karaka	2.85	194	P	Pn	14 58 36.4	-1.0
TKGZ				S	S	14 59 20.3	+3.2
TKGZ				AML	AML		
TKGZ				AML	AML		
URZ	Urewera	2.89	206	P	Pn	14 58 36.1	-1.7
	34nm,0.3s,baz=33,slow=14,SNR=205						
URZ				S	S	14 59 18.7	+1.0
	73nm,0.3s,baz=135,slow=22,SNR=11						
URZ	Urewera	2.89	206	P	Pn	14 58 36.5	-1.3
URZ				S	S	14 59 22.0	+4.2
URZ				AML	AML		
URZ				AML	AML		
EDRZ	Edgecumbe	2.90	212	P	Pn	14 58 38.6	+0.5
EDRZ				AML	AML		
EDRZ				AML	AML		
RAGZ	Rawiri	3.01	200	P	Pn	14 58 39.0	-0.2
RAGZ				AML	AML		
RAGZ				AML	AML		
KARZ	Kaharoa	3.07	219	P	Pn	14 58 41.7	+1.8
KARZ				AML	AML		
KARZ				AML	AML		
WIAZ	Waiheke Island	3.10	248	P	Pn	14 58 39.1	-1.1
WIAZ				AML	AML		
WIAZ				AML	AML		
KMRZ	Kaimai	3.11	225	P	Pn	14 58 40.7	+0.4
KMRZ				AML	AML		
KMRZ				AML	AML		
TARZ	Mount Tarawera	3.12	214	P	Pn	14 58 42.0	+1.6
TARZ				AML	AML		
TARZ				AML	AML		
RIGZ	Rimuhau	3.13	194	P	Pn	14 58 39.4	-1.1
RIGZ				S	S	14 59 25.6	+3.0
RIGZ				AML	AML		
RIGZ				AML	AML		
NGRZ	Ngongotaha	3.16	219	P	Pn	14 58 41.7	+0.8
NGRZ				AML	AML		
NGRZ				AML	AML		
RRRZ	Republican Roa	3.20	213	P	Pn	14 58 41.8	+0.6
RRRZ				AML	AML		
RRRZ				AML	AML		
MKAZ	Moumakai	3.20	242	P	Pn	14 58 40.8	-0.5
MKAZ				AML	AML		
MUGZ	Murupara	3.21	208	P	Pn	14 58 40.5	-0.8
MUGZ				AML	AML		
MUGZ				AML	AML		
RTZ	Ruatahuna	3.25	205		Pn	14 58 40.5	-1.4
RTZ	Ruatahuna	3.25	205	P	Pn	14 58 40.7	-1.2
RTZ				AML	AML		
RTZ				AML	AML		
MBAZ	Motutapu North	3.27	249	P	Pn	14 58 41.2	-0.9
MBAZ				AML	AML		
MBAZ				AML	AML		
HSRZ	Hossack Road	3.30	216	P	Pn	14 58 43.4	+1.0
HSRZ				AML	AML		
HSRZ				AML	AML		
TOZ	Tahuroa Road	3.30	230	P	Pn	14 58 43.3	+0.9
TOZ				AML	AML		
PRGZ	Paritu Road	3.32	191	P	Pn	14 58 41.6	-1.0
PRGZ				AML	AML		
PRGZ				AML	AML		
HRRZ	Handcock Road	3.34	215	P	Pn	14 58 43.9	+1.0
HRRZ				AML	AML		
HRRZ				AML	AML		
PRRZ	Plateau Road	3.38	213	P	Pn	14 58 43.6	+0.3
PRRZ				AML	AML		
PRRZ				AML	AML		
KNZ	Kokohu	3.45	194	P	Pn	14 58 42.8	-1.3
KNZ				AML	AML		
ALRZ	Allen Road	3.46	212	P	Pn	14 58 44.4	+0.3
RAHZ	Arahi	3.50	201	P	Pn	14 58 44.1	-0.5
WPRZ	Whakapapatarin	3.50	215	P	Pn	14 58 45.8	+1.1
MTHZ	Maungataniwha	3.51	205	P	Pn	14 58 44.1	-0.7
MHGZ	Mahia Peninsul	3.54	190	P	Pn	14 58 44.3	-0.9
WCZ	Waipu Caves	3.56	264	P	Pn	14 58 42.2	-3.2
WCZ				AML	AML		
WHHZ	Waihua	3.60	199	P	Pn	14 58 45.2	-0.6
KUTZ	Kaahu Road	3.64	218	P	Pn	14 58 47.6	+1.2
MRHZ	Matea Rd	3.65	209	P	Pn	14 58 45.8	-0.7
TLZ	Tolley Road	3.68	223	P	Pn	14 58 47.7	+0.9
NMHZ	Naumai	3.75	203	P	Pn	14 58 47.3	-0.3
ARHZ	Aropaoanui	3.84	200	P	Pn	14 58 47.9	-0.7
RATZ	Rangitukua	3.96	215	P	Pn	14 58 52.6	+2.4
RITZ	Rihia Road	4.01	214	P	Pn	14 58 51.9	+1.2
MCHZ	McNeill Hill	4.10	202	P	Pn	14 58 51.5	-0.1
KWHZ	Kaweka Forest	4.17	205	P	Pn	14 58 51.9	-0.7
CKHZ	Cape Kidnapper	4.19	197	P	Pn	14 58 52.1	-0.7
HIZ	Hauiti	4.19	226	P	Pn	14 58 55.1	+2.3
NTVZ	North Tongarir	4.19	214	P	Pn	14 58 53.3	+0.4
TMVZ	Te Maari	4.19	214	P	Pn	14 58 52.6	-0.4
OUZ	Omahuta	4.20	275	P	Pn	14 58 50.5	-2.4
OUZ				AML	AML		
KRVZ	Karewarewa	4.21	215	P	Pn	14 58 53.7	+0.7
ETVZ	East Tongariro	4.21	214	P	Pn	14 58 52.7	-0.4
WTVZ	West Tongariro	4.25	215	P	Pn	14 58 54.3	+0.7
OTVZ	Oturere	4.25	214	P	Pn	14 58 53.4	-0.3
SNVZ	South Ngauruho	4.28	214	P	Pn	14 58 53.6	-0.4
TWVZ	Taurewa	4.28	216	P	Pn	14 58 55.8	+1.8
NGZ	Ngauruhoe	4.29	214	P	Pn	14 58 55.0	+0.9
COVZ	Chateau Observ	4.34	215	P	Pn	14 58 55.7	+1.1
TUVZ	Tukino	4.34	213	P	Pn	14 58 55.0	+0.3
BHHZ	Black Hill Sta	4.36	208	P	Pn	14 58 53.8	-1.1
KAHZ	Kahuranaki	4.37	199	P	Pn	14 58 54.1	-0.9
FWVZ	Far West T-bar	4.38	214	P	Pn	14 58 55.7	+0.4
WHVZ	Whangaehu Hut	4.38	214	P	Pn	14 58 55.7	+0.4
MAVZ	Matarangi	4.38	214	P	Pn	14 58 56.2	+0.8
KRHZ	Kereru	4.38	204	P	Pn	14 58 53.6	-1.5
MOVZ	Moawhango	4.41	211	P	Pn	14 58 55.0	-0.5
WNVZ	Wahianoa	4.41	213	P	Pn	14 58 55.0	-0.6
MTVZ	Mangateitei	4.52	214	P	Pn	14 58 57.5	+0.7
PXZ	Pawanui	4.60	198	P	Pn	14 58 56.0	-1.6
PNHZ	Pukenui	4.68	204	P	Pn	14 58 57.0	-1.7
WPHZ	Waipukurau	4.75	202	P	Pn	14 58 59.2	-0.3
PRHZ	Porangahau	4.88	199	P	Pn	14 58 59.8	-1.3
TSZ	Takapari Road	4.90	206	P	Pn	14 59 00.1	-1.2
WAZ	Wanganui	5.04	215	P	Pn	14 59 04.1	+1.0
DVHZ	Dannevirke	5.04	203	P	Pn	14 59 01.7	-1.5
ANWZ	Angora Road	5.10	200	P	Pn	14 59 03.5	-0.4
NEZ	North Egmont	5.14	224	P	Pn	14 59 06.4	+2.0
PRWZ	Pori Road	5.34	203	P	Pn	14 59 06.6	-0.2
BFZ	Birch Farm	5.37	200	Pn	Pn	14 59 06.1	-1.1
BFZ	Birch Farm	5.37	200	P	Pn	14 59 06.2	-1.1
MRZ	Mangatainoka R	5.56	205	P	Pn	14 59 08.0	-1.6
TIWZ	Tintock	5.57	203	P	Pn	14 59 09.5	-0.1
HOWZ	Holdsworth Sta	5.80	205	P	Pn	14 59 10.5	-2.0
OGWZ	Otaki Gorge	5.85	207	P	Pn	14 59 11.4	-1.8
TMWZ	Te Maipa	5.87	201	P	Pn	14 59 12.2	-1.2
MTW	Mount Morrison	6.04	204	P	Pn	14 59 13.6	-1.9
CAW	Cannon Point	6.14	207	P	Pn	14 59 14.7	-2.1
TRWZ	Traveller	6.20	202	P	Pn	14 59 16.0	-1.5
MSWZ	Moikau Station	6.35	204	P	Pn	14 59 17.9	-1.6
WEL	Wellington	6.41	208	P	Pn	14 59 18.9	-1.2
BHW	Baring Head	6.47	207	Pn	Pn	14 59 19.9	-1.2
TCW	Tory Channel	6.54	211	P	Pn	14 59 19.2	-2.6
GLKZ	Green Lake	6.99	25	S	S	15 00 14.6	-34
QRZ	Quartz Range	7.08	221	P	Pn	14 59 27.8	-0.9
BSWZ	Blackbirch Sta	7.12	211	P	Pn	14 59 27.4	-1.9
MRNZ	Matariki Terra	7.38	217	P	Pn	14 59 31.1	-1.4
THZ	Tophouse	7.59	215	P	Pn	14 59 34.1	-1.1
KHZ	Kahutara	7.85	209	P	Pn	14 59 36.3	-2.1
DSZ	Denniston Nort	8.12	220	P	Pn	14 59 40.3	-1.7
GVZ	Greta Valley S	8.51	209	P	Pn	14 59 45.1	-1.8
CTZ	Chatham Island	8.83	157	P	Pn	14 59 55.1	+4.2
MQZ	McQueen’s Vall	9.29	208	P	Pn	14 59 53.6	-3.1
AKCZ	Akaroa Harbour	9.33	207	P	Pn	14 59 56.1	-1.2
RPZ	Rata Peaks	9.97	214	P	Pn	15 00 03.8	-1.5
	1.3nm,0.8s,baz=33,slow=8.6,SNR=2.3						
RPZ				S	S	15 01 53.5	-3.8
	1.7nm,0.5s,baz=133,slow=22,SNR=8.7						
RPZ	Rata Peaks	9.97	214		Pn	15 00 04.2	-1.2
ODZ	Otahua Downs	11.20	211	Pn	Pn	15 00 20.0	-0.9
TOO	Toolangi	26.66	256	P	P	15 03 03.2	-0.8
TOO				IAmb	IAmb	15 03 10.8	
	comp=Z,8.7nm,1.5s						
COEN	Coen	38.51	295	P	P	15 04 42.8	-4.0
AS31	Alice Springs	40.41	275	P	P	15 05 01.4	-0.9
AS31				IAmb	IAmb	15 05 07.2	
	comp=Z,0.8nm,0.5s						
ASAR	Alice Springs	40.41	275	P	P	15 05 01.3	-1.0
	comp=Z,0.7nm,0.3s,baz=116,slow=7.6,SNR=50						
	comp=Z,0.7nm,0.3s						
WRAB	Tennant Creek	41.89	280	P	P	15 05 13.2	-1.1
WRAB				IAmb	IAmb	15 05 31.9	
	comp=Z,8.0nm,1.4s						
WRA	Warramunga Arr	41.89	280	P	P	15 05 12.7	-1.7
	comp=Z,0.4nm,0.4s,baz=120,slow=7.5,SNR=36						
	comp=Z,0.4nm,0.4s						

WRA	Warramunga Arr	41.89	280	P	P	15 05 13.2	-1.2
WB0	Warramunga Arr	41.94	280	P	P	15 05 13.5	-1.3
WB0				IAmb	IAmb	15 05 39.6	
	comp=Z,8.0nm,1.4s						
QSPA	South Pole Qui	54.46	180	P	P	15 06 56.4	+6.7
	comp=Z,4.3nm,0.6s,baz=33,slow=7.2,SNR=48						
	comp=Z,4.3nm,0.6s						
QSPA	South Pole Qui	54.46	180	P	P	15 06 56.1	+6.4
MAW	Mawson	66.41	202	P	P	15 08 14.8	+4.7
TORD	Torodi Ar. Bea	157.42	188	PKPab	PKPab	15 17 49.6	+2.0
	comp=Z,0.4nm,0.6s,baz=174,slow=2.7,SNR=4.5						

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*ISU **08** 15:04:17, 40°.17N×71°.72E, h22^{km}*

*KRNET **08** 15:04:22.1±0.1, 40°.19N×71°.68E, h21^{km}, mb3.5*

*SOME **08** 15:04:23.1, 40°.18N×71°.62E, h15^{km}*

*NNC **08** 15:04:27.6±4.5, 40°.37N×71°.76E, h0^{km}, mb3.7, mpv3.4, Error ellipse: s-maj=34.7km s-min=14.4km az=3.0*

ISC 08 15:04:22.2±1.1, **40°.20N**±0°.03×**71°.70E**±0°.02, **h5**^{km}±9^{km}, **n44**, σ**1^{s}.31**/73, **24C-25D**, **Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FRG	Fergana	0.18	20	S	Sg	15 04 28.0	-0.2
FRG				S		15 04 32.5	
BTK	Batken	0.69	258	⇑iP	Pg	15 04 35.1	-0.4
BTK				⇑iS	Sg	15 04 44.3	-0.2
DRK	Karamyk	0.73	174	⇓iP	Pg	15 04 35.7	-0.4
DRK				⇓iS	Sg	15 04 45.6	0.0
OHH	Osh	0.89	69	⇑iP	Pg	15 04 39.2	0.0
OHH				⇑iS	Sg	15 04 51.6	+0.9
TRKS	Terek-Say	1.39	342	⇑iP	Pn	15 04 46.7	-1.7
TRKS				⇑iS	Sg	15 05 04.4	-2.5
SFK	Sufi-Kurgan	1.40	97	⇓iP	Pn	15 04 48.0	-0.6
SFK				⇓iS	Sg	15 05 06.8	-0.2
ARSB	Arslanbob	1.48	41	⇑iP	Pn	15 04 49.7	0.0
ARSB				⇑iS	Sb	15 05 09.6	+0.1
ARK	Arkit	1.60	7	⇑iP	Pn	15 04 51.6	+0.3
ARK				⇑iS	Sn	15 05 13.1	+0.6
SALK	Salom-Alik	1.75	67	⇓eP	Pn	15 04 53.9	+0.5
SALK				⇓eS	Sb	15 05 17.4	+0.1
CHMG	Chimgan	1.86	317	P	Pb	15 04 56.8	+0.1
CHMG				S	Sg	15 05 22.5	+0.6
CHRV	Charvak	1.95	318	S	Sn	15 05 06.5	-15
PSK	Pskem	1.99	330	P	Pb	15 04 58.6	-0.4
TVKS	Tavaksay	2.07	312	P	Pb	15 05 00.3	0.0
TVKS				S	Sg	15 05 29.1	+0.4
TAS	Tashkent	2.14	302	S	Sn	15 05 19.4	-6.2
NZBK	Nazarbek	2.21	298	S	Sg	15 05 35.0	+1.8
IUG	Iuzhnay	2.31	328	Pg	Pb	15 05 05.4	+0.9
	46nm,0.2s						
IUG				Lg	Lg	15 05 36.0	
	130nm,0.4s						
IUG	Iuzhnay	2.31	328	eP	Pb	15 05 05.3	+0.9
	46nm,0.2s						
IUG				eS	Sg	15 05 36.0	-0.5
	130nm,0.4s						
MNAS	Manas	2.36	15	⇓iP	Pn	15 05 02.2	+0.5
MNAS				⇓iS	Sn	15 05 31.6	+0.4
MRKS	Merke	2.79	24	Pg	Pg	15 05 14.9	-0.6
	6.1nm,0.3s						
MRKS				Lg	Lg	15 05 53.0	
	50nm,0.3s						
MRKS	Merke	2.79	24	eP	Pg	15 05 14.9	-0.6
	6.1nm,0.3s						
MRKS				eS	Sg	15 05 53.0	+1.4
	50nm,0.3s						
EKS2	Erkin-Say	2.91	32	⇑iP	Pn	15 05 10.0	+0.7
EKS2				⇑iS	Sn	15 05 44.7	0.0
UCH	Uchtor	2.93	45	⇑iP	Pn	15 05 10.4	+0.5
UCH				⇑iS	Sn	15 05 45.6	-0.1
KK31	Karatay Array	3.03	343	Pg	Pg	15 05 21.6	+1.4
	5.2nm,0.4s,baz=151,slow=12,SNR=46						
KK31				⇑Lg	Lg	15 06 01.6	
	52nm,0.5s,baz=154,slow=29						
AAK	Ala-Archa	3.21	40	⇓Pg	Pg	15 05 24.2	+0.5
	8.0nm,0.8s						
AAK				⇑Lg	Lg	15 06 06.4	
	5.8nm,0.5s						
AAK	Ala-Archa	3.21	40	⇓iP	Pn	15 05 14.2	+0.7
AAK				⇓iS	Sn	15 05 52.1	-0.1
FRU1	Bishkek	3.41	39	⇓iP	Pn	15 05 17.0	+0.9
FRU1				⇓iS	Sn	15 05 57.0	+0.1
KBK	Karagaybulak	3.46	44	⇑iP	Pn	15 05 17.7	+0.8
KBK				⇑iS	Sn	15 05 58.1	-0.2
NRN	Naryn	3.48	68	⇓iP	Pn	15 05 17.7	+0.3
NRN				⇓iS	Sn	15 05 58.1	-1.1
CHMS	Chumysh	3.61	38	⇑iP	Pn	15 05 19.6	+0.8
CHMS				⇑iS	Sn	15 06 01.3	-0.5
USP	Ospenovka	3.71	33	⇓iP	Pn	15 05 20.9	+0.7
USP				⇓iS	Sn	15 06 03.9	-0.4
AGL	Agalyk	3.77	261	S	Sn	15 06 09.9	+4.0
BOOM	Boomskoye usch	3.92	53	⇑iP	Pn	15 05 24.1	+0.8
BOOM				⇑iS	Sn	15 06 09.3	-0.5
ULHL	Ulahol	3.98	58	⇑iP	Pn	15 05 24.9	+0.8
ULHL				⇑iS	Sn	15 06 10.7	-0.7
TKM2	Tokmak 2	3.99	46	⇓iP	Pn	15 05 25.1	+0.9
TKM2				⇓iS	Sn	15 06 10.9	-0.5
KST	Kastek	4.27	47	Pg	Pg	15 05 42.3	-1.7
	0.9nm,0.2s						
KST				Lg	Lg	15 06 39.6	
	14nm,0.4s						
KST	Kastek	4.27	47	eP	Pg	15 05 42.3	-1.7
	0.9nm,0.2s						
KST				eS	Sg	15 06 39.6	+0.3
	14nm,0.4s						
KDJ	Kajisay	4.56	63	⇓iP	Pn	15 05 33.1	+1.1
KDJ				⇓iS	Sn	15 06 24.7	-0.8
ZRB	Zarabog	4.71	245	S	Sn	15 06 30.3	+1.4
TNSS	Tian-Shan	4.84	53	Pg	Pg	15 05 53.0	-2.0
	0.4nm,0.1s						
TNSS				Lg	Lg	15 06 57.6	
	1.0nm,0.3s						
TNSS	Tian-Shan	4.84	53	eP	Pg	15 05 53.0	-2.0
	0.4nm,0.1s						
TNSS				eS	Sg	15 06 57.6	-0.1
	1.0nm,0.3s						
MDOK	Medeo	4.98	52	Pg	Pg	15 05 56.6	-0.9
	2.3nm,0.3s						
MDOK				Lg	Lg	15 07 04.3	
	7.8nm,0.4s						
MDOK	Medeo	4.98	52	eP	Pg	15 05 56.6	-0.9
	2.3nm,0.3s						
MDOK				eS	Sg	15 07 04.3	+2.3
	7.8nm,0.4s						
ANVS	Anan'yevo	5.17	58	⇓iP	Pn	15 05 41.3	+0.9
ANVS				⇓iS	Sn	15 06 38.9	-1.6
PRZ	Przheval'sk	5.53	64	⇓iP	Pn	15 05 46.4	+1.0
PRZ				⇓iS	Sn	15 06 47.6	-1.9

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*GII **08** 15:05:40.5±0.0, 40°.318N±0°.004×40°.727E±0°.001, h0^{km}, Mws4.4, confirmed*

*ISK **08** 15:06:14.1, 38°.16N×38°.66E, h5^{km}, ML4.3/20*

*AFAD **08** 15:06:15.5, 38°.16N×38°.65E, h7^{km}±2^{km}, MW4.0*

*IDC **08** 15:06:16.1±0.7, 38°.10N×38°.65E, h0^{km}, mb3.9/12, mbtmp3.9/20, ML3.2/7, MS3.5/30, Error ellipse: s-maj=12.2km s-min=8.1km az=115.0*

*NEIC **08** 15:06:17.1±0.8, 38°.16N±0°.04×38°.64E±0°.05, h2^{km}±6^{km}, mb4.2/11, Error ellipse: s-maj=5.9km s-min=5.2km az=116.0*

ISC 08 15:06:17.4±0.5, **38°.16N**±0°.02×**38°.67E**±0°.02, **h10**^{km}, **n140**, σ**1^{s}.32**/131, **mb4.0**/23, **MS3.6**/22, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MAYA	Malatya/Merkez	0.25	311	P	Pg	15 06 20.6	-1.9
MAYA				S	Sg	15 06 24.3	-1.7
MAYA				IAML		15 06 25.0	
	comp=N,6µm,0.7s						
MAYA				IAML		15 06 25.0	
	comp=E,6µm,0.6s						
NARI	Adyaman-Kaht	0.28	165	P	Pg	15 06 21.2	-1.9
NARI				S	Sg	15 06 26.3	-0.7
NARI				IAML		15 06 27.0	
	comp=N,3µm,0.7s						
NARI				IAML		15 06 27.0	
	comp=E,4µm,0.9s						
MDYL	Doganyol-Malat	0.33	62	Pg	Pg	15 06 22.3	-1.7
MDYL				Sg	Sg	15 06 27.9	-0.5
MDYL				AML	AML		
ESGZ	Sivrice-Elazig	0.41	49	Pg	Pg	15 06 23.4	-2.1
ESGZ				AML	AML		
ELZG	Elazig	0.42	36	P	Pg	15 06 23.7	-2.0
ELZG				S	Sg	15 06 30.1	-1.1
ELZG				IAML		15 06 33.0	
	comp=N,2µm,0.8s						
ELZG				IAML		15 06 33.0	
	comp=E,2µm,0.2s						
AZEY	Adyaman-Merk	0.48	224	P	Pg	15 06 25.1	-1.6
AZEY				S	Sg	15 06 32.8	-0.3
AZEY				IAML		15 06 36.0	
	comp=E,2µm,0.8s						
AZEY				IAML		15 06 37.0	
	comp=N,1µm,0.5s						
CNGT	ngs	0.50	84	P	Pg	15 06 24.9	-2.2
CNGT				S	Sg	15 06 33.4	-0.4
CNGT				IAML		15 06 38.0	
	comp=E,8µm,0.7s						
CNGT				IAML		15 06 39.0	
	comp=N,10µm,0.8s						
SVRC	Sivrice-ELAZID	0.55	66	Pg	Pg	15 06 25.9	-2.2
SVRC				Sg	Sg	15 06 34.9	-0.4
SVRC				AML	AML		
ESIJ	Sivrice-Elazig	0.58	60	Pg	Pg	15 06 26.9	-1.8
ESIJ				Sg	Sg	15 06 36.1	-0.3
ESIJ				AML	AML		
AKCD	Akcadag	0.60	283	P	Pg	15 06 27.0	-2.1
AKCD				S	Sg	15 06 36.2	-0.8
AKCD				IAML		15 06 39.0	
	comp=E,2µm,0.5s						
HANM	anlurfa/Hi	0.60	164	P	Pg	15 06 27.3	-1.8
HANM				S	Sg	15 06 35.6	-1.4
HANM				IAML		15 06 37.0	
	comp=N,8µm,1.1s						
HANM				IAML		15 06 53.0	
	comp=E,4µm,1.3s						
ELZ	Elazig	0.68	39	P	Pg	15 06 28.2	-2.3
ELZ				S	Sg	15 06 38.8	-0.7
ELZ				IAML		15 06 41.0	
	comp=N,4µm,0.5s						
ELZ				IAML		15 06 49.0	
	comp=E,5µm,0.7s						
MDNT	Maden	0.83	73	P	Pg	15 06 31.4	-2.0
MDNT				S	Sb	15 06 45.1	-0.2
MDNT				IAML		15 06 46.0	
	comp=N,3µm,0.7s						
MDNT				IAML		15 06 52.0	
	comp=E,4µm,0.7s						
HEKM	Malatya_Hekimh	0.91	322	P	Pg	15 06 32.5	-2.4
HEKM				S	Sg	15 06 45.9	-0.8
ARPR	Arapgir-MALATY	0.97	345	Pg	Pg	15 06 33.7	-2.3
ARPR				AML	AML		
ARPR	Arapgir-MALATY	0.97	345	Pg	Pg	15 06 33.6	-2.4
ARPR				Sg	Sg	15 06 47.6	-1.1
KOVA	Elazig, Kovanc	1.05	58	P	Pg	15 06 35.6	-2.0
KOVA				IAML		15 07 02.0	
	comp=E,2µm,1.1s						
DIYA	Diyarbakir	1.17	101	P	Pb	15 06 38.0	-1.7
DIYA				S	Sn	15 06 55.3	-0.7
DIYA				IAML		15 06 58.0	
	comp=N,4µm,0.6s						
DIYA				IAML		15 06 59.0	
	comp=E,7µm,0.9s						
TNCL	Tunceli-Merkez	1.17	35	P	Pb	15 06 36.8	-3.0
TNCL				S	Sn	15 06 56.2	+0.1
DYBB	Diyarbakir	1.18	100	Pn	Pb	15 06 38.2	-1.7
DYBB				AML	AML		
ILIC	ilic-Erzincan	1.29	357	Pn	Pn	15 06 39.6	-2.0
ILIC				AML	AML		
KHMN	Narli-Kahraman	1.42	238	Pn	Pn	15 06 41.8	-1.5
KHMN				AML	AML		
GAZ	Gaziantep	1.52	230	Pn	Pn	15 06 43.3	-1.4
GAZ				AML	AML		
GAZ	Gaziantep	1.52	230		Pn	15 06 42.9	-1.8
KMRS	Kahramanmaras	1.54	246	Pn	Pn	15 06 43.4	-1.6
KMRS				AML	AML		
ERZN	Erzincan	1.65	30	Pn	Pn	15 06 44.8	-1.7
ERZN				AML	AML		
SARI	SarD1z-Kayseri	1.79	279	Pn	Pn	15 06 48.1	-0.4
SARI				AML	AML		
YEDI	Yedisu-Bingol	1.94	48	Pn	Pn	15 06 50.2	-0.4
YEDI				AML	AML		
SVAN	Silvan-Diyarba	2.00	89	Pn	Pn	15 06 49.9	-1.3
SVAN				AML	AML		
SVSK	Karacayir	2.18	324	Pn	Pn	15 06 53.9	+0.2
SVSK				AML	AML		
KARO	Karliova-Bingo	2.19	58	Pn	Pn	15 06 53.5	-0.5
KARO				AML	AML		
BNN	Bunyan	2.32	288		Pn	15 06 56.0	+0.3
KOPT	Kop Dagi	2.34	37		Pn	15 06 56.7	+0.5
VRTB	Varto-Mus	2.40	65	Pn	Pn	15 06 56.3	-0.6
VRTB				AML	AML		
GURO	Guroymak-BITLI	2.67	81	Pn	Pn	15 07 00.3	-0.3
GURO				AML	AML		
GURO	Guroymak-BITLI	2.67	81		Pn	15 07 00.6	0.0
TOKA	Tokat	2.75	322		Pn	15 07 02.2	+0.7
KTUT	Trabzon	2.95	16	Pn	Pn	15 07 04.6	+0.4
KTUT				AML	AML		
KOPR	Koprukoy-ERZUR	3.08	53	Pn	Pn	15 07 06.3	+0.1
KOPR				AML	AML		
GEVA	Gevas	3.46	86		Pn	15 07 11.4	-0.1
BEIL	Beino	4.13	210	eP	Pn	15 07 19.5	-1.1
BR131	Keskin Array S	4.22	293		Pn	15 07 22.2	+0.4
BRTR	Keskin Array B	4.22	293	Pn	Pn	15 07 22.1	+0.2
	2.4nm,0.3s,baz=138,slow=16,SNR=42						
BRTR				Lg	Lg	15 08 29.5	
	2.0nm,0.3s,baz=120,slow=27,SNR=6.5						
BRTR				LR	LR	15 09 18.9	
	comp=Z,755nm,20.3s,baz=118,slow=43						
	10nm,0.7s						
BRTR				AML	AML		
BRTR	Keskin Array B	4.22	293		Pn	15 07 21.9	0.0
HWQ	Hawqa	4.46	210	eP	Pn	15 07 24.5	-0.6
ILGA	Ilgaz	4.79	309		Pn	15 07 30.3	+0.5
ZAHL	Zahle	4.85	209	eP	Pn	15 07 29.8	-0.8
BHL	Bhannes	4.90	211	eP	Pn	15 07 30.9	-0.3
CY604	RAF Akrotiri,	5.08	223		Pn	15 07 32.2	-1.1
DQRL	Deir Qamar	5.11	210	eP	Pn	15 07 33.6	-0.4
GNI	Garni	5.12	65	LR	LR	15 09 21.6	
	comp=Z,62nm,21.4s,baz=256,slow=36						
RCY	Rachaya	5.19	207	eP	Pn	15 07 34.6	-0.6
QRWL	Qaraoun	5.20	209	eP	Pn	15 07 34.8	-0.5
BZK	Bozkurt	5.21	318		Pn	15 07 35.4	0.0
CSS	Mathiatis	5.35	235		Pn	15 07 36.0	-1.3
CSS	Mathiatis	5.35	235	P	Pn	15 07 37.8	+0.5
SHBL	Chebaa	5.36	207	eP	Pn	15 07 37.0	-0.5
NATI	Neve Ativ	5.44	207	P	Pn	15 07 39.6	+1.1
NATI				S	Sg	15 09 12.4	+0.5
GEM	Giv'at Ha'Em	5.51	207	P	Pn	15 07 40.3	+0.8
GEM				S	Sg	15 09 13.8	-0.5
KSHT	Keshet	5.67	205	P	Pn	15 07 42.4	+0.7
KSHT				S	Sg	15 09 18.5	-0.7
ZRT	Zar'it	5.75	210	P	Pn	15 07 43.7	+0.9
ZRT				S	Sg	15 09 19.9	-2.0
MMA0B	Mount Meron ar	5.78	208	P	Pn	15 07 44.1	+0.8
MMAI	Mount Meron Ar	5.78	208	Pn	Pn	15 07 43.0	-0.2
	3.1nm,0.2s,baz=18,slow=16,SNR=20						
MMAI				Lg	Lg	15 09 19.4	
	7.1nm,0.3s,baz=18,slow=24,SNR=1.8						
MMAI				LR	LR	15 10 14.3	
	comp=Z,616nm,19.1s,baz=3.5,slow=42						
HNTI	Hanita	5.81	210	P	Pn	15 07 44.0	+0.4
KNHM	Kefar Nahum	5.83	206	P	Pn	15 07 45.1	+1.2
ASF	Jabal al Asfar	6.15	194	Pn	Pn	15 07 47.6	-0.7
	0.7nm,0.3s,baz=36,slow=11,SNR=14						
ASF				Lg	Lg	15 09 31.7	
	4.0nm,0.3s,baz=5.8,slow=17,SNR=4.0						
ASF				LR	LR	15 10 26.0	
	comp=Z,486nm,19.9s,baz=26,slow=41						
	10nm,0.8s						
ASF				AML	AML		
MDUB	Mudurnu	6.24	294		Pn	15 07 49.9	+0.4
MMLI	Mount Malkishu	6.29	206	P	Pn	15 07 51.3	+1.0
MMLI				S	Sg	15 09 33.8	-5.6
KBZ	Khabaz	6.42	29	Pn	Pn	15 07 53.0	+1.1
	0.2nm,0.3s,baz=212,slow=9.5,SNR=3.7						
	2.0nm,0.8s						
KBZ				AML	AML		
RGMN	Argaman	6.51	204	P	Pn	15 07 54.6	+1.4
KVAR	Kislovodsk Arr	6.54	26	Pn	Pn	15 07 55.8	+2.1
	baz=153,slow=14						
	2.4nm,0.4s						
ARIL	Ariel Universi	6.67	206	P	Pn	15 07 56.9	+1.4
GHAJ	Ghor Haditha	7.30	201		Pn	15 08 03.4	-0.6
GHAJ	Ghor Haditha	7.30	201	P	Pn	15 08 04.9	+0.8
MSBI	Mazada	7.35	203	P	Pn	15 08 06.3	+1.6
EIL	Elat	9.01	201	Pn	Pn	15 08 27.3	-0.3
	0.3nm,0.3s,baz=22,slow=18,SNR=1.6						
EIL				Lg	Lg	15 10 58.4	
	0.4nm,0.3s,baz=46,slow=9.3,SNR=3.7						
EIL				LR	LR	15 12 17.3	
	comp=Z,597nm,19.6s,baz=78,slow=40						
	3.7nm,0.8s						
EIL				AML	AML		
KARP	Karpathos	9.58	258	Pn	Pn	15 08 35.5	+0.1
MLR	Muntele Rosu	11.98	312	LR	LR	15 14 59.4	
	comp=Z,247nm,20.0s,baz=134,slow=44						
AKASG	Malin Array Be	14.22	335	Pn	Pn	15 09 38.8	+0.1
	0.1nm,0.3s,baz=152,slow=13,SNR=5.2						
	1.6nm,0.7s						
AKASG				AML	AML		
TIP	Timpagrande	17.14	280	Pn	P	15 10 17.2	-1.5
TIP				IAmb	IAmb	15 10 20.8	
	comp=Z,15nm,1.0s						
AKTO	Aktyubinsk	18.44	42	P	Pn	15 10 32.4	-0.5
	comp=Z,0.1nm,0.3s,baz=228,slow=11,SNR=9.1						
AKTO				LR	LR	15 18 54.4	
	comp=Z,77nm,19.3s,baz=19,slow=41						
	comp=Z,5.4nm,1.0s						
AKTO				AML	AML		
ABKAR	Akbulak array	18.89	47		Pn	15 10 38.4	-0.1
RONA	Rosalia, Austr	18.90	307	eP	Pn	15 10 40.1	+1.6
	comp=Z,3.6nm,0.9s						
VAE	Valguarnera	19.17	275	LR	LR	15 19 51.5	
	comp=Z,122nm,18.9s,baz=142,slow=42						
VRAC	Vranov	19.38	312	LR	LR	15 19 57.3	
	comp=Z,113nm,18.0s,baz=112,slow=42						
DPC	Dobruska-Polom	20.02	315	eP	Pn	15 10 51.2	-0.8
MOA	Molln	20.23	306	i P	Pn	15 10 53.8	-0.6
	comp=Z,6.1nm,0.9s						
CHVC	Chvalec	20.29	315	eP	Pn	15 10 54.6	-0.5
CKRC	Cesky Krumlov	20.55	309	eP	Pn	15 10 57.2	-1.0
KBA	Koelnbreinsper	20.58	304	ePn	Pn	15 10 57.2	-1.6
	comp=Z,12nm,1.0s						
STAL	STALIGIAL	20.79	301	P	Pn	15 10 59.3	-1.7
STAL				IAmb	IAmb	15 11 06.4	
	comp=Z,9.1nm,0.9s						
GERES	GERESS Array B	20.93	309	P	P	15 11 00.3	+0.1
	comp=Z,3.2nm,0.7s,baz=113,slow=10,SNR=24						
	comp=Z,3.2nm,0.7s						
KHC	Kasperske Hory	21.11	309	eP	P	15 11 02.7	+0.6
KHC	Kasperske Hory	21.11	309		P	15 11 02.1	0.0
LESA	Schwarzleotal	21.12	304	epP	P	15 11 01.9	-0.3
	comp=Z,6.4nm,1.0s						
CTI	Castel Tesino	21.47	300	P	P	15 11 06.6	+0.7
CTI				IAmb	IAmb	15 11 07.7	
	comp=Z,9.4nm,0.9s						
KIRV	Kirov	21.60	15	P	P	15 11 07.1	0.0
	comp=Z,8.5nm,0.7s,baz=220,slow=13,SNR=5.7						
KIRV				LR	LR	15 19 26.3	
	comp=Z,52nm,19.8s,baz=208,slow=36						
	comp=Z,8.5nm,0.7s						
WTTA	Wattenberg	21.76	303	i pP	P	15 11 08.8	-0.4
	comp=Z,12nm,1.1s						
WATA	Walderalm	21.81	304	eP	P	15 11 10.1	+0.4
	comp=Z,3.1nm,0.7s						
SQTA	Sankt Quirin	22.03	303	i P	P	15 11 13.0	+1.0
	comp=Z,5.2nm,0.8s						
MOTA	Moosalm	22.13	303	epP	P	15 11 14.2	+1.1
	comp=Z,6.0nm,0.8s						
CLL	Collm	22.34	314	i Px	Px	15 11 19.5	
	comp=Z,10.0nm,1.3s						
CLL				AMS	AMS	15 18 00.0	
	comp=Z,100nm,35.4s						
RETA	Reutte	22.39	304	eP	P	15 11 14.4	-1.4
	comp=Z,2.8nm,0.6s						
ARTI	Arti	22.47	29	LR	LR	15 20 52.8	
	comp=Z,55nm,21.3s,baz=221,slow=39						
ARTI	Arti	22.47	29		P	15 11 15.1	-1.4
ARTI				IAmb	IAmb	15 11 18.2	
	comp=Z,25nm,1.5s						
FUORN	Ofenpass-Fuorn	22.52	301	IAmb	IAmb	15 11 25.7	
	comp=Z,9.6nm,1.1s						
DAVOX	Davos/Dischmat	22.82	301	P	P	15 11 20.8	+0.3
	comp=Z,3.8nm,0.8s,baz=114,slow=16,SNR=5.4						
DAVOX				LR	LR	15 20 16.2	
	comp=Z,42nm,19.0s,baz=273,slow=37						
	comp=Z,3.8nm,0.8s						
DAVA	Damuels	22.92	303	i P	P	15 11 18.9	-2.7
	comp=Z,14nm,1.0s						
KEST	Kesra	23.52	273	P	P	15 11 28.9	+1.3
	comp=Z,10nm,0.9s,baz=75,slow=10,SNR=7.7						
	comp=Z,10nm,0.9s						
KEST	Kesra	23.52	273		P	15 11 26.2	-1.5
KK31	Karatay Array	24.58	68	P	P	15 11 37.9	+0.4
KK31				IAmb	IAmb	15 11 52.7	
	comp=Z,3.6nm,0.8s						
KKAR	Karatay Array	24.58	68		P	15 11 38.3	+0.8
FINES	FINESS Array B	24.59	345	P	P	15 11 38.0	+0.7
	comp=Z,2.9nm,0.7s,baz=161,slow=12,SNR=7.7						
	comp=Z,2.9nm,0.7s						
ECH	Echery	24.92	304	IAmb	IAmb	15 11 42.3	
	comp=Z,7.2nm,1.0s						
BVAR	Borovoye Array	26.44	46	P	P	15 11 54.7	+0.5
	comp=Z,1.2nm,1.0s,baz=274,slow=8.8,SNR=5.3						
	comp=Z,1.2nm,1.0s						
HFS	Hagfors	27.08	332	LR	LR	15 23 33.2	
	comp=Z,85nm,19.3s,baz=152,slow=38						
NOA	NORSAR Array B	28.60	332	LR	LR	15 24 56.4	
	comp=Z,52nm,21.9s,baz=150,slow=39						
KURBB	Kurchatov Arra	30.71	53	P	P	15 12 33.4	+1.2
	comp=Z,1.1nm,0.7s,baz=266,slow=9.0,SNR=8.3						
	comp=Z,1.1nm,0.7s						
KURK	Kurchatov	30.78	53	P	P	15 12 33.5	+0.6
ARCES	ARCESS Array B	32.23	351	LR	LR	15 26 42.5	
	comp=Z,41nm,19.1s,baz=170,slow=38						
EKA	Eskdalemuir Ar	32.80	315	P	P	15 12 52.8	+2.2
	comp=Z,1.1nm,0.6s,baz=87,slow=9.2,SNR=2.9						
EKA				LR	LR	15 29 28.0	
	comp=Z,54nm,19.6s,baz=100,slow=42						
	comp=Z,1.1nm,0.6s						
MKAR	Makanchi Array	32.95	61	P	P	15 12 52.9	+0.8
	comp=Z,0.9nm,0.8s,baz=258,slow=6.1,SNR=6.9						
	comp=Z,0.9nm,0.8s						
ESDC	Sonseca Array	32.98	286	P	P	15 12 53.2	+0.8
	comp=Z,2.0nm,0.9s,baz=74,slow=10,SNR=9.7						
ESDC				LR	LR	15 27 06.6	
	comp=Z,28nm,18.1s,baz=131,slow=38						
	comp=Z,2.0nm,0.9s						
ZALV	Zalesovo Beam	35.01	48	P	P	15 13 10.5	+0.7
	comp=Z,0.4nm,0.5s,baz=265,slow=13,SNR=2.1						
ZALV				LR	LR	15 28 59.5	
	comp=Z,51nm,18.6s,baz=256,slow=39						
	comp=Z,0.4nm,0.5s						
TORD	Torodi Ar. Bea	41.19	243	P	P	15 14 03.8	+1.5
	comp=Z,1.3nm,0.9s,baz=42,slow=7.0,SNR=5.8						
	comp=Z,1.3nm,0.9s						
TORD	Torodi Ar. Bea	41.19	243	IAmb	IAmb	15 14 09.6	
	comp=Z,35nm,0.8s						
SONM	Songino Array	49.01	56	LR	LR	15 37 38.2	
	comp=Z,95nm,18.5s,baz=272,slow=38						
PZH	PanZhiHua	53.63	83	P	P	15 15 41.6	+2.4
LSZ	Lusaka	54.06	193	LR	LR	15 39 21.5	
	comp=Z,97nm,20.4s,baz=162,slow=37						
HHC	Hu-ho-hao-te	54.78	63	eP	P	15 15 47.3	-0.1
HHC				pmax	pmax		
	comp=Z,8.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,76nm,4.5s						
TSUM	Tsumeb	60.40	203	LR	LR	15 43 10.9	
	comp=Z,114nm,18.8s,baz=333,slow=37						
LBTB	Lobatse	64.03	193	LR	LR	15 45 26.1	
	comp=Z,75nm,18.7s,baz=60,slow=37						
BOSA	Boshof	67.60	193	LR	LR	15 48 36.2	
	comp=Z,93nm,21.4s,baz=14,slow=38						
KSRS	Korea Array	67.62	59	LR	LR	15 50 11.8	
	comp=Z,38nm,19.5s,baz=215,slow=39						
MA2	Magadan	67.75	31	LR	LR	15 52 11.9	
	comp=Z,46nm,18.4s,baz=35,slow=41						
SUR	Sutherland	72.12	196	LR	LR	15 49 35.7	
	comp=Z,78nm,21.8s,baz=344,slow=36						
MJAR	Matsushiro Arr	74.96	55	LR	LR	15 52 29.8	
	comp=Z,46nm,18.8s,baz=283,slow=37						
SADO	Sadowa	80.22	320	LR	LR	15 56 35.4	
	comp=Z,30nm,18.4s,baz=94,slow=38						
KDAK	Kodiak Island	83.95	6	LR	LR	15 59 48.1	
	comp=Z,36nm,18.3s,baz=69,slow=38						
TKL	Tuckaleechee C	89.27	317	LR	LR	16 00 15.5	
	comp=Z,25nm,18.6s,baz=26,slow=36						

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*JMA **08** 15:37:06.8±0.5, 34°N±2°×13°7E±°, h369^{km}±4^{km}, MV3.2/34,*

SE OFF KII PENINSULA
*IDC **08** 15:37:07.6±0.7, 33°.77N×137°.02E, h365^{km}±10^{km}, mb2.8/3, mbtmp3.7/8, Error ellipse: s-maj=25.4km s-min=13.2km az=58.0*
ISC 08 15:37:07.5±0.9**, 33°.89N**±0°.08×**137°.05E**±0°.06**, h365**^{km}±7^{km}**,**
n28, σ1^{s}.00/35**, mb3.0**/4**, Near south coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TTO2	TONANKAI O.B.S	0.15	188	P	Pn	15 37 53.4	+0.8
TTO3	TONANKAI O.B.S	0.29	95	P	Pn	15 37 53.9	+1.1
TTO1	TONANKAI O.B.S	0.35	220	*e*P	Pn	15 37 53.5	+0.7
TTO4	TONANKAI O.B.S	0.42	73	P	Pn	15 37 53.7	+0.9
JIE	Ise	0.58	330	P	Pn	15 37 54.1	+0.7
JIE				*e*S	S	15 38 30.0	-0.5
TTO5	TONANKAI O.B.S	0.66	56	P	Pn	15 37 54.6	+1.2
JTNC	Tanabenakahech	1.20	267	S	S	15 38 33.0	-1.3
JWY	Kouya	1.26	286	P	Pn	15 37 56.4	+0.5
JWY				S	S	15 38 33.9	-1.0
JYTA	Yamagatataniai	1.72	351	P	Pn	15 37 59.2	+0.9
JYTA				S	S	15 38 39.0	-0.2
JWT	Wachi	1.95	316	P	Pn	15 38 00.3	+0.6
JWT				S	S	15 38 40.7	-1.0
JYN	Shimob	2.02	37	*e*P	Pn	15 38 00.7	+0.4
JAI	Aioi	2.17	268	P	Pn	15 38 01.3	0.0
JOD2	Odawara 2	2.17	50	*e*P	Pn	15 38 02.0	+0.8
JHJ	Hachijo jima 2	2.41	108	P	Pn	15 38 03.5	+0.4
	77nm,0.7s,baz=72,slow=23,SNR=5.4						
JHJ				S	S	15 38 48.7	+0.9
	27nm,0.3s,baz=90,slow=23,SNR=6.9						
JRY	Ryogami san	2.61	35	P	Pn	15 38 05.8	+1.2
JMN	Monobe	2.65	267	P	Pn	15 38 05.2	+0.2
MJAR	Matsushiro Arr	2.81	19	P	Pn	15 38 06.8	+0.5
	17nm,0.5s,baz=187,slow=8.8,SNR=53						
MAT	Matsushiro	2.81	19	P	Pn	15 38 06.8	+0.6
JAG	Ashikaga	3.21	37	*i* P	Pn	15 38 09.1	-0.6
JAG				S	S	15 38 56.8	-3.1
BSO1	Boso 1	3.34	76	*e*P	Pn	15 38 09.3	-1.0
BSO1				*e*S	S	15 38 59.7	-1.4
JHS	Saijyo	3.44	290	P	Pn	15 38 12.5	+0.6
JNU	Nakatsue	5.21	263	P	Pn	15 38 29.9	-0.2
	17nm,0.6s,baz=89,slow=6.7,SNR=22						
KSRS	Korea Array	8.24	298	P	Pn	15 39 05.4	+0.9
	3.7nm,0.7s,baz=108,slow=12,SNR=8.7						
USRK	Ussuriysk Ar.	11.02	341	P	Pn	15 39 38.3	+1.0
	2.7nm,0.5s,baz=156,slow=9.6,SNR=6.0						
KURBB	Kurchatov Arra	45.21	310	P	P	15 44 49.9	+0.5
	0.3nm,0.4s,baz=82,slow=6.8,SNR=5.1						
	0.3nm,0.4s						
WRA	Warramunga Arr	53.59	183	P	P	15 45 51.5	-0.9
	0.4nm,0.3s,baz=0.4,slow=7.6,SNR=15						
	0.4nm,0.3s						
ASAR	Alice Springs	57.31	183	P	P	15 46 17.9	-0.8
	0.4nm,0.9s,baz=4.8,slow=6.3,SNR=7.1						
	0.4nm,0.9s						
FINES	FINESS Array B	69.90	331	P	P	15 47 40.2	+0.7
	5.0nm,1.0s,baz=48,slow=5.4,SNR=7.5						

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*SSNC **08** 15:41:46.0±3.0, 20°.00N×70°.56W, h120^{km}±42^{km}, MD3.6, ML2.9, Presumed earthquake*
*SDD **08** 15:41:47.1±3.8, 20°.15N×70°.73W, h26^{km}±8^{km}, MD3.1, ML3.1, MW3.2, Presumed earthquake*
*OSPL **08** 15:41:49.6±2.0, 20°.22N×70°.73W, h5^{km}±9^{km}, ML3.0, Presumed earthquake*
ISC 08 15:41:46.5±1.2**, 20°.17N**±0°.03×**70°.72W**±0°.03**, h9**^{km}±10^{km}**,**
n28, σ1^{s}.30/51**, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LUDR	Luperon	0.35	218	*i* P	Pn	15 41 57.2	-0.6
LUDR				*i* S	Sb	15 42 02.3	+1.7
SODR	Sosua Marina B	0.44	162	*i* P	Pn	15 41 56.6	-2.4
SODR				*i* S	Sb	15 42 04.0	+0.9
SODR				IAML		15 42 09.3	
	comp=N,913nm,0.2s						
LOPP1	Punta Rusia, P	0.55	235	*i* P	Pn	15 41 59.1	-1.4
LOPP1				*e*S	Sn	15 42 08.8	-1.0
LOPP1				IAML		15 42 10.9	
	comp=Z,306nm,1.4s						
MADR	Mao Valverde	0.70	211	*i* P	Pn	15 42 02.1	-0.5
MADR				*i* S	Sn	15 42 13.2	-0.4
MADR				IAML		15 42 20.0	
	comp=N,788nm,0.9s						
SC01	Santiago de lo	0.74	181	*i* P	Pn	15 42 03.5	+0.3
SC01				*e*S	Sn	15 42 14.1	-0.5
SC01				IAML		15 42 19.1	
	comp=Z,336nm,1.1s						
SC01	Santiago de lo	0.74	181	*i* P	Pn	15 42 03.9	+0.7
SC01				*i* S	Sn	15 42 14.1	-0.5
SC01				IAML		15 42 17.9	
	comp=N,465nm,0.4s						
MCDR	Montecristi	0.92	252	*i* P	Pn	15 42 06.5	+0.9
MCDR				*i* S	Sn	15 42 19.7	+0.7
MCDR				IAML		15 42 41.2	
	comp=N,264nm,0.1s						
SFDR	San Fco. de Ma	0.99	153	*i* P	Pn	15 42 08.8	+2.3
SFDR				*i* S	Sn	15 42 23.0	+2.3
SFDR				IAML		15 42 27.4	
	comp=N,389nm,0.2s						
LODA1	ITESIL, Dajabo	1.12	236	*i* P	Pg	15 42 09.7	+1.7
LODA1				*e*S	Sn	15 42 24.0	+0.2
LODA1				IAML		15 42 28.3	
	comp=Z,2µm,1.8s						
NADR	Nagua	1.15	135	*i* P	Pn	15 42 10.6	+1.9
NADR				*i* S	Sn	15 42 26.5	+1.8
NADR				IAML		15 42 32.0	
	comp=N,571nm,0.5s						
REDR	Restauracion	1.19	212	*i* P	Pg	15 42 11.5	+2.2
REDR				*i* S	Sn	15 42 29.9	+4.4
REDR				IAML		15 42 30.8	
	comp=N,735nm,0.5s						
SDDR	Presa de Saban	1.30	204	*e*P	Pg	15 42 11.3	-0.2
SDDR				*e*S	Sg	15 42 28.6	+0.2
SDDR	Presa de Saban	1.30	204	*i* P	Pg	15 42 11.7	+0.2
SDDR	Presa de Saban	1.30	204	*i* P	Pg	15 42 11.6	+0.1
SDDR				*i* S	Sg	15 42 28.6	+0.2
SDDR				IAML		15 42 32.2	
	comp=N,234nm,0.4s						
ABDR	Alto Bandera	1.36	176	*i* P	Pg	15 42 12.7	0.0
ABDR				*i* S	Sg	15 42 31.1	+0.8
ABDR				IAML		15 42 47.1	
	comp=N,320nm,0.5s						
GRTK	Grand Turk	1.39	344	*e*P	Pg	15 42 13.5	+0.3
GRTK				IAML		15 42 35.8	
	comp=N,227nm,0.1s						
GRTK				IAML		15 42 36.0	
	comp=N,175nm,0.2s						
GRTK	Grand Turk	1.39	344	*i* P	Pg	15 42 13.4	+0.3
GRTK	Grand Turk	1.39	344	*i* P	Pg	15 42 13.8	+0.7
GRTK				*i* S	Sg	15 42 31.0	-0.1
GRTK				IAML		15 42 51.0	
	comp=N,302nm,0.3s						
SMDR	Samana, DR	1.69	121	*i* P	Pg	15 42 18.3	-0.7
SMDR				*i* S	Sg	15 42 41.8	+0.9
SMDR				IAML		15 42 52.0	
	comp=N,102nm,0.7s						
LONE3	El Aguacate, B	1.71	204	*i* P	Pg	15 42 18.4	-0.9
LONE3				*e*S	Sg	15 42 40.9	-0.6
LONE3				IAML		15 42 43.3	
	comp=Z,109nm,0.4s						
BANI	BANI	1.81	169	*i* P	Pg	15 42 20.3	-0.9
BANI				*i* S	Sg	15 42 43.1	-1.5
BANI				IAML		15 42 47.2	
	comp=N,276nm,0.8s						
LODU1	El Espartillar	1.95	202	*i* P	Pg	15 42 22.2	-1.6
LODU1				IAML		15 42 49.6	
	comp=Z,242nm,0.6s						
JIDR	Jimani	1.99	213	*i* P	Pb	15 42 23.0	+0.2
JIDR				*i* S	Sn	15 42 45.5	+0.3
JIDR				IAML		15 42 50.7	
	comp=N,353nm,0.6s						
LOBH	Bahia de las A	2.46	201	*i* P	Pb	15 42 30.4	-0.4
LOBH				IAML		15 43 05.2	
	comp=Z,46nm,1.7s						
HIDR	Higuey Centro	2.46	129	*i* P	Pb	15 42 29.7	-1.2
HIDR				*i* S	Sb	15 42 59.2	-2.1
HIDR				IAML		15 43 04.4	
	comp=N,124nm,0.2s						
MASC	Masc	3.30	271	*e*P	Pn	15 42 38.0	-0.3
MASC				*e*S	Sn	15 43 17.2	-0.4
MASC				IAML		15 43 17.7	
	comp=E,9.6nm,0.2s						
MASC				IAML		15 43 17.9	
	comp=N,4.7nm,0.1s						
QMBU	Quimbuelo	3.84	271	*e*P	Pn	15 42 44.8	-1.0
QMBU				*e*S	Sn	15 43 29.7	-1.5
QMBU				IAML		15 43 31.4	
	comp=E,8.0nm,0.3s						
QMBU				IAML		15 43 31.5	
	comp=N,4.8nm,0.2s						
RCC	Rio Carpintero	4.68	269	*e*P	Pn	15 42 57.5	+0.2
RCC				*e*S	Sn	15 43 51.0	-0.8

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*IDC **08** 15:46:03.9±16.0, 6°.36S×129°.87E, h105^{km}±169^{km}, mb3.7/1, mbtmp3.9/4, ML4.0/3, Error ellipse: s-maj=128.6km s-min=59.2km az=41.0*
*NEIC **08** 15:46:03.9±0.7, 6°.37S±0°.09×129°.88E±0°.09, h113^{km}±8^{km}, mb4.7/5, Error ellipse: s-maj=15.0km s-min=10.5km az=223.0*
*DJA **08** 15:46:07.2±0.3, 6° S±2°×13° 0E±°, h165^{km}±5^{km}, M4.1/13, mB5.5/2, mb4.0/10, MLv4.1/13, Mw(mB)4.9/2*
ISC 08 15:46:05.2±0.7**, 6°.38S**±0°.05×**130°.20E**±0°.07**, h146**^{km}**, n41,**
σ2^{s}.92/46**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BNDI	Bandanaira	1.86	351	P	Pn	15 46 40.5	+2.0
BNDI	Bandanaira	1.86	351	P	Pn	15 46 39.5	+1.0
BNDI				S	Sn	15 47 07.0	+2.9
BNDI				AML	AML		
SAUI	Saumlaki	1.93	146	Pn	Pn	15 46 38.8	-0.5
SAUI				Sn	Sn	15 47 04.7	-0.8
SAUI	Saumlaki	1.93	146	P	Pn	15 46 42.8	+3.5
SAUI				S	Sn	15 47 12.0	+6.5
SAUI				AML	AML		
FAKI	Fak Fak	3.99	31	P	Pn	15 47 04.7	-0.6
FAKI	Fak Fak	3.99	31	S	Sn	15 47 48.0	-4.0
FAKI	Fak Fak	3.99	31	Pn	Pn	15 47 05.0	-0.3
FAKI	Fak Fak	3.99	31	P	Pn	15 47 04.8	-0.6
FAKI				AML	AML		
NLAI	Namlea	4.39	315	P	Pn	15 47 12.9	+2.4
NLAI				AML	AML		
SWI	Sorong	5.58	11	P	Pn	15 47 25.8	-0.5
SANI	Sanana	6.01	315	P	Pn	15 47 35.7	+3.6
SANI	Sanana	6.01	315	P	Pn	15 47 35.1	+3.0
	0.1nm7.6nm,0.7s						
SANI				AML	AML		
DRS	Darwin Rock St	6.06	174	P	Pn	15 47 35.5	+2.9
DRS	Darwin Rock St	6.06	174	S	Sn	15 48 44.7	+3.7
MTN	Manton Dam	6.49	172		Pn	15 47 40.6	+2.1
MWPI	Manokwari, Pap	6.63	35	P	Pn	15 47 42.4	+2.1
	57nm,0.6s						
BAKI	Biak	7.82	49	P	Pn	15 47 57.2	+0.9
	47nm,1.4s						
MMRI	Maumere	8.21	254	P	Pn	15 48 04.7	+3.2
	40nm,1.4s						
EDFI	Ende, Flores	8.76	254	P	Pn	15 48 11.0	+2.0
KNRA	Kununurra	9.35	189		Pn	15 48 17.7	+1.1
MNI	Manado	9.44	325	P	Pn	15 48 18.4	+0.6
	30nm,0.6s						
FITZ	Fitzroy Crossi	12.47	201	P	Pn	15 48 57.7	-0.1
	0.7nm,0.3s,baz=30,slow=13,SNR=20						
FITZ				S	Sn	15 51 03.9	-12
	0.9nm,0.5s,baz=240,slow=7.8,SNR=1.5						
	1.6nm,0.3s						
FITZ				AML	AML		
FITZ	Fitzroy Crossi	12.47	201		Pn	15 48 55.8	-2.0
WB0	Warramunga Arr	13.92	163	Pn	Pn	15 49 16.1	-0.2
WRA	Warramunga Arr	14.07	164	P	Pn	15 49 18.5	+0.3
	0.7nm,0.3s,baz=343,slow=13,SNR=31						
WRA				S	Sn	15 51 46.9	-7.3
	1.2nm,0.4s,baz=347,slow=25,SNR=7.3						
	0.7nm,0.3s						
WRA				AML	AML		
WRA	Warramunga Arr	14.07	164	Pn	Pn	15 49 16.5	-1.8
WR8	Warramunga Arr	14.13	163	Pn	Pn	15 49 19.3	+0.3
JAGI	Jajag, Banyuwa	16.05	262	Pn	Pn	15 49 38.7	-4.2
PMG	Port Moresby	17.06	101	P	Pn	15 49 58.4	+3.2
PMG				IAmb	IAmb	15 50 31.9	
	comp=Z,60nm,1.5s						
AS31	Alice Springs	17.55	169		Pn	15 50 01.6	+0.5
ASAR	Alice Springs	17.56	169	P	Pn	15 50 02.9	+1.8
	comp=Z,0.3nm,0.3s,baz=344,slow=10,SNR=30						
ASAR				S	S	15 53 07.9	-7.4
	comp=Z,0.6nm,0.6s,baz=348,slow=24,SNR=4.8						
	comp=Z,1.6nm,0.6s						
ASAR				AML	AML		
ASAR	Alice Springs	17.56	169	P	Pn	15 50 01.6	+0.5
AS01	Alice Springs	17.56	169	P	Pn	15 50 03.4	+2.3
UGM	Wanagama	19.59	264	P	P	15 50 19.2	-3.0
QLP	Quilpie	24.14	148	P	P	15 51 10.8	+3.1
ARMA	Armidale	31.26	143	P	P	15 52 14.3	+2.9
ARMA				IAmb	IAmb	15 52 17.8	
	comp=Z,20nm,1.4s						
MKAR	Makanchi Array	67.82	327	P	P	15 56 49.5	+2.0
	comp=Z,0.7nm,0.4s,baz=114,slow=8.2,SNR=12						
	comp=Z,0.7nm,0.4s						
MKAR	Makanchi Array	67.82	327	P	P	15 56 48.6	+1.0
VNA2	Neumayer--Watz	97.88	193	P	PKiKP	16 03 58.2	+1.6
	comp=Z,0.2nm,0.2s,baz=313,slow=12						
VNA3	Neumayer Olymp	98.13	192	P	PKiKP	16 03 54.7	-2.4
	comp=Z,0.6nm,0.2s						
VNA1	Neumayer--Stat	98.28	193	P	PKiKP	16 03 53.6	-3.7
	comp=Z,1.3nm,0.3s						

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*NEIC **08** 15:57:47.3±0.9, 18°.75N±0°.09×64°.63W±0°.06, h35^{km}±2^{km}, ML3.4/30, Md3.7/9(RSPR), Error ellipse: s-maj=15.2km s-min=9.5km az=169.0*
*RSPR **08** 15:57:48.9, 18°.81N×64°.71W, h38^{km}±19^{km}, MD3.7/9*
ISC 08 15:57:46.3±1.7**, 18°.8N**±0°.1×**64°.61W**±0°.04**, h42**^{km}**, n46,**
σ0^{s}.84/49**, 7C-6D, Virgin Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HUMP	Col San Antoni	1.36	240		Pn	15 58 08.7	-0.1
HUMP	Col San Antoni	1.36	240		Sn	15 58 24.4	-1.2
HUMP	Col San Antoni	1.36	240	IAML		15 58 31.2	
	313nm,0.2s						
HUMP				IAML		15 58 34.8	
	308nm,0.2s						
HUMP	Col San Antoni	1.36	240	⇓*e*P	Pn	15 58 08.9	+0.1
PDPR	Patillas Dam,	1.56	239		Pn	15 58 11.7	+0.1
PDPR	Patillas Dam,	1.56	239		Sn	15 58 30.3	-0.3
PDPR	Patillas Dam,	1.56	239	IAML		15 58 35.9	
	175nm,0.1s						
PDPR				IAML		15 58 36.6	
	200nm,0.3s						
PDPR	Patillas Dam,	1.56	239	⇑*e*P	Pn	15 58 11.8	+0.2
IGPR	InterUniversit	1.66	239		Pn	15 58 13.1	+0.2
IGPR					Sn	15 58 30.6	-2.5
IGPR	InterUniversit	1.66	239	⇓*e*P	Pn	15 58 13.1	+0.2
ECPR	Experimental S	1.74	253		Pn	15 58 14.1	+0.1
ECPR	Experimental S	1.74	253		Sn	15 58 34.6	-0.4
ECPR	Experimental S	1.74	253	IAML		15 58 38.0	
	562nm,0.2s						
ECPR				IAML		15 58 43.9	
	460nm,0.2s						
ECPR	Experimental S	1.74	253	⇓*e*P	Pn	15 58 14.0	0.0
EMPR	Esperanza - Ma	1.85	259		Pn	15 58 16.1	+0.6
EMPR					Sn	15 58 38.4	+0.7
EMPR	Esperanza - Ma	1.85	259	⇓*e*P	Pn	15 58 16.1	+0.6
EMPR				*e*S	Sn	15 58 38.4	+0.7
CELP	Cerrillos	2.01	248		Pn	15 58 18.2	+0.4
CELP	Cerrillos	2.01	248		Sn	15 58 41.1	-0.6
CELP	Cerrillos	2.01	248	IAML		15 58 44.0	
	351nm,0.5s						
CELP				IAML		15 58 44.9	
	237nm,0.4s						
CELP	Cerrillos	2.01	248	⇑*e*P	Pn	15 58 18.3	+0.5
AOPR	Arecibo Observ	2.09	257		Pn	15 58 19.1	+0.3
AOPR	Arecibo Observ	2.09	257		Sn	15 58 43.3	-0.3
AOPR	Arecibo Observ	2.09	257	IAML		15 58 46.6	
	352nm,0.4s						
AOPR				IAML		15 58 49.1	
	694nm,0.4s						
AOPR	Arecibo Observ	2.09	257	⇓*e*P	Pn	15 58 19.1	+0.3
GBPR	Guanica, Bosqu	2.31	249		Pn	15 58 23.1	+1.1
GBPR					Sn	15 58 50.3	+1.2
GBPR	Guanica, Bosqu	2.31	249	⇑*e*P	Pn	15 58 23.1	+1.1
GBPR				*e*S	Sn	15 58 50.3	+1.2
SKI	Saint Kitts	2.33	130	*e*P	Pn	15 58 23.9	+1.8
SKI				*e*S	Sn	15 58 49.2	-0.3
AGPR	Aguadilla, PR	2.40	262		Pn	15 58 23.3	+0.3
AGPR	Aguadilla, PR	2.40	262		Sn	15 58 49.9	-1.3
AGPR	Aguadilla, PR	2.40	262	IAML		15 58 53.6	
	195nm,0.6s						
AGPR				IAML		15 59 01.7	
	126nm,0.4s						
AGPR	Aguadilla, PR	2.40	262	⇑*e*P	Pn	15 58 23.2	+0.1
LSP	Las Mesas	2.44	255		Pn	15 58 24.2	+0.6
LSP					Sn	15 58 52.1	-0.1
LSP	Las Mesas	2.44	255	⇑*e*P	Pn	15 58 24.2	+0.6
LSP				*e*S	Sn	15 58 52.1	-0.1
MLPR	Magueyes Islan	2.46	250		Pn	15 58 24.7	+0.8
MLPR	Magueyes Islan	2.46	250		Sn	15 58 51.7	-1.1
MLPR	Magueyes Islan	2.46	250	IAML		15 59 00.3	
	61nm,0.7s						
MLPR				IAML		15 59 02.5	
	68nm,0.9s						
MLPR	Magueyes Islan	2.46	250	⇑*e*P	Pn	15 58 24.9	+0.9
PRSN	Puerto Rico Se	2.48	256		Pn	15 58 24.9	+0.7
CRPR	Cabo Rojo, PR	2.51	251		Pn	15 58 25.2	+0.7
CRPR	Cabo Rojo, PR	2.51	251		Sn	15 58 52.8	-1.1
CRPR	Cabo Rojo, PR	2.51	251	IAML		15 58 57.8	
	100nm,0.7s						
CRPR				IAML		15 58 58.3	
	79nm,0.6s						
CRPR	Cabo Rojo, PR	2.51	251	⇓*e*P	Pn	15 58 25.5	+0.9
IDE	Isla Desecheo	2.75	261		Pn	15 58 28.2	+0.3
IDE					Sn	15 58 59.4	-0.5
IDE	Isla Desecheo	2.75	261	⇑*e*P	Pn	15 58 28.2	+0.3
IDE				*e*S	Sn	15 58 59.4	-0.5
ANWB	Willy Bob	2.93	113	*e*P	Pn	15 58 28.4	-1.9
ANWB				*e*S	Sn	15 59 05.1	+0.8
ABD	La Joyeuse, An	3.79	128	Pn	Pn	15 58 42.4	+0.2

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*SDD **08** 15:58:15.7±3.1, 20°.15N×70°.70W, h21^{km}±14^{km}, MD3.3, ML3.3, MW3.6, Presumed earthquake*
*OSPL **08** 15:58:18.6±2.4, 20°.16N×70°.69W, h0^{km}±11^{km}, ML3.1, Presumed earthquake*
*SSNC **08** 15:58:19.7±1.0, 20°.14N×70°.98W, h5^{km}±8^{km}, MD3.6, ML3.1, Presumed earthquake*
ISC 08 15:58:16.2±1.1**, 20°.18N**±0°.04×**70°.66W**±0°.04**, h18**^{km}±11^{km}**,**
n30, σ0^{s}.84/40**, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LUDR	Luperon	0.40	224	*i* P	Pb	15 58 24.3	-0.5
LUDR				*i* S	Sb	15 58 32.1	+1.5
SODR	Sosua Marina B	0.43	170	*i* P	Pn	15 58 26.9	-0.6
SODR				*i* S	Sn	15 58 33.2	-1.7
SODR				IAML		15 58 38.1	
	comp=N,3µm,0.8s						
LOPP1	Punta Rusia, P	0.61	238	*i* P	Pb	15 58 28.4	+0.2
LOPP1				*e*S	Sb	15 58 37.6	+1.1
LOPP1				IAML		15 58 38.7	
	comp=Z,503nm,0.7s						
SC01	Santiago de lo	0.75	185	*i* P	Pn	15 58 32.4	+0.4
SC01				IAML		15 58 48.5	
	comp=Z,516nm,0.9s						
SC01	Santiago de lo	0.75	185	*i* P	Pn	15 58 32.0	0.0
SC01				IAML		15 58 45.6	
	comp=N,1µm,0.6s						
SFDR	San Fco. de Ma	0.97	156	*i* P	Pn	15 58 36.8	+1.8
SFDR				IAML		15 58 56.3	
	comp=N,658nm,0.5s						
MCDR	Montecristi	0.98	253	*i* P	Pn	15 58 36.8	+1.7
MCDR				*i* S	Sg	15 58 47.8	-0.5
MCDR				IAML		15 58 58.0	
	comp=N,350nm,0.6s						
LODA1	ITESIL, Dajabo	1.17	237	*e*S	Sn	15 58 53.3	0.0
LODA1				IAML		15 58 54.5	
	comp=Z,496nm,2.2s						
REDR	Restauracion	1.23	215	*i* P	Pg	15 58 40.2	+0.2
REDR				IAML		15 59 00.3	
	comp=N,804nm,0.2s						
SDDR	Presa de Saban	1.33	207	*e*P	Pb	15 58 40.4	-0.4
SDDR				*e*S	Sn	15 58 56.4	-1.0
SDDR				IAML		15 59 00.2	
	comp=N,191nm,0.3s						
SDDR				IAML		15 59 00.3	
	comp=N,250nm,0.4s						
SDDR	Presa de Saban	1.33	207	*i* P	Pb	15 58 40.4	-0.4
SDDR				*e*S	Sb	15 58 58.0	+0.5
SDDR	Presa de Saban	1.33	207	*i* P	Pb	15 58 40.3	-0.4
SDDR				IAML		15 58 58.5	
	comp=N,353nm,0.5s						
ABDR	Alto Bandera	1.36	179	*i* P	Pb	15 58 41.5	+0.1
ABDR				IAML		15 59 00.9	
	comp=N,647nm,0.4s						
GRTK	Grand Turk	1.40	341	*e*P	Pg	15 58 42.6	-0.6
GRTK				*e*S	Sg	15 59 01.1	-0.3
GRTK				IAML		15 59 04.7	
	comp=N,591nm,0.4s						
GRTK				IAML		15 59 04.8	
	comp=N,403nm,0.3s						
GRTK	Grand Turk	1.40	341	*i* P	Pg	15 58 42.7	-0.5
GRTK				*e*S	Sg	15 59 02.2	+0.8
GRTK	Grand Turk	1.40	341	*i* P	Pg	15 58 42.9	-0.2
GRTK				*i* S	Sg	15 59 02.6	+1.1
GRTK				IAML		15 59 04.8	
	comp=N,576nm,0.4s						
SMDR	Samana, DR	1.64	122	*i* P	Pg	15 58 47.1	-0.7
SMDR				IAML		15 59 14.8	
	comp=N,180nm,0.8s						
LONE3	El Aguacate, B	1.74	206	*i* P	Pb	15 58 47.3	-0.4
LONE3				*e*S	Sb	15 59 10.3	+1.0
LONE3				IAML		15 59 12.7	
	comp=Z,150nm,0.5s						
BANI	BANI	1.80	171	*i* P	Pb	15 58 49.4	+0.6
BANI				IAML		15 59 19.2	
	comp=N,512nm,0.5s						
NEDR	Neiba UASD	1.84	203	*i* P	Pn	15 58 47.5	+0.7
NEDR				IAML		15 59 15.9	
	comp=N,152nm,0.8s						
SDD	Santo Domingo	1.85	158	*i* P	Pb	15 58 49.6	+0.1
SDD				IAML		15 59 18.3	
	comp=Z,399nm,0.9s						
SDD	Santo Domingo	1.85	158	*i* P	Pb	15 58 49.6	+0.1
SDD				IAML		15 59 19.2	
	comp=N,175nm,0.5s						
LODU1	El Espartillar	1.98	203	*i* P	Pb	15 58 51.8	+0.1
LODU1				IAML		15 59 18.9	
	comp=Z,411nm,0.5s						
JIDR	Jimani	2.03	214	*i* P	Pb	15 58 52.0	-0.5
JIDR				IAML		15 59 29.1	
	comp=N,321nm,0.7s						
PODR	Polo	2.09	197	*i* P	Pb	15 58 53.4	-0.3
PODR				IAML		15 59 24.3	
	comp=N,647nm,0.7s						
LOVI	El Cajuil, Ovi	2.46	196	*i* P	Pb	15 58 58.6	-1.4
LOVI				IAML		15 59 34.5	
	comp=Z,120nm,1.0s						
LOBH	Bahia de las A	2.49	202	*i* P	Pb	15 58 59.4	-0.9
LOBH				IAML		15 59 34.3	
	comp=Z,85nm,1.5s						
MASC	Masc	3.36	270	*e*P	Pn	15 59 07.1	-0.7
QMBU	Quimbuelo	3.91	271	*e*P	Pn	15 59 14.3	-1.0
QMBU	Quimbuelo	3.91	271	*i* P	Pn	15 59 15.4	0.0
QMBU				IAML		16 00 22.3	
	comp=N,18nm,0.5s						

VIE 08 16:01:29.8±0.4**, 47°.39N**×**12°.13E, h12**^{km}±3^{km}**, mb0.9**/1**,**
ml1.2/4**, Error ellipse: s-maj=2.1km s-min=1.0km az=3.0**
12 km SSE of Woergl, Austria

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WTTA	Wattenberg	0.36	250	*i* Pg	Pg	16 01 37.3	+0.2
	1.4nm,0.2s						
LESA	Schwarzleotal	0.37	84	*e*Pg	Pg	16 01 37.5	+0.2
	0.3nm,0.1s						
WATA	Walderalm	0.38	262	*i* Pg	Pg	16 01 37.6	+0.1
	1.1nm,0.1s						
WATA				*i* Sg	Sg	16 01 43.4	+0.7
	2.0nm,0.1s						
ABTA	Abfaltersbach	0.69	158	*i* Pg	Pb	16 01 43.7	-0.1
	0.4nm,0.1s						
ABTA				*i* Sg	Sb	16 01 53.0	-0.4
	2.1nm,0.2s						

VIE 08 16:01:34.6±0.3**, 47°.38N**×**12°.14E, h12**^{km}±3^{km}**, mb0.9**/2**,**

ml1.3/4, Error ellipse: s-maj=1.7km s-min=0.8km az=4.0 13 km SSE of Woergl, Austria

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WTTA	Wattenberg	0.36	251	*i* Pg	Pg	16 01 41.9	0.0
	1.2nm,0.1s						
WTTA				*i* Sg	Sg	16 01 47.1	+0.4
	4.2nm,0.2s						
WTTA	Wattenberg	0.36	251	*e*Sg	Sg	16 01 42.3	-4.4
	2.7nm,0.2s						
LESA	Schwarzleotal	0.37	83	*i* Pg	Pg	16 01 42.2	+0.2
	0.7nm,0.1s						
LESA				*i* Sg	Sg	16 01 47.0	0.0
	1.2nm,0.2s						
LESA	Schwarzleotal	0.37	83	*i* Sg	Sg	16 01 42.2	-4.8
	0.7nm,0.1s						
WATA	Walderalm	0.38	264	*i* Pg	Pg	16 01 42.2	-0.1
	1.9nm,0.1s						
WATA				*i* Sg	Sg	16 01 47.9	+0.5
	3.2nm,0.1s						
ABTA	Abfaltersbach	0.68	158	*i* Pg	Pb	16 01 48.3	-0.2
	0.5nm,0.1s						
ABTA				*i* Sg	Sb	16 01 57.5	-0.5
	2.8nm,0.2s						

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*SNET **08** 16:06:51.5±0.6, 13°.89N×86°.67W, h5^{km}, ML3.4, Presumed earthquake*
*CATAC **08** 16:06:51.7±0.2, 14°N±2°×8°7W±°, h2^{km}±1^{km}, M3.5/28, MLv3.5/28, Error ellipse: s-maj=3.8km s-min=2.2km az=15.2, confirmed*
ISC 08 16:06:51.3±1.2, **13°.92N**±0°.04×**86°.68W**±0°.02, **h3**^{km}±10^{km}, **n38,** σ**0^s.71**/63, **6C-8D, Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OCON	Estacion meteo	0.35	145	⇑P	Pg	16 06 58.5	+0.5
OCON				S	Sg	16 07 03.6	+1.1
RCVN	Varillal2	0.58	125	⇓P	Pg	16 07 02.5	0.0
RCVN				S	Sg	16 07 10.3	+0.3
TGUH	Tegucigalpa,Un	0.59	284	⇑P	Pg	16 07 02.4	-0.3
TGUH				S	Sg	16 07 10.4	-0.1
RCFN	Al S de San Ju	0.59	130	⇑P	Pg	16 07 02.8	0.0
RCFN				S	Sg	16 07 10.9	+0.4
RCPN	Sur Rio San Ju	0.69	124	⇑P	Pg	16 07 04.4	-0.2
RCPN				S	Sg	16 07 13.8	+0.3
LIMN	Finca el Limon	0.90	160	⇓P	Pg	16 07 08.8	+0.1
LIMN				S	Sb	16 07 21.7	-0.5
AESN	El Sauce Leon	1.03	172	P	Pb	16 07 12.0	+0.2
AESN				S	Sb	16 07 25.7	-0.2
MATN	Matagalpa	1.23	143	⇑P	Pg	16 07 14.0	-0.9
MATN				S	Sb	16 07 31.3	-0.2
CRIN	San Cristobal	1.26	197	P	Pg	16 07 15.6	0.0
CRIN				S	Sn	16 07 33.8	+0.3
CSGN	Cosiguina Volc	1.27	223	P	Pg	16 07 15.0	-0.7
CSGN				S	Sg	16 07 32.8	+0.7
CNCH	Conchagua	1.29	241	*e*P	Pg	16 07 15.6	-0.5
CNCH	Conchagua	1.29	241	⇓P	Pg	16 07 15.3	-0.8
CNCH				S	Sg	16 07 33.4	+0.6
LCND	La Caada	1.32	243	*e*P	Pn	16 07 15.4	-1.4
LCND	La Caada	1.32	243	⇓P	Pn	16 07 15.7	-1.0
PLRN	Geotermica Pol	1.33	184	P	Pn	16 07 15.8	-1.1
PLRN				S	Sb	16 07 34.6	+0.3
ILCN	San Idelfonso	1.33	181	P	Pn	16 07 15.9	-1.0
ILCN				S	Sg	16 07 34.4	+0.2
CNGN	Cerro Negro	1.41	181	⇓P	Pn	16 07 17.8	-0.2
CNGN				S	Sn	16 07 37.0	-0.1
MOM2	El Cardon	1.48	173	P	Pn	16 07 18.4	-0.5
MOM2				S	Sg	16 07 39.6	+0.6
RANC	El Ranchito	1.63	253	P	Pn	16 07 21.0	-0.2
RANC				S	Sb	16 07 43.9	+0.5
PACA	Pacayal	1.66	255	*e*P	Pn	16 07 21.1	-0.4
PACA				*e*S	Sn	16 07 44.0	+0.6
PACA	Pacayal	1.66	255	⇓P	Pn	16 07 21.3	-0.2
PACA				S	Sn	16 07 43.8	+0.4
APYN	Apoyeque	1.70	169	P	Pb	16 07 23.4	+0.1
APQ2	Apoyeque	1.74	168	P	Pn	16 07 22.9	+0.4
BOAB	BOACO BROADBAN	1.76	146	P	Pn	16 07 22.0	-0.8
BOAB				S	Sg	16 07 47.4	-0.6
ALLN	Telcor Managua	1.79	167	P	Pg	16 07 25.6	-0.2
TISN	Laguna Tiscapa	1.81	167	⇓P	Pn	16 07 23.5	+0.1
WILN	Americas 2	1.81	165	S	Sg	16 07 49.6	0.0
TECA	Tecapa	1.82	257	*e*P	Pn	16 07 23.6	-0.1
SIUN	Universidad Ur	1.86	96	P	Pn	16 07 24.0	-0.2
SIUN				S	Sn	16 07 48.7	+0.4
SCLA	Alcaldia de Sa	2.00	264	P	Pn	16 07 27.7	+1.5
P5NO	Presa 5 de nov	2.02	272	P	Pn	16 07 24.3	-2.0
P5NO				S	Sb	16 07 54.0	-0.3
NANN	Nandasmo	2.04	164	P	Pn	16 07 26.7	+0.1
NANN				S	Sg	16 07 57.1	+0.2
SARH	Santa Rosa de	2.19	293	⇑P	Pn	16 07 28.0	-0.7
SARH				S	Sb	16 07 59.1	-0.1
PAVA	Las Pavas	2.20	265	P	Pn	16 07 30.5	+1.5
PAVA				S	Sb	16 08 00.4	+0.7
LLGN	La Laguna	2.21	277	P	Pn	16 07 29.9	+0.9
LLGN				S	Sb	16 08 00.6	+0.7
IGN	Direccin Gen	2.43	266	⇓P	Pn	16 07 33.3	+1.3
LOMA	Loma Larga	2.43	264	P	Pb	16 07 34.9	-1.0
NUBE	Las Nubes	3.01	270	P	Pn	16 07 41.7	+1.6

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*THE **08** 16:14:37.4, 35°N±3°×2°5E±°, h23^{km}±3^{km}, M2.6/7, MLh2.6/7*
*ISK **08** 16:14:37.2, 34°.81N×24°.85E, h7^{km}, ML2.6/5*
*ATH **08** 16:14:37.0, 34°.80N×24°.84E, h23^{km}±1^{km}, ML2.7/7, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*
ISC 08 16:14:38.0±1.3, **34°.84N**±0°.06×**24°.82E**±0°.03, **h23**^{km}±7^{km}, **n22,** σ**0^s.73**/34, **Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SIVA	Sivas	0.18	357	P	Pb	16 14 42.8	-0.4
SIVA				S	Sb	16 14 47.3	+0.6
SIVA				AML	AML		
SIVA	Sivas	0.18	357	P	Pb	16 14 42.7	-0.4
SIVA				S	Sb	16 14 46.8	+0.1
SIVA				AML	AML		
IDI	Anoyia	0.46	7	P	Pb	16 14 46.6	-0.8
IDI				S	Sb	16 14 55.1	+1.2
IDI				AML	AML		
IDI	Anoyia	0.46	7	Pg	Pb	16 14 46.7	-0.8
IDI				Sg	Sb	16 14 54.3	+0.4
IDI				AML	AML		
IDI	Anoyia	0.46	7	P	Pb	16 14 46.6	-0.8
IDI				S	Sb	16 14 54.1	+0.2
IDI				AML	AML		
IACM	Heraklion	0.51	23	P	Pb	16 14 48.1	-0.3
IACM				S	Sb	16 14 55.8	+0.4
IACM				AML	AML		
IACM	Heraklion	0.51	23	P	Pb	16 14 48.0	-0.3
IACM				S	Sb	16 14 55.3	-0.1
IACM				AML	AML		
RTHF	Rethymno-Limin	0.60	332	P	Pb	16 14 49.7	-0.1
GVD	Gavdhos	0.60	271	P	Pb	16 14 49.3	-0.7
GVD				S	Sb	16 14 58.5	+0.4
GVD				AML	AML		
GVD	Gavdhos	0.60	271	Pg	Pb	16 14 49.7	-0.2
GVD				AML	AML		
GVD	Gavdhos	0.60	271	P	Pb	16 14 49.2	-0.7
GVD				AML	AML		
GVDS	Gavdos	0.63	270	P	Pb	16 14 49.5	-0.8
GVDS				S	Sb	16 14 59.1	+0.3
GVDS				AML	AML		
GVDS	Gavdos	0.63	270	P	Pb	16 14 49.7	-0.7
NPS	Neapolis	0.78	57	P	Pb	16 14 52.2	-0.7
NPS				S	Sn	16 15 03.4	-1.2
NPS				AML	AML		
NPS	Neapolis	0.78	57	P	Pb	16 14 52.1	-0.7
IMMV	Iera Moni Meta	0.93	312	P	Pb	16 14 54.0	-1.4
IMMV				S	Sn	16 15 08.8	+0.4
IMMV	Iera Moni Meta	0.93	312	Pg	Pn	16 14 56.1	+0.4
IMMV				Sg	Sn	16 15 10.1	+1.8
IMMV				AML	AML		
IMMV	Iera Moni Meta	0.93	312	P	Pb	16 14 54.9	-0.5
IMMV				AML	AML		
ZKR	Zakros	1.18	76	Pn	Pb	16 15 00.2	+0.5
ZKR				AML	AML		
ANKY	Antikythira Is	1.61	310	P	Pn	16 15 05.1	0.0
KTHA	Kythira Island	2.02	315	Pn	Pb	16 15 13.2	-0.8
KTHA				AML	AML		
KTHA	Kythira Island	2.02	315	P	Pn	16 15 10.4	-0.2

IDC 08 16:17:58.4±421.0, **55°.89N**×**3°.13E**, **h0**^{km}, **Error ellipse: s-maj=254.1km s-min=242.0km az=85.0, North Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I37NO	I37NO	14.96	22	I	I	17 45 50.0	
	baz=217,slow=322,SNR=2.8						
I43RU	DUBNA INFRASON	18.82	73	I	I	18 20 40.3	
	baz=277,slow=321,SNR=0.7						
I48TN	KESRA INFRASON	20.53	166	I	I	18 25 40.0	
	baz=353,slow=289,SNR=0.3						

WEL 08 16:22:06.2±1.2, **34°S**±27°×**18°0E**±3°1, **h311**^{km}±36^{km}, **M3.5**/5, **mB4.4**/1, **ML3.5**/9, **MLv3.5**/5, **Mw(mB)3.5**/1, **Error ellipse: s-maj=49.9km s-min=20.7km az=129.7, confirmed, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	4.02	197	P	Pn	16 23 14.2	+1.1
MXZ				S	S	16 24 08.3	+1.5
HAZ	Te Kaha	4.35	201	P	Pn	16 23 16.2	-0.4
HAZ				S	S	16 24 13.5	+0.3
HAZ				AML	AML		
PKGZ	Pakihiroa	4.37	198	P	Pn	16 23 18.3	+1.4
PKGZ				S	S	16 24 13.5	-0.2
PKGZ				AML	AML		
PKGZ				AML	AML		
PUZ	Puketiti	4.52	196	P	Pn	16 23 18.2	-0.3
PUZ				S	S	16 24 17.2	+0.4
PUZ				AML	AML		
RUGZ	Raukumara Rang	4.57	201	P	Pn	16 23 19.2	-0.1
RUGZ				S	S	16 24 17.5	-0.5
RUGZ				AML	AML		
RUGZ				AML	AML		
MWZ	Matawai	4.96	201	P	Pn	16 23 23.1	-0.5
MWZ				S	S	16 24 25.9	+0.1
MWZ				AML	AML		
TKGZ	Te Karaka	4.97	198	P	Pn	16 23 23.5	-0.1
TKGZ				S	S	16 24 26.5	+0.6
TKGZ				AML	AML		
TKGZ				AML	AML		
URZ	Urewera	5.02	205	P	Pn	16 23 23.5	-0.7
URZ				S	S	16 24 27.1	0.0
URZ				AML	AML		
MUGZ	Murupara	5.34	206	P	Pn	16 23 27.9	0.0
MUGZ				S	S	16 24 33.8	0.0
MUGZ				AML	AML		
MUGZ				AML	AML		
RTZ	Ruatahuna	5.39	204	P	Pn	16 23 27.4	-1.2
RTZ				AML	AML		
MTHZ	Maungataniwha	5.65	204	P	Pn	16 23 31.4	-0.2
MTHZ				S	S	16 24 42.8	+2.3
MTHZ				AML	AML		
MTHZ				AML	AML		
TLZ	Tolley Road	5.75	216	P	Pn	16 23 33.8	+1.1
TLZ				AML	AML		
BHHZ	Black Hill Sta	6.49	206	P	Pn	16 23 40.0	-1.6
KAHZ	Kahuranaki	6.50	200	P	Pn	16 23 39.9	-1.7
KRHZ	Kereru	6.52	204	P	Pn	16 23 40.6	-1.3
PXZ	Pawanui	6.72	200	P	Pn	16 23 43.3	-0.9
PRHZ	Porangahau	7.00	200	P	Pn	16 23 45.4	-2.3

DJA 08 16:23:54.9±0.3, **1°N**±3°×**10°0E**±°, **h186**^{km}±3^{km}, **M3.7**/24, **mB5.1**/1, **mb4.1**/3, **MLv3.5**/24, **Mw(mB)4.5**/1, **Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MNSI	Mandailing Nat	0.50	265	P	Pn	16 24 20.7	+0.3
BKNI	Bangkinang	1.09	118	P	Pn	16 24 24.4	+0.5
BKNI				AML	AML		
PPI	Padang Panjang	1.33	166	P	Pn	16 24 26.1	+0.3
PDSI	Padang	1.78	168	P	Pn	16 24 29.4	-0.8
PDSI				AML	AML		
PBSI	Pulau Batu	2.01	244	P	Pn	16 24 32.9	+0.4
PBSI				AML	AML		
SDSI	Sungai Dareh	2.22	143	P	Pn	16 24 35.6	+0.8
SDSI				AML	AML		
PSI	Prapat	2.27	329	P	Pn	16 24 34.9	-0.5
GSI	Gunungsitoli	2.55	280	P	Pn	16 24 39.6	+1.1
GSI				AML	AML		
KCSI	Kotacane, Aceh	3.52	319	P	Pn	16 24 50.4	+0.1
TPTI		3.77	310	P	Pn	16 24 54.2	+0.9
TPTI				AML	AML		
MYKOM	Kota Tinggi	3.88	76	P	Pn	16 24 54.9	+0.1
MYKOM				AML	AML		
SNSI	Sinabang, Aceh	4.06	293	P	Pn	16 24 57.2	+0.2
TPRI	Tanjung Pinang	4.45	89	P	Pn	16 25 01.3	-0.6
TPRI				AML	AML		
MLSI	Meulaboh, Aceh	5.01	313	P	Pn	16 25 08.5	-0.6
BSI	Banda Aceh	6.65	314	P	Pn	16 25 29.6	-0.9

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*IDC **08** 16:31:48.0±1.6, 39°.89N×142°.77E, h0^{km}, mb3.7/4, mbtmp3.7/7, ML3.2/3, MS3.3/3, Error ellipse: s-maj=28.0km s-min=19.0km az=93.0*
*JMA **08** 16:31:52.2±0.0, 39°.8N±0°.2×142°.3E±0°.2, h16^{km}, MV3.7/40, E OFF IWATE PREF*
*NIED **08** 16:31:52.2, 39°.80N×142°.31E, h16^{km}, MW3.6, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}-0.36; $M_{\theta\theta}$1.92; $M_{\phi\phi}$-1.57; $M_{r\theta}$-0.01; $M_{\theta\phi}$1.93; $M_{\phi r}$0.28; Fault plane solution: $M_0$2.62000×10^{14} NP1: ϕ_s111.00000°, δ84.00000°, λ-4.00000°. NP2: ϕ_s201.00000°, δ86.00000°, λ-174.00000°.*
ISC 08 16:31:50.1±2.4, **39°.79N**±0°.05×**142°.4E**±0°.1, **h7**^{km}±12^{km}, **n22,** σ**1^s.99**/21, **mb3.6**/4, **10D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JTH	Tanohata	0.47	288	⇓*i*P	Pg	16 31 60.0	+0.9
JTH				⇓S	Sg	16 32 05.2	0.0
MIYJ	Miyakonagasawa	0.53	246	⇓*i*P	Pg	16 32 01.0	+0.8
MIYJ				⇓S	Sg	16 32 07.0	0.0
JKEN	Kujiedanarisaw	0.69	307	*i* P	Pg	16 32 03.7	+0.2
JKEN				S	Sg	16 32 12.2	-0.3
JKZ	Kuzumaki	0.88	283	⇓*i*P	Pg	16 32 06.7	-0.2
JKZ				⇓S	Sg	16 32 17.1	-1.2
JANG	Nango	0.92	310	*i* P	Pb	16 32 07.0	-1.3
OFUJ	Ofunato	0.93	220	⇓*i*P	Pb	16 32 08.0	-0.6
OFUJ				⇓S	Sb	16 32 19.2	-1.9
JOM	Ohasama	0.94	250	⇓*i*P	Pb	16 32 07.9	-0.9
JOM				⇓S	Sb	16 32 19.0	-2.5
MJAR	Matsushiro Arr	4.65	227	Pn	Pn	16 33 03.5	+2.7
	0.2nm,0.3s,baz=34,slow=13,SNR=9.7						
MJAR				Sn	Sn	16 33 59.7	+4.6
	baz=45,slow=25						
	3.1nm,0.7s						
MJAR				AML	AML		
JHJ	Hachijo jima 2	7.00	199	Pn	Pn	16 33 34.0	+1.0
	5.9nm,0.3s,baz=36,slow=19,SNR=7.6						
JHJ				Sn	Sn	16 34 48.1	-4.7
	3.0nm,0.3s,baz=23,slow=23,SNR=0.9						
	58nm,0.9s						
JHJ				AML	AML		
KSRS	Korea Array	11.59	263	Pn	Pn	16 34 40.9	+4.9
	0.1nm,0.3s,baz=68,slow=15,SNR=1.5						
KSRS				LR	LR	16 38 18.5	
	comp=Z,18nm,19.3s,baz=230,slow=33						
	0.4nm,0.3s						
KSRS				AML	AML		
H11N2	WAKE ISLAND Hy	29.00	126	T	T	17 08 23.2	
	baz=318,slow=75,SNR=2321						
H11N1	WAKE ISLAND Hy	29.01	126	T	T	17 08 23.1	
	baz=318,slow=75,SNR=1441						
H11N3	WAKE ISLAND Hy	29.02	126	T	T	17 08 21.6	
	baz=318,slow=75,SNR=2397						
H11S1	WAKE ISLAND Hy	29.81	128	T	T	17 09 19.3	
	baz=320,slow=76,SNR=109						
H11S3	WAKE ISLAND Hy	29.81	128	T	T	17 09 21.0	
	baz=320,slow=76,SNR=79						
H11S2	WAKE ISLAND Hy	29.83	128	T	T	17 09 22.7	
	baz=320,slow=76,SNR=98						
MKAR	Makanchi Array	43.39	300	P	P	16 39 53.3	+0.1
	0.3nm,0.5s,baz=88,slow=8.6,SNR=4.6						
	0.3nm,0.5s						
KURBB	Kurchatov Arra	44.99	306	P	P	16 40 06.8	+1.0
	2.1nm,0.3s,baz=81,slow=8.4,SNR=1.1						
	2.1nm,0.3s						
WRA	Warramunga Arr	59.90	189	P	P	16 41 56.4	-0.3
	0.5nm,0.7s,baz=6.7,slow=6.9,SNR=6.2						
	0.5nm,0.7s						
ASAR	Alice Springs	63.63	189	P	P	16 42 21.8	0.0
	0.2nm,0.7s,baz=2.4,slow=6.7,SNR=6.6						
	0.2nm,0.7s						
MSVF	Nonsavu	66.17	143	LR	LR	17 07 04.7	
	comp=Z,78nm,18.8s,baz=150,slow=32						
HFS	Hagfors	71.91	336	LR	LR	17 17 53.1	
	comp=Z,29nm,18.0s,baz=36,slow=38						

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*BER **08** 16:37:04.8±2.1, 78°.50N×7°.10E, h10^{km}, Mw3.4, Confirmed Earthquake*
*DNK **08** 16:37:04.0±1.9, 78°.46N×7°.06E, h15^{km}, ML1.8, Presumed earthquake*
*KOLA **08** 16:37:06.6, 78°.42N×8°.26E, h0^{km}, ML2.1, Error ellipse: s-maj=17.9km s-min=12.5km az=90.0, Greenland sea, Knipovich ridge, middle*
ISC 08 16:37:02.8±1.8, **78°.51N**±0°.09×**6°.90E**±0°.04, **h19**^{km}±7^{km}, **n15,** σ**1^s.59**/24, **Svalbard region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBS	Kingsbay	1.08	65	*e*P	Pg	16 37 24.2	+0.5
KBS				*e*S	Sg	16 37 36.1	-1.6
KBS				IAML		16 37 40.3	
	comp=Z,144nm,0.4s						
KBS	Kingsbay	1.08	65	P	Pg	16 37 23.8	+0.1
KBS				S	Sg	16 37 36.3	-1.5
KBS	Kingsbay	1.08	65	*i* P	Pg	16 37 24.2	+0.5
KBS				*i* S	Sg	16 37 36.2	-1.6
BRBB	Barentsburg B	1.55	102	*e*P	Pn	16 37 30.2	+0.8
BRBB				*e*S	Sn	16 37 47.3	-1.5
BRBB	Barentsburg B	1.55	102	P	Pn	16 37 30.3	+1.0
BRBB				S	Sn	16 37 47.5	-1.4
BRBA	Barentsburg A	1.56	103	*e*P	Pn	16 37 31.2	+1.7
BRBA				*e*S	Sn	16 37 47.4	-1.8
BRBA				IAML		16 37 51.8	
	comp=Z,40nm,0.4s						
SPA0	Spitsbergen Ar	1.95	95	*e*P	Pn	16 37 37.1	+2.2
SPA0				*e*S	Sn	16 37 58.9	0.0
SPA0				IAML		16 38 09.4	
	comp=Z,24nm,0.6s						
SPITS	Spitsbergen Ar	1.95	95	P	Pn	16 37 36.9	+2.0
SPITS				S	Sn	16 37 59.3	+0.4
NOR	Nord	5.08	318	*e*P	Pn	16 38 19.7	+1.9
NOR				*e*S	Sn	16 39 13.7	-2.2
NOR	Nord	5.08	318	*i* P	Pn	16 38 20.0	+2.2
NOR				*i* S	Sn	16 39 15.0	-0.9
NOR				IAML		16 39 19.0	
	comp=Z,3.0nm,0.9s						
DAG	Danmarks Havn	5.72	265	*i* P	Pn	16 38 27.9	+1.4
DAG				*i* S	Sn	16 39 29.3	-2.3
DAG				IAML		16 39 31.0	
	comp=Z,5.0nm,1.0s						
DBG	Daneborg	7.57	250	*e*P	Pn	16 38 52.9	+1.0
DBG				*e*S	Sn	16 40 11.1	-5.9
DBG	Daneborg	7.57	250	*i* P	Pn	16 38 52.2	+0.2
DBG				*i* S	Sn	16 40 10.6	-6.5
NEEM	North Greenlan	11.70	294	*i* P	Pn	16 39 47.3	-1.3
NEEM				*i* S	Sn	16 41 47.6	-11
NEEM				IAML		16 42 02.3	
	comp=Z,1.5nm,0.7s						
SUMG	Summit	12.41	266	*i* P	Pn	16 39 57.3	-1.2

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*IDC **08** 17:57:53.8±0.9, 24°.33S×111°.95W, h0^{km}, mb3.9/4, mbtmp3.9/4, MS3.6/4, Error ellipse: s-maj=43.1km s-min=29.2km az=85.0*
*NEIC **08** 17:57:56.2±0.8, 24°.5S±0°.1×111°.8W±0°.2, h10^{km}±1^{km}, mb4.8/11, Error ellipse: s-maj=28.3km s-min=14.1km az=245.0*
ISC 08 17:57:55.6±0.7, **24°.4S**±0°.1×**111°.8W**±0°.2, **h10**^{km}, **n37,** σ**0^s.98**/27, **mb4.3**/7, **MS3.5**/4, **Easter Island region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VA02	Isla de Pascua	3.45	143	Pn	Pn	17 58 47.7	-1.7
VA02				Sn	Sn	17 59 31.5	+1.1
RPN	Rapa Nui	3.48	141	Pn	Pn	17 58 48.2	-1.6
RPN				Sn	Sn	17 59 33.0	+1.8
H03N2	Juan Fernandez	30.03	115	T	T	18 35 59.3	
	baz=336,slow=74,SNR=28						
H03N1	Juan Fernandez	30.04	115	T	T	18 36 03.0	
	baz=286,slow=74,SNR=23						
NNA	Nana	35.32	76	P	P	18 04 51.1	-0.2
LPAZ	La Paz	41.59	87	P	P	18 05 45.4	+0.7
	2.0nm,1.0s,baz=250,slow=4.7,SNR=4.1						
	2.0nm,1.0s						
LPAZ	La Paz	41.59	87	P	P	18 05 44.3	-0.4
GO10	Punta Arenas	41.91	144	P	P	18 05 45.9	-0.3
JTS	Las Juntas de	43.33	40	LR	LR	18 19 14.9	
	comp=Z,42nm,20.0s,baz=207,slow=30						
RAR	Rarotonga	44.17	264	LR	LR	18 19 30.5	
	comp=Z,48nm,18.3s,baz=140,slow=29						
PMSA	Palmer Station	50.64	156	LR	LR	18 23 19.8	
	comp=Z,58nm,18.1s,baz=307,slow=30						
JCT	Junction City	55.79	13	P	P	18 07 32.7	-0.3
JCT				IAmb	IAmb	18 07 35.2	
	comp=Z,5.7nm,1.0s						
BRDY	Brady	56.73	13	P	P	18 07 39.8	+0.1
HMU	Henry Mountain	62.04	1	P	P	18 08 15.9	-0.6
NVAR	Mina Array Bea	62.82	354	P	P	18 08 21.7	+0.1
	comp=Z,0.8nm,0.8s,baz=166,slow=5.9,SNR=3.6						
	comp=Z,0.8nm,0.8s						
QSPA	South Pole Qui	65.73	180	P	P	18 08 41.3	+0.9
	comp=Z,2.3nm,0.9s,baz=107,slow=7.1,SNR=6.7						
	comp=Z,2.3nm,0.9s						
QSPA	South Pole Qui	65.73	180	P	P	18 08 41.1	+0.6
M02C	Callahan	66.28	351	P	P	18 08 44.7	+0.6
M02C				IAmb	IAmb	18 08 46.4	
	comp=Z,20nm,1.7s						
PDAR	Pinedale Array	66.89	2	P	P	18 08 46.7	-1.4
	comp=Z,0.5nm,0.7s,baz=167,slow=6.8,SNR=4.7						
	comp=Z,0.5nm,0.7s						
PDAR	Pinedale Array	66.89	2	P	P	18 08 48.5	+0.3
PINE	Pine Mountain	68.40	353	P	P	18 08 58.3	+0.7
PINE				IAmb	IAmb	18 09 01.4	
	comp=Z,5.2nm,0.6s						
MCMT	McKenzie Canyo	68.92	359	P	P	18 09 00.8	-0.1
MAW	Mawson	88.16	178	LR	LR	18 46 33.2	
	comp=Z,53nm,18.8s,baz=10.0,slow=33						
OHAK	Old Harbor	88.49	339	P	P	18 10 48.8	+1.0
H11S2	WAKE ISLAND Hy	90.11	290	T	T	19 50 29.8	
	baz=116,slow=75,SNR=21						
H11S1	WAKE ISLAND Hy	90.12	290	T	T	19 50 24.9	
	baz=116,slow=75,SNR=14						
H11S3	WAKE ISLAND Hy	90.12	290	T	T	19 50 23.2	
	baz=116,slow=75,SNR=14						
H11N3	WAKE ISLAND Hy	90.46	291	T	T	19 50 52.1	
	baz=117,slow=74,SNR=5.5						
H11N1	WAKE ISLAND Hy	90.47	291	T	T	19 51 06.3	
	baz=117						
H11N2	WAKE ISLAND Hy	90.48	291	T	T	19 50 53.3	
	baz=117,slow=74,SNR=7.7						
BRTR	Keskin Array B	147.21	54	PKPbc	PKPdf	18 17 37.9	+0.7
	comp=Z,0.2nm,0.3s,baz=316,slow=4.0,SNR=1.4						
BRTR	Keskin Array B	147.21	54		PKPdf	18 17 37.3	+0.1
ZALV	Zalesovo Beam	148.00	341	PKPbc	PKPbc	18 17 40.6	-0.4
	comp=Z,0.7nm,0.6s,baz=14,slow=3.0,SNR=3.7						
ZALV	Zalesovo Beam	148.00	341		PKPdf	18 17 38.9	+1.0
CMAR	Chiang Mai Arr	150.82	264	PKPbc	PKPbc	18 17 47.0	-2.1
	comp=Z,0.7nm,0.8s,baz=93,slow=2.4,SNR=4.5						
KURK	Kurchatov	152.54	346		PKiKP	18 17 52.3	0.0
KURBB	Kurchatov Arra	152.65	346	PKPbc	PKiKP	18 17 52.3	-0.2
	comp=Z,0.2nm,0.3s,baz=35,slow=1.0,SNR=5.7						

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*GII **08** 18:40:44.9±0.0, 38°.10N±0°.01×42°.900E±0°.003, h0^{km}, Mws3.7, confirmed*
*AFAD **08** 18:41:05.9, 38°.16N×38°.69E, h7^{km}±1^{km}, ML3.1*
*ISK **08** 18:41:05.5, 38°.16N×38°.68E, h8^{km}, ML3.2/15*
ISC 08 18:41:05.9±1.0, **38°.16N**±0°.03×**38°.70E**±0°.02, **h9**^{km}±9^{km}, **n32,** σ**1^s.26**/47, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MAYA	Malatya/Merkez	0.27	308	P	Pg	18 41 11.4	0.0
MAYA				S	Sg	18 41 15.4	+0.3

MAYA				IAML		18 41 16.0	
	comp=N,8µm,0.3s						
MAYA				IAML		18 41 16.0	
	comp=E,7µm,0.3s						
NARI	**Adyaman-Kaht**	0.28	169	P	**Pg**	**18 41 11.8**	**+0.4**
NARI				IAML		18 41 18.0	
	comp=E,1µm,0.7s						
NARI				IAML		18 41 22.0	
	comp=N,1µm,0.6s						
MDYL	**Doganyol-Malat**	0.31	60	Pg	**Pg**	**18 41 12.4**	**+0.3**
MDYL				Sg	**Sb**	**18 41 17.7**	**-1.2**
MDYL				AML	AML		
ESGZ	**Sivrice-Elazig**	0.40	47	Pg	**Pg**	**18 41 13.7**	**0.0**
ESGZ				AML	AML		
ELZG	**Elazig**	0.41	34	P	**Pg**	**18 41 13.9**	**0.0**
ELZG				S	**Sg**	**18 41 20.1**	**+0.7**
ELZG				IAML		18 41 22.0	
	comp=N,3µm,0.3s						
CNGT	**ngs**	0.48	83	P	**Pg**	**18 41 15.1**	**-0.1**
CNGT				IAML		18 41 27.0	
	comp=N,1µm,0.4s						
CNGT				IAML		18 41 27.0	
	comp=E,1µm,0.5s						
AZEY	**Adyaman-Merk**	0.49	226	P	**Pb**	**18 41 16.2**	**-0.5**
AZEY				IAML		18 41 24.0	
	comp=E,1µm,0.4s						
AZEY				S	**Sb**	**18 41 24.1**	**0.0**
AZEY				IAML		18 41 27.0	
	comp=N,913nm,0.4s						
SVRC	**Sivrice-ELAZID**	0.53	65	Pg	**Pg**	**18 41 16.1**	**-0.1**
SVRC				Sg	**Sb**	**18 41 24.2**	**-1.1**
SVRC				AML	AML		
ESIJ	**Sivrice-Elazig**	0.56	59	Pg	**Pg**	**18 41 17.2**	**+0.4**
ESIJ				Sg	**Sb**	**18 41 26.5**	**+0.3**
ESIJ				AML	AML		
HANM	**anlurfa/Hi**	0.59	166	P	**Pb**	**18 41 18.1**	**-0.4**
HANM				S	**Sb**	**18 41 26.7**	**-0.3**
HANM				IAML		18 41 28.0	
	comp=N,826nm,0.3s						
HANM				IAML		18 41 29.0	
	comp=E,424nm,0.5s						
AKCD	**Akcadag**	0.62	283	P	**Pg**	**18 41 18.0**	**0.0**
AKCD				S	**Sb**	**18 41 27.1**	**-0.8**
AKCD				IAML		18 41 29.0	
	comp=N,3µm,0.4s						
AKCD				IAML		18 41 30.0	
	comp=E,2µm,0.3s						
ELZ	**Elazig**	0.67	37	P	**Pg**	**18 41 18.5**	**-0.3**
ELZ				S	**Sb**	**18 41 28.8**	**-0.3**
ELZ				IAML		18 41 30.0	
	comp=E,928nm,0.4s						
ELZ				IAML		18 41 34.0	
	comp=N,854nm,0.4s						
ATAB	**Bozova**	0.76	205	P	**Pb**	**18 41 20.8**	**-0.4**
ATAB				IAML		18 41 35.0	
	comp=E,652nm,0.7s						
ATAB				IAML		18 41 39.0	
	comp=N,347nm,0.5s						
MDNT	**Maden**	0.81	73	P	**Pg**	**18 41 21.5**	**0.0**
MDNT				S	**Sb**	**18 41 33.8**	**+0.5**
MDNT				IAML		18 41 37.0	
	comp=N,534nm,0.8s						
MDNT				IAML		18 41 41.0	
	comp=E,458nm,0.6s						
AKCA	**Adyaman/G¶l**	0.88	246	P	**Pb**	**18 41 23.1**	**-0.2**
AKCA				IAML		18 41 40.0	
	comp=E,466nm,0.5s						
AKCA				IAML		18 41 41.0	
	comp=N,1µm,0.5s						
HEKM	**Malatya_Hekimh**	0.92	322	P	**Pg**	**18 41 23.3**	**-0.4**
HEKM				S	**Sb**	**18 41 36.7**	**+0.1**
HEKM				IAML		18 41 38.0	
	comp=N,2µm,0.4s						
HEKM				IAML		18 41 38.0	
	comp=E,2µm,0.4s						
ARPR	**Arapgir-MALATY**	0.98	343	Pg	**Pg**	**18 41 24.3**	**-0.4**
ARPR				Sg	**Sb**	**18 41 38.9**	**+0.8**
DYBB	**Diyarbakir**	1.16	100	Pn	**Pn**	**18 41 28.4**	**+0.1**
DYBB				AML	AML		
ELBS	**KAHRAMANMARAS_**	1.24	278	P	**Pn**	**18 41 30.5**	**+1.0**
ELBS				IAML		18 41 53.0	
	comp=N,640nm,0.7s						
ELBS				IAML		18 41 53.0	
	comp=E,1µm,0.6s						
CUGUR	**Gurin_SVAS**	1.25	297	P	**Pg**	**18 41 29.3**	**-0.6**
CUGUR				S	**Sn**	**18 41 48.7**	**+2.0**
CUGUR				IAML		18 41 52.0	
	comp=E,2µm,0.7s						
CUGUR				IAML		18 41 54.0	
	comp=N,1µm,0.9s						
ILIC	**ilic-Erzincan**	1.30	356	Pn	**Pg**	**18 41 30.4**	**-0.4**
ILIC				AML	AML		
KHMN	**Narli-Kahraman**	1.44	238	Pn	**Pb**	**18 41 32.4**	**-0.4**
KHMN				AML	AML		
GAZ	**Gaziantep**	1.53	231	Pn	**Pb**	**18 41 34.0**	**-0.5**
GAZ				AML	AML		
KMRS	**Kahramanmaras**	1.56	246	Pn	**Pn**	**18 41 34.1**	**+0.2**
KMRS				AML	AML		
ERZN	**Erzincan**	1.64	29	Pn	**Pn**	**18 41 34.8**	**-0.2**
ERZN				AML	AML		
BNGB	**Bingl**	1.76	61	Pn	**Pn**	**18 41 37.2**	**+0.5**
BNGB				AML	AML		
YEDI	**Yedisu-Bingol**	1.93	48	Pn	**Pn**	**18 41 39.8**	**+0.8**
YEDI				AML	AML		
SVAN	**Silvan-Diyarba**	1.97	89	Pn	**Pn**	**18 41 40.3**	**+0.8**
SVAN				AML	AML		
VRTB	**Varto-Mus**	2.38	64	Pn	**Pn**	**18 41 46.2**	**+1.0**
VRTB				AML	AML		
GURO	**Guroymak-BITLI**	2.65	80	Pn	**Pn**	**18 41 50.1**	**+1.2**
GURO				AML	AML		
GEM	**Giv'at Ha'Em**	5.52	207	P	**Pb**	**18 42 37.6**	**-4.7**
GEM				S	**Sg**	**18 44 04.9**	**+1.9**
MMA0B	**Mount Meron ar**	5.79	209	P	**Pb**	**18 42 42.4**	**-4.7**
MMA0B				S	**Sg**	**18 44 13.8**	**+2.1**

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*IDC **08** 18:41:24.2±1.6, 36°.64N×142°.95E, h0^{km}, mb3.6/5, mbtmp3.7/7, ML3.2/2, Error ellipse: s-maj=27.1km s-min=16.3km az=128.0*

*JMA **08** 18:41:27.9±0.2, 36°.6N±0°.2×142°.8E±0°.4, h5^{km}±1^{km}, MV3.3/24, FAR E OFF FUKUSHIMA PREF*

ISC 08 18:41:24.8±1.3**, 36°.4N**±0°.1×**142°.8E**±0°.1**, h10**^{km}**, n13,** σ**1**^{s}**.34**/9**, mb3.5**/5**, Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MJAR	**Matsushiro Arr**	3.71	274	Pn	**Pn**	**18 42 23.8**	**+1.7**
	0.9nm,0.3s,baz=91,slow=13,SNR=60						
MJAR				Sn	**Sn**	**18 43 04.9**	**-1.0**
	0.3nm,0.3s,baz=84,slow=11,SNR=4.3						
	5.1nm,0.3s						
MJAR				AML	AML		
JHJ	**Hachijo jima 2**	4.09	218	Pn	**Pn**	**18 42 29.0**	**+1.6**
	8.2nm,0.3s,baz=30,slow=20,SNR=9.3						
JHJ				Sn	**Sn**	**18 43 13.6**	**-1.7**
	18nm,0.3s,baz=37,slow=20,SNR=7.9						
	34nm,0.7s						
JHJ				AML	AML		
H11N2	**WAKE ISLAND Hy**	26.85	122	T	T	19 15 26.5	
	baz=314,slow=75,SNR=8.4						
H11N1	**WAKE ISLAND Hy**	26.86	122	T	T	19 15 25.4	
	baz=314,slow=75,SNR=5.2						
H11N3	**WAKE ISLAND Hy**	26.87	122	T	T	19 15 33.1	
	baz=314,slow=75,SNR=6.7						
H11S1	**WAKE ISLAND Hy**	27.57	124	T	T	19 16 21.8	
	baz=316						
H11S3	**WAKE ISLAND Hy**	27.57	124	T	T	19 16 22.5	
	baz=316						
H11S2	**WAKE ISLAND Hy**	27.58	124	T	T	19 16 27.1	
	baz=316						
SONM	**Songino Array**	29.08	305	P	**P**	**18 47 24.6**	**-0.8**
	0.4nm,0.7s,baz=103,slow=8.7,SNR=3.5						
	0.4nm,0.7s						
ZALV	**Zalesovo Beam**	43.18	313	P	**P**	**18 49 25.3**	**-0.2**
	0.4nm,0.5s,baz=107,slow=9.7,SNR=2.7						
	0.4nm,0.5s						
MKAR	**Makanchi Array**	45.41	303	P	**P**	**18 49 43.3**	**-0.3**
	0.3nm,0.6s,baz=86,slow=9.8,SNR=4.4						
	0.3nm,0.6s						
KURBB	**Kurchatov Arra**	47.28	309	P	**P**	**18 49 58.9**	**+0.7**
	1.2nm,0.6s,baz=84,slow=7.9,SNR=15						
	1.2nm,0.6s						
ILAR	**Eielson Array**	49.45	32	P	**P**	**18 50 14.4**	**-0.3**
	0.7nm,0.7s,baz=276,slow=8.0,SNR=7.0						
	0.7nm,0.7s						

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*IDC **08** 18:44:19.2±0.8, 6°.39S×130°.26E, h0^{km}, mb3.7/11, mbtmp3.7/13, ML3.7/2, MS3.2/1, Error ellipse: s-maj=37.3km s-min=13.2km az=86.0*

*DJA **08** 18:44:26.2±1.1, 6°S±2°×13°0E±°, h37^{km}±27^{km}, M4.2/17, mB4.8/1, mb4.4/16, MLv4.2/17, Mw(mB)4.0/1*

ISC 08 18:44:25.2±0.6**, 6°.45S**±0°.06×**129°.87E**±0°.08**, h35**^{km}**, n28,** σ**1**^{s}**.24**/28**, mb3.7**/11**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BNDI	**Bandanaira**	1.92	1	P	**Pn**	**18 44 54.0**	**-1.4**
BNDI				S	**Sn**	**18 45 17.0**	**-1.3**
BNDI				AML	AML		
SAUI	**Saumlaki**	2.08	137	P	**Pn**	**18 45 00.0**	**+2.4**
SAUI				AML	AML		
NLAI	**Namlea**	4.22	319	P	**Pn**	**18 45 26.8**	**-0.2**
NLAI				AML	AML		
FAKI	**Fak Fak**	4.24	34	P	**Pn**	**18 45 26.7**	**-0.6**
FAKI				S	**Sn**	**18 46 16.0**	**+0.4**
FAKI				AML	AML		
SWI	**Sorong**	5.72	14	P	**Pn**	**18 45 47.4**	**-0.3**
SANI	**Sanana**	5.84	318	P	**Pn**	**18 45 49.3**	**0.0**
	0.1nm24nm,0.7s						
SANI				AML	AML		
SOEI	**Soe**	6.44	239	P	**Pn**	**18 45 57.1**	**-0.6**
	43nm,0.7s						
MWPI	**Manokwari, Pap**	6.89	37	P	**Pn**	**18 46 05.2**	**+1.5**
	41nm,0.9s						
BBSI	**Bau Bau**	7.32	277	P	**Pn**	**18 46 10.4**	**+0.7**
TNTI	**Ternate**	7.60	341	P	**Pn**	**18 46 12.8**	**-0.7**
	0.1nm15nm,0.8s						
TNTI				AML	AML		
BAKI	**Biak**	8.13	50	P	**Pn**	**18 46 22.2**	**+1.4**
	63nm,1.1s						
EDFI	**Ende, Flores**	8.42	254	P	**Pn**	**18 46 25.8**	**+0.9**
BSSI	**Bau Bau, Buton**	9.32	271	P	**Pn**	**18 46 37.7**	**+0.5**
WSI	**Waingapu**	10.00	251	P	**Pn**	**18 46 46.7**	**+0.3**
FITZ	**Fitzroy Crossi**	12.29	199	Pn	Pn	18 47 14.3	-3.5
	0.2nm,0.3s,baz=22,slow=11,SNR=15						
FITZ				Sn	Sn	18 49 22.9	-11
	0.3nm,0.3s,baz=23,slow=13,SNR=1.9						
FITZ				LR	LR	18 53 53.0	
	comp=Z,102nm,18.8s,baz=7.5,slow=46						
	1.0nm,0.5s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	14.10	162	Pn	Pn	18 47 38.0	-4.5
	0.5nm,0.3s,baz=342,slow=14,SNR=24						
WRA				Sn	Sn	18 50 05.5	-12
	0.5nm,0.3s,baz=341,slow=23,SNR=7.2						
ASAR	**Alice Springs**	17.55	168	P	**Pn**	**18 48 25.3**	**-1.9**
	0.6nm,0.3s,baz=345,slow=10,SNR=28						
ASAR				S	Sn	18 51 31.6	-10
	1.2nm,0.5s,baz=348,slow=26,SNR=5.8						
	1.3nm,0.5s						
ASAR				AML	AML		
STKA	**Stephens Creek**	27.57	158	P	**P**	**18 50 09.1**	**+0.1**
	1.4nm,0.8s,baz=332,slow=12,SNR=4.3						
	1.4nm,0.8s						
CMAR	**Chiang Mai Arr**	39.28	310	P	**P**	**18 51 53.6**	**+2.7**
	0.4nm,0.7s,baz=126,slow=9.2,SNR=2.0						
	0.4nm,0.7s						
MJAR	**Matsushiro Arr**	43.48	10	P	**P**	**18 52 23.5**	**-1.6**
	1.8nm,0.8s,baz=191,slow=10.0,SNR=6.9						
	1.8nm,0.8s						
SONM	**Songino Array**	57.88	342	P	**P**	**18 54 12.9**	**-0.8**
	0.4nm,0.7s,baz=157,slow=4.1,SNR=4.7						
	0.4nm,0.7s						
MKAR	**Makanchi Array**	67.70	327	P	**P**	**18 55 19.6**	**+0.6**
	0.3nm,0.5s,baz=130,slow=8.1,SNR=9.3						
	0.3nm,0.5s						
ZALV	**Zalesovo Beam**	71.04	334	P	**P**	**18 55 40.4**	**+1.0**
	0.5nm,0.6s,baz=131,slow=4.4,SNR=1.6						
	0.5nm,0.6s						
KURBB	**Kurchatov Arra**	71.98	328	P	**P**	**18 55 43.6**	**-1.5**
	0.5nm,0.8s,baz=126,slow=4.9,SNR=7.6						
	0.5nm,0.8s						
VNDA	**Vanda**	73.00	173	P	**P**	**18 55 49.6**	**-1.3**
	0.4nm,0.6s,baz=315,slow=7.1,SNR=9.7						
	0.4nm,0.6s						
MAW	**Mawson**	75.41	201	P	**P**	**18 56 05.1**	**+0.1**
	2.2nm,0.9s,baz=8.1,slow=7.1,SNR=3.6						
	2.2nm,0.9s						
BVAR	**Borovoye Array**	77.53	328	P	**P**	**18 56 18.8**	**+1.4**
	0.5nm,0.7s,baz=116,slow=3.4,SNR=3.8						
	0.5nm,0.7s						
QSPA	**South Pole Qui**	83.52	180	P	**P**	**18 56 48.6**	**-0.8**
	0.6nm,0.6s,baz=346,slow=1.5,SNR=1.8						
	0.6nm,0.6s						

DJA 08 18:49:22.1±0.6**, 0°S**±2°×**12°7E**±°**, h10**^{km}±6^{km}**, M4.0**/21**, mB5.8**/2**, mb4.3**/9**, MLv3.8**/21**, Mw(mB)5.4**/2**, Southern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LBMI	**Labuha**	1.04	125	P	Pg	18 49 41.8	-0.3
TNTI	**Ternate**	1.08	42	P	Pg	18 49 42.2	-0.7
TNTI				S	Sg	18 49 56.6	-0.3
TNTI				AML	AML		
SANI	**Sanana**	2.10	198	P	Pn	18 49 57.9	+0.5
MNI	**Manado**	2.33	309	P	Pn	18 50 00.8	+0.2
MNI				AML	AML		
NLAI	**Namlea**	3.21	172	P	Pn	18 50 11.7	-0.9
NLAI				AML	AML		
APSI	**Ampana**	5.08	260	P	Pn	18 50 37.9	-0.4
BNDI	**Bandanaira**	5.51	144	P	Pn	18 50 44.2	-0.1
	430nm,0.7s						
KDI	**Kendari**	5.60	226	P	Pn	18 50 45.8	+0.3
	0.2nm9.4nm,0.6s						
KDI				AML	AML		
KKSI	**Kolaka, Sulawe**	6.46	231	P	Pn	18 50 57.1	-0.3
BBSI	**Bau Bau**	6.77	217	P	Pn	18 51 01.1	-0.6

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*IDC **08** 18:53:14.5±1.2, 5°.00N×127°.26E, h0^{km}, mb3.5/8, mbtmp3.5/8, MS2.9/2, Error ellipse: s-maj=88.6km s-min=18.1km az=67.0*

*DJA **08** 18:53:20.7±1.1, 5°N±4°×12°7E±°, h14^{km}±10^{km}, M4.3/16, mb4.5/16, mB5.6/3, MLv4.1/12, Mw(mB)5.1/3*

*MAN **08** 18:53:22.0, 4°.56N×126°.26E, h1^{km}, MS3.5*

ISC 08 18:53:19.1±0.8**, 4°.59N**±0°.05×**126°.58E**±0°.09**, h10**^{km}**, n31,** σ**2**^{s}**.67**/33**, mb3.6**/8**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	**Don Marcelino,**	1.74	330	*e*P	**Pn**	**18 53 50.4**	**+1.0**
DDMP				*e*S	**Sn**	**18 54 09.7**	**-2.0**
GSPH	**General Santos**	2.21	313	*i* P	**Pn**	**18 53 56.1**	**+0.1**
GSPH				*i* S	**Sn**	**18 54 25.2**	**+1.7**
DAV	**Davao City (W)**	2.66	338	P	**Pn**	**18 54 03.7**	**+1.6**
DAV				AML	AML		
DMPH	**Davao City--Mi**	2.70	337	*e*P	**Pg**	**18 54 10.9**	**0.0**
DMPH				*i* S	**Sg**	**18 54 50.4**	**+4.3**
CDOP	**Cateel, Davao**	3.18	357	*i* P	**Pb**	**18 54 13.9**	**-1.8**
CDOP				*i* S	**Sb**	**18 54 52.2**	**-2.4**
CTBH	**Cotabato--PC H**	3.50	318	*i* P	**Pn**	**18 54 16.7**	**+3.0**
MNI	**Manado**	3.57	209	P	**Pn**	**18 54 17.4**	**+2.7**
MNI				AML	AML		
BIPH	**Bislig**	3.58	356	*e*P	**Pn**	**18 54 17.7**	**+2.9**
BIPH				*e*S	**Sb**	**18 55 05.5**	**-0.6**
BUKP	**Musuan**	3.60	335	*i* P	**Pn**	**18 54 18.3**	**+3.2**
BUKP				*i* S	**Sn**	**18 55 01.5**	**+3.7**
CGP	**Cagayan de Oro**	4.28	334	*e*P	**Pb**	**18 54 32.2**	**-2.3**
CGP				*e*S	**Sg**	**18 55 33.4**	**-3.3**
GLSP	**General Luna,**	5.18	355	*e*P	Pb	18 54 44.5	-5.5
GLSP				*e*S	**Sn**	**18 55 44.6**	**+7.8**
LBMI	**Labuha**	5.27	170	P	**Pn**	**18 54 39.8**	**+1.8**
GTOI	**Gorontalo**	5.30	222	P	**Pn**	**18 54 40.9**	**+2.4**
	0.1nm24nm,0.9s						
GTOI				AML	AML		
SANI	**Sanana**	6.62	185	P	**Pn**	**18 54 58.4**	**+1.9**
	0.1nm12nm,0.8s						
SANI				AML	AML		
LUWI	**Luwuk**	6.76	214	P	**Pn**	**18 55 01.5**	**+2.9**
	69nm,1.0s						
PCI	**Palu**	8.67	231	P	**Pn**	**18 55 26.6**	**+1.8**
	17nm,0.9s						
TARAI	**Tarakan**	9.08	262	P	**Pn**	**18 55 31.1**	**+0.7**
MWPI	**Manokwari, Pap**	9.25	126	P	**Pn**	**18 55 32.8**	**+0.1**
	28nm,0.8s						
FAKI	**Fak Fak**	9.36	143	P	**Pn**	**18 55 35.2**	**+1.0**
	24nm,1.3s						
KDI	**Kendari**	9.37	205	P	**Pn**	**18 55 33.2**	**-1.1**
	13nm,0.8s						
KKSI	**Kolaka, Sulawe**	10.00	210	P	**Pn**	**18 55 45.5**	**+2.5**
KAPI	**Kappang**	11.73	216	LR	LR	19 01 34.2	
	comp=Z,113nm,21.5s,baz=109,slow=40						
GUMO	**Guam**	20.13	62	LR	LR	19 02 40.9	
	comp=Z,17nm,21.8s,baz=262,slow=29						
WRA	**Warramunga Arr**	25.54	163	P	**P**	**18 58 46.5**	**-1.8**
	1.8nm,0.8s,baz=343,slow=9.1,SNR=14						
	1.8nm,0.8s						
ASAR	**Alice Springs**	28.97	166	P	**P**	**18 59 18.7**	**-0.4**
	0.1nm,0.4s,baz=349,slow=8.8,SNR=8.0						
	0.1nm,0.4s						
CMAR	**Chiang Mai Arr**	30.32	299	P	**P**	**18 59 31.9**	**+0.8**
	0.1nm,0.3s,baz=101,slow=9.4,SNR=1.6						
	0.1nm,0.3s						
SONM	**Songino Array**	46.45	341	P	P	19 01 42.9	-3.5
	0.2nm,0.5s,baz=157,slow=7.8,SNR=1.4						
	0.2nm,0.5s						
MKAR	**Makanchi Array**	56.77	325	P	**P**	**19 03 00.6**	**-2.9**
	0.2nm,0.4s,baz=119,slow=8.3,SNR=7.2						
MKAR				PcP	**PcP**	**19 03 57.5**	**-1.9**
	0.4nm,0.6s,baz=138,slow=3.7,SNR=2.6						
	0.2nm,0.4s						
ZALV	**Zalesovo Beam**	59.76	333	P	P	19 03 20.6	-3.7
	0.2nm,0.3s,baz=120,slow=8.5,SNR=1.4						
	0.2nm,0.3s						
KURBB	**Kurchatov Arra**	60.95	327	P	P	19 03 29.0	-3.4
	0.4nm,0.4s,baz=127,slow=6.1,SNR=8.1						
	0.4nm,0.4s						
BVAR	**Borovoye Array**	66.53	327	P	P	19 04 05.1	-4.1
	0.5nm,0.7s,baz=123,slow=5.3,SNR=1.6						
	0.5nm,0.7s						

IDC 08 18:56:09.0±425.0**, 50°.98N**×**46°.79E, h0**^{km}**, Error ellipse: s-maj=155.7km s-min=128.8km az=110.0, Baltic States-Belarus-Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I31KZ	**AKTYUBINSK INF**	7.17	90	I	I	19 39 40.0	
	0.1nm,0.8s,baz=279,slow=325,SNR=21						
I43RU	**DUBNA INFRASON**	8.06	319	I	I	19 46 20.0	
	baz=131,slow=330,SNR=2.5						
I46RU	**ZALESOVO INFRA**	23.17	68	I	I	21 18 50.0	
	baz=278,slow=322,SNR=1.1						

NOU 08 18:56:53.6, 19°.51S×**169°.05E, h25**^{km}**, MLv4.1**/18**, Vanuatu Islands, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTV	**Rentapao**	1.81	341	P	Pb	18 57 24.9	-1.1
MARNC	**Mare, Loyalty**	2.18	206	P	Pn	18 57 28.0	-0.3
MARNC	**Mare, Loyalty**	2.18	206	S	Sn	18 57 55.2	+0.7
YATNC	**Mamie plateau,**	3.24	218	P	Pn	18 57 41.9	-1.0
YATNC	**Mamie plateau,**	3.24	218	S	Sn	18 58 20.1	-0.7
OUENC	**Ouen Island, N**	3.55	215	P	Pn	18 57 47.8	+0.6
OUENC	**Ouen Island, N**	3.55	215	S	Sn	18 58 30.1	+1.7
NOUC	**Port Laguerre**	3.64	224	P	Pn	18 57 48.7	+0.3
NOUC	**Port Laguerre**	3.64	224	S	Sn	18 58 30.9	+0.3
ONTNC	**Ouen Toro**	3.69	221	P	Pn	18 57 50.0	+0.9
ONTNC	**Ouen Toro**	3.69	221	S	Sn	18 58 33.1	+1.2
SANVU	**Saraoutou**	4.41	336	P	Pn	18 57 58.8	-0.2

DJA 08 18:57:08.1±0.6**, 8°S**±4°×**12°4E**±°**, h143**^{km}±9^{km}**, M3.7**/13**, mb4.0**/7**, MLv3.6**/13**, Flores region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MMRI	**Maumere**	1.64	250	P	Pn	18 57 39.7	+1.0
MMRI				AML	AML		
SOEI	**Soe**	1.73	165	P	Pn	18 57 39.6	-0.2
SOEI				S	Sn	18 58 04.3	+0.2
SOEI				AML	AML		
EDFI	**Ende, Flores**	2.19	252	P	Pn	18 57 45.5	+0.3
WSI	**Waingapu**	3.80	245	P	Pn	18 58 04.1	-1.5
WSI				AML	AML		
BSSI	**Bau Bau, Buton**	3.81	300	P	Pn	18 58 06.5	+0.8
LBFI	**Labuhan Bajo,**	3.89	264	P	Pn	18 58 07.4	+0.6
LBFI				AML	AML		
SPSI	**Sidrap Palu**	5.72	315	P	Pn	18 58 30.8	-0.3
PLAI	**Plampang**	6.00	262	P	Pn	18 58 34.4	-0.4
	0.2nm39nm,1.7s						
PLAI				AML	AML		
TWSI	**Taliwang, Sumb**	6.88	264	P	Pn	18 58 46.7	+0.2

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*IDC **08** 19:00:15.8±2.6, 1°.70S×127°.39E, h0^{km}, mb3.3/2, mbtmp3.2/3, ML3.0/1, Error ellipse: s-maj=236.2km s-min=28.8km az=67.0*

*DJA **08** 19:00:24.1±0.7, 2°S±3°×12°8E±°, h11^{km}±6^{km}, M3.9/9, mb4.3/1, MLv3.8/9*

ISC 08 19:00:23.6±1.3**, 1°.8S**±0°.1×**128°.24E**±0°.06**, h10**^{km}**, n9,** σ**1**^{s}**.71**/9**, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NLAI	**Namlea**	1.81	219	P	**Pg**	**19 00 59.1**	**+0.9**
SANI	**Sanana**	2.26	264	P	**Pn**	**19 01 02.2**	**+1.1**
SANI				S	**Sn**	**19 01 28.7**	**-0.4**
SANI				AML	AML		
BNDI	**Bandanaira**	3.15	148	P	**Pn**	**19 01 14.8**	**+1.6**
BNDI				AML	AML		
SWI	**Sorong**	3.17	72	P	**Pn**	**19 01 14.5**	**+1.0**
MNI	**Manado**	4.71	314	P	**Pn**	**19 01 34.9**	**+0.2**
MNI				AML	AML		
MWPI	**Manokwari, Pap**	5.86	81	P	**Pn**	**19 01 51.5**	**+0.9**
MWPI				AML	AML		
WRA	**Warramunga Arr**	18.96	162	P	**P**	**19 04 42.7**	**-2.5**
	baz=341,slow=12,SNR=1.9						
	0.5nm,0.9s						
ASAR	**Alice Springs**	22.39	166	P	**P**	**19 05 20.1**	**-2.2**
	1.4nm,0.9s,baz=350,slow=11,SNR=9.3						
	1.4nm,0.9s						
MKAR	**Makanchi Array**	62.98	326	P	P	19 10 40.4	-10
	0.1nm,0.5s,baz=131,slow=8.2,SNR=1.4						
	0.1nm,0.5s						

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*JMA **08** 19:02:37.3±0.2, 32°N±2°×13°8E±°, h398^{km}, MV3.5/32, FAR S OFF TOKAI DISTRICT*

*IDC **08** 19:02:39.8±0.6, 32°.17N×137°.90E, h371^{km}±6^{km}, mb3.2/16, mbtmp3.9/20, Error ellipse: s-maj=13.4km s-min=10.8km az=50.0*

ISC 08 19:02:40.1±0.7**, 32°.20N**±0°.08×**137°.99E**±0°.06**, h380**^{km}**, n40,** σ**1**^{s}**.14**/51**, mb3.4**/16**, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAOM	**Aogashimamukai**	1.52	80	P	**Pn**	**19 03 31.0**	**-0.4**
TTO2	**TONANKAI O.B.S**	1.73	332	P	**Pn**	**19 03 32.6**	**+0.5**
TTO1	**TONANKAI O.B.S**	1.74	325	P	**Pn**	**19 03 32.4**	**+0.3**
JHCJ	**Hachijojimakas**	1.75	60	P	**Pn**	**19 03 32.1**	**-0.5**
JHCJ				*e*S	**S**	**19 04 14.8**	**-0.2**
JHJ	**Hachijo jima 2**	1.77	58	P	**Pn**	**19 03 32.1**	**-0.7**
	159nm,0.3s,baz=252,slow=20,SNR=122						
JHJ				S	**S**	**19 04 15.1**	**-0.1**
	105nm,0.3s,baz=253,slow=19,SNR=8.0						
JHJ2	**Mitsune**	1.79	59	*e*P	**Pn**	**19 03 32.3**	**-0.5**
JHJ2				*e*S	**S**	**19 04 15.5**	**+0.2**
JIE	**Ise**	2.44	334	P	**Pn**	**19 03 37.0**	**-0.1**
JIE				S	**S**	**19 04 22.2**	**-1.1**
JTNC	**Tanabenakahech**	2.57	310	P	**Pn**	**19 03 37.5**	**-0.8**
JWY	**Kouya**	2.84	316	P	**Pn**	**19 03 40.3**	**-0.2**
JOD2	**Odawara 2**	3.19	16	P	**Pn**	**19 03 42.7**	**-0.6**
JOD2				S	**S**	**19 04 33.2**	**-1.3**
JYN	**Shimob**	3.32	8	P	**Pn**	**19 03 45.0**	**+0.4**
JAI	**Aioi**	3.37	299	P	**Pn**	**19 03 44.3**	**-0.7**
BSO1	**Boso 1**	3.50	45	P	**Pn**	**19 03 43.5**	**-1.9**
BSO1				S	**S**	**19 04 34.8**	**-3.7**
JYTA	**Yamagatataniai**	3.54	343	P	**Pn**	**19 03 46.4**	**-0.1**
JWT	**Wachi**	3.76	326	P	**Pn**	**19 03 48.4**	**-0.1**
JMN	**Monobe**	3.78	295	P	**Pn**	**19 03 48.4**	**-0.4**
JRY	**Ryogami san**	3.88	11	P	**Pn**	**19 03 49.5**	**-0.3**
MJAR	**Matsushiro Arr**	4.33	2	P	**Pn**	**19 03 53.1**	**-1.1**
	8.0nm,0.7s,baz=181,slow=11,SNR=36						
MJAR				S	**S**	**19 04 51.9**	**-2.4**
	1.4nm,0.3s,baz=166,slow=12,SNR=2.1						
JTO	**Tosashimizu**	4.43	280	*e*P	**Pn**	**19 03 54.5**	**-0.8**
JHS	**Saijyo**	4.93	306	P	**Pn**	**19 04 00.0**	**-0.4**

```
JNU   Nakatsue          6.07 281  P        Pn      19 04 12.1  -0.6
      4.0nm,0.5s,baz=98,slow=14,SNR=7.5
JNU                               S        S       19 05 24.7  -3.5
      2.8nm,0.8s,baz=138,slow=16,SNR=1.3
CBIJ  Chichi jima       6.26 143  P        Pn      19 04 11.5  -3.5
KSRS  Korea Array       9.79 305  P        P       19 04 56.5  +0.6
      1.0nm,0.5s,baz=119,slow=10,SNR=5.3
KLR   Kul'dur          17.65 346  P        P       19 06 21.5   0.0
      1.4nm,0.5s,baz=162,slow=20,SNR=4.3
SONM  Songino Array    28.55 312  P        P       19 08 02.3  -0.3
      1.0nm,0.6s,baz=110,slow=8.0,SNR=7.3
      1.0nm,0.6s
ZALV  Zalesovo Beam    43.27 316  P        P       19 10 05.5  -0.1
      0.7nm,0.4s,baz=86,slow=8.6,SNR=5.3
ZALV                              PcP      PcP     19 11 45.8  -0.9
      0.3nm,0.4s,baz=98,slow=4.4,SNR=1.7
      0.7nm,0.4s
MKAR  Makanchi Array   44.47 306  P        P       19 10 15.5  +0.3
      0.9nm,0.4s,baz=87,slow=9.3,SNR=18
MKAR                              ScP      ScP     19 15 07.2  +1.1
      0.3nm,0.7s,baz=83,slow=4.5,SNR=2.7
      0.9nm,0.4s
KURBB Kurchatov Arra   46.91 311  P        P       19 10 33.9   0.0
      0.7nm,0.4s,baz=93,slow=6.1,SNR=5.2
      0.7nm,0.4s
BVAR  Borovoye Array   51.85 315  P        P       19 11 11.0  +0.2
      0.6nm,0.3s,baz=97,slow=7.9,SNR=8.1
BVAR                              PcP      PcP     19 12 17.7  +0.1
      0.4nm,0.5s,baz=99,slow=4.8,SNR=2.1
      0.6nm,0.3s
WRA   Warramunga Arr   51.96 184  P        P       19 11 11.6  -0.3
      0.3nm,0.3s,baz=2.3,slow=7.4,SNR=15
      0.3nm,0.3s
ILAR  Eielson Array    55.08  30  P        P       19 11 34.3  +0.6
      0.4nm,0.6s,baz=276,slow=7.2,SNR=5.4
      0.4nm,0.6s
ASAR  Alice Springs    55.69 185  P        P       19 11 38.4  -0.1
      0.2nm,0.6s,baz=3.6,slow=6.4,SNR=6.5
      0.2nm,0.6s
ARTI  Arti             58.28 320  P        P       19 11 56.4  +0.2
      2.2nm,0.3s,baz=76,slow=4.2,SNR=5.0
      2.2nm,0.3s
ARCES ARCESS Array B   67.52 339  P        P       19 12 56.6  +0.5
      0.5nm,0.7s,baz=52,slow=5.8,SNR=0.7
      0.5nm,0.7s
FINES FINESS Array B   71.76 332  P        P       19 13 22.3  +0.5
      1.2nm,0.4s,baz=62,slow=5.5,SNR=18
      1.2nm,0.4s
KBZ   Khabaz           71.90 311  P        P       19 13 23.0   0.0
      1.7nm,0.8s,baz=63,slow=4.5,SNR=4.6
      1.7nm,0.8s
AKASG Malin Array Be   76.36 322  P        P       19 13 48.5  +0.2
      0.5nm,0.3s,baz=54,slow=5.5,SNR=4.4
      0.5nm,0.3s
BRTR  Keskin Array B   79.89 311  P        P       19 14 08.9  +0.9
      0.4nm,0.5s,baz=85,slow=3.0,SNR=2.9
      0.4nm,0.5s
NVAR  Mina Array Bea   80.18  51  P        P       19 14 11.1  +1.4
      0.7nm,0.5s,baz=311,slow=6.0,SNR=11
      0.7nm,0.5s
TXAR  Lajitas Array    95.33  51  P        P       19 15 22.4   0.0
      0.3nm,0.7s,baz=304,slow=5.7,SNR=3.8
      0.3nm,0.7s
```

IDC 08 19:10:38.0±8.4**, 10°.93S**×**166°.65E, h0**^{km}**, mb3.8**/3**,**
mbtmp3.7/3**, MS3.6**/16**, Error ellipse: s-maj=248.7km**
s-min=56.5km az=124.0, Santa Cruz Islands

```
Code  Station Name        Δ°   AZ°   Phase ID         Time      Res
                                  Op       ISC      h  m  s    ISC
HNR   Honiara           6.77 282  LR       LR      19 15 04.2
      comp=Z,850nm,18.9s,baz=172,slow=39
DZM   Mont Dzumac      11.08 181  LR       LR      19 16 31.5
      comp=Z,129nm,19.4s,baz=6.5,slow=32
MSVF  Nonsavu          12.95 123  LR       LR      19 17 41.3
      comp=Z,280nm,20.1s,baz=119,slow=33
PMG   Port Moresby     19.25 273  LR       LR      19 22 22.7
      comp=Z,297nm,18.6s,baz=67,slow=37
CTA   Charters Tower   21.64 243  LR       LR      19 22 52.3
      comp=Z,169nm,18.5s,baz=62,slow=34
URZ   Urewera          28.79 163  LR       LR      19 26 38.4
      comp=Z,68nm,18.0s,baz=342,slow=33
H11S2 WAKE ISLAND Hy 29.23     0  T        T       19 47 09.2
      baz=181,slow=76,SNR=34
H11S3 WAKE ISLAND Hy 29.23     0  T        T       19 47 09.8
      baz=181,slow=76,SNR=20
H11S1 WAKE ISLAND Hy 29.25     0  T        T       19 47 06.2
      baz=181,slow=76,SNR=11
H11N1 WAKE ISLAND Hy 30.45     0  T        T       19 48 27.4
      baz=182,slow=76,SNR=6.3
H11N3 WAKE ISLAND Hy 30.45     0  T        T       19 48 33.7
      baz=182,slow=76,SNR=4.0
H11N2 WAKE ISLAND Hy 30.46     0  T        T       19 48 13.8
      baz=182,slow=76,SNR=5.6
WRA   Warramunga Arr   32.36 250  P        P       19 17 09.6  +0.1
      1.1nm,0.8s,baz=81,slow=9.1,SNR=8.0
      1.1nm,0.8s
GUMO  Guam             32.56 318  LR       LR      19 29 35.5
      comp=Z,33nm,21.2s,baz=204,slow=35
ASAR  Alice Springs    33.64 244  P        P       19 17 20.5  -0.2
      0.8nm,1.0s,baz=78,slow=10,SNR=4.6
ASAR                              LR       LR      19 30 10.4
      comp=Z,121nm,19.1s,baz=77,slow=35
      0.8nm,1.0s
RAR   Rarotonga        33.77 112  LR       LR      19 27 59.9
      comp=Z,62nm,21.7s,baz=252,slow=31
FITZ  Fitzroy Crossi   40.27 255  LR       LR      19 33 43.8
      comp=Z,140nm,19.4s,baz=2.5,slow=34
PPT   Papeete          42.86 104  LR       LR      19 35 02.6
      comp=Z,80nm,19.0s,baz=268,slow=34
PPT2  Papeete2         42.86 104 eLR       LR      19 30 27.3
      174nm,30.0s
PPT2                             eLR       LR      19 30 28.4
      98nm,22.0s
DAV   Davao City (W)   44.62 292  LR       LR      19 37 04.9
      comp=Z,36nm,18.3s,baz=130,slow=36
KAPI  Kappang          46.78 273  LR       LR      19 39 38.9
      comp=Z,124nm,18.1s,baz=302,slow=37
PETK  Petropavlovsk-   64.24 354  LR       LR      19 46 19.9
      comp=Z,22nm,19.1s,baz=158,slow=33
MA2   Magadan          71.42 352  LR       LR      19 49 28.0
      comp=Z,31nm,18.7s,baz=280,slow=33
PALK  Pallekele        87.41 278  LR       LR      20 06 32.1
      comp=Z,74nm,18.3s,baz=116,slow=38
MKAR  Makanchi Array   94.05 317  P        P       19 23 58.2  -0.1
      0.3nm,0.6s,baz=90,slow=9.2,SNR=4.1
      0.3nm,0.6s
```

DJA 08 19:19:55.3±0.5**, 4°S**±5°×**14°0E**±°**, h43**^{km}±14^{km}**, M3.9**/12**,**
mb4.1/12**, MLv3.8**/7**, Irian Jaya**

```
Code  Station Name        Δ°   AZ°   Phase ID         Time      Res
                                  Op       ISC      h  m  s    ISC
GENI  Genyem            0.94 356  P        Pn      19 20 12.3  +0.2
WAMI  Wamena            1.56 257  P        Pn      19 20 18.4  -2.2
WAMI                              AML      AML
MWPI  Manokwari, Pap    6.71 293  P        Pn      19 21 31.5  +0.1
      0.2nm27nm,0.7s
MWPI                              AML      AML
FAKI  Fak Fak           8.00 274  P        Pn      19 21 48.5  -0.6
      0.2nm31nm,1.0s
FAKI                              AML      AML
PMG   Port Moresby      9.01 131  P        Pn      19 22 02.8  -0.1
      32nm,1.1s
LBMI  Labuha           13.05 282  P        Pn      19 22 58.4  +0.1
NLAI  Namlea           13.12 271  P        Pn      19 22 59.3  +0.1
      21nm,0.8s
SANI  Sanana           14.31 276  P        Pn      19 23 15.5  +0.1
```

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*NEIC **08** 19:25:53.0±1.1, 13°.95N±0°.09×144°.8E±0°.2, h120^{km}±6^{km},*
mb4.2/16, Error ellipse: s-maj=25.2km s-min=9.5km
az=110.0

*IDC **08** 19:25:52.4±0.8, 13°.86N×144°.53E, h112^{km}±20^{km}, mb3.3/5,*
mbtmp3.7/5, MS3.2/1, Error ellipse: s-maj=88.4km
s-min=20.1km az=81.0

ISC 08 19:25:52.8±0.7**, 13°.92N**±0°.08×**144°.9E**±0°.1**, h125**^{km}**, n29,**
σ0^s.50/25**, mb4.1**/12**, Mariana Islands**

```
Code  Station Name        Δ°   AZ°   Phase ID         Time      Res
                                  Op       ISC      h  m  s    ISC
GUMO  Guam              0.33 177  P        Pn      19 26 10.3  -0.1
      2µm,0.3s,baz=321,slow=14,SNR=1014
GUMO                              S        Sn      19 26 23.0  -0.7
      3µm,0.3s,baz=197,slow=19,SNR=22
DPSS  Saipan            1.60  35           Pn      19 26 22.1  +0.5
DPSS                              Sn       Sn      19 26 43.5  -0.2
PATS  Pohnpei          14.99 117           P       19 29 20.4  -0.4
FAKI  Fak Fak          20.88 218  P        Pn      19 30 27.1  -1.9
H11N1 WAKE ISLAND Hy 21.86    72  T        T       19 53 48.4
      baz=257,slow=75,SNR=6.2
H11N2 WAKE ISLAND Hy 21.87    72  T        T       19 53 47.8
      baz=257,slow=75,SNR=6.8
H11N3 WAKE ISLAND Hy 21.88    72  T        T       19 53 49.2
      baz=257,slow=75,SNR=8.4
MAJO  Matsushiro       23.30 346  P        P       19 30 48.9  -0.7
MAJO                              IAmb     IAmb    19 31 30.3
      comp=Z,12nm,1.4s
MJB9  Matsu-Tunnel     23.30 346  P        P       19 30 49.7   0.0
MJB9                              IAmb     IAmb    19 31 30.3
      comp=Z,11nm,1.4s
MTN   Manton Dam       29.86 208  P        P       19 31 48.6   0.0
MTN                               IAmb     IAmb    19 32 15.0
      comp=Z,5.6nm,1.3s
KNRA  Kununurra        33.43 209  P        P       19 32 20.1  +0.2
KNRA                              IAmb     IAmb    19 32 30.3
      comp=Z,6.7nm,1.2s
CTA   Charters Tower   33.82 178  LR       LR      19 45 03.1
      comp=Z,43nm,20.1s,baz=216,slow=34
CTAO  Charters Tower   33.82 178  P        P       19 32 23.2   0.0
WB0   Warramunga Arr   35.02 197  P        P       19 32 33.1  -0.4
WB0                               IAmb     IAmb    19 32 44.9
      comp=Z,5.8nm,1.3s
WR8   Warramunga Arr   35.17 197  P        P       19 32 34.4  -0.5
WR8                               IAmb     IAmb    19 32 52.6
      comp=Z,7.0nm,1.2s
WRA   Warramunga Arr   35.20 197  P        P       19 32 34.9  -0.2
      comp=Z,2.0nm,0.6s,baz=17,slow=8.8,SNR=25
      comp=Z,2.0nm,0.6s
FITZ  Fitzroy Crossi   37.03 211  P        P       19 32 51.3  +0.7
AS31  Alice Springs    38.86 196  P        P       19 33 05.9  -0.1
ASAR  Alice Springs    38.86 196  P        P       19 33 05.5  -0.6
      comp=Z,0.4nm,0.4s,baz=18,slow=9.1,SNR=13
      comp=Z,0.4nm,0.4s
ASAR  Alice Springs    38.86 196  P        P       19 33 05.7  -0.3
STKA  Stephens Creek   45.64 184  P        P       19 34 00.8   0.0
      comp=Z,1.7nm,0.4s,baz=20,slow=7.9,SNR=6.7
      comp=Z,1.7nm,0.4s
BBOO  Buckleboo        47.22 190  P        P       19 34 12.9  -0.2
FORT  Forrest          47.28 200  P        P       19 34 14.1  +0.5
TOO   Toolangi         51.22 179  P        P       19 34 44.8  +1.3
MK31  Makanchi Array   61.24 316  P        P       19 35 54.4  -0.3
MKAR  Makanchi Array   61.24 316  P        P       19 35 55.0  +0.3
      comp=Z,0.1nm,0.5s,baz=92,slow=7.0,SNR=4.5
      comp=Z,0.1nm,0.5s
KURK  Kurchatov        64.32 320  P        P       19 36 14.5  -0.5
KURK  Kurchatov        64.32 320  IAmb     IAmb    19 36 35.6
      comp=Z,4.0nm,1.4s
KURBB Kurchatov Arra   64.36 320  P        P       19 36 14.5  -0.7
      comp=Z,0.1nm,0.3s,baz=106,slow=6.8,SNR=1.8
      comp=Z,0.1nm,0.3s
```

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*IDC **08** 19:49:23.6±2.0, 11°.02S×166°.94E, h0^{km}, mb3.7/5,*
mbtmp3.8/6, ML4.4/1, MS3.6/17, Error ellipse:
s-maj=54.8km s-min=28.1km az=147.0

ISC 08 19:49:27.8±1.9**, 11°.1S**±0°.3×**166°.9E**±0°.2**, h28**^{km}**, n22,**
σ0^s.45/6**, mb3.8**/5**, MS3.6**/13**, Santa Cruz Islands**

```
Code  Station Name        Δ°   AZ°   Phase ID         Time      Res
                                  Op       ISC      h  m  s    ISC
HNR   Honiara           7.06 283  Pn       Pn      19 51 09.4  -0.1
      6.1nm,0.3s,baz=72,slow=3.7,SNR=4.9
HNR                               LR       LR      19 53 51.5
      comp=Z,1µm,18.7s,baz=190,slow=38
      39nm,0.6s
HNR                               AML      AML
DZM   Mont Dzumac      10.93 182  LR       LR      19 55 16.5
      comp=Z,102nm,20.1s,baz=18,slow=32
KRVT  Keravat (AS076   16.22 293  LR       LR      19 59 33.9
      comp=Z,207nm,20.6s,baz=104,slow=38
PMG   Port Moresby     19.52 273  LR       LR      20 01 00.5
      comp=Z,372nm,19.8s,baz=64,slow=36
CTA   Charters Tower   21.80 243  LR       LR      20 01 49.5
      comp=Z,202nm,18.9s,baz=43,slow=34
URZ   Urewera          28.55 163  LR       LR      20 04 23.9
      comp=Z,156nm,21.0s,baz=332,slow=32
STKA  Stephens Creek   31.21 225  LR       LR      20 07 45.4
      comp=Z,105nm,20.4s,baz=29,slow=35
WRA   Warramunga Arr   32.55 250  P        P       19 55 57.0   0.0
      1.1nm,0.9s,baz=80,slow=8.7,SNR=5.5
      1.1nm,0.9s
GUMO  Guam             32.87 318  LR       LR      20 09 49.9
      comp=Z,42nm,18.4s,baz=170,slow=37
RAR   Rarotonga        33.47 112  LR       LR      20 06 47.2
      comp=Z,63nm,21.9s,baz=274,slow=31
ASAR  Alice Springs    33.81 244  P        P       19 56 07.7  -0.1
      1.0nm,0.9s,baz=70,slow=10,SNR=13
ASAR                              LR       LR      20 09 05.8
      comp=Z,158nm,18.2s,baz=60,slow=35
      1.0nm,0.9s
FITZ  Fitzroy Crossi   40.49 255  LR       LR      20 11 44.2
      comp=Z,176nm,21.4s,baz=31,slow=33
PPT   Papeete          42.56 104  LR       LR      20 10 46.0
      comp=Z,72nm,20.2s,baz=359,slow=30
PPT2  Papeete2         42.56 104 eLR       LR      20 09 08.1
      149nm,25.5s
PPT2                             eLR       LR      20 09 14.9
      156nm,26.0s
DAV   Davao City (W)   44.93 292  LR       LR      20 16 00.5
      comp=Z,68nm,18.6s,baz=140,slow=36
NWAO  Narrogin (SRO)   50.40 236  LR       LR      20 19 48.6
      comp=Z,177nm,19.4s,baz=1.0,slow=36
PETK  Petropavlovsk-   64.43 354  LR       LR      20 22 13.9
      comp=Z,32nm,21.5s,baz=143,slow=31
KLR   Kul'dur          67.57 336  LR       LR      20 27 18.6
      comp=Z,33nm,19.7s,baz=194,slow=34
SONM  Songino Array    79.39 323  P        P       20 01 31.2  -0.3
      0.2nm,0.4s,baz=125,slow=4.2,SNR=2.1
      0.2nm,0.4s
ILAR  Eielson Array    83.19  18  P        P       20 01 50.9  -0.2
      0.7nm,0.9s,baz=228,slow=5.9,SNR=6.3
      0.7nm,0.9s
BBB   Bella Bella      83.97  34  LR       LR      20 40 18.7
      comp=Z,31nm,18.2s,baz=97,slow=36
MKAR  Makanchi Array   94.35 317  P        P       20 02 45.7  +0.7
      0.3nm,0.8s,baz=84,slow=4.9,SNR=2.8
      0.3nm,0.8s
```

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*DSN **08** 19:54:12.1±1.4, 27°.43N×55°.58E, h10^{km}, ML2.8/8, Error*
ellipse: s-maj=40.5km s-min=9.2km az=60.0

*TEH **08** 19:54:13.5, 27°.28N×55°.45E, h14^{km}±72^{km}, ML2.8,*
Presumed earthquake

ISC 08 19:54:14.4±1.3**, 27°.26N**±0°.04×**55°.52E**±0°.07**, h15**^{km}**, n12,**
σ0^s.88/14**, Southern Iran**

```
Code  Station Name        Δ°   AZ°   Phase ID         Time      Res
                                  Op       ISC      h  m  s    ISC
BNDS  Bandar-Abbas      0.60  76  Pg       Pb      19 54 26.0  -0.7
IBND  Bandar-abas       0.93  78  Pg       Pn      19 54 32.6  -0.3
SHME  Shamm             1.32 155  P        Pn      19 54 37.8  -0.6
SHME                              S        Sg      19 54 58.2  +1.0
BANOM Banah             1.50 152  P        Pn      19 54 41.2  +0.3
BANOM                             S        Sg      19 55 03.8  +1.0
MSFE  Esma-Masafi       1.97 163  P        Pb      19 54 48.7  -1.4
MDH   Madha             2.07 160  P        Pn      19 54 49.7  +1.0
LMD1  Lamerd            2.09 273  Pn       Pn      19 54 49.0  +0.1
UOSS  Minazif           2.38 165  P        Pn      19 54 53.3  +0.4
HATD  Hatta, Dubai      2.48 167  P        Pn      19 54 54.5  +0.1
ASHO  Ashiyiah          2.61 169  P        Pn      19 54 57.0  +1.0
KHGB  Koh Gabri         3.22  15  Pn       Pn      19 55 05.8  +1.1
IMEH  Mehriz            4.20 349  Pn       Pn      19 55 18.2  +0.2
```

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*IDC **08** 20:01:07.0±1.0, 56°.84S×25°.69W, h0^{km}, mb4.3/4,*
mbtmp4.3/4, Error ellipse: s-maj=43.4km s-min=25.6km
az=73.0

ISC 08 20:01:15.1±1.1**, 56°.9S**±0°.2×**25°.9W**±0°.3**, h61**^{km}**, n11,**
σ1^s.02/6**, mb4.3**/3**, South Sandwich Islands region**

```
Code  Station Name        Δ°   AZ°   Phase ID         Time      Res
                                  Op       ISC      h  m  s    ISC
QSPA  South Pole Qui   33.37 180  P        P       20 07 47.4  +0.1
      1.5nm,0.5s,baz=195,slow=8.9,SNR=32
      1.5nm,0.5s
BDFB  Brasilia         44.45 329  P        P       20 09 20.9  +0.8
      7.4nm,0.4s,baz=113,slow=7.7,SNR=12
      7.4nm,0.4s
H10S2 ASCENSION HYDR48.60     15  T        T       21 02 54.1
      baz=189,slow=74,SNR=9.2
H10S3 ASCENSION HYDR48.60     15  T        T       21 02 55.7
      baz=31,slow=74,SNR=5.8
H10N1 ASCENSION HYDR49.71     15  T        T       21 03 54.9
      baz=188
H10N3 ASCENSION HYDR49.72     15  T        T       21 04 18.1
      baz=188,slow=74
H10N2 ASCENSION HYDR49.73     15  T        T       21 04 02.7
      baz=188,slow=74,SNR=5.7
LPAZ  La Paz           51.45 304  P        P       20 10 13.8  -1.0
      1.1nm,0.3s,baz=148,slow=5.7,SNR=8.3
      1.1nm,0.3s
TORD  Torodi Ar. Bea   73.43  28  P        P       20 12 40.3  -0.2
      0.5nm,0.5s,baz=196,slow=5.9,SNR=6.5
      0.5nm,0.5s
SONM  Songino Array   150.04  87  PKPbc    PKPbc   20 20 57.2  -0.6
      0.2nm,0.3s,baz=215,slow=2.2,SNR=4.8
ILAR  Eielson Array   151.21 310  PKPbc    PKiKP   20 21 01.4  +1.0
      0.3nm,0.6s,baz=111,slow=2.0,SNR=1.8
```

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*NEIC **08** 20:23:48.7±2.7, 44°.53N±0°.02×115°.18W±0°.03, h10^{km}±2^{km},*
mb3.9/27, ML4.1/8, ML4.4/6(BUT), Mwr4.0/33(SLM), Error
ellipse: s-maj=3.9km s-min=3.4km az=44.0

*NEIC **08** 20:23:48, 44°.52N×115°.17W, h10^{km}, Moment Tensor*
Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}0.00;
$M_{\theta\theta}$0.90; $M_{\phi\phi}$-0.90; $M_{r\theta}$-0.13; $M_{\theta\phi}$-1.07; $M_{\phi r}$0.35; Fault
plane solution: $M_0$1.45000×10^{15} NP1:ϕ_s340.00000°,
δ90.00000°, λ15.00000°. NP2:ϕ_s250.00000°, δ75.00000°,
λ180.00000°. Principal axes: T 1.4456, Plg11.0000°,
Azm206.0000°; N 0.0000, Plg75.0000°, Azm340.0000°; P
-1.4456, Plg11.0000°, Azm114.0000°;

*IDC **08** 20:23:49.9±0.8, 44°.48N×115°.26W, h0^{km}, mb3.6/3,*
mbtmp3.7/12, ML3.8/8, MS3.5/4 Error ellipse:
s-maj=13.4km s-min=10.1km az=99.0

*BUT **08** 20:23:50.4±3.8, 44°.47N±0°.02×115°.21W±0°.03, h8^{km}±5^{km},*
Error ellipse: s-maj=0.0km s-min=0.0km az=122.0

ISC 08 20:23:49.3±1.2**, 44°.52N**±0°.03×**115°.17W**±0°.03**, h10**^{km}±9^{km}**,**
n102, σ1^s.77/105**, mb3.8**/4**, MS3.8**/3**, Western Idaho**

```
Code  Station Name        Δ°   AZ°   Phase ID         Time      Res
                                  Op       ISC      h  m  s    ISC
PLID  Pearl Lake        0.82 314           Pg      20 24 05.7  +0.4
PLID                              Sg       Sg      20 24 15.5  -0.5
PLID                              IAML             20 24 17.5
      4µm,0.7s
PLID                              IAML             20 24 18.1
      3µm,0.9s
HLID  Hailey            1.10 150           Pg      20 24 10.3  -0.2
HLID                                       Sg      20 24 24.1  -0.7
HLID                              IAML             20 24 29.5
      10µm,0.3s
HLID                              IAML             20 24 30.5
      6µm,0.3s
MFID  Camas Ranch       1.20 204           Pg      20 24 12.0  -0.4
MFID                                       Sg      20 24 27.0  -1.0
BCYI  Bear Canyon       1.28  99  Pn       Pn      20 24 14.3  +0.9
BCYI                              Sg       Sb      20 24 29.9  -0.2
CNCI  Crows Nest Can    1.37 115           Pn      20 24 15.5  +0.9
BMO   Blue Mountains    1.56 283           Pn      20 24 17.6  +0.4
BMO                               Sg       Sn      20 24 36.5  -1.1
DLMT  Dillon            2.01  64           Pn      20 24 25.1  +1.7
F10A  Beach Ranch, E    2.06 316  Pn       Pn      20 24 25.8  +1.8
MSO   Missoula          2.47  20           Pn      20 24 31.3  +1.6
LNOR  Lincton Mounta    2.59 303           Pn      20 24 32.7  +1.5
J08A  Circle Bar Ran    2.66 245           Pn      20 24 33.0  +0.8
BOZ   Bozeman (W)       2.73  65           Pn      20 24 33.3   0.0
G08A  Pilot Rock        2.80 287           Pn      20 24 34.4  +0.1
YHB   Horse Butte       2.84  84           Pn      20 24 36.0  +1.1
YHL   Hebgen Lake       2.86  82  Pn       Pn      20 24 36.5  +1.3
E09A  Wood Farm, Sta    2.89 315           Pn      20 24 36.3  +0.9
YMR   Madison River     3.01  86           Pn      20 24 37.9  +0.7
YPT   Yellepit          3.09 301           Pn      20 24 39.0  +0.9
YHH   Holmes Hill       3.09  83  Pn       Pn      20 24 39.3  +0.9
YFT   Old Faithful      3.10  90  Pn       Pn      20 24 40.4  +1.9
FXWY  Fox Creek         3.11 105  Pn       Pn      20 24 40.4  +1.8
YPP   Pitchstone Pla    3.14  93           Pn      20 24 40.5  +1.5
YNM   Yellowstone No    3.19  85           Pn      20 24 40.4  +0.6
YNR   Norris Junctio    3.21  85           Pn      20 24 40.8  +0.8
HVU   Hansel Valley     3.25 147           Pn      20 24 41.3  +0.9
WVOR  Wild Horse Val    3.27 232           Pn      20 24 41.7  +1.0
SNOW  Snow King Moun    3.35 107           Pn      20 24 42.9  +0.9
E08A  Dider Farm, El    3.37 307           Pn      20 24 43.3  +1.3
LKWY  Lake              3.41  88           Pn      20 24 44.2  +1.5
LOHW  Long Hollow       3.41 104           Pn      20 24 44.7  +1.9
AHID  Auburn Hatcher    3.43 119           Pn      20 24 45.0  +2.0
YMP   Mirror Lake Pl    3.58  85  Pn       Pn      20 24 46.2  +1.0
HAWA  Hanford           3.60 303           Pn      20 24 46.1  +1.1
ELK   Elko              3.77 181  Pn       Pn      20 24 50.1  +2.4
      24nm,0.3s,baz=353,slow=15,SNR=70
      83nm,0.4s
ELK                               AML      AML
SPUT  South Promonto    3.78 147           Pn      20 24 49.9  +2.2
E07A  Sunnyside         3.88 303           Pn      20 24 50.4  +1.5
HWUT  Hardware Ranch    3.93 137           Pn      20 24 52.0  +2.2
C09A  Chrisman Ranch    3.93 328           Pn      20 24 51.6  +2.0
G06A  Carlson Farm,     3.95 282           Pn      20 24 51.6  +1.6
NEW   Newport           3.98 341  Pn       Pn      20 24 52.6  +2.1
      2.8nm,0.3s,baz=161,slow=14,SNR=26
      12nm,0.4s
NEW                               AML      AML
BMN   Battle Mountai    4.36 201           Pn      20 24 58.5  +2.9
G05A  Wamic             4.43 282           Pn      20 24 57.7  +1.2
PDAR  Pinedale Array    4.43 111  Pn       Pn      20 25 00.2  +3.5
      1.6nm,0.3s,baz=298,slow=15,SNR=22
PDAR                              Pg       Pb      20 25 09.6  +2.3
      4.4nm,0.3s,baz=299,slow=20,SNR=19
      6.8nm,0.6s
PDAR                              AML      AML
K05A  Summer Lake       4.53 249           Pn      20 24 59.6  +1.6
LTY   Liberty           4.72 307           Pn      20 25 01.6  +1.0
NLU   North Lily Min    5.10 152           Pn      20 25 07.0  +1.0
K04D  Chiloquin, OR     5.14 251           Pn      20 25 07.5  +1.1
STD   Studebaker Rid    5.26 292  Pn       Pn      20 25 08.9  +0.9
BBOR  Butler Butte      5.68 256           Pn      20 25 13.3  -0.6
G03D  McMinnville, O    5.80 280           Pn      20 25 13.8  -1.5
TMUT  Trail Mountain    5.99 149  Pn       Pn      20 25 15.8  -2.5
BEKR  Beckworth         6.04 221           Pn      20 25 18.0  -0.8
M03C  McCloud           6.05 240  Pn       Pn      20 25 16.9  -2.0
PSUT  Pine Spring       6.06 170           Pn      20 25 16.9  -2.2
GNW   Green Mountain    6.14 302  Pn       Pn      20 25 18.3  -1.7
YBH   Yreka Blue Hor    6.18 246  Pn       Pn      20 25 22.4  +1.7
      0.9nm,0.3s,baz=62,slow=16,SNR=12
      2.2nm,0.4s
YBH                               AML      AML
E03A  Lebam             6.24 292  Pn       Pn      20 25 19.7  -1.6
PNTR  Pine Nut          6.35 213  Pn       Pn      20 25 22.4  -0.8
M02C  Callahan          6.45 244           Pn      20 25 23.1  -1.2
NVAR  Mina Array Bea    6.52 202  Pn       Pn      20 25 28.9  +3.5
      0.8nm,0.3s,baz=14,slow=15,SNR=26
NVAR                              Pg       Pb      20 25 46.2  +3.2
      5.1nm,0.3s,baz=24,slow=15,SNR=15
      5.8nm,0.7s
NVAR                              AML      AML
K22A  Casper            6.55 104           Pn      20 25 25.3  -0.5
O20A  White River Ci    6.75 128  Pn       Pn      20 25 26.6  -1.9
PV12  Saucer Basin,     7.82 140           Pn      20 25 42.4  -0.9
PFO   Pinyon Flats O   10.94 186  Pn       Pn      20 26 30.3  +4.3
      0.2nm,0.3s,baz=7.1,slow=8.1,SNR=1.8
PFO                               Lg       Lg      20 29 31.0
      0.2nm,0.3s,baz=68,slow=19,SNR=1.2
      1.2nm,0.4s
PFO                               AML      AML
ANMO  Albuquerque      11.67 142  Lg       Lg      20 29 58.6
      0.3nm,0.3s,baz=352,slow=5.6,SNR=3.3
ANMO                              LR       LR      20 31 02.5
      comp=Z,42nm,20.8s,baz=320,slow=37
ULM   Lac du Bonnet    14.26  59  Pn       Pn      20 27 09.8  -1.2
      2.2nm,0.6s,baz=291,slow=16,SNR=1.8
ULM                               Lg       Lg      20 31 14.1
      0.4nm,0.3s,baz=231,slow=15,SNR=3.8
I37A  Lemond, Waseca   15.60  84  Pn       Pn      20 27 27.4  -1.7
I37A                              IAmb     IAmb    20 27 36.8
      comp=Z,7.5nm,0.7s
129A  Stewart Farms,   15.76 134  Pn       Pn      20 27 29.4  -1.9
SN07  Snyder 07        15.91 131  Pn       Pn      20 27 30.6  -2.6
WMOK  Wichita Mounta   15.94 122  Pn       Pn      20 27 31.7  -1.9
T35A  Sooner Cattle    16.03 112           Pn      20 27 32.6  -2.2
T35A                              IAmb     IAmb    20 27 42.1
      comp=Z,11nm,0.9s
OK051 E0350 and S346   16.05 114  Pn       Pn      20 27 34.1  -0.9
TPB01 Permian Basin    16.25 143  Pn       Pn      20 27 36.4  -1.3
QUOK  Quay             16.33 114           Pn      20 27 37.5  -1.1
S34M  Telegraph Cree   16.67 329           Pn      20 27 43.0  +0.2
```

WTFS	Witchita Falls	16.79	124	P	Pn	20 27 44.3	-0.2
TUL3	Leonard	17.08	114	P	Pn	20 27 48.5	+0.3
TUL3				IAmb	IAmb	20 28 02.9	
	comp=Z,10nm,0.8s						
L40A	Anamosa	17.59	90	P	Pn	20 27 53.7	-0.7
TXAR	Lajitas Array	17.70	145	P	P	20 27 57.3	+0.5
	baz=357,slow=11,SNR=4.6						
TXAR				Lg	Lg	20 33 13.2	
	baz=308,slow=38,SNR=1.4						
	comp=Z,0.7nm,0.9s						
TXAR	Lajitas Array	17.70	145	P	Pn	20 27 54.8	-1.1
U38A	Gravette	17.72	110	P	Pn	20 27 55.4	-0.6
U38A				IAmb	IAmb	20 28 00.6	
	comp=Z,15nm,1.4s						
SAND	Sanderson	17.83	140	P	Pn	20 27 56.3	-1.2
YKA	Yellowknife Ar	18.01	1	P	P	20 28 01.2	+1.3
	comp=Z,0.2nm,0.3s,baz=183,slow=12,SNR=3.2						
YKA				Lg	Lg	20 33 17.1	
	comp=Z,0.2nm,0.3s,baz=172,slow=26,SNR=2.0						
	comp=Z,2.7nm,0.8s						
YKA				AML	AML		
YKA	Yellowknife Ar	18.01	1	P	Pn	20 27 59.1	-0.3
JFWS	Jewell Farm	18.07	86	P	Pn	20 27 58.9	-1.4
JFWS				IAmb	IAmb	20 28 14.0	
	comp=Z,12nm,0.9s						
R40A	Maddies Statio	18.24	102	P	Pn	20 28 00.7	-1.8
R40A				IAmb	IAmb	20 28 05.5	
	comp=Z,10nm,1.1s						
BRDY	Brady	18.32	131	P	Pn	20 28 01.8	-1.7
BRDY				IAmb	IAmb	20 28 07.5	
	comp=Z,5.2nm,0.9s						
CCM	Cathedral Cave	19.07	101	P	P	20 28 09.8	-1.8
CCM				IAmb	IAmb	20 28 17.6	
	comp=Z,5.0nm,1.0s						
MIAR	Mount Ida	19.35	114	P	P	20 28 12.0	-2.9
MIAR				IAmb	IAmb	20 28 28.7	
	comp=Z,4.7nm,0.9s						
FCAR	Ozark Folk Cen	19.55	108	P	P	20 28 15.1	-1.9
FCAR				IAmb	IAmb	20 28 21.4	
	comp=Z,7.0nm,0.8s						
PBMO	Poplar Bluff	20.25	104	P	P	20 28 22.3	-2.3
MMPY	Sheldon Lake,	20.39	338	P	P	20 28 23.6	-2.4
MMPY				IAmb	IAmb	20 28 39.5	
	comp=Z,4.7nm,1.0s						
N31M	Braeburn, Yuko	20.88	332	P	P	20 28 28.3	-3.0
O29M	Mount Kennedy	21.12	327	P	P	20 28 30.5	-3.5
O29M				IAmb	IAmb	20 28 40.8	
	comp=Z,5.2nm,0.7s						
ILAR	Eielson Array	26.86	330	P	P	20 29 32.1	+2.4
	comp=Z,0.3nm,0.9s,baz=122,slow=8.2,SNR=5.5						
	comp=Z,0.3nm,0.9s						
ILAR	Eielson Array	26.86	330	P	P	20 29 28.3	-1.4
SPITS	Spitsbergen Ar	54.13	11	LR	LR	20 57 03.3	
	comp=Z,85nm,19.0s,baz=316,slow=37						
ATAH	Atahualpa	61.16	137	LR	LR	21 00 38.3	
	comp=Z,44nm,19.8s,baz=334,slow=36						
FINES	FINESS Array B	69.84	19	P	P	20 35 03.5	+3.9
	comp=Z,1.9nm,0.9s,baz=347,slow=5.7,SNR=4.6						
	comp=Z,1.9nm,0.9s						
USRK	Ussuriysk Ar.	73.40	316	LR	LR	21 07 05.0	
	comp=Z,50nm,20.9s,baz=180,slow=35						
ESDC	Sonseca Array	75.84	48	P	P	20 35 38.7	+3.1
	comp=Z,0.2nm,0.5s,baz=330,slow=5.0,SNR=2.0						
	comp=Z,0.2nm,0.5s						
HHC	Hu-ho-hao-te	85.22	326	*e*P	P	20 36 23.1	-2.9

*NEIC **08** 20:24:29.2±1.4, 44°.54N±0°.06×115°.15W±0°.08, h10^{km}±1^{km}, mb4.3/60, ML4.5/76, Mwr4.4/37, ML4.9/28(BUT), Error ellipse: s-maj=10.5km s-min=9.5km az=211.0*

*IDC **08** 20:24:30.4±0.6, 44°.43N×115°.29W, h0^{km}, mb3.8/9, mbtmp3.8/21, ML3.5/11, MS3.5/11, Error ellipse: s-maj=9.6km s-min=6.9km az=82.0*

*BUT **08** 20:24:32.8±1.9, 44°.46N±0°.06×115°.24W±0°.09, h4^{km}±3^{km}, Error ellipse: s-maj=9.9km s-min=8.0km az=223.0*

*GCMT **08** 20:24:41.2±0.3, 44°.52N±0°.01×115°.19W±0°.02, h18^{km}±1^{km}, MW4.8/92, Moment Tensor Solution. s23,c27; s92,c122; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.64±.09; $M_{\theta\theta}$1.32±.08; $M_{\phi\phi}$-0.67±.07; $M_{r\theta}$0.10±.15; $M_{\theta\phi}$-1.51±.06; $M_{\phi r}$0.77±.18; Best double couple: $M_0$2.03500×10^{16} NP1:ϕ_s257.00000°, δ65.00000°, λ-162.00000°. NP2: ϕ_s159.00000°, δ74.00000°, λ-27.00000°. Principal axes: T 2.1620, Plg6.0000°, Azm209.0000°; N -0.2520, Plg59.0000°, Azm310.0000°; P -1.9080, Plg30.0000°, Azm116.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 08 20:24:31.4±0.5, **44°.50N**±0°.04×**115°.18W**±0°.04, **h11**^{km}, **n163**, σ**1**^{s}.**83**/146, **mb4.3**/27, **MS3.7**/10, **Western Idaho**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PLID	Pearl Lake	0.83	316	Pn	Pg	20 24 47.8	+0.3
PLID					Sg	20 24 56.8	-1.6
HLID	Hailey	1.08	149	Pn	Pb	20 24 51.8	-0.4
HLID					Sg	20 25 06.0	-0.4
HLID				IAML		20 25 10.8	
	11µm,0.5s						
MFID	Camas Ranch	1.18	204	Pn	Pn	20 24 53.1	-0.8
BCYI	Bear Canyon	1.28	98	Pn	Pg	20 24 56.9	+0.8
CNCI	Crows Nest Can	1.36	114		Pg	20 24 58.8	+1.2
BMO	Blue Mountains	1.56	284	Pn	Pn	20 25 00.3	+1.2
DLMT	Dillon	2.03	64	Pn	Pn	20 25 06.3	+0.7
LNOR	Lincton Mounta	2.59	303	Pn	Pn	20 25 12.1	-1.1
J08A	Circle Bar Ran	2.64	246	Pn	Pn	20 25 12.7	-1.3
YMR	Madison River	3.02	85	Pn	Pn	20 25 18.6	-0.7
YPT	Yellepit	3.09	301	Pn	Pn	20 25 17.6	-2.5
FXWY	Fox Creek	3.11	105	Pn	Pn	20 25 19.6	-1.0
YPP	Pitchstone Pla	3.14	93	Pn	Pn	20 25 19.3	-1.8
YPP				IAML		20 26 19.8	
	comp=N,2µm,1.6s						
YNR	Norris Junctio	3.22	85	Pn	Pn	20 25 19.9	-2.2
YNR				IAML		20 26 26.5	
	comp=E,2µm,1.0s						
HVU	Hansel Valley	3.24	146	Pn	Pn	20 25 20.4	-1.8
SNOW	Snow King Moun	3.36	106	Pn	Pn	20 25 22.7	-1.3
SNOW				IAML		20 26 35.2	
	comp=E,1µm,1.5s						
SNOW				IAML		20 26 43.6	
	comp=E,1µm,1.9s						
E08A	Dider Farm, El	3.38	308	Pn	Pn	20 25 19.7	-4.4
E08A				IAML		20 26 32.5	
	comp=N,991nm,1.3s						
LOHW	Long Hollow	3.41	103	Pn	Pn	20 25 23.8	-1.0
AHID	Auburn Hatcher	3.43	119	Pn	Pn	20 25 24.0	-1.0
AHID				IAML		20 26 38.1	
	comp=N,1µm,1.0s						
YMP	Mirror Lake Pl	3.59	84	Pn	Pn	20 25 26.5	-0.8
YMP				IAML		20 26 48.6	
	comp=N,960nm,0.9s						
YNE	Yellowstone No	3.72	80	Pn	Pn	20 25 28.1	-0.8
YNE				IAML		20 26 46.3	
	comp=E,1µm,0.8s						
ELK	Elko	3.75	181	Pn	Pn	20 25 29.3	-0.1
	comp=E,10nm,0.3s,baz=341,slow=18,SNR=2.0						
ELK				Pg	Pb	20 25 37.0	-0.8
	comp=E,21nm,0.3s,baz=359,slow=17,SNR=8.5						
ELK				Lg	Lg	20 26 25.8	
	comp=E,121nm,0.3s,baz=265,slow=21,SNR=8.2						
	comp=E,67nm,0.5s						
ELK				AML	AML		
ELK	Elko	3.75	181	Pn	Pn	20 25 27.5	-1.9
ELK				IAML		20 26 33.2	
	comp=E,759nm,0.7s						
ELK				IAML		20 26 34.1	
	comp=E,642nm,0.7s						
SPUT	South Promonto	3.77	147	Pn	Pn	20 25 28.3	-1.2
SPUT				IAML		20 26 36.9	
	comp=N,947nm,1.8s						
SPUT				IAML		20 26 45.3	
	comp=E,852nm,1.9s						
E07A	Sunnyside	3.88	304	Pn	Pn	20 25 29.9	-1.1
E07A				IAML		20 26 53.5	
	comp=E,760nm,1.0s						
BGU	Big Grassy Mou	3.91	155	Pn	Pn	20 25 30.4	-1.1
BGU				IAML		20 26 38.5	
	comp=E,779nm,1.5s						
BGU				IAML		20 26 45.7	
	comp=N,799nm,2.1s						
HWUT	Hardware Ranch	3.92	136	Pn	Pn	20 25 31.1	-0.5
HWUT				IAML		20 26 37.6	
	comp=N,676nm,1.1s						
HWUT				IAML		20 26 58.9	
	comp=N,906nm,1.0s						
NEW	Newport	4.00	341	Pn	Pn	20 25 34.1	+1.5
	comp=N,8.9nm,0.3s,baz=161,slow=18,SNR=5.9						
NEW				Lg	Lg	20 26 35.3	
	comp=N,119nm,0.3s,baz=280,slow=22,SNR=11						
	comp=N,62nm,0.6s						
NEW				AML	AML		
NEW	Newport	4.00	341	Pn	Pn	20 25 29.8	-2.9
NEW				IAML		20 26 52.3	
	comp=N,642nm,1.1s						
MXC	Moxie City	4.15	302	Pn	Pn	20 25 31.7	-3.0
MXC				IAML		20 27 18.0	
	comp=E,537nm,1.4s						
MXC				IAML		20 27 18.7	
	comp=N,678nm,1.5s						
PINE	Pine Mountain	4.21	262	Pn	Pn	20 25 34.1	-1.5
PINE				IAML		20 27 00.2	
	comp=N,575nm,1.9s						
PINE				IAML		20 27 00.4	
	comp=E,650nm,2.5s						
RLMT	Red Lodge	4.25	79	Pn	Pn	20 25 35.9	-0.3
BMN	Battle Mountai	4.33	201	Pn	Pn	20 25 35.5	-1.9
BMN				IAML		20 27 02.9	
	comp=N,553nm,1.0s						
BMN				IAML		20 27 03.7	
	comp=E,715nm,1.1s						
I05D	Terrebonne, OR	4.42	270	Pn	Pn	20 25 34.3	-4.1
PDAR	Pinedale Array	4.43	111	Pn	Pn	20 25 41.5	+2.8
	comp=E,0.9nm,0.3s,baz=281,slow=12,SNR=2.0						
PDAR				Pg	Pb	20 25 50.7	+1.3
	comp=E,4.6nm,0.3s,baz=300,slow=16,SNR=6.8						
PDAR				Lg	Lg	20 26 51.4	
	baz=293,slow=22						
PDAR				LR	LR	20 26 53.4	
	comp=E,115nm,21.8s,baz=272,slow=32						
	comp=E,28nm,0.8s						
PDAR				AML	AML		
K05A	Summer Lake	4.51	249	Pn	Pn	20 25 36.4	-3.4
K05A				IAML		20 27 13.3	
	comp=E,407nm,1.8s						
K05A				IAML		20 27 18.8	
	comp=N,369nm,2.4s						
J05D	Fort Rock, OR	4.54	257	Pn	Pn	20 25 36.3	-3.9
J05D				IAML		20 27 12.4	
	comp=N,584nm,2.2s						
MOD	Modoc Plateau	4.56	237	Pn	Pn	20 25 34.8	-5.6
MOD				IAML		20 27 12.2	
	comp=N,496nm,1.6s						
MOD				IAML		20 27 21.0	
	comp=E,379nm,1.1s						
LTY	Liberty	4.72	308	Pn	Pn	20 25 42.2	-0.4
LTY				IAML		20 27 17.3	
	comp=N,537nm,1.6s						
LTY				IAML		20 27 40.5	
	comp=E,410nm,1.6s						
WIFE	Three Sisters-	4.79	267	Pn	Pn	20 25 43.1	-0.5
WIFE				IAML		20 27 16.4	
	comp=N,428nm,1.1s						
WIFE				IAML		20 27 20.8	
	comp=E,377nm,1.5s						
NLU	North Lily Min	5.09	152	Pn	Pn	20 25 49.2	+1.5
NLU				IAML		20 27 31.1	
	comp=N,261nm,1.7s						
NLU				IAML		20 27 36.1	
	comp=E,324nm,1.6s						
BBOR	Butler Butte	5.67	256	Pn	Pn	20 25 55.3	-0.4
L04D	Klamath Falls	5.67	249	Pn	Pn	20 25 55.7	0.0
G03D	McMinnville, O	5.79	280	Pn	Pn	20 25 58.3	+1.1
COR	Corvallis	5.81	274		Pn	20 25 56.1	-1.3
GNW	Green Mountain	6.14	303	Pn	Pn	20 26 04.2	+2.2
YBH	Yreka Blue Hor	6.17	246	Pn	Pn	20 26 04.2	+1.7
	comp=E,0.7nm,0.3s,baz=58,slow=9.3,SNR=5.6						
YBH				Lg	Lg	20 27 46.2	
	comp=E,0.8nm,0.3s,baz=163,slow=13,SNR=3.4						
	comp=E,8.4nm,0.6s						
YBH				AML	AML		
YBH	Yreka Blue Hor	6.17	246	Pn	Pn	20 26 02.6	+0.2
I02E	Swisshome, OR	6.23	269		Pn	20 26 03.8	+0.5
YERR	Yerington	6.29	210	Pn	Pn	20 26 05.0	+0.8
NVAR	Mina Array Bea	6.50	202	Pn	Pn	20 26 06.0	-1.2
	comp=E,3.4nm,0.3s,baz=25,slow=18,SNR=5.3						
NVAR				Pg	Pb	20 26 26.7	+2.1
	comp=E,5.5nm,0.3s,baz=15,slow=14,SNR=4.9						
NVAR				Lg	Lg	20 27 52.0	
	baz=23,slow=35						
NVAR				LR	LR	20 29 20.2	
	comp=E,260nm,20.6s,baz=30,slow=46						
	comp=E,23nm,0.8s						
NVAR				AML	AML		
L02F	Cave Junction	6.57	252	Pn	Pn	20 26 07.5	-0.4
A04D	Lummi Island	6.69	312		Pn	20 26 08.8	-0.6
PGC	Sidney	7.05	309		Pn	20 26 13.8	-0.6
HMU	Henry Mountain	7.36	151		Pn	20 26 16.7	-2.2
PV21	Cone Mtn., Par	7.54	140	Pn	Pn	20 26 18.9	-2.5
KMPM	Mount Pierce	7.76	241	Pn	Pn	20 26 20.7	-3.7
U15A	North Rim	8.35	164	Pn	Pn	20 26 30.3	-2.3
EDM	Edmonton	8.81	7	Pn	Pn	20 26 35.9	-2.8
CCCA	Chr Cany lake	9.12	191		Pn	20 26 40.0	-2.9
S22A	4UR Ranch, Cre	9.22	134		Pn	20 26 42.7	-1.9
GSC	Goldstone, Bar	9.27	188		Pn	20 26 40.7	-4.3
Q24A	Divide	9.31	123		Pn	20 26 43.9	-1.9
W13A	Hualapai Mount	9.44	174		Pn	20 26 43.8	-3.6
OGNE	Ogallala	10.30	106		Pn	20 26 59.4	+0.3
PFO	Pinyon Flats O	10.91	186	Pn	Pn	20 27 09.4	+1.8
	comp=E,0.1nm,0.3s,baz=11,slow=12,SNR=1.2						
PFO				Lg	Lg	20 30 11.0	
	comp=E,0.2nm,0.3s,baz=89,slow=11,SNR=2.1						
	comp=E,2.0nm,0.9s						
PFO				AML	AML		
T25A	Trinidad	10.97	128	Pn	Pn	20 27 08.0	-0.5
BBB	Bella Bella	11.53	316	Pn	Pn	20 27 15.8	0.0
	comp=E,0.1nm,0.3s,baz=114,slow=20,SNR=1.2						
BBB				Lg	Lg	20 30 25.9	
	comp=E,0.1nm,0.3s,baz=218,slow=20,SNR=1.8						
	comp=E,4.7nm,1.0s						
BBB				AML	AML		
ANMO	Albuquerque	11.66	142	Pn	Pn	20 27 19.9	+2.1
	comp=E,0.2nm,0.3s,baz=331,slow=10,SNR=1.9						
ANMO				Lg	Lg	20 30 41.6	
	comp=E,0.2nm,0.3s,baz=203,slow=13,SNR=4.1						
	comp=E,0.8nm,0.3s						
ANMO				AML	AML		
ECSD	EROS Data Cent	13.37	87		Pn	20 27 41.9	+0.9
ULM	Lac du Bonnet	14.27	59	Pn	Pn	20 27 51.5	-1.7
	comp=E,0.4nm,0.3s,baz=270,slow=12,SNR=4.4						
ULM				Lg	Lg	20 31 55.3	
	comp=E,0.6nm,0.3s,baz=339,slow=9.5,SNR=3.6						
	comp=E,1.9nm,0.4s						
ULM				AML	AML		
ULM	Lac du Bonnet	14.27	59		Pn	20 27 52.4	-0.8
MNTX	Cornudas Mount	14.91	146		Pn	20 27 58.7	-3.4
128A	Castleberry Fa	15.44	136		Pn	20 28 05.4	-3.8
EPLO	Experimental L	15.48	63		Pn	20 28 07.1	-2.5
I37A	Lemond, Waseca	15.61	84		Pn	20 28 11.5	+0.2
I37A				IAmb	IAmb	20 28 32.0	
	comp=Z,17nm,0.8s						
SN07	Snyder 07	15.90	131		Pn	20 28 14.3	-0.8
SN07				IAmb	IAmb	20 28 38.7	
	comp=Z,20nm,1.0s						
T35A	Sooner Cattle	16.03	112		Pn	20 28 17.2	+0.5
T35A				IAmb	IAmb	20 28 24.1	
	comp=Z,21nm,0.9s						
DEOK	Depew	16.66	115	P	Pn	20 28 24.5	-0.3
DEOK				IAmb	IAmb	20 28 48.6	
	comp=Z,42nm,1.2s						
DLBC	Dease Lake	16.69	332	Pn	P	20 28 28.6	+1.2
	comp=Z,1.6nm,0.9s,baz=156,slow=20,SNR=1.6						
DLBC				Lg	Lg	20 33 15.1	
	comp=Z,0.1nm,0.3s,baz=150,slow=20,SNR=1.5						
EYMN	Ely	16.73	70	P	Pn	20 28 24.9	-0.8
EYMN				IAmb	IAmb	20 28 52.5	
	comp=Z,22nm,1.1s						
L40A	Anamosa	17.60	90	P	Pn	20 28 36.9	+0.4
L40A				IAmb	IAmb	20 29 07.7	
	comp=Z,36nm,1.0s						
TX31	Lajitas Ar. Si	17.68	145	P	Pn	20 28 37.0	-0.7
TXAR	Lajitas Array	17.68	145	P	Pn	20 28 36.7	-1.0
	baz=341,slow=15,SNR=7.1						
TXAR				Lg	Lg	20 33 50.1	
	baz=26,slow=32,SNR=1.6						
	comp=Z,0.3nm,0.7s						
TXAR	Lajitas Array	17.68	145	P	Pn	20 28 37.2	-0.5
U38A	Gravette	17.72	110	P	Pn	20 28 36.6	-1.4
YKA	Yellowknife Ar	18.03	1	P	Pn	20 28 41.8	+0.1
	comp=Z,0.2nm,0.3s,baz=182,slow=14,SNR=3.6						
YKA				Lg	Lg	20 33 59.1	
	comp=Z,0.1nm,0.3s,baz=165,slow=27,SNR=3.8						
	comp=Z,2.4nm,0.8s						
YKA				AML	AML		
R40A	Maddies Statio	18.25	102		Pn	20 28 43.4	-1.0
BRDY	Brady	18.31	131	P	Pn	20 28 44.1	-1.3
MIAR	Mount Ida	19.35	113	P	P	20 28 55.7	-1.1
FCAR	Ozark Folk Cen	19.55	108	P	P	20 28 57.7	-1.3
FCAR				IAmb	IAmb	20 29 03.5	
	comp=Z,14nm,1.0s						
X40A	Basin Creek Fa	19.88	113	P	P	20 29 00.7	-1.9
X40A				IAmb	IAmb	20 29 31.4	
	comp=Z,19nm,1.3s						
MMPY	Sheldon Lake,	20.40	338	P	P	20 29 05.8	-2.3
S44A	Carbondale	20.63	100	P	P	20 29 08.9	-1.8
S44A				IAmb	IAmb	20 29 29.0	
	comp=Z,19nm,0.9s						
Z41A	Richland Creek	20.65	115	P	P	20 29 08.5	-2.5
N31M	Braeburn, Yuko	20.89	332	P	P	20 29 13.3	-0.2
M31M	Drury Creek, Y	20.97	334	P	P	20 29 11.3	-2.9
M31M				IAmb	IAmb	20 29 27.4	
	comp=Z,11nm,0.9s						
OLIL	Olney	21.00	96	P	P	20 29 12.3	-2.3
OLIL				IAmb	IAmb	20 29 20.1	
	comp=Z,23nm,1.1s						
HYT	Haines Junctio	21.05	329	P	P	20 29 13.0	-2.2
HYT				IAmb	IAmb	20 29 36.2	
	comp=Z,22nm,1.4s						
O29M	Mount Kennedy	21.13	327	P	P	20 29 14.3	-1.8
N30M	Aishikik Lake	21.33	330	P	P	20 29 15.1	-3.0
E46A	Sault Ste Mari	21.68	74	P	P	20 29 20.0	-2.0
BLO	Bloomington	21.94	94	P	P	20 29 23.1	-1.8
WVT	Waverly	22.39	102	P	P	20 29 27.7	-2.0
M29M	Somme Creek	22.47	331	P	P	20 29 29.1	-1.4
M29M				IAmb	IAmb	20 29 49.2	
	comp=Z,12nm,1.2s						
WCI	Wyandotte Cave	22.50	96	P	P	20 29 28.2	-2.6
WCI				IAmb	IAmb	20 29 50.8	
	comp=Z,14nm,0.9s						
O48B	Farmland	22.52	90	P	P	20 29 29.1	-1.9
P48A	Milroy	22.61	92	P	P	20 29 30.4	-1.7
K29M	Barlow Dome	23.15	335	P	P	20 29 35.4	-2.1
R49A	Shelbyville	23.27	95	P	P	20 29 37.5	-1.3
J30M	Hart River	23.34	337	P	P	20 29 37.9	-1.6
J30M				IAmb	IAmb	20 29 51.0	
	comp=Z,14nm,0.9s						
MCARA	McCarthy VSAT	23.53	326	P	P	20 29 39.4	-1.9
MCARA				IAmb	IAmb	20 30 01.1	
	comp=Z,14nm,1.1s						
M27K	Edge Creek, AK	23.65	329	P	P	20 29 40.2	-2.3
M27K				IAmb	IAmb	20 30 02.0	
	comp=Z,15nm,1.2s						
X48A	Hartselle	23.82	105	P	P	20 29 41.9	-2.3
X48A				IAmb	IAmb	20 30 01.3	
	comp=Z,14nm,1.1s						
Z47A	Carrollton	23.83	109	P	P	20 29 41.0	-3.4
I30M	Mount Dempster	23.85	338	P	P	20 29 42.3	-2.2
I30M				IAmb	IAmb	20 30 09.7	
	comp=Z,9.7nm,1.0s						
BCAR	Beaver Creek A	24.05	330	P	P	20 29 44.8	-1.4
M26K	Nabesna, AK	24.09	328	P	P	20 29 45.4	-1.4
M26K				IAmb	IAmb	20 30 04.1	
	comp=Z,10nm,1.1s						
Q51A	Peebles	24.27	92	P	P	20 29 47.6	-0.9
I29M	Ogilvie Camp,	24.49	337	P	P	20 29 49.7	-0.6
I29M				IAmb	IAmb	20 30 10.8	
	comp=Z,6.1nm,0.8s						
DIV	Divide	24.54	324	P	P	20 29 46.6	-4.2
DIV				IAmb	IAmb	20 30 08.7	
	comp=Z,7.2nm,0.9s						
L26K	Log Cabin Wild	24.59	329	P	P	20 29 49.6	-1.6
I28M	Miner Creek	25.03	336	P	P	20 29 54.8	-0.4
I28M				IAmb	IAmb	20 30 06.2	
	comp=Z,5.8nm,0.9s						
SCRK	Sand Creek	25.38	330	P	P	20 29 57.6	-0.8
SCRK				IAmb	IAmb	20 30 16.8	
	comp=Z,6.8nm,1.0s						
TKL	Tuckaleechee C	25.47	99	LR	LR	20 41 15.9	
	comp=Z,52nm,19.3s,baz=304,slow=39						
RIDG	Independent Ri	25.55	329	P	P	20 29 59.2	-0.8
RIDG				IAmb	IAmb	20 30 20.3	
	comp=Z,8.2nm,1.0s						
G29M	Pine Creek	25.58	339	P	P	20 29 57.4	-2.8
KNK	Knik Glacier	25.82	323	P	P	20 29 58.1	-4.2
H27K	Steamboat Moun	26.04	336	P	P	20 30 02.2	-2.1
J25K	Salcha River,	26.25	331	P	P	20 30 04.1	-2.1
IL31		26.87	330	P	P	20 30 10.0	-1.7
IL31				IAmb	IAmb	20 30 33.8	
	comp=Z,5.8nm,0.9s						
ILAR	Eielson Array	26.87	330	P	P	20 30 11.3	-0.6
	comp=Z,0.3nm,0.6s,baz=125,slow=7.8,SNR=1.7						
	comp=Z,0.3nm,0.6s						
ILAR	Eielson Array	26.87	330	P	P	20 30 07.5	-4.4
G26K	Porcupine Rive	27.20	336	P	P	20 30 09.9	-4.8
G26K				IAmb	IAmb	20 30 34.7	
	comp=Z,8.5nm,1.1s						
BMAR	Burnt Mountain	27.75	336	P	P	20 30 17.0	-2.7
O18K	Koktuh Hills	28.41	317	P	P	20 30 21.0	-4.6
L18K	Granite Mounta	29.76	321	P	P	20 30 33.0	-4.5
NEEM	North Greenlan	41.42	17	*i* P	P	20 32 21.6	+4.0
PETK	Petropavlovsk-	54.62	312	LR	LR	20 57 29.4	
	comp=Z,49nm,18.3s,baz=58,slow=36						
MA2	Magadan	54.87	322	LR	LR	20 56 47.1	
	comp=Z,32nm,18.1s,baz=75,slow=35						
HFS	Hagfors	67.67	25	P	P	20 35 31.0	+2.9
	comp=Z,2.1nm,0.9s,baz=339,slow=7.7,SNR=1.3						
	comp=Z,2.1nm,0.9s						
FINES	FINESS Array B	69.86	19	P	P	20 35 43.4	+1.8
	comp=Z,4.2nm,0.9s,baz=327,slow=6.6,SNR=4.9						
	comp=Z,4.2nm,0.9s						
CLL	Collm	74.57	31	L	L	21 00 00.0	
ESDC	Sonseca Array	75.86	48	P	P	20 36 19.5	+1.7
	comp=Z,0.3nm,0.5s,baz=326,slow=5.4,SNR=4.4						
	comp=Z,0.3nm,0.5s						
ESDC	Sonseca Array	75.86	48	IAmb	IAmb	20 36 50.5	
	comp=Z,5.4nm,1.3s						
ZALV	Zalesovo Beam	80.45	348	P	P	20 36 45.0	+2.2
	comp=Z,0.5nm,0.6s,baz=15,slow=6.0,SNR=1.9						
	comp=Z,0.5nm,0.6s						
SONM	Songino Array	81.06	333	P	P	20 36 49.3	+3.0
	comp=Z,0.1nm,0.3s,baz=36,slow=6.1,SNR=1.3						
	comp=Z,0.1nm,0.3s						
SONM	Songino Array	81.06	333	P	P	20 36 45.5	-0.9
BVAR	Borovoye Array	82.74	357	P	P	20 36 55.4	+0.4
	comp=Z,0.2nm,0.4s,baz=3.8,slow=2.2,SNR=0.9						
	comp=Z,0.2nm,0.4s						
KURK	Kurchatov	84.41	351	P	P	20 37 02.6	-0.9
KURK				IAmb	IAmb	20 37 46.2	
	comp=Z,3.1nm,1.1s						
KURBB	Kurchatov Arra	84.52	351	P	P	20 37 03.4	-0.7
	comp=Z,0.6nm,0.3s,baz=27,slow=6.3,SNR=1.5						
	comp=Z,0.6nm,0.3s						
HHC	Hu-ho-hao-te	85.23	326	*e*P	P	20 37 07.0	-1.1
HHC				pmax	pmax		
	comp=Z,8.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,110nm,4.9s						
HHC				pmax	pmax		
	comp=Z,10.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,86nm,4.5s						
MSVF	Nonsavu	86.70	241	LR	LR	21 08 05.5	
	comp=Z,122nm,19.3s,baz=83,slow=30						
GUMO	Guam	87.55	287	LR	LR	21 17 16.7	
	comp=Z,8.8nm,18.7s,baz=284,slow=36						
MKAR	Makanchi Array	87.79	348	P	P	20 37 23.0	+2.6
	comp=Z,0.2nm,0.7s,baz=15,slow=6.0,SNR=1.5						
	comp=Z,0.2nm,0.7s						
MKAR	Makanchi Array	87.79	348	P	P	20 37 23.0	+2.6
WMQ	Urumqi	89.73	344	*e*P	P	20 37 30.7	+1.1
WMQ				LR	LR		
	comp=Z,61nm,23.3s						
BRTR	Keskin Array B	91.58	24	LR	LR	21 18 46.9	
	comp=Z,36nm,20.8s,baz=328,slow=36						
AAK	Ala-Archa	92.82	353	LR	LR	21 21 39.3	
	comp=Z,67nm,20.8s,baz=0.0,slow=37						
GNI	Garni	93.82	15	LR	LR	21 22 00.2	
	comp=Z,26nm,20.7s,baz=350,slow=37						
DBIC	Dimbokro	99.57	71	LR	LR	21 19 20.4	
	comp=Z,44nm,21.7s,baz=312,slow=33						
PZH	PanZhiHua	101.69	327	P	Pdif	20 38 24.2	-0.2
WRA	Warramunga Arr	118.19	269	PKP	PKiKP	20 43 20.1	+1.4
	comp=Z,0.4nm,0.8s,baz=46,slow=2.2,SNR=4.7						

*BUT **08** 20:38:03.3±1.1, 44°.45N±0°.02×115°.20W±0°.03, h10^{km}±8^{km},* *Error ellipse: s-maj=3.2km s-min=2.4km az=221.0*

NEIC 08 20:38:02.9±1.4**,44°.45N**±0°.02×**115°.19W**±0°.03**, h13**^{km}±10^{km}**,ML3.2**/111**,ML3.6**/16(BUT)**,Error ellipse: s-maj=3.3km s-min=2.8km az=77.0,Western Idaho**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PLID	**Pearl Lake**	**0.86**	**318**	Pg	Pg	20 38 19.5	-0.2
PLID				Sg	Sg	20 38 30.3	-0.7
PLID				IAML		20 38 31.3	
	782nm,0.5s						
PLID				IAML		20 38 31.3	
	842nm,0.2s						
HLID	**Hailey**	**1.05**	**148**		Pb	20 38 22.6	-0.5
HLID				Sg	Sb	20 38 35.9	-0.8
HLID				IAML		20 38 41.7	
	572nm,0.4s						
HLID				IAML		20 38 42.1	
	694nm,0.4s						
MFID	**Camas Ranch**	**1.13**	**204**		Pb	20 38 24.2	-0.2
MFID				Sg	Sb	20 38 39.3	+0.1
BCYI	**Bear Canyon**	**1.28**	**96**		Pb	20 38 27.3	+0.2
BCYI					Sb	20 38 43.3	-0.3
CNCI	**Crows Nest Can**	**1.35**	**112**		Pb	20 38 28.1	-0.1
BMO	**Blue Mountains**	**1.57**	**286**		Pn	20 38 30.9	+0.3
BMO					Sn	20 38 51.2	+0.4
BMO				IAML		20 38 54.5	
	262nm,0.2s						
ICI	**Italian Canyon**	**1.61**	**94**		Pb	20 38 32.1	-0.6
DLMT	**Dillon**	**2.05**	**63**		Pb	20 38 40.3	+0.2
F10A	**Beach Ranch, E**	**2.10**	**317**		Pn	20 38 39.4	+1.5
MSO	**Missoula**	**2.53**	**20**		Pn	20 38 44.7	+0.9
MSO				IAML		20 39 25.3	
	123nm,0.5s						
MSO				IAML		20 39 36.7	
	165nm,0.9s						
LNOR	**Lincton Mounta**	**2.61**	**304**		Pn	20 38 46.0	+1.2
LNOR				IAML		20 39 29.6	
	comp=E,70nm,1.1s						
J08A	**Circle Bar Ran**	**2.62**	**246**		Pn	20 38 45.8	+0.8
J08A				IAML		20 39 34.0	
	comp=E,166nm,0.8s						
J08A				IAML		20 39 36.4	
	comp=N,151nm,1.5s						
BOZ	**Bozeman (W)**	**2.77**	**64**		Pn	20 38 49.2	+2.1
G08A	**Pilot Rock**	**2.81**	**289**		Pn	20 38 48.6	+0.9
YHB	**Horse Butte**	**2.87**	**83**		Pn	20 38 50.1	+1.6
YHB				IAML		20 39 33.8	
	comp=N,98nm,0.6s						
YHL	**Hebgen Lake**	**2.88**	**81**		Pn	20 38 50.6	+1.8
E09A	**Wood Farm, Sta**	**2.93**	**316**		Pn	20 38 52.0	+2.8
E09A				IAML		20 39 37.7	
	comp=N,76nm,0.9s						
E09A				IAML		20 39 41.8	
	comp=E,75nm,0.8s						
YMR	**Madison River**	**3.02**	**84**		Pn	20 38 52.4	+1.7
FXWY	**Fox Creek**	**3.11**	**104**		Pn	20 38 53.6	+1.7
YPT	**Yellepit**	**3.11**	**302**		Pn	20 38 53.3	+1.6
YHH	**Holmes Hill**	**3.11**	**82**		Pn	20 38 54.2	+2.2
YFT	**Old Faithful**	**3.11**	**88**		Pn	20 38 52.8	+0.8
YFT				IAML		20 39 45.9	
	comp=E,54nm,1.1s						
YPP	**Pitchstone Pla**	**3.15**	**92**		Pn	20 38 55.4	+2.9
YPP				IAML		20 39 44.4	
	comp=N,61nm,1.4s						
YPP				IAML		20 39 45.6	
	comp=E,56nm,0.8s						
HVU	**Hansel Valley**	**3.20**	**146**		Pn	20 38 54.5	+1.5
WVOR	**Wild Horse Val**	**3.22**	**232**		Pn	20 38 54.3	+1.0
WVOR				IAML		20 39 53.6	
	comp=E,56nm,0.8s						
WVOR				IAML		20 39 54.0	
	comp=E,45nm,0.8s						
YNR	**Norris Junctio**	**3.23**	**84**		Pn	20 38 54.5	+1.0
YNR				IAML		20 39 49.6	
	comp=N,90nm,0.9s						
YNR				IAML		20 39 53.5	
	comp=E,70nm,0.4s						
SNOW	**Snow King Moun**	**3.35**	**106**		Pn	20 38 56.0	+0.8
SNOW				IAML		20 39 56.3	
	comp=E,63nm,1.3s						
SNOW				IAML		20 39 59.9	
	comp=E,57nm,1.2s						
E08A	**Dider Farm, El**	**3.41**	**308**		Pn	20 38 58.5	+2.8
E08A				IAML		20 39 42.1	
	comp=E,69nm,0.1s						
E08A				IAML		20 39 55.4	
	comp=N,51nm,0.0s						
LOHW	**Long Hollow**	**3.41**	**103**		Pn	20 38 58.6	+2.6
AHID	**Auburn Hatcher**	**3.41**	**118**		Pn	20 38 57.7	+1.7
AHID				IAML		20 39 32.4	
	comp=N,84nm,0.1s						
AHID				IAML		20 39 57.2	
	comp=N,61nm,0.6s						
YMP	**Mirror Lake Pl**	**3.60**	**84**		Pn	20 39 01.2	+2.5
YMP				IAML		20 40 10.6	
	comp=E,38nm,0.4s						
YMP				IAML		20 40 13.9	
	comp=N,37nm,0.7s						
HAWA	**Hanford**	**3.62**	**304**	Pn	Pn	20 39 01.1	+2.4
F07A	**Phinny Hill Vi**	**3.65**	**295**		Pn	20 39 02.0	+2.9
F07A				IAML		20 40 01.5	
	comp=E,60nm,0.8s						
D08A	**Wollman Farm,**	**3.69**	**316**		Pn	20 39 03.3	+3.6
D08A				IAML		20 40 02.7	
	comp=E,29nm,0.7s						
D08A				IAML		20 40 11.6	
	comp=N,37nm,0.9s						
ELK	**Elko**	**3.70**	**181**		Pn	20 39 01.1	+1.1
ELK				IAML		20 39 58.1	
	comp=N,32nm,0.7s						
SPUT	**South Promonto**	**3.73**	**146**	Pn	Pn	20 39 02.8	+2.5
SPUT				IAML		20 40 05.4	
	comp=E,54nm,0.6s						
SPUT				IAML		20 40 07.7	
	comp=N,33nm,0.7s						
YNE	**Yellowstone No**	**3.73**	**80**		Pn	20 39 03.1	+2.6
BGU	**Big Grassy Mou**	**3.86**	**155**		Pn	20 39 03.9	+1.7
BGU				IAML		20 40 10.3	
	comp=N,26nm,0.9s						
BGU				IAML		20 40 13.2	
	comp=E,27nm,0.8s						
HWUT	**Hardware Ranch**	**3.89**	**136**		Pn	20 39 04.9	+2.4
HWUT				IAML		20 40 07.3	
	comp=E,25nm,1.1s						
HWUT				IAML		20 40 19.8	
	comp=E,25nm,0.9s						
E07A	**Sunnyside**	**3.90**	**304**		Pn	20 39 03.9	+1.3
E07A				IAML		20 39 51.9	
	comp=E,54nm,0.5s						
E07A				IAML		20 40 16.5	
	comp=N,42nm,1.1s						
G06A	**Carlson Farm,**	**3.96**	**283**		Pn	20 39 04.4	+1.1
G06A				IAML		20 40 14.9	
	comp=N,23nm,0.8s						
C09A	**Chrisman Ranch**	**3.98**	**328**		Pn	20 39 06.1	+2.5
NEW	**Newport**	**4.04**	**341**		Pn	20 39 05.9	+1.4
NEW				IAML		20 40 09.8	
	comp=N,36nm,0.4s						
MXC	**Moxie City**	**4.17**	**302**		Pn	20 39 07.3	+1.0
PINE	**Pine Mountain**	**4.20**	**263**		Pn	20 39 06.5	-0.3
PINE				IAML		20 40 23.5	
	comp=N,19nm,3.1s						
EPH	**Ephrata**	**4.23**	**315**		Pn	20 39 07.5	+0.4
EPH				IAML		20 40 21.2	
	comp=E,29nm,0.8s						
EPH				IAML		20 40 21.6	
	comp=N,25nm,0.9s						
RLMT	**Red Lodge**	**4.27**	**79**		Pn	20 39 10.0	+2.3
BMN	**Battle Mountai**	**4.29**	**201**		Pn	20 39 06.2	-1.8
BMN				IAML		20 40 15.5	
	comp=E,21nm,1.1s						
BMN				IAML		20 40 19.7	
	comp=N,29nm,0.8s						
TCUT	**Toone Canyon**	**4.34**	**139**	Pn	Pn	20 39 08.3	-0.5
PD31	**Pinedale Array**	**4.42**	**110**		Pn	20 39 06.7	-3.2
G05A	**Wamic**	**4.43**	**282**	Pn	Pn	20 39 06.0	-3.8
G05A				IAML		20 40 40.4	
	comp=E,29nm,2.2s						
G05A				IAML		20 40 44.8	
	comp=N,28nm,2.6s						
K05A	**Summer Lake**	**4.49**	**249**	Pn	Pn	20 39 05.7	-5.1
K05A				IAML		20 40 59.9	
	comp=N,16nm,3.7s						
MOD	**Modoc Plateau**	**4.53**	**238**		Pn	20 39 08.2	-3.1
MOD				IAML		20 40 32.5	
	comp=N,16nm,1.1s						
MOD				IAML		20 40 36.1	
	comp=E,15nm,1.3s						
DUG	**Dugway, Tooele**	**4.60**	**157**		Pn	20 39 10.1	-2.2
DUG				IAML		20 40 39.1	
	comp=E,27nm,0.9s						
DUG				IAML		20 40 40.3	
	comp=E,25nm,1.4s						
LTY	**Liberty**	**4.75**	**308**		Pn	20 39 14.1	-0.2
LTY				IAML		20 40 58.0	
	comp=E,15nm,1.5s						
NLU	**North Lily Min**	**5.05**	**152**	Pn	Pn	20 39 17.2	-1.3
BSUT	**Blindstream Ca**	**5.10**	**139**		Pn	20 39 17.9	-1.5
LON	**Longmire**	**5.19**	**299**	Pn	Pn	20 39 18.8	-1.5
STD	**Studebaker Rid**	**5.27**	**292**	Pn	Pn	20 39 19.9	-1.6
KVN	**Kaiserville**	**5.82**	**203**		Pn	20 39 26.8	-2.2
BEKR	**Beckworth**	**5.98**	**222**	Pn	Pn	20 39 30.0	-1.3
PSUT	**Pine Spring**	**6.00**	**170**	Pn	Pn	20 39 28.0	-3.5

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*IDC **08** 20:54:00.4±2.1, 5°.78S×149°.52E, h101^{km}±29^{km}, mb3.6/5, mbtmp4.1/7, Error ellipse: s-maj=66.8km s-min=14.1km az=128.0*

ISC 08 20:54:00.3±1.0**, 5°.8S**±0°.2×**149°.6E**±0°.2**, h100**^{km}**, n8,** σ**0^{s}.46**/9**, mb3.9**/4**, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRVT	**Keravat (AS076**	**2.83**	**58**	P	**Pn**	**20 54 43.9**	**0.0**
	248nm,0.6s,baz=270,slow=20,SNR=9.5						
PMG	**Port Moresby**	**4.32**	**214**	P	**Pn**	**20 55 04.1**	**+0.2**
	59nm,0.4s,baz=34,slow=12,SNR=34						
PMG				S	**Sn**	**20 55 53.6**	**+0.4**
	56nm,0.4s,baz=23,slow=15,SNR=3.6						
WRA	**Warramunga Arr**	**20.44**	**225**	P	**P**	**20 58 29.2**	**-0.7**
	3.3nm,0.4s,baz=48,slow=11,SNR=59						
	3.3nm,0.4s						
ASAR	**Alice Springs**	**23.32**	**219**	P	**P**	**20 58 59.4**	**-0.4**
	0.4nm,0.4s,baz=45,slow=10.0,SNR=16						
	0.4nm,0.4s						
FITZ	**Fitzroy Crossi**	**26.39**	**240**	P	**P**	**20 59 27.3**	**-0.3**
	2.2nm,0.4s,baz=66,slow=8.2,SNR=11						
	2.2nm,0.4s						
PETK	**Petropavlovsk-**	**59.09**	**6**	P	**P**	**21 03 50.4**	**+0.4**
	1.1nm,0.5s,baz=182,slow=6.4,SNR=2.0						
	1.1nm,0.5s						
SONM	**Songino Array**	**65.53**	**330**	P	**P**	**21 04 33.1**	**-0.1**
	0.4nm,0.4s,baz=141,slow=5.1,SNR=3.7						
	0.4nm,0.4s						
TORD	**Torodi Ar. Bea**	**147.55**	**285**	PKPbc	**PKPdf**	**21 13 31.7**	**+0.4**
	0.7nm,1.0s,baz=83,slow=2.7,SNR=6.2						

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*IDC **08** 21:46:14.1±1.0, 3°.38S×146°.16E, h0^{km}, mb3.8/10, mbtmp3.9/12, ML1.8/1, MS3.6/16, Error ellipse: s-maj=41.9km s-min=15.2km az=83.0*

ISC 08 21:46:17.9±0.9**, 3°.4S**±0°.1×**146°.2E**±0°.2**, h25**^{km}**, n25,** σ**0^{s}.82**/14**, mb3.8**/10**, MS3.6**/12**, Bismarck Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRVT	**Keravat (AS076**	**5.90**	**99**	LR	LR	21 49 41.7	
	comp=Z,815nm,18.9s,baz=258,slow=35						
PMG	**Port Moresby**	**6.06**	**171**	Pn	**Pn**	**21 47 46.6**	**+0.7**
	1.4nm,0.3s,baz=346,slow=17,SNR=2.5						
PMG				LR	LR	21 50 12.9	
	comp=Z,383nm,18.2s,baz=264,slow=39						
	26nm,0.9s						
PMG				AML	AML		
HNR	**Honiara**	**14.93**	**114**	LR	LR	21 55 03.6	
	comp=Z,155nm,21.9s,baz=356,slow=35						
CTA	**Charters Tower**	**16.60**	**180**	Pn	**Pn**	**21 50 09.8**	**+0.8**
	16nm,0.9s,baz=344,slow=12,SNR=5.3						
CTA				LR	LR	21 56 40.1	
	comp=Z,194nm,18.1s,baz=32,slow=38						
WRA	**Warramunga Arr**	**20.11**	**214**	P	**P**	**21 50 49.6**	**-0.4**
	35nm,0.9s,baz=39,slow=12,SNR=72						
DAV	**Davao City (W)**	**23.04**	**297**	LR	LR	22 00 09.0	
	comp=Z,76nm,18.5s,baz=118,slow=36						
ASAR	**Alice Springs**	**23.39**	**209**	P	**P**	**21 51 24.6**	**-0.4**
	8.1nm,0.8s,baz=42,slow=8.9,SNR=62						
ASAR				LR	LR	22 02 00.4	
	comp=Z,128nm,20.1s,baz=16,slow=40						
	8.1nm,0.8s						
DZM	**Mont Dzumac**	**27.05**	**135**	LR	LR	22 01 48.2	
	comp=Z,130nm,18.4s,baz=5.0,slow=34						
STKA	**Stephens Creek**	**28.67**	**188**	P	**P**	**21 52 12.2**	**-0.6**
	1.3nm,0.6s,baz=9.9,slow=12,SNR=9.1						
STKA				LR	LR	22 04 59.3	
	comp=Z,207nm,18.5s,baz=13,slow=39						
	1.3nm,0.6s						
NWAO	**Narrogin (SRO)**	**39.97**	**219**	LR	LR	22 12 40.9	
	comp=Z,237nm,19.9s,baz=72,slow=40						
URZ	**Urewera**	**44.74**	**145**	LR	LR	22 13 05.8	
	comp=Z,78nm,18.4s,baz=312,slow=36						
CMAR	**Chiang Mai Arr**	**51.33**	**297**	P	**P**	**21 55 20.6**	**0.0**
	0.5nm,0.3s,baz=112,slow=5.2,SNR=5.5						
CMAR				LR	LR	22 17 02.7	
	comp=Z,16nm,20.9s,baz=220,slow=36						
	0.5nm,0.3s						
PETK	**Petropavlovsk-**	**57.12**	**8**	LR	LR	22 16 00.2	
	comp=Z,28nm,21.9s,baz=200,slow=31						
SONM	**Songino Array**	**61.74**	**331**	P	**P**	**21 56 35.1**	**+0.8**
	0.4nm,0.8s,baz=146,slow=4.6,SNR=4.5						
	0.4nm,0.8s						
MKAR	**Makanchi Array**	**74.98**	**320**	P	**P**	**21 57 57.0**	**-0.2**
	0.4nm,0.8s,baz=184,slow=4.9,SNR=4.4						
	0.4nm,0.8s						
ZALV	**Zalesovo Beam**	**76.38**	**328**	P	**P**	**21 58 05.3**	**+0.3**
	0.3nm,0.4s,baz=117,slow=12,SNR=2.4						
	0.3nm,0.4s						
KURBB	**Kurchatov Arra**	**78.67**	**323**	P	**P**	**21 58 18.4**	**+0.6**
	0.1nm,0.3s,baz=109,slow=4.5,SNR=4.9						
	0.1nm,0.3s						
ILAR	**Eielson Array**	**83.42**	**23**	P	**P**	**21 58 43.0**	**+0.2**
	0.2nm,0.6s,baz=236,slow=6.4,SNR=1.7						
	0.2nm,0.6s						
BVAR	**Borovoye Array**	**84.19**	**324**	P	**P**	**21 58 46.7**	**-0.4**
	0.5nm,0.7s,baz=111,slow=6.5,SNR=5.4						
	0.5nm,0.7s						
MAW	**Mawson**	**84.33**	**202**	LR	LR	22 34 00.2	
	comp=Z,27nm,20.7s,baz=318,slow=34						
QSPA	**South Pole Qui**	**86.56**	**180**	P	**P**	**21 58 58.7**	**-0.1**
	1.0nm,1.0s,baz=61,slow=6.3,SNR=2.2						
	1.0nm,1.0s						
BBB	**Bella Bella**	**90.01**	**38**	LR	LR	22 30 30.4	
	comp=Z,36nm,20.5s,baz=12,slow=30						
YBH	**Yreka Blue Hor**	**93.06**	**49**	LR	LR	22 33 00.9	
	comp=Z,35nm,21.8s,baz=350,slow=30						
KIRV	**Kirov**	**96.41**	**328**	LR	LR	22 44 05.5	
	comp=Z,42nm,20.0s,baz=94,slow=36						
LPAZ	**La Paz**	**140.85**	**121**	PKP	**PKPdf**	**22 05 45.4**	**-2.1**
	0.8nm,0.3s,baz=198,slow=0.0,SNR=3.3						

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*IDC **08** 21:57:21.9±0.6, 40°.66N×27°.36E, h0^{km}, mb3.7/13, mbtmp3.8/23, ML3.7/9, MS3.5/31, Error ellipse: s-maj=9.2km s-min=7.8km az=58.0*

*MOS **08** 21:57:22.8±0.9, 40°.73N×27°.46E, h13^{km}, mb4.3/7, Error ellipse: s-maj=4.5km s-min=3.2km az=103.4*

*SOF **08** 21:57:23.4, 40°.70N±0°.01×27°.43E±0°.01, h19^{km}±4^{km}, MD4.7/9*

*AFAD **08** 21:57:23.9, 40°.69N×27°.41E, h10^{km}, MW4.1*

*ISK **08** 21:57:23.5, 40°.70N×27°.42E, h14^{km}, ML4.6/32*

*MED_RC **08** 21:57:24.0, 40°.70N×27°.42E, h19^{km}, Mw4.4, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M$_{rr}$0.40±.39; M$_{\theta\theta}$-0.34±.28; M$_{\phi\phi}$0.00±.23; M$_{r\theta}$-1.08±.35; M$_{\theta\phi}$-5.33±.19; M$_{\phi r}$-0.85±.34; Fault plane solution: M$_0$5.48000×10^{15} NP1:φ$_s$0.00000°, δ80.00000°, λ-8.00000°. NP2:φ$_s$91.00000°, δ83.00000°, λ-170.00000°. Principal axes: T 5.1400, Plg2.0000°, Azm225.0000°; N 0.6900, Plg77.0000°, Azm127.0000°; P -5.8300, Plg12.0000°, Azm316.0000°;*

*MCSM **08** 21:57:24.2±0.7, 41°N±2°×2°7E±°, h10^{km}±6^{km}, mb4.6, mB4.7, MLv4.7, Mw(mB)4.0*

*GFZ **08** 21:57:24.6±0.2, 41°N±2°×2°7E±°, h10^{km}, M4.2/39, mb4.6/39, Error ellipse: s-maj=5.2km s-min=3.8km az=88.2, confirmed*

*NEIC **08** 21:57:24.5±1.6, 40°.69N±0°.05×27°.36E±0°.04, h10^{km}±1^{km}, mb4.3/14, Error ellipse: s-maj=9.6km s-min=3.0km az=211.0*

*THE **08** 21:57:26.4, 41°N±2°×2°7E±°, h13^{km}±5^{km}, M4.4/12, MLh4.4/12*

*CFUSG **08** 21:57:28.6, 40°.90N×27°.90E, h15^{km}, Mb3.7/8, MD4.0/7, MSH3.8/8*

ISC 08 21:57:24.2±0.7**, 40°.72N**±0°.01×**27°.41E**±0°.01**, h12**^{km}±4^{km}**, n496,** σ**1^{s}.44**/571**, mb3.8**/23**, MS3.5**/23**, 55C-54D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GAZK	**Gazikoy-TEKIRD**	**0.07**	**298**	Pg	**Pg**	**21 57 26.7**	**+0.1**
GAZK				AML	AML		
MADA	**Marmara adas**	**0.17**	**138**	P	**Pg**	**21 57 27.5**	**-0.6**
MADA				S	**Sg**	**21 57 30.5**	**-0.2**
SART	**Tekirdag**	**0.17**	**261**	P	**Pg**	**21 57 28.2**	**0.0**
SART				S	**Sg**	**21 57 31.3**	**+0.3**
RKY	**Sarkoy-Tekirda**	**0.17**	**261**	Pg	**Pg**	**21 57 27.9**	**-0.3**
RKY				Sg	**Sg**	**21 57 31.1**	**+0.1**
RKY				AML	AML		
MRMT	**Marmara Adasi**	**0.18**	**128**	Pg	**Pg**	**21 57 27.5**	**-0.8**
MRMT				Sg	**Sg**	**21 57 30.4**	**-0.8**
MRMT				AML	AML		
TKR	**Tekirdag**	**0.29**	**20**	Pg	**Pg**	**21 57 30.4**	**+0.2**
TKR				Sg	**Sg**	**21 57 35.0**	**+0.8**
TKR				AML	AML		
KRBG	**Karabiga-Canak**	**0.33**	**194**	Pg	**Pg**	**21 57 30.9**	**0.0**
KRBG				Sg	**Sg**	**21 57 35.8**	**+0.4**
KRBG				AML	AML		
MURA	**Muratl, TEK**	**0.44**	**8**	P	**Pg**	**21 57 33.4**	**+0.6**
MURA				S	**Sb**	**21 57 40.4**	**-0.1**
BIGA	**Biga-Canakkale**	**0.48**	**204**	Pg	**Pg**	**21 57 33.6**	**+0.1**
BIGA				Sg	**Sg**	**21 57 40.3**	**+0.5**
CRLT	**Corlu**	**0.48**	**31**	Pg	**Pg**	**21 57 34.2**	**+0.5**
CRLT				AML	AML		
EDC	**Edincik**	**0.51**	**136**	Pg	**Pg**	**21 57 33.7**	**-0.4**
EDC				Sg	**Sg**	**21 57 40.8**	**-0.1**
EDC				AML	AML		
EDC	**Edincik**	**0.51**	**136**	P	**Pg**	**21 57 33.6**	**-0.5**
BOTS	**Marmara Eregli**	**0.52**	**58**	Pg	**Pg**	**21 57 34.4**	**+0.1**
BOTS				AML	AML		
KESN	**Edirne-Kesan**	**0.56**	**281**	P	**Pg**	**21 57 35.2**	**0.0**
KESN				S	**Sg**	**21 57 42.8**	**0.0**
GOKT	**Kean, EDRN**	**0.59**	**265**	P	**Pg**	**21 57 35.8**	**0.0**
GOKT				S	**Sb**	**21 57 44.8**	**-0.2**
LAPS	**Lapseki, ANA**	**0.63**	**223**	P	**Pg**	**21 57 36.2**	**-0.4**
LAPS				S	**Sb**	**21 57 45.3**	**-0.7**
BAND	**Balkesir-Ban**	**0.64**	**124**	P	**Pg**	**21 57 36.0**	**-0.7**
BAND				S	**Sg**	**21 57 45.1**	**0.0**
BAND	**Balkesir-Ban**	**0.64**	**124**	⇓P	**Pg**	**21 57 35.9**	**-0.7**
BAND				⇓S	**Sg**	**21 57 44.8**	**-0.2**
ATIT	**Gnen**	**0.64**	**169**	P	**Pg**	**21 57 36.4**	**-0.3**
ATIT				S	**Sg**	**21 57 45.3**	**+0.1**
ERIK	**Erikli-Kesan**	**0.68**	**266**	Pg	**Pg**	**21 57 37.0**	**-0.4**
ERIK				AML	AML		
GONE	**Gonen-Balikesi**	**0.70**	**162**	Pg	**Pg**	**21 57 37.7**	**-0.1**
GONE				AML	AML		
UKOP	**Uzunkopru-Edir**	**0.72**	**305**	Pg	**Pb**	**21 57 38.5**	**-0.1**
UKOP				Sg	**Sb**	**21 57 48.7**	**+0.3**
CANM	**Can-anakkale**	**0.75**	**201**	Pg	**Pg**	**21 57 38.4**	**-0.4**
CANM				Sg	**Sb**	**21 57 48.9**	**-0.6**
CANM				AML	AML		
GELI	**Tayfur-Gelibol**	**0.78**	**246**	Pg	**Pg**	**21 57 38.6**	**-0.6**
GELI				AML	AML		
YENI	**Yenice-Canakka**	**0.79**	**189**	Pg	**Pg**	**21 57 38.9**	**-0.6**
YENI				Sg	**Sg**	**21 57 49.9**	**+0.1**
SLVT	**Silivri**	**0.80**	**50**	Pg	**Pg**	**21 57 39.3**	**-0.3**
SLVT				AML	AML		
CMHT	**Manyas**	**0.83**	**148**	P	**Pg**	**21 57 39.6**	**-0.5**
KCTX	**Karacabey (Bur**	**0.85**	**122**	Pg	**Pg**	**21 57 39.5**	**-1.2**
IMRA	**Mudanya**	**0.87**	**100**	P	**Pg**	**21 57 40.4**	**-0.5**
IMRA				S	**Sg**	**21 57 52.4**	**+0.1**
ELBA	**Catalca**	**0.89**	**61**	P	**Pg**	**21 57 40.8**	**-0.6**
ELBA				S	**Sg**	**21 57 52.4**	**-0.6**
SINB	**Sinanoba-Istan**	**0.91**	**71**	Pg	**Pg**	**21 57 41.3**	**-0.4**
SINB				AML	AML		
SUSR	**Susurluk-Balik**	**0.91**	**145**	Pg	**Pg**	**21 57 41.1**	**-0.7**
SUSR				AML	AML		
PHSR	**Pinarhisar**	**0.92**	**6**	Pg	**Pg**	**21 57 41.9**	**0.0**
PHSR				AML	AML		
CAVK	**Edirne/Enez-Ca**	**0.94**	**269**	⇑P	**Pg**	**21 57 42.4**	**0.0**
CAVK				⇑S	**Sb**	**21 57 55.4**	**+0.5**
COMU	**Canakkale**	**0.94**	**229**	Pg	**Pg**	**21 57 41.5**	**-0.9**
CATL	**atalca, ST**	**0.95**	**49**	P	**Pg**	**21 57 42.0**	**-0.6**
CATL				S	**Sb**	**21 57 55.3**	**0.0**
ENEZ	**Enez**	**0.95**	**272**	P	**Pg**	**21 57 41.8**	**-0.8**
ENEZ				S	**Sg**	**21 57 53.9**	**-1.0**
ENEZ	**Enez**	**0.95**	**272**	Pg	**Pg**	**21 57 42.4**	**-0.2**
ENEZ				AML	AML		
CTKS	**Kestanelik-??a**	**0.98**	**58**	Pg	**Pg**	**21 57 41.9**	**-1.2**
CTKS				AML	AML		
BALY	**Balya**	**0.99**	**170**	P	**Pg**	**21 57 42.8**	**-0.4**
BALY				S	**Sb**	**21 57 56.7**	**+0.4**
BALY	**Balya**	**0.99**	**170**	P	**Pg**	**21 57 42.5**	**-0.7**
YKBL	**Yakuplu-Istanb**	**1.00**	**74**	Pg	**Pb**	**21 57 42.8**	**-0.6**
YKBL				AML	AML		
CTYL	**Yalikoy Yolu**	**1.01**	**41**	Pg	**Pb**	**21 57 43.2**	**-0.4**
CTYL				AML	AML		
CTYL	**Yalikoy Yolu**	**1.01**	**41**	P	**Pb**	**21 57 43.0**	**-0.6**
CTYL				S	**Sb**	**21 57 57.4**	**+0.5**
CTYL				AML	AML		
AVCI	**Avcilar-stanb**	**1.04**	**74**	Pg	**Pb**	**21 57 43.9**	**-0.2**
AVCI				AML	AML		
ALN	**Alexandroupoli**	**1.05**	**280**	P	**Pb**	**21 57 43.7**	**-0.6**
ALN				S	**Sb**	**21 57 56.9**	**-1.1**
ALN				AML	AML		
ALN	**Alexandroupoli**	**1.05**	**280**	Pg	**Pb**	**21 57 44.3**	**0.0**
ALN				AML	AML		
ALN	**Alexandroupoli**	**1.05**	**280**	P	**Pb**	**21 57 43.6**	**-0.6**
ALN						21 57 56.8	
ALN	**Alexandroupoli**	**1.05**	**280**		**Pb**	**21 57 43.6**	**-0.6**
ALN				Sg	**Sb**	**21 57 56.8**	**-1.2**
ALN	**Alexandroupoli**	**1.05**	**280**	P	**Pb**	**21 57 44.1**	**-0.1**
BKES	**Balkesir-Mer**	**1.06**	**158**	P	**Pb**	**21 57 44.2**	**-0.3**
ARMT	**Armutlu**	**1.12**	**97**	Pn	**Pb**	**21 57 44.8**	**-0.7**
ARMT				AML	AML		
BALB	**Balikesir**	**1.14**	**161**	Pn	**Pb**	**21 57 44.9**	**-0.9**
BALB	**Balikesir**	**1.14**	**161**		**Pb**	**21 57 44.7**	**-1.0**
BALB				Sg	**Sb**	**21 58 00.4**	**0.0**
BGKT	**Bogazkoy**	**1.14**	**65**	Pn	**Pb**	**21 57 44.5**	**-1.3**
BGKT				AML	AML		
YYLC	**Yaylacik**	**1.15**	**110**	P	**Pb**	**21 57 45.5**	**-0.5**
YYLC				S	**Sn**	**21 58 02.9**	**+1.1**
MDNY	**Mudanya-Bursa**	**1.18**	**107**	Pn	**Pb**	**21 57 45.8**	**-0.7**
EZN	**Ezine**	**1.21**	**223**	P	**Pn**	**21 57 46.0**	**-1.0**
EZN				S	**Sb**	**21 58 02.2**	**-0.5**
EZN				AML	AML		
EZN	**Ezine**	**1.21**	**223**	Pn	**Pn**	**21 57 46.2**	**-0.8**
EZN				AML	AML		
EZN	**Ezine**	**1.21**	**223**	P	**Pn**	**21 57 46.3**	**-0.8**
EZN				S	**Sn**	**21 58 03.2**	**-0.2**
EZN	**Ezine**	**1.21**	**223**	P	**Pn**	**21 57 46.2**	**-0.8**
EZN				S	**Sn**	**21 58 03.8**	**+0.4**
EZN				AML	AML		
EDRB	**Edirne**	**1.23**	**336**	Pn	**Pn**	**21 57 46.6**	**-0.7**
EDRB				AML	AML		
EZNE	**Ezine-Canakkal**	**1.25**	**220**	Pn	**Pn**	**21 57 47.4**	**0.0**
GOKC	**Gokceada-Canak**	**1.25**	**246**	Pn	**Pn**	**21 57 47.1**	**-0.3**
GOKC				AML	AML		
GADA	**Gvkgeada**	**1.26**	**246**	Pn	**Pn**	**21 57 47.2**	**-0.5**
GADA				AML	AML		
BRGA	**Burgazada-Ista**	**1.27**	**82**	Pn	**Pn**	**21 57 47.1**	**-0.7**
BRGA				AML	AML		
HYBA	**Heybeliada-Ist**	**1.28**	**82**	Pn	**Pn**	**21 57 47.5**	**-0.5**
HYBA				AML	AML		
ISK	**Istanbul-Kandi**	**1.30**	**74**	Pn	**Pn**	**21 57 46.9**	**-1.3**
ISK				AML	AML		
ISK	**Istanbul-Kandi**	**1.30**	**74**	P	**Pn**	**21 57 47.2**	**-1.0**
ISK				S	**Sb**	**21 58 05.1**	**-0.2**
KAVV	**Kandilli-Istan**	**1.30**	**74**	Pn	**Pn**	**21 57 47.1**	**-1.1**
KLYT	**Kilyos**	**1.35**	**66**	P	**Pn**	**21 57 48.1**	**-0.8**
KLYT				S	**Sg**	**21 58 07.4**	**-0.3**
KLYT				AML	AML		
BOZC	**Bozcaada**	**1.35**	**230**	Pn	**Pn**	**21 57 48.5**	**-0.4**
DST	**Dursunbey**	**1.45**	**140**	P	**Pb**	**21 57 50.8**	**-0.4**
SMTH	**Samothraki Isl**	**1.45**	**261**	P	**Pn**	**21 57 49.6**	**-0.6**
SMTH				S	**Sn**	**21 58 08.0**	**-1.2**
SMTH				AML	AML		
YLV	**Yalova**	**1.50**	**95**	P	**Pb**	**21 57 51.6**	**-0.5**
YLV				S	**Sn**	**21 58 10.4**	**-0.3**
YLV				AML	AML		
PRK	**Paraskevi**	**1.71**	**211**	P	**Pn**	**21 57 53.0**	**-0.8**
SILT	**Sile**	**1.75**	**75**	⇓P	**Pn**	**21 57 54.2**	**-0.2**

SILT				⇑S	Sn	21 58 17.0	+0.3
KDZ	Kurdzhali	1.81	301	P	Pn	21 57 54.8	-0.4
KDZ				S	Sn	21 58 17.1	-0.9
KDZ				AML	AML		
KDZ	Kurdzhali	1.81	301	P	Pn	21 57 55.2	0.0
KDZ				S	Sn	21 58 17.1	-0.9
KDZ	Kurdzhali	1.81	301	P	Pn	21 57 54.9	-0.3
KDZ				S	Sb	21 58 19.5	-0.3
LIA	Limnos Island	1.89	245	P	Pn	21 57 55.8	-0.5
LIA				S	Sn	21 58 19.9	-0.1
LIA				AML	AML		
JMB	Yambol	1.89	340	P	Pn	21 57 56.4	+0.1
JMB	Yambol	1.89	340	P	Pn	21 57 55.9	-0.4
JMB				S	Sn	21 58 21.1	+1.0
DIM	Dimitrovgrad	1.91	315	P	Pn	21 57 56.7	0.0
DIM				S	Sb	21 58 21.8	-1.0
DIM				AML	AML		
DIM	Dimitrovgrad	1.91	315	P	Pn	21 57 56.6	0.0
DIM				S	Sb	21 58 21.8	-1.0
DIM	Dimitrovgrad	1.91	315	P	Pn	21 57 56.8	+0.2
DIM				S	Sb	21 58 22.7	-0.1
THAS	Thassos island	2.05	268	P	Pn	21 57 57.6	-0.8
THAS				S	Sn	21 58 21.3	-2.6
THAS				AML	AML		
KAVA	Kavala	2.21	278	P	Pn	21 58 00.6	-0.1
KAVA				S	Sn	21 58 26.8	-1.2
KAVA				AML	AML		
KAVA	Kavala	2.21	278	Pn	Pn	21 57 47.5	-13
KAVA				AML	AML		
RZN	Rozhen	2.24	297	P	Pn	21 58 01.6	+0.4
RZN				S	Sn	21 58 29.4	+0.5
RZN				AML	AML		
RZN	Rozhen	2.24	297	P	Pn	21 58 01.6	+0.4
RZN				S	Sn	21 58 29.4	+0.5
RZN	Rozhen	2.24	297	P	Pn	21 58 01.7	+0.4
RZN				S	Sg	21 58 34.4	-1.7
BLCB	Balcova	2.34	187	P	Pn	21 58 03.8	+1.2
BLCB				S	Sb	21 58 33.2	-2.1
ROIA	ROIAK	2.38	360	P	Pn	21 58 03.4	+0.4
MANT	Manisa	2.39	158	Pn	Pn	21 58 03.3	-0.2
AVR	AVREN	2.41	5	P	Pn	21 58 03.3	-0.2
PRD	Provadia	2.44	0	P	Pn	21 58 03.8	-0.1
PRD	Provadia	2.44	0	P	Pn	21 58 04.0	+0.1
PLD	Plovdiv	2.46	306	P	Pn	21 58 04.3	+0.2
PLD				S	Sn	21 58 33.8	-0.2
PLD				AML	AML		
PLD	Plovdiv	2.46	306	P	Pn	21 58 04.6	+0.5
PLD				S	Sn	21 58 33.8	-0.2
PLD	Plovdiv	2.46	306	P	Pn	21 58 04.2	+0.1
PLD				S	Sb	21 58 40.7	+2.2
BORA	Eskisehir	2.48	109		Pn	21 58 04.0	-0.5
NEF	NEVSHA	2.55	358	P	Pn	21 58 05.5	+0.1
CHOS	Chios island	2.55	205	P	Pb	21 58 10.6	+0.6
CHOS				S	Sb	21 58 42.2	+1.0
CHOS				AML	AML		
OUR	Ouranopolis	2.64	263	P	Pn	21 58 06.1	-0.5
LOZB	Loznitsa	2.72	347	⇓P	Pn	21 58 07.5	-0.2
LOZB				⇓S	Sn	21 58 42.5	+1.9
SZH	Strazhitsa	2.76	338	P	Pn	21 58 09.8	+1.5
SZH	Strazhitsa	2.76	338	P	Pn	21 58 08.8	+0.5
SZH	Strazhitsa	2.76	338	P	Pn	21 58 08.8	+0.5
MMB	Musomishta	2.88	288	P	Pn	21 58 10.5	+0.5
MDUB	Mudurnu	2.90	94	Pn	Pn	21 58 10.6	+0.3
SRS	Serrai	2.92	279	P	Pn	21 58 10.5	+0.1
PVL	Pavlikeni	2.92	326	P	Pn	21 58 10.9	+0.4
RAZG	Razgrad	2.92	347	⇓P	Pn	21 58 10.9	+0.4
PAIG	Paliouri	2.96	256	P	Pn	21 58 09.9	-1.1
PAIG	Paliouri	2.96	256	P	Pn	21 58 09.9	-1.1
PSN	Preselentsi	2.97	10	P	Pn	21 58 11.4	+0.3
PGB	Panagyurishte	3.02	308	P	Pn	21 58 12.3	+0.5
AYDN	Tasoluk	3.07	173	P	Pn	21 58 12.7	+0.1
SOH	Sokhos	3.08	273	P	Pn	21 58 12.6	-0.1
SOH	Sokhos	3.08	273	P	Pn	21 58 12.6	-0.1
MANR	Mangalia	3.22	15	⇑P	Pn	21 58 15.9	+1.3
ZIMR		3.31	333	⇑P	Pn	21 58 16.2	+0.4
THE	Thessaloniki	3.38	270	P	Pn	21 58 17.9	+1.1
THE	Thessaloniki	3.38	270	P	Pn	21 58 17.9	+1.1
PLVB	Pleven	3.38	323	⇓P	Pn	21 58 17.2	+0.4
ICOR	Ion Corvin	3.41	5	⇓P	Pn	21 58 17.9	+0.7
ICOR				⇑S	Sn	21 58 59.5	+2.0
KKB	Krupnik	3.41	291	P	Pn	21 58 18.2	+0.9
KKB	Krupnik	3.41	291	P	Pn	21 58 18.4	+1.1
KNT	Kendrikon	3.44	279	P	Pb	21 58 21.9	-3.2
TAVA	DENIZLI_Tavas	3.45	160	⇑P	Pn	21 58 18.3	+0.4
TAVA				⇓S	Sn	21 58 58.3	-0.4
CICN	Ciocanesti	3.49	356	⇑P	Pn	21 58 18.8	+0.5
CICN				⇑S	Sn	21 58 59.6	+0.1
XOR	Xorichti	3.50	249	P	Pn	21 58 17.2	-1.3
MFTR	Murfatlar	3.54	12	⇓P	Pn	21 58 19.1	+0.1
PEHC	Pehcevo	3.56	289	*e*Pn	Pn	21 58 20.5	+1.1
CVDA	Cernavoda	3.65	7	⇑P	Pn	21 58 21.3	+0.9
CVDA				⇓S	Sn	21 59 05.2	+1.8
BDRM	Kayabasi	3.65	180	⇑P	Pn	21 58 19.7	-0.8
VTS	Vitosha	3.66	303	P	Pn	21 58 21.2	+0.5
SGRR	Singureni	3.66	344	⇓P	Pn	21 58 21.3	+0.7
VAY	Valandovo	3.71	281	*i* Pn	Pg	21 58 32.7	-2.5
ISP	Isparta	3.77	139	P	Pn	21 58 21.7	-0.5
ISP	Isparta	3.77	139	Pn	Pn	21 58 21.7	-0.5
COPA	Copaceanca	3.78	335	⇑P	Pn	21 58 22.2	-0.1
LIT	Litokhoron	3.80	262	P	Pn	21 58 21.3	-1.3
LIT	Litokhoron	3.80	262	Pn	Pn	21 58 21.3	-1.3
LIT	Litokhoron	3.80	262	P	Pn	21 58 22.0	-0.6
GRG	Griva	3.80	275	P	Pn	21 58 23.8	+1.2
GRG	Griva	3.80	275	P	Pn	21 58 23.9	+1.2
TIRR	Tirgusor	3.81	11	P	Pn	21 58 22.1	-0.6
TIRR	Tirgusor	3.81	11	Pn	Pn	21 58 22.1	-0.6
TIRR	Tirgusor	3.81	11	⇓P	Pn	21 58 22.6	-0.1
TLBR	Topalu	3.85	7	⇓P	Pn	21 58 23.6	+0.3
AMRR	Amara	3.89	359	⇓P	Pn	21 58 24.5	+0.6
VLAD	Vladila	3.96	327	⇓P	Pn	21 58 24.8	0.0
HARR	Harsova	3.99	5	⇑P	Pn	21 58 25.7	+0.5
SULR		4.05	348	⇓P	Pn	21 58 26.9	+0.9
SULR		4.05	348	P	Pn	21 58 28.1	+2.1
JURR	Jurilovca	4.19	14	⇓P	Pn	21 58 28.5	+0.6
TPGR	Topolog	4.21	10	⇓P	Pn	21 58 28.3	+0.1
HUMR	Humele	4.21	336	⇓P	Pn	21 58 28.0	-0.2
HUMR	Humele	4.21	336	P	Pn	21 58 28.3	+0.1
AGG	Agios Georgios	4.26	248	P	Pn	21 58 28.1	-0.8
AGG	Agios Georgios	4.26	248	P	Pn	21 58 28.1	-0.8
CIDE	Kastamonu/Cide	4.33	73	⇑P	Pn	21 58 30.2	+0.3
CIDE				⇓S	Sn	21 59 20.2	-0.2
ELL	Elmali	4.42	153	P	Pn	21 58 31.9	+0.7
ELL	Elmali	4.42	153	Pn	Pn	21 58 31.9	+0.7
ISR	Istrita	4.45	352	P	Pn	21 58 32.9	+1.4
ISR	Istrita	4.45	352	⇓P	Pn	21 58 33.0	+1.4
CRAR	CRAIOVA	4.48	325	⇓P	Pn	21 58 31.5	-0.4
CFR	Carcaliu	4.49	7	P	Pn	21 58 32.3	+0.3
CFR	Carcaliu	4.49	7	⇑P	Pn	21 58 32.3	+0.3
ARG	Arkhangelos	4.53	173	P	Pn	21 58 32.4	-0.2
ARG	Arkhangelos	4.53	173	Pn	Pn	21 58 32.4	-0.2
TLCR		4.59	13	P	Pn	21 58 34.4	+1.1
TLCR		4.59	13	⇑P	Pn	21 58 34.4	+1.1
SKO	Skopje	4.66	288	*i* Pn	Pn	21 58 35.7	+1.3
GRER		4.67	356	⇑P	Pn	21 58 35.8	+1.3
SCHLR	Schela	4.76	4	⇑P	Pn	21 58 36.2	+0.5
NEHR	Nehoiu	4.78	351	⇑P	Pn	21 58 37.7	+1.7
ILGA	Ilgaz	4.80	84	Pn	Pn	21 58 37.3	+0.9
AKAS	Kas	4.80	158	Pn	Pn	21 58 37.5	+1.1
GIUM	Giurgiulesti	4.80	7	⇓P	Pn	21 58 36.8	+0.5
NEGRR	Negrea	4.83	4	⇑P	Pn	21 58 37.1	+0.4
IZVR	Izvoarele	4.83	3	⇑P	Pn	21 58 37.7	+0.9
BISRR	Bisoca	4.86	354	⇓P	Pn	21 58 39.0	+1.8
PUNG	Punghina	4.86	319	⇑P	Pn	21 58 36.6	-0.4
BR105	Keskin Array S	4.86	100	P	Pn	21 58 38.9	+1.6
BR105				AML	AML		
BR131	Keskin Array S	4.87	100	P	Pn	21 58 37.7	+0.2
BR131	Keskin Array S	4.87	100	Pn	Pn	21 58 37.7	+0.2
BRTR	Keskin Array B	4.87	100	Pn	Pn	21 58 37.6	+0.1
	0.7nm,0.3s,baz=344,slow=21,SNR=14						
BRTR				Pg	Pg	21 58 55.0	-2.5
	2.3nm,0.3s,baz=267,slow=15,SNR=16						
BRTR				Sn	Sn	21 59 32.3	-1.6
	2.1nm,0.3s,baz=261,slow=12,SNR=5.4						
BRTR				Lg	Lg	21 59 58.0	
	1.4nm,0.3s,baz=283,slow=24,SNR=8.1						
BRTR				LR	LR	22 00 53.7	
	comp=Z,446nm,18.5s,baz=286,slow=43						
	2.5nm,0.5s						
BRTR				AML	AML		
BRTR	Keskin Array B	4.87	100	Pn	Pn	21 58 37.4	-0.1
TUDR		4.88	2	⇑P	Pn	21 58 37.8	+0.5
BR104	Keskin Array S	4.88	100	P	Pn	21 58 38.6	+1.1
BR104				AML	AML		
MLR	Muntele Rosu	4.89	348	Pn	Pn	21 58 38.2	+0.6
	11nm,0.3s,baz=196,slow=7.4,SNR=120						
MLR				Lg	Lg	21 59 58.0	
	14nm,0.3s,baz=264,slow=15,SNR=3.1						
MLR				LR	LR	22 01 06.3	
	comp=Z,508nm,19.5s,baz=178,slow=45						
MLR				AML	AML		
MLR	Muntele Rosu	4.89	348	P	Pn	21 58 38.9	+1.2
MLR	Muntele Rosu	4.89	348	Pn	Pn	21 58 38.9	+1.2
MLR	Muntele Rosu	4.89	348	⇓P	Pn	21 58 39.1	+1.4
MLR	Muntele Rosu	4.89	348	P	Pn	21 58 39.7	+2.0
TATR	Tatarca	4.90	5	⇑P	Pn	21 58 38.8	+1.1
SCTR	Scanteiesti	4.97	5	⇑P	Pn	21 58 38.7	0.0
SRE	Strehaia	5.01	323	P	Pn	21 58 39.3	+0.1
SRE	Strehaia	5.01	323	⇓P	Pn	21 58 39.3	+0.1
OHR	Ohrid	5.02	277	*i* Pn	Pn	21 58 41.6	+2.2
VOIR		5.02	341	⇓P	Pn	21 58 40.3	+0.9
VOIR		5.02	341	P	Pn	21 58 39.8	+0.3
VOIR				AML	AML		
VOIR		5.02	341	P	Pn	21 58 40.2	+0.7
	comp=Z,62nm,0.8s						
KEPZ	Antalya-Kepez	5.03	138	⇑P	Pn	21 58 38.4	-1.1
KBN	Korca	5.03	271	P	Pn	21 58 40.7	+1.1
KBN	Korca	5.03	271	P	Pn	21 58 40.7	+1.1
	comp=Z,51nm,0.8s						
SAHR	Sahastru	5.04	354	⇓P	Pn	21 58 41.0	+1.4
ODBI	Odobesti	5.05	357	⇑P	Pn	21 58 41.2	+1.5
ARR	Arges	5.07	337	⇓P	Pn	21 58 39.9	-0.2
ARR	Arges	5.07	337	P	Pn	21 58 41.4	+1.2
	comp=Z,46nm,0.5s						
BZK	Bozkurt	5.12	74	Pn	Pn	21 58 41.8	+1.1
BZK	Bozkurt	5.12	74	⇑P	Pn	21 58 41.0	+0.3
BOVS	Bovan	5.14	306	⇑P	Pn	21 58 41.7	+0.7
VLDR	Vladesti	5.15	5	⇑P	Pn	21 58 41.9	+0.8
VLDR				⇓S	Sn	21 59 41.5	+1.1
PANC	Panciu	5.16	358	⇑P	Pn	21 58 42.1	+0.9
PLOR	Plostina	5.16	354	⇓P	Pn	21 58 42.7	+1.3
KARP	Karpathos	5.16	182	Pn	Pn	21 58 40.5	-0.9
VRI	Vrincioaia	5.17	355	P	Pn	21 58 42.6	+1.2
VRI	Vrincioaia	5.17	355	⇑P	Pn	21 58 42.7	+1.2
VRI	Vrincioaia	5.17	355	P	Pn	21 58 42.8	+1.3
	comp=Z,85nm,0.6s						
VARL	Varlezi	5.19	3	⇑P	Pn	21 58 42.7	+1.1
VARL				⇓S	Sn	21 59 42.5	+1.0
COVR	Voineasa-Covas	5.20	351	⇑P	Pn	21 58 43.5	+1.7
KIRS	Kirsehir-Merke	5.25	105	⇑P	Pn	21 58 43.3	+0.7
GHRR		5.34	0	⇓P	Pn	21 58 45.0	+1.2
GHRR		5.34	0	P	Pn	21 58 44.7	+1.0
GHRR		5.34	0	P	Pn	21 58 44.9	+1.2
	comp=Z,128nm,0.9s						
PHP	Peshkopia	5.34	283	P	Pn	21 58 46.9	+3.1
	comp=Z,88nm,1.0s						
LOT	Lotru	5.43	332	⇑P	Pn	21 58 44.8	-0.3
LOT	Lotru	5.43	332	P	Pn	21 58 44.8	-0.3
	comp=Z,67nm,0.5s						
TURR	Turia	5.43	350	⇓P	Pn	21 58 46.6	+1.6
TNR	Turnu Rosu	5.44	336	P	Pn	21 58 46.0	+0.9
TNR	Turnu Rosu	5.44	336	⇓P	Pn	21 58 46.0	+0.9
DOPR	Dopca	5.45	345	⇓P	Pn	21 58 46.5	+1.2
BOSR	Bodos	5.50	347	⇑P	Pn	21 58 47.7	+1.7
OZUR		5.50	348	⇓P	Pn	21 58 47.2	+1.2
ITM	Ithomi	5.54	232	Pn	Pn	21 58 46.9	+0.4
ITM	Ithomi	5.54	232	P	Pn	21 58 47.8	+1.2
	comp=Z,51nm,0.6s						
LKD2	Lefkada island	5.54	252	P	Pn	21 58 49.3	+2.7
	comp=Z,68nm,0.6s						
HERR	Herculane	5.55	320	⇑P	Pn	21 58 45.9	-0.7
IGT	Igoumenitsa	5.55	260	P	Pn	21 58 49.6	+3.0
IGT				pmax	pmax		
	comp=Z,47nm,0.9s						
BIR	Birlad	5.55	2	P	Pn	21 58 47.4	+0.8
BIR				S	Sn	21 59 49.7	-0.6
BIR	Birlad	5.55	2	⇑P	Pn	21 58 47.5	+0.8
BIR				⇓S	Sn	21 59 49.8	-0.6
KTHA	Kythira Island	5.61	219	P	Pn	21 58 47.9	+0.5
	comp=Z,84nm,0.6s						
ONER	Baraj Valea Uz	5.66	353	⇑P	Pn	21 58 49.6	+1.4
SRN	Sarande	5.72	264	P	Pn	21 58 51.6	+2.7
	comp=Z,56nm,0.6s						
IDI	Anoyia	5.77	201	Pn	Pn	21 58 49.0	-0.7
	comp=Z,6.1nm,0.3s,baz=9.0,slow=8.3,SNR=17						
IDI				Lg	Lg	22 00 20.8	
	comp=Z,0.8nm,0.3s,baz=313,slow=19,SNR=1.0						
IDI	Anoyia	5.77	201	Pn	Pn	21 58 48.4	-1.3
GZR	Gura Zlata	5.77	326	P	Pn	21 58 49.8	+0.1
GZR	Gura Zlata	5.77	326	⇑P	Pn	21 58 49.8	+0.1
TESR	Tescani	5.82	355	⇑P	Pn	21 58 50.9	+0.6
TESR				⇑S	Sn	21 59 55.8	-1.2
TESR	Tescani	5.82	355	P	Pn	21 58 50.2	-0.1
	comp=Z,0.6nmcomp=Z,45nm,0.8s						
TESR				AML	AML		
TESR	Tescani	5.82	355	P	Pn	21 58 50.7	+0.4
	comp=Z,45nm,0.8s						
MDVR	Moldovita	5.84	316	⇓P	Pn	21 58 50.3	-0.3
MDB	Medias	5.85	339	⇑P	Pn	21 58 52.3	+1.5
VLS	Valsamata	5.85	247	P	Pn	21 58 53.0	+2.2
KEK	Kerkira	5.91	263	Pn	Pn	21 58 51.8	+0.2
VASR	Vaslui	5.93	3	⇓P	Pn	21 58 52.6	+0.8
VASR				⇓S	Sn	22 00 02.0	+2.3
TARU	Tarkhankut	5.98	37	*e*P	Pn	21 58 53.1	+0.6
TARU				pmax	pmax	21 58 58.1	
	comp=Z,30nm,0.5s						
TARU				*e*S	Sn	21 59 56.7	-4.2
TARU				smax	smax	22 00 01.4	
	comp=N,70nm,0.3s						
TARU				smax	smax	22 00 01.4	
	comp=E,36nm,0.3s						
SEV	Sevastopol'	6.00	48	⇓*e*P	Pn	21 58 52.1	-0.6
SEV				*e*S	Sn	21 59 55.4	-5.9
SEV				pmax	pmax		
	comp=Z,10.0nm,0.5s						
SEV				smax	smax		
	comp=N,39nm,0.6s						
SEV				smax	smax		
	comp=E,29nm,0.4s						
SEV	Sevastopol'	6.00	48	⇓*e*P	Pn	21 58 52.1	-0.6
SEV				pmax	pmax	21 59 06.2	
	comp=Z,10.0nm,0.5s						
SEV				*e*S	Sn	21 59 55.4	-5.9
SEV				smax	smax	22 00 01.1	
	comp=N,39nm,0.6s						
SEV				smax	smax	22 00 01.1	
	comp=E,29nm,0.4s						
PURM	Purcari	6.08	16	⇑P	Pn	21 58 54.1	+0.2
PURM	Purcari	6.08	16	P	Pn	21 58 54.7	+0.8
	comp=E,0.6nmcomp=E,50nm,0.5s						
PURM				AML	AML		
DEV	Deva	6.12	329	P	Pn	21 58 54.9	+0.5
DEV	Deva	6.12	329	⇑P	Pn	21 58 54.9	+0.5
DEV	Deva	6.12	329	P	Pn	21 58 54.7	+0.2
	comp=Z,81nm,0.9s						
YAL	Yalta	6.25	51	*e*P	Pn	21 58 55.9	-0.2
YAL				*e*S	Sn	22 00 01.5	-5.9
YAL				pmax	pmax		
	comp=Z,25nm,0.7s						
YAL				smax	smax		
	comp=E,105nm,1.0s						
YAL	Yalta	6.25	51	*e*P	Pn	21 58 55.9	-0.2
YAL				pmax	pmax	21 59 11.5	
	comp=Z,25nm,0.7s						
YAL				*e*S	Sn	22 00 01.5	-5.9
YAL				smax	smax	22 00 19.1	
	comp=N,123nm,1.0s,comp=E,105nm,1.0s						
GIRR	Girov	6.27	354	⇓P	Pn	21 58 57.1	+0.6
BIZ	Bicaz	6.29	352	⇓P	Pn	21 58 57.5	+0.7
DNZ2	Donuzlav2	6.31	40	*e*P	Pn	21 58 57.2	+0.2
DNZ2				pmax	pmax	21 59 04.4	
	comp=Z,20nm,0.6s						
DNZ2				*e*S	Sn	22 00 05.0	-3.9
DNZ2				smax	smax	22 00 22.9	
	comp=N,55nm,0.6s						
DNZ2				smax	smax	22 00 22.9	
	comp=E,54nm,0.6s						
PDG	Podgorica	6.35	288	Pn	Pn	21 58 58.8	+1.2
PDG	Podgorica	6.35	288	P	Pn	21 58 59.6	+2.1
	comp=Z,27nm,0.8s						
BZS	Buzias	6.47	321	P	Pn	21 58 58.0	-1.3
BZS				pmax	pmax		
	comp=Z,70nm,0.7s						
BZS	Buzias	6.47	321	⇑P	Pn	21 58 58.2	-1.0
BZS	Buzias	6.47	321	P	Pn	21 58 58.4	-0.8
	comp=Z,53nm,0.7s						
NE56	Odesa	6.47	22	P	Pn	21 58 59.7	+0.5
SIM	Simferopol'	6.50	47	*e*P	Pn	21 58 59.3	-0.3
SIM				*e*S	Sn	22 00 08.5	-5.1
SIM				pmax	pmax		
	comp=Z,47nm,0.4s						
SIM				smax	smax		
	comp=N,241nm,0.9s						
SIM				smax	smax		
	comp=E,218nm,1.0s						
SIM	Simferopol'	6.50	47	*e*P	Pn	21 58 59.3	-0.3
SIM				pmax	pmax	21 59 18.8	
	comp=Z,47nm,0.4s						
SIM				*e*S	Sn	22 00 08.5	-5.1
SIM				smax	smax	22 00 09.4	
	comp=N,241nm,0.9s						
SIM				smax	smax	22 00 09.4	
	comp=E,218nm,1.0s						
ALU	Alushta	6.50	50	*e*P	Pn	21 58 58.6	-1.0
ALU				*e*S	Sn	22 00 07.6	-6.1
ALU				pmax	pmax		
	comp=Z,20nm,0.6s						
ALU				smax	smax		
	comp=N,83nm,0.8s						
ALU				smax	smax		
	comp=E,61nm,0.8s						
ALU	Alushta	6.50	50	*e*P	Pn	21 58 58.6	-1.0
ALU				pmax	pmax	21 59 22.0	
	comp=Z,20nm,0.6s						
ALU				*e*S	Sn	22 00 07.6	-6.1
ALU				smax	smax	22 00 32.1	
	comp=N,83nm,0.8s,comp=E,61nm,0.8s						
BEO	Beograd	6.54	311	P	Pn	21 59 00.3	+0.1
BEO				pmax	pmax		
	comp=Z,35nm,0.7s						
BEO	Beograd	6.54	311	P	Pn	21 58 59.7	-0.5
	comp=Z,1µm,0.8s						
BANR	Banloc	6.54	318	⇓P	Pn	21 59 00.2	0.0
CJR	Cluj-Napoca	6.60	337	P	Pn	21 59 02.0	+1.0
CJR	Cluj-Napoca	6.60	337	⇓P	Pn	21 59 02.1	+1.0
PRAR	RASCA	6.70	353	⇑P	Pn	21 59 03.0	+0.6
BBLS	Lazi&#263i	6.71	301	P	Pn	21 59 03.3	+0.6
	comp=Z,52nm,0.7s						
MARR	Marisel-Cluj	6.72	334	⇑P	Pn	21 59 02.7	0.0
ARCR	ARCALIA	6.74	342	⇑P	Pn	21 59 03.6	+0.7
BNN	Bunyan	6.76	103	Pn	Pn	21 59 04.4	+1.0
TOKA	Tokat	6.92	90	Pn	Pn	21 59 06.0	+0.5
DRGR		6.96	332	P	Pn	21 59 07.2	+1.2
DRGR		6.96	332	⇑P	Pn	21 59 05.6	-0.4
DRGR		6.96	332	P	Pn	21 59 05.8	-0.2
	comp=Z,37nm,1.0s						
SUDU	Sudak	6.97	51	⇓*e*P	Pn	21 59 05.7	-0.4
SUDU				*e*S	Sn	22 00 21.0	-4.2
SUDU				pmax	pmax		
	comp=Z,48nm,0.7s						
SUDU				smax	smax		
	comp=N,68nm,0.7s						
SUDU				smax	smax		
	comp=E,295nm,0.9s						
SUDU	Sudak	6.97	51	⇓*e*P	Pn	21 59 05.7	-0.4
SUDU				pmax	pmax	21 59 20.8	
	comp=Z,48nm,0.7s						
SUDU				*e*S	Sn	22 00 21.0	-4.2
SUDU				smax	smax	22 00 49.7	
	comp=N,68nm,0.7s						
SUDU				smax	smax	22 00 49.7	
	comp=E,295nm,0.9s						
BURAR	Bucovina Array	7.07	348	P	Pn	21 59 08.9	+1.3
BURAR	Bucovina Array	7.07	348	Pn	Pn	21 59 07.7	+0.1
BURAR	Bucovina Array	7.07	348	⇓P	Pn	21 59 08.9	+1.3
BUR08	Bucovina Ar. S	7.11	348	Pn	Pn	21 59 08.5	+0.5
FRGS	Fruska Gora	7.12	311	P	Pn	21 59 07.8	-0.4
	comp=Z,52nm,0.6s						
FEO	Feodosiya	7.27	51	*e*P	Pn	21 59 11.7	+1.5
FEO				*e*S	Sn	22 00 30.1	-2.6
FEO				pmax	pmax		
	comp=Z,24nm,0.3s						
FEO				smax	smax		
	comp=N,107nm,0.9s						
FEO				smax	smax		
	comp=E,50nm,0.7s						
FEO	Feodosiya	7.27	51	*e*P	Pn	21 59 11.7	+1.5
FEO				pmax	pmax	21 59 24.0	
	comp=Z,24nm,0.3s						
FEO				*e*S	Sn	22 00 30.1	-2.6
FEO				smax	smax	22 00 44.2	
	comp=N,107nm,0.9s						
FEO				smax	smax	22 00 44.2	
	comp=E,50nm,0.7s						
BAL3X	Bal3x, Balta	7.39	12	P	Pn	21 59 11.0	-0.8
AMBH	Ambrzfalva	7.43	321	P	Pn	21 59 12.1	-0.3
	comp=Z,58nm,0.6s						
SORM	Soroca	7.45	5	P	Pn	21 59 11.8	-0.8
SORM	Soroca	7.45	5	⇑P	Pn	21 59 11.8	-0.8
SORM	Soroca	7.45	5	P	Pn	21 59 11.3	-1.3
	comp=Z,0.2nmcomp=Z,24nm,0.6s						
SORM				AML	AML		
LTVH	Ltavrtes, Hu	7.75	331	⇓P	Pn	21 59 16.9	0.0
LTVH	Ltavrtes, Hu	7.75	331	P	Pn	21 59 17.3	+0.4
	comp=Z,53nm,0.8s						
MATE	Matera	8.13	273	⇑P	Pn	21 59 22.7	+0.7
MATE	Matera	8.13	273	P	Pn	21 59 23.1	+1.1
	comp=Z,18nm,0.6s						
TRPA	Tarpa	8.19	336	P	Pn	21 59 22.0	-0.8
	comp=Z,13nm,0.6s						
TIP	Timpagrande	8.32	263	Pn	Pn	21 59 24.7	-0.1
TIP	Timpagrande	8.32	263	⇓P	Pn	21 59 25.6	+0.8
TIP	Timpagrande	8.32	263	P	Pn	21 59 24.8	+0.1
	comp=Z,18nm,0.5s						
TIP	Timpagrande	8.32	263	P	Pn	21 59 25.4	+0.7
	comp=Z,22nm,0.5s						
MORH	Mrgy, Hungar	8.41	314	⇑P	Pn	21 59 25.6	-0.3
MORH	Mrgy, Hungar	8.41	314	P	Pn	21 59 25.5	-0.3
	comp=Z,415nmcomp=Z,41nm,0.6s						
MORH	Mrgy, Hungar	8.41	314	P	Pn	21 59 25.7	-0.1
	comp=Z,46nm,0.5s						
BLY	Banja Luka	8.53	302	Pn	Pn	21 59 27.1	-0.5
ABAH	Abaujker	8.76	332	P	Pn	21 59 29.1	-1.5
	comp=Z,17nm,0.9s						
MARCO	Tramutola	8.85	271	P	Pn	21 59 33.8	+1.8
	comp=Z,64nm,1.0s						
SGRT	San Giovanni R	8.85	281	Pn	Pn	21 59 32.0	0.0
KOLS	Kolonicke sedl	8.99	338	P	Pn	21 59 35.3	+1.5
KOLS	Kolonicke sedl	8.99	338	*e*PG	Pg	22 00 11.1	-5.0
KOLS	Kolonicke sedl	8.99	338	P	Pn	21 59 35.3	+1.5
	comp=Z,11nm,0.6s						
PSZ	Piszkesteto	8.99	326	P	Pn	21 59 32.5	-1.3
PSZ	Piszkesteto	8.99	326	Pn	Pn	21 59 32.5	-1.3
PSZ	Piszkesteto	8.99	326	P	Pn	21 59 36.5	+2.7
	comp=Z,10nm,0.9s						
BUD	Budapest	9.06	321	P	Pn	21 59 33.7	-1.1
	comp=Z,13nm,0.5s						
LUBAR	Lubar, Ukraine	9.21	1	P	Pn	21 59 35.1	-1.7
CEL	Celeste	9.23	258	Pn	Pn	21 59 37.0	-0.2
CEL	Celeste	9.23	258	P	Pn	21 59 36.2	-1.0
	comp=Z,22nm,0.9s						
LVV	L'vov	9.41	347	P	Pn	21 59 40.2	+0.7
SOC	Sochi	9.58	69	*e*P	Pn	21 59 43.1	+1.2
SOC				*e*		22 01 34.4	
SOC				pmax	pmax		
	comp=Z,15nm,0.9s						
SOC				MLR	MLR		
	comp=Z,160nm,17.0s						
MPLH	Magyarpolny	9.60	315	P	Pn	21 59 42.2	0.0
	comp=Z,75nm,0.7s						
MPLH	Magyarpolny	9.60	315	P	Pn	21 59 42.7	+0.6
	comp=Z,30nm,0.7s						
BEHE	Becsehely	9.62	310	Pn	Pn	21 59 42.9	+0.5
BEHE	Becsehely	9.62	310	P	Pn	21 59 43.2	+0.8
	comp=Z,26nm,0.6s						
STHS	Stebnicka Huta	9.73	335	*e*PN	Pn	21 59 37.6	-6.3
PAOL	Paolisi	9.73	276	Pn	Pn	21 59 44.7	+0.6
VSLR	Vesyoloye	9.78	70	*i* P	Pn	21 59 45.4	+0.8
AK07	Malin Array Si	9.92	7	P	Pn	21 59 44.9	-1.5
AK09	Malin Array Si	9.99	7	P	Pn	21 59 45.9	-1.5
AK14	Malin Array Si	9.99	6	P	Pn	21 59 46.0	-1.4
MMAI	Mount Meron Ar	10.00	138	Pn	Pn	21 59 47.2	-0.6
	comp=Z,0.4nm,0.3s,baz=326,slow=14,SNR=7.3						
MMAI				Sn	Sn	22 01 39.6	-0.3
	comp=Z,0.6nm,0.3s,baz=310,slow=24,SNR=1.5						
MMAI				LR	LR	22 04 48.6	
	comp=Z,82nm,21.2s,baz=308,slow=45						
	comp=Z,9.1nm,0.9s						
MMAI				AML	AML		

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AK08   Malin Array Si    10.00   7  P      Pn      21 59 46.1 -1.5
NIE    Niedzica          10.04 332  P      Pn      21 59 49.0 +0.7
AKASG  Malin Array Be    10.07   7  Pn     Pn      21 59 47.0 -1.5
       comp=Z,1.4nm,0.3s,baz=196,slow=13,SNR=4.2
AKASG                               Sn     Sn      22 01 40.6 -0.7
       comp=Z,2.4nm,0.3s,baz=195,slow=24,SNR=6.5
AKASG                               Lg     Lg      22 02 36.3
       baz=186,slow=28
AKASG                               LR     LR      22 03 29.5
       comp=Z,160nm,18.9s,baz=188,slow=36
       comp=Z,0.4nm,0.4s
AKASG                               AML    AML
AKASG  Malin Array Be    10.07   7         Pn      21 59 46.5 -2.1
AKBB   Malin Array Si    10.07   7 i P     Pn      21 59 50.9 +2.4
AK19   Malin Array Si    10.07   6  P      Pn      21 59 49.5 +0.9
LANS   Liptovska Anna    10.13 329 eP      Pn      21 59 51.7 +2.2
LANS   Liptovska Anna    10.13 329 ePN     Pn      21 59 51.7 +2.2
INTR   Introdacqua       10.23 282  Pn     Pn      21 59 51.0  0.0
SOP    Sopron            10.44 315  P      Pn      21 59 54.2 +0.5
       comp=Z,11nm,0.6s
MODS   Modra-Piesok      10.52 320  P      Pn      21 59 56.6 +1.9
       comp=Z,13nm,0.9s
RONA   Rosalia, Austr    10.59 315 i Pn    Pn      21 59 56.5 +0.7
       comp=Z,5.3nm,0.5s,SNR=11
RONA                               i Sn    Sn      22 01 48.4 -5.8
       comp=Z,5.5nm,0.8s
VAE    Valguarnera       10.60 256  Pn     Pn      21 59 54.1 -1.9
       comp=Z,2.9nm,0.7s,baz=22,slow=19,SNR=1.2
JAVC   Velka Javorina    10.68 323 ePN     Pn      21 59 55.7 -1.2
JAVC   Velka Javorina    10.68 323  P      Pn      21 59 58.6 +1.7
       comp=Z,6.7nm,2.1s
RNPP8  Varash            10.68 355  P      Pn      21 59 55.5 -1.4
RAFF   Raffo Rosso       10.74 255  Pn     Pn      21 59 55.6 -2.2
RNPP9  Sopachiv          10.75 355  P      Pn      21 59 56.6 -1.3
SOKA   Soboth            10.75 308 ePn     Pn      21 59 58.5 +0.5
       comp=Z,2.6nm,0.5s,SNR=6.2
SOKA                               i Sn    Sn      22 01 54.2 -4.1
       comp=Z,4.1nm,0.5s
ARSA   Arzberg           10.76 311  Pn     Pn      21 59 58.6 +0.5
ARSA   Arzberg           10.76 311 ePn     Pn      21 59 58.1  0.0
       comp=Z,8.2nm,0.5s,SNR=12
ARSA   Arzberg           10.76 311  P      Pn      21 59 57.9 -0.2
       comp=Z,20nm,0.7s
NRCA   Norcia            10.88 286  Pn     Pn      22 00 00.9 +1.1
CONA   Conrad Observa    10.96 315 ePn     Pn      22 00 01.3 +0.4
       comp=Z,1.9nm,0.4s,SNR=5.1
OBKA   Obir              10.97 306 i Pn    Pn      22 00 02.4 +1.4
       comp=Z,2.2nm,0.4s
OBKA   Obir              10.97 306  P      Pn      22 00 01.9 +1.0
       comp=Z,8.2nm,0.7s
SESA   Seetaler Alpe,    11.25 309 ePn     Pn      22 00 05.7 +0.8
       comp=Z,12nm,0.5s,SNR=11
MURB   Monte Urbino      11.37 288  Pn     Pn      22 00 07.5 +1.1
MORC   Moravsky Berou    11.41 326 ePN     Pn      22 00 04.8 -2.2
MORC   Moravsky Berou    11.41 326  P      Pn      22 00 06.6 -0.4
KRUC   Moravsky          11.42 321 ePN     Pn      22 00 04.6 -2.4
ASF    Jabal al Asfar    11.44 135  Pn     Pn      22 00 07.6  0.0
       comp=Z,0.2nm,0.3s,baz=294,slow=20,SNR=2.5
       comp=Z,0.8nm,0.4s
ASF                                 AML    AML
VRAC   Vranov            11.49 322  Pn     Pn      22 00 09.8 +1.8
       comp=Z,0.2nm,0.3s,baz=159,slow=13,SNR=2.2
VRAC                                LR     LR      22 04 30.2
       comp=Z,136nm,20.1s,baz=81,slow=37
       comp=Z,2.1nm,0.9s
VRAC                                AML    AML
VRAC   Vranov            11.49 322 ePN     Pn      22 00 04.9 -3.2
EPOS   Posof             11.59  81  P      Pn      22 00 11.8 +2.2
       comp=Z,7.4nm,1.7s
ACOM   Acomizza, Ital    11.63 305  P      Pn      22 00 10.9 +0.8
       comp=Z,13nm,1.3s
KIV    Kislovodsk        11.76  69 eP      Pn      22 00 12.4 +0.5
KIV                                 pmax   pmax
       comp=Z,3.0nm,1.0s
KIV                                 MLR    MLR
       comp=Z,77nm,13.0s
MOA    Molln             11.80 312 ePn     Pn      22 00 13.4 +1.1
       comp=Z,5.4nm,0.7s,SNR=8.0
MOA                                i Sn    Sn      22 02 20.1 -3.8
       comp=Z,0.8nm,0.3s
MOA    Molln             11.80 312  P      Pn      22 00 12.4 +0.1
       comp=Z,12nm,0.7s
KBZ    Khabaz            11.88  70 i P     Pn      22 00 14.4 +1.1
KBA    Koelnbreinsper    11.96 307 ePn     Pn      22 00 18.5 +3.8
       comp=Z,2.0nm,0.6s
KBA                                i Sn    Sn      22 02 23.5 -4.6
       comp=Z,1.4nm,0.5s
BIOA   Bad Ischl, Aus    12.08 310 i Pn    Pn      22 00 17.9 +1.7
       comp=Z,5.7nm,0.4s
BIOA                               i Sn    Sn      22 02 30.6 -0.1
       comp=Z,2.8nm,0.5s
CKRC   Cesky Krumlov     12.33 315 eP      P       22 00 27.1 -4.6
CKRC   Cesky Krumlov     12.33 315 eP      P       22 00 27.1 -4.6
HRFI   Mount Harif       12.34 147  P      Pn      22 00 17.9 -1.7
       comp=Z,10nm,0.7s
ABTA   Abfaltersbach     12.34 304 i Pn    Pn      22 00 21.2 +1.5
       comp=Z,2.2nm,0.5s
DPC    Dobruska-Polom    12.36 325 eP      Pn      22 00 22.5 +2.5
DPC    Dobruska-Polom    12.36 325 eP      Pn      22 00 22.5 +2.5
LESA   Schwarzleotal     12.53 307 i Pn    Pn      22 00 24.2 +1.9
       comp=Z,2.4nm,0.6s
ZCCA   Zocca             12.65 292  Pn     Pn      22 00 26.4 +2.5
GEC2   GERESS Array S    12.67 314  Pn     Pn      22 00 25.1 +0.9
GERES  GERESS Array B    12.67 314  Pn     Pn      22 00 24.3 +0.1
       baz=123,slow=14,SNR=14
       comp=Z,1.8nm,0.6s
GERES  GERESS Array B    12.67 314  Pn     Pn      22 00 24.1 -0.1
KHC    Kasperske Hory    12.90 315 eP      Pn      22 00 28.0 +0.7
KHC                                 MLR    MLR
       comp=Z,300nm,14.8s
KHC    Kasperske Hory    12.90 315 eP      Pn      22 00 28.0 +0.7
KHC                                 AMS    AMS     22 05 50.0
       comp=Z,300nm,14.8s
KHC    Kasperske Hory    12.90 315  Pn     Pn      22 00 27.4  0.0
KHC    Kasperske Hory    12.90 315  P      Pn      22 00 30.1 +2.8
       comp=Z,3.4nm,0.8s
WTTA   Wattenberg        13.10 305 i Pn    Pn      22 00 33.6 +3.5
       comp=Z,1.3nm,0.4s
WATA   Walderalm         13.16 305 i Pn    Pn      22 00 33.2 +2.2
       comp=Z,1.3nm,0.5s
GNI    Garni             13.22  87  LR     LR      22 06 01.7
       comp=Z,272nm,18.1s,baz=246,slow=39
MOTA   Moosalm           13.46 305 ePn     Pn      22 00 39.3 +4.3
       comp=Z,1.3nm,0.4s
MOTA                               eSn     Sn      22 03 05.2 +0.6
       comp=Z,3.1nm,0.6s
FETA   Feichten          13.57 303 ePn     Pn      22 00 38.6 +2.0
       comp=Z,0.9nm,0.4s
RETA   Reutte            13.73 305 i Pn    P       22 00 46.4 -1.0
       comp=Z,2.1nm,0.4s
HSKC   Hora Svate Kat    13.88 320  P      Pn      22 00 41.4 +0.8
       comp=Z,3.6nm,1.2s
DAVOX  Davos/Dischmat    14.03 301  Pn     Pn      22 00 44.2 +1.2
       comp=Z,0.4nm,0.3s,baz=99,slow=19,SNR=3.3
DAVOX                               LR     LR      22 05 52.0
       comp=Z,185nm,20.1s,baz=104,slow=36
       comp=Z,1.7nm,0.4s
DAVOX                               AML    AML
GRB4   Grafenberg Arr    14.18 313  P      Pn      22 00 47.6 +2.8
       comp=Z,11nm,0.9s
DAVA   Damuels           14.21 303 i Pn    P       22 00 51.9 -0.9
       comp=Z,4.0nm,0.6s
TUE    Stuetta           14.28 300  Pn     Pn      22 00 49.3 +2.9
GRA2   Grafenberg Arr    14.39 314  P      Pn      22 00 48.9 +1.2
       comp=Z,17nm,0.7s
GRA3   Grafenberg Arr    14.47 314  P      Pn      22 00 50.9 +2.1
       comp=Z,11nm,0.8s
GRA1   Grafenberg Arr    14.49 314  Pn     Pn      22 00 50.8 +1.8
GRA1   Grafenberg Arr    14.49 314  P      Pn      22 00 51.3 +2.3
       comp=Z,14nm,0.7s
GRF    Grafenberg Arr    14.49 314  P      Pn      22 00 50.8 +1.8
GRFO   Grafenberg        14.49 314  P      Pn      22 00 51.0 +2.0
GRFO   Grafenberg        14.49 314  Pn     Pn      22 00 51.0 +2.0
CLL    Collm             14.54 322 i P     Pn      22 00 45.4 -4.3
CLL                                 MLR    MLR
       comp=Z,400nm,14.2s
CLL    Collm             14.54 322 e(sP)   P       22 00 54.0 -2.3
CLL                                ePP     PnPn    22 00 59.0 +1.4
CLL                                 L      L       22 04 00.0
CLL                                 AMS    AMS     22 06 00.0
       comp=N,300nm,16.3s
CLL                                 AMS    AMS     22 06 00.0
       comp=E,200nm,13.7s
CLL                                 AMS    AMS     22 07 00.0
       comp=Z,400nm,14.2s
KEST   Kesra             15.04 256  Pn     Pn      22 00 57.0 +0.5
       baz=88,slow=15,SNR=2.3
KEST                                LR     LR      22 07 38.7
       comp=Z,86nm,18.1s,baz=350,slow=41
KEST   Kesra             15.04 256  Pn     Pn      22 00 55.9 -0.6
BFO    Black Forest      15.56 306  P      P       22 01 08.1 +0.4
BFO                                 pmax   pmax
       comp=Z,12nm,1.1s
BFO    Black Forest      15.56 306  P      P       22 01 08.1 +0.4
BFO                                 IAmb   IAmb    22 01 15.1
       comp=Z,12nm,1.1s
SENIN  Lac Senin/Sane    15.62 298  Pn     Pn      22 01 03.8 -0.5
OBN    Obninsk           15.64  20⇑eP      Pn      22 01 05.2 +1.0
OBN                                eS      Sn      22 04 01.7 +4.4
OBN                                 pmax   pmax
       comp=Z,3.0nm,0.3s
OBN                                 MLR    MLR
       comp=Z,122nm,15.0s
ECH    Echery            16.25 304  P      P       22 01 16.6 +1.3
ECH                                 pmax   pmax
       comp=Z,4.0nm,0.8s
ECH    Echery            16.25 304  P      P       22 01 16.6 +1.3
BSEG   Bad Segeberg      17.52 325  P      P       22 01 29.3 +0.1
BSEG   Bad Segeberg      17.52 325  P      P       22 01 29.3 +0.1
       comp=Z,12nm,1.3s
BELG   Belogornoye       18.09  43  P      Pn      22 01 34.8 -0.3
       comp=Z,0.5nm,0.3s,baz=29,slow=2.3,SNR=2.8
       comp=Z,10nm,0.9s
BELG                                AML    AML
BELG   Belogornoye       18.09  43 i P     P       22 01 35.5  0.0
BELG                                pmax   pmax
       comp=Z,2.0nm,0.8s
OPLO   Oploo             18.42 313  P      Pn      22 01 41.7 +2.5
       comp=Z,49nm,1.2s
FINES  FINESS Array B    20.77 358  P      P       22 02 04.5 -0.2
       comp=Z,2.1nm,0.7s,baz=157,slow=17,SNR=6.2
FINES                               LR     LR      22 10 24.6
       comp=Z,144nm,19.0s,baz=206,slow=38
       comp=Z,2.1nm,0.7s
FINES  FINESS Array B    20.77 358 eP      P       22 02 03.4 -1.4
FINES                               pmax   pmax
       comp=Z,4.0nm,0.9s
FINES  FINESS Array B    20.77 358  P      P       22 02 04.0 -0.8
HFS    Hagfors           21.23 341  P      P       22 02 08.1 -1.7
       comp=Z,3.4nm,0.8s,baz=158,slow=8.8,SNR=6.6
HFS                                 LR     LR      22 11 50.8
       comp=Z,205nm,18.6s,baz=148,slow=41
       comp=Z,3.4nm,0.8s
KLMR   Klimovskoe        21.50  16 eP      P       22 02 12.7 +0.1
KLMR                               e               22 06 11.9
KLMR                                pmax   pmax
       comp=Z,17nm,1.5s
NB201  NORSAR Array S    22.63 339  P      P       22 02 25.1 +0.3
NOA    NORSAR Array B    22.64 339  P      P       22 02 23.9 -1.1
       comp=Z,3.2nm,0.9s,baz=146,slow=11,SNR=9.1
NOA                                 LR     LR      22 11 45.4
       comp=Z,101nm,18.4s,baz=165,slow=38
       comp=Z,3.2nm,0.9s
NOA    NORSAR Array B    22.64 339 eP      P       22 02 24.8 -0.1
NOA                                 pmax   pmax
       comp=Z,3.0nm,0.8s
NC303  NORSAR Array S    22.76 340  P      P       22 02 28.0 +1.8
RAYN   Ar Rayn           22.92 133  P      P       22 02 28.8 +0.7
       comp=Z,4.7nm,1.1s
NC204  NORSAR Array S    22.96 339  P      P       22 02 27.6 -0.7
NC204                               IAmb   IAmb    22 02 40.7
       comp=Z,14nm,1.1s
AKTO   Aktyubinsk        23.38  55  P      P       22 02 32.5 -0.1
       comp=Z,1.2nm,0.8s,baz=274,slow=8.2,SNR=2.8
AKTO                                LR     LR      22 13 32.4
       comp=Z,132nm,18.7s,baz=310,slow=41
       comp=Z,1.2nm,0.8s
ESDC   Sonseca Array     23.92 278  P      P       22 02 37.6 -0.5
       comp=Z,1.3nm,0.7s,baz=72,slow=10.0,SNR=9.3
ESDC                                LR     LR      22 12 45.7
       comp=Z,73nm,18.2s,baz=98,slow=39
       comp=Z,1.3nm,0.7s
ESDC   Sonseca Array     23.92 278  P      P       22 02 38.0 -0.1
ESDC                                IAmb   IAmb    22 02 58.0
       comp=Z,7.2nm,1.4s
PAB    San Pablo         24.24 278  P      P       22 02 41.9 +0.8
PAB                                 pmax   pmax
       comp=Z,6.0nm,1.0s
PAB    San Pablo         24.24 278  P      P       22 02 41.9 +0.8
PAB                                 IAmb   IAmb    22 02 43.3
       comp=Z,6.3nm,1.0s
EKA    Eskdalemuir Ar    24.87 316  P      P       22 02 45.7 -0.8
       comp=Z,0.7nm,0.5s,baz=100,slow=9.3,SNR=4.3
EKA                                 LR     LR      22 14 19.9
       comp=Z,78nm,19.1s,baz=183,slow=41
       comp=Z,0.7nm,0.5s
ARTI   Arti              25.52  42  LR     LR      22 13 51.0
       comp=Z,128nm,19.1s,baz=225,slow=39
ARTI   Arti              25.52  42d iP     P       22 02 53.2 +0.9
ARTI                                S      S       22 07 22.3 +2.9
ARTI                                SS     SnSn    22 08 14.6 +2.4
ARTI                                pmax   pmax
       comp=Z,5.0nm,0.8s
ARTI   Arti              25.52  42  P      P       22 02 53.6 +1.3
MDT    Midelt            26.72 263  LR     LR      22 13 49.2
       comp=Z,46nm,18.5s,baz=46,slow=37
SVE    Sverdlovsk        26.83  42 eP      P       22 03 12.0 +7.8
ARCES  ARCESS Array B    28.90 359  LR     LR      22 14 38.5
       comp=Z,89nm,18.3s,baz=194,slow=36
BORK   Borovoye          31.34  52 i P     P       22 03 45.0 +0.7
BORK                                pmax   pmax
       comp=Z,1.0nm,0.9s
BVAR   Borovoye Array    31.38  52  P      P       22 03 43.7 -1.0
       comp=Z,0.5nm,0.7s,baz=251,slow=13,SNR=2.2
       comp=Z,0.5nm,0.7s
KKAR   Karatay Array     31.91  71  P      P       22 03 50.8 +1.3
KKAR   Karatay Array     31.91  71  P      P       22 03 50.8 +1.3
AAK    Ala-Archa         34.87  71 i P     P       22 04 13.7 -1.8
AAK                                 pmax   pmax
       comp=Z,1.0nm,1.0s
TORD   Torodi Ar. Bea    35.51 227  P      P       22 04 20.2 -0.7
       comp=Z,0.7nm,0.5s,baz=31,slow=8.7,SNR=10
       comp=Z,0.7nm,0.5s
BOOM   Boomskoye usch    35.94  71  P      P       22 04 26.5 +1.8
BOOM                                pmax   pmax
       comp=Z,4.0nm,1.1s
BOOM   Boomskoye usch    35.94  71  P      P       22 04 26.5 +1.8
BOOM                                IAmb   IAmb    22 04 26.6
       comp=Z,4.0nm,1.1s
KURBB  Kurchatov Arra    36.41  57  P      P       22 04 29.1 +0.7
       comp=Z,1.2nm,0.8s,baz=281,slow=8.8,SNR=8.1
KURBB                               LR     LR      22 22 34.4
       comp=Z,72nm,19.0s,baz=186,slow=42
       comp=Z,1.2nm,0.8s
KURK   Kurchatov         36.46  56  P      P       22 04 29.3 +0.5
KURK                                pmax   pmax
       comp=Z,1.0nm,0.7s
KURK   Kurchatov         36.46  56  P      P       22 04 29.3 +0.5
BORG   Borgarnes         36.67 327  LR     LR      22 22 17.2
       comp=Z,89nm,18.5s,baz=104,slow=41
MKAR   Makanchi Array    39.42  62  P      P       22 04 54.5 +0.6
       comp=Z,1.3nm,0.9s,baz=272,slow=7.2,SNR=6.8
       comp=Z,1.3nm,0.9s
MKAR   Makanchi Array    39.42  62  P      P       22 04 54.4 +0.5
ZALV   Zalesovo Beam     39.99  51  P      P       22 04 59.1 +0.6
       comp=Z,1.5nm,0.5s,baz=268,slow=8.9,SNR=10
       comp=Z,1.5nm,0.5s
MBAR   Mbarara           41.24 175  LR     LR      22 23 01.5
       comp=Z,67nm,18.3s,baz=8.0,slow=37
DBIC   Dimbokro          44.48 229  LR     LR      22 25 26.3
       comp=Z,31nm,19.5s,baz=70,slow=38
SFJD   Kangerlussuaq     48.74 329  LR     LR      22 27 57.6
       comp=Z,66nm,18.2s,baz=94,slow=38
SONM   Songino Array     54.69  54  LR     LR      22 34 04.1
       comp=Z,81nm,18.1s,baz=259,slow=40
HHC    Hu-ho-hao-te      61.18  59 eP      P       22 07 39.6 +0.8
HHC                                 pmax   pmax
       comp=Z,7.0nm,0.5s
HHC                                 pmax   pmax
       comp=Z,59nm,5.9s
PZH    PanZhiHua         61.82  78  P      P       22 07 44.8 +1.5
KLR    Kul'dur           68.45  43  LR     LR      22 42 18.4
       comp=Z,77nm,19.2s,baz=266,slow=39
MA2    Magadan           69.72  27  LR     LR      22 40 07.3
       comp=Z,42nm,21.5s,baz=294,slow=37
E29M   Blow River        70.66 354  P      P       22 08 39.9 +0.7
E29M                                IAmb   IAmb    22 08 47.8
       comp=Z,4.8nm,1.4s
E19K   Redstone River    72.10   2  P      P       22 08 49.0 +1.1
E19K                                IAmb   IAmb    22 08 52.3
       comp=Z,2.4nm,0.8s
SADO   Sadowa            72.43 314  LR     LR      22 40 23.3
       comp=Z,43nm,19.5s,baz=342,slow=36
KSRS   Korea Array       73.56  55  P      P       22 08 57.6 +0.5
       comp=Z,1.0nm,0.8s,baz=334,slow=5.0,SNR=2.8
KSRS                                LR     LR      22 47 45.1
       comp=Z,20nm,19.7s,baz=225,slow=41
       comp=Z,1.0nm,0.8s
IMAR   Indian Mountai    73.63   0  P      P       22 08 58.5 +1.5
ILAR   Eielson Array     74.75 357  P      P       22 09 02.1 -1.6
       comp=Z,0.1nm,0.4s,baz=20,slow=5.4,SNR=1.5
       comp=Z,0.1nm,0.4s
ULM    Lac du Bonnet     76.68 327  LR     LR      22 45 04.1
       comp=Z,38nm,18.7s,baz=332,slow=37
PETK   Petropavlovsk-    77.17  28  LR     LR      22 45 10.1
       comp=Z,53nm,18.9s,baz=293,slow=37
PDAR   Pinedale Array    88.25 330  LR     LR      22 52 23.3
       comp=Z,26nm,18.2s,baz=357,slow=37
PFO    Pinyon Flats O    98.88 330  LR     LR      23 02 25.5
       comp=Z,23nm,18.9s,baz=62,slow=40
```

GII ***08*** *22:19:28.6±0.0, 40.°333N±0.°003×40.°872E±0.°001, h0^{km}, Mws3.9, confirmed*
ISK ***08*** *22:20:03.7, 38.°17N×38.°69E, h5^{km}, ML3.8/20*
IDC ***08*** *22:20:05.5±0.7, 38.°13N×38.°65E, h0^{km}, mb3.6/7, mbtmp3.6/16, ML3.1/7, MS2.9/6, Error ellipse: s-maj=11.6km s-min=8.4km az=139.0*
AFAD ***08*** *22:20:05.0, 38.°17N×38.°69E, h7^{km}±2^{km}, MW3.7*
ISC 08 22:20:06.7±0.6**, 38.°16N**±0.°02×**38.°71E**±0.°02**, h10^{km}, n74, σ1§41**/91**, mb3.7**/13**, Turkey**

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Code   Station Name       Δ°   AZ°   Phase ID           Time      Res
                                    Op     ISC       h  m  s    ISC
MAYA   Malatya/Merkez     0.28 307  P      Pg      22 20 10.4 -1.9
MAYA                                S      Sg      22 20 14.6 -1.5
NARI   Adyaman-Kaht       0.28 171  P      Pg      22 20 11.0 -1.4
MDYL   Doganyol-Malat     0.30  60  Pg     Pg      22 20 11.3 -1.5
MDYL                                Sg     Sg      22 20 16.4 -0.5
MDYL                                AML    AML
ESGZ   Sivrice-Elazig     0.39  46  Pg     Pg      22 20 12.3 -2.1
ESGZ                                AML    AML
ELZG   Elazig             0.40  33  P      Pg      22 20 12.7 -2.0
ELZG                                S      Sg      22 20 19.4 -0.6
AZEY   Adyaman-Merk       0.50 226  P      Pg      22 20 15.5 -1.0
AZEY                                S      Sb      22 20 23.6 -1.4
SVRC   Sivrice-ELAZID     0.52  65  Pg     Pg      22 20 14.9 -2.0
SVRC                                AML    AML
ESIJ   Sivrice-Elazig     0.56  59  Pg     Pg      22 20 16.2 -1.3
ESIJ                                Sg     Sg      22 20 24.9  0.0
ESIJ                                AML    AML
HANM   anlurfa/Hi         0.60 167  P      Pg      22 20 17.2 -1.1
HANM                                S      Sg      22 20 26.0 -0.1
AKCD   Akcadag            0.63 283  P      Pg      22 20 17.1 -1.8
AKCD                                S      Sg      22 20 26.4 -0.9
ELZ    Elazig             0.66  37  P      Pg      22 20 17.3 -2.2
ELZ                                 S      Sg      22 20 27.5 -0.6
ATAB   Bozova             0.76 205  P      Pg      22 20 20.0 -1.4
AKCA   Adyaman/G¶l        0.88 246  P      Pg      22 20 22.5 -1.2
HEKM   Malatya_Hekimh     0.93 321  P      Pg      22 20 22.5 -2.0
HEKM                                S      Sg      22 20 35.9 -0.7
ARPR   Arapgir-MALATY     0.97 343  Pg     Pg      22 20 22.9 -2.6
ARPR                                Sg     Sb      22 20 38.1 -0.7
DYBB   Diyarbakir         1.15 100  Pn     Pb      22 20 26.9 -1.8
DYBB                                Sn     Sn      22 20 44.3 -0.5
DYBB                                AML    AML
CUGUR  Gurin_SVAS         1.26 297  P      Pn      22 20 28.5 -2.0
CUGUR                               S      Sn      22 20 47.7 +0.2
ILIC   ilic-Erzincan      1.29 355  Pn     Pn      22 20 28.7 -2.3
ILIC                                AML    AML
KHMN   Narli-Kahraman     1.45 238  Pn     Pn      22 20 32.2 -0.8
KHMN                                AML    AML
GAZ    Gaziantep          1.54 231  Pn     Pn      22 20 33.5 -0.8
GAZ                                 Sn     Sg      22 20 55.0 -1.3
GAZ                                 AML    AML
KMRS   Kahramanmaras      1.57 246  Pn     Pn      22 20 33.9 -0.8
KMRS                                Sn     Sg      22 20 55.9 -1.4
KMRS                                AML    AML
ERZN   Erzincan           1.63  29  Pn     Pn      22 20 34.1 -1.5
ERZN                                AML    AML
BNGB   Bingl              1.75  61  Pn     Pn      22 20 36.7 -0.6
BNGB                                AML    AML
SARI   SarD1z-Kayseri     1.82 278  Pn     Pn      22 20 37.3 -0.9
SARI                                AML    AML
YEDI   Yedisu-Bingol      1.92  48  Pn     Pn      22 20 39.0 -0.6
YEDI                                AML    AML
SVAN   Silvan-Diyarba     1.96  90  Pn     Pn      22 20 39.6 -0.5
SVAN                                AML    AML
SVSK   Karacayir          2.20 323  Pn     Pn      22 20 42.8 -0.5
SVSK                                AML    AML
VRTB   Varto-Mus          2.37  64  Pn     Pn      22 20 45.5 -0.3
VRTB                                AML    AML
GURO   Guroymak-BITLI     2.64  81  Pn     Pn      22 20 49.1 -0.4
GURO                                AML    AML
KTUT   Trabzon            2.94  16  Pn     Pn      22 20 53.5 +0.1
KTUT                                AML    AML
KOPR   Koprukoy-ERZUR     3.06  52  Pn     Pn      22 20 55.2  0.0
KOPR                                AML    AML
MLAZ   Malazgirt-MUS      3.17  71  Pn     Pn      22 20 56.7  0.0
MLAZ                                AML    AML
BEIL   Beino              4.15 210 eP      Pn      22 21 09.8 -0.3
BRTR   Keskin Array B     4.25 293  Pn     Pn      22 21 12.9 +1.3
       0.9nm,0.3s,baz=134,slow=14,SNR=23
BRTR                                Pg     Pb      22 21 22.8 +1.2
       2.0nm,0.3s,baz=127,slow=14,SNR=19
BRTR                                Lg     Lg      22 22 20.4
       0.7nm,0.3s,baz=128,slow=30,SNR=5.4
BRTR                                LR     LR      22 23 09.2
       comp=Z,195nm,21.1s,baz=104,slow=44
       3.0nm,0.6s
BRTR                                AML    AML
HWQ    Hawqa              4.47 211 eP      Pn      22 21 14.5 -0.1
ZAHL   Zahle              4.86 209 eP      Pn      22 21 20.2 +0.2
BHL    Bhannes            4.92 211 eP      Pn      22 21 21.1 +0.4
GNI    Garni              5.09  65  Pn     Pn      22 21 25.6 +2.4
       0.9nm,0.3s,baz=359,slow=21,SNR=2.0
GNI                                 Pg     Pg      22 21 43.0 -1.3
       0.7nm,0.3s,baz=248,slow=18,SNR=5.2
GNI                                 LR     LR      22 22 51.7
       comp=Z,32nm,18.9s,baz=242,slow=32
GNI                                 Lg     Lg      22 22 53.7
       0.3nm,0.3s,baz=217,slow=20,SNR=1.8
       2.6nm,0.4s
GNI                                 AML    AML
DQRL   Deir Qamar         5.12 211 eP      Pn      22 21 23.6  0.0
RCY    Rachaya            5.21 207 eP      Pn      22 21 25.3 +0.6
QRWL   Qaraoun            5.22 209 eP      Pn      22 21 25.5 +0.6
SHBL   Chebaa             5.37 208 eP      Pn      22 21 27.4 +0.3
NATI   Neve Ativ          5.45 207  P      Pn      22 21 29.0 +1.0
GEM    Giv'at Ha'Em       5.53 208  P      Pn      22 21 29.7 +0.7
GEM                                 S      Sg      22 23 04.3 +0.2
KSHT   Keshet             5.68 205  P      Pn      22 21 32.1 +0.9
KSHT                                S      Sg      22 23 06.9 -2.2
MMA0B  Mount Meron ar     5.80 209  P      Pn      22 21 33.5 +0.7
MMA0B                               S      Sg      22 23 11.1 -1.7
MMAI   Mount Meron Ar     5.80 209  Pn     Pn      22 21 33.4 +0.6
       4.0nm,0.3s,baz=20,slow=17,SNR=19
MMAI                                Lg     Lg      22 23 10.3
       5.3nm,0.3s,baz=19,slow=38,SNR=2.8
MMAI                                LR     LR      22 24 05.0
       comp=Z,131nm,21.6s,baz=25,slow=42
       2.3nm,0.5s
MMAI                                AML    AML
KNHM   Kefar Nahum        5.85 207  P      Pn      22 21 34.1 +0.6
ASF    Jabal al Asfar     6.16 194  Pn     Pn      22 21 38.5 +0.7
       0.7nm,0.3s,baz=17,slow=7.8,SNR=8.5
ASF                                 Lg     Lg      22 23 20.8
       3.3nm,0.3s,baz=0.0,slow=20,SNR=3.2
ASF                                 LR     LR      22 24 16.0
       comp=Z,124nm,21.3s,baz=22,slow=41
       2.1nm,0.3s
ASF                                 AML    AML
OFRI   `Ofer              6.31 210  P      Pn      22 21 40.5 +0.7
OFRI                                S      Sg      22 23 23.6 -5.5
MMLI   Mount Malkishu     6.31 206  P      Pn      22 21 40.7 +0.8
KBZ    Khabaz             6.40  28  Pn     Pn      22 21 41.9 +0.9
       0.1nm,0.3s,baz=204,slow=9.6,SNR=1.8
       0.9nm,0.6s
KBZ                                 AML    AML
KVAR   Kislovodsk Arr     6.53  26  Pn     Pn      22 21 45.4 +2.5
       baz=277,slow=20
       1.2nm,0.6s
EIL    Elat               9.03 201  Lg     Lg      22 24 53.5
       0.4nm,0.3s,baz=74,slow=21,SNR=4.8
EIL                                 LR     LR      22 26 08.4
       comp=Z,158nm,20.3s,baz=40,slow=40
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IDI	Anoyia	11.45	260	Pn	Pn	22 22 49.9	-0.4
	9.3nm,0.9s,baz=81,slow=19,SNR=2.0						
MLR	Muntele Rosu	12.00	312	LR	LR	22 28 47.8	
	comp=Z,63nm,18.6s,baz=3.5,slow=44						
AKASG	Malin Array Be	14.23	335	Pn	Pn	22 23 30.3	+2.1
	0.2nm,0.3s,baz=167,slow=13,SNR=1.2						
AKTO	Aktyubinsk	18.42	42	P	Pn	22 24 21.8	-0.2
	1.7nm,0.8s,baz=238,slow=12,SNR=4.0						
VRAC	Vranov	19.40	312	P	Pn	22 24 33.6	-0.4
	baz=88,slow=16,SNR=1.2						
	0.7nm,0.5s						
BIOA	Bad Ischl, Aus	20.60	306	*i* pP	Pn	22 24 50.4	+2.3
	1.3nm,0.8s						
GERES	GERESS Array B	20.95	309	P	P	22 24 49.4	-0.4
	1.0nm,0.6s,baz=113,slow=10,SNR=6.6						
	1.0nm,0.6s						
LESA	Schwarzleotal	21.14	304	*i* pP	P	22 24 55.2	+3.5
	2.1nm,0.9s						
WTTA	Wattenberg	21.78	303	*e*pP	P	22 25 00.7	+1.9
	3.5nm,1.1s						
WATA	Walderalm	21.84	304	*i* pP	P	22 25 01.2	+1.8
	7.8nm,1.6s						
MOTA	Moosalm	22.15	303	*e*pP	P	22 25 04.2	+1.5
	4.7nm,0.9s						
FETA	Feichten	22.32	302	*i* pP	P	22 25 06.6	+2.0
	1.2nm,0.6s						
RETA	Reutte	22.41	304	*i* pP	P	22 25 06.3	+0.9
	1.9nm,0.9s						
DAVA	Damuels	22.95	303	*i* pP	P	22 25 11.6	+0.5
	2.1nm,0.5s						
KEST	Kesra	23.55	273	P	P	22 25 16.9	-0.4
	6.0nm,1.1s,baz=135,slow=5.7,SNR=3.6						
	6.0nm,1.1s						
FINES	FINESS Array B	24.60	345	P	P	22 25 26.7	0.0
	2.3nm,0.7s,baz=145,slow=8.2,SNR=5.7						
	2.3nm,0.7s						
BVAR	Borovoye Array	26.42	45	P	P	22 25 43.7	+0.4
	0.3nm,0.4s,baz=238,slow=7.0,SNR=2.6						
	0.3nm,0.4s						
KURBB	Kurchatov Arra	30.69	53	P	P	22 26 21.5	+0.1
	0.3nm,0.4s,baz=268,slow=9.0,SNR=4.5						
	0.3nm,0.4s						
MKAR	Makanchi Array	32.92	61	P	P	22 26 41.8	+0.7
	1.0nm,0.9s,baz=297,slow=5.3,SNR=5.2						
	1.0nm,0.9s						
ESDC	Sonseca Array	33.01	286	P	P	22 26 43.9	+1.9
	0.3nm,0.7s,baz=69,slow=12,SNR=2.1						
	0.3nm,0.7s						

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*IDC **08** 22:26:16.6±1.4, 30°.25S×72°.27W, h0^{km}, mb3.9/4, mbtmp3.8/6, ML3.9/2, Error ellipse: s-maj=44.0km s-min=22.2km az=116.0*

*SJA **08** 22:26:19.5±0.7, 30°.39S×71°.75W, h15^{km}±2^{km}, ML3.9, MW3.9*

*GUC **08** 22:26:20.6±0.7, 30°.39S×71°.61W, h32^{km}±2^{km}, ML4.0*

*NEIC **08** 22:26:22.2±1.8, 30°.39S±0°.04×71°.62W±0°.05, h25^{km}±5^{km}, mb4.4/6, ML4.0(GUC), Error ellipse: s-maj=6.6km s-min=4.9km az=115.0*

ISC 08 22:26:18.6±1.5**, 30°.34S**±0°.02×**71°.81W**±0°.05**, h4**^{km}±9^{km}**, n108,** σ**$1^{s}38$**/128**, mb4.3**/6**, 3C-4D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CO06	Fray Jorge	0.37	156	⇑*e*P	Pb	22 26 28.9	+1.3
CO06				*e*S	Sb	22 26 33.9	+0.1
CO06				IAML		22 26 34.7	
	comp=E,40μm,0.2s						
CO06	Fray Jorge	0.37	156		Pb	22 26 28.9	+1.3
CO06				Sg	Sb	22 26 33.6	-0.1
GO04	Tololo Observa	0.89	80	*e*P	Pg	22 26 36.9	+1.2
GO04				*e*S	Sg	22 26 48.3	+1.0
GO04				IAML		22 26 51.5	
	comp=Z,6μm,0.2s						
GO04	Tololo Observa	0.89	80	⇓*e*P	Pg	22 26 36.9	+1.2
GO04				*e*S	Sg	22 26 47.5	+0.2
GO04				IAML		22 26 49.5	
	comp=N,21μm,0.4s						
GO04	Tololo Observa	0.89	80		Pg	22 26 36.8	+1.2
GO04				Sg	Sg	22 26 46.4	-0.9
CO03	El Pedregal	1.09	118	*e*P	Pg	22 26 39.1	-0.3
CO03				*e*S	Sg	22 26 52.5	-1.1
CO03				IAML		22 26 52.6	
	comp=Z,4μm,0.8s						
CO03	El Pedregal	1.09	118	⇓*e*P	Pg	22 26 39.2	-0.3
CO03				*e*S	Sg	22 26 51.0	-2.6
CO03				IAML		22 26 52.5	
	comp=N,11μm,0.4s						
CO03	El Pedregal	1.09	118		Pg	22 26 39.0	-0.5
CO03				Sg	Sg	22 26 49.8	-3.8
CO02	Combarbal	1.11	141	*e*S	Sg	22 26 54.1	-0.2
CO02				IAML		22 26 56.3	
	comp=Z,4μm,0.3s						
CO02	Combarbal	1.11	141	*e*P	Pg	22 26 39.2	-0.7
CO02				*e*S	Sg	22 26 53.7	-0.6
CO02				IAML		22 26 56.2	
	comp=N,21μm,0.3s						
CO02	Combarbal	1.11	141		Pg	22 26 40.0	+0.1
CO02					Sg	22 26 52.9	-1.4
CO01	Juntas del Tor	1.53	77	*e*P	Pn	22 26 47.4	+0.6
CO01				*e*S	Sn	22 27 06.5	-0.8
CO01				IAML		22 27 08.2	
	comp=Z,1μm,0.7s						
CO01	Juntas del Tor	1.53	77	*e*P	Pn	22 26 47.0	+0.2
CO01				*e*S	Sn	22 27 05.9	-1.4
CO01				IAML		22 27 10.0	
	comp=N,2μm,0.4s						
CO01	Juntas del Tor	1.53	77	Pn	Pn	22 26 46.8	-0.1
LCO	Las Campanas	1.64	36	*e*P	Pn	22 26 49.5	+1.2
LCO				IAML		22 27 14.6	
	comp=Z,2μm,0.3s						
LCO	Las Campanas	1.64	36	*e*P	Pn	22 26 49.2	+0.9
LCO				*e*S	Sn	22 27 10.2	+0.2
LCO				IAML		22 27 13.7	
	comp=Z,10μm,0.2s						
LCO	Las Campanas	1.64	36	Pn	Pn	22 26 49.3	+0.9
CO04	Los Peladeros	1.84	157	*e*P	Pn	22 26 51.9	+0.6
CO04				*e*S	Sn	22 27 15.1	-0.1
CO04				IAML		22 27 19.3	
	comp=N,4μm,0.3s						
AC05	El Transito	2.01	42	*e*P	Pn	22 26 55.3	+2.0
AC05				*e*S	Sb	22 27 21.7	+0.6
AC05				IAML		22 27 30.2	
	comp=Z,670nm,0.3s						
AC05	El Transito	2.01	42	IAML		22 27 25.1	
	comp=N,1μm,0.5s						
AC05	El Transito	2.01	42	Pn	Pn	22 26 55.0	+1.7
AROD	Rodeo	2.03	86	*e*P	Pn	22 26 55.9	+2.1
AROD				*e*S	Sb	22 27 22.4	+0.5
AC04	Llanos de Chal	2.22	17	*e*P	Pn	22 26 57.2	+1.1
AC04				IAML		22 27 39.8	
	comp=Z,609nm,0.9s						
AC04	Llanos de Chal	2.22	17	IAML		22 27 42.6	
	comp=N,692nm,0.5s						
AC04	Llanos de Chal	2.22	17	Pn	Pn	22 26 56.8	+0.6
ACDV	Cuesta del Vie	2.33	87	*e*P	Pb	22 27 01.1	-0.2
ACDV				*e*S	Sb	22 27 31.1	+0.6
ACDV				IAML		22 27 36.3	
	comp=Z,340nm,0.6s						
ACCO	Cerro Coronel	2.38	97	*e*P	Pb	22 27 01.6	-0.6
ACCO				*e*S	Sn	22 27 10.8	-18
ACCO				IAML		22 27 12.3	
	comp=Z,490nm,0.4s						
RTLS	Leoncito	2.60	125	*e*P	Pn	22 27 04.1	+2.4
RTLS				*e*S	Sb	22 27 36.7	-1.7
RTLS				IAML		22 27 49.0	
	comp=Z,1μm,0.7s						
VA03	San Esteban	2.65	156	*e*P	Pn	22 27 03.5	+1.4
VA03				*e*S	Sn	22 27 33.2	-1.4
VA03				IAML		22 27 47.9	
	comp=Z,651nm,0.3s						
VA03	San Esteban	2.65	156	⇓*e*P	Pn	22 27 03.0	+0.9
VA03	San Esteban	2.65	156	Pn	Pn	22 27 03.5	+1.4
ROCH	El Roble	2.71	166	*e*P	Pn	22 27 03.4	+0.3
ROCH				*e*P	Pn	22 27 03.4	+0.3
ZON	Zonda	2.95	115	*e*P	Pn	22 27 08.6	+2.4
ZON				*e*S	Sn	22 27 42.4	+0.3
ZON				IAML		22 27 59.9	
	comp=Z,220nm,0.7s						
PEL	Peldehue	2.96	161	*e*P	Pn	22 27 07.2	+0.8
PEL				*e*S	Sn	22 27 44.5	+2.2
PEL				IAML		22 27 50.5	
	comp=Z,402nm,1.2s						
PEL	Peldehue	2.96	161	*e*P	Pn	22 27 07.1	+0.8
PEL	Peldehue	2.96	161	Pn	Pn	22 27 06.9	+0.6
MT02	Curacav	2.97	169	*e*P	Pn	22 27 06.4	0.0
MT02				*e*S	Sn	22 27 43.4	+0.9
MT02				IAML		22 27 55.3	
	comp=Z,351nm,0.7s						
MT02	Curacav	2.97	169	*e*P	Pn	22 27 07.9	+1.5
MT02				IAML		22 27 56.8	
	comp=E,374nm,0.4s						
MT02	Curacav	2.97	169	Pn	Pn	22 27 07.7	+1.3
SJA	San Juan	3.03	114	*e*P	Pn	22 27 09.0	+1.6
SJA				*e*S	Sn	22 27 32.5	-12
SJA				IAML		22 27 57.0	
	comp=Z,228nm,0.9s						
RTLL	Cerro Villicun	3.04	110	*e*P	Pn	22 27 09.8	+2.4
RTLL				*e*S	Sn	22 27 44.1	-0.1
RTLL				IAML		22 27 57.1	
	comp=Z,456nm,0.4s						
GO03	Copiapo	3.06	27	*e*P	Pn	22 27 09.6	+1.8
GO03				*e*S	Sn	22 27 44.2	-0.7
GO03				IAML		22 28 06.1	
	comp=Z,286nm,0.5s						
GO03	Copiapo	3.06	27	*e*P	Pn	22 27 09.1	+1.3
GO03				IAML		22 28 01.3	
	comp=N,637nm,0.3s						
GO03	Copiapo	3.06	27	Pn	Pn	22 27 08.8	+1.0
MT10	Hacienda Santa	3.12	160	⇑*e*P	Pn	22 27 09.6	+0.9
MT05	Renca	3.18	164	*e*P	Pn	22 27 10.6	+1.2
MT05				*e*S	Sn	22 27 48.2	+0.5
MT05				IAML		22 27 57.0	
	comp=Z,278nm,0.4s						
MT05	Renca	3.18	164	*e*P	Pn	22 27 10.1	+0.7
MT05	Renca	3.18	164	Pn	Pn	22 27 09.9	+0.6
AC06	Mina Casimiro	3.23	24	IAML		22 28 08.3	
	comp=E,348nm,0.3s						
AC06	Mina Casimiro	3.23	24	Pn	Pn	22 27 10.4	+0.3
MT14	Cerro Cal¡n	3.24	161	*e*P	Pn	22 27 14.1	+3.9
MT16	CCHEN	3.27	161	*e*P	Pn	22 27 13.8	+3.2
MT16	CCHEN	3.27	161	Pn	Pn	22 27 12.1	+1.5
CFA	Coronel Fontan	3.32	113	*e*P	Pn	22 27 13.2	+1.9
CFA				*e*S	Sn	22 27 49.6	-1.5
CFA				IAML		22 28 05.0	
	comp=Z,224nm,0.9s						
MT03	Universidad Ad	3.33	161	*e*P	Pn	22 27 13.3	+1.8
MT03				*e*S	Sn	22 27 53.3	+1.7
MT03				IAML		22 28 05.1	
	comp=Z,314nm,0.6s						
MT03	Universidad Ad	3.33	161	*e*P	Pn	22 27 12.5	+1.0
MT03	Universidad Ad	3.33	161	Pn	Pn	22 27 12.7	+1.1
MT04	Ro Olivares	3.37	155	*e*P	Pn	22 27 14.7	+2.5
MT04				IAML		22 28 02.9	
	comp=E,465nm,0.4s						
MT15	Las Vizcachas	3.44	162	*e*P	Pn	22 27 13.9	+1.0
MT08	Bocatoma Ro	3.45	154	*e*S	Sn	22 27 56.0	+1.2
MT08				IAML		22 28 08.3	
	comp=Z,252nm,0.5s						
MT08	Bocatoma Ro	3.45	154	*e*P	Pn	22 27 16.3	+3.0
MT09	Talagante	3.50	169	⇓*e*P	Pn	22 27 14.5	+0.7
MT09	Talagante	3.50	169	Pn	Pn	22 27 14.3	+0.5
VCA	Vinchina	3.52	64	*e*P	Pn	22 27 13.3	-0.9
VCA				*e*S	Sn	22 27 58.7	+2.3
MT01	Popeta	3.55	172	*e*S	Sn	22 27 59.8	+3.1
MT01				IAML		22 28 12.2	
	comp=Z,142nm,0.5s						
MT01	Popeta	3.55	172	*e*P	Pn	22 27 14.5	+0.1
MT01	Popeta	3.55	172	Pn	Pn	22 27 14.1	-0.3
MT12	Pirque	3.55	163	*e*P	Pn	22 27 15.2	+0.7
MT13	San Alfonso	3.63	160	*e*P	Pn	22 27 17.4	+1.8
MT13	San Alfonso	3.63	160	Pn	Pn	22 27 17.0	+1.4
LMEL	Las Melosas	3.76	159	*e*P	Pn	22 27 19.1	+1.7
BO04	La Punta	3.78	165	Pn	Pn	22 27 18.1	+0.5
BO01	Tunca	4.09	172	Pn	Pn	22 27 21.9	0.0
AC02	Maricunga	4.21	35	Pn	Pn	22 27 24.8	+0.8
AC01	Pan de Azucar	4.31	15	Pn	Pn	22 27 23.9	-1.0
BO02	Sierra Bellavi	4.53	169	Pn	Pn	22 27 27.9	0.0
GO05	Hualane	4.66	181	Pn	Pn	22 27 25.4	-4.3
ML02	Panimavida	5.42	177	Pn	Pn	22 27 41.9	+1.8
CYA	Choya	5.57	72	⇑*e*P	Pn	22 27 43.8	+1.5
PB14	IPOC Station P	5.83	13	Pn	Pn	22 27 44.4	-1.6
TCA	Tanti	6.28	101	*e*P	Pn	22 27 51.9	-0.2
BI02	San Fabin de	6.33	176	Pn	Pn	22 27 52.3	-0.4
H03N1	Juan Fernandez	6.79	241	T	T	22 34 53.3	
	baz=70,slow=75,SNR=3310						
H03N2	Juan Fernandez	6.80	241	T	T	22 34 53.8	
	baz=70,slow=75,SNR=2958						
PB05	IPOC Station P	7.59	11	Pn	Pn	22 28 08.9	-1.2
PLCA	Paso Flores	10.42	175	Pn	Pn	22 28 48.6	-0.2
	comp=Z,0.2nm,0.3s,baz=356,slow=14,SNR=3.7						
	comp=Z,2.0nm,1.0s						
PLCA				AML	AML		
PLCA	Paso Flores	10.42	175	Pn	Pn	22 28 48.1	-0.7
CPUP	Villa Florida	13.36	76	Pn	Pn	22 29 32.2	+3.2
	comp=Z,0.2nm,0.3s,baz=348,slow=20,SNR=1.7						
	comp=Z,0.4nm,0.4s						
CPUP				AML	AML		
BDFB	Brasilia	26.26	61	P	P	22 31 58.2	+3.0
	comp=Z,1.1nm,0.3s,baz=212,slow=9.5,SNR=3.2						
	comp=Z,1.1nm,0.3s						
OTAV	Otavalo	31.06	347	P	P	22 32 39.1	+0.9
OTAV				IAmb	IAmb	22 33 21.4	
	comp=Z,2.4nm,0.5s						
BOAV	Boa Vista	34.29	20	P	P	22 33 06.2	+0.2
BOAV				IAmb	IAmb	22 33 44.2	
	comp=Z,6.0nm,1.3s						
PDPR	Patillas Dam,	48.40	7	P	P	22 35 01.1	-0.6
PDPR				IAmb	IAmb	22 35 03.3	
	comp=Z,5.2nm,0.9s						
BELA	Belgrano 2	50.45	170	P	P	22 35 15.9	-0.9
TEIG	Tepich	52.71	340	P	P	22 35 35.0	+0.7
QSPA	South Pole Qui	59.89	180	P	P	22 36 25.0	-0.3
	comp=Z,0.7nm,0.6s,baz=182,slow=2.2,SNR=7.1						
	comp=Z,0.7nm,0.6s						
QSPA	South Pole Qui	59.89	180	P	P	22 36 24.9	-0.4
QSPA				IAmb	IAmb	22 36 48.2	
	comp=Z,3.8nm,1.3s						
MAW	Mawson	76.63	164	P	P	22 38 08.6	-1.4
	comp=Z,1.4nm,0.9s,baz=253,slow=11,SNR=1.8						
	comp=Z,1.4nm,0.9s						
TORD	Torodi Ar. Bea	82.79	70	P	P	22 38 42.9	-1.3
	comp=Z,0.4nm,0.6s,baz=264,slow=5.8,SNR=5.0						
	comp=Z,0.4nm,0.6s						
H11S2	WAKE ISLAND Hy	125.94	272	T	T	01 04 00.5	
	baz=114,slow=75,SNR=43						
H11S1	WAKE ISLAND Hy	125.95	272	T	T	01 04 01.5	
	baz=114,slow=75,SNR=54						
H11S3	WAKE ISLAND Hy	125.96	272	T	T	01 04 01.4	
	baz=114,slow=75,SNR=50						
KKAR	Karatay Array	147.49	56	PKPbc	PKPdf	22 46 03.0	+1.8
ARSB	Arslanbob	149.61	59	PKPbc	PKPbc	22 46 09.0	-0.5
KURBB	Kurchatov Arra	149.99	39	PKPbc	PKPbc	22 46 09.3	-0.5
	comp=Z,0.4nm,0.4s,baz=302,slow=3.2,SNR=5.1						
KURK	Kurchatov	149.99	39		PKPbc	22 46 09.0	-0.8
ZALV	Zalesovo Beam	150.98	29	PKPbc	PKPbc	22 46 11.4	-0.7
	comp=Z,1.9nm,0.6s,baz=314,slow=4.3,SNR=11						
HHC	Hu-ho-hao-te	169.16	346	*e*P	PKPdf	22 46 25.5	-1.6
PZH	PanZhiHua	173.16	122	PKP	PKPdf	22 46 28.9	-0.7

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*IDC **08** 22:28:27.1±0.9, 1°.87N×127°.35E, h0^{km}, mb3.7/7, mbtmp3.7/8, ML3.4/1, MS3.4/2, Error ellipse: s-maj=51.9km s-min=17.6km az=78.0*

*DJA **08** 22:28:34.5±0.6, 2°N±4°×12°7E±°, h25^{km}±6^{km}, M3.3/11, MLv3.3/11*

ISC 08 22:28:35.1±0.8**, 1°.86N**±0°.08×**127°.2E**±0°.1**, h63**^{km}**, n13,** σ**$0^{s}99$**/13**, mb3.8**/7**, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TNTI	Ternate	1.09	173	P	Pn	22 28 54.3	-0.1
TNTI				S	Sn	22 29 09.1	+0.4
TNTI				AML	AML		
MNI	Manado	2.42	260	P	Pn	22 29 11.4	-1.0
MNI				AML	AML		
LBMI	Labuha	2.49	174	P	Pn	22 29 14.0	+0.7
GTOI	Gorontalo	4.39	254	P	Pn	22 29 40.2	+0.9
FITZ	Fitzroy Crossi	19.89	184	P	P	22 33 00.5	-1.0
	0.1nm,0.3s,baz=12,slow=12,SNR=2.2						
	1.5nm,0.7s						
FITZ				AML	AML		
WRA	Warramunga Arr	22.76	162	P	P	22 33 31.4	-1.0
	1.1nm,0.5s,baz=341,slow=11,SNR=11						
	1.1nm,0.5s						
ASAR	Alice Springs	26.19	166	P	P	22 34 03.3	-0.7
	0.4nm,0.6s,baz=344,slow=8.3,SNR=5.4						
	0.4nm,0.6s						
MJAR	Matsushiro Arr	35.98	15	P	P	22 35 28.4	-1.6
	0.5nm,0.3s,baz=186,slow=8.2,SNR=2.1						
MJAR				LR	LR	22 49 12.6	
	comp=Z,38nm,21.1s,baz=311,slow=35						
	0.5nm,0.3s						
DZM	Mont Dzumac	45.06	124	LR	LR	22 54 50.7	
	comp=Z,59nm,18.3s,baz=235,slow=35						
SONM	Songino Array	49.22	342	P	P	22 37 18.4	+1.1
	0.2nm,0.3s,baz=141,slow=4.8,SNR=1.6						
	0.2nm,0.3s						
PETK	Petropavlovsk-	56.97	21	P	P	22 38 14.5	+0.5
	1.5nm,0.6s,baz=198,slow=8.7,SNR=2.0						
	1.5nm,0.6s						
MKAR	Makanchi Array	59.37	326	P	P	22 38 31.6	+0.6
	0.3nm,0.3s,baz=121,slow=7.3,SNR=11						
	0.3nm,0.3s						
KURBB	Kurchatov Arra	63.58	328	P	P	22 38 59.8	+0.6
	0.5nm,0.5s,baz=123,slow=6.1,SNR=6.2						
	0.5nm,0.5s						

NNC 08 22:29:52.8±9.3**, 38°.40N×72°.45E, h0**^{km}**, mb3.6, mpv3.2, 3C, Error ellipse: s-maj=73.9km s-min=52.8km az=165.0, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AAK	Ala-Archa	4.51	20	⇑P	Pn	22 31 02.1	-0.4
	4.8nm,1.5s						
AAK				⇑S	Sn	22 31 58.2	+2.4
	0.3nm,0.5s						
KK31	Karatay Array	4.93	343	P	Pn	22 31 08.1	+0.1
	1.7nm,0.3s,baz=153,slow=11,SNR=31						
KK31				⇑S	Sn	22 32 06.0	+0.2
	1.0nm,0.4s,baz=157,slow=21						
AB31	Akbulak array	14.10	324	P	Pn	22 33 12.4	-1.2
	0.6nm,0.8s,baz=134,slow=15,SNR=4.5						

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*JMA **08** 22:40:07.9±0.1, 43°.0N±0°.4×144°.9E±0°.4, h59^{km}±1^{km}, MV2.6/37, OFF NEMURO PENINSULA*

*SKHL **08** 22:40:08.6±0.7, 43°.00N×145°.00E, h58^{km}±2^{km}, mb4.2/2*

ISC 08 22:40:07.6±1.9**, 42°.99N**±0°.08×**144°.94E**±0°.05**, h59**^{km}±11^{km}**, n13,** σ**$0^{s}47$**/23**, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AKK	Akkeshi	0.07	295	*e*P	Pn	22 40 16.5	+0.1
AKK				*e*S	Sn	22 40 22.7	-0.1
JAK	Akkeshi	0.17	273	*i* P	Pn	22 40 16.9	+0.1
JAK				S	Sn	22 40 23.5	+0.1
JKHN	Kushirohamanak	0.19	60	*i* P	Pn	22 40 17.5	+0.6
JKHN				*e*S	Sn	22 40 23.9	+0.3
JNK	Nakash	0.62	345	*i* P	Pn	22 40 20.5	-0.4
JNK				S	Sn	22 40 29.5	-1.0
NMR	Nemuro--Hokkai	0.70	56	*e*P	Pn	22 40 21.7	0.0
NMR				*i* S	Sn	22 40 31.6	-0.4
NEM2	Nemuro 2	0.70	57	*i* P	Pn	22 40 21.8	0.0
NEM2				S	Sn	22 40 31.6	-0.6
JOB	Onbets	0.81	265	P	Pn	22 40 23.1	-0.1
JOB				S	Sn	22 40 34.3	-0.3
JAR	Ashorobuto	0.91	290	*i* P	Pn	22 40 24.4	-0.1
JAR				S	Sn	22 40 36.4	-0.4
JRA	Rausu	0.96	8	P	Pn	22 40 25.4	+0.3
JRA				S	Sn	22 40 38.0	0.0
JCH	Churui	1.22	253	P	Pn	22 40 28.6	+0.1
JTKR	Abashiri--Toko	1.24	323	P	Pn	22 40 29.2	+0.4
JTKR				S	Sn	22 40 45.4	+0.9
YUK	Yuzh-Kuril'sk	1.25	32	*e*P	Pn	22 40 29.4	+0.5
YUK				AMB	AMB	22 40 29.8	
	160nm,0.3s						
YUK				*i* S	Sn	22 40 44.2	-0.5
YUK				A	A	22 40 46.1	
	290nm,0.2s						
YUK				A	A	22 40 46.1	
	150nm,0.2s						
SHO	Shikotan	1.64	57	*e*P	Pn	22 40 50.0	+16
SHO				AMB	AMB	22 40 50.8	
	20nm,0.2s						
SHO				*e*S	Sn	22 41 08.8	+15
SHO				A	A	22 41 11.1	
	100nm,0.2s						
SHO				A	A	22 41 11.1	
	80nm,0.2s						

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*IDC **08** 22:48:07.1±1.8, 9°.66S×121°.92E, h0^{km}, mb3.6/1, mbtmp3.4/4, ML3.3/3, MS3.2/1, Error ellipse: s-maj=82.8km s-min=19.3km az=61.0*

*DJA **08** 22:48:16.9±0.8, 10°S±3°×12°2E±°, h13^{km}±7^{km}, M4.0/13, mB5.2/1, mb4.5/5, MLv3.7/13, Mw(mB)4.6/1*

ISC 08 22:48:13.2±0.9**, 9°.71S**±0°.08×**122°.78E**±0°.10**, h43**^{km}**, n14,** σ**$2^{s}00$**/16**, Savu Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MMRI	Maumere	1.19	333	P	Pn	22 48 35.2	+1.8
MMRI				S	Sn	22 48 48.9	+0.5
MMRI				AML	AML		
EDFI	Ende, Flores	1.43	311	P	Pn	22 48 36.3	-0.5
EDFI				S	Sn	22 48 52.4	-2.1
SOEI	Soe	1.47	92	P	Pn	22 48 47.7	+10
SOEI				AML	AML		
LBFI	Labuhan Bajo,	3.10	293	P	Pn	22 49 00.6	+1.0
DBNI	Kabupaten Domp	4.57	285	P	Pn	22 49 21.2	+1.4
PLAI	Plampang	5.01	280	P	Pn	22 49 27.6	+1.7
PLAI				AML	AML		
KAPI	Kappang	5.54	327	P	Pn	22 49 35.1	+1.9
KAPI				AML	AML		
KHKI	Kahang-Kahang	7.21	280	P	Pn	22 49 57.5	+1.5
	0.2nm30nm,1.1s						
KHKI				AML	AML		
IGBI	Denpasar	7.59	276	P	Pn	22 50 02.2	+1.0
FITZ	Fitzroy Crossi	8.79	162	Pn	Pn	22 50 18.1	+0.3
	0.1nm,0.3s,baz=315,slow=7.1,SNR=1.9						
FITZ				Sn	Sn	22 51 53.9	-1.8
	0.5nm,0.3s,baz=72,slow=19,SNR=8.4						
	1.2nm,0.8s						
FITZ				AML	AML		
WRA	Warramunga Arr	15.11	134	Pn	Pn	22 51 45.9	+2.0
	0.2nm,0.3s,baz=308,slow=15,SNR=6.9						
WRA				Sn	Sn	22 54 26.9	-3.2
	0.2nm,0.3s,baz=312,slow=22,SNR=5.9						
	0.5nm,0.7s						
WRA				AML	AML		
ASAR	Alice Springs	17.48	144	P	P	22 52 17.4	+2.7
	0.2nm,0.3s,baz=324,slow=12,SNR=5.8						
	0.5nm,0.4s						
ASAR				AML	AML		
KRVT	Keravat (AS076	29.51	82	LR	LR	23 09 16.5	
	comp=Z,39nm,19.2s,baz=207,slow=42						
MKAR	Makanchi Array	66.83	331	P	P	22 58 57.9	-2.7
	0.3nm,0.6s,baz=130,slow=7.8,SNR=3.9						
	0.3nm,0.6s						

CATAC 08 23:06:39.3±0.3**, 14°N**±2°×**8°6W**±°**, h4**^{km}±1^{km}**, M4.5**/43**, MLv4.5**/43**, Error ellipse: s-maj=4.0km s-min=2.3km az=21.6, confirmed, Honduras**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RCVN	Varillal2	0.67	200	S	Sg	23 07 00.9	0.0
RCPN	Sur Rio San Ju	0.70	191	S	Sb	23 07 03.1	-1.1
RCFN	Al S de San Ju	0.72	200	S	Sg	23 07 02.6	0.0
OCON	Estacion meteo	0.77	221	P	Pg	23 06 51.3	-2.9
OCON				S	Sg	23 07 01.9	-2.3
SIUN	Universidad Ur	1.25	113	P	Pg	23 07 02.4	-0.9
SIUN				S	Sn	23 07 20.8	-0.1
MATN	Matagalpa	1.27	179	P	Pg	23 07 02.1	-1.7
MATN				S	Sn	23 07 21.4	-0.3
TGUH	Tegucigalpa,Un	1.29	263	P	Pg	23 06 58.7	-5.4
TGUH				S	Sg	23 07 14.1	-6.8
AESN	El Sauce Leon	1.43	204	P	Pn	23 07 04.0	-2.1
AESN				S	Sb	23 07 24.0	-1.3
BOAB	BOACO BROADBAN	.77	171	P	Pn	23 07 09.6	-1.2
BOAB				S	Sg	23 07 36.0	-0.4
ILCN	San Idelfonso	1.78	204	P	Pn	23 07 07.8	-3.1
ILCN				S	Sn	23 07 33.9	-0.1
PLRN	Geotermica Pol	1.80	206	P	Pn	23 07 09.0	-2.2
PLRN				S	Sb	23 07 35.3	-0.6
HERN	Volcan Telica	1.81	208	S	Sb	23 07 35.9	-0.3
TELN	Telica	1.81	208	P	Pn	23 07 09.5	-1.9

MOM2	**El Cardon**	1.84	196	P	Pn	23 07 10.4	-1.4
CRIN	**San Cristobal**	1.84	215	P	Pn	23 07 09.0	-2.8
CNGN	**Cerro Negro**	1.85	203	P	Pn	23 07 10.4	-1.5
MOMN	**Momotombo**	1.88	198	S	Sn	23 07 37.3	+0.7
PACN	**Al O del Volca**	1.89	206	P	Pn	23 07 10.6	-1.8
PACN				S	Sb	23 07 37.7	-0.6
LEVN	**Ruinas Leon Vi**	1.91	200	P	Pn	23 07 13.1	+0.3
LEVN				S	Sg	23 07 41.4	+0.6
CSGN	**Cosiguina Volc**	1.99	232	P	Pn	23 07 11.6	-2.3
CSGN				S	Sn	23 07 39.8	+0.5
APYN	**Apoyeque**	2.00	191	P	Pn	23 07 13.7	-0.3
APYN				S	Sg	23 07 44.0	+0.2
AMTN	**Mateare**	2.02	193	P	Pn	23 07 14.2	0.0
AMTN				S	Sg	23 07 44.1	-0.1
APQ2	**Apoyeque**	2.04	190	P	Pn	23 07 14.4	0.0
APQ2				S	Sg	23 07 46.3	+1.5
CNCH	**Conchagua**	2.05	243	P	Pn	23 07 12.4	-2.3
CNCH				S	Sn	23 07 40.3	-0.6
WILN	**Americas 2**	2.05	186	P	Pn	23 07 14.8	+0.1
WILN				S	Sg	23 07 44.9	-0.4
AERN	**Aeropuerto Man**	2.07	186	P	Pn	23 07 16.0	+1.2
AERN				S	Sg	23 07 45.2	-0.6
ALLN	**Telcor Managua**	2.07	189	P	Pb	23 07 16.7	-0.8
ALLN				S	Sg	23 07 45.2	-0.6
MGAN	**Managua**	2.07	188	P	Pn	23 07 14.9	0.0
MGAN				S	Sg	23 07 45.1	-0.9
SAPS	**Ciudad Sandino**	2.08	192	P	Pn	23 07 15.5	+0.5
SAPS				S	Sg	23 07 45.4	-0.7
TISN	**Laguna Tiscapa**	2.08	189	P	Pn	23 07 14.2	-0.8
LCND	**La Caada**	2.08	245	P	Pn	23 07 12.7	-2.4
ABCN	**Banco Central**	2.11	190	S	Sg	23 07 46.7	-0.4
COPN	**Copaltepe**	2.11	197	P	Pn	23 07 15.2	-0.3
MAS3	**Al N del Volca**	2.19	186	P	Pn	23 07 17.0	+0.5
MAS3				S	Sg	23 07 48.3	-1.3
MASN	**Masaya**	2.22	185	P	Pn	23 07 17.6	+0.6
MASN				S	Sg	23 07 49.8	-0.9
SABN	**Sabanita**	2.25	185	P	Pn	23 07 17.3	-0.2
NANN	**Nandasmo**	2.27	184	P	Pb	23 07 19.3	-1.6
NANN				S	Sg	23 07 52.1	-0.1
ACON	**Acoyapa**	2.36	161	P	Pn	23 07 18.4	-0.5
ACON				S	Sb	23 07 53.4	+1.5
RANC	**El Ranchito**	2.40	251	P	Pn	23 07 17.8	-1.7
RANC				S	Sn	23 07 49.6	+0.2
PACA	**Pacayal**	2.42	252	P	Pn	23 07 19.3	-0.5
PACA				S	Sn	23 07 50.5	+0.6
NADN	**Granada**	2.45	182	P	Pn	23 07 21.6	+1.4
NADN				S	Sg	23 07 56.6	-1.5
BILN	**Bilwi Airport**	2.51	93	P	Pb	23 07 24.3	-0.7
BILN				S	Sg	23 07 58.6	-1.3
ESPN	**Las Esperanzas**	2.57	141	P	Pn	23 07 20.4	-1.4
ESPN				S	Sn	23 07 54.3	+0.8
MORN	**Al O del Volca**	2.67	174	P	Pn	23 07 25.2	+2.1
JAPN	**Al SSO del Vol**	2.68	174	P	Pb	23 07 27.7	-0.3
JAPN				S	Sg	23 08 08.8	+3.1
ALJI	**Alcalda de J**	2.69	251	P	Pn	23 07 23.9	+0.5
ALJI				S	Sb	23 07 59.1	-2.4
P5NO	**Presa 5 de nov**	2.73	266	P	Pn	23 07 25.9	+1.9
P5NO				S	Sn	23 07 57.0	-0.6
SCLA	**Alcaldia de Sa**	2.74	260	S	Sb	23 08 00.4	-2.6
SARH	**Santa Rosa de**	2.78	282	P	Pn	23 07 25.1	+0.4
SARH				S	Sn	23 07 57.9	-0.8
TECO	**Alcaldia de Te**	2.83	257	S	Sn	23 08 01.8	+1.9
LLGN	**La Laguna**	2.90	269	P	Pn	23 07 20.8	-5.6
LLGN				S	Sn	23 08 02.6	+0.7
PAVA	**Las Pavas**	2.94	261	P	Pn	23 07 28.3	+1.3
PAVA				S	Sn	23 08 04.5	+1.7
IZABA	**Izabal, Puerto**	2.96	301	P	Pn	23 07 27.5	+0.4
IZABA				S	Sn	23 08 03.3	+0.2
CARN	**Rivas**	3.04	172	P	Pb	23 07 34.6	+0.6
CARN				S	Sg	23 08 14.9	-2.1
LOMA	**Loma Larga**	3.17	260	S	Sb	23 08 13.2	-2.4
UEES	**Universidad Ev**	3.23	262	S	Sb	23 08 13.6	-3.5
ESQI	**Esquipulas**	3.30	276	P	Pn	23 07 32.6	+0.6
ESQI				S	Sn	23 08 14.3	+2.6
PMON	**Piamonte**	3.30	262	P	Pb	23 07 35.5	-3.0
PMON				S	Sb	23 08 16.6	-2.6
UPAL	**Upala**	3.42	164	S	Sb	23 08 25.5	+3.0
JAYA	**Jayaque - finc**	3.44	261	S	Sb	23 08 20.3	-2.9
UNIC	**Universidad Ca**	3.50	267	S	Sb	23 08 20.7	-4.0
CEVE	**Cerro Verde**	3.58	264	P	Pn	23 07 36.7	+0.7
NUBE	**Las Nubes**	3.73	266	P	Pn	23 07 32.3	-5.5
NUBE				S	Sb	23 08 28.3	-3.2
COVE	**Coope Vega, Sa**	3.79	156	P	Pn	23 07 37.5	-1.0
COVE				S	Sg	23 08 38.9	-2.2
FAME	**Alcaldia de Sa**	3.96	265	S	Sb	23 08 36.1	-2.0
JTS	**Las Juntas de**	4.02	166	P	Pn	23 07 40.8	-1.0
PRVC	**Isla de Provid**	4.54	100	P	Pn	23 07 46.8	-2.0
LCR2	**La Lucha 2**	4.83	157	P	Pn	23 07 52.4	-0.7
TEIG	**Tepich**	6.38	340	P	Pn	23 08 09.5	-4.7
TEIG				S	Sn	23 09 16.6	-11

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*IDC **08** 23:36:05.5±3.3, 54°.90N×162°.69W, h62^{km}±26^{km}, mb3.7/20, mbtmp4.0/24, ML3.9/4, Error ellipse: s-maj=26.7km s-min=15.1km az=180.0*

*NEIC **08** 23:36:06.3±1.3, 54°.44N±0°.05×162°.41W±0°.06, h81^{km}±3^{km}, mb3.9/17, ML3.9/22, ML3.6(AEIC), Error ellipse: s-maj=8.0km s-min=5.0km az=166.0*

*AEIC **08** 23:36:06.5±1.7, 54°.49N±0°.07×162°.49W±0°.06, h72^{km}±5^{km}, Error ellipse: s-maj=10.1km s-min=4.2km az=159.0*

ISC 08 23:36:06.7±0.8**, 54°.58N**±0°.06×**162°.48W**±0°.04**, h87**^{km}±6^{km}**,**
n203, σ1^{s}**20**/217**, mb4.0**/28**, Alaska Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DT1	**Dutton Round H**	0.54	12		Pn	23 36 21.4	0.0
DT1					Sn	23 36 31.8	-0.5
DTNA	**Dutton South F**	0.58	13		Pn	23 36 21.9	+0.1
DTNA					Sn	23 36 33.0	-0.1
DOL	**Dolgoi Island**	0.67	32		Pn	23 36 23.0	+0.4
DOL					Sn	23 36 35.0	+0.5
ISNN	**Isanotski Nort**	0.79	289		Pn	23 36 24.3	+0.4
ISNN					Sn	23 36 37.5	+0.8
PS4A	**Pavlof South-4**	0.84	25		Pn	23 36 25.1	+0.7
PS4A					Sn	23 36 38.8	+1.1
SSLS	**Shishaldin Sou**	0.89	279		Pn	23 36 25.0	0.0
SSLS					Sn	23 36 38.7	0.0
PN7A	**Pavlof North-7**	0.90	18		Pn	23 36 25.9	+0.9
PN7A					Sn	23 36 40.0	+1.3
PS1A	**Pavlof South-1**	0.94	27		Pn	23 36 26.3	+0.8
PS1A					Sn	23 36 40.7	+1.1
SDPT	**Sand Point**	1.39	56	P	Pn	23 36 31.4	+0.6
SDPT	**Sand Point**	1.39	56	P	Sn	23 36 49.8	+0.8
SDPT	**Sand Point**	1.39	56		Pn	23 36 31.3	+0.6
SDPT				Sn	Sn	23 36 48.9	-0.1
SDPT				IAML		23 36 50.1	
	comp=E,2µm,0.4s						
CNBA	**Chernabura Isl**	1.69	81	Pn	Pn	23 36 34.6	-0.1
CNBA				Sn	Sn	23 36 54.4	-1.7
CHNA	**Chernabura Isl**	1.70	80	P	Pn	23 36 35.1	+0.4
CHNA	**Chernabura Isl**	1.70	80	S	Sn	23 36 55.2	-0.8
AKUT	**Akutan**	1.98	258	P	Pn	23 36 38.5	+0.1
AKUT	**Akutan**	1.98	258	Pn	Pn	23 36 37.1	-1.3
AKUT				IAML		23 37 06.7	
	comp=N,549nm,0.5s						
AKUT				IAML		23 37 07.7	
	comp=E,456nm,0.2s						
AKBBA	**Akutan Broad B**	2.08	258		Sn	23 37 06.6	+1.6
LVA	**Lava Point**	2.12	260	Pn	Pn	23 36 39.1	-1.2
LVA				IAML		23 37 02.7	
	comp=E,418nm,0.7s						
LVA				IAML		23 37 25.5	
	comp=N,942nm,0.7s						
AKRB	**Akutan Reef Bi**	2.15	259		Pn	23 36 41.1	+0.4
VNKR	**Veniaminof 5**	2.30	50		Sn	23 37 11.6	+1.4
VNFG	**Fog Glacier, M**	2.38	43		Pn	23 36 45.6	+1.7
VNFG	**Fog Glacier, M**	2.38	43		Pn	23 36 45.4	+1.5
VNFG				IAML		23 37 17.9	
	comp=N,1µm,0.6s						
VNFG				IAML		23 37 18.0	
	comp=E,943nm,0.7s						
UNV	**Unalaska Valle**	2.48	254	P	Pn	23 36 44.7	-0.3
UNV	**Unalaska Valle**	2.48	254	Pn	Pn	23 36 44.6	-0.5
MNAT	**Makushin Natee**	2.56	256		Sn	23 37 15.6	-1.0
MSW	**Makushin Switc**	2.61	257		Pn	23 36 46.8	-0.1
MSW					Sn	23 37 17.1	-0.7
MGOD	**Makushin Gods**	2.70	255		Sn	23 37 20.2	+0.3
MAPS	**Pakushin South**	2.73	255		Pn	23 36 48.7	+0.2
MAPS					Sn	23 37 21.0	+0.3
CHGN	**Chignik**	2.89	52	Pn	Pn	23 36 51.3	+0.8
CHGN				IAML		23 37 25.9	
	comp=N,413nm,0.3s						
CHGN				IAML		23 37 26.4	
	comp=E,512nm,0.4s						
CHGN	**Chignik**	2.89	52		Sn	23 37 25.1	+0.9
BPBCA	**Veniaminof**	3.04	47		Pn	23 36 53.9	+1.2
ANPB	**Aniakchak Plen**	3.25	45		Pn	23 36 56.7	+1.1
ANNW	**Aniakchak Nort**	3.39	44		Pn	23 36 58.8	+1.3
OKFG	**Magazine Ridge**	3.41	252		Pn	23 36 57.8	+0.2
OKNC	**Okmok New Cone**	3.52	254		Pn	23 36 59.1	+0.1
OKNC					Sn	23 37 39.1	-0.4
OKCE	**Okmok Cone E**	3.55	253		Pn	23 36 60.0	+0.4
OKSP	**Okmok Steeple**	3.69	251		Pn	23 37 01.4	0.0
R17L	**Mt. Peulik Vol**	4.59	46		Pn	23 37 15.2	+1.5
PLK5	**Peulik 5**	4.63	40		Pn	23 37 15.8	+1.7
CLCO	**Concord Point,**	4.67	250		Pn	23 37 15.4	+0.7
O14K	**Tigyukauivet M**	4.73	8	Pn	Pn	23 37 16.1	+0.6
O14K				IAML		23 38 38.8	
	comp=N,59nm,0.9s						
O14K				IAML		23 38 40.3	
	comp=E,44nm,0.8s						
CLES	**Cleveland East**	4.75	251	Pn	Pn	23 37 14.7	-1.0
O15K	**Ungalikthiuk R**	4.83	16	Pn	Pn	23 37 16.6	-0.3
O15K				IAML		23 38 26.9	
	comp=E,45nm,0.9s						
SPIA	**Saint Paul Isl**	5.09	304	P	Pn	23 37 22.4	+2.1
P16K	**Nushagak River**	5.09	27	Pn	Pn	23 37 20.3	-0.1
P16K				IAML		23 38 57.5	
	comp=E,108nm,1.2s						
P16K				IAML		23 39 00.5	
	comp=N,93nm,1.2s						
KJL	**Kejulik**	5.18	45		Pn	23 37 22.6	+0.9
Q17K	**Contact Creek**	5.20	42		Pn	23 37 23.1	+1.2
ANCK	**Angle Creek**	5.31	44		Pn	23 37 24.6	+1.2
N14K	**Kuskokwak Cree**	5.37	4	Pn	Pn	23 37 24.4	+0.3
MGLS	**Mageik Landsli**	5.41	46		Pn	23 37 25.6	+0.9
KAKN	**Katmai Knife C**	5.55	45		Pn	23 37 27.6	+0.9
O16K	**Kokwok River B**	5.56	24	Pn	Pn	23 37 26.8	0.0
P17K	**Kvichak River**	5.69	33	Pn	Pn	23 37 29.3	+0.9
KAWH	**Katmai**	5.71	45		Pn	23 37 29.2	+0.3
N15K	**Kwethluk River**	5.75	12	Pn	Pn	23 37 30.0	+0.7
Q18K	**Katmai Hardscr**	5.80	42		Pn	23 37 31.3	+1.2
OHAK	**Old Harbor**	5.81	59	P	Pn	23 37 29.6	-0.5
OHAK	**Old Harbor**	5.81	59	Pn	Pn	23 37 29.0	-1.1
KARR	**Katmai Rainbow**	5.82	44		Pn	23 37 31.3	+0.9
M13K	**Dall Lake**	5.87	356		Pn	23 37 31.9	+1.0
KAHG	**Katmai Hook Gl**	5.88	45		Pn	23 37 32.0	+0.7
O17K	**Koliganek Bris**	5.97	27		Pn	23 37 32.8	+0.4
M11K	**Mekoryuk**	6.15	342	Pn	Pn	23 37 36.4	+1.6
M15K	**Kasigluk River**	6.20	8		Pn	23 37 36.2	+0.7
P18K	**Big Mountain,**	6.24	36		Pn	23 37 37.4	+1.3
KDAK	**Kodiak Island**	6.39	56	P	Pn	23 37 37.7	-0.3
	comp=N,7.4nm,0.3s,baz=242,slow=5.7,SNR=27						
KDAK				S	Sn	23 38 45.1	-4.3
	comp=N,8.6nm,0.3s,baz=319,slow=19,SNR=6.3						
	comp=N,18nm,0.3s						
KDAK				AML	AML		
KDAK	**Kodiak Island**	6.39	56	Pn	Pn	23 37 36.8	-1.2
Q19K	**Cape Douglas,**	6.52	45	Pn	Pn	23 37 40.2	+0.3
O18K	**Koktuh Hills**	6.59	34	Pn	Pn	23 37 42.1	+1.3
N17K	**Nushagak Hills**	6.60	23		Pn	23 37 41.2	+0.2
M16K	**Timber Creek**	6.72	15	Pn	Pn	23 37 43.2	+0.6
L14K	**Kuka Creek**	6.78	359	Pn	Pn	23 37 43.8	+0.5
P19K	**Oil Pt**	7.15	41		Pn	23 37 49.7	+1.3
KOFP	**Korovin Flat P**	7.32	256		Pn	23 37 50.5	-0.2
L16K	**Owhat River**	7.32	11	Pn	Pn	23 37 50.8	+0.1
M17K	**Holitna River**	7.34	19	Pn	Pn	23 37 51.6	+0.6
KOKL	**Mount Kliuchef**	7.36	257		Pn	23 37 51.4	+0.1
KOWE	**Korovin West**	7.37	257		Pn	23 37 51.7	+0.3
ATKA	**Atka Island**	7.40	256	P	Pn	23 37 51.9	+0.1
ATKA	**Atka Island**	7.40	256	Pn	Pn	23 37 51.7	-0.1
ILSW	**Iliamna Southw**	7.41	39	Pn	Pn	23 37 52.7	+0.7
K13K	**Kusilvak Mount**	7.46	352	Pn	Pn	23 37 52.4	-0.2
N19K	**Bonanza Creek**	7.57	31	Pn	Pn	23 37 55.9	+1.7
O20K	**Slope Mountain**	7.66	40		Pn	23 37 56.6	+1.1
K15K	**Wolf Creek Mou**	7.75	3	Pn	Pn	23 37 56.7	+0.1
CNPM	**China Poot**	7.88	46	Pn	Pn	23 37 58.3	-0.1
L17K	**Donlin**	7.88	14		Pn	23 37 58.5	+0.1
BRLK	**Bradley Lake**	8.16	46	Pn	Pn	23 38 01.2	-0.9
BRSE	**Bradley Lake S**	8.21	46		Pn	23 38 02.0	-0.8
J14K	**Nanvaranak Lak**	8.21	357	Pn	Pn	23 38 03.1	+0.3
K17K	**Iditarod**	8.44	13	Pn	Pn	23 38 06.3	+0.4
GSMY	**Great Sitkin M**	8.52	258		Pn	23 38 06.9	-0.3
J16K	**Anvik River**	8.78	6	Pn	Pn	23 38 11.5	+0.9
ETKA	**Kagalaska Isla**	8.79	258		Pn	23 38 09.7	-1.1
M20K	**Styx River**	8.81	30	Pn	Pn	23 38 13.5	+2.4
SLKM	**Skilak Lake**	8.86	43		Pn	23 38 11.4	-0.4
STLK	**Strandline Lak**	8.93	35	Pn	Pn	23 38 14.5	+1.7
ADK	**Adak**	8.94	258	P	Pn	23 38 12.8	0.0
ADK	**Adak**	8.94	258	Pn	Pn	23 38 12.7	-0.1
SEW	**Seward**	8.95	47		Pn	23 38 12.3	-0.6
J17K	**VABM Dome**	9.01	10	Pn	Pn	23 38 13.8	+0.1
KIWB	**Kanaga Island**	9.22	259	Pn	Pn	23 38 16.5	-0.1
KIKV	**Kanaga Island**	9.22	259		Pn	23 38 15.8	-0.8
SUA	**Susitna One**	9.28	37	Pn	Pn	23 38 17.4	-0.1
SKT	**Skwentna**	9.38	33	Pn	Pn	23 38 20.0	+1.2
TASE	**Tanaga Southea**	9.73	260		Pn	23 38 22.7	-0.9
P23K	**Montague Islan**	9.79	50		Pn	23 38 23.3	-1.0
K20K	**Telida**	9.80	23	Pn	Pn	23 38 25.4	+0.9
PWL	**Port Wells**	9.82	45		Pn	23 38 23.2	-1.6
KNK	**Knik Glacier**	10.09	42	Pn	Pn	23 38 27.6	-0.9
HIN	**Hinchinbrook I**	10.37	49	Pn	Pn	23 38 31.2	-1.1
J20K	**Nowinta River**	10.51	20	Pn	Pn	23 38 34.6	+0.5
FID	**Port Fidalgo**	10.55	48	Pn	Pn	23 38 32.1	-2.6
EYAK	**Cordova Ski Ar**	10.77	50	P	Pn	23 38 36.7	-1.0
KAIM	**Kayak Island**	11.13	54	Pn	Pn	23 38 42.3	-0.3
KLU	**Klutina**	11.15	45	Pn	Pn	23 38 41.1	-1.9
RAGM	**Ragged Mountai**	11.19	52	Pn	Pn	23 38 42.4	-1.0
G18K	**Tagagawik**	11.50	8	Pn	Pn	23 38 48.7	+1.1
DHY	**Denali Highway**	11.53	36	Pn	Pn	23 38 45.2	-3.0
HARP	**HAARP**	11.94	42	Pn	Pn	23 38 52.3	-1.3
MLY	**Manley**	12.00	25	Pn	Pn	23 38 54.8	+0.4
GLB	**Gilahina Butte**	12.02	48	Pn	Pn	23 38 52.1	-2.5
CRQM	**Cirque**	12.03	51	Pn	Pn	23 38 53.6	-1.3
TGL	**Tana Glacier**	12.17	52	Pn	Pn	23 38 55.6	-1.1
CCB	**Clear Creek Bu**	12.49	30	Pn	Pn	23 38 58.3	-2.5
HDA	**Harding Lake**	12.58	32	Pn	Pn	23 38 59.2	-2.9
GRNC	**Granite Creek**	12.66	53	Pn	Pn	23 39 02.6	-0.8
M26K	**Nabesna, AK**	12.81	44	Pn	Pn	23 39 03.7	-1.5
RIDG	**Independent Ri**	12.84	37	Pn	Pn	23 39 03.5	-2.0
ILAR	**Eielson Array**	12.85	31	P	Pn	23 39 03.0	-2.8
	comp=N,0.2nm,0.3s,baz=223,slow=13,SNR=5.2						
ILAR				S	Sn	23 41 19.4	-7.3
	comp=N,0.7nm,0.6s,baz=216,slow=34,SNR=2.2						
	comp=N,0.3nm,0.4s						
ILAR				AML	AML		
M27K	**Edge Creek, AK**	13.25	46	Pn	Pn	23 39 10.0	-1.1
PNL	**Peninsula**	13.49	59	P	Pn	23 39 14.5	+0.2
BCAR	**Beaver Creek A**	13.62	43	Pn	Pn	23 39 14.7	-1.2
C18K	**Utukok River**	14.13	2		P	23 39 27.7	+0.3
D20K	**Etivluk River**	14.44	9	Pn	Pn	23 39 28.6	+2.2
E22K	**Anaktuvuk Pass**	14.49	16	Pn	Pn	23 39 28.9	+1.8
HYT	**Haines Junctio**	14.68	55	Pn	Pn	23 39 29.7	0.0
E23K	**Chandalar**	14.81	19		P	23 39 35.8	+0.9
S31K	**Pelican**	14.93	66	Pn	Pn	23 39 33.8	+1.1
E24K	**Your Creek**	15.04	20	P	P	23 39 38.6	+1.1
L29M	**L29M**	15.13	46	Pn	Pn	23 39 35.0	-0.3
F25K	**Christian Rive**	15.29	25	Pn	P	23 39 39.4	-1.0
BMAR	**Burnt Mountain**	15.44	26	Pn	Pn	23 39 39.7	+0.5
G27K	**Doyon Strip**	15.82	31	Pn	Pn	23 39 43.0	-1.1
WHY	**Whitehorse**	15.90	56	Pn	Pn	23 39 44.5	-0.6
WHY				IAmb	IAmb	23 39 49.7	
	comp=Z,10nm,0.8s						
J30M	**Hart River**	16.46	42		P	23 39 53.3	-0.1
J30M				IAmb	IAmb	23 40 26.2	
	comp=Z,9.8nm,1.4s						
P33M	**Teslin, Yukon**	16.85	58		P	23 39 57.6	0.0
C27K	**Jago River**	17.32	22		P	23 40 02.5	-0.1
C27K				IAmb	IAmb	23 40 11.3	
	comp=Z,5.5nm,1.1s						
H31M	**Peel River**	17.75	40		Pn	23 40 07.6	-0.2
H31M				IAmb	IAmb	23 40 13.8	
	comp=Z,9.1nm,1.1s						
MMPY	**Sheldon Lake,**	17.98	51		Pn	23 40 10.7	0.0
MMPY				IAmb	IAmb	23 40 13.8	
	comp=Z,5.0nm,0.7s						
DLBC	**Dease Lake**	18.21	65	P	Pn	23 40 14.2	+0.8
	comp=Z,0.2nm,0.3s,baz=263,slow=9.5,SNR=5.1						
	comp=Z,2.2nm,0.8s						
DLBC				AML	AML		
G31M	**Satah River**	18.29	36	P	P	23 40 11.7	-1.5
G31M				IAmb	IAmb	23 40 33.9	
	comp=Z,11nm,1.3s						
INK	**Inuvik**	19.23	33	P	P	23 40 21.6	-1.9
	comp=Z,0.4nm,0.3s,baz=224,slow=15,SNR=8.4						
	comp=Z,1.5nm,0.5s						
INK				AML	AML		
INK	**Inuvik**	19.23	33	P	P	23 40 22.1	-1.4
INK				IAmb	IAmb	23 40 38.3	
	comp=Z,10nm,1.4s						
PEA0B	**Petropavlovsk-**	23.33	283	P	P	23 41 06.1	-0.8
PETK	**Petropavlovsk-**	23.33	283	P	P	23 41 05.8	-1.1
	comp=Z,4.1nm,0.6s,baz=84,slow=13,SNR=10						
	comp=Z,4.1nm,0.6s						
PETK	**Petropavlovsk-**	23.33	283	P	P	23 41 05.3	-1.7
YKA	**Yellowknife Ar**	25.65	53	P	P	23 41 28.7	+0.9
	comp=Z,1.6nm,0.6s,baz=274,slow=9.2,SNR=4.7						
	comp=Z,1.6nm,0.6s						
F03A	**Seaside**	26.05	93	P	P	23 41 31.0	-0.6
PDAR	**Pinedale Array**	36.05	87	P	P	23 43 02.2	+2.5
	comp=Z,0.2nm,0.4s,baz=262,slow=3.0,SNR=2.1						
	comp=Z,0.2nm,0.4s						
H11N2	**WAKE ISLAND Hy**	41.86	226	T	T	00 28 24.4	
	baz=26,slow=76,SNR=34						
H11N3	**WAKE ISLAND Hy**	41.87	226	T	T	00 28 25.0	
	baz=26,slow=76,SNR=30						
H11N1	**WAKE ISLAND Hy**	41.88	226	T	T	00 28 25.8	
	baz=26,slow=76,SNR=22						
H11S1	**WAKE ISLAND Hy**	43.04	225	T	T	00 29 53.9	
	baz=26,slow=76,SNR=41						
H11S2	**WAKE ISLAND Hy**	43.05	225	T	T	00 29 53.3	
	baz=26,slow=76,SNR=24						
H11S3	**WAKE ISLAND Hy**	43.05	225	T	T	00 29 42.5	
	baz=26,slow=76,SNR=26						
SPITS	**Spitsbergen Ar**	47.50	0	P	P	23 44 31.2	-1.0
	comp=Z,6.3nm,0.8s,baz=57,slow=5.3,SNR=4.2						
	comp=Z,6.3nm,0.8s						
TXAR	**Lajitas Array**	48.74	96	P	P	23 44 44.5	+2.0
	comp=Z,0.4nm,0.7s,baz=287,slow=5.1,SNR=4.0						
	comp=Z,0.4nm,0.7s						
TXAR	**Lajitas Array**	48.74	96	P	P	23 44 44.3	+1.8
SONM	**Songino Array**	53.62	303	P	P	23 45 18.1	-0.6
	comp=Z,1.0nm,0.7s,baz=38,slow=7.1,SNR=4.7						
SONM				PcP	PcP	23 46 24.0	-0.1
	comp=Z,0.5nm,0.4s,baz=64,slow=3.4,SNR=3.1						
	comp=Z,1.0nm,0.7s						
ARCES	**ARCESS Array B**	56.05	357	P	P	23 45 34.0	-1.8
	comp=Z,2.2nm,0.8s,baz=17,slow=7.0,SNR=5.4						
ARCES				PcP	PcP	23 46 33.1	+0.1
	comp=Z,0.8nm,0.5s,baz=355,slow=2.2,SNR=7.0						
	comp=Z,2.2nm,0.8s						
ZALV	**Zalesovo Beam**	58.46	320	P	P	23 45 53.0	0.0
	comp=Z,1.0nm,0.4s,baz=41,slow=7.2,SNR=6.9						
ZALV				PcP	PcP	23 46 42.8	+0.1
	comp=Z,0.4nm,0.4s,baz=81,slow=4.5,SNR=2.0						
	comp=Z,1.0nm,0.4s						
ZALV	**Zalesovo Beam**	58.46	320	P	P	23 45 52.6	-0.4
KURK	**Kurchatov**	63.33	321	P	P	23 46 26.2	+0.2
KURK				IAmb	IAmb	23 46 59.1	
	comp=Z,3.2nm,1.4s						
KURBB	**Kurchatov Arra**	63.44	321	P	P	23 46 27.0	+0.3
	comp=Z,0.1nm,0.3s,baz=50,slow=8.6,SNR=7.7						
KURBB				PcP	PcP	23 47 02.8	0.0
	comp=Z,0.2nm,0.4s,baz=36,slow=3.7,SNR=4.3						
	comp=Z,0.1nm,0.3s						
FINES	**FINESS Array B**	64.12	355	P	P	23 46 30.2	-0.8
	comp=Z,2.5nm,0.9s,baz=358,slow=7.5,SNR=3.4						
FINES				PcP	PcP	23 47 05.4	0.0
	comp=Z,3.8nm,1.1s,baz=46,slow=4.0,SNR=4.5						
	comp=Z,2.5nm,0.9s						
FINES	**FINESS Array B**	64.12	355	P	P	23 46 29.8	-1.2
BVAR	**Borovoye Array**	64.17	328	P	P	23 46 31.0	-0.5
	comp=Z,2.9nm,0.6s,baz=37,slow=7.0,SNR=11						
BVAR				PcP	PcP	23 47 06.1	+0.4
	comp=Z,0.6nm,0.4s,baz=19,slow=3.9,SNR=2.4						
	comp=Z,2.9nm,0.6s						
NOA	**NORSAR Array B**	64.61	3	P	P	23 46 33.6	-0.7
	comp=Z,0.9nm,0.8s,baz=18,slow=13,SNR=2.3						
	comp=Z,0.9nm,0.8s						
MKAR	**Makanchi Array**	65.14	317	P	P	23 46 37.0	-1.0
	comp=Z,0.5nm,0.5s,baz=40,slow=6.2,SNR=13						
	comp=Z,0.5nm,0.5s						
MAKZ	**Makanchi**	65.26	317	P	P	23 46 37.7	-1.1
MAKZ				IAmb	IAmb	23 46 44.0	
	comp=Z,2.2nm,1.2s						
HFS	**Hagfors**	65.59	2	P	P	23 46 39.9	-0.7
	comp=Z,1.8nm,0.7s,baz=38,slow=7.3,SNR=5.5						
	comp=Z,1.8nm,0.7s						
EKA	**Eskdalemuir Ar**	69.14	12	P	P	23 47 03.3	+0.3
	comp=Z,0.7nm,0.4s,baz=348,slow=4.3,SNR=6.8						
	comp=Z,0.7nm,0.4s						
AKASG	**Malin Array Be**	74.63	352	P	P	23 47 35.2	-0.7
	comp=Z,2.3nm,0.5s,baz=12,slow=5.9,SNR=7.6						
	comp=Z,2.3nm,0.5s						
GERES	**GERESS Array B**	76.89	3	P	P	23 47 49.0	0.0
	comp=Z,0.3nm,0.3s,baz=1.4,slow=5.6,SNR=4.6						
	comp=Z,0.3nm,0.3s						
CONA	**Conrad Observa**	77.85	1	*i* P	P	23 47 55.2	+0.8
	comp=Z,0.4nm,0.2s						
SQTA	**Sankt Quirin**	78.43	4	*i* P	P	23 47 58.5	+0.8
	comp=Z,0.7nm,0.3s						
ARSA	**Arzberg**	78.53	1	*i* P	P	23 47 59.4	+1.4
	comp=Z,0.6nm,0.4s						
KBA	**Koelnbreinsper**	78.65	3	*i* P	P	23 48 00.0	+1.1
	comp=Z,1.3nm,0.4s						
SOKA	**Soboth**	79.09	2	*i* P	P	23 48 02.1	+0.9
	comp=Z,1.1nm,0.5s						
OBKA	**Obir**	79.25	2	*i* P	P	23 48 03.0	+0.9
	comp=Z,3.0nm,0.4s						
CMAR	**Chiang Mai Arr**	80.01	288	P	P	23 48 06.2	-0.3
	comp=Z,1.1nm,0.5s,baz=14,slow=5.9,SNR=6.0						
	comp=Z,1.1nm,0.5s						
CMAR	**Chiang Mai Arr**	80.01	288	P	P	23 48 06.5	0.0
ESDC	**Sonseca Array**	84.32	17	P	P	23 48 29.4	+0.6
	comp=Z,1.3nm,0.7s,baz=340,slow=4.8,SNR=11						
	comp=Z,1.3nm,0.7s						
ESDC	**Sonseca Array**	84.32	17	P	P	23 48 29.9	+1.1
BRTR	**Keskin Array B**	85.05	348	P	P	23 48 32.9	+0.3
	comp=Z,1.0nm,0.8s,baz=66,slow=3.6,SNR=6.3						
	comp=Z,1.0nm,0.8s						
BRTR	**Keskin Array B**	85.05	348	P	P	23 48 33.0	+0.4
QSPA	**South Pole Qui**	144.36	180	PKP	PKPdf	23 55 30.7	-0.4
	comp=Z,1.9nm,1.0s,baz=128,slow=0.4,SNR=6.5						
QSPA	**South Pole Qui**	144.36	180		PKPdf	23 55 30.8	-0.3
TSUM	**Tsumeb**	144.68	360		PKPbc	23 55 32.0	-0.3
GRTLG	**Ghanzi**	146.71	354		PKPab	23 55 39.1	-0.6
BOSA	**Boshof**	153.45	345	PKPbc	PKiKP	23 55 58.0	+3.3
	comp=Z,0.6nm,0.4s,baz=90,slow=1.0,SNR=1.3						
BOSA	**Boshof**	153.45	345	PKPbc	PKiKP	23 55 55.4	+0.6

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*NOU **08** 23:41:44.9, 45°.59S×165°.22E, h52^{km}, MLv4.3/14, Off W. Coast of S. Island, N.Z.*

*WEL **08** 23:41:45.6±1.0, 46°S±6°×16°5E±°, h12^{km}, M4.0/8, ML3.8/9, MLv4.0/8, Error ellipse: s-maj=7.7km s-min=7.3km az=100.6, confirmed*

ISC 08 23:41:43.7±3.4**, 45°.55S**±0°.06×**165°.3E**±0°.1**, h16**^{km}±27^{km}**,**
n54, σ1^{s}**06**/67**, Off west coast of South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYZ	**Puysegur Point**	1.13	124	P	Pb	23 42 04.7	-0.1
PYZ	**Puysegur Point**	1.13	124	P	Pb	23 42 04.7	-0.1
PYZ				S	Sb	23 42 18.7	-0.5
PYZ				AML	AML		
PYZ				AML	AML		
DCZ	**Deep Cove**	1.28	87	P	Pn	23 42 06.9	-0.1
DCZ				S	Sb	23 42 22.3	-1.5
DCZ				AML	AML		
DCZ				AML	AML		
RRKS	**Rarakau**	1.61	113	P	Pn	23 42 12.2	+0.7
RRKS				S	Sn	23 42 31.5	-0.5
TAFS	**Te Anau Fire S**	1.68	86	P	Pn	23 42 13.7	+1.2
TAFS				S	Sn	23 42 34.4	+0.6
ORPS	**Orepuki**	1.85	114	P	Pn	23 42 14.6	-0.2
WHZ	**Wether Hill Ro**	1.86	102	P	Pn	23 42 16.5	+1.5
WHZ				S	Sb	23 42 39.6	-0.9
WHZ				AML	AML		
WHZ				AML	AML		
MLZ	**Mavora Lakes**	1.97	86	P	Pn	23 42 18.0	+1.5
MLZ				S	Sn	23 42 41.7	+0.9
MLZ				AML	AML		
MLZ				AML	AML		
MSZ	**Milford Sound**	2.04	65	P	Pn	23 42 17.7	+0.4
MSZ				AML	AML		
MSZ				AML	AML		
MOSS	**Mossburn Schoo**	2.04	94	P	Pb	23 42 20.4	-0.1

MOSS				S	Sb	23 42 45.5	-0.2
APZ	The Paps	2.25	126	P	Pn	23 42 20.6	+0.3
APZ				S	Sn	23 42 46.7	-1.0
APZ				AML	AML		
APZ				AML	AML		
WKZ	Wanaka	2.70	76	P	Pn	23 42 29.0	+2.5
WKZ				S	Sn	23 43 01.0	+2.0
WKZ				AML	AML		
WKZ				AML	AML		
EAZ	Earnscleugh	2.82	85	P	Pn	23 42 30.5	+2.3
EAZ				S	Sn	23 43 02.9	+1.1
EAZ				AML	AML		
EAZ				AML	AML		
SYZ	Scrubby Hill	2.83	112	P	Pn	23 42 29.2	+0.9
SYZ	Scrubby Hill	2.83	112	S	Sn	23 43 02.5	+0.5
SYZ	Scrubby Hill	2.83	112	P	Pn	23 42 29.2	+0.9
SYZ				AML	AML		
JCZ	Jackson Bay	2.87	60	P	Pn	23 42 29.4	+0.5
JCZ	Jackson Bay	2.87	60	P	Pn	23 42 26.9	-2.0
JCZ				AML	AML		
JCZ				AML	AML		
TUZ	Tuapeka	3.04	99	P	Pn	23 42 32.6	+1.5
TUZ				S	Sn	23 43 07.3	+0.2
TUZ				AML	AML		
TUZ				AML	AML		
LBZ	Lake Benmore	3.63	73	P	Pn	23 42 40.6	+1.2
LBZ				S	Sn	23 43 21.2	-0.7
HHSZ	Highcliff Hill	3.70	97	P	Pn	23 42 41.7	+1.4
HHSZ				S	Sn	23 43 23.0	-0.6
ODZ	Otahua Downs	3.78	84	P	Pn	23 42 42.2	+0.8
ODZ	Otahua Downs	3.78	84	S	Sn	23 43 25.7	+0.2
ODZ	Otahua Downs	3.78	84	P	Pn	23 42 42.2	+0.8
ODZ				S	Sn	23 43 24.5	-1.0
FOZ	Fox Glacier	3.79	59	P	Pn	23 42 41.1	-0.3
TMZ	Timaru	4.19	76	P	Pn	23 42 47.5	+0.5
TMZ				S	Sn	23 43 34.0	-1.7
GCSZ	Gaunt Creek Bo	4.22	60	P	Pn	23 42 46.9	-0.4
ARCZ	Arundel	4.46	71	P	Pn	23 42 50.8	+0.1
RPZ	Rata Peaks	4.48	68	P	Pn	23 42 51.6	+0.7
RPZ	Rata Peaks	4.48	68	S	Sn	23 43 42.9	+0.2
RPZ	Rata Peaks	4.48	68	P	Pn	23 42 51.4	+0.5
WVZ	Waitaha Valley	4.60	59	P	Pn	23 42 52.0	-0.6
WACZ	Wakanui South	4.91	73	P	Pn	23 42 57.0	+0.2
INZ	Inchbonnie	5.23	59	P	Pn	23 43 00.8	-0.4
MQZ	McQueen's Vall	5.54	73	P	Pn	23 43 05.4	-0.1
LTZ	Lake Taylor	5.71	63	P	Pn	23 43 06.8	-1.0
OKCZ	Okains Bay	5.81	74	P	Pn	23 43 09.7	+0.5
DSZ	Denniston Nort	6.04	53	P	Pn	23 43 11.9	-0.5
THZ	Tophouse	6.67	58	P	Pn	23 43 21.2	+0.2
MRNZ	Matariki Terra	6.81	55	P	Pn	23 43 24.0	+1.0
QRZ	Quartz Range	7.07	51	P	Pn	23 43 26.5	0.0
QRZ	Quartz Range	7.07	51	P	Pn	23 43 26.3	-0.1
TKNZ	Takaka Hill	7.16	54	P	Pn	23 43 28.4	+0.6
NNZ	Nelson	7.29	56	P	Pn	23 43 30.4	+1.0
DUWZ	D'Urville Isla	7.87	56	P	Pn	23 43 39.3	+1.8
KHEZ	Kahui Hut	8.96	49	P	Pn	23 43 53.2	+0.7
KHEZ	Kahui Hut	8.96	49	P	Pn	23 43 52.7	+0.2
PREZ	Palmer Road	9.00	50	P	Pn	23 43 53.8	+0.8
WNVZ	Wahianoa	9.81	54	P	Pn	23 44 07.4	+3.2
HIZ	Hauiti	9.97	49	P	Pn	23 44 07.4	+1.0
MKAZ	Moumakai	11.21	45	P	Pn	23 44 24.3	+1.1
OUZ	Omahuta	12.08	34	P	Pn	23 44 35.9	+0.7
GLAD	Gladstone	13.42	284	P	Pn	23 44 51.2	-2.2
MOO	Moorlands	13.43	277	P	Pn	23 44 51.1	-2.4

IDC 09 00:07:33.1±2.1, 6°.68S×129°.06E, h0km, mb3.4/1, mbtmp3.4/4, ML3.6/3, MS3.1/1, Error ellipse: s-maj=70.5km s-min=24.8km az=74.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	11.83	196	Pn	Pn	00 10 18.2	-4.9
	0.3nm,0.3s,baz=35,slow=14,SNR=1.9						
FITZ				Sn	Sn	00 12 14.7	-21
	0.4nm,0.3s,baz=314,slow=19,SNR=6.9						
	1.5nm,0.7s						
FITZ				AML	AML		
WRA	Warramunga Arr	14.14	159	Pn	Pn	00 10 47.8	-7.0
	0.4nm,0.3s,baz=333,slow=13,SNR=10						
WRA				Sn	Sn	00 13 06.9	-26
	0.7nm,0.3s,baz=342,slow=22,SNR=12						
	0.4nm,0.3s						
WRA				AML	AML		
ASAR	Alice Springs	17.52	165	Pn	Pn	00 11 34.2	-4.8
	0.1nm,0.3s,baz=353,slow=8.9,SNR=4.6						
ASAR				Sn	Sn	00 14 29.4	-25
	0.1nm,0.3s,baz=347,slow=25,SNR=1.8						
	0.2nm,0.5s						
ASAR				AML	AML		
JHJ	Hachijo jima 2	40.87	14	LR	LR	00 32 04.7	
	comp=Z,24nm,19.2s,baz=316,slow=36						
MKAR	Makanchi Array	67.45	327	P	P	00 18 30.7	0.0
	0.2nm,0.5s,baz=140,slow=6.6,SNR=1.8						
	0.2nm,0.5s						

SDD ***09*** *00:13:23.9±6.6, 19°.15N×67°.76W, h15km±999km, MD3.1, ML2.4, MW2.9, Presumed earthquake*

NEIC ***09*** *00:13:29.4±1.7, 19°.14N±0°.04×67°.73W±0°.02, h14km±4km, ML2.5/30, Md3.5/14(RSPR), Error ellipse: s-maj=6.5km s-min=2.4km az=180.0*

RSPR ***09*** *00:13:31.6, 19°.15N×67°.81W, h5km±1km, MD3.5/14*

ISC 09 00:13:28.9±1.3, 19°.16N±0°.05×67°.76W±0°.02, h12km±9km, n41, σ0ˢ62/61, 16C-13D, Mona Passage

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IDE	Isla Desecheo	0.82	160		Pg	00 13 44.6	-0.2
IDE					Sg	00 13 55.6	+0.1
IDE	Isla Desecheo	0.82	160	⇑eP	Pg	00 13 44.6	-0.2
IDE				eS	Sg	00 13 55.6	+0.1
PCDR	Punta Cana, DR	0.87	222		Pg	00 13 46.0	+0.2
PCDR					Sb	00 13 57.5	0.0
PCDR				IAML		00 13 59.8	
	comp=E,128nm,0.8s						
PCDR	Punta Cana, DR	0.87	222	⇑iP	Pb	00 13 46.5	+0.5
PCDR				eS	Sn	00 13 58.7	-0.8
PCDR	Punta Cana, DR	0.87	222	⇑ePg	Pn	00 13 46.8	-0.2
PCDR				⇓eSg	Sb	00 13 57.9	+0.4
PCDR				IAML		00 13 59.9	
	comp=N,219nm,0.4s						
AGPR	Aguadilla, PR	0.93	138	Pg	Pb	00 13 45.9	-1.0
AGPR				Sg	Sg	00 13 58.3	-0.7
AGPR				IAML		00 14 03.5	
	comp=N,199nm,0.3s						
AGPR				IAML		00 14 07.0	
	comp=N,141nm,0.3s						
AGPR	Aguadilla, PR	0.93	138	⇓eP	Pg	00 13 47.1	+0.2
AGPR	Aguadilla, PR	0.93	138	⇑ePg	Pb	00 13 46.7	-0.2
AGPR				⇑eSg	Sg	00 13 58.4	-0.5
AGPR				IAML		00 14 04.4	
	comp=N,100nm,0.3s						
HIDR	Higuey Centro	1.07	238	ePg	Pb	00 13 49.3	0.0
HIDR				⇑eSg	Sg	00 14 03.7	+0.3
HIDR				IAML		00 14 04.9	
	comp=N,147nm,0.2s						
PRSN	Puerto Rico Se	1.11	148		Pb	00 13 50.1	+0.1
PRSN				Sg	Sb	00 14 03.3	-1.0
PRSN	Puerto Rico Se	1.11	148	⇓eP	Pg	00 13 50.8	+0.5
PRSN	Puerto Rico Se	1.11	148	⇑ePg	Pb	00 13 49.4	-0.6
PRSN				IAML		00 14 11.8	
	comp=N,310nm,0.3s						
LSP	Las Mesas	1.17	147		Pg	00 13 51.6	+0.1
LSP					Sn	00 14 07.7	+0.6
LSP	Las Mesas	1.17	147	⇓eP	Pg	00 13 51.6	+0.1
LSP				eS	Sn	00 14 07.7	+0.6
AOPR	Arecibo Observ	1.25	130		Pn	00 13 51.0	-1.2
AOPR				IAML		00 14 15.3	
	comp=N,92nm,0.2s						
AOPR	Arecibo Observ	1.25	130	⇓eP	Pb	00 13 53.0	+0.5
AOPR	Arecibo Observ	1.25	130	⇑ePg	Pn	00 13 51.6	-0.6
AOPR				⇓eSg	Sb	00 14 07.3	-1.3
AOPR				IAML		00 14 18.5	
	comp=N,68nm,0.2s						
CRPR	Cabo Rojo, PR	1.30	152	Pn	Pn	00 13 52.7	-0.2
CRPR				IAML		00 14 15.0	
	comp=N,61nm,0.3s						
CRPR	Cabo Rojo, PR	1.30	152	⇑eP	Pb	00 13 53.4	0.0
CRPR	Cabo Rojo, PR	1.30	152	⇑ePg	Pn	00 13 53.1	+0.1
CRPR				⇓eSg	Sb	00 14 10.0	-0.1
CRPR				IAML		00 14 16.7	
	comp=N,54nm,0.2s						
EMPR	Esperanza - Ma	1.35	120		Pg	00 13 55.2	+0.2
EMPR					Sg	00 14 12.6	+0.1
EMPR	Esperanza - Ma	1.35	120	⇑eP	Pg	00 13 55.2	+0.2
EMPR				eS	Sg	00 14 12.6	+0.1
SMDR	Samana, DR	1.35	276	⇑ePg	Pg	00 13 55.2	+0.2
SMDR				⇑eSg	Sg	00 14 13.7	+1.2
SMDR				IAML		00 14 16.4	
	comp=N,44nm,0.3s						
MLPR	Magueyes Islan	1.37	150	Pn	Pn	00 13 53.6	-0.2
MLPR	Magueyes Islan	1.37	150	⇓eP	Pb	00 13 54.5	+0.1
MLPR	Magueyes Islan	1.37	150	⇓ePg	Pn	00 13 53.7	-0.1
MLPR				IAML		00 14 19.6	
	comp=N,16nm,0.3s						
GBPR	Guanica, Bosqu	1.45	144		Pn	00 13 55.1	+0.2
GBPR					Sb	00 14 14.5	+0.4
GBPR	Guanica, Bosqu	1.45	144	⇓eP	Pn	00 13 55.1	+0.2
GBPR				eS	Sb	00 14 14.5	+0.4
CELP	Cerrillos	1.56	134	Pn	Pn	00 13 56.8	+0.3
CELP				IAML		00 14 21.4	
	comp=N,50nm,0.3s						
CELP	Cerrillos	1.56	134	⇑eP	Pb	00 13 57.5	-0.3
CELP	Cerrillos	1.56	134	⇑ePg	Pn	00 13 55.4	-1.1
CELP				IAML		00 14 21.2	
	comp=N,18nm,0.5s						
ECPR	Experimental S	1.57	122	Pn	Pn	00 13 56.3	-0.3
ECPR				IAML		00 14 29.2	
	comp=N,137nm,0.2s						
ECPR	Experimental S	1.57	122	⇓eP	Pn	00 13 56.4	-0.2
IGPR	InterUniversit	1.97	127		Pn	00 14 03.5	+1.4
IGPR					Sn	00 14 27.2	+0.5
IGPR	InterUniversit	1.97	127	⇑eP	Pn	00 14 03.5	+1.4
NADR	Nagua	1.99	276	ePg	Pg	00 14 06.6	-0.5
NADR				⇑eSg	Sg	00 14 32.5	-0.4
NADR				IAML		00 14 40.7	
	comp=N,147nm,0.3s						
PDPR	Patillas Dam,	2.00	124	Pn	Pn	00 14 02.8	+0.2
PDPR	Patillas Dam,	2.00	124	⇓eP	Pn	00 14 04.0	+1.4
HUMP	Col San Antoni	2.08	119	Pn	Pn	00 14 03.2	-0.4
HUMP				IAML		00 14 37.0	
	comp=N,30nm,0.2s						
HUMP	Col San Antoni	2.08	119	⇓eP	Pn	00 14 04.8	+1.2
BANI	BANI	2.58	253	Pn	Pb	00 14 14.3	-0.8

IDC ***09*** *00:21:38.4±1.8, 36°.86S×177°.77E, h0km, mb3.7/3, mbtmp3.7/3, MS3.3/5, Error ellipse: s-maj=42.7km s-min=22.0km az=84.0*

WEL ***09*** *00:21:48.1±0.7, 37°S±5°×17°7E±°, h5km, M3.7/24, ML3.7/24, MLv3.7/24, Error ellipse: s-maj=6.8km s-min=3.2km az=16.8, confirmed*

ISC 09 00:21:46.6±1.2, 37°.10S±0°.04×177°.16E±0°.03, h15km±8km, n61, σ1ˢ66/57, mb4.0/6, MS3.2/4, 2C, Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WSRZ	White Island S	0.41	178	P	Pg	00 21 54.2	-0.7
WSRZ				AML	AML		
WSRZ				AML	AML		
WIZ	White Island	0.42	176	P	Pg	00 21 54.3	-0.8
WIZ				S	Sg	00 21 59.8	-1.1
WIZ				AML	AML		
WIZ				AML	AML		
MYRZ	Mayor Island	0.75	256	P	Pg	00 21 59.9	-1.3
MYRZ				S	Sb	00 22 12.6	+1.2
MYRZ				AML	AML		
MYRZ				AML	AML		
WHRZ	Whale Island	0.77	191	P	Pn	00 22 03.5	+0.7
WHRZ				AML	AML		
WHRZ				AML	AML		
HAZ	Te Kaha	0.82	143	P	Pg	00 22 02.9	+0.3
HAZ				S	Sn	00 22 18.9	+3.4
HAZ				AML	AML		
HAZ				AML	AML		
RUGZ	Raukumara Rang	0.95	154	P	Pn	00 22 07.5	+2.0
RUGZ				AML	AML		
RUGZ				AML	AML		
MXZ	Matakaoa Point	1.02	117	P	Pg	00 22 04.4	-2.0
MXZ				S	Sb	00 22 21.2	+1.9
MXZ				AML	AML		
MXZ				AML	AML		
PKGZ	Pakihiroa	1.06	136	P	Pg	00 22 02.5	-4.6
URZ	Urewera	1.16	182	Pn	Pb	00 22 05.8	-2.4
	7.9nm,0.3s,baz=327,slow=4.7,SNR=37						
URZ				Sn	Sn	00 22 24.5	+0.8
	46nm,0.3s,baz=356,slow=15,SNR=6.9						
URZ				LR	LR	00 22 44.2	
	comp=Z,246nm,18.2s,baz=16,slow=44						
URZ	Urewera	1.16	182	P	Pb	00 22 05.7	-2.5
URZ				AML	AML		
URZ				AML	AML		
KMRZ	Kaimai	1.22	232	P	Pg	00 22 09.7	-0.4
KMRZ				AML	AML		
KMRZ				AML	AML		
WMGZ	Waiomatatini S	1.23	126	P	Pn	00 22 10.3	+1.1
WMGZ				AML	AML		
WMGZ				AML	AML		
TARZ	Mount Tarawera	1.24	204	P	Pg	00 22 12.1	+1.5
TARZ				AML	AML		
TARZ				AML	AML		
MWZ	Matawai	1.26	167	P	Pn	00 22 08.4	-1.4
MWZ				AML	AML		
MWZ				AML	AML		
PUZ	Puketiti	1.30	138	P	Pg	00 22 13.3	+1.6
PUZ				AML	AML		
PUZ				AML	AML		
MUGZ	Murupara	1.41	192	P	Pg	00 22 15.8	+2.2
MUGZ				AML	AML		
MUGZ				AML	AML		
RAGZ	Rawiri	1.41	172	P	Pg	00 22 13.8	+0.2
RAGZ				AML	AML		
RAGZ				AML	AML		
TKGZ	Te Karaka	1.44	158	P	Pg	00 22 16.8	+2.4
TKGZ				AML	AML		
TKGZ				AML	AML		
TOZ	Tahuroa Road	1.46	244	P	Pn	00 22 10.9	-1.5
TOZ				AML	AML		
TOZ				AML	AML		
RTZ	Ruatahuna	1.52	185	P	Pb	00 22 14.7	+0.2
RTZ				AML	AML		
RTZ				AML	AML		
MKAZ	Moumakai	1.59	269	P	Pg	00 22 17.5	+0.2
MKAZ				S	Sg	00 22 38.8	+0.8
MKAZ				AML	AML		
MKAZ				AML	AML		
GRZ	Great Barrier	1.61	301	P	Pn	00 22 08.6	-5.8
CNGZ	Carnagh Statio	1.61	149	P	Pn	00 22 13.0	-1.4
CNGZ				AML	AML		
CNGZ				AML	AML		
WIAZ	Waiheke Island	1.65	280	P	Pn	00 22 12.2	-2.8
RIGZ	Rimuhau	1.67	164	P	Pg	00 22 20.0	+1.3
RIGZ				AML	AML		
RIGZ				AML	AML		
MTHZ	Maungataniwha	1.76	188	P	Pg	00 22 20.3	-0.2
MTHZ				S	Sn	00 22 39.4	+0.6
MTHZ				AML	AML		
MTHZ				AML	AML		
TLZ	Tolley Road	1.77	226	P	Pn	00 22 17.5	+0.8
TLZ				S	Sb	00 22 41.3	+0.4
TLZ				AML	AML		
TLZ				AML	AML		
ETAZ	East Tamaki Re	1.79	274	P	Pb	00 22 19.9	+0.9
ETAZ				AML	AML		
ETAZ				AML	AML		
ABAZ	Army Bay	1.93	284	P	Pg	00 22 26.5	+2.8
ABAZ				S	Sg	00 22 53.7	+5.0
NMHZ	Naumai	2.01	188	P	Pn	00 22 19.8	-0.3
NMHZ				AML	AML		
NMHZ				AML	AML		
AWAZ	Awhitu Peninsu	2.01	270	P	Pg	00 22 25.9	+0.7
RVAZ	Riverhead Bore	2.09	278	P	Pn	00 22 17.8	-3.2
RITZ	Rihia Road	2.13	208	P	Pg	00 22 26.2	-1.3
RITZ				AML	AML		
RITZ				AML	AML		
ARHZ	Aropaoanui	2.16	183	P	Pg	00 22 28.0	-0.1
HIZ	Hauiti	2.30	232	P	Pn	00 22 25.1	+1.1
HIZ				AML	AML		
HIZ				AML	AML		
NTVZ	North Tongarir	2.31	210	P	Pn	00 22 25.4	+1.2
NTVZ				AML	AML		
NTVZ				AML	AML		
TMVZ	Te Maari	2.31	209	P	Pn	00 22 25.3	+1.0
TMVZ				AML	AML		
TMVZ				AML	AML		
ETVZ	East Tongariro	2.33	209	P	Pn	00 22 26.0	+1.5
ETVZ				AML	AML		
ETVZ				AML	AML		
FWVZ	Far West T-bar	2.49	210	P	Pn	00 22 27.1	+0.2
WHVZ	Whangaehu Hut	2.50	209	P	Pn	00 22 27.5	+0.5
BHHZ	Black Hill Sta	2.53	200	P	Pn	00 22 26.1	-1.1
WNVZ	Wahianoa	2.54	208	P	Pn	00 22 27.8	+0.4
WCZ	Waipu Caves	2.55	296	P	Pn	00 22 27.2	-0.1
MOVZ	Moawhango	2.55	205	P	Pn	00 22 26.7	-0.8
KRHZ	Kereru	2.61	193	P	Pn	00 22 29.6	+1.3
OUZ	Omahuta	3.44	302	P	Pn	00 22 33.9	-5.7
DZM	Mont Dzumac	17.62	325	LR	LR	00 30 48.4	
	comp=Z,125nm,21.1s,baz=78,slow=31						
STKA	Stephens Creek	29.66	269	LR	LR	00 37 50.7	
	comp=Z,69nm,20.6s,baz=209,slow=32						
CTA	Charters Tower	31.80	294	LR	LR	00 40 35.5	
	comp=Z,88nm,18.7s,baz=213,slow=35						
ASAR	Alice Springs	39.32	277	P	P	00 29 12.9	-2.3
	0.9nm,0.7s,baz=120,slow=8.2,SNR=9.9						
	0.9nm,0.7s						
WRA	Warramunga Arr	40.94	283	P	P	00 29 25.9	-2.8
	0.9nm,0.7s,baz=120,slow=7.8,SNR=5.1						
	0.9nm,0.7s						
VNDA	Vanda	41.06	185	LR	LR	00 46 02.9	
	comp=Z,33nm,18.1s,baz=330,slow=35						
QSPA	South Pole Qui	53.02	180	P	P	00 30 57.9	-4.7
	0.4nm,0.7s,baz=23,slow=1.6,SNR=13						
	0.4nm,0.7s						
VNA3	Neumayer Olymp	71.85	178	⇑P	P	00 33 08.2	0.0
	comp=Z,2.8nm,0.9s						
VNA2	Neumayer--Watz	72.23	178	⇑P	P	00 33 10.7	+0.2
	comp=Z,4.0nm,0.7s,baz=168,slow=5.4						
VNA1	Neumayer--Stat	72.48	178	P	P	00 33 20.5	+8.5
	comp=Z,5.4nm,0.9s						
H03S2	Juan Fernandez	80.05	125	T	T	02 02 56.0	
	baz=231,slow=74,SNR=6.7						
H03S1	Juan Fernandez	80.05	125	T	T	02 02 56.7	
	baz=231,slow=74,SNR=6.8						
H03S3	Juan Fernandez	80.06	125	T	T	02 03 05.7	
	baz=231,slow=74,SNR=6.1						
KSRS	Korea Array	87.04	323	LR	LR	01 08 04.1	
	comp=Z,11nm,21.6s,baz=195,slow=32						
FINES	FINESS Array B	149.66	333	PKPbc	PKPdf	00 41 29.6	-0.4
	comp=Z,8.2nm,1.2s,baz=64,slow=3.2,SNR=4.5						

IDC 09 00:28:40.9±1.9, 1°.62N×124°.50E, h0km, mb3.6/3, mbtmp3.6/3, Error ellipse: s-maj=190.6km s-min=25.9km az=63.0, Minahassa Peninsula, Sulawesi

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	23.50	156	P	P	00 33 53.0	+0.3
	1.2nm,0.3s,baz=335,slow=10,SNR=15						
	1.2nm,0.3s						
ASAR	Alice Springs	26.75	161	P	P	00 34 22.1	-0.3
	0.3nm,0.5s,baz=342,slow=7.8,SNR=4.5						
	0.3nm,0.5s						
MKAR	Makanchi Array	58.05	327	P	P	00 38 35.9	0.0
	0.2nm,0.3s,baz=128,slow=7.4,SNR=5.1						
	0.2nm,0.3s						

IDC ***09*** *00:52:00.1±1.9, 1°.60N×126°.32E, h0km, mb3.7/4, mbtmp3.7/5, ML3.4/1, Error ellipse: s-maj=123.4km s-min=24.6km az=68.0*

DJA ***09*** *00:52:03.4±0.3, 2°N±3°×12°7E±°, h10km, M3.5/12, MLv3.5/12*

ISC 09 00:52:02.1±1.0, 1°.72N±0°.09×126°.63E±0°.06, h10km, n11, σ1ˢ52/12, mb3.7/4, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GAMI	Galela, Maluku	1.17	84	P	Pb	00 52 24.7	+0.3
GAMI				S	Sg	00 52 40.7	+0.9
TNTI	Ternate	1.20	142	P	Pb	00 52 24.9	0.0
TNTI				AML	AML		
MNI	Manado	1.81	261	P	Pn	00 52 32.9	-0.4
MNI				AML	AML		
LBMI	Labuha	2.50	159	P	Pn	00 52 43.8	+1.0
GTOI	Gorontalo	3.77	253	P	Pn	00 53 03.7	+3.4
SANI	Sanana	3.80	190	P	Pn	00 53 01.9	+1.2
SANI				AML	AML		
FITZ	Fitzroy Crossi	19.71	183	P	P	00 56 30.3	-1.6
	0.1nm,0.3s,baz=22,slow=16,SNR=1.3						
	3.2nm,1.1s						
FITZ				AML	AML		
WRA	Warramunga Arr	22.82	161	P	P	00 57 04.0	-1.3
	2.1nm,0.8s,baz=338,slow=11,SNR=12						
	2.1nm,0.8s						
ASAR	Alice Springs	26.21	165	P	P	00 57 36.6	-0.7
	0.6nm,0.5s,baz=343,slow=10,SNR=8.1						
	0.6nm,0.5s						
MKAR	Makanchi Array	59.15	326	P	P	01 02 02.1	-1.0
	0.3nm,0.4s,baz=120,slow=6.8,SNR=5.3						
	0.3nm,0.4s						
VNDA	Vanda	81.46	173	P	P	01 04 18.8	-0.2
	0.4nm,0.6s,baz=320,slow=5.3,SNR=2.3						
	0.4nm,0.6s						

IDC ***09*** *01:00:32.8±0.9, 37°.57N×20°.62E, h0km, mb3.7/5, mbtmp3.5/11, ML2.3/3, Error ellipse: s-maj=16.7km s-min=11.9km az=10.0*

ATH ***09*** *01:00:32.9, 37°.45N×20°.42E, h6km±1km, ML3.5/26, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*

THE ***09*** *01:00:34.5, 37°N±2°×2°1E±°, h2km±2km, M3.4/32, MLh3.4/32*

ISC 09 01:00:34.1±1.6, 37°.51N±0°.04×20°.56E±0°.04, h12km±11km, n98, σ0ˢ83/113, mb3.8/4, Ionian Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LTHK	Lithakia	0.30	49	P	Pb	01 00 41.6	+0.2
LTHK				S	Sb	01 00 46.0	-0.2
LTHK				AML	AML		
LTHK	Lithakia	0.30	49	P	Pb	01 00 41.4	+0.1
LTHK				S	Sb	01 00 46.5	+0.2
ORTH	Orthonies,Zaky	0.36	18	P	Pb	01 00 42.5	+0.1
ORTH				S	Sb	01 00 48.1	+0.1
ORTH				AML	AML		
ORTH	Orthonies,Zaky	0.36	18	P	Pb	01 00 42.4	0.0
ORTH				S	Sb	01 00 48.2	+0.2
KYPS	Kipseli, Zakin	0.37	35	P	Pb	01 00 43.0	+0.4
RTZL	Ratzakli, Kefa	0.59	17	P	Pb	01 00 46.4	+0.1
RTZL				S	Sb	01 00 55.7	+1.1
RTZL				AML	AML		
RTZL	Ratzakli, Kefa	0.59	17	P	Pb	01 00 46.4	+0.1
RTZL				S	Sb	01 00 55.2	+0.6
RTZL				AML	AML		
CLEM	Kyllini,Ilia,G	0.59	50	P	Pb	01 00 46.8	+0.4
CLEM				S	Sb	01 00 56.2	+1.4
VLS	Valsamata	0.67	2	P	Pb	01 00 47.6	0.0
VLS				S	Sb	01 00 57.6	+0.7
VLS				AML	AML		
VLS	Valsamata	0.67	2	P	Pb	01 00 47.3	-0.4
VLS				S	Sb	01 00 57.5	+0.7
VLS				AML	AML		
ARG2	Argostoli	0.67	355	P	Pg	01 00 45.5	-1.6
ARG2				S	Sb	01 00 56.3	-0.6
ARG2				AML	AML		
LXR1	Lixouri, Cepha	0.69	352	P	Pb	01 00 48.2	+0.2
VSK1	VASILIKIADES	0.90	0	P	Pb	01 00 51.8	+0.2
VSK1				S	Sb	01 01 04.1	+0.7
RLS	Riolos of Patr	0.91	53	P	Pb	01 00 52.1	+0.4
RLS				AML	AML		
RLS	Riolos of Patr	0.91	53	P	Pb	01 00 52.1	+0.4
RLS				AML	AML		
AMT	Artemida-Makis	0.92	88	P	Pb	01 00 52.8	+0.9
AXS	Araxos	0.94	43	P	Pb	01 00 52.7	+0.4
AXS				AML	AML		
AXS	Araxos	0.94	43	P	Pb	01 00 52.7	+0.4
AXS				AML	AML		
FSK	Fiskardo	0.95	0	P	Pb	01 00 52.6	+0.2
FSK				AML	AML		
FSK	Fiskardo	0.95	0	P	Pb	01 00 52.6	+0.2
FSK				AML	AML		
DRO	Drossia	1.02	64	P	Pn	01 00 54.5	+0.4

DRO				AML	AML		
DRO	Drossia	1.02	64	P	Pn	01 00 54.6	+0.4
DRO				AML	AML		
PYL1	Pylos	1.09	123	P	Pn	01 00 55.9	+0.8
MSL1	Messolongi	1.10	38	P	Pn	01 00 56.0	+0.8
EVGI	Lefkada island	1.11	4	P	Pb	01 00 55.5	+0.2
EVGI				S	Sb	01 01 10.9	+1.3
EVGI				AML	AML		
EVGI	Lefkada island	1.11	4	P	Pb	01 00 55.4	+0.2
EVGI				AML	AML		
AST1	Astakos	1.11	22	P	Pn	01 00 56.9	+1.5
PLEV	Plevrona-Mesol	1.12	37	P	Pb	01 00 55.9	+0.5
PLEV				AML	AML		
PLEV	Plevrona-Mesol	1.12	37	P	Pb	01 00 55.8	+0.4
PLEV				AML	AML		
PYL	PYLOS	1.13	123	P	Pb	01 00 55.7	+0.2
PYL				S	Sb	01 01 11.0	+0.8
PYL				AML	AML		
PYL	PYLOS	1.13	123	P	Pn	01 00 56.0	+0.3
ITM	Ithomi	1.14	106	P	Pn	01 00 56.4	+0.4
ITM				AML	AML		
ITM	Ithomi	1.14	106	P	Pn	01 00 56.3	+0.4
ITM				AML	AML		
DRAG	Dragano-Lefkad	1.17	1	P	Pn	01 00 56.4	+0.1
DRAG	Dragano-Lefkad	1.17	1	P	Pb	01 00 56.2	-0.1
VALY	Valyra	1.19	107	P	Pn	01 00 57.3	+0.8
VALY				AML	AML		
PDO	Prodromos	1.19	24	P	Pn	01 00 57.2	+0.6
PDO				AML	AML		
PDO	Prodromos	1.19	24	P	Pn	01 00 57.2	+0.6
NYDR	Nydri-Lefkada	1.21	5	P	Pn	01 00 56.9	+0.3
NYDR				AML	AML		
NYDR	Nydri-Lefkada	1.21	5	P	Pn	01 00 57.0	+0.3
AGRP	Agrapidokambos	1.28	46	P	Pb	01 00 59.1	+1.0
AGRP				AML	AML		
LKD2	Lefkada island	1.28	4	P	Pn	01 00 58.5	+0.7
LKD2				AML	AML		
LKD2	Lefkada island	1.28	4	P	Pn	01 00 58.5	+0.7
LKD2				AML	AML		
TSLK	Tsoukalades, L	1.31	3	P	Pb	01 00 59.2	+0.6
TSLK				AML	AML		
TSLK	Tsoukalades, L	1.31	3	P	Pb	01 00 59.3	+0.6
LAKA	Lakka	1.34	57	P	Pb	01 00 59.6	+0.5
LAKA				AML	AML		
LAKA	Lakka	1.34	57	P	Pb	01 00 59.7	+0.5
LAKA				AML	AML		
PVO	Paravola	1.34	35	P	Pb	01 01 00.1	+0.9
PVO				AML	AML		
PVO	Paravola	1.34	35	P	Pb	01 00 59.8	+0.7
PVO				AML	AML		
VVK	Vomvokou	1.35	47	P	Pb	01 00 59.7	+0.5
VVK				AML	AML		
VVK	Vomvokou	1.35	47	P	Pb	01 00 59.8	+0.6
VVK				AML	AML		
AIOA	Agios Ioannis,	1.37	60	P	Pg	01 01 00.5	+0.1
KLV	Kalavryta, Ach	1.37	67	P	Pb	01 01 00.3	+0.6
KLV				AML	AML		
KLV	Kalavryta, Ach	1.37	67	P	Pb	01 01 00.7	+1.0
KLV				AML	AML		
EFP	Efpalio	1.41	49	P	Pb	01 01 00.6	+0.4
EFP				AML	AML		
EFP	Efpalio	1.41	49	P	Pg	01 01 00.9	-0.1
EFP				AML	AML		
MG00	Magoula, Dorid	1.42	50	P	Pg	01 01 01.1	-0.3
MG00				AML	AML		
TEME	Temeni, Aigial	1.43	59	P	Pg	01 01 01.5	-0.1
PYRG	Pyrgos, Dorida	1.46	52	P	Pg	01 01 01.8	-0.4
PYRG				AML	AML		
GUR	Goura	1.48	73	P	Pb	01 01 01.8	+0.3
GUR				AML	AML		
GUR	Goura	1.48	73	P	Pg	01 01 02.1	-0.4
GUR				AML	AML		
SERG	Sergoula	1.49	52	P	Pb	01 01 02.1	+0.4
AMPL	Ampelaki	1.50	20	P	Pg	01 01 02.5	-0.4
AMPL				AML	AML		
AMPL	Ampelaki	1.50	20	P	Pg	01 01 02.4	-0.4
AMPL				AML	AML		
ANX	Ano Chora	1.53	45	P	Pg	01 01 02.8	-0.6
ANX				AML	AML		
ANX	Ano Chora	1.53	45	P	Pg	01 01 02.9	-0.6
KALE	Kalithea	1.53	55	P	Pg	01 01 03.2	-0.3
KALE				AML	AML		
EVR	Evrytania	1.71	35	P	Pb	01 01 05.3	-0.3
EVR				AML	AML		
THAL	Thalero	1.75	72	P	Pb	01 01 06.8	+0.7
THAL				AML	AML		
ACOR	Acrocorinthos	1.87	78	P	Pn	01 01 06.9	+0.9
ACOR				AML	AML		
TETR	Tetrakomo, Epi	1.92	17	P	Pb	01 01 09.0	0.0
TETR				AML	AML		
TETR	Tetrakomo, Epi	1.92	17	P	Pb	01 01 09.0	0.0
LOUT	Loutraki	1.98	75	P	Pb	01 01 09.6	-0.4
LOUT				AML	AML		
LTK	Loutraki	1.98	74	P	Pb	01 01 09.5	-0.5
LTK				AML	AML		
LTK	Loutraki	1.98	74	P	Pb	01 01 09.6	-0.5
LTK				AML	AML		
AGG	Agios Georgios	2.06	42	P	Pb	01 01 11.4	0.0
AGG				AML	AML		
LKR	Lokris	2.24	59	P	Pb	01 01 13.3	-1.2
LKR				AML	AML		
VILL	Villia	2.28	73	P	Pn	01 01 13.3	+1.8
VILL				AML	AML		
THL	Klokotos Trika	2.35	29	P	Pb	01 01 15.5	-0.8
SRN	Sarande	2.40	350	P	Pn	01 01 15.2	+2.0
OHR	Ohrid	3.60	3	*i* Pn	Pn	01 01 32.8	+3.1
VAY	Valandovo	4.11	22	*i* Pn	Pn	01 01 38.8	+2.1
IDI	Anoyia	4.14	121	Pn	Pn	01 01 38.1	+0.9
	14nm,1.0s,baz=303,slow=17,SNR=12						
IDI				Sn	Sn	01 02 23.5	-2.0
	0.7nm,0.3s,baz=155,slow=1.7,SNR=3.4						
PEHC	Pehcevo	4.63	22	*i* Pn	Pn	01 01 45.6	+1.7
VAE	Valguarnera	4.88	271	Pn	Pn	01 01 49.0	+1.7
	1.7nm,0.3s,baz=5.3,slow=11,SNR=6.4						
VAE				Sn	Sn	01 02 43.0	-0.9
	4.2nm,0.3s,baz=6.7,slow=6.5,SNR=7.2						
	5.5nm,0.7s						
VAE				AML	AML		
MLR	Muntele Rosu	8.94	25	Pn	Pn	01 02 43.2	+0.2
	1.8nm,0.9s,baz=146,slow=15,SNR=10						
SOKA	Soboth	10.03	338	*e*Pn	Pn	01 02 58.8	+0.8
	1.3nm,0.4s						
OBKA	Obir	10.04	336	*e*Pn	Pn	01 03 00.4	+2.3
	1.4nm,0.6s						
BRTR	Keskin Array B	10.47	74	Pn	Pn	01 03 04.8	+0.6
	baz=263,slow=12,SNR=1.6						
	0.3nm,0.8s						
KBA	Koelnbreinsper	10.94	333	*e*Pn	Pn	01 03 11.7	+1.1
	0.2nm,0.2s						
LESA	Schwarzleotal	11.48	332	*e*Pn	Pn	01 03 17.5	-0.3
	0.5nm,0.3s						
GERES	GERESS Array B	12.38	338	Pn	Pn	01 03 31.0	+0.9
	baz=175,slow=15,SNR=1.8						
	0.3nm,0.2s						
ESDC	Sonseca Array	19.27	284	P	Pn	01 04 59.5	-0.1
	0.2nm,0.3s,baz=82,slow=10.0,SNR=5.2						
HFS	Hagfors	23.06	351	P	P	01 05 38.8	-0.3
	2.1nm,0.8s,baz=169,slow=11,SNR=4.9						
	2.1nm,0.8s						
FINES	FINESS Array B	24.20	6	P	P	01 05 49.2	-1.0
	1.4nm,0.5s,baz=164,slow=10.0,SNR=11						
	1.4nm,0.5s						
TORD	Torodi Ar. Bea	29.53	220	P	P	01 06 38.5	0.0
	0.6nm,0.6s,baz=30,slow=9.1,SNR=4.1						
	0.6nm,0.6s						
MKAR	Makanchi Array	45.63	58	P	P	01 08 53.7	-0.5
	0.2nm,0.6s,baz=277,slow=9.4,SNR=4.3						
	0.2nm,0.6s						
ZALV	Zalesovo Beam	46.12	48	P	P	01 08 56.9	-1.0
	0.7nm,0.4s,baz=284,slow=7.3,SNR=1.8						
	0.7nm,0.4s						

*NNC **09** 01:21:29.0±0.4, 43°.23N×78°.74E, h0^{km}, mb2.1, mpv2.6, Error ellipse: s-maj=3.9km s-min=2.0km az=9.0*

*KRNET **09** 01:21:29.4±0.1, 43°.22N×78°.75E, h11^{km}, mb2.5*

*SOME **09** 01:21:30.5, 43°.25N×78°.72E, h15^{km}*

ISC 09 01:21:29.5±0.9**, 43°.23N**±0°.02×**78°.73E**±0°.02**, h9**^{km}±7^{km}**, n41, σ0^{s}.98**/78**, 11C-4D, Lake Issyk-Kul region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
UZB	Uzynbulak	0.23	111	P	Pg	01 21 34.4	+0.1
	31nm,0.1s						
UZB				S	Sg	01 21 37.4	-0.1
	338nm,0.1s						
UZB	Uzynbulak	0.23	111	*e*P	Pg	01 21 34.4	+0.1
	31nm,0.1s						
UZB				*e*S	Sg	01 21 37.4	-0.1
	338nm,0.1s						
KPKS	Kokpek	0.24	352	P	Pg	01 21 34.6	+0.2
	21nm,0.1s						
KPKS				S	Sg	01 21 37.9	+0.2
	110nm,0.2s						
KPKS	Kokpek	0.24	352	*e*P	Pg	01 21 34.6	+0.2
	21nm,0.1s						
KPKS				*e*S	Sg	01 21 37.9	+0.2
	110nm,0.2s						
KURS	Kuram	0.48	302	P	Pg	01 21 39.4	+0.5
	1.3nm,0.4s						
KURS				S	Sg	01 21 46.0	+0.7
	16nm,2.4s						
KURS	Kuram	0.48	302	*e*P	Pg	01 21 39.4	+0.5
	1.3nm,0.4s						
KURS				*e*S	Sg	01 21 46.0	+0.7
	16nm,2.4s						
SHLS	Shalkode	0.54	98	P	Pn	01 21 45.5	+2.0
	4.6nm,0.3s						
SHLS				S	Sn	01 21 56.4	+3.6
	3.9nm,0.2s						
SHLS	Shalkode	0.54	98	*e*P	Pn	01 21 45.5	+2.0
	4.6nm,0.3s						
SHLS				*e*S	Sn	01 21 56.5	+3.6
	3.9nm,0.2s						
PDGK	Podgornoye	0.56	80	⇑P	Pg	01 21 39.7	-0.8
	1.3nm,0.2s						
PDGK				S	Sg	01 21 47.4	-0.6
PRZ	Przheval'sk	0.79	198	⇑*e*P	Pg	01 21 43.6	-1.1
PRZ				⇑*e*S	Sg	01 21 54.3	-0.7
BLB	Baldybastay	0.88	348	P	Pg	01 21 46.5	-0.1
	6.2nm,0.1s						
BLB				S	Sg	01 21 58.1	-0.1
	3.5nm,0.3s						
ANVS	Anan'yevo	0.90	240	⇑*i*P	Pg	01 21 46.8	-0.1
ANVS				⇑*i*S	Sg	01 21 59.0	+0.4
KNOS	Konyrlen	1.17	16	P	Pb	01 21 51.8	-0.3
	2.0nm,0.1s						
KNOS				S	Sb	01 22 07.2	-0.2
	3.4nm,0.2s						
ARXS	Arharly	1.18	327	P	Pb	01 21 51.8	-0.3
	0.9nm,0.1s						
ARXS				S	Sb	01 22 07.3	-0.3
	3.9nm,0.3s						
ARXS	Arharly	1.18	327	*e*P	Pb	01 21 51.8	-0.3
	0.9nm,0.1s						
ARXS				*e*S	Sb	01 22 07.3	-0.3
	3.9nm,0.3s						
KOTS	Kotyrbulak	1.18	271	P	Pg	01 21 52.4	+0.1
	4.0nm,0.1s						
KOTS				S	Sn	01 22 08.5	-0.2
	12nm,0.3s						
KOTS	Kotyrbulak	1.18	271	*e*P	Pg	01 21 52.4	+0.1
KOTS				*e*S	Sn	01 22 08.5	-0.2
KOTS	Kotyrbulak	1.18	271	*e*P	Pg	01 21 52.4	+0.1
	4.0nm,0.1s						
KOTS				*e*S	Sn	01 22 08.5	-0.2
	12nm,0.3s						
KTMS	Ketmen	1.20	79	P	Pb	01 21 51.4	-1.2
	0.9nm,0.2s						
KTMS				S	Sb	01 22 06.4	-1.9
	1.9nm,0.2s						
KTMS	Ketmen	1.20	79	*e*P	Pb	01 21 51.4	-1.2
	0.9nm,0.2s						
KTMS				*e*S	Sb	01 22 06.4	-1.9
	1.9nm,0.2s						
MDOK	Medeo	1.23	267	Pg	Pn	01 21 52.8	-0.2
	1.8nm,0.2s						
MDOK				Lg	Lg	01 22 09.0	
	9.7nm,0.3s						
MDOK	Medeo	1.23	267	*e*P	Pn	01 21 52.9	-0.2
	1.8nm,0.2s						
MDOK				*e*S	Sb	01 22 09.0	-0.1
	9.7nm,0.3s						
TNSS	Tian-Shan	1.32	262	P	Pn	01 21 53.6	-0.9
	0.9nm,0.7s						
TNSS				S	Sb	01 22 10.3	-1.5
	1.4nm,0.3s						
TNSS	Tian-Shan	1.32	262	*e*P	Pn	01 21 53.6	-0.9
	0.9nm,0.7s						
TNSS				*e*S	Sb	01 22 10.3	-1.5
	1.4nm,0.3s						
DJR	Jarkent	1.34	35	P	Pb	01 21 54.8	-0.1
	2.4nm,0.3s						
DJR				S	Sn	01 22 12.1	-0.4
	4.3nm,0.2s						
DJR	Jarkent	1.34	35	*e*P	Pb	01 21 54.8	-0.1
	2.4nm,0.3s						
DJR				*e*S	Sn	01 22 12.1	-0.4
	4.3nm,0.2s						
KTBS	Karatobe	1.57	289	P	Pb	01 21 58.2	-0.6
	0.7nm,0.2s						
KTBS				S	Sb	01 22 18.4	-0.3
	5.7nm,0.3s						
KTBS	Karatobe	1.57	289	*e*P	Pb	01 21 58.2	-0.6
	0.7nm,0.2s						
KTBS				*e*S	Sb	01 22 18.4	-0.3
	5.7nm,0.3s						
KDJ	Kajisay	1.59	227	⇑*i*P	Pb	01 21 59.4	+0.3
KDJ				⇑*i*S	Sg	01 22 20.4	-0.2
TARG	Taragay, Kyrgy	1.65	205	⇑*i*P	Pb	01 22 00.2	-0.2
TARG				⇑*i*S	Sg	01 22 22.2	-0.4
KUU	Kurty	1.86	292	P	Pb	01 22 04.1	+0.4
	2.1nm,0.1s						
KUU				S	Sb	01 22 28.3	+1.2
	5.5nm,0.2s						
KUU	Kurty	1.86	292	*e*P	Pb	01 22 04.1	+0.4
	2.1nm,0.1s						
KUU				*e*S	Sb	01 22 28.3	+1.2
	5.5nm,0.2s						
KST	Kastek	2.03	266	Pg	Pb	01 22 06.7	-0.1
	0.6nm,0.8s						
KST				Lg	Lg	01 22 33.2	
	2.0nm,0.4s						
KST	Kastek	2.03	266	*e*P	Pb	01 22 06.7	-0.1
	0.6nm,0.8s						
KST				*e*S	Sb	01 22 33.2	+1.0
	2.0nm,0.4s						
ULHL	Ulahol	2.08	243	⇑*i*P	Pb	01 22 07.0	-0.6
ULHL				⇑*i*S	Sb	01 22 34.7	+1.1
KAPS	Kapalarasan	2.10	12	Pg	Pg	01 22 08.7	-1.1
	0.9nm,0.1s						
KAPS				Lg	Lg	01 22 36.2	
	12nm,0.2s						
KAPS	Kapalarasan	2.10	12	*e*P	Pg	01 22 08.8	-1.1
	0.9nm,0.1s						
KAPS				*e*S	Sg	01 22 36.2	-0.8
	12nm,0.2s						
BOOM	Boomskoye usch	2.18	251	⇓*e*P	Pb	01 22 08.3	-1.0
BOOM				⇓*e*S	Sb	01 22 37.1	+0.6
KRBS	Karabastau	2.27	283	Pg	Pb	01 22 11.2	+0.5
	0.7nm,0.5s						
KRBS				Lg	Lg	01 22 41.0	
	1.4nm,0.4s						
KRBS	Karabastau	2.27	283	*e*P	Pb	01 22 11.2	+0.5
	0.7nm,0.5s						
KRBS				*e*S	Sg	01 22 41.0	-1.5
	1.4nm,0.4s						
TKM2	Tokmak 2	2.32	263	⇓*i*P	Pb	01 22 10.5	-1.1
TKM2				⇓*i*S	Sb	01 22 40.5	+0.1

*IDC **09** 01:31:58.3±9.7, 4°.07N×124°.39E, h186^{km}±96^{km}, mb3.3/6, mbtmp3.8/6, Error ellipse: s-maj=106.1km s-min=19.5km az=66.0*

*DJA **09** 01:32:02.1±1.1, 4°N±11°×12°6E±°, h186^{km}±8^{km}, M4.6/7, mB5.0/1, mb4.9/1, MLv4.5/7, Mw(mB)4.3/1*

ISC 09 01:31:55.5±0.8**, 4°.38N**±0°.06×**125°.6E**±0°.2**, h176**^{km}**, n11, σ1^{s}.83**/15**, mb3.8**/6**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DDMP	Don Marcelino,	1.72	4	*e*P	Pn	01 32 30.7	+1.3
DDMP				*e*S	Sn	01 32 55.0	-0.8
KCP	Kidapawan	2.66	349	*i* P	Pn	01 32 41.6	+1.6
KCP				*i* S	Sn	01 33 14.5	-0.2
CDOP	Cateel, Davao	3.49	14	*i* P	Pn	01 32 50.8	+0.7
CDOP				*i* S	Sn	01 33 30.4	-2.4
SANI	Sanana	6.39	176	P	Pn	01 33 28.7	+0.9
SANI				S	Sn	01 34 36.7	-3.7
SANI				AML	AML		
FITZ	Fitzroy Crossi	22.33	180	P	P	01 36 39.6	+0.6
	1.1nm,0.4s,baz=0.0,slow=12,SNR=10.0						
	1.1nm,0.4s						
WRA	Warramunga Arr	25.65	161	P	P	01 37 11.2	+2.0
	0.9nm,0.7s,baz=330,slow=11,SNR=13						
	0.9nm,0.7s						
ASAR	Alice Springs	29.03	164	P	P	01 37 41.7	+2.4
	0.3nm,0.4s,baz=345,slow=7.0,SNR=12						
	0.3nm,0.4s						
MKAR	Makanchi Array	56.38	326	P	P	01 41 17.6	-0.9
	0.5nm,0.3s,baz=116,slow=7.4,SNR=11						
	0.5nm,0.3s						
KURBB	Kurchatov Arra	60.58	328	P	P	01 41 46.2	-1.2
	0.9nm,0.6s,baz=128,slow=6.2,SNR=9.2						
	0.9nm,0.6s						
BVAR	Borovoye Array	66.16	327	P	P	01 42 23.0	-1.1
	0.9nm,0.5s,baz=125,slow=7.2,SNR=4.8						
	0.9nm,0.5s						
TORD	Torodi Ar. Bea	121.63	288	PKP	PKiKP	01 50 28.7	-0.9
	1.3nm,1.1s,baz=65,slow=2.2,SNR=6.8						

*IDC **09** 01:40:34.7±9.4, 22°.05S×177°.44W, h367^{km}±85^{km}, mb3.3/4, mbtmp4.1/5, Error ellipse: s-maj=53.5km s-min=37.4km az=54.0*

ISC 09 01:40:34.1±1.9**, 22°.1S**±0°.2×**177°.6W**±0°.3**, h350**^{km}**, n7, σ0^{s}.99**/9**, mb3.5**/4**, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	16.73	195	P	P	01 44 08.1	+0.7
	3.7nm,0.4s,baz=352,slow=7.1,SNR=6.2						
URZ				S	S	01 47 03.4	-0.9
	1.9nm,0.5s,baz=336,slow=10.0,SNR=1.4						
CTA	Charters Tower	33.77	267	P	P	01 46 44.6	+0.1
	6.0nm,0.9s,baz=96,slow=9.0,SNR=2.2						
	6.0nm,0.9s						
ASAR	Alice Springs	44.57	258	P	P	01 48 13.5	+0.5
	2.2nm,0.8s,baz=92,slow=8.2,SNR=14						
ASAR				PcP	PcP	01 49 49.4	+0.2
	0.2nm,0.5s,baz=84,slow=3.4,SNR=1.8						
	2.2nm,0.8s						
WRA	Warramunga Arr	44.81	264	P	P	01 48 14.2	-0.7
	0.6nm,0.5s,baz=96,slow=8.0,SNR=8.5						
	0.6nm,0.5s						
FITZ	Fitzroy Crossi	53.24	263	P	P	01 49 17.6	-0.5
	2.6nm,1.0s,baz=96,slow=5.8,SNR=2.6						
	2.6nm,1.0s						
BRTR	Keskin Array B	148.21	311	PKPbc	PKPdf	01 59 37.0	+1.1
	0.3nm,0.4s,baz=85,slow=2.9,SNR=2.1						
GERES	GERESS Array B	151.86	344	PKPbc	PKPbc	01 59 46.4	-1.5
	0.4nm,0.3s,baz=121,slow=0.6,SNR=3.6						

*IDC **09** 01:48:20.6±1.2, 8°.47S×155°.41E, h0^{km}, mb3.9/6, mbtmp3.9/6, ML5.9/1, MS3.1/2, Error ellipse: s-maj=31.8km s-min=20.9km az=97.0*

ISC 09 01:48:26.4±1.2**, 8°.5S**±0°.1×**155°.3E**±0°.2**, h35**^{km}**, n8, σ1^{s}.32**/7**, mb3.9**/6**, Bougainville-Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRVT	Keravat (AS076	5.22	322	Pn	Pn	01 49 41.3	-0.7
	394nm,0.3s,baz=174,slow=9.2,SNR=6.7						
KRVT				AML	AML		
WRA	Warramunga Arr	23.25	238	P	P	01 53 31.3	+0.4
	1.1nm,0.7s,baz=65,slow=9.4,SNR=7.5						
	1.1nm,0.7s						
GUMO	Guam	24.20	335	LR	LR	02 01 44.1	
	comp=Z,50nm,21.5s,baz=122,slow=33						
ASAR	Alice Springs	25.44	231	P	P	01 53 49.9	-1.3
	2.5nm,0.9s,baz=64,slow=9.4,SNR=14						
	2.5nm,0.9s						
PETK	Petropavlovsk-	61.35	2	P	P	01 58 38.2	-0.2
	1.5nm,0.8s,baz=182,slow=8.7,SNR=1.6						
PETK				LR	LR	02 24 08.5	
	comp=Z,17nm,19.3s,baz=121,slow=35						
	1.5nm,0.8s						
SONM	Songino Array	70.69	327	P	P	01 59 40.8	+2.0
	1.3nm,0.9s,baz=122,slow=4.9,SNR=4.9						
	1.3nm,0.9s						
QSPA	South Pole Qui	81.54	180	P	P	02 00 40.4	+0.1
	1.0nm,0.7s,baz=292,slow=0.7,SNR=7.8						
	1.0nm,0.7s						
ILAR	Eielson Array	84.62	21	P	P	02 00 55.2	-0.7
	0.7nm,0.8s,baz=232,slow=4.7,SNR=5.5						
	0.7nm,0.8s						

*NEIC **09** 01:57:51.3±1.5, 18°.56N±0°.09×145°.7E±0°.1, h182^{km}±8^{km}, mb4.4/21, Error ellipse: s-maj=19.4km s-min=11.4km az=110.0*

*IDC **09** 01:57:57.3±4.4, 18°.55N×145°.55E, h248^{km}±43^{km}, mb3.3/12, mbtmp4.0/14, Error ellipse: s-maj=24.0km s-min=12.0km az=89.0*

ISC 09 01:57:52.3±0.6**, 18°.46N**±0°.06×**145°.6E**±0°.1**, h200**^{km}**, n43, σ1^{s}.19**/45**, mb4.1**/21**, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DPSS	Saipan	3.20	177		Pn	01 58 43.1	-1.3
DPSS				Sn	Sn	01 59 21.9	-3.3
GUMO	Guam	4.89	188	S	Sn	02 00 01.1	-1.8
	88nm,0.3s,baz=201,slow=22,SNR=4.1						
GUMO	Guam	4.89	188	Sn	Sn	02 00 01.3	-1.7
JMZ	Minamidaito 2	15.19	301		Pn	02 01 16.8	-0.1
JOW	Kunigami	18.02	301	P	Pn	02 01 50.5	-0.1
	16nm,0.8s,baz=127,slow=16,SNR=4.8						
JOW	Kunigami	18.02	301	P	P	02 01 49.6	+1.3
JOW				IAmb	IAmb	02 01 53.2	
	comp=Z,19nm,0.9s						
JGF	Kuroka	18.57	338		P	02 01 53.3	-1.1
JGF				IAmb	IAmb	02 01 57.0	
	comp=Z,7.0nm,0.7s						
MJAR	Matsushiro Arr	19.16	342	P	P	02 02 00.2	-0.4
	comp=Z,1.2nm,0.5s,baz=172,slow=11,SNR=4.7						
FAKI	Fak Fak	24.98	213	P	P	02 02 59.5	+1.7
MTN	Manton Dam	34.22	206	P	P	02 04 19.9	+0.7
MTN				IAmb	IAmb	02 04 20.6	
	comp=Z,4.7nm,0.5s						
PETK	Petropavlovsk-	35.84	12	P	P	02 04 34.0	+1.3
	comp=Z,2.2nm,0.7s,baz=181,slow=7.2,SNR=3.2						
	comp=Z,2.2nm,0.7s						
KNRA	Kununurra	37.75	207	P	P	02 04 49.6	+0.4
WB0	Warramunga Arr	39.55	197	P	P	02 05 05.3	+1.2
WB0				IAmb	IAmb	02 05 06.3	
	comp=Z,15nm,1.2s						
WR8	Warramunga Arr	39.70	196	P	P	02 05 05.8	+0.6
WR8				IAmb	IAmb	02 05 07.8	
	comp=Z,9.4nm,1.1s						
WRA	Warramunga Arr	39.73	197	P	P	02 05 06.5	+0.9
	comp=Z,2.9nm,0.4s,baz=14,slow=8.7,SNR=33						
WRA				PcP	PcP	02 07 07.9	-0.1
	comp=Z,0.4nm,0.5s,baz=23,slow=3.3,SNR=1.9						
	comp=Z,2.9nm,0.4s						
WRA	Warramunga Arr	39.73	197		P	02 05 05.8	+0.3
FITZ	Fitzroy Crossi	41.28	209		P	02 05 19.5	+1.3
SONM	Songino Array	43.27	322	P	P	02 05 33.1	-1.1
	comp=Z,0.3nm,0.3s,baz=112,slow=6.4,SNR=2.3						
	comp=Z,0.3nm,0.3s						
AS31	Alice Springs	43.39	196		P	02 05 36.3	+1.0
ASAR	Alice Springs	43.40	196	P	P	02 05 36.2	+0.9
	comp=Z,1.5nm,0.6s,baz=20,slow=9.7,SNR=26						
	comp=Z,1.5nm,0.6s						
ASAR	Alice Springs	43.40	196	P	P	02 05 36.0	+0.7
MBWA	Marble Bar	46.82	214	P	P	02 06 03.1	+0.8
MBWA				IAmb	IAmb	02 06 09.5	
	comp=Z,17nm,1.4s						
ARMA	Armidale	48.94	173	P	P	02 06 19.9	+1.5
ARMA				IAmb	IAmb	02 06 42.4	
	comp=Z,20nm,1.5s						
GIRL	Giralia	51.07	218	P	P	02 06 35.5	+0.9
BBOO	Buckleboo	51.79	190	P	P	02 06 41.2	+1.6
BBOO				IAmb	IAmb	02 06 52.8	
	comp=Z,16nm,1.2s						
MORW	Morawa	55.20	212	P	P	02 07 04.9	+0.3
MORW				IAmb	IAmb	02 07 29.5	
	comp=Z,12nm,1.4s						
O15K	Ungalikthiuk R	56.42	30	P	P	02 07 13.9	+1.1
ZALV	Zalesovo Beam	58.15	323	P	P	02 07 23.0	-1.9
	comp=Z,0.3nm,0.4s,baz=125,slow=7.2,SNR=1.4						
	comp=Z,0.3nm,0.4s						
MKAR	Makanchi Array	58.56	314	P	P	02 07 28.0	0.0
	comp=Z,0.3nm,0.5s,baz=86,slow=8.4,SNR=4.9						
	comp=Z,0.3nm,0.5s						

MKAR	**Makanchi Array**	**58.56**	**314**	P	**P**	**02 07 27.3**	**-0.8**
C19K	**Lookout Ridge**	**60.66**	**20**	P	**P**	**02 07 42.8**	**+0.8**
J20K	**Nowinta River**	**60.72**	**26**	P	**P**	**02 07 42.9**	**+0.6**
J20K				IAmb	IAmb	02 08 06.2	
	comp=Z,5.2nm,1.3s						
D19K	**Kuna River**	**60.87**	**21**	P	**P**	**02 07 43.6**	**+0.3**
D19K				IAmb	IAmb	02 07 56.6	
	comp=Z,11nm,1.4s						
CAST	**Castle Rocks**	**61.35**	**27**	P	**P**	**02 07 47.4**	**+0.7**
KURBB	**Kurchatov Arra**	**61.44**	**318**	P	**P**	**02 07 46.9**	**-0.5**
	comp=Z,0.8nm,0.4s,baz=97,slow=7.5,SNR=13						
	comp=Z,0.8nm,0.4s						
ILAR	**Eielson Array**	**63.90**	**26**	P	**P**	**02 08 02.1**	**-1.4**
	comp=Z,0.7nm,0.8s,baz=275,slow=7.2,SNR=5.1						
	comp=Z,0.7nm,0.8s						
BVAR	**Borovoye Array**	**66.60**	**320**	P	**P**	**02 08 20.9**	**-0.1**
	comp=Z,1.5nm,0.4s,baz=92,slow=8.3,SNR=10.0						
	comp=Z,1.5nm,0.4s						
NVAR	**Mina Array Bea**	**83.36**	**52**	P	**P**	**02 09 58.2**	**+0.7**
	comp=Z,0.6nm,0.7s,baz=276,slow=4.9,SNR=6.6						
	comp=Z,0.6nm,0.7s						
NVAR	**Mina Array Bea**	**83.36**	**52**	P	**P**	**02 09 57.3**	**-0.2**
FINES	**FINESS Array B**	**87.06**	**335**	P	**P**	**02 10 12.9**	**-2.1**
	comp=Z,1.6nm,0.8s,baz=61,slow=5.5,SNR=5.3						
	comp=Z,1.6nm,0.8s						
FINES	**FINESS Array B**	**87.06**	**335**	P	**P**	**02 10 13.2**	**-1.9**
PDAR	**Pinedale Array**	**88.06**	**45**	P	**P**	**02 10 19.5**	**-1.0**
	comp=Z,0.1nm,0.5s,baz=320,slow=7.3,SNR=1.7						
	comp=Z,0.1nm,0.5s						
PDAR	**Pinedale Array**	**88.06**	**45**	P	**P**	**02 10 20.3**	**-0.2**

WEL 09 02:20:54.6±0.9, 32°S±6°×17°.8E±°, h12^{km}, M4.1/8, mB4.7/5, ML4.1/10, MLv4.2/8, Mw(mB)4.0/5, Error ellipse: s-maj=12.2km s-min=5.3km az=119.4, confirmed, Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GLKZ	**Green Lake**	**4.04**	**56**	S	Sn	02 22 44.3	+0.8
OUZ	**Omahuta**	**5.32**	**226**	S	Sn	02 23 15.9	+1.0
MXZ	**Matakaoa Point**	**5.97**	**179**	P	Pn	02 22 25.9	+3.1
MXZ				S	Sn	02 23 33.2	+2.1
MXZ				AML	AML		
MXZ				AML	AML		
HAZ	**Te Kaha**	**6.18**	**183**	P	Pn	02 22 27.4	+1.8
HAZ				S	Sn	02 23 39.5	+3.3
HAZ				AML	AML		
HAZ				AML	AML		
WMGZ	**Waiomatatini S**	**6.23**	**179**	P	Pn	02 22 26.6	+0.3
WMGZ				S	Sn	02 23 38.8	+1.4
WMGZ				AML	AML		
WMGZ				AML	AML		
PKGZ	**Pakihiroa**	**6.28**	**181**	P	Pn	02 22 26.8	-0.2
PKGZ				S	Sn	02 23 40.2	+1.5
PKGZ				AML	AML		
PKGZ				AML	AML		
RUGZ	**Raukumara Rang**	**6.39**	**184**	P	Pn	02 22 28.4	-0.2
RUGZ				S	Sn	02 23 42.6	+1.0
RUGZ				AML	AML		
RUGZ				AML	AML		
PUZ	**Puketiti**	**6.48**	**180**	P	Pn	02 22 28.9	-0.9
PUZ				S	Sn	02 23 43.2	-0.5
PUZ				AML	AML		
URZ	**Urewera**	**6.73**	**188**	P	Pn	02 22 33.4	+0.2
URZ				S	Sn	02 23 51.1	+1.3
URZ				AML	AML		
URZ				AML	AML		
MWZ	**Matawai**	**6.77**	**185**	P	Pn	02 22 33.4	-0.3
MWZ				AML	AML		
MWZ				AML	AML		
CNGZ	**Carnagh Statio**	**6.89**	**180**	P	Pn	02 22 31.9	-3.5
CNGZ				AML	AML		
MUGZ	**Murupara**	**6.99**	**189**	P	Pn	02 22 37.3	+0.6
MUGZ				AML	AML		
MUGZ				AML	AML		
RTZ	**Ruatahuna**	**7.10**	**188**	P	Pn	02 22 38.2	-0.2
RTZ				S	Sn	02 23 57.9	-1.0
RTZ				AML	AML		
RTZ				AML	AML		
RIGZ	**Rimuhau**	**7.13**	**183**	P	Pn	02 22 37.9	-0.8
RIGZ				S	Sn	02 23 58.9	-0.7
RIGZ				AML	AML		
RIGZ				AML	AML		

IDC 09 02:33:50.6±7.6, 8°.87S×128°.84E, h234^{km}±80^{km}, mb3.2/2, mbtmp3.8/4, MS3.5/1, Error ellipse: s-maj=129.5km s-min=32.9km az=64.0, Timor Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**12.22**	**155**	P	Pn	02 36 35.5	-2.0
	0.7nm,0.3s,baz=332,slow=13,SNR=12						
WRA				S	S	02 38 55.6	+2.6
	4.8nm,0.6s,baz=336,slow=23,SNR=13						
ASAR	**Alice Springs**	**15.49**	**162**	P	Pn	02 37 17.1	-0.3
	4.2nm,0.6s,baz=342,slow=11,SNR=33						
ASAR				S	S	02 40 09.9	+2.0
	1.5nm,0.6s,baz=326,slow=20,SNR=5.1						
STKA	**Stephens Creek**	**25.77**	**154**	P	P	02 39 00.3	+0.1
	1.3nm,0.3s,baz=338,slow=11,SNR=4.1						
	1.3nm,0.3s						
MSVF	**Nonsavu**	**48.57**	**106**	LR	LR	03 04 07.7	
	comp=Z,51nm,18.2s,baz=112,slow=37						
MKAR	**Makanchi Array**	**69.17**	**328**	P	P	02 44 32.1	+0.2
	0.2nm,0.5s,baz=117,slow=6.3,SNR=1.6						
	0.2nm,0.5s						

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*KRNET **09** 02:37:55.6±0.1, 40°.93N×72°.91E, h17^{km}, mb3.1*

*NNC **09** 02:37:57.2±1.3, 40°.99N×72°.96E, h0^{km}, mb3.6, mpv3.2, Error ellipse: s-maj=10.7km s-min=5.0km az=173.0*

*ISU **09** 02:37:57, 40°.98N×72°.87E, h26^{km}*

*SOME **09** 02:37:57.2, 41°.05N×73°.00E, h10^{km}*

ISC 09 02:37:53.8±1.1, 40°.96N±0°.02×73°.00E±0°.02, h4^{km}±10^{km}, n51, σ1^{s}.26/90, 18C-30D, Kyrgyzstan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ARSB	**Arslanbob**	**0.37**	**358**	⇓*i*P	**Pb**	**02 38 03.9**	**+1.0**
ARSB				⇓*i*S	**Sb**	**02 38 09.3**	**+0.2**
OHH	**Osh**	**0.46**	**200**	⇓*i*P	**Pg**	**02 38 03.4**	**+0.8**
OHH				⇓*i*S	**Sg**	**02 38 09.5**	**+0.8**
TSTA	**Tashata**	**0.55**	**226**	P	**Pb**	**02 38 05.6**	**-0.3**
TSTA				S	**Sb**	**02 38 13.6**	**-0.5**
SALK	**Salom-Alik**	**0.63**	**96**	⇓*i*P	**Pn**	**02 38 08.9**	**-0.7**
SALK				⇓*i*S	**Sb**	**02 38 18.2**	**+1.6**
SFK	**Sufi-Kurgan**	**1.02**	**157**	⇓*i*P	**Pb**	**02 38 14.8**	**+0.7**
SFK				⇓*i*S	**Sb**	**02 38 28.4**	**+0.5**
FRG	**Fergana**	**1.09**	**238**	P	**Pn**	**02 38 16.7**	**+0.9**
FRG				S	**Sn**	**02 38 31.5**	**+0.2**
ARK	**Arkit**	**1.14**	**318**	⇓*e*P	**Pn**	**02 38 17.0**	**+0.3**
ARK				⇓*e*S	**Sb**	**02 38 31.7**	**+0.3**
TRKS	**Terek-Say**	**1.51**	**293**	⇓*i*P	**Pn**	**02 38 21.9**	**+0.2**
TRKS				⇓*i*S	**Sn**	**02 38 40.9**	**-1.0**
MNAS	**Manas**	**1.57**	**347**	⇑*i*P	**Pg**	**02 38 24.8**	**+0.9**
MNAS				⇑*i*S	**Sg**	**02 38 46.0**	**+1.7**
UCH	**Uchtor**	**1.71**	**41**	⇓*i*P	**Pg**	**02 38 28.2**	**+1.7**
UCH				⇓*i*S	**Sg**	**02 38 51.9**	**+3.3**
DRK	**Karamyk**	**1.74**	**212**	⇓*i*P	**Pb**	**02 38 26.4**	**+0.1**
DRK				⇓*i*S	**Sn**	**02 38 48.7**	**+1.1**
MRKS	**Merke**	**1.79**	**5**	P	**Pg**	**02 38 30.0**	**+1.8**
	41nm,0.3s						
MRKS				S	**Sg**	**02 38 53.9**	**+2.4**
	44nm,0.3s						
MRKS	**Merke**	**1.79**	**5**	*e*P	**Pg**	**02 38 30.0**	**+1.8**
	41nm,0.3s						
MRKS				*e*S	**Sg**	**02 38 53.9**	**+2.4**
	44nm,0.3s						
EKS2	**Erkin-Say**	**1.80**	**19**	⇓*i*P	**Pg**	**02 38 29.2**	**+0.9**
EKS2				⇓*i*S	**Sg**	**02 38 53.7**	**+2.0**
BTK	**Batken**	**1.89**	**242**	⇓*i*P	**Pb**	**02 38 28.8**	**0.0**
BTK				⇓*i*S	**Sb**	**02 38 52.8**	**+0.1**
AAK	**Ala-Archa**	**2.02**	**33**	⇑Pn	**Pg**	**02 38 33.8**	**+1.3**
	2.9nm,0.5s						
AAK				⇑Sn	**Sg**	**02 38 60.0**	**+1.3**
	4.4nm,0.6s						
AAK	**Ala-Archa**	**2.02**	**33**	⇓*i*P	**Pg**	**02 38 32.3**	**-0.2**
AAK				⇓*i*S	**Sg**	**02 38 59.1**	**+0.4**
PSK	**Pskem**	**2.20**	**297**	P	**Pg**	**02 38 35.6**	**-0.3**
PSK				S	**Sg**	**02 39 04.2**	**-0.1**
FRU1	**Bishkek**	**2.22**	**33**	⇓*i*P	**Pg**	**02 38 35.2**	**-1.1**
FRU1				⇓*i*S	**Sg**	**02 39 04.2**	**-0.8**
KBK	**Karagaybulak**	**2.24**	**40**	⇑*i*P	**Pg**	**02 38 35.6**	**-1.1**
KBK				⇑*i*S	**Sg**	**02 39 04.8**	**-0.9**
NRN	**Naryn**	**2.32**	**77**	⇑*i*P	**Pb**	**02 38 36.4**	**+0.1**
NRN				⇑*i*S	**Sb**	**02 39 06.1**	**+0.7**
CHMG	**Chimgan**	**2.33**	**286**	P	**Pg**	**02 38 38.7**	**+0.3**
CHMG				S	**Sg**	**02 39 09.1**	**+0.6**
CHRV	**Charvak**	**2.39**	**288**	S	**Sg**	**02 39 10.8**	**+0.2**
CHMS	**Chumysh**	**2.42**	**32**	⇓*i*P	**Pb**	**02 38 38.0**	**+0.1**
CHMS				⇓*i*S	**Sb**	**02 39 08.8**	**+0.6**
IUG	**Iuzhnay**	**2.52**	**299**	Pg	**Pg**	**02 38 41.9**	**-0.2**
	28nm,0.3s						
IUG				Lg	Lg	02 39 14.9	
	45nm,0.4s						
IUG	**Iuzhnay**	**2.52**	**299**	*e*P	**Pg**	**02 38 41.9**	**-0.2**
	28nm,0.3s						
IUG				*e*S	**Sg**	**02 39 14.9**	**+0.1**
	45nm,0.4s						
USP	**Ospenovka**	**2.57**	**25**	⇑*i*P	**Pb**	**02 38 39.8**	**-0.6**
USP				⇑*i*S	**Sb**	**02 39 12.0**	**-0.2**
TVKS	**Tavaksay**	**2.59**	**285**	P	**Pg**	**02 38 42.9**	**-0.6**
TVKS				S	**Sg**	**02 39 16.6**	**-0.5**
BOOM	**Boomskoye usch**	**2.68**	**54**	⇓*i*P	**Pb**	**02 38 41.9**	**-0.6**
BOOM				⇓*i*S	**Sb**	**02 39 15.6**	**-0.2**
ULHL	**Ulahol**	**2.75**	**61**	⇑*i*P	**Pb**	**02 38 42.8**	**-0.9**
ULHL				⇑*i*S	**Sb**	**02 39 17.1**	**-0.7**
TKM2	**Tokmak 2**	**2.76**	**44**	⇑*i*P	**Pb**	**02 38 42.9**	**-0.9**
TKM2				⇑*i*S	**Sb**	**02 39 17.2**	**-0.8**
SGDS	**Sogindy**	**2.77**	**25**	Pg	**Pg**	**02 38 47.0**	**0.0**
	2.8nm,0.3s						
SGDS				Lg	Lg	02 39 22.8	
	6.3nm,0.6s						
KK31	**Karatay Array**	**2.83**	**320**	⇑Pn	**Pb**	**02 38 43.5**	**-1.4**
	1.0nm,0.3s,baz=126,slow=12,SNR=28						
KK31				⇑Lg	Lg	02 39 25.3	
	9.8nm,0.7s,baz=138,slow=30,SNR=4.1						
KST	**Kastek**	**3.04**	**46**	Pg	**Pg**	**02 38 52.1**	**+0.1**
	1.7nm,0.5s						
KST				Lg	Lg	02 39 31.6	
	7.6nm,0.8s						
KST	**Kastek**	**3.04**	**46**	*e*P	**Pg**	**02 38 52.1**	**+0.1**
	1.7nm,0.5s						
KST				*e*S	**Sg**	**02 39 31.6**	**+0.2**
	7.6nm,0.8s						
BRLS	**Borolday**	**3.14**	**312**	Pg	**Pg**	**02 38 52.1**	**-1.8**
	6.5nm,0.2s						
BRLS				Lg	Lg	02 39 31.7	
	4.4nm,0.4s						
BRLS	**Borolday**	**3.14**	**312**	*e*P	**Pg**	**02 38 52.1**	**-1.8**
	6.5nm,0.2s						
BRLS				*e*S	**Sg**	**02 39 31.7**	**-2.8**
	4.4nm,0.4s						
KDJ	**Kajisay**	**3.35**	**68**	⇑*i*P	**Pb**	**02 38 51.3**	**-2.5**
KDJ				⇑*i*S	**Sb**	**02 39 31.8**	**-3.2**
KRBS	**Karabastau**	**3.38**	**35**	Pg	**Pg**	**02 38 58.6**	**0.0**
	3.4nm,0.6s						
KRBS				Lg	Lg	02 39 42.6	
	0.9nm,0.5s						
KRBS	**Karabastau**	**3.38**	**35**	*e*P	**Pg**	**02 38 58.5**	**0.0**
	3.4nm,0.6s						
KRBS				*e*S	**Sg**	**02 39 42.6**	**+0.2**
	0.9nm,0.5s						
TARG	**Taragay, Kyrgy**	**3.70**	**76**	⇓*i*P	**Pb**	**02 38 56.1**	**-3.8**
TARG				⇓*i*S	**Sn**	**02 39 40.2**	**+3.9**
MDOK	**Medeo**	**3.74**	**53**	Pg	**Pg**	**02 39 05.1**	**-0.3**
	6.0nm,0.6s						
MDOK				Lg	Lg	02 39 53.8	
	8.7nm,0.9s						
MDOK	**Medeo**	**3.74**	**53**	*e*P	**Pg**	**02 39 05.1**	**-0.3**
	6.0nm,0.6s						
MDOK				*e*S	**Sg**	**02 39 53.8**	**0.0**
	8.7nm,0.9s						
KTBS	**Karatobe**	**3.88**	**44**	Pg	**Pg**	**02 39 07.4**	**-0.7**
	2.1nm,0.8s						
KTBS				Lg	Lg	02 39 57.8	
	3.6nm,0.5s						
KTBS	**Karatobe**	**3.88**	**44**	*e*P	**Pg**	**02 39 07.4**	**-0.7**
	2.1nm,0.8s						
KTBS				*e*S	**Sg**	**02 39 57.8**	**-0.5**
	3.6nm,0.5s						
SATY	**Saty**	**4.55**	**61**	Pg	**Pg**	**02 39 20.2**	**-0.7**
	0.9nm,0.4s						
SATY				Lg	Lg	02 40 19.7	
	4.5nm,1.0s						
SATY	**Saty**	**4.55**	**61**	*e*P	**Pg**	**02 39 20.2**	**-0.7**
	0.9nm,0.4s						
SATY				*e*S	**Sg**	**02 40 19.7**	**0.0**
	4.5nm,1.0s						
ARXS	**Arharly**	**4.83**	**46**	Pg	**Pg**	**02 39 26.0**	**-0.3**
	2.2nm,0.5s						
ARXS				Lg	Lg	02 40 29.8	
	3.7nm,0.6s						
ARXS	**Arharly**	**4.83**	**46**	*e*P	**Pg**	**02 39 26.0**	**-0.3**
	2.2nm,0.5s						
ARXS				*e*S	**Sg**	**02 40 29.8**	**+1.0**
	3.7nm,0.6s						
UZB	**Uzynbulak**	**4.99**	**62**	Pg	**Pg**	**02 39 27.8**	**-1.6**
	2.2nm,0.3s						
UZB				Lg	Lg	02 40 32.8	
	2.0nm,1.2s						
UZB	**Uzynbulak**	**4.99**	**62**	*e*P	**Pg**	**02 39 27.8**	**-1.6**
UZB				*e*S	**Sg**	**02 40 32.8**	**-1.3**

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*NIED **09** 02:45:26.7, 39°.63N×142°.11E, h49^{km}, MW3.9, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}4.96; $M_{\theta\theta}$-0.47; $M_{\phi\phi}$-4.48; $M_{r\theta}$2.06; $M_{\theta\phi}$-0.55; $M_{\phi r}$4.29; Fault plane solution: M_{0}6.72000×10^{14} NP1: ϕ_{s}179.00000°, δ24.00000°, λ70.00000°. NP2:ϕ_{s}20.00000°, δ68.00000°, λ98.00000°.*

*JMA **09** 02:45:26.7±0.1, 39°.6N±0°.2×142°.1E±0°.2, h49^{km}, MD3.8/40, MV3.9/40, E OFF IWATE PREF*

JMA Felt II J1 at E OFF IWATE PREF .

*NEIC **09** 02:45:27.7±1.4, 39°.69N±0°.05×142°.09E±0°.09, h54^{km}±3^{km}, mb4.2/22, Error ellipse: s-maj=10.4km s-min=7.7km az=93.0*

*IDC **09** 02:45:29.6±3.0, 39°.58N×142°.12E, h79^{km}±25^{km}, mb3.6/14, mbtmp4.0/18, MS2.4/1, Error ellipse: s-maj=28.4km s-min=17.1km az=74.0*

ISC 09 02:45:26.4±0.9, 39°.61N±0°.03×142°.16E±0°.08, h48^{km}±7^{km}, n76, σ1^{s}.14/85, mb4.1/25, 14D, Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MIYJ	**Miyakonagasawa**	**0.26**	**263**	⇓*i*P	**Pn**	**02 45 35.2**	**+0.1**
MIYJ				A	A	02 45 35.2	
	comp=N,11nm,0.2s,comp=E,21nm,0.3s						
MIYJ				⇓S	**Sn**	**02 45 41.0**	**-0.2**
JTH	**Tanohata**	**0.40**	**325**	*i* P	**Pn**	**02 45 36.3**	**0.0**
JTH				A	A	02 45 36.3	
	comp=N,12nm,0.3s,comp=E,21nm,0.5s						
JTH				S	**Sn**	**02 45 43.0**	**-0.5**
OFUJ	**Ofunato**	**0.65**	**216**	*i* P	**Pn**	**02 45 39.6**	**+0.1**
OFUJ				S	**Sn**	**02 45 48.5**	**-0.3**
JOM	**Ohasama**	**0.68**	**259**	⇓*i*P	**Pn**	**02 45 40.0**	**+0.1**
JOM				A	A	02 45 40.0	
	comp=N,15nm,0.5s,comp=E,23nm,0.5s						
JOM				⇓S	**Sn**	**02 45 49.5**	**0.0**
JKZ	**Kuzumaki**	**0.74**	**301**	⇓*i*P	**Pn**	**02 45 40.6**	**-0.1**
JKZ				⇓S	**Sn**	**02 45 50.2**	**-0.8**
JANG	**Nango**	**0.91**	**327**	⇓*i*P	**Pn**	**02 45 42.5**	**-0.4**
JANG				⇓S	**Sn**	**02 45 53.8**	**-1.1**
JMK	**Ichinoseki**	**0.98**	**228**	⇓*i*P	**Pn**	**02 45 44.1**	**+0.3**
JMK				⇓S	**Sn**	**02 45 56.4**	**-0.2**
JRG	**Rokugo**	**1.20**	**260**	⇓*i*P	**Pn**	**02 45 46.9**	**+0.1**
JRG				⇓*e*S	**Sn**	**02 46 01.7**	**-0.3**
JAH	**Hinai**	**1.31**	**297**	⇓*i*P	**Pn**	**02 45 48.4**	**+0.2**
JAH				⇓*e*S	**Sn**	**02 46 05.2**	**+0.7**
JIO	**Ouri**	**1.32**	**209**	*i* P	**Pn**	**02 45 48.9**	**+0.6**
JIO				*e*S	**Sn**	**02 46 05.1**	**+0.4**
JTM	**Tenmabayashi**	**1.44**	**325**		**Pn**	**02 45 50.0**	**-0.1**
JTM				Sn	**Sn**	**02 46 07.0**	**-0.8**
JTM	**Tenmabayashi**	**1.44**	**325**	P	**Pn**	**02 45 50.1**	**+0.1**
JTM				*e*S	**Sn**	**02 46 07.4**	**-0.4**
ERM	**Erimo**	**2.52**	**17**		**Pn**	**02 46 05.6**	**+0.8**
ERM				Sn	**Sn**	**02 46 34.7**	**+0.4**
MJAR	**Matsushiro Arr**	**4.37**	**227**	P	**Pn**	**02 46 33.3**	**+3.0**
	comp=E,13nm,0.6s,baz=33,slow=13,SNR=29						
MJAR				S	**Sn**	**02 47 18.3**	**-1.6**
	comp=E,2.1nm,0.6s,baz=62,slow=11,SNR=4.1						
MJAR	**Matsushiro Arr**	**4.37**	**227**		**Pn**	**02 46 32.8**	**+2.5**
MJB9	**Matsu-Tunnel**	**4.37**	**227**		**Pn**	**02 46 33.3**	**+3.0**
MAJO	**Matsushiro**	**4.37**	**227**		**Pn**	**02 46 33.0**	**+2.8**
JKA	**Kamikawa-asahi**	**4.51**	**4**	Pn	**Pn**	**02 46 31.3**	**-0.9**
JGF	**Kuroka**	**5.53**	**225**		**Pn**	**02 46 48.3**	**+2.1**
JHJ	**Hachijo jima 2**	**6.76**	**197**	P	**Pn**	**02 47 04.0**	**+1.0**
	comp=E,13nm,0.4s,baz=31,slow=15,SNR=0.9						
JHJ				S	**Sn**	**02 48 14.1**	**-4.5**
	comp=E,42nm,0.7s,baz=69,slow=18,SNR=1.4						
USA0B	**Ussuriysk Arra**	**8.86**	**304**	Pn	**Pn**	**02 47 33.3**	**+1.6**
USRK	**Ussuriysk Ar.**	**8.86**	**304**	P	**Pn**	**02 47 34.7**	**+3.0**
	comp=E,4.6nm,0.7s,baz=119,slow=14,SNR=6.2						
USRK	**Ussuriysk Ar.**	**8.86**	**304**		**Pn**	**02 47 34.0**	**+2.3**
KSRS	**Korea Array**	**11.36**	**264**	P	Pn	02 48 10.3	+4.4
	comp=E,1.8nm,0.4s,baz=70,slow=14,SNR=5.6						
KSRS				LR	LR	02 52 04.9	
	comp=E,17nm,20.4s,baz=225,slow=35						
HILR	**Hailar Array B**	**18.74**	**309**	P	**P**	**02 49 39.4**	**-1.6**
	comp=E,3.0nm,0.3s,baz=111,slow=7.9,SNR=9.2						
SONM	**Songino Array**	**26.93**	**300**	P	**P**	**02 51 03.8**	**+0.7**
	comp=E,0.5nm,0.4s,baz=91,slow=8.1,SNR=1.8						
	comp=E,0.5nm,0.4s						
SONM	**Songino Array**	**26.93**	**300**	P	**P**	**02 51 02.9**	**-0.2**
H11N2	**WAKE ISLAND Hy**	**29.07**	**126**	T	T	03 22 02.2	
	baz=318,slow=75,SNR=522						
H11N1	**WAKE ISLAND Hy**	**29.08**	**126**	T	T	03 21 59.8	
	baz=318,slow=75,SNR=698						
H11N3	**WAKE ISLAND Hy**	**29.09**	**126**	T	T	03 22 00.6	
	baz=318,slow=75,SNR=786						
H11S1	**WAKE ISLAND Hy**	**29.87**	**128**	T	T	03 22 58.3	
	baz=319,slow=76,SNR=71						
H11S3	**WAKE ISLAND Hy**	**29.87**	**128**	T	T	03 22 58.0	
	baz=319,slow=76,SNR=86						
H11S2	**WAKE ISLAND Hy**	**29.89**	**128**	T	T	03 23 01.6	
	baz=319,slow=76,SNR=75						
ZAA0	**Zalesovo Array**	**40.66**	**310**	P	**P**	**02 53 00.5**	**-1.1**
ZAA0				IAmb	IAmb	02 53 01.9	
	comp=Z,2.8nm,1.0s						
ZALV	**Zalesovo Beam**	**40.66**	**310**	P	**P**	**02 53 01.5**	**-0.1**
	comp=Z,1.8nm,0.4s,baz=82,slow=8.8,SNR=8.9						
ZALV				PcP	**PcP**	**02 55 02.7**	**+0.1**
	comp=Z,0.8nm,0.4s,baz=96,slow=3.9,SNR=3.4						
	comp=Z,1.8nm,0.4s						
ZALV	**Zalesovo Beam**	**40.66**	**310**	P	**P**	**02 53 01.0**	**-0.6**
G18K	**Tagagawik**	**42.14**	**32**	P	**P**	**02 53 13.9**	**+0.2**
G18K				IAmb	IAmb	02 53 28.1	
	comp=Z,7.2nm,1.2s						
F19K	**Shaleruckik Mo**	**42.63**	**30**	P	**P**	**02 53 18.1**	**+0.6**
F19K				IAmb	IAmb	02 53 40.8	
	comp=Z,8.0nm,1.4s						
E19K	**Redstone River**	**42.94**	**30**	P	**P**	**02 53 21.3**	**+1.3**
E19K				IAmb	IAmb	02 53 33.3	
	comp=Z,8.2nm,1.4s						
MK31	**Makanchi Array**	**43.29**	**300**	P	**P**	**02 53 22.3**	**-1.0**
MKAR	**Makanchi Array**	**43.29**	**300**	P	**P**	**02 53 23.1**	**-0.1**
	comp=Z,1.8nm,0.7s,baz=82,slow=8.9,SNR=12						
	comp=Z,1.8nm,0.7s						
MKAR	**Makanchi Array**	**43.29**	**300**	P	**P**	**02 53 22.5**	**-0.7**
MAKZ	**Makanchi**	**43.50**	**300**	P	**P**	**02 53 24.6**	**-0.3**
MAKZ				IAmb	IAmb	02 53 25.5	
	comp=Z,4.6nm,1.2s						
IMAR	**Indian Mountai**	**44.15**	**32**	P	**P**	**02 53 29.8**	**0.0**
KURK	**Kurchatov**	**44.84**	**306**	P	**P**	**02 53 34.7**	**-0.8**
KURK				IAmb	IAmb	02 53 53.8	
	comp=Z,3.5nm,0.8s						
KURBB	**Kurchatov Arra**	**44.92**	**306**	P	**P**	**02 53 35.7**	**-0.4**
	comp=Z,3.3nm,0.6s,baz=80,slow=8.4,SNR=27						
	comp=Z,3.3nm,0.6s						
E22K	**Anaktuvuk Pass**	**45.06**	**29**	P	**P**	**02 53 38.3**	**+1.2**
E22K				IAmb	IAmb	02 53 40.3	
	comp=Z,2.7nm,0.8s						
E24K	**Your Creek**	**46.30**	**29**	P	**P**	**02 53 48.0**	**+1.0**
E24K				IAmb	IAmb	02 54 15.1	
	comp=Z,5.7nm,1.4s						
ILAR	**Eielson Array**	**47.02**	**34**	P	**P**	**02 53 53.2**	**+0.7**
	comp=Z,0.4nm,0.6s,baz=267,slow=6.3,SNR=7.9						
	comp=Z,0.4nm,0.6s						
D25K	**Kavik River**	**47.09**	**27**	P	**P**	**02 53 53.7**	**+0.6**
D25K				IAmb	IAmb	02 54 31.4	
	comp=Z,4.2nm,1.2s						
BMAR	**Burnt Mountain**	**47.80**	**30**	P	**P**	**02 53 58.9**	**+0.3**
BVAR	**Borovoye Array**	**49.30**	**311**	P	**P**	**02 54 10.2**	**-0.1**
	comp=Z,1.0nm,0.5s,baz=61,slow=7.4,SNR=3.9						
	comp=Z,1.0nm,0.5s						
E29M	**Blow River**	**50.22**	**28**	P	**P**	**02 54 18.3**	**+1.2**
E29M				IAmb	IAmb	02 54 57.4	
	comp=Z,2.0nm,1.1s						
INK	**Inuvik**	**51.83**	**28**	P	**P**	**02 54 29.2**	**+0.1**
INK				IAmb	IAmb	02 54 34.1	
	comp=Z,8.1nm,1.4s						
KKAR	**Karatay Array**	**52.37**	**299**	P	**P**	**02 54 33.0**	**-0.6**
ARTI	**Arti**	**54.95**	**318**	P	**P**	**02 54 51.6**	**-0.5**
GSI	**Gunungsitoli**	**55.64**	**238**	P	**P**	**02 54 58.3**	**+0.7**
AB31	**Akbulak array**	**56.75**	**309**	P	**P**	**02 55 04.9**	**-0.3**
ABKAR	**Akbulak array**	**56.75**	**309**	P	**P**	**02 55 04.9**	**-0.3**
WB0	**Warramunga Arr**	**59.51**	**188**	P	**P**	**02 55 23.4**	**-1.2**
WRA	**Warramunga Arr**	**59.69**	**189**	P	**P**	**02 55 25.2**	**-0.7**
	comp=Z,0.6nm,0.6s,baz=9.3,slow=6.7,SNR=3.2						
	comp=Z,0.6nm,0.6s						
WRA	**Warramunga Arr**	**59.69**	**189**	P	**P**	**02 55 24.6**	**-1.3**
ARCES	**ARCESS Array B**	**61.80**	**339**	P	**P**	**02 55 39.2**	**-0.5**
	comp=Z,3.0nm,1.1s,baz=46,slow=5.2,SNR=4.1						
	comp=Z,3.0nm,1.1s						
AS31	**Alice Springs**	**63.42**	**188**	P	**P**	**02 55 52.4**	**+1.4**
ASAR	**Alice Springs**	**63.42**	**188**	P	**P**	**02 55 51.1**	**+0.1**
	comp=Z,0.5nm,0.8s,baz=25,slow=9.9,SNR=4.9						
	comp=Z,0.5nm,0.8s						
ASAR	**Alice Springs**	**63.42**	**188**	P	**P**	**02 55 51.4**	**+0.3**
FINES	**FINESS Array B**	**66.81**	**332**	P	**P**	**02 56 12.2**	**-0.4**
	comp=Z,3.7nm,1.0s,baz=38,slow=9.6,SNR=8.3						
	comp=Z,3.7nm,1.0s						
FINES	**FINESS Array B**	**66.81**	**332**	P	**P**	**02 56 12.4**	**-0.2**
NC405	**NORSAR Array S**	**71.83**	**337**	P	**P**	**02 56 43.2**	**-0.5**
HFS	**Hagfors**	**71.98**	**336**	P	**P**	**02 56 44.3**	**-0.2**
	comp=Z,0.7nm,0.3s,baz=38,slow=7.5,SNR=8.0						
	comp=Z,0.7nm,0.3s						
NB2	**NORSAR Subarra**	**72.04**	**337**	P	**P**	**02 56 44.9**	**0.0**
	comp=Z,0.3nm,0.4s,baz=36,slow=6.2						
NOA	**NORSAR Array B**	**72.04**	**337**	P	**P**	**02 56 44.9**	**0.0**
	comp=Z,0.8nm,0.6s,baz=35,slow=7.1,SNR=1.2						
	comp=Z,0.8nm,0.6s						
AKASG	**Malin Array Be**	**72.62**	**322**	P	**P**	**02 56 47.7**	**-0.8**
	comp=Z,0.5nm,0.5s,baz=46,slow=6.6,SNR=2.7						
	comp=Z,0.5nm,0.5s						
PDAR	**Pinedale Array**	**75.45**	**46**	P	**P**	**02 57 05.8**	**+0.2**
BURAR	**Bucovina Array**	**76.66**	**322**	P	**P**	**02 57 12.4**	**+0.4**
GERES	**GERESS Array B**	**80.83**	**328**	P	**P**	**02 57 35.4**	**+0.4**
	comp=Z,0.3nm,0.3s,baz=56,slow=3.4,SNR=3.5						
	comp=Z,0.3nm,0.3s						

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*IDC **09** 02:55:53.2±0.7, 35°.30N×135°.57E, h367^{km}±7^{km}, mb2.8/11, mbtmp3.7/17, Error ellipse: s-maj=13.6km s-min=12.2km az=58.0*

*JMA **09** 02:55:53.0±0.2, 35°N±1°×135°.6E±0°.8, h364^{km}±1^{km}, MV3.2/58, WESTERN FUKUI PREF*

ISC 09 02:55:53.0±0.6, 35°.44N±0°.07×135°.59E±0°.05, h362^{km}±6^{km}, n39, σ1^{s}.16/51, mb3.2/11, Western Honshu

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JWT	**Wachi**	**0.22**	**225**	P	**Pn**	**02 56 38.8**	**+0.6**
JWT				S	**S**	**02 57 13.8**	**-0.7**
JKY	**Yasaka**	**0.44**	**295**	P	**Pn**	**02 56 39.1**	**+0.8**
JKY				*e*S	**S**	**02 57 15.0**	**+0.1**
JYTA	**Yamagatataniai**	**0.94**	**80**	P	**Pn**	**02 56 40.6**	**+0.9**
JYTA				S	**S**	**02 57 17.5**	**+0.3**
JKG	**Kaga**	**1.03**	**35**	P	**Pn**	**02 56 40.7**	**+0.8**
JIE	**Ise**	**1.39**	**139**	P	**Pn**	**02 56 42.5**	**+0.7**
JIE				*e*S	**S**	**02 57 20.4**	**-0.5**
JTNC	**Tanabenakahech**	**1.62**	**179**	P	**Pn**	**02 56 43.2**	**+0.1**
JTNC				S	**S**	**02 57 21.8**	**-1.5**
JAI	**Aioi**	**1.90**	**210**	*e*P	**Pn**	**02 56 44.8**	**+0.1**
JAI				*e*S	**S**	**02 57 25.7**	**-0.6**
TTO1	**TONANKAI O.B.S**	**2.06**	**151**	P	**Pn**	**02 56 46.6**	**+1.1**
JHS	**Saijyo**	**2.08**	**258**	P	**Pn**	**02 56 46.2**	**+0.3**
JHS				*e*S	**S**	**02 57 28.6**	**+0.1**
JOI	**OKI**	**2.08**	**295**	*e*P	**Pn**	**02 56 46.2**	**+0.4**
JMN	**Monobe**	**2.22**	**220**	*e*P	**Pn**	**02 56 47.4**	**+0.4**
MAT	**Matsushiro**	**2.39**	**62**	*e*P	**Pn**	**02 56 48.8**	**+0.7**
MJAR	**Matsushiro Arr**	**2.39**	**62**	P	**Pn**	**02 56 49.2**	**+1.1**
	3.5nm,0.5s,baz=243,slow=7.7,SNR=11						
MJAR				S	**S**	**02 57 34.8**	**+2.2**
	1.6nm,0.7s,baz=298,slow=22,SNR=1.4						
JYN	**Shimob**	**2.41**	**88**	*e*P	**Pn**	**02 56 48.8**	**+0.4**
JGT2	**ShimaneMisato**	**2.55**	**262**	P	**Pn**	**02 56 49.4**	**0.0**
JRY	**Ryogami san**	**2.75**	**77**	*e*P	**Pn**	**02 56 51.6**	**+0.5**

JOD2	Odawara 2	2.86	93	eP	Pn	02 56 53.7	+1.7
JNA	Nagahama	3.19	235	P	Pn	02 56 55.6	+0.7
JAG	Ashikaga	3.28	71	P	Pn	02 56 55.5	-0.2
JAG				eS	S	02 57 45.0	-1.3
JHJ	Hachijo jima 2	4.17	123	P	Pn	02 57 05.3	+0.8
	28nm,0.5s,baz=220,slow=23,SNR=1.7						
JHJ				S	S	02 58 03.9	+1.7
	20nm,0.3s,baz=284,slow=23,SNR=7.3						
JNU	Nakatsue	4.54	241	P	Pn	02 57 08.7	+0.4
	12nm,0.5s,baz=24,slow=1.7,SNR=14						
JFK	Kawauchi	4.67	64	P	Pn	02 57 09.0	-0.6
JFK				S	S	02 58 08.0	-3.6
JMM	Marumori	4.83	58	P	Pn	02 57 11.4	+0.2
JMM				S	S	02 58 13.5	-1.1
KSRS	Korea Array	6.50	290	P	P	02 57 31.1	+0.1
	7.6nm,0.4s,baz=106,slow=12,SNR=25						
USRK	Ussuriysk Ar.	9.18	344	P	P	02 58 02.7	+0.2
	26nm,0.7s,baz=158,slow=11,SNR=32						
JOW	Kunigami	10.62	218	P	Pn	02 58 16.3	-2.1
	12nm,0.9s,baz=67,slow=13,SNR=2.5						
KLR	Kul'dur	14.07	350	P	P	02 58 53.8	-2.8
	2.3nm,0.6s,baz=186,slow=11,SNR=4.8						
SONM	Songino Array	24.93	309	P	P	03 00 45.9	+1.2
	0.5nm,0.7s,baz=110,slow=12,SNR=1.1						
	0.5nm,0.7s						
MKAR	Makanchi Array	41.00	303	P	P	03 03 01.9	-0.1
	0.3nm,0.5s,baz=84,slow=11,SNR=2.7						
	0.3nm,0.5s						
KURBB	Kurchatov Arra	43.30	309	P	P	03 03 21.6	+1.4
	0.2nm,0.5s,baz=91,slow=9.4,SNR=4.4						
	0.2nm,0.5s						
ILAR	Eielson Array	53.33	31	P	P	03 04 36.6	+0.8
	0.3nm,0.5s,baz=265,slow=5.7,SNR=8.8						
	0.3nm,0.5s						
WRA	Warramunga Arr	55.09	181	P	P	03 04 47.1	-1.8
	0.4nm,0.4s,baz=358,slow=7.3,SNR=7.8						
	0.4nm,0.4s						
ASAR	Alice Springs	58.81	182	P	P	03 05 12.9	-1.7
	0.1nm,0.3s,baz=1.9,slow=6.6,SNR=1.7						
	0.1nm,0.3s						
YKA	Yellowknife Ar	67.49	28	P	P	03 06 11.3	+0.7
	0.3nm,0.5s,baz=300,slow=6.3,SNR=1.8						
	0.3nm,0.5s						
FINES	FINESS Array B	67.96	331	P	P	03 06 13.3	-0.2
	1.8nm,0.9s,baz=46,slow=5.5,SNR=5.0						
	1.8nm,0.9s						
HFS	Hagfors	73.51	334	P	P	03 06 46.4	-0.3
	0.8nm,0.6s,baz=40,slow=5.6,SNR=1.5						
	0.8nm,0.6s						
NOA	NORSAR Array B	73.75	335	P	P	03 06 47.4	-0.6
	0.3nm,0.6s,baz=49,slow=6.1,SNR=1.0						
	0.3nm,0.6s						
NVAR	Mina Array Bea	79.66	50	P	P	03 07 22.9	+1.4
	0.2nm,0.5s,baz=317,slow=6.7,SNR=1.4						
	0.2nm,0.5s						
LPAZ	La Paz	151.50	54	PKPbc	PKPbc	03 15 05.8	0.0
	0.5nm,0.6s,baz=0.0,slow=2.0,SNR=2.1						

IDC 09 03:04:17.3±3.4, 17.°28S×174.°06W, h560km±39km, mb2.7/4, mbtmp3.6/5, Error ellipse: s-maj=38.9km s-min=31.3km az=163.0, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	Nonsavu	7.54	265	P	P	03 06 10.9	0.0
	2.1nm,0.4s,baz=162,slow=14,SNR=1.6						
WRA	Warramunga Arr	48.82	258	P	P	03 12 12.0	-0.3
	0.3nm,0.4s,baz=98,slow=6.8,SNR=5.9						
	0.3nm,0.4s						
ASAR	Alice Springs	48.95	253	P	P	03 12 13.2	0.0
	0.4nm,0.4s,baz=93,slow=7.7,SNR=6.4						
	0.4nm,0.4s						
VNDA	Vanda	61.45	186	P	P	03 13 39.2	0.0
	0.6nm,0.6s,baz=84,slow=21,SNR=7.7						
	0.6nm,0.6s						
TXAR	Lajitas Array	82.18	56	P	P	03 15 40.4	-0.1
	0.2nm,0.7s,baz=239,slow=5.0,SNR=2.5						
	0.2nm,0.7s						

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*VIE **09** 03:10:50.9±0.2, 50.°13N×19.°29E, h0km, mb2.1/2, ml2.4/3, Error ellipse: s-maj=2.8km s-min=1.7km az=158.0 20 km SE of Sosnowice Suspected Mining induced.*

*IPEC **09** 03:10:50.7±0.1, 50.°11N×19.°28E, h1km, ML2.3/5, Error ellipse: s-maj=1.7km s-min=0.8km az=1.0*

PRU 09 03:10:51.9, 50.°17N×19.°27E, h0km, Poland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OJC	Ojcow	0.34	81	ePg	Pg	03 10 57.5	-1.0
OJC				eSg	Sg	03 11 02.3	-0.6
OKC	Ostrava-Krasne	0.80	246	ePG	Pg	03 11 06.9	-0.3
OKC				eSG	Sg	03 11 17.7	+0.2
	comp=Z,27nm,0.4s						
OKC				AML	AML		
STEB	Steborice	0.99	257	ePG	Pg	03 11 10.0	-0.9
STEB				eSG	Sg	03 11 22.7	-1.1
	comp=Z,77nm,0.4s						
STEB				AML	AML		
NIE	Niedzica	1.01	138	ePg	Pg	03 11 08.8	-2.4
NIE				eSg	Sg	03 11 22.8	-1.3
LANS	Liptovska Anna	1.03	173	ePG	Pg	03 11 09.6	-2.0
LANS				eSG	Sg	03 11 23.2	-1.7
LANS				eLG	Lg	03 11 29.0	
MORC	Moravsky Berou	1.18	251	ePg	Pg	03 11 13.3	-1.2
	baz=73						
MORC				eSg	Sg	03 11 27.3	-2.6
	59nm,0.7s,baz=73						
MORC				AML	AML		
MORC	Moravsky Berou	1.18	251	ePG	Pg	03 11 13.4	-1.1
MORC				eSG	Sg	03 11 27.4	-2.5
ANAC	Anensky vrch	1.22	266	ePg	Pg	03 11 14.1	-1.2
	baz=88						
ANAC				eSg	Sg	03 11 29.1	-2.0
	baz=88						
MAUC	Maruska	1.23	230	ePG	Pg	03 11 14.3	-1.2
MAUC				eSG	Sg	03 11 31.7	+0.2
LOSC	Losov	1.34	247	ePg	Pg	03 11 15.7	-1.9
	baz=68						
LOSC				eSg	Sg	03 11 32.1	-3.0
	32nm,0.4s,baz=68						
LOSC				AML	AML		
STHS	Stebnicka Huta	1.48	120	ePG	Pn	03 11 16.8	-3.1
STHS				eSG	Sn	03 11 40.2	+0.2
KRLC	Kraliky	1.60	268	ePG	Pn	03 11 20.0	-1.5
KRLC				eSG	Sn	03 11 42.3	-0.7
	comp=Z,16nm,0.4s						
KRLC				AML	AML		
JAVC	Velka Javorina	1.68	219	ePn	Pn	03 11 20.5	-2.0
	baz=40						
JAVC	Velka Javorina	1.68	219	ePN	Pn	03 11 20.6	-1.9
VYHS	Vyhne	1.70	190	ePG	Pn	03 11 20.1	-2.7
VYHS				eSG	Sn	03 11 41.8	-3.5
KECS	Kecovo	1.87	154	ePG	Pn	03 11 23.4	-1.7
KECS				eSG	Sn	03 11 47.3	-2.0
DPC	Dobruska-Polom	1.90	277	ePG	Pb	03 11 26.7	-0.8
DPC				eSG	Sb	03 11 52.0	+0.2
	comp=Z,16nm,0.4s						
DPC				AML	AML		
VRAC	Vranov	1.94	245	ePn	Pn	03 11 24.5	-1.6
	baz=64						
VRAC				eSg	Sn	03 11 50.8	-0.4
	16nm,0.6s,baz=64						
VRAC				AML	AML		
VRAC	Vranov	1.94	245	ePN	Pn	03 11 24.6	-1.5
VRAC				eSG	Sn	03 11 50.9	-0.3
OSTC	Ostas	1.99	282	ePG	Pb	03 11 28.3	-0.7
OSTC				eSG	Sg	03 11 55.9	0.0
	comp=Z,10nm,0.6s						
OSTC				AML	AML		
KSP	Ksiaz	2.02	291	ePg	Pb	03 11 29.2	-0.2
KSP				eSg	Sg	03 11 56.5	-0.1
CHVC	Chvalec	2.10	283	ePG	Pn	03 11 29.0	+0.7
CHVC				eSG	Sg	03 11 59.2	-0.1
	comp=Z,7.5nm,0.5s						
CHVC				AML	AML		
UPC	Upice	2.12	280	ePG	Pb	03 11 30.5	-0.6
UPC				eSG	Sb	03 11 58.6	+0.7
	comp=Z,10nm,0.8s						
UPC				AML	AML		
KRUC	Moravsky	2.17	240	ePn	Pn	03 11 27.6	-1.7
	baz=60						
KRUC				eSg	Sn	03 11 58.1	+1.2
	16nm,0.7s,baz=60						
KRUC				AML	AML		
KRUC	Moravsky	2.17	240	ePN	Pn	03 11 27.7	-1.6
KRUC				eSG	Sn	03 11 58.2	+1.3
CONA	Conrad Observa	3.17	226	ePn	Pn	03 11 41.7	-1.4
	0.8nm,0.5s						
CONA				eSn	Sn	03 12 20.8	-0.9
	1.1nm,0.4s						
BRG	Berggiesshubel	3.47	284	Pg	Pg	03 12 01.6	+3.2
BRG				Sg	Sg	03 12 40.7	-2.6
BRG				Amp		03 12 48.5	
	comp=Z,4.8nm,0.4s						
KHC	Kasperske Hory	3.84	256	eSG	Sg	03 12 52.9	-2.4
	comp=Z,9.1nm,0.6s						
KHC				AML	AML		
CLL	Collm	4.14	288	i Sg	Sg	03 13 04.2	-0.6
	comp=Z,5.0nm,0.6s						

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*SCB **09** 03:17:53.1±0.9, 21.°29S×67.°88W, h132km±19km, ML3.7/2, Error ellipse: s-maj=7.6km s-min=6.0km az=1.0*

*GUC **09** 03:17:54.3±0.8, 21.°24S×68.°05W, h166km±7km, ML3.4*

ISC 09 03:17:52.5±1.7, 21.°24S±0.°05×67.°98W±0.°10, h166km±18km, n26, σ0.s93/37, 2D, Chile-Bolivia border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PB09	IPOC Station P	1.30	244⇓	iP	Pn	03 18 22.3	+0.7
PB09				eS	Sn	03 18 44.0	+0.1
PB09				IAML		03 18 47.4	
	comp=N,90nm,0.2s						
PB09	IPOC Station P	1.30	244	P	Pn	03 18 21.1	-0.5
PB08	IPOC Station P	1.55	315	i P	Pn	03 18 25.2	+1.0
PB08				eS	Sn	03 18 49.0	+0.4
PB08				IAML		03 18 50.1	
	comp=E,376nm,0.4s						
PB08	IPOC Station P	1.55	315	P	Pn	03 18 24.5	+0.3
PB02	IPOC Station P	1.79	267	i P	Pn	03 18 26.7	+0.4
PB02				eS	Sn	03 18 52.1	-0.5
PB02				IAML		03 18 53.4	
	comp=E,401nm,0.5s						
PB02	IPOC Station P	1.79	267	P	Pn	03 18 26.8	+0.4
PB02				S	Sn	03 18 52.6	+0.1
PB02				IAML		03 18 53.5	
	comp=E,367nm,0.4s						
PB03	IPOC Station P	1.83	244	eP	Pn	03 18 27.5	+0.6
PB03				eS	Sn	03 18 52.7	-0.9
GO01	Chusmiza	1.93	324	eP	Pn	03 18 29.3	+0.9
GO01				eS	Sn	03 18 56.5	+0.4
GO01				IAML		03 19 00.1	
	comp=N,394nm,0.3s						
GO01	Chusmiza	1.93	324	P	Pn	03 18 28.9	+0.5
PB06	IPOC Station P	2.08	225	eP	Pn	03 18 30.2	+0.6
PB06				eS	Sn	03 18 58.3	-0.2
PB06				IAML		03 19 00.8	
	comp=E,245nm,0.1s						
PB06	IPOC Station P	2.08	225	P	Pn	03 18 29.7	+0.1
PB11	IPOC Station P	2.15	313	i P	Pn	03 18 30.8	+0.2
PB11				eS	Sn	03 18 59.1	-0.8
PB11				IAML		03 19 01.3	
	comp=E,426nm,0.3s						
PB11	IPOC Station P	2.15	313	P	Pn	03 18 30.9	+0.4
PB11				S	Sn	03 18 59.5	-0.4
PB11				IAML		03 19 01.3	
	comp=E,378nm,0.2s						
PSGCX	Pisagua	2.59	309	eP	Pn	03 18 35.5	-0.1
PSGCX				eS	Sn	03 19 07.2	-1.8
PB05	IPOC Station P	2.61	232⇓	eP	Pn	03 18 36.2	+0.3
PB05				eS	Sn	03 19 07.7	-1.9
PB05				IAML		03 19 09.4	
	comp=N,72nm,0.4s						
SOEO	Opoqueri	2.66	2	P	Pn	03 18 37.5	+0.6
PB16	IPOC Station P	3.23	333	P	Pn	03 18 45.2	+1.3
PB12	IPOC Station P	3.42	319	eP	Pn	03 18 44.9	-1.0
AOEA	Aiquile	3.99	41	P	Pn	03 18 53.6	+0.2
PB14	IPOC Station P	4.04	213	P	Pn	03 18 54.3	+0.3
BBOJ	La Paz, Jacaqu	4.24	357	P	Pn	03 18 57.7	+0.8
SOEJ	Jacaque	4.24	357	P	Pn	03 18 58.2	+1.3
BBOD	La Paz, Gloria	4.61	353	P	Pn	03 19 02.7	+1.0
LPAZ	La Paz	4.92	358	P	Pn	03 19 07.1	+1.3
BBOB	La Paz, Bander	5.07	358	P	Pn	03 19 08.9	+1.2
SIV	San Ignacio	8.37	53	P	Pn	03 19 48.5	-2.4

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*AZER **09** 03:19:34.0, 41.°63N×46.°30E, h5km, ml1.8*

*MOS **09** 03:19:35.2, 41.°89N×46.°35E, h25km, MPVA3.0*

*NORS **09** 03:19:35.5, 41.°92N×46.°29E, h13km, MPVA2.9*

*DRS **09** 03:19:37.1, 41.°95N×46.°42E, h24km*

ISC 09 03:19:35.7±1.1, 41.°88N±0.°03×46.°33E±0.°04, h6km±11km, n22, σ1.s19/40, Eastern Caucasus

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZKTA	Zakatala	0.33	137	P	Pg	03 19 42.3	+0.3
ZKTA				S	Sg	03 19 47.4	+1.1
KMKR	Kumukh	0.63	66	ePg	Pb	03 19 48.6	-0.6
KMKR				eSg	Sb	03 19 58.3	0.0
GNBR	Gunib	0.70	43	ePg	Pb	03 19 50.0	-0.3
GNBR				eSg	Sb	03 19 60.0	-0.2
XNZR	Khunzakh	0.72	23	ePg	Pb	03 19 51.0	+0.2
XNZR				eSg	Sb	03 20 01.4	+0.4
BTLR	Botlikh	0.79	354	ePg	Pg	03 19 51.2	+0.3
BTLR				eSg	Sb	03 20 02.6	-0.3
ARKR	Arakani	0.88	34	ePg	Pb	03 19 53.3	-0.1
ARKR				eSg	Sb	03 20 05.6	+0.3
UNCR	Uncukul	0.90	22	ePg	Pb	03 19 53.9	+0.1
UNCR				eSg	Sn	03 20 06.8	-1.6
SEKA	Sheki	0.94	135	P	Pg	03 19 53.7	+0.1
SEKA				S	Sg	03 20 07.9	+2.2
URKR	Urkarakh	1.01	73	ePg	Pb	03 19 55.8	0.0
URKR				eSg	Sn	03 20 10.1	-1.1
KRNR	Karanay	1.04	24	ePg	Pb	03 19 55.8	-0.4
KRNR				eSg	Sn	03 20 10.2	-1.7
DVE	Vedeno	1.09	352	ePg	Pg	03 19 56.9	+0.3
DVE				eSg	Sn	03 20 12.6	-0.4
QZX	Qazax, Azerbai	1.09	222	P	Pg	03 19 54.3	-2.2
QZX				S	Sg	03 20 10.1	-0.6
BUJR	Buynaksk	1.11	31	ePg	Pg	03 19 56.7	-0.3
BUJR				eSg	Sn	03 20 12.1	-1.4
AKT	Akhty	1.12	110	ePg	Pg	03 19 57.0	-0.3
AKT				eSg	Sb	03 20 12.9	+0.5
DBC	Dubki	1.20	18	ePg	Pg	03 19 57.8	-0.9
DBC				eSg	Sb	03 20 13.8	-0.9
DLMR	Dylym	1.21	11	ePg	Pg	03 19 58.1	-0.8
DLMR				eSg	Sb	03 20 14.7	-0.2
GANJ	Ganja	1.23	180	P	Pn	03 19 56.4	-3.0
GANJ				S	Sg	03 20 13.2	-2.0
GDB	GEDABAY	1.23	201	P	Pn	03 19 56.1	-3.5
GDB				S	Sg	03 20 12.2	-3.1
GROC	Groznyy	1.38	344	ePg	Pg	03 20 04.1	+2.0
GROC				eSg	Sn	03 20 23.5	+3.4
QSAR	Qusar	1.49	103	Pn	Pn	03 20 04.0	+0.9
XNQ	Khinaliq	1.53	117	Pn	Pn	03 20 04.6	+0.9
XNQ				Sn	Sn	03 20 24.8	+0.7
LACR	Lac	1.78	303	ePg	Pn	03 20 07.0	-0.1
LACR				eSg	Sn	03 20 31.1	+1.0

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*MAN **09** 03:41:05.0, 3.°79N×126.°74E, h1km, MS5.5*

*MOS **09** 03:41:12.5±1.0, 4.°19N×126.°56E, h11km, mb5.5/52, MS5.1/15, Error ellipse: s-maj=8.2km s-min=4.0km az=114.1*

*IDC **09** 03:41:12.4±0.3, 4.°11N×126.°66E, h0km, mb5.0/36, mbtmp4.9/38, ML4.5/2, MS4.8/67, Error ellipse: s-maj=15.6km s-min=7.9km az=80.0*

*BJI **09** 03:41:13.8, 3.°69N×126.°79E, h43km, mB5.4/50, mb5.0/80, Ms5.3/85, Ms7 5.2/84*

*NEIC **09** 03:41:14.9±1.9, 4.°18N±0.°05×126.°68E±0.°07, h10km±1km, mb5.4/92, Mww5.4/15, Error ellipse: s-maj=12.8km s-min=8.5km az=68.0*

*GFZ **09** 03:41:14.8, 4.°16N×126.°74E, h38km, Mw5.4/70, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}1.05; $M_{\theta\theta}$0.31; $M_{\phi\phi}$-1.35; $M_{r\theta}$-0.13; $M_{\theta\phi}$-0.56; $M_{\phi r}$-0.65; Fault plane solution: $M_0$1.50715×10^{17} NP1: ϕ_s192.71731°, δ58.81999°, λ84.50588°. NP2: ϕ_s23.24194°, δ31.61228°, λ98.99059°. Principal axes: T 1.2132, Plg75.5284°, Azm86.9987°; N 0.4739, Plg4.6985°, Azm195.5682°; P -1.6872, Plg13.6561°, Azm286.7124°;*

*GCMT **09** 03:41:17.9±0.1, 4.°15N±0.°01×126.°56E±0.°01, h24km, MW5.5/138, Moment Tensor Solution. s138,c251; s134,c221; Duration: 1.s4 Moment tensor: Scale 10^{17} Nm; M_{rr}0.99±.03; $M_{\theta\theta}$0.60±.02; $M_{\phi\phi}$-1.59±.03; $M_{r\theta}$-2.03±.06; $M_{\theta\phi}$-0.94±.02; $M_{\phi r}$-0.14±.05; Best double couple: $M_0$2.57600×10^{17} NP1: ϕ_s349.00000°, δ41.00000°, λ23.00000°. NP2: ϕ_s241.00000°, δ75.00000°, λ128.00000°. Principal axes: T 2.8980, Plg46.0000°, Azm190.0000°; N -0.6450, Plg37.0000°, Azm49.0000°; P -2.2540, Plg21.0000°, Azm303.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*NEIC **09** 03:41:18.5, 4.°17N×126.°75E, h35km*

*NEIC **09** 03:41:19, 4.°07N×126.°65E, h24km, Moment Tensor Solution. Duration: 2.s6 Moment tensor: Scale 10^{17}Nm; M_{rr}1.06; $M_{\theta\theta}$0.20; $M_{\phi\phi}$-1.26; $M_{r\theta}$-0.07; $M_{\theta\phi}$-0.80; $M_{\phi r}$-0.35; Fault plane solution: $M_0$1.46000×10^{17} NP1: ϕ_s32.35000°, δ38.30000°, λ102.38000°. NP2: ϕ_s196.72000°, δ52.75000°, λ80.39000°. Principal axes: T 1.1153, Plg79.0000°, Azm67.0000°; N 0.5433, Plg8.0000°, Azm203.0000°; P -1.6585, Plg7.0000°, Azm294.0000°;*

*GFZ **09** 03:41:19.2±0.3, 4°N±2°×12°7E±°, h44km±2km, M5.3/127, mb5.4/127 Error ellipse: s-maj=4.8km s-min=3.1km az=69.9, confirmed*

*DJA **09** 03:41:21.1±0.2, 4°N±2°×12°7E±°, h57km±2km, M5.5/117, mB5.9/86, mb5.4/117, MLv5.9/30, Mw5.5/59, Mw(mB)5.5/86, MwMwp5.2/28, Mwp5.4/28*

ISC 09 03:41:17.4±0.4, 4.°14N±0.°02×126.°65E±0.°03, h33km±1km, h35km:pP-P, n1004, σ1.s76/1056, mb5.3/262, MS5.0/113, 39C-15D, Talaud Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DDMP	Don Marcelino,	2.16	334	eP	Pn	03 41 49.8	-1.3
DDMP				eS	Sb	03 42 23.6	+1.2
GAMI	Galela, Maluku	2.55	154	P	Pn	03 41 56.9	+0.4
GSPH	General Santos	2.57	319	i P	Pn	03 41 56.3	-0.5
GSPH				i S	Sn	03 42 30.2	+3.2
DAV	Davao City (W)	3.10	340	Pn	Pn	03 42 04.6	+0.6
	81nm,0.3s,baz=110,slow=0.5,SNR=16						
DAV				Sn	Sb	03 42 44.4	-4.9
	253nm,0.3s,baz=20,slow=19,SNR=6.1						
DAV				LR	LR	03 43 35.7	
	comp=Z,66μm,18.4s,baz=126,slow=46						
	343nm,0.5s						
DAV				AML	AML		
DAV	Davao City (W)	3.10	340	P	Pb	03 42 09.8	-2.1
DAV	Davao City (W)	3.10	340		Pn	03 42 04.5	+0.6
DAV					Sn	03 42 39.7	-0.2
DAV	Davao City (W)	3.10	340	P	Pb	03 42 08.0	-3.9
DAV				AML	AML		
DAV	Davao City (W)	3.10	340	P	Pn	03 42 03.7	-0.3
DAV	Davao City (W)	3.10	340	P	Pb	03 42 08.0	-3.9
DMPH	Davao City--Mi	3.14	339	eP	Pn	03 42 04.6	+0.1
DMPH				i S	Sb	03 42 51.9	+1.5
MNI	Manado	3.23	214	P	Pn	03 42 07.8	+2.0
MNI				AML	AML		
KCP	Kidapawan	3.25	332	i P	Pn	03 42 07.4	+1.3
KCP				eS	Sb	03 42 53.5	0.0
TNTI	Ternate	3.42	168	P	Pn	03 42 09.9	+1.5
TNTI	Ternate	3.42	168		Pn	03 42 09.4	+1.0
TNTI	Ternate	3.42	168	P	Pn	03 42 09.4	+1.0
TNTI	Ternate	3.42	168	P	Pn	03 42 09.6	+1.1
CDOP	Cateel, Davao	3.63	357	eP	Pn	03 42 13.0	+1.8
CDOP				i S	Sb	03 43 01.8	-2.6
CTBH	Cotabato--PC H	3.88	322	eP	Pn	03 42 15.9	+1.1
BIPH	Bislig	4.03	356	i P	Pn	03 42 18.1	+1.4
BIPH				i S	Sb	03 43 10.9	-5.0
BUKP	Musuan	4.04	337	i P	Pn	03 42 18.6	+1.7
CGP	Cagayan de Oro	4.71	336	i P	Pn	03 42 28.0	+2.0
CGP				i S	Sb	03 43 39.5	+4.0
GTOI	Gorontalo	5.03	226	P	Pn	03 42 32.4	+1.8
	10μm10μm628nm,1.0s						
ZCP	Zamboanga City	5.33	302	eP	Pn	03 42 35.4	+0.7
ZCP				eS	Sn	03 43 39.1	+4.1
DCPH	Dipolog City	5.50	324	i P	Pn	03 42 43.7	+6.8
DCPH				i S	Sb	03 44 08.8	+11
SCPH	Surigao	5.72	348	eP	Pn	03 42 30.9	-9.2
SCPH				eS		03 42 43.0	
LSIP	Lazi, Siquijor	5.79	329	i P	Pn	03 42 44.7	+3.7
LSIP				eS	Sb	03 44 18.2	+12
TBP	Tagbilaran	6.17	334	eP	Pn	03 42 46.8	+0.5
SNPH	Sibulan	6.18	327	eP	Pn	03 42 53.4	+7.0
SNPH				eS	Sn	03 43 58.6	+2.5
SANI	Sanana	6.18	186	P	Pn	03 42 45.5	-1.0
SANI	Sanana	6.18	186	S	Sn	03 43 54.5	-1.5
SANI	Sanana	6.18	186	P	Pn	03 42 45.4	-1.0
	8μm6μm307nm,1.1s						
SANI	Sanana	6.18	186	P	Pn	03 42 45.4	-1.0
	comp=Z,306nm,1.0s						
LUWI	Luwuk	6.44	217	P	Pn	03 42 51.6	+1.6
LUWI	Luwuk	6.44	217		Pn	03 42 52.4	+2.5
LUWI	Luwuk	6.44	217	P	Pn	03 42 55.3	+5.3
LUWI	Luwuk	6.44	217	P	Pn	03 42 52.9	+3.0
	comp=Z,4μm,1.2s						
TOLI2	Tolitoli	6.59	243	P	Pn	03 42 51.9	-0.1
TOLI2	Tolitoli	6.59	243	S	Sn	03 44 07.4	+1.4
TOLI2	Tolitoli	6.59	243		Pn	03 42 51.8	-0.2
TOLI2	Tolitoli	6.59	243	P	Pn	03 42 52.2	+0.2
	comp=Z,365nm,1.1s						
LLP	Lapu-Lapu	6.69	337	eP	Pn	03 42 54.7	+1.3
LLP				eS	Sb	03 44 29.2	-3.2
SWI	Sorong	6.78	137	P	Pn	03 42 55.9	+1.4
PLP	Palo	7.17	347	eP	Pn	03 43 02.4	+2.4
PLP				eS	Sb	03 44 45.4	-1.0
NLAI	Namlea	7.34	176	P	Pn	03 43 03.4	+1.1
	comp=Z,6μmcomp=Z,338nm,1.0s						
MECP	Medelin, Cebu	7.46	339	eP	Pn	03 43 09.5	+5.5
MECP				eS		03 43 17.6	
MSAI	Masohi	7.78	163	P	Pn	03 43 12.6	+4.3
	comp=Z,2.4nmcomp=Z,12μmcomp=Z,646nm,0.9s						
MSAI				AML	AML		
MSAI	Masohi	7.78	163	P	Pn	03 43 10.5	+2.2
	comp=Z,366nm,0.9s						
AAI	Ambon	7.93	169	P	Pn	03 43 10.8	+0.4
	comp=Z,323nm,0.8s						
AAI	Ambon	7.93	169	P	Pn	03 43 11.1	+0.7
JAP	San Jose, Anti	8.05	325	eP	Pn	03 43 19.4	+7.3
MYLDM	Lahad Datu	8.19	278	P	Pn	03 43 17.2	+3.3
MYLDM	Lahad Datu	8.19	278	S	Sn	03 44 49.4	+4.0
MYLDM	Lahad Datu	8.19	278		Pn	03 43 15.9	+2.0
MYLDM	Lahad Datu	8.19	278	P	Pn	03 43 17.7	+3.7
	comp=Z,557nm,1.5s						
PCI	Palu	8.45	234	P	Pn	03 43 23.6	+6.0
	comp=Z,1.7nmcomp=Z,8μmcomp=Z,8μmcomp=Z,261nm,1.0s						
PCI				AML	AML		
I39PW	PALAU INFRASON	8.55	66	I	I	04 38 00.0	
	baz=248,slow=315,SNR=1.4						
MMPH	Masbate	8.70	340	eP	Pn	03 43 27.2	+6.3
IBAJ	Ibajay, Aklan	8.82	330	eP	Pn	03 43 27.9	+5.3
MWPI	Manokwari, Pap	8.94	124	P	Pn	03 43 37.7	+13
FAKI	Fak Fak	8.97	141	P	Pn	03 43 26.5	+1.8
FAKI	Fak Fak	8.97	141	S	Sn	03 45 04.2	-0.5
FAKI	Fak Fak	8.97	141		Pn	03 43 25.5	+0.8
FAKI	Fak Fak	8.97	141	P	Pn	03 43 27.7	+3.0
	comp=Z,0.9nmcomp=Z,16μmcomp=Z,3μmcomp=Z,307nm,0.9s						
FAKI				AML	AML		
FAKI	Fak Fak	8.97	141	P	Pn	03 43 27.4	+2.7
	comp=Z,311nm,1.0s						
KDI	Kendari	8.99	207	P	Pn	03 43 25.9	+0.9
	comp=Z,1.8nmcomp=Z,4μmcomp=Z,7μmcomp=Z,446nm,1.4s						
KDI				AML	AML		
BNDI	Bandanaira	9.20	159	P	Pn	03 43 30.0	+2.2
BNDI	Bandanaira	9.20	159	P	Pn	03 43 44.3	+16
PPR	Puerto Princes	9.65	306	i P	Pn	03 43 36.4	+2.4
MMSI	Mamuju	10.29	229	P	Pn	03 43 47.5	+4.7
	comp=Z,7μmcomp=Z,5μmcomp=Z,379nm,1.4s						
MMSI	Mamuju	10.29	229	P	Pn	03 43 44.8	+2.1
	comp=Z,5μm,1.4s						
GQP	Guinayangan	10.55	337	eP	Pn	03 43 51.7	+5.4
KKM	Kota Kinabalu	10.56	281	P	Pn	03 43 49.4	+2.8
KKM	Kota Kinabalu	10.56	281		Pn	03 43 48.7	+2.1
KKM	Kota Kinabalu	10.56	281	P	Pn	03 43 51.6	+5.0
	comp=Z,11μmcomp=Z,4μmcomp=Z,161nm,1.3s						
KKM	Kota Kinabalu	10.56	281	P	Pn	03 43 51.3	+4.7
	comp=Z,161nm,1.3s						
BAKI	Biak	10.83	119	P	Pn	03 43 55.8	+5.6
	comp=Z,14μmcomp=Z,7μmcomp=Z,439nm,1.5s						
LQP	Lukban	11.12	333	eP	Pn	03 43 57.5	+3.2
BKB	Balikpapan	11.12	241	Pn	Pn	03 43 53.8	-0.4
BKB	Balikpapan	11.12	241	P	Pn	03 44 03.9	+10

BKB	Balikpapan	11.12	241	P	Pn	03 43 55.3	+1.1
	comp=Z,179nm,1.1s						
KAPI	Kappang	11.41	217	Pn	Pn	03 43 59.0	+0.9
	comp=Z,2.1nm,0.3s,baz=5.4,slow=9.0,SNR=9.3						
KAPI				Sn	Sn	03 45 56.2	-8.3
	comp=Z,1.3nm,0.3s,baz=173,slow=18,SNR=1.1						
KAPI				LR	LR	03 48 53.3	
	comp=Z,6µm,21.1s,baz=50,slow=40						
	comp=Z,27nm,0.8s						
KAPI				AML	AML		
KAPI	Kappang	11.41	217	P	Pn	03 43 59.6	+1.5
KAPI	Kappang	11.41	217	P	Pn	03 44 00.1	+2.0
KAPI	Kappang	11.41	217		Pn	03 44 00.1	+2.0
KAPI	Kappang	11.41	217	P	Pn	03 44 03.1	+5.0
KAPI	Kappang	11.41	217	P	Pn	03 43 59.0	+0.9
	comp=Z,156nm,1.3s						
TIRP	Brgy. Gulod. B	11.47	333	eP	Pn	03 44 01.8	+2.8
MKS	Makassar	11.74	218	P	Pn	03 44 12.4	+10
CAAP	Casiguran, Aur	12.82	340	eP	Pn	03 44 19.9	+2.5
SAUI	Saumlaki	12.90	159		Pn	03 44 18.4	-0.1
MMRI	Maumere	13.43	199	P	Pn	03 44 27.2	+1.4
MMRI	Maumere	13.43	199		Pn	03 44 26.3	+0.5
MMRI	Maumere	13.43	199	P	Pn	03 44 26.9	+1.1
MMRI	Maumere	13.43	199	P	Pn	03 44 26.9	+1.1
	comp=Z,690nm,1.2s						
SOEI	Soe	14.01	190	P	Pn	03 44 34.5	+0.8
SOEI	Soe	14.01	190		Pn	03 44 34.7	+1.0
SOEI	Soe	14.01	190	P	Pn	03 44 36.6	+2.9
	comp=Z,6µmcomp=Z,296nm,0.9s						
SOEI	Soe	14.01	190	P	Pn	03 44 35.0	+1.3
	comp=Z,338nm,1.2s						
BBKI	Banjar Baru	14.01	238	P	P	03 44 38.6	-2.5
BBKI	Banjar Baru	14.01	238	P	P	03 44 37.8	-3.4
	comp=Z,1µm,1.8s						
LBFI	Labuhan Bajo,	14.23	208	P	Pn	03 44 39.5	+2.8
LBFI	Labuhan Bajo,	14.23	208	P	Pn	03 44 36.2	-0.6
	comp=Z,832nm,1.3s						
CVP	Callao Caves	14.29	341	eP	P	03 44 47.1	+2.9
SZP	Santa	14.64	336	P	P	03 44 47.7	-0.5
GENI	Genyem	15.07	116	P	Pn	03 44 50.1	+2.0
WSI	Waingapu	15.11	205	P	Pn	03 44 50.1	+1.6
PLAI	Plampang	15.63	214	P	Pn	03 44 57.2	+1.9
PLAI	Plampang	15.63	214	P	P	03 44 57.8	-1.3
PLAI	Plampang	15.63	214	P	Pn	03 44 55.7	+0.4
	comp=Z,787nm,1.1s						
TWSI	Taliwang, Sumb	16.08	217	P	P	03 45 03.2	-0.9
	comp=Z,5µmcomp=Z,451nm,1.3s						
KHKI	Kahang-Kahang	16.60	222	P	P	03 45 10.7	+0.8
	comp=Z,4µmcomp=Z,354nm,1.7s						
DRS	Darwin Rock St	17.00	166	P	Pn	03 45 12.9	+0.2
DNP	Denpasar	17.09	222	P	P	03 45 16.9	+1.5
	comp=Z,975nm,1.5s						
ABJI	Asem Bagus	17.15	226	P	P	03 45 17.9	+1.9
	comp=Z,137nm,1.2s						
IGBI	Denpasar	17.24	222	P	P	03 45 18.4	+1.4
	comp=Z,8µmcomp=Z,407nm,0.9s						
MTN	Manton Dam	17.45	165	P	Pn	03 45 15.0	-3.4
	comp=Z,86nm,1.0s,comp=Z,0.0nm						
MTN	Manton Dam	17.45	165	Pn	Pn	03 45 15.7	-2.7
BLJI	Banyuglugur	17.58	228	P	P	03 45 22.1	+1.3
	comp=Z,206nm,0.7s						
JAGI	Jajag, Banyuwa	17.67	225	P	P	03 45 22.1	+0.3
JAGI	Jajag, Banyuwa	17.67	225	Pn	Pn	03 45 20.3	-0.8
JAGI				IAmb	IAmb	03 45 27.9	
	comp=Z,257nm,1.1s						
JAGI	Jajag, Banyuwa	17.67	225	P	P	03 45 24.5	+2.7
	comp=Z,5µmcomp=Z,261nm,1.7s						
JAGI	Jajag, Banyuwa	17.67	225	P	P	03 45 23.3	+1.5
	comp=Z,260nm,1.7s						
KDU	Kakadu	17.69	161	P	Pn	03 45 17.9	-3.5
	comp=Z,310nm,1.1s						
SNJI	Sawahan-Nganju	19.00	231	P	Pn	03 45 37.5	0.0
	comp=Z,4µmcomp=Z,340nm,0.9s						
TWGBT	Beinan	19.34	344	P	Pn	03 45 42.8	+1.5
TWG	Pinlang	19.34	344	P	P	03 45 38.7	-1.4
TWG	Pinlang	19.34	344	P	Pn	03 45 41.0	-0.4
	comp=Z,105nm,0.7s						
DLV	Lat	19.57	294	P	P	03 45 43.8	+0.9
DLV				IAmb	IAmb	03 45 50.9	
	comp=Z,208nm,1.2s						
DLV	Lat	19.57	294	P	Pn	03 45 46.0	+1.6
	comp=Z,198nm,1.5s						
SMRI	Semarang	19.63	236	P	Pn	03 45 44.8	-0.1
SMRI	Semarang	19.63	236	P	P	03 45 42.0	-1.3
SMRI				IAmb	IAmb	03 45 47.6	
	comp=Z,215nm,1.3s						
SMRI	Semarang	19.63	236	P	Pn	03 45 44.8	-0.1
	comp=Z,201nm,1.1s						
SMRI	Semarang	19.63	236	P	P	03 45 44.0	+0.7
	comp=Z,204nm,1.1s						
KNRA	Kununurra	19.80	174	P	P	03 45 44.1	-1.0
	comp=Z,135nm,0.7s,comp=Z,0.0nm						
KNRA	Kununurra	19.80	174	P	P	03 45 44.0	-1.0
YULB	Yu-li	19.83	345	P	Pn	03 45 49.5	+2.4
YULB	Yu-li	19.83	345	S	Sn	03 49 33.2	+4.1
YULB	Yu-li	19.83	345	P	P	03 45 45.1	-0.3
YULB	Yu-li	19.83	345	P	P	03 45 44.8	-0.6
	comp=Z,73nm,0.7s						
TPUB	Ta-pu	19.92	344	P	P	03 45 45.5	-0.9
TPUB				IAmb	IAmb	03 45 53.0	
	comp=Z,173nm,0.7s						
TPUB	Ta-pu	19.92	344	P	P	03 45 47.4	+1.0
	comp=Z,260nm,0.7s						
TPI	Tanjungpandan	20.18	250	P	Pn	03 45 52.8	+1.4
	comp=Z,100nm,1.1s						
GUMO	Guam	20.29	61	P	P	03 45 49.8	-0.7
	comp=Z,48nm,0.3s,baz=153,slow=4.8,SNR=4.3						
GUMO				LR	LR	03 53 19.6	
	comp=Z,952nm,19.3s,baz=238,slow=36						
	comp=Z,48nm,0.3s						
GUMO	Guam	20.29	61	P	Pn	03 45 52.6	0.0
GUMO	Guam	20.29	61	P	P	03 45 48.8	-1.7
GUMO				IAmb	IAmb	03 46 06.2	
	comp=Z,493nm,1.6s						
GUMO	Guam	20.29	61	P	P	03 45 51.1	+0.6
	comp=Z,188nm,1.6s						
SSLB	Suanglung	20.29	345	P	Pn	03 45 55.3	+2.7
SSLB	Suanglung	20.29	345	S	Sn	03 49 43.6	+3.2
SSLB	Suanglung	20.29	345	P	P	03 45 48.6	-1.9
SSLB				IAmb	IAmb	03 45 60.0	
	comp=Z,95nm,0.6s						
SSLB	Suanglung	20.29	345	P	P	03 45 51.4	+0.9
	comp=Z,132nm,1.1s						
NACB	Ninganchiao	20.51	347	P	Pn	03 45 56.5	+1.4
NACB	Ninganchiao	20.51	347	P	P	03 45 51.9	-0.9
	comp=Z,32nm,0.6s						
YOJ	Yonaguni jima	20.51	350	P	Pn	03 45 57.9	+2.8
YOJ	Yonaguni jima	20.51	350	P	P	03 45 52.2	-0.6
YOJ				pmax	pmax		
	comp=Z,103nm,0.8s						
YOJ	Yonaguni jima	20.51	350	P	P	03 45 52.2	-0.6
YOJ	Yonaguni jima	20.51	350	P	Pn	03 45 55.9	+0.8
	comp=Z,140nm,0.9s						
YHNB	Yeheng	21.03	347	P	P	03 46 02.0	+3.4
YHNB	Yeheng	21.03	347	S	Sn	03 49 56.1	-2.2
YHNB	Yeheng	21.03	347	P	P	03 45 59.9	+1.4
YHNB	Yeheng	21.03	347	P	P	03 46 02.3	+3.7
	comp=Z,130nm,1.0s						
PPBI	Pangkal Pinang	21.43	253	P	P	03 46 06.3	+3.4
MANU	Manus Island	21.59	106	P	P	03 46 03.2	-1.4
KNMB	Chin-men Tao	21.72	339	P	P	03 46 06.5	+0.7
KNMB				IAmb	IAmb	03 46 16.9	
	comp=Z,103nm,0.8s						
KNMB	Chin-men Tao	21.72	339	P	P	03 46 08.5	+2.7
	comp=Z,152nm,0.8s						
HKPS	Hong Kong Po S	21.73	327	P	P	03 46 09.7	+3.8
JMZ	Minamidaito 2	22.00	11	P	P	03 46 13.0	+4.2
QIZ	Qiongzhong	22.10	313	P	P	03 46 11.1	+1.1
QIZ				pP	pwP	03 46 20.1	-1.0
QIZ				S	S	03 50 11.5	-0.5
QIZ				pmax	pmax		
	comp=Z,29nm,1.3s						
QIZ				pmax	pmax		
	comp=Z,610nm,4.4s						
QIZ				L	L		
	comp=Z,3µm,15.7s						
QIZ				L	L		
	comp=Z,2µm,15.7s						
QIZ				L	L		
	comp=Z,4µm,16.9s						
QIZ	Qiongzhong	22.10	313	P	P	03 46 07.7	-2.3
	comp=Z,44nm,1.8s						
FITZ	Fitzroy Crossi	22.12	183	P	P	03 46 08.6	-1.6
	comp=Z,54nm,1.4s						
FITZ	Fitzroy Crossi	22.12	183	P	P	03 46 09.7	-0.5
	comp=Z,135nm,0.9s,baz=15,slow=10,SNR=70						
	comp=Z,135nm,0.9s						
FITZ	Fitzroy Crossi	22.12	183	P	P	03 46 09.4	-0.8
FITZ	Fitzroy Crossi	22.12	183	P	P	03 46 09.4	-0.8
FITZ	Fitzroy Crossi	22.12	183	P	P	03 46 08.4	-1.7
	comp=Z,54nm,1.4s						
BBJI	Bungbulang	22.19	239	P	P	03 46 12.1	+1.0
BBJI	Bungbulang	22.19	239	P	P	03 46 13.7	+2.6
BBJI	Bungbulang	22.19	239	P	P	03 46 13.8	+2.8
	comp=Z,72nm,1.1s						
TPRI	Tanjung Pinang	22.33	262	P	P	03 46 29.6	+17
DSRI	Dabo	22.53	259	P	P	03 46 16.2	+1.6
JOW	Kunigami	22.62	4	P	P	03 46 15.7	+0.3
	comp=Z,34nm,0.6s,baz=188,slow=9.5,SNR=12						
JOW				LR	LR	03 56 16.7	
	comp=Z,1µm,19.0s,baz=185,slow=40						
	comp=Z,34nm,0.6s						
JOW	Kunigami	22.62	4	P	P	03 46 18.9	+3.4
JOW	Kunigami	22.62	4	P	P	03 46 15.3	-0.1
JOW				IAmb	IAmb	03 46 33.4	
	comp=Z,102nm,1.0s						
JOW	Kunigami	22.62	4	P	P	03 46 17.9	+2.4
	comp=Z,140nm,1.4s						
MYKOM	Kota Tinggi	22.89	265	P	P	03 46 19.7	+1.3
MYKOM	Kota Tinggi	22.89	265	P	P	03 46 19.0	+0.6
MYKOM	Kota Tinggi	22.89	265	P	P	03 46 19.9	+1.5
MYKOM	Kota Tinggi	22.89	265	P	P	03 46 20.6	+2.1
	comp=Z,79nm,1.4s						
BTDF	Bukit Timah Da	23.01	264	P	P	03 46 22.1	+2.4
BTDF	Bukit Timah Da	23.01	264	P	P	03 46 21.7	+2.0
	comp=Z,85nm,1.2s						
GZH2	Guangzhou	23.10	328	P	P	03 46 20.9	+0.4
GZH2				S	S	03 50 34.4	+4.8
GZH2				pmax	pmax		
	comp=Z,36nm,0.8s						
GZH2				L	L		
	comp=Z,5µm,17.5s						
GZH2				L	L		
	comp=Z,6µm,20.8s						
GZH2				L	L		
	comp=Z,9µm,17.3s						
MDSI	Maura Dua	24.03	249	P	P	03 46 30.5	+0.9
	comp=Z,91nm,1.4s						
LHSI	Lahat	24.43	251	P	P	03 46 33.2	0.0
	comp=Z,36nm,0.8s						
PMG	Port Moresby	24.47	123	LR	LR	03 56 46.1	
	comp=Z,2µm,20.5s,baz=308,slow=38						
PMG	Port Moresby	24.47	123	P	P	03 46 35.1	+1.5
PMG	Port Moresby	24.47	123	P	P	03 46 35.9	+2.3
PMG	Port Moresby	24.47	123	i P	P	03 46 34.0	+0.4
PMG	Port Moresby	24.47	123	P	P	03 46 50.8	+17
WB0	Warramunga Arr	24.95	162	P	P	03 46 36.5	-1.3
WB6	Warramunga Arr	25.02	163	P	P	03 46 31.8	-6.7
WRAB	Tennant Creek	25.09	163	P	P	03 46 39.1	-0.1
WRAB	Tennant Creek	25.09	163	S	S	03 51 03.3	+1.5
WRAB	Tennant Creek	25.09	163	ceP	P	03 46 38.0	-1.2
WRAB				pmax	pmax		
	comp=Z,450nm,1.5s						
WRAB	Tennant Creek	25.09	163	P	P	03 46 38.7	-0.5
WRAB	Tennant Creek	25.09	163	P	P	03 46 38.4	-0.8
	comp=Z,354nm,1.0s						
WRA	Warramunga Arr	25.10	163	P	P	03 46 38.1	-1.2
	comp=Z,97nm,1.0s,baz=343,slow=10,SNR=92						
WRA				S	S	03 51 04.3	+2.5
	comp=Z,19nm,1.2s,baz=345,slow=20,SNR=7.2						
	comp=Z,97nm,1.0s						
WRA	Warramunga Arr	25.10	163	i P	P	03 46 38.0	-1.2
WRA				pmax	pmax		
	comp=Z,186nm,1.1s						
WRA	Warramunga Arr	25.10	163	P	P	03 46 37.4	-1.8
WRA				IAmb	IAmb	03 46 52.3	
	comp=Z,95nm,1.4s						
WR8	Warramunga Arr	25.16	162	P	P	03 46 38.3	-1.5
IPM	Ipoh	25.55	272	P	P	03 46 45.5	+2.0
IPM	Ipoh	25.55	272	P	P	03 46 43.7	+0.2
IPM	Ipoh	25.55	272	P	P	03 46 47.1	+3.6
	comp=Z,1µmcomp=Z,70nm,0.9s						
IPM	Ipoh	25.55	272	P	P	03 46 45.6	+2.0
	comp=Z,70nm,0.9s						
SDSI	Sungai Dareh	25.70	259	P	P	03 46 48.0	+3.2
	comp=Z,58nm,1.3s						
BKNI	Bangkinang	25.86	262	P	P	03 46 48.2	+1.9
MBWA	Marble Bar	26.04	195	P	P	03 46 47.1	-0.6
	comp=Z,176nm,0.8s						
MBWA	Marble Bar	26.04	195	P	P	03 46 47.0	-0.7
MBWA	Marble Bar	26.04	195	P	P	03 46 47.4	-0.3
MBWA	Marble Bar	26.04	195	P	P	03 46 47.6	-0.2
	comp=Z,176nm,0.8s						
GULI	GuiLin	26.21	325	P	P	03 46 51.5	+2.2
GULI				S	S	03 51 21.6	+2.2
GULI				pmax	pmax		
	comp=Z,27nm,1.0s						
GULI				L	L		
	comp=Z,5µm,18.8s						
GULI				L	L		
	comp=Z,2µm,19.1s						
GULI				L	L		
	comp=Z,6µm,18.0s						
PPI	Padang Panjang	26.63	261	P	P	03 46 56.6	+3.4
	comp=Z,85nm,1.5s						
PDSI	Padang	26.65	260	P	P	03 46 57.0	+3.6
	comp=Z,4µmcomp=Z,92nm,1.4s						
KRVT	Keravat (AS076	26.71	108	LR	LR	03 55 46.3	
	comp=Z,4µm,18.2s,baz=282,slow=33						
CNSH	ChangSha	27.24	333	P	P	03 46 57.8	-0.7
CNSH				S	S	03 51 32.2	-3.4
CNSH				pmax	pmax		
	comp=Z,8.0nm,1.1s						
CNSH				L	L		
	comp=Z,3µm,23.4s						
CNSH				L	L		
	comp=Z,4µm,19.2s						
CNSH				L	L		
	comp=Z,5µm,21.6s						
SSE	Sheshan	27.30	350	P	P	03 46 59.9	+0.9
SSE				S	S	03 51 35.2	-1.3
SSE				pmax	pmax		
	comp=Z,7.0nm,0.4s						
SSE				pmax	pmax		
	comp=Z,170nm,4.1s						
SSE				L	L		
	comp=Z,1µm,18.4s						
SSE				L	L		
	comp=Z,870nm,17.9s						
JSU	Suzuyama	27.46	7	P	P	03 47 04.5	+4.0
JSU	Suzuyama	27.46	7	P	P	03 47 04.4	+4.0
	comp=Z,43nm,1.0s						
PPSI	Pulau Pagai	27.49	256	P	P	03 47 03.7	+2.8
QIS	Mount Isa	27.64	153	P	P	03 47 01.5	-0.7
	comp=Z,109nm,1.1s						
QIS	Mount Isa	27.64	153	P	P	03 47 01.8	-0.4
QIS	Mount Isa	27.64	153	P	P	03 47 02.2	0.0
	comp=Z,109nm,1.1s						
PSI	Prapat	27.70	268	P	P	03 47 03.5	+0.5
PSI	Prapat	27.70	268	P	P	03 47 02.8	-0.2
PSI				pmax	pmax		
	comp=Z,40nm,1.0s						
PSI	Prapat	27.70	268	P	P	03 47 04.5	+1.5
	comp=Z,915nmcomp=Z,43nm,1.1s						
RPSI	Rantau Prapat	27.71	268	P	P	03 47 02.8	-0.1
RPSI	Rantau Prapat	27.71	268	P	P	03 47 03.1	+0.1
	comp=Z,43nm,1.1s						
SLVN	Son La	27.93	310	P	P	03 47 08.2	+3.3
SLVN	Son La	27.93	310	P	P	03 47 06.7	+1.8
SLVN	Son La	27.93	310	P	P	03 47 08.2	+3.3
	comp=Z,12nm,2.2s						
MTSU	Mount Surprise	28.17	142	P	P	03 47 10.1	+3.2
	comp=Z,24nm,1.0s						
MTSU	Mount Surprise	28.17	142	P	P	03 47 08.9	+2.0
MTSU	Mount Surprise	28.17	142	P	P	03 47 08.8	+1.8
	comp=Z,24nm,1.0s						
AS15	Alice Springs	28.50	166	P	P	03 47 09.2	-0.6
	comp=Z,96nm,0.8s						
AS31	Alice Springs	28.53	166	P	P	03 47 09.5	-0.6
	comp=Z,23nm,0.9s						
AS31	Alice Springs	28.53	166	P	P	03 47 09.5	-0.6
ASAR	Alice Springs	28.53	166	P	P	03 47 09.3	-0.8
	comp=Z,11nm,0.6s,baz=341,slow=8.3,SNR=80						
ASAR				LR	LR	03 57 39.4	
	comp=Z,395nm,21.5s,baz=354,slow=35						
	comp=Z,11nm,0.6s						
ASAR	Alice Springs	28.53	166	P	P	03 47 09.0	-1.1
AS01	Alice Springs	28.54	166	P	P	03 47 09.8	-0.4
AS17	Alice Springs	28.55	166	P	P	03 47 10.3	0.0
	comp=Z,56nm,0.9s						
AS09	Alice Springs	28.57	166	P	P	03 47 10.4	-0.1
	comp=Z,58nm,1.0s						
AS19	Alice Springs	28.58	166	P	P	03 47 09.7	-0.9
	comp=Z,52nm,1.1s						
NJ2	Nanjing	28.71	346	eP	P	03 47 17.6	+6.0
NJ2				pP	sP	03 47 21.3	-4.0
NJ2				sP	pP	03 47 26.7	+5.8
NJ2				S	S	03 52 04.1	+5.4
NJ2				pmax	pmax		
	comp=Z,19nm,0.5s						
NJ2				pmax	pmax		
	comp=Z,470nm,4.3s						
NJ2				L	L		
	comp=Z,2µm,16.1s						
NJ2				L	L		
	comp=Z,2µm,19.9s						
NJ2				L	L		
	comp=Z,3µm,19.9s						
WHN	Wuhan	28.71	338	P	P	03 47 11.9	+0.3
WHN				pP	pP	03 47 20.6	-0.5
WHN				sP	sP	03 47 26.9	+1.6
WHN				S	S	03 51 58.2	-0.5
WHN				pmax	pmax		
	comp=Z,150nm,1.0s						
WHN				pmax	pmax		
	comp=Z,940nm,3.9s						
WHN				L	L		
	comp=Z,12µm,18.0s						
WHN				L	L		
	comp=Z,14µm,19.6s						
WHN				L	L		
	comp=Z,25µm,19.7s						
WRKA	Warakurna	29.05	177	P	P	03 47 14.1	-0.6
	comp=Z,51nm,1.4s						
JNU	Nakatsue	29.10	7	LR	LR	03 59 41.5	
	comp=Z,1µm,21.2s,baz=167,slow=38						
GSI	Gunungsitoli	29.17	265	P	P	03 47 16.1	+0.1
GSI				IAmb	IAmb	03 47 42.9	
	comp=Z,67nm,1.0s						
GIRL	Giralia	29.25	204	P	P	03 47 17.5	+1.0
	comp=Z,69nm,1.2s						
JMN	Monobe	30.20	12	P	P	03 47 27.8	+3.0
JMN	Monobe	30.20	12	P	P	03 47 24.1	-0.8
JMN				IAmb	IAmb	03 48 04.7	
	comp=Z,59nm,1.1s						
JMN	Monobe	30.20	12	P	P	03 47 26.9	+2.0
	comp=Z,46nm,0.9s						
CMAR	Chiang Mai Arr	30.60	300	P	P	03 47 29.4	+0.9
	comp=Z,14nm,0.8s,baz=119,slow=7.3,SNR=46						
CMAR				PcP	PcP	03 50 27.5	+0.8
	comp=Z,0.9nm,0.4s,baz=100,slow=2.6,SNR=2.2						
CMAR				ScP	ScP	03 54 11.7	+4.7
	comp=Z,3.5nm,0.3s,baz=110,slow=3.8,SNR=5.1						
CMAR				LR	LR	04 01 19.3	
	comp=Z,2µm,18.4s,baz=115,slow=39						
CMAR				P3KPbc		04 19 15.1	
	comp=Z,1.0nm,0.3s,baz=294,slow=4.1,SNR=4.7						
	comp=Z,14nm,0.8s						
CMAR	Chiang Mai Arr	30.60	300	i P	P	03 47 29.3	+0.8
CMAR				pmax	pmax		
	comp=Z,14nm,0.8s						
CMAR	Chiang Mai Arr	30.60	300	P	P	03 47 27.9	-0.7
CMAR					PcP	03 50 26.4	-0.3
CMAR					ScP	03 54 07.9	+0.9
ENH	Enshi	30.64	330	P	P	03 47 28.1	-0.6
ENH				IAmb	IAmb	03 47 56.0	
	comp=Z,141nm,1.4s						
ENH	Enshi	30.64	330	P	P	03 47 29.0	+0.2
	comp=Z,65nm,1.6s						
CHTO	Chiang Mai	30.74	301	P	P	03 47 31.6	+1.8
CHTO	Chiang Mai	30.74	301	P	P	03 47 29.8	0.0
CHTO				pmax	pmax		
	comp=Z,38nm,1.0s						
CHTO	Chiang Mai	30.74	301	P	P	03 47 29.8	0.0
CHTO	Chiang Mai	30.74	301	P	P	03 47 30.5	+0.7
	comp=Z,588nmcomp=Z,47nm,1.1s						
CHTO	Chiang Mai	30.74	301	P	P	03 47 30.1	+0.2
	comp=Z,46nm,1.1s						
CTA	Charters Tower	30.83	142	P	P	03 47 29.3	-1.2
	comp=Z,17nm,1.1s						
CTA	Charters Tower	30.83	142	LR	LR	04 01 41.4	
	comp=Z,2µm,18.1s,baz=310,slow=40						
CTA	Charters Tower	30.83	142	P	P	03 47 31.4	+0.8
CTA	Charters Tower	30.83	142	P	P	03 47 32.6	+2.0
CTAO	Charters Tower	30.83	142	P	P	03 47 31.4	+0.8
CTAO	Charters Tower	30.83	142	P	P	03 47 29.8	-0.8
CTAO				pmax	pmax		
	comp=Z,169nm,1.8s						
CTAO	Charters Tower	30.83	142	P	P	03 47 29.8	-0.8
CTAO				IAmb	IAmb	03 48 08.4	
	comp=Z,169nm,1.8s						
CTAO	Charters Tower	30.83	142	P	P	03 47 28.9	-1.7
	comp=Z,37nm,1.5s						
KMI2	Kunming	31.05	315	P	P	03 47 34.2	+1.5
KMI2				sP	sP	03 47 50.2	+4.0
KMI2				PP	PnPn	03 48 34.9	+0.4
KMI2				S	S	03 52 30.8	-5.2
KMI2				pmax	pmax		
	comp=Z,16nm,1.1s						
KMI2				pmax	pmax		
	comp=Z,140nm,4.8s						
KMI2				L	L		
	comp=Z,2µm,18.8s						
KMI2				L	L		
	comp=Z,2µm,17.3s						
KMI2				L	L		
	comp=Z,4µm,18.7s						
JHJ	Hachijo jima 2	31.33	22	LR	LR	04 00 07.4	
	comp=Z,2µm,19.9s,baz=182,slow=36						
MEEK	Meekatharra	31.57	194	P	P	03 47 36.1	-0.9
	comp=Z,194nm,1.2s						
MEEK	Meekatharra	31.57	194	P	P	03 47 36.2	-0.8
MEEK	Meekatharra	31.57	194	P	P	03 47 36.8	-0.2
	comp=Z,194nm,1.2s						
TJN	Taejon	32.09	1	P	P	03 47 45.3	+3.9
TJN	Taejon	32.09	1	i P	P	03 47 42.7	+1.3
TJN	Taejon	32.09	1	P	P	03 47 41.3	0.0
TJN	Taejon	32.09	1	P	P	03 47 45.3	+3.9
	comp=Z,226nm,2.0s						
INU	Inuyama	32.50	16	P	P	03 47 48.5	+3.5
INU	Inuyama	32.50	16	P	P	03 47 44.8	-0.3
INU				IAmb	IAmb	03 48 14.1	
	comp=Z,42nm,1.1s						
INU	Inuyama	32.50	16	P	P	03 47 44.8	-0.3
	comp=Z,46nm,1.1s						
PZH	PanZhiHua	32.60	316	P	P	03 47 50.3	+4.1
PZH				sS	sS	03 53 24.3	+10
PZH				pmax	pmax		
	comp=Z,30nm,1.2s						
PZH				pmax	pmax		
	comp=Z,200nm,7.7s						
PZH				L	L		
	comp=Z,2µm,20.2s						
PZH				L	L		
	comp=Z,1µm,19.2s						
PZH				L	L		
	comp=Z,3µm,19.0s						
JGF	Kuroka	32.83	16	P	P	03 47 52.0	+4.0
JGF	Kuroka	32.83	16	P	P	03 47 46.9	-1.1
JGF	Kuroka	32.83	16	P	P	03 47 47.3	-0.7
	comp=Z,24nm,0.8s						
LYN	LuoYang	33.00	338	P	P	03 47 47.8	-1.6
LYN				pP	pP	03 47 57.7	-1.2
LYN				PP	PnPn	03 49 00.5	+1.1
LYN				S	S	03 53 03.5	-2.3
LYN				SS	SS	03 55 18.0	-11
LYN				pmax	pmax		
	comp=Z,29nm,0.6s						
LYN				pmax	pmax		
	comp=Z,310nm,7.5s						
LYN				L	L		
	comp=Z,7µm,20.3s						
LYN				L	L		
	comp=Z,3µm,19.8s						
LYN				L	L		
	comp=Z,11µm,20.1s						
TIA	Tai'an	33.10	346	P	P	03 47 50.9	+0.6
TIA				PcP	PcP	03 50 34.7	+1.5
TIA				S	S	03 53 05.5	-1.8
TIA				pmax	pmax		
	comp=Z,9.0nm,1.2s						
TIA				pmax	pmax		
	comp=Z,370nm,3.7s						
TIA				L	L		
	comp=Z,1µm,18.6s						
TIA				L	L		
	comp=Z,1µm,16.7s						

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TIA                              L     L
      comp=Z,2µm,16.9s
KSAR  Wonju Array Be   33.16   2  P     P       03 47 50.8  0.0
KSAR  Wonju Array Be   33.16   2  P     P       03 47 50.8  0.0
KSRS  Korea Array      33.18   2  P     P       03 47 51.5 +0.7
      comp=Z,18nm,0.8s,baz=178,slow=9.9,SNR=33
KSRS                              PcP   PcP     03 50 34.4 +1.0
      comp=Z,3.9nm,0.9s,baz=180,slow=2.5,SNR=4.8
KSRS                              LR    LR      04 02 50.6
      comp=Z,753nm,19.3s,baz=185,slow=39
      comp=Z,18nm,0.8s
KS19  Wonju Array Si   33.22   2  P     P       03 47 51.7 +0.3
KS19                              IAmb  IAmb    03 48 08.2
      comp=Z,42nm,1.1s
NPW   Naypyitaw        33.55 300  P     P       03 47 55.0 +0.5
      comp=Z,82nm,1.0s
MAJO  Matsushiro       33.95  17  P     P       03 48 01.4 +3.7
MAJO  Matsushiro       33.95  17 iP     P       03 47 57.2 -0.5
MAJO                              pmax  pmax
      comp=Z,14nm,0.9s
MAJO  Matsushiro       33.95  17  P     P       03 47 55.9 -1.8
MAJO  Matsushiro       33.95  17  P     P       03 47 56.3 -1.5
      comp=Z,20nm,1.2s
MJAR  Matsushiro Arr   33.95  17  P     P       03 47 56.1 -1.7
      comp=Z,4.2nm,0.8s,baz=198,slow=9.9,SNR=12
MJAR                              PcP   PcP     03 50 37.0 +1.4
      comp=Z,2.8nm,0.9s,baz=167,slow=4.0,SNR=4.2
      comp=Z,4.2nm,0.8s
MJAR  Matsushiro Arr   33.95  17  P     P       03 47 56.7 -1.0
MJAR                                            03 50 36.0
MJAR                              pmax  pmax
      comp=Z,24nm,1.5s
MJAR  Matsushiro Arr   33.95  17  P     P       03 47 56.7 -1.0
MJAR                                    PcP     03 50 36.0 +0.4
MJB9  Matsu-Tunnel     33.96  17  P     P       03 47 56.3 -1.5
XAN   Xi'an            34.02 333  P     P       03 47 57.9 -0.5
XAN                               pP    sP      03 48 10.7 -1.4
XAN                               sP    pP      03 48 16.3 +8.4
XAN                               PP    PnPn    03 49 10.4 -1.8
XAN                               S     S       03 53 19.2 -2.5
XAN                               pmax  pmax
      comp=Z,56nm,0.7s
XAN                               L     L
      comp=Z,4µm,19.2s
XAN                               L     L
      comp=Z,4µm,19.9s
XAN                               L     L
      comp=Z,6µm,19.9s
TNCH  TengChong        34.09 310  P     P       03 48 06.0 +6.7
TNCH                              PP    PP      03 49 22.5 +5.6
TNCH                              PcP   PcP     03 50 43.2 +6.7
TNCH                              S     S       03 53 29.2 +5.9
TNCH                              sS    sS      03 53 45.9 +8.1
TNCH  TengChong        34.09 310  ScS   ScS     03 58 23.3 +1.8
TNCH                              pmax  pmax
      comp=Z,28nm,0.6s
TNCH                              pmax  pmax
      comp=Z,320nm,4.8s
TNCH                              LR    LR
      comp=N,640nm,16.4s
TNCH                              LR    LR
      comp=E,1µm,18.0s
TNCH                              LR    LR
      comp=Z,2µm,17.7s
INKA  Innaminka        34.49 158  P     P       03 48 01.9 -0.5
INKA                              IAmb  IAmb    03 48 04.2
      comp=Z,105nm,1.1s
MORW  Morawa           34.55 197  P     P       03 48 02.4 -0.6
      comp=Z,66nm,1.3s
MORW  Morawa           34.55 197  P     P       03 48 03.1 +0.1
MORW  Morawa           34.55 197  P     P       03 48 02.5 -0.5
MORW                              IAmb  IAmb    03 48 11.3
      comp=Z,126nm,1.4s
MORW  Morawa           34.55 197  P     P       03 48 03.3 +0.3
      comp=Z,65nm,1.3s
FORT  Forrest          34.75 178  P     P       03 48 03.9 -0.7
      comp=Z,59nm,1.1s
FORT  Forrest          34.75 178  P     P       03 48 04.1 -0.5
FORT                              IAmb  IAmb    03 48 06.2
      comp=Z,65nm,1.0s
HNS   HongShan         34.86 343 ⇑P     P       03 48 06.1 +0.6
HNS                               pP    sP      03 48 16.0 -3.3
HNS                               sP    pP      03 48 25.2  +10
HNS                               PP    PP      03 49 26.4 +1.4
HNS                               S     S       03 53 34.9 +0.4
HNS                               PcS   PcS     03 54 23.6 -1.2
HNS                               pmax  pmax
      comp=Z,20nm,1.1s
HNS                               L     L
      comp=Z,3µm,23.4s
HNS                               L     L
      comp=Z,2µm,21.9s
HNS                               L     L
      comp=Z,4µm,22.8s
DL2   Dalian           34.91 353  P     P       03 48 07.3 +1.4
DL2                               sP    sP      03 48 28.2 +8.6
DL2                               S     S       03 53 35.3 +0.2
DL2                               pmax  pmax
      comp=Z,120nm,1.2s
DL2                               pmax  pmax
      comp=Z,630nm,5.1s
DL2                               L     L
      comp=Z,2µm,22.1s
DL2                               L     L
      comp=Z,2µm,17.8s
DL2                               L     L
      comp=Z,3µm,22.6s
QLP   Quilpie          34.96 152  P     P       03 48 06.2 -0.4
      comp=Z,314nm,1.5s
QLP   Quilpie          34.96 152  P     P       03 48 06.3 -0.2
QLP   Quilpie          34.96 152  P     P       03 48 06.5  0.0
      comp=Z,314nm,1.5s
KMBL  Kambalda         35.60 187  P     P       03 48 11.4 -0.5
      comp=Z,84nm,1.5s
HNR   Honiara          35.82 112  LR    LR      04 01 51.3
      comp=Z,1µm,21.3s,baz=14,slow=35
BLDU  Ballidu          35.84 195  P     P       03 48 13.3 -0.8
      comp=Z,103nm,2.1s
BLDU  Ballidu          35.84 195  P     P       03 48 14.0 -0.1
BLDU  Ballidu          35.84 195  P     P       03 48 14.2 +0.2
      comp=Z,76nm,1.4s
KLBR  Kellerberrin     36.53 193  P     P       03 48 19.2 -0.8
      comp=Z,178nm,0.9s
KLBR  Kellerberrin     36.53 193  P     P       03 48 20.1 +0.2
KLBR  Kellerberrin     36.53 193  P     P       03 48 20.0  0.0
      comp=Z,179nm,0.9s
GD1S  Gladstone Soft   36.67 140  P     P       03 48 22.9 +1.7
BJI2  Beijing          36.95 347  P     P       03 48 24.4 +1.0
BJI2                              PP    PnPn    03 49 52.8 +4.4
BJI2                              S     S       03 54 06.0 -0.5
BJI2                              pmax  pmax
      comp=Z,18nm,0.8s
BJI2                              pmax  pmax
      comp=Z,100nm,3.5s
BJI2                              L     L
      comp=Z,570nm,19.8s
BJI2                              L     L
      comp=Z,960nm,19.1s
BJI2                              L     L
      comp=Z,1µm,20.7s
BJT   Baijiatuau       36.95 347  P     P       03 48 24.5 +1.1
      comp=Z,109nm,0.9s
MUN   Mundaring        37.27 195  P     P       03 48 25.6 -0.6
      comp=Z,87nm,1.1s
MUN   Mundaring        37.27 195  P     P       03 48 26.8 +0.6
MUN   Mundaring        37.27 195  P     P       03 48 25.6 -0.6
SAIH  SAIHA            37.34 302 eP     P       03 48 25.5 -1.7
SNY   Shenyang         37.62 356  P     P       03 48 30.2 +1.1
SNY                               S     S       03 54 09.6 -7.0
SNY                               pmax  pmax
      comp=Z,37nm,0.9s
SNY                               pmax  pmax
      comp=Z,610nm,3.6s
SNY                               L     L
      comp=Z,1µm,18.9s
SNY                               L     L
      comp=Z,2µm,21.0s
SNY                               L     L
      comp=Z,2µm,19.2s
EIDS  Eidsvold         37.72 142  P     P       03 48 29.9 -0.3
      comp=Z,222nm,1.0s
EIDS  Eidsvold         37.72 142  P     P       03 48 30.5 +0.3
EIDS  Eidsvold         37.72 142  P     P       03 48 29.4 -0.7
EIDS  Eidsvold         37.72 142  P     P       03 48 30.4 +0.3
      comp=Z,222nm,1.0s
BBOO  Buckleboo        37.82 167  P     P       03 48 30.3 -0.5
      comp=Z,242nm,1.5s
BBOO  Buckleboo        37.82 167  P     P       03 48 31.3 +0.5
BBOO  Buckleboo        37.82 167  P     P       03 48 30.3 -0.5
BBOO  Buckleboo        37.82 167  P     P       03 48 30.9 +0.1
      comp=Z,242nm,1.5s
KOHI  KOHIMA           37.87 308 eP     P       03 48 29.8 -1.8
KOHI                              IAmb  IAmb    03 48 54.0
      comp=Z,58nm,0.4s
NWAO  Narrogin (SRO)   37.93 193  P     P       03 48 31.0 -0.7
      comp=Z,126nm,1.4s
NWAO  Narrogin (SRO)   37.93 193  P     P       03 48 32.6 +0.8
      comp=Z,207nm,1.3s
NWAO  Narrogin (SRO)   37.93 193  P     P       03 48 32.0 +0.2
NWAO  Narrogin (SRO)   37.93 193  P     P       03 48 31.7 -0.1
NWAO  Narrogin (SRO)   37.93 193  P     P       03 48 31.6 -0.1
NWAO                              pmax  pmax
      comp=Z,153nm,1.2s
NWAO  Narrogin (SRO)   37.93 193  P     P       03 48 31.6 -0.1
NWAO                              IAmb  IAmb    03 48 33.2
      comp=Z,153nm,1.2s
NWAO  Narrogin (SRO)   37.93 193  P     P       03 48 32.5 +0.8
      comp=Z,122nm,1.3s
LZDM  Lanzhou Array    38.09 329  P     P       03 48 34.2 +0.7
      comp=Z,4.7nm,0.3s,baz=166,slow=7.4,SNR=1.7
      comp=Z,4.7nm,0.3s
AZL   Aizawl           38.11 304 eP     P       03 48 32.5 -1.1
AZL                               IAmb  IAmb    03 48 46.9
      comp=Z,40nm,1.0s
LZH   Lanzhou          38.11 329  P     P       03 48 34.3 +0.8
LZH                               S     S       03 54 22.0 -2.5
LZH                               SS    SS      03 57 12.9  0.0
LZH                               pmax  pmax
      comp=Z,140nm,1.1s
LZH                               pmax  pmax
      comp=Z,230nm,4.5s
LZH                               L     L
      comp=Z,3µm,18.1s
LZH                               L     L
      comp=Z,4µm,19.8s
LZH                               L     L
      comp=Z,6µm,19.8s
JORH  JORHAT           38.26 309 eP     P       03 48 33.8 -0.9
JORH                              IAmb  IAmb    03 48 40.0
      comp=Z,38nm,0.2s
SILR  SILCHAR          38.47 306 eP     P       03 48 35.1 -1.4
STKA  Stephens Creek   38.54 159  P     P       03 48 37.2 +0.2
      comp=Z,1µm,1.2s
STKA  Stephens Creek   38.54 159  P     P       03 48 37.1 +0.2
      comp=Z,262nm,1.1s,baz=329,slow=8.3,SNR=162
STKA                              LR    LR      04 06 20.4
      comp=Z,1µm,21.3s,baz=325,slow=39
STKA  Stephens Creek   38.54 159  P     P       03 48 36.8 -0.2
STKA  Stephens Creek   38.54 159 iP     P       03 48 36.7 -0.2
STKA  Stephens Creek   38.54 159  P     P       03 48 37.3 +0.3
      comp=Z,1µm,1.2s
JTM   Tenmabayashi     38.72  18  P     P       03 48 40.2 +1.8
JTM   Tenmabayashi     38.72  18  P     P       03 48 36.0 -2.3
JTM                               IAmb  IAmb    03 49 09.6
      comp=Z,74nm,1.2s
JTM   Tenmabayashi     38.72  18  P     P       03 48 37.0 -1.4
      comp=Z,45nm,1.1s
HHC   Hu-ho-hao-te     38.99 342 eP     P       03 48 44.5 +3.8
HHC                               sP    sP      03 48 56.5 +1.9
HHC                               PP    PP      03 50 11.8 +1.3
HHC                               S     S       03 54 33.0 -4.5
HHC                               sS    sS      03 55 04.4  +13
HHC                               SS    SnSn    03 57 28.3 -2.0
HHC                               pmax  pmax
      comp=Z,31nm,0.6s
HHC                               pmax  pmax
      comp=Z,250nm,4.2s
HHC                               L     L
      comp=Z,2µm,19.8s
HHC                               L     L
      comp=Z,810nm,19.6s
HHC                               L     L
      comp=Z,3µm,19.5s
VLA   Vladivostok      39.09   6 iP     P       03 48 41.9 +0.5
HTT   Hallett          39.13 164  P     P       03 48 41.9  0.0
      comp=Z,51nm,1.5s
HTT   Hallett          39.13 164  P     P       03 48 42.0  0.0
HTT   Hallett          39.13 164  P     P       03 48 41.9  0.0
AULRC Lightning Ridg   39.15 150  P     P       03 48 41.9 -0.2
BTO2  Baotou           39.45 340 eP     P       03 48 48.0 +3.4
BTO2                              pP    sP      03 49 00.4 +2.0
BTO2                              sP    pP      03 49 05.0  +11
BTO2                              S     S       03 54 47.5 +3.0
BTO2                              SS    SS      03 57 36.6 -2.9
BTO2                              pmax  pmax
      comp=Z,15nm,1.3s
BTO2                              pmax  pmax
      comp=Z,520nm,6.0s
BTO2                              L     L
      comp=Z,6µm,23.5s
BTO2                              L     L
      comp=Z,3µm,21.0s
BTO2                              L     L
      comp=Z,6µm,22.2s
CN2   Changchun        39.51 359  P     P       03 48 46.0 +1.1
CN2                               sP    sP      03 49 03.7 +5.7
CN2                               PP    PnPn    03 50 21.4 +2.3
CN2                               S     S       03 54 45.9 +0.8
CN2                               SS    SS      03 57 34.8 -5.7
CN2                               pmax  pmax
      comp=Z,10.0nm,0.7s
CN2                               L     L
      comp=Z,850nm,21.0s
CN2                               L     L
      comp=Z,140nm,21.0s
CN2                               L     L
      comp=Z,740nm,19.0s
SHL   Shillong         39.57 306  P     P       03 48 44.5 -1.5
SHL   Shillong         39.57 306  P     P       03 48 44.5 -1.5
SHL   Shillong         39.57 306 eP     P       03 48 43.7 -2.2
RKGY  Rocky Gully      39.60 193  P     P       03 48 46.5 +0.7
      comp=Z,72nm,1.3s
AUALB St Joseph’s Co   39.79 191  P     P       03 48 47.1 -0.2
CMSA  Cobar Meteorol   39.85 154  P     P       03 48 48.2 +0.3
      comp=Z,185nm,1.4s
CMSA  Cobar Meteorol   39.85 154  P     P       03 48 48.3 +0.4
CMSA  Cobar Meteorol   39.85 154  P     P       03 48 48.5 +0.6
      comp=Z,185nm,1.4s
TW1H  Toowoomba 1 Ha   39.87 144  P     P       03 48 49.1 +0.9
AUTOO Toowoomba Stat   39.87 144  P     P       03 48 48.2  0.0
AUBSH Beerwah State    39.95 142  P     P       03 48 49.4 +0.6
USA0B Ussuriysk Arra   40.17   6 iP     P       03 48 49.9 -0.5
USRK  Ussuriysk Ar.    40.17   6  P     P       03 48 51.2 +0.8
      comp=Z,7.0nm,0.8s,baz=193,slow=7.8,SNR=11
USRK                              LR    LR      04 07 26.7
      comp=Z,994nm,19.1s,baz=186,slow=39
      comp=Z,7.0nm,0.8s
USRK  Ussuriysk Ar.    40.17   6  P     P       03 48 51.4 +1.0
USRK  Ussuriysk Ar.    40.17   6  P     P       03 48 51.4 +1.0
MDJ   Mudanjiang       40.40   3  P     P       03 48 54.3 +2.1
MDJ                               S     S       03 55 02.6 +4.3
MDJ                               sS    sS      03 55 20.1 +6.1
MDJ                               pmax  pmax
      comp=Z,31nm,1.0s
MDJ                               L     L
      comp=Z,2µm,24.0s
MDJ                               L     L
      comp=Z,740nm,21.4s
MDJ                               L     L
      comp=Z,3µm,24.3s
MDJ   Mudanjiang       40.40   3  P     P       03 48 52.1 -0.1
MDJ                               IAmb  IAmb    03 49 10.0
      comp=Z,110nm,1.2s
MDJ   Mudanjiang       40.40   3  P     P       03 48 54.2 +1.9
      comp=Z,84nm,1.3s
TAWA  Tawang           40.53 309 eP     P       03 48 52.4 -1.7
XLT   XiLinHaoTe       40.68 348 eP     P       03 48 56.2 +1.4
XLT                               S     S       03 55 00.6 -2.2
XLT                               ScS   ScS     03 58 50.4 -7.4
XLT                               pmax  pmax
      comp=Z,30nm,1.5s
XLT                               L     L
      comp=Z,2µm,19.3s
XLT                               L     L
      comp=Z,2µm,21.2s
AUMBR Murray Bridge    40.83 164  P     P       03 48 57.1 +1.2
GC1S  Gold Coast 1 S   41.24 143  P     P       03 49 00.2 +0.8
BNX   BinXian          41.44   1 ⇓P     P       03 49 02.2 +1.4
BNX                               pP    sP      03 49 13.6 -0.8
BNX                               sP    pwP     03 49 18.9 +6.6
BNX                               S     S       03 55 16.7 +2.9
BNX                               sS    sS      03 55 35.1 +6.8
BNX                               SS    SS      03 58 23.2 +4.3
BNX                               pmax  pmax
      comp=Z,32nm,1.5s
BNX                               pmax  pmax
      comp=Z,380nm,6.8s
BNX                               L     L
      comp=Z,1µm,26.0s
BNX                               L     L
      comp=Z,870nm,19.0s
BNX                               L     L
      comp=Z,2µm,23.9s
H11S3 WAKE ISLAND Hy   41.64  67  T     T       04 33 28.0
      baz=252,slow=75,SNR=47
H11S1 WAKE ISLAND Hy   41.66  67  T     T       04 33 26.8
      baz=252,slow=75,SNR=26
H11S2 WAKE ISLAND Hy   41.66  67  T     T       04 33 26.5
      baz=252,slow=75,SNR=34
AUDCS Dubbo College    41.77 152  P     P       03 49 04.5 +0.8
ARMA  Armidale         41.85 147  P     P       03 49 06.0 +1.4
      comp=Z,294nm,1.3s
ARMA  Armidale         41.85 147  P     P       03 49 05.9 +1.4
ARMA  Armidale         41.85 147  P     P       03 49 04.9 +0.3
ARMA  Armidale         41.85 147  P     P       03 49 05.4 +0.9
      comp=Z,294nm,1.3s
AUPHS Peel High Scho   41.99 148  P     P       03 49 06.9 +1.3
LSA   Lhasa            42.11 311  P     P       03 49 08.7 +1.5
      comp=Z,38nm,1.1s
H11N1 WAKE ISLAND Hy   42.16  65  T     T       04 34 44.0
      baz=264,slow=75,SNR=15
H11N2 WAKE ISLAND Hy   42.16  65  T     T       04 34 27.5
      baz=264,slow=75,SNR=15
H11N3 WAKE ISLAND Hy   42.17  65  T     T       04 34 26.5
      baz=264,slow=75,SNR=17
JKA   Kamikawa-asahi   42.23  17  P     P       03 49 06.6 -0.7
      comp=Z,74nm,1.1s
GTA2  Gaotai           42.79 329  P     P       03 49 12.5 +0.3
GTA2                              pP    sP      03 49 25.4 -0.6
GTA2                              PcP   PcP     03 51 06.4 +3.2
GTA2                              ScP   ScP     03 54 53.2 +1.3
GTA2                              S     S       03 55 32.3 -1.9
GTA2                              ScS   ScS     03 59 10.9 -0.1
GTA2                              pmax  pmax
      comp=Z,17nm,0.9s
GTA2                              pmax  pmax
      comp=Z,150nm,8.6s
GTA2                              L     L
      comp=Z,4µm,21.0s
GTA2                              L     L
      comp=Z,4µm,21.3s
GTA2                              L     L
      comp=Z,6µm,22.3s
ARPS  Mount Arapiles   43.10 162  P     P       03 49 15.3 +0.9
      comp=Z,97nm,1.2s
GOMU  GeErMu           43.32 322  P     P       03 49 17.7 +1.0
GOMU                              S     S       03 55 39.0 -3.5
GOMU                              SS    SS      03 58 48.6 -8.2
GOMU                              pmax  pmax
      comp=Z,10.0nm,0.7s
GOMU                              L     L
      comp=Z,2µm,17.3s
GOMU                              L     L
      comp=Z,2µm,17.5s
GOMU                              L     L
      comp=Z,5µm,17.6s
MGBR  Mount Gambier    43.62 164  P     P       03 49 19.5 +0.9
MGBR                              IAmb  IAmb    03 50 12.5
      comp=Z,215nm,2.0s
MGCD  Mangrove Creek   43.78 150  P     P       03 49 22.1 +2.2
      comp=Z,77nm,1.3s
MGCD  Mangrove Creek   43.78 150  P     P       03 49 21.1 +1.1
MGCD  Mangrove Creek   43.78 150  P     P       03 49 22.2 +2.2
      comp=Z,77nm,1.3s
BOK   Bokaro           43.88 300 eP     P       03 49 20.1 -0.9
BOK                               IAmb  IAmb    03 49 27.8
      comp=Z,27nm,1.2s
SYDH  Sydney Hard Ro   44.04 151  P     P       03 49 23.0 +0.9
AUHPC Hawkesdale P12   44.48 162  P     P       03 49 26.2 +0.7
BRAT  Ballarat         44.48 160  P     P       03 49 27.2 +1.6
VIS   Vishakhapatnam   44.49 291 eP     P       03 49 25.6 -0.4
AUMTS Mt Stromlo       44.51 154  P     P       03 49 27.6 +1.7
CAN   Canberra         44.51 154  P     P       03 49 28.1 +2.2
      comp=Z,245nm,1.3s
CAN   Canberra         44.51 154  P     P       03 49 27.6 +1.7
CAN   Canberra         44.51 154  P     P       03 49 26.1 +0.2
CAN                               pmax  pmax
      comp=Z,347nm,1.2s
CAN   Canberra         44.51 154  P     P       03 49 26.1 +0.2
CAN   Canberra         44.51 154  P     P       03 49 27.7 +1.8
      comp=Z,245nm,1.3s
AUMHS Melrose High S   44.59 154  P     P       03 49 28.5 +2.0
SANVU Saraoutou        44.62 117  P     P       03 49 28.9 +1.9
SANVU Saraoutou        44.62 117  P     P       03 49 27.5 +0.5
SANVU                             IAmb  IAmb    03 49 30.7
      comp=Z,62nm,1.0s
SANVU Saraoutou        44.62 117  P     P       03 49 29.3 +2.3
      comp=Z,79nm,1.2s
WOLH  Wollongong Har   44.62 151  P     P       03 49 28.7 +2.0
CNB   Canberra Magne   44.67 153  P     P       03 49 28.9 +1.7
      comp=Z,4.6nm,1.3s
EVN   Everest          44.68 306  P     P       03 49 28.1 -0.1
      comp=Z,66nm,0.9s
GAYA  Gaya             44.79 301 eP     P       03 49 27.8 -0.5
GAYA                              IAmb  IAmb    03 49 40.6
YSS   Yuzhno-Sakhali   44.87  16  P     P       03 49 33.0 +4.5
YSS   Yuzhno-Sakhali   44.87  16 eP     P       03 49 30.5 +2.0
YSS                              e              03 51 14.1
YSS                              eS     S       03 56 04.8 +0.8
YSS                              eSS    ScS     03 59 23.3 -0.1
YSS                               pmax  pmax
      comp=Z,100nm,3.4s
YSS                               pmax  pmax
      comp=Z,40nm,0.8s
YSS                               smax  smax
      comp=N,300nm,12.0s
TOO   Toolangi         45.05 159  P     P       03 49 32.0 +1.9
      comp=Z,51nm,1.5s
TOO   Toolangi         45.05 159  P     P       03 49 32.0 +1.9
KLR   Kul'dur          45.14   5  LR    LR      04 07 45.5
      comp=Z,669nm,21.4s,baz=194,slow=35
KLR   Kul'dur          45.14   5 eP     P       03 49 29.7 -0.9
KLR                               pmax  pmax
      comp=Z,13nm,1.7s
AUSMG Snowy Mountain   45.27 155  P     P       03 49 33.3 +1.3
HIA   Hailar           45.35 354  P     P       03 49 34.0 +1.7
      comp=Z,84nm,1.3s
HILR  Hailar Array B   45.63 354  P     P       03 49 35.9 +1.2
      comp=Z,8.6nm,0.5s,baz=171,slow=9.9,SNR=5.9
HILR                              LR    LR      04 10 19.0
      comp=Z,1µm,21.5s,baz=70,slow=38
      comp=Z,8.6nm,0.5s
PALK  Pallekele        45.81 276  LR    LR      04 11 43.7
      comp=Z,647nm,19.2s,baz=94,slow=40
HEH   HeiHe            45.96   1 eP     P       03 49 37.8 +0.7
HEH                               pP    sP      03 49 50.8 +0.1
HEH                               S     S       03 56 20.9 +1.3
HEH                               pmax  pmax
      comp=Z,28nm,1.4s
HEH                               L     L
      comp=Z,1µm,22.9s
HEH                               L     L
      comp=Z,1µm,18.1s
HEH                               L     L
      comp=Z,3µm,23.8s
MILA  Mila             46.04 155  P     P       03 49 39.6 +1.5
      comp=Z,34nm,1.6s
ULN   Ulaanbaatar      46.71 342ceP     P       03 49 44.0 +0.8
ULN                               pmax  pmax
      comp=Z,72nm,1.1s
ULN   Ulaanbaatar      46.71 342  P     P       03 49 43.2  0.0
ULN                               IAmb  IAmb    03 50 08.1
      comp=Z,65nm,1.1s
ULN   Ulaanbaatar      46.71 342  P     P       03 49 44.1 +0.8
ULN   Ulaanbaatar      46.71 342  P     P       03 49 44.2 +0.9
      comp=Z,51nm,1.0s
NOUC  Port Laguerre    46.74 126  P     P       03 49 45.7 +2.0
VLK   Valmikinagar     46.84 304 eP     P       03 49 42.8 -1.6
VAR   Varanasi         46.86 301 eP     P       03 49 44.8 +0.2
SONM  Songino Array    46.89 341  P     P       03 49 45.0 +0.4
      comp=Z,7.5nm,1.0s,baz=153,slow=8.2,SNR=18
SONM                              PcP   PcP     03 51 18.3 +1.2
      comp=Z,5.3nm,0.8s,baz=193,slow=5.9,SNR=1.5
SONM                              LR    LR      04 11 59.5
      comp=Z,2µm,19.9s,baz=161,slow=39
      comp=Z,7.5nm,1.0s
SONM  Songino Array    46.89 341  P     P       03 49 44.4 -0.2
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SONM                                IAmb    IAmb   03 50 00.3
      comp=Z,29nm,0.9s
SONM                                        PcP    03 51 18.0 +0.9
LHI   Lord Howe Isla    47.02 141   P       P      03 49 45.2 -0.5
      comp=Z,34nm,1.0s
LHI   Lord Howe Isla    47.02 141   P       P      03 49 44.6 -1.1
LHI                                 IAmb    IAmb   03 49 47.7
      comp=Z,32nm,1.1s
GRNR  Gornyy            47.19   8⇑iP        P      03 49 49.0 +2.2
GRNR                                pmax    pmax
      comp=Z,8.0nm,1.0s
GRNR                                MLR     MLR
      comp=N,580nm,16.0s
GRNR                                MLR     MLR
      comp=Z,800nm,15.0s
YATNC Mamie plateau,    47.19 125   P       P      03 49 49.5 +2.2
ALBI  Allahabad         47.88 301  eP       P      03 49 51.1 -1.5
ALBI                                IAmb    IAmb   03 50 18.5
      comp=Z,20nm,0.2s
AUBRN Burnie High Sc    48.28 161   P       P      03 49 57.0 +1.7
TYV   Tymovskoe         48.47  14  eP       P      03 49 56.7 +0.1
TYV                                eS       S      03 56 54.6 -0.7
TYV                                 pmax    pmax
      comp=Z,300nm,5.3s
TYV                                 pmax    pmax
      comp=Z,25nm,1.4s
TYV                                 smax    smax
      comp=N,700nm,7.2s
TYV                                 smax    smax
      comp=E,400nm,7.2s
BRCI  Bahraich          48.80 303  eP       P      03 49 58.7 -0.9
BRCI                                IAmb    IAmb   03 50 10.8
      comp=Z,39nm,0.2s
HYB   Hyderabad         48.90 289  eP       P      03 50 00.8 +0.2
HYB                                ePcP     PcP    03 51 24.8  0.0
HYB                                ePP      PP     03 51 54.5 +0.2
HYB                                eS       S      03 57 05.6 +3.0
HYB                                eScS     ScS    03 59 53.4 +2.3
CIT   Chita             48.95 349  eP       P      03 50 02.0 +1.6
CIT                                e               03 51 25.0
CIT                                e               03 52 50.0
CIT                                 pmax    pmax
      comp=Z,159nm,1.6s
GLAD  Gladstone         48.97 159   P       P      03 50 02.2 +1.5
CORO  Coronation Par    49.08 160   P       P      03 50 03.1 +1.7
LKN   LUCKNOW           49.14 302  eP       P      03 50 01.5 -0.8
ZEA   Zeya              49.45   0  eP       P      03 49 59.8 -4.3
ZEA                                e               03 50 03.8
ZEA                                e               03 52 00.1
ZEA                                eS       S      03 57 09.5 +0.5
ZEA                                e               03 59 57.2
ZEA                                 pmax    pmax
      comp=Z,20nm,1.4s
ZEA                                 pmax    pmax
      comp=Z,100nm,2.5s
ZEA                                 pmax    pmax
      comp=Z,100nm,5.7s
ZEA                                 smax    smax
      comp=N,200nm,15.1s
ZEA                                 MLR     MLR
      comp=N,400nm,15.0s
ZEA                                 MLR     MLR
      comp=Z,600nm,15.0s
MOO   Moorlands         49.97 160   P       P      03 50 10.3 +2.0
ZAK   Zakamensk         50.11 341  eP       P      03 50 08.4 -1.0
ZAK                                 pmax    pmax
      comp=Z,22nm,1.8s
TAU   Tasmania Unive    50.43 160   P       P      03 50 13.8 +2.1
TAU   Tasmania Unive    50.43 160   P       P      03 50 13.6 +1.9
TAU   Tasmania Unive    50.43 160   P       P      03 50 08.3 -3.4
      comp=Z,53nm,3.0s
IRK   Irkutsk           51.42 343  eP       P      03 50 19.1  0.0
IRK                                 pmax    pmax
      comp=Z,138nm,1.7s
JOSI  Joshimath         51.53 306  eP       P      03 50 18.8 -1.8
JOSI                                IAmb    IAmb   03 50 33.1
      comp=Z,35nm,0.6s
GUNA  GUNA              51.58 298  eP       P      03 50 19.6 -1.3
GUNA                                IAmb    IAmb   03 50 32.9
      comp=Z,27nm,1.0s
MOY   Mondy             51.97 340  eP       P      03 50 23.8 +0.4
MOY                                 pmax    pmax
      comp=Z,130nm,1.9s
UGON  Onchagaon         52.13 303  eP       P      03 50 23.7 -1.2
WMQ   Urumqi            52.34 325  eP       P      03 50 29.3 +3.1
WMQ                                 sP      sP     03 50 44.2 +3.9
WMQ                                 PcP     PcP    03 51 40.8 +3.8
WMQ                                 PP      PP     03 52 29.9 +4.8
WMQ                                 pmax    pmax
      comp=Z,25nm,1.5s
WMQ                                 pmax    pmax
      comp=Z,190nm,4.1s
WMQ                                 L       L
      comp=Z,4µm,18.5s
WMQ                                 L       L
      comp=Z,2µm,18.5s
WMQ                                 L       L
      comp=Z,4µm,23.9s
ASOR  Ausora            52.39 303  eP       P      03 50 25.5 -1.2
ASOR                                IAmb    IAmb   03 50 27.5
      comp=Z,16nm,0.3s
SKR   Severo-Kuril's    52.57  23  eP       P      03 50 38.5  +11
SKR                                 pmax    pmax
      comp=Z,200nm,3.9s
AYAN  Aya Nagar         52.84 303  eP       P      03 50 28.5 -1.6
AYAN                                IAmb    IAmb   03 50 48.5
      comp=Z,12nm,0.2s
NPLP  NPLP New Delhi    52.85 303  eP       P      03 50 28.8 -1.4
KLP   Kalpa             52.93 307  eP       P      03 50 29.5 -1.6
KLP                                 IAmb    IAmb   03 50 43.8
      comp=Z,22nm,0.4s
KUDL  Kundal            53.28 302  eP       P      03 50 32.2 -1.1
RTK   Rohtak            53.61 303  eP       P      03 50 32.6 -3.1
SMLA  Simla             53.66 306  eP       P      03 50 35.0 -1.1
CGRH  CHANDIGARH        53.84 305  eP       P      03 50 35.3 -2.1
CGRH                                IAmb    IAmb   03 50 37.6
      comp=Z,27nm,0.3s
BHK   Bhakra            54.38 306  eP       P      03 50 37.2 -4.2
BHK                                 IAmb    IAmb   03 50 45.7
      comp=Z,21nm,1.3s
TSSA  Tissa             55.05 308  eP       P      03 50 45.1 -1.3
PEA0B Petropavlovsk-    55.08  22  i P      P      03 50 47.0 +1.0
PETK  Petropavlovsk-    55.08  22   P       P      03 50 46.6 +0.6
      comp=Z,3.9nm,0.6s,baz=187,slow=5.5,SNR=5.5
PETK                                LR      LR     04 15 16.5
      comp=Z,692nm,19.4s,baz=213,slow=37
      comp=Z,3.9nm,0.6s
PETK  Petropavlovsk-    55.08  22   P       P      03 50 46.0  0.0
MSVF  Nonsavu           55.16 115   LR      LR     04 13 17.4
      comp=Z,746nm,19.6s,baz=304,slow=35
MSVF  Nonsavu           55.16 115   P       P      03 50 50.1 +2.9
MSVF  Nonsavu           55.16 115   P       P      03 50 48.7 +1.5
      comp=Z,64nm,1.2s
H08S2 Diego Garcia H    55.29 258   P       P      03 50 45.9 -1.9
H08S3 Diego Garcia H    55.29 258   P       P      03 50 45.9 -2.0
      baz=57,slow=74,SNR=3.8
H08S1 Diego Carcia H    55.30 258   P       P      03 50 46.4 -1.5
      baz=359,slow=74,SNR=3.2
PET   Petropavlovsk     55.38  23  eP       P      03 50 55.8 +7.7
PET                                eS       S      03 58 34.4 +4.1
PET                                ePS      PnS    03 58 53.0  +10
PET                                 pmax    pmax
      comp=Z,100nm,18.1s
PET                                 MLR     MLR
      comp=Z,700nm,16.0s
PET                                 MLR     MLR
      comp=Z,600nm,21.0s
SRGN  SRI GANGA NAGA55.98 303      eP       P      03 50 52.1 -0.8
JMU   Jammu             56.08 307  eP       P      03 50 52.5 -1.1
JMU                                 IAmb    IAmb   03 51 01.9
      comp=Z,16nm,0.8s
ZSN   Zaisan            56.12 327  eP       P      03 50 53.3 -0.3
ZSN   Zaisan            56.12 327  eP       P      03 50 53.4 -0.3
WUS   Wushi             56.21 318   P       P      03 50 53.6 -0.8
      comp=Z,18nm,1.0s
DGTI  Dogotuki          56.27 113   P       P      03 50 58.1 +3.0
SHLS  Shalkode          56.98 320  eP       P      03 50 57.5 -2.4
SHLS                                pmax    pmax
      comp=Z,20nm,1.0s
SHLS  Shalkode          56.98 320  eP       P      03 50 57.6 -2.4
      comp=Z,20nm,1.0s
PDGK  Podgornoye        57.05 320   P       P      03 50 59.7 -0.7
PDGK  Podgornoye        57.05 320   P       P      03 50 59.7 -0.7
MK31  Makanchi Array    57.17 325  i P      P      03 51 00.0 -1.1
MK31                                pmax    pmax
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      comp=Z,99nm,1.6s
MKAR  Makanchi Array    57.17 325   P       P      03 51 00.3 -0.8
      comp=Z,14nm,0.8s,baz=124,slow=7.6,SNR=85
MKAR                                ScP     ScP    03 55 53.4 +0.5
      comp=Z,3.7nm,0.8s,baz=122,slow=4.6,SNR=4.8
MKAR                                LR      LR     04 16 37.6
      comp=Z,3µm,20.2s,baz=90,slow=37
MKAR                                PKPPKP  P'P'df 04 20 52.4 +0.7
      comp=Z,0.4nm,0.8s,baz=241,slow=5.9,SNR=5.0
      comp=Z,14nm,0.8s
MKAR  Makanchi Array    57.17 325   P       P      03 51 00.9 -0.2
MKAR                                        ScP    03 55 54.3 +1.4
UZB   Uzynbulak         57.26 320  eP       P      03 51 01.4 -0.5
UZB                                 pmax    pmax
      comp=Z,26nm,1.9s
UZB   Uzynbulak         57.26 320  eP       P      03 51 01.4 -0.5
      comp=Z,26nm,1.9s
PRZ   Przheval'sk       57.35 319   P       P      03 51 03.2 +0.6
PRZ                                 pmax    pmax
      comp=Z,41nm,1.0s
PRZ   Przheval'sk       57.35 319   P       P      03 51 03.2 +0.6
PRZ                                 IAmb    IAmb   03 52 11.2
      comp=Z,41nm,1.0s
MAKZ  Makanchi          57.36 325   P       P      03 51 01.7 -0.8
MAKZ                                pmax    pmax
      comp=Z,206nm,1.7s
MAKZ  Makanchi          57.36 325   P       P      03 51 01.7 -0.8
MAKZ  Makanchi          57.36 325   P       P      03 51 01.9 -0.5
      comp=Z,60nm,1.4s
TARG  Taragay, Kyrgy    57.39 318   P       P      03 51 02.2 -1.0
TARG                                pmax    pmax
      comp=Z,46nm,1.3s
TARG  Taragay, Kyrgy    57.39 318   P       P      03 51 02.2 -1.0
TARG                                IAmb    IAmb   03 51 24.0
      comp=Z,46nm,1.3s
TARG  Taragay, Kyrgy    57.39 318   P       P      03 51 03.9 +0.7
      comp=Z,32nm,1.1s
NIL   Nilore            57.61 308   P       P      03 51 04.0 -0.4
NIL                                 pmax    pmax
      comp=Z,53nm,1.1s
NIL   Nilore            57.61 308   P       P      03 51 04.0 -0.4
NIL                                 IAmb    IAmb   03 51 31.6
      comp=Z,52nm,1.1s
NIL   Nilore            57.61 308   P       P      03 51 04.1 -0.4
      comp=Z,53nm,1.0s
SATY  Saty              57.61 320  eP       P      03 51 04.0 -0.4
SATY                                pmax    pmax
      comp=Z,20nm,1.0s
SATY  Saty              57.61 320  eP       P      03 51 04.0 -0.4
      comp=Z,20nm,1.0s
KPKS  Kokpek            57.63 320  eP       P      03 51 04.0 -0.5
KPKS  Kokpek            57.63 320  eP       P      03 51 04.0 -0.5
YAK   Yakutsk           57.80   2   LR      LR     04 17 35.2
      comp=Z,711nm,19.7s,baz=182,slow=38
YAK   Yakutsk           57.80   2  eP       P      03 51 05.5 +0.3
YAK                                e               03 51 51.7
YAK                                e               03 53 14.0
YAK                                ePPP     PPP    03 54 32.3
YAK                                eS       S      03 59 00.3 -1.7
YAK                                e               04 00 48.4
YAK                                eSS      SS     04 02 52.4 -0.6
YAK                                 pmax    pmax
      comp=Z,84nm,0.8s
YAK                                 pmax    pmax
      comp=N,58nm,1.5s
YAK                                 pmax    pmax
      comp=E,16nm,1.2s
YAK                                 pmax    pmax
      comp=Z,121nm,2.5s
YAK                                 pmax    pmax
      comp=N,98nm,2.4s
YAK                                 pmax    pmax
      comp=E,64nm,2.4s
YAK                                 smax    smax
      comp=E,341nm,4.8s
YAK                                 smax    smax
      comp=N,340nm,6.0s
YAK                                 MLR     MLR
      comp=E,423nm,18.0s
YAK   Yakutsk           57.80   2   P       P      03 51 05.9 +0.7
      comp=Z,212nm,0.8s
KSH2  Kashi             57.84 314   P       P      03 51 07.4 +1.3
KSH2                                sP      sP     03 51 21.8 +1.6
KSH2                                S       S      03 59 01.9 -1.8
KSH2                                pmax    pmax
      comp=Z,15nm,1.3s
KSH2                                L       L
      comp=Z,1µm,19.8s
KSH2                                L       L
      comp=Z,2µm,19.4s
KSH2                                L       L
      comp=Z,3µm,20.3s
ASAI  AK-SAY(Kyrgyzs    57.90 317   P       P      03 51 06.7  0.0
      comp=Z,30nm,1.4s
KDJ   Kajisay           57.99 318   P       P      03 51 07.0 -0.1
      comp=Z,23nm,1.1s
MA2   Magadan           58.33  14   LR      LR     04 14 44.3
      comp=Z,550nm,21.7s,baz=208,slow=34
MA2   Magadan           58.33  14   P       P      03 51 11.6 +2.7
MA2   Magadan           58.33  14  i P      P      03 51 10.2 +1.3
MA2                                 pmax    pmax
      comp=Z,18nm,1.0s
MA2   Magadan           58.33  14   P       P      03 51 10.6 +1.6
      comp=Z,22nm,1.5s
MDOK  Medeo             58.54 319  eP       P      03 51 10.4 -0.5
MDOK  Medeo             58.54 319  eP       P      03 51 10.5 -0.5
TDK   Taldyqorghan      58.55 322  eP       P      03 51 10.4 -0.4
TDK                                 pmax    pmax
      comp=Z,23nm,1.0s
TDK   Taldyqorghan      58.55 322  eP       P      03 51 10.4 -0.4
      comp=Z,23nm,1.0s
TNSS  Tian-Shan         58.55 319  eP       P      03 51 10.5 -0.8
TNSS  Tian-Shan         58.55 319  eP       P      03 51 10.5 -0.8
AAA   Alma-Ata          58.65 319  eP       P      03 51 11.2 -0.3
AAA   Alma-Ata          58.65 319  eP       P      03 51 11.3 -0.3
OUZ   Omahuta           58.91 136   P       P      03 51 14.7 +1.3
      comp=Z,55nm,1.5s
BOOM  Boomskoye usch    58.97 318   P       P      03 51 14.0  0.0
      comp=Z,13nm,0.7s
KUU   Kurty             59.33 320  eP       P      03 51 16.0 -0.2
KUU                                 pmax    pmax
      comp=Z,27nm,1.2s
KUU   Kurty             59.33 320  eP       P      03 51 16.0 -0.2
      comp=Z,27nm,1.2s
AAK   Ala-Archa         60.00 318   LR      LR     04 19 36.4
      comp=Z,2µm,20.8s,baz=89,slow=38
AAK   Ala-Archa         60.00 318ceP        P      03 51 20.7 -0.3
AAK                                 pmax    pmax
      comp=Z,14nm,1.2s
AAK   Ala-Archa         60.00 318   P       P      03 51 20.8 -0.3
      comp=Z,17nm,1.1s
ZALV  Zalesovo Beam     60.19 333   P       P      03 51 20.6 -1.3
      comp=Z,5.3nm,0.6s,baz=118,slow=6.7,SNR=24
ZALV                                LR      LR     04 19 09.0
      comp=Z,2µm,20.3s,baz=130,slow=38
      comp=Z,5.3nm,0.6s
ZALV  Zalesovo Beam     60.19 333  i P      P      03 51 21.2 -0.7
ZALV                                pmax    pmax
      comp=Z,5.0nm,0.6s
ZALV  Zalesovo Beam     60.19 333   P       P      03 51 20.9 -0.9
SGDS  Sogindy           60.25 319  eP       P      03 51 22.4 -0.3
SEM   Semipalatinsk     60.31 328  eP       P      03 51 22.5 -0.6
SEM                                 pmax    pmax
      comp=Z,22nm,1.3s
SEM   Semipalatinsk     60.31 328  eP       P      03 51 22.6 -0.6
      comp=Z,22nm,1.3s
OHH   Osh               60.34 315   P       P      03 51 23.4  0.0
      comp=Z,12nm,0.5s
DRK   Karamyk           60.67 313   P       P      03 51 26.3 +0.4
      comp=Z,71nm,0.7s
JCZ   Jackson Bay       61.09 146   P       P      03 51 30.7 +2.4
KBL   Kabul             61.21 307   P       P      03 51 29.1 -0.4
KBL                                 pmax    pmax
      comp=Z,26nm,1.1s
KBL   Kabul             61.21 307   P       P      03 51 28.6 -0.9
      comp=Z,26nm,1.1s
KURBB Kurchatov Arra    61.35 327   P       P      03 51 29.9  0.0
      comp=Z,37nm,0.8s,baz=124,slow=6.0,SNR=117
KURBB                               LR      LR     04 19 53.2
      comp=Z,1µm,19.4s,baz=163,slow=38
      comp=Z,37nm,0.8s
KURBB Kurchatov Arra    61.35 327   P       P      03 51 29.4 -0.5
KURK  Kurchatov         61.35 327ceP        P      03 51 29.1 -0.8
KURK                                pmax    pmax
      comp=Z,57nm,0.9s
KURK  Kurchatov         61.35 327   P       P      03 51 29.2 -0.7
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KURK  Kurchatov         61.35 327   P       P      03 51 29.2 -0.7
      comp=Z,78nm,1.1s
HIZ   Hauiti            61.51 138   P       P      03 51 28.6 -2.6
      comp=Z,112nm,1.2s
BTK   Batken            61.58 314   P       P      03 51 31.4 -0.3
      comp=Z,28nm,1.6s
SEY   Seymchan          61.65  13   LR      LR     04 19 48.8
      comp=Z,629nm,19.6s,baz=198,slow=38
SEY   Seymchan          61.65  13  eP       P      03 51 31.4 -0.3
SEY                                 pmax    pmax
      comp=Z,50nm,1.3s
RPZ   Rata Peaks        62.14 145   LR      LR     04 19 27.0
      comp=Z,400nm,18.8s,baz=204,slow=37
SHEM  Shemya Is, Ala    62.15  30   LR      LR     04 18 18.1
      comp=Z,386nm,18.7s,baz=280,slow=36
DZA   Taraz             62.24 317  eP       P      03 51 35.7 -0.4
DZA                                 pmax    pmax
      comp=Z,10.0nm,0.8s
DZA   Taraz             62.24 317  eP       P      03 51 35.8 -0.4
      comp=Z,9.5nm,0.8s
IUG   Iuzhnay           62.87 316  eP       P      03 51 39.8 -0.6
IUG                                 pmax    pmax
      comp=Z,44nm,1.4s
IUG   Iuzhnay           62.87 316  eP       P      03 51 39.9 -0.6
      comp=Z,44nm,1.4s
KK31  Karatay Array     62.88 317  i P      P      03 51 39.2 -1.1
URZ   Urewera           62.89 137   LR      LR     04 18 50.5
      comp=Z,2µm,20.6s,baz=305,slow=36
URZ   Urewera           62.89 137   P       P      03 51 40.0 -0.4
      comp=Z,45nm,1.6s
BKZ   Black Stump Fm    62.94 138   P       P      03 51 41.5 +0.7
CHM   Chimkent          63.23 316  eP       P      03 51 42.4 -0.2
CHM                                 pmax    pmax
      comp=Z,3.0nm,0.2s
CHM   Chimkent          63.23 316  eP       P      03 51 42.4 -0.2
      comp=Z,3.1nm,0.2s
BRLS  Borolday          63.31 317  eP       P      03 51 43.0 -0.2
BRLS                                pmax    pmax
      comp=Z,26nm,1.6s
BRLS  Borolday          63.31 317  eP       P      03 51 43.0 -0.2
      comp=Z,26nm,1.6s
BVA0  Borovoye Array    66.94 327  i P      P      03 52 05.2 -1.3
BVAR  Borovoye Array    66.94 327   P       P      03 52 06.7 +0.2
      comp=Z,34nm,1.0s,baz=126,slow=9.0,SNR=18
      comp=Z,34nm,1.0s
BORK  Borovoye          66.98 327  i P      P      03 52 06.0 -0.8
BORK                                pmax    pmax
      comp=Z,47nm,1.1s
TIXI  Tiksi             67.44   1   LR      LR     04 23 35.4
      comp=Z,715nm,20.9s,baz=199,slow=38
TIXI  Tiksi             67.44   1ceP        P      03 52 08.3 -1.0
TIXI                                pmax    pmax
      comp=Z,38nm,1.0s
ATKA  Atka Island       68.21  35   P       P      03 52 18.7 +4.2
BILL  Bilibino          69.18  15  i P      P      03 52 20.4 +0.1
BILL                                pmax    pmax
      comp=Z,14nm,1.0s
NRIK  Noril'sk          70.02 346   LR      LR     04 26 19.0
      comp=Z,2µm,20.0s,slow=39
CASY  Casey             71.21 187   P       P      03 52 33.7 +1.0
      comp=Z,72nm,1.2s
DRV   Dumont d'Urvil    71.29 174   P       P      03 52 33.3 +0.2
AB31  Akbulak array     71.78 321  i P      P      03 52 35.7 -0.9
AKTO  Aktyubinsk        73.29 322   LR      LR     04 27 42.1
      comp=Z,2µm,19.7s,baz=78,slow=38
SVE   Sverdlovsk        73.57 328  eP       P      03 52 47.8 +0.8
SVE                                 pmax    pmax
      comp=Z,46nm,1.0s
SVE                                 MLR     MLR
      comp=Z,1µm,21.0s
ARTI  Arti              74.63 328   LR      LR     04 27 42.9
      comp=Z,1µm,21.8s,baz=103,slow=37
ARTI  Arti              74.63 328d iP       P      03 52 52.9 -0.3
ARTI                                               03 53 06.6
ARTI                                S       S      04 02 26.4 -0.3
ARTI                                SS      SS     04 07 09.3 -4.9
ARTI                                pmax    pmax
      comp=Z,36nm,1.8s
RAR   Rarotonga         76.27 113   LR      LR     04 23 44.9
      comp=Z,155nm,21.5s,baz=262,slow=34
SDPT  Sand Point        76.90  34   P       P      03 53 09.2 +3.0
AKT   Akhty             78.97 311  eP       P      03 53 17.7 -0.5
AKT                                e               03 53 25.7
AKT                                eS       S      04 03 12.1 -2.8
AKT                                 pmax    pmax
      comp=Z,14nm,1.1s
MAK   Makhachkala       79.25 313d iP       P      03 53 18.8 -0.7
MAK                                e               03 56 19.0
MAK                                ePPP     PPP    03 58 09.0
MAK                                eS       S      04 03 16.5 -1.0
MAK                                eSS      SS     04 08 24.7 +0.3
MAK                                eSSS     SSS    04 11 49.5
MAK                                 pmax    pmax
      comp=Z,97nm,1.0s
MAK                                 MLR     MLR
      comp=Z,1µm,17.0s
KIRV  Kirov             79.83 329   LR      LR     04 32 27.0
      comp=Z,1µm,19.5s,baz=101,slow=38
KIRV  Kirov             79.83 329ceP        P      03 53 21.9 -0.4
BELG  Belogornoye       80.04 322   LR      LR     04 30 45.3
      comp=Z,706nm,20.0s,baz=131,slow=37
BELG  Belogornoye       80.04 322  i P      P      03 53 23.3 -0.2
BELG                                pmax    pmax
      comp=Z,13nm,0.9s
RAYN  Ar Rayn           80.25 293   P       P      03 53 25.9 +0.5
RAYN  Ar Rayn           80.25 293   P       P      03 53 24.4 -1.0
      comp=Z,26nm,1.2s
OHAK  Old Harbor        81.15  33   P       P      03 53 31.9 +2.5
GNI   Garni             81.16 310   P       P      03 53 32.1 +2.0
      comp=Z,9.8nm,0.3s,baz=332,slow=9.5,SNR=4.6
GNI                                 LR      LR     04 34 56.7
      comp=Z,305nm,20.9s,baz=84,slow=40
      comp=Z,9.8nm,0.3s
GNI   Garni             81.16 310   P       P      03 53 31.0 +0.9
KDAK  Kodiak Island     81.59  32   LR      LR     04 24 36.4
      comp=Z,572nm,21.8s,baz=246,slow=32
KDAK  Kodiak Island     81.59  32  i P      P      03 53 32.7 +1.0
KDAK                                pmax    pmax
      comp=Z,68nm,1.9s
KDAK  Kodiak Island     81.59  32   P       P      03 53 32.9 +1.1
      comp=Z,39nm,1.3s
OZAP  Van, Ozalp-Mer    81.70 308  ⇑P       P      03 53 34.4 +1.3
HAKT  HAKKARI           81.90 307   P       P      03 53 34.6 +0.5
      comp=Z,70nm,1.0s
NCK   Nalchik           82.13 313  i P      P      03 53 34.6 -0.4
NCK                                 pmax    pmax
      comp=Z,7.0nm,1.0s
KBZ   Khabaz            82.64 313   P       P      03 53 40.1 +2.6
      comp=Z,3.3nm,1.0s,baz=118,slow=11,SNR=6.2
KBZ                                 LR      LR     04 36 14.9
      comp=Z,588nm,19.1s,baz=78,slow=40
      comp=Z,3.3nm,1.0s
KBZ   Khabaz            82.64 313  i P      P      03 53 38.7 +1.1
KBZ                                 pmax    pmax
      comp=Z,11nm,1.0s
EPOS  Posof             82.72 311   P       P      03 53 40.0 +1.7
      comp=Z,13nm,1.2s
NEUR  Neytrino          82.77 313  i P      P      03 53 38.0 -0.6
NEUR                                pmax    pmax
      comp=Z,7.0nm,1.2s
KVAR  Kislovodsk Arr    82.79 314   LR      LR     04 33 46.2
      comp=Z,850nm,21.6s,baz=192,slow=38
KIV   Kislovodsk        82.80 314  eP       P      03 53 37.7 -0.8
KIV                                eS       S      04 03 53.5 -1.2
KIV                                 pmax    pmax
      comp=Z,8.0nm,1.1s
KIV   Kislovodsk        82.80 314  ⇓P       P      03 53 40.4 +1.8
KIV   Kislovodsk        82.80 314   P       P      03 53 39.5 +1.0
      comp=Z,15nm,0.8s
KIV   Kislovodsk        82.80 314   P       P      03 53 40.8 +2.2
      comp=Z,18nm,1.1s
SHA1  Shidzhatmaz       82.81 313  i P      P      03 53 38.2 -0.6
ATD   Arta Tunnel       83.12 281   P       P      03 53 41.2 +0.5
      comp=Z,22nm,1.2s
HOMI  Horasan           83.33 310  ⇑P       P      03 53 43.7 +2.1
COLD  Coldfoot          83.55  23   P       P      03 53 42.4 +0.6
COLD                                IAmb    IAmb   03 54 08.8
      comp=Z,40nm,1.0s
VRH   Novokhopyorsk     83.61 321  eP       P      03 53 42.4  0.0
VRH                                 pmax    pmax
      comp=Z,53nm,1.0s
PMR   Palmer            83.63  29   P       P      03 53 43.9 +1.6
C23K  Itkillik River    83.63  20   P       P      03 53 43.1 +1.0
E23K  Chandalar         83.84  22   P       P      03 53 44.3 +0.9
VNDA  Vanda             83.84 173   P       P      03 53 43.5 +0.4
      comp=Z,36nm,1.1s,baz=316,slow=5.8,SNR=91
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VNDA				LR	LR	04 31 58.3	
	comp=Z,274nm,19.2s,baz=334,slow=36						
	comp=Z,36nm,1.1s						
VNDA	Vanda	83.84	173	P	P	03 53 43.5	+0.4
VNDA				pmax	pmax		
	comp=Z,35nm,1.0s						
VNDA	Vanda	83.84	173	P	P	03 53 43.5	+0.4
VNDA				IAmb	IAmb	03 53 44.8	
	comp=Z,35nm,0.9s						
VNDA	Vanda	83.84	173	P	P	03 53 43.6	+0.5
	comp=Z,44nm,1.5s						
MAW	Mawson	84.11	200	P	P	03 53 45.7	+1.2
	comp=Z,8.6nm,1.6s						
MAW	Mawson	84.11	200	P	P	03 53 45.5	+1.0
	comp=Z,34nm,1.2s,baz=61,slow=4.9,SNR=25						
MAW				LR	LR	04 31 00.2	
	comp=Z,84nm,21.4s,baz=68,slow=36						
	comp=Z,34nm,1.2s						
MAW	Mawson	84.11	200	P	P	03 53 45.2	+0.6
MAW	Mawson	84.11	200	P	P	03 53 45.0	+0.5
	comp=Z,8.6nm,1.6s						
D24K	Happy Valley	84.20	21	P	P	03 53 45.6	+0.5
E24K	Your Creek	84.26	22	P	P	03 53 45.7	+0.2
E24K				IAmb	IAmb	03 54 05.0	
	comp=Z,37nm,1.2s						
COLA	College	84.36	25	P	P	03 53 48.5	+2.6
COLA	College	84.36	25	*i* P	P	03 53 45.8	-0.1
COLA				pmax	pmax		
	comp=Z,17nm,0.9s						
COLA	College	84.36	25	P	P	03 53 46.1	+0.2
	comp=Z,16nm,0.8s						
ERBR	Yeremizino-Bor	84.38	315	*e*P	P	03 53 46.2	-0.3
ERBR				*e*S	SKSac	04 04 06.3	-1.6
ERBR				pmax	pmax		
	comp=Z,40nm,1.5s						
H24K	Noodor Dome	84.39	24	P	P	03 53 46.9	+0.7
H24K				IAmb	IAmb	03 54 18.1	
	comp=Z,52nm,1.2s						
SCM	Sheep Creek Mo	84.49	28	P	P	03 53 46.7	-0.1
SCM				pmax	pmax		
	comp=Z,70nm,1.0s						
SCM	Sheep Creek Mo	84.49	28	P	P	03 53 46.7	-0.1
G24K	Hadweenzic Riv	84.59	23	P	P	03 53 47.6	+0.5
SBA	Scott Base	84.75	172	P	P	03 53 48.6	+0.9
SBA				pmax	pmax		
	comp=Z,69nm,1.4s						
SBA	Scott Base	84.75	172	P	P	03 53 48.5	+0.9
SBA	Scott Base	84.75	172	P	P	03 53 49.3	+1.6
	comp=Z,48nm,2.3s						
ILAR	Eielson Array	84.77	25	P	P	03 53 47.9	-0.2
	comp=Z,3.6nm,1.0s,baz=253,slow=4.5,SNR=22						
ILAR				PKKP	PKKPdf	04 11 52.4	+1.0
	comp=Z,0.5nm,0.8s,baz=40,slow=2.2,SNR=4.6						
ILAR				LR	LR	04 34 25.6	
	comp=Z,194nm,18.8s,baz=250,slow=38						
	comp=Z,3.6nm,1.0s						
ILAR	Eielson Array	84.77	25	P	P	03 53 47.4	-0.6
SOC	Sochi	84.95	313	*e*P	P	03 53 48.4	-1.0
SOC				*e*		03 57 05.8	
SOC				*e*PPP	PPP	03 58 55.4	
SOC				*e*S	SKSac	04 04 09.0	-2.6
SOC				*e*SSS	SSS	04 13 24.3	
SOC				pmax	pmax		
	comp=Z,13nm,0.7s						
KLMR	Klimovskoe	85.01	331	*e*P	P	03 53 48.3	-1.0
KLMR				pmax	pmax		
	comp=Z,334nm,1.3s						
KLMR				MLR	MLR		
	comp=Z,1µm,17.0s						
VORR	Voronezh	85.19	321	*e*P	P	03 53 50.4	0.0
VORR				pmax	pmax		
	comp=Z,64nm,0.8s						
VSR	Storozhevoye	85.22	321	*e*P	P	03 53 50.4	-0.2
VSR				pmax	pmax		
	comp=Z,40nm,1.0s						
EYAK	Cordova Ski Ar	85.24	30	P	P	03 53 53.6	+3.1
PPT	Papeete	85.32	108	LR	LR	04 28 44.2	
	comp=Z,209nm,18.5s,baz=282,slow=33						
PPT2	Papeete2	85.32	108	*e*P	P	03 53 50.5	-1.3
	comp=Z,141nm,26.0s						
PPT2				*e*S	S	04 04 20.7	-0.1
	comp=Z,343nm,26.2s						
PPT2				*e*SS	SS	04 09 53.2	-2.9
	comp=Z,401nm,28.5s						
PPT2				*e*LQ	LQ	04 16 53.5	
	comp=Z,1µm,37.8s						
PPT2				*e*LR	LR	04 20 41.9	
	comp=Z,644nm,25.8s						
PPT2				*e*LR	LR	04 20 49.4	
	comp=Z,497nm,27.5s						
LPSR	Galich'ya Gora	85.35	322	*e*P	P	03 53 51.8	+0.6
LPSR				pmax	pmax		
	comp=Z,93nm,1.0s						
E25K	Arctic Village	85.36	22	P	P	03 53 52.0	+1.0
E25K				IAmb	IAmb	03 54 18.0	
	comp=Z,58nm,1.4s						
KELT	Kelkit	85.36	310	P	P	03 53 53.4	+1.5
	comp=Z,106nm,1.5s						
ADZR	Andozero	85.59	334	*e*P	P	03 53 51.1	-1.0
ADZR				S	SKSac	04 04 12.3	-2.5
ADZR				pmax	pmax		
	comp=Z,126nm,1.3s						
ADZR				MLR	MLR		
	comp=Z,2µm,19.0s						
RIDG	Independent Ri	85.65	26	P	P	03 53 52.6	+0.1
BMAR	Burnt Mountain	85.73	23	P	P	03 53 54.0	+1.1
SCRK	Sand Creek	86.03	26	P	P	03 53 54.9	+0.4
G26K	Porcupine Rive	86.05	23	P	P	03 53 55.4	+1.1
G26K				IAmb	IAmb	03 54 15.1	
	comp=Z,70nm,1.6s						
MOS	Moscow	86.06	325	*e*P	P	03 53 54.4	-0.2
MOS				*e*S	SKSac	04 04 17.2	-0.9
MOS				pmax	pmax		
	comp=Z,192nm,1.4s						
MOS				pmax	pmax		
	comp=N,106nm,1.4s						
MOS				MLR	MLR		
	comp=Z,1µm,21.0s						
GLB	Gilahina Butte	86.17	29	P	P	03 53 55.7	+0.5
GLB				IAmb	IAmb	03 54 12.1	
	comp=Z,56nm,1.3s						
MENT	Mentasta	86.17	27	P	P	03 53 58.5	+3.3
I26K	Coal Creek Min	86.35	25	P	P	03 53 56.1	+0.2
OBN	Obninsk	86.68	325	LR	LR	04 35 05.1	
	comp=Z,860nm,19.6s,baz=84,slow=37						
OBN	Obninsk	86.68	325	*ce*P	P	03 53 57.7	0.0
OBN				*e**PP	pP	03 54 05.3	-2.8
OBN				*e*		03 57 22.4	
OBN				*e*PPP	PPP	03 59 14.1	
OBN				*i* S	SKSac	04 04 20.9	-1.1
OBN				*e*SS	SS	04 10 17.7	+3.7
OBN				pmax	pmax		
	comp=Z,95nm,1.2s						
OBN				MLR	MLR		
	comp=Z,854nm,18.0s						
OBN	Obninsk	86.68	325	⇓P	P	03 53 59.5	+1.8
OBN	Obninsk	86.68	325	P	P	03 53 58.4	+0.7
	comp=Z,2µmcomp=Z,114nm,1.8s						
OBN	Obninsk	86.68	325	P	P	03 53 57.6	0.0
	comp=Z,115nm,1.8s						
LVZ	Lovozero	86.95	338	*ce*P	P	03 53 58.7	-0.1
LVZ				pmax	pmax		
	comp=Z,29nm,1.3s						
LVZ	Lovozero	86.95	338	P	P	03 53 59.8	+0.9
	comp=Z,48nm,1.1s						
D27M	Malcolm River	87.01	21	P	P	03 54 00.0	+0.9
BCAR	Beaver Creek A	87.05	27	P	P	03 53 59.4	-0.1
GAZ	Gaziantep	87.08	307	P	P	03 54 00.4	+0.2
GAZ				IAmb	IAmb	03 54 21.8	
	comp=Z,21nm,0.8s						
APA	Apatity	87.45	337	*e*P	P	03 53 59.9	-1.3
APA				*e*		03 57 25.4	
APA				*e*S	S	04 04 37.4	-2.1
APA				pmax	pmax		
	comp=Z,19nm,1.0s						
F28M	Old Crow	87.53	22	P	P	03 54 02.0	+0.4
F28M				IAmb	IAmb	03 54 12.5	
	comp=Z,19nm,1.1s						
E28M	Babbage River	87.57	21	P	P	03 54 01.8	0.0
E28M				IAmb	IAmb	03 54 22.3	
	comp=Z,28nm,1.3s						
ASF	Jabal al Asfar	87.61	302	P	P	03 54 03.1	+0.2
	comp=Z,4.4nm,0.7s,baz=39,slow=1.5,SNR=8.7						
	comp=Z,4.4nm,0.7s						
ANDN	Andirin	87.75	307	P	P	03 54 04.9	+1.4
	comp=Z,73nm,1.1s						
KIBK	Kibwezi	88.78	268	P	P	03 54 09.3	+0.6
	comp=Z,14nm,1.8s						
MMAI	Mount Meron Ar	88.82	303	P	P	03 54 09.3	+0.7
	comp=Z,0.5nm,0.3s,baz=28,slow=6.5,SNR=3.7						
MMAI				LR	LR	04 40 01.0	
	comp=Z,243nm,19.3s,baz=65,slow=40						
	comp=Z,0.5nm,0.3s						
MMLI	Mount Malkishu	88.84	302	P	P	03 54 09.1	+0.5
	comp=Z,27nm,1.7s						
SIM	Simferopol'	88.90	315	*e*P	P	03 54 07.1	-1.5
SIM				pmax	pmax		
	comp=Z,47nm,1.7s						
HRFI	Mount Harif	89.35	300	P	P	03 54 12.6	+1.5
	comp=Z,25nm,1.1s						
MSF	Maaselka	89.36	336	P	P	03 54 11.2	+0.9
	comp=Z,28nm,1.1s						
EIL	Elat	89.45	300	P	P	03 54 12.6	+1.1
	comp=Z,5.7nm,0.9s,baz=68,slow=3.8,SNR=3.6						
EIL				LR	LR	04 39 38.0	
	comp=Z,354nm,20.7s,baz=66,slow=39						
	comp=Z,5.7nm,0.9s						
EIL	Elat	89.45	300	P	P	03 54 12.9	+1.4
	comp=Z,16nm,0.9s						
KMBO	Kilima Mbogo	89.48	269	LR	LR	04 32 24.3	
	comp=Z,180nm,21.0s,baz=92,slow=34						
KMBO	Kilima Mbogo	89.48	269	*i* P	P	03 54 10.3	-2.0
KIRS	Kirsehir-Merke	89.54	309	⇑P	P	03 54 13.5	+1.7
PUL	Pulkovo	89.64	330	*ce*P	P	03 54 13.2	+1.5
PUL				pmax	pmax		
	comp=Z,164nm,1.7s						
BR131	Keskin Array S	89.70	310	*i* P	P	03 54 11.9	-0.8
BR131	Keskin Array S	89.70	310	P	P	03 54 11.6	-1.1
BRTR	Keskin Array B	89.70	310	P	P	03 54 12.4	-0.3
	comp=Z,3.7nm,0.9s,baz=119,slow=4.5,SNR=13						
BRTR				LR	LR	04 40 49.6	
	comp=Z,332nm,20.4s,baz=70,slow=40						
	comp=Z,3.7nm,0.9s						
BRTR	Keskin Array B	89.70	310	*i* P	P	03 54 12.3	-0.4
BRTR				pmax	pmax		
	comp=Z,4.0nm,1.0s						
BRTR	Keskin Array B	89.70	310	P	P	03 54 11.9	-0.8
INK	Inuvik	89.81	21	LR	LR	04 35 56.5	
	comp=Z,175nm,20.3s,baz=271,slow=37						
INK	Inuvik	89.81	21	P	P	03 54 11.2	-1.1
	comp=Z,15nm,1.3s						
ARCES	ARCESS Array B	90.04	340	P	P	03 54 12.8	-0.5
	comp=Z,9.7nm,0.9s,baz=67,slow=4.3,SNR=13						
ARCES				LR	LR	04 39 27.5	
	comp=Z,800nm,19.2s,baz=76,slow=39						
	comp=Z,9.7nm,0.9s						
ARCES	ARCESS Array B	90.04	340	P	P	03 54 12.9	-0.5
ARCES				pmax	pmax		
	comp=Z,41nm,1.1s						
ARCES	ARCESS Array B	90.04	340	P	P	03 54 12.8	-0.5
ARCES				IAmb	IAmb	03 54 26.7	
	comp=Z,41nm,1.1s						
SPITS	Spitsbergen Ar	90.06	349	P	P	03 54 13.0	-0.4
	comp=Z,3.0nm,0.6s,baz=92,slow=8.5,SNR=8.0						
SPITS				LR	LR	04 40 02.8	
	comp=Z,828nm,19.4s,baz=58,slow=39						
	comp=Z,3.0nm,0.6s						
SPITS	Spitsbergen Ar	90.06	349	P	P	03 54 13.0	-0.4
SGF	Sodankyl	90.08	338	P	P	03 54 16.4	+2.8
	comp=Z,29nm,1.5s						
KKUL	Konya-Kulu	90.31	309	P	P	03 54 16.2	+0.7
	comp=Z,32nm,1.1s						
OUL	Oulu	90.80	335	P	P	03 54 16.4	-0.5
	comp=Z,33nm,1.2s						
N32M	Quiet Lake	91.35	29	P	P	03 54 19.8	0.0
N32M				IAmb	IAmb	03 54 35.8	
	comp=Z,14nm,0.8s						
FINES	FINESS Array B	91.44	332	P	P	03 54 19.9	-0.1
	comp=Z,6.8nm,0.7s,baz=82,slow=4.5,SNR=18						
FINES				LR	LR	04 40 41.0	
	comp=Z,1µm,19.5s,baz=78,slow=39						
	comp=Z,6.8nm,0.7s						
FINES	FINESS Array B	91.44	332	P	P	03 54 20.1	+0.1
FINES	FINESS Array B	91.44	332	P	P	03 54 20.1	+0.1
AK08	Malin Array Si	91.52	321	P	P	03 54 20.7	+0.1
AK10	Malin Array Si	91.52	321	P	P	03 54 20.1	-0.6
AKASG	Malin Array Be	91.53	321	P	P	03 54 20.6	0.0
	comp=Z,2.8nm,0.7s,baz=73,slow=4.3,SNR=9.6						
AKASG				LR	LR	04 37 58.1	
	comp=Z,818nm,21.7s,baz=68,slow=37						
	comp=Z,2.8nm,0.7s						
AKASG	Malin Array Be	91.53	321	P	P	03 54 19.7	-1.0
AKASG				IAmb	IAmb	03 54 28.5	
	comp=Z,22nm,1.4s						
AKBB	Malin Array Si	91.53	321	*ce*P	P	03 54 20.1	-0.6
AKBB				pmax	pmax		
	comp=Z,6.0nm,0.6s						
AKBB	Malin Array Si	91.53	321	P	P	03 54 20.4	-0.3
KIEV	Kiev	91.54	321	P	P	03 54 20.4	-0.3
	comp=Z,78nm,0.9s						
KIEV	Kiev	91.54	321	P	P	03 54 19.8	-0.9
	comp=Z,20nm,1.0s						
AK05	Malin Array Si	91.55	321	P	P	03 54 20.8	0.0
AK06	Malin Array Si	91.56	321	P	P	03 54 20.8	0.0
KEPZ	Antalya-Kepez	91.57	307	⇑P	P	03 54 15.2	-6.1
VSU	Vasula	91.68	329	*ce*P	P	03 54 20.9	-0.3
VSU				pmax	pmax		
	comp=Z,52nm,1.7s						
MNK	Minsk	91.74	325	*i* P	P	03 54 19.0	-2.6
MNK				*i* S	SKSac	04 04 48.7	-3.2
MNK				*i* SS	SS	04 11 27.7	+0.3
MNK				*i* SSS	SSS	04 15 04.4	
MNK				pmax	pmax		
	comp=E,16nm,1.1s						
MNK				pmax	pmax		
	comp=Z,30nm,0.8s						
MNK				pmax	pmax		
	comp=N,15nm,0.9s						
MNK				MLR	MLR		
	comp=E,637nm,18.0s						
MNK				MLR	MLR		
	comp=Z,1µm,18.0s						
MNK				MLR	MLR		
	comp=N,730nm,19.0s						
MNK	Minsk	91.74	325	*i* P	P	03 54 19.0	-2.6
	comp=E,16nm,1.1s						
MNK				*i* P	P	03 54 19.0	-2.6
	comp=N,15nm,0.9s						
MNK				*i* P	P	03 54 19.0	-2.6
	comp=Z,30nm,0.8s,baz=80						
MNK				*i* PP	PP	03 57 53.4	-7.0
MNK				*i* PPP	PPP	03 59 54.1	
MNK				*i* S	SKSac	04 04 48.7	-3.2
MNK				*i* SS	SS	04 11 27.8	+0.3
MNK				*i* SSS	SSS	04 15 04.4	
MNK				*i* LQ	LQ	04 29 50.6	
MNK				*i* LR	LR	04 35 52.0	
MNK				*i* LRM	MLR	04 36 33.9	
	comp=E,637nm,18.1s						
SORM	Soroca	92.47	318	⇑P	P	03 54 25.8	+0.6
LUBAR	Lubar, Ukraine	92.58	320	P	P	03 54 25.1	-0.5
TLCR		92.61	315	⇑P	P	03 54 26.9	+1.1
NOR	Nord	92.68	355	P	P	03 54 27.1	+1.6
	comp=Z,19nm,1.3s						
SYO	Syowa Base	92.78	201	⇑*i*P	P	03 54 26.4	+0.4
SYO	Syowa Base	92.78	201	⇓*e*P	P	03 54 29.0	+3.0
TPGR	Topolog	92.93	315	⇓P	P	03 54 28.6	+1.2
CFR	Carcaliu	93.08	316	⇑P	P	03 54 28.9	+1.0
DLBC	Dease Lake	93.44	31	LR	LR	04 31 54.7	
	comp=Z,493nm,21.4s,baz=260,slow=33						
RNPP9	Sopachiv	93.48	322	P	P	03 54 30.1	+0.4
RNPP5	Staryi Chortor	93.52	322	P	P	03 54 29.5	-0.4
WTLY	Watson Lake, Y	93.64	29	P	P	03 54 30.5	+0.2
WTLY				IAmb	IAmb	03 55 00.8	
	comp=Z,26nm,1.2s						
KMPD	K-Podol'skiy	93.65	319	P	P	03 54 30.0	-0.5
PABE	Paberze	93.76	326	P	P	03 54 31.1	+0.3
	comp=Z,42nm,1.3s						
TAOE	Nuku Hiva Isla	93.79	99	*e*S	S	04 05 35.2	-4.7
	comp=Z,293nm,28.4s						
TAOE				*e*SS	SS	04 11 53.1	-6.1
	comp=Z,228nm,28.7s						
TAOE				*e*LQ	LQ	04 20 43.3	
	comp=Z,2µm,28.2s						
TAOE				*e*LR	LR	04 24 40.7	
	comp=Z,679nm,23.2s						
TESR	Tescani	93.89	317	⇑P	P	03 54 32.2	+0.5
TESR	Tescani	93.89	317	P	P	03 54 31.7	0.0
	comp=Z,36nm,1.4s						
TESR	Tescani	93.89	317	P	P	03 54 31.4	-0.3
	comp=Z,35nm,1.4s						
VRI	Vrincioaia	93.94	316	P	P	03 54 31.9	-0.1
VRI	Vrincioaia	93.94	316	⇓P	P	03 54 33.0	+1.0
VRI	Vrincioaia	93.94	316	P	P	03 54 31.9	-0.1
	comp=Z,44nm,1.2s						
VRI	Vrincioaia	93.94	316	P	P	03 54 32.8	+0.8
	comp=Z,44nm,1.2s						
SAHR	Sahastru	94.00	316	⇑P	P	03 54 33.9	+1.6
PLOR	Plostina	94.00	316	⇑P	P	03 54 33.7	+1.4
QSPA	South Pole Qui	94.04	180	P	P	03 54 32.4	+0.3
	comp=Z,22nm,1.1s,baz=338,slow=3.5,SNR=27						
QSPA				LR	LR	04 37 36.5	
	comp=Z,526nm,21.4s,baz=354,slow=36						
	comp=Z,22nm,1.1s						
QSPA	South Pole Qui	94.04	180	P	P	03 54 32.4	+0.3
ONER	Baraj Valea Uz	94.09	317	⇓P	P	03 54 33.8	+1.1
BIZ	Bicaz	94.18	318	⇓P	P	03 54 34.7	+1.6
NEHR	Nehoiu	94.32	316	⇓P	P	03 54 35.1	+1.3
TURR	Turia	94.40	317	⇑P	P	03 54 35.6	+1.5
SUW	Suwalki	94.54	325	*e*P	P	03 54 33.5	-1.0
SUW	Suwalki	94.54	325	P	P	03 54 33.9	-0.6
SUW	Suwalki	94.54	325	P	P	03 54 33.9	-0.6
OZUR		94.55	317	⇑P	P	03 54 36.4	+1.6
MLR	Muntele Rosu	94.55	316	P	P	03 54 35.7	+0.8
	comp=Z,8.1nm,0.8s,baz=144,slow=3.5,SNR=10						
MLR				LR	LR	04 42 25.2	
	comp=Z,952nm,22.0s,baz=64,slow=39						
	comp=Z,8.1nm,0.8s						
MLR	Muntele Rosu	94.55	316	P	P	03 54 34.5	-0.5
MLR				IAmb	IAmb	03 54 59.6	
	comp=Z,25nm,1.1s						
MLR	Muntele Rosu	94.55	316	⇑P	P	03 54 36.1	+1.2
MLR	Muntele Rosu	94.55	316	P	P	03 54 34.7	-0.3
MLR	Muntele Rosu	94.55	316	P	P	03 54 34.7	-0.3
	comp=Z,26nm,1.6s						
BURAR	Bucovina Array	94.64	318	P	P	03 54 34.8	-0.5
BURAR				IAmb	IAmb	03 54 51.9	
	comp=Z,14nm,0.9s						
BURAR	Bucovina Array	94.64	318	⇑P	P	03 54 36.5	+1.2
DOPR	Dopca	94.84	317	⇑P	P	03 54 37.4	+1.3
VOIR		95.18	316	⇑P	P	03 54 39.1	+1.3
VOIR		95.18	316	P	P	03 54 38.8	+1.0
	comp=Z,6.3nm,1.9s						
ARR	Arges	95.48	316	⇓P	P	03 54 39.8	+0.7
ARR	Arges	95.48	316	P	P	03 54 39.4	+0.3
	comp=Z,14nm,1.6s						
BBB	Bella Bella	96.02	37	LR	LR	04 31 01.6	
	comp=Z,115nm,21.9s,baz=277,slow=31						
MARR	Marisel-Cluj	96.24	318	⇑P	P	03 54 42.7	+0.1
POGA	Pongola	96.27	243	P	P	03 54 41.5	-1.6
	comp=Z,55nm,0.9s						
KOLS	Kolonicke sedl	96.28	320	P	P	03 54 43.6	+1.0
	comp=Z,7.8nm,0.7s						
TRPA	Tarpa	96.30	319	P	P	03 54 43.0	+0.3
	comp=Z,9.3nm,1.2s						
UZHM	Uzhgorod	96.34	320	P	P	03 54 43.4	+0.6
DRGR		96.49	318	⇑P	P	03 54 43.9	+0.2
DRGR		96.49	318	P	P	03 54 44.1	+0.4
	comp=Z,13nm,1.1s						
DEV	Deva	96.56	317	P	P	03 54 44.7	+0.7
	comp=Z,18nm,0.9s						
GZR	Gura Zlata	96.75	316	⇑P	P	03 54 45.9	+1.0
ABAH	Abaujker	97.10	320	P	P	03 54 46.1	-0.2
	comp=Z,20nm,1.1s						
HERR	Herculane	97.12	316	⇑P	P	03 54 46.4	-0.1
IDI	Anoyia	97.18	306	LR	LR	04 44 57.2	
	comp=Z,141nm,21.9s,baz=64,slow=39						
RES	Resolute Bay	97.43	10	LR	LR	04 47 02.7	
	comp=Z,264nm,18.4s,baz=350,slow=40						
BZS	Buzias	97.50	317	⇓P	P	03 54 48.2	+0.1
BZS	Buzias	97.50	317	P	P	03 54 47.4	-0.8
	comp=Z,4.8nm,0.9s						
OJC	Ojcow	97.52	322	P	P	03 54 47.4	-0.8
OJC	Ojcow	97.52	322	P	P	03 54 47.4	-0.8
OJC	Ojcow	97.52	322	P	P	03 54 48.2	0.0
	comp=Z,12nm,2.5s						
KNT	Kendrikon	97.58	312	P	Pdif	03 54 52.3	+3.5
	comp=Z,14nm,1.5s						
HFS	Hagfors	97.62	332	P	Pdif	03 54 48.8	+0.3
	comp=Z,3.0nm,0.8s,baz=102,slow=6.2,SNR=5.2						
HFS				LR	LR	04 44 08.8	
	comp=Z,822nm,19.6s,baz=64,slow=39						
	comp=Z,3.0nm,0.8s						
MDVR	Moldovita	97.63	316	⇑P	Pdif	03 54 49.9	+0.9
ELIB	Princess Elisa	98.03	198	*d*P	Pdif	03 54 51.0	+0.9
	comp=Z,8.9nm,1.4s						
PSZ	Piszkesteto	98.07	319	⇑P	Pdif	03 54 52.1	+1.3
PSZ	Piszkesteto	98.07	319	P	Pdif	03 54 53.1	+2.3
	comp=Z,13nm,1.7s						
LIT	Litokhoron	98.11	311	P	P	03 54 50.4	-0.7
LIT				pmax	pmax		
	comp=Z,44nm,1.7s						
LIT	Litokhoron	98.11	311	P	P	03 54 50.4	-0.7
LIT	Litokhoron	98.11	311	P	Pdif	03 54 51.5	+0.4
	comp=Z,14nm,1.7s						
NB2	NORSAR Subarra	98.39	334	P	P	03 54 50.6	-1.3
	comp=Z,41nm,2.0s,baz=70,slow=4.6						
NB2	NORSAR Subarra	98.39	334	P	P	03 54 50.6	-1.3
NOA	NORSAR Array B	98.39	334	P	P	03 54 51.7	-0.2
	comp=Z,3.5nm,0.9s,baz=67,slow=4.5,SNR=5.7						
NOA				LR	LR	04 44 07.2	
	comp=Z,1µm,20.9s,baz=65,slow=38						
	comp=Z,3.5nm,0.9s						
NC204	NORSAR Array S	98.49	334	P	P	03 54 52.6	+0.3
VYHS	Vyhne	98.59	320	*e*PDIFF	Pdif	03 55 01.9	+8.8
MORC	Moravsky Berou	99.04	322	*e*PDIFF	Pdif	03 54 55.3	+0.2
MORC	Moravsky Berou	99.04	322	⇑P	Pdif	03 54 55.7	+0.6
MORC	Moravsky Berou	99.04	322	P	Pdif	03 54 55.1	0.0
	comp=Z,9.1nm,2.2s						
YKA	Yellowknife Ar	99.16	24	P	Pdif	03 54 54.8	-0.5
	comp=Z,1.4nm,0.9s,baz=296,slow=4.1,SNR=7.1						
YKA				PKiKP	PKiKP	03 59 26.9	+1.7
	comp=Z,0.9nm,0.8s,baz=279,slow=1.6,SNR=3.8						
	comp=Z,1.4nm,0.9s						
YKA	Yellowknife Ar	99.16	24	P	Pdif	03 54 54.2	-1.0
JAVC	Velka Javorina	99.23	321	*e*PDIFF	Pdif	03 54 56.1	+0.1
JAVC	Velka Javorina	99.23	321	P	Pdif	03 54 57.9	+1.9
	comp=Z,11nm,1.3s						
LSZ	Lusaka	99.23	255	LR	LR	04 39 06.2	
	comp=Z,209nm,18.1s,baz=89,slow=35						
LSZ	Lusaka	99.23	255	P	Pdif	03 54 56.4	-0.3
LSZ	Lusaka	99.23	255	P	Pdif	03 54 55.8	-1.0
	comp=Z,9.4nm,0.9s						
MORH	Mrgy, Hungar	99.35	318	⇑P	Pdif	03 54 57.3	+0.9
MORH	Mrgy, Hungar	99.35	318	P	Pdif	03 54 56.7	+0.3
	comp=Z,7.7nm,1.4s						
KRLC	Kraliky	99.41	322	*i* P	Pdif	03 54 54.0	-2.7
KRLC				MLR	MLR		
	comp=Z,800nm,19.0s						
KRLC	Kraliky	99.41	322	*e*PDIFF	Pdif	03 54 54.0	-2.7
KRLC				AMS	AMS	04 42 10.0	
	comp=Z,800nm,19.0s						
KRLC	Kraliky	99.41	322	P	Pdif	03 55 00.4	+3.7
	comp=Z,7.1nm,1.6s						
JMIC	Jan Mayen	99.44	346	LR	LR	04 45 38.6	
	comp=Z,270nm,19.0s,baz=46,slow=39						
OSTC	Ostas	99.61	323	*i* P	Pdif	03 54 59.7	+2.1
OSTC				MLR	MLR		
	comp=Z,900nm,20.1s						
OSTC	Ostas	99.61	323	*e*PDIFF	Pdif	03 54 59.7	+2.1
OSTC				AMS	AMS	04 42 50.0	
	comp=Z,900nm,20.1s						
DPC	Dobruska-Polom	99.61	322	*i* P	Pdif	03 54 59.1	+1.5
DPC				MLR	MLR		
	comp=Z,600nm,20.3s						
DPC	Dobruska-Polom	99.61	322	*e*PDIFF	Pdif	03 54 59.1	+1.5
DPC				AMS	AMS	04 42 50.0	
	comp=Z,600nm,20.3s						
DPC	Dobruska-Polom	99.61	322	P	Pdif	03 54 58.8	+1.2
	comp=Z,9.2nm,1.4s						
UPC	Upice	99.75	323	AMS	AMS	04 43 30.0	
	comp=Z,800nm,16.9s						
UPC	Upice	99.75	323	P	Pdif	03 54 59.3	+1.1
	comp=Z,11nm,1.2s						
VRAC	Vranov	99.77	321	P	Pdif	03 54 58.3	+0.1
	comp=Z,1.7nm,0.4s,baz=64,slow=2.8,SNR=4.8						
VRAC				LR	LR	04 43 57.6	
	comp=Z,470nm,18.2s,baz=65,slow=38						
	comp=Z,1.7nm,0.4s						
VRAC	Vranov	99.77	321	*e*PDIFF	Pdif	03 54 58.6	+0.3
VRAC	Vranov	99.77	321	⇑P	Pdif	03 54 59.1	+0.9
VRAC	Vranov	99.77	321	P	Pdif	03 54 58.8	+0.5
	comp=Z,2.9nm,1.7s						
MPLH	Magyarpolny	99.81	319	P	Pdif	03 54 59.0	+0.5
	comp=Z,12nm,1.3s						
KRUC	Moravsky	99.97	321	*e*PDIFF	Pdif	03 54 59.6	+0.4
KRUC	Moravsky	99.97	321	P	Pdif	03 55 00.2	+1.0
	comp=Z,8.4nm,1.4s						

RONA	**Rosalia, Austr**	**100.45**	**320**	*e*Pdiff	**Pdif**	**03 55 00.3**	**-1.1**
	comp=Z,4.4nm,1.1s						
RONA				*e*PP	**PP**	**03 59 08.8**	**+0.8**
	comp=Z,4.8nm,1.8s						
TREC	**Trest**	**100.46**	**322**	P	**Pdif**	**03 55 02.4**	**+1.0**
	comp=Z,8.0nm,1.1s						
WINA	**Alland / Wiene**	**100.47**	**320**	*e*Pdiff	**Pdif**	**03 55 01.5**	**0.0**
	comp=Z,5.0nm,1.3s						
CONA	**Conrad Observa**	**100.66**	**320**	*e*Pdiff	**Pdif**	**03 55 02.7**	**+0.3**
	comp=Z,5.4nm,1.4s						
CONA				*e*PP	**PP**	**03 59 10.3**	**+0.7**
	comp=Z,5.7nm,1.6s						
PRU	**Pruhonice**	**100.81**	**322**	AMS	AMS	04 45 00.0	
	comp=Z,900nm,18.4s						
PRU	**Pruhonice**	**100.81**	**322**	P	**Pdif**	**03 55 03.2**	**+0.3**
	comp=Z,8.9nm,1.4s						
BRG	**Berggiesshubel**	**100.86**	**323**	P	**Pdif**	**03 55 03.2**	**+0.1**
	comp=Z,12nm,1.4s						
BRG	**Berggiesshubel**	**100.86**	**323**	P	**Pdif**	**03 55 07.7**	**+4.6**
BRG				Amp		03 55 12.0	
	comp=Z,14nm,1.1s						
BRG				PP	**PP**	**03 59 05.0**	**-5.8**
BRG				Amp		03 59 05.9	
	comp=Z,3.4nm,0.9s						
BRG	**Berggiesshubel**	**100.86**	**323**	P	**PKiKP**	**03 59 30.5**	**+1.8**
BRG				Amp		03 59 33.3	
	comp=Z,2.6nm,0.8s						
BRG	**Berggiesshubel**	**100.86**	**323**	⇓*e*Pif		03 55 03.5	
BRG	**Berggiesshubel**	**100.86**	**323**	Amp		03 55 04.6	
	comp=Z,6.2nm,0.8s						
ZVC	**Zvikov**	**101.21**	**322**	*e*PDIFF	**Pdif**	**03 55 05.0**	**+0.3**
ZVC				AMS	AMS	04 45 00.0	
	comp=Z,800nm,19.1s						
HSKC	**Hora Svate Kat**	**101.26**	**323**	*e*PDIFF	**Pdif**	**03 55 05.1**	**+0.2**
HSKC				AMS	AMS	04 44 50.0	
	comp=Z,900nm,18.1s						
CLL	**Collm**	**101.26**	**324**	*i* P	**Pdif**	**03 55 04.5**	**-0.3**
CLL				*e*		04 05 44.0	
CLL				pmax	pmax		
	comp=Z,17nm,1.4s						
CLL				MLR	MLR		
	comp=Z,1μm,23.1s						
CLL	**Collm**	**101.26**	**324**	P	**Pdif**	**03 55 04.9**	**0.0**
	comp=Z,9.6nm,1.7s						
CLL	**Collm**	**101.26**	**324**	*i* Pdif	**Pdif**	**03 55 04.5**	**-0.3**
	comp=Z,17nm,1.4s						
CLL				*e*x	x	03 59 04.0	
CLL				*e*PP	**PP**	**03 59 13.0**	**-0.8**
CLL				*e*SKSac	**SKSac**	**04 05 44.0**	**+2.3**
CLL				*e*x	x	04 07 05.0	
CLL				*e*(PS)		04 08 07.0	
CLL				*e*PPS	PPS	04 09 07.0	
CLL				*e*x	x	04 14 30.0	
CLL				*e*SKKSacre		04 18 36.0	
CLL				*e*x	x	04 22 06.0	
CLL				LQ	LQ	04 28 00.0	
CLL				AMS	AMS	04 37 00.0	
	comp=N,900nm,26.2s						
CLL				AMS	AMS	04 37 00.0	
	comp=E,600nm,26.8s						
CLL				AMS	AMS	04 46 00.0	
	comp=Z,1μm,23.1s						
CKRC	**Cesky Krumlov**	**101.35**	**321**	AMS	AMS	04 46 50.0	
KHC	**Kasperske Hory**	**101.69**	**322**	*i* P	**Pdif**	**03 55 07.2**	**+0.3**
KHC				MLR	MLR		
	comp=Z,700nm,17.1s						
KHC	**Kasperske Hory**	**101.69**	**322**	*e*PDIFF	**Pdif**	**03 55 07.2**	**+0.3**
KHC				AMS	AMS	04 45 30.0	
	comp=Z,700nm,17.1s						
KHC	**Kasperske Hory**	**101.69**	**322**	P	**Pdif**	**03 55 06.5**	**-0.4**
	comp=Z,7.9nm,2.5s						
MOA	**Molln**	**101.70**	**321**	*e*Pdiff	**Pdif**	**03 55 07.3**	**+0.4**
	comp=Z,5.8nm,1.0s						
GEC2	**GERESS Array S**	**101.72**	**322**	P	**Pdif**	**03 55 07.3**	**+0.2**
	comp=Z,7.4nm,1.2s						
GERES	**GERESS Array B**	**101.72**	**322**	P	**Pdif**	**03 55 07.0**	**-0.1**
	comp=Z,0.9nm,0.6s,baz=56,slow=3.4,SNR=8.6						
GERES				PKiKP	**PKiKP**	**03 59 27.9**	**-2.6**
	comp=Z,0.4nm,0.3s,baz=38,slow=3.7,SNR=3.6						
GERES	**GERESS Array B**	**101.72**	**322**	*i* P	**Pdif**	**03 55 06.0**	**-1.1**
GERES	**GERESS Array B**	**101.72**	**322**		**Pdif**	**03 55 06.0**	**-1.1**
SESA	**Seetaler Alpe,**	**101.75**	**320**	*e*Pdiff	**Pdif**	**03 55 08.3**	**+0.8**
	comp=Z,8.1nm,1.2s						
FLTG	**Flechtingen**	**101.89**	**325**	P	**Pdif**	**03 55 08.3**	**+0.7**
	comp=Z,9.4nm,0.8s						
NKC	**Novy Kostel**	**101.98**	**323**	AMS	AMS	04 44 20.0	
	comp=Z,1μm,18.6s						
NKC	**Novy Kostel**	**101.98**	**323**	P	**Pdif**	**03 55 08.3**	**+0.1**
	comp=Z,6.7nm,2.3s						
WIMM	**Wimmelburg**	**102.05**	**325**	P	**Pdif**	**03 55 09.2**	**+0.9**
	comp=Z,25nm,1.6s						
WET	**Wettzell**	**102.12**	**322**	P	**Pdif**	**03 55 07.3**	**-1.4**
	comp=Z,6.2nm,1.4s						
MOX	**Moxa**	**102.32**	**324**	*e*L	L	04 48 47.8	
	comp=Z,983nm,20.6s						
MOX	**Moxa**	**102.32**	**324**	P	**Pdif**	**03 55 10.0**	**+0.3**
	comp=Z,5.7nm,1.1s						
KBA	**Koelnbreinsper**	**102.55**	**320**	*e*Pdiff	**Pdif**	**03 55 11.2**	**+0.2**
	comp=Z,2.4nm,1.1s						
CLZ	**Clausthal**	**102.58**	**325**	P	**Pdif**	**03 55 11.6**	**+0.8**
	comp=Z,20nm,1.4s						
LESA	**Schwarzleotal**	**102.86**	**320**	*e*Pdiff	**Pdif**	**03 55 12.8**	**+0.6**
	comp=Z,2.8nm,0.9s						
GRF	**Grafenberg Arr**	**102.92**	**323**	*e*Pdiff	**Pdif**	**03 55 12.6**	**+0.3**
GRF				*e*L	L	04 45 23.2	
	comp=Z,1μm,20.2s						
ABTA	**Abfaltersbach**	**103.20**	**320**	*e*Pdiff	**Pdif**	**03 55 14.0**	**+0.2**
	comp=Z,5.1nm,1.6s						
WTTA	**Wattenberg**	**103.58**	**321**	*e*Pdiff	**Pdif**	**03 55 15.8**	**+0.3**
	comp=Z,8.2nm,1.1s						
SQTA	**Sankt Quirin**	**103.86**	**321**	*e*Pdiff	**Pdif**	**03 55 16.8**	**+0.1**
	comp=Z,1.9nm,0.6s						
MOTA	**Moosalm**	**103.88**	**321**	*e*Pdiff	**Pdif**	**03 55 16.5**	**-0.3**
	comp=Z,12nm,1.8s						
MOTA				*e*PKiKP	**PKiKP**	**03 59 36.1**	**+1.7**
	comp=Z,6.7nm,1.4s						
RETA	**Reutte**	**104.04**	**321**	*e*PKiKP	**PKiKP**	**03 59 29.9**	**-4.8**
	comp=Z,7.5nm,1.7s						
FETA	**Feichten**	**104.24**	**321**	*e*Pdiff	**Pdif**	**03 55 15.9**	**-2.5**
	comp=Z,4.6nm,1.3s						
FUORN	**Ofenpass-Fuorn**	**104.69**	**320**	P	**Pdif**	**03 55 21.4**	**+0.9**
	comp=Z,7.3nm,1.0s						
DAVOX	**Davos/Dischmat**	**104.87**	**321**	Pdiff	**Pdif**	**03 55 20.5**	**-0.8**
	comp=Z,1.7nm,0.8s,baz=45,slow=10.0,SNR=4.6						
NVAR	**Mina Array Bea**	**106.69**	**48**	Pdiff	**Pdif**	**03 55 29.8**	**+0.2**
	comp=Z,0.9nm,0.9s,baz=248,slow=5.0,SNR=4.7						
NVAR				PKiKP	**PKiKP**	**03 59 41.2**	**+1.2**
	comp=Z,0.3nm,0.6s,baz=297,slow=2.1,SNR=4.6						
NVAR				PKKP	**PKKPdf**	**04 11 10.9**	**-1.1**
	comp=Z,1.1nm,0.8s,baz=139,slow=4.5,SNR=6.3						
PDAR	**Pinedale Array**	**111.10**	**41**	PKKPbc	PKKPbc	04 10 45.6	-0.5
	comp=Z,0.2nm,0.6s,baz=146,slow=2.9,SNR=4.0						
Y22A	**Socorro**	**116.88**	**49**	PKPdf	**PKPdf**	**03 59 58.4**	**-1.1**
ESDC	**Sonseca Array**	**117.10**	**319**	PKP	**PKiKP**	**04 00 00.4**	**+0.8**
	comp=Z,0.6nm,0.9s,baz=106,slow=2.8,SNR=4.1						
ESDC				PP	**PP**	**04 01 13.2**	**+4.1**
	comp=Z,1.3nm,0.9s,baz=74,slow=6.5,SNR=4.6						
ESDC				PKKPbc	**PKKPbc**	**04 10 24.5**	**-0.9**
	comp=Z,0.7nm,0.9s,baz=251,slow=4.5,SNR=4.9						
ESDC	**Sonseca Array**	**117.10**	**319**		**PKPdf**	**03 59 57.7**	**-1.8**
ESDC					**PKKPbc**	**04 10 23.9**	**-1.5**
F33A	**5 Mile Ranch,**	**117.33**	**32**	PKPdf	**PKPdf**	**03 59 59.5**	**-0.2**
BGNE	**Belgrade**	**119.02**	**37**	PKPdf	**PKPdf**	**04 00 02.5**	**-0.6**
GDL2	**Guadalupe Moun**	**119.60**	**49**	PKPdf	**PKPdf**	**04 00 03.5**	**-1.2**
MSTX	**Muleshoe**	**119.95**	**47**	PKPdf	**PKPdf**	**04 00 04.7**	**-0.6**
HTMS	**Hat Mesa**	**120.03**	**49**	PKPdf	**PKPdf**	**04 00 04.4**	**-1.0**
SCHQ	**Schefferville**	**120.18**	**9**	PKP	**PKiKP**	**04 00 06.3**	**+1.3**
	comp=Z,3.8nm,0.7s,baz=62,slow=6.0,SNR=5.7						
SCHQ	**Schefferville**	**120.18**	**9**		**PKPdf**	**04 00 05.2**	**+0.3**
HPIG		**120.80**	**55**	PKPdf	**PKPdf**	**04 00 06.3**	**-0.9**
TPB05	**Hovey Rd**	**120.97**	**50**	PKPdf	**PKPdf**	**04 00 07.2**	**-0.1**
MD01	**Midelt array s**	**121.10**	**313**	PKPdf	**PKiKP**	**04 00 08.3**	**+0.7**
MNHN	**Monahans**	**121.21**	**49**	PKPdf	**PKPdf**	**04 00 07.0**	**-0.7**
POST	**Post**	**121.32**	**47**	PKPdf	**PKPdf**	**04 00 07.7**	**-0.1**
KSU1	**Kansas State U**	**121.34**	**39**	PKPdf	**PKPdf**	**04 00 07.6**	**0.0**
TXAR	**Lajitas Array**	**121.41**	**52**	PKP	**PKiKP**	**04 00 09.5**	**+1.2**
	comp=Z,2.0nm,0.7s,baz=227,slow=1.6,SNR=20						
TXAR				PKKPbc	**PKKPbc**	**04 10 08.9**	**-0.4**
	comp=Z,0.3nm,0.8s,baz=108,slow=8.0,SNR=4.3						
TXAR	**Lajitas Array**	**121.41**	**52**		**PKPdf**	**04 00 07.8**	**-0.4**
DKNS	**Dickens**	**121.44**	**46**	PKPdf	**PKPdf**	**04 00 08.0**	**-0.1**
SGCY	**Sterling City**	**122.16**	**48**	PKPdf	**PKPdf**	**04 00 09.6**	**+0.1**
T35A	**Sooner Cattle**	**122.70**	**41**	PKPdf	**PKPdf**	**04 00 10.2**	**-0.1**
OK048	**Pawnee Station**	**122.70**	**41**	PKPdf	**PKPdf**	**04 00 10.4**	**+0.1**
TORD	**Torodi Ar. Bea**	**122.72**	**288**	PKP	**PKPdf**	**04 00 10.7**	**-0.2**
	comp=Z,3.1nm,0.9s,baz=56,slow=1.6,SNR=13						
TORD				PKKPbc	**PKKPab**	**04 10 05.1**	**+0.6**
	comp=Z,1.2nm,0.9s,baz=281,slow=3.7,SNR=4.6						
P38A	**Dawn**	**122.89**	**36**	PKPdf	**PKPdf**	**04 00 10.2**	**-0.4**
OK052	**Battle Ridge R**	**123.04**	**42**	PKPdf	**PKPdf**	**04 00 11.3**	**+0.3**
FNO	**Franklin**	**123.06**	**43**	PKPdf	**PKPdf**	**04 00 10.3**	**-0.8**
PLPT	**Palo Pinto**	**123.75**	**46**	PKPdf	**PKPdf**	**04 00 12.3**	**-0.2**
JCT	**Junction City**	**123.85**	**49**	PKIKP	**PKPdf**	**04 00 12.6**	**-0.1**
JCT	**Junction City**	**123.85**	**49**	PKPdf	**PKPdf**	**04 00 12.6**	**-0.1**
BRDY	**Brady**	**124.05**	**48**	PKPdf	**PKPdf**	**04 00 12.8**	**-0.2**
U38A	**Gravette**	**124.35**	**40**	PKPdf	**PKPdf**	**04 00 13.2**	**-0.3**
435B	**Jarrell**	**125.35**	**47**	PKPdf	**PKPdf**	**04 00 15.7**	**+0.2**
MIAR	**Mount Ida**	**126.03**	**41**	PKIKP	**PKPdf**	**04 00 17.0**	**+0.3**
MIAR	**Mount Ida**	**126.03**	**41**	PKPdf	**PKPdf**	**04 00 17.0**	**+0.3**
T42A	**Van Buren**	**126.03**	**37**	PKPdf	**PKPdf**	**04 00 16.4**	**-0.3**
LCAR	**Lake Charles**	**126.62**	**38**	PKPdf	**PKPdf**	**04 00 17.6**	**-0.2**
WLAR	**White Oak Lake**	**126.85**	**42**	PKPdf	**PKPdf**	**04 00 18.3**	**0.0**
WVT	**Waverly**	**128.57**	**36**	PKIKP	**PKPdf**	**04 00 20.6**	**-1.0**
WVT	**Waverly**	**128.57**	**36**	PKPdf	**PKPdf**	**04 00 20.6**	**-1.0**
P51A	**Williamsport**	**128.69**	**29**	PKPdf	**PKPdf**	**04 00 20.7**	**-1.0**
O54A	**Avella**	**129.39**	**27**	PKPdf	**PKPdf**	**04 00 23.6**	**+0.6**
CLTN	**Cedars of Leba**	**129.47**	**35**	PKPdf	**PKPdf**	**04 00 22.8**	**-0.4**
TRY	**Troy**	**129.84**	**19**	PKPdf	**PKPdf**	**04 00 24.4**	**+0.6**
SWET	**Sewanee**	**130.32**	**35**	PKPdf	**PKPdf**	**04 00 24.8**	**-0.1**
DBIC	**Dimbokro**	**130.41**	**282**	PKP	**PKPdf**	**04 00 26.4**	**+0.8**
	comp=Z,6.9nm,1.1s,baz=100,slow=6.8,SNR=1.9						
Q56A	**Snyder Ridge,**	**130.85**	**27**	PKPdf	**PKPdf**	**04 00 26.3**	**+0.4**
LRAL	**Lakeview Retre**	**131.19**	**38**	PKPdf	**PKPdf**	**04 00 25.7**	**-0.9**
MVL	**Millersville**	**131.25**	**24**	PKPdf	**PKPdf**	**04 00 25.9**	**-0.6**
V53A	**Saluda**	**131.72**	**32**	PKPdf	**PKPdf**	**04 00 28.0**	**+0.4**
PLCA	**Paso Flores**	**140.41**	**159**	PKhKP	PKPpre	04 00 36.0	
	comp=Z,1.8nm,0.9s,baz=180,slow=1.7,SNR=5.2						
PLCA				PKP	**PKPdf**	**04 00 43.9**	**+0.3**
	comp=Z,6.2nm,0.9s,baz=197,slow=1.3,SNR=6.9						
PLCA	**Paso Flores**	**140.41**	**159**	*e*P	**PKPdf**	**04 00 41.7**	**-1.9**
SIUN	**Universidad Ur**	**144.12**	**60**	PKPdf	**PKPab**	**04 00 48.8**	**+0.4**
BO02	**Sierra Bellavi**	**145.48**	**154**	PKPdf	**PKPbc**	**04 00 51.8**	**-0.9**
HDC	**Heredia**	**146.29**	**65**	*e*P	**PKPdf**	**04 00 53.4**	**-1.4**
MT13	**San Alfonso**	**146.59**	**154**	PKPdf	**PKPdf**	**04 00 53.5**	**-1.2**
PEL	**Peldehue**	**146.91**	**153**	PKIKP	**PKPdf**	**04 00 54.9**	**-0.3**
PEL	**Peldehue**	**146.91**	**153**	PKPdf	**PKPdf**	**04 00 54.9**	**-0.3**
NMDO	**Nuevo Mundo**	**147.54**	**40**	PKPdf	**PKPdf**	**04 00 55.2**	**-1.2**
PIRO	**Carate, Puerto**	**147.60**	**67**	PKPdf	**PKPdf**	**04 00 55.7**	**-1.0**
CO02	**Combarbal**	**148.36**	**150**	PKPdf	**PKPdf**	**04 00 56.8**	**-1.0**
GO04	**Tololo Observa**	**149.30**	**149**	PKPdf	**PKPdf**	**04 00 57.3**	**-2.1**
ANCO	**Parque Anchore**	**149.71**	**172**	*e*P	**PKPdf**	**04 00 58.8**	**-0.8**
SC01	**Santiago de lo**	**151.00**	**36**	PKPdf	**PKPdf**	**04 01 00.1**	**-2.0**
GO03	**Copiapo**	**151.66**	**147**	PKPdf	**PKPdf**	**04 01 01.8**	**-1.1**
PSAL	**Palomas, Salto**	**152.90**	**172**	*e*P	**PKPdf**	**04 01 03.1**	**-1.5**
CPSB	**Cacapava Do Su**	**153.87**	**180**	*e*P	**PKPdf**	**04 01 04.9**	**-1.1**
NNA	**Nana**	**155.49**	**110**	PKP	**PKPdf**	**04 01 07.4**	**-1.3**
	comp=Z,9.5nm,0.8s,baz=47,slow=1.3,SNR=2.3						
NNA	**Nana**	**155.49**	**110**		**PKPdf**	**04 01 06.7**	**-2.0**
ROSC	**El Rosal**	**157.23**	**67**	PKP	**PKPdf**	**04 01 11.5**	**0.0**
	comp=Z,2.8nm,0.4s,baz=84,slow=7.0,SNR=9.6						
ROSC				PKPab	**PKPab**	**04 01 41.5**	**-0.9**
	comp=Z,4.2nm,0.3s,baz=180,slow=5.3,SNR=3.8						
ROSC	**El Rosal**	**157.23**	**67**		**PKPdf**	**04 01 10.1**	**-1.4**
ROSC					**PKPab**	**04 01 40.6**	**-1.8**
CPUP	**Villa Florida**	**157.61**	**171**	PKP	**PKPdf**	**04 01 11.5**	**+0.4**
	comp=Z,7.6nm,1.4s,baz=152,slow=13,SNR=3.2						
CPUP				PKPab	**PKPab**	**04 01 43.5**	**+0.5**
	comp=Z,12nm,1.0s,baz=174,slow=4.9,SNR=8.7						
CPUP	**Villa Florida**	**157.61**	**171**		**PKPdf**	**04 01 10.6**	**-0.5**
CPUP					**PKPab**	**04 01 43.7**	**+0.7**
CPUP	**Villa Florida**	**157.61**	**171**	*e*P	**PKPdf**	**04 01 09.6**	**-1.5**
CZSB	**Cruzeiro do Su**	**160.43**	**101**	*e*P	**PKPdf**	**04 01 13.5**	**-1.3**
BSFB	**Barra de Sao F**	**160.96**	**219**	*e*P	**PKPdf**	**04 01 13.6**	**-1.6**
LPAZ	**La Paz**	**161.12**	**131**	PKP	**PKPdf**	**04 01 16.3**	**+0.1**
	comp=Z,20nm,1.3s,baz=18,slow=1.4,SNR=23						
LPAZ				PKPab	**PKPab**	**04 02 00.2**	**+0.8**
	comp=Z,16nm,1.2s,baz=225,slow=5.0,SNR=5.7						
LPAZ	**La Paz**	**161.12**	**131**		**PKPdf**	**04 01 15.8**	**-0.4**
LPAZ				PKPab	**PKPab**	**04 01 58.3**	**-1.1**
LPAZ	**La Paz**	**161.12**	**131**	*e*P	**PKPdf**	**04 01 17.3**	**+1.1**
BSCB	**Bom Sucesso**	**161.28**	**206**	*e*P	**PKPdf**	**04 01 12.8**	**-2.8**
MURT	**Porto Murtinho**	**162.10**	**167**	*e*P	**PKPdf**	**04 01 15.8**	**-0.5**
BDQN	**Bodoquena, MS**	**163.46**	**169**	*e*P	**PKPdf**	**04 01 17.9**	**+0.3**
AQDB	**Aquidauana**	**163.60**	**172**	*e*P	**PKPdf**	**04 01 17.0**	**-0.8**
COIM	**Forte Coimbra**	**163.74**	**165**	*e*P	**PKPdf**	**04 01 18.1**	**+0.2**
NBTA	**Tacaratu-PE**	**164.03**	**251**	*e*P	**PKPdf**	**04 01 16.6**	**-1.8**
JANB	**Januaria**	**165.97**	**219**	*e*P	**PKPdf**	**04 01 19.6**	**-0.4**
SIV	**San Ignacio**	**165.99**	**148**	PKP	**PKPdf**	**04 01 20.6**	**+0.5**
	comp=Z,11nm,1.2s,baz=227,slow=3.5,SNR=17						
SIV				PKPab	**PKPab**	**04 02 19.6**	**-0.4**
	comp=Z,10nm,1.2s,baz=203,slow=5.4,SNR=5.2						
PP1B	**Ponte de Pedra**	**166.54**	**174**	*e*P	**PKPdf**	**04 01 21.4**	**+1.0**
PTLB	**Pontes e Lacer**	**167.40**	**154**	*e*P	**PKPdf**	**04 01 21.9**	**+0.8**
BDFB	**Brasilia**	**167.42**	**204**	PKP	**PKPdf**	**04 01 21.4**	**+0.2**
	comp=Z,1.9nm,0.7s,baz=208,slow=3.0,SNR=3.8						
BDFB				PKPab	**PKPab**	**04 02 25.9**	**-0.4**
	comp=Z,5.5nm,0.9s,baz=147,slow=3.5,SNR=5.4						
BDFB	**Brasilia**	**167.42**	**204**	PKIKP	**PKPdf**	**04 01 21.5**	**+0.2**
BDFB						04 02 26.6	
BDFB	**Brasilia**	**167.42**	**204**		**PKPdf**	**04 01 21.5**	**+0.2**
BDFB				PKPab	**PKPab**	**04 02 26.6**	**+0.3**
SALV	**Santo Antonio**	**168.09**	**169**	*e*P	**PKPdf**	**04 01 21.1**	**-0.4**
NBPS	**Pedro II - PI**	**168.12**	**268**	*e*P	**PKPdf**	**04 01 21.7**	**-0.1**
SDBA	**SAO DESIDERIO**	**168.28**	**225**	*e*P	**PKPdf**	**04 01 21.8**	**0.0**
ARAG	**Araguaiana, MT**	**168.41**	**187**	*e*P	**PKPdf**	**04 01 22.1**	**+0.3**
VILB	**Vilhena**	**168.93**	**143**	*e*P	**PKPdf**	**04 01 23.3**	**+1.1**
BOAV	**Boa Vista**	**170.33**	**48**	*e*P	**PKPdf**	**04 01 23.1**	**0.0**
SNDB	**Serra Nova Dou**	**171.95**	**195**	*e*P	**PKPdf**	**04 01 23.7**	**-0.2**
SMTB	**Santa Maria do**	**172.60**	**230**	*e*P	**PKPdf**	**04 01 24.5**	**+0.3**
CLDB	**Colider**	**172.88**	**160**	*e*P	**PKPdf**	**04 01 24.7**	**+0.4**
ITTB	**Itaituba**	**177.61**	**96**	*e*P	**PKPdf**	**04 01 25.3**	**-0.3**

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*UCR **09** 03:57:21.9±0.7, 8°.16N×82°.95W, h13^{km}±10^{km}, MW3.8, Presumed earthquake*

*UPA **09** 03:57:22.4±1.3, 8°.21N×82°.89W, h15^{km}±2^{km}, MW3.8, Presumed earthquake*

ISC 09 03:57:22.1±0.9**, 8°.20N**±0°.04×**82°.91W**±0°.03**, h20**^{km}±5^{km}**, n30,** σ**0**^{s}.**63**/51**, 3C-10D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTPM	**Petroterminale**	**0.03**	**79**	⇓*i*P	**Pg**	**03 57 25.2**	**-0.4**
PTPM				*e*S	**Sg**	**03 57 26.9**	**-1.1**
PTPA	**Petro Terminal**	**0.04**	**87**	*e*P	**Pg**	**03 57 25.1**	**-0.5**
PTPA				*e*S	**Sg**	**03 57 28.1**	**0.0**
LIMO3	**Limones**	**0.11**	**154**	⇑*i*P	**Pg**	**03 57 26.2**	**+0.1**
LIMO3				*e*S	**Sb**	**03 57 28.0**	**-0.1**
LMNES	**Limones**	**0.11**	**152**	⇑*i*P	**Pg**	**03 57 26.2**	**0.0**
LMNES				*e*S	**Sg**	**03 57 30.1**	**+1.2**
NELY	**Ciudad Neily**	**0.45**	**356**	*e*P	**Pg**	**03 57 31.0**	**-0.4**
NELY	**Ciudad Neily**	**0.45**	**356**	⇑*i*P	**Pg**	**03 57 31.2**	**-0.2**
NELY				*e*S	**Sb**	**03 57 39.1**	**+1.4**
PIRO	**Carate, Puerto**	**0.47**	**296**	*e*P	**Pg**	**03 57 30.5**	**-1.1**
PIRO	**Carate, Puerto**	**0.47**	**296**	*e*P	**Pg**	**03 57 30.7**	**-1.0**
PIRO				*e*S	**Sb**	**03 57 38.7**	**+0.6**
FITO	**Golfito**	**0.49**	**330**	*e*P	**Pg**	**03 57 31.0**	**-1.1**
DVD	**David**	**0.51**	**63**	⇓*i*P	**Pb**	**03 57 32.9**	**+0.5**
DVD				*e*S	**Sg**	**03 57 39.4**	**-0.1**
JIME	**Puerto Jimenez**	**0.53**	**310**	*e*P	**Pg**	**03 57 32.2**	**-0.6**
LOMA3	**Las Lomas, Chi**	**0.56**	**66**	⇓*i*P	**Pb**	**03 57 33.7**	**+0.4**
LOMA3				*e*S	**Sb**	**03 57 41.7**	**+0.7**
CHIR3	**Chiriqui UPA,**	**0.61**	**71**	⇓*i*P	**Pb**	**03 57 34.4**	**+0.4**
CHIR3				*e*S	**Sg**	**03 57 42.6**	**+0.3**
CLLRA	**Cordillera,**	**0.62**	**28**	*i* P	**Pb**	**03 57 34.6**	**+0.3**
CLLRA				*e*S	**Sn**	**03 57 45.5**	**+0.1**
VITO	**San Vito**	**0.62**	**355**	*e*P	**Pb**	**03 57 34.6**	**+0.2**
VITO				*e*S	**Sn**	**03 57 44.9**	**-0.4**
BRU2	**Volcan**	**0.63**	**20**	*e*P	**Pg**	**03 57 34.6**	**+0.1**
BRU2	**Volcan**	**0.63**	**20**	⇓*i*P	**Pb**	**03 57 34.9**	**+0.3**
BRU2				*e*S	**Sn**	**03 57 45.1**	**-0.6**
PTAR3	**Potrerillos Ar**	**0.64**	**40**	*e*P	**Pb**	**03 57 35.1**	**+0.4**
PTAR3				*e*S	**Sb**	**03 57 44.4**	**+1.1**
SCLRA	**Santa Clara, W**	**0.64**	**11**	⇓*i*P	**Pb**	**03 57 35.2**	**+0.4**
SCLRA				*e*S	**Sn**	**03 57 45.5**	**-0.5**
BGUAL	**Bijagual, Pana**	**0.65**	**62**	⇓*i*P	**Pb**	**03 57 35.2**	**+0.4**
BGUAL				*e*S	**Sn**	**03 57 45.6**	**-0.3**
BQTLY	**Boquete Panama**	**0.71**	**39**	⇓*i*P	**Pb**	**03 57 36.1**	**+0.1**
BQTLY				*e*S	**Sn**	**03 57 47.5**	**-0.2**
BQSF3	**Alto Boquete,**	**0.72**	**41**	*e*P	**Pb**	**03 57 36.2**	**+0.1**
BQSF3				*e*S	**Sg**	**03 57 46.4**	**+0.9**
LNBQ3	**Los Naranjos,**	**0.75**	**38**	*i* P	**Pb**	**03 57 36.5**	**-0.1**
LNBQ3				*e*S	**Sb**	**03 57 46.7**	**+0.3**
RBALA	**Bur**	**1.01**	**48**	⇓*i*P	**Pb**	**03 57 40.9**	**0.0**
RBALA				*e*S	**Sb**	**03 57 53.2**	**-0.6**
CHGR2	**Aguacate**	**1.06**	**46**	*e*P	**Pb**	**03 57 41.3**	**-0.5**
CHGR2				*e*S	**Sb**	**03 57 54.8**	**-0.4**
KKNTU	**Kakintº**	**1.27**	**60**	⇓*i*P	**Pn**	**03 57 44.5**	**-0.2**
KKNTU				*e*S	**Sb**	**03 58 01.5**	**+0.4**
GMAL	**Guarumal, Vera**	**1.72**	**104**	*e*P	**Pn**	**03 57 49.8**	**-1.1**
SVQ2	**Quepos**	**1.74**	**315**	*e*P	**Pb**	**03 57 53.5**	**0.0**
ABE2	**San Pablo**	**1.88**	**323**	*e*P	**Pn**	**03 57 54.7**	**+1.4**
LCR2	**La Lucha 2**	**1.88**	**325**	*e*P	**Pn**	**03 57 53.9**	**+0.6**

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*IDC **09** 04:06:01.3±9.1, 36°.63N×70°.96E, h114^{km}±68^{km}, mb3.5/1, mbtmp3.6/6, Error ellipse: s-maj=83.4km s-min=66.9km az=140.0*

*NNC **09** 04:06:01.7±5.7, 37°.01N×70°.64E, h0^{km}, mb4.0, mpv3.9, Error ellipse: s-maj=49.8km s-min=40.2km az=177.0*

ISC 09 04:06:00.5±2.4**, 36°.6N**±0°.2×**70°.8E**±0°.1**, h100**^{km}**, n9,** σ**1**^{s}.**12**/13**, 5C-1D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KK31	**Karatay Array**	**6.46**	**358**	⇑P	**Pn**	**04 07 34.6**	**+1.6**
	7.3nm,0.2s,baz=174,slow=12,SNR=182						
KK31				⇑S	**Sn**	**04 08 45.5**	**+0.2**
	1.0nm,0.2s,baz=190,slow=25,SNR=5.2						
AAK	**Ala-Archa**	**6.64**	**24**	P	**Pn**	**04 07 35.2**	**-0.4**
	10nm,0.3s,baz=167,slow=6.5,SNR=21						
AAK				S	**Sn**	**04 08 49.9**	**+0.1**
	2.3nm,0.3s,baz=318,slow=23,SNR=6.3						
AAK	**Ala-Archa**	**6.64**	**24**	⇑P	**Pn**	**04 07 35.9**	**+0.3**
	2.0nm,0.4s						
AAK				⇑S	**Sn**	**04 08 50.6**	**+0.8**
	3.9nm,0.8s						
MKAR	**Makanchi Array**	**13.28**	**37**	P	**Pn**	**04 09 05.0**	**0.0**
	0.1nm,0.4s,baz=216,slow=12,SNR=5.6						
AB31	**Akbulak array**	**14.88**	**331**	⇓P	**Pn**	**04 09 27.0**	**+1.4**
	0.2nm,0.3s,baz=147,slow=12,SNR=14						
AB31				⇑S	**Sn**	**04 12 07.7**	**-1.9**
	1.0nm,0.6s,baz=170,slow=19,SNR=4.7						
KURBB	**Kurchatov Arra**	**15.05**	**19**	P	**Pn**	**04 09 28.8**	**+1.2**
	0.5nm,0.4s,baz=206,slow=10,SNR=5.1						
BVAR	**Borovoye Array**	**16.39**	**359**	P	**Pn**	**04 09 45.1**	**+0.7**
	0.8nm,0.4s,baz=183,slow=13,SNR=3.6						
ZALV	**Zalesovo Beam**	**19.86**	**25**	P	**P**	**04 10 22.1**	**-1.3**
	1.3nm,0.4s,baz=216,slow=10,SNR=6.9						
ARCES	**ARCESS Array B**	**40.95**	**338**	P	**P**	**04 13 32.4**	**-0.4**
	1.2nm,0.7s,baz=118,slow=10,SNR=3.8						
	1.2nm,0.7s						

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*IDC **09** 04:23:32.8±4.4, 19°.62S×179°.41W, h0^{km}, mb3.8/4, mbtmp3.8/4, MS3.1/1, Error ellipse: s-maj=184.2km s-min=39.1km az=141.0*

*NEIC **09** 04:24:31.2±0.7, 19°.63S±0°.06×179°.4E±0°.2, h534^{km}±10^{km}, mb4.6/12, Error ellipse: s-maj=25.8km s-min=9.2km az=87.0*

ISC 09 04:24:31.9±0.9**, 19°.6S**±0°.1×**179°.3E**±0°.2**, h550**^{km}**, n18,** σ**1**^{s}.**32**/17**, mb4.1**/10**, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**2.19**	**328**	LR	LR	04 25 12.7	
	comp=Z,268nm,18.1s,baz=174,slow=33						
MSVF	**Nonsavu**	**2.19**	**328**	P	**P**	**04 25 39.6**	**-3.1**
MLZ	**Mavora Lakes**	**27.30**	**197**	P	**P**	**04 29 32.8**	**0.0**
MLZ				IAmb	IAmb	04 29 54.9	
	comp=Z,53nm,1.4s						
PMG	**Port Moresby**	**32.65**	**283**	P	**P**	**04 30 20.4**	**+1.2**
PMG				IAmb	IAmb	04 30 45.7	
	comp=Z,43nm,1.4s						
STKA	**Stephens Creek**	**35.90**	**242**	P	**P**	**04 30 43.9**	**-2.3**
	comp=Z,1.2nm,0.2s,baz=63,slow=6.8,SNR=2.8						
	comp=Z,1.2nm,0.2s						
WR8	**Warramunga Arr**	**42.04**	**262**	P	**P**	**04 31 36.4**	**+0.4**
WR8				IAmb	IAmb	04 31 48.5	
	comp=Z,9.4nm,1.4s						
WB0	**Warramunga Arr**	**42.16**	**262**	P	**P**	**04 31 37.1**	**+0.2**
WB0				IAmb	IAmb	04 32 02.7	
	comp=Z,7.8nm,1.3s						
WRA	**Warramunga Arr**	**42.19**	**262**	P	**P**	**04 31 37.6**	**+0.4**
	comp=Z,0.4nm,0.3s,baz=98,slow=7.8,SNR=12						
	comp=Z,0.4nm,0.3s						
WRA	**Warramunga Arr**	**42.19**	**262**	P	**P**	**04 31 37.4**	**+0.2**
ASAR	**Alice Springs**	**42.24**	**256**	P	**P**	**04 31 37.8**	**+0.2**
	comp=Z,0.6nm,0.4s,baz=87,slow=8.3,SNR=10						
	comp=Z,0.6nm,0.4s						
FITZ	**Fitzroy Crossi**	**50.61**	**262**	P	**P**	**04 32 40.2**	**-0.6**
SBA	**Scott Base**	**58.61**	**183**	P	**P**	**04 33 37.2**	**+1.4**
DAV	**Davao City (W)**	**59.12**	**291**	P	**P**	**04 33 41.8**	**+1.4**
ATKA	**Atka Island**	**71.73**	**4**	P	**P**	**04 34 59.1**	**+0.8**
ATKA				IAmb	IAmb	04 35 35.1	
	comp=Z,29nm,1.1s						
SMY	**Shemya**	**72.17**	**357**	P	**P**	**04 35 01.8**	**+0.9**
PEA0B	**Petropavlovsk-**	**74.79**	**347**	P	**P**	**04 35 16.8**	**+0.9**
PEA0B				IAmb	IAmb	04 35 37.8	
	comp=Z,29nm,1.4s						
Q09A	**Carvers**	**83.12**	**45**	P	**P**	**04 36 00.0**	**-0.6**
ILAR	**Eielson Array**	**88.04**	**14**	P	**P**	**04 36 23.2**	**-0.2**
	comp=Z,0.2nm,0.6s,baz=204,slow=5.9,SNR=1.9						
	comp=Z,0.2nm,0.6s						

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*UCR **09** 04:31:05.7±0.9, 8°.20N×82°.94W, h13^{km}±6^{km}, MW4.7, Presumed earthquake*

*RSNC **09** 04:31:06.7±0.4, 8°N±3°×8°3W±°, h6^{km}±2^{km}, M4.2, mB4.6, mb4.2, ML3.5, Mw(mB)3.9*

*UPA **09** 04:31:06.0±1.2, 8°.25N×82°.94W, h9^{km}±1^{km}, MW4.6, Fault plane solution: NP1:ϕ_s84.01000°, δ87.42000°, λ-9.67000°., Presumed earthquake*

*CATAC **09** 04:31:07.5, 8°N±3°×8°3W±°, h2^{km}±2^{km}, M4.9/18, mb5.7/1, MLv4.4/18, confirmed*

ISC 09 04:31:06.5±0.8**, 8°.22N**±0°.03×**82°.95W**±0°.02**, h13**^{km}±5^{km}**, n103,** σ**1**^{s}.**53**/161**, 4C-17D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTPM	**Petroterminale**	**0.07**	**99**	*i* P	**Pg**	**04 31 08.6**	**-0.6**
PTPM				*e*S	**Sg**	**04 31 10.6**	**-0.5**
PTPA	**Petro Terminal**	**0.08**	**101**	*e*P	**Pg**	**04 31 08.5**	**-0.8**
PTPA				*e*S	**Sg**	**04 31 11.4**	**+0.2**
LIMO3	**Limones**	**0.14**	**144**	⇑*i*P	**Pg**	**04 31 09.6**	**-0.5**
LIMO3				*e*S	**Sg**	**04 31 13.2**	**+0.6**
LMNES	**Limones**	**0.14**	**143**	⇑*i*P	**Pg**	**04 31 09.6**	**-0.5**
LMNES				*e*S	**Sg**	**04 31 13.3**	**+0.7**
CDITO	**Canoas**	**0.36**	**12**	P	**Pg**	**04 31 13.3**	**-0.6**
CDITO				S	**Sg**	**04 31 19.8**	**+1.0**
PIRO	**Carate, Puerto**	**0.43**	**296**	P	**Pg**	**04 31 14.0**	**-1.0**
PIRO				S	**Sb**	**04 31 21.6**	**-0.7**
PIRO	**Carate, Puerto**	**0.43**	**296**	*e*P	**Pg**	**04 31 14.0**	**-1.0**
PIRO	**Carate, Puerto**	**0.43**	**296**	*i* P	**Pg**	**04 31 14.1**	**-1.0**
PIRO				*e*S	**Sg**	**04 31 20.7**	**-0.1**
NELY	**Ciudad Neily**	**0.43**	**0**	*e*P	**Pg**	**04 31 14.3**	**-0.8**
NELY				*e*S	**Sg**	**04 31 20.8**	**-0.1**
NELY	**Ciudad Neily**	**0.43**	**0**	⇓*i*P	**Pg**	**04 31 14.4**	**-0.7**
NELY				*e*S	**Sg**	**04 31 22.1**	**+1.1**
FITO	**Golfito**	**0.46**	**333**	*e*P	**Pg**	**04 31 14.0**	**-1.5**
FITO				*e*S	**Sg**	**04 31 21.4**	**-0.3**
JIME	**Puerto Jimenez**	**0.49**	**311**	*e*P	**Pg**	**04 31 15.5**	**-0.7**
DVD	**David**	**0.54**	**66**	⇓*i*P	**Pg**	**04 31 16.3**	**-0.8**
DVD				*e*S	**Sg**	**04 31 23.9**	**-0.5**
MLIR3	**Monte Lirio, C**	**0.59**	**12**	⇓*i*P	**Pg**	**04 31 17.7**	**-0.4**
MLIR3				*e*S	**Sg**	**04 31 26.1**	**+0.2**
LOMA3	**Las Lomas, Chi**	**0.59**	**69**	⇓*i*P	**Pg**	**04 31 17.2**	**-1.0**
LOMA3				*e*S	**Sg**	**04 31 26.1**	**+0.1**
VITO	**San Vito**	**0.60**	**358**	*e*P	**Pg**	**04 31 17.6**	**-0.7**
VITO	**San Vito**	**0.60**	**358**	⇓*i*P	**Pg**	**04 31 17.8**	**-0.6**
VITO				*e*S	**Sb**	**04 31 28.1**	**+0.7**
CLLRA	**Cordillera,**	**0.62**	**32**	⇓*i*P	**Pg**	**04 31 18.1**	**-0.7**
BRU2	**Volcan**	**0.63**	**24**	*e*P	**Pg**	**04 31 18.1**	**-0.7**
BRU2	**Volcan**	**0.63**	**24**	⇓*i*P	**Pg**	**04 31 18.2**	**-0.6**
BRU2				*e*S	**Sg**	**04 31 28.5**	**+1.3**
SCLRA	**Santa Clara, W**	**0.64**	**15**	⇓*i*P	**Pg**	**04 31 18.5**	**-0.5**
SCLRA				*e*S	**Sb**	**04 31 29.9**	**+1.5**
CHIR3	**Chiriqui UPA,**	**0.64**	**74**	*i* P	**Pg**	**04 31 17.8**	**-1.2**
CHIR3				*e*S	**Sg**	**04 31 27.8**	**+0.4**
PTAR3	**Potrerillos Ar**	**0.65**	**43**	⇓*i*P	**Pg**	**04 31 18.5**	**-0.8**
PTAR3				*e*S	**Sg**	**04 31 28.4**	**+0.4**
BGUAL	**Bijagual, Pana**	**0.68**	**64**	⇓*i*P	**Pg**	**04 31 18.6**	**-1.1**
BQTLY	**Boquete Panama**	**0.72**	**42**	⇓*i*P	**Pg**	**04 31 19.4**	**-1.2**
BQTLY				*e*S	**Sb**	**04 31 32.0**	**+1.0**
BQSF3	**Alto Boquete,**	**0.73**	**44**	*i* P	**Pg**	**04 31 19.4**	**-1.3**
BQSF3				*e*S	**Sg**	**04 31 29.6**	**-0.8**
LNBQ3	**Los Naranjos,**	**0.76**	**41**	⇓*i*P	**Pg**	**04 31 19.8**	**-1.6**

EDP2	**Potrero Grande**	**0.83**	**344**	*e*P	**Pg**	**04 31 21.3**	**-1.3**
ISECA	**Islas Secas**	**0.94**	**104**	*e*S	**Sg**	**04 31 37.5**	**+0.6**
RBALA	**Bur**	**1.03**	**50**	⇓*i*P	**Pg**	**04 31 24.3**	**-2.1**
RBALA				*e*S	**Sg**	**04 31 38.6**	**-1.2**
CHGR2	**Aguacate**	**1.07**	**48**	⇓*i*P	**Pg**	**04 31 24.9**	**-2.4**
CHGR2				*e*S	**Sg**	**04 31 39.2**	**-2.0**
DRK0	**Durika**	**1.08**	**344**	*i* P	Pg	04 31 11.7	-16
DRK0				*e*S	Sg	04 31 26.7	-15
EDPE	**Pejibaye, P**	**1.12**	**327**	*e*P	**Pg**	**04 31 25.7**	**-2.5**
PDCAN	**Manzana , Fuen**	**1.24**	**86**	⇑*i*P	**Pn**	**04 31 27.4**	**-2.2**
PDCAN				*e*S	**Sg**	**04 31 44.1**	**-2.5**
SAJE	**San Jernim**	**1.25**	**334**	*e*P	**Pg**	**04 31 27.8**	**-2.9**
KKNTU	**Kakintº**	**1.29**	**61**	⇓*i*P	**Pn**	**04 31 27.9**	**-2.3**
KKNTU				*e*S	**Sb**	**04 31 44.9**	**-2.3**
CNI2	**El Empalme, Bo**	**1.29**	**21**	*e*P	**Pn**	**04 31 28.1**	**-2.2**
CNI2				*e*S	**Sb**	**04 31 44.3**	**-2.9**
CEUA	**Cerro Uatsi, L**	**1.40**	**0**	*e*P	**Pn**	**04 31 32.0**	**+0.2**
RGM0	**Gandoca**	**1.41**	**14**	P	**Pn**	**04 31 32.2**	**+0.3**
RGM0				S	**Sg**	**04 31 53.3**	**+1.3**
RGM0	**Gandoca**	**1.41**	**14**	*e*P	**Pn**	**04 31 32.0**	**+0.1**
RGM0	**Gandoca**	**1.41**	**14**	⇓*i*P	**Pn**	**04 31 32.2**	**+0.3**
RGM0				*e*S	**Sg**	**04 31 52.8**	**+0.9**
QUEP	**Quepos**	**1.70**	**315**	P	**Pn**	**04 31 34.9**	**-1.1**
QUEP				S	**Sn**	**04 31 58.1**	**+0.5**
GMAL	**Guarumal, Vera**	**1.76**	**105**	P	**Pn**	**04 31 34.5**	**-2.2**
GMAL				S	**Sn**	**04 32 00.4**	**+1.5**
GMAL	**Guarumal, Vera**	**1.76**	**105**	*e*P	**Pn**	**04 31 36.3**	**-0.4**
GMAL				*e*S	**Sn**	**04 31 57.8**	**-1.1**
RSUS3	**Rio de Jesus,**	**1.79**	**97**	*e*P	**Pn**	**04 31 35.4**	**-1.7**
RSUS3				*e*S	**Sn**	**04 31 59.0**	**-0.6**
ABE2	**San Pablo**	**1.84**	**324**	*e*P	**Pn**	**04 31 38.0**	**0.0**
LCR2	**La Lucha 2**	**1.84**	**326**	P	**Pn**	**04 31 38.1**	**+0.1**
LCR2				S	**Sn**	**04 32 02.2**	**+0.8**
LCR2	**La Lucha 2**	**1.84**	**326**	*e*P	**Pn**	**04 31 37.5**	**-0.5**
LCR2				*e*S	**Sn**	**04 32 01.2**	**-0.1**
SAFE3	**Santa Fe, Vera**	**1.88**	**81**	*e*P	**Pn**	**04 31 36.7**	**-1.6**
VTCV	**VTCV, Calle Va**	**1.92**	**336**	*e*P	**Pn**	**04 31 38.9**	**-0.1**
LCOCO	**El Coco**	**1.95**	**342**	*e*P	**Pn**	**04 31 39.6**	**+0.2**
CVTQ	**Turrialba Volc**	**1.95**	**336**	*e*P	**Pn**	**04 31 39.8**	**+0.1**
STIA3	**Santiago, Vera**	**1.96**	**93**	*e*P	**Pn**	**04 31 38.8**	**-0.7**
VTR0	**Volcan Turrial**	**1.96**	**336**	*e*P	**Pn**	**04 31 39.9**	**0.0**
CVTR	**Volcan Turrial**	**1.96**	**336**	*e*P	**Pn**	**04 31 39.7**	**-0.2**
CALO3	**Calobre, Verag**	**2.09**	**87**	*e*P	**Pn**	**04 31 40.2**	**-1.1**
HDC	**Heredia**	**2.12**	**327**	P	**Pn**	**04 31 42.2**	**+0.5**
HDC				S	**Sb**	**04 32 10.8**	**-0.3**
BELE	**Belen**	**2.13**	**325**	*e*P	**Pn**	**04 31 42.2**	**+0.2**
VBV1	**V. Barva**	**2.20**	**329**	*e*P	**Pn**	**04 31 43.3**	**+0.2**
CACAO	**El Cacao, Vera**	**2.24**	**113**	P	**Pn**	**04 31 42.7**	**-0.6**
CACAO				S	**Sn**	**04 32 13.2**	**+2.3**
CACAO	**El Cacao, Vera**	**2.24**	**113**	*e*P	**Pn**	**04 31 42.5**	**-0.9**
CACAO				*e*S	**Sn**	**04 32 10.8**	**-0.1**
TRB2	**Turrubares**	**2.25**	**319**	P	**Pn**	**04 31 44.0**	**+0.5**
TRB2				S	**Sn**	**04 32 12.3**	**+1.3**
TCS1	**Tacares**	**2.25**	**324**	P	**Pn**	**04 31 44.1**	**+0.5**
CHIT3	**Chitre**	**2.52**	**96**	*e*P	**Pn**	**04 31 46.6**	**-0.6**
PNME	**Penonome**	**2.61**	**84**	P	**Pn**	**04 31 48.7**	**+0.3**
PNME				S	**Sn**	**04 32 22.8**	**+2.8**
PNME	**Penonome**	**2.61**	**84**	⇓*i*P	**Pn**	**04 31 48.4**	**0.0**
TOSI3	**Tonosi**	**2.61**	**108**	*e*P	**Pn**	**04 31 47.9**	**-0.6**
AZU	**Azuero**	**2.68**	**99**	P	**Pn**	**04 31 50.0**	**+0.6**
AZU				S	**Sn**	**04 32 24.2**	**+2.4**
AZU	**Azuero**	**2.68**	**99**	⇑*i*P	**Pn**	**04 31 49.5**	**+0.1**
AZU				*e*S	**Sn**	**04 32 21.2**	**-0.6**
JTS	**Las Juntas de**	**2.86**	**316**	P	**Pn**	**04 31 52.6**	**+0.7**
JTS				S	**Sn**	**04 32 25.6**	**-0.6**
JTS	**Las Juntas de**	**2.86**	**316**	*e*P	**Pn**	**04 31 51.3**	**-0.5**
JTS				*e*S	**Sn**	**04 32 25.8**	**-0.4**
ACHO3	**Achotines, Los**	**2.86**	**106**	*e*P	**Pn**	**04 31 51.6**	**-0.3**
COVE	**Coope Vega, Sa**	**2.87**	**330**	P	**Pn**	**04 31 53.0**	**+0.9**
PEDA3	**Pedasi**	**2.98**	**103**	*e*P	**Pn**	**04 31 52.4**	**-1.0**
CMARA	**Lajas Hojancha**	**3.03**	**306**	P	**Pn**	**04 31 53.3**	**-1.0**
CMARA				S	**Sn**	**04 32 30.5**	**-0.1**
CMARA	**Lajas Hojancha**	**3.03**	**306**	*e*P	**Pn**	**04 31 53.6**	**-0.7**
ZANG	**Zanguenga, Cho**	**3.13**	**76**	*e*P	**Pn**	**04 31 53.2**	**-2.5**
BCIP	**Isla Barro Col**	**3.22**	**73**	P	**Pn**	**04 31 56.6**	**-0.2**
BCIP				S	**Sn**	**04 32 40.2**	**+5.2**
BCIP	**Isla Barro Col**	**3.22**	**73**	*e*P	**Pn**	**04 31 56.2**	**-0.5**
BCIP				*e*S	**Sn**	**04 32 33.4**	**-1.6**
GAMB1	**Gamboa**	**3.33**	**74**	*e*P	**Pn**	**04 31 57.4**	**-0.9**
ARRA3	**Arraijan, Pana**	**3.34**	**77**	*e*P	**Pn**	**04 31 57.1**	**-1.3**
FRIJ	**El Hiral**	**3.34**	**72**	*e*P	**Pn**	**04 31 57.8**	**-0.7**
UPA	**Univ. de Panam**	**3.46**	**77**	P	**Pn**	**04 32 03.6**	**+3.5**
UPA				S	**Sb**	**04 32 48.1**	**-1.6**
UPA	**Univ. de Panam**	**3.46**	**77**	*e*P	**Pn**	**04 31 59.0**	**-1.1**
BLUN	**Bluefields**	**3.85**	**348**	P	**Pn**	**04 32 06.2**	**+0.7**
BLUN				S	**Sn**	**04 32 53.8**	**+3.1**
CARN	**Rivas**	**3.89**	**320**	P	**Pn**	**04 32 05.2**	**-0.9**
CARN				S	**Sn**	**04 32 53.2**	**+1.5**
ESPN	**Las Esperanzas**	**4.17**	**342**	P	**Pn**	**04 32 12.4**	**+2.5**
ESPN				S	**Sn**	**04 33 01.4**	**+2.8**
ACON	**Acoyapa**	**4.33**	**330**	P	**Pn**	**04 32 13.7**	**+1.6**
ACON				S	**Sn**	**04 33 05.4**	**+3.1**
BOAB	**BOACO BROADBAN**	**4.99**	**328**	P	**Pn**	**04 32 22.8**	**+1.7**
PRVC	**Isla de Provid**	**5.36**	**17**	P	**Pn**	**04 32 26.3**	**0.0**
	610nm28nm,0.8s						
PRVC				S	**Sn**	**04 33 27.2**	**-0.7**
	610nm28nm,0.8s						
PRVC				AML	AML		
PRVC	**Isla de Provid**	**5.36**	**17**	*e*P	**Pn**	**04 32 25.5**	**-0.8**
PRVC				*e*S	**Sn**	**04 33 25.7**	**-2.2**
CNGN	**Cerro Negro**	**5.63**	**319**	P	**Pn**	**04 32 32.0**	**+1.9**
	689nm,0.9s						
CNGN				S	**Sn**	**04 33 36.7**	**+2.0**
	689nm,0.9s						
CNGN				AML	AML		
CNGN	**Cerro Negro**	**5.63**	**319**	P	**Pn**	**04 32 32.1**	**+1.9**
CNGN				S	**Sn**	**04 33 35.9**	**+1.2**
SOLC	**Bahia Solano**	**5.84**	**109**	P	**Pn**	**04 32 31.5**	**-1.4**
APAC	**Apartado, Choc**	**6.31**	**92**	P	**Pn**	**04 32 42.2**	**+2.8**
	33nm,0.6s						
TGUH	**Tegucigalpa,Un**	**7.19**	**324**	P	**Pn**	**04 32 55.9**	**+4.3**
CBOC	**Ciudad Bolivar**	**7.27**	**108**	P	**Pn**	**04 32 52.3**	**-0.4**
	8.2nm,0.8s						
CBOC				S	**Sn**	**04 34 14.6**	**-0.6**
	8.2nm,0.8s						
SJCC	**San Jacinto, C**	**7.85**	**77**	P	**Pn**	**04 33 01.1**	**+0.5**
	15nm,0.7s						
GUY2C	**Guyana, Caldas**	**8.10**	**111**	P	**Pn**	**04 33 06.2**	**+1.9**
	12nm,0.7s						
GUY2C				S	**Sn**	**04 34 38.4**	**+2.4**
	12nm,0.7s						
BBAC	**Balboa, Cauca**	**8.37**	**137**	P	**Pn**	**04 33 11.6**	**+3.7**
	5.9nm,1.7s						
POPC	**Popayan, Colom**	**8.41**	**132**	P	**Pn**	**04 33 10.5**	**+2.1**
	10nm,1.1s						
POPC				S	**Sn**	**04 34 44.4**	**+1.0**
	10nm,1.1s						
PTBC	**PUERTO BERRIO,**	**8.59**	**101**	P	**Pn**	**04 33 12.2**	**+1.6**
	3.4nm,0.7s						
PTBC				S	**Sn**	**04 34 51.8**	**+4.4**
	3.4nm,0.7s						
ORTC	**Ortega, Tolima**	**8.77**	**119**	P	**Pn**	**04 33 17.0**	**+3.8**
ORTC				S	**Sn**	**04 34 54.7**	**+2.7**

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*CATAC **09** 04:36:50.7±0.7, 13°N±4°×9°0W±°, h28^{km}±5^{km}, M3.7/14, MLv3.7/14, Error ellipse: s-maj=9.7km s-min=5.4km az=19.7, confirmed*

*SNET **09** 04:36:51.2±1.3, 13°.18N×89°.64W, h50^{km}, ML3.6, Presumed earthquake*

*GCG **09** 04:36:52.4±0.6, 13°.23N×89°.71W, h33^{km}±3^{km}, MD4.2, Presumed earthquake*

ISC 09 04:36:51.0±1.7, **13°.11N**±0°.07×**89°.62W**±0°.04, **h28**^{km}±12^{km}, **n43,** σ**0^{s}.71**/64, **El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LALI	**Alcalda de L**	**0.47**	**38**	*i* P	**Pn**	**04 37 01.8**	**-0.2**
LALI	**Alcalda de L**	**0.47**	**38**	*i* P	**Pn**	**04 37 01.8**	**-0.2**
LALI	**Alcalda de L**	**0.47**	**38**	P	**Pn**	**04 37 01.8**	**-0.2**
LALI				S	**Sn**	**04 37 10.1**	**+0.7**
JAYA	**Jayaque - finc**	**0.57**	**17**	*i* P	**Pb**	**04 37 02.8**	**+0.2**
JAYA	**Jayaque - finc**	**0.57**	**17**	*e*P	**Pb**	**04 37 02.7**	**+0.2**
JAYA	**Jayaque - finc**	**0.57**	**17**	P	**Pb**	**04 37 02.9**	**+0.2**
JAYA				S	**Sn**	**04 37 11.9**	**-0.1**
PANCS	**Alcalda de**	**0.66**	**40**	*e*P	**Pb**	**04 37 04.0**	**0.0**
PANCS				*e*S	**Sb**	**04 37 13.2**	**+0.4**
PANCS	**Alcalda de**	**0.66**	**40**	P	**Pb**	**04 37 04.1**	**0.0**
PANCS				S	**Sb**	**04 37 13.7**	**+0.8**
PMON	**Piamonte**	**0.67**	**26**	*e*P	**Pb**	**04 37 04.2**	**0.0**
PMON	**Piamonte**	**0.67**	**26**	P	**Pb**	**04 37 04.3**	**0.0**
PMON				S	**Sb**	**04 37 14.3**	**+1.1**
LOMA	**Loma Larga**	**0.69**	**39**	*e*P	**Pb**	**04 37 04.6**	**0.0**
LOMA	**Loma Larga**	**0.69**	**39**	P	**Pb**	**04 37 04.7**	**+0.1**
LOMA				S	**Sn**	**04 37 15.1**	**+0.3**
BOQS	**Boqueron**	**0.70**	**28**	*e*P	**Pb**	**04 37 04.8**	**-0.1**
SEMO	**Seminario San**	**0.70**	**33**	P	**Pb**	**04 37 04.6**	**-0.2**
SEMO				S	**Sb**	**04 37 15.2**	**+1.0**
UEES	**Universidad Ev**	**0.71**	**31**	P	**Pb**	**04 37 04.8**	**-0.1**
UEES				S	**Sb**	**04 37 15.2**	**+0.9**
CEVE	**Cerro Verde**	**0.71**	**360**	P	**Pb**	**04 37 05.0**	**-0.1**
CEVE				S	**Sb**	**04 37 15.2**	**+0.6**
CEDA	**San Andres**	**0.72**	**17**	P	**Pb**	**04 37 04.9**	**-0.2**
CEDA				S	**Sb**	**04 37 15.5**	**+0.9**
SBLS	**San Blas**	**0.72**	**360**	*e*P	**Pb**	**04 37 04.9**	**-0.4**
SNJE	**San Jose**	**0.75**	**1**	*e*P	**Pb**	**04 37 05.1**	**-0.6**
SJTE	**Alcalda de S**	**0.78**	**50**	*e*P	**Pb**	**04 37 05.9**	**-0.2**
SJTE				*e*S	**Sb**	**04 37 16.6**	**+0.3**
RTR	**El Retiro**	**0.78**	**358**	*e*P	**Pb**	**04 37 05.9**	**-0.3**
NUBE	**Las Nubes**	**0.80**	**349**	*i* P	**Pb**	**04 37 05.9**	**-0.7**
NUBE				*i* S	**Sb**	**04 37 16.5**	**-0.7**
NUBE	**Las Nubes**	**0.80**	**349**	P	**Pb**	**04 37 05.9**	**-0.7**
NUBE				S	**Sb**	**04 37 17.1**	**0.0**
FAME	**Alcaldia de Sa**	**0.82**	**332**	P	**Pb**	**04 37 05.8**	**-1.0**
FAME				S	**Sb**	**04 37 17.2**	**-0.4**
UNIC	**Universidad Ca**	**0.87**	**4**	*e*P	**Pb**	**04 37 07.0**	**-0.6**
UNIC	**Universidad Ca**	**0.87**	**4**	P	**Pb**	**04 37 06.8**	**-0.7**
UNIC				S	**Sb**	**04 37 18.9**	**0.0**
PAVA	**Las Pavas**	**0.89**	**48**	P	**Pn**	**04 37 07.9**	**0.0**
PAVA				S	**Sn**	**04 37 20.7**	**+0.8**
TECO	**Alcaldia de Te**	**0.92**	**62**	*e*P	**Pb**	**04 37 07.5**	**-0.9**
TECO				*e*S	**Sb**	**04 37 19.7**	**-0.6**
TECO	**Alcaldia de Te**	**0.92**	**62**	P	**Pb**	**04 37 07.3**	**-1.0**
TECO				S	**Sb**	**04 37 20.2**	**-0.1**
SLOZ	**Alcaldia de Sa**	**0.93**	**350**	P	**Pb**	**04 37 07.7**	**-0.8**
JUAM	**Asuncion Mita**	**1.22**	**356**	*i* P	**Pn**	**04 37 11.5**	**-0.8**
JUAM				*i* S	**Sn**	**04 37 26.0**	**-1.9**
LLGN	**La Laguna**	**1.23**	**32**	*e*P	**Pn**	**04 37 11.9**	**-0.6**
LLGN				*e*S	**Sn**	**04 37 29.3**	**+0.9**
PACA	**Pacayal**	**1.31**	**74**	P	**Pn**	**04 37 13.7**	**+0.1**
LCY	**Lacayo**	**1.33**	**76**	*e*P	**Pn**	**04 37 14.0**	**+0.2**
FG16	**Alotenango, Sa**	**1.45**	**323**	*i* P	**Pb**	**04 37 19.4**	**+2.0**
FG8	**Yepocapa, Chim**	**1.47**	**321**	*i* P	**Pb**	**04 37 20.0**	**+2.3**
ESQI	**Esquipulas**	**1.47**	**11**	*i* P	**Pn**	**04 37 15.5**	**-0.2**
INTP	**Intipuca**	**1.53**	**87**	*e*P	**Pn**	**04 37 16.1**	**-0.3**
INTP				*e*S	**Sn**	**04 37 34.8**	**-0.6**
ESSG	**Sabana Grande**	**1.73**	**317**	*i* P	**Pn**	**04 37 18.4**	**-1.0**
CNCH	**Conchagua**	**1.75**	**84**	*e*P	**Pn**	**04 37 19.8**	**+0.2**
SARH	**Santa Rosa de**	**1.85**	**27**	*i* P	**Pn**	**04 37 21.2**	**+0.2**
APG	**El Apazote**	**2.05**	**337**	*i* P	**Pn**	**04 37 23.9**	**-0.1**
STG8	**El Palmar, Qui**	**2.15**	**309**	*i* P	**Pb**	**04 37 29.5**	**+0.1**

AFAD 09 04:46:15.6, 38°.49N×26°.84E, h7^{km}±1^{km}**, ML1.5, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BAGT	**Foa**	**0.17**	**2**	P	Pg	04 46 19.3	+0.3
BAGT				IAML		04 46 22.0	
	comp=E,510nm,0.3s						
BAGT				S	Sg	04 46 22.2	+0.8
BAGT				IAML		04 46 32.0	
	comp=N,282nm,0.5s						
URLA	**Izmir**	**0.23**	**237**	P	Pg	04 46 20.8	+0.6
URLA				S	Sg	04 46 25.0	+1.6
URLA				IAML		04 46 25.0	
	comp=E,114nm,0.3s						
URLA				IAML		04 46 26.0	
	comp=N,53nm,0.3s						
DGB	**zmir**	**0.43**	**176**	P	Pg	04 46 24.2	+0.2
DGB				IAML	S	04 46 31.0	+1.3
	comp=N,28nm,0.3s						
DGB				S	S	04 46 31.0	+1.3
DGB				IAML		04 46 39.0	
	comp=E,23nm,1.2s						
CAMT	**Merkez**	**0.45**	**54**	P	Pg	04 46 24.5	+0.2
CAMT				IAML		04 46 31.0	
	comp=E,46nm,0.2s						
CAMT				S	Sg	04 46 31.1	+0.9
CAMT				IAML		04 46 33.0	
	comp=N,85nm,0.3s						
ZEDA	**zmir-Bergama**	**0.51**	**21**	P	Pg	04 46 25.2	-0.3
ZEDA				S	Sb	04 46 33.5	-1.2
ZEDA				IAML		04 46 37.0	
	comp=E,16nm,0.5s						
ZEDA				IAML		04 46 39.0	
	comp=N,24nm,0.6s						
DUVT	**Torbali**	**0.55**	**119**	P	Pg	04 46 26.4	+0.3
DUVT				IAML		04 46 34.0	
	comp=E,39nm,0.2s						
DUVT				S	Sg	04 46 34.0	+0.8
GCAM	**G?zelcaml?**	**0.84**	**158**	P	Pg	04 46 32.0	+0.2
GCAM				S	Sb	04 46 44.8	+0.8
GCAM				IAML		04 47 03.0	
	comp=N,59nm,1.1s						
GCAM				IAML		04 47 03.0	
	comp=E,31nm,0.7s						

ISK 09 04:46:28.1, 38°.98N×29°.12E, h5^{km}**, ML2.1**/10**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHAP	**Saphane-Kutahy**	**0.09**	**62**	Pg	Pg	04 46 30.5	+0.4
SHAP				Sg	Sg	04 46 32.4	+0.9
SHAP				AML	AML		
SIMA	**Simav-Kutahya**	**0.15**	**313**	Pg	Pg	04 46 31.7	+0.5
SIMA				Sg	Sg	04 46 33.9	+0.7
SIMA				AML	AML		
SMAA	**Simav-Kutahya**	**0.16**	**317**	Pg	Pg	04 46 31.9	+0.5
SMAA				Sg	Sg	04 46 35.0	+1.4
SMAA				AML	AML		
GEDZ	**Gediz**	**0.23**	**74**	Pg	Pg	04 46 33.4	+0.7
GEDZ				AML	AML		
TVSB	**Tavsanli**	**0.54**	**29**	Pg	Pg	04 46 38.6	+0.1
TVSB				AML	AML		
KULA	**Kula-Manisa**	**0.59**	**218**	Pg	Pg	04 46 39.9	+0.5
KULA				AML	AML		
GORD	**Gordes-Manisa**	**0.74**	**265**	Pg	Pg	04 46 42.9	+0.6
GORD				AML	AML		
SUSR	**Susurluk-Balik**	**1.27**	**321**	Pn	Pn	04 46 52.7	+0.2
SUSR				AML	AML		
CAVI	**Cavuskoy**	**1.34**	**24**	Pn	Pg	04 46 54.1	+0.3
ARMT	**Armutlu**	**1.59**	**353**	Pn	Pb	04 46 57.8	-0.3
ARMT				AML	AML		

IDC 09 04:49:11.5±11.0**, 21°.08S×177°.14W, h0**^{km}**, mb3.8**/4**, mbtmp3.8**/4**, Error ellipse: s-maj=307.0km s-min=35.9km az=35.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	**Alice Springs**	**45.18**	**257**	P	P	04 57 29.4	-1.0
	0.4nm,0.5s,baz=106,slow=8.4,SNR=4.0						
	0.4nm,0.5s						
WRA	**Warramunga Arr**	**45.32**	**262**	P	P	04 57 32.2	+0.6
	0.8nm,0.5s,baz=96,slow=8.4,SNR=14						
	0.8nm,0.5s						
VNDA	**Vanda**	**57.41**	**185**	P	P	04 59 01.1	-0.3
	0.3nm,0.6s,baz=357,slow=5.7,SNR=3.5						
	0.3nm,0.6s						
QSPA	**South Pole Qui**	**69.00**	**180**	P	P	05 00 18.8	+0.2
	2.7nm,1.0s,baz=31,slow=0.9,SNR=9.9						
	2.7nm,1.0s						

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*JSN **09** 04:50:15.1±0.7, 18°.26N×76°.52W, h2^{km}±69^{km}, MD2.3, Confirmed Earthquake*

*SSNC **09** 04:50:17.6±1.1, 18°.42N×76°.59W, h7^{km}±11^{km}, MD3.1, ML1.2, Presumed earthquake*

ISC 09 04:50:13.3±1.5**, 18°.39N**±0°.05×**76°.57W**±0°.08**, h13**^{km}±12^{km}**, n9,** σ**0^{s}.68**/18**, 5C, Jamaica region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GWJ	**Greenwich**	**0.35**	**205**	⇑*i*P	**Pb**	**04 50 20.6**	**-0.8**
GWJ				⇑*i*P	**Pb**	**04 50 20.6**	**-0.8**
GWJ				*i* S	**Sg**	**04 50 24.8**	**-0.5**
STH	**Stony Hill**	**0.38**	**216**	⇑*i*P	**Pb**	**04 50 21.5**	**-0.5**
STH				⇑*i*P	**Pb**	**04 50 21.6**	**-0.5**
CVJ	**Coleyville**	**0.93**	**260**	⇑*i*P	**Pn**	**04 50 32.3**	**+0.2**
MCJ	**Malvern**	**1.16**	**247**	*i* P	**Pg**	**04 50 36.5**	**+0.9**
LMGC	**Las Mercedes**	**1.72**	**346**	*e*P	**Pb**	**04 50 44.2**	**-0.5**
LMGC				*e*S	**Sn**	**04 51 04.9**	**+0.2**
LMGC				*e*Sg	**Sb**	**04 51 06.0**	**-0.1**
LMGC				IAML		04 51 06.5	
	comp=E,2.2nm,0.1s						
LMGC				IAML		04 51 06.5	
	comp=N,2.3nm,0.1s						
RCC	**Rio Carpintero**	**1.80**	**27**	*e*P	**Pb**	**04 50 45.6**	**-0.5**
RCC				*e*S	**Sn**	**04 51 06.6**	**-0.1**
YAR	**Yar**	**1.98**	**6**	*e*P	**Pb**	**04 50 48.1**	**-1.1**
YAR				*e*S	**Sn**	**04 51 11.6**	**+0.4**
GTBY	**Guantanamo Bay**	**2.06**	**42**	*e*P	**Pb**	**04 50 50.5**	**-0.1**
GTBY				*e*S	**Sn**	**04 51 14.1**	**+0.9**
PINC	**Pinares de May**	**2.21**	**19**	*e*P	**Pb**	**04 50 52.4**	**-0.8**
PINC				*e*S	**Sn**	**04 51 17.0**	**0.0**
PINC				IAML		04 51 19.9	
	comp=N,2.0nm,0.1s						
PINC				IAML		04 51 19.9	
	comp=E,1.2nm,0.1s						

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*IDC **09** 04:53:22.2±1.0, 13°.88N×121°.48E, h0^{km}, mb3.8/9, mbtmp3.8/9, Error ellipse: s-maj=44.8km s-min=19.7km az=63.0*

*NEIC **09** 04:53:24.7±1.3, 13°.89N±0°.05×121°.3E±0°.2, h10^{km}±1^{km}, mb4.4/7, Error ellipse: s-maj=26.2km s-min=7.9km az=93.0*

ISC 09 04:53:24.0±0.7**, 13°.88N**±0°.07×**121°.4E**±0°.2**, h10**^{km}**, n26,** σ**0^{s}.79**/27**, mb3.9**/13**, Mindoro**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SZP	**Santa**	**3.76**	**347**	Pn	**Pn**	**04 54 22.3**	**+0.3**
SZP				Sn	**Sn**	**04 55 05.2**	**-1.1**
KKM	**Kota Kinabalu**	**9.28**	**214**	Pn	**Pn**	**04 55 37.8**	**-0.3**
CMAR	**Chiang Mai Arr**	**22.00**	**285**	P	**P**	**04 58 19.4**	**+0.8**
	0.7nm,0.3s,baz=106,slow=9.9,SNR=4.9						
	0.7nm,0.3s						
CMAR	**Chiang Mai Arr**	**22.00**	**285**	P	**P**	**04 58 19.0**	**+0.5**
WB0	**Warramunga Arr**	**35.81**	**159**	P	**P**	**05 00 24.4**	**+0.6**
WB0				IAmb	IAmb	05 00 43.7	
	comp=Z,11nm,1.4s						
WRA	**Warramunga Arr**	**35.95**	**159**	P	**P**	**05 00 25.0**	**0.0**
	comp=Z,0.3nm,0.6s,baz=331,slow=10.0,SNR=4.5						
	comp=Z,0.3nm,0.6s						
WRA	**Warramunga Arr**	**35.95**	**159**	P	**P**	**05 00 23.9**	**-1.1**
SONM	**Songino Array**	**36.08**	**343**	P	**P**	**05 00 27.5**	**+1.6**
	comp=Z,0.8nm,0.6s,baz=152,slow=7.7,SNR=3.1						
	comp=Z,0.8nm,0.6s						
SONM	**Songino Array**	**36.08**	**343**	P	**P**	**05 00 27.3**	**+1.3**
SONM				IAmb	IAmb	05 00 29.0	
	comp=Z,0.7nm,0.6s						
ASAR	**Alice Springs**	**39.28**	**162**	P	**P**	**05 00 52.3**	**-0.9**
	comp=Z,0.5nm,0.7s,baz=338,slow=8.6,SNR=2.8						
	comp=Z,0.5nm,0.7s						
ASAR	**Alice Springs**	**39.28**	**162**	P	**P**	**05 00 52.5**	**-0.6**
MKAR	**Makanchi Array**	**46.27**	**323**	P	**P**	**05 01 50.1**	**+0.4**
	comp=Z,0.7nm,0.5s,baz=131,slow=8.5,SNR=9.1						
	comp=Z,0.7nm,0.5s						
MKAR	**Makanchi Array**	**46.27**	**323**	P	**P**	**05 01 49.9**	**+0.2**
NWAO	**Narrogin (SRO)**	**46.70**	**185**	P	**P**	**05 01 53.6**	**+0.5**
NWAO				IAmb	IAmb	05 02 06.3	
	comp=Z,22nm,1.1s						
BBOO	**Buckleboo**	**48.50**	**163**	P	**P**	**05 02 07.3**	**+0.2**
ZALV	**Zalesovo Beam**	**49.20**	**332**	P	**P**	**05 02 12.4**	**+0.1**
	comp=Z,1.4nm,0.4s,baz=123,slow=6.0,SNR=4.2						
	comp=Z,1.4nm,0.4s						
ZALV	**Zalesovo Beam**	**49.20**	**332**	P	**P**	**05 02 12.6**	**+0.3**
KURK	**Kurchatov**	**50.40**	**326**	P	**P**	**05 02 22.0**	**+0.6**
KURK				IAmb	IAmb	05 02 22.6	
	comp=Z,6.9nm,0.6s						
KURBB	**Kurchatov Arra**	**50.40**	**326**	P	**P**	**05 02 21.3**	**-0.1**
	comp=Z,1.6nm,0.5s,baz=132,slow=7.5,SNR=12						
	comp=Z,1.6nm,0.5s						
KKAR	**Karatay Array**	**52.31**	**314**	P	**P**	**05 02 35.4**	**-0.6**
AB31	**Akbulak array**	**61.02**	**319**	P	**P**	**05 03 37.2**	**-0.6**
AB31				IAmb	IAmb	05 03 53.2	
	comp=Z,0.9nm,0.9s						
ABKAR	**Akbulak array**	**61.02**	**319**	P	**P**	**05 03 36.8**	**-0.9**
ILAR	**Eielson Array**	**78.32**	**26**	P	**P**	**05 05 23.5**	**-0.6**
	comp=Z,0.1nm,0.5s,baz=259,slow=5.3,SNR=1.8						
	comp=Z,0.1nm,0.5s						
ILAR	**Eielson Array**	**78.32**	**26**	P	**P**	**05 05 25.1**	**+1.0**
ARCES	**ARCESS Array B**	**79.15**	**339**	P	**P**	**05 05 27.6**	**-1.1**
	comp=Z,2.2nm,0.9s,baz=59,slow=4.4,SNR=5.0						
	comp=Z,2.2nm,0.9s						
ARCES	**ARCESS Array B**	**79.15**	**339**	P	**P**	**05 05 28.0**	**-0.7**

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*SNET **09** 05:02:21.8±2.0, 11°.97N×86°.78W, h78^{km}, ML3.7, Presumed earthquake*

*CATAC **09** 05:02:22.4±0.6, 12°N±3°×8°7W±°, h30^{km}±5^{km}, M3.8/8, MLv3.8/8, Error ellipse: s-maj=8.4km s-min=4.0km az=42.0, confirmed*

*UCR **09** 05:02:23.0±0.9, 12°.01N×86°.69W, h83^{km}±9^{km}, MW3.9, Presumed earthquake*

ISC 09 05:02:22.6±1.5**, 12°.0N**±0°.1×**86°.8W**±0°.1**, h83**^{km}±19^{km}**, n46,** σ**0^{s}.54**/60**, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COPN	**Copaltepe**	**0.32**	**44**	P	**Pn**	**05 02 35.0**	**-0.4**
COPN	**Copaltepe**	**0.32**	**44**	*e*P	**Pn**	**05 02 35.0**	**-0.4**
AMTN	**Mateare**	**0.48**	**53**	P	**Pn**	**05 02 36.2**	**-0.2**
ABCN	**Banco Central**	**0.53**	**71**	P	**Pn**	**05 02 36.8**	**-0.1**
APYN	**Apoyeque**	**0.54**	**58**	P	**Pn**	**05 02 36.9**	**-0.1**
APYN				S	**Sn**	**05 02 48.2**	**+0.6**
APQ2	**Apoyeque**	**0.54**	**63**	P	**Pn**	**05 02 36.8**	**-0.2**
APQ2				S	**Sn**	**05 02 47.9**	**+0.3**
CNGN	**Cerro Negro**	**0.56**	**12**	P	**Pn**	**05 02 37.0**	**-0.3**
CNGN				S	**Sn**	**05 02 48.4**	**+0.3**
TISN	**Laguna Tiscapa**	**0.57**	**70**	P	**Pn**	**05 02 36.3**	**-1.0**
ALLN	**Telcor Managua**	**0.57**	**69**	S	**Sn**	**05 02 48.5**	**+0.3**
MGAN	**Managua**	**0.59**	**70**	P	**Pn**	**05 02 37.4**	**-0.1**
MGAN				S	**Sn**	**05 02 48.9**	**+0.4**
MAS3	**Al N del Volca**	**0.63**	**83**	P	**Pn**	**05 02 37.6**	**-0.3**
MAS3				S	**Sn**	**05 02 49.3**	**+0.1**
SABN	**Sabanita**	**0.64**	**89**	P	**Pn**	**05 02 37.0**	**-1.0**
TELN	**Telica**	**0.65**	**359**	S	**Sn**	**05 02 50.2**	**+0.5**
WILN	**Americas 2**	**0.65**	**71**	P	**Pn**	**05 02 37.9**	**-0.2**
WILN				S	**Sn**	**05 02 49.9**	**+0.5**
MASN	**Masaya**	**0.65**	**86**	S	**Sn**	**05 02 49.6**	**0.0**
AERN	**Aeropuerto Man**	**0.67**	**73**	S	**Sn**	**05 02 50.1**	**+0.4**
NANN	**Nandasmo**	**0.68**	**91**	P	**Pn**	**05 02 38.9**	**+0.5**
NANN				S	**Sn**	**05 02 51.2**	**+1.1**
CRIN	**San Cristobal**	**0.78**	**343**	P	**Pn**	**05 02 39.5**	**+0.1**
CRIN				S	**Sn**	**05 02 52.5**	**+0.5**
NADN	**Granada**	**0.80**	**104**	P	**Pn**	**05 02 38.6**	**-0.9**
NADN				S	**Sn**	**05 02 51.7**	**-0.4**
NADN	**Granada**	**0.80**	**104**	*e*P	**Pn**	**05 02 38.4**	**-1.1**
NADN				*e*S	**Sn**	**05 02 51.3**	**-0.8**
JAPN	**Al SSO del Vol**	**1.19**	**110**	*e*P	**Pn**	**05 02 44.2**	**0.0**
MORN	**Al O del Volca**	**1.21**	**109**	P	**Pn**	**05 02 44.1**	**-0.4**
MORN				S	**Sn**	**05 03 01.9**	**+1.1**
LCRUZ	**La Cruz**	**1.45**	**126**	*e*P	**Pn**	**05 02 47.5**	**+0.1**
LCRUZ				*e*S	**Sn**	**05 03 05.8**	**-0.3**
CARN	**Rivas**	**1.48**	**121**	*e*P	**Pn**	**05 02 47.6**	**-0.2**
CNCH	**Conchagua**	**1.65**	**323**	*e*P	**Pn**	**05 02 50.0**	**-0.2**
LCND	**La Caada**	**1.71**	**322**	*e*P	**Pn**	**05 02 50.7**	**-0.1**
INTP	**Intipuca**	**1.73**	**316**	*e*P	**Pn**	**05 02 51.3**	**+0.2**
INTP				*e*S	**Sn**	**05 03 11.7**	**-1.0**
LAPC	**Finca la Perla**	**1.79**	**131**	*e*P	**Pn**	**05 02 51.5**	**-0.5**
BUAI	**Buenos Aires**	**1.80**	**126**	*e*P	**Pn**	**05 02 51.8**	**-0.2**
PEJA	**Penjamo Buenos**	**1.81**	**125**	*e*P	**Pn**	**05 02 51.8**	**-0.3**
ALIBA	**Liberia Airpor**	**1.84**	**137**	*e*P	**Pn**	**05 02 53.3**	**+0.8**
CLARA	**Aguas Claras**	**1.98**	**125**	*e*P	**Pn**	**05 02 54.3**	**-0.1**
MESS	**Mesas**	**1.99**	**127**	*e*P	**Pn**	**05 02 54.4**	**-0.2**
VMAR	**Armenia, Volca**	**2.02**	**124**	*e*P	**Pn**	**05 02 54.4**	**-0.5**
HORNC	**Hornillas**	**2.02**	**127**	*e*P	**Pn**	**05 02 54.7**	**-0.3**
CANAL	**Canalete**	**2.05**	**122**	*e*P	**Pn**	**05 02 54.6**	**-0.8**
RANC	**El Ranchito**	**2.06**	**316**	*e*P	**Pn**	**05 02 55.8**	**+0.3**
CUI	**Cuipilapa**	**2.07**	**128**	*e*P	**Pn**	**05 02 55.7**	**+0.1**
PACA	**Pacayal**	**2.11**	**316**	*e*P	**Pn**	**05 02 56.7**	**+0.5**
JUD3	**Juan Diaz 3**	**2.17**	**145**	*e*P	**Pn**	**05 02 57.3**	**+0.3**
TENO	**El Achiote**	**2.19**	**124**	*e*P	**Pn**	**05 02 57.0**	**-0.2**
CMARA	**Lajas Hojancha**	**2.35**	**144**	*e*P	**Pn**	**05 02 59.8**	**+0.3**
JTS	**Las Juntas de**	**2.46**	**132**	*e*P	**Pn**	**05 03 00.8**	**0.0**
SJTE	**Alcalda de S**	**2.70**	**308**	*i* P	**Pn**	**05 03 04.3**	**+0.2**
SJTE				*e*S	**Sn**	**05 03 34.4**	**-1.5**
LFRS	**El Faro**	**2.75**	**308**	*e*P	**Pn**	**05 03 04.9**	**+0.1**
RBDL	**Robledal**	**3.53**	**308**	*e*P	**Pn**	**05 03 15.8**	**+0.4**

UPA 09 05:11:35.1±0.6**, 8°.34N×82°.82W, h29^{km}**±8^{km}**, ML2.4, Presumed earthquake, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PTPM	Petroterminale	0.14	206	eP	Pb	05 11 40.7	0.0
PTPM				eS	Sb	05 11 44.9	+0.4
LIMO3	Limones	0.24	192	eP	Pb	05 11 41.8	+0.1
LIMO3				AMP		05 11 42.8	
	comp=Z,416nm,0.1s						
LIMO3				eS	Sb	05 11 46.1	0.0
DVD	David	0.38	74	eP	Pb	05 11 43.2	-0.4
MLIR3	Monte Lirio, C	0.46	359	eP	Pb	05 11 44.7	-0.2
BRU2	Volcan	0.47	15	iP	Pn	05 11 49.3	+3.2
RBALA	Bur	0.85	50	iP	Pb	05 11 57.2	+5.8
RBALA				eS	Sn	05 12 12.2	+10
RBALA				IAML		05 12 13.6	
	comp=Z,22nm,1.3s						
DRK0	Durika	1.01	335	eP	Pn	05 11 48.2	-5.4
DRK0				eS	Sn	05 12 01.2	-5.8

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*IDC **09** 05:16:60.0±1.2, 14°.35N×88°.54W, h0^{km}, mb3.5/3, mbtmp3.6/4, ML3.4/1, Error ellipse: s-maj=39.5km s-min=12.6km az=38.0*

*SNET **09** 05:17:02.5±1.2, 13°.15N×89°.65W, h40^{km}, ML4.2, Presumed earthquake*

*CATAC **09** 05:17:02.8±0.2, 13°N±1°×9°0W±°, h32^{km}±2^{km}, M4.3/47, mb4.5/1, MLv4.3/47, Error ellipse: s-maj=3.7km s-min=2.2km az=37.7, confirmed*

*GCG **09** 05:17:04.3±1.0, 13°.30N×89°.70W, h31^{km}±4^{km}, MD4.3, ML4.1, Presumed earthquake*

*UCR **09** 05:17:06.7±1.3, 13°.65N×88°.79W, h0^{km}±999^{km}, MW4.1, Presumed earthquake*

ISC 09 05:17:02.6±1.2**, 13°.20N**±0°.03×**89°.58W**±0°.03**, h33^{km}**±10^{km}**, n106, σ1^{s}.75**/158**, 12C-6D, El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LALI	Alcalda de L	0.38	41	iP	Pn	05 17 13.1	+1.2
LALI				iS	Sn	05 17 19.9	+2.0
LALI	Alcalda de L	0.38	41	⇓P	Pn	05 17 13.3	+1.4
LALI				S	Sn	05 17 21.4	+3.5
JAYA	Jayaque - finc	0.47	15	iP	Pn	05 17 14.1	+0.9
JAYA				IAML		05 17 26.7	
	comp=N,18µm,0.3s						
JAYA	Jayaque - finc	0.47	15	eP	Pn	05 17 14.3	+1.1
JAYA	Jayaque - finc	0.47	15	⇓P	Pn	05 17 14.2	+0.9
JAYA				S	Sn	05 17 23.1	+2.7
MAGS	Ministerio de	0.56	30	eP	Pn	05 17 15.5	+1.2
MAGS				eS	Sn	05 17 25.0	+2.5
PANCS	Alcalda de	0.56	43	⇑P	Pn	05 17 15.4	+1.0
PANCS				S	Sn	05 17 24.8	+2.3
PMON	Piamonte	0.57	27	⇓P	Pn	05 17 15.6	+1.1
PMON				S	Sn	05 17 25.6	+2.8
LOMA	Loma Larga	0.59	42	⇓P	Pn	05 17 16.0	+1.1
LOMA				S	Sn	05 17 26.2	+2.8
SEMO	Seminario San	0.61	34	⇓P	Pn	05 17 16.1	+1.1
SEMO				S	Sn	05 17 26.5	+2.8
UEES	Universidad Ev	0.61	32	⇑P	Pn	05 17 16.2	+1.2
UEES				S	Sn	05 17 26.5	+2.7
PIC2	El Picacho	0.62	30	eP	Pn	05 17 16.3	+1.0
CEDA	San Andres	0.63	16	eP	Pn	05 17 16.4	+1.2
CEDA				eS	Sn	05 17 26.8	+2.7
CEDA	San Andres	0.63	16	P	Pn	05 17 16.3	+1.2
CEDA				S	Sn	05 17 26.5	+2.4
CEVE	Cerro Verde	0.63	356	eP	Pn	05 17 17.2	+1.9
CEVE	Cerro Verde	0.63	356	P	Pn	05 17 16.4	+1.0
CEVE				S	Sn	05 17 26.4	+2.0
UESS	Universidad de	0.63	35	eP	Pn	05 17 16.5	+1.2
UESS				eS	Sn	05 17 26.9	+2.6
SBLS	San Blas	0.64	356	eP	Pn	05 17 16.4	+0.8
SBLS				eS	Sn	05 17 26.3	+1.6
IGN	Direccin Gen	0.65	38	P	Pn	05 17 16.9	+1.4
IGN				S	Sn	05 17 27.0	+2.3
SNJE	San Jose	0.67	358	eP	Pn	05 17 16.6	+0.7
SJTE	Alcalda de S	0.69	53	eP	Pn	05 17 17.3	+1.2
SJTE				eS	Sn	05 17 28.0	+2.2
LFU	La Fuente	0.71	39	eP	Pn	05 17 17.8	+1.4
NUBE	Las Nubes	0.73	344	iP	Pn	05 17 17.1	+0.4
NUBE				iS	Sb	05 17 25.7	-1.2
NUBE				IAML		05 17 28.8	
	comp=N,6µm,0.3s						
NUBE	Las Nubes	0.73	344	⇑P	Pn	05 17 17.2	+0.4
NUBE				S	Sn	05 17 28.1	+1.3
FAME	Alcaldia de Sa	0.77	326	⇑P	Pn	05 17 17.2	0.0
FAME				S	Sn	05 17 28.2	+0.6
UNIC	Universidad Ca	0.78	2	eP	Pn	05 17 18.3	+1.0
UNIC				eS	Sn	05 17 30.4	+2.5
UNIC	Universidad Ca	0.78	2	⇑P	Pn	05 17 18.1	+0.7
UNIC				S	Sn	05 17 30.0	+2.1
PAVA	Las Pavas	0.81	51	⇑P	Pn	05 17 19.4	+1.6
PAVA				S	Sn	05 17 31.1	+2.5
TECO	Alcaldia de Te	0.84	66	⇑iP	Pn	05 17 19.1	+0.9
TECO				eS	Sn	05 17 31.3	+1.9
TECO	Alcaldia de Te	0.84	66	⇑P	Pn	05 17 19.1	+0.9
TECO				S	Sn	05 17 31.9	+2.4
SLOZ	Alcaldia de Sa	0.85	346	⇑P	Pn	05 17 19.0	+0.7
SLOZ				S	Sn	05 17 31.2	+1.6
RBDL	Robledal	0.92	353	eP	Pn	05 17 20.0	+0.7
SCLA	Alcaldia de Sa	0.96	59	eP	Pn	05 17 21.4	+1.6
SCLA				eS	Sn	05 17 35.7	+3.2
ALJI	Alcalda de J	0.99	82	⇑P	Pn	05 17 20.9	+0.8
ALJI				S	Sn	05 17 34.0	+1.0
PQSS	Presa 15 de Se	1.07	67	⇓P	Pb	05 17 22.5	-0.3
PQSS				S	Sn	05 17 37.5	+2.4
P5NO	Presa 5 de nov	1.11	45	eP	Pb	05 17 23.1	-0.4
P5NO				eS	Sn	05 17 38.7	+2.5
P5NO	Presa 5 de nov	1.11	45	⇑P	Pb	05 17 22.9	-0.6
P5NO				S	Sn	05 17 38.6	+2.5
JUAM	Asuncion Mita	1.14	354	iP	Pb	05 17 23.0	-0.9
LLGN	La Laguna	1.14	33	P	Pb	05 17 23.6	-0.3
LLGN				S	Sn	05 17 39.9	+3.1
MTO3	Montecristo	1.21	10	P	Pb	05 17 24.4	-0.8
MTO3				S	Sn	05 17 40.8	+1.9
PACA	Pacayal	1.25	77	⇑P	Pb	05 17 24.7	-1.1
PACA				S	Sb	05 17 41.7	+0.1
LCY	Lacayo	1.27	80	eP	Pb	05 17 25.5	-0.6
RANC	El Ranchito	1.27	79	P	Pb	05 17 26.1	-0.2
RANC				S	Sb	05 17 43.2	+0.9
JUCU	Jucuar¡n	1.29	87	eP	Pb	05 17 25.3	-1.2
JUCU				eS	Sn	05 17 42.0	+1.3
ESQI	Esquipulas	1.37	10	P	Pb	05 17 27.0	-0.9
ESQI				S	Sb	05 17 45.0	-0.1
ZAFR2	Estanzuela, Za	1.39	9	iP	Pb	05 17 32.0	+3.9
FG16	Alotenango, Sa	1.40	320	iP	Pb	05 17 31.0	+2.7
FG8	Yepocapa, Chim	1.42	318	iP	Pb	05 17 31.3	+2.6
LCND	La Caada	1.65	86	P	Pb	05 17 30.7	-1.7
CNCH	Conchagua	1.70	87	P	Pn	05 17 31.4	+1.3
CNCH				S	Sb	05 17 53.1	-1.3
SARH	Santa Rosa de	1.76	27	iP	Pb	05 17 32.6	-1.7
SARH	Santa Rosa de	1.76	27	P	Pb	05 17 32.5	-1.9
SARH				S	Sb	05 17 54.6	-1.5
CSGN	Cosiguina Volc	1.98	96	P	Pn	05 17 35.1	+1.3
CSGN				S	Sn	05 17 58.2	+0.7
APG	El Apazote	1.99	334	Pn	Pn	05 17 35.3	+1.1
	comp=N,0.6nm,0.3s,baz=101,slow=15,SNR=18						
APG				Lg	Lg	05 18 01.9	
	comp=N,2.2nm,0.3s,baz=86,slow=17,SNR=4.2						
APG	El Apazote	1.99	334	iP	Pn	05 17 35.0	+0.8
STG8	El Palmar, Qui	2.13	306	iP	Pb	05 17 40.8	+0.1
TGUH	Tegucigalpa,Un	2.40	69	P	Pn	05 17 40.3	+0.7
RTAL	Retalhuleu	2.44	303	P	Pn	05 17 39.6	-0.6
RTAL				S	Sn	05 18 08.1	-0.9
CRIN	San Cristobal	2.51	101	P	Pn	05 17 42.9	+1.7
CRIN				S	Sn	05 18 12.4	+1.6
PLRN	Geotermica Pol	2.81	102	P	Pn	05 17 46.0	+0.8
ILCN	San Idelfonso	2.87	102	P	Pn	05 17 46.6	+0.5
ILCN				S	Sn	05 18 18.2	-1.3
CNGN	Cerro Negro	2.89	104	P	Pn	05 17 46.8	+0.4
CNGN				S	Sn	05 18 18.9	-1.2
OCON	Estacion meteo	3.05	82	P	Pn	05 17 48.8	+0.3
OCON				S	Sn	05 18 26.1	+2.1
MOMN	Momotombo	3.06	105	P	Pn	05 17 48.6	-0.2
COPN	Copaltepe	3.08	109	P	Pn	05 17 49.9	+0.9
APYN	Apoyeque	3.29	107	P	Pn	05 17 54.3	+2.4
RCFN	Al S de San Ju	3.29	84	P	Pn	05 17 52.7	+0.7
RCFN				S	Sn	05 18 31.1	+1.0
RCVN	Varillal2	3.31	83	P	Pn	05 17 53.1	+0.8
RCVN				S	Sn	05 18 32.4	+1.7
APQ2	Apoyeque	3.33	107	S	Sn	05 18 29.9	-0.8
TISN	Laguna Tiscapa	3.39	108	P	Pn	05 17 53.8	+0.5
RCPN	Sur Rio San Ju	3.41	84	P	Pn	05 17 54.1	+0.5
MGAN	Managua	3.41	107	P	Pn	05 17 55.5	+2.0
MGAN				S	Sn	05 18 31.7	-1.2
WILN	Americas 2	3.46	107	P	Pn	05 17 55.8	+1.5
WILN				S	Sn	05 18 33.7	-0.5
MAS3	Al N del Volca	3.52	109	P	Pn	05 17 54.9	-0.1
MATN	Matagalpa	3.57	94	P	Pn	05 17 56.3	+0.5
MATN				S	Sn	05 18 38.1	+1.2
NANN	Nandasmo	3.60	110	P	Pn	05 17 58.4	+2.3
NANN				S	Sn	05 18 36.2	-1.3
NADN	Granada	3.75	112	P	Pn	05 17 59.3	+1.1
BOAB	BOACO BROADBAN	3.89	101	P	Pn	05 17 60.0	-0.1
BOAB				S	Sn	05 18 45.3	+0.7
MORN	Al O del Volca	4.17	113	P	Pn	05 18 05.7	+1.6
MORN				S	Sn	05 18 52.8	+1.0
LCRUZ	La Cruz	4.40	118	eP	Pn	05 18 09.7	+2.6
CARN	Rivas	4.44	116	S	Sn	05 18 58.3	+0.1
SIUN	Universidad Ur	4.70	83	S	Sn	05 19 05.1	+0.4
ALIBA	Liberia Airpor	4.72	123	eP	Pn	05 18 14.5	+3.0
LAPC	Finca la Perla	4.72	120	eP	Pn	05 18 12.6	+1.1
CUI	Cuipilapa	5.00	120	eP	Pn	05 18 18.0	+2.6
CANAL	Canalete	5.01	118	eP	Pn	05 18 16.8	+1.2
TENO	El Achiote	5.14	118	eP	Pn	05 18 19.2	+1.9
TENO				eS	Sn	05 19 16.9	+1.3
CMARA	Lajas Hojancha	5.15	127	eP	Pn	05 18 19.2	+1.7
JTS	Las Juntas de	5.37	122	Pn	Pn	05 18 22.9	+2.4
	comp=N,1.2nm,0.3s,baz=302,slow=19,SNR=7.9						
JTS				Sn	Sn	05 19 23.0	+1.8
	comp=N,2.0nm,0.3s,baz=334,slow=23,SNR=1.5						
JTS				Lg	Lg	05 19 41.0	
	comp=N,3.4nm,0.3s,baz=211,slow=20,SNR=13						
	comp=N,2.5nm,0.3s						
JTS				AML	AML		
JTS	Las Juntas de	5.37	122	P	Pn	05 18 23.1	+2.6
JTS	Las Juntas de	5.37	122	eP	Pn	05 18 22.8	+2.3
ARE1	Arenal 1	5.48	119	eP	Pn	05 18 25.1	+3.1
CASO	Castillo	5.48	120	eP	Pn	05 18 23.6	+1.5
CEDE	Laguna Cedeo	5.48	119	eP	Pn	05 18 25.0	+2.9
VARE2	V. Arenal	5.48	119	eP	Pn	05 18 25.0	+2.9
ACOS	Acosta	6.29	122	eP	Pn	05 18 37.8	+4.5
CMIG	Matias Romero	6.42	308	Pn	Pn	05 18 36.4	+1.5
	comp=N,0.8nm,0.3s,baz=116,slow=11,SNR=6.8						
CMIG				Sn	Sn	05 19 47.9	+0.8
	comp=N,1.6nm,0.3s,baz=67,slow=21,SNR=2.7						
ABE2	San Pablo	6.43	122	eP	Pn	05 18 38.7	+3.4
SVQ2	Quepos	6.49	125	eP	Pn	05 18 40.2	+4.3
PIEC	Cerro El Cedra	6.55	122	eP	Pn	05 18 40.6	+3.6
VTCV	VTCV, Calle Va	6.56	119	eP	Pn	05 18 40.5	+3.4
SAJE	San Jernim	7.08	122	eP	Pn	05 18 47.4	+3.3
EDPE	Pejibaye, P	7.13	124	eP	Pn	05 18 48.5	+3.8
TXAR	Lajitas Array	20.71	323	P	P	05 21 39.9	-0.4
	comp=N,0.8nm,0.4s,baz=137,slow=9.4,SNR=16						
	comp=N,0.8nm,0.4s						
NVAR	Mina Array Bea	35.79	320	P	P	05 23 58.6	-0.5
	comp=N,0.9nm,0.7s,baz=125,slow=7.4,SNR=5.3						
	comp=N,0.9nm,0.7s						
YKA	Yellowknife Ar	52.36	346	P	P	05 26 07.2	-3.9
	comp=N,0.4nm,0.5s,baz=135,slow=7.5,SNR=8.7						
	comp=N,0.4nm,0.5s						

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*LDG **09** 05:43:54.6±0.2, 42°.85N×1°.55W, h2^{km}, Md2.0/2, Ml2.7/1, Error ellipse: s-maj=3.1km s-min=2.3km az=99.0*

*MDD **09** 05:43:55.8±0.2, 42°.84N×1°.47W, h0^{km}, mb_Lg2.0/17, Error ellipse: s-maj=2.8km s-min=1.6km az=5.0*

ISC 09 05:43:54.8±1.0**, 42°.83N**±0°.04×**1°.50W**±0°.03**, h4^{km}**±9^{km}**, n11, σ0^{s}.65**/23**, 1C, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
EARA	Aranguren	0.08	227	⇑Pg	Pg	05 43 56.5	-0.1
EARA				Sg	Sg	05 43 58.3	+0.5
SJPF	Ste Jean	0.35	35	ePg	Pg	05 44 01.3	-0.3
SJPF				eSg	Sg	05 44 06.4	+0.3
	95nm,0.3s						
EALK	Alkurruntz	0.39	359	Pg	Pg	05 44 02.1	-0.3
EALK				Sg	Sg	05 44 07.2	-0.3
EALK				IVmb_Lg		05 44 10.0	
ETSF	Etsaut	0.69	84	ePg	Pg	05 44 07.4	-0.7
	baz=265						
ETSF	Etsaut	0.69	84	ePg	Pg	05 44 07.6	-0.5
ETSF				eSg	Sg	05 44 17.2	+0.1
ETSF				eSg	Sg	05 44 17.3	+0.1
	8.0nm,0.2s						
ECHI	Chisagues Biel	1.26	97	Pg	Pn	05 44 18.6	-0.6
ECHI				Sg	Sn	05 44 36.6	-0.1
ECHI				IVmb_Lg		05 44 40.0	
ESAC	San Caprasio	1.34	145	Pg	Pb	05 44 20.4	-0.2
ESAC				Sg	Sn	05 44 38.6	-0.1
EPF	Esparros	1.36	81	ePg	Pn	05 44 19.9	-0.8
EPF				eSg	Sg	05 44 39.4	+0.7
	14nm,0.3s						
EPF				eSg	Sg	05 44 39.4	+0.7
EPF				AML	AML		
ELAN	Lanestosa	1.48	286	Pn	Pg	05 44 22.3	-0.8
ELAN				Sg	Sg	05 44 43.0	+0.8
ELAN				IVmb_Lg		05 44 44.9	
MTLF	Montolieu	2.77	78	eP	Pn	05 44 41.2	+1.3
MTLF				eS	Sn	05 45 15.1	+1.3
	1.8nm,0.3s						
CAF	Calviac	3.32	50	eP	Pn	05 44 47.5	0.0
CAF				eS	Sn	05 45 27.6	+0.2

IDC 09 05:45:10.6±2.1**, 4°.28N×126°.94E, h0^{km}, mb3.5**/4**, mbtmp3.5**/4**, Error ellipse: s-maj=118.2km s-min=27.8km az=69.0, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DDMP	Don Marcelino,	2.19	326	eP	Pn	05 45 49.3	+1.0
DDMP				eS	Sb	05 46 18.6	-0.3
FITZ	Fitzroy Crossi	22.27	183	P	P	05 50 08.2	-1.2
	0.5nm,0.4s,baz=10.0,slow=10,SNR=3.2						
	0.5nm,0.4s						
WRA	Warramunga Arr	25.14	163	P	P	05 50 37.2	-0.5
	0.5nm,0.3s,baz=345,slow=10,SNR=9.6						
	0.5nm,0.3s						
ASAR	Alice Springs	28.59	167	P	P	05 51 10.2	+1.4
	0.2nm,0.5s,baz=344,slow=9.0,SNR=4.6						
	0.2nm,0.5s						
MKAR	Makanchi Array	57.23	325	P	P	05 54 59.7	-0.1
	0.2nm,0.4s,baz=126,slow=7.3,SNR=2.9						
	0.2nm,0.4s						

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*IDC **09** 05:52:04.5±1.2, 4°.18N×126°.73E, h0^{km}, mb3.9/8, mbtmp3.9/8, Error ellipse: s-maj=76.9km s-min=16.0km az=67.0*

ISC 09 05:52:09.9±1.1**, 4°.2N**±0°.2×**126°.8E**±0°.4**, h36^{km}, n10, σ1^{s}.97**/12**, mb3.9**/8**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DDMP	Don Marcelino,	2.24	330	eP	Pn	05 52 43.3	-1.1
DDMP				eS	Sn	05 53 08.0	-2.8
KCP	Kidapawan	3.33	329	eP	Pn	05 53 00.3	+0.9
KCP				iS	Sn	05 53 42.4	+4.6
FITZ	Fitzroy Crossi	22.14	183	P	P	05 57 02.0	-0.6
	1.3nm,0.4s,baz=1.3,slow=12,SNR=2.8						
	1.3nm,0.4s						
WRA	Warramunga Arr	25.05	163	P	P	05 57 30.9	-0.1
	2.1nm,0.6s,baz=344,slow=10,SNR=25						
	2.1nm,0.6s						
ASAR	Alice Springs	28.50	166	P	P	05 58 02.5	+0.5
	0.3nm,0.3s,baz=340,slow=7.5,SNR=5.0						
	0.3nm,0.3s						
CMAR	Chiang Mai Arr	30.75	300	P	P	05 58 21.5	-0.5
	1.0nm,0.3s,baz=111,slow=8.5,SNR=1.9						
	1.0nm,0.3s						
STKA	Stephens Creek	38.48	160	P	P	05 59 29.4	+0.7
	3.0nm,0.7s,baz=346,slow=9.9,SNR=5.4						
	3.0nm,0.7s						
SONM	Songino Array	46.93	341	P	P	06 00 37.5	+0.3
	0.3nm,0.4s,baz=161,slow=9.2,SNR=3.5						
	0.3nm,0.4s						
MKAR	Makanchi Array	57.27	325	P	P	06 01 53.5	-0.5
	0.6nm,0.6s,baz=123,slow=7.4,SNR=6.6						
	0.6nm,0.6s						
KURBB	Kurchatov Arra	61.44	327	P	P	06 02 21.2	-1.4
	1.1nm,0.4s,baz=123,slow=6.2,SNR=15						
	1.1nm,0.4s						

IDC 09 06:01:30.4±3.0**, 22°.94N×143°.06E, h0^{km}, mb3.8**/6**, mbtmp3.8**/6**, Error ellipse: s-maj=133.0km s-min=24.2km az=78.0, Volcano Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	Warramunga Arr	43.47	192	P	P	06 09 35.4	-0.1
	0.7nm,0.5s,baz=9.1,slow=8.0,SNR=5.7						
	0.7nm,0.5s						
ASAR	Alice Springs	47.18	191	P	P	06 10 04.6	-0.3
	0.3nm,0.7s,baz=14,slow=7.2,SNR=2.3						
	0.3nm,0.7s						
MKAR	Makanchi Array	53.78	312	P	P	06 10 55.1	+0.4
	0.4nm,0.5s,baz=78,slow=6.3,SNR=4.0						
	0.4nm,0.5s						
KURBB	Kurchatov Arra	56.54	316	P	P	06 11 14.4	-0.1
	0.5nm,0.5s,baz=93,slow=7.4,SNR=6.5						
	0.5nm,0.5s						
BVAR	Borovoye Array	61.66	319	P	P	06 11 49.8	-0.2
	1.4nm,0.4s,baz=90,slow=8.2,SNR=3.9						
	1.4nm,0.4s						
FINES	FINESS Array B	82.01	334	P	P	06 13 52.0	-0.2
	0.6nm,0.4s,baz=46,slow=4.6,SNR=6.1						
	0.6nm,0.4s						

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*ASRS **09** 06:30:48.0±1.2, 54°.20N×86°.41E, h0^{km}, M2.3(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 09 06:30:48.1±3.7**, 54°.23N×86°.61E, h0^{km}, mbtmp2.8**/2**, ML2.5**/2**, Error ellipse: s-maj=27.7km s-min=14.4km az=70.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	1.09	256	I	I	06 37 10.0	
	baz=74,slow=326,SNR=1.7						
ZALV	Zalesovo Beam	1.09	256	Pg	Pg	06 31 08.8	-0.2
	1.2nm,0.3s,baz=75,slow=17,SNR=9.7						
ZALV				Lg	Lg	06 31 23.0	
	6.1nm,0.3s,baz=78,slow=32,SNR=33						
KURBB	Kurchatov Arra	6.12	237	Pn	Pn	06 32 19.6	-0.1
	0.1nm,0.3s,baz=53,slow=13,SNR=1.9						
KURBB				Lg	Lg	06 34 02.2	
	baz=48,slow=29,SNR=2.1						
	0.5nm,0.4s						
KURBB				AML	AML		
MKAR	Makanchi Array	7.94	202	Pn	Pn	06 32 46.0	+1.2
	0.2nm,0.3s,baz=24,slow=14,SNR=6.5						
MKAR				Lg	Lg	06 34 59.2	
	baz=23,slow=30,SNR=2.8						
	0.2nm,0.3s						
MKAR				AML	AML		

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*ASRS **09** 06:54:59.0±0.5, 53°.93N×86°.54E, h0^{km}, M2.6(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 09 06:54:59.7±3.2**, 53°.93N×86°.59E, h0^{km}, mbtmp2.9**/2**, ML2.7**/2**, Error ellipse: s-maj=25.4km s-min=13.9km az=81.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	1.05	272	I	I	07 02 00.0	
	baz=89,slow=325,SNR=2.5						
ZALV	Zalesovo Beam	1.05	272	Pg	Pg	06 55 18.8	-1.0
	0.9nm,0.3s,baz=94,slow=18,SNR=9.4						
ZALV				Lg	Lg	06 55 34.1	
	2.2nm,0.3s,baz=93,slow=30,SNR=10						
KURBB	Kurchatov Arra	5.95	239	Pn	Pn	06 56 29.1	+0.2
	0.1nm,0.3s,baz=57,slow=14,SNR=1.7						
KURBB				Lg	Lg	06 58 09.8	
	baz=49,slow=31,SNR=4.6						
	0.4nm,0.3s						
KURBB				AML	AML		
MKAR	Makanchi Array	7.65	203	Pn	Pn	06 56 54.5	+2.1
	0.2nm,0.3s,baz=26,slow=14,SNR=6.6						
MKAR				Lg	Lg	06 58 57.2	
	0.1nm,0.3s,baz=22,slow=32,SNR=2.1						
	0.3nm,0.3s						
MKAR				AML	AML		

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*TIR **09** 07:14:59.5, 39°.55N×20°.07E, h20^{km}±1^{km}, Md1.9/3, Ml2.2/1*

*ATH **09** 07:14:59.4, 39°.78N×20°.40E, h12^{km}±1^{km}, ML2.6/10, Latitude uncertainty: 1 km; Longitude uncertainty: 0 km*

*THE **09** 07:15:00.2, 39°.8N±1°.0×20°.4E±0°.9, h0^{km}±1^{km}, M2.6/14, MLh2.6/14*

ISC 09 07:15:00.1±0.9**, 39°.73N**±0°.03×**20°.41E**±0°.02**, h15^{km}**±6^{km}**, n35, σ0^{s}.74**/49**, Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IGT	Igoumenitsa	0.20	197	P	Pg	07 15 04.5	-0.3
IGT				S	Sg	07 15 08.4	+0.4
IGT				AMd		07 15 42.3	
IGT	Igoumenitsa	0.20	197	P	Pg	07 15 04.7	-0.1
IGT				S	Sg	07 15 08.6	+0.6
IGT				AML	AML		
IGT	Igoumenitsa	0.20	197	P	Pg	07 15 04.7	-0.1
IGT				S	Sg	07 15 08.8	+0.8
IGT				AML	AML		
JAN	Janina	0.35	101	P	Pg	07 15 06.9	-0.3
JAN				S	Sg	07 15 11.8	-0.3
JAN				AML	AML		
JAN	Janina	0.35	101	P	Pg	07 15 07.0	-0.3
JAN				S	Sg	07 15 12.1	-0.1
SRN	Sarande	0.35	296	P	Pb	07 15 07.7	-0.3
SRN				S	Sb	07 15 12.7	-0.8
SRN				AML	AML	07 15 16.5	
	1.3nm,0.4s						
SRN				AMd		07 15 45.6	
SRN	Sarande	0.35	296	P	Pb	07 15 07.2	-0.9
SRN				S	Sb	07 15 13.9	+0.5
SRN				AML	AML		
KEK	Kerkira	0.47	269	P	Pg	07 15 08.8	-0.8
KEK				AML	AML		
KEK	Kerkira	0.47	269	P	Pg	07 15 08.7	-0.8
KEK				S	Sb	07 15 15.7	-1.2
PRMD	Pramanda	0.57	110	P	Pb	07 15 11.3	-0.5
PRMD				S	Sb	07 15 19.5	-0.2
PRMD				AML	AML		
PRMD	Pramanda	0.57	110	P	Pg	07 15 11.1	-0.3
PRMD				S	Sb	07 15 19.5	-0.2
PRMD				AML	AML		
PENT	Pentalofos	0.73	50	P	Pb	07 15 13.9	-0.8
PENT	Pentalofos	0.73	50	P	Pb	07 15 13.9	-0.8
KPRO	Kipourio	0.77	72	P	Pg	07 15 14.4	-0.8
KPRO				AML	AML		
KPRO	Kipourio	0.77	72	P	Pg	07 15 14.2	-0.9
KPRO				S	Sg	07 15 24.9	-0.4
KPRO				AML	AML		
TETR	Tetrakomo, Epi	0.77	119	P	Pg	07 15 14.6	-0.6
TETR				S	Sb	07 15 26.0	+0.4
TETR				AML	AML		
TETR	Tetrakomo, Epi	0.77	119	P	Pg	07 15 14.3	-0.8
TETR				S	Sb	07 15 26.6	+1.0
TETR				AML	AML		
TSLK	Tsoukalades, L	0.92	168	P	Pb	07 15 18.2	+0.4
TSLK				AML	AML		
LKD2	Lefkada island	0.96	168	P	Pg	07 15 16.6	-2.0
LKD2				S	Sg	07 15 30.3	-0.8
LKD2				AMd		07 16 42.6	
LKD2	Lefkada island	0.96	168	P	Pg	07 15 17.9	-0.8
LKD2				AML	AML		
LKD2	Lefkada island	0.96	168	P	Pg	07 15 18.1	-0.6
LKD2				AML	AML		
AMPL	Ampelaki	1.02	142	P	Pn	07 15 19.8	0.0
AMPL				AML	AML		
NYDR	Nydri-Lefkada	1.04	167	S	Sn	07 15 35.7	+1.4
NYDR				AML	AML		
NYDR	Nydri-Lefkada	1.04	167	P	Pn	07 15 20.4	+0.3
DRAG	Dragano-Lefkad	1.05	173	P	Pn	07 15 20.8	+0.5
THL	Klokotos Trika	1.25	97	P	Pn	07 15 23.1	+0.1
THL				AML	AML		
FSK	Fiskardo	1.27	175	P	Pg	07 15 24.2	-0.4
FSK				AML	AML		
PDO	Prodromos	1.28	152	P	Pg	07 15 24.9	+0.1
PDO				AML	AML		
TYRN	Tyrnavos	1.41	90	P	Pb	07 15 26.0	-0.1
TYRN				AML	AML		

TYRN	**Tyrnavos**	**1.41**	**90**	P	**Pg**	**07 15 26.3**	**-0.9**
TYRN				AML	AML		
PVO	**Paravola**	**1.41**	**142**	P	**Pg**	**07 15 26.7**	**-0.5**
PVO				AML	AML		
OHR	**Ohrid**	**1.42**	**12**	*i* Pn	**Pg**	**07 15 29.0**	**+1.6**
ANX	**Ano Chora**	**1.63**	**133**	P	**Pg**	**07 15 31.2**	**-0.3**
LIT	**Litokhoron**	**1.64**	**76**	P	**Pn**	**07 15 29.1**	**+0.5**
LIT				AML	AML		
NOCI	**Noci**	**2.77**	**294**	S	**Sn**	**07 16 18.0**	**+0.8**

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*MAN **09** 07:18:30.0,3°.44N×126°.28E,h1^{km},MS5.9*

*BJI **09** 07:18:36.3,3°.66N×126°.66E,h35^{km},mB5.6/62,mb5.3/89,Ms5.7/97,Ms7 5.6/95*

*IDC **09** 07:18:36.5±0.3,4°.13N×126°.45E,h0^{km},mb5.1/29,mbtmp5.0/30,ML4.6/2,MS5.3/67,Error ellipse: s-maj=15.7km s-min=7.2km az=78.0*

*MOS **09** 07:18:36.9±1.1,4°.22N×126°.62E,h10^{km},mb5.8/61,MS5.5/24,Error ellipse: s-maj=7.3km s-min=3.9km az=113.3*

*ISC-PP **09** 07:18:40,4°.18N×126°.65E,h33^{km},Mwppsm6.2,Moment Tensor Solution. s47 Moment tensor: Scale 10^{18}Nm; M_{rr}0.45±.12; $M_{\theta\theta}$0.19±.14; $M_{\phi\phi}$-0.66±.14; $M_{r\theta}$-0.18±.16; $M_{\theta\phi}$0.30±.22; $M_{\phi r}$-0.20±.11; Fault plane solution: $M_0$2.85000×10^{18} NP1:ϕ_s221.80000°,δ41.10000°,λ137.20000°. NP2:ϕ_s346.80000°,δ63.50000°,λ57.40000°.*

*NEIC **09** 07:18:40.2,4°.18N×126°.64E,h17^{km}*

*NEIC **09** 07:18:40.3±2.4,4°.18N±0°.05×126°.65E±0°.07,h17^{km}±1^{km},mb5.7/299,Ms_20 5.5/589,Mwb5.7/105,Mww5.7/12,Error ellipse: s-maj=12.7km s-min=8.5km az=72.0,Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}2.83; $M_{\theta\theta}$0.82; $M_{\phi\phi}$-3.65; $M_{r\theta}$-1.34; $M_{\theta\phi}$-2.92; $M_{\phi r}$1.15; Fault plane solution: $M_0$4.76000×10^{17} NP1: ϕ_s239.56000°,δ54.46000°,λ142.15000°. NP2: ϕ_s353.87000°,δ60.05000°,λ42.14000°. Principal axes: T 4.2892, Plg50.0000°, Azm210.0000°; N 0.8296, Plg40.0000°, Azm23.0000°; P -5.1188, Plg3.0000°, Azm116.0000°;*

*NEIC **09** 07:18:40.8,4°.20N×126°.64E,h18^{km}*

*IPGP **09** 07:18:42.0,4°.11N×126°.69E,h25^{km},Mw5.8,Fault plane solution: NP1:ϕ_s232.00000°,δ48.00000°,λ126.00000°. NP2:ϕ_s5.00000°,δ53.00000°,λ57.00000°.*

*GFZ **09** 07:18:42.7,4°.17N×126°.67E,h27^{km},Mw5.8/103,Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}4.76; $M_{\theta\theta}$-0.05; $M_{\phi\phi}$-4.72; $M_{r\theta}$0.08; $M_{\theta\phi}$-2.28; $M_{\phi r}$-2.75; Fault plane solution: $M_0$5.93572×10^{17} NP1: ϕ_s189.86415°,δ59.17022°,λ75.80405°. NP2:ϕ_s36.13501°,δ33.64654°,λ112.33807°. Principal axes: T 5.5865, Plg71.9952°, Azm65.7376°; N 0.6456, Plg12.1566°, Azm197.2508°; P -6.2321, Plg13.0771°, Azm290.1190°;*

*GFZ **09** 07:18:42.7±0.1,4°N±1°×12°7E±°,h35^{km},M5.7/140,mB6.1/84,mb5.6/140,Mw(mB)5.7/84,confirmed*

*PTWC **09** 07:18:44,4°.20N×126°.70E,h44^{km},Mwp6.0/27*

*GCMT **09** 07:18:44.2±0.1,4°.22N±0°.01×126°.66E,h21^{km},MW5.8/163,Moment Tensor Solution. s163,c345; s155,c442; Duration: 2^{s}1 Moment tensor: Scale 10^{17}Nm; M_{rr}5.28±.05; $M_{\theta\theta}$0.77±.04; $M_{\phi\phi}$-6.05±.05; $M_{r\theta}$-3.24±.10; $M_{\theta\phi}$-3.05±.04; $M_{\phi r}$2.01±.09; Best double couple: $M_0$7.49700×10^{17} NP1:ϕ_s229.00000°,δ50.00000°,λ135.00000°. NP2:ϕ_s352.00000°,δ57.00000°,λ50.00000°. Principal axes: T 7.7310, Plg57.0000°, Azm205.0000°; N -0.4740, Plg33.0000°, Azm17.0000°; P -7.2630, Plg4.0000°, Azm109.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s. Triangular moment-rate function*

*DJA **09** 07:18:47.1±0.3,4°N±2°×12°7E±°,h74^{km}±3^{km},M5.7/95,mB6.1/73,mb5.6/95,MLv6.0/6,Mw5.7/78,Mw(mB)5.8/73,MwMwp5.6/61,Mwp5.7/61*

*NEIC **09** 07:18:50.3,4°.28N×126°.94E,h24^{km},Moment Tensor Solution. Duration: 3^{s}2 Moment tensor: Scale 10^{17}Nm; M_{rr}3.90; $M_{\theta\theta}$-0.09; $M_{\phi\phi}$-3.81; $M_{r\theta}$-0.39; $M_{\theta\phi}$-1.12; $M_{\phi r}$0.32; Fault plane solution: $M_0$4.05000×10^{17} NP1: ϕ_s202.47000°,δ43.99000°,λ100.12000°. NP2:ϕ_s8.54000°,δ46.86000°,λ80.37000°. Principal axes: T 3.9663, Plg83.0000°, Azm207.0000°; N 0.1595, Plg7.0000°, Azm15.0000°; P -4.1259, Plg1.0000°, Azm105.0000°;*

ISC 09 07:18:41.9±0.4**,4°.14N**±0°.02×**126°.55E**±0°.03**,h33**^{km}±1^{km}**, h33**^{km}**:pP-P,n1586,**σ1^s**89**/1285**,mb5.6**/388**,MS5.5**/402**, 44C-34D,Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DDMP	**Don Marcelino,**	**2.13**	**337**	*e*P	**Pn**	**07 19 14.3**	**-0.9**
DDMP				*e*S	**Sb**	**07 19 49.1**	**+3.2**
GSPH	**General Santos**	**2.51**	**321**	*i* P	**Pn**	**07 19 22.1**	**+1.5**
GSPH				*i* S	**Sb**	**07 19 58.1**	**+1.1**
DAV	**Davao City (W)**	**3.07**	**342**	Pn	**Pn**	**07 19 29.2**	**+1.0**
	144nm,0.3s,baz=115,slow=3.2,SNR=10						
DAV				Sn	**Sn**	**07 20 04.6**	**+0.8**
	491nm,0.3s,baz=72,slow=21,SNR=4.8						
DAV				LR	LR	07 21 02.1	
	comp=Z,169μm,18.6s,baz=128,slow=48						
DAV				AML	AML		
DAV	**Davao City (W)**	**3.07**	**342**	P	**Pb**	**07 19 33.4**	**-2.5**
DAV	**Davao City (W)**	**3.07**	**342**	P	**Pn**	**07 19 31.0**	**+2.8**
DAV	**Davao City (W)**	**3.07**	**342**		**Pn**	**07 19 27.6**	**-0.6**
DAV	**Davao City (W)**	**3.07**	**342**	P	**Pn**	**07 19 29.4**	**+1.2**
DAV	**Davao City (W)**	**3.07**	**342**	P	**Pb**	**07 19 35.0**	**-0.9**
DAV				AML	AML		
DAV	**Davao City (W)**	**3.07**	**342**	P	Pb	07 19 40.0	+4.1
DMPH	**Davao City--Mi**	**3.11**	**341**	*e*P	**Pn**	**07 19 26.9**	**-1.8**
DMPH				*i* S	**Sn**	**07 20 05.3**	**+0.6**
MNI	**Manado**	**3.17**	**213**	P	**Pn**	**07 19 32.7**	**+3.1**
KCP	**Kidapawan**	**3.20**	**333**	*e*P	**Pn**	**07 19 32.1**	**+2.0**
TNTI	**Ternate**	**3.44**	**166**	P	**Pn**	**07 19 33.8**	**+0.5**
TNTI	**Ternate**	**3.44**	**166**	S	**Sn**	**07 20 16.3**	**+3.4**
TNTI	**Ternate**	**3.44**	**166**		**Pn**	**07 19 34.0**	**+0.8**
TNTI	**Ternate**	**3.44**	**166**	P	**Pn**	**07 19 34.3**	**+1.1**
TNTI	**Ternate**	**3.44**	**166**	P	**Pn**	**07 19 34.1**	**+0.8**
TNTI	**Ternate**	**3.44**	**166**	P	**Pn**	**07 19 34.4**	**+1.1**
CDOP	**Cateel, Davao**	**3.63**	**358**	*e*P	**Pn**	**07 19 38.1**	**+2.3**
CDOP				*i* S	**Sb**	**07 20 31.6**	**+2.6**
CTBH	**Cotabato--PC H**	**3.83**	**323**	*e*P	**Pn**	**07 19 40.5**	**+2.0**
BUKP	**Musuan**	**4.00**	**338**	*e*P	**Pn**	**07 19 42.3**	**+1.2**
BUKP				*i* S	Sb	07 20 49.6	+10
BIPH	**Bislig**	**4.03**	**357**	*e*P	**Pn**	**07 19 42.4**	**+1.1**
BIPH				*e*S	**Sb**	**07 20 46.3**	**+5.9**
CGP	**Cagayan de Oro**	**4.67**	**337**	*e*P	Pn	07 19 54.8	+4.6
CGP				*e*S	Sb	07 21 07.9	+8.9
GTOI	**Gorontalo**	**4.96**	**226**	P	**Pn**	**07 19 56.7**	**+2.6**
ZCP	**Zamboanga City**	**5.25**	**302**	*e*P	**Pn**	**07 19 59.9**	**+1.7**
ZCP				*e*S	**Sb**	**07 21 08.1**	**-7.6**
DCPH	**Dipolog City**	**5.44**	**324**	*e*P	Pn	07 20 06.6	+5.8
SCPH	**Surigao**	**5.71**	**349**	*e*P	Pn	07 19 51.3	-13
SCPH				*e*S		07 20 03.1	
LSIP	**Lazi, Siquijor**	**5.75**	**330**	*i* P	Pn	07 20 10.4	+5.4
LSIP				*i* S	Sb	07 21 46.6	+17
TBP	**Tagbilaran**	**6.13**	**334**	*e*P	**Pn**	**07 20 11.7**	**+1.5**
SNPH	**Sibulan**	**6.13**	**328**	*e*P	Pn	07 20 14.8	+4.4
SNPH				*e*S	Sb	07 21 48.4	+7.4
SANI	**Sanana**	**6.17**	**185**	P	**Pn**	**07 20 10.7**	**-0.1**
SANI	**Sanana**	**6.17**	**185**	S	**Sn**	**07 21 20.9**	**+0.6**
SANI	**Sanana**	**6.17**	**185**	P	**Pn**	**07 20 09.5**	**-1.3**
SANI	**Sanana**	**6.17**	**185**	P	**Pn**	**07 20 09.7**	**-1.1**
	comp=Z,9μmcomp=Z,412nm,1.0s						
LUWI	**Luwuk**	**6.38**	**216**	P	Pn	07 20 18.3	+4.6
LUWI	**Luwuk**	**6.38**	**216**		Pn	07 20 19.3	+5.6
LUWI	**Luwuk**	**6.38**	**216**	P	Pn	07 20 19.7	+6.0
LUWI	**Luwuk**	**6.38**	**216**	P	**Pn**	**07 20 18.0**	**+4.3**
	comp=Z,61μmcomp=Z,5μm,1.3s						
TOLI2	**Tolitoli**	**6.50**	**243**	P	**Pn**	**07 20 16.3**	**+1.0**
TOLI2	**Tolitoli**	**6.50**	**243**		**Pn**	**07 20 16.6**	**+1.3**
TOLI2	**Tolitoli**	**6.50**	**243**	P	**Pn**	**07 20 16.6**	**+1.3**
	comp=Z,7μmcomp=Z,511nm,1.1s						
LLP	**Lapu-Lapu**	**6.65**	**337**	*e*P	**Pn**	**07 20 19.9**	**+2.4**
LLP				*i* S	**Sb**	**07 21 57.1**	**+1.0**
PLP	**Palo**	**7.16**	**348**	*e*P	**Pn**	**07 20 27.7**	**+3.4**
PLP				*e*S	Sb	07 21 58.9	-12
NLAI	**Namlea**	**7.35**	**176**	P	**Pn**	**07 20 27.1**	**+0.1**
MECP	**Medelin, Cebu**	**7.43**	**340**	*e*P	Pn	07 20 32.2	+4.0
MECP				*e*S		07 20 50.5	
JAP	**San Jose, Anti**	**8.00**	**325**	*e*P	Pn	07 20 42.1	+6.2
MYLDM	**Lahad Datu**	**8.09**	**278**	P	Pn	07 20 42.4	+5.2
MYLDM	**Lahad Datu**	**8.09**	**278**		**Pn**	**07 20 40.3**	**+3.1**
MYLDM	**Lahad Datu**	**8.09**	**278**	P	Pn	07 20 41.9	+4.7
MYLDM	**Lahad Datu**	**8.09**	**278**	P	Pn	07 20 43.1	+5.9
	comp=Z,19μmcomp=Z,1μm,1.2s						
PCI	**Palu**	**8.37**	**233**	P	Pn	07 20 47.1	+6.0
	comp=Z,36μmcomp=Z,16μmcomp=Z,507nm,0.9s						
I39PW	**PALAU INFRASON**	**8.64**	**67**	I	I	08 10 50.0	
	baz=247,slow=313,SNR=2.1						
MMPH	**Masbate**	**8.67**	**341**	*e*P	Pn	07 20 35.2	-10
MMPH				*e*S		07 20 59.0	
IBAJ	**Ibajay, Aklan**	**8.78**	**331**	*i* P	Pn	07 20 53.7	+7.1
KDI	**Kendari**	**8.95**	**206**	P	**Pn**	**07 20 51.4**	**+2.5**
MWPI	**Manokwari, Pap**	**9.02**	**124**	P	**Pn**	**07 20 52.8**	**+2.9**
	comp=Z,9μmcomp=Z,737nm,1.0s						
FAKI	**Fak Fak**	**9.03**	**141**	P	**Pn**	**07 20 51.2**	**+1.1**
FAKI	**Fak Fak**	**9.03**	**141**	S	**Sn**	**07 22 31.1**	**+0.4**
FAKI	**Fak Fak**	**9.03**	**141**		**Pn**	**07 20 49.9**	**-0.2**
FAKI	**Fak Fak**	**9.03**	**141**	P	**Pn**	**07 20 51.8**	**+1.7**
FAKI	**Fak Fak**	**9.03**	**141**	P	**Pn**	**07 20 52.7**	**+2.6**
	comp=Z,7μmcomp=Z,375nm,0.9s						
FAKI	**Fak Fak**	**9.03**	**141**	P	**Pn**	**07 20 49.3**	**-0.8**
	comp=Z,7μmcomp=Z,376nm,0.9s						
BNDI	**Bandanaira**	**9.23**	**159**	P	**Pn**	**07 20 55.7**	**+2.9**
BNDI	**Bandanaira**	**9.23**	**159**	P	**Pn**	**07 20 55.9**	**+3.1**
BNDI	**Bandanaira**	**9.23**	**159**	P	**Pn**	**07 20 52.4**	**-0.4**
	comp=Z,46μmcomp=Z,2μm,1.7s						
PPR	**Puerto Princes**	**9.57**	**306**	*i* P	Pn	07 21 02.3	+4.8
MMSI	**Mamuju**	**10.21**	**229**	P	Pn	07 21 12.1	+5.8
	comp=Z,21μmcomp=Z,9μmcomp=Z,743nm,1.5s						
KKM	**Kota Kinabalu**	**10.47**	**281**	P	Pn	07 21 14.6	+4.7
KKM	**Kota Kinabalu**	**10.47**	**281**	S	**Sn**	**07 23 09.8**	**+3.6**
KKM	**Kota Kinabalu**	**10.47**	**281**		**Pn**	**07 21 14.0**	**+4.1**
KKM	**Kota Kinabalu**	**10.47**	**281**	P	Pn	07 21 15.1	+5.2
KKM	**Kota Kinabalu**	**10.47**	**281**	P	Pn	07 21 19.2	+9.3
KKM	**Kota Kinabalu**	**10.47**	**281**	P	**Pn**	**07 21 13.9**	**+4.1**
	comp=Z,10μmcomp=Z,332nm,1.4s						
GQP	**Guinayangan**	**10.52**	**338**	*e*P	Pn	07 21 17.1	+6.7
BAKI	**Biak**	**10.92**	**119**	P	Pn	07 21 21.5	+5.5
BKB	**Balikpapan**	**11.04**	**241**	P	**Pn**	**07 21 19.8**	**+2.2**
BKB	**Balikpapan**	**11.04**	**241**	P	Pn	07 21 27.3	+10
BKB	**Balikpapan**	**11.04**	**241**	P	Pn	07 21 22.3	+4.7
	comp=Z,9μmcomp=Z,327nm,1.2s						
KAPI	**Kappang**	**11.35**	**217**	Pn	**Pn**	**07 21 22.2**	**+0.4**
	comp=Z,2.5nm,0.3s,baz=37,slow=10,SNR=6.9						
KAPI				Sn	Sn	07 23 18.8	-8.7
	comp=Z,1.2nm,0.3s,baz=29,slow=19,SNR=1.3						
	comp=Z,6.2nm,0.3s						
KAPI				AML	AML		
KAPI	**Kappang**	**11.35**	**217**	P	**Pn**	**07 21 24.6**	**+2.8**
KAPI	**Kappang**	**11.35**	**217**	P	**Pn**	**07 21 22.3**	**+0.4**
KAPI	**Kappang**	**11.35**	**217**	P	**Pn**	**07 21 23.5**	**+1.7**
KAPI	**Kappang**	**11.35**	**217**		**Pn**	**07 21 23.5**	**+1.7**
KAPI	**Kappang**	**11.35**	**217**	P	**Pn**	**07 21 26.4**	**+4.6**
KAPI	**Kappang**	**11.35**	**217**	P	Pn	07 21 27.7	+5.9
KAPI	**Kappang**	**11.35**	**217**	P	**Pn**	**07 21 23.7**	**+1.9**
	comp=Z,3μmcomp=Z,204nm,1.3s						
TIRP	**Brgy. Gulod. B**	**11.43**	**333**	*e*P	**Pn**	**07 21 25.6**	**+2.6**
MKS	**Makassar**	**11.68**	**217**	P	Pn	07 21 37.1	+11
CAAP	**Casiguran, Aur**	**12.79**	**340**	*e*P	P	07 21 46.8	-5.4
SAUI	**Saumlaki**	**12.94**	**159**	P	**Pn**	**07 21 46.0**	**+2.4**
SAUI	**Saumlaki**	**12.94**	**159**		**Pn**	**07 21 43.0**	**-0.6**
SAUI	**Saumlaki**	**12.94**	**159**	P	P	07 22 01.7	+7.9
SAUI	**Saumlaki**	**12.94**	**159**	P	**Pn**	**07 21 45.5**	**+1.9**
	comp=Z,933nm,1.0s						
MMRI	**Maumere**	**13.39**	**199**	P	**Pn**	**07 21 52.5**	**+2.6**
MMRI	**Maumere**	**13.39**	**199**	P	**P**	**07 22 02.4**	**+3.5**
MMRI	**Maumere**	**13.39**	**199**	P	**Pn**	**07 21 49.0**	**-0.9**
	comp=Z,12μmcomp=Z,616nm,1.1s						
BBKI	**Banjar Baru**	**13.92**	**237**	P	**P**	**07 22 03.7**	**-1.1**
SOEI	**Soe**	**13.98**	**189**	P	**Pn**	**07 22 00.1**	**+2.1**
SOEI	**Soe**	**13.98**	**189**		**Pn**	**07 22 00.4**	**+2.4**
SOEI	**Soe**	**13.98**	**189**	P	**Pn**	**07 22 02.1**	**+4.0**
SOEI	**Soe**	**13.98**	**189**	P	**Pn**	**07 22 02.0**	**+4.0**
	comp=Z,12μmcomp=Z,423nm,0.8s						
SOEI	**Soe**	**13.98**	**189**	P	**Pn**	**07 21 59.7**	**+1.7**
	comp=Z,12μmcomp=Z,422nm,0.8s						
LBFI	**Labuhan Bajo,**	**14.18**	**208**	P	**P**	**07 22 09.1**	**+1.4**
CVP	**Callao Caves**	**14.26**	**341**	*e*P	**P**	**07 22 06.5**	**-2.0**
SZP	**Santa**	**14.61**	**336**	P	**Pn**	**07 22 08.8**	**+2.4**
	comp=Z,8μmcomp=Z,341nm,1.7s						
WSI	**Waingapu**	**15.06**	**204**	P	**P**	**07 22 16.8**	**-0.6**
GENI	**Genyem**	**15.16**	**116**	P	**P**	**07 22 17.9**	**-0.7**
GENI	**Genyem**	**15.16**	**116**	P	**P**	**07 22 19.3**	**+0.7**
GENI	**Genyem**	**15.16**	**116**	P	**P**	**07 22 18.6**	**0.0**
GENI	**Genyem**	**15.16**	**116**	P	**Pn**	**07 22 13.7**	**-0.1**
	comp=Z,20μmcomp=Z,1μm,1.8s						
PLAI	**Plampang**	**15.57**	**214**	P	**Pn**	**07 22 21.5**	**+2.4**
PLAI	**Plampang**	**15.57**	**214**	P	**P**	**07 22 23.6**	**+0.5**
PLAI	**Plampang**	**15.57**	**214**	P	**Pn**	**07 22 19.4**	**+0.3**
	comp=Z,11μmcomp=Z,1μm,0.9s						
STKI	**Sintang**	**15.59**	**255**	P	**P**	**07 22 27.7**	**+4.3**
TWSI	**Taliwang, Sumb**	**16.01**	**217**	P	**P**	**07 22 29.2**	**+1.2**
KHKI	**Kahang-Kahang**	**16.53**	**221**	P	**P**	**07 22 36.0**	**+2.3**
	comp=Z,15μmcomp=Z,6μmcomp=Z,523nm,1.4s						
DRS	**Darwin Rock St**	**17.02**	**165**	P	**Pn**	**07 22 37.1**	**-0.4**
DNP	**Denpasar**	**17.02**	**222**	P	**P**	**07 22 44.3**	**+5.1**
ABJI	**Asem Bagus**	**17.07**	**226**	P	P	07 22 48.5	+8.8
IGBI	**Denpasar**	**17.17**	**221**	P	**P**	**07 22 44.8**	**+4.0**
	comp=Z,17μmcomp=Z,12μmcomp=Z,531nm,1.1s						
MTN	**Manton Dam**	**17.47**	**165**	P	**Pn**	**07 22 41.2**	**-2.0**
	comp=Z,171nm,0.9s,comp=Z,0.0nm						
MTN	**Manton Dam**	**17.47**	**165**	Pn	**Pn**	**07 22 41.0**	**-2.3**
BLJI	**Banyuglugur**	**17.50**	**228**	P	P	07 22 54.2	+10
JAGI	**Jajag, Banyuwa**	**17.60**	**225**	P	**P**	**07 22 47.5**	**+1.9**
JAGI	**Jajag, Banyuwa**	**17.60**	**225**		**P**	**07 22 47.5**	**+1.9**
JAGI	**Jajag, Banyuwa**	**17.60**	**225**	P	**P**	**07 22 48.0**	**+2.4**
JAGI	**Jajag, Banyuwa**	**17.60**	**225**	P	**P**	**07 22 49.0**	**+3.4**
	comp=Z,17μmcomp=Z,9μmcomp=Z,274nm,1.4s						
JAGI	**Jajag, Banyuwa**	**17.60**	**225**	P	**Pn**	**07 22 45.6**	**+0.8**
	comp=Z,9μmcomp=Z,273nm,0.7s						
KDU	**Kakadu**	**17.72**	**161**	P	**Pn**	**07 22 45.6**	**-0.7**
	comp=Z,303nm,1.2s,comp=Z,0.0nm						
SNJI	**Sawahan-Nganju**	**18.92**	**231**	P	**Pn**	**07 23 02.8**	**+1.7**
	comp=Z,20μmcomp=Z,7μmcomp=Z,586nm,1.0s						
TWGBT	**Beinan**	**19.31**	**345**	P	**P**	**07 23 03.7**	**-0.7**
TWGBT	**Beinan**	**19.31**	**345**	S	**S**	**07 26 44.3**	**+3.0**
TWG	**Pinlang**	**19.32**	**345**	P	**P**	**07 23 02.6**	**-1.8**
TWG	**Pinlang**	**19.32**	**345**	P	**P**	**07 23 04.0**	**-0.4**
TWG	**Pinlang**	**19.32**	**345**	P	**P**	**07 23 04.1**	**-0.4**
	comp=Z,2μmcomp=Z,198nm,0.8s,comp=Z,2μm						
DLV	**Lat**	**19.48**	**295**	P	**Pn**	**07 23 09.8**	**+1.9**
	comp=Z,17μmcomp=Z,310nm,1.1s,comp=Z,17μm						
SMRI	**Semarang**	**19.54**	**235**	P	**Pn**	**07 23 09.2**	**+0.7**
SMRI	**Semarang**	**19.54**	**235**	P	**P**	**07 23 08.4**	**+1.4**
SMRI	**Semarang**	**19.54**	**235**	P	**Pn**	**07 23 10.1**	**+1.6**
	comp=Z,346nm,1.2s						
SMRI	**Semarang**	**19.54**	**235**	P	**Pn**	**07 23 09.9**	**+1.5**
	comp=Z,345nm,1.2s						
PCJI	**Pacitan**	**19.62**	**231**	P	**Pn**	**07 23 12.4**	**+3.0**
	comp=Z,346nm,0.8s						
KNRA	**Kununurra**	**19.81**	**174**	P	**P**	**07 23 09.1**	**-0.7**
	comp=Z,203nm,1.3s,comp=Z,0.0nm						
KNRA	**Kununurra**	**19.81**	**174**	P	**P**	**07 23 09.3**	**-0.5**
YULB	**Yu-li**	**19.81**	**346**	P	**P**	**07 23 09.7**	**0.0**
YULB	**Yu-li**	**19.81**	**346**	S	**Sn**	**07 26 56.0**	**+2.8**
YULB	**Yu-li**	**19.81**	**346**	P	**P**	**07 23 09.8**	**0.0**
YULB	**Yu-li**	**19.81**	**346**	P	**P**	**07 23 09.2**	**-0.6**
	comp=Z,3μmcomp=Z,206nm,0.9s						
TPUB	**Ta-pu**	**19.89**	**344**	P	**P**	**07 23 09.7**	**-1.1**
TPUB				IAmb	IAmb	07 23 20.3	
	comp=Z,215nm,0.7s						
TPI	**Tanjungpandan**	**20.09**	**250**	P	Pn	07 23 19.9	+5.0
SSLB	**Suanglung**	**20.27**	**345**	P	**P**	**07 23 14.1**	**-0.8**
SSLB	**Suanglung**	**20.27**	**345**	S	Sn	07 27 04.4	-0.1
SSLB	**Suanglung**	**20.27**	**345**	P	**P**	**07 23 14.3**	**-0.6**
SSLB	**Suanglung**	**20.27**	**345**	P	**P**	**07 23 14.4**	**-0.5**
SSLB	**Suanglung**	**20.27**	**345**	P	**P**	**07 23 14.8**	**-0.1**
	comp=Z,3μmcomp=Z,244nm,1.0s						
GUMO	**Guam**	**20.37**	**61**	P	Pn	07 23 16.8	-1.5
	comp=Z,42nm,0.7s,baz=270,slow=12,SNR=8.1						
GUMO				LR	LR	07 29 54.4	
	comp=Z,4μm,21.5s,baz=236,slow=33						
	comp=Z,42nm,0.7s						
GUMO	**Guam**	**20.37**	**61**	P	Pn	07 23 17.9	-0.3
GUMO	**Guam**	**20.37**	**61**	P	**P**	**07 23 15.5**	**-0.5**
GUMO	**Guam**	**20.37**	**61**	P	**P**	**07 23 16.0**	**0.0**
GUMO	**Guam**	**20.37**	**61**	P	Pn	07 23 17.3	-1.0
	comp=Z,7μmcomp=Z,346nm,1.5s,comp=Z,7μm						
NACB	**Ninganchiao**	**20.49**	**347**	P	Pn	07 23 21.3	+1.8
NACB	**Ninganchiao**	**20.49**	**347**	P	Pn	07 23 18.1	-1.4
NACB	**Ninganchiao**	**20.49**	**347**	P	**P**	**07 23 14.9**	**-2.3**
	comp=Z,2μmcomp=Z,51nm,0.9s						
YOJ	**Yonaguni jima**	**20.50**	**351**	P	Pn	07 23 19.8	+0.3
YOJ	**Yonaguni jima**	**20.50**	**351**	P	**P**	**07 23 17.6**	**+0.4**
YOJ				pmax	pmax		
	comp=Z,369nm,1.5s						
YOJ	**Yonaguni jima**	**20.50**	**351**	P	**P**	**07 23 17.6**	**+0.4**
YOJ	**Yonaguni jima**	**20.50**	**351**	P	Pn	07 23 18.6	-0.9
YOJ	**Yonaguni jima**	**20.50**	**351**	P	Pn	07 23 19.4	-0.1
	comp=Z,6μmcomp=Z,355nm,0.9s,comp=Z,6μm						
JMJ	**Miyako jima 2**	**20.60**	**357**	P	Pn	07 23 20.6	-0.1
FUSS	**Fushou**	**20.64**	**346**	P	**P**	**07 23 19.8**	**+0.7**
YHNB	**Yeheng**	**21.02**	**347**	P		07 23 24.6	
YHNB	**Yeheng**	**21.02**	**347**	IAMs_20	IAMs_20	07 31 51.3	
	comp=Z,17μm,22.0s						
YHNB	**Yeheng**	**21.02**	**347**	P	**P**	**07 23 20.9**	**-2.1**
	comp=Z,3μmcomp=Z,202nm,0.9s						
TATO	**Taipei**	**21.29**	**347**	P	**P**	**07 23 29.5**	**+3.8**
TATO	**Taipei**	**21.29**	**347**	S	Sn	07 27 24.6	-4.1
TATO	**Taipei**	**21.29**	**347**	P	P	07 23 32.3	+6.6
TATO	**Taipei**	**21.29**	**347**	P	**P**	**07 23 24.3**	**-1.5**
	comp=Z,3μmcomp=Z,118nm,0.7s						
PPBI	**Pangkal Pinang**	**21.34**	**253**	P	P	07 23 37.6	+11
CMJI	**Cimerak**	**21.59**	**237**	P	P	07 23 36.7	+7.5
HKPS	**Hong Kong Po S**	**21.68**	**327**	P	**P**	**07 23 33.2**	**+3.2**
HKPS	**Hong Kong Po S**	**21.68**	**327**	P	**P**	**07 23 32.4**	**+2.4**
HKPS				IAmb	IAmb	07 23 48.1	
	comp=Z,814nm,1.9s						
HKPS				IAMs_20	IAMs_20	07 31 20.0	
	comp=Z,14μm,20.0s						
HKPS	**Hong Kong Po S**	**21.68**	**327**	P	**P**	**07 23 32.8**	**+2.8**
	comp=Z,5μmcomp=Z,193nm,1.0s,comp=Z,5μm						
KNMB	**Chin-men Tao**	**21.69**	**340**	IAmb	IAmb	07 23 50.3	
	comp=Z,412nm,1.3s						
KNMB				IAMs_20	IAMs_20	07 31 51.6	
	comp=Z,16μm,22.0s						
KNMB	**Chin-men Tao**	**21.69**	**340**	P	**P**	**07 23 31.9**	**+1.9**
KNMB	**Chin-men Tao**	**21.69**	**340**	P	**P**	**07 23 32.0**	**+1.9**
	comp=Z,5μmcomp=Z,280nm,1.3s,comp=Z,5μm						
JMZ	**Minamidaito 2**	**22.02**	**11**	P	**P**	**07 23 37.7**	**+4.0**
JMZ	**Minamidaito 2**	**22.02**	**11**	P	**P**	**07 23 35.5**	**+1.8**
JMZ	**Minamidaito 2**	**22.02**	**11**	P	**P**	**07 23 33.3**	**-0.4**
	comp=Z,13μmcomp=Z,204nm,1.0s						
QIZ	**Qiongzhong**	**22.03**	**314**	P	**P**	**07 23 35.1**	**+1.2**
QIZ				sP	**pwP**	**07 23 51.0**	**+4.9**
QIZ				S	**S**	**07 27 36.7**	**+1.4**
QIZ				sS	Sn	07 27 54.4	+7.6
QIZ				pmax	pmax		
	comp=Z,61nm,1.0s						
QIZ				pmax	pmax		
	comp=Z,2μm,6.9s						
QIZ				L	L		
	comp=Z,10μm,14.7s						
QIZ				L	L		
	comp=Z,9μm,16.7s						
QIZ				L	L		
	comp=Z,15μm,15.1s						
QIZ	**Qiongzhong**	**22.03**	**314**	P	**P**	**07 23 35.4**	**+1.5**
QIZ	**Qiongzhong**	**22.03**	**314**	IAMs_20	IAMs_20	07 30 41.3	
	comp=Z,18μm,21.0s						
QZH2	**Quanzhou**	**22.06**	**340**	P	**P**	**07 23 37.5**	**+3.4**
QZH2				S	**S**	**07 27 30.9**	**-4.8**
QZH2				pmax	pmax		
	comp=Z,97nm,0.6s						
QZH2				pmax	pmax		
	comp=Z,3μm,5.5s						
QZH2				L	L		
	comp=Z,8μm,16.9s						
QZH2				L	L		
	comp=Z,7μm,18.6s						
QZH2				L	L		
	comp=Z,14μm,17.0s						
BBJI	**Bungbulang**	**22.10**	**239**	P	**P**	**07 23 35.9**	**+1.2**
BBJI	**Bungbulang**	**22.10**	**239**	P	**P**	**07 23 36.4**	**+1.6**
BBJI	**Bungbulang**	**22.10**	**239**	P	**P**	**07 23 37.2**	**+2.5**
	comp=Z,7μmcomp=Z,166nm,1.0s						
BBJI	**Bungbulang**	**22.10**	**239**	P	**P**	**07 23 35.3**	**+0.5**
	comp=Z,2μmcomp=Z,165nm,1.1s						
FITZ	**Fitzroy Crossi**	**22.11**	**182**	P	**P**	**07 23 34.3**	**-0.4**
	comp=Z,87nm,1.3s,comp=Z,0.0nm						
FITZ	**Fitzroy Crossi**	**22.11**	**182**	P	**P**	**07 23 33.8**	**-0.9**
FITZ	**Fitzroy Crossi**	**22.11**	**182**	P	**P**	**07 23 34.6**	**-0.1**
FITZ	**Fitzroy Crossi**	**22.11**	**182**	P	**P**	**07 23 34.3**	**-0.4**
	comp=Z,1μmcomp=Z,87nm,1.3s,comp=Z,1μm						
TPRI	**Tanjung Pinang**	**22.23**	**262**	P	**P**	**07 23 39.5**	**+3.4**
	comp=Z,15μmcomp=Z,5μmcomp=Z,170nm,0.9s						
DSRI	**Dabo**	**22.43**	**259**	P	**P**	**07 23 40.9**	**+2.7**
	comp=Z,14μmcomp=Z,4μmcomp=Z,139nm,1.1s						
CNJI	**Cibinong**	**22.47**	**240**	P	**P**	**07 23 38.7**	**+0.1**
JOW	**Kunigami**	**22.63**	**4**	P	**P**	**07 23 39.0**	**-1.2**
	comp=Z,40nm,0.7s,baz=157,slow=13,SNR=20						
	comp=Z,40nm,0.7s						
JOW	**Kunigami**	**22.63**	**4**	P	**P**	**07 23 41.1**	**+0.9**
JOW	**Kunigami**	**22.63**	**4**	P	**P**	**07 23 40.5**	**+0.4**
JOW	**Kunigami**	**22.63**	**4**	P	**P**	**07 23 41.2**	**+1.1**
	comp=Z,3μmcomp=Z,129nm,0.7s,comp=Z,3μm						
MYKOM	**Kota Tinggi**	**22.79**	**265**	P	**P**	**07 23 44.4**	**+2.4**
MYKOM	**Kota Tinggi**	**22.79**	**265**	P	**P**	**07 23 43.9**	**+1.9**
MYKOM	**Kota Tinggi**	**22.79**	**265**	P	**P**	**07 23 45.3**	**+3.3**
MYKOM	**Kota Tinggi**	**22.79**	**265**	P	**P**	**07 23 45.2**	**+3.2**
	comp=Z,6μmcomp=Z,115nm,1.7s,comp=Z,6μm						
PMBI	**Palembang**	**22.86**	**252**	IAMs_20	IAMs_20	07 33 17.0	
	comp=Z,13μm,20.0s						
BTDF	**Bukit Timah Da**	**22.91**	**264**	P	**P**	**07 23 45.8**	**+2.5**
BTDF	**Bukit Timah Da**	**22.91**	**264**	P	**P**	**07 23 45.9**	**+2.6**
BTDF	**Bukit Timah Da**	**22.91**	**264**	P	**P**	**07 23 46.1**	**+2.8**
	comp=Z,8μmcomp=Z,146nm,1.0s						
GZH2	**Guangzhou**	**23.05**	**328**	P	**P**	**07 23 42.2**	**-2.4**
GZH2				S	**S**	**07 27 56.9**	**+3.5**
GZH2				L	L		
	comp=Z,13μm,15.4s						
GZH2				L	L		
	comp=Z,18μm,18.9s						
GZH2				L	L		
	comp=Z,32μm,17.3s						
JMBI	**JAMBI**	**23.60**	**256**	P	**P**	**07 23 54.4**	**+4.3**
MDSI	**Maura Dua**	**23.93**	**249**	P	**P**	**07 23 54.8**	**+1.5**
	comp=Z,113nm,1.0s						
PMG	**Port Moresby**	**24.55**	**123**	LR	LR	07 35 58.8	
	comp=Z,6μm,18.5s,baz=308,slow=42						
PMG	**Port Moresby**	**24.55**	**123**	P	**P**	**07 23 57.7**	**-1.3**
PMG	**Port Moresby**	**24.55**	**123**	P	**P**	**07 23 57.6**	**-1.3**
	comp=Z,3μmcomp=Z,142nm,1.6s						
WB9	**Warramunga Arr**	**24.99**	**162**	P	**P**	**07 24 01.9**	**-1.0**
WB6	**Warramunga Arr**	**25.05**	**162**	P	**P**	**07 24 02.7**	**-0.7**
WRAB	**Tennant Creek**	**25.12**	**162**	P	**P**	**07 24 03.5**	**-0.5**
WRAB	**Tennant Creek**	**25.12**	**162**	*c i*P	**P**	**07 24 02.6**	**-1.4**
WRAB				pmax	pmax		
	comp=Z,396nm,0.9s						
WRAB	**Tennant Creek**	**25.12**	**162**	P	**P**	**07 24 02.0**	**-2.0**
WRAB	**Tennant Creek**	**25.12**	**162**	P	**P**	**07 24 02.5**	**-1.4**
	comp=Z,8μmcomp=Z,554nm,1.2s,comp=Z,8μm						
WR1	**Warramunga Arr**	**25.12**	**163**	P	**P**	**07 24 03.1**	**-1.0**
WRA	**Warramunga Arr**	**25.12**	**163**	P	**P**	**07 24 03.4**	**-0.7**
	comp=Z,252nm,1.0s,baz=344,slow=10,SNR=124						
WRA				S	**S**	**07 28 29.8**	**+2.9**
	comp=Z,47nm,1.1s,baz=346,slow=18,SNR=4.7						
WRA	**Warramunga Arr**	**25.12**	**163**	P	**P**	**07 24 02.5**	**-1.6**
KSI	**Kapahiang**	**25.16**	**252**	P	**P**	**07 24 08.9**	**+4.4**
WR5	**Warramunga Arr**	**25.16**	**162**	P	**P**	**07 24 03.2**	**-1.2**
IPM	**Ipoh**	**25.45**	**272**	P	**P**	**07 24 09.9**	**+2.7**
IPM	**Ipoh**	**25.45**	**272**	P	**P**	**07 24 08.4**	**+1.2**
IPM				IAmb	IAmb	07 24 41.8	
	comp=Z,305nm,1.4s						
IPM	**Ipoh**	**25.45**	**272**	P	**P**	**07 24 09.7**	**+2.5**
IPM	**Ipoh**	**25.45**	**272**	P	**P**	**07 24 12.2**	**+5.0**
	comp=Z,3μmcomp=Z,157nm,1.4s,comp=Z,3μm						
SDSI	**Sungai Dareh**	**25.60**	**259**	P	**P**	**07 24 12.0**	**+3.5**
	comp=Z,8μmcomp=Z,3μmcomp=Z,98nm,1.2s						
BKNI	**Bangkinang**	**25.77**	**262**	P	**P**	**07 24 12.6**	**+2.6**
BKNI	**Bangkinang**	**25.77**	**262**	P	**P**	**07 24 12.8**	**+2.8**
BKNI	**Bangkinang**	**25.77**	**262**	P	**P**	**07 24 13.7**	**+3.7**
	comp=Z,9μmcomp=Z,6μmcomp=Z,418nm,1.2s						
BKNI	**Bangkinang**	**25.77**	**262**	P	**P**	**07 24 10.4**	**+0.5**
	comp=Z,6μmcomp=Z,422nm,1.2s						
KULM	**Kulim**	**25.84**	**274**	P	**P**	**07 24 13.6**	**+3.0**
KULM	**Kulim**	**25.84**	**274**	IAmb	IAmb	07 24 35.5	
	comp=Z,179nm,1.1s						
KULM				IAMs_20	IAMs_20	07 35 17.1	
	comp=Z,11μm,20.0s						
KULM	**Kulim**	**25.84**	**274**	P	**P**	**07 24 11.4**	**+0.8**
	comp=Z,2μmcomp=Z,157nm,1.2s						
MBWA	**Marble Bar**	**26.01**	**195**	P	**P**	**07 24 11.6**	**-0.5**
	comp=Z,320nm,1.4s,comp=Z,0.0nm						
MBWA	**Marble Bar**	**26.01**	**195**	P	**P**	**07 24 11.7**	**-0.4**
MBWA	**Marble Bar**	**26.01**	**195**	P	**P**	**07 24 11.4**	**-0.7**
MBWA	**Marble Bar**	**26.01**	**195**	P	**P**	**07 24 11.5**	**-0.5**
MBWA				IAmb	IAmb	07 24 28.0	
	comp=Z,241nm,0.9s						

MBWA	**Marble Bar**	**26.01**	**195**	P	**P**	**07 24 12.0**	**-0.1**
	comp=Z,5µmcomp=Z,320nm,1.4s,comp=Z,5µm						
GULI	**GuiLin**	**26.16**	**325**	P	**P**	**07 24 11.8**	**-1.6**
GULI				S	**S**	**07 28 37.1**	**-6.1**
GULI				pmax	pmax		
	comp=Z,27nm,1.6s						
GULI				pmax	pmax		
	comp=Z,1µm,10.4s						
GULI				L	L		
	comp=Z,8µm,21.1s						
GULI				L	L		
	comp=Z,10µm,18.8s						
GULI				L	L		
	comp=Z,18µm,19.8s						
PPI	**Padang Panjang**	**26.53**	**261**	P	**P**	**07 24 20.7**	**+3.8**
	comp=Z,8µmcomp=Z,4µmcomp=Z,240nm,1.7s						
PDSI	**Padang**	**26.55**	**260**	P	P	07 24 26.9	+10
KRVT	**Keravat (AS076**	**26.80**	**108**	LR	LR	07 33 08.0	
	comp=Z,13µm,18.4s,baz=285,slow=32						
CNSH	**ChangSha**	**27.20**	**333**	P	**P**	**07 24 22.4**	**-0.4**
CNSH				S	**S**	**07 29 02.7**	**+3.1**
CNSH				pmax	pmax		
	comp=Z,19nm,1.5s						
CNSH				L	L		
	comp=Z,10µm,22.7s						
CNSH				L	L		
	comp=Z,8µm,21.3s						
CNSH				L	L		
	comp=Z,15µm,17.9s						
SSE	**Sheshan**	**27.29**	**350**	P	**P**	**07 24 24.9**	**+1.4**
SSE				S	**S**	**07 29 02.5**	**+1.6**
SSE				pmax	pmax		
	comp=Z,24nm,1.1s						
SSE				pmax	pmax		
	comp=Z,710nm,7.7s						
SSE				L	L		
	comp=Z,5µm,19.9s						
JSU	**Suzuyama**	**27.47**	**7**	P	**P**	**07 24 28.5**	**+3.3**
JSU	**Suzuyama**	**27.47**	**7**	P	**P**	**07 24 24.3**	**-0.9**
	comp=Z,48nm,1.1s						
PSI	**Prapat**	**27.61**	**268**	P	**P**	**07 24 29.0**	**+2.3**
PSI	**Prapat**	**27.61**	**268**	P	**P**	**07 24 29.1**	**+2.3**
PSI	**Prapat**	**27.61**	**268**	P	**P**	**07 24 29.3**	**+2.6**
RPSI	**Rantau Prapat**	**27.61**	**268**	P	**P**	**07 24 29.1**	**+2.4**
	comp=Z,2µmcomp=Z,64nm,1.2s						
QIS	**Mount Isa**	**27.68**	**153**	P	**P**	**07 24 27.0**	**-0.2**
	comp=Z,168nm,1.2s,comp=Z,0.0nm						
QIS	**Mount Isa**	**27.68**	**153**	P	**P**	**07 24 26.7**	**-0.5**
QIS	**Mount Isa**	**27.68**	**153**	P	**P**	**07 24 27.1**	**-0.1**
	comp=Z,3µmcomp=Z,168nm,1.2s,comp=Z,3µm						
SLVN	**Son La**	**27.86**	**310**	P	**P**	**07 24 30.6**	**+1.8**
SLVN	**Son La**	**27.86**	**310**	P	**P**	**07 24 29.3**	**+0.5**
SLVN	**Son La**	**27.86**	**310**	P	**P**	**07 24 29.9**	**+1.1**
	comp=Z,1µmcomp=Z,26nm,1.5s						
MTSU	**Mount Surprise**	**28.23**	**142**	P	P	07 24 36.8	+4.7
MTSU	**Mount Surprise**	**28.23**	**142**	P	**P**	**07 24 34.1**	**+2.0**
MTSU	**Mount Surprise**	**28.23**	**142**	P	**P**	**07 24 34.6**	**+2.5**
	comp=Z,316nmcomp=Z,27nm,1.0s,comp=Z,316nm						
AS15	**Alice Springs**	**28.52**	**166**	P	**P**	**07 24 33.7**	**-1.0**
	comp=Z,184nm,0.9s						
AS16	**Alice Springs**	**28.53**	**166**	P	**P**	**07 24 34.3**	**-0.4**
	comp=Z,135nm,0.8s						
AS05	**Alice Springs**	**28.54**	**166**	P	**P**	**07 24 35.7**	**+0.8**
	comp=Z,179nm,0.9s						
AS31	**Alice Springs**	**28.55**	**166**	P	**P**	**07 24 35.0**	**+0.1**
	comp=Z,39nm,0.7s,comp=Z,0.0nm						
ASAR	**Alice Springs**	**28.55**	**166**	P	**P**	**07 24 34.5**	**-0.4**
	comp=Z,24nm,0.8s,baz=334,slow=5.2,SNR=68						
ASAR				S	**S**	**07 29 26.3**	**+5.3**
	comp=Z,20nm,1.0s,baz=350,slow=18,SNR=4.8						
	comp=Z,24nm,0.8s						
ASAR	**Alice Springs**	**28.55**	**166**	P	**P**	**07 24 33.6**	**-1.3**
AS01	**Alice Springs**	**28.56**	**166**	P	**P**	**07 24 35.6**	**+0.6**
	comp=Z,99nm,0.8s						
AS01	**Alice Springs**	**28.56**	**166**	P	**P**	**07 24 35.4**	**+0.4**
AUALC	**St Philip's Co**	**28.57**	**166**	P	**P**	**07 24 34.8**	**-0.2**
AS17	**Alice Springs**	**28.57**	**166**	P	**P**	**07 24 35.5**	**+0.5**
	comp=Z,133nm,1.0s						
AS09	**Alice Springs**	**28.59**	**166**	P	**P**	**07 24 36.6**	**+1.4**
	comp=Z,103nm,0.8s						
WHN	**Wuhan**	**28.68**	**338**	P	**P**	**07 24 36.1**	**+0.2**
WHN				S	**S**	**07 29 23.5**	**+0.7**
WHN				pmax	pmax		
	comp=Z,150nm,0.8s						
WHN				pmax	pmax		
	comp=Z,2µm,6.6s						
WHN				L	L		
	comp=Z,31µm,18.8s						
WHN				L	L		
	comp=Z,26µm,17.1s						
WHN				L	L		
	comp=Z,52µm,18.7s						
NJ2	**Nanjing**	**28.70**	**346**	*e*P	P	07 24 42.3	+6.3
NJ2				S	S	07 29 32.8	+10
NJ2				PcS	**PcS**	**07 31 35.4**	**+6.6**
NJ2				pmax	pmax		
	comp=Z,44nm,0.9s						
NJ2				pmax	pmax		
	comp=Z,870nm,5.2s						
NJ2				LR	LR		
	comp=N,8µm,19.9s						
NJ2				LR	LR		
	comp=E,6µm,19.9s						
NJ2				LR	LR		
	comp=Z,9µm,22.7s						
WRKA	**Warakurna**	**29.05**	**177**	P	**P**	**07 24 39.0**	**-0.3**
	comp=Z,100nm,1.2s						
GSI	**Gunungsitoli**	**29.07**	**265**	P	**P**	**07 24 41.4**	**+1.7**
GSI	**Gunungsitoli**	**29.07**	**265**	P	**P**	**07 24 39.6**	**-0.1**
GSI				IAmb	IAmb	07 24 48.6	
	comp=Z,206nm,1.1s						
GSI	**Gunungsitoli**	**29.07**	**265**	P	**P**	**07 24 41.8**	**+2.1**
	comp=Z,186nm,1.0s						
GSI	**Gunungsitoli**	**29.07**	**265**	P	**P**	**07 24 42.0**	**+2.3**
	comp=Z,186nm,1.0s						
JNU	**Nakatsue**	**29.12**	**7**	LR	LR	07 36 44.4	
	comp=Z,5µm,21.0s,baz=161,slow=37						
GIRL	**Giralia**	**29.21**	**204**	P	**P**	**07 24 43.2**	**+2.5**
	comp=Z,155nm,1.4s						
GIRL	**Giralia**	**29.21**	**204**	P	**P**	**07 24 42.8**	**+2.1**
GIRL				IAmb	IAmb	07 24 55.8	
	comp=Z,258nm,1.3s						
GYA	**Guiyang**	**29.24**	**321**	⇓P	**P**	**07 24 43.0**	**+1.8**
GYA				pmax	pmax		
	comp=Z,27nm,0.7s						
JMN	**Monobe**	**30.23**	**12**	P	**P**	**07 24 49.6**	**0.0**
JMN	**Monobe**	**30.23**	**12**	P	**P**	**07 24 49.6**	**0.0**
	comp=Z,1µmcomp=Z,95nm,1.5s,comp=Z,1µm						
CM31	**Chiang Mai Arr**	**30.51**	**300**	P	**P**	**07 24 53.3**	**+0.9**
	SNR=30						
CM31	**Chiang Mai Arr**	**30.51**	**300**	IAmb	IAmb	07 25 18.6	
	comp=Z,85nm,1.0s						
CMAR	**Chiang Mai Arr**	**30.51**	**300**	P	**P**	**07 24 51.1**	**-1.3**
	comp=Z,24nm,0.9s,baz=118,slow=7.1,SNR=64						
CMAR				ScP	**ScP**	**07 31 35.0**	**+3.6**
	comp=Z,1.4nm,0.3s,baz=146,slow=1.9,SNR=5.1						
CMAR				LR	LR	07 38 44.5	
	comp=Z,9µm,18.2s,baz=115,slow=40						
	comp=Z,24nm,0.9s						
CMAR	**Chiang Mai Arr**	**30.51**	**300**	*i* P	**P**	**07 24 53.0**	**+0.6**
CMAR				pmax	pmax		
	comp=Z,28nm,0.9s						
CMAR	**Chiang Mai Arr**	**30.51**	**300**	P	**P**	**07 24 52.4**	**+0.1**
ENH	**Enshi**	**30.59**	**330**	P	**P**	**07 24 52.0**	**-0.9**
ENH	**Enshi**	**30.59**	**330**	IAMs_20	IAMs_20	07 37 50.9	
	comp=Z,13µm,21.0s						
CHTO	**Chiang Mai**	**30.66**	**301**	P	**P**	**07 24 53.9**	**+0.3**
CHTO	**Chiang Mai**	**30.66**	**301**	P	**P**	**07 24 54.2**	**+0.6**
CHTO	**Chiang Mai**	**30.66**	**301**	P	**P**	**07 24 54.0**	**+0.3**
CHTO				pmax	pmax		
	comp=Z,116nm,1.1s						
CHTO				MLR	MLR		
	comp=Z,9µm,18.0s						
CHTO	**Chiang Mai**	**30.66**	**301**	P	**P**	**07 24 54.0**	**+0.3**
CHTO				IAmb	IAmb	07 25 12.1	
	comp=Z,116nm,1.1s						
CHTO				IAMs_20	IAMs_20	07 38 38.5	
	comp=Z,9µm,18.0s						
CHTO	**Chiang Mai**	**30.66**	**301**	P	**P**	**07 24 54.0**	**+0.3**
CHTO	**Chiang Mai**	**30.66**	**301**	P	**P**	**07 24 54.3**	**+0.6**
	comp=Z,1µmcomp=Z,92nm,0.9s,comp=Z,1µm						
CTA	**Charters Tower**	**30.89**	**142**	LR	LR	07 38 55.5	
	comp=Z,7µm,18.8s,baz=301,slow=39						
CTAO	**Charters Tower**	**30.89**	**142**	P	**P**	**07 24 57.7**	**+2.0**
CTAO	**Charters Tower**	**30.89**	**142**	P	**P**	**07 24 54.5**	**-1.2**
CTAO				pmax	pmax		
	comp=Z,138nm,1.6s						
CTAO				MLR	MLR		
	comp=Z,7µm,18.0s						
CTAO	**Charters Tower**	**30.89**	**142**	P	**P**	**07 24 54.5**	**-1.2**
CTAO				IAmb	IAmb	07 25 13.4	
	comp=Z,138nm,1.6s						
CTAO	**Charters Tower**	**30.89**	**142**	IAMs_20	IAMs_20	07 38 35.4	
	comp=Z,7µm,18.0s						
CTAO	**Charters Tower**	**30.89**	**142**	P	**P**	**07 24 58.4**	**+2.7**
	comp=Z,49nm,1.3s						
KMI2	**Kunming**	**30.98**	**315**	P	**P**	**07 24 58.6**	**+1.9**
KMI2				PP	**PnPn**	**07 26 01.6**	**+3.4**
KMI2				S	**S**	**07 29 53.7**	**-5.8**
KMI2				pmax	pmax		
	comp=Z,37nm,1.3s						
KMI2				L	L		
	comp=Z,6µm,17.6s						
KMI2				L	L		
	comp=Z,6µm,17.6s						
KMI2				L	L		
	comp=Z,11µm,16.8s						
MEEK	**Meekatharra**	**31.54**	**194**	P	**P**	**07 25 00.9**	**-0.5**
	comp=Z,202nm,1.2s						
MEEK	**Meekatharra**	**31.54**	**194**	P	**P**	**07 25 01.2**	**-0.1**
MEEK	**Meekatharra**	**31.54**	**194**	P	**P**	**07 25 01.0**	**-0.3**
	comp=Z,202nm,1.2s						
TJN	**Taejon**	**32.09**	**1**	P	**P**	**07 25 06.2**	**+0.2**
TJN	**Taejon**	**32.09**	**1**	P	**P**	**07 25 05.9**	**-0.2**
TJN	**Taejon**	**32.09**	**1**	P	**P**	**07 25 05.9**	**-0.2**
	comp=Z,5µmcomp=Z,284nm,1.4s						
PZH	**PanZhiHua**	**32.53**	**316**	P	**P**	**07 25 12.0**	**+1.8**
PZH				S	**S**	**07 30 18.4**	**-5.1**
PZH				pmax	pmax		
	comp=Z,20nm,1.4s						
PZH				pmax	pmax		
	comp=Z,260nm,5.3s						
PZH				L	L		
	comp=Z,7µm,21.1s						
PZH				L	L		
	comp=Z,5µm,21.6s						
PZH				L	L		
	comp=Z,9µm,20.6s						
INU	**Inuyama**	**32.53**	**16**	IAMs_20	IAMs_20	07 39 04.0	
	comp=Z,8µm,18.0s						
INU	**Inuyama**	**32.53**	**16**	P	**P**	**07 25 09.8**	**-0.1**
	comp=Z,3515µmcomp=Z,111nm,1.2s						
JGF	**Kuroka**	**32.87**	**16**	P	**P**	**07 25 12.8**	**-0.1**
JGF	**Kuroka**	**32.87**	**16**	P	**P**	**07 25 11.8**	**-1.0**
	comp=Z,927nmcomp=Z,61nm,0.7s						
LYN	**LuoYang**	**32.97**	**338**	P	**P**	**07 25 12.9**	**-0.8**
LYN				pP	pP	07 25 19.8	-2.6
LYN				PP	**PnPn**	**07 26 24.9**	**+1.4**
LYN				S	**S**	**07 30 27.1**	**-2.8**
LYN				pmax	pmax		
	comp=Z,62nm,1.2s						
LYN				pmax	pmax		
	comp=Z,2µm,9.5s						
LYN				L	L		
	comp=Z,15µm,20.0s						
LYN				L	L		
	comp=Z,11µm,18.2s						
LYN				L	L		
	comp=Z,26µm,19.8s						
TIA	**Tai'an**	**33.08**	**346**	P	**P**	**07 25 14.0**	**-0.7**
TIA				sP	**pwP**	**07 25 31.3**	**+5.0**
TIA				S	**S**	**07 30 30.6**	**-1.0**
TIA				pmax	pmax		
	comp=Z,12nm,0.9s						
TIA				pmax	pmax		
	comp=Z,1µm,5.7s						
TIA				L	L		
	comp=Z,5µm,19.8s						
TIA				L	L		
	comp=Z,5µm,18.8s						
TIA				L	L		
	comp=Z,9µm,21.4s						
KSAR	**Wonju Array Be**	**33.17**	**2**	P	**P**	**07 25 15.1**	**-0.4**
KSAR	**Wonju Array Be**	**33.17**	**2**	P	**P**	**07 25 15.1**	**-0.4**
KSRS	**Korea Array**	**33.18**	**2**	P	**P**	**07 25 15.1**	**-0.5**
	comp=Z,14nm,0.6s,baz=178,slow=9.6,SNR=31						
KSRS				PcP	**PcP**	**07 27 58.4**	**+0.5**
	comp=Z,6.4nm,1.1s,baz=164,slow=1.5,SNR=4.5						
KSRS				LR	LR	07 42 13.2	
	comp=Z,3µm,18.0s,baz=185,slow=43						
	comp=Z,14nm,0.6s						
INCN	**Inchon**	**33.19**	**0**	P	P	07 25 20.5	+4.8
INCN	**Inchon**	**33.19**	**0**	IAMs_20	IAMs_20	07 41 06.7	
	comp=Z,8µm,20.0s						
NPW	**Naypyitaw**	**33.47**	**300**	P	**P**	**07 25 19.3**	**+1.0**
	comp=Z,118nm,1.0s						
COCO	**West Island**	**33.70**	**241**	IAMs_20	IAMs_20	07 38 37.7	
	comp=Z,7µm,20.0s						
HJU	**Haeju**	**33.76**	**359**	P	**P**	**07 25 20.2**	**-0.3**
HJU				AmB			
	comp=Z,528nm,2.3s						
XAN	**Xi'an**	**33.98**	**333**	⇑P	**P**	**07 25 21.1**	**-1.5**
XAN				pP	pP	07 25 30.9	-0.4
XAN				sP	sP	07 25 35.3	+0.2
XAN				PP	**PP**	**07 26 42.1**	**+2.2**
XAN				S	**S**	**07 30 42.3**	**-3.4**
XAN				pmax	pmax		
	comp=Z,75nm,0.8s						
XAN				pmax	pmax		
	comp=Z,1µm,9.6s						
XAN				L	L		
	comp=Z,12µm,19.2s						
XAN				L	L		
	comp=Z,14µm,18.5s						
XAN				L	L		
	comp=Z,22µm,19.9s						
MAJO	**Matsushiro**	**33.99**	**17**	P	**P**	**07 25 21.4**	**-1.2**
MAJO	**Matsushiro**	**33.99**	**17**	*c i*P	**P**	**07 25 20.5**	**-2.1**
MAJO				pmax	pmax		
	comp=Z,45nm,1.1s						
MAJO	**Matsushiro**	**33.99**	**17**	P	**P**	**07 25 21.4**	**-1.2**
MAJO	**Matsushiro**	**33.99**	**17**	IAMs_20	IAMs_20	07 38 59.3	
	comp=Z,10µm,20.0s						
MAJO	**Matsushiro**	**33.99**	**17**	P	**P**	**07 25 21.4**	**-1.2**
	comp=Z,1000nmcomp=Z,42nm,0.8s						
MJAR	**Matsushiro Arr**	**33.99**	**17**	P	**P**	**07 25 21.0**	**-1.6**
	comp=Z,7.2nm,0.5s,baz=184,slow=8.7,SNR=14						
MJAR				LR	LR	07 39 19.5	
	comp=Z,7µm,20.1s,baz=212,slow=36						
	comp=Z,7.2nm,0.5s						
MJAR	**Matsushiro Arr**	**33.99**	**17**	P	**P**	**07 25 20.7**	**-1.9**
TNCH	**TengChong**	**34.02**	**310**	P	**P**	**07 25 23.3**	**0.0**
TNCH				pP	pP	07 25 28.6	-3.6
TNCH				S	**S**	**07 30 47.8**	**+1.0**
TNCH				SS	**SnSn**	**07 33 01.1**	**+5.9**
TNCH				pmax	pmax		
	comp=Z,39nm,0.4s						
TNCH				pmax	pmax		
	comp=Z,640nm,5.9s						
TNCH				L	L		
	comp=Z,3µm,17.5s						
TNCH				L	L		
	comp=Z,5µm,16.9s						
TNCH				L	L		
	comp=Z,9µm,17.5s						
CD2	**Chengdu**	**34.21**	**324**	P	**P**	**07 25 23.6**	**-1.1**
CD2				PP	**PP**	**07 26 42.5**	**-0.1**
CD2				S	**S**	**07 30 46.9**	**-2.5**
CD2				pmax	pmax		
	comp=Z,70nm,0.7s						
CD2				pmax	pmax		
	comp=Z,500nm,5.1s						
CD2				L	L		
	comp=Z,18µm,17.8s						
CD2				L	L		
	comp=Z,15µm,18.0s						
CD2				L	L		
	comp=Z,17µm,18.6s						
PBA	**Port Blair**	**34.28**	**285**	*e*P	**P**	**07 25 23.7**	**-1.8**
MORW	**Morawa**	**34.52**	**196**	P	**P**	**07 25 27.2**	**-0.2**
	comp=Z,84nm,2.1s,comp=Z,0.0nm						
MORW	**Morawa**	**34.52**	**196**	P	**P**	**07 25 26.9**	**-0.4**
MORW	**Morawa**	**34.52**	**196**	IAmb	IAmb	07 25 43.2	
	comp=Z,165nm,1.4s						
MORW	**Morawa**	**34.52**	**196**	P	**P**	**07 25 26.9**	**-0.4**
	comp=Z,84nm,2.1s						
INKA	**Innaminka**	**34.52**	**157**	P	**P**	**07 25 26.8**	**-0.5**
FORT	**Forrest**	**34.75**	**178**	P	**P**	**07 25 29.4**	**+0.2**
	comp=Z,114nm,0.9s						
FORT	**Forrest**	**34.75**	**178**	IAmb	IAmb	07 25 35.2	
	comp=Z,83nm,0.8s						
PYAG	**Pyongyang**	**34.76**	**359**	P	**P**	**07 25 29.0**	**-0.3**
PYAG				S	**S**	**07 30 58.8**	**+1.3**
PYAG				AmB			
	comp=Z,278nm,1.7s						
PYAG				AMS	AMS		
	comp=Z,4µm,22.5s						
HNS	**HongShan**	**34.84**	**343**	⇑P	**P**	**07 25 29.4**	**-0.5**
HNS				sP	**pwP**	**07 25 46.4**	**+4.8**
HNS				PP	**PP**	**07 26 52.7**	**+3.3**
HNS				S	**S**	**07 31 03.0**	**+4.3**
HNS				PcS	**PcS**	**07 31 47.3**	**-2.0**
HNS				SS	**SnSn**	**07 33 22.3**	**+7.8**
HNS				pmax	pmax		
	comp=Z,62nm,1.3s						
HNS				L	L		
	comp=Z,8µm,21.4s						
HNS				L	L		
	comp=Z,6µm,20.7s						
HNS				L	L		
	comp=Z,13µm,21.4s						
DL2	**Dalian**	**34.90**	**353**	P	**P**	**07 25 31.1**	**+0.7**
DL2				S	**S**	**07 31 00.5**	**+0.9**
DL2				pmax	pmax		
	comp=Z,190nm,0.9s						
DL2				pmax	pmax		
	comp=Z,2µm,4.1s						
DL2				L	L		
	comp=Z,5µm,19.3s						
DL2				L	L		
	comp=Z,5µm,19.6s						
DL2				L	L		
	comp=Z,8µm,19.7s						
QLP	**Quilpie**	**35.01**	**152**	P	**P**	**07 25 32.4**	**+0.9**
	comp=Z,226nm,2.1s						
QLP	**Quilpie**	**35.01**	**152**	P	**P**	**07 25 31.0**	**-0.5**
QLP	**Quilpie**	**35.01**	**152**	P	**P**	**07 25 30.8**	**-0.8**
	comp=Z,5µmcomp=Z,226nm,2.1s,comp=Z,5µm						
KMBL	**Kambalda**	**35.58**	**187**	P	**P**	**07 25 36.0**	**-0.4**
HHU	**Hamhung**	**35.64**	**1**	P	**P**	**07 25 34.7**	**-2.1**
HHU				S	**S**	**07 31 10.3**	**-0.7**
HHU				AmB			
	comp=Z,534nm,1.9s						
BLDU	**Ballidu**	**35.81**	**195**	P	**P**	**07 25 38.3**	**-0.1**
	comp=Z,66nm,0.9s						
BLDU	**Ballidu**	**35.81**	**195**	P	**P**	**07 25 38.3**	**-0.1**
BLDU	**Ballidu**	**35.81**	**195**	P	**P**	**07 25 39.9**	**+1.5**
	comp=Z,66nm,0.9s						
TIY	**Taiyuan**	**35.83**	**341**	*e*P	**P**	**07 25 40.9**	**+2.3**
TIY				pP	**pP**	**07 25 44.3**	**-3.3**
TIY				PP	**PP**	**07 27 03.5**	**+3.1**
TIY				S	**S**	**07 31 16.2**	**+2.1**
TIY				sS	ScP	07 31 39.6	-10
TIY				pmax	pmax		
	comp=Z,780nm,8.8s						
TIY				L	L		
	comp=Z,6µm,20.6s						
TIY				L	L		
	comp=Z,3µm,21.3s						
TIY				L	L		
	comp=Z,6µm,22.0s						
HNR	**Honiara**	**35.91**	**112**	LR	LR	07 39 58.3	
	comp=Z,4µm,18.8s,baz=15,slow=36						
AUNRC	**North Rockhamp**	**35.97**	**141**	P	**P**	**07 25 40.5**	**+0.7**
KLBR	**Kellerberrin**	**36.50**	**193**	P	**P**	**07 25 44.1**	**-0.2**
	comp=Z,132nm,0.8s						
KLBR	**Kellerberrin**	**36.50**	**193**	P	**P**	**07 25 43.9**	**-0.4**
KLBR	**Kellerberrin**	**36.50**	**193**	P	**P**	**07 25 44.2**	**-0.2**
	comp=Z,2µmcomp=Z,132nm,0.8s,comp=Z,2µm						
GD1S	**Gladstone Soft**	**36.73**	**140**	P	**P**	**07 25 48.1**	**+1.8**
BJI2	**Beijing**	**36.93**	**347**	P	**P**	**07 25 47.5**	**-0.4**
BJI2				PP	**PnPn**	**07 27 13.5**	**+0.7**
BJI2				S	**S**	**07 31 33.1**	**+2.3**
BJI2				pmax	pmax		
	comp=Z,19nm,1.0s						
BJI2				pmax	pmax		
	comp=Z,310nm,3.8s						
BJI2				L	L		
	comp=Z,2µm,18.4s						
BJI2				L	L		
	comp=Z,3µm,19.6s						
BJI2				L	L		
	comp=Z,4µm,20.2s						
BJT	**Baijiatuau**	**36.93**	**347**	P	**P**	**07 25 47.7**	**-0.2**
BJT	**Baijiatuau**	**36.93**	**347**	IAMs_20	IAMs_20	07 42 40.7	
	comp=Z,6µm,20.0s						
BJT	**Baijiatuau**	**36.93**	**347**	IAmb	IAmb	07 26 02.7	
	comp=Z,244nm,1.1s						
MUN	**Mundaring**	**37.24**	**195**	P	**P**	**07 25 50.3**	**-0.3**
	comp=Z,71nm,1.2s						
MUN	**Mundaring**	**37.24**	**195**	P	**P**	**07 25 50.6**	**+0.1**
MUN	**Mundaring**	**37.24**	**195**	P	**P**	**07 25 51.6**	**+1.1**
SAIH	**SAIHA**	**37.26**	**302**	*e*P	**P**	**07 25 49.1**	**-1.9**
SAIH				IAmb	IAmb	07 26 04.4	
	comp=Z,516nm,1.6s						
IMP	**Imphal**	**37.50**	**306**	*e*P	**P**	**07 25 51.0**	**-2.0**
IMP				IAmb	IAmb	07 25 54.9	
	comp=Z,29nm,0.8s						
SNY	**Shenyang**	**37.62**	**356**	P	**P**	**07 25 53.6**	**-0.1**
SNY				S	**S**	**07 31 40.9**	**-0.3**
SNY				pmax	pmax		
	comp=Z,51nm,1.5s						
SNY				pmax	pmax		
	comp=Z,1µm,2.9s						
SNY				L	L		
	comp=Z,5µm,20.2s						
SNY				L	L		
	comp=Z,5µm,20.2s						
SNY				L	L		
	comp=Z,7µm,18.3s						
MOKO	**MOKOCHONG**	**37.77**	**309**	*e*P	**P**	**07 25 53.4**	**-2.0**
MOKO				IAmb	IAmb	07 26 13.4	
	comp=Z,49nm,0.9s						
EIDS	**Eidsvold**	**37.78**	**142**	P	**P**	**07 25 54.4**	**-0.9**
	comp=Z,185nm,1.4s,comp=Z,0.0nm						
EIDS	**Eidsvold**	**37.78**	**142**	P	**P**	**07 25 54.0**	**-1.2**
EIDS	**Eidsvold**	**37.78**	**142**	P	**P**	**07 25 53.6**	**-1.7**
EIDS				IAmb	IAmb	07 26 05.5	
	comp=Z,151nm,0.9s						
EIDS	**Eidsvold**	**37.78**	**142**	P	**P**	**07 25 54.9**	**-0.3**
	comp=Z,4µmcomp=Z,185nm,1.4s						
KOHI	**KOHIMA**	**37.79**	**308**	*e*P	**P**	**07 25 53.7**	**-1.8**
KOHI				IAmb	IAmb	07 26 16.2	
	comp=Z,352nm,2.0s						
BBOO	**Buckleboo**	**37.84**	**167**	P	**P**	**07 25 55.0**	**-0.6**
BBOO	**Buckleboo**	**37.84**	**167**	P	**P**	**07 25 54.7**	**-0.9**
BBOO	**Buckleboo**	**37.84**	**167**	P	**P**	**07 25 54.8**	**-0.9**
BBOO				IAmb	IAmb	07 25 57.5	
	comp=Z,247nm,1.1s						
BBOO	**Buckleboo**	**37.84**	**167**	P	**P**	**07 25 55.1**	**-0.6**
NWAO	**Narrogin (SRO)**	**37.90**	**193**	P	**P**	**07 25 57.5**	**+1.3**
	comp=Z,137nm,1.4s						
NWAO	**Narrogin (SRO)**	**37.90**	**193**	P	**P**	**07 25 56.8**	**+0.6**
	comp=Z,127nm,1.4s						
NWAO	**Narrogin (SRO)**	**37.90**	**193**	P	**P**	**07 25 56.6**	**+0.4**
NWAO	**Narrogin (SRO)**	**37.90**	**193**	P	**P**	**07 25 57.4**	**+1.3**
NWAO	**Narrogin (SRO)**	**37.90**	**193**	P	**P**	**07 25 56.3**	**+0.1**
NWAO	**Narrogin (SRO)**	**37.90**	**193**	P	**P**	**07 25 55.5**	**-0.7**
NWAO				pmax	pmax		
	comp=Z,268nm,1.4s						
NWAO	**Narrogin (SRO)**	**37.90**	**193**	P	**P**	**07 25 55.5**	**-0.7**
NWAO				IAmb	IAmb	07 26 00.8	
	comp=Z,268nm,1.4s						
NWAO	**Narrogin (SRO)**	**37.90**	**193**	P	**P**	**07 25 58.1**	**+1.9**
	comp=Z,126nm,1.4s						
AZL	**Aizawl**	**38.03**	**304**	*e*P	**P**	**07 25 55.5**	**-2.1**
AZL				IAmb	IAmb	07 26 07.5	
	comp=Z,85nm,0.3s						
LZDM	**Lanzhou Array**	**38.04**	**329**	P	**P**	**07 25 56.6**	**-1.0**
	comp=Z,14nm,0.6s,baz=171,slow=10,SNR=13						
	comp=Z,14nm,0.6s						
LZH	**Lanzhou**	**38.06**	**330**	P	**P**	**07 25 57.5**	**-0.2**
LZH				sP	sP	07 26 10.0	-0.3
LZH				S	**S**	**07 31 46.0**	**-2.5**
LZH				SS	**SnSn**	**07 34 32.5**	**-0.4**
LZH				pmax	pmax		
	comp=Z,150nm,1.3s						
LZH				pmax	pmax		
	comp=Z,1µm,4.6s						
LZH				L	L		
	comp=Z,10µm,19.8s						
LZH				L	L		
	comp=Z,12µm,20.6s						
LZH				L	L		
	comp=Z,21µm,21.2s						
PSTR	**Posyet**	**38.54**	**5**	⇑*e*P	**P**	**07 26 00.8**	**-0.6**
STKA	**Stephens Creek**	**38.57**	**159**	P	**P**	**07 26 01.4**	**-0.4**
	comp=Z,1µm,1.0s						

STKA	**Stephens Creek**	**38.57**	**159**	P	**P**	**07 26 01.4**	**-0.4**
	comp=Z,311nm,1.0s,baz=332,slow=7.9,SNR=103						
STKA				LR	LR	07 44 02.9	
	comp=Z,3µm,19.3s,baz=312,slow=40						
STKA	**Stephens Creek**	**38.57**	**159**	P	**P**	**07 26 01.7**	**-0.1**
STKA	**Stephens Creek**	**38.57**	**159**	*d* *i*P	**P**	**07 26 00.8**	**-1.0**
STKA	**Stephens Creek**	**38.57**	**159**	P	**P**	**07 26 01.5**	**-0.3**
	comp=Z,19µmcomp=Z,1µm,1.0s						
JTM	**Tenmabayashi**	**38.76**	**18**	P	**P**	**07 26 07.0**	**+3.7**
JTM	**Tenmabayashi**	**38.76**	**18**	IAmb	IAmb	07 26 18.4	
	comp=Z,264nm,1.5s						
JTM	**Tenmabayashi**	**38.76**	**18**	P	**P**	**07 26 04.0**	**+0.7**
	comp=Z,2µmcomp=Z,109nm,1.3s						
HHC	**Hu-ho-hao-te**	**38.96**	**342**	*e*P	**P**	**07 26 05.6**	**+0.5**
HHC				pP	pP	07 26 11.6	-2.6
HHC				S	**S**	**07 32 00.5**	**-1.2**
HHC				pmax	pmax		
	comp=Z,22nm,1.0s						
HHC				pmax	pmax		
	comp=Z,890nm,5.4s						
HHC				L	L		
	comp=Z,5µm,17.6s						
HHC				L	L		
	comp=Z,4µm,17.3s						
HHC				L	L		
	comp=Z,8µm,17.9s						
VLA	**Vladivostok**	**39.11**	**6**	⇑*e*P	**P**	**07 26 07.7**	**+1.6**
VLA				pmax	pmax		
	comp=Z,191nm,1.7s						
HTT	**Hallett**	**39.15**	**164**	P	**P**	**07 26 06.5**	**-0.2**
	comp=Z,46nm,1.2s						
HTT	**Hallett**	**39.15**	**164**	P	**P**	**07 26 07.2**	**+0.5**
HTT	**Hallett**	**39.15**	**164**	P	**P**	**07 26 07.2**	**+0.5**
AUCAS	**Cummins Area S**	**39.16**	**168**	P	**P**	**07 26 08.3**	**+1.6**
AULRC	**Lightning Ridg**	**39.20**	**150**	P	**P**	**07 26 06.2**	**-0.9**
BTO2	**Baotou**	**39.41**	**340**	*e*P	**P**	**07 26 09.6**	**+0.7**
BTO2				pP	**pwP**	**07 26 19.4**	**-1.3**
BTO2				sP	**sP**	**07 26 23.4**	**+1.8**
BTO2				S	**S**	**07 32 10.4**	**+1.8**
BTO2				sS	sS	07 32 25.0	+2.2
BTO2				SS	**SS**	**07 35 01.1**	**-2.5**
BTO2				pmax	pmax		
	comp=Z,31nm,0.9s						
BTO2				pmax	pmax		
	comp=Z,2µm,7.6s						
BTO2				L	L		
	comp=Z,18µm,20.9s						
BTO2				L	L		
	comp=Z,13µm,20.9s						
BTO2				L	L		
	comp=Z,18µm,21.6s						
SHL	**Shillong**	**39.49**	**306**	P	**P**	**07 26 09.6**	**-0.3**
	SNR=38						
SHL	**Shillong**	**39.49**	**306**	*e*P	**P**	**07 26 07.1**	**-2.8**
SHL				IAmb	IAmb	07 26 12.6	
	comp=Z,120nm,0.8s						
CN2	**Changchun**	**39.51**	**359**	P	**P**	**07 26 10.2**	**+0.7**
CN2				S	**S**	**07 32 10.1**	**+0.4**
CN2				pmax	pmax		
	comp=Z,10.0nm,1.4s						
CN2				L	L		
	comp=Z,3µm,18.0s						
RKGY	**Rocky Gully**	**39.58**	**192**	P	**P**	**07 26 11.0**	**+0.8**
	comp=Z,66nm,1.4s						
CMSA	**Cobar Meteorol**	**39.89**	**154**	P	**P**	**07 26 12.7**	**-0.1**
	comp=Z,134nm,1.2s						
CMSA	**Cobar Meteorol**	**39.89**	**154**	P	**P**	**07 26 12.4**	**-0.4**
CMSA	**Cobar Meteorol**	**39.89**	**154**	P	**P**	**07 26 12.7**	**-0.1**
	comp=Z,4µmcomp=Z,134nm,1.2s,comp=Z,4µm						
TW1H	**Toowoomba 1 Ha**	**39.92**	**144**	P	**P**	**07 26 12.9**	**-0.3**
AUTOO	**Toowoomba Stat**	**39.92**	**144**	P	**P**	**07 26 13.4**	**+0.1**
AUBSH	**Beerwah State**	**40.01**	**142**	P	**P**	**07 26 14.1**	**+0.2**
USRK	**Ussuriysk Ar.**	**40.19**	**6**	P	**P**	**07 26 14.6**	**-0.5**
	comp=Z,3.9nm,0.6s,baz=188,slow=7.9,SNR=14						
USRK				LR	LR	07 44 42.6	
	comp=Z,3µm,18.9s,baz=184,slow=39						
	comp=Z,3.9nm,0.6s						
USRK	**Ussuriysk Ar.**	**40.19**	**6**	P	**P**	**07 26 14.3**	**-0.8**
MDJ	**Mudanjiang**	**40.41**	**3**	P	**P**	**07 26 19.4**	**+2.5**
MDJ				S	**S**	**07 32 27.9**	**+4.8**
MDJ				pmax	pmax		
	comp=Z,36nm,1.3s						
MDJ				L	L		
	comp=Z,4µm,24.3s						
MDJ				L	L		
	comp=Z,2µm,24.3s						
MDJ				L	L		
	comp=Z,8µm,23.6s						
MDJ	**Mudanjiang**	**40.41**	**3**	P	**P**	**07 26 17.2**	**+0.3**
MDJ	**Mudanjiang**	**40.41**	**3**	IAmb	IAmb	07 26 37.1	
	comp=Z,148nm,1.3s						
TAWA	**Tawang**	**40.45**	**309**	*e*P	**P**	**07 26 15.7**	**-2.3**
TAWA				IAmb	IAmb	07 26 32.5	
	comp=Z,107nm,0.8s						
GHSS	**Government Hou**	**40.47**	**165**	P	**P**	**07 26 19.8**	**+2.2**
ERM	**Erimo**	**40.53**	**19**	P	**P**	**07 26 21.5**	**+3.5**
ERM	**Erimo**	**40.53**	**19**	⇑*e*P	**P**	**07 26 17.4**	**-0.6**
ERM	**Erimo**	**40.53**	**19**	P	**P**	**07 26 18.3**	**+0.3**
ERM	**Erimo**	**40.53**	**19**	IAMs_20	IAMs_20	07 44 15.3	
	comp=Z,7µm,19.0s						
ERM	**Erimo**	**40.53**	**19**	P	**P**	**07 26 21.4**	**+3.5**
	comp=Z,2µmcomp=Z,62nm,0.9s						
JEM	**Erimo**	**40.53**	**19**	P	**P**	**07 26 21.3**	**+3.3**
XLT	**XiLinHaoTe**	**40.67**	**348**	*e*P	**P**	**07 26 19.4**	**+0.2**
XLT				pP	pP	07 26 27.3	-1.0
XLT				sP	pwP	07 26 31.5	+0.4
XLT				S	**S**	**07 32 21.3**	**-5.9**
XLT				sS	sS	07 32 43.7	+2.3
XLT				pmax	pmax		
	comp=Z,30nm,0.8s						
XLT				L	L		
	comp=Z,5µm,17.1s						
XLT				L	L		
	comp=Z,7µm,20.8s						
AUMBR	**Murray Bridge**	**40.86**	**164**	P	**P**	**07 26 22.0**	**+1.3**
DHUB	**DHUBRI**	**41.22**	**306**	*e*P	**P**	**07 26 21.9**	**-2.0**
DHUB				IAmb	IAmb	07 26 26.8	
	comp=Z,62nm,1.2s						
GC1S	**Gold Coast 1 S**	**41.30**	**143**	P	**P**	**07 26 25.4**	**+0.9**
BNX	**BinXian**	**41.45**	**1**	⇓P	**P**	**07 26 25.6**	**+0.1**
BNX				sP	**sP**	**07 26 38.7**	**+0.3**
BNX				PP	**PnPn**	**07 28 05.2**	**-1.3**
BNX				S	**S**	**07 32 42.1**	**+3.6**
BNX				sS	**sS**	**07 32 57.6**	**+4.8**
BNX				pmax	pmax		
	comp=Z,14nm,1.4s						
BNX				pmax	pmax		
	comp=Z,980nm,9.8s						
BNX				L	L		
	comp=Z,4µm,21.7s						
BNX				L	L		
	comp=Z,3µm,21.1s						
BNX				L	L		
	comp=Z,7µm,21.7s						
TEY	**Ternei**	**41.68**	**11**	⇑*e*P	**P**	**07 26 30.7**	**+3.3**
TEY				pmax	pmax		
	comp=Z,200nm,3.1s						
TEY				pmax	pmax		
	comp=E,200nm,3.0s						
AUDCS	**Dubbo College**	**41.81**	**151**	P	**P**	**07 26 28.5**	**-0.2**
ARMA	**Armidale**	**41.90**	**147**	P	**P**	**07 26 26.2**	**-3.3**
	comp=Z,205nm,2.2s						
ARMA	**Armidale**	**41.90**	**147**	P	**P**	**07 26 29.6**	**0.0**
ARMA	**Armidale**	**41.90**	**147**	P	**P**	**07 26 29.1**	**-0.4**
ARMA				IAmb	IAmb	07 26 41.0	
	comp=Z,183nm,1.0s						
ARMA	**Armidale**	**41.90**	**147**	P	**P**	**07 26 29.9**	**+0.4**
	comp=Z,5µmcomp=Z,204nm,2.2s						
AUPHS	**Peel High Scho**	**42.04**	**148**	P	**P**	**07 26 31.7**	**+1.1**
LSA	**Lhasa**	**42.04**	**311**	P	**P**	**07 26 32.5**	**+1.3**
LSA	**Lhasa**	**42.04**	**311**	*i* P	**P**	**07 26 33.7**	**+2.5**
	SNR=16						
ASAJ	**Asahikawa**	**42.26**	**17**	LR	LR	07 45 58.9	
	comp=Z,3µm,19.6s,baz=213,slow=39						
ASAJ	**Asahikawa**	**42.26**	**17**	P	**P**	**07 26 32.6**	**+0.4**
ASAJ				pmax	pmax		
	comp=Z,169nm,1.3s						
JKA	**Kamikawa-asahi**	**42.26**	**17**	P	**P**	**07 26 32.6**	**+0.5**
JKA				IAmb	IAmb	07 26 48.1	
	comp=Z,169nm,1.3s						
JKA	**Kamikawa-asahi**	**42.26**	**17**	P	**P**	**07 26 32.1**	**-0.1**
	comp=Z,2µmcomp=Z,94nm,0.8s						
GTA2	**Gaotai**	**42.74**	**329**	*e*P	**P**	**07 26 35.6**	**-0.8**
GTA2				S	S	07 32 49.7	-8.5
GTA2				ScS	**ScS**	**07 36 35.4**	**+0.1**
GTA2				pmax	pmax		
	comp=Z,19nm,0.8s						
GTA2				pmax	pmax		
	comp=Z,840nm,11.7s						
GTA2				L	L		
	comp=Z,10µm,21.3s						
GTA2				L	L		
	comp=Z,8µm,22.0s						
GTA2				L	L		
	comp=Z,18µm,22.7s						
SHBG	**Sahibganj**	**42.84**	**303**	*e*P	**P**	**07 26 35.1**	**-2.1**
SHBG				IAmb	IAmb	07 26 46.7	
	comp=Z,96nm,1.1s						
ARPS	**Mount Arapiles**	**43.12**	**162**	P	**P**	**07 26 39.3**	**+0.1**
	comp=Z,107nm,1.0s						
YUK	**Yuzh-Kuril'sk**	**43.24**	**20**	*e*P	**P**	**07 26 35.9**	**-4.2**
YUK				*i* S	**S**	**07 33 05.2**	**+0.3**
YUK				pmax	pmax		
	comp=Z,391nm,1.1s						
YUK				pmax	pmax		
	comp=N,114nm,0.2s						
YUK				pmax	pmax		
	comp=E,206nm,0.9s						
YUK				MLR	MLR		
	comp=N,2µm,20.0s						
YUK				MLR	MLR		
	comp=Z,4µm,20.0s						
YUK				MLR	MLR		
	comp=E,1µm,19.0s						
GOMU	**GeErMu**	**43.26**	**322**	P	**P**	**07 26 40.6**	**-0.3**
GOMU				S	**S**	**07 33 05.4**	**-0.9**
GOMU				SS	**SS**	**07 36 14.6**	**-5.7**
GOMU				pmax	pmax		
	comp=E,9.0nm,0.5s						
GOMU				L	L		
	comp=E,7µm,17.8s						
GOMU				L	L		
	comp=E,7µm,17.3s						
GOMU				L	L		
	comp=E,14µm,17.3s						
AUMAG	**Moama Anglican**	**43.50**	**158**	P	**P**	**07 26 44.3**	**+2.0**
BOK	**Bokaro**	**43.80**	**300**	*e*P	**P**	**07 26 43.0**	**-2.0**
BOK				IAmb	IAmb	07 26 47.3	
	comp=Z,31nm,0.9s						
SYDH	**Sydney Hard Ro**	**44.08**	**151**	P	**P**	**07 26 48.5**	**+1.5**
VIS	**Vishakhapatnam**	**44.40**	**291**	*e*P	**P**	**07 26 47.8**	**-2.1**
VIS				*e*x	x	07 26 47.8	
VIS				IAmb	IAmb	07 27 18.1	
	comp=Z,24nm,0.4s						
AUHPC	**Hawkesdale P12**	**44.51**	**162**	P	**P**	**07 26 52.5**	**+2.2**
BRAT	**Ballarat**	**44.51**	**160**	P	**P**	**07 26 51.9**	**+1.5**
AUMTS	**Mt Stromlo**	**44.55**	**154**	P	**P**	**07 26 52.0**	**+1.1**
CAN	**Canberra**	**44.55**	**154**	P	**P**	**07 26 49.9**	**-0.9**
	comp=Z,223nm,1.4s,comp=Z,0.0nm						
CAN	**Canberra**	**44.55**	**154**	P	**P**	**07 26 52.0**	**+1.1**
CAN	**Canberra**	**44.55**	**154**	P	**P**	**07 26 51.2**	**+0.3**
CAN				pmax	pmax		
	comp=Z,247nm,1.1s						
CAN	**Canberra**	**44.55**	**154**	P	**P**	**07 26 51.2**	**+0.3**
CAN	**Canberra**	**44.55**	**154**	P	**P**	**07 26 51.7**	**+0.8**
CAN				S	**S**	**07 33 26.9**	**+2.4**
CAN	**Canberra**	**44.55**	**154**	P	**P**	**07 26 52.2**	**+1.4**
	comp=Z,4µmcomp=Z,223nm,1.4s						
AUMHS	**Melrose High S**	**44.63**	**154**	P	**P**	**07 26 53.2**	**+1.8**
RAGD	**RAYAGADA**	**44.63**	**293**	*e*P	**P**	**07 26 50.0**	**-1.7**
RAGD				IAmb	IAmb	07 27 01.9	
	comp=Z,31nm,1.0s						
WOLH	**Wollongong Har**	**44.67**	**151**	P	**P**	**07 26 54.0**	**+2.3**
SANVU	**Saraoutou**	**44.70**	**117**	P	**P**	**07 26 54.4**	**+2.1**
SANVU	**Saraoutou**	**44.70**	**117**	P	**P**	**07 26 51.6**	**-0.6**
SANVU				IAmb	IAmb	07 27 09.0	
	comp=Z,74nm,1.0s						
SANVU				IAMs_20	IAMs_20	07 44 50.6	
	comp=Z,5µm,20.0s						
SANVU	**Saraoutou**	**44.70**	**117**	P	**P**	**07 26 53.3**	**+1.0**
SANVU				S	**S**	**07 33 31.9**	**+4.9**
SANVU	**Saraoutou**	**44.70**	**117**	P	**P**	**07 26 53.5**	**+1.2**
	comp=Z,92nm,1.1s						
CNB	**Canberra Magne**	**44.71**	**153**	P	**P**	**07 26 51.1**	**-1.0**
	comp=Z,4.2nm,1.4s,comp=Z,0.0nm						
YSS	**Yuzhno-Sakhali**	**44.90**	**16**	P	**P**	**07 26 54.0**	**+0.6**
YSS	**Yuzhno-Sakhali**	**44.90**	**16**	α*e*P	**P**	**07 26 53.0**	**-0.4**
YSS				*e*		07 28 34.0	
YSS				*e*S	**S**	**07 33 26.1**	**-3.0**
YSS				*e*SS	**ScS**	**07 36 45.7**	**-2.5**
YSS				pmax	pmax		
	comp=Z,70nm,1.0s						
YSS				pmax	pmax		
	comp=Z,500nm,5.2s						
YSS				pmax	pmax		
	comp=Z,200nm,7.5s						
YSS				pmax	pmax		
	comp=N,300nm,6.3s						
YSS				smax	smax		
	comp=N,600nm,10.2s						
YSS				smax	smax		
	comp=E,500nm,12.1s						
YSS				MLR	MLR		
	comp=N,2µm,16.0s						
YSS	**Yuzhno-Sakhali**	**44.90**	**16**	P	**P**	**07 26 52.9**	**-0.4**
YSS				IAmb	IAmb	07 27 00.8	
	comp=Z,77nm,1.0s						
YSS				IAMs_20	IAMs_20	07 42 42.3	
	comp=Z,5µm,22.0s						
YSS	**Yuzhno-Sakhali**	**44.90**	**16**	P	**P**	**07 26 53.2**	**-0.2**
	comp=Z,76nm,1.3s						
KUR	**Kuril'sk**	**44.99**	**21**	*e*P	**P**	**07 26 53.1**	**-1.0**
KUR				*e*		07 28 33.5	
KUR				*e*		07 28 38.0	
KUR				*e*S	**S**	**07 33 31.0**	**+0.6**
KUR				*e*SS	**SS**	**07 36 55.6**	**+2.6**
KUR				*e*SSS	SSS	07 37 35.7	
KUR				pmax	pmax		
	comp=Z,1µm,10.9s						
TOO	**Toolangi**	**45.08**	**159**	P	**P**	**07 26 55.7**	**+0.6**
	comp=Z,56nm,1.6s						
TOO	**Toolangi**	**45.08**	**159**	P	**P**	**07 26 55.6**	**+0.6**
TOO				pmax	pmax		
	comp=Z,127nm,1.5s						
TOO	**Toolangi**	**45.08**	**159**	P	**P**	**07 26 55.6**	**+0.6**
TOO				IAmb	IAmb	07 26 58.7	
	comp=Z,127nm,1.4s						
MLBS	**Spotswood, Mel**	**45.10**	**159**	P	**P**	**07 26 58.1**	**+3.1**
KLR	**Kul'dur**	**45.15**	**5**	LR	LR	07 45 22.3	
	comp=Z,2µm,20.4s,baz=200,slow=36						
KLR	**Kul'dur**	**45.15**	**5**	*c* *i*P	**P**	**07 26 55.5**	**+0.2**
KLR				pmax	pmax		
	comp=Z,68nm,1.4s						
AUUHS	**Ulladulla High**	**45.25**	**152**	P	**P**	**07 26 57.8**	**+1.5**
AUSMG	**Snowy Mountain**	**45.31**	**155**	P	**P**	**07 26 57.9**	**+1.0**
HIA	**Hailar**	**45.34**	**354**	P	**P**	**07 26 58.5**	**+1.6**
HIA	**Hailar**	**45.34**	**354**	IAMs_20	IAMs_20	07 47 45.8	
	comp=Z,5µm,20.0s						
STMR	**SITAMARHI**	**45.38**	**304**	*e*P	**P**	**07 26 55.5**	**-2.1**
HILR	**Hailar Array B**	**45.63**	**354**	P	**P**	**07 26 58.9**	**-0.3**
	comp=Z,19nm,0.6s,baz=194,slow=11,SNR=11						
	comp=Z,19nm,0.6s						
PALK	**Pallekele**	**45.71**	**276**	LR	LR	07 49 39.2	
	comp=Z,2µm,18.2s,baz=96,slow=41						
PALK	**Pallekele**	**45.71**	**276**	P	**P**	**07 27 01.6**	**+1.1**
PALK	**Pallekele**	**45.71**	**276**	P	**P**	**07 27 01.8**	**+1.4**
PALK				pmax	pmax		
	comp=Z,137nm,1.7s						
PALK	**Pallekele**	**45.71**	**276**	P	**P**	**07 27 01.8**	**+1.4**
PALK				IAmb	IAmb	07 27 23.4	
	comp=Z,137nm,1.6s						
PALK	**Pallekele**	**45.71**	**276**	P	**P**	**07 27 01.9**	**+1.5**
PALK	**Pallekele**	**45.71**	**276**	P	**P**	**07 27 01.8**	**+1.4**
	comp=Z,43nm,1.2s						
HALK	**Hakmana**	**45.72**	**274**	P	**P**	**07 27 02.2**	**+1.8**
	comp=Z,50nm,1.1s						
MALK	**Mahakanadarawa**	**45.91**	**278**	P	**P**	**07 27 03.2**	**+1.3**
	comp=Z,47nm,1.1s						
HEH	**HeiHe**	**45.96**	**1**	*e*P	**P**	**07 27 00.8**	**-0.9**
HEH				S	**S**	**07 33 45.8**	**+1.5**
HEH				pmax	pmax		
	comp=Z,42nm,1.7s						
HEH				pmax	pmax		
	comp=Z,1µm,6.3s						
HEH				L	L		
	comp=Z,4µm,19.2s						
HEH				L	L		
	comp=Z,2µm,18.0s						
HEH				L	L		
	comp=Z,6µm,20.5s						
MILA	**Mila**	**46.08**	**155**	P	**P**	**07 27 04.2**	**+1.3**
	comp=Z,30nm,1.3s						
MDRS	**Chennai**	**46.56**	**284**	*e*P	**P**	**07 27 05.6**	**-1.5**
MDRS				IAmb	IAmb	07 27 15.2	
	comp=Z,28nm,0.9s						
ULN	**Ulaanbaatar**	**46.68**	**342**	P	**P**	**07 27 10.0**	**+2.4**
ULN	**Ulaanbaatar**	**46.68**	**342**	P	**P**	**07 27 07.3**	**-0.3**
ULN				pmax	pmax		
	comp=Z,183nm,1.2s						
ULN				MLR	MLR		
	comp=Z,9µm,22.0s						
ULN	**Ulaanbaatar**	**46.68**	**342**	P	**P**	**07 27 07.3**	**-0.3**
ULN	**Ulaanbaatar**	**46.68**	**342**	P	**P**	**07 27 07.7**	**+0.1**
ULN	**Ulaanbaatar**	**46.68**	**342**	P	**P**	**07 27 07.8**	**+0.2**
	comp=Z,2µmcomp=Z,149nm,1.1s						
VJD	**Vijayawada**	**46.68**	**289**	*e*P	**P**	**07 27 07.6**	**-0.3**
VJD				IAmb	IAmb	07 27 17.8	
	comp=Z,66nm,1.5s						
NOUC	**Port Laguerre**	**46.81**	**126**	P	**P**	**07 27 11.5**	**+2.6**
NOUC	**Port Laguerre**	**46.81**	**126**	P	**P**	**07 27 11.3**	**+2.4**
SONM	**Songino Array**	**46.86**	**341**	P	**P**	**07 27 08.3**	**-0.8**
	comp=Z,9.4nm,0.8s,baz=158,slow=8.5,SNR=28						
SONM				LR	LR	07 48 11.7	
	comp=Z,5µm,21.9s,baz=160,slow=38						
	comp=Z,9.4nm,0.8s						
SONM	**Songino Array**	**46.86**	**341**	P	**P**	**07 27 08.2**	**-0.9**
SONM				IAmb	IAmb	07 27 36.7	
	comp=Z,171nm,1.4s						
GRNR	**Gornyy**	**47.21**	**9**	⇓*i*P	**P**	**07 27 12.9**	**+1.4**
GRNR				pmax	pmax		
	comp=Z,5.0nm,1.1s						
YATNC	**Mamie plateau,**	**47.27**	**125**	P	**P**	**07 27 15.3**	**+2.8**
AUBRN	**Burnie High Sc**	**48.31**	**160**	P	**P**	**07 27 21.0**	**+0.9**
SALM	**Salem**	**48.45**	**282**	*e*P	**P**	**07 27 20.1**	**-1.7**
SALM				IAmb	IAmb	07 27 27.4	
	comp=Z,87nm,1.2s						
HYB	**Hyderabad**	**48.81**	**289**	*e*P	**P**	**07 27 22.7**	**-1.8**
HYB				IAmb	IAmb	07 27 27.6	
	comp=Z,82nm,1.4s						
HYB	**Hyderabad**	**48.81**	**289**	*e*P	**P**	**07 27 24.8**	**+0.3**
HYB				*e*pP	**pP**	**07 27 30.3**	**-3.5**
HYB				*e*PcP	**PcP**	**07 28 49.0**	**-0.1**
HYB				*e*PP	**PP**	**07 29 18.2**	**+0.2**
HYB				*e*S	**S**	**07 34 28.5**	**+2.6**
HYB				*e*ScS	**ScS**	**07 37 16.5**	**+1.4**
HYB				IAMs_20	IAMs_20	07 38 17.9	
	comp=Z,13µm,52.4s						
CIT	**Chita**	**48.94**	**349**	*e*P	**P**	**07 27 25.2**	**+0.3**
CIT				*e*		07 27 32.4	
CIT				*e*		07 28 48.6	
CIT				*e*S	S	07 34 37.4	+11
CIT				*e*		07 37 08.3	
CIT				pmax	pmax		
	comp=Z,644nm,2.0s						
GLAD	**Gladstone**	**49.01**	**158**	P	**P**	**07 27 27.4**	**+1.9**
LKN	**LUCKNOW**	**49.06**	**302**	*e*P	**P**	**07 27 24.7**	**-1.6**
LKN				IAmb	IAmb	07 27 37.5	
	comp=Z,266nm,1.1s						
NGP	**Nagpur**	**49.11**	**294**	*e*P	**P**	**07 27 24.6**	**-2.2**
NGP				IAmb	IAmb	07 27 29.8	
	comp=Z,122nm,1.8s						
CORO	**Coronation Par**	**49.11**	**160**	P	**P**	**07 27 28.4**	**+2.1**
ZEA	**Zeya**	**49.45**	**1**	*e*P	**P**	**07 27 28.1**	**-0.6**
ZEA				*e*S	**S**	**07 34 32.7**	**-1.0**
ZEA				*e*		07 37 22.1	
ZEA				*e*		07 37 58.0	
ZEA				pmax	pmax		
	comp=N,20nm,1.0s						
ZEA				pmax	pmax		
	comp=Z,30nm,1.5s						
ZEA				pmax	pmax		
	comp=N,300nm,15.3s						
ZEA				pmax	pmax		
	comp=Z,500nm,14.1s						
ZEA				pmax	pmax		
	comp=Z,400nm,8.2s						
MOO	**Moorlands**	**50.00**	**160**	P	**P**	**07 27 35.8**	**+2.7**
	comp=Z,103nm,1.1s						
MOO	**Moorlands**	**50.00**	**160**	P	**P**	**07 27 35.3**	**+2.2**
MOO	**Moorlands**	**50.00**	**160**	P	**P**	**07 27 35.8**	**+2.7**
	comp=Z,103nm,1.1s						
ZAK	**Zakamensk**	**50.09**	**341**	*e*P	**P**	**07 27 32.5**	**-1.3**
ZAK				pmax	pmax		
	comp=Z,44nm,1.4s						
NKL	**Nikolayevsk**	**50.23**	**11**	*e*P	P	07 27 39.2	+4.6
NKL				*e*S	**S**	**07 34 42.7**	**-1.8**
NKL				pmax	pmax		
	comp=E,109nm,1.2s						
NKL				pmax	pmax		
	comp=N,189nm,1.6s						
NKL				pmax	pmax		
	comp=Z,370nm,1.4s						
NKL				smax	smax		
	comp=E,487nm,3.4s						
NKL				smax	smax		
	comp=N,402nm,2.3s						
NKL				MLR	MLR		
	comp=E,11µm,23.0s						
NKL				MLR	MLR		
	comp=N,12µm,16.0s						
NKL				MLR	MLR		
	comp=Z,15µm,18.0s						
TAU	**Tasmania Unive**	**50.46**	**160**	P	**P**	**07 27 38.0**	**+1.4**
TAU	**Tasmania Unive**	**50.46**	**160**	P	**P**	**07 27 38.9**	**+2.3**
TAU	**Tasmania Unive**	**50.46**	**160**	P	**P**	**07 27 39.1**	**+2.5**
	comp=Z,95nm,1.7s						
PTH	**Pithoragarh**	**50.59**	**305**	*e*P	**P**	**07 27 35.5**	**-2.6**
PTH				IAmb	IAmb	07 27 42.3	
	comp=Z,82nm,1.6s						
IRK	**Irkutsk**	**51.39**	**343**	*e*P	**P**	**07 27 42.4**	**-1.1**
IRK				*e*S	S	07 35 09.8	+9.0
IRK				pmax	pmax		
	comp=Z,350nm,2.3s						
NFK	**Norfolk Island**	**51.64**	**132**	P	**P**	**07 27 48.5**	**+2.8**
	comp=Z,219nm,1.2s						
WMQ	**Urumqi**	**52.29**	**325**	*e*P	**P**	**07 27 50.3**	**-0.1**
WMQ				pP	pP	07 27 56.8	-2.8
WMQ				PcP	**PcP**	**07 29 02.0**	**+0.6**
WMQ				PcS	**PcS**	**07 32 54.4**	**-5.3**
WMQ				S	**S**	**07 35 11.4**	**-2.2**
WMQ				ScS	**ScS**	**07 37 37.4**	**-0.7**
WMQ				pmax	pmax		
	comp=Z,46nm,1.5s						
WMQ				pmax	pmax		
	comp=Z,440nm,5.1s						
WMQ				L	L		
	comp=Z,10µm,19.5s						
WMQ				L	L		
	comp=Z,9µm,19.5s						
WMQ				L	L		
	comp=Z,13µm,23.5s						
MERT	**Meerut**	**52.41**	**304**	*e*P	**P**	**07 27 49.5**	**-2.0**
MERT				IAmb	IAmb	07 27 55.4	
SKR	**Severo-Kuril's**	**52.62**	**23**	*e*P	**P**	**07 27 50.3**	**-2.3**
SKR				*e*S	**S**	**07 35 21.8**	**+4.2**
SKR				pmax	pmax		
	comp=Z,82nm,1.3s						
SKR				pmax	pmax		
	comp=Z,300nm,5.9s						
SKR				MLR	MLR		
	comp=Z,2µm,18.0s						
LDR	**Lodi Road**	**52.72**	**303**	*e*P	**P**	**07 27 51.9**	**-1.8**
NDI	**New Delhi**	**52.75**	**303**	*e*P	**P**	**07 27 52.0**	**-2.1**
NPLP	**NPLP New Delhi**	**52.77**	**303**	*e*P	**P**	**07 27 52.3**	**-1.9**
NPLP				IAmb	IAmb	07 28 02.8	
	comp=Z,65nm,1.3s						
KLP	**Kalpa**	**52.85**	**307**	*e*P	**P**	**07 27 52.7**	**-2.5**
KLP				IAmb	IAmb	07 27 56.7	
	comp=Z,53nm,0.8s						
KAD	**Karad**	**52.91**	**289**	*e*P	**P**	**07 27 53.6**	**-1.9**
KAD				IAmb	IAmb	07 27 57.1	
	comp=Z,33nm,0.5s						
KUDL	**Kundal**	**53.20**	**302**	*e*P	**P**	**07 27 55.5**	**-1.7**
KUDL				IAmb	IAmb	07 27 57.7	
	comp=Z,505nm,1.3s						
POO	**Poona**	**53.41**	**290**	*e*P	**P**	**07 27 57.1**	**-2.0**
POO				IAmb	IAmb	07 27 59.9	
	comp=Z,31nm,0.6s						
SMLA	**Simla**	**53.58**	**306**	*e*P	**P**	**07 27 58.0**	**-2.0**
SMLA				IAmb	IAmb	07 28 02.7	
	comp=Z,89nm,0.8s						
DHRM	**DHARAMSHALA**	**54.66**	**307**	*e*P	**P**	**07 28 05.9**	**-2.3**
DHRM				IAmb	IAmb	07 28 18.2	
	comp=Z,578nm,1.6s						
UDPR	**Udaipur**	**54.68**	**297**	*e*P	**P**	**07 28 06.1**	**-2.2**

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UDPR                                 IAmb     IAmb      07 28 10.8
       comp=Z,144nm,1.0s
TSSA   Tissa              54.98 308  eP       P         07 28 08.4 -2.1
TSSA                                 IAmb     IAmb      07 28 18.3
       comp=Z,357nm,1.5s
PEA0B  Petropavlovsk-     55.12  22⇓eP       P         07 28 10.2 -0.7
PETK   Petropavlovsk-     55.12  22  P        P         07 28 10.9  0.0
       comp=Z,16nm,0.6s,baz=204,slow=2.9,SNR=12
PETK                                 LR       LR        07 53 10.7
       comp=Z,2µm,19.3s,baz=211,slow=38
       comp=Z,16nm,0.6s
PETK   Petropavlovsk-     55.12  22  P        P         07 28 10.3 -0.7
THN    Thein Dam          55.15 307  eP       P         07 28 09.4 -2.1
THN                                  IAmb     IAmb      07 28 18.8
       comp=Z,104nm,0.7s
MSVF   Nonsavu            55.24 115  LR       LR        07 50 30.7
       comp=Z,3µm,19.4s,baz=296,slow=35
MSVF   Nonsavu            55.24 115  P        P         07 28 14.9 +2.4
MSVF   Nonsavu            55.24 115  P        P         07 28 12.6 +0.1
MSVF                                 pmax     pmax
       comp=Z,128nm,1.4s
MSVF   Nonsavu            55.24 115  P        P         07 28 12.6 +0.1
MSVF                                 IAmb     IAmb      07 28 18.4
       comp=Z,128nm,1.4s
MSVF   Nonsavu            55.24 115  P        P         07 28 15.1 +2.7
       comp=Z,55nm,1.0s
PET    Petropavlovsk      55.43  23c iP       P         07 28 12.6 -0.4
PET                                 eS        S         07 35 51.1 -4.4
PET                                  pmax     pmax
       comp=Z,400nm,11.8s
PET                                  pmax     pmax
       comp=Z,700nm,10.3s
PET                                  pmax     pmax
       comp=Z,99nm,1.3s
PET                                  MLR      MLR
       comp=Z,2µm,17.0s
PET                                  MLR      MLR
       comp=Z,2µm,16.0s
PET    Petropavlovsk      55.43  23  P        P         07 28 13.9 +0.9
ZSN    Zaisan             56.07 327  eP       P         07 28 18.8 +1.0
ZSN                                  eS       S         07 36 06.4 +2.0
ZSN    Zaisan             56.07 327  eP       P         07 28 18.9 +1.0
ZSN                                  eS       S         07 36 06.5 +2.0
WUS    Wushi              56.14 318  IAmb     IAmb      07 28 35.6
       comp=Z,91nm,1.2s
WUS    Wushi              56.14 318  P        P         07 28 17.9 -0.7
DGTI   Dogotuki           56.36 113  P        P         07 28 21.0 +0.6
SHLS   Shalkode           56.92 320  eP       P         07 28 23.1 -1.0
SHLS                                 pmax     pmax
       comp=Z,39nm,1.4s
SHLS   Shalkode           56.92 320  eP       P         07 28 23.1 -1.0
       comp=Z,39nm,1.4s
MK31   Makanchi Array     57.12 325c iP       P         07 28 24.2 -1.2
MKAR   Makanchi Array     57.12 325  P        P         07 28 24.2 -1.1
       comp=Z,22nm,0.8s,baz=124,slow=8.3,SNR=104
MKAR                                 LR       LR        07 54 15.0
       comp=Z,10µm,20.2s,baz=102,slow=38
       comp=Z,22nm,0.8s
MKAR   Makanchi Array     57.12 325  P        P         07 28 24.4 -1.0
UZB    Uzynbulak          57.20 320  eP       P         07 28 27.0 +0.9
UZB                                  eS       S         07 36 21.5 +1.8
UZB                                  pmax     pmax
       comp=Z,49nm,1.7s
UZB    Uzynbulak          57.20 320  eP       P         07 28 27.0 +0.9
       comp=Z,49nm,1.7s
UZB                                  eS       S         07 36 21.6 +1.8
PRZ    Przheval'sk        57.28 319  P        P         07 28 28.7 +1.9
PRZ                                  pmax     pmax
       comp=Z,86nm,1.0s
PRZ    Przheval'sk        57.28 319  P        P         07 28 28.7 +1.9
PRZ                                  IAmb     IAmb      07 28 56.4
       comp=Z,86nm,1.0s
PRZ    Przheval'sk        57.28 319  P        P         07 28 27.4 +0.6
       comp=Z,72nm,0.8s
MAKZ   Makanchi           57.31 325  P        P         07 28 25.6 -1.0
MAKZ                                 pmax     pmax
       comp=Z,152nm,1.1s
MAKZ                                 MLR      MLR
       comp=Z,10µm,20.0s
MAKZ   Makanchi           57.31 325  P        P         07 28 25.6 -1.0
MAKZ                                 IAmb     IAmb      07 28 53.9
       comp=Z,152nm,1.1s
MAKZ   Makanchi           57.31 325  P        P         07 28 25.8 -0.9
       comp=Z,1µmcomp=Z,141nm,1.1s
TARG   Taragay, Kyrgy     57.33 318  P        P         07 28 27.8 +0.4
TARG                                 pmax     pmax
       comp=Z,75nm,1.1s
TARG   Taragay, Kyrgy     57.33 318  P        P         07 28 27.8 +0.4
TARG                                 IAmb     IAmb      07 28 54.0
       comp=Z,75nm,1.1s
TARG   Taragay, Kyrgy     57.33 318  P        P         07 28 29.0 +1.6
       comp=Z,851nmcomp=Z,74nm,1.2s
NIL    Nilore             57.54 308  P        P         07 28 28.0 -0.6
NIL    Nilore             57.54 308  P        P         07 28 28.1 -0.4
NIL                                  pmax     pmax
       comp=Z,114nm,1.0s
NIL    Nilore             57.54 308  P        P         07 28 28.1 -0.4
NIL                                  IAmb     IAmb      07 28 59.4
       comp=Z,114nm,0.9s
NIL    Nilore             57.54 308  P        P         07 28 28.1 -0.4
       comp=Z,2µmcomp=Z,120nm,1.2s
SATY   Saty               57.55 320  eP       P         07 28 29.5 +0.9
SATY                                 eS       S         07 36 26.2 +1.8
SATY                                 pmax     pmax
       comp=Z,52nm,1.1s
SATY   Saty               57.55 320  eP       P         07 28 29.6 +0.9
       comp=Z,52nm,1.1s
SATY                                 eS       S         07 36 26.2 +1.8
KPKS   Kokpek             57.57 320  eP       P         07 28 29.5 +0.9
KPKS   Kokpek             57.57 320  eP       P         07 28 29.5 +0.9
KSH2   Kashi              57.77 314  P        P         07 28 31.4 +1.2
KSH2                                 pP       pP        07 28 36.1 -3.4
KSH2                                 S        S         07 36 28.8 +1.4
KSH2                                 pmax     pmax
       comp=Z,29nm,1.8s
KSH2                                 L        L
       comp=Z,5µm,20.2s
KSH2                                 L        L
       comp=Z,5µm,18.2s
KSH2                                 L        L
       comp=Z,6µm,22.9s
YAK    Yakutsk            57.81   2  LR       LR        07 55 19.4
       comp=Z,2µm,19.0s,baz=176,slow=38
YAK    Yakutsk            57.81   2  eP       P         07 28 29.6 -0.3
YAK                                  e                  07 29 20.0
YAK                                  e                  07 30 34.0
YAK                                  ePPP     PPP       07 31 56.3
YAK                                  eS       S         07 36 27.6 +0.8
YAK                                  e*SS     sS        07 36 55.1  +13
YAK                                  e                  07 38 13.5
YAK                                  pmax     pmax
       comp=Z,127nm,1.6s
YAK                                  pmax     pmax
       comp=N,89nm,2.0s
YAK                                  pmax     pmax
       comp=E,37nm,1.1s
YAK                                  pmax     pmax
       comp=Z,393nm,6.0s
YAK                                  pmax     pmax
       comp=E,222nm,4.0s
YAK                                  pmax     pmax
       comp=N,293nm,3.4s
YAK                                  smax     smax
       comp=N,944nm,6.3s
YAK                                  smax     smax
       comp=E,530nm,4.1s
YAK                                  MLR      MLR
       comp=Z,3µm,25.0s
YAK    Yakutsk            57.81   2  P        P         07 28 29.3 -0.5
YAK    Yakutsk            57.81   2  P        P         07 28 29.5 -0.3
       comp=Z,3µmcomp=Z,298nm,1.0s
FUTU   Fugatoga           57.83 110  P        P         07 28 32.1 +1.3
ASAI   AK-SAY(Kyrgyzs     57.84 317  P        P         07 28 30.4 -0.5
       comp=Z,684nmcomp=Z,57nm,1.4s
KDJ    Kajisay            57.93 318  P        P         07 28 30.9 -0.4
KDJ    Kajisay            57.93 318  IAmb     IAmb      07 28 55.8
       comp=Z,67nm,0.9s
KDJ    Kajisay            57.93 318  P        P         07 28 30.9 -0.4
       comp=Z,944nmcomp=Z,81nm,1.2s
BHUJ   Bhuj               58.05 295  eP       P         07 28 30.9 -1.3
BHUJ                                 IAmb     IAmb      07 28 43.0
       comp=Z,148nm,1.1s
MA2    Magadan            58.36  14  LR       LR        07 52 10.3
       comp=Z,2µm,21.6s,baz=205,slow=34
MA2    Magadan            58.36  14  P        P         07 28 35.5 +1.8
MA2    Magadan            58.36  14⇓eP       P         07 28 34.3 +0.5
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MA2                                  pmax     pmax
       comp=Z,20nm,0.7s
MA2    Magadan            58.36  14  P        P         07 28 34.2 +0.5
MA2                                  IAmb     IAmb      07 28 49.0
       comp=Z,134nm,1.4s
MA2    Magadan            58.36  14  P        P         07 28 34.6 +0.9
       comp=Z,2µmcomp=Z,94nm,1.5s
MA2    Magadan            58.36  14  P        P         07 28 35.1 +1.3
       comp=Z,1µmcomp=Z,85nm,1.5s
MDOK   Medeo              58.48 319  eP       P         07 28 35.9 +0.8
MDOK                                 eS       S         07 36 38.2 +1.6
MDOK   Medeo              58.48 319  eP       P         07 28 35.9 +0.8
MDOK                                 eS       S         07 36 38.2 +1.6
TDK    Taldyqorghan       58.49 322  eP       P         07 28 35.9 +1.0
TDK                                  pmax     pmax
       comp=Z,39nm,1.0s
TDK    Taldyqorghan       58.49 322  eP       P         07 28 36.0 +1.0
       comp=Z,38nm,1.0s
TNSS   Tian-Shan          58.49 319  eP       P         07 28 36.0 +0.5
TNSS   Tian-Shan          58.49 319  eP       P         07 28 36.0 +0.5
AAA    Alma-Ata           58.59 319  eP       P         07 28 36.7 +1.0
AAA                                  pmax     pmax
       comp=Z,36nm,0.7s
AAA    Alma-Ata           58.59 319  eP       P         07 28 36.8 +1.0
       comp=Z,36nm,0.7s
BOOM   Boomskoye usch     58.91 318  IAmb     IAmb      07 29 29.7
       comp=Z,165nm,1.6s
BOOM   Boomskoye usch     58.91 318  P        P         07 28 37.9 -0.3
       comp=Z,875nmcomp=Z,43nm,1.8s
OUZ    Omahuta            58.98 136  P        P         07 28 40.5 +2.1
       comp=Z,2µmcomp=Z,35nm,1.3s
KUU    Kurty              59.27 320  eP       P         07 28 41.4 +1.0
KUU                                  eS       S         07 36 48.4 +1.9
KUU                                  pmax     pmax
       comp=Z,81nm,1.4s
KUU    Kurty              59.27 320  eP       P         07 28 41.4 +1.0
       comp=Z,81nm,1.4s
KUU                                  eS       S         07 36 48.5 +1.9
AAK    Ala-Archa          59.94 318  LR       LR        07 58 28.4
       comp=Z,3µm,18.6s,baz=92,slow=40
AAK    Ala-Archa          59.94 318  P        P         07 28 46.3 +1.0
AAK    Ala-Archa          59.94 318c iP       P         07 28 46.1 +0.8
AAK                                  pmax     pmax
       comp=Z,75nm,1.4s
AAK    Ala-Archa          59.94 318  P        P         07 28 45.6 +0.4
AAK                                  IAmb     IAmb      07 29 40.6
       comp=Z,62nm,1.2s
AAK    Ala-Archa          59.94 318  IAMs_20  IAMs_20   07 57 35.8
       comp=Z,3µm,22.0s
AAK    Ala-Archa          59.94 318 i P       P         07 28 46.0 +0.8
       SNR=17
AAK    Ala-Archa          59.94 318  P        P         07 28 46.0 +0.8
       comp=Z,738nmcomp=Z,38nm,1.9s,comp=Z,738nm
ZAA0   Zalesovo Array     60.15 333  P        P         07 28 44.8 -1.4
ZAA0                                 IAmb     IAmb      07 29 07.6
       comp=Z,78nm,1.2s
ZALV   Zalesovo Beam      60.15 333  P        P         07 28 44.7 -1.5
       comp=Z,6.9nm,0.5s,baz=118,slow=8.6,SNR=32
ZALV                                 LR       LR        07 56 45.0
       comp=Z,4µm,18.4s,baz=130,slow=38
ZALV                                 PKPPKP   P'P'df    07 58 06.6 -4.6
       comp=Z,0.6nm,0.4s,baz=274,slow=5.8,SNR=3.6
ZALV                                 PKP2bc   P'P'bc    07 58 19.0 -2.0
       comp=Z,2.3nm,0.8s,baz=318,slow=2.0,SNR=7.6
       comp=Z,6.9nm,0.5s
ZALV   Zalesovo Beam      60.15 333  P        P         07 28 44.5 -1.7
SGDS   Sogindy            60.19 319  eP       P         07 28 47.7 +0.9
SEM    Semipalatinsk      60.27 328  eP       P         07 28 47.9 +0.5
SEM                                  pmax     pmax
       comp=Z,38nm,1.6s
SEM    Semipalatinsk      60.27 328  eP       P         07 28 47.1 -0.3
       comp=Z,38nm,1.6s
OHH    Osh                60.28 315  P        P         07 28 47.3 -0.2
OHH    Osh                60.28 315  P        P         07 28 47.3 -0.2
       comp=Z,50nm,0.8s
KBL    Kabul              61.13 307  P        P         07 28 53.0 -0.7
       SNR=32
KBL    Kabul              61.13 307  P        P         07 28 53.3 -0.3
KBL                                  pmax     pmax
       comp=Z,43nm,0.9s
KBL    Kabul              61.13 307  P        P         07 28 53.3 -0.3
KBL                                  IAmb     IAmb      07 29 22.8
       comp=Z,43nm,0.8s
KBL    Kabul              61.13 307  P        P         07 28 52.8 -0.8
       comp=Z,974nmcomp=Z,61nm,0.8s
JCZ    Jackson Bay        61.14 146  P        P         07 28 54.7 +1.4
DCZ    Deep Cove          61.18 148  IAmb     IAmb      07 29 15.3
       comp=Z,100nm,1.0s
KURBB  Kurchatov Arra     61.30 327  P        P         07 28 53.0 -1.1
       comp=Z,40nm,0.8s,baz=125,slow=6.1,SNR=111
KURBB                                S        S         07 37 17.9 +5.7
       comp=Z,0.6nm,0.3s,baz=131,slow=12,SNR=5.2
KURBB                                LR       LR        07 57 19.7
       comp=Z,4µm,19.6s,baz=145,slow=38
KURBB                                PKPPKP   P'P'df    07 58 02.0 -7.7
       comp=Z,0.8nm,0.8s,baz=272,slow=3.0,SNR=5.4
KURBB                                PKP2bc   P'P'bc    07 58 14.9 -3.6
       comp=Z,1.7nm,0.8s,baz=282,slow=3.7,SNR=5.6
KURBB                                PKP2ab   P'P'ab    07 58 23.6 -4.2
       comp=Z,1.7nm,0.9s,baz=298,slow=3.5,SNR=5.4
       comp=Z,40nm,0.8s
KURBB  Kurchatov Arra     61.30 327  P        P         07 28 52.5 -1.6
KURK   Kurchatov          61.30 327  P        P         07 28 53.5 -0.7
KURK   Kurchatov          61.30 327c iP       P         07 28 52.9 -1.3
KURK                                 pmax     pmax
       comp=Z,76nm,0.8s
KURK   Kurchatov          61.30 327  P        P         07 28 53.3 -0.9
KURK   Kurchatov          61.30 327  P        P         07 28 53.1 -1.0
       comp=Z,2µmcomp=Z,212nm,1.2s,comp=Z,2µm
BTK    Batken             61.51 314  P        P         07 28 54.9 -1.0
BTK    Batken             61.51 314  P        P         07 28 54.9 -1.0
       comp=Z,1µmcomp=Z,94nm,1.4s
TOZ    Tahuroa Road       61.60 137  IAmb     IAmb      07 29 20.9
       comp=Z,72nm,1.2s
TOZ                                  IAMs_20  IAMs_20   07 54 24.5
       comp=Z,3µm,21.0s
SEY    Seymchan           61.68  13  LR       LR        07 57 12.6
       comp=Z,2µm,19.8s,baz=204,slow=38
SEY    Seymchan           61.68  13⇑iP       P         07 28 57.5 +1.0
SEY                                  pmax     pmax
       comp=Z,26nm,0.9s
TRKS   Terek-Say          61.81 315  P        P         07 28 57.4 -0.6
INZ    Inchbonnie         61.82 144  P        P         07 28 58.0 +0.2
INZ                                  IAmb     IAmb      07 29 21.2
       comp=Z,118nm,1.2s
NNZ    Nelson             62.11 141  IAMs_20  IAMs_20   07 56 21.2
       comp=Z,4µm,20.0s
THZ    Tophouse           62.13 142  P        P         07 29 00.4 +0.4
THZ                                  IAmb     IAmb      07 29 15.2
       comp=Z,67nm,0.8s
DZA    Taraz              62.18 317  eP       P         07 29 01.0 +0.8
DZA                                  pmax     pmax
       comp=Z,51nm,1.9s
DZA    Taraz              62.18 317  eP       P         07 29 01.1 +0.8
       comp=Z,51nm,1.9s
RPZ    Rata Peaks         62.19 145  LR       LR        07 56 49.7
       comp=Z,994nm,18.5s,baz=69,slow=37
SHEM   Shemya Is, Ala     62.21  30  LR       LR        07 51 04.1
       comp=Z,2µm,21.1s,baz=234,slow=31
OXZ    Oxford             62.53 144  IAmb     IAmb      07 29 20.4
       comp=Z,45nm,0.7s
IUG    Iuzhnay            62.80 316  eP       P         07 29 05.4 +0.9
IUG                                  eS       S         07 37 33.4 +1.7
IUG                                  pmax     pmax
       comp=Z,67nm,1.0s
IUG    Iuzhnay            62.80 316  eP       P         07 29 05.5 +0.9
       comp=Z,67nm,1.0s
IUG                                  eS       S         07 37 33.5 +1.7
KK31   Karatay Array      62.81 317 i P       P         07 29 03.1 -1.4
KK31   Karatay Array      62.81 317  IAmb     IAmb      07 29 27.1
       comp=Z,71nm,1.1s
KKAR   Karatay Array      62.81 317  P        P         07 29 02.9 -1.6
KKAR   Karatay Array      62.81 317  P        P         07 29 02.9 -1.6
KHZ    Kahutara           62.89 143  IAmb     IAmb      07 29 23.3
       comp=Z,73nm,1.0s
URZ    Urewera            62.96 137  LR       LR        07 55 41.5
       comp=Z,3µm,21.6s,baz=310,slow=35
URZ    Urewera            62.96 137  P        P         07 29 05.3 -0.1
       comp=Z,2µmcomp=Z,52nm,1.2s,comp=Z,2µm
SNZO   South Karori       62.99 141  IAMs_20  IAMs_20   07 57 10.4
       comp=Z,3µm,19.0s
BKZ    Black Stump Fm     63.00 138  P        P         07 29 05.2 -0.6
RTZ    Ruatahuna          63.05 137  IAMs_20  IAMs_20   07 55 23.0
       comp=Z,3µm,22.0s
CHM    Chimkent           63.16 316  eP       P         07 29 07.8 +1.0
CHM                                  pmax     pmax
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       comp=Z,47nm,1.6s
CHM    Chimkent           63.16 316  eP       P         07 29 07.9 +1.0
       comp=Z,47nm,1.6s
MRZ    Mangatainoka R     63.19 140  IAMs_20  IAMs_20   07 55 09.8
       comp=Z,3µm,21.0s
BRLS   Borolday           63.25 317  eP       P         07 29 08.4 +1.0
BRLS                                 pmax     pmax
       comp=Z,27nm,1.0s
BRLS   Borolday           63.25 317  eP       P         07 29 08.4 +1.0
       comp=Z,27nm,1.0s
NGCH   Negor - Chabah     66.05 296  P        P         07 29 27.0 +1.1
ADK    Adak               66.73  34  P        P         07 29 32.8 +3.0
ADK    Adak               66.73  34  P        P         07 29 28.6 -1.2
ADK    Adak               66.73  34  P        P         07 29 28.6 -1.2
       comp=Z,2µmcomp=Z,70nm,1.4s
BVAR   Borovoye Array     66.88 327  P        P         07 29 29.5 -1.3
       comp=Z,12nm,0.7s,baz=120,slow=8.8,SNR=29
BVAR                                 PKPPKP   P'P'df    07 57 58.7 -1.9
       comp=Z,0.9nm,0.5s,baz=273,slow=2.7,SNR=3.9
       comp=Z,12nm,0.7s
BORK   Borovoye           66.93 327c iP       P         07 29 29.7 -1.4
BORK                                 pmax     pmax
       comp=Z,85nm,1.0s
BORK   Borovoye           66.93 327  P        P         07 29 30.3 -0.8
JLN    Jalan Bani Buh     67.29 292  P        P         07 29 33.2 -0.8
TIXI   Tiksi              67.44   1  LR       LR        07 59 30.7
       comp=Z,4µm,21.8s,baz=196,slow=36
TIXI   Tiksi              67.44   1⇑eP       P         07 29 33.0 -0.9
TIXI                                 pmax     pmax
       comp=Z,203nm,1.5s
TIXI   Tiksi              67.44   1  P        P         07 29 33.3 -0.6
WBK    Wadi Bani Khal     67.73 293  P        P         07 29 37.2 +0.4
WSAR   Wadi Sarin         68.10 293  LR       LR        08 02 08.2
       comp=Z,5.3nm,19.9s,baz=134,slow=38
WSAR   Wadi Sarin         68.10 293  P        P         07 29 39.0 -0.1
ATKA   Atka Island        68.27  35  P        P         07 29 42.6 +3.1
JMDO   Jabal Madar        68.51 292  P        P         07 29 41.2 -0.4
MHTO   MHTO               68.54 291  P        P         07 29 42.4 +0.6
       SNR=10
BIDO   Bidbid             68.58 294  P        P         07 29 42.2 +0.1
       SNR=10.0
SMDO   Samad              68.62 293  P        P         07 29 42.6 +0.2
BILL   Bilibino           69.21  15⇓iP       P         07 29 45.3 +0.2
BILL                                 pmax     pmax
       comp=Z,69nm,1.9s
BILI   Bilibino, Chuk     69.27  15  P        P         07 29 45.1 -0.4
       comp=Z,30nm,1.2s
HOQ    Hoqain             69.34 294  P        P         07 29 47.2 +0.4
BSY    Bisya              69.37 293  P        P         07 29 47.7 +0.6
NRIK   Noril'sk           70.00 346  P        P         07 29 50.0 +0.1
       comp=Z,20nm,0.6s,baz=135,slow=7.1,SNR=33
NRIK                                 LR       LR        08 03 54.4
       comp=Z,4µm,19.0s,baz=150,slow=39
       comp=Z,20nm,0.6s
ARQ    Araqi              70.04 293  P        P         07 29 51.4 +0.3
SOHO   SOHO               70.09 294  P        P         07 29 52.1 +0.8
SOHO   SOHO               70.09 294  P        P         07 29 51.0 -0.4
MDH    Madha              70.40 295  P        P         07 29 54.0 +0.8
MDH    Madha              70.40 295  P        P         07 29 52.4 -0.8
BANOM  Banah              70.45 296  P        P         07 29 54.5 +0.9
UOSS   Minazif            70.45 295  P        P         07 29 54.3 +0.7
UOSS   Minazif            70.45 295  P        P         07 29 53.2 -0.4
UOSS   Minazif            70.45 295  P        P         07 29 53.6  0.0
UOSS   Minazif            70.45 295  P        P         07 29 54.0 +0.4
       comp=Z,622nmcomp=Z,19nm,1.2s
HATD   Hatta, Dubai       70.51 295  P        P         07 29 54.7 +0.7
HATD   Hatta, Dubai       70.51 295  P        P         07 29 53.4 -0.6
MSFE   Esma-Masafi        70.53 295  P        P         07 29 53.8 -0.3
MASF   Masafi             70.53 295  P        P         07 29 55.2 +1.1
ASHO   Ashiyiah           70.56 295  P        P         07 29 54.7 +0.4
ASHO   Ashiyiah           70.56 295  P        P         07 29 53.9 -0.4
SHME   Shamm              70.60 296  P        P         07 29 55.3 +0.8
ALNE   Al Ain             70.80 294  P        P         07 29 56.2 +0.5
       SNR=16
ALNE   Al Ain             70.80 294 i P       P         07 29 55.7  0.0
       SNR=9.8
NAZ    Nazwa, Dubai       70.95 295  P        P         07 29 56.9 +0.3
NAZ    Nazwa, Dubai       70.95 295  P        P         07 29 55.7 -0.9
UMQ    Umm Al-Quwin       70.99 295  P        P         07 29 57.4 +0.6
FAQ    Al Faqa, Dubai     70.99 295  P        P         07 29 57.0 +0.1
CASY   Casey              71.19 187  P        P         07 29 57.4 +0.2
CASY                                 IAmb     IAmb      07 30 00.3
       comp=Z,91nm,1.1s
CASY   Casey              71.19 187  P        P         07 29 58.3 +1.1
       comp=Z,2µmcomp=Z,84nm,1.1s
ASUD   Al Ashush, Dub     71.22 294  P        P         07 29 58.3 +0.1
ASUD   Al Ashush, Dub     71.22 294  P        P         07 29 57.3 -1.0
DMTO   DMTO               71.23 287  P        P         07 29 58.6 +0.2
UMZA   Um Al Zommool      71.25 292  P        P         07 29 58.1 -0.4
DRV    Dumont d'Urvil     71.29 174  P        P         07 29 57.6 -0.2
DRV    Dumont d'Urvil     71.29 174  P        P         07 29 57.4 -0.4
DRV                                  S        S         07 39 10.9 -2.0
AJN    Ajban              71.53 294  P        P         07 30 00.4 +0.3
MSEY   Mahe Island        71.54 264  P        P         07 30 00.5  0.0
AB31   Akbulak array      71.72 321  P        P         07 29 59.3 -1.5
AB31   Akbulak array      71.72 321  IAmb     IAmb      07 30 25.8
       comp=Z,53nm,1.0s
ABKAR  Akbulak array      71.72 321  P        P         07 29 59.1 -1.7
RBK    Rabkut             71.94 287  P        P         07 30 02.8 +0.1
WHFO   Wadi Hawf          72.36 287  P        P         07 30 05.3  0.0
ABTO   Aybut              72.80 287  P        P         07 30 07.6 -0.3
MZR    Muzera             72.81 293  P        P         07 30 08.5 +0.6
       SNR=12
MZR    Muzera             72.81 293 i P       P         07 30 08.1 +0.2
       SNR=9.8
UNV    Unalaska Valle     73.19  35  P        P         07 30 12.9 +3.5
UNV    Unalaska Valle     73.19  35  IAmb     IAmb      07 30 23.4
       comp=Z,75nm,1.0s
AKTO   Aktyubinsk         73.23 322  LR       LR        08 05 09.9
       comp=Z,6µm,20.1s,baz=91,slow=38
GHWR   Ruwais             73.42 294  P        P         07 30 11.9 +0.5
JRN    Qarnain Island     73.49 295  P        P         07 30 12.0 +0.2
SVE    Sverdlovsk         73.52 328  eP       P         07 30 11.5 +0.2
SVE                                  eS       S         07 39 33.5 -5.3
SVE                                  e                  07 40 16.5
SVE                                  pmax     pmax
       comp=Z,195nm,1.1s
SVE                                  MLR      MLR
       comp=Z,3µm,20.0s
AKUT   Akutan             73.69  35  P        P         07 30 15.1 +2.8
AKUT   Akutan             73.69  35  P        P         07 30 11.7 -0.7
SLWR   Sila               74.50 294  P        P         07 30 18.2 +0.5
ARTI   Arti               74.58 328  LR       LR        08 05 20.8
       comp=Z,4µm,21.4s,baz=103,slow=38
ARTI   Arti               74.58 328c iP       P         07 30 16.6 -1.0
ARTI                                                    07 30 33.9
ARTI                                                    07 32 59.3
ARTI                                 S        S         07 39 49.5 -1.3
ARTI                                 pmax     pmax
       comp=Z,49nm,1.7s
ARTI                                 MLR      MLR
       comp=Z,4µm,21.0s
ARTI   Arti               74.58 328  P        P         07 30 16.2 -1.4
ARTI                                 IAmb     IAmb      07 30 38.9
       comp=Z,120nm,1.0s
TNA    Tin City           76.29  23  IAMs_20  IAMs_20   08 06 14.5
       comp=Z,2µm,19.0s
RAR    Rarotonga          76.36 113  LR       LR        08 01 06.7
       comp=Z,438nm,21.8s,baz=280,slow=33
K13K   Kusilvak Mount     76.48  27  IAmb     IAmb      07 31 01.6
       comp=Z,79nm,1.2s
SDPT   Sand Point         76.96  34  P        P         07 30 33.6 +2.5
SDPT   Sand Point         76.96  34  P        P         07 30 30.3 -0.9
ANM    Nome               76.97  24  IAMs_20  IAMs_20   08 06 49.6
       comp=Z,2µm,19.0s
L14K   Kuka Creek         77.22  28  IAmb     IAmb      07 31 05.8
       comp=Z,152nm,1.4s
N14K   Kuskokwak Cree     77.34  29  IAmb     IAmb      07 30 55.5
       comp=Z,96nm,1.1s
CNBA   Chernabura Isl     77.36  35  IAMs_20  IAMs_20   07 59 55.9
       comp=Z,2µm,22.0s
CHNA   Chernabura Isl     77.36  35  P        P         07 30 35.6 +2.2
MLH    Mauna Loa          77.39  71  P        P         07 30 34.9 +0.3
CPK    Cone Peak          77.44  71  P        P         07 30 35.8 +1.0
F15K   North Star Dit     77.62  23  IAMs_20  IAMs_20   08 07 24.7
       comp=Z,2µm,19.0s
K15K   Wolf Creek Mou     77.99  27  IAmb     IAmb      07 31 18.4
       comp=Z,78nm,1.1s
N15K   Kwethluk River     78.18  29  IAmb     IAmb      07 31 06.5
       comp=Z,52nm,0.9s
KBD    Kabd               78.27 299  P        P         07 30 39.3 +0.3
CHGN   Chignik            78.29  33  IAmb     IAmb      07 30 49.6
       comp=Z,56nm,0.9s
G16K   Koyuk River        78.44  24  IAMs_20  IAMs_20   08 06 10.5
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      comp=Z,2µm,19.0s
J16K  Anvik River      78.65  26   IAmb     IAmb     07 30 59.3
      comp=Z,107nm,1.4s
L16K  Owhat River      78.81  28   IAmb     IAmb     07 31 14.5
      comp=Z,163nm,1.5s
AKT   Akhty            78.90 311   eP       P        07 30 42.3  -0.1
AKT                                e                 07 30 50.4
AKT                                e                 07 33 40.5
AKT                                eS       S        07 40 39.7  +0.9
AKT                                 pmax    pmax
      comp=Z,31nm,1.3s
M16K  Timber Creek     78.91  29   IAmb     IAmb     07 30 51.7
      comp=Z,59nm,1.0s
RDOG  Red Dog Mine     78.97  21   IAmb     IAmb     07 31 06.7
      comp=Z,69nm,1.2s
P16K  Nushagak River   79.00  31   IAMs_20  IAMs_20  08 00 22.3
      comp=Z,2µm,22.0s
CCD   Concordia, Ant   79.14 181   P        P        07 30 43.7  +0.4
MAK   Makhachkala      79.18 313c iP        P        07 30 40.8  -2.9
MAK                                e                 07 33 44.1
MAK                                ePPP     PPP      07 35 30.3
MAK                                eS       S        07 40 35.6  -5.8
MAK                                eSS      SS       07 45 56.0  +8.0
MAK                                eSSS     SSS      07 49 14.3
MAK                                 pmax    pmax
      comp=Z,91nm,0.7s
MAK                                 MLR     MLR
      comp=Z,3µm,19.0s
H17K  Granite Mounta   79.33  25   IAMs_20  IAMs_20  08 07 10.0
      comp=Z,2µm,20.0s
J17K  VABM Dome        79.34  26   IAmb     IAmb     07 31 13.2
      comp=Z,88nm,1.3s
K17K  Iditarod         79.55  27   IAmb     IAmb     07 31 03.1
      comp=Z,101nm,1.1s
E18K  Tukpahlearik C   79.65  22   IAmb     IAmb     07 31 04.6
      comp=Z,78nm,1.1s
N17K  Nushagak Hills   79.67  29   IAmb     IAmb     07 31 06.2
      comp=Z,95nm,1.4s
KIRV  Kirov            79.78 329   LR       LR       08 10 01.5
      comp=Z,3µm,18.1s,baz=103,slow=39
KIRV  Kirov            79.78 329⇑iP         P        07 30 47.3  +0.7
P17K  Kvichak River    79.82  31   IAMs_20  IAMs_20  08 00 00.9
      comp=Z,2µm,21.0s
BELG  Belogornoye      79.98 322   LR       LR       08 08 02.1
      comp=Z,2µm,19.2s,baz=86,slow=37
BELG  Belogornoye      79.98 322c iP        P        07 30 47.9  +0.1
BELG                                pmax    pmax
      comp=Z,21nm,0.9s
H18K  Honhosa River    80.02  24   IAmb     IAmb     07 31 03.5
      comp=Z,114nm,1.7s
H18K                               IAMs_20  IAMs_20  08 07 31.3
      comp=Z,2µm,20.0s
G18K  Tagagawik        80.05  24   IAMs_20  IAMs_20  08 08 53.1
      comp=Z,2µm,19.0s
RAYN  Ar Rayn          80.16 293   P        P        07 30 49.1  -0.5
RAYN  Ar Rayn          80.16 293   P        P        07 30 48.4  -1.1
RAYN                               pmax     pmax
      comp=Z,38nm,0.9s
RAYN  Ar Rayn          80.16 293   P        P        07 30 48.4  -1.1
RAYN  Ar Rayn          80.16 293   IAMs_20  IAMs_20  08 12 15.0
      comp=Z,2µm,20.0s
RAYN  Ar Rayn          80.16 293 i P        P        07 30 48.2  -1.3
      SNR=9.3
RAYN  Ar Rayn          80.16 293   P        P        07 30 48.8  -0.8
      comp=Z,754nmcomp=Z,55nm,0.9s
L18K  Granite Mounta   80.19  28   IAMs_20  IAMs_20  08 00 41.8
      comp=Z,2µm,22.0s
J18K  Innoko River     80.40  26   IAmb     IAmb     07 31 20.0
      comp=Z,121nm,1.8s
C19K  Lookout Ridge    80.43  20   IAmb     IAmb     07 31 00.0
      comp=Z,112nm,1.2s
C19K                               IAMs_20  IAMs_20  08 09 60.0
      comp=Z,2µm,20.0s
O18K  Koktuh Hills     80.54  30   IAmb     IAmb     07 31 09.1
      comp=Z,77nm,1.0s
G19K  Purcell Mounta   80.73  24   IAmb     IAmb     07 31 09.8
      comp=Z,57nm,0.9s
G19K                               IAMs_20  IAMs_20  08 09 23.0
      comp=Z,2µm,19.0s
D19K  Kuna River       80.81  21   IAmb     IAmb     07 31 10.3
      comp=Z,110nm,1.1s
J19K  Poorman          80.97  26   IAmb     IAmb     07 31 11.2
      comp=Z,81nm,1.2s
O19K  Port Alsworth    81.02  30   IAmb     IAmb     07 31 26.2
      comp=Z,149nm,1.6s
N19K  Bonanza Creek    81.03  29   IAmb     IAmb     07 31 13.5
      comp=Z,127nm,1.2s
L19K  White Mountain   81.04  28   IAmb     IAmb     07 31 30.5
      comp=Z,71nm,1.2s
GNI   Garni            81.09 310   LR       LR       08 14 44.4
      comp=Z,792nm,18.5s,baz=76,slow=42
OHAK  Old Harbor       81.21  33   P        P        07 30 53.3  -1.1
Q19K  Cape Douglas,    81.21  31   IAmb     IAmb     07 31 10.0
      comp=Z,74nm,0.8s
Q19K                               IAMs_20  IAMs_20  08 01 53.7
      comp=Z,3µm,22.0s
ABPO  Ambohimpanom     81.28 250 i P        P        07 30 57.5  +1.8
ABPO  Ambohimpanom     81.28 250   P        P        07 30 56.4  +0.7
ABPO  Ambohimpanom     81.28 250   P        P        07 30 57.1  +1.3
      comp=Z,31nm,0.9s
D20K  Etivluk River    81.39  21   IAmb     IAmb     07 31 14.1
      comp=Z,144nm,1.1s
F20K  Avaraart Lake    81.43  23   IAmb     IAmb     07 31 14.4
      comp=Z,95nm,1.1s
B20K  Meade River      81.46  20   IAmb     IAmb     07 31 27.6
      comp=Z,87nm,1.2s
B20K                               IAMs_20  IAMs_20  08 13 52.2
      comp=Z,2µm,20.0s
K20K  Telida           81.56  27   IAmb     IAmb     07 31 15.1
      comp=Z,68nm,1.1s
J20K  Nowinta River    81.64  26   IAmb     IAmb     07 31 14.9
      comp=Z,87nm,1.1s
KDAK  Kodiak Island    81.64  32   LR       LR       08 02 12.9
      comp=Z,1µm,21.7s,baz=245,slow=32
KDAK  Kodiak Island    81.64  32   P        P        07 30 56.7  +0.1
KDAK                               pmax     pmax
      comp=Z,65nm,1.0s
KDAK  Kodiak Island    81.64  32   P        P        07 30 56.7  +0.1
KDAK                               IAmb     IAmb     07 31 16.1
      comp=Z,65nm,1.0s
KDAK  Kodiak Island    81.64  32   IAMs_20  IAMs_20  08 01 40.2
      comp=Z,2µm,22.0s
KDAK  Kodiak Island    81.64  32   P        P        07 30 57.6  +0.9
KDAK  Kodiak Island    81.64  32   P        P        07 30 58.0  +1.4
      comp=Z,70nm,1.6s
M20K  Styx River       81.81  28   IAmb     IAmb     07 31 07.7
      comp=Z,60nm,1.0s
HAKT  HAKKARI          81.82 307   P        P        07 30 59.4  +1.0
      comp=Z,3µmcomp=Z,148nm,1.4s
IMAR  Indian Mountai   82.05  24   P        P        07 30 58.6   0.0
NCK   Nalchik          82.06 313⇓eP         P        07 31 01.1  +1.9
NCK                                pmax     pmax
      comp=Z,41nm,0.7s
VOI   Vohitsoka        82.06 247   P        P        07 31 00.0  +0.3
VOI   Vohitsoka        82.06 247   IAmb     IAmb     07 31 08.6
      comp=Z,66nm,1.0s
VOI                                IAMs_20  IAMs_20  08 03 43.5
      comp=Z,2µm,20.0s
VOI   Vohitsoka        82.06 247   P        P        07 30 59.3  -0.4
      comp=Z,63nm,0.8s
G21K  Allakaket        82.22  23   IAmb     IAmb     07 31 29.1
      comp=Z,70nm,1.0s
E21K  Killik River     82.31  22   IAmb     IAmb     07 31 33.0
      comp=Z,100nm,1.1s
FOMA  Nahampoana Res   82.31 244   P        P        07 31 01.6  +0.8
FOMA                               IAmb     IAmb     07 31 10.3
      comp=Z,101nm,0.9s
FOMA  Nahampoana Res   82.31 244   P        P        07 31 00.1  -0.7
FOMA  Nahampoana Res   82.31 244   P        P        07 31 02.6  +1.8
      comp=Z,146nm,1.4s
GEVA  Gevas            82.35 308   IAmb     IAmb     07 31 28.8
      comp=Z,86nm,1.1s
H21K  Melozitna Rive   82.39  24   IAMs_20  IAMs_20  08 10 27.9
      comp=Z,2µm,20.0s
CAST  Castle Rocks     82.45  27   IAmb     IAmb     07 31 34.1
      comp=Z,97nm,1.3s
CNPM  China Poot       82.50  31   IAmb     IAmb     07 31 18.4
      comp=Z,71nm,1.0s
CNPM                               IAMs_20  IAMs_20  08 03 08.8
      comp=Z,2µm,22.0s
GOF   Gofitskoye       82.50 315ceP         P        07 31 02.4  +0.9
CRZF  Crozet Islands   82.50 222   P        P        07 31 13.0  +12
KBZ   Khabaz           82.57 313   P        P        07 31 00.3  -1.5
      comp=Z,6.7nm,1.0s,baz=79,slow=10,SNR=11
KBZ                                LR       LR       08 13 49.7
      comp=Z,3µm,18.6s,baz=80,slow=40
      comp=Z,6.7nm,1.0s
KBZ   Khabaz           82.57 313deP         P        07 31 03.9  +2.1
KBZ                                pmax     pmax
      comp=Z,27nm,1.9s
EPOS  Posof            82.65 311   P        P        07 31 04.8  +2.3
      comp=Z,1µmcomp=Z,23nm,0.6s
I21K  Tanana           82.68  25   IAmb     IAmb     07 31 35.8
      comp=Z,79nm,1.0s
BRLK  Bradley Lake     82.70  30   IAmb     IAmb     07 31 20.4
      comp=Z,85nm,1.0s
NEUR  Neytrino         82.70 313c iP        P        07 31 02.4  -0.4
NEUR                               pmax     pmax
      comp=Z,20nm,1.3s
KVAR  Kislovodsk Arr   82.72 314   LR       LR       08 13 03.0
      comp=Z,1µm,18.7s,baz=196,slow=40
KIV   Kislovodsk       82.73 314   P        P        07 31 03.6  +0.8
KIV   Kislovodsk       82.73 314   eP       P        07 31 02.3  -0.5
KIV                                eS       S        07 41 18.7  +0.1
KIV                                pmax     pmax
      comp=Z,15nm,1.1s
KIV                                MLR      MLR
      comp=Z,2µm,19.0s
KIV   Kislovodsk       82.73 314 i P        P        07 31 02.4  -0.5
      SNR=5.7
KIV   Kislovodsk       82.73 314   P        P        07 31 04.3  +1.5
      comp=Z,668nmcomp=Z,24nm,0.8s
KIV   Kislovodsk       82.73 314   P        P        07 31 00.7  -2.1
      comp=Z,856nmcomp=Z,30nm,0.8s
SHA1  Shidzhatmaz      82.75 313⇓eP         P        07 31 05.0  +1.9
D22K  Ayikyak River    82.83  21   IAmb     IAmb     07 31 45.0
      comp=Z,80nm,1.2s
SUA   Susitna One      82.90  29   IAmb     IAmb     07 31 16.0
      comp=Z,58nm,0.8s
H22K  Ishtalitna Cre   83.00  24   IAmb     IAmb     07 31 22.4
      comp=Z,99nm,1.1s
H22K                               IAMs_20  IAMs_20  08 10 46.1
      comp=Z,2µm,19.0s
ATD   Arta Tunnel      83.02 281   LR       LR       08 07 15.2
      comp=Z,22nm,20.5s,baz=76,slow=35
ATD   Arta Tunnel      83.02 281   P        P        07 31 05.4  +0.5
ATD   Arta Tunnel      83.02 281   IAmb     IAmb     07 31 28.9
      comp=Z,42nm,1.0s
ATD   Arta Tunnel      83.02 281   P        P        07 31 06.8  +2.0
E22K  Anaktuvuk Pass   83.06  22   IAmb     IAmb     07 31 24.8
      comp=Z,81nm,1.0s
SLKM  Skilak Lake      83.08  30   IAmb     IAmb     07 31 36.5
      comp=Z,122nm,1.3s
GURO  Guroymak-BITLI   83.16 308   IAmb     IAmb     07 31 35.1
      comp=Z,99nm,1.1s
RC01  Rabbit Creek A   83.36  29   IAmb     IAmb     07 31 33.2
      comp=Z,96nm,1.2s
SEW   Seward           83.44  30   IAMs_20  IAMs_20  08 07 03.9
      comp=Z,2µm,22.0s
VRH   Novokhopyorsk    83.56 321   P        P        07 31 07.4  +0.7
VRH                                pmax     pmax
      comp=Z,211nm,1.4s
C23K  Itkillik River   83.67  20   IAmb     IAmb     07 31 28.4
      comp=Z,84nm,0.9s
C23K                               IAMs_20  IAMs_20  08 12 13.6
      comp=Z,2µm,21.0s
PMR   Palmer           83.68  29   P        P        07 31 06.2  -0.9
H23K  Yukon River      83.75  24   IAMs_20  IAMs_20  08 09 35.0
      comp=Z,2µm,20.0s
I23K  Minto, Yukon-K   83.78  25   IAMs_20  IAMs_20  08 10 16.6
      comp=Z,2µm,19.0s
GHO   Glory Hole Cre   83.78  28   IAmb     IAmb     07 31 38.3
      comp=Z,72nm,1.1s
VNDA  Vanda            83.85 173   P        P        07 31 07.6  -0.1
      comp=Z,32nm,0.9s,baz=311,slow=5.8,SNR=66
VNDA                               LR       LR       08 08 16.5
      comp=Z,638nm,20.8s,baz=336,slow=36
      comp=Z,32nm,0.9s
VNDA  Vanda            83.85 173   P        P        07 31 07.6  -0.1
VNDA                               pmax     pmax
      comp=Z,49nm,1.1s
VNDA  Vanda            83.85 173   P        P        07 31 07.6  -0.1
VNDA                               IAmb     IAmb     07 31 10.3
      comp=Z,49nm,1.1s
VNDA  Vanda            83.85 173   P        P        07 31 07.8  +0.1
      comp=Z,839nmcomp=Z,49nm,1.0s,comp=Z,839nm
RND   Reindeer         83.90  27   IAmb     IAmb     07 31 25.2
      comp=Z,87nm,1.0s
PWL   Port Wells       84.03  29   IAMs_20  IAMs_20  08 05 18.4
      comp=Z,2µm,21.0s
MAW   Mawson           84.07 200   P        P        07 31 09.7  +0.7
      comp=Z,10nm,1.6s
MAW   Mawson           84.07 200   P        P        07 31 08.8  -0.2
      comp=Z,40nm,1.1s,baz=67,slow=7.8,SNR=28
MAW                                LR       LR       08 05 31.0
      comp=Z,751nm,19.3s,baz=65,slow=34
      comp=Z,40nm,1.1s
MAW   Mawson           84.07 200   P        P        07 31 09.1  +0.1
MAW   Mawson           84.07 200   P        P        07 31 09.1  +0.1
MAW   Mawson           84.07 200   P        P        07 31 09.9  +1.0
      comp=Z,325nmcomp=Z,10nm,1.6s,comp=Z,325nm
LABN  Labinsk          84.15 314   eP       P        07 31 09.5  -0.4
LABN                               e*PP     pP       07 31 18.3  -1.2
LABN                               eS       SKSac    07 41 29.0  -2.1
LABN                                pmax    pmax
      comp=Z,38nm,0.5s
LABN                                MLR     MLR
      comp=Z,4µm,20.0s
D24K  Happy Valley     84.24  21   IAMs_20  IAMs_20  08 14 10.0
      comp=Z,2µm,21.0s
E24K  Your Creek       84.30  22   IAmb     IAmb     07 31 31.8
      comp=Z,103nm,1.4s
E24K                               IAMs_20  IAMs_20  08 10 40.4
      comp=Z,2µm,21.0s
ERBR  Yeremizino-Bor   84.31 315   eP       P        07 31 11.1  +0.3
ERBR                               eS       SKSac    07 41 31.2  -1.0
ERBR                                pmax    pmax
      comp=Z,37nm,0.8s
COLA  College          84.41  25   P        P        07 31 10.8   0.0
COLA  College          84.41  25c iP        P        07 31 10.3  -0.5
COLA                                pmax    pmax
      comp=Z,26nm,1.0s
COLA  College          84.41  25   P        P        07 31 11.4  +0.6
COLA  College          84.41  25   P        P        07 31 11.4  +0.6
COLA  College          84.41  25   P        P        07 31 10.6  -0.2
      comp=Z,42nm,1.1s
CCB   Clear Creek Bu   84.42  26   IAmb     IAmb     07 31 28.3
      comp=Z,80nm,1.2s
H24K  Noodor Dome      84.44  24   IAMs_20  IAMs_20  08 11 38.9
      comp=Z,2µm,19.0s
P23K  Montague Islan   84.46  30   IAMs_20  IAMs_20  08 04 25.7
      comp=Z,2µm,21.0s
DHY   Denali Highway   84.56  27   IAmb     IAmb     07 31 49.1
      comp=Z,104nm,1.5s
VSLR  Vesyoloye        84.65 313⇓eP         P        07 31 13.7  +1.2
VSLR                                pmax    pmax
      comp=Z,62nm,1.2s
SBA   Scott Base       84.76 172   P        P        07 31 13.5  +1.2
SBA                                 pmax    pmax
      comp=Z,169nm,1.7s
SBA                                 MLR     MLR
      comp=Z,1µm,18.0s
SBA   Scott Base       84.76 172   P        P        07 31 13.5  +1.2
SBA   Scott Base       84.76 172   P        P        07 31 12.1  -0.2
      comp=Z,2µmcomp=Z,65nm,1.5s
SBA                                pP       sP       07 31 23.3  -2.6
HDA   Harding Lake     84.78  26   IAmb     IAmb     07 31 27.9
      comp=Z,38nm,0.9s
IL31                   84.82  25   IAmb     IAmb     07 31 29.7
      comp=Z,58nm,1.4s
ILAR  Eielson Array    84.82  25   P        P        07 31 12.2  -0.7
      comp=Z,2.5nm,0.6s,baz=264,slow=4.2,SNR=28
ILAR                               PKKPbc   PKKPbc   07 49 21.6  -2.8
      comp=Z,0.8nm,0.9s,baz=16,slow=3.4,SNR=5.9
ILAR                               LR       LR       08 11 00.5
      comp=Z,537nm,19.6s,baz=232,slow=37
      comp=Z,2.5nm,0.6s
ILAR  Eielson Array    84.82  25   P        P        07 31 11.3  -1.6
SOC   Sochi            84.88 313   eP       P        07 31 12.6  -1.1
SOC                                ePPP     PPP      07 36 22.6
SOC                                eS       SKSac    07 41 32.1  -3.7
SOC                                 pmax    pmax
      comp=Z,12nm,0.8s
KLMR  Klimovskoe       84.97 331   eP       P        07 31 11.7  -2.0
KLMR                                S       SKSac    07 41 33.0  -2.6
KLMR                                pmax    pmax
      comp=Z,615nm,1.5s
KLMR                                MLR     MLR
      comp=Z,3µm,17.0s
D25K  Kavik River      85.12  21   IAmb     IAmb     07 31 47.7
      comp=Z,80nm,1.2s
D25K                               IAMs_20  IAMs_20  08 16 26.1
      comp=Z,1µm,20.0s
VORR  Voronezh         85.13 321   P        P        07 31 15.3  +0.6
VORR                                pmax    pmax
      comp=Z,176nm,1.0s
VSR   Storozhevoye     85.16 321   P        P        07 31 14.8  -0.1
VSR                                 pmax    pmax
      comp=Z,155nm,1.2s
KLU   Klutina          85.21  29   IAmb     IAmb     07 31 35.8
      comp=Z,74nm,1.1s
KLU                                IAMs_20  IAMs_20  08 12 28.5
      comp=Z,2µm,21.0s
K24K  Donnelly Dome    85.29  26   IAmb     IAmb     07 31 33.5
      comp=Z,68nm,0.9s
KELT  Kelkit           85.29 310   P        P        07 31 18.3  +2.2
      comp=Z,3µmcomp=Z,160nm,1.7s,comp=Z,3µm
EYAK  Cordova Ski Ar   85.29  30   P        P        07 31 17.4  +2.1
LPSR  Galich'ya Gora   85.30 322   P        P        07 31 15.6  +0.1
LPSR                                pmax    pmax
      comp=Z,268nm,1.2s
F25K  Christian Rive   85.37  23   IAmb     IAmb     07 31 42.3
      comp=Z,49nm,1.3s
E25K  Arctic Village   85.40  22   IAMs_20  IAMs_20  08 12 40.4
      comp=Z,2µm,21.0s
PRP   Porcupine Dome   85.40  25   IAMs_20  IAMs_20  08 12 20.5
      comp=Z,2µm,19.0s
PPT   Papeete          85.41 108   LR       LR       08 05 38.5
      comp=Z,579nm,19.1s,baz=272,slow=33
ADZR  Andozero         85.55 334d iP        P        07 31 17.7  +1.2
ADZR                                S       SKSac    07 41 39.5  +0.3
ADZR                                pmax    pmax
      comp=Z,173nm,1.0s
ADZR                                MLR     MLR
      comp=Z,4µm,16.0s
BMAR  Burnt Mountain   85.78  23   P        P        07 31 18.1  +0.4
RAGM  Ragged Mountai   85.83  30   IAMs_20  IAMs_20  08 02 55.7
      comp=Z,3µm,22.0s
F26K  Sheenjek River   85.94  22   IAmb     IAmb     07 31 40.4
      comp=Z,46nm,1.2s
F26K                               IAMs_20  IAMs_20  08 10 01.6
      comp=Z,2µm,21.0s
MOS   Moscow           86.00 325   eP       P        07 31 18.8  -0.2
MOS                                eS       S        07 41 51.8  +1.2
MOS                                 pmax    pmax
      comp=Z,235nm,1.3s
MOS                                 pmax    pmax
      comp=Z,900nm,2.2s
MOS                                 MLR     MLR
      comp=E,2µm,18.0s
MOS                                 MLR     MLR
      comp=Z,2µm,18.0s
SCRK  Sand Creek       86.08  26   IAmb     IAmb     07 31 35.7
      comp=Z,54nm,1.4s
MENT  Mentasta         86.22  27   P        P        07 31 22.5  +2.5
L26K  Log Cabin Wild   86.39  27   IAMs_20  IAMs_20  08 16 01.6
      comp=Z,1µm,20.0s
I26K  Coal Creek Min   86.40  25   IAmb     IAmb     07 31 50.0
      comp=Z,55nm,1.2s
I26K                               IAMs_20  IAMs_20  08 12 52.0
      comp=Z,2µm,19.0s
ANN   Anapa            86.49 315   eP       P        07 31 21.5  -0.1
ANN                                eS       SKSac    07 41 44.2  -1.7
ANN                                 pmax    pmax
      comp=Z,64nm,0.8s
CRQM  Cirque           86.58  29   IAmb     IAmb     07 31 40.5
      comp=Z,92nm,1.2s
M26K  Nabesna, AK      86.58  28   IAmb     IAmb     07 31 41.8
      comp=Z,75nm,1.6s
M26K                               IAMs_20  IAMs_20  08 08 06.6
      comp=Z,2µm,21.0s
MCARA McCarthy VSAT    86.61  29   IAmb     IAmb     07 31 41.2
      comp=Z,73nm,1.1s
OBN   Obninsk          86.63 325   LR       LR       08 12 24.3
      comp=Z,3µm,19.3s,baz=82,slow=37
OBN   Obninsk          86.63 325deP         P        07 31 21.8  -0.2
OBN                                i *PP    pP       07 31 29.8  -1.8
OBN                                e                 07 34 44.3
OBN                                eS       SKSac    07 41 45.5  -0.8
OBN                                eSS      SS       07 47 40.2  +2.4
OBN                                eSSS     SSS      07 51 13.1
OBN                                 pmax    pmax
      comp=Z,318nm,1.5s
OBN                                 MLR     MLR
      comp=Z,3µm,18.0s
OBN   Obninsk          86.63 325   P        P        07 31 22.4  +0.3
OBN   Obninsk          86.63 325   P        P        07 31 22.3  +0.3
      comp=Z,4µmcomp=Z,261nm,1.6s
OBN   Obninsk          86.63 325   P        P        07 31 22.5  +0.3
      comp=Z,4µmcomp=Z,263nm,1.6s,comp=Z,4µm
TGL   Tana Glacier     86.73  29   IAmb     IAmb     07 31 45.0
      comp=Z,90nm,1.2s
TGL                                IAMs_20  IAMs_20  08 11 56.6
      comp=Z,1µm,21.0s
E27K  Coleen River     86.88  22   IAMs_20  IAMs_20  08 13 55.7
      comp=Z,2µm,20.0s
LVZ   Lovozero         86.92 338⇓eP         P        07 31 23.4  +0.2
LVZ                                 pmax    pmax
      comp=Z,71nm,1.3s
LVZ   Lovozero         86.92 338   P        P        07 31 23.5  +0.2
LVZ                                IAmb     IAmb     07 31 31.8
      comp=Z,72nm,1.3s
LVZ   Lovozero         86.92 338   P        P        07 31 23.7  +0.4
      comp=Z,44nm,1.0s
GAZ   Gaziantep        87.00 307   IAmb     IAmb     07 32 00.4
      comp=Z,57nm,1.2s
I27K  Kandik River     87.03  25   IAmb     IAmb     07 31 43.8
      comp=Z,57nm,1.1s
I27K                               IAMs_20  IAMs_20  08 13 20.4
      comp=Z,2µm,19.0s
D27M  Malcolm River    87.05  21   IAmb     IAmb     07 31 59.2
      comp=Z,163nm,2.0s
L27K  Beaver Creek,    87.08  27   IAMs_20  IAMs_20  08 16 20.9
      comp=Z,1µm,20.0s
M27K  Edge Creek, AK   87.10  28   IAMs_20  IAMs_20  08 08 22.4
      comp=Z,2µm,22.0s
BCAR  Beaver Creek A   87.10  27   P        P        07 31 24.8  +0.5
GRNC  Granite Creek    87.26  29   IAMs_20  IAMs_20  08 05 55.5
      comp=Z,2µm,22.0s
BARN  Barnard Glacie   87.28  29   IAmb     IAmb     07 31 51.0
      comp=Z,48nm,1.0s
YAH   Yahtse           87.28  30   IAmb     IAmb     07 31 45.1
      comp=Z,64nm,1.1s
YAH                                IAMs_20  IAMs_20  08 04 18.4
      comp=Z,2µm,22.0s
APA   Apatity          87.41 337   eP       P        07 31 25.2  -0.4
APA                                e                 07 34 46.7
APA                                eS       S        07 42 02.1  -1.7
APA                                ePS      PnS      07 42 59.4  -8.1
APA                                 pmax    pmax
      comp=Z,37nm,1.1s
ASF   Jabal al Asfar   87.53 302   LR       LR       08 18 12.8
      comp=Z,646nm,18.1s,baz=71,slow=41
ASF   Jabal al Asfar   87.53 302   P        P        07 31 29.1  +2.0
      comp=Z,25µmcomp=Z,8µmcomp=Z,320nm,1.1s
F28M  Old Crow         87.57  22   IAmb     IAmb     07 31 44.5
      comp=Z,41nm,1.1s
E28M  Babbage River    87.61  21   IAmb     IAmb     07 31 51.5
      comp=Z,34nm,0.9s
E28M                               IAMs_20  IAMs_20  08 13 24.9
      comp=Z,2µm,21.0s
LOGN  Logan Glacier    87.62  29   IAMs_20  IAMs_20  08 06 06.2
      comp=Z,2µm,22.0s
ANDN  Andirin          87.67 307   P        P        07 31 29.1  +1.4
      comp=Z,2µmcomp=Z,134nm,1.2s,comp=Z,2µm
I28M  Miner Creek      87.73  25   IAMs_20  IAMs_20  08 13 54.1
      comp=Z,2µm,20.0s
HSUJ  Al Zarqa         88.13 302   P        P        07 31 30.2  +0.3
      comp=Z,46nm,1.2s
G29M  Pine Creek       88.36  23   IAmb     IAmb     07 31 58.9
      comp=Z,55nm,1.1s
G29M                               IAMs_20  IAMs_20  08 18 59.6
      comp=Z,2µm,21.0s
I29M  Ogilvie Camp,    88.42  25   IAMs_20  IAMs_20  08 14 24.3
      comp=Z,2µm,20.0s
GEM   Giv'at Ha'Em     88.50 303   P        P        07 31 30.2  -1.4
PNL   Peninsula        88.51  30   P        P        07 31 31.8  +0.7
VADS  Vadso            88.59 340   eP       P        07 31 32.9  +1.8
QRNJ  Al-Qirein        88.64 302   P        P        07 31 34.0  +1.8
      comp=Z,40µmcomp=Z,3µm,0.8s
KIBK  Kibwezi          88.67 268   P        P        07 31 32.6  -0.3
      SNR=10
KIBK  Kibwezi          88.67 268   IAmb     IAmb     07 31 42.1
      comp=Z,43nm,1.1s
KIBK  Kibwezi          88.67 268   P        P        07 31 33.3  +0.4
      comp=Z,978nmcomp=Z,38nm,1.2s,comp=Z,978nm
GHAJ  Ghor Haditha     88.72 301   P        P        07 31 34.1  +1.5
MMAI  Mount Meron Ar   88.73 303   P        P        07 31 31.7  -1.1
      comp=Z,1.2nm,0.3s,baz=40,slow=4.7,SNR=1.2
MMAI                               LR       LR       08 17 25.7
      comp=Z,974nm,19.2s,baz=68,slow=40
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              comp=Z,1.2nm,0.3s
L29M   L29M              88.75  27   IAmb      IAmb      07 31 50.9
              comp=Z,49nm,1.2s
L29M                                 IAMs_20   IAMs_20   08 07 04.1
              comp=Z,2µm,22.0s
UJAP   Al Uja            88.76 302   P         P         07 31 33.0 +0.2
              comp=Z,1µmcomp=Z,23nm,1.7s
MMLI   Mount Malkishu    88.76 302   P         P         07 31 33.1 +0.2
              comp=Z,1µmcomp=Z,57nm,1.8s,comp=Z,1µm
SIM    Simferopol'       88.83 315  eP         P         07 31 32.6 -0.3
SIM                                 eS         S         07 42 15.0 -3.3
SIM                                  pmax      pmax
              comp=Z,31nm,1.2s
MSBI   Mazada            88.89 301   P         P         07 31 35.6 +2.2
              comp=Z,156nmcomp=Z,6.0nm,1.4s
EPYK   Eagle Plains      88.94  24   IAmb      IAmb      07 31 50.0
              comp=Z,42nm,1.1s
G30M   tAoh Zraii Nji    89.05  23   IAMs_20   IAMs_20   08 19 17.0
              comp=Z,1µm,20.0s
F30M   Barrier River     89.13  22   IAmb      IAmb      07 32 02.9
              comp=Z,36nm,1.1s
F30M                                 IAMs_20   IAMs_20   08 19 34.0
              comp=Z,2µm,20.0s
I30M   Mount Dempster    89.24  25   IAMs_20   IAMs_20   08 15 09.0
              comp=Z,2µm,19.0s
AMAZ   Amatzia           89.25 301   P         P         07 31 32.5 -2.7
              comp=Z,2µmcomp=Z,51nm,0.7s
HRFI   Mount Harif       89.26 300   P         P         07 31 34.6 -0.7
              comp=Z,1µmcomp=Z,55nm,1.6s
HRFI   Mount Harif       89.26 300   P         P         07 31 36.5 +1.3
              comp=Z,1µmcomp=Z,55nm,1.6s,comp=Z,1µm
PRNI   Paran             89.27 300   P         P         07 31 36.9 +1.6
              comp=Z,3µmcomp=Z,216nm,1.2s
AQBJ   Aqaba             89.28 300   P         P         07 31 37.0 +1.7
              comp=Z,141nm,0.8s
MSF    Maaselka          89.32 336   P         P         07 31 34.6 -0.1
MSF    Maaselka          89.32 336   P         P         07 31 34.6 -0.1
              comp=Z,56nm,1.4s
EIL    Elat              89.37 300   LR        LR        08 16 56.0
              comp=Z,2µm,20.3s,baz=73,slow=39
EIL    Elat              89.37 300   P         P         07 31 36.6 +0.9
              comp=Z,1µmcomp=Z,871nmcomp=Z,27nm,1.7s
EIL    Elat              89.37 300   P         P         07 31 37.5 +1.7
              comp=Z,870nmcomp=Z,26nm,1.7s,comp=Z,870nm
KMBO   Kilima Mbogo      89.38 269   P         P         07 31 35.2 -1.2
              baz=104,slow=6.1
KMBO                                 LR        LR        08 08 39.4
              comp=Z,856nm,21.6s,baz=94,slow=34
KIRS   Kirsehir-Merke    89.46 309 ⇓P          P         07 31 36.4 +0.3
PUL    Pulkovo           89.60 330⇓eP          P         07 31 37.9 +1.8
PUL                                  pmax      pmax
              comp=Z,88nm,0.9s
BR104  Keskin Array S    89.62 310   P         P         07 31 36.7 -0.2
              comp=Z,143nmcomp=Z,13nm,0.9s
BR131  Keskin Array S    89.62 310   P         P         07 31 37.3 +0.4
              SNR=7.4
BR131  Keskin Array S    89.62 310deP          P         07 31 36.9  0.0
BRTR   Keskin Array B    89.62 310   P         P         07 31 35.5 -1.4
              comp=Z,6.3nm,0.8s,baz=127,slow=4.6,SNR=17
BRTR                                 LR        LR        08 18 06.4
              comp=Z,842nm,19.9s,baz=74,slow=40
              comp=Z,6.3nm,0.8s
BRTR   Keskin Array B    89.62 310 i P         P         07 31 36.2 -0.7
BRTR                                 pmax      pmax
              comp=Z,7.0nm,0.8s
BRTR   Keskin Array B    89.62 310   P         P         07 31 36.3 -0.7
BR106  Keskin Array S    89.64 310   P         P         07 31 36.9 -0.1
              comp=Z,107nmcomp=Z,14nm,1.0s
BR105  Keskin Array S    89.64 310   P         P         07 31 37.1 +0.1
              comp=Z,120nmcomp=Z,17nm,0.8s
KZIT   Kziot             89.75 301   P         P         07 31 37.9 +0.4
              comp=Z,43nm,1.7s
G31M   Satah River       89.82  23   IAMs_20   IAMs_20   08 20 00.3
              comp=Z,1µm,20.0s
INK    Inuvik            89.85  21   LR        LR        08 17 08.7
              comp=Z,706nm,18.8s,baz=282,slow=39
INK    Inuvik            89.85  21   P         P         07 31 35.1 -2.0
INK    Inuvik            89.85  21   P         P         07 31 35.1 -2.0
              comp=Z,25nm,1.2s
F31M   Tsiigehtchic      89.93  22   IAMs_20   IAMs_20   08 18 06.2
              comp=Z,1µm,20.0s
ARA0   ARCESS Array S    90.01 340  eP         P         07 31 40.2 +2.3
ARCES  ARCESS Array B    90.01 340   P         P         07 31 36.5 -1.4
              comp=Z,6.3nm,0.7s,baz=82,slow=6.4,SNR=28
ARCES                                LR        LR        08 17 03.2
              comp=Z,3µm,18.9s,baz=82,slow=39
              comp=Z,6.3nm,0.7s
ARCES  ARCESS Array B    90.01 340   P         P         07 31 36.4 -1.4
ARCES                                IAmb      IAmb      07 31 49.3
              comp=Z,77nm,1.2s
SPA0   Spitsbergen Ar    90.05 349  eP         P         07 31 40.4 +2.5
SPITS  Spitsbergen Ar    90.05 349   P         P         07 31 36.5 -1.5
              comp=Z,16nm,0.9s,baz=96,slow=7.6,SNR=6.0
SPITS                                LR        LR        08 17 12.1
              comp=Z,4µm,20.2s,baz=49,slow=39
              comp=Z,16nm,0.9s
SGF    Sodankyl          90.05 338   P         P         07 31 41.5 +3.4
SGF    Sodankyl          90.05 338   P         P         07 31 41.5 +3.4
              comp=Z,30nm,0.9s
N31M   Braeburn, Yuko    90.06  28   IAMs_20   IAMs_20   08 07 27.6
              comp=Z,1µm,21.0s
KKUL   Konya-Kulu        90.23 309   P         P         07 31 40.6 +0.9
              comp=Z,743nmcomp=Z,67nm,1.0s,comp=Z,743nm
CSS    Mathiatis         90.29 305   P         P         07 31 37.9 -2.1
CSS    Mathiatis         90.29 305   P         P         07 31 38.5 -1.5
              comp=Z,612nmcomp=Z,25nm,0.8s
HAMF   Hammerfest        90.37 341  eP         P         07 31 39.5  0.0
WHY    Whitehorse        90.62  29   IAmb      IAmb      07 32 13.4
              comp=Z,109nm,1.7s
OUL    Oulu              90.76 335   P         P         07 31 41.7 +0.3
OUL    Oulu              90.76 335   P         P         07 31 41.7 +0.3
              comp=Z,38nm,1.0s
KTK1   Kautokeino        90.91 339  eP         P         07 31 41.2 -0.9
LODK   Lodwar            90.94 273   P         P         07 31 44.5 +1.1
LODK   Lodwar            90.94 273   P         P         07 31 45.0 +1.5
              comp=Z,490nmcomp=Z,10.0nm,1.5s
JIS    Juneau Island     91.27  31   P         P         07 31 45.0 +1.1
FINES  FINESS Array B    91.39 332   P         P         07 31 43.2 -1.2
              comp=Z,30nm,1.1s,baz=72,slow=6.2,SNR=21
FINES                                LR        LR        08 15 57.2
              comp=Z,3µm,21.9s,baz=78,slow=38
              comp=Z,30nm,1.1s
FINES  FINESS Array B    91.39 332   P         P         07 31 43.8 -0.6
FINES  FINESS Array B    91.39 332   P         P         07 31 43.8 -0.6
N32M   Quiet Lake        91.40  29   IAmb      IAmb      07 32 05.2
              comp=Z,42nm,0.8s
AK09   Malin Array Si    91.44 321   P         P         07 31 44.1 -0.8
AK08   Malin Array Si    91.46 321   P         P         07 31 44.2 -0.8
AK03   Malin Array Si    91.46 321   P         P         07 31 44.2 -0.8
AK10   Malin Array Si    91.46 321   P         P         07 31 44.2 -0.8
AKASG  Malin Array Be    91.47 321   P         P         07 31 43.6 -1.4
              comp=Z,12nm,0.9s,baz=71,slow=4.3,SNR=36
AKASG                                LR        LR        08 15 25.6
              comp=Z,2µm,21.7s,baz=70,slow=37
              comp=Z,12nm,0.9s
AKASG  Malin Array Be    91.47 321   P         P         07 31 45.0  0.0
AKASG                                pmax      pmax
              comp=Z,69nm,1.6s
AKASG  Malin Array Be    91.47 321   P         P         07 31 45.0  0.0
AKASG                                IAmb      IAmb      07 32 06.7
              comp=Z,69nm,1.6s
AKBB   Malin Array Si    91.47 321⇑eP          P         07 31 43.3 -1.7
AKBB                                 pmax      pmax
              comp=Z,41nm,1.1s
AKBB   Malin Array Si    91.47 321   IAmb      IAmb      07 32 07.2
              comp=Z,43nm,1.1s
KIEV   Kiev              91.48 321   P         P         07 31 43.6 -1.4
KIEV                                 pmax      pmax
              comp=Z,36nm,1.1s
KIEV                                 MLR       MLR
              comp=Z,2µm,21.0s
KIEV   Kiev              91.48 321   P         P         07 31 43.6 -1.4
KIEV                                 IAmb      IAmb      07 32 07.1
              comp=Z,36nm,1.1s
KIEV   Kiev              91.48 321 i P         P         07 31 43.7 -1.4
              SNR=12
KIEV   Kiev              91.48 321 ⇑P          P         07 31 44.0 -1.0
KIEV   Kiev              91.48 321   P         P         07 31 43.9 -1.2
              comp=Z,1µmcomp=Z,32nm,1.2s,comp=Z,1µm
PURM   Purcari           91.62 317 ⇑P          P         07 31 45.4 -0.4
VSU    Vasula            91.63 329⇑eP          P         07 31 43.8 -1.8
VSU                                  pmax      pmax
              comp=Z,57nm,0.8s
VSU    Vasula            91.63 329   P         P         07 31 43.7 -1.8
              comp=Z,80nm,1.1s
MNK    Minsk             91.69 325 i P         P         07 31 44.9 -1.0
MNK                                i                     07 35 23.0
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MNK                                i PPP       PPP       07 37 20.0
MNK                                i S         SKSac     07 42 14.6 -1.7
MNK                                i SS        SS        07 48 53.5 +2.2
MNK                                i SSS       SSS       07 52 33.1
MNK                                  pmax      pmax
              comp=E,20nm,0.9s
MNK                                  pmax      pmax
              comp=Z,88nm,0.9s
MNK                                  pmax      pmax
              comp=N,35nm,1.1s
MNK                                  MLR       MLR
              comp=E,3µm,19.0s
MNK                                  MLR       MLR
              comp=N,2µm,21.0s
MNK                                  MLR       MLR
              comp=Z,3µm,18.0s
MNK    Minsk             91.69 325 i P         P         07 31 45.0 -1.0
              comp=E,20nm,0.9s
MNK                                i P         P         07 31 45.0 -1.0
              comp=N,35nm,1.1s
MNK                                i P         P         07 31 45.0 -1.0
              comp=Z,88nm,0.9s,baz=80
MNK                                i PP        PP        07 35 23.1 -1.5
MNK                                i PPP       PPP       07 37 20.1
MNK                                i S         SKSac     07 42 14.6 -1.7
MNK                                i SS        SS        07 48 53.6 +2.2
MNK                                i SSS       SSS       07 52 33.2
MNK                                i LQ        LQ        08 06 40.9
MNK                                i LR        LR        08 13 00.8
MNK                                i LRM       MLR       08 14 01.4
              comp=E,3µm,19.1s
MNK                                i LRM       MLR       08 15 03.4
              comp=N,2µm,20.9s
MNK                                i LRM       MLR       08 15 14.6
              comp=Z,3µm,18.3s
JETT   Jettan, Norway    91.74 340  eP         P         07 31 46.3 +0.3
ARBE   Arbavere          91.83 330   P         P         07 31 45.8 -0.7
              comp=Z,207nm,1.1s
MMPY   Sheldon Lake,     91.94  27   IAmb      IAmb      07 32 08.0
              comp=Z,35nm,1.1s
TRO    Tromso            92.21 340  eP         P         07 31 50.9 +2.8
LUBAR  Lubar, Ukraine    92.52 320   P         P         07 31 49.2 -0.7
TLCR                     92.54 315 ⇓P          P         07 31 49.5 -0.6
NOR    Nord              92.67 355   P         P         07 31 51.3 +1.3
NOR    Nord              92.67 355   P         P         07 31 51.4 +1.3
              comp=Z,27nm,1.6s
WRAK   Wrangell Islan    92.70  33   IAmb      IAmb      07 32 13.2
              comp=Z,31nm,0.9s
SYO    Syowa Base        92.74 201⇑iP          P         07 31 51.6 +1.2
SYO    Syowa Base        92.74 201⇓eP          P         07 31 55.6 +5.2
TPGR   Topolog           92.86 315 ⇓P          P         07 31 50.7 -1.0
TIRR   Tirgusor          92.93 315 ⇑P          P         07 31 51.7 -0.2
CFR    Carcaliu          93.01 316 ⇓P          P         07 31 52.7 +0.4
RNPP8  Varash            93.46 322   P         P         07 31 53.5 -0.7
RNPP5  Staryi Chortor    93.46 322   P         P         07 31 53.5 -0.7
DLBC   Dease Lake        93.49  31   LR        LR        08 09 42.7
              comp=Z,1µm,21.3s,baz=270,slow=33
KMPD   K-Podol'skiy      93.58 319   P         P         07 31 54.7 -0.2
WTLY   Watson Lake, Y    93.69  29   IAmb      IAmb      07 32 13.2
              comp=Z,48nm,1.1s
PABE   Paberze           93.71 326   P         P         07 31 54.7 -0.5
              comp=Z,95nm,1.3s
T35M   Bob Quinn         93.71  32   IAMs_20   IAMs_20   08 08 09.4
              comp=Z,2µm,22.0s
TESR   Tescani           93.82 317 ⇓P          P         07 31 55.1 -0.9
TESR   Tescani           93.82 317   P         P         07 31 55.6 -0.4
              comp=Z,61nm,1.6s
TESR   Tescani           93.82 317   P         P         07 31 55.7 -0.4
              comp=Z,84nm,1.4s
VRI    Vrincioaia        93.88 316   P         P         07 31 57.5 +1.2
VRI    Vrincioaia        93.88 316 ⇑P          P         07 31 56.5 +0.2
VRI    Vrincioaia        93.88 316   P         P         07 31 56.3  0.0
VRI    Vrincioaia        93.88 316   P         P         07 31 56.3  0.0
              comp=Z,76nm,1.4s
PLOR   Plostina          93.94 316 ⇓P          P         07 31 56.4 -0.2
BISRR  Bisoca            93.95 316 ⇓P          P         07 31 56.7  0.0
ONER   Baraj Valea Uz    94.03 317 ⇑P          P         07 31 56.2 -0.8
QSPA   South Pole Qui    94.04 180   LR        LR        08 17 01.8
              comp=Z,897nm,18.2s,baz=352,slow=37
QSPA   South Pole Qui    94.04 180   P         P         07 31 57.0 +0.3
QSPA                                 IAmb      IAmb      07 32 19.4
              comp=Z,68nm,1.2s
QSPA   South Pole Qui    94.04 180   IAMs_20   IAMs_20   08 17 34.6
              comp=Z,2µm,20.0s
BIZ    Bicaz             94.11 317 ⇓P          P         07 31 56.1 -1.3
FAUS   Fauske            94.23 339  eP         P         07 31 56.9 -0.5
NEHR   Nehoiu            94.25 316 ⇑P          P         07 31 57.3 -0.8
MLR    Muntele Rosu      94.48 316   LR        LR        08 19 52.4
              comp=Z,3µm,22.0s,baz=64,slow=39
MLR    Muntele Rosu      94.48 316   P         P         07 31 59.5 +0.2
MLR    Muntele Rosu      94.48 316 ⇓P          P         07 31 59.0 -0.3
MLR    Muntele Rosu      94.48 316   P         P         07 31 58.8 -0.5
              comp=Z,52nm,1.8s
SUW    Suwalki           94.49 325  eP         P         07 31 59.7 +0.8
BURAR  Bucovina Array    94.58 318   P         P         07 31 58.7 -0.9
BURAR                                IAmb      IAmb      07 32 14.6
              comp=Z,24nm,0.8s
BURAR  Bucovina Array    94.58 318 ⇑P          P         07 31 59.3 -0.3
BUR08  Bucovina Ar. S    94.59 318   IAmb      IAmb      07 32 04.7
              comp=Z,40nm,1.1s
DOPR   Dopca             94.78 317 ⇓P          P         07 32 00.1 -0.4
MOR8   Moi Rana          94.99 338  eP         P         07 32 02.6 +1.6
VOIR                     95.11 316 ⇓P          P         07 32 01.4 -0.7
VOIR                     95.11 316   P         P         07 32 02.4 +0.3
              comp=Z,12nm,1.1s
ARR    Arges             95.42 316   P         P         07 32 04.2 +0.8
              comp=Z,50nm,1.6s
LEIR   Leirfjorden       95.52 338  eP         P         07 32 05.0 +1.7
MBAR   Mbarara           95.84 270   LR        LR        08 13 59.6
              comp=Z,964nm,20.9s,baz=75,slow=35
CJR    Cluj-Napoca       95.84 318   P         P         07 32 07.7 +2.3
LOT    Lotru             96.00 316 ⇑P          P         07 32 06.1 -0.1
LOT    Lotru             96.00 316   P         P         07 32 05.8 -0.4
              comp=Z,38nm,0.9s
BBB    Bella Bella       96.08  37   LR        LR        08 06 52.5
              comp=Z,413nm,21.1s,baz=284,slow=30
MARR   Marisel-Cluj      96.17 318 ⇑P          P         07 32 06.1 -0.9
POGA   Pongola           96.18 243   IAmb      IAmb      07 32 29.0
              comp=Z,27nm,0.9s
POGA   Pongola           96.18 243   P         P         07 32 07.9 +0.7
              comp=Z,95nm,0.9s
KOLS   Kolonicke sedl    96.22 320  eP         P         07 32 09.5 +2.5
KOLS   Kolonicke sedl    96.22 320  ePDIFF     P         07 32 09.5 +2.5
KOLS   Kolonicke sedl    96.22 320   P         P         07 32 09.1 +2.1
              comp=Z,157nmcomp=Z,20nm,0.9s,comp=Z,157nm
TRPA   Tarpa             96.23 319   P         P         07 32 07.9 +0.9
UZHM   Uzhgorod          96.28 320   P         P         07 32 08.5 +1.3
DRGR                     96.42 318 ⇓P          P         07 32 08.2 +0.2
DRGR                     96.42 318   P         P         07 32 08.9 +0.9
              comp=Z,36nm,1.5s
DEV    Deva              96.50 317   P         P         07 32 10.1 +1.9
NSS    Namsos            96.59 337  eP         P         07 32 09.7 +1.5
GZR    Gura Zlata        96.69 316 ⇑P          P         07 32 09.0 -0.3
STHS   Stebnicka Huta    96.76 321  eP         P         07 32 10.7 +1.3
STHS   Stebnicka Huta    96.76 321  ePDIFF     P         07 32 10.7 +1.3
ABAH   Abaujker          97.04 320   P         Pdif      07 32 10.9 +0.2
              comp=Z,26nm,0.9s
IDI    Anoyia            97.11 306   LR        LR        08 22 47.4
              comp=Z,384nm,21.1s,baz=60,slow=40
NIE    Niedzica          97.36 321  eP         Pdif      07 32 12.8 +0.6
BZS    Buzias            97.43 317   P         Pdif      07 32 12.9 +0.3
BZS    Buzias            97.43 317   P         Pdif      07 32 12.9 +0.3
              comp=Z,18nm,1.3s
RES    Resolute Bay      97.45  10   LR        LR        08 24 27.9
              comp=Z,638nm,18.2s,baz=338,slow=40
OJC    Ojcow             97.46 322  eP         Pdif      07 32 13.0 +0.4
OJC    Ojcow             97.46 322   P         Pdif      07 32 13.6 +1.0
OJC    Ojcow             97.46 322   P         Pdif      07 32 13.6 +1.1
              comp=Z,22nm,1.2s
KNT    Kendrikon         97.51 312   P         Pdif      07 32 15.3 +2.2
KNT    Kendrikon         97.51 312   P         Pdif      07 32 15.3 +2.3
              comp=Z,18nm,0.9s
MDVR   Moldovita         97.56 316 ⇓P          P         07 32 12.7 -0.5
HFS    Hagfors           97.58 332   P         P         07 32 12.5 -0.3
              comp=Z,17nm,1.1s,baz=65,slow=6.8,SNR=8.5
HFS                                  LR        LR        08 20 34.7
              comp=Z,3µm,19.8s,baz=64,slow=38
              comp=Z,17nm,1.1s
BOVS   Bovan             97.83 315 ⇑P          P         07 32 13.4 -0.9
GRG    Griva             97.92 312   P         P         07 32 14.2 -0.7
              comp=Z,38nm,1.1s
LANS   Liptovska Anna    97.95 321  eP         P         07 32 15.0 +0.2
LANS   Liptovska Anna    97.95 321  ePDIFF     P         07 32 15.0 +0.2
ELIB   Princess Elisa    98.00 198  dP         Pdif      07 32 15.9 +1.2
              comp=Z,11nm,1.4s
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PSZ    Piszkesteto       98.01 319   P         Pdif      07 32 15.9 +0.7
PSZ    Piszkesteto       98.01 319   IAmb      IAmb      07 32 37.3
              comp=Z,61nm,1.7s
PSZ    Piszkesteto       98.01 319 ⇓P          P         07 32 14.5 -0.6
PSZ    Piszkesteto       98.01 319   P         Pdif      07 32 15.9 +0.7
              comp=Z,3µmcomp=Z,20nm,1.5s
NC602  NORSAR Array S    98.33 333  eP         P         07 32 14.4 -1.8
NB2    NORSAR Subarra    98.35 334   P         P         07 32 15.1 -1.2
              comp=Z,86nm,1.7s,baz=65,slow=4.6
NB2    NORSAR Subarra    98.35 334   P         P         07 32 15.1 -1.2
NOA    NORSAR Array B    98.35 334   P         P         07 32 15.6 -0.8
              comp=Z,7.9nm,1.0s,baz=66,slow=4.5,SNR=7.2
NOA                                  LR        LR        08 21 32.9
              comp=Z,4µm,20.1s,baz=70,slow=38
              comp=Z,7.9nm,1.0s
NC204  NORSAR Array S    98.45 334   IAmb      IAmb      07 32 31.3
              comp=Z,43nm,1.2s
VYHS   Vyhne             98.53 320  ePDIFF     P         07 32 15.7 -1.7
VYHS   Vyhne             98.53 320   P         Pdif      07 32 17.8 +0.4
              comp=Z,3.5nm,1.7s
STEB   Steborice         98.79 322  ePDIFF     P         07 32 18.3 -0.2
MORC   Moravsky Berou    98.98 322   P         Pdif      07 32 20.3 +0.9
MORC   Moravsky Berou    98.98 322   IAmb      IAmb      07 32 38.8
              comp=Z,41nm,1.6s
MORC   Moravsky Berou    98.98 322  ePDIFF     P         07 32 19.5 +0.1
MORC   Moravsky Berou    98.98 322 ⇑P          Pdif      07 32 19.8 +0.3
MORC   Moravsky Berou    98.98 322   P         Pdif      07 32 20.2 +0.9
              comp=Z,13nm,2.4s
LSZ    Lusaka            99.13 255   LR        LR        08 13 41.9
              comp=Z,2µm,21.7s,baz=94,slow=33
LSZ    Lusaka            99.13 255   P         Pdif      07 32 21.1 +0.2
LSZ                                  pmax      pmax
              comp=Z,33nm,1.3s
LSZ    Lusaka            99.13 255   P         Pdif      07 32 21.1 +0.2
LSZ                                  IAmb      IAmb      07 32 28.7
              comp=Z,33nm,1.3s
LSZ    Lusaka            99.13 255   IAMs_20   IAMs_20   08 13 42.1
              comp=Z,2µm,21.0s
LSZ    Lusaka            99.13 255   P         Pdif      07 32 21.5 +0.6
              comp=Z,22nm,1.2s
JAVC   Velka Javorina    99.17 321  ePDIFF     Pdif      07 32 21.4 +1.1
JAVC   Velka Javorina    99.17 321   P         Pdif      07 32 22.2 +1.9
              comp=Z,26nm,1.3s
YKA    Yellowknife Ar    99.21  24   P         Pdif      07 32 19.3 -0.7
              comp=Z,1.7nm,0.7s,baz=295,slow=5.0,SNR=4.8
YKA                                  LR        LR        08 17 46.7
              comp=Z,497nm,22.0s,baz=296,slow=36
              comp=Z,1.7nm,0.7s
MORH   Mrgy, Hungar      99.29 318 ⇑P          Pdif      07 32 20.9 +0.1
MORH   Mrgy, Hungar      99.29 318   P         Pdif      07 32 20.8 +0.1
              comp=Z,15nm,1.4s
KRLC   Kraliky           99.36 322   P         Pdif      07 32 21.2 +0.1
KRLC   Kraliky           99.36 322   P         Pdif      07 32 21.2 +0.1
              comp=Z,13nm,1.6s
KSP    Ksiaz             99.41 323  eP         Pdif      07 32 21.8 +0.5
JMIC   Jan Mayen         99.42 346   LR        LR        08 22 08.4
              comp=Z,2µm,20.1s,baz=63,slow=38
DPC    Dobruska-Polom    99.55 322 i P         Pdif      07 32 22.2 +0.3
DPC                                  MLR       MLR
              comp=Z,2µm,19.6s
DPC    Dobruska-Polom    99.55 322  ePDIFF     Pdif      07 32 22.2 +0.3
DPC                                  AMS       AMS       08 19 40.0
              comp=Z,2µm,19.6s
DPC    Dobruska-Polom    99.55 322   P         Pdif      07 32 22.3 +0.3
              comp=Z,13nm,1.5s
CHVC   Chvalec           99.64 323   AMS       AMS       08 19 40.0
              comp=Z,3µm,18.4s
UPC    Upice             99.69 323   AMS       AMS       08 19 50.0
              comp=Z,3µm,18.2s
UPC    Upice             99.69 323   P         Pdif      07 32 22.7 +0.2
VRAC   Vranov            99.71 321   LR        LR        08 20 23.2
              comp=Z,1µm,18.5s,baz=68,slow=37
VRAC   Vranov            99.71 321  ePDIFF     Pdif      07 32 23.4 +0.8
VRAC   Vranov            99.71 321 ⇑P          Pdif      07 32 21.4 -1.2
VRAC   Vranov            99.71 321   P         Pdif      07 32 23.6 +1.0
              comp=Z,5.3nm,1.4s
MPLH   Magyarpolny       99.75 319   P         Pdif      07 32 23.9 +1.1
              comp=Z,25nm,1.6s
SKAR   Skarslia          99.79 334  eP         Pdif      07 32 25.3 +2.5
RGN    Rugen             99.84 327  eSKSac     SKSac     07 42 59.2  0.0
              baz=71,slow=4.6
PDG    Podgorica         99.87 314   IAMs_20   IAMs_20   08 24 56.5
              comp=Z,2µm,21.0s
KRUC   Moravsky          99.91 321   P         Pdif      07 32 24.2 +0.7
KRUC   Moravsky          99.91 321  ePDIFF     Pdif      07 32 23.8 +0.3
KRUC   Moravsky          99.91 321   P         Pdif      07 32 24.2 +0.7
              comp=Z,18nm,2.3s
RUE    Ruedersdorf      100.34 325   P         Pdif      07 32 24.9 -0.3
              comp=Z,57µmcomp=Z,2µm,0.6s
RONA   Rosalia, Austr   100.39 320  ePdiff     Pdif      07 32 25.9 +0.1
              comp=Z,3.8nm,1.1s
WINA   Alland / Wiene   100.41 320  ePdiff     Pdif      07 32 26.6 +0.9
              comp=Z,7.3nm,1.1s
CONA   Conrad Observa   100.60 320  ePdiff     Pdif      07 32 27.7 +0.9
              comp=Z,7.6nm,1.6s
BLY    Banja Luka       100.69 317   P         Pdif      07 32 28.5 +1.4
              comp=Z,434nmcomp=Z,16nm,1.4s
PRU    Pruhonice        100.75 322 i P         Pdif      07 32 29.2 +2.0
PRU                                  MLR       MLR
              comp=Z,3µm,19.0s
PRU    Pruhonice        100.75 322  ePDIFF     Pdif      07 32 29.2 +2.0
PRU                                  AMS       AMS       08 22 10.0
              comp=Z,3µm,19.0s
PRU    Pruhonice        100.75 322   P         Pdif      07 32 28.8 +1.6
              comp=Z,16nm,1.2s
BRG    Berggiesshubel   100.81 323   P         Pdif      07 32 27.1 -0.3
BRG    Berggiesshubel   100.81 323  ePdiff     Pdif      07 32 28.3 +0.9
              baz=69,slow=4.6
BRG                                 eSKSac     SKSac     07 43 03.3 -0.9
              baz=71,slow=4.6
BRG    Berggiesshubel   100.81 323   P         Pdif      07 32 27.1 -0.3
              comp=Z,25nm,1.2s
BRG    Berggiesshubel   100.81 323⇓ePif                  07 32 26.9
BRG                                  Amp                 07 32 28.0
              comp=Z,6.6nm,0.9s
BRG    Berggiesshubel   100.81 323   P         Pdif      07 32 29.4 +1.9
BRG                                  Amp                 07 32 30.3
              comp=Z,23nm,1.0s
BRG                                ⇓pPif                 07 32 37.3
BRG                                  Amp                 07 32 39.0
              comp=Z,16nm,1.0s
BRG    Berggiesshubel   100.81 323   P         PKiKP     07 36 56.8 +3.6
BRG                                  Amp                 07 37 10.4
              comp=Z,5.9nm,0.9s
BRG    Berggiesshubel   100.81 323   SP        SP        07 45 28.0 -4.5
ARSA   Arzberg          101.03 320  ePdiff     Pdif      07 32 29.3 +0.8
              comp=Z,6.2nm,1.1s
ZVC    Zvikov           101.15 322  ePDIFF     Pdif      07 32 29.3 +0.3
HSKC   Hora Svate Kat   101.20 323   AMS       AMS       08 20 20.0
              comp=Z,2µm,21.9s
CLL    Collm            101.21 324 i P         Pdif      07 32 28.8 -0.4
CLL                                 e                    07 43 07.0
CLL                                  pmax      pmax
              comp=Z,68nm,1.8s
CLL                                  MLR       MLR
              comp=Z,4µm,22.4s
CLL    Collm            101.21 324  ePdiff     Pdif      07 32 30.5 +1.3
              baz=69,slow=4.6
CLL                                 eSKSac     SKSac     07 43 03.7 -2.4
              baz=71,slow=4.6
CLL    Collm            101.21 324   P         Pdif      07 32 30.2 +1.0
              comp=Z,23nm,1.9s
CLL    Collm            101.21 324 i Pdif      Pdif      07 32 28.8 -0.4
              comp=Z,28nm,1.3s
CLL                                i sPdif     pPdif     07 32 37.1 -2.2
              comp=Z,68nm,1.8s
CLL                                 ex         x         07 36 08.0
CLL                                i PP        PP        07 36 38.2 +0.2
CLL                                 eSKSac     SKSac     07 43 07.0 +0.9
CLL                                 eSdif      Sdif      07 44 04.0 -2.3
CLL                                 eSP        SP        07 45 34.0 -2.7
CLL                                 ePPS       PPS       07 46 34.0
CLL                                 ePKKPbc    PKKPbc    07 48 38.0 -3.1
CLL                                 epPKKPdf             07 48 49.0
CLL                                 eSS        SS        07 51 06.0 +0.1
CLL                                 eSSmax               07 51 48.0
CLL                                 eSSS       SSS       07 55 24.0
CLL                                 ex         x         07 59 24.0
CLL                                  LQ        LQ        08 06 00.0
CLL                                  AMS       AMS       08 14 00.0
              comp=N,3µm,24.9s
CLL                                  AMS       AMS       08 14 00.0
              comp=E,2µm,23.5s
CLL                                  AMS       AMS       08 24 00.0
              comp=Z,4µm,22.4s
COR    Corvallis        101.27  43   IAMs_20   IAMs_20   08 07 50.7
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	comp=Z,2µm,22.0s						
CKRC	**Cesky Krumlov**	**101.29**	**321**	AMS	AMS	08 24 00.0	
	comp=Z,2µm,19.4s						
SOKA	**Soboth**	**101.53**	**319**	*e*Pdiff	**Pdif**	**07 32 31.4**	**+0.5**
	comp=Z,5.6nm,1.1s						
GORT1	**Trebel**	**101.54**	**326**	*e*Pdiff	**Pdif**	**07 32 32.4**	**+1.8**
	baz=69,slow=4.6						
KHC	**Kasperske Hory**	**101.64**	**322**	*i* P	**Pdif**	**07 32 30.8**	**-0.4**
KHC				*e*		07 43 09.9	
KHC				MLR	MLR		
	comp=Z,3µm,19.3s						
KHC	**Kasperske Hory**	**101.64**	**322**	*e*PDIFF	**Pdif**	**07 32 30.8**	**-0.4**
KHC				*e*SKS	**SKSac**	**07 43 09.9**	**+1.5**
KHC				AMS	AMS	08 22 40.0	
	comp=Z,3µm,19.3s						
KHC	**Kasperske Hory**	**101.64**	**322**	P	**Pdif**	**07 32 31.1**	**-0.1**
	comp=Z,10nm,3.0s						
MOA	**Molln**	**101.64**	**320**	*e*Pdiff	**Pdif**	**07 32 32.1**	**+0.8**
	comp=Z,18nm,1.3s						
MOA	**Molln**	**101.64**	**320**	P	**Pdif**	**07 32 31.0**	**-0.3**
	comp=Z,837nmcomp=Z,29nm,1.5s						
GEC2	**GERESS Array S**	**101.66**	**322**	*e*Pdiff	**Pdif**	**07 32 32.5**	**+1.0**
	baz=69,slow=4.6						
GEC2				*e*SKSac	**SKSac**	**07 43 07.3**	**-1.3**
	baz=71,slow=4.6						
GEC2	**GERESS Array S**	**101.66**	**322**	P	**Pdif**	**07 32 31.2**	**-0.2**
	comp=Z,11nm,1.3s						
GERES	**GERESS Array B**	**101.66**	**322**	P	**Pdif**	**07 32 29.9**	**-1.5**
	comp=Z,3.5nm,0.7s,baz=70,slow=1.6,SNR=20						
GERES				PP	**PP**	**07 36 41.4**	**-0.2**
	comp=Z,1.0nm,0.2s,baz=76,slow=5.6,SNR=4.0						
SESA	**Seetaler Alpe,**	**101.69**	**320**	*e*Pdiff	**Pdif**	**07 32 32.1**	**+0.3**
	comp=Z,18nm,1.2s						
BSEG	**Bad Segeberg**	**101.71**	**327**	*e*Pdiff	**Pdif**	**07 32 33.0**	**+1.6**
	baz=69,slow=4.6						
BSEG				*e*SKSac	**SKSac**	**07 43 08.8**	**+0.5**
	baz=71,slow=4.6						
FLTG	**Flechtingen**	**101.84**	**325**	*e*Pdiff	**Pdif**	**07 32 33.0**	**+1.1**
	baz=69,slow=4.6						
FLTG				*e*SKSac	**SKSac**	**07 43 08.5**	**-0.6**
	baz=71,slow=4.6						
FLTG	**Flechtingen**	**101.84**	**325**	P	**Pdif**	**07 32 31.6**	**-0.4**
	comp=Z,17nm,1.3s						
TANN	**Tannenbergstha**	**101.85**	**323**	*e*Pdiff	**Pdif**	**07 32 33.4**	**+1.2**
	baz=69,slow=4.6						
TANN				*e*SKSac	**SKSac**	**07 43 08.0**	**-1.4**
	baz=71,slow=4.6						
TANN	**Tannenbergstha**	**101.85**	**323**	P	**Pdif**	**07 32 31.5**	**-0.7**
	comp=Z,24nm,1.6s						
OBKA	**Obir**	**101.90**	**319**	*e*Pdiff	**Pdif**	**07 32 33.0**	**+0.4**
	comp=Z,7.3nm,1.2s						
NKC	**Novy Kostel**	**101.93**	**323**	AMS	AMS	08 14 50.0	
NKC	**Novy Kostel**	**101.93**	**323**	P	**Pdif**	**07 32 33.9**	**+1.4**
	comp=Z,815nmcomp=Z,11nm,1.8s						
NEUB	**Neuenburg**	**101.96**	**324**	*e*Pdiff	**Pdif**	**07 32 33.9**	**+1.4**
	baz=69,slow=4.6						
NEUB				*e*SKSac	**SKSac**	**07 43 08.0**	**-1.7**
	baz=71,slow=4.6						
WIMM	**Wimmelburg**	**102.00**	**325**	P	**Pdif**	**07 32 34.0**	**+1.3**
	comp=Z,50nm,2.3s						
PLN	**Plauen**	**102.01**	**324**	*e*Pdiff	**Pdif**	**07 32 34.1**	**+1.3**
	baz=69,slow=4.6						
WET	**Wettzell**	**102.06**	**322**	P	**Pdif**	**07 32 33.3**	**+0.2**
WET	**Wettzell**	**102.06**	**322**	*e*Pdiff	**Pdif**	**07 32 34.4**	**+1.2**
	baz=69,slow=4.6						
WET				*e*SKSac	**SKSac**	**07 43 09.5**	**-0.9**
	baz=71,slow=4.6						
WET	**Wettzell**	**102.06**	**322**	P	**Pdif**	**07 32 33.3**	**+0.2**
ASSE	**Asse, Remlinge**	**102.24**	**325**	*e*Pdiff	**Pdif**	**07 32 35.3**	**+1.6**
	baz=69,slow=4.6						
ASSE				*e*SKSac	**SKSac**	**07 43 10.0**	**-0.9**
	baz=71,slow=4.6						
ASSE	**Asse, Remlinge**	**102.24**	**325**	P	**Pdif**	**07 32 35.5**	**+1.8**
	comp=Z,28nm,1.9s						
MOX	**Moxa**	**102.27**	**324**	P	**Pdif**	**07 32 34.5**	**+0.5**
MOX	**Moxa**	**102.27**	**324**	*e*Pdiff	**Pdif**	**07 32 35.5**	**+1.5**
	baz=69,slow=4.6						
MOX				*e*SKSac	**SKSac**	**07 43 09.4**	**-1.9**
	baz=71,slow=4.6						
MOX				*e*L	L	08 25 01.5	
	comp=Z,3µm,22.0s						
MOX	**Moxa**	**102.27**	**324**	P	**Pdif**	**07 32 34.5**	**+0.5**
	comp=Z,16nm,1.6s						
KBA	**Koelnbreinsper**	**102.49**	**320**	*e*Pdiff	**Pdif**	**07 32 35.2**	**0.0**
	comp=Z,8.4nm,1.5s						
KBA	**Koelnbreinsper**	**102.49**	**320**	P	**Pdif**	**07 32 36.1**	**+0.8**
	comp=Z,7.5nm,1.0s						
CLZ	**Clausthal**	**102.52**	**325**	*e*Pdiff	**Pdif**	**07 32 36.8**	**+1.7**
	baz=69,slow=4.6						
CLZ				*e*SKSac	**SKSac**	**07 43 11.4**	**-1.1**
	baz=71,slow=4.6						
CLZ	**Clausthal**	**102.52**	**325**	P	**Pdif**	**07 32 35.7**	**+0.6**
	comp=Z,30nm,1.2s						
M02C	**Callahan**	**102.52**	**46**	IAMs_20	IAMs_20	08 17 12.1	
	comp=Z,1µm,20.0s						
TIP	**Timpagrande**	**102.56**	**311**	IAMs_20	IAMs_20	08 28 39.2	
	comp=Z,1µm,22.0s						
RETH	**Rethem/Aller,**	**102.72**	**326**	*e*Pdiff	**Pdif**	**07 32 37.5**	**+1.6**
	baz=69,slow=4.6						
LESA	**Schwarzleotal**	**102.80**	**320**	*e*Pdiff	**Pdif**	**07 32 37.0**	**+0.5**
	comp=Z,9.8nm,1.2s						
GRF	**Grafenberg Arr**	**102.86**	**323**	*e*Pdiff	**Pdif**	**07 32 37.6**	**+1.0**
	baz=69,slow=4.6						
GRF				*e*SKSac	**SKSac**	**07 43 12.8**	**-1.4**
	baz=71,slow=4.6						
GRF				*e*L	L	08 21 57.1	
	comp=Z,3µm,21.1s						
GTTG	**Gottingen**	**102.87**	**325**	*e*Pdiff	**Pdif**	**07 32 38.4**	**+1.8**
	baz=69,slow=4.6						
GTTG				*e*SKSac	**SKSac**	**07 43 13.7**	**-0.3**
	baz=71,slow=4.6						
GTTG	**Gottingen**	**102.87**	**325**	P	**Pdif**	**07 32 37.0**	**+0.3**
	comp=Z,36nm,1.5s						
HLG	**Helgoland**	**102.90**	**328**	*e*Pdiff	**Pdif**	**07 32 39.5**	**+2.9**
	baz=69,slow=4.6						
HLG				*e*SKSac	**SKSac**	**07 43 14.3**	**+0.3**
	baz=71,slow=4.6						
ABTA	**Abfaltersbach**	**103.14**	**320**	*e*Pdiff	**Pdif**	**07 32 38.5**	**+0.5**
	comp=Z,8.6nm,1.3s						
UBBA	**Unterbreizbach**	**103.14**	**324**	*e*Pdiff	**Pdif**	**07 32 40.2**	**+2.5**
	baz=69,slow=4.6						
UBBA				*e*SKSac	**SKSac**	**07 43 10.8**	**-4.3**
	baz=71,slow=4.6						
UBBA	**Unterbreizbach**	**103.14**	**324**	P	**Pdif**	**07 32 35.7**	**-2.0**
	comp=Z,9.0nm,2.3s						
HAWA	**Hanford**	**103.19**	**41**	IAMs_20	IAMs_20	08 10 32.5	
	comp=Z,2µm,22.0s						
FUR	**Furstenfeldbru**	**103.41**	**322**	*e*SKSac	**SKSac**	**07 43 14.7**	**-2.0**
	baz=71,slow=4.6						
MCCM	**Marconi Confer**	**103.43**	**49**	IAMs_20	IAMs_20	08 08 37.4	
	comp=Z,1µm,22.0s						
CEL	**Celeste**	**103.46**	**311**	IAMs_20	IAMs_20	08 28 09.2	
	comp=Z,1µm,22.0s						
FARB	**Farallon Islan**	**103.46**	**50**	IAMs_20	IAMs_20	08 09 01.3	
	comp=Z,1µm,22.0s						
WTTA	**Wattenberg**	**103.52**	**321**	P	**Pdif**	**07 32 40.4**	**+0.6**
WTTA	**Wattenberg**	**103.52**	**321**	*e*Pdiff	**Pdif**	**07 32 40.4**	**+0.6**
	comp=Z,13nm,1.1s						
WTTA	**Wattenberg**	**103.52**	**321**	P	**Pdif**	**07 32 40.4**	**+0.6**
	comp=Z,14nm,1.7s						
WATA	**Walderalm**	**103.53**	**321**	*e*Pdiff	**Pdif**	**07 32 40.2**	**+0.4**
	comp=Z,7.7nm,0.7s						
O03E	**Paynes Creek**	**103.61**	**47**	IAMs_20	IAMs_20	08 10 05.9	
	comp=Z,2µm,22.0s						
CVS	**Carmenet Viney**	**103.69**	**49**	IAMs_20	IAMs_20	08 08 57.3	
	comp=Z,2µm,22.0s						
HATC	**Hat Creek Radi**	**103.70**	**46**	IAMs_20	IAMs_20	08 10 24.3	
	comp=Z,1µm,22.0s						
IBBN	**Ibbenburen**	**103.79**	**326**	*e*Pdiff	**Pdif**	**07 32 42.7**	**+2.0**
	baz=69,slow=4.6						
SQTA	**Sankt Quirin**	**103.80**	**321**	*e*Pdiff	**Pdif**	**07 32 41.6**	**+0.5**
	comp=Z,12nm,1.2s						
MOTA	**Moosalm**	**103.82**	**321**	*e*Pdiff	**Pdif**	**07 32 41.6**	**+0.4**
	comp=Z,9.9nm,1.0s						
KASTN	**Kahler Asten**	**103.90**	**325**	*e*Pdiff	**Pdif**	**07 32 43.1**	**+1.8**
	baz=69,slow=4.6						
TROLL	**Troll, Antarti**	**103.97**	**195**	Pdiff	**Pdif**	**07 32 48.6**	**+7.3**
	comp=Z,180nm,0.8s						
NEW	**Newport**	**104.02**	**38**	IAMs_20	IAMs_20	08 13 27.3	
	comp=Z,1µm,22.0s						
ORV	**Oroville**	**104.05**	**48**	IAMs_20	IAMs_20	08 09 42.7	
	comp=Z,2µm,22.0s						
JRSC	**Jasper Ridge**	**104.13**	**50**	IAMs_20	IAMs_20	08 18 51.8	
	comp=Z,1µm,21.0s						
FETA	**Feichten**	**104.18**	**321**	*e*Pdiff	**Pdif**	**07 32 43.2**	**+0.4**
	comp=Z,9.0nm,1.4s						
UBR	**Ueberruh**	**104.32**	**321**	*e*Pdiff	**Pdif**	**07 32 44.5**	**+1.3**
	baz=69,slow=4.6						
BUG	**Bochum--Univer**	**104.44**	**326**	*e*Pdiff	**Pdif**	**07 32 45.3**	**+1.7**
	baz=69,slow=4.6						
BUG				*e*SKSac	**SKSac**	**07 43 20.6**	**-0.7**
	baz=71,slow=4.6						
STU	**Stuttgart**	**104.45**	**323**	*e*SKSac	**SKSac**	**07 43 18.8**	**-2.7**
	baz=71,slow=4.6						
MHC	**Mount Hamilton**	**104.60**	**50**	IAMs_20	IAMs_20	08 18 39.3	
	comp=Z,1µm,20.0s						
DAVA	**Damuels**	**104.61**	**321**	*e*Pdiff	**Pdif**	**07 32 45.1**	**+0.4**
	comp=Z,10nm,1.3s						
FUORN	**Ofenpass-Fuorn**	**104.63**	**320**	IAMs_20	IAMs_20	08 25 08.7	
	comp=Z,2µm,20.0s						
FUORN	**Ofenpass-Fuorn**	**104.63**	**320**	P	**Pdif**	**07 32 46.3**	**+1.4**
	comp=Z,17nm,1.7s						
FORD	**Fort Ord Natur**	**104.68**	**51**	IAMs_20	IAMs_20	08 18 46.6	
	comp=Z,1µm,20.0s						
SAO	**San Andreas Ge**	**104.92**	**50**	IAMs_20	IAMs_20	08 19 13.8	
	comp=Z,1µm,20.0s						
WELL	**Weller Preserv**	**104.97**	**49**	IAMs_20	IAMs_20	08 09 28.0	
	comp=Z,1µm,22.0s						
BFO	**Black Forest**	**105.15**	**322**	*e*SKSac	**SKSac**	**07 43 22.1**	**-2.7**
	baz=71,slow=4.6						
WVOR	**Wild Horse Val**	**105.17**	**44**	IAMs_20	IAMs_20	08 15 11.1	
	comp=Z,1µm,21.0s						
BMO	**Blue Mountains**	**105.20**	**41**	IAMs_20	IAMs_20	08 11 50.8	
	comp=Z,1µm,22.0s						
HULI	**Fort Hunter Li**	**105.29**	**51**	IAMs_20	IAMs_20	08 18 53.8	
	comp=Z,2µm,19.0s						
SNAA	**Sanae**	**105.56**	**195**	Pdiff	**Pdif**	**07 32 46.7**	**-1.5**
	comp=Z,0.5nm,0.4s,baz=77,slow=13,SNR=1.8						
SNAA				PP	**PP**	**07 37 09.3**	**-0.9**
	comp=Z,10nm,1.1s,baz=123,slow=9.1,SNR=7.7						
SNAA				PKKPab	**PKKPab**	**07 48 44.2**	**+0.6**
	comp=Z,1.5nm,0.8s,baz=333,slow=5.6,SNR=3.4						
SNAA	**Sanae**	**105.56**	**195**	IAMs_20	IAMs_20	08 17 33.9	
	comp=Z,2µm,21.0s						
PKD	**Bear Valley Ra**	**105.85**	**51**	IAMs_20	IAMs_20	08 19 10.7	
	comp=Z,1µm,19.0s						
WLF	**Walferdange**	**105.87**	**324**	*e*SKSac	**SKSac**	**07 43 27.9**	**0.0**
	baz=71,slow=4.6						
PLID	**Pearl Lake**	**105.97**	**41**	IAMs_20	IAMs_20	08 11 43.1	
	comp=Z,1µm,22.0s						
MFID	**Camas Ranch**	**106.73**	**42**	IAMs_20	IAMs_20	08 12 13.3	
	comp=Z,2µm,22.0s						
NVAR	**Mina Array Bea**	**106.77**	**48**	Pdiff	**Pdif**	**07 32 53.3**	**-1.3**
	comp=Z,1.2nm,0.8s,baz=260,slow=5.3,SNR=7.5						
NVAR				PKiKP	**PKiKP**	**07 37 04.9**	**+0.1**
	comp=Z,1.7nm,0.9s,baz=254,slow=2.4,SNR=5.5						
NVAR				PKKPbc	**PKKPbc**	**07 48 24.0**	**-0.3**
	comp=Z,0.6nm,0.8s,baz=159,slow=3.6,SNR=4.5						
NVAR				PKKPab	**PKKPab**	**07 48 38.9**	**-0.6**
	comp=Z,3.0nm,1.0s,baz=81,slow=3.6,SNR=9.3						
VNA2	**Neumayer--Watz**	**107.17**	**194**	Pdiff	**Pdif**	**07 32 59.4**	**+4.1**
	comp=Z,1.9nm,0.7s,baz=122,slow=3.6						
VNA2				⇑PKiKP	**PKiKP**	**07 37 01.9**	**-2.4**
	comp=Z,5.1nm,0.8s,baz=113,slow=2.8						
VNA2				PKKPdf	**PKKPab**	**07 48 30.7**	**-5.6**
	comp=Z,1.6nm,0.7s,baz=329,slow=5.2						
TIN	**Tinemaha, Big**	**107.28**	**49**	IAMs_20	IAMs_20	08 27 25.3	
	comp=Z,1µm,18.0s						
VNA3	**Neumayer Olymp**	**107.50**	**194**	Pdiff	**Pdif**	**07 33 01.1**	**+4.3**
	comp=Z,1.6nm,0.7s						
ISA	**Isabella, Lake**	**107.54**	**51**	IAMs_20	IAMs_20	08 17 20.3	
	comp=Z,1µm,21.0s						
VNA1	**Neumayer--Stat**	**107.57**	**194**	⇑Pdiff	**Pdif**	**07 33 00.0**	**+3.0**
	comp=Z,3.6nm,0.9s						
CWC	**Cottonwood Cre**	**107.59**	**50**	IAMs_20	IAMs_20	08 20 49.6	
	comp=Z,1µm,20.0s						
OSI	**Osito Audit: C**	**107.67**	**52**	IAMs_20	IAMs_20	08 18 09.9	
	comp=Z,1µm,20.0s						
VSL	**Villasalto**	**107.88**	**314**	IAMs_20	IAMs_20	08 30 16.8	
	comp=Z,985nm,20.0s						
DLMT	**Dillon**	**108.05**	**40**	IAMs_20	IAMs_20	08 19 05.0	
	comp=Z,1µm,21.0s						
ELK	**Elko**	**108.16**	**45**	IAMs_20	IAMs_20	08 23 01.3	
	comp=Z,936nm,19.0s						
LRMC	**Laurel Mtn Rad**	**108.21**	**51**	IAMs_20	IAMs_20	08 20 56.0	
	comp=Z,1µm,20.0s						
PASC	**Pasadena Art C**	**108.23**	**52**	IAMs_20	IAMs_20	08 18 14.8	
	comp=Z,1µm,20.0s						
MWC	**Mount Wilson**	**108.32**	**52**	IAMs_20	IAMs_20	08 18 08.0	
	comp=Z,1µm,20.0s						
FURC	**Furnace Creek,**	**108.51**	**49**	IAMs_20	IAMs_20	08 21 31.8	
	comp=Z,1µm,19.0s						
BFSC	**Mount Baldy Ra**	**108.63**	**52**	IAMs_20	IAMs_20	08 17 14.1	
	comp=Z,1µm,20.0s						
TPNV	**Topopah Spring**	**108.81**	**49**	IAMs_20	IAMs_20	08 11 59.7	
	comp=Z,1µm,22.0s						
SSB	**Saint Sauveur**	**108.82**	**321**	P	**Pdif**	**07 33 04.4**	**+1.1**
FFC	**Flin Flon**	**108.95**	**27**	IAMs_20	IAMs_20	08 18 41.3	
	comp=Z,1µm,22.0s						
FFC	**Flin Flon**	**108.95**	**27**	P	**Pdif**	**07 33 03.9**	**+0.3**
SFJD	**Kangerlussuaq**	**109.01**	**359**	P	**Pdif**	**07 33 13.4**	**+10**
SHOC	**Shoshone, Teco**	**109.15**	**50**	IAMs_20	IAMs_20	08 21 30.8	
	comp=Z,1µm,22.0s						
PFO	**Pinyon Flats O**	**109.77**	**52**	IAMs_20	IAMs_20	08 18 50.6	
	comp=Z,1µm,20.0s						
FXWY	**Fox Creek**	**109.82**	**41**	IAMs_20	IAMs_20	08 13 03.8	
	comp=Z,1µm,21.0s						
BAR	**Barrett**	**109.91**	**53**	IAMs_20	IAMs_20	08 13 26.1	
	comp=Z,1µm,22.0s						
SNOW	**Snow King Moun**	**110.07**	**41**	IAMs_20	IAMs_20	08 14 40.6	
	comp=Z,1µm,22.0s						
DUG	**Dugway, Tooele**	**110.08**	**45**	IAMs_20	IAMs_20	08 14 03.0	
	comp=Z,1µm,22.0s						
BC3	**Big Chuckawall**	**110.55**	**52**	IAMs_20	IAMs_20	08 19 48.0	
	comp=Z,1µm,20.0s						
IRM	**Iron Mountain**	**110.62**	**51**	IAMs_20	IAMs_20	08 20 13.8	
	comp=Z,2µm,20.0s						
PDAR	**Pinedale Array**	**111.17**	**41**	PKiKP	**PKiKP**	**07 37 12.9**	**0.0**
	comp=Z,1.2nm,0.7s,baz=136,slow=2.1,SNR=7.6						
PDAR				PKKPbc	**PKKPbc**	**07 48 08.8**	**-1.8**
	comp=Z,0.4nm,0.5s,baz=126,slow=2.8,SNR=5.9						
PDAR				PKKPab	**PKKPab**	**07 48 18.4**	**-1.6**
	comp=Z,5.0nm,0.9s,baz=110,slow=3.3,SNR=21						
LAO	**LASA Array**	**111.31**	**36**	IAMs_20	IAMs_20	08 14 23.1	
	comp=Z,1µm,22.0s						
WUAZ	**Wupatki**	**113.00**	**49**	IAMs_20	IAMs_20	08 23 28.6	
	comp=Z,1µm,20.0s						
O20A	**White River Ci**	**113.26**	**43**	IAMs_20	IAMs_20	08 20 11.1	
	comp=Z,1µm,21.0s						
MDND	**Maddock**	**114.36**	**32**	IAMs_20	IAMs_20	08 33 14.5	
	comp=Z,1µm,22.0s						
MVCO	**Mesa Verde**	**114.40**	**46**	IAMs_20	IAMs_20	08 16 32.7	
	comp=Z,1µm,21.0s						
E28A	**Huff**	**114.54**	**34**	IAMs_20	IAMs_20	08 30 48.2	
	comp=Z,1µm,21.0s						
ULM	**Lac du Bonnet**	**114.69**	**28**	PKP	**PKiKP**	**07 37 18.8**	**-0.3**
	comp=Z,4.1nm,0.9s,baz=280,slow=3.3,SNR=4.6						
TUC	**Tucson**	**114.69**	**52**	IAMs_20	IAMs_20	08 16 30.7	
	comp=Z,1µm,22.0s						
ISCO	**Idaho Springs**	**115.19**	**42**	IAMs_20	IAMs_20	08 21 26.8	
	comp=Z,986nm,22.0s						
EDA	**Edea**	**115.96**	**276**	IAMs_20	IAMs_20	08 30 18.4	
	comp=Z,1µm,19.0s						
AGMN	**Agassiz Nation**	**116.00**	**30**	IAMs_20	IAMs_20	08 30 59.9	
	comp=Z,878nm,19.0s						
CART	**Cartagena**	**116.07**	**315**	IAMs_20	IAMs_20	08 33 13.1	
	comp=Z,1µm,22.0s						
TAM	**Tamanrasset**	**116.54**	**298**	IAMs_20	IAMs_20	08 32 32.4	
	comp=Z,983nm,21.0s						
TASM	**ASL Pad, Albuq**	**116.88**	**47**	IAMs_20	IAMs_20	08 24 33.3	
	comp=Z,952nm,21.0s						
TASM	**ASL Pad, Albuq**	**116.88**	**47**	IAMs_20	IAMs_20	08 20 20.3	
	comp=Z,943nm,20.0s						
TASM	**ASL Pad, Albuq**	**116.88**	**47**	IAMs_20	IAMs_20	08 24 43.3	
	comp=Z,903nm,20.0s						
TASM	**ASL Pad, Albuq**	**116.88**	**47**	IAMs_20	IAMs_20	08 24 33.3	
	comp=Z,997nm,21.0s						
ANMO	**Albuquerque**	**116.89**	**47**	PKIKP	**PKPdf**	**07 37 23.7**	**-0.4**
ANMO				MLR	MLR		
	comp=Z,900nm,21.0s						
ANMO	**Albuquerque**	**116.89**	**47**		**PKPdf**	**07 37 23.7**	**-0.4**
ANMO	**Albuquerque**	**116.89**	**47**	IAMs_20	IAMs_20	08 24 33.4	
	comp=Z,935nm,21.0s						
ABQ	**Albuquerque**	**116.89**	**47**	IAMs_20	IAMs_20	08 24 33.4	
	comp=Z,947nm,20.0s						
ALQ	**Albuquerque**	**116.89**	**47**	IAMs_20	IAMs_20	08 24 32.4	
	comp=Z,938nm,21.0s						
ALQ	**Albuquerque**	**116.89**	**47**	IAMs_20	IAMs_20	08 24 32.4	
	comp=Z,937nm,21.0s						
OGNE	**Ogallala**	**116.94**	**40**	IAMs_20	IAMs_20	08 23 26.3	
	comp=Z,955nm,20.0s						
ESDC	**Sonseca Array**	**117.03**	**319**	PKP	**PKiKP**	**07 37 24.4**	**+0.4**
	comp=Z,1.0nm,1.0s,baz=46,slow=4.3,SNR=4.1						
ESDC				PP	**PP**	**07 38 31.3**	**-1.9**
	comp=Z,1.8nm,1.0s,baz=42,slow=8.2,SNR=4.8						
ESDC				PKKPbc	**PKKPbc**	**07 47 49.2**	**-1.0**
	comp=Z,1.6nm,1.0s,baz=258,slow=2.7,SNR=5.2						
K30B	**Basset**	**117.46**	**37**	IAMs_20	IAMs_20	08 37 43.8	
	comp=Z,950nm,21.0s						
KSCO	**Kaye Shedlock'**	**117.59**	**42**	IAMs_20	IAMs_20	08 25 03.5	
	comp=Z,1µm,21.0s						
EPT	**El Paso**	**118.23**	**51**	IAMs_20	IAMs_20	08 20 57.4	
	comp=Z,1µm,21.0s						
EYMN	**Ely**	**118.36**	**28**	IAMs_20	IAMs_20	08 31 06.2	
	comp=Z,2µm,22.0s						
PGAV	**Gavieira, Arco**	**118.46**	**323**	*e*PKPdf	**PKPdf**	**07 37 26.5**	**-0.2**
PGAV				*e*PP	**PP**	**07 38 47.2**	**+4.2**
PGAV				*e*tx	tx	07 48 21.2	
PGAV				*e*LR	LR	08 16 56.8	
PGAV				*i* IAMs_20	IAMs_20	08 34 58.4	
	comp=Z,2µm,20.0s						
POLO	**Lamas de Olo**	**118.52**	**322**	*e*PKPdf	**PKiKP**	**07 37 27.2**	**+0.3**
PVRL	**Vila Real**	**118.53**	**322**	*e*PKPdf	**PKiKP**	**07 37 27.5**	**+0.6**
ECSD	**EROS Data Cent**	**118.56**	**34**	IAMs_20	IAMs_20	08 23 46.7	
	comp=Z,1µm,21.0s						
MTE	**Manteigas**	**118.93**	**321**	*e*PKPdf	**PKiKP**	**07 37 28.9**	**+1.2**
MTE				*e*PP	**PP**	**07 38 49.1**	**+2.8**
MTE				*e*tx	tx	07 48 29.7	
MTE				*e*LR	LR	08 18 41.1	
MTE				*i* IAMs_20	IAMs_20	08 36 16.8	
	comp=Z,3µm,18.0s						
PVIS	**Viseu**	**118.97**	**322**	*e*PKPdf	**PKiKP**	**07 37 30.1**	**+2.3**
MNTX	**Cornudas Mount**	**119.13**	**50**	IAMs_20	IAMs_20	08 21 49.1	
	comp=Z,1µm,22.0s						
PCBR	**Castelo Branco**	**119.21**	**321**	*e*PKPdf	**PKiKP**	**07 37 30.3**	**+2.2**
E38A	**The Farm, Brul**	**119.29**	**29**	IAMs_20	IAMs_20	08 30 14.8	
	comp=Z,1µm,22.0s						
PMRV	**Marv??o**	**119.39**	**320**	*e*PP	**PP**	**07 38 53.0**	**+3.6**
PMRV				*e*tx	tx	07 48 30.8	
PMRV				*e*LR	LR	08 22 03.6	
PMRV				*i* IAMs_20	IAMs_20	08 35 57.0	
	comp=Z,2µm,22.0s						
SPMN	**Marine on St.**	**119.63**	**31**	IAMs_20	IAMs_20	08 32 00.8	
	comp=Z,1µm,21.0s						
L34A	**Svendsen Farm,**	**119.80**	**36**	IAMs_20	IAMs_20	08 34 27.6	
	comp=Z,1µm,20.0s						
PBAR	**Barrancos**	**119.86**	**319**	*e*PKPdf	**PKiKP**	**07 37 31.6**	**+2.1**
MSTX	**Muleshoe**	**120.03**	**47**	IAMs_20	IAMs_20	08 24 36.6	
	comp=Z,1µm,20.0s						
I37A	**Lemond, Waseca**	**120.14**	**32**	IAMs_20	IAMs_20	08 33 50.4	
	comp=Z,1µm,21.0s						
PARRA	**Arraiolos**	**120.15**	**320**	*e*PKPdf	**PKiKP**	**07 37 32.2**	**+2.2**
SCHQ	**Schefferville**	**120.20**	**9**	PKP	**PKPdf**	**07 37 29.6**	**+0.1**
	comp=Z,8.3nm,0.7s,baz=279,slow=5.5,SNR=8.6						
EVO	**Evora**	**120.30**	**320**	*e*PKPdf	**PKiKP**	**07 37 33.0**	**+2.7**
AMTX	**Amarillo**	**120.36**	**45**	IAMs_20	IAMs_20	08 26 49.3	
	comp=Z,852nm,21.0s						
MOE	**Montemor**	**120.52**	**320**	*e*PKPdf	**PKiKP**	**07 37 33.0**	**+2.3**
PVAQ	**Vaqueiros**	**120.74**	**318**	*e*PKPdf	**PKiKP**	**07 37 33.6**	**+2.4**
PVAQ				*e*PP	**PP**	**07 39 02.2**	**+3.4**
PVAQ				*e*tx	tx	07 48 37.8	
PVAQ				*e*SS	SS	07 55 47.8	+21
PVAQ				*e*LQ	LQ	08 09 25.2	
PVAQ				*e*LR	LR	08 24 02.9	
PVAQ				*i* IAMs_20	IAMs_20	08 36 30.0	
	comp=Z,1µm,20.0s						
PCVE	**Castro Verde**	**120.82**	**319**	*e*PKPdf	**PKiKP**	**07 37 33.7**	**+2.3**
MESJ	**Messejana**	**120.82**	**319**	*e*PP	**PP**	**07 39 00.4**	**+1.1**
MESJ				*e*SS	SS	07 55 32.3	+4.2
MESJ				IAMs_20	IAMs_20	08 36 44.4	
	comp=Z,2µm,24.0s						
MESJ	**Messejana**	**120.82**	**319**	*e*PKPdf	**PKiKP**	**07 37 33.6**	**+2.3**
G40A	**Rib Lake**	**120.91**	**30**	IAMs_20	IAMs_20	08 40 38.4	
	comp=Z,978nm,20.0s						
MD01	**Midelt array s**	**121.03**	**312**		**PKPdf**	**07 37 30.6**	**-1.4**
KSU1	**Kansas State U**	**121.41**	**39**	IAMs_20	IAMs_20	08 24 02.3	
	comp=Z,1µm,22.0s						
TXAR	**Lajitas Array**	**121.49**	**52**	PKP	**PKPdf**	**07 37 32.9**	**0.0**
	comp=Z,3.8nm,0.9s,baz=300,slow=1.0,SNR=11						
TXAR	**Lajitas Array**	**121.49**	**52**		**PKPdf**	**07 37 32.6**	**-0.3**
F42A	**Maple Grove Fa**	**121.54**	**28**	IAMs_20	IAMs_20	08 29 19.0	
	comp=Z,1µm,22.0s						
OK038	**West end E0370**	**121.54**	**42**	IAMs_20	IAMs_20	08 21 13.2	
	comp=Z,1µm,22.0s						
I40A	**Norwalk**	**121.68**	**31**	IAMs_20	IAMs_20	08 34 17.9	
	comp=Z,1µm,20.0s						
N38A	**Joes South For**	**122.37**	**35**	IAMs_20	IAMs_20	08 25 23.4	
	comp=Z,1µm,21.0s						
JFWS	**Jewell Farm**	**122.56**	**31**	IAMs_20	IAMs_20	08 31 56.2	
	comp=Z,1µm,21.0s						
TORD	**Torodi Ar. Bea**	**122.62**	**288**	PKP	**PKPdf**	**07 37 34.5**	**-0.8**
	comp=Z,5.9nm,0.9s,baz=61,slow=2.1,SNR=19						
TORD				PKKPbc	**PKKPab**	**07 47 29.2**	**-0.3**
	comp=Z,1.6nm,0.8s,baz=278,slow=3.3,SNR=5.3						
L40A	**Anamosa**	**122.64**	**33**	IAMs_20	IAMs_20	08 34 00.3	
	comp=Z,958nm,20.0s						
H43A	**Windswept, Lux**	**122.67**	**29**	IAMs_20	IAMs_20	08 41 04.0	
	comp=Z,877nm,20.0s						
AVE	**Averroes**	**122.73**	**314**	IAMs_20	IAMs_20	08 39 47.8	
	comp=Z,812nm,20.0s						
T35A	**Sooner Cattle**	**122.77**	**41**	IAMs_20	IAMs_20	08 22 01.4	
	comp=Z,1µm,22.0s						
OK048	**Pawnee Station**	**122.77**	**41**	IAMs_20	IAMs_20	08 28 08.7	
	comp=Z,1µm,20.0s						
OK051	**E0350 and S346**	**122.79**	**41**	IAMs_20	IAMs_20	08 25 42.2	
	comp=Z,900nm,19.0s						
P38A	**Dawn**	**122.95**	**36**	IAMs_20	IAMs_20	08 27 47.0	
	comp=Z,952nm,21.0s						
ABTX	**Abilene, Hawle**	**122.97**	**47**	IAMs_20	IAMs_20	08 23 31.4	
	comp=Z,1µm,22.0s						
L42A	**Oliver, Polo**	**123.51**	**32**	IAMs_20	IAMs_20	08 35 42.3	
	comp=Z,1µm,22.0s						
K43A	**Burlington**	**123.69**	**30**	IAMs_20	IAMs_20	08 36 16.2	
	comp=Z,1µm,20.0s						
I45A	**Fountain**	**123.72**	**28**	IAMs_20	IAMs_20	08 39 52.8	
	comp=Z,982nm,21.0s						
N41A	**Harden Midland**	**123.77**	**34**	IAMs_20	IAMs_20	08 41 55.3	
	comp=Z,866nm,20.0s						
TUL3	**Leonard**	**123.83**	**41**	IAMs_20	IAMs_20	08 28 14.5	
	comp=Z,1µm,20.0s						
P40A	**Paris**	**123.88**	**36**	IAMs_20	IAMs_20	08 26 19.5	
	comp=Z,848nm,22.0s						
JCT	**Junction City**	**123.93**	**49**	IAMs_20	IAMs_20	08 32 30.0	
	comp=Z,808nm,21.0s						
L44A	**Lake County Fo**	**124.29**	**31**	IAMs_20	IAMs_20	08 24 49.0	
	comp=Z,1µm,22.0s						
Z35A	**Perchaven, San**	**124.30**	**45**	IAMs_20	IAMs_20	08 25 17.4	
	comp=Z,1µm,22.0s						
S39A	**Bolivar**	**124.31**	**38**	IAMs_20	IAMs_20	08 39 45.1	
	comp=Z,1µm,21.0s						
U38A	**Gravette**	**124.42**	**40**	IAMs_20	IAMs_20	08 23 26.2	
	comp=Z,1µm,22.0s						
R40A	**Maddies Statio**	**124.56**	**37**	IAMs_20	IAMs_20	08 26 03.7	
	comp=Z,896nm,22.0s						
HDIL	**Hopedale**	**124.73**	**33**	IAMs_20	IAMs_20	08 36 01.7	
	comp=Z,1µm,20.0s						
M44A	**Midewin, Midew**	**124.80**	**31**	IAMs_20	IAMs_20	08 33 32.4	
	comp=Z,1µm,20.0s						
J47A	**Sunmer**	**124.99**	**28**	IAMs_20	IAMs_20	08 39 00.4	
	comp=Z,1µm,21.0s						
P43A	**Skaggs, Pawnee**	**125.24**	**34**	IAMs_20	IAMs_20	08 44 01.4	
	comp=Z,973nm,20.0s						
CCM	**Cathedral Cave**	**125.33**	**36**	PKIKP	**PKPdf**	**07 37 37.6**	**-2.3**
CCM	**Cathedral Cave**	**125.33**	**36**		**PKPdf**	**07 37 37.5**	**-2.3**
CCM	**Cathedral Cave**	**125.33**	**36**	IAMs_20	IAMs_20	08 27 29.9	
	comp=Z,933nm,22.0s						
Z38A	**Mt. Pleasant**	**125.91**	**43**	IAMs_20	IAMs_20	08 25 31.9	
	comp=Z,1µm,20.0s						
SFIN	**Lafayette**	**126.02**	**32**	IAMs_20	IAMs_20	08 42 56.1	
	comp=Z,1µm,20.0s						
Q44A	**Meyer Farm, Va**	**126.03**	**34**	IAMs_20	IAMs_20	08 23 03.4	
	comp=Z,1µm,22.0s						
T42A	**Van Buren**	**126.09**	**37**	IAMs_20	IAMs_20	08 25 20.2	
	comp=Z,813nm,22.0s						
MIAR	**Mount Ida**	**126.09**	**41**	IAMs_20	IAMs_20	08 37 29.6	
	comp=Z,1µm,20.0s						
735A	**Kenedy**	**126.24**	**49**	IAMs_20	IAMs_20	08 33 52.3	
	comp=Z,989nm,20.0s						
AAM	**Ann Arbor**	**126.26**	**28**	IAMs_20	IAMs_20	08 38 21.9	
	comp=Z,1µm,21.0s						
K50A	**Casco**	**126.35**	**26**	IAMs_20	IAMs_20	08 37 53.4	
	comp=Z,953nm,20.0s						
P46A	**Rosedale**	**126.52**	**32**	IAMs_20	IAMs_20	08 37 53.0	
	comp=Z,1µm,20.0s						
S44A	**Carbondale**	**126.73**	**35**	IAMs_20	IAMs_20	08 29 42.0	
	comp=Z,1µm,22.0s						
NATX	**Nacogdoches**	**126.99**	**45**	IAMs_20	IAMs_20	08 33 10.6	
	comp=Z,1µm,20.0s						
O48B	**Farmland**	**127.11**	**30**	IAMs_20	IAMs_20	08 35 06.5	
	comp=Z,1µm,22.0s						
D62A	**Allapoint, All**	**127.17**	**13**	IAMs_20	IAMs_20	08 43 06.7	
	comp=Z,1µm,20.0s						
M50A	**Fremont**	**127.25**	**28**	IAMs_20	IAMs_20	08 43 21.1	

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
	comp=Z,1µm,20.0s						
T45A	**Paducah**	**127.55**	**36**	IAMs_20	IAMs_20	08 37 50.7	
	comp=Z,920nm,21.0s						
P48A	**Milroy**	**127.56**	**31**	IAMs_20	IAMs_20	08 29 09.7	
	comp=Z,834nm,20.0s						
O49A	**Covington**	**127.57**	**30**	IAMs_20	IAMs_20	08 33 55.7	
	comp=Z,1µm,22.0s						
M52A	**Chesterland**	**127.91**	**26**	IAMs_20	IAMs_20	08 39 20.4	
	comp=Z,922nm,21.0s						
J55A	**Hilton**	**127.94**	**22**	IAMs_20	IAMs_20	08 43 05.1	
	comp=Z,975nm,20.0s						
N51A	**Ashland**	**127.94**	**28**	IAMs_20	IAMs_20	08 45 11.4	
	comp=Z,901nm,20.0s						
WCI	**Wyandotte Cave**	**128.01**	**33**	PKIKP	**PKPdf**	**07 37 44.2**	**-0.8**
WCI	**Wyandotte Cave**	**128.01**	**33**		**PKPdf**	**07 37 44.2**	**-0.8**
ERPA	**Erie**	**128.03**	**25**	IAMs_20	IAMs_20	08 28 34.8	
	comp=Z,805nm,22.0s						
ACSO	**Alum Creek Sta**	**128.19**	**29**	IAMs_20	IAMs_20	08 35 55.2	
	comp=Z,1µm,20.0s						
J57A	**Williamstown**	**128.48**	**21**	IAMs_20	IAMs_20	08 42 27.4	
	comp=Z,1µm,20.0s						
F64A	**Sherman**	**128.49**	**13**	IAMs_20	IAMs_20	08 44 21.3	
	comp=Z,1µm,20.0s						
R49A	**Shelbyville**	**128.57**	**32**	IAMs_20	IAMs_20	08 34 50.3	
	comp=Z,1µm,22.0s						
441A	**DeRidder**	**128.60**	**45**	IAMs_20	IAMs_20	08 42 40.3	
	comp=Z,1µm,20.0s						
WVT	**Waverly**	**128.64**	**36**	PKIKP	**PKPdf**	**07 37 46.2**	**-0.1**
WVT	**Waverly**	**128.64**	**36**		**PKPdf**	**07 37 46.2**	**-0.1**
WVT	**Waverly**	**128.64**	**36**	IAMs_20	IAMs_20	08 38 44.4	
	comp=Z,968nm,20.0s						
K57A	**Scipio Center**	**128.88**	**22**	IAMs_20	IAMs_20	08 43 00.1	
	comp=Z,1µm,20.0s						
J59A	**Piesco**	**128.95**	**20**	IAMs_20	IAMs_20	08 40 49.8	
	comp=Z,1µm,21.0s						
H62A	**Milan**	**128.98**	**16**	IAMs_20	IAMs_20	08 45 13.3	
	comp=Z,1µm,19.0s						
R50A	**Paris**	**129.01**	**31**	IAMs_20	IAMs_20	08 33 22.1	
	comp=Z,1µm,22.0s						
LBNH	**Lisbon**	**129.06**	**17**	IAMs_20	IAMs_20	08 33 44.6	
	comp=Z,942nm,20.0s						
G65A	**Princeton**	**129.29**	**13**	IAMs_20	IAMs_20	08 41 56.6	
	comp=Z,1µm,20.0s						
O54A	**Avella**	**129.44**	**27**	IAMs_20	IAMs_20	08 40 06.1	
	comp=Z,1µm,21.0s						
HNH	**Hanover**	**129.44**	**18**	IAMs_20	IAMs_20	08 33 23.7	
	comp=Z,1µm,21.0s						
V48A	**Smith Brothers**	**129.49**	**35**	IAMs_20	IAMs_20	08 33 05.1	
	comp=Z,807nm,21.0s						
Q52A	**Bidwell**	**129.53**	**29**	IAMs_20	IAMs_20	08 42 06.5	
	comp=Z,1µm,21.0s						
P53A	**Whipple**	**129.53**	**28**	IAMs_20	IAMs_20	08 45 48.6	
	comp=Z,1µm,21.0s						
U49A	**Red Boiling Sp**	**129.54**	**34**	IAMs_20	IAMs_20	08 37 57.1	
	comp=Z,1µm,22.0s						
BINY	**Binghamton**	**129.54**	**22**	IAMs_20	IAMs_20	08 32 55.4	
	comp=Z,1µm,21.0s						
I62A	**Tamworth**	**129.57**	**17**	IAMs_20	IAMs_20	08 42 10.0	
	comp=Z,1µm,22.0s						
PMOZ	**Porto Moniz, M**	**129.69**	**320**	*e*PP	**PP**	**07 40 02.6**	**+4.0**
PMOZ				*e*LR	LR	08 22 04.1	
PMOZ				*i* IAMs_20	IAMs_20	08 42 15.1	
	comp=Z,684nm,18.0s						
MCWV	**Mont Chateau**	**130.10**	**27**	IAMs_20	IAMs_20	08 34 59.6	
	comp=Z,1µm,22.0s						
Q54A	**Coxs Mills**	**130.19**	**28**	IAMs_20	IAMs_20	08 39 55.1	
	comp=Z,1µm,20.0s						
X48A	**Hartselle**	**130.26**	**37**	IAMs_20	IAMs_20	08 37 43.5	
	comp=Z,1µm,22.0s						
DBIC	**Dimbokro**	**130.32**	**282**	PKP	**PKPdf**	**07 37 50.2**	**+0.2**
	comp=Z,7.9nm,0.8s,baz=153,slow=5.3,SNR=3.8						
Z47A	**Carrollton**	**130.48**	**39**	IAMs_20	IAMs_20	08 32 48.5	
	comp=Z,1µm,22.0s						
W50A	**Signal Mountai**	**130.74**	**35**	IAMs_20	IAMs_20	08 40 46.1	
	comp=Z,972nm,21.0s						
HRV	**Adam Dziewonsk**	**130.75**	**18**	IAMs_20	IAMs_20	08 32 56.4	
	comp=Z,1µm,22.0s						
346A	**Big Creek Wild**	**130.76**	**42**	IAMs_20	IAMs_20	08 36 06.1	
	comp=Z,1µm,20.0s						
Q56A	**Snyder Ridge,**	**130.90**	**27**	IAMs_20	IAMs_20	08 39 57.8	
	comp=Z,929nm,20.0s						
S54A	**Dingess, Beckl**	**130.91**	**29**	IAMs_20	IAMs_20	08 42 38.0	
	comp=Z,1µm,20.0s						
WES	**Weston**	**130.94**	**18**	IAMs_20	IAMs_20	08 34 56.2	
	comp=Z,913nm,20.0s						
P57A	**Homestead Farm**	**131.05**	**25**	IAMs_20	IAMs_20	08 40 10.5	
	comp=Z,1µm,21.0s						
Y49A	**Blount Mountai**	**131.05**	**37**	IAMs_20	IAMs_20	08 30 44.4	
	comp=Z,1µm,21.0s						
WSPT	**Westport, CT**	**131.39**	**20**	IAMs_20	IAMs_20	08 33 10.3	
	comp=Z,1µm,22.0s						
X51A	**Calhoun**	**131.46**	**35**	IAMs_20	IAMs_20	08 40 58.1	
	comp=Z,1µm,21.0s						
L64A	**Middleborough**	**131.49**	**17**	IAMs_20	IAMs_20	08 35 30.9	
	comp=Z,1µm,22.0s						
N62A	**Caumsett State**	**131.55**	**20**	IAMs_20	IAMs_20	08 33 02.7	
	comp=Z,1µm,21.0s						
W52A	**Murphy**	**131.60**	**34**	IAMs_20	IAMs_20	08 42 33.7	
	comp=Z,1µm,22.0s						
BLA	**Blacksburg**	**131.80**	**29**	IAMs_20	IAMs_20	08 43 14.7	
	comp=Z,1µm,21.0s						
M65A	**Busby, Falmout**	**131.89**	**17**	IAMs_20	IAMs_20	08 31 02.5	
	comp=Z,1µm,22.0s						
S57A	**Dark Hollow, R**	**132.05**	**27**	IAMs_20	IAMs_20	08 47 16.2	
	comp=Z,1µm,21.0s						
P61A	**Hammonton**	**132.18**	**22**	IAMs_20	IAMs_20	08 39 09.4	
	comp=Z,1µm,21.0s						
Y52A	**Lilburn**	**132.42**	**35**	IAMs_20	IAMs_20	08 41 27.5	
	comp=Z,1µm,21.0s						
250A	**Grady**	**132.43**	**39**	IAMs_20	IAMs_20	08 31 34.0	
	comp=Z,1µm,21.0s						
V55A	**Taylorsville**	**132.47**	**31**	IAMs_20	IAMs_20	08 30 16.6	
	comp=Z,1µm,21.0s						
KMSC	**Kings Mountain**	**132.96**	**32**	IAMs_20	IAMs_20	08 38 08.6	
	comp=Z,1µm,22.0s						
GOGA	**Godfrey**	**133.09**	**35**	IAMs_20	IAMs_20	08 42 07.2	
	comp=Z,1µm,20.0s						
S61A	**Accomac**	**133.55**	**24**	IAMs_20	IAMs_20	08 40 55.7	
	comp=Z,1µm,20.0s						
154A	**Montrose**	**133.88**	**35**	IAMs_20	IAMs_20	08 42 53.1	
	comp=Z,1µm,21.0s						
Y57A	**Sumter**	**134.32**	**32**	IAMs_20	IAMs_20	08 47 44.6	
	comp=Z,992nm,19.0s						
TIGA	**Tifton**	**134.44**	**37**	IAMs_20	IAMs_20	08 33 24.1	
	comp=Z,1µm,22.0s						
NHSC	**New Hope**	**135.14**	**32**	IAMs_20	IAMs_20	08 49 31.2	
	comp=Z,1µm,20.0s						
257A	**Skidaway Islan**	**135.53**	**34**	IAMs_20	IAMs_20	08 38 25.9	
	comp=Z,1µm,22.0s						
PLCA	**Paso Flores**	**140.45**	**159**	PKhKP	PKPpre	07 38 02.1	
	comp=Z,4.4nm,0.9s,baz=232,slow=3.4,SNR=5.6						
PLCA				PKP	**PKPdf**	**07 38 08.7**	**+0.4**
	comp=Z,12nm,1.0s,baz=200,slow=4.7,SNR=11						
PLCA	**Paso Flores**	**140.45**	**159**	*e*P	**PKPdf**	**07 38 02.4**	**-5.9**
SOR	**Soroa**	**140.63**	**46**	PKIKP	**PKiKP**	**07 38 11.9**	**+0.3**
CAMR	**Camarioca**	**141.61**	**44**	*e*P	**PKPdf**	**07 38 10.9**	**+0.1**
TGUH	**Tegucigalpa,Un**	**141.89**	**61**	IAMs_20	IAMs_20	08 30 24.2	
	comp=Z,645nm,20.0s						
BBSR	**BB Station**	**142.16**	**16**	IAMs_20	IAMs_20	08 45 28.2	
	comp=Z,1µm,22.0s						
FSCY	**Frank Sound, G**	**144.12**	**49**	*e*P	**PKPdf**	**07 38 14.9**	**-0.4**
LCCY	**Blossom Villag**	**144.71**	**47**	*e*P	**PKPab**	**07 38 13.8**	**-1.3**
CBCY	**The Bluff, Cay**	**144.90**	**47**	*e*P	**PKPab**	**07 38 14.8**	**-0.9**
JTS	**Las Juntas de**	**145.51**	**65**	PKIKP	**PKPab**	**07 38 18.9**	**+0.7**
JTS	**Las Juntas de**	**145.51**	**65**	IAMs_20	IAMs_20	08 39 52.4	
	comp=Z,739nm,19.0s						
MT01	**Popeta**	**146.09**	**153**	IAMs_20	IAMs_20	08 32 34.8	
	comp=Z,836nm,19.0s						
MT09	**Talagante**	**146.29**	**153**	PKPdf	**PKPdf**	**07 38 19.5**	**+0.6**
HDC	**Heredia**	**146.38**	**65**	*e*P	**PKPdf**	**07 38 15.1**	**-4.4**
LMGC	**Las Mercedes**	**146.62**	**43**	*e*P	**PKPdf**	**07 38 19.7**	**+0.1**
HLGC	**Holguin**	**146.68**	**41**	*e*P	**PKPdf**	**07 38 20.4**	**+0.7**
YAR	**Yar**	**146.85**	**42**	*e*P	**PKPbc**	**07 38 21.8**	**0.0**
PEL	**Peldehue**	**146.95**	**153**	PKP2	**PKPbc**	**07 38 22.4**	**+0.6**
CHIV	**Chivirico**	**147.09**	**42**	*e*P	**PKPab**	**07 38 23.7**	**-0.3**
PINC	**Pinares de May**	**147.14**	**41**	*e*P	**PKPdf**	**07 38 20.5**	**+0.1**
CVJ	**Coleyville**	**147.48**	**46**	*i* P	**PKPab**	**07 38 25.6**	**-0.1**
MTDJ	**Mount Denham**	**147.48**	**46**	IAMs_20	IAMs_20	08 59 33.3	
	comp=Z,667nm,22.0s						
RCC	**Rio Carpintero**	**147.55**	**42**	*e*P	**PKPdf**	**07 38 22.2**	**+1.0**
MCJ	**Malvern**	**147.56**	**47**	*i* P	**PKPbc**	**07 38 22.9**	**-1.0**
QMBU	**Quimbuelo**	**147.98**	**40**	*e*P	**PKPdf**	**07 38 22.0**	**+0.1**
GTBY	**Guantanamo Bay**	**147.99**	**41**	IAMs_20	IAMs_20	08 48 11.4	
	comp=Z,688nm,21.0s						
GTBY	**Guantanamo Bay**	**147.99**	**41**	*i* P	**PKPbc**	**07 38 24.4**	**-0.5**
GTBY	**Guantanamo Bay**	**147.99**	**41**	*e*P	**PKPdf**	**07 38 22.9**	**+1.0**
STH	**Stony Hill**	**148.10**	**46**	*i* P	**PKPdf**	**07 38 20.6**	**-1.5**
STH				*i* P	**PKPbc**	**07 38 21.9**	**-3.4**
GWJ	**Greenwich**	**148.16**	**45**	*i* P	**PKPdf**	**07 38 23.7**	**+1.3**
MASC	**Masc**	**148.37**	**39**	*e*P	**PKPdf**	**07 38 22.8**	**+0.3**
CFA	**Coronel Fontan**	**149.34**	**155**	PKPbc	**PKPdf**	**07 38 25.5**	**+1.6**
	comp=Z,11nm,0.8s,baz=253,slow=4.5,SNR=19						
LCO	**Las Campanas**	**150.33**	**148**	PKIKP	**PKPdf**	**07 38 27.9**	**+2.1**
LCO	**Las Campanas**	**150.33**	**148**		**PKPdf**	**07 38 27.9**	**+2.1**
PSAL	**Palomas, Salto**	**152.91**	**172**	*e*P	**PKPdf**	**07 38 23.8**	**-5.5**
CPSB	**Cacapava Do Su**	**153.87**	**180**		**PKPdf**	**07 38 33.1**	**+2.4**
CPSB	**Cacapava Do Su**	**153.87**	**180**	*e*P	**PKPdf**	**07 38 26.7**	**-4.0**
SJG	**San Juan**	**154.59**	**29**	IAMs_20	IAMs_20	08 51 01.8	
	comp=Z,683nm,22.0s						
OTAV	**Otavalo**	**154.65**	**81**	PKIKP	**PKPdf**	**07 38 34.8**	**+2.0**
OTAV	**Otavalo**	**154.65**	**81**	IAMs_20	IAMs_20	08 35 44.8	
	comp=Z,891nm,21.0s						
OTAV	**Otavalo**	**154.65**	**81**	*e*P	**PKPdf**	**07 38 28.4**	**-4.3**
HUMP	**Col San Antoni**	**154.71**	**29**		**PKPdf**	**07 38 34.5**	**+2.3**
SLOR	**San Lorenzo -**	**154.75**	**83**		**PKPdf**	**07 38 36.4**	**+3.4**
SMRT	**St. Maarten**	**156.00**	**23**	IAMs_20	IAMs_20	08 53 19.1	
	comp=Z,856nm,21.0s						
SEUS	**St. Eustatius**	**156.54**	**23**	IAMs_20	IAMs_20	08 40 47.5	
	comp=Z,764nm,20.0s						
ROSC	**El Rosal**	**157.33**	**67**	PKP	**PKPdf**	**07 38 36.0**	**-0.2**
	comp=Z,21nm,1.0s,baz=20,slow=1.0,SNR=18						
ROSC	**El Rosal**	**157.33**	**67**	PKIKP	**PKPdf**	**07 38 36.0**	**-0.2**
CPUP	**Villa Florida**	**157.62**	**171**	PKP	**PKPdf**	**07 38 36.2**	**+0.5**
	comp=Z,4.4nm,0.9s,baz=236,slow=3.6,SNR=6.3						
CPUP				PKPab	**PKPab**	**07 39 08.7**	**+1.1**
	comp=Z,13nm,0.9s,baz=172,slow=5.8,SNR=9.5						
CPUP	**Villa Florida**	**157.62**	**171**	*e*P	**PKPdf**	**07 38 31.7**	**-4.0**
ABD	**La Joyeuse, An**	**158.03**	**21**	IAMs_20	IAMs_20	08 56 45.9	
	comp=Z,845nm,20.0s						
SDV	**Santo Domingo**	**158.53**	**53**	IAMs_20	IAMs_20	08 58 53.8	
	comp=Z,880nm,22.0s						
SVN	**Savane Anatole**	**159.65**	**22**	IAMs_20	IAMs_20	08 59 23.9	
	comp=Z,760nm,20.0s						
FDFM	**Morne la Roset**	**159.75**	**22**	IAMs_20	IAMs_20	08 58 01.6	
	comp=Z,808nm,21.0s						
BIM	**Bigot**	**159.99**	**22**	IAMs_20	IAMs_20	08 44 45.8	
	comp=Z,766nm,22.0s						
CZSB	**Cruzeiro do Su**	**160.52**	**101**	*e*P	**PKPdf**	**07 38 34.2**	**-5.3**
FRTB	**Fartura**	**160.54**	**191**	*e*P	**PKPdf**	**07 38 34.5**	**-4.9**
LDASE	**Londrina, Braz**	**160.72**	**187**	*e*P	**PKPdf**	**07 38 34.8**	**-4.7**
BSFB	**Barra de Sao F**	**160.89**	**219**	*e*P	**PKPdf**	**07 38 35.0**	**-4.8**
LPAZ	**La Paz**	**161.19**	**131**	PKP	**PKPdf**	**07 38 41.1**	**+0.2**
	comp=Z,30nm,1.2s,baz=1.9,slow=1.3,SNR=32						
LPAZ				PKPab	**PKPab**	**07 39 25.9**	**+1.6**
	comp=Z,13nm,1.0s,baz=198,slow=1.2,SNR=4.1						
LPAZ	**La Paz**	**161.19**	**131**	*e*P	**PKPdf**	**07 38 34.8**	**-6.1**
TRCB	**Terra Rica**	**161.43**	**182**	*e*P	**PKPdf**	**07 38 33.9**	**-6.4**
COIM	**Forte Coimbra**	**163.76**	**165**	*e*P	**PKPdf**	**07 38 39.1**	**-3.4**
NBTA	**Tacaratu-PE**	**163.94**	**251**	*e*P	**PKPdf**	**07 38 39.1**	**-3.9**
NBMA	**Muriti-CE**	**165.04**	**257**	*e*P	**PKPdf**	**07 38 38.7**	**-5.2**
IPMB	**Ipameri, GO**	**165.31**	**200**	*e*P	**PKPdf**	**07 38 38.6**	**-5.5**
SIV	**San Ignacio**	**166.04**	**148**	PKP	**PKPdf**	**07 38 44.4**	**-0.3**
	comp=Z,16nm,1.2s,baz=233,slow=2.0,SNR=25						
SIV				PKPab	**PKPab**	**07 39 44.5**	**-0.3**
	comp=Z,24nm,1.3s,baz=221,slow=3.9,SNR=4.2						
NBMO	**Morrinhos-CE**	**166.59**	**273**	*e*P	**PKPdf**	**07 38 40.8**	**-4.4**
BDFB	**Brasilia**	**167.38**	**205**	PKP	**PKPdf**	**07 38 44.5**	**-1.3**
	comp=Z,4.1nm,0.9s,baz=124,slow=3.6,SNR=4.4						
BDFB				PKPab	**PKPab**	**07 39 51.6**	**+0.9**
	comp=Z,11nm,1.0s,baz=108,slow=2.2,SNR=6.1						
BDFB	**Brasilia**	**167.38**	**205**		**PKPdf**	**07 38 44.0**	**-1.8**
PTLB	**Pontes e Lacer**	**167.44**	**154**	*e*P	**PKPdf**	**07 38 40.2**	**-5.4**
NBPS	**Pedro II - PI**	**168.03**	**268**	*e*P	**PKPdf**	**07 38 42.0**	**-4.4**
SALV	**Santo Antonio**	**168.10**	**169**	*e*P	**PKPdf**	**07 38 41.7**	**-4.4**
SDBA	**SAO DESIDERIO**	**168.21**	**225**	*e*P	**PKPdf**	**07 38 42.0**	**-4.3**
VILB	**Vilhena**	**168.99**	**143**	*e*P	**PKPdf**	**07 38 42.5**	**-4.4**
BOAV	**Boa Vista**	**170.41**	**48**		**PKPdf**	**07 38 47.0**	**-0.7**
SMTB	**Santa Maria do**	**172.52**	**231**	*e*P	**PKPdf**	**07 38 44.4**	**-4.3**
CLDB	**Colider**	**172.91**	**161**	*e*P	**PKPdf**	**07 38 44.5**	**-4.3**
ITTB	**Itaituba**	**177.71**	**96**	*e*P	**PKPdf**	**07 38 45.9**	**-4.3**

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*IDC **09** 07:29:26.1±1.8, 4°.30N×126°.49E, h0^{km}, mb3.9/5, mbtmp3.9/5, Error ellipse: s-maj=178.6km s-min=21.4km az=66.0*

*NEIC **09** 07:29:28.1±1.7, 4°.3N±0°.1×126°.71E±0°.09, h10^{km}±2^{km}, mb4.6/11, Error ellipse: s-maj=22.4km s-min=10.9km az=34.0*

ISC 09 07:29:30.7±0.9**, 4°.23N**±0°.07×**126°.7E**±0°.1**, h35^{km}, n21, σ1^{s}.84**/20**, mb4.4**/11**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	**Don Marcelino,**	**2.10**	**333**	*e*P	**Pn**	**07 30 03.2**	**-0.2**
DDMP				*e*S	**Sn**	**07 30 30.6**	**+2.2**
KCP	**Kidapawan**	**3.19**	**330**	*i* P	Pn	07 30 28.8	+10
TNTI	**Ternate**	**3.50**	**169**	Pn	**Pn**	**07 30 23.6**	**+0.9**
LUWI	**Luwuk**	**6.53**	**217**	Pn	**Pn**	**07 31 04.7**	**+0.3**
TOLI2	**Tolitoli**	**6.66**	**242**	Pn	**Pn**	**07 31 07.2**	**+1.2**
KNRA	**Kununurra**	**19.88**	**174**	P	**Pn**	**07 33 59.9**	**-1.1**
KNRA				IAmb	IAmb	07 34 04.5	
	comp=Z,6.3nm,0.9s						
FITZ	**Fitzroy Crossi**	**22.21**	**183**	P	**P**	**07 34 24.2**	**0.0**
WB0	**Warramunga Arr**	**25.02**	**163**	P	**P**	**07 34 51.6**	**0.0**
WRAB	**Tennant Creek**	**25.16**	**163**	P	**P**	**07 34 53.3**	**+0.3**
WRAB				IAmb	IAmb	07 35 18.8	
	comp=Z,20nm,1.3s						
WRA	**Warramunga Arr**	**25.17**	**163**	P	**P**	**07 34 54.2**	**+1.2**
	comp=Z,1.6nm,0.5s,baz=342,slow=10,SNR=7.0						
	comp=Z,1.6nm,0.5s						
WB2	**Warramunga Arr**	**25.17**	**163**	P	**P**	**07 34 54.0**	**+0.9**
WB2				IAmb	IAmb	07 35 34.4	
	comp=Z,16nm,1.4s						
WR8	**Warramunga Arr**	**25.23**	**163**	P	**P**	**07 34 53.7**	**+0.1**
WR8				IAmb	IAmb	07 35 29.1	
	comp=Z,18nm,1.2s						
WR0	**Warramunga Arr**	**25.25**	**162**	P	**P**	**07 34 54.6**	**+1.0**
WR0				IAmb	IAmb	07 35 35.5	
	comp=Z,17nm,1.2s						
MBWA	**Marble Bar**	**26.13**	**195**	P	**P**	**07 34 55.4**	**-6.3**
MBWA				IAmb	IAmb	07 35 13.8	
	comp=Z,20nm,1.2s						
ASAR	**Alice Springs**	**28.60**	**166**	P	**P**	**07 35 25.6**	**+1.6**
	comp=Z,0.7nm,0.6s,baz=344,slow=6.7,SNR=4.8						
	comp=Z,0.7nm,0.6s						
BBOO	**Buckleboo**	**37.89**	**167**	P	**P**	**07 36 46.0**	**+1.4**
MKAR	**Makanchi Array**	**57.12**	**325**	P	**P**	**07 39 13.2**	**-0.7**
	comp=Z,0.5nm,0.5s,baz=124,slow=7.3,SNR=4.9						
	comp=Z,0.5nm,0.5s						
KURBB	**Kurchatov Arra**	**61.30**	**327**	P	**P**	**07 39 41.9**	**-0.8**
	comp=Z,0.9nm,0.3s,baz=126,slow=6.3,SNR=4.1						
	comp=Z,0.9nm,0.3s						
KURK	**Kurchatov**	**61.30**	**327**	P	**P**	**07 39 41.9**	**-0.8**
KURK	**Kurchatov**	**61.30**	**327**	IAmb	IAmb	07 39 49.5	
	comp=Z,5.8nm,1.1s						
BVAR	**Borovoye Array**	**66.88**	**327**	P	**P**	**07 40 19.7**	**+0.4**
	comp=Z,0.6nm,0.5s,baz=100,slow=6.0,SNR=1.9						
	comp=Z,0.6nm,0.5s						

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*IDC **09** 07:30:49.9±1.0, 4°.37N×126°.85E, h0^{km}, mb4.0/9, mbtmp4.0/9, Error ellipse: s-maj=60.9km s-min=16.8km az=67.0*

*NEIC **09** 07:30:55.6±1.9, 4°.31N±0°.09×126°.8E±0°.1, h35^{km}±2^{km}, mb4.4/9, Error ellipse: s-maj=19.9km s-min=12.7km az=58.0*

ISC 09 07:30:55.4±0.7**, 4°.29N**±0°.06×**126°.9E**±0°.1**, h35^{km}, n24, σ1^{s}.05**/25**, mb4.1**/13**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	**Don Marcelino,**	**2.15**	**327**	*e*P	**Pn**	**07 31 28.6**	**-0.3**
DDMP				*e*S	**Sn**	**07 31 55.3**	**+0.9**
TNTI	**Ternate**	**3.53**	**172**	Pn	**Pn**	**07 31 47.4**	**-0.4**
TNTI					**Sn**	**07 32 28.3**	**0.0**
LUWI	**Luwuk**	**6.71**	**218**		**Pn**	**07 32 31.7**	**+0.1**
TOLI2	**Tolitoli**	**6.88**	**243**	Pn	**Pn**	**07 32 33.6**	**-0.3**
FAKI	**Fak Fak**	**8.94**	**143**	Pn	**Pn**	**07 33 04.2**	**+2.1**
KNRA	**Kununurra**	**19.93**	**175**	P	**P**	**07 35 24.1**	**-0.3**
KNRA				IAmb	IAmb	07 35 29.2	
	comp=Z,7.9nm,0.7s						
FITZ	**Fitzroy Crossi**	**22.28**	**183**	P	**P**	**07 35 48.5**	**-1.3**
WB0	**Warramunga Arr**	**25.02**	**163**	P	**P**	**07 36 16.0**	**-0.4**
WRA	**Warramunga Arr**	**25.17**	**163**	P	**P**	**07 36 17.4**	**-0.3**
	comp=Z,5.1nm,1.0s,baz=341,slow=10,SNR=6.4						
	comp=Z,5.1nm,1.0s						
WR8	**Warramunga Arr**	**25.23**	**163**	P	**P**	**07 36 18.1**	**-0.1**
WR8				IAmb	IAmb	07 36 40.1	
	comp=Z,19nm,1.2s						
MBWA	**Marble Bar**	**26.25**	**195**	P	**P**	**07 36 27.3**	**-0.2**
MBWA				IAmb	IAmb	07 36 29.2	
	comp=Z,7.1nm,0.8s						
ASAR	**Alice Springs**	**28.62**	**166**	P	**P**	**07 36 50.0**	**+1.2**
	comp=Z,0.8nm,0.6s,baz=343,slow=8.3,SNR=4.4						
	comp=Z,0.8nm,0.6s						
CMAR	**Chiang Mai Arr**	**30.74**	**299**	P	**P**	**07 37 07.4**	**-0.2**
	comp=Z,0.6nm,0.3s,baz=124,slow=7.3,SNR=4.6						
	comp=Z,0.6nm,0.3s						
KSRS	**Korea Array**	**33.02**	**1**	P	**P**	**07 37 27.2**	**-0.1**
	comp=Z,1.1nm,0.7s,baz=178,slow=9.2,SNR=4.1						
	comp=Z,1.1nm,0.7s						
BBOO	**Buckleboo**	**37.91**	**167**	P	**P**	**07 38 09.6**	**+0.1**
STKA	**Stephens Creek**	**38.59**	**160**	P	**P**	**07 38 15.2**	**-0.1**
	comp=Z,5.7nm,0.8s,baz=344,slow=6.5,SNR=4.1						
	comp=Z,5.7nm,0.8s						
ARMA	**Armidale**	**41.84**	**147**	P	**P**	**07 38 40.1**	**-2.3**
ARMA				IAmb	IAmb	07 38 48.5	
	comp=Z,13nm,1.1s						
MKAR	**Makanchi Array**	**57.19**	**325**	P	**P**	**07 40 37.8**	**-1.3**
	comp=Z,0.6nm,0.4s,baz=131,slow=8.9,SNR=4.9						
	comp=Z,0.6nm,0.4s						
ZALV	**Zalesovo Beam**	**60.17**	**333**	P	**P**	**07 40 57.5**	**-2.1**
	comp=Z,0.4nm,0.3s,baz=117,slow=8.3,SNR=1.6						
	comp=Z,0.4nm,0.3s						
KURBB	**Kurchatov Arra**	**61.36**	**327**	P	**P**	**07 41 06.6**	**-1.2**
	comp=Z,2.2nm,0.7s,baz=125,slow=6.1,SNR=7.7						
	comp=Z,2.2nm,0.7s						
KURK	**Kurchatov**	**61.36**	**327**	P	**P**	**07 41 06.6**	**-1.2**
KURK	**Kurchatov**	**61.36**	**327**	IAmb	IAmb	07 41 07.9	
	comp=Z,4.0nm,0.8s						
BVAR	**Borovoye Array**	**66.94**	**327**	P	**P**	**07 41 43.7**	**-0.7**
	comp=Z,0.9nm,0.5s,baz=132,slow=6.4,SNR=2.8						
	comp=Z,0.9nm,0.5s						
ABKAR	**Akbulak array**	**71.82**	**321**	P	**P**	**07 42 15.4**	**+0.8**

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*IDC **09** 07:41:15.1±0.8, 3°.64N×125°.63E, h0^{km}, mb4.0/11, mbtmp4.0/11, Error ellipse: s-maj=51.5km s-min=14.4km az=67.0*

*DJA **09** 07:41:16.0±1.2, 4°N±11°×12°7E±°, h10^{km}, M4.4/8, mb4.3/3, MLv4.5/8*

*NEIC **09** 07:41:23.9±1.9, 3°.6N±0°.1×125°.6E±0°.1, h68^{km}±5^{km}, mb4.2/14, Error ellipse: s-maj=16.7km s-min=13.5km az=213.0*

ISC 09 07:41:17.0±0.6**, 3°.79N**±0°.04×**125°.78E**±0°.08**, h10^{km}, n32, σ1^{s}.89**/32**, mb4.3**/16**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	**Don Marcelino,**	**2.30**	**358**	*e*P	**Pn**	**07 41 52.1**	**-3.0**
DDMP				*e*S	**Sn**	**07 42 24.9**	**+1.5**
MNI	**Manado**	**2.51**	**202**	P	**Pg**	**07 42 07.5**	**+2.3**
MNI				AML	AML		
KCP	**Kidapawan**	**3.27**	**348**	*e*P	**Pn**	**07 42 12.7**	**+4.3**
TNTI	**Ternate**	**3.39**	**152**		**Pn**	**07 42 12.6**	**+2.6**
TNTI	**Ternate**	**3.39**	**152**	P	**Pn**	**07 42 12.4**	**+2.4**
TNTI				AML	AML		
GTOI	**Gorontalo**	**4.18**	**222**	P	**Pb**	**07 42 32.9**	**+2.2**
	0.3nm43nm,1.2s						
GTOI				AML	AML		
TOLI2	**Tolitoli**	**5.66**	**242**	Pn	**Pn**	**07 42 41.7**	**+0.5**
LUWI	**Luwuk**	**5.66**	**212**	Pn	**Pn**	**07 42 41.1**	**-0.1**
APSI	**Ampana**	**6.23**	**222**	P	**Pb**	**07 43 04.0**	**-1.7**
MTN	**Manton Dam**	**17.36**	**162**		**Pn**	**07 45 18.8**	**-0.7**
MTN				IAmb	IAmb	07 46 00.5	
	comp=Z,7.5nm,1.1s						
KNRA	**Kununurra**	**19.56**	**171**	P	**P**	**07 45 44.7**	**-0.4**
KNRA				IAmb	IAmb	07 45 59.6	
	comp=Z,6.2nm,0.8s						
FITZ	**Fitzroy Crossi**	**21.75**	**180**	P	**P**	**07 46 06.2**	**-2.6**
	comp=Z,0.7nm,0.4s,baz=18,slow=10,SNR=7.0						
	comp=Z,0.7nm,0.4s						
WB0	**Warramunga Arr**	**24.89**	**160**		**P**	**07 46 39.0**	**-1.3**
WB0				IAmb	IAmb	07 46 44.6	
	comp=Z,11nm,0.8s						
WRAB	**Tennant Creek**	**25.03**	**161**	P	**P**	**07 46 39.1**	**-2.3**
WRAB				IAmb	IAmb	07 47 21.8	
	comp=Z,15nm,1.1s						
WRA	**Warramunga Arr**	**25.04**	**161**	P	**P**	**07 46 40.3**	**-1.3**
	comp=Z,3.3nm,0.6s,baz=343,slow=10,SNR=24						
	comp=Z,3.3nm,0.6s						
WRA	**Warramunga Arr**	**25.04**	**161**		**P**	**07 46 39.4**	**-2.1**
WR8	**Warramunga Arr**	**25.10**	**160**		**P**	**07 46 40.9**	**-1.2**
WR8				IAmb	IAmb	07 47 16.4	
	comp=Z,16nm,1.2s						
AS31	**Alice Springs**	**28.41**	**164**	P	**P**	**07 47 11.2**	**-0.8**
ASAR	**Alice Springs**	**28.41**	**164**	P	**P**	**07 47 11.3**	**-0.7**
	comp=Z,0.8nm,0.6s,baz=347,slow=7.0,SNR=17						
	comp=Z,0.8nm,0.6s						
CMAR	**Chiang Mai Arr**	**30.03**	**301**	P	**P**	**07 47 27.1**	**+0.7**
	comp=Z,1.1nm,0.3s,baz=108,slow=8.7,SNR=5.7						
	comp=Z,1.1nm,0.3s						
FORT	**Forrest**	**34.44**	**177**	P	**P**	**07 48 01.1**	**-3.8**
FORT				IAmb	IAmb	07 48 11.1	
	comp=Z,7.7nm,0.9s						
BBOO	**Buckleboo**	**37.68**	**166**	P	**P**	**07 48 32.0**	**-0.7**
STKA	**Stephens Creek**	**38.53**	**158**	P	**P**	**07 48 38.2**	**-1.5**
	comp=Z,5.6nm,0.8s,baz=339,slow=11,SNR=7.5						
	comp=Z,5.6nm,0.8s						
ARMA	**Armidale**	**42.04**	**146**	P	**P**	**07 49 07.8**	**-1.3**
SONM	**Songino Array**	**46.95**	**342**	P	**P**	**07 49 47.8**	**-0.3**
	comp=Z,0.4nm,0.4s,baz=142,slow=7.3,SNR=2.1						
	comp=Z,0.4nm,0.4s						
SONM	**Songino Array**	**46.95**	**342**	IAmb	IAmb	07 49 47.9	
	comp=Z,1.6nm,1.1s						
MKAR	**Makanchi Array**	**56.97**	**326**	P	**P**	**07 51 02.5**	**-0.2**
	comp=Z,0.7nm,0.5s,baz=130,slow=7.9,SNR=8.7						
	comp=Z,0.7nm,0.5s						
KURBB	**Kurchatov Arra**	**61.18**	**328**	P	**P**	**07 51 30.7**	**-1.1**
	comp=Z,1.3nm,0.3s,baz=126,slow=5.7,SNR=12						
	comp=Z,1.3nm,0.3s						
KURK	**Kurchatov**	**61.19**	**328**	P	**P**	**07 51 31.1**	**-0.8**
KURK				IAmb	IAmb	07 51 33.9	
	comp=Z,3.4nm,0.7s						
BVAR	**Borovoye Array**	**66.76**	**327**	P	**P**	**07 52 08.1**	**-0.4**
	comp=Z,0.7nm,0.5s,baz=145,slow=5.4,SNR=4.1						
	comp=Z,0.7nm,0.5s						
ILAR	**Eielson Array**	**85.46**	**25**	P	**P**	**07 53 56.5**	**+1.8**
	comp=Z,0.3nm,0.6s,baz=262,slow=7.2,SNR=4.2						
	comp=Z,0.3nm,0.6s						
ARCES	**ARCESS Array B**	**90.07**	**340**	P	**P**	**07 54 17.7**	**+0.9**
	comp=Z,3.9nm,1.0s,baz=72,slow=5.2,SNR=3.9						
	comp=Z,3.9nm,1.0s						

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*IDC **09** 07:43:27.5±0.6, 3°.53N×125°.30E, h0^{km}, mb4.2/16, mbtmp4.3/16, Error ellipse: s-maj=31.0km s-min=13.1km az=71.0*

*NEIC **09** 07:43:29.1±2.5, 3°.64N±0°.05×125°.64E±0°.07, h10^{km}±1^{km}, mb4.6/25, Error ellipse: s-maj=13.8km s-min=5.7km az=242.0*

*DJA **09** 07:43:37.4±1.3, 4°N±13°×12°7E±°, h70^{km}±9^{km}, M4.4/6, mb4.5/6, mB8.3/1, MLv4.4/3, Mw(mB)8.6/1*

ISC 09 07:43:28.5±0.5**, 3°.62N**±0°.04×**125°.62E**±0°.08**, h10^{km}, n52, σ1^{s}.55**/53**, mb4.3**/26**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	**Don Marcelino,**	**2.47**	**2**	*e*P	Pn	07 44 03.9	-4.9
DDMP				*e*S	**Sn**	**07 44 35.3**	**-3.7**
TNTI	**Ternate**	**3.33**	**148**	Pn	**Pn**	**07 44 20.5**	**-0.2**
TNTI					**Sb**	**07 45 09.0**	**+0.7**
DAV	**Davao City (W)**	**3.42**	**359**	Pn	**Pn**	**07 44 23.7**	**+1.7**
DAV				Sn	**Sn**	**07 45 02.1**	**-0.6**
BUKP	**Musuan**	**4.26**	**353**	*e*P	**Pn**	**07 44 37.9**	**+4.3**
BUKP				*e*S	**Sb**	**07 45 34.4**	**-0.9**
LUWI	**Luwuk**	**5.44**	**212**	Pn	**Pn**	**07 44 50.0**	**+0.3**
TOLI2	**Tolitoli**	**5.44**	**243**	Pn	**Pn**	**07 44 51.7**	**+2.0**
MYLDM	**Lahad Datu**	**7.26**	**283**	Pn	**Pn**	**07 45 15.0**	**+0.2**
FAKI	**Fak Fak**	**9.28**	**134**	Pn	**Pn**	**07 45 40.0**	**-2.6**
LBFI	**Labuhan Bajo,**	**13.31**	**205**	P	P	07 46 54.4	+6.9
MTN	**Manton Dam**	**17.25**	**162**		**Pn**	**07 47 29.7**	**-0.1**
KNRA	**Kununurra**	**19.43**	**171**		**Pn**	**07 47 56.9**	**+0.5**
TPUB	**Ta-pu**	**20.15**	**347**	P	**P**	**07 48 01.5**	**-1.6**
TPUB				IAmb	IAmb	07 48 13.8	
	comp=Z,11nm,0.7s						
GUMO	**Guam**	**21.43**	**61**	P	**P**	**07 48 21.9**	**+4.8**
	comp=Z,14nm,0.4s,baz=253,slow=19,SNR=2.1						
	comp=Z,14nm,0.4s						
FITZ	**Fitzroy Crossi**	**21.58**	**180**	P	**P**	**07 48 18.1**	**-0.4**
	comp=Z,2.4nm,0.8s,baz=16,slow=11,SNR=8.1						
	comp=Z,2.4nm,0.8s						
WB0	**Warramunga Arr**	**24.79**	**160**		**P**	**07 48 50.9**	**0.0**
WRAB	**Tennant Creek**	**24.93**	**160**	P	**P**	**07 48 52.7**	**+0.6**
WRAB				IAmb	IAmb	07 48 53.6	

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
	comp=Z,15nm,0.7s						
WRA	**Warramunga Arr**	**24.94**	**160**	P	**P**	**07 48 52.3**	**+0.1**
	comp=Z,12nm,0.7s,baz=344,slow=11,SNR=21						
	comp=Z,12nm,0.7s						
WRA	**Warramunga Arr**	**24.94**	**160**		**P**	**07 48 52.0**	**-0.2**
WB2	**Warramunga Arr**	**24.94**	**160**	P	**P**	**07 48 52.8**	**+0.5**
WR8	**Warramunga Arr**	**25.00**	**160**		**P**	**07 48 53.5**	**+0.7**
WR0	**Warramunga Arr**	**25.02**	**160**	P	**P**	**07 48 52.9**	**0.0**
WR0				IAmb	IAmb	07 48 54.4	
	comp=Z,14nm,0.8s						
MBWA	**Marble Bar**	**25.30**	**193**	P	**P**	**07 48 55.1**	**-0.3**
MBWA				IAmb	IAmb	07 49 03.2	
	comp=Z,11nm,0.9s						
AS31	**Alice Springs**	**28.30**	**164**	P	**P**	**07 49 23.7**	**+1.2**
AS31				IAmb	IAmb	07 49 30.8	
	comp=Z,2.2nm,0.4s						
ASAR	**Alice Springs**	**28.30**	**164**	P	**P**	**07 49 24.0**	**+1.5**
	comp=Z,1.3nm,0.5s,baz=346,slow=11,SNR=11						
	comp=Z,1.3nm,0.5s						
CMAR	**Chiang Mai Arr**	**29.98**	**301**	P	**P**	**07 49 38.0**	**+0.5**
	comp=Z,1.0nm,0.3s,baz=119,slow=7.4,SNR=4.3						
	comp=Z,1.0nm,0.3s						
KSRS	**Korea Array**	**33.74**	**3**	P	**P**	**07 50 12.5**	**+2.3**
	comp=Z,0.9nm,0.6s,baz=181,slow=8.7,SNR=4.5						
	comp=Z,0.9nm,0.6s						
FORT	**Forrest**	**34.29**	**176**	P	**P**	**07 50 15.5**	**+0.4**
FORT				IAmb	IAmb	07 50 50.3	
	comp=Z,11nm,1.1s						
NWAO	**Narrogin (SRO)**	**37.21**	**192**	P	**P**	**07 50 42.0**	**+1.8**
BBOO	**Buckleboo**	**37.56**	**166**	P	**P**	**07 50 44.3**	**+1.2**
EIDS	**Eidsvold**	**37.96**	**141**	P	**P**	**07 50 44.2**	**-2.4**
EIDS				IAmb	IAmb	07 50 44.6	
	comp=Z,12nm,0.8s						
STKA	**Stephens Creek**	**38.44**	**158**	P	**P**	**07 50 51.1**	**+0.6**
	comp=Z,15nm,0.8s,baz=337,slow=8.0,SNR=18						
	comp=Z,15nm,0.8s						
USRK	**Ussuriysk Ar.**	**40.80**	**7**	P	**P**	**07 51 11.2**	**+1.2**
ARMA	**Armidale**	**42.00**	**146**	P	**P**	**07 51 19.3**	**-1.0**
ARMA				IAmb	IAmb	07 51 20.1	
	comp=Z,16nm,0.9s						
CAN	**Canberra**	**44.52**	**152**	P	**P**	**07 51 39.2**	**-1.3**
CAN				IAmb	IAmb	07 51 44.7	
	comp=Z,16nm,1.1s						
SONM	**Songino Array**	**47.05**	**342**	P	**P**	**07 52 01.3**	**+0.8**
	comp=Z,0.6nm,0.6s,baz=157,slow=7.8,SNR=1.9						
	comp=Z,0.6nm,0.6s						
PEA0B	**Petropavlovsk-**	**55.95**	**23**	P	**P**	**07 53 07.0**	**+0.2**
PETK	**Petropavlovsk-**	**55.95**	**23**	P	**P**	**07 53 08.6**	**+1.7**
	comp=Z,2.0nm,0.7s,baz=222,slow=7.0,SNR=2.0						
	comp=Z,2.0nm,0.7s						
PETK	**Petropavlovsk-**	**55.95**	**23**	P	**P**	**07 53 06.9**	**0.0**
MK31	**Makanchi Array**	**57.02**	**326**	P	**P**	**07 53 14.5**	**-0.2**
MKAR	**Makanchi Array**	**57.02**	**326**	P	**P**	**07 53 14.6**	**-0.1**
	comp=Z,1.6nm,0.5s,baz=120,slow=8.8,SNR=10						
	comp=Z,1.6nm,0.5s						
ZALV	**Zalesovo Beam**	**60.19**	**334**	P	**P**	**07 53 36.5**	**0.0**
	comp=Z,0.7nm,0.5s,baz=126,slow=8.2,SNR=2.6						
	comp=Z,0.7nm,0.5s						
KURBB	**Kurchatov Arra**	**61.23**	**328**	P	**P**	**07 53 43.3**	**-0.5**
	comp=Z,2.0nm,0.2s,baz=124,slow=6.2,SNR=6.2						
	comp=Z,2.0nm,0.2s						
KURK	**Kurchatov**	**61.24**	**328**	P	**P**	**07 53 43.3**	**-0.5**
KURK	**Kurchatov**	**61.24**	**328**	IAmb	IAmb	07 53 44.1	
	comp=Z,3.8nm,0.7s						
BVAR	**Borovoye Array**	**66.81**	**327**	P	**P**	**07 54 18.9**	**-1.4**
	comp=Z,1.0nm,0.5s,baz=126,slow=5.1,SNR=4.2						
	comp=Z,1.0nm,0.5s						
AB31	**Akbulak array**	**71.53**	**321**	P	**P**	**07 54 48.2**	**-1.6**
AB31				IAmb	IAmb	07 55 20.5	
	comp=Z,1.9nm,0.9s						
ABKAR	**Akbulak array**	**71.53**	**321**	P	**P**	**07 54 48.2**	**-1.5**
IMAR	**Indian Mountai**	**82.89**	**24**	P	**P**	**07 55 50.2**	**-3.0**
VNDA	**Vanda**	**83.46**	**173**	P	**P**	**07 55 56.6**	**+0.7**
	comp=Z,1.8nm,1.0s,baz=316,slow=6.8,SNR=5.2						
	comp=Z,1.8nm,1.0s						
VNDA	**Vanda**	**83.46**	**173**	P	**P**	**07 55 56.5**	**+0.7**
VNDA				IAmb	IAmb	07 55 58.5	
	comp=Z,2.4nm,1.1s						
ARCES	**ARCESS Array B**	**90.17**	**340**	P	**P**	**07 56 28.4**	**-0.4**
	comp=Z,1.3nm,0.7s,baz=69,slow=6.6,SNR=3.7						
	comp=Z,1.3nm,0.7s						
FINES	**FINESS Array B**	**91.40**	**332**	P	**P**	**07 56 34.3**	**-0.4**
	comp=Z,1.2nm,0.6s,baz=83,slow=6.0,SNR=3.5						
	comp=Z,1.2nm,0.6s						

*IDC **09** 07:48:26.4±0.9, 4°.08N×126°.50E, h0^{km}, mb4.1/10, mbtmp4.1/10, Error ellipse: s-maj=54.4km s-min=16.0km az=68.0*
*NEIC **09** 07:48:28.6±1.3, 4°.14N±0°.10×126°.6E±0°.1, h10^{km}±1^{km}, mb4.4/17, Error ellipse: s-maj=19.8km s-min=14.2km az=56.0*
*DJA **09** 07:48:30.9±0.9, 4°N±8°×12°7E±°, h10^{km}, M4.4/12, mB6.2/1, mb4.5/7, MLv4.3/12, Mw(mB)5.8/1*
ISC 09 07:48:28.1±0.6**, 4°.17N**±0°.05×**126°.71E**±0°.10**, h10**^{km}**, n44, σ1^{s}.57**/41**, mb4.2**/17**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	**Don Marcelino,**	**2.17**	**333**	*e*P	**Pn**	**07 49 03.9**	**-0.4**
DDMP				*e*S	**Sn**	**07 49 31.6**	**+0.4**
GAMI	**Galela, Maluku**	**2.55**	**155**	P	**Pn**	**07 49 10.2**	**+0.7**
KCP	**Kidapawan**	**3.25**	**330**	*i* P	**Pg**	**07 49 28.8**	**-1.6**
MNI	**Manado**	**3.29**	**215**	P	**Pn**	**07 49 22.3**	**+2.6**
TNTI	**Ternate**	**3.44**	**169**	P	**Pn**	**07 49 23.9**	**+2.2**
PAGZ	**Pagadian**	**4.93**	**318**	*i* P	**Pn**	**07 49 44.0**	**+1.7**
GTOI	**Gorontalo**	**5.10**	**227**	P	**Pn**	**07 49 47.1**	**+2.6**
	0.2nm31nm,0.9s						
GTOI				AML	AML		
GLSP	**General Luna,**	**5.61**	**354**	*e*P	**Pn**	**07 49 55.5**	**+3.8**
GLSP				*e*S	**Sb**	**07 51 13.3**	**-0.2**
LUWI	**Luwuk**	**6.50**	**217**	Pn	**Pn**	**07 50 05.4**	**+1.6**
LUWI	**Luwuk**	**6.50**	**217**	P	Pn	07 50 10.2	+6.3
TOLI2	**Tolitoli**	**6.66**	**243**	Pn	**Pn**	**07 50 05.1**	**-0.9**
APSI	**Ampana**	**7.14**	**225**	P	Pn	07 50 17.3	+4.6
NLAI	**Namlea**	**7.37**	**177**	P	Pb	07 50 28.3	-7.8
MYLDM	**Lahad Datu**	**8.24**	**277**	Pn	**Pn**	**07 50 28.2**	**+0.4**
MTN	**Manton Dam**	**17.46**	**165**	Pn	**Pn**	**07 52 29.3**	**-2.6**
KNRA	**Kununurra**	**19.82**	**174**	P	**P**	**07 52 58.7**	**-0.3**
KNRA				IAmb	IAmb	07 53 02.5	
	comp=Z,5.2nm,0.9s						
TPUB	**Ta-pu**	**19.91**	**343**	P	**P**	**07 53 00.1**	**+0.1**
TPUB				IAmb	IAmb	07 53 17.0	
	comp=Z,18nm,1.3s						
FITZ	**Fitzroy Crossi**	**22.15**	**183**	P	**P**	**07 53 23.4**	**-0.8**
	comp=Z,6.8nm,0.8s,baz=6.1,slow=9.0,SNR=6.0						
	comp=Z,6.8nm,0.8s						
FITZ	**Fitzroy Crossi**	**22.15**	**183**	P	**P**	**07 53 23.4**	**-0.8**
WB0	**Warramunga Arr**	**24.95**	**163**	P	**P**	**07 53 51.0**	**-0.9**
WB0				IAmb	IAmb	07 53 51.6	
	comp=Z,20nm,1.1s						
WRA	**Warramunga Arr**	**25.10**	**163**	P	**P**	**07 53 52.4**	**-0.9**
	comp=Z,3.6nm,0.6s,baz=344,slow=10,SNR=14						
	comp=Z,3.6nm,0.6s						
WRA	**Warramunga Arr**	**25.10**	**163**	P	**P**	**07 53 51.5**	**-1.7**
WR8	**Warramunga Arr**	**25.16**	**163**	P	**P**	**07 53 52.9**	**-0.9**
WR8				IAmb	IAmb	07 54 03.3	
	comp=Z,11nm,0.8s						
MBWA	**Marble Bar**	**26.08**	**195**	P	**P**	**07 54 01.4**	**-0.6**
MBWA				IAmb	IAmb	07 54 02.1	
	comp=Z,17nm,1.3s						
AS31	**Alice Springs**	**28.54**	**166**	P	**P**	**07 54 24.7**	**+0.5**
ASAR	**Alice Springs**	**28.54**	**166**	P	**P**	**07 54 23.4**	**-0.8**
	comp=Z,0.6nm,0.5s,baz=338,slow=7.5,SNR=5.6						
	comp=Z,0.6nm,0.5s						
CMAR	**Chiang Mai Arr**	**30.64**	**300**	P	**P**	**07 54 42.8**	**0.0**
	comp=Z,0.8nm,0.3s,baz=111,slow=9.0,SNR=1.5						
	comp=Z,0.8nm,0.3s						
CHTO	**Chiang Mai**	**30.78**	**300**	P	**P**	**07 54 43.2**	**-1.0**
CHTO				IAmb	IAmb	07 55 13.1	
	comp=Z,2.0nm,0.6s						
INKA	**Innaminka**	**34.49**	**158**	P	**P**	**07 55 16.4**	**-0.1**
INKA				IAmb	IAmb	07 55 17.2	
	comp=Z,3.2nm,1.1s						
EIDS	**Eidsvold**	**37.71**	**142**	P	**P**	**07 55 43.5**	**-0.5**
EIDS				IAmb	IAmb	07 56 18.7	
	comp=Z,21nm,1.4s						
BBOO	**Buckleboo**	**37.83**	**167**	P	**P**	**07 55 43.1**	**-1.8**
NWAO	**Narrogin (SRO)**	**37.97**	**193**	P	**P**	**07 55 45.3**	**-0.9**
STKA	**Stephens Creek**	**38.54**	**159**	P	**P**	**07 55 50.9**	**-0.1**
	comp=Z,8.5nm,0.8s,baz=336,slow=8.0,SNR=11						
	comp=Z,8.5nm,0.8s						
ARMA	**Armidale**	**41.84**	**147**	P	**P**	**07 56 18.8**	**+0.3**
MKAR	**Makanchi Array**	**57.19**	**325**	P	**P**	**07 58 13.9**	**-1.5**
	comp=Z,0.5nm,0.4s,baz=124,slow=8.7,SNR=3.9						
MKAR				PKiKP	**PKiKP**	**08 05 36.8**	**+0.1**
	comp=Z,1.4nm,0.9s,baz=115,slow=3.7,SNR=8.0						
	comp=Z,0.5nm,0.4s						
MKAR	**Makanchi Array**	**57.19**	**325**	P	**P**	**07 58 13.7**	**-1.7**
KSH2	**Kashi**	**57.86**	**314**	P	**P**	**07 58 25.0**	**+4.6**
KSH2	**Kashi**	**57.86**	**314**	pmax	pmax		
	comp=Z,8.0nm,2.4s						
KURBB	**Kurchatov Arra**	**61.36**	**327**	P	**P**	**07 58 43.1**	**-1.0**
	comp=Z,1.5nm,0.6s,baz=126,slow=6.2,SNR=10						
	comp=Z,1.5nm,0.6s						
VNDA	**Vanda**	**83.86**	**173**	P	**P**	**08 00 57.5**	**0.0**
	comp=Z,1.1nm,0.8s,baz=312,slow=6.1,SNR=5.2						
	comp=Z,1.1nm,0.8s						
VNDA	**Vanda**	**83.86**	**173**	IAmb	IAmb	08 01 07.3	
	comp=Z,2.6nm,1.1s						
ILAR	**Eielson Array**	**84.72**	**25**	P	**P**	**08 01 04.1**	**+2.0**
	comp=Z,0.4nm,0.9s,baz=269,slow=5.3,SNR=2.3						
	comp=Z,0.4nm,0.9s						
ARCES	**ARCESS Array B**	**90.03**	**340**	P	**P**	**08 01 27.7**	**-0.1**
	comp=Z,1.3nm,0.7s,baz=75,slow=4.9,SNR=1.8						
	comp=Z,1.3nm,0.7s						
ARCES	**ARCESS Array B**	**90.03**	**340**	IAmb	IAmb	08 01 31.9	
	comp=Z,16nm,1.5s						

*IDC **09** 08:03:59.1±0.7, 3°.84N×125°.98E, h0^{km}, mb4.0/15, mbtmp4.0/15, Error ellipse: s-maj=64.1km s-min=13.2km az=72.0*
*NEIC **09** 08:04:00.9±1.5, 4°.08N±0°.06×126°.6E±0°.1, h10^{km}±1^{km}, mb4.3/17, Error ellipse: s-maj=20.6km s-min=6.5km az=242.0*
*DJA **09** 08:04:01.5±0.4, 4°N±3°×12°7E±°, h50^{km}±40^{km}, M4.6/9, mb4.6/4, MLv4.6/9*
ISC 09 08:04:00.4±0.5**, 4°.13N**±0°.04×**126°.59E**±0°.09**, h10**^{km}**, n50, σ1^{s}.51**/47**, mb4.2**/22**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	**Don Marcelino,**	**2.15**	**336**	*e*P	**Pn**	**08 04 36.7**	**+0.3**
DDMP				*e*S	**Sn**	**08 05 06.2**	**+3.0**
GSPH	**General Santos**	**2.54**	**320**	*i* S	**Sn**	**08 05 13.1**	**+0.1**
DAV	**Davao City (W)**	**3.09**	**341**	P	Pn	08 04 43.7	-5.6
DAV				AML	AML		
MNI	**Manado**	**3.19**	**213**	P	**Pn**	**08 04 53.8**	**+3.1**
MNI				AML	AML		
KCP	**Kidapawan**	**3.23**	**332**	*i* P	**Pb**	**08 04 56.7**	**-1.2**
TNTI	**Ternate**	**3.42**	**167**		**Pn**	**08 04 53.8**	**-0.1**
TNTI	**Ternate**	**3.42**	**167**	P	**Pn**	**08 04 56.4**	**+2.5**
CDOP	**Cateel, Davao**	**3.63**	**358**	*i* P	**Pb**	**08 05 03.5**	**-1.3**
CDOP				*e*S	**Sb**	**08 05 48.0**	**-1.0**
GTOI	**Gorontalo**	**4.99**	**226**	P	**Pn**	**08 05 13.5**	**-1.9**
GLSP	**General Luna,**	**5.64**	**355**	*e*P	Pn	08 05 31.4	+7.1
GLSP				*e*S	**Sb**	**08 06 43.3**	**-3.4**
SANI	**Sanana**	**6.17**	**186**	P	**Pn**	**08 05 31.4**	**-0.2**
LUWI	**Luwuk**	**6.40**	**217**	Pn	**Pn**	**08 05 35.0**	**+0.1**
LUWI	**Luwuk**	**6.40**	**217**	P	Pn	08 05 41.3	+6.5
TOLI2	**Tolitoli**	**6.53**	**243**		**Pn**	**08 05 37.3**	**+0.6**
SWI	**Sorong**	**6.81**	**137**	P	**Pn**	**08 05 39.1**	**-1.3**
APSI	**Ampana**	**7.03**	**225**	P	Pn	08 05 49.0	+5.5
MYLDM	**Lahad Datu**	**8.13**	**278**	Pn	**Pn**	**08 05 58.2**	**-0.5**
MYLDM	**Lahad Datu**	**8.13**	**278**	P	**Pn**	**08 05 58.3**	**-0.4**
	16nm,0.7s						
MTN	**Manton Dam**	**17.45**	**165**	Pn	**Pn**	**08 08 01.8**	**-2.4**
KNRA	**Kununurra**	**19.80**	**174**	P	**P**	**08 08 30.7**	**-0.5**
FITZ	**Fitzroy Crossi**	**22.11**	**182**	P	**P**	**08 08 52.6**	**-3.4**
	1.7nm,0.5s,baz=12,slow=10.0,SNR=7.8						
	1.7nm,0.5s						
FITZ	**Fitzroy Crossi**	**22.11**	**182**	P	**P**	**08 08 55.2**	**-0.9**
WB0	**Warramunga Arr**	**24.95**	**162**	P	**P**	**08 09 23.4**	**-0.9**
WRAB	**Tennant Creek**	**25.10**	**163**	P	**P**	**08 09 24.4**	**-1.1**
WRAB				IAmb	IAmb	08 09 25.6	
	comp=Z,8.1nm,0.9s						
WRA	**Warramunga Arr**	**25.10**	**163**	P	**P**	**08 09 24.4**	**-1.1**
	comp=Z,2.7nm,0.4s,baz=336,slow=10,SNR=37						
	comp=Z,2.7nm,0.4s						
WRA	**Warramunga Arr**	**25.10**	**163**	P	**P**	**08 09 23.7**	**-1.9**
WR8	**Warramunga Arr**	**25.16**	**162**	P	**P**	**08 09 24.8**	**-1.4**
WR8				IAmb	IAmb	08 09 52.3	
	comp=Z,22nm,1.4s						
MBWA	**Marble Bar**	**26.02**	**195**	P	**P**	**08 09 33.8**	**-0.1**
MBWA				IAmb	IAmb	08 09 51.6	
	comp=Z,9.9nm,1.0s						
RABL	**Rabaul**	**26.85**	**108**	P	**P**	**08 09 41.4**	**-0.1**
AS31	**Alice Springs**	**28.53**	**166**	P	**P**	**08 09 55.8**	**-0.7**
AS31				IAmb	IAmb	08 10 25.8	
	comp=Z,2.5nm,1.4s						
ASAR	**Alice Springs**	**28.53**	**166**	P	**P**	**08 09 55.1**	**-1.3**
	comp=Z,0.4nm,0.3s,baz=339,slow=7.4,SNR=13						
	comp=Z,0.4nm,0.3s						
KSRS	**Korea Array**	**33.19**	**2**	P	**P**	**08 10 40.1**	**+2.8**
	comp=Z,1.4nm,0.8s,baz=173,slow=9.0,SNR=4.3						
	comp=Z,1.4nm,0.8s						
BBOO	**Buckleboo**	**37.82**	**167**	P	**P**	**08 11 16.3**	**-0.9**
STKA	**Stephens Creek**	**38.55**	**159**	P	**P**	**08 11 23.7**	**+0.3**
	comp=Z,4.7nm,0.8s,baz=327,slow=8.6,SNR=6.8						
	comp=Z,4.7nm,0.8s						
ARMA	**Armidale**	**41.87**	**147**	P	**P**	**08 11 51.8**	**+0.7**
ARMA				IAmb	IAmb	08 11 56.1	
	comp=Z,16nm,1.1s						
HILR	**Hailar Array B**	**45.64**	**354**	P	**P**	**08 12 22.3**	**+1.2**
	comp=Z,1.4nm,0.5s,baz=154,slow=7.5,SNR=1.8						
	comp=Z,1.4nm,0.5s						
SONM	**Songino Array**	**46.88**	**341**	P	**P**	**08 12 32.0**	**+0.9**
	comp=Z,0.4nm,0.5s,baz=134,slow=8.3,SNR=1.7						
	comp=Z,0.4nm,0.5s						
SONM	**Songino Array**	**46.88**	**341**	IAmb	IAmb	08 12 52.9	
	comp=Z,1.4nm,1.1s						
MK31	**Makanchi Array**	**57.15**	**325**	P	**P**	**08 13 47.2**	**-0.3**
MK31				IAmb	IAmb	08 14 16.8	
	comp=Z,3.0nm,1.4s						
MKAR	**Makanchi Array**	**57.15**	**325**	P	**P**	**08 13 46.1**	**-1.4**
	comp=Z,0.6nm,0.5s,baz=123,slow=7.9,SNR=5.3						
	comp=Z,0.6nm,0.5s						
ZALV	**Zalesovo Beam**	**60.17**	**333**	P	**P**	**08 14 06.6**	**-1.7**
	comp=Z,0.6nm,0.3s,baz=111,slow=7.9,SNR=1.2						
	comp=Z,0.6nm,0.3s						
KURBB	**Kurchatov Arra**	**61.33**	**327**	P	**P**	**08 14 15.8**	**-0.5**
	comp=Z,1.0nm,0.4s,baz=125,slow=6.3,SNR=12						
	comp=Z,1.0nm,0.4s						
KURK	**Kurchatov**	**61.33**	**327**	P	**P**	**08 14 15.1**	**-1.2**
KURK				IAmb	IAmb	08 14 27.3	
	comp=Z,2.3nm,0.8s						
BVAR	**Borovoye Array**	**66.91**	**327**	P	**P**	**08 14 52.9**	**0.0**
	comp=Z,0.7nm,0.5s,baz=130,slow=16,SNR=1.8						
	comp=Z,0.7nm,0.5s						
ABKAR	**Akbulak array**	**71.76**	**321**	P	**P**	**08 15 22.8**	**-0.2**
AKTO	**Aktyubinsk**	**73.27**	**322**	P	**P**	**08 15 32.5**	**+0.5**
	comp=Z,0.8nm,0.3s,baz=111,slow=8.6,SNR=4.7						
	comp=Z,0.8nm,0.3s						
VNDA	**Vanda**	**83.84**	**173**	P	**P**	**08 16 29.6**	**-0.1**
	comp=Z,1.0nm,0.9s,baz=300,slow=3.6,SNR=3.6						
	comp=Z,1.0nm,0.9s						
VNDA	**Vanda**	**83.84**	**173**	IAmb	IAmb	08 16 38.9	
	comp=Z,1.5nm,1.0s						
ARCES	**ARCESS Array B**	**90.03**	**340**	P	**P**	**08 17 02.1**	**+2.0**
	comp=Z,2.3nm,1.1s,baz=72,slow=5.2,SNR=3.6						
	comp=Z,2.3nm,1.1s						
FINES	**FINESS Array B**	**91.42**	**332**	P	**P**	**08 17 07.4**	**+0.7**
	comp=Z,2.1nm,0.9s,baz=158,slow=6.2,SNR=4.0						
	comp=Z,2.1nm,0.9s						

IDC 09 08:07:13.3±31.0**, 4°.84N**×**126°.51E, h0**^{km}**, mb3.8**/4**, mbtmp3.8**/4**, Error ellipse: s-maj=518.5km s-min=108.6km az=151.0, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**22.81**	**182**	P	P	08 12 17.5	-0.4
	1.5nm,0.6s,baz=348,slow=9.3,SNR=3.1						
	1.5nm,0.6s						
WRA	**Warramunga Arr**	**25.80**	**163**	P	P	08 12 46.8	+0.5
	2.4nm,0.8s,baz=343,slow=11,SNR=6.3						
	2.4nm,0.8s						
ASAR	**Alice Springs**	**29.24**	**166**	P	P	08 13 17.8	+0.6
	0.3nm,0.5s,baz=344,slow=7.3,SNR=2.7						
	0.3nm,0.5s						
STKA	**Stephens Creek**	**39.24**	**160**	P	P	08 14 42.6	-1.0
	2.1nm,0.9s,baz=325,slow=7.5,SNR=3.2						
	2.1nm,0.9s						

*IDC **09** 08:17:20.2±3.5, 53°.96N×91°.20E, h0^{km}, mbtmp3.1/3, ML2.9/3, Error ellipse: s-maj=29.2km s-min=24.8km az=42.0*
*ASRS **09** 08:17:22.0±1.3, 53°.76N×91°.09E, h0^{km}, M2.6(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*
*NNC **09** 08:17:33.8±2.3, 53°.10N×90°.38E, h0^{km}, mb3.3, mpv3.0, Error ellipse: s-maj=19.4km s-min=15.3km az=106.0, Suspected Mining explosion.*
ISC 09 08:17:24.7±4.1**, 54°.0N**±0°.1×**90°.8E**±0°.2**, h0**^{km}**, n8,** σ**1^{s}.01**/12**, 9C-2D, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	**ZALESOVO INFRA**	**3.55**	**272**	I	I	08 40 40.0	
	0.1nm,1.0s,baz=90,slow=330,SNR=5.2						
ZAA0	**Zalesovo Array**	**3.55**	**272**	⇑Pn	**Pb**	**08 18 29.0**	**+0.7**
	4.0nm,0.7s						
ZAA0				⇑Lg	Lg	08 19 21.1	
	9.3nm,0.9s						
ZALV	**Zalesovo Beam**	**3.55**	**272**	Pn	**Pn**	**08 18 20.3**	**-0.7**
	1.3nm,0.3s,baz=88,slow=16,SNR=12						
ZALV				Pg	**Pb**	**08 18 28.1**	**-0.3**
	1.2nm,0.3s,baz=92,slow=15,SNR=14						
ZALV				Lg	Lg	08 19 19.3	
	1.4nm,0.3s,baz=87,slow=30,SNR=7.6						
	0.4nm,0.3s						
ZALV				AML	AML		
KURK	**Kurchatov**	**8.15**	**252**	⇑Pn	**Pn**	**08 19 25.1**	**+1.0**
	0.6nm,0.8s						
KURK				⇑Sn	**Sn**	**08 20 55.5**	**-1.3**
	1.4nm,1.0s						
KURK				⇑Lg	Lg	08 21 37.9	
	1.6nm,0.8s						
KURBB	**Kurchatov Arra**	**8.24**	**251**	Pn	**Pn**	**08 19 25.1**	**-0.3**
	0.2nm,0.3s,baz=67,slow=15,SNR=6.1						
KURBB				Sn	**Sn**	**08 21 00.8**	**+1.6**
	baz=66,slow=26,SNR=6.6						
KURBB				Lg	Lg	08 21 48.5	
	baz=64,slow=34,SNR=6.9						
	0.6nm,0.3s						
KURBB				AML	AML		
KURBB	**Kurchatov Arra**	**8.24**	**251**	⇓Pn	**Pn**	**08 19 26.5**	**+1.1**
	1.9nm,0.6s						
KURBB				⇑Sn	**Sn**	**08 20 58.1**	**-1.1**
	8.1nm,0.7s						
KURBB				⇑Lg	Lg	08 21 40.6	
	6.7nm,0.8s						
MK31	**Makanchi Array**	**9.00**	**221**	⇑Pn	**Pn**	**08 19 35.3**	**-0.5**
	0.1nm,0.3s,baz=32,slow=14,SNR=6.7						
MK31				⇑Sn	Sn	08 21 07.6	-10
	baz=259,slow=24,SNR=3.6						
MK31				⇓Lg	Lg	08 21 56.4	
	1.4nm,1.0s						
MKAR	**Makanchi Array**	**9.00**	**221**	Pn	**Pn**	**08 19 36.0**	**+0.2**
	0.2nm,0.3s,baz=32,slow=13,SNR=7.8						
MKAR				Sn	**Sn**	**08 21 17.6**	**-0.2**
	0.2nm,0.3s,baz=40,slow=25,SNR=4.6						
	0.7nm,0.5s						
MKAR				AML	AML		

*IDC **09** 08:21:15.4±1.2, 0°.55S×128°.27E, h0^{km}, mb3.8/8, mbtmp3.8/9, ML3.9/1, Error ellipse: s-maj=78.4km s-min=16.8km az=69.0*
ISC 09 08:21:20.4±1.1**, 0°.6S**±0°.2×**128°.1E**±0°.4**, h35**^{km}**, n9,** σ**0^{s}.77**/9**, mb4.1**/7**, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**17.52**	**188**	P	**P**	**08 25 23.1**	**+0.2**
	0.3nm,0.3s,baz=35,slow=9.4,SNR=5.2						
	0.6nm,0.4s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**20.13**	**163**	P	**P**	**08 25 53.0**	**+1.4**
	1.2nm,0.7s,baz=338,slow=10,SNR=6.6						
	1.2nm,0.7s						
ASAR	**Alice Springs**	**23.57**	**167**	P	**P**	**08 26 27.9**	**-0.1**
	0.5nm,0.9s,baz=346,slow=7.2,SNR=6.2						
	0.5nm,0.9s						
STKA	**Stephens Creek**	**33.58**	**159**	P	**P**	**08 27 56.7**	**-0.7**
	2.7nm,1.0s,baz=333,slow=8.3,SNR=3.6						
	2.7nm,1.0s						
CMAR	**Chiang Mai Arr**	**34.39**	**305**	P	**P**	**08 28 04.6**	**0.0**
	0.7nm,0.3s,baz=113,slow=6.5,SNR=4.1						
	0.7nm,0.3s						
SONM	**Songino Array**	**51.85**	**342**	P	**P**	**08 30 24.9**	**-0.5**
	0.4nm,0.4s,baz=165,slow=6.0,SNR=1.9						
	0.4nm,0.4s						
MKAR	**Makanchi Array**	**61.92**	**326**	P	**P**	**08 31 37.2**	**+0.5**
	0.7nm,0.5s,baz=120,slow=8.0,SNR=6.6						
	0.7nm,0.5s						
ZALV	**Zalesovo Beam**	**65.09**	**333**	P	**P**	**08 31 57.6**	**+0.2**
	0.6nm,0.3s,baz=120,slow=7.2,SNR=2.4						
	0.6nm,0.3s						
KURBB	**Kurchatov Arra**	**66.15**	**328**	P	**P**	**08 32 05.0**	**+0.7**
	1.8nm,0.5s,baz=129,slow=6.4,SNR=9.2						
	1.8nm,0.5s						

IDC 09 08:21:59.1±6.8**, 3°.21N**×**127°.34E, h0**^{km}**, mb3.7**/4**, mbtmp3.8**/4**, Error ellipse: s-maj=115.1km s-min=96.8km az=120.0, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**21.24**	**184**	P	P	08 26 46.6	-0.3
	2.0nm,0.6s,baz=348,slow=9.3,SNR=2.2						
	2.0nm,0.6s						
WRA	**Warramunga Arr**	**24.02**	**164**	P	P	08 27 16.1	+0.2
	2.6nm,0.8s,baz=344,slow=10,SNR=7.0						
	2.6nm,0.8s						
ASAR	**Alice Springs**	**27.47**	**167**	P	P	08 27 47.9	+0.7
	0.3nm,0.5s,baz=340,slow=6.6,SNR=4.1						
	0.3nm,0.5s						
STKA	**Stephens Creek**	**37.44**	**160**	P	P	08 29 13.5	-0.8
	1.2nm,0.5s,baz=337,slow=7.6,SNR=3.6						
	1.2nm,0.5s						

*IDC **09** 08:25:36.5±4.8, 4°.51S×130°.69E, h75^{km}±41^{km}, mb3.6/3, mbtmp3.8/6, ML3.7/3, Error ellipse: s-maj=57.9km s-min=13.9km az=74.0*
*DJA **09** 08:25:37.0±0.4, 3°S±4°×13°2E±°, h10^{km}, M3.2/4, MLv3.2/4*
ISC 09 08:25:14.2±1.4**, 3°.67S**±0°.07×**130°.6E**±0°.2**, h10**^{km}**, n10,** σ**3^{s}.76**/9**, mb4.0**/3**, Seram**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FAKI	**Fak Fak**	**1.83**	**66**	P	**Pn**	**08 25 43.9**	**-2.0**
FAKI				AML	AML		
SWI	**Sorong**	**2.88**	**14**	P	**Pg**	**08 26 11.0**	**+1.6**
KMPI	**Kaimana, Papua**	**3.13**	**90**	P	**Pn**	**08 26 06.3**	**+2.7**
KMPI				AML	AML		
MWPI	**Manokwari, Pap**	**4.41**	**52**	P	**Pn**	**08 26 17.4**	**-3.9**
FITZ	**Fitzroy Crossi**	**15.13**	**198**	P	**P**	**08 28 55.6**	**+2.2**
	0.1nm,0.3s,baz=29,slow=13,SNR=2.2						
FITZ				S	**Sn**	**08 31 34.7**	**-1.2**
	3.0nm,1.0s,baz=84,slow=10,SNR=2.4						
	1.1nm,0.7s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**16.58**	**167**	P	**P**	**08 29 13.8**	**+4.3**
	0.3nm,0.3s,baz=348,slow=11,SNR=5.8						
WRA				S	**Sn**	**08 32 08.1**	**-3.3**
	0.8nm,0.6s,baz=350,slow=24,SNR=5.6						
	1.1nm,0.8s						
WRA				AML	AML		
ASAR	**Alice Springs**	**20.14**	**171**	P	Pn	08 29 56.9	+6.4
	0.5nm,0.3s,baz=352,slow=10,SNR=22						
ASAR				S	**S**	**08 33 30.4**	**-4.6**
	0.2nm,0.5s,baz=354,slow=25,SNR=1.5						
	2.0nm,0.5s						
ASAR				AML	AML		
CMAR	**Chiang Mai Arr**	**38.14**	**306**	P	P	08 32 52.2	+18
	1.4nm,0.3s,baz=110,slow=7.2,SNR=4.3						
	1.4nm,0.3s						
MKAR	**Makanchi Array**	**65.79**	**326**	P	P	08 36 19.2	+20
	0.7nm,0.6s,baz=119,slow=7.6,SNR=5.1						
	0.7nm,0.6s						
KURBB	**Kurchatov Arra**	**70.00**	**328**	P	P	08 36 45.1	+19
	0.2nm,0.3s,baz=124,slow=5.6,SNR=4.2						
	0.2nm,0.3s						

*IDC **09** 08:45:58.1±4.1, 54°.40N×87°.00E, h0^{km}, mbtmp3.1/2, ML2.8/2, Error ellipse: s-maj=38.1km s-min=21.0km az=67.0*
ASRS 09 08:45:58.0±0.8**, 54°.30N**×**86°.88E, h0**^{km}**, M2.7**(MOS)**, The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	ZALESOVO INFRA	1.26	254	I	I	08 54 10.0	
	baz=73,slow=327,SNR=6.1						
ZALV	Zalesovo Beam	1.26	254	Pn	Pn	08 46 23.1	+0.2
	4.3nm,0.3s,baz=72,slow=16,SNR=36						
ZALV				Lg	Lg	08 46 42.1	
	5.1nm,0.3s,baz=78,slow=25,SNR=8.7						
KURBB	Kurchatov Arra	6.29	238	Pn	Pn	08 47 34.6	+2.6
	0.1nm,0.3s,baz=53,slow=13,SNR=3.3						
	0.5nm,0.2s						
KURBB				AML	AML		
MKAR	Makanchi Array	8.06	203	Pn	Pn	08 47 59.5	+3.1
	0.3nm,0.3s,baz=26,slow=14,SNR=11						
MKAR				Lg	Lg	08 50 15.4	
	0.1nm,0.3s,baz=20,slow=29,SNR=1.3						
	0.4nm,0.3s						
MKAR				AML	AML		

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*SOME **09** 08:50:04.8, 41°.73N×74°.33E, h0^{km}*

*NNC **09** 08:50:05.8±1.6, 41°.72N×74°.31E, h1^{km}±8^{km}, mb2.9, mpv2.6, Error ellipse: s-maj=11.7km s-min=7.0km az=175.0*

*KRNET **09** 08:50:05.1±0.1, 41°.70N×74°.38E, h30^{km}, mb2.4*

ISC 09 08:50:05.3±1.1**, 41°.71N**±0°.03×**74°.34E**±0°.02**, h8**^{km}±10^{km}**, n33,** σ0^{s}.**96**/57**, 11C-13D, Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
UCH	Uchtor	0.53	14	⇑iP	Pg	08 50 15.9	+0.2
UCH				⇑iS	Sb	08 50 24.6	-0.5
SALK	Salom-Alik	0.91	205	⇑eP	Pg	08 50 22.3	-0.5
SALK				⇑eS	Sg	08 50 35.1	+0.4
AAK	Ala-Archa	0.93	7	⇓P	Pg	08 50 23.3	+0.1
	0.4nm,0.3s						
AAK				⇑S	Sb	08 50 36.4	+0.1
	2.2nm,0.5s						
AAK	Ala-Archa	0.93	7	⇓iP	Pg	08 50 22.5	-0.7
AAK				⇓iS	Sb	08 50 35.8	-0.6
EKS2	Erkin-Say	1.04	337	⇑iP	Pg	08 50 24.7	-0.5
EKS2				⇑iS	Sb	08 50 39.3	0.0
ARSB	Arslanbob	1.09	250	⇓eP	Pg	08 50 26.0	-0.1
ARSB				⇓eS	Sg	08 50 40.8	+0.5
MRKS	Merke	1.32	322	P	Pg	08 50 29.3	-1.3
	1.5nm,0.4s						
MRKS				S	Sg	08 50 46.8	-0.9
	2.5nm,0.2s						
MRKS	Merke	1.32	322	eP	Pg	08 50 29.3	-1.3
	1.5nm,0.4s						
MRKS				eS	Sg	08 50 46.8	-0.9
	2.5nm,0.2s						
BOOM	Boomskoye usch	1.43	56	⇓iP	Pn	08 50 30.4	-1.2
BOOM				⇓iS	Sg	08 50 49.2	-1.9
USP	Ospenovka	1.56	4	⇓iP	Pn	08 50 33.1	-0.2
USP				⇓iS	Sn	08 50 53.8	+0.1
MNAS	Manas	1.57	300	⇑iP	Pn	08 50 33.4	-0.1
MNAS				⇑iS	Sn	08 50 54.2	+0.1
SGDS	Sogindy	1.75	7	P	Pg	08 50 39.3	+0.5
	3.3nm,0.4s						
SGDS				S	Sg	08 51 03.6	+1.9
	2.6nm,0.5s						
ARK	Arkit	1.78	274	⇑eP	Pn	08 50 36.4	+0.1
ARK				⇑eS	Sn	08 50 58.8	-0.4
KST	Kastek	1.80	42	P	Pn	08 50 36.8	+0.2
	0.9nm,0.9s						
KST				S	Sn	08 50 59.7	+0.1
	9.2nm,0.8s						
KST	Kastek	1.80	42	eP	Pn	08 50 36.8	+0.2
	0.9nm,0.9s						
KST				eS	Sn	08 50 59.8	+0.1
	9.2nm,0.8s						
SFK	Sufi-Kurgan	1.81	201	⇓iP	Pn	08 50 37.1	+0.2
SFK				⇓iS	Sn	08 50 59.1	-1.0
KRBS	Karabastau	2.21	26	Pg	Pb	08 50 46.6	+1.0
	3.8nm,0.3s						
KRBS				Lg	Lg	08 51 16.7	
	2.2nm,0.4s						
KRBS	Karabastau	2.21	26	eP	Pb	08 50 46.6	+1.0
	3.8nm,0.3s						
KRBS				eS	Sg	08 51 16.7	+0.2
	2.2nm,0.4s						
TNSS	Tian-Shan	2.34	55	Pg	Pg	08 50 49.8	-0.4
	1.5nm,0.5s						
TNSS				Lg	Lg	08 51 21.7	
	1.4nm,0.8s						
TNSS	Tian-Shan	2.34	55	eP	Pg	08 50 49.8	-0.4
	1.5nm,0.5s						
TNSS				eS	Sg	08 51 21.7	+1.1
	1.4nm,0.8s						
MDOK	Medeo	2.48	53	Pg	Pg	08 50 51.5	-1.2
	3.3nm,0.3s						
MDOK				Lg	Lg	08 51 24.8	
	11nm,0.8s						
MDOK	Medeo	2.48	53	eP	Pg	08 50 51.5	-1.2
	3.3nm,0.3s						
MDOK				eS	Sg	08 51 24.8	0.0
	11nm,0.8s						
KUU	Kurty	2.63	33	Pg	Pg	08 50 54.5	-1.1
	1.4nm,0.1s						
KUU				Lg	Lg	08 51 30.1	
	13nm,0.8s						
KUU	Kurty	2.63	33	eP	Pg	08 50 54.5	-1.1
	1.4nm,0.1s						
KUU				eS	Sg	08 51 30.1	+0.3
	13nm,0.8s						
KTBS	Karatobe	2.64	40	Pg	Pb	08 50 54.1	+1.2
	0.2nm,0.2s						
KTBS				Lg	Lg	08 51 29.5	
	9.4nm,0.6s						
KTBS	Karatobe	2.64	40	eP	Pb	08 50 54.1	+1.2
	0.2nm,0.2s						
KTBS				eS	Sg	08 51 29.5	-0.7
	9.4nm,0.6s						
KK31	Karatay Array	3.15	297	⇓Pg	Pb	08 51 01.6	+0.1
	0.3nm,0.2s						
KK31				⇓Lg	Lg	08 51 46.4	
	0.6nm,0.3s,baz=116,slow=31,SNR=4.7						
IUG	Iuzhnay	3.24	279	Pg	Pg	08 51 06.5	-0.9
	4.7nm,0.3s						
IUG				Lg	Lg	08 51 50.8	
	6.0nm,0.7s						
IUG	Iuzhnay	3.24	279	eP	Pg	08 51 06.5	-0.9
	4.7nm,0.3s						
IUG				eS	Sg	08 51 50.8	+1.5
	6.0nm,0.7s						
SATY	Saty	3.30	65	Pg	Pg	08 51 07.6	-1.0
	1.0nm,0.4s						
SATY				Lg	Lg	08 51 52.4	
	3.7nm,0.4s						
SATY	Saty	3.30	65	eP	Pg	08 51 07.5	-1.0
	1.0nm,0.4s						
SATY				eS	Sg	08 51 52.4	+1.1
	3.7nm,0.4s						
ARXS	Arharly	3.58	45	Pg	Pb	08 51 10.8	+2.0
	0.8nm,0.3s						
ARXS				Lg	Lg	08 51 58.3	
	7.5nm,0.9s						
ARXS	Arharly	3.58	45	eP	Pb	08 51 10.8	+2.0
	0.8nm,0.3s						
ARXS				eS	Sg	08 51 58.3	-1.9
	7.5nm,0.9s						

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*MAN **09** 08:51:44.0, 3°.65N×126°.38E, h6^{km}, MS4.2*

*IDC **09** 08:51:45.4±0.6, 4°.20N×126°.56E, h0^{km}, mb4.3/17, mbtmp4.3/19, ML4.0/2, MS3.6/4, Error ellipse: s-maj=29.3km s-min=9.5km az=74.0*

*NEIC **09** 08:51:47.8±1.6, 4°.18N±0°.05×126°.7E±0°.1, h10^{km}±1^{km}, mb4.6/32, Error ellipse: s-maj=18.1km s-min=7.1km az=71.0*

*DJA **09** 08:51:53.0±0.4, 4°N±4°×12°7E±°, h10^{km}, M4.5/14, mB5.0/2, mb4.6/9, MLv4.5/14, Mw(mB)4.3/2*

ISC 09 08:51:47.5±0.4**, 4°.20N**±0°.04×**126°.71E**±0°.08**, h10**^{km}**, n111,** σ**1**^{s}.**81**/104**, mb4.6**/38**, MS3.7**/5**, 1C, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DDMP	Don Marcelino,	2.14	332	eP	Pn	08 52 24.3	+1.0
DDMP				eS	Sg	08 53 00.1	+3.8
GSPH	General Santos	2.57	317	i P	Pn	08 52 30.7	+1.4
GSPH				i S	Sn	08 52 55.1	-5.6
DAV	Davao City (W)	3.06	338	Pn	Pn	08 52 34.9	-1.2
	14nm,0.3s,baz=91,slow=2.4,SNR=1.1						
DAV				Sn	Sn	08 53 12.4	-0.4
	42nm,0.3s,baz=213,slow=14,SNR=1.8						
	114nm,0.4s						
DAV				AML	AML		
DAV	Davao City (W)	3.06	338	Pn	Pn	08 52 37.1	+1.1
DAV	Davao City (W)	3.06	338	P	Pg	08 52 47.1	+0.8
DAV				AML	AML		
DMPH	Davao City--Mi	3.10	337	eP	Pb	08 52 45.2	+2.4
DMPH				i S	Sg	08 53 27.8	+0.6
KCP	Kidapawan	3.22	330	i P	Pb	08 52 42.0	-2.9
MNI	Manado	3.32	214	P	Pn	08 52 41.0	+1.5
MNI				AML	AML		
TNTI	Ternate	3.47	169	P	Pn	08 52 44.7	+3.1
TNTI	Ternate	3.47	169	Pn	Pn	08 52 42.3	+0.7
TNTI	Ternate	3.47	169	P	Pn	08 52 42.7	+1.1
CDOP	Cateel, Davao	3.57	356	i P	Pb	08 52 48.7	-2.1
CDOP				i S	Sb	08 53 32.0	-2.2
CTBH	Cotabato--PC H	3.88	321	i P	Pb	08 52 52.9	-3.1
BIPH	Bislig	3.97	355	eP	Pn	08 52 53.2	+4.7
BIPH				eS	Sb	08 53 41.3	-4.5
BUKP	Musuan	4.00	336	eP	Pn	08 52 52.6	+3.6
BUKP				i S	Sb	08 53 49.1	+2.3
CGP	Cagayan de Oro	4.68	335	eP	Pn	08 53 02.0	+3.8
CGP				eS	Sb	08 54 08.8	+2.7
GTOI	Gorontalo	5.12	226	P	Pn	08 53 06.3	+2.0
	0.2nm651nm41nm,0.7s						
GTOI				AML	AML		
DCPH	Dipolog City	5.49	323	eP	Pn	08 53 16.3	+7.0
GLSP	General Luna,	5.58	354	eP	Pb	08 53 18.5	-6.6
GLSP				eS	Sb	08 54 30.6	-1.4
TBP	Tagbilaran	6.14	333	eP	Pn	08 53 24.8	+6.4
SANI	Sanana	6.25	187	P	Pn	08 53 20.0	+0.1
	0.2nm35nm,0.8s						
SANI				AML	AML		
LUWI	Luwuk	6.53	217	Pn	Pn	08 53 24.0	+0.3
LUWI	Luwuk	6.53	217	P	Pn	08 53 29.3	+5.6
LUWI				AML	AML		
LLP	Lapu-Lapu	6.66	336	eP	Pn	08 53 31.6	+6.1
LLP				eS	Sb	08 55 01.1	-2.0
TOLI2	Tolitoli	6.67	243	P	Pn	08 53 28.8	+3.1
	25nm,0.7s						
TOLI2				AML	AML		
TOLI2	Tolitoli	6.67	243		Pn	08 53 26.0	+0.3
SWI	Sorong	6.78	138	P	Pn	08 53 28.1	+0.9
PLP	Palo	7.13	346	eP	Pn	08 53 39.4	+7.4
APSI	Ampana	7.17	225	P	Pn	08 53 37.6	+5.1
NLAI	Namlea	7.40	177	P	Pn	08 53 35.9	+0.2
MYLDM	Lahad Datu	8.24	277	P	Pn	08 53 52.2	+5.0
	42nm,0.9s						
MYLDM	Lahad Datu	8.24	277		Pn	08 53 47.9	+0.7
MYLDM	Lahad Datu	8.24	277	P	Pn	08 53 55.3	+8.1
	42nm,0.9s						
LQP	Lukban	11.09	333	eP	Pn	08 54 33.9	+7.4
KAPI	Kappang	11.50	217	Pn	Pn	08 54 31.6	-0.2
	1.4nm,0.3s,baz=106,slow=20,SNR=1.4						
	3.0nm,0.3s						
KAPI				AML	AML		
MTN	Manton Dam	17.50	166	Pn	Pn	08 55 50.0	-1.8
YULB	Yu-li	19.78	345	P	P	08 56 17.8	-0.3
KNRA	Kununurra	19.86	174		P	08 56 18.4	-0.5
TPUB	Ta-pu	19.88	343	P	Pn	08 56 20.3	-0.4
	20nm,0.8s						
TPUB	Ta-pu	19.88	343	P	P	08 56 18.8	-0.3
TPUB				IAmb	IAmb	08 56 21.6	
	comp=Z,14nm,0.7s						
SSLB	Suanglung	20.25	345	P	Pn	08 56 26.2	+1.1
	comp=Z,18nm,0.7s						
SSLB	Suanglung	20.25	345		P	08 56 23.8	+0.6
FITZ	Fitzroy Crossi	22.18	183	P	P	08 56 43.6	-0.4
	comp=Z,8.5nm,0.9s,baz=20,slow=6.4,SNR=10						
	comp=Z,8.5nm,0.9s						
FITZ	Fitzroy Crossi	22.18	183	P	P	08 56 43.6	-0.4
WB0	Warramunga Arr	24.99	163		P	08 57 09.7	-1.9
WRAB	Tennant Creek	25.13	163	P	P	08 57 12.2	-0.7
WRAB				IAmb	IAmb	08 57 14.0	
	comp=Z,21nm,1.0s						
WRA	Warramunga Arr	25.14	163	P	P	08 57 12.3	-0.7
	comp=Z,11nm,0.8s,baz=344,slow=10,SNR=40						
WRA				S	S	09 01 41.1	+3.0
	comp=Z,0.7nm,0.8s,baz=343,slow=15,SNR=1.3						
	comp=Z,11nm,0.8s						
WRA	Warramunga Arr	25.14	163		P	08 57 11.2	-1.8
WR8	Warramunga Arr	25.20	163		P	08 57 11.9	-1.6
WR8				IAmb	IAmb	08 57 28.7	
	comp=Z,18nm,0.9s						
ASAR	Alice Springs	28.57	166	P	P	08 57 44.0	0.0
	comp=Z,0.9nm,0.6s,baz=349,slow=7.5,SNR=9.9						
ASAR				PcP	PcP	09 00 55.4	0.0
	comp=Z,0.9nm,0.8s,baz=352,slow=4.7,SNR=4.7						
	comp=Z,0.9nm,0.6s						
ASAR	Alice Springs	28.57	166	P	P	08 57 43.0	-1.0
NJ2	Nanjing	28.67	346	eP	P	08 57 46.3	+1.7
NJ2				pmax	pmax		
	comp=Z,7.0nm,0.5s						
CMAR	Chiang Mai Arr	30.62	300	P	P	08 58 01.3	-0.9
	comp=Z,3.4nm,0.9s,baz=113,slow=7.2,SNR=14						
	comp=Z,3.4nm,0.9s						
CHTO	Chiang Mai	30.77	300	P	P	08 58 05.9	+2.4
	comp=Z,2.1nm,0.9s						
PZH	PanZhiHua	32.59	315	P	P	08 58 22.6	+3.0
TIA	Tai'an	33.06	346	P	P	08 58 09.2	-14
TIA				pmax	pmax		
	comp=Z,10.0nm,0.7s						
KSRS	Korea Array	33.11	2	P	P	08 58 24.1	+0.4
	comp=Z,1.5nm,0.8s,baz=176,slow=9.7,SNR=7.3						
KSRS				LR	LR	09 11 24.1	
	comp=Z,36nm,21.3s,baz=170,slow=36						
	comp=Z,1.5nm,0.8s						
XAN	Xi'an	33.99	333	P	P	08 58 31.2	-0.4
XAN				pmax	pmax		
	comp=Z,17nm,0.7s						
HNS	HongShan	34.82	343	⇑P	P	08 58 39.8	+1.2
EIDS	Eidsvold	37.73	142		P	08 59 03.5	-0.3
EIDS				IAmb	IAmb	08 59 04.6	
	comp=Z,12nm,0.8s						
BBOO	Buckleboo	37.86	167	P	P	08 59 04.9	+0.2
BBOO				IAmb	IAmb	08 59 41.1	
	comp=Z,15nm,1.1s						
LZH	Lanzhou	38.09	329	eP	P	08 59 10.4	+3.6
LZH				pP	sP	08 59 23.8	+13
LZH				pmax	pmax		
	comp=Z,31nm,1.1s						
STKA	Stephens Creek	38.58	159	P	P	08 59 09.7	-1.0
	comp=Z,17nm,0.8s,baz=333,slow=7.9,SNR=27						
	comp=Z,17nm,0.8s						
HHC	Hu-ho-hao-te	38.95	342	eP	P	08 59 16.6	+2.7
HHC				pmax	pmax		
	comp=Z,17nm,0.7s						
HHC				pmax	pmax		
	comp=Z,59nm,5.3s						
ARMA	Armidale	41.87	147	P	P	08 59 38.1	-0.1
EVN	Everest	44.70	306		P	09 00 00.2	-1.6
EVN				IAmb	IAmb	09 00 02.9	
	comp=Z,7.4nm,0.7s						
SONM	Songino Array	46.85	341	P	P	09 00 17.1	-0.8
	comp=Z,1.0nm,0.6s,baz=158,slow=7.7,SNR=4.9						
SONM				LR	LR	09 20 02.3	
	comp=Z,124nm,20.0s,baz=305,slow=36						
	comp=Z,1.0nm,0.6s						
SONM	Songino Array	46.85	341	IAmb	IAmb	09 00 21.5	
	comp=Z,1.2nm,0.7s						
WMQ	Urumqi	52.33	325	eP	P	09 01 03.8	+4.1
WMQ				PcP	PcP	09 02 07.8	-3.0
WMQ				pmax	pmax		
	comp=Z,24nm,0.7s						
WMQ				LR	LR		
	comp=Z,87nm,23.1s						
ZSN	Zaisan	56.10	327	eP	P	09 01 28.0	+0.9
SHLS	Shalkode	56.97	320	eP	P	09 01 32.2	-1.3
MKAR	Makanchi Array	57.16	325	P	P	09 01 34.4	-0.3
	comp=Z,3.8nm,0.7s,baz=127,slow=8.2,SNR=25						
MKAR				PcP	PcP	09 02 28.6	-0.6
	comp=Z,1.4nm,0.7s,baz=115,slow=6.5,SNR=4.2						
MKAR				ScP	ScP	09 06 30.9	+1.5
	comp=Z,0.2nm,0.5s,baz=132,slow=5.1,SNR=4.0						
	comp=Z,3.8nm,0.7s						
MKAR	Makanchi Array	57.16	325		P	09 01 33.7	-0.9
UZB	Uzynbulak	57.25	320	eP	P	09 01 36.1	+0.6
SATY	Saty	57.61	320	eP	P	09 01 38.6	+0.6
MA2	Magadan	58.25	14	LR	LR	09 26 18.7	
	comp=Z,39nm,20.9s,baz=278,slow=36						
MDOK	Medeo	58.54	319	eP	P	09 01 45.2	+0.7
TDK	Taldyqorghan	58.54	322	eP	P	09 01 45.0	+0.6
	comp=Z,7.7nm,0.5s						
TNSS	Tian-Shan	58.55	319	eP	P	09 01 45.4	+0.5
AAA	Alma-Ata	58.64	319	eP	P	09 01 45.8	+0.6
ZALV	Zalesovo Beam	60.16	333	P	P	09 01 55.4	0.0
	comp=Z,0.9nm,0.4s,baz=136,slow=9.9,SNR=1.0						
	comp=Z,0.9nm,0.4s						
SGDS	Sogindy	60.25	319	eP	P	09 01 57.2	+0.9
KURBB	Kurchatov Arra	61.33	327	P	P	09 02 03.0	-0.4
	comp=Z,6.5nm,0.7s,baz=125,slow=5.9,SNR=58						
	comp=Z,6.5nm,0.7s						
KURK	Kurchatov	61.34	327		P	09 02 02.4	-1.0
DZA	Taraz	62.24	317	eP	P	09 02 10.6	+0.8
IUG	Iuzhnay	62.87	316	eP	P	09 02 14.7	+0.7
	comp=Z,4.0nm,1.1s						
KKAR	Karatay Array	62.88	317		P	09 02 14.3	+0.3
CHM	Chimkent	63.22	316	eP	P	09 02 17.1	+0.8
BRLS	Borolday	63.31	317	eP	P	09 02 17.8	+1.0
BVAR	Borovoye Array	66.92	327	P	P	09 02 37.5	-2.5
	comp=Z,1.7nm,0.6s,baz=134,slow=8.3,SNR=6.8						
	comp=Z,1.7nm,0.6s						
NRIK	Noril'sk	69.97	346	P	P	09 02 57.2	-1.6
	comp=Z,2.0nm,0.4s,baz=48,slow=0.9,SNR=4.4						
	comp=Z,2.0nm,0.4s						
NRIK	Noril'sk	69.97	346	IAmb	IAmb	09 03 08.3	
	comp=Z,5.0nm,0.8s						
AB31	Akbulak array	71.78	321	P	P	09 03 09.6	-0.6
ABKAR	Akbulak array	71.78	321	P	P	09 03 08.7	-1.5
AKTO	Aktyubinsk	73.28	322	P	P	09 03 17.6	-1.6
	comp=Z,2.2nm,0.6s,baz=90,slow=6.5,SNR=6.2						
	comp=Z,2.2nm,0.6s						
ARTI	Arti	74.61	328	P	P	09 03 25.0	-1.8
	comp=Z,1.7nm,0.4s,baz=74,slow=2.1,SNR=3.1						
	comp=Z,1.7nm,0.4s						
ARTI	Arti	74.61	328	IAmb	IAmb	09 03 46.1	
	comp=Z,5.0nm,0.7s						
E19K	Redstone River	80.80	22	IAmb	IAmb	09 04 04.1	
	comp=Z,5.4nm,0.9s						
M20K	Styx River	81.67	28	IAmb	IAmb	09 04 09.3	
	comp=Z,9.7nm,1.3s						
IMAR	Indian Mountai	81.92	24	P	P	09 04 07.2	+0.1
E21K	Killik River	82.19	22	IAmb	IAmb	09 04 11.2	
	comp=Z,5.2nm,0.9s						
CAST	Castle Rocks	82.32	27	P	P	09 04 09.9	+0.5
CAST				IAmb	IAmb	09 04 11.2	
	comp=Z,3.8nm,1.0s						
I21K	Tanana	82.55	25	IAmb	IAmb	09 04 13.5	
	comp=Z,4.3nm,1.0s						
MLY	Manley	83.06	25		P	09 04 12.8	-0.3
MLY				IAmb	IAmb	09 04 15.2	
	comp=Z,4.7nm,0.9s						
G23K	Bananza Creek	83.50	23	IAmb	IAmb	09 04 18.1	
	comp=Z,5.8nm,1.1s						
VNDA	Vanda	83.89	173	P	P	09 04 17.4	+0.3
	comp=Z,2.8nm,1.0s,baz=306,slow=6.9,SNR=8.7						
	comp=Z,2.8nm,1.0s						
VNDA	Vanda	83.89	173	P	P	09 04 17.3	+0.2
VNDA				IAmb	IAmb	09 04 18.1	
	comp=Z,3.1nm,1.0s						
ILAR	Eielson Array	84.69	25	P	P	09 04 20.8	-0.7
	comp=Z,1.4nm,1.0s,baz=231,slow=5.2,SNR=10						
	comp=Z,1.4nm,1.0s						
BMAR	Burnt Mountain	85.65	23		P	09 04 27.9	+1.6
ARCES	ARCESS Array B	90.00	340	P	P	09 04 46.7	-0.3
	comp=Z,2.3nm,0.8s,baz=72,slow=4.3,SNR=4.6						
	comp=Z,2.3nm,0.8s						
NOA	NORSAR Array B	98.36	334	LR	LR	09 53 56.3	
	comp=Z,41nm,18.6s,baz=260,slow=38						

KRSC 09 08:53:43.0±2.0**, 55°.41N×166°.11E, h35**^{km}±13^{km}**, Ml3.5, Komandorsky Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BKI	Bering	0.22	201	eP	Pb	08 53 50.3	+0.4
BKI				eS	Sb	08 53 55.7	+1.0
KBTR	Krutoberegovo	2.02	295	eP	Pn	08 54 14.9	+0.3
MKZ	Mys Kozlova	2.67	253	eP	Pb	08 54 26.7	-3.2
MKZ				eS	Sb	08 55 00.2	-2.1
ZLN	Zelenaya	3.06	284	eP	Pn	08 54 32.7	+3.7
BZWR	Bezymyannyi-We	3.23	282	eP	Pb	08 54 35.5	-4.1
SPN	Mys Shipunski	4.26	240	eP	Pn	08 54 49.3	+4.1
SPN				eS	Sn	08 55 35.4	+1.8
SMAR	Somma	4.79	246	eP	Pn	08 54 57.4	+4.6
KRER	Koryakskii	4.80	247	eP	Pn	08 54 57.6	+4.8
UGLR	Uglovaya	4.80	246	eP	Pn	08 54 57.7	+4.9
AVH	Avacha	4.82	247	eP	Pn	08 54 58.2	+5.1
KRX	Arik	4.82	248	eP	Pn	08 54 58.1	+4.9
KOK	Koryaka	4.86	247	eP	Pn	08 54 59.1	+5.5
GNL	Ganaly	5.06	253	eP	Pn	08 55 01.7	+5.3
MTVR	Mutnovka	5.53	241	eP	Pn	08 55 07.9	+5.2

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*NAO **09** 08:58:15.1, 35°.98N×21°.75E, h10^{km}, MB3.8*

*IDC **09** 08:58:46.7±0.9, 39°.23N×20°.58E, h0^{km}, mb3.6/7, mbtmp3.6/13, ML3.6/4, Error ellipse: s-maj=15.4km s-min=11.8km az=19.0*

*TIR **09** 08:58:46.9, 39°.12N×20°.33E, h16^{km}±1^{km}, Md2.6/5, Ml3.7/4*

*THE **09** 08:58:47.8, 39°.2N±0°.8×20°.6E±1°.0, h17^{km}±2^{km}, M3.4/18, MLh3.4/18*

*BEO **09** 08:58:47.1±1.0, 39°.11N×20°.16E, h6^{km}±3^{km}, ML3.3/4*

*ATH **09** 08:58:48.1, 39°.24N×20°.59E, h6^{km}±1^{km}, ML3.5/25, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*

ISC 09 08:58:48.3±0.8**, 39°.23N**±0°.02×**20°.50E**±0°.02**, h13**^{km}±5^{km}**, n118,** σ**1**^{s}.**53**/153**, mb3.5**/7**, 9C-4D, Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PRGA	Parga	0.09	304	P	Pg	08 58 51.2	+0.1
PRGA				S	Sg	08 58 53.5	+0.3
IGT	Igoumenitsa	0.33	337	P	Pb	08 58 55.3	-0.7
IGT				S	Sb	08 59 01.4	+0.2
IGT				AML	AML	08 59 03.9	
	58nm,0.5s						
IGT				AMd		08 59 34.6	
IGT	Igoumenitsa	0.33	337	P	Pb	08 58 54.7	-1.3
IGT				S	Sb	08 59 01.0	-0.1
IGT				AML	AML		
IGT	Igoumenitsa	0.33	337	ePg	Pb	08 58 54.8	-1.2
IGT				eSg	Sb	08 59 02.2	+1.0
IGT	Igoumenitsa	0.33	337	P	Pb	08 58 54.5	-1.5
IGT				S	Sb	08 58 59.7	-1.5
IGT				AML	AML		
LFKM	Lefkimmi	0.40	302	P	Pb	08 58 56.6	-0.6
LFKM				S	Sb	08 59 05.0	+1.7
LFKM				AML	AML		
TSLK	Tsoukalades, L	0.43	163	P	Pg	08 58 56.6	-0.1
TSLK				S	Sb	08 59 04.0	0.0
TSLK				AML	AML		
TSLK	Tsoukalades, L	0.43	163	P	Pg	08 58 56.7	-0.1
TSLK				S	Sg	08 59 01.9	-0.6
TSLK				AML	AML		
LKD2	Lefkada island	0.46	164	P	Pg	08 58 57.0	-0.3
LKD2				S	Sg	08 59 01.7	-1.8
LKD2				AML	AML	08 59 07.3	
	24nm,0.6s						
LKD2				AMd		09 00 01.1	
LKD2	Lefkada island	0.46	164	P	Pg	08 58 57.1	-0.3
LKD2				AML	AML		
LKD2	Lefkada island	0.46	164	P	Pg	08 58 57.1	-0.3
LKD2				S	Sg	08 59 03.5	-0.1
LKD2				AML	AML		
JAN	Janina	0.50	33	P	Pg	08 58 56.9	-1.3
JAN				S	Sg	08 59 05.1	+0.1
JAN				AML	AML		
JAN	Janina	0.50	33	P	Pg	08 58 57.0	-1.2
JAN				S	Sg	08 59 03.6	-1.3
NYDR	Nydri-Lefkada	0.54	163	P	Pg	08 58 58.3	-0.7
NYDR				S	Sb	08 59 07.9	+0.5
NYDR				AML	AML		
NYDR	Nydri-Lefkada	0.54	163	P	Pg	08 58 58.4	-0.5
NYDR				S	Sg	08 59 05.6	-0.6
PRMD	Pramanda	0.55	57	P	Pg	08 58 57.7	-1.4
PRMD				S	Sg	08 59 06.8	+0.4
PRMD				AML	AML		
PRMD	Pramanda	0.55	57	P	Pg	08 58 57.8	-1.3
PRMD				S	Sg	08 59 04.4	-2.0
PRMD				AML	AML		
DRAG	Dragano-Lefkad	0.55	174	P	Pg	08 58 58.5	-0.6
DRAG	Dragano-Lefkad	0.55	174	P	Pg	08 58 58.6	-0.5
KRK1	kERKIRA	0.59	311	P	Pb	08 59 00.4	-0.1
KRK1				S	Sb	08 59 09.3	+0.5
KRK1				AML	AML		
TETR	Tetrakomo, Epi	0.61	79	P	Pg	08 58 58.4	-1.8
TETR				S	Sg	08 59 07.5	-0.9

TETR				AML	AML		
TETR	**Tetrakomo, Epi**	**0.61**	**79**	P	**Pg**	**08 58 58.4**	**-1.8**
TETR				AML	AML		
EVGI	**Lefkada island**	**0.62**	**169**	P	**Pg**	**08 58 59.7**	**-0.8**
EVGI				AML	AML		
EVGI	**Lefkada island**	**0.62**	**169**	P	**Pg**	**08 58 59.6**	**-0.8**
AMPL	**Ampelaki**	**0.64**	**119**	P	**Pg**	**08 58 59.6**	**-1.1**
AMPL				AML	AML		
AMPL	**Ampelaki**	**0.64**	**119**	P	**Pg**	**08 58 59.6**	**-1.1**
AMPL				AML	AML		
KEK	**Kerkira**	**0.72**	**312**	P	**Pg**	**08 59 01.3**	**-1.1**
KEK				AML	AML		
KEK	**Kerkira**	**0.72**	**312**	P	**Pg**	**08 59 01.5**	**-0.8**
KEK				S	**Sb**	**08 59 13.7**	**+1.1**
KEK				AML	AML		
SRN	**Sarande**	**0.75**	**329**	P	**Pb**	**08 59 02.6**	**-0.6**
SRN				S	**Sn**	**08 59 15.5**	**-0.4**
SRN				AMd		09 00 16.7	
SRN	**Sarande**	**0.75**	**329**	P	**Pb**	**08 59 02.7**	**-0.6**
SRN				S	**Sb**	**08 59 13.9**	**+0.5**
SRN				AML	AML		
FSK	**Fiskardo**	**0.78**	**176**	P	**Pg**	**08 59 02.2**	**-1.1**
FSK				S	**Sb**	**08 59 15.1**	**+1.0**
FSK				AML	AML		
FSK	**Fiskardo**	**0.78**	**176**	P	**Pg**	**08 59 02.6**	**-0.7**
FSK				AML	AML		
VSK1	**VASILIKIADES**	**0.82**	**176**	P	**Pg**	**08 59 03.3**	**-1.0**
PDO	**Prodromos**	**0.83**	**140**	P	**Pg**	**08 59 03.3**	**-1.1**
PDO				AML	AML		
PDO	**Prodromos**	**0.83**	**140**	P	**Pg**	**08 59 03.1**	**-1.2**
PDO				AML	AML		
KPRO	**Kipourio**	**0.98**	**43**	P	**Pg**	**08 59 05.2**	**-2.1**
KPRO				AML	AML		
KPRO	**Kipourio**	**0.98**	**43**	P	**Pg**	**08 59 05.4**	**-1.9**
KPRO				AML	AML		
PVO	**Paravola**	**1.01**	**127**	P	**Pg**	**08 59 06.7**	**-1.1**
PVO				AML	AML		
PVO	**Paravola**	**1.01**	**127**	P	**Pg**	**08 59 06.8**	**-1.0**
PVO				AML	AML		
ARG2	**Argostoli**	**1.05**	**180**	P	**Pg**	**08 59 07.8**	**-0.8**
VLS	**Valsamata**	**1.06**	**176**	P	**Pg**	**08 59 07.7**	**-1.0**
VLS				S	**Sg**	**08 59 22.0**	**-0.4**
VLS	**Valsamata**	**1.06**	**176**	P	**Pg**	**08 59 08.1**	**-0.5**
PENT	**Pentalofos**	**1.08**	**27**	P	**Pg**	**08 59 08.1**	**-1.0**
PENT	**Pentalofos**	**1.08**	**27**	P	**Pg**	**08 59 08.2**	**-1.0**
PLEV	**Plevrona-Mesol**	**1.08**	**139**	P	**Pg**	**08 59 07.5**	**-1.7**
PLEV				S	**Sg**	**08 59 21.8**	**-1.5**
PLEV				AML	AML		
PLEV	**Plevrona-Mesol**	**1.08**	**139**	P	**Pg**	**08 59 07.7**	**-1.5**
PLEV				AML	AML		
RTZL	**Ratzakli, Kefa**	**1.18**	**169**	P	**Pg**	**08 59 09.6**	**-1.4**
RTZL				AML	AML		
THL	**Klokotos Trika**	**1.22**	**74**	P	**Pg**	**08 59 09.9**	**-1.8**
AXS	**Araxos**	**1.24**	**146**	P	**Pg**	**08 59 10.3**	**-1.9**
AXS				AML	AML		
AGRP	**Agrapidokambos**	**1.27**	**131**	P	**Pg**	**08 59 11.7**	**-1.0**
AGRP				AML	AML		
ANX	**Ano Chora**	**1.28**	**120**	P	**Pg**	**08 59 11.8**	**-1.1**
ANX				AML	AML		
EFP	**Efpalio**	**1.36**	**126**	P	**Pn**	**08 59 13.0**	**0.0**
EFP				AML	AML		
ORTH	**Orthonies,Zaky**	**1.39**	**174**	P	**Pn**	**08 59 13.5**	**+0.1**
MG00	**Magoula, Dorid**	**1.40**	**125**	P	**Pn**	**08 59 13.6**	**+0.1**
RLS	**Riolos of Patr**	**1.40**	**147**	P	**Pn**	**08 59 13.5**	**0.0**
RLS				AML	AML		
KBN	**Korca**	**1.41**	**9**	P	**Pb**	**08 59 15.5**	**+1.0**
KBN				S	**Sn**	**08 59 37.0**	**+4.8**
KBN				AMd		09 00 36.9	
TYRN	**Tyrnavos**	**1.42**	**70**	P	**Pn**	**08 59 13.5**	**-0.4**
TYRN				AML	AML		
AGG	**Agios Georgios**	**1.44**	**98**	P	**Pn**	**08 59 14.1**	**0.0**
AGG				AML	AML		
VLO	**Vlora**	**1.46**	**328**	S	**Sn**	**08 59 34.7**	**+1.5**
VLO				AML	AML	08 59 45.2	
	6.0nm,0.5s						
SERG	**Sergoula**	**1.47**	**123**	P	**Pn**	**08 59 14.9**	**+0.4**
SERG				AML	AML		
LAKA	**Lakka**	**1.52**	**130**	P	**Pn**	**08 59 15.9**	**+0.6**
LIT	**Litokhoron**	**1.76**	**60**	P	**Pn**	**08 59 19.2**	**+0.7**
LIT				AML	AML		
OHR	**Ohrid**	**1.89**	**7**	*i* Pn	**Pg**	**08 59 25.0**	**+0.4**
TIR	**Tirane**	**2.17**	**347**	P	**Pn**	**08 59 23.8**	**-0.3**
TIR				S	**Sg**	**08 59 56.6**	**-1.4**
TIR				AML	AML	09 00 13.9	
	0.7nm,0.5s						
TIR				AMd		09 00 55.7	
TIP	**Timpagrande**	**2.91**	**270**	⇓P	**Pn**	**08 59 36.9**	**+2.5**
SRS	**Serrai**	**3.03**	**51**	*e*Pn	**Pn**	**08 59 37.9**	**+2.0**
SRS				*e*Sn	**Sb**	**09 00 19.8**	**+0.9**
NOCI	**Noci**	**3.06**	**302**	S	**Sb**	**09 00 16.9**	**-3.0**
PEHC	**Pehcevo**	**3.13**	**35**	*i* Pn	**Pb**	**08 59 44.9**	**+1.0**
MATE	**Matera**	**3.24**	**297**	⇑P	**Pg**	**08 59 48.6**	**-1.7**
BOSS	**Bosilegrad**	**3.59**	**24**	*e*Pn	**Pn**	**08 59 45.8**	**+2.1**
BARS	**Barje**	**3.71**	**15**	*e*Pn	**Pn**	**08 59 46.9**	**+1.5**
BARS				*e*Sn	**Sn**	**09 00 32.0**	**+3.0**
TREB	**Trebinje**	**3.84**	**336**	*e*Pn	**Pn**	**08 59 47.2**	**+0.1**
TREB				*e*Sn	**Sn**	**09 00 31.3**	**-0.8**
VTS	**Vitosha**	**3.96**	**31**	*e*Pn	**Pn**	**08 59 52.4**	**+3.4**
SELS	**Selova**	**4.01**	**7**	*e*Pn	**Pn**	**08 59 50.8**	**+1.3**
SJES	**Sjenica**	**4.04**	**355**	*e*Pn	**Pn**	**08 59 49.1**	**-0.9**
ZAPS	**Zavoj**	**4.34**	**21**	*e*Pn	**Pn**	**08 59 56.4**	**+2.3**
IVAS	**Ivanjica**	**4.35**	**357**	*e*Pn	**Pn**	**08 59 55.2**	**+1.1**
BOVS	**Bovan**	**4.49**	**11**	*e*Pn	**Pn**	**08 59 57.0**	**+1.0**
BOVS	**Bovan**	**4.49**	**11**	⇓P	**Pn**	**08 59 57.6**	**+1.6**
BBLS	**Lazi&#263i**	**4.70**	**350**	*e*Pn	**Pn**	**09 00 00.2**	**+1.2**
ZAGS	**Zajecar**	**4.76**	**15**	*e*Pn	**Pn**	**09 00 00.2**	**+0.5**
DIVS	**Divibare**	**4.88**	**356**	*e*Pn	**Pn**	**09 00 01.6**	**+0.2**
TRUS	**Trudelj**	**4.99**	**359**	*e*Pn	**Pn**	**09 00 03.9**	**+1.1**
VAE	**Valguarnera**	**5.09**	**252**	Pn	**Pn**	**09 00 06.0**	**+1.6**
	7.0nm,0.5s,baz=36,slow=19,SNR=0.9						
VAE				Sn	**Sn**	**09 01 03.8**	**+0.7**
	3.0nm,0.3s,baz=6.3,slow=18,SNR=1.7						
IDI	**Anoyia**	**5.27**	**137**	Pn	**Pn**	**09 00 07.8**	**+1.0**
	14nm,0.8s,baz=315,slow=8.6,SNR=2.3						
IDI				Sn	**Sn**	**09 01 05.6**	**-1.9**
	2.9nm,0.3s,baz=8.2,slow=18,SNR=5.6						
TEKS	**Tekeris**	**5.36**	**353**	*e*Pn	**Pn**	**09 00 07.9**	**-0.1**
MDVR	**Moldovita**	**5.62**	**9**	⇑P	**Pn**	**09 00 14.4**	**+2.9**
HERR	**Herculane**	**5.82**	**14**	⇓P	**Pn**	**09 00 17.4**	**+3.1**
BLY	**Banja Luka**	**6.04**	**337**	⇑P	**Pn**	**09 00 17.5**	**+0.2**
GZR	**Gura Zlata**	**6.38**	**15**	⇑P	**Pn**	**09 00 24.9**	**+2.8**
BZS	**Buzias**	**6.43**	**7**	⇑P	**Pn**	**09 00 25.9**	**+3.2**
VOIR		**7.05**	**27**	⇑P	**Pn**	**09 00 34.7**	**+3.3**
MLR	**Muntele Rosu**	**7.44**	**31**	Pn	**Pn**	**09 00 38.4**	**+1.8**
	0.5nm,0.3s,baz=219,slow=7.1,SNR=8.5						
	6.7nm,0.8s						
MLR				AML	AML		
MLR	**Muntele Rosu**	**7.44**	**31**	⇑P	**Pn**	**09 00 40.4**	**+3.8**
PLOR	**Plostina**	**8.02**	**32**	⇑P	**Pn**	**09 00 47.9**	**+3.3**
VRI	**Vrincioaia**	**8.06**	**33**	⇓P	**Pn**	**09 00 49.2**	**+4.1**
ONER	**Baraj Valea Uz**	**8.31**	**29**	⇑P	**Pn**	**09 00 52.2**	**+3.7**
SOKA	**Soboth**	**8.45**	**333**	*e*Pn	**Pn**	**09 00 50.6**	**+0.1**
	0.7nm,0.2s						
SOKA				*e*Sn	**Sn**	**09 02 23.5**	**-2.1**
	2.7nm,0.7s						
OBKA	**Obir**	**8.48**	**331**	*e*Pn	**Pn**	**09 00 51.5**	**+0.7**
	1.6nm,0.5s						
OBKA				*e*Sn	**Sn**	**09 02 27.0**	**+0.5**
	6.1nm,0.6s						
ARSA	**Arzberg**	**8.79**	**337**	*e*Pn	**Pn**	**09 00 57.4**	**+2.3**
	2.5nm,0.6s						
SESA	**Seetaler Alpe,**	**8.99**	**333**	*e*Pn	**Pn**	**09 00 58.4**	**+0.5**
	7.3nm,0.5s						
ABTA	**Abfaltersbach**	**9.52**	**325**	*e*Pn	**Pn**	**09 01 06.0**	**+1.0**
	3.4nm,0.8s						
MOA	**Molln**	**9.72**	**334**	*e*Pn	**Pn**	**09 01 10.7**	**+2.8**
	5.2nm,1.2s						
LESA	**Schwarzleotal**	**9.97**	**328**	*e*Pn	**Pn**	**09 01 13.3**	**+2.0**
	2.5nm,0.5s						
LESA				*e*Sn	**Sn**	**09 03 01.8**	**-1.2**
	1.3nm,0.4s						
BRTR	**Keskin Array B**	**10.17**	**83**	Pn	**Pn**	**09 01 15.2**	**+1.0**
	0.1nm,0.3s,baz=272,slow=11,SNR=1.6						
	0.3nm,0.4s						
BRTR				AML	AML		
WTTA	**Wattenberg**	**10.30**	**324**	*e*Pn	**Pn**	**09 01 18.0**	**+2.1**
	4.1nm,0.8s						
WATA	**Walderalm**	**10.38**	**324**	*e*Pn	**Pn**	**09 01 19.8**	**+2.9**
	8.7nm,1.0s						
MOTA	**Moosalm**	**10.60**	**323**	*e*Pn	**Pn**	**09 01 21.6**	**+1.6**
	4.1nm,0.6s						
DAVOX	**Davos/Dischmat**	**10.82**	**318**	Pn	**Pn**	**09 01 23.8**	**+0.7**
	0.3nm,0.3s,baz=131,slow=20,SNR=3.7						
DAVOX				Sn	**Sn**	**09 03 23.9**	**-0.3**
	0.4nm,0.3s,baz=127,slow=20,SNR=1.7						
	1.4nm,0.5s						
DAVOX				AML	AML		
ESDC	**Sonseca Array**	**18.89**	**279**	P	**Pn**	**09 03 10.1**	**+1.0**
	0.1nm,0.3s,baz=75,slow=11,SNR=5.0						
	0.3nm,0.5s						
ESDC				AML	AML		
HFS	**Hagfors**	**21.36**	**351**	P	**P**	**09 03 36.5**	**+1.4**
	0.8nm,0.5s,baz=169,slow=10,SNR=2.2						
	0.8nm,0.5s						
FINES	**FINESS Array B**	**22.50**	**7**	P	**P**	**09 03 47.7**	**+0.4**
	0.8nm,0.4s,baz=178,slow=11,SNR=6.8						
	0.8nm,0.4s						
EKA	**Eskdalemuir Ar**	**22.56**	**323**	P	**P**	**09 03 48.5**	**+0.4**
	1.0nm,0.5s,baz=122,slow=11,SNR=3.4						
	1.0nm,0.5s						
NB2	**NORSAR Subarra**	**22.58**	**348**	P	**P**	**09 03 47.0**	**-1.2**
	comp=Z,1.1nm,0.6s,baz=160,slow=9.3						
NOA	**NORSAR Array B**	**22.58**	**348**	P	**P**	**09 03 47.4**	**-0.8**
	comp=Z,1.2nm,0.9s,baz=167,slow=10,SNR=4.1						
	comp=Z,1.2nm,0.9s						
KURBB	**Kurchatov Arra**	**41.62**	**54**	P	**P**	**09 06 36.0**	**+0.1**
	comp=Z,0.7nm,0.9s,baz=288,slow=9.0,SNR=4.2						
	comp=Z,0.7nm,0.9s						
MKAR	**Makanchi Array**	**44.77**	**59**	P	**P**	**09 07 00.7**	**-0.8**
	comp=Z,0.3nm,0.4s,baz=277,slow=8.1,SNR=5.9						
	comp=Z,0.3nm,0.4s						
ZALV	**Zalesovo Beam**	**45.01**	**49**	P	**P**	**09 07 02.6**	**-0.6**
	comp=Z,1.7nm,0.5s,baz=276,slow=8.6,SNR=8.1						
	comp=Z,1.7nm,0.5s						

IDC 09 09:10:58.6±6.5, 4°.65N×127°.77E, h82km±51km, mb3.2/4, mbtmp3.6/5, ML4.4/1, MS3.3/1, Error ellipse: s-maj=162.8km s-min=18.2km az=64.0, Talaud Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DAV	**Davao City (W)**	**3.24**	**318**	P	Pn	09 11 47.9	+0.7
	45nm,0.3s,baz=41,slow=20,SNR=1.3						
DAV				S	Sn	09 12 25.0	+0.2
	148nm,0.3s,baz=8.8,slow=5.4,SNR=1.4						
	147nm,0.4s						
DAV				AML	AML		
WRA	**Warramunga Arr**	**25.28**	**165**	P	P	09 16 17.3	-0.2
	0.4nm,0.4s,baz=347,slow=9.4,SNR=6.4						
	0.4nm,0.4s						
ASAR	**Alice Springs**	**28.78**	**168**	P	P	09 16 49.0	+0.1
	0.2nm,0.5s,baz=341,slow=9.3,SNR=1.9						
	0.2nm,0.5s						
CMAR	**Chiang Mai Arr**	**31.32**	**298**	LR	LR	09 30 23.1	
	comp=Z,49nm,18.8s,baz=85,slow=37						
MKAR	**Makanchi Array**	**57.40**	**324**	P	P	09 20 38.7	0.0
	0.3nm,0.4s,baz=131,slow=7.9,SNR=4.2						
	0.3nm,0.4s						
KURBB	**Kurchatov Arra**	**61.53**	**327**	P	P	09 21 07.0	0.0
	0.3nm,0.4s,baz=129,slow=6.2,SNR=5.3						
	0.3nm,0.4s						

IDC ***09*** *09:16:37.9±1.0, 15°.45N×96°.10W, h0km, mb4.1/11, mbtmp4.0/14, ML3.8/3, MS4.0/2, Error ellipse: s-maj=20.1km s-min=10.7km az=32.0*

MEX ***09*** *09:16:38.6±0.7, 15°.36N×96°.20W, h21km±11km, MD4.5, Presumed earthquake*

NEIC ***09*** *09:16:42.8±2.0, 15°.63N±0°.09×96°.08W±0°.06, h17km±6km, mb4.4/44, Md4.5/30(MEX), Error ellipse: s-maj=13.8km s-min=6.5km az=206.0*

GFZ ***09*** *09:16:44.5±0.5, 16°N±5°×9°6W±°, h33km±4km, M4.3/18, mb4.3/18, Error ellipse: s-maj=12.9km s-min=6.7km az=50.2, confirmed*

ISC 09 09:16:40.1±1.0, 15°.44N±0°.05×96°.17W±0°.04, h14km±5km, n134, σ1s.58/150, mb4.3/33, 1D, Near coast of Oaxaca

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HUIG	**Huatulco**	**0.33**	**10**	*i* P	**Pg**	**09 16 46.6**	**-0.3**
HUIG				*e*S	**Sg**	**09 16 52.3**	**+0.7**
HUIG	**Huatulco**	**0.33**	**10**		**Pg**	**09 16 46.6**	**-0.3**
HUIG					**Sg**	**09 16 52.3**	**+0.7**
PEIG	**Puerto Escondi**	**1.10**	**301**	*e*P	**Pb**	**09 16 57.4**	**-3.5**
PEIG				*e*S	**Sb**	**09 17 11.4**	**-3.6**
PEIG	**Puerto Escondi**	**1.10**	**301**		**Pb**	**09 16 57.4**	**-3.5**
PEIG					**Sb**	**09 17 11.4**	**-3.6**
OXIG	**Oaxaca**	**1.71**	**342**		**Pn**	**09 17 08.7**	**-1.1**
OXIG					**Sn**	**09 17 30.0**	**-1.6**
VHO	**Vista Hermosa**	**1.71**	**342**	*e*P	**Pn**	**09 17 08.7**	**-1.1**
VHO				*e*S	**Sn**	**09 17 30.0**	**-1.6**
YOIG	**Yosondua**	**1.94**	**317**	⇓*e*P	**Pn**	**09 17 11.1**	**-1.8**
YOIG				*e*S	**Sn**	**09 17 36.4**	**-0.8**
YOIG	**Yosondua**	**1.94**	**317**		**Pn**	**09 17 11.1**	**-1.8**
YOIG					**Sn**	**09 17 36.4**	**-0.8**
CMIG	**Matias Romero**	**2.05**	**37**	Pn	**Pn**	**09 17 11.9**	**-2.3**
	15nm,0.3s,baz=210,slow=11,SNR=107						
CMIG				Sn	**Sn**	**09 17 38.5**	**-1.1**
	77nm,0.3s,baz=232,slow=18,SNR=12						
	135nm,0.6s						
CMIG				AML	AML		
CMIG	**Matias Romero**	**2.05**	**37**	*e*P	**Pn**	**09 17 11.8**	**-2.5**
CMIG				*e*S	**Sn**	**09 17 38.6**	**-1.1**
NEUV	**Arroyo Zacate**	**2.29**	**9**	*e*P	**Pn**	**09 17 16.2**	**-1.3**
NEUV				*e*S	**Sn**	**09 17 47.0**	**+1.5**
NEUV	**Arroyo Zacate**	**2.29**	**9**		**Pn**	**09 17 16.2**	**-1.3**
NEUV					**Sn**	**09 17 47.0**	**+1.5**
TXIG	**Tlaxiaco**	**2.37**	**320**	*e*P	**Pn**	**09 17 18.1**	**-0.8**
TXIG				*e*S	**Sn**	**09 17 46.0**	**-1.9**
TXIG	**Tlaxiaco**	**2.37**	**320**		**Pn**	**09 17 18.1**	**-0.8**
TXIG					**Sn**	**09 17 46.0**	**-1.9**
UXUV	**UXUV**	**2.69**	**46**	*e*P	**Pn**	**09 17 21.2**	**-1.8**
UXUV				*e*S	**Sn**	**09 17 53.8**	**-1.8**
UXUV	**UXUV**	**2.69**	**46**		**Pn**	**09 17 21.2**	**-1.8**
UXUV					**Sn**	**09 17 53.8**	**-1.8**
TOIG	**Toxpalan**	**2.78**	**342**	*e*P	**Pn**	**09 17 23.9**	**-0.5**
TOIG				*e*S	**Sn**	**09 17 58.8**	**+1.1**
TOIG	**Toxpalan**	**2.78**	**342**		**Pn**	**09 17 23.9**	**-0.5**
TOIG					**Sn**	**09 17 58.8**	**+1.1**
FTIG	**Fresnillo de T**	**3.10**	**323**	*e*P	**Pn**	**09 17 29.2**	**+0.5**
FTIG	**Fresnillo de T**	**3.10**	**323**		**Pn**	**09 17 29.2**	**+0.5**
TLIG	**Tlapa**	**3.12**	**313**	*e*P	**Pn**	**09 17 30.4**	**+1.3**
TLIG	**Tlapa**	**3.12**	**313**		**Pn**	**09 17 30.0**	**+0.9**
TPIG	**Tehuac#an**	**3.18**	**339**	*e*P	**Pb**	**09 17 35.8**	**-0.7**
TPIG	**Tehuac#an**	**3.18**	**339**		**Pb**	**09 17 35.8**	**-0.7**
TGIG		**3.21**	**65**	*e*P	**Pn**	**09 17 27.6**	**-2.7**
TGIG		**3.21**	**65**		**Pn**	**09 17 27.6**	**-2.7**
DAIG	**Los Arroyos**	**3.70**	**296**	*e*P	**Pn**	**09 17 36.0**	**-0.9**
DAIG	**Los Arroyos**	**3.70**	**296**		**Pn**	**09 17 36.0**	**-0.9**
PATR	**El Naranjo**	**3.81**	**94**	*e*P	**Pn**	**09 17 35.5**	**-3.2**
PATR	**El Naranjo**	**3.81**	**94**		**Pn**	**09 17 35.5**	**-3.2**
PAVE	**Pavencul**	**3.86**	**93**	*e*P	**Pn**	**09 17 37.5**	**-1.8**
PAVE	**Pavencul**	**3.86**	**93**		**Pn**	**09 17 37.5**	**-1.8**
CHUJ	**Union Juarez**	**3.93**	**94**	*e*P	**Pn**	**09 17 36.5**	**-3.8**
CAIG	**El Cayaco**	**4.25**	**293**	*e*P	Pn	09 17 39.8	-4.7
CAIG	**El Cayaco**	**4.25**	**293**		Pn	09 17 39.8	-4.7
PLIG	**Platanillo**	**4.34**	**313**	*e*P	**Pn**	**09 17 45.5**	**-0.3**
PLIG	**Platanillo**	**4.34**	**313**		**Pn**	**09 17 45.5**	**-0.3**
RTAL	**Retalhuleu**	**4.42**	**101**	Pn	**Pn**	**09 17 47.3**	**+0.5**
HUEH	**Huehuetenango**	**4.50**	**91**		**Pn**	**09 17 48.4**	**+0.2**
UNM	**Universidad Na**	**4.82**	**324**	Pn	**Pn**	**09 17 55.2**	**+2.6**
APG	**El Apazote**	**5.52**	**94**	Pn	**Pn**	**09 18 01.6**	**-0.6**
	0.1nm,0.3s,baz=203,slow=14,SNR=12						
APG				Sn	**Sn**	**09 19 01.8**	**-3.8**
	0.1nm,0.3s,baz=65,slow=22,SNR=4.0						
APG				Lg	Lg	09 19 30.9	
	0.2nm,0.3s,baz=75,slow=19,SNR=1.8						
MOIG	**Morelia**	**6.38**	**312**	Pn	**Pn**	**09 18 16.5**	**+2.5**
ESQI	**Esquipulas**	**6.65**	**97**	Pn	**Pn**	**09 18 17.9**	**+0.3**
MTO3	**Montecristo**	**6.66**	**98**	Pn	**Pn**	**09 18 16.9**	**-0.9**
TGUH	**Tegucigalpa,Un**	**8.71**	**98**	Pn	**Pn**	**09 18 46.1**	**+0.2**
TGUH	**Tegucigalpa,Un**	**8.71**	**98**	P	Pn	09 18 41.3	-4.6
	comp=Z,16nm,0.8s						
TEIG	**Tepich**	**8.89**	**56**		**Pn**	**09 18 45.1**	**-3.2**
TEIG	**Tepich**	**8.89**	**56**	P	**Pn**	**09 18 45.1**	**-3.2**
	comp=Z,33nm,0.6s						
JUD3	**Juan Diaz 3**	**11.61**	**116**		**Pn**	**09 19 27.1**	**+1.5**
JTS	**Las Juntas de**	**12.07**	**114**	Pn	**Pn**	**09 19 31.1**	**-0.7**
	comp=Z,0.7nm,0.3s,baz=291,slow=19,SNR=5.1						
JTS				LR	LR	09 23 31.2	
	comp=Z,395nm,19.9s,baz=101,slow=34						
	comp=Z,1.2nm,0.4s						
JTS				AML	AML		
JTS	**Las Juntas de**	**12.07**	**114**		**Pn**	**09 19 33.1**	**+1.3**
LCR2	**La Lucha 2**	**13.15**	**114**		**Pn**	**09 19 48.9**	**+2.1**
HNDO	**Hondo**	**14.31**	**349**		**Pn**	**09 20 01.5**	**-1.0**
HPIG		**14.46**	**324**		**Pn**	**09 20 05.8**	**+1.2**
HPIG		**14.46**	**324**	P	**Pn**	**09 20 06.7**	**+2.0**
	comp=Z,8.5nm,1.2s						
JCT	**Junction City**	**15.34**	**348**		**Pn**	**09 20 15.5**	**-0.8**
SAND	**Sanderson**	**15.45**	**340**		**Pn**	**09 20 17.9**	**+0.1**
SAND				IAmb	IAmb	09 20 24.8	
	comp=Z,20nm,1.3s						
TXAR	**Lajitas Array**	**15.46**	**335**	Pn	**Pn**	**09 20 18.4**	**+0.4**
	comp=Z,0.1nm,0.3s,baz=157,slow=13,SNR=30						
	comp=Z,0.9nm,0.8s						
TXAR				AML	AML		
TXAR	**Lajitas Array**	**15.46**	**335**		**Pn**	**09 20 18.6**	**+0.6**
NATX	**Nacogdoches**	**16.31**	**5**		**Pn**	**09 20 27.3**	**-1.5**
NATX				IAmb	IAmb	09 20 32.2	
	comp=Z,21nm,0.8s						
ALPN	**Alpine**	**16.37**	**337**		**Pn**	**09 20 30.3**	**+0.5**
ALPN				IAmb	IAmb	09 20 36.0	
	comp=Z,36nm,1.1s						
WHTX	**Lake Whitney,**	**16.52**	**356**		**Pn**	**09 20 31.1**	**-0.4**
MNHN	**Monahans**	**16.94**	**340**		**Pn**	**09 20 37.2**	**+0.3**
MNHN				IAmb	IAmb	09 20 41.7	
	comp=Z,27nm,1.2s						
SGCY	**Sterling City**	**17.01**	**345**		**Pn**	**09 20 37.7**	**-0.1**
TPB06	**Permian Basin**	**17.37**	**339**		**Pn**	**09 20 42.9**	**+0.6**
129A	**Stewart Farms,**	**17.88**	**344**		**Pn**	**09 20 48.5**	**-0.2**
CLNB	**Carlsbad**	**18.16**	**339**	P	**P**	**09 20 53.4**	**+1.0**
MNTX	**Cornudas Mount**	**18.24**	**334**		**P**	**09 20 54.1**	**+1.0**
MNTX	**Cornudas Mount**	**18.24**	**334**	P	**P**	**09 20 54.5**	**+1.4**
	comp=Z,7.5nm,2.1s						
WLAR	**White Oak Lake**	**18.38**	**8**		**P**	**09 20 54.0**	**-0.6**
WLAR				IAmb	IAmb	09 21 10.8	
	comp=Z,33nm,1.1s						
X34A	**Smith Ranch, M**	**19.14**	**356**	P	**P**	**09 21 03.0**	**0.0**
X34A				IAmb	IAmb	09 21 16.5	
	comp=Z,58nm,1.5s						
MIAR	**Mount Ida**	**19.17**	**7**		**P**	**09 21 03.0**	**-0.2**
MIAR				IAmb	IAmb	09 21 05.4	
	comp=Z,28nm,1.1s						
MIAR	**Mount Ida**	**19.17**	**7**	P	**P**	**09 21 03.1**	**-0.1**
	comp=Z,26nm,1.1s						
WMOK	**Wichita Mounta**	**19.36**	**353**	P	**P**	**09 21 05.0**	**-0.5**
WMOK	**Wichita Mounta**	**19.36**	**353**	P	**P**	**09 21 05.7**	**+0.2**
	comp=Z,20nm,1.2s						
SMWD	**Samnorwood**	**19.92**	**350**	P	**P**	**09 21 12.1**	**+0.5**
SMWD				IAmb	IAmb	09 21 26.0	
	comp=Z,20nm,1.1s						
DEOK	**Depew**	**20.32**	**359**	P	**P**	**09 21 15.6**	**-0.3**
DEOK				IAmb	IAmb	09 21 18.0	
	comp=Z,25nm,0.9s						
TUL3	**Leonard**	**20.39**	**1**	P	**P**	**09 21 15.7**	**-0.9**
TUL3				IAmb	IAmb	09 21 19.6	
	comp=Z,28nm,0.8s						
DUN6	**Lazy B Ranch**	**20.70**	**328**	P	**P**	**09 21 20.9**	**+0.8**
CRNM	**Carthage**	**20.76**	**335**	P	Pn	09 21 22.7	-0.5
Y22A	**Socorro**	**20.84**	**334**	P	**P**	**09 21 23.4**	**+1.7**
Y22A				IAmb	IAmb	09 21 25.1	
	comp=Z,25nm,1.1s						
SBM	**South Baldy**	**20.96**	**334**	P	**P**	**09 21 24.8**	**+1.5**
LCAR	**Lake Charles**	**21.03**	**11**	P	**P**	**09 21 22.1**	**-1.4**
LCAR				IAmb	IAmb	09 21 27.5	
	comp=Z,12nm,0.8s						
LENM	**Lemitar**	**21.04**	**334**	P	**P**	**09 21 25.6**	**+1.8**
GOGA	**Godfrey**	**21.27**	**30**	P	**P**	**09 21 24.7**	**-1.4**
	comp=Z,12nm,1.0s						
TUC	**Tucson**	**21.42**	**324**	P	**P**	**09 21 30.8**	**+2.9**
	comp=Z,20nm,1.2s						
ALQ	**Albuquerque**	**21.51**	**336**	P	**P**	**09 21 30.0**	**+1.0**
ANMO	**Albuquerque**	**21.51**	**336**	P	**P**	**09 21 28.8**	**-0.1**
	comp=Z,3.5nm,0.9s,baz=142,slow=11,SNR=12						
	comp=Z,3.5nm,0.9s						
ANMO	**Albuquerque**	**21.51**	**336**	P	**P**	**09 21 30.0**	**+1.0**
ANMO	**Albuquerque**	**21.51**	**336**	P	**P**	**09 21 31.1**	**+2.2**
	comp=Z,5.4nm,1.0s						
PBMO	**Poplar Bluff**	**21.86**	**12**	P	**P**	**09 21 30.8**	**-1.6**
WVT	**Waverly**	**21.91**	**18**	P	**P**	**09 21 34.4**	**+1.4**
	comp=Z,13nm,2.6s						
T25A	**Trinidad**	**22.82**	**343**	P	**P**	**09 21 44.2**	**+1.3**
T25A				IAmb	IAmb	09 21 47.0	
	comp=Z,25nm,1.0s						
CCM	**Cathedral Cave**	**22.95**	**10**	P	**P**	**09 21 43.5**	**-0.5**
	comp=Z,32nm,1.0s						
R32A	**Long Quarter,**	**23.00**	**355**	P	**P**	**09 21 43.9**	**-0.7**
R32A				IAmb	IAmb	09 21 46.4	
	comp=Z,21nm,1.1s						
OTAV	**Otavalo**	**23.11**	**129**	P	**P**	**09 21 45.0**	**-1.5**
	comp=Z,5.0nm,1.7s						
X16A	**Lo Mia Camp, P**	**23.38**	**327**	P	**P**	**09 21 50.7**	**+2.1**
X16A				IAmb	IAmb	09 21 51.8	
	comp=Z,16nm,1.3s						
KSU1	**Kansas State U**	**23.58**	**359**	P	**P**	**09 21 50.2**	**-0.1**
ROSC	**El Rosal**	**23.92**	**114**	P	**P**	**09 21 53.0**	**-1.4**
	comp=Z,3.3nm,0.4s,baz=133,slow=21,SNR=1.2						
	comp=Z,3.3nm,0.4s						
MVCO	**Mesa Verde**	**24.29**	**336**	P	**P**	**09 21 59.2**	**+1.8**
	comp=Z,25nm,1.8s						
WCI	**Wyandotte Cave**	**24.32**	**19**	P	**P**	**09 21 55.8**	**-1.6**
	comp=Z,23nm,0.8s						
PV15	**Paradox Valley**	**25.27**	**337**	P	**P**	**09 22 09.1**	**+2.8**
PV15				IAmb	IAmb	09 22 12.1	
	comp=Z,13nm,0.9s						
O49A	**Covington**	**26.73**	**20**	P	**P**	**09 22 18.2**	**-1.0**
O20A	**White River Ci**	**26.77**	**339**	P	**P**	**09 22 21.0**	**+1.2**
O20A				IAmb	IAmb	09 22 22.8	
	comp=Z,11nm,1.2s						
ECSD	**EROS Data Cent**	**28.20**	**359**	P	**P**	**09 22 33.0**	**+0.6**
	comp=Z,6.1nm,1.2s						
DUG	**Dugway, Tooele**	**28.62**	**333**	P	**P**	**09 22 38.3**	**+2.0**
	comp=Z,2.5nm,1.0s						
TCUT	**Toone Canyon**	**28.80**	**336**	P	**P**	**09 22 39.8**	**+1.7**
HWUT	**Hardware Ranch**	**29.28**	**336**	P	**P**	**09 22 43.3**	**+1.1**
	comp=Z,4.1nm,2.8s						
PDAR	**Pinedale Array**	**29.56**	**340**	P	**P**	**09 22 44.3**	**-0.5**
	comp=Z,0.9nm,0.8s,baz=126,slow=7.5,SNR=8.0						
	comp=Z,0.9nm,0.8s						
NVAR	**Mina Array Bea**	**30.08**	**324**	P	**P**	**09 22 51.2**	**+1.8**
	comp=Z,3.9nm,0.9s,baz=146,slow=9.1,SNR=23						
	comp=Z,3.9nm,0.9s						
KVN	**Kaiserville**	**30.40**	**325**	P	**P**	**09 22 54.5**	**+2.4**
FXWY	**Fox Creek**	**30.83**	**339**	P	**P**	**09 22 57.3**	**+1.3**
FXWY				IAmb	IAmb	09 23 15.8	
	comp=Z,8.2nm,1.5s						
HLID	**Hailey**	**32.06**	**335**	P	**P**	**09 23 08.9**	**+2.2**
	comp=Z,4.4nm,1.5s						
AGMN	**Agassiz Nation**	**32.77**	**0**	P	**P**	**09 23 11.6**	**-1.1**
	comp=Z,10nm,0.8s						
WVOR	**Wild Horse Val**	**33.12**	**329**	P	**P**	**09 23 17.8**	**+1.8**
	comp=Z,7.3nm,1.2s						
ULM	**Lac du Bonnet**	**34.72**	**0**	P	**P**	**09 23 28.4**	**-1.2**
	comp=Z,3.2nm,0.8s,baz=172,slow=7.8,SNR=4.9						
	comp=Z,3.2nm,0.8s						
LPAZ	**La Paz**	**41.95**	**138**	P	**P**	**09 24 31.9**	**+0.4**
	comp=Z,1.3nm,0.8s,baz=359,slow=12,SNR=6.4						
	comp=Z,1.3nm,0.8s						
LPAZ	**La Paz**	**41.95**	**138**		**P**	**09 24 31.6**	**+0.1**
LPAZ	**La Paz**	**41.95**	**138**	P	**P**	**09 24 32.0**	**+0.4**
	comp=Z,5.5nm,1.0s						
LPAZ				pP	**pwP**	**09 24 41.4**	**+0.9**
PTLB	**Pontes e Lacer**	**47.75**	**128**	P	**P**	**09 25 19.2**	**+2.1**
CLDB	**Colider**	**47.77**	**121**	P	**P**	**09 25 18.1**	**+0.8**
	comp=Z,6.1nm,1.0s						
AC01	**Pan de Azucar**	**48.24**	**149**	P	**P**	**09 25 24.2**	**+3.5**
YKA	**Yellowknife Ar**	**48.77**	**349**	P	**P**	**09 25 24.2**	**-0.2**
	comp=Z,1.9nm,0.8s,baz=168,slow=7.0,SNR=5.3						
	comp=Z,1.9nm,0.8s						
BDFB	**Brasilia**	**56.70**	**121**	P	**P**	**09 26 25.3**	**+1.4**
	comp=Z,2.1nm,0.7s,baz=232,slow=4.6,SNR=3.6						
	comp=Z,2.1nm,0.7s						
INK	**Inuvik**	**57.96**	**345**	P	**P**	**09 26 31.9**	**+0.1**
	comp=Z,10nm,1.0s						
ILAR	**Eielson Array**	**59.95**	**337**	P	**P**	**09 26 45.0**	**-0.7**
	comp=Z,2.1nm,1.0s,baz=127,slow=4.3,SNR=20						
ILAR				LR	LR	09 51 58.6	
	comp=Z,225nm,18.9s,baz=91,slow=35						
	comp=Z,2.1nm,1.0s						
BMAR	**Burnt Mountain**	**60.59**	**341**	P	**P**	**09 26 51.2**	**+1.1**
F21K	**Alatna River**	**63.48**	**339**	P	**P**	**09 27 10.8**	**+1.3**
EKA	**Eskdalemuir Ar**	**79.15**	**36**	P	**P**	**09 28 44.7**	**+0.3**
	comp=Z,2.5nm,0.8s,baz=272,slow=3.1,SNR=3.5						
	comp=Z,2.5nm,0.8s						
ESDC	**Sonseca Array**	**81.97**	**51**	P	**P**	**09 28 58.5**	**-1.5**
	comp=Z,1.5nm,1.0s,baz=299,slow=5.9,SNR=6.9						
	comp=Z,1.5nm,1.0s						
ESDC	**Sonseca Array**	**81.97**	**51**	P	**P**	**09 28 59.9**	**0.0**
HHC	**Hu-ho-hao-te**	**118.37**	**336**	*e*P	**PKPdf**	**09 35 26.7**	**-1.0**
WMQ	**Urumqi**	**120.92**	**357**	*e*PKP	**PKiKP**	**09 35 33.0**	**+0.4**

PZH	**PanZhiHua**	**134.82**	**337**	PKP	**PKiKP**	**09 36 00.8**	**-0.2**

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*ASRS **09** 09:19:46.0±0.5, 54°.30N×86°.90E, h0^{km}, M2.3(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 09 09:19:50.3±3.8**, 54°.23N×86°.75E, h0^{km}, mbtmp2.8**/2**, ML2.6**/2**, Error ellipse: s-maj=29.6km s-min=16.7km az=70.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	**1.18**	**257**	I	I	09 28 00.0	
	baz=74,slow=327,SNR=5.3						
ZALV	**Zalesovo Beam**	**1.18**	**257**	Pg	Pg	09 20 11.4	-1.3
	2.1nm,0.3s,baz=74,slow=17,SNR=13						
ZALV				Lg	Lg	09 20 29.4	
	2.5nm,0.3s,baz=79,slow=31,SNR=8.2						
KURBB	**Kurchatov Arra**	**6.19**	**238**	Pn	Pn	09 21 24.6	+1.7
	0.1nm,0.3s,baz=52,slow=13,SNR=4.5						
KURBB				Lg	Lg	09 23 06.9	
	baz=48,slow=32,SNR=1.3						
	0.7nm,0.4s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**7.97**	**203**	Pn	Pn	09 21 48.5	+1.2
	0.1nm,0.3s,baz=25,slow=13,SNR=2.4						
	0.1nm,0.3s						
MKAR				AML	AML		

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*DNK **09** 09:20:30.8±2.8, 59°.21N×9°.52E, h3^{km}±12^{km}, Presumed earthquake*

*BER **09** 09:20:31.8±1.5, 59°.16N×9°.58E, h0^{km}, ML1.3, Suspected explosion*

*UPP **09** 09:20:31.1±1.0, 59°.13N×9°.57E, h5^{km}, ML2.5, Presumed earthquake*

ISC 09 09:20:29.0±0.9**, 59°.20N**±0°.04×**9°.57E**±0°.03**, h0^{km}, n16, σ0^{s}.44**/31**, Southern Norway**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KONO	**Kongsberg**	**0.46**	**2**	*e*P	**Pb**	**09 20 40.0**	**+0.1**
KONO				*e*S	**Sb**	**09 20 46.9**	**-0.3**
KONO				IAML		09 20 47.3	
	comp=Z,9.9nm,0.4s						
STRU	**Stroemstad**	**0.85**	**100**	P	**Pb**	**09 20 46.6**	**+0.1**
	baz=298						
STRU				S	**Sb**	**09 20 58.3**	**-0.1**
STRU	**Stroemstad**	**0.85**	**100**	*e*P	**Pb**	**09 20 46.6**	**+0.1**
STRU				*e*S	**Sb**	**09 20 58.3**	**-0.1**
STRU	**Stroemstad**	**0.85**	**100**	P	**Pb**	**09 20 46.6**	**+0.1**
	baz=298						
STRU				*e*P	**Pn**	**09 20 48.8**	**+0.7**
STRU				S	**Sb**	**09 20 58.3**	**-0.1**
STRU				*e*S	**Sn**	**09 20 59.2**	**-2.0**
HOMB	**Homborsund**	**1.08**	**211**	*e*P	**Pn**	**09 20 51.1**	**-0.3**
HOMB				*e*S	**Sg**	**09 21 03.2**	**-0.4**
HOMB				IAML		09 21 09.6	
	comp=Z,9.0nm,0.8s						
HOMB	**Homborsund**	**1.08**	**211**	*i* P	**Pb**	**09 20 50.4**	**-0.1**
HOMB				*i* S	**Sg**	**09 21 03.8**	**+0.1**
VANU	**Vaenersborg**	**1.48**	**117**	P	**Pg**	**09 20 57.5**	**+0.2**
VANU				S	**Sn**	**09 21 16.8**	**0.0**
VANU	**Vaenersborg**	**1.48**	**117**	P	**Pg**	**09 20 57.5**	**+0.2**
VANU				S	**Sn**	**09 21 16.8**	**0.0**
SNART	**Snartemo**	**1.50**	**236**	*e*P	**Pb**	**09 20 57.6**	**-0.1**
SNART				*e*S	**Sn**	**09 21 17.8**	**+0.4**
SNART				IAML		09 21 19.2	
	comp=Z,16nm,0.3s						
SNART	**Snartemo**	**1.50**	**236**	*i* P	**Pg**	**09 20 57.8**	**+0.1**
SNART				*i* S	**Sg**	**09 21 17.1**	**-0.1**
TJOU	**Tjoern**	**1.59**	**136**	P	**Pg**	**09 20 59.3**	**0.0**
TJOU				S	**Sn**	**09 21 19.4**	**-0.1**
TJOU	**Tjoern**	**1.59**	**136**	P	**Pg**	**09 20 59.3**	**0.0**
TJOU				S	**Sn**	**09 21 19.4**	**-0.1**
BLS5	**Blasjo**	**1.61**	**279**	*e*S	**Sg**	**09 21 21.0**	**+0.2**
BLS5				IAML		09 21 22.6	
	comp=Z,7.3nm,0.5s						
NASU	**Vaermlandsnaes**	**1.89**	**97**	P	**Pb**	**09 21 04.3**	**0.0**
NASU	**Vaermlandsnaes**	**1.89**	**97**	P	**Pb**	**09 21 04.3**	**0.0**
ONAU	**Onsala**	**2.19**	**145**	*i* P	**Pb**	**09 21 09.3**	**0.0**
ONAU				*i* S	**Sb**	**09 21 37.6**	**+0.6**

IDC 09 09:32:27.0±1.7**, 51°.41N×82°.38E, h0^{km}, mbtmp2.6**/2**, ML2.2**/2**, Error ellipse: s-maj=17.9km s-min=14.7km az=112.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KURBB	**Kurchatov Arra**	**2.55**	**254**	Pg	Pg	09 33 15.1	-0.8
	baz=70,slow=16,SNR=4.2						
KURBB				Lg	Lg	09 33 48.7	
	0.2nm,0.3s,baz=68,slow=33,SNR=11						
ZALV	**Zalesovo Beam**	**2.95**	**29**	Pn	Pn	09 33 15.9	+0.9
	0.8nm,0.3s,baz=208,slow=14,SNR=3.7						
	1.8nm,0.3s						
ZALV				AML	AML		
I46RU	**ZALESOVO INFRA**	**2.95**	**29**	I	I	09 48 50.0	
	baz=210,slow=315,SNR=1.7						
MKAR	**Makanchi Array**	**4.62**	**181**	Pn	Pn	09 33 39.0	+0.9
	0.2nm,0.3s,baz=7.4,slow=14,SNR=5.8						
MKAR				Lg	Lg	09 34 51.2	
	0.4nm,0.3s,baz=4.2,slow=28,SNR=14						
	0.4nm,0.5s						
MKAR				AML	AML		

IDC 09 09:37:28.9±4.7**, 54°.41N×86°.87E, h0^{km}, mbtmp2.5**/2**, ML2.3**/2**, Error ellipse: s-maj=44.3km s-min=20.5km az=63.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	**1.29**	**250**	I	I	09 45 30.0	
	baz=71,slow=326,SNR=5.4						
ZALV	**Zalesovo Beam**	**1.29**	**250**	Pg	Pg	09 37 52.2	-1.4
	1.0nm,0.3s,baz=68,slow=17,SNR=7.6						
ZALV				Lg	Lg	09 38 12.3	
	1.3nm,0.3s,baz=69,slow=32,SNR=5.9						
KURBB	**Kurchatov Arra**	**6.34**	**237**	Pn	Pn	09 39 04.2	+0.5
	baz=54,slow=13,SNR=2.5						
	0.1nm,0.3s						
MKAR	**Makanchi Array**	**8.16**	**203**	Pn	Pn	09 39 30.9	+2.3
	0.1nm,0.3s,baz=24,slow=14,SNR=1.8						
	0.1nm,0.3s						
MKAR				AML	AML		

NNC 09 09:38:41.0±3.2**, 51°.56N×75°.46E, h0^{km}, mb2.6, mpv2.1, 4C-2D, Error ellipse: s-maj=61.1km s-min=23.2km az=23.0, Suspected Mining explosion., Eastern Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KURBB	**Kurchatov Arra**	**2.15**	**115**	⇑Pn	Pn	09 39 18.1	+0.1
	1.5nm,0.5s						
KURBB				⇑Sn	Sb	09 39 47.7	-0.2
	9.2nm,0.7s						
KURK	**Kurchatov**	**2.16**	**112**	⇓Pn	Pn	09 39 18.1	-0.1
	0.2nm,0.2s						
KURK				⇑Sn	Sn	09 39 46.2	+0.5
	3.2nm,0.8s						
MAKZ	**Makanchi**	**6.39**	**136**	⇑Lg	Lg	09 42 02.8	
	1.4nm,0.6s						
MK31	**Makanchi Array**	**6.54**	**134**	⇓Lg	Lg	09 42 07.1	
	1.0nm,0.8s,baz=319,slow=23						

IDC 09 09:43:12.3±10.0**, 7°.70S×128°.94E, h492^{km}**±168^{km}**, mb2.4**/1**, mbtmp3.3**/4**, Error ellipse: s-maj=118.2km s-min=65.7km az=18.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	**10.82**	**197**	P	P	09 45 38.0	-0.3
	1.3nm,0.7s,baz=10,slow=11,SNR=1.9						
WRA	**Warramunga Arr**	**13.25**	**157**	P	P	09 46 05.4	+1.2
	0.4nm,0.4s,baz=336,slow=11,SNR=8.0						
ASAR	**Alice Springs**	**16.57**	**164**	P	P	09 46 38.4	-0.7
	0.2nm,0.4s,baz=352,slow=8.8,SNR=4.2						
MKAR	**Makanchi Array**	**68.24**	**327**	P	P	09 53 23.3	+0.1
	0.1nm,0.5s,baz=133,slow=8.5,SNR=1.9						
	0.1nm,0.5s						

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*ASRS **09** 09:49:52.0±0.7, 54°.29N×86°.85E, h0^{km}, M2.7(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 09 09:49:50.9±2.0**, 54°.41N×87°.06E, h0^{km}, mbtmp3.2**/3**, ML3.1**/3**, Error ellipse: s-maj=19.5km s-min=15.4km az=172.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	**1.40**	**252**	I	I	09 58 10.0	
	baz=73,slow=325,SNR=22						
ZALV	**Zalesovo Beam**	**1.40**	**252**	Pg	Pn	09 50 16.0	-1.6
	3.3nm,0.3s,baz=74,slow=16,SNR=20						
ZALV				Lg	Lg	09 50 35.5	
	3.4nm,0.3s,baz=68,slow=28,SNR=6.6						
KURBB	**Kurchatov Arra**	**6.44**	**237**	Pn	Pn	09 51 28.3	+1.4
	0.1nm,0.3s,baz=51,slow=13,SNR=5.3						
KURBB				Sn	Sn	09 52 41.9	+0.9
	baz=44,slow=20						
KURBB				Lg	Lg	09 53 14.1	
	baz=55,slow=34						
	0.8nm,0.3s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**8.20**	**204**	Pn	Pn	09 51 52.8	+1.7
	0.2nm,0.3s,baz=24,slow=13,SNR=7.8						
MKAR				Lg	Lg	09 54 09.3	
	0.1nm,0.3s,baz=20,slow=34,SNR=5.5						
	0.3nm,0.3s						
MKAR				AML	AML		
SONM	**Songino Array**	**13.79**	**111**	Pn	Pn	09 53 09.1	+1.5
	0.4nm,0.3s,baz=313,slow=15,SNR=3.5						
	0.4nm,0.4s						
SONM				AML	AML		

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*KRSC **09** 09:54:59.8±1.7, 55°.46N×166°.17E, h34^{km}±11^{km}, Ml3.9*

*IDC **09** 09:55:01.4±5.6, 54°.28N×167°.08E, h58^{km}±67^{km}, mb3.2/2, mbtmp3.6/3, ML3.1/1, Error ellipse: s-maj=218.5km s-min=27.9km az=166.0*

ISC 09 09:55:03.1±1.6**, 55°.4N**±0°.1×**166°.4E**±0°.1**, h35^{km}, n26, σ1^{s}.40**/27**, Komandorsky Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BKI	**Bering**	**0.30**	**235**	*e*P	**Pn**	**09 55 07.9**	**-3.0**
BKI				*e*S	**Sn**	**09 55 13.3**	**-3.0**
KBTR	**Krutoberegovo**	**2.19**	**294**	*e*P	Pn	09 55 32.6	-4.3
MKZ	**Mys Kozlova**	**2.81**	**255**	*e*P	**Pn**	**09 55 44.1**	**-1.4**
MKZ				*e*S	**Sn**	**09 56 17.9**	**-0.3**
ZLN	**Zelenaya**	**3.23**	**284**	*e*P	**Pn**	**09 55 50.3**	**-1.1**
BZP	**Bezymyannyi-Pe**	**3.37**	**282**	*e*P	**Pn**	**09 55 51.8**	**-1.4**
BZMR	**Bezymyannaya**	**3.40**	**282**	*e*P	**Pn**	**09 55 52.1**	**-1.5**
KIRR	**Kirishev**	**3.48**	**282**	*e*P	**Pn**	**09 55 53.2**	**-1.6**
KPT	**Kopyto**	**3.55**	**282**	*e*P	**Pn**	**09 55 54.6**	**-1.1**
TUMR	**Tumrok**	**3.57**	**271**	*e*P	**Pn**	**09 55 55.7**	**-0.4**
KOZ	**Kozyrevsk**	**3.75**	**283**	*e*P	**Pn**	**09 55 57.8**	**-0.6**
SPN	**Mys Shipunski**	**4.38**	**241**	*e*P	**Pn**	**09 56 07.0**	**0.0**
SPN				*e*S	**Sn**	**09 56 54.4**	**-2.4**
SMAR	**Somma**	**4.92**	**248**	*e*P	**Pn**	**09 56 15.2**	**+0.5**
KRER	**Koryakskii**	**4.93**	**248**	*e*P	**Pn**	**09 56 15.5**	**+0.7**
UGLR	**Uglovaya**	**4.94**	**247**	*e*P	**Pn**	**09 56 15.1**	**+0.3**
KRX	**Arik**	**4.96**	**249**	*e*P	**Pn**	**09 56 15.5**	**+0.4**
KOK	**Koryaka**	**5.00**	**249**	*e*P	**Pn**	**09 56 16.2**	**+0.6**
GNL	**Ganaly**	**5.20**	**255**	*e*P	**Pn**	**09 56 18.9**	**+0.4**
KRMR	**Karymshinskiy**	**5.49**	**246**	*e*P	**Pn**	**09 56 23.0**	**+0.7**
KRMR				*e*S	**Sn**	**09 57 25.2**	**+1.1**
PETK	**Petropavlovsk-**	**5.58**	**250**	P	**Pn**	**09 56 23.8**	**+0.2**
	2.8nm,0.3s,baz=74,slow=18,SNR=40						
PETK				S	**Sn**	**09 57 27.5**	**+1.1**
	1.5nm,0.7s,baz=288,slow=21,SNR=1.3						
	6.8nm,0.4s						
PETK				AML	AML		
MTVR	**Mutnovka**	**5.65**	**243**	*e*P	**Pn**	**09 56 24.7**	**+0.1**
GRL	**Gorelyy**	**5.67**	**244**	*e*P	**Pn**	**09 56 26.6**	**+1.8**
ILAR	**Eielson Array**	**24.55**	**49**	P	**P**	**10 00 19.3**	**+0.2**
	0.9nm,0.9s,baz=255,slow=8.5,SNR=7.4						
	0.9nm,0.9s						
H11N2	**WAKE ISLAND Hy**	**35.59**	**179**	T	T	10 39 34.3	
	baz=359,slow=76,SNR=32						
H11N3	**WAKE ISLAND Hy**	**35.60**	**179**	T	T	10 39 31.5	
	baz=359,slow=76,SNR=29						
H11N1	**WAKE ISLAND Hy**	**35.60**	**179**	T	T	10 39 38.1	
	baz=359,slow=76,SNR=32						
SONM	**Songino Array**	**36.96**	**284**	P	**P**	**10 02 10.5**	**+1.8**
	0.3nm,0.4s,baz=64,slow=6.6,SNR=2.2						
	0.3nm,0.4s						

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*ASRS **09** 09:55:20.0±1.1, 54°.32N×86°.13E, h0^{km}, M2.5(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 09 09:55:23.4±3.1**, 54°.29N×86°.25E, h0^{km}, mbtmp3.1**/3**, ML2.7**/3**, Error ellipse: s-maj=24.5km s-min=12.1km az=68.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	**0.91**	**249**	I	I	10 00 40.0	
	baz=66,slow=327,SNR=2.0						
ZALV	**Zalesovo Beam**	**0.91**	**249**	Pg	Pg	09 55 39.7	-1.0
	1.4nm,0.3s,baz=69,slow=17,SNR=6.6						
ZALV				Lg	Lg	09 55 52.6	
	4.1nm,0.3s,baz=70,slow=29,SNR=10						
ZALV				Rg	Rg	09 55 56.7	
	14nm,0.4s,baz=71,slow=30,SNR=12						
KURBB	**Kurchatov Arra**	**5.97**	**235**	Pn	Pn	09 56 53.6	+0.6
	0.1nm,0.3s,baz=52,slow=14,SNR=9.6						
KURBB				Sn	Sn	09 58 03.1	+1.0
	baz=50,slow=19						
KURBB				Lg	Lg	09 58 34.0	
	0.1nm,0.3s,baz=51,slow=32,SNR=6.1						
	0.6nm,0.4s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**7.91**	**200**	Pn	Pn	09 57 21.4	+1.8
	0.3nm,0.3s,baz=21,slow=9.9,SNR=6.6						
MKAR				Sn	Sn	09 58 47.7	-2.2
	baz=23,slow=27,SNR=1.7						
MKAR				Lg	Lg	09 59 30.3	
	0.1nm,0.3s,baz=17,slow=28,SNR=2.0						
	0.3nm,0.3s						
MKAR				AML	AML		
BVAR	**Borovoye Array**	**9.50**	**269**	Pn	Pn	09 57 40.6	-0.8
	0.1nm,0.3s,baz=81,slow=15,SNR=1.8						
	0.5nm,0.4s						
BVAR				AML	AML		

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*IDC **09** 09:55:34.3±0.8, 3°.47S×137°.05E, h0^{km}, mb4.0/9, mbtmp4.0/12, ML4.0/3, MS3.7/1, Error ellipse: s-maj=33.5km s-min=12.6km az=85.0*

*DJA **09** 09:55:38.9±0.2, 4°S±3°×13°7E±°, h10^{km}, M4.5/11, mB5.8/1, mb4.5/6, MLv4.5/11, Mw(mB)5.4/1*

*NEIC **09** 09:55:45.1±1.8, 3°.7S±0°.1×136°.59E±0°.09, h73^{km}±8^{km}, mb4.2/16, Error ellipse: s-maj=19.2km s-min=8.2km az=216.0*

ISC 09 09:55:40.4±0.5**, 3°.74S**±0°.06×**136°.69E**±0°.07**, h35^{km}, n49, σ2^{s}.11**/43**, mb4.1**/15**, Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BAKI	**Biak**	**2.59**	**347**	P	**Pn**	**09 56 17.7**	**-2.2**
BAKI				AML	AML		
GENI	**Genyem**	**3.66**	**72**	P	**Pn**	**09 56 32.2**	**-2.3**
GENI				AML	AML		
MWPI	**Manokwari, Pap**	**3.84**	**316**	P	Pn	09 56 43.0	+5.9
MWPI				AML	AML		
FAKI	**Fak Fak**	**4.51**	**280**		**Pn**	**09 56 49.4**	**+3.2**
FAKI	**Fak Fak**	**4.51**	**280**	P	**Pn**	**09 56 48.3**	**+2.1**
FAKI				AML	AML		
MSAI	**Masohi**	**7.75**	**273**	P	Pn	09 57 39.2	+8.3
NLAI	**Namlea**	**9.58**	**273**	P	**Pn**	**09 57 53.5**	**-2.4**
LBMI	**Labuha**	**9.68**	**288**	P	Pn	09 58 05.1	+7.8
TNTI	**Ternate**	**10.34**	**295**	P	Pn	09 58 12.4	+6.1
	23nm,0.8s						
MTN	**Manton Dam**	**10.58**	**211**		**Pn**	**09 58 12.5**	**+2.9**
SANI	**Sanana**	**10.82**	**279**	P	Pn	09 58 22.3	+9.4
PMG	**Port Moresby**	**11.82**	**119**	P	**Pn**	**09 58 25.1**	**-1.5**
KNRA	**Kununurra**	**14.20**	**213**		**Pn**	**09 58 59.0**	**-0.1**
WRA	**Warramunga Arr**	**16.27**	**188**	Pn	**Pn**	**09 59 25.9**	**-0.5**
	0.4nm,0.3s,baz=11,slow=12,SNR=16						
WRA				Sn	**Sn**	**10 02 24.8**	**-1.0**
	0.2nm,0.3s,baz=355,slow=23,SNR=4.1						
WRA				Lg	Lg	10 04 14.7	
	0.1nm,0.3s,baz=15,slow=24,SNR=4.8						
	1.3nm,0.6s						
WRA				AML	AML		
WRA	**Warramunga Arr**	**16.27**	**188**	Pn	**Pn**	**09 59 25.7**	**-0.6**
TOLI2	**Tolitoli**	**16.61**	**287**	Pn	**Pn**	**09 59 27.7**	**-3.0**
TOLI2				IAmb	IAmb	09 59 36.4	
	comp=Z,17nm,1.0s						
FITZ	**Fitzroy Crossi**	**17.91**	**216**	P	**P**	**09 59 48.5**	**+1.3**
	comp=Z,0.4nm,0.3s,baz=37,slow=10,SNR=10						
FITZ				S	**Sn**	**10 02 58.1**	**-7.5**
	comp=Z,3.4nm,0.6s,baz=156,slow=15,SNR=2.0						
FITZ				Lg	Lg	10 05 12.1	
	baz=140,slow=9.5						
	comp=Z,3.7nm,0.7s						
FITZ				AML	AML		
FITZ	**Fitzroy Crossi**	**17.91**	**216**	P	**Pn**	**09 59 45.7**	**-1.2**
CTA	**Charters Tower**	**18.74**	**151**	P	**P**	**09 59 55.9**	**-0.4**
	comp=Z,0.8nm,0.3s,baz=324,slow=10,SNR=7.9						
	comp=Z,4.1nm,0.8s						
CTA				AML	AML		
CTAO	**Charters Tower**	**18.74**	**151**	P	**Pn**	**10 00 00.7**	**+3.7**
CTAO				IAmb	IAmb	10 00 05.7	
	comp=Z,18nm,1.1s						
AS31	**Alice Springs**	**19.99**	**187**		Pn	10 00 11.9	0.0
AS31				IAmb	IAmb	10 00 24.6	
	comp=Z,4.7nm,0.5s						
ASAR	**Alice Springs**	**19.99**	**187**	P	Pn	10 00 11.8	-0.2
	comp=Z,6.7nm,0.9s,baz=13,slow=9.2,SNR=30						
ASAR				S	Sn	10 04 02.5	+6.6
	comp=Z,1.3nm,0.8s,baz=9.4,slow=25,SNR=4.7						
ASAR				Lg	Lg	10 06 11.4	
	baz=1.9,slow=31						
	comp=Z,6.7nm,0.9s						
MYLDM	**Lahad Datu**	**20.21**	**296**	P	**P**	**10 00 12.2**	**-0.3**
MBWA	**Marble Bar**	**23.91**	**222**		**P**	**10 00 49.9**	**-1.3**
MBWA				IAmb	IAmb	10 00 57.3	
	comp=Z,12nm,1.1s						
INKA	**Innaminka**	**24.18**	**171**	P	**P**	**10 00 55.4**	**+1.8**
FORT	**Forrest**	**28.10**	**196**	P	**P**	**10 01 29.6**	**+0.6**
STKA	**Stephens Creek**	**28.37**	**171**	P	**P**	**10 01 31.4**	**0.0**
	comp=Z,1.4nm,0.9s,baz=346,slow=12,SNR=3.9						
	comp=Z,1.4nm,0.9s						
CMAR	**Chiang Mai Arr**	**43.23**	**302**	P	**P**	**10 03 39.6**	**+1.0**
	comp=Z,1.5nm,0.6s,baz=128,slow=6.4,SNR=7.9						
	comp=Z,1.5nm,0.6s						
CMAR	**Chiang Mai Arr**	**43.23**	**302**	P	**P**	**10 03 38.7**	**+0.1**
USRK	**Ussuriysk Ar.**	**47.91**	**355**	LR	LR	10 21 32.3	
	comp=Z,87nm,21.7s,baz=29,slow=33						
HHC	**Hu-ho-hao-te**	**49.97**	**335**	*e*P	**P**	**10 04 34.8**	**+3.6**
HHC				pmax	pmax		
	comp=Z,7.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,44nm,5.1s						
MKAR	**Makanchi Array**	**69.39**	**323**	P	**P**	**10 06 44.0**	**-0.7**
	comp=Z,0.7nm,0.7s,baz=117,slow=6.9,SNR=5.4						
	comp=Z,0.7nm,0.7s						
MKAR	**Makanchi Array**	**69.39**	**323**	P	**P**	**10 06 42.9**	**-1.9**
MAKZ	**Makanchi**	**69.58**	**323**	P	**P**	**10 06 45.4**	**-0.6**
MAKZ				IAmb	IAmb	10 06 55.7	
	comp=Z,2.7nm,1.1s						
TARG	**Taragay, Kyrgy**	**69.94**	**317**	P	**P**	**10 06 47.2**	**-1.5**
TARG				IAmb	IAmb	10 06 53.5	
	comp=Z,4.0nm,0.9s						
KSH2	**Kashi**	**70.49**	**314**	P	**P**	**10 06 54.8**	**+3.0**
KSH2				pmax	pmax		
	comp=Z,3.0nm,0.7s						
ZALV	**Zalesovo Beam**	**71.82**	**331**	P	**P**	**10 06 58.3**	**-1.1**
	comp=Z,1.1nm,0.6s,baz=103,slow=5.6,SNR=4.2						
	comp=Z,1.1nm,0.6s						
ZALV	**Zalesovo Beam**	**71.82**	**331**	P	**P**	**10 06 58.1**	**-1.3**
VNDA	**Vanda**	**74.95**	**175**	P	**P**	**10 07 18.6**	**+1.2**
	comp=Z,0.4nm,0.6s,baz=338,slow=7.6,SNR=3.7						
	comp=Z,0.4nm,0.6s						
VNDA	**Vanda**	**74.95**	**175**	P	**P**	**10 07 18.0**	**+0.5**
KK31	**Karatay Array**	**75.46**	**316**	P	**P**	**10 07 20.3**	**-0.8**
KK31				IAmb	IAmb	10 07 28.3	
	comp=Z,2.1nm,1.1s						
KKAR	**Karatay Array**	**75.46**	**316**	P	**P**	**10 07 20.4**	**-0.7**
BVAR	**Borovoye Array**	**79.01**	**326**	P	**P**	**10 07 40.0**	**-0.8**
	comp=Z,1.4nm,0.7s,baz=120,slow=8.5,SNR=6.4						
	comp=Z,1.4nm,0.7s						
C19K	**Lookout Ridge**	**84.37**	**19**	P	**P**	**10 08 09.1**	**+0.3**
J20K	**Nowinta River**	**84.42**	**24**	P	**P**	**10 08 10.1**	**+1.1**
CAST	**Castle Rocks**	**85.03**	**25**	P	**P**	**10 08 12.3**	**+0.2**
CAST				IAmb	IAmb	10 08 37.8	
	comp=Z,4.8nm,1.4s						
QSPA	**South Pole Qui**	**86.22**	**180**	P	**P**	**10 08 19.3**	**+1.2**
	comp=Z,1.8nm,1.0s,baz=302,slow=2.8,SNR=4.1						
	comp=Z,1.8nm,1.0s						
ILAR	**Eielson Array**	**87.60**	**25**	P	**P**	**10 08 22.4**	**-2.3**
	comp=Z,0.6nm,0.8s,baz=268,slow=4.8,SNR=6.8						
	comp=Z,0.6nm,0.8s						
LPAZ	**La Paz**	**148.41**	**130**	PKPbc	**PKPbc**	**10 15 23.4**	**-1.7**
	comp=Z,2.0nm,0.9s,baz=16,slow=4.0,SNR=7.2						

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*IDC **09** 10:03:47.9±1.4, 27°.93N×84°.35E, h0^{km}, mb3.5/3, mbtmp3.5/4, ML3.4/1, Error ellipse: s-maj=62.4km s-min=32.0km az=48.0*

*DMN **09** 10:03:47.2±0.2, 27°.92N×84°.94E, h25^{km}, Ml4.1/6, Error ellipse: s-maj=9.3km s-min=2.4km az=27.0*

ISC 09 10:03:47.4±1.2**, 27°.96N**±0°.10×**84°.96E**±0°.05**, h14^{km}**±10^{km}**, n13, σ0^{s}.90**/20**, Nepal-India border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GKN	**Gorkha**	**0.29**	**278**	Pg	**Pb**	**10 03 54.5**	**0.0**
	baz=287,slow=0.0						
GKN				Sg	**Sg**	**10 03 57.1**	**-0.7**
	5µm,0.2s,baz=287,slow=0.0						
KKN	**Kakani**	**0.33**	**122**	Pg	**Pb**	**10 03 55.7**	**+0.5**
	baz=112,slow=0.0						
KKN				Sg	**Sg**	**10 03 59.5**	**+0.5**
	3µm,0.4s,baz=112,slow=0.0						
DMN	**Daman**	**0.38**	**160**	Pg	**Pg**	**10 03 55.6**	**+0.5**
	baz=154,slow=0.0						
DMN				Sg	**Sg**	**10 04 00.6**	**+0.2**
	2µm,0.2s,baz=154,slow=0.0						
PKIN	**Phulchoki**	**0.55**	**135**	Pg	**Pb**	**10 03 58.9**	**0.0**
	baz=130,slow=0.0						
PKIN				Sg	**Sg**	**10 04 05.7**	**+0.2**
	834nm,0.2s,baz=130,slow=0.0						
PKIN				AML	AML		
PKI	**Pulchoki**	**0.56**	**135**	Pg	**Pb**	**10 03 59.1**	**-0.1**
	baz=130,slow=0.0						
PKI				Sg	**Sg**	**10 04 05.6**	**-0.4**
	939nm,0.4s,baz=130,slow=0.0						
PKI				AML	AML		
GUN	**Gumba**	**0.81**	**94**	Pg	**Pn**	**10 04 05.2**	**+0.4**
	baz=90,slow=0.0						
GUN				Sg	**Sb**	**10 04 14.8**	**+0.3**
	604nm,0.3s,baz=90,slow=0.0						
GUN				AML	AML		
DANN	**Dangsing**	**1.13**	**290**	Pg	**Pn**	**10 04 09.2**	**+0.1**
	baz=293,slow=0.0						
DANN				Sg	**Sn**	**10 04 23.5**	**-1.1**
	671nm,0.2s,baz=293,slow=0.0						
DANN				AML	AML		
RAMN	**Ramite**	**1.77**	**124**	Pg	**Pg**	**10 04 20.2**	**-1.3**
	baz=123,slow=0.0						
RAMN				Sg	**Sg**	**10 04 43.9**	**-0.6**
	280nm,0.3s,baz=123,slow=0.0						
RAMN				AML	AML		
ODAN	**Odare**	**2.42**	**116**	Pg	**Pb**	**10 04 30.8**	**-0.1**
	baz=115,slow=0.0						
ODAN				Sg	**Sg**	**10 05 03.3**	**-2.0**
	193nm,0.3s,baz=115,slow=0.0						
ODAN				AML	AML		
MKAR	**Makanchi Array**	**18.91**	**354**	P	**Pn**	**10 08 10.3**	**+2.0**
	0.1nm,0.3s,baz=174,slow=12,SNR=3.6						
	0.6nm,0.7s						
MKAR				AML	AML		
WRA	**Warramunga Arr**	**67.44**	**129**	P	P	10 14 48.0	+5.1
	0.5nm,0.7s,baz=323,slow=6.5,SNR=5.4						
	0.5nm,0.7s						
ASAR	**Alice Springs**	**69.73**	**133**	P	P	10 15 02.8	+5.6
	0.5nm,0.9s,baz=317,slow=6.7,SNR=2.9						
	0.5nm,0.9s						
TORD	**Torodi Ar. Bea**	**78.09**	**279**	P	**P**	**10 15 46.2**	**-0.2**
	0.3nm,0.8s,baz=53,slow=7.0,SNR=1.5						
	0.3nm,0.8s						

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*NEIC **09** 10:07:28, 38°.18N×117°.87W, h12^{km}, Moment Tensor Solution. Moment tensor: Scale 10^{14}Nm; M$_{rr}$0.00; M$_{\theta\theta}$0.59; M$_{\phi\phi}$-0.59; M$_{r\theta}$-0.39; M$_{\theta\phi}$0.50; M$_{\phi r}$-0.83; Fault plane solution: M$_0$1.20000×10^{14} NP1:φ$_s$25.00000°, δ90.00000°, λ-130.00000°. NP2:φ$_s$295.00000°,* *δ40.00000°,λ0.00000°. Principal axes: T 1.2024, Plg33.0000°, Azm148.0000°; N 0.0002, Plg40.0000°, Azm25.0000°; P -1.2026, Plg33.0000°, Azm262.0000°;*

*REN **09** 10:07:28.4±0.9, 38°.18N±0°.01×117°.87W±0°.01, h10^{km}±2^{km} Error ellipse: s-maj=2.0km s-min=1.5km az=212.0*

NEIC 09 10:07:28.4±1.2**, 38°.17N**±0°.01×**117°.87W**±0°.01**, h9**^{km}±2^{km}**, ML3.3**/115**, ML3.6**/18(REN)**, Mwr3.3**/14(SLM)**, Error ellipse: s-maj=2.1km s-min=1.6km az=205.0, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COLR	Columbus	0.15	259		Pg	10 07 32.2	+0.4
COLR					Sg	10 07 35.0	+0.7
NV11	Mina Array Sit	0.34	318		Pg	10 07 35.4	+0.2
NV11					Sg	10 07 40.2	+0.4
NV11				IAML		10 07 40.9	
	comp=E,2µm,0.8s						
NV06	Mina Array Sit	0.41	308		Pg	10 07 36.7	+0.3
NV06					Sg	10 07 42.3	+0.5
NV07	Mina Array Sit	0.41	305		Pg	10 07 36.8	+0.3
NV07					Sg	10 07 42.4	+0.4
NV03	Mina Array Sit	0.42	307		Pg	10 07 37.0	+0.3
NV03					Sg	10 07 42.8	+0.5
NV08	Mina Array Sit	0.42	303		Pg	10 07 37.0	+0.2
NV08					Sg	10 07 42.8	+0.5
NV04	Mina Array Sit	0.43	306		Pg	10 07 37.1	+0.3
NV04					Sg	10 07 43.4	+0.9
NV01	Mina Array Sit	0.43	307		Pg	10 07 37.1	+0.3
NV01					Sg	10 07 43.0	+0.4
NV05	Mina Array Sit	0.43	309		Pg	10 07 37.1	+0.2
NV05					Sg	10 07 43.3	+0.6
NV02	Mina Array Sit	0.43	307		Pg	10 07 37.3	+0.3
NV02					Sg	10 07 43.1	+0.4
NV09	Mina Array Sit	0.45	305		Pg	10 07 37.5	+0.3
NV09					Sg	10 07 43.5	+0.2
LHV	Little Huntoon	0.51	279	Pg	Pg	10 07 38.7	+0.4
LHV					Sg	10 07 45.5	+0.5
TPH	Tonopah	0.52	101		Pg	10 07 38.7	+0.3
TPH					Sg	10 07 45.9	+0.6
TPH				IAML		10 07 46.3	
	comp=N,2µm,0.4s						
TPH				IAML		10 07 46.5	
	comp=E,2µm,0.6s						
RYN	Ryan	0.69	311	Pg	Pg	10 07 41.8	+0.1
RYN					Sg	10 07 51.1	+0.4
DSP	Deep Springs	0.81	186		Pg	10 07 43.9	0.0
DSP					Sb	10 07 55.0	-0.5
Q09A	Carvers	0.85	39		Pg	10 07 44.8	+0.1
Q09A					Sg	10 07 56.3	+0.4
Q09A				IAML		10 08 00.8	
	comp=E,2µm,0.7s						
Q09A				IAML		10 08 02.2	
	comp=N,2µm,0.7s						
KVN	Kaiserville	0.89	348		Pg	10 07 45.2	-0.4
KVN				IAML		10 08 01.3	
	comp=E,774nm,0.5s						
KVN				IAML		10 08 01.9	
	comp=N,578nm,0.6s						
MLAC	Mammoth, Mammo	0.94	235		Pb	10 07 46.8	-0.2
LCH	Last Change Ra	0.96	169		Pg	10 07 46.7	0.0
MCBM	Casa Benchmark	0.97	237		Pg	10 07 47.3	+0.2
GMN	Gold Mountain	1.00	151		Pg	10 07 47.3	-0.2
GMN				IAML		10 08 02.0	
	comp=E,699nm,0.2s						
GMN				IAML		10 08 02.7	
	comp=N,1µm,0.4s						
MDYM	Dry Creek	1.04	241		Pg	10 07 48.6	+0.1
MDPB	Devils Postpil	1.10	241		Pg	10 07 49.1	-0.5
MDPB				IAML		10 08 04.3	
	comp=E,363nm,0.2s						
MDPB				IAML		10 08 04.5	
	comp=N,511nm,0.4s						
TIN	Tinemaha, Big	1.16	195		Pb	10 07 50.5	-0.1
TIN				IAML		10 08 09.4	
	comp=E,944nm,0.5s						
GRAC	Grapevine Rang	1.24	161		Pn	10 07 51.8	-0.2
GRAC				IAML		10 08 13.3	
	comp=N,633nm,0.3s						
WAKR	Walker	1.28	285		Pn	10 07 52.2	-0.4
WAKR				IAML		10 08 13.6	
	comp=E,292nm,0.6s						
WAKR				IAML		10 08 16.1	
	comp=N,269nm,0.5s						
YERR	Yerington	1.35	307		Pn	10 07 52.9	-0.6
PNTR	Pine Nut	1.64	304		Pn	10 07 57.3	-0.3
PNTR				IAML		10 08 23.3	
	comp=N,657nm,0.8s						
WCT	Wildcat Mounta	1.69	144		Pn	10 07 58.4	+0.1
WCT				IAML		10 08 25.5	
	comp=N,392nm,0.3s						
WCT				IAML		10 08 27.4	
	comp=E,393nm,0.4s						
CWC	Cottonwood Cre	1.74	186		Pn	10 07 58.6	-0.2
TPNV	Topopah Spring	1.77	133		Pn	10 07 59.2	-0.2
TPNV				IAML		10 08 30.3	
	comp=E,428nm,0.9s						
TPNV				IAML		10 08 31.3	
	comp=E,410nm,0.8s						
FURC	Furnace Creek,	1.88	155		Pn	10 08 01.1	+0.4
CPY	CP-1	1.90	130		Pn	10 08 00.9	-0.1
MPK	Martis Peak	2.03	304		Pn	10 08 03.0	+0.1
MPMC	Manual Prospec	2.13	172		Pn	10 08 04.6	+0.2
PEAR	Peavine Mounta	2.17	312		Pn	10 08 05.0	+0.1
GWY	Greenwater Val	2.20	154		Pn	10 08 05.4	+0.1
GWY				IAML		10 08 44.2	
	comp=N,230nm,0.5s						
GWY				IAML		10 08 47.9	
	comp=E,309nm,0.7s						
BMN	Battle Mountai	2.31	12		Pn	10 08 07.5	+0.8
BMN				IAML		10 08 42.8	
	comp=N,166nm,0.3s						
PRN	Pahroc Range	2.36	108		Pn	10 08 07.2	-0.2
PRN				IAML		10 09 01.9	
	comp=E,304nm,0.7s						
TOW	Tower One	2.36	178		Pn	10 08 08.0	+0.7
CLC	China Lake	2.36	175		Pn	10 08 07.5	+0.1
SRTC	Snort	2.48	178		Pn	10 08 09.8	+0.8
AFDM	Forest Hills D	2.56	289		Pn	10 08 10.2	+0.2
AFDM				IAML		10 08 50.4	
	comp=E,96nm,0.6s						
AFDM				IAML		10 08 52.8	
	comp=N,102nm,0.4s						
BEKR	Beckworth	2.58	312		Pn	10 08 10.8	+0.4
BEKR				IAML		10 08 52.1	
	comp=E,78nm,0.7s						
SHOC	Shoshone, Teco	2.60	150		Pn	10 08 10.8	+0.2
CCCA	Chr Cany lake	2.67	171		Pn	10 08 12.1	+0.4
CCCA				IAML		10 09 00.0	
	comp=E,114nm,0.8s						
CCCA				IAML		10 09 01.9	
	comp=N,95nm,0.7s						
LRMC	Laurel Mtn Rad	2.69	177		Pn	10 08 12.2	+0.2
SHPR	Sheep Range	2.72	127		Pn	10 08 12.7	+0.3
SHPR				IAML		10 08 56.7	
	comp=N,79nm,0.8s						
SHPR				IAML		10 08 59.4	
	comp=E,87nm,0.4s						
BBGB	Big Mountain B	2.99	239		Pn	10 08 15.7	-0.3
GSC	Goldstone, Bar	2.99	163		Pn	10 08 16.1	+0.1
GSC				IAML		10 09 08.6	
	comp=E,63nm,0.5s						
PMPB	Monarch Peak	3.05	231		Pn	10 08 16.9	0.0
PKD	Bear Valley Ra	3.09	225		Pn	10 08 17.1	-0.2
PKD				IAML		10 09 13.4	
	comp=N,56nm,0.9s						
PKD				IAML		10 09 19.4	
	comp=E,56nm,1.3s						
MHC	Mount Hamilton	3.11	256		Pn	10 08 18.9	+1.2
MHC				IAML		10 09 13.1	
	comp=N,46nm,0.6s						
ORV	Oroville	3.15	297		Pn	10 08 18.2	0.0
PSUT	Pine Spring	3.17	82		Pn	10 08 18.5	-0.1
SAO	San Andreas Ge	3.18	245		Pn	10 08 19.1	+0.5
SUTB	Sutter Butte	3.24	290		Pn	10 08 20.3	+0.9
SUTB				IAML		10 09 24.6	
	comp=E,127nm,0.6s						
MTPC	Mountain Pass	3.26	145		Pn	10 08 20.8	+1.0
ELK	Elko	3.27	38		Pn	10 08 21.6	+1.5
TPO	Tropico Hills	3.30	185		Pn	10 08 21.4	+1.1
CCUT	Cedar City	3.62	99		Pn	10 08 24.9	+0.1
CVS	Carmenet Viney	3.62	274		Pn	10 08 26.1	+1.5
CVS				IAML		10 09 41.3	
	comp=E,28nm,1.8s						
OSI	Osito Audit: C	3.62	191		Pn	10 08 25.1	+0.5
OSI				IAML		10 09 27.6	
	comp=E,40nm,1.4s						
OSI				IAML		10 09 30.6	
	comp=N,32nm,1.0s						
O03E	Paynes Creek	3.72	306		Pn	10 08 27.1	+1.1
O03E				IAML		10 09 32.2	
	comp=E,67nm,0.9s						
O03E				IAML		10 09 35.4	
	comp=N,30nm,1.1s						
HATC	Hat Creek Radi	3.83	315		Pn	10 08 28.1	+0.5
HATC				IAML		10 08 57.4	
	comp=N,43nm,3.9s						
HATC				IAML		10 09 38.8	
	comp=E,47nm,1.4s						
LCMT	Little Creek M	3.85	106		Pn	10 08 27.5	-0.4
BFSC	Mount Baldy Ra	3.93	178		Pn	10 08 29.2	+0.2
MCCM	Marconi Confer	3.95	271	Pn	Pn	10 08 30.4	+1.2
MCCM				IAML		10 09 33.6	
	comp=E,39nm,2.2s						
MCCM				IAML		10 09 37.4	
	comp=N,35nm,2.4s						
MOD	Modoc Plateau	4.17	334		Pn	10 08 35.1	+2.8
MOD				IAML		10 09 43.4	
	comp=E,26nm,0.6s						
MOD				IAML		10 09 48.6	
	comp=N,22nm,0.6s						
DUG	Dugway, Tooele	4.41	61		Pn	10 08 35.6	0.0
DUG				IAML		10 09 50.5	
	comp=N,34nm,0.8s						
DUG				IAML		10 09 56.0	
	comp=N,27nm,1.0s						
W13A	Hualapai Mount	4.43	133	Pn	Pn	10 08 36.2	+0.2
ELS	Elsinore Mount	4.53	175		Pn	10 08 37.6	+0.5
BGU	Big Grassy Mou	4.64	52	Pn	Pn	10 08 41.7	+3.0
PMD	Palm Desert	4.67	165		Pn	10 08 38.6	-0.5
PFO	Pinyon Flats O	4.69	166	Pn	Pn	10 08 39.4	-0.1
M02C	Callahan	5.01	311	Pn	Pn	10 08 43.3	-0.5
BLYC	Blythe	5.18	147		Pn	10 08 46.6	+0.5
BLYC				IAML		10 10 14.4	
	comp=E,32nm,1.1s						
BLYC				IAML		10 10 18.9	
	comp=N,20nm,1.1s						
Y14A	Wickenburg	5.78	136	Pn	Pn	10 08 55.2	+0.9

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*IDC **09** 10:07:32.1±2.0, 6°.35S×151°.31E, h255^{km}±20^{km}, mb2.9/4, mbtmp3.6/5, Error ellipse: s-maj=83.6km s-min=26.3km az=115.0*

ISC 09 10:07:31.1±1.8**, 6°.5S**±0°.2×**151°.5E**±0°.4**, h250**^{km}**, n6, σ1^s.39**/7**, mb3.3**/4**, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KRVT	Keravat (AS076	2.21	14	P	Pn	10 08 14.8	-0.8
	193nm,0.4s,baz=91,slow=21,SNR=5.7						
KRVT				S	S	10 08 52.4	+1.7
	155nm,0.3s,baz=342,slow=23,SNR=4.2						
WRA	Warramunga Arr	21.38	230	P	P	10 11 58.7	-0.8
	1.0nm,0.8s,baz=54,slow=10,SNR=6.1						
	1.0nm,0.8s						
ASAR	Alice Springs	24.05	223	P	P	10 12 24.4	+0.4
	0.3nm,0.6s,baz=48,slow=9.4,SNR=4.4						
	0.3nm,0.6s						
FITZ	Fitzroy Crossi	27.74	243	P	P	10 12 58.5	+1.5
	1.8nm,0.7s,baz=67,slow=7.7,SNR=2.5						
	1.8nm,0.7s						
MKAR	Makanchi Array	80.73	319	P	P	10 19 15.6	-1.1
	0.4nm,0.7s,baz=97,slow=6.0,SNR=2.6						
	0.4nm,0.7s						
CPUP	Villa Florida	137.05	141	PKP	PKPdf	10 26 25.4	+0.3
	0.8nm,0.4s,baz=214,slow=3.6,SNR=4.0						

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*IDC **09** 10:26:03.0±1.0, 4°.28N×126°.88E, h0^{km}, mb3.9/10, mbtmp3.9/11, ML3.9/1, Error ellipse: s-maj=66.6km s-min=12.0km az=68.0*

*DJA **09** 10:26:09.1±1.6, 4°N±19°×12°7E±°, h15^{km}±29^{km}, M4.4/8, mb4.4/2, MLv4.3/8*

ISC 09 10:26:03.6±0.7**, 4°.29N**±0°.04×**127°.1E**±0°.1**, h10**^{km}**, n21, σ1^s.78**/21**, mb4.0**/10**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DAV	Davao City (W)	3.12	332	Pn	Pn	10 26 53.6	+0.6
	15nm,0.3s,baz=278,slow=19,SNR=1.0						
DAV				Sn	Sn	10 27 28.0	-2.4
	47nm,0.3s,baz=273,slow=19,SNR=2.2						
	64nm,0.3s						
DAV				AML	AML		
KCP	Kidapawan	3.33	324	*i* P	Pb	10 27 01.2	-1.7
TNTI	Ternate	3.51	175	P	Pb	10 27 02.5	-3.4
TNTI				AML	AML		
CDOP	Cateel, Davao	3.52	350	*i* P	Pg	10 27 08.3	-2.9
CDOP				*i* S	Sg	10 27 58.2	+1.3
MNI	Manado	3.58	218	P	Pn	10 27 00.1	+0.8
GTOI	Gorontalo	5.42	228	P	Pn	10 27 25.5	+0.9
	36nm,0.9s						
GLSP	General Luna,	5.54	351	*e*P	Pb	10 27 38.6	-1.9
GLSP				*e*S	Sb	10 28 50.3	+3.4
TBP	Tagbilaran	6.23	330	*e*P	Pb	10 27 45.4	-6.9
FITZ	Fitzroy Crossi	22.29	184	P	P	10 31 00.8	-0.4
	3.0nm,0.6s,baz=11,slow=10,SNR=8.9						
	3.0nm,0.6s						
WRA	Warramunga Arr	25.12	164	P	P	10 31 30.2	+1.2
	4.8nm,0.9s,baz=341,slow=11,SNR=38						
	4.8nm,0.9s						
ASAR	Alice Springs	28.58	167	P	P	10 32 01.9	+1.8
	0.4nm,0.5s,baz=345,slow=6.9,SNR=11						
ASAR				PcP	PcP	10 35 12.1	+0.6
	0.2nm,0.7s,baz=3.6,slow=3.0,SNR=1.5						
	0.4nm,0.5s						
CMAR	Chiang Mai Arr	30.87	299	P	P	10 32 20.9	+0.4
	0.6nm,0.3s,baz=114,slow=6.9,SNR=6.2						
	0.6nm,0.3s						
STKA	Stephens Creek	38.54	160	P	P	10 33 27.5	+1.0
	2.2nm,0.6s,baz=339,slow=9.7,SNR=9.3						
	2.2nm,0.6s						
H11S3	WAKE ISLAND Hy	41.22	67	T	T	11 18 11.2	
	baz=252						
H11S1	WAKE ISLAND Hy	41.24	67	T	T	11 18 15.3	
	baz=252						
H11S2	WAKE ISLAND Hy	41.24	67	T	T	11 18 18.0	
	baz=252						
SONM	Songino Array	46.87	341	P	P	10 34 35.8	+1.6
	0.2nm,0.3s,baz=168,slow=7.4,SNR=1.8						
	0.2nm,0.3s						
MKAR	Makanchi Array	57.28	325	P	P	10 35 52.1	+0.5
	0.8nm,0.5s,baz=130,slow=7.9,SNR=8.1						
	0.8nm,0.5s						
ZALV	Zalesovo Beam	60.24	333	P	P	10 36 13.1	+1.1
	0.5nm,0.4s,baz=128,slow=8.0,SNR=2.0						
	0.5nm,0.4s						
KURBB	Kurchatov Arra	61.44	327	P	P	10 36 20.8	+0.6
	1.6nm,0.8s,baz=124,slow=6.4,SNR=23						
	1.6nm,0.8s						
BVAR	Borovoye Array	67.03	327	P	P	10 36 56.8	-0.1
	0.7nm,0.5s,baz=125,slow=7.8,SNR=4.4						
	0.7nm,0.5s						

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*IDC **09** 10:31:59.4±2.0, 7°.70S×123°.60E, h280^{km}±24^{km}, mb3.3/5, mbtmp3.9/9, Error ellipse: s-maj=42.4km s-min=10.7km az=67.0*

*DJA **09** 10:32:01.2±0.7, 8°S±5°×12°3E±°, h246^{km}±10^{km}, M3.9/12, mB4.8/3, mb4.0/6, MLv3.9/12, Mw(mB)4.0/3*

ISC 09 10:31:57.2±0.7**, 7°.68S**±0°.06×**123°.8E**±0°.1**, h250**^{km}**, n27, σ1^s.58**/29**, mb3.5**/5**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MMRI	Maumere	1.77	237	P	Pn	10 32 40.4	+2.6
MMRI				AML	AML		
EDFI	Ende, Flores	2.30	242	P	Pn	10 32 44.8	+2.2
EDFI				AML	AML		
KDI	Kendari	3.86	343	P	Pn	10 33 01.1	+1.6
KDI				AML	AML		
LBFI	Labuhan Bajo,	3.90	258	P	Pn	10 33 00.0	+0.1
LBFI				AML	AML		
WSI	Waingapu	3.94	240	P	Pn	10 33 01.4	+1.0
KAPI	Kappang	4.77	303	P	Pn	10 33 12.5	+2.2
	7.0nm,0.5s,baz=120,slow=14,SNR=3.6						
MMSI	Mamuju	6.91	316	P	Pn	10 33 30.5	-6.4
FITZ	Fitzroy Crossi	10.52	170	P	Pn	10 34 23.0	+0.6
	3.8nm,0.7s,baz=343,slow=9.8,SNR=24						
FITZ				S	S	10 36 19.9	-0.7
	5.4nm,0.4s,baz=136,slow=5.5,SNR=5.0						
FITZ	Fitzroy Crossi	10.52	170	P	Pn	10 34 22.6	+0.2
MBWA	Marble Bar	13.96	196	P	Pn	10 35 05.2	+0.3
WRA	Warramunga Arr	15.94	141	P	P	10 35 28.9	+1.4
	1.9nm,0.6s,baz=318,slow=12,SNR=21						
WRA				S	S	10 38 19.4	-2.9
	1.7nm,0.8s,baz=316,slow=20,SNR=6.5						
WRAB	Tennant Creek	15.94	141	P	P	10 35 29.4	+1.9
WB1	Warramunga Ar.	15.96	141	P	P	10 35 29.3	+1.6
ASAR	Alice Springs	18.65	150	P	P	10 35 59.1	+2.1
	2.3nm,0.5s,baz=336,slow=12,SNR=24						
ASAR				S	S	10 39 15.8	-0.3
	1.7nm,0.9s,baz=331,slow=21,SNR=7.2						
AS01	Alice Springs	18.67	150	P	P	10 35 54.7	-2.5
MEEK	Meekatharra	19.48	194	P	P	10 36 05.2	-0.6
QIS	Mount Isa	19.99	131	P	P	10 36 14.1	+2.8
MORW	Morawa	22.48	198	P	P	10 36 35.7	0.0
BLDU	Ballidu	23.75	195	P	P	10 36 46.7	-0.6
KLBR	Kellerberrin	24.44	192	P	P	10 36 52.1	-1.4
MUN	Mundaring	25.18	195	P	P	10 36 59.2	-0.9
NWAO	Narrogin (SRO)	25.84	193	P	P	10 37 05.0	-1.1
STKA	Stephens Creek	29.26	148	P	P	10 37 37.3	+0.9
	1.2nm,0.3s,baz=321,slow=8.7,SNR=24						
	1.2nm,0.3s						
MJAR	Matsushiro Arr	46.03	16	P	P	10 39 55.3	-0.9
	0.9nm,0.5s,baz=184,slow=8.8,SNR=4.1						
	0.9nm,0.5s						
USRK	Ussuriysk Ar.	52.17	8	P	P	10 40 41.9	-0.5
	1.2nm,0.5s,baz=191,slow=7.0,SNR=2.5						
	1.2nm,0.5s						
MKAR	Makanchi Array	65.55	330	P	P	10 42 12.7	-1.5
	0.3nm,0.5s,baz=123,slow=7.4,SNR=4.4						
	0.3nm,0.5s						
QSPA	South Pole Qui	82.31	180	P	P	10 43 50.0	-0.9
	0.8nm,0.9s,baz=63,slow=10.0,SNR=1.9						
	0.8nm,0.9s						

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*IDC **09** 10:42:48.4±0.7, 27°.43N×56°.22E, h0^{km}, mb4.2/27, mbtmp4.2/30, ML4.6/3, MS3.3/4, Error ellipse: s-maj=16.1km s-min=12.6km az=2.0*

*MOS **09** 10:42:49.6±1.2, 27°.49N×56°.28E, h11^{km}, mb4.7/31, Error ellipse: s-maj=6.1km s-min=4.5km az=94.1*

*DSN **09** 10:42:49.8±1.0, 27°.68N×56°.26E, h10^{km}, ML4.2/16, Error ellipse: s-maj=11.9km s-min=5.7km az=53.0*

*TEH **09** 10:42:50.5, 27°.51N×56°.24E, h11^{km}±16^{km}, ML4.2, Presumed earthquake*

*OMAN **09** 10:42:50.8±0.2, 27°.63N×55°.99E, h10^{km}, mb4.0/7, ml4.2/20, Error ellipse: s-maj=4.4km s-min=1.9km az=36.0*

*NEIC **09** 10:42:50.8±1.3, 27°.51N±0°.04×56°.19E±0°.10, h10^{km}±1^{km}, mb4.4/31, Error ellipse: s-maj=15.0km s-min=6.0km az=107.0*

*THR **09** 10:42:51.1±0.0, 27°.47N×56°.25E, h15^{km}±2^{km}, ML4.2, Presumed earthquake*

ISC 09 10:42:50.9±0.8**, 27°.52N**±0°.03×**56°.21E**±0°.04**, h12**^{km}±5^{km}**, n276, σ1^s.46**/287**, mb4.4**/78**, MS3.2**/5**, 10C-6D, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GENO	Geno	0.12	196	Pg	Pg	10 42 54.3	+0.1
BNDS	Bandar-Abbas	0.12	196	*e*Pg	Pg	10 42 54.5	+0.3
BNDS				IAML		10 42 59.9	
	comp=Z,62µm,1.0s						
IBND	Bandar-abas	0.30	102	Pg	Pg	10 42 56.2	-0.8
KHNJ	Kahnooj	1.40	72	Pg	Pn	10 43 15.9	-0.4
SHME	Shamm	1.46	182	P	Pg	10 43 18.5	-0.4
	SNR=85						
SHME				S	Sg	10 43 40.3	+2.3
SHME	Shamm	1.46	182	*e*P	Pg	10 43 18.2	-0.7
	SNR=15						
SHME				S	Sg	10 43 40.3	+2.3
BANOM	Banah	1.59	177	P	Pg	10 43 21.2	-0.2
BANOM				S	Sg	10 43 43.2	+1.3
BANOM	Banah	1.59	177	*e*P	Pg	10 43 20.5	-0.9
	SNR=185						
BANOM				S	Sg	10 43 43.3	+1.3
MASF	Masafi	2.13	181	P	Pb	10 43 28.9	-0.6
	SNR=20						
MASF				S	Sb	10 43 56.9	+0.8
MSFE	Esma-Masafi	2.15	181	*e*P	Pb	10 43 28.6	-1.1
	SNR=77						
NGRK	Negar Kerman	2.17	12	Pn	Pb	10 43 29.0	-1.4
MDH	Madha	2.21	178	P	Pb	10 43 29.4	-1.4
MDH				S	Sb	10 43 59.1	+1.0
MDH	Madha	2.21	178	*e*P	Pn	10 43 28.1	+0.7
	SNR=38						
KRBR	Kerman	2.51	11	*e*Pn	Pb	10 43 35.8	-0.2
KRBR				IAML		10 44 22.4	
	comp=Z,930nm,1.0s						
JHRM	Jahrom	2.53	294	Pn	Pn	10 43 33.8	+1.9
KBAM	BAM	2.55	50	Pn	Pn	10 43 33.9	+1.7
UOSS	Minazif	2.56	180	P	Pb	10 43 34.2	-2.5
UOSS				S	Sb	10 44 07.9	-0.3
UOSS	Minazif	2.56	180		Pn	10 43 33.4	+1.2
UOSS	Minazif	2.56	180	*e*P	Pn	10 43 33.9	+1.7
	SNR=31						
NAZ	Nazwa, Dubai	2.56	191	P	Pb	10 43 34.9	-1.9
NAZ				S	Sb	10 44 10.2	+1.9
NAZ	Nazwa, Dubai	2.56	191	*e*P	Pn	10 43 34.0	+1.8
	SNR=14						
KHL1	Khalili_Fars	2.58	273	Pn	Pn	10 43 34.6	+2.0
CHMN	Cheshme madani	2.61	26	Pn	Pn	10 43 35.2	+1.9
HATD	Hatta, Dubai	2.68	181	P	Pb	10 43 36.1	-2.7
	SNR=24						
HATD	Hatta, Dubai	2.68	181	*e*P	Pn	10 43 36.0	+2.1
	SNR=24						
LMD1	Lamerd	2.71	267	*e*Pn	Pn	10 43 37.0	+2.7
LMD1				IAML		10 44 40.4	
	comp=Z,1µm,1.0s						
LMD1	Lamerd	2.71	267	Pn	Pn	10 43 36.6	+2.3
FAQ	Al Faqa, Dubai	2.81	191	P	Pb	10 43 38.5	-2.6
	SNR=26						
FAQ	Al Faqa, Dubai	2.81	191	*e*P	Pn	10 43 37.9	+2.2
	SNR=20						
ASHO	Ashiyiah	2.82	183	P	Pb	10 43 38.5	-2.8
	SNR=67						
ASHO	Ashiyiah	2.82	183	*e*P	Pb	10 43 38.4	-2.8
	SNR=48						
KHGB	Koh Gabri	2.86	5	Pn	Pn	10 43 38.7	+2.2
ASUD	Al Ashush, Dub	2.98	196	P	Pb	10 43 41.4	-2.6
	SNR=33						
ASUD	Al Ashush, Dub	2.98	196	*i* P	Pn	10 43 40.3	+2.2
	SNR=33						
KRM1	Kerman Provinc	3.12	17	Pn	Pn	10 43 42.0	+1.9
AJN	Ajban	3.14	201	P	Pn	10 43 42.7	+2.6
SOHO	SOHO	3.38	175	P	Pn	10 43 44.5	+1.0
SOHO	SOHO	3.38	175	P	Pn	10 43 44.1	+0.6
ALNE	Al Ain	3.47	187	P	Pn	10 43 46.9	+2.2
ALNE				S	Sb	10 44 30.7	-3.7
ALNE	Al Ain	3.47	187	*i* P	Pn	10 43 46.5	+1.8
	SNR=14						
SHI	Shiraz	3.88	304	Pn	Pn	10 43 52.0	+1.4
HOQ	Hoqain	4.04	165	P	Pn	10 43 53.1	+0.5
	SNR=11						
HOQ				S	Sn	10 44 43.8	+3.9
IMEH	Mehriz	4.11	341	Pn	Pn	10 43 56.2	+2.5
ARQ	Araqi	4.17	176	P	Pn	10 43 57.0	+2.6
	SNR=53						
CHBR	Chabahar	4.28	116	*e*Pn	Pn	10 43 57.0	+1.2
CHBR				IAML		10 45 53.9	
	comp=Z,98nm,1.0s						
CHBR	Chabahar	4.28	116	Pn	Pn	10 43 57.2	+1.3
BIDO	Bidbid	4.34	156	P	Pn	10 43 56.8	+0.2
	SNR=9.8						
DSBU	Dashti - Bushe	4.46	282	Pn	Pn	10 43 59.8	+1.4
ZHSF	Zahedan	4.53	61	*e*Pn	Pn	10 44 00.4	+1.0
ZHSF				IAML		10 44 12.6	
	comp=Z,32nm,1.0s						
TAFT	Taft - Yazd	4.55	338	Pn	Pn	10 44 02.1	+2.2
DOBD	Dorbid, Yazd	4.70	342	Pn	Pn	10 44 03.6	+1.9
SMDO	Samad	4.74	159	P	Pn	10 44 04.0	+1.7
	SNR=27						
SMDO				S	Sn	10 45 01.4	+4.2
WSAR	Wadi Sarin	4.79	152	P	Pn	10 44 03.6	+0.8
	SNR=48						
BSY	Bisya	4.83	169	P	Pn	10 44 05.8	+2.3
	SNR=53						
YZKH	Yazd	5.06	344	*e*Pn	Pn	10 44 08.8	+2.2
YZKH				IAML		10 45 07.5	
	comp=Z,48nm,1.0s						
BSRN	Basiran	5.11	29	*e*Pn	Pn	10 44 09.5	+2.1

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BSRN                                    IAML                 10 45 46.1
      comp=Z,80nm,1.0s
NHDN  Nehbandan          5.11  40   Pn         Pn        10 44 09.1 +1.6
MZR   Muzera             5.13 209   P          Pn        10 44 08.5 +0.9
SAKB  Bahrain            5.30 254   P          Pn        10 44 06.1  -3.7
SLWR  Sila               5.32 231   P          Pn        10 44 09.3  -0.9
JMDO  Jabal Madar        5.40 161   P          Pn        10 44 12.8 +1.4
      SNR=11
IKOO  Kooshah            5.46  26   Pn         Pn        10 44 14.3 +1.9
WBK   Wadi Bani Khal     5.49 152   P          Pn        10 44 13.5 +0.9
      SNR=12
SRVN  Saravan            5.50  90  ePn         Pn        10 44 14.6 +1.8
SRVN  Saravan            5.50  90   Pn         Pn        10 44 14.3 +1.5
NASN  Na'in              6.03 332  ePn         Pn        10 44 22.0 +1.7
NASN                                IAML                 10 45 32.7
      comp=Z,32nm,1.0s
IGAR  Gharneh            6.07 324   Pn         Pn        10 44 22.3 +1.7
JLN   Jalan Bani Buh     6.08 151   P          Pn        10 44 21.2 +0.5
      SNR=19
TABS  Tabas              6.17   7  ePn         Pn        10 44 24.8 +2.9
TABS                                IAML                 10 46 24.6
      comp=Z,43nm,1.0s
ZNGN  Zangian            6.53 316   Pn         Pn        10 44 29.1 +2.0
MHTO  MHTO               6.69 166   P          Pn        10 44 30.2 +1.2
      SNR=11
SHRT  Shahrakht          7.05  29  ePn         Pn        10 44 36.6 +2.6
SHRT                                IAML                 10 47 00.3
      comp=Z,27nm,1.0s
GTMR  Gotvand            7.89 310  ePn         Pn        10 44 47.9 +2.4
GTMR                                IAML                 10 46 20.3
      comp=Z,64nm,1.0s
KHMZ  Khomeyn            8.21 321  ePn         Pn        10 44 52.4 +2.3
SHRO  Shahrood           8.45 359  ePn         Pn        10 44 56.0 +2.7
HRA   Herat              8.59  36   Pn         Pn        10 44 56.4 +1.2
ISHM  Shahmirzad         8.63 344   Pn         Pn        10 44 58.0 +2.1
ASAO  Ashtian            8.79 324  ePn         Pn        10 45 00.0 +2.0
DAMV  Damavand           8.86 337  ePn         Pn        10 45 01.8 +2.8
CHTH  Charan             9.42 334  ePn         Pn        10 45 09.3 +2.6
SHAO  Shalim             9.46 183   P          Pn        10 45 07.0  -0.1
      SNR=39
SHAO  Shalim             9.46 183 i P          Pn        10 45 08.6 +1.5
      SNR=39
WHFO  Wadi Hawf          9.81 194   P          Pn        10 45 11.6  -0.3
      SNR=95
DMTO  DMTO               9.82 187   P          Pn        10 45 12.0   0.0
      SNR=60
RAYN  Ar Rayn           10.45 250   P          Pn        10 45 18.9  -1.8
RAYN  Ar Rayn           10.45 250              Pn        10 45 18.9  -1.8
RAYN  Ar Rayn           10.45 250 i P          Pn        10 45 19.3  -1.4
      SNR=30
ABTO  Aybut             10.46 195   P          Pn        10 45 20.0  -0.9
      SNR=39
AKT   Akhty             15.57 336  eP          P         10 46 33.8  -0.8
AKT                                 pmax       pmax
      comp=Z,9.0nm,0.4s
GNI   Garni             15.78 326   LR         LR        10 53 09.9
      comp=Z,62nm,19.1s,baz=177,slow=39
NIL   Nilore            15.89  63   P          Pn        10 46 33.7  -0.8
NIL                                 pmax       pmax
      comp=Z,10.0nm,0.9s
NIL   Nilore            15.89  63   Pn         Pn        10 46 33.7  -0.8
ASF   Jabal al Asfar    17.38 290   Pn         Pn        10 46 50.9  -2.5
      comp=Z,2.1nm,0.3s,baz=86,slow=8.9,SNR=9.0
ASF                                 Sn         Sn        10 49 55.0  -12
      comp=Z,0.3nm,0.3s,baz=284,slow=19,SNR=2.7
      comp=Z,3.5nm,0.3s
ASF                                 AML        AML
BTK   Batken            17.41  40   P          Pn        10 46 53.3  -0.4
BTK                                 pmax       pmax
      comp=Z,5.0nm,0.8s
BTK   Batken            17.41  40   Pn         Pn        10 46 53.3  -0.4
DRK   Karamyk           17.62  43   P          P         10 46 57.1  -0.4
DRK                                 pmax       pmax
      comp=Z,34nm,0.3s
DRK   Karamyk           17.62  43              P         10 46 57.1  -0.4
CHM   Chimkent          18.37  33  eP          P         10 47 05.8 +0.3
CHM   Chimkent          18.37  33  eP          P         10 47 05.8 +0.3
IUG   Iuzhnay           18.45  34  eP          Pn        10 47 06.6 +0.1
IUG   Iuzhnay           18.45  34  eP          Pn        10 47 06.6 +0.1
MMAI  Mount Meron Ar    18.78 292   P          P         10 47 08.8  -1.3
      comp=Z,3.3nm,0.3s,baz=108,slow=14,SNR=5.8
MMAI                                S          Sn        10 50 38.9  -1.7
      comp=Z,0.6nm,0.3s,baz=98,slow=39,SNR=0.9
      comp=Z,2.8nm,0.4s
MMAI                                AML        AML
EIL   Elat              18.79 282   P          P         10 47 10.0  -0.2
      comp=Z,1.1nm,0.3s,baz=7.6,slow=7.2,SNR=6.1
EIL                                 S          Sn        10 50 38.5  -2.3
      comp=Z,1.9nm,0.6s,baz=293,slow=21,SNR=1.2
      comp=Z,12nm,0.7s
EIL                                 AML        AML
ARPR  Arapgir-MALATY    18.84 312   P          P         10 47 10.2  -0.6
ARPR                                IAmb       IAmb      10 47 23.0
      comp=Z,18nm,0.9s
NCK   Nalchik           18.93 331⇑eP          P         10 47 11.4  -0.2
NCK                                 pmax       pmax
      comp=Z,45nm,0.6s
BRLS  Borolday          19.02  32  eP          P         10 47 10.1  -2.5
BRLS  Borolday          19.02  32  eP          P         10 47 10.2  -2.5
KK31  Karatay Array     19.40  33   P          P         10 47 16.4  -0.4
KK31                                pmax       pmax
      comp=Z,4.0nm,0.8s
KK31  Karatay Array     19.40  33              P         10 47 16.4  -0.4
KKAR  Karatay Array     19.40  33   P          P         10 47 16.5  -0.3
KKAR  Karatay Array     19.40  33              P         10 47 16.5  -0.3
KBZ   Khabaz            19.42 330   P          Pn        10 47 19.5 +1.4
      comp=Z,1.6nm,0.5s,baz=137,slow=6.4,SNR=4.9
KBZ   Khabaz            19.42 330⇑eP          P         10 47 17.5 +0.6
KBZ                                 pmax       pmax
      comp=Z,5.0nm,1.0s
SHA1  Shidzhatmaz       19.54 329⇓eP          P         10 47 18.3  -0.2
DZA   Taraz             19.65  35  eP          Pn        10 47 20.1  -0.8
DZA   Taraz             19.65  35  eP          Pn        10 47 20.1  -0.8
KIV   Kislovodsk        19.69 330  eP          Pn        10 47 21.4  -0.1
KIV                                 pmax       pmax
      comp=Z,4.0nm,0.9s
KIV   Kislovodsk        19.69 330   P          P         10 47 20.5 +0.4
      comp=Z,8.7nm,0.5s
CY604 RAF Akrotiri,     19.80 295   P          P         10 47 21.1 +0.2
KSH2  Kashi             19.86  49   P          Pn        10 47 22.6  -1.0
KSH2                                sP         sP        10 47 29.3 +2.1
KSH2                                pmax       pmax
      comp=Z,11nm,0.9s
BNN   Bunyan            20.41 309   P          P         10 47 27.9   0.0
VSLR  Vesyoloye         20.60 325⇑eP          Pn        10 47 31.4  -0.7
VSLR                                pmax       pmax
      comp=Z,20nm,0.9s
AAK   Ala-Archa         21.18  40   P          P         10 47 36.5 +0.2
      comp=Z,2.4nm,0.5s,baz=232,slow=5.7,SNR=4.1
      comp=Z,2.4nm,0.5s
AAK   Ala-Archa         21.18  40⇑eP          P         10 47 36.8 +0.5
AAK                                 pmax       pmax
      comp=Z,3.0nm,0.7s
NRN   Naryn             21.36  44   P          P         10 47 37.6  -0.8
NRN                                 pmax       pmax
      comp=Z,6.0nm,0.8s
NRN   Naryn             21.36  44              P         10 47 37.6  -0.8
SGDS  Sogindy           21.78  38  eP          P         10 47 43.1 +0.4
AB31  Akbulak array     21.90   7              P         10 47 43.7  -0.1
AB31                                IAmb       IAmb      10 47 52.9
      comp=Z,12nm,0.8s
ABKAR Akbulak array     21.90   7              P         10 47 43.7  -0.1
BR104 Keskin Array S    22.32 309   P          P         10 47 48.5   0.0
      comp=Z,82nmcomp=Z,10nm,0.9s
BRTR  Keskin Array B    22.33 309   P          P         10 47 49.4 +0.8
      comp=Z,9.9nm,0.8s,baz=132,slow=13,SNR=20
BRTR                                LR         LR        10 57 58.1
      comp=Z,87nm,19.1s,baz=122,slow=41
      comp=Z,9.9nm,0.8s
BRTR  Keskin Array B    22.33 309              P         10 47 48.9 +0.2
BR131 Keskin Array S    22.33 309deP          P         10 47 49.4 +0.8
BR131 Keskin Array S    22.33 309              P         10 47 49.1 +0.5
BR131                               IAmb       IAmb      10 47 54.6
      comp=Z,12nm,0.8s
BR105 Keskin Array S    22.34 309   P          P         10 47 48.7   0.0
      comp=Z,101nmcomp=Z,13nm,1.0s
BR106 Keskin Array S    22.34 309   P          P         10 47 48.8   0.0
      comp=Z,115nmcomp=Z,15nm,0.9s
KDJ   Kajisay           22.48  44   P          P         10 47 50.7 +0.4
KDJ                                 pmax       pmax
      comp=Z,5.0nm,0.7s
KDJ   Kajisay           22.48  44              P         10 47 50.7 +0.4
KDJ                                 IAmb       IAmb      10 48 00.8
      comp=Z,5.2nm,0.7s
TNSS  Tian-Shan         22.85  42  eP          P         10 47 54.7 +0.3
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TNSS  Tian-Shan         22.85  42  eP          P         10 47 54.8 +0.3
AKTO  Aktyubinsk        22.93   3   P          P         10 47 55.5 +0.8
      comp=Z,6.8nm,0.7s,baz=150,slow=7.0,SNR=14
AKTO                                LR         LR        10 58 12.5
      comp=Z,89nm,19.8s,baz=242,slow=40
      comp=Z,6.8nm,0.7s
AAA   Alma-Ata          22.94  42  eP          P         10 47 55.5 +0.5
AAA   Alma-Ata          22.94  42  eP          P         10 47 55.5 +0.5
MDOK  Medeo             22.99  42  eP          P         10 47 56.1 +0.5
MDOK  Medeo             22.99  42  eP          P         10 47 56.2 +0.5
KUU   Kurty             23.02  40  eP          P         10 47 56.3 +0.5
KUU   Kurty             23.02  40  eP          P         10 47 56.3 +0.5
SATY  Saty              23.75  43  eP          P         10 48 03.9 +0.7
SATY  Saty              23.75  43  eP          P         10 48 03.9 +0.7
KPKS  Kokpek            24.14  43  eP          P         10 48 07.4 +0.6
KPKS  Kokpek            24.14  43  eP          P         10 48 07.4 +0.6
UZB   Uzynbulak         24.17  44  eP          P         10 48 08.0 +0.8
UZB   Uzynbulak         24.17  44  eP          P         10 48 08.1 +0.8
SHLS  Shalkode          24.45  44  eP          P         10 48 13.2 +3.5
SHLS  Shalkode          24.45  44  eP          P         10 48 13.3 +3.5
PDGK  Podgornoye        24.56  44   P          P         10 48 10.0  -0.7
PDGK  Podgornoye        24.56  44              P         10 48 10.0  -0.7
TDK   Taldyqorghan      24.87  40  eP          P         10 48 14.1 +0.8
TDK   Taldyqorghan      24.87  40  eP          P         10 48 14.1 +0.8
ARG   Arkhangelos       25.31 297   P          P         10 48 16.7  -0.7
ARG                                 pmax       pmax
      comp=Z,27nm,0.9s
ARG   Arkhangelos       25.31 297   P          P         10 48 16.7  -0.7
BELG  Belogornoye       25.67 348⇑eP          P         10 48 22.1 +1.7
BELG                                pmax       pmax
      comp=Z,2.0nm,0.8s
BORK  Borovoye          27.58  19⇑eP          P         10 48 39.1 +1.4
BORK                                pmax       pmax
      comp=Z,7.0nm,1.8s
BVAR  Borovoye Array    27.58  19   P          P         10 48 37.9 +0.2
      comp=Z,2.1nm,0.6s,baz=208,slow=8.4,SNR=8.6
      comp=Z,2.1nm,0.6s
MK31  Makanchi Array    28.12  40⇓eP          P         10 48 41.7  -1.0
MKAR  Makanchi Array    28.12  40   P          P         10 48 42.5  -0.1
      comp=Z,1.2nm,0.5s,baz=229,slow=9.0,SNR=13
      comp=Z,1.2nm,0.5s
MKAR  Makanchi Array    28.12  40   P          P         10 48 43.1 +0.4
MKAR  Makanchi Array    28.12  40              P         10 48 43.1 +0.4
KURBB Kurchatov Arra    28.65  30   P          P         10 48 47.8 +0.5
      comp=Z,0.9nm,0.6s,baz=229,slow=8.4,SNR=9.4
      comp=Z,0.9nm,0.6s
KURK  Kurchatov         28.75  30⇑eP          P         10 48 50.2 +2.0
KURK                                pmax       pmax
      comp=Z,1.0nm,0.6s
ZSN   Zaisan            29.95  41  eP          P         10 48 59.6 +0.7
ZSN   Zaisan            29.95  41  eP          P         10 48 59.7 +0.7
MLR   Muntele Rosu      29.98 315   P          P         10 49 00.8 +1.5
      comp=Z,1.5nm,0.4s,baz=245,slow=11,SNR=3.2
      comp=Z,1.5nm,0.4s
MLR   Muntele Rosu      29.98 315   P          P         10 48 59.6 +0.3
      comp=Z,4.3nm,0.9s
MLR                                 pP         pP        10 49 02.3  -0.8
      comp=Z,4.3nm,0.9s
ITM   Ithomi            30.38 297   P          P         10 49 02.2  -0.6
ITM                                 IAmb       IAmb      10 49 06.4
      comp=Z,11nm,0.9s
VOIR                    30.52 314   P          P         10 49 04.1 +0.1
      comp=Z,4.0nm,1.0s
AK09  Malin Array Si    30.83 326   P          P         10 49 06.0  -0.6
AK10  Malin Array Si    30.84 326   P          P         10 49 07.0 +0.4
AK06  Malin Array Si    30.85 326   P          P         10 49 07.0 +0.2
AK08  Malin Array Si    30.86 326   P          P         10 49 07.0 +0.2
AK05  Malin Array Si    30.87 326   P          P         10 49 07.2 +0.2
AK02  Malin Array Si    30.89 326   P          P         10 49 07.4 +0.2
AK01  Malin Array Si    30.91 326   P          P         10 49 06.7  -0.6
AKASG Malin Array Be    30.91 326   P          P         10 49 06.7  -0.7
      comp=Z,3.6nm,0.6s,baz=134,slow=8.3,SNR=13
      comp=Z,3.6nm,0.6s
AKASG Malin Array Be    30.91 326ceP          P         10 49 09.1 +1.8
AKASG                               pmax       pmax
      comp=Z,4.0nm,0.7s
AKBB  Malin Array Si    30.91 326⇑eP          P         10 49 09.1 +1.8
AKBB                                pmax       pmax
      comp=Z,13nm,0.8s
AKBB  Malin Array Si    30.91 326              P         10 49 07.7 +0.4
AKBB  Malin Array Si    30.91 326   P          P         10 49 06.8  -0.5
KIEV  Kiev              30.92 326   P          P         10 49 08.1 +0.7
KIEV                                pmax       pmax
      comp=Z,12nm,0.8s
KIEV  Kiev              30.92 326              P         10 49 08.1 +0.7
KIEV  Kiev              30.92 326   P          P         10 49 06.8  -0.5
      comp=Z,80nm,0.8s
AK11  Malin Array Si    30.93 326   P          P         10 49 07.7 +0.3
AK14  Malin Array Si    30.93 326   P          P         10 49 07.7 +0.3
AK16  Malin Array Si    30.95 326   P          P         10 49 07.3  -0.4
AK04  Malin Array Si    30.95 326   P          P         10 49 07.1  -0.6
OBN   Obninsk           31.05 338⇓eP          P         10 49 10.5 +2.1
OBN                                e                     10 50 10.6
OBN                                e                     10 52 02.3
OBN                                 pmax       pmax
      comp=Z,10.0nm,0.5s
OBN                                 MLR        MLR
      comp=Z,29nm,12.0s
LUBAR Lubar, Ukraine    31.20 324   P          P         10 49 10.0 +0.1
KIRV  Kirov             31.42 353⇑eP          P         10 49 12.4 +0.8
MI29  MI29, Kamyanyy    31.44 324   P          P         10 49 12.4 +0.4
KEK   Kerkira           32.46 301   P          P         10 49 21.4 +0.3
RNPP8 Varash            33.00 324   P          P         10 49 25.9 +0.2
ZAA0  Zalesovo Array    33.74  31              P         10 49 32.2 +0.1
ZAA0                                IAmb       IAmb      10 49 36.2
      comp=Z,4.5nm,0.5s
ZALV  Zalesovo Beam     33.74  31   P          P         10 49 32.1   0.0
      comp=Z,3.4nm,0.4s,baz=242,slow=8.7,SNR=15
      comp=Z,3.4nm,0.4s
ZALV  Zalesovo Beam     33.74  31              P         10 49 32.4 +0.3
TIP   Timpagrande       34.70 300   P          P         10 49 40.4  -0.3
TIP                                 IAmb       IAmb      10 49 59.0
      comp=Z,6.3nm,0.9s
MBAR  Mbarara           37.16 225   LR         LR        11 08 04.2
      comp=Z,53nm,18.4s,baz=37,slow=41
GERES GERESS Array B    38.97 315   P          P         10 50 16.5  -0.4
      comp=Z,1.2nm,0.4s,baz=119,slow=7.8,SNR=10
      comp=Z,1.2nm,0.4s
GERES GERESS Array B    38.97 315   P          P         10 50 15.9  -1.1
KHC   Kasperske Hory    39.13 315⇓iP          P         10 50 19.6 +1.4
KHC                                 pmax       pmax
      comp=Z,7.0nm,0.7s
KHC   Kasperske Hory    39.13 315   P          P         10 50 17.8  -0.4
KHC                                 IAmb       IAmb      10 50 21.3
      comp=Z,6.5nm,0.7s
FIA1  FINESS Array S    39.46 338   P          P         10 50 20.6  -0.1
FIA1                                IAmb       IAmb      10 50 24.0
      comp=Z,13nm,0.7s
FINES FINESS Array B    39.46 338   P          P         10 50 20.6   0.0
      comp=Z,4.3nm,0.5s,baz=142,slow=11,SNR=18
      comp=Z,4.3nm,0.5s
FINES FINESS Array B    39.46 338   P          P         10 50 20.3  -0.4
CLL   Collm             40.17 318 i P          P         10 50 27.1 +0.3
CLL                                 pmax       pmax
      comp=Z,3.0nm,0.5s
CLL                                 MLR        MLR
      comp=Z,300nm,21.6s
PZH   PanZhiHua         40.41  81   P          P         10 50 29.6 +0.4
KEST  Kesra             40.42 294   P          P         10 50 29.9 +0.7
      comp=Z,3.7nm,0.7s,baz=271,slow=1.7,SNR=4.4
      comp=Z,3.7nm,0.7s
FUORN Ofenpass-Fuorn    40.66 311   P          P         10 50 31.1  -0.1
FUORN                               IAmb       IAmb      10 50 46.9
      comp=Z,6.0nm,1.1s
DAVOX Davos/Dischmat    40.95 311   P          P         10 50 32.7  -0.8
      comp=Z,2.5nm,0.5s,baz=99,slow=9.9,SNR=5.6
      comp=Z,2.5nm,0.5s
MBDF  Montbardon        42.78 307  eP          P         10 50 51.1 +2.6
MBDF                                pmax       pmax
      comp=Z,3.0nm,0.6s
LPG   La Plagne         42.89 308  eP          P         10 50 53.0 +3.5
LPG                                 pmax       pmax
      comp=Z,1.0nm,0.2s
LPL   La Plagne         42.90 308  eP          P         10 50 50.9 +1.3
LPL                                 pmax       pmax
      comp=Z,2.0nm,0.5s
HFS   Hagfors           43.49 331   P          P         10 50 53.3  -0.5
      comp=Z,2.7nm,0.5s,baz=116,slow=12,SNR=12
      comp=Z,2.7nm,0.5s
CABF  La Chapelle       43.49 310  eP          P         10 50 55.9 +1.7
CABF                                pmax       pmax
      comp=Z,3.0nm,0.6s
HAU   Haudompre         43.53 312  eP          P         10 50 55.7 +1.3
HAU                                 pmax       pmax
      comp=Z,5.0nm,1.0s
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SONM  Songino Array     43.72  48   P          P         10 50 55.9  -0.1
      comp=Z,1.1nm,0.6s,baz=264,slow=9.3,SNR=5.4
      comp=Z,1.1nm,0.6s
ULN   Ulaanbaatar       44.16  49deP          P         10 51 00.1 +0.5
ULN                                 pmax       pmax
      comp=Z,14nm,2.9s
NORES NORESS Array B    44.72 331   P          P         10 51 05.0 +1.4
GIVF  Givet             44.89 315  eP          P         10 51 07.9 +2.7
GIVF                                pmax       pmax
      comp=Z,22nm,1.4s
NB201 NORSAR Array S    44.97 331   P          P         10 51 05.8 +0.1
NB2   NORSAR Subarra    45.00 331   P          P         10 51 04.8  -1.1
      comp=Z,5.0nm,0.8s,baz=115,slow=7.9
NOA   NORSAR Array B    45.00 331   P          P         10 51 04.8  -1.1
      comp=Z,2.2nm,0.7s,baz=117,slow=8.0,SNR=8.5
      comp=Z,2.2nm,0.7s
SMF   Signal de Mont    45.03 310  eP          P         10 51 05.1  -1.3
SMF                                 pmax       pmax
      comp=Z,4.0nm,0.7s
LOR   Lormes            45.09 310  eP          P         10 51 09.2 +2.3
LOR                                 pmax       pmax
      comp=Z,6.0nm,1.2s
BAIF  Baives            45.27 314  eP          P         10 51 11.1 +2.9
BAIF                                pmax       pmax
      comp=Z,9.0nm,0.8s
SSF   Saint Saulge      45.31 310  eP          P         10 51 10.3 +1.7
SSF                                 pmax       pmax
      comp=Z,4.0nm,0.6s
AVF   Avril sur Loir    45.38 310  eP          P         10 51 11.0 +1.8
AVF                                 pmax       pmax
      comp=Z,21nm,1.9s
ARCES ARCESS Array B    45.67 345   P          P         10 51 10.3  -0.8
      comp=Z,2.3nm,0.6s,baz=154,slow=6.5,SNR=13
      comp=Z,2.3nm,0.6s
BGF   Bois d'Agland     45.71 309  eP          P         10 51 13.4 +1.6
BGF                                 pmax       pmax
      comp=Z,3.0nm,0.6s
MTLF  Montolieu         45.95 305  eP          P         10 51 15.9 +2.1
MTLF                                pmax       pmax
      comp=Z,6.0nm,0.9s
TCF   Toulx Ste Croi    46.12 309  eP          P         10 51 16.9 +1.8
TCF                                 pmax       pmax
      comp=Z,4.0nm,0.6s
CAF   Calviac           46.13 307  eP          P         10 51 17.1 +1.9
CAF                                 pmax       pmax
      comp=Z,9.0nm,1.2s
RJF   Les Rejaudoux     46.54 307  eP          P         10 51 20.6 +2.3
RJF                                 pmax       pmax
      comp=Z,29nm,1.0s
HHC   Hu-ho-hao-te      46.97  59  eP          P         10 51 21.3  -0.6
HHC                                 pmax       pmax
      comp=Z,9.0nm,0.6s
HHC                                 pmax       pmax
      comp=Z,56nm,5.0s
LFF   La Frestale       47.07 307  eP          P         10 51 24.8 +2.3
LFF                                 pmax       pmax
      comp=Z,34nm,1.4s
LDF   La Druitiere      47.89 312  eP          P         10 51 30.0 +1.2
LDF                                 pmax       pmax
      comp=Z,5.0nm,0.5s
ETSF  Etsaut            47.98 304  eP          P         10 51 32.8 +3.1
ETSF                                pmax       pmax
      comp=Z,41nm,1.1s
FLN   La Foliniere      48.14 312  eP          P         10 51 32.2 +1.5
FLN                                 pmax       pmax
      comp=Z,7.0nm,1.7s
GRR   Gorron            48.36 312  eP          P         10 51 35.4 +3.0
GRR                                 pmax       pmax
      comp=Z,9.0nm,1.0s
SJPF  Ste Jean          48.47 304  eP          P         10 51 35.8 +2.4
SJPF                                pmax       pmax
      comp=Z,7.0nm,0.9s
SGMF  Saint Gilles      49.49 311  eP          P         10 51 44.5 +3.4
SGMF                                pmax       pmax
      comp=Z,13nm,1.2s
EKA   Eskdalemuir Ar    50.53 320   P          P         10 51 49.5 +0.6
      comp=Z,0.5nm,0.4s,baz=98,slow=7.4,SNR=5.1
      comp=Z,0.5nm,0.4s
ESDC  Sonseca Array     50.72 300   P          P         10 51 50.1  -0.5
      comp=Z,0.7nm,0.6s,baz=60,slow=8.2,SNR=7.0
      comp=Z,0.7nm,0.6s
TORD  Torodi Ar. Bea    52.69 266   P          P         10 52 05.0  -0.7
      comp=Z,3.8nm,0.4s,baz=63,slow=8.0,SNR=38
      comp=Z,3.8nm,0.4s
LBTB  Lobatse           59.98 212   P          P         10 52 56.9  -0.6
LBTB                                pmax       pmax
      comp=Z,4.0nm,1.1s
LBTB  Lobatse           59.98 212   P          P         10 52 56.9  -0.6
LBTB                                IAmb       IAmb      10 53 14.4
      comp=Z,4.3nm,1.1s
KSRS  Korea Array       60.00  61   P          P         10 52 57.6 +0.2
      comp=Z,0.8nm,0.5s,baz=283,slow=6.4,SNR=6.5
      comp=Z,0.8nm,0.5s
BOSA  Boshof            63.21 210   P          P         10 53 18.5  -0.7
      comp=Z,1.5nm,0.5s,baz=7.4,slow=6.3,SNR=6.7
      comp=Z,1.5nm,0.5s
BOSA  Boshof            63.21 210   P          P         10 53 18.2  -1.0
BOSA                                IAmb       IAmb      10 53 41.3
      comp=Z,3.6nm,1.1s
SUMG  Summit            65.39 341   P          P         10 53 33.9 +0.6
SUMG                                pmax       pmax
      comp=Z,1.0nm,0.9s
SUMG  Summit            65.39 341   P          P         10 53 33.9 +0.6
MAJO  Matsushiro        68.16  59   P          P         10 53 51.2   0.0
MAJO                                pmax       pmax
      comp=Z,5.0nm,1.0s
MAJO  Matsushiro        68.16  59   P          P         10 53 51.2   0.0
MAJO                                IAmb       IAmb      10 54 26.0
      comp=Z,4.8nm,1.0s
LUWI  Luwuk             69.82 102   P          P         10 54 00.5  -1.3
C18K  Utukok River      80.26  13   P          P         10 55 00.6  -0.6
C18K                                IAmb       IAmb      10 55 31.0
      comp=Z,6.0nm,1.1s
FITZ  Fitzroy Crossi    81.09 116   P          P         10 55 05.2  -1.1
      comp=Z,2.2nm,0.9s,baz=333,slow=6.8,SNR=1.9
      comp=Z,2.2nm,0.9s
D23K  Nanushuk River    81.80   9   P          P         10 55 09.7 +0.3
D25K  Kavik River       82.05   8   P          P         10 55 10.8 +0.1
D25K                                IAmb       IAmb      10 55 32.8
      comp=Z,2.4nm,1.1s
F20K  Avaraart Lake     82.70  12   P          P         10 55 13.5  -0.5
F20K                                IAmb       IAmb      10 55 21.7
      comp=Z,2.0nm,1.1s
E25K  Arctic Village    83.29   8   P          P         10 55 16.8  -0.4
E25K                                IAmb       IAmb      10 55 21.5
      comp=Z,1.8nm,0.8s
SCHQ  Schefferville     84.57 331   P          P         10 55 22.9  -1.0
      comp=Z,3.1nm,0.8s,baz=76,slow=0.8,SNR=1.9
      comp=Z,3.1nm,0.8s
ILAR  Eielson Array     86.27  10   P          P         10 55 31.1  -1.1
      comp=Z,0.3nm,0.6s,baz=320,slow=4.4,SNR=8.2
      comp=Z,0.3nm,0.6s
WRA   Warramunga Arr    89.08 113   P          P         10 55 45.1  -1.3
      comp=Z,0.4nm,0.7s,baz=315,slow=3.9,SNR=7.3
      comp=Z,0.4nm,0.7s
WRA   Warramunga Arr    89.08 113 i P          P         10 55 48.5 +2.1
ASAR  Alice Springs     90.57 116   P          P         10 55 52.3  -1.0
      comp=Z,0.3nm,0.7s,baz=306,slow=4.5,SNR=8.3
      comp=Z,0.3nm,0.7s
QSPA  South Pole Qui   117.36 180   PKP        PKPdf     11 01 35.1  -0.5
      comp=Z,0.7nm,0.8s,baz=259,slow=5.2,SNR=2.2
TXAR  Lajitas Array    120.28 340   PKP        PKiKP     11 01 42.6   0.0
      comp=Z,0.2nm,0.6s,baz=321,slow=1.6,SNR=2.7
```

NNC ***09*** *10:54:08.6±5.2, 37°.73N×70°.91E, h0km, mb4.3, mpv3.8, Error ellipse: s-maj=41.5km s-min=32.1km az=175.0*

IDC ***09*** *10:54:14.6±4.8, 37°.75N×71°.35E, h137km±34km, mb3.3/8, mbtmp3.9/14, Error ellipse: s-maj=45.7km s-min=20.7km az=168.0*

ISC 09 10:54:10.4±1.2**, 37°.5N**±0°.1×**71°.23E**±0°.10**, h100**km**, n23, σ1s.11**/26**, mb3.8**/7**, 3C-5D, Afghanistan-Tajikistan border region**

```
Code  Station Name        Δ°   AZ°    Phase ID              Time      Res
                                    Op         ISC       h  m  s    ISC
EKS2  Erkin-Say          5.49  20   P          Pn        10 55 30.9 +1.2
      SNR=7.5
KK31  Karatay Array      5.59 355 ⇓P          Pn        10 55 31.9 +0.7
      12nm,0.5s,baz=183,slow=13,SNR=91
KK31                              ⇑S          Sn        10 56 34.7 +0.6
      19nm,0.5s
AAK   Ala-Archa          5.68  25   P          Pn        10 55 34.0 +1.5
      8.4nm,0.3s,baz=203,slow=7.9,SNR=16
AAK                                 S          Sn        10 56 36.9 +0.5
      9.5nm,0.5s,baz=235,slow=9.1,SNR=3.8
```

AAK	Ala-Archa	5.68	25	P	Pn	10 55 34.2	+1.7
	SNR=12						
AAK	Ala-Archa	5.68	25	⇑P	Pn	10 55 33.9	+1.3
	3.4nm,0.5s						
AAK				⇓S	Sn	10 56 38.2	+1.8
	6.4nm,0.6s						
CHMS	Chumysh	6.09	25	P	Pn	10 55 39.0	+1.0
	SNR=5.3						
USP	Ospenovka	6.25	23	P	Pn	10 55 40.7	+0.6
	SNR=5.5						
TKM2	Tokmak 2	6.34	30	P	Pn	10 55 42.2	+0.8
	SNR=24						
MKAR	Makanchi Array	12.36	38	P	Pn	10 57 01.9	-0.9
	3.4nm,0.6s,baz=224,slow=15,SNR=34						
KURBB	Kurchatov Arra	14.09	19	P	Pn	10 57 23.1	-2.2
	0.5nm,0.6s,baz=206,slow=12,SNR=7.1						
AB31	Akbulak array	14.29	329	⇑P	Pn	10 57 25.1	-2.8
	1.5nm,0.3s,baz=137,slow=14,SNR=97						
AB31				⇓S	Sn	11 00 04.1	-1.0
	2.1nm,0.5s						
BVAR	Borovoye Array	15.51	358	P	Pn	10 57 42.4	-1.0
	1.0nm,0.5s,baz=169,slow=13,SNR=4.1						
AKTO	Aktyubinsk	15.99	328	P	Pn	10 57 49.6	+0.2
	8.7nm,0.5s,baz=139,slow=10,SNR=18						
AKTO	Aktyubinsk	15.99	328	⇓P	Pn	10 57 48.9	-0.5
	5.2nm,0.7s						
AKTO				⇓S	Sn	11 00 45.4	-0.9
	3.0nm,1.0s						
ZALV	Zalesovo Beam	18.91	25	P	P	10 58 22.3	-0.7
	6.3nm,0.4s,baz=221,slow=9.8,SNR=30						
KBZ	Khabaz	22.31	295	P	P	10 59 01.1	+1.5
	0.8nm,0.5s,baz=73,slow=2.6,SNR=4.1						
	0.8nm,0.5s						
SONM	Songino Array	27.61	57	P	P	10 59 47.9	-0.5
	0.5nm,0.4s,baz=243,slow=6.3,SNR=2.1						
	0.5nm,0.4s						
FINES	FINESS Array B	36.74	325	P	P	11 01 07.2	-0.4
	1.5nm,0.9s,baz=111,slow=7.7,SNR=1.3						
	1.5nm,0.9s						
ARCES	ARCESS Array B	40.27	337	P	P	11 01 36.1	-1.0
	2.1nm,1.1s,baz=116,slow=8.5,SNR=1.5						
	2.1nm,1.1s						
HFS	Hagfors	42.38	321	P	P	11 01 54.1	-0.4
	0.6nm,0.3s,baz=79,slow=10,SNR=1.0						
	0.6nm,0.3s						
TORD	Torodi Ar. Bea	65.93	268	P	P	11 04 46.9	+0.9
	0.2nm,0.6s,baz=106,slow=5.4,SNR=1.9						
	0.2nm,0.6s						
ILAR	Eielson Array	73.74	16	P	P	11 05 30.9	-2.2
	0.3nm,0.6s,baz=326,slow=5.6,SNR=5.7						
	0.3nm,0.6s						
YKA	Yellowknife Ar	80.21	3	P	P	11 06 08.8	-0.5
	0.6nm,0.4s,baz=0.3,slow=4.8,SNR=4.4						
	0.6nm,0.4s						

*NNC **09** 10:56:49.0±2.5, 44°.39N×88°.51E, h0^{km}, mb3.5, mpv3.2, Error ellipse: s-maj=45.2km s-min=23.2km az=34.0*

*IDC **09** 10:56:51.5±2.7, 44°.09N×87°.80E, h0^{km}, mb3.5/2, mbtmp3.5/5, ML3.0/3, MS2.5/1, Error ellipse: s-maj=52.5km s-min=14.6km az=24.0*

ISC 09 10:56:56.6±2.4**, 44°.6N**±0°.3×**88°.1E**±0°.1**, h10^{km}, n9, σ1^s.56**/11**, 3C-4D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MK31	Makanchi Array	4.61	300	Pn	Pn	10 58 05.5	-0.8
	1.3nm,0.6s,baz=120,slow=14,SNR=18						
MK31				⇓Lg	Lg	10 59 26.4	
	8.2nm,0.8s,baz=121,slow=30,SNR=4.0						
MKAR	Makanchi Array	4.61	300	Pn	Pn	10 58 05.2	-1.0
	0.7nm,0.3s,baz=124,slow=14,SNR=20						
MKAR				Pg	Pb	10 58 18.4	+1.0
	0.4nm,0.3s,baz=123,slow=16,SNR=6.2						
MKAR				Sn	Sn	10 59 00.4	+0.6
	0.7nm,0.3s,baz=122,slow=21,SNR=4.2						
MKAR				Lg	Lg	10 59 20.4	
	1.1nm,0.3s,baz=122,slow=28,SNR=6.0						
MKAR				LR	LR	11 00 24.9	
	comp=Z,60nm,21.8s,baz=96,slow=45						
	3.2nm,0.6s						
MKAR				AML	AML		
MAKZ	Makanchi	4.81	299	⇓Pn	Pn	10 58 08.1	-0.9
	4.7nm,0.7s						
MAKZ				⇑Lg	Lg	10 59 33.0	
	28nm,1.3s						
KURBB	Kurchatov Arra	8.82	316	Pn	Pn	10 59 03.8	-0.2
	0.1nm,0.3s,baz=131,slow=12,SNR=8.4						
KURBB				Pg	Pg	10 59 34.7	-11
	baz=137,slow=13,SNR=1.7						
KURBB				Sn	Sn	11 00 44.5	+1.2
	baz=33,slow=46,SNR=1.2						
KURBB				Lg	Lg	11 01 37.9	
	baz=73,slow=28,SNR=5.5						
	0.8nm,0.5s						
KURBB				AML	AML		
KURBB	Kurchatov Arra	8.82	316	⇑Pn	Pn	10 59 02.5	-1.4
	0.3nm,0.3s						
KURBB				⇓Lg	Lg	11 01 42.0	
	30nm,1.2s						
KURK	Kurchatov	8.83	317	⇑Pn	Pn	10 59 01.5	-2.7
	0.6nm,1.0s						
KURK				⇓Lg	Lg	11 01 42.7	
	5.5nm,1.1s						
BVAR	Borovoye Array	14.35	312	Pn	Pn	11 00 14.5	-5.1
	0.1nm,0.3s,baz=144,slow=10.0,SNR=2.2						
	0.5nm,0.3s						
BVAR				AML	AML		
HILR	Hailar Array B	22.03	66	P	P	11 01 53.0	+1.9
	1.0nm,0.4s,baz=263,slow=13,SNR=1.5						
	1.0nm,0.4s						
ILAR	Eielson Array	62.83	23	P	P	11 07 20.9	-1.1
	0.3nm,0.8s,baz=313,slow=4.9,SNR=4.1						
	0.3nm,0.8s						

*BJI **09** 10:57:05.8, 6°.41S×154°.95E, h46^{km}, mB5.4/53, mb5.0/68, Ms5.1/71, Ms7 4.9/70*

*GFZ **09** 10:57:07.2, 6°.12S×154°.43E, h21^{km}, Mw5.4/53, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}1.29; $M_{\theta\theta}$-0.57; $M_{\phi\phi}$-0.71; $M_{r\theta}$0.61; $M_{\theta\phi}$0.70; $M_{\phi r}$-0.16; Fault plane solution: $M_0$1.46285×10^{17} NP1: ϕ_s124.29192°, δ57.50157°, λ74.81690°. NP2: ϕ_s331.09016°, δ35.51475°, λ112.34915°. Principal axes: T 1.4705, Plg72.8377°, Azm355.4180°; N -0.0155, Plg12.7614°, Azm132.5875°; P -1.4550, Plg11.2826°, Azm225.1772°;*

*NEIC **09** 10:57:09.9, 6°.24S×154°.74E, h24^{km}, Moment Tensor Solution. Duration: 2^s.4 Moment tensor: Scale 10^{17}Nm; M_{rr}1.35; $M_{\theta\theta}$-0.77; $M_{\phi\phi}$-0.58; $M_{r\theta}$0.20; $M_{\theta\phi}$0.86; $M_{\phi r}$-0.18; Fault plane solution: $M_0$1.48000×10^{17} NP1: ϕ_s311.66000°, δ39.69000°, λ89.79000°. NP2: ϕ_s131.93000°, δ50.31000°, λ90.17000°. Principal axes: T 1.3770, Plg85.0000°, Azm43.0000°; N 0.1846, Plg0.0000°, Azm312.0000°; P -1.5616, Plg5.0000°, Azm222.0000°;*

*GFZ **09** 10:57:09.2±0.5, 6°S±2°×15°4E±°, h28^{km}±3^{km}, M5.2/44, mb5.2/44 Error ellipse: s-maj=7.1km s-min=5.2km az=76.6, confirmed*

*NEIC **09** 10:57:09.4±1.6, 6°.24S±0°.06×154°.44E±0°.07, h31^{km}±5^{km}, mb5.1/87, Mww5.4/14, Error ellipse: s-maj=12.0km s-min=6.2km az=52.0*

*NEIC **09** 10:57:09.5, 6°.24S×154°.44E, h32^{km}*

*GCMT **09** 10:57:11.5±0.1, 6°.46S±0°.01×154°.34E±0°.01, h31^{km}, MW5.5/151, Moment Tensor Solution. s151, c275; s138, c256; Duration: 1^s.4 Moment tensor: Scale 10^{17} Nm; M_{rr}1.83±.02; $M_{\theta\theta}$-1.07±.02; $M_{\phi\phi}$-0.76±.02; $M_{r\theta}$0.80±.03; $M_{\theta\phi}$1.06±.01; $M_{\phi r}$-0.82±.03; Best double couple: $M_0$2.22600×10^{17} NP1: ϕ_s308.00000°, δ30.00000°, λ85.00000°. NP2: ϕ_s134.00000°, δ61.00000°, λ93.00000°. Principal axes: T 2.1500, Plg74.0000°, Azm51.0000°; N 0.1520, Plg2.0000°, Azm312.0000°; P -2.3030, Plg15.0000°, Azm221.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*IDC **09** 10:57:12.2±1.1, 6°.22S×154°.43E, h66^{km}±9^{km}, mb4.3/24, mbtmp4.6/29, MS4.7/49 Error ellipse: s-maj=10.2km s-min=8.4km az=60.0*

*DJA **09** 10:57:17.0±0.6, 7°S±5°×15°4E±°, h83^{km}±8^{km}, M5.1/16, mb4.9/16, mB5.3/6, MLv5.4/2, Mw(mB)4.7/6, MwMwp5.1/7, Mwp5.3/7*

ISC 09 10:57:10.8±0.3**, 6°.19S**±0°.03×**154°.50E**±0°.04**, h48^{km}**±2^{km}**, h48^{km}:pP-P, n472, σ1^s.72**/479**, mb5.0**/129**, MS4.8**/72**, 2C-6D, Bougainville-Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RABL	Rabaul	3.06	310		Pn	10 57 55.6	-1.1
KRVT	Keravat (AS076	3.09	307	P	Pn	10 57 57.9	+0.7
	332nm,0.3s,baz=200,slow=1.2,SNR=12						
KRVT				S	Sn	10 58 34.6	+1.7
	2μm,0.4s,baz=170,slow=23,SNR=7.7						
KRVT				LR	LR	10 59 13.1	
	comp=Z,8μm,20.9s,baz=98,slow=40						
TATA	Tatamba Isabel	5.70	113	P	Pn	10 58 34.4	+1.4
TATA	Tatamba Isabel	5.70	113	S	Sn	10 59 41.8	+4.7
SAVO	Savo Central	6.03	119	P	Pn	10 58 40.8	+3.2
SAVO	Savo Central	6.03	119	S	Sn	10 59 50.1	+4.7
HNR	Honiara	6.29	121	P	Pn	10 58 43.7	+2.7
	927nm,0.9s,baz=285,slow=3.5,SNR=22						
HNR				S	Sn	10 59 54.9	+3.3
	3μm,1.0s,baz=43,slow=18,SNR=9.4						
HNR				LR	LR	11 01 07.4	
	comp=Z,12μm,20.5s,baz=357,slow=37						
HNR	Honiara	6.29	121	P	Pn	10 58 43.6	+2.6
HNR	Honiara	6.29	121	S	Sn	10 59 56.2	+4.6
HNR	Honiara	6.29	121		Pn	10 58 40.3	-0.8
HNR	Honiara	6.29	121	P	Pn	10 58 43.8	+2.7
	comp=Z,2μm,0.9s						
NGOA	Tingoa Renbel	7.66	134	P	Pn	10 59 02.4	+2.6
NGOA	Tingoa Renbel	7.66	134	S	Sn	11 00 29.9	+4.6
PMG	Port Moresby	7.94	246	P	Pn	10 59 04.6	+0.9
	comp=Z,282nm,0.7s,baz=60,slow=8.5,SNR=61						
PMG				S	Sn	11 00 32.8	+0.6
	comp=Z,205nm,0.8s,baz=5.3,slow=9.8,SNR=4.8						
PMG				LR	LR	11 02 18.9	
	comp=Z,11μm,19.4s,baz=50,slow=39						
PMG	Port Moresby	7.94	246	P	Pn	10 59 03.3	-0.4
PMG	Port Moresby	7.94	246	S	Sn	11 00 32.3	0.0
PMG	Port Moresby	7.94	246	P	Pn	10 59 03.4	-0.3
PMG	Port Moresby	7.94	246	S	Sn	11 00 32.1	-0.2
PMG	Port Moresby	7.94	246		Pn	10 59 01.3	-2.5
PMG	Port Moresby	7.94	246	P	Pn	10 59 05.6	+1.9
	comp=Z,1.1nmcomp=Z,16μmcomp=Z,3μmcomp=Z,372nm,0.8s						
PMG				AML	AML		
PMG	Port Moresby	7.94	246	P	Pn	10 59 02.5	-1.2
	comp=Z,381nm,0.8s						
MANU	Manus Island	8.22	300		Pn	10 59 06.2	-1.3
HURO	Huro Makira	8.47	121	P	Pn	10 59 14.0	+3.0
PATS	Pohnpei	13.49	16	P	Pn	11 00 21.1	+1.3
	comp=Z,313nm,0.9s						
PATS	Pohnpei	13.49	16	P	Pn	11 00 19.7	0.0
PATS	Pohnpei	13.49	16	S	Sn	11 02 47.4	-0.8
PATS	Pohnpei	13.49	16		Pn	11 00 19.6	-0.1
PATS	Pohnpei	13.49	16	P	Pn	11 00 19.7	0.0
	comp=Z,312nm,0.9s						
GENI	Genyem	14.72	283	P	P	11 00 41.9	+0.5
	comp=Z,2μmcomp=Z,117nm,1.5s						
GENI	Genyem	14.72	283	P	Pn	11 00 34.3	-2.0
	comp=Z,116nm,1.5s						
MTSU	Mount Surprise	15.48	219	P	Pn	11 00 45.3	-0.8
	comp=Z,23nm,1.1s						
MTSU	Mount Surprise	15.48	219	P	Pn	11 00 46.6	+0.5
MTSU	Mount Surprise	15.48	219	P	Pn	11 00 45.6	-0.5
	comp=Z,23nm,1.1s						
SANVU	Saraoutou	15.49	127	P	Pn	11 00 48.5	+2.2
SANVU	Saraoutou	15.49	127		Pn	11 00 45.3	-1.0
SANVU				IAmb	IAmb	11 00 51.2	
	comp=Z,101nm,1.2s						
SANVU	Saraoutou	15.49	127	P	Pn	11 00 47.1	+0.9
	comp=Z,109nm,1.1s						
CTA	Charters Tower	15.97	209	P	Pn	11 00 50.6	-1.7
	comp=Z,29nm,1.5s						
CTA	Charters Tower	15.97	209	P	Pn	11 00 52.1	-0.2
	comp=Z,48nm,0.8s,baz=28,slow=12,SNR=30						
CTA				LR	LR	11 06 31.4	
	comp=Z,4μm,20.1s,baz=23,slow=35						
CTA	Charters Tower	15.97	209	P	Pn	11 00 53.5	+1.2
CTAO	Charters Tower	15.97	209	P	Pn	11 00 52.7	+0.4
CTAO	Charters Tower	15.97	209	P	Pn	11 00 51.6	-0.8
CTAO	Charters Tower	15.97	209	P	P	11 00 55.2	0.0
	comp=Z,73nm,1.5s						
EIDS	Eidsvold	19.35	189	P	P	11 01 32.2	-0.2
	comp=Z,43nm,2.0s						
EIDS	Eidsvold	19.35	189	P	Pn	11 01 34.4	+0.5
EIDS	Eidsvold	19.35	189	P	P	11 01 31.6	-0.8
EIDS	Eidsvold	19.35	189	P	P	11 01 32.9	+0.5
	comp=Z,43nm,2.0s						
NOUC	Port Laguerre	19.50	145	P	P	11 01 35.2	+1.1
DZM	Mont Dzumac	19.56	145	P	P	11 01 35.3	+0.5
	comp=Z,22nm,0.4s,baz=246,slow=8.1,SNR=56						
ONTNC	Ouen Toro	19.75	145	P	P	11 01 38.0	+1.2
ONTNC	Ouen Toro	19.75	145		P	11 01 35.6	-1.2
ONTNC				IAmb	IAmb	11 01 41.5	
	comp=Z,310nm,1.7s						
YATNC	Mamie plateau,	19.81	144	P	Pn	11 01 41.1	+1.8
OUENC	Ouen Island, N	20.06	145	P	P	11 01 41.8	+1.6
OUENC	Ouen Island, N	20.06	145		P	11 01 39.4	-0.8
MARNC	Mare, Loyalty	20.06	141	P	Pn	11 01 42.2	-0.2
MARNC	Mare, Loyalty	20.06	141	P	P	11 01 39.8	-0.5
QIS	Mount Isa	20.31	224	P	P	11 01 42.2	-0.9
	comp=Z,49nm,1.1s						
QIS	Mount Isa	20.31	224	P	P	11 01 41.9	-1.1
QIS	Mount Isa	20.31	224	P	P	11 01 42.1	-0.9
	comp=Z,49nm,1.1s						
GUMO	Guam	21.86	334	P	P	11 01 59.7	+0.1
	comp=Z,20nm,0.6s,baz=194,slow=11,SNR=6.1						
GUMO				LR	LR	11 11 39.1	
	comp=Z,824nm,18.6s,baz=150,slow=40						
	comp=Z,20nm,0.6s						
GUMO	Guam	21.86	334	P	P	11 01 58.9	-0.7
GUMO				IAmb	IAmb	11 02 09.7	
	comp=Z,157nm,1.2s						
FAKI	Fak Fak	22.41	277	P	P	11 02 04.9	-0.7
FAKI	Fak Fak	22.41	277	P	P	11 02 05.0	-0.7
QLP	Quilpie	22.51	205	P	P	11 02 05.2	-1.5
	comp=Z,147nm,1.1s						
QLP	Quilpie	22.51	205	P	P	11 02 06.1	-0.5
QLP	Quilpie	22.51	205	P	P	11 02 05.3	-1.3
	comp=Z,146nm,1.1s						
KDU	Kakadu	22.65	252	P	P	11 02 08.1	-0.1
	comp=Z,30nm,0.8s						
WR0	Warramunga Arr	23.73	233	P	P	11 02 17.7	-1.0
WB0	Warramunga Arr	23.75	234	P	P	11 02 17.4	-1.5
WB0				IAmb	IAmb	11 02 33.4	
	comp=Z,117nm,1.3s						
WR8	Warramunga Arr	23.76	233	P	P	11 02 18.3	-0.8
WR8				IAmb	IAmb	11 02 33.5	
	comp=Z,116nm,1.1s						
WB9	Warramunga Arr	23.77	233	P	P	11 02 18.1	-1.0
WR4	Warramunga Arr	23.83	233	P	P	11 02 18.6	-1.1
WB3	Warramunga Arr	23.86	233	P	P	11 02 18.9	-1.1
WRAB	Tennant Creek	23.87	233	P	P	11 02 18.9	-1.2
WRAB	Tennant Creek	23.87	233	P	P	11 02 18.4	-1.6
WRAB				IAmb	IAmb	11 02 34.5	
	comp=Z,104nm,1.2s						
WRAB	Tennant Creek	23.87	233	P	P	11 02 19.4	-0.7
	comp=Z,91nm,1.6s						
WRA	Warramunga Arr	23.88	233	P	P	11 02 18.9	-1.3
	comp=Z,23nm,0.8s,baz=58,slow=9.6,SNR=92						
WRA				PcP	PcP	11 06 02.1	-0.2
	comp=Z,5.2nm,0.5s,baz=60,slow=2.6,SNR=10						
WRA				S	S	11 06 31.5	-1.8
	comp=Z,0.8nm,0.8s,baz=58,slow=15,SNR=1.4						
WRA				ScP	ScP	11 09 34.6	-2.3
	comp=Z,2.0nm,0.9s,baz=57,slow=3.0,SNR=5.0						
WRA				LR	LR	11 11 45.7	
	comp=Z,4μm,19.6s,baz=90,slow=37						
	comp=Z,23nm,0.8s						
WRA	Warramunga Arr	23.88	233	P	P	11 02 18.0	-2.2
MTN	Manton Dam	23.96	252	P	P	11 02 20.3	-0.6
MTN	Manton Dam	23.96	252	P	P	11 02 20.7	-0.2
MTN				IAmb	IAmb	11 02 37.2	
	comp=Z,81nm,2.0s						
DRS	Darwin Rock St	24.09	253	P	P	11 02 22.7	+0.6
ARMA	Armidale	24.25	186	P	P	11 02 34.6	+11
ARMA	Armidale	24.25	186	P	P	11 02 25.4	+1.8
ARMA	Armidale	24.25	186	P	P	11 02 23.6	0.0
ARMA				IAmb	IAmb	11 02 51.5	
	comp=Z,36nm,0.9s						
ARMA	Armidale	24.25	186	P	P	11 02 24.1	+0.5
	comp=Z,52nm,1.0s						
INKA	Innaminka	25.10	210		P	11 02 29.5	-1.7
INKA				IAmb	IAmb	11 02 46.0	
	comp=Z,57nm,1.1s						
MSVF	Nonsavu	25.70	119	LR	LR	11 12 10.3	
	comp=Z,4μm,18.2s,baz=294,slow=35						
MSVF	Nonsavu	25.70	119	P	P	11 02 39.4	+2.6
MSVF	Nonsavu	25.70	119	P	P	11 02 36.3	-0.5
AS17	Alice Springs	26.28	226	P	P	11 02 40.5	-1.5
	comp=Z,19nm,1.0s						
AS16	Alice Springs	26.31	227	P	P	11 02 41.1	-1.2
	comp=Z,22nm,0.8s						
AS01	Alice Springs	26.31	227	P	P	11 02 42.9	+0.6
AS15	Alice Springs	26.32	227	P	P	11 02 41.5	-0.9
	comp=Z,20nm,0.9s						
AS09	Alice Springs	26.34	227	P	P	11 02 41.4	-1.1
	comp=Z,17nm,0.7s						
AS31	Alice Springs	26.34	227	P	P	11 02 41.6	-1.0
	comp=Z,5.5nm,0.4s						
AS31	Alice Springs	26.34	227	P	P	11 02 41.0	-1.6
ASAR	Alice Springs	26.35	227	P	P	11 02 41.1	-1.5
	comp=Z,5.7nm,0.7s,baz=60,slow=9.2,SNR=62						
ASAR				PcP	PcP	11 06 07.4	-0.4
	comp=Z,3.0nm,0.6s,baz=49,slow=2.1,SNR=7.7						
ASAR				S	S	11 07 10.1	-2.4
	comp=Z,1.4nm,0.9s,baz=59,slow=14,SNR=1.5						
ASAR				ScP	ScP	11 09 40.9	-3.0
	comp=Z,0.4nm,0.7s,baz=45,slow=3.3,SNR=1.7						
ASAR				LR	LR	11 12 59.2	
	comp=Z,3μm,19.5s,baz=106,slow=36						
	comp=Z,5.7nm,0.7s						
ASAR	Alice Springs	26.35	227	P	P	11 02 40.8	-1.8
AS10	Alice Springs	26.36	227	P	P	11 02 41.7	-1.0
	comp=Z,27nm,0.9s						
CMSA	Cobar Meteorol	26.53	197	P	P	11 02 43.5	-0.6
	comp=Z,42nm,1.3s						
CMSA	Cobar Meteorol	26.53	197	P	P	11 02 46.1	+2.0
CMSA	Cobar Meteorol	26.53	197	P	P	11 02 45.0	+0.9
	comp=Z,26nm,1.7s						
KNRA	Kununurra	26.94	247	P	P	11 02 48.7	+0.8
	comp=Z,25nm,0.8s						
KNRA	Kununurra	26.94	247	P	P	11 02 47.6	-0.3
H11S3	WAKE ISLAND Hy	27.32	26	T	T	11 31 25.5	
	baz=209,slow=74						
H11S2	WAKE ISLAND Hy	27.32	26	T	T	11 31 27.3	
	baz=209,slow=74						
H11S1	WAKE ISLAND Hy	27.34	26	T	T	11 31 27.3	
	baz=209						
STKA	Stephens Creek	28.26	204	P	P	11 03 02.8	+3.2
STKA	Stephens Creek	28.26	204	P	P	11 02 58.5	-1.1
	comp=Z,2.7nm,0.5s,baz=39,slow=10,SNR=7.3						
STKA				ScP	ScP	11 09 45.8	-3.7
	comp=Z,9.4nm,1.1s,baz=84,slow=2.5,SNR=5.1						
STKA				LR	LR	11 14 19.9	
	comp=Z,3μm,19.7s,baz=2.2,slow=36						
	comp=Z,2.7nm,0.5s						
STKA	Stephens Creek	28.26	204	P	P	11 03 00.1	+0.5
STKA	Stephens Creek	28.26	204	P	P	11 03 02.8	+3.2
	comp=Z,90nm,0.8s						
H11N1	WAKE ISLAND Hy	28.49	25	T	T	11 32 56.0	
	baz=198,slow=73						
H11N3	WAKE ISLAND Hy	28.50	25	T	T	11 32 50.0	
	baz=198,slow=73						
H11N2	WAKE ISLAND Hy	28.51	25	T	T	11 32 50.5	
	baz=198,slow=73						
FITZ	Fitzroy Crossi	30.53	245	P	P	11 03 14.8	-5.2
FITZ	Fitzroy Crossi	30.53	245	LR	LR	11 16 17.0	
	comp=Z,4μm,19.3s,baz=74,slow=38						
FITZ	Fitzroy Crossi	30.53	245	P	P	11 03 20.3	+0.4
FITZ	Fitzroy Crossi	30.53	245		P	11 03 18.5	-1.4
FITZ	Fitzroy Crossi	30.53	245	P	P	11 03 18.8	-1.2
	comp=Z,6.3nm,0.8s						
HTT	Hallett	30.72	206	P	P	11 03 29.9	+8.4
HTT	Hallett	30.72	206	P	P	11 03 23.1	+1.6
WRKA	Warakurna	31.31	230	P	P	11 03 25.7	-1.1
	comp=Z,14nm,1.0s						
BBOO	Buckleboo	31.56	211	P	P	11 03 38.1	+9.3
BBOO	Buckleboo	31.56	211	P	P	11 03 30.3	+1.5
BBOO	Buckleboo	31.56	211	P	P	11 03 27.9	-1.0
BBOO				IAmb	IAmb	11 03 45.8	
	comp=Z,54nm,1.4s						
DAV	Davao City (W)	31.72	294	LR	LR	11 16 20.3	
	comp=Z,851nm,18.1s,baz=106,slow=36						
TOO	Toolangi	32.29	193	P	P	11 03 34.6	-0.6
OUZ	Omahuta	33.82	151	P	P	11 03 51.0	+2.4
OUZ	Omahuta	33.82	151	P	P	11 03 50.1	+1.5
OUZ	Omahuta	33.82	151	P	P	11 03 51.5	+3.0
	comp=Z,36nm,1.4s						
TOLI2	Tolitoli	34.43	281	P	P	11 03 54.5	+0.4
TOLI2	Tolitoli	34.43	281		P	11 03 53.1	-1.0
TOLI2				IAmb	IAmb	11 04 00.4	
	comp=Z,13nm,0.7s						
TOLI2	Tolitoli	34.43	281	P	P	11 03 51.5	-2.6
	comp=Z,19nm,0.7s						
WCZ	Waipu Caves	34.76	151	P	P	11 03 59.0	+2.4
GLAD	Gladstone	35.12	189	P	P	11 04 01.0	+1.3
TOZ	Tahuroa Road	36.75	152		P	11 04 14.2	+0.5
TOZ				IAmb	IAmb	11 04 37.7	
	comp=Z,31nm,1.0s						
MBWA	Marble Bar	36.79	243	P	P	11 04 18.5	+4.2
	comp=Z,23nm,1.9s						
MBWA	Marble Bar	36.79	243	P	P	11 04 15.1	+0.8
HIZ	Hauiti	37.09	153	P	P	11 04 18.7	+2.1
HIZ	Hauiti	37.09	153	P	P	11 04 17.3	+0.7
HIZ	Hauiti	37.09	153	P	P	11 04 22.2	+5.6
TAU	Tasmania Unive	37.11	189	P	P	11 04 19.0	+2.3
VRZ	Vera Road	37.55	154	P	P	11 04 28.3	+7.9
HAZ	Te Kaha	37.89	149	P	P	11 04 23.9	+0.6
URZ	Urewera	37.95	151	LR	LR	11 16 58.5	
	comp=Z,782nm,20.9s,baz=324,slow=31						
URZ	Urewera	37.95	151	P	P	11 04 26.1	+2.3
URZ	Urewera	37.95	151	P	P	11 04 23.9	+0.1
URZ	Urewera	37.95	151	P	P	11 04 25.1	+1.3
	comp=Z,48nm,0.8s						
MUGZ	Murupara	37.95	151	P	P	11 04 25.0	+1.1
COVZ	Chateau Observ	37.96	153	P	P	11 04 29.6	+5.6
TMVZ	Te Maari	37.96	153	P	P	11 04 30.1	+5.9
NGZ	Ngauruhoe	37.97	153	P	P	11 04 29.8	+5.6
ETVZ	East Tongariro	37.98	153	P	P	11 04 30.6	+6.4
RUGZ	Raukumara Rang	38.00	150	P	P	11 04 25.1	+0.7
FWVZ	Far West T-bar	38.01	153	P	P	11 04 27.7	+3.1
MXZ	Matakaoa Point	38.01	149	P	P	11 04 27.0	+2.6
MXZ	Matakaoa Point	38.01	149	P	P	11 04 24.5	+0.1
MXZ	Matakaoa Point	38.01	149	P	P	11 04 25.2	+0.8
WHVZ	Whangaehu Hut	38.05	153	P	P	11 04 32.8	+7.9
QRZ	Quartz Range	38.07	158	P	P	11 04 27.5	+2.6
WNVZ	Wahianoa	38.09	153	P	P	11 04 32.8	+7.6
PKGZ	Pakihiroa	38.13	149	P	P	11 04 26.7	+1.3
RTZ	Ruatahuna	38.16	151	P	P	11 04 26.2	+0.5
MWZ	Matawai	38.21	150	P	P	11 04 27.5	+1.4
MOVZ	Moawhango	38.22	153	P	P	11 04 31.0	+4.8
WMGZ	Waiomatatini S	38.26	149	P	P	11 04 26.7	+0.3
MTHZ	Maungataniwha	38.28	151	P	P	11 04 27.0	+0.3
TWGZ	Tauwhareparae	38.31	150	P	P	11 04 28.6	+1.6
BKZ	Black Stump Fm	38.37	152	P	P	11 04 29.7	+2.3
PUZ	Puketiti	38.37	149	P	P	11 04 27.6	+0.1
BHHZ	Black Hill Sta	38.43	153	P	P	11 04 30.3	+2.3
RAHZ	Arahi	38.45	151	P	P	11 04 30.1	+2.0
TKGZ	Te Karaka	38.45	150	P	P	11 04 28.5	+0.4
NMHZ	Naumai	38.46	152	P	P	11 04 30.2	+1.9
DUWZ	D’Urville Isla	38.60	156	P	P	11 04 34.1	+4.8
RIGZ	Rimuhau	38.61	150	P	P	11 04 30.1	+0.6
WHHZ	Waihua	38.65	151	P	P	11 04 32.3	+2.6
CNGZ	Carnagh Statio	38.66	150	P	P	11 04 30.3	+0.5
ARHZ	Aropaoanui	38.68	152	P	P	11 04 31.0	+1.0
MCHZ	McNeill Hill	38.68	152	P	P	11 04 34.3	+4.2
KRHZ	Kereru	38.69	153	P	P	11 04 30.1	0.0
NNZ	Nelson	38.74	157	P	P	11 04 30.3	-0.1
KNZ	Kokohu	38.81	151	P	P	11 04 30.9	-0.2
PNHZ	Pukenui	38.83	153	P	P	11 04 31.2	-0.2
TSZ	Takapari Road	38.84	153	P	P	11 04 31.3	-0.1
THZ	Tophouse	39.03	158	P	P	11 04 32.5	-0.4
MHGZ	Mahia Peninsul	39.03	151	P	P	11 04 33.1	+0.1
CKHZ	Cape Kidnapper	39.03	152	P	P	11 04 36.9	+4.0
JMZ	Minamidaito 2	39.03	326	P	P	11 04 32.9	-0.2
KAHZ	Kahuranaki	39.05	152	P	P	11 04 36.6	+3.5
OGWZ	Otaki Gorge	39.12	155	P	P	11 04 33.3	-0.4
TUWZ	Tuamarina	39.14	157	P	P	11 04 34.6	+0.8
MRZ	Mangatainoka R	39.17	154	P	P	11 04 33.5	-0.5
PXZ	Pawanui	39.23	152	P	P	11 04 36.6	+2.0
HOWZ	Holdsworth Sta	39.34	155	P	P	11 04 34.7	-0.8
SNZO	South Karori	39.34	156	P	P	11 04 38.0	+2.5
BFZ	Birch Farm	39.48	154	P	P	11 04 38.6	+2.0
KMBL	Kambalda	39.48	226	P	P	11 04 42.0	+5.1
MTW	Mount Morrison	39.55	155	P	P	11 04 36.3	-0.9
MSWZ	Moikau Station	39.66	155	P	P	11 04 40.9	+2.8
TMWZ	Te Maipa	39.67	154	P	P	11 04 40.4	+2.1
LTZ	Lake Taylor	39.69	159	P	P	11 04 38.4	0.0
MEEK	Meekatharra	39.75	235	P	P	11 04 44.0	+4.8

MEEK	**Meekatharra**	**39.75**	**235**	P	**P**	**11 04 39.3**	**+0.1**
MEEK	**Meekatharra**	**39.75**	**235**	P	**P**	**11 04 39.1**	**-0.1**
	comp=Z,37nm,2.0s						
KHZ	**Kahutara**	**39.83**	**158**	P	**P**	**11 04 42.2**	**+2.7**
KHZ	**Kahutara**	**39.83**	**158**	P	**P**	**11 04 38.8**	**-0.7**
OXZ	**Oxford**	**40.09**	**160**	P	**P**	**11 04 42.5**	**+0.8**
RPZ	**Rata Peaks**	**40.11**	**161**	LR	LR	11 20 35.7	
	comp=Z,417nm,18.0s,baz=277,slow=35						
RPZ	**Rata Peaks**	**40.11**	**161**	P	**P**	**11 04 44.7**	**+2.8**
RPZ	**Rata Peaks**	**40.11**	**161**	P	**P**	**11 04 45.9**	**+4.1**
GVZ	**Greta Valley S**	**40.12**	**159**	P	**P**	**11 04 41.3**	**-0.7**
LBZ	**Lake Benmore**	**40.45**	**163**	P	**P**	**11 04 46.7**	**+2.1**
MQZ	**McQueen’s Vall**	**40.63**	**160**	P	**P**	**11 04 46.7**	**+0.6**
JOW	**Kunigami**	**41.51**	**323**	P	**P**	**11 04 54.1**	**+0.5**
JHJ	**Hachijo jima 2**	**41.52**	**341**	LR	LR	11 22 52.2	
	comp=Z,455nm,18.5s,baz=150,slow=37						
KLBR	**Kellerberrin**	**42.63**	**229**	P	**P**	**11 05 07.1**	**+4.4**
KLBR	**Kellerberrin**	**42.63**	**229**	P	**P**	**11 05 04.2**	**+1.5**
MORW	**Morawa**	**42.83**	**233**	P	**P**	**11 05 05.4**	**+1.0**
MORW	**Morawa**	**42.83**	**233**	P	**P**	**11 05 06.4**	**+2.0**
	comp=Z,26nm,0.9s						
BLDU	**Ballidu**	**42.97**	**231**	P	**P**	**11 05 06.9**	**+1.4**
YOJ	**Yonaguni jima**	**43.24**	**316**	P	**P**	**11 05 08.9**	**+1.2**
YOJ	**Yonaguni jima**	**43.24**	**316**	P	**P**	**11 05 08.1**	**+0.4**
TWG	**Pinlang**	**43.59**	**313**	P	**P**	**11 05 10.0**	**-0.6**
TWG				IAmb	IAmb	11 05 20.9	
	comp=Z,19nm,0.5s						
TWG	**Pinlang**	**43.59**	**313**	P	**P**	**11 05 09.4**	**-1.2**
	comp=Z,26nm,0.5s						
NWAO	**Narrogin (SRO)**	**43.66**	**228**	LR	LR	11 23 39.4	
	comp=Z,2µm,18.9s,baz=64,slow=36						
YULB	**Yu-li**	**43.77**	**313**	P	**P**	**11 05 12.8**	**+0.7**
YULB	**Yu-li**	**43.77**	**313**	P	**P**	**11 05 12.2**	**+0.2**
YULB	**Yu-li**	**43.77**	**313**	P	**P**	**11 05 12.4**	**+0.3**
	comp=Z,74nm,0.8s						
MUN	**Mundaring**	**43.97**	**229**	P	**P**	**11 05 15.2**	**+1.6**
NACB	**Ninganchiao**	**44.05**	**314**	P	**P**	**11 05 14.3**	**+0.1**
NACB	**Ninganchiao**	**44.05**	**314**	P	**P**	**11 05 14.3**	**+0.1**
NACB				IAmb	IAmb	11 05 26.2	
	comp=Z,57nm,1.0s						
NACB	**Ninganchiao**	**44.05**	**314**	P	**P**	**11 05 13.9**	**-0.3**
	comp=Z,51nm,1.1s						
TPUB	**Ta-pu**	**44.20**	**313**	P	**P**	**11 05 15.0**	**-0.5**
TPUB	**Ta-pu**	**44.20**	**313**	P	**P**	**11 05 14.2**	**-1.3**
	comp=Z,91nm,0.6s						
JMN	**Monobe**	**44.25**	**335**	P	**P**	**11 05 16.8**	**+1.1**
JMN	**Monobe**	**44.25**	**335**	P	**P**	**11 05 15.3**	**-0.4**
JMN				IAmb	IAmb	11 05 26.0	
	comp=Z,15nm,0.6s						
SSLB	**Suanglung**	**44.27**	**314**	P	**P**	**11 05 16.3**	**+0.3**
SSLB	**Suanglung**	**44.27**	**314**		**P**	**11 05 16.4**	**+0.3**
SSLB	**Suanglung**	**44.27**	**314**	P	**P**	**11 05 15.4**	**-0.6**
	comp=Z,80nm,0.5s						
YHNB	**Yeheng**	**44.51**	**315**	P	**P**	**11 05 18.8**	**+0.8**
YHNB	**Yeheng**	**44.51**	**315**		**P**	**11 05 18.1**	**+0.1**
YHNB	**Yeheng**	**44.51**	**315**	P	**P**	**11 05 18.8**	**+0.8**
	comp=Z,59nm,0.8s						
JGF	**Kuroka**	**44.59**	**340**	P	**P**	**11 05 19.0**	**+0.6**
TATO	**Taipei**	**44.63**	**315**	P	**P**	**11 05 18.3**	**-0.5**
TATO	**Taipei**	**44.63**	**315**	P	**P**	**11 05 19.3**	**+0.5**
	comp=Z,85nm,1.5s						
MJAR	**Matsushiro Arr**	**45.17**	**341**	P	**P**	**11 05 21.2**	**-1.8**
	comp=Z,1.1nm,0.5s,baz=170,slow=7.0,SNR=8.1						
MJAR				LR	LR	11 24 18.9	
	comp=Z,139nm,19.3s,baz=171,slow=36						
	comp=Z,1.1nm,0.5s						
MJAR	**Matsushiro Arr**	**45.17**	**341**	P	**P**	**11 05 21.6**	**-1.4**
MAJO	**Matsushiro**	**45.17**	**341**	P	**P**	**11 05 23.4**	**+0.4**
MAJO	**Matsushiro**	**45.17**	**341**	P	**P**	**11 05 21.5**	**-1.5**
MAJO				pP	**pP**	**11 05 31.4**	**-4.5**
MJB9	**Matsu-Tunnel**	**45.17**	**341**	P	**P**	**11 05 21.6**	**-1.4**
CTZ	**Chatham Island**	**45.18**	**150**	P	**P**	**11 05 23.0**	**0.0**
QZH2	**Quanzhou**	**46.67**	**313**	P	**P**	**11 05 35.7**	**+0.7**
QZH2				pmax	pmax		
	comp=Z,97nm,1.0s						
QZH2				pmax	pmax		
	comp=Z,300nm,4.6s						
QZH2				L	L		
	comp=Z,1µm,20.7s						
QZH2				L	L		
	comp=Z,430nm,19.8s						
QZH2				L	L		
	comp=Z,1µm,20.3s						
RAR	**Rarotonga**	**46.68**	**113**	LR	LR	11 21 58.5	
	comp=Z,484nm,21.1s,baz=278,slow=32						
JTU	**Tsushima**	**46.93**	**331**	P	**P**	**11 05 37.3**	**+0.5**
JTM	**Tenmabayashi**	**48.35**	**346**	P	**P**	**11 05 46.9**	**-0.8**
SSE	**Sheshan**	**48.88**	**321**	P	**P**	**11 05 52.2**	**+0.2**
SSE				S	**S**	**11 12 54.4**	**+2.1**
SSE				pmax	pmax		
	comp=Z,12nm,0.6s						
SSE				pmax	pmax		
	comp=Z,140nm,10.7s						
SSE				L	L		
	comp=Z,250nm,19.4s						
SSE				L	L		
	comp=Z,200nm,19.8s						
DLV	**Lat**	**49.17**	**291**	P	**P**	**11 05 54.0**	**-0.7**
DLV				IAmb	IAmb	11 05 56.5	
	comp=Z,25nm,0.9s						
DLV	**Lat**	**49.17**	**291**	P	**P**	**11 05 55.2**	**+0.4**
	comp=Z,36nm,1.2s						
TJN	**Taejon**	**49.40**	**331**		**P**	**11 05 55.3**	**-0.6**
TJN	**Taejon**	**49.40**	**331**	P	**P**	**11 05 56.5**	**+0.7**
	comp=Z,164nm,0.6s						
KSRS	**Korea Array**	**50.00**	**332**	P	**P**	**11 05 59.4**	**-1.0**
	comp=Z,3.0nm,0.7s,baz=147,slow=8.5,SNR=15						
KSRS				LR	LR	11 22 27.2	
	comp=Z,319nm,21.6s,baz=140,slow=30						
	comp=Z,3.0nm,0.7s						
QIZ	**Qiongzhong**	**50.63**	**301**	P	**P**	**11 06 05.8**	**+0.3**
QIZ				S	**S**	**11 13 17.9**	**+0.7**
QIZ				pmax	pmax		
	comp=Z,290nm,8.2s						
QIZ				L	L		
	comp=Z,420nm,24.3s						
QIZ				L	L		
	comp=Z,880nm,21.2s						
QIZ				L	L		
	comp=Z,1µm,22.9s						
QIZ	**Qiongzhong**	**50.63**	**301**	P	**P**	**11 06 06.8**	**+1.2**
INCN	**Inchon**	**50.63**	**331**		**P**	**11 06 05.4**	**+0.1**
INCN	**Inchon**	**50.63**	**331**	P	**P**	**11 06 05.8**	**+0.6**
	comp=Z,55nm,0.6s						
NJ2	**Nanjing**	**50.98**	**320**	*e*P	**P**	**11 06 08.6**	**+0.6**
NJ2				sP	**sP**	**11 06 25.3**	**-0.6**
NJ2				S	**S**	**11 13 25.9**	**+4.2**
NJ2				pmax	pmax		
	comp=Z,7.0nm,0.9s						
NJ2				pmax	pmax		
	comp=Z,300nm,3.7s						
NJ2				L	L		
	comp=Z,750nm,18.0s						
NJ2				L	L		
	comp=Z,360nm,18.9s						
NJ2				L	L		
	comp=Z,2µm,22.6s						
JKA	**Kamikawa-asahi**	**51.22**	**349**	P	**P**	**11 06 10.1**	**+0.7**
JKA				IAmb	IAmb	11 06 39.1	
	comp=Z,18nm,0.9s						
CNSH	**ChangSha**	**52.67**	**313**	P	**P**	**11 06 22.1**	**+1.5**
CNSH				S	**S**	**11 13 48.9**	**+3.8**
CNSH				pmax	pmax		
	comp=Z,38nm,1.0s						
CNSH				L	L		
	comp=Z,440nm,13.3s						
CNSH				L	L		
	comp=Z,330nm,10.2s						
CNSH				L	L		
	comp=Z,960nm,22.8s						
WHN	**Wuhan**	**53.02**	**316**	P	**P**	**11 06 24.4**	**+1.2**
WHN				pP	**pP**	**11 06 37.9**	**+2.0**
WHN				S	**S**	**11 13 52.9**	**+3.1**
WHN				sS	**sS**	**11 14 11.1**	**+1.2**
WHN				pmax	pmax		
	comp=Z,48nm,0.9s						
WHN				pmax	pmax		
	comp=Z,670nm,7.0s						
WHN				L	L		
	comp=Z,2µm,20.4s						
WHN				L	L		
	comp=Z,2µm,19.4s						
WHN				L	L		
	comp=Z,4µm,21.3s						
GULI	**GuiLin**	**53.10**	**308**	P	**P**	**11 06 23.9**	**+0.1**
GULI				S	**S**	**11 13 52.2**	**+1.2**
GULI				pmax	pmax		
	comp=Z,27nm,1.1s						
GULI				pmax	pmax		
	comp=Z,220nm,6.9s						
GULI				L	L		
	comp=Z,700nm,19.8s						
GULI				L	L		
	comp=Z,570nm,19.0s						
GULI				L	L		
	comp=Z,1µm,19.6s						
BKNI	**Bangkinang**	**53.74**	**275**	P	**P**	**11 06 29.6**	**+0.8**
USRK	**Ussuriysk Ar.**	**54.11**	**340**	P	**P**	**11 06 30.8**	**-0.1**
	comp=Z,2.0nm,0.4s,baz=147,slow=6.5,SNR=8.4						
USRK				LR	LR	11 25 53.1	
	comp=Z,339nm,21.8s,baz=155,slow=32						
	comp=Z,2.0nm,0.4s						
DL2	**Dalian**	**54.23**	**329**	P	**P**	**11 06 31.2**	**-0.6**
DL2				S	**S**	**11 14 06.3**	**+0.5**
DL2				sS	**sS**	**11 14 30.2**	**+2.9**
DL2				pmax	pmax		
	comp=Z,35nm,0.9s						
DL2				pmax	pmax		
	comp=Z,220nm,4.2s						
DL2				L	L		
	comp=Z,520nm,17.7s						
DL2				L	L		
	comp=Z,470nm,17.8s						
DL2				L	L		
	comp=Z,810nm,20.8s						
TIA	**Tai'an**	**54.83**	**323**	P	**P**	**11 06 35.3**	**-1.0**
TIA				pmax	pmax		
	comp=Z,6.0nm,0.9s						
TIA				pmax	pmax		
	comp=Z,310nm,8.0s						
TIA				L	L		
	comp=Z,490nm,21.5s						
TIA				L	L		
	comp=Z,470nm,17.6s						
TIA				L	L		
	comp=Z,750nm,23.0s						
KULM	**Kulim**	**54.95**	**281**	P	**P**	**11 06 38.7**	**+1.1**
KULM	**Kulim**	**54.95**	**281**	P	**P**	**11 06 36.4**	**-1.1**
KULM				IAmb	IAmb	11 07 25.1	
	comp=Z,17nm,1.1s						
PPT	**Papeete**	**55.70**	**107**	LR	LR	11 27 51.7	
	comp=Z,368nm,19.2s,baz=278,slow=33						
PPT2	**Papeete2**	**55.70**	**107**	*e*P	**P**	**11 06 42.2**	**-0.8**
	comp=Z,130nm,22.0s						
PPT2				*e*S	**S**	**11 14 20.6**	**-5.9**
	comp=Z,441nm,24.8s						
PPT2				*e*SS	**SS**	**11 18 10.0**	**-2.5**
	comp=Z,282nm,25.2s						
PPT2				*e*LQ	LQ	11 20 39.1	
	comp=Z,1µm,29.5s						
PPT2				*e*LR	LR	11 22 59.7	
	comp=Z,947nm,26.5s						
PPT2				*e*LR	LR	11 23 02.6	
	comp=Z,646nm,28.2s						
CN2	**Changchun**	**56.26**	**335**	P	**P**	**11 06 45.9**	**-0.5**
CN2				S	**S**	**11 14 31.5**	**-1.3**
CN2				SS	**SS**	**11 18 19.1**	**-1.3**
CN2				L	L		
	comp=Z,190nm,18.0s						
CN2				L	L		
	comp=Z,2µm,18.0s						
CN2				L	L		
	comp=Z,240nm,19.0s						
ENH	**Enshi**	**56.33**	**313**	P	**P**	**11 06 47.4**	**+0.1**
	comp=Z,46nm,1.3s						
ENH	**Enshi**	**56.33**	**313**	P	**P**	**11 06 47.3**	**+0.1**
SLVN	**Son La**	**56.65**	**300**	P	**P**	**11 06 49.6**	**0.0**
SLVN	**Son La**	**56.65**	**300**	P	**P**	**11 06 49.7**	**0.0**
	comp=Z,6.5nm,1.4s						
LYN	**LuoYang**	**56.70**	**319**	P	**P**	**11 06 50.0**	**+0.3**
LYN				S	**S**	**11 14 32.5**	**-6.5**
LYN				pmax	pmax		
	comp=Z,10.0nm,0.7s						
LYN				pmax	pmax		
	comp=Z,420nm,6.0s						
LYN				L	L		
	comp=Z,1µm,21.3s						
LYN				L	L		
	comp=Z,890nm,21.3s						
LYN				L	L		
	comp=Z,2µm,21.1s						
HNS	**HongShan**	**57.07**	**323**	⇓P	**P**	**11 06 52.6**	**+0.3**
HNS				PP	**PP**	**11 08 58.6**	**-1.0**
HNS				S	**S**	**11 14 46.7**	**+3.0**
HNS				pmax	pmax		
	comp=Z,11nm,1.0s						
HNS				L	L		
	comp=Z,240nm,16.0s						
HNS				L	L		
	comp=Z,580nm,20.9s						
HNS				L	L		
	comp=Z,780nm,24.7s						
BNX	**BinXian**	**57.09**	**338**	⇓P	**P**	**11 06 51.6**	**-0.6**
BNX				pmax	pmax		
	comp=Z,21nm,0.8s						
BJI2	**Beijing**	**57.97**	**326**	P	**P**	**11 07 00.4**	**+1.8**
BJI2				pP	**pP**	**11 07 13.1**	**+1.8**
BJI2				sP	**sP**	**11 07 18.2**	**+1.6**
BJI2				PP	**PP**	**11 09 11.7**	**+4.2**
BJI2				S	**S**	**11 14 57.4**	**+1.9**
BJI2				pmax	pmax		
	comp=Z,3.0nm,0.8s						
BJI2				pmax	pmax		
	comp=Z,130nm,9.7s						
BJI2				L	L		
	comp=Z,220nm,19.8s						
BJI2				L	L		
	comp=Z,290nm,22.5s						
BJI2				L	L		
	comp=Z,350nm,20.7s						
BJT	**Baijiatuau**	**57.97**	**326**	P	**P**	**11 06 57.2**	**-1.3**
BJT	**Baijiatuau**	**57.97**	**326**	P	**P**	**11 06 57.1**	**-1.5**
BJT				pP	**pP**	**11 07 06.7**	**-4.6**
BJT				x	x	11 07 08.3	
KLR	**Kul'dur**	**58.66**	**343**	LR	LR	11 31 38.5	
	comp=Z,333nm,21.0s,baz=160,slow=35						
TIY	**Taiyuan**	**58.66**	**322**	*e*P	**P**	**11 07 04.0**	**+0.5**
TIY				pP	**pP**	**11 07 14.8**	**-1.6**
TIY				sP	**pwP**	**11 07 21.6**	**+2.7**
TIY				S	**S**	**11 15 10.8**	**+6.0**
TIY				sS	**sS**	**11 15 26.6**	**-0.3**
TIY				pmax	pmax		
	comp=Z,200nm,5.3s						
TIY				L	L		
	comp=Z,350nm,15.8s						
TIY				L	L		
	comp=Z,390nm,19.9s						
TIY				L	L		
	comp=Z,500nm,22.0s						
XAN	**Xi'an**	**58.79**	**316**	P	**P**	**11 07 04.1**	**-0.4**
XAN				pP	pP	11 07 14.5	-2.9
XAN				sP	sP	11 07 21.8	-0.9
XAN				S	**S**	**11 15 07.7**	**+1.2**
XAN				pmax	pmax		
	comp=Z,20nm,1.5s						
XAN				L	L		
	comp=Z,770nm,20.6s						
XAN				L	L		
	comp=Z,950nm,19.9s						
XAN				L	L		
	comp=Z,2µm,19.2s						
XAN	**Xi'an**	**58.79**	**316**	P	**P**	**11 07 04.1**	**-0.4**
XAN				PcP	**PcP**	**11 07 55.0**	**+1.3**
PEA0B	**Petropavlovsk-**	**59.14**	**2**	P	**P**	**11 07 07.2**	**+0.7**
PETK	**Petropavlovsk-**	**59.14**	**2**	P	**P**	**11 07 06.5**	**0.0**
	comp=Z,1.6nm,0.4s,baz=152,slow=5.1,SNR=8.3						
	comp=Z,1.6nm,0.4s						
PETK	**Petropavlovsk-**	**59.14**	**2**	P	**P**	**11 07 07.0**	**+0.6**
KMI	**Kunming**	**59.16**	**304**	P	**P**	**11 07 08.3**	**+0.9**
KMI2	**Kunming**	**59.16**	**304**	⇑P	**P**	**11 07 08.4**	**+0.9**
KMI2				pP	pP	11 07 19.9	-0.4
KMI2				S	S	11 15 22.4	+10
KMI2				pmax	pmax		
	comp=Z,32nm,1.2s						
KMI2				pmax	pmax		
	comp=Z,320nm,5.4s						
KMI2				L	L		
	comp=Z,440nm,19.0s						
KMI2				L	L		
	comp=Z,440nm,22.5s						
KMI2				L	L		
	comp=Z,960nm,24.6s						
CM31	**Chiang Mai Arr**	**59.99**	**295**	P	**P**	**11 07 12.6**	**-0.4**
CM31				IAmb	IAmb	11 07 32.1	
	comp=Z,11nm,0.8s						
CMAR	**Chiang Mai Arr**	**59.99**	**295**	P	**P**	**11 07 12.3**	**-0.7**
	comp=Z,4.2nm,1.0s,baz=114,slow=4.4,SNR=16						
CMAR				LR	LR	11 31 49.4	
	comp=Z,396nm,20.9s,baz=120,slow=35						
	comp=Z,4.2nm,1.0s						
CMAR	**Chiang Mai Arr**	**59.99**	**295**	P	**P**	**11 07 13.0**	**-0.1**
CHTO	**Chiang Mai**	**60.11**	**296**	P	**P**	**11 07 13.9**	**+0.1**
CHTO				IAmb	IAmb	11 07 29.6	
	comp=Z,15nm,1.2s						
CHTO	**Chiang Mai**	**60.11**	**296**	P	**P**	**11 07 15.0**	**+1.2**
	comp=Z,12nm,1.3s						
XLT	**XiLinHaoTe**	**60.72**	**329**	*e*P	**P**	**11 07 17.0**	**-0.6**
XLT				pP	pP	11 07 26.2	-4.2
XLT				pmax	pmax		
	comp=Z,17nm,0.6s						
XLT				L	L		
	comp=Z,380nm,17.5s						
XLT				L	L		
	comp=Z,600nm,18.4s						
HEH	**HeiHe**	**60.92**	**340**	*e*P	**P**	**11 07 18.0**	**-0.7**
HEH				pmax	pmax		
	comp=Z,5.0nm,0.7s						
HEH				L	L		
	comp=Z,340nm,17.2s						
HEH				L	L		
	comp=Z,150nm,15.7s						
HEH				L	L		
	comp=Z,440nm,17.3s						
CD2	**Chengdu**	**60.92**	**310**	P	**P**	**11 07 19.2**	**0.0**
CD2				pP	pP	11 07 31.9	-0.3
CD2				sP	pwP	11 07 35.4	+3.2
CD2				S	**S**	**11 15 36.3**	**+2.2**
CD2				sS	sS	11 15 54.8	-1.0
CD2				pmax	pmax		
	comp=Z,70nm,0.7s						
CD2				pmax	pmax		
	comp=Z,450nm,8.2s						
CD2				L	L		
	comp=Z,920nm,19.4s						
CD2				L	L		
	comp=Z,1µm,22.6s						
CD2				L	L		
	comp=Z,2µm,24.2s						
SHEM	**Shemya Is, Ala**	**61.02**	**13**	LR	LR	11 30 28.5	
	comp=Z,2µm,21.1s,baz=160,slow=33						
HHC	**Hu-ho-hao-te**	**61.16**	**324**	*e*P	**P**	**11 07 22.2**	**+1.5**
HHC				S	**S**	**11 15 38.8**	**+1.9**
HHC				sS	sS	11 16 00.5	+1.6
HHC				ScS	**SKKSac**	**11 17 06.2**	**-1.9**
HHC				SS	**SS**	**11 19 40.5**	**+2.8**
HHC				pmax	pmax		
	comp=Z,13nm,0.6s						
HHC				pmax	pmax		
	comp=Z,94nm,5.5s						
HHC				L	L		
	comp=Z,450nm,14.7s						
HHC				L	L		
	comp=Z,310nm,14.4s						
HHC				L	L		
	comp=Z,630nm,16.9s						
DRV	**Dumont d’Urvil**	**61.20**	**187**	P	**P**	**11 07 20.1**	**-0.3**
TNCH	**TengChong**	**62.64**	**302**	P	**P**	**11 07 28.6**	**-2.4**
TNCH				S	**S**	**11 15 55.5**	**-0.8**
TNCH				pmax	pmax		
	comp=Z,33nm,0.6s						
TNCH				pmax	pmax		
	comp=Z,290nm,5.2s						
TNCH				L	L		
	comp=Z,350nm,15.1s						
TNCH				L	L		
	comp=Z,300nm,17.1s						
TNCH				L	L		
	comp=Z,800nm,19.1s						
ADK	**Adak**	**62.88**	**20**	P	**P**	**11 07 33.7**	**+1.9**
HIA	**Hailar**	**62.99**	**335**	P	**P**	**11 07 33.0**	**+0.3**
	comp=Z,32nm,0.9s						
HILR	**Hailar Array B**	**63.21**	**335**	P	**P**	**11 07 32.5**	**-1.6**
	comp=Z,3.5nm,0.4s,baz=124,slow=7.2,SNR=2.9						
	comp=Z,3.5nm,0.4s						
LZH	**Lanzhou**	**63.40**	**316**	P	**P**	**11 07 36.7**	**+0.9**
LZH				pP	pP	11 07 45.2	-3.7
LZH				S	**S**	**11 16 05.6**	**+0.2**
LZH				SS	**SS**	**11 20 16.9**	**+3.8**
LZH				pmax	pmax		
	comp=Z,31nm,1.1s						
LZH				pmax	pmax		
	comp=Z,420nm,4.8s						
LZH				L	L		
	comp=Z,390nm,19.1s						
LZH				L	L		
	comp=Z,740nm,19.9s						
LZH				L	L		
	comp=Z,880nm,21.0s						
LZDM	**Lanzhou Array**	**63.44**	**315**	P	**P**	**11 07 36.8**	**+0.5**
	comp=Z,3.4nm,0.5s,baz=131,slow=11,SNR=6.1						
LZDM				LR	LR	11 32 27.6	
	comp=Z,382nm,21.2s,baz=95,slow=33						
	comp=Z,3.4nm,0.5s						
ATKA	**Atka Island**	**64.00**	**21**	P	**P**	**11 07 40.7**	**+1.5**
TAOE	**Nuku Hiva Isla**	**64.78**	**97**	*e*P	P	11 07 37.9	-7.3
	comp=Z,163nm,25.5s						
TAOE				*e*S	**S**	**11 16 18.8**	**-4.3**
	comp=Z,134nm,29.5s						
TAOE				*e*SS	**SS**	**11 20 28.4**	**-6.7**
	comp=Z,248nm,29.0s						
TAOE				*e*LQ	LQ	11 24 23.8	
	comp=Z,667nm,31.6s						
TAOE				*e*LR	LR	11 27 09.7	
	comp=Z,543nm,22.1s						
MA2	**Magadan**	**65.63**	**358**	LR	LR	11 35 47.2	
	comp=Z,331nm,19.6s,baz=176,slow=35						
MORE	**Moreh**	**65.96**	**300**	P	**P**	**11 07 51.4**	**-1.1**
MORE				IAmb	IAmb	11 08 03.0	
	comp=Z,18nm,0.9s						
SAIH	**SAIHA**	**66.55**	**298**	*e*P	**P**	**11 07 54.5**	**-2.0**
AZL	**Aizawl**	**67.20**	**299**	*e*P	**P**	**11 08 00.7**	**+0.1**
BRDH	**Bariadhala**	**67.80**	**297**	LR	LR	11 38 18.1	
	comp=Z,242nm,20.2s,baz=146,slow=36						
GTA2	**Gaotai**	**67.89**	**317**	*e*P	**P**	**11 08 05.1**	**+0.4**
GTA2				S	**S**	**11 17 04.9**	**+4.8**
GTA2				pmax	pmax		
	comp=Z,14nm,1.3s						
GTA2				pmax	pmax		
	comp=Z,270nm,10.7s						
GTA2				L	L		
	comp=Z,350nm,20.3s						
GTA2				L	L		
	comp=Z,550nm,21.3s						
GTA2				L	L		
	comp=Z,700nm,21.0s						
TEZP	**TEZPUR**	**68.02**	**302**	*e*P	P	11 07 58.6	-7.0
ULN	**Ulaanbaatar**	**68.06**	**328**	P	**P**	**11 08 06.3**	**+0.6**
ULN				IAmb	IAmb	11 08 12.9	
	comp=Z,15nm,1.2s						
ULN	**Ulaanbaatar**	**68.06**	**328**	P	**P**	**11 08 05.3**	**-0.4**
	comp=Z,9.4nm,0.9s						
ULN	**Ulaanbaatar**	**68.06**	**328**	P	**P**	**11 08 06.1**	**+0.5**
ULN				x	x	11 08 11.5	
UNV	**Unalaska Valle**	**68.19**	**24**	P	**P**	**11 08 07.8**	**+1.7**
SONM	**Songino Array**	**68.40**	**327**	P	**P**	**11 08 07.2**	**-0.5**
	comp=Z,3.2nm,0.9s,baz=136,slow=6.5,SNR=13						
SONM				LR	LR	11 39 13.5	
	comp=Z,224nm,18.3s,baz=119,slow=37						
	comp=Z,3.2nm,0.9s						
SONM	**Songino Array**	**68.40**	**327**	P	**P**	**11 08 07.6**	**-0.1**
SEY	**Seymchan**	**68.95**	**359**	LR	LR	11 35 44.3	
	comp=Z,324nm,21.5s,baz=159,slow=34						
GOMU	**GeErMu**	**69.94**	**312**	P	**P**	**11 08 17.2**	**-0.6**
GOMU				S	**S**	**11 17 29.4**	**+4.4**
GOMU				pmax	pmax		
	comp=Z,4.0nm,0.3s						
GOMU				L	L		
	comp=Z,510nm,17.1s						
GOMU				L	L		
	comp=Z,800nm,17.7s						
GOMU				L	L		
	comp=Z,1µm,17.8s						
LSA	**Lhasa**	**70.41**	**304**	P	**P**	**11 08 21.9**	**+0.9**
	comp=Z,26nm,0.6s						
LSA	**Lhasa**	**70.41**	**304**	P	**P**	**11 08 21.6**	**+0.7**
LSA				pP	**pP**	**11 08 31.2**	**-2.5**
YAK	**Yakutsk**	**70.67**	**348**	LR	LR	11 37 05.1	

	comp=Z,230nm,21.8s,baz=144,slow=34						
YAK	**Yakutsk**	**70.67**	**348**	P	**P**	**11 08 19.1**	**-2.1**
	comp=Z,28nm,0.5s						
CCD	**Concordia, Ant**	**71.13**	**188**	P	**P**	**11 08 24.4**	**0.0**
CCD				pP	**pP**	**11 08 35.0**	**-1.4**
VNDA	**Vanda**	**71.39**	**178**	P	**P**	**11 08 24.3**	**-1.1**
	comp=Z,1.4nm,0.8s,baz=321,slow=7.2,SNR=5.5						
	comp=Z,1.4nm,0.8s						
VNDA	**Vanda**	**71.39**	**178**	P	**P**	**11 08 25.4**	**-0.1**
VNDA	**Vanda**	**71.39**	**178**	P	**P**	**11 08 25.5**	**+0.1**
SBA	**Scott Base**	**71.91**	**177**	P	**P**	**11 08 29.4**	**+0.9**
SBA				IAmb	IAmb	11 08 42.0	
	comp=Z,26nm,1.4s						
SBA	**Scott Base**	**71.91**	**177**	P	**P**	**11 08 29.3**	**+0.7**
	comp=Z,11nm,1.2s						
BWNR	**Bhubaneshwar**	**72.39**	**293**	*e*P	**P**	**11 08 36.7**	**+4.3**
EVN	**Everest**	**73.50**	**301**	P	**P**	**11 08 39.6**	**-0.1**
EVN				IAmb	IAmb	11 08 41.5	
	comp=Z,35nm,1.0s						
EVN	**Everest**	**73.50**	**301**	P	**P**	**11 08 40.2**	**+0.5**
	comp=Z,41nm,1.5s						
O14K	**Tigyukauivet M**	**74.09**	**22**	P	**P**	**11 08 42.4**	**+0.7**
PALK	**Pallekele**	**74.82**	**279**	LR	LR	11 47 12.7	
	comp=Z,255nm,18.1s,baz=100,slow=40						
M14K	**Bethel**	**74.90**	**21**	P	**P**	**11 08 46.8**	**+0.6**
M14K				IAmb	IAmb	11 08 51.7	
	comp=Z,36nm,1.1s						
L16K	**Owhat River**	**76.43**	**21**	P	**P**	**11 08 55.5**	**+0.4**
L16K				IAmb	IAmb	11 09 07.4	
	comp=Z,16nm,1.1s						
WMQ	**Urumqi**	**77.90**	**317**	*e*P	**P**	**11 09 02.2**	**-1.7**
WMQ				pmax	pmax		
	comp=Z,22nm,0.7s						
WMQ				L	L		
	comp=Z,510nm,17.7s						
WMQ				L	L		
	comp=Z,440nm,22.9s						
WMQ				L	L		
	comp=Z,340nm,22.9s						
HYB	**Hyderabad**	**78.54**	**289**	*e*P	**P**	**11 09 07.2**	**-0.7**
HYB				*e*PcP	**PcP**	**11 09 16.2**	**-0.6**
HYB				*e*pP	**pP**	**11 09 17.2**	**-3.8**
HYB				*e*PP	**PP**	**11 12 04.8**	**-1.3**
HYB				*e*S	**S**	**11 19 01.7**	**+0.3**
HYB				*e*ScS	**ScS**	**11 19 25.7**	**+0.1**
SLKM	**Skilak Lake**	**79.22**	**24**	P	**P**	**11 09 10.5**	**-0.2**
SLKM				IAmb	IAmb	11 09 39.1	
	comp=Z,30nm,1.0s						
TIXI	**Tiksi**	**79.50**	**352**	LR	LR	11 42 15.8	
	comp=Z,294nm,21.9s,baz=162,slow=34						
F19K	**Shaleruckik Mo**	**80.44**	**17**	P	**P**	**11 09 17.1**	**+0.1**
AKL	**Akola**	**80.56**	**292**	*e*P	**P**	**11 09 19.7**	**+0.9**
ZSN	**Zaisan**	**81.02**	**320**	*e*P	**P**	**11 09 21.4**	**+0.7**
IMAR	**Indian Mountai**	**81.13**	**19**	P	**P**	**11 09 20.8**	**-0.1**
HNLY	**HANLEY**	**81.28**	**304**	*e*P	**P**	**11 09 19.7**	**-3.4**
H22K	**Ishtalitna Cre**	**81.86**	**20**	P	**P**	**11 09 25.0**	**+0.2**
HMDM	**Hanimaadhoo**	**82.15**	**278**	P	**P**	**11 09 26.5**	**-0.8**
	comp=Z,182nm,1.1s						
WRH	**Wood River Hil**	**82.22**	**22**	P	**P**	**11 09 25.3**	**-1.2**
MKAR	**Makanchi Array**	**82.48**	**319**	P	**P**	**11 09 27.9**	**-0.5**
	comp=Z,1.0nm,0.4s,baz=92,slow=9.0,SNR=11						
MKAR				LR	LR	11 46 02.5	
	comp=Z,412nm,20.0s,baz=141,slow=36						
	comp=Z,1.0nm,0.4s						
MKAR	**Makanchi Array**	**82.48**	**319**	P	**P**	**11 09 27.7**	**-0.7**
COLA	**College**	**82.52**	**21**	P	**P**	**11 09 26.9**	**-1.2**
	comp=Z,18nm,0.9s						
COLA	**College**	**82.52**	**21**	P	**P**	**11 09 26.5**	**-1.6**
COLA				PcP	**PcP**	**11 09 30.6**	**-2.5**
HDA	**Harding Lake**	**82.60**	**22**	P	**P**	**11 09 27.9**	**-0.7**
MAKZ	**Makanchi**	**82.69**	**319**	P	**P**	**11 09 29.0**	**-0.5**
MAKZ				IAmb	IAmb	11 09 54.4	
	comp=Z,10nm,0.9s						
MAKZ	**Makanchi**	**82.69**	**319**	P	**P**	**11 09 28.9**	**-0.6**
	comp=Z,13nm,1.0s						
K24K	**Donnelly Dome**	**82.74**	**23**	P	**P**	**11 09 29.7**	**+0.3**
K24K				IAmb	IAmb	11 09 41.9	
	comp=Z,25nm,1.2s						
ILAR	**Eielson Array**	**82.81**	**22**	P	**P**	**11 09 28.4**	**-1.4**
	comp=Z,4.7nm,1.0s,baz=243,slow=4.9,SNR=27						
ILAR				PKKPbc	**PKKPdf**	**11 27 52.5**	**+5.3**
	comp=Z,0.2nm,0.7s,baz=52,slow=2.3,SNR=4.2						
ILAR				LR	LR	11 42 52.0	
	comp=Z,1µm,20.9s,baz=238,slow=33						
	comp=Z,4.7nm,1.0s						
ZALV	**Zalesovo Beam**	**83.24**	**326**	P	**P**	**11 09 30.8**	**-1.3**
	comp=Z,1.8nm,0.5s,baz=121,slow=6.2,SNR=9.4						
ZALV				LR	LR	11 47 41.0	
	comp=Z,256nm,19.6s,baz=112,slow=36						
	comp=Z,1.8nm,0.5s						
SHLS	**Shalkode**	**83.41**	**315**	*e*P	**P**	**11 09 32.4**	**-1.0**
M27K	**Edge Creek, AK**	**83.61**	**25**	P	**P**	**11 09 34.3**	**+0.3**
M27K				IAmb	IAmb	11 10 47.8	
	comp=Z,19nm,1.1s						
UZB	**Uzynbulak**	**83.71**	**315**	*e*P	**P**	**11 09 35.4**	**+0.4**
	comp=Z,16nm,1.8s						
QSPA	**South Pole Qui**	**83.78**	**180**	P	**P**	**11 09 34.1**	**-0.7**
	comp=Z,7.5nm,0.5s,baz=202,slow=0.5,SNR=128						
	comp=Z,7.5nm,0.5s						
QSPA	**South Pole Qui**	**83.78**	**180**	P	**P**	**11 09 34.6**	**-0.2**
QSPA	**South Pole Qui**	**83.78**	**180**	P	**P**	**11 09 34.7**	**-0.2**
	comp=Z,62nm,1.0s						
QSPA	**South Pole Qui**	**83.78**	**180**	P	**P**	**11 09 34.8**	**-0.1**
QSPA				pP	**pP**	**11 09 43.6**	**-3.3**
D23K	**Nanushuk River**	**83.86**	**17**		**P**	**11 09 35.5**	**+0.5**
D23K				IAmb	IAmb	11 10 07.6	
	comp=Z,15nm,0.8s						
F24K	**Squaw Lake**	**83.92**	**19**	P	**P**	**11 09 35.5**	**+0.1**
F24K				IAmb	IAmb	11 09 48.0	
	comp=Z,7.1nm,0.8s						
SATY	**Saty**	**84.13**	**314**	*e*P	**P**	**11 09 37.6**	**+0.5**
TARG	**Taragay, Kyrgy**	**84.25**	**313**	P	**P**	**11 09 37.6**	**-0.5**
	comp=Z,4.8nm,1.2s						
TDK	**Taldyqorghan**	**84.60**	**316**	*e*P	**P**	**11 09 40.0**	**+0.7**
KDJ	**Kajisay**	**84.79**	**313**	P	**P**	**11 09 40.1**	**-0.4**
	comp=Z,14nm,0.8s						
MAW	**Mawson**	**84.94**	**203**	P	**P**	**11 09 39.8**	**-0.8**
	comp=Z,5.2nm,0.6s,baz=102,slow=6.4,SNR=23						
MAW				LR	LR	11 44 21.4	
	comp=Z,512nm,20.5s,baz=90,slow=33						
	comp=Z,5.2nm,0.6s						
MAW	**Mawson**	**84.94**	**203**	P	**P**	**11 09 40.1**	**-0.4**
MAW	**Mawson**	**84.94**	**203**	P	**P**	**11 09 39.6**	**-0.8**
	comp=Z,3.5nm,0.9s						
ASAI	**AK-SAY(Kyrgyzs**	**85.01**	**312**	P	**P**	**11 09 41.9**	**+0.1**
	comp=Z,4.4nm,1.3s						
M29M	**Somme Creek**	**85.09**	**25**	P	**P**	**11 09 41.1**	**-0.4**
MDOK	**Medeo**	**85.12**	**314**	*e*P	**P**	**11 09 42.6**	**+0.4**
TNSS	**Tian-Shan**	**85.17**	**314**	*e*P	**P**	**11 09 43.0**	**+0.3**
AAA	**Alma-Ata**	**85.23**	**314**	*e*P	**P**	**11 09 43.1**	**+0.5**
F26K	**Sheenjek River**	**85.25**	**20**	P	**P**	**11 09 42.3**	**+0.3**
F26K				IAmb	IAmb	11 09 54.2	
	comp=Z,12nm,1.3s						
KSH2	**Kashi**	**85.35**	**310**	P	**P**	**11 09 43.8**	**+0.4**
KSH2				pP	pP	11 09 53.9	-2.4
KSH2				S	**S**	**11 20 12.3**	**+1.4**
KSH2				pmax	pmax		
	comp=Z,11nm,1.7s						
KSH2				L	L		
	comp=Z,400nm,18.2s						
KSH2				L	L		
	comp=Z,580nm,19.2s						
KSH2				L	L		
	comp=Z,520nm,19.2s						
BOOM	**Boomskoye usch**	**85.77**	**313**	P	**P**	**11 09 45.2**	**-0.2**
	comp=Z,11nm,0.8s						
BOOM				pP	**PcP**	**11 09 53.2**	**+5.0**
KUU	**Kurty**	**85.79**	**315**	*e*P	**P**	**11 09 45.9**	**+0.6**
KURK	**Kurchatov**	**85.90**	**322**	P	**P**	**11 09 44.9**	**-0.7**
KURK				IAmb	IAmb	11 10 51.8	
	comp=Z,15nm,1.1s						
KURK	**Kurchatov**	**85.90**	**322**	P	**P**	**11 09 44.1**	**-1.5**
	comp=Z,4.1nm,0.9s						
KURK	**Kurchatov**	**85.90**	**322**	P	**P**	**11 09 44.5**	**-1.1**
KURBB	**Kurchatov Arra**	**85.93**	**322**	P	**P**	**11 09 44.6**	**-1.1**
	comp=Z,0.9nm,0.5s,baz=97,slow=5.2,SNR=14						
KURBB				LR	LR	11 49 00.2	
	comp=Z,142nm,19.5s,baz=155,slow=36						
	comp=Z,0.9nm,0.5s						
NIL	**Nilore**	**86.15**	**304**	P	**P**	**11 09 47.4**	**+0.1**
	comp=Z,13nm,0.9s						
AAK	**Ala-Archa**	**86.84**	**313**	LR	LR	11 49 12.0	
	comp=Z,531nm,21.4s,baz=100,slow=36						
AAK	**Ala-Archa**	**86.84**	**313**	P	**P**	**11 09 49.8**	**-0.9**
	comp=Z,4.4nm,1.4s						
SGDS	**Sogindy**	**86.91**	**314**	*e*P	**P**	**11 09 51.2**	**+0.3**
BBB	**Bella Bella**	**87.18**	**37**	LR	LR	11 41 31.5	
	comp=Z,690nm,21.5s,baz=256,slow=30						
E28M	**Babbage River**	**87.20**	**20**	P	**P**	**11 09 51.8**	**+0.2**
E28M				IAmb	IAmb	11 10 04.2	
	comp=Z,9.2nm,0.8s						
E29M	**Blow River**	**87.66**	**20**	P	**P**	**11 09 53.9**	**0.0**
E29M				IAmb	IAmb	11 10 35.5	
	comp=Z,23nm,1.6s						
NRIK	**Noril'sk**	**87.82**	**341**	P	**P**	**11 09 52.9**	**-1.7**
	comp=Z,3.3nm,0.5s,baz=101,slow=5.2,SNR=3.0						
NRIK				LR	LR	11 48 20.1	
	comp=Z,312nm,21.9s,baz=106,slow=35						
	comp=Z,3.3nm,0.5s						
H31M	**Peel River**	**88.01**	**23**	P	**P**	**11 09 55.5**	**-0.1**
G31M	**Satah River**	**88.42**	**22**	P	**P**	**11 09 57.8**	**+0.4**
G31M				IAmb	IAmb	11 10 33.5	
	comp=Z,22nm,1.1s						
YBH	**Yreka Blue Hor**	**88.72**	**48**	LR	LR	11 45 38.7	
	comp=Z,2µm,19.0s,baz=283,slow=33						
INK	**Inuvik**	**89.15**	**21**	LR	LR	11 47 30.2	
	comp=Z,1µm,20.4s,baz=247,slow=34						
DZA	**Taraz**	**89.18**	**313**	*e*P	**P**	**11 10 02.3**	**+0.6**
	comp=Z,6.0nm,0.5s						
IUG	**Iuzhnay**	**90.02**	**312**	*e*P	**P**	**11 10 06.2**	**+0.5**
BEKR	**Beckworth**	**90.21**	**50**	P	**P**	**11 10 06.7**	**0.0**
BEKR				IAmb	IAmb	11 10 15.2	
	comp=Z,5.8nm,0.9s						
BRLS	**Borolday**	**90.29**	**313**	*e*P	**P**	**11 10 07.5**	**+0.7**
CHM	**Chimkent**	**90.36**	**312**	*e*P	**P**	**11 10 07.8**	**+0.6**
BVAR	**Borovoye Array**	**91.36**	**323**	P	**P**	**11 10 09.7**	**-1.8**
	comp=Z,1.2nm,0.5s,baz=92,slow=6.5,SNR=5.9						
	comp=Z,1.2nm,0.5s						
NVAR	**Mina Array Bea**	**91.61**	**52**	P	**P**	**11 10 13.0**	**-0.3**
	comp=Z,15nm,1.1s,baz=254,slow=6.1,SNR=37						
NVAR				LR	LR	11 47 57.0	
	comp=Z,768nm,18.7s,baz=283,slow=33						
	comp=Z,15nm,1.1s						
BFSC	**Mount Baldy Ra**	**91.66**	**56**	P	**P**	**11 10 13.9**	**+0.4**
MPMC	**Manual Prospec**	**92.00**	**54**	P	**P**	**11 10 15.7**	**+0.6**
MPMC				IAmb	IAmb	11 10 27.2	
	comp=Z,12nm,1.3s						
TPH	**Tonopah**	**92.42**	**52**	P	**P**	**11 10 17.0**	**-0.1**
TPH				IAmb	IAmb	11 10 18.8	
	comp=Z,7.7nm,0.9s						
PFO	**Pinyon Flats O**	**92.59**	**57**	LR	LR	11 48 30.6	
	comp=Z,888nm,18.1s,baz=274,slow=33						
PFO	**Pinyon Flats O**	**92.59**	**57**	P	**P**	**11 10 18.6**	**+0.7**
PFO				IAmb	IAmb	11 10 20.0	
	comp=Z,9.7nm,0.9s						
PFO	**Pinyon Flats O**	**92.59**	**57**	P	**P**	**11 10 19.4**	**+1.6**
	comp=Z,14nm,1.5s						
SYO	**Syowa Base**	**92.92**	**199**	⇓*e*P	P	11 10 28.2	+10
SYO	**Syowa Base**	**92.92**	**199**	⇑*e*P	P	11 10 06.8	-12
YUH	**Yuha Desert**	**92.95**	**58**	P	**P**	**11 10 20.0**	**+0.7**
YUH				IAmb	IAmb	11 10 21.8	
	comp=Z,17nm,1.2s						
BELC	**Belle Mtn. Jos**	**93.01**	**56**	P	**P**	**11 10 21.2**	**+1.4**
BC3	**Big Chuckawall**	**93.43**	**57**	P	**P**	**11 10 22.4**	**+0.7**
NEW	**Newport**	**93.49**	**42**	LR	LR	11 46 04.0	
	comp=Z,3µm,20.7s,baz=294,slow=31						
NEW	**Newport**	**93.49**	**42**	P	**P**	**11 10 21.5**	**-0.1**
	comp=Z,4.9nm,1.2s						
PSUT	**Pine Spring**	**95.10**	**52**	P	**P**	**11 10 30.4**	**+1.1**
PSUT				IAmb	IAmb	11 10 37.8	
	comp=Z,8.0nm,1.1s						
YKA	**Yellowknife Ar**	**95.86**	**28**	P	**P**	**11 10 31.6**	**-0.4**
	comp=Z,1.9nm,0.8s,baz=270,slow=4.9,SNR=4.0						
YKA				LR	LR	11 50 23.0	
	comp=Z,395nm,20.3s,baz=299,slow=33						
	comp=Z,1.9nm,0.8s						
ELIB	**Princess Elisa**	**95.86**	**194**	*d*P	**P**	**11 10 31.4**	**-0.7**
BELA	**Belgrano 2**	**95.90**	**178**	P	**P**	**11 10 31.5**	**-0.5**
BELA				IAmb	IAmb	11 10 42.8	
	comp=Z,7.2nm,1.1s						
LPIG	**La Paz**	**97.23**	**67**	LR	LR	11 47 03.9	
	comp=Z,766nm,20.6s,baz=283,slow=31						
ARTI	**Arti**	**98.51**	**326**	LR	LR	11 56 14.5	
	comp=Z,314nm,20.4s,baz=82,slow=36						
PDAR	**Pinedale Array**	**98.53**	**48**	P	**P**	**11 10 43.8**	**-1.1**
	comp=Z,0.9nm,0.5s,baz=216,slow=1.6,SNR=20						
PDAR				LR	LR	11 48 26.0	
	comp=Z,557nm,22.0s,baz=264,slow=31						
	comp=Z,0.9nm,0.5s						
AKTO	**Aktyubinsk**	**98.87**	**320**	LR	LR	11 54 48.0	
	comp=Z,257nm,21.8s,baz=96,slow=35						
SNAA	**Sanae**	**100.87**	**187**	P	**Pdif**	**11 10 51.9**	**-2.6**
	comp=Z,1.3nm,0.7s,baz=249,slow=2.4,SNR=3.5						
VNA3	**Neumayer Olymp**	**102.01**	**185**	⇓Pdiff	**Pdif**	**11 10 58.4**	**-1.1**
	comp=Z,1.5nm,0.6s						
VNA2	**Neumayer--Watz**	**102.09**	**186**	⇓Pdiff	**Pdif**	**11 10 59.0**	**-0.8**
	comp=Z,1.5nm,0.6s,baz=166,slow=3.9						
TXAR	**Lajitas Array**	**103.31**	**61**	PKKPbc	PKKPbc	11 27 00.8	-0.6
	comp=Z,0.5nm,0.7s,baz=50,slow=4.6,SNR=6.4						
SPITS	**Spitsbergen Ar**	**104.92**	**352**	PP	**PKiKP**	**11 15 29.2**	**+2.2**
	comp=Z,8.6nm,1.0s,baz=2.7,slow=9.2,SNR=5.6						
FINES	**FINESS Array B**	**113.01**	**336**	PKKPbc	PKKPbc	11 26 27.9	-3.7
	comp=Z,0.7nm,0.5s,baz=202,slow=2.6,SNR=3.9						
AKASG	**Malin Array Be**	**116.60**	**325**	PKP	**PKPdf**	**11 15 46.2**	**-3.4**
	comp=Z,0.3nm,0.3s,baz=64,slow=2.5,SNR=2.1						
PLCA	**Paso Flores**	**117.66**	**143**	PKP	**PKPdf**	**11 15 51.4**	**-0.8**
	comp=Z,0.8nm,0.4s,baz=264,slow=3.1,SNR=14						
BOSA	**Boshof**	**120.13**	**232**	PKP	**PKPdf**	**11 15 56.6**	**-0.7**
	comp=Z,3.6nm,0.4s,baz=125,slow=1.4,SNR=9.1						
CLL	**Collm**	**124.88**	**332**	*e*PP	**PP**	**11 17 56.0**	**+2.5**
CLL				*e*SP	SP	11 27 44.0	-3.5
CLL				*e*PPS	PPS	11 29 25.0	
CLL				LH		11 54 00.0	
CLL				LV		11 58 00.0	
CLL				AMS	AMS	12 13 00.0	
	comp=N,300nm,20.9s						
CLL				AMS	AMS	12 13 00.0	
	comp=Z,300nm,21.6s						
GERES	**GERESS Array B**	**126.11**	**329**	PKP	**PKPdf**	**11 16 07.8**	**-0.4**
	comp=Z,1.0nm,0.2s,baz=48,slow=2.0,SNR=4.3						
LPAZ	**La Paz**	**132.27**	**118**	PKP	**PKPdf**	**11 16 20.8**	**-0.6**
	comp=Z,1.8nm,0.6s,baz=302,slow=3.0,SNR=7.3						
LPAZ				SKPbc	**SKPbc**	**11 19 42.0**	**-2.2**
	comp=Z,2.1nm,0.8s,baz=248,slow=5.6,SNR=6.1						
CPUP	**Villa Florida**	**135.30**	**138**	PKP	**PKPdf**	**11 16 25.5**	**-0.6**
	comp=Z,0.6nm,0.4s,baz=174,slow=14,SNR=2.9						
PGAV	**Gavieira, Arco**	**141.22**	**339**	*e*LR	LR	12 13 19.8	
PGAV				*i* IAMs_20	IAMs_20	12 23 37.0	
	comp=Z,271nm,24.0s						
ESDC	**Sonseca Array**	**141.43**	**333**	PKP	**PKPdf**	**11 16 35.8**	**-1.2**
	comp=Z,0.2nm,0.3s,baz=22,slow=3.3,SNR=1.7						
MTE	**Manteigas**	**142.32**	**337**	*e*LR	LR	12 11 48.9	
MTE				*i* IAMs_20	IAMs_20	12 24 46.7	
	comp=Z,272nm,20.0s						
PMRV	**Marv??o**	**143.10**	**336**	*e*LR	LR	12 10 24.8	
PMRV				*i* IAMs_20	IAMs_20	12 23 02.1	
	comp=Z,268nm,20.0s						
PBEJ	**Beja**	**144.49**	**336**	*e*PKP	**PKPab**	**11 16 41.6**	**+0.9**
PLOUS	**Minas do Lousa**	**144.71**	**336**	*e*PKP	**PKPab**	**11 16 40.8**	**-0.8**
MESJ	**Messejana**	**144.79**	**336**	*e*PKP	**PKPab**	**11 16 42.0**	**+0.1**
MESJ	**Messejana**	**144.79**	**336**	*e*PKP	**PKPab**	**11 16 41.9**	**+0.1**
PCVE	**Castro Verde**	**144.90**	**336**	*e*pPKP	pPKPdf	11 16 53.0	-4.2
PVAQ	**Vaqueiros**	**144.96**	**335**	*e*pPKP	**pPKPdf**	**11 16 53.9**	**-3.4**
PVAQ				*e*LR	LR	12 13 00.8	
PVAQ				*i* IAMs_20	IAMs_20	12 30 33.3	
	comp=Z,282nm,18.0s						
PBDV	**Barranco-do-Ve**	**145.18**	**335**	*e*pPKP	pPKPdf	11 16 53.0	-4.7
PTEO	**Sao Teotonio**	**145.25**	**336**	*e*PKP	**PKPbc**	**11 16 43.3**	**-0.1**
PTEO				*e*pPKP	pPKPbc	11 16 55.2	-2.2
MORF	**Marmelete**	**145.43**	**336**	*e*PKP	**PKPbc**	**11 16 43.5**	**-0.6**
MORF	**Marmelete**	**145.43**	**336**	*e*PKP	**PKPab**	**11 16 45.4**	**+1.1**
PFVI	**Vila Bisbo**	**145.65**	**336**	*e*PKP	**PKPdf**	**11 16 45.2**	**+0.8**
PFVI				*e*pPKP	**pPKPdf**	**11 16 56.4**	**-2.1**
BDFB	**Brasilia**	**148.89**	**134**	PKPbc	**PKPdf**	**11 16 53.4**	**+2.8**
	comp=Z,5.0nm,0.4s,baz=316,slow=1.9,SNR=7.6						
TORD	**Torodi Ar. Bea**	**152.33**	**286**	PKPbc	**PKPbc**	**11 17 01.3**	**-1.3**
	comp=Z,6.0nm,0.5s,baz=27,slow=2.8,SNR=60						
TORD				PKPab	**pPKPdf**	**11 17 10.3**	**+1.0**
	comp=Z,2.1nm,0.5s,baz=68,slow=3.2,SNR=4.2						
PMOZ	**Porto Moniz, M**	**152.40**	**345**	*e*LR	LR	12 19 55.3	
PMOZ				*i* IAMs_20	IAMs_20	12 31 26.2	
	comp=Z,227nm,20.0s						
DBIC	**Dimbokro**	**159.48**	**272**	PKPab	**PKPab**	**11 17 41.7**	**-1.7**
	comp=Z,3.8nm,0.5s,baz=108,slow=4.8,SNR=4.7						

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*IDC **09** 11:14:19.0±1.6, 33°.51S×178°.31W, h0^{km}, mb4.1/3,*
mbtmp4.0/4, ML3.4/1, Error ellipse: s-maj=38.8km
s-min=30.7km az=73.0
*NEIC **09** 11:14:21.3±1.3, 33°.6S±0°.1×178°.3W±0°.1, h10^{km}±1^{km},*
mb4.6/22, Error ellipse: s-maj=19.3km s-min=15.1km
az=317.0

ISC 09 11:14:20.9±0.6**, 33°.53S**±0°.10×**178°.30W**±0°.10**, h10^{km}, n29,**
σ**0^{s}.76**/31**, mb4.4**/11**, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	**Urewera**	**6.01**	**217**	Pn	**Pn**	**11 15 49.1**	**-0.8**
	0.9nm,0.3s,baz=271,slow=4.2,SNR=13						
URZ				Sn	**Sn**	**11 16 59.3**	**+0.5**
	6.5nm,0.3s,baz=57,slow=23,SNR=18						
	3.0nm,0.5s						
URZ				AML	AML		
RTZ	**Ruatahuna**	**6.35**	**216**		**Pn**	**11 15 56.1**	**+1.5**
OUENC	**Ouen Island, N**	**17.14**	**306**		**P**	**11 18 22.9**	**+0.6**
OUENC				IAmb	IAmb	11 18 56.0	
	comp=Z,75nm,1.4s						
KOUNC	**Koumac, New Ca**	**20.15**	**306**	P	**P**	**11 18 56.1**	**+0.7**
KOUNC				IAmb	IAmb	11 19 12.9	
	comp=Z,77nm,1.0s						
AFI	**Afiamalu**	**20.41**	**18**	P	**P**	**11 18 59.3**	**+1.0**
AFI				IAmb	IAmb	11 19 08.6	
	comp=Z,128nm,1.4s						
MCQ	**Macquarie Isla**	**26.38**	**211**	P	**P**	**11 19 56.8**	**-0.4**
CAN	**Canberra**	**26.97**	**257**	P	**P**	**11 20 02.8**	**0.0**
CAN				IAmb	IAmb	11 20 41.8	
	comp=Z,20nm,1.3s						
EIDS	**Eidsvold**	**27.80**	**279**	P	**P**	**11 20 09.9**	**-0.4**
EIDS				IAmb	IAmb	11 20 12.4	
	comp=Z,14nm,1.4s						
CTAO	**Charters Tower**	**34.17**	**284**	P	**P**	**11 21 06.8**	**+0.2**
CTAO				IAmb	IAmb	11 21 14.5	
	comp=Z,19nm,1.1s						
INKA	**Innaminka**	**35.54**	**268**	P	**P**	**11 21 17.3**	**-0.9**
PTCN	**Pitcairn Islan**	**42.56**	**92**	P	**P**	**11 22 17.5**	**+0.4**
AS31	**Alice Springs**	**42.78**	**270**	P	**P**	**11 22 18.9**	**-0.1**
ASAR	**Alice Springs**	**42.78**	**270**	P	**P**	**11 22 18.6**	**-0.3**
	comp=Z,1.5nm,0.6s,baz=109,slow=7.4,SNR=25						
ASAR				PcP	**PcP**	**11 24 10.3**	**0.0**
	comp=Z,0.4nm,0.9s,baz=125,slow=4.2,SNR=2.0						
	comp=Z,1.5nm,0.6s						
TAOE	**Nuku Hiva Isla**	**42.84**	**64**	P	**P**	**11 22 19.0**	**-0.6**
WR0	**Warramunga Arr**	**43.87**	**276**	P	**P**	**11 22 26.7**	**-1.0**
WR0				IAmb	IAmb	11 22 30.2	
	comp=Z,5.8nm,1.1s						
WR8	**Warramunga Arr**	**43.91**	**276**	P	**P**	**11 22 27.7**	**-0.3**
WB2	**Warramunga Arr**	**44.04**	**276**	P	**P**	**11 22 28.3**	**-0.8**
WB2				IAmb	IAmb	11 22 30.8	
	comp=Z,10nm,1.5s						
WRAB	**Tennant Creek**	**44.05**	**276**	P	**P**	**11 22 27.9**	**-1.2**
WRAB				IAmb	IAmb	11 22 42.5	
	comp=Z,8.2nm,1.2s						
WRA	**Warramunga Arr**	**44.05**	**276**	P	**P**	**11 22 28.4**	**-0.7**
	comp=Z,2.6nm,0.6s,baz=116,slow=7.7,SNR=43						
	comp=Z,2.6nm,0.6s						
WRA	**Warramunga Arr**	**44.05**	**276**	P	**P**	**11 22 28.2**	**-0.9**
WB0	**Warramunga Arr**	**44.09**	**276**	P	**P**	**11 22 28.9**	**-0.6**
WB0				IAmb	IAmb	11 22 31.7	
	comp=Z,4.2nm,0.9s						
MTN	**Manton Dam**	**50.29**	**282**	P	**P**	**11 23 17.6**	**-0.3**
MTN				IAmb	IAmb	11 23 56.9	
	comp=Z,11nm,1.2s						
FITZ	**Fitzroy Crossi**	**52.17**	**272**	P	**P**	**11 23 32.1**	**+0.1**
CASY	**Casey**	**52.28**	**209**	P	**P**	**11 23 32.2**	**+0.2**
QSPA	**South Pole Qui**	**56.59**	**180**	P	**P**	**11 24 03.4**	**-0.3**
	comp=Z,1.7nm,0.6s,baz=11,slow=0.8,SNR=14						
	comp=Z,1.7nm,0.6s						
QSPA	**South Pole Qui**	**56.59**	**180**	P	**P**	**11 24 03.5**	**-0.2**
QSPA				IAmb	IAmb	11 24 06.0	
	comp=Z,4.0nm,1.1s						
RDMU	**Red Mountain**	**97.20**	**46**	P	**P**	**11 27 53.3**	**-0.6**
FINES	**FINESS Array B**	**147.96**	**338**	PKPbc	**PKPdf**	**11 34 04.4**	**+1.8**
	comp=Z,2.0nm,0.8s,baz=52,slow=5.4,SNR=5.6						
FINES	**FINESS Array B**	**147.96**	**338**		**PKPbc**	**11 34 04.8**	**-0.9**

IDC 09 11:34:26.3±1.9**, 3°.94N**×**125°.97E, h0^{km}, mb3.3**/5**,**
mbtmp3.3/5**, Error ellipse: s-maj=142.2km**
s-min=22.2km az=69.0, Talaud Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**21.90**	**181**	P	P	11 39 21.8	+0.6
	1.5nm,1.0s,baz=349,slow=13,SNR=1.3						
	1.5nm,1.0s						
WRA	**Warramunga Arr**	**25.12**	**161**	P	P	11 39 52.1	-1.1
	0.2nm,0.5s,baz=338,slow=10,SNR=4.7						
	0.2nm,0.5s						
ASAR	**Alice Springs**	**28.51**	**165**	P	P	11 40 24.4	+0.7
	0.3nm,0.8s,baz=343,slow=11,SNR=2.4						
	0.3nm,0.8s						
MKAR	**Makanchi Array**	**56.95**	**326**	P	P	11 44 13.7	+0.1
	0.1nm,0.4s,baz=113,slow=6.9,SNR=1.7						
	0.1nm,0.4s						
KURBB	**Kurchatov Arra**	**61.16**	**328**	P	P	11 44 42.5	-0.1
	0.3nm,0.4s,baz=124,slow=5.6,SNR=4.4						
	0.3nm,0.4s						

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*SOME **09** 11:56:53.5, 44°.58N×82°.20E, h20^{km}*
*NNC **09** 11:56:55.3±0.8, 44°.65N×82°.04E, h0^{km}, mb3.5, mpv3.5,*
Error ellipse: s-maj=8.1km s-min=2.9km az=126.0,
Suspected Mining explosion.

ISC 09 11:56:53.6±1.1**, 44°.63N**±0°.05×**82°.18E**±0°.06**, h0^{km}, n26,**
σ**0^{s}.98**/38**, 2C-4D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DJR	**Jarkent**	**1.74**	**261**	P	**Pb**	**11 57 26.3**	**-0.2**
	24nm,0.2s						
DJR				S	**Sb**	**11 57 49.4**	**+0.5**
	11nm,0.2s						
DJR	**Jarkent**	**1.74**	**261**	*e*P	**Pb**	**11 57 26.3**	**-0.2**
	24nm,0.2s						
DJR				*e*S	**Sb**	**11 57 49.4**	**+0.5**
	11nm,0.2s						
KTMS	**Ketmen**	**1.77**	**229**	P	**Pn**	**11 57 26.3**	**+0.6**
	3.3nm,0.1s						
KTMS				S	**Sn**	**11 57 49.6**	**+0.6**
	18nm,0.3s						
KTMS	**Ketmen**	**1.77**	**229**	*e*P	**Pn**	**11 57 26.3**	**+0.6**
	3.3nm,0.1s						
KTMS				*e*S	**Sn**	**11 57 49.6**	**+0.6**
	18nm,0.3s						
KAPS	**Kapalarasan**	**2.11**	**289**	Pg	**Pb**	**11 57 32.5**	**-0.3**
	7.1nm,0.2s						
KAPS				Lg	Lg	11 58 00.2	
	75nm,0.2s						
KAPS	**Kapalarasan**	**2.11**	**289**	*e*P	**Pb**	**11 57 32.5**	**-0.3**
	7.1nm,0.2s						
KAPS				*e*S	**Sb**	**11 58 00.2**	**+0.7**
	75nm,0.2s						
KNOS	**Konyrlen**	**2.17**	**264**	Pg	**Pb**	**11 57 33.6**	**-0.2**
	24nm,0.2s						
KNOS				Lg	Lg	11 58 02.3	
	48nm,0.3s						
MK31	**Makanchi Array**	**2.17**	**2**	⇓Pn	**Pb**	**11 57 33.0**	**-0.7**
	2.1nm,0.2s,baz=184,slow=14,SNR=88						
MK31				⇓Sn	**Sb**	**11 58 00.5**	**-0.6**
	11nm,0.5s,baz=166,slow=36,SNR=4.1						
MAKZ	**Makanchi**	**2.18**	**356**	⇓Pn	**Pn**	**11 57 32.7**	**+1.5**
	2.7nm,0.3s						
MAKZ				⇓Sn	**Sb**	**11 58 00.7**	**-0.9**
	11nm,0.5s						
SHLS	**Shalkode**	**2.46**	**234**	Pg	**Pn**	**11 57 34.7**	**-0.3**
	21nm,0.2s						
SHLS				Lg	Lg	11 58 04.3	
	41nm,0.2s						
SHLS	**Shalkode**	**2.46**	**234**	*e*P	**Pn**	**11 57 34.7**	**-0.3**
	21nm,0.2s						
SHLS				*e*S	**Sn**	**11 58 04.3**	**-1.5**
	41nm,0.2s						
BLB	**Baldybastay**	**2.71**	**260**	Pg	**Pb**	**11 57 42.6**	**-0.4**
	20nm,0.2s						
BLB				Lg	Lg	11 58 18.0	
	18nm,0.4s						
TDK	**Taldyqorghan**	**2.71**	**279**	Pg	**Pb**	**11 57 42.3**	**-0.7**
	51nm,0.3s						
TDK				Lg	Lg	11 58 17.0	
	78nm,0.2s						
TDK	**Taldyqorghan**	**2.71**	**279**	*e*P	**Pb**	**11 57 42.3**	**-0.7**
	51nm,0.3s						
TDK				*e*S	**Sb**	**11 58 17.0**	**+0.2**
	78nm,0.2s						
UZB	**Uzynbulak**	**2.72**	**238**	Pg	**Pb**	**11 57 42.3**	**-1.0**
	9.4nm,0.2s						
UZB				Lg	Lg	11 58 17.6	
	7.3nm,0.3s						

UZB	Uzynbulak	2.72	238	eP	Pb	11 57 42.3	-1.0
UZB				eS	Sb	11 58 17.6	+0.3
KPKS	Kokpek	2.78	246	Pg	Pb	11 57 43.5	-0.6
	0.3nm,0.3s						
KPKS				Lg	Lg	11 58 19.3	
	30nm,0.4s						
KPKS	Kokpek	2.78	246	eP	Pb	11 57 43.5	-0.6
	0.3nm,0.3s						
KPKS				eS	Sb	11 58 19.3	+0.5
	30nm,0.4s						
KURS	Kuram	3.11	250	Pg	Pb	11 57 49.4	-0.4
	1.8nm,0.3s						
KURS				Lg	Lg	11 58 29.2	
	3.9nm,0.4s						
KURS	Kuram	3.11	250	eP	Pb	11 57 49.4	-0.4
	1.8nm,0.3s						
KURS				eS	Sb	11 58 29.2	+0.9
	3.9nm,0.4s						
ARXS	Arharly	3.15	264	Pg	Pb	11 57 51.2	+0.7
	3.5nm,0.1s						
ARXS				Lg	Lg	11 58 32.4	
	26nm,0.4s						
ARXS	Arharly	3.15	264	eP	Pb	11 57 51.2	+0.7
	3.5nm,0.1s						
ARXS				eS	Sb	11 58 32.4	+3.0
	26nm,0.4s						
ZSN	Zaisan	3.38	33	Pg	Pb	11 57 55.7	+1.2
	5.3nm,0.2s						
ZSN				Lg	Lg	11 58 39.9	
	10nm,0.3s						
ZSN	Zaisan	3.38	33	eP	Pb	11 57 55.7	+1.2
	5.3nm,0.2s						
ZSN				eS	Sg	11 58 39.9	-2.4
	10nm,0.3s						
KURBB	Kurchatov Arra	6.48	339	⇑Lg	Lg	12 00 18.0	
	3.0nm,0.8s						
KURK	Kurchatov	6.55	340	⇑Lg	Lg	12 00 19.0	
	0.7nm,0.6s						

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*IDC **09** 11:59:34.7±1.4, 14°.76N×92°.08W, h157^{km}±16^{km}, mb3.3/2, mbtmp3.8/5, MS4.0/1, Error ellipse: s-maj=41.3km s-min=8.6km az=30.0*
*NEIC **09** 11:59:36.9±1.5, 15°.33N±0°.09×91°.70W±0°.09, h181^{km}±5^{km}, mb4.5/5, Error ellipse: s-maj=15.0km s-min=9.3km az=225.0*
*GCG **09** 11:59:36.7±1.1, 15°.39N×91°.63W, h169^{km}±8^{km}, MD4.7, ML4.5, Presumed earthquake*
ISC 09 11:59:36.1±0.7, **15°.23N**±0°.09×**91°.72W**±0°.06, **h185**^{km}±6^{km}, **n31**, σ**1^s.22**/38, **mb4.0**/4, **Mexico-Guatemala border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HUEH	Huehuetenango	0.23	67	Pn	Pn	12 00 00.9	-0.1
HUEH				Sn	Sn	12 00 20.0	0.0
HUEH	Huehuetenango	0.23	67	i P	Pn	12 00 00.9	-0.1
HUEH				i S	Sn	12 00 18.8	-1.2
HUEH				IAML		12 00 21.9	
	comp=E,6μm,0.4s						
THIG		0.62	239	i P	Pn	12 00 01.7	-0.3
THIG				i S	Sn	12 00 22.1	+0.2
RTAL	Retalhuleu	0.70	178		Pn	12 00 02.5	0.0
RTAL				Sn	Sn	12 00 24.3	+1.4
STG8	El Palmar, Qui	0.85	155	i P	Pn	12 00 01.5	-2.1
APG	El Apazote	1.23	100	P	Pn	12 00 06.4	0.0
	comp=E,3.2nm,0.2s,baz=92,slow=15,SNR=92						
APG				S	Sn	12 00 29.6	-0.1
	comp=E,2.2nm,0.3s,baz=136,slow=10,SNR=5.4						
APG	El Apazote	1.23	100	i P	Pn	12 00 06.4	0.0
APG				i S	Sn	12 00 27.6	-2.2
FG8	Yepocapa, Chim	1.48	131	i P	Pn	12 00 05.5	-3.0
TGIG		2.05	319	i P	Pn	12 00 13.7	-0.4
ESQI	Esquipulas	2.39	106	Pn	Pn	12 00 19.0	+1.0
MTO3	Montecristo	2.42	110		Pn	12 00 19.0	+0.6
CMIG	Matias Romero	3.56	302	P	Pn	12 00 30.9	-1.0
	comp=E,43nm,0.3s,baz=146,slow=11,SNR=134						
CMIG				S	Sn	12 01 11.8	-3.7
	comp=E,102nm,0.3s,baz=106,slow=16,SNR=23						
SCIG	Sabancuy	3.75	8	i P	Pn	12 00 33.0	-1.2
SIUN	Universidad Ur	6.89	102	Pn	Pn	12 01 14.6	-0.3
TLIG	Tlapa	6.97	290		Pn	12 01 16.5	+0.4
JUD3	Juan Diaz 3	7.85	129	Pn	Pn	12 01 28.6	+1.0
JTS	Las Juntas de	8.22	126	P	Pn	12 01 32.5	+0.1
	comp=E,4.0nm,0.3s,baz=313,slow=19,SNR=4.5						
JTS				S	Sn	12 03 03.7	-1.1
	comp=E,4.4nm,0.4s,baz=240,slow=21,SNR=3.9						
JTS	Las Juntas de	8.22	126		Pn	12 01 31.9	-0.5
LCR2	La Lucha 2	9.30	125	Pn	Pn	12 01 46.9	+0.2
TX31	Lajitas Ar. Si	17.85	324		P	12 03 30.6	-0.9
TXAR	Lajitas Array	17.85	324	P	Pn	12 03 34.8	+1.5
	comp=E,0.4nm,0.6s,baz=143,slow=10,SNR=8.8						
TXAR	Lajitas Array	17.85	324		P	12 03 31.4	0.0
SDDR	Presa de Saban	19.88	76		P	12 03 53.8	+0.3
SDDR				IAmb	IAmb	12 04 01.1	
	comp=Z,13nm,1.1s						
TASM	ASL Pad, Albuq	23.69	329	P	P	12 04 31.4	+0.1
TASM				IAmb	IAmb	12 04 35.4	
	comp=Z,31nm,0.8s						
TASM	ASL Pad, Albuq	23.69	329	P	P	12 04 31.1	-0.1
TASM				IAmb	IAmb	12 04 35.5	
	comp=Z,42nm,0.8s						
NNA	Nana	30.79	151	LR	LR	12 16 07.5	
	comp=Z,277nm,20.1s,baz=296,slow=32						
NVAR	Mina Array Bea	32.90	320	P	P	12 05 55.3	+2.2
	comp=Z,0.7nm,0.7s,baz=132,slow=6.8,SNR=5.9						
	comp=Z,0.7nm,0.7s						
LPAZ	La Paz	39.03	142	P	P	12 06 45.4	-0.3
	comp=Z,0.7nm,0.4s,baz=324,slow=2.4,SNR=4.6						
	comp=Z,0.7nm,0.4s						
PRP	Porcupine Dome	61.65	338	P	P	12 09 34.3	+0.1
PRP				IAmb	IAmb	12 09 46.2	
	comp=Z,3.6nm,0.6s						
WRA	Warramunga Arr	135.95	257	PKP	PKPdf	12 18 35.5	-0.4
	comp=Z,0.3nm,0.8s,baz=88,slow=2.5,SNR=5.2						
WRA	Warramunga Arr	135.95	257		PKPdf	12 18 35.7	-0.2

IDC 09 12:04:22.7±4.3, **23°.49S**×**169°.44E**, **h180**^{km}±26^{km}, **mb3.2**/3, **mbtmp3.6**/4, **Error ellipse: s-maj=110.4km s-min=29.8km az=36.0**, **Southeast of Loyalty Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	3.11	296	P	Pn	12 05 14.5	+1.8
	5.0nm,0.3s,baz=118,slow=18,SNR=30						
DZM				S	Sn	12 05 51.4	-0.3
	22nm,0.3s,baz=114,slow=20,SNR=20						
ASAR	Alice Springs	32.52	262	P	P	12 10 37.4	+0.6
	0.9nm,0.8s,baz=99,slow=8.2,SNR=8.3						
	0.9nm,0.8s						
WRA	Warramunga Arr	32.76	269	P	P	12 10 38.5	-0.3
	0.4nm,0.6s,baz=97,slow=7.9,SNR=9.1						
	0.4nm,0.6s						
VNDA	Vanda	54.21	182	P	P	12 13 28.6	-0.5
	0.7nm,0.5s,baz=201,slow=12,SNR=7.8						
	0.7nm,0.5s						

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*JMA **09** 12:05:15.5±0.1, 43°.0N±0°.3×145°.4E±0°.5, h48^{km}±1^{km}, MV3.4/36, OFF NEMURO PENINSULA*
JMA Felt I J1 at OFF NEMURO PENINSULA .
*SKHL **09** 12:05:16.8±0.4, 43°.00N×145°.30E, h35^{km}±4^{km}, mb4.3/3*
ISC 09 12:05:16.6±1.9, **43°.02N**±0°.09×**145°.31E**±0°.05, **h42**^{km}±11^{km}, **n13**, σ**0^s.75**/23, **Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JKHN	Kushirohamanak	0.13	303	P	Pn	12 05 23.7	+0.1
JKHN				S	Sn	12 05 29.4	+0.9
AKK	Akkeshi	0.34	271	eP	Pn	12 05 25.1	-0.3
AKK				eS	Sn	12 05 31.5	-0.1
JAK	Akkeshi	0.45	268	P	Pn	12 05 26.4	-0.3
JAK				S	Sn	12 05 34.2	+0.4
NMR	Nemuro--Hokkai	0.47	41	i P	Pn	12 05 26.3	-0.7
NMR				i S	Sn	12 05 33.7	-0.7
NEM2	Nemuro 2	0.47	42	P	Pn	12 05 26.4	-0.7
NEM2				S	Sn	12 05 33.8	-0.7
JNK	Nakash	0.71	323	P	Pn	12 05 29.9	-0.3
JNK				S	Sn	12 05 39.9	-0.2
JNSB	Nemuroshibetsu	0.79	344	P	Pn	12 05 31.1	-0.3
JNSB				eS	Sn	12 05 42.4	+0.4
JRA	Rausu	0.93	352	P	Pn	12 05 33.0	-0.2
JRA				S	Sn	12 05 46.0	+0.6
JOB	Onbets	1.08	265	P	Pn	12 05 34.7	-0.6
YUK	Yuzh-Kuril'sk	1.10	21	eP	Pn	12 05 35.0	-0.5
YUK				AMB	AMB	12 05 35.7	
	60nm,0.3s						
YUK				i S	Sn	12 05 48.2	-1.2
YUK				A	A	12 05 50.0	
	590nm,0.4s						
YUK				A	A	12 05 50.0	
	540nm,0.4s						
JAR	Ashorobuto	1.16	285	P	Pn	12 05 36.1	-0.2
JAR				eS	Sn	12 05 51.1	+0.2
SHO	Shikotan	1.40	52	eP	Pn	12 05 53.9	+14
SHO				AMB	AMB	12 05 55.5	
	60nm,0.2s						
SHO				eS	Sn	12 06 10.0	+13
SHO				A	A	12 06 12.0	
	140nm,0.2s						
SHO				A	A	12 06 12.0	
	220nm,0.2s						
KUR	Kuril'sk	2.88	39	eP	Pn	12 06 01.0	+1.0
KUR				eS	Sn	12 06 35.3	+1.9
KUR				A	A	12 06 39.5	
	40nm,0.6s						
KUR				A	A	12 06 39.5	
	30nm,0.6s						

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*MAN **09** 12:58:56.0, 3°.65N×127°.06E, h27^{km}, MS4.5*
*IDC **09** 12:59:00.0±1.3, 4°.32N×126°.99E, h0^{km}, mb3.8/8, mbtmp3.8/8, Error ellipse: s-maj=97.0km s-min=16.6km az=64.0*
ISC 09 12:59:06.9±0.9, **3°.79N**±0°.09×**126°.2E**±0°.2, **h35**^{km}, **n12**, σ**2^s.35**/13, **mb3.9**/8, **Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	Don Marcelino,	2.34	349	eP	Pn	12 59 39.1	-3.9
DDMP				eS	Sn	13 00 11.2	+0.6
KCP	Kidapawan	3.38	341	i P	Pn	12 59 58.1	+0.9
BIPH	Bislig	4.37	2	eP	Pn	13 00 09.7	-1.1
BIPH				eS	Sn	13 01 04.8	+4.2
CGP	Cagayan de Oro	4.86	342	eP	Pn	13 00 09.2	-8.4
WRA	Warramunga Arr	24.91	162	P	P	13 04 26.7	-0.2
	1.2nm,0.5s,baz=344,slow=11,SNR=22						
	1.2nm,0.5s						
ASAR	Alice Springs	28.31	165	P	P	13 04 58.7	+1.2
	0.3nm,0.6s,baz=346,slow=11,SNR=6.4						
	0.3nm,0.6s						
CMAR	Chiang Mai Arr	30.37	301	P	P	13 05 17.7	+1.9
	0.4nm,0.3s,baz=122,slow=7.1,SNR=4.2						
	0.4nm,0.3s						
STKA	Stephens Creek	38.38	159	P	P	13 06 25.3	+0.4
	1.6nm,0.7s,baz=329,slow=8.6,SNR=3.3						
	1.6nm,0.7s						
MKAR	Makanchi Array	57.19	325	P	P	13 08 49.1	-1.4
	0.9nm,0.7s,baz=128,slow=8.4,SNR=8.7						
	0.9nm,0.7s						
ZALV	Zalesovo Beam	60.28	333	P	P	13 09 08.8	-3.0
	0.4nm,0.4s,baz=115,slow=6.5,SNR=2.4						
	0.4nm,0.4s						
KURBB	Kurchatov Arra	61.39	328	P	P	13 09 17.9	-1.5
	1.1nm,0.6s,baz=126,slow=6.0,SNR=16						
	1.1nm,0.6s						
BVAR	Borovoye Array	66.97	327	P	P	13 09 55.1	-0.9
	0.4nm,0.3s,baz=103,slow=6.5,SNR=2.4						
	0.4nm,0.3s						

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*IDC **09** 13:59:33.4±1.8, 4°.23N×126°.82E, h0^{km}, mb3.5/5, mbtmp3.6/5, MS3.3/2, Error ellipse: s-maj=118.4km s-min=21.0km az=70.0*
*MAN **09** 13:59:33.0, 3°.58N×126°.51E, h32^{km}, MS3.6*
*DJA **09** 13:59:42.0±1.5, 4°N±17°×12°7E±°, h34^{km}±43^{km}, M4.0/9, mb4.3/5, MLv3.8/9*
ISC 09 13:59:33.0±0.9, **3°.60N**±0°.05×**126°.64E**±0°.09, **h10**^{km}, **n19**, σ**2^s.98**/18, **mb3.5**/5, **Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	Don Marcelino,	2.66	340	eP	Pn	14 00 12.5	-3.5
DDMP				eS	Sn	14 00 49.5	+1.2
MNI	Manado	2.80	220	P	Pn	14 00 04.4	-14
TNTI	Ternate	2.90	166	P	Pg	14 00 29.0	+0.3
GSPH	General Santos	2.99	326	i P	Pn	14 00 12.7	-8.0
GSPH				i S	Sb	14 01 02.0	-1.2
CDOP	Cateel, Davao	4.16	357	i P	Pn	14 00 36.9	+0.2
CDOP				i S	Sn	14 01 23.7	-1.8
CTBH	Cotabato--PC H	4.32	327	i P	Pn	14 00 39.9	+1.1
BIPH	Bislig	4.56	356	eP	Pn	14 00 41.0	-1.2
BIPH				eS	Sn	14 01 33.6	-1.7
GTOI	Gorontalo	4.67	231	P	Pb	14 00 54.5	-0.6
	0.1nm19nm,0.5s						
GTOI				S	Sb	14 01 52.3	+0.8
	0.1nm19nm,0.5s						
GTOI				AML	AML		
CGP	Cagayan de Oro	5.20	338	i P	Pn	14 00 52.3	+1.4
CGP				i S	Sn	14 00 55.8	-55
SANI	Sanana	5.65	187	P	Pb	14 01 07.5	-4.3
SANI				AML	AML		
LUWI	Luwuk	6.02	220	P	Pb	14 01 15.1	-3.0
GLSP	General Luna,	6.17	355	eP	Pn	14 01 09.4	+5.1
GLSP				eS	Sn	14 02 20.4	+5.5
FITZ	Fitzroy Crossi	21.58	183	P	P	14 04 31.5	+8.4
	2.0nm,0.9s,baz=1.3,slow=8.8,SNR=2.4						
	2.0nm,0.9s						
WRA	Warramunga Arr	24.59	162	P	P	14 05 00.4	+6.9
	1.2nm,0.8s,baz=343,slow=10.0,SNR=9.2						
	1.2nm,0.8s						
ASAR	Alice Springs	28.01	166	P	P	14 05 31.4	+7.0
	0.3nm,0.8s,baz=348,slow=7.0,SNR=4.8						
	0.3nm,0.8s						
JNU	Nakatsue	29.64	7	LR	LR	14 21 15.9	
	comp=Z,38nm,18.2s,baz=238,slow=45						
MKAR	Makanchi Array	57.61	325	P	P	14 09 22.7	-0.7
	0.3nm,0.5s,baz=119,slow=8.8,SNR=4.5						
	0.3nm,0.5s						
KURBB	Kurchatov Arra	61.80	327	P	P	14 09 50.8	-1.3
	0.4nm,0.4s,baz=128,slow=6.1,SNR=4.6						
	0.4nm,0.4s						
URZ	Urewera	62.51	137	LR	LR	14 41 23.2	
	comp=Z,36nm,18.3s,baz=271,slow=40						

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*DJA **09** 14:17:11.0±0.6, 5°N±4°×12°7E±°, h15^{km}±4^{km}, M4.5/12, mB4.8/3, mb4.5/11, MLv4.6/12, Mw(mB)4.1/3*
*IDC **09** 14:17:14.6±0.7, 4°.18N×126°.75E, h0^{km}, mb4.0/12, mbtmp4.0/12, MS3.4/1, Error ellipse: s-maj=45.6km s-min=11.0km az=71.0*
*MAN **09** 14:17:15.0, 3°.99N×126°.48E, h1^{km}, MS4.2*
*NEIC **09** 14:17:19.8±1.4, 4°.24N±0°.06×126°.84E±0°.07, h35^{km}±2^{km}, mb4.5/41, Error ellipse: s-maj=12.4km s-min=8.6km az=63.0*
ISC 09 14:17:15.9±0.4, **4°.21N**±0°.04×**126°.80E**±0°.06, **h10**^{km}, **n87**, σ**1^s.56**/93, **mb4.4**/31, **Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	Don Marcelino,	2.17	330	eP	Pn	14 17 50.8	-1.3
DDMP				eS	Sg	14 18 25.1	-0.6
GSPH	General Santos	2.62	315	i P	Pn	14 17 60.0	+1.6
GSPH				i S	Sn	14 18 27.5	-2.8
DAV	Davao City (W)	3.09	337	Pn	Pn	14 18 05.1	+0.4
KCP	Kidapawan	3.26	329	i P	Pb	14 18 12.5	-1.4
MNI	Manado	3.38	215	P	Pn	14 18 10.0	+1.3
MNI				AML	AML		
TNTI	Ternate	3.47	171		Pn	14 18 11.1	+1.2
TNTI				Sn	Sn	14 18 51.3	+0.3
TNTI	Ternate	3.47	171	P	Pn	14 18 12.8	+2.9
TNTI				AML	AML		
CDOP	Cateel, Davao	3.56	354	eP	Pb	14 18 19.3	+0.2
CDOP				i S	Sb	14 19 03.5	+1.0
BUKP	Musuan	4.03	335	eP	Pb	14 18 23.3	-3.8
BUKP				eS	Sb	14 19 21.1	+5.2
CGP	Cagayan de Oro	4.70	334	eP	Pn	14 18 32.5	+5.5
PAGZ	Pagadian	4.96	317	i P	Pn	14 18 33.4	+3.0
PAGZ				i S	Sn	14 19 31.1	+3.2
GTOI	Gorontalo	5.19	227	P	Pn	14 18 33.4	-0.3
	559nm26nm,0.8s						
GLSP	General Luna,	5.57	353	eP	Pb	14 18 47.8	-5.6
GLSP				eS	Sn	14 19 50.8	+7.6
TBP	Tagbilaran	6.17	332	eP	Pn	14 18 53.0	+5.8
SNPH	Sibulan	6.20	325	i P	Pb	14 19 01.5	-2.6
SANI	Sanana	6.27	187	P	Pn	14 18 50.1	+1.5
	0.2nm29nm,1.3s						
SANI				AML	AML		
LUWI	Luwuk	6.59	218	Pn	Pn	14 18 53.7	+0.8
LUWI				Sn	Sn	14 20 08.0	-0.2
LUWI	Luwuk	6.59	218	pP	Pn	14 18 55.6	+2.7
	0.4nm1μm81nm,0.8s						
TOLI2	Tolitoli	6.75	243		Pn	14 18 55.8	+0.7
TOLI2				Sn	Sn	14 20 13.2	+1.0
APSI	Ampana	7.24	225	Pn	Pn	14 19 01.0	-0.8
NLAI	Namlea	7.41	178	Pn	Pn	14 19 06.4	+2.2
	29nm,0.5s						
MYLDM	Lahad Datu	8.32	277	Pn	Pn	14 19 17.3	+0.6
MYLDM				Sn	Sn	14 20 52.4	+1.5
MYLDM	Lahad Datu	8.32	277	Pn	Pn	14 19 08.9	-7.9
FAKI	Fak Fak	8.94	142	Pn	Pn	14 19 25.1	-0.1
KKM	Kota Kinabalu	10.70	280	Pn	Pn	14 19 50.1	+0.7
LQP	Lukban	11.12	333	eP	Pn	14 20 05.0	+10
KAPI	Kappang	11.56	218	LR	LR	14 24 23.3	
	comp=Z,204nm,20.8s,baz=156,slow=37						
MTN	Manton Dam	17.48	166	Pn	Pn	14 21 19.1	-1.0
YULB	Yu-li	19.79	345	P	P	14 21 45.8	-0.8
KNRA	Kununurra	19.86	174	P	P	14 21 47.3	0.0
TPUB	Ta-pu	19.89	343	P	P	14 21 47.2	-0.4
TPUB				IAmb	IAmb	14 22 05.5	
	comp=Z,8.6nm,0.6s						
GUMO	Guam	20.12	61	P	P	14 21 48.9	-1.3
GUMO				IAmb	IAmb	14 21 50.3	
	comp=Z,31nm,1.1s						
FITZ	Fitzroy Crossi	22.20	183	P	P	14 22 12.3	-0.2
	comp=Z,2.8nm,0.6s,baz=16,slow=8.0,SNR=10						
	comp=Z,2.8nm,0.6s						
FITZ	Fitzroy Crossi	22.20	183	P	P	14 22 12.8	+0.3
BBJI	Bungbulang	22.35	239	P	P	14 22 14.0	-0.4
BBJI				IAmb	IAmb	14 22 22.1	
	comp=Z,36nm,1.3s						
COEN	Coen	24.29	138	P	P	14 22 32.0	-1.7
PMG	Port Moresby	24.39	124	P	P	14 22 33.0	-1.7
WB0	Warramunga Arr	24.97	163	P	P	14 22 39.2	-0.7
WB0				IAmb	IAmb	14 22 45.2	
	comp=Z,8.9nm,0.8s						
WRAB	Tennant Creek	25.12	163	P	P	14 22 40.9	-0.3
WRAB				IAmb	IAmb	14 22 51.7	
	comp=Z,7.0nm,0.6s						
WRA	Warramunga Arr	25.12	163	P	P	14 22 40.8	-0.5
	comp=Z,4.7nm,0.7s,baz=339,slow=10,SNR=53						
WRA				S	S	14 27 08.2	+2.0
	comp=Z,0.7nm,0.7s,baz=334,slow=20,SNR=4.1						
	comp=Z,4.7nm,0.7s						
WRA	Warramunga Arr	25.12	163	P	P	14 22 40.9	-0.3
WR8	Warramunga Arr	25.18	163	P	P	14 22 41.8	0.0
WR8				IAmb	IAmb	14 22 48.4	
	comp=Z,8.8nm,1.1s						
MBWA	Marble Bar	26.15	195	P	P	14 22 51.2	+0.7
MBWA				IAmb	IAmb	14 23 05.5	
	comp=Z,13nm,1.2s						
AS31	Alice Springs	28.56	166	P	P	14 23 11.7	-0.6
ASAR	Alice Springs	28.56	166	P	P	14 23 11.8	-0.4
	comp=Z,0.6nm,0.5s,baz=345,slow=6.7,SNR=13						
ASAR				S	S	14 28 03.1	+2.6
	comp=Z,0.3nm,0.8s,baz=339,slow=18,SNR=2.7						
	comp=Z,0.6nm,0.5s						
ASAR	Alice Springs	28.56	166	P	P	14 23 11.3	-0.9
LHMI	Lhok Sumawe	29.76	273	P	P	14 23 21.9	-1.1
CMAR	Chiang Mai Arr	30.69	300	P	P	14 23 32.6	+1.5
	comp=Z,0.3nm,0.5s,baz=114,slow=7.3,SNR=5.4						
	comp=Z,0.3nm,0.5s						
CMAR	Chiang Mai Arr	30.69	300	P	P	14 23 30.5	-0.6
JGF	Kuroka	32.72	16	P	P	14 23 48.1	-0.7
JGF				IAmb	IAmb	14 24 20.9	
	comp=Z,7.0nm,1.1s						
KSRS	Korea Array	33.10	2	P	P	14 23 53.3	+1.3
	comp=Z,0.9nm,0.7s,baz=187,slow=7.5,SNR=1.4						
	comp=Z,0.9nm,0.7s						
INCN	Inchon	33.11	360	P	P	14 23 50.4	-1.8
MAJO	Matsushiro	33.84	17	P	P	14 23 57.0	-1.6
MAJO				IAmb	IAmb	14 24 36.7	
	comp=Z,12nm,1.4s						
MJB9	Matsu-Tunnel	33.84	17	P	P	14 23 57.0	-1.6
MJB9				IAmb	IAmb	14 24 36.7	
	comp=Z,11nm,1.4s						
INKA	Innaminka	34.50	158	P	P	14 24 04.3	0.0
INKA				IAmb	IAmb	14 24 06.1	
	comp=Z,4.3nm,1.3s						
EIDS	Eidsvold	37.69	143	P	P	14 24 31.4	-0.3
BBOO	Buckleboo	37.85	167	P	P	14 24 33.1	+0.1
BBOO				IAmb	IAmb	14 25 04.2	
	comp=Z,16nm,1.1s						
STKA	Stephens Creek	38.56	160	P	P	14 24 39.5	+0.6
	comp=Z,6.1nm,0.7s,baz=339,slow=9.3,SNR=10						
	comp=Z,6.1nm,0.7s						
ARMA	Armidale	41.83	147	P	P	14 25 05.6	-0.7
ARMA				IAmb	IAmb	14 25 23.3	
	comp=Z,22nm,1.5s						
MARNC	Mare, Loyalty	47.78	124	P	P	14 25 53.3	-0.5
PDGK	Podgornoye	57.09	320	P	P	14 27 02.6	-0.1
MKAR	Makanchi Array	57.20	325	P	P	14 27 03.3	0.0
	comp=Z,0.4nm,0.3s,baz=128,slow=7.6,SNR=6.6						
	comp=Z,0.4nm,0.3s						
MKAR	Makanchi Array	57.20	325	P	P	14 27 03.5	+0.2
TARG	Taragay, Kyrgy	57.44	318	P	P	14 27 04.4	-1.2
KDJ	Kajisay	58.03	318	P	P	14 27 08.8	-0.6
KDJ				IAmb	IAmb	14 27 37.1	
	comp=Z,2.4nm,1.0s						
BOOM	Boomskoye usch	59.02	318	P	P	14 27 16.2	-0.1
ZAA0	Zalesovo Array	60.19	333	P	P	14 27 24.4	+0.5
ZAA0				IAmb	IAmb	14 27 31.8	
	comp=Z,1.7nm,0.8s						
ZALV	Zalesovo Beam	60.19	333	P	P	14 27 23.5	-0.4
	comp=Z,0.5nm,0.4s,baz=160,slow=4.6,SNR=3.8						
	comp=Z,0.5nm,0.4s						
KURBB	Kurchatov Arra	61.37	327	P	P	14 27 31.9	-0.1
	comp=Z,1.8nm,0.7s,baz=124,slow=6.3,SNR=22						
	comp=Z,1.8nm,0.7s						
KURK	Kurchatov	61.37	327		P	14 27 32.0	0.0
KURK				IAmb	IAmb	14 27 33.9	
	comp=Z,3.4nm,0.9s						
AIS	Amsterdam Isla	61.87	223	P	P	14 27 35.7	+0.1
AB31	Akbulak array	71.82	321	P	P	14 28 39.2	+0.3
ABKAR	Akbulak array	71.82	321	P	P	14 28 38.9	+0.1
P17K	Kvichak River	79.62	31	P	P	14 29 22.9	-0.4
J18K	Innoko River	80.22	26	P	P	14 29 26.8	+0.3
J18K				IAmb	IAmb	14 29 33.6	
	comp=Z,7.5nm,1.4s						
D19K	Kuna River	80.65	21	P	P	14 29 28.8	0.0
D19K				IAmb	IAmb	14 29 31.1	
	comp=Z,5.4nm,1.1s						
PPLA	Purkeypile	82.17	27	P	P	14 29 37.2	+0.1
PPLA				IAmb	IAmb	14 30 03.2	
	comp=Z,12nm,1.4s						
ILAR	Eielson Array	84.64	25	P	P	14 29 51.1	+1.5
	comp=Z,0.3nm,0.7s,baz=261,slow=6.2,SNR=2.5						
	comp=Z,0.3nm,0.7s						
ILAR	Eielson Array	84.64	25	P	P	14 29 49.1	-0.5
VRDI	Verde Repeater	86.22	29	P	P	14 29 56.9	-0.9
ARCES	ARCESS Array B	90.02	340	P	P	14 30 15.1	-0.4
	comp=Z,2.0nm,1.0s,baz=101,slow=4.6,SNR=2.0						
	comp=Z,2.0nm,1.0s						
ARCES	ARCESS Array B	90.02	340	P	P	14 30 15.7	+0.1
WHY	Whitehorse	90.43	29	P	P	14 30 17.2	-0.5
WHY				IAmb	IAmb	14 30 50.8	
	comp=Z,4.4nm,0.9s						
FIA1	FINESS Array S	91.44	332	P	P	14 30 21.8	-0.4
FINES	FINESS Array B	91.44	332	P	P	14 30 22.2	0.0
	comp=Z,1.7nm,0.8s,baz=42,slow=11,SNR=1.7						
	comp=Z,1.7nm,0.8s						
FINES	FINESS Array B	91.44	332	P	P	14 30 22.1	-0.2
QSPA	South Pole Qui	94.12	180	P	P	14 30 34.2	-0.4
QSPA				IAmb	IAmb	14 31 11.8	
	comp=Z,3.5nm,1.4s						

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*SKHL **09** 14:24:35.3±0.3, 46°.10N×152°.20E, h58^{km}±6^{km}, mb5.1/5*
*MOS **09** 14:24:36.0±1.1, 46°.20N×152°.03E, h58^{km}, mb4.7/32, Error ellipse: s-maj=7.3km s-min=5.9km az=67.0*
*JMA **09** 14:24:36.5±0.8, 46°N±4°×15°2E±°, h30^{km}, MV4.7/21, KURILE ISLANDS REGION*
*NEIC **09** 14:24:38.8±0.8, 46°.36N±0°.08×151°.9E±0°.1, h63^{km}±3^{km}, mb4.6/60, Error ellipse: s-maj=12.6km s-min=9.8km az=152.0*
*IDC **09** 14:24:41.1±2.6, 46°.49N×151°.89E, h81^{km}±21^{km}, mb3.8/20, mbtmp4.1/27, MS3.4/27, Error ellipse: s-maj=22.0km s-min=12.8km az=153.0*
ISC 09 14:24:37.2±0.7, **46°.15N**±0°.05×**152°.06E**±0°.05, **h55**^{km}±5^{km},

n259,σ1^{s}39/269,mb4.5/80,MS3.5/25,11C-10D,Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
REI	**Reidovoe**	**2.96**	**254**	*e*P	**Pn**	**14 25 21.0**	**-0.7**
REI				AMB	AMB	14 25 22.3	
	90nm,0.5s						
REI				*e*S	**Sn**	**14 25 55.5**	**-0.5**
REI				A	A	14 26 00.1	
	270nm,0.4s						
REI				A	A	14 26 00.1	
	220nm,0.4s						
KUR	**Kuril'sk**	**3.08**	**254**	*e*PN	**Pn**	**14 25 22.9**	**-0.3**
KUR				*i* S	**Sn**	**14 26 00.5**	**+1.7**
KUR				pmax	pmax		
	comp=Z,364nm,0.4s						
KUR				pmax	pmax		
	comp=N,219nm,0.3s						
KUR				pmax	pmax		
	comp=E,128nm,0.2s						
KUR				smax	smax		
	comp=N,811nm,0.4s						
KUR				smax	smax		
	comp=E,401nm,0.4s						
KUR	**Kuril'sk**	**3.08**	**254**	*e*P	**Pn**	**14 25 22.9**	**-0.3**
KUR				AMB	AMB	14 25 26.2	
	comp=E,360nm,0.3s						
KUR				*i* S	**Sn**	**14 26 00.5**	**+1.7**
KUR				A	A	14 26 01.5	
	comp=E,810nm,0.4s						
KUR				A	A	14 26 01.5	
	comp=E,400nm,0.4s						
YUK	**Yuzh-Kuril'sk**	**4.87**	**247**	*e*PN	**Pn**	**14 25 47.8**	**0.0**
YUK				*i* S	**Sn**	**14 26 42.3**	**-0.5**
YUK				pmax	pmax		
	comp=N,79nm,0.3s						
YUK				pmax	pmax		
	comp=Z,469nm,0.3s						
YUK				pmax	pmax		
	comp=E,152nm,0.2s						
YUK				pmax	pmax		
	comp=Z,475nm,1.2s						
YUK				smax	smax		
	comp=E,370nm,0.5s						
YUK				smax	smax		
	comp=N,567nm,0.4s						
YUK				smax	smax		
	comp=E,1µm,1.2s						
YUK				smax	smax		
	comp=N,674nm,1.3s						
YUK	**Yuzh-Kuril'sk**	**4.87**	**247**	*e*P	**Pn**	**14 25 48.2**	**+0.4**
YUK				AMB	AMB	14 25 55.5	
	comp=N,490nm,0.3s						
YUK				*i* S	**Sn**	**14 26 42.6**	**-0.2**
YUK				A	A	14 27 00.2	
	comp=N,1µm,0.5s						
YUK				A	A	14 27 00.2	
	comp=N,900nm,0.5s						
RUSJ	**Misakicho**	**5.23**	**249**	*e*PN	**Pn**	**14 25 54.3**	**+1.5**
RUSJ				*i* S	**Sn**	**14 26 55.8**	**+4.0**
SKR	**Severo-Kuril’s**	**5.28**	**29**	*e*PN	**Pn**	**14 25 52.3**	**-1.2**
SKR				*e*S	**Sn**	**14 26 50.7**	**-2.2**
SKR				pmax	pmax		
	comp=Z,45nm,0.8s						
SKR				smax	smax		
	comp=E,193nm,0.8s						
SKR				smax	smax		
	comp=N,107nm,0.6s						
SKR	**Severo-Kuril’s**	**5.28**	**29**	*e*P	**Pn**	**14 25 51.5**	**-2.0**
SKR				AMB	AMB	14 25 53.4	
	comp=N,90nm,0.7s						
SKR				*e*S	**Sn**	**14 26 48.9**	**-4.0**
SKR				A	A	14 26 56.3	
	comp=N,140nm,0.4s						
SKR				A	A	14 26 56.3	
	comp=N,110nm,0.4s						
NEM2	**Nemuro 2**	**5.29**	**241**	P	**Pn**	**14 25 51.5**	**-2.0**
NEM2				*e*S	**Sn**	**14 26 49.9**	**-3.2**
NMR	**Nemuro--Hokkai**	**5.29**	**241**	*e*PN	**Pn**	**14 25 51.6**	**-2.0**
NMR	**Nemuro--Hokkai**	**5.29**	**241**	*e*P	**Pn**	**14 25 51.6**	**-2.0**
NMR				*e*S	**Sn**	**14 26 49.9**	**-3.4**
JRA	**Rausu**	**5.39**	**248**	P	**Pn**	**14 25 55.7**	**+0.7**
JNK	**Nakash**	**5.81**	**246**	P	**Pn**	**14 26 00.6**	**-0.2**
JNK				*e*S	**Sn**	**14 27 05.4**	**-0.6**
JAK	**Akkeshi**	**6.13**	**242**	P	**Pn**	**14 26 03.1**	**-2.0**
JAK				*e*S	**Sn**	**14 27 10.4**	**-3.3**
JTKR	**Abashiri--Toko**	**6.17**	**252**	P	**Pn**	**14 26 06.4**	**+0.8**
PAU	**Pauzhetka**	**6.18**	**29**	*e*P	**Pn**	**14 26 05.1**	**-0.7**
PAU				*e*S	**Sn**	**14 27 12.8**	**-2.2**
PAU				A	A	14 27 17.2	
	comp=N,100nm,0.3s						
PAU				A	A	14 27 17.2	
	comp=N,90nm,0.3s						
YSS	**Yuzhno-Sakhali**	**6.47**	**281**⇑	*e*PN	**Pn**	**14 26 11.2**	**+1.5**
YSS				*e*S	**Sn**	**14 27 23.6**	**+1.5**
YSS				pmax	pmax		
	comp=Z,30nm,0.4s						
YSS				smax	smax		
	comp=N,20nm,1.3s						
YSS				smax	smax		
	comp=E,30nm,1.2s						
YSS				MLR	MLR		
	comp=N,200nm,15.0s						
YSS				MLR	MLR		
	comp=Z,400nm,15.0s						
YSS				MLR	MLR		
	comp=E,400nm,14.0s						
YSS	**Yuzhno-Sakhali**	**6.47**	**281**		**Pn**	**14 26 09.8**	**+0.1**
YSS	**Yuzhno-Sakhali**	**6.47**	**281**	*e*P	**Pn**	**14 26 11.2**	**+1.5**
YSS				*e*S	**Sn**	**14 27 20.4**	**-1.7**
JAR	**Ashorobuto**	**6.55**	**247**	P	**Pn**	**14 26 11.1**	**+0.1**
JAR				S	**Sn**	**14 27 24.3**	**+0.1**
JOB	**Onbets**	**6.71**	**244**	P	**Pn**	**14 26 12.1**	**-1.0**
JOB				*e*S	**Sn**	**14 27 25.1**	**-3.0**
JKK2	**Kamakawa 2**	**6.98**	**254**	P	**Pn**	**14 26 18.1**	**+1.4**
JKA	**Kamikawa-asahi**	**6.99**	**257**		**Pn**	**14 26 18.6**	**+1.7**
ASAJ	**Asahikawa**	**6.99**	**257**	PN	**Pn**	**14 26 18.6**	**+1.7**
JCH	**Churui**	**7.16**	**244**	P	**Pn**	**14 26 17.6**	**-1.6**
JCH				*e*S	**Sn**	**14 27 35.2**	**-3.9**
JWK2	**Keihoku**	**7.16**	**267**	*e*P	Pn	14 26 24.2	+5.0
UGL	**Uglegorsk**	**7.36**	**297**	*e*P	**Pn**	**14 26 23.0**	**+1.1**
UGL				AMB	AMB	14 26 25.1	
	comp=E,40nm,0.4s						
JAB	**Ashibetsu**	**7.47**	**253**	*e*P	**Pn**	**14 26 25.1**	**+1.5**
ERM	**Erimo**	**7.62**	**240**	*c i*PN	**Pn**	**14 26 25.8**	**+0.3**
ERM				pmax	pmax		
	comp=Z,42nm,1.0s						
ERM	**Erimo**	**7.62**	**240**	Pn	**Pn**	**14 26 26.4**	**+0.9**
TYV	**Tymovskoe**	**7.83**	**311**	*e*P	**Pn**	**14 26 28.6**	**+0.3**
PEA0B	**Petropavlovsk-**	**7.87**	**26**⇑	*e*PN	**Pn**	**14 26 30.5**	**+1.6**
PEA0B	**Petropavlovsk-**	**7.87**	**26**	Pn	**Pn**	**14 26 28.2**	**-0.7**
PETK	**Petropavlovsk-**	**7.87**	**26**	P	**Pn**	**14 26 29.0**	**+0.1**
	comp=Z,3.1nm,0.6s,baz=177,slow=11,SNR=21						
PETK				S	**Sn**	**14 28 01.6**	**+5.2**
	comp=Z,2.4nm,0.6s,baz=150,slow=12,SNR=1.2						
PETK	**Petropavlovsk-**	**7.87**	**26**	*e*PN	**Pn**	**14 26 29.6**	**+0.7**
PETK				pmax	pmax		
	comp=Z,11nm,0.9s						
PETK	**Petropavlovsk-**	**7.87**	**26**		**Pn**	**14 26 27.6**	**-1.3**
PET	**Petropavlovsk**	**8.11**	**29**	Pn	**Pn**	**14 26 31.6**	**-0.5**
PET	**Petropavlovsk**	**8.11**	**29**	*e*P	**Pn**	**14 26 29.7**	**-2.4**
JTM	**Tenmabayashi**	**9.62**	**240**	Pn	**Pn**	**14 26 54.0**	**+1.2**
NKL	**Nikolayevsk**	**10.17**	**318**	*e*P	**Pn**	**14 27 00.8**	**+0.5**
TEY	**Ternei**	**10.89**	**270**	*e*PN	**Pn**	**14 27 13.3**	**+3.1**
JYT	**Yasato**	**13.33**	**226**	Pn	**Pn**	**14 27 45.8**	**+2.4**
MA2	**Magadan**	**13.48**	**357**	P	**Pn**	**14 27 45.2**	**-0.2**
	comp=Z,9.4nm,0.7s,baz=164,slow=6.9,SNR=5.1						
MA2				LR	LR	14 32 50.9	
	comp=Z,139nm,18.6s,baz=174,slow=37						
MA2	**Magadan**	**13.48**	**357**	*ce*PN	**Pn**	**14 27 45.4**	**0.0**
MA2	**Magadan**	**13.48**	**357**		**Pn**	**14 27 43.5**	**-1.9**
MA2	**Magadan**	**13.48**	**357**	*e*P	**Pn**	**14 27 45.4**	**0.0**
KLR	**Kul'dur**	**14.02**	**290**	P	**Pn**	**14 27 54.0**	**+1.2**
	comp=Z,4.7nm,0.9s,baz=100,slow=15,SNR=5.8						
KLR				LR	LR	14 33 21.1	
	comp=Z,142nm,20.6s,baz=110,slow=38						
KLR	**Kul'dur**	**14.02**	**290**	*e*P	**P**	**14 27 56.2**	**-2.9**
KLR				pmax	pmax		
	comp=Z,2.0nm,1.2s						
KLR	**Kul'dur**	**14.02**	**290**	*e*P	**Pn**	**14 27 53.8**	**+1.0**
MJB9	**Matsu-Tunnel**	**14.13**	**232**	Pn	**Pn**	**14 27 56.0**	**+1.6**
MAJO	**Matsushiro**	**14.13**	**232**	P	**Pn**	**14 27 56.0**	**+1.6**
MAJO	**Matsushiro**	**14.13**	**232**	Pn	**Pn**	**14 27 56.0**	**+1.6**
MJAR	**Matsushiro Arr**	**14.13**	**232**	P	**P**	**14 27 59.6**	**-0.9**
	comp=Z,2.8nm,0.6s,baz=45,slow=10,SNR=9.3						
MJAR				LR	LR	14 33 51.1	
	comp=Z,88nm,20.9s,baz=60,slow=39						
MJAR	**Matsushiro Arr**	**14.13**	**232**	P	**Pn**	**14 27 55.9**	**+1.5**
MJAR	**Matsushiro Arr**	**14.13**	**232**	Pn	**Pn**	**14 27 55.9**	**+1.5**
USA0B	**Ussuriysk Arra**	**14.29**	**269**⇑	*e*P	**Pn**	**14 27 58.1**	**+1.7**
USA0B	**Ussuriysk Arra**	**14.29**	**269**	Pn	**Pn**	**14 27 56.3**	**-0.1**
USRK	**Ussuriysk Ar.**	**14.29**	**269**	P	**Pn**	**14 27 57.2**	**+0.8**
	comp=Z,3.1nm,0.5s,baz=75,slow=13,SNR=7.7						
USRK				LR	LR	14 33 11.9	
	comp=Z,163nm,19.9s,baz=74,slow=36						
USRK	**Ussuriysk Ar.**	**14.29**	**269**	*e*P	**Pn**	**14 27 57.9**	**+1.5**
USRK				pmax	pmax		
	comp=Z,3.0nm,0.5s						
JGF	**Kuroka**	**15.29**	**232**	Pn	**Pn**	**14 28 10.3**	**+0.8**
PSTR	**Posyet**	**15.58**	**265**⇑	*e*P	**Pn**	**14 28 11.7**	**-1.4**
PSTR	**Posyet**	**15.58**	**265**	*e*P	**Pn**	**14 28 11.0**	**-2.1**
INU	**Inuyama**	**15.66**	**232**	Pn	**Pn**	**14 28 16.0**	**+1.8**
SHEM	**Shemya Is, Ala**	**15.74**	**57**	LR	LR	14 33 32.7	
	comp=Z,45nm,21.2s,baz=254,slow=34						
SEY	**Seymchan**	**16.82**	**1**	P	**Pn**	**14 28 26.9**	**-1.7**
	comp=Z,1.9nm,0.8s,baz=83,slow=8.1,SNR=7.6						
SEY	**Seymchan**	**16.82**	**1**⇓	*e*P	**P**	**14 28 30.8**	**+0.7**
HEH	**HeiHe**	**16.91**	**293**	*e*P	**P**	**14 28 30.8**	**-0.3**
HEH				pmax	pmax		
	comp=Z,14nm,1.3s						
ZEA	**Zeya**	**17.62**	**305**	*e*P	**P**	**14 28 40.3**	**+1.4**
ZEA				pmax	pmax		
	comp=Z,10.0nm,1.1s						
JMN	**Monobe**	**18.61**	**235**	P	**P**	**14 28 50.6**	**+0.6**
KSRS	**Korea Array**	**19.92**	**253**	P	**P**	**14 29 05.0**	**+0.9**
	comp=Z,2.5nm,0.5s,baz=57,slow=11,SNR=14						
KSRS	**Korea Array**	**19.92**	**253**	*e*P	**P**	**14 29 04.9**	**+0.7**
KSRS				pmax	pmax		
	comp=Z,2.0nm,0.5s						
KSRS	**Korea Array**	**19.92**	**253**	*e*P	**P**	**14 29 04.9**	**+0.7**
YAK	**Yakutsk**	**20.45**	**329**	P	**P**	**14 29 09.5**	**-0.2**
	comp=Z,11nm,0.4s,baz=316,slow=19,SNR=29						
YAK				LR	LR	14 37 05.1	
	comp=Z,103nm,18.0s,baz=132,slow=37						
	comp=Z,11nm,0.4s						
YAK	**Yakutsk**	**20.45**	**329**	*e*P	Pn	14 29 14.3	+2.0
YAK				*e*		14 29 35.1	
YAK				*e*		14 33 17.7	
YAK				*e**SS	sS	14 33 26.2	+12
YAK				*e*SS	SnSn	14 33 34.1	+17
YAK				*e*		14 40 35.5	
YAK				pmax	pmax		
	comp=Z,94nm,1.3s						
YAK				pmax	pmax		
	comp=N,30nm,1.5s						
YAK				pmax	pmax		
	comp=E,23nm,1.8s						
YAK				pmax	pmax		
	comp=Z,134nm,6.1s						
YAK				pmax	pmax		
	comp=N,65nm,4.5s						
YAK				pmax	pmax		
	comp=E,132nm,4.8s						
YAK	**Yakutsk**	**20.45**	**329**		**P**	**14 29 08.2**	**-1.6**
YAK	**Yakutsk**	**20.45**	**329**	*e*P	Pn	14 29 13.8	+1.5
INCN	**Inchon**	**20.77**	**254**	P	**P**	**14 29 13.1**	**-0.3**
INCN				pmax	pmax		
	comp=Z,18nm,1.0s						
INCN	**Inchon**	**20.77**	**254**	P	**P**	**14 29 13.1**	**-0.3**
INCN				IAmb	IAmb	14 29 15.8	
	comp=Z,18nm,0.9s						
JNU	**Nakatsue**	**20.78**	**239**	P	Pn	14 29 17.3	+0.7
	comp=Z,11nm,1.0s,baz=75,slow=6.4,SNR=4.0						
JNU				LR	LR	14 37 20.1	
	comp=Z,96nm,20.4s,baz=46,slow=36						
	comp=Z,11nm,1.0s						
TJN	**Taejon**	**20.90**	**251**	P	**P**	**14 29 15.2**	**+0.4**
TJN				pmax	pmax		
	comp=Z,83nm,1.2s						
TJN	**Taejon**	**20.90**	**251**	P	**P**	**14 29 15.2**	**+0.4**
ATKA	**Atka Island**	**22.73**	**62**	P	**P**	**14 29 35.0**	**+0.7**
ATKA				IAmb	IAmb	14 29 50.5	
	comp=Z,36nm,1.2s						
BILL	**Bilibino**	**23.15**	**14**⇑	*e*P	**P**	**14 29 39.6**	**+1.2**
BILL				pmax	pmax		
	comp=Z,20nm,2.0s						
BILL	**Bilibino**	**23.15**	**14**	*e*P	**P**	**14 29 39.6**	**+1.2**
CLES	**Cleveland East**	**25.37**	**61**	P	**P**	**14 29 59.3**	**+0.4**
TIXI	**Tiksi**	**27.85**	**345**	LR	LR	14 41 49.7	
	comp=Z,92nm,18.6s,baz=167,slow=37						
TIXI	**Tiksi**	**27.85**	**345**	P	**P**	**14 30 19.0**	**-2.0**
TIXI				pmax	pmax		
	comp=Z,4.0nm,1.2s						
TIXI	**Tiksi**	**27.85**	**345**	P	**P**	**14 30 19.0**	**-2.0**
H11N2	**WAKE ISLAND Hy**	**29.04**	**150**	T	T	15 01 55.6	
	baz=339,slow=76,SNR=2713						
H11N1	**WAKE ISLAND Hy**	**29.05**	**150**	T	T	15 01 58.1	
	baz=339,slow=76,SNR=2346						
H11N3	**WAKE ISLAND Hy**	**29.05**	**150**	T	T	15 01 58.7	
	baz=339,slow=76,SNR=1637						
H11S1	**WAKE ISLAND Hy**	**30.11**	**151**	T	T	15 03 16.7	
	baz=340,slow=76,SNR=1918						
H11S3	**WAKE ISLAND Hy**	**30.11**	**151**	T	T	15 03 15.7	
	baz=340,slow=76,SNR=1193						
H11S2	**WAKE ISLAND Hy**	**30.12**	**151**	T	T	15 03 16.5	
	baz=340,slow=76,SNR=1344						
SONM	**Songino Array**	**30.85**	**290**	LR	LR	14 43 33.8	
	comp=Z,87nm,20.6s,baz=82,slow=37						
O15K	**Ungalikthiuk R**	**31.22**	**48**	P	**P**	**14 30 51.2**	**+0.3**
O15K				IAmb	IAmb	14 30 52.9	
	comp=Z,17nm,1.1s						
C18K	**Utukok River**	**32.51**	**30**	P	**P**	**14 31 01.6**	**-0.7**
C18K				IAmb	IAmb	14 31 27.2	
	comp=Z,7.7nm,1.2s						
NACB	**Ninganchiao**	**32.86**	**239**	P	**P**	**14 31 06.1**	**+0.5**
NACB				IAmb	IAmb	14 31 26.7	
	comp=Z,6.9nm,0.8s						
GUMO	**Guam**	**33.01**	**193**	LR	LR	14 44 10.4	
	comp=Z,44nm,18.9s,baz=350,slow=35						
GUMO	**Guam**	**33.01**	**193**	P	**P**	**14 31 09.3**	**+2.3**
GUMO				pmax	pmax		
	comp=Z,53nm,1.3s						
GUMO	**Guam**	**33.01**	**193**	P	**P**	**14 31 09.3**	**+2.3**
YULB	**Yu-li**	**33.63**	**238**	P	**P**	**14 31 12.8**	**+0.4**
YULB				IAmb	IAmb	14 31 37.0	
	comp=Z,6.5nm,1.0s						
D20K	**Etivluk River**	**34.13**	**31**	P	**P**	**14 31 15.9**	**-0.5**
D20K				IAmb	IAmb	14 31 42.2	
	comp=Z,7.0nm,1.1s						
IMAR	**Indian Mountai**	**34.69**	**36**	P	**P**	**14 31 20.8**	**-0.3**
XAN	**Xi'an**	**34.74**	**265**	P	**P**	**14 31 21.8**	**-0.2**
XAN				pmax	pmax		
	comp=Z,10.0nm,0.9s						
KDAK	**Kodiak Island**	**35.05**	**50**	P	**P**	**14 31 24.5**	**+0.2**
KDAK				pmax	pmax		
	comp=Z,35nm,1.5s						
KDAK	**Kodiak Island**	**35.05**	**50**	P	**P**	**14 31 24.5**	**+0.2**
SML	**Sawmill**	**36.91**	**43**	P	**P**	**14 31 40.0**	**-0.3**
SML				IAmb	IAmb	14 31 41.7	
	comp=Z,9.3nm,0.9s						
COLA	**College**	**37.06**	**38**⇑	*e*P	**P**	**14 31 42.0**	**+0.6**
COLA				pmax	pmax		
	comp=Z,4.0nm,1.1s						
IL31		**37.48**	**38**	P	**P**	**14 31 44.8**	**-0.1**
ILAR	**Eielson Array**	**37.48**	**38**	P	**P**	**14 31 44.6**	**-0.3**
	comp=Z,1.0nm,1.0s,baz=259,slow=6.6,SNR=6.5						
	comp=Z,1.0nm,1.0s						
ILAR	**Eielson Array**	**37.48**	**38**	*e*P	**P**	**14 31 47.0**	**+2.0**
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
NRIK	**Noril'sk**	**38.91**	**329**	LR	LR	14 48 13.7	
	comp=Z,42nm,18.7s,baz=112,slow=37						
NRIK	**Noril'sk**	**38.91**	**329**	P	**P**	**14 31 55.2**	**-1.7**
NRIK				pmax	pmax		
	comp=Z,4.0nm,0.5s						
NRIK	**Noril'sk**	**38.91**	**329**	P	**P**	**14 31 55.2**	**-1.7**
NRIK				IAmb	IAmb	14 31 57.4	
	comp=Z,3.9nm,0.5s						
K27K	**Chicken**	**39.60**	**39**	P	**P**	**14 32 03.1**	**+0.3**
BCAR	**Beaver Creek A**	**39.83**	**41**	P	**P**	**14 32 04.4**	**-0.4**
ZALV	**Zalesovo Beam**	**42.38**	**306**	P	**P**	**14 32 25.4**	**-0.3**
	comp=Z,0.4nm,0.4s,baz=61,slow=8.9,SNR=1.5						
ZALV				PcP	**PcP**	**14 34 17.6**	**-0.4**
	comp=Z,1.2nm,0.8s,baz=83,slow=3.3,SNR=5.3						
ZALV				LR	LR	14 51 09.8	
	comp=Z,125nm,18.9s,baz=74,slow=38						
	comp=Z,0.4nm,0.4s						
ZALV	**Zalesovo Beam**	**42.38**	**306**	P	**P**	**14 32 23.8**	**-1.8**
ZALV					**PcP**	**14 34 17.9**	**-0.1**
INK	**Inuvik**	**42.55**	**32**	P	**P**	**14 32 26.6**	**-0.3**
INK				pmax	pmax		
	comp=Z,6.0nm,1.3s						
INK	**Inuvik**	**42.55**	**32**	P	**P**	**14 32 26.6**	**-0.3**
MK31	**Makanchi Array**	**46.57**	**297**⇓	*e*P	**P**	**14 32 59.2**	**-0.1**
MKAR	**Makanchi Array**	**46.57**	**297**	P	**P**	**14 32 57.7**	**-1.6**
	comp=Z,1.7nm,0.8s,baz=64,slow=9.8,SNR=12						
MKAR				PcP	**PcP**	**14 34 32.9**	**+0.3**
	comp=Z,1.0nm,0.6s,baz=78,slow=1.6,SNR=6.9						
	comp=Z,1.7nm,0.8s						
MKAR	**Makanchi Array**	**46.57**	**297**	P	**P**	**14 32 58.4**	**-0.9**
MKAR	**Makanchi Array**	**46.57**	**297**		**P**	**14 32 58.4**	**-0.9**
MKAR					**PcP**	**14 34 32.9**	**+0.3**
KURK	**Kurchatov**	**47.09**	**304**⇑	*e*P	**P**	**14 33 02.2**	**-1.0**
KURK				pmax	pmax		
	comp=Z,5.0nm,1.6s						
KURK	**Kurchatov**	**47.09**	**304**	P	**P**	**14 33 02.2**	**-1.0**
KURK					**PcP**	**14 34 33.9**	**-0.4**
KURK	**Kurchatov**	**47.09**	**304**	*e*P	**P**	**14 33 02.2**	**-1.0**
KURBB	**Kurchatov Arra**	**47.18**	**304**	P	**P**	**14 33 01.1**	**-2.8**
	comp=Z,0.8nm,0.5s,baz=73,slow=8.3,SNR=13						
KURBB				PcP	**PcP**	**14 34 34.1**	**-0.5**
	comp=Z,0.3nm,0.6s,baz=65,slow=3.4,SNR=4.2						
	comp=Z,0.8nm,0.5s						
BBB	**Bella Bella**	**50.06**	**52**	LR	LR	14 53 07.5	
	comp=Z,21nm,21.0s,baz=228,slow=34						
BVAR	**Borovoye Array**	**50.68**	**309**	P	**P**	**14 33 30.8**	**+0.1**
	comp=Z,0.9nm,0.4s,baz=72,slow=9.4,SNR=4.6						
BVAR				PcP	**PcP**	**14 34 47.0**	**-0.3**
	comp=Z,1.5nm,0.7s,baz=77,slow=2.2,SNR=3.2						
	comp=Z,0.9nm,0.4s						
WUS	**Wushi**	**51.21**	**292**	P	**P**	**14 33 34.5**	**-0.5**
WUS				IAmb	IAmb	14 33 36.4	
	comp=Z,4.1nm,0.8s						
CHTO	**Chiang Mai**	**51.27**	**256**	P	**P**	**14 33 35.6**	**+0.1**
CHTO				pmax	pmax		
	comp=Z,5.0nm,0.8s						
CHTO	**Chiang Mai**	**51.27**	**256**		**P**	**14 33 35.6**	**+0.1**
CHTO				IAmb	IAmb	14 33 37.1	
	comp=Z,4.9nm,0.8s						
CMAR	**Chiang Mai Arr**	**51.52**	**256**	P	**P**	**14 33 38.2**	**+0.9**
	comp=Z,2.0nm,0.8s,baz=42,slow=7.5,SNR=19						
CMAR				LR	LR	14 57 56.8	
	comp=Z,30nm,18.5s,baz=180,slow=39						
	comp=Z,2.0nm,0.8s						
CMAR	**Chiang Mai Arr**	**51.52**	**256**	P	**P**	**14 33 37.2**	**-0.2**
CMAR				PcP	**PcP**	**14 34 49.8**	**-1.1**
FAKI	**Fak Fak**	**51.91**	**205**	P	**P**	**14 33 41.9**	**+1.7**
KDJ	**Kajisay**	**52.03**	**294**	P	**P**	**14 33 39.8**	**-1.4**
KDJ				pmax	pmax		
	comp=Z,8.0nm,1.5s						
KDJ	**Kajisay**	**52.03**	**294**	P	**P**	**14 33 39.8**	**-1.4**
KDJ				IAmb	IAmb	14 33 57.6	
	comp=Z,8.2nm,1.5s						
BOOM	**Boomskoye usch**	**52.62**	**295**	P	**P**	**14 33 45.1**	**-0.4**
BOOM				pmax	pmax		
	comp=Z,8.0nm,1.0s						
BOOM	**Boomskoye usch**	**52.62**	**295**	P	**P**	**14 33 45.1**	**-0.4**
BOOM				IAmb	IAmb	14 34 03.3	
	comp=Z,7.6nm,1.0s						
EVN	**Everest**	**53.65**	**274**		**P**	**14 33 52.9**	**-0.9**
ARTI	**Arti**	**55.07**	**317**	LR	LR	14 58 25.3	
	comp=Z,56nm,18.1s,baz=72,slow=37						
ARTI	**Arti**	**55.07**	**317**	*c i*P	**P**	**14 34 03.4**	**+0.4**
ARTI						14 34 57.4	
ARTI				S	**S**	**14 41 42.5**	**+1.4**
ARTI				SS	**SS**	**14 45 22.8**	**-2.0**
ARTI				pmax	pmax		
	comp=Z,6.0nm,1.2s						
ARTI	**Arti**	**55.07**	**317**	P	**P**	**14 34 02.1**	**-0.9**
ARTI				IAmb	IAmb	14 34 03.8	
	comp=Z,9.7nm,1.2s						
KKAR	**Karatay Array**	**55.65**	**299**	P	**P**	**14 34 07.2**	**-0.2**
KKAR	**Karatay Array**	**55.65**	**299**	P	**P**	**14 34 07.2**	**-0.2**
BTK	**Batken**	**57.18**	**295**	P	**P**	**14 34 17.5**	**-0.9**
BTK				pmax	pmax		
	comp=Z,5.0nm,1.3s						
BTK	**Batken**	**57.18**	**295**	P	**P**	**14 34 17.5**	**-0.9**
BTK				IAmb	IAmb	14 34 19.0	
	comp=Z,5.3nm,1.3s						
KIRV	**Kirov**	**57.82**	**323**	LR	LR	15 01 21.0	
	comp=Z,66nm,18.4s,baz=30,slow=38						
NEW	**Newport**	**58.12**	**52**	LR	LR	14 59 14.4	
	comp=Z,21nm,20.3s,baz=310,slow=36						
ARCES	**ARCESS Array B**	**58.18**	**341**	P	**P**	**14 34 22.2**	**-2.7**
	comp=Z,2.1nm,1.0s,baz=52,slow=6.0,SNR=7.1						
ARCES				PcP	**PcP**	**14 35 14.9**	**-0.8**
	comp=Z,0.6nm,0.6s,baz=58,slow=5.5,SNR=1.0						
	comp=Z,2.1nm,1.0s						
ARCES	**ARCESS Array B**	**58.18**	**341**	*e*P	**P**	**14 34 25.3**	**+0.4**
ARCES				pmax	pmax		
	comp=Z,3.0nm,1.1s						
ARCES	**ARCESS Array B**	**58.18**	**341**	P	**P**	**14 34 23.2**	**-1.7**
ARCES				PcP	**PcP**	**14 35 15.7**	**-0.1**
AB31	**Akbulak array**	**58.25**	**310**		**P**	**14 34 25.2**	**-0.5**
AB31				IAmb	IAmb	14 34 27.7	
	comp=Z,5.3nm,1.4s						
ABKAR	**Akbulak array**	**58.25**	**310**		**P**	**14 34 25.5**	**-0.2**
YBH	**Yreka Blue Hor**	**58.67**	**61**	LR	LR	14 57 11.0	
	comp=Z,25nm,20.2s,baz=304,slow=33						
NIL	**Nilore**	**59.40**	**288**	P	**P**	**14 34 34.4**	**+0.5**
NIL				pmax	pmax		
	comp=Z,9.0nm,1.1s						
NIL	**Nilore**	**59.40**	**288**	P	**P**	**14 34 34.4**	**+0.5**
SUMG	**Summit**	**61.35**	**4**	P	**P**	**14 34 46.6**	**-0.5**
SUMG				pmax	pmax		
	comp=Z,10.0nm,1.1s						
SUMG	**Summit**	**61.35**	**4**		**P**	**14 34 46.6**	**-0.5**
KBL	**Kabul**	**61.61**	**291**	P	**P**	**14 34 48.6**	**-0.6**
KBL				pmax	pmax		
	comp=Z,6.0nm,1.0s						
KBL	**Kabul**	**61.61**	**291**	P	**P**	**14 34 48.6**	**-0.6**
KBL				IAmb	IAmb	14 34 49.2	
	comp=Z,6.0nm,1.0s						
BELG	**Belogornoye**	**62.50**	**318**	*d i*P	**P**	**14 34 56.1**	**+1.6**
BELG				pmax	pmax		
	comp=Z,3.0nm,0.9s						
BMN	**Battle Mountai**	**62.76**	**59**	P	**P**	**14 34 57.0**	**+0.3**
BMN				pmax	pmax		
	comp=Z,2.0nm,0.9s						
BMN	**Battle Mountai**	**62.76**	**59**	P	**P**	**14 34 57.0**	**+0.3**
KVN	**Kaiserville**	**63.10**	**61**	P	**P**	**14 34 58.9**	**-0.1**
KVN				pmax	pmax		
	comp=Z,2.0nm,1.1s						
KVN	**Kaiserville**	**63.10**	**61**	P	**P**	**14 34 58.9**	**-0.1**
NVAR	**Mina Array Bea**	**63.36**	**61**	P	**P**	**14 35 01.9**	**+1.1**
	comp=Z,1.1nm,0.8s,baz=288,slow=7.2,SNR=5.5						
	comp=Z,1.1nm,0.8s						
NVAR	**Mina Array Bea**	**63.36**	**61**	P	**P**	**14 35 01.2**	**+0.4**
FIA1	**FINESS Array S**	**64.27**	**334**	P	**P**	**14 35 05.0**	**-1.1**
FINES	**FINESS Array B**	**64.27**	**334**	P	**P**	**14 35 04.0**	**-2.1**
	comp=Z,1.1nm,0.4s,baz=46,slow=5.5,SNR=16						
FINES				LR	LR	15 04 46.1	
	comp=Z,39nm,19.3s,baz=64,slow=38						
	comp=Z,1.1nm,0.4s						
FINES	**FINESS Array B**	**64.27**	**334**	*e*P	**P**	**14 35 04.4**	**-1.7**
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	**FINESS Array B**	**64.27**	**334**	P	**P**	**14 35 04.7**	**-1.4**
OBN	**Obninsk**	**65.39**	**325**	*e*P	**P**	**14 35 14.4**	**+0.9**
OBN				*e**PP	**pwP**	**14 35 30.6**	**-1.7**
OBN				*e**SP	**sP**	**14 35 36.7**	**+3.4**
OBN				*e*		14 35 44.7	
OBN				*e*PPP	PPP	14 39 12.3	
OBN				pmax	pmax		
	comp=Z,7.0nm,1.1s						
OBN				MLR	MLR		
	comp=Z,37nm,16.0s						
BW06	**Boulder Array**	**65.69**	**53**	P	**P**	**14 35 16.4**	**+0.5**
PD31	**Pinedale Array**	**65.69**	**53**	P	**P**	**14 35 16.3**	**+0.3**
PDAR	**Pinedale Array**	**65.69**	**53**	P	**P**	**14 35 16.5**	**+0.6**
	comp=Z,0.6nm,0.4s,baz=321,slow=3.8,SNR=5.2						
	comp=Z,0.6nm,0.4s						
PDAR	**Pinedale Array**	**65.69**	**53**	P	**P**	**14 35 16.0**	**+0.1**
SFJD	**Kangerlussuaq**	**65.87**	**10**	LR	LR	15 07 47.0	
	comp=Z,28nm,18.6s,baz=9.5,slow=39						
SFJD	**Kangerlussuaq**	**65.87**	**10**	P	**P**	**14 35 16.3**	**-0.1**
SFJD				pmax	pmax		
	comp=Z,37nm,1.4s						
SFJD	**Kangerlussuaq**	**65.87**	**10**	P	**P**	**14 35 16.3**	**-0.1**
RDMU	**Red Mountain**	**67.14**	**55**	P	**P**	**14 35 26.2**	**+1.0**
RDMU				IAmb	IAmb	14 35 28.1	
	comp=Z,8.1nm,0.9s						
MSVF	**Nonsavu**	**67.79**	**153**	LR	LR	15 00 10.0	
	comp=Z,31nm,21.4s,baz=347,slow=31						
NB2	**NORSAR Subarra**	**68.56**	**341**	P	**P**	**14 35 32.6**	**-1.0**

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
	comp=Z,0.7nm,0.5s,baz=26,slow=6.5						
NOA	NORSAR Array B	68.56	341	P	P	14 35 32.5	-1.1
	comp=Z,0.8nm,0.4s,baz=30,slow=6.6,SNR=7.5						
NOA				LR	LR	15 09 50.0	
	comp=Z,27nm,18.1s,baz=20,slow=40						
	comp=Z,0.8nm,0.4s						
NOA	NORSAR Array B	68.56	341	*e*P	P	14 35 33.3	-0.3
NOA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
NORES	NORESS Array B	68.75	340	P	P	14 35 34.5	-0.2
HFS	Hagfors	68.77	339	P	P	14 35 33.3	-1.5
	comp=Z,1.3nm,0.4s,baz=54,slow=7.5,SNR=7.6						
	comp=Z,1.3nm,0.4s						
PV19	Morning Glory	68.99	56	IAmb	IAmb	14 35 38.4	
	comp=Z,6.8nm,0.9s						
MNK	Minsk	69.14	329	*i* P	P	14 35 37.9	+0.7
MNK				*i*		14 38 12.3	
MNK				*i* PPP	PPP	14 39 53.9	
MNK				*i* S	S	14 44 40.9	+2.6
MNK				*i* SS	SS	14 49 09.7	+5.5
MNK				pmax	pmax		
	comp=E,31nm,0.8s						
MNK				pmax	pmax		
	comp=Z,17nm,0.7s						
MNK				pmax	pmax		
	comp=N,35nm,0.9s						
MNK				MLR	MLR		
	comp=Z,39nm,16.0s						
MNK				MLR	MLR		
	comp=E,27nm,14.0s						
MNK				MLR	MLR		
	comp=N,41nm,16.0s						
MNK	Minsk	69.14	329	*i* P	P	14 35 38.0	+0.7
	comp=E,31nm,0.8s						
MNK				*i* P	P	14 35 38.0	+0.7
	comp=N,35nm,0.9s						
MNK				*i* P	P	14 35 38.0	+0.7
	comp=Z,17nm,0.7s,baz=218						
MNK				*i* PP	PP	14 38 12.3	+2.4
MNK				*i* PPP	PPP	14 39 54.0	
MNK				*i* S	S	14 44 41.0	+2.6
MNK				*i* SS	SS	14 49 09.7	+5.5
MNK				*i* SSS	SSS	14 52 27.9	
MNK				*i* LQ	LQ	15 01 20.1	
MNK				*i* LR	LR	15 06 36.9	
MNK				*i* LRM	MLR	15 08 25.3	
	comp=Z,39nm,15.8s						
MNK				*i* LRM	MLR	15 08 44.9	
	comp=E,27nm,14.3s						
MNK				*i* LRM	MLR	15 08 44.9	
	comp=N,41nm,16.1s						
PV13	Radium Mtn., P	69.19	56	P	P	14 35 38.5	+0.4
PV13				IAmb	IAmb	14 35 40.3	
	comp=Z,5.3nm,1.1s						
KIV	Kislovodsk	70.69	314	*e*P	P	14 35 48.6	+1.5
KIV				pmax	pmax		
	comp=Z,7.0nm,1.1s						
KIV				MLR	MLR		
	comp=Z,23nm,18.0s						
KIV	Kislovodsk	70.69	314	*e*P	P	14 35 48.6	+1.5
KBZ	Khabaz	70.75	314	P	P	14 35 48.1	+0.8
	comp=Z,3.4nm,0.7s,baz=118,slow=2.5,SNR=7.5						
	comp=Z,3.4nm,0.7s						
KBZ	Khabaz	70.75	314	*e*P	P	14 35 48.1	+0.8
KBZ				pmax	pmax		
	comp=Z,5.0nm,1.0s						
SHA1	Shidzhatmaz	70.87	314	⇓*e*P	P	14 35 49.0	+0.7
ASAR	Alice Springs	71.41	198	P	P	14 35 52.6	+1.2
ASAR	Alice Springs	71.41	198	P	P	14 35 52.6	+1.2
AKASG	Malin Array Be	71.64	326	P	P	14 35 50.7	-1.9
	comp=Z,1.9nm,0.4s,baz=38,slow=6.3,SNR=9.0						
AKASG				LR	LR	15 09 50.1	
	comp=Z,58nm,18.6s,baz=26,slow=38						
	comp=Z,1.9nm,0.4s						
AKASG	Malin Array Be	71.64	326	*e*P	P	14 35 51.3	-1.2
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.4s						
AKASG	Malin Array Be	71.64	326	P	P	14 35 50.6	-1.9
AKBB	Malin Array Si	71.64	326	⇓*i*P	P	14 35 51.9	-0.6
AKBB				pmax	pmax		
	comp=Z,9.0nm,1.2s						
AKBB	Malin Array Si	71.64	326	P	P	14 35 51.5	-1.1
AKBB				IAmb	IAmb	14 35 52.6	
	comp=Z,7.7nm,1.1s						
KIEV	Kiev	71.65	326	P	P	14 35 52.0	-0.6
KIEV				pmax	pmax		
	comp=Z,7.0nm,1.1s						
KIEV	Kiev	71.65	326	P	P	14 35 52.0	-0.6
KIEV				IAmb	IAmb	14 35 52.6	
	comp=Z,6.8nm,1.1s						
BUR08	Bucovina Ar. S	75.67	326		P	14 36 15.7	-0.7
BUR08				IAmb	IAmb	14 36 17.1	
	comp=Z,7.0nm,1.1s						
BURAR	Bucovina Array	75.69	326	P	P	14 36 16.0	-0.5
BURAR				IAmb	IAmb	14 36 17.1	
	comp=Z,3.8nm,0.6s						
CLL	Collm	76.71	335	*i* P	P	14 36 21.8	-0.3
CLL				pmax	pmax		
	comp=Z,13nm,1.3s						
CLL	Collm	76.71	335	*i* P	P	14 36 21.8	-0.3
	comp=Z,13nm,1.3s						
EKA	Eskdalemuir Ar	76.75	346	P	P	14 36 21.8	-0.4
	comp=Z,0.9nm,0.5s,baz=17,slow=4.1,SNR=3.7						
	comp=Z,0.9nm,0.5s						
VRAC	Vranov	77.35	332	LR	LR	15 15 16.0	
	comp=Z,39nm,19.4s,baz=13,slow=39						
BR131	Keskin Array S	78.33	316	⇓*e*P	P	14 36 31.9	+0.4
BR131	Keskin Array S	78.33	316	P	P	14 36 30.5	-1.1
BR131				IAmb	IAmb	14 36 33.1	
	comp=Z,4.4nm,0.9s						
BRTR	Keskin Array B	78.33	316	P	P	14 36 31.8	+0.3
	comp=Z,2.5nm,0.9s,baz=57,slow=5.3,SNR=8.6						
	comp=Z,2.5nm,0.9s						
BRTR	Keskin Array B	78.33	316	P	P	14 36 30.4	-1.1
BRTR	Keskin Array B	78.33	316	P	P	14 36 30.4	-1.1
TX31	Lajitas Ar. Si	78.42	60		P	14 36 31.8	-0.4
TX31				IAmb	IAmb	14 36 34.2	
	comp=Z,4.8nm,1.1s						
TXAR	Lajitas Array	78.43	60	P	P	14 36 32.2	+0.1
	comp=Z,1.8nm,0.8s,baz=280,slow=3.7,SNR=7.7						
	comp=Z,1.8nm,0.8s						
TXAR	Lajitas Array	78.43	60	P	P	14 36 32.1	-0.1
KHC	Kasperske Hory	78.46	334	*ce*P	P	14 36 32.1	+0.2
KHC				pmax	pmax		
	comp=Z,11nm,1.1s						
KHC	Kasperske Hory	78.46	334		P	14 36 31.3	-0.6
KHC				IAmb	IAmb	14 36 33.1	
	comp=Z,9.8nm,1.1s						
GERES	GERESS Array B	78.67	333	P	P	14 36 32.2	-1.0
	comp=Z,1.0nm,0.2s,baz=32,slow=5.3,SNR=9.4						
	comp=Z,1.0nm,0.2s						
GERES	GERESS Array B	78.67	333	*e*P	P	14 36 32.9	-0.3
GERES				pmax	pmax		
	comp=Z,1.0nm,0.3s						
GERES	GERESS Array B	78.67	333	P	P	14 36 33.0	-0.3
CONA	Conrad Observa	78.79	332	*i* P	P	14 36 34.3	+0.5
	comp=Z,6.4nm,1.2s						
RONA	Rosalia, Austr	78.84	331	*i* P	P	14 36 34.9	+0.8
	comp=Z,6.3nm,1.0s						
MOA	Molln	79.38	333	*e*P	P	14 36 37.6	+0.6
	comp=Z,3.4nm,0.9s						
ARSA	Arzberg	79.49	332	*e*P	P	14 36 38.6	+1.0
	comp=Z,2.8nm,0.8s						
BIOA	Bad Ischl, Aus	79.71	333	*e*P	P	14 36 39.7	+0.9
	comp=Z,0.4nm,0.3s						
BMRD	Maredsous	79.84	339	*d*P	P	14 36 39.2	-0.1
	comp=Z,6.2nm,1.0s						
BMRD				*d*PP	PP	14 39 38.6	-1.9
SOKA	Soboth	80.15	332	*i* P	P	14 36 41.2	-0.1
	comp=Z,8.4nm,1.2s						
LESA	Schwarzleotal	80.25	333	*i* P	P	14 36 42.2	+0.4
	comp=Z,5.1nm,0.8s						
KBA	Koelnbreinsper	80.35	333	*i* P	P	14 36 42.8	+0.4
	comp=Z,17nm,1.6s						
OBKA	Obir	80.46	332	*e*P	P	14 36 42.4	-0.5
	comp=Z,1.9nm,0.9s						
MYKA	Terra Mystica	80.65	332	*e*P	P	14 36 43.6	-0.4
	comp=Z,3.9nm,0.9s						
WATA	Walderalm	80.67	334	*e*P	P	14 36 44.4	+0.3
	comp=Z,6.7nm,0.6s						
WTTA	Wattenberg	80.72	334	*i* P	P	14 36 44.9	+0.5
	comp=Z,9.9nm,0.9s						
BFO	Black Forest	80.72	336	*i* P	P	14 36 45.1	+0.9
RETA	Reutte	80.78	335	*e*P	P	14 36 45.6	+1.0
	comp=Z,4.2nm,0.8s						
MOTA	Moosalm	80.81	334	*i* P	P	14 36 45.1	+0.2
	comp=Z,10nm,1.1s						
SQTA	Sankt Quirin	80.89	334	*i* P	P	14 36 45.6	+0.4
	comp=Z,9.6nm,1.1s						
ABTA	Abfaltersbach	80.91	333	*e*P	P	14 36 45.2	-0.1
	comp=Z,4.7nm,1.2s						
FETA	Feichten	81.21	334	*e*P	P	14 36 47.2	+0.2
	comp=Z,2.3nm,0.6s						
DAVA	Damuels	81.22	335	*i* P	P	14 36 46.7	-0.3
	comp=Z,4.8nm,0.7s						
DAVOX	Davos/Dischmat	81.68	335	LR	LR	15 18 18.8	
	comp=Z,23nm,18.1s,baz=262,slow=40						
TUE	Stuetta	82.12	335		P	14 36 50.8	-1.0
TUE				IAmb	IAmb	14 36 53.5	
	comp=Z,6.3nm,1.0s						
PPT	Papeete	82.40	125	LR	LR	15 04 01.7	
	comp=Z,42nm,22.0s,baz=304,slow=28						
SSB	Saint Sauveur	84.55	338	P	P	14 37 03.6	-0.6
SSB				pmax	pmax		
	comp=Z,5.0nm,0.8s						
SSB	Saint Sauveur	84.55	338	P	P	14 37 03.6	-0.6
SSB				IAmb	IAmb	14 37 05.7	
	comp=Z,5.2nm,0.8s						
EIL	Elat	85.51	309	LR	LR	15 18 36.9	
	comp=Z,61nm,18.4s,baz=77,slow=38						
H03N2	Juan Fernandez	139.48	90	T	T	17 19 42.2	
	baz=318,slow=77,SNR=24						
H03N1	Juan Fernandez	139.49	90	T	T	17 19 41.7	
	baz=318,slow=77,SNR=29						
H03N3	Juan Fernandez	139.49	90	T	T	17 19 47.4	
	baz=318,slow=77,SNR=58						
SHEL	Horse Pasture	144.65	321	PKIKP	PKPbc	14 44 06.1	-0.6
SHEL	Horse Pasture	144.65	321	PKPdf	PKPbc	14 44 06.1	-0.6
MT02	Curacav	144.79	84	PKPbc	PKPab	14 44 05.9	-0.7
ELIB	Princess Elisa	144.94	205	*d*PKP	PKPab	14 44 06.2	+0.1
ELIB				*d*PKiKP	PKiKP	14 44 10.8	+0.2

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*IDC **09** 14:28:12.9±3.6, 7°.31S×128°.48E, h129km±35km, mb3.9/14, mbtmp4.4/17, Error ellipse: s-maj=27.0km s-min=14.8km az=75.0*

*NEIC **09** 14:28:13.2±1.5, 7°.29S±0°.07×127°.92E±0°.04, h130km±6km, mb4.5/29, Error ellipse: s-maj=11.4km s-min=4.1km az=151.0*

*DJA **09** 14:28:15.9±0.3, 7°S±2°×12°9E±°, h155km±11km, M4.4/14, mB5.2/2, mb4.4/8, MLv4.5/14, Mw(mB)4.6/2*

*GFZ **09** 14:28:17.5±0.4, 7°S±3°×12°8E±°, h168km±5km, M4.5/13, mb4.5/13, Error ellipse: s-maj=8.7km s-min=6.8km az=98.7, confirmed*

ISC 09 14:28:15.2±0.3**, 7°.29S**±0°.04×**128°.37E**±0°.05**, h151km, n124,** $\sigma 1^{s}$**.83**/125**, mb4.3**/37**, 1C, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SAUI	Saumlaki	2.98	104	Pn	Pn	14 29 05.3	+2.9
SAUI	Saumlaki	2.98	104	P	Pn	14 29 00.6	-1.8
SAUI				AML	AML		
BNDI	Bandanaira	3.14	29	P	Pn	14 29 10.1	+5.7
SOEI	Soe	4.74	239	Pn	Pn	14 29 17.8	-7.6
SOEI	Soe	4.74	239	P	Pn	14 29 27.8	+2.4
SOEI				S	Sn	14 30 22.4	+2.3
SOEI	Soe	4.74	239	P	Pn	14 29 25.3	-0.1
DRS	Darwin Rock St	5.69	154	P	Pn	14 29 38.5	+0.7
SANI	Sanana	5.72	335	P	Pn	14 29 41.0	+2.7
	0.1nm20nm,1.1s						
SANI				AML	AML		
FAKI	Fak Fak	5.81	42		Pn	14 29 41.1	+1.6
FAKI	Fak Fak	5.81	42	P	Pn	14 29 41.4	+1.9
	0.3nm37nm,0.6s						
FAKI				S	Sn	14 30 46.4	+1.1
	0.3nm37nm,0.6s						
FAKI				AML	AML		
MTN	Manton Dam	6.15	154		Pn	14 29 44.5	+0.5
MMRI	Maumere	6.22	257	P	Pn	14 29 47.0	+2.0
	0.2nm30nm,0.8s						
MMRI				S	Sn	14 30 58.7	+3.5
	0.2nm30nm,0.8s						
MMRI				AML	AML		
EDFI	Ende, Flores	6.78	257	P	Pn	14 29 54.3	+1.9
EDFI				S	Sn	14 31 12.2	+3.6
EDFI				AML	AML		
EDFI	Ende, Flores	6.78	257	P	Pn	14 29 54.3	+1.9
SWI	Sorong	7.00	24	P	Pn	14 29 57.3	+1.9
WSI	Waingapu	8.33	253	P	Pn	14 30 13.8	+0.7
KNRA	Kununurra	8.35	177		Pn	14 30 12.2	-1.1
MWPI	Manokwari, Pap	8.47	42	P	Pn	14 30 15.4	+0.4
MWPI	Manokwari, Pap	8.47	42	P	Pn	14 30 17.7	+2.6
	comp=Z,938nm,0.9s						
LBFI	Labuhan Bajo,	8.49	261	P	Pn	14 30 16.7	+1.5
FITZ	Fitzroy Crossi	11.07	194	P	Pn	14 30 46.7	-2.7
	comp=Z,20nm,0.5s,baz=27,slow=12,SNR=156						
FITZ				S	Sn	14 32 42.2	-10
	comp=Z,29nm,0.4s,baz=98,slow=23,SNR=13						
FITZ	Fitzroy Crossi	11.07	194	P	Pn	14 30 45.8	-3.6
FITZ	Fitzroy Crossi	11.07	194		Pn	14 30 46.3	-3.1
FITZ	Fitzroy Crossi	11.07	194	P	Pn	14 30 47.0	-2.4
	comp=Z,6.8nm,0.6s						
TOLI2	Tolitoli	11.27	317	Pn	Pn	14 30 45.0	-7.0
WB0	Warramunga Arr	13.71	155		Pn	14 31 21.8	-1.8
WRAB	Tennant Creek	13.84	156	P	Pn	14 31 22.1	-3.1
WRAB	Tennant Creek	13.84	156	P	P	14 31 29.4	+0.8
	comp=Z,33nm,0.7s						
WRA	Warramunga Arr	13.85	156	P	Pn	14 31 22.1	-3.1
	comp=Z,3.1nm,0.5s,baz=339,slow=11,SNR=59						
WRA				S	Sn	14 33 47.6	-11
	comp=Z,15nm,0.4s,baz=331,slow=23,SNR=15						
WRA	Warramunga Arr	13.85	156		Pn	14 31 23.1	-2.1
WB1	Warramunga Ar.	13.87	156	P	Pn	14 31 22.6	-2.9
MBWA	Marble Bar	16.12	210	P	Pn	14 31 52.7	-0.8
MBWA	Marble Bar	16.12	210	S	S	14 34 31.8	-21
MBWA	Marble Bar	16.12	210		Pn	14 31 49.4	-4.2
MBWA	Marble Bar	16.12	210	P	Pn	14 31 52.5	-1.0
	comp=Z,11nm,1.0s						
QIS	Mount Isa	17.10	142	P	Pn	14 32 05.4	0.0
QIS	Mount Isa	17.10	142	P	Pn	14 32 05.2	-0.2
	comp=Z,14nm,0.5s						
AS31	Alice Springs	17.13	163		Pn	14 32 05.5	-0.2
ASAR	Alice Springs	17.13	163	P	Pn	14 32 05.3	-0.4
	comp=Z,34nm,0.4s,baz=342,slow=10,SNR=1414						
ASAR				S	S	14 35 03.7	-12
	comp=Z,2.3nm,0.7s,baz=337,slow=17,SNR=6.5						
ASAR	Alice Springs	17.13	163		Pn	14 32 05.5	-0.3
AS01	Alice Springs	17.14	162	P	P	14 32 02.4	-2.8
KKM	Kota Kinabalu	17.96	317	P	P	14 32 10.1	-4.1
KKM				IAmb	IAmb	14 32 30.4	
	comp=Z,26nm,1.0s						
PMG	Port Moresby	18.71	98	P	Pn	14 32 24.6	+0.2
PMG				IAmb	IAmb	14 32 50.0	
	comp=Z,43nm,1.2s						
MTSU	Mount Surprise	18.91	126	P	Pn	14 32 31.8	+5.0
MTSU	Mount Surprise	18.91	126	S	S	14 35 45.3	-6.2
BBJI	Bungbulang	20.55	268	P	P	14 32 35.4	-6.9
BBJI				IAmb	IAmb	14 32 57.1	
	comp=Z,31nm,1.3s						
MEEK	Meekatharra	21.37	205	P	P	14 32 49.9	-1.0
FORT	Forrest	23.37	181	P	P	14 33 09.2	-1.1
FORT				IAmb	IAmb	14 33 30.9	
	comp=Z,8.8nm,0.9s						
INKA	Innaminka	23.48	152		P	14 33 11.5	+0.2
INKA				IAmb	IAmb	14 33 14.6	
	comp=Z,8.1nm,0.8s						
MORW	Morawa	24.59	207	P	P	14 33 23.0	+1.6
MORW	Morawa	24.59	207	P	P	14 33 22.8	+1.4
	comp=Z,20nm,2.0s						
BLDU	Ballidu	25.65	204	P	P	14 33 32.2	+1.1
KLBR	Kellerberrin	26.14	201	P	P	14 33 35.6	+0.2
KLBR	Kellerberrin	26.14	201	P	P	14 33 35.3	-0.1
	comp=Z,13nm,0.8s						
BBOO	Buckleboo	26.38	165	P	P	14 33 37.8	+0.2
BBOO	Buckleboo	26.38	165	P	P	14 33 37.7	+0.1
BBOO				IAmb	IAmb	14 33 41.9	
	comp=Z,28nm,1.5s						
BBOO	Buckleboo	26.38	165	P	P	14 33 37.6	+0.1
	comp=Z,16nm,2.1s						
RMQ	Roma	27.21	137	P	P	14 33 46.4	+1.3
	comp=Z,19nm,1.6s						
STKA	Stephens Creek	27.40	155	P	P	14 33 46.5	-0.2
	comp=Z,2.1nm,0.5s,baz=325,slow=7.1,SNR=4.3						
	comp=Z,2.1nm,0.5s						
STKA	Stephens Creek	27.40	155	P	P	14 33 48.5	+1.8
STKA	Stephens Creek	27.40	155	P	P	14 33 46.8	+0.1
	comp=Z,26nm,2.0s						
NWAO	Narrogin (SRO)	27.53	201	P	P	14 33 48.8	+0.9
NWAO	Narrogin (SRO)	27.53	201	P	P	14 33 48.7	+0.9
HTT	Hallett	27.79	161	P	P	14 33 51.2	+1.0
CMSA	Cobar Meteorol	29.05	148	P	P	14 34 04.1	+2.8
CMSA	Cobar Meteorol	29.05	148	P	P	14 34 02.1	+0.8
YOJ	Yonaguni jima	31.99	351	P	P	14 34 27.6	+0.4
	comp=Z,33nm,1.4s						
LHMI	Lhok Sumawe	33.73	291	P	P	14 34 41.8	-0.8
	comp=Z,80nm,0.9s						
CMAR	Chiang Mai Arr	38.70	312	P	P	14 35 26.2	+1.5
	comp=Z,0.9nm,0.7s,baz=137,slow=7.7,SNR=7.0						
CMAR				PcP	PcP	14 37 34.2	+0.6
	comp=Z,0.3nm,0.4s,baz=121,slow=3.9,SNR=1.8						
	comp=Z,0.9nm,0.7s						
NJ2	Nanjing	40.16	347	*e*P	P	14 35 37.5	+0.9
NJ2				pmax	pmax		
	comp=Z,16nm,0.5s						
ENH	Enshi	41.51	335	P	P	14 35 44.1	-3.6
ENH				IAmb	IAmb	14 35 48.9	
	comp=Z,4.7nm,0.6s						
PZH	PanZhiHua	42.38	323	P	P	14 35 56.3	+1.3
KSRS	Korea Array	44.51	359	P	P	14 36 11.5	-0.1
	comp=Z,1.0nm,0.5s,baz=181,slow=9.0,SNR=8.4						
	comp=Z,1.0nm,0.5s						
MJAR	Matsushiro Arr	44.56	11	P	P	14 36 11.3	-0.9
	comp=Z,0.9nm,0.5s,baz=193,slow=9.2,SNR=4.7						
	comp=Z,0.9nm,0.5s						
MJAR	Matsushiro Arr	44.56	11	P	P	14 36 11.1	-1.1
INCN	Inchon	44.57	358	P	P	14 36 10.6	-1.6
INCN				IAmb	IAmb	14 36 18.2	
	comp=Z,29nm,1.4s						
MJB9	Matsu-Tunnel	44.57	11	P	P	14 36 11.0	-1.2
HNS	HongShan	46.25	345	⇑P	P	14 36 25.9	+0.5
HNS				pmax	pmax		
	comp=Z,12nm,1.0s						
BJI2	Beijing	48.40	347	P	P	14 36 42.6	+0.6
BJI2				pP	pP	14 37 15.0	+0.3
BJI2				pmax	pmax		
	comp=Z,4.0nm,0.9s						
BJT	Baijiatuau	48.40	347	P	P	14 36 40.8	-1.2
BJT				IAmb	IAmb	14 36 46.5	
	comp=Z,4.2nm,0.4s						
LZH	Lanzhou	48.92	334	*e*P	P	14 36 38.1	-8.1
LZH				pP	pP	14 37 15.0	-4.0
LZH				pmax	pmax		
	comp=Z,15nm,1.1s						
MSVF	Nonsavu	49.46	107	P	P	14 36 52.5	+1.9
HHC	Hu-ho-hao-te	50.34	343	*e*P	P	14 36 57.8	+1.0
HHC				pmax	pmax		
	comp=Z,22nm,0.7s						
HHC				pmax	pmax		
	comp=Z,69nm,5.1s						
GTA2	Gaotai	53.55	333	*e*P	P	14 37 21.7	+1.0
GTA2				pP	pP	14 37 26.1	-28
GTA2				pmax	pmax		
	comp=Z,6.0nm,0.8s						
SONM	Songino Array	58.22	343	P	P	14 37 54.5	+0.8
	comp=Z,1.8nm,0.7s,baz=169,slow=11,SNR=8.8						
	comp=Z,1.8nm,0.7s						
SONM	Songino Array	58.22	343	P	P	14 37 52.5	-1.3
SONM				IAmb	IAmb	14 37 56.1	
	comp=Z,2.9nm,1.0s						
WMQ	Urumqi	62.77	328	*e*P	P	14 38 26.9	+2.3
WMQ				sP	sP	14 39 18.0	+3.2
WMQ				S	S	14 46 36.1	-5.6
WMQ				pmax	pmax		
	comp=Z,20nm,0.7s						
WMQ				LR	LR		
	comp=Z,43nm,20.1s						
PEA0B	Petropavlovsk-	65.11	19	P	P	14 38 40.1	+0.5
PETK	Petropavlovsk-	65.11	19	P	P	14 38 40.6	+1.0
	comp=Z,4.1nm,0.6s,baz=181,slow=3.3,SNR=15						
	comp=Z,4.1nm,0.6s						
MKAR	Makanchi Array	67.59	328	P	P	14 38 56.4	+0.8
	comp=Z,0.9nm,0.3s,baz=114,slow=8.3,SNR=12						
	comp=Z,0.9nm,0.3s						
MKAR	Makanchi Array	67.59	328	P	P	14 38 54.0	-1.6
MAKZ	Makanchi	67.77	327	P	P	14 38 55.5	-1.1
KDJ	Kajisay	67.77	321	P	P	14 38 54.1	-2.9
KDJ				IAmb	IAmb	14 39 06.7	
	comp=Z,5.2nm,1.3s						
YAK	Yakutsk	69.12	1	P	P	14 39 04.2	-0.4
	comp=Z,12nm,0.4s,baz=232,slow=1.2,SNR=9.0						
	comp=Z,12nm,0.4s						
YAK	Yakutsk	69.12	1	P	P	14 39 05.0	+0.3
YAK	Yakutsk	69.12	1	P	P	14 39 04.9	+0.3
	comp=Z,27nm,0.8s						
ZAA0	Zalesovo Array	71.14	335	P	P	14 39 15.7	-1.4
ZAA0				IAmb	IAmb	14 39 17.7	
	comp=Z,3.6nm,0.9s						
ZALV	Zalesovo Beam	71.14	335	P	P	14 39 16.9	-0.3
	comp=Z,2.0nm,0.4s,baz=128,slow=6.3,SNR=13						
	comp=Z,2.0nm,0.4s						
ZALV	Zalesovo Beam	71.14	335	P	P	14 39 16.4	-0.7
KURBB	Kurchatov Arra	71.92	329	P	P	14 39 22.6	+0.7
	comp=Z,2.4nm,0.4s,baz=127,slow=5.0,SNR=36						
	comp=Z,2.4nm,0.4s						
KURK	Kurchatov	71.93	329	P	P	14 39 22.0	0.0
KURK				IAmb	IAmb	14 39 23.2	
	comp=Z,11nm,1.1s						
KURK	Kurchatov	71.93	329	P	P	14 39 22.7	+0.7
	comp=Z,8.5nm,0.9s						
VNDA	Vanda	72.36	173	P	P	14 39 24.3	+0.2
SEY	Seymchan	72.39	11	P	P	14 39 24.5	0.0
	comp=Z,3.0nm,0.6s,baz=217,slow=6.2,SNR=12						
	comp=Z,3.0nm,0.6s						
KKAR	Karatay Array	72.50	319	P	P	14 39 23.0	-2.6
BVAR	Borovoye Array	77.45	328	P	P	14 39 53.9	+0.1
	comp=Z,1.4nm,0.4s,baz=157,slow=8.0,SNR=8.1						
	comp=Z,1.4nm,0.4s						
TIXI	Tiksi	78.77	0	P	P	14 40 00.2	-0.5
TIXI				IAmb	IAmb	14 40 00.9	
	comp=Z,4.5nm,0.5s						
UNV	Unalaska Valle	81.62	33	P	P	14 40 17.1	+0.9
UNV				IAmb	IAmb	14 40 24.6	
	comp=Z,24nm,1.4s						
AB31	Akbulak array	81.73	322	P	P	14 40 16.4	-0.6
ABKAR	Akbulak array	81.73	322	P	P	14 40 15.9	-1.0
QSPA	South Pole Qui	82.69	180	P	P	14 40 21.2	-0.7
	comp=Z,1.2nm,1.1s,baz=315,slow=5.7,SNR=2.4						
	comp=Z,1.2nm,1.1s						
QSPA	South Pole Qui	82.69	180	P	P	14 40 21.9	+0.1
ARTI	Arti	85.18	328	P	P	14 40 33.5	-0.9
L14K	Kuka Creek	86.48	27	P	P	14 40 41.9	+1.3
M16K	Timber Creek	88.06	28	P	P	14 40 49.3	+1.0
ILAR	Eielson Array	94.29	25	P	P	14 41 15.4	-1.8
	comp=Z,0.4nm,0.8s,baz=258,slow=5.2,SNR=4.1						
	comp=Z,0.4nm,0.8s						
ILAR	Eielson Array	94.29	25	P	P	14 41 17.4	+0.3
TORD	Torodi Ar. Bea	127.28	281	PKP	PKPdf	14 47 02.4	-0.5
	comp=Z,0.4nm,0.6s,baz=62,slow=1.6,SNR=1.9						
PB05	IPOC Station P	144.96	149	PKPbc	PKPab	14 47 34.0	-1.2
PB03	IPOC Station P	145.86	149	PKPdf	PKPdf	14 47 35.5	-1.6
PB02	IPOC Station P	146.39	148	PKPdf	PKPdf	14 47 37.2	-0.8
TA01	Diego Aracena	146.85	147	PKPbc	PKPbc	14 47 40.3	-0.3
PB11	IPOC Station P	147.79	147	PKPdf	PKPdf	14 47 38.4	-2.0
LPAZ	La Paz	151.44	145	PKPbc	PKiKP	14 47 53.7	+0.2
	comp=Z,1.1nm,0.4s,baz=166,slow=4.2,SNR=5.7						

MAN 09 14:28:44.0, 3°.71N×126°.48E, h29km, MS3.8, Talaud Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	Don Marcelino,	2.50	342	*e*P	Pn	14 29 21.6	-1.1
DDMP				*e*S	Sb	14 29 58.3	-0.3
KCP	Kidapawan	3.56	337	*i* P	Pb	14 29 42.0	-4.3
CDOP	Cateel, Davao	4.05	359	*i* P	Pn	14 29 46.6	+2.5
CDOP				*i* S	Sn	14 30 31.8	+1.3
CTBH	Cotabato--PC H	4.14	328	*i* P	Pn	14 29 48.0	+2.8
BIPH	Bislig	4.45	358	*e*P	Pn	14 29 50.7	+1.2
BIPH				*e*S	Sn	14 30 45.4	+5.0
CGP	Cagayan de Oro	5.04	339	*e*P	Pb	14 30 04.8	-6.7
CGP				*i* S	Sb	14 31 10.6	-1.0
GLSP	General Luna,	6.04	357	*e*P	Pn	14 30 17.6	+6.1
GLSP				*e*S	Sb	14 32 07.1	+26
SCPH	Surigao	6.11	351	*i* P	Pb	14 30 23.4	-6.4

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*IDC **09** 14:45:44.8±1.3, 4°.14N×126°.15E, h0km, mb3.7/7, mbtmp3.7/7, Error ellipse: s-maj=108.8km s-min=17.7km az=69.0*

*MAN **09** 14:45:47.0, 3°.96N×126°.66E, h20km, MS3.4*

ISC 09 14:45:48.4±0.9**, 3°.88N**±0°.07×**126°.2E**±0°.1**, h10km, n13,** $\sigma 1^{s}$**.87**/16**, mb3.6**/7**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	Don Marcelino,	2.26	347	eP	Pn	14 46 24.1	-1.8
DDMP				eS	Sn	14 46 51.8	-2.1
GSPH	General Santos	2.52	330	i P	Pb	14 46 33.6	-0.3
GSPH				i S	Sn	14 47 02.1	+1.6
KCP	Kidapawan	3.30	340	eP	Pg	14 46 53.0	+1.4
CTBH	Cotabato--PC H	3.85	330	i P	Pn	14 46 49.8	+2.1
CDOP	Cateel, Davao	3.88	3	i P	Pn	14 46 49.7	+1.5
CDOP				i S	Sn	14 47 35.6	+1.7
BIPH	Bislig	4.28	2	eP	Pn	14 46 53.5	-0.1
BIPH				i S	Sn	14 47 45.3	+1.6
FITZ	Fitzroy Crossi	21.85	181	P	P	14 50 41.5	+0.3
	2.2nm,0.9s,baz=10.0,slow=10,SNR=6.0						
	2.2nm,0.9s						
WRA	Warramunga Arr	24.99	162	P	P	14 51 12.1	-0.4
	0.7nm,0.6s,baz=341,slow=11,SNR=12						
	0.7nm,0.6s						
ASAR	Alice Springs	28.39	165	P	P	14 51 44.7	+1.5
	0.1nm,0.4s,baz=343,slow=7.0,SNR=1.4						
	0.1nm,0.4s						
STKA	Stephens Creek	38.46	159	P	P	14 53 10.8	+0.3
	2.4nm,0.9s,baz=331,slow=10,SNR=2.5						
	2.4nm,0.9s						
MKAR	Makanchi Array	57.13	325	P	P	14 55 30.5	-4.8
	0.3nm,0.5s,baz=117,slow=8.2,SNR=5.7						
	0.3nm,0.5s						
ZALV	Zalesovo Beam	60.22	333	P	P	14 55 53.3	-3.3
	0.3nm,0.4s,baz=124,slow=12,SNR=1.7						
	0.3nm,0.4s						
KURBB	Kurchatov Arra	61.33	328	P	P	14 56 01.4	-2.9
	0.7nm,0.4s,baz=126,slow=5.5,SNR=6.1						
	0.7nm,0.4s						

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*BGSI **09** 14:46:43.6±1.5, 25°.56S×28°.82E, h24^{km}±38^{km}, ML2.7, Presumed earthquake*

BUL 09 14:46:39.7±1.6**, 25°.56S×29°.03E, h10**^{km}**, MD3.4, Presumed earthquake, South Africa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LBTB	Lobatse	3.16	279	i P	Pn	14 47 29.0	-0.6
LBTB				i S	Sn	14 48 05.4	-2.0
MREMI	Moremi	3.31	334	i P	Pn	14 47 30.5	-1.2
MREMI				i S	Sn	14 48 05.7	-5.6
MREMI	Moremi	3.31	334	i P	Pn	14 47 32.6	+0.9
MUSN	Musina, Limpop	3.35	13	i P	Pn	14 47 32.2	+0.1
MUSN				i S	Sn	14 48 09.9	-2.1
LPHEP	Lephephe	3.63	306	i P	Pn	14 47 33.0	-3.1
LPHEP				i S	Sn	14 48 10.1	-8.9
LPHEP				IAML		14 48 30.9	
	comp=N,20nm,0.6s						
LPHEP	Lephephe	3.63	306	i P	Pn	14 47 34.8	-1.3
LPHEP				i S	Sn	14 48 13.4	-5.6
LPHEP				IAML		14 48 30.8	
	comp=E,27nm,0.5s						
MAKGR	Makgori	3.83	265	i P	Pn	14 47 36.8	-2.1
MAKGR				i S	Sn	14 48 14.3	-10
MAKGR				IAML		14 48 33.7	
	comp=N,95nm,0.6s						
MAKGR	Makgori	3.83	265	i P	Pn	14 47 36.7	-2.1
MAKGR				i S	Sn	14 48 17.7	-6.3
MAKGR				IAML		14 48 34.0	
	comp=N,94nm,0.6s						
BOSA	Boshof	4.54	227	i P	Pn	14 47 46.1	-2.4
BOSA				i S	Sn	14 48 39.2	-2.2
KDWAN	Kaudwane	4.54	298	i P	Pn	14 47 47.3	-1.3
KDWAN				i S	Sn	14 48 33.0	-8.5
KDWAN				IAML		14 48 57.3	
	comp=E,35nm,0.6s						
BROLN	Tlhalogang	4.71	340	i P	Pn	14 47 50.0	-1.0
BROLN				i S	Sn	14 48 40.6	-5.2
BROLN				IAML		14 49 04.7	
	comp=N,11nm,0.6s						
BROLN	Tlhalogang	4.71	340	i P	Pn	14 47 50.5	-0.4
BROLN				i S	Sn	14 48 40.3	-5.4
BROLN				IAML		14 49 05.1	
	comp=E,17nm,0.7s						
SKOMA	Sekoma	4.74	282	i P	Pn	14 47 48.9	-2.5
SKOMA	Sekoma	4.74	282	i P	Pn	14 47 49.1	-2.3
KHWEE	KHWEE	4.88	317	i P	Pn	14 47 52.4	-0.8
BLWY	Bulawayo	5.41	356	i P	Pn	14 48 00.6	-0.1
BLWY				i S	Sn	14 48 58.2	-4.9
PHPEN	Phepeng	5.58	270	i P	Pn	14 48 00.3	-2.6

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*IDC **09** 14:58:30.4±1.3, 4°.86S×145°.52E, h0^{km}, mb4.0/5, mbtmp4.0/8, ML3.5/3, Error ellipse: s-maj=40.6km s-min=21.4km az=96.0*

*NEIC **09** 14:58:40.8±1.1, 5°.38S±0°.06×145°.48E±0°.09, h86^{km}±7^{km}, mb4.4/29, Error ellipse: s-maj=13.1km s-min=9.2km az=84.0*

ISC 09 14:58:41.6±0.5**, 5°.37S**±0°.06×**145°.51E**±0°.07**, h100**^{km}**, n47, σ1^{s}.61**/49**, mb4.2**/16**, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MANU	Manus Island	3.79	29	Pn	Pn	14 59 36.9	-1.1
PMG	Port Moresby	4.33	158	Pn	Pn	14 59 44.4	-0.8
	17nm,0.3s,baz=32,slow=6.5,SNR=72						
PMG				Sn	Sn	15 00 30.9	-3.7
	7.5nm,0.3s,baz=332,slow=16,SNR=3.8						
	47nm,0.3s						
PMG				AML	AML		
RABL	Rabaul	6.73	80	Pn	Pn	15 00 18.1	+0.2
COEN	Coen	8.84	195	Pn	Pn	15 00 45.1	-1.4
FAKI	Fak Fak	13.45	280	Pn	Pn	15 01 46.8	-1.7
CTA	Charters Tower	14.64	177	Pn	P	15 02 08.8	+1.3
	0.5nm,0.3s,baz=350,slow=15,SNR=7.0						
	9.4nm,1.2s						
CTA				AML	AML		
CTAO	Charters Tower	14.64	177	Pn	Pn	15 02 03.2	-0.7
HNR	Honiara	14.87	107	Pn	Pn	15 02 05.9	-0.9
WB0	Warramunga Arr	17.94	216	P	P	15 02 42.0	-1.9
WR8	Warramunga Arr	18.02	216	P	P	15 02 43.7	-1.2
WB2	Warramunga Arr	18.10	216	P	P	15 02 44.6	-1.1
WRA	Warramunga Arr	18.11	216	P	Pn	15 02 49.8	+3.1
	0.3nm,0.3s,baz=33,slow=11,SNR=24						
WRA				S	Sn	15 06 08.4	-0.6
	0.3nm,0.7s,baz=24,slow=21,SNR=1.5						
	0.5nm,0.5s						
WRA				AML	AML		
GUMO	Guam	18.85	358	P	P	15 02 53.2	-0.6
GUMO				IAmb	IAmb	15 03 23.4	
	comp=Z,52nm,1.4s						
EIDS	Eidsvold	20.59	166	P	P	15 03 12.6	0.0
EIDS				IAmb	IAmb	15 03 27.0	
	comp=Z,19nm,1.4s						
AS31	Alice Springs	21.35	210	P	P	15 03 20.8	-0.2
ASAR	Alice Springs	21.35	210	P	P	15 03 24.9	+4.0
	comp=Z,0.7nm,0.6s,baz=42,slow=7.6,SNR=34						
ASAR				S	Sn	15 07 22.7	-3.9
	comp=Z,0.2nm,0.6s,baz=49,slow=13,SNR=1.0						
	comp=Z,0.7nm,0.6s						
ASAR	Alice Springs	21.35	210	P	P	15 03 20.0	-0.9
SOEI	Soe	21.50	257	P	P	15 03 21.7	-1.0
SOEI				IAmb	IAmb	15 03 44.9	
	comp=Z,47nm,1.3s						
INKA	Innaminka	22.70	191	P	P	15 03 35.4	+0.4
SANVU	Saraoutou	23.54	117	P	P	15 03 41.4	-1.7
SANVU				IAmb	IAmb	15 04 09.0	
	comp=Z,17nm,0.6s						
KOUNC	Koumac, New Ca	23.67	131	P	P	15 03 44.0	-0.2
TOLI2	Tolitoli	25.53	284	P	P	15 04 00.1	-1.0
STKA	Stephens Creek	26.62	187	P	P	15 04 15.7	+4.9
	comp=Z,1.8nm,0.5s,baz=30,slow=8.1,SNR=4.4						
	comp=Z,1.8nm,0.5s						
BBOO	Buckleboo	28.69	197	P	P	15 04 29.4	+0.1
BBOO				IAmb	IAmb	15 04 34.8	
	comp=Z,19nm,1.3s						
FORT	Forrest	30.14	211	P	P	15 04 41.9	-0.2
FORT				IAmb	IAmb	15 04 54.5	
	comp=Z,15nm,1.1s						
TOO	Toolangi	32.05	180	P	P	15 04 58.8	-0.1
TOO				IAmb	IAmb	15 05 03.8	
	comp=Z,5.2nm,1.1s						
MSVF	Nonsavu	34.09	114	P	P	15 05 16.8	-0.1
SSLB	Suanglung	37.60	321	P	P	15 05 46.4	-0.4
SSLB				IAmb	IAmb	15 06 13.4	
	comp=Z,5.2nm,0.7s						
BBJI	Bungbulang	37.67	265	P	P	15 05 47.5	-0.1
INCN	Inchon	46.13	339	P	P	15 06 56.0	+0.1
PEA0B	Petropavlovsk-	59.17	9	P	P	15 08 31.9	0.0
PETK	Petropavlovsk-	59.17	9	P	P	15 08 32.2	+0.4
CASY	Casey	65.47	195	P	P	15 09 14.6	+1.0
VNDA	Vanda	72.62	176	P	P	15 10 01.4	+3.7
	comp=Z,1.3nm,0.6s,baz=333,slow=7.2,SNR=7.2						
	comp=Z,1.3nm,0.6s						
VNDA	Vanda	72.62	176	P	P	15 09 59.1	+1.4
VNDA				IAmb	IAmb	15 10 01.8	
	comp=Z,2.1nm,0.8s						
PWL	Port Wells	83.34	27	P	P	15 10 58.0	+0.7
PWL				IAmb	IAmb	15 11 00.8	
	comp=Z,16nm,1.5s						
IMAR	Indian Mountai	83.44	21	P	P	15 10 58.6	+1.0
SCM	Sheep Creek Mo	84.17	26	P	P	15 11 01.9	+0.3
QSPA	South Pole Qui	84.59	180	P	P	15 11 06.7	+3.0
	comp=Z,1.5nm,0.8s,baz=8.5,slow=13,SNR=7.4						
	comp=Z,1.5nm,0.8s						
QSPA	South Pole Qui	84.59	180	P	P	15 11 04.9	+1.2
QSPA				IAmb	IAmb	15 11 07.2	
	comp=Z,2.2nm,0.9s						
I23K	Minto, Yukon-K	84.68	23	P	P	15 11 04.9	+1.0
IL31		85.49	23	P	P	15 11 07.7	-0.2
IL31				IAmb	IAmb	15 11 33.9	
	comp=Z,2.1nm,0.9s						
ILAR	Eielson Array	85.49	23	P	P	15 11 08.7	+0.6
	comp=Z,0.8nm,0.6s,baz=259,slow=5.0,SNR=16						
	comp=Z,0.8nm,0.6s						
ILAR	Eielson Array	85.49	23	P	P	15 11 08.1	0.0
VRDI	Verde Repeater	85.69	27	P	P	15 11 09.3	0.0
VRDI				IAmb	IAmb	15 11 51.4	
	comp=Z,11nm,1.4s						
J25K	Salcha River,	86.04	24	P	P	15 11 12.1	+1.2
J25K				IAmb	IAmb	15 11 13.0	
	comp=Z,1.5nm,0.7s						
J30M	Hart River	89.75	25	P	P	15 11 29.0	+0.4
J30M				IAmb	IAmb	15 11 40.2	
	comp=Z,2.1nm,1.1s						

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*IDC **09** 15:53:41.3±4.6, 24°.76S×179°.83E, h528^{km}±52^{km}, mb3.3/4, mbtmp4.3/6, Error ellipse: s-maj=45.4km s-min=29.8km az=5.0*

ISC 09 15:53:40.0±1.4**, 24°.8S**±0°.1×**179°.8E**±0°.2**, h501**^{km}**, n7, σ0^{s}.95**/7**, mb3.8**/4**, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	12.59	280	P	P	15 56 26.0	+1.0
	9.6nm,0.8s,baz=106,slow=18,SNR=2.7						
URZ	Urewera	13.65	189	P	P	15 56 36.7	+1.0
	5.8nm,0.7s,baz=19,slow=18,SNR=0.9						
URZ				S	S	15 59 00.0	-0.7
	5.3nm,0.7s,baz=52,slow=20,SNR=5.5						
STKA	Stephens Creek	34.27	249	P	P	15 59 43.2	-0.5
	1.4nm,0.4s,baz=98,slow=12,SNR=10.0						
	1.4nm,0.4s						
ASAR	Alice Springs	41.76	262	P	P	16 00 44.6	-0.4
	1.5nm,0.4s,baz=93,slow=8.1,SNR=55						
	1.5nm,0.4s						
WRA	Warramunga Arr	42.21	267	P	P	16 00 47.8	-0.9
	5.6nm,0.6s,baz=99,slow=6.7,SNR=136						
	5.6nm,0.6s						
TXAR	Lajitas Array	91.01	58	P	P	16 05 50.5	-0.1
	0.4nm,0.6s,baz=265,slow=6.8,SNR=3.3						
	0.4nm,0.6s						
HFS	Hagfors	143.37	348	PKP	PKPab	16 12 12.9	-1.5
	2.3nm,0.5s,baz=46,slow=4.2,SNR=10						

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*TAP **09** 15:57:41.6, 21°.88N×121°.46E, h22^{km}, ML3.1, D*

*JMA **09** 15:57:42.0±0.2, 22°.1N±0°.7×121°.6E±0°.5, h3^{km}, MV3.1/11, TAIWAN REGION*

ISC 09 15:57:41.6±1.1**, 21°.85N**±0°.03×**121°.49E**±0°.02**, h21**^{km}±1^{km}**, n138, σ1^{s}.11**/265**, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LYUB	Lan-yu	0.18	30	i P	Pb	15 57 46.6	-0.9
LYUB				eS	Sb	15 57 50.4	-1.3
LAY	Lan-yu	0.20	17	P	Pb	15 57 46.8	-0.7
LAY				eS	Sb	15 57 49.8	-1.9
TSEB	Hengchuen, Pin	0.55	276	eP	Pb	15 57 53.4	+0.8
TSEB				eS	Sn	15 58 03.0	+0.3
SMST	Manzhou Townsh	0.63	286	eP	Pn	15 57 55.2	0.0
SMST				eS	Sb	15 58 03.5	+1.1
TWKBT	Hengchun	0.64	279	i P	Pb	15 57 53.9	-0.2
TWKBT				eS	Sb	15 58 01.5	-1.1
TWK1	Hengchun	0.64	279	eP	Pb	15 57 53.8	-0.4
TWK1				eS	Sb	15 58 01.6	-1.2
HEN	Hengchun	0.71	283	P	Pb	15 57 55.0	-0.3
HEN				S	Sb	15 58 04.1	-0.7
SLIU	Shizi	0.74	300	eP	Pb	15 57 55.2	-0.6
SLIU				eS	Sb	15 58 03.9	-1.5
TAWH	Dawu Township	0.74	311	P	Pb	15 57 54.5	-1.3
TAWH				S	Sb	15 58 04.4	-1.1
TAW	Tawu	0.75	313	P	Pb	15 57 54.4	-1.5
TAW				S	Sb	15 58 04.5	-1.2
EAST	Anshuo	0.80	312	eP	Pb	15 57 56.0	-0.8
EAST				eS	Sb	15 58 05.9	-1.3
LDUT	Ludao	0.82	359	P	Pb	15 57 56.3	-0.9
LDUT				S	Sb	15 58 07.5	-0.4
ECL	Taimali	0.90	327	eP	Pb	15 57 57.3	-1.2
ECL				S	Sb	15 58 07.9	-2.1
TTN	Taitung	0.96	341	P	Pb	15 57 59.1	-0.4
TTN				S	Sb	15 58 11.7	0.0
SCZT	Fangliau	0.96	303	eP	Pb	15 57 59.7	+0.1
SCZT				S	Sb	15 58 11.7	-0.1
TWGBT	Beinan	1.04	339	P	Pb	15 57 59.4	-1.5
TWGBT				eS	Sb	15 58 12.7	-1.4
TWG	Pinlang	1.04	338	eP	Pb	15 57 59.4	-1.6
TWG				eS	Sb	15 58 12.6	-1.6
SSPT	Xinbi	1.06	307	eP	Pn	15 58 02.5	+1.2
SSPT				eS	Sb	15 58 14.7	-0.1
MASBT	Mashibuluo	1.10	314	P	Pn	15 58 00.9	-0.9
MASBT				S	Sb	15 58 13.7	-2.1
LONT	Longtian	1.11	343	P	Pn	15 58 00.6	-1.3
LONT				eS	Sb	15 58 15.4	-0.6
EDH	Donghe	1.13	351	eP	Pn	15 58 01.4	-0.9
EDH				S	Sb	15 58 16.1	-0.7
TWP	Hsiaoliuchiu	1.16	296	eP	Pn	15 58 01.9	-0.7
TWP				eS	Sb	15 58 16.6	-0.9
TSMG	Majia	1.16	318	eP	Pb	15 58 02.9	-0.1
SSD	Sandimen	1.20	319	eP	Pb	15 58 04.0	+0.4
SSD				eS	Sb	15 58 18.3	-0.3
CHKT	Chengkung	1.25	355	P	Pn	15 58 02.4	-1.5
CHKT				S	Sn	15 58 18.3	-1.8
ECS	Chishang	1.27	349	eP	Pn	15 58 04.4	+0.3
ECS				eS	Sb	15 58 21.1	+0.4
EHD	Haiduan	1.32	349	P	Pn	15 58 04.4	-0.5
EHD				eS	Sn	15 58 21.2	-0.6
CHKH	Chenggong	1.34	356	eP	Pn	15 58 04.8	-0.4
CHKH				eS	Sn	15 58 20.5	-1.8
FULB	Fuli	1.36	352	P	Pn	15 58 04.1	-1.3
FULB				eS	Sb	15 58 23.6	+0.3
SLGT	Liugui	1.38	326	eP	Pb	15 58 06.6	-0.2
SLGT				eS	Sb	15 58 25.1	+1.2
SCST	Cishan	1.39	318	P	Pb	15 58 07.2	+0.4
SCST				eS	Sb	15 58 26.9	+2.8
TWM1	Shoushan	1.39	315	eP	Pb	15 58 08.3	+1.5
TWM1				eS	Sb	15 58 26.7	+2.6
WSSB	Gushan	1.39	305	eS	Sb	15 58 27.2	+3.1
SNJT	Kaohsiung City	1.40	310	eP	Pn	15 58 05.9	+0.1
ELDTW	Lidau	1.41	342	P	Pn	15 58 04.1	-2.0
ELDTW				eS	Sn	15 58 23.9	-0.2
ECBN	Changbin	1.46	359	eP	Pn	15 58 07.0	+0.2
ECBN				S	Sn	15 58 24.2	-1.1
STYH	Taoyuan	1.47	334	eP	Pn	15 58 07.3	+0.4
STYH				eS	Sb	15 58 27.0	+0.4
STYT	Tauyuan	1.47	333	P	Pn	15 58 07.0	0.0
STYT				eS	Sn	15 58 25.8	0.0
SGST	Jiashian	1.49	326	i P	Pb	15 58 08.0	-0.5
SGST				eS	Sb	15 58 28.9	+1.9
EYUL	Yuli	1.50	354	eP	Pn	15 58 07.7	+0.3
EYUL				S	Sn	15 58 26.5	+0.3
TWF1	Yuli	1.51	353	eP	Pn	15 58 07.5	+0.1
TWF1				eS	Sn	15 58 26.7	+0.2
YULB	Yu-li	1.55	353	eP	Pn	15 58 08.3	+0.3
YULB				eS	Sb	15 58 28.2	-0.5
SHHT	Tainan City	1.57	318	P	Pn	15 58 08.7	+0.4
CHN1	Nanshi	1.60	326	eP	Pb	15 58 10.6	+0.1
CHN1				eS	Sb	15 58 31.8	+1.6
CHN3	Shinhua	1.60	320	P	Pn	15 58 09.2	+0.5
CHN3				eS	Sn	15 58 29.0	+0.2
WTP	Ta-pu	1.61	330	eP	Pb	15 58 10.7	0.0
WTP				eS	Sb	15 58 31.5	+0.9
HGSD	Ruisui	1.64	358	P	Pn	15 58 08.7	-0.5
HGSD				S	Sn	15 58 30.1	+0.5
EHYH	Wanrong	1.65	355	P	Pn	15 58 08.4	-0.9
EHYH				eS	Sn	15 58 30.1	+0.3
SNST	Tainan City	1.65	326	eP	Pb	15 58 10.9	-0.3
SNST				eS	Sn	15 58 30.1	+0.3
TPUB	Ta-pu	1.65	331	eP	Pb	15 58 11.1	-0.2
TPUB				eS	Sb	15 58 33.3	+1.6
TAI	Tainan	1.65	314	eP	Pn	15 58 09.7	+0.3
EHY	Hungye	1.66	355	eP	Pb	15 58 10.6	-0.8
EHY				eS	Sn	15 58 30.3	+0.1
TWK	Hsinying	1.69	327	eP	Pb	15 58 11.7	-0.3
TWK				eS	Sb	15 58 34.7	+1.9
SSHA	Shanhua	1.70	319	eP	Pn	15 58 10.8	+0.8
YUS	Yu-Shan	1.71	343	P	Pn	15 58 10.5	-0.2
YUS				eS	Sn	15 58 31.4	-0.7
ALS	Alishan	1.77	339	eP	Pb	15 58 13.0	-0.6
WCKO	Fanlu	1.78	333	eP	Pb	15 58 13.2	-0.4
WCKO				S	Sb	15 58 36.3	+0.8
SCLT	Jiali	1.78	318	P	Pn	15 58 11.2	+0.1
SCLT				eS	Sn	15 58 33.7	+0.5
EGFH	Guangfu	1.81	358	eP	Pn	15 58 12.3	+0.7
EGFH				S	Sn	15 58 35.0	+1.0
WARBT	Fenglin Townsh	1.86	357	eP	Pn	15 58 12.7	+0.3
WARBT				eS	Sn	15 58 35.4	+0.1
ICHU	Yijhu	1.88	324	P	Pn	15 58 13.4	+1.0
ICHU				eS	Sn	15 58 35.1	-0.4
CHN5	Tsauling	1.90	337	P	Pn	15 58 14.2	+1.4
CHN5				eS	Sn	15 58 36.0	-0.1
CHN8	Yiju	1.90	322	P	Pn	15 58 13.1	+0.3
CHN8				eS	Sn	15 58 35.6	-0.6
CHY	Chiayi	1.92	329	eP	Pn	15 58 13.1	+0.1
CHY				eS	Sn	15 58 37.8	+1.3
CHN2	Minshiung	1.92	331	P	Pn	15 58 13.6	+0.5
CHN2				eS	Sn	15 58 36.8	+0.2
VWDT	VWDT	1.93	350	eS	Sb	15 58 38.2	-1.3
WHYT	Xinyi Township	1.93	342	eP	Pb	15 58 15.0	-1.1
WHYT				S	Sb	15 58 39.4	-0.4
SHUL	Shoufeng	1.93	2	eP	Pn	15 58 14.4	+1.1
SHUL				S	Sn	15 58 37.5	+0.6
ESL	Shilin	1.96	359	eP	Pn	15 58 14.5	+0.9
ESL				eS	Sn	15 58 38.1	+0.5
SSLB	Suanglung	1.99	346	eP	Pb	15 58 16.2	-1.0
SSLB				eS	Sb	15 58 41.1	-0.5
TEYL	Yanliau Villag	2.01	3	eP	Pn	15 58 15.9	+1.6
TEYL				S	Sn	15 58 40.3	+1.3
WDLH	Douliu	2.03	335	P	Pn	15 58 15.3	+0.7
WDLH				eS	Sn	15 58 39.2	-0.2
WSL	Shuilin Townsh	2.03	325	P	Pn	15 58 15.8	+1.1
WSL				S	Sn	15 58 39.6	+0.2
WTK	Tuku	2.10	331	P	Pn	15 58 16.1	+0.6
WTK				eS	Sb	15 58 43.7	-0.8
SMLT	Sun Moon Lake	2.10	345	eP	Pb	15 58 18.1	-0.9
SMLT				eS	Sb	15 58 44.6	-0.1
ETM	Tongmen	2.11	0	eP	Pn	15 58 16.7	+1.0
ETM				eS	Sn	15 58 42.0	+0.7
OWD	Renai	2.12	352	P	Pn	15 58 16.6	+0.6
OWD				S	Sn	15 58 41.7	0.0
TYC	Yuchr	2.13	344	P	Pn	15 58 17.0	+1.1
TYC				eS	Sn	15 58 42.3	+0.5
WSF	Szhu	2.13	327	eP	Pn	15 58 17.0	+1.0
WSF				S	Sn	15 58 42.0	+0.2
WNT	Mingjian	2.15	340	P	Pn	15 58 16.9	+0.6
WNT				eS	Sb	15 58 45.6	-0.6
WUSB	Renai	2.16	351	P	Pn	15 58 16.9	+0.3
WUSB				eS	Sb	15 58 46.2	-0.4
LXIB	Xiulin Townshi	2.17	358	eP	Pn	15 58 17.6	+1.0
LXIB				S	Sn	15 58 43.5	+0.7
WDGT	Dungji	2.20	310	P	Pn	15 58 16.1	-0.8
WDGT				S	Sn	15 58 42.5	-1.0
TWD	Chiawan	2.23	3	eP	Pn	15 58 19.1	+1.8
TWD				S	Sn	15 58 44.5	+0.3
DPDB	Guoxing	2.24	347	P	Pn	15 58 18.9	+1.4
DPDB				eS	Sn	15 58 44.8	+0.3
WCS	Beigang Elemen	2.26	347	P	Pb	15 58 19.8	-2.0
WCS				eS	Sn	15 58 44.3	-0.8
WHF	Hehuan Shan	2.30	355	P	Pn	15 58 19.5	+0.9
WHF				S	Sn	15 58 46.8	+0.3
NACB	Ninganchiao	2.32	2	eP	Pn	15 58 20.3	+1.7
NACB				eS	Sn	15 58 46.7	+0.2
VCHM	Qimei	2.34	306	P	Pn	15 58 18.9	+0.1
VCHM				S	Sn	15 58 45.9	-1.0
ETLH	Xiulin Townshi	2.35	360	eP	Pn	15 58 20.1	+1.1
ETLH				eS	Sn	15 58 47.8	+0.4
EOS4	EOS4	2.39	18	eP	Pn	15 58 20.4	+1.3
EOS4				eS	Sn	15 58 46.2	-1.5
FUSS	Fushou	2.40	355	P	Pn	15 58 21.4	+1.5
FUSS				S	Sn	15 58 49.0	+0.2
TWT	Tachien	2.41	353	P	Pn	15 58 21.7	+1.7
TWT				eS	Sn	15 58 48.5	-0.5
TDCB	Techi	2.41	353	eP	Pn	15 58 18.7	-1.3
TDCB				S	Sn	15 58 49.3	+0.3
PHUB	P'eng-hu	2.43	313	eP	Pn	15 58 18.9	-1.1
PHUB				eS	Sn	15 58 49.2	+0.1
EHP	Heping Village	2.46	5	P	Pn	15 58 21.7	+1.1
EHP				S	Sn	15 58 50.9	+0.8
WHP	Taichung City	2.47	348	eS	Sn	15 58 50.9	+0.5
PNG	Penghu	2.47	314	eP	Pn	15 58 20.8	+0.1
PNG				eS	Sn	15 58 50.6	+0.3
EOS3	EOS3	2.54	17	P	Pn	15 58 21.2	-0.3
EOS3				eS	Sn	15 58 51.0	-0.8
NNSB	Datong	2.57	358	P	Pn	15 58 23.6	+1.4
NNSB				S	Sn	15 58 54.1	+1.3
NNSH	Datong	2.57	358	P	Pn	15 58 22.3	+0.2
NNSH				S	Sn	15 58 53.5	+0.7
TWQ1	Liyutan	2.58	345	P	Pn	15 58 23.6	+1.5
TWQ1				eS	Sn	15 58 52.8	-0.1
ENA	Nanau	2.58	5	P	Pn	15 58 22.9	+0.8
ENA				S	Sn	15 58 53.5	+0.6
EWUT	Wuta	2.60	6	eP	Pn	15 58 23.8	+1.3
EWUT				eS	Sn	15 58 54.9	+1.5
EOS2	EOS2	2.65	15	eP	Pn	15 58 24.2	+1.2
EOS2				eS	Sn	15 58 55.4	+1.0
LATG	Datong	2.68	1	S	Sn	15 58 55.9	+0.4
NDS	Dongshan	2.78	4	P	Pn	15 58 26.5	+1.6
NDS				S	Sn	15 58 57.6	-0.3
NFF	Wufeng Townshi	2.79	353	eP	Pb	15 58 30.1	-0.7
NFF				eS	Sb	15 59 01.5	-3.2
NSTT	Nanjuang	2.81	351	P	Pn	15 58 26.2	+0.9
NSTT				S	Sn	15 58 59.5	+0.9
YHNB	Yeheng	2.81	358	eP	Pn	15 58 26.1	+0.6
YHNB				eS	Sn	15 58 59.6	+0.9
NSK	Sanguang	2.82	358	eP	Pn	15 58 27.3	+1.8
NSK				eS	Sb	15 59 02.9	-2.5
LIOB	Emei	2.82	351	P	Pn	15 58 27.0	+1.5
LIOB				eS	Sn	15 59 00.1	+1.2
TWE	Neicheng	2.87	3	eP	Pn	15 58 27.6	+1.6
TWE				eS	Sn	15 59 01.0	+1.1
NJN	Zhunan	2.88	349	eP	Pn	15 58 28.1	+1.8
NJN				eS	Sn	15 59 00.1	-0.2
FUSB	Fushanzhiwuyua	2.90	2	eP	Pn	15 58 28.2	+1.6
FUSB				eS	Sn	15 59 01.0	+0.1
NWLT	Wulai	2.92	0	eP	Pb	15 58 30.4	-2.5
KSHI	Guanxi Townshi	2.93	354	eP	Pn	15 58 27.9	+1.0
KSHI				eS	Sn	15 59 02.3	+0.7
YOJ	Yonaguni jima	2.96	28	eP	Pn	15 58 29.3	+2.0
YOJ				eS	Sn	15 59 04.6	+2.5
SBCB	Hsinchu	2.97	351	P	Pn	15 58 29.3	+1.8
SBCB				eS	Sn	15 59 02.6	+0.1
HATJ	Hateruma jima	3.06	44	P	Pn	15 58 29.1	+0.3
HATJ				eS	Sn	15 59 03.5	-1.4
TIPB	Shuangxi	3.13	6	eP	Pn	15 58 32.0	+2.3
TIPB				eS	Sn	15 59 09.1	+2.7
BACT	New Taipei Cit	3.14	359	eP	Pn	15 58 31.2	+1.4
BACT				eS	Sn	15 59 07.6	+1.0
TAP	Taipei	3.18	0	eP	Pn	15 58 32.1	+1.8
TAP				eS	Sn	15 59 08.5	+0.9
IRIF	Iriomote-Funau	3.22	39	P	Pn	15 58 31.5	+0.5
IRIF				eS	Sn	15 59 07.5	-1.2
SXI1	Grass Mountain	3.25	6	eP	Pb	15 58 35.9	-2.8
SXI1				eS	Sn	15 59 10.7	+1.1
JKRS	Kuro-shima	3.32	44	P	Pn	15 58 33.0	+0.6
JKRS				eS	Sn	15 59 10.7	-0.6
PACPP	Pamplona Cagay	3.37	182	i P	Pn	15 58 33.7	+0.7
PACPP				eS	Sn	15 59 11.9	-0.6
JIJ	Ishigaki jima	3.50	44	P	Pn	15 58 35.0	+0.2
JIJ				S	Sn	15 59 13.3	-2.3

VWUC	VWUC	3.65	329	eP	Pn	15 58 37.3	+0.5
VWUC				eS	Sn	15 59 19.1	-0.1
JISG	Ishigakijimahi	3.77	43	P	Pn	15 58 39.0	+0.6
JISG				eS	Sn	15 59 19.8	-2.3
PTMZ	Houxiangcun	3.85	326	eP	Pn	15 58 40.3	+0.6
PTMZ				eS	Sn	15 59 24.1	-0.1
KNMB	Chin-men Tao	3.86	313	eP	Pn	15 58 39.5	-0.3
KNMB				eS	Sn	15 59 23.0	-1.5
ZPLA	Ao Xicun	4.02	302	eP	Pn	15 58 40.9	-1.1
ZPLA				eS	Sn	15 59 27.7	-0.8
JTJ	Tarama	4.06	46	P	Pn	15 58 43.3	+0.9
JTJ				eS	Sn	15 59 29.1	-0.2
DSXP	Dongshan	4.18	297	eP	Pn	15 58 45.1	+0.9
DSXP				eS	Sn	15 59 31.6	-0.8
AXDP	Jialang	4.44	314	eP	Pn	15 58 48.4	+0.7
AXDP				eS	Sn	15 59 37.2	-1.5
JMJ	Miyako jima 2	4.58	49	eP	Pn	15 58 52.4	+2.8
JMJ				eS	Sn	15 59 43.1	+1.0
MHZQ	Yeshan	4.79	333	eP	Pn	15 58 54.0	+1.4
MHZQ				eS	Sn	15 59 46.1	-1.4

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*TRN **09** 16:01:45.0, 10°.94N×62°.11W, h100km, MD3.6, North of the Paria peninsula.*

*FUNV **09** 16:02:12.2, 11°.00N×62°.29W, h25km, MW3.6, Presumed earthquake*

ISC 09 16:02:10.1±2.0, **10°.94N**±0°.07×**62°.30W**±0°.09, **h94**km±26km, **n13**, σ1ˢ**26**/26, **Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DMDM	Guralp CMG5TDE	0.77	108	eP	Pn	16 02 28.7	+1.0
DMDM				eS	Sn	16 02 40.2	-0.6
PSGH	Port of Spain	0.83	110	eP	Pn	16 02 29.1	+0.9
PSGH				eS	Sn	16 02 41.1	-0.7
TRN	Trinidad (W)	0.93	108	eP	Pn	16 02 29.9	+0.6
TRN				eS	Sn	16 02 42.5	-1.2
TRN	Trinidad (W)	0.93	108	eP	Pn	16 02 29.9	+0.6
TRN				eS	Sn	16 02 42.4	-1.2
GRGR	Grenville	1.34	28	eP	Pn	16 02 34.2	+0.1
GRGR				eS	Sn	16 02 50.6	-1.7
GRGR	Grenville	1.34	28	eP	Pn	16 02 34.4	+0.3
GRGR				eS	Sn	16 02 52.0	-0.3
GRW	Mount Saint Ca	1.36	27	eP	Pn	16 02 35.2	+0.8
GRW				eS	Sn	16 02 54.0	+1.1
GRSS	Sisters	1.51	26	eP	Pn	16 02 36.8	+0.7
GRSS				eS	Sn	16 02 56.0	+0.1
SLAC	Saint Lucia, A	3.24	25	eP	Pn	16 02 59.6	+0.6
SLAC				eS	Sn	16 03 35.2	-1.6
SLBI	Saint Lucia, B	3.33	23	eP	Pn	16 03 01.3	+1.2
SLBI				eS	Sn	16 03 37.2	-1.5
TACV	Tcata	4.72	261	eP	Pn	16 03 20.6	+1.6
TACV				eS	Sn	16 04 11.1	-1.5
BENV	Beln	5.30	260	eP	Pn	16 03 28.2	+1.3
BENV				eS	Sn	16 04 24.6	-2.3
TURV	Turiamo	5.47	265	eP	Pn	16 03 30.6	+1.5
TURV				eS	Sn	16 04 29.1	-1.6

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*NNC **09** 16:16:46.7±1.6, 37°.73N×72°.02E, h0km, mb4.7, mpv4.5, Error ellipse: s-maj=13.6km s-min=10.0km az=5.0*

*MOS **09** 16:16:46.0±0.9, 37°.31N×72°.04E, h198km, mb4.5/15, Error ellipse: s-maj=6.9km s-min=3.8km az=83.6*

*NEIC **09** 16:16:47.0±1.1, 37°.35N±0°.04×72°.06E±0°.06, h188km±6km, mb4.4/31, Error ellipse: s-maj=9.4km s-min=1.7km az=134.0*

*GFZ **09** 16:16:47.3±0.2, 37°N±2°×7°2E±°, h190km, M4.2/20, mb4.2/20, confirmed*

*IDC **09** 16:16:48.2±1.7, 37°.36N×72°.11E, h208km±15km, mb3.5/23, mbtmp4.2/29, Error ellipse: s-maj=11.5km s-min=9.8km az=14.0*

ISC 09 16:16:46.8±0.3, **37°.25N**±0°.04×**72°.05E**±0°.04, **h200**km, **n248**, σ1ˢ**74**/278, **mb4.2**/58, **12C-16D, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DRK	Karamyk	2.23	355	PN	Pn	16 17 27.5	-0.5
DRK	Karamyk	2.23	355		Pn	16 17 27.5	-0.5
DRK	Karamyk	2.23	355	P	Pn	16 17 27.7	-0.3
BTK	Batken	2.96	341	PN	Pn	16 17 35.9	-0.1
BTK	Batken	2.96	341	Pn	Pn	16 17 35.9	-0.1
BTK	Batken	2.96	341	P	Pn	16 17 36.1	+0.1
OHH	Osh	3.32	10	P	Pn	16 17 38.2	-2.0
KSH2	Kashi	3.35	55	Pn	Pn	16 17 41.9	+1.2
KSH2				Sn	Sn	16 18 21.8	-1.2
KSH2				smax	smax		
	comp=N,810nm,0.5s						
KSH2				smax	smax		
	comp=E,800nm,0.5s						
KBL	Kabul	3.65	223	PN	Pn	16 17 43.9	-0.6
KBL	Kabul	3.65	223	Pn	Pn	16 17 43.9	-0.6
KBL	Kabul	3.65	223	P	Pn	16 17 44.3	-0.1
NIL	Nilore	3.73	164	PN	Pn	16 17 46.2	+0.9
NIL	Nilore	3.73	164	Pn	Pn	16 17 46.2	+0.9
NIL	Nilore	3.73	164	P	Pn	16 17 46.7	+1.5
ARSB	Arslanbob	4.13	10	PN	Pn	16 17 48.7	-1.6
ARSB	Arslanbob	4.13	10	Pn	Pn	16 17 48.7	-1.6
ARK	Arkit	4.54	359	P	Pn	16 17 54.4	-1.0
JMU	Jammu	5.01	152	eP	Pn	16 17 59.7	-1.7
JMU				eS	Sn	16 18 54.6	-5.5
JMU				IAML		16 19 01.6	
	comp=E,1µm,0.4s						
JMU				IAML		16 19 02.5	
	comp=N,1µm,0.7s						
ASAI	AK-SAY(Kyrgyzs	5.05	42	P	Pn	16 18 01.9	-0.2
	comp=Z,24nm,0.8s						
IUG	Iuzhnay	5.13	343	ePN	Pn	16 18 02.3	-0.6
IUG	Iuzhnay	5.13	343	eP	Pn	16 18 02.4	-0.6
ALCI	Alchi Leh	5.16	124	eP	Pn	16 18 01.3	-2.3
ALCI				eS	Sn	16 18 57.3	-6.8
ALCI				IAML		16 19 06.2	
	comp=N,1µm,0.1s						
ALCI				IAML		16 19 06.7	
	comp=E,1µm,0.1s						
NRN	Naryn	5.18	35	PN	Pn	16 18 01.8	-1.9
NRN	Naryn	5.18	35	Pn	Pn	16 18 01.8	-1.9
CHM	Chimkent	5.40	340	ePN	Pn	16 18 05.8	-0.4
CHM	Chimkent	5.40	340	eP	Pn	16 18 05.9	-0.4
EKS2	Erkin-Say	5.56	13	P	Pn	16 18 08.2	-0.3
	SNR=167						
AAK	Ala-Archa	5.70	18	P	Pn	16 18 10.1	-0.1
	comp=E,118nm,0.3s,baz=162,slow=5.5,SNR=173						
AAK				S	Sn	16 19 13.9	-2.3
	comp=E,77nm,0.5s,baz=131,slow=20,SNR=24						
AAK	Ala-Archa	5.70	18	P	Pn	16 18 10.2	0.0
	SNR=76						
AAK	Ala-Archa	5.70	18	⇑P	Pn	16 18 07.9	-2.3
	comp=E,25nm,0.4s						
AAK				⇑S	Sn	16 19 08.7	-7.5
	comp=E,148nm,0.8s						
AAK	Ala-Archa	5.70	18	Pn	Pn	16 18 09.8	-0.4
AAK	Ala-Archa	5.70	18	P	Pn	16 18 10.3	0.0
	comp=Z,171nm,0.5s						
KBK	Karagaybulak	5.84	21	P	Pn	16 18 12.4	+0.4
	SNR=44						
FRU1	Bishkek	5.89	19	PN	Pn	16 18 12.6	0.0
FRU1	Bishkek	5.89	19	Pn	Pn	16 18 12.6	0.0
ULHL	Ulahol	5.94	32	P	Pn	16 18 13.2	-0.2
	SNR=7.6						
KK31	Karatay Array	5.96	349	⇓P	Pn	16 18 10.6	-2.9
	comp=Z,29nm,0.4s,baz=174,slow=16,SNR=290						
KK31				⇑S	Sn	16 19 15.1	-7.1
	comp=Z,57nm,0.3s,baz=168,slow=20,SNR=15						
KK31	Karatay Array	5.96	349	ePN	Pn	16 18 12.4	-1.1
KK31	Karatay Array	5.96	349	Pn	Pn	16 18 12.1	-1.4
KKAR	Karatay Array	5.96	349	PN	Pn	16 18 11.6	-1.9
KKAR	Karatay Array	5.96	349	Pn	Pn	16 18 11.6	-1.9
BRLS	Borolday	6.01	344	ePN	Pn	16 18 10.0	-4.2
BRLS	Borolday	6.01	344	eP	Pn	16 18 10.0	-4.2
BOOM	Boomskoye usch	6.03	29	PN	Pn	16 18 13.9	-0.5
BOOM	Boomskoye usch	6.03	29	Pn	Pn	16 18 13.9	-0.5
BOOM	Boomskoye usch	6.03	29	P	Pn	16 18 13.7	-0.8
	comp=Z,29nm,0.8s						
DHRM	DHARAMSHALA	6.09	144	eP	Pn	16 18 14.0	-1.5
DHRM				eS	Sn	16 19 19.0	-6.6
DHRM				IAML		16 19 26.2	
	comp=E,527nm,0.7s						
DHRM				IAML		16 19 26.4	
	comp=N,587nm,0.4s						
CHMS	Chumysh	6.10	19	P	Pn	16 18 14.9	-0.3
	SNR=41						
KDJ	Kajisay	6.27	37	PN	Pn	16 18 16.8	-0.9
KDJ	Kajisay	6.27	37	Pn	Pn	16 18 16.8	-0.9
KDJ	Kajisay	6.27	37	P	Pn	16 18 17.5	-0.1
	comp=Z,24nm,0.4s						
TKM2	Tokmak 2	6.28	25	P	Pn	16 18 17.6	-0.2
	SNR=44						
USP	Ospenovka	6.29	17	P	Pn	16 18 16.8	-1.0
	SNR=37						
TARG	Taragay, Kyrgy	6.31	43	PN	Pn	16 18 17.0	-1.3
TARG	Taragay, Kyrgy	6.31	43	Pn	Pn	16 18 17.0	-1.3
TARG	Taragay, Kyrgy	6.31	43	P	Pn	16 18 17.6	-0.7
	comp=Z,12nm,0.8s						
SGDS	Sogindy	6.50	17	eP	Pn	16 18 19.5	-1.0
WUS	Wushi	6.82	52	Pn	Pn	16 18 23.9	-0.7
WUS	Wushi	6.82	52	P	Pn	16 18 24.8	+0.1
	comp=Z,21nm,0.9s						
BHK	Bhakra	6.85	147	eP	Pn	16 18 27.3	+2.1
BHK				eS	Sn	16 19 39.9	-3.2
BHK				IAML		16 19 41.1	
	comp=N,310nm,0.6s						
BHK				IAML		16 19 41.5	
	comp=E,386nm,0.2s						
TNSS	Tian-Shan	6.89	31	ePN	Pn	16 18 25.4	-0.4
TNSS	Tian-Shan	6.89	31	eP	Pn	16 18 25.5	-0.4
AAA	Alma-Ata	7.02	30	ePN	Pn	16 18 27.1	-0.1
AAA	Alma-Ata	7.02	30	eP	Pn	16 18 27.1	-0.1
MDOK	Medeo	7.03	31	ePN	Pn	16 18 27.6	+0.1
MDOK	Medeo	7.03	31	eP	Pn	16 18 27.7	+0.1
KNDC	Almaty	7.04	31	⇑P	Pn	16 18 25.9	-1.6
	comp=E,114nm,0.8s						
KNDC				⇓S	Sn	16 19 43.8	-3.7
	comp=E,35nm,0.7s						
KNDC	Almaty	7.04	31	PN	Pn	16 18 25.9	-1.6
PRZ	Przheval'sk	7.15	41	PN	Pn	16 18 29.3	+0.2
PRZ	Przheval'sk	7.15	41	Pn	Pn	16 18 29.3	+0.2
KUU	Kurty	7.39	25	ePN	Pn	16 18 31.5	-0.5
KUU	Kurty	7.39	25	eP	Pn	16 18 31.6	-0.5
SMLA	Simla	7.43	144	eP	Pn	16 18 31.5	-1.2
SMLA				eS	Sn	16 19 49.2	-7.6
SMLA				IAML		16 19 55.1	
	comp=E,182nm,0.2s						
SMLA				IAML		16 19 55.3	
	comp=N,173nm,0.3s						
UZB	Uzynbulak	7.94	40	ePN	Pn	16 18 38.9	-0.4
UZB	Uzynbulak	7.94	40	eP	Pn	16 18 38.9	-0.4
KPKS	Kokpek	8.01	37	ePN	Pn	16 18 39.7	-0.4
KPKS	Kokpek	8.01	37	eP	Pn	16 18 39.7	-0.4
SHLS	Shalkode	8.18	42	ePN	Pn	16 18 45.5	+3.2
SHLS	Shalkode	8.18	42	eP	Pn	16 18 45.6	+3.2
PDGK	Podgornoye	8.31	41	⇑P	Pn	16 18 43.3	-0.8
	comp=N,7.4nm,0.8s						
PDGK				⇓S	Sn	16 20 15.9	-1.8
	comp=N,23nm,1.0s						
PDGK	Podgornoye	8.31	41	PN	Pn	16 18 43.3	-0.8
PDGK				S	Sn	16 20 15.9	-1.8
PDGK	Podgornoye	8.31	41	Pn	Pn	16 18 42.8	-1.3
HRA	Herat	8.46	253	Pn	Pn	16 18 45.7	-0.6
TDK	Taldyqorghan	9.10	30	eP	Pn	16 18 54.8	+0.5
TDK	Taldyqorghan	9.10	30	eP	Pn	16 18 54.8	+0.5
AJM	Ajmer	11.02	168	eP	Pn	16 19 17.6	-1.6
AJM				eS	Sn	16 21 11.4	-11
AJM				IAML		16 21 13.3	
	comp=E,88nm,0.1s						
AJM				IAML		16 21 14.2	
	comp=N,88nm,0.0s						
MAKZ	Makanchi	12.06	35	⇑P	P	16 19 34.2	-2.7
	comp=N,3.3nm,0.7s						
MAKZ	Makanchi	12.06	35	P	Pn	16 19 30.3	-2.0
MAKZ	Makanchi	12.06	35	Pn	Pn	16 19 30.2	-2.0
MAKZ	Makanchi	12.06	35	P	Pn	16 19 30.7	-1.5
	comp=Z,8.2nm,1.0s						
MK31	Makanchi Array	12.19	35	⇓P	P	16 19 35.9	-2.5
	comp=Z,2.3nm,0.8s,baz=196,slow=8.3,SNR=23						
MK31	Makanchi Array	12.19	35	deP	Pn	16 19 33.1	-0.8
MKAR	Makanchi Array	12.19	35	P	Pn	16 19 32.7	-1.2
	comp=Z,0.9nm,0.4s,baz=220,slow=12,SNR=15						
MKAR	Makanchi Array	12.19	35	eP	Pn	16 19 33.5	-0.4
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	Makanchi Array	12.19	35	Pn	Pn	16 19 33.1	-0.8
WMQ	Urumqi	13.58	56	eP	P	16 19 53.4	-0.5
ZSN	Zaisan	13.89	39	eP	P	16 19 55.8	-1.5
ZSN	Zaisan	13.89	39	eP	P	16 19 55.8	-1.5
KURBB	Kurchatov Arra	14.15	17	P	Pn	16 19 56.4	-1.9
	comp=Z,7.7nm,0.8s,baz=208,slow=11,SNR=15						
KURBB				S	Sn	16 22 36.6	+0.3
	comp=Z,0.6nm,0.2s,baz=203,slow=19,SNR=4.1						
KURBB	Kurchatov Arra	14.15	17	⇑P	P	16 20 01.8	+1.8
	comp=Z,10nm,0.6s						
KURBB	Kurchatov Arra	14.15	17	P	P	16 20 01.8	+1.8
KURK	Kurchatov	14.26	17	⇑P	P	16 20 02.3	+1.1
	comp=Z,7.8nm,1.3s						
KURK	Kurchatov	14.26	17	d iP	P	16 20 01.5	+0.3
KURK	Kurchatov	14.26	17	Pn	Pn	16 19 57.5	-2.1
KURK	Kurchatov	14.26	17	P	P	16 20 02.0	+0.8
	comp=Z,15nm,1.0s						
AB31	Akbulak array	14.87	328	⇓P	P	16 20 11.8	+3.8
	comp=Z,6.9nm,0.6s,baz=139,slow=9.9,SNR=140						
AB31				S	Sn	16 22 53.3	-0.2
	comp=Z,17nm,0.6s,baz=147,slow=22,SNR=12						
AB31	Akbulak array	14.87	328	P	Pn	16 20 04.2	-3.0
AB31				eS	S	16 22 40.7	-11
AB31	Akbulak array	14.87	328	Pn	Pn	16 20 04.5	-2.7
ABKAR	Akbulak array	14.87	328	Pn	Pn	16 20 04.6	-2.5
EVN	Everest	15.50	122	Pn	Pn	16 20 14.8	-0.9
EVN				IAmb	IAmb	16 20 17.9	
	comp=Z,15nm,0.6s						
EVN	Everest	15.50	122	P	P	16 20 16.8	+0.9
	comp=Z,21nm,0.7s						
BVA0	Borovoye Array	15.81	356	i P	P	16 20 17.5	-0.9
BVAR	Borovoye Array	15.81	356	P	P	16 20 17.1	-1.4
	comp=Z,12nm,0.6s,baz=163,slow=12,SNR=59						
BVAR				S	S	16 23 10.5	-3.3
	comp=Z,3.7nm,0.7s,baz=163,slow=24,SNR=4.8						
BORK	Borovoye	15.84	356	d iP	Pn	16 20 18.4	-0.6
BORK	Borovoye	15.84	356		P	16 20 16.7	-2.0
BORK				IAmb	IAmb	16 20 20.7	
	comp=Z,10nm,0.6s						
AKTO	Aktyubinsk	16.58	327	P	Pn	16 20 27.0	-0.8
	comp=Z,39nm,0.4s,baz=126,slow=9.1,SNR=71						
AKTO				S	S	16 23 24.6	-5.2
	comp=Z,14nm,0.6s,baz=232,slow=5.7,SNR=7.1						
AKTO	Aktyubinsk	16.58	327	⇓P	Pn	16 20 34.2	+6.3
	comp=Z,18nm,0.5s						
AKTO				⇑S	Sn	16 23 36.5	+2.3
	comp=Z,4.5nm,0.5s						
LSA	Lhasa	17.61	110	P	Pn	16 20 40.8	+0.1
LSA				pmax	pmax		
	comp=Z,10.0nm,0.6s						
LSA	Lhasa	17.61	110		Pn	16 20 40.8	+0.1
LSA				IAmb	IAmb	16 20 44.1	
	comp=Z,9.9nm,0.6s						
LSA	Lhasa	17.61	110	P	Pn	16 20 43.3	+2.6
	comp=Z,16nm,0.7s						
UOSS	Minazif	18.26	232	P	P	16 20 45.2	-0.3
UOSS				IAmb	IAmb	16 20 51.0	
	comp=Z,7.8nm,0.8s						
UOSS	Minazif	18.26	232	P	P	16 20 45.8	+0.3
	comp=Z,13nm,1.3s						
ZAA0	Zalesovo Array	18.88	24	P	P	16 20 52.0	0.0
ZALV	Zalesovo Beam	18.88	24	P	P	16 20 52.5	+0.6
	comp=Z,21nm,0.4s,baz=206,slow=10,SNR=118						
ZALV				S	S	16 24 13.5	-2.1
	comp=Z,0.6nm,0.5s,baz=216,slow=17,SNR=2.1						
ZALV	Zalesovo Beam	18.88	24	i P	P	16 20 52.5	+0.6
ZALV				pmax	pmax		
	comp=Z,20nm,0.4s						
ZALV	Zalesovo Beam	18.88	24	P	P	16 20 52.0	0.0
AKT	Akhty	19.25	290	eP	P	16 20 56.9	+0.7
AKT				eS	S	16 24 25.3	+1.9
AKT				pmax	pmax		
	comp=Z,6.0nm,0.5s						
SEKA	Sheki	19.63	289	P	P	16 21 01.6	+1.4
GANJ	Ganja	20.27	288	P	P	16 21 08.7	+1.7
SVE	Sverdlovsk	21.02	342	eP	P	16 21 14.5	-0.1
SVE				pmax	pmax		
	comp=Z,13nm,1.0s						
ARTI	Arti	21.23	339	P	P	16 21 17.1	+0.2
	comp=Z,6.4nm,0.6s,baz=160,slow=6.3,SNR=11						
ARTI				S	S	16 24 58.1	-2.2
	comp=Z,1.1nm,0.3s,baz=203,slow=9.5,SNR=1.7						
	comp=Z,6.4nm,0.6s						
ARTI	Arti	21.23	339	d iP	P	16 21 17.0	+0.1
ARTI						16 21 54.9	
ARTI				S	S	16 25 04.2	+3.9
ARTI				pmax	pmax		
	comp=Z,13nm,1.1s						
ARTI	Arti	21.23	339	P	P	16 21 16.0	-0.9
ARTI				IAmb	IAmb	16 21 17.7	
	comp=Z,27nm,1.3s						
GTA2	Gaotai	21.81	76	eP	P	16 21 25.1	+1.9
GTA2				pP	pP	16 21 48.6	-10
GTA2				pmax	pmax		
	comp=Z,3.0nm,0.8s						
NCK	Nalchik	22.49	295	⇑eP	P	16 21 31.7	+2.2
NCK				pmax	pmax		
	comp=Z,7.0nm,0.3s						
BELG	Belogornoye	22.85	319	P	P	16 21 33.0	+0.5
	comp=Z,9.2nm,0.5s,baz=201,slow=14,SNR=7.5						
	comp=Z,9.2nm,0.5s						
BELG	Belogornoye	22.85	319	deP	P	16 21 32.8	+0.3
BELG				pmax	pmax		
	comp=Z,4.0nm,1.3s						
KBZ	Khabaz	23.02	295	P	P	16 21 35.1	+1.0
	comp=Z,1.8nm,0.8s,baz=104,slow=9.6,SNR=3.9						
	comp=Z,1.8nm,0.8s						
KBZ	Khabaz	23.02	295	eP	P	16 21 36.2	+2.1
KBZ				pmax	pmax		
	comp=Z,5.0nm,1.4s						
MORE	Moreh	23.04	118	P	P	16 21 37.2	+2.7
MORE				IAmb	IAmb	16 21 38.5	
	comp=Z,5.1nm,0.6s						
KVAR	Kislovodsk Arr	23.19	296	P	P	16 21 35.5	-0.3
	comp=Z,1.2nm,0.4s,baz=143,slow=16,SNR=1.7						
	comp=Z,1.2nm,0.4s						
SHA1	Shidzhatmaz	23.20	295	⇓eP	P	16 21 37.9	+1.9
KIV	Kislovodsk	23.20	296	eP	P	16 21 35.2	-0.7
KIV				eS	S	16 25 33.7	+1.2
KIV				pmax	pmax		
	comp=Z,3.0nm,1.1s						
KIRV	Kirov	25.95	333	⇓eP	P	16 22 01.1	+0.7
SONM	Songino Array	27.21	56	P	P	16 22 12.3	+0.2
	comp=Z,1.0nm,0.6s,baz=260,slow=8.9,SNR=4.3						
	comp=Z,1.0nm,0.6s						
SONM	Songino Array	27.21	56	eP	P	16 22 13.0	+0.9
SONM				pmax	pmax		
	comp=Z,1.0nm,0.6s						
PZH	PanZhiHua	27.29	105	P	P	16 22 15.5	+2.5
ULN	Ulaanbaatar	27.66	56	⇑eP	P	16 22 18.0	+2.0
ULN				pmax	pmax		
	comp=Z,5.0nm,1.8s						
OBN	Obninsk	29.93	318	eP	P	16 22 34.7	-1.1
OBN				e*PP	pP	16 23 13.3	-4.0
OBN				e		16 23 37.9	
OBN				e		16 25 36.1	
OBN				pmax	pmax		
	comp=Z,5.0nm,0.8s						
BR131	Keskin Array S	30.02	287	⇓eP	P	16 22 38.4	+1.5
BR131	Keskin Array S	30.02	287	P	P	16 22 38.2	+1.2
BRTR	Keskin Array B	30.02	287	P	P	16 22 38.2	+1.2
	comp=Z,1.6nm,0.5s,baz=95,slow=7.2,SNR=12						
	comp=Z,1.6nm,0.5s						
BRTR	Keskin Array B	30.02	287	eP	P	16 22 38.5	+1.5
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
BRTR	Keskin Array B	30.02	287	P	P	16 22 37.7	+0.7
CMAR	Chiang Mai Arr	30.10	121	P	P	16 22 38.4	+0.7
	comp=Z,0.5nm,0.7s,baz=312,slow=8.4,SNR=5.5						
	comp=Z,0.5nm,0.7s						
CMAR	Chiang Mai Arr	30.10	121	eP	P	16 22 38.9	+1.2
HHC	Hu-ho-hao-te	30.71	71	eP	P	16 22 44.2	+1.1
HHC				pmax	pmax		
	comp=Z,11nm,0.7s						
HHC				pmax	pmax		
	comp=Z,130nm,5.3s						
AKASG	Malin Array Be	33.14	308	P	P	16 23 04.0	+0.1
	comp=Z,0.7nm,0.3s,baz=82,slow=7.3,SNR=8.9						
	comp=Z,0.7nm,0.3s						
AKASG	Malin Array Be	33.14	308	eP	P	16 23 05.0	+1.1
AKASG	Malin Array Be	33.14	308	P	P	16 23 04.7	+0.7
AKBB	Malin Array Si	33.14	308	⇓eP	P	16 23 04.0	+0.1
AKBB	Malin Array Si	33.14	308	P	P	16 23 04.3	+0.4
AKBB				IAmb	IAmb	16 23 31.3	
	comp=Z,3.0nm,0.8s						
KIEV	Kiev	33.15	308	P	P	16 23 04.2	+0.2
KIEV	Kiev	33.15	308	P	P	16 23 04.2	+0.2
NRIK	Noril'sk	33.24	10	P	P	16 23 05.8	+1.3
	comp=Z,2.2nm,0.4s,baz=183,slow=4.6,SNR=3.6						
	comp=Z,2.2nm,0.4s						
NRIK	Noril'sk	33.24	10	eP	P	16 23 06.8	+2.3
NRIK				pmax	pmax		
	comp=Z,5.0nm,1.5s						
NRIK	Noril'sk	33.24	10	P	P	16 23 05.5	+1.0
NRIK				IAmb	IAmb	16 23 06.8	
	comp=Z,2.7nm,0.6s						
ELL	Elmali	33.46	282	P	P	16 23 08.5	+1.5
ELL				pmax	pmax		
	comp=Z,9.0nm,0.8s						
ELL	Elmali	33.46	282	P	P	16 23 08.5	+1.5
ELL				IAmb	IAmb	16 23 10.0	
	comp=Z,8.8nm,0.8s						
MNK	Minsk	34.57	314	i P	P	16 23 14.5	-1.6
MNK				i *PP	pP	16 23 53.9	-4.5
MNK				i		16 24 37.4	
MNK				i S	S	16 28 30.6	+0.6
MNK				pmax	pmax		
	comp=Z,16nm,0.7s						
MNK				pmax	pmax		
	comp=E,20nm,0.9s						
MNK				pmax	pmax		
	comp=N,12nm,0.9s						
MNK				MLR	MLR		
	comp=Z,27nm,15.0s						
MNK				MLR	MLR		
	comp=E,23nm,13.0s						
MNK				MLR	MLR		
	comp=N,54nm,18.0s						
MNK	Minsk	34.57	314	i P	P	16 23 14.6	-1.6
	comp=E,20nm,0.9s						
MNK				i P	P	16 23 14.6	-1.6
	comp=N,12nm,0.9s						
MNK				i P	P	16 23 14.6	-1.6
	comp=Z,16nm,0.7s,baz=101						
MNK				i pP	pP	16 23 53.9	-4.5
MNK				i PP	PP	16 24 37.5	-1.3
MNK				i S	S	16 28 30.6	+0.6
MNK				i sS	sS	16 29 36.9	-8.4
MNK				i SS	SnSn	16 31 06.4	-1.4
MNK				i LRM	MLR	16 38 23.3	
	comp=Z,27nm,15.3s						
MNK				i LRM	MLR	16 38 33.8	
	comp=E,23nm,13.5s						
MNK				i LRM	MLR	16 38 34.7	
	comp=N,54nm,17.7s						
MLR	Muntele Rosu	35.16	298	P	P	16 23 22.6	+1.1
	comp=N,3.1nm,0.6s,baz=105,slow=18,SNR=4.0						
	comp=N,3.1nm,0.6s						
VOIR		35.79	298	P	P	16 23 28.2	+1.3
	comp=Z,3.4nm,1.3s						
LVZ	Lovozero	37.08	338	P	P	16 23 37.8	+0.4
LVZ				pmax	pmax		
	comp=Z,14nm,1.3s						
LVZ	Lovozero	37.08	338	P	P	16 23 37.8	+0.4
LVZ				IAmb	IAmb	16 24 15.4	
	comp=Z,14nm,1.3s						
FIA1	FINESS Array S	37.34	325	P	P	16 23 40.1	+0.6
FINES	FINESS Array B	37.34	325	P	P	16 23 40.2	+0.7
	comp=Z,1.4nm,0.3s,baz=119,slow=9.6,SNR=17						
	comp=Z,1.4nm,0.3s						
FINES	FINESS Array B	37.34	325	P	P	16 23 39.8	+0.2
VADS	Vadso	39.91	339	eP	P	16 24 01.9	+1.1
VADS				IAmb	IAmb	16 24 02.9	
	comp=Z,80nm,1.8s						
ARA0	ARCESS Array S	40.78	337	eP	P	16 24 08.6	+0.6
ARCES	ARCESS Array B	40.78	337	P	P	16 24 08.9	+0.9
	comp=Z,2.6nm,0.4s,baz=114,slow=8.6,SNR=49						
	comp=Z,2.6nm,0.4s						
ARCES	ARCESS Array B	40.78	337	P	P	16 24 08.9	+0.9
ARCES				IAmb	IAmb	16 24 09.6	
	comp=Z,19nm,1.3s						
HEH	HeiHe	41.12	53	eP	P	16 24 12.5	+1.5
HEH				pmax	pmax		
	comp=Z,9.0nm,0.5s						
KTK1	Kautokeino	41.27	336	eP	P	16 24 12.4	+0.4
KTK1				IAmb	IAmb	16 24 13.1	
	comp=Z,9.1nm,0.8s						
HAMF	Hammerfest	41.84	338	eP	P	16 24 17.6	+1.0
HAMF				IAmb	IAmb	16 24 18.5	
	comp=Z,9.4nm,0.7s						
IPM	Ipoh	42.04	134	P	P	16 24 19.9	+1.1
	comp=Z,17nm,1.6s						

RPSI	Rantau Prapat	42.34	138	P	P	16 24 20.9	-0.4
	comp=Z,8.3nm,1.1s						
JETT	Jettan, Norway	42.41	336	eP	P	16 24 21.9	+0.6
GSI	Gunungsitoli	42.82	141	P	P	16 24 26.4	+1.2
GSI	Gunungsitoli	42.82	141	P	P	16 24 27.2	+2.1
	comp=Z,93nm,2.5s						
BRG	Berggiesshubel	42.83	308	P	P	16 24 25.9	+1.1
	comp=Z,6.8nm,2.2s						
YAK	Yakutsk	42.86	36	⇑eP	P	16 24 25.8	+0.9
YAK				pmax	pmax		
	comp=Z,7.0nm,1.1s						
TRO	Tromso	42.92	336	eP	P	16 24 25.6	+0.3
HFS	Hagfors	43.00	321	P	P	16 24 26.4	+0.4
	comp=Z,6.7nm,0.5s,baz=99,slow=9.3,SNR=31						
	comp=Z,6.7nm,0.5s						
GERES	GERESS Array B	43.19	305	P	P	16 24 28.8	+1.0
	comp=Z,0.5nm,0.3s,baz=69,slow=7.3,SNR=2.2						
	comp=Z,0.5nm,0.3s						
FAUS	Fauske	43.53	332	IAmb	IAmb	16 24 30.6	
	comp=Z,34nm,1.5s						
FAUS				eP	P	16 24 30.6	+0.5
MOR8	Moi Rana	43.58	330	eP	P	16 24 30.5	-0.1
MOR8				IAmb	IAmb	16 24 30.7	
	comp=Z,10nm,0.4s						
RAUS	Rausandaksla	43.79	330	eP	P	16 24 32.9	+0.6
KSRS	Korea Array	43.84	72	P	P	16 24 33.4	+0.3
	comp=Z,0.3nm,0.3s,baz=286,slow=7.6,SNR=2.3						
	comp=Z,0.3nm,0.3s						
LEIR	Leirfjorden	44.10	330	eP	P	16 24 35.4	+0.7
NC602	NORSAR Array S	44.11	322	eP	P	16 24 35.2	+0.3
NC602	NORSAR Array S	44.11	322	P	P	16 24 35.0	+0.1
VAGH	Vaagaholmen	44.16	331	eP	P	16 24 35.7	+0.6
KONS	Konsvik	44.17	330	eP	P	16 24 35.9	+0.7
STOK	Stokkvaagen	44.18	330	eP	P	16 24 35.9	+0.6
NB2	NORSAR Subarra	44.29	323	P	P	16 24 36.4	0.0
	comp=Z,1.6nm,0.5s,baz=93,slow=7.9						
NB2	NORSAR Subarra	44.29	323	P	P	16 24 36.6	+0.2
NB2	NORSAR Subarra	44.29	323	P	P	16 24 36.4	0.0
NOA	NORSAR Array B	44.29	323	P	P	16 24 36.5	+0.2
	comp=Z,1.5nm,0.4s,baz=93,slow=7.8,SNR=9.4						
	comp=Z,1.5nm,0.4s						
WIMM	Wimmelburg	44.29	309	P	P	16 24 37.3	+0.9
	comp=Z,18nm,1.1s						
FLTG	Flechtingen	44.38	310	P	P	16 24 37.6	+0.5
	comp=Z,9.3nm,0.6s						
TIXI	Tiksi	44.76	22	P	P	16 24 40.1	+0.3
TIXI				pmax	pmax		
	comp=Z,3.0nm,0.8s						
TIXI	Tiksi	44.76	22	P	P	16 24 40.1	+0.3
KONO	Kongsberg	45.04	320	P	P	16 24 42.3	+0.1
KONO				pmax	pmax		
	comp=Z,49nm,1.5s						
KONO	Kongsberg	45.04	320	P	P	16 24 42.3	+0.1
MYKOM	Kota Tinggi	45.85	133	P	P	16 24 50.5	+1.4
MYKOM				IAmb	IAmb	16 24 51.7	
	comp=Z,8.3nm,0.7s						
MYKOM	Kota Tinggi	45.85	133	P	P	16 24 50.8	+1.6
	comp=Z,13nm,0.9s						
AKN	Aaknes	46.35	324	eP	P	16 24 49.3	-3.3
AKN				IAmb	IAmb	16 24 50.1	
	comp=Z,131nm,2.0s						
SPA0	Spitsbergen Ar	46.96	347	eP	P	16 24 57.1	+0.1
KKM	Kota Kinabalu	50.78	117	P	P	16 25 28.9	+2.0
EKA	Eskdalemuir Ar	52.34	316	P	P	16 25 37.8	0.0
	comp=Z,0.4nm,0.4s,baz=78,slow=7.8,SNR=4.0						
	comp=Z,0.4nm,0.4s						
ESDC	Sonseca Array	57.85	298	P	P	16 26 18.0	+0.4
	comp=Z,0.9nm,0.6s,baz=62,slow=7.5,SNR=9.8						
	comp=Z,0.9nm,0.6s						
SUMG	Summit	60.62	341	P	P	16 26 37.7	+1.2
SUMG				pmax	pmax		
	comp=Z,16nm,1.4s						
SUMG	Summit	60.62	341	P	P	16 26 37.7	+1.2
TORD	Torodi Ar. Bea	66.58	269	P	P	16 27 14.7	-1.0
	comp=Z,1.3nm,0.5s,baz=48,slow=5.6,SNR=7.7						
	comp=Z,1.3nm,0.5s						
C19K	Lookout Ridge	67.36	18	P	P	16 27 21.2	+1.4
C19K				IAmb	IAmb	16 27 42.4	
	comp=Z,9.4nm,1.2s						
D19K	Kuna River	68.17	18	P	P	16 27 25.6	+0.7
D19K				IAmb	IAmb	16 28 09.0	
	comp=Z,17nm,1.5s						
F21K	Alatna River	70.27	17	P	P	16 27 38.4	+0.6
BMAR	Burnt Mountain	72.01	14	P	P	16 27 49.7	+1.3
COLA	College	73.52	17	⇓eP	P	16 28 00.1	+3.0
COLA				pmax	pmax		
	comp=Z,4.0nm,0.9s						
CAST	Castle Rocks	73.70	19	P	P	16 27 59.2	+0.9
CAST				IAmb	IAmb	16 27 59.8	
	comp=Z,4.2nm,1.2s						
ILAR	Eielson Array	73.82	16	P	P	16 27 59.0	+0.1
	comp=Z,0.4nm,0.8s,baz=329,slow=7.4,SNR=4.3						
	comp=Z,0.4nm,0.8s						
ILAR	Eielson Array	73.82	16	eP	P	16 27 58.2	-0.7
PPLA	Purkeypile	74.10	19	P	P	16 28 01.3	+0.5
PPLA				IAmb	IAmb	16 28 35.7	
	comp=Z,15nm,1.4s						
H29M	Whitestone	74.22	12	P	P	16 28 02.3	+1.0
H31M	Peel River	75.25	11	P	P	16 28 07.4	+0.2
H31M				IAmb	IAmb	16 28 38.7	
	comp=Z,8.0nm,1.4s						
YKA	Yellowknife Ar	80.45	3	P	P	16 28 36.4	+0.6
	comp=Z,1.3nm,0.5s,baz=353,slow=5.2,SNR=4.5						
	comp=Z,1.3nm,0.5s						
YKA	Yellowknife Ar	80.45	3	eP	P	16 28 36.1	+0.3
WRA	Warramunga Arr	81.68	123	P	P	16 28 43.3	+0.5
	comp=Z,0.3nm,0.6s,baz=323,slow=4.8,SNR=6.2						
	comp=Z,0.3nm,0.6s						
WRA	Warramunga Arr	81.68	123	eP	P	16 28 42.1	-0.8
WRA	Warramunga Arr	81.68	123	P	P	16 28 43.4	+0.5
ASAR	Alice Springs	84.00	126	P	P	16 28 54.2	-0.6
	comp=Z,0.5nm,0.9s,baz=316,slow=5.1,SNR=4.9						
	comp=Z,0.5nm,0.9s						
AC02	Maricunga	145.70	276		PKPbc	16 36 03.3	+0.4
LCO	Las Campanas	147.91	274	PKP2	PKPbc	16 36 09.4	+0.7
LCO	Las Campanas	147.91	274	PKPbc	PKPbc	16 36 09.4	+0.7
MT02	Curacav	149.80	266	PKPbc	PKPbc	16 36 12.9	-0.1
PLCA	Paso Flores	150.87	251	PKPbc	PKPbc	16 36 15.4	0.0
	comp=Z,2.0nm,1.0s,baz=90,slow=4.0,SNR=3.5						
GO06	Curarrehue	151.45	254	PKPbc	PKPbc	16 36 16.6	-0.2

IDC 09 16:53:57.1±2.4**, 4°.72S**×**134°.11E, h0^{km}, mb3.3**/1**, mbtmp3.4**/4**, ML3.5**/3**, MS3.2**/1**, Error ellipse: s-maj=67.0km s-min=23.5km az=86.0, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	15.13	179	Pn	Pn	16 57 29.0	-3.3
	0.1nm,0.3s,baz=354,slow=13,SNR=13						
WRA				Sn	Sn	17 00 08.0	-13
	0.1nm,0.3s,baz=0.8,slow=24,SNR=4.5						
	0.2nm,0.5s						
WRA				AML	AML		
FITZ	Fitzroy Crossi	15.66	211	Pn	Pn	16 57 34.2	-5.1
	0.2nm,0.3s,baz=29,slow=11,SNR=18						
FITZ				Sn	Sn	17 00 18.0	-16
	0.4nm,0.3s,baz=40,slow=15,SNR=8.4						
	1.3nm,0.5s						
FITZ				AML	AML		
ASAR	Alice Springs	18.83	181	P	P	16 58 17.4	-1.4
	0.2nm,0.3s,baz=5.3,slow=12,SNR=17						
ASAR				LR	LR	17 05 09.7	
	comp=Z,78nm,21.4s,baz=296,slow=36						
	1.0nm,0.6s						
ASAR				AML	AML		
MKAR	Makanchi Array	68.66	325	P	P	17 05 02.5	+0.1
	0.1nm,0.5s,baz=108,slow=4.7,SNR=1.9						
	0.1nm,0.5s						

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*JMA **09** 17:11:05.9±0.4, 44°N±2°×14°8E±°, h0^{km}, MV3.6/21, SE OFF ETOROFU*

*SKHL **09** 17:11:06.8±0.5, 44°.40N×148°.20E, h49^{km}±7^{km}, mb4.3/2*

ISC 09 17:11:03.1±3.8**, 44°.42N**±0°.10×**148°.2E**±0°.2**, h10^{km}**±24^{km}**, n15, σ1^{s}.46**/25**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	Kuril'sk	0.86	343	eP	Pn	17 11 22.3	+1.1
KUR				eS	Sn	17 11 33.8	0.0
KUR				A	A	17 11 34.8	
	160nm,0.3s						
KUR				A	A	17 11 34.8	
	450nm,0.3s						
REI	Reidovoe	0.86	350	eP	Pn	17 11 21.8	+0.5
REI				eS	Sn	17 11 33.4	-0.6
REI				A	A	17 11 34.0	
	180nm,0.3s						
REI				A	A	17 11 34.0	
	420nm,0.3s						
YUK	Yuzh-Kuril'sk	1.74	258	eP	Pb	17 11 34.8	-0.3
YUK				AMB	AMB	17 11 41.1	
	70nm,0.2s						
YUK				iS	Sn	17 11 54.7	-0.9
YUK				A	A	17 11 59.4	
	90nm,0.2s						
YUK				A	A	17 11 59.4	
	150nm,0.2s						
NEM2	Nemuro 2	2.08	241	P	Pn	17 11 38.8	+0.8
NEM2				S	Sn	17 12 02.5	-1.4
NMR	Nemuro--Hokkai	2.09	241	eP	Pn	17 11 38.7	+0.6
NMR				iS	Sn	17 12 02.4	-1.7
JRA	Rausu	2.28	259	P	Pb	17 11 43.5	-0.8
JRA				eS	Sb	17 12 11.8	-0.8
JNSB	Nemuroshibetsu	2.41	256	P	Pb	17 11 45.4	-1.1
JKHN	Kushirohamanak	2.59	240	P	Pn	17 11 46.2	+1.2
JKHN				eS	Sn	17 12 15.9	-0.7
JNK	Nakash	2.66	253	P	Pn	17 11 48.1	+2.1
AKK	Akkeshi	2.82	242	eP	Pn	17 11 49.0	+0.8
AKK				eS	Sn	17 12 21.1	-1.2
JAK	Akkeshi	2.92	242	P	Pn	17 11 50.9	+1.2
JAK				S	Sn	17 12 23.7	-1.1
JTKR	Abashiri--Toko	3.14	263	P	Pb	17 11 57.7	-1.2
JAR	Ashorobuto	3.41	252	P	Pn	17 11 59.5	+3.2
JAR				eS	Sn	17 12 38.9	+2.1
JOB	Onbets	3.53	246	eS	Sn	17 12 39.6	-0.1
JCH	Churui	3.97	245	P	Pn	17 12 06.7	+2.7

WEL 09 17:34:30.8±0.9**, 32°S**±7°×**17°9E**±1°6**, h12^{km}, M4.2**/10**, mB4.8**/6**, ML4.1**/12**, MLv4.3**/10**, Mw(mB)4.1**/6**, Error ellipse: s-maj=22.0km s-min=4.2km az=112.1, confirmed, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GLKZ	Green Lake	4.28	44	P	Pn	17 35 36.0	+0.3
GLKZ				S	Sn	17 36 26.1	+0.6
MXZ	Matakaoa Point	5.15	183	P	Pn	17 35 49.5	+1.7
MXZ				S	Sn	17 36 48.7	+1.6
MXZ				AML	AML		
MXZ				AML	AML		
HAZ	Te Kaha	5.39	188	P	Pn	17 35 52.7	+1.8
HAZ				S	Sn	17 36 58.1	+5.2
WMGZ	Waiomatatini S	5.40	182	P	Pn	17 35 51.4	+0.2
WMGZ				S	Sn	17 36 56.2	+2.9
WMGZ				AML	AML		
WMGZ				AML	AML		
PKGZ	Pakihiroa	5.47	185	P	Pn	17 35 53.9	+1.8
PKGZ				S	Sn	17 36 55.6	+0.6
PKGZ				AML	AML		
PKGZ				AML	AML		
RUGZ	Raukumara Rang	5.61	188	P	Pn	17 35 55.3	+1.2
RUGZ				S	Sn	17 36 57.7	-0.9
RUGZ				AML	AML		
RUGZ				AML	AML		
PUZ	Puketiti	5.66	183	P	Pn	17 35 54.0	-0.8
PUZ				S	Sn	17 36 59.7	-0.1
PUZ				AML	AML		
PUZ				AML	AML		
TWGZ	Tauwhareparae	5.79	186	P	Pn	17 35 56.0	-0.5
TWGZ				S	Sn	17 37 03.0	+0.1
URZ	Urewera	5.98	192	P	Pn	17 35 58.1	-1.0
URZ				S	Sn	17 37 09.7	+2.2
URZ				AML	AML		
URZ				AML	AML		
MWZ	Matawai	5.99	189	P	Pn	17 35 58.3	-1.0
MWZ				AML	AML		
MWZ				AML	AML		
TKGZ	Te Karaka	6.06	186	P	Pn	17 35 58.3	-1.9
TKGZ				S	Sn	17 37 08.8	-0.6
TKGZ				AML	AML		
TKGZ				AML	AML		
CNGZ	Carnagh Statio	6.08	184	P	Pn	17 35 59.1	-1.3
CNGZ				AML	AML		
MUGZ	Murupara	6.26	194	P	Pn	17 36 02.9	-0.1
MUGZ				S	Sn	17 37 16.2	+1.8
MUGZ				AML	AML		
MUGZ				AML	AML		
MTHZ	Maungataniwha	6.61	193	P	Pn	17 36 09.2	+1.5
MTHZ				S	Sn	17 37 23.7	+0.7
MTHZ				AML	AML		
MTHZ				AML	AML		
RAHZ	Arahi	6.62	191	P	Pn	17 36 08.0	0.0
RAHZ				S	Sn	17 37 22.0	-1.4
RAHZ				AML	AML		
RAHZ				AML	AML		
MHGZ	Mahia Peninsul	6.76	185	P	Pn	17 36 08.8	-1.0
MHGZ				AML	AML		
NMHZ	Naumai	6.85	192	P	Pn	17 36 11.9	+0.7
NMHZ				S	Sn	17 37 28.4	-0.6
NMHZ				AML	AML		
ARHZ	Aropaoanui	6.98	191	P	Pn	17 36 11.3	-1.5
ARHZ				AML	AML		

IDC 09 17:45:41.5±26.0**, 0°.72S**×**129°.59E, h380^{km}**±332^{km}**, mb2.5**/2**, mbtmp3.1**/3**, Error ellipse: s-maj=251.0km s-min=81.5km az=74.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	19.66	167	P	P	17 49 44.0	-0.2
	0.4nm,0.7s,baz=347,slow=10,SNR=5.1						
ASAR	Alice Springs	23.19	170	P	P	17 50 16.5	0.0
	0.2nm,0.7s,baz=344,slow=8.5,SNR=1.3						
	0.2nm,0.7s						
MKAR	Makanchi Array	62.81	325	P	P	17 55 28.1	+0.1
	0.6nm,0.9s,baz=134,slow=8.3,SNR=4.3						
	0.6nm,0.9s						

IDC 09 18:00:56.2±340.0**, 67°.56N**×**37°.08E, h0^{km}, Error ellipse: s-maj=166.4km s-min=137.0km az=124.0, Baltic States-Belarus-Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I37NO	I37NO	7.00	291	I	I	18 45 41.8	
	baz=94,slow=326						
I31KZ	AKTYUBINSK INF	20.11	138	I	I	20 05 40.0	
	baz=337,slow=336,SNR=0.6						
I46RU	ZALESOVO INFRA	26.18	97	I	I	20 42 20.0	
	baz=321,slow=326,SNR=1.1						

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*IDC **09** 18:12:32.0±1.3, 16°.95N×93°.15W, h123^{km}±53^{km}, mb3.5/3, mbtmp3.7/4, Error ellipse: s-maj=124.4km s-min=8.4km az=26.0*

*MEX **09** 18:12:37.7±0.9, 16°.64N×93°.77W, h157^{km}±9^{km}, MD4.3, Presumed earthquake*

ISC 09 18:12:35.3±0.9**, 16°.73N**±0°.06×**93°.77W**±0°.04**, h165^{km}**±6^{km}**, n42, σ2^{s}.64**/73**, mb3.5**/3**, Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TGIG		0.62	86	eP	Pn	18 12 58.8	-0.1
TGIG				eS	Sn	18 13 15.3	-1.8
UXUV	UXUV	0.69	328	eP	Pn	18 13 00.0	+0.7
UXUV				eS	Sn	18 13 17.0	-0.9
CMIG	Matias Romero	1.13	289	P	Pn	18 13 03.1	+0.6
	298nm,0.4s,baz=158,slow=5.4,SNR=700						
CMIG				S	Sn	18 13 24.0	+0.5
	242nm,0.4s,baz=320,slow=20,SNR=21						
CMIG	Matias Romero	1.13	289	eP	Pn	18 13 03.5	+0.9
CMIG				eS	Sn	18 13 23.5	0.0
PAVE	Pavencul	2.16	135	eP	Pn	18 13 13.1	-0.3
PAVE				eS	Sn	18 13 40.5	-2.4
NEUV	Arroyo Zacate	2.18	297	eP	Pn	18 13 14.3	+1.0
NEUV				eS	Sn	18 13 42.1	-0.7
PATR	El Naranjo	2.18	137	eP	Pn	18 13 14.6	+0.9
PATR				eS	Sn	18 13 41.0	-2.2
PMUV	Sontecomapan	2.22	325	eP	Pn	18 13 21.9	+8.0
PMUV				eS	Sn	18 13 40.1	-3.8
CHUJ	Union Juarez	2.28	135	eP	Pn	18 13 14.8	0.0
CHUJ				eS	Sn	18 13 43.4	-1.9
THIG		2.32	141	eP	Pn	18 13 16.1	+1.1
THIG				eS	Sn	18 13 45.1	-0.7
HUIG	Huatulco	2.44	247	eP	Pn	18 13 15.3	-1.2
HUIG				eS	Sn	18 13 47.2	-1.1
VHO	Vista Hermosa	2.86	277	eP	Pn	18 13 23.4	+1.7
VHO				eS	Sn	18 13 58.0	+0.3
PEIG	Puerto Escondi	3.33	258	eP	Pn	18 13 26.5	-0.9
PEIG				eS	Sn	18 14 07.4	-0.4
TOIG	Toxpalan	3.43	294	eP	Pn	18 13 30.2	+1.5
TOIG				eS	Sn	18 14 08.7	-1.6
APG	El Apazote	3.61	118	P	Pn	18 13 22.5	-8.7
	0.2nm,0.3s,baz=274,slow=15,SNR=7.0						
APG				S	Sn	18 13 60.0	-15
	0.8nm,0.3s,baz=106,slow=13,SNR=4.8						
YOIG	Yosondua	3.62	273	eP	Pn	18 13 33.4	+2.1
YOIG				eS	Sn	18 14 13.0	-1.9
TPIG	Tehuac#an	3.82	297	eP	Pn	18 13 35.2	+1.5
TPIG				eS	Sn	18 14 18.2	-1.2
TXIG	Tlaxiaco	3.86	278	eP	Pn	18 13 36.7	+2.3
TXIG				eS	Sn	18 14 19.6	-1.0
JAUV	Jalcomulco	3.90	313	eP	Pn	18 13 34.8	+0.1
JAUV				eS	Sn	18 14 18.1	-2.9
HLIG	Huajuapan de L	4.01	286	eP	Pn	18 13 38.1	+1.9
HLIG				eS	Sn	18 14 21.4	-2.3
FTIG	Fresnillo de T	4.33	286	eP	Pn	18 13 42.3	+2.0
FTIG				eS	Sn	18 14 28.9	-2.2
TLIG	Tlapa	4.66	281	eP	Pn	18 13 46.0	+1.3
TLIG				eS	Sn	18 14 33.2	-5.7
MGIG	Malinaltepec	4.68	277	eP	Pn	18 13 46.0	+1.0
MGIG				eS	Sn	18 14 33.2	-6.3
PPAX	Atlixo	4.94	297	eP	Pn	18 13 51.3	+2.9
PPAX				eS	Sn	18 14 41.8	-3.7
CXUV	Coxquihui	4.99	314	eP	Pn	18 13 49.4	+0.6
CXUV				eS	Sn	18 14 39.3	-7.1
PBCV	Popocatepetl	5.08	297	eP	Pn	18 13 54.0	+3.6
PBCV				eS	Sn	18 14 48.4	-0.6
PPCL	Tochimilco	5.11	296	eP	Pn	18 13 54.0	+3.4
PPCL				eS	Sn	18 14 43.8	-5.7
PPPT	Popocatepetl	5.13	296	eP	Pn	18 13 55.3	+4.1
PPPT				eS	Sn	18 14 45.8	-4.8
PPCU	Popocatapetl	5.15	297	eP	Pn	18 13 50.6	-0.7
PPCU				eS	Sn	18 14 51.1	+0.3
PBPN	Popocatepetl	5.17	297	eP	Pn	18 13 51.3	-0.4
PBPN				eS	Sn	18 14 48.4	-2.9
PBXN	Popocatepetl	5.18	297	eP	Pn	18 13 52.6	+0.9
PPM	Popocatepetl	5.18	297	eP	Pn	18 13 56.2	+4.5
PPM				eS	Sn	18 14 46.2	-5.4
YAIG	Yautepec	5.48	294	eP	Pn	18 13 58.4	+3.0
YAIG				eS	Sn	18 14 56.3	-1.8
DAIG	Los Arroyos	5.64	274	eP	Pn	18 13 58.7	+1.3
DAIG				eS	Sn	18 15 00.1	-1.6
MEIG	Mezcala	5.71	283	eP	Pn	18 13 59.9	+1.5
MEIG				eS	Sn	18 14 54.9	-8.8
PLIG	Platanillo	5.71	288	eP	Pn	18 14 01.3	+2.9
PLIG				eS	Sn	18 15 01.4	-2.3
CAIG	El Cayaco	6.23	274	eP	Pn	18 14 06.1	+1.0
CAIG				eS	Sn	18 15 08.5	-7.3
ZIIG	Zihuatanejo	7.41	278	eP	Pn	18 14 23.4	+2.6
TXAR	Lajitas Array	15.49	326	P	Pn	18 16 05.8	+0.7
	0.2nm,0.4s,baz=144,slow=7.3,SNR=3.4						
NVAR	Mina Array Bea	30.49	320	P	P	18 18 35.9	+3.0
	0.6nm,0.6s,baz=137,slow=4.7,SNR=3.7						
	0.6nm,0.6s						
YKA	Yellowknife Ar	48.00	347	P	P	18 20 57.2	+0.1
	1.7nm,0.5s,baz=153,slow=7.4,SNR=5.5						
	1.7nm,0.5s						
ARCES	ARCESS Array B	84.08	18	P	P	18 24 46.3	-0.9
	0.3nm,0.4s,baz=300,slow=4.6,SNR=4.6						
	0.3nm,0.4s						

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*SSNC **09** 18:12:46.5±1.3, 18°.20N×76°.62W, h12^{km}±12^{km}, MD2.9, ML2.4, Presumed earthquake*

*JSN **09** 18:12:47.0±0.4, 18°.15N×76°.60W, h18^{km}±2^{km}, MD2.6, Confirmed Earthquake*

ISC 09 18:12:43.1±1.1**, 18°.39N**±0°.03×**76°.61W**±0°.05**, h8^{km}**±10^{km}**, n19, σ0^{s}.95**/40**, 4C-3D, Jamaica region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GWJ	Greenwich	0.33	199	⇑iP	Pb	18 12 50.9	-0.5
GWJ				⇑iP	Pb	18 12 51.0	-0.5
GWJ				iS	Sg	18 12 54.3	+0.1
STH	Stony Hill	0.36	211	iP	Pb	18 12 51.8	-0.1
STH				⇑iP	Pb	18 12 51.8	-0.1
STH				iS	Sg	18 12 55.6	+0.5
STH				⇑iS	Sg	18 12 55.6	+0.5
HOJ	Hope	0.41	199	⇓iP	Pb	18 12 51.8	-0.8
HOJ				⇓iP	Pb	18 12 51.8	-0.8
PCJ	Portland Cotta	0.83	219	iP	Pg	18 12 58.9	-0.2
PCJ				iS	Sb	18 13 11.2	+0.1
CVJ	Coleyville	0.89	260	iP	Pn	18 13 03.2	+1.1
CVJ				iS	Sn	18 13 14.9	-0.4
MTDJ	Mount Denham	0.89	259	eP	Pn	18 13 02.9	+0.8
MTDJ				eS	Sn	18 13 15.2	-0.1
MTDJ				IAML		18 13 16.4	
	79nm,0.2s						
MTDJ				IAML		18 13 16.9	
	comp=Z,68nm,0.1s						
MCJ	Malvern	1.12	246	iP	Pn	18 13 05.7	+0.5
CHIV	Chivirico	1.59	7	eP	Pg	18 13 14.7	+1.0
CHIV				eS	Sg	18 13 34.4	+0.1
CHIV				IAML		18 13 37.4	
	comp=E,17nm,0.2s						
CHIV				IAML		18 13 38.0	
	comp=N,18nm,0.2s						
LMGC	Las Mercedes	1.70	348	eP	Pg	18 13 16.1	+0.3
LMGC				eS	Sb	18 13 36.3	-0.1
LMGC				IAML		18 13 39.1	
	comp=N,240nm,0.1s						
LMGC				IAML		18 13 39.6	
	comp=E,112nm,0.0s						
RCC	Rio Carpintero	1.81	28	eP	Pg	18 13 18.0	+0.1
RCC				eS	Sg	18 13 40.3	-1.3
RCC				IAML		18 13 42.5	
	comp=N,4.7nm,0.2s						
RCC				IAML		18 13 43.7	
	comp=E,4.1nm,0.1s						
YAR	Yar	1.98	7	iP	Pg	18 13 20.6	-0.6
YAR				iS	Sb	18 13 44.9	+0.5
GTBY	Guantanamo Bay	2.09	43	eP	Pb	18 13 21.6	+0.3
GTBY				eS	Sb	18 13 47.7	+0.4
GTBY				eSg	Sg	18 13 50.4	+0.2
GTBY				IAML		18 13 51.2	
	comp=E,10nm,0.1s						
GTBY				IAML		18 13 52.2	
	comp=E,10.0nm,0.1s						
PINC	Pinares de May	2.23	20	eP	Pb	18 13 23.6	-0.1
PINC				eS	Sb	18 13 50.5	-0.8
PINC				IAML		18 13 53.0	
	comp=E,34nm,0.0s						
PINC				IAML		18 13 54.1	
	comp=N,33nm,0.0s						
QMBU	Quimbuelo	2.48	43	⇓eP	Pb	18 13 26.6	-1.3
QMBU				eS	Sn	18 13 54.3	0.0
QMBU				IAML		18 13 57.2	
	comp=N,6.6nm,0.1s						
QMBU				IAML		18 13 58.8	
	comp=E,5.5nm,0.2s						
HLGC	Holguin	2.54	12	eP	Pb	18 13 29.3	+0.3
HLGC				eS	Sb	18 14 00.1	-0.4
HLGC				IAML		18 14 04.5	
	comp=E,5.8nm,0.5s						
HLGC				IAML		18 14 05.0	
	comp=N,4.2nm,0.2s						
NMDO	Nuevo Mundo	2.65	35	eP	Pg	18 13 33.1	-0.9
CCCC	Cccc	3.00	339	eP	Pb	18 13 35.3	-1.5
CCCC				eS	Sn	18 14 09.7	+2.6
CBCY	The Bluff, Cay	3.26	295	eP	Pn	18 13 35.9	+1.3
CBCY				eS	Sn	18 14 11.6	-2.1
LCCY	Blossom Villag	3.52	292	eP	Pn	18 13 39.3	+1.1
LCCY				eS	Sn	18 14 17.9	-2.1

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*IDC **09** 18:15:18.3±8.3, 23°.59S×179°.55W, h465^{km}±37^{km}, mb3.4/4, mbtmp4.3/4, Error ellipse: s-maj=141.1km s-min=24.6km az=35.0*

*NEIC **09** 18:15:24.8±0.9, 24°.5S±0°.1×180°.0E±0°.2, h483^{km}±11^{km}, mb4.1/19, Error ellipse: s-maj=24.6km s-min=16.6km az=52.0*

ISC 09 18:15:25.6±1.0**, 24°.4S**±0°.1×**180°.0E**±0°.1**, h500^{km}, n54, σ1^{s}.01**/57**, mb4.0**/16**, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GLKZ	Green Lake	5.25	159	S	S	18 18 06.9	-0.7
HAZ	Te Kaha	13.49	187	P	P	18 18 20.6	+0.9
HAZ				S	S	18 20 43.9	+0.6
PUZ	Puketiti	13.76	186	P	P	18 18 22.8	+0.2
TOZ	Tahuroa Road	13.87	195	P	P	18 18 27.7	+4.0
URZ	Urewera	14.07	189	P	P	18 18 24.9	-1.0
URZ				S	S	18 20 55.8	+1.2
TMVZ	Te Maari	15.15	193	P	P	18 18 38.4	+1.1
OTVZ	Oturere	15.21	193	P	P	18 18 38.5	+0.5
NGZ	Ngauruhoe	15.23	193	P	P	18 18 38.9	+0.8
TUVZ	Tukino	15.31	193	P	P	18 18 39.3	+0.3
VRZ	Vera Road	15.37	195	P	P	18 18 41.4	+1.9
WNVZ	Wahianoa	15.38	193	P	P	18 18 39.4	-0.3
BHHZ	Black Hill Sta	15.45	191	P	P	18 18 39.0	-1.4
KRHZ	Kereru	15.54	190	P	P	18 18 40.9	-0.4
NEZ	North Egmont	15.68	197	P	P	18 18 46.3	+3.6
PNHZ	Pukenui	15.84	191	P	P	18 18 42.9	-1.5
PXZ	Pawanui	15.85	189	P	P	18 18 44.0	-0.4
TSZ	Takapari Road	16.02	191	P	P	18 18 46.1	-0.2
BFZ	Birch Farm	16.58	190	P	P	18 18 50.2	-1.9
MRZ	Mangatainoka R	16.67	192	P	P	18 18 51.2	-1.9
QRZ	Quartz Range	17.57	199	P	P	18 19 01.4	-0.4
NNZ	Nelson	17.69	197	P	P	18 19 02.7	-0.2
THZ	Tophouse	18.33	197	P	P	18 19 07.8	-1.0
DSZ	Denniston Nort	18.62	199	P	P	18 19 11.1	-0.4
KHZ	Kahutara	18.79	195	P	P	18 19 10.9	-2.0
LTZ	Lake Taylor	19.45	197	P	P	18 19 19.5	+0.5
INZ	Inchbonnie	19.63	199	P	P	18 19 20.2	-0.4
OXZ	Oxford	20.02	197	P	P	18 19 23.1	-1.1
EIDS	Eidsvold	26.19	262	P	P	18 20 19.6	-0.2
EIDS				IAmb	IAmb	18 20 51.2	
	comp=Z,21nm,1.5s						
CAN	Canberra	28.88	241	P	P	18 20 43.5	+0.3
CTAO	Charters Tower	31.43	271	P	P	18 21 06.4	+1.0
STKA	Stephens Creek	34.51	249	P	P	18 21 31.9	+0.4
	comp=Z,4.0nm,0.8s,baz=98,slow=11,SNR=9.3						
	comp=Z,4.0nm,0.8s						
INKA	Innaminka	35.28	256	P	P	18 21 37.2	-0.8
BBOO	Buckleboo	39.23	247	P	P	18 22 09.7	-0.6
AS31	Alice Springs	41.92	261	P	P	18 22 31.8	-0.2
ASAR	Alice Springs	41.92	261	P	P	18 22 31.8	-0.2
	comp=Z,1.3nm,0.5s,baz=93,slow=7.0,SNR=46						
ASAR				ScP	ScP	18 27 19.0	+0.3
	comp=Z,0.4nm,1.0s,baz=105,slow=4.2,SNR=4.2						
	comp=Z,1.3nm,0.5s						
ASAR	Alice Springs	41.92	261	P	P	18 22 31.6	-0.4
WR0	Warramunga Arr	42.15	267	P	P	18 22 33.4	-0.4
WR0				IAmb	IAmb	18 22 43.9	
	comp=Z,11nm,1.4s						
WR8	Warramunga Arr	42.18	267	P	P	18 22 33.8	-0.3
WR8				IAmb	IAmb	18 22 48.1	
	comp=Z,7.7nm,1.4s						
WB2	Warramunga Arr	42.32	267	P	P	18 22 34.8	-0.4
WB2				IAmb	IAmb	18 22 35.4	
	comp=Z,5.5nm,0.6s						
WRAB	Tennant Creek	42.33	267	P	P	18 22 34.8	-0.4
WRAB				IAmb	IAmb	18 22 58.7	
	comp=Z,5.9nm,1.2s						
WB0	Warramunga Arr	42.33	267	P	P	18 22 34.6	-0.7
WB0				IAmb	IAmb	18 22 36.0	
	comp=Z,4.7nm,0.5s						
WRA	Warramunga Arr	42.33	267	P	P	18 22 34.5	-0.8
	comp=Z,4.1nm,0.5s,baz=101,slow=8.3,SNR=85						
WRA				ScP	ScP	18 27 21.8	+1.5
	comp=Z,1.4nm,1.0s,baz=105,slow=3.5,SNR=6.6						
	comp=Z,4.1nm,0.5s						
WRA	Warramunga Arr	42.33	267	P	P	18 22 33.8	-1.5
FORT	Forrest	46.11	250	P	P	18 23 03.5	-0.9
FORT				IAmb	IAmb	18 23 47.8	
	comp=Z,15nm,1.3s						
KNRA	Kununurra	48.64	270	P	P	18 23 23.9	+0.3
KNRA				IAmb	IAmb	18 23 41.9	
	comp=Z,9.2nm,1.5s						
FITZ	Fitzroy Crossi	50.75	266	P	P	18 23 38.4	-0.8
MBWA	Marble Bar	55.25	260	P	P	18 24 10.3	-1.0
MBWA				IAmb	IAmb	18 24 11.7	
	comp=Z,4.8nm,0.9s						
QSPA	South Pole Qui	65.73	180	P	P	18 25 20.6	+0.5
	comp=Z,1.5nm,0.7s,baz=44,slow=5.3,SNR=14						
	comp=Z,1.5nm,0.7s						
QSPA	South Pole Qui	65.73	180	P	P	18 25 20.4	+0.3
QSPA				IAmb	IAmb	18 25 44.4	
	comp=Z,4.8nm,1.4s						
KKM	Kota Kinabalu	68.99	287	P	P	18 25 41.1	+0.1
BORC	Borrego Spring	83.37	49	P	P	18 27 00.8	+0.9
BORC				IAmb	IAmb	18 27 23.1	
	comp=Z,6.3nm,1.4s						
TROLL	Troll, Antarti	83.88	181	P	P	18 27 01.4	-0.6
	comp=Z,120nm,0.8s						
VNA3	Neumayer Olymp	84.43	177	P	P	18 27 03.6	-0.9
	comp=Z,1.0nm,0.6s						
VNA2	Neumayer--Watz	84.85	178	P	P	18 27 06.1	-0.5
	comp=Z,0.9nm,0.5s,baz=180,slow=4.3						

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*IDC **09** 18:17:04.6±0.9, 12.°01S×76.°76W, h77^{km}±8^{km}, mb3.4/3, mbtmp3.8/5, MS2.5/1, Error ellipse: s-maj=36.0km s-min=17.1km az=58.0*

*NEIC **09** 18:17:05.0±1.6, 12.°0S±0.°1×76.°61W±0.°07, h77^{km}±7^{km}, mb4.1/3, Error ellipse: s-maj=15.7km s-min=8.8km az=195.0*

ISC 09 18:17:04.3±0.8**, 11.°99S**±0.°07×**76.°61W**±0.°08**, h73**^{km}**, n28, σ1^{s}09**/24**, mb3.8**/4**, Central Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NNA	Nana	0.23	270	P	Pn	18 17 16.6	+1.1
	2µm,0.4s,baz=104,slow=4.2,SNR=594						
NNA				S	Sn	18 17 25.1	+1.5
	4µm,0.3s,baz=258,slow=17,SNR=44						
ATAH	Atahualpa	5.13	340	P	Pn	18 18 20.2	+1.2
	14nm,0.3s,baz=81,slow=5.1,SNR=14						
ATAH				S	Sn	18 19 17.4	+0.2
	26nm,0.5s,baz=162,slow=20,SNR=1.5						
CZSB	Cruzeiro do Su	5.71	43		Pn	18 18 27.6	+1.0
CZSB				Sn	Sn	18 19 30.5	-0.4
LPAZ	La Paz	9.27	118	P	Pn	18 19 17.5	+1.8
	2.8nm,0.4s,baz=294,slow=13,SNR=11						
LPAZ				LR	LR	18 22 36.6	
	comp=Z,33nm,20.9s,baz=280,slow=35						
LPAZ	La Paz	9.27	118	Pn	Pn	18 19 17.3	+1.6
PB16	IPOC Station P	9.31	134		Pn	18 19 17.9	+1.5
PB11	IPOC Station P	10.22	140	Pn	Pn	18 19 28.2	-0.1
GO01	Chusmiza	10.45	138	Pn	Pn	18 19 31.6	-0.1
PB08	IPOC Station P	10.82	139	Pn	Pn	18 19 36.8	+0.2
SLOR	San Lorenzo -	11.34	350	Pn	Pn	18 19 44.8	+0.9
PB07	IPOC Station P	11.62	147	Pn	Pn	18 19 48.4	+0.9
PB03	IPOC Station P	11.96	148	Pn	Pn	18 19 50.2	-1.8
SIV	San Ignacio	15.59	107	P	Pn	18 20 38.8	-1.1
	1.1nm,0.6s,baz=314,slow=11,SNR=6.5						
PTLB	Pontes e Lacer	17.32	103		P	18 21 02.0	+0.2
PTLB				IAmb	IAmb	18 21 04.8	
	comp=Z,4.5nm,0.7s						
BOAV	Boa Vista	21.44	49		P	18 21 45.8	-0.8
BOAV				IAmb	IAmb	18 21 48.2	
	comp=Z,4.8nm,0.9s						
TXAR	Lajitas Array	48.68	328	P	P	18 25 40.6	-0.8
	comp=Z,0.4nm,0.4s,baz=153,slow=8.8,SNR=7.6						
	comp=Z,0.4nm,0.4s						
TXAR	Lajitas Array	48.68	328	P	P	18 25 40.2	-1.2
NVAR	Mina Array Bea	63.51	324	P	P	18 27 26.8	-0.4
	comp=Z,0.8nm,0.8s,baz=147,slow=3.4,SNR=2.7						
	comp=Z,0.8nm,0.8s						
TORD	Torodi Ar. Bea	81.57	75	P	P	18 29 14.5	-0.3
	comp=Z,0.6nm,0.8s,baz=248,slow=7.6,SNR=3.6						
	comp=Z,0.6nm,0.8s						
TORD	Torodi Ar. Bea	81.57	75	IAmb	IAmb	18 29 18.1	
	comp=Z,52nm,0.8s						
H11N3	WAKE ISLAND Hy	18.70	286	T	T	20 44 33.0	
	baz=93						
H11N2	WAKE ISLAND Hy	18.72	286	T	T	20 44 49.7	
	baz=93						
H11N1	WAKE ISLAND Hy	18.72	286	T	T	20 44 38.5	
	baz=93						
H11S2	WAKE ISLAND Hy	18.82	285	T	T	20 44 48.9	
	baz=94,slow=74,SNR=8.9						
H11S1	WAKE ISLAND Hy	18.83	285	T	T	20 44 49.3	
	baz=94,slow=74,SNR=8.0						
H11S3	WAKE ISLAND Hy	18.84	285	T	T	20 44 50.1	
	baz=94,slow=74,SNR=8.8						
ASAR	Alice Springs	133.68	220	PKP	PKPdf	18 36 12.4	-1.1
	comp=Z,0.2nm,0.7s,baz=150,slow=1.8,SNR=4.3						
WRA	Warramunga Arr	136.02	224	PKP	PKPdf	18 36 17.3	-0.6
	comp=Z,0.3nm,0.4s,baz=130,slow=2.0,SNR=11						

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*SJA **09** 18:20:01.5±0.7, 28.°62S×68.°50W, h113^{km}±3^{km}, ML3.5, MW3.6*

*IDC **09** 18:20:03.1±4.3, 28.°70S×68.°42W, h107^{km}±31^{km}, mb3.7/3, mbtmp4.0/5, Error ellipse: s-maj=57.4km s-min=21.1km az=120.0*

ISC 09 18:20:02.6±0.8**, 28.°63S**±0.°03×**68.°53W**±0.°03**, h112**^{km}±6^{km}**, n48, σ1^{s}58**/68**, La Rioja Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VCA	Vinchina	0.30	111	*e*P	Pn	18 20 18.3	-0.6
VCA				*e*S	Sn	18 20 30.6	-0.5
TINO	Tinogasta	1.01	57	*e*P	Pn	18 20 23.8	-0.5
TINO				*e*S	Sn	18 20 40.0	-0.6
TINO				IAML		18 20 42.1	
	comp=Z,1µm,0.4s						
AC05	El Transito	1.55	262	*e*P	Pn	18 20 30.8	+0.6
AC05				*e*S	Sn	18 20 52.3	+1.0
AC05				IAML		18 20 55.0	
	comp=Z,247nm,0.6s						
AC05	El Transito	1.55	262	*e*P	Pn	18 20 30.9	+0.6
AC05				*e*S	Sn	18 20 51.3	+0.1
AC05				IAML		18 20 53.0	
	comp=N,578nm,0.2s						
ACLC	CERRO LA CRUZ	1.59	120	*e*P	Pn	18 20 30.7	-0.1
ACLC				*e*S	Sn	18 20 52.0	-0.2
ACLC				IAML		18 20 52.6	
	comp=Z,249nm,0.4s						
ACDV	Cuesta del Vie	1.62	198	*e*P	Pn	18 20 32.0	+0.8
ACDV				IAML		18 20 56.6	
	comp=Z,238nm,0.4s						
AROD	Rodeo	1.74	208	*e*P	Pn	18 20 33.6	+0.8
GO03	Copiapo	1.83	304	*e*P	Pn	18 20 33.6	0.0
GO03				*e*S	Sn	18 20 56.7	-0.5
GO03				IAML		18 21 00.5	
	comp=Z,310nm,0.3s						
GO03	Copiapo	1.83	304	*e*P	Pn	18 20 33.3	-0.3
GO03				*e*S	Sn	18 20 56.2	-1.0
GO03				IAML		18 20 59.8	
	comp=N,348nm,0.3s						
AC02	Maricunga	1.86	343	*e*P	Pn	18 20 35.9	+1.4
AC02				*e*S	Sn	18 21 00.7	+1.9
AC02				IAML		18 21 44.1	
	comp=Z,370nm,0.8s						
AC02	Maricunga	1.86	343	*e*P	Pn	18 20 36.0	+1.4
CO01	Juntas del Tor	1.92	225	*e*P	Pn	18 20 36.1	+1.2
CO01				*e*S	Sn	18 21 03.1	+3.5
CO01	Juntas del Tor	1.92	225	*e*P	Pn	18 20 36.1	+1.2
CO01				IAML		18 21 04.0	
	comp=N,194nm,0.6s						
LCO	Las Campanas	1.95	258	*e*P	Pn	18 20 35.3	0.0
LCO				IAML		18 21 02.6	
	comp=Z,797nm,0.2s						
LCO	Las Campanas	1.95	258	*e*P	Pn	18 20 35.1	-0.1
ACCO	Cerro Coronel	2.01	193	*e*P	Pn	18 20 36.6	+0.5
ACCO				*e*S	Sn	18 21 03.2	+1.5
ACCO				IAML		18 21 04.1	
	comp=Z,206nm,0.4s						
AC06	Mina Casimiro	2.05	308	*e*P	Pn	18 20 35.8	-0.6
AC06				IAML		18 21 02.1	
	comp=N,104nm,0.2s						
AVFE	Valle Fertil	2.23	156	*e*P	Pn	18 20 38.5	-0.2
AVFE				*e*S	Sn	18 20 59.8	-6.5
AVFE				IAML		18 21 06.2	
	comp=Z,448nm,0.4s						
AC04	Llanos de Chal	2.28	280	*e*P	Pn	18 20 38.8	-0.5
AC04				*e*S	Sn	18 21 00.3	-7.1
AC04	Llanos de Chal	2.28	280	*e*P	Pn	18 20 38.4	-0.9
AC04				*e*S	Sn	18 21 04.9	-2.6
AC04				IAML		18 21 07.1	
	comp=N,142nm,0.2s						
CYA	Choya	2.40	86	*e*P	Pn	18 20 41.0	+0.1
CYA				*e*S	Sn	18 21 09.6	-0.7
CYA				IAML		18 21 10.0	
	comp=Z,584nm,0.7s						
GO04	Tololo Observa	2.51	232	*e*P	Pn	18 20 42.2	-0.3
GO04				*e*S	Sn	18 21 14.2	+1.1
GO04				IAML		18 21 20.0	
	comp=Z,365nm,0.7s						
GO04	Tololo Observa	2.51	232	*e*P	Pn	18 20 42.0	-0.5
RTLL	Cerro Villicun	2.69	179	*e*P	Pn	18 20 44.8	+0.1
RTLL				*e*S	Sn	18 21 16.7	-0.3
RTLL				IAML		18 21 17.5	
	comp=Z,258nm,0.3s						
ZON	Zonda	2.91	183	*e*P	Pn	18 20 47.6	0.0
ZON				*e*S	Sn	18 21 21.7	-0.5
ZON				IAML		18 21 26.8	
	comp=Z,66nm,0.2s						
CFA	Coronel Fontan	2.98	175	P	Pn	18 20 48.3	-0.1
	comp=Z,38nm,0.3s,baz=6.9,slow=12,SNR=196						
CFA				S	Sn	18 21 22.4	-1.3
	comp=Z,42nm,0.3s,baz=77,slow=19,SNR=26						
CFA	Coronel Fontan	2.98	175	*e*P	Pn	18 20 48.5	+0.1
CFA				*e*S	Sn	18 21 23.4	-0.3
CFA				IAML		18 21 26.9	
	comp=Z,92nm,0.2s						
AC01	Pan de Azucar	3.08	323	*e*P	Pn	18 20 49.8	0.0
AC01				*e*S	Sn	18 21 23.5	-2.6
RTLS	Leoncito	3.23	192	*e*P	Pn	18 20 52.2	+0.2
RTLS				*e*S	Sn	18 21 30.1	0.0
RTLS				IAML		18 21 31.1	
	comp=Z,224nm,0.4s						
CO02	Combarbal	3.35	219	*e*P	Pn	18 20 52.2	-1.2
AHML	Horco Molle	3.37	58	*e*P	Pn	18 20 46.0	-7.7
AHML				IAML		18 21 22.8	
	comp=Z,45nm,0.6s						
FSA	Cafayete	3.38	43	*e*P	Pn	18 20 55.3	+1.4
CO06	Fray Jorge	3.39	232	*e*P	Pn	18 20 51.8	-2.0
CO04	Los Peladeros	4.01	211	*e*P	Pn	18 21 00.8	-1.6
ARCO	CERRO ARCO	4.21	185	*e*P	Pn	18 21 05.0	0.0
ARCO				IAML		18 21 55.4	
	comp=Z,54nm,0.5s						
PB14	IPOC Station P	4.33	337	*e*S	Sn	18 21 55.9	-0.5
PB14				IAML		18 22 08.7	
	comp=Z,37nm,0.4s						
TCA	Tanti	4.35	129	*e*P	Pn	18 21 06.7	-0.1
TCA				*e*S	Sn	18 21 38.8	-18
TCA				*e*S	Sn	18 21 38.8	-18
TCA				IAML		18 22 08.0	
	comp=Z,21nm,0.5s						
VA03	San Esteban	4.48	202	*e*P	Pn	18 21 08.1	-0.4
VA03				IAML		18 22 06.5	
	comp=Z,61nm,0.3s						
MT04	Ro Olivares	4.96	196	*e*P	Pn	18 21 15.6	+0.5
MT04				IAML		18 22 18.9	
	comp=Z,32nm,0.7s						
CPUP	Villa Florida	10.20	80	P	Pn	18 22 24.5	-1.5
	comp=Z,0.8nm,0.4s,baz=255,slow=14,SNR=3.3						
QSPA	South Pole Qui	61.59	180	P	P	18 30 09.2	+1.2
	comp=Z,1.4nm,0.6s,baz=141,slow=0.4,SNR=13						
	comp=Z,1.4nm,0.6s						
TORD	Torodi Ar. Bea	79.51	69	P	P	18 31 58.3	+1.0
	comp=Z,0.9nm,0.7s,baz=236,slow=5.1,SNR=4.9						
	comp=Z,0.9nm,0.7s						
BOSA	Boshof	79.86	117	P	P	18 31 59.5	+0.2
	comp=Z,0.7nm,0.4s,baz=252,slow=3.2,SNR=1.1						
	comp=Z,0.7nm,0.4s						
ASAR	Alice Springs	123.70	205	PKP	PKPdf	18 38 47.5	-0.3
	comp=Z,0.3nm,0.4s,baz=139,slow=1.9,SNR=8.5						
WRA	Warramunga Arr	126.90	207	PKP	PKPdf	18 38 53.9	-0.1
	comp=Z,0.4nm,0.5s,baz=159,slow=1.9,SNR=11						
KURBB	Kurchatov Arra	146.86	39	PKPbc	PKPab	18 39 32.7	-0.3
	comp=Z,0.2nm,0.4s,baz=286,slow=3.3,SNR=5.5						
ZALV	Zalesovo Beam	148.09	30	PKPbc	PKiKP	18 39 35.6	-0.8
	comp=Z,1.6nm,0.6s,baz=322,slow=2.9,SNR=7.9						
MKAR	Makanchi Array	150.89	44	PKPbc	PKiKP	18 39 42.7	+0.2
	comp=Z,1.3nm,0.7s,baz=311,slow=2.4,SNR=12						

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*IDC **09** 18:44:05.3±2.6, 2.°67S×101.°04E, h0^{km}, mb3.7/8, mbtmp3.7/8, MS3.2/1, Error ellipse: s-maj=133.7km s-min=17.6km az=55.0*

*DJA **09** 18:44:15.7±0.3, 3°S±2°×10°1E±°, h37^{km}±3^{km}, M4.2/32, mB5.3/1, mb4.2/7, MLv4.2/32, Mw(mB)4.7/1*

ISC 09 18:44:12.9±0.8**, 2.°72S**±0.°06×**100.°97E**±0.°06**, h50**^{km}**, n33, σ2^{s}00**/25**, mb3.8**/8**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRJI	Kerinci	0.79	38	P	Pn	18 44 29.3	+1.4
PPSI	Pulau Pagai	0.96	267	P	Pn	18 44 30.4	+0.4
PPSI				AML	AML		
MASI	Maura Aman, Be	1.34	108	P	Pn	18 44 36.4	+1.2
SDSI	Sungai Dareh	1.83	15	P	Pn	18 44 43.4	+1.5
KSI	Kapahiang	1.87	120	P	Pn	18 44 44.9	+2.4
KSI				S	Sn	18 45 06.8	+1.8
KSI				AML	AML		
PPI	Padang Panjang	2.32	346	P	Pn	18 44 52.5	+3.9
PPI				AML	AML		
MNAI	Manna	2.57	130	P	Pn	18 44 54.6	+2.5
MNAI				S	Sn	18 45 24.9	+2.8
BKNI	Bangkinang	3.02	1	P	Pn	18 45 00.6	+2.3
BKNI				AML	AML		
MDSI	Maura Dua	3.65	119	P	Pn	18 45 09.4	+2.5
DSRI	Dabo	4.24	58	P	Pn	18 45 14.5	-0.4
DSRI				AML	AML		
BTDF	Bukit Timah Da	4.93	35	P	Pn	18 45 25.8	+1.4
GSI	Gunungsitoli	5.24	320	P	Pn	18 45 31.8	+3.1
	0.4nm39nm,2.0s						
GSI				AML	AML		
MYKOM	Kota Tinggi	5.32	33	P	Pn	18 45 31.3	+1.5
IPM	Ipoh	7.15	0	P	Pn	18 45 57.5	+2.6
IPM				AML	AML		
H08S2	Diego Garcia H	28.77	259	T	T	19 19 36.1	
	baz=82,slow=75,SNR=5.9						
H08S3	Diego Garcia H	28.78	259	T	T	19 19 36.9	
	baz=82,slow=75,SNR=6.3						
H08S1	Diego Carcia H	28.79	259	T	T	19 19 29.9	
	baz=82,slow=75,SNR=4.3						
WRA	Warramunga Arr	36.80	120	P	P	18 51 14.2	-2.0
	0.2nm,0.3s,baz=225,slow=14,SNR=9.5						
	0.2nm,0.3s						
ASAR	Alice Springs	38.05	126	P	P	18 51 25.5	-1.4
	0.5nm,0.6s,baz=300,slow=8.3,SNR=12						
	0.5nm,0.6s						
STKA	Stephens Creek	47.95	132	P	P	18 52 46.7	-0.1
	1.8nm,0.6s,baz=316,slow=5.0,SNR=4.1						
	1.8nm,0.6s						
SONM	Songino Array	50.56	5	P	P	18 53 05.5	-1.1
	0.6nm,0.5s,baz=183,slow=9.7,SNR=2.7						
	0.6nm,0.5s						
MKAR	Makanchi Array	51.98	344	P	P	18 53 16.2	-0.8
	0.4nm,0.6s,baz=149,slow=8.4,SNR=7.1						
	0.4nm,0.6s						
KURBB	Kurchatov Arra	56.51	343	P	P	18 53 49.2	-0.7
	0.5nm,0.7s,baz=166,slow=7.0,SNR=6.5						
	0.5nm,0.7s						
ZALV	Zalesovo Beam	58.05	349	P	P	18 54 00.0	-0.7
	0.3nm,0.2s,baz=153,slow=7.4,SNR=4.0						
	0.3nm,0.2s						
KLR	Kul'dur	58.20	23	LR	LR	19 18 36.5	
	comp=Z,18nm,19.7s,baz=222,slow=36						
H04N2	CROZET ISLANDS	60.80	217	T	T	19 59 38.5	
	baz=60,slow=75,SNR=15						
H04N1	CROZET ISLANDS	60.82	217	T	T	19 59 36.5	
	baz=60,slow=75,SNR=17						
H04N3	CROZET ISLANDS	60.82	217	T	T	19 59 35.9	
	baz=60,slow=75,SNR=16						
H04S1	CROZET ISLANDS	61.08	216	T	T	20 00 06.0	
	baz=59,slow=76,SNR=5.8						
H04S3	CROZET ISLANDS	61.09	216	T	T	20 00 09.7	
	baz=59,slow=76,SNR=11						
H04S2	CROZET ISLANDS	61.10	216	T	T	20 00 11.5	
	baz=59,slow=76,SNR=6.1						
BVAR	Borovoye Array	61.19	339	P	P	18 54 20.9	-1.4
	0.5nm,0.5s,baz=152,slow=9.8,SNR=3.0						
	0.5nm,0.5s						
TXAR	Lajitas Array	144.66	39	PKP	PKPab	19 03 42.9	-0.7
	0.5nm,0.4s,baz=243,slow=0.6,SNR=9.9						

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*IDC **09** 18:46:55.9±1.2, 4.°13N×126.°58E, h0^{km}, mb3.8/8, mbtmp3.8/8, MS3.2/1, Error ellipse: s-maj=74.1km s-min=16.1km az=65.0*

*DJA **09** 18:46:56.5±1.0, 4°N±5°×12°7E±°, h17^{km}±11^{km}, M4.1/11, mb4.0/3, MLv4.1/11*

*MAN **09** 18:47:06.0, 4.°21N×126.°00E, h8^{km}, MS3.9*

ISC 09 18:46:59.1±0.8**, 4.°06N**±0.°04×**126.°7E**±0.°1**, h10**^{km}**, n24, σ2^{s}85**/26**, mb3.9**/8**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DDMP	Don Marcelino,	2.25	335	*e*P	Pn	18 47 34.6	-1.7
DDMP				*e*S	Sg	18 48 11.6	+0.2
GSPH	General Santos	2.65	320	*i* P	Pn	18 47 42.7	+0.7
GSPH				*i* S	Sg	18 48 59.9	+36
MNI	Manado	3.17	215	P	Pn	18 47 51.1	+1.9
DAV	Davao City (W)	3.19	340	P	Pn	18 47 41.7	-7.6
DAV				AML	AML		
KCP	Kidapawan	3.33	332	*e*P	Pn	18 47 55.2	+3.8
TNTI	Ternate	3.34	168	P	Pn	18 47 53.4	+2.0
CDOP	Cateel, Davao	3.71	356	*i* P	Pn	18 48 00.3	+3.8
CDOP				*i* S	Sn	18 48 45.5	+5.2
CTBH	Cotabato--PC H	3.96	323	*e*P	Pn	18 48 01.5	+1.6
BIPH	Bislig	4.11	356	*e*P	Pn	18 48 03.7	+1.7
BIPH				*e*S	Sb	18 49 06.0	+4.6
BUKP	Musuan	4.12	337	*e*P	Pn	18 48 04.1	+1.9
BUKP				*i* S	Sg	18 49 09.3	-2.3
CGP	Cagayan de Oro	4.79	336	*e*P	Pb	18 48 18.1	-5.1
CGP				*e*S	Sg	18 49 30.3	-2.8
GTOI	Gorontalo	4.99	227	P	Pn	18 48 17.6	+3.5
	0.1nm19nm,0.7s						
GTOI				AML	AML		
GLSP	General Luna,	5.72	355	*e*P	Pn	18 48 30.6	+6.6
GLSP				*e*S	Sn	18 49 34.0	+4.2
SANI	Sanana	6.10	186	P	Pn	18 48 30.6	+1.2
SANI				AML	AML		
APSI	Ampana	7.04	226	P	Pn	18 48 46.5	+4.2
FITZ	Fitzroy Crossi	22.04	183	P	P	18 51 53.1	-0.9
	2.7nm,1.0s,baz=8.4,slow=12,SNR=2.4						
	2.7nm,1.0s						
PMG	Port Moresby	24.41	123	LR	LR	19 03 17.9	
	comp=Z,50nm,18.4s,baz=114,slow=40						
WRA	Warramunga Arr	25.01	163	P	P	18 52 22.4	-1.1
	2.5nm,0.7s,baz=337,slow=11,SNR=12						
	2.5nm,0.7s						
ASAR	Alice Springs	28.44	166	P	P	18 52 53.5	-0.8
	0.3nm,0.5s,baz=350,slow=7.7,SNR=5.7						
	0.3nm,0.5s						
CMAR	Chiang Mai Arr	30.66	300	P	P	18 53 12.3	-1.7
	0.8nm,0.8s,baz=114,slow=8.4,SNR=7.1						
	0.8nm,0.8s						
STKA	Stephens Creek	38.45	159	P	P	18 54 20.3	-1.0
	1.9nm,0.6s,baz=342,slow=9.6,SNR=4.0						
	1.9nm,0.6s						
MKAR	Makanchi Array	57.26	325	P	P	18 56 43.8	-3.1
	0.4nm,0.5s,baz=122,slow=8.6,SNR=7.4						
	0.4nm,0.5s						
KURBB	Kurchatov Arra	61.43	327	P	P	18 57 12.9	-2.7
	1.2nm,0.7s,baz=123,slow=6.5,SNR=15						
	1.2nm,0.7s						
BVAR	Borovoye Array	67.02	327	P	P	18 57 50.4	-1.9
	0.7nm,0.6s,baz=114,slow=6.2,SNR=3.7						
	0.7nm,0.6s						

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*IDC **09** 18:51:29.6±1.7, 4.°20N×127.°02E, h0^{km}, mb3.5/5, mbtmp3.5/5, MS3.3/1, Error ellipse: s-maj=107.8km s-min=21.2km az=70.0*

ISC 09 18:51:33.4±1.1**, 3.°83N**±0.°08×**126.°2E**±0.°2**, h10**^{km}**, n11, σ2^{s}95**/14**, mb3.5**/5**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DDMP	Don Marcelino,	2.32	348	*e*P	Pn	18 52 08.6	-3.0
DDMP				*e*S	Sn	18 52 39.8	-0.3
GSPH	General Santos	2.57	331	*i* P	Pn	18 52 16.9	+1.6
GSPH				*i* S	Sn	18 52 46.6	0.0
KCP	Kidapawan	3.35	341	*i* P	Pn	18 52 28.6	+2.7
CDOP	Cateel, Davao	3.94	3	*i* P	Pn	18 52 37.4	+3.6
CDOP				*i* S	Sn	18 53 25.1	+4.9
BIPH	Bislig	4.33	2	*e*P	Pn	18 52 39.7	+0.4
BIPH				*e*S	Sn	18 53 24.7	-5.2
FITZ	Fitzroy Crossi	21.80	181	P	P	18 56 27.7	+2.0
	1.5nm,0.5s,baz=9.3,slow=11,SNR=6.9						
	1.5nm,0.5s						
WRA	Warramunga Arr	24.94	162	P	P	18 56 55.8	-1.2
	0.7nm,0.6s,baz=344,slow=11,SNR=8.9						
	0.7nm,0.6s						
ASAR	Alice Springs	28.34	165	P	P	18 57 26.7	-1.0
	0.2nm,0.5s,baz=342,slow=7.8,SNR=4.4						
	0.2nm,0.5s						
NWAO	Narrogin (SRO)	37.53	192	LR	LR	19 17 03.5	
	comp=Z,38nm,18.5s,baz=94,slow=40						
MKAR	Makanchi Array	57.18	325	P	P	19 01 20.5	-0.1

	0.2nm,0.5s,baz=114,slow=8.1,SNR=4.3						
	0.2nm,0.5s						
KURBB	**Kurchatov Arra**	**61.38**	**328**	P	**P**	**19 01 47.2**	**-2.3**
	0.4nm,0.7s,baz=117,slow=8.0,SNR=3.7						
	0.4nm,0.7s						

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*DJA **09** 19:04:04.2±0.7, 4°N±6°×12°7E±°, h198^{km}±8^{km}, M3.7/8, mB4.2/1, mb3.5/3, MLv3.8/8, Mw(mB)3.3/1*

*IDC **09** 19:04:05.9±1.6, 4°.30N×126°.90E, h0^{km}, mb3.6/6, mbtmp3.6/6, Error ellipse: s-maj=79.2km s-min=18.3km az=66.0*

ISC 09 19:04:10.2±1.1**, 3°.95N**±0°.05×**126°.3E**±0°.2**, h10^{km}, n13, σ2^s.12**/15**, mb3.6**/6**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DDMP	**Don Marcelino,**	**2.22**	**345**	*e*P	**Pn**	**19 04 45.6**	**-1.5**
DDMP				*e*S	**Sb**	**19 05 19.6**	**+1.5**
MNI	**Manado**	**2.89**	**211**	P	**Pn**	**19 04 57.9**	**+1.6**
MNI				S	**Sb**	**19 05 37.0**	**-0.3**
KCP	**Kidapawan**	**3.27**	**338**	*i*P	**Pb**	**19 05 09.7**	**+1.2**
CDOP	**Cateel, Davao**	**3.81**	**2**	*i*P	**Pn**	**19 05 13.6**	**+4.6**
CDOP				*i*S	**Sb**	**19 06 02.0**	**-1.8**
GTOI	**Gorontalo**	**4.66**	**225**	P	**Pn**	**19 05 18.6**	**-2.0**
	0.1nm11nm,0.7s						
GTOI				AML	AML		
GLSP	**General Luna,**	**5.80**	**358**	*e*P	**Pn**	**19 05 34.8**	**-1.6**
GLSP				*e*S	**Sb**	**19 06 59.6**	**-1.5**
SANI	**Sanana**	**5.97**	**183**	P	Pn	19 05 32.1	-6.6
SANI				AML	AML		
FITZ	**Fitzroy Crossi**	**21.92**	**182**	P	**P**	**19 09 05.0**	**+1.2**
	1.4nm,0.7s,baz=355,slow=8.4,SNR=7.5						
	1.4nm,0.7s						
WRA	**Warramunga Arr**	**25.02**	**162**	P	**P**	**19 09 32.6**	**-2.0**
	1.0nm,0.8s,baz=339,slow=11,SNR=16						
	1.0nm,0.8s						
ASAR	**Alice Springs**	**28.43**	**165**	P	**P**	**19 10 04.8**	**-0.6**
	0.2nm,0.7s,baz=344,slow=7.7,SNR=4.5						
	0.2nm,0.7s						
CMAR	**Chiang Mai Arr**	**30.40**	**300**	P	**P**	**19 10 24.0**	**+1.1**
	0.5nm,0.5s,baz=111,slow=8.0,SNR=4.7						
	0.5nm,0.5s						
MKAR	**Makanchi Array**	**57.13**	**325**	P	P	19 13 53.8	-3.4
	0.3nm,0.5s,baz=123,slow=7.3,SNR=4.6						
	0.3nm,0.5s						
KURBB	**Kurchatov Arra**	**61.33**	**327**	P	**P**	**19 14 23.7**	**-2.4**
	0.8nm,0.7s,baz=124,slow=6.5,SNR=11						
	0.8nm,0.7s						

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*TIF **09** 19:23:06.6, 39°.36N×41°.02E, h2^{km}±1^{km}*

*ISK **09** 19:23:07.3, 39°.34N×41°.01E, h4^{km}, ML3.4/19*

*AFAD **09** 19:23:07.7, 39°.33N×41°.01E, h7^{km}±3^{km}, MW3.5*

ISC 09 19:23:07.6±1.0**, 39°.33N**±0°.02×**41°.01E**±0°.02**, h7^{km}**±8^{km}**, n53, σ1^s.14**/62**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KARO	**Karliova-Bingo**	**0.04**	**119**	Pg	**Pg**	**19 23 08.8**	**-0.4**
ECAT	**Cat-ERZURUM**	**0.28**	**355**	P	**Pg**	**19 23 13.3**	**+0.1**
SLHN	**Bingol, Solhan**	**0.37**	**178**	P	**Pb**	**19 23 15.9**	**-0.7**
SLHN				S	**Sb**	**19 23 22.4**	**-0.1**
SLHN				IAML		19 23 24.0	
	comp=E,1μm,0.5s						
YEDI	**Yedisu-Bingol**	**0.38**	**287**	Pg	**Pg**	**19 23 15.1**	**+0.1**
YEDI				Sg	**Sb**	**19 23 21.3**	**-1.5**
YEDI				AML	AML		
VRTB	**Varto-Mus**	**0.39**	**115**	Pg	**Pg**	**19 23 15.7**	**+0.6**
VRTB				AML	AML		
VRTB	**Varto-Mus**	**0.39**	**115**	P	**Pb**	**19 23 15.9**	**-0.9**
BNGB	**Bingl**	**0.42**	**217**	Pg	**Pg**	**19 23 16.0**	**+0.2**
BNGB				Sg	**Sb**	**19 23 22.9**	**-1.1**
BNGB				AML	AML		
ETEKE	**Tekederesi - E**	**0.48**	**12**	P	**Pg**	**19 23 17.1**	**+0.3**
ETEKE				S	**Sb**	**19 23 24.4**	**-1.4**
ETEKE				IAML		19 23 25.0	
	comp=N,4μm,0.5s						
ETEKE				IAML		19 23 27.0	
	comp=E,4μm,0.4s						
EJDE	**Erzurum, Palan**	**0.56**	**24**	P	**Pg**	**19 23 18.3**	**-0.1**
EJDE				S	**Sg**	**19 23 26.1**	**+0.4**
EJDE				IAML		19 23 29.0	
	comp=N,8μm,0.4s						
ERZM	**Erzurum**	**0.64**	**25**	P	**Pg**	**19 23 19.9**	**-0.1**
ERZM				S	**Sb**	**19 23 29.6**	**-0.9**
EMRE	**Erzurum,Aziziy**	**0.70**	**358**	P	**Pg**	**19 23 21.2**	**+0.1**
MUSM	**Mu-Merkez**	**0.72**	**147**	P	**Pg**	**19 23 21.1**	**-0.3**
MUSM				S	**Sb**	**19 23 32.1**	**-0.5**
MUSM				IAML		19 23 34.0	
	comp=N,414nm,0.5s						
KOPT	**Kop Dagi**	**0.80**	**330**	P	**Pb**	**19 23 23.1**	**-0.8**
AKDA	**Akdag**	**0.82**	**19**	P	**Pb**	**19 23 23.6**	**-0.7**
KOPR	**Koprukoy-ERZUR**	**0.93**	**44**	Pg	**Pg**	**19 23 25.2**	**-0.3**
KOPR				Sg	**Sb**	**19 23 39.1**	**+0.3**
KOPR				AML	AML		
HOMI	**Horasan**	**1.00**	**44**	P	**Pg**	**19 23 25.9**	**-0.8**
KRIK	**Erzurum-spir**	**1.01**	**357**	P	**Pb**	**19 23 26.9**	**-0.6**
EUZM	**Uzumlu**	**1.08**	**291**	P	**Pg**	**19 23 27.2**	**-1.2**
GURO	**Guroymak-BITLI**	**1.11**	**134**	Pn	**Pg**	**19 23 28.6**	**-0.3**
GURO				AML	AML		
KOVA	**Elazig, Kovanc**	**1.12**	**237**	P	**Pg**	**19 23 28.5**	**-0.6**
TNCL	**Tunceli-Merkez**	**1.16**	**260**	P	**Pg**	**19 23 29.4**	**-0.4**
SVAN	**Silvan-Diyarba**	**1.18**	**173**	Pn	**Pn**	**19 23 30.7**	**+0.1**
SVAN				AML	AML		
SVAN	**Silvan-Diyarba**	**1.18**	**173**	P	**Pn**	**19 23 30.9**	**+0.3**
MLAZ	**Malazgirt-MUS**	**1.21**	**98**	Pn	**Pn**	**19 23 31.2**	**+0.1**
MLAZ				AML	AML		
BLIS	**Bitlis-Merkez**	**1.26**	**136**	P	**Pg**	**19 23 30.5**	**-1.2**
EATA	**Eleskirt**	**1.27**	**65**	P	**Pg**	**19 23 31.0**	**-0.9**
DORK	**Agr/Tutak/Do**	**1.38**	**87**	P	**Pg**	**19 23 33.6**	**-0.3**
MDNT	**Maden**	**1.39**	**228**	P	**Pg**	**19 23 34.3**	**0.0**
EOLT	**Oltu**	**1.43**	**31**	P	**Pb**	**19 23 34.3**	**-0.2**
ADCV	**BITLIS_Adilcev**	**1.43**	**111**	P	**Pn**	**19 23 34.2**	**0.0**
IZDR	**Rize**	**1.50**	**347**	P	**Pb**	**19 23 35.3**	**-0.4**
DYBB	**Diyarbakir**	**1.53**	**207**	Pn	**Pb**	**19 23 36.6**	**+0.3**
DYBB				AML	AML		
AGRB	**Hanur-Agry**	**1.56**	**80**	Pn	**Pb**	**19 23 36.6**	**-0.2**
AGRB				AML	AML		
KELT	**Kelkit**	**1.58**	**302**	P	**Pg**	**19 23 37.3**	**-0.5**
ESIJ	**Sivrice-Elazig**	**1.59**	**237**	Pn	**Pb**	**19 23 37.2**	**-0.1**
ESIJ				AML	AML		
SENK	**Senkaya-Erzuru**	**1.61**	**40**	Pn	**Pn**	**19 23 36.9**	**+0.3**
SENK				AML	AML		
SVRC	**Sivrice-ELAZID**	**1.63**	**235**	Pn	**Pb**	**19 23 37.9**	**-0.2**
SVRC				AML	AML		
DDEM	**Demirkent**	**1.66**	**20**	P	**Pb**	**19 23 38.5**	**-0.1**
ESGZ	**Sivrice-Elazig**	**1.76**	**240**	Pn	**Pb**	**19 23 39.7**	**-0.6**
DBAD	**Bademkaya**	**1.77**	**17**	P	**Pg**	**19 23 40.6**	**-0.9**
AKDM	**Akdamar-Van**	**1.83**	**122**	Pn	**Pn**	**19 23 40.6**	**+1.0**
AKDM				AML	AML		
ILIC	**ilic-Erzincan**	**1.90**	**275**	Pn	**Pn**	**19 23 41.4**	**+1.0**
ILIC				AML	AML		
KTUT	**Trabzon**	**1.91**	**331**	Pn	**Pn**	**19 23 41.5**	**+1.0**
KTUT				AML	AML		
VANB	**Van**	**2.00**	**111**	Pn	**Pb**	**19 23 43.4**	**-0.8**
VANB				AML	AML		
KARS	**Kars**	**2.05**	**50**	Pn	**Pn**	**19 23 43.5**	**+0.9**
KARS				AML	AML		
ARPR	**Arapgir-MALATY**	**2.09**	**264**	Pn	**Pn**	**19 23 44.2**	**+1.1**
CLDR	**Caldiran**	**2.27**	**94**	Pn	**Pn**	**19 23 46.7**	**+1.1**
CLDR				AML	AML		
TASB	**TASBURUN-IGDIR**	**2.58**	**74**	Pn	**Pn**	**19 23 51.0**	**+1.2**
TASB				AML	AML		
AKH	**Akhalkalaki**	**2.82**	**42**	P	**Pb**	**19 23 56.1**	**-2.2**
AKH				S	Sg	19 24 48.1	+10
GARIG	**Gari**	**3.77**	**29**	P	**Pg**	**19 24 17.1**	**-2.6**
GARIG				S	**Sg**	**19 25 09.7**	**+1.2**
DGRG	**David-gareji**	**3.95**	**56**	P	**Pn**	**19 24 12.8**	**+4.2**
CHRG	**Chargali**	**4.22**	**43**	P	**Pn**	**19 24 14.9**	**+2.4**
VSHL	**Vashlovani**	**4.54**	**64**	P	**Pn**	**19 24 20.4**	**+3.7**

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*TIF **09** 19:32:32.6, 39°.34N×41°.05E, h10^{km}±1^{km}*

*ISK **09** 19:32:32.7, 39°.34N×41°.02E, h5^{km}, ML4.1/15*

*AFAD **09** 19:32:32.9, 39°.33N×41°.04E, h7^{km}±2^{km}, MW4.1*

*IDC **09** 19:32:33.0±0.8, 39°.30N×41°.06E, h0^{km}, mb3.6/10, mbtmp3.6/18, ML3.3/8, MS3.3/20, Error ellipse: s-maj=14.6km s-min=9.7km az=139.0*

ISC 09 19:32:33.3±0.9**, 39°.34N**±0°.02×**41°.05E**±0°.02**, h4^{km}**±6^{km}**, n95, σ1^s.37**/99**, mb3.6**/17**, MS3.4**/14**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KARO	**Karliova-Bingo**	**0.03**	**183**	Pg	**Pg**	**19 32 34.3**	**-0.1**
ECAT	**Cat-ERZURUM**	**0.28**	**348**	P	**Pg**	**19 32 38.8**	**+0.1**
ECAT				S	**Sg**	**19 32 42.8**	**+0.3**
ECAT				IAML		19 32 44.0	
	comp=E,11μm,0.5s						
VRTB	**Varto-Mus**	**0.36**	**119**	Pg	**Pb**	**19 32 41.0**	**-1.4**
VRTB				AML	AML		
VRTB	**Varto-Mus**	**0.36**	**119**	P	**Pg**	**19 32 40.8**	**+0.5**
SLHN	**Bingol, Solhan**	**0.38**	**183**	P	**Pg**	**19 32 41.1**	**+0.4**
SLHN				S	**Sg**	**19 32 46.5**	**+0.9**
SLHN				IAML		19 32 48.0	
	comp=N,4μm,0.5s						
YEDI	**Yedisu-Bingol**	**0.41**	**285**	Pg	**Pg**	**19 32 40.6**	**-0.6**
YEDI				AML	AML		
BNGB	**Bingl**	**0.45**	**220**	Pg	**Pg**	**19 32 41.2**	**-0.8**
BNGB				Sg	**Sg**	**19 32 48.3**	**+0.5**
BNGB				AML	AML		
ETEKE	**Tekederesi - E**	**0.46**	**8**	P	**Pg**	**19 32 42.5**	**+0.2**
ETEKE				S	**Sg**	**19 32 48.0**	**-0.4**
ETEKE				IAML		19 32 50.0	
	comp=N,2μm,0.5s						
ETEKE				IAML		19 32 52.0	
	comp=E,2μm,0.8s						
EJDE	**Erzurum, Palan**	**0.54**	**21**	P	**Pg**	**19 32 43.3**	**-0.3**
EJDE				S	**Sg**	**19 32 51.5**	**+0.8**
EJDE				IAML		19 32 54.0	
	comp=N,2μm,0.4s						
ERZM	**Erzurum**	**0.62**	**23**	P	**Pg**	**19 32 45.1**	**-0.2**
ERZM				S	**Sb**	**19 32 54.5**	**-1.6**
EMRE	**Erzurum,Aziziy**	**0.70**	**355**	P	**Pg**	**19 32 46.6**	**-0.2**
MUSM	**Mu-Merkez**	**0.71**	**149**	P	**Pg**	**19 32 46.2**	**-0.7**
MUSM				S	**Sg**	**19 32 56.5**	**+0.4**
MUSM				IAML		19 33 00.0	
	comp=N,2μm,0.3s						
AKDA	**Akdag**	**0.81**	**17**	P	**Pg**	**19 32 48.5**	**-0.3**
KOPT	**Kop Dagi**	**0.81**	**328**	P	**Pg**	**19 32 48.8**	**0.0**
KOPR	**Koprukoy-ERZUR**	**0.90**	**43**	Pg	**Pg**	**19 32 50.2**	**-0.5**
KOPR				Sg	**Sb**	**19 33 04.1**	**0.0**
KOPR				AML	AML		
KRIK	**Erzurum-spir**	**1.01**	**355**	P	**Pg**	**19 32 52.2**	**-0.4**
GURO	**Guroymak-BITLI**	**1.09**	**135**	Pn	**Pg**	**19 32 53.6**	**-0.7**
GURO				AML	AML		
EUZM	**Uzumlu**	**1.11**	**290**	P	**Pg**	**19 32 53.2**	**-1.4**
KOVA	**Elazig, Kovanc**	**1.15**	**237**	P	**Pg**	**19 32 53.9**	**-1.5**
SVAN	**Silvan-Diyarba**	**1.19**	**174**	Pn	**Pn**	**19 32 56.0**	**-0.8**
SVAN				Sn	**Sn**	**19 33 12.9**	**-0.5**
SVAN				AML	AML		
SVAN	**Silvan-Diyarba**	**1.19**	**174**	P	**Pn**	**19 32 56.2**	**-0.6**
SVAN				S	**Sb**	**19 33 12.0**	**-0.2**
SVAN				IAML		19 33 17.0	
	comp=E,3μm,0.6s						
TNCL	**Tunceli-Merkez**	**1.19**	**260**	P	**Pg**	**19 32 54.8**	**-1.3**
EATA	**Eleskirt**	**1.23**	**64**	P	**Pg**	**19 32 55.9**	**-1.0**
EATA				S	**Sn**	**19 33 15.5**	**+0.6**
EATA				IAML		19 33 21.0	
	comp=N,5μm,0.6s						
BLIS	**Bitlis-Merkez**	**1.24**	**138**	P	**Pg**	**19 32 55.6**	**-1.5**
DORK	**Agr/Tutak/Do**	**1.34**	**87**	P	**Pn**	**19 32 57.9**	**-1.2**
DORK				IAML		19 33 14.0	
	comp=N,733nm,0.6s						
DORK				S	**Sn**	**19 33 17.2**	**-0.2**
DORK				IAML		19 33 21.0	
	comp=E,5μm,0.9s						
EOLT	**Oltu**	**1.40**	**30**	P	**Pb**	**19 32 59.5**	**-0.6**
ADCV	**BITLIS_Adilcev**	**1.41**	**111**	P	**Pb**	**19 32 59.7**	**-0.6**
MDNT	**Maden**	**1.42**	**229**	P	**Pb**	**19 32 59.6**	**-0.9**
IZDR	**Rize**	**1.50**	**346**	P	**Pn**	**19 33 00.5**	**-0.6**
AGRB	**Hanur-Agry**	**1.52**	**80**	Pn	**Pn**	**19 33 01.1**	**-0.4**
AGRB				AML	AML		
DYBB	**Diyarbakir**	**1.55**	**208**	Pn	**Pn**	**19 33 01.5**	**-0.3**
DYBB				AML	AML		
SENK	**Senkaya-Erzuru**	**1.58**	**39**	Pn	**Pn**	**19 33 01.7**	**-0.7**
SENK				AML	AML		
KELT	**Kelkit**	**1.60**	**301**	P	**Pb**	**19 33 02.5**	**-1.2**
ESIJ	**Sivrice-Elazig**	**1.62**	**237**	Pn	**Pn**	**19 33 02.4**	**-0.4**
DDEM	**Demirkent**	**1.65**	**19**	P	**Pb**	**19 33 04.0**	**-0.4**
SVRC	**Sivrice-ELAZID**	**1.66**	**236**	Pn	**Pn**	**19 33 03.1**	**-0.3**
DBAD	**Bademkaya**	**1.75**	**16**	P	**Pg**	**19 33 05.9**	**-1.0**
ESGZ	**Sivrice-Elazig**	**1.80**	**240**	Pn	**Pn**	**19 33 05.0**	**-0.3**
AKDM	**Akdamar-Van**	**1.81**	**123**	Pn	**Pb**	**19 33 05.7**	**-1.5**
AKDM				AML	AML		
MACK	**Trabzon**	**1.88**	**329**	P	**Pb**	**19 33 07.2**	**-1.1**
VANB	**Van**	**1.97**	**111**	Pn	**Pb**	**19 33 08.6**	**-1.2**
VANB				AML	AML		
KARS	**Kars**	**2.02**	**50**	Pn	**Pn**	**19 33 08.7**	**+0.3**
KARS				AML	AML		
ARPR	**Arapgir-MALATY**	**2.12**	**264**	Pn	**Pn**	**19 33 09.5**	**-0.3**
ARPR				AML	AML		
CLDR	**Caldiran**	**2.23**	**94**	Pn	**Pn**	**19 33 11.9**	**+0.6**
CLDR				AML	AML		
TASB	**TASBURUN-IGDIR**	**2.54**	**74**	Pn	**Pn**	**19 33 16.5**	**+1.0**
TASB				AML	AML		
BGD	**Bogdanovka**	**2.74**	**44**	P	**Pb**	**19 33 20.1**	**-3.0**
BGD				S	**Sg**	**19 34 02.5**	**+1.1**
AKH	**Akhalkalaki**	**2.79**	**41**	P	**Pn**	**19 33 19.9**	**+1.0**
GNI	**Garni**	**2.96**	**73**	Pn	**Pn**	**19 33 21.7**	**+0.5**
	7.7nm,0.3s,baz=293,slow=4.1,SNR=32						
GNI				LR	LR	19 34 48.1	
	comp=Z,575nm,18.5s,baz=266,slow=46						
	115nm,0.9s						
GNI				AML	AML		
KZRT	**Kazreti**	**3.28**	**50**	P	**Pn**	**19 33 22.8**	**-2.8**
TBLG	**Delisi**	**3.69**	**48**	P	**Pn**	**19 33 33.8**	**+2.6**
TBLG				S	**Sg**	**19 34 33.5**	**+1.6**
GARIG	**Gari**	**3.74**	**28**	P	**Pn**	**19 33 34.7**	**+2.7**
GARIG				S	**Sg**	**19 34 30.9**	**-2.6**
DGRG	**David-gareji**	**3.92**	**56**	P	**Pn**	**19 33 36.6**	**+2.2**
CHRG	**Chargali**	**4.19**	**43**	P	**Pn**	**19 33 39.8**	**+1.6**
DDFL	**Dedoflistskaro**	**4.41**	**60**	P	**Pg**	**19 33 55.8**	**-1.9**
VSHL	**Vashlovani**	**4.51**	**63**	P	**Pn**	**19 33 45.5**	**+3.1**
SHTL	**Shatili**	**4.54**	**42**	P	**Pn**	**19 33 46.0**	**+3.0**
KBZ	**Khabaz**	**4.60**	**17**	Pn	**Pn**	**19 33 44.5**	**+0.8**
	0.2nm,0.3s,baz=180,slow=5.1,SNR=3.9						
KBZ				LR	LR	19 35 53.1	
	comp=Z,134nm,18.4s,baz=195,slow=43						
	1.2nm,0.6s						
KBZ				AML	AML		
LGD	**Lagodekhi**	**4.67**	**56**	P	**Pn**	**19 33 47.2**	**+2.5**
BRTR	**Keskin Array B**	**5.74**	**276**	Pn	**Pn**	**19 34 00.5**	**+0.9**
	0.1nm,0.3s,baz=100,slow=14,SNR=12						
	2.0nm,0.7s						
BRTR				AML	AML		
MMAI	**Mount Meron Ar**	**7.78**	**218**	Pn	**Pn**	**19 34 29.6**	**+2.1**
	0.4nm,0.3s,baz=42,slow=18,SNR=1.3						
MMAI				Lg	Lg	19 36 40.9	
	0.8nm,0.3s,baz=39,slow=32,SNR=2.2						
	0.3nm,0.3s						
MMAI				AML	AML		
ASF	**Jabal al Asfar**	**7.90**	**207**	Pn	**Pn**	**19 34 31.2**	**+2.1**
	0.3nm,0.3s,baz=22,slow=18,SNR=6.1						
ASF				Lg	Lg	19 36 45.9	
	0.4nm,0.3s,baz=24,slow=17,SNR=3.5						
ASF				LR	LR	19 37 51.1	
	comp=Z,122nm,19.3s,baz=28,slow=40						
	1.2nm,0.5s						
ASF				AML	AML		
MLR	**Muntele Rosu**	**12.74**	**304**	Pn	**Pn**	**19 35 37.7**	**+2.4**
	0.1nm,0.3s,baz=89,slow=23,SNR=4.4						
MLR				LR	LR	19 40 53.1	
	comp=Z,76nm,18.0s,baz=172,slow=39						
	1.0nm,0.8s						
MLR				AML	AML		
AKASG	**Malin Array Be**	**14.09**	**328**	Pn	**Pn**	**19 35 54.3**	**+0.7**
	0.4nm,0.3s,baz=135,slow=14,SNR=7.6						
AKASG				LR	LR	19 42 03.0	
	comp=Z,41nm,20.0s,baz=176,slow=40						
	1.8nm,0.7s						
AKASG				AML	AML		
AKTO	**Aktyubinsk**	**16.32**	**42**	Pn	**P**	**19 36 24.5**	**-1.7**
	0.2nm,0.3s,baz=238,slow=11,SNR=5.4						
AKTO				LR	LR	19 44 50.8	
	comp=Z,29nm,19.5s,baz=36,slow=45						
	1.4nm,0.6s						
AKTO				AML	AML		
RONA	**Rosalia, Austr**	**19.74**	**303**	*e*P	**Pn**	**19 37 08.5**	**+3.0**
	3.9nm,1.0s						
KIRV	**Kirov**	**20.00**	**13**	P	**Pn**	**19 37 08.6**	**+0.2**
	5.7nm,0.4s,baz=214,slow=7.3,SNR=2.1						
	5.7nm,0.4s						
VRAC	**Vranov**	**20.06**	**308**	LR	LR	19 47 16.9	
	comp=Z,37nm,20.7s,baz=122,slow=44						
CONA	**Conrad Observa**	**20.09**	**304**	*i*P	Pn	19 37 10.2	+0.6
	6.6nm,1.9s						
ARTI	**Arti**	**20.55**	**28**	P	Pn	19 37 14.3	-0.5
	2.2nm,0.8s,baz=213,slow=7.7,SNR=5.7						
ARTI				LR	LR	19 45 23.9	
	comp=Z,49nm,19.8s,baz=258,slow=38						
	2.2nm,0.8s						
OBKA	**Obir**	**20.63**	**299**	*i*P	**P**	**19 37 12.0**	**-1.8**
	1.9nm,0.7s						
MOA	**Molln**	**21.10**	**303**	*e*P	**P**	**19 37 15.9**	**-2.9**
	2.2nm,0.7s						
BIOA	**Bad Ischl, Aus**	**21.48**	**302**	*i*P	**P**	**19 37 24.9**	**+2.1**
	3.7nm,0.9s						
KBA	**Koelnbreinsper**	**21.55**	**300**	*e*P	**P**	**19 37 25.8**	**+2.1**
	2.9nm,0.8s						
GERES	**GERESS Array B**	**21.72**	**305**	P	**P**	**19 37 26.4**	**+0.9**
	0.9nm,0.7s,baz=115,slow=7.8,SNR=6.7						
	0.9nm,0.7s						
ABTA	**Abfaltersbach**	**22.05**	**299**	*i*P	**P**	**19 37 28.1**	**-0.9**
	2.5nm,1.0s						
LESA	**Schwarzleotal**	**22.06**	**301**	*e*pP	**P**	**19 37 28.9**	**-0.2**
	2.0nm,1.2s						
WTTA	**Wattenberg**	**22.73**	**300**	*e*P	**P**	**19 37 33.8**	**-2.6**
	3.8nm,1.1s						
SQTA	**Sankt Quirin**	**23.01**	**300**	*e*pP	**P**	**19 37 39.5**	**+0.3**
	3.2nm,0.9s						
MOTA	**Moosalm**	**23.10**	**300**	*i*P	**P**	**19 37 39.3**	**-0.9**
	5.5nm,0.9s						
FETA	**Feichten**	**23.30**	**299**	*e*P	**P**	**19 37 40.6**	**-1.7**
	1.4nm,0.7s						
FINES	**FINESS Array B**	**23.99**	**342**	P	**P**	**19 37 48.8**	**+0.1**
	2.1nm,0.7s,baz=133,slow=11,SNR=7.4						
FINES				LR	LR	19 49 17.7	
	comp=Z,47nm,18.1s,baz=129,slow=42						
	2.1nm,0.7s						
BVAR	**Borovoye Array**	**24.29**	**46**	P	**P**	**19 37 51.7**	**+0.1**
	0.4nm,0.5s,baz=258,slow=7.2,SNR=2.3						
	0.4nm,0.5s						
KEST	**Kesra**	**25.33**	**272**	P	**P**	**19 38 01.8**	**+0.5**
	2.2nm,0.9s,baz=76,slow=12,SNR=4.3						
	2.2nm,0.9s						
HFS	**Hagfors**	**26.96**	**330**	LR	LR	19 51 05.9	
	comp=Z,15nm,20.0s,baz=118,slow=41						
KURBB	**Kurchatov Arra**	**28.52**	**54**	P	**P**	**19 38 30.2**	**+0.5**
	0.7nm,0.8s,baz=266,slow=9.0,SNR=3.4						
KURBB				LR	LR	19 51 49.0	
	comp=Z,134nm,19.1s,baz=170,slow=40						
	0.7nm,0.8s						
MKAR	**Makanchi Array**	**30.75**	**62**	P	**P**	**19 38 49.9**	**+0.3**
	0.9nm,0.9s,baz=264,slow=11,SNR=5.2						
	0.9nm,0.9s						
ZALV	**Zalesovo Beam**	**32.83**	**49**	LR	LR	19 52 37.6	
	comp=Z,45nm,20.1s,baz=259,slow=37						
ESDC	**Sonseca Array**	**34.45**	**285**	P	**P**	**19 39 21.0**	**-1.2**
	0.4nm,0.6s,baz=68,slow=9.3,SNR=5.1						
ESDC				LR	LR	19 53 13.2	
	comp=Z,21nm,19.7s,baz=107,slow=36						
	0.4nm,0.6s						
SONM	**Songino Array**	**46.80**	**57**	LR	LR	20 03 09.0	
	comp=Z,160nm,20.2s,baz=278,slow=39						
TIXI	**Tiksi**	**52.54**	**23**	LR	LR	20 09 23.5	
	comp=Z,36nm,19.6s,baz=219,slow=42						
CMAR	**Chiang Mai Arr**	**53.85**	**95**	P	**P**	**19 41 58.8**	**+1.1**
	0.2nm,0.3s,baz=286,slow=5.7,SNR=2.3						
CMAR				LR	LR	20 08 00.4	
	comp=Z,28nm,18.3s,baz=210,slow=40						
	0.2nm,0.3s						
YAK	**Yakutsk**	**55.56**	**35**	LR	LR	20 10 30.6	
	comp=Z,67nm,18.1s,baz=284,slow=41						
KSRS	**Korea Array**	**65.42**	**61**	LR	LR	20 15 07.8	
	comp=Z,44nm,18.6s,baz=260,slow=39						
MA2	**Magadan**	**65.78**	**32**	LR	LR	20 16 00.6	
	comp=Z,53nm,18.9s,baz=14,slow=40						
MJAR	**Matsushiro Arr**	**72.76**	**57**	LR	LR	20 17 01.9	
	comp=Z,38nm,18.8s,baz=298,slow=37						

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*IDC **09** 19:39:47.3±1.3, 18°.77S×65°.26E, h0^{km}, mb3.9/8, mbtmp3.9/8, MS3.6/8, Error ellipse: s-maj=47.6km s-min=25.0km az=80.0*

*NEIC **09** 19:39:49.0±1.9, 18°.69S±0°.09×65°.2E±0°.1, h10^{km}±1^{km}, mb4.3/11, Error ellipse: s-maj=26.0km s-min=9.6km az=301.0*

ISC 09 19:39:48.8±0.6**, 18°.7S**±0°.1×**65°.3E**±0°.2**, h10^{km}, n38, σ1^s.06**/23**, mb4.1**/15**, MS3.5**/8**, Mauritius-Reunion region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ROCAM	**Rodrigues Isla**	**2.09**	**238**	Pn	**Pn**	**19 40 22.8**	**-1.1**
H08S1	**Diego Carcia H**	**13.01**	**34**	T	T	19 56 22.4	
	baz=211,slow=75,SNR=71						
H08S2	**Diego Garcia H**	**13.02**	**34**	T	T	19 56 05.6	
	baz=211,slow=75,SNR=40						
H08S3	**Diego Garcia H**	**13.03**	**34**	T	T	19 56 26.1	
	baz=211,slow=75,SNR=68						
H04N2	**CROZET ISLANDS**	**29.59**	**199**	T	T	20 17 02.0	
	baz=27,slow=75,SNR=106						
H04N1	**CROZET ISLANDS**	**29.60**	**199**	T	T	20 17 03.1	
	baz=27,slow=75,SNR=102						
H04N3	**CROZET ISLANDS**	**29.61**	**199**	T	T	20 16 56.7	
	baz=27,slow=75,SNR=110						
PALK	**Pallekele**	**29.94**	**32**	LR	LR	19 54 34.7	
	comp=Z,98nm,21.6s,baz=116,slow=30						
KMBO	**Kilima Mbogo**	**32.53**	**299**	LR	LR	19 56 02.0	
	comp=Z,64nm,21.3s,baz=100,slow=30						
LSZ	**Lusaka**	**35.57**	**270**	LR	LR	19 58 14.1	
	comp=Z,72nm,18.4s,baz=128,slow=31						
LBTB	**Lobatse**	**37.25**	**253**	LR	LR	20 00 31.0	
	comp=Z,103nm,18.2s,baz=70,slow=33						
BOSA	**Boshof**	**37.81**	**247**	LR	LR	19 59 22.5	
	comp=Z,81nm,20.4s,baz=51,slow=31						
SUR	**Sutherland**	**42.08**	**242**	LR	LR	20 02 03.5	
	comp=Z,125nm,18.6s,baz=94,slow=32						
CMAR	**Chiang Mai Arr**	**49.56**	**44**	P	**P**	**19 48 41.5**	**+1.2**
	0.8nm,0.6s,baz=228,slow=8.7,SNR=7.7						
	0.8nm,0.6s						
CMAR	**Chiang Mai Arr**	**49.56**	**44**	P	**P**	**19 48 41.7**	**+1.4**
CHTO	**Chiang Mai**	**49.82**	**43**	P	**P**	**19 48 41.7**	**-0.5**
CHTO				IAmb	IAmb	19 48 45.2	
	comp=Z,2.6nm,1.1s						
EVN	**Everest**	**50.83**	**25**	P	**P**	**19 48 48.2**	**-2.3**
EVN				IAmb	IAmb	19 48 57.2	
	comp=Z,3.6nm,1.0s						
MORE	**Moreh**	**51.19**	**35**	P	**P**	**19 48 52.1**	**-0.4**
MORE				IAmb	IAmb	19 48 59.8	
	comp=Z,7.0nm,1.3s						
FITZ	**Fitzroy Crossi**	**57.06**	**100**	LR	LR	20 11 55.1	
	comp=Z,108nm,19.0s,baz=350,slow=34						
ASAR	**Alice Springs**	**63.68**	**108**	P	**P**	**19 50 20.5**	**-0.4**
	comp=Z,1.1nm,1.0s,baz=254,slow=6.7,SNR=4.0						
	comp=Z,1.1nm,1.0s						
WRA	**Warramunga Arr**	**64.77**	**104**	P	**P**	**19 50 27.8**	**-0.3**
	comp=Z,1.7nm,1.1s,baz=259,slow=5.7,SNR=4.5						
	comp=Z,1.7nm,1.1s						
WRA	**Warramunga Arr**	**64.77**	**104**	IAmb	IAmb	19 50 33.3	
	comp=Z,0.3nm,1.3s						
VNA2	**Neumayer--Watz**	**66.84**	**200**	P	**P**	**19 50 42.3**	**+1.8**
	baz=74,slow=7.5						
MKAR	**Makanchi Array**	**66.94**	**13**	P	**P**	**19 50 42.7**	**+1.2**
	comp=Z,0.7nm,0.9s,baz=201,slow=6.5,SNR=4.1						
	comp=Z,0.7nm,0.9s						
VNA3	**Neumayer Olymp**	**67.62**	**200**	P	**P**	**19 50 47.0**	**+1.5**
	comp=Z,1.2nm,0.8s						
ABKAR	**Akbulak array**	**67.78**	**356**	P	**P**	**19 50 46.8**	**+0.1**
KURBB	**Kurchatov Arra**	**69.97**	**9**	P	**P**	**19 51 01.2**	**+1.0**
	comp=Z,0.3nm,0.3s,baz=204,slow=6.6,SNR=4.0						
	comp=Z,0.3nm,0.3s						
KURK	**Kurchatov**	**70.07**	**9**	P	**P**	**19 51 00.3**	**-0.5**
KURK				IAmb	IAmb	19 51 08.8	
	comp=Z,2.1nm,0.8s						
QSPA	**South Pole Qui**	**71.44**	**180**	P	**P**	**19 51 09.2**	**-0.1**
	comp=Z,3.8nm,1.0s,baz=270,slow=0.9,SNR=5.3						
	comp=Z,3.8nm,1.0s						
QSPA	**South Pole Qui**	**71.44**	**180**	P	**P**	**19 51 09.4**	**0.0**
BVAR	**Borovoye Array**	**71.53**	**3**	P	**P**	**19 51 10.2**	**+0.5**
	comp=Z,0.8nm,0.7s,baz=186,slow=5.7,SNR=4.7						
	comp=Z,0.8nm,0.7s						
ZAA0	**Zalesovo Array**	**74.25**	**12**	P	**P**	**19 51 24.9**	**-0.9**
ZAA0				IAmb	IAmb	19 51 30.5	
	comp=Z,3.8nm,1.3s						
ZALV	**Zalesovo Beam**	**74.25**	**12**	P	**P**	**19 51 25.9**	**+0.1**
	comp=Z,1.0nm,0.7s,baz=198,slow=4.2,SNR=5.4						
	comp=Z,1.0nm,0.7s						
ZALV	**Zalesovo Beam**	**74.25**	**12**	P	**P**	**19 51 25.3**	**-0.5**
SBA	**Scott Base**	**74.29**	**168**	P	**P**	**19 51 25.2**	**-0.7**
BURAR	**Bucovina Array**	**75.12**	**333**	P	**P**	**19 51 32.1**	**+1.0**
SONM	**Songino Array**	**75.76**	**27**	P	**P**	**19 51 34.1**	**-0.8**
SONM				IAmb	IAmb	19 51 42.6	

	comp=Z,1.8nm,1.2s						
KSRS	Korea Array	81.15	46	LR	LR	20 29 00.5	
	comp=Z,15nm,18.1s,baz=220,slow=36						

IDC 09 19:41:03.2±1.8**, 6°.67S**×**128°.21E, h0^{km}, mb3.7**/1**, mbtmp3.3**/3**, ML3.6**/2**, MS2.6**/1**, Error ellipse: s-maj=123.4km s-min=24.1km az=65.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	14.47	156	Pn	Pn	19 44 23.4	-6.0
	0.3nm,0.3s,baz=335,slow=14,SNR=23						
WRA				Sn	Sn	19 46 46.1	-25
	0.5nm,0.3s,baz=342,slow=22,SNR=10						
	0.3nm,0.4s						
WRA				AML	AML		
ASAR	Alice Springs	17.76	163	P	Pn	19 45 10.7	-1.4
	0.1nm,0.3s,baz=336,slow=13,SNR=7.6						
ASAR				S	Sn	19 48 16.2	-14
	0.2nm,0.4s,baz=314,slow=16,SNR=4.6						
	0.2nm,0.5s						
ASAR				AML	AML		
GUMO	Guam	26.05	39	LR	LR	19 57 02.1	
	comp=Z,15nm,21.9s,baz=86,slow=37						
MKAR	Makanchi Array	66.99	328	P	P	19 51 58.0	0.0
	0.5nm,0.6s,baz=120,slow=7.2,SNR=6.2						
	0.5nm,0.6s						

IDC 09 19:53:10.2±7.0**, 7°.64S**×**129°.63E, h200^{km}**±74^{km}**, mb2.8**/1**, mbtmp3.2**/4**, Error ellipse: s-maj=61.6km s-min=32.8km az=57.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	11.10	200	P	Pn	19 55 44.5	+0.8
	1.5nm,1.0s,baz=23,slow=12,SNR=12						
FITZ				S	S	19 57 44.4	-3.3
	1.5nm,0.4s,baz=338,slow=17,SNR=6.5						
WRA	Warramunga Arr	13.06	160	P	Pn	19 56 09.6	+1.1
	0.5nm,0.7s,baz=346,slow=14,SNR=14						
WRA				S	S	19 58 30.6	-3.6
	1.4nm,0.6s,baz=336,slow=22,SNR=10						
ASAR	Alice Springs	16.46	166	P	Pn	19 56 49.9	-0.2
	0.1nm,0.7s,baz=346,slow=9.0,SNR=7.6						
ASAR				S	S	19 59 53.9	+2.4
	0.4nm,0.7s,baz=355,slow=28,SNR=2.1						
MKAR	Makanchi Array	68.55	327	P	P	20 03 51.0	-0.2
	0.1nm,0.4s,baz=119,slow=7.6,SNR=4.7						
	0.1nm,0.4s						

IDC 09 20:13:13.4±323.0**, 54°.05N**×**42°.12E, h0^{km}, Error ellipse: s-maj=139.8km s-min=77.4km az=141.0, Baltic States-Belarus-Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I43RU	DUBNA INFRASON	3.87	316	I	I	20 37 40.0	
	baz=132,slow=328,SNR=3.7						
I31KZ	AKTYUBINSK INF	10.42	104	I	I	21 17 40.0	
	baz=299,slow=328,SNR=0.7						
I26DE	FREYUNG INFRAS	18.38	265	I	I	22 06 10.0	
	baz=65,slow=329,SNR=3.3						
I46RU	ZALESOVO INFRA	24.82	73	I	I	22 45 50.0	
	baz=287,slow=325,SNR=1.8						

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*IDC **09** 20:37:23.8±0.6, 62°.23S×57°.79W, h0^{km}, mb4.3/12, mbtmp4.3/14, ML4.0/2, MS4.1/37, Error ellipse: s-maj=17.4km s-min=12.0km az=86.0*

*NEIC **09** 20:37:25.3±2.1, 62°.33S±0°.05×58°.2W±0°.1, h10^{km}±1^{km}, mb5.1/43, Mww4.9/10, Error ellipse: s-maj=11.5km s-min=7.8km az=233.0*

*GFZ **09** 20:37:28.1±0.2, 62°S±3°×5°8W±°, h10^{km}, M4.8/22, mb4.9/22*

*GCMT **09** 20:37:29.2±0.3, 62°.32S±0°.01×58°.29W±0°.04, h22^{km}±1^{km}, MW5.0/107, Moment Tensor Solution. s27,c33; s107,c137; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-0.83±.17; M$_{\theta\theta}$-0.28±.12; M$_{\phi\phi}$1.11±.13; M$_{r\theta}$0.58±.21; M$_{\theta\phi}$3.33±.10; M$_{\phi r}$-0.62±.20; Best double couple: M$_0$3.54800×10^{16} NP1:φ$_s$263.00000°,δ76.00000°, λ-13.00000°. NP2:φ$_s$356.00000°,δ78.00000°, λ-165.00000°. Principal axes: T 3.8190, Plg1.0000°, Azm129.0000°; N -0.5470, Plg71.0000°, Azm35.0000°; P -3.2770, Plg19.0000°, Azm219.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 09 20:37:24.9±0.3**, 62°.34S**±0°.04×**58°.27W**±0°.05**, h10^{km}, n204,** σ**1^{s}.66**/168**, mb5.0**/38**, MS4.2**/36**, 1C-1D, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JUBA	Jubany	0.21	299	*e*P	Pg	20 37 27.6	-1.7
JUBA				*e*S	Sg	20 37 34.4	+2.2
JUBA				IAML		20 37 34.9	
	comp=Z,129µm,0.8s						
ESPZ	Base Esperanza	1.21	152	*e*P	Pg	20 37 46.5	-1.6
ESPZ				*e*S	Sn	20 38 04.0	-0.2
ESPZ	Base Esperanza	1.21	152	Pn	Pg	20 37 46.5	-1.6
ESPZ				Sn	Sn	20 38 03.5	-0.8
PMSA	Palmer Station	3.56	224	Pn	Pn	20 38 19.5	-0.6
	comp=Z,8.4nm,0.3s,baz=56,slow=9.0,SNR=49						
PMSA				Sn	Sn	20 39 02.5	+0.4
	comp=Z,9.3nm,0.3s,baz=59,slow=4.6,SNR=3.5						
PMSA				LR	LR	20 39 39.8	
	comp=Z,4µm,20.1s,baz=30,slow=36						
	comp=Z,15nm,0.3s						
PMSA				AML	AML		
PMSA	Palmer Station	3.56	224	*e*P	Pn	20 38 20.1	0.0
PMSA				*e*S	Sg	20 39 17.5	-1.5
PMSA	Palmer Station	3.56	224	Pn	Pn	20 38 19.9	-0.2
PMSA	Palmer Station	3.56	224	*e*P	Pn	20 38 19.4	-0.6
PMSA	Palmer Station	3.56	224	P	Pn	20 38 20.5	+0.4
ORCD	Orcadas	6.66	82		Pn	20 39 01.8	-0.8
SMAI	San Martin Ant	6.89	209	*e*P	Pn	20 39 06.6	+0.9
SMAI				*e*S	Sb	20 40 54.5	+7.8
SMAI	San Martin Ant	6.89	209	Pn	Pn	20 39 07.4	+1.6
USHA	Ushuaia	9.20	320	Pn	Pn	20 39 36.6	-0.8
	comp=Z,1.9nm,0.3s,baz=11,slow=0.6,SNR=1.5						
USHA				Sn	Sn	20 41 13.3	-7.7
	comp=Z,2.8nm,0.3s,baz=10,slow=0.8,SNR=1.5						
	comp=Z,16nm,0.6s						
USHA				AML	AML		
DSPA	Despedida	9.92	323	Pn	Pn	20 39 47.9	+0.6
EFI	East Falkland	10.69	1	*e*P	Pn	20 39 56.4	-1.5
EFI	East Falkland	10.69	1	Pn	Pn	20 39 58.1	+0.2
MG02	Cerro Sombrero	11.23	324	Pn	Pn	20 40 05.9	+0.7
GO08	Villa O'Higgin	16.04	324		P	20 41 12.7	-1.0
GO08	Villa O'Higgin	16.04	324	P	P	20 41 14.0	+0.2
	comp=Z,29nm,0.9s						
BELA	Belgrano 2	17.29	163	Pn	Pn	20 41 23.4	-2.6
COYC	Coyhaique	18.59	328		Pn	20 41 44.0	+1.9
COYC	Coyhaique	18.59	328	P	Pn	20 41 46.6	+4.5
	comp=Z,42nm,1.8s						
VNA3	Neumayer Olymp	20.49	136	P	Pn	20 42 05.4	+0.7
	comp=Z,28nm,0.7s						
VNA3	Neumayer Olymp	20.49	136	P	Pn	20 42 05.3	+0.6
	comp=Z,45nm,0.8s						
LL02	Futaleuf	20.78	331		Pn	20 42 07.7	-0.6
LL02				IAmb	IAmb	20 42 11.4	
	comp=Z,191nm,1.9s						
LL02	Futaleuf	20.78	331	P	Pn	20 42 10.0	+1.7
	comp=Z,54nm,1.6s						
VNA1	Neumayer--Stat	20.96	134	P	Pn	20 42 10.2	+0.1
	comp=Z,32nm,1.0s						
VNA2	Neumayer--Watz	21.24	135	P	P	20 42 13.0	+2.4
	comp=Z,12nm,0.7s,baz=262,slow=10						
VNA2	Neumayer--Watz	21.24	135	P	P	20 42 13.2	+2.6
	comp=Z,29nm,0.9s						
SNAA	Sanae	22.66	137	P	P	20 42 27.6	+1.7
	comp=Z,430nm,1.4s						
SNAA	Sanae	22.66	137	P	P	20 42 25.9	0.0
	comp=Z,4.2nm,0.7s,baz=261,slow=8.6,SNR=16						
SNAA				LR	LR	20 50 04.1	
	comp=Z,785nm,20.4s,baz=270,slow=34						
	comp=Z,4.2nm,0.7s						
SNAA	Sanae	22.66	137	P	P	20 42 26.6	+0.7
SNAA				IAmb	IAmb	20 42 31.2	
	comp=Z,68nm,1.7s						
SNAA	Sanae	22.66	137	P	P	20 42 28.6	+2.7
	comp=Z,34nm,1.5s						
LL05	Los Muermos	22.86	329	P	P	20 42 29.5	+1.5
LL03	Petrohue	22.86	332	P	P	20 42 24.8	-3.4
PLCA	Paso Flores	22.87	335	P	P	20 42 28.4	+0.1
	comp=Z,40nm,1.1s,baz=167,slow=9.5,SNR=19						
PLCA				LR	LR	20 51 25.6	
	comp=Z,516nm,19.1s,baz=166,slow=37						
	comp=Z,40nm,1.1s						
PLCA	Paso Flores	22.87	335		P	20 42 29.2	+0.9
PLCA				IAmb	IAmb	20 42 33.2	
	comp=Z,57nm,1.1s						
PLCA	Paso Flores	22.87	335	*e*P	P	20 42 29.2	+0.9
PLCA	Paso Flores	22.87	335	P	P	20 42 30.7	+2.4
	comp=Z,57nm,1.2s						
GO06	Curarrehue	24.16	334		P	20 42 40.8	-0.3
GO06	Curarrehue	24.16	334	P	P	20 42 44.0	+2.9
	comp=Z,94nm,1.1s						
TROLL	Troll, Antarti	24.30	139	⇑P	P	20 42 44.0	+1.8
	comp=Z,464nm,1.2s						
BI02	San Fabin de	26.95	336		P	20 43 07.0	+0.7
BI02				IAmb	IAmb	20 43 12.3	
	comp=Z,44nm,1.3s						
BI02	San Fabin de	26.95	336	P	P	20 43 10.0	+3.7
	comp=Z,27nm,1.0s						
ML02	Panimavida	27.85	337	P	P	20 43 14.7	+0.4
ML02	Panimavida	27.85	337	P	P	20 43 16.6	+2.3
	comp=Z,58nm,1.1s						
QSPA	South Pole Qui	27.89	180	P	P	20 43 16.6	+2.0
	comp=Z,4.0nm,0.7s,baz=161,slow=2.6,SNR=19						
QSPA				LR	LR	20 55 21.4	
	comp=Z,427nm,19.1s,baz=167,slow=38						
	comp=Z,4.0nm,0.7s						
QSPA	South Pole Qui	27.89	180	P	P	20 43 15.9	+1.3
QSPA				IAmb	IAmb	20 43 21.9	
	comp=Z,64nm,1.9s						
ANCO	Parque Anchore	28.09	1	*e*P	P	20 43 17.5	+1.1
GO05	Hualane	28.68	336	P	P	20 43 22.8	+1.1
GO05				IAmb	IAmb	20 43 26.0	
	comp=Z,63nm,1.1s						
GO05	Hualane	28.68	336	P	P	20 43 24.6	+2.9
	comp=Z,50nm,1.0s						
BO02	Sierra Bellavi	28.68	338		P	20 43 21.7	-0.1
BO02				IAmb	IAmb	20 43 29.9	
	comp=Z,24nm,0.9s						
BO02	Sierra Bellavi	28.68	338	P	P	20 43 26.8	+5.0
	comp=Z,31nm,1.1s						
BO01	Tunca	29.12	338	P	P	20 43 25.2	-0.4
BO01				IAmb	IAmb	20 43 34.0	
	comp=Z,61nm,1.5s						
BO01	Tunca	29.12	338	P	P	20 43 27.6	+1.9
	comp=Z,28nm,1.1s						
BO04	La Punta	29.43	339	P	P	20 43 28.6	+0.1
BO04				IAmb	IAmb	20 43 36.0	
	comp=Z,22nm,0.9s						
MT01	Popeta	29.67	338	P	P	20 43 29.9	-0.6
MT01				IAmb	IAmb	20 43 46.0	
	comp=Z,31nm,1.1s						
MT09	Talagante	29.71	338		P	20 43 31.7	+0.7
MT08	Bocatoma Ro	29.87	340	P	P	20 43 33.3	+0.8
MT08				IAmb	IAmb	20 43 45.7	
	comp=Z,30nm,0.9s						
MT03	Universidad Ad	29.90	339	P	P	20 43 33.7	+1.1
MT16	CCHEN	29.97	339	P	P	20 43 32.6	-0.6
MT16				IAmb	IAmb	20 43 43.1	
	comp=Z,36nm,0.7s						
MT05	Renca	30.04	339	P	P	20 43 32.6	-1.2
MT02	Curacav	30.24	338	P	P	20 43 34.2	-1.3
MT02				IAmb	IAmb	20 43 46.1	
	comp=Z,46nm,1.1s						
PEL	Peldehue	30.27	339	P	P	20 43 33.9	-2.0
PEL				IAmb	IAmb	20 43 46.1	
	comp=Z,45nm,0.9s						
PEL	Peldehue	30.27	339	P	P	20 43 42.7	+6.8
	comp=Z,53nm,0.9s						
ELIB	Princess Elisa	30.51	143	*d*P	P	20 43 37.2	-0.5
VA03	San Esteban	30.62	339	P	P	20 43 43.1	+4.0
	comp=Z,75nm,0.9s						
PSAL	Palomas, Salto	31.27	1	*e*P	P	20 43 46.4	+1.8
ZON	Zonda	31.53	343		P	20 43 47.3	+0.3
ZON	Zonda	31.53	343	P	P	20 43 48.3	+1.3
	comp=E,14nm,1.2s						
CO02	Combarbal	32.22	339		P	20 43 53.0	-0.2
CO02	Combarbal	32.22	339	P	P	20 43 56.4	+3.3
	comp=Z,71nm,1.1s						
CO03	El Pedregal	32.53	340	P	P	20 43 55.9	+0.1
CO03				IAmb	IAmb	20 44 08.7	
	comp=Z,42nm,1.1s						
GO04	Tololo Observa	33.20	340	IAmb	IAmb	20 44 14.2	
	comp=Z,37nm,0.9s						
CO01	Juntas del Tor	33.28	341	P	P	20 44 04.6	+2.0
	comp=Z,52nm,1.1s						
LCO	Las Campanas	34.32	340	P	P	20 44 11.2	-0.4
LCO				IAmb	IAmb	20 44 24.0	
	comp=Z,24nm,0.8s						
AC05	El Transito	34.43	341	IAmb	IAmb	20 44 25.2	
	comp=Z,21nm,0.9s						
AC04	Llanos de Chal	35.17	340		P	20 44 20.2	+1.5
AC04	Llanos de Chal	35.17	340	P	P	20 44 21.6	+3.0
	comp=Z,117nm,1.0s						
CPUP	Villa Florida	36.01	1	P	P	20 44 25.9	+0.1
	comp=Z,2.1nm,0.7s,baz=178,slow=12,SNR=4.1						
CPUP				LR	LR	20 59 33.5	
	comp=Z,210nm,18.2s,baz=182,slow=37						
	comp=Z,2.1nm,0.7s						
CPUP	Villa Florida	36.01	1	P	P	20 44 25.4	-0.5
CPUP				IAmb	IAmb	20 44 30.3	
	comp=Z,42nm,1.8s						
CPUP	Villa Florida	36.01	1	*e*P	P	20 44 23.9	-2.0
CPUP	Villa Florida	36.01	1	P	P	20 44 27.6	+1.7
	comp=Z,12nm,1.2s						
AC02	Maricunga	36.23	343	IAmb	IAmb	20 44 41.4	
	comp=Z,31nm,1.1s						
AC02	Maricunga	36.23	343	P	P	20 44 27.9	-0.5
	comp=Z,31nm,1.2s						
SBA	Scott Base	37.39	194	P	P	20 44 42.5	+5.3
	comp=Z,9.7nm,1.6s						
VNDA	Vanda	38.22	193	P	P	20 44 45.4	+1.2
	comp=Z,1.0nm,1.1s,baz=162,slow=9.2,SNR=4.5						
VNDA				LR	LR	21 00 11.2	
	comp=Z,293nm,18.4s,baz=150,slow=36						
	comp=Z,1.0nm,1.1s						
VNDA	Vanda	38.22	193	P	P	20 44 44.8	+0.6
VNDA	Vanda	38.22	193	P	P	20 44 48.0	+3.9
	comp=Z,4.6nm,1.8s						
SALTA		38.49	348	P	P	20 44 50.9	+3.3
	comp=Z,19nm,1.1s						
PET01	Itanhaem-SP	38.76	16	*e*P	P	20 44 49.1	0.0
MURT	Porto Murtinho	40.66	1	*e*P	P	20 45 05.6	+0.6
BB19B	Bebedouro	41.79	14	*e*P	P	20 45 14.6	+0.2
AQDB	Aquidauana	41.87	4	*e*P	P	20 45 14.0	-0.9
BDQN	Bodoquena, MS	41.87	2	*e*P	P	20 45 16.2	+1.2
COIM	Forte Coimbra	42.40	1	*e*P	P	20 45 19.7	+0.4
CANS	Sao Roque de M	42.81	17	*e*P	P	20 45 21.9	-0.9
GO01	Chusmiza	43.30	345	P	P	20 45 30.6	+3.4
	comp=Z,13nm,1.1s						
MAW	Mawson	43.58	152	P	P	20 45 29.2	+0.9
	comp=Z,5.0nm,1.1s,baz=216,slow=6.8,SNR=6.5						
MAW				LR	LR	21 03 58.1	
	comp=Z,789nm,18.2s,baz=213,slow=37						
	comp=Z,5.0nm,1.1s						
MAW	Mawson	43.58	152	P	P	20 45 28.3	0.0
MAW	Mawson	43.58	152	P	P	20 45 32.4	+4.0
	comp=Z,1.5nm,1.0s						
PB16	IPOC Station P	44.66	345	P	P	20 45 39.3	+1.1
PB16	IPOC Station P	44.66	345	P	P	20 45 44.1	+5.9
	comp=Z,16nm,0.9s						
PP1B	Ponte de Pedra	44.76	5	*e*P	P	20 45 38.5	+0.1
DIAM	Diamantina, MG	45.17	20	*e*P	P	20 45 41.4	-0.4
SJMB	Sao Joao De Ma	45.19	23	*e*P	P	20 45 41.4	-0.4
SIV	San Ignacio	46.34	356	LR	LR	21 06 07.2	
	comp=Z,414nm,18.2s,baz=146,slow=37						
SALV	Santo Antonio	46.42	3	*e*P	P	20 45 51.0	-0.5
LPAZ	La Paz	46.52	347	P	P	20 45 53.1	+0.1
	comp=Z,0.9nm,0.5s,baz=174,slow=7.7,SNR=4.9						
LPAZ				LR	LR	21 06 32.7	
	comp=Z,161nm,19.5s,baz=167,slow=38						
	comp=Z,0.9nm,0.5s						
LPAZ	La Paz	46.52	347		P	20 45 54.7	+1.7
LPAZ	La Paz	46.52	347	*e*P	P	20 45 54.7	+1.7
MC01	Montes Claros	46.69	19	*e*P	P	20 45 55.0	+1.4
ARAG	Araguaiana, MT	46.80	9	*e*P	P	20 45 54.5	0.0
PTLB	Pontes e Lacer	46.84	359	*e*P	P	20 45 54.9	+0.1
ARCA	Ara§uai, MG	46.87	22	*e*P	P	20 45 54.5	-0.6
BDFB	Brasilia	47.20	14	P	P	20 45 54.9	-2.8
	comp=Z,7.2nm,0.8s,baz=184,slow=7.9,SNR=3.3						
BDFB				LR	LR	21 04 21.8	
	comp=Z,230nm,22.0s,baz=158,slow=34						
	comp=Z,7.2nm,0.8s						
BDFB	Brasilia	47.20	14		P	20 45 58.1	+0.4
BDFB				IAmb	IAmb	20 46 08.7	
	comp=Z,13nm,1.0s						
GUA01	Guaratinga, BA	47.52	24	*e*P	P	20 46 00.1	0.0
JANB	Januaria	48.25	18	*e*P	P	20 46 07.2	+1.3
CMC01	Camacan, BA	48.77	24	*e*P	P	20 46 09.3	-0.4
NBIT	Itapeh - BA	49.20	24	*e*P	P	20 46 13.5	+0.4
VILB	Vilhena	49.33	358	*e*P	P	20 46 14.1	0.0
SNDB	Serra Nova Dou	50.54	9	*e*P	P	20 46 22.3	-0.9
SDBA	SAO DESIDERIO	50.77	17	*e*P	P	20 46 24.6	-0.5
CLDB	Colider	51.41	3	*e*P	P	20 46 29.3	-0.5
NNA	Nana	52.02	337	LR	LR	21 06 15.5	
	comp=Z,108nm,18.4s,baz=158,slow=33						
NBPN	Ponto Novo - B	53.04	22	*e*P	P	20 46 41.9	-0.1
CZSB	Cruzeiro do Su	55.52	343	*e*P	P	20 47 00.7	+0.7
SUR	Sutherland	56.89	97	LR	LR	21 07 05.1	
	comp=Z,151nm,18.5s,baz=208,slow=31						
ATAH	Atahualpa	57.05	336	LR	LR	21 08 29.0	
	comp=Z,120nm,18.6s,baz=170,slow=33						
BOSA	Boshof	62.12	99	LR	LR	21 09 21.6	
	comp=Z,76nm,20.3s,baz=205,slow=31						
SGC2	Sao Gabriel da	62.38	350	*e*P	P	20 47 47.4	-0.1
OTAV	Otavalo	64.25	337	P	P	20 48 01.2	+0.7
OTAV				IAmb	IAmb	20 48 16.7	
	comp=Z,22nm,1.3s						
OTAV	Otavalo	64.25	337	*e*P	P	20 47 59.9	-0.7
BOAV	Boa Vista	64.58	358	P	P	20 48 01.4	-0.8
BOAV	Boa Vista	64.58	358	*e*P	P	20 48 01.2	-0.9
LBTB	Lobatse	65.34	97	LR	LR	21 12 23.1	
	comp=Z,177nm,18.5s,baz=201,slow=32						
GRTLG	Ghanzi	66.44	91	P	P	20 48 14.4	+0.1
GRTLG				IAmb	IAmb	20 48 28.3	
	comp=Z,23nm,1.0s						
TSUM	Tsumeb	66.61	87	LR	LR	21 11 38.2	
	comp=Z,72nm,21.4s,baz=182,slow=31						
RPZ	Rata Peaks	67.14	217	LR	LR	21 12 51.4	
	comp=Z,27nm,20.4s,baz=102,slow=32						
ROSC	El Rosal	68.11	343	LR	LR	21 21 01.9	
	comp=Z,168nm,18.4s,baz=250,slow=38						
URZ	Urewera	70.33	223	LR	LR	21 15 02.2	
	comp=Z,165nm,19.1s,baz=160,slow=32						
SDV	Santo Domingo	71.66	347	LR	LR	21 22 57.6	
	comp=Z,202nm,18.1s,baz=192,slow=38						
LSZ	Lusaka	74.96	94	LR	LR	21 17 41.8	
	comp=Z,155nm,19.7s,baz=187,slow=32						
PPT2	Papeete2	75.20	261	*e*LR	LR	21 12 13.4	
	comp=Z,363nm,24.5s						
PPT2				*e*LR	LR	21 12 14.3	
	comp=Z,273nm,26.8s						
PPT	Papeete	75.22	261	LR	LR	21 17 22.9	
	comp=Z,114nm,18.3s,baz=178,slow=32						
DBIC	Dimbokro	79.96	54	LR	LR	21 17 03.2	
	comp=Z,120nm,21.4s,baz=176,slow=30						
MTO3	Montecristo	80.29	329	P	P	20 49 37.5	+1.5
SJG	San Juan	80.42	352	LR	LR	21 27 15.6	
	comp=Z,120nm,19.6s,baz=119,slow=37						
OPO	Ambohidratompo	80.68	112	LR	LR	21 22 15.9	
	comp=Z,91nm,18.2s,baz=119,slow=33						
CMIG	Matias Romero	84.27	325	LR	LR	21 19 46.4	
	comp=Z,135nm,20.2s,baz=180,slow=30						
STKA	Stephens Creek	84.76	197	P	P	20 50 01.3	+2.3
	comp=Z,2.6nm,0.8s,baz=167,slow=5.1,SNR=3.8						
STKA				LR	LR	21 22 40.6	
	comp=Z,103nm,22.0s,baz=194,slow=32						
	comp=Z,2.6nm,0.8s						
NWAO	Narrogin (SRO)	85.00	176	LR	LR	21 26 43.2	
	comp=Z,178nm,20.6s,baz=168,slow=35						
TORD	Torodi Ar. Bea	88.41	58	P	P	20 50 16.8	-0.1
	comp=Z,1.4nm,0.8s,baz=204,slow=6.5,SNR=4.0						
	comp=Z,1.4nm,0.8s						
DZM	Mont Dzumac	88.69	221	LR	LR	21 26 33.3	
	comp=Z,94nm,18.1s,baz=251,slow=33						
MSVF	Nonsavu	88.79	232	LR	LR	21 22 16.1	
	comp=Z,43nm,19.7s,baz=199,slow=30						
MBAR	Mbarara	89.01	89	LR	LR	21 27 24.3	
	comp=Z,69nm,19.0s,baz=208,slow=34						
KMBO	Kilima Mbogo	91.58	95	LR	LR	21 26 45.9	
	comp=Z,248nm,21.1s,baz=104,slow=32						
ASAR	Alice Springs	93.74	191	P	P	20 50 43.2	+1.4
	comp=Z,1.2nm,0.9s,baz=182,slow=2.7,SNR=6.9						
ASAR				LR	LR	21 32 00.8	
	comp=Z,102nm,19.9s,baz=167,slow=35						
	comp=Z,1.2nm,0.9s						
ASAR	Alice Springs	93.74	191	P	P	20 50 39.6	-2.2
LPIG	La Paz	95.56	314	LR	LR	21 26 25.5	
	comp=Z,32nm,18.1s,baz=168,slow=31						
WRA	Warramunga Arr	97.39	192	P	Pdif	20 51 00.3	+1.8
	comp=Z,0.9nm,0.8s,baz=178,slow=4.2,SNR=6.4						
	comp=Z,0.9nm,0.8s						
WRA	Warramunga Arr	97.39	192	P	Pdif	20 51 00.1	+1.6
TXAR	Lajitas Array	98.33	321	LR	LR	21 29 26.6	
	comp=Z,50nm,18.6s,baz=148,slow=32						
FITZ	Fitzroy Crossi	99.77	184	LR	LR	21 38 53.9	
	comp=Z,138nm,18.2s,baz=189,slow=37						
TKL	Tuckaleechee C	99.81	339	LR	LR	21 42 26.3	
	comp=Z,55nm,18.1s,baz=148,slow=39						
GERES	GERESS Array B	124.65	50	PKP	PKPdf	20 56 22.3	-1.1
	comp=Z,0.8nm,0.6s,baz=209,slow=1.4,SNR=5.5						
GERES	GERESS Array B	124.65	50		PKPdf	20 56 22.2	-1.2
CLL	Collm	126.47	48	LV		21 38 00.0	
	comp=Z,100nm,18.5s						
CMAR	Chiang Mai Arr	133.37	150	PKP	PKiKP	20 56 41.9	-0.2
	comp=Z,0.4nm,0.3s,baz=230,slow=4.5,SNR=6.0						
CMAR	Chiang Mai Arr	133.37	150		PKiKP	20 56 41.6	-0.4
PZH	PanZhiHua	141.77	150	PKP	PKPdf	20 56 56.6	+0.3
ILAR	Eielson Array	142.59	315	PKP	PKPdf	20 56 56.1	-0.2
	comp=Z,1.6nm,0.7s,baz=161,slow=2.3,SNR=13						
CHM	Chimkent	143.68	99	*e*PKP	PKPdf	20 56 58.3	-0.7
IUG	Iuzhnay	143.74	99	*e*PKP	PKPdf	20 56 58.4	-0.8
KSH2	Kashi	143.84	108	PKP	PKPdf	20 56 58.9	-0.7
ARCES	ARCESS Array B	144.11	37	PKP	PKPab	20 56 56.1	-0.4
	comp=Z,10nm,0.9s,baz=238,slow=4.1,SNR=17						
ARCES	ARCESS Array B	144.11	37		PKPab	20 56 55.9	-0.6
BRLS	Borolday	144.34	98	*e*PKP	PKPdf	20 56 58.9	-1.2
DZA	Taraz	144.92	100	*e*PKP	PKPdf	20 57 00.4	-0.7
SGDS	Sogindy	146.87	103	*e*PKP	PKPdf	20 57 03.7	-0.9
TNSS	Tian-Shan	147.59	105	*e*PKP	PKPdf	20 57 04.9	-1.3
MDOK	Medeo	147.74	105	*e*PKP	PKPdf	20 57 05.1	-1.0
KUU	Kurty	147.99	104	*e*PKP	PKPdf	20 57 05.6	-0.7
SATY	Saty	148.26	107	*e*PKP	PKPdf	20 57 06.0	-1.0
UZB	Uzynbulak	148.61	108	*e*PKP	PKPdf	20 57 06.7	-0.8
SHLS	Shalkode	148.81	108	*e*PKP	PKPdf	20 57 07.2	-0.6
GOMU	GeErMu	148.94	135	PKPbc	PKPbc	20 57 10.4	-2.2
NJ2	Nanjing	149.64	175	*e*P	PKPdf	20 57 10.3	+1.0
NJ2				pmax	pmax		
	comp=Z,3.0nm,0.6s						
XAN	Xi'an	150.53	158	PKPbc	PKiKP	20 57 16.5	-0.3
LZH	Lanzhou	151.45	149	*e*PKPbc	PKPdf	20 57 06.0	-6.2
LZH				PKPbc	sPKPbc	20 57 22.1	-0.2
LYN	LuoYang	151.58	164	*e*P	PKiKP	20 57 18.3	-0.6
LYN				pmax	pmax		
	comp=Z,9.0nm,0.6s						
BVAR	Borovoye Array	151.75	85	PKPbc	PKPbc	20 57 17.8	-0.5
	comp=Z,6.9nm,0.7s,baz=263,slow=2.3,SNR=23						
MJAR	Matsushiro Arr	152.22	209	PKPbc	PKiKP	20 57 20.7	+0.5
	comp=Z,0.9nm,0.8s,baz=162,slow=3.9,SNR=2.2						
MJAR	Matsushiro Arr	152.22	209		PKiKP	20 57 20.1	-0.1
MAKZ	Makanchi	152.77	106	PKPdf	PKPdf	20 57 12.7	-1.0
WMQ	Urumqi	152.89	117	*e*PKPbc	PKPdf	20 57 15.9	+1.9
MKAR	Makanchi Array	152.90	107	PKPbc	PKPbc	20 57 20.6	-0.5
	comp=Z,1.1nm,0.7s,baz=240,slow=3.1,SNR=8.0						
MKAR	Makanchi Array	152.90	107		PKPbc	20 57 19.7	-1.4
GTA2	Gaotai	153.52	140	PKPbc	PKiKP	20 57 26.2	+3.3
KURBB	Kurchatov Arra	153.96	97	PKPbc	PKPbc	20 57 22.6	-0.6
	comp=Z,0.8nm,1.1s,baz=215,slow=2.9,SNR=4.0						
KURK	Kurchatov	154.06	97	PKPdf	PKPdf	20 57 13.0	-2.3
ZSN	Zaisan	154.55	109	*e*PKP	PKPdf	20 57 15.5	-0.6
HHC	Hu-ho-hao-te	157.62	159	*e*P	PKPdf	20 57 16.8	-3.8
SONM	Songino Array	163.09	142	PKPab	PKPab	20 58 16.9	+0.4
	comp=Z,2.3nm,1.0s,baz=220,slow=4.4,SNR=7.9						

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*MDD **09** 21:00:27.4±1.0, 36°.56N×11°.66W, h34^{km}, Mb3.9/12, M_mb3.2/13, Error ellipse: s-maj=7.8km s-min=6.0km az=52.0*

*INMG **09** 21:00:30.4±1.3, 36°.54N×11°.49W, h31^{km}±11^{km}, ML2.0, Error ellipse: s-maj=10.3km s-min=4.0km az=72.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Gorringe*

*IGIL **09** 21:00:30.6, 36°.55N×11°.46W, h32^{km}, ML1.7*

*CNRM **09** 21:00:32.6, 36°.32N×11°.06W, h58^{km}*

ISC 09 21:00:25.1±3.2**, 36°.55N**±0°.04×**11°.30W**±0°.09**, h13^{km}**±21^{km}**, n67,** σ**2^{s}.44**/121**, 11C, Azores-Cape St. Vincent Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PFVI	Vila Bisbo	2.07	73	P	Pb	21 01 03.0	+0.5
PFVI				S	Sb	21 01 27.0	-1.1
PFVI	Vila Bisbo	2.07	73	*e*P	Pb	21 01 03.2	+0.8
PFVI				*e*S	Sb	21 01 27.5	-0.5
PFVI				*i* IAML		21 01 28.7	
PFVI				*i* IAML		21 01 29.0	
PFVI				*i* IAML		21 01 29.8	
PFVI	Vila Bisbo	2.07	73	P	Pb	21 01 03.3	+0.8
PFVI				S	Sb	21 01 28.4	+0.3
MORF	Marmelete	2.25	70	*e*S	Sb	21 01 31.9	-1.4
MORF				IAML		21 01 33.7	
	comp=N,6.8nm,0.3s						
MORF	Marmelete	2.25	70	*e*P	Pb	21 01 06.0	+0.4
MORF				*e*S	Sb	21 01 32.7	-0.7
MORF				*i* IAML		21 01 34.9	
MORF				*i* IAML		21 01 36.4	
MORF				*i* IAML		21 01 42.0	
PTEO	Sao Teotonio	2.29	64	*e*P	Pb	21 01 06.4	+0.2
PTEO				*e*S	Sb	21 01 33.3	-1.1
PTEO				*i* IAML		21 01 34.7	
PTEO				*i* IAML		21 01 36.8	
PTEO				*i* IAML		21 01 40.1	
PLOUS	Minas do Lousa	2.73	56	*e*P	Pb	21 01 11.9	-1.8
PLOUS				*e*S	Sn	21 01 43.7	+2.3
PLOUS				*i* IAML		21 01 47.4	
PLOUS				*i* IAML		21 01 47.5	
PLOUS				*i* IAML		21 01 48.6	
MESJ	Messejana	2.77	62	*e*P	Pb	21 01 13.4	-1.1
MESJ				*e*S	Sn	21 01 44.4	+1.8
MESJ				IAML		21 01 48.5	
	comp=N,1.5nm,0.2s						
MESJ	Messejana	2.77	62	*e*P	Pb	21 01 13.0	-1.5
MESJ				*e*S	Sb	21 01 45.3	-3.1
MESJ				*i* IAML		21 01 52.6	
MESJ				*i* IAML		21 01 52.9	
MESJ				*i* IAML		21 01 54.9	
PBDV	Barranco-do-Ve	2.79	75	P	Pn	21 01 12.6	+3.2
PBDV				S	Sb	21 01 45.8	-3.0
PBDV	Barranco-do-Ve	2.79	75	*e*P	Pb	21 01 14.0	-0.7
PBDV				*e*S	Sn	21 01 45.2	+2.2
PBDV				*i* IAML		21 01 50.2	
PBDV				*i* IAML		21 01 50.6	
PBDV				*i* IAML		21 01 53.4	
PCVE	Castro Verde	2.82	67	P	Pn	21 01 12.9	+3.0
PCVE				S	Sn	21 01 45.8	+2.1
PCVE	Castro Verde	2.82	67	*e*P	Pb	21 01 13.8	-1.5
PCVE				*e*S	Sn	21 01 46.1	+2.4
PCVE				*i* IAML		21 01 48.5	
PCVE				*i* IAML		21 01 49.1	
PCVE				*i* IAML		21 01 51.6	
PMAFR	Mafra	2.88	33	P	Pn	21 01 12.6	+1.9
PMAFR				S	Sn	21 01 45.1	-0.1
PMAFR	Mafra	2.88	33	*e*P	Pn	21 01 13.9	+3.2
PMAFR				*e*S	Sn	21 01 45.9	+0.7
PMAFR				*i* IAML		21 01 48.1	
PMAFR				*i* IAML		21 01 50.3	
PVAQ	Vaqueiros	2.99	72	*e*P	Pb	21 01 16.6	-1.6
PVAQ				*e*S	Sn	21 01 49.9	+1.9
PVAQ				*i* IAML		21 01 52.9	
PVAQ				*i* IAML		21 01 55.8	
PVAQ				*i* IAML		21 02 06.5	
PVAQ	Vaqueiros	2.99	72	P	Pn	21 01 15.1	+2.9
PVAQ				S	Sn	21 01 49.5	+1.6
MOE	Montemor	3.06	49	*e*P	Pn	21 01 16.7	+3.5
MOE				*e*S	Sn	21 01 51.7	+2.1
MOE				*i* IAML		21 01 55.3	
MOE				*i* IAML		21 02 00.8	
MOE				*i* IAML		21 02 08.9	
PBEJ	Beja	3.11	61	*e*S	Sn	21 01 52.1	+1.3
PBEJ				*i* IAML		21 01 55.5	
PBEJ				*i* IAML		21 01 56.4	
EGRO	El Granado	3.21	71	P	Pn	21 01 17.4	+2.3
EGRO				S	Sn	21 01 55.8	+2.5
EGRO	El Granado	3.21	71	Pn	Pn	21 01 18.3	+3.2
EGRO				Pn	Pb	21 01 19.0	-2.8
EGRO				Sn	Sn	21 01 55.8	+2.5
EGRO				Sn	Sb	21 01 57.0	-3.9
EVO	Evora	3.27	52	P	Pn	21 01 19.1	+3.0
EVO				S	Sn	21 01 57.5	+2.5
EVO	Evora	3.27	52	*e*S	Sn	21 01 57.4	+2.5
EVO				*i* IAML		21 01 58.7	
EVO				*i* IAML		21 01 59.4	
EVO				*i* IAML		21 02 00.9	
PARRA	Arraiolos	3.43	48	*e*P	Pn	21 01 21.3	+3.1
PARRA				*e*S	Sn	21 02 00.3	+1.4
PARRA				*i* IAML		21 02 02.0	
PARRA				*i* IAML		21 02 02.4	
PARRA				*i* IAML		21 02 05.1	
PMTG	Montargil	3.50	43	*e*P	Pn	21 01 22.3	+3.2
PMTG				*e*S	Sn	21 02 01.7	+1.2
PMTG				*i* IAML		21 02 04.6	
PMTG				*i* IAML		21 02 06.0	
PMTG				*i* IAML		21 02 07.8	
PSBE	So Bento	3.56	33	*e*P	Pn	21 01 22.8	+2.7
PSBE				*e*S	Sn	21 02 02.8	+0.9
PESTR	Estremoz	3.74	51	P	Pn	21 01 24.4	+1.9
PESTR				S	Sn	21 02 07.8	+1.4
PESTR	Estremoz	3.74	51	*e*S	Sn	21 02 08.4	+2.0
PESTR	Estremoz	3.74	51	P	Pn	21 01 27.4	+4.9
PESTR				S	Sb	21 02 11.7	-4.5
PBAR	Barrancos	3.76	63	P	Pn	21 01 27.4	+4.6
PBAR				S	Sn	21 02 08.5	+1.6
PBAR	Barrancos	3.76	63	*e*P	Pn	21 01 27.2	+4.4
PBAR				*e*S	Sn	21 02 08.2	+1.3
PBAR				*i* IAML		21 02 12.8	
PBAR				*i* IAML		21 02 13.8	
PBAR				*i* IAML		21 02 17.7	
EMIN	Mina Concepcio	3.89	70	⇑IVmb_VC		21 01 28.7	
	comp=N,48nm,SNR=0.7						
EMIN				Sn	Sn	21 02 13.2	+3.1
PSARD	Sardoal	3.92	38	*e*P	Pn	21 01 28.6	+3.6
PSARD				*e*S	Sn	21 02 11.3	+0.4
PSARD				*i* IAML		21 02 13.5	
PSARD				*i* IAML		21 02 14.7	
PSARD				*i* IAML		21 02 17.0	
EBAD	Badajoz	4.05	56	P	Pn	21 01 30.1	+3.3
EBAD				S	Sn	21 02 15.1	+1.0
EBAD	Badajoz	4.05	56	Pn	Pn	21 01 29.6	+2.8
EBAD				⇑IVmb_VC		21 01 30.9	
	comp=N,50nm,SNR=1.0						
EBAD				Sn	Sn	21 02 15.3	+1.3
PCAS	Casmilo, Conde	4.13	31	*e*P	Pn	21 01 30.5	+2.7
PCAS				*e*S	Sn	21 02 15.7	-0.4
PCAS				*i* IAML		21 02 18.9	
PCAS				*i* IAML		21 02 23.1	
PCAS				*i* IAML		21 02 27.1	
PMRV	Marv??o	4.21	46	*e*P	Pn	21 01 31.9	+2.9
PMRV				*e*S	Sn	21 02 18.8	+0.6
PMRV				*i* IAML		21 02 20.3	
PMRV				*i* IAML		21 02 21.2	
PMRV				*i* IAML		21 02 22.4	
ESPR	Espera	4.38	84	P	Pn	21 01 36.1	+4.7
PCBR	Castelo Branco	4.45	41	*e*S	Sn	21 02 25.4	+1.5
MTE	Manteigas	4.84	36	*e*S	Sn	21 02 33.4	-0.3
MTE				*i* IAML		21 02 34.9	
MTE				*i* IAML		21 02 36.0	
ZHG	ZHG	4.92	128	P	Pn	21 01 40.5	+1.7
ZHG				S	Sn	21 02 33.7	-2.0
ECAB	El Cabril	4.93	70	P	Pn	21 01 42.0	+3.1
ECAB				S	Sn	21 02 37.1	+1.3
ECAB	El Cabril	4.93	70	Pn	Pn	21 01 42.5	+3.7
ECAB				⇑IVmb_VC		21 01 44.8	
	comp=N,30nm,SNR=0.8						
ECAB				Sn	Sn	21 02 36.4	+0.7
PVIS	Viseu	4.94	32	*e*S	Sn	21 02 34.9	-1.1
EPLA	Plasencia	5.40	48	⇑IVmb_VC		21 01 49.6	
	comp=N,38nm,SNR=0.9						
EPLA				Sn	Sn	21 02 47.4	+0.1
POLO	Lamas de Olo	5.53	29	*e*P	Pn	21 01 49.4	+2.2
POLO				*e*S	Sn	21 02 48.5	-2.2
POLO				*i* IAML		21 02 52.7	
POLO				*i* IAML		21 02 54.0	
CIBOR	Castaar de Ib	5.56	55	Pn	Pn	21 01 50.2	+2.6
CIBOR				Sn	Sn	21 02 51.2	-0.2
EADA	Adamuz	5.59	71	P	Pn	21 01 51.2	+3.2
EADA				S	Sn	21 02 53.1	+1.0
EADA	Adamuz	5.59	71	Pn	Pn	21 01 51.8	+3.8
EADA				⇑IVmb_VC		21 01 53.9	
	comp=N,60nm,SNR=1.5						
EADA				Sn	Sn	21 02 53.1	+1.0
PCAB	Cabril	5.74	25	*e*S	Sn	21 02 54.0	-1.9
ELOB	Lobios	5.87	24	Pn	Pn	21 01 52.7	+0.9
ELOB				⇑IVmb_VC		21 01 54.8	
	comp=N,100nm,SNR=1.1						
ELOB				Sn	Sn	21 02 55.7	-3.4
PGAV	Gavieira, Arco	5.89	23	*e*P	Pn	21 01 54.4	+2.2
PGAV				*e*S	Sn	21 02 57.3	-2.3
EZAM	Zamans	5.94	19	⇑IVmb_VC		21 01 56.1	
	comp=N,92nm,SNR=0.8						
EZAM				Sn	Sn	21 02 57.0	-3.7
OUK	Oukaimeden	6.05	151	P	Pn	21 01 56.2	+1.7
OUK				S	Sn	21 02 59.8	-4.0
PAB	San Pablo	6.25	59	Pn	Pn	21 02 00.1	+3.1
PAB				⇑IVmb_VC		21 02 02.5	
	comp=N,26nm,SNR=0.7						
PAB				Sn	Sn	21 03 07.8	-0.5
TISM	Timmit	6.28	139	P	Pn	21 01 56.6	-0.8
TISM				S	Sn	21 03 06.3	-2.7
PSIM	Granatula de C	6.40	67	Pn	Pn	21 02 02.2	+3.2
PSIM				Sn	Sn	21 03 11.8	-0.2
AKLM	AKL	6.40	106	P	Pn	21 01 59.4	+0.3
AKLM				S	Sn	21 03 07.3	-4.8
ECAL	Calabor	6.44	32	Pn	Pn	21 02 01.0	+1.4
ECAL				⇑IVmb_VC		21 02 02.0	
	comp=N,70nm,SNR=0.4						
ECAL				Sn	Sn	21 03 10.0	-3.1
MD31	MD31	6.52	122	P	Pn	21 02 02.8	+1.9
MD31				S	Sn	21 03 12.2	-2.9
TIO	Tiouine	6.54	148	P	Pn	21 02 02.9	+1.7
TIO				S	Sn	21 03 13.0	-2.7
TIO	Tiouine	6.54	148	P	Pn	21 02 03.0	+1.8
TIO				S	Sn	21 03 14.2	-1.5
EMAZ	Mazaricos	6.63	15	⇑IVmb_VC		21 02 05.7	
	comp=N,181nm,SNR=0.7						
EMAZ				Sn	Sn	21 03 12.6	-5.2
MDT	Midelt	6.66	122	P	Pn	21 02 05.0	+2.3
MDT				S	Sn	21 03 15.5	-2.9
EAGO	Agolada(Pontev	6.71	21	⇑IVmb_VC		21 02 06.0	
	comp=N,143nm,SNR=1.2						
EAGO				Sn	Sn	21 03 15.1	-4.6
OUZM	OUZ	6.78	145	P	Pn	21 02 06.0	+1.6
OUZM				S	Sn	21 03 18.9	-2.7
TZRR	Tazzarine	7.48	139	P	Pn	21 02 15.8	+1.9
TZRR				S	Sn	21 03 37.1	-1.5

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*MAN **09** 21:06:06.0, 3°.46N×125°.94E, h1^{km}, MS4.0*
*IDC **09** 21:06:11.3±1.7, 4°.17N×126°.61E, h0^{km}, mb3.7/5, mbtmp3.7/5, Error ellipse: s-maj=158.9km s-min=20.0km az=66.0*
*DJA **09** 21:06:11.6±1.0, 5°N±20°×12°7E±°, h35^{km}±59^{km}, M4.0/9, mB4.4/1, mb4.2/2, MLv4.0/9, Mw(mB)3.5/1*
ISC 09 21:06:14.0±0.8**, 3°.92N**±0°.04×**125°.6E**±0°.1**, h10**^{km}**, n14, σ2^{s}.65**/17**, mb3.9**/5**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	Don Marcelino,	2.17	4	*e*P	Pn	21 06 51.0	+0.7
DDMP				*e*S	Sg	21 07 28.3	+4.4
MNI	Manado	2.57	197	P	Pg	21 07 10.0	+6.8
MNI				S	Sg	21 07 55.6	+19
KCP	Kidapawan	3.11	351	*e*P	Pg	21 07 11.6	-2.0
CTBH	Cotabato--PC H	3.54	338	*i* P	Pb	21 07 14.2	-2.5
TNTI	Ternate	3.60	150	P	Pn	21 07 10.5	+0.6
CDOP	Cateel, Davao	3.93	13	*e*P	Pn	21 07 15.2	+0.7
CDOP				*i* S	Sn	21 08 04.9	+4.3
GTOI	Gorontalo	4.15	218	P	Pg	21 07 33.5	0.0
GTOI				AML	AML		
BIPH	Bislig	4.31	10	*e*P	Pn	21 07 19.8	+0.2
BIPH				*e*S	Sn	21 08 04.6	-5.3
CGP	Cagayan de Oro	4.59	349	*e*P	Pb	21 07 32.2	-2.4
CGP				*e*S	Sb	21 08 31.2	+1.2
WRA	Warramunga Arr	25.23	160	P	P	21 11 37.8	-2.5
	2.4nm,0.9s,baz=342,slow=11,SNR=19						
	2.4nm,0.9s						
ASAR	Alice Springs	28.60	164	P	P	21 12 09.9	-0.7
	0.4nm,0.6s,baz=347,slow=7.8,SNR=4.6						
	0.4nm,0.6s						
MKAR	Makanchi Array	56.75	326	P	P	21 16 00.1	+1.9
	0.5nm,0.6s,baz=114,slow=7.6,SNR=8.4						
	0.5nm,0.6s						
KURBB	Kurchatov Arra	60.96	328	P	P	21 16 28.7	+1.4
	0.5nm,0.6s,baz=128,slow=6.3,SNR=10						
	0.5nm,0.6s						
BVAR	Borovoye Array	66.54	327	P	P	21 17 04.9	+0.8
	0.7nm,0.8s,baz=135,slow=6.9,SNR=3.5						
	0.7nm,0.8s						

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*TEH **09** 21:18:38.6, 34°.32N×46°.51E, h12^{km}±14^{km}, ML3.1, Presumed earthquake*
*ISN **09** 21:18:43.0±3.2, 34°.30N×46°.50E, h7^{km}±40^{km}, ML3.1, Presumed earthquake*
ISC 09 21:18:40.1±0.9**, 34°.33N**±0°.04×**46°.56E**±0°.03**, h7**^{km}±6^{km}**, n11, σ1^{s}.37**/15**, Western Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IGHG	Ghaleghazi	0.01	71	Pg	Pg	21 18 41.1	-0.5
IGHG				Sg	Sg	21 18 43.8	+1.1
IDHR	Dehrash	0.40	339	Pg	Pg	21 18 46.6	-1.4
KCHF	Cheshme Sefid,	0.40	97	Pg	Pg	21 18 47.2	-0.8
ILBA	Ilam Banvizeh	0.76	203	Pg	Pg	21 18 52.7	-2.1
SNQR	Sonqor, Kerman	1.03	59	Pg	Pg	21 18 59.3	-0.5
IBZA	Bozab	1.08	82	Pg	Pg	21 19 00.4	-0.6
IBZA				Sg	Sg	21 19 16.5	+1.5
SNJK	Sanadaj _Korde	1.18	21	Pg	Pb	21 19 02.0	-1.1
IBDR	Badra	1.32	204	*i* P	Pb	21 19 05.3	-0.1
	baz=22						
IBDR				*i* S	Sn	21 19 24.5	+1.5
IBDR				IAML		21 19 26.2	
	comp=E,1µm,0.5s						
IBDR				IAML		21 19 26.9	
	comp=N,617nm,0.4s						
IDOB	Doab	1.45	111	Pg	Pn	21 19 06.9	-0.1
IKRK	Kirkuk	2.12	301	*i* P	Pg	21 19 22.6	+1.9
IKRK				*i* S	Sg	21 19 46.7	-1.5
IKRK				IAML		21 19 54.0	
	comp=E,66nm,0.4s						
IKRK				IAML		21 19 54.3	
	comp=N,151nm,0.6s						
JHBN	Jahan bin	4.02	120	Pn	Pn	21 19 43.2	+0.7

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*UCR **09** 21:20:47.0±1.1, 11°.26N×85°.80W, h186^{km}±8^{km}, MW3.6, Presumed earthquake*
*CATAC **09** 21:20:48.5±0.5, 11°N±3°×8°6W±°, h184^{km}±3^{km}, M3.0/19, MLv3.0/19, Error ellipse: s-maj=8.5km s-min=3.3km az=55.3, confirmed*
ISC 09 21:20:48.7±2.0**, 11°.23N**±0°.05×**85°.58W**±0°.07**, h186**^{km}±12^{km}**, n56, σ0^{s}.64**/76**, 7C-1D, Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CARN	Rivas	0.07	130	⇑P	Pn	21 21 13.2	-0.1
CARN				S	Sn	21 21 32.6	+0.4
CARN	Rivas	0.07	130	*e*P	Pn	21 21 13.1	-0.1
LCRUZ	La Cruz	0.16	199	*e*P	Pn	21 21 13.0	-0.5
LCRUZ				*e*S	Sn	21 21 32.0	-0.5
OMEN	Al SSO del Vol	0.28	350	⇑P	Pn	21 21 13.6	0.0
OMEN				S	Sn	21 21 34.0	+1.1
MORN	Al O del Volca	0.32	347	⇑P	Pn	21 21 13.7	0.0
MORN				S	Sn	21 21 34.2	+1.1
PEJA	Penjamo Buenos	0.42	142	*e*P	Pn	21 21 14.1	0.0
VORI	VORI	0.47	151	*e*P	Pn	21 21 14.4	0.0
LAPC	Finca la Perla	0.48	163	*e*P	Pn	21 21 13.6	-0.7
VRLE	La Escondida,	0.49	155	*e*P	Pn	21 21 14.1	-0.3
GPS2	Hotel Rincn d	0.53	155	*e*P	Pn	21 21 14.2	-0.3
CLARA	Aguas Claras	0.59	138	*e*P	Pn	21 21 14.8	0.0
MESS	Mesas	0.62	142	*e*P	Pn	21 21 14.8	-0.1
VMAR	Armenia, Volca	0.62	132	*e*P	Pn	21 21 14.9	0.0
ALIBA	Liberia Airpor	0.64	177	*e*P	Pn	21 21 14.7	-0.3
UPAL	Upala	0.65	121	P	Pn	21 21 15.6	+0.6
UPAL				S	Sn	21 21 35.2	+0.1
HORNC	Hornillas	0.65	143	*e*P	Pn	21 21 15.1	0.0
NADN	Granada	0.68	319	P	Pn	21 21 14.7	-0.5
NADN				S	Sn	21 21 35.1	-0.4
CUI	Cuipilapa	0.70	145	*e*P	Pn	21 21 15.2	-0.1
TENO	El Achiote	0.79	132	*e*P	Pn	21 21 16.1	+0.3
ACON	Acoyapa	0.83	28	P	Pn	21 21 15.1	-0.8
ACON				S	Sn	21 21 36.1	-1.0
ACON	Acoyapa	0.83	28	*e*P	Pn	21 21 15.6	-0.4
TIMP	Tierras Morena	0.85	140	*e*P	Pn	21 21 16.1	-0.1
NANN	Nandasmo	0.88	323	P	Pn	21 21 17.4	+1.1
NANN				S	Sn	21 21 39.9	+2.2
QUEB	Quebradon, Cot	0.90	132	*e*P	Pn	21 21 16.5	0.0
CHIK	Chiripa	1.02	140	*e*P	Pn	21 21 16.9	-0.5
TABAC	Tabacon	1.08	132	*e*P	Pn	21 21 18.1	+0.3
WILN	Americas 2	1.10	327	S	Sn	21 21 41.3	+0.9
JTS	Las Juntas de	1.12	147	⇑P	Pn	21 21 17.7	-0.4
JTS				S	Sn	21 21 40.4	-0.4
JTS	Las Juntas de	1.12	147	*e*P	Pn	21 21 17.6	-0.4
MGAN	Managua	1.12	324	P	Pn	21 21 17.8	-0.2
MGAN				S	Sn	21 21 41.2	+0.5
CEDE	Laguna Cedeo	1.13	131	*e*P	Pn	21 21 15.7	-2.5
VARE2	V. Arenal	1.14	132	*e*P	Pn	21 21 18.7	+0.4
CASO	Castillo	1.15	134	*e*P	Pn	21 21 18.7	+0.4
BOAB	BOACO BROADBAN	1.21	356	⇓P	Pn	21 21 18.6	-0.2
BOAB				S	Sn	21 21 41.9	-0.3
CMARA	Lajas Hojancha	1.21	173	⇑P	Pn	21 21 18.6	-0.3
CMARA				S	Sn	21 21 42.5	+0.2
CMARA	Lajas Hojancha	1.21	173	*e*P	Pn	21 21 18.4	-0.4
SAPS	Ciudad Sandino	1.23	319	P	Pn	21 21 18.7	-0.2
SAPS				S	Sn	21 21 43.1	+0.7
COVE	Coope Vega, Sa	1.26	114	S	Sn	21 21 41.7	-1.0
INDI	Punta indio, G	1.36	177	⇑P	Pn	21 21 19.7	-0.4
INDI				S	Sn	21 21 44.2	-0.1
VPL2	V. Platanar	1.49	128	*e*P	Pn	21 21 21.6	+0.2
MOM2	El Cardon	1.49	324	⇑P	Pn	21 21 21.5	+0.3
MOM2				S	Sn	21 21 46.8	+0.4
MOMN	Momotombo	1.50	321	P	Pn	21 21 20.1	-1.3
MOMN				S	Sn	21 21 46.8	+0.1
LEVN	Ruinas Leon Vi	1.54	319	P	Pn	21 21 20.6	-1.1
LEVN				S	Sn	21 21 48.2	+0.9
LAFE	Finca La Fe, P	1.56	155	*e*P	Pn	21 21 21.2	-0.6
ESPN	Las Esperanzas	1.57	52	P	Pn	21 21 21.8	-0.2
CNGN	Cerro Negro	1.67	319	P	Pn	21 21 23.0	+0.1
CNGN				S	Sn	21 21 49.2	-0.4
TRB2	Turrubares	1.72	140	P	Pn	21 21 23.3	-0.1
TRB2				S	Sn	21 21 50.2	-0.1
MATN	Matagalpa	1.72	349	P	Pn	21 21 23.3	-0.2
ILCN	San Idelfonso	1.73	321	P	Pn	21 21 22.4	-1.1
ILCN				S	Sn	21 21 50.4	-0.1
HDC	Heredia	1.89	130	S	Sn	21 21 53.7	+0.1
PICV	PH. Pirrs	2.10	139	*e*P	Pn	21 21 27.9	+0.5
ABE2	San Pablo	2.13	135	*e*P	Pn	21 21 28.5	+0.5
LCR2	La Lucha 2	2.14	134	*e*P	Pn	21 21 27.9	-0.1
PIEC	Cerro El Cedra	2.26	135	*e*P	Pn	21 21 29.7	+0.3
SAJE	San Jernim	2.77	132	*e*P	Pn	21 21 35.8	+0.7
EDPE	Pejibaye, P	2.85	136	*e*P	Pn	21 21 36.4	+0.4

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*IDC **09** 21:47:06.0±1.7, 23°.23S×66°.64W, h183^{km}±17^{km}, mb3.3/4, mbtmp3.9/9, MS3.2/1, Error ellipse: s-maj=21.2km s-min=14.5km az=91.0*
*SJA **09** 21:47:07.3±0.7, 23°.28S×66°.87W, h218^{km}±6^{km}, ML4.0, MW3.8*
*VAO **09** 21:47:07.8±1.1, 23°.14S×66°.94W, h248^{km}±7^{km}, mb4.2, Presumed earthquake*
*GUC **09** 21:47:08.0±0.7, 23°.26S×66°.93W, h219^{km}±9^{km}, ML4.3*
*NEIC **09** 21:47:08.4±1.3, 23°.31S±0°.03×66°.9W±0°.1, h213^{km}±9^{km}, mb4.2/5, ML4.3(GUC), Error ellipse: s-maj=17.9km s-min=3.9km az=92.0*
ISC 09 21:47:07.1±0.6**, 23°.27S**±0°.04×**66°.92W**±0°.04**, h221**^{km}±6^{km}**, n113, σ1^{s}.57**/142**, mb3.8**/6**, 10C-2D, Jujuy Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SALTA		1.08	151	*e*P	Pn	21 47 40.3	+0.1
AF01	San Pedro de A	1.21	285	*e*P	Pn	21 47 42.0	+1.2
AF01				*e*S	S	21 48 21.5	+15
AF01	San Pedro de A	1.21	285	*e*P	Pn	21 47 42.1	+1.4
AF01	San Pedro de A	1.21	285		Pn	21 47 42.0	+1.2
HJA	Humahuaca	1.39	88	*e*P	Pn	21 47 42.2	0.0
YJA	Yavi	1.69	50	*e*P	Pn	21 47 45.5	+0.6
YJA				*e*S	S	21 48 13.6	-0.5
YJA	Yavi	1.69	50	⇑*e*P	Pn	21 47 45.0	+0.2
SLA	San Lorenzo	1.94	138	*e*P	Pn	21 47 47.5	+0.7
SLA				*e*S	S	21 48 19.4	+1.8
SLA	San Lorenzo	1.94	138	⇓*e*P	Pn	21 47 47.5	+0.7
PB06	IPOC Station P	2.51	282	*e*P	Pn	21 47 53.8	+1.1
PB06				*e*S	S	21 48 28.5	+0.5
PB06				IAML		21 48 31.0	
	comp=Z,348nm,0.1s						
PB06	IPOC Station P	2.51	282	⇑*i*P	Pn	21 47 53.8	+1.1
PB06				*i* S	S	21 48 27.7	-0.3
PB06				IAML		21 48 31.1	
	comp=N,625nm,0.2s						
PB06	IPOC Station P	2.51	282		Pn	21 47 53.7	+1.1
PB06				Sn	S	21 48 27.6	-0.4
PB09	IPOC Station P	2.60	304	*e*P	Pn	21 47 55.1	+1.5
PB09				*e*S	S	21 48 31.9	+2.1
PB09				IAML		21 48 38.2	
	comp=Z,162nm,0.3s						
PB09	IPOC Station P	2.60	304	⇑*i*P	Pn	21 47 55.2	+1.5
PB09				*e*S	S	21 48 29.8	-0.1
PB09	IPOC Station P	2.60	304		Pn	21 47 55.2	+1.5
PB09				Sn	S	21 48 30.5	+0.7
PB03	IPOC Station P	2.89	294	*e*P	Pn	21 47 57.9	+1.1
PB03				*e*S	S	21 48 34.9	-0.6
PB03				IAML		21 48 36.1	
	comp=Z,608nm,0.2s						
PB03	IPOC Station P	2.89	294	⇑*i*P	Pn	21 47 57.7	+0.9
PB03				*i* S	S	21 48 34.4	-1.1
PB03				IAML		21 48 35.8	
	comp=E,457nm,0.2s						
PB03	IPOC Station P	2.89	294		Pn	21 47 57.8	+0.9
PB05	IPOC Station P	3.05	277	*e*P	Pn	21 47 59.5	+0.8
PB05				*e*S	S	21 48 38.5	-0.3
PB05				IAML		21 48 42.2	
	comp=Z,121nm,0.2s						
PB05	IPOC Station P	3.05	277	⇑*i*P	Pn	21 47 59.4	+0.8
PB05				*e*S	S	21 48 37.8	-1.0
PB05				IAML		21 48 41.0	
	comp=N,277nm,0.1s						
PB05	IPOC Station P	3.05	277		Pn	21 47 59.2	+0.5
PB07	IPOC Station P	3.15	299	*e*P	Pn	21 48 00.8	+1.0
PB07				*e*S	S	21 48 40.0	-0.8
PB07				IAML		21 48 40.5	
	comp=Z,366nm,0.2s						
PB07	IPOC Station P	3.15	299	⇑*i*P	Pn	21 48 00.6	+0.8
PB07				*e*S	S	21 48 39.6	-1.2
PB07	IPOC Station P	3.15	299		Pn	21 48 00.5	+0.7
PB02	IPOC Station P	3.37	305	*e*P	Pn	21 48 03.3	+0.9
PB02				*e*S	S	21 48 44.8	-0.7
PB02				IAML		21 48 49.4	
	comp=Z,359nm,0.2s						
PB02	IPOC Station P	3.37	305	⇑*i*P	Pn	21 48 02.9	+0.5
PB02				*e*S	S	21 48 44.5	-1.0
PB02	IPOC Station P	3.37	305		Pn	21 48 02.8	+0.5
PB14	IPOC Station P	3.46	246	*e*P	Pn	21 48 04.3	+0.7
PB14				*e*S	S	21 48 46.9	-0.7
PB14				IAML		21 48 50.0	
	comp=Z,234nm,0.3s						
PB14	IPOC Station P	3.46	246	⇑*i*P	Pn	21 48 04.1	+0.6
PB14				*i* S	S	21 48 46.2	-1.4
PB14	IPOC Station P	3.46	246		Pn	21 48 04.2	+0.6
PB08	IPOC Station P	3.75	326	*e*P	Pn	21 48 08.6	+1.5
PB08				*e*S	S	21 48 54.9	+0.9
PB08	IPOC Station P	3.75	326	⇑*i*P	Pn	21 48 08.5	+1.5
PB08				*i* S	S	21 48 54.5	+0.6
PB08	IPOC Station P	3.75	326		Pn	21 48 08.6	+1.5
TA01	Diego Aracena	4.05	311	*e*P	Pn	21 48 11.3	+0.9
TA01				*e*S	S	21 48 59.4	-0.6
TA01				IAML		21 49 01.6	
	comp=Z,67nm,0.2s						
TA01	Diego Aracena	4.05	311		Pn	21 48 11.2	+0.8
AC02	Maricunga	4.08	209	*e*P	Pn	21 48 11.9	+0.8
AC02				*e*S	S	21 49 04.5	+3.2
AC02	Maricunga	4.08	209	⇓*e*P	Pn	21 48 11.7	+0.7
AC02	Maricunga	4.08	209		Pn	21 48 11.8	+0.7
GO01	Chusmiza	4.17	329	*e*P	Pn	21 48 13.3	+1.0
GO01				*e*S	S	21 49 04.7	+1.3
GO01				IAML		21 49 07.8	
	comp=Z,72nm,0.1s						
GO01	Chusmiza	4.17	329	⇑*e*P	Pn	21 48 13.3	+1.0
GO01	Chusmiza	4.17	329		Pn	21 48 13.3	+1.0
PB11	IPOC Station P	4.33	323	*e*P	Pn	21 48 14.2	+0.3
PB11				*e*S	S	21 49 04.7	-1.7
PB11				IAML		21 49 05.7	

	comp=Z,122nm,0.2s						
PB11	IPOC Station P	4.33	323	*e*P	Pn	21 48 13.6	-0.3
PB11	IPOC Station P	4.33	323		Pn	21 48 13.8	-0.1
AC01	Pan de Azucar	4.41	229	*e*P	Pn	21 48 14.3	-0.4
AC01				*e*S	S	21 49 05.4	-2.4
AC01				IAML		21 49 06.6	
	comp=Z,116nm,0.2s						
AC01	Pan de Azucar	4.41	229	*e*P	Pn	21 48 14.2	-0.4
AC01	Pan de Azucar	4.41	229	Pn	Pn	21 48 14.3	-0.4
PSGCX	Pisagua	4.72	320	*e*P	Pn	21 48 18.2	-0.5
PSGCX				*e*S	S	21 49 12.2	-2.9
PSGCX				IAML		21 49 16.6	
	comp=Z,69nm,0.7s						
PSGCX	Pisagua	4.72	320		Pn	21 48 17.6	-1.1
TINO	Tinogasta	4.81	187	*e*P	Pn	21 48 20.8	+1.1
AC06	Mina Casimiro	5.12	217		Pn	21 48 22.5	-1.0
CYA	Choya	5.25	169	*e*P	Pn	21 48 20.9	-4.2
CYA				*e*S	S	21 49 11.2	-16
GO03	Copiapo	5.25	214	*e*P	Pn	21 48 24.4	-0.7
GO03				*e*S	S	21 49 24.0	-2.9
GO03				IAML		21 49 27.5	
	comp=Z,89nm,0.7s						
GO03	Copiapo	5.25	214	Pn	Pn	21 48 24.1	-1.1
PB16	IPOC Station P	5.48	333		Pn	21 48 29.3	+0.6
PB12	IPOC Station P	5.62	325		Pn	21 48 29.7	-0.4
AC05	El Transito	6.31	208	Pn	Pn	21 48 37.3	-1.4
LPAZ	La Paz	7.04	350	P	Pn	21 48 49.2	+0.5
	comp=Z,3.6nm,0.3s,baz=147,slow=5.7,SNR=28						
LPAZ				S	S	21 50 06.6	-2.9
	comp=Z,1.8nm,0.6s,baz=136,slow=7.6,SNR=1.0						
LPAZ	La Paz	7.04	350		Pn	21 48 49.4	+0.7
LPAZ	La Paz	7.04	350	*e*P	Pn	21 48 47.7	-1.0
LPAZ				*e*S	S	21 50 08.0	-1.5
CFA	Coronel Fontan	8.38	188	P	Pn	21 49 04.1	-1.2
	comp=Z,1.8nm,0.3s,baz=358,slow=11,SNR=16						
CFA				S	S	21 50 32.9	-7.1
	comp=Z,2.3nm,0.4s,baz=174,slow=22,SNR=7.3						
ZON	Zonda	8.39	190	Pn	Pn	21 49 04.5	-0.8
SIV	San Ignacio	9.10	38	P	Pn	21 49 12.5	-2.2
	comp=Z,4.6nm,0.4s,baz=223,slow=9.6,SNR=24						
SIV				S	S	21 50 46.2	-11
	comp=Z,0.5nm,0.3s,baz=7.3,slow=22,SNR=1.2						
COIM	Forte Coimbra	9.13	70	*e*P	Pn	21 49 12.0	-2.9
CPUP	Villa Florida	9.23	111	P	Pn	21 49 13.1	-3.0
	comp=Z,1.0nm,0.6s,baz=287,slow=17,SNR=3.2						
CPUP	Villa Florida	9.23	111	Pn	Pn	21 49 14.2	-1.9
CPUP	Villa Florida	9.23	111	*e*P	Pn	21 49 18.3	+2.1
MT02	Curacav	10.62	200	Pn	Pn	21 49 32.7	-1.2
MT09	Talagante	11.06	198	Pn	Pn	21 49 39.4	-0.3
MT01	Popeta	11.22	199	Pn	Pn	21 49 41.0	-0.5
BO02	Sierra Bellavi	11.96	196	Pn	Pn	21 49 51.0	0.0
VILB	Vilhena	12.08	33	Pn	Pn	21 49 54.1	+1.5
TRCB	Terra Rica	13.16	91		Pn	21 50 07.0	+0.9
TRCB	Terra Rica	13.16	91	*e*P	Pn	21 50 06.6	+0.6
PTGB	Pitanga	13.65	99	*e*P	Pn	21 50 13.2	+1.0
CPSB	Cacapava Do Su	13.96	123		Pn	21 50 15.0	-0.9
CPSB	Cacapava Do Su	13.96	123	*e*P	Pn	21 50 15.4	-0.4
LDASE	Londrina, Braz	14.52	94	*e*P	Pn	21 50 22.9	+0.2
FRTB	Fartura	15.95	94	*e*P	P	21 50 38.8	-0.5
ARAG	Araguaiana, MT	16.10	65	*e*P	P	21 50 40.7	-0.3
CLDB	Colider	16.27	43	*e*P	P	21 50 41.9	-0.9
GO06	Curarrehue	16.71	192	P	P	21 50 46.5	-1.1
GO06				IAmb	IAmb	21 51 05.5	
	comp=Z,5.2nm,1.1s						
BB19B	Bebedouro	17.18	86	*e*P	P	21 50 51.9	-0.9
PET01	Itanhaem-SP	18.01	97	*e*P	P	21 51 01.3	-0.4
IPMB	Ipameri, GO	18.28	77	*e*P	P	21 51 04.5	-0.3
VAO	Valinhos	18.35	93	P	P	21 51 05.0	-0.6
VAO	Valinhos	18.35	93	*e*P	P	21 51 05.7	+0.1
SNDB	Serra Nova Dou	18.63	56	*e*P	P	21 51 07.5	-1.0
CANS	Sao Roque de M	19.29	85	*e*P	P	21 51 15.1	-0.6
BDFB	Brasilia	19.36	70	P	P	21 51 16.3	-0.2
	comp=Z,16nm,0.7s,baz=248,slow=11,SNR=24						
BDFB	Brasilia	19.36	70	P	P	21 51 16.8	+0.3
BDFB				IAmb	IAmb	21 51 18.3	
	comp=Z,19nm,0.8s						
PMNB	Patos De Minas	19.70	80	*e*P	P	21 51 20.1	0.0
BSCB	Bom Sucesso	20.64	88	*e*P	P	21 51 29.3	-0.8
ITTB	Itaituba	21.68	32	*e*P	P	21 51 37.1	-3.6
JANB	Januaria	22.84	73	*e*P	P	21 51 49.2	-2.3
SMTB	Santa Maria do	23.41	55	*e*P	P	21 51 53.8	-2.8
SDBA	SAO DESIDERIO	23.54	66	*e*P	P	21 51 55.5	-2.3
ARCA	Ara§uai, MG	24.28	79	*e*P	P	21 52 01.9	-2.6
GUA01	Guaratinga, BA	26.32	80	*e*P	P	21 52 20.1	-2.7
SDV	Santo Domingo	32.17	353	LR	LR	22 07 30.0	
	comp=Z,41nm,19.3s,baz=25,slow=38						
VNA3	Neumayer Olymp	57.81	161	P	P	21 56 38.1	+3.0
	comp=Z,1.4nm,0.7s						
VNA1	Neumayer--Stat	58.01	160	P	P	21 56 36.9	+0.6
	comp=Z,1.3nm,0.4s						
VNA2	Neumayer--Watz	58.38	161	P	P	21 56 41.8	+2.8
	comp=Z,3.2nm,0.6s,baz=284,slow=5.3						
SNAA	Sanae	60.01	161	P	P	21 56 52.4	+2.2
	comp=Z,0.8nm,0.5s,baz=290,slow=6.6,SNR=2.2						
	comp=Z,0.8nm,0.5s						
TXAR	Lajitas Array	63.13	324	P	P	21 57 15.3	+3.6
	comp=Z,0.2nm,0.6s,baz=147,slow=6.7,SNR=2.4						
	comp=Z,0.2nm,0.6s						
QSPA	South Pole Qui	66.93	180	P	P	21 57 38.9	+3.2
	comp=Z,1.6nm,1.1s,baz=156,slow=0.1,SNR=5.4						
	comp=Z,1.6nm,1.1s						
QSPA	South Pole Qui	66.93	180	P	P	21 57 38.2	+2.6
QSPA				IAmb	IAmb	21 57 44.2	
	comp=Z,4.2nm,1.3s						
TORD	Torodi Ar. Bea	76.24	69	P	P	21 58 33.0	+1.2
	comp=Z,0.7nm,0.4s,baz=237,slow=5.7,SNR=8.5						
	comp=Z,0.7nm,0.4s						
TORD	Torodi Ar. Bea	76.24	69	P	P	21 58 32.4	+0.6
MKAR	Makanchi Array	145.91	39	PKPbc	PKPab	22 06 22.5	+1.0
	comp=Z,0.3nm,0.5s,baz=311,slow=2.9,SNR=5.8						
MKAR	Makanchi Array	145.91	39		PKPbc	22 06 21.3	+0.7
WMQ	Urumqi	150.74	39	PKPbc	PKPdf	22 06 19.8	-7.7
WMQ				PP	PP	22 10 09.2	-2.6
WMQ				LR	LR		
	comp=Z,57nm,23.5s						
HHC	Hu-ho-hao-te	162.43	4	*e*P	PKPdf	22 06 41.2	-1.4

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*KRSC **09** 22:11:24.5±2.4, 50°.54N×157°.58E, h53^{km}±27^{km}, Mc3.6, Ml4.8, Felt [III] at Severo-Kurilsk.*

*MOS **09** 22:11:24.6±0.8, 50°.44N×157°.27E, h61^{km}, mb4.5/15, Error ellipse: s-maj=12.8km s-min=3.5km az=77.0*

MOS Felt (II-III) at Severo-Kuril'sk.

*IDC **09** 22:11:29.8±2.5, 50°.86N×156°.80E, h93^{km}±22^{km}, mb3.6/13, mbtmp4.0/16, MS2.9/5, Error ellipse: s-maj=19.9km s-min=12.4km az=146.0*

*NEIC **09** 22:11:29.6±1.0, 50°.93N±0°.09×156°.8E±0°.1, h90^{km}±6^{km}, mb4.4/39, Error ellipse: s-maj=15.8km s-min=8.8km az=140.0*

ISC 09 22:11:26.8±0.7, **50°.66N**±0°.05×**157°.19E**±0°.05, **h73**^{km}±5^{km}, **n182**, σ1^{s}**87**/202, **mb4.4**/43, **1C-3D**, **Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	Severo-Kuril's	0.68	273	PN	Pn	22 11 42.3	+0.6
SKR				S	Sn	22 11 53.1	+0.4
SKR	Severo-Kuril's	0.68	273	*e*P	Pn	22 11 42.3	+0.6
SKR				*e*S	Sn	22 11 53.2	+0.4
PAU	Pauzhetka	0.85	344	PN	Pn	22 11 44.2	+0.6
PAU				S	Sn	22 11 56.8	+0.7
PAU	Pauzhetka	0.85	344	*e*P	Pn	22 11 44.3	+0.6
PAU				*e*S	Sn	22 11 56.8	+0.7
KDTR	Khodutka, Kamc	1.28	25	PN	Pn	22 11 49.3	+0.3
KDTR				S	Sn	22 12 05.3	-0.4
KDTR	Khodutka, Kamc	1.28	25	*e*P	Pn	22 11 49.3	+0.3
KDTR				*e*S	Sn	22 12 05.3	-0.4
MIPR	Malaya Ipel'ka	1.65	351	PN	Pn	22 11 55.1	+1.3
MIPR	Malaya Ipel'ka	1.65	351	*e*P	Pn	22 11 55.1	+1.3
ASAK	Asacha	1.79	14	PN	Pn	22 11 56.6	+0.9
ASAK	Asacha	1.79	14	*e*P	Pn	22 11 56.7	+0.9
MTVR	Mutnovka	1.93	18	PN	Pn	22 11 58.6	+0.9
MTVR				S	Sn	22 12 21.9	+0.6
MTVR	Mutnovka	1.93	18	*e*P	Pn	22 11 58.6	+0.9
MTVR				*e*S	Sn	22 12 22.0	+0.6
RUS	Russkaya	1.96	24	PN	Pn	22 11 58.2	+0.2
RUS				S	Sn	22 12 21.1	-0.6
RUS	Russkaya	1.96	24	*e*P	Pn	22 11 58.2	+0.2
RUS				*e*S	Sn	22 12 21.2	-0.6
GRL	Gorelyy	1.98	16	PN	Pn	22 11 59.5	+1.2
GRL				S	Sn	22 12 23.4	+1.1
GRL	Gorelyy	1.98	16	*e*P	Pn	22 11 59.5	+1.2
GRL				*e*S	Sn	22 12 23.5	+1.1
KRMR	Karymshinskiy	2.26	15	PN	Pn	22 12 03.4	+1.5
KRMR	Karymshinskiy	2.26	15	*e*P	Pn	22 12 03.4	+1.5
APC	Apacha	2.27	360	PN	Pn	22 12 03.2	+1.0
APC	Apacha	2.27	360	*e*P	Pn	22 12 03.2	+1.0
PEA0B	Petropavlovsk-	2.48	7	*d i*PN	Pn	22 12 06.6	+1.6
PEA0B	Petropavlovsk-	2.48	7		Pn	22 12 05.6	+0.7
PEA0B				Sn	Sn	22 12 28.8	-5.4
PETK	Petropavlovsk-	2.48	7	P	Pn	22 12 06.5	+1.5
	91nm,0.5s,baz=189,slow=13,SNR=74						
PETK				S	Sn	22 12 29.1	-5.1
	120nm,0.6s,baz=180,slow=15,SNR=10.0						
PETK				LR	LR	22 13 06.9	
	comp=Z,143nm,19.8s,baz=211,slow=42						
PET	Petropavlovsk	2.54	20	⇓*i*PN	Pn	22 12 07.1	+1.3
PET				*e*S	Sn	22 12 37.3	+1.6
PET				pmax	pmax		
	comp=Z,700nm,0.4s						
PET				smax	smax		
	comp=N,1µm,0.5s						
PET				smax	smax		
	comp=E,703nm,0.5s						
PET	Petropavlovsk	2.54	20		Pn	22 12 07.0	+1.2
PET				Sn	Sn	22 12 36.6	+0.9
INSR	Institute	2.57	19	PN	Pn	22 12 07.6	+1.5
INSR				S	Sn	22 12 38.2	+1.8
INSR	Institute	2.57	19	*e*P	Pn	22 12 07.7	+1.5
INSR				*e*S	Sn	22 12 38.2	+1.8
DALK	Dalny	2.57	22	PN	Pn	22 12 07.3	+1.2
DALK				S	Sn	22 12 38.1	+1.7
DALK	Dalny	2.57	22	*e*P	Pn	22 12 07.4	+1.2
DALK				*e*S	Sn	22 12 38.1	+1.7
UGLR	Uglovaya	2.75	21	PN	Pn	22 12 10.5	+1.8
UGLR	Uglovaya	2.75	21	*e*P	Pn	22 12 10.6	+1.8
AVH	Avacha	2.79	20	PN	Pn	22 12 11.5	+2.3
AVH	Avacha	2.79	20	*e*P	Pn	22 12 11.5	+2.3
KOK	Koryaka	2.79	18	PN	Pn	22 12 11.8	+2.6
KOK	Koryaka	2.79	18	*e*P	Pn	22 12 11.8	+2.6
SMAR	Somma	2.80	20	PN	Pn	22 12 11.0	+1.6
SMAR	Somma	2.80	20	*e*P	Pn	22 12 11.0	+1.6
KRER	Koryakskii	2.82	19	PN	Pn	22 12 11.8	+2.0
KRER	Koryakskii	2.82	19	*e*P	Pn	22 12 11.8	+2.0
SDLR	Sedlovina	2.83	21	PN	Pn	22 12 11.0	+1.2
SDLR	Sedlovina	2.83	21	*e*P	Pn	22 12 11.0	+1.2
NLC	Nalytchevo	2.85	27	PN	Pn	22 12 09.8	-0.2
NLC				S	Sn	22 12 40.6	-2.6
NLC	Nalytchevo	2.85	27	*e*P	Pn	22 12 09.8	-0.2
NLC				*e*S	Sn	22 12 40.7	-2.6
KRX	Arik	2.85	18	PN	Pn	22 12 12.4	+2.2
KRX	Arik	2.85	18	*e*P	Pn	22 12 12.5	+2.2
SPN	Mys Shipunski	3.01	35	PN	Pn	22 12 14.0	+1.8
SPN				S	Sn	22 12 48.1	+1.0
SPN	Mys Shipunski	3.01	35	*e*P	Pn	22 12 14.0	+1.8
SPN				*e*S	Sn	22 12 48.2	+1.0
GNL	Ganaly	3.08	8	PN	Pn	22 12 15.1	+1.9
GNL	Ganaly	3.08	8	*e*P	Pn	22 12 15.1	+1.9
KII	Karymskiy	3.66	21	PN	Pn	22 12 23.9	+2.8
KII	Karymskiy	3.66	21	*e*P	Pn	22 12 23.9	+2.8
MKZ	Mys Kozlova	4.79	34	PN	Pn	22 12 36.1	-0.2
MKZ	Mys Kozlova	4.79	34	*e*P	Pn	22 12 36.2	-0.2
KMNR	Kamenistaya	5.43	19	PN	Pn	22 12 49.0	+3.8
KMNR	Kamenistaya	5.43	19	*e*P	Pn	22 12 49.0	+3.8
KPT	Kopyto	5.62	18	PN	Pn	22 12 50.6	+2.8
KPT	Kopyto	5.62	18	*e*P	Pn	22 12 50.6	+2.8
KIRR	Kirishev	5.63	18	PN	Pn	22 12 50.9	+2.9
KIRR	Kirishev	5.63	18	*e*P	Pn	22 12 50.9	+2.9
BZP	Bezymyannyi-Pe	5.64	20	PN	Pn	22 12 50.0	+1.9
BZP	Bezymyannyi-Pe	5.64	20	*e*P	Pn	22 12 50.1	+1.9
KOZ	Kozyrevsk	5.65	15	PN	Pn	22 12 51.5	+3.4
KOZ	Kozyrevsk	5.65	15	*e*P	Pn	22 12 51.5	+3.4
BZMR	Bezymyannaya	5.65	19	PN	Pn	22 12 51.2	+3.0
BZMR	Bezymyannaya	5.65	19	*e*P	Pn	22 12 51.2	+3.0
BZWR	Bezymyannyi-We	5.68	19	PN	Pn	22 12 51.3	+2.7
BZWR	Bezymyannyi-We	5.68	19	*e*P	Pn	22 12 51.3	+2.7
SRDR	Sredinnyy	5.87	14	PN	Pn	22 12 55.2	+4.0
SRDR	Sredinnyy	5.87	14	*e*P	Pn	22 12 55.2	+4.0
KBTR	Krutoberegovo	6.50	29	PN	Pn	22 13 00.0	+0.3
KBTR	Krutoberegovo	6.50	29	*e*P	Pn	22 13 00.1	+0.3
BKI	Bering	7.00	46	PN	Pn	22 13 06.2	-0.2
BKI	Bering	7.00	46	*e*P	Pn	22 13 06.2	-0.2
BKI				*e*S	Sn	22 14 17.1	-7.3
KUR	Kuril'sk	8.28	233	*e*PN	Pn	22 13 26.5	+2.5
KUR				S	Sn	22 14 59.2	+3.3
KUR				pmax	pmax		
	comp=Z,54nm,0.6s						
MA2	Magadan	9.66	340	LR	LR	22 17 31.8	
	comp=Z,34nm,18.9s,baz=92,slow=39						
SHEM	Shemya Is, Ala	10.70	72	P	Pn	22 13 58.0	+1.0
	comp=Z,19nm,0.3s,baz=219,slow=3.0,SNR=7.5						
SHEM				LR	LR	22 17 50.0	
	comp=Z,32nm,21.6s,baz=294,slow=35						
SHEM	Shemya Is, Ala	10.70	72	Pn	Pn	22 13 58.0	+1.0
SMY	Shemya	10.70	72	PN	Pn	22 13 57.8	+0.7
SMY	Shemya	10.70	72		Pn	22 13 57.8	+0.7
JKA	Kamikawa-asahi	11.84	242	Pn	Pn	22 14 14.0	+1.3
ASAJ	Asahikawa	11.85	242	PN	Pn	22 14 14.0	+1.3
ERM	Erimo	12.97	234	PN	Pn	22 14 25.7	-2.2
ERM	Erimo	12.97	234	Pn	Pn	22 14 25.7	-2.2
JTM	Tenmabayashi	14.94	235	Pn	Pn	22 14 49.7	-4.0
YAK	Yakutsk	18.86	318	P	P	22 15 38.9	-1.7
	comp=Z,7.6nm,0.3s,baz=118,slow=3.6,SNR=4.5						
YAK	Yakutsk	18.86	318	*e*P	Pn	22 15 42.4	+0.4
YAK				*e*S	Sn	22 19 14.2	+1.9
YAK				pmax	pmax		
	comp=Z,10.0nm,0.9s						
YAK				pmax	pmax		
	comp=N,3.0nm,1.2s						
YAK				pmax	pmax		
	comp=E,3.0nm,1.5s						
YAK				smax	smax		
	comp=N,46nm,3.1s						
YAK				smax	smax		
	comp=E,116nm,4.9s						
YAK	Yakutsk	18.86	318	P	P	22 15 37.9	-2.8
YAK				IAmb	IAmb	22 15 60.0	
	comp=Z,18nm,0.7s						
MAJO	Matsushiro	19.61	231	P	P	22 15 49.0	-0.2
MAJO				pmax	pmax		
	comp=Z,7.0nm,0.5s						
MAJO	Matsushiro	19.61	231	P	P	22 15 49.0	-0.2
MJAR	Matsushiro Arr	19.61	231	P	P	22 15 49.3	+0.1
	comp=Z,1.6nm,0.5s,baz=28,slow=11,SNR=6.9						
MJAR	Matsushiro Arr	19.61	231	P	P	22 15 49.3	+0.1
JGF	Kuroka	20.78	231		P	22 16 01.5	-0.3
JHJ	Hachijo jima 2	21.70	223	P	P	22 16 12.6	+1.0
	comp=Z,13nm,0.5s,baz=235,slow=20,SNR=3.5						
M16K	Timber Creek	26.21	50	P	P	22 16 55.6	+1.2
M16K				IAmb	IAmb	22 17 18.2	
	comp=Z,12nm,1.3s						
C18K	Utukok River	26.88	33	P	P	22 17 00.2	-0.1
C18K				IAmb	IAmb	22 17 05.0	
	comp=Z,19nm,1.5s						
C19K	Lookout Ridge	27.59	32	P	P	22 17 07.0	+0.3
J19K	Poorman	28.00	44	P	P	22 17 09.8	-0.5
IMAR	Indian Mountai	29.03	40	P	P	22 17 19.2	-0.2
SML	Sawmill	31.31	48	P	P	22 17 40.2	+0.5
SML				pmax	pmax		
	comp=Z,4.0nm,0.6s						
SML	Sawmill	31.31	48	P	P	22 17 40.2	+0.5
SML				IAmb	IAmb	22 17 41.3	
	comp=Z,4.2nm,0.6s						
COLA	College	31.41	42	⇓*e*P	P	22 17 43.7	+3.3
COLA				pmax	pmax		
	comp=Z,3.0nm,0.6s						
H11N2	WAKE ISLAND Hy	31.80	162	T	T	22 51 28.5	
	baz=348,slow=76,SNR=62						
H11N1	WAKE ISLAND Hy	31.82	162	T	T	22 51 29.1	
	baz=348,slow=76,SNR=101						
H11N3	WAKE ISLAND Hy	31.82	162	T	T	22 51 29.1	
	baz=348,slow=76,SNR=205						
ILAR	Eielson Array	31.82	42	P	P	22 17 44.2	0.0
	comp=Z,0.9nm,0.7s,baz=259,slow=7.7,SNR=9.1						
	comp=Z,0.9nm,0.7s						
ILAR	Eielson Array	31.82	42	P	P	22 17 44.9	+0.8
ILAR	Eielson Array	31.82	42	P	P	22 17 44.9	+0.8
D25K	Kavik River	32.23	34	P	P	22 17 47.9	+0.2
D25K				IAmb	IAmb	22 17 51.5	
	comp=Z,3.8nm,0.7s						
BMAR	Burnt Mountain	32.77	37	P	P	22 17 52.8	+0.4
HHC	Hu-ho-hao-te	32.84	271	*e*P	P	22 17 52.2	-1.1
HHC				pmax	pmax		
	comp=Z,9.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,19nm,4.1s						
H11S1	WAKE ISLAND Hy	32.96	163	T	T	22 52 56.8	
	baz=349,slow=76,SNR=627						
H11S3	WAKE ISLAND Hy	32.97	163	T	T	22 52 48.2	
	baz=349,slow=76,SNR=1357						
H11S2	WAKE ISLAND Hy	32.98	163	T	T	22 52 58.2	
	baz=349,slow=76,SNR=700						
NJ2	Nanjing	33.77	251	*e*P	P	22 18 01.3	0.0
NJ2				pmax	pmax		
	comp=Z,5.0nm,0.6s						
BCAR	Beaver Creek A	34.20	45	P	P	22 18 05.9	+1.0
L29M	L29M	35.84	45		P	22 18 20.4	+1.5
L29M				IAmb	IAmb	22 18 21.8	
	comp=Z,5.3nm,1.1s						
I30M	Mount Dempster	36.23	41	P	P	22 18 22.9	+0.5
I30M				IAmb	IAmb	22 18 25.9	
	comp=Z,2.6nm,0.8s						
HYT	Haines Junctio	36.62	48	P	P	22 18 26.6	+0.9
HYT				IAmb	IAmb	22 18 28.4	
	comp=Z,5.5nm,1.3s						
R33M	Jennings River	40.17	49	P	P	22 18 57.7	+2.2
R33M				IAmb	IAmb	22 18 59.4	
	comp=Z,5.1nm,1.1s						
LZH	Lanzhou	40.53	270	*e*P	P	22 18 49.0	-10
LZH				pP	pP	22 19 14.1	-2.5
LZH				pmax	pmax		
	comp=Z,13nm,1.2s						
HOLB	Holberg	45.43	60	P	P	22 19 39.6	+1.6
YKA	Yellowknife Ar	46.19	40	P	P	22 19 44.4	+0.7
	comp=Z,1.4nm,0.7s,baz=299,slow=8.3,SNR=3.5						
	comp=Z,1.4nm,0.7s						
KURK	Kurchatov	47.50	302	⇑*e*P	P	22 19 56.2	+2.1
KURK				pmax	pmax		
	comp=Z,2.0nm,1.1s						
KURK	Kurchatov	47.50	302	P	P	22 19 52.1	-2.0
MK31	Makanchi Array	47.60	296	P	P	22 19 52.8	-2.2
MK31				pmax	pmax		
	comp=Z,4.0nm,1.5s						
MK31	Makanchi Array	47.60	296	P	P	22 19 52.8	-2.2
MKAR	Makanchi Array	47.60	296	P	P	22 19 53.4	-1.6
	comp=Z,0.3nm,0.5s,baz=68,slow=6.9,SNR=5.8						
	comp=Z,0.3nm,0.5s						
MKAR	Makanchi Array	47.60	296	P	P	22 19 52.9	-2.1
KURBB	Kurchatov Arra	47.60	302	P	P	22 19 53.8	-1.1
	comp=Z,0.3nm,0.5s,baz=60,slow=7.3,SNR=9.4						
KURBB				PcP	PcP	22 21 21.9	-1.6
	comp=Z,0.2nm,0.6s,baz=53,slow=3.3,SNR=2.1						
	comp=Z,0.3nm,0.5s						
PZH	PanZhiHua	48.25	262	P	P	22 20 00.3	-0.1
BVAR	Borovoye Array	50.50	309	P	P	22 20 15.1	-1.9
	comp=Z,0.8nm,0.5s,baz=66,slow=8.5,SNR=3.4						
	comp=Z,0.8nm,0.5s						
YBH	Yreka Blue Hor	53.60	66	LR	LR	22 41 33.5	
	comp=Z,30nm,18.8s,baz=34,slow=34						
YBH	Yreka Blue Hor	53.60	66	P	P	22 20 41.9	+1.5
YBH				pmax	pmax		
	comp=Z,4.0nm,0.8s						
YBH	Yreka Blue Hor	53.60	66	P	P	22 20 41.9	+1.5
YBH				IAmb	IAmb	22 20 44.3	
	comp=Z,4.4nm,0.8s						
MOD	Modoc Plateau	54.89	65		P	22 20 52.1	+2.3
WVOR	Wild Horse Val	55.51	63	P	P	22 20 56.3	+2.1
WVOR				pmax	pmax		
	comp=Z,5.0nm,0.9s						
WVOR	Wild Horse Val	55.51	63	P	P	22 20 56.3	+2.1
WVOR				IAmb	IAmb	22 20 58.1	
	comp=Z,4.8nm,0.8s						
ORV	Oroville	55.70	68	P	P	22 20 56.8	+1.3
ORV				pmax	pmax		
	comp=Z,3.0nm,0.8s						
ORV	Oroville	55.70	68		P	22 20 56.8	+1.3
ORV				IAmb	IAmb	22 20 58.0	
	comp=Z,3.4nm,0.8s						
CMAR	Chiang Mai Arr	55.90	257	P	P	22 20 57.7	+0.7
	comp=Z,0.9nm,0.6s,baz=29,slow=7.4,SNR=8.2						
	comp=Z,0.9nm,0.6s						
CMAR	Chiang Mai Arr	55.90	257	*i* P	P	22 20 58.5	+1.4
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
CMAR	Chiang Mai Arr	55.90	257	P	P	22 20 56.9	-0.2
PNTR	Pine Nut	57.12	67	P	P	22 21 07.4	+1.6
BMN	Battle Mountai	57.62	64	P	P	22 21 11.5	+2.3
BMN				pmax	pmax		
	comp=Z,4.0nm,0.6s						
BMN	Battle Mountai	57.62	64	P	P	22 21 11.5	+2.3
ABKAR	Akbulak array	57.99	310	P	P	22 21 08.4	-3.0
KVN	Kaiserville	58.02	66	P	P	22 21 14.9	+2.8
KVN				pmax	pmax		
	comp=Z,3.0nm,0.7s						
NVAR	Mina Array Bea	58.32	67	P	P	22 21 16.7	+2.5
	comp=Z,3.2nm,0.6s,baz=299,slow=7.3,SNR=7.2						
	comp=Z,3.2nm,0.6s						
NVAR	Mina Array Bea	58.32	67	P	P	22 21 16.1	+1.9
ELK	Elko	58.54	63	P	P	22 21 17.0	+1.2
ELK				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ELK	Elko	58.54	63		P	22 21 17.0	+1.2
ELK				IAmb	IAmb	22 21 19.0	
	comp=Z,2.0nm,0.8s						
PDAR	Pinedale Array	60.32	58	P	P	22 21 29.8	+1.8
	comp=Z,2.6nm,0.7s,baz=304,slow=3.4,SNR=17						
	comp=Z,2.6nm,0.7s						
PDAR	Pinedale Array	60.32	58	P	P	22 21 28.6	+0.7
FRB	Frobisher Bay	60.45	21	LR	LR	22 50 27.6	
	comp=Z,18nm,18.3s,baz=93,slow=39						
FURC	Furnace Creek,	60.49	68	P	P	22 21 30.9	+2.0
TPNV	Topopah Spring	60.52	67	P	P	22 21 30.2	+0.9
TPNV				pmax	pmax		
	comp=Z,4.0nm,0.9s						
TPNV	Topopah Spring	60.52	67		P	22 21 30.2	+0.9
TPNV				IAmb	IAmb	22 21 32.4	
	comp=Z,4.5nm,0.9s						
RDMU	Red Mountain	61.82	60	P	P	22 21 39.6	+1.5
OBN	Obninsk	63.58	326	*e*P	P	22 21 51.9	+2.7
OBN				*e**PP	pP	22 22 07.6	-0.7
OBN				*e**SP	sP	22 22 14.6	-1.9
OBN				*e*		22 22 24.7	
OBN				*e*		22 24 11.5	
OBN				pmax	pmax		
	comp=Z,5.0nm,1.6s						
OBN				MLR	MLR		
	comp=Z,29nm,16.0s						
PV18	Skein Mesa, Pa	63.81	61		P	22 21 52.9	+1.5
ISCO	Idaho Springs	64.52	58	P	P	22 21 58.0	+1.9
ISCO				pmax	pmax		
	comp=Z,5.0nm,1.0s						
ISCO	Idaho Springs	64.52	58	P	P	22 21 58.0	+1.9
ISCO				IAmb	IAmb	22 22 34.9	
	comp=Z,4.5nm,1.0s						
ECSD	EROS Data Cent	66.26	50	P	P	22 22 07.3	+0.4
ECSD				IAmb	IAmb	22 22 08.3	
	comp=Z,6.0nm,1.0s						
MNHN	Monahans	72.30	62	P	P	22 22 45.7	+1.3
WR8	Warramunga Arr	73.09	202	P	P	22 22 49.6	+0.6
WR8				IAmb	IAmb	22 22 51.1	
	comp=Z,9.7nm,1.3s						
ONTNC	Ouen Toro	73.10	171	P	P	22 22 52.0	+3.0
EKA	Eskdalemuir Ar	73.12	348	P	P	22 22 47.6	-1.2
	comp=Z,0.3nm,0.4s,baz=18,slow=5.2,SNR=4.8						
	comp=Z,0.3nm,0.4s						
WRA	Warramunga Arr	73.12	202	P	P	22 22 49.9	+0.7
	comp=Z,0.8nm,0.5s,baz=20,slow=6.3,SNR=7.7						
	comp=Z,0.8nm,0.5s						
TX31	Lajitas Ar. Si	73.29	64		P	22 22 51.9	+1.5
TX31				IAmb	IAmb	22 22 53.1	
	comp=Z,3.8nm,0.8s						
TXAR	Lajitas Array	73.29	64	P	P	22 22 52.2	+1.8
	comp=Z,3.8nm,0.8s,baz=297,slow=4.6,SNR=34						
	comp=Z,3.8nm,0.8s						
TXAR	Lajitas Array	73.29	64	P	P	22 22 51.9	+1.5
TXAR	Lajitas Array	73.29	64		P	22 22 51.9	+1.5
BURAR	Bucovina Array	73.75	328	P	P	22 22 50.7	-2.1
D62A	Allapoint, All	74.80	31	P	P	22 22 58.8	+0.1
D62A				IAmb	IAmb	22 23 04.9	
	comp=Z,6.5nm,1.2s						
MLR	Muntele Rosu	75.34	327	P	P	22 23 00.7	-1.4
MLR				pmax	pmax		
	comp=Z,3.0nm,1.0s						
MLR	Muntele Rosu	75.34	327	P	P	22 23 00.7	-1.4
BATG	Bathurst New B	75.58	29	P	P	22 23 02.9	-0.3
BATG				IAmb	IAmb	22 23 35.1	
	comp=Z,5.4nm,1.0s						
ASAR	Alice Springs	76.81	202	P	P	22 23 11.7	+1.4
	comp=Z,0.6nm,0.5s,baz=13,slow=5.4,SNR=6.7						
	comp=Z,0.6nm,0.5s						
RAYN	Ar Rayn	84.83	301	P	P	22 23 52.3	-1.1
RAYN				pmax	pmax		

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
	comp=Z,3.0nm,0.7s						
RAYN	Ar Rayn	84.83	301		P	22 23 52.2	-1.1
RAYN				IAmb	IAmb	22 23 53.3	
	comp=Z,3.1nm,0.7s						
ESDC	Sonseca Array	88.54	346	P	P	22 24 09.9	-1.3
	comp=Z,0.4nm,0.7s,baz=13,slow=5.4,SNR=4.2						
	comp=Z,0.4nm,0.7s						
NVL	N'lazarevskaya	154.32	206	*e*PKIKP	PKPdf	22 31 05.3	-3.3
NVL				pmax	pmax		
	comp=Z,8.0nm,0.9s						

IDC 09 22:18:01.1±4.3, 5°.19S×129°.95E, h221^{km}±40^{km}, mb3.2/2, mbtmp3.8/5, Error ellipse: s-maj=88.0km s-min=13.9km az=73.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	13.50	198	P	Pn	22 21 02.3	-1.9
	2.9nm,0.6s,baz=17,slow=13,SNR=6.7						
FITZ				S	S	22 23 24.1	-9.5
	1.6nm,0.5s,baz=40,slow=6.7,SNR=2.3						
WRA	Warramunga Arr	15.27	164	P	P	22 21 23.8	-2.0
	0.2nm,0.4s,baz=347,slow=12,SNR=10						
WRA				S	S	22 24 08.6	-6.1
	0.5nm,0.3s,baz=343,slow=20,SNR=9.3						
ASAR	Alice Springs	18.76	169	P	P	22 22 05.2	+1.3
	2.6nm,0.6s,baz=349,slow=11,SNR=31						
ASAR				S	S	22 25 26.4	+0.7
	0.8nm,1.0s,baz=179,slow=22,SNR=4.1						
MKAR	Makanchi Array	66.70	326	P	P	22 28 28.4	0.0
	0.3nm,0.4s,baz=116,slow=7.1,SNR=4.9						
	0.3nm,0.4s						
KURBB	Kurchatov Arra	70.96	328	P	P	22 28 54.6	+0.1
	0.6nm,0.6s,baz=123,slow=4.9,SNR=8.0						
	0.6nm,0.6s						

IDC 09 22:48:03.1±1.8, 32°.14N×105°.53E, h0^{km}, mb3.6/2, mbtmp3.6/3, ML3.8/1, Error ellipse: s-maj=162.0km s-min=18.6km az=67.0, Sichuan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LZDM	Lanzhou Array	4.10	339	Pn	Pn	22 49 08.8	+1.5
	baz=184,slow=18						
LZDM				Sn	Sn	22 49 56.9	+0.8
	baz=228,slow=31						
LZDM				Lg	Lg	22 50 12.1	
	baz=161,slow=28						
	3.6nm,0.3s						
WRA	Warramunga Arr	58.68	148	P	P	22 58 02.1	-0.4
	0.6nm,0.8s,baz=341,slow=7.5,SNR=6.7						
	0.6nm,0.8s						
ASAR	Alice Springs	61.77	150	P	P	22 58 23.8	+0.2
	0.2nm,0.3s,baz=340,slow=8.6,SNR=1.9						
	0.2nm,0.3s						

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*BGR **09** 22:55:53.9, 15°.13S×175°.58W, h300^{km}*

*IDC **09** 22:55:55.0±1.2, 14°.71S×176°.09W, h308^{km}±10^{km}, mb4.4/30, mbtmp5.0/32, Error ellipse: s-maj=11.0km s-min=7.8km az=141.0*

*NOU **09** 22:55:55.4, 14°.88S×175°.87W, h317^{km}, mb4.9/94, Samoa Islands Region*

*NEIC **09** 22:55:55.2±1.5, 14°.78S±0°.09×175°.92W±0°.07, h311^{km}±5^{km}, mb5.1/113, Mww5.2/10, Error ellipse: s-maj=12.5km s-min=10.2km az=169.0*

*GFZ **09** 22:55:56.0, 14°.80S×176°.04W, h319^{km}, Mw5.2/21, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}1.14; $M_{\theta\theta}$-0.95; $M_{\phi\phi}$-0.19; $M_{r\theta}$-6.18; $M_{\theta\phi}$4.06; $M_{\phi r}$-0.43; Fault plane solution: $M_0$7.48782×10^{16} NP1: ϕ_s172.71860°, δ33.42043°, λ170.57707°. NP2: ϕ_s270.60496°, δ84.82639°, λ56.93643°. Principal axes: T 7.5791, Plg40.8401°, Azm149.9463°; N -0.1860, Plg32.9118°, Azm273.9645°; P -7.3931, Plg31.7642°, Azm27.5886°;*

*GFZ **09** 22:55:56.1±0.4, 15°S±4°×17°6W±°, h316^{km}±3^{km}, M5.1/25, mb5.1/25*

*BJI **09** 22:55:57.9, 14°.12S×176°.32W, h316^{km}, mB5.0/8, mb4.8/35*

*GCMT **09** 22:55:59.6±0.3, 14°.74S±0°.03×175°.93W±0°.03, h330^{km}±1^{km}, MW5.3/91, Moment Tensor Solution. s91,c127; Duration: 1^{s}1 Moment tensor: Scale 10^{17}Nm; M_{rr}0.20±.02; $M_{\theta\theta}$-0.26±.04; $M_{\phi\phi}$0.05±.04; $M_{r\theta}$-0.84±.03; $M_{\theta\phi}$0.53±.03; $M_{\phi r}$-0.25±.03; Best double couple: $M_0$1.04600×10^{17} NP1: ϕ_s163.00000°, δ33.00000°, λ168.00000°. NP2: ϕ_s263.00000°, δ84.00000°, λ58.00000°. Principal axes: T 1.1100, Plg42.0000°, Azm142.0000°; N -0.1280, Plg32.0000°, Azm267.0000°; P -0.9820, Plg31.0000°, Azm20.0000°; nsta1 refers to body waves, cutoff=40s. Triangular moment-rate function*

ISC 09 22:55:55.5±0.3, 14°.81S±0°.04×175°.92W±0°.04, h318^{km}±3^{km}, h318^{km}:pP-P, n515, σ1^{s}.14/532, mb5.0/123, 41C-27D, Samoa Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FUTU	Fugatoga	2.19	283	P	Pn	22 56 45.1	-0.2
FUTU	Fugatoga	2.19	283	S	S	22 57 25.5	+0.5
FUTU	Fugatoga	2.19	283		Pn	22 56 45.3	0.0
FUTU				Sn	S	22 57 24.4	-0.7
FUTU	Fugatoga	2.19	283	P	Pn	22 56 45.6	+0.3
AFI	Afiamalu	4.12	78	P	Pn	22 57 03.2	-0.8
AFI	Afiamalu	4.12	78	P	S	22 57 56.7	-2.3
AFI	Afiamalu	4.12	78		Pn	22 57 02.8	-1.2
AFI	Afiamalu	4.12	78	P	Pn	22 57 03.2	-0.8
AFI				S	S	22 58 05.7	+6.7
AFI				AML	AML		
AFI	Afiamalu	4.12	78	P	Pn	22 57 03.3	-0.6
TAVE	Taveuni	4.28	243	P	Pn	22 57 07.2	+1.6
LKBA	Tubou, Lakemba	4.39	219	P	Pn	22 57 07.6	+0.7
DGTI	Dogotuki	4.44	250	P	Pn	22 57 08.2	+0.8
MSVF	Nonsavu	6.48	242	P	Pn	22 57 32.5	+1.5
	1μm,0.8s,baz=78,slow=11,SNR=523						
MSVF	Nonsavu	6.48	242	P	Pn	22 57 33.0	+2.0
MSVF	Nonsavu	6.48	242		Pn	22 57 33.1	+2.1
MSVF	Nonsavu	6.48	242	P	Pn	22 57 33.5	+2.4
	comp=Z,2μm,1.1s						
NIUE	Niue	7.14	127	P	Pn	22 57 38.6	-0.2
NIUE	Niue	7.14	127	S	S	22 58 59.3	-3.3
NIUE	Niue	7.14	127	Pn	Pn	22 57 38.5	-0.4
NIUE	Niue	7.14	127	P	Pn	22 57 38.7	-0.2
NIUE				S	S	22 58 59.3	-3.3
FUNA	Funafuti	7.86	322	P	Pn	22 57 47.6	0.0
FUNA	Funafuti	7.86	322		Pn	22 57 46.6	-1.0
FUNA	Funafuti	7.86	322	P	Pn	22 57 47.3	-0.3
	comp=Z,2μm,1.3s						
GLKZ	Green Lake	14.51	187	P	P	22 59 03.1	-3.1
GLKZ				S	S	23 01 35.1	-9.4
RAR	Rarotonga	16.62	115	P	Pn	22 59 32.6	+0.3
	comp=Z,36nm,0.8s,baz=290,slow=10,SNR=4.8						
RAR	Rarotonga	16.62	115	P	P	22 59 30.2	+0.8
RAR	Rarotonga	16.62	115	P	P	22 59 29.4	0.0
MARNC	Mare, Loyalty	16.63	244	P	P	22 59 30.0	+0.6
MARNC	Mare, Loyalty	16.63	244	S	S	23 02 26.5	-0.5
MARNC	Mare, Loyalty	16.63	244	P	P	22 59 29.1	-0.4
OUENC	Ouen Island, N	18.00	243	P	P	22 59 43.0	-1.2
DZM	Mont Dzumac	18.21	244	P	P	22 59 46.6	0.0
	comp=Z,12nm,0.7s,baz=40,slow=22,SNR=7.7						
ONTNC	Ouen Toro	18.29	243	P	P	22 59 47.0	-0.3
NOUC	Port Laguerre	18.35	244	P	P	22 59 49.5	+1.6
TARA	Tarawa	19.48	325	P	P	22 59 59.6	-0.5
TARA	Tarawa	19.48	325	P	P	23 00 00.6	+0.5
	comp=Z,510nm,1.0s						
OUZ	Omahuta	22.41	203	P	P	23 00 28.1	+0.4
OUZ	Omahuta	22.41	203	S	S	23 04 10.1	+0.1
OUZ	Omahuta	22.41	203	P	P	23 00 28.7	+1.0
	comp=Z,44nm,0.9s						
GRZ	Great Barrier	22.71	198	P	P	23 00 31.1	+0.6
ABAZ	Army Bay	23.22	199	P	P	23 00 33.5	-1.6
MXZ	Matakaoa Point	23.24	192	P	P	23 00 34.9	-0.4
MXZ	Matakaoa Point	23.24	192	S	S	23 04 23.3	+0.1
MXZ	Matakaoa Point	23.24	192	P	P	23 00 34.3	-1.0
WIAZ	Waiheke Island	23.31	198	P	P	23 00 36.0	+0.1
WMGZ	Waiomatatini S	23.47	191	P	P	23 00 36.7	-0.7
HAZ	Te Kaha	23.53	193	P	P	23 00 37.1	-0.9
PKGZ	Pakihiroa	23.58	192	P	P	23 00 36.2	-2.2
MKAZ	Moumakai	23.59	198	P	P	23 00 38.7	+0.3
AWAZ	Awhitu Peninsu	23.71	199	P	P	23 00 39.9	+0.4
PUZ	Puketiti	23.74	191	P	P	23 00 37.5	-2.3
PUZ				S	S	23 04 31.8	+0.5
RUGZ	Raukumara Rang	23.76	193	P	P	23 00 38.8	-1.4
TWGZ	Tauwhareparae	23.90	192	P	P	23 00 40.3	-1.0
TOZ	Tahuroa Road	24.07	197		P	23 00 42.1	-0.7
TOZ				IAmb	IAmb	23 00 43.8	
	comp=Z,62nm,1.0s						
MWZ	Matawai	24.14	193	P	P	23 00 40.4	-3.1
CNGZ	Carnagh Statio	24.15	191	P	P	23 00 42.4	-1.1
URZ	Urewera	24.16	193	P	P	23 00 40.2	-3.4
URZ	Urewera	24.16	193	P	P	23 00 40.8	-2.9
	comp=Z,68nm,0.8s						
PRRZ	Plateau Road	24.56	195	P	P	23 00 43.9	-3.3
TATA	Tatamba Isabel	24.60	282	P	P	23 00 49.1	+1.2
PRGZ	Paritu Road	24.64	192	P	P	23 00 46.9	-1.0
MHGZ	Mahia Peninsul	24.86	191	P	P	23 00 49.0	-0.9
BKZ	Black Stump Fm	25.17	194	P	P	23 00 50.7	-2.0
PAE	Paea	25.44	100	*e*P	P	23 00 56.8	+1.4
	comp=Z,37nm,1.0s						
PPT2	Papeete2	25.44	100	*e*P	P	23 00 56.0	+0.5
	comp=Z,36nm,1.3s						
PPT2				*e*S	S	23 04 52.7	-6.0
	comp=Z,106nm,19.8s						
PPT2				*e*sS	sS	23 06 40.6	-4.2
	comp=Z,208nm,29.5s						
PPT2				*e*LR	LR	23 07 37.3	
	comp=Z,119nm,29.8s						
PPT2				*e*LR	LR	23 07 40.3	
	comp=Z,116nm,32.2s						
TVO	Taravao	25.76	100	*e*P	P	23 00 58.8	+0.5
	comp=Z,70nm,1.2s						
BFZ	Birch Farm	26.67	193	P	P	23 01 04.5	-1.5
BFZ	Birch Farm	26.67	193	S	S	23 05 15.8	-1.5
VAH	Vaihoa	27.32	95	*e*P	P	23 01 12.7	+0.6
	comp=Z,49nm,1.0s						
QRZ	Quartz Range	27.81	199	P	P	23 01 14.6	-1.5
QRZ	Quartz Range	27.81	199	S	S	23 05 35.2	0.0
TUWZ	Tuamarina	27.95	196	P	P	23 01 15.7	-1.6
RPZ	Rata Peaks	30.89	199	P	P	23 01 43.8	+0.6
RPZ	Rata Peaks	30.89	199	S	S	23 06 23.1	-0.2
JCZ	Jackson Bay	31.95	201	P	P	23 01 50.6	-1.9
JCZ	Jackson Bay	31.95	201	S	S	23 06 37.7	-2.2
ODZ	Otahua Downs	32.22	198	P	P	23 01 53.1	-1.6
ODZ	Otahua Downs	32.22	198	S	S	23 06 44.0	+0.2
TW1H	Toowoomba 1 Ha	32.41	242	P	P	23 01 57.7	+1.0
AUTOO	Toowoomba Stat	32.41	242	P	P	23 01 57.5	+0.8
EIDS	Eidsvold	32.64	246	P	P	23 01 57.4	-1.2
RK1H	Rockhampton Ha	32.80	250	P	P	23 02 00.8	+0.8
MLZ	Mavora Lakes	33.31	201		P	23 02 03.0	-1.1
MLZ				IAmb	IAmb	23 02 04.9	
	comp=Z,71nm,0.7s						
ARMA	Armidale	33.59	237	P	P	23 02 06.4	-0.5
ARMA				IAmb	IAmb	23 02 53.2	
	comp=Z,78nm,1.7s						
CTA	Charters Tower	36.41	256	PcP	PcP	23 04 48.0	+0.5
	comp=Z,8.0nm,0.9s,baz=83,slow=3.7,SNR=2.9						
CTA	Charters Tower	36.41	256	P	P	23 02 30.9	+0.1
CTAO	Charters Tower	36.41	256	P	P	23 02 30.8	0.0
CTAO	Charters Tower	36.41	256	P	P	23 02 30.2	-0.6
AUMHS	Melrose High S	37.44	230	P	P	23 02 39.2	-0.1
WAKE	Wake Island	37.97	333	P	P	23 02 43.5	-0.2
WAKE	Wake Island	37.97	333		P	23 02 43.0	-0.7
WAKE	Wake Island	37.97	333	P	P	23 02 43.6	-0.2
	comp=Z,508nm,1.0s						
WAKE	Wake Island	37.97	333	P	P	23 02 43.3	-0.4
WAKE				pP	pP	23 03 44.5	-0.9
MTSU	Mount Surprise	38.22	259	P	P	23 02 46.5	+0.5
MTSU	Mount Surprise	38.22	259	P	P	23 02 46.7	+0.8
	comp=Z,25nm,0.8s						
CMSA	Cobar Meteorol	38.78	238	P	P	23 02 49.9	-0.5
CMSA	Cobar Meteorol	38.78	238	P	P	23 02 50.0	-0.4
	comp=Z,36nm,0.8s						
QLP	Quilpie	38.92	246	P	P	23 02 51.2	-0.4
QLP	Quilpie	38.92	246	P	P	23 02 51.4	-0.2
	comp=Z,70nm,0.8s						
KHLU	Kahalu`u	39.46	31	P	P	23 02 57.4	+1.2
	comp=Z,198nm,1.0s						
HUH	Hualalai	39.56	31	P	P	23 02 56.8	-0.4
HUH				IAmb	IAmb	23 02 59.2	
	comp=Z,120nm,0.9s						
KNHH	Kane Nui o Ham	39.64	32	P	P	23 02 57.2	-0.4
POHA	Pohakuloa	39.77	31	P	P	23 02 59.9	+1.0
POHA	Pohakuloa	39.77	31	P	P	23 03 00.4	+1.5
	comp=Z,141nm,0.9s						
POHA	Pohakuloa	39.77	31	P	P	23 02 59.9	+1.0
POHA				PcP	PcP	23 04 58.1	-0.1
MHA	Mahukona	39.96	30	P	P	23 03 00.8	+0.8
KIP	Kipapa	40.06	26	P	P	23 03 02.2	+1.3
KIP	Kipapa	40.06	26	P	P	23 03 02.2	+1.3
	comp=Z,150nm,2.3s						
HLK	Haleakala	40.28	29	P	P	23 03 03.1	+0.1
KHLH	Kahului Airpor	40.32	29	P	P	23 03 05.0	+2.0
	comp=Z,251nm,1.2s						
GLAD	Gladstone	40.73	223	P	P	23 03 06.1	-0.1
TOO	Toolangi	40.98	229		P	23 03 07.8	-0.6
BRAT	Ballarat	42.12	230	P	P	23 03 17.8	+0.4
TAU	Tasmania Unive	42.13	221	P	P	23 03 15.7	-1.7
INKA	Innaminka	42.17	245	P	P	23 03 17.8	-0.2
STKA	Stephens Creek	42.24	239	P	P	23 03 18.2	-0.3
	comp=Z,53nm,0.8s,baz=88,slow=8.9,SNR=73						
STKA				PcP	PcP	23 05 06.9	+0.9
	comp=Z,6.8nm,0.7s,baz=75,slow=3.4,SNR=3.0						
	comp=Z,53nm,0.8s						
STKA	Stephens Creek	42.24	239	P	P	23 03 18.9	+0.4
	comp=Z,375nm,0.9s						
QIS	Mount Isa	42.66	256	P	P	23 03 22.0	0.0
QIS	Mount Isa	42.66	256	P	P	23 03 21.7	-0.4
	comp=Z,9.1nm,0.7s						
HTT	Hallett	44.80	237	P	P	23 03 38.6	-0.2
AUMBR	Murray Bridge	44.92	235	P	P	23 03 40.0	+0.4
BBOO	Buckleboo	47.02	239	P	P	23 03 55.4	-0.6
BBOO	Buckleboo	47.02	239		P	23 03 55.6	-0.3
BBOO				IAmb	IAmb	23 03 56.8	
	comp=Z,76nm,0.8s						
BBOO	Buckleboo	47.02	239	P	P	23 03 55.9	0.0
	comp=Z,108nm,1.1s						
WB0	Warramunga Arr	47.57	257	P	P	23 03 59.4	-1.0
WRAB	Tennant Creek	47.60	256	P	P	23 03 59.6	-1.0
WRAB	Tennant Creek	47.60	256	P	P	23 04 00.2	-0.4
	comp=Z,20nm,0.9s						
WRAB	Tennant Creek	47.60	256	P	P	23 03 59.9	-0.7
WRAB				x	pwP	23 05 07.8	-0.3
WRAB				PcP	PcP	23 05 25.3	+0.4
WB1	Warramunga Ar.	47.60	256	P	P	23 04 00.1	-0.5
WRA	Warramunga Arr	47.61	256	P	P	23 03 59.3	-1.4
	comp=Z,12nm,0.6s,baz=90,slow=7.3,SNR=45						
WRA				PcP	PcP	23 05 25.4	+0.5
	comp=Z,4.2nm,0.7s,baz=88,slow=3.9,SNR=5.9						
WRA				ScP	ScP	23 08 49.7	+1.4
	comp=Z,1.0nm,0.8s,baz=90,slow=4.3,SNR=4.2						
WRA				S	S	23 10 30.4	-1.4
	comp=Z,1.1nm,0.7s,baz=93,slow=14,SNR=5.5						
	comp=Z,12nm,0.6s						
WRA	Warramunga Arr	47.61	256	P	P	23 03 59.2	-1.5
WRA					PcP	23 05 24.6	-0.4
AS01	Alice Springs	47.94	251	P	P	23 04 02.6	-0.6
GUMO	Guam	47.98	304	P	P	23 04 03.6	+0.2
AS31	Alice Springs	47.98	251		P	23 04 03.0	-0.5
ASAR	Alice Springs	47.98	251	P	P	23 04 02.8	-0.7
	comp=Z,93nm,0.8s,baz=86,slow=7.7,SNR=489						
ASAR				PcP	PcP	23 05 26.4	+0.2
	comp=Z,6.7nm,0.8s,baz=99,slow=3.4,SNR=2.2						
ASAR				ScP	ScP	23 08 52.2	+2.3
	comp=Z,1.5nm,0.7s,baz=89,slow=3.7,SNR=4.4						
ASAR				S	S	23 10 35.4	-1.6
	comp=Z,6.8nm,0.8s,baz=82,slow=16,SNR=24						
	comp=Z,93nm,0.8s						
ASAR	Alice Springs	47.98	251	P	P	23 04 03.1	-0.4
ASAR					PcP	23 05 26.1	-0.2
MTN	Manton Dam	51.35	265		P	23 04 28.5	-0.3
KNRA	Kununurra	53.25	261		P	23 04 42.0	-0.5
FORT	Forrest	53.52	243		P	23 04 43.3	-1.1
FITZ	Fitzroy Crossi	55.95	258	P	P	23 05 01.9	+0.1
FITZ	Fitzroy Crossi	55.95	258	P	P	23 05 01.6	-0.2
FITZ	Fitzroy Crossi	55.95	258	P	P	23 05 02.6	+0.7
	comp=Z,3.1nm,0.9s						
SOEI	Soe	58.52	268	P	P	23 05 21.8	+1.9
SOEI	Soe	58.52	268	P	P	23 05 20.0	+0.1
SOEI				IAmb	IAmb	23 05 27.4	
	comp=Z,60nm,0.8s						
SOEI	Soe	58.52	268	P	P	23 05 20.4	+0.5
	comp=Z,81nm,0.9s						
SOEI	Soe	58.52	268	P	P	23 05 22.0	+2.1
	comp=Z,81nm,0.9s						
DRV	Dumont d'Urvil	59.35	199	P	P	23 05 24.8	+0.3
DRV				ScP	ScP	23 09 37.7	-0.8
MBWA	Marble Bar	61.19	254	P	P	23 05 37.2	-0.5
MBWA	Marble Bar	61.19	254	P	P	23 05 37.1	-0.5
MBWA				IAmb	IAmb	23 05 38.4	
	comp=Z,36nm,0.9s						
MBWA	Marble Bar	61.19	254	P	P	23 05 36.4	-1.3
	comp=Z,50nm,1.0s						
MBWA	Marble Bar	61.19	254	P	P	23 05 37.4	-0.3
MBWA				x	x	23 06 47.5	
EDFI	Ende, Flores	61.22	268	P	P	23 05 37.9	-0.2
	comp=Z,73nm,0.8s						
MEEK	Meekatharra	61.79	248	P	P	23 05 41.1	-0.6
GTOI	Gorontalo	62.28	279	P	P	23 05 46.9	+1.8
	comp=Z,18nm,1.0s						
KLBR	Kellerberrin	62.37	242	P	P	23 05 44.3	-1.1
KLBR	Kellerberrin	62.37	242	P	P	23 05 45.0	-0.4
	comp=Z,125nm,0.8s						
NWAO	Narrogin (SRO)	62.79	240	P	P	23 05 47.6	-0.5
NWAO	Narrogin (SRO)	62.79	240	P	P	23 05 47.4	-0.7
LBFI	Labuhan Bajo,	63.01	268	P	P	23 05 49.6	-0.3
BLDU	Ballidu	63.29	243	P	P	23 05 50.4	-1.0
SBA	Scott Base	63.66	184	P	P	23 05 55.1	+2.1
SBA				IAmb	IAmb	23 05 56.3	
	comp=Z,47nm,0.8s						
SBA				PcP	PcP	23 06 28.1	+2.0
SBA	Scott Base	63.66	184	P	P	23 05 55.7	+2.8
	comp=Z,91nm,1.2s						
SBA	Scott Base	63.66	184	P	P	23 05 55.5	+2.6
SBA				PcP	PcP	23 06 28.3	+2.2
JHJ2	Mitsune	63.69	319	P	P	23 05 52.5	-1.3
VNDA	Vanda	63.73	185	P	P	23 05 54.6	+1.1
	comp=Z,26nm,1.0s,baz=16,slow=5.1,SNR=73						
	comp=Z,26nm,1.0s						
VNDA	Vanda	63.73	185	P	P	23 05 54.5	+1.0
VNDA				IAmb	IAmb	23 05 56.4	
	comp=Z,35nm,1.0s						
VNDA	Vanda	63.73	185	P	P	23 05 55.4	+1.9
	comp=Z,38nm,1.2s						
VNDA	Vanda	63.73	185	P	P	23 05 55.3	+1.9
VNDA				PcP	PcP	23 06 28.0	+1.5
MORW	Morawa	63.93	245	P	P	23 05 54.4	-1.3
MORW				IAmb	IAmb	23 05 56.1	
	comp=Z,54nm,1.2s						
PCI	Palu	64.89	276	P	P	23 06 02.7	+0.6
	comp=Z,38nm,1.0s						
TWSI	Taliwang, Sumb	65.86	267	P	P	23 06 08.3	+0.1
	comp=Z,99nm,0.9s						
KIWB	Kanaga Island	66.38	359	P	P	23 06 10.3	-0.4
ADK	Adak	66.41	359	P	P	23 06 10.1	-0.6
ADK				IAmb	IAmb	23 06 10.9	
	comp=Z,35nm,0.8s						
ATKA	Atka Island	66.74	1	P	P	23 06 12.3	-0.6
ATKA	Atka Island	66.74	1	P	P	23 06 12.2	-0.6
JGF	Kuroka	66.84	320	P	P	23 06 13.5	-0.5
JGF	Kuroka	66.84	320	P	P	23 06 13.1	-0.9
MJAR	Matsushiro Arr	66.93	321	P	P	23 06 13.8	-0.7
	comp=Z,7.2nm,0.5s,baz=136,slow=6.6,SNR=24						
	comp=Z,7.2nm,0.5s						
MJAR	Matsushiro Arr	66.93	321	P	P	23 06 13.3	-1.2
MAJO	Matsushiro	66.93	321	P	P	23 06 13.8	-0.7
MAJO	Matsushiro	66.93	321	P	P	23 06 13.9	-0.6
MAJO	Matsushiro	66.93	321	P	P	23 06 13.9	-0.6
	comp=Z,18nm,0.6s						
MAJO	Matsushiro	66.93	321	P	P	23 06 14.0	-0.6
MAJO				pP	pP	23 07 23.3	-1.5
SHEM	Shemya Is, Ala	67.81	353	P	P	23 06 19.1	-0.4
JMN	Monobe	67.94	316	P	P	23 06 21.6	+0.8
JMN	Monobe	67.94	316	P	P	23 06 20.6	-0.2
JMN				IAmb	IAmb	23 06 22.5	
	comp=Z,38nm,1.1s						
JMN	Monobe	67.94	316	P	P	23 06 21.6	+0.8
	comp=Z,34nm,1.0s						
JOW	Kunigami	68.18	307	P	P	23 06 22.4	0.0
JOW				IAmb	IAmb	23 06 24.3	
	comp=Z,41nm,1.1s						
CCD	Concordia, Ant	68.44	194	P	P	23 06 24.4	+0.7
JAGI	Jajag, Banyuwa	68.56	267	P	P	23 06 23.6	-1.4
UNV	Unalaska Valle	68.85	6	P	P	23 06 24.7	-1.2
JSU	Suzuyama	69.03	313	P	P	23 06 27.8	+0.2
JSU	Suzuyama	69.03	313	P	P	23 06 27.0	-0.6
JSU				IAmb	IAmb	23 06 28.7	
	comp=Z,27nm,0.9s						
AKUT	Akutan	69.21	6	P	P	23 06 26.9	-1.1
AKUT				IAmb	IAmb	23 06 28.8	
	comp=Z,37nm,0.8s						
JNU	Nakatsue	69.63	314	P	P	23 06 30.6	-0.6
	comp=Z,16nm,0.7s,baz=120,slow=6.4,SNR=12						
	comp=Z,16nm,0.7s						
JKA	Kamikawa-asahi	69.77	329	P	P	23 06 31.7	0.0
JKA				IAmb	IAmb	23 06 33.4	
	comp=Z,18nm,0.8s						
CASY	Casey	69.94	204	P	P	23 06 32.0	-0.4
CASY				IAmb	IAmb	23 06 33.3	
	comp=Z,35nm,0.8s						
CASY	Casey	69.94	204	P	P	23 06 32.5	+0.1
CHNA	Chernabura Isl	70.74	10	P	P	23 06 36.2	-1.1
PET	Petropavlovsk	71.02	344	P	P	23 06 38.1	-0.9
PET				IAmb	IAmb	23 06 39.7	
	comp=Z,37nm,1.2s						
PET	Petropavlovsk	71.02	344	P	P	23 06 38.5	-0.5
	comp=Z,26nm,1.6s						
SDPT	Sand Point	71.09	9	P	P	23 06 38.4	-1.0
YOJ	Yonaguni jima	71.22	303	P	P	23 06 40.1	-0.8
YOJ				IAmb	IAmb	23 09 04.8	
	comp=Z,69nm,1.5s						
PEA0B	Petropavlovsk-	71.35	344	P	P	23 06 40.9	-0.1
PETK	Petropavlovsk-	71.35	344	P	P	23 06 40.7	-0.3
	comp=Z,53nm,0.8s,baz=123,slow=7.2,SNR=40						
	comp=Z,53nm,0.8s						
VNFG	Fog Glacier, M	72.14	10	P	P	23 06 45.2	-0.6
NACB	Ninganchiao	72.26	302	P	P	23 06 47.0	-0.1
NACB	Ninganchiao	72.26	302	P	P	23 06 46.0	-1.1
NACB				IAmb	IAmb	23 06 47.7	
	comp=Z,36nm,1.4s						
NACB	Ninganchiao	72.26	302	P	P	23 06 46.9	-0.1
	comp=Z,21nm,1.1s						
HULI	Fort Hunter Li	72.27	44	P	P	23 06 47.0	+0.2
HULI				IAmb	IAmb	23 06 49.5	
	comp=Z,32nm,0.9s						
CHGN	Chignik	72.34	10	P	P	23 06 45.9	-0.8
CHGN				IAmb	IAmb	23 06 47.0	
	comp=Z,39nm,0.7s						
SSLB	Suanglung	72.62	301	P	P	23 06 48.9	-0.3
SSLB	Suanglung	72.62	301	P	P	23 06 48.2	-1.0
SSLB	Suanglung	72.62	301	P	P	23 06 49.1	-0.2
	comp=Z,18nm,0.9s						
YHNB	Yeheng	72.65	302	P	P	23 06 50.7	+1.3
TPUB	Ta-pu	72.68	301	P	P	23 06 48.8	-0.8
TPUB	Ta-pu	72.68	301	P	P	23 06 48.4	-1.2
TPUB				IAmb	IAmb	23 06 49.5	
	comp=Z,19nm,0.9s						
TPUB	Ta-pu	72.68	301	P	P	23 06 49.1	-0.5
	comp=Z,28nm,1.1s						
CVS	Carmenet Viney	72.79	41	P	P	23 06 50.2	+0.3
CVS				IAmb	IAmb	23 06 51.8	
	comp=Z,25nm,1.1s						
KMRM	Mail Ridge	73.12	39	P	P	23 06 52.6	+0.8
KMRM				IAmb	IAmb	23 06 54.5	
	comp=Z,55nm,1.0s						
KSRS	Korea Array	74.04	317	P	P	23 06 57.7	+0.6
	comp=Z,7.1nm,0.9s,baz=126,slow=6.5,SNR=27						
	comp=Z,7.1nm,0.9s						
PFO	Pinyon Flats O	74.32	48	P	P	23 06 59.8	+0.8
	comp=Z,4.5nm,0.9s,baz=239,slow=7.8,SNR=5.4						
	comp=Z,4.5nm,0.9s						
YBH	Yreka Blue Hor	74.62	38	P	P	23 07 01.3	+0.8
	comp=Z,28nm,0.8s,baz=191,slow=0.8,SNR=86						
	comp=Z,28nm,0.8s						
KDAK	Kodiak Island	74.85	13	P	P	23 07 01.6	+0.3
KDAK				IAmb	IAmb	23 07 02.6	
	comp=Z,46nm,0.8s						
KDAK	Kodiak Island	74.85	13	P	P	23 07 01.8	+0.6
	comp=Z,74nm,1.0s						
KDAK	Kodiak Island	74.85	13	P	P	23 07 01.6	+0.3
KDAK				pP	pP	23 08 12.9	+0.5
O15K	Ungalikthiuk R	74.88	9	P	P	23 07 00.6	-0.8
O15K				IAmb	IAmb	23 07 02.0	
	comp=Z,81nm,1.7s						
P16K	Nushagak River	75.02	9	P	P	23 07 01.7	-0.5
QSPA	South Pole Qui	75.23	180	P	P	23 07 05.0	+1.4
	comp=Z,73nm,1.0s,baz=24,slow=1.1,SNR=160						
QSPA				PP	PP	23 09 57.7	+1.1
	comp=Z,4.9nm,0.9s,baz=324,slow=9.1,SNR=4.0						
	comp=Z,73nm,1.0s						

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QSPA  South Pole Qui    75.23 180   P        P        23 07 04.7 +1.1
QSPA  South Pole Qui    75.23 180   P        P        23 07 05.2 +1.5
QSPA                                x        pwP      23 08 18.2 -0.4
BBOR  Butler Butte      75.33  37   P        P        23 07 05.0 +0.4
USRK  Ussuriysk Ar.     75.46 324   P        P        23 07 04.8 -0.3
      comp=Z,3.5nm,0.7s,baz=127,slow=6.1,SNR=5.3
      comp=Z,3.5nm,0.7s
USRK  Ussuriysk Ar.     75.46 324   P        P        23 07 04.9 -0.1
NVAR  Mina Array Bea    75.54  43   P        P        23 07 07.0 +1.1
      comp=Z,19nm,0.8s,baz=228,slow=9.6,SNR=89
      comp=Z,19nm,0.8s
NVAR  Mina Array Bea    75.54  43   P        P        23 07 06.7 +0.7
NV11  Mina Array Sit    75.64  43   P        P        23 07 06.5 +0.1
NV11                                IAmb     IAmb     23 07 08.6
      comp=Z,35nm,1.1s
113A  Mohawk Valley,    75.89  50   P        P        23 07 08.5 +0.7
TPNV  Topopah Spring    76.16  45   P        P        23 07 09.2 -0.2
K05A  Summer Lake       76.30  38   P        P        23 07 10.7 +0.6
K05A                                IAmb     IAmb     23 07 12.5
      comp=Z,31nm,1.0s
CNPM  China Poot        76.73  13   P        P        23 07 12.1 +0.2
CNPM                                IAmb     IAmb     23 07 13.2
      comp=Z,54nm,0.9s
W13A  Hualapai Mount    76.91  48   P        P        23 07 13.9 +0.2
BRLK  Bradley Lake      77.03  13   P        P        23 07 13.5  0.0
BMN   Battle Mountai    77.32  42   P        P        23 07 16.2 +0.4
BMN                                 IAmb     IAmb     23 07 17.8
      comp=Z,24nm,0.9s
HOLB  Holberg           77.41  29   P        P        23 07 16.4 +0.5
WVOR  Wild Horse Val    77.51  40   P        P        23 07 17.2 +0.5
WVOR  Wild Horse Val    77.51  40   P        P        23 07 17.8 +1.1
      comp=Z,22nm,1.2s
SEW   Seward            77.64  13   P        P        23 07 16.8 -0.1
SEW                                 IAmb     IAmb     23 07 17.8
      comp=Z,48nm,0.8s
SLKM  Skilak Lake       77.84  13   P        P        23 07 17.9 -0.1
NJ2   Nanjing           77.87 308  eP        P        23 07 19.0 +0.3
NJ2                                 pmax     pmax
      comp=Z,3.0nm,0.5s
TUC   Tucson            77.92  52   P        P        23 07 20.1 +0.9
TUC                                 IAmb     IAmb     23 09 40.6
      comp=Z,27nm,0.6s
TUC   Tucson            77.92  52   P        P        23 07 21.1 +2.0
      comp=Z,18nm,1.3s
TUC   Tucson            77.92  52   P        P        23 07 20.9 +1.7
J08A  Circle Bar Ran    78.12  39   P        P        23 07 20.1 +0.1
J08A                                IAmb     IAmb     23 07 22.1
      comp=Z,21nm,1.1s
M19K  Big River Lodg    78.33  10   P        P        23 07 20.3 -0.3
M19K                                IAmb     IAmb     23 07 21.4
      comp=Z,22nm,0.7s
PGC   Sidney            78.42  32   P        P        23 07 21.6 +0.2
PGC                                 IAmb     IAmb     23 07 23.2
      comp=Z,25nm,0.8s
KAIM  Kayak Island      78.70  16   P        P        23 07 22.9 +0.3
KLR   Kul'dur           78.71 328   P        P        23 07 22.8 -0.1
      comp=Z,3.5nm,0.8s,baz=133,slow=5.4,SNR=6.7
      comp=Z,3.5nm,0.8s
ELK   Elko              78.77  42   P        P        23 07 24.0 +0.2
      comp=Z,9.9nm,0.9s,baz=247,slow=5.1,SNR=34
      comp=Z,9.9nm,0.9s
ELK   Elko              78.77  42   P        P        23 07 24.0 +0.2
MA2   Magadan           78.88 343   P        P        23 07 23.1 -0.6
      comp=Z,17nm,0.7s,baz=148,slow=4.9,SNR=7.7
      comp=Z,17nm,0.7s
EYAK  Cordova Ski Ar    78.90  15   P        P        23 07 23.9 +0.2
BNX   BinXian           78.99 323  ⇑P        P        23 07 24.8 +0.3
BNX                                 pmax     pmax
      comp=Z,15nm,0.7s
KNK   Knik Glacier      79.04  13   P        P        23 07 24.2 -0.3
KNK                                 IAmb     IAmb     23 07 25.4
      comp=Z,27nm,0.7s
PMR   Palmer            79.05  13   P        P        23 07 24.3 -0.2
CN2   Changchun         79.08 321   P        P        23 07 25.8 +0.8
CN2                                 S        S        23 16 57.6 +0.3
CN2                                 pmax     pmax
      comp=Z,10.0nm,0.7s
HAWA  Hanford           79.20  36   P        P        23 07 26.2 +0.6
HAWA                                IAmb     IAmb     23 07 27.7
      comp=Z,28nm,1.0s
GHO   Glory Hole Cre    79.26  13   P        P        23 07 25.1 -0.6
YPT   Yellepit          79.33  36   P        P        23 07 26.1 -0.3
YPT                                 IAmb     IAmb     23 07 28.1
      comp=Z,38nm,1.7s
BMRM  Bremner River     79.55  15   P        P        23 07 27.3  0.0
SCM   Sheep Creek Mo    79.66  13   P        P        23 07 27.9  0.0
MFID  Camas Ranch       79.78  40   P        P        23 07 29.0  0.0
PNL   Peninsula         79.88  18   P        P        23 07 29.5 +0.5
GRNC  Granite Creek     80.09  16   P        P        23 07 30.2 -0.2
GRNC                                IAmb     IAmb     23 07 31.6
      comp=Z,46nm,0.9s
TNA   Tin City          80.35   3   P        P        23 07 31.8 +0.5
LOGN  Logan Glacier     80.37  17   P        P        23 07 31.7 -0.1
LOGN                                IAmb     IAmb     23 07 33.1
      comp=Z,39nm,0.8s
HLID  Hailey            80.73  40   P        P        23 07 34.7 +0.6
HLID                                IAmb     IAmb     23 07 36.4
      comp=Z,18nm,0.8s
TIA   Tai'an            80.97 311   P        P        23 07 36.1 +0.8
TIA                                 pmax     pmax
      comp=Z,16nm,1.0s
SKAG  Skagway           80.98  20   P        P        23 07 36.2 +1.4
MENT  Mentasta          81.46  14   P        P        23 07 38.0 +0.7
NEW   Newport           81.61  35   P        P        23 07 38.3 -0.1
      comp=Z,5.9nm,0.8s,baz=225,slow=5.6,SNR=7.4
      comp=Z,5.9nm,0.8s
BCAR  Beaver Creek A    82.04  15   P        P        23 07 40.2 -0.1
IMAR  Indian Mountai    82.25   9   P        P        23 07 41.5 +0.3
COLA  College           82.25  12   P        P        23 07 40.9 -0.3
COLA  College           82.25  12   P        P        23 07 40.7 -0.5
COLA                                PcP      PcP      23 07 45.4 -0.2
ANMO  Albuquerque       82.30  51   P        P        23 07 43.1 +0.6
      comp=Z,8.3nm,1.1s,baz=236,slow=5.1,SNR=16
      comp=Z,8.3nm,1.1s
ANMO  Albuquerque       82.30  51   P        P        23 07 42.6 +0.1
ANMO  Albuquerque       82.30  51   P        P        23 07 43.6 +1.1
ANMO                                pP       pP       23 08 54.9 -0.1
TXAR  Lajitas Array     82.32  57   P        P        23 07 44.0 +1.4
      comp=Z,3.3nm,1.0s,baz=224,slow=5.2,SNR=16
      comp=Z,3.3nm,1.0s
TXAR  Lajitas Array     82.32  57   P        P        23 07 43.4 +0.8
ILAR  Eielson Array     82.36  12   P        P        23 07 41.5 -0.4
      comp=Z,18nm,0.6s,baz=222,slow=5.6,SNR=228
      comp=Z,18nm,0.6s
ILAR  Eielson Array     82.36  12   P        P        23 07 41.0 -0.8
SMAI  San Martin Ant    83.19 159   P        P        23 07 47.4 +1.3
HNS   HongShan          83.23 311  ⇓P        P        23 07 48.1 +1.2
HNS                                 pmax     pmax
      comp=Z,22nm,0.8s
BJI2  Beijing           83.30 314   P        P        23 07 47.7 +0.5
BJI2                                pP       pP       23 09 01.8 +1.2
BJI2                                SKS      SKSac    23 17 34.8 -3.7
BJI2                                pmax     pmax
      comp=Z,15nm,1.0s
BJI2                                L        L
      comp=Z,49nm,14.3s
BJI2                                L        L
      comp=Z,55nm,15.9s
BJI2                                L        L
      comp=Z,61nm,18.3s
BJT   Baijiatuau        83.30 314   P        P        23 07 47.5 +0.3
BJT                                 IAmb     IAmb     23 07 49.1
      comp=Z,25nm,1.0s
BJT   Baijiatuau        83.30 314   P        P        23 07 48.9 +1.7
BJT                                 pP       pP       23 09 01.8 +1.2
PDAR  Pinedale Array    83.47  43   P        P        23 07 48.6 +0.3
      comp=Z,9.9nm,0.9s,baz=225,slow=3.8,SNR=10
PDAR                                PP       PP       23 11 05.3 -0.4
      comp=Z,0.6nm,0.3s,baz=241,slow=4.9,SNR=6.0
      comp=Z,9.9nm,0.9s
PDAR  Pinedale Array    83.47  43   P        P        23 07 48.0 -0.3
LYN   LuoYang           83.77 308   P        P        23 07 51.0 +1.3
LYN                                 pmax     pmax
      comp=Z,22nm,0.7s
COLD  Coldfoot          83.95  10   P        P        23 07 50.3 +0.4
COLD                                IAmb     IAmb     23 07 51.9
      comp=Z,47nm,1.0s
ENH   Enshi             84.55 303   P        P        23 07 53.0 -0.7
ENH                                 IAmb     IAmb     23 07 56.3
      comp=Z,25nm,1.4s
BELA  Belgrano 2        84.92 172   P        P        23 07 54.9 +0.2
XLT   XiLinHaoTe        85.04 318  eP        P        23 07 57.0 +1.1
XLT                                 S        S        23 17 59.0 +1.1
XLT                                 pmax     pmax
      comp=Z,12nm,1.3s
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BMAR  Burnt Mountain    85.14  12   P        P        23 07 56.4 +0.5
HIA   Hailar            85.27 324   P        P        23 07 56.6 -0.2
HIA                                 IAmb     IAmb     23 07 58.1
      comp=Z,20nm,1.2s
HILR  Hailar Array B    85.40 324   P        P        23 07 57.4 -0.1
      comp=Z,1.7nm,0.3s,baz=115,slow=7.0,SNR=4.7
      comp=Z,1.7nm,0.3s
PMSA  Palmer Station    85.70 156   P        P        23 07 59.7 +1.0
PMSA                                IAmb     IAmb     23 08 01.6
      comp=Z,44nm,1.0s
PMSA  Palmer Station    85.70 156   P        P        23 08 01.4 +2.7
XAN   Xi'an             86.31 306   P        P        23 08 03.2 +0.8
XAN                                 pmax     pmax
      comp=Z,24nm,0.8s
XAN   Xi'an             86.31 306   P        P        23 08 01.9 -0.4
HHC   Hu-ho-hao-te      86.84 314  eP        P        23 08 06.4 +1.6
HHC                                 pmax     pmax
      comp=Z,24nm,0.8s
HHC                                 pmax     pmax
      comp=Z,87nm,4.2s
MAW   Mawson            87.56 199   P        P        23 08 08.2 +0.6
      comp=Z,47nm,0.9s,baz=128,slow=5.8,SNR=95
      comp=Z,47nm,0.9s
MAW   Mawson            87.56 199   P        P        23 08 08.3 +0.6
YAK   Yakutsk           87.62 337   P        P        23 08 06.0 -1.8
      comp=Z,15nm,0.4s,baz=265,slow=1.5,SNR=7.5
      comp=Z,15nm,0.4s
YAK   Yakutsk           87.62 337   P        P        23 08 05.9 -1.9
YAK                                 IAmb     IAmb     23 08 07.2
      comp=Z,27nm,0.8s
GO08  Villa O'Higgin    87.67 140   P        P        23 08 09.1 +0.6
BTO2  Baotou            87.99 313  eP        P        23 08 12.0 +1.7
BTO2                                pP       pwP      23 09 27.4 +0.1
BTO2                                sP       sP       23 10 00.1 +2.6
BTO2                                S        S        23 18 27.7 +1.3
BTO2                                pmax     pmax
      comp=Z,39nm,1.5s
BTO2                                pmax     pmax
      comp=Z,150nm,7.3s
COYC  Coyhaique         88.96 137   P        P        23 08 15.2 +0.6
COYC  Coyhaique         88.96 137   P        P        23 08 17.6 +3.0
ESPZ  Base Esperanza    89.08 157   P        P        23 08 15.3 +0.5
CD2   Chengdu           89.43 302   P        P        23 08 17.0 -0.1
PZH   PanZhiHua         89.83 297   P        P        23 08 20.1 +0.9
LL02  Futaleuf          89.93 135   P        P        23 08 20.9 +1.7
CMAR  Chiang Mai Arr    90.12 289   P        P        23 08 21.3 +0.8
      comp=Z,0.8nm,0.6s,baz=88,slow=2.6,SNR=7.7
      comp=Z,0.8nm,0.6s
YKA   Yellowknife Ar    90.54  24   P        P        23 08 22.0 +0.6
      comp=Z,4.3nm,0.7s,baz=241,slow=4.6,SNR=8.3
      comp=Z,4.3nm,0.7s
YKA   Yellowknife Ar    90.54  24   P        P        23 08 21.5 +0.1
LZH   Lanzhou           90.92 307  eP        P        23 08 25.3 +1.2
LZH                                 pmax     pmax
      comp=Z,26nm,1.0s
LZDM  Lanzhou Array     90.99 307   P        P        23 08 25.6 +1.0
      comp=Z,2.0nm,0.4s,baz=93,slow=3.3,SNR=3.9
      comp=Z,2.0nm,0.4s
GO06  Curarrehue        91.45 132   P        P        23 08 27.4 +0.9
GO06                                IAmb     IAmb     23 08 29.9
      comp=Z,15nm,0.9s
PLCA  Paso Flores       91.71 133   P        P        23 08 29.1 +1.4
      comp=Z,9.4nm,1.1s,baz=242,slow=3.8,SNR=10.0
      comp=Z,9.4nm,1.1s
PLCA  Paso Flores       91.71 133   P        P        23 08 28.2 +0.6
PLCA                                IAmb     IAmb     23 08 31.0
      comp=Z,19nm,1.2s
ULN   Ulaanbaatar       92.38 319   P        P        23 08 30.1 -0.4
ULN   Ulaanbaatar       92.38 319   P        P        23 08 31.0 +0.5
      comp=Z,26nm,1.1s
ELIB  Princess Elisa    92.49 186  dP        P        23 08 30.8 +0.2
      comp=Z,20nm,1.0s
BI02  San Fabin de      92.62 129   P        P        23 08 32.8 +0.9
BI02                                IAmb     IAmb     23 08 35.2
      comp=Z,31nm,1.1s
SYO   Syowa Base        92.68 192⇑eP        P        23 08 30.4 -0.9
SYO   Syowa Base        92.68 192⇑eP        P        23 08 40.6 +9.2
SONM  Songino Array     92.79 319   P        P        23 08 32.4  0.0
      comp=Z,2.3nm,0.7s,baz=106,slow=5.3,SNR=9.9
      comp=Z,2.3nm,0.7s
SONM  Songino Array     92.79 319   P        P        23 08 31.8 -0.6
ML02  Panimavida        92.83 128   P        P        23 08 33.0 +0.3
A36M  Sachs Harbour     92.90  14   P        P        23 08 32.0 -0.2
TROLL Troll, Antarti    93.39 180  ⇑P        P        23 08 35.3 +0.5
      comp=Z,1µm,0.8s
SNAA  Sanae             93.61 178  ⇑P        P        23 08 35.9 +0.2
      comp=Z,202nm,0.7s
SNAA  Sanae             93.61 178   P        P        23 08 35.9 +0.2
      comp=Z,7.9nm,0.7s,baz=219,slow=4.4,SNR=20
      comp=Z,7.9nm,0.7s
SNAA  Sanae             93.61 178   P        P        23 08 35.1 -0.6
SNAA                                IAmb     IAmb     23 08 38.0
      comp=Z,13nm,0.9s
MT01  Popeta            93.61 126   P        P        23 08 36.7 +0.3
MT01                                IAmb     IAmb     23 08 39.5
      comp=Z,19nm,0.9s
VNA3  Neumayer Olymp    93.65 176  ⇑P        P        23 08 36.1 +0.3
      comp=Z,40nm,0.7s
TIXI  Tiksi             93.79 345   P        P        23 08 35.2 -1.0
TIXI                                IAmb     IAmb     23 08 37.6
      comp=Z,8.1nm,0.8s
VNA2  Neumayer--Watz    94.12 176  ⇑P        P        23 08 38.5 +0.6
      comp=Z,18nm,0.6s,baz=182,slow=4.0
VNA1  Neumayer--Stat    94.33 176  ⇑P        P        23 08 39.6 +0.7
      comp=Z,28nm,0.8s
GTA2  Gaotai            94.97 309  eP        P        23 08 43.2 +0.6
GTA2                                pP       pP       23 09 56.4 -0.9
GTA2                                pmax     pmax
      comp=Z,5.0nm,0.9s
ZALV  Zalesovo Beam    107.27 322   PKKPbc   PKKPbc   23 25 01.8 -1.3
      comp=Z,1.2nm,0.7s,baz=268,slow=5.9,SNR=6.3
MKAR  Makanchi Array   108.68 315   PKiKP    PKiKP    23 13 46.9 -0.1
      comp=Z,0.5nm,0.7s,baz=118,slow=0.5,SNR=4.8
MKAR                                PKKPbc   PKKPbc   23 24 57.9 -0.5
      comp=Z,0.7nm,0.8s,baz=268,slow=3.6,SNR=5.3
MKAR                                PKKPab   PKKPab   23 25 10.9 +1.1
      comp=Z,1.7nm,0.8s,baz=269,slow=6.7,SNR=8.9
MKAR  Makanchi Array   108.68 315            PKiKP    23 13 44.9 -2.0
HYB   Hyderabad        108.83 284  ePKiKP    PKiKP    23 13 47.3 -0.8
HYB                                eSKSac    SKSac    23 19 52.6 -0.9
HYB                                eSKKSac   SKKSac   23 20 48.0 -2.7
KURBB Kurchatov Arra   111.15 319   PP       PP       23 14 32.9 -3.3
      comp=Z,1.3nm,0.2s,baz=86,slow=6.3,SNR=5.6
KURBB                               PKKPbc   PKKPbc   23 24 49.6 -0.9
      comp=Z,1.4nm,0.2s,baz=265,slow=3.6,SNR=9.1
BVAR  Borovoye Array   115.92 322   PKP      PKPdf    23 13 59.7 -0.8
      comp=Z,1.3nm,0.6s,baz=94,slow=0.7,SNR=8.8
BVAR                                PP       PP       23 15 05.5 -4.2
      comp=Z,1.2nm,0.9s,baz=76,slow=6.3,SNR=4.8
BVAR                                PKKPbc   PKKPbc   23 24 33.9 -0.7
      comp=Z,0.9nm,0.8s,baz=297,slow=4.8,SNR=5.2
ARCES ARCESS Array B   123.67 351   PKP      PKPdf    23 14 14.9  0.0
      comp=Z,2.9nm,0.7s,baz=3.6,slow=1.6,SNR=19
ARCES                               PKKPbc   PKKPab   23 24 04.3 +1.0
      comp=Z,0.8nm,0.5s,baz=218,slow=3.5,SNR=12
ARCES ARCESS Array B   123.67 351            PKPdf    23 14 14.5 -0.4
FINES FINESS Array B   130.81 346   PKP      PKPdf    23 14 28.8 +0.1
      comp=Z,2.2nm,0.8s,baz=37,slow=3.2,SNR=9.7
FINES                               SKPbc    SKPab    23 17 23.7 +0.7
      comp=Z,7.6nm,0.9s,baz=31,slow=5.4,SNR=10.0
BOSA  Boshof           132.22 205   PKP      PKiKP    23 14 33.4 -0.4
      comp=Z,6.2nm,1.0s,baz=155,slow=2.3,SNR=5.6
BOSA  Boshof           132.22 205            PKPdf    23 14 31.7 -1.0
MAKGR Makgori          134.87 207            PKPdf    23 14 36.7 -1.0
LBTB  Lobatse          135.20 208   PKPdf    PKPdf    23 14 37.7 -0.6
KBZ   Khabaz           136.15 319   SKPbc    SKiKP    23 17 44.2 -2.2
      comp=Z,3.3nm,0.9s,baz=60,slow=3.1,SNR=5.5
LKGWB Lokgwabe         137.85 204   PKPdf    PKPdf    23 14 43.3  0.0
AKASG Malin Array Be   138.83 336   SKPbc    SKiKP    23 17 50.3 -1.5
      comp=Z,1.3nm,0.6s,baz=36,slow=3.2,SNR=7.9
CLZ   Clausthal        142.71 354  ePKPbc    PKPdf    23 14 47.7 -3.4
      baz=12,slow=3.2
KOLS  Kolonicke sedl   142.83 340  ePKP      PKPdf    23 14 49.7 -1.6
CLL   Collm            142.89 351  ePKPbc    PKPdf    23 14 48.0 -3.4
      baz=12,slow=3.2
CLL   Collm            142.89 351  i PKPdf   PKPdf    23 14 47.9 -3.4
      comp=Z,6.0nm,0.8s
CLL                                i pPKiKP  pPKPdf   23 16 11.4 +0.9
CLL                                ePP       PP       23 18 05.0 +1.8
BIZ   Bicaz            143.07 335  ⇓P        PKPbc    23 14 49.7  0.0
DPC   Dobruska-Polom   143.18 347  ePKP      PKPbc    23 14 49.6 -0.3
GHRR                   143.19 333  ⇓P        PKPbc    23 14 50.4 +0.4
BNN   Bunyan           143.20 317            PKPbc    23 14 50.0 -0.5
TLCR                   143.20 330  ⇓P        PKPbc    23 14 49.7 -0.4
OKC   Ostrava-Krasne   143.22 345  ePKP      PKPdf    23 14 53.1 +1.1
STEB  Steborice        143.23 345  ePKP      PKPbc    23 14 49.7 -0.3
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MORC  Moravsky Berou   143.43 345  ePKP      PKPab    23 14 49.8 +0.4
BMR   Baia Mare        143.48 338  ⇑P        PKPab    23 14 50.0 +0.4
LANS  Liptovska Anna   143.50 343  ePKP      PKPdf    23 14 52.5  0.0
CFR   Carcaliu         143.53 331  ⇑P        PKPbc    23 14 51.2 +0.3
KMBO  Kilima Mbogo     143.56 247   PKP      PKPbc    23 14 52.9 +0.6
      baz=125,slow=1.7
TPGR  Topolog          143.64 330  ⇑P        PKPbc    23 14 51.4 +0.2
VRI   Vrincioaia       143.65 333  ⇓P        PKPbc    23 14 51.7 +0.5
ARCR  ARCALIA          143.65 336  ⇑P        PKPbc    23 14 51.1 -0.1
BMOL  Mol              143.67 359  dPKPdf    PKPbc    23 14 51.8 +0.7
TSUM  Tsumeb           143.69 202            PKPbc    23 14 51.9 -0.4
PLOR  Plostina         143.69 333  ⇓P        PKPbc    23 14 51.7 +0.3
MAUC  Maruska          143.74 345  ePKP      PKPbc    23 14 51.9 +0.4
TURR  Turia            143.81 334  ⇑P        PKPbc    23 14 52.0 +0.3
PLN   Plauen           143.81 351  ePKPbc    PKPbc    23 14 51.5  0.0
      baz=12,slow=3.2
TANN  Tannenbergstha   143.84 351  ePKPbc    PKPab    23 14 51.3 +0.2
      baz=12,slow=3.2
OZUR                   143.87 334  ⇑P        PKPbc    23 14 52.4 +0.5
COVR  Voineasa-Covas   143.89 333  ⇑P        PKPbc    23 14 51.9 -0.1
PRU   Pruhonice        143.89 349  ePKP      PKPbc    23 14 52.4 +0.6
TIRR  Tirgusor         143.93 330   PKPdf    PKPbc    23 14 52.0 -0.1
TIRR  Tirgusor         143.93 330  ⇑P        PKPbc    23 14 52.7 +0.6
HARR  Harsova          143.99 331  ⇑P        PKPbc    23 14 52.5 +0.3
TLBR  Topalu           144.05 330  ⇑P        PKPbc    23 14 52.7 +0.3
VRAC  Vranov           144.09 346  ePKP      PKPbc    23 14 52.4  0.0
VRAC  Vranov           144.09 346  ⇓P        PKPbc    23 14 52.5 +0.1
UCC   Uccle            144.10 360  dPKPdf    PKPbc    23 14 52.2 -0.1
DOPR  Dopca            144.14 334  ⇓P        PKPdf    23 14 53.6 -0.1
BR131 Keskin Array S   144.14 319            PKPab    23 14 52.6 -0.1
BRTR  Keskin Array B   144.14 319   PKP      PKPbc    23 14 53.3 +0.2
      comp=Z,33nm,0.8s,baz=51,slow=1.8,SNR=147
BRTR                                SKPbc    SKPbc    23 18 01.8 -0.7
      comp=Z,1.7nm,0.8s,baz=52,slow=3.2,SNR=4.5
BRTR  Keskin Array B   144.14 319            PKPab    23 14 52.4 -0.3
JAVC  Velka Javorina   144.25 345  ePKP      PKPdf    23 14 54.0 +0.1
MEM   Membach          144.26 358  dPKPdf    PKPbc    23 14 52.8  0.0
MLR   Muntele Rosu     144.28 333  ⇑P        PKPbc    23 14 53.3  0.0
KIRS  Kirsehir-Merke   144.31 318  ⇑P        PKPdf    23 14 54.2 -0.2
ISR   Istrita          144.31 332  ⇓P        PKPdf    23 14 53.7 -0.4
MANR  Mangalia         144.32 329  ⇑P        PKPdf    23 14 54.3 +0.3
AMRR  Amara            144.33 331  ⇑P        PKPdf    23 14 54.4 +0.4
KRUC  Moravsky         144.37 346  ePKP      PKPbc    23 14 53.3  0.0
MARR  Marisel-Cluj     144.46 337  ⇓P        PKPab    23 14 53.6  0.0
BCLA  Clavier          144.47 359  dPKPdf    PKPbc    23 14 53.5  0.0
PSZ   Piszkesteto      144.48 342            PKPab    23 14 52.6 -1.0
PSZ   Piszkesteto      144.48 342  ⇑P        PKPbc    23 14 53.7  0.0
ICOR  Ion Corvin       144.48 330  ⇓P        PKPdf    23 14 54.7 +0.4
ZVC   Zvikov           144.48 349  ePKP      PKPbc    23 14 53.8 +0.2
DRGR                   144.51 338  ⇓P        PKPab    23 14 53.6 -0.2
BORR  Bors             144.59 339  ⇑P        PKPdf    23 14 54.9 +0.5
BMRD  Maredsous        144.59 359  dPKP      PKPdf    23 14 54.1 -0.2
LEHL  Lehliu           144.68 331  ⇑P        PKPdf    23 14 55.2 +0.5
VOIR                   144.71 334  ⇑P        PKPdf    23 14 55.4 +0.6
GRF   Grafenberg Arr   144.72 352  ePKPbc    PKPdf    23 14 54.6  0.0
      baz=12,slow=3.2
RCHB  Rochefort        144.73 359  dPKP      PKPbc    23 14 54.0 -0.3
MODS  Modra-Piesok     144.80 345  ePKP      PKPdf    23 14 55.6 +0.8
DOU   Dourbes          144.80 359  dPKP      PKPdf    23 14 54.7  0.0
TNR   Turnu Rosu       144.85 335  ⇑P        PKPab    23 14 55.8 +0.7
MTUR  Matau            144.87 334  ⇓P        PKPbc    23 14 55.0  0.0
KHC   Kasperske Hory   144.89 349  ePKP      PKPab    23 14 55.2 +0.1
KHC                                eSKP      SKPbc    23 18 08.0 +4.2
ARR   Arges            144.94 334  ⇑P        PKPab    23 14 56.4 +1.0
WET   Wettzell         145.00 350  ePKPbc    PKPdf    23 14 55.0 -0.1
      baz=12,slow=3.2
ZST   Bratislava       145.00 345  ePKP      PKiKP    23 14 59.4 +0.3
SRO   Srobarova        145.03 343  ePKP      PKPab    23 14 56.3 +0.7
CKRC  Cesky Krumlov    145.05 348  ePKP      PKPbc    23 14 55.5 +0.2
GEC2  GERESS Array S   145.14 349  ePKPbc    PKPbc    23 14 55.8  0.0
      baz=12,slow=3.2
GERES GERESS Array B   145.14 349   PKPbc    PKPdf    23 14 55.4  0.0
      comp=Z,12nm,0.8s,baz=27,slow=3.3,SNR=69
GERES                               SKPbc    SKiKP    23 18 07.4 +2.5
      comp=Z,1.7nm,0.8s,baz=32,slow=2.3,SNR=6.7
GERES GERESS Array B   145.14 349            PKPdf    23 14 54.5 -0.9
WLF   Walferdange      145.19 358  dP        PKPab    23 14 56.1 -0.1
WLF   Walferdange      145.19 358  ePKPbc    PKPab    23 14 56.2 +0.1
      baz=12,slow=3.2
DEV   Deva             145.20 337  ⇑P        PKPab    23 14 56.4 +0.1
LOT   Lotru            145.22 335  ⇑P        PKPbc    23 14 55.9 -0.2
SGRR  Singureni        145.26 332  ⇑P        PKPbc    23 14 56.0 -0.1
WINA  Alland / Wiene   145.34 346  i PKP     PKPab    23 14 57.1 +0.3
      SNR=11
HUMR  Humele           145.46 333  ⇓P        PKPdf    23 14 56.0  0.0
RAZG  Razgrad          145.51 331  ⇑P        PKPab    23 14 57.3 -0.3
CONA  Conrad Observa   145.56 346  i PKP     PKPab    23 14 57.5 -0.2
      comp=Z,54nm,1.9s,SNR=18
AMBH  Ambrzfalva       145.59 339  ⇑P        PKPab    23 14 58.1 +0.3
LOZB  Loznitsa         145.62 330  ⇑P        PKPab    23 14 57.8 -0.2
GZR   Gura Zlata       145.66 336  ⇓P        PKPbc    23 14 57.5 +0.1
COPA  Copaceanca       145.67 333  ⇑P        PKPbc    23 14 57.5 +0.2
RONA  Rosalia, Austr   145.67 345  i PKP     PKPab    23 14 57.8 -0.4
      comp=Z,13nm,1.0s,SNR=21
BZS   Buzias           145.91 338  ⇓P        PKPbc    23 14 57.8 -0.2
MOA   Molln            145.99 348  i PKP     PKPbc    23 14 58.5 +0.3
      comp=Z,12nm,1.0s,SNR=8.7
VLAD  Vladila          146.13 333  ⇑P        PKPab    23 14 59.6 -0.4
FUR   Furstenfeldbru   146.21 351  ePKPbc    PKPbc    23 14 59.3 +0.4
      baz=12,slow=3.2
HERR  Herculane        146.23 336  ⇓P        PKPbc    23 14 59.1 +0.2
BIOA  Bad Ischl, Aus   146.26 348  i PKP     PKPbc    23 14 59.1 +0.1
      comp=Z,27nm,1.3s,SNR=13
ARSA  Arzberg          146.27 346  i PKP     PKPbc    23 14 58.8 -0.2
      comp=Z,16nm,1.2s,SNR=8.2
MMAI  Mount Meron Ar   146.29 308   PKPbc    PKPab    23 15 00.5 -0.6
      comp=Z,8.3nm,0.6s,baz=73,slow=3.0,SNR=14
MORH  Mrgy, Hungar     146.38 342  ⇑P        PKPbc    23 14 59.4 +0.1
BFO   Black Forest     146.39 355  ePKPbc    PKPbc    23 14 59.2 -0.1
      baz=12,slow=3.2
PLVB  Pleven           146.52 332  ⇓P        PKPbc    23 15 00.6 +0.7
MDVR  Moldovita        146.59 337  ⇑P        PKPbc    23 14 59.8 -0.2
SESA  Seetaler Alpe,   146.62 347  i PKP     PKPbc    23 15 00.2  0.0
      SNR=21
LESA  Schwarzleotal    146.70 349  i PKP     PKPbc    23 15 00.4 +0.1
      comp=Z,5.9nm,0.7s,SNR=11
CLF   Chambon-Foret    146.84   2            PKPbc    23 15 00.3 -0.2
KOGS  Kog              146.84 345  ePKPbc    PKPbc    23 15 00.3 -0.3
KBA   Koelnbreinsper   146.91 348  i PKP     PKPbc    23 15 00.5 -0.6
      comp=Z,13nm,1.0s
SOKA  Soboth           146.93 346  i PKP     PKPbc    23 15 00.6 -0.4
      comp=Z,17nm,1.2s,SNR=9.8
RETA  Reutte           146.94 352  i PKP     PKPbc    23 15 01.0 +0.1
      comp=Z,9.8nm,0.9s,SNR=11
PERS  Pernice          146.95 346  i PKPbc   PKPbc    23 15 00.7 -0.3
WATA  Walderalm        146.97 351  i PKP     PKPbc    23 15 01.1  0.0
      comp=Z,4.3nm,0.6s
WTTA  Wattenberg       147.03 351  i PKP     PKPbc    23 15 01.5 +0.2
      comp=Z,16nm,0.8s,SNR=7.6
MOTA  Moosalm          147.03 351  i PKP     PKPbc    23 15 01.1 -0.2
      comp=Z,19nm,0.9s,SNR=9.6
KEPZ  Antalya-Kepez    147.07 317  ⇑P        PKPdf    23 14 59.3 +0.2
SQTA  Sankt Quirin     147.14 351  i PKP     PKPbc    23 15 01.5 -0.1
      comp=Z,8.5nm,1.0s
OBKA  Obir             147.20 347  i PKP     PKPbc    23 15 01.1 -0.6
      comp=Z,11nm,0.7s,SNR=6.4
DAVA  Damuels          147.26 353  i PKP     PKPbc    23 15 01.5 -0.4
      comp=Z,8.1nm,0.8s
MYKA  Terra Mystica    147.28 348  ePKP      PKPbc    23 15 01.2 -0.7
      comp=Z,6.7nm,0.6s
ABTA  Abfaltersbach    147.38 349  i PKP     PKPbc    23 15 01.7 -0.5
      comp=Z,13nm,1.2s,SNR=7.7
FETA  Feichten         147.40 352  i PKP     PKPbc    23 15 02.5 +0.2
      comp=Z,8.9nm,0.8s,SNR=11
PRED  Cave del Predi   147.47 348            PKPdf    23 15 00.3 +0.9
BOJS  Bojanci          147.98 345  ePKPbc    PKPbc    23 15 04.0 +0.3
TUE   Stuetta          148.12 353            PKPbc    23 15 03.6 -0.7
BLY   Banja Luka       148.15 342  ⇑P        PKPbc    23 15 03.3 -0.8
TAVA  DENIZLI_Tavas    148.46 320  ⇑P        PKiKP    23 15 06.2 -0.5
MBAR  Mbarara          149.51 242   PKPbc    PKPbc    23 15 07.6 -1.1
PCAB  Cabril           151.21  19  ePKPbc    PKiKP    23 15 12.6 +0.5
PCAB                               ePKPab    PKPab    23 15 21.2 +0.4
PBRG  Braganca         151.51  17  ePKPab    PKPab    23 15 22.5 +0.5
PTO   Porto            151.54  20  ePKPab    PKPab    23 15 22.6 +0.5
POLO  Lamas de Olo     151.59  19  ePKPbc    PKiKP    23 15 13.2 +0.2
POLO                               ePKPab    PKPab    23 15 23.3 +0.8
PVRL  Vila Real        151.71  19  ePKPbc    PKiKP    23 15 13.4 +0.3
PVRL                               ePKPab    PKPab    23 15 23.6 +0.8
PVIS  Viseu            152.15  20  ePKPab    PKPab    23 15 25.3 +0.5
PCAS  Casmilo, Conde   152.54  21  ePKPab    PKPab    23 15 26.9 +0.5
MTE   Manteigas        152.55  19  ePKPab    PKPab    23 15 26.8 +0.4
PSARD Sardoal          153.06  21  ePKPbc    PKiKP    23 15 16.4 +0.5
PSARD                              ePKPab    PKPab    23 15 28.6  0.0
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PCBR	**Castelo Branco**	153.08	20	ePKPab	PKPab	23 15 28.9	+0.3
PMAFR	**Mafra**	153.22	24	ePKPab	PKPab	23 15 29.7	+0.4
PMRV	**Marv??o**	153.48	20	ePKPab	PKPab	23 15 30.2	-0.2
PMTG	**Montargil**	153.51	22	ePKPab	PKPab	23 15 30.3	-0.2
PARRA	**Arraiolos**	153.80	22	ePKPab	PKPab	23 15 31.9	+0.1
PESTR	**Estremoz**	153.92	21	ePKPab	PKPab	23 15 32.1	-0.2
MOE	**Montemor**	153.95	23	ePKPab	PKPab	23 15 32.8	+0.5
EVO	**Evora**	154.06	22	ePKPab	PKPab	23 15 33.2	+0.3
ESDC	**Sonseca Array**	154.24	14	PKPbc	PKPbc	23 15 17.9	-0.5
	comp=Z,0.4nm,0.6s,baz=336,slow=2.7,SNR=5.5						
ESDC				PKPab	PKPab	23 15 34.5	+0.9
	comp=Z,2.1nm,0.9s,baz=333,slow=4.9,SNR=11						
PBAR	**Barrancos**	154.73	21	ePKPab	PKPab	23 15 36.2	+0.5
PFVI	**Vila Bisbo**	154.97	25	ePKPbc	PKiKP	23 15 22.4	+2.4
KEST	**Kesra**	158.63	348	PKPab	PKPab	23 15 52.4	-0.3
	comp=Z,8.0nm,0.9s,baz=16,slow=4.6,SNR=8.1						
DBIC	**Dimbokro**	168.07	132	PKPab	PKPab	23 16 35.0	+0.3
	comp=Z,7.1nm,0.8s,baz=226,slow=4.3,SNR=4.5						
TORD	**Torodi Ar. Bea**	177.16	125	PKP	PKPdf	23 15 27.9	-1.0
	comp=Z,2.3nm,0.9s,baz=359,slow=1.5,SNR=7.2						
TORD				PKPab	PKPab	23 17 15.5	+0.4
	comp=Z,5.7nm,0.8s,baz=252,slow=4.1,SNR=24						
TORD				PP	PP	23 21 12.4	+4.2
	comp=Z,2.1nm,0.9s,baz=204,slow=5.2,SNR=5.3						

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*THE **09** 23:12:28.0, 38°N±4°×2°5E±°, h33^{km}±10^{km}, M2.5/9, MLh2.5/9*

*AFAD **09** 23:12:28.0, 38°.51N×25°.58E, h7^{km}±5^{km}, ML2.4*

*ISK **09** 23:12:46.1, 38°.48N×26°.29E, h6^{km}, ML2.1/9*

ATH 09 23:12:26.0, 38°.39N×25°.48E, h7^{km}±3^{km}, ML2.7/2, Latitude uncertainty: 1 km; Longitude uncertainty: 0 km, Aegean Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KARB	**zmir-Karabur**	0.78	69	P	Pb	23 12 42.3	+0.4
KARB				S	Sg	23 12 50.8	-0.3
ZEYE	**Izmir, Urla-Ze**	0.82	101	P	Pb	23 12 42.6	+0.1
KRBN	**Karaburun**	0.86	76	Pg	Pn	23 12 51.6	+7.0
KRBN				AML	AML		
URLA	**Izmir**	0.87	92	Pg	Pn	23 12 52.1	+7.3
URLA				Sg	Sb	23 12 56.2	+0.7
URLA				AML	AML		
URLA	**Izmir**	0.87	92	P	Pn	23 12 44.3	-0.5
URLA				S	Sb	23 12 54.9	-0.6
URLA				IAML		23 12 57.0	
	comp=N,182nm,0.5s						
KARY	**Karystos**	0.90	247	P	Pg	23 12 43.2	0.0
KARY				S	Sg	23 12 55.2	+0.3
KARY				AML	AML		
KARY	**Karystos**	0.90	247	P	Pg	23 12 43.3	0.0
KARY				S	Sg	23 12 55.1	+0.2
KARY				AML	AML		
FOCM	**Foa**	1.03	71	Pg	Pn	23 12 54.9	+8.0
FOCM				Sg	Sn	23 13 01.0	-0.5
FOCM				AML	AML		
PRK	**Paraskevi**	1.05	36	P	Pg	23 12 46.2	0.0
PRK				S	Sn	23 13 01.4	-0.7
PRK				AML	AML		
PRK	**Paraskevi**	1.05	36	P	Pb	23 12 46.5	0.0
PRK				S	Sg	23 13 00.1	+0.3
PRK				AML	AML		
BAGT	**Foa**	1.10	76	P	Pg	23 12 46.8	-0.4
BAGT				S	Sn	23 13 03.8	+0.4
BAGT				IAML		23 13 05.0	
	comp=E,132nm,0.9s						
KYMI	**Kymi, Euboea I**	1.11	283	P	Pg	23 12 47.4	+0.1
KYMI				S	Sg	23 13 00.5	-1.2
KYMI				AML	AML		
KYMI	**Kymi, Euboea I**	1.11	283	P	Pg	23 12 47.4	+0.1
KYMI				S	Sg	23 13 01.8	0.0
KRL1	**Karlovasi Samo**	1.13	121	P	Pg	23 12 47.6	-0.1
DGB	**zmir**	1.15	107	P	Pn	23 12 48.4	-0.1
DGB				S	Sg	23 13 02.3	-0.8
DGB				IAML		23 13 07.0	
	comp=N,40nm,0.4s						
GMLD	**Gumuldur**	1.17	105	Pg	Pn	23 12 58.4	+10
GMLD				AML	AML		
KOCA	**Canakkale, Ayv**	1.22	25	P	Pg	23 12 48.7	-0.7
KOCA				S	Sg	23 13 04.2	-1.1
KOCA				IAML		23 13 09.0	
	comp=N,145nm,0.5s						
KOCA				IAML		23 13 12.0	
	comp=E,129nm,0.5s						
BLCB	**Balcova**	1.23	90	P	Pb	23 12 48.9	-0.6
BLCB				S	Sg	23 13 04.1	-1.3
BLCB				AML	AML		
BLCB	**Balcova**	1.23	90	Pg	Pn	23 12 57.9	+8.3
BLCB				AML	AML		
DION	**Dionisos Attik**	1.26	256	P	Pn	23 12 48.7	-1.4
DION				S	Sg	23 13 04.1	-2.5
DION				AML	AML		
DION	**Dionisos Attik**	1.26	256	P	Pn	23 12 49.0	-1.1
DKL	**Dikili**	1.30	58	Pg	Pg	23 13 01.0	+10
DKL				AML	AML		
DKL	**Dikili**	1.30	58	P	Pn	23 12 50.4	-0.2
AYVA	**Ayvalik**	1.31	45	P	Pn	23 12 49.5	-1.3
ZEDA	**zmir-Bergama**	1.37	65	P	Pg	23 12 53.8	+1.4
ZEDA				S	Sb	23 13 08.9	-0.9
ZEDA				IAML		23 13 14.0	
	comp=E,51nm,0.4s						
ATHU	**Athens Univers**	1.41	253	P	Pn	23 12 50.7	-1.4
ATHU				AML	AML		
ATHU	**Athens Univers**	1.41	253	P	Pn	23 12 52.2	+0.2
VLY	**Voula,Athens**	1.44	248	P	Pn	23 12 51.3	-1.2
VLY				AML	AML		
VLY	**Voula,Athens**	1.44	248	P	Pn	23 12 51.3	-1.2
NOAC	**Athens-Thissio**	1.45	254	P	Pb	23 12 53.1	-0.2
ATH	**Athens Observa**	1.45	254	P	Pn	23 12 52.5	-0.2
CAMT	**Merkez**	1.48	76	P	Pn	23 12 52.3	-0.7
CAMT				S	Sn	23 13 10.8	-1.9
CAMT				IAML		23 13 18.0	
	comp=N,169nm,0.5s						
AOS2	**Alonissos-2**	1.49	301	P	Pn	23 12 52.9	-0.3
LIA	**Limnos Island**	1.52	351	P	Pn	23 12 52.7	-1.0
LIA				AML	AML		
LIA	**Limnos Island**	1.52	351	P	Pn	23 12 52.7	-0.9
STFN	**Stefani**	1.54	263	P	Pn	23 12 54.2	+0.2
GCAM	**G?zelcaml?**	1.54	116	Pg	Pg	23 13 07.5	+12
GCAM				AML	AML		
GCAM	**G?zelcaml?**	1.54	116	P	Pn	23 12 52.2	-1.8
DUVT	**Torbali**	1.56	96	P	Pg	23 12 56.3	+0.5
BAYC	**CANAKKALE_Bayr**	1.58	31	P	Pn	23 12 53.0	-1.5
BUHA	**Balikesir, Bur**	1.66	48	P	Pn	23 12 54.7	-0.9
VIL2	**Platees**	1.75	265	P	Pn	23 12 57.0	+0.2
SOMA	**Soma-Manisa**	1.77	64	Pn	Pg	23 13 09.1	+9.1
SOMA				Sn	Sg	23 13 26.3	+3.3
SOMA				AML	AML		
MET4	**Agioi Theodoro**	1.82	246	P	Pn	23 12 58.2	+0.5
GADA	**Gvkgeada**	1.82	10	P	Pn	23 12 56.6	-1.2
MET6	**Megalochori,Me**	1.86	245	P	Pn	23 12 58.3	0.0
MET2	**Kameni Chora,**	1.87	246	P	Pn	23 12 58.9	+0.4
ATAL	**Atalanti**	1.95	280	P	Pn	23 12 59.3	-0.3
IZMR	**zmir-demi**	1.96	97	P	Pg	23 13 04.3	+0.8
LKR	**Lokris**	1.97	278	P	Pn	23 12 60.0	+0.2
NEO	**Neokhori**	1.99	298	P	Pn	23 12 59.3	-0.7
SNT5	**Nea Kammeni, S**	1.99	182	P	Pn	23 13 00.3	+0.3
STEP	**BALIKESIR_Sava**	2.00	60	P	Pg	23 13 05.3	+0.9
LTK	**Loutraki**	2.02	260	P	Pn	23 13 00.7	+0.2
AYDN	**Tasoluk**	2.03	110	P	Pb	23 13 03.7	+0.5
ODEM	**Odemis-Izmir**	2.04	92	Pn	Pg	23 13 12.9	+7.8
ODEM				AML	AML		
KTTT	**Salihli**	2.07	81	P	Pn	23 13 01.0	-0.2
BALY	**Balya**	2.14	50	P	Pg	23 13 07.2	+0.1
KIRA	**zmir-Kiraz**	2.30	94	P	Pn	23 13 03.7	-0.8

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*SNET **10** 00:03:46.4±4.5, 11°.27N×85°.64W, h173^{km}, ML3.7, Presumed earthquake*

*IDC **10** 00:03:47.7±0.6, 11°.52N×85°.43W, h167^{km}±17^{km}, mb3.4/9, mbtmp3.9/10, Error ellipse: s-maj=45.3km s-min=12.6km az=35.0*

*UCR **10** 00:03:48.1±0.7, 11°.15N×85°.95W, h168^{km}±10^{km}, MW4.2, Presumed earthquake*

*CATAC **10** 00:03:49.9±0.3, 11°N±2°×8°6W±°, h162^{km}±2^{km}, M3.8/18, MLv3.8/18, Error ellipse: s-maj=7.2km s-min=2.7km az=48.9, confirmed*

*NEIC **10** 00:03:49.5±1.1, 11°.36N±0°.06×85°.65W±0°.08, h169^{km}±2^{km}, mb4.2/17, Error ellipse: s-maj=12.3km s-min=5.9km az=55.0*

ISC 10 00:03:48.1±0.6, 11°.34N±0°.04×85°.65W±0°.04, h176^{km}±4^{km}, n115, σ1^{s}.12/150, mb4.1/16, Nicaragua

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OMEN	**Al SSO del Vol**	0.17	7	P	Pn	00 04 11.8	+0.3
OMEN				S	Sn	00 04 29.1	-0.5
CARN	**Rivas**	0.19	140		Pn	00 04 12.1	+0.6
CARN				Sn	Sn	00 04 29.4	-0.1
CARN	**Rivas**	0.19	140	P	Pn	00 04 12.2	+0.7
CARN				S	Sn	00 04 30.1	+0.6
CARN	**Rivas**	0.19	140	eP	Pn	00 04 12.1	+0.6
CARN				eS	Sn	00 04 29.3	-0.1
JAPN	**Al SSO del Vol**	0.19	351	P	Pn	00 04 12.5	+1.0
MORN	**Al O del Volca**	0.21	0	P	Pn	00 04 12.1	+0.5
LCRUZ	**La Cruz**	0.26	176	eP	Pn	00 04 11.8	+0.1
NADN	**Granada**	0.56	318	P	Pn	00 04 12.4	-0.3
NADN				S	Sn	00 04 31.8	+0.2
VORI	**VORI**	0.59	150	eP	Pn	00 04 13.7	+0.6
LAPC	**Finca la Perla**	0.60	159	eP	Pn	00 04 12.0	-0.9
VRLE	**La Escondida,**	0.61	153	eP	Pn	00 04 13.6	+0.5
GPS2	**Hotel Rincn d**	0.65	153	eP	Pn	00 04 13.6	+0.4
CLARA	**Aguas Claras**	0.72	140	eP	Pn	00 04 14.3	+0.8
VMAR	**Armenia, Volca**	0.74	135	eP	Pn	00 04 14.3	+0.6
MESS	**Mesas**	0.74	143	eP	Pn	00 04 14.4	+0.6
ALIBA	**Liberia Airpor**	0.74	172	eP	Pn	00 04 14.1	+0.4
NANN	**Nandasmo**	0.76	322	P	Pn	00 04 15.5	+1.7
NANN				S	Sn	00 04 36.3	+2.6
UPAL	**Upala**	0.76	125	S	Sn	00 04 33.7	+0.2
HORNC	**Hornillas**	0.77	143	eP	Pn	00 04 14.6	+0.7
ACON	**Acoyapa**	0.78	36	P	Pn	00 04 14.6	+0.7
ACON				S	Sn	00 04 33.9	+0.1
SABN	**Sabanita**	0.80	321	P	Pn	00 04 14.7	+0.6
MASN	**Masaya**	0.81	323	P	Pn	00 04 14.9	+0.8
MASN				S	Sn	00 04 36.0	+1.7
MAS3	**Al N del Volca**	0.86	323	P	Pn	00 04 15.1	+0.6
MAS3				S	Sn	00 04 36.0	+1.2
BAGA	**Bagaces**	0.89	155	eP	Pn	00 04 15.1	+0.5
TENO	**El Achiote**	0.91	133	eP	Pn	00 04 15.6	+0.8
TIMP	**Tierras Morena**	0.97	140	eP	Pn	00 04 16.0	+0.7
WILN	**Americas 2**	0.98	327	P	Pn	00 04 16.2	+1.0
WILN				S	Sn	00 04 36.6	+0.4
MGAN	**Managua**	1.00	324		Pn	00 04 15.9	+0.5
MGAN				Sn	Sn	00 04 37.0	+0.5
TISN	**Laguna Tiscapa**	1.01	323	P	Pn	00 04 14.2	-1.2
COTE	**Lago Cote**	1.04	136	eP	Pn	00 04 16.8	+0.9
CNAS	**Canas**	1.05	149	eP	Pn	00 04 17.4	+1.6
BOAB	**BOACO BROADBAN**	.11	359		Pn	00 04 16.7	+0.5
BOAB				Sn	Sn	00 04 37.1	-1.0
BOAB	**BOACO BROADBAN**	.11	359	P	Pn	00 04 16.9	+0.6
BOAB				S	Sn	00 04 37.3	-0.8
APYN	**Apoyeque**	1.13	323	P	Pn	00 04 17.5	+1.1
CHIK	**Chiripa**	1.15	141	eP	Pn	00 04 17.5	+0.8
JTS	**Las Juntas de**	1.24	147	P	Pn	00 04 17.9	+0.5
	321nm,0.3s,baz=331,slow=13,SNR=531						
JTS				S	Sn	00 04 39.1	-1.0
	996nm,0.3s,baz=343,slow=19,SNR=40						
JTS	**Las Juntas de**	1.24	147	P	Pn	00 04 18.0	+0.5
JTS				S	Sn	00 04 39.2	-1.0
JTS	**Las Juntas de**	1.24	147	eP	Pn	00 04 17.9	+0.5
CASO	**Castillo**	1.27	135	eP	Pn	00 04 18.8	+1.2
MOM2	**El Cardon**	1.37	323	P	Pn	00 04 19.2	+0.8
COVE	**Coope Vega, Sa**	1.37	116	P	Pn	00 04 19.2	+0.7
MOMN	**Momotombo**	1.38	321	P	Pn	00 04 18.1	-0.5
MOMN				S	Sn	00 04 42.2	-0.1
CNGN	**Cerro Negro**	1.55	319	P	Pn	00 04 21.0	+0.8
CNGN				S	Sn	00 04 45.8	+0.6
ESPN	**Las Esperanzas**	1.57	57	P	Pn	00 04 21.4	+1.0
ESPN				S	Sn	00 04 45.8	+0.3
MATN	**Matagalpa**	1.61	350	P	Pn	00 04 21.8	+0.9
MATN				S	Sn	00 04 46.3	-0.1
HERN	**Volcan Telica**	1.71	318	Pn	Pn	00 04 21.3	-0.6
HERN				Sn	Sn	00 04 48.2	0.0
ATEO	**Atenas**	1.83	137	eP	Pn	00 04 24.1	+0.9
TRB2	**Turrubares**	1.84	140	eP	Pn	00 04 24.3	+1.0
TCS1	**Tacares**	1.85	134	P	Pn	00 04 25.1	+1.8
CRIN	**San Cristobal**	1.93	315		Pn	00 04 24.6	+0.5
CRIN				Sn	Sn	00 04 52.4	+0.2
CRIN	**San Cristobal**	1.93	315	P	Pn	00 04 24.9	+0.7
CRIN				S	Sn	00 04 52.4	+0.2
HDC	**Heredia**	2.01	131		Pn	00 04 26.3	+1.1
HDC	**Heredia**	2.01	131	P	Pn	00 04 26.6	+1.5
HDC				S	Sn	00 04 54.0	+0.2
ACOS	**Acosta**	2.11	136	eP	Pn	00 04 27.4	+1.1
CVIMO	**Finca Echandi**	2.12	128	eP	Pn	00 04 31.8	+5.3
PICV	**PH. Pirrs**	2.22	140	eP	Pn	00 04 28.7	+1.2
RCPN	**Sur Rio San Ju**	2.22	349	P	Pn	00 04 28.5	+1.0
LCR2	**La Lucha 2**	2.26	134		Pn	00 04 29.4	+1.4
LCR2	**La Lucha 2**	2.26	134	P	Pn	00 04 29.4	+1.4
LCR2				S	Sn	00 04 59.2	+0.2
LCR2	**La Lucha 2**	2.26	134	eP	Pn	00 04 29.4	+1.4
RAFA	**San Farael, Vo**	2.27	127		Pn	00 04 29.3	+1.1
RCVN	**Varillal2**	2.30	347	P	Pn	00 04 29.5	+1.2
RCVN				S	Sn	00 05 00.2	+0.4
PIEC	**Cerro El Cedra**	2.38	135	eP	Pn	00 04 31.0	+1.6
SIUN	**Universidad Ur**	2.52	20		Pn	00 04 31.1	+0.4
CNCH	**Conchagua**	2.88	312	iP	Pn	00 04 38.1	+3.0
CNCH				eS	Sn	00 05 11.9	0.0
CNCH	**Conchagua**	2.88	312	P	Pn	00 04 35.7	+0.5
CNCH				S	Sn	00 05 11.9	0.0
LCND	**La Caada**	2.94	312	eS	Sn	00 05 13.1	0.0
EDPE	**Pejibaye, P**	2.98	136	eP	Pn	00 04 38.4	+2.1
INTP	**Intipuca**	2.99	308	iP	Pn	00 04 38.7	+2.2
INTP				eS	Sn	00 05 13.5	-0.7
TGUH	**Tegucigalpa,Un**	3.14	330		Pn	00 04 39.5	+1.1
TGUH	**Tegucigalpa,Un**	3.14	330	P	Pn	00 04 40.3	+1.9
TGUH				S	Sn	00 05 19.3	+1.7
JUCU	**Jucuar¡n**	3.18	307	iP	Pn	00 04 40.0	+1.3
JUCU				eS	Sn	00 05 17.6	-0.8
PACA	**Pacayal**	3.37	309	iP	Pn	00 04 43.0	+1.8
PACA				eS	Sn	00 05 24.1	+1.5
PACA	**Pacayal**	3.37	309	P	Pn	00 04 42.1	+0.9
PACA				S	Sn	00 05 23.2	+0.5
ALJI	**Alcalda de J**	3.47	305	eS	Sn	00 05 23.2	-1.6
BILN	**Bilwi Airport**	3.49	39	Pn	Pn	00 04 42.8	+0.1
TECA	**Tecapa**	3.52	308	iP	Pn	00 04 46.3	+3.1
TECA				eS	Sn	00 05 27.7	+1.6
PIRO	**Carate, Puerto**	3.70	142		Pn	00 04 47.5	+2.2
PIRO	**Carate, Puerto**	3.70	142	P	Pn	00 04 47.2	+2.0
PIRO				S	Sn	00 05 30.1	+0.1
PMON	**Piamonte**	4.29	304	iP	Pn	00 04 54.6	+1.7
PMON				eS	Sn	00 05 40.9	-2.7
PRVC	**Isla de Provid**	4.65	64	P	Pn	00 04 58.6	+1.2
MTO3	**Montecristo**	4.73	310	Pn	Pn	00 04 59.9	+1.2
APG	**El Apazote**	5.94	308	P	Pn	00 05 16.1	+1.6
	0.5nm,0.5s,baz=121,slow=13,SNR=6.4						
APG				S	Sn	00 06 23.3	+0.8
	0.3nm,0.5s,baz=128,slow=19,SNR=1.6						
CMIG	**Matias Romero**	10.62	304	P	Pn	00 06 15.4	-0.5
	2.7nm,0.3s,baz=129,slow=13,SNR=15						
CMIG				S	Sn	00 08 04.4	-10
	0.7nm,0.2s,baz=49,slow=9.3,SNR=1.4						
LRAL	**Lakeview Retre**	21.63	357		P	00 08 26.1	+1.6
LRAL				IAmb	IAmb	00 08 27.9	
	comp=Z,9.8nm,0.8s						
GOGA	**Godfrey**	22.07	5	P	P	00 08 30.0	+1.1
Y52A	**Lilburn**	22.47	3	P	P	00 08 34.4	+1.6
Y52A				IAmb	IAmb	00 08 34.8	
	comp=Z,9.2nm,1.0s						
HODGE	**Hodges**	23.00	7	P	P	00 08 39.2	+1.7
JSC	**Jenkinsville**	23.19	9	P	P	00 08 40.5	+1.3
BRDY	**Brady**	23.38	330	P	P	00 08 41.4	+0.3
PAULI	**Pauline**	23.64	8	P	P	00 08 44.9	+1.6
PAULI				IAmb	IAmb	00 08 48.4	
	comp=Z,10nm,1.1s						
BG3	**Lake Jocassee**	23.68	6		P	00 08 46.1	+2.4
CPCT	**Cooper Cave**	24.03	2		P	00 08 47.9	+1.0
MIAR	**Mount Ida**	24.21	344		P	00 08 49.0	+0.4
MIAR				IAmb	IAmb	00 08 51.3	
	comp=Z,5.8nm,0.7s						
TKL	**Tuckaleechee C**	24.27	4	P	P	00 08 49.7	+0.6
TKL				IAmb	IAmb	00 08 54.0	
	comp=Z,11nm,1.3s						
V48A	**Smith Brothers**	24.32	358	P	P	00 08 50.0	+0.5
V48A				IAmb	IAmb	00 08 51.4	
	comp=Z,6.7nm,0.8s						
TXAR	**Lajitas Array**	24.56	319	P	P	00 08 52.8	+0.9
	comp=Z,1.4nm,0.5s,baz=137,slow=10,SNR=16						
	comp=Z,1.4nm,0.5s						
TXAR	**Lajitas Array**	24.56	319	P	P	00 08 52.9	+1.0
TX31	**Lajitas Ar. Si**	24.56	319		P	00 08 53.1	+1.2
WVT	**Waverly**	24.77	356	P	P	00 08 53.8	+0.3
WVT				IAmb	IAmb	00 08 55.2	
	comp=Z,3.5nm,0.6s						
Q51A	**Peebles**	27.65	4		P	00 09 20.4	+1.0
PDAR	**Pinedale Array**	37.59	331	P	P	00 10 44.6	-1.3
	comp=Z,0.4nm,0.3s,baz=140,slow=13,SNR=1.7						
	comp=Z,0.4nm,0.3s						
NVAR	**Mina Array Bea**	39.70	318	P	P	00 11 04.7	+1.2
	comp=Z,0.6nm,0.5s,baz=124,slow=6.6,SNR=5.6						
	comp=Z,0.6nm,0.5s						
ULM	**Lac du Bonnet**	39.70	350	P	P	00 11 01.8	-1.2
	comp=Z,1.2nm,0.3s,baz=161,slow=11,SNR=4.9						
	comp=Z,1.2nm,0.3s						
ULM	**Lac du Bonnet**	39.70	350	P	P	00 11 01.9	-1.2
ULM				IAmb	IAmb	00 11 39.5	
	comp=Z,8.6nm,1.2s						
SCHQ	**Schefferville**	45.86	15	P	P	00 11 51.5	-1.1
	comp=Z,4.2nm,0.7s,baz=216,slow=6.1,SNR=6.9						
	comp=Z,4.2nm,0.7s						
SCHQ	**Schefferville**	45.86	15	P	P	00 11 52.0	-0.5
SCHQ				IAmb	IAmb	00 12 31.1	
	comp=Z,7.7nm,1.1s						
YKA	**Yellowknife Ar**	55.15	344	P	P	00 13 01.1	-0.9
	comp=Z,0.5nm,0.3s,baz=133,slow=8.2,SNR=2.4						
	comp=Z,0.5nm,0.3s						
ILAR	**Eielson Array**	67.75	336	P	P	00 14 25.4	-1.0
	comp=Z,0.3nm,0.5s,baz=109,slow=7.6,SNR=5.1						
	comp=Z,0.3nm,0.5s						
ESDC	**Sonseca Array**	76.49	52	P	P	00 15 18.0	-0.9
	comp=Z,0.3nm,0.6s,baz=276,slow=5.7,SNR=7.4						
	comp=Z,0.3nm,0.6s						
EKA	**Eskdalemuir Ar**	76.50	36	P	P	00 15 17.7	-0.8
	comp=Z,0.8nm,0.6s,baz=261,slow=6.8,SNR=3.9						
	comp=Z,0.8nm,0.6s						
ASAR	**Alice Springs**	140.47	247	PKP	PKPdf	00 22 58.0	+0.8
	comp=Z,0.7nm,0.5s,baz=97,slow=1.9,SNR=10						
ASAR	**Alice Springs**	140.47	247		PKPdf	00 22 57.5	+0.2
WRA	**Warramunga Arr**	140.64	252	PKP	PKPdf	00 22 58.9	+1.3
	comp=Z,0.9nm,0.5s,baz=93,slow=2.3,SNR=14						
WRA	**Warramunga Arr**	140.64	252		PKPdf	00 22 58.1	+0.5

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*ISU **10** 00:08:07, 40°.46N×73°.38E, h11^{km}*

*KRNET **10** 00:08:09.4±0.1, 40°.45N×73°.31E, h30^{km}, mb3.2*

*SOME **10** 00:08:10.6, 40°.60N×73°.55E, h5^{km}*

*NNC **10** 00:08:11.1±1.5, 40°.56N×73°.47E, h0^{km}, mb3.7, mpv3.4, Error ellipse: s-maj=11.9km s-min=5.5km az=172.0*

ISC 10 00:08:08.3±1.1, 40°.52N±0°.03×73°.49E±0°.02, h2^{km}±10^{km}, n68, σ1^{s}.88/108, 31C-17D, Kyrgyzstan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SFK	**Sufi-Kurgan**	0.51	179	⇑iP	Pg	00 08 19.0	+1.0
SFK				⇑iS	Sg	00 08 25.7	+1.1
OHH	**Osh**	0.54	271	⇑iP	Pg	00 08 18.2	-0.4
OHH				⇑iS	Sg	00 08 24.6	-1.0
TSTA	**Tashata**	0.77	275	P	Pb	00 08 23.7	-0.8
TSTA				S	Sb	00 08 34.2	-1.3
ARSB	**Arslanbob**	0.89	335	⇑eP	Pb	00 08 26.5	-0.2
ARSB				⇑iS	Sb	00 08 39.2	+0.1
FRG	**Fergana**	1.31	264	P	Pg	00 08 36.0	+2.6
FRG				S	Sn	00 08 53.0	+1.3
KSNS	**Kasansay**	1.62	294	P	Pg	00 08 42.8	+3.3
KSNS				S	Sg	00 09 04.4	+3.9
DRK	**Karamyk**	1.66	232	⇓eP	Pn	00 08 36.7	-2.1
DRK				⇓iS	Sn	00 08 56.5	-4.3
ARK	**Arkit**	1.72	318	⇑eP	Pn	00 08 39.4	0.0
ARK				⇑iS	Sn	00 09 01.1	-1.0
MINT	**Mingtut**	1.92	269	S	Sg	00 09 10.7	+0.8
TRKS	**Terek-Say**	2.04	300	⇓iP	Pn	00 08 42.3	-1.6
TRKS				⇓iS	Sn	00 09 06.3	-3.8
BTK	**Batken**	2.09	258	⇓eP	Pn	00 08 42.8	-1.7
BTK				⇓iS	Sn	00 09 07.2	-4.0
MNAS	**Manas**	2.10	340	⇓eP	Pn	00 08 45.4	+0.7
MNAS				⇓iS	Sn	00 09 11.6	+0.1
NRN	**Naryn**	2.11	64	⇑iP	Pb	00 08 47.0	-0.5
NRN				⇑iS	Sb	00 09 14.3	0.0
EKS2	**Erkin-Say**	2.15	6	P	Pb	00 08 49.1	+1.0
	SNR=23						
EKS2	**Erkin-Say**	2.15	6	⇓eP	Pb	00 08 46.9	-1.2
EKS2				⇓iS	Sb	00 09 14.3	-1.0
MRKS	**Merke**	2.23	355	Pg	Pb	00 08 50.6	+1.1
	22nm,0.3s						
MRKS				Lg	Lg	00 09 19.2	
	72nm,0.2s						
MRKS	**Merke**	2.23	355	eP	Pb	00 08 50.6	+1.1
	22nm,0.3s						
MRKS				eS	Sg	00 09 19.2	-0.9
	72nm,0.2s						
AAK	**Ala-Archa**	2.25	19	P	Pb	00 08 50.7	+0.9
	SNR=28						
AAK	**Ala-Archa**	2.25	19	⇑Pn	Pb	00 08 50.6	+0.9
	4.3nm,0.4s						
AAK				⇑Sn	Sg	00 09 20.1	-0.4
	56nm,0.7s						
AAK	**Ala-Archa**	2.25	19	⇑eP	Pb	00 08 48.6	-1.2
AAK				⇑eS	Sb	00 09 17.1	-1.0
KBK	**Karagaybulak**	2.40	27	P	Pb	00 08 53.3	+0.9
	SNR=17						
KBK	**Karagaybulak**	2.40	27	⇑eP	Pb	00 08 51.0	-1.4
KBK				⇑iS	Sb	00 09 21.0	-1.5
FRU1	**Bishkek**	2.44	20	⇑eP	Pb	00 08 51.6	-1.5
FRU1				⇑iS	Sb	00 09 22.1	-1.6
CHMS	**Chumysh**	2.65	20	P	Pb	00 08 56.4	-0.2
	SNR=5.7						
CHMS	**Chumysh**	2.65	20	⇓eP	Pn	00 08 54.1	+1.9
CHMS				⇓eS	Sn	00 09 26.7	+1.8
BOOM	**Boomskoye usch**	2.70	42	⇑eP	Pn	00 08 55.4	+2.5
BOOM				⇑iS	Sb	00 09 28.8	-2.2
ULHL	**Ulahol**	2.70	49	P	Pb	00 08 56.2	-1.2
	SNR=8.2						
ULHL	**Ulahol**	2.70	49	⇓eP	Pb	00 08 55.5	-2.0
ULHL				⇓iS	Sb	00 09 28.9	-2.2
PSK	**Pskem**	2.74	302	S	Sb	00 09 31.7	-0.5
CHMG	**Chimgan**	2.83	293	S	Sb	00 09 35.4	+0.7
USP	**Ospenovka**	2.85	15	P	Pb	00 08 58.7	-1.3
	SNR=9.6						
USP	**Ospenovka**	2.85	15	⇑eP	Pn	00 08 56.8	+1.9
USP				⇑eS	Sn	00 09 31.2	+1.4
DZA	**Taraz**	2.87	326	Pg	Pg	00 09 03.2	-0.1
	6.8nm,0.0s						
DZA				Lg	Lg	00 09 40.5	
	89nm,0.2s						
DZA	**Taraz**	2.87	326	eP	Pg	00 09 03.2	-0.1
	6.8nm,0.0s						
DZA				eS	Sg	00 09 40.5	-0.1
	89nm,0.2s						
TKM2	**Tokmak 2**	2.87	33	P	Pg	00 09 03.4	0.0
	SNR=14						
TKM2	**Tokmak 2**	2.87	33	⇓iP	Pn	00 08 57.7	+2.3
TKM2				⇓iS	Sn	00 09 32.8	+2.2
CHRV	**Charvak**	2.90	294	S	Sb	00 09 35.8	-0.9
SGDS	**Sogindy**	3.05	16	Pg	Pb	00 09 05.4	+1.9
	5.6nm,0.3s						
SGDS				Lg	Lg	00 09 45.0	
	25nm,0.4s						
IUG	**Iuzhnay**	3.07	303	Pg	Pg	00 09 07.6	+0.4
	12nm,0.3s						
IUG				Lg	Lg	00 09 48.1	
	152nm,0.7s						
IUG	**Iuzhnay**	3.07	303	eP	Pg	00 09 07.6	+0.4
	12nm,0.3s						
IUG				eS	Sg	00 09 48.1	+1.2
	152nm,0.7s						
KST	**Kastek**	3.13	35	Pg	Pb	00 09 07.2	+2.4
	2.8nm,0.3s						
KST				Lg	Lg	00 09 49.0	
	40nm,0.5s						
KST	**Kastek**	3.13	35	eP	Pb	00 09 07.0	+2.2
	1.9nm,0.2s						
KST				eS	Sg	00 09 47.2	-1.7
	37nm,0.6s						
KDJ	**Kajisay**	3.21	59	⇑eP	Pn	00 09 02.7	+2.7
KDJ				⇑eS	Sn	00 09 41.2	+2.2
KK31	**Karatay Array**	3.41	320	⇑Pg	Pb	00 09 11.0	+1.6
	1.1nm,0.3s,baz=140,slow=16,SNR=19						
KK31				⇑Lg	Lg	00 09 56.5	
	16nm,0.5s,baz=142,slow=29,SNR=10						
CHM	**Chimkent**	3.43	303	eP	Pg	00 09 13.4	-0.7
	9.5nm,0.1s						
CHM				eS	Sg	00 09 58.4	-0.2
	95nm,0.4s						
TARG	**Taragay, Kyrgy**	3.48	68	⇑eP	Pn	00 09 06.4	+2.5

TARG				⇑*i*S	Sn	00 09 47.9	+2.1
KRBS	Karabastau	3.57	26	Pg	Pb	00 09 14.9	+2.7
	6.3nm,0.4s						
KRBS				Lg	Lg	00 10 01.6	
	25nm,0.5s						
KRBS	Karabastau	3.57	26	*e*P	Pb	00 09 14.9	+2.7
	6.3nm,0.4s						
KRBS				*e*S	Sg	00 10 01.6	-1.4
	25nm,0.5s						
TNSS	Tian-Shan	3.61	45	Pg	Pg	00 09 16.3	-1.2
	1.6nm,0.3s						
TNSS				Lg	Lg	00 10 04.0	
	16nm,0.5s						
TNSS	Tian-Shan	3.61	45	*e*P	Pg	00 09 16.3	-1.2
	1.6nm,0.3s						
TNSS				*e*S	Sg	00 10 04.0	-0.3
	16nm,0.5s						
BRLS	Borolday	3.71	314	Pg	Pb	00 09 16.9	+2.3
	3.0nm,0.4s						
BRLS				Lg	Lg	00 10 04.5	
	19nm,0.3s						
BRLS	Borolday	3.71	314	*e*P	Pb	00 09 16.9	+2.3
	3.0nm,0.4s						
BRLS				*e*S	Sg	00 10 04.5	-3.0
	19nm,0.3s						
MDOK	Medeo	3.75	44	Pg	Pg	00 09 18.9	-1.3
	6.9nm,0.5s						
MDOK				Lg	Lg	00 10 08.4	
	66nm,0.7s						
MDOK	Medeo	3.75	44	*e*P	Pg	00 09 18.9	-1.3
	6.9nm,0.5s						
MDOK				*e*S	Sg	00 10 08.3	-0.4
	66nm,0.7s						
KOTS	Kotyrbulak	3.83	44	Pg	Pg	00 09 20.7	-1.1
	6.0nm,0.3s						
KOTS				Lg	Lg	00 10 11.1	
	72nm,0.6s						
KOTS	Kotyrbulak	3.83	44	*e*P	Pg	00 09 20.7	-1.1
	6.0nm,0.3s						
KOTS				*e*S	Sg	00 10 11.1	-0.4
	72nm,0.6s						
ANVS	Anan'yevo	3.86	53	⇑*e*P	Pn	00 09 11.6	+2.6
ANVS				⇑*i*S	Sn	00 09 56.9	+1.9
KTBS	Karatobe	3.98	36	Pg	Pb	00 09 21.9	+2.7
	0.2nm,0.1s						
KTBS				Lg	Lg	00 10 14.0	
	53nm,0.8s						
KTBS	Karatobe	3.98	36	*e*P	Pb	00 09 22.5	+3.3
	0.2nm,0.1s						
KTBS				*e*S	Sg	00 10 13.8	-2.4
	54nm,0.9s						
KUU	Kurty	3.98	31	Pg	Pg	00 09 22.8	-1.8
	2.1nm,0.1s						
KUU				Lg	Lg	00 10 14.4	
	57nm,0.5s						
KUU	Kurty	3.98	31	*e*P	Pg	00 09 22.8	-1.8
	2.1nm,0.1s						
KUU				*e*S	Sg	00 10 14.4	-1.8
	57nm,0.5s						
SATY	Saty	4.47	54	Pg	Pg	00 09 31.8	-2.2
	3.5nm,0.6s						
SATY				Lg	Lg	00 10 29.8	
	25nm,0.5s						
SATY	Saty	4.47	54	*e*P	Pg	00 09 31.8	-2.2
	3.5nm,0.6s						
SATY				*e*S	Sg	00 10 29.8	-2.1
	25nm,0.5s						
KURS	Kuram	4.58	48	Pg	Pg	00 09 34.0	-2.1
	1.4nm,0.4s						
KURS				Lg	Lg	00 10 33.6	
	8.4nm,1.2s						
KURS	Kuram	4.58	48	*e*P	Pg	00 09 34.0	-2.1
	1.4nm,0.4s						
KURS				*e*S	Sg	00 10 33.6	-1.9
	8.4nm,1.2s						
ARXS	Arharly	4.89	40	Pg	Pg	00 09 39.3	-2.8
	1.7nm,0.6s						
ARXS				Lg	Lg	00 10 43.1	
	15nm,0.5s						
ARXS	Arharly	4.89	40	*e*P	Pg	00 09 39.3	-2.8
	1.7nm,0.6s						
ARXS				*e*S	Sg	00 10 43.1	-2.4
	15nm,0.5s						
PDGK	Podgornoye	5.29	56	⇑Pg	Pb	00 09 45.5	+4.0
	2.0nm,0.7s						
PDGK				⇓Lg	Lg	00 10 59.2	
	8.1nm,0.6s						

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*IDC **10** 00:27:39.1±0.8, 11°.87N×124°.08E, h0^{km}, mb3.9/12,*
mbtmp3.9/12, MS3.2/7, Error ellipse: s-maj=40.1km
s-min=15.9km az=69.0
*MAN **10** 00:27:40.0, 11°.90N×124°.08E, h4^{km}, MS3.9*
MAN INTENSITY II - CATAINGAN MASBATE.
ISC 10 00:27:40.4±0.6**, 11°.92N**±0°.03×**124°.06E**±0°.04**, h10**^{km}**, n32,**
σ1^{s}**87**/39**, mb3.8**/12**, MS3.1**/7**, Leyte**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MMPH	Masbate	0.60	316	*e*P	Pn	00 27 53.1	-2.0
MMPH				*e*S	Sg	00 27 59.8	-0.3
MECP	Medelin, Cebu	0.76	186	*e*P	Pb	00 27 55.1	-0.7
MECP				*e*S	Sn	00 28 16.5	+7.6
PLP	Palo	1.18	130	*i* P	Pn	00 28 02.5	-0.5
PLP				*i* S	Sn	00 28 20.4	+1.3
LLP	Lapu-Lapu	1.60	183	*e*P	Pb	00 28 08.1	-2.0
LLP				*i* S	Sg	00 28 30.6	-1.3
IBAJ	Ibajay, Aklan	1.85	267	*e*P	Pb	00 28 13.0	-1.4
IBAJ				*e*S	Sg	00 28 38.9	-1.0
GUIM	Jordan	1.93	228	*i* P	Pn	00 28 11.6	-1.8
GUIM				*i* S	Sn	00 28 36.3	-1.4
TBP	Tagbilaran	2.23	185	*e*P	Pn	00 28 17.2	-0.3
TBP				*i* S	Sg	00 28 55.3	+3.2
GQP	Guinayangan	2.52	322	*e*P	Pn	00 28 22.0	+0.6
GQP				*i* S	Sg	00 29 00.2	-1.2
SNPH	Sibulan	2.69	198	*i* P	Pn	00 28 24.5	+0.6
SNPH				*i* S	Sg	00 29 06.2	-0.7
LSIP	Lazi, Siquijor	2.81	189	*i* P	Pn	00 28 24.9	-0.6
LSIP				*e*S	Sg	00 29 08.4	-2.3
GLSP	General Luna,	2.94	136	*e*P	Pb	00 28 29.7	-3.3
GLSP				*e*S	Sb	00 29 07.0	-2.1
LQP	Lukban	3.28	312	*e*P	Pn	00 28 33.8	+1.7
DCPH	Dipolog City	3.39	192	*i* P	Pn	00 28 32.7	-0.8
BUKP	Musuan	4.14	166	*i* P	Pn	00 28 46.0	+2.1
BUKP				*i* S	Sn	00 29 31.8	-0.6
GUMO	Guam	20.37	83	LR	LR	00 38 32.7	
	comp=Z,22nm,20.9s,baz=252,slow=32						
CMAR	Chiang Mai Arr	25.07	288	P	P	00 33 05.6	+0.2
	0.6nm,0.3s,baz=103,slow=9.2,SNR=5.1						
	0.6nm,0.3s						
KSRS	Korea Array	25.66	7	P	P	00 33 11.1	+0.7
	0.6nm,0.5s,baz=185,slow=8.5,SNR=1.8						
KSRS				LR	LR	00 43 24.2	
	comp=Z,52nm,19.1s,baz=200,slow=37						
	0.6nm,0.5s						
WRA	Warramunga Arr	33.24	162	P	P	00 34 16.9	-1.2
	1.0nm,0.8s,baz=338,slow=8.2,SNR=6.9						
WRA				PcP	PcP	00 37 01.5	+0.9
	0.3nm,0.6s,baz=333,slow=3.3,SNR=1.7						
	1.0nm,0.8s						
ASAR	Alice Springs	36.66	165	P	P	00 34 47.3	-0.2
	1.1nm,0.4s,baz=345,slow=8.7,SNR=16						
	1.1nm,0.4s						
KLR	Kul'dur	37.74	8	LR	LR	00 50 17.4	
	comp=Z,31nm,19.0s,baz=212,slow=36						
SONM	Songino Array	38.74	341	P	P	00 35 05.6	+0.6
	0.2nm,0.5s,baz=157,slow=7.7,SNR=1.7						
	0.2nm,0.5s						
HNR	Honiara	41.51	119	LR	LR	00 52 31.5	
	comp=Z,26nm,18.2s,baz=327,slow=36						
STKA	Stephens Creek	46.68	159	P	P	00 36 09.4	-0.1
	1.5nm,0.2s,baz=334,slow=12,SNR=3.7						
	1.5nm,0.2s						
MKAR	Makanchi Array	49.41	323	P	P	00 36 31.1	+0.7
	0.3nm,0.6s,baz=112,slow=10.0,SNR=5.1						
	0.3nm,0.6s						
AAK	Ala-Archa	52.63	315	LR	LR	01 03 49.3	
	comp=Z,40nm,18.5s,baz=166,slow=41						
KURBB	Kurchatov Arra	53.49	326	P	P	00 37 01.7	+0.8
	0.8nm,0.5s,baz=126,slow=6.8,SNR=4.7						
	0.8nm,0.5s						
ILAR	Eielson Array	78.91	26	P	P	00 39 44.1	+0.2
	0.3nm,0.6s,baz=280,slow=7.5,SNR=2.8						
	0.3nm,0.6s						
RAR	Rarotonga	81.70	114	LR	LR	01 08 45.0	
	comp=Z,26nm,20.7s,baz=212,slow=30						
ARCES	ARCESS Array B	81.89	339	P	P	00 40 01.1	+1.3
	0.8nm,0.7s,baz=75,slow=3.4,SNR=3.6						
	0.8nm,0.7s						
SPITS	Spitsbergen Ar	81.98	349	P	P	00 39 60.0	-0.2
	9.3nm,0.9s,baz=95,slow=8.8,SNR=2.6						
	9.3nm,0.9s						
FINES	FINESS Array B	83.41	331	P	P	00 40 08.2	+0.3
	3.6nm,1.0s,baz=85,slow=2.9,SNR=4.8						
	3.6nm,1.0s						
NOA	NORSAR Array B	90.32	333	LR	LR	01 24 02.5	
	comp=Z,16nm,18.1s,baz=330,slow=37						

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*VAO **10** 00:36:23.0±0.4, 14°.31S×73°.52W, h65^{km}, mb4.2,*
Presumed earthquake
*IDC **10** 00:36:25.0±1.4, 14°.27S×73°.59W, h77^{km}±13^{km}, mb3.6/9,*
mbtmp4.0/15, Error ellipse: s-maj=25.9km s-min=9.1km
az=37.0
*NEIC **10** 00:36:24.2±1.7, 14°.39S±0°.10×73°.6W±0°.1, h67^{km}±7^{km},*
mb4.3/19, Error ellipse: s-maj=18.1km s-min=9.4km
az=48.0
ISC 10 00:36:24.9±0.4**, 14°.25S**±0°.06×**73°.49W**±0°.06**, h85**^{km}**, n88,**
σ1^{s}**62**/91**, mb4.2**/12**, Central Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNA	Nana	3.97	304	P	Pn	00 37 22.9	-0.6
	172nm,0.3s,baz=124,slow=9.5,SNR=44						
NNA				S	Sn	00 38 07.7	-1.2
	192nm,0.3s,baz=180,slow=4.0,SNR=16						
NNA	Nana	3.97	304		Pn	00 37 23.1	-0.3
NNA				Sn	Sn	00 38 06.9	-2.0
PB18	Visviri	5.09	131		Pn	00 37 38.8	-0.3
PB12	IPOC Station P	5.29	146		Pn	00 37 39.9	-1.6
LPAZ	La Paz	5.55	112	P	Pn	00 37 48.7	+3.1
	41nm,0.3s,baz=307,slow=12,SNR=265						
LPAZ				S	Sn	00 38 51.9	+3.5
	13nm,0.6s,baz=202,slow=5.4,SNR=1.5						
LPAZ	La Paz	5.55	112		Pn	00 37 48.8	+3.3
LPAZ	La Paz	5.55	112	*e*P	Pn	00 37 46.5	+0.9
PB16	IPOC Station P	5.58	137		Pn	00 37 46.5	+0.6
PSGCX	Pisagua	6.22	149		Pn	00 37 51.9	-2.3
CZSB	Cruzeiro do Su	6.52	7		Pn	00 37 53.8	-4.5
CZSB	Cruzeiro do Su	6.52	7	*e*P	Pn	00 37 54.4	-3.9
PB11	IPOC Station P	6.59	147		Pn	00 37 57.0	-2.4
GO01	Chusmiza	6.78	143		Pn	00 38 00.8	-1.3
TA01	Diego Aracena	7.03	154	Pn	Pn	00 38 02.4	-2.7
PB08	IPOC Station P	7.17	145		Pn	00 38 05.3	-2.2
PB02	IPOC Station P	7.82	155		Pn	00 38 12.8	-3.2
PB07	IPOC Station P	8.19	156		Pn	00 38 17.8	-3.3
PB09	IPOC Station P	8.52	152	Pn	Pn	00 38 23.6	-2.0
PB03	IPOC Station P	8.53	156		Pn	00 38 22.4	-3.3
ATAH	Atahualpa	8.56	325	P	Pn	00 38 26.4	0.0
	2.4nm,0.3s,baz=180,slow=5.1,SNR=9.9						
ATAH				S	Sn	00 40 00.7	-0.9
	18nm,0.8s,baz=64,slow=17,SNR=3.7						
SIV	San Ignacio	12.11	100	P	Pn	00 39 14.4	-0.1
	8.0nm,0.4s,baz=275,slow=13,SNR=46						
VILB	Vilhena	12.98	86		Pn	00 39 25.2	-0.9
VILB	Vilhena	12.98	86	*e*P	Pn	00 39 25.2	-0.9
AC02	Maricunga	13.17	163	Pn	Pn	00 39 25.7	-3.3
PTLB	Pontes e Lacer	13.93	97		Pn	00 39 38.0	-0.4
PTLB	Pontes e Lacer	13.93	97	*e*P	Pn	00 39 38.4	-0.1
OTAV	Otavalo	15.21	341	*e*P	P	00 39 57.7	-0.9
CO01	Juntas del Tor	15.96	169		Pn	00 40 04.4	-0.3
COIM	Forte Coimbra	16.02	113	*e*P	Pn	00 40 01.7	-3.6
CO03	El Pedregal	16.71	172		Pn	00 40 13.2	-0.7
BDQN	Bodoquena, MS	17.12	113	*e*P	Pn	00 40 19.2	+0.4
SALV	Santo Antonio	17.26	98	*e*P	Pn	00 40 19.4	-1.2
CLDB	Colider	17.59	81	*e*P	P	00 40 23.6	-0.8
CO04	Los Peladeros	17.86	173	P	P	00 40 26.8	-0.8
CO04				IAmb	IAmb	00 40 30.2	
	comp=Z,16nm,1.2s						
CFA	Coronel Fontan	17.93	165	P	P	00 40 27.5	-0.7
	comp=Z,1.7nm,0.5s,baz=347,slow=12,SNR=7.6						
AQDB	Aquidauana	18.07	113	*e*P	P	00 40 29.6	-0.1
PP1B	Ponte de Pedra	18.20	103	*e*P	Pn	00 40 31.9	-0.2
MT02	Curacav	19.05	174	P	P	00 40 39.9	-0.4
MT02				IAmb	IAmb	00 40 42.4	
	comp=Z,35nm,1.4s						
CPUP	Villa Florida	19.32	131	P	P	00 40 43.4	0.0
	comp=Z,2.1nm,0.5s,baz=304,slow=15,SNR=7.2						
CPUP	Villa Florida	19.32	131	P	P	00 40 43.3	0.0
CPUP	Villa Florida	19.32	131	*e*P	P	00 40 42.7	-0.6
SJPY	San Joaquin	19.53	126	*e*P	P	00 40 44.2	-1.5
MT09	Talagante	19.57	174	P	P	00 40 46.0	-0.2
MT09				IAmb	IAmb	00 41 22.9	
	comp=Z,25nm,1.4s						
MT01	Popeta	19.63	174	P	P	00 40 46.0	-0.8
MT01				IAmb	IAmb	00 41 01.5	
	comp=Z,20nm,1.3s						
ITTB	Itaituba	20.06	62	*e*P	P	00 40 51.3	-0.2
BO02	Sierra Bellavi	20.60	174	P	P	00 40 57.6	+0.4
BO02				IAmb	IAmb	00 41 09.5	
	comp=Z,12nm,1.1s						
BOAV	Boa Vista	20.94	39	P	Pn	00 41 03.4	-1.0
BOAV	Boa Vista	20.94	39	*e*P	P	00 41 00.6	-0.4
ARAG	Araguaiana, MT	20.99	97	*e*P	P	00 40 60.0	-1.5
SNDB	Serra Nova Dou	21.73	87	*e*P	P	00 41 10.5	+1.1
FRTB	Fartura	24.36	115	*e*P	P	00 41 36.0	+0.9
ANCO	Parque Anchore	24.39	148	*e*P	P	00 41 35.8	+0.6
CPSB	Cacapava Do Su	24.48	134	P	P	00 41 36.5	+0.4
CPSB	Cacapava Do Su	24.48	134	*e*P	P	00 41 35.9	-0.2
IPMB	Ipameri, GO	24.56	102	*e*P	P	00 41 36.7	-0.3
BB19B	Bebedouro	24.71	109	*e*P	P	00 41 38.6	+0.3
SMTB	Santa Maria do	25.92	81	*e*P	P	00 41 50.4	+1.0
SDBA	SAO DESIDERIO	27.87	90	*e*P	P	00 42 08.1	+1.2
JANB	Januaria	28.23	95	*e*P	P	00 42 09.4	-0.7
HNDO	Hondo	50.14	330		P	00 45 13.1	+1.3
PMSA	Palmer Station	50.88	175	*e*P	P	00 45 15.5	-1.3
MIAR	Mount Ida	52.15	339	P	P	00 45 27.5	+0.8
MIAR				IAmb	IAmb	00 45 28.6	
	comp=Z,4.0nm,0.8s						
TXAR	Lajitas Array	52.22	326	P	P	00 45 28.3	+0.8
	comp=Z,1.7nm,0.7s,baz=142,slow=6.7,SNR=11						
	comp=Z,1.7nm,0.7s						
TXAR	Lajitas Array	52.22	326	P	P	00 45 28.0	+0.6
TX31	Lajitas Ar. Si	52.22	326		P	00 45 28.3	+0.9
TX31				IAmb	IAmb	00 45 29.6	
	comp=Z,2.6nm,0.8s						
S39A	Bolivar	54.92	341		P	00 45 47.3	+0.4
S39A				IAmb	IAmb	00 45 48.0	
	comp=Z,2.6nm,0.8s						
T25A	Trinidad	58.82	331	P	P	00 46 16.1	+1.3
T25A				IAmb	IAmb	00 46 17.2	
	comp=Z,2.6nm,0.6s						
SDCO	Great Sand Dun	59.82	331		P	00 46 23.1	+1.4
PDAR	Pinedale Array	65.69	332	P	P	00 47 00.8	+0.1
	comp=Z,0.2nm,0.3s,baz=127,slow=5.0,SNR=1.9						
	comp=Z,0.2nm,0.3s						
NVAR	Mina Array Bea	67.12	323	P	P	00 47 11.4	+1.6
	comp=Z,0.4nm,0.6s,baz=135,slow=2.6,SNR=2.6						
	comp=Z,0.4nm,0.6s						
ULM	Lac du Bonnet	67.17	345	P	P	00 47 09.9	+0.4
	comp=Z,2.9nm,0.5s,baz=166,slow=7.1,SNR=7.2						
	comp=Z,2.9nm,0.5s						
ULM	Lac du Bonnet	67.17	345	P	P	00 47 10.0	+0.4
SNAA	Sanae	70.51	162	P	P	00 47 32.3	+2.1
	comp=Z,1.0nm,0.6s,baz=333,slow=4.5,SNR=1.9						
	comp=Z,1.0nm,0.6s						
QSPA	South Pole Qui	75.90	180	P	P	00 48 02.6	+0.5
	comp=Z,0.3nm,0.5s,baz=172,slow=1.3,SNR=1.1						
	comp=Z,0.3nm,0.5s						
QSPA	South Pole Qui	75.90	180	P	P	00 48 03.2	+1.1
QSPA				IAmb	IAmb	00 48 11.8	
	comp=Z,4.5nm,1.4s						
TORD	Torodi Ar. Bea	79.26	73	P	P	00 48 22.8	+1.2
	comp=Z,0.7nm,0.7s,baz=263,slow=5.7,SNR=4.6						
	comp=Z,0.7nm,0.7s						
YKA	Yellowknife Ar	82.96	342	P	P	00 48 40.6	+0.5
	comp=Z,2.0nm,0.8s,baz=139,slow=5.5,SNR=6.0						
	comp=Z,2.0nm,0.8s						
ESDC	Sonseca Array	83.90	47	P	P	00 48 47.5	+2.0
	comp=Z,0.5nm,0.7s,baz=248,slow=5.6,SNR=2.8						
	comp=Z,0.5nm,0.7s						
ASAR	Alice Springs	133.77	216	PKP	PKiKP	00 55 34.1	+0.1
	comp=Z,0.3nm,0.4s,baz=158,slow=2.7,SNR=2.3						
WRA	Warramunga Arr	136.37	220	PKP	PKPdf	00 55 37.6	-0.1
	comp=Z,0.8nm,0.8s,baz=135,slow=2.1,SNR=3.6						
ZALV	Zalesovo Beam	136.87	19	PKP	PKPdf	00 55 38.4	+0.9
	comp=Z,0.6nm,0.4s,baz=343,slow=4.5,SNR=1.6						
KURBB	Kurchatov Arra	137.22	26	PKP	PKPdf	00 55 39.1	+0.8
	comp=Z,0.4nm,0.4s,baz=305,slow=1.9,SNR=2.9						
ARSB	Arslanbob	140.32	41	PKPdf	PKPdf	00 55 44.6	+0.2
SONM	Songino Array	146.51	0	PKPbc	PKPab	00 55 58.3	+0.6
	comp=Z,0.8nm,0.6s,baz=340,slow=1.3,SNR=5.1						
SONM	Songino Array	146.51	0	PKPbc	PKPab	00 55 57.5	-0.2
KSRS	Korea Array	150.05	324	PKPbc	PKiKP	00 56 07.4	+0.5
	comp=Z,0.5nm,0.5s,baz=8.1,slow=2.6,SNR=4.2						
HHC	Hu-ho-hao-te	153.13	352	*e*P	PKPdf	00 56 01.0	-4.7
PZH	PanZhiHua	167.02	19	PKP	PKPdf	00 56 22.1	+0.5

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*IDC **10** 01:07:09.6±1.0, 37°.04N×72°.58E, h0^{km}, mb3.8/18,*
mbtmp3.8/24, ML3.3/6, MS2.8/3, Error ellipse:
s-maj=20.3km s-min=13.4km az=137.0
*NNC **10** 01:07:12.9±7.0, 38°.09N×72°.26E, h0^{km}, mb4.1, mpv3.6,*
Error ellipse: s-maj=48.2km s-min=38.9km az=5.0
*NEIC **10** 01:07:21.2±1.3, 37°.47N±0°.06×72°.41E±0°.10, h79^{km}±2^{km},*
mb4.2/17, Error ellipse: s-maj=11.2km s-min=8.6km
az=93.0
ISC 10 01:07:23.2±0.6**, 37°.59N**±0°.08×**72°.50E**±0°.07**, h100**^{km}**, n77,**
σ1^{s}**42**/72**, mb3.8**/18**, 1C-3D, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DRK	Karamyk	1.97	344		Pn	01 07 53.6	-2.1
BTK	Batken	2.80	332	Pn	Pn	01 08 04.9	-1.4
ARSB	Arslanbob	3.75	6		Pn	01 08 18.7	-0.5
NIL	Nilore	3.97	171		Pn	01 08 17.7	-4.4
KBL	Kabul	4.13	224		Pn	01 08 20.4	-3.9
NRN	Naryn	4.70	34		Pn	01 08 31.4	-0.7
IUG	Iuzhnay	4.94	338	Pg	Pn	01 08 36.3	+1.2
	14nm,0.5s						
IUG				Lg	Lg	01 09 37.2	
	35nm,0.4s						
ALCI	Alchi Leh	5.08	130	*e*P	Pn	01 08 36.9	-0.4
ALCI				*e*S	Sn	01 09 31.0	-3.9
ALCI				IAML		01 09 51.0	
	comp=E,1µm,0.1s						
ALCI				IAML		01 09 51.0	
	comp=N,1µm,0.1s						
JMU	Jammu	5.16	158	*e*P	Pn	01 08 37.8	-0.3
JMU				*e*S	Sn	01 09 32.6	-3.8
JMU				IAML		01 10 07.3	
	comp=N,809nm,0.2s						
JMU				IAML		01 10 10.8	
	comp=E,786nm,0.5s						
MRKS	Merke	5.18	6	Pg	Pn	01 08 39.1	+0.7
	comp=E,5.4nm,0.5s						
MRKS				Lg	Lg	01 09 43.9	
	comp=E,21nm,0.3s						
AAK	Ala-Archa	5.27	16	Pn	Pn	01 08 39.7	0.0
	comp=E,3.7nm,0.3s,baz=183,slow=7.1,SNR=20						
AAK				Sn	Sn	01 09 47.6	+8.4
	comp=E,2.5nm,0.3s,baz=124,slow=3.6,SNR=7.2						
	comp=E,7.1nm,0.4s						
AAK				AML	AML		
AAK	Ala-Archa	5.27	16	⇓Pg	Pn	01 08 40.9	+1.2
	comp=E,4.3nm,0.6s						
AAK				⇓Lg	Lg	01 09 46.9	
	comp=E,9.9nm,0.8s						
AAK	Ala-Archa	5.27	16		Pn	01 08 39.0	-0.7
FRU1	Bishkek	5.47	17	Pn	Pn	01 08 40.4	-1.9
BOOM	Boomskoye usch	5.56	27		Pn	01 08 43.1	-0.6
TSSA	Tissa	5.60	147	*e*P	Pn	01 08 43.5	-0.8
TSSA				*e*S	Sn	01 09 43.3	-4.1
TSSA				IAML		01 09 45.7	
	comp=N,483nm,0.4s						
TSSA				IAML		01 09 45.8	
	comp=E,354nm,0.2s						
KK31	Karatay Array	5.72	345	⇑Pg	Pn	01 08 45.4	-0.3
	comp=E,3.5nm,0.3s,baz=174,slow=14,SNR=29						
KK31				⇓Lg	Lg	01 09 54.6	
	comp=E,4.7nm,0.4s,baz=173,slow=24,SNR=3.7						
KK31	Karatay Array	5.72	345		Pn	01 08 43.9	-1.7
KKAR	Karatay Array	5.72	345		Pn	01 08 44.3	-1.3
KDJ	Kajisay	5.79	37	Pn	Pn	01 08 46.5	-0.3
BRLS	Borolday	5.81	340	Pg	Pn	01 08 43.6	-3.2
BRLS				Lg	Lg	01 09 49.8	
TARG	Taragay, Kyrgy	5.82	43		Pn	01 08 47.5	+0.1
KRBS	Karabastau	6.56	21	Pg	Pn	01 08 57.4	+0.3
	comp=E,1.7nm,0.4s						
KRBS				Lg	Lg	01 10 11.5	
	comp=E,4.0nm,0.6s						
SMLA	Simla	7.51	148	*e*P	Pn	01 09 08.8	-1.2
SMLA				IAML		01 10 25.1	
	comp=N,27nm,0.6s						
SMLA				*e*S	Sn	01 10 25.3	-8.2
SMLA				IAML		01 10 25.9	
	comp=E,78nm,0.8s						
KLP	Kalpa	7.68	140	*e*P	Pn	01 09 12.3	-0.2
KLP				*e*S	Sn	01 10 29.4	-8.7
KLP				IAML		01 10 30.3	
	comp=E,56nm,0.5s						
KLP				IAML		01 10 31.1	
	comp=N,54nm,0.3s						
PDGK	Podgornoye	7.83	41		Pn	01 09 13.9	-0.5
HRA	Herat	8.90	252	Pn	Pn	01 09 23.4	-5.7
MK31	Makanchi Array	11.71	35	Pn	Pn	01 10 05.3	-1.6
MKAR	Makanchi Array	11.71	35	Pn	Pn	01 10 04.4	-2.5
	comp=N,0.1nm,0.3s,baz=228,slow=17,SNR=4.7						
MKAR				LR	LR	01 15 04.0	
	comp=N,52nm,21.1s,baz=204,slow=39						
	comp=N,0.4nm,0.6s						
MKAR				AML	AML		
MKAR	Makanchi Array	11.71	35		Pn	01 10 06.2	-0.8
KURBB	Kurchatov Arra	13.73	16	Pn	Pn	01 10 30.2	-3.2
	baz=204,slow=12,SNR=6.4						
KURBB				Lg	Lg	01 14 28.0	
	baz=210,slow=30,SNR=2.2						
	comp=N,0.6nm,0.7s						
KURK	Kurchatov	13.83	16	Pn	Pn	01 10 33.1	-1.7
AB31	Akbulak array	14.78	326	Pn	Pn	01 10 45.0	-2.0
ABKAR	Akbulak array	14.78	326	Pn	Pn	01 10 46.2	-0.8
BVAR	Borovoye Array	15.51	355	Pn	Pn	01 10 53.9	-2.2
	baz=171,slow=12,SNR=3.6						
BVAR				Lg	Lg	01 15 32.7	
	baz=152,slow=26						
	comp=N,1.0nm,0.5s						
BORK	Borovoye	15.54	355	Pn	Pn	01 10 56.6	+0.2
BORK				IAmb	IAmb	01 11 01.6	
	comp=Z,4.4nm,0.7s						
AKTO	Aktyubinsk	16.50	326	Pn	Pn	01 11 06.6	-1.9
	comp=Z,0.7nm,0.3s,baz=132,slow=9.4,SNR=15						
AKTO				Sn	Sn	01 14 07.7	-3.6
	comp=Z,0.1nm,0.3s,baz=184,slow=19,SNR=1.7						
	comp=Z,2.6nm,0.6s						
AKTO				AML	AML		
ZAA0	Zalesovo Array	18.44	24	P	Pn	01 11 32.1	+0.2
ZALV	Zalesovo Beam	18.44	24	P	P	01 11 30.0	-0.6
	comp=Z,0.7nm,0.3s,baz=211,slow=10,SNR=11						
ZALV				LR	LR	01 18 15.9	
	comp=Z,19nm,19.3s,baz=22,slow=35						
	comp=Z,2.1nm,0.4s						
ZALV				AML	AML		
ZALV	Zalesovo Beam	18.44	24	P	Pn	01 11 32.2	+0.3
ARTI	Arti	21.05	338	P	P	01 12 00.5	+1.6
	comp=Z,0.8nm,0.4s,baz=157,slow=15,SNR=2.1						
ARTI				LR	LR	01 21 19.9	
	comp=Z,24nm,18.4s,baz=106,slow=39						
	comp=Z,0.8nm,0.4s						
ARTI	Arti	21.05	338	P	P	01 11 59.8	+0.8
ARTI				IAmb	IAmb	01 12 28.0	
	comp=Z,10nm,1.4s						
GNI	Garni	21.73	285	P	P	01 12 05.1	-1.4
	comp=Z,7.2nm,1.0s,baz=72,slow=20,SNR=3.9						
	comp=Z,7.2nm,1.0s						
GNI	Garni	21.73	285	P	P	01 12 05.8	-0.7
GNI				IAmb	IAmb	01 12 14.5	
	comp=Z,13nm,1.0s						
KBZ	Khabaz	23.20	295	P	P	01 12 21.2	-0.1
	comp=Z,0.6nm,0.6s,baz=130,slow=7.9,SNR=1.8						
	comp=Z,0.6nm,0.6s						
SONM	Songino Array	26.73	57	P	P	01 12 54.0	+0.6
	comp=Z,0.3nm,0.5s,baz=253,slow=8.6,SNR=3.5						
	comp=Z,0.3nm,0.5s						
SONM	Songino Array	26.73	57	P	P	01 12 52.4	-0.9
ULN	Ulaanbaatar	27.18	57	P	P	01 12 58.1	+0.8
OBN	Obninsk	29.92	317	P	P	01 13 21.8	+0.4
BRTR	Keskin Array B	30.27	286	P	P	01 13 25.6	+0.8
	comp=Z,0.3nm,0.5s,baz=87,slow=12,SNR=2.0						
	comp=Z,0.3nm,0.5s						
BRTR	Keskin Array B	30.27	286	P	P	01 13 24.3	-0.5
AKASG	Malin Array Be	33.22	307	P	P	01 13 50.1	-0.3
	comp=Z,0.3nm,0.3s,baz=80,slow=7.7,SNR=5.1						
	comp=Z,0.3nm,0.3s						
AKASG	Malin Array Be	33.22	307	P	P	01 13 49.9	-0.5
AKASG				IAmb	IAmb	01 14 07.5	
	comp=Z,2.0nm,1.0s						

FIA1	**FINESS Array S**	**37.27**	**325**	P	**P**	**01 14 25.6**	**+0.7**
FINES	**FINESS Array B**	**37.27**	**325**	P	**P**	**01 14 27.0**	**+2.1**
	comp=Z,2.1nm,0.5s,baz=108,slow=8.6,SNR=18						
	comp=Z,2.1nm,0.5s						
ARCES	**ARCESS Array B**	**40.61**	**337**	P	**P**	**01 14 55.3**	**+2.5**
	comp=Z,1.2nm,0.6s,baz=118,slow=8.5,SNR=10						
	comp=Z,1.2nm,0.6s						
ARCES	**ARCESS Array B**	**40.61**	**337**	P	**P**	**01 14 54.3**	**+1.5**
ARCES				IAmb	IAmb	01 15 25.5	
	comp=Z,8.8nm,1.4s						
HFS	**Hagfors**	**42.97**	**321**	P	**P**	**01 15 14.1**	**+2.1**
	comp=Z,5.2nm,0.6s,baz=99,slow=8.9,SNR=15						
	comp=Z,5.2nm,0.6s						
GERES	**GERESS Array B**	**43.29**	**305**	P	**P**	**01 15 17.1**	**+2.2**
	comp=Z,0.3nm,0.2s,baz=81,slow=7.6,SNR=2.4						
	comp=Z,0.3nm,0.2s						
GERES	**GERESS Array B**	**43.29**	**305**	P	**P**	**01 15 15.3**	**+0.4**
SABO	**M.te Sabotino**	**43.82**	**300**	P	**P**	**01 15 18.9**	**-0.2**
SABO				IAmb	IAmb	01 15 22.1	
	comp=Z,6.0nm,0.9s						
NB2	**NORSAR Subarra**	**44.25**	**322**	P	**P**	**01 15 24.2**	**+1.9**
	comp=Z,1.1nm,0.5s,baz=93,slow=7.9						
NOA	**NORSAR Array B**	**44.25**	**322**	P	**P**	**01 15 24.2**	**+1.9**
	comp=Z,2.2nm,0.7s,baz=92,slow=7.9,SNR=6.3						
	comp=Z,2.2nm,0.7s						
EKA	**Eskdalemuir Ar**	**52.35**	**316**	P	**P**	**01 16 26.1**	**+1.6**
	comp=Z,2.1nm,0.9s,baz=80,slow=7.2,SNR=4.5						
	comp=Z,2.1nm,0.9s						
ESDC	**Sonseca Array**	**58.01**	**298**	P	**P**	**01 17 06.2**	**+0.6**
	comp=Z,0.8nm,1.0s,baz=67,slow=7.2,SNR=6.0						
	comp=Z,0.8nm,1.0s						
ESDC	**Sonseca Array**	**58.01**	**298**	P	**P**	**01 17 05.1**	**-0.5**
ESDC				IAmb	IAmb	01 17 09.6	
	comp=Z,2.2nm,1.2s						
TORD	**Torodi Ar. Bea**	**66.94**	**269**	P	**P**	**01 18 03.9**	**-1.4**
	comp=Z,0.3nm,0.5s,baz=48,slow=5.8,SNR=5.2						
	comp=Z,0.3nm,0.5s						
TORD	**Torodi Ar. Bea**	**66.94**	**269**	P	**P**	**01 18 04.3**	**-0.9**
ILAR	**Eielson Array**	**73.40**	**16**	P	**P**	**01 18 45.0**	**+1.1**
	comp=Z,0.6nm,0.9s,baz=327,slow=6.9,SNR=5.6						
	comp=Z,0.6nm,0.9s						
ILAR	**Eielson Array**	**73.40**	**16**	P	**P**	**01 18 44.9**	**+0.9**
DBIC	**Dimbokro**	**75.95**	**268**	P	**P**	**01 18 58.1**	**-1.3**
	comp=Z,4.8nm,1.0s,baz=45,slow=1.4,SNR=1.6						
	comp=Z,4.8nm,1.0s						
DBIC	**Dimbokro**	**75.95**	**268**	P	**P**	**01 18 58.5**	**-0.9**
DBIC				IAmb	IAmb	01 19 29.2	
	comp=Z,26nm,1.4s						
YKA	**Yellowknife Ar**	**80.10**	**3**	P	**P**	**01 19 23.7**	**+2.2**
	comp=Z,0.8nm,0.6s,baz=350,slow=5.3,SNR=4.4						
	comp=Z,0.8nm,0.6s						
YKA	**Yellowknife Ar**	**80.10**	**3**	P	**P**	**01 19 22.5**	**+1.0**
WRA	**Warramunga Arr**	**81.56**	**123**	P	**P**	**01 19 28.4**	**-1.6**
	comp=Z,0.3nm,0.6s,baz=320,slow=4.8,SNR=2.4						
	comp=Z,0.3nm,0.6s						
WRA	**Warramunga Arr**	**81.56**	**123**	P	**P**	**01 19 28.8**	**-1.2**
NWAO	**Narrogin (SRO)**	**81.60**	**143**	P	**P**	**01 19 29.7**	**-0.2**

CATAC ***10*** *01:23:48.5±0.4, 12°N±1°×87°.4W±1°.0, h23^{km}±2^{km}, M3.7/30, MLv3.7/30, Error ellipse: s-maj=3.3km s-min=1.6km az=27.4, confirmed*

SNET ***10*** *01:23:51.9±2.6, 12°.22N×87°.19W, h72^{km}, ML3.6, Presumed earthquake*

ISC 10 01:23:50.0±1.9**, 11°.86N**±0°.04×**87°.37W**±0°.03**, h32**^{km}±17^{km}**, n59, σ0^s.84**/106**, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
CRIN	**San Cristobal**	**0.89**	**21**	P	**Pn**	**01 24 05.9**	**-0.5**
CRIN				S	**Sn**	**01 24 18.6**	**+0.4**
TELN	**Telica**	**0.91**	**36**	P	**Pn**	**01 24 05.1**	**-1.5**
TELN				S	**Sn**	**01 24 19.2**	**+0.5**
HERN	**Volcan Telica**	**0.91**	**36**	P	**Pn**	**01 24 06.3**	**-0.4**
HERN				S	**Sn**	**01 24 18.8**	**0.0**
LEVN	**Ruinas Leon Vi**	**0.91**	**54**	P	**Pn**	**01 24 06.3**	**-0.3**
LEVN				S	**Sb**	**01 24 19.8**	**+0.5**
CNGN	**Cerro Negro**	**0.92**	**46**	P	**Pn**	**01 24 06.1**	**-0.6**
CNGN				S	**Sn**	**01 24 19.4**	**+0.6**
PLRN	**Geotermica Pol**	**0.93**	**40**	P	**Pn**	**01 24 06.1**	**-0.8**
PLRN				S	**Sn**	**01 24 18.4**	**-0.7**
ILCN	**San Idelfonso**	**0.97**	**43**	P	**Pn**	**01 24 05.9**	**-1.5**
ILCN				S	**Sn**	**01 24 20.4**	**+0.3**
MOMN	**Momotombo**	**0.98**	**56**	P	**Pn**	**01 24 05.9**	**-1.7**
MOMN				S	**Sn**	**01 24 19.8**	**-0.6**
AMTN	**Mateare**	**0.99**	**68**	P	**Pn**	**01 24 06.7**	**-1.1**
AMTN				S	**Sn**	**01 24 21.4**	**+0.7**
MOM2	**El Cardon**	**1.04**	**57**	P	**Pn**	**01 24 08.1**	**-0.3**
MOM2				S	**Sn**	**01 24 22.2**	**+0.3**
APYN	**Apoyeque**	**1.07**	**70**	P	**Pn**	**01 24 08.5**	**-0.3**
APYN				S	**Sn**	**01 24 22.4**	**-0.2**
ABCN	**Banco Central**	**1.07**	**76**	P	**Pn**	**01 24 08.6**	**-0.2**
ABCN				S	**Sn**	**01 24 23.0**	**+0.3**
APQ2	**Apoyeque**	**1.08**	**72**	P	**Pn**	**01 24 08.3**	**-0.6**
APQ2				S	**Sn**	**01 24 22.6**	**-0.2**
ALLN	**Telcor Managua**	**1.11**	**75**	S	**Sn**	**01 24 24.1**	**+0.5**
TISN	**Laguna Tiscapa**	**1.12**	**75**	P	**Pn**	**01 24 06.9**	**-2.5**
CSGN	**Cosiguina Volc**	**1.12**	**351**	P	**Pn**	**01 24 09.4**	**-0.1**
CSGN				S	**Sn**	**01 24 24.1**	**+0.2**
MGAN	**Managua**	**1.14**	**76**	P	**Pn**	**01 24 09.4**	**-0.3**
MGAN				S	**Sn**	**01 24 24.3**	**+0.1**
MAS3	**Al N del Volca**	**1.18**	**82**	P	**Pn**	**01 24 10.4**	**0.0**
MAS3				S	**Sn**	**01 24 26.1**	**+0.7**
SABN	**Sabanita**	**1.19**	**85**	P	**Pn**	**01 24 10.0**	**-0.4**
WILN	**Americas 2**	**1.20**	**76**	P	**Pn**	**01 24 10.2**	**-0.3**
WILN				S	**Sn**	**01 24 26.5**	**+0.8**
AERN	**Aeropuerto Man**	**1.21**	**77**	P	**Pn**	**01 24 10.0**	**-0.7**
AERN				S	**Sn**	**01 24 26.7**	**+0.6**
NANN	**Nandasmo**	**1.23**	**86**	P	**Pn**	**01 24 11.6**	**+0.6**
NANN				S	**Sb**	**01 24 28.2**	**0.0**
NADN	**Granada**	**1.32**	**95**	P	**Pn**	**01 24 10.8**	**-1.4**
NADN				S	**Sn**	**01 24 28.0**	**-0.7**
CNCH	**Conchagua**	**1.48**	**342**	*i* P	**Pn**	**01 24 14.1**	**-0.4**
CNCH				*e*S	**Sn**	**01 24 34.1**	**+1.4**
CNCH	**Conchagua**	**1.48**	**342**	P	**Pn**	**01 24 13.7**	**-0.7**
CNCH				S	**Sn**	**01 24 33.3**	**+0.6**
INTP	**Intipuca**	**1.48**	**333**	*i* P	**Pn**	**01 24 14.3**	**-0.2**
INTP				*e*S	**Sn**	**01 24 33.1**	**+0.3**
LCND	**La Caada**	**1.52**	**341**	*i* P	**Pn**	**01 24 14.6**	**-0.4**
LCND	**La Caada**	**1.52**	**341**	P	**Pn**	**01 24 14.3**	**-0.7**
JAPN	**Al SSO del Vol**	**1.69**	**101**	P	**Pn**	**01 24 17.3**	**-0.1**
MORN	**Al O del Volca**	**1.72**	**100**	P	**Pn**	**01 24 17.1**	**-0.7**
MORN				S	**Sn**	**01 24 39.8**	**+1.1**
OMEN	**Al SSO del Vol**	**1.75**	**101**	P	**Pn**	**01 24 17.3**	**-0.8**
OMEN				S	**Sn**	**01 24 40.4**	**+1.1**
BOAB	**BOACO BROADBAN**	**1.77**	**71**	P	**Pn**	**01 24 17.7**	**-0.7**
BOAB				S	**Sn**	**01 24 40.6**	**+0.8**
MATN	**Matagalpa**	**1.77**	**53**	P	**Pn**	**01 24 17.9**	**-0.6**
MATN				S	**Sn**	**01 24 40.4**	**+0.4**
PACA	**Pacayal**	**1.85**	**330**	P	**Pn**	**01 24 19.2**	**-0.4**
PACA				S	**Sn**	**01 24 42.1**	**+0.2**
ALJI	**Alcalda de J**	**1.87**	**321**	P	**Pn**	**01 24 18.2**	**-1.5**
ALJI				S	**Sn**	**01 24 42.0**	**-0.3**
CARN	**Rivas**	**1.94**	**110**	P	**Pn**	**01 24 20.4**	**-0.3**
CARN				S	**Sn**	**01 24 45.3**	**+1.4**
TECA	**Tecapa**	**1.96**	**326**	*e*P	**Pn**	**01 24 20.7**	**-0.6**
OCON	**Estacion meteo**	**1.96**	**26**	P	**Pn**	**01 24 20.8**	**-0.4**
OCON				S	**Sn**	**01 24 45.1**	**+0.4**
RCVN	**Varillal2**	**2.06**	**34**	P	**Pn**	**01 24 22.8**	**+0.2**
RCVN				S	**Sn**	**01 24 48.2**	**+0.9**
RCPN	**Sur Rio San Ju**	**2.07**	**37**	P	**Pn**	**01 24 23.1**	**+0.4**
RCPN				S	**Sn**	**01 24 48.2**	**+0.7**
ACON	**Acoyapa**	**2.16**	**87**	P	**Pn**	**01 24 23.0**	**-0.8**
ACON				S	**Sn**	**01 24 49.2**	**-0.2**
TECO	**Alcaldia de Te**	**2.16**	**321**	P	**Pn**	**01 24 22.8**	**-1.0**
TECO				S	**Sn**	**01 24 47.6**	**-1.8**
TGUH	**Tegucigalpa,Un**	**2.18**	**3**	P	**Pn**	**01 24 24.9**	**+0.7**
TGUH				S	**Sn**	**01 24 50.8**	**+0.5**
SCLA	**Alcaldia de Sa**	**2.25**	**324**	*i* P	**Pn**	**01 24 25.9**	**+0.7**
SCLA				*e*S	**Sn**	**01 24 51.8**	**-0.1**
COEG	**Centro de Oper**	**2.28**	**320**	S	**Sn**	**01 24 52.5**	**-0.1**
SJTE	**Alcalda de S**	**2.36**	**318**	*i* P	**Pn**	**01 24 27.0**	**+0.4**
PAVA	**Las Pavas**	**2.39**	**321**	P	**Pn**	**01 24 27.5**	**+0.4**
PAVA				S	**Sn**	**01 24 55.9**	**+0.6**
LOMA	**Loma Larga**	**2.49**	**315**	P	**Pn**	**01 24 26.9**	**-1.6**
LOMA				S	**Sn**	**01 24 58.2**	**+0.3**
P5NO	**Presa 5 de nov**	**2.50**	**328**	S	**Sn**	**01 24 58.6**	**+0.6**
PMON	**Piamonte**	**2.64**	**314**	*i* P	**Pn**	**01 24 30.6**	**+0.1**
PMON				*e*S	**Sn**	**01 25 02.9**	**+1.5**
PMON	**Piamonte**	**2.64**	**314**	P	**Pn**	**01 24 30.0**	**-0.5**
PMON				S	**Sn**	**01 25 01.0**	**-0.5**
JAYA	**Jayaque - finc**	**2.70**	**312**	*i* P	**Pn**	**01 24 32.1**	**+0.8**
JAYA				*e*S	**Sn**	**01 25 03.1**	**+0.2**
JAYA	**Jayaque - finc**	**2.70**	**312**	P	**Pn**	**01 24 31.0**	**-0.3**
JAYA				S	**Sn**	**01 25 01.7**	**-1.2**
CEDA	**San Andres**	**2.76**	**315**	S	**Sn**	**01 25 04.3**	**0.0**
JTS	**Las Juntas de**	**2.84**	**123**	P	**Pn**	**01 24 32.7**	**-0.5**
JTS				S	**Sn**	**01 25 07.0**	**+0.6**
CEVE	**Cerro Verde**	**2.94**	**312**	S	**Sn**	**01 25 10.0**	**+0.9**
SBLS	**San Blas**	**2.94**	**312**	*i* P	**Pn**	**01 24 37.2**	**+2.4**
SBLS				*e*S	**Sn**	**01 25 09.2**	**0.0**
NUBE	**Las Nubes**	**3.10**	**311**	P	**Pn**	**01 24 35.7**	**-1.2**
NUBE				S	**Sn**	**01 25 12.3**	**-0.6**
SIUN	**Universidad Ur**	**3.13**	**54**	P	**Pn**	**01 24 35.1**	**-2.1**
SIUN				S	**Sn**	**01 25 15.1**	**+1.5**

SOME ***10*** *01:31:06.3, 39°.08N×71°.68E, h15^{km}*

NNC ***10*** *01:31:08.4±5.4, 39°.12N×71°.63E, h0^{km}, mb3.8, mpv3.4, Error ellipse: s-maj=38.2km s-min=24.4km az=6.0*

ISC 10 01:31:09.0±5.1**, 39°.0N**±0°.2×**71°.54E**±0°.09**, h34**^{km}**, n9, σ1^s.83**/12**, 2C-1D, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
IUG	**Iuzhnay**	**3.33**	**340**	Pg	**Pb**	**01 32 08.2**	**+0.8**
	19nm,0.2s						
IUG				Lg	Lg	01 32 47.3	
	47nm,0.6s						
IUG	**Iuzhnay**	**3.33**	**340**	*e*P	**Pb**	**01 32 08.3**	**+0.8**
	19nm,0.2s						
IUG				*e*S	**Sb**	**01 32 51.0**	**+3.4**
	34nm,0.3s						
MRKS	**Merke**	**3.94**	**18**	Pg	**Pb**	**01 32 19.2**	**+1.4**
	5.4nm,0.4s						
MRKS				Lg	Lg	01 33 12.2	
	16nm,0.3s						
MRKS	**Merke**	**3.94**	**18**	*e*P	**Pb**	**01 32 16.6**	**-1.2**
	0.5nm,0.1s						
MRKS				*e*S	**Sb**	**01 33 04.7**	**-0.3**
	9.2nm,0.4s						
KK31	**Karatay Array**	**4.16**	**350**	Pg	**Pb**	**01 32 20.7**	**-0.8**
	2.0nm,0.4s,baz=178,slow=13,SNR=38						
KK31				⇓Lg	Lg	01 33 19.6	
	8.6nm,0.5s,baz=183,slow=29,SNR=11						
BRLS	**Borolday**	**4.21**	**343**	Pg	**Pb**	**01 32 22.5**	**+0.1**
	3.1nm,0.3s						
BRLS				Lg	Lg	01 33 16.2	
	8.5nm,0.3s						
BRLS	**Borolday**	**4.21**	**343**	*e*P	**Pb**	**01 32 19.7**	**-2.7**
	1.1nm,0.2s						
BRLS				*e*S	**Sb**	**01 33 10.4**	**-2.3**
	3.7nm,0.2s						
AAK	**Ala-Archa**	**4.25**	**31**	⇑Pg	**Pb**	**01 32 23.0**	**-0.2**
	0.6nm,0.4s						
AAK				⇑Lg	Lg	01 33 21.8	
	3.3nm,0.7s						
SGDS	**Sogindy**	**5.01**	**27**	Pg	**Pb**	**01 32 36.3**	**+0.4**
	5.5nm,0.5s						
SGDS				Lg	Lg	01 33 39.0	
	5.7nm,0.3s						

HLW ***10*** *01:54:07.9, 27°.52N×33°.98E, h13^{km}±1^{km}, Ml3.5*

SGS ***10*** *01:54:09.3, 27°.55N×34°.18E, h7^{km}, Ml2.5*

ISC 10 01:54:07.0±1.3**, 27°.57N**±0°.03×**34°.05E**±0°.04**, h21**^{km}±5^{km}**, n26, σ0^s.83**/32**, Red Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
TR1	**Tor 1**	**0.44**	**349**	P	**Pn**	**01 54 17.8**	**-0.4**
HHRG	**Al Ghardaqah**	**0.55**	**231**	P	**Pn**	**01 54 18.9**	**-0.7**
HHRG				S	**Sb**	**01 54 27.1**	**+1.5**
NSFG	**Safaga**	**0.81**	**187**	P	**Pb**	**01 54 22.4**	**0.0**
NSFG				S	**Sb**	**01 54 33.3**	**+0.4**
TR2	**Tor 2**	**0.86**	**341**	P	**Pn**	**01 54 24.5**	**+0.6**
RSHS		**0.98**	**42**	P	**Pn**	**01 54 26.4**	**+0.8**
KRABS	**KRABS**	**1.19**	**63**	P	**Pb**	**01 54 29.3**	**+0.4**
KRABS				S	**Sn**	**01 54 43.9**	**-0.1**
AYUS	**`Aynunah**	**1.24**	**60**	P	**Pb**	**01 54 30.2**	**+0.4**
AYUS				S	**Sn**	**01 54 45.7**	**+0.5**
HDHB	**Dhahab**	**1.25**	**24**	P	**Pb**	**01 54 31.1**	**+1.1**
BDAS	**Al Bad`**	**1.27**	**47**	P	**Pb**	**01 54 30.3**	**+0.1**
MWLHS	**Almuwaylih**	**1.31**	**82**	P	**Pb**	**01 54 30.9**	**-0.1**
MWLHS				S	**Sb**	**01 54 47.1**	**-0.3**
GRB	**Gharib**	**1.32**	**302**	P	**Pn**	**01 54 29.8**	**-0.4**
HRDS	**Abu Rudays**	**1.32**	**330**	P	**Pb**	**01 54 31.2**	**+0.1**
NUB	**Nuweibaa**	**1.55**	**20**	P	**Pb**	**01 54 34.6**	**-0.3**
HAQS	**Haql**	**1.66**	**27**	P	**Pb**	**01 54 36.7**	**-0.3**
JLOS		**1.72**	**47**	P	**Pb**	**01 54 37.4**	**-0.7**
HBST	**Basata**	**1.75**	**20**	P	**Pb**	**01 54 38.4**	**-0.1**
HQLS		**1.94**	**27**	P	**Pb**	**01 54 40.6**	**-1.2**
HQLS				S	**Sb**	**01 55 04.3**	**-1.2**
ZNM	**Zenema**	**2.08**	**330**	P	**Pb**	**01 54 42.6**	**-1.4**
ASUT		**2.21**	**266**	P	**Pn**	**01 54 43.0**	**+0.4**
NADB	**Abo Dabab**	**2.26**	**170**	P	**Pn**	**01 54 43.4**	**+0.3**
NBNS	**Bani Suef**	**2.65**	**294**	P	**Pn**	**01 54 49.0**	**+0.4**
TAMRE	**El Minia**	**2.78**	**273**	P	**Pn**	**01 54 50.5**	**+0.2**
HAGS	**Hagol**	**3.29**	**165**	S	**Sn**	**01 55 34.0**	**-1.8**
RYAN	**Fayoum**	**3.65**	**295**	P	**Pn**	**01 55 03.5**	**+1.2**
HNAT	**Natroun**	**3.65**	**305**	P	**Pn**	**01 55 03.8**	**+1.5**
HFRF	**Wahat Farafira**	**5.12**	**267**	P	**Pn**	**01 55 22.8**	**+0.3**

GRAL ***10*** *02:16:37.3±0.4, 35°.86N×36°.50E, h4^{km}±13^{km}, MD3.3*

AFAD ***10*** *02:16:38.9, 35°.96N×36°.27E, h8^{km}±1^{km}, ML2.3*

ISK ***10*** *02:16:44.8, 36°.29N×36°.19E, h5^{km}, ML2.0/4*

ISC 10 02:16:37.8±1.3**, 35°.86N**±0°.03×**36°.23E**±0°.04**, h14**^{km}±10^{km}**, n27, σ1^s.05**/42**, Jordan-Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
YAYL	**Yayladag**	**0.20**	**330**	P	**Pb**	**02 16 42.4**	**-0.9**
RHAN	**Hatay/Reyhanl**	**0.50**	**37**	P	**Pg**	**02 16 47.1**	**-0.5**
RHAN				S	**Sg**	**02 16 52.9**	**-1.5**
RHAN				IAML		02 16 55.0	
	comp=N,381nm,0.5s						
HASA	**Hatay-Hassa-Ha**	**0.91**	**13**	P	**Pb**	**02 16 54.8**	**-0.5**
HASA				S	**Sb**	**02 17 06.3**	**-1.1**
HASA				IAML		02 17 09.0	
	comp=E,164nm,0.2s						
KUZU	**Kuzuini**	**1.14**	**37**	P	**Pn**	**02 16 58.6**	**-0.7**
KUZU				S	**Sb**	**02 17 13.0**	**-0.9**
KUZU				IAML		02 17 15.0	
	comp=E,296nm,0.3s						
KUZU				IAML		02 17 16.0	
	comp=N,286nm,0.1s						
BEIL	**Beino**	**1.32**	**182**	*e*P	**Pn**	**02 17 00.8**	**-1.0**
BEIL				*e*S	**Sn**	**02 17 18.3**	**-0.9**
KAMA	**Osmaniye**	**1.37**	**15**	P	**Pn**	**02 17 01.8**	**-0.8**
KAMA				S	**Sn**	**02 17 18.9**	**-1.5**
KAMA				IAML		02 17 23.0	
	comp=E,23nm,0.2s						
KAMA				IAML		02 17 24.0	
	comp=N,21nm,0.1s						
CAYT	**Sariam**	**1.50**	**331**	P	**Pn**	**02 17 03.5**	**-0.7**
GAZ	**Gaziantep**	**1.53**	**31**	Pn	**Pg**	**02 17 08.9**	**+1.7**
GAZ				Sn	**Sb**	**02 17 26.5**	**+1.3**
GAZ				AML	AML		
KHMR	**Kahramanmara**	**1.58**	**20**	P	**Pn**	**02 17 04.7**	**-0.6**
HWQ	**Hawqa**	**1.60**	**188**	*e*P	**Pn**	**02 17 05.5**	**-0.2**
KOZT	**Kozan**	**1.65**	**349**	Pn	**Pb**	**02 17 09.3**	**+1.4**
KOZT				Sn	**Sn**	**02 17 27.1**	**-0.2**
NZIP	**Nizip/Gaziante**	**1.66**	**44**	P	**Pn**	**02 17 05.7**	**-0.8**
NZIP				S	**Sn**	**02 17 26.9**	**-0.8**
NZIP				IAML		02 17 30.0	
	comp=N,67nm,0.3s						
NZIP				IAML		02 17 34.0	
	comp=E,42nm,0.6s						
KHMN	**Narli-Kahraman**	**1.70**	**26**	Pn	**Pg**	**02 17 12.2**	**+1.7**
KHMN				AML	AML		
ANDN	**Andirin**	**1.72**	**3**	P	**Pg**	**02 17 11.1**	**+0.2**
KMRS	**Kahramanmaras**	**1.73**	**18**	Pn	**Pg**	**02 17 11.6**	**+0.6**
KMRS				Sn	**Sb**	**02 17 31.1**	**+0.2**
KMRS				AML	AML		
GZT	**Gaziantep**	**1.84**	**35**	P	**Pn**	**02 17 10.1**	**+1.0**
GZT				S	**Sb**	**02 17 34.3**	**+0.2**
GZT				IAML		02 17 39.0	
	comp=N,32nm,0.4s						
GZT				IAML		02 17 39.0	
	comp=E,40nm,0.7s						
GULE	**Gulek**	**1.84**	**321**	P	**Pn**	**02 17 09.3**	**+0.2**
BHL	**Bhannes**	**2.01**	**194**	*e*P	**Pn**	**02 17 11.6**	**+0.2**
ZAHL	**Zahle**	**2.02**	**188**	*e*P	**Pn**	**02 17 11.4**	**-0.1**
SURC	**SANLIURFA_SURC**	**2.18**	**61**	P	**Pb**	**02 17 17.6**	**+0.6**
SURC				S	**Sb**	**02 17 43.2**	**-0.6**
SURC				IAML		02 17 48.0	
	comp=N,31nm,0.2s						
SURC				IAML		02 17 49.0	
	comp=E,31nm,0.4s						
DQRL	**Deir Qamar**	**2.22**	**194**	*e*P	**Pn**	**02 17 14.8**	**+0.5**
AKCA	**Adyaman/G¶l**	**2.26**	**31**	P	**Pb**	**02 17 19.1**	**+0.8**
AKCA				S	**Sb**	**02 17 48.0**	**+1.8**
AKCA				IAML		02 17 50.0	
	comp=E,33nm,0.3s						
AKCA				IAML		02 17 53.0	
	comp=N,33nm,0.4s						
KERG	**Konya-Eregli**	**2.29**	**313**	P	**Pn**	**02 17 16.6**	**+1.3**
KERG				IAML		02 17 34.0	
	comp=N,9.4nm,1.2s						
KERG				S	**Sb**	**02 17 46.4**	**-0.9**
ATAB	**Bozova**	**2.31**	**45**	P	**Pn**	**02 17 13.8**	**-1.6**
ATAB				S	**Sb**	**02 17 49.6**	**+1.9**
RCY	**Rachaya**	**2.38**	**188**	*e*P	**Pn**	**02 17 16.6**	**+0.1**
SHBL	**Chebaa**	**2.54**	**189**	*e*P	**Pn**	**02 17 18.8**	**+0.1**
AKCD	**Akcadag**	**2.78**	**29**	P	**Pn**	**02 17 22.5**	**+0.5**
AKCD				S	**Sb**	**02 18 03.2**	**+1.9**
AKCD				IAML		02 18 12.0	
	comp=E,12nm,0.7s						

IDC ***10*** *02:17:52.6±0.5, 61°.54N×150°.40W, h0^{km}, mb4.1/22, mbtmp4.0/27, ML3.7/5, MS3.2/25, Error ellipse: s-maj=13.2km s-min=10.5km az=92.0*

NEIC ***10*** *02:17:59.6±1.2, 61°.46N±0°.03×149°.92W±0°.05, h42^{km}±4^{km}, mb4.3/76, ML4.2/213, Mwr4.1/91, ML4.0(AEIC), Error ellipse: s-maj=3.7km s-min=3.4km az=172.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M$_{rr}$-1.37; M$_{\theta\theta}$0.01; M$_{\phi\phi}$1.36; M$_{r\theta}$0.82; M$_{\theta\phi}$0.10; M$_{\phi r}$1.08; Fault plane solution: M$_0$1.93000×10^{15} NP1: φ$_s$348.25000°, δ27.01000°, λ-124.19000°. NP2: φ$_s$205.58000°, δ67.94000°, λ-74.02000°. Principal axes: T 1.8187, Plg21.0000°, Azm284.0000°; N 0.2017, Plg15.0000°, Azm19.0000°; P -2.0204, Plg64.0000°, Azm142.0000°;*

NEIC ***10*** *02:17:59.5, 61°.45N×149°.94W, h34^{km}*

AEIC ***10*** *02:18:00.3±1.3, 61°.46N±0°.02×149°.94W±0°.04, h32^{km}±4^{km}, Error ellipse: s-maj=3.1km s-min=2.8km az=189.0*

ISC 10 02:17:58.9±0.7**, 61°.48N**±0°.03×**149°.93W**±0°.03**, h42**^{km}±6^{km}**, n310, σ1^s.13**/266**, mb4.2**/60**, MS3.3**/19**, 2C, Southern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
M22K	**Willow**	**0.29**	**342**		**Pn**	**02 18 06.9**	**-0.4**
M22K					**Sn**	**02 18 13.4**	**+0.3**
SUA	**Susitna One**	**0.39**	**269**		**Pn**	**02 18 08.5**	**0.0**
RC01	**Rabbit Creek A**	**0.40**	**166**		**Pn**	**02 18 08.2**	**-0.3**
RC01					**Sn**	**02 18 15.0**	**-0.2**
RC01				IAML		02 18 15.7	
	comp=E,14µm,0.5s						
RC01				IAML		02 18 16.5	
	comp=N,17µm,0.6s						
PMR	**Palmer**	**0.40**	**73**	P	**Pn**	**02 18 08.2**	**-0.3**
PMR	**Palmer**	**0.40**	**73**	S	**Sn**	**02 18 12.8**	**-2.4**
PMR	**Palmer**	**0.40**	**73**		**Pn**	**02 18 08.2**	**-0.3**
PMR					**Sn**	**02 18 15.2**	**0.0**
PMR				IAML		02 18 16.1	
	comp=N,18µm,0.6s						
GHO	**Glory Hole Cre**	**0.57**	**58**		**Pn**	**02 18 10.7**	**0.0**
GHO					**Sn**	**02 18 19.2**	**+0.2**
GHO				IAML		02 18 20.9	
	comp=N,12µm,0.5s						
GHO				IAML		02 18 21.3	
	comp=E,12µm,0.7s						
KNK	**Knik Glacier**	**0.71**	**94**		**Pn**	**02 18 12.8**	**+0.2**
KNK					**Sn**	**02 18 22.6**	**+0.2**
KNK				IAML		02 18 27.5	
	comp=N,10µm,0.5s						
KNK				IAML		02 18 27.6	
	comp=E,9µm,0.3s						
SML	**Sawmill**	**0.83**	**66**		**Pn**	**02 18 14.4**	**+0.1**
SML					**Sn**	**02 18 26.0**	**+0.6**
STLK	**Strandline Lak**	**0.91**	**272**		**Pn**	**02 18 15.7**	**+0.3**
STLK					**Sn**	**02 18 27.8**	**+0.4**
STLK				IAML		02 18 28.7	
	comp=E,7µm,0.3s						
SKT	**Skwentna**	**0.92**	**304**		**Pn**	**02 18 15.5**	**+0.2**
SKT					**Sn**	**02 18 27.9**	**+0.5**
SKT				IAML		02 18 28.8	
	comp=E,11µm,0.3s						
CAPN	**Captain Cook N**	**0.93**	**220**		**Pn**	**02 18 17.0**	**+1.6**
CUT	**Chulitna**	**0.95**	**350**		**Pn**	**02 18 16.2**	**+0.5**
CUT	**Chulitna**	**0.95**	**350**		**Sn**	**02 18 29.3**	**+1.2**
SLKM	**Skilak Lake**	**0.98**	**188**		**Pn**	**02 18 15.7**	**-0.6**
SLKM				IAML		02 18 31.4	
	comp=E,10µm,0.5s						
SLKM				IAML		02 18 31.5	
	comp=N,6µm,0.8s						
SLKM	**Skilak Lake**	**0.98**	**188**		**Sn**	**02 18 29.8**	**+0.8**
PWL	**Port Wells**	**0.99**	**128**		**Pn**	**02 18 16.6**	**+0.2**
O22K	**Cooper Landing**	**1.00**	**174**		**Pn**	**02 18 16.5**	**0.0**
O22K	**Cooper Landing**	**1.00**	**174**		**Sn**	**02 18 30.4**	**+1.0**
O22K	**Cooper Landing**	**1.00**	**174**	IAML		02 18 34.1	
	comp=E,15µm,0.5s						
O22K				IAML		02 18 35.7	
	comp=N,19µm,0.5s						
SPCP	**Crater Peak Br**	**1.09**	**260**		**Pn**	**02 18 18.4**	**+0.5**
SPCP					**Sn**	**02 18 32.6**	**+0.7**
M23K	**Glacier View**	**1.10**	**72**		**Pn**	**02 18 18.5**	**+0.7**
M23K					**Sn**	**02 18 34.7**	**+2.9**
SCM	**Sheep Creek Mo**	**1.29**	**73**		**Pn**	**02 18 21.6**	**+1.0**
SCM	**Sheep Creek Mo**	**1.29**	**73**		**Sn**	**02 18 39.3**	**+2.6**
SCM	**Sheep Creek Mo**	**1.29**	**73**	IAML		02 18 40.7	
	comp=N,7µm,0.9s						
SCM				IAML		02 18 40.7	
	comp=E,14µm,0.5s						
SEW	**Seward**	**1.40**	**170**		**Pn**	**02 18 21.6**	**-0.3**
SEW	**Seward**	**1.40**	**170**		**Sn**	**02 18 40.1**	**+1.1**
SEW	**Seward**	**1.40**	**170**	IAML		02 18 44.2	
	comp=N,2µm,0.6s						
SEW				IAML		02 18 46.4	
	comp=E,2µm,0.7s						
WAT7	**Susitna Watana**	**1.46**	**20**		**Pn**	**02 18 24.1**	**+1.3**
WAT7					**Sn**	**02 18 43.2**	**+2.5**
GLI	**Glacier Island**	**1.50**	**112**	Pn	**Pn**	**02 18 23.8**	**+0.4**
GLI	**Glacier Island**	**1.50**	**112**		**Sn**	**02 18 43.6**	**+1.9**
WAT1	**Susitna Watana**	**1.51**	**25**		**Pn**	**02 18 24.7**	**+1.3**
WAT1					**Sn**	**02 18 44.2**	**+2.4**
RDT	**Redoubt**	**1.51**	**234**		**Pn**	**02 18 23.7**	**+0.2**
RDT					**Sn**	**02 18 43.6**	**+1.6**
M20K	**Styx River**	**1.58**	**286**		**Pn**	**02 18 25.3**	**+0.8**
M20K				IAML		02 18 48.5	
	comp=N,2µm,0.8s						
M20K				IAML		02 18 49.2	
	comp=E,2µm,0.8s						
NCT	**North Crescent**	**1.72**	**239**		**Pn**	**02 18 27.1**	**+0.6**
VMT	**TAPS Tl Valdez**	**1.77**	**101**		**Pn**	**02 18 27.8**	**+0.9**
PPLA	**Purkeypile**	**1.78**	**324**		**Pn**	**02 18 28.1**	**+0.9**
PPLA				IAML		02 18 55.0	
	comp=E,2µm,0.6s						
PPLA				IAML		02 18 58.1	
	comp=N,2µm,0.6s						
BRLK	**Bradley Lake**	**1.78**	**196**		**Pn**	**02 18 27.5**	**+0.3**
BRLK				IAML		02 18 53.0	
	comp=E,2µm,0.5s						
BRLK				IAML		02 18 57.6	
	comp=N,2µm,0.6s						
FID	**Port Fidalgo**	**1.83**	**112**	Pn	**Pn**	**02 18 27.9**	**0.0**
FID				IAML		02 18 52.6	
	comp=N,3µm,0.6s						
FID				IAML		02 18 52.8	
	comp=E,4µm,0.6s						
KLU	**Klutina**	**1.92**	**88**		**Pn**	**02 18 29.9**	**+0.7**
KLU				IAML		02 18 55.1	
	comp=E,2µm,0.4s						
KLU				IAML		02 18 55.2	
	comp=N,3µm,0.5s						
O20K	**Slope Mountain**	**1.92**	**225**		**Pn**	**02 18 30.4**	**+1.2**
P23K	**Montague Islan**	**1.93**	**139**		**Pn**	**02 18 28.8**	**-0.5**
TRF	**Thorofare Moun**	**1.99**	**355**		**Pn**	**02 18 31.4**	**+1.2**
TRF				IAML		02 19 00.9	
	comp=N,3µm,0.5s						
TRF				IAML		02 19 02.3	
	comp=E,1µm,0.6s						
HIN	**Hinchinbrook I**	**1.99**	**121**		**Pn**	**02 18 30.4**	**+0.2**
HIN				IAML		02 19 06.2	

	comp=N,3µm,0.6s						
DHY	**Denali Highway**	**2.00**	**36**		**Pn**	**02 18 31.3**	**+0.9**
DHY				IAML		02 19 02.3	
	comp=E,2µm,0.7s						
DHY				IAML		02 19 02.4	
	comp=N,2µm,0.7s						
RND	**Reindeer**	**2.00**	**14**		**Pn**	**02 18 31.7**	**+1.4**
HOM	**Homer**	**2.01**	**206**		**Pn**	**02 18 30.8**	**+0.5**
DIV	**Divide**	**2.04**	**98**	IAML		02 18 57.7	
	comp=E,2µm,0.5s						
ILIM	**Iliamna**	**2.04**	**228**		**Pn**	**02 18 31.9**	**+1.1**
CNPM	**China Poot**	**2.06**	**199**		**Pn**	**02 18 31.5**	**+0.5**
CNPM				IAML		02 19 03.6	
	comp=N,2µm,0.4s						
CNPM				IAML		02 19 04.1	
	comp=E,2µm,0.5s						
IVE	**Iliamna Volcan**	**2.11**	**227**		**Pn**	**02 18 32.6**	**+0.9**
L20K	**Farewell, AK**	**2.12**	**300**	IAML		02 19 00.8	
	comp=E,1µm,0.8s						
L20K				IAML		02 19 03.6	
	comp=N,1µm,0.4s						
KTH	**Kantishna Hill**	**2.14**	**348**		**Pn**	**02 18 34.0**	**+1.9**
KTH	**Kantishna Hill**	**2.14**	**348**	IAML		02 19 01.7	
	comp=E,3µm,0.5s						
KTH				IAML		02 19 02.7	
	comp=N,2µm,0.5s						
ILSW	**Iliamna Southw**	**2.17**	**228**	IAML		02 19 04.2	
	comp=E,1µm,0.8s						
ILSW				IAML		02 19 20.4	
	comp=N,1µm,1.0s						
CAST	**Castle Rocks**	**2.19**	**334**		**Pn**	**02 18 33.6**	**+0.8**
PS11	**TAPS Pump St11**	**2.20**	**72**		**Pn**	**02 18 35.0**	**+2.0**
EYAK	**Cordova Ski Ar**	**2.24**	**113**	P	**Pn**	**02 18 33.7**	**+0.3**
EYAK	**Cordova Ski Ar**	**2.24**	**113**	S	**Sn**	**02 19 00.9**	**+1.1**
EYAK	**Cordova Ski Ar**	**2.24**	**113**		**Pn**	**02 18 33.8**	**+0.3**
EYAK				IAML		02 19 07.6	
	comp=N,1µm,0.5s						
EYAK				IAML		02 19 11.7	
	comp=E,1µm,0.4s						
PS12	**TAPS Pump St12**	**2.30**	**88**		**Pn**	**02 18 35.3**	**+1.0**
N19K	**Bonanza Creek**	**2.31**	**255**		**Pn**	**02 18 35.1**	**+0.6**
MCK	**McKinley**	**2.31**	**11**		**Pn**	**02 18 35.7**	**+1.2**
MCK				IAML		02 19 16.4	
	comp=N,2µm,0.8s						
MCK				IAML		02 19 17.3	
	comp=E,993nm,0.6s						
HARP	**HAARP**	**2.44**	**66**		**Pn**	**02 18 37.4**	**+1.2**
L19K	**White Mountain**	**2.44**	**289**		**Pn**	**02 18 37.2**	**+0.9**
L19K				IAML		02 19 24.1	
	comp=E,1µm,0.6s						
P19K	**Oil Pt**	**2.45**	**223**		**Pn**	**02 18 37.4**	**+0.9**
BMRM	**Bremner River**	**2.63**	**99**		**Pn**	**02 18 39.2**	**+0.4**
BMRM				IAML		02 19 20.0	
	comp=N,2µm,0.5s						
BMRM				IAML		02 19 21.2	
	comp=E,2µm,0.7s						
CHUM	**Lake Minchumin**	**2.66**	**337**		**Pn**	**02 18 40.5**	**+1.3**
GOAT	**Goat Mountain**	**2.69**	**107**		**Pn**	**02 18 39.8**	**+0.1**
K20K	**Telida**	**2.70**	**316**		**Pn**	**02 18 40.5**	**+0.8**
K20K				IAML		02 19 20.5	
	comp=N,882nm,0.7s						
K20K				IAML		02 19 20.7	
	comp=E,1µm,0.7s						
BWN	**Browne**	**2.71**	**4**	IAML		02 19 29.5	
	comp=N,2µm,1.1s						
MID	**Middleton Isla**	**2.72**	**138**		**Pn**	**02 18 41.2**	**+1.2**
MID	**Middleton Isla**	**2.72**	**138**	IAML		02 19 38.9	
	comp=E,912nm,1.0s						
MID				IAML		02 19 40.1	
	comp=N,823nm,1.1s						
AGU	**Augustine-Summ**	**2.74**	**221**		**Pn**	**02 18 41.4**	**+0.9**
AUJK	**Augustine Jueg**	**2.74**	**221**		**Pn**	**02 18 40.7**	**+0.3**
AUCH	**Augustine Cone**	**2.74**	**221**		**Pn**	**02 18 41.3**	**+0.8**
AUI	**Augustine Isla**	**2.76**	**220**		**Pn**	**02 18 41.2**	**+0.6**
WASW	**Wrangell South**	**2.78**	**78**		**Pn**	**02 18 42.8**	**+1.7**
RAGM	**Ragged Mountai**	**2.79**	**111**		**Pn**	**02 18 41.4**	**+0.3**
M18K	**Stony River**	**2.83**	**273**		**Pn**	**02 18 42.3**	**+0.8**
GLB	**Gilahina Butte**	**2.94**	**88**		**Pn**	**02 18 43.6**	**+0.4**
GLB				IAML		02 19 29.8	
	comp=N,1µm,0.7s						
GLB				IAML		02 19 30.0	
	comp=E,640nm,0.7s						
N18K	**Kilae Creek**	**3.00**	**257**		**Pn**	**02 18 44.3**	**+0.4**
O18K	**Koktuh Hills**	**3.06**	**240**		**Pn**	**02 18 45.0**	**+0.2**
O18K				IAML		02 19 36.0	
	comp=N,480nm,0.8s						
WRH	**Wood River Hil**	**3.12**	**15**		**Pn**	**02 18 46.4**	**+0.8**
VRDI	**Verde Repeater**	**3.13**	**92**		**Pn**	**02 18 46.0**	**+0.1**
VRDI	**Verde Repeater**	**3.13**	**92**	IAML		02 19 35.4	
	comp=N,754nm,0.6s						
NEA2	**Nenana**	**3.15**	**7**		**Pn**	**02 18 47.0**	**+1.0**
Q19K	**Cape Douglas,**	**3.16**	**218**		**Pn**	**02 18 46.7**	**+0.6**
BERG	**Berg Lake**	**3.23**	**107**		**Pn**	**02 18 46.8**	**-0.3**
HDA	**Harding Lake**	**3.25**	**24**		**Pn**	**02 18 49.1**	**+1.9**
HDA	**Harding Lake**	**3.25**	**24**	IAML		02 19 43.5	
	comp=N,691nm,0.5s						
HDA				IAML		02 19 45.8	
	comp=E,689nm,0.8s						
RIDG	**Independent Ri**	**3.27**	**44**	IAML		02 19 38.0	
	comp=N,1µm,0.6s						
L18K	**Granite Mounta**	**3.29**	**286**		**Pn**	**02 18 48.8**	**+0.9**
L18K	**Granite Mounta**	**3.29**	**286**	IAML		02 19 51.6	
	comp=N,407nm,1.0s						
MCARA	**McCarthy VSAT**	**3.32**	**89**		**Pn**	**02 18 49.4**	**+1.1**
J20K	**Nowinta River**	**3.33**	**326**		**Pn**	**02 18 49.2**	**+0.8**
J20K				IAML		02 19 29.7	
	comp=N,872nm,0.6s						
J20K				IAML		02 19 55.2	
	comp=E,771nm,0.8s						
PS08	**TAPS Pump Stn8**	**3.39**	**23**		**Pn**	**02 18 51.2**	**+2.0**
M26K	**Nabesna, AK**	**3.41**	**71**		**Pn**	**02 18 50.2**	**+0.7**
M26K				IAML		02 19 52.6	
	comp=E,504nm,0.7s						
M26K				IAML		02 19 55.6	
	comp=N,567nm,0.7s						
L26K	**Log Cabin Wild**	**3.45**	**60**		**Pn**	**02 18 51.3**	**+1.2**
L26K	**Log Cabin Wild**	**3.45**	**60**	IAML		02 19 48.1	
	comp=N,839nm,0.7s						
L26K				IAML		02 19 50.3	
	comp=E,823nm,0.4s						
TGL	**Tana Glacier**	**3.52**	**99**	IAML		02 19 44.6	
	comp=E,935nm,0.5s						
TGL				IAML		02 19 46.6	
	comp=N,876nm,0.7s						
COLA	**College**	**3.54**	**15**	P	**Pn**	**02 18 52.9**	**+1.6**
COLA	**College**	**3.54**	**15**		**Pn**	**02 18 52.4**	**+1.1**
ILAR	**Eielson Array**	**3.59**	**21**	Pn	**Pn**	**02 18 52.3**	**+0.4**
	comp=N,5.4nm,0.3s,baz=206,slow=14,SNR=95						
ILAR				Sn	**Sn**	**02 19 33.5**	**+0.5**
	comp=N,14nm,0.3s,baz=207,slow=17,SNR=1.6						
ILAR				LR	LR	02 19 46.0	
	comp=N,61nm,22.0s,baz=204,slow=31						
	comp=N,13nm,0.3s						
ILAR				AML	AML		
ILAR	**Eielson Array**	**3.59**	**21**		**Pn**	**02 18 53.0**	**+1.0**
M17K	**Holitna River**	**3.61**	**272**	IAML		02 20 04.2	
	comp=E,719nm,1.1s						
M17K				IAML		02 20 04.8	
	comp=N,679nm,1.0s						
J19K	**Poorman**	**3.64**	**316**		**Pn**	**02 18 53.2**	**+0.5**
J19K				IAML		02 19 37.7	
	comp=N,407nm,0.4s						
J19K				IAML		02 19 59.5	
	comp=E,371nm,0.8s						
N17K	**Nushagak Hills**	**3.66**	**258**	IAML		02 20 09.3	
	comp=N,295nm,0.8s						
BALM	**Baldy**	**3.69**	**94**		**Pn**	**02 18 53.8**	**+0.3**
I23K	**Minto, Yukon-K**	**3.70**	**4**	IAML		02 20 14.3	
	comp=N,346nm,0.9s						
KIAG	**Kiagna River**	**3.71**	**95**		**Pn**	**02 18 54.0**	**+0.2**
SCRK	**Sand Creek**	**3.71**	**45**		**Pn**	**02 18 55.0**	**+1.2**
SCRK	**Sand Creek**	**3.71**	**45**	IAML		02 19 56.7	
	comp=E,426nm,0.6s						
SCRK				IAML		02 19 58.1	
	comp=N,378nm,0.8s						
J18K	**Innoko River**	**3.73**	**305**	IAML		02 19 39.0	
	comp=N,310nm,0.7s						
J25K	**Salcha River,**	**3.77**	**31**		**Pn**	**02 18 56.0**	**+1.4**
J25K				IAML		02 19 48.2	
	comp=E,365nm,0.7s						
J25K				IAML		02 19 54.6	
	comp=N,262nm,0.6s						
KAHG	**Katmai Hook Gl**	**3.78**	**220**		**Pn**	**02 18 55.4**	**+0.7**
POKR	**Poker Plat Res**	**3.83**	**16**		**Pn**	**02 18 56.5**	**+1.2**
KARR	**Katmai Rainbow**	**3.83**	**221**		**Pn**	**02 18 56.4**	**+1.0**
I21K	**Tanana**	**3.83**	**347**	IAML		02 19 42.2	
	comp=N,332nm,0.7s						
M27K	**Edge Creek, AK**	**3.91**	**73**		**Pn**	**02 18 57.9**	**+1.4**
M27K	**Edge Creek, AK**	**3.91**	**73**	IAML		02 20 20.2	
	comp=N,244nm,1.0s						
KDAK	**Kodiak Island**	**3.94**	**201**	Pn	**Pn**	**02 18 55.6**	**-1.2**
	comp=N,2.5nm,0.3s,baz=32,slow=4.7,SNR=56						
KDAK				Sn	**Sn**	**02 19 40.9**	**-0.8**
	comp=N,6.9nm,0.3s,baz=348,slow=7.9,SNR=4.2						
KDAK				LR	LR	02 20 01.4	
	comp=N,54nm,19.1s,baz=22,slow=33						
	comp=N,12nm,0.4s						
KDAK				AML	AML		
KDAK	**Kodiak Island**	**3.94**	**201**		**Pn**	**02 18 55.8**	**-1.0**
KDAK				IAML		02 20 01.7	
	comp=N,326nm,0.9s						
P17K	**Kvichak River**	**3.96**	**238**		**Pn**	**02 18 57.9**	**+0.9**
BARN	**Barnard Glacie**	**4.01**	**92**		**Pn**	**02 18 58.7**	**+0.7**
BARN	**Barnard Glacie**	**4.01**	**92**	IAML		02 20 02.2	
	comp=N,379nm,0.8s						
BARN				IAML		02 20 05.8	
	comp=E,564nm,0.6s						
GRNC	**Granite Creek**	**4.04**	**97**	IAML		02 20 04.2	
	comp=E,254nm,0.7s						
GRNC				IAML		02 20 07.4	
	comp=N,431nm,0.7s						
L27K	**Beaver Creek,**	**4.11**	**64**	IAML		02 20 08.4	
	comp=N,251nm,1.4s						
BCAR	**Beaver Creek A**	**4.13**	**64**		**Pn**	**02 19 00.2**	**+0.8**
K17K	**Iditarod**	**4.13**	**291**	IAML		02 20 26.3	
	comp=E,391nm,0.7s						
K17K				IAML		02 20 27.7	
	comp=N,287nm,1.1s						
YAH	**Yahtse**	**4.15**	**102**	IAML		02 20 07.1	
	comp=E,339nm,0.9s						
YAH				IAML		02 20 08.0	
	comp=N,326nm,0.7s						
MGLS	**Mageik Landsli**	**4.27**	**221**		**Pn**	**02 19 01.6**	**+0.3**
YUK2	**White River**	**4.35**	**82**		**Pn**	**02 19 04.0**	**+1.5**
LOGN	**Logan Glacier**	**4.38**	**95**	IAML		02 20 16.2	
	comp=E,239nm,0.8s						
LOGN				IAML		02 20 16.6	
	comp=N,265nm,0.8s						
O16K	**Kokwok River B**	**4.45**	**249**	IAML		02 20 22.0	
	comp=N,192nm,1.4s						
H24K	**Noodor Dome**	**4.47**	**11**	IAML		02 20 26.1	
	comp=E,177nm,1.0s						
PRP	**Porcupine Dome**	**4.51**	**24**		**Pn**	**02 19 06.8**	**+2.1**
PRP	**Porcupine Dome**	**4.51**	**24**	IAML		02 20 23.6	
	comp=E,159nm,0.8s						
PRP				IAML		02 20 28.1	
	comp=N,248nm,0.8s						
OHAK	**Old Harbor**	**4.60**	**203**	P	**Pn**	**02 19 05.7**	**-0.1**
OHAK	**Old Harbor**	**4.60**	**203**		**Pn**	**02 19 06.1**	**+0.3**
OHAK				IAML		02 20 22.6	
	comp=E,144nm,1.1s						
J17K	**VABM Dome**	**4.67**	**298**	IAML		02 20 31.1	
	comp=N,136nm,0.8s						
O28M	**Mount Upton**	**4.78**	**94**	IAML		02 20 06.5	
	comp=E,127nm,0.4s						
O28M				IAML		02 20 24.2	
	comp=N,184nm,0.7s						
I26K	**Coal Creek Min**	**4.90**	**35**	IAML		02 20 32.6	
	comp=N,270nm,0.7s						
I26K				IAML		02 20 37.6	
	comp=E,332nm,1.2s						
N15K	**Kwethluk River**	**5.14**	**260**	IAML		02 20 43.4	
	comp=N,170nm,1.2s						
N15K				IAML		02 21 03.6	
	comp=E,180nm,0.8s						
G23K	**Bananza Creek**	**5.26**	**360**		**Pn**	**02 19 16.7**	**+1.8**
J16K	**Anvik River**	**5.29**	**295**	IAML		02 20 50.9	
	comp=N,93nm,0.8s						
H18K	**Honhosa River**	**5.29**	**318**	IAML		02 20 18.6	
	comp=E,130nm,0.7s						
H18K				IAML		02 21 00.6	
	comp=N,92nm,1.1s						
G21K	**Allakaket**	**5.30**	**344**		**Pn**	**02 19 17.5**	**+2.1**
G21K	**Allakaket**	**5.30**	**344**	IAML		02 20 18.6	
	comp=N,171nm,0.8s						
G21K				IAML		02 20 19.7	
	comp=E,163nm,0.6s						
G24K	**Hadweenzic Riv**	**5.36**	**11**		**Pn**	**02 19 18.1**	**+1.9**
G24K	**Hadweenzic Riv**	**5.36**	**11**	IAML		02 21 04.0	
	comp=N,82nm,0.9s						
DAWY	**Dawson**	**5.49**	**57**		**Pn**	**02 19 19.8**	**+1.6**
M29M	**Somme Creek**	**5.50**	**75**		**Pn**	**02 19 19.4**	**+1.1**
PNL	**Peninsula**	**5.50**	**105**	P	**Pn**	**02 19 19.1**	**+0.8**
I27K	**Kandik River**	**5.56**	**38**		**Pn**	**02 19 20.9**	**+1.8**
G25K	**Bearman Lake**	**5.57**	**16**		**Pn**	**02 19 21.0**	**+1.9**
L29M	**L29M**	**5.75**	**68**		**Pn**	**02 19 22.1**	**+0.5**
COLD	**Coldfoot**	**5.78**	**359**		**Pn**	**02 19 22.7**	**+0.7**
I28M	**Miner Creek**	**5.99**	**44**		**Pn**	**02 19 27.1**	**+2.0**
H27K	**Steamboat Moun**	**6.04**	**34**		**Pn**	**02 19 26.9**	**+1.2**
G26K	**Porcupine Rive**	**6.11**	**23**		**Pn**	**02 19 27.8**	**+1.2**
F24K	**Squaw Lake**	**6.13**	**7**		**Pn**	**02 19 27.4**	**+0.6**
K29M	**Barlow Dome**	**6.19**	**62**		**Pn**	**02 19 28.7**	**+0.9**
F19K	**Shaleruckik Mo**	**6.37**	**331**		**Pn**	**02 19 30.7**	**+0.5**
BMAR	**Burnt Mountain**	**6.41**	**19**		**Pn**	**02 19 31.9**	**+1.3**
F25K	**Christian Rive**	**6.41**	**15**		**Pn**	**02 19 32.8**	**+2.1**
BM01	**Burnt Mountain**	**6.44**	**19**		**Pn**	**02 19 32.6**	**+1.6**
G27K	**Doyon Strip**	**6.46**	**30**		**Pn**	**02 19 32.6**	**+1.2**
P30M	**Million Dollar**	**6.49**	**96**		**Pn**	**02 19 32.5**	**+0.6**
E23K	**Chandalar**	**6.61**	**1**		**Pn**	**02 19 35.1**	**+1.6**
M13K	**Dall Lake**	**6.62**	**267**		**Pn**	**02 19 34.5**	**+0.9**
F26K	**Sheenjek River**	**6.72**	**19**		**Pn**	**02 19 36.7**	**+1.8**
J30M	**Hart River**	**6.92**	**57**		**Pn**	**02 19 40.3**	**+2.5**
H29M	**Whitestone**	**6.98**	**42**		**Pn**	**02 19 40.1**	**+1.7**
F17K	**Baldwin Pennin**	**7.04**	**320**		**Pn**	**02 19 40.6**	**+1.4**
TOLK	**Toolik Lake Re**	**7.20**	**1**		**Pn**	**02 19 44.8**	**+3.3**
E20K	**Nigu River**	**7.31**	**341**		**Pn**	**02 19 45.3**	**+2.3**
D20K	**Etivluk River**	**7.79**	**342**		**Pn**	**02 19 51.5**	**+2.0**
D19K	**Kuna River**	**7.85**	**337**		**Pn**	**02 19 51.3**	**+0.9**
F14K	**Arctic Creek**	**8.35**	**306**		**Pn**	**02 19 59.0**	**+1.8**
CHNA	**Chernabura Isl**	**8.39**	**222**	P	**Pn**	**02 19 59.3**	**+1.6**
C23K	**Itkillik River**	**8.40**	**358**		**Pn**	**02 19 58.9**	**+1.0**
C18K	**Utukok River**	**8.61**	**331**		**Pn**	**02 20 02.4**	**+1.5**
C19K	**Lookout Ridge**	**8.65**	**336**		**Pn**	**02 20 02.8**	**+1.4**
SIT	**Sitka**	**8.69**	**114**	P	**Pn**	**02 20 02.1**	**+0.3**
TNA	**Tin City**	**9.01**	**305**		**Pn**	**02 20 08.0**	**+1.9**
INK	**Inuvik**	**9.74**	**38**	Pn	**Pn**	**02 20 18.1**	**+1.8**
	comp=N,0.5nm,0.3s,baz=252,slow=20,SNR=11						
INK				Sn	**Sn**	**02 22 02.8**	**-1.3**
	comp=N,1.0nm,0.3s,baz=251,slow=19,SNR=6.2						
INK				LR	LR	02 24 29.6	
	comp=N,105nm,20.7s,baz=234,slow=40						
	comp=N,2.5nm,0.6s						
INK				AML	AML		
S34M	**Telegraph Cree**	**10.14**	**102**		**Pn**	**02 20 21.4**	**-0.3**
DLBC	**Dease Lake**	**10.42**	**98**	Pn	**Pn**	**02 20 28.0**	**+2.3**
	comp=N,0.3nm,0.3s,baz=261,slow=15,SNR=6.1						
DLBC				LR	LR	02 24 39.7	
	comp=N,146nm,21.9s,baz=234,slow=38						
	comp=N,0.9nm,0.5s						
DLBC				AML	AML		
T35M	**Bob Quinn**	**11.02**	**105**		**Pn**	**02 20 32.9**	**-0.9**
BBB	**Bella Bella**	**15.06**	**118**	LR	LR	02 26 14.4	
	comp=N,71nm,19.4s,baz=262,slow=33						
YKA	**Yellowknife Ar**	**16.50**	**71**	Pn	**P**	**02 21 49.2**	**+0.1**
	comp=N,0.4nm,0.3s,baz=281,slow=9.9,SNR=10.0						
YKA				LR	LR	02 28 25.3	
	comp=N,67nm,18.3s,baz=332,slow=38						
	comp=N,1.1nm,0.5s						
YKA				AML	AML		
YKA	**Yellowknife Ar**	**16.50**	**71**		**Pn**	**02 21 46.3**	**-0.6**
EDM	**Edmonton**	**21.14**	**96**		**P**	**02 22 40.5**	**+0.6**
EDM				IAmb	IAmb	02 22 44.4	
	comp=Z,14nm,0.8s						
EPH	**Ephrata**	**22.34**	**115**	P	**P**	**02 22 51.5**	**-1.4**
NEW	**Newport**	**22.74**	**111**	LR	LR	02 31 46.4	
	comp=Z,58nm,18.5s,baz=306,slow=36						
D08A	**Wollman Farm,**	**22.86**	**115**		**P**	**02 22 58.9**	**+0.6**
D08A				IAmb	IAmb	02 23 00.5	
	comp=Z,5.6nm,0.8s						
HOOD	**Mount Hood Mea**	**23.08**	**122**	P	**P**	**02 23 01.9**	**+1.1**
HOOD				IAmb	IAmb	02 23 03.5	
	comp=Z,20nm,1.3s						
I05D	**Terrebonne, OR**	**24.01**	**122**	P	**P**	**02 23 10.2**	**+0.7**
I05D				IAmb	IAmb	02 23 11.5	
	comp=Z,6.8nm,0.6s						
WIFE	**Three Sisters-**	**24.05**	**124**		**P**	**02 23 11.9**	**+1.8**
WIFE				IAmb	IAmb	02 23 12.6	
	comp=Z,9.8nm,0.8s						
G08A	**Pilot Rock**	**24.23**	**118**		**P**	**02 23 11.9**	**+0.3**
F10A	**Beach Ranch, E**	**24.44**	**114**	P	**P**	**02 23 13.8**	**+0.3**
PINE	**Pine Mountain**	**24.63**	**123**		**P**	**02 23 17.0**	**+1.7**
PINE				IAmb	IAmb	02 23 18.3	
	comp=Z,10nm,1.1s						
PLID	**Pearl Lake**	**25.67**	**114**		**P**	**02 23 25.5**	**+0.7**
YBH	**Yreka Blue Hor**	**25.68**	**128**	LR	LR	02 31 33.8	
	comp=Z,47nm,20.4s,baz=344,slow=32						
LYMT	**Lyon Mountain**	**25.90**	**107**	P	**P**	**02 23 26.9**	**0.0**
EGMT	**Eagleton**	**26.31**	**102**		**P**	**02 23 30.8**	**+0.4**
MFID	**Camas Ranch**	**27.07**	**116**		**P**	**02 23 37.8**	**+0.4**
YHL	**Hebgen Lake**	**28.01**	**109**	P	**P**	**02 23 46.1**	**+0.2**
MA2	**Magadan**	**28.37**	**293**	LR	LR	02 36 38.3	
	comp=Z,49nm,18.1s,baz=100,slow=40						
YNE	**Yellowstone No**	**28.42**	**107**	P	**P**	**02 23 49.8**	**+0.3**
YNE				IAmb	IAmb	02 23 51.8	
	comp=Z,3.2nm,0.6s						
FXWY	**Fox Creek**	**29.02**	**110**		**P**	**02 23 56.4**	**+1.6**
NVAR	**Mina Array Bea**	**30.23**	**125**	P	**P**	**02 24 07.4**	**+1.9**
	comp=Z,1.9nm,0.8s,baz=307,slow=9.2,SNR=12						
NVAR				PcP	**PcP**	**02 27 05.3**	**0.0**
	comp=Z,0.5nm,0.5s,baz=336,slow=3.3,SNR=4.4						
NVAR				LR	LR	02 34 40.7	
	comp=Z,54nm,18.1s,baz=270,slow=33						
	comp=Z,1.9nm,0.8s						
NVAR	**Mina Array Bea**	**30.23**	**125**	P	**P**	**02 24 07.8**	**+2.3**
PD31	**Pinedale Array**	**30.37**	**109**		**P**	**02 24 07.6**	**+0.8**
PD31				IAmb	IAmb	02 24 09.0	
	comp=Z,5.5nm,1.4s						
PDAR	**Pinedale Array**	**30.37**	**109**	P	**P**	**02 24 07.8**	**+1.1**
	comp=Z,1.7nm,0.6s,baz=322,slow=4.9,SNR=21						
PDAR				LR	LR	02 36 49.0	
	comp=Z,23nm,19.2s,baz=339,slow=37						
	comp=Z,1.7nm,0.6s						
PDAR	**Pinedale Array**	**30.37**	**109**	P	**P**	**02 24 07.6**	**+0.8**
ULM	**Lac du Bonnet**	**31.41**	**86**	P	**P**	**02 24 16.4**	**+0.8**
	comp=Z,8.1nm,0.7s,baz=302,slow=7.5,SNR=11						
ULM				LR	LR	02 37 27.4	
	comp=Z,73nm,18.8s,baz=356,slow=37						
	comp=Z,8.1nm,0.7s						
ULM	**Lac du Bonnet**	**31.41**	**86**	P	**P**	**02 24 16.6**	**+1.1**
BSUT	**Blindstream Ca**	**31.62**	**113**		**P**	**02 24 19.6**	**+1.7**
BSUT				IAmb	IAmb	02 24 20.8	
	comp=Z,4.2nm,0.9s						
RSSD	**Black Hills**	**31.87**	**102**	P	**P**	**02 24 20.9**	**+0.9**
RSSD				IAmb	IAmb	02 24 22.2	
	comp=Z,6.5nm,1.1s						
GWY	**Greenwater Val**	**32.82**	**125**	IAmb	IAmb	02 24 32.2	
	comp=Z,6.0nm,1.3s						
SRU	**San Rafael Swe**	**32.89**	**115**	IAmb	IAmb	02 24 31.3	
	comp=Z,5.2nm,0.8s						
O20A	**White River Ci**	**33.06**	**111**	IAmb	IAmb	02 24 32.4	
	comp=Z,6.8nm,1.2s						
HAYD	**Hayden**	**33.20**	**109**		**P**	**02 24 32.9**	**+1.3**
LCMT	**Little Creek M**	**33.49**	**120**	IAmb	IAmb	02 24 36.7	
	comp=Z,3.2nm,0.9s						
KNB	**Kanab**	**33.66**	**119**	IAmb	IAmb	02 24 38.5	
	comp=Z,4.5nm,0.8s						
PV21	**Cone Mtn., Par**	**34.02**	**113**	IAmb	IAmb	02 24 41.5	
	comp=Z,2.7nm,0.6s						
PV10	**Paradox Valley**	**34.15**	**114**	IAmb	IAmb	02 24 42.1	
	comp=Z,4.3nm,0.8s						
PV16	**Nyswonger Mesa**	**34.26**	**113**	P	**P**	**02 24 41.2**	**+0.4**
PV16				IAmb	IAmb	02 24 44.2	
	comp=Z,2.6nm,0.9s						
PV02	**Paradox Valley**	**34.42**	**113**	IAmb	IAmb	02 24 47.2	
	comp=Z,4.3nm,0.8s						
FRB	**Frobisher Bay**	**35.14**	**50**	LR	LR	02 38 48.3	
	comp=Z,42nm,21.0s,baz=115,slow=36						
PFO	**Pinyon Flats O**	**35.16**	**127**	LR	LR	02 38 22.6	
	comp=Z,45nm,18.1s,baz=298,slow=35						
Q24A	**Divide**	**35.41**	**109**	P	**P**	**02 24 51.9**	**+1.1**
WUAZ	**Wupatki**	**35.55**	**119**		**P**	**02 24 53.5**	**+1.6**
YAK	**Yakutsk**	**35.76**	**307**	LR	LR	02 40 52.0	
	comp=Z,48nm,19.2s,baz=91,slow=39						
SPITS	**Spitsbergen Ar**	**40.34**	**4**	P	**P**	**02 25 30.4**	**-1.2**
	comp=Z,3.8nm,0.8s,baz=26,slow=10,SNR=4.1						
	comp=Z,3.8nm,0.8s						
VHRN	**Van Horn**	**42.34**	**115**	P	**P**	**02 25 50.3**	**+1.6**
VHRN				IAmb	IAmb	02 25 50.9	
	comp=Z,2.9nm,0.6s						
U38A	**Gravette**	**42.46**	**100**		**P**	**02 25 48.8**	**-0.7**
U38A				IAmb	IAmb	02 25 49.5	
	comp=Z,5.8nm,0.8s						
NRIK	**Noril'sk**	**43.23**	**334**	P	**P**	**02 25 54.2**	**-1.1**
	comp=Z,3.2nm,0.7s,baz=65,slow=3.3,SNR=3.9						
NRIK				LR	LR	02 45 11.3	
	comp=Z,46nm,18.9s,baz=342,slow=38						
	comp=Z,3.2nm,0.7s						
NRIK	**Noril'sk**	**43.23**	**334**	IAmb	IAmb	02 25 57.7	
	comp=Z,3.0nm,0.7s						
SADO	**Sadowa**	**43.26**	**79**	LR	LR	02 43 28.0	
	comp=Z,30nm,21.2s,baz=327,slow=35						
KLR	**Kul'dur**	**43.43**	**291**	LR	LR	02 45 52.2	
	comp=Z,50nm,18.2s,baz=202,slow=39						
TXAR	**Lajitas Array**	**44.16**	**115**	P	**P**	**02 26 04.6**	**+1.2**
	comp=Z,1.2nm,0.7s,baz=346,slow=9.7,SNR=5.6						
TXAR				LR	LR	02 44 19.7	
	comp=Z,49nm,18.5s,baz=340,slow=36						
	comp=Z,1.2nm,0.7s						
TXAR	**Lajitas Array**	**44.16**	**115**	P	**P**	**02 26 04.0**	**+0.6**
TRQ	**Mont Tremblant**	**44.31**	**74**	P	**P**	**02 26 04.6**	**+0.2**
TRQ				IAmb	IAmb	02 26 44.7	
	comp=Z,9.0nm,1.3s						
TKL	**Tuckaleechee C**	**48.15**	**91**	LR	LR	02 47 33.2	
	comp=Z,54nm,21.2s,baz=341,slow=37						
ARCES	**ARCESS Array B**	**49.24**	**2**	P	**P**	**02 26 42.1**	**-0.3**
	comp=Z,1.8nm,1.0s,baz=345,slow=7.5,SNR=4.3						
	comp=Z,1.8nm,1.0s						
ARCES	**ARCESS Array B**	**49.24**	**2**	P	**P**	**02 26 41.8**	**-0.6**
KSRS	**Korea Array**	**54.31**	**284**	P	**P**	**02 27 20.6**	**+0.1**
	comp=Z,0.9nm,0.6s,baz=19,slow=7.8,SNR=1.7						
KSRS				LR	LR	02 51 52.7	
	comp=Z,13nm,19.0s,baz=200,slow=38						
	comp=Z,0.9nm,0.6s						
SONM	**Songino Array**	**55.12**	**307**	P	**P**	**02 27 26.0**	**-0.6**
	comp=Z,1.6nm,0.8s,baz=32,slow=7.3,SNR=6.1						
SONM				LR	LR	02 53 32.3	
	comp=Z,53nm,18.1s,baz=203,slow=39						
	comp=Z,1.6nm,0.8s						
SONM	**Songino Array**	**55.12**	**307**	P	**P**	**02 27 27.4**	**+0.8**
SONM				IAmb	IAmb	02 27 40.6	
	comp=Z,1.8nm,0.8s						
NOA	**NORSAR Array B**	**56.96**	**11**	P	**P**	**02 27 38.6**	**-0.8**
	comp=Z,1.2nm,0.7s,baz=351,slow=6.9,SNR=3.6						
	comp=Z,1.2nm,0.7s						
ZALV	**Zalesovo Beam**	**57.05**	**325**	P	**P**	**02 27 39.0**	**-1.1**
	comp=Z,0.7nm,0.4s,baz=22,slow=9.2,SNR=4.1						
	comp=Z,0.7nm,0.4s						
ZALV	**Zalesovo Beam**	**57.05**	**325**	P	**P**	**02 27 39.0**	**-1.1**
FINES	**FINESS Array B**	**57.37**	**2**	P	**P**	**02 27 41.0**	**-1.1**
	comp=Z,1.1nm,0.6s,baz=15,slow=7.9,SNR=7.5						
	comp=Z,1.1nm,0.6s						
FINES	**FINESS Array B**	**57.37**	**2**	P	**P**	**02 27 41.7**	**-0.4**
HFS	**Hagfors**	**58.06**	**10**	P	**P**	**02 27 47.4**	**+0.3**
	comp=Z,1.3nm,0.7s,baz=19,slow=4.9,SNR=1.5						
	comp=Z,1.3nm,0.7s						
HHC	**Hu-ho-hao-te**	**58.82**	**299**	*e*P	**P**	**02 27 56.0**	**+3.2**
HHC				pmax	pmax		
	comp=Z,8.0nm,0.7s						
HHC				pmax	pmax		
	comp=Z,57nm,5.6s						
TEIG	**Tepich**	**58.97**	**105**	P	**P**	**02 27 53.3**	**-0.6**
ARTI	**Arti**	**60.39**	**342**	LR	LR	02 57 07.3	
	comp=Z,19nm,18.1s,baz=22,slow=39						
EKA	**Eskdalemuir Ar**	**60.62**	**21**	P	**P**	**02 28 04.1**	**-0.7**
	comp=Z,1.0nm,0.5s,baz=326,slow=5.8,SNR=12						
	comp=Z,1.0nm,0.5s						
ESK	**Eskdalemuir**	**60.63**	**21**	P	**P**	**02 28 05.2**	**+0.3**
BORK	**Borovoye**	**61.44**	**334**	P	**P**	**02 28 11.2**	**+0.8**
BORK				IAmb	IAmb	02 28 16.2	
	comp=Z,0.9nm,0.6s						
BVAR	**Borovoye Array**	**61.44**	**334**	P	**P**	**02 28 08.9**	**-1.5**
	comp=Z,1.5nm,0.7s,baz=18,slow=6.2,SNR=5.0						
	comp=Z,1.5nm,0.7s						
KURK	**Kurchatov**	**61.63**	**327**	P	**P**	**02 28 12.3**	**+0.7**
KURK				IAmb	IAmb	02 28 28.7	
	comp=Z,2.8nm,1.1s						
KURBB	**Kurchatov Arra**	**61.74**	**327**	P	**P**	**02 28 10.8**	**-1.6**
	comp=Z,0.6nm,0.4s,baz=32,slow=6.1,SNR=4.3						
	comp=Z,0.6nm,0.4s						
MKAR	**Makanchi Array**	**64.19**	**323**	P	**P**	**02 28 26.9**	**-1.9**
	comp=Z,0.4nm,0.5s,baz=35,slow=6.5,SNR=4.9						
	comp=Z,0.4nm,0.5s						
MKAR	**Makanchi Array**	**64.19**	**323**	P	**P**	**02 28 27.1**	**-1.7**
AB31	**Akbulak array**	**67.04**	**339**	P	**P**	**02 28 46.3**	**-0.8**
AB31				IAmb	IAmb	02 28 50.5	
	comp=Z,4.6nm,1.5s						
ABKAR	**Akbulak array**	**67.04**	**339**	P	**P**	**02 28 46.2**	**-1.0**

OSTC	Ostas	67.77	9	*e*P	P	02 28 52.6	+0.9
DPC	Dobruska-Polom	67.98	9	*e*P	P	02 28 53.4	+0.3
AKASG	Malin Array Be	68.17	1	P	P	02 28 53.2	-1.0
	comp=Z,2.4nm,0.4s,baz=2.9,slow=6.3,SNR=15						
	comp=Z,2.4nm,0.4s						
AKASG	Malin Array Be	68.17	1	P	P	02 28 53.0	-1.2
AKASG				IAmb	IAmb	02 29 13.2	
	comp=Z,4.0nm,1.4s						
KRLC	Kraliky	68.29	9	*e*P	P	02 28 55.2	+0.2
STEB	Steborice	68.50	9	*e*P	P	02 28 55.9	-0.4
MORC	Moravsky Berou	68.64	9	*e*P	P	02 28 56.8	-0.5
KHC	Kasperske Hory	68.95	12	*e*P	P	02 28 59.3	+0.1
	comp=Z,0.5nm,0.3s						
GERES	GERESS Array B	69.25	11	P	P	02 29 00.7	-0.3
	comp=Z,0.7nm,0.6s,baz=322,slow=3.9,SNR=6.3						
	comp=Z,0.7nm,0.6s						
GERES	GERESS Array B	69.25	11	P	P	02 29 00.3	-0.8
KRUC	Moravsky	69.27	10	*e*P	P	02 29 00.8	-0.3
JAVC	Velka Javorina	69.57	9	*e*P	P	02 29 03.8	+0.8
MOA	Molln	70.29	11	*e*P	P	02 29 09.6	+2.2
	comp=Z,4.3nm,1.6s						
CONA	Conrad Observa	70.35	10	*i* P	P	02 29 08.2	+0.4
	comp=Z,2.9nm,0.7s						
BIOA	Bad Ischl, Aus	70.38	12	*e*P	P	02 29 09.5	+1.5
	comp=Z,2.2nm,1.0s						
MOTA	Moosalm	70.46	14	*e*P	P	02 29 08.5	-0.1
	comp=Z,2.4nm,1.0s						
WATA	Walderalm	70.52	13	*e*P	P	02 29 09.0	0.0
	comp=Z,4.6nm,1.2s						
LESA	Schwarzleotal	70.55	12	*e*P	P	02 29 09.6	+0.5
	comp=Z,1.3nm,0.6s						
SQTA	Sankt Quirin	70.59	14	*e*P	P	02 29 09.8	+0.4
	comp=Z,3.9nm,0.7s						
WTTA	Wattenberg	70.60	13	*e*P	P	02 29 09.7	+0.2
	comp=Z,4.3nm,0.8s						
KBA	Koelnbreinsper	70.96	12	*e*P	P	02 29 12.3	+0.6
	comp=Z,6.6nm,0.7s						
ARSA	Arzberg	70.99	10	*e*P	P	02 29 11.7	0.0
	comp=Z,2.2nm,0.7s						
SJG	San Juan	71.31	86	LR	LR	03 02 38.7	
	comp=Z,23nm,18.5s,baz=90,slow=38						
SOKA	Soboth	71.52	11	*i* P	P	02 29 15.4	+0.5
	comp=Z,1.1nm,0.5s						
OBKA	Obir	71.64	11	*i* P	P	02 29 15.8	+0.1
	comp=Z,8.6nm,0.7s						
ESDC	Sonseca Array	75.47	26	P	P	02 29 38.1	-0.2
	comp=Z,1.2nm,0.6s,baz=342,slow=5.8,SNR=20						
	comp=Z,1.2nm,0.6s						
ESDC	Sonseca Array	75.47	26	P	P	02 29 38.3	0.0
ESDC				IAmb	IAmb	02 29 57.1	
	comp=Z,5.2nm,1.2s						
BRTR	Keskin Array B	79.11	357	P	P	02 29 57.4	-1.4
	comp=Z,0.5nm,0.7s,baz=344,slow=3.6,SNR=2.8						
	comp=Z,0.5nm,0.7s						
BRTR	Keskin Array B	79.11	357	P	P	02 29 58.2	-0.5
KEST	Kesra	81.68	17	P	P	02 30 12.1	-0.4
	comp=Z,2.7nm,0.6s,baz=334,slow=0.7,SNR=7.4						
	comp=Z,2.7nm,0.6s						
KEST	Kesra	81.68	17	P	P	02 30 12.4	-0.1
CMAR	Chiang Mai Arr	83.58	297	LR	LR	03 11 02.5	
	comp=Z,27nm,18.6s,baz=205,slow=38						
VNDA	Vanda	141.88	195	PKP	PKPdf	02 37 22.6	-1.3
	comp=Z,0.3nm,0.6s,baz=203,slow=0.7,SNR=1.8						
VNDA	Vanda	141.88	195		PKiKP	02 37 25.9	-0.9
BOSA	Boshof	146.98	8	PKPbc	PKPdf	02 37 34.4	-0.1
	comp=Z,3.2nm,1.0s,baz=47,slow=2.5,SNR=5.9						
BOSA	Boshof	146.98	8	PKPdf	PKPdf	02 37 34.8	+0.4
QSPA	South Pole Qui	151.28	180	PKPbc	PKPbc	02 37 45.2	-0.9
	comp=Z,5.5nm,0.6s,baz=323,slow=0.5,SNR=48						
VNA3	Neumayer Olymp	161.71	139	⇑PKPab	PKPab	02 38 37.9	-1.2
	comp=Z,1.6nm,0.6s						
VNA2	Neumayer--Watz	162.51	138	⇑PKPab	PKPab	02 38 41.5	-1.0
	comp=Z,1.6nm,0.8s,baz=260,slow=1.7						

NOU 10 02:30:01.2, 17°.19S×167°.70E, h0^{km}, MLv4.0/14, Vanuatu Islands, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTV	Rentapao	0.92	131	P	Pb	02 30 19.6	-0.4
RTV	Rentapao	0.92	131	S	Sg	02 30 30.9	+0.2
SANVU	Saraoutou	1.80	345	P	Pn	02 30 33.1	-0.4
SANVU	Saraoutou	1.80	345	S	Sn	02 30 56.8	-0.2
MARNC	Mare, Loyalty	4.28	176	P	Pn	02 31 07.2	-0.4
YATNC	Mamie plateau,	4.90	189	P	Pn	02 31 15.8	-0.4
NOUC	Port Laguerre	5.06	195	P	Pn	02 31 18.0	-0.4
OUENC	Ouen Island, N	5.26	189	P	Pn	02 31 21.7	+0.5

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*IDC **10** 02:33:45.2±0.7, 0°.30N×24°.85W, h0^{km}, mb4.0/11, mbtmp4.0/11, MS3.6/20, Error ellipse: s-maj=27.5km s-min=20.2km az=126.0*

*NEIC **10** 02:33:48.5±1.4, 0°.5N±0°.1×24°.9W±0°.1, h10^{km}±1^{km}, mb4.5/12, Error ellipse: s-maj=22.6km s-min=21.7km az=270.0*

ISC 10 02:33:47.3±0.6, **0°.4N**±0°.1×**24°.9W**±0°.1, **h10^{km}, n58, σ1s.28**/36, **mb4.4**/13, **MS3.5**/20, **2C, Central Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H10N3	ASCENSION HYDR	13.20	129	T	T	02 50 32.5	
	baz=307,slow=74,SNR=168						
H10N2	ASCENSION HYDR	13.21	128	T	T	02 50 31.4	
	baz=307,slow=74,SNR=231						
H10N1	ASCENSION HYDR	13.22	129	T	T	02 50 34.0	
	baz=307,slow=74,SNR=239						
H10S3	ASCENSION HYDR	13.79	133	T	T	02 51 11.3	
	baz=310,slow=74,SNR=86						
H10S2	ASCENSION HYDR	13.81	133	T	T	02 51 12.5	
	baz=270,slow=74,SNR=60						
DBIC	Dimbokro	20.93	72	P	P	02 38 29.6	-0.8
	7.8nm,0.9s,baz=267,slow=9.3,SNR=3.8						
DBIC				LR	LR	02 44 48.9	
	comp=Z,116nm,21.6s,baz=282,slow=32						
	7.8nm,0.9s						
DBIC	Dimbokro	20.93	72	P	P	02 38 30.5	+0.1
DBIC				IAmb	IAmb	02 38 31.1	
	comp=Z,28nm,1.2s						
BDFB	Brasilia	27.86	234	LR	LR	02 49 43.6	
	comp=Z,156nm,18.9s,baz=69,slow=34						
MDP	Montagnes des	28.11	280	LR	LR	02 48 40.8	
	comp=Z,42nm,21.8s,baz=74,slow=32						
TORD	Torodi Ar. Bea	29.22	63	P	P	02 39 49.4	-0.2
	comp=Z,0.8nm,0.8s,baz=251,slow=10,SNR=2.9						
	comp=Z,0.8nm,0.8s						
TORD	Torodi Ar. Bea	29.22	63	P	P	02 39 50.4	+0.8
MDT	Midelt	37.47	29	LR	LR	02 55 05.5	
	comp=Z,74nm,19.2s,baz=222,slow=34						
SIV	San Ignacio	39.26	244	LR	LR	02 56 52.3	
	comp=Z,105nm,18.3s,baz=116,slow=35						
CPUP	Villa Florida	41.04	227	LR	LR	02 56 33.5	
	comp=Z,57nm,21.2s,baz=72,slow=33						
PESTR	Estremoz	41.43	21	P	P	02 41 34.4	+0.2
PESTR				IAmb	IAmb	02 42 01.5	
	comp=Z,14nm,1.5s						
ESDC	Sonseca Array	43.50	24	P	P	02 41 51.4	+0.3
	comp=Z,0.8nm,1.0s,baz=219,slow=8.5,SNR=5.7						
	comp=Z,0.8nm,1.0s						
ESDC	Sonseca Array	43.50	24	P	P	02 41 51.7	+0.6
LPAZ	La Paz	45.77	247	P	P	02 42 09.5	-0.7
	comp=Z,1.6nm,0.9s,baz=90,slow=2.1,SNR=8.0						
LPAZ				LR	LR	03 00 53.9	
	comp=Z,175nm,18.1s,baz=65,slow=36						
	comp=Z,1.6nm,0.9s						
LPAZ	La Paz	45.77	247	P	P	02 42 09.9	-0.3
TSUM	Tsumeb	45.99	117	LR	LR	02 57 12.2	
	comp=Z,83nm,19.4s,baz=328,slow=31						
TSUM	Tsumeb	45.99	117	P	P	02 42 10.0	-1.4
TSUM				IAmb	IAmb	02 42 24.6	
	comp=Z,5.5nm,1.1s						
KEST	Kesra	47.41	38	LR	LR	03 02 39.1	
	comp=Z,150nm,20.9s,baz=260,slow=36						
ROSC	El Rosal	49.56	276	LR	LR	03 02 09.2	
	comp=Z,147nm,18.6s,baz=59,slow=34						
ATAH	Atahualpa	53.89	261	LR	LR	03 07 24.2	
	comp=Z,54nm,18.1s,baz=50,slow=37						
ZCCA	Zocca	54.11	31	P	P	02 43 13.1	+0.6
LBTB	Lobatse	54.95	121	LR	LR	03 04 10.0	
	comp=Z,46nm,18.3s,baz=99,slow=33						
LBTB	Lobatse	54.95	121	P	P	02 43 18.8	-0.2
LBTB				IAmb	IAmb	02 43 51.6	
	comp=Z,8.8nm,1.3s						
DAVOX	Davos/Dischmat	55.27	28	LR	LR	03 07 28.7	
	comp=Z,30nm,18.7s,baz=256,slow=37						
MBAR	Mbarara	55.63	91	LR	LR	03 03 58.7	
	comp=Z,53nm,19.0s,baz=290,slow=33						
BOSA	Boshof	55.94	125	P	P	02 43 23.6	-2.5
	comp=Z,1.4nm,0.5s,baz=295,slow=5.7,SNR=7.6						
	comp=Z,1.4nm,0.5s						
BOSA	Boshof	55.94	125	P	P	02 43 24.8	-1.3
BOSA				IAmb	IAmb	02 43 31.6	
	comp=Z,10nm,1.2s						
GERES	GERESS Array B	58.56	29	P	P	02 43 44.0	-0.3
	comp=Z,0.5nm,0.3s,baz=239,slow=7.6,SNR=3.0						
	comp=Z,0.5nm,0.3s						
GERES	GERESS Array B	58.56	29	P	P	02 43 44.2	-0.1
BATG	Bathurst New B	58.82	328	P	P	02 43 44.5	-1.6
VRAC	Vranov	60.29	30	LR	LR	03 10 20.7	
	comp=Z,31nm,18.4s,baz=272,slow=36						
KMBO	Kilima Mbogo	62.15	91	LR	LR	03 08 38.0	
	comp=Z,34nm,19.9s,baz=105,slow=34						
MLR	Muntele Rosu	63.30	38	LR	LR	03 13 41.7	
	comp=Z,46nm,18.1s,baz=180,slow=38						
MMAI	Mount Meron Ar	65.15	54	LR	LR	03 15 54.5	
	comp=Z,20nm,18.1s,baz=194,slow=39						
BRTR	Keskin Array B	65.97	46	P	P	02 44 34.4	+0.1
	comp=Z,1.3nm,0.9s,baz=239,slow=6.3,SNR=7.1						
	comp=Z,1.3nm,0.9s						
BRTR	Keskin Array B	65.97	46	P	P	02 44 34.6	+0.3
AKASG	Malin Array Be	67.78	34	P	P	02 44 44.6	-0.7
	comp=Z,1.9nm,0.6s,baz=242,slow=6.7,SNR=4.0						
	comp=Z,1.9nm,0.6s						
AKASG	Malin Array Be	67.78	34	IAmb	IAmb	02 44 45.2	
	comp=Z,2.9nm,1.1s						
AKASG				P	P	02 44 45.7	+0.4
CMIG	Matias Romero	70.78	288	LR	LR	03 19 08.4	
	comp=Z,20nm,18.0s,baz=169,slow=38						
FINES	FINESS Array B	72.01	23	P	P	02 45 11.5	+0.4
	comp=Z,7.4nm,1.0s,baz=259,slow=3.9,SNR=6.3						
	comp=Z,7.4nm,1.0s						
FINES	FINESS Array B	72.01	23	P	P	02 45 11.7	+0.6
VNA2	Neumayer--Watz	72.13	174	⇑P	P	02 45 12.0	+0.3
	comp=Z,2.3nm,0.6s,baz=334,slow=5.5						
TROLL	Troll, Antarti	74.39	171	⇑P	P	02 45 26.5	+1.3
	comp=Z,68nm,0.9s						
PDAR	Pinedale Array	85.81	313	P	P	02 46 26.7	-0.9
	comp=Z,0.5nm,0.8s,baz=75,slow=6.3,SNR=3.6						
PDAR				LR	LR	03 22 30.0	
	comp=Z,18nm,18.1s,baz=350,slow=34						
	comp=Z,0.5nm,0.8s						
PDAR	Pinedale Array	85.81	313	P	P	02 46 27.7	+0.2
MAW	Mawson	89.51	157	P	P	02 46 44.6	+0.1
	comp=Z,1.5nm,0.8s,baz=300,slow=8.7,SNR=5.4						
	comp=Z,1.5nm,0.8s						
MAW	Mawson	89.51	157	P	P	02 46 45.7	+1.2
FITZ	Fitzroy Crossi	146.12	123	PKPbc	PKPdf	02 53 28.2	+0.3
	comp=Z,3.6nm,1.0s,baz=247,slow=5.8,SNR=3.1						
FITZ	Fitzroy Crossi	146.12	123		PKPdf	02 53 27.4	-0.4
STKA	Stephens Creek	146.19	159	PKPbc	PKPdf	02 53 27.8	+0.1
	comp=Z,3.1nm,0.8s,baz=255,slow=6.0,SNR=5.3						
ASAR	Alice Springs	149.04	140	PKPbc	PKPdf	02 53 35.6	+2.9
	comp=Z,2.8nm,0.8s,baz=197,slow=2.0,SNR=24						
ASAR	Alice Springs	149.04	140	PKPdf	PKPdf	02 53 32.2	-0.5
WRA	Warramunga Arr	151.88	135	PKPbc	PKPdf	02 53 42.0	+4.9
	comp=Z,1.2nm,0.8s,baz=242,slow=2.2,SNR=4.9						
WRA	Warramunga Arr	151.88	135		PKPbc	02 53 42.5	-1.1

IDC 10 02:34:53.3±2.3, **6°.68S×155°.52E, h0^{km}, mb3.6**/4, **mbtmp3.6**/4, **Error ellipse: s-maj=58.1km s-min=44.5km az=84.0, Bougainville-Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	24.42	235	P	P	02 40 13.7	-0.2
	0.5nm,0.6s,baz=60,slow=9.8,SNR=6.0						
	0.5nm,0.6s						
ASAR	Alice Springs	26.77	229	P	P	02 40 35.1	-0.1
	0.4nm,0.8s,baz=55,slow=8.8,SNR=1.9						
	0.4nm,0.8s						
H11S3	WAKE ISLAND Hy	27.33	24	T	T	03 09 08.4	
	baz=203,slow=76,SNR=27						
H11S2	WAKE ISLAND Hy	27.33	24	T	T	03 09 08.5	
	baz=203,slow=76,SNR=27						
H11S1	WAKE ISLAND Hy	27.35	24	T	T	03 08 59.0	
	baz=203,slow=76,SNR=19						
H11N1	WAKE ISLAND Hy	28.51	23	T	T	03 10 42.2	
	baz=199						
H11N3	WAKE ISLAND Hy	28.52	23	T	T	03 10 28.5	
	baz=199						
H11N2	WAKE ISLAND Hy	28.53	23	T	T	03 10 45.8	
	baz=199						
CMAR	Chiang Mai Arr	61.12	295	P	P	02 45 11.1	+1.2
	1.5nm,0.8s,baz=111,slow=6.2,SNR=5.2						
	1.5nm,0.8s						
QSPA	South Pole Qui	83.30	180	P	P	02 47 22.7	+0.8
	0.5nm,0.5s,baz=180,slow=3.0,SNR=1.6						
	0.5nm,0.5s						
TORD	Torodi Ar. Bea	153.44	286	PKPbc	PKPbc	02 54 52.5	-2.3
	0.7nm,0.9s,baz=61,slow=1.7,SNR=2.3						

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*IDC **10** 03:26:21.8±1.3, 36°.44N×140°.74E, h0^{km}, mb3.5/6, mbtmp3.5/10, ML3.1/4, MS2.9/1, Error ellipse: s-maj=22.6km s-min=14.9km az=71.0*

*NIED **10** 03:26:25.3, 36°.48N×140°.66E, h19^{km}, MW3.6, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}0.35; $M_{\theta\theta}$-2.13; $M_{\phi\phi}$1.78; $M_{r\theta}$-1.46; $M_{\theta\phi}$-2.03; $M_{\phi r}$0.69; Fault plane solution: $M_0$3.26000×10^{14} NP1:ϕ_s23.00000°, δ60.00000°, λ5.00000°. NP2:ϕ_s290.00000°, δ85.00000°, λ150.00000°.*

*JMA **10** 03:26:25.3±0.1, 36°.5N±0°.1×140°.7E±0°.3, h19^{km}, MD4.1/40, MV4.3/40, NORTHERN IBARAKI PREF*

JMA Felt III J1 at NORTHERN IBARAKI PREF .

ISC 10 03:26:24.6±1.5, **36°.48N**±0°.03×**140°.69E**±0°.06, **h17^{km}**±9^{km}, **n32,** σ1s.**21**/28, **mb3.5**/6, **8D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHYU	Hitachinakayam	0.16	212	⇓*i*P	Pb	03 26 29.6	+0.5
JHYU				A	A	03 26 29.6	
	comp=N,60nm,0.3s,comp=E,54nm,0.9s						
JHYU				⇓*e*S	Sb	03 26 32.4	+0.4
JHO	Hitachi	0.17	324	⇓*i*P	Pb	03 26 29.6	+0.3
JHO				A	A	03 26 29.6	
	comp=N,21nm,0.2s,comp=E,25nm,0.3s						
JHO				⇓*e*S	Sb	03 26 32.3	0.0
JYT	Yasato	0.47	239	*i* P	Pb	03 26 34.4	0.0
JYT				A	A	03 26 34.4	
	comp=N,20nm,0.3s,comp=E,16nm,0.3s						
JYT				S	Sg	03 26 40.6	+0.1
JIHU	Itakohorinouch	0.53	195	A	A	03 26 35.5	
	comp=N,18nm,0.5s,comp=E,36nm,0.5s						
JFFD	Fukushimafurud	0.62	350	A	A	03 26 37.2	
	comp=N,7.0nm,0.3s,comp=E,8.0nm,0.5s						
ONAJ	Iwakimizuishiy	0.63	8	⇓*i*P	Pb	03 26 37.4	+0.2
ONAJ				A	A	03 26 37.4	
	comp=N,12nm,0.3s,comp=E,28nm,0.3s						
ONAJ				⇓S	Sb	03 26 46.0	+0.3
JCAJ	Choshiashikaji	0.76	170	A	A	03 26 39.8	
	comp=N,9.0nm,0.3s,comp=E,9.0nm,0.4s						
JSB	Shiboa	0.79	309	⇓*i*P	Pn	03 26 40.3	-0.7
JSB				A	A	03 26 40.3	
	comp=N,11nm,0.7s,comp=E,12nm,0.7s						
JSB				⇓*e*S	Sg	03 26 50.3	-0.2
JSMT	Sammumatsuo	0.85	193	A	A	03 26 41.2	
	comp=N,11nm,0.5s,comp=E,10.0nm,0.8s						
JFK	Kawauchi	0.90	9	*i* P	Pb	03 26 41.5	-0.3
JFK				S	Sn	03 26 54.1	-1.1
JAG	Ashikaga	1.00	268	*i* P	Pb	03 26 42.9	-0.5
JAG				*e*S	Sb	03 26 55.9	-0.4
TOK	Tokyo	1.09	224	A	A	03 26 45.0	
	comp=N,12nm,4.8s,comp=E,11nm,0.4s						
JOTO	OTAMA OYAMA	1.12	345	*i* P	Pg	03 26 46.0	-0.3
JOTO				A	A	03 26 46.0	
	comp=N,18nm,0.4s,comp=E,14nm,0.3s						
JOTO				*e*S	Sg	03 27 00.3	-0.6
JCCN	Chibachonan	1.15	199	A	A	03 26 46.1	
	comp=N,6.0nm,0.2s,comp=E,6.0nm,2.0s						
JKT	Katashina	1.20	285	A	A	03 26 46.8	
	comp=N,9.0nm,0.3s,comp=E,11nm,0.5s						
MJAR	Matsushiro Arr	2.00	273	Pn	Pn	03 26 58.4	+0.8
	comp=E,3.4nm,0.3s,baz=96,slow=9.4,SNR=144						
MJAR				Sn	Sb	03 27 23.6	-1.5
	comp=E,10nm,0.3s,baz=33,slow=16,SNR=7.3						
	comp=E,24nm,0.4s						
MJAR				AML	AML		
JHJ	Hachijo jima 2	3.43	193	Pn	Pn	03 27 16.8	-0.5
	comp=E,16nm,0.3s,baz=274,slow=21,SNR=16						
JHJ				Sn	Sn	03 27 54.3	-3.2
	comp=E,24nm,0.3s,baz=58,slow=19,SNR=4.1						
	comp=E,32nm,0.3s						
JHJ				AML	AML		
JNU	Nakatsue	8.73	250	Pn	Pn	03 28 31.4	+1.2
	comp=E,0.1nm,0.3s,baz=62,slow=17,SNR=3.6						
	comp=E,1.8nm,0.6s						
JNU				AML	AML		
KSRS	Korea Array	10.27	279	Pn	Pn	03 28 54.9	+3.9
	comp=E,0.3nm,0.3s,baz=88,slow=15,SNR=3.2						
	comp=E,0.8nm,0.4s						
KSRS				AML	AML		
YAK	Yakutsk	26.49	348	LR	LR	03 43 43.9	
	comp=E,27nm,20.6s,baz=212,slow=39						
H11N2	WAKE ISLAND Hy	28.37	119	T	T	04 02 08.6	
	baz=312,slow=75,SNR=224						
H11N1	WAKE ISLAND Hy	28.38	119	T	T	04 02 09.2	
	baz=312,slow=75,SNR=260						
H11N3	WAKE ISLAND Hy	28.39	119	T	T	04 02 10.0	
	baz=312,slow=75,SNR=226						
H11S1	WAKE ISLAND Hy	29.06	121	T	T	04 02 48.3	
	baz=314,slow=75,SNR=439						
H11S3	WAKE ISLAND Hy	29.06	121	T	T	04 03 02.5	
	baz=314,slow=75,SNR=309						
H11S2	WAKE ISLAND Hy	29.07	121	T	T	04 02 57.2	
	baz=314,slow=75,SNR=323						
ZALV	Zalesovo Beam	41.87	313	P	P	03 34 14.1	+0.6
	comp=E,0.5nm,0.5s,baz=94,slow=7.8,SNR=3.7						
	comp=E,0.5nm,0.5s						
MKAR	Makanchi Array	43.93	302	P	P	03 34 29.7	-0.7
	comp=E,0.2nm,0.4s,baz=79,slow=7.5,SNR=1.4						
	comp=E,0.2nm,0.4s						
KURBB	Kurchatov Arra	45.89	308	P	P	03 34 45.5	-0.4
	comp=E,0.4nm,0.4s,baz=86,slow=7.6,SNR=5.8						
	comp=E,0.4nm,0.4s						
WRA	Warramunga Arr	56.43	187	P	P	03 36 05.5	+0.2
	comp=E,0.2nm,0.3s,baz=1.6,slow=7.4,SNR=5.6						
	comp=E,0.2nm,0.3s						
ASAR	Alice Springs	60.16	187	P	P	03 36 32.0	+0.7
	comp=E,0.1nm,0.3s,baz=9.7,slow=6.6,SNR=1.4						
	comp=E,0.1nm,0.3s						
ARCES	ARCESS Array B	64.31	339	P	P	03 36 58.9	+0.2
	comp=E,0.6nm,0.7s,baz=61,slow=6.4,SNR=4.2						
	comp=E,0.6nm,0.7s						

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*DJA **10** 03:49:32.6±0.4, 7°S±3°×12°5E±°, h488^{km}±5^{km}, M4.4/25, mb4.5/23, mB4.9/12, MLv4.7/25, Mw(mB)4.2/12, MwMwp5.6/1, Mwp5.7/1*

*IDC **10** 03:49:34.0±1.6, 7°.16S×125°.10E, h495^{km}±18^{km}, mb3.1/8, mbtmp4.2/12, Error ellipse: s-maj=43.1km s-min=9.9km az=62.0*

*NEIC **10** 03:49:33.3±1.8, 7°.18S±0°.04×125°.0E±0°.2, h486^{km}±7^{km}, mb4.5/9, Error ellipse: s-maj=23.6km s-min=2.8km az=78.0*

ISC 10 03:49:33.7±0.5, **7°.27S**±0°.07×**124°.82E**±0°.10, **h500^{km}, n61,** σ1s.**73**/58, **mb3.7**/10, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SOEI	Soe	2.53	192		P	03 50 40.9	-0.9
SOEI	Soe	2.53	192	P	P	03 50 41.1	-0.7
SOEI				S	S	03 51 34.8	-2.4
SOEI				AML	AML		
MMRI	Maumere	2.89	242		P	03 50 43.4	-0.6
MMRI	Maumere	2.89	242	P	P	03 50 43.1	-0.8
MMRI				S	S	03 51 42.4	+1.4
MMRI				AML	AML		
BSSI	Bau Bau, Buton	4.44	284	P	P	03 50 57.0	+1.2
BSSI				AML	AML		
NLAI	Namlea	4.61	30	P	P	03 50 55.1	-2.1
NLAI				AML	AML		
AAI	Ambon	4.90	44	P	P	03 50 56.9	-2.9
AAI				AML	AML		
LBFI	Labuhan Bajo,	5.02	256	P	P	03 51 01.3	+0.4
WSI	Waingapu	5.06	242	P	P	03 51 01.3	0.0
BASI	Baing, Sumba	5.11	235	P	P	03 51 01.9	+0.2
BASI				AML	AML		
SANI	Sanana	5.32	13	P	P	03 51 01.1	-2.5
	0.3nm993nm87nm,0.8s						
SANI				AML	AML		
KAPI	Kappang	5.51	294	P	P	03 51 07.4	+2.0
	26nm,0.5s,baz=105,slow=9.0,SNR=11						
KAPI				S	S	03 52 13.5	-6.7
	13nm,0.3s,baz=173,slow=13,SNR=6.4						
KAPI	Kappang	5.51	294	P	P	03 51 06.0	+0.6
KAPI	Kappang	5.51	294	P	P	03 51 07.4	+2.0
	0.1nm21nm,0.6s						
KAPI				AML	AML		
LUWI	Luwuk	6.51	342	P	P	03 51 14.3	-0.8
LUWI	Luwuk	6.51	342	P	P	03 51 15.3	+0.2
	0.5nm7µm166nm,0.8s						
LUWI				AML	AML		
DBNI	Kabupaten Domp	6.56	259	P	P	03 51 15.7	+0.2
	0.2nm46nm,0.4s						
DBNI				AML	AML		
APSI	Ampana	7.06	333	P	P	03 51 21.0	+0.4
	0.2nm1µm87nm,0.9s						
APSI				AML	AML		
PLAI	Plampang	7.14	257	P	P	03 51 21.3	0.0
	0.3nm51nm,0.5s						
PLAI				AML	AML		
GTOI	Gorontalo	8.06	347	P	P	03 51 31.8	+1.0
MTN	Manton Dam	8.33	132		P	03 51 31.6	-2.0
MPSI	Mapaga	9.01	327	P	P	03 51 42.2	+1.5
KNRA	Kununurra	9.21	156	P	P	03 51 42.3	-0.3
FITZ	Fitzroy Crossi	10.79	176	P	P	03 52 00.1	+0.7
	12nm,0.3s,baz=7.0,slow=7.7,SNR=104						
FITZ				S	S	03 53 58.3	-1.1
	9.0nm,0.8s,baz=78,slow=12,SNR=6.9						
FITZ	Fitzroy Crossi	10.79	176	P	P	03 51 60.0	+0.5
WB0	Warramunga Arr	15.52	144	P	P	03 52 47.7	-1.6
WB0				IAmb	IAmb	03 52 48.2	
	comp=Z,5.0nm,0.8s						
WRA	Warramunga Arr	15.62	145	P	P	03 52 48.5	-1.9
	comp=Z,2.2nm,0.4s,baz=316,slow=13,SNR=58						
WRA				S	S	03 55 28.8	-4.0
	comp=Z,1.8nm,0.7s,baz=321,slow=20,SNR=3.9						
WRA	Warramunga Arr	15.62	145		P	03 52 48.2	-2.2
WR8	Warramunga Arr	15.72	144		P	03 52 50.1	-1.4
KKM	Kota Kinabalu	15.77	327	P	P	03 52 52.2	+0.1
KKM				IAmb	IAmb	03 52 59.4	
	comp=Z,18nm,1.0s						
AS31	Alice Springs	18.49	153		P	03 53 18.5	-0.2
AS31				IAmb	IAmb	03 53 21.4	
	comp=Z,4.8nm,0.3s						
ASAR	Alice Springs	18.49	153	P	P	03 53 19.6	+1.0
	comp=Z,5.9nm,0.4s,baz=332,slow=9.5,SNR=49						
ASAR				S	S	03 56 22.7	+0.7
	comp=Z,5.7nm,0.8s,baz=349,slow=24,SNR=17						
ASAR				ScP	ScP	04 00 11.3	+0.6
	comp=Z,0.9nm,0.8s,baz=18,slow=4.4,SNR=5.3						
ASAR	Alice Springs	18.49	153	P	P	03 53 17.9	-0.7
BBOO	Buckleboo	27.48	159	P	P	03 54 39.5	+0.5
BBOO				IAmb	IAmb	03 54 55.6	
	comp=Z,35nm,1.5s						
STKA	Stephens Creek	29.06	150	P	P	03 54 53.7	+0.8
	comp=Z,2.4nm,0.5s,baz=308,slow=11,SNR=4.9						
	comp=Z,2.4nm,0.5s						
CMAR	Chiang Mai Arr	36.13	315	P	P	03 55 55.1	+1.9
	comp=Z,0.8nm,0.4s,baz=122,slow=6.9,SNR=4.2						
	comp=Z,0.8nm,0.4s						
CMAR	Chiang Mai Arr	36.13	315	P	P	03 55 53.2	+0.1
MKAR	Makanchi Array	65.73	329	P	P	03 59 29.4	+0.9
	comp=Z,2.0nm,0.5s,baz=128,slow=7.4,SNR=15						
	comp=Z,2.0nm,0.5s						
MKAR	Makanchi Array	65.73	329	P	P	03 59 28.6	+0.2
PETK	Petropavlovsk-	66.30	21	P	P	03 59 31.5	-0.3
	comp=Z,1.2nm,0.6s,baz=222,slow=7.0,SNR=1.5						
	comp=Z,1.2nm,0.6s						
PETK	Petropavlovsk-	66.30	21	P	P	03 59 30.3	-1.5
ZALV	Zalesovo Beam	69.64	336	P	P	03 59 52.3	+0.1
	comp=Z,0.4nm,0.3s,baz=163,slow=10,SNR=2.3						
	comp=Z,0.4nm,0.3s						
ZALV	Zalesovo Beam	69.64	336	P	P	03 59 52.1	-0.1
KURBB	Kurchatov Arra	70.14	331	P	P	03 59 56.4	+1.2
	comp=Z,0.3nm,0.4s,baz=143,slow=4.9,SNR=6.8						
	comp=Z,0.3nm,0.4s						
KURK	Kurchatov	70.15	331	P	P	03 59 54.8	-0.5
BVAR	Borovoye Array	75.62	330	P	P	04 00 27.4	+0.7
	comp=Z,0.8nm,0.5s,baz=119,slow=8.9,SNR=3.5						
	comp=Z,0.8nm,0.5s						
QSPA	South Pole Qui	82.71	180	P	P	04 01 05.9	+1.6
	comp=Z,0.3nm,0.6s,baz=261,slow=1.3,SNR=0.9						

	comp=Z,0.3nm,0.6s						
QSPA	South Pole Qui	82.71	180	P	P	04 01 05.3	+0.9
ARPR	Arapgir-MALATY	91.81	309	P	P	04 01 47.3	-0.9
D19K	Kuna River	92.01	21	P	P	04 01 47.8	-0.5
D19K				IAmb	IAmb	04 01 59.8	
	comp=Z,6.3nm,1.2s						
EF02	Christine	133.91	57		PKPdf	04 07 51.4	-2.9
HDIL	Hopedale	135.01	37	PKPdf	PKPdf	04 07 54.9	-1.1
GOGA	Godfrey	143.10	41	PKPdf	PKPab	04 08 09.2	+0.9
451A	Vernon	143.15	47	PKPdf	PKPab	04 08 10.1	+1.5
HODGE	Hodges	143.35	39	PKPdf	PKPab	04 08 09.5	+0.3
AC02	Maricunga	143.50	159	PKPdf	PKPab	04 08 11.5	+0.8
AC01	Pan de Azucar	143.56	156	PKPdf	PKPab	04 08 10.7	+0.5
TEIG	Tepich	145.46	65	PKPab	PKPdf	04 08 16.9	+1.7
SACV	Santiago Islan	148.12	287	PKPab	PKPab	04 08 28.0	-0.5
SOR	Soroa	149.10	57	PKPbc	PKPdf	04 08 25.7	+4.4
CAMR	Camarioca	150.33	55	PKPbc	PKPdf	04 08 27.5	+4.3

CATAC ***10*** *03:56:25.5±0.8, 10°N±2°×8°2W±°, h28^{km}±6^{km}, M3.3/11, MLv3.3/11, Error ellipse: s-maj=5.2km s-min=2.5km az=6.9, confirmed*

UPA ***10*** *03:56:25.5±1.6, 9°.59N×82°.00W, h38^{km}±7^{km}, MW3.3, Fault plane solution: NP1:φ$_s$0.00000°, δ57.00000°, λ-122.00000°., Presumed earthquake*

ISC 10 03:56:24.7±1.3**, 9°.58N**±0°.03×**81°.97W**±0°.02**, h25**^{km}±13^{km}**, n43, σ0^s.92**/80**, 9C-6D, Panama**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CNI2	El Empalme, Bo	0.52	252	*i*P	Pb	03 56 35.9	+0.5
CNI2				*e*S	Sn	03 56 44.6	0.0
RBALA	Bur	0.72	195	⇓*i*P	Pn	03 56 38.2	-1.1
RBALA				*e*S	Sb	03 56 44.3	-3.9
KKNTU	Kakintº	0.76	168	*i*P	Pn	03 56 39.5	-0.3
KKNTU				*e*S	Sb	03 56 50.0	+0.8
LNBQ3	Los Naranjos,	0.92	211	*i*P	Pn	03 56 41.3	-0.8
LNBQ3				*e*S	Sn	03 56 54.2	-0.3
BQSF3	Alto Boquete,	0.95	209	⇓*i*P	Pn	03 56 42.0	-0.6
BQSF3				*e*S	Sn	03 56 54.8	-0.7
BQTLY	Boquete Panama	0.95	211	⇓*i*P	Pn	03 56 42.0	-0.7
PTAR3	Potrerillos Ar	1.03	211	*e*P	Pn	03 56 43.2	-0.4
PTAR3				*e*S	Sn	03 56 56.9	-0.4
CLLRA	Cordillera,	1.05	217	*i*P	Pn	03 56 43.4	-0.5
CLLRA				*e*S	Sn	03 56 57.1	-0.8
BRU2	Volcan	1.06	222	⇓*i*P	Pn	03 56 43.3	-0.8
BRU2				*e*S	Sn	03 56 56.7	-1.4
SCLRA	Santa Clara, W	1.10	227	⇑*i*P	Pn	03 56 44.1	-0.5
SCLRA				*e*S	Sn	03 56 58.5	-0.6
BGUAL	Bijagual, Pana	1.13	199	*i*P	Pn	03 56 45.2	+0.3
BGUAL				*i*P	Pn	03 56 45.2	+0.3
MLIR3	Monte Lirio, C	1.15	227	⇑*i*P	Pn	03 56 45.4	+0.1
MLIR3				*e*S	Sn	03 57 00.1	-0.3
LOMA3	Las Lomas, Chi	1.22	200	*e*P	Pn	03 56 46.6	+0.4
LOMA3				*e*S	Sn	03 57 01.9	0.0
CHIR3	Chiriqui UPA,	1.23	197	⇓*i*P	Pn	03 56 46.9	+0.5
CHIR3				*e*S	Sn	03 57 01.9	-0.3
DVD	David	1.24	203	⇓*i*P	Pn	03 56 46.8	+0.4
DVD				*e*S	Sn	03 57 02.4	+0.2
VITO	San Vito	1.25	233	*e*P	Pn	03 56 45.3	-1.4
VITO				*e*S	Sn	03 57 01.6	-1.1
PDCAN	Manzana , Fuen	1.31	168	*e*P	Pn	03 56 48.2	+0.7
PDCAN				*e*P	Pn	03 56 48.2	+0.7
PDCAN				*e*S	Sb	03 57 05.0	-0.2
PDCAN				*e*S	Sb	03 57 05.0	-0.2
NELY	Ciudad Neily	1.34	226	⇑*e*P	Pn	03 56 48.6	+0.8
NELY				*e*S	Sn	03 57 04.0	-0.8
CDITO	Canoas	1.34	222	P	Pn	03 56 48.3	+0.4
CDITO				S	Sb	03 57 06.8	+0.8
PTPM	Petroterminale	1.64	213	*e*P	Pn	03 56 52.6	+0.6
PTPM				*e*S	Sn	03 57 11.4	-0.8
CALO3	Calobre, Verag	1.68	138	*e*P	Pn	03 56 53.3	+0.8
LMNES	Limones	1.72	211	*i*P	Pn	03 56 54.0	+1.0
STIA3	Santiago, Vera	1.77	146	*e*P	Pn	03 56 53.7	-0.1
STIA3				*e*S	Sn	03 57 15.2	-0.4
PIRO	Carate, Puerto	1.79	229	P	Pn	03 56 55.0	+1.0
PIRO				S	Sb	03 57 19.6	+0.7
PIRO	Carate, Puerto	1.79	229	*e*P	Pn	03 56 54.4	+0.4
PIRO				*e*S	Sn	03 57 15.5	-0.4
GMAL	Guarumal, Vera	1.95	158	⇑*i*P	Pn	03 56 56.7	+0.5
GMAL				*e*S	Sn	03 57 17.9	-1.9
LCR2	La Lucha 2	2.02	275	P	Pn	03 56 57.1	-0.2
LCR2				S	Sn	03 57 22.3	+0.5
LCR2	La Lucha 2	2.02	275	*e*P	Pn	03 56 56.9	-0.4
BCIP	Isla Barro Col	2.14	101	P	Pn	03 56 59.7	+0.8
BCIP				S	Sn	03 57 25.1	+0.4
BCIP	Isla Barro Col	2.14	101	⇑*i*P	Pn	03 56 59.4	+0.6
BCIP				*e*S	Sn	03 57 24.9	+0.2
ZANG	Zanguenga, Cho	2.17	107	⇑*i*P	Pn	03 56 60.0	+0.8
ZANG				*e*S	Sn	03 57 24.1	-1.1
QUEP	Quepos	2.17	266	P	Pn	03 57 00.0	+0.8
QUEP				S	Sn	03 57 26.9	+1.5
CHIT3	Chitre	2.23	136	*e*P	Pn	03 57 00.6	+0.6
CHIT3				*e*S	Sn	03 57 26.1	-0.7
FRIJ	El Hiral	2.24	99	⇑*i*P	Pn	03 57 00.8	+0.7
FRIJ				*e*S	Sn	03 57 26.9	-0.2
GAMB1	Gamboa	2.27	101	⇑*i*P	Pn	03 57 01.3	+0.6
GAMB1				*e*S	Sn	03 57 28.1	+0.1
TCS1	Tacares	2.34	281	P	Pn	03 57 02.4	+0.7
TRB2	Turrubares	2.47	278	P	Pn	03 57 04.2	+0.9
TRB2				S	Sn	03 57 33.8	+1.1
CACAO	El Cacao, Vera	2.48	154	*e*P	Pn	03 57 05.8	+2.3
CACAO				*e*S	Sn	03 57 31.6	-1.4
COVE	Coope Vega, Sa	2.65	295	P	Pn	03 57 06.2	+0.3
COVE				S	Sn	03 57 37.3	+0.1
BLUN	Bluefields	2.99	324	P	Pn	03 57 09.3	-1.2
JTS	Las Juntas de	3.02	284	P	Pn	03 57 11.9	+0.9
PRVC	Isla de Provid	3.81	9	P	Pn	03 57 20.9	-1.0
PRVC				S	Sn	03 58 04.6	-1.3
PRVC	Isla de Provid	3.81	9	⇑*i*P	Pn	03 57 21.1	-0.8

IDC ***10*** *03:58:26.3±0.6, 7°.51S×126°.64E, h0^{km}, mb4.4/14, mbtmp4.4/18, ML4.2/4, MS3.4/3, Error ellipse: s-maj=19.6km s-min=9.8km az=72.0*

NEIC ***10*** *03:58:31.9±1.3, 7°.64S±0°.04×126°.85E±0°.05, h42^{km}±8^{km}, mb4.5/23, Error ellipse: s-maj=9.1km s-min=2.1km az=58.0*

ISC 10 03:58:31.1±0.4**, 7°.71S**±0°.05×**126°.80E**±0°.06**, h35**^{km}**, n87, σ1^s.67**/84**, mb4.5**/29**, 1D, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SOEI	Soe	3.22	231		Pn	03 59 19.5	+0.1
SOEI				Sn	Sn	04 00 01.0	+4.4
SAUI	Saumlaki	4.47	94	Pn	Pn	03 59 35.2	-1.2
MMRI	Maumere	4.61	258	P	Pn	03 59 42.5	+4.1
MMRI	Maumere	4.61	258	S	Sn	04 00 38.9	+8.2
MMRI	Maumere	4.61	258		Pn	03 59 41.1	+2.7
DRS	Darwin Rock St	6.19	140	S	Sn	04 01 10.4	+0.8
MTN	Manton Dam	6.65	140		Pn	04 00 07.7	+1.3
MTN				Sn	Sn	04 01 21.8	+0.9
FAKI	Fak Fak	7.22	49	P	Pn	04 00 15.0	+0.7
FAKI	Fak Fak	7.22	49	Pn	Pn	04 00 13.3	-1.0
KAPI	Kappang	7.50	291	Pn	Pn	04 00 15.4	-2.7
	2.3nm,0.3s,baz=114,slow=9.0,SNR=5.8						
KAPI				Sn	Sn	04 01 37.8	-4.1
	2.8nm,0.3s,baz=116,slow=15,SNR=1.7						
KAPI				LR	LR	04 02 59.6	
	comp=Z,250nm,18.8s,baz=142,slow=38						
	8.4nm,0.4s						
KAPI				AML	AML		
KAPI	Kappang	7.50	291		Pn	04 00 17.1	-1.0
LUWI	Luwuk	7.75	329	Pn	Pn	04 00 20.7	-0.8
KNRA	Kununurra	8.14	167		Pn	04 00 28.1	+1.1
TNTI	Ternate	8.45	4	P	Pn	04 00 31.8	+0.7
PLAI	Plampang	9.00	262	P	Pn	04 00 42.9	+4.2
FITZ	Fitzroy Crossi	10.38	186	Pn	Pn	04 00 56.3	-1.3
	1.4nm,0.3s,baz=356,slow=7.9,SNR=28						
FITZ				Sn	Sn	04 02 47.5	-5.4
	5.6nm,0.3s,baz=122,slow=17,SNR=14						
FITZ				LR	LR	04 04 38.3	
	comp=Z,181nm,20.5s,baz=7.5,slow=35						
	14nm,0.6s						
FITZ				AML	AML		
FITZ	Fitzroy Crossi	10.38	186	P	Pn	04 00 58.2	+0.5
FITZ	Fitzroy Crossi	10.38	186		Pn	04 00 57.7	0.0
TOLI2	Tolitoli	10.62	325		Pn	04 01 01.2	+0.2
WB0	Warramunga Arr	14.06	149		Pn	04 01 45.3	-2.8
WRAB	Tennant Creek	14.18	150	P	Pn	04 01 48.4	-1.2
WRAB	Tennant Creek	14.18	150		Pn	04 01 49.7	0.0
WRA	Warramunga Arr	14.19	150	Pn	Pn	04 01 46.7	-3.0
	1.9nm,0.3s,baz=325,slow=13,SNR=40						
WRA				Sn	Sn	04 04 18.9	-7.0
	3.2nm,0.3s,baz=329,slow=23,SNR=12						
	2.1nm,0.3s						
WRA				AML	AML		
WRA	Warramunga Arr	14.19	150		Pn	04 01 45.8	-3.9
WR8	Warramunga Arr	14.28	149	Pn	Pn	04 01 47.4	-3.5
MBWA	Marble Bar	15.01	206	P	Pn	04 02 03.2	+2.4
MBWA	Marble Bar	15.01	206	Pn	Pn	04 01 59.5	-1.3
AS31	Alice Springs	17.27	158	Pn	Pn	04 02 28.8	-0.9
ASAR	Alice Springs	17.27	158	Pn	Pn	04 02 28.9	-0.8
	0.8nm,0.3s,baz=329,slow=11,SNR=24						
ASAR				Sn	Sn	04 05 35.5	-5.3
	1.3nm,0.3s,baz=333,slow=25,SNR=9.2						
	2.8nm,0.6s						
ASAR				AML	AML		
ASAR	Alice Springs	17.27	158	Pn	Pn	04 02 29.7	0.0
AS01	Alice Springs	17.28	157	P	Pn	04 02 30.3	+0.4
QIS	Mount Isa	17.79	137	P	Pn	04 02 35.9	-0.3
GIRL	Giralia	19.14	218		P	04 02 51.6	+0.1
GIRL				IAmb	IAmb	04 03 16.3	
	comp=Z,89nm,1.4s						
MEEK	Meekatharra	20.37	201	P	Pn	04 03 08.3	+1.2
CTAO	Charters Tower	22.50	125	P	P	04 03 27.7	-0.3
CTAO				IAmb	IAmb	04 03 32.4	
	comp=Z,22nm,1.3s						
FORT	Forrest	22.98	177	P	P	04 03 33.6	+0.9
FORT				IAmb	IAmb	04 04 04.8	
	comp=Z,13nm,1.1s						
MORW	Morawa	23.54	204	P	P	04 03 41.6	+3.3
MORW	Morawa	23.54	204	P	P	04 03 38.6	+0.2
MORW				IAmb	IAmb	04 04 02.1	
	comp=Z,41nm,1.5s						
INKA	Innaminka	23.90	148		P	04 03 41.5	-0.3
BLDU	Ballidu	24.67	201	P	P	04 03 51.9	+3.1
BBOO	Buckleboo	26.41	162	P	P	04 04 06.6	+2.0
BBOO	Buckleboo	26.41	162	P	P	04 04 04.1	-0.5
BBOO				IAmb	IAmb	04 04 31.2	
	comp=Z,11nm,1.1s						
NWAO	Narrogin (SRO)	26.61	198	P	P	04 04 07.2	+0.9
STKA	Stephens Creek	27.71	152	P	P	04 04 17.4	+1.1
	comp=Z,3.8nm,0.7s,baz=320,slow=10,SNR=6.3						
STKA				LR	LR	04 18 03.9	
	comp=Z,99nm,18.3s,baz=14,slow=42						
	comp=Z,3.8nm,0.7s						
CMSA	Cobar Meteorol	29.54	146	P	P	04 04 34.2	+1.7
ARMA	Armidale	32.42	137	P	P	04 04 58.3	+0.1
LHMI	Lhok Sumawe	32.44	292	P	P	04 05 02.3	+4.0
CMAR	Chiang Mai Arr	37.84	314	P	P	04 05 43.7	-1.1
	comp=Z,1.8nm,0.3s,baz=142,slow=6.8,SNR=9.4						
	comp=Z,1.8nm,0.3s						
CMAR	Chiang Mai Arr	37.84	314	P	P	04 05 43.9	-0.9
NJ2	Nanjing	40.26	350	*e*P	P	04 06 06.8	+2.0
NJ2				pmax	pmax		
	comp=Z,9.0nm,0.5s						
PZH	PanZhiHua	41.81	325	P	P	04 06 19.7	+1.9
LYN	LuoYang	44.17	343	P	P	04 06 41.0	+4.4
LYN				pmax	pmax		
	comp=Z,11nm,0.8s						
KSRS	Korea Array	44.94	1	P	P	04 06 40.9	-1.8
	comp=Z,1.0nm,0.5s,baz=178,slow=12,SNR=6.2						
	comp=Z,1.0nm,0.5s						
MJAR	Matsushiro Arr	45.30	13	P	P	04 06 43.9	-1.7
	comp=Z,6.0nm,1.0s,baz=191,slow=9.2,SNR=8.5						
	comp=Z,6.0nm,1.0s						
MJAR	Matsushiro Arr	45.30	13	P	P	04 06 44.1	-1.5
HHC	Hu-ho-hao-te	50.32	345	*e*P	P	04 07 27.4	+2.8
HHC				pmax	pmax		
	comp=Z,8.0nm,0.5s						
HHC				pmax	pmax		
	comp=Z,75nm,4.7s						
USRK	Ussuriysk Ar.	51.88	5	P	P	04 07 36.7	+0.6
	comp=Z,4.5nm,0.8s,baz=204,slow=9.4,SNR=6.0						
	comp=Z,4.5nm,0.8s						
USRK	Ussuriysk Ar.	51.88	5	P	P	04 07 35.6	-0.5
EVN	Everest	52.44	314		P	04 07 40.3	-1.1
EVN				IAmb	IAmb	04 07 43.4	
	comp=Z,5.0nm,0.7s						
GTA2	Gaotai	53.22	334	*e*P	P	04 07 46.4	+0.1
GTA2				pP	sP	04 07 57.8	-3.4
GTA2				pmax	pmax		
	comp=Z,9.0nm,0.9s						
SONM	Songino Array	58.18	344	P	P	04 08 21.7	0.0
	comp=Z,2.0nm,0.9s,baz=165,slow=7.7,SNR=4.9						
	comp=Z,2.0nm,0.9s						
SONM	Songino Array	58.18	344	P	P	04 08 21.3	-0.4
SONM				IAmb	IAmb	04 08 22.5	
	comp=Z,3.1nm,1.1s						
CASY	Casey	59.55	188	P	P	04 08 31.3	+0.5
WMQ	Urumqi	62.31	329	*e*P	P	04 08 52.5	+2.5
PETK	Petropavlovsk-	66.03	20	P	P	04 09 13.8	-0.3
	comp=Z,2.1nm,0.6s,baz=227,slow=7.1,SNR=3.0						
	comp=Z,2.1nm,0.6s						
PETK	Petropavlovsk-	66.03	20	P	P	04 09 13.4	-0.7
PDGK	Podgornoye	66.47	324		P	04 09 16.9	-0.4
KSH2	Kashi	66.50	319	P	P	04 09 17.2	-0.5
KSH2				pmax	pmax		
	comp=Z,9.0nm,0.7s						
MKAR	Makanchi Array	67.12	328	P	P	04 09 20.8	-0.5
	comp=Z,7.4nm,0.7s,baz=131,slow=7.5,SNR=61						
	comp=Z,7.4nm,0.7s						
MKAR	Makanchi Array	67.12	328		P	04 09 20.9	-0.4
MAKZ	Makanchi	67.30	328		P	04 09 21.5	-0.9
MAKZ				IAmb	IAmb	04 09 22.7	
	comp=Z,6.2nm,0.8s						
AAK	Ala-Archa	69.07	321		P	04 09 33.1	-0.7
AAK				IAmb	IAmb	04 09 34.7	
	comp=Z,3.6nm,0.8s						
ARSB	Arslanbob	69.33	319	P	P	04 09 34.5	-0.9
ARSB				IAmb	IAmb	04 09 36.0	
	comp=Z,12nm,1.0s						
ZAA0	Zalesovo Array	70.86	335		P	04 09 43.1	-1.1
ZALV	Zalesovo Beam	70.86	335	P	P	04 09 43.0	-1.2
	comp=Z,9.5nm,0.8s,baz=121,slow=4.5,SNR=40						
	comp=Z,9.5nm,0.8s						
ZALV	Zalesovo Beam	70.86	335		P	04 09 43.2	-1.0
KURBB	Kurchatov Arra	71.49	330	P	P	04 09 47.5	-0.7
	comp=Z,7.4nm,0.9s,baz=132,slow=5.2,SNR=36						
	comp=Z,7.4nm,0.9s						
KURK	Kurchatov	71.51	330		P	04 09 47.8	-0.5
VNDA	Vanda	72.14	172	P	P	04 09 52.5	+0.7
	comp=Z,0.4nm,0.5s,baz=296,slow=8.7,SNR=4.0						
	comp=Z,0.4nm,0.5s						
VNDA	Vanda	72.14	172	P	P	04 09 52.3	+0.6
VNDA				IAmb	IAmb	04 10 02.4	
	comp=Z,4.6nm,1.3s						
MAW	Mawson	73.14	201	P	P	04 09 58.2	+0.5
	comp=Z,1.4nm,0.7s,baz=86,slow=8.3,SNR=7.0						
	comp=Z,1.4nm,0.7s						
MAW	Mawson	73.14	201	P	P	04 09 57.5	-0.2
BVAR	Borovoye Array	77.00	329	P	P	04 10 19.4	-0.8
	comp=Z,2.1nm,0.5s,baz=134,slow=6.4,SNR=8.3						
	comp=Z,2.1nm,0.5s						
BORK	Borovoye	77.05	329		P	04 10 19.3	-1.3
BORK				IAmb	IAmb	04 10 20.8	
	comp=Z,3.5nm,0.7s						
QSPA	South Pole Qui	82.27	180	P	P	04 10 49.6	+0.8
	comp=Z,2.8nm,0.6s,baz=278,slow=1.0,SNR=22						
	comp=Z,2.8nm,0.6s						
QSPA	South Pole Qui	82.27	180	P	P	04 10 49.4	+0.5
QSPA				IAmb	IAmb	04 10 50.5	
	comp=Z,2.9nm,0.8s						
ELIB	Princess Elisa	86.86	198	*d*P	P	04 11 13.5	+1.5
	comp=Z,3.4nm,0.8s						

WEL ***10*** *04:35:19.6±0.5, 42°S±2°×17°3E±°, h59^{km}±5^{km}, M2.9/12, ML2.8/13, MLv2.9/12, Error ellipse: s-maj=3.9km s-min=2.8km az=124.4, confirmed*

NOU ***10*** *04:35:19.2, 41°.87S×172°.49E, h48^{km}, MLv3.6/12, South Island, New Zealand*

ISC 10 04:35:18.7±1.3**, 41°.85S**±0°.03×**172°.63E**±0°.03**, h81**^{km}±6^{km}**, n74, σ1^s.05**/92**, South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THZ	Tophouse	0.22	67	P	Pn	04 35 30.5	-0.3
THZ				S	Sn	04 35 39.0	-0.8
THZ				AML	AML		
THZ				AML	AML		
MCASZ	Murchison	0.23	282	P	Pn	04 35 31.2	+0.5
MCASZ				S	Sn	04 35 40.5	+0.8
KLDS	Kikiwa Line De	0.25	46	P	Pn	04 35 30.6	-0.3
KLDS				S	Sn	04 35 39.1	-0.9
MATW	Matariki Wadsw	0.42	7	P	Pn	04 35 32.1	+0.1
MATW				S	Sn	04 35 40.8	-1.0
MRNZ	Matariki Terra	0.46	12	P	Pn	04 35 31.9	-0.3
MRNZ				S	Sn	04 35 41.1	-1.1
MRNZ				AML	AML		
MRNZ				AML	AML		
INGS	Inangahua Fire	0.51	269	S	Sn	04 35 43.4	+0.4
MOLW	Molesworth Sta	0.52	117	P	Pn	04 35 33.3	+0.5
MOLW				S	Sn	04 35 43.4	+0.1
WVFS	Wairau Valley	0.58	67	P	Pn	04 35 33.6	+0.2
SJFS	Springs Juncti	0.59	215	S	Sn	04 35 44.1	-0.2
BTWS	Nelson Brightw	0.59	39	P	Pn	04 35 33.5	+0.1
BTWS				S	Sn	04 35 43.6	-0.6
DSZ	Denniston Nort	0.63	279	P	Pn	04 35 34.2	+0.4
DSZ				S	Sn	04 35 44.6	-0.4
DSZ				AML	AML		
RDCS	Reefton DOC Ce	0.63	245	S	Sn	04 35 44.4	-0.6
LOKS	Mount Lookout	0.65	105	P	Pn	04 35 35.0	+0.8
LOKS				S	Sn	04 35 47.3	+1.6
KASC	Karamea School	0.71	327	P	Pn	04 35 33.9	-0.7
KASC				S	Sn	04 35 46.2	-0.2
NNZ	Nelson	0.84	42	P	Pn	04 35 35.8	-0.2
NNZ				S	Sn	04 35 48.1	-0.8
NNZ				AML	AML		
NNZ				AML	AML		
TKNZ	Takaka Hill	0.85	17	P	Pn	04 35 35.7	-0.5
TKNZ				S	Sn	04 35 48.0	-1.1
TKNZ				AML	AML		
TKNZ				AML	AML		
KHZ	Kahutara	0.88	130	P	Pn	04 35 36.4	+0.1
KHZ	Kahutara	0.88	130	P	Pn	04 35 49.4	+13
KHZ	Kahutara	0.88	130	P	Pn	04 35 36.5	+0.1
KHZ				S	Sn	04 35 49.3	-0.3
KHZ				AML	AML		
KHZ				AML	AML		
BSWZ	Blackbirch Sta	0.94	82	P	Pn	04 35 37.5	+0.4
BSWZ				S	Sn	04 35 52.2	+1.4
BSWZ				AML	AML		
BSWZ				AML	AML		
LTZ	Lake Taylor	0.97	196	P	Pn	04 35 38.4	+0.9
LTZ				S	Sn	04 35 52.5	+0.9
LTZ				AML	AML		
LTZ				AML	AML		
QRZ	Quartz Range	1.03	356	P	Pn	04 35 37.2	-1.0
QRZ	Quartz Range	1.03	356	P	Pn	04 35 37.8	-0.4
QRZ				S	Sn	04 35 51.4	-1.3
QRZ				AML	AML		
QRZ				AML	AML		
TUWZ	Tuamarina	1.07	67	P	Pn	04 35 39.5	+0.9
TUWZ				AML	AML		
GVZ	Greta Valley S	1.16	165	P	Pn	04 35 40.2	+0.5
GVZ				S	Sn	04 35 55.3	-0.2
GVZ				AML	AML		
INZ	Inchbonnie	1.24	225	P	Pn	04 35 41.8	+1.0
INZ				S	Sn	04 35 58.0	+0.6
INZ				AML	AML		
INZ				AML	AML		
AMCZ	Amberley	1.32	179	P	Pn	04 35 42.2	+0.4
AMCZ				S	Sn	04 35 59.1	-0.1
AMCZ				AML	AML		
AMCZ				AML	AML		
TCW	Tory Channel	1.39	63	P	Pn	04 35 42.5	-0.1
TCW				S	Sn	04 36 00.4	-0.2
TCW				AML	AML		
TCW				AML	AML		
DUWZ	D'Urville Isla	1.43	43	P	Pn	04 35 43.4	+0.3
DUWZ				S	Sn	04 36 01.7	+0.1
DUWZ				AML	AML		
DUWZ				AML	AML		
OXZ	Oxford	1.54	196	P	Pn	04 35 44.7	+0.1
OXZ				AML	AML		
OXZ				AML	AML		
SNZO	South Karori	1.65	72	P	Pn	04 35 46.9	+1.0
SNZO	South Karori	1.65	72	S	Sn	04 36 09.2	+2.7
BHW	Baring Head	1.73	76	P	Pn	04 35 45.9	-1.1
MHCZ	Mount Hutt	1.85	205	P	Pn	04 35 48.8	+0.1
MQZ	McQueen's Vall	1.85	180	P	Pn	04 35 47.9	-0.8
WVZ	Waitaha Valley	1.86	228	P	Pn	04 35 49.8	+1.1
OKCZ	Okains Bay	1.90	171	P	Pn	04 35 49.1	-0.2
RACZ	Rakaia	1.91	191	P	Pn	04 35 49.0	-0.4
CAW	Cannon Point	1.97	69	P	Pn	04 35 49.1	-1.1
KIW	Kapiti Island	1.98	61	P	Pn	04 35 49.6	-0.7
PLWZ	Palliser	1.98	83	P	Pn	04 35 48.7	-1.7
MSWZ	Moikau Station	2.01	78	P	Pn	04 35 49.0	-1.7
AKCZ	Akaroa Harbour	2.03	174	P	Pn	04 35 50.5	-0.6
PAWZ	Paruwai Farm	2.15	78	P	Pn	04 35 50.6	-2.0
WACZ	Wakanui South	2.17	195	P	Pn	04 35 52.6	-0.2
OGWZ	Otaki Gorge	2.17	62	P	Pn	04 35 51.9	-1.0
GCSZ	Gaunt Creek Bo	2.25	229	P	Pn	04 35 55.1	+1.2
MTW	Mount Morrison	2.26	73	P	Pn	04 35 52.1	-2.0
TRWZ	Traveller	2.33	80	P	Pn	04 35 52.9	-2.2
ARCZ	Arundel	2.35	207	P	Pn	04 35 55.3	-0.1
MRZ	Mangatainoka R	2.52	63	P	Pn	04 35 56.1	-1.5
FOZ	Fox Glacier	2.67	230	P	Pn	04 36 00.3	+0.8
KHEZ	Kahui Hut	2.76	23	P	Pn	04 36 01.3	+0.4
KHEZ	Kahui Hut	2.76	23	P	Pn	04 36 01.6	+0.7
PREZ	Palmer Road	2.76	25	P	Pn	04 36 01.8	+0.9
POWZ	Post Office Ro	2.78	59	P	Pn	04 36 05.9	+4.8
TMZ	Timaru	2.80	205	P	Pn	04 36 01.1	-0.2
PRWZ	Pori Road	2.83	64	P	Pn	04 36 07.5	+5.7
PKE	Pukeiti	2.85	22	P	Pn	04 36 02.9	+0.9
BFZ	Birch Farm	2.96	68	P	Pn	04 36 06.7	+3.2
BFZ	Birch Farm	2.96	68	P	Pn	04 36 02.3	-1.3
LBZ	Lake Benmore	3.10	214	P	Pn	04 36 04.6	-0.8
VRZ	Vera Road	3.17	31	P	Pn	04 36 07.0	+0.6
FWVZ	Far West T-bar	3.42	42	P	Pn	04 36 12.6	+2.7
ODZ	Otahua Downs	3.50	204	P	Pn	04 36 09.4	-1.5
ODZ	Otahua Downs	3.50	204	S	Sn	04 36 49.2	-2.0
ODZ	Otahua Downs	3.50	204	P	Pn	04 36 10.5	-0.4
WTVZ	West Tongariro	3.54	41	P	Pn	04 36 14.2	+2.6
JCZ	Jackson Bay	3.59	231	P	Pn	04 36 12.7	+0.6
JCZ	Jackson Bay	3.59	231	S	Sn	04 36 52.4	-1.1
JCZ	Jackson Bay	3.59	231	P	Pn	04 36 12.8	+0.6
HIZ	Hauiti	3.74	28	P	Pn	04 36 14.3	+0.2
HIZ	Hauiti	3.74	28	P	Pn	04 36 14.1	0.0
TOZ	Tahuroa Road	4.67	29	P	Pn	04 36 28.0	+1.3

HLW ***10*** *04:54:15.6, 25°.89N×35°.48E, h5^{km}±3^{km}, Ml2.6*

SGS ***10*** *04:54:18.1, 25°.90N×35°.75E, h14^{km}, Ml2.3*

ISC 10 04:54:13.1±1.1**, 25°.93N**±0°.04×**35°.62E**±0°.05**, h10**^{km}**, n28, σ1^s.00**/30**, Red Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EWJHS	Al Wajh	0.96	76	P	Pn	04 54 33.2	+0.5
EWJHS				S	Sb	04 54 44.9	+0.3
NADB	Abo Dabab	1.17	240	P	Pn	04 54 35.6	+0.1
UMJ05	UMJ05	1.34	87	P	Pg	04 54 39.2	+0.4
UMJ05				S	Sb	04 54 54.9	-0.6
UMJ12	UMJ12	1.43	108	P	Pg	04 54 40.6	+0.1
BIDS	Bi'r al Bayda'	1.52	52	P	Pg	04 54 42.3	0.0
UMJ06	UMJ06	1.55	97	P	Pg	04 54 42.2	-0.6
UMJ01	UMJ01	1.60	99	P	Pb	04 54 42.8	+0.1
UMJ04	UMJ04	1.60	94	P	Pg	04 54 43.0	-0.7
DESA	DESA	1.65	17	P	Pb	04 54 43.7	+0.1
UMJS	Umm Lajj	1.68	114	P	Pb	04 54 43.6	-0.5
URD05	Al Faraah	1.77	42	P	Pg	04 54 46.1	-0.9
URD03	Al Ula	1.80	65	P	Pg	04 54 46.7	-1.0
MWLHS	Almuwaylih	1.82	357	P	Pb	04 54 45.6	-0.8
URD06	Shuwaq	1.83	34	P	Pb	04 54 47.1	+0.3
URD04	Abu Rakah	1.87	52	P	Pb	04 54 47.5	+0.1
URD07	Al Anba	1.96	26	P	Pb	04 54 48.8	-0.2
SHQRE	Shigry	2.02	14	P	Pb	04 54 49.6	-0.4
URD15	Abu Rakah	2.11	51	P	Pb	04 54 51.2	-0.3
URD02	Al Ula	2.13	71	P	Pb	04 54 51.7	-0.1
URD12	Shuwaq	2.23	35	P	Pb	04 54 52.7	-1.0
HHRG	Al Ghardaqah	2.24	305	P	Pn	04 54 49.5	-0.8
URD14	Abu Rakah	2.42	51	P	Pb	04 54 56.0	-0.9
TBKS	Tabuk	2.43	20	P	Pb	04 54 55.8	-1.1
BRNS	Bernies	2.47	214	P	Pn	04 54 54.7	+1.2
TR1	Tor 1	2.55	325	P	Pn	04 54 56.1	+1.6
JLOS		2.80	358	P	Pn	04 55 00.1	+2.0
QLABS	Al Qalibar	2.82	47	P	Pb	04 55 01.4	-2.2
TR2	Tor 2	2.98	326	P	Pn	04 55 02.7	+2.3

SDD ***10*** *04:56:05.2±1.8, 17°.96N×67°.01W, h17^{km}±3^{km}, MD2.7,* *ML3.5, MW3.2, Presumed earthquake*

*NEIC **10** 04:56:05.5±1.1, 17°.83N±0°.03×67°.05W±0°.02, h10^{km}±1^{km}, ML3.8/27, Md3.4/9(RSPR), Error ellipse: s-maj=4.8km s-min=2.9km az=203.0*

*PTWC **10** 04:56:06, 18°.00N×67°.00W, Ml3.7/11, PUERTO RICO REGION*

*RSPR **10** 04:56:07.5, 17°.97N×67°.01W, h7^{km}, MD3.4/9*

ISC 10 04:56:06.1±1.2, **17°.92N**±0°.05×**67°.03W**±0°.02, **h14**^{km}±5^{km}, **n57, σ0^{s}.50**/74, **10C-13D, Mona Passage**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MLPR	Magueyes Islan	0.05	339		Pg	04 56 09.0	+0.3
MLPR				Sg	Sg	04 56 10.0	-0.5
MLPR	Magueyes Islan	0.05	339	P	Pg	04 56 08.8	+0.1
MLPR	Magueyes Islan	0.05	339	⇓iP	Pg	04 56 09.1	+0.4
MLPR	Magueyes Islan	0.05	339	⇓iP	Pg	04 56 09.0	+0.3
MLPR				⇓iS	Sg	04 56 10.2	-0.3
MLPR				IAML		04 56 10.5	
	comp=N,28µm,0.2s						
CRPR	Cabo Rojo, PR	0.12	316		Pb	04 56 10.0	-0.2
CRPR				Sg	Sg	04 56 11.9	+0.2
CRPR				IAML		04 56 12.1	
	comp=N,49µm,0.2s						
CRPR				IAML		04 56 12.2	
	comp=N,34µm,0.4s						
CRPR	Cabo Rojo, PR	0.12	316	P	Pb	04 56 10.0	-0.2
CRPR	Cabo Rojo, PR	0.12	316	⇑iP	Pb	04 56 10.1	0.0
CRPR	Cabo Rojo, PR	0.12	316	⇑iP	Pb	04 56 10.0	-0.2
CRPR				⇓iS	Sg	04 56 12.0	+0.3
CRPR				IAML		04 56 12.1	
	comp=N,36µm,0.3s						
GBPR	Guanica, Bosqu	0.15	70		Pb	04 56 10.5	-0.3
GBPR					Sb	04 56 13.0	-0.8
GBPR	Guanica, Bosqu	0.15	70	⇑iP	Pb	04 56 10.5	-0.3
GBPR				eS	Sb	04 56 13.0	-0.8
LSP	Las Mesas	0.26	347		Pb	04 56 12.2	-0.4
LSP	Las Mesas	0.26	347	⇓iP	Pb	04 56 12.2	-0.4
PRSN	Puerto Rico Se	0.31	339		Pb	04 56 13.4	-0.2
PRSN					Sb	04 56 18.2	-0.3
PRSN	Puerto Rico Se	0.31	339	IAML		04 56 20.4	
	comp=N,19µm,0.3s						
PRSN				IAML		04 56 21.3	
	comp=N,26µm,0.3s						
PRSN	Puerto Rico Se	0.31	339	P	Pb	04 56 13.3	-0.2
PRSN	Puerto Rico Se	0.31	339	⇑iP	Pb	04 56 13.4	-0.2
PRSN	Puerto Rico Se	0.31	339	⇓iP	Pb	04 56 13.4	-0.2
PRSN				⇑iS	Sb	04 56 18.5	-0.1
PRSN				IAML		04 56 21.2	
	comp=N,16µm,0.2s						
OBIP	Obispado Ponce	0.42	73		Pb	04 56 15.0	-0.3
OBIP					Sb	04 56 21.0	-0.6
OBIP	Obispado Ponce	0.42	73	IAML		04 56 21.9	
	comp=N,559nm,0.5s						
OBIP	Obispado Ponce	0.42	73	P	Pb	04 56 14.9	-0.4
OBIP	Obispado Ponce	0.42	73	⇓iP	Pb	04 56 15.0	-0.3
OBIP				eS	Sb	04 56 21.0	-0.6
CELP	Cerrillos	0.45	70		Pb	04 56 15.8	-0.2
CELP					Sb	04 56 22.5	-0.1
CELP	Cerrillos	0.45	70	IAML		04 56 22.8	
	comp=N,2µm,0.6s						
CELP				IAML		04 56 22.9	
	comp=N,1µm,0.4s						
CELP	Cerrillos	0.45	70	P	Pb	04 56 15.7	-0.2
CELP	Cerrillos	0.45	70	⇓iP	Pb	04 56 15.8	-0.2
CELP	Cerrillos	0.45	70	⇓iP	Pb	04 56 15.7	-0.3
CELP				⇑iS	Sb	04 56 23.4	+0.8
CELP				IAML		04 56 25.9	
	comp=N,580nm,0.2s						
AOPR	Arecibo Observ	0.49	31		Pb	04 56 16.2	-0.5
AOPR					Sg	04 56 22.7	+0.2
AOPR	Arecibo Observ	0.49	31	IAML		04 56 22.9	
	comp=N,17µm,0.3s						
AOPR				IAML		04 56 23.8	
	comp=N,24µm,0.3s						
AOPR	Arecibo Observ	0.49	31	P	Pb	04 56 16.2	-0.5
AOPR	Arecibo Observ	0.49	31	⇑iP	Pb	04 56 16.2	-0.5
AOPR	Arecibo Observ	0.49	31	⇑iP	Pb	04 56 16.2	-0.5
AOPR				IAML		04 56 22.9	
	comp=N,14µm,0.2s						
AOPR				⇑iS	Sb	04 56 22.9	-0.9
AGPR	Aguadilla, PR	0.55	351		Pb	04 56 17.5	-0.1
AGPR					Sb	04 56 25.0	-0.3
AGPR	Aguadilla, PR	0.55	351	IAML		04 56 25.2	
	comp=N,3µm,0.5s						
AGPR				IAML		04 56 30.2	
	comp=N,3µm,0.6s						
AGPR	Aguadilla, PR	0.55	351	P	Pb	04 56 17.4	-0.1
AGPR	Aguadilla, PR	0.55	351	⇑iP	Pb	04 56 17.5	-0.1
AGPR	Aguadilla, PR	0.55	351	⇑iP	Pb	04 56 17.4	-0.2
AGPR				⇑iS	Sb	04 56 25.6	+0.3
AGPR				IAML		04 56 28.0	
	comp=N,2µm,0.6s						
IDE	Isla Desecheo	0.63	317		Pb	04 56 18.7	-0.2
IDE					Sb	04 56 27.9	+0.3
IDE	Isla Desecheo	0.63	317	⇓eP	Pb	04 56 18.7	-0.2
IDE				eS	Sb	04 56 27.9	+0.3
EMPR	Esperanza - Ma	0.72	40		Pb	04 56 20.9	+0.3
EMPR					Sb	04 56 30.9	+0.5
EMPR	Esperanza - Ma	0.72	40	P	Pb	04 56 20.5	-0.1
EMPR				S	Sb	04 56 29.9	-0.5
EMPR	Esperanza - Ma	0.72	40	⇑iP	Pb	04 56 20.9	+0.3
EMPR				eS	Sb	04 56 30.9	+0.5
ECPR	Experimental S	0.74	58		Pg	04 56 20.5	-0.1
ECPR					Sb	04 56 30.8	-0.1
ECPR	Experimental S	0.74	58	IAML		04 56 31.7	
	comp=N,4µm,0.2s						
ECPR				IAML		04 56 36.9	
	comp=N,4µm,0.2s						
ECPR	Experimental S	0.74	58	P	Pg	04 56 20.5	-0.1
ECPR				S	Sg	04 56 29.9	-0.5
ECPR	Experimental S	0.74	58	⇓iP	Pg	04 56 20.5	-0.1
IGPR	InterUniversit	0.88	87		Pg	04 56 23.3	+0.1
IGPR	InterUniversit	0.88	87	P	Pg	04 56 23.2	+0.1
IGPR	InterUniversit	0.88	87	⇓eP	Pg	04 56 23.3	+0.1
PDPR	Patillas Dam,	0.96	84		Pg	04 56 24.7	0.0
PDPR	Patillas Dam,	0.96	84	P	Pb	04 56 24.0	-0.6
PDPR	Patillas Dam,	0.96	84	⇑eP	Pg	04 56 24.7	0.0
HUMP	Col San Antoni	1.14	79		Pb	04 56 27.5	-0.2
HUMP	Col San Antoni	1.14	79		Sg	04 56 45.9	+2.9
HUMP	Col San Antoni	1.14	79	P	Pb	04 56 27.4	-0.2
HUMP	Col San Antoni	1.14	79	⇓eP	Pb	04 56 27.5	-0.2
PCDR	Punta Cana, DR	1.42	295	⇑iP	Pb	04 56 31.9	-0.4
PCDR				IAML		04 57 01.3	
	comp=N,226nm,0.8s						
HIDR	Higuey Centro	1.74	293	⇑iP	Pb	04 56 37.4	-0.5
HIDR				IAML		04 57 07.5	
	comp=N,276nm,0.2s						

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*IDC **10** 05:00:08.2±1.8, 41°.45N×19°.34E, h0^{km}, mb3.9/4, mbtmp3.8/8, ML2.9/2, MS2.6/4, Error ellipse: s-maj=27.5km s-min=16.4km az=52.0*

*RHSSO **10** 05:00:10.0±0.7, 41°.40N×19°.48E, h8^{km}±2^{km}, ML3.5/8*

*BEO **10** 05:00:11.7±0.5, 41°.50N×19°.53E, h5^{km}±3^{km}, ML3.3/17*

*TIR **10** 05:00:11.2, 41°.54N×19°.41E, h2^{km}±4^{km}, Ml3.5/4*

*THE **10** 05:00:12.6, 42°N±10°×2°0E±1°0, h3^{km}±23^{km}, M3.3/8, MLh3.3/8*

*SOF **10** 05:00:13.7, 41°.61N±0°.06×19°.57E±0°.03, h10^{km}±2^{km}, MD3.5/5*

*PDG **10** 05:00:13.0±0.1, 41°.61N×19°.51E, h16^{km}, MD3.4/6, ML3.3/12, Error ellipse: s-maj=0.4km s-min=0.6km az=0.0*

ISC 10 05:00:11.8±1.0, **41°.54N**±0°.02×**19°.47E**±0°.02, **h12**^{km}±8^{km}, **n131, σ1^{s}.20**/186, **mb3.9**/3, **21C-15D, Albania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TIR	Tirane	0.35	123	P	Pb	05 00 19.3	-0.8
TIR				Sg	Sb	05 00 24.0	-1.6
TIR				AML	AML	05 00 24.7	
	22nm,0.2s						
ULC	Ulcinj	0.45	338	⇓iPg	Pg	05 00 20.7	-0.1
ULC				i Sg	Sg	05 00 27.6	+0.7
ULC				AML	AML		
SDA	Shkodra	0.51	2	P	Pg	05 00 21.3	-0.6
SDA				S	Sb	05 00 29.7	-0.5
SDA				AML	AML	05 00 31.7	
	9.0nm,0.2s						
DRME	Dracevica, Mon	0.68	342	⇑iPg	Pg	05 00 24.7	-0.3
DRME				eSg	Sb	05 00 36.5	+1.4
DRME	Dracevica, Mon	0.68	342	⇑iPg	Pg	05 00 24.8	-0.3
DRME				i Sg	Sg	05 00 34.7	+0.7
DRME				AML	AML		
PHP	Peshkopia	0.74	79	P	Pg	05 00 25.8	-0.3
PHP				S	Sb	05 00 37.8	+1.0
PHP				AML	AML	05 00 43.9	
	9.7nm,0.7s						
PHP	Peshkopia	0.74	79	P	Pg	05 00 25.5	-0.6
PHP				S	Sb	05 00 35.7	-1.1
BUM	Brajici-Budva	0.87	330	⇓iPg	Pg	05 00 28.9	+0.2
BUM				i Sg	Sb	05 00 41.6	+0.9
BUM				AML	AML		
PDG	Podgorica	0.90	350	Pg	Pg	05 00 28.8	-0.4
PDG				Sg	Sb	05 00 42.6	+1.1
PDG	Podgorica	0.90	350	ePg	Pg	05 00 28.6	-0.7
PDG				eSg	Sb	05 00 43.0	+1.5
PDG	Podgorica	0.90	350	⇓P	Pg	05 00 28.8	-0.4
PDG				⇓S	Sb	05 00 41.9	+0.4
PDG	Podgorica	0.90	350	⇑iPg	Pg	05 00 28.2	-1.1
PDG				eSg	Sb	05 00 42.4	+0.9
PDG	Podgorica	0.90	350	⇓iPg	Pg	05 00 28.9	-0.4
PDG				i Sg	Sb	05 00 42.0	+0.5
PDG				AML	AML		
VLO	Vlora	1.07	179	Pg	Pn	05 00 34.5	+1.7
VLO				S	Sn	05 00 50.8	+3.2
VLO				AML	AML	05 00 54.8	
	7.6nm,0.6s						
VLO	Vlora	1.07	179	P	Pn	05 00 34.8	+2.1
VLO				AML	AML		
CEME	Cevo	1.09	338	⇑iPg	Pg	05 00 32.2	-0.6
CEME				i Sg	Sb	05 00 48.5	+1.7
CEME				AML	AML		
PVY	Plav	1.11	19	⇑iPg	Pg	05 00 32.3	-1.0
PVY				i Sg	Sb	05 00 48.6	+1.0
PVY				AML	AML		
HCY	Herceg Novi	1.16	321	ePg	Pg	05 00 33.5	-0.7
HCY				eSg	Sn	05 00 51.0	+1.1
HCY	Herceg Novi	1.16	321	⇓iPg	Pg	05 00 34.1	-0.1
HCY				i Sg	Sn	05 00 51.7	+1.8
HCY				AML	AML		
NKME	Niksic	1.28	343	⇑iPg	Pn	05 00 35.8	+0.1
NKME				i Sg	Sn	05 00 55.2	+2.3
NKME				AML	AML		
KOME	Kolasin	1.31	1	⇓iPg	Pn	05 00 36.4	+0.3
KOME				i Sg	Sn	05 00 55.7	+2.1
KOME				AML	AML		
KBN	Korca	1.35	132	P	Pg	05 00 38.5	+0.7
KBN				Sg	Sn	05 00 58.3	+3.7
KBN	Korca	1.35	132	P	Pg	05 00 38.2	+0.4
KBN				S	Sn	05 00 58.6	+4.0
KBN				AML	AML		
TREB	Trebinje	1.44	325	ePg	Pn	05 00 38.3	+0.5
TREB				eSg	Sg	05 00 59.4	+1.2
TREB	Trebinje	1.44	325	⇑iPg	Pn	05 00 37.9	+0.1
TREB				eSg	Sg	05 00 59.0	+0.8
BRY	Bratogost	1.52	333	⇑iPn	Pn	05 00 39.4	+0.3
BRY				eSn	Sg	05 01 01.3	+0.3
BRY	Bratogost	1.52	333	⇓iPg	Pn	05 00 39.9	+0.8
BRY				i Sg	Sg	05 01 01.2	+0.3
BRY				AML	AML		
SKO	Skopje	1.53	73	i Pn	Pb	05 00 40.2	0.0
SRN	Sarande	1.71	166	P	Pn	05 00 42.1	+0.7
SRN				S	Sg	05 01 09.1	+2.3
SRN	Sarande	1.71	166	P	Pn	05 00 41.9	+0.4
UPM	Unac-Piva	1.71	346	⇑iPn	Pn	05 00 42.7	+1.0
UPM				eSn	Sb	05 01 05.8	+0.8
UPM	Unac-Piva	1.71	346	⇑iPn	Pn	05 00 42.0	+0.3
UPM				i Sn	Sb	05 01 05.7	+0.8
UPM				AML	AML		
KLINJ	Klinje	1.75	338	ePn	Pn	05 00 43.2	+1.0
KLINJ				eSn	Sn	05 01 06.5	+1.9
SJES	Sjenica	1.76	12	ePn	Pb	05 00 43.8	-0.3
SJES				eSn	Sb	05 01 07.4	+1.2
SJES	Sjenica	1.76	12	⇑iPn	Pn	05 00 42.1	-0.2
SJES				eSn	Sb	05 01 06.8	+0.6
PLE	Pljevlja	1.79	358	⇓iPn	Pn	05 00 43.6	+0.9
PLE				i Sn	Sb	05 01 07.7	+0.6
PLE				AML	AML		
PENT	Pentalofos	1.84	136	P	Pb	05 00 45.4	-0.2
STON	Ston	1.87	316	ePn	Pb	05 00 45.8	-0.2
STON				eSn	Sb	05 01 10.4	+1.1
NOCI	Noci	1.97	248	P	Pn	05 00 46.7	+1.6
NOCI				Sn	Sg	05 01 15.3	+0.2
SELS	Selova	2.07	35	ePn	Pn	05 00 47.5	+1.0
SELS				eSn	Sn	05 01 13.5	+1.2
IVAS	Ivanjica	2.09	14	ePn	Pn	05 00 47.3	+0.4
IVAS				eSn	Sb	05 01 16.4	+0.6
IGT	Igoumenitsa	2.11	162	ePn	Pn	05 00 47.4	+0.3
KPRO	Kipourio	2.14	137	P	Pb	05 00 49.5	-1.1
KPRO				S	Sb	05 01 18.2	+1.1
KPRO				AML	AML		
BARS	Barje	2.16	53	ePn	Pn	05 00 48.6	+0.9
BARS				eSn	Sn	05 01 16.0	+1.6
JAN	Janina	2.16	150	P	Pb	05 00 49.9	-1.0
JAN				S	Sb	05 01 18.6	+1.0
JAN				AML	AML		
GOCS	Kraljevo Serbi	2.27	27	ePn	Pn	05 00 50.2	+0.9
GOCS				eSn	Sn	05 01 18.3	+1.0
MATE	Matera	2.27	248	⇓P	Pn	05 00 49.2	-0.1
GRG	Griva	2.28	104	P	Pn	05 00 50.3	+0.9
GRG				AML	AML		
BBLS	Lazi&#263i	2.32	359	ePn	Pn	05 00 50.9	+0.9
BBLS	Lazi&#263i	2.32	359	⇑iPn	Pn	05 00 50.9	+0.9
BBLS				eSn	Sn	05 01 20.6	+2.0
PRMD	Pramanda	2.36	148	P	Pb	05 00 52.8	-1.6
PRMD				AML	AML		
PRMD	Pramanda	2.36	148	P	Pn	05 00 52.5	+2.0
BOSS	Bosilegrad	2.43	66	ePn	Pn	05 00 52.2	+0.7
BOSS				eSn	Sn	05 01 21.4	+0.2
GRUS	Gruza	2.52	21	ePn	Pn	05 00 53.8	+1.2
DIVS	Divibare	2.58	8	ePn	Pn	05 00 54.2	+0.6
TETR	Tetrakomo, Epi	2.59	147	P	Pn	05 00 55.9	+2.2
TETR				AML	AML		
TETR	Tetrakomo, Epi	2.59	147	P	Pn	05 00 55.5	+1.8
BOVS	Bovan	2.66	37	ePn	Pn	05 00 55.3	+0.7
BOVS				eSn	Sn	05 01 26.4	-0.4
BOVS	Bovan	2.66	37	⇑P	Pn	05 00 55.2	+0.5
BOVS				⇑S	Sn	05 01 26.8	-0.1
KKB	Krupnik	2.75	83	P	Pn	05 00 56.5	+0.6
KKB	Krupnik	2.75	83	i P	Pn	05 00 57.4	+1.5
KKB				i S	Sn	05 01 31.0	+1.9
TRUS	Trudelj	2.77	14	ePn	Pn	05 00 56.1	+0.1
TSLK	Tsoukalades, L	2.86	161	P	Pn	05 00 57.6	+0.3
LKD2	Lefkada island	2.90	161	P	Pn	05 00 58.0	+0.1
HORT	Hortiatis	2.90	108	P	Pn	05 00 59.2	+1.2
ZAPS	Zavoj	2.91	52	ePn	Pn	05 00 59.5	+1.4
AMPL	Ampelaki	2.94	152	P	Pn	05 00 59.2	+0.9
DRAG	Dragano-Lefkad	2.98	163	P	Pn	05 00 58.4	-0.5
NYDR	Nydri-Lefkada	2.98	161	P	Pn	05 00 58.7	-0.3
VTS	Vitosha	3.00	68	i P	Pn	05 01 00.7	+1.3
VTS				i S	Sn	05 01 36.7	+1.3
VTS	Vitosha	3.00	68	ePn	Pn	05 01 00.4	+1.0
TEKS	Tekeris	3.00	1	ePn	Pn	05 00 59.5	+0.1
TEKS	Tekeris	3.00	1	⇑iPn	Pn	05 00 59.3	-0.1
TEKS				eSn	Sn	05 01 37.5	+2.2
ZAGS	Zajecar	3.05	41	ePn	Pn	05 01 00.7	+0.8
EVGI	Lefkada island	3.06	162	P	Pn	05 00 59.7	-0.3
PLNA	Plana	3.09	71	i P	Pn	05 01 02.4	+1.8
PLNA				i S	Sn	05 01 39.5	+2.0
TIP	Timpagrande	3.14	222	⇑P	Pn	05 01 01.1	-0.2
BLKB	Belogradchik	3.15	48	ePn	Pn	05 01 02.7	+1.4
BLKB	Belogradchik	3.15	48	⇓S	Sn	05 01 39.7	+0.9
BORS2	Bor- Borsko je	3.16	35	ePn	Pn	05 01 00.9	-0.6
MMB	Musomishta	3.21	89	i P	Pn	05 01 04.7	+2.5
MMB				i S	Sn	05 01 42.4	+2.0
PDO	Prodromos	3.22	155	P	Pn	05 01 02.9	+0.6
KUBS	Kucevo	3.29	29	ePn	Pn	05 01 02.6	-0.7
BLY	Banja Luka	3.62	333	ePn	Pn	05 01 07.9	+0.2
BLY				eSn	Sn	05 01 51.5	+1.1
FRGS	Fruska Gora	3.62	4	ePn	Pn	05 01 07.9	+0.1
FRGS				eSn	Sn	05 01 52.1	+1.6
MDVR	Moldovita	3.63	26	ePn	Pn	05 01 07.9	0.0
MDVR	Moldovita	3.63	26	⇓P	Pn	05 01 08.4	+0.4
PGB	Panagyurishte	3.63	73	i P	Pn	05 01 10.3	+2.3
PGB				i S	Sn	05 01 52.4	+1.6
MPEP	Malo Peshtene	3.64	59	i P	Pn	05 01 11.2	+3.1
HERR	Herculane	3.97	32	⇑P	Pn	05 01 12.9	+0.4
HERR				⇑S	Sn	05 01 58.8	-0.3
SRE	Strehaia	4.14	40	⇓P	Pn	05 01 16.1	+1.1
BZS	Buzias	4.36	20	ePn	Pn	05 01 18.4	+0.5
BZS	Buzias	4.36	20	⇑P	Pn	05 01 17.5	-0.4
GZR	Gura Zlata	4.54	31	ePn	Pn	05 01 20.9	+0.5
GZR	Gura Zlata	4.54	31	⇑P	Pn	05 01 21.0	+0.5
AQU	L'Aquila	4.60	282	ePn	Pn	05 01 19.7	-1.6
AQU				eSn	Sn	05 02 12.0	-2.7
MORH	Mrgy, Hungar	4.71	353	⇓P	Pn	05 01 22.0	-0.7
MORH	Mrgy, Hungar	4.71	353	ePn	Pn	05 01 22.4	-0.3
MORH				eSn	Sn	05 02 17.7	+0.4
BOJS	Bojanci	5.01	324	i Pn	Pn	05 01 27.1	+0.3
BOJS	Bojanci	5.01	324	ePn	Pn	05 01 26.8	-0.1
ARR	Arges	5.36	43	⇑P	Pn	05 01 32.7	+1.0
CEY	Cerknica	5.57	321	i Pn	Pn	05 01 34.8	+0.3
MARR	Marisel-Cluj	5.76	26	⇓P	Pn	05 01 37.4	0.0
VOJS	Vojsko	6.04	320	ePn	Pn	05 01 40.8	-0.3
SOKA	Soboth	6.05	330	ePn	Pn	05 01 41.9	+0.7
	1.1nm,0.3s						
OBKA	Obir	6.10	326	ePn	Pn	05 01 42.7	+0.7
	0.7nm,0.3s						
MLR	Muntele Rosu	6.14	48	Pn	Pn	05 01 45.9	+3.4
	8.2nm,0.4s,baz=166,slow=9.6,SNR=15						
MLR				Sn	Sn	05 02 54.7	+2.0
	0.3nm,0.3s,baz=193,slow=22,SNR=1.4						
MLR				LR	LR	05 04 28.8	
	comp=Z,46nm,21.3s,baz=206,slow=42						
ARSA	Arzberg	6.37	335	ePn	Pn	05 01 46.5	+1.0
	2.0nm,0.3s						
RONA	Rosalia, Austr	6.56	341	ePn	Pn	05 01 48.0	-0.2
	1.8nm,0.6s						
MYKA	Terra Mystica	6.59	322	ePn	Pn	05 01 49.8	+1.1
	1.8nm,0.4s						
CONA	Conrad Observa	6.88	339	ePn	Pn	05 01 53.5	+0.8
	0.4nm,0.2s						
KBA	Koelnbreinsper	7.07	324	ePn	Pn	05 01 58.5	+3.3
	4.1nm,0.6s						
ABTA	Abfaltersbach	7.22	318	ePn	Pn	05 01 58.0	+0.7
	2.7nm,0.5s						
MOA	Molln	7.32	331	ePn	Pn	05 01 59.2	+0.7
	1.2nm,0.3s						
BIOA	Bad Ischl, Aus	7.42	328	ePn	Pn	05 02 00.1	+0.1
	2.1nm,0.3s						
IDI	Anoyia	7.55	144	Pn	Pn	05 02 02.3	+0.4
	8.2nm,0.9s,baz=330,slow=14,SNR=1.3						
IDI				Sn	Sn	05 03 18.6	-8.9
	0.4nm,0.3s,baz=195,slow=19,SNR=1.2						
LESA	Schwarzleotal	7.63	323	ePn	Pn	05 02 03.4	+0.5
	2.1nm,0.4s						
WTTA	Wattenberg	8.01	318	ePn	Pn	05 02 08.6	+0.4
	1.3nm,0.3s						
WATA	Walderalm	8.09	318	ePn	Pn	05 02 10.1	+0.8
	1.7nm,0.2s						
SQTA	Sankt Quirin	8.20	317	ePn	Pn	05 02 11.5	+0.8
	1.8nm,0.2s						
FETA	Feichten	8.32	314	ePn	Pn	05 02 13.1	+0.5
	0.2nm,0.2s						
MOTA	Moosalm	8.33	317	ePn	Pn	05 02 13.0	+0.3
	0.5nm,0.2s						
GERES	GERESS Array B	8.36	333	Pn	Pn	05 02 12.0	-0.9
	0.1nm,0.3s,baz=150,slow=14,SNR=4.7						
GERES				Sn	Sn	05 03 47.7	+0.4
	baz=156,slow=25,SNR=2.7						
	1.3nm,0.2s						
GERES				AML	AML		
DAVOX	Davos/Dischmat	8.66	310	LR	LR	05 06 51.9	
	comp=Z,16nm,19.1s,baz=270,slow=47						
BRTR	Keskin Array B	10.92	95	Pn	Pn	05 02 48.3	+0.2
	baz=313,slow=16,SNR=1.6						
	0.4nm,0.5s						
NOA	NORSAR Array B	20.16	348	LR	LR	05 12 03.3	
	comp=Z,16nm,19.8s,baz=285,slow=35						
FINES	FINESS Array B	20.33	9	P	P	05 04 46.2	-1.4
	2.9nm,0.7s,baz=169,slow=11,SNR=9.8						
	2.9nm,0.7s						
BVAR	Borovoye Array	35.67	54	P	P	05 07 09.4	-0.3
	0.8nm,0.4s,baz=301,slow=14,SNR=2.5						
	0.8nm,0.4s						
ZALV	Zalesovo Beam	44.11	51	P	P	05 08 18.4	-1.4
	1.2nm,0.5s,baz=269,slow=9.8,SNR=6.6						
	1.2nm,0.5s						
NRIK	Noril'sk	44.18	28	LR	LR	05 27 14.3	
	comp=Z,20nm,18.1s,baz=269,slow=37						
MKAR	Makanchi Array	44.30	61	P	P	05 08 20.4	-1.1
	1.0nm,0.6s,baz=282,slow=7.1,SNR=8.4						
	1.0nm,0.6s						

SJA 10 05:14:40.7±1.4, **22°.04S×67°.45W, h175^{km}, ML2.6, MW4.2, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB09	IPOC Station P	1.68	278	i P	Pn	05 15 15.8	+1.6
PB09				IAML		05 15 58.2	
	comp=Z,22nm,2.1s						
PB06	IPOC Station P	2.07	251	i P	Pn	05 15 19.9	+1.5
PB06				IAML		05 15 55.5	
	comp=Z,18nm,0.8s						
PB03	IPOC Station P	2.13	269	i P	Pn	05 15 19.8	+0.7
PB03				IAML		05 15 53.2	
	comp=Z,18nm,1.4s						
PB07	IPOC Station P	2.28	277	i P	Pn	05 15 21.3	+0.5
PB07				IAML		05 16 11.9	
	comp=Z,21nm,1.7s						
PB02	IPOC Station P	2.38	287	i P	Pn	05 15 22.3	+0.4
PB02				IAML		05 15 56.9	
	comp=Z,15nm,1.6s						
PB08	IPOC Station P	2.47	320	i P	Pn	05 15 24.4	+1.3
PB08				IAML		05 16 00.9	
	comp=Z,13nm,3.3s						
PB05	IPOC Station P	2.67	252	i P	Pn	05 15 25.5	+0.2
PB05				IAML		05 16 41.8	
	comp=Z,19nm,1.9s						
GO01	Chusmiza	2.86	325	i P	Pn	05 15 29.5	+1.5
GO01				IAML		05 16 24.5	
	comp=Z,6.0nm,1.9s						
TA01	Diego Aracena	2.94	299	i P	Pn	05 15 28.7	+0.3
TA01				IAML		05 16 38.8	
	comp=Z,16nm,2.9s						
PB11	IPOC Station P	3.06	317	i P	Pn	05 15 29.9	-0.1
PB11				IAML		05 16 14.6	
	comp=Z,11nm,1.8s						
PSGCX	Pisagua	3.48	314	i P	Pn	05 15 35.1	-0.1
PSGCX				IAML		05 16 57.9	
	comp=Z,14nm,1.7s						
AC02	Maricunga	5.02	197	i P	Pn	05 15 55.6	+0.3
AC02				IAML		05 17 16.1	
	comp=Z,12nm,3.4s						

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*JSN **10** 05:20:59.5±0.4, 18°.15N×77°.02W, h15^{km}±8^{km}, MD2.8, Confirmed Earthquake*

*SSNC **10** 05:21:01.1±1.1, 18°.35N×77°.06W, h7^{km}±11^{km}, MD3.1, ML1.3, Presumed earthquake*

ISC 10 05:20:56.0±2.0, **18°.27N**±0°.04×**77°.04W**±0°.05, **h14**^{km}±16^{km}, **n10, σ1^{s}.02**/20, **3C-4D, Jamaica region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STH	Stony Hill	0.29	132	⇓iP	Pb	05 21 04.1	+1.0
STH				⇓iP	Pb	05 21 04.2	+1.0
STH				⇑iS	Sb	05 21 07.8	-0.2
GWJ	Greenwich	0.36	124	⇓iP	Pn	05 21 05.5	-1.5
GWJ				⇑iP	Pn	05 21 05.5	-1.5
GWJ				⇓iS	Sb	05 21 10.2	+0.4
CVJ	Coleyville	0.47	264	⇑iP	Pn	05 21 08.8	+0.2
PCJ	Portland Cotta	0.54	192	i P	Pb	05 21 07.5	+0.1
PCJ				i S	Sg	05 21 13.7	-0.2
MCJ	Malvern	0.71	241	i P	Pn	05 21 11.9	+0.1
LMGC	Las Mercedes	1.78	1	eP	Pb	05 21 28.4	-0.1
LMGC				eS	Sn	05 21 48.4	-0.5
LMGC				eSg	Sb	05 21 50.2	-0.6
LMGC				IAML		05 21 51.4	
	comp=E,2.0nm,0.1s						
LMGC				IAML		05 21 51.4	
	comp=N,2.9nm,0.1s						
RCC	Rio Carpintero	2.13	36	eP	Pb	05 21 34.5	0.0
RCC				eS	Sn	05 21 57.8	+0.2
YAR	Yar	2.18	17	eP	Pb	05 21 34.4	-1.0
YAR				eS	Sn	05 21 59.4	+0.6
PINC	Pinares de May	2.50	28	eS	Sn	05 22 07.1	+0.5
QMBU	Quimbuelo	2.84	47	eP	Pn	05 21 43.5	+2.3
QMBU				eS	Sn	05 22 13.7	-1.6
QMBU				IAML		05 22 15.3	
	comp=E,1.4nm,0.1s						
QMBU				IAML		05 22 17.8	
	comp=N,1.2nm,0.3s						

*IDC **10** 05:24:37.6±2.3, 35°.88N×140°.16E, h75^{km}±18^{km}, mb3.4/6, mbtmp3.7/8, MS3.0/1, Error ellipse: s-maj=29.5km s-min=8.8km az=64.0*
*JMA **10** 05:24:37.4±0.1, 36°.0N±0°.2×140°.2E±0°.3, h61^{km}, MV3.3/38, SOUTHERN IBARAKI PREF*
JMA Felt I J1 at SOUTHERN IBARAKI PREF .
ISC 10 05:24:37.0±0.8, **35°.95N**±0°.04×**140°.15E**±0°.05, **h67**^{km}±7^{km}, **n26**, σ**0^{s}.78**/29, **mb3.7**/6, **6D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JYT	**Yasato**	**0.28**	**8**	*i* P	**Pn**	**05 24 47.2**	**-0.4**
JYT				S	**Sn**	**05 24 54.5**	**-0.9**
JIHU	**Itakohorinouch**	**0.31**	**87**	P	**Pn**	**05 24 48.0**	**+0.2**
JIHU				S	**Sn**	**05 24 56.4**	**+0.7**
I30JP	**ISUMI INFRASON**	**0.66**	**168**	I	I	05 25 40.0	
	baz=352,slow=317,SNR=1.3						
JAG	**Ashikaga**	**0.73**	**310**	⇓*i*P	**Pn**	**05 24 52.0**	**0.0**
JAG				⇓S	**Sn**	**05 25 02.5**	**-0.7**
JRY	**Ryogami san**	**1.01**	**274**	⇓*i*P	**Pn**	**05 24 55.9**	**+0.5**
JRY				⇓S	**Sn**	**05 25 09.4**	**+0.2**
JKT	**Katashina**	**1.09**	**319**	S	**Sn**	**05 25 10.9**	**-0.2**
JOD2	**Odawara 2**	**1.10**	**232**	*i* P	**Pn**	**05 24 56.8**	**+0.2**
JOD2				S	**Sn**	**05 25 10.9**	**-0.4**
BSO3	**Boso 3**	**1.19**	**165**	P	**Pn**	**05 24 57.6**	**+0.2**
BSO3				S	**Sn**	**05 25 14.7**	**+2.0**
JIM2	**Oshima 3**	**1.36**	**206**	P	**Pn**	**05 24 59.4**	**-0.6**
JIM2				S	**Sn**	**05 25 16.1**	**-1.3**
JYN	**Shimob**	**1.38**	**251**	⇓*i*P	**Pn**	**05 25 01.0**	**+0.7**
JYN				⇓S	**Sn**	**05 25 18.3**	**+0.5**
JFY	**Yanaizu**	**1.50**	**346**	*i* P	**Pn**	**05 25 02.1**	**+0.4**
MJAR	**Matsushiro Arr**	**1.67**	**291**	P	**Pn**	**05 25 04.6**	**+0.4**
	79nm,0.3s,baz=93,slow=9.5,SNR=217						
MJAR				S	**Sn**	**05 25 26.1**	**+1.4**
	34nm,0.5s,baz=115,slow=19,SNR=3.4						
MJAR				LR	LR	05 25 55.5	
	comp=Z,53nm,19.5s,baz=170,slow=46						
JHJ	**Hachijo jima 2**	**2.84**	**186**	P	**Pn**	**05 25 20.4**	**+0.4**
	103nm,0.3s,baz=22,slow=11,SNR=23						
JHJ				S	**Sn**	**05 25 52.6**	**-0.4**
	133nm,0.3s,baz=251,slow=24,SNR=7.8						
KSRS	**Korea Array**	**9.93**	**282**	P	**Pn**	**05 26 58.3**	**+1.4**
	1.0nm,0.5s,baz=95,slow=14,SNR=2.9						
H11N2	**WAKE ISLAND Hy**	**28.52**	**117**	T	T	06 00 41.9	
	baz=308,slow=74						
H11N1	**WAKE ISLAND Hy**	**28.52**	**117**	T	T	06 00 33.0	
	baz=308						
H11N3	**WAKE ISLAND Hy**	**28.53**	**117**	T	T	06 00 44.6	
	baz=308,slow=74						
H11S1	**WAKE ISLAND Hy**	**29.17**	**120**	T	T	06 01 44.8	
	baz=310						
H11S3	**WAKE ISLAND Hy**	**29.17**	**120**	T	T	06 01 45.5	
	baz=310						
H11S2	**WAKE ISLAND Hy**	**29.19**	**120**	T	T	06 01 48.0	
	baz=310						
CMAR	**Chiang Mai Arr**	**40.24**	**255**	P	**P**	**05 32 07.1**	**-0.2**
	0.6nm,0.3s,baz=61,slow=8.4,SNR=2.0						
CMAR				LR	LR	05 51 04.4	
	comp=Z,21nm,18.8s,baz=240,slow=39						
	0.6nm,0.3s						
MKAR	**Makanchi Array**	**43.84**	**303**	P	**P**	**05 32 36.0**	**-0.4**
	0.3nm,0.5s,baz=99,slow=7.5,SNR=3.8						
	0.3nm,0.5s						
KURBB	**Kurchatov Arra**	**45.87**	**309**	P	**P**	**05 32 52.3**	**-0.1**
	0.5nm,0.4s,baz=83,slow=7.8,SNR=5.7						
	0.5nm,0.4s						
ILAR	**Eielson Array**	**50.95**	**32**	P	**P**	**05 33 31.4**	**+0.1**
	0.4nm,0.8s,baz=270,slow=6.8,SNR=4.0						
	0.4nm,0.8s						
WRA	**Warramunga Arr**	**55.86**	**187**	P	**P**	**05 34 06.7**	**-1.0**
	0.8nm,0.5s,baz=2.7,slow=7.5,SNR=19						
	0.8nm,0.5s						
ASAR	**Alice Springs**	**59.59**	**187**	P	**P**	**05 34 33.8**	**-0.1**
	0.4nm,0.8s,baz=354,slow=8.0,SNR=1.9						
	0.4nm,0.8s						

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*ASRS **10** 06:00:21.0±1.0, 54°.11N×86°.51E, h0^{km}, M2.5(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*
IDC 10 06:00:24.9±3.6, **54°.11N×86°.37E, h0**^{km}, **mbtmp3.1**/2, **ML2.8**/2, **Error ellipse: s-maj=31.2km s-min=14.2km az=72.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	**ZALESOVO INFRA**	**0.93**	**261**	I	I	06 06 40.0	
	baz=80,slow=325,SNR=2.1						
ZALV	**Zalesovo Beam**	**0.93**	**261**	Pg	Pg	06 00 42.3	-0.4
	0.8nm,0.3s,baz=81,slow=17,SNR=21						
ZALV				Lg	Lg	06 00 55.2	
	1.0nm,0.3s,baz=79,slow=30,SNR=6.4						
KURBB	**Kurchatov Arra**	**5.94**	**237**	Pn	Pn	06 01 53.9	0.0
	0.2nm,0.3s,baz=54,slow=14,SNR=2.3						
	0.9nm,0.2s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**7.77**	**201**	Pn	Pn	06 02 20.7	+1.6
	0.2nm,0.3s,baz=13,slow=13,SNR=7.1						
	0.2nm,0.3s						
MKAR				AML	AML		

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*IDC **10** 06:06:14.3±1.1, 33°.12N×73°.72E, h0^{km}, mb3.7/9, mbtmp3.8/12, ML3.5/3, MS3.4/2, Error ellipse: s-maj=34.0km s-min=17.1km az=74.0*
*NDI **10** 06:06:19.9±2.9, 32°.87N×73°.67E, h10^{km}, ML4.0, MW3.7, Presumed earthquake*
ISC 10 06:06:16.5±0.9, **33°.11N**±0°.07×**73°.65E**±0°.07, **h15**^{km}, **n21**, σ**2^{s}.06**/27, **mb3.8**/7, **1C-3D, Pakistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JMU	**Jammu**	**1.05**	**108**	*e*P	**Pn**	**06 06 37.7**	**+1.0**
JMU				*e*S	**Sn**	**06 06 50.5**	**-0.6**
JMU				IAML		06 06 51.2	
	comp=E,6µm,0.3s						
JMU				IAML		06 06 51.2	
	comp=N,9µm,0.3s						
DHRM	**DHARAMSHALA**	**2.40**	**110**	*e*P	**Pb**	**06 06 58.1**	**-1.4**
DHRM				*e*S	**Sb**	**06 07 27.9**	**-1.1**
DHRM				IAML		06 07 31.8	
	comp=N,2µm,0.7s						
DHRM				IAML		06 07 32.2	
	comp=E,1µm,0.5s						
ALCI	**Alchi Leh**	**3.15**	**69**	*e*P	**Pb**	**06 07 10.2**	**-2.3**
ALCI				*e*S	**Sb**	**06 07 49.5**	**-1.3**
ALCI				IAML		06 07 54.0	
	comp=N,2µm,0.1s						
ALCI				IAML		06 07 54.5	
	comp=E,2µm,0.1s						
SMLA	**Simla**	**3.58**	**123**	*e*P	**Pn**	**06 07 12.9**	**+1.4**
SMLA				*e*S	**Sn**	**06 07 54.5**	**+1.0**
SMLA				IAML		06 08 12.8	
	comp=N,180nm,0.5s						
SMLA				IAML		06 08 17.5	
	comp=E,247nm,0.7s						
HNLY	**HANLEY**	**4.49**	**93**	*e*P	**Pn**	**06 07 27.1**	**+2.6**
HNLY				*e*S	**Sn**	**06 08 18.6**	**+1.9**
HNLY				IAML		06 08 39.0	
	comp=N,238nm,0.2s						
HNLY				IAML		06 08 39.2	
	comp=E,214nm,0.2s						
AAK	**Ala-Archa**	**9.53**	**4**	Pn	**Pn**	**06 08 34.9**	**+1.5**
	comp=E,1.5nm,0.3s,baz=178,slow=12,SNR=9.8						
AAK				Sn	**Sn**	**06 10 18.5**	**-1.9**
	comp=E,0.3nm,0.3s,baz=286,slow=21,SNR=1.3						
	comp=E,4.2nm,0.4s						
AAK				AML	AML		
AAK	**Ala-Archa**	**9.53**	**4**	⇓P	**Pn**	**06 08 36.7**	**+3.2**
	comp=E,4.5nm,0.8s						
AAK				⇓S	**Sn**	**06 10 26.7**	**+6.4**
	comp=E,1.3nm,0.6s						
KK31	**Karatay Array**	**10.28**	**347**	⇓P	**Pn**	**06 08 44.7**	**+1.3**
	comp=E,6.4nm,0.4s,baz=164,slow=12,SNR=58						
KK31				⇑S	**Sn**	**06 10 34.7**	**-3.7**
	comp=E,1.4nm,0.3s,baz=173,slow=26,SNR=6.6						
MKAR	**Makanchi Array**	**15.17**	**23**	Pn	**Pn**	**06 09 49.2**	**-1.1**
	comp=E,0.2nm,0.3s,baz=206,slow=12,SNR=7.2						
	comp=E,0.6nm,0.5s						
MKAR				AML	AML		
KURBB	**Kurchatov Arra**	**17.86**	**10**	P	**Pn**	**06 10 22.6**	**-1.8**
	comp=E,0.1nm,0.3s,baz=196,slow=12,SNR=5.8						
	comp=E,1.1nm,0.3s						
KURBB				AML	AML		
BVAR	**Borovoye Array**	**20.04**	**354**	P	**P**	**06 10 49.0**	**+0.1**
	comp=E,0.9nm,0.4s,baz=159,slow=9.5,SNR=7.2						
	comp=E,0.9nm,0.4s						
AKTO	**Aktyubinsk**	**20.80**	**331**	P	**P**	**06 10 57.4**	**+0.3**
	comp=E,3.9nm,0.6s,baz=132,slow=14,SNR=12						
	comp=E,3.9nm,0.6s						
ZALV	**Zalesovo Beam**	**22.30**	**18**	P	**P**	**06 11 13.2**	**0.0**
	comp=E,2.0nm,0.5s,baz=208,slow=11,SNR=11						
	comp=E,2.0nm,0.5s						
GNI	**Garni**	**24.17**	**295**	LR	LR	06 24 31.5	
	comp=E,26nm,18.0s,baz=104,slow=45						
ARCES	**ARCESS Array B**	**45.10**	**338**	P	**P**	**06 14 31.8**	**+0.1**
	comp=E,2.0nm,0.9s,baz=116,slow=8.3,SNR=5.3						
	comp=E,2.0nm,0.9s						
HFS	**Hagfors**	**47.08**	**324**	P	**P**	**06 14 47.9**	**+0.5**
	comp=E,1.1nm,0.5s,baz=101,slow=4.6,SNR=1.5						
	comp=E,1.1nm,0.5s						
NOA	**NORSAR Array B**	**48.40**	**325**	P	**P**	**06 14 57.4**	**-0.3**
	comp=E,0.6nm,0.6s,baz=99,slow=8.1,SNR=1.2						
	comp=E,0.6nm,0.6s						
JHJ	**Hachijo jima 2**	**54.51**	**70**	LR	LR	06 40 15.8	
	comp=E,97nm,21.5s,baz=327,slow=38						
WRA	**Warramunga Arr**	**78.34**	**123**	P	**P**	**06 18 16.7**	**+0.2**
	comp=E,0.2nm,0.4s,baz=323,slow=5.1,SNR=12						
	comp=E,0.2nm,0.4s						
ASAR	**Alice Springs**	**80.52**	**126**	P	**P**	**06 18 27.7**	**-0.6**
	comp=E,0.2nm,0.5s,baz=322,slow=4.6,SNR=1.6						
	comp=E,0.2nm,0.5s						
YKA	**Yellowknife Ar**	**84.50**	**4**	P	**P**	**06 18 48.3**	**-0.2**
	comp=E,0.5nm,0.9s,baz=351,slow=4.9,SNR=1.8						
	comp=E,0.5nm,0.9s						

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*TIR **10** 06:12:17.6, 40°.48N×20°.89E, h8^{km}±2^{km}, Ml2.6/4*
*PDG **10** 06:12:18.5±0.3, 40°.49N×20°.83E, h2^{km}±1^{km}, ML2.7/7, Error ellipse: s-maj=0.7km s-min=0.9km az=0.0*
*THE **10** 06:12:18.1, 40°N±1°×2°1E±°, h2^{km}±1^{km}, M2.5/11, MLh2.5/11*
*ATH **10** 06:12:19.7, 40°.39N×20°.89E, h13^{km}±2^{km}, ML2.6/6, Latitude uncertainty: 3 km; Longitude uncertainty: 2 km*
*BEO **10** 06:12:20.8±0.4, 40°.39N×21°.04E, h19^{km}±4^{km}, ML2.4/4*
*SKO **10** 06:12:20.2, 40°.51N×20°.80E, h19^{km}, ML1.9*
ISC 10 06:12:17.9±0.9, **40°.49N**±0°.02×**20°.84E**±0°.02, **h7**^{km}±8^{km}, **n56**, σ**1^{s}.42**/82, **5C-2D, Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBN	**Korca**	**0.14**	**343**	Pg	**Pg**	**06 12 20.8**	**-0.1**
KBN				Sg	**Sg**	**06 12 23.2**	**+0.4**
KBN	**Korca**	**0.14**	**343**	P	**Pg**	**06 12 20.9**	**+0.1**
KBN				S	**Sg**	**06 12 23.3**	**+0.4**
KBN				AML	AML		
PENT	**Pentalofos**	**0.37**	**142**	P	**Pb**	**06 12 25.6**	**-1.3**
PENT				S	**Sg**	**06 12 30.8**	**+0.8**
PENT	**Pentalofos**	**0.37**	**142**	P	**Pb**	**06 12 25.7**	**-1.2**
PENT				S	**Sg**	**06 12 29.7**	**-0.3**
OHR	**Ohrid**	**0.62**	**357**	*i* Pg	**Pb**	**06 12 31.2**	**0.0**
OHR				*i* Sg	**Sn**	**06 12 42.3**	**-1.3**
OHR				*e*Lg	Lg	06 12 43.4	
	comp=N,95nm,0.5s						
OHR				*e*Lg	Lg	06 12 44.4	
KPRO	**Kipourio**	**0.67**	**143**	P	**Pg**	**06 12 30.9**	**+0.2**
KPRO				S	**Sb**	**06 12 40.5**	**-0.9**
KPRO				AML	AML		
KPRO	**Kipourio**	**0.67**	**143**	P	**Pg**	**06 12 30.8**	**+0.2**
KPRO				AML	AML		
JAN	**Janina**	**0.83**	**180**	P	**Pg**	**06 12 34.1**	**+0.2**
JAN				AML	AML		
JAN	**Janina**	**0.83**	**180**	P	**Pb**	**06 12 34.3**	**-0.4**
SRN	**Sarande**	**0.89**	**227**	Pg	**Pg**	**06 12 35.2**	**+0.3**
SRN				Sg	**Sn**	**06 12 49.0**	**-0.9**
SRN				AML	AML	06 12 51.9	
	comp=N,0.8nm,1.2s						
SRN	**Sarande**	**0.89**	**227**	P	**Pg**	**06 12 34.7**	**-0.1**
SRN				S	**Sb**	**06 12 47.5**	**-0.1**
SRN				AML	AML		
KTI	**Kastanea**	**0.98**	**95**	P	**Pb**	**06 12 37.0**	**-0.2**
PRMD	**Pramanda**	**0.98**	**168**	P	**Pg**	**06 12 36.3**	**-0.4**
PRMD				AML	AML		
VLO	**Vlora**	**1.03**	**269**	Pg	**Pn**	**06 12 39.8**	**+1.0**
IGT	**Igoumenitsa**	**1.03**	**202**	Pg	**Pb**	**06 12 37.9**	**-0.2**
IGT				Sg	**Sn**	**06 12 53.0**	**-0.6**
IGT				AML	AML	06 12 58.0	
	comp=N,0.7nm,0.5s						
IGT	**Igoumenitsa**	**1.03**	**202**	P	**Pb**	**06 12 37.8**	**-0.2**
IGT				AML	AML		
IGT	**Igoumenitsa**	**1.03**	**202**	*e*Pg	**Pg**	**06 12 37.5**	**-0.2**
IGT				*e*Sg	**Sn**	**06 12 54.8**	**+1.2**
IGT	**Igoumenitsa**	**1.03**	**202**	P	**Pb**	**06 12 38.1**	**0.0**
IGT				AML	AML		
KEK	**Kerkira**	**1.11**	**226**	Pg	**Pn**	**06 12 40.2**	**+0.2**
KEK	**Kerkira**	**1.11**	**226**	P	**Pg**	**06 12 38.9**	**-0.3**
KEK				AML	AML		
TIR	**Tirane**	**1.13**	**320**	Pg	**Pg**	**06 12 38.4**	**-1.2**
TIR				Sg	**Sn**	**06 12 58.2**	**+2.1**
TIR				AML	AML	06 13 08.7	
	comp=N,0.3nm,0.6s						
TETR	**Tetrakomo, Epi**	**1.19**	**164**	P	**Pg**	**06 12 40.4**	**-0.3**
TETR				AML	AML		
TETR	**Tetrakomo, Epi**	**1.19**	**164**	P	**Pg**	**06 12 40.3**	**-0.4**
TETR				AML	AML		
PHP	**Peshkopia**	**1.23**	**346**	Pg	**Pn**	**06 12 41.4**	**-0.3**
PHP				Sg	**Sn**	**06 12 59.0**	**+0.3**
PHP				AML	AML	06 13 13.1	
	comp=N,0.5nm,0.7s						
GRG	**Griva**	**1.27**	**68**	P	**Pg**	**06 12 42.2**	**-0.1**
GRG	**Griva**	**1.27**	**68**	P	**Pg**	**06 12 43.0**	**+0.7**
THL	**Klokotos Trika**	**1.29**	**135**	Pn	**Pg**	**06 12 42.2**	**-0.4**
THL				Sn	**Sn**	**06 12 59.7**	**-0.2**
THL	**Klokotos Trika**	**1.29**	**135**	P	**Pg**	**06 12 42.2**	**-0.4**
THL				AML	AML		
THL	**Klokotos Trika**	**1.29**	**135**	P	**Pg**	**06 12 42.1**	**-0.4**
THL				AML	AML		
LIT	**Litokhoron**	**1.32**	**107**	P	**Pg**	**06 12 42.9**	**-0.3**
LIT				AML	AML		
LIT	**Litokhoron**	**1.32**	**107**	P	**Pg**	**06 12 43.3**	**+0.1**
LIT				AML	AML		
TYRN	**Tyrnavos**	**1.32**	**126**	P	**Pg**	**06 12 42.9**	**-0.3**
TYRN	**Tyrnavos**	**1.32**	**126**	P	**Pg**	**06 12 42.9**	**-0.3**
TYRN				AML	AML		
VAY	**Valandovo**	**1.55**	**57**	*i* Pn	**Pg**	**06 12 47.4**	**-0.2**
AMPL	**Ampelaki**	**1.59**	**170**	P	**Pn**	**06 12 46.4**	**-0.1**
LKD2	**Lefkada island**	**1.70**	**185**	Pn	**Pg**	**06 12 51.4**	**+0.9**
HORT	**Hortiatis**	**1.72**	**86**	P	**Pb**	**06 12 49.2**	**-0.8**
ULC	**Ulcinj**	**1.90**	**321**	⇑*i*Pn	**Pb**	**06 12 53.0**	**0.0**
ULC				*i* Sn	**Sg**	**06 13 19.6**	**+0.6**
ULC				AML	AML		
PLG	**Polygyros**	**1.99**	**92**	P	**Pb**	**06 12 53.0**	**-1.4**
DRME	**Dracevica, Mon**	**2.11**	**324**	⇓*i*Pn	**Pb**	**06 12 55.6**	**-0.8**
DRME				*i* Sn	**Sg**	**06 13 24.6**	**-0.9**
DRME				AML	AML		
PVY	**Plav**	**2.21**	**343**	⇑*i*Pn	**Pb**	**06 12 57.9**	**-0.3**
PVY				*i* Sn	**Sg**	**06 13 27.1**	**-1.7**
PVY				AML	AML		
BOSS	**Bosilegrad**	**2.35**	**31**	*e*Pn	**Pb**	**06 12 59.4**	**-1.2**
BARS	**Barje**	**2.44**	**17**	*e*Pn	**Pb**	**06 12 59.7**	**-2.4**
BARS				*e*Sn	**Sb**	**06 13 30.2**	**-2.2**
CEME	**Cevo**	**2.51**	**326**	⇑*i*Pn	**Pb**	**06 13 01.3**	**-2.1**
CEME				*i* Sn	**Sb**	**06 13 34.3**	**-0.3**
CEME				AML	AML		
KOME	**Kolasin**	**2.56**	**338**	⇑*i*Pn	**Pb**	**06 13 02.4**	**-1.8**
KOME				*i* Sn	**Sb**	**06 13 36.0**	**0.0**
KOME				AML	AML		
HCY	**Herceg Novi**	**2.63**	**319**	⇓*i*Pn	**Pn**	**06 13 02.2**	**+1.3**
HCY				*i* Sn	**Sb**	**06 13 37.5**	**-0.5**
HCY				AML	AML		
SELS	**Selova**	**2.74**	**4**	*e*Pn	**Pb**	**06 13 05.4**	**-1.8**
SELS	**Selova**	**2.74**	**4**	*e*Pn	**Pb**	**06 13 05.6**	**-1.6**
SELS				*e*Sn	**Sb**	**06 13 38.8**	**-2.2**
SELS				*e*Sg	**Sg**	**06 13 50.5**	**+4.7**
SJES	**Sjenica**	**2.84**	**347**	*e*Pn	**Pb**	**06 13 08.9**	**-0.2**
BRY	**Bratogost**	**2.96**	**325**	⇑*i*Pn	**Pn**	**06 13 07.9**	**+2.4**
BRY				*i* Sn	**Sb**	**06 13 45.7**	**-1.9**
BRY				AML	AML		
GOCS	**Kraljevo Serbi**	**3.07**	**0**	*e*Pn	**Pb**	**06 13 09.9**	**-3.0**
ZAPS	**Zavoj**	**3.09**	**25**	*e*Pn	**Pb**	**06 13 10.2**	**-3.0**
ZAPS				*e*Sn	**Sn**	**06 13 45.1**	**+0.8**
ZAPS				*e*Sg	**Sg**	**06 14 00.1**	**+3.1**
ZAPS				*e*Sg	**Sg**	**06 14 00.8**	**+3.8**
BOVS	**Bovan**	**3.21**	**11**	*e*Pn	**Pn**	**06 13 10.8**	**+2.0**
GRUS	**Gruza**	**3.40**	**358**	*e*Pn	**Pb**	**06 13 15.1**	**-3.4**
ZAGS	**Zajecar**	**3.48**	**17**	*e*Pn	**Pn**	**06 13 13.9**	**+1.4**
TRUS	**Trudelj**	**3.75**	**355**	*e*Pn	**Pn**	**06 13 18.8**	**+2.6**

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*AZER **10** 06:48:03.7, 41°.64N×46°.76E, h20^{km}, ml2.7*
*TIF **10** 06:48:03.4, 41°.69N×46°.89E, h25^{km}*
*MOS **10** 06:48:04.0, 41°.69N×46°.90E, h22^{km}, MPVA3.7*
*DRS **10** 06:48:05.1, 41°.65N×46°.84E, h18^{km}*
*NORS **10** 06:48:05.4, 41°.69N×46°.82E, h10^{km}, MPVA3.3*
ISC 10 06:48:05.2±0.8, **41°.65N**±0°.02×**46°.82E**±0°.02, **h16**^{km}±6^{km}, **n42**, σ**1^{s}.06**/84, **Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZKTA	**Zakatala**	**0.15**	**266**	P	**Pg**	**06 48 09.0**	**-0.2**
ZKTA				S	**Sg**	**06 48 13.0**	**+1.0**
LGD	**Lagodekhi**	**0.47**	**293**	P	**Pg**	**06 48 14.3**	**-0.3**
LGD				S	**Sb**	**06 48 21.7**	**0.0**
SEKA	**Sheki**	**0.52**	**147**	Pg	**Pg**	**06 48 14.4**	**-1.2**
SEKA				Sg	**Sg**	**06 48 22.8**	**+0.1**
VSHL	**Vashlovani**	**0.52**	**217**	P	**Pb**	**06 48 16.3**	**+0.4**
KMKR	**Kumukh**	**0.53**	**23**	*e*Pg	**Pg**	**06 48 15.0**	**-0.7**
KMKR				*e*Sg	**Sg**	**06 48 22.4**	**-0.4**
DDFL	**Dedoflistskaro**	**0.56**	**249**	P	**Pg**	**06 48 16.3**	**0.0**
AKT	**Akhty**	**0.70**	**104**	*e*Pg	**Pb**	**06 48 17.4**	**-1.8**
AKT				*e*Sg	**Sb**	**06 48 27.0**	**-1.6**
GNBR	**Gunib**	**0.75**	**8**	*e*Pg	**Pb**	**06 48 19.0**	**-0.8**
GNBR				*e*Sg	**Sb**	**06 48 29.6**	**-0.2**
URKR	**Urkarakh**	**0.80**	**49**	*e*Pg	**Pb**	**06 48 20.0**	**-0.7**
URKR				*e*Sg	**Sb**	**06 48 30.6**	**-0.7**
XNZR	**Khunzakh**	**0.90**	**355**	*e*Pg	**Pb**	**06 48 22.1**	**-0.3**
XNZR				*e*Sg	**Sg**	**06 48 34.7**	**+0.3**
MNGR	**Mingechevir, A**	**0.90**	**167**	P	**Pb**	**06 48 22.2**	**-0.1**
MNGR				S	**Sn**	**06 48 36.2**	**+0.5**
ARKR	**Arakani**	**0.96**	**8**	*e*Pg	**Pb**	**06 48 22.9**	**-0.6**
ARKR				*e*Sg	**Sb**	**06 48 35.7**	**-0.2**
KSMR	**Kasumkent**	**0.98**	**92**	*e*Pg	**Pb**	**06 48 22.8**	**-1.0**
KSMR				*e*Sg	**Sb**	**06 48 36.4**	**-0.1**
SGKR	**Sergokala**	**1.02**	**37**	*e*Pg	**Pb**	**06 48 23.8**	**-0.7**
SGKR				*e*Sg	**Sb**	**06 48 38.1**	**+0.4**
UNCR	**Uncukul**	**1.06**	**359**	*e*Pg	**Pb**	**06 48 24.6**	**-0.7**
UNCR				*e*Sg	**Sn**	**06 48 39.4**	**-0.5**
GANJ	**Ganja**	**1.07**	**201**	P	**Pb**	**06 48 23.6**	**-1.7**
GANJ				S	**Sb**	**06 48 38.3**	**-0.7**
QSAR	**Qusar**	**1.09**	**97**	P	**Pn**	**06 48 25.2**	**-0.6**
QSAR				S	**Sb**	**06 48 39.6**	**-0.1**
XNQ	**Khinaliq**	**1.10**	**115**	P	**Pb**	**06 48 25.0**	**-1.0**
XNQ				S	**Sb**	**06 48 40.1**	**0.0**
DGRG	**David-gareji**	**1.10**	**260**	P	**Pn**	**06 48 25.9**	**0.0**
DGRG				S	**Sg**	**06 48 43.2**	**+2.3**
BTLR	**Botlikh**	**1.11**	**337**	*e*Pg	**Pn**	**06 48 26.3**	**+0.3**
BTLR				*e*Sg	**Sg**	**06 48 42.0**	**+0.9**
KRNR	**Karanay**	**1.18**	**3**	*e*Pg	**Pn**	**06 48 26.9**	**-0.2**
KRNR				*e*Sg	**Sg**	**06 48 43.4**	**0.0**
DRN	**Derbent**	**1.19**	**71**	*e*Pg	**Pn**	**06 48 26.8**	**-0.2**
DRN				*e*Sg	**Sb**	**06 48 43.2**	**+0.8**
BUJR	**Buynaksk**	**1.19**	**10**	*e*Pg	**Pn**	**06 48 26.9**	**-0.3**
BUJR				*e*Sg	**Sn**	**06 48 43.5**	**+0.5**
GDB	**GEDABAY**	**1.23**	**221**	P	**Pn**	**06 48 25.9**	**-1.8**
GDB				S	**Sb**	**06 48 42.2**	**-1.5**
QZX	**Qazax, Azerbai**	**1.24**	**242**	P	**Pn**	**06 48 26.7**	**-1.1**
QZX				S	**Sb**	**06 48 43.8**	**-0.1**
QUBA	**Quba, Azerbaij**	**1.29**	**103**	Pn	**Pb**	**06 48 29.9**	**+0.9**
QUBA				Sn	**Sg**	**06 48 48.4**	**+1.4**
IML	**Ismayilli**	**1.34**	**129**	Sn	**Sg**	**06 48 49.4**	**+1.0**
DBC	**Dubki**	**1.37**	**0**	*e*Pg	**Pn**	**06 48 29.7**	**0.0**
DBC				*e*Sg	**Sb**	**06 48 48.8**	**+1.1**
BRDA	**Brd**	**1.41**	**169**	Pn	**Pn**	**06 48 29.7**	**-0.4**
BRDA				Sn	**Sg**	**06 48 52.3**	**+1.6**
ZRD	**Zardab**	**1.52**	**154**	Pn	**Pn**	**06 48 32.3**	**+0.7**
ZRD				Sg	**Sg**	**06 48 54.6**	**+0.5**
AGDM	**Agdam**	**1.56**	**172**	Pn	**Pn**	**06 48 32.4**	**+0.3**
AGDM				Sn	**Sb**	**06 48 54.1**	**+1.1**
TBLG	**Delisi**	**1.56**	**274**	P	**Pn**	**06 48 32.4**	**+0.1**
TBLG				S	**Sb**	**06 48 53.6**	**+0.5**
CHRG	**Chargali**	**1.57**	**296**	P	**Pn**	**06 48 31.7**	**-0.7**
CHRG				S	**Sb**	**06 48 52.6**	**-0.8**
SHTL	**Shatili**	**1.60**	**310**	P	**Pn**	**06 48 32.5**	**-0.3**
SHTL				S	**Sb**	**06 48 54.5**	**+0.2**
SIZA	**Siyzn**	**1.67**	**109**	Pg	**Pb**	**06 48 36.6**	**+1.1**
SIZA				Sg	**Sg**	**06 48 59.9**	**+1.0**
KZRT	**Kazreti**	**1.84**	**263**	P	Pn	06 48 31.1	-5.0
KZRT				S	**Sn**	**06 48 54.9**	**-4.0**
BLQ	**Beylaqan**	**2.01**	**163**	Pg	**Pb**	**06 48 40.3**	**-1.0**
BLQ				Sg	**Sb**	**06 49 06.5**	**+0.5**
LACR	**Lac**	**2.21**	**303**	*e*Pg	**Pb**	**06 48 43.5**	**-1.3**
LACR				*e*Sg	**Sb**	**06 49 12.0**	**0.0**
SBZ	**Shahbuz**	**2.45**	**204**	Pg	**Pb**	**06 48 47.9**	**-1.0**
SBZ				Sg	**Sb**	**06 49 20.0**	**+1.2**
AKH	**Akhalkalaki**	**2.51**	**266**	P	**Pn**	**06 48 47.5**	**+2.1**
AKH				S	**Sb**	**06 49 19.7**	**-0.9**
YRD	**Yardimli**	**2.94**	**158**	Pn	**Pn**	**06 48 51.0**	**-0.3**
YRD				Sn	**Sn**	**06 49 26.3**	**-0.1**
MNK	**Minsk**	**17.96**	**322**	*i* P	**Pn**	**06 52 13.9**	**0.0**
	comp=E,23nm,0.8s						
MNK				*i* P	**Pn**	**06 52 13.9**	**0.0**
	comp=N,21nm,0.9s						
MNK				*i* P	**Pn**	**06 52 13.9**	**0.0**
	comp=Z,13nm,0.7s,baz=128						
MNK				*i* PP	**PnPn**	**06 52 24.8**	**0.0**
MNK				*i* PPP	PPP	06 52 32.5	
MNK				*i* S	**Sn**	**06 55 35.9**	**+2.1**
MNK				*i* SS	**SnSn**	**06 55 50.9**	**+3.6**
MNK				*i* SSS	SSS	06 56 03.6	
MNK				*i* LQ	LQ	06 57 34.6	
MNK				*i* LR	LR	06 58 56.7	
MNK				*i* LRM	MLR	07 00 10.9	
	comp=Z,62nm,17.2s						
MNK				*i* LRM	MLR	07 00 15.6	
	comp=E,773nm,19.4s						
MNK				*i* LRM	MLR	07 00 15.6	
	comp=N,457nm,19.7s						

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*CATAC **10** 06:52:45.7±0.6, 14°N±3°×9°2W±°, h26^{km}±4^{km}, M3.4/19, MLv3.4/19, Error ellipse: s-maj=8.4km s-min=4.3km az=39.7, confirmed*
*GCG **10** 06:52:46.2±1.9, 14°.00N×91°.74W, h40^{km}±9^{km}, MD4.2, Presumed earthquake*
*SNET **10** 06:52:47.1±1.6, 14°.02N×91°.69W, h36^{km}, ML3.3, Presumed earthquake*
ISC 10 06:52:46.7±3.1, **13°.97N**±0°.08×**91°.67W**±0°.08, **h27**^{km}±24^{km}, **n32**, σ**1^{s}.92**/56, **Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTAL	**Retalhuleu**	**0.55**	**358**	P	**Pn**	**06 52 58.1**	**-0.7**
RTAL				S	**Sn**	**06 53 07.3**	**+0.1**
STG8	**El Palmar, Qui**	**0.57**	**33**	*i* P	**Pn**	**06 53 00.5**	**+1.3**
STG8				*e*S	**Sn**	**06 53 11.3**	**+3.4**
THIG		**1.09**	**328**	*e*P	**Pn**	**06 53 03.9**	**-2.4**
FG8	**Yepocapa, Chim**	**1.11**	**75**	*e*P	**Pn**	**06 53 02.4**	**-4.3**
FG8				*e*S	**Sn**	**06 53 14.8**	**-6.4**
FG16	**Alotenango, Sa**	**1.17**	**75**	*e*P	**Pn**	**06 53 04.0**	**-3.5**
FG16				*e*S	**Sn**	**06 53 16.4**	**-6.2**
PCG5	**San Vicente Pa**	**1.28**	**79**	*e*P	**Pn**	**06 53 06.1**	**-2.9**
PCG5				*e*S	**Sn**	**06 53 21.5**	**-3.9**
HUEH	**Huehuetenango**	**1.35**	**7**	*e*P	**Pn**	**06 53 09.8**	**-0.2**
HUEH				*e*S	**Sb**	**06 53 28.7**	**+0.3**
HUEH	**Huehuetenango**	**1.35**	**7**	*i* P	**Pn**	**06 53 10.0**	**+0.1**
HUEH				*e*S	**Sn**	**06 53 27.5**	**+0.4**
HUEH	**Huehuetenango**	**1.35**	**7**	P	**Pn**	**06 53 09.9**	**-0.2**
HUEH				S	**Sn**	**06 53 27.8**	**+0.7**
APG	**El Apazote**	**1.56**	**49**	*i* P	**Pn**	**06 53 13.5**	**+0.6**
FAME	**Alcaldia de Sa**	**1.61**	**94**	P	**Pn**	**06 53 12.8**	**-0.7**
FAME				S	**Sn**	**06 53 33.0**	**-0.4**
SLOZ	**Alcaldia de Sa**	**1.83**	**88**	P	**Pn**	**06 53 17.0**	**+0.5**
SLOZ				S	**Sn**	**06 53 40.3**	**+1.4**
NUBE	**Las Nubes**	**1.84**	**92**	*e*P	**Pn**	**06 53 16.5**	**-0.1**
NUBE				*e*S	**Sn**	**06 53 38.5**	**-0.6**
NUBE	**Las Nubes**	**1.84**	**92**	P	**Pn**	**06 53 16.6**	**-0.1**
NUBE				S	**Sn**	**06 53 39.3**	**+0.2**
JUAM	**Asuncion Mita**	**1.94**	**79**	*e*P	**Pn**	**06 53 18.3**	**+0.4**
JUAM				*e*S	**Sn**	**06 53 43.7**	**+2.2**
CEVE	**Cerro Verde**	**1.99**	**94**	*e*P	**Pn**	**06 53 20.1**	**+1.2**
CEVE				*e*S	**Sn**	**06 53 43.7**	**+0.6**
CEVE	**Cerro Verde**	**1.99**	**94**	P	**Pn**	**06 53 19.8**	**+0.9**
CEVE				S	**Sn**	**06 53 44.6**	**+1.5**
UNIC	**Universidad Ca**	**2.06**	**89**	P	**Pn**	**06 53 20.7**	**+1.0**
UNIC				S	**Sn**	**06 53 46.1**	**+1.6**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAYA	Jayaque - finc	2.18	98	*e*P	Pn	06 53 21.3	-0.1
JAYA	Jayaque - finc	2.18	98	*e*P	Pn	06 53 21.9	+0.4
JAYA				*e*S	Sn	06 53 48.3	+0.7
JAYA	Jayaque - finc	2.18	98	P	Pn	06 53 21.5	0.0
JAYA				S	Sn	06 53 48.1	+0.4
CEDA	San Andres	2.22	94	P	Pn	06 53 20.5	-1.2
CEDA				S	Sn	06 53 50.0	+1.7
MTO3	Montecristo	2.28	79	*e*P	Pn	06 53 22.8	0.0
PMON	Piamonte	2.31	96	P	Pn	06 53 24.0	+1.0
PMON				S	Sn	06 53 52.3	+1.7
ESQI	Esquipulas	2.33	75	*e*P	Pn	06 53 24.4	+0.9
ESQI	Esquipulas	2.33	75	P	Pn	06 53 24.0	+0.5
LALI	Alcalda de L	2.33	102	P	Pn	06 53 24.2	+0.8
LALI				S	Sn	06 53 52.5	+1.4
UEES	Universidad Ev	2.38	96	P	Pn	06 53 23.9	-0.1
UEES				S	Sn	06 53 53.8	+1.5
LOMA	Loma Larga	2.45	97	P	Pn	06 53 24.8	-0.2
LOMA				S	Sn	06 53 55.7	+1.5
TECO	Alcaldia de Te	2.84	98	P	Pn	06 53 30.5	+0.2
SCLA	Alcaldia de Sa	2.87	95	P	Pn	06 53 31.2	+0.4
SCLA				S	Sn	06 54 06.3	+1.7
TEIG	Tepich	7.01	27	P	Pn	06 54 27.8	+0.1

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*IDC **10** 07:34:39.4±1.4, 2°.00N×91°.19E, h0^{km}, mb3.6/6, mbtmp3.7/8, ML4.2/2, MS3.3/9, Error ellipse: s-maj=37.2km s-min=18.1km az=35.0*

*NEIC **10** 07:34:39.9±1.7, 1°.95N±0°.09×90°.87E±0°.04, h10^{km}±1^{km}, mb4.4/16, Error ellipse: s-maj=16.4km s-min=3.0km az=203.0*

ISC 10 07:34:39.2±0.6**, 1°.97N**±0°.08×**90°.90E**±0°.07**, h10^{km}, n52, σ0^{s}.98**/38**, mb3.9**/11**, MS3.3**/7**, North Indian Ocean**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GSI	Gunungsitoli	6.71	96	Pn	Pn	07 36 17.9	+0.1
LHMI	Lhok Sumawe	6.86	62	Pn	Pn	07 36 19.4	-0.5
RPSI	Rantau Prapat	8.05	85	Pn	Pn	07 36 36.0	-0.3
PBA	Port Blair	9.80	11	Pn	Pn	07 37 00.0	-0.2
PBA	Port Blair	9.80	11	*e*P	Pn	07 36 59.0	-1.3
PBA				*e*S	Sn	07 38 42.0	-8.5
PBA				IAML		07 38 42.3	
	comp=E,64nm,0.1s						
PBA				IAML		07 38 42.5	
	comp=N,63nm,0.0s						
KULM	Kulim	10.28	71	Pn	Pn	07 37 06.7	-0.1
IPM	Ipoh	10.42	76	Pn	Pn	07 37 08.9	+0.2
DGPR	DIGLIPUR	11.32	10	*e*P	Pn	07 37 20.5	-0.6
DGPR				*e*S	Sn	07 39 17.6	-10
DGPR				IAML		07 39 19.2	
	comp=N,58nm,0.1s						
DGPR				IAML		07 39 28.7	
	comp=E,95nm,0.1s						
PALK	Pallekele	11.44	298	Pn	Pn	07 37 24.2	+1.4
	comp=E,0.4nm,0.3s,baz=74,slow=16,SNR=1.8						
PALK				Sn	Sn	07 39 24.1	-6.8
	comp=E,1.3nm,0.3s,baz=34,slow=14,SNR=4.7						
PALK				LR	LR	07 41 20.6	
	comp=E,120nm,18.3s,baz=113,slow=34						
	comp=E,6.1nm,0.8s						
PALK				AML	AML		
PALK	Pallekele	11.44	298		Pn	07 37 22.2	-0.6
COCO	West Island	15.25	157	Pn	Pn	07 38 14.6	-0.1
COCO				IAmb	IAmb	07 38 26.6	
	comp=Z,80nm,0.8s						
VIS	Vishakhapatnam	17.33	335	*e*P	Pn	07 38 40.5	-0.9
KAAM	Kaadhehdhoo	17.95	266	P	Pn	07 38 48.9	-0.3
CMAR	Chiang Mai Arr	18.19	25	P	Pn	07 38 49.8	-2.2
	comp=Z,0.8nm,0.3s,baz=220,slow=14,SNR=4.9						
CMAR				LR	LR	07 45 38.6	
	comp=Z,43nm,18.4s,baz=215,slow=36						
	comp=Z,1.4nm,0.3s						
CMAR				AML	AML		
HMDM	Hanimaadhoo	18.29	286		Pn	07 38 52.4	-0.9
CHTO	Chiang Mai	18.51	25	P	P	07 38 55.1	-0.7
BBJI	Bungbulang	19.16	119	P	P	07 39 02.6	-0.4
BBJI				IAmb	IAmb	07 39 08.3	
	comp=Z,26nm,1.3s						
SAIH	SAIHA	20.50	6	*e*S	S	07 42 51.6	-16
SAIH				IAML		07 42 52.5	
	comp=N,273nm,0.1s						
SAIH				IAML		07 42 52.7	
	comp=E,512nm,0.1s						
BRDH	Bariadhala	20.60	2	LR	LR	07 47 16.6	
	comp=E,120nm,19.3s,baz=150,slow=37						
DGAR	Diego Garcia	20.62	243	P	P	07 39 17.3	-1.7
H08S2	Diego Garcia H	20.69	242	T	T	08 00 41.4	
	baz=63,slow=74						
H08S3	Diego Garcia H	20.69	242	T	T	08 00 38.1	
	baz=63						
H08S1	Diego Carcia H	20.71	242	T	T	08 00 40.2	
	baz=63,slow=74						
AZL	Aizawl	21.71	4	*e*S	S	07 43 20.0	-11
UGM	Wanagama	21.90	117	P	P	07 39 32.8	+0.1
KKM	Kota Kinabalu	25.57	80	P	P	07 40 09.9	+1.1
KKM				IAmb	IAmb	07 40 22.4	
	comp=Z,8.8nm,0.9s						
DAV	Davao City (W)	34.93	81	LR	LR	07 57 52.0	
	comp=Z,31nm,18.8s,baz=168,slow=40						
FITZ	Fitzroy Crossi	39.59	122	P	P	07 42 11.1	-0.1
AAK	Ala-Archa	43.08	342	LR	LR	08 01 28.4	
	comp=Z,33nm,18.4s,baz=148,slow=37						
KKAR	Karatay Array	44.82	339	P	P	07 42 54.0	+0.6
MKAR	Makanchi Array	45.28	352	P	P	07 42 58.5	+1.5
	comp=Z,0.6nm,0.8s,baz=169,slow=8.4,SNR=4.0						
	comp=Z,0.6nm,0.8s						
MKAR	Makanchi Array	45.28	352	P	P	07 42 57.6	+0.6
SONM	Songino Array	47.62	14	P	P	07 43 17.0	+1.5
	comp=Z,1.3nm,0.7s,baz=192,slow=8.7,SNR=4.8						
	comp=Z,1.3nm,0.7s						
SONM	Songino Array	47.62	14	P	P	07 43 16.1	+0.6
SONM				IAmb	IAmb	07 43 28.0	
	comp=Z,1.9nm,0.8s						
WRA	Warramunga Arr	47.85	119	P	P	07 43 16.8	-0.8
	comp=Z,0.9nm,0.8s,baz=297,slow=8.4,SNR=5.0						
	comp=Z,0.9nm,0.8s						
WRA	Warramunga Arr	47.85	119	P	P	07 43 17.5	-0.1
WR8	Warramunga Arr	47.99	119	P	P	07 43 19.5	+0.8
WR8				IAmb	IAmb	07 43 22.9	
	comp=Z,9.5nm,1.4s						
ASAR	Alice Springs	48.97	124	P	P	07 43 26.7	+0.5
	comp=Z,0.3nm,0.9s,baz=280,slow=6.9,SNR=2.7						
	comp=Z,0.3nm,0.9s						
ASAR	Alice Springs	48.97	124	P	P	07 43 26.8	+0.6
KURBB	Kurchatov Arra	49.60	350	P	P	07 43 32.9	+2.3
	comp=Z,0.4nm,0.6s,baz=181,slow=8.0,SNR=6.2						
	comp=Z,0.4nm,0.6s						
KURK	Kurchatov	49.67	350	P	P	07 43 31.2	+0.1
KURK				IAmb	IAmb	07 43 57.4	
	comp=Z,1.4nm,0.5s						
ZAA0	Zalesovo Array	52.05	355	P	P	07 43 49.8	+0.8
ZAA0				IAmb	IAmb	07 44 07.0	
	comp=Z,1.2nm,0.8s						
ZALV	Zalesovo Beam	52.05	355	P	P	07 43 50.9	+1.9
	comp=Z,0.4nm,0.3s,baz=168,slow=7.4,SNR=1.7						
ZALV				LR	LR	08 07 29.9	
	comp=Z,32nm,21.1s,baz=164,slow=38						
	comp=Z,0.4nm,0.3s						
ZALV	Zalesovo Beam	52.05	355	P	P	07 43 49.3	+0.3
ABKAR	Akbulak array	54.03	335	P	P	07 44 04.2	+0.5
COEN	Coen	54.16	109	P	P	07 44 05.1	-0.1
COEN				IAmb	IAmb	07 44 11.3	
	comp=Z,3.4nm,0.8s						
KLR	Kul'dur	58.58	30	LR	LR	08 13 11.3	
	comp=Z,38nm,18.1s,baz=268,slow=40						
H04N2	CROZET ISLANDS	59.03	211	T	T	08 48 28.3	
	baz=47,slow=74						
H04N1	CROZET ISLANDS	59.04	211	T	T	08 48 24.8	
	baz=47,slow=74						
H04N3	CROZET ISLANDS	59.05	211	T	T	08 48 24.8	
	baz=47,slow=74						
MMAI	Mount Meron Ar	60.38	307	LR	LR	08 11 37.9	
	comp=Z,43nm,18.5s,baz=124,slow=37						
NRIK	Noril'sk	67.30	359	LR	LR	08 17 20.8	
	comp=Z,21nm,21.3s,baz=176,slow=38						

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*ASRS **10** 07:35:14.0±1.4, 49°.71N×81°.64E, h0^{km}, M2.7(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

*IDC **10** 07:35:15.4±1.4, 49°.69N×81°.54E, h0^{km}, mbtmp2.7/1, Error ellipse: s-maj=15.3km s-min=11.1km az=86.0*

*NNC **10** 07:35:16.3±1.4, 49°.67N×81°.89E, h0^{km}, mb3.2, mpv2.8, Error ellipse: s-maj=19.2km s-min=3.5km az=54.0,*

Suspected Mining explosion.

ISC 10 07:35:17.3±1.2**, 49°.64N**±0°.05×**81°.58E**±0°.06**, h0^{km}, n8, σ1^{s}.07**/10**, 6C-2D, Eastern Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KURK	Kurchatov	2.19	301	⇑Pn	Pn	07 35 56.2	+1.3
	8.5nm,0.8s						
KURK				⇓Sn	Sb	07 36 26.2	+0.9
	11nm,0.7s						
KURBB	Kurchatov Arra	2.19	298	Pg	Pn	07 35 55.6	+0.6
	0.3nm,0.3s,baz=112,slow=19,SNR=45						
KURBB				Lg	Lg	07 36 24.6	
	0.5nm,0.3s,baz=117,slow=30,SNR=6.9						
KURBB	Kurchatov Arra	2.19	298	⇑Pn	Pb	07 35 56.7	-1.2
	20nm,0.7s						
KURBB				⇑Sn	Sg	07 36 27.2	-0.6
	52nm,0.7s						
MAKZ	Makanchi	2.85	175	⇑Pg	Pb	07 36 07.9	-1.1
	2.5nm,0.8s						
MAKZ				⇓Lg	Lg	07 36 47.9	
	5.1nm,0.8s						
MK31	Makanchi Array	2.89	170	⇑Pg	Pb	07 36 08.8	-0.9
	0.5nm,0.5s,baz=0.5,slow=15,SNR=5.4						
MK31				⇑Lg	Lg	07 36 49.1	
	3.7nm,0.7s,baz=350,slow=30,SNR=14						
MKAR	Makanchi Array	2.89	170	Pg	Pb	07 36 09.9	+0.1
	0.4nm,0.3s,baz=355,slow=17,SNR=6.8						
MKAR				Lg	Lg	07 36 46.3	
	0.7nm,0.3s,baz=354,slow=26,SNR=24						
ZALV	Zalesovo Beam	4.75	24	Pn	Pn	07 36 30.9	+0.7
	1.1nm,0.8s,baz=209,slow=15,SNR=1.8						
ZALV				Pg	Pb	07 36 40.6	-0.9
	baz=206,slow=19						
ZALV				Lg	Lg	07 37 43.7	
	0.2nm,0.3s,baz=207,slow=28,SNR=8.0						
I46RU	ZALESOVO INFRA	4.76	24	I	I	08 03 40.0	
	baz=206,slow=327,SNR=8.1						

STR 10 08:00:42.1±2.3**, 46°N**±10°×°±1°0**, h0^{km}, MLv1.3**/6**, LOCSAT earthModelID alpes_taup-2.11 preliminary, France**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OGSM	Saint Maurice	0.40	128	Pg	Pg	08 00 49.4	-0.5
OGSM				Sg	Sg	08 00 53.3	-1.8
OGMY	Moye	0.45	87	Pg	Pg	08 00 51.3	+0.5
OGMY				Sg	Sg	08 00 56.8	+0.2
GRN	Grenoble	0.71	150	Pg	Pn	08 01 03.9	+4.4
GRN				Sg	Sn	08 01 19.1	+7.9
SSB	Saint Sauveur	0.76	221	Pg	Pn	08 01 00.5	+0.3
SSB				Sg	Sn	08 01 12.5	+0.1
RSL	Roselend	0.98	100	Pg	Pg	08 01 00.7	-0.3
ORIF	Oris-en-Rattie	1.04	154	Pg	Pb	08 01 03.5	+0.4
ORIF				Sg	Sb	08 01 17.6	+0.2
REMY	Saint-Rhmy-en	1.34	90	Pg	Pn	08 01 09.5	+1.2
REMY				Sg	Sn	08 01 26.5	-0.4
RRL	Rocca Remolon	1.44	130	Pg	Pb	08 01 10.4	+0.5
RRL				Sg	Sb	08 01 28.8	-0.1

IDC 10 08:05:08.1±10.0**, 1°.79N**×**124°.97E, h246^{km}**±106^{km}**, mb3.0**/3**, mbtmp3.5**/3**, Error ellipse: s-maj=190.3km s-min=26.6km az=63.0, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	23.48	157	P	P	08 09 55.9	0.0
	1.3nm,0.4s,baz=336,slow=10.0,SNR=19						
	1.3nm,0.4s						
ASAR	Alice Springs	26.76	162	P	P	08 10 25.5	0.0
	0.2nm,0.3s,baz=336,slow=7.1,SNR=7.2						
ASAR				PcP	PcP	08 13 41.6	-0.4
	0.3nm,0.8s,baz=344,slow=4.1,SNR=1.3						
	0.2nm,0.3s						
MKAR	Makanchi Array	58.17	327	P	P	08 14 36.4	0.0
	0.2nm,0.4s,baz=122,slow=7.4,SNR=4.2						
	0.2nm,0.4s						

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*MOS **10** 08:26:54.4±0.9, 8°.64S×110°.82E, h97^{km}, mb5.3/43, Error ellipse: s-maj=10.2km s-min=4.6km az=108.9*

*NEIC **10** 08:26:59.8±1.2, 8°.76S±0°.04×110°.80E±0°.07, h101^{km}±4^{km}, mb4.9/84, Error ellipse: s-maj=9.6km s-min=6.1km az=77.0*

*IDC **10** 08:26:59.0±0.7, 8°.64S×110°.91E, h91^{km}±5^{km}, mb4.5/26, mbtmp4.8/28, MS3.4/15, Error ellipse: s-maj=15.5km s-min=9.3km az=72.0*

*DJA **10** 08:27:00.6±0.2, 9°S±2°×11°1E±°, h67^{km}±5^{km}, M5.1/63, mB5.8/4, mb5.0/11, MLv5.0/63, Mw(mB)5.3/4*

*GFZ **10** 08:27:01.0±0.1, 9°S±2°×11°1E±°, h107^{km}, M5.0/44, mb4.9/44, confirmed*

ISC 10 08:26:59.6±0.4**, 8°.74S**±0°.04×**110°.84E**±0°.03**, h100^{km}**±2^{km}**, h99^{km}:pP-P, n417, σ1^{s}.23**/456**, mb5.0**/128**, 16C-9D, Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCJI	Pacitan	0.64	31	P	Pn	08 27 16.0	-0.5
PCJI				S	Sn	08 27 28.7	-0.4
PCJI				AML	AML		
UGM	Wanagama	0.88	339	P	Pn	08 27 19.6	+0.7
UGM	Wanagama	0.88	339		Pn	08 27 19.2	+0.3
UGM				Sn	Sn	08 27 34.1	+0.8
UGM	Wanagama	0.88	339	P	Pn	08 27 18.8	-0.1
UGM				S	Sn	08 27 32.6	-0.7
UGM				AML	AML		
UGM	Wanagama	0.88	339	P	Pn	08 27 19.4	+0.6
WOJI	Wonogiri, Jawa	0.91	5	P	Pn	08 27 19.1	+0.1
WOJI				S	Sn	08 27 33.2	-0.4
WOJI				AML	AML		
YOGI	Yogyakarta	1.07	330	P	Pn	08 27 21.0	+0.2
YOGI				S	Sn	08 27 36.7	0.0
YOGI				AML	AML		
SNJI	Sawahan-Nganju	1.32	44	P	Pn	08 27 25.6	+1.7
SNJI				S	Sn	08 27 42.6	+0.4
SNJI				AML	AML		
SJI	Sawahan	1.36	43	P	Pn	08 27 24.5	+0.2
SJI				S	Sn	08 27 43.9	+1.0
NGJI	Ngawi	1.50	24	P	Pn	08 27 28.5	+2.6
NGJI				S	Sn	08 27 47.7	+2.0
NGJI				AML	AML		
SMRI	Semarang	1.73	347	P	Pn	08 27 30.7	+1.9
SMRI	Semarang	1.73	347		Pn	08 27 29.4	+0.6
SMRI				Sn	Sn	08 27 50.3	-0.6
SMRI	Semarang	1.73	347	P	Pn	08 27 30.3	+1.5
SMRI				S	Sn	08 27 51.6	+0.7
SMRI				AML	AML		
SMRI	Semarang	1.73	347	P	Pn	08 27 30.7	+1.9
KPJI	Karang Pucung	2.35	306	P	Pn	08 27 37.5	+0.7
KPJI				S	Sn	08 28 08.4	+3.1
KPJI				AML	AML		
CTJI	Waduk Cacaban	2.38	316	P	Pn	08 27 37.9	+0.7
CTJI				S	Sn	08 28 08.2	+2.2
CMJI	Cimerak	2.55	292	P	Pn	08 27 39.8	+0.4
CMJI				AML	AML		
BLJI	Banyuglugur	2.90	70	P	Pn	08 27 44.5	+0.4
BLJI				S	Sn	08 28 19.4	+1.1
BLJI				AML	AML		
JAGI	Jajag, Banyuwa	3.29	85	P	Pn	08 27 49.5	+0.3
JAGI	Jajag, Banyuwa	3.29	85		Pn	08 27 49.2	0.0
JAGI				Sn	Sn	08 28 26.0	-1.6
JAGI	Jajag, Banyuwa	3.29	85	P	Pn	08 27 49.6	+0.3
JAGI				AML	AML		
JAGI	Jajag, Banyuwa	3.29	85	P	Pn	08 27 50.4	+1.2
JCJI	Jatiwangi	3.39	311	P	Pn	08 27 50.1	-0.5
JCJI				AML	AML		
BWJI	Bawean	3.39	32	P	Pn	08 27 52.4	+1.7
BWJI	Bawean	3.39	32	P	Pn	08 27 52.6	+2.0
BBJI	Bungbulang	3.41	292	P	Pn	08 27 50.8	0.0
BBJI	Bungbulang	3.41	292		Pn	08 27 50.0	-0.8
BBJI				Sn	Sn	08 28 28.9	-1.5
BBJI	Bungbulang	3.41	292	P	Pn	08 27 50.6	-0.3
BBJI				AML	AML		
BBJI	Bungbulang	3.41	292	P	Pn	08 27 50.9	0.0
ABJI	Asem Bagus	3.49	75	P	Pn	08 27 53.8	+1.9
ABJI				S	Sn	08 28 33.9	+1.5
ABJI				AML	AML		
BYJI	Banyuwangi	3.52	82	P	Pn	08 27 54.5	+2.2
BYJI				S	Sn	08 28 34.5	+1.4
BYJI				AML	AML		
KMMI	Kalianget	3.53	62	P	Pn	08 27 53.3	+0.9
CNJI	Cibinong	3.94	291	P	Pn	08 27 59.7	+1.7
CNJI				AML	AML		
RTBI	Rangdo, Negare	4.07	86	P	Pn	08 28 00.9	+1.2
IGBI	Denpasar	4.26	91	P	Pn	08 28 01.7	-0.6
IGBI				AML	AML		
DNP	Denpasar	4.32	89	P	Pn	08 28 04.2	+1.0
DNP				S	Sn	08 28 54.0	+1.5
SRBI	Singaraja	4.38	82	P	Pn	08 28 05.0	+1.1
SRBI				AML	AML		
KHKI	Kahang-Kahang	4.73	86	P	Pn	08 28 09.4	+0.7
KHKI				AML	AML		
CGJI	Cibinong	5.52	292	P	Pn	08 28 20.5	+1.0
	1.4nm5µm241nm,0.5s						
CGJI				AML	AML		
TWSI	Taliwang, Sumb	5.97	90	P	Pn	08 28 26.8	+1.2
	0.9nm124nm,0.8s						
TWSI				AML	AML		
BBKI	Banjar Baru	6.58	37	P	Pn	08 28 35.9	+2.0
	0.9nm223nm,1.0s						
BBKI				AML	AML		
PLAI	Plampang	6.86	91	P	Pn	08 28 37.9	+0.3
PLAI	Plampang	6.86	91	P	Pn	08 28 38.8	+1.2
	0.7nm128nm,1.0s						
PLAI				AML	AML		
PLAI	Plampang	6.86	91	P	Pn	08 28 38.5	+0.9
	comp=Z,128nm,1.0s						
PPBI	Pangkal Pinang	8.04	324	P	Pn	08 28 55.1	+1.4
MNAI	Manna	8.96	299	P	Pn	08 29 06.5	+0.2
MNAI	Manna	8.96	299	Pn	Pn	08 29 05.0	-1.2
KAPI	Kappang	9.59	68	P	Pn	08 29 13.2	-1.6
	comp=Z,25nm,0.8s,baz=237,slow=14,SNR=6.0						
KAPI				LR	LR	08 33 08.1	
	comp=Z,109nm,21.0s,baz=238,slow=39						
KAPI	Kappang	9.59	68	P	Pn	08 29 14.2	-0.7
KAPI	Kappang	9.59	68		Pn	08 29 14.2	-0.7
KAPI	Kappang	9.59	68	P	Pn	08 29 16.0	+1.2
	comp=Z,48nm,1.6s						
KSI	Kapahiang	9.63	301	P	Pn	08 29 16.4	+0.9
MASI	Maura Aman, Be	10.20	303	P	Pn	08 29 23.9	+0.7
	comp=Z,157nm,1.3s						
SBUM	Sibu	11.21	7		Pn	08 29 36.2	-0.6
TOLI2	Tolitoli	13.93	46	P	P	08 30 19.8	+2.2
TOLI2	Tolitoli	13.93	46	Pn	Pn	08 30 12.0	-0.7
TOLI2	Tolitoli	13.93	46	P	Pn	08 30 14.0	+1.2
	comp=Z,22nm,0.8s						
MBWA	Marble Bar	15.03	146	P	Pn	08 30 23.6	-3.2
MBWA	Marble Bar	15.03	146		Pn	08 30 23.7	-3.1
MBWA				IAmb	IAmb	08 30 25.1	
	comp=Z,37nm,0.8s						
MBWA	Marble Bar	15.03	146	P	Pn	08 30 23.9	-2.9
	comp=Z,54nm,0.8s						
KKM	Kota Kinabalu	15.64	20	Pn	Pn	08 30 33.4	-1.2
MYLDM	Lahad Datu	15.80	29	Pn	Pn	08 30 34.9	-1.7
MYLDM				IAmb	IAmb	08 30 42.5	
	comp=Z,110nm,1.4s						
IPM	Ipoh	16.38	323	P	P	08 30 43.8	-1.1
FITZ	Fitzroy Crossi	17.12	124	P	Pn	08 30 52.5	-0.4
	comp=Z,16nm,0.9s,baz=301,slow=8.2,SNR=20						
FITZ				S	Sn	08 33 47.8	-16
	comp=Z,8.1nm,0.5s,baz=346,slow=24,SNR=7.4						
FITZ				LR	LR	08 36 12.2	
	comp=Z,94nm,21.6s,baz=352,slow=32						
FITZ	Fitzroy Crossi	17.12	124		Pn	08 30 53.2	+0.3
FITZ	Fitzroy Crossi	17.12	124	P	Pn	08 30 53.9	+1.0
	comp=Z,4.8nm,0.9s						
KULM	Kulim	17.25	324	P	Pn	08 30 53.0	-1.5
KNRA	Kununurra	18.82	113	P	P	08 31 11.7	+0.1
MEEK	Meekatharra	19.26	158	P	Pn	08 31 20.0	+1.5
	comp=Z,55nm,0.8s						
MTN	Manton Dam	20.34	103	P	P	08 31 26.5	-1.8
MORW	Morawa	20.80	167	P	P	08 31 32.4	-0.6
MORW	Morawa	20.80	167	P	Pn	08 31 37.2	+0.9
DAV	Davao City (W)	21.51	44	LR	LR	08 41 45.6	
	comp=Z,43nm,18.5s,baz=136,slow=41						
NWAO	Narrogin (SRO)	24.78	167	LR	LR	08 43 04.5	
	comp=Z,86nm,18.0s,baz=279,slow=39						
WB0	Warramunga Arr	25.28	118	P	P	08 32 16.1	-0.9
WRA	Warramunga Arr	25.30	119	P	P	08 32 17.1	-0.1
	comp=Z,4.3nm,0.6s,baz=287,slow=11,SNR=47						
WRA				PcP	PcP	08 35 48.2	+0.3
	comp=Z,0.9nm,0.6s,baz=332,slow=1.3,SNR=3.4						
	comp=Z,4.3nm,0.6s						
WRA	Warramunga Arr	25.30	119	P	P	08 32 17.1	-0.1
WRA					PcP	08 35 46.4	-1.5
WRAB	Tennant Creek	25.31	119	*ce*P	P	08 32 15.8	-1.4
WRAB	Tennant Creek	25.31	119	P	P	08 32 17.6	+0.3
	comp=Z,12nm,0.7s						
WR8	Warramunga Arr	25.45	119	P	P	08 32 18.7	+0.2
ASAR	Alice Springs	26.59	127	P	P	08 32 28.9	0.0
	comp=Z,10.0nm,0.7s,baz=303,slow=8.5,SNR=100						
ASAR				PcP	PcP	08 35 51.5	+0.7
	comp=Z,1.2nm,0.6s,baz=284,slow=1.5,SNR=5.2						
ASAR				LR	LR	08 42 40.5	
	comp=Z,85nm,20.8s,baz=288,slow=35						
	comp=Z,10.0nm,0.7s						
ASAR	Alice Springs	26.59	127	P	P	08 32 29.1	+0.3
ASAR	Alice Springs	26.59	127	P	P	08 32 29.1	+0.3
ASAR					PcP	08 35 50.7	-0.1
AS31	Alice Springs	26.59	127	P	P	08 32 28.7	-0.1
PBA	Port Blair	27.10	318	P	P	08 32 32.4	-0.9
PBA				IAmb	IAmb	08 32 49.7	
	comp=Z,75nm,1.1s						
CMAR	Chiang Mai Arr	29.47	337	P	P	08 32 54.4	0.0
	comp=Z,4.4nm,0.8s,baz=173,slow=8.1,SNR=26						
CMAR				LR	LR	08 44 43.1	
	comp=Z,80nm,19.4s,baz=165,slow=36						
	comp=Z,4.4nm,0.8s						
CMAR	Chiang Mai Arr	29.47	337	P	P	08 32 53.4	-1.0
CHTO	Chiang Mai	29.79	337	P	P	08 32 56.3	-0.9
CHTO	Chiang Mai	29.79	337	P	P	08 32 56.3	-0.9
QIS	Mount Isa	30.15	116	P	P	08 33 00.7	+0.3
	comp=Z,7.7nm,1.7s						
SLVN	Son La	30.66	347	P	P	08 33 04.5	-0.4
TPUB	Ta-pu	33.26	17	P	P	08 33 26.8	-0.8
TPUB				IAmb	IAmb	08 33 28.8	
	comp=Z,8.3nm,0.8s						
BBOO	Buckleboo	33.43	139	P	P	08 33 28.0	-1.0
BBOO				IAmb	IAmb	08 33 38.4	
	comp=Z,15nm,1.2s						
SSLB	Suanglung	33.81	17		P	08 33 32.2	-0.2
SSLB				IAmb	IAmb	08 33 38.1	
	comp=Z,16nm,0.7s						
SSLB	Suanglung	33.81	17	P	P	08 33 32.9	+0.5
	comp=Z,24nm,0.7s						
MTSU	Mount Surprise	33.82	110	P	P	08 33 33.7	+1.0
	comp=Z,4.1nm,0.6s						
YOJ	Yonaguni jima	35.08	20	P	P	08 33 42.9	-0.4
YOJ				pmax	pmax		
	comp=Z,27nm,0.7s						
YOJ	Yonaguni jima	35.08	20	P	P	08 33 42.9	-0.4
YOJ	Yonaguni jima	35.08	20	P	P	08 33 42.9	-0.4
	comp=Z,45nm,0.9s						
GYA	Guiyang	35.23	354	⇓P	P	08 33 47.4	+2.7
GYA				pmax	pmax		
	comp=Z,21nm,0.8s						
CTA	Charters Tower	36.02	112	LR	LR	08 49 24.7	
	comp=Z,35nm,18.1s,baz=222,slow=37						
PZH	PanZhiHua	36.13	346	P	P	08 33 56.1	+3.6
QLP	Quilpie	36.27	124	P	P	08 33 54.9	+1.3
	comp=Z,27nm,0.8s						
STKA	Stephens Creek	36.67	133	P	P	08 33 57.8	+0.9
	comp=Z,13nm,0.4s,baz=315,slow=7.9,SNR=71						
STKA				PcP	PcP	08 36 18.6	+0.7
	comp=Z,3.0nm,0.4s,baz=326,slow=4.0,SNR=3.6						
STKA				LR	LR	08 49 13.2	
	comp=Z,58nm,20.8s,baz=356,slow=36						
	comp=Z,13nm,0.4s						
STKA	Stephens Creek	36.67	133	P	P	08 33 57.9	+0.9
	comp=Z,103nm,0.8s						
H08S2	Diego Garcia H	37.96	269	T	T	09 15 38.8	
	baz=95						
H08S3	Diego Garcia H	37.97	269	T	T	09 15 00.0	
	baz=95,slow=74						
H08S1	Diego Carcia H	37.98	269	T	T	09 14 39.4	
	baz=95,slow=74						
SHL	Shillong	38.78	332	P	P	08 34 14.1	-0.8
SHL				pmax	pmax		
	comp=Z,23nm,0.7s						
SHL	Shillong	38.78	332		P	08 34 14.1	-0.8
SHL				IAmb	IAmb	08 34 14.8	
	comp=Z,23nm,0.7s						
JOW	Kunigami	39.20	25	P	P	08 34 17.8	-0.4
JOW				IAmb	IAmb	08 34 19.6	
	comp=Z,23nm,1.1s						

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JOW   Kunigami          39.20  25  P      P      08 34 18.2  0.0
CMSA  Cobar Meteorol    39.53 130  P      P      08 34 21.9 +1.0
      comp=Z,25nm,1.4s
JMZ   Minamidaito 2     39.67  29  P      P      08 34 21.9 -0.1
CD2   Chengdu           40.01 351  P      P      08 34 26.7 +1.8
GUMO  Guam              40.42  57  LR     LR     08 49 55.5
      comp=Z,21nm,21.8s,baz=232,slow=34
NJ2   Nanjing           41.28  10 eP      P      08 34 38.0 +2.7
NJ2                                pmax   pmax
      comp=Z,12nm,0.6s
XAN   Xi'an             42.59 358  P      P      08 34 45.5 -0.4
XAN                                pmax   pmax
      comp=Z,19nm,0.8s
XAN   Xi'an             42.59 358  P      P      08 34 45.1 -0.8
XAN                                pP     pP     08 35 10.0 +0.8
LSA   Lhasa             42.66 334  P      P      08 34 46.9 -0.2
LSA                                pmax   pmax
      comp=Z,14nm,0.9s
LSA   Lhasa             42.66 334         P      08 34 46.9 -0.2
LSA                                IAmb   IAmb   08 34 48.3
      comp=Z,14nm,0.9s
LSA   Lhasa             42.66 334  P      P      08 34 47.5 +0.4
      comp=Z,18nm,0.9s
LSA   Lhasa             42.66 334  P      P      08 34 47.0 -0.1
LYN   LuoYang           43.09   2  P      P      08 34 50.2 +0.3
LYN                                pmax   pmax
      comp=Z,37nm,0.5s
EVN   Everest           43.26 328         P      08 34 51.0 -1.1
CAN   Canberra          43.73 133  P      P      08 34 56.4 +1.1
      comp=Z,19nm,2.0s
JSU   Suzuyama          44.21  24  P      P      08 34 59.1 +0.1
JSU                                IAmb   IAmb   08 35 06.0
      comp=Z,22nm,1.0s
LZDM  Lanzhou Array     44.97 352  P      P      08 35 05.3  0.0
      comp=Z,2.3nm,0.3s,baz=172,slow=12,SNR=4.6
      comp=Z,2.3nm,0.3s
LZH   Lanzhou           45.08 352 eP      P      08 35 06.4 +0.4
LZH                                pmax   pmax
      comp=Z,37nm,1.4s
ROCAM Rodrigues Isla    47.15 251  P      P      08 35 20.6 -1.7
TJN   Taejon            47.50  18  P      P      08 35 24.1 -0.6
TJN                                pmax   pmax
      comp=Z,59nm,0.8s
TJN   Taejon            47.50  18  P      P      08 35 24.1 -0.6
TJN   Taejon            47.50  18  P      P      08 35 24.3 -0.4
      comp=Z,103nm,0.8s
INCN  Inchon            48.30  17  P      P      08 35 30.4 -0.5
INCN                               pmax   pmax
      comp=Z,19nm,0.5s
INCN  Inchon            48.30  17  P      P      08 35 30.4 -0.5
KSRS  Korea Array       48.66  18  P      P      08 35 33.9 +0.2
      comp=Z,14nm,0.8s,baz=202,slow=7.9,SNR=53
      comp=Z,14nm,0.8s
BJT   Baijiatuau        48.77   5  P      P      08 35 33.7 -0.7
BJT                                pmax   pmax
      comp=Z,24nm,1.2s
BJT   Baijiatuau        48.77   5         P      08 35 33.7 -0.7
BJT                                IAmb   IAmb   08 35 35.7
      comp=Z,24nm,1.2s
BJT   Baijiatuau        48.77   5  P      P      08 35 34.4 -0.1
      comp=Z,16nm,1.2s
BJI2  Beijing           48.77   5  P      P      08 35 34.5 +0.1
BJI2                               pP     pP     08 35 57.5 -0.7
BJI2                               sP     sP     08 36 09.0 -0.4
BJI2                               PcP    PcP    08 37 03.0 +5.1
BJI2                               ScP    ScP    08 40 43.4 -0.5
BJI2                               pmax   pmax
      comp=Z,9.0nm,0.9s
GTA2  Gaotai            49.08 349  P      P      08 35 37.8 +0.8
GTA2                               pP     pP     08 36 00.8 +0.1
GTA2                               pmax   pmax
      comp=Z,22nm,0.8s
BTO2  Baotou            49.25 359 eP      P      08 35 38.3  0.0
BTO2                               pP     pP     08 36 04.4 +2.4
BTO2                               sP     sP     08 36 17.0 +3.8
BTO2                               pmax   pmax
      comp=Z,65nm,1.0s
BTO2                               pmax   pmax
      comp=Z,240nm,8.4s
HHC   Hu-ho-hao-te      49.35   1 eP      P      08 35 42.6 +3.6
HHC                                pmax   pmax
      comp=Z,18nm,0.6s
HHC                                pmax   pmax
      comp=Z,85nm,4.4s
INU   Inuyama           50.34  28  P      P      08 35 45.2 -1.2
INU                                IAmb   IAmb   08 35 46.0
      comp=Z,12nm,0.9s
INU   Inuyama           50.34  28  P      P      08 35 44.9 -1.6
      comp=Z,15nm,0.9s
INU   Inuyama           50.34  28  P      P      08 35 45.0 -1.4
INU                                pP     pP     08 36 11.0 +0.7
JGF   Kuroka            50.70  28         P      08 35 48.2 -1.1
JGF                                IAmb   IAmb   08 35 48.5
      comp=Z,7.6nm,0.7s
JGF   Kuroka            50.70  28  P      P      08 35 47.7 -1.6
      comp=Z,11nm,0.8s
MAJO  Matsushiro        51.87  28  P      P      08 35 56.5 -1.4
MAJO                               pmax   pmax
      comp=Z,12nm,0.9s
MAJO  Matsushiro        51.87  28         P      08 35 56.5 -1.4
MAJO                               IAmb   IAmb   08 35 56.9
      comp=Z,12nm,0.8s
MAJO  Matsushiro        51.87  28  P      P      08 35 56.5 -1.4
      comp=Z,18nm,1.3s
MAJO  Matsushiro        51.87  28  P      P      08 35 56.3 -1.7
MJAR  Matsushiro Arr    51.87  28  P      P      08 35 56.4 -1.6
      comp=Z,12nm,0.8s,baz=200,slow=7.6,SNR=30
      comp=Z,12nm,0.8s
MJAR  Matsushiro Arr    51.87  28         P      08 35 55.9 -2.0
MJAR                               IAmb   IAmb   08 35 56.9
      comp=Z,6.5nm,0.9s
MJB9  Matsu-Tunnel      51.87  28  P      P      08 35 56.5 -1.4
MJB9                               IAmb   IAmb   08 35 56.9
      comp=Z,12nm,0.8s
XLT   XiLinHaoTe        52.61   5 eP      P      08 36 02.9 -0.5
XLT                                pmax   pmax
      comp=Z,16nm,0.8s
CN2   Changchun         53.95  13 eP      P      08 36 11.7 -1.4
CN2                               epP     pP     08 36 36.7 -0.6
CN2                               eS      S      08 43 39.0 -2.1
CN2                                pmax   pmax
      comp=Z,10.0nm,0.8s
CN2                                pmax   pmax
      comp=Z,100nm,4.0s
NIL   Nilore            55.24 322  P      P      08 36 21.3 -1.4
NIL                                pmax   pmax
      comp=Z,36nm,0.7s
NIL   Nilore            55.24 322         P      08 36 21.3 -1.4
NIL   Nilore            55.24 322  P      P      08 36 21.3 -1.4
      comp=Z,58nm,0.6s
OUENC Ouen Island, N    55.34 111  P      P      08 36 22.1 -1.5
MDJ   Mudanjiang        55.75  16  P      P      08 36 25.8 -0.2
MDJ                                pmax   pmax
      comp=Z,17nm,0.7s
MDJ   Mudanjiang        55.75  16         P      08 36 25.5 -0.6
MDJ   Mudanjiang        55.75  16  P      P      08 36 24.6 -1.5
      comp=Z,32nm,1.2s
USA0B Ussuriysk Arra    56.07  18  P      P      08 36 27.8 -0.5
USA0B                              pmax   pmax
      comp=Z,51nm,1.0s
USA0B Ussuriysk Arra    56.07  18         P      08 36 27.8 -0.5
USRK  Ussuriysk Ar.     56.07  18  P      P      08 36 27.7 -0.6
      comp=Z,25nm,0.8s,baz=206,slow=4.9,SNR=41
USRK                               pP     pP     08 36 50.6 -2.0
      comp=Z,8.2nm,0.8s,baz=196,slow=4.9,SNR=3.9
      comp=Z,25nm,0.8s
BNX   BinXian           56.24  14 ⇓P      P      08 36 28.9 -0.6
BNX                                pmax   pmax
      comp=Z,52nm,0.8s
WMQ   Urumqi            56.38 340 eP      P      08 36 31.2 +0.6
WMQ                                pP     pP     08 36 55.6 +0.7
WMQ                                sP     sP     08 37 10.0 +4.1
WMQ                                pmax   pmax
      comp=Z,30nm,0.7s
ULN   Ulaanbaatar       56.46 357ceP      P      08 36 29.9 -1.3
ULN                                pmax   pmax
      comp=Z,14nm,0.8s
ULN   Ulaanbaatar       56.46 357  P      P      08 36 30.8 -0.4
ULN   Ulaanbaatar       56.46 357  P      P      08 36 31.0 -0.3
      comp=Z,30nm,0.8s
ULN   Ulaanbaatar       56.46 357  P      P      08 36 31.2  0.0
SONM  Songino Array     56.47 356  P      P      08 36 31.3  0.0
      comp=Z,10nm,0.5s,baz=178,slow=8.3,SNR=50
SONM                               PcP    PcP    08 37 27.0  0.0
      comp=Z,1.1nm,0.5s,baz=188,slow=6.2,SNR=1.4
SONM                               ScP    ScP    08 41 17.1 -0.3
      comp=Z,0.7nm,0.5s,baz=163,slow=1.5,SNR=2.3
      comp=Z,10nm,0.5s
SONM  Songino Array     56.47 356         P      08 36 30.9 -0.4
SONM                               IAmb   IAmb   08 36 32.0
      comp=Z,12nm,0.8s
JTM   Tenmabayashi      56.62  27  P      P      08 36 31.3 -1.0
JTM   Tenmabayashi      56.62  27  P      P      08 36 31.1 -1.1
      comp=Z,42nm,1.1s
WUS   Wushi             57.58 332         P      08 36 38.5 -0.8
WUS   Wushi             57.58 332  P      P      08 36 38.9 -0.4
      comp=Z,70nm,0.8s
WUS   Wushi             57.58 332  P      P      08 36 39.0 -0.2
KSH2  Kashi             57.82 328  P      P      08 36 39.8 -1.2
KSH2                               pmax   pmax
      comp=Z,24nm,0.8s
HIA   Hailar            58.29   7  P      P      08 36 43.6 -0.3
HIA                                pmax   pmax
      comp=Z,14nm,1.3s
HIA   Hailar            58.29   7  P      P      08 36 43.6 -0.3
HIA                                IAmb   IAmb   08 36 43.6
      comp=Z,14nm,1.3s
KBL   Kabul             58.46 320  P      P      08 36 44.3 -1.3
KBL                                pmax   pmax
      comp=Z,18nm,0.8s
KBL   Kabul             58.46 320         P      08 36 44.3 -1.3
KBL                                IAmb   IAmb   08 36 44.9
      comp=Z,18nm,0.8s
KBL   Kabul             58.46 320  P      P      08 36 44.1 -1.5
      comp=Z,25nm,1.0s
HILR  Hailar Array B    58.58   7  P      P      08 36 45.4 -0.5
      comp=Z,6.5nm,0.4s,baz=190,slow=6.9,SNR=9.3
      comp=Z,6.5nm,0.4s
ASAI  AK-SAY(Kyrgyzs    58.66 330  P      P      08 36 46.4 -0.6
      comp=Z,14nm,1.0s
TARG  Taragay, Kyrgy    58.66 331  P      P      08 36 46.6 -0.5
TARG                               pmax   pmax
      comp=Z,13nm,0.9s
TARG  Taragay, Kyrgy    58.66 331  P      P      08 36 46.6 -0.5
TARG                               IAmb   IAmb   08 36 48.5
      comp=Z,13nm,0.9s
TARG  Taragay, Kyrgy    58.66 331  P      P      08 36 47.3 +0.2
      comp=Z,17nm,1.0s
PRZ   Przheval'sk       58.97 332  P      P      08 36 49.5 +0.6
PRZ                                pmax   pmax
      comp=Z,36nm,1.0s
PRZ   Przheval'sk       58.97 332  P      P      08 36 49.5 +0.6
PRZ   Przheval'sk       58.97 332  P      P      08 36 49.8 +0.9
      comp=Z,29nm,0.8s
SHLS  Shalkode          59.03 334 eP      P      08 36 47.2 -2.0
SHLS  Shalkode          59.03 334 eP      P      08 36 47.2 -2.0
PDGK  Podgornoye        59.15 334  P      P      08 36 49.7 -0.4
PDGK  Podgornoye        59.15 334  P      P      08 36 49.7 -0.4
UZB   Uzynbulak         59.21 333 eP      P      08 36 49.7 -0.8
UZB   Uzynbulak         59.21 333 eP      P      08 36 49.8 -0.8
KDJ   Kajisay           59.26 331  P      P      08 36 50.7 -0.3
KDJ                                pmax   pmax
      comp=Z,52nm,1.1s
KDJ   Kajisay           59.26 331  P      P      08 36 50.7 -0.3
KDJ   Kajisay           59.26 331  P      P      08 36 51.3 +0.3
      comp=Z,45nm,1.1s
NRN   Naryn             59.30 330  P      P      08 36 50.6 -0.9
NRN                                pmax   pmax
      comp=Z,20nm,0.8s
NRN   Naryn             59.30 330         P      08 36 50.6 -0.9
SATY  Saty              59.42 333 eP      P      08 36 51.2 -0.8
SATY                               pmax   pmax
      comp=Z,8.0nm,0.7s
SATY  Saty              59.42 333 eP      P      08 36 51.2 -0.8
      comp=Z,7.8nm,0.7s
ANVS  Anan'yevo         59.54 332  P      P      08 36 52.6 -0.3
      comp=Z,32nm,1.0s
KPKS  Kokpek            59.62 333 eP      P      08 36 52.3 -0.9
KPKS  Kokpek            59.62 333 eP      P      08 36 52.4 -0.9
ULHL  Ulahol            59.80 331  P      P      08 36 54.0 -0.7
      SNR=7.6
ASAJ  Asahikawa         59.96  26  P      P      08 36 54.2 -1.3
ASAJ                               pmax   pmax
      comp=Z,16nm,0.8s
JKA   Kamikawa-asahi    59.96  26  P      P      08 36 54.2 -1.3
JKA                                IAmb   IAmb   08 36 55.5
      comp=Z,16nm,0.8s
JKA   Kamikawa-asahi    59.96  26  P      P      08 36 54.6 -0.9
      comp=Z,31nm,1.6s
TNSS  Tian-Shan         60.07 332 eP      P      08 36 55.6 -1.2
TNSS  Tian-Shan         60.07 332 eP      P      08 36 55.6 -1.2
MDOK  Medeo             60.12 332 eP      P      08 36 56.0 -0.8
MDOK  Medeo             60.12 332 eP      P      08 36 56.1 -0.8
BOOM  Boomskoye usch    60.13 331  P      P      08 36 56.3 -0.6
BOOM                               pmax   pmax
      comp=Z,18nm,0.8s
BOOM  Boomskoye usch    60.13 331  P      P      08 36 56.3 -0.6
BOOM  Boomskoye usch    60.13 331  P      P      08 36 56.3 -0.6
      comp=Z,25nm,1.0s
AAA   Alma-Ata          60.22 332 eP      P      08 36 56.7 -0.7
AAA   Alma-Ata          60.22 332 eP      P      08 36 56.8 -0.7
OHH   Osh               60.29 327  P      P      08 36 55.8 -2.2
OHH   Osh               60.29 327  P      P      08 36 55.8 -2.2
      comp=Z,26nm,0.8s
HEH   HeiHe             60.50  12 eP      P      08 36 58.5 -0.5
HEH                                pmax   pmax
      comp=Z,79nm,0.8s
ZSN   Zaisan            60.51 340 eP      P      08 36 58.7 -0.5
ZSN                                pmax   pmax
      comp=Z,9.0nm,0.8s
ZSN   Zaisan            60.51 340 eP      P      08 36 58.8 -0.5
      comp=Z,8.5nm,0.8s
KLR   Kul'dur           60.58  16 eP      P      08 36 56.3 -3.3
KLR                                pmax   pmax
      comp=Z,7.0nm,1.2s
TKM2  Tokmak 2          60.62 331  P      P      08 36 59.6 -0.7
      SNR=45
KBK   Karagaybulak      60.74 330  P      P      08 37 01.4 +0.3
      SNR=7.0
ARSB  Arslanbob         60.76 328  P      P      08 37 00.2 -1.0
ARSB                               pmax   pmax
      comp=Z,18nm,0.9s
ARSB  Arslanbob         60.76 328  P      P      08 37 00.2 -1.0
ARSB                               IAmb   IAmb   08 37 01.2
      comp=Z,18nm,0.9s
MOY   Mondy             60.76 353 eP      P      08 37 01.3 +0.3
MK31  Makanchi Array    60.87 338 ⇑Pg     PKiKP  08 44 00.6 -0.1
      comp=Z,0.2nm,0.6s,baz=101,slow=13,SNR=14
MK31                              ⇓Lg     Lg     08 44 32.4
      comp=Z,0.1nm,0.3s,baz=110,slow=29,SNR=4.5
MK31  Makanchi Array    60.87 338ceP      P      08 37 01.2 -0.4
MKAR  Makanchi Array    60.87 338  P      P      08 37 01.2 -0.4
      comp=Z,34nm,0.5s,baz=148,slow=7.5,SNR=365
      comp=Z,34nm,0.5s
MKAR  Makanchi Array    60.87 338ceP      P      08 37 01.0 -0.6
MKAR                               pmax   pmax
      comp=Z,34nm,0.5s
MKAR  Makanchi Array    60.87 338  P      P      08 37 01.1 -0.6
AAK   Ala-Archa         60.95 330  LR     LR     09 09 30.4
      comp=Z,38nm,19.1s,baz=167,slow=42
AAK   Ala-Archa         60.95 330  P      P      08 37 02.5 +0.1
      SNR=11
AAK   Ala-Archa         60.95 330  P      P      08 37 02.0 -0.5
AAK                                pmax   pmax
      comp=Z,30nm,1.3s
AAK   Ala-Archa         60.95 330         P      08 37 02.0 -0.5
AAK                                IAmb   IAmb   08 37 03.7
      comp=Z,30nm,1.3s
AAK   Ala-Archa         60.95 330  P      P      08 37 02.6 +0.1
      comp=Z,17nm,1.0s
AAK   Ala-Archa         60.95 330  P      P      08 37 02.1 -0.3
TDK   Taldyqorghan      60.96 334 eP      P      08 37 01.6 -0.7
TDK                                pmax   pmax
      comp=Z,10.0nm,0.7s
TDK   Taldyqorghan      60.96 334 eP      P      08 37 01.7 -0.7
      comp=Z,10nm,0.7s
MAKZ  Makanchi          60.99 338 ⇑Pg     PKiKP  08 44 02.7 +1.8
      comp=Z,0.2nm,0.4s
MAKZ                              ⇑Lg     Lg     08 44 39.0
      comp=Z,0.2nm,0.5s
MAKZ  Makanchi          60.99 338  P      P      08 37 01.7 -0.8
MAKZ                               pmax   pmax
      comp=Z,14nm,0.8s
MAKZ  Makanchi          60.99 338         P      08 37 01.7 -0.8
MAKZ                               IAmb   IAmb   08 37 02.8
      comp=Z,14nm,0.8s
MAKZ  Makanchi          60.99 338  P      P      08 37 01.9 -0.7
      comp=Z,19nm,0.7s
MAKZ  Makanchi          60.99 338  P      P      08 37 01.7 -0.8
FRU1  Bishkek           61.01 330  P      P      08 37 01.6 -1.1
FRU1                               pmax   pmax
      comp=Z,65nm,0.5s
FRU1  Bishkek           61.01 330  P      P      08 37 01.6 -1.1
KUU   Kurty             61.01 332 eP      P      08 37 01.9 -0.8
KUU                                pmax   pmax
      comp=Z,7.0nm,0.7s
KUU   Kurty             61.01 332 eP      P      08 37 02.0 -0.8
      comp=Z,7.1nm,0.7s
BTK   Batken            61.04 326  P      P      08 37 02.5 -0.6
BTK                                pmax   pmax
      comp=Z,15nm,0.7s
BTK   Batken            61.04 326  P      P      08 37 02.5 -0.6
BTK                                IAmb   IAmb   08 37 03.0
      comp=Z,15nm,0.7s
BTK   Batken            61.04 326  P      P      08 37 02.2 -0.8
      comp=Z,22nm,0.8s
EKS2  Erkin-Say         61.32 330  P      P      08 37 04.8 -0.2
      SNR=22
USP   Ospenovka         61.41 330  P      P      08 37 04.6 -0.9
      SNR=8.4
SGDS  Sogindy           61.49 331 eP      P      08 37 05.2 -0.8
      comp=Z,8.1nm,0.8s
WKZ   Wanaka            61.51 137  P      P      08 37 05.2 -1.0
ARK   Arkit             61.63 328  P      P      08 37 06.2 -0.8
ARK   Arkit             61.63 328  P      P      08 37 06.2 -0.8
YSS   Yuzhno-Sakhali    62.30  24 eP      P      08 37 10.6 -0.6
YSS                                pmax   pmax
      comp=Z,30nm,0.8s
YSS   Yuzhno-Sakhali    62.30  24  P      P      08 37 11.1 -0.2
H04N2 CROZET ISLANDS    62.48 222  T      T      09 44 59.2
      baz=71,slow=75,SNR=19
H04N1 CROZET ISLANDS    62.49 222  T      T      09 45 11.4
      baz=71,slow=75,SNR=20
H04N3 CROZET ISLANDS    62.50 222  T      T      09 45 10.1
      baz=71,slow=75,SNR=16
DZA   Taraz             62.74 328 eP      P      08 37 13.6 -0.7
DZA   Taraz             62.74 328 eP      P      08 37 13.6 -0.7
UOSS  Minazif           62.87 304  P      P      08 37 13.7 -1.8
UOSS                               IAmb   IAmb   08 37 17.2
      comp=Z,7.8nm,0.6s
UOSS  Minazif           62.87 304  P      P      08 37 16.7 +1.2
      comp=Z,14nm,0.7s
UOSS  Minazif           62.87 304  P      P      08 37 16.4 +0.9
UOSS                               pP     pP     08 37 43.5 +3.4
HRA   Herat             62.88 316  P      P      08 37 14.2 -1.5
CHM   Chimkent          63.26 327 eP      P      08 37 17.1 -0.6
CHM                                pmax   pmax
      comp=Z,5.0nm,0.3s
CHM   Chimkent          63.26 327 eP      P      08 37 17.2 -0.6
      comp=Z,5.3nm,0.3s
KK31  Karatay Array     63.31 328  P      P      08 37 17.0 -1.1
KK31                               pmax   pmax
      comp=Z,9.0nm,1.2s
KK31  Karatay Array     63.31 328  P      P      08 37 17.0 -1.1
KK31                               IAmb   IAmb   08 37 19.3
      comp=Z,8.9nm,1.1s
KKAR  Karatay Array     63.31 328  P      P      08 37 16.8 -1.3
KKAR  Karatay Array     63.31 328         P      08 37 16.8 -1.3
BRLS  Boroldav          63.62 328 eP      P      08 37 18.9 -1.2
BRLS  Boroldav          63.62 328 eP      P      08 37 19.0 -1.2
ZEA   Zeya              63.78  11 eP      P      08 37 20.9  0.0
ZEA                                pmax   pmax
      comp=N,20nm,1.0s
ZEA                                pmax   pmax
      comp=Z,20nm,0.7s
SEM   Semipalatinsk     64.63 339 eP      P      08 37 25.8 -1.0
SEM                                pmax   pmax
      comp=Z,12nm,0.9s
SEM   Semipalatinsk     64.63 339 eP      P      08 37 25.9 -1.0
      comp=Z,12nm,0.9s
KURBB Kurchatov Arra    65.43 338  P      P      08 37 31.2 -0.5
      comp=Z,12nm,0.7s,baz=153,slow=5.3,SNR=78
KURBB                              LR     LR     09 09 06.3
      comp=Z,23nm,19.2s,baz=186,slow=39
      comp=Z,12nm,0.7s
KURBB Kurchatov Arra    65.43 338  P      P      08 37 30.5 -1.2
KURK  Kurchatov         65.48 338 eP      P      08 37 31.4 -0.5
KURK                               pmax   pmax
      comp=Z,23nm,0.9s
KURK  Kurchatov         65.48 338  P      P      08 37 31.6 -0.4
KURK  Kurchatov         65.48 338  P      P      08 37 31.5 -0.5
      comp=Z,35nm,0.8s
KURK  Kurchatov         65.48 338  P      P      08 37 31.3 -0.7
ZAA0  Zalesovo Array    66.22 344  P      P      08 37 35.8 -0.9
ZAA0                               IAmb   IAmb   08 37 36.6
      comp=Z,22nm,0.8s
ZALV  Zalesovo Beam     66.22 344  P      P      08 37 35.7 -1.0
      comp=Z,22nm,0.7s,baz=152,slow=4.6,SNR=93
ZALV                               LR     LR     09 07 11.8
      comp=Z,23nm,20.1s,baz=123,slow=36
      comp=Z,22nm,0.7s
CCD   Concordia, Ant    66.70 177  P      P      08 37 41.0 +1.0
MAW   Mawson            66.85 198  P      P      08 37 41.3 +0.8
      comp=Z,3.2nm,0.9s,baz=63,slow=6.0,SNR=7.2
      comp=Z,3.2nm,0.9s
MAW   Mawson            66.85 198  P      P      08 37 41.1 +0.6
MAW   Mawson            66.85 198  P      P      08 37 41.4 +0.8
      comp=Z,0.9nm,1.0s
BVAR  Borovoye Array    70.49 335  P      P      08 38 02.8 -0.6
      comp=Z,9.3nm,0.6s,baz=141,slow=8.4,SNR=34
      comp=Z,9.3nm,0.6s
BORK  Borovoye          70.53 335 i P     P      08 38 03.1 -0.5
BORK                               pmax   pmax
      comp=Z,11nm,0.9s
BORK  Borovoye          70.53 335  P      P      08 38 03.0 -0.7
BORK                               IAmb   IAmb   08 38 04.3
      comp=Z,10nm,0.8s
YAK   Yakutsk           72.07   9ceP      P      08 38 12.3 -0.3
YAK                                pmax   pmax
      comp=Z,48nm,0.8s
YAK   Yakutsk           72.07   9  P      P      08 38 12.6  0.0
YAK                                PcP    PcP    08 38 30.9 +0.3
AB31  Akbulak array     72.88 328  P      P      08 38 16.7 -1.0
AB31  Akbulak array     72.88 328  P      P      08 38 17.5 -0.2
AB31                               IAmb   IAmb   08 38 19.1
      comp=Z,31nm,0.8s
ABKAR Akbulak array     72.88 328  P      P      08 38 17.6 -0.2
PEA0B Petropavlovsk-    73.32  27  P      P      08 38 20.4 +0.1
PEA0B                              pmax   pmax
      comp=Z,31nm,1.3s
PEA0B Petropavlovsk-    73.32  27  P      P      08 38 20.4 +0.1
PEA0B                              IAmb   IAmb   08 38 44.8
      comp=Z,31nm,1.3s
PETK  Petropavlovsk-    73.32  27  P      P      08 38 20.0 -0.3
      comp=Z,4.7nm,0.5s,baz=267,slow=1.4,SNR=18
PETK                               pP     pP     08 38 43.6 -2.0
      comp=Z,1.8nm,0.6s,baz=2.0,slow=1.3,SNR=2.0
PETK                               LR     LR     09 09 02.7
      comp=Z,34nm,21.9s,baz=107,slow=34
      comp=Z,4.7nm,0.5s
PETK  Petropavlovsk-    73.32  27  P      P      08 38 20.1 -0.1
VNDA  Vanda             73.58 170  P      P      08 38 22.2 +0.7
      comp=Z,2.7nm,0.6s,baz=313,slow=6.1,SNR=20
      comp=Z,2.7nm,0.6s
VNDA  Vanda             73.58 170  P      P      08 38 21.9 +0.4
VNDA  Vanda             73.58 170  P      P      08 38 21.1 -0.4
      comp=Z,6.1nm,1.2s
VNDA  Vanda             73.58 170  P      P      08 38 22.1 +0.7
VNDA                               pP     pwP    08 38 49.4 -0.7
PET   Petropavlovsk     73.70  28 eP      P      08 38 22.8 +0.3
PET   Petropavlovsk     73.70  28  P      P      08 38 22.8 +0.3
PET                                IAmb   IAmb   08 38 24.2
      comp=Z,27nm,1.4s
PET   Petropavlovsk     73.70  28  P      P      08 38 22.6 +0.1
AKTO  Aktyubinsk        74.58 328  P      P      08 38 28.1 +0.4
SBA   Scott Base        74.64 170  P      P      08 38 28.4 +0.8
SBA                                pmax   pmax
      comp=Z,3.0nm,0.8s
SBA   Scott Base        74.64 170  P      P      08 38 28.4 +0.8
SBA   Scott Base        74.64 170  P      P      08 38 29.3 +1.7
      comp=Z,6.4nm,2.6s
SBA   Scott Base        74.64 170  P      P      08 38 29.3 +1.7
MA2   Magadan           75.18  20deP      P      08 38 31.2 +0.3
MA2                                pmax   pmax
      comp=Z,11nm,0.9s
MA2   Magadan           75.18  20  P      P      08 38 32.0 +1.1
MA2                                IAmb   IAmb   08 38 32.3
      comp=Z,12nm,0.8s
MA2   Magadan           75.18  20  P      P      08 38 30.9  0.0
      comp=Z,24nm,0.9s
MA2   Magadan           75.18  20  P      P      08 38 31.3 +0.4
      comp=Z,22nm,0.9s
MA2   Magadan           75.18  20  P      P      08 38 31.1 +0.2
MA2                                pP     pP     08 38 58.6 +2.2
POGA  Pongola           76.42 244  P      P      08 38 40.8 +2.0
      comp=Z,40nm,1.9s
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ARTI   Arti              77.91 333c iP      P         08 38 46.4  0.0
ARTI                               *PP     pP        08 39 09.4 -2.5
ARTI                               S       S         08 48 32.6 +1.2
ARTI                               SS      SS        08 53 30.8 -3.7
ARTI                               pmax    pmax
       comp=Z,11nm,0.6s
ARTI   Arti              77.91 333                 P         08 38 45.6 -0.8
ARTI                               IAmb    IAmb      08 38 47.4
       comp=Z,19nm,0.7s
ARTI   Arti              77.91 333  P       P         08 38 46.1 -0.3
ARTI                               x       x         08 39 11.6
SEY    Seymchan          78.22  18ceP       P         08 38 46.4 -1.6
SEY                                pmax    pmax
       comp=Z,11nm,1.3s
NRIK   Noril'sk          79.57 352  P       P         08 38 54.9 -0.3
       comp=Z,4.1nm,0.8s,baz=181,slow=3.6,SNR=4.2
       comp=Z,4.1nm,0.8s
NRIK   Noril'sk          79.57 352 i P      P         08 38 54.1 -1.1
NRIK                               pmax    pmax
       comp=Z,6.0nm,1.1s
NRIK   Noril'sk          79.57 352  P       P         08 38 55.2  0.0
KBZ    Khabaz            80.50 317  P       P         08 38 60.0 -0.8
       comp=Z,3.8nm,0.9s,baz=204,slow=8.7,SNR=5.1
       comp=Z,3.8nm,0.9s
KBZ    Khabaz            80.50 317ceP       P         08 39 00.9 +0.2
KBZ                                pmax    pmax
       comp=Z,4.0nm,0.9s
LSZ    Lusaka            80.70 256  P       P         08 39 03.8 +1.1
       comp=Z,6.1nm,1.2s
KIV    Kislovodsk        80.72 317 eP       P         08 39 01.8 -0.3
KIV                                pmax    pmax
       comp=Z,5.0nm,1.0s
TIXI   Tiksi             81.11   6  LR      LR        09 17 34.7
       comp=Z,26nm,18.1s,baz=20,slow=38
TIXI   Tiksi             81.11   6ceP       P         08 39 03.2 -0.2
TIXI                               pmax    pmax
       comp=Z,15nm,0.8s
TIXI   Tiksi             81.11   6          P         08 39 03.3 -0.2
TIXI                               IAmb    IAmb      08 39 03.8
       comp=Z,18nm,0.9s
BELG   Belogornoye       81.16 326 i P      P         08 39 03.8 -0.3
BELG                               pmax    pmax
       comp=Z,3.0nm,0.9s
QSPA   South Pole Qui    81.25 180  P       P         08 39 05.3 +0.7
       comp=Z,8.8nm,0.9s,baz=196,slow=0.1,SNR=33
       comp=Z,8.8nm,0.9s
QSPA   South Pole Qui    81.25 180  P       P         08 39 04.3 -0.3
QSPA                               IAmb    IAmb      08 39 06.4
       comp=Z,18nm,1.2s
QSPA   South Pole Qui    81.25 180  P       P         08 39 05.5 +0.9
       comp=Z,15nm,1.1s
QSPA   South Pole Qui    81.25 180  P       P         08 39 05.3 +0.7
QSPA                               pP      pwP       08 39 32.7 -1.0
BOSA   Boshof            82.02 242  P       P         08 39 10.4 +1.0
       comp=Z,2.1nm,0.5s,baz=126,slow=5.1,SNR=7.1
       comp=Z,2.1nm,0.5s
BOSA   Boshof            82.02 242  P       P         08 39 08.1 -1.3
LBTB   Lobatse           82.07 246  P       P         08 39 11.1 +1.4
       comp=Z,15nm,2.3s
LBTB   Lobatse           82.07 246  P       P         08 39 10.4 +0.7
KIRV   Kirov             83.17 332ceP       P         08 39 15.0 +0.6
BR131  Keskin Array S    85.83 311 i P      P         08 39 27.6 -0.9
BR131  Keskin Array S    85.83 311  P       P         08 39 27.0 -1.5
BR131                              IAmb    IAmb      08 39 38.9
       comp=Z,8.2nm,1.1s
BRTR   Keskin Array B    85.83 311  P       P         08 39 30.4 +1.9
       comp=Z,4.7nm,0.9s,baz=126,slow=6.3,SNR=18
BRTR                               pP      pP        08 39 52.8 -1.6
       comp=Z,3.4nm,0.8s,baz=135,slow=7.3,SNR=5.5
       comp=Z,4.7nm,0.9s
BRTR   Keskin Array B    85.83 311ceP       P         08 39 30.6 +2.1
BRTR                               pmax    pmax
       comp=Z,5.0nm,0.9s
BRTR   Keskin Array B    85.83 311  P       P         08 39 27.5 -1.0
BR105  Keskin Array S    85.84 311  P       P         08 39 29.6 +1.0
       comp=Z,61nmcomp=Z,7.4nm,0.9s
BILL   Bilibino          85.93  18 i P      P         08 39 27.0 -1.2
BILL                               pmax    pmax
       comp=Z,5.0nm,1.2s
TROLL  Troll, Antarti    87.30 197 ⇓P       P         08 39 36.7 +1.6
       comp=Z,108nm,0.6s
MOS    Moscow            87.89 327 eP       P         08 39 38.7 +0.8
OBN    Obninsk           88.26 326ceP       P         08 39 39.2 -0.4
OBN                                e                  08 40 03.0
OBN                                e                  08 43 06.8
OBN                                pmax    pmax
       comp=Z,12nm,0.8s
KLMR   Klimovskoe        88.67 332 eP       P         08 39 39.7 -1.7
KLMR                               pmax    pmax
       comp=Z,23nm,1.4s
SNAA   Sanae             88.99 197 ⇓P       P         08 39 44.4 +1.4
       comp=Z,259nm,0.8s
SNAA   Sanae             88.99 197  P       P         08 39 44.6 +1.6
       comp=Z,9.7nm,0.7s,baz=122,slow=4.5,SNR=20
       comp=Z,9.7nm,0.7s
SNAA   Sanae             88.99 197ceP       P         08 39 43.1 +0.1
SNAA                               pmax    pmax
       comp=Z,7.0nm,1.0s
SNAA   Sanae             88.99 197  P       P         08 39 42.8 -0.2
SNAA                               IAmb    IAmb      08 39 45.4
       comp=Z,9.2nm,0.7s
SNAA   Sanae             88.99 197  P       P         08 39 44.6 +1.6
       comp=Z,16nm,0.9s
YLV    Yalova            89.20 311  P       P         08 39 44.1 -0.5
WIN    Windhoek          90.11 247  P       P         08 39 51.5 +2.1
       comp=Z,23nm,2.0s
VNA2   Neumayer--Watz    90.64 197 ⇓P       P         08 39 52.1 +1.4
       comp=Z,4.5nm,0.8s,baz=114,slow=4.3
VNA2   Neumayer--Watz    90.64 197  P       P         08 39 52.3 +1.7
       comp=Z,10nm,0.9s
VNA1   Neumayer--Stat    91.02 197 ⇓P       P         08 39 54.1 +1.8
       comp=Z,5.3nm,1.0s
VNA3   Neumayer Olymp    91.11 196 ⇓P       P         08 39 54.1 +1.3
       comp=Z,2.6nm,0.7s
VNA3   Neumayer Olymp    91.11 196  P       P         08 39 54.2 +1.3
       comp=Z,5.2nm,1.1s
AK10   Malin Array Si    91.39 321  P       P         08 39 54.3 -0.1
BELA   Belgrano 2        91.41 187  P       P         08 39 53.5 -0.6
BELA                               IAmb    IAmb      08 39 55.8
       comp=Z,4.8nm,0.8s
AK05   Malin Array Si    91.42 321  P       P         08 39 54.8 +0.2
AKASG  Malin Array Be    91.43 321  P       P         08 39 55.2 +0.6
       comp=Z,0.5nm,0.5s,baz=87,slow=4.4,SNR=4.1
       comp=Z,0.5nm,0.5s
AKASG  Malin Array Be    91.43 321  P       P         08 39 54.5 -0.1
AKBB   Malin Array Si    91.43 321 i P      P         08 39 54.0 -0.6
AKBB                               pmax    pmax
       comp=Z,3.0nm,0.9s
AK01   Malin Array Si    91.43 321  P       P         08 39 54.8 +0.2
LUBAR  Lubar, Ukraine    92.19 320  P       P         08 39 58.4 +0.2
MNK    Minsk             92.98 325 i P      P         08 40 02.4 +0.8
MNK                               i *PP     pP        08 40 28.8 +1.0
MNK                               i                   08 43 46.8
MNK                               i PPP     PPP       08 45 47.3
MNK                               i S       SKSac     08 50 26.8 +0.4
MNK                               i PS      PnS       08 52 27.2 +0.4
MNK                               i SS      SS        08 57 22.2 +6.4
MNK                               i SSS     SSS       09 01 00.2
MNK                                pmax    pmax
       comp=E,15nm,0.8s
MNK                                pmax    pmax
       comp=N,36nm,0.9s
MNK                                pmax    pmax
       comp=Z,8.0nm,0.7s
MNK                                MLR     MLR
       comp=E,2µm,19.0s
MNK                                MLR     MLR
       comp=N,1µm,20.0s
MNK                                MLR     MLR
       comp=Z,266nm,21.0s
MNK    Minsk             92.98 325 i P      P         08 40 02.5 +0.8
       comp=E,15nm,0.8s
MNK                               i P       P         08 40 02.5 +0.8
       comp=N,36nm,0.9s
MNK                               i P       P         08 40 02.5 +0.8
       comp=Z,8.0nm,0.7s,baz=100
MNK                               i pP      pP        08 40 28.9 +1.0
MNK                               i PP      PP        08 43 46.8 +1.1
MNK                               i PPP     PPP       08 45 47.3
MNK                               i S       SKSac     08 50 26.8 +0.4
MNK                               i sS      ScS       08 51 14.7  +14
MNK                               i PS      PnS       08 52 27.2 +0.4
MNK                               i SS      SS        08 57 22.3 +6.4
MNK                               i SSS     SSS       09 01 00.2
MNK                               i LR      LR        09 23 08.7
```

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MNK                               i LRM     MLR       09 24 39.8
       comp=E,2µm,19.0s
MNK                               i LRM     MLR       09 24 41.7
       comp=N,1µm,19.7s
VOIR                     93.22 315  P       P         08 40 07.4 +4.3
       comp=Z,9.6nm,0.7s
APA    Apatity           93.26 338 eP       P         08 40 03.3 +0.6
APA                               e*PP      pP        08 40 29.3 +0.4
APA                               e                   08 43 48.5
APA                                pmax    pmax
       comp=Z,4.0nm,1.1s
APA                                MLR     MLR
       comp=Z,957nm,5.1s
SRS    Serrai            93.62 311  P       P         08 40 04.2 -0.7
       comp=Z,14nm,1.4s
RNPP9  Sopachiv          93.63 321  P       P         08 40 04.7  0.0
FINES  FINESS Array B    95.11 331  P       P         08 40 12.1 +0.8
       comp=Z,6.4nm,1.0s,baz=123,slow=7.0,SNR=6.6
FINES                              LR      LR        09 30 20.0
       comp=Z,40nm,18.8s,baz=234,slow=40
       comp=Z,6.4nm,1.0s
FINES  FINESS Array B    95.11 331 i P      P         08 40 14.1 +2.8
FINES                              pmax    pmax
       comp=Z,5.0nm,1.0s
FINES  FINESS Array B    95.11 331  P       P         08 40 11.0 -0.2
ARCES  ARCESS Array B    96.49 339  P       P         08 40 17.0 -0.5
       comp=Z,1.3nm,0.9s,baz=91,slow=6.1,SNR=3.6
       comp=Z,1.3nm,0.9s
ARCES  ARCESS Array B    96.49 339  P       P         08 40 17.2 -0.3
ARCES                              pmax    pmax
       comp=Z,10.0nm,1.5s
ARCES  ARCESS Array B    96.49 339  P       P         08 40 17.2 -0.3
ARCES                              IAmb    IAmb      08 40 26.5
       comp=Z,10nm,1.4s
YKA    Yellowknife Ar   117.11  22  PKP     PKPdf     08 45 32.4 -0.3
       comp=Z,0.5nm,0.8s,baz=318,slow=0.3,SNR=4.5
YKA                                pPKP    pPKPdf    08 45 57.2 -2.6
       comp=Z,0.6nm,0.7s,baz=354,slow=1.9,SNR=3.6
NV11   Mina Array Sit   127.08  48          PKPdf     08 45 51.3 -1.5
PDAR   Pinedale Array   131.04  39  PKP     PKPdf     08 46 00.7 +0.4
       comp=Z,0.4nm,0.8s,baz=337,slow=3.6,SNR=2.4
PDAR                               SKPbc   SKPbc     08 49 15.7 -0.3
       comp=Z,1.5nm,0.9s,baz=281,slow=2.4,SNR=7.9
TXAR   Lajitas Array    141.71  53  PKP     PKPdf     08 46 19.5 -0.8
       comp=Z,0.3nm,0.7s,baz=18,slow=1.5,SNR=2.2
CPUP   Villa Florida    143.29 198  PKP     PKPbc     08 46 21.3 +1.0
       comp=Z,1.7nm,0.6s,baz=163,slow=2.9,SNR=6.2
LONY   Lake Ozonia      143.95   7  PKPdf   PKPbc     08 46 22.7 +0.9
R40A   Maddies Statio   143.97  32  PKPdf   PKPbc     08 46 22.1 +0.1
EMMW   East Machias     144.14 358  PKPdf   PKPbc     08 46 23.1 +0.8
BRDY   Brady            144.31  47  PKPdf   PKPbc     08 46 23.6 +0.3
CCM    Cathedral Cave   144.67  31  PKIKP   PKPab     08 46 24.1 +0.1
CCM    Cathedral Cave   144.67  31  PKPdf   PKPab     08 46 24.1 +0.1
N47A   Urbana           144.79  22  PKPbc   PKPab     08 46 24.5 +0.2
I62A   Tamworth         144.95   3  PKPbc   PKPab     08 46 24.1 -0.8
O48B   Farmland         145.53  22  PKPbc   PKPdf     08 46 26.8 +0.3
OLIL   Olney            145.63  27  PKPdf   PKPdf     08 46 25.6 -1.1
FCAR   Ozark Folk Cen   145.81  34  PKPbc   PKPdf     08 46 27.6 +0.5
O49A   Covington        145.89  21  PKPbc   PKPdf     08 46 27.7 +0.6
L56A   Greenwood        145.93  11  PKPbc   PKPbc     08 46 28.2 +0.1
PBMO   Poplar Bluff     146.06  31  PKPbc   PKPdf     08 46 27.6 +0.1
P48A   Milroy           146.12  23  PKPbc   PKPbc     08 46 28.9 +0.2
BDFB   Brasilia         147.97 221  PKPbc   PKPbc     08 46 35.4 +0.7
       comp=Z,3.9nm,0.8s,baz=181,slow=8.7,SNR=5.1
```

HLW ***10*** *08:40:00.8, 27°.81N×34°.28E, h10^{km}±1^{km}, Md3.0, Ml3.0*
SGS ***10*** *08:40:01.8, 27°.89N×34°.47E, h17^{km}, Ml2.5*
GII ***10*** *08:40:03.9±0.0, 27°.709N±0°.002×34°.961E±0°.001,*
h0^{km}, Mws3.6, confirmed
ISC 10 08:39:59.7±1.3**, 27°.77N**±0°.04×**34°.40E**±0°.03**, h7**^{km}±11^{km}**,**
n44, σ**1^{s}48**/55**, 5D, Red Sea**

```
Code   Station Name       Δ°   AZ°     Phase ID           Time     Res
                                      Op      ISC         h  m  s   ISC
TR1    Tor 1              0.46 301 ⇑P      Pg        08 40 08.3 -0.4
RSHS                      0.63  33  P      Pg        08 40 11.6 -0.4
RSHS                                S      Sg        08 40 19.8 -0.4
KRABS  KRABS              0.82  66  P      Pg        08 40 15.0 -0.5
KRABS                               S      Sg        08 40 25.1 -1.2
TR2    Tor 2              0.86 316 ⇓P      Pg        08 40 15.0 -1.2
AYUS   `Aynunah           0.87  61  P      Pg        08 40 15.7 -0.9
BDAS   Al Bad`            0.90  43  P      Pg        08 40 15.6 -1.4
HHRG   Al Ghardaqah       0.92 234 ⇓P      Pg        08 40 19.0 +1.6
MWLHS  Almuwaylih         0.99  91  P      Pg        08 40 18.7  0.0
HRDS   Abu Rudays         1.35 314 ⇓P      Pn        08 40 23.6 -1.5
HAQS   Haql               1.36  20  P      Pn        08 40 22.5 -2.6
JLOS                      1.36  45  P      Pn        08 40 22.9 -2.4
HBST   Basata             1.47  11 ⇓P      Pn        08 40 26.5 -0.2
HBST                                S      Sn        08 40 43.9 -2.4
GRB    Gharib             1.51 290 ⇑P      Pn        08 40 25.5 -1.8
SHQRE  Shigry             1.57  85  P      Pn        08 40 27.7 -0.5
DESA   DESA               1.58  99  P      Pn        08 40 27.2 -1.1
HQLS                      1.63  21  P      Pn        08 40 26.7 -2.3
ELOT   Eilot              1.87  15  P      Pg        08 40 36.9 +1.2
EIL    Elat               1.96  14  P      Pb        08 40 36.8 +1.1
EIL                                 AML    AML
EIL                                 AML    AML
EIL    Elat               1.96  14  P      Pb        08 40 37.3 +1.6
EIL                                 S      Sg        08 41 03.2 +0.6
BEOR   Beer Ora           2.00  15  P      Pg        08 40 38.4 +0.3
BEOR                                S      Sg        08 41 04.1  0.0
AQBJ   Aqaba              2.03  16  P      Pb        08 40 37.9 +0.9
AQBJ                                AML    AML
AQBJ                                AML    AML
ELFZ   Elifaz             2.09  15  P      Pg        08 40 39.9  0.0
SAMR   Samar              2.13  15  P      Pb        08 40 40.5 +1.8
ZAF    Zafarana           2.22 313  P      Pn        08 40 35.9 -1.1
HRFI   Mount Harif        2.33  14  P      Pb        08 40 41.8 -0.3
HRFI                                AML    AML
HRFI                                AML    AML
HRFI   Mount Harif        2.33  14  P      Pb        08 40 43.2 +1.2
HRFI                                S      Sg        08 41 13.5 -1.1
URD12  Shuwaq             2.35  90  P      Pn        08 40 39.1 +0.1
YAHL   Yahel              2.39  15  P      Pb        08 40 44.2 +1.0
SUZ    Suez               2.48 327  P      Pn        08 40 40.0 -0.6
ASUT                      2.55 262 ⇑P      Pn        08 40 40.9 -0.6
EWJHS  Al Wajh            2.57 128  P      Pn        08 40 41.5 -0.3
PRNI   Paran              2.63  11  P      Pb        08 40 48.4 +1.2
PRNI                                S      Sg        08 41 23.7 -0.5
PRNI                                AML    AML
PRNI                                AML    AML
HSNJ   Maan               2.72  24  P      Pn        08 40 45.3 +1.3
HSNJ                                AML    AML
HSNJ                                AML    AML
ZUKM   Zukim              2.79  14  P      Pb        08 40 49.9 -0.1
ZUKM                                S      Sb        08 41 24.8 +0.4
RMNI   Mount Ramon        2.84   6  P      Pb        08 40 50.8  0.0
RMNI                                S      Sb        08 41 27.2 +1.5
NBNS   Bani Suef          2.87 288 ⇑P      Pn        08 40 45.3 -0.6
NBNS                                S      Sn        08 41 19.5 -1.3
MSPR   Moshav SAPIR       2.92  13  P      Pb        08 40 51.6 -0.5
TAMRE  El Minia           3.09 269 ⇓P      Pn        08 40 48.3 -0.7
KZIT   Kziot              3.13 360  P      Pb        08 40 56.3 +0.6
KZIT                                AML    AML
KZIT                                AML    AML
KZIT   Kziot              3.13 360  P      Pb        08 40 55.7 +0.1
KZIT                                S      Sb        08 41 35.8 +1.7
LISJ   El Lisan           3.58  15  P      Pn        08 40 59.7 +4.0
LISJ                                AML    AML
LISJ                                AML    AML
MSBI   Mazada             3.63  13  P      Pn        08 40 59.4 +3.1
MSBI                                AML    AML
MSBI                                AML    AML
GHAJ   Ghor Haditha       3.67  16  P      Pn        08 41 01.2 +4.4
GHAJ                                AML    AML
GHAJ                                AML    AML
RYAN   Fayoum             3.86 291  P      Pn        08 40 59.4 -0.2
```

JMA ***10*** *08:42:44.9±0.2, 43°.1N±0°.7×142°.8E±0°.8, h154^{km}±1^{km},*
MV2.9/40, TAISETSU MOUNTAINS REG
IDC ***10*** *08:42:44.9±0.9, 43°.17N×142°.81E, h157^{km}±6^{km}, mb3.3/12,*
mbtmp3.7/13, MS3.1/1, Error ellipse: s-maj=18.9km
s-min=15.4km az=106.0
ISC 10 08:42:44.5±0.7**, 43°.11N**±0°.05×**142°.87E**±0°.05**, h156**^{km}±5^{km}**,**
n32, σ**0^{s}70**/39**, mb3.4**/12**, Hokkaido region**

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Code   Station Name       Δ°   AZ°     Phase ID           Time     Res
                                      Op      ISC         h  m  s   ISC
JFR    Furan              0.21 286  S      Sn        08 43 21.4 -0.3
JBT2   Biratori 2         0.50 229  P      Pn        08 43 06.8 +0.2
JBT2                                S      Sn        08 43 23.3 -0.1
JCH    Churui             0.61 144  P      Pn        08 43 07.2  0.0
JCH                                 S      Sn        08 43 23.8 -0.6
JAB    Ashibetsu          0.62 310  P      Pn        08 43 07.2  0.0
JAR    Ashorobuto         0.68  74  P      Pn        08 43 07.8 +0.3
JKK2   Kamakawa 2         0.77 353  P      Pn        08 43 08.4 +0.3
JNBK   Urakawa-nobuka     0.83 186  P      Pn        08 43 09.5 +0.9
ASAJ   Asahikawa          1.03 349  P      Pn        08 43 10.3 +0.2
       134nm,0.6s,baz=208,slow=10,SNR=36
ASAJ                                S      Sn        08 43 29.5 -0.3
       28nm,0.4s,baz=217,slow=20,SNR=2.7
JHR    Hokuryu            1.05 308  P      Pn        08 43 10.4 +0.1
JHR                                eS      Sn        08 43 30.2 +0.1
JEW    Eniwo              1.08 256  P      Pn        08 43 10.6  0.0
JEW                                eS      Sn        08 43 29.9 -0.5
JTKR   Abashiri--Toko     1.15  41  P      Pn        08 43 11.5 +0.4
JAK    Akkeshi            1.34  94  P      Pn        08 43 12.9  0.0
JAK                                 S      Sn        08 43 34.8 +0.1
JSS    Shosan             1.49 331  P      Pn        08 43 14.7 +0.3
JRA    Rausu              1.83  62  P      Pn        08 43 19.0 +0.9
JSE    Soyaes             1.86 354  P      Pn        08 43 18.4  0.0
NEM2   Nemuro 2           2.11  82  P      Pn        08 43 20.9 -0.3
NEM2                               eS      Sn        08 43 47.9 -1.7
JOT    Ohata              2.19 219  P      Pn        08 43 22.1 -0.2
JOT                                 S      Sn        08 43 50.1 -1.2
JWK2   Keihoku            2.32 343 eP      Pn        08 43 24.1 +0.5
MJAR   Matsushiro Arr     7.47 210  P      Pn        08 44 31.5 +0.6
       3.0nm,0.7s,baz=16,slow=14,SNR=10.0
ZALV   Zalesovo Beam     38.90 307  P      P         08 49 52.4 -2.1
       1.0nm,0.6s,baz=78,slow=11,SNR=5.0
       1.0nm,0.6s
MKAR   Makanchi Array    42.11 297  P      P         08 50 22.3 +1.3
       0.5nm,0.8s,baz=64,slow=6.6,SNR=2.9
       0.5nm,0.8s
KURBB  Kurchatov Arra    43.37 303  P      P         08 50 31.1  0.0
       1.1nm,0.5s,baz=72,slow=8.9,SNR=8.0
       1.1nm,0.5s
ILAR   Eielson Array     43.84  36  P      P         08 50 34.7 +0.1
       0.7nm,0.8s,baz=274,slow=7.5,SNR=8.5
       0.7nm,0.8s
BVAR   Borovoye Array    47.48 309  P      P         08 51 03.5 +0.2
       0.7nm,0.3s,baz=58,slow=3.6,SNR=1.8
       0.7nm,0.3s
ARTI   Arti              52.77 316  LR     LR        09 17 33.4
       comp=Z,16nm,19.1s,baz=238,slow=40
YKA    Yellowknife Ar    58.04  32  P      P         08 52 20.8 +0.2
       0.4nm,0.7s,baz=302,slow=7.2,SNR=1.3
       0.4nm,0.7s
WRA    Warramunga Arr    63.23 189  P      P         08 52 56.5 +0.3
       0.5nm,0.9s,baz=6.8,slow=6.9,SNR=6.4
       0.5nm,0.9s
FINES  FINESS Array B    63.99 331  P      P         08 53 00.0 -0.6
       5.1nm,1.0s,baz=50,slow=7.2,SNR=7.3
       5.1nm,1.0s
ASAR   Alice Springs     66.95 189  P      P         08 53 21.1 +1.0
       0.6nm,1.0s,baz=11,slow=6.9,SNR=3.2
       0.6nm,1.0s
HFS    Hagfors           69.03 335  P      P         08 53 32.1 -0.5
       1.2nm,0.6s,baz=44,slow=8.9,SNR=1.3
       1.2nm,0.6s
NVAR   Mina Array Bea    70.53  55  P      P         08 53 42.4 -0.1
       0.1nm,0.5s,baz=308,slow=7.1,SNR=1.6
       0.1nm,0.5s
PDAR   Pinedale Array    72.67  47  P      P         08 53 56.1 +0.8
       0.2nm,0.5s,baz=278,slow=4.8,SNR=2.3
       0.2nm,0.5s
```

HEL 10 08:48:26.5±0.3**, 67°.17N**×**20°.54E, h0**^{km}**, ML1.2,**
Suspected explosion, Sweden

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Code   Station Name       Δ°   AZ°     Phase ID           Time     Res
                                      Op      ISC         h  m  s   ISC
SALU   Saltoluokta        0.82 286 eP      Pb        08 48 43.2 -0.3
ERTU   Ertsjaerv          0.90 133  PG     Pg        08 48 42.7 -0.9
ERTU                                SB     Sg        08 48 54.8 -0.5
LANU   Lannavaara         1.04  32  PG     Pg        08 48 45.5 -1.0
LANU                                SB     Sg        08 49 00.0 +0.1
KLF    Kolari             1.34  86  PG     Pg        08 48 50.2 -1.8
KLF                                 smax   smax      08 49 06.7
       comp=Z,0.9nm,0.2s
KLF                                 SG     Sg        08 49 07.6 -1.7
HEF    Hetta              1.72  42 eP      Pn        08 48 56.4 -1.3
HEF    Hetta              1.72  42  PG     Pn        08 48 57.1 -0.6
       baz=225
HEF                                 smax   smax      08 49 17.8
       comp=Z,1.8nm,0.2s
HEF                                 SG     Sn        08 49 18.8 -1.5
KALU   Kalix              1.73 138  PG     Pn        08 48 57.9 +0.1
       baz=317
KALU                                SN     Sg        08 49 22.7 +0.6
TOF    Tornio             1.86 124  PG     Pn        08 48 59.8 +0.2
TOF                                 smax   smax      08 49 22.2
       comp=Z,1.2nm,0.2s
TOF                                 SG     Sb        08 49 25.0 -0.2
KTK1   Kautokeino         2.11  27  PG     Pn        08 49 04.1 +1.1
KTK1                                SG     Sb        08 49 32.0 -0.3
RNF    Rovaniemi          2.23 102  PG     Pn        08 49 05.4 +0.7
       baz=287
RNF                                 SG     Sb        08 49 35.7 -0.1
TRO    Tromso             2.55 347  SG     Sg        08 49 46.9 -1.3
ARA0   ARCESS Array S     3.01  35  PB     Pn        08 49 18.1 +2.7
ARA0                                SB     Sb        08 49 55.8 -2.2
KEV    Kevo               3.53  40  SN     Sn        08 50 03.8 -0.9
```

HEL 10 08:48:32.8±0.1**, 63°.76N**×**24°.19E, h0**^{km}**, ML1.3,**
Explosion, Finland

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Code   Station Name       Δ°   AZ°     Phase ID           Time     Res
                                      Op      ISC         h  m  s   ISC
OUF    Merijarvi          0.66  21  PG     Pg        08 48 44.9 -0.5
       baz=206
OUF                                 SG     Sg        08 48 53.1 -0.8
OUF                                 smax   smax      08 48 53.6
       comp=Z,2.5nm,0.2s
OBF0   Syolatti, Pyha     0.74   2  PB     Pg        08 48 47.0 -0.1
OBF0                                smax   smax      08 48 56.1
       comp=Z,2.9nm,0.2s
OBF0                                SB     Sg        08 48 56.8 +0.1
VAF    Ylistaro           0.99 224  PB     Pg        08 48 51.2 -0.5
VAF                                 smax   smax      08 49 03.1
       comp=Z,1.8nm,0.2s
VAF                                 SB     Sg        08 49 04.3 -0.2
OBF4   Vikkela, Lumij     1.14  20  smax   smax      08 49 07.3
       comp=Z,2.3nm,0.2s
OBF4                                SB     Sg        08 49 08.7 -0.5
SUF    Sumiainen          1.37 139  PG     Pg        08 48 57.5 -1.5
SUF                                 smax   smax      08 49 14.0
       comp=Z,0.8nm,0.2s
BURU   Burvik             1.48 305  PN     Pn        08 49 00.2 -0.5
       baz=123
BURU                                SN     Sn        08 49 20.8 +0.1
OUL    Oulu               1.53  28  PG     Sn        08 49 20.7 -1.1
OUL    Oulu               1.53  28  SG     Sg        08 49 20.7 -1.1
UMAU   Umeaa              1.56 276  PB     Sn        08 49 22.4 -0.2
UMAU   Umeaa              1.56 276  PN     Pn        08 49 01.3 -0.5
UMAU                                SN     Sn        08 49 22.4 -0.2
KEF    Keuruu             1.62 169  PG     Pn        08 49 02.0 -0.6
       baz=348
KEF                                 smax   smax      08 49 21.5
       comp=Z,1.3nm,0.2s
KEF                                 SN     Sn        08 49 22.7 -1.5
NIF    Nilsia             1.66 101  smax   smax      08 49 22.6
       comp=Z,1.6nm,0.2s
NIF                                 SN     Sn        08 49 24.3 -0.8
KAF    Kangasniemi        1.91 149  PG     Pn        08 49 06.6  0.0
KAF                                 smax   smax      08 49 29.8
       comp=Z,2.6nm,0.2s
KAF                                 SG     Sn        08 49 31.8 +0.5
KALU   Kalix              2.14 351  SG     Sg        08 49 40.6 -0.9
KPF    Kankaanpaa         2.16 208  smax   smax      08 49 36.8
       comp=Z,1.7nm,0.2s
KPF                                 SG     Sb        08 49 39.3 -0.7
HUSU   Husum              2.26 262  SG     Sb        08 49 42.8 -0.1
TOF    Tornio             2.33   1  smax   smax      08 49 41.7
       comp=Z,1.0nm,0.2s
TOF                                 SG     Sb        08 49 44.8 -0.2
FIA0   FINESS Array S     2.48 159  PG     Pn        08 49 15.5 +1.1
FIA0                                smax   smax      08 49 45.9
       comp=Z,1.4nm,0.2s
FIA0                                SG     Sb        08 49 47.3 -1.9
RANF   Ranua              2.52  25  SG     Sb        08 49 49.5 -1.0
RMF    Romuvaara          2.58  77  smax   smax      08 49 48.7
       comp=Z,0.9nm,0.2s
RMF                                 SG     Sb        08 49 50.9 -1.1
```

ERTU	**Ertsjaerv**	**2.93**	**344**	SG	Sb	08 50 04.0	+1.7
RAF	**Rauma**	**2.97**	**203**	smax	smax	08 50 00.1	
	comp=Z,0.9nm,0.2s						
RAF				SG	Sb	08 50 02.6	-0.6
HEMU	**Hemsoen**	**2.99**	**251**	SG	Sb	08 50 03.8	0.0
MSF	**Maaselka**	**3.00**	**42**	SN	Sb	08 50 03.7	-0.4
MSF	**Maaselka**	**3.00**	**42**	SG	Sb	08 50 03.7	-0.4

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*SJA **10** 08:55:00.8±0.7, 30°.50S×72°.33W, h10km±6km, ML3.5, MW3.4*

*GUC **10** 08:55:04.6±0.7, 30°.58S×72°.12W, h22km±4km, ML3.7*

ISC 10 08:55:02.9±1.1**, 30°.62S**±0°.02×**72°.07W**±0°.06**, h10km, n42, σ1ˢ79**/66**, Off coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CO06	**Fray Jorge**	**0.38**	**99**	eP	**Pn**	**08 55 13.1**	**-1.4**
CO06				IAML		08 55 19.2	
	comp=E,6μm,0.1s						
CO02	**Combarbal**	**1.09**	**123**	eP	**Pn**	**08 55 25.3**	**+0.9**
CO02				IAML		08 55 48.4	
	comp=Z,914nm,0.5s						
CO02	**Combarbal**	**1.09**	**123**	eP	**Pn**	**08 55 24.9**	**+0.5**
CO02				i S	**Sn**	**08 55 39.2**	**-0.3**
CO02				IAML		08 55 42.9	
	comp=N,5μm,0.3s						
GO04	**Tololo Observa**	**1.18**	**68**	eP	**Pn**	**08 55 26.6**	**+0.9**
GO04				eS	**Sn**	**08 55 43.6**	**+1.6**
GO04				IAML		08 55 45.1	
	comp=Z,2μm,0.3s						
GO04	**Tololo Observa**	**1.18**	**68**	eP	**Pn**	**08 55 26.4**	**+0.6**
GO04				i S	**Sn**	**08 55 42.2**	**+0.1**
CO04	**Los Peladeros**	**1.70**	**147**	eP	**Pg**	**08 55 35.3**	**-0.3**
CO04				i S	**Sg**	**08 55 57.4**	**-0.3**
CO04				IAML		08 56 05.0	
	comp=N,1μm,0.2s						
CO01	**Juntas del Tor**	**1.82**	**70**	eP	**Pg**	**08 55 37.2**	**-0.7**
CO01				eS	**Sg**	**08 56 03.6**	**+2.0**
CO01				IAML		08 56 06.0	
	comp=Z,208nm,0.5s						
CO01	**Juntas del Tor**	**1.82**	**70**	eP	**Pg**	**08 55 37.0**	**-0.9**
CO01				i S	**Sg**	**08 56 00.4**	**-1.2**
CO01				IAML		08 56 06.4	
	comp=N,357nm,0.3s						
LCO	**Las Campanas**	**1.99**	**37**	eP	Pn	08 55 26.2	-11
LCO				eS	**Sn**	**08 56 02.2**	**+0.1**
LCO				IAML		08 56 08.4	
	comp=Z,388nm,0.2s						
LCO	**Las Campanas**	**1.99**	**37**	eP	**Pb**	**08 55 38.4**	**-1.1**
LCO				i S	**Sb**	**08 56 04.0**	**-0.5**
LCO				IAML		08 56 11.2	
	comp=Z,2μm,0.4s						
AROD	**Rodeo**	**2.29**	**79**	eP	**Pg**	**08 55 45.5**	**-1.3**
AROD				eS	**Sg**	**08 56 17.3**	**+0.8**
AC05	**El Transito**	**2.36**	**42**	eP	**Pb**	**08 55 44.1**	**-1.6**
AC05				eS	**Sb**	**08 56 12.7**	**-2.3**
AC05				IAML		08 56 26.8	
	comp=Z,170nm,0.6s						
AC05	**El Transito**	**2.36**	**42**	eP	**Pb**	**08 55 44.1**	**-1.6**
AC05				i S	**Sb**	**08 56 14.2**	**-0.8**
AC05				IAML		08 56 23.1	
	comp=E,222nm,0.6s						
VA03	**San Esteban**	**2.50**	**149**	eP	**Pb**	**08 55 47.1**	**-0.9**
VA03				IAML		08 56 26.7	
	comp=Z,319nm,0.5s						
VA03	**San Esteban**	**2.50**	**149**	eP	**Pb**	**08 55 46.7**	**-1.3**
VA03				i S	**Sb**	**08 56 18.8**	**-0.1**
VA03				IAML		08 56 27.6	
	comp=E,684nm,0.6s						
ROCH	**El Roble**	**2.51**	**159**	eP	**Pb**	**08 55 46.6**	**-1.7**
ROCH				eP	**Pb**	**08 55 46.6**	**-1.7**
ROCH				i S	**Sb**	**08 56 19.0**	**-0.4**
ROCH				IAML		08 56 34.2	
	comp=N,531nm,0.5s						
ROCH				IAML		08 56 34.2	
	comp=N,265nm,0.5s						
AC04	**Llanos de Chal**	**2.56**	**20**	eP	**Pn**	**08 55 45.2**	**+0.8**
AC04				IAML		08 56 33.9	
	comp=Z,87nm,0.8s						
ACDV	**Cuesta del Vie**	**2.59**	**81**	eP	**Pb**	**08 55 50.2**	**+0.7**
ACDV				eS	**Sg**	**08 56 26.7**	**+0.6**
ACDV				IAML		08 56 27.8	
	comp=Z,156nm,1.0s						
ACCO	**Cerro Coronel**	**2.59**	**90**	eP	**Pb**	**08 55 50.6**	**+1.0**
ACCO				eS	**Sb**	**08 56 22.6**	**+0.9**
ACCO				IAML		08 56 30.5	
	comp=Z,240nm,1.3s						
RTLS	**Leoncito**	**2.65**	**117**	eP	**Pb**	**08 55 51.6**	**+1.0**
RTLS				eS	**Sg**	**08 56 27.6**	**-0.6**
RTLS				IAML		08 56 32.9	
	comp=Z,363nm,0.7s						
MT02	**Curacav**	**2.75**	**164**	eP	**Pb**	**08 55 49.8**	**-2.4**
MT02				IAML		08 56 37.8	
	comp=Z,140nm,0.3s						
PEL	**Peldehue**	**2.78**	**155**	eP	**Pb**	**08 55 50.9**	**-1.9**
PEL				eS	**Sb**	**08 56 27.9**	**+1.1**
PEL				IAML		08 56 38.2	
	comp=Z,167nm,1.1s						
MT10	**Hacienda Santa**	**2.95**	**154**	eP	**Pb**	**08 55 53.2**	**-2.5**
MT10				IAML		08 56 41.3	
	comp=E,581nm,0.4s						
MT05	**Renca**	**2.99**	**158**	eP	**Pb**	**08 55 55.3**	**-1.0**
MT05				eS	**Sg**	**08 56 36.2**	**-2.7**
MT05				IAML		08 56 45.5	
	comp=Z,142nm,0.7s						
ZON	**Zonda**	**3.05**	**109**	eS	**Sb**	**08 56 35.9**	**+1.1**
ZON				IAML		08 56 49.1	
	comp=Z,87nm,0.5s						
SJA	**San Juan**	**3.14**	**108**	eP	**Pb**	**08 55 57.2**	**-1.7**
SJA				eS	**Sb**	**08 56 38.1**	**+0.7**
SJA				IAML		08 56 49.4	
	comp=Z,90nm,0.4s						
MT03	**Universidad Ad**	**3.16**	**156**	eP	**Pb**	**08 55 56.6**	**-2.7**
MT03				eS	**Sb**	**08 56 35.4**	**-2.4**
MT03				IAML		08 56 49.4	
	comp=Z,171nm,0.6s						
RTLL	**Cerro Villicun**	**3.17**	**104**	eP	**Pb**	**08 55 57.8**	**-1.5**
RTLL				eS	**Sb**	**08 56 38.2**	**+0.2**
RTLL				IAML		08 56 52.3	
	comp=Z,94nm,0.5s						
MT04	**Ro Olivares**	**3.23**	**150**	eP	**Pb**	**08 55 58.5**	**-2.0**
MT04				eS	**Sn**	**08 56 33.5**	**+0.9**
MT04				IAML		08 56 52.9	
	comp=Z,85nm,0.4s						
MT04	**Ro Olivares**	**3.23**	**150**	eP	**Pb**	**08 55 57.2**	**-3.3**
MT04				i S	**Sb**	**08 56 36.5**	**-3.5**
MT01	**Popeta**	**3.31**	**168**	eP	**Pn**	**08 55 57.5**	**+2.6**
MT01				IAML		08 56 52.5	
	comp=Z,79nm,0.5s						
MT01	**Popeta**	**3.31**	**168**	eP	**Pn**	**08 55 57.0**	**+2.2**
GO03	**Copiapo**	**3.41**	**28**	eP	**Pn**	**08 55 58.0**	**+1.6**
GO03				eS	**Sb**	**08 56 48.0**	**+2.9**
GO03				IAML		08 56 57.4	
	comp=Z,99nm,0.8s						
CFA	**Coronel Fontan**	**3.43**	**108**	eP	**Pb**	**08 56 01.7**	**-2.2**
ARCO	**CERRO ARCO**	**3.47**	**130**	eP	**Pb**	**08 56 03.9**	**-0.7**
ARCO				eS	**Sb**	**08 56 49.2**	**+2.2**
AC06	**Mina Casimiro**	**3.58**	**25**	eP	**Pn**	**08 56 00.6**	**+2.1**
LMEL	**Las Melosas**	**3.59**	**154**	eP	**Pn**	**08 56 01.9**	**+3.1**
LMEL				i S	**Sn**	**08 56 45.0**	**+3.7**
AAGR	**Agrelo**	**3.69**	**133**	eS	**Sg**	**08 57 00.9**	**-0.7**
VCA	**Vinchina**	**3.85**	**62**	eP	**Pb**	**08 56 08.1**	**-3.0**
BO02	**Sierra Bellavi**	**4.30**	**166**	eS	**Sb**	**08 57 14.8**	**+4.1**
AC01	**Pan de Azucar**	**4.64**	**17**	IAML		08 57 36.7	
	comp=Z,48nm,1.8s						
TINO	**Tinogasta**	**4.68**	**58**	IAML		08 57 49.1	
	comp=Z,34nm,0.8s						

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*IDC **10** 08:56:03.7±2.2, 42°.44S×172°.77E, h0km, mb3.2/2, mbtmp3.2/2, Error ellipse: s-maj=148.2km s-min=45.4km az=30.0*

*NOU **10** 08:56:08.1, 42°.25S×173°.36E, h69km, MLv4.0/23, South Island, New Zealand*

*WEL **10** 08:56:09.6±0.3, 42°S±3°×17°3E±°, h36km±4km, M3.6/16, ML3.6/16, MLv3.6/16, Error ellipse: s-maj=4.2km s-min=3.2km az=115.3, confirmed*

ISC 10 08:56:09.7±0.9**, 42°.15S**±0°.03×**173°.19E**±0°.03**, h58km**±5km**, n142, σ1ˢ33**/151**, South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MOLW	**Molesworth Sta**	**0.08**	**39**	P	**Pn**	**08 56 17.5**	**-1.1**
MOLW				S	**Sn**	**08 56 23.3**	**-1.7**
LOKS	**Mount Lookout**	**0.26**	**57**	P	**Pn**	**08 56 19.2**	**-0.3**
LOKS				S	**Sn**	**08 56 26.3**	**-0.3**
KHZ	**Kahutara**	**0.37**	**135**	P	**Pn**	**08 56 20.4**	**+0.2**
KHZ	**Kahutara**	**0.37**	**135**	S	**Sn**	**08 56 28.6**	**+0.8**
KHZ	**Kahutara**	**0.37**	**135**	P	**Pn**	**08 56 20.7**	**+0.5**
KHZ				S	**Sn**	**08 56 28.5**	**+0.8**
KHZ				AML	AML		
KHZ				AML	AML		
THZ	**Tophouse**	**0.44**	**332**	P	**Pn**	**08 56 19.3**	**-1.7**
THZ				S	**Sn**	**08 56 25.9**	**-3.3**
THZ				AML	AML		
THZ				AML	AML		
HSES	**Hanmer Springs**	**0.46**	**215**	P	**Pn**	**08 56 21.0**	**0.0**
HSES				S	**Sn**	**08 56 29.0**	**-0.3**
KIKS	**Kaikoura**	**0.46**	**127**	P	**Pn**	**08 56 21.9**	**+0.9**
KIKS				S	**Sn**	**08 56 31.7**	**+2.4**
WTMC	**Te Mara Farm W**	**0.48**	**192**	P	**Pn**	**08 56 21.9**	**+0.6**
WTMC				S	**Sn**	**08 56 30.9**	**+1.2**
BSWZ	**Blackbirch Sta**	**0.67**	**50**	P	**Pn**	**08 56 23.7**	**+0.2**
BSWZ				S	**Sn**	**08 56 34.8**	**+1.1**
BSWZ				AML	AML		
BSWZ				AML	AML		
MRNZ	**Matariki Terra**	**0.82**	**337**	P	**Pn**	**08 56 24.3**	**-1.1**
MRNZ				S	**Sn**	**08 56 35.0**	**-1.8**
MRNZ				AML	AML		
MRNZ				AML	AML		
GVZ	**Greta Valley S**	**0.82**	**188**	P	**Pn**	**08 56 25.8**	**+0.4**
GVZ				AML	AML		
GVZ				AML	AML		
CMWZ	**Cape Campbell**	**0.86**	**63**	P	**Pn**	**08 56 26.9**	**+1.0**
CMWZ				AML	AML		
CMWZ				AML	AML		
TUWZ	**Tuamarina**	**0.92**	**38**	P	**Pn**	**08 56 26.6**	**0.0**
TUWZ				AML	AML		
TUWZ				AML	AML		
LTZ	**Lake Taylor**	**0.93**	**227**	P	**Pn**	**08 56 26.7**	**0.0**
LTZ				AML	AML		
LTZ				AML	AML		
NNZ	**Nelson**	**0.95**	**9**	P	**Pn**	**08 56 26.2**	**-0.7**
NNZ				S	**Sn**	**08 56 39.0**	**-0.7**
NNZ				AML	AML		
NNZ				AML	AML		
AMCZ	**Amberley**	**1.10**	**201**	P	**Pn**	**08 56 29.1**	**+0.2**
AMCZ				AML	AML		
AMCZ				AML	AML		
DSZ	**Denniston Nort**	**1.11**	**291**	P	**Pn**	**08 56 28.2**	**-0.9**
DSZ				AML	AML		
DSZ				AML	AML		
TKNZ	**Takaka Hill**	**1.13**	**351**	P	**Pn**	**08 56 29.0**	**-0.4**
TKNZ				AML	AML		
TKNZ				AML	AML		
TCW	**Tory Channel**	**1.25**	**41**	P	**Pn**	**08 56 30.7**	**-0.1**
TCW				AML	AML		
TCW				AML	AML		
INZ	**Inchbonnie**	**1.41**	**246**	P	**Pn**	**08 56 32.9**	**-0.3**
INZ				AML	AML		
INZ				AML	AML		
SNZO	**South Karori**	**1.41**	**54**	P	**Pn**	**08 56 32.7**	**-0.4**
SNZO	**South Karori**	**1.41**	**54**	S	**Sn**	**08 56 49.1**	**-1.6**
QRZ	**Quartz Range**	**1.42**	**339**	P	**Pn**	**08 56 32.5**	**-0.7**
QRZ	**Quartz Range**	**1.42**	**339**	P	**Pn**	**08 56 32.7**	**-0.5**
QRZ				AML	AML		
QRZ				AML	AML		
OXZ	**Oxford**	**1.45**	**215**	P	**Pn**	**08 56 32.8**	**-0.8**
OXZ				AML	AML		
OXZ				AML	AML		
DUWZ	**D'Urville Isla**	**1.46**	**22**	P	**Pn**	**08 56 33.7**	**-0.1**
DUWZ				AML	AML		
DUWZ				AML	AML		
BHW	**Baring Head**	**1.46**	**60**	P	**Pn**	**08 56 33.4**	**-0.4**
BHW				AML	AML		
BHW				AML	AML		
OKCZ	**Okains Bay**	**1.57**	**183**	P	**Pn**	**08 56 35.5**	**+0.2**
OKCZ				AML	AML		
OKCZ				AML	AML		
MQZ	**McQueen's Vall**	**1.60**	**194**	P	**Pn**	**08 56 34.5**	**-1.2**
MQZ				AML	AML		
MQZ				AML	AML		
PLWZ	**Palliser**	**1.65**	**70**	P	**Pn**	**08 56 35.5**	**-0.9**
MSWZ	**Moikau Station**	**1.71**	**65**	P	**Pn**	**08 56 36.4**	**-0.8**
AKCZ	**Akaroa Harbour**	**1.73**	**187**	P	**Pn**	**08 56 37.0**	**-0.5**
RACZ	**Rakaia**	**1.75**	**206**	P	**Pn**	**08 56 36.8**	**-0.9**
CAW	**Cannon Point**	**1.75**	**54**	P	**Pn**	**08 56 37.2**	**-0.5**
MHCZ	**Mount Hutt**	**1.82**	**220**	P	**Pn**	**08 56 37.5**	**-1.2**
KIW	**Kapiti Island**	**1.83**	**46**	P	**Pn**	**08 56 38.6**	**-0.1**
PAWZ	**Paruwai Farm**	**1.84**	**66**	P	**Pn**	**08 56 38.2**	**-0.8**
MTW	**Mount Morrison**	**2.00**	**61**	P	**Pn**	**08 56 39.9**	**-1.2**
OGWZ	**Otaki Gorge**	**2.00**	**49**	P	**Pn**	**08 56 40.6**	**-0.5**
TRWZ	**Traveller**	**2.02**	**69**	P	**Pn**	**08 56 40.1**	**-1.2**
WVZ	**Waitaha Valley**	**2.03**	**242**	P	**Pn**	**08 56 41.1**	**-0.4**
WACZ	**Wakanui South**	**2.04**	**208**	P	**Pn**	**08 56 40.5**	**-1.2**
HOWZ	**Holdsworth Sta**	**2.15**	**55**	P	**Pn**	**08 56 42.0**	**-1.2**
RPZ	**Rata Peaks**	**2.21**	**224**	P	**Pn**	**08 56 43.0**	**-1.0**
RPZ	**Rata Peaks**	**2.21**	**224**	S	**Sn**	**08 57 09.9**	**-0.3**
RPZ	**Rata Peaks**	**2.21**	**224**	P	**Pn**	**08 56 43.3**	**-0.7**
TMWZ	**Te Maipa**	**2.28**	**64**	P	**Pn**	**08 56 42.9**	**-2.0**
ARCZ	**Arundel**	**2.32**	**219**	P	**Pn**	**08 56 44.5**	**-1.0**
MRZ	**Mangatainoka R**	**2.34**	**51**	P	**Pn**	**08 56 44.6**	**-1.1**
GCSZ	**Gaunt Creek Bo**	**2.41**	**240**	P	**Pn**	**08 56 46.4**	**-0.3**
POWZ	**Post Office Ro**	**2.62**	**49**	P	**Pn**	**08 56 48.6**	**-1.0**
PRWZ	**Pori Road**	**2.63**	**54**	P	**Pn**	**08 56 48.4**	**-1.4**
BFZ	**Birch Farm**	**2.73**	**58**	P	**Pn**	**08 56 49.0**	**-2.1**
BFZ	**Birch Farm**	**2.73**	**58**	S	**Sn**	**08 57 20.9**	**-2.0**
BFZ	**Birch Farm**	**2.73**	**58**	P	**Pn**	**08 56 49.0**	**-2.1**
TMZ	**Timaru**	**2.74**	**215**	P	**Pn**	**08 56 49.8**	**-1.4**
WAZ	**Wanganui**	**2.75**	**30**	P	**Pn**	**08 56 52.5**	**+1.1**
NMEZ	**Namu Road**	**2.79**	**11**	P	**Pn**	**08 56 54.0**	**+2.2**
FOZ	**Fox Glacier**	**2.84**	**240**	P	**Pn**	**08 56 51.8**	**-0.7**
LREZ	**Lake Rotokare**	**2.84**	**19**	P	**Pn**	**08 56 56.9**	**+4.3**
DVHZ	**Dannevirke**	**2.91**	**51**	P	**Pn**	**08 56 51.7**	**-1.8**
KHEZ	**Kahui Hut**	**2.92**	**13**	P	**Pn**	**08 56 54.1**	**+0.3**
KHEZ	**Kahui Hut**	**2.92**	**13**	S	**Sn**	**08 57 29.2**	**+1.5**
KHEZ	**Kahui Hut**	**2.92**	**13**	P	**Pn**	**08 56 55.6**	**+1.8**
NBEZ	**Newall Road No**	**2.93**	**10**	P	**Pn**	**08 56 55.2**	**+1.5**
TSZ	**Takapari Road**	**2.96**	**46**	P	**Pn**	**08 56 52.9**	**-1.4**
PKE	**Pukeiti**	**3.02**	**12**	P	**Pn**	**08 56 56.6**	**+1.6**
DREZ	**Durham Road**	**3.06**	**15**	P	**Pn**	**08 56 57.4**	**+1.9**
LBZ	**Lake Benmore**	**3.13**	**223**	P	**Pn**	**08 56 55.7**	**-0.8**
MHEZ	**Mangahewa**	**3.19**	**16**	P	**Pn**	**08 56 59.4**	**+2.0**
PNHZ	**Pukenui**	**3.19**	**47**	P	**Pn**	**08 56 55.6**	**-1.8**
PRHZ	**Porangahau**	**3.21**	**55**	P	**Pn**	**08 56 56.1**	**-1.6**
WPHZ	**Waipukurau**	**3.22**	**51**	P	**Pn**	**08 56 55.9**	**-1.9**
VRZ	**Vera Road**	**3.25**	**22**	P	**Pn**	**08 56 59.4**	**+1.2**
PKVZ	**Pokaka**	**3.30**	**31**	P	**Pn**	**08 56 59.4**	**+0.5**
MOVZ	**Moawhango**	**3.36**	**36**	P	**Pn**	**08 56 59.0**	**-0.8**
WNVZ	**Wahianoa**	**3.36**	**34**	P	**Pn**	**08 56 60.0**	**+0.1**
TRVZ	**Turoa**	**3.37**	**33**	P	**Pn**	**08 56 60.0**	**0.0**
WHVZ	**Whangaehu Hut**	**3.40**	**33**	P	**Pn**	**08 57 00.4**	**-0.1**
MAVZ	**Matarangi**	**3.40**	**33**	P	**Pn**	**08 57 00.6**	**0.0**
FWVZ	**Far West T-bar**	**3.41**	**33**	P	**Pn**	**08 57 00.5**	**0.0**
ODZ	**Otahua Downs**	**3.43**	**212**	P	**Pn**	**08 56 58.9**	**-1.7**
ODZ	**Otahua Downs**	**3.43**	**212**	S	**Sn**	**08 57 38.0**	**-2.0**
ODZ	**Otahua Downs**	**3.43**	**212**	P	**Pn**	**08 56 59.1**	**-1.5**
TUVZ	**Tukino**	**3.44**	**34**	P	**Pn**	**08 57 00.9**	**0.0**
BHHZ	**Black Hill Sta**	**3.44**	**40**	P	**Pn**	**08 56 59.7**	**-1.1**
KRHZ	**Kereru**	**3.48**	**45**	P	**Pn**	**08 56 59.5**	**-1.8**
NGZ	**Ngauruhoe**	**3.50**	**32**	P	**Pn**	**08 57 01.7**	**0.0**
SNVZ	**South Ngauruho**	**3.50**	**33**	P	**Pn**	**08 57 01.9**	**+0.1**
TWVZ	**Taurewa**	**3.52**	**30**	P	**Pn**	**08 57 00.5**	**-1.5**
OTVZ	**Oturere**	**3.53**	**33**	P	**Pn**	**08 57 02.1**	**-0.1**
WTVZ	**West Tongariro**	**3.54**	**32**	P	**Pn**	**08 57 02.3**	**0.0**
ETVZ	**East Tongariro**	**3.57**	**33**	P	**Pn**	**08 57 02.6**	**-0.1**
KRVZ	**Karewarewa**	**3.58**	**32**	P	**Pn**	**08 57 02.8**	**0.0**
TMVZ	**Te Maari**	**3.59**	**33**	P	**Pn**	**08 57 02.8**	**-0.1**
NTVZ	**North Tongarir**	**3.59**	**33**	P	**Pn**	**08 57 03.1**	**+0.1**
KAHZ	**Kahuranaki**	**3.65**	**51**	P	**Pn**	**08 57 02.2**	**-1.5**
KWHZ	**Kaweka Forest**	**3.67**	**43**	P	**Pn**	**08 57 02.7**	**-1.3**
JCZ	**Jackson Bay**	**3.75**	**238**	P	**Pn**	**08 57 03.5**	**-1.6**
JCZ	**Jackson Bay**	**3.75**	**238**	S	**Sn**	**08 57 48.2**	**+0.2**
JCZ	**Jackson Bay**	**3.75**	**238**	P	**Pn**	**08 57 03.3**	**-1.8**
MCHZ	**McNeill Hill**	**3.80**	**46**	P	**Pn**	**08 57 04.5**	**-1.1**
RATZ	**Rangitukua**	**3.83**	**32**	P	Pn	08 57 11.9	+5.7
HIZ	**Hauiti**	**3.85**	**20**	P	**Pn**	**08 57 06.6**	**+0.2**
HIZ	**Hauiti**	**3.85**	**20**	S	**Sn**	**08 57 50.6**	**+0.2**
HIZ	**Hauiti**	**3.85**	**20**	P	**Pn**	**08 57 06.9**	**+0.5**
BKZ	**Black Stump Fm**	**3.90**	**41**	P	**Pn**	**08 57 04.6**	**-2.5**
BKZ	**Black Stump Fm**	**3.90**	**41**	S	**Sn**	**08 57 49.4**	**-2.3**
BKZ	**Black Stump Fm**	**3.90**	**41**	P	**Pn**	**08 57 05.3**	**-1.9**
WKZ	**Wanaka**	**4.04**	**227**	P	**Pn**	**08 57 07.0**	**-2.0**
ARHZ	**Aropaoanui**	**4.09**	**46**	P	**Pn**	**08 57 08.8**	**-0.9**
NMHZ	**Naumai**	**4.11**	**43**	P	**Pn**	**08 57 08.7**	**-1.3**
EAZ	**Earnscleugh**	**4.17**	**221**	P	**Pn**	**08 57 09.0**	**-1.7**
TLZ	**Tolley Road**	**4.22**	**26**	P	**Pn**	**08 57 12.1**	**+0.6**
MTHZ	**Maungataniwha**	**4.32**	**41**	P	**Pn**	**08 57 10.7**	**-2.1**
TUZ	**Tuapeka**	**4.58**	**213**	P	**Pn**	**08 57 15.4**	**-1.0**
MSZ	**Milford Sound**	**4.59**	**235**	P	**Pn**	**08 57 17.2**	**+0.7**
MHGZ	**Mahia Peninsul**	**4.68**	**52**	P	**Pn**	**08 57 15.4**	**-2.3**
TOZ	**Tahuroa Road**	**4.76**	**23**	P	**Pn**	**08 57 19.5**	**+0.6**
PRGZ	**Paritu Road**	**4.82**	**50**	P	**Pn**	**08 57 17.0**	**-2.7**
URZ	**Urewera**	**4.91**	**39**	P	**Pn**	**08 57 18.5**	**-2.4**
AWAZ	**Awhitu Peninsu**	**5.21**	**13**	P	**Pn**	**08 57 25.8**	**+0.9**
SYZ	**Scrubby Hill**	**5.26**	**212**	P	**Pn**	**08 57 24.9**	**-0.7**
SYZ	**Scrubby Hill**	**5.26**	**212**	S	**Sn**	**08 58 23.3**	**-1.5**
MKAZ	**Moumakai**	**5.27**	**17**	P	**Pn**	**08 57 26.0**	**+0.2**
WTAZ	**Waiatarua**	**5.32**	**12**	P	**Pn**	**08 57 28.3**	**+1.7**
ETAZ	**East Tamaki Re**	**5.36**	**15**	P	**Pn**	**08 57 27.9**	**+0.7**
TWGZ	**Tauwhareparae**	**5.41**	**44**	P	**Pn**	**08 57 26.8**	**-0.9**
RUGZ	**Raukumara Rang**	**5.42**	**41**	P	**Pn**	**08 57 25.5**	**-2.5**
RVAZ	**Riverhead Bore**	**5.48**	**12**	P	**Pn**	**08 57 30.9**	**+2.2**
MBAZ	**Motutapu North**	**5.54**	**14**	P	**Pn**	**08 57 30.6**	**+1.1**
WIAZ	**Waiheke Island**	**5.56**	**16**	P	**Pn**	**08 57 31.2**	**+1.3**
ABAZ	**Army Bay**	**5.69**	**13**	P	**Pn**	**08 57 34.1**	**+2.5**
PKGZ	**Pakihiroa**	**5.69**	**43**	P	**Pn**	**08 57 29.0**	**-2.6**
WCZ	**Waipu Caves**	**6.27**	**9**	P	**Pn**	**08 57 40.5**	**+0.9**
OUZ	**Omahuta**	**6.93**	**3**	P	**Pn**	**08 57 49.1**	**+0.5**
OUZ	**Omahuta**	**6.93**	**3**	P	**Pn**	**08 57 49.7**	**+1.2**
ASAR	**Alice Springs**	**37.38**	**287**	P	**P**	**09 03 16.2**	**-0.7**
	0.1nm,0.3s,baz=126,slow=7.5,SNR=1.5						
	0.1nm,0.3s						
WRA	**Warramunga Arr**	**39.51**	**292**	P	**P**	**09 03 34.6**	**-0.1**
	0.2nm,0.4s,baz=128,slow=8.7,SNR=10						
	0.2nm,0.4s						
ZALV	**Zalesovo Beam**	**121.79**	**316**	PKP	**PKiKP**	**09 14 58.9**	**+2.5**
	1.6nm,0.5s,baz=90,slow=2.9,SNR=8.2						
TORD	**Torodi Ar. Bea**	**150.17**	**197**	PKPbc	**PKPbc**	**09 15 55.2**	**+0.9**
	0.3nm,0.4s,baz=193,slow=3.2,SNR=4.7						

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*PDG **10** 09:31:47.6±0.1, 43°.09N×18°.94E, h11km, MD2.5/2, ML2.5/12, Error ellipse: s-maj=0.3km s-min=0.4km az=0.0*

*RHSSO **10** 09:31:48.0±0.2, 43°.11N×18°.96E, h5km±1km, ML2.4/6*

*BEO **10** 09:31:48.6±0.3, 43°.11N×18°.96E, h2km±3km, ML2.0/12*

ISC 10 09:31:48.1±0.9**, 43°.10N**±0°.02×**18°.97E**±0°.01**, h6km**±7km**, n52, σ0ˢ95**/100**, 10C-8D, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
UPM	**Unac-Piva**	**0.11**	**334**	⇑iPg	**Pg**	**09 31 50.5**	**-0.2**
UPM				eSg	**Sg**	**09 31 52.7**	**+0.4**
UPM	**Unac-Piva**	**0.11**	**334**	⇑iPg	**Pg**	**09 31 50.4**	**-0.2**
UPM				i Sg	**Sg**	**09 31 52.6**	**+0.3**
UPM				AML	AML		
KLINJ	**Klinje**	**0.29**	**284**	ePg	**Pg**	**09 31 53.1**	**-0.7**
KLINJ				eSg	**Sg**	**09 31 57.9**	**+0.2**
NKME	**Niksic**	**0.34**	**182**	⇑iPg	**Pg**	**09 31 54.1**	**-0.5**
NKME				i Sg	**Sg**	**09 31 59.2**	**+0.2**
NKME				AML	AML		
BRY	**Bratogost**	**0.38**	**238**	⇓iPg	**Pg**	**09 31 54.6**	**-0.9**
BRY				eSg	**Sg**	**09 32 00.2**	**-0.2**
BRY	**Bratogost**	**0.38**	**238**	⇓iPg	**Pg**	**09 31 54.5**	**-0.9**
BRY				i Sg	**Sg**	**09 32 00.2**	**-0.2**
BRY				AML	AML		
PLE	**Pljevlja**	**0.38**	**53**	⇓iPg	**Pg**	**09 31 55.4**	**-0.1**
PLE				i Sg	**Sg**	**09 32 01.2**	**+0.7**
PLE				AML	AML		
KOME	**Kolasin**	**0.47**	**122**	⇓iPg	**Pg**	**09 31 56.8**	**-0.4**
KOME				i Sg	**Sg**	**09 32 04.7**	**+1.4**
KOME				AML	AML		
CEME	**Cevo**	**0.56**	**184**	⇓iPg	**Pg**	**09 31 57.8**	**-1.0**
CEME				i Sg	**Sg**	**09 32 06.0**	**0.0**
CEME				AML	AML		
TREB	**Trebinje**	**0.60**	**230**	ePg	**Pg**	**09 31 58.4**	**-1.2**
TREB				eSg	**Sg**	**09 32 07.9**	**+0.6**
TREB	**Trebinje**	**0.60**	**230**	⇑iPg	**Pg**	**09 31 58.3**	**-1.3**
TREB				eSg	**Sg**	**09 32 07.8**	**+0.5**
PDG	**Podgorica**	**0.70**	**163**	ePg	**Pg**	**09 32 00.6**	**-1.0**
PDG				eSg	**Sb**	**09 32 12.6**	**0.0**
PDG	**Podgorica**	**0.70**	**163**	ePg	**Pg**	**09 32 00.5**	**-1.0**
PDG				eSg	**Sg**	**09 32 10.4**	**-0.3**
PDG	**Podgorica**	**0.70**	**163**	⇑iPg	**Pg**	**09 32 00.6**	**-1.0**
PDG				i Sg	**Sg**	**09 32 11.5**	**+0.8**
PDG				AML	AML		
HCY	**Herceg Novi**	**0.74**	**208**	⇑iPg	**Pg**	**09 32 01.3**	**-1.0**
HCY				eSg	**Sg**	**09 32 12.5**	**+0.5**
HCY	**Herceg Novi**	**0.74**	**208**	⇓iPg	**Pg**	**09 32 00.8**	**-1.5**
HCY				i Sg	**Sb**	**09 32 12.9**	**-0.9**
HCY				AML	AML		
DBRK	**Dubrovnik**	**0.74**	**235**	ePg	**Pg**	**09 32 01.8**	**-0.6**
DBRK				Sg	**Sg**	**09 32 11.6**	**-0.4**
SJES	**Sjenica**	**0.75**	**77**	ePg	**Pg**	**09 32 02.3**	**-0.2**
SJES				eSg	**Sg**	**09 32 12.0**	**-0.2**
SJES	**Sjenica**	**0.75**	**77**	⇓iPg	**Pg**	**09 32 02.0**	**-0.5**
SJES				eSg	**Sg**	**09 32 12.0**	**-0.2**
BUM	**Brajici-Budva**	**0.80**	**184**	⇑iPg	**Pg**	**09 32 02.5**	**-1.0**
BUM				i Sg	**Sg**	**09 32 14.4**	**+0.5**
BUM				AML	AML		
BBLS	**Lazi&#263i**	**0.83**	**22**	ePg	**Pg**	**09 32 03.5**	**-0.5**
BBLS				eSg	**Sg**	**09 32 14.6**	**-0.1**
BBLS	**Lazi&#263i**	**0.83**	**22**	⇑iPg	**Pg**	**09 32 02.9**	**-1.1**
BBLS				eSg	**Sg**	**09 32 14.4**	**-0.3**
PVY	**Plav**	**0.89**	**125**	⇓iPg	**Pg**	**09 32 04.1**	**-1.0**
PVY				i Sg	**Sb**	**09 32 18.0**	**0.0**
PVY				AML	AML		
DRME	**Dracevica, Mon**	**0.93**	**170**	ePg	**Pg**	**09 32 05.2**	**-0.7**
DRME				eSg	**Sg**	**09 32 18.1**	**+0.2**
DRME	**Dracevica, Mon**	**0.93**	**170**	⇑iPg	**Pg**	**09 32 04.6**	**-1.3**
DRME				i Sg	**Sb**	**09 32 18.7**	**-0.4**
DRME				AML	AML		
STON	**Ston**	**0.96**	**257**	ePg	**Pg**	**09 32 06.5**	**0.0**
STON				Sg	**Sb**	**09 32 19.6**	**-0.5**
IVAS	**Ivanjica**	**0.98**	**61**	ePg	**Pg**	**09 32 05.7**	**-1.2**
IVAS				eSg	**Sg**	**09 32 18.3**	**-1.4**
ULC	**Ulcinj**	**1.16**	**170**	⇑iPg	**Pg**	**09 32 08.9**	**-1.3**
ULC				i Sg	**Sn**	**09 32 26.7**	**-0.2**
ULC				AML	AML		
DIVS	**Divibare**	**1.24**	**36**	ePg	**Pg**	**09 32 11.0**	**-0.9**
DIVS				eSg	**Sn**	**09 32 29.5**	**+0.3**
RICI	**Ricice**	**1.40**	**287**	ePg	**Pg**	**09 32 16.2**	**+1.3**
RICI				Sg	**Sn**	**09 32 35.1**	**+2.1**
MAKA	**Makarska**	**1.44**	**278**	i Pg	**Pg**	**09 32 16.6**	**+0.9**
MAKA				Sg	**Sg**	**09 32 35.0**	**+0.7**
GOCS	**Kraljevo Serbi**	**1.46**	**71**	ePg	**Pn**	**09 32 15.2**	**+0.1**
GOCS				eSg	**Sb**	**09 32 34.6**	**0.0**
GRUS	**Gruza**	**1.49**	**58**	ePg	**Pn**	**09 32 15.5**	**+0.1**
GRUS				eSg	**Sg**	**09 32 36.4**	**+0.4**
TEKS	**Tekeris**	**1.50**	**15**	ePg	**Pg**	**09 32 16.6**	**-0.3**
TEKS	**Tekeris**	**1.50**	**15**	ePn	**Pn**	**09 32 15.9**	**+0.3**
TEKS				eSn	**Sn**	**09 32 35.4**	**-0.1**
TRUS	**Trudelj**	**1.53**	**42**	ePg	**Pn**	**09 32 16.4**	**+0.4**
TRUS				eSg	**Sg**	**09 32 38.0**	**+0.8**
LSTV	**Lastovo**	**1.56**	**258**	ePg	**Pg**	**09 32 18.2**	**+0.2**
LSTV				Sg	**Sg**	**09 32 38.3**	**0.0**
SELS	**Selova**	**1.57**	**85**	ePg	**Pn**	**09 32 16.9**	**+0.3**
SELS				eSg	**Sb**	**09 32 37.9**	**+0.1**
HVAR	**Hvar**	**1.85**	**273**	ePn	**Pb**	**09 32 22.3**	**0.0**
HVAR				Sn	**Sg**	**09 32 47.2**	**-0.3**
KIJV	**Kijevo**	**2.07**	**297**	ePn	**Pb**	**09 32 26.2**	**+0.1**
KIJV				Sn	**Sg**	**09 32 54.3**	**-0.4**
BLY	**Banja Luka**	**2.09**	**322**	ePn	**Pn**	**09 32 23.0**	**-0.7**
BLY				eSn	**Sn**	**09 32 49.8**	**-0.3**
BARS	**Barje**	**2.11**	**97**	ePg	**Pn**	**09 32 24.9**	**+1.0**
BARS				eSg	**Sg**	**09 32 56.0**	**+0.3**
FRGS	**Fruska Gora**	**2.14**	**16**	ePg	**Pn**	**09 32 25.4**	**+1.0**
FRGS				eSg	**Sg**	**09 32 55.8**	**-1.1**
FRGS	**Fruska Gora**	**2.14**	**16**	ePn	**Pn**	**09 32 24.6**	**+0.2**
FRGS				eSn	**Sn**	**09 32 50.7**	**-0.6**
ZAGS	**Zajecar**	**2.48**	**72**	ePg	**Pb**	**09 32 34.2**	**+1.2**
ZAGS				eSg	**Sg**	**09 33 07.5**	**-0.2**
ZIRJ	**Zirje**	**2.49**	**284**	i Pn	**Pb**	**09 32 31.3**	**-1.9**
ZIRJ				Sn	**Sb**	**09 33 03.5**	**-0.5**
MORI	**Morici**	**2.50**	**289**	ePn	**Pb**	**09 32 32.6**	**-0.7**
MORI				Sn	**Sb**	**09 33 04.0**	**-0.3**
BOSS	**Bosilegrad**	**2.65**	**102**	ePg	**Pb**	**09 32 35.7**	**-0.3**
DUGI	**Dugi Otok**	**2.98**	**289**	ePn	**Pn**	**09 32 38.5**	**+2.6**
DUGI				Sn	**Sb**	**09 33 15.8**	**-2.5**
VIRC	**Vir**	**3.08**	**294**	ePn	**Pn**	**09 32 40.0**	**+2.8**
VIRC				Sn	**Sb**	**09 33 17.9**	**-3.2**

MORH	Mrgy, Hungar	3.12	356	ePn	Pn	09 32 38.4	+0.6
SRS	Serrai	3.97	118	ePn	Pn	09 32 51.8	+2.3

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*IDC **10** 09:32:27.2±3.1, 33°.35S×177°.71W, h0^{km}, mb3.8/2, mbtmp3.8/4, ML3.3/2, MS3.2/4, Error ellipse: s-maj=73.8km s-min=40.5km az=119.0*

*NEIC **10** 09:32:32.5±1.2, 34°.0S±0°.1×178°.3W±0°.2, h10^{km}±2^{km}, mb4.1/6, Error ellipse: s-maj=31.6km s-min=14.2km az=112.0*

ISC 10 09:32:36.9±0.8**, 34°.00S**±0°.09×**178°.3W**±0°.1**, h37^{km}, n22, σ1§92**/23**, mb4.1**/9**, MS3.5**/3**, 5C-2D, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	4.51	217	Pn	Pn	09 33 40.8	-1.8
RAO	Raoul Island	4.75	4	Pn	Pn	09 33 44.5	-1.4
URZ	Urewera	5.65	220	Pn	Pn	09 34 04.3	+6.0
	1.0nm,0.3s,baz=24,slow=18,SNR=8.6						
URZ				Sn	Sn	09 34 59.7	-2.2
	1.5nm,0.3s,baz=113,slow=9.3,SNR=3.6						
	8.1nm,1.0s						
URZ				AML	AML		
RTZ	Ruatahuna	5.99	218	Pn	Pn	09 34 06.0	+3.0
TOZ	Tahuroa Road	6.27	232	Pn	Pn	09 34 07.3	+0.5
RPZ	Rata Peaks	12.76	217	Pn	Pn	09 35 39.1	+3.4
	0.1nm,0.3s,baz=54,slow=22,SNR=1.4						
RPZ				Sn	Sn	09 37 58.9	+2.5
	0.2nm,0.3s,baz=128,slow=22,SNR=7.4						
	1.7nm,0.9s						
RPZ				AML	AML		
DZM	Mont Dzumac	17.95	308	LR	LR	09 42 47.2	
	comp=Z,96nm,18.7s,baz=334,slow=34						
PPT	Papeete	30.45	65	LR	LR	09 47 51.0	
	comp=Z,12nm,19.3s,baz=307,slow=31						
AS31	Alice Springs	42.81	271	P	P	09 40 30.5	-0.8
AS31				IAmb	IAmb	09 40 50.0	
	comp=Z,0.9nm,0.6s						
ASAR	Alice Springs	42.81	271	P	P	09 40 30.9	-0.4
	comp=Z,1.0nm,0.6s,baz=109,slow=7.4,SNR=17						
	comp=Z,1.0nm,0.6s						
WR0	Warramunga Arr	43.94	276	P	P	09 40 39.2	-1.3
WR8	Warramunga Arr	43.98	276	P	P	09 40 39.3	-1.5
WR8				IAmb	IAmb	09 40 58.1	
	comp=Z,4.8nm,1.1s						
WRA	Warramunga Arr	44.12	276	P	P	09 40 40.4	-1.4
	comp=Z,0.7nm,0.4s,baz=116,slow=7.8,SNR=7.7						
	comp=Z,0.7nm,0.4s						
WB0	Warramunga Arr	44.16	276	P	P	09 40 40.5	-1.7
WB0				IAmb	IAmb	09 40 46.9	
	comp=Z,6.1nm,1.1s						
QSPA	South Pole Qui	56.12	180	P	P	09 42 11.9	-0.5
QSPA				IAmb	IAmb	09 42 16.1	
	comp=Z,2.0nm,1.0s						
TROLL	Troll, Antarti	74.28	180	⇑P	P	09 44 11.3	+1.4
	comp=Z,52nm,1.1s						
VNA3	Neumayer Olymp	74.74	176	⇓P	P	09 44 12.9	+0.5
	comp=Z,1.5nm,0.7s						
VNA3				pP	pP	09 44 18.5	-3.0
	comp=Z,1.5nm,0.8s						
VNA3				⇑PcP	pwP	09 44 31.8	+1.1
	comp=Z,2.5nm,0.6s						
VNA2	Neumayer--Watz	75.17	177	⇓P	P	09 44 15.7	+0.8
	comp=Z,1.4nm,0.6s,baz=187,slow=5.4						
VNA2				⇑pP	pP	09 44 21.2	-2.9
	comp=Z,1.4nm,0.7s,baz=182,slow=5.3						
VNA2				⇑PcP	pwP	09 44 34.5	+1.2
	comp=Z,3.0nm,0.6s,baz=174,slow=5.8						
VNA1	Neumayer--Stat	75.40	177	⇑P	P	09 44 16.9	+0.7
	comp=Z,0.8nm,0.6s						
TXAR	Lajitas Array	94.52	58	LR	LR	10 20 48.8	
	comp=Z,15nm,18.7s,baz=222,slow=31						
JTS	Las Juntas de	98.41	83	LR	LR	10 18 57.9	
	comp=Z,21nm,21.2s,baz=279,slow=28						
FINES	FINESS Array B	148.41	338	PKPbc	PKPdf	09 52 13.2	-1.9
	comp=Z,3.0nm,0.8s,baz=68,slow=5.9,SNR=4.8						

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*GCG **10** 09:57:32.1±1.2, 14°.34N×90°.33W, h13^{km}±13^{km}, MD3.6, Presumed earthquake*

*CATAC **10** 09:57:33.7±0.7, 14°N±2°×9°0W±°, h8^{km}±2^{km}, M2.4/11, MLv2.4/11, Error ellipse: s-maj=7.5km s-min=5.1km az=101.3, confirmed*

*SNET **10** 09:57:35.8±3.4, 14°.18N×90°.20W, h8^{km}, ML2.5, Presumed earthquake*

ISC 10 09:57:33.5±1.1**, 14°.32N**±0°.03×**90°.18W**±0°.02**, h8^{km}**±10^{km}**, n25, σ1§25**/40**, Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCG5	San Vicente Pa	0.22	242	i P	Pg	09 57 38.7	+0.7
FG16	Alotenango, Sa	0.33	262	i P	Pb	09 57 43.0	+1.2
FG16				i S	Sb	09 57 50.5	+3.1
FG8	Yepocapa, Chim	0.38	261	i P	Pn	09 57 44.2	-1.3
JUAM	Asuncion Mita	0.46	88	i P	Pg	09 57 43.0	+0.6
SLOZ	Alcaldia de Sa	0.48	128	P	Pg	09 57 42.6	-0.3
FAME	Alcaldia de Sa	0.50	162	P	Pg	09 57 42.7	-0.6
FAME				S	Sb	09 57 49.8	-2.3
NUBE	Las Nubes	0.56	137	i P	Pg	09 57 44.5	0.0
NUBE	Las Nubes	0.56	137	P	Pg	09 57 44.5	0.0
NUBE				S	Sb	09 57 52.3	-1.8
UNIC	Universidad Ca	0.69	119	P	Pg	09 57 46.5	-0.4
UNIC				S	Sg	09 57 56.7	+0.7
CEVE	Cerro Verde	0.72	132	P	Pg	09 57 47.4	-0.1
CEVE				S	Sg	09 57 57.2	+0.2
APG	El Apazote	0.73	338	i P	Pg	09 57 45.6	-2.1
APG				i S	Sg	09 57 54.8	-2.5
ZAFR2	Estanzuela, Za	0.84	72	i P	Pg	09 57 50.0	+0.3
ESQI	Esquipulas	0.84	73	eP	Pg	09 57 50.5	+0.7
ESQI				eS	Sn	09 58 06.7	+2.1
ESQI	Esquipulas	0.84	73	P	Pg	09 57 50.3	+0.5
ESQI				S	Sg	09 58 02.4	+1.6
JAYA	Jayaque - finc	0.97	133	i P	Pg	09 57 51.9	-0.3
JAYA	Jayaque - finc	0.97	133	eP	Pg	09 57 51.9	-0.3
JAYA				eS	Sn	09 58 08.0	+0.3
JAYA	Jayaque - finc	0.97	133	P	Pg	09 57 52.1	-0.1
JAYA				S	Sg	09 58 04.5	-0.2
PMON	Piamonte	1.03	126	P	Pg	09 57 52.7	-0.7
PMON				S	Sg	09 58 06.7	-0.1
STG8	El Palmar, Qui	1.15	277	i P	Pn	09 57 56.1	-0.1
LLGN	La Laguna	1.20	97	P	Pb	09 57 55.8	-0.8
LLGN				S	Sb	09 58 13.5	+1.0
PAVA	Las Pavas	1.34	117	P	Pn	09 57 57.4	-1.4
PAVA				S	Sb	09 58 15.3	-1.3
COEG	Centro de Oper	1.44	119	eP	Pn	09 58 00.2	+0.2
COEG				eS	Sg	09 58 21.8	+2.0
COEG	Centro de Oper	1.44	119	P	Pn	09 57 59.0	-1.0
COEG				S	Sb	09 58 17.8	-1.4
SARH	Santa Rosa de	1.44	72	i P	Pn	09 58 00.1	0.0
SARH	Santa Rosa de	1.44	72	P	Pb	09 58 01.3	+0.5

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*HEL **10** 09:59:46.9±0.2, 64°.66N×30°.78E, h0^{km}, ML2.1, Suspected explosion*

*IDC **10** 09:59:47.6±2.3, 64°.63N×30°.94E, h0^{km}, mbtmp3.1/4, ML2.4/4, Error ellipse: s-maj=27.3km s-min=10.2km az=102.0*

*BER **10** 09:59:48.5±3.8, 64°.65N×30°.75E, h0^{km}, ML1.9, ML2.1(HEL), Suspected explosion*

*KOLA **10** 09:59:49.9, 64°.83N×30°.53E, h0^{km}, ML2.1, Error ellipse: s-maj=15.7km s-min=8.9km az=150.0, Karelia*

ISC 10 09:59:46.6±0.9**, 64°.68N**±0°.03×**30°.70E**±0°.04**, h0^{km}, n59, σ1§97**/92**, Finland-Karelia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RMF	Romuvaara	0.57	216	PG	Pg	09 59 57.1	-0.4
RMF				smax	smax	10 00 05.3	
RMF	Romuvaara	0.57	216	PG	Pg	09 59 57.1	-0.4
RMF				smax	smax	10 00 05.3	
	comp=Z,27nm,0.2s						
MSF	Maaselka	1.42	331	PG	Pn	10 00 12.8	-0.8
MSF				SG	Sn	10 00 33.2	+0.2
MSF	Maaselka	1.42	331	PG	Pn	10 00 12.8	-0.8
	baz=146						
MSF				SG	Sn	10 00 33.2	+0.2
KU2	Taivalkoski	1.47	316	PG	Pn	10 00 13.7	-0.6
OLKF	Oulanka, Finla	1.73	342	PB	Pn	10 00 17.9	-0.1
OLKF				smax	smax	10 00 39.5	
OLKF				SG	Sg	10 00 41.7	-0.6
OLKF	Oulanka, Finla	1.73	342	PB	Pn	10 00 17.9	-0.1
OLKF				smax	smax	10 00 39.5	
	comp=Z,15nm,0.2s						
OLKF				SG	Sg	10 00 41.7	-0.6
JOF	Joensuu	1.79	171	PG	Pn	10 00 18.4	-0.3
JOF				SN	Sn	10 00 43.4	+1.4
JOF	Joensuu	1.79	171	eP	Pn	10 00 19.5	+0.8
JOF	Joensuu	1.79	171	PG	Pn	10 00 18.4	-0.3
JOF				SN	Sn	10 00 43.4	+1.4
NIF	Nilsia	1.81	226	PG	Pn	10 00 19.3	+0.3
NIF				smax	smax	10 00 41.3	
NIF	Nilsia	1.81	226	PG	Pn	10 00 19.3	+0.3
NIF				smax	smax	10 00 41.3	
	comp=Z,9.1nm,0.2s						
OUL	Oulu	2.09	283	PN	Pn	10 00 23.9	+1.1
OUL				SN	Sn	10 00 51.2	+1.7
OUL	Oulu	2.09	283	PN	Pn	10 00 23.9	+1.1
	baz=99						
OUL				SN	Sn	10 00 51.2	+1.7
RANF	Ranua	2.12	311	PB	Pn	10 00 24.1	+0.9
RANF				SN	Sb	10 00 52.4	-0.2
RANF	Ranua	2.12	311	PB	Pn	10 00 24.1	+0.9
	baz=123						
RANF				SN	Sb	10 00 52.4	-0.2
KVDA	Kovda	2.21	23	P	Pn	10 00 25.3	+0.8
KVDA				S	Sn	10 00 52.6	+0.1
OBF4	Vikkela, Lumij	2.40	276	PB	Pn	10 00 28.9	+1.8
OBF4	Vikkela, Lumij	2.40	276	PB	Pn	10 00 28.9	+1.8
	baz=91						
OBF4				smax	smax	10 00 58.9	
	comp=Z,8.7nm,0.2s						
OBF4				SG	Sb	10 01 02.4	+1.6
OUF	Merijarvi	2.60	266	PN	Pn	10 00 30.9	+1.1
OUF				smax	smax	10 01 04.4	
	comp=Z,17nm,0.2s						
OUF				SG	Sb	10 01 06.9	+0.5
RNF	Rovaniemi	2.74	317	PN	Pn	10 00 34.5	+2.7
	baz=129						
RNF				SB	Sb	10 01 10.6	+0.1
OBF0	Syolatti, Pyha	2.79	269	PN	Pn	10 00 34.4	+1.9
OBF0				smax	smax	10 01 10.1	
	comp=Z,11nm,0.2s						
OBF0				SG	Sb	10 01 14.0	+2.0
SUF	Sumiainen	2.82	228	eP	Pn	10 00 36.1	+3.2
SUF	Sumiainen	2.82	228	PB	Pn	10 00 35.6	+2.7
	baz=46						
SUF				smax	smax	10 01 10.3	
	comp=Z,3.3nm,0.2s						
TOF	Tornio	3.02	301	PB	Pb	10 00 40.9	-0.2
TOF				smax	smax	10 01 16.6	
	comp=Z,3.1nm,0.2s						
TOF				SB	Sb	10 01 19.0	+0.6
APA0	Apatity Array	3.08	17	P	Pn	10 00 37.9	+1.4
APA0				S	Sn	10 01 12.3	-1.7
APA	Apatity	3.10	20	S	Sn	10 01 14.4	0.0
VRF	Varrio	3.11	352	PN	Pn	10 00 38.2	+1.4
VRF				smax	smax	10 01 19.1	
	comp=Z,3.4nm,0.2s						
VRF				SB	Sg	10 01 23.3	-3.2
OBF8	Ulkokalla	3.16	267	PB	Pn	10 00 41.2	+3.7
KAF	Kangasniemi	3.25	219	PB	Pn	10 00 43.0	+4.3
KALU	Kalix	3.31	294	PN	Pn	10 00 42.4	+3.0
	baz=110						
KALU				SG	Sb	10 01 29.8	+3.1
RUF	Ruokolahti	3.36	194	PB	Pn	10 00 41.9	+1.6
LVZ	Lovozero	3.60	25	S	Sn	10 01 25.8	-1.1
LVZ	Lovozero	3.60	25	PN	Pn	10 00 46.4	+2.7
LVZ				SN	Sn	10 01 28.4	+1.6
KEF	Keuruu	3.64	229	eP	Pn	10 00 46.5	+2.4
KEF	Keuruu	3.64	229	PN	Pn	10 00 46.4	+2.3
KLF	Kolari	3.77	316	PN	Pn	10 00 48.5	+2.7
KLF				SG	Sb	10 01 44.0	+4.0
FIA0	FINESS Array S	3.87	215	PB	Pn	10 00 52.5	+5.3
	baz=33						
FINES	FINESS Array B	3.87	215	Pn	Pn	10 00 48.0	+0.8
	comp=Z,0.3nm,0.3s,baz=30,slow=13,SNR=8.1						
FINES				Pg	Pb	10 00 52.8	-2.8
	comp=Z,0.6nm,0.3s,baz=33,slow=15,SNR=11						
FINES				Sn	Sn	10 01 33.4	+0.1
	comp=Z,0.7nm,0.3s,baz=33,slow=21,SNR=6.4						
FINES				Lg	Lg	10 01 47.8	
	comp=Z,2.1nm,0.3s,baz=35,slow=27,SNR=10						
	comp=Z,2.9nm,0.9s						
FINES				AML	AML		
VAF	Ylistaro	3.91	249	eP	Pn	10 00 49.8	+2.0
VAF	Ylistaro	3.91	249	PN	Pn	10 00 49.4	+1.5
VAF				SB	Sb	10 01 44.6	+0.4
RAJF	Raja-Jooseppi	3.93	347	SG	Sg	10 01 49.9	-2.7
SJUU	Sjulsmark	3.94	286	eP	Pn	10 00 50.1	+2.0
ERTU	Ertsjaerv	4.00	302	PN	Pn	10 00 50.8	+1.7
ERTU				SG	Sg	10 01 53.1	-1.8
BURU	Burvik	4.01	273	PN	Pn	10 00 49.7	+0.5
UMAU	Umeaa	4.44	264	PN	Pn	10 00 57.0	+1.9
UMAU				SG	Sb	10 02 05.6	+6.3
HEF	Hetta	4.68	326	eP	Pn	10 00 58.2	-0.2
HEF	Hetta	4.68	326	PN	Pn	10 01 00.8	+2.4
HEF				SG	Sb	10 02 10.8	+4.5
TERR	Teriberka	4.86	19	P	Pn	10 01 02.0	+1.2
TERR				S	Sn	10 01 55.5	-2.2
LANU	Lannavaara	4.87	318	eP	Pn	10 01 02.6	+1.7
KTK1	Kautokeino	5.25	329	eP	Pn	10 01 07.7	+1.5
KTK1				eS	Sn	10 02 06.5	-0.8
KTK1				IAML		10 02 37.5	
	comp=Z,2.8nm,0.6s						
ARA0	ARCESS Array S	5.28	340	eP	Pn	10 01 06.5	-0.1
ARA0				eS	Sn	10 02 06.9	-1.2
ARA0				IAML		10 02 31.0	
	comp=Z,2.4nm,0.3s						
ARCES	ARCESS Array B	5.28	340	Pn	Pn	10 01 06.5	-0.2
	comp=Z,0.2nm,0.3s,baz=155,slow=14,SNR=40						
ARCES				Sn	Sn	10 02 06.2	-1.9
	comp=Z,0.2nm,0.3s,baz=154,slow=23,SNR=5.8						
ARCES				Lg	Lg	10 02 29.6	
	comp=Z,0.8nm,0.3s,baz=150,slow=32,SNR=13						
	comp=Z,0.5nm,0.3s						
ARCES				AML	AML		
ARCES	ARCESS Array B	5.28	340	P	Pn	10 01 06.4	-0.2
ARCES				S	Sn	10 02 03.8	-4.3
VADS	Vadso	5.49	355	eP	Pn	10 01 09.3	-0.1
VADS				eS	Sn	10 02 10.8	-2.4
VADS				IAML		10 02 23.9	
	comp=Z,2.3nm,0.9s						
RAF	Rauma	5.49	232	eP	Pn	10 01 11.0	+1.5
JETT	Jettan, Norway	6.32	325	eP	Pn	10 01 20.6	-0.4
JETT				IAML		10 03 07.1	
	comp=Z,5.4nm,0.5s						
HFS	Hagfors	9.10	248	Pn	Pn	10 01 59.4	+0.4
	comp=Z,0.3nm,0.3s,baz=54,slow=14,SNR=6.8						
HFS				Sn	Sn	10 03 37.4	-4.5
	comp=Z,0.2nm,0.3s,baz=53,slow=24,SNR=1.8						
HFS				Lg	Lg	10 04 26.2	
	comp=Z,0.2nm,0.3s,baz=54,slow=6.0,SNR=1.8						
	comp=Z,0.7nm,0.3s						
HFS				AML	AML		
NOA	NORSAR Array B	9.61	257	Pn	Pn	10 02 05.5	-0.4
	baz=63,slow=12,SNR=1.5						
	comp=Z,0.2nm,0.3s						

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*IDC **10** 10:30:26.4±0.5, 34°.33N×25°.03E, h0^{km}, mb4.3/23, mbtmp4.3/35, ML4.2/12, MS3.4/29, Error ellipse: s-maj=11.1km s-min=8.0km az=18.0*

*ISK **10** 10:30:26.9, 34°.17N×25°.19E, h6^{km}, ML4.0/24*

*MOS **10** 10:30:26.3±1.3, 34°.22N×25°.16E, h11^{km}, mb4.7/35, Error ellipse: s-maj=5.1km s-min=2.9km az=104.3*

*NEIC **10** 10:30:28.3±2.2, 34°.23N±0°.05×25°.06E±0°.07, h10^{km}±1^{km}, mb4.4/39, Error ellipse: s-maj=10.4km s-min=7.8km az=245.0*

*GFZ **10** 10:30:29.8±0.3, 34°N±3°×2°5E±°, h27^{km}, M4.5/54, mb4.5/54, Mw4.2/14, confirmed*

*ATH **10** 10:30:29.2, 34°.27N×25°.11E, h12^{km}±4^{km}, ML3.9/23, Latitude uncertainty: 3 km; Longitude uncertainty: 1 km*

*BGR **10** 10:30:29.7±2.1, 34°.63N×25°.40E, h10^{km}, mb4.3, Error ellipse: s-maj=65.6km s-min=44.5km az=48.0*

*THE **10** 10:30:30.1, 34°N±4°×2°5E±°, h4^{km}±4^{km}, M3.9/13, MLh3.9/13*

*GII **10** 10:30:31.9±0.0, 33°.99N±0°.02×25°.456E±0°.007, h0^{km}, Mws4.3, confirmed*

*AFAD **10** 10:30:34.5, 34°.57N×25°.37E, h10^{km}±6^{km}, ML3.2*

*NAO **10** 10:30:39.8, 34°.83N×19°.90E, h10^{km}, MB4.2*

ISC 10 10:30:27.9±0.8**, 34°.19N**±0°.04×**25°.15E**±0°.03**, h12^{km}**±4^{km}**, n529, σ1§59**/564**, mb4.5**/72**, MS3.5**/25**, 9C-10D, Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SIVA	Sivas	0.87	342	P	Pg	10 30 44.8	0.0
SIVA				S	Sg	10 30 55.3	-0.9
SIVA				AML	AML		
SIVA	Sivas	0.87	342	P	Pg	10 30 44.5	-0.3
SIVA				S	Sg	10 30 55.0	-1.2
GVD	Gavdhos	1.09	307	P	Pg	10 30 49.0	+0.1
GVD				S	Sn	10 31 04.6	+0.5
GVD				AML	AML		
GVD	Gavdhos	1.09	307	Pn	Pg	10 30 48.9	+0.1
GVD				AML	AML		
GVD	Gavdhos	1.09	307	P	Pg	10 30 48.9	+0.1
GVD				S	Sb	10 31 02.5	-0.4
GVD				AML	AML		
GVD	Gavdhos	1.09	307	P	Pg	10 30 48.9	+0.1
AGNA	Agios Nikolaos	1.11	25	P	Pn	10 30 49.2	0.0
AGNA				AML	AML		
GVDS	Gavdos	1.11	306	P	Pn	10 30 49.4	+0.1
GVDS				S	Sn	10 31 05.2	+0.7
GVDS				AML	AML		
GVDS	Gavdos	1.11	306	P	Pb	10 30 49.1	+0.1
IACM	Heraklion	1.12	357	P	Pb	10 30 48.8	-0.4
IACM	Heraklion	1.12	357	P	Pn	10 30 49.8	+0.4
IDI	Anoyia	1.12	349	Pn	Pb	10 30 48.7	-0.6
	165nm,0.3s,baz=174,slow=8.6,SNR=224						
IDI				Sn	Sn	10 31 05.5	+0.7
	381nm,0.3s,baz=288,slow=19,SNR=13						
IDI	Anoyia	1.12	349	P	Pb	10 30 48.6	-0.6
IDI				S	Sg	10 31 04.1	+0.1
IDI				AML	AML		
IDI	Anoyia	1.12	349	Pn	Pb	10 30 48.6	-0.6
IDI				Sn	Sn	10 31 05.6	+0.7
IDI				AML	AML		
IDI	Anoyia	1.12	349		Pb	10 30 48.8	-0.4
IDI	Anoyia	1.12	349	P	Pb	10 30 48.9	-0.3
IDI				S	Sb	10 31 03.2	-0.6
NPS	Neapolis	1.14	20	P	Pb	10 30 49.6	-0.1
NPS				AML	AML		
NPS	Neapolis	1.14	20	P	Pb	10 30 49.5	-0.1
ZKR	Zakros	1.28	43	P	Pg	10 30 52.4	-0.1
ZKR	Zakros	1.28	43	Pn	Pn	10 30 51.5	-0.1
ZKR				AML	AML		
ZKR	Zakros	1.28	43	P	Pg	10 30 52.3	-0.1
ZKR				AML	AML		
ZKR	Zakros	1.28	43	P	Pg	10 30 53.5	+1.1
RTHF	Rethymno-Limin	1.30	335	P	Pn	10 30 51.7	-0.1
RTHF				AML	AML		
IMMV	Iera Moni Meta	1.59	323	P	Pb	10 30 57.3	0.0
IMMV				AML	AML		
IMMV	Iera Moni Meta	1.59	323	Pn	Pn	10 30 56.7	+0.8
IMMV				AML	AML		
IMMV	Iera Moni Meta	1.59	323	P	Pb	10 30 57.7	+0.5
CHAN	Chania	1.61	326	P	Pn	10 30 56.4	+0.2
CH01	Chania	1.62	325	P	Pn	10 30 56.8	+0.5
CH01				AML	AML		
KNDR	Palaiochora Ch	1.63	310	P	Pb	10 30 57.6	-0.4
KNDR				AML	AML		
KNDR	Palaiochora Ch	1.63	310	P	Pb	10 30 57.6	-0.4
KNDR				AML	AML		
KARP	Karpathos	2.14	50	Pn	Pn	10 31 04.4	+0.9
KARP				AML	AML		
KARP	Karpathos	2.14	50		Pb	10 31 06.0	-0.6
KARP	Karpathos	2.14	50	P	Pb	10 31 06.7	0.0
KARP				AML	AML		
KARP	Karpathos	2.14	50	P	Pb	10 31 05.8	-0.9
KARP				AML	AML		
KARP	Karpathos	2.14	50	P	Pb	10 31 06.8	+0.2
THR9	Santorini-Faro	2.17	4	P	Pn	10 31 04.8	+0.9
THR9	Santorini-Faro	2.17	4	P	Pn	10 31 05.1	+1.2
THR6	Thira Island,	2.17	5	P	Pn	10 31 05.0	+1.1
THERA	Ancient Thera,	2.19	7	P	Pn	10 31 04.8	+0.6
THERA	Ancient Thera,	2.19	7	P	Pn	10 31 04.7	+0.6
THERA	Ancient Thera,	2.19	7	P	Pn	10 31 04.4	+0.2
THR3	Thira Island,	2.23	5	P	Pn	10 31 05.3	+0.7
THR3	Thira Island,	2.23	5	P	Pn	10 31 05.3	+0.7
THR5	Thira Island,	2.23	4	P	Pn	10 31 05.7	+1.0
THR5	Thira Island,	2.23	4	P	Pn	10 31 05.7	+1.0
THR8	Santorini-Mono	2.23	7	P	Pn	10 31 05.1	+0.4
SAP3	Santorini-Thir	2.25	4	P	Pn	10 31 05.7	+0.7
SAP3				AML	AML		
ANKY	Antikythira Is	2.26	318	P	Pn	10 31 06.5	+1.4
ANKY				AML	AML		
ANKY	Antikythira Is	2.26	318	P	Pn	10 31 06.2	+1.1
ANKY				AML	AML		
THR2	Thira island,	2.27	6	P	Pn	10 31 06.3	+1.1
ASTA	Astypalaia	2.55	22	P	Pn	10 31 10.0	+0.9
MHLO	Agia Marina, M	2.57	347	P	Pn	10 31 09.9	+0.5
MHLO				AML	AML		
MHLO	Agia Marina, M	2.57	347	P	Pn	10 31 09.8	+0.4
KTHA	Kythira Island	2.68	321	P	Pn	10 31 12.3	+1.5
KTHA				AML	AML		
KTHA	Kythira Island	2.68	321	P	Pn	10 31 12.0	+1.1
KTHA				AML	AML		
VLI	Veliai	3.10	325	P	Pn	10 31 17.5	+0.8
VLI				AML	AML		
VLI	Veliai	3.10	325	P	Pn	10 31 17.1	+0.4
VLI				AML	AML		
YAZI	Mula-Dat§a-	3.12	36	P	Pn	10 31 17.7	+0.8
YAZI				S	Sn	10 31 51.7	-2.5
YAZI				IAML		10 31 55.0	
	comp=N,52nm,0.3s						
YAZI				IAML		10 31 59.0	
	comp=E,46nm,0.6s						
ARG	Arkhangelos	3.17	49	P	Pn	10 31 19.6	+1.9
ARG	Arkhangelos	3.17	49	Pn	Pn	10 31 18.5	+0.9
ARG				AML	AML		
ARG	Arkhangelos	3.17	49	P	Pn	10 31 19.5	+1.9
ARG	Arkhangelos	3.17	49		Pn	10 31 19.8	+2.2
ARG	Arkhangelos	3.17	49	P	Pn	10 31 19.8	+2.2
ARG	Arkhangelos	3.17	49	P	Pn	10 31 20.1	+2.5
DAT	Datca	3.22	37	Pn	Pn	10 31 19.3	+0.9
DAT				AML	AML		
BDRM	Kayabasi	3.43	32	P	Pn	10 31 21.8	+0.6
BDRM				S	Sn	10 31 53.4	-8.4
BDRM				IAML		10 32 03.0	
	comp=N,50nm,0.4s						
BDRM				IAML		10 32 03.0	
	comp=E,34nm,1.0s						
TURN	Turunc	3.61	43	Pn	Pn	10 31 24.7	+1.0
TURN				AML	AML		
TURN	Turunc	3.61	43	P	Pn	10 31 24.9	+1.2
TURN				S	Sn	10 32 02.2	-4.2
TURN				IAML		10 32 08.0	
	comp=N,100nm,0.6s						
TURN				IAML		10 32 09.0	
	comp=E,72nm,0.3s						
MET1	Methana Town,	3.67	338	P	Pn	10 31 25.0	+0.4
MET4	Agioi Theodoro	3.71	338	P	Pn	10 31 25.2	+0.2
MET2	Kameni Chora,	3.72	337	P	Pn	10 31 25.5	+0.2
MET2				AML	AML		
MLSB	Milas	3.77	34	Pn	Pn	10 31 27.4	+1.5
MLSB				AML	AML		
VLY	Voula,Athens	3.82	344	P	Pn	10 31 26.5	-0.1
VLY				AML	AML		
PYL	PYLOS	3.88	315	P	Pn	10 31 26.1	-1.2
KARY	Karystos	3.88	352	P	Pn	10 31 27.6	+0.2
DALY	Dalyan (Mula)	3.88	46	Pn	Pn	10 31 29.1	+1.7
DALY				AML	AML		
DALY	Dalyan (Mula)	3.88	46	P	Pn	10 31 29.3	+1.9
DALY				S	Sn	10 32 11.0	-1.9
DALY				IAML		10 32 17.0	
	comp=N,88nm,0.6s						
DALY				IAML		10 32 18.0	
	comp=E,77nm,1.2s						
GCAM	G?zelcaml?	3.89	25	Pn	Pn	10 31 29.1	+1.6
GCAM				AML	AML		
YER	Yerkesik	3.90	40	Pn	Pn	10 31 29.1	+1.4
YER				AML	AML		
YER	Yerkesik	3.90	40	P	Pn	10 31 29.1	+1.4
ATHU	Athens Univers	3.93	344	P	Pn	10 31 28.3	+0.2
ATH	Athens Observa	3.95	343	P	Pn	10 31 28.9	+0.6
ITM	Ithomi	3.97	320		Pn	10 31 28.3	-0.4
ITM	Ithomi	3.97	320	P	Pn	10 31 28.9	+0.2
ITM				AML	AML		
PTL	Penteli	3.99	345	P	Pn	10 31 29.0	0.0
DION	Dionisos Attik	4.01	346	P	Pn	10 31 29.4	+0.3
MULA	Mugla, Merkez-	4.01	39	P	Pn	10 31 30.6	+1.4

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MULA                            S      Sn      10 32 13.5  -2.7
MULA                            IAML           10 32 18.0
       comp=E,130nm,0.4s
MULA                            IAML           10 32 20.0
       comp=N,63nm,0.7s
IZZE   Mula-Seydike      4.02  55  P      Pn      10 31 30.3 +1.0
IZZE                            S      Sn      10 32 13.7  -2.7
IZZE                            IAML           10 32 16.0
       comp=N,466nm,0.3s
IZZE                            IAML           10 32 17.0
       comp=E,253nm,0.3s
FETY   Fethiye           4.04  52  Pn     Pn      10 31 30.2 +0.6
FETY                            AML    AML
FETY   Fethiye           4.04  52  P      Pn      10 31 32.4 +2.9
FETY                            S      Sn      10 32 14.7  -2.2
SABU   Mula-Dalaman      4.08  49  P      Pn      10 31 30.8 +0.7
SABU                            S      Sn      10 32 12.7  -5.1
SABU                            IAML           10 32 21.0
       comp=N,84nm,0.6s
SABU                            IAML           10 32 24.0
       comp=E,85nm,0.8s
DGB    zmir              4.11  20  P      Pn      10 31 30.3  -0.2
DGB                             S      Sn      10 32 13.7  -4.7
DGB                             IAML           10 32 18.0
       comp=N,46nm,0.8s
DGB                             IAML           10 32 19.0
       comp=E,18nm,0.3s
AYDN   Tasoluk           4.12  32  P      Pn      10 31 32.7 +2.0
AYDN                            S      Sn      10 32 17.6  -1.2
AYDN                            IAML           10 32 25.0
       comp=E,64nm,1.1s
AYDN                            IAML           10 32 26.0
       comp=N,56nm,0.4s
AYDN   Tasoluk           4.12  32  P      Pn      10 31 33.1 +2.4
AKAS   Kas               4.18  60  Pn     Pn      10 31 32.3 +0.6
AKAS                            AML    AML
AKAS   Kas               4.18  60         Pn      10 31 32.7 +1.1
AKAS   Kas               4.18  60  P      Pn      10 31 33.2 +1.5
LTK    Loutraki          4.22 336  P      Pn      10 31 31.9  -0.1
LTK                             AML    AML
CHOS   Chios island      4.26  10  Pn     Pn      10 31 33.9 +1.3
CHOS                            AML    AML
CHOS   Chios island      4.26  10  P      Pn      10 31 33.0 +0.4
CHOS   Chios island      4.26  10  P      Pn      10 31 33.6 +1.0
VIL2   Platees           4.29 340  P      Pn      10 31 32.4  -0.7
VIL2                            AML    AML
URLA   Izmir             4.33  15  Pn     Pn      10 31 33.8 +0.2
URLA                            AML    AML
CAME   Cameli-Denizli    4.36  50  Pn     Pn      10 31 35.7 +1.5
CAME                            AML    AML
GUR    Goura             4.38 330  P      Pn      10 31 34.7 +0.3
GUR                             AML    AML
DEMR   Demre-Antalya     4.40  61  Pn     Pn      10 31 35.9 +1.4
DEMR                            AML    AML
ESEN   Aydn-Nazilli      4.44  35  P      Pn      10 31 37.2 +2.1
ESEN                            S      Sn      10 32 25.3  -1.5
ESEN                            IAML           10 32 32.0
       comp=N,35nm,0.5s
ESEN                            IAML           10 32 36.0
       comp=E,28nm,0.4s
BLCB   Balcova           4.46  20  Pn     Pn      10 31 36.8 +1.4
KNIK   Mula-Seydike      4.48  52  P      Pn      10 31 37.1 +1.3
KNIK                            S      Sn      10 32 21.5  -6.4
KNIK                            IAML           10 32 29.0
       comp=N,65nm,0.3s
KNIK                            IAML           10 32 32.0
       comp=E,60nm,0.6s
TAVA   DENIZLI_Tavas     4.48  42  P      Pn      10 31 37.5 +1.8
TAVA                            S      Sn      10 32 21.5  -6.3
TAVA                            IAML           10 32 33.0
       comp=N,64nm,0.8s
TAVA                            IAML           10 32 33.0
       comp=E,46nm,0.3s
CAEL   Denizli, Camel    4.49  48  P      Pn      10 31 36.8 +0.9
CAEL                            S      Sn      10 32 28.1   0.0
CAEL                            IAML           10 32 38.0
       comp=E,274nm,0.9s
CAEL                            IAML           10 32 39.0
       comp=N,239nm,0.9s
KYMI   Kymi, Euboea I    4.52 350  P      Pn      10 31 36.1   0.0
KLV    Kalavryta, Ach    4.55 329  P      Pn      10 31 36.7 +0.1
KLV                             AML    AML
NAZL   Nazilli-Aydin     4.55  33  Pn     Pn      10 31 38.4 +1.8
NAZL                            AML    AML
ELL    Elmali            4.65  55  P      Pn      10 31 39.8 +1.7
ELL    Elmali            4.65  55         Pn      10 31 39.8 +1.7
DNIZ   Denizli-Tavas-    4.66  42  P      Pn      10 31 40.1 +1.9
DNIZ                            S      Sn      10 32 32.4   0.0
DNIZ                            IAML           10 32 37.0
       comp=N,75nm,0.3s
DNIZ                            IAML           10 32 39.0
       comp=E,151nm,0.3s
APMY   Acipayam-Deniz    4.71  45  Pn     Pn      10 31 40.6 +1.8
APMY                            AML    AML
AIOA   Agios Ioannis,    4.71 329  P      Pn      10 31 38.9   0.0
LKR    Lokris            4.78 339  P      Pn      10 31 39.6  -0.1
LKR                             AML    AML
KIRA   zmir-Kiraz        4.79  32  P      Pn      10 31 41.4 +1.4
KIRA                            S      Sn      10 32 31.0  -4.5
KIRA                            IAML           10 32 41.0
       comp=N,32nm,0.9s
KIRA                            IAML           10 32 43.0
       comp=E,28nm,0.7s
ATAL   Atalanti          4.81 340  P      Pn      10 31 40.1  -0.1
ATAL                            AML    AML
KALE   Kalithea          4.85 331  P      Pn      10 31 40.5  -0.3
KALE                            AML    AML
SERG   Sergoula          4.90 330  P      Pn      10 31 42.0 +0.5
SERG                            AML    AML
AXAR   Agios Charalam    4.99 337  P      Pn      10 31 42.9 +0.2
KEMT   Kemer-ANTALYA     5.03  60  Pn     Pn      10 31 45.2 +2.0
KEMT                            AML    AML
MANT   Manisa            5.10  32         Pn      10 31 45.6 +1.2
PRK    Paraskevi         5.13  10  P      Pn      10 31 45.6 +1.1
ANTB   Antalya           5.24  57  Pn     Pn      10 31 48.8 +2.7
ANTB                            AML    AML
AGG    Agios Georgios    5.33 336  P      Pn      10 31 47.7 +0.4
       comp=Z,37nm,0.8s
XOR    Xorichti          5.40 344  P      Pn      10 31 50.4 +2.1
       comp=Z,72nm,1.1s
BASM   Basmaki-Afyon     5.45  45  Pn     Pn      10 31 51.5 +2.5
BASM                            AML    AML
BCK    Bucak             5.50  52  Pn     Pn      10 31 51.9 +2.2
BCK                             AML    AML
BCK    Bucak             5.50  52  P      Pn      10 31 51.8 +2.1
ISP    Isparta           5.67  49  Pn     Pn      10 31 54.4 +2.3
ISP    Isparta           5.67  49  P      Pn      10 31 53.6 +1.5
ISP    Isparta           5.67  49  Pn     Pn      10 31 53.6 +1.5
PAIG   Paliouri          5.85 349  P      Pn      10 31 55.2 +0.8
       comp=Z,11nm,0.8s
BALB   Balikesir         5.87  21  Pn     Pn      10 31 57.3 +2.7
BALY   Balya             5.89  19  P      Pn      10 31 57.0 +2.0
       comp=Z,99nm,0.9s
LIT    Litokhoron        6.27 341  P      Pn      10 32 00.4 +0.1
LIT    Litokhoron        6.27 341         Pn      10 32 00.4 +0.1
LIT    Litokhoron        6.27 341  P      Pn      10 32 02.4 +2.1
       comp=Z,29nm,0.7s
IGT    Igoumenitsa       6.58 326  P      Pn      10 32 06.1 +1.6
HORT   Hortiatis         6.60 346  P      Pn      10 32 06.9 +2.0
       comp=Z,39nm,1.0s
SOH    Sokhos            6.78 348  P      Pn      10 32 05.3  -1.9
SOH    Sokhos            6.78 348  P      Pn      10 32 05.3  -1.9
CSS    Mathiatis         6.79  81         Pn      10 32 07.1  -0.3
CSS    Mathiatis         6.79  81  P      Pn      10 32 09.6 +2.1
       comp=Z,0.3nmcomp=Z,552nmcomp=Z,34nm,0.6s
CSS                             AML    AML
CSS    Mathiatis         6.79  81  P      Pn      10 32 07.1  -0.3
CSS                             S      Sn      10 33 22.5  -2.3
KEK    Kerkira           6.98 324  Pn     Pn      10 32 08.7  -1.3
SRS    Serrai            7.03 350  P      Pn      10 32 12.3 +1.7
SRS    Serrai            7.03 350  P      Pn      10 32 12.3 +1.7
       comp=Z,21nm,1.0s
KNT    Kendrikon         7.19 346  P      Pn      10 32 17.0 +4.2
OHR    Ohrid             7.72 335 i Pn     Pn      10 32 20.8 +0.5
PEHC   Pehcevo           7.78 347 i Pn     Pb      10 32 33.1   -10
PHP    Peshkopia         8.36 335  P      Pn      10 32 30.1 +1.2
PHP    Peshkopia         8.36 335  P      Pn      10 32 30.1 +1.2
       comp=Z,10nm,1.0s
OFRI   `Ofer             8.37  98  P      Pn      10 32 28.5  -0.6
OFRI                            S      Sn      10 33 59.7  -4.0
TIP    Timpagrande       8.38 309         Pn      10 32 28.6  -0.6
TIP    Timpagrande       8.38 309  P      Pn      10 32 29.2  -0.1
       comp=Z,20nm,0.9s
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KZIT   Kziot             8.47 110  P      Pn      10 32 31.3 +0.9
       comp=Z,1μmcomp=Z,32nm,0.8s
KZIT   Kziot             8.47 110  P      Pn      10 32 31.2 +0.9
       comp=Z,32nm,0.8s
KZIT   Kziot             8.47 110  P      Pn      10 32 29.8  -0.6
KZIT                            S      Sn      10 34 01.9  -4.1
CEL    Celeste           8.51 301         Pn      10 32 30.6  -0.5
CEL    Celeste           8.51 301  P      Pn      10 32 31.3 +0.3
       comp=Z,37nm,0.8s
AMAZ   Amatzia           8.63 105  P      Pn      10 32 33.5 +0.8
       comp=Z,55nm,0.7s
MMA0B  Mount Meron ar    8.64  95  P      Pn      10 32 32.5  -0.2
MMA0B                           S      Sn      10 34 06.8  -3.4
MMAI   Mount Meron Ar    8.64  95  Pn     Pn      10 32 32.5  -0.3
       comp=Z,7.1nm,0.3s,baz=266,slow=13,SNR=11
MMAI                            Sn     Sn      10 34 05.4  -4.8
       comp=Z,6.7nm,0.3s,baz=286,slow=21,SNR=2.4
       comp=Z,2.6nm,0.2s
MMAI                            AML    AML
SALP   Salfit            8.69 101  P      Pn      10 32 35.4 +2.0
       comp=Z,895nmcomp=Z,29nm,0.7s
BRTR   Keskin Array B    8.76  48  Pn     Pn      10 32 34.6 +0.1
       comp=Z,0.4nm,0.3s,baz=237,slow=16,SNR=11
BRTR                            Sn     Sn      10 34 08.2  -5.1
       comp=Z,0.1nm,0.3s,baz=228,slow=15,SNR=1.5
BRTR                            LR     LR      10 36 50.7
       comp=Z,360nm,18.3s,baz=238,slow=44
       comp=Z,1.9nm,0.7s
BRTR                            AML    AML
BRTR   Keskin Array B    8.76  48 i P      Pn      10 32 35.4 +0.9
BRTR                            pmax   pmax
       comp=Z,2.0nm,0.7s
BRTR   Keskin Array B    8.76  48         Pn      10 32 33.8  -0.7
BR131  Keskin Array S    8.76  48 i P      Pn      10 32 35.8 +1.3
MMLI   Mount Malkishu    8.78  99  P      Pn      10 32 34.1  -0.6
MMLI                            S      Sn      10 34 10.2  -3.3
JER    Jerusalem         8.78 103  P      Pn      10 32 34.1  -0.7
JER                             S      Sn      10 34 09.6  -4.1
KNHM   Kefar Nahum       8.81  96  P      Pn      10 32 34.4  -0.6
KNHM                            S      Sn      10 34 10.8  -3.4
GEM    Giv'at Ha'Em      8.82  93  P      Pn      10 32 35.0  -0.2
GEM                             S      Sn      10 34 10.8  -3.7
NATI   Neve Ativ         8.87  93  P      Pn      10 32 36.3 +0.4
NATI                            S      Sn      10 34 12.9  -2.9
ROII   Roi               8.88 100  P      Pn      10 32 35.9  -0.1
ROII                            S      Sn      10 34 12.4  -3.6
RMNI   Mount Ramon       8.88 111  P      Pn      10 32 35.3  -0.8
RMNI                            S      Sn      10 34 10.8  -5.4
QRNJ   Al-Qirein         8.93  99  P      Pn      10 32 38.9 +2.2
       comp=Z,43μmcomp=Z,3μm,0.8s
UJAP   Al Uja            8.94 102  P      Pn      10 32 38.9 +2.0
ALMO   Almog             8.99 103  P      Pn      10 32 36.9  -0.6
ALMO                            S      Sn      10 34 14.3  -4.4
MZS    Mizpe Shalem      9.01 104  P      Pn      10 32 37.2  -0.6
MZS                             S      Sn      10 34 15.2  -4.0
MSBI   Mazada            9.06 106  P      Pn      10 32 41.4 +2.9
       comp=Z,5.6nm,0.7s
MSBI   Mazada            9.06 106  P      Pn      10 32 39.0 +0.5
       comp=Z,22nm,0.7s
MSBI   Mazada            9.06 106  P      Pn      10 32 37.8  -0.7
MSBI                            S      Sn      10 34 16.1  -4.4
PRNI   Paran             9.18 112  P      Pn      10 32 42.1 +1.9
       comp=Z,2μmcomp=Z,101nm,0.7s
LISJ   El Lisan          9.19 106  P      Pn      10 32 42.3 +2.1
GHAJ   Ghor Haditha      9.23 105         Pn      10 32 42.7 +1.8
GHAJ   Ghor Haditha      9.23 105  P      Pn      10 32 42.7 +1.8
       comp=Z,2μmcomp=Z,38nm,0.5s
GHAJ   Ghor Haditha      9.23 105  P      Pn      10 32 43.3 +2.4
       comp=Z,38nm,0.5s
GHAJ   Ghor Haditha      9.23 105  P      Pn      10 32 40.0  -0.9
GHAJ                            S      Sn      10 34 20.4  -4.4
RAFF   Raffo Rosso       9.28 292         Pn      10 32 41.7 +0.2
VAE    Valguarnera       9.31 294  Pn     Pn      10 32 39.3  -2.7
       comp=Z,5.4nm,0.4s,baz=146,slow=16,SNR=1.6
VAE                             Sn     Sn      10 34 16.9   -10
       comp=Z,1.2nm,0.3s,baz=51,slow=13,SNR=1.3
HRFI   Mount Harif       9.35 114  P      Pn      10 32 44.0 +1.4
       comp=Z,475nmcomp=Z,36nm,0.7s
HRFI   Mount Harif       9.35 114  P      Pn      10 32 43.5 +0.9
       comp=Z,36nm,0.7s
HRFI   Mount Harif       9.35 114  P      Pn      10 32 41.5  -1.0
HRFI                            S      Sn      10 34 23.0  -4.8
YTVT   Yotvata           9.44 114  P      Pn      10 32 43.1  -0.6
YTVT                            S      Sn      10 34 25.0  -4.8
EIL    Elat              9.47 116  Pn     Pn      10 32 44.0  -0.2
       comp=Z,2.9nm,0.3s,baz=304,slow=11,SNR=27
EIL                             Sn     Sn      10 34 26.8  -3.8
       comp=Z,2.7nm,0.3s,baz=344,slow=21,SNR=5.7
       comp=Z,12nm,0.4s
EIL                             AML    AML
EIL    Elat              9.47 116  P      Pn      10 32 44.6 +0.5
       comp=Z,335nmcomp=Z,20nm,0.6s
EIL    Elat              9.47 116  P      Pn      10 32 44.5 +0.3
       comp=Z,20nm,0.6s
EIL    Elat              9.47 116  P      Pn      10 32 43.4  -0.7
EIL                             S      Sn      10 34 25.6  -4.9
AQBJ   Aqaba             9.51 115  P      Pn      10 32 46.5 +1.7
       comp=Z,2μmcomp=Z,89nm,0.6s
MARCO  Tramutola         9.62 312  P      Pn      10 32 46.5 +0.2
       comp=Z,30nm,0.7s
ASF    Jabal al Asfar   10.05  98  Pn     Pn      10 32 52.4 +0.2
       comp=Z,1.3nm,0.3s,baz=265,slow=9.3,SNR=8.6
ASF                             Sn     Sn      10 34 41.8  -3.2
       comp=Z,1.1nm,0.3s,baz=282,slow=17,SNR=2.1
       comp=Z,2.4nm,0.3s
ASF                             AML    AML
SGRT   San Giovanni R   10.59 318  Pn     Pn      10 32 57.3  -2.2
MLR    Muntele Rosu     11.31   3  Pn     Pn      10 33 08.7  -0.6
       comp=Z,0.3nm,0.3s,baz=215,slow=6.4,SNR=3.3
MLR                             LR     LR      10 38 13.7
       comp=Z,255nm,19.2s,baz=178,slow=42
       comp=Z,1.0nm,0.3s
MLR                             AML    AML
BZS    Buzias           11.73 348  P      Pn      10 33 13.4  -1.6
       comp=Z,4.2nm,0.8s
KELT   Kelkit           12.72  58  P      Pn      10 33 32.0 +3.2
       comp=Z,83nm,0.9s
NRCA   Norcia           12.77 316         Pn      10 33 29.6 +0.3
FDMO   Fiordimonte      12.91 317         Pn      10 33 31.0  -0.2
MORH   Mrgy, Hungar     12.99 340  P      Pn      10 33 34.8 +2.5
       comp=Z,5.4nm,0.8s
KEST   Kesra            13.05 281  Pn     Pn      10 33 30.9  -2.4
       comp=Z,0.2nm,0.3s,baz=101,slow=16,SNR=1.8
       comp=Z,1.7nm,0.7s
KEST                            AML    AML
KOPT   Kop Dagi         13.56  60         Pn      10 33 42.2 +1.9
MPLH   Magyarpolny      14.19 338  P      Pn      10 33 49.8 +1.2
       comp=Z,19nm,0.7s
SOKA   Soboth           14.64 331 i P      P       10 34 01.1  -0.2
       comp=Z,14nm,1.0s,SNR=6.3
OBKA   Obir             14.71 330 i P      P       10 33 59.3  -2.6
       comp=Z,8.2nm,0.7s
SOC    Sochi            14.71  46 eP      Pn      10 33 56.5 +0.8
SOC                             eS     Sn      10 36 45.8 +7.3
SOC                             MLR    MLR
       comp=Z,116nm,15.0s
SABO   M.te Sabotino    14.71 327  P      P       10 34 00.3  -1.6
DRE    Drenchia         14.83 327  P      Pn      10 33 56.2  -1.3
       comp=Z,41nm,0.8s
ARSA   Arzberg          14.93 334         Pn      10 33 56.2  -2.6
ARSA   Arzberg          14.93 334 eP      P       10 34 04.2  -0.2
       baz=136,slow=11
ARSA   Arzberg          14.93 334 i P      P       10 34 04.6 +0.2
       comp=Z,10nm,0.8s
ARSA   Arzberg          14.93 334  P      Pn      10 33 56.3  -2.6
       comp=Z,17nm,0.8s
GEVA   Gevas            15.03  69  P      P       10 34 07.6 +2.0
GEVA                            IAmb   IAmb    10 34 10.7
       comp=Z,15nm,1.0s
RONA   Rosalia, Austr   15.05 336 i P      P       10 34 05.2  -0.6
       comp=Z,6.5nm,0.6s
ACOM   Acomizza, Ital   15.18 328  P      Pn      10 34 01.4  -0.9
       comp=Z,12nm,0.9s
SESA   Seetaler Alpe,   15.19 331 i P      P       10 34 07.7 +0.3
       SNR=9.6
MYKA   Terra Mystica    15.19 328 i P      P       10 34 06.1  -1.1
       comp=Z,2.7nm,0.6s
STAL   STALIGIAL        15.33 326  P      P       10 34 08.2  -0.7
STAL                            IAmb   IAmb    10 34 14.0
       comp=Z,13nm,0.7s
MODS   Modra-Piesok     15.35 340 eP      P       10 34 09.2 +0.2
MODS   Modra-Piesok     15.35 340 eP      P       10 34 09.2 +0.2
CONA   Conrad Observa   15.39 336 i P      P       10 34 11.5 +1.9
       comp=Z,4.4nm,1.1s
KBA    Koelnbreinsper   15.66 329  P      P       10 34 13.1 +0.4
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KBA                             pmax   pmax
       comp=Z,31nm,0.9s
KBA    Koelnbreinsper   15.66 329 eP      P       10 34 13.0 +0.4
       baz=136,slow=11
KBA    Koelnbreinsper   15.66 329 i P      P       10 34 12.8 +0.1
       comp=Z,19nm,0.7s,SNR=14
CTI    Castel Tesino    15.69 323  P      P       10 34 12.2  -0.7
CTI                             pmax   pmax
       comp=Z,15nm,0.7s
CTI    Castel Tesino    15.69 323  P      P       10 34 12.2  -0.7
CTI                             IAmb   IAmb    10 34 13.6
       comp=Z,15nm,0.7s
ABTA   Abfaltersbach    15.78 326 i P      P       10 34 14.2 +0.4
       comp=Z,26nm,0.6s,SNR=14
MOA    Molln            15.90 332 eP      P       10 34 14.5  -0.7
       baz=136,slow=11
MOA    Molln            15.90 332 eP      P       10 34 14.8  -0.4
       comp=Z,23nm,0.9s,SNR=9.8
BIOA   Bad Ischl, Aus   16.02 331 i P      P       10 34 15.7  -0.9
       comp=Z,6.7nm,0.6s
MAUC   Maruska          16.11 343 eP      P       10 34 17.9 +0.5
LESA   Schwarzleotal    16.22 328 eP      P       10 34 18.3  -0.5
       baz=136,slow=11
LESA   Schwarzleotal    16.22 328 i P      P       10 34 19.1 +0.3
       comp=Z,23nm,0.8s,SNR=10
KRUC   Moravsky         16.22 339  P      Pn      10 34 16.8 +1.2
KRUC   Moravsky         16.22 339 ePN     Pn      10 34 16.5 +0.9
KRUC   Moravsky         16.22 339  P      Pn      10 34 16.8 +1.2
       comp=Z,14nm,1.0s
VRAC   Vranov           16.38 340  Pn     Pn      10 34 15.4  -2.2
       comp=Z,0.3nm,0.3s,baz=154,slow=9.3,SNR=14
       comp=Z,8.6nm,0.8s
VRAC                            AML    AML
VRAC   Vranov           16.38 340 ePN     Pn      10 34 17.5  -0.2
NEUR   Neytrino         16.40  51 i P      Pn      10 34 19.4 +1.3
WTTA   Wattenberg       16.57 326  P      P       10 34 24.1 +1.4
WTTA   Wattenberg       16.57 326 eP      P       10 34 23.6 +0.9
       baz=136,slow=11
WTTA   Wattenberg       16.57 326 i P      P       10 34 24.2 +1.4
       comp=Z,40nm,1.4s,SNR=10
WATA   Walderalm        16.65 326 i P      P       10 34 24.9 +1.3
       comp=Z,28nm,1.3s,SNR=5.1
CKRC   Cesky Krumlov    16.70 334 eP      P       10 34 24.3 +0.3
CKRC   Cesky Krumlov    16.70 334 eP      P       10 34 24.3 +0.3
GNI    Garni            16.70  63  LR     LR      10 42 22.9
       comp=Z,220nm,20.1s,baz=280,slow=43
KIV    Kislovodsk       16.72  49 eP      P       10 34 25.3 +0.9
KIV                             pmax   pmax
       comp=Z,29nm,1.1s
KIV                             MLR    MLR
       comp=Z,38nm,14.0s
KIV    Kislovodsk       16.72  49  P      P       10 34 25.1 +0.7
KIV                             IAmb   IAmb    10 34 28.5
       comp=Z,48nm,1.1s
KVAR   Kislovodsk Arr   16.73  49  Pn     P       10 34 24.0  -0.4
       baz=249,slow=14
       comp=Z,4.2nm,0.5s
SQTA   Sankt Quirin     16.73 325 i P      P       10 34 25.6 +1.1
       comp=Z,8.4nm,0.6s
KBZ    Khabaz           16.75  50  Pn     P       10 34 24.1  -0.4
       comp=Z,0.6nm,0.3s,baz=248,slow=9.7,SNR=30
KBZ                             LR     LR      10 42 37.3
       comp=Z,78nm,19.7s,baz=264,slow=44
       comp=Z,14nm,0.8s
KBZ                             AML    AML
KBZ    Khabaz           16.75  50ceP      P       10 34 23.9  -0.6
KIEV   Kiev             16.76   9  P      Pn      10 34 21.6  -0.8
KIEV                            pmax   pmax
       comp=Z,35nm,0.9s
KIEV   Kiev             16.76   9  P      Pn      10 34 21.6  -0.8
KIEV                            IAmb   IAmb    10 34 23.9
       comp=Z,35nm,0.8s
KIEV   Kiev             16.76   9  P      Pn      10 34 23.1 +0.6
       comp=Z,47nm,1.0s
AKASG  Malin Array Be   16.77   9  Pn     Pn      10 34 21.3  -1.3
       comp=Z,6.4nm,0.3s,baz=202,slow=11,SNR=30
AKASG                           LR     LR      10 40 30.1
       comp=Z,83nm,18.8s,baz=236,slow=36
       comp=Z,2.1nm,0.4s
AKASG                           AML    AML
AKASG  Malin Array Be   16.77   9 i P      Pn      10 34 20.6  -1.9
AKASG                           pmax   pmax
       comp=Z,31nm,0.7s
AKASG  Malin Array Be   16.77   9  P      Pn      10 34 22.3  -0.2
AKBB   Malin Array Si   16.77   9deP      Pn      10 34 22.8 +0.3
AKBB   Malin Array Si   16.77   9  P      Pn      10 34 21.7  -0.8
AKBB                            IAmb   IAmb    10 34 23.9
       comp=Z,39nm,0.8s
FUORN  Ofenpass-Fuorn   16.78 322  P      Pn      10 34 23.2 +0.2
FUORN                           IAmb   IAmb    10 34 27.8
       comp=Z,17nm,0.8s
FETA   Feichten         16.82 324 eP      P       10 34 25.6 +0.1
       baz=136,slow=11
FETA   Feichten         16.82 324 i P      P       10 34 26.1 +0.6
       comp=Z,15nm,0.9s,SNR=10
MOTA   Moosalm          16.87 325 eP      P       10 34 28.6 +2.5
       comp=Z,8.5nm,1.1s
GEC2   GERESS Array S   16.94 333  P      P       10 34 26.4  -0.3
GEC2   GERESS Array S   16.94 333  Pn     Pn      10 34 24.7  -0.1
GEC2                            IAmb   IAmb    10 34 27.4
       comp=Z,22nm,0.7s
GEC2   GERESS Array S   16.94 333 eP      P       10 34 26.2  -0.5
       comp=Z,23nm,0.7s,baz=136,slow=11
GERES  GERESS Array B   16.94 333  Pn     Pn      10 34 20.8  -4.0
       comp=Z,1.5nm,0.3s,baz=146,slow=11,SNR=74
GERES                           AML    AML
KRLC   Kraliky          17.03 341 eP      P       10 34 26.9  -0.8
KRLC   Kraliky          17.03 341 eP      P       10 34 26.9  -0.8
DAVOX  Davos/Dischmat   17.08 322  Pn     Pn      10 34 24.9  -1.7
       comp=Z,0.4nm,0.3s,baz=131,slow=13,SNR=14
DAVOX                           LR     LR      10 43 43.9
       comp=Z,37nm,20.0s,baz=76,slow=47
       comp=Z,1.8nm,0.9s
DAVOX                           AML    AML
RETA   Reutte           17.14 325 i P      P       10 34 30.0 +1.1
       comp=Z,10.0nm,0.8s
TUE    Stuetta          17.16 320  P      Pn      10 34 26.8  -0.8
KHC    Kasperske Hory   17.22 334ceP      Pn      10 34 27.2  -1.1
KHC                             pmax   pmax
       comp=Z,14nm,1.0s
KHC    Kasperske Hory   17.22 334 eP      P       10 34 29.5  -0.3
KHC                             AMS    AMS     10 42 10.0
       comp=Z,300nm,14.4s
KHC    Kasperske Hory   17.22 334  P      Pn      10 34 27.9  -0.3
       comp=Z,18nm,1.1s
ZVC    Zvikov           17.26 335 eP      P       10 34 30.0  -0.2
FUR    Furstenfeldbru   17.40 328  P      P       10 34 32.2 +0.5
FUR    Furstenfeldbru   17.40 328 eP      P       10 34 32.1 +0.3
       comp=Z,40nm,0.9s,baz=136,slow=11
DPC    Dobruska-Polom   17.40 341 eP      Pn      10 34 30.5   0.0
DPC    Dobruska-Polom   17.40 341 eP      Pn      10 34 30.5   0.0
DPC    Dobruska-Polom   17.40 341  P      Pn      10 34 30.4  -0.1
       comp=Z,9.1nm,0.9s
DAVA   Damuels          17.42 323 i P      P       10 34 32.2   0.0
       comp=Z,14nm,0.8s
WET    Wettzell         17.50 332  P      P       10 34 32.5  -0.3
WET    Wettzell         17.50 332 eP      Pn      10 34 32.2 +0.5
       comp=Z,26nm,0.9s,baz=136,slow=11
WET    Wettzell         17.50 332  P      P       10 34 32.5  -0.3
       comp=Z,38nm,1.0s
LLS    Linth-Limmern    17.58 321  P      P       10 34 35.7 +1.8
UBR    Ueberruh         17.59 325 eP      Pn      10 34 33.2 +0.4
       comp=Z,15nm,0.7s,baz=136,slow=11
PRU    Pruhonice        17.61 337  P      P       10 34 33.9  -0.1
PRU    Pruhonice        17.61 337  P      P       10 34 34.0  -0.1
       comp=Z,12nm,1.7s
OSTC   Ostas            17.62 341 eP      P       10 34 35.3 +1.2
OSTC   Ostas            17.62 341 eP      P       10 34 35.3 +1.2
MBDF   Montbardon       17.63 312 eP      P       10 34 34.5 +0.1
MBDF                            pmax   pmax
       comp=Z,7.0nm,0.9s
UPC    Upice            17.63 340  P      Pn      10 34 33.8 +0.5
UPC    Upice            17.63 340  P      Pn      10 34 33.8 +0.5
       comp=Z,12nm,1.0s
GRC3   Grafenberg Arr   17.82 330  P      Pn      10 34 34.3  -1.3
       comp=Z,20nm,0.8s
GRB5   Grafenberg Arr   17.95 330  P      Pn      10 34 37.0  -0.2
       comp=Z,20nm,0.9s
GRC4   Grafenberg Arr   17.99 330  P      Pn      10 34 37.9 +0.1
       comp=Z,27nm,0.9s
LPG    La Plagne        18.04 314 eP      P       10 34 40.3 +1.1
LPG                             pmax   pmax
       comp=Z,5.0nm,0.9s
LPL    La Plagne        18.06 314 eP      P       10 34 41.5 +2.2
LPL                             pmax   pmax
       comp=Z,2.0nm,0.4s
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GRB3  Grafenberg Arr    18.08 331    P      P        10 34 39.2  0.0
      comp=Z,45nm,1.0s
ZUR   Degenried         18.14 321    P      P        10 34 42.0 +2.1
GRB1  Grafenberg Arr    18.18 331    P      P        10 34 40.5 +0.2
GRB1  Grafenberg Arr    18.18 331    P      P        10 34 40.5 +0.2
      comp=Z,84nm,0.8s
SENIN Lac Senin/Sane    18.21 317    P      P        10 34 41.0 +0.1
ORIF  Oris-en-Rattie    18.27 312   eP      Pn       10 34 40.4 -1.0
ORIF                                 pmax   pmax
      comp=Z,16nm,1.5s
GRB4  Grafenberg Arr    18.27 331    P      P        10 34 41.5 +0.1
      comp=Z,102nm,0.9s
SLE   Schleitheim       18.44 322    P      Pn       10 34 44.2 +0.9
HSKC  Hora Svate Kat    18.51 336    P      P        10 34 43.5 -0.5
      comp=Z,4.9nm,1.0s
NKC   Novy Kostel       18.55 334    P      Pn       10 34 44.8 +0.2
NKC   Novy Kostel       18.55 334    P      Pn       10 34 44.8 +0.2
      comp=Z,14nm,0.8s
BRG   Berggiesshubel    18.57 337   eP      P        10 34 43.8 -0.8
      comp=Z,4.7nm,0.8s,baz=136,slow=11
BRG   Berggiesshubel    18.57 337    P      P        10 34 43.6 -1.0
      comp=Z,6.7nm,0.8s
BRG   Berggiesshubel    18.57 337   eP      P        10 34 44.0 -0.6
BRG                                  Amp             10 34 45.5
      comp=Z,4.7nm,0.8s
GRA1  Grafenberg Arr    18.59 331    P      P        10 34 43.7 -1.2
GRA1                                 IAmb   IAmb     10 34 51.9
      comp=Z,30nm,0.9s
GRA1  Grafenberg Arr    18.59 331    P      P        10 34 45.0 +0.1
      comp=Z,39nm,1.1s
GRF   Grafenberg Arr    18.59 331    P      P        10 34 43.7 -1.2
GRF                                  pmax   pmax
      comp=Z,31nm,0.9s
GRF   Grafenberg Arr    18.59 331   eP      P        10 34 44.6 -0.3
      comp=Z,24nm,0.8s,baz=136,slow=11
GRFO  Grafenberg        18.59 331    P      P        10 34 44.9 +0.1
GRFO  Grafenberg        18.59 331    P      P        10 34 44.9 +0.1
GRA3  Grafenberg Arr    18.60 331    P      P        10 34 45.0  0.0
      comp=Z,32nm,0.8s
TANN  Tannenbergstha    18.69 334   eP      P        10 34 45.0 -1.0
      comp=Z,17nm,0.8s,baz=136,slow=11
TANN  Tannenbergstha    18.69 334    P      P        10 34 45.0 -1.0
      comp=Z,42nm,0.9s
PLN   Plauen            18.86 334   eP      P        10 34 47.3 -0.5
      comp=Z,3.7nm,0.8s,baz=136,slow=11
BOURR Bourrignon        18.86 320    P      P        10 34 47.8 -0.2
BFO   Black Forest      18.90 323    P      P        10 34 47.0 -1.3
BFO                                  pmax   pmax
      comp=Z,6.0nm,0.7s
BFO   Black Forest      18.90 323    P      P        10 34 47.0 -1.3
BFO   Black Forest      18.90 323   eP      P        10 34 47.5 -0.8
      comp=Z,4.0nm,0.7s,baz=136,slow=11
BFO   Black Forest      18.90 323    P      P        10 34 47.8 -0.5
VIVF  Saint-Julien-l    19.00 310   eP      Pn       10 34 50.8 +0.7
VIVF                                 pmax   pmax
      comp=Z,3.0nm,0.7s
CABF  La Chapelle       19.04 316   eP      Pn       10 34 52.1 +1.5
CABF                                 pmax   pmax
      comp=Z,8.0nm,0.8s
MOX   Moxa              19.19 333    P      P        10 34 51.3 -0.1
MOX   Moxa              19.19 333   eP      P        10 34 51.0 -0.5
      comp=Z,9.8nm,0.8s,baz=136,slow=11
MOX   Moxa              19.19 333    P      P        10 34 51.3 -0.1
      comp=Z,17nm,0.9s
CLL   Collm             19.25 336   i P     P        10 34 51.5 -0.6
CLL                                  pmax   pmax
      comp=Z,14nm,1.0s
CLL   Collm             19.25 336   eP      P        10 34 51.5 -0.6
      comp=Z,12nm,0.9s,baz=136,slow=11
CLL   Collm             19.25 336    P      P        10 34 51.9 -0.1
      comp=Z,16nm,1.0s
CLL   Collm             19.25 336   i P     P        10 34 51.5 -0.6
      comp=Z,14nm,1.0s
CLL                                 i sP    sP       10 34 56.2 +0.6
CLL                                 ePP     PnPn     10 35 06.0 +0.1
CLL                                 i pPP            10 35 08.8
CLL                                  LH              10 41 00.0
CLL                                  LV              10 42 00.0
HINF  Hinteralfeld      19.33 320   eP      Pn       10 34 54.6 +0.6
HINF                                 pmax   pmax
      comp=Z,5.0nm,0.6s
ECH   Echery            19.42 322    P      P        10 34 53.3 -0.6
ECH                                  pmax   pmax
      comp=Z,11nm,1.1s
ECH   Echery            19.42 322    P      P        10 34 53.3 -0.6
CDF   Champ du Feu      19.48 322   eP      P        10 34 55.2 +0.5
CDF                                  pmax   pmax
      comp=Z,5.0nm,0.7s
NEUB  Neuenburg         19.59 334   eP      P        10 34 56.4 +0.6
      comp=Z,50nm,1.1s,baz=136,slow=11
NEUB  Neuenburg         19.59 334    P      P        10 34 56.5 +0.8
      comp=Z,46nm,0.9s
VORD  Divnogorie        19.68  27   eP      P        10 34 56.9 +0.1
VORD                                 pmax   pmax
      comp=Z,10.0nm,0.9s
HAU   Haudompre         19.71 320   eP      Pn       10 34 59.0 +0.4
HAU                                  pmax   pmax
      comp=Z,9.0nm,0.7s
VSR   Storozhevoye      19.84  27   eP      P        10 34 57.5 -0.9
VSR                                  pmax   pmax
      comp=Z,13nm,1.0s
WIMM  Wimmelburg        19.95 334    P      P        10 34 57.6 -2.0
      comp=Z,33nm,0.7s
MTLF  Montolieu         20.03 304   eP      P        10 35 01.6 +0.9
MTLF                                 pmax   pmax
      comp=Z,4.0nm,0.7s
VORR  Voronezh          20.22  26   eP      P        10 35 01.0 -1.6
VORR                                 pmax   pmax
      comp=Z,13nm,0.6s
SMF   Signal de Mont    20.37 314   eP      P        10 35 03.4 -0.9
SMF                                  pmax   pmax
      comp=Z,6.0nm,0.8s
MNK   Minsk             20.40   5   i P     P        10 35 03.3 -1.2
MNK                                 i PPP   PPP      10 35 28.3
MNK                                 i S     S        10 38 53.2 +0.4
MNK                                 i SS    SnSn     10 39 12.8 +1.8
MNK                                 i SSS   SSS      10 39 25.9
MNK                                  pmax   pmax
      comp=Z,25nm,0.7s
MNK                                  pmax   pmax
      comp=E,33nm,0.8s
MNK                                  pmax   pmax
      comp=N,12nm,0.5s
MNK                                  MLR    MLR
      comp=E,961nm,22.0s
MNK                                  MLR    MLR
      comp=N,767nm,22.0s
MNK                                  MLR    MLR
      comp=Z,110nm,19.0s
MNK   Minsk             20.40   5   i P     P        10 35 03.4 -1.2
      comp=E,33nm,0.8s
MNK                                 i P     P        10 35 03.4 -1.2
      comp=N,12nm,0.5s
MNK                                 i P     P        10 35 03.4 -1.2
      comp=Z,25nm,0.7s,baz=187
MNK                                 i PP    pwP      10 35 20.6  +10
MNK                                 i PPP   PPP      10 35 28.4
MNK                                 i S     S        10 38 53.3 +0.4
MNK                                 i SS    SnSn     10 39 12.9 +1.8
MNK                                 i SSS   SSS      10 39 25.9
MNK                                 i LQ    LQ       10 40 03.0
MNK                                 i LR    LR       10 42 25.4
MNK                                 i LRM   MLR      10 43 15.5
      comp=E,961nm,21.7s
MNK                                 i LRM   MLR      10 43 26.9
      comp=N,767nm,22.0s
MNK                                 i LRM   MLR      10 43 31.3
      comp=Z,110nm,18.7s
CEST  Esterri de Car    20.48 301    P      P        10 35 06.4 +0.8
CEST                                 IAmb   IAmb     10 35 12.0
      comp=Z,11nm,0.8s
GTTG  Gottingen         20.54 332   eP      P        10 35 06.2 +0.1
      comp=Z,94nm,0.9s,baz=136,slow=11
GTTG  Gottingen         20.54 332    P      P        10 35 04.0 -2.1
      comp=Z,172nm,0.9s
CLZ   Clausthal         20.62 333   eP      P        10 35 06.1 -0.9
      comp=Z,15nm,0.8s,baz=136,slow=11
LOR   Lormes            20.68 316   eP      P        10 35 07.2 -0.5
LOR                                  pmax   pmax
      comp=Z,6.0nm,0.9s
LOR   Lormes            20.68 316    P      P        10 35 07.0 -0.6
      comp=Z,5.9nm,0.9s
FLTG  Flechtingen       20.71 335   eP      P        10 35 06.7 -1.2
      comp=Z,34nm,0.8s,baz=136,slow=11
FLTG  Flechtingen       20.71 335    P      P        10 35 06.9 -1.0
      comp=Z,53nm,0.9s
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CAF   Calviac           20.71 308   eP      Pn       10 35 09.5 -0.9
CAF                                  pmax   pmax
      comp=Z,4.0nm,0.9s
RAYN  Ar Rayn           20.72 116    P      P        10 35 09.5 +1.2
RAYN                                 pmax   pmax
      comp=Z,5.0nm,0.7s
RAYN  Ar Rayn           20.72 116    P      P        10 35 09.5 +1.2
AVF   Avril sur Loir    20.73 314   eP      P        10 35 08.4 +0.2
AVF                                  pmax   pmax
      comp=Z,4.0nm,0.8s
NACGM Naroch            20.75   3   eP      P        10 35 06.2 -2.1
      comp=Z,37nm,1.0s,baz=184
SSF   Saint Saulge      20.78 315   eP      Pn       10 35 10.1 -1.1
SSF                                  pmax   pmax
      comp=Z,2.0nm,0.5s
VRH   Novokhopyorsk     20.84  30   eP      P        10 35 08.6 -0.7
VRH                                  pmax   pmax
      comp=Z,39nm,0.9s
WLF   Walferdange       20.86 324    P      P        10 35 10.0 +0.4
WLF                                  pmax   pmax
      comp=Z,28nm,1.0s
WLF   Walferdange       20.86 324    P      P        10 35 10.0 +0.4
WLF   Walferdange       20.86 324   dP      Pn       10 35 12.5 +0.4
      comp=Z,19nm,0.9s
LPSR  Galich'ya Gora    20.89  24   eP      P        10 35 06.5 -3.3
LPSR                                 pmax   pmax
      comp=Z,25nm,0.9s
KASTN Kahler Asten      20.90 329   eP      P        10 35 09.2 -0.8
      comp=Z,19nm,1.2s,baz=136,slow=11
BGF   Bois d'Agland     20.93 313   eP      P        10 35 10.8 +0.5
BGF                                  pmax   pmax
      comp=Z,9.0nm,0.6s
TCF   Toulx Ste Croi    21.19 312   eP      P        10 35 13.6 +0.4
TCF                                  pmax   pmax
      comp=Z,6.0nm,1.0s
RJF   Les Rejaudoux     21.22 309   eP      P        10 35 13.6 +0.1
RJF                                  pmax   pmax
      comp=Z,50nm,1.0s
MEM   Membach           21.55 325    P      P        10 35 17.4 +0.3
MEM   Membach           21.55 325   dP      P        10 35 17.2 +0.1
      comp=Z,20nm,1.0s
MEM   Membach           21.55 325    P      P        10 35 17.4 +0.3
      comp=Z,35nm,0.9s
BUG   Bochum--Univer    21.57 328    P      P        10 35 16.5 -0.6
BUG   Bochum--Univer    21.57 328   eP      P        10 35 17.2  0.0
      comp=Z,16nm,0.8s,baz=136,slow=11
BUG   Bochum--Univer    21.57 328    P      P        10 35 16.5 -0.6
      comp=Z,24nm,0.9s
RCHB  Rochefort         21.63 324   dP      P        10 35 17.9  0.0
      comp=Z,14nm,0.9s
HGN   Heimansgroeve     21.70 326    P      P        10 35 19.4 +0.8
      comp=Z,18nm,0.9s
RETH  Rethem/Aller,     21.71 333   eP      P        10 35 17.9 -0.7
      comp=Z,44nm,1.0s,baz=136,slow=11
RETH  Rethem/Aller,     21.71 333    P      P        10 35 18.2 -0.4
      comp=Z,79nm,1.0s
BCLA  Clavier           21.77 324   dP      P        10 35 19.4 +0.1
GIVF  Givet             21.80 323   eP      P        10 35 18.6 -1.1
GIVF                                 pmax   pmax
      comp=Z,19nm,1.3s
ETSF  Etsaut            21.84 301   eP      P        10 35 21.7 +1.4
ETSF                                 pmax   pmax
      comp=Z,26nm,0.8s
DOU   Dourbes           21.91 323    P      P        10 35 22.4 +1.5
DOU   Dourbes           21.91 323   dP      P        10 35 21.2 +0.4
      comp=Z,12nm,0.9s
BMRD  Maredsous         21.95 323   dP      P        10 35 23.2 +1.9
IBBN  Ibbenburen        22.00 331    P      P        10 35 21.0 -0.8
      comp=Z,18nm,1.1s
BAIF  Baives            22.08 322   eP      P        10 35 23.2 +0.5
BAIF                                 pmax   pmax
      comp=Z,18nm,1.0s
SJPF  Ste Jean          22.37 301   eP      P        10 35 27.8 +1.9
SJPF                                 pmax   pmax
      comp=Z,7.0nm,0.9s
OBN   Obninsk           22.39  17d iP       P        10 35 25.7 -0.2
OBN                                 e                10 35 49.3
OBN                                 eS      S        10 39 30.9 -0.7
OBN                                 eSS     SnSn     10 40 03.5 +3.9
OBN                                  MLR    MLR
      comp=Z,121nm,17.0s
OBN   Obninsk           22.39  17    P      P        10 35 27.4 +1.5
      comp=Z,35nm,0.5s
UCC   Uccle             22.47 324   dP      P        10 35 26.9 +0.1
MFF   Saint Martin d    22.80 311   eP      P        10 35 30.8 +0.4
MFF                                  pmax   pmax
      comp=Z,36nm,0.6s
MFF   Saint Martin d    22.80 311    P      P        10 35 31.9 +1.5
      comp=Z,4.5nm,1.9s
LUNU  Lund              22.93 343   i P     P        10 35 28.9 -2.8
BLEU  Blekinge          23.03 347   i P     P        10 35 28.0 -4.7
DEL   Delary            23.59 344   i P     P        10 35 35.7 -2.6
LDF   La Druitiere      23.66 315   eP      P        10 35 37.8 -1.3
LDF                                  pmax   pmax
      comp=Z,9.0nm,0.7s
ESBB  Sonseca Array     23.85 292    P      P        10 35 41.0 -0.1
ESDC  Sonseca Array     23.85 292    P      P        10 35 41.1  0.0
      comp=Z,2.4nm,0.7s,baz=82,slow=9.1,SNR=25
      comp=Z,2.4nm,0.7s
FLN   La Foliniere      23.95 315   eP      P        10 35 41.0 -0.9
FLN                                  pmax   pmax
      comp=Z,38nm,1.2s
GRR   Gorron            24.00 314   eP      P        10 35 42.9 +0.5
GRR                                  pmax   pmax
      comp=Z,10.0nm,0.8s
BELG  Belogornoye       24.30  35d iP       P        10 35 44.1 -1.0
BELG                                 pmax   pmax
      comp=Z,6.0nm,1.0s
MUD   Monsted U'grnd    24.82 339   i P     P        10 35 51.1 +1.4
ONAU  Onsala            24.89 343   i P     P        10 35 49.7 -0.6
MD01  Midelt array s    24.93 275    P      P        10 35 51.4 +0.2
MD31  MD31              24.93 275    P      P        10 35 51.0 -0.1
MD31                                 IAmb   IAmb     10 36 13.7
      comp=Z,7.4nm,1.4s
SGMF  Saint Gilles      24.97 313   eP      P        10 35 51.5 +0.3
SGMF                                 pmax   pmax
      comp=Z,31nm,1.2s
QUIF  Quistinic         25.21 311   eP      P        10 35 53.8 +0.5
QUIF                                 pmax   pmax
      comp=Z,9.0nm,0.5s
ROSF  Rostrenen         25.44 312   eP      P        10 35 56.7 +1.3
ROSF                                 pmax   pmax
      comp=Z,49nm,1.5s
CWF   Charnwood Fore    26.45 323    P      P        10 36 03.2 -1.4
      comp=Z,9.0nm,0.6s
STRU  Stroemstad        26.53 344   i P     P        10 36 02.9 -2.3
HFS   Hagfors           27.02 347    P      P        10 36 07.4 -2.2
      comp=Z,3.1nm,0.5s,baz=146,slow=11,SNR=7.5
HFS                                  LR     LR       10 49 21.9
      comp=Z,57nm,19.4s,baz=82,slow=42
      comp=Z,3.1nm,0.5s
FINES FINESS Array B    27.28   1    P      P        10 36 09.8 -2.1
      comp=Z,3.6nm,0.6s,baz=169,slow=9.9,SNR=16
FINES                                LR     LR       10 47 46.0
      comp=Z,90nm,18.6s,baz=226,slow=38
      comp=Z,3.6nm,0.6s
NORES NORESS Array B    27.99 346    P      P        10 36 17.3 -1.0
NORES                                pmax   pmax
      comp=Z,1.0nm,0.2s
NAO01 NORSAR Array S    28.23 345    P      P        10 36 19.1 -1.3
      comp=Z,9.3nm,1.1s
KLMR  Klimovskoe        28.26  15   eP      P        10 36 17.0 -3.7
KLMR                                 pmax   pmax
      comp=Z,18nm,1.4s
NB2   NORSAR Subarra    28.34 346    P      P        10 36 19.5 -2.0
      comp=Z,1.4nm,0.4s,baz=164,slow=9.3
NOA   NORSAR Array B    28.34 346    P      P        10 36 19.9 -1.6
      comp=Z,0.3nm,0.3s,baz=157,slow=10,SNR=5.5
NOA                                  LR     LR       10 47 25.0
      comp=Z,37nm,21.1s,baz=165,slow=36
      comp=Z,0.3nm,0.3s
EKA   Eskdalemuir Ar    28.83 326    P      P        10 36 24.6 -1.3
      comp=Z,2.1nm,0.7s,baz=126,slow=9.5,SNR=9.6
      comp=Z,2.1nm,0.7s
AKTO  Aktyubinsk        28.93  46    LR     LR       10 51 40.2
      comp=Z,65nm,19.1s,baz=203,slow=44
KIRV  Kirov             29.28  26    LR     LR       10 48 31.9
      comp=Z,43nm,19.0s,baz=190,slow=37
KIRV  Kirov             29.28  26ceP        P        10 36 28.6 -1.1
TORD  Torodi Ar. Bea    29.86 231    P      P        10 36 36.2 +0.8
      comp=Z,6.9nm,0.5s,baz=33,slow=8.5,SNR=50
      comp=Z,6.9nm,0.5s
ARTI  Arti              31.74  35    LR     LR       10 51 60.0
      comp=Z,36nm,18.9s,baz=314,slow=41
ARTI  Arti              31.74  35c iP       P        10 36 50.8 -0.8
ARTI                                                 10 37 53.4
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ARTI                                 S      S        10 42 01.8 +0.7
ARTI                                 SS     SnSn     10 43 46.2 -1.6
ARTI                                 pmax   pmax
      comp=Z,16nm,1.3s
ARTI  Arti              31.74  35    P      P        10 36 50.6 -1.0
SVE   Sverdlovsk        33.04  36   eP      P        10 37 02.5 -0.5
SVE                                  pmax   pmax
      comp=Z,19nm,0.8s
ARCES ARCESS Array B    35.40   0    P      P        10 37 21.2 -2.0
      comp=Z,0.9nm,0.3s,baz=177,slow=10.0,SNR=22
ARCES                                LR     LR       10 52 27.0
      comp=Z,75nm,21.8s,baz=176,slow=37
      comp=Z,0.9nm,0.3s
ARCES ARCESS Array B    35.40   0    P      P        10 37 21.3 -2.0
ARCES                                pmax   pmax
      comp=Z,12nm,1.5s
ARCES ARCESS Array B    35.40   0    IAmb   IAmb     10 37 34.6
      comp=Z,12nm,1.4s
KK31  Karatay Array     36.16  62    P      P        10 37 31.0 +0.8
KK31                                 pmax   pmax
      comp=Z,4.0nm,0.8s
KK31  Karatay Array     36.16  62    P      P        10 37 31.0 +0.8
KK31                                 IAmb   IAmb     10 37 32.5
      comp=Z,4.0nm,0.8s
KKAR  Karatay Array     36.16  62    P      P        10 37 30.7 +0.6
KKAR  Karatay Array     36.16  62    P      P        10 37 30.7 +0.6
BORK  Borovoye          36.99  45   i P     P        10 37 38.1 +1.0
BORK                                 pmax   pmax
      comp=Z,4.0nm,0.9s
BORK  Borovoye          36.99  45    P      P        10 37 37.3 +0.2
BORK                                 IAmb   IAmb     10 37 39.5
      comp=Z,4.0nm,0.9s
BVAR  Borovoye Array    37.03  45    P      P        10 37 36.9 -0.6
      comp=Z,3.1nm,0.8s,baz=258,slow=7.4,SNR=12
      comp=Z,3.1nm,0.8s
ARK   Arkit             37.29  64    P      P        10 37 41.4 +1.5
      comp=Z,4.8nm,1.2s
DBIC  Dimbokro          38.96 232    P      P        10 37 54.1 +0.1
      comp=Z,3.6nm,0.6s,baz=89,slow=15,SNR=1.8
DBIC                                 LR     LR       10 57 47.9
      comp=Z,158nm,18.2s,baz=80,slow=42
      comp=Z,3.6nm,0.6s
DBIC  Dimbokro          38.96 232    P      P        10 37 54.1 +0.1
DBIC                                 pmax   pmax
      comp=Z,36nm,1.5s
AAK   Ala-Archa         39.11  63    LR     LR       10 55 41.4
      comp=Z,48nm,18.4s,baz=295,slow=39
AAK   Ala-Archa         39.11  63ceP        P        10 37 55.1 -0.2
AAK                                  pmax   pmax
      comp=Z,7.0nm,1.7s
AAK   Ala-Archa         39.11  63    P      P        10 37 56.2 +0.9
      comp=Z,4.0nm,0.8s
NRN   Naryn             40.34  64    IAmb   IAmb     10 38 07.6
      comp=Z,6.6nm,1.0s
KDJ   Kajisay           41.13  63    P      P        10 38 15.1 +3.0
KDJ                                  pmax   pmax
      comp=Z,6.0nm,0.8s
KDJ   Kajisay           41.13  63    IAmb   IAmb     10 38 15.7
      comp=Z,4.8nm,0.8s
KDJ   Kajisay           41.13  63    P      P        10 38 13.4 +1.2
      comp=Z,6.7nm,0.8s
KURBB Kurchatov Arra    41.75  50    P      P        10 38 16.9 +0.1
      comp=Z,6.6nm,0.7s,baz=278,slow=8.7,SNR=56
      comp=Z,6.6nm,0.7s
KURK  Kurchatov         41.81  50ceP        P        10 38 17.5 +0.2
KURK                                 pmax   pmax
      comp=Z,6.0nm,0.7s
KURK  Kurchatov         41.81  50    P      P        10 38 17.4 +0.1
KURK                                 IAmb   IAmb     10 38 19.1
      comp=Z,5.9nm,0.8s
KURK  Kurchatov         41.81  50    P      P        10 38 17.3  0.0
      comp=Z,9.3nm,0.8s
PDGK  Podgornoye        42.69  61    P      P        10 38 24.5 -0.3
PDGK  Podgornoye        42.69  61    P      P        10 38 24.5 -0.3
WUS   Wushi             42.77  64    IAmb   IAmb     10 38 27.0
      comp=Z,6.8nm,0.7s
WUS   Wushi             42.77  64    P      P        10 38 26.1 +0.7
      comp=Z,8.6nm,0.7s
MAKZ  Makanchi          44.11  56    P      P        10 38 36.9 +0.8
MAKZ                                 pmax   pmax
      comp=Z,4.0nm,0.8s
MAKZ  Makanchi          44.11  56           P        10 38 36.9 +0.8
MAKZ                                 IAmb   IAmb     10 38 37.1
      comp=Z,3.5nm,0.8s
MAKZ  Makanchi          44.11  56    P      P        10 38 36.3 +0.2
      comp=Z,5.2nm,1.1s
SPITS Spitsbergen Ar    44.26 357    P      P        10 38 36.1 -0.7
      comp=Z,1.2nm,0.2s,baz=151,slow=10,SNR=8.2
SPITS                                LR     LR       10 58 55.7
      comp=Z,67nm,19.1s,baz=152,slow=39
      comp=Z,1.2nm,0.2s
MK31  Makanchi Array    44.33  56ceP        P        10 38 38.3 +0.5
MKAR  Makanchi Array    44.33  56    P      P        10 38 38.0 +0.3
      comp=Z,6.8nm,0.7s,baz=278,slow=6.3,SNR=34
      comp=Z,6.8nm,0.7s
MKAR  Makanchi Array    44.33  56           P        10 38 38.2 +0.4
ZALV  Zalesovo Beam     45.69  45    P      P        10 38 47.7 -0.7
      comp=Z,5.3nm,0.4s,baz=265,slow=9.0,SNR=32
ZALV                                 LR     LR       11 02 15.0
      comp=Z,31nm,18.9s,baz=343,slow=42
      comp=Z,5.3nm,0.4s
ZALV  Zalesovo Beam     45.69  45           P        10 38 47.9 -0.5
WMQ   Urumqi            48.51  59   eP      P        10 39 14.0 +3.3
NRIK  Noril'sk          48.76  25    P      P        10 39 12.2  0.0
      comp=Z,4.6nm,0.7s,baz=223,slow=5.4,SNR=4.2
NRIK                                 LR     LR       11 01 26.5
      comp=Z,34nm,18.9s,baz=254,slow=38
      comp=Z,4.6nm,0.7s
NRIK  Noril'sk          48.76  25   i P     P        10 39 12.5 +0.3
NRIK                                 pmax   pmax
      comp=Z,4.0nm,0.8s
NRIK  Noril'sk          48.76  25    IAmb   IAmb     10 39 18.8
      comp=Z,6.2nm,0.8s
NOR   Nord              49.91 353    P      P        10 39 19.4 -1.4
      comp=Z,12nm,1.7s
TSUM  Tsumeb            53.58 189    LR     LR       11 04 10.4
      comp=Z,119nm,18.3s,baz=330,slow=38
ZAK   Zakamensk         57.40  48   eP      P        10 40 16.5 +0.2
ZAK                                  pmax   pmax
      comp=Z,6.0nm,1.2s
GTA2  Gaotai            58.37  61   eP      P        10 40 23.9 +0.6
GTA2                                 pP     sP       10 40 26.5 -0.5
GTA2                                 pmax   pmax
      comp=Z,5.0nm,0.8s
SONM  Songino Array     60.11  50    P      P        10 40 35.9 +0.6
      comp=Z,3.8nm,0.6s,baz=280,slow=8.6,SNR=12
      comp=Z,3.8nm,0.6s
SONM  Songino Array     60.11  50    P      P        10 40 35.9 +0.6
SONM                                 pmax   pmax
      comp=Z,3.0nm,0.7s
SONM  Songino Array     60.11  50    IAmb   IAmb     10 40 36.5
      comp=Z,2.7nm,0.7s
ULN   Ulaanbaatar       60.52  50ceP        P        10 40 38.3 +0.2
ULN                                  pmax   pmax
      comp=Z,3.0nm,0.8s
ULN   Ulaanbaatar       60.52  50    P      P        10 40 38.5 +0.5
ULN   Ulaanbaatar       60.52  50    P      P        10 40 38.7 +0.6
      comp=Z,7.7nm,0.7s
TIXI  Tiksi             62.08  20    LR     LR       11 11 06.1
      comp=Z,45nm,18.5s,baz=301,slow=39
BOSA  Boshof            62.46 180    P      P        10 40 52.4 +1.2
      comp=Z,4.9nm,0.8s,baz=352,slow=7.0,SNR=6.7
      comp=Z,4.9nm,0.8s
BOSA  Boshof            62.46 180    P      P        10 40 52.4 +1.2
BOSA                                 pmax   pmax
      comp=Z,7.0nm,1.2s
BOSA  Boshof            62.46 180    IAmb   IAmb     10 40 56.6
      comp=Z,7.0nm,1.1s
SCHQ  Schefferville     63.92 320    P      P        10 41 00.1 -0.5
      comp=Z,2.5nm,0.5s,baz=68,slow=5.8,SNR=11
      comp=Z,2.5nm,0.5s
PZH   PanZhiHua         65.14  74    P      P        10 41 10.8 +1.7
HHC   Hu-ho-hao-te      66.19  56   eP      P        10 41 15.3 -0.4
HHC                                  pmax   pmax
      comp=Z,18nm,0.5s
HHC                                  pmax   pmax
      comp=Z,79nm,4.8s
SUR   Sutherland        66.34 184    LR     LR       11 12 33.4
      comp=Z,67nm,18.2s,baz=346,slow=38
CMAR  Chiang Mai Arr    66.70  83    P      P        10 41 21.7 +2.6
      comp=Z,0.4nm,0.3s,baz=286,slow=8.2,SNR=4.3
      comp=Z,0.4nm,0.3s
YAK   Yakutsk           66.72  30    LR     LR       11 13 43.9
      comp=Z,32nm,18.7s,baz=282,slow=39
HEH   HeiHe             71.59  41   eP      P        10 41 49.1 +0.1
HEH                                  pmax   pmax
      comp=Z,9.0nm,0.7s
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BILL	Bilibino	74.01	14	*i* P	P	10 42 03.1	+0.1
BILL				pmax	pmax		
	comp=Z,3.0nm,1.1s						
KLR	Kul'dur	74.51	41	LR	LR	11 19 39.6	
	comp=Z,33nm,18.4s,baz=264,slow=40						
KLR	Kul'dur	74.51	41	*ce*P	P	10 42 05.4	-0.9
KLR				pmax	pmax		
	comp=Z,15nm,2.5s						
MA2	Magadan	76.36	25	P	P	10 42 16.5	-0.3
	comp=Z,11nm,0.8s						
INK	Inuvik	76.58	352	LR	LR	11 19 31.5	
	comp=Z,36nm,18.7s,baz=326,slow=38						
INK	Inuvik	76.58	352	P	P	10 42 18.1	+0.4
	comp=Z,4.8nm,1.9s						
USRK	Ussuriysk Ar.	77.54	45	P	P	10 42 23.3	-0.3
	comp=Z,4.1nm,0.7s,baz=292,slow=4.5,SNR=12						
	comp=Z,4.1nm,0.7s						
YKA	Yellowknife Ar	78.37	342	P	P	10 42 27.2	-0.7
	comp=Z,0.7nm,0.8s,baz=34,slow=5.1,SNR=6.1						
	comp=Z,0.7nm,0.8s						
KSRS	Korea Array	78.88	52	P	P	10 42 31.4	+0.2
	comp=Z,1.1nm,0.6s,baz=311,slow=5.0,SNR=4.9						
KSRS				LR	LR	11 20 15.0	
	comp=Z,22nm,19.5s,baz=225,slow=38						
	comp=Z,1.1nm,0.6s						
ULM	Lac du Bonnet	81.11	326	LR	LR	11 19 11.7	
	comp=Z,26nm,19.8s,baz=22,slow=36						
ILAR	Eielson Array	81.17	357	P	P	10 42 42.9	-0.2
	comp=Z,1.2nm,0.8s,baz=360,slow=3.8,SNR=12						
ILAR				LR	LR	11 21 52.4	
	comp=Z,13nm,19.6s,baz=346,slow=38						
	comp=Z,1.2nm,0.8s						
PETK	Petropavlovsk-	83.78	27	LR	LR	11 25 41.0	
	comp=Z,19nm,19.8s,baz=268,slow=40						
MJAR	Matsushiro Arr	85.98	48	P	P	10 43 08.8	+0.5
	comp=Z,0.6nm,0.6s,baz=338,slow=2.9,SNR=1.6						
	comp=Z,0.6nm,0.6s						
ECSD	EROS Data Cent	86.04	322	P	P	10 43 08.7	+0.2
CCM	Cathedral Cave	86.99	315	P	P	10 43 14.1	+0.9
	comp=Z,5.0nm,0.9s						
SHEM	Shemya Is, Ala	89.31	18	LR	LR	11 29 31.0	
	comp=Z,24nm,18.1s,baz=268,slow=40						
NEW	Newport	91.26	336	P	P	10 43 33.5	+0.3
	comp=Z,3.1nm,2.5s						
WRA	Warramunga Arr	116.49	97	PKP	PKPdf	10 49 11.7	-0.5
	comp=Z,0.3nm,0.7s,baz=334,slow=1.3,SNR=2.0						
QSPA	South Pole Qui	124.04	180	PKP	PKPdf	10 49 24.9	-0.4
	comp=Z,0.7nm,0.6s,baz=248,slow=1.7,SNR=5.8						

IDC 10 11:05:49.2±2.3**,7°.62S**×**156°.81E,h417**^{km}±34^{km}**,mb3.0**/4**, mbtmp3.9**/6**,Error ellipse: s-maj=36.3km s-min=21.1km az=131.0,Bougainville-Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	3.59	120	P	P	11 06 58.1	-0.4
	47nm,0.6s,baz=254,slow=2.9,SNR=1.6						
DZM	Mont Dzumac	17.11	148	P	P	11 09 24.5	+0.7
	3.8nm,0.6s,baz=315,slow=14,SNR=6.6						
WRA	Warramunga Arr	24.99	238	P	P	11 10 37.6	-0.1
	0.6nm,0.4s,baz=65,slow=9.6,SNR=14						
	0.6nm,0.4s						
PETK	Petropavlovsk-	60.49	1	P	P	11 15 17.3	+0.4
	0.5nm,0.4s,baz=140,slow=6.0,SNR=11						
	0.5nm,0.4s						
ILAR	Eielson Array	83.30	21	P	P	11 17 29.4	-1.0
	0.2nm,0.3s,baz=260,slow=5.4,SNR=9.8						
	0.2nm,0.3s						
MKAR	Makanchi Array	85.06	318	P	P	11 17 39.6	+0.1
	0.5nm,0.6s,baz=96,slow=4.8,SNR=4.7						
	0.5nm,0.6s						

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*IDC **10** 11:44:42.2±1.2, 3°.48S×133°.93E, h0^{km}, mb4.0/5, mbtmp4.1/7, ML4.0/2, Error ellipse: s-maj=46.1km s-min=19.7km az=83.0*

*DJA **10** 11:44:44.1±0.2, 3°S±2°×13°4E±°, h10^{km}, M4.3/13, mb4.5/4, MLv4.2/13*

ISC 10 11:44:43.1±0.9**,3°.58S**±0°.07×**133°.80E**±0°.07**,h13**^{km}**,n13, σ1**^{s}**.69**/16**,mb4.2**/3**,Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FAKI	Fak Fak	1.68	293	P	Pn	11 45 13.2	+1.0
FAKI				S	Sn	11 45 33.5	-0.1
MWPI	Manokwari, Pap	2.65	5	P	Pn	11 45 26.5	+1.0
MWPI				Pg	Pg	11 45 33.1	-0.8
MWPI				S	Sn	11 45 57.5	0.0
MWPI				AML	AML		
BAKI	Biak	3.31	44	P	Pn	11 45 36.1	+1.4
BAKI				AML	AML		
SWI	Sorong	3.70	317	P	Pn	11 45 39.5	-0.5
SWI				Pg	Pg	11 45 53.2	-0.9
SWI				AML	AML		
BNDI	Bandanaira	3.99	256	P	Pn	11 45 45.7	+1.7
NLAI	Namlea	6.69	273	P	Pn	11 46 22.0	+0.9
NLAI				AML	AML		
WRA	Warramunga Arr	16.27	178	Pn	Pn	11 48 28.5	-2.9
	0.3nm,0.3s,baz=357,slow=13,SNR=16						
WRA				Sn	Sn	11 51 19.9	-12
	0.3nm,0.3s,baz=355,slow=24,SNR=5.1						
	1.7nm,0.8s						
WRA				AML	AML		
FITZ	Fitzroy Crossi	16.49	208	Pn	Pn	11 48 31.8	-2.5
	1.2nm,0.3s,baz=30,slow=12,SNR=38						
FITZ				Sn	Sn	11 51 27.4	-10
	0.4nm,0.3s,baz=324,slow=19,SNR=2.2						
	2.4nm,0.3s						
FITZ				AML	AML		
ASAR	Alice Springs	19.97	180	P	P	11 49 16.9	+1.7
	4.2nm,0.8s,baz=5.1,slow=12,SNR=44						
ASAR				S	S	11 52 51.0	-8.8
	0.4nm,0.8s,baz=349,slow=24,SNR=1.8						
	4.2nm,0.8s						
CTA	Charters Tower	20.41	144	P	Pn	11 49 23.0	+0.8
	5.2nm,0.9s,baz=332,slow=8.7,SNR=1.7						
	5.2nm,0.9s						
MKAR	Makanchi Array	67.56	324	P	P	11 55 40.0	+0.6
	1.0nm,0.6s,baz=122,slow=8.0,SNR=3.9						
	1.0nm,0.6s						
KURBB	Kurchatov Arra	71.68	327	P	P	11 56 07.4	+2.8
	2.4nm,0.2s,baz=122,slow=4.8,SNR=4.5						
	2.4nm,0.2s						
ILAR	Eielson Array	88.67	25	P	P	11 57 34.7	-1.2
	0.4nm,1.0s,baz=243,slow=4.0,SNR=2.7						
	0.4nm,1.0s						

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*KRNET **10** 11:51:28.6±0.1, 39°.58N×73°.35E, h16^{km}, mb3.5*

*SOME **10** 11:51:32.6, 39°.78N×73°.30E, h5^{km}*

*NNC **10** 11:51:36.5±1.1, 39°.91N×73°.41E, h0^{km}, mb3.8, mpv3.4, Error ellipse: s-maj=9.2km s-min=5.6km az=166.0*

ISC 10 11:51:27.8±1.2**,39°.63N**±0°.06×**73°.32E**±0°.03**,h10**^{km}**,n39, σ2**^{s}**.04**/65**,26C-19D,Tajikistan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SFK	Sufi-Kurgan	0.41	20	⇓*i*P	Pb	11 51 37.5	+0.2
SFK				⇓*i*S	Sb	11 51 43.8	+0.1
OHH	Osh	0.98	336	⇑*i*P	Pn	11 51 48.0	+0.3
OHH				⇑*i*S	Sn	11 52 02.2	+0.4
DRK	Karamyk	1.18	263	⇑*e*P	Pn	11 51 51.3	+0.6
DRK				⇑*e*S	Sn	11 52 06.8	-0.2
SALK	Salom-Alik	1.31	17	⇑*e*P	Pg	11 51 53.7	+0.7
SALK				⇑*e*S	Sn	11 52 11.7	+1.7
ARSB	Arslanbob	1.71	351	⇑*i*P	Pg	11 52 00.9	+0.3
ARSB				⇑*i*S	Sg	11 52 24.5	+1.6
BTK	Batken	1.97	283	⇑*e*P	Pb	11 52 04.4	+0.6
BTK				⇑*e*S	Sg	11 52 30.4	-0.8
ARK	Arkit	2.40	335	⇓*i*P	Pb	11 52 10.7	-0.4
ARK				⇓*i*S	Sb	11 52 41.5	+0.7
TRKS	Terek-Say	2.52	320	⇑*i*P	Pb	11 52 11.4	-1.8
TRKS				⇑*i*S	Sb	11 52 42.8	-1.6
NRN	Naryn	2.72	48	⇑*i*P	Pb	11 52 14.3	-2.5
NRN				⇑*i*S	Sb	11 52 47.8	-2.6
MNAS	Manas	2.92	348	⇑*i*P	Pb	11 52 17.8	-2.2
MNAS				⇑*i*S	Sb	11 52 54.0	-1.9
EKS2	Erkin-Say	3.05	6	P	Pb	11 52 21.1	-1.1
	SNR=14						
EKS2	Erkin-Say	3.05	6	⇓*i*P	Pb	11 52 19.7	-2.5
EKS2				⇓*i*S	Sb	11 52 57.0	-2.5
MRKS	Merke	3.11	359	Pg	Pg	11 52 27.6	+0.2
	24nm,0.3s						
MRKS				Lg	Lg	11 53 07.4	
	50nm,0.4s						
MRKS	Merke	3.11	359	*e*P	Pg	11 52 27.6	+0.2
	24nm,0.3s						
MRKS				*e*S	Sg	11 53 07.3	-0.4
	50nm,0.4s						
AAK	Ala-Archa	3.13	16	P	Pb	11 52 24.3	+0.6
	SNR=14						
AAK	Ala-Archa	3.13	16	⇑Pn	Pb	11 52 23.9	+0.3
	16nm,0.8s						
AAK				⇓Lg	Lg	11 53 05.3	
	15nm,0.6s						
AAK	Ala-Archa	3.13	16	⇑*i*P	Pb	11 52 20.8	-2.9
AAK				⇑*i*S	Sb	11 52 58.7	-3.3
KBK	Karagaybulak	3.27	22	P	Pg	11 52 30.2	-0.1
	SNR=8.8						
KBK	Karagaybulak	3.27	22	⇓*i*P	Pb	11 52 22.5	-3.4
KBK				⇓*e*S	Sb	11 53 01.8	-4.0
FRU1	Bishkek	3.33	17	⇑*e*P	Pb	11 52 23.6	-3.3
FRU1				⇑*i*S	Sb	11 53 03.7	-3.8
ULHL	Ulahol	3.42	39	⇓*i*P	Pn	11 52 24.6	+3.2
ULHL				⇓*i*S	Sn	11 53 05.5	+3.3
BOOM	Boomskoye usch	3.48	34	⇑*i*P	Pn	11 52 25.3	+3.2
BOOM				⇑*i*S	Sn	11 53 06.8	+3.4
CHMS	Chumysh	3.54	17	⇓*i*P	Pb	11 52 26.2	-4.2
CHMS				⇓*i*S	Sn	11 53 08.0	+3.4
TKM2	Tokmak 2	3.71	27	P	Pg	11 52 39.8	+0.9
	SNR=8.9						
TKM2	Tokmak 2	3.71	27	⇓*i*P	Pn	11 52 28.7	+3.4
TKM2				⇓*i*S	Sn	11 53 12.5	+3.3
USP	Ospenovka	3.74	13	P	Pb	11 52 32.1	-1.9
	SNR=5.6						
KDJ	Kajisay	3.85	48	⇓*e*P	Pn	11 52 30.4	+3.2
KDJ				⇓*i*S	Sn	11 53 15.5	+2.9
KST	Kastek	3.95	29	Pg	Pg	11 52 43.5	0.0
	1.8nm,0.2s						
KST				Lg	Lg	11 53 34.5	
	23nm,0.8s						
KST	Kastek	3.95	29	*e*P	Pg	11 52 43.5	0.0
	1.8nm,0.2s						
KST				*e*S	Sg	11 53 34.5	-0.1
	23nm,0.8s						
KK31	Karatay Array	4.06	330	⇑Pn	Pb	11 52 37.6	-1.9
	1.6nm,0.5s,baz=133,slow=12,SNR=18						
KK31				⇓Pg	Pg	11 52 46.1	+0.5
	2.2nm,0.3s,baz=144,slow=15,SNR=12						
KK31				⇓Lg	Lg	11 53 40.6	
	5.2nm,0.3s,baz=151,slow=25,SNR=3.8						
KRBS	Karabastau	4.43	23	Pg	Pg	11 52 51.3	-1.3
	7.2nm,0.7s						
KRBS				Lg	Lg	11 53 49.5	
	21nm,0.8s						
KRBS	Karabastau	4.43	23	*e*P	Pg	11 52 51.3	-1.3
	4.6nm,0.4s						
KRBS				*e*S	Sg	11 53 47.5	-2.5
	21nm,0.6s						
MDOK	Medeo	4.51	37	Pg	Pg	11 52 53.7	-0.5
	7.2nm,0.5s						
MDOK				Lg	Lg	11 53 51.7	
	17nm,0.7s						
MDOK	Medeo	4.51	37	*e*P	Pg	11 52 53.7	-0.5
	7.2nm,0.5s						
MDOK				*e*S	Sg	11 53 51.7	-0.8
	17nm,0.7s						
KOTS	Kotyrbulak	4.59	37	Pg	Pg	11 52 55.3	-0.5
	3.6nm,0.1s						
KOTS				Lg	Lg	11 53 54.4	
	40nm,0.5s						
KOTS	Kotyrbulak	4.59	37	*e*P	Pg	11 52 55.3	-0.5
	3.6nm,0.1s						
KOTS				*e*S	Sg	11 53 54.4	-0.9
	40nm,0.5s						
KTBS	Karatobe	4.79	31	Pg	Pg	11 52 59.4	-0.2
	0.1nm,0.1s						
KTBS				Lg	Lg	11 54 01.4	
	24nm,0.7s						
KTBS	Karatobe	4.79	31	*e*P	Pg	11 52 59.4	-0.2
	0.1nm,0.1s						
KTBS				*e*S	Sg	11 54 01.4	-0.2
	24nm,0.7s						
PDGK	Podgornoye	5.93	49	⇑Pg	Pg	11 53 19.4	-1.8
	4.4nm,0.8s						
PDGK				⇑Lg	Lg	11 54 38.5	
	9.2nm,0.8s						

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*WEL **10** 11:56:37.3±0.9, 33°S±6°×18°0E±1°4, h342^{km}±13^{km}, M4.0/9, mB4.3/5, MLv4.2/9, Mw(mB)3.4/5, Error ellipse: s-maj=19.2km s-min=4.5km az=108.9, confirmed*

ISC 10 11:56:35.5±1.2**,32°.57S**±0°.09×**180°.0E**±0°.1**,h344**^{km}**,n21, σ2**^{s}**.73**/34**,South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GLKZ	Green Lake	3.76	29	P	Pn	11 57 42.0	+0.1
GLKZ				S	S	11 58 35.0	-0.2
MXZ	Matakaoa Point	5.16	195	P	Pn	11 57 58.9	+2.3
MXZ				S	S	11 59 03.5	+1.4
WMGZ	Waiomatatini S	5.39	193	P	Pn	11 58 02.6	+3.6
WMGZ				S	S	11 59 09.3	+2.6
WMGZ				AML	AML		
HAZ	Te Kaha	5.47	198	P	Pn	11 58 03.2	+3.2
HAZ				S	S	11 59 08.9	+0.4
HAZ				AML	AML		
PKGZ	Pakihiroa	5.50	196	P	Pn	11 58 03.1	+2.7
PKGZ				S	S	11 59 10.7	+1.5
PKGZ				AML	AML		
PUZ	Puketiti	5.66	194	P	Pn	11 58 03.1	+0.9
PUZ				S	S	11 59 13.2	+0.8
PUZ				AML	AML		
RUGZ	Raukumara Rang	5.70	199	P	Pn	11 58 05.3	+2.6
RUGZ				S	S	11 59 12.6	-0.7
RUGZ				AML	AML		
WCZ	Waipu Caves	5.74	233	P	Pn	11 58 06.8	+3.7
WCZ				AML	AML		
WIAZ	Waiheke Island	5.80	222	P	Pn	11 58 07.8	+4.1
TWGZ	Tauwhareparae	5.82	196	P	Pn	11 58 06.9	+2.8
TWGZ				S	S	11 59 18.4	+2.6
TWGZ				AML	AML		
MBAZ	Motutapu North	5.92	224	P	Pn	11 58 03.8	-1.2
OUZ	Omahuta	5.92	242	P	Pn	11 58 07.9	+2.8
TKGZ	Te Karaka	6.11	196	P	Pn	11 58 10.8	+3.6
TKGZ				S	S	11 59 22.4	+0.8
TKGZ				AML	AML		
RAGZ	Rawiri	6.27	199	S	S	11 59 29.8	+4.7
BHHZ	Black Hill Sta	7.59	204	P	Pn	11 58 24.7	0.0
BHHZ				S	S	11 59 50.4	-3.2
BHHZ				AML	AML		
KRHZ	Kereru	7.63	201	P	Pn	11 58 27.6	+2.5
KRHZ				S	S	11 59 51.4	-3.0
KRHZ				AML	AML		
VRZ	Vera Road	7.79	211	S	Pn	11 58 29.1	+2.2
PNHZ	Pukenui	7.93	201	P	Pn	11 58 27.9	-0.8
PNHZ				S	S	11 59 56.6	-4.3
PNHZ				AML	AML		
TSZ	Takapari Road	8.14	202	S	S	12 00 01.1	-4.3
BFZ	Birch Farm	8.63	199	S	Pn	11 58 38.4	+1.5
BFZ				S	S	12 00 13.4	-2.7
VNA3	Neumayer Olymp	76.25	177	P	P	12 07 43.5	-2.9
	comp=Z,0.9nm,0.3s						

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*CATAC **10** 12:06:01.7±0.4, 13°N±3°×8°9W±°, h29^{km}±2^{km}, M3.4/26, MLv3.4/26, Error ellipse: s-maj=6.1km s-min=3.1km az=27.4, confirmed*

*SNET **10** 12:06:02.1±1.6, 13°.12N×89°.31W, h53^{km}, ML3.3, Presumed earthquake*

*GCG **10** 12:06:03.5±0.9, 13°.26N×89°.28W, h53^{km}±7^{km}, MD4.1, Presumed earthquake*

ISC 10 12:06:00.9±1.4**,13°.08N**±0°.06×**89°.31W**±0°.04**,h18**^{km}±7^{km}**, n51,σ0**^{s}**.57**/91**,El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LALI	Alcalda de L	0.41	359	*e*P	Pn	12 06 12.2	+0.3
LALI				*e*S	Sn	12 06 19.2	+0.1
LALI	Alcalda de L	0.41	359	P	Pn	12 06 12.3	+0.3
LALI				S	Sn	12 06 19.3	+0.1
PANCS	Alcalda de	0.55	13	P	Pn	12 06 13.8	-0.1
PANCS				S	Sn	12 06 22.3	-0.3
LOMA	Loma Larga	0.58	13	*i* P	Pn	12 06 14.0	-0.4
LOMA				*e*S	Sn	12 06 25.1	+1.5
LOMA	Loma Larga	0.58	13	P	Pn	12 06 14.5	0.0
LOMA				S	Sn	12 06 23.8	+0.2
JAYA	Jayaque - finc	0.59	347	*e*P	Pn	12 06 14.3	-0.3
JAYA				*e*S	Sn	12 06 23.0	-0.9
JAYA	Jayaque - finc	0.59	347	*i* P	Pn	12 06 14.3	-0.3
JAYA				*e*S	Sn	12 06 23.0	-0.9
JAYA	Jayaque - finc	0.59	347	P	Pn	12 06 14.4	-0.3
JAYA				S	Sn	12 06 23.7	-0.2
LFRS	El Faro	0.59	24	*i* P	Pn	12 06 14.0	-0.6
LFRS				*e*S	Sn	12 06 23.9	0.0
SJTE	Alcalda de S	0.61	29	*i* P	Pn	12 06 14.0	-0.8
SEMO	Seminario San	0.63	8	P	Pn	12 06 14.9	-0.1
SEMO				S	Sn	12 06 24.8	+0.1
PMON	Piamonte	0.63	360	P	Pn	12 06 15.0	-0.2
PMON				S	Sn	12 06 24.9	+0.1
UEES	Universidad Ev	0.64	6	P	Pn	12 06 15.1	-0.1
UEES				S	Sn	12 06 25.2	+0.2
IGN	Direccin Gen	0.65	12	P	Pn	12 06 15.2	-0.1
IGN				S	Sn	12 06 25.4	+0.2
BOQS	Boqueron	0.66	3	*i* P	Pn	12 06 15.2	-0.4
BOQS				*e*S	Sn	12 06 25.4	-0.2
PIC2	El Picacho	0.67	4	*i* P	Pn	12 06 15.5	-0.2
PIC2				*e*S	Sn	12 06 26.3	+0.4
COEG	Centro de Oper	0.68	38	*i* P	Pn	12 06 14.9	-0.9
COEG				*e*S	Sn	12 06 25.4	-0.7
COEG	Centro de Oper	0.68	38	P	Pn	12 06 15.4	-0.4
COEG				S	Sn	12 06 26.1	+0.1
TECO	Alcaldia de Te	0.69	48	P	Pn	12 06 15.3	-0.5
TECO				S	Sn	12 06 26.3	+0.2
LFU	La Fuente	0.69	16	*i* P	Pn	12 06 16.1	+0.1
CEDA	San Andres	0.73	353	P	Pn	12 06 16.1	-0.2
CEDA				S	Sn	12 06 27.2	+0.1
PAVA	Las Pavas	0.73	30	P	Pn	12 06 16.3	-0.2
PAVA				S	Sn	12 06 27.3	+0.1
ALJI	Alcalda de J	0.76	71	*i* P	Pn	12 06 16.4	-0.4
ALJI				*e*S	Sn	12 06 28.1	+0.2
ALJI	Alcalda de J	0.76	71	P	Pn	12 06 16.8	0.0
ALJI				S	Sn	12 06 28.2	+0.4
CEVE	Cerro Verde	0.81	338	*i* P	Pb	12 06 17.0	+0.4
CEVE				*e*S	Sn	12 06 31.9	+2.6
CEVE	Cerro Verde	0.81	338	P	Pb	12 06 17.3	+0.8
CEVE				S	Sn	12 06 28.9	-0.5
SBLS	San Blas	0.82	338	*i* P	Pn	12 06 17.6	-0.2
SBLS				*e*S	Sn	12 06 29.9	+0.3
SCLA	Alcaldia de Sa	0.84	42	P	Pn	12 06 17.8	-0.1
UNIC	Universidad Ca	0.93	346	P	Pb	12 06 19.0	+0.4
UNIC				S	Sn	12 06 32.0	-0.1
NUBE	Las Nubes	0.94	331	*e*P	Pb	12 06 18.7	-0.1
NUBE				*e*S	Sg	12 06 31.2	-0.5
NUBE	Las Nubes	0.94	331	*i* P	Pb	12 06 18.5	-0.3
NUBE				*e*S	Sg	12 06 30.8	-0.9
NUBE	Las Nubes	0.94	331	P	Pb	12 06 18.8	0.0
NUBE				S	Sb	12 06 31.8	+0.8
FAME	Alcaldia de Sa	1.02	318	P	Pb	12 06 19.6	-0.5
FAME				S	Sb	12 06 32.8	-0.5
PACA	Pacayal	1.04	68	*i* P	Pn	12 06 20.6	-0.1
PACA				*e*S	Sn	12 06 35.8	+1.0
PACA	Pacayal	1.04	68	P	Pn	12 06 20.9	+0.1
PACA				S	Sn	12 06 34.8	0.0
SLOZ	Alcaldia de Sa	1.05	334	P	Pb	12 06 20.6	0.0
P5NO	Presa 5 de nov	1.05	31	P	Pb	12 06 20.4	-0.3
P5NO				S	Sn	12 06 34.4	-0.6
RANC	El Ranchito	1.06	70	P	Pn	12 06 21.3	+0.3
RANC				S	Sn	12 06 35.3	0.0
RBDL	Robledal	1.09	340	*i* P	Pb	12 06 21.5	0.0
RBDL				*e*S	Sg	12 06 36.4	-0.1
LLGN	La Laguna	1.14	18	P	Pb	12 06 21.6	-0.5
LLGN				S	Sn	12 06 37.1	-0.2
MTO3	Montecristo	1.31	358	*i* P	Pn	12 06 24.1	-0.5
LCND	La Caada	1.40	80	*i* P	Pn	12 06 26.0	+0.3
LCND				*e*S	Sb	12 06 44.2	0.0
LCND	La Caada	1.40	80	P	Pn	12 06 25.9	+0.3
ESQI	Esquipulas	1.47	359	P	Pn	12 06 26.5	-0.2
FG16	Alotenango, Sa	1.67	316	*e*P	Pg	12 06 35.2	+2.1
CSGN	Cosiguina Volc	1.71	93	P	Pn	12 06 30.0	0.0
CSGN				S	Sn	12 06 51.6	+0.2
SARH	Santa Rosa de	1.77	17	P	Pn	12 06 30.7	-0.1
STG8	El Palmar, Qui	2.41	305	*e*P	Pg	12 06 46.0	-1.2
CNGN	Cerro Negro	2.61	102	P	Pn	12 06 42.2	-0.2
CNGN				S	Sn	12 07 14.0	+0.3
MOMN	Momotombo	2.78	104	P	Pn	12 06 44.6	-0.1
MOM2	El Cardon	2.83	103	P	Pn	12 06 45.2	0.0
MOM2				S	Sn	12 07 18.1	-0.9

IDC 10 12:33:42.0±4.6**,18°.89S**×**178°.01W,h595**^{km}±29^{km}**, mb3.0**/3**,mbtmp4.0**/4**,Error ellipse: s-maj=119.8km s-min=58.7km az=146.0,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	3.91	286	P	P	12 35 06.6	-0.1
	14nm,0.4s,baz=41,slow=20,SNR=45						
STKA	Stephens Creek	38.50	242	P	P	12 40 14.7	-0.1
	1.8nm,0.8s,baz=95,slow=12,SNR=5.0						
	1.8nm,0.8s						
WRA	Warramunga Arr	44.83	260	P	P	12 41 04.5	-0.2
	0.7nm,0.4s,baz=98,slow=8.1,SNR=31						
WRA				PcP	PcP	12 42 32.9	-0.6
	0.3nm,0.5s,baz=104,slow=3.0,SNR=1.8						
	0.7nm,0.4s						
ASAR	Alice Springs	44.90	255	P	P	12 41 05.2	0.0
	1.5nm,0.6s,baz=85,slow=8.2,SNR=40						
ASAR				PcP	PcP	12 42 33.5	-0.2
	0.6nm,0.6s,baz=107,slow=4.1,SNR=4.9						
	1.5nm,0.6s						

SCB 10 12:36:22.2±1.1**,21°.99S**×**64°.30W,h588**^{km}±91^{km}**,ML3.8**/2**, Error ellipse: s-maj=77.8km s-min=64.7km az=1.0, Southern Bolivia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB09	IPOC Station P	4.60	272	P	P	12 37 57.8	+6.4
PB08	IPOC Station P	4.90	291	P	P	12 38 01.0	+7.0
PB06	IPOC Station P	4.94	261	P	P	12 38 00.6	+6.6
GO01	Chusmiza	5.13	296	P	P	12 38 03.3	+7.3
PB02	IPOC Station P	5.25	276	P	P	12 38 03.8	+7.3
PB02				S	S	12 39 19.6	+6.1
PB02				IAML		12 39 25.8	
	16nm,0.2s						
PB11	IPOC Station P	5.48	293	P	P	12 38 06.2	+7.7
PB11				S	S	12 39 23.1	+6.0
PB11				IAML		12 39 32.0	
	9.7nm,0.2s						
PB14	IPOC Station P	6.20	244	P	P	12 38 12.2	+7.4
BBOJ	La Paz, Jacaqu	6.20	323	P	P	12 38 13.2	+8.0
SOEJ	Jacaque	6.20	323	P	P	12 38 13.7	+8.5
LPAZ	La Paz	6.73	327	P	P	12 38 18.2	+8.1
BBOB	La Paz, Bander	6.86	327	P	P	12 38 19.2	+8.1

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*NEIC **10** 12:47:42.4±2.7, 15°.91N±0°.07×92°.57W±0°.08, h192^{km}±5^{km}, mb4.4/71, Md4.9/110(MEX), Error ellipse: s-maj=12.9km s-min=6.7km az=47.0*

*MEX **10** 12:47:42.6±0.9, 15°.82N×92°.73W, h197^{km}±7^{km}, MD4.9, Presumed earthquake*

*IDC **10** 12:47:43.5±1.1, 15°.97N×92°.17W, h214^{km}±9^{km}, mb3.6/10, mbtmp4.2/12, Error ellipse: s-maj=28.9km s-min=10.1km az=60.0*

*GCG **10** 12:47:43.1±1.1, 15°.99N×92°.38W, h175^{km}±8^{km}, MD5.2, ML4.6, Presumed earthquake*

*GFZ **10** 12:47:44.7±0.3, 16°N±3°×9°2W±°, h223^{km}, M4.3/19, mb4.3/19, confirmed*

ISC 10 12:47:41.1±0.6**,15°.88N**±0°.04×**92°.60W**±0°.04**,h194**^{km}±5^{km}**, n227,σ2**^{s}**.16**/274**,mb4.3**/29**,Mexico-Guatemala border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PAVE	Pavencul	0.79	149	*i* P	Pn	12 48 09.7	+0.4
PAVE				*e*S	Sn	12 48 31.4	+0.4
PAVE	Pavencul	0.79	149		Pn	12 48 09.7	+0.4
PAVE					Sn	12 48 31.4	+0.4
PATR	El Naranjo	0.83	155	*e*P	Pn	12 48 09.3	-0.2
PATR				*e*S	Sn	12 48 30.7	-0.8
PATR	El Naranjo	0.83	155		Pn	12 48 09.3	-0.2
PATR					Sn	12 48 30.7	-0.8
CHUJ	Union Juarez	0.91	149	*e*P	Pn	12 48 10.1	+0.1
CHUJ				*e*S	Sn	12 48 31.8	-0.6
THIG		1.02	162	*e*P	Pn	12 48 11.0	+0.5
THIG				*e*S	Sn	12 48 33.3	+0.1

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THIG                    1.02 162      Pn    12 48 11.0 +0.5
THIG                                  Sn    12 48 33.3 +0.1
THIG                    1.02 162 i P  Pn    12 48 11.0 +0.5
THIG                             eS   Sn    12 48 33.4 +0.3
THIG                              IAML      12 48 36.6
      comp=N,5µm,0.2s
TGIG                    1.03 331 i P  Pn    12 48 11.3 +0.8
TGIG                             eS   Sn    12 48 32.6 -0.8
TGIG                    1.03 331      Pn    12 48 11.3 +0.8
TGIG                                  Sn    12 48 32.6 -0.8
TGIG                    1.03 331 i P  Pn    12 48 11.3 +0.8
HUEH  Huehuetenango     1.19 118 eP   Pn    12 48 12.3 +0.3
HUEH                             eS   Sn    12 48 33.7 -2.1
HUEH  Huehuetenango     1.19 118      Pn    12 48 12.5 +0.5
HUEH  Huehuetenango     1.19 118      Sn    12 48 33.7 -2.1
HUEH  Huehuetenango     1.19 118 i P  Pn    12 48 12.5 +0.5
HUEH                             i S  Sn    12 48 35.1 -0.8
HUEH                              IAML      12 48 37.3
      comp=N,5µm,0.5s
RTAL  Retalhuleu        1.60 147 eP   Pn    12 48 15.3  0.0
RTAL                             eS   Sn    12 48 40.5 -1.4
RTAL  Retalhuleu        1.60 147      Pn    12 48 16.5 +1.1
STG8  El Palmar, Qui    1.86 140 i P  Pn    12 48 14.9 -3.2
UXUV  UXUV              2.06 314 eP   Pn    12 48 19.9  0.0
UXUV                             eS   Sn    12 48 46.4 -3.6
UXUV  UXUV              2.06 314      Pn    12 48 19.9  0.0
APG   El Apazote        2.23 113  P   Pn    12 48 22.0  0.0
      comp=N,12nm,0.3s,baz=196,slow=14,SNR=123
APG                               S   Sn    12 48 53.0 -0.7
      comp=N,49nm,0.5s,baz=90,slow=15,SNR=32
APG   El Apazote        2.23 113 i P  Pn    12 48 21.9  0.0
APG                              i S  Sn    12 48 51.4 -2.3
CMIG  Matias Romero     2.50 299  P   Pn    12 48 24.9 +0.2
      comp=N,742nm,0.5s,baz=115,slow=5.5,SNR=1396
CMIG                              S   Sn    12 48 56.0 -2.6
      comp=N,969nm,0.3s,baz=293,slow=13,SNR=39
CMIG  Matias Romero     2.50 299 eP   Pn    12 48 24.4 -0.3
CMIG                             eS   Sn    12 48 55.3 -3.4
CMIG  Matias Romero     2.50 299      Pn    12 48 24.4 -0.3
FG8   Yepocapa, Chim    2.54 129 i P  Pn    12 48 21.8 -3.5
FG8                              i S  Sn    12 48 51.1 -8.6
PCG5  San Vicente Pa    2.71 127 i P  Pn    12 48 25.0 -2.2
SCIG  Sabancuy          3.35  23 eP   Pn    12 48 33.0 -1.7
SCIG  Sabancuy          3.35  23      Pn    12 48 33.0 -1.7
SCIG  Sabancuy          3.35  23 i P  Pn    12 48 34.5 -0.3
HUIG  Huatulco          3.38 269 i P  Pn    12 48 33.6 -1.5
HUIG                             eS   Sn    12 49 12.4 -4.9
HUIG  Huatulco          3.38 269      Pn    12 48 33.6 -1.5
HUIG  Huatulco          3.38 269 i P  Pn    12 48 33.6 -1.5
ZAFR2 Estanzuela, Za    3.39 112 i P  Pn    12 48 31.3 -3.9
ZAFR2                            i S  Sn    12 49 09.4 -8.1
ESQI  Esquipulas        3.41 112      Pn    12 48 36.3 +0.8
MTO3  Montecristo       3.46 115 i P  Pn    12 48 36.6 +0.4
NEUV  Arroyo Zacate     3.57 301 eP   Pn    12 48 36.8 -0.6
NEUV                             eS   Sn    12 49 11.0  -10
NEUV  Arroyo Zacate     3.57 301      Pn    12 48 36.8 -0.6
OXLC  Oaxaca            4.11 287 eP   Pn    12 48 44.7 +0.4
OXLC                             eS   Sn    12 49 30.1 -3.8
OXLC  Oaxaca            4.11 287      Pn    12 48 44.7 +0.4
OXBJ  Oaxaca            4.13 287 eP   Pn    12 48 45.5 +0.9
OXBJ                             eS   Sn    12 49 30.9 -3.4
OXBJ  Oaxaca            4.13 287      Pn    12 48 45.5 +0.9
OXIG  Oaxaca            4.14 287      Pn    12 48 45.7 +1.0
VHO   Vista Hermosa     4.14 287 eP   Pn    12 48 45.7 +1.0
VHO                              eS   Sn    12 49 27.9 -6.7
PEIG  Puerto Escondi    4.38 272 i P  Pn    12 48 46.7 -0.8
PEIG                             eS   Sn    12 49 36.0 -3.6
PEIG  Puerto Escondi    4.38 272      Pn    12 48 46.7 -0.8
TOIG  Toxpalan          4.81 298 eP   Pn    12 48 53.1  0.0
TOIG                             eS   Sn    12 49 46.8 -2.9
TOIG  Toxpalan          4.81 298      Pn    12 48 53.1  0.0
YOIG  Yosondua          4.85 282 eP   Pn    12 48 53.8  0.0
YOIG                             eS   Sn    12 49 37.0  -14
YOIG  Yosondua          4.85 282      Pn    12 48 53.8  0.0
TXIG  Tlaxiaco          5.14 286 eP   Pn    12 48 58.7 +1.2
TXIG                             eS   Sn    12 49 54.5 -3.1
TXIG  Tlaxiaco          5.14 286      Pn    12 48 58.7 +1.2
TPIG  Tehuac#an         5.21 300 eP   Pn    12 48 58.3  0.0
TPIG                             eS   Sn    12 49 54.8 -4.3
TPIG  Tehuac#an         5.21 300      Pn    12 48 58.3  0.0
LVIG  Laguna Verde      5.28 317 eP   Pn    12 48 57.8 -1.1
LVIG                             eS   Sn    12 49 53.4 -7.0
LVIG  Laguna Verde      5.28 317      Pn    12 48 57.8 -1.1
JAUV  Jalcomulco        5.30 311 eP   Pn    12 48 57.9 -1.5
JAUV                             eS   Sn    12 49 53.9 -7.1
JAUV  Jalcomulco        5.30 311      Pn    12 48 57.9 -1.5
HLIG  Huajuapan de L    5.35 292 eP   Pn    12 49 01.1 +0.9
HLIG                             eS   Sn    12 49 53.3 -9.0
HLIG  Huajuapan de L    5.35 292      Pn    12 49 01.1 +0.9
TGUH  Tegucigalpa,Un    5.46 109      Pn    12 49 02.5 +1.1
TGUH  Tegucigalpa,Un    5.46 109  P   Pn    12 49 02.8 +1.4
      comp=Z,95nm,1.0s
FTIG  Fresnillo de T    5.67 292 eP   Pn    12 49 05.7 +1.5
FTIG                             eS   Sn    12 50 06.6 -3.1
FTIG  Fresnillo de T    5.67 292      Pn    12 49 05.7 +1.5
MGIG  Malinaltepec      5.94 284 eP   Pn    12 49 09.1 +1.3
MGIG                             eS   Sn    12 50 12.6 -3.6
MGIG  Malinaltepec      5.94 284      Pn    12 49 09.1 +1.3
TLIG  Tlapa             5.96 287 eP   Pn    12 49 09.1 +1.1
TLIG                             eS   Sn    12 50 12.9 -3.5
TLIG  Tlapa             5.96 287      Pn    12 49 09.5 +1.6
TEIG  Tepich            5.96  43      Pn    12 49 06.8 -1.0
HMTT  Tlapaneco         6.02 289 eP   Pn    12 49 08.6 -0.1
HMTT                             eS   Sn    12 50 14.6 -3.2
HMTT  Tlapaneco         6.02 289      Pn    12 49 08.6 -0.1
PPAX  Atlixo            6.33 299 eP   Pn    12 49 15.2 +2.4
PPAX                             eS   Sn    12 50 22.8 -2.6
PPAX  Atlixo            6.33 299      Pn    12 49 15.2 +2.4
CRIG  Cruz Grande       6.33 279 eP   Pn    12 49 12.2 -0.5
CRIG                             eS   Sn    12 50 21.7 -3.4
CRIG  Cruz Grande       6.33 279      Pn    12 49 12.2 -0.5
CXUV  Coxquihui         6.39 313 eP   Pn    12 49 12.6 -0.8
CXUV                             eS   Sn    12 50 21.2 -5.2
CXUV  Coxquihui         6.39 313      Pn    12 49 12.6 -0.8
PBCV  Popocatepetl      6.47 299 eP   Pn    12 49 16.7 +1.9
PBCV                             eS   Sn    12 50 25.9 -3.0
PPCL  Tochimilco        6.49 299 eP   Pn    12 49 16.9 +1.9
PPCL                             eS   Sn    12 50 25.5 -3.7
PPCL  Tochimilco        6.49 299      Pn    12 49 16.9 +1.9
PPPT  Popocatepetl      6.52 299 eP   Pn    12 49 17.8 +2.1
PPPT                             eS   Sn    12 50 26.5 -3.8
PPPT  Popocatepetl      6.52 299      Pn    12 49 17.8 +2.1
PPCU  Popocatapetl      6.54 299 eP   Pn    12 49 17.8 +1.9
PPCU                             eS   Sn    12 50 28.7 -2.0
PPCU  Popocatapetl      6.54 299      Pn    12 49 17.8 +1.9
PPCU                                  Sn    12 50 28.7 -2.0
PPM   Popocatepetl      6.57 300 eP   Pn    12 49 19.4 +3.1
PPM                              eS   Sn    12 50 28.1 -3.2
PPIG  Popocatepetl      6.57 300      Pn    12 49 19.4 +3.1
AMVM  AMECAMECA         6.73 300 eP   Pn    12 49 19.6 +1.4
AMVM                             eS   Sn    12 50 29.7 -5.2
AMVM  AMECAMECA         6.73 300      Pn    12 49 19.6 +1.4
YAIG  Yautepec          6.85 297 eP   Pn    12 49 21.2 +1.6
YAIG                             eS   Sn    12 50 30.8 -6.7
YAIG  Yautepec          6.85 297      Pn    12 49 21.2 +1.6
DAIG  Los Arroyos       6.86 281 eP   Pn    12 49 19.8 +0.2
DAIG                             eS   Sn    12 50 27.2  -10
DAIG  Los Arroyos       6.86 281      Pn    12 49 19.8 +0.2
MPVM  San Francisco     6.95 299 eP   Pn    12 49 21.1 +0.1
MPVM                             eS   Sn    12 50 35.8 -4.2
MPVM  San Francisco     6.95 299      Pn    12 49 21.1 +0.1
MEIG  Mezcala           7.02 288 eP   Pn    12 49 23.3 +1.5
MEIG                             eS   Sn    12 50 31.2  -10
MEIG  Mezcala           7.02 288      Pn    12 49 23.3 +1.5
VTVM  Tizayuca          7.04 304 eP   Pn    12 49 22.6 +0.4
VTVM                             eS   Sn    12 50 42.4 +0.1
VTVM  Tizayuca          7.04 304      Pn    12 49 22.6 +0.4
VTVM                                  Sn    12 50 42.4 +0.1
PLIG  Platanillo        7.06 292 eP   Pn    12 49 23.7 +1.5
PLIG                             eS   Sn    12 50 33.0 -9.3
PLIG  Platanillo        7.06 292      Pn    12 49 23.7 +1.5
XCVM  Xochimilco        7.07 299 eP   Pn    12 49 23.4 +0.9
XCVM                             eS   Sn    12 50 40.2 -2.6
XCVM  Xochimilco        7.07 299      Pn    12 49 23.4 +0.9
TLVM  San Miguel Top    7.08 299 eP   Pn    12 49 23.9 +1.1
TLVM                             eS   Sn    12 50 41.5 -1.6
TLVM  San Miguel Top    7.08 299      Pn    12 49 23.9 +1.1
TLVM                                  Sn    12 50 41.5 -1.6
AOVM  Tlapan            7.24 299 eP   Pn    12 49 25.8 +0.8
AOVM                             eS   Sn    12 50 37.2  -10
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AOVM  Tlapan            7.24 299      Pn    12 49 25.8 +0.8
MAVM  Malinalco, Edo    7.26 296 eP   Pn    12 49 26.8 +1.9
MAVM                             eS   Sn    12 50 43.4 -3.9
MAVM  Malinalco, Edo    7.26 296      Pn    12 49 26.8 +1.9
CAIG  El Cayaco         7.45 280 eP   Pn    12 49 27.6 +0.4
CAIG                             eS   Sn    12 50 49.8 -1.6
CAIG  El Cayaco         7.45 280      Pn    12 49 27.6 +0.4
CAIG                                  Sn    12 50 49.8 -1.6
BOAB  BOACO BROADBAN7.54 116          Pn    12 49 29.4 +1.0
DEIG  Demacu            7.54 307 eP   Pn    12 49 29.3 +0.6
DEIG                             eS   Sn    12 50 46.5 -7.4
DHIG  Demacu            7.54 307      Pn    12 49 29.3 +0.6
TOVM  TOLUCA            7.55 298 eP   Pn    12 49 32.7 +3.7
TOVM                             eS   Sn    12 50 48.2 -6.2
TOVM  TOLUCA            7.55 298      Pn    12 49 32.7 +3.7
CTUV  Llano Grande      7.79 316 eP   Pn    12 49 30.1 -1.6
CTUV                             eS   Sn    12 50 58.2 -1.3
CTUV  Llano Grande      7.79 316      Pn    12 49 30.1 -1.6
CTUV                                  Sn    12 50 58.2 -1.3
ZIIG  Zihuatanejo       8.67 283 eP   Pn    12 49 45.1 +1.9
ZIIG                             eS   Sn    12 51 17.0 -3.4
ZIIG  Zihuatanejo       8.67 283      Pn    12 49 45.1 +1.9
JUD3  Juan Diaz 3       8.92 129      Pn    12 49 47.7 +1.1
MOIG  Morelia           9.01 296 eP   Pn    12 49 50.9 +3.0
MOIG                             eS   Sn    12 51 27.7 -1.3
MOIG  Morelia           9.01 296      Sn    12 51 27.7 -1.3
MOIG  Morelia           9.01 296      Pn    12 49 51.7 +3.8
JTS   Las Juntas de     9.29 126  P   Pn    12 49 50.7 -0.7
      comp=Z,11nm,0.3s,baz=300,slow=9.3,SNR=8.3
JTS                               S   Sn    12 51 29.9 -5.5
      comp=Z,8.7nm,0.3s,baz=264,slow=22,SNR=2.3
LCR2  La Lucha 2       10.36 125      Pn    12 50 06.8 +1.3
ZAIG  Zacatecas        11.64 308      Pn    12 50 25.4 +3.5
BCIP  Isla Barro Col   14.13 117  P   Pn    12 50 54.3 +1.3
BCIP  Isla Barro Col   14.13 117  P   Pn    12 50 53.6 +0.6
      comp=Z,9.4nm,0.8s
HNDO  Hondo            14.91 337      P     12 51 05.0 +1.5
JCT   Junction City    15.96 337  P   Pn    12 51 16.1 +0.8
BRDY  Brady            16.41 340      Pn    12 51 21.8 +1.0
BRDY                             IAmb IAmb  12 51 41.8
      comp=Z,8.9nm,0.6s
SAND  Sanderson        16.52 330      Pn    12 51 23.8 +1.7
TXAR  Lajitas Array    16.83 325  P   Pn    12 51 28.0 +2.2
      comp=Z,4.2nm,0.7s,baz=149,slow=12,SNR=43
TXAR  Lajitas Array    16.83 325  P   Pn    12 51 27.5 +1.7
OZNA  Ozona            16.88 334      Pn    12 51 27.8 +1.3
OZNA                             IAmb IAmb  12 51 44.8
      comp=Z,8.5nm,0.7s
GTBY  Guantanamo Bay   17.12  74  P   P     12 51 28.4 +0.5
GTBY  Guantanamo Bay   17.12  74  P   P     12 51 29.0 +1.1
      comp=Z,68nm,0.8s
NMDO  Nuevo Mundo      17.37  72  P   P     12 51 30.8 +0.2
NMDO                             IAmb IAmb  12 51 34.4
      comp=Z,9.6nm,0.7s
TIGA  Tifton           17.54  26  P   P     12 51 33.5 +1.2
PLPT  Palo Pinto       17.64 344  P   Pn    12 51 35.5 +0.2
SGCY  Sterling City    17.75 336  P   Pn    12 51 37.1 +0.4
SGCY                             IAmb IAmb  12 52 05.7
      comp=Z,21nm,1.0s
LRAL  Lakeview Retre   17.82  16  P   P     12 51 36.1 +0.8
LRAL                             IAmb IAmb  12 51 40.2
      comp=Z,23nm,0.9s
ABTX  Abilene, Hawle   17.86 340  P   Pn    12 51 38.5 +0.7
ABTX                             IAmb IAmb  12 51 41.6
      comp=Z,9.2nm,0.7s
MNHN  Monahans         17.97 331  P   Pn    12 51 39.6 +0.4
MNHN                             IAmb IAmb  12 51 41.3
      comp=Z,9.4nm,0.8s
MASC  Masc             17.98  74  P   P     12 51 38.4 +1.1
      comp=Z,35nm,0.6s
SJCC  San Jacinto, C   17.98 107  P   P     12 51 37.0 -0.4
      comp=Z,29nm,1.0s
TPB01 Permian Basin    18.15 328  P   P     12 51 40.3 +1.2
152A  Waverly Hall     18.18  22  P   P     12 51 40.8 +1.5
152A                             IAmb IAmb  12 51 44.8
      comp=Z,32nm,1.3s
TPB06 Permian Basin    18.44 330 IAmb IAmb  12 51 46.1
      comp=Z,8.9nm,0.6s
SMRC  Santa Marta, M   18.46 102  P   P     12 51 43.3 +0.7
      comp=Z,789nmcomp=Z,12nm,0.8s
PECS  Pecos            18.54 328  P   Pn    12 51 45.5 -0.3
MIAR  Mount Ida        18.61 357 IAmb IAmb  12 51 50.5
      comp=Z,10nm,0.9s
MIAR  Mount Ida        18.61 357  P   P     12 51 44.2 +0.3
      comp=Z,15nm,1.1s
APMT  Aspermont        18.66 340 IAmb IAmb  12 51 46.9
      comp=Z,16nm,0.8s
129A  Stewart Farms,   18.68 335 IAmb IAmb  12 51 47.6
      comp=Z,14nm,0.8s
SN07  Snyder 07        18.71 338 IAmb IAmb  12 51 47.0
      comp=Z,10nm,0.6s
Y49A  Blount Mountai   18.75  16  P   Pn    12 51 47.8 -0.5
Y49A                             IAmb IAmb  12 51 51.0
      comp=Z,12nm,0.8s
POST  Post             18.92 336 IAmb IAmb  12 51 49.3
      comp=Z,16nm,0.7s
128A  Castleberry Fa   18.93 333 IAmb IAmb  12 51 50.6
      comp=Z,13nm,1.0s
CBOC  Ciudad Bolivar   19.07 120  P   P     12 51 49.6 +0.3
      comp=Z,12nm,0.8s
TPB11 China Draw       19.07 329  P   P     12 51 51.2 +2.1
TPB28                  19.10 327  P   P     12 51 50.4 +1.0
TPB28                            IAmb IAmb  12 51 53.0
      comp=Z,3.5nm,0.8s
X48A  Hartselle        19.16  14  P   P     12 51 50.2 +0.4
GOGA  Godfrey          19.31  24  P   P     12 51 51.9 +0.4
GOGA                             IAmb IAmb  12 51 57.3
      comp=Z,14nm,0.7s
GOGA  Godfrey          19.31  24  P   P     12 51 52.0 +0.4
      comp=Z,23nm,0.8s
Y52A  Lilburn          19.49  22  P   P     12 51 54.5 +1.0
WMOK  Wichita Mounta   19.58 345  P   P     12 51 54.5  0.0
      comp=Z,6.1nm,0.7s
MNTX  Cornudas Mount   19.59 326  P   P     12 51 56.9 +2.3
      comp=Z,6.0nm,1.0s
GUY2C Guyana, Caldas   19.96 120  P   P     12 51 58.7 -0.5
      comp=Z,12nm,0.8s
SWET  Sewanee          20.16  16  P   P     12 52 01.0 +0.3
SWET                             IAmb IAmb  12 52 08.8
      comp=Z,10nm,0.8s
NORC  Norcasia         20.19 119  P   P     12 52 00.8 -0.4
      comp=Z,3.5nm,0.9s
BBAC  Balboa, Cauca    20.45 131  P   P     12 52 05.7 +1.5
      comp=Z,426nmcomp=Z,6.6nm,0.9s
POPC  Popayan, Colom   20.53 129  P   P     12 52 06.5 +1.5
      comp=Z,6.1nm,0.9s
SDDR  Presa de Saban   20.56  78  P   P     12 52 04.2 -1.0
      comp=Z,15nm,1.0s
AMTX  Amarillo         20.61 338  P   P     12 52 06.0 +0.5
AMTX                             IAmb IAmb  12 52 08.7
      comp=Z,16nm,0.9s
WVT   Waverly          20.61  11  P   P     12 52 05.4  0.0
      comp=Z,10nm,0.8s
ORTC  Ortega, Tolima   20.80 123  P   P     12 52 07.5 -0.2
      comp=Z,33nm,0.8s
SPBC  San Pablo de B   20.82 117  P   P     12 52 07.0 -1.0
      comp=Z,5.5nm,0.7s
OTAV  Otavalo          20.89 137  P   P     12 52 10.3 +1.2
OTAV                             IAmb IAmb  12 52 15.5
      comp=Z,11nm,0.9s
OTAV  Otavalo          20.89 137  P   P     12 52 12.3 +3.2
      comp=Z,14nm,0.9s
JSC   Jenkinsville     20.97  27 IAmb IAmb  12 52 10.3
      comp=Z,8.4nm,0.7s
BARC  Barichara        21.14 114  P   P     12 52 11.1 -0.4
      comp=Z,626nmcomp=Z,12nm,0.5s
PRAC  Prado            21.20 123  P   P     12 52 11.7 -0.3
      comp=Z,21nm,0.8s
TKL   Tuckaleechee C   21.22  20  P   P     12 52 11.7 -0.2
      comp=Z,2.8nm,0.5s,baz=189,slow=13,SNR=4.9
      comp=Z,2.8nm,0.5s
TKL   Tuckaleechee C   21.22  20 IAmb IAmb  12 52 19.8
      comp=Z,11nm,0.9s
T35A  Sooner Cattle    21.24 351  P   P     12 52 11.6 -0.5
RUSC  La Rusia         21.56 115  P   P     12 52 15.2 -0.9
      comp=Z,4.6nm,0.7s
V53A  Saluda           21.56  22  P   P     12 52 16.9 +1.4
V53A                             IAmb IAmb  12 52 19.2
      comp=Z,12nm,1.1s
CHIC  Chingaza         21.64 119  P   P     12 52 16.1 -0.8
S39A  Bolivar          21.74 358 IAmb IAmb  12 52 17.3
      comp=Z,16nm,1.1s
CCM   Cathedral Cave   22.12   3  P   P     12 52 19.2 -1.8
      comp=Z,8.9nm,0.7s
V55A  Taylorsville     22.34  25  P   P     12 52 23.8 +0.8
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V55A                             IAmb IAmb  12 52 24.5
      comp=Z,15nm,0.9s
SDV   Santo Domingo    22.54 105  P   P     12 52 23.9 -1.4
SDV                              IAmb IAmb  12 52 32.1
      comp=Z,6.7nm,0.8s
SDV   Santo Domingo    22.54 105  P   P     12 52 23.8 -1.4
      comp=Z,54nm,0.8s
ALQ   Albuquerque      22.69 329 IAmb IAmb  12 52 29.2
      comp=Z,2.2nm,0.9s
ANMO  Albuquerque      22.70 329  P   P     12 52 28.2 +1.7
      comp=Z,2.8nm,2.1s
NVAR  Mina Array Bea   31.86 320  P   P     12 53 51.3 +3.0
      comp=Z,1.0nm,0.7s,baz=138,slow=9.1,SNR=9.1
NVAR                             PcP  PcP   12 56 34.9 +0.7
      comp=Z,0.4nm,0.6s,baz=132,slow=1.3,SNR=4.8
      comp=Z,1.0nm,0.7s
J08A  Circle Bar Ran   35.16 326 IAmb IAmb  12 54 19.5
      comp=Z,6.8nm,0.9s
LPAZ  La Paz           40.06 142  P   P     12 54 58.3 -0.2
      comp=Z,8.9nm,0.7s,baz=329,slow=7.3,SNR=37
      comp=Z,8.9nm,0.7s
LPAZ  La Paz           40.06 142      P     12 54 58.6 +0.2
LPAZ                             IAmb IAmb  12 54 59.9
      comp=Z,8.7nm,0.7s
PB16  IPOC Station P   40.90 145  P   P     12 55 07.0 +1.7
      comp=Z,9.5nm,0.9s
PB11  IPOC Station P   41.99 147  P   P     12 55 14.9 +1.2
      comp=Z,12nm,0.9s
PB02  IPOC Station P   43.16 148  P   P     12 55 24.4 +1.4
      comp=Z,21nm,1.4s
PB07  IPOC Station P   43.50 149  P   P     12 55 26.7 +0.8
      comp=Z,21nm,1.6s
CLDB  Colider          45.09 124  P   P     12 55 34.9 -3.5
      comp=Z,6.5nm,1.1s
YKA   Yellowknife Ar   49.08 347  P   P     12 56 08.4  0.0
      comp=Z,2.8nm,0.6s,baz=153,slow=7.4,SNR=16
      comp=Z,2.8nm,0.6s
BO03  Pichilemu        53.81 159  P   P     12 56 44.2 +0.4
      comp=Z,22nm,1.1s
BDFB  Brasilia         54.02 123  P   P     12 56 44.1 -1.8
      comp=Z,2.4nm,0.4s,baz=326,slow=5.5,SNR=4.5
      comp=Z,2.4nm,0.4s
BDFB  Brasilia         54.02 123 IAmb IAmb  12 56 45.0
      comp=Z,5.2nm,0.9s
BO01  Tunca            54.02 158  P   P     12 56 46.6 +1.1
      comp=Z,12nm,2.0s
CPUP  Villa Florida    54.19 140  P   P     12 56 45.0 -1.8
      comp=Z,3.8nm,0.7s,baz=338,slow=9.2,SNR=9.8
      comp=Z,3.8nm,0.7s
CPUP  Villa Florida    54.19 140 IAmb IAmb  12 56 46.4
      comp=Z,5.4nm,0.8s
CPUP  Villa Florida    54.19 140  P   P     12 56 45.5 -1.3
      comp=Z,7.3nm,1.0s
GO05  Hualane          54.28 159  P   P     12 56 48.0 +0.7
      comp=Z,12nm,1.3s
INK   Inuvik           58.48 343  P   P     12 57 17.0 +0.5
CPSB  Cacapava Do Su   59.49 141  P   P     12 57 23.4 -0.6
      comp=Z,19nm,1.6s
PLCA  Paso Flores      59.93 161  P   P     12 57 27.0 +0.1
      comp=Z,5.5nm,1.0s,baz=315,slow=7.5,SNR=5.0
      comp=Z,5.5nm,1.0s
ILAR  Eielson Array    60.90 337  P   P     12 57 33.2 +0.2
      comp=Z,1.3nm,1.0s,baz=120,slow=4.8,SNR=12
      comp=Z,1.3nm,1.0s
ESDC  Sonseca Array    79.01  52  P   P     12 59 22.0 -1.9
      comp=Z,0.5nm,0.6s,baz=290,slow=5.1,SNR=4.6
      comp=Z,0.5nm,0.6s
ESDC  Sonseca Array    79.01  52  P   P     12 59 22.0 -1.9
ARCES ARCESS Array B   84.54  18  P   P     12 59 51.2 -0.9
      comp=Z,1.1nm,0.8s,baz=286,slow=6.5,SNR=1.5
      comp=Z,1.1nm,0.8s
ARCES ARCESS Array B   84.54  18 IAmb IAmb  13 00 32.5
      comp=Z,11nm,1.4s
HHC   Hu-ho-hao-te    119.27 339 eP   PKiKP 13 06 12.0 +4.2
WRA   Warramunga Arr  135.26 258 PKP  PKPdf 13 06 39.1 +0.5
      comp=Z,0.2nm,0.3s,baz=88,slow=2.5,SNR=6.2
PZH   PanZhiHua       135.62 341 PKP  PKiKP 13 06 40.7 -0.2
ASAR  Alice Springs   135.72 252 PKP  PKPdf 13 06 40.2 +0.9
      comp=Z,0.3nm,0.6s,baz=75,slow=2.0,SNR=6.5
CMAR  Chiang Mai Arr  144.04 341 PKP  PKPab 13 06 53.2 +0.9
      comp=Z,0.4nm,0.3s,baz=17,slow=2.8,SNR=1.9
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MAN 10 13:20:44.0, 7°.32N × 126°.97E, h6^{km}, MS3.5, Mindanao

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Code  Station Name       Δ°   AZ°    Phase ID        Time      Res
                                   Op      ISC     h  m  s     ISC
CDOP  Cateel, Davao      0.70 311 eP      Pb     13 20 58.1  -0.5
CDOP                              i S     Sg     13 21 06.4  -0.2
BIPH  Bislig             1.05 325 eP      Pg     13 21 04.2   0.0
BIPH                              eS      Sg     13 21 16.4  -1.4
DMPH  Davao City--Mi     1.47 261 eP      Pg     13 21 12.7  +0.5
DMPH                              i S     Sg     13 21 32.1  +0.8
DDMP  Don Marcelino,     1.74 226 eP      Pb     13 21 15.6  -0.8
DDMP                              eS      Sb     13 21 38.2  -0.2
KCP   Kidapawan          1.89 261 i P     Pn     13 21 17.3  +0.4
KCP                               i S     Sn     13 21 33.4  -7.7
CGP   Cagayan de Oro     2.52 297 eP      Pn     13 21 26.3  +0.8
CGP                               eS      Sn     13 21 55.0  -1.6
GLSP  General Luna,      2.59 341 eP      Pn     13 21 25.8  -0.6
GLSP                              eS      Sn     13 21 59.8  +1.6
PLP   Palo               4.30 333 eP      Pn     13 21 54.5  +4.5
PLP                               eS      Sn     13 22 43.8  +3.3
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*IDC **10** 13:23:40.5±4.3, 24°.82N×121°.81E, h117^{km}±42^{km}, mb3.4/10, mbtmp3.8/12, Error ellipse: s-maj=33.4km s-min=15.3km az=58.0*

*NIED **10** 13:23:42.0, 24°.90N×121°.74E, h122^{km}, MW3.9, Moment Tensor Solution. s2 Moment tensor: Scale 10^{14}Nm; M_{rr}-3.05; $M_{\theta\theta}$7.69; $M_{\phi\phi}$-4.63; $M_{r\theta}$1.41; $M_{\theta\phi}$-4.02; $M_{\phi r}$1.92; Fault plane solution: $M_0$8.02000×10^{14} NP1: ϕ_s148.00000°, δ67.00000°, λ-19.00000°. NP2: ϕ_s246.00000°, δ73.00000°, λ-156.00000°.*

*TAP **10** 13:23:42.4, 24°.95N×121°.77E, h125^{km}, ML4.3, A*

*JMA **10** 13:23:42.0±0.2, 24°.9N±0°.9×121°.7E±0°.7, h122^{km}±1^{km}, MV3.5/17, TAIWAN REGION*

ISC 10 13:23:42.1±0.7, **24°.95N**±0°.03×**121°.78E**±0°.02, **h128**^{km}±4^{km}, **n218, σ0^{s}.87**/395, **mb3.7**/10, **Taiwan**

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Code  Station Name       Δ°   AZ°    Phase ID        Time      Res
                                   Op      ISC     h  m  s     ISC
TIPB  Shuangxi           0.04  64 i P     Pn     13 23 59.4   0.0
TIPB                               S      Sn     13 24 11.8  -0.9
NTC   Toucheng           0.11 157 i P     Pn     13 23 59.7  +0.1
NTC                               i S     Sn     13 24 12.7   0.0
WFSB  Wu-fen Shan        0.12 359  P      Pn     13 23 59.6   0.0
WFSB                               S      Sn     13 24 12.1  -0.6
SXI1  Grass Mountain     0.16  31  P      Pn     13 23 59.3  -0.5
SXI1                               S      Sn     13 24 12.2  -0.9
EGS                      0.17 129 i P     Pn     13 23 59.8  +0.2
EGS                                S      Sn     13 24 13.0  +0.2
TWA   Mucha              0.18 278 i P     Pn     13 23 59.6   0.0
TWA                                S      Sn     13 24 12.2  -0.7
ILA   Ilan               0.19 190 i P     Pn     13 24 00.2  +0.5
ILA                                S      Sn     13 24 12.8  -0.1
TWB1  Santiao Chiao      0.19  73 i P     Pn     13 23 59.7   0.0
TWB1                               S      Sn     13 24 12.5  -0.4
TNOU  National Taiwa     0.20 357  P      Pn     13 23 59.5  -0.2
TNOU                               S      Sn     13 24 12.7  -0.3
NHY   Taipei             0.21 294 eP      Pn     13 23 59.2  -0.5
NHY                               eS      Sn     13 24 12.2  -0.8
NHDH  Xindian Distri     0.23 272 i P     Pn     13 23 59.7   0.0
NHDH                              i S     Sn     13 24 12.1  -1.0
TWE   Neicheng           0.25 205 i P     Pn     13 23 59.9  +0.1
TWE                               i S     Sn     13 24 12.5  -0.7
FUSB  Fushanzhiwuyua     0.26 223 i P     Pn     13 23 59.7  -0.3
FUSB                               S      Sn     13 24 12.1  -1.3
TAP   Taipei             0.27 289  P      Pn     13 23 59.8  -0.1
TAP                                S      Sn     13 24 12.3  -0.9
TATO  Taipei             0.27 275  P      Pn     13 23 59.6  -0.3
TATO  Taipei             0.27 275  S      Sn     13 24 10.7  -2.6
TATO  Taipei             0.27 275 i P     Pn     13 23 59.7  -0.1
TATO                              i S     Sn     13 24 12.0  -1.3
YM01  YM01               0.27 315 i P     Pn     13 23 59.8  -0.1
YM01                               S      Sn     13 24 12.6  -0.9
YM08  YM08               0.29 323 i P     Pn     13 23 59.9  -0.1
YM08                               S      Sn     13 24 12.7  -0.8
ZUZH  Zhuzihu            0.30 314 i P     Pn     13 23 59.9  -0.1
ZUZH                               S      Sn     13 24 12.5  -1.1
NWLT  Wulai              0.31 236 i P     Pn     13 23 59.7  -0.4
NWLT                               S      Sn     13 24 11.8  -1.8
BACT  New Taipei Cit     0.31 278  P      Pn     13 24 00.1   0.0
BACT                               S      Sn     13 24 12.9  -0.7
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NDS	Dongshan	0.32	191	P	Pn	13 24 00.4	+0.3
NDS				S	Sn	13 24 13.4	-0.3
ANP	Anpu	0.33	314	P	Pn	13 24 00.1	-0.2
ANP				*e*S	Sn	13 24 13.3	-0.7
TWY	Chenhua	0.36	333	*i* P	Pn	13 24 00.4	+0.1
TWY				S	Sn	13 24 13.9	-0.1
TWS1	Kuangyinshan	0.36	294	P	Pn	13 24 00.4	+0.2
TWS1				S	Sn	13 24 13.5	-0.4
ENTT	Nioudou	0.37	212	*i* P	Pn	13 24 00.3	0.0
ENTT				*i* S	Sn	13 24 13.2	-0.9
NTST	Danshui	0.37	305	P	Pn	13 24 00.4	+0.1
NTST				S	Sn	13 24 13.6	-0.4
NDT	Datong Townshi	0.43	215	*i* P	Pn	13 24 00.6	0.0
NDT				*i* S	Sn	13 24 13.0	-1.5
NTY	Taoyuan	0.44	276	*i* P	Pn	13 24 00.7	+0.1
NTY				S	Sn	13 24 13.9	-0.6
YHNB	Yeheng	0.47	233	P	Pn	13 24 00.3	-0.6
YHNB	Yeheng	0.47	233	S	Sn	13 24 13.0	-2.0
YHNB	Yeheng	0.47	233	*i* P	Pn	13 24 00.5	-0.3
YHNB				S	Sn	13 24 13.4	-1.6
NSK	Sanguang	0.47	235	*i* P	Pn	13 24 00.6	-0.3
NSK				S	Sn	13 24 13.5	-1.6
LATG	Datong	0.48	209	*i* P	Pn	13 24 01.1	+0.2
LATG				*i* S	Sn	13 24 14.8	-0.4
EWUT	Wuta	0.51	181	P	Pn	13 24 01.3	+0.4
EWUT				S	Sn	13 24 15.7	+0.5
ENA	Nanau	0.52	184	*e*P	Pn	13 23 59.1	-2.0
ENA				*e*S	Sn	13 24 14.3	-1.1
NCU	National Centr	0.54	272	*i* P	Pn	13 24 01.3	+0.2
NCU				S	Sn	13 24 15.1	-0.5
NCUH	Zhongli	0.54	272	P	Pn	13 24 01.2	0.0
NCUH				S	Sn	13 24 14.8	-0.8
KSHI	Guanxi Townshi	0.58	252	*i* P	Pn	13 24 01.6	+0.2
KSHI				S	Sn	13 24 15.3	-0.7
EAHA	Aohua	0.62	184	P	Pn	13 24 01.9	+0.2
EAHA				S	Sn	13 24 17.2	+0.7
NNS	Nan Shan	0.63	216	*i* P	Pn	13 24 02.2	+0.2
NNS				S	Sn	13 24 16.2	-0.7
NNSB	Datong	0.64	215	*i* P	Pn	13 24 02.1	+0.1
NNSB				S	Sn	13 24 16.3	-0.7
NNSH	Datong	0.64	215	P	Pn	13 24 02.1	+0.1
NNSH				S	Sn	13 24 16.0	-1.0
NJD	Zhudong	0.67	251	*i* P	Pn	13 24 02.3	+0.2
NJD				S	Sn	13 24 16.8	-0.3
EOS2	EOS2	0.67	142	P	Pn	13 24 02.6	+0.7
EOS2				*e*S	Sn	13 24 17.0	+0.1
NHW	Xinwu Township	0.67	275	P	Pn	13 24 02.8	+0.8
NHW				S	Sn	13 24 17.7	+0.6
NFF	Wufeng Townshi	0.69	242	P	Pn	13 24 02.0	-0.2
NFF				S	Sn	13 24 16.0	-1.4
HSN1	Hsinchu	0.72	256	*i* P	Pn	13 24 02.6	+0.3
HSN1				S	Sn	13 24 17.3	-0.4
PCYT	Pengchaiyu	0.72	21	*i* P	Pn	13 24 02.7	+0.3
PCYT				S	Sn	13 24 17.9	0.0
SBCB	Hsinchu	0.74	258	P	Pn	13 24 02.9	+0.3
SBCB				S	Sn	13 24 16.7	-1.3
HSN	Hsinchu	0.76	259	P	Pn	13 24 02.6	-0.1
HSN				S	Sn	13 24 17.3	-0.9
LIOB	Emei	0.76	246	*i* P	Pn	13 24 02.9	+0.1
LIOB				S	Sn	13 24 17.4	-1.0
NSTT	Nanjuang	0.78	246	*i* P	Pn	13 24 03.0	+0.1
NSTT				S	Sn	13 24 16.7	-1.9
ETLH	Xiulin Townshi	0.79	200	P	Pn	13 24 02.9	-0.3
ETLH				S	Sn	13 24 18.1	-0.9
NACB	Ninganchiao	0.80	193	P	Pn	13 24 02.3	-0.7
NACB	Ninganchiao	0.80	193	*i* P	Pn	13 24 02.3	-0.7
NACB				S	Sn	13 24 16.7	-2.1
ETL	Fush Village	0.80	191	P	Pn	13 24 02.4	-0.7
ETL				S	Sn	13 24 18.2	-0.8
EOS3	EOS3	0.82	144	P	Pn	13 24 03.9	+0.9
EOS3				S	Sn	13 24 18.8	-0.1
FUSS	Fushou	0.86	215	*i* P	Pn	13 24 04.4	+0.5
FUSS				S	Sn	13 24 19.9	-0.4
NJN	Zhunan	0.87	252	P	Pn	13 24 03.8	+0.2
NJN				S	Sn	13 24 19.6	-0.4
TWD	Chiawan	0.89	191	*i* P	Pn	13 24 03.0	-0.8
TWD				S	Sn	13 24 18.8	-1.4
TWT	Tachien	0.89	219	*i* P	Pn	13 24 04.7	+0.6
TWT				S	Sn	13 24 20.8	+0.2
TDCB	Techi	0.90	219	P	Pn	13 24 04.5	+0.4
TDCB				S	Sn	13 24 20.5	-0.2
WHF	Hehuan Shan	0.93	211	P	Pn	13 24 05.2	+0.5
WHF				*e*S	Sn	13 24 21.9	+0.1
EOS4	EOS4	0.96	149	P	Pn	13 24 04.2	+0.2
EOS4				S	Sn	13 24 20.6	0.0
HWA	Hwalien	0.98	190	*i* P	Pn	13 24 04.4	-0.3
HWA				S	Sn	13 24 21.0	-0.8
LXIB	Xiulin Townshi	0.99	200	*i* P	Pn	13 24 04.3	-0.6
LXIB				*i* S	Sn	13 24 21.5	-0.7
NMLH	Miaoli	0.99	246	P	Pn	13 24 05.2	+0.4
NMLH				S	Sn	13 24 22.2	+0.2
WHP	Taichung City	1.02	229	*i* P	Pn	13 24 05.5	+0.5
WHP				S	Sn	13 24 21.9	-0.6
ETM	Tongmen	1.02	195	P	Pn	13 24 04.3	-0.7
ETM				S	Sn	13 24 20.7	-1.7
NSY	Sanyi	1.07	240	*i* P	Pn	13 24 05.6	+0.1
NSY				S	Sn	13 24 22.8	-0.6
TEYL	Yanliau Villag	1.09	189	P	Pn	13 24 05.8	0.0
TEYL				S	Sn	13 24 24.5	+0.9
TWQ1	Liyutan	1.10	237	*i* P	Pn	13 24 06.1	+0.3
TWQ1				S	Sn	13 24 23.2	-0.5
WUSB	Renai	1.13	213	P	Pn	13 24 06.9	+0.6
WUSB				S	Sn	13 24 25.2	+0.6
OWD	Renai	1.14	209	*i* P	Pn	13 24 06.9	+0.6
OWD				S	Sn	13 24 24.3	-0.4
JYNG	Yonagunijimaku	1.17	115	P	Pn	13 24 06.6	+0.1
JYNG				S	Sn	13 24 24.4	-0.6
ESL	Shilin	1.18	196	P	Pn	13 24 05.5	-1.1
ESL				*e*S	Sn	13 24 22.6	-2.6
SHUL	Shoufeng	1.18	190	*i* P	Pn	13 24 06.4	-0.2
SHUL				S	Sn	13 24 25.2	+0.1
WCS	Beigang Elemen	1.20	222	*i* P	Pn	13 24 07.2	+0.5
WCS				S	Sn	13 24 25.1	-0.4
WPL	Puli Township	1.20	219	P	Pn	13 24 07.2	+0.4
WPL				S	Sn	13 24 25.2	-0.5
WDJ	Dajia District	1.20	240	*i* P	Pn	13 24 07.4	+0.6
WDJ				S	Sn	13 24 25.8	+0.2
DPDB	Guoxing	1.20	221	*i* P	Pn	13 24 07.4	+0.5
DPDB				S	Sn	13 24 25.3	-0.5
YOJ	Yonaguni jima	1.22	113	P	Pn	13 24 07.1	+0.2
YOJ	Yonaguni jima	1.22	113	S	Sn	13 24 25.0	-0.9
YOJ	Yonaguni jima	1.22	113	*i* P	Pn	13 24 07.2	+0.2
YOJ				*i* S	Sn	13 24 24.8	-1.0
YOJ	Yonaguni jima	1.22	113	*e*P	Pn	13 24 07.1	+0.2
YOJ				S	Sn	13 24 24.9	-1.0
TEGC	Jichi Village	1.26	190	P	Pn	13 24 07.3	-0.1
TEGC				S	Sn	13 24 27.5	+0.9
WARBT	Fenglin Townsh	1.28	197	P	Pn	13 24 06.8	-0.9
WARBT				S	Sn	13 24 25.3	-1.9
TCU	Taichung	1.29	232	*i* P	Pn	13 24 08.2	+0.5
TCU				*i* S	Sn	13 24 25.9	-1.3
EGFH	Guangfu	1.32	194	*e*P	Pn	13 24 07.8	-0.3
EGFH				S	Sn	13 24 26.9	-0.9
VWDT	VWDT	1.33	206	P	Pn	13 24 09.1	+1.0
VWDT				S	Sn	13 24 27.9	-0.1
SMLT	Sun Moon Lake	1.34	217	*i* P	Pn	13 24 08.9	+0.5
SMLT				S	Sn	13 24 28.3	0.0
WWCA	Taichung City	1.34	239	S	Sn	13 24 28.8	+0.7
WWF	Wufeng	1.34	228	P	Pn	13 24 08.8	+0.5
WWF				S	Sn	13 24 28.6	+0.4
TYC	Yuchr	1.34	219	*i* P	Pn	13 24 08.8	+0.4
TYC				S	Sn	13 24 28.4	+0.2
SSLB	Suanglung	1.39	213	P	Pn	13 24 09.1	+0.3
SSLB	Suanglung	1.39	213	*i* P	Pn	13 24 09.3	+0.4
SSLB				S	Sn	13 24 28.8	-0.4
WCHH	Zhanghua	1.42	232	*i* P	Pn	13 24 09.5	+0.4
WCHH				S	Sn	13 24 28.4	-1.3
WCH1	Changhua City	1.43	232	*e*P	Pn	13 24 10.1	+0.9
WCH1				S	Sn	13 24 30.1	+0.2
WNT1	Nantou City	1.45	224	P	Pn	13 24 10.2	+0.7
WNT1				*e*S	Sn	13 24 30.2	-0.1
WNT	Mingjian	1.47	223	P	Pn	13 24 10.2	+0.6
WNT				S	Sn	13 24 30.7	0.0
WYL	Yuanlin Townsh	1.48	228	*e*P	Pn	13 24 10.1	+0.3
WYL				*e*S	Sn	13 24 30.8	-0.1
WJS	Zhushan	1.48	221	*i* P	Pn	13 24 10.3	+0.5
WJS				S	Sn	13 24 30.8	-0.2
HGSD	Ruisui	1.49	193	*e*P	Pn	13 24 10.1	+0.1
HGSD				*e*S	Sn	13 24 32.7	+1.5
EHY	Hungye	1.50	196	*e*P	Pn	13 24 09.1	-1.0
EHY				*e*S	Sn	13 24 30.6	-0.8
EHYH	Wanrong	1.51	196	*e*P	Pn	13 24 09.6	-0.5
EHYH				*e*S	Sn	13 24 29.8	-1.7
WHYT	Xinyi Township	1.51	214	*i* P	Pn	13 24 10.8	+0.6
WHYT				*i* S	Sn	13 24 31.8	+0.1
YUS	Yu-Shan	1.64	208	P	Pn	13 24 13.0	+0.8
YUS				*e*S	Sn	13 24 35.1	0.0
EYUL	Yuli	1.65	195	*e*P	Pn	13 24 11.5	-0.4
EYUL				*e*S	Sn	13 24 35.4	+0.9
WRL	Guolierlin Hig	1.66	231	*i* P	Pn	13 24 11.9	+0.1
WRL				*i* S	Sn	13 24 33.6	-0.9
ECBN	Changbin	1.66	191	*i* P	Pn	13 24 12.3	+0.4
ECBN				S	Sn	13 24 34.6	+0.1
RLNB	Erlin	1.68	231	P	Pn	13 24 12.4	+0.3
RLNB				S	Sn	13 24 34.5	-0.4
WGK	Gukeng	1.68	222	P	Pn	13 24 12.7	+0.6
WGK				*e*S	Sn	13 24 35.7	+0.6
CHN5	Tsauling	1.69	217	*i* P	Pn	13 24 12.7	+0.4
CHN5				S	Sn	13 24 35.1	-0.2
ALS	Alishan	1.69	212	P	Pn	13 24 13.1	+0.5
ALS				S	Sn	13 24 36.2	+0.4
WDLH	Douliu	1.70	222	*i* P	Pn	13 24 12.8	+0.5
WDLH				S	Sn	13 24 35.8	+0.4
CHKH	Chenggong	1.79	192	P	Pn	13 24 13.4	0.0
CHKH				S	Sn	13 24 37.2	-0.1
WTK	Tuku	1.79	226	*i* P	Pn	13 24 13.7	+0.2
WTK				S	Sn	13 24 37.0	-0.4
FULB	Fuli	1.80	194	P	Pn	13 24 13.7	0.0
FULB				*e*S	Sn	13 24 37.1	-0.6
CHN2	Minshiung	1.85	220	*e*S	Sn	13 24 38.3	-0.4
WCKO	Fanlu	1.85	216	*i* P	Pn	13 24 14.7	+0.5
WCKO				S	Sn	13 24 38.9	+0.2
EHD	Haiduan	1.87	197	P	Pn	13 24 13.7	-0.8
EHD				*e*S	Sn	13 24 38.9	-0.2
IRIF	Iriomote-Funau	1.88	109	P	Pn	13 24 14.2	-0.2
IRIF				S	Sn	13 24 38.0	-1.1
CHKT	Chengkung	1.89	192	P	Pn	13 24 14.7	+0.1
CHKT				S	Sn	13 24 38.4	-1.0
ELDTW	Lidau	1.89	202	P	Pn	13 24 15.2	+0.4
ELDTW				S	Sn	13 24 40.1	+0.4
CHY	Chiayi	1.91	221	P	Pn	13 24 15.3	+0.4
CHY				S	Sn	13 24 40.1	+0.2
ECS	Chishang	1.92	196	*e*P	Pn	13 24 16.5	+1.4
ECS				S	Sn	13 24 39.6	-0.6
WSF	Szhu	1.94	228	P	Pn	13 24 15.1	-0.1
WSF				S	Sn	13 24 40.5	0.0
TPUB	Ta-pu	1.95	213	P	Pn	13 24 15.7	+0.2
TPUB	Ta-pu	1.95	213	S	Sn	13 24 40.9	0.0
TPUB	Ta-pu	1.95	213	*i* P	Pn	13 24 15.7	+0.2
TPUB				S	Sn	13 24 40.2	-0.8
STYH	Taoyuan	2.00	208	P	Pn	13 24 16.4	+0.4
STYH				S	Sn	13 24 41.8	-0.1
WTP	Ta-pu	2.01	212	*i* P	Pn	13 24 16.4	+0.2
WTP				S	Sn	13 24 41.9	-0.3
WSL	Shuilin Townsh	2.01	225	P	Pn	13 24 16.2	+0.1
WSL				S	Sn	13 24 42.0	-0.1
STYT	Tauyuan	2.01	208	*i* P	Pn	13 24 16.7	+0.5
STYT				S	Sn	13 24 42.3	0.0
EDH	Donghe	2.02	193	P	Pn	13 24 15.9	-0.3
EDH				S	Sn	13 24 41.7	-0.6
HATJ	Hateruma jima	2.05	115	P	Pn	13 24 16.9	+0.4
HATJ				*e*S	Sn	13 24 41.8	-1.0
TWK	Hsinying	2.06	215	*i* P	Pn	13 24 17.0	+0.3
TWK				S	Sn	13 24 43.1	-0.1
MSUT	Lienchiang	2.07	306	P	Pn	13 24 16.6	-0.3
MSUT				*e*S	Sn	13 24 42.5	-0.9
SNST	Tainan City	2.09	215	*i* P	Pn	13 24 17.7	+0.6
SNST				S	Sn	13 24 43.6	-0.2
ICHU	Yijhu	2.10	221	P	Pn	13 24 17.1	-0.1
ICHU				S	Sn	13 24 43.1	-0.9
CHN1	Nanshi	2.10	213	*i* P	Pn	13 24 17.5	+0.2
CHN1				S	Sn	13 24 44.0	-0.2
VWUC	VWUC	2.12	272	*i* P	Pn	13 24 17.2	-0.2
VWUC				S	Sn	13 24 42.9	-1.5
LONT	Longtian	2.12	197	P	Pn	13 24 16.9	-0.6
LONT				S	Sn	13 24 43.5	-1.1
JKRS	Kuro-shima	2.15	109	P	Pn	13 24 18.0	+0.3
JKRS				S	Sn	13 24 44.4	-0.7
CHN8	Yiju	2.15	222	*e*P	Pn	13 24 17.5	-0.3
CHN8				*e*S	Sn	13 24 45.4	+0.3
SGST	Jiashian	2.16	211	P	Pn	13 24 17.6	-0.5
SGST				S	Sn	13 24 44.9	-0.6
SLGT	Liugui	2.21	208	P	Pn	13 24 19.6	+1.0
SLGT				S	Sn	13 24 47.2	+0.6
TWG	Pinlang	2.22	197	P	Pn	13 24 18.1	-0.6
TWG				S	Sn	13 24 45.6	-1.2
TWGBT	Beinan	2.22	197	P	Pn	13 24 18.2	-0.5
TWGBT	Beinan	2.22	197	S	Sn	13 24 45.9	-0.9
TWGBT	Beinan	2.22	197	P	Pn	13 24 18.3	-0.5
TWGBT				S	Sn	13 24 45.7	-1.1
JIJ	Ishigaki jima	2.23	105	P	Pn	13 24 18.8	0.0
JIJ				S	Sn	13 24 45.4	-1.4
TTN	Taitung	2.27	195	*e*S	Sn	13 24 45.3	-2.5
SSHA	Shanhua	2.27	217	*e*S	Sn	13 24 48.7	+0.9
CHN3	Shinhua	2.27	215	S	Sn	13 24 49.6	+1.6
LDUT	Ludao	2.29	187	*e*P	Pn	13 24 20.2	+0.7
LDUT				*e*S	Sn	13 24 47.1	-1.2
SCLT	Jiali	2.29	220	*e*P	Pn	13 24 20.0	+0.5
SCLT				*e*S	Sn	13 24 48.2	-0.1
JISG	Ishigakijimahi	2.33	98	P	Pn	13 24 20.3	+0.4
JISG				S	Sn	13 24 48.5	-0.5
SHHT	Tainan City	2.33	215	*e*P	Pn	13 24 21.3	+1.2
SHHT				*e*S	Sn	13 24 48.3	-0.9
SCST	Cishan	2.37	210	P	Pn	13 24 21.5	+0.9
SCST				S	Sn	13 24 50.8	+0.6
TAI1	Yung-k'ang	2.38	217	*e*S	Sn	13 24 52.3	+2.1
PTMZ	Houxiangcun	2.42	273	*i* P	Pn	13 24 21.0	-0.1
PTMZ				S	Sn	13 24 49.5	-1.6
LYJJ	Jianjiangzhen	2.42	311	*i* P	Pn	13 24 21.0	-0.1
XPSS	Dashiqiu	2.44	324	*i* P	Pn	13 24 21.0	-0.3
XPSS				*e*S	Sn	13 24 49.9	-1.7
SSD	Sandimen	2.44	206	P	Pn	13 24 22.0	+0.5
SSD				S	Sn	13 24 50.4	-1.3
PNG	Penghu	2.46	236	P	Pn	13 24 21.5	-0.2
PNG				*e*S	Sn	13 24 49.7	-2.4
TWM1	Shoushan	2.46	211	P	Pn	13 24 23.2	+1.4
TWM1				*e*S	Sn	13 24 52.9	+0.7
ECL	Taimali	2.47	198	P	Pn	13 24 23.0	+1.2
ECL				*e*S	Sn	13 24 50.9	-1.4
TSMG	Majia	2.47	205	P	Pn	13 24 22.3	+0.5
TSMG				*e*S	Sn	13 24 52.1	-0.2
PHUB	P'eng-hu	2.48	235	*i* P	Pn	13 24 21.6	-0.2
PHUB				S	Sn	13 24 50.8	-1.7
MASBT	Mashibuluo	2.56	205	*i* P	Pn	13 24 23.6	+0.6
MASBT				S	Sn	13 24 54.0	-0.4
WDGT	Dungji	2.57	229	*i* P	Pn	13 24 23.1	0.0
WDGT				S	Sn	13 24 53.4	-1.3
JTJ	Tarama	2.67	96	*e*P	Pn	13 24 25.4	+1.0
JTJ				*e*S	Sn	13 24 56.5	-0.3
WSSB	Gushan	2.69	212	P	Pn	13 24 25.7	+1.0
WSSB				S	Sn	13 24 59.1	+1.7
EAST	Anshuo	2.70	199	*e*P	Pn	13 24 25.8	+1.0
EAST				*e*S	Sn	13 24 56.5	-1.2
SSPT	Xinbi	2.70	205	P	Pn	13 24 25.7	+0.9
SSPT				*e*S	Sn	13 24 59.4	+1.8
TAW	Tawu	2.71	198	P	Pn	13 24 25.9	+1.0
TAW				*e*S	Sn	13 24 56.0	-1.8
TAWH	Dawu Township	2.73	198	*e*P	Pn	13 24 25.9	+0.8
TAWH				*e*S	Sn	13 24 57.2	-1.0
MHZQ	Yeshan	2.74	295	*i* P	Pn	13 24 25.0	-0.2
VCHM	Qimei	2.77	232	*i* P	Pn	13 24 25.6	0.0
VCHM				*i* S	Sn	13 24 58.0	-1.1
SCZT	Fangliau	2.78	203	P	Pn	13 24 26.4	+0.5
SCZT				S	Sn	13 24 59.4	-0.2
TWP	Hsiaoliuchiu	2.90	207	*e*P	Pn	13 24 28.2	+0.8
TWP				*e*S	Sn	13 25 01.7	-0.7
LAY	Lan-yu	2.91	184	P	Pn	13 24 26.7	-0.8
LAY				*e*S	Sn	13 24 59.1	-3.4
LYUB	Lan-yu	2.94	184	*e*P	Pn	13 24 27.4	-0.6
LYUB				*e*S	Sn	13 25 00.7	-2.6
SMST	Manzhou Townsh	3.05	197	*e*P	Pn	13 24 29.9	+0.6
HEN	Hengchun	3.09	198	*e*P	Pn	13 24 30.6	+0.8
HEN				*e*S	Sn	13 25 04.7	-1.9
KNM	Kinmen	3.09	261	P	Pn	13 24 31.3	+1.5
JIRJ	Irabujima	3.10	91	P	Pn	13 24 30.6	+0.7
JIRJ				S	Sn	13 25 06.6	-0.2
KNMB	Chin-men Tao	3.13	262	P	Pn	13 24 29.9	-0.4
TWK1	Hengchun	3.13	197	*e*P	Pn	13 24 31.0	+0.7
TWK1				*e*S	Sn	13 25 05.6	-2.0
TWKBT	Hengchun	3.13	197	*e*P	Pn	13 24 31.1	+0.7
TWKBT				*e*S	Sn	13 25 05.3	-2.3
TSEB	Hengchuen, Pin	3.15	195	*e*P	Pn	13 24 30.7	+0.1
TSEB				*e*S	Sn	13 25 06.5	-1.4
JMJ	Miyako jima 2	3.19	92	P	Pn	13 24 32.0	+0.9
JMJ	Miyako jima 2	3.19	92	S	Sn	13 25 09.8	+0.8
JMJ	Miyako jima 2	3.19	92	P	Pn	13 24 32.3	+1.2
JMJ				*e*S	Sn	13 25 08.1	-0.8
JMJ2	Miyako jima3	3.23	93	P	Pn	13 24 32.7	+1.1
JMJ2				*e*S	Sn	13 25 09.4	-0.4
JOGS	Gusukube	3.30	93	*e*P	Pn	13 24 34.0	+1.5
AXDP	Jialang	3.46	270	*i* P	Pn	13 24 34.9	+0.2
ZPLA	Ao Xicun	3.81	255	P	Pn	13 24 39.8	+0.4
SXFK	Yanhouchang	4.00	292	P	Pn	13 24 42.0	+0.2
DSXP	Dongshan	4.16	254	P	Pn	13 24 44.5	+0.5
JOW	Kunigami	6.14	71	P	Pn	13 25 09.9	-0.5
	7.9nm,0.3s,baz=132,slow=18,SNR=31						
JOW				S	Sn	13 26 16.7	-2.7
	15nm,0.2s,baz=102,slow=25,SNR=1.2						
JOW	Kunigami	6.14	71	P	Pn	13 25 09.7	-0.7
JOW	Kunigami	6.14	71	*e*P	Pn	13 25 10.0	-0.5
JOW				*e*S	Sn	13 26 16.9	-2.6
JMZ	Minamidaito 2	8.58	82	*e*P	Pn	13 25 40.7	-2.7
KSRS	Korea Array	13.52	21	P	Pn	13 26 50.5	+1.8
	1.1nm,0.8s,baz=198,slow=12,SNR=7.2						
SONM	Songino Array	25.88	336	P	P	13 29 02.1	+0.1
	0.9nm,0.7s,baz=147,slow=8.4,SNR=2.1 0.9nm,0.7s						
MKAR	Makanchi Array	38.17	315	P	P	13 30 49.7	+0.6
	0.6nm,0.6s,baz=99,slow=10,SNR=6.2 0.6nm,0.6s						
PETK	Petropavlovsk-	38.93	34	P	P	13 30 56.8	+1.6
	3.6nm,0.9s,baz=212,slow=6.7,SNR=2.4 3.6nm,0.9s						
ZALV	Zalesovo Beam	39.90	326	P	P	13 31 03.2	-0.1
	0.7nm,0.5s,baz=109,slow=9.2,SNR=4.1 0.7nm,0.5s						
KURBB	Kurchatov Arra	41.88	319	P	P	13 31 19.9	+0.4
	0.3nm,0.6s,baz=99,slow=9.1,SNR=4.4 0.3nm,0.6s						
WRA	Warramunga Arr	46.27	164	P	P	13 31 53.6	-1.3
	0.3nm,0.7s,baz=349,slow=8.9,SNR=1.7						
WRA				PcP	PcP	13 33 27.4	-0.8
	0.5nm,1.1s,baz=344,slow=2.6,SNR=1.5 0.3nm,0.7s						
BVAR	Borovoye Array	47.43	320	P	P	13 32 04.0	+0.4
	0.8nm,0.5s,baz=98,slow=9.0,SNR=4.0 0.8nm,0.5s						
ASAR	Alice Springs	49.74	165	P	P	13 32 19.7	-1.8
	0.2nm,0.7s,baz=342,slow=8.9,SNR=4.2						
ASAR				PcP	PcP	13 33 39.1	-1.6
	0.4nm,1.0s,baz=345,slow=4.0,SNR=2.1 0.2nm,0.7s						
ARCES	ARCESS Array B	69.03	338	P	P	13 34 33.7	+0.2
	4.0nm,1.2s,baz=61,slow=6.4,SNR=4.5 4.0nm,1.2s						
FINES	FINESS Array B	71.06	330	P	P	13 34 46.1	+0.2
	2.3nm,0.6s,baz=59,slow=3.9,SNR=12 2.3nm,0.6s						

CATAC ***10*** *13:39:55.0±0.7, 11°N±3°×8°7W±°, h17^{km}±6^{km}, M3.4/19, MLv3.4/19, Error ellipse: s-maj=7.2km s-min=3.7km az=27.4, confirmed*

UCR ***10*** *13:39:56.0±0.9, 11°.14N×86°.43W, h0^{km}±7^{km}, MW3.8, Presumed earthquake*

ISC 10 13:39:53.3±1.7, **11°.08N**±0°.04×**86°.59W**±0°.06, **h7**^{km}±12^{km}, **n48,** σ**0^{s}.75**/62, **Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NADN	Granada	0.86	39	*e*P	Pg	13 40 10.6	+0.7
NADN				*e*S	Sb	13 40 22.1	-0.3
LCRUZ	La Cruz	0.94	90	*e*P	Pb	13 40 12.1	+0.2
SABN	Sabanita	0.97	25	P	Pg	13 40 11.4	-0.5
NANN	Nandasmo	0.97	28	P	Pn	13 40 14.0	+0.6
NANN				S	Sb	13 40 26.2	+0.6
JAPN	Al SSO del Vol	1.00	63	P	Pb	13 40 13.4	+0.5
MASN	Masaya	1.00	25	P	Pb	13 40 14.0	+1.0
MASN				S	Sb	13 40 26.9	+0.5
MAS3	Al N del Volca	1.02	23	P	Pg	13 40 13.7	+0.7
MAS3				S	Sb	13 40 26.9	-0.2
MORN	Al O del Volca	1.03	63	P	Pg	13 40 13.1	0.0
MORN				S	Sb	13 40 26.9	-0.4
OMEN	Al SSO del Vol	1.03	65	P	Pg	13 40 13.1	-0.1
OMEN				S	Sn	13 40 27.4	-1.7
CARN	Rivas	1.05	84	P	Pb	13 40 14.0	+0.2
CARN				S	Sn	13 40 27.9	-1.5
CARN	Rivas	1.05	84	*e*P	Pb	13 40 13.9	+0.2
COPN	Copaltepe	1.10	360	P	Pg	13 40 13.1	-1.3
COPN	Copaltepe	1.10	360	*e*P	Pg	13 40 13.4	-1.0
TISN	Laguna Tiscapa	1.10	16	P	Pg	13 40 13.1	-1.4
ALIBA	Liberia Airpor	1.13	115	*e*P	Pb	13 40 16.1	+0.9
ALIBA				*e*S	Sn	13 40 31.2	-0.1
LAPC	Finca la Perla	1.17	105	*e*P	Pg	13 40 15.1	-0.7
VRLE	La Escondida,	1.23	103	*e*P	Pg	13 40 17.0	0.0
VORI	VORI	1.24	102	*e*P	Pb	13 40 17.6	+0.4
GPS2	Hotel Rincn d	1.25	105	*e*P	Pg	13 40 17.6	+0.3
MOMN	Momotombo	1.32	2	P	Pn	13 40 18.6	+0.2
MOMN				S	Sb	13 40 34.6	-1.3
MOM2	El Cardon	1.36	4	P	Pn	13 40 18.9	+0.1
MOM2				S	Sb	13 40 36.4	-0.3
JUD3	Juan Diaz 3	1.37	131	*e*P	Pn	13 40 18.5	-0.5
MESS	Mesas	1.41	104	*e*P	Pn	13 40 20.2	+0.7
CNGN	Cerro Negro	1.42	356	P	Pn	13 40 19.8	+0.1
CNGN				S	Sb	13 40 38.3	-0.3
HORNC	Hornillas	1.43	104	*e*P	Pn	13 40 20.1	+0.3
PACN	Al O del Volca	1.43	352	P	Pn	13 40 19.8	0.0
CUI	Cuipilapa	1.46	106	*e*P	Pn	13 40 20.9	+0.8
VMAR	Armenia, Volca	1.47	100	*e*P	Pn	13 40 20.7	+0.4
ILCN	San Idelfonso	1.50	356	P	Pn	13 40 19.9	-0.7
TEL3	Telica 3	1.51	350	P	Pn	13 40 22.5	+1.7
QUEN	Al S del Volca	1.53	350	P	Pn	13 40 22.4	+1.2
QUEN				S	Sn	13 40 42.1	+0.7
TIMP	Tierras Morena	1.61	107	*e*P	Pn	13 40 23.2	+0.9
TENO	El Achiote	1.62	103	*e*P	Pn	13 40 22.5	+0.1
BOAB	BOACO BROADBAN	1.64	33	P	Pn	13 40 22.5	0.0
BOAB				S	Sn	13 40 43.4	-0.5
CRIN	San Cristobal	1.68	344	P	Pn	13 40 23.7	+0.5
CRIN				S	Sn	13 40 45.6	+0.5
QUEB	Quebradon, Cot	1.72	105	*e*P	Pn	13 40 24.8	+1.1
JTS	Las Juntas de	1.78	116	*e*P	Pn	13 40 25.7	+1.1
TABAC	Tabacon	1.88	108	*e*P	Pb	13 40 28.2	+0.2
CASO	Castillo	1.93	109	*e*P	Pn	13 40 28.2	+1.6
ARE1	Arenal 1	1.93	108	*e*P	Pb	13 40 28.9	0.0
VARE2	V. Arenal	1.93	108	*e*P	Pb	13 40 28.8	-0.1
CEDE	Laguna Cedeo	1.94	107	*e*P	Pb	13 40 29.1	0.0
MATN	Matagalpa	1.95	19	P	Pn	13 40 27.1	0.0
VPL2	V. Platanar	2.30	109	*e*P	Pb	13 40 34.7	-0.5
VPL3	V. Platanar	2.35	108	*e*P	Pb	13 40 35.4	-0.7
RCPN	Sur Rio San Ju	2.48	11	P	Pn	13 40 35.5	+1.2
VBV1	V. Barva	2.62	111	*e*P	Pb	13 40 41.7	+0.8
ABE2	San Pablo	2.84	118	*e*P	Pn	13 40 39.5	+0.2

NOU 10 13:57:53.1, 17°.41S×168°.58E, h17^{km}**, MLv4.2**/17, **Vanuatu Islands, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RTV	Rentapao	0.41	201	P	Pb	13 58 01.7	-0.2
RTV	Rentapao	0.41	201	S	Sb	13 58 09.4	+1.6
DVP	Devils Point	0.49	230	P	Pb	13 58 04.1	+0.8
SANVU	Saraoutou	2.36	326	P	Pn	13 58 32.1	+1.1
MARNC	Mare, Loyalty	4.08	187	P	Pn	13 58 55.3	+0.5
YATNC	Mamie plateau,	4.89	199	P	Pn	13 59 05.3	-0.6
NOUC	Port Laguerre	5.14	204	P	Pn	13 59 09.1	-0.2
OUENC	Ouen Island, N	5.24	198	P	Pn	13 59 11.4	+0.6
ONTNC	Ouen Toro	5.27	202	P	Pn	13 59 11.0	-0.1

IDC 10 14:09:19.7±6.8**, 7°.32S×129°.16E, h181**^{km}±74^{km}**, mb3.1**/1**, mbtmp3.3**/3**, Error ellipse: s-maj=142.1km s-min=29.4km az=70.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	13.52	159	P	Pn	14 12 25.2	+0.8
	0.7nm,0.5s,baz=349,slow=10.0,SNR=20						
WRA				S	Sn	14 14 52.4	-2.5
	0.7nm,0.4s,baz=327,slow=23,SNR=6.8						
ASAR	Alice Springs	16.88	165	P	P	14 13 04.5	-0.1

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
	0.2nm,0.7s,baz=345,slow=14,SNR=65						
ASAR				S	S	14 16 13.2	+1.7
	0.2nm,0.6s,baz=351,slow=23,SNR=1.7						
MKAR	Makanchi Array	68.04	327	P	P	14 19 59.5	-0.1
	0.2nm,0.3s,baz=115,slow=8.0,SNR=5.4 0.2nm,0.3s						

IDC 10 14:43:50.1±2.0, 17°.33S×168°.59E, h0km, mb3.9/5, mbtmp3.9/6, ML3.5/1, MS3.2/12, Error ellipse: s-maj=48.2km s-min=20.0km az=105.0

NOU 10 14:43:50.6, 17°.41S×168°.59E, h4km, MLv4.1/13, Vanuatu Islands

ISC 10 14:43:51.5±1.4, 17°.46S±0°.06×168°.6E±0°.2, h10km, n23, σ0s.61/14, mb4.0/5, MS3.3/10, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTV	Rentapao	0.38	209	P	Pg	14 43 59.6	+0.6
RTV	Rentapao	0.38	209	S	Sg	14 44 04.1	+0.1
SANVU	Saraoutou	2.42	326	P	Pn	14 44 31.3	+0.2
YATNC	Mamie plateau,	4.86	199	P	Pn	14 45 05.2	+0.5
DZM	Mont Dzumac	5.02	204	Pn	Pn	14 45 06.8	-0.2
	1.9nm,0.3s,baz=111,slow=17,SNR=24						
DZM				Sn	Sn	14 46 03.8	-1.4
	0.3nm,0.3s,baz=61,slow=20,SNR=1.6						
DZM				LR	LR	14 46 57.1	
	comp=Z,258nm,18.5s,baz=93,slow=36 8.2nm,0.6s						
DZM				AML	AML		
NOUC	Port Laguerre	5.10	205	P	Pn	14 45 07.6	-0.5
OUENC	Ouen Island, N	5.21	198	P	Pn	14 45 10.4	+0.9
ONTNC	Ouen Toro	5.23	203	P	Pn	14 45 09.9	+0.1
HNR	Honiara	11.61	312	LR	LR	14 50 25.0	
	comp=Z,132nm,19.6s,baz=227,slow=34						
URZ	Urewera	22.02	162	LR	LR	14 55 15.8	
	comp=Z,116nm,20.6s,baz=331,slow=31						
RPZ	Rata Peaks	26.25	176	LR	LR	14 59 18.8	
	comp=Z,34nm,18.1s,baz=238,slow=35						
WRA	Warramunga Arr	32.53	260	P	P	14 50 23.0	+0.1
	0.9nm,1.0s,baz=83,slow=8.3,SNR=3.8 0.9nm,1.0s						
ASAR	Alice Springs	33.02	253	P	P	14 50 27.5	+0.2
	1.7nm,0.9s,baz=79,slow=8.3,SNR=15 1.7nm,0.9s						
GUMO	Guam	38.75	321	LR	LR	15 05 47.0	
	comp=Z,28nm,19.9s,baz=150,slow=34						
FITZ	Fitzroy Crossi	40.86	262	P	P	14 51 34.0	+0.1
	5.1nm,0.9s,baz=90,slow=8.1,SNR=6.5 5.1nm,0.9s						
VNDA	Vanda	60.18	182	LR	LR	15 15 50.6	
	comp=Z,26nm,19.6s,baz=292,slow=32						
SHEM	Shemya Is, Ala	70.06	4	LR	LR	15 19 09.1	
	comp=Z,15nm,21.5s,baz=15,slow=30						
PETK	Petropavlovsk-	70.91	353	LR	LR	15 20 54.7	
	comp=Z,19nm,20.4s,baz=184,slow=31						
MA2	Magadan	78.13	351	LR	LR	15 26 46.7	
	comp=Z,14nm,18.0s,baz=176,slow=33						
YAK	Yakutsk	85.01	343	LR	LR	15 32 01.2	
	comp=Z,13nm,18.4s,baz=187,slow=34						
SONM	Songino Array	85.45	323	P	P	14 56 29.3	-0.3
	0.8nm,0.6s,baz=139,slow=6.8,SNR=3.6 0.8nm,0.6s						
ILAR	Eielson Array	88.72	17	P	P	14 56 44.5	-0.3
	0.2nm,0.8s,baz=236,slow=6.4,SNR=2.8						
ILAR				LR	LR	15 32 51.3	
	comp=Z,11nm,20.2s,baz=262,slow=33 0.2nm,0.8s						
MKAR	Makanchi Array	100.06	316	LR	LR	15 43 43.2	
	comp=Z,9.6nm,19.6s,baz=267,slow=36						

KRSC 10 14:46:25.5±1.9, 48°.13N×156°.66E, h40km±42km, Ml3.8, East of Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	2.58	352	eP	Pn	14 47 07.9	+3.3
SKR				eS	Sn	14 47 37.9	+3.2
PAU	Pauzhetka	3.34	2	eS	Sn	14 47 58.8	+5.3
KDTR	Khodutka, Kamc	3.79	13	eP	Pn	14 47 26.7	+5.4
KDTR				eS	Sn	14 48 09.7	+5.1
ASAK	Asacha	4.33	10	eP	Pn	14 47 32.4	+3.6
MTVR	Mutnovka	4.46	12	eP	Pn	14 47 34.8	+4.1
MTVR				eS	Sn	14 48 26.1	+4.7
RUS	Russkaya	4.47	15	eP	Pn	14 47 35.2	+4.6
RUS				eS	Sn	14 48 24.4	+3.2
GRL	Gorelyy	4.52	11	eP	Pn	14 47 35.4	+4.0
KRMR	Karymshinskiy	4.80	11	eS	Sn	14 48 35.0	+5.7
UGLR	Uglovaya	5.27	14	eP	Pn	14 47 47.2	+5.6
AVH	Avacha	5.31	14	eP	Pn	14 47 46.7	+4.5
SMAR	Somma	5.32	14	eP	Pn	14 47 48.7	+6.3
KOK	Koryaka	5.32	13	eP	Pn	14 47 47.1	+4.8
SDLR	Sedlovina	5.34	15	eP	Pn	14 47 47.1	+4.4

NNC 10 14:54:46.7±4.3, 37°.74N×71°.78E, h174km±55km, mb2.7, mpv3.6, Error ellipse: s-maj=41.8km s-min=26.0km az=30.0

ISC 10 14:54:36.5±1.1, 37°.16N±0°.08×71°.5E±0°.1, h106km, n8, σ2s.49/13, 3C-5D, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JMU	Jammu	5.14	147	eP	Pn	14 55 51.4	+0.3
JMU				ex	x	14 56 01.5	
JMU				IAML		14 56 02.5	
	comp=E,2μm,0.2s						
JMU				IAML		14 56 02.9	
	comp=N,3μm,0.1s						
TSSA	Tissa	5.74	137	eP	Pn	14 56 02.6	+3.1
TSSA				eS	Sn	14 57 03.9	-0.3
TSSA				IAML		14 57 04.6	
	comp=N,761nm,0.2s						
TSSA				IAML		14 57 05.1	
	comp=E,716nm,0.1s						
AAK	Ala-Archa	5.93	22	⇓P	Pn	14 56 03.9	+1.9
	comp=E,1.8nm,0.4s						
AAK				⇓S	Sn	14 57 06.7	-2.0
	comp=E,3.0nm,0.6s						
KK31	Karatay Array	5.99	353	⇑P	Pn	14 56 06.5	+3.8
	comp=E,2.6nm,0.2s,baz=167,slow=11,SNR=52						
KK31				⇓S	Sn	14 57 09.6	-0.2
	comp=E,5.6nm,0.5s,baz=166,slow=21,SNR=6.9						
DHRM	DHARAMSHALA	6.28	140	eP	Pn	14 56 08.8	+2.0
DHRM				eS	Sn	14 57 16.2	-1.1
DHRM				IAML		14 57 19.6	
	comp=E,28nm,0.6s						
DHRM				IAML		14 57 20.6	
	comp=N,38nm,0.2s						
SMLA	Simla	7.62	140	eP	Pn	14 56 26.0	+1.3
SMLA				eS	Sn	14 57 44.5	-4.9
SMLA				IAML		14 57 50.1	
	comp=E,19nm,0.3s						
SMLA				IAML		14 57 50.1	
	comp=N,22nm,0.3s						
AB31	Akbulak array	14.73	329	⇓P	P	14 58 02.5	-0.1
	comp=N,0.6nm,0.3s,baz=151,slow=11,SNR=43						
AB31				⇑S	Sn	15 00 39.1	-2.5
	comp=N,0.6nm,0.6s,baz=155,slow=23,SNR=3.9						
AKTO	Aktyubinsk	16.43	328	⇓P	P	14 58 24.7	+3.3
	comp=N,0.6nm,0.6s						
AKTO				⇑S	Sn	15 01 20.3	-2.5
	comp=N,0.5nm,0.7s						

JMA 10 14:58:39.6±0.7, 22°N±3°×12°1E±°, h0km, MV3.5/11, TAIWAN REGION

TAP 10 14:58:39.5, 21°.67N×121°.29E, h61km, ML3.4, D

ISC 10 14:58:40.1±1.7, 21°.64N±0°.08×121°.25E±0°.03, h61km±8km, n134, σ1s.30/256, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TSEB	Hengchuen, Pin	0.41	309	i P	Pn	14 58 52.0	+0.7
TSEB				eS	Sn	14 58 59.8	+0.5
LYUB	Lan-yu	0.48	41	i P	Pn	14 58 50.9	-1.0
LYUB				S	Sn	14 58 58.7	-1.8
LAY	Lan-yu	0.49	35	eP	Pn	14 58 51.3	-0.8
LAY				eS	Sn	14 58 59.2	-1.6
TWKBT	Hengchun	0.50	307	P	Pn	14 58 52.5	+0.3
TWKBT				S	Sn	14 59 02.2	+1.3
TWK1	Hengchun	0.51	307	i P	Pn	14 58 52.4	+0.2
TWK1				eS	Sn	14 59 01.6	+0.6
SMST	Manzhou Townsh	0.54	315	eP	Pn	14 58 52.6	+0.1
SMST				S	Sn	14 59 02.2	+0.6
HEN	Hengchun	0.60	308	eP	Pn	14 58 54.4	+1.2
HEN				i S	Sn	14 59 04.3	+1.6
SLIU	Shizi	0.71	324	i P	Pn	14 58 54.5	-0.1
SLIU				S	Sn	14 59 05.9	+0.8
TAWH	Dawu Township	0.78	335	P	Pn	14 58 54.6	-0.7
TAWH				S	Sn	14 59 06.5	+0.1
TAW	Tawu	0.79	336	eP	Pn	14 58 54.9	-0.5
TAW				i S	Sn	14 59 06.8	0.0
EAST	Anshuo	0.83	334	eP	Pn	14 58 55.7	-0.4
EAST				eS	Sn	14 59 07.0	-0.8
SCZT	Fangliau	0.93	322	P	Pn	14 58 58.1	+0.8
SCZT				eS	Sn	14 59 12.8	+2.8
ECL	Taimali	0.99	344	P	Pn	14 58 57.2	-0.9
ECL				eS	Sn	14 59 09.1	-2.3
SSPT	Xinbi	1.05	323	eP	Pn	14 59 01.2	+2.4
LDUT	Ludao	1.05	11	eP	Pn	14 58 55.8	-3.0
LDUT				S	Sn	14 59 11.9	-0.9
WLCH	Liuqiu	1.07	312	P	Pn	14 58 59.9	+0.8
WLCH				eS	Sn	14 59 13.8	+0.6
TWP	Hsiaoliuchiu	1.08	311	P	Pn	14 59 00.4	+1.2
TWP				eS	Sn	14 59 14.3	+0.9
TTN	Taitung	1.12	355	P	Pn	14 58 59.7	0.0
TTN				S	Sn	14 59 15.2	+0.9
MASBT	Mashibuluo	1.12	330	eP	Pn	14 59 00.6	+0.8
MASBT				eS	Sn	14 59 15.9	+1.4
TWGBT	Beinan	1.19	353	eP	Pn	14 58 59.7	-0.9
TWGBT				S	Sn	14 59 14.4	-1.5
TWG	Pinlang	1.19	352	eP	Pn	14 58 59.6	-1.0
TWG				S	Sn	14 59 14.3	-1.7
TSMG	Majia	1.20	333	P	Pn	14 59 01.3	+0.5
TSMG				S	Sn	14 59 16.4	+0.1
SSD	Sandimen	1.24	333	eP	Pn	14 59 04.4	+3.0
SSD				S	Sn	14 59 17.7	+0.5
TSPT	Pingtung City	1.25	326	eP	Pn	14 59 04.8	+3.4
LONT	Longtian	1.27	355	eP	Pn	14 59 01.1	-0.6
LONT				S	Sn	14 59 16.8	-1.1
KAU	Kaohsiung	1.27	317	P	Pn	14 59 02.4	+0.7
KAU				S	Sn	14 59 18.9	+1.0
EDH	Donghe	1.33	2	P	Pn	14 59 02.0	-0.5
EDH				eS	Sn	14 59 17.7	-1.6
WSSB	Gushan	1.35	318	P	Pn	14 59 04.0	+1.2
WSSB				eS	Sn	14 59 20.7	+0.8
TWM1	Shoushan	1.41	327	P	Pn	14 59 04.3	+0.8
TWM1				eS	Sn	14 59 22.5	+1.3
SCST	Cishan	1.43	331	P	Pn	14 59 05.2	+1.4
ECS	Chishang	1.45	359	P	Pn	14 59 04.8	+0.6
ECS				S	Sn	14 59 21.9	-0.4
SLGT	Liugui	1.46	338	P	Pn	14 59 04.9	+0.6
SLGT				S	Sn	14 59 23.5	+1.1
CHKT	Chengkung	1.46	4	eP	Pn	14 59 05.1	+0.8
CHKT				eS	Sn	14 59 21.3	-1.1
EHD	Haiduan	1.51	359	P	Pn	14 59 03.3	-1.6
EHD				S	Sn	14 59 22.6	-0.9
CHKH	Chenggong	1.56	5	eP	Pn	14 59 06.7	+1.2
CHKH				eS	Sn	14 59 24.8	+0.1
FULB	Fuli	1.56	2	eP	Pn	14 59 06.2	+0.6
FULB				eS	Sn	14 59 25.4	+0.6
ELDTW	Lidau	1.56	352	eP	Pn	14 59 05.1	-0.6
ELDTW				S	Sn	14 59 23.7	-1.4
SGST	Jiashian	1.56	337	P	Pn	14 59 07.6	+1.9
SGST				eS	Sn	14 59 25.5	+0.5
STYT	Tauyuan	1.59	344	P	Pn	14 59 06.7	+0.7
STYT				S	Sn	14 59 25.9	+0.4
STYH	Taoyuan	1.59	344	eP	Pn	14 59 08.5	+2.6
STYH				i S	Sn	14 59 26.7	+1.2
SHHT	Tainan City	1.61	329	P	Pn	14 59 07.6	+1.3
SHHT				eS	Sn	14 59 26.8	+0.8
TAI	Tainan	1.67	325	P	Pn	14 59 07.3	+0.3
TAI				S	Sn	14 59 28.3	+0.9
CHN1	Nanshi	1.68	337	eP	Pn	14 59 10.9	+3.7
CHN1				S	Sn	14 59 28.1	+0.3
ECBN	Changbin	1.68	6	eP	Pn	14 59 07.7	+0.5
ECBN				S	Sn	14 59 28.0	+0.2
EYUL	Yuli	1.71	2	P	Pn	14 59 07.4	-0.1
EYUL				S	Sn	14 59 28.1	-0.2
WTP	Ta-pu	1.71	340	eP	Pn	14 59 10.9	+3.2
WTP				S	Sn	14 59 28.4	0.0
SNST	Tainan City	1.72	336	P	Pn	14 59 09.4	+1.6
SNST				S	Sn	14 59 29.8	+1.0
SSHA	Shanhua	1.74	330	P	Pn	14 59 08.3	+0.4
SSHA				S	Sn	14 59 29.9	+0.9
TPUB	Ta-pu	1.75	341	i S	Sn	14 59 29.9	+0.4
TWK	Hsinying	1.77	337	P	Pn	14 59 08.8	+0.3
TWK				eS	Sn	14 59 30.4	+0.5
SCLT	Jiali	1.81	328	P	Pn	14 59 09.2	+0.2
SCLT				S	Sn	14 59 32.0	+1.0
TSCK	Chigu Township	1.85	325	P	Pn	14 59 09.8	+0.4
TSCK				eS	Sn	14 59 30.7	-1.1
EHYH	Wanrong	1.85	3	eP	Pn	14 59 09.8	+0.3
EHYH				eS	Sn	14 59 32.5	+0.5
HGSD	Ruisui	1.85	5	eP	Pn	14 59 11.9	+2.3
HGSD				S	Sn	14 59 33.5	+1.5
EHY	Hungye	1.86	2	P	Pn	14 59 09.5	-0.2
EHY				eS	Sn	14 59 29.5	-2.7
YUS	Yu-Shan	1.86	352	eP	Pn	14 59 09.7	-0.5
YUS				eS	Sn	14 59 32.3	-0.6
WCKO	Fanlu	1.89	342	P	Pn	14 59 10.6	+0.5
WCKO				S	Sn	14 59 33.6	+0.8
ALS	Alishan	1.91	348	P	Pn	14 59 12.1	+1.5
ALS				S	Sn	14 59 33.1	-0.7
ICHU	Yijhu	1.94	333	eP	Pn	14 59 09.8	-0.8
ICHU				eS	Sn	14 59 32.6	-1.3
CHN8	Yiju	1.95	331	eP	Pn	14 59 09.1	-1.8
CHN8				eS	Sn	14 59 34.0	-0.4
CHY	Chiayi	2.00	338	P	Pn	14 59 11.9	+0.3
CHY				S	Sn	14 59 35.0	-0.6
CHN2	Minshiung	2.02	339	eP	Pn	14 59 12.3	+0.6
CHN2				eS	Sn	14 59 35.1	-0.8
CHN5	Tsauling	2.02	345	P	Pn	14 59 12.8	+0.9
CHN5				S	Sn	14 59 36.5	+0.3
WARBT	Fenglin Townsh	2.08	4	eP	Pn	14 59 13.4	+0.8
WARBT				eS	Sn	14 59 37.5	+0.1
WHYT	Xinyi Township	2.08	350	P	Pn	14 59 14.1	+1.4
WHYT				S	Sn	14 59 37.5	-0.1
WSL	Shuilin Townsh	2.10	334	P	Pn	14 59 12.5	-0.4
WSL				eS	Sn	14 59 36.6	-1.3
VWDT	VWDT	2.11	357	eP	Pn	14 59 15.6	+2.6
VWDT				S	Sn	14 59 38.3	+0.1
WGK	Gukeng	2.14	343	P	Pn	14 59 13.6	+0.2
WGK				S	Sn	14 59 38.0	-0.8
WDLH	Douliu	2.15	342	P	Pn	14 59 14.0	+0.5
WDLH				S	Sn	14 59 39.2	+0.1
SSLB	Suanglung	2.16	353	P	Pn	14 59 14.6	+0.8
SSLB				eS	Sn	14 59 41.2	+1.8
SHUL	Shoufeng	2.16	8	P	Pn	14 59 15.2	+1.4
SHUL				eS	Sn	14 59 41.1	+1.7
ESL	Shilin	2.17	5	eP	Pn	14 59 15.8	+1.8
ESL				eS	Sn	14 59 39.2	-0.6
WDGT	Dungji	2.18	318	eP	Pn	14 59 13.4	-0.6
WDGT				eS	Sn	14 59 38.7	-1.2
WTK	Tuku	2.19	339	P	Pn	14 59 13.8	-0.3
WTK				eS	Sn	14 59 37.5	-2.6
WSF	Szhu	2.21	335	P	Pn	14 59 14.3	0.0
WSF				eS	Sn	14 59 40.2	-0.3
WJS	Zhushan	2.23	348	P	Pn	14 59 15.2	+0.5
WJS				eS	Sn	14 59 40.7	-0.4
TEYL	Yanliau Villag	2.25	8	eP	Pn	14 59 15.2	+0.3
TEYL				eS	Sn	14 59 42.4	+1.0
SMLT	Sun Moon Lake	2.26	352	P	Pn	14 59 15.2	0.0
SMLT				eS	Sn	14 59 42.4	+0.4
TYC	Yuchr	2.29	351	P	Pn	14 59 15.5	0.0
TYC				S	Sn	14 59 42.4	0.0
WNT	Mingjian	2.29	347	P	Pn	14 59 16.2	+0.7
WNT				S	Sn	14 59 42.9	+0.3
VCHM	Qimei	2.30	313	P	Pn	14 59 15.2	-0.4
VCHM				eS	Sn	14 59 40.5	-2.2
OWD	Renai	2.31	358	P	Pn	14 59 16.2	+0.3
OWD				S	Sn	14 59 42.7	-0.5
ETM	Tongmen	2.33	6	eP	Pn	14 59 17.4	+1.4
ETM				eS	Sn	14 59 43.3	-0.2
WUSB	Renai	2.35	357	P	Pn	14 59 17.0	+0.6
WUSB				S	Sn	14 59 43.6	-0.6
LXIB	Xiulin Townshi	2.38	4	eP	Pn	14 59 19.2	+2.3
LXIB				S	Sn	14 59 44.7	-0.3
WTCT	Ta-ch'eng	2.39	338	eP	Pn	14 59 16.8	0.0
WTCT				eS	Sn	14 59 45.0	0.0
WRL	Guolierlin Hig	2.39	341	P	Pn	14 59 17.1	+0.2
WRL				eS	Sn	14 59 44.2	-0.9
WYL	Yuanlin Townsh	2.39	345	P	Pn	14 59 17.3	+0.4
WYL				S	Sn	14 59 45.1	0.0
DPDB	Guoxing	2.40	353	eS	Sn	14 59 46.3	+0.8
PHUB	P'eng-hu	2.42	321	P	Pn	14 59 16.4	-0.9
PHUB				eS	Sn	14 59 44.2	-1.6
WCS	Beigang Elemen	2.43	353	P	Pn	14 59 17.9	+0.5
WCS				S	Sn	14 59 46.0	0.0
WWF	Wufeng	2.45	348	eP	Pn	14 59 18.0	+0.4
WWF				eS	Sn	14 59 45.9	-0.6
TWD	Chiawan	2.45	8	eP	Pn	14 59 17.6	-0.2
TWD				eS	Sn	14 59 46.0	-0.6
PNG	Penghu	2.48	321	eP	Pn	14 59 18.2	+0.1
PNG				S	Sn	14 59 45.9	-1.3
WHF	Hehuan Shan	2.50	0	eP	Pn	14 59 19.7	+0.9
WHF				eS	Sn	14 59 50.8	+2.5
WCHH	Zhanghua	2.51	346	eP	Pn	14 59 18.2	-0.4
NACB	Ninganchiao	2.55	7	eP	Pn	14 59 21.3	+2.3
NACB				eS	Sn	14 59 50.1	+1.2
ETLH	Xiulin Townshi	2.57	5	eP	Pn	14 59 19.8	+0.4
ETLH				S	Sn	14 59 49.3	-0.2
FUSS	Fushou	2.60	360	eP	Pn	14 59 21.4	+1.5
TWT	Tachien	2.61	359	P	Pn	14 59 20.2	+0.3
TWT				eS	Sn	14 59 49.9	-0.7
WHP	Taichung City	2.64	354	P	Pn	14 59 20.7	+0.3
WHP				S	Sn	14 59 51.1	-0.3
EOS4	EOS4	2.66	22	eP	Pn	14 59 20.9	+0.6
EOS4				eS	Sn	14 59 51.4	+0.2
TWQ1	Liyutan	2.73	351	eP	Pn	14 59 22.2	+0.6
TWQ1				eS	Sn	14 59 55.8	+2.4
NNSB	Datong	2.78	3	eP	Pn	14 59 24.1	+1.8
NNSB				eS	Sn	14 59 57.0	+2.2
NNSH	Datong	2.78	3	eS	Sn	14 59 56.4	+1.6
ENA	Nanau	2.82	9	P	Pn	14 59 22.6	-0.1
ENA				S	Sn	14 59 55.2	-0.2
EOS3	EOS3	2.82	20	eP	Pn	14 59 24.1	+1.6
EOS3				eS	Sn	14 59 56.3	+1.0
EOS2	EOS2	2.92	18	eP	Pn	14 59 24.1	+0.2
LIOB	Emei	3.00	356	eP	Pn	14 59 26.2	+0.9
LIOB				eS	Sn	14 59 59.7	-0.4
ENTT	Nioudou	3.00	6	eS	Sn	15 00 02.4	+2.3
YHNB	Yeheng	3.02	2	eP	Pn	14 59 29.2	+3.6
YHNB				eS	Sn	14 59 58.2	-2.4
NSK	Sanguang	3.03	2	eP	Pn	14 59 28.9	+3.2
NSK				S	Sn	15 00 01.1	+0.3
FUSB	Fushanzhiwuyua	3.12	6	eP	Pn	14 59 26.6	-0.3
FUSB				S	Sn	15 00 03.1	0.0
NWLT	Wulai	3.14	4	P	Pn	14 59 28.0	+0.9
NWLT				eS	Sn	15 00 03.6	+0.2
YOJ	Yonaguni jima	3.25	30	eP	Pn	14 59 30.5	+1.9
YOJ				eS	Sn	15 00 07.0	+1.0
TIPB	Shuangxi	3.36	9	P	Pn	14 59 30.8	+0.6
TIPB				eS	Sn	15 00 07.2	-1.8
HATJ	Hateruma jima	3.37	44	P	Pn	14 59 31.7	+1.4
HATJ				eS	Sn	15 00 10.2	+1.1
SXI1	Grass Mountain	3.49	9	eP	Pn	14 59 36.5	+4.5
SXI1				eS	Sn	15 00 10.7	-1.4
IRIF	Iriomote-Funau	3.53	40	P	Pn	14 59 34.0	+1.5
IRIF				eS	Sn	15 00 13.6	+0.6
JKRS	Kuro-shima	3.63	44	P	Pn	14 59 35.4	+1.5
JKRS				eS	Sn	15 00 15.8	+0.4
VWUC	VWUC	3.73	334	eP	Pn	14 59 35.1	+0.1
VWUC				eS	Sn	15 00 14.8	-3.0
KNM	Kinmen	3.79	317	P	Pn	14 59 37.5	+1.5
KNM				eS	Sn	15 00 19.2	-0.1
JIJ	Ishigaki jima	3.81	44	P	Pn	14 59 37.3	+1.0
JIJ				S	Sn	15 00 18.9	-0.9
KNMB	Chin-men Tao	3.85	317	eP	Pn	14 59 36.8	-0.1
KNMB				eS	Sn	15 00 18.0	-2.8
PTMZ	Houxiangcun	3.91	330	eP	Pn	14 59 38.6	+0.9
PTMZ				eS	Sn	15 00 18.9	-3.4
ZPLA	Ao Xicun	3.95	306	eP	Pn	14 59 38.3	+0.1
ZPLA				eS	Sn	15 00 21.9	-1.4
JISG	Ishigakijimahi	4.07	43	eP	Pn	14 59 40.8	+1.0
JISG				S	Sn	15 00 26.4	+0.1
DSXP	Dongshan	4.09	301	P	Pn	14 59 39.9	-0.1
DSXP				eS	Sn	15 00 25.5	-1.1
JTJ	Tarama	4.37	46	P	Pn	14 59 45.4	+1.5
AXDP	Jialang	4.43	318	eP	Pn	14 59 44.8	+0.1
AXDP				eS	Sn	15 00 31.9	-3.1
JIRJ	Irabujima	4.83	48	eP	Pn	14 59 51.8	+1.5
MHZQ	Yeshan	4.88	336	eP	Pn	14 59 50.8	-0.2
MHZQ				eS	Sn	15 00 43.5	-2.7
JMJ	Miyako jima 2	4.89	49	eP	Pn	14 59 50.5	-0.5
JMJ				eS	Sn	15 00 43.1	-3.2
SXFK	Yanhouchang	5.77	326	eP	Pn	15 00 03.4	+0.3
SXFK				eS	Sn	15 01 05.2	-2.8

TAP 10 15:06:19.2, 24°.67N×122°.23E, h89km, ML3.8, B

JMA 10 15:06:19.5±0.2, 25°N±1°×122°.3E±0°.4, h79km±2km, MV3.0/17, TAIWAN REGION

IDC 10 15:06:19.7±2.3, 23°.45N×123°.30E, h0km, mb3.7/3, mbtmp3.8/4, ML3.3/1, Error ellipse: s-maj=62.7km s-min=18.2km az=120.0

ISC 10 15:06:19.1±1.0, 24°.61N±0°.02×122°.28E±0°.02, h87km±4km, n210, σ1s.13/396, mb3.6/3, 2D, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EOS2	EOS2	0.20	193	i P	Pn	15 06 32.1	+0.5
EOS2				i S	Sn	15 06 41.8	+1.1
EOS3	EOS3	0.33	175	i P	Pn	15 06 32.8	+0.7
EOS3				eS	Sn	15 06 42.9	+1.2
EGS		0.39	306	eP	Pn	15 06 33.2	+0.5
EGS				S	Sn	15 06 42.5	-0.3
TWB1	Santiao Chiao	0.47	326	i P	Pn	15 06 33.3	-0.1
TWB1				i S	Sn	15 06 42.8	-1.1
NTC	Toucheng	0.48	300	P	Pn	15 06 33.8	+0.5
NTC				S	Sn	15 06 43.5	-0.4
EWUT	Wuta	0.49	250	eP	Pn	15 06 33.5	+0.1
EOS4	EOS4	0.49	176	P	Pn	15 06 32.9	-0.1
EOS4				eS	Sn	15 06 43.2	-0.2
ILA	Ilan	0.51	287	P	Pn	15 06 33.4	-0.1
ILA				eS	Sn	15 06 44.1	-0.2
NDS	Dongshan	0.52	272	i P	Pn	15 06 34.0	+0.3
NDS				eS	Sn	15 06 44.2	-0.3
ENA	Nanau	0.53	250	eP	Pn	15 06 31.6	-2.1
TIPB	Shuangxi	0.55	311	i P	Pn	15 06 34.0	+0.1
TIPB				i S	Sn	15 06 43.9	-1.1
EAHA	Aohua	0.57	240	eP	Pn	15 06 33.7	-0.4
EAHA				eS	Sn	15 06 45.2	-0.1
TWE	Neicheng	0.57	281	i P	Pn	15 06 34.3	+0.3
TWE				S	Sn	15 06 44.9	-0.4
SXI1	Grass Mountain	0.60	322	i P	Pn	15 06 34.8	+0.2
SXI1				i S	Sn	15 06 46.2	+0.3
JYNG	Yonagunijimaku	0.62	105	eP	Pn	15 06 34.6	+0.1
JYNG				eS	Sn	15 06 45.5	-0.6
WFSB	Wu-fen Shan	0.64	315	i P	Pn	15 06 35.3	+0.5
WFSB				i S	Sn	15 06 46.5	0.0
FUSB	Fushanzhiwuyua	0.65	283	i P	Pn	15 06 35.2	+0.3
FUSB				eS	Sn	15 06 46.3	-0.4
ENTT	Nioudou	0.65	272	i P	Pn	15 06 35.4	+0.6
ENTT				eS	Sn	15 06 47.0	+0.4
YOJ	Yonaguni jima	0.68	103	P	Pn	15 06 35.0	-0.1
YOJ	Yonaguni jima	0.68	103	S	Sn	15 06 46.1	-0.9
YOJ	Yonaguni jima	0.68	103	i P	Pn	15 06 35.4	+0.3
YOJ				eS	Sn	15 06 46.5	-0.5
YOJ	Yonaguni jima	0.68	103	eP	Pn	15 06 35.2	+0.1
YOJ				eS	Sn	15 06 46.3	-0.8
LATG	Datong	0.69	264	P	Pn	15 06 35.6	+0.2
LATG				eS	Sn	15 06 48.4	+0.9
NDT	Datong Townshi	0.70	269	eP	Pn	15 06 36.1	+0.8
NDT				eS	Sn	15 06 48.0	+0.6
TNOU	National Taiwa	0.71	319	eP	Pn	15 06 35.5	+0.2
TNOU				S	Sn	15 06 47.0	-0.5
NWLT	Wulai	0.73	283	P	Pn	15 06 35.9	+0.3
NWLT				eS	Sn	15 06 47.3	-0.7
TWA	Mucha	0.73	300	P	Pn	15 06 34.6	-1.0
TWA				eS	Sn	15 06 47.4	-0.7
ETL	Fush Village	0.75	233	eP	Pn	15 06 35.6	-0.3
ETL				eS	Sn	15 06 47.2	-1.2
NACB	Ninganchiao	0.77	235	P	Pn	15 06 35.7	-0.3
NACB	Ninganchiao	0.77	235	i P	Pn	15 06 35.8	-0.3
NACB				eS	Sn	15 06 47.6	-1.0
NHDH	Xindian Distri	0.77	297	eP	Pn	15 06 35.5	-0.6
NHDH				i S	Sn	15 06 48.1	-0.6
NHY	Taipei	0.78	303	eP	Pn	15 06 36.2	+0.2
NHY				S	Sn	15 06 48.4	-0.3
TATO	Taipei	0.81	297	P	Pn	15 06 36.5	+0.1

TATO	**Taipei**	0.81	297	P	Pn	15 06 36.3	-0.1
TATO				S	Sn	15 06 48.2	-1.1
TWD	**Chiawan**	0.82	230	P	Pn	15 06 36.2	-0.4
TWD				eS	Sn	15 06 48.5	-1.1
TAP	**Taipei**	0.82	301	P	Pn	15 06 36.2	-0.4
TAP				eS	Sn	15 06 49.0	-0.6
YHNB	**Yeheng**	0.83	274	P	Pn	15 06 37.0	+0.3
YHNB	**Yeheng**	0.83	274	iP	Pn	15 06 37.3	+0.5
YHNB				S	Sn	15 06 50.0	+0.1
ETLH	**Xiulin Townshi**	0.83	241	eP	Pn	15 06 36.7	-0.2
ETLH				eS	Sn	15 06 49.4	-0.7
YM01	**YM01**	0.84	309	P	Pn	15 06 36.9	+0.1
YM01				iS	Sn	15 06 49.5	-0.5
NNSH	**Datong**	0.84	257	⇓P	Pn	15 06 36.9	0.0
NNSH				S	Sn	15 06 50.3	0.0
NNSB	**Datong**	0.84	257	eP	Pn	15 06 37.0	+0.1
NNSB				S	Sn	15 06 50.0	-0.3
NSK	**Sanguang**	0.84	274	iP	Pn	15 06 37.3	+0.4
NSK				iS	Sn	15 06 50.0	-0.2
NNS	**Nan Shan**	0.85	258	P	Pn	15 06 37.2	+0.2
NNS				eS	Sn	15 06 50.1	-0.3
YM08	**YM08**	0.85	312	P	Pn	15 06 36.8	-0.1
YM08				iS	Sn	15 06 48.9	-1.3
BACT	**New Taipei Cit**	0.85	297	P	Pn	15 06 37.4	+0.4
BACT				eS	Sn	15 06 50.1	-0.1
ZUZH	**Zhuzihu**	0.86	309	iP	Pn	15 06 37.2	+0.1
ZUZH				iS	Sn	15 06 49.9	-0.7
HWA	**Hwalien**	0.89	224	P	Pn	15 06 38.5	+1.3
HWA				eS	Sn	15 06 51.0	+0.2
ANP	**Anpu**	0.90	310	eP	Pn	15 06 37.6	+0.1
ANP				S	Sn	15 06 50.3	-1.0
TWY	**Chenhua**	0.91	317	⇓P	Pn	15 06 37.9	+0.4
TWY				eS	Sn	15 06 51.8	+0.6
TWS1	**Kuangyinshan**	0.92	302	iP	Pn	15 06 38.0	+0.3
TWS1				iS	Sn	15 06 51.5	-0.1
NTST	**Danshui**	0.94	306	iP	Pn	15 06 38.2	+0.4
NTST				eS	Sn	15 06 51.4	-0.4
ETM	**Tongmen**	0.97	228	eP	Pn	15 06 37.6	-0.6
ETM				eS	Sn	15 06 51.1	-1.4
TEYL	**Yanliau Villag**	0.97	220	eP	Pn	15 06 37.8	-0.4
TEYL				eS	Sn	15 06 51.6	-1.0
NTY	**Taoyuan**	0.97	293	P	Pn	15 06 38.9	+0.6
NTY				eS	Sn	15 06 53.0	+0.4
LXIB	**Xiulin Townshi**	0.99	234	iP	Pn	15 06 38.2	-0.4
LXIB				eS	Sn	15 06 51.8	-1.4
FUSS	**Fushou**	1.01	249	eP	Pn	15 06 39.3	+0.3
FUSS				eS	Sn	15 06 54.0	+0.1
KSHI	**Guanxi Townshi**	1.02	279	iP	Pn	15 06 39.6	+0.8
KSHI				iS	Sn	15 06 54.5	+0.9
PCYT	**Pengchaiyu**	1.03	349	iP	Pn	15 06 39.8	+0.9
PCYT				S	Sn	15 06 53.9	+0.1
WHF	**Hehuan Shan**	1.04	244	iP	Pn	15 06 39.5	0.0
WHF				eS	Sn	15 06 54.0	-0.7
SHUL	**Shoufeng**	1.05	219	eP	Pn	15 06 39.0	-0.2
SHUL				eS	Sn	15 06 53.7	-0.5
NCU	**National Centr**	1.06	290	P	Pn	15 06 40.1	+0.9
NCU				S	Sn	15 06 55.4	+1.1
NCUH	**Zhongli**	1.06	290	eP	Pn	15 06 39.9	+0.7
NCUH				S	Sn	15 06 54.9	+0.5
NFF	**Wufeng Townshi**	1.06	271	iP	Pn	15 06 39.9	+0.5
NFF				eS	Sn	15 06 54.6	0.0
TWT	**Tachien**	1.07	251	eP	Pn	15 06 40.5	+0.9
TWT				iS	Sn	15 06 55.3	+0.3
TDCB	**Techi**	1.09	251	iP	Pn	15 06 40.5	+0.8
TDCB				iS	Sn	15 06 55.1	-0.1
NJD	**Zhudong**	1.09	277	P	Pn	15 06 40.1	+0.4
NJD				S	Sn	15 06 56.2	+1.1
ESL	**Shilin**	1.11	224	eP	Pn	15 06 39.2	-0.7
ESL				eS	Sn	15 06 53.8	-1.7
TEGC	**Jichi Village**	1.13	217	P	Pn	15 06 41.3	+1.2
TEGC				S	Sn	15 06 55.9	+0.1
LIOB	**Emei**	1.15	272	eP	Pn	15 06 41.0	+0.6
LIOB				S	Sn	15 06 57.0	+0.6
HSN1	**Hsinchu**	1.16	278	P	Pn	15 06 40.8	+0.3
HSN1				S	Sn	15 06 57.3	+0.7
NSTT	**Nanjuang**	1.17	271	iP	Pn	15 06 41.0	+0.5
NSTT				iS	Sn	15 06 57.0	+0.3
NHW	**Xinwu Township**	1.19	289	P	Pn	15 06 41.6	+0.8
NHW				eS	Sn	15 06 59.0	+1.8
SBCB	**Hsinchu**	1.19	279	iP	Pn	15 06 41.7	+0.9
SBCB				iS	Sn	15 06 58.1	+0.8
OWD	**Renai**	1.21	237	eP	Pn	15 06 41.2	+0.1
OWD				iS	Sn	15 06 57.4	-0.4
HSN	**Hsinchu**	1.21	279	eP	Pn	15 06 41.4	+0.3
HSN				iS	Sn	15 06 57.1	-0.5
WARBT	**Fenglin Townsh**	1.21	223	eP	Pn	15 06 40.3	-0.9
WARBT				eS	Sn	15 06 55.7	-2.0
EGFH	**Guangfu**	1.22	220	eP	Pn	15 06 40.2	-1.0
EGFH				eS	Sn	15 06 56.1	-1.8
WUSB	**Renai**	1.23	240	P	Pn	15 06 41.9	+0.5
WUSB				eS	Sn	15 06 57.8	-0.5
WHP	**Taichung City**	1.26	255	iP	Pn	15 06 43.2	+1.4
WHP				iS	Sn	15 07 00.0	+1.1
NJN	**Zhunan**	1.29	273	eP	Pn	15 06 40.9	-1.1
NJN				eS	Sn	15 07 00.5	+1.2
IRIF	**Iriomote-Funau**	1.35	102	eP	Pn	15 06 42.8	0.0
IRIF				eS	Sn	15 06 59.5	-1.1
VWDT	**VWDT**	1.35	231	iP	Pn	15 06 43.2	+0.4
VWDT				S	Sn	15 07 00.3	-0.4
WPL	**Puli Township**	1.35	244	P	Pn	15 06 43.1	+0.3
WPL				S	Sn	15 07 00.8	+0.1
NMLH	**Miaoli**	1.36	267	P	Pn	15 06 43.5	+0.6
NMLH				eS	Sn	15 07 00.4	-0.6
HGSD	**Ruisui**	1.36	215	eP	Pn	15 06 44.0	+1.0
HGSD				eS	Sn	15 07 02.3	+1.3
DPDB	**Guoxing**	1.37	245	P	Pn	15 06 43.8	+0.8
DPDB				eS	Sn	15 07 03.1	+1.9
WCS	**Beigang Elemen**	1.37	246	eP	Pn	15 06 44.2	+1.2
WCS				S	Sn	15 07 02.1	+1.0
NSY	**Sanyi**	1.40	262	P	Pn	15 06 43.5	0.0
NSY				S	Sn	15 07 01.7	-0.1
TWQ1	**Liyutan**	1.40	259	eP	Pn	15 06 44.2	+0.8
TWQ1				S	Sn	15 07 01.4	-0.5
EHYH	**Wanrong**	1.41	218	eP	Pn	15 06 43.7	+0.1
EHYH				eS	Sn	15 06 59.1	-2.8
EHY	**Hungye**	1.41	219	P	Pn	15 06 43.1	-0.4
EHY				eS	Sn	15 06 59.5	-2.5
SMLT	**Sun Moon Lake**	1.46	240	eP	Pn	15 06 45.9	+1.6
SMLT				iS	Sn	15 07 04.8	+1.6
SSLB	**Suanglung**	1.47	236	P	Pn	15 06 45.5	+1.2
SSLB	**Suanglung**	1.47	236	S	Sn	15 07 03.6	+0.2
SSLB	**Suanglung**	1.47	236	eP	Pn	15 06 45.5	+1.2
SSLB				iS	Sn	15 07 03.8	+0.4
TYC	**Yuchr**	1.48	242	iP	Pn	15 06 45.7	+1.3
TYC				eS	Sn	15 07 04.7	+1.1
HATJ	**Hateruma jima**	1.50	111	eP	Pn	15 06 45.2	+0.6
HATJ				eS	Sn	15 07 04.0	0.0
ECBN	**Changbin**	1.50	211	P	Pn	15 06 44.2	-0.5
ECBN				eS	Sn	15 07 02.8	-1.3
WDJ	**Dajia District**	1.52	260	eP	Pn	15 06 45.9	+1.0
WDJ				eS	Sn	15 07 05.4	+0.9
TCU	**Taichung**	1.54	253	P	Pn	15 06 46.0	+0.9
TCU				iS	Sn	15 07 06.0	+1.1
EYUL	**Yuli**	1.54	215	eP	Pn	15 06 46.5	+1.3
EYUL				S	Sn	15 07 05.1	+0.1
WWF	**Wufeng**	1.55	249	P	Pn	15 06 46.2	+0.8
WWF				S	Sn	15 07 06.0	+0.7
WHYT	**Xinyi Township**	1.59	235	P	Pn	15 06 47.1	+1.2
WHYT				eS	Sn	15 07 07.2	+1.0
JKRS	**Kuro-shima**	1.62	103	eP	Pn	15 06 46.8	+0.6
JKRS				eS	Sn	15 07 06.3	-0.4
WJS	**Zhushan**	1.62	241	P	Pn	15 06 48.1	+1.8
WJS				S	Sn	15 07 08.5	+1.6
WNT1	**Nantou City**	1.62	245	eP	Pn	15 06 48.4	+2.1
WNT1				S	Sn	15 07 08.0	+1.1
CHKH	**Chenggong**	1.63	210	eP	Pn	15 06 46.3	-0.1
CHKH				eS	Sn	15 07 04.6	-2.5
WNT	**Mingjian**	1.63	244	eP	Pn	15 06 48.1	+1.7
WNT				iS	Sn	15 07 08.9	+1.8
WWCA	**Taichung City**	1.64	258	P	Pn	15 06 46.7	+0.2
WWCA				eS	Sn	15 07 08.7	+1.3
YUS	**Yu-Shan**	1.65	228	P	Pn	15 06 47.4	+0.2
YUS				eS	Sn	15 07 07.9	-0.5
WCHH	**Zhanghua**	1.66	252	eP	Pn	15 06 47.5	+0.7
WCHH				eS	Sn	15 07 08.1	+0.3
WCH1	**Changhua City**	1.67	252	P	Pn	15 06 46.5	-0.4
WCH1				eS	Sn	15 07 08.4	+0.4
FULB	**Fuli**	1.68	213	eP	Pn	15 06 47.3	+0.3
FULB				eS	Sn	15 07 07.2	-0.9
WYL	**Yuanlin Townsh**	1.69	248	P	Pn	15 06 47.4	+0.3
WYL				S	Sn	15 07 08.8	+0.6
JIJ	**Ishigaki jima**	1.71	98	eP	Pn	15 06 47.4	-0.1
JIJ				eS	Sn	15 07 08.1	-0.8
CHKT	**Chengkung**	1.73	209	eP	Pn	15 06 46.7	-0.9
CHKT				eS	Sn	15 07 06.4	-2.9
ALS	**Alishan**	1.74	231	iP	Pn	15 06 49.2	+1.1
ALS				eS	Sn	15 07 12.8	+2.7
EHD	**Haiduan**	1.76	214	P	Pn	15 06 47.9	-0.2
EHD				eS	Sn	15 07 07.8	-2.3
CHN5	**Tsauling**	1.78	236	iP	Pn	15 06 50.0	+1.5
CHN5				iS	Sn	15 07 12.4	+1.7
ECS	**Chishang**	1.80	213	P	Pn	15 06 49.1	+0.5
ECS				eS	Sn	15 07 10.8	-0.2
WGK	**Gukeng**	1.82	240	P	Pn	15 06 50.0	+1.1
WGK				S	Sn	15 07 12.9	+1.4
WDL	**Douliou City**	1.83	241	P	Pn	15 06 49.4	+0.5
WDL				eS	Sn	15 07 14.4	+2.8
ELDTW	**Lidau**	1.83	220	eP	Pn	15 06 49.0	-0.1
ELDTW				eS	Sn	15 07 11.1	-0.8
WDLH	**Douliu**	1.84	240	eP	Pn	15 06 50.5	+1.4
WDLH				S	Sn	15 07 13.5	+1.6
JISG	**Ishigakijimahi**	1.85	90	iP	Pn	15 06 49.4	+0.2
JISG				eS	Sn	15 07 11.6	-0.5
EDH	**Donghe**	1.86	209	eP	Pn	15 06 48.6	-0.8
WRL	**Guolierlin Hig**	1.88	248	iP	Pn	15 06 50.0	+0.4
WRL				S	Sn	15 07 12.0	-0.8
RLNB	**Erlin**	1.90	248	P	Pn	15 06 50.5	+0.7
RLNB				iS	Sn	15 07 13.4	+0.2
WCKO	**Fanlu**	1.93	233	eP	Pn	15 06 52.2	+1.9
WCKO				S	Sn	15 07 16.1	+2.0
WTK	**Tuku**	1.96	242	eP	Pn	15 06 51.6	+0.9
WTK				eS	Sn	15 07 14.2	-0.6
CHN2	**Minshiung**	1.97	237	P	Pn	15 06 52.7	+1.8
CHN2				S	Sn	15 07 17.4	+2.3
STYH	**Taoyuan**	1.99	224	eP	Pn	15 06 52.3	+1.2
STYH				eS	Sn	15 07 16.8	+1.3
TPUB	**Ta-pu**	2.00	229	P	Pn	15 06 52.7	+1.5
TPUB	**Ta-pu**	2.00	229	S	Sn	15 07 16.9	+1.2
TPUB	**Ta-pu**	2.00	229	eP	Pn	15 06 53.0	+1.7
TPUB				eS	Sn	15 07 18.6	+2.9
LONT	**Longtian**	2.00	212	eP	Pn	15 06 50.4	-0.8
LONT				eS	Sn	15 07 13.6	-2.1
STYT	**Tauyuan**	2.01	224	P	Pn	15 06 52.7	+1.3
STYT				S	Sn	15 07 16.8	+0.8
CHY	**Chiayi**	2.03	237	eP	Pn	15 06 52.8	+1.2
CHY				S	Sn	15 07 17.1	+0.8
WMLT	**Mailiao**	2.05	247	eP	Pn	15 06 52.3	+0.5
WTP	**Ta-pu**	2.05	229	eP	Pn	15 06 53.6	+1.7
WTP				eS	Sn	15 07 18.2	+1.3
LDUT	**Ludao**	2.07	201	P	Pn	15 06 51.1	-1.0
LDUT				eS	Sn	15 07 15.1	-2.2
TWGBT	**Beinan**	2.10	212	P	Pn	15 06 52.7	+0.2
TWGBT	**Beinan**	2.10	212	P	Pn	15 06 52.8	+0.2
TWGBT				eS	Sn	15 07 16.0	-2.1
TWG	**Pinlang**	2.10	212	P	Pn	15 06 52.2	-0.3
TWG				eS	Sn	15 07 15.4	-2.7
WSF	**Szhu**	2.12	243	eP	Pn	15 06 54.0	+1.3
WSF				eS	Sn	15 07 19.0	+0.5
TWK	**Hsinying**	2.12	231	eP	Pn	15 06 54.3	+1.5
TWK				S	Sn	15 07 19.9	+1.3
TTN	**Taitung**	2.12	210	eP	Pn	15 06 55.4	+2.6
TTN				eS	Sn	15 07 20.5	+1.9
SNST	**Tainan City**	2.14	230	P	Pn	15 06 54.4	+1.3
SNST				S	Sn	15 07 19.6	+0.5
CHN1	**Nanshi**	2.15	229	eP	Pn	15 06 54.4	+1.2
CHN1				S	Sn	15 07 20.5	+1.3
WSL	**Shuilin Townsh**	2.17	240	eP	Pn	15 06 53.4	-0.1
WSL				eS	Sn	15 07 19.0	-0.7
SGST	**Jiashian**	2.18	226	eP	Pn	15 06 54.8	+1.2
SGST				eS	Sn	15 07 22.1	+2.2
JTJ	**Tarama**	2.20	89	eP	Pn	15 06 54.9	+1.1
JTJ				eS	Sn	15 07 21.4	+1.0
SLGT	**Liugui**	2.20	223	P	Pn	15 06 55.4	+1.5
SLGT				S	Sn	15 07 22.7	+2.2
ICHU	**Yijhu**	2.22	236	eP	Pn	15 06 54.8	+0.8
ICHU				iS	Sn	15 07 21.5	+0.7
CHN8	**Yiju**	2.28	237	eP	Pn	15 06 55.9	+1.0
CHN8				S	Sn	15 07 22.6	+0.4
CHN3	**Shinhua**	2.33	229	P	Pn	15 06 56.2	+0.7
CHN3				eS	Sn	15 07 23.3	-0.2
ECL	**Taimali**	2.35	212	eP	Pn	15 06 54.8	-1.0
ECL				eS	Sn	15 07 21.1	-2.9
SCST	**Cishan**	2.38	224	eP	Pn	15 06 57.9	+1.7
SCST				eS	Sn	15 07 25.2	+0.6
SHHT	**Tainan City**	2.38	229	eP	Pn	15 06 56.9	+0.7
SHHT				eS	Sn	15 07 25.4	+0.7
SCLT	**Jiali**	2.39	234	eP	Pn	15 06 56.1	-0.3
SCLT				eS	Sn	15 07 26.4	+1.5
SSD	**Sandimen**	2.40	219	eP	Pn	15 06 58.2	+1.7
SSD				eS	Sn	15 07 26.9	+1.8
TSMG	**Majia**	2.42	219	P	Pn	15 06 57.8	+1.0
TSMG				eS	Sn	15 07 26.9	+1.2
TAI1	**Yung-k'ang**	2.45	231	eP	Pn	15 06 57.4	+0.3
TWM1	**Shoushan**	2.47	224	P	Pn	15 06 59.1	+1.7
TWM1				eS	Sn	15 07 27.7	+0.9
TSCK	**Chigu Township**	2.48	234	iP	Pn	15 06 58.9	+1.2
TSCK				eS	Sn	15 07 27.7	+0.5
SGLT	**Jiouru**	2.50	222	eP	Pn	15 06 58.6	+0.8
SGLT				eS	Sn	15 07 27.6	+0.1
TAI	**Tainan**	2.50	230	eP	Pn	15 06 58.6	+0.8
MASBT	**Mashibuluo**	2.50	218	eP	Pn	15 06 59.2	+1.3
MASBT				eS	Sn	15 07 27.9	+0.2
EAST	**Anshuo**	2.58	211	eP	Pn	15 06 57.8	-1.2
EAST				eS	Sn	15 07 27.2	-2.4
TAW	**Tawu**	2.58	210	eP	Pn	15 07 01.2	+2.2
TAW				eS	Sn	15 07 27.4	-2.1
TAWH	**Dawu Township**	2.60	210	P	Pn	15 06 58.5	-0.8
TAWH				eS	Sn	15 07 27.6	-2.4
VWUC	**VWUC**	2.60	279	iP	Pn	15 06 59.1	-0.1
VWUC				eS	Sn	15 07 28.3	-1.7
MSUT	**Lienchiang**	2.64	306	P	Pn	15 06 59.6	0.0
MSUT				eS	Sn	15 07 29.1	-1.7
SSPT	**Xinbi**	2.64	217	P	Pn	15 07 01.7	+2.0
SSPT				eS	Sn	15 07 33.2	+2.2
JIRJ	**Irabujima**	2.66	85	P	Pn	15 07 01.1	+1.2
JIRJ				eS	Sn	15 07 31.2	-0.1
LYUB	**Lan-yu**	2.68	194	eP	Pn	15 06 58.9	-1.3
LYUB				eS	Sn	15 07 29.1	-2.8
WSSB	**Gushan**	2.70	224	P	Pn	15 07 01.7	+1.1
WSSB				eS	Sn	15 07 31.6	-0.8
PNG	**Penghu**	2.70	248	eP	Pn	15 07 00.7	+0.1
PNG				eS	Sn	15 07 31.6	-0.8
SCZT	**Fangliau**	2.70	215	eP	Pn	15 07 02.9	+2.3
SCZT				eS	Sn	15 07 33.1	+0.7
PHUB	**P'eng-hu**	2.71	247	P	Pn	15 07 00.1	-0.5
PHUB				S	Sn	15 07 30.2	-2.4
JMJ	**Miyako jima 2**	2.75	85	P	Pn	15 07 02.1	+1.0
JMJ	**Miyako jima 2**	2.75	85	eP	Pn	15 07 01.9	+0.8
JMJ				S	Sn	15 07 34.2	+0.8
SLIU	**Shizi**	2.75	210	eP	Pn	15 07 01.9	+0.7
SLIU				eS	Sn	15 07 32.5	-1.0
WDGT	**Dungji**	2.75	241	eP	Pn	15 07 01.5	+0.3
WDGT				eS	Sn	15 07 32.4	-1.3
JMJ2	**Miyako jima3**	2.77	87	eP	Pn	15 07 03.0	+1.5
JMJ2				eS	Sn	15 07 34.5	+0.3
JOGS	**Gusukube**	2.84	86	eP	Pn	15 07 03.9	+1.4
JOGS				eS	Sn	15 07 35.8	-0.1
WLCH	**Liuqiu**	2.85	218	P	Pn	15 07 03.9	+1.3
SMST	**Manzhou Townsh**	2.90	208	eP	Pn	15 07 03.2	-0.1
SMST				eS	Sn	15 07 35.9	-1.4
PTMZ	**Houxiangcun**	2.91	279	iP	Pn	15 07 03.3	+0.1
PTMZ				S	Sn	15 07 35.8	-1.5
HEN	**Hengchun**	2.96	209	P	Pn	15 07 05.1	+1.1
HEN				eS	Sn	15 07 38.6	0.0
VCHM	**Qimei**	2.96	242	P	Pn	15 07 03.1	-1.0
VCHM				S	Sn	15 07 36.6	-2.1
XPSS	**Dashiqiu**	2.98	321	P	Pn	15 07 04.4	+0.1
XPSS				eS	Sn	15 07 36.9	-2.1
LYJJ	**Jianjiangzhen**	2.98	311	P	Pn	15 07 04.6	+0.3
LYJJ				S	Sn	15 07 39.0	-0.2
TWK1	**Hengchun**	2.98	207	P	Pn	15 07 05.4	+1.1
TWK1				eS	Sn	15 07 38.1	-1.1
TWKBT	**Hengchun**	2.98	207	eP	Pn	15 07 05.1	+0.7
TWKBT				eS	Sn	15 07 38.1	-1.1
TSEB	**Hengchuen, Pin**	2.99	205	P	Pn	15 07 06.1	+1.7
TSEB				S	Sn	15 07 39.7	+0.4
MHZQ	**Yeshan**	3.29	297	P	Pn	15 07 08.0	-0.5
MHZQ				eS	Sn	15 07 44.4	-2.3
KNM	**Kinmen**	3.51	268	P	Pn	15 07 12.8	+1.3
KNM				eS	Sn	15 07 51.9	-0.1
KNMB	**Chin-men Tao**	3.55	268	P	Pn	15 07 11.7	-0.3
KNMB				eS	Sn	15 07 49.9	-3.0
AXDP	**Jialang**	3.93	275	iP	Pn	15 07 17.4	+0.3
AXDP				eS	Sn	15 08 00.1	-2.0
ZPLA	**Ao Xicun**	4.19	262	eP	Pn	15 07 19.9	-0.8
ZPLA				eS	Sn	15 08 05.2	-3.3
DSXP	**Dongshan**	4.53	260	P	Pn	15 07 25.4	+0.1
DSXP				S	Sn	15 08 13.5	-3.2
SXFK	**Yanhouchang**	4.55	294	P	Pn	15 07 25.4	-0.3
SXFK				S	Sn	15 08 13.2	-4.2
JOW	**Kunigami**	5.84	66	Pn	Pn	15 07 42.9	-0.3
	2.2nm,0.3s,baz=264,slow=18,SNR=21						
JOW				Sn	Sn	15 08 46.8	-1.9
	0.3nm,0.3s,baz=212,slow=13,SNR=1.6						
	4.8nm,0.3s						
JOW				AML	AML		
JOW	**Kunigami**	5.84	66	P	Pn	15 07 43.0	-0.1
JOW	**Kunigami**	5.84	66	P	Pn	15 07 42.7	-0.4
WRA	**Warramunga Arr**	45.82	164	P	P	15 14 32.9	+0.4
	1.0nm,0.5s,baz=347,slow=8.7,SNR=16						
	1.0nm,0.5s						
ASAR	**Alice Springs**	49.30	166	P	P	15 14 59.9	+0.5
	0.3nm,0.7s,baz=351,slow=7.0,SNR=7.5						
	0.3nm,0.7s						
YKA	**Yellowknife Ar**	82.18	23	P	P	15 18 46.4	+16
	0.4nm,0.4s,baz=313,slow=5.1,SNR=2.1						
	0.4nm,0.4s						

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*DNK **10** 15:15:22.6±1.7, 51.°38N×16.°17E, h9km±79km, ML2.6, Presumed earthquake*

*VIE **10** 15:15:23.8±1.6, 51.°38N×16.°42E, h0km, mb2.3/3, ml2.9/3, Error ellipse: s-maj=11.0km s-min=10.3km az=70.0 52 km NW of Wroclaw Suspected Mining induced.*

*PRU **10** 15:15:24.7, 51.°40N×16.°21E, h0km*

*IPEC **10** 15:15:24.0±0.2, 51.°43N×16.°26E, h1km, ML2.5/8, Error ellipse: s-maj=1.8km s-min=1.2km az=69.0*

ISC 10 15:15:23.1±0.8, **51.°48N**±0.°03×**16.°23E**±0.°02, **h0km, n39, σ0.s84**/78, **Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	**Ksiaz**	0.64	176	ePg	Pg	15 15 35.7	+0.4
KSP				eSg	Sg	15 15 43.0	-0.6
CHVC	**Chvalec**	0.90	187	ePG	Pg	15 15 40.6	+0.3
CHVC				eSG	Sg	15 15 52.0	+0.1
	comp=Z,43nm,0.5s						
CHVC				AML	AML		
OSTC	**Ostas**	0.93	180	ePG	Pg	15 15 41.1	+0.3
OSTC				eSG	Sg	15 15 52.5	-0.2
	comp=Z,53nm,0.6s						
OSTC				AML	AML		
UPC	**Upice**	0.98	188	ePG	Pg	15 15 41.8	-0.1
UPC				eSG	Sg	15 15 54.7	+0.1
	comp=Z,184nm,0.7s						
UPC				AML	AML		
DPC	**Dobruska-Polom**	1.13	177	ePG	Pg	15 15 44.7	-0.1
DPC				eSG	Sg	15 15 58.4	-1.0
	comp=Z,52nm,0.5s						
DPC				AML	AML		
PIVO	**Bartosovice**	1.31	171	ePg	Pg	15 15 48.2	0.0
	baz=352						
PIVO				eSg	Sg	15 16 03.3	-1.9
	78nm,0.4s,baz=352						
PIVO				AML	AML		
KRLC	**Kraliky**	1.45	166	ePG	Pn	15 15 50.5	-0.1
KRLC				eSG	Sg	15 16 09.3	-0.3
	comp=Z,34nm,0.5s						
KRLC				AML	AML		
BRG	**Berggiesshubel**	1.56	248	Pg	Pg	15 15 53.2	+0.2
BRG				Sg	Sg	15 16 13.6	+0.5
BRG				Amp		15 16 16.8	
	comp=Z,79nm,0.4s						
ANAC	**Anensky vrch**	1.59	152	ePn	Pn	15 15 52.2	-0.3
	baz=333						
ANAC				eSg	Sn	15 16 12.1	-1.6
	comp=Z,39nm,0.5s,baz=333						
ANAC				AML	AML		
RICC	**Richard**	1.64	236	ePG	Pn	15 15 53.6	+0.5
RICC				eSG	Sg	15 16 16.0	+0.3
RYBC	**Ceska Rybna**	1.68	184	ePn	Pn	15 15 53.7	0.0
	baz=4.2						
RYBC				eSg	Sn	15 16 14.9	-1.0
	comp=Z,34nm,0.2s,baz=4.2						
RYBC				AML	AML		
STEB	**Steborice**	1.83	147	ePG	Pn	15 15 56.4	+0.6
STEB				eSG	Sb	15 16 20.6	-0.3
	comp=Z,60nm,0.4s						
STEB				AML	AML		
PRU	**Pruhonice**	1.84	216	ePG	Pb	15 15 57.4	-0.1
PRU				eSG	Sb	15 16 21.0	-0.1
	comp=Z,23nm,0.3s						
PRU				AML	AML		
MORC	**Moravsky Berou**	1.90	153	ePn	Pn	15 15 56.6	-0.2
	baz=334						
MORC				eSg	Sn	15 16 22.0	+0.6
	comp=Z,24nm,0.3s,baz=334						
MORC				AML	AML		
HSKC	**Hora Svate Kat**	1.97	245	ePG	Pb	15 15 59.8	0.0
HSKC				eSG	Sg	15 16 26.2	-0.1
	comp=Z,35nm,0.3s						
HSKC				AML	AML		
CLL	**Collm**	2.03	266	ePg	Pb	15 16 01.0	+0.3
CLL				eSg	Sg	15 16 28.0	-0.1
OKC	**Ostrava-Krasne**	2.05	143	ePG	Pb	15 16 00.8	-0.3
OKC				eSG	Sb	15 16 27.0	-0.1
	comp=Z,33nm,0.5s						
OKC				AML	AML		
VRAC	**Vranov**	2.19	174	ePn	Pn	15 16 00.8	+0.1
	baz=354						
VRAC				eSg	Sb	15 16 30.9	-0.2
	comp=Z,23nm,0.6s,baz=354						
VRAC				AML	AML		
TREC	**Trest**	2.24	192	ePN	Pn	15 16 01.4	0.0
TREC				ePG	Pb	15 16 04.5	+0.1
TREC				eSG	Sb	15 16 33.0	+0.4
	comp=Z,14nm,0.2s						
TREC				AML	AML		
MAUC	**Maruska**	2.35	154	ePN	Pn	15 16 04.1	+1.1
MAUC				eSG	Sg	15 16 38.0	-0.6
	comp=Z,95nm,0.8s						
MAUC				AML	AML		
ZVC	**Zvikov**	2.42	213	ePN	Pn	15 16 03.9	0.0
ZVC				eSG	Sb	15 16 38.8	+0.9
	comp=Z,23nm,0.4s						
ZVC				AML	AML		
KRUC	**Moravsky**	2.42	177	ePn	Pn	15 16 04.0	+0.1
	baz=358						
KRUC				eSg	Sb	15 16 38.2	+0.3
	comp=Z,19nm,0.7s,baz=358						
KRUC				AML	AML		
KRUC	**Moravsky**	2.42	177	ePN	Pn	15 16 04.1	+0.1
KRUC				eSG	Sb	15 16 38.3	+0.3
STAC	**Stalkov**	2.52	194	ePn	Pn	15 16 05.5	+0.2
	baz=14						
STAC				eSg	Sb	15 16 41.5	+0.6
	comp=Z,29nm,0.4s,baz=14						
STAC				AML	AML		
OJC	**Ojcow**	2.59	118	ePg	Pg	15 16 14.2	+1.5
OJC				eSg	Sg	15 16 47.5	+1.2
NKC	**Novy Kostel**	2.70	244	ePG	Pb	15 16 13.4	+1.2
NKC				eSG	Sg	15 16 50.5	+0.7
	comp=Z,31nm,0.3s						
NKC				AML	AML		
JAVC	**Velka Javorina**	2.78	160	ePn	Pn	15 16 08.8	-0.1
	baz=341						
KHC	**Kasperske Hory**	2.90	217	ePN	Pn	15 16 11.6	+1.1
KHC				ePG	Pb	15 16 16.1	+0.4
KHC				eSN	Sn	15 16 45.6	-0.5
KHC				eSG	Sg	15 16 55.3	-0.9
	comp=Z,20nm,0.4s						
KHC				AML	AML		
CKRC	**Cesky Krumlov**	2.94	206	ePG	Pb	15 16 16.9	+0.7
CKRC				eSG	Sg	15 16 55.3	-2.0
	comp=Z,23nm,0.8s						
CKRC				AML	AML		
LANS	**Liptovska Anna**	3.12	137	eSG	Sg	15 17 02.3	-1.1
MODS	**Modra-Piesok**	3.18	167	eSG	Sg	15 17 05.7	+0.4
CONA	**Conrad Observa**	3.56	184	ePn	Pn	15 16 19.5	-0.2
	comp=Z,0.3nm,0.1s						
CONA				eSn	Sn	15 17 01.1	-1.4

	comp=Z,7.4nm,0.4s						
BSD	**Bornholm Skovb**	**3.72**	**348**	*i*P	**Pn**	**15 16 21.5**	**-0.2**
BSD				*i*S	**Sn**	**15 17 03.6**	**-2.6**
BSD				IAML		15 17 06.6	
	comp=Z,6.7nm,0.4s						
RONA	**Rosalia, Austr**	**3.79**	**179**	*e*Pn	**Pn**	**15 16 21.8**	**-0.8**
	comp=Z,1.2nm,0.5s						
RONA				*e*Sn	**Sn**	**15 17 06.3**	**-1.6**
	comp=Z,1.2nm,0.2s						
STHS	**Stebnicka Huta**	**3.81**	**121**	*e*PG	**Pg**	**15 16 37.1**	**+1.0**
STHS				*e*SG	**Sg**	**15 17 26.5**	**+1.0**
MOA	**Molln**	**3.85**	**200**	*i*Pn	**Pn**	**15 16 23.9**	**+0.4**
	comp=Z,0.3nm,0.1s						
MOA				*i*Sn	**Sn**	**15 17 10.8**	**+1.3**
	comp=Z,2.7nm,0.3s						
LUNU	**Lund**	**4.48**	**339**	*i*P	**Pn**	**15 16 32.4**	**+0.3**
LUNU				*i*S	**Sn**	**15 17 23.9**	**-1.0**
BLEU	**Blekinge**	**4.84**	**357**	*i*P	**Pn**	**15 16 38.0**	**+1.0**
BLEU				*i*S	**Sn**	**15 17 32.6**	**-1.1**
DEL	**Delary**	**5.19**	**345**	*i*P	**Pn**	**15 16 41.7**	**-0.2**
DEL				*i*S	**Sn**	**15 17 40.0**	**-2.3**

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*GCG **10** 15:31:54.8±1.6, 13°.45N×91°.03W, h34^{km}±11^{km}, MD4.3, Presumed earthquake*

*SNET **10** 15:31:56.0±0.7, 13°.41N×90°.82W, h27^{km}±12^{km}, ML3.3, Presumed earthquake*

ISC 10 15:31:56.9±2.8**, 13°.5N**±0°.1×**90°.78W**±0°.10**, h29**^{km}**, n16, σ1^{s}.25**/17**, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FG8	**Yepocapa, Chim**	**0.83**	**15**	*e*P	**Pb**	**15 32 13.0**	**+0.1**
FG16	**Alotenango, Sa**	**0.86**	**18**	*e*P	**Pb**	**15 32 13.3**	**-0.1**
NUBE	**Las Nubes**	**1.07**	**65**	*e*P	**Pb**	**15 32 16.0**	**-0.9**
STG8	**El Palmar, Qui**	**1.14**	**331**	*e*P	**Pb**	**15 32 18.0**	**-0.1**
CEVE	**Cerro Verde**	**1.18**	**71**	*e*P	**Pb**	**15 32 18.4**	**-0.5**
SBLS	**San Blas**	**1.19**	**71**	*e*P	**Pb**	**15 32 18.4**	**-0.5**
SNJE	**San Jose**	**1.21**	**70**	*e*P	**Pb**	**15 32 18.8**	**-0.6**
RBDL	**Robledal**	**1.25**	**58**	*e*P	**Pb**	**15 32 19.3**	**-0.6**
JAYA	**Jayaque - finc**	**1.31**	**81**	*i*P	**Pb**	**15 32 19.7**	**-1.2**
JAYA				*e*S	**Sb**	**15 32 40.0**	**+2.6**
JAYA	**Jayaque - finc**	**1.31**	**81**	*e*P	**Pb**	**15 32 19.9**	**-1.0**
BOQS	**Boqueron**	**1.48**	**79**	*e*P	**Pb**	**15 32 24.0**	**0.0**
APG	**El Apazote**	**1.57**	**11**	*e*P	**Pb**	**15 32 23.4**	**-2.1**
LOMA	**Loma Larga**	**1.57**	**83**	*e*P	**Pb**	**15 32 24.6**	**-0.8**
MTO3	**Montecristo**	**1.67**	**55**	*e*P	**Pb**	**15 32 25.8**	**-1.4**
MTO3	**Montecristo**	**1.67**	**55**	*e*P	**Pb**	**15 32 25.7**	**-1.4**
LFRS	**El Faro**	**1.68**	**84**	*e*P	**Pb**	**15 32 25.9**	**-1.3**

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*AEIC **10** 15:59:24.9±3.3, 51°.93N±0°.09×174°.28W±0°.09, h54^{km}±7^{km}, Error ellipse: s-maj=14.0km s-min=5.7km az=155.0*

NEIC 10 15:59:24.2±1.7**, 52°.0N**±0°.1×**174°.23W**±0°.10**, h71**^{km}±7^{km}**, mb3.7**/13**, ML3.8**/16**, ML3.2**(AEIC)**, Error ellipse: s-maj=20.6km s-min=6.5km az=162.0, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ATKA	**Atka Island**	**0.20**	**7**		Pn	15 59 34.2	-0.7
ATKA					Sn	15 59 41.7	-1.0
KOFP	**Korovin Flat P**	**0.28**	**17**		Pn	15 59 35.4	0.0
KOFP					Sn	15 59 44.1	+0.4
KOKL	**Mount Kliuchef**	**0.32**	**4**		Pn	15 59 35.6	-0.2
KOKL					Sn	15 59 44.1	-0.1
KOKV	**Korovin Volcan**	**0.36**	**7**		Pn	15 59 36.3	+0.3
KOSE	**Korovin Southe**	**0.36**	**18**		Pn	15 59 35.8	-0.2
KOSE					Sn	15 59 45.2	+0.6
KOWE	**Korovin West**	**0.36**	**358**		Pn	15 59 36.0	0.0
KONW	**Korovin Northw**	**0.39**	**2**		Pn	15 59 36.1	-0.1
KONE	**Korovin Northe**	**0.40**	**10**		Pn	15 59 36.1	-0.1
GSIG	**Igitkin Island**	**1.05**	**270**		Pn	15 59 43.5	+0.2
GSIG					Sn	15 59 57.0	-0.6
GSMY	**Great Sitkin M**	**1.13**	**273**		Pn	15 59 44.4	+0.1
GSMY					Sn	15 59 59.4	0.0
GSTR	**Great Sitkin T**	**1.13**	**275**		Pn	15 59 44.4	0.0
GSTR					Sn	15 59 59.5	0.0
GSTD	**Great Sitkin T**	**1.18**	**273**		Sn	16 00 01.0	+0.2
GSCK	**Great Sitkin C**	**1.19**	**271**		Pn	15 59 45.4	+0.2
GSCK					Sn	16 00 01.3	+0.4
GSSP	**Great Sitkin S**	**1.20**	**275**		Pn	15 59 45.5	+0.2
ADK	**Adak**	**1.52**	**266**		Pn	15 59 49.8	+0.3
ADK					Sn	16 00 08.4	-0.1
ADK	**Adak**	**1.52**	**266**	IAML		16 00 10.1	
	1μm,0.3s						
ADK				IAML		16 00 10.6	
	1μm,0.2s						
KIRH	**Kanaga Island**	**1.77**	**268**		Pn	15 59 53.4	+0.6
KIWB	**Kanaga Island**	**1.81**	**266**		Pn	15 59 54.0	+0.7
KIWB				Sn	Sn	16 00 15.9	+0.5
KIWB				IAML		16 00 18.6	
	comp=E,672nm,0.4s						
KIWB				IAML		16 00 21.7	
	comp=N,546nm,0.4s						
KIKV	**Kanaga Island**	**1.82**	**267**		Pn	15 59 54.0	+0.5
KIMD	**Kanaga Island**	**1.88**	**264**		Pn	15 59 55.1	+0.9
TAFL	**Tanaga Flats**	**2.29**	**265**		Pn	16 00 00.6	+0.9
TAFP	**Tanaga Falls P**	**2.32**	**269**		Pn	16 00 00.4	+0.2
TASE	**Tanaga Southea**	**2.36**	**267**		Pn	16 00 01.4	+0.7
CLES	**Cleveland East**	**2.78**	**71**		Pn	16 00 07.8	+1.4
CLES				IAML		16 00 52.0	
	comp=N,416nm,0.4s						
GANE	**Gareloi Northe**	**2.82**	**268**		Pn	16 00 07.6	+0.6
CLCO	**Concord Point,**	**2.87**	**72**		Pn	16 00 10.1	+2.4
GAKI	**Gareloi-Kavalg**	**2.88**	**263**		Pn	16 00 08.7	+0.9
OKWE	**Okmok W'ng Wal**	**3.93**	**66**		Pn	16 00 23.6	+1.6
OKCE	**Okmok Cone E**	**3.96**	**67**		Pn	16 00 24.4	+2.0
OKTU	**Okmok Mt. Tuli**	**4.01**	**67**		Pn	16 00 25.0	+1.8
AMKA	**Amchitka**	**4.07**	**264**	Pn	Pn	16 00 23.7	-0.2
AMKA				IAML		16 01 26.3	
	comp=E,90nm,0.7s						
AMKA				IAML		16 01 26.0	
	comp=N,116nm,0.6s						
MGOD	**Makushin Gods**	**4.80**	**65**		Pn	16 00 35.1	+1.1
MSW	**Makushin Switc**	**4.89**	**64**		Pn	16 00 36.7	+1.4
MNAT	**Makushin Natee**	**4.94**	**65**		Pn	16 00 38.0	+2.2
UNV	**Unalaska Valle**	**5.03**	**65**		Pn	16 00 37.5	+0.5
LVA	**Lava Point**	**5.39**	**63**	Pn	Pn	16 00 42.2	+0.2
LVA				IAML		16 02 12.2	
	comp=E,41nm,0.8s						
AKUT	**Akutan**	**5.53**	**64**	Pn	Pn	16 00 42.5	-1.4
SPIA	**Saint Paul Isl**	**5.68**	**23**	Pn	Pn	16 00 46.1	+0.3
SDPT	**Sand Point**	**8.82**	**62**	Pn	Pn	16 01 27.0	-1.9
CNBA	**Chernabura Isl**	**9.19**	**66**	Pn	Pn	16 01 31.8	-2.0
N14K	**Kuskokwak Cree**	**10.59**	**37**	Pn	Pn	16 01 51.6	-1.2
O15K	**Ungalikthiuk R**	**10.85**	**43**	Pn	Pn	16 01 55.6	-0.9
M14K	**Bethel**	**11.08**	**33**		Pn	16 01 57.7	-1.8
Q19K	**Cape Douglas,**	**13.54**	**51**	Pn	Pn	16 02 35.5	+2.5
L18K	**Granite Mounta**	**13.93**	**36**	Pn	Pn	16 02 39.9	+1.9
J17K	**VABM Dome**	**13.95**	**29**	Pn	Pn	16 02 40.0	+1.7
L19K	**White Mountain**	**14.59**	**38**	Pn	Pn	16 02 47.6	+0.9
M19K	**Big River Lodg**	**14.61**	**40**	Pn	Pn	16 02 48.0	+1.1
J18K	**Innoko River**	**14.74**	**32**	Pn	Pn	16 02 49.4	+0.8
CNPM	**China Poot**	**14.91**	**51**	Pn	Pn	16 02 50.9	0.0
M20K	**Styx River**	**15.10**	**41**	Pn	Pn	16 02 53.6	+0.3
M20K				IAmb	IAmb	16 03 17.5	
	comp=Z,8.3nm,1.3s						
L20K	**Farewell, AK**	**15.13**	**38**	Pn	Pn	16 02 54.8	+1.1
BRLK	**Bradley Lake**	**15.16**	**50**	Pn	Pn	16 02 54.2	+0.2
HDA	**Harding Lake**	**18.80**	**38**	P	P	16 03 37.1	-0.6
IL31		**19.00**	**37**	P	P	16 03 38.8	-1.0
ILAR	**Eielson Array**	**19.00**	**37**	P	P	16 03 39.6	-0.2
E21K	**Killik River**	**19.14**	**23**	P	P	16 03 41.1	-0.2
J25K	**Salcha River,**	**19.50**	**39**		P	16 03 44.0	-1.3
J25K				IAmb	IAmb	16 03 46.1	
	comp=Z,3.0nm,0.5s						
K27K	**Chicken**	**20.58**	**42**	P	P	16 03 56.5	-0.5
K27K				IAmb	IAmb	16 04 30.1	
	comp=Z,4.4nm,1.4s						
I28M	**Miner Creek**	**21.95**	**39**	P	P	16 04 10.1	-1.6
I28M				IAmb	IAmb	16 04 49.8	
	comp=Z,3.9nm,1.4s						
H29M	**Whitestone**	**22.83**	**38**	P	P	16 04 19.1	-1.9
H29M				IAmb	IAmb	16 05 01.4	
	comp=Z,5.8nm,1.5s						
J30M	**Hart River**	**23.13**	**42**	P	P	16 04 22.6	-1.5
J30M				IAmb	IAmb	16 05 05.7	
	comp=Z,4.2nm,1.5s						
I30M	**Mount Dempster**	**23.29**	**41**	P	P	16 04 23.0	-2.6
HG4B	**Hotspring**	**26.13**	**72**	P	P	16 04 48.6	-2.7

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*IDC **10** 16:09:19.3±0.6, 52°.84S×10°.05E, h0^{km}, mb4.3/13, mbtmp4.4/14, ML4.4/1, MS3.7/28, Error ellipse: s-maj=24.1km s-min=15.6km az=67.0*

*NEIC **10** 16:09:20.9±1.6, 52°.9S±0°.1×10°.0E±0°.2, h10^{km}±1^{km}, mb4.6/18, Error ellipse: s-maj=22.3km s-min=18.7km az=100.0*

ISC 10 16:09:21.0±0.5**, 52°.86S**±0°.08×**10°.0E**±0°.1**, h12**^{km}**, n71, σ0^{s}.71**/43**, mb4.5**/17**, MS3.8**/27**, 5C, Southwest of Africa**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TROLL	**Troll, Antarti**	**19.50**	**187**	⇑P	**P**	**16 13 47.5**	**-0.2**
	comp=Z,930nm,0.4s						
VNA1	**Neumayer--Stat**	**19.67**	**198**	⇑P	**P**	**16 13 49.2**	**-0.2**
	comp=Z,24nm,0.6s						
SNAA	**Sanae**	**19.71**	**192**	⇑P	**P**	**16 13 49.8**	**-0.2**
	comp=Z,1μm,0.8s						
SNAA	**Sanae**	**19.71**	**192**	P	**P**	**16 13 50.0**	**0.0**
	comp=Z,1.2nm,0.3s,baz=25,slow=9.7,SNR=46						
SNAA				S	S	16 17 16.2	-16
	comp=Z,1.6nm,0.6s,baz=168,slow=19,SNR=2.5						
SNAA				LR	LR	16 19 41.3	
	comp=Z,272nm,20.7s,baz=5.0,slow=32						
	comp=Z,48nm,0.8s						
SNAA				AML	AML		
SNAA	**Sanae**	**19.71**	**192**	P	**P**	**16 13 49.5**	**-0.5**
VNA2	**Neumayer--Watz**	**19.74**	**197**	⇑P	**P**	**16 13 49.3**	**-0.9**
	comp=Z,25nm,0.6s,baz=20,slow=10						
VNA3	**Neumayer Olymp**	**20.42**	**198**	⇑P	**P**	**16 13 56.6**	**-1.0**
	comp=Z,44nm,0.7s						
SUR	**Sutherland**	**21.91**	**25**	LR	LR	16 20 38.7	
	comp=Z,217nm,21.4s,baz=188,slow=31						
SUR	**Sutherland**	**21.91**	**25**	P	**P**	**16 14 13.1**	**-1.1**
SUR				IAmb	IAmb	16 14 33.7	
	comp=Z,45nm,1.4s						
GRHM	**Grahamstown, E**	**22.84**	**38**	P	**P**	**16 14 22.9**	**-1.0**
BOSA	**Boshof**	**26.73**	**31**	LR	LR	16 24 01.5	
	comp=Z,277nm,19.0s,baz=193,slow=33						
H04S2	**CROZET ISLANDS**	**27.37**	**94**	T	T	16 43 59.2	
	baz=241,slow=76,SNR=14						
H04S3	**CROZET ISLANDS**	**27.38**	**94**	T	T	16 44 00.6	
	baz=241,slow=76,SNR=13						
H04S1	**CROZET ISLANDS**	**27.39**	**94**	T	T	16 44 00.1	
	baz=241,slow=76,SNR=14						
MAW	**Mawson**	**28.99**	**141**	P	**P**	**16 15 21.1**	**+1.1**
	comp=Z,4.9nm,1.0s,baz=281,slow=9.2,SNR=6.1						
MAW				LR	LR	16 25 14.6	
	comp=Z,64nm,19.0s,baz=274,slow=33						
	comp=Z,4.9nm,1.0s						
MAW	**Mawson**	**28.99**	**141**	P	**P**	**16 15 21.4**	**+1.4**
BELA	**Belgrano 2**	**29.72**	**197**	P	**P**	**16 15 25.6**	**-0.8**
BELA				IAmb	IAmb	16 15 26.3	
	comp=Z,5.6nm,0.7s						
LBTB	**Lobatse**	**30.20**	**29**	LR	LR	16 25 36.1	
	comp=Z,182nm,21.7s,baz=190,slow=32						
LBTB	**Lobatse**	**30.20**	**29**	P	**P**	**16 15 30.3**	**-1.0**
LBTB				IAmb	IAmb	16 16 11.7	
	comp=Z,13nm,1.4s						
TSUM	**Tsumeb**	**34.11**	**13**	LR	LR	16 27 31.8	
	comp=Z,254nm,21.1s,baz=153,slow=32						
TSUM	**Tsumeb**	**34.11**	**13**	P	**P**	**16 16 05.7**	**+0.1**
TSUM				IAmb	IAmb	16 16 08.5	
	comp=Z,11nm,1.2s						
QSPA	**South Pole Qui**	**37.38**	**180**	P	**P**	**16 16 33.1**	**-0.2**
	comp=Z,4.4nm,1.0s,baz=211,slow=3.7,SNR=11						
QSPA				LR	LR	16 31 07.9	
	comp=Z,232nm,19.6s,baz=222,slow=35						
	comp=Z,4.4nm,1.0s						
QSPA	**South Pole Qui**	**37.38**	**180**		**P**	**16 16 32.4**	**-0.9**
QSPA				IAmb	IAmb	16 16 38.2	
	comp=Z,14nm,1.4s						
PMSA	**Palmer Station**	**37.82**	**222**	LR	LR	16 28 57.5	
	comp=Z,155nm,18.7s,baz=28,slow=31						
LSZ	**Lusaka**	**40.17**	**28**	LR	LR	16 31 44.0	
	comp=Z,170nm,19.3s,baz=172,slow=34						
VNDA	**Vanda**	**48.72**	**172**	P	**P**	**16 18 04.9**	**+0.3**
	comp=Z,3.8nm,0.9s,baz=232,slow=7.0,SNR=16						
VNDA				LR	LR	16 38 19.4	
	comp=Z,94nm,18.7s,baz=208,slow=36						
	comp=Z,3.8nm,0.9s						
VNDA	**Vanda**	**48.72**	**172**	P	**P**	**16 18 04.9**	**+0.3**
VNDA				IAmb	IAmb	16 18 07.5	
	comp=Z,6.3nm,1.1s						
SBA	**Scott Base**	**48.77**	**174**	P	**P**	**16 18 05.3**	**+0.3**
SBA				IAmb	IAmb	16 18 08.3	
	comp=Z,5.8nm,1.1s						
PLCA	**Paso Flores**	**53.66**	**249**	P	**P**	**16 18 42.7**	**+0.4**
	comp=Z,2.2nm,0.8s,baz=129,slow=6.5,SNR=3.6						
PLCA				LR	LR	16 38 23.4	
	comp=Z,64nm,21.4s,baz=150,slow=32						
	comp=Z,2.2nm,0.8s						
MBAR	**Mbarara**	**54.88**	**26**	LR	LR	16 40 42.9	
	comp=Z,177nm,20.1s,baz=192,slow=34						
CPUP	**Villa Florida**	**55.90**	**271**	P	**P**	**16 18 58.5**	**0.0**
	comp=Z,3.1nm,0.9s,baz=145,slow=6.8,SNR=4.5						
CPUP				LR	LR	16 41 03.9	
	comp=Z,20nm,18.0s,baz=82,slow=34						
	comp=Z,3.1nm,0.9s						
CPUP	**Villa Florida**	**55.90**	**271**	IAmb	IAmb	16 19 25.6	
	comp=Z,8.8nm,1.5s						
KMBO	**Kilima Mbogo**	**56.33**	**33**	LR	LR	16 42 27.6	
	comp=Z,151nm,18.7s,baz=105,slow=35						
DBIC	**Dimbokro**	**60.63**	**343**	P	**P**	**16 19 31.9**	**+0.3**
	comp=Z,12nm,0.7s,baz=178,slow=7.1,SNR=8.6						
DBIC				LR	LR	16 39 46.0	
	comp=Z,57nm,22.0s,baz=156,slow=30						
	comp=Z,12nm,0.7s						
DBIC	**Dimbokro**	**60.63**	**343**	IAmb	IAmb	16 19 32.8	
	comp=Z,11nm,0.7s						
TORD	**Torodi Ar. Bea**	**66.12**	**351**	P	**P**	**16 20 08.2**	**+0.2**
	comp=Z,4.3nm,1.0s,baz=183,slow=8.1,SNR=13						
	comp=Z,4.3nm,1.0s						
LPAZ	**La Paz**	**70.03**	**269**	P	**P**	**16 20 34.2**	**+0.8**
	comp=Z,2.8nm,0.7s,baz=145,slow=5.0,SNR=11						
	comp=Z,2.8nm,0.7s						
LPAZ	**La Paz**	**70.03**	**269**	P	**P**	**16 20 33.6**	**+0.2**
LPAZ				IAmb	IAmb	16 20 35.3	
	comp=Z,4.3nm,0.9s						
H01W2	**Cape Leeuwin H**	**70.67**	**122**	T	T	17 38 22.9	
	baz=218,slow=75,SNR=23						
H01W3	**Cape Leeuwin H**	**70.68**	**122**	T	T	17 38 20.6	
	baz=218,slow=75,SNR=25						
H01W1	**Cape Leeuwin H**	**70.68**	**122**	T	T	17 38 24.0	
	baz=218,slow=75,SNR=24						
NWAO	**Narrogin (SRO)**	**73.80**	**123**	P	**P**	**16 20 55.1**	**0.0**
	comp=Z,5.5nm,0.8s,baz=227,slow=7.4,SNR=1.5						
	comp=Z,5.5nm,0.8s						
NWAO	**Narrogin (SRO)**	**73.80**	**123**	P	**P**	**16 20 55.6**	**+0.4**
NWAO				IAmb	IAmb	16 21 26.3	
	comp=Z,34nm,1.4s						
GIRL	**Giralia**	**80.42**	**115**	P	**P**	**16 21 33.1**	**+0.6**
RPZ	**Rata Peaks**	**82.43**	**166**	LR	LR	16 56 43.2	
	comp=Z,14nm,18.8s,baz=244,slow=34						
ATAH	**Atahualpa**	**83.39**	**267**	LR	LR	16 57 24.9	
	comp=Z,38nm,20.6s,baz=218,slow=35						
PALK	**Pallekele**	**84.34**	**70**	LR	LR	16 51 03.7	
	comp=Z,61nm,18.2s,baz=172,slow=30						
EIL	**Elat**	**85.02**	**22**	LR	LR	17 00 09.8	
	comp=Z,105nm,18.0s,baz=171,slow=36						
STKA	**Stephens Creek**	**85.68**	**140**	P	**P**	**16 22 00.1**	**+0.6**
	comp=Z,4.8nm,1.0s,baz=180,slow=6.3,SNR=4.8						
	comp=Z,4.8nm,1.0s						
MDT	**Midelt**	**86.26**	**348**	LR	LR	16 57 02.3	
	comp=Z,25nm,18.6s,baz=90,slow=33						
ASF	**Jabal al Asfar**	**87.87**	**23**	LR	LR	17 01 07.4	
	comp=Z,36nm,18.1s,baz=207,slow=35						
MMAI	**Mount Meron Ar**	**88.34**	**21**	LR	LR	17 01 48.7	
	comp=Z,50nm,18.1s,baz=199,slow=36						
URZ	**Urewera**	**88.57**	**170**	LR	LR	16 59 23.7	
	comp=Z,37nm,19.6s,baz=215,slow=34						
ASAR	**Alice Springs**	**89.59**	**130**	P	**P**	**16 22 18.4**	**-0.2**
	comp=Z,1.1nm,1.0s,baz=201,slow=4.2,SNR=7.9						
	comp=Z,1.1nm,1.0s						
ASAR	**Alice Springs**	**89.59**	**130**	P	**P**	**16 22 17.9**	**-0.6**
AS31	**Alice Springs**	**89.59**	**130**	P	**P**	**16 22 18.5**	**0.0**
ESDC	**Sonseca Array**	**92.95**	**349**	P	**P**	**16 22 34.6**	**+1.2**
	comp=Z,0.6nm,0.7s,baz=160,slow=5.3,SNR=4.1						
ESDC				LR	LR	16 58 35.9	
	comp=Z,36nm,20.7s,baz=166,slow=32						
	comp=Z,0.6nm,0.7s						
WRA	**Warramunga Arr**	**93.00**	**129**	P	**P**	**16 22 33.9**	**-0.5**
	comp=Z,0.4nm,0.9s,baz=217,slow=5.2,SNR=2.1						
	comp=Z,0.4nm,0.9s						
WR8	**Warramunga Arr**	**93.06**	**129**	P	**P**	**16 22 32.7**	**-2.0**
BRTR	**Keskin Array B**	**94.46**	**18**	LR	LR	17 05 07.8	
	comp=Z,23nm,21.6s,baz=156,slow=36						
GNI	**Garni**	**97.40**	**26**	LR	LR	17 08 24.1	
	comp=Z,43nm,18.1s,baz=196,slow=36						
MLR	**Muntele Rosu**	**98.92**	**11**	LR	LR	17 10 45.5	
	comp=Z,32nm,18.8s,baz=145,slow=37						
DAVOX	**Davos/Dischmat**	**99.26**	**360**	LR	LR	17 04 39.3	
	comp=Z,17nm,19.6s,baz=257,slow=34						
MKAR	**Makanchi Array**	**116.82**	**47**	PKP	**PKPdf**	**16 28 03.8**	**-0.6**
	comp=Z,0.5nm,0.7s,baz=252,slow=2.9,SNR=3.9						
BVAR	**Borovoye Array**	**116.92**	**36**	PKP	**PKPdf**	**16 28 03.8**	**-0.6**
	comp=Z,0.4nm,0.5s,baz=238,slow=2.8,SNR=4.6						
KURBB	**Kurchatov Arra**	**118.14**	**42**	PKP	**PKiKP**	**16 28 06.7**	**-0.1**
	comp=Z,0.3nm,0.6s,baz=203,slow=1.9,SNR=2.4						
KURK	**Kurchatov**	**118.25**	**42**		**PKiKP**	**16 28 06.7**	**-0.3**
ZALV	**Zalesovo Beam**	**123.20**	**43**	PKP	**PKPdf**	**16 28 15.8**	**-0.6**
	comp=Z,0.7nm,0.8s,baz=261,slow=2.8,SNR=2.0						
YKA	**Yellowknife Ar**	**149.78**	**311**	PKPbc	**PKPbc**	**16 29 09.2**	**-0.1**
	comp=Z,3.0nm,0.7s,baz=98,slow=2.6,SNR=9.1						
YKA	**Yellowknife Ar**	**149.78**	**311**		**PKPbc**	**16 29 08.8**	**-0.5**
ILAR	**Eielson Array**	**163.22**	**324**	PKPab	**PKPab**	**16 30 12.2**	**-0.3**
	comp=Z,0.5nm,0.7s,baz=36,slow=4.4,SNR=4.7						

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*IDC **10** 16:09:26.5±8.9, 37°.68N×21°.14E, h0^{km}, mb3.5/3, mbtmp3.4/4, ML4.0/1, Error ellipse: s-maj=320.5km s-min=33.1km az=172.0*

*THE **10** 16:09:29.8, 37°.9N±0°.7×21°.1E±0°.5, h18^{km}±1^{km}, M3.2/31, MLh3.2/31*

*ATH **10** 16:09:29.0, 37°.85N×20°.99E, h32^{km}, ML3.4/26, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*

ISC 10 16:09:29.2±0.8**, 37°.85N**±0°.02×**21°.08E**±0°.02**, h16**^{km}±5^{km}**, n80, σ0^{s}.83**/102**, mb3.5**/3**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CLEM	**Kyllini,Ilia,G**	**0.06**	**49**	P	**Pg**	**16 09 31.9**	**-0.4**
CLEM				S	**Sg**	**16 09 33.7**	**-0.5**
LCHA	**Lechaina**	**0.17**	**60**	P	**Pg**	**16 09 33.8**	**+0.3**
LCHA				S	**Sg**	**16 09 37.6**	**+1.3**
LTHK	**Lithakia**	**0.24**	**233**	P	**Pb**	**16 09 35.7**	**+0.7**
LTHK				S	**Sb**	**16 09 40.6**	**+1.5**
LTHK				AML	AML		
LTHK	**Lithakia**	**0.24**	**233**	P	**Pb**	**16 09 35.4**	**+0.3**
LTHK				S	**Sb**	**16 09 39.7**	**+0.6**
ORTH	**Orthonies,Zaky**	**0.30**	**270**	P	**Pb**	**16 09 36.4**	**+0.2**
ORTH				S	**Sb**	**16 09 41.5**	**+0.6**
ORTH				AML	AML		
ORTH	**Orthonies,Zaky**	**0.30**	**270**	P	**Pb**	**16 09 36.0**	**-0.2**
ORTH				S	**Sb**	**16 09 40.8**	**-0.2**
RTZL	**Ratzakli, Kefa**	**0.33**	**313**	P	**Pg**	**16 09 36.0**	**-0.1**
RTZL				S	**Sb**	**16 09 41.6**	**-0.1**
RTZL				AML	AML		
RTZL	**Ratzakli, Kefa**	**0.33**	**313**	P	**Pg**	**16 09 35.7**	**-0.4**
RTZL				S	**Sg**	**16 09 40.9**	**+0.2**
RTZL				AML	AML		
RLS	**Riolos of Patr**	**0.37**	**56**	P	**Pg**	**16 09 36.8**	**0.0**
RLS				S	**Sg**	**16 09 42.4**	**+0.4**
RLS				AML	AML		
RLS	**Riolos of Patr**	**0.37**	**56**	P	**Pg**	**16 09 36.9**	**+0.1**
RLS				S	**Sb**	**16 09 43.0**	**+0.1**
RLS				AML	AML		
AXS	**Araxos**	**0.42**	**34**	P	**Pg**	**16 09 37.4**	**-0.3**
AXS				S	**Sg**	**16 09 43.7**	**+0.3**
AXS				AML	AML		
VLS	**Valsamata**	**0.50**	**310**	P	**Pg**	**16 09 38.9**	**-0.4**
VLS				S	**Sb**	**16 09 46.7**	**-0.1**
VLS				AML	AML		
VLS	**Valsamata**	**0.50**	**310**	P	**Pg**	**16 09 38.6**	**-0.6**
VLS				S	**Sg**	**16 09 46.1**	**0.0**
DRO	**Drossia**	**0.51**	**79**	P	**Pb**	**16 09 39.7**	**-0.1**
DRO				S	**Sb**	**16 09 47.7**	**+0.7**
DRO				AML	AML		
DRO	**Drossia**	**0.51**	**79**	P	**Pb**	**16 09 39.8**	**-0.1**
DRO				S	**Sb**	**16 09 48.0**	**+1.0**
DRO				AML	AML		
ARG2	**Argostoli**	**0.57**	**305**	P	**Pg**	**16 09 37.7**	**-2.8**
ARG2				AML	AML		
ZARO	**Zacharo**	**0.58**	**129**	P	**Pn**	**16 09 42.0**	**-0.8**
ZARO				AML	AML		
MSL1	**Messolongi**	**0.59**	**28**	P	**Pb**	**16 09 41.5**	**+0.4**
MSL1				S	**Sb**	**16 09 50.2**	**+1.0**
AMT	**Artemida-Makis**	**0.59**	**122**	P	**Pn**	**16 09 42.0**	**-0.9**
AMT				AML	AML		
AMT	**Artemida-Makis**	**0.59**	**122**	P	**Pn**	**16 09 41.9**	**-1.1**
AMT				S	**Sn**	**16 09 51.5**	**-0.8**
AMT				AML	AML		
LXR1	**Lixouri, Cepha**	**0.61**	**305**	P	**Pg**	**16 09 40.8**	**-0.4**
LXR1				S	**Sb**	**16 09 49.7**	**-0.2**
PLEV	**Plevrona-Mesol**	**0.62**	**25**	P	**Pg**	**16 09 41.1**	**-0.3**
PLEV				AML	AML		
PLEV	**Plevrona-Mesol**	**0.62**	**25**	P	**Pg**	**16 09 41.0**	**-0.3**
PLEV				S	**Sb**	**16 09 51.0**	**+0.9**
PLEV				AML	AML		
PATG	**Patra B**	**0.64**	**53**	P	**Pn**	**16 09 42.7**	**-0.9**
PATG				S	**Sn**	**16 09 52.9**	**-0.5**
DMLN	**Damoulianata-K**	**0.68**	**305**	P	**Pn**	**16 09 47.3**	**+3.2**
DMLN				AML	AML		
PATC	**Patra C**	**0.68**	**52**	P	**Pn**	**16 09 43.3**	**-0.8**
PATC				S	**Sn**	**16 09 53.9**	**-0.6**
PATC				AML	AML		
VSK1	**VASILIKIADES**	**0.69**	**324**	P	**Pb**	**16 09 41.6**	**-1.2**
AST1	**Astakos**	**0.69**	**1**	P	**Pb**	**16 09 42.1**	**-0.7**
RIOA	**Rio**	**0.72**	**52**	P	**Pn**	**16 09 43.8**	**-0.9**
RIOA				AML	AML		
FSK	**Fiskardo**	**0.73**	**326**	P	**Pb**	**16 09 42.6**	**-0.9**
FSK				AML	AML		
FSK	**Fiskardo**	**0.73**	**326**	P	**Pb**	**16 09 42.4**	**-1.1**
FSK				AML	AML		
AGRP	**Agrapidokambos**	**0.74**	**43**	P	**Pb**	**16 09 43.5**	**-0.2**
AGRP				AML	AML		
PDO	**Prodromos**	**0.75**	**6**	P	**Pb**	**16 09 43.5**	**-0.4**
PDO				AML	AML		
PDO	**Prodromos**	**0.75**	**6**	P	**Pg**	**16 09 43.7**	**-0.1**
PDO				S	**Sg**	**16 09 54.4**	**+0.6**
PDO				AML	AML		
LAKA	**Lakka**	**0.81**	**61**	P	**Pg**	**16 09 45.0**	**0.0**
LAKA				AML	AML		
LAKA	**Lakka**	**0.81**	**61**	P	**Pg**	**16 09 44.9**	**0.0**
LAKA				AML	AML		
VVK	**Vomvokou**	**0.81**	**45**	P	**Pg**	**16 09 44.9**	**-0.1**
VVK				AML	AML		
VVK	**Vomvokou**	**0.81**	**45**	P	**Pg**	**16 09 44.9**	**-0.1**
VVK				AML	AML		
KLV1	**Kalavrita**	**0.83**	**77**	P	**Pg**	**16 09 45.6**	**+0.2**
KLV1				AML	AML		
EVGI	**Lefkada island**	**0.84**	**337**	P	**Pb**	**16 09 44.4**	**-0.9**
EVGI				AML	AML		
EVGI	**Lefkada island**	**0.84**	**337**	P	**Pb**	**16 09 44.4**	**-0.9**
EVGI				AML	AML		
PVO	**Paravola**	**0.84**	**25**	P	**Pb**	**16 09 45.2**	**-0.2**
PVO				AML	AML		
PVO	**Paravola**	**0.84**	**25**	P	**Pb**	**16 09 45.2**	**-0.2**
PVO				AML	AML		
AIOA	**Agios Ioannis,**	**0.85**	**66**	P	**Pg**	**16 09 45.6**	**-0.1**
EFP	**Efpalio**	**0.87**	**48**	P	**Pb**	**16 09 45.6**	**-0.3**
EFP				AML	AML		
EFP	**Efpalio**	**0.87**	**48**	P	**Pg**	**16 09 46.0**	**-0.1**
EFP				AML	AML		
KLV	**Kalavryta, Ach**	**0.87**	**77**	P	**Pb**	**16 09 45.8**	**-0.2**
KLV				AML	AML		
KLV	**Kalavryta, Ach**	**0.87**	**77**	P	**Pb**	**16 09 45.7**	**-0.2**
MG00	**Magoula, Dorid**	**0.89**	**50**	P	**Pb**	**16 09 46.0**	**-0.1**
MG00				AML	AML		
TEME	**Temeni, Aigial**	**0.91**	**65**	P	**Pg**	**16 09 46.5**	**-0.2**
NYDR	**Nydri-Lefkada**	**0.91**	**341**	P	**Pb**	**16 09 45.4**	**-1.1**
NYDR				AML	AML		
NYDR	**Nydri-Lefkada**	**0.91**	**341**	P	**Pb**	**16 09 45.6**	**-1.0**
DRAG	**Dragano-Lefkad**	**0.92**	**335**	P	**Pb**	**16 09 45.6**	**-1.2**
DRAG				AML	AML		
DRAG	**Dragano-Lefkad**	**0.92**	**335**	P	**Pb**	**16 09 45.4**	**-1.3**
ITM	**Ithomi**	**0.95**	**135**	P	**Pg**	**16 09 48.3**	**+0.6**
ITM				AML	AML		
ITM	**Ithomi**	**0.95**	**135**	P	**Pn**	**16 09 47.6**	**-0.3**
ITM				AML	AML		
SERG	**Sergoula**	**0.95**	**54**	P	**Pb**	**16 09 47.2**	**-0.1**
SERG				AML	AML		
SERG	**Sergoula**	**0.95**	**54**	P	**Pb**	**16 09 47.1**	**-0.3**
SERG				AML	AML		
LKD2	**Lefkada island**	**0.99**	**341**	P	**Pb**	**16 09 47.0**	**-1.0**
LKD2				AML	AML		
LKD2	**Lefkada island**	**0.99**	**341**	P	**Pb**	**16 09 46.7**	**-1.3**
ANX	**Ano Chora**	**0.99**	**42**	P	**Pb**	**16 09 47.8**	**-0.3**

ANX				AML	AML		
ANX	Ano Chora	0.99	42	P	Pb	16 09 47.6	-0.5
ANX				AML	AML		
KALE	Kalithea	1.00	57	P	Pn	16 09 48.2	-0.3
KALE				AML	AML		
KALE	Kalithea	1.00	57	P	Pb	16 09 47.8	-0.3
KALE				AML	AML		
VALY	Valyra	1.00	133	P	Pb	16 09 47.5	-0.5
VALY				AML	AML		
GUR	Goura	1.00	85	P	Pn	16 09 48.3	-0.4
GUR				AML	AML		
GUR	Goura	1.00	85	P	Pb	16 09 48.0	-0.3
GUR				AML	AML		
TSLK	Tsoukalades, L	1.03	341	P	Pb	16 09 47.7	-0.8
TSLK				AML	AML		
TSLK	Tsoukalades, L	1.03	341	P	Pb	16 09 47.0	-1.5
TSLK				AML	AML		
PYL1	Pylos	1.06	152	P	Pb	16 09 48.2	-0.8
AMPL	Ampelaki	1.07	6	P	Pb	16 09 48.7	-0.6
AMPL				AML	AML		
AMPL	Ampelaki	1.07	6	P	Pb	16 09 48.5	-0.9
AMPL				AML	AML		
PYL	PYLOS	1.09	151	P	Pg	16 09 50.0	-0.3
PYL				AML	AML		
PYL	PYLOS	1.09	151	P	Pn	16 09 49.5	-0.3
TETR	Tetrakomo, Epi	1.50	6	P	Pb	16 09 56.5	-0.1
OHR	Ohrid	3.26	356	*i* Pn	Pn	16 10 22.8	+3.1
ESDC	Sonseca Array	19.60	283	P	Pn	16 13 57.4	-0.7
	0.1nm,0.3s,baz=85,slow=11,SNR=4.5						
	0.1nm,0.3s						
ESDC				AML	AML		
KURBB	Kurchatov Arra	42.07	53	P	P	16 17 20.8	+0.9
	0.5nm,0.5s,baz=276,slow=8.8,SNR=4.5						
	0.5nm,0.5s						
MKAR	Makanchi Array	45.10	58	P	P	16 17 44.7	+0.2
	0.2nm,0.5s,baz=277,slow=6.9,SNR=4.1						
	0.2nm,0.5s						
ZALV	Zalesovo Beam	45.58	48	P	P	16 17 47.9	-0.3
	0.6nm,0.6s,baz=269,slow=8.3,SNR=4.9						
	0.6nm,0.6s						

UCR ***10*** *16:21:15.3±0.5, 8°.29N×83°.04W, h4^{km}±7^{km}, MW4.3, Presumed earthquake*

UPA ***10*** *16:21:17.3±2.0, 8°.36N×82°.95W, h6^{km}±3^{km}, MW3.9, Presumed earthquake*

ISC 10 16:21:16.2±0.9**, 8°.31N**±0°.04×**83°.04W**±0°.03**, h13**^{km}±7^{km}**, n40, σ0^{s}.89**/58**, 2C-6D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTPM	Petroterminale	0.19	125	⇓*i*P	Pg	16 21 20.2	-0.2
PTPM				*i* S	Sg	16 21 24.9	+1.6
PTPA	Petro Terminal	0.20	124	*e*P	Pg	16 21 20.1	-0.4
PTPA				*e*S	Sg	16 21 23.6	0.0
PIRO	Carate, Puerto	0.31	287	*e*P	Pg	16 21 22.4	-0.2
PIRO				*e*S	Sg	16 21 26.8	-0.1
PIRO	Carate, Puerto	0.31	287	⇑*e*P	Pg	16 21 22.4	-0.2
FITO	Golfito	0.33	339	*e*P	Pg	16 21 22.2	-0.7
FITO				*e*S	Sg	16 21 27.7	+0.2
NELY	Ciudad Neily	0.35	15	*e*P	Pg	16 21 23.2	-0.1
EDAD	Golfito	0.36	339	*e*P	Pg	16 21 22.7	-0.8
JIME	Puerto Jimenez	0.36	308	*e*P	Pg	16 21 23.5	0.0
VITO	San Vito	0.51	7	*e*P	Pg	16 21 26.5	+0.2
MLIR3	Monte Lirio, C	0.52	24	⇓*i*P	Pg	16 21 26.9	+0.5
MLIR3				*i* S	Sb	16 21 35.5	+0.6
BRU2	Volcan	0.59	35	*e*P	Pg	16 21 27.7	0.0
DVD	David	0.59	78	*e*P	Pg	16 21 26.9	-0.8
DVD				*e*S	Sg	16 21 35.6	0.0
LOMA3	Las Lomas, Chi	0.65	80	*e*P	Pg	16 21 28.2	-0.6
LOMA3				*e*S	Sg	16 21 36.9	-0.5
PTAR3	Potrerillos Ar	0.65	55	*e*P	Pg	16 21 28.7	-0.3
PTAR3				*i* S	Sb	16 21 39.7	+1.1
CHIR3	Chiriqui UPA,	0.70	83	⇓*e*P	Pg	16 21 28.8	-1.0
CHIR3				*i* S	Sg	16 21 39.2	+0.1
EDP2	Potrero Grande	0.71	349	*e*P	Pg	16 21 29.8	-0.2
BQSF3	Alto Boquete,	0.73	54	⇓*i*P	Pg	16 21 29.6	-0.8
BQSF3				*i* S	Sb	16 21 40.7	-0.3
LNBQ3	Los Naranjos,	0.76	51	*e*P	Pg	16 21 30.0	-0.9
EDPE	Pejibaye, P	0.99	328	*e*P	Pg	16 21 34.0	-1.4
SAJE	San Jernim	1.13	336	*e*P	Pb	16 21 36.1	-1.6
CEUA	Cerro Uatsi, L	1.30	4	*e*P	Pb	16 21 40.9	+0.2
PIEC	Cerro El Cedra	1.59	325	*e*P	Pn	16 21 44.7	+0.4
LCR2	La Lucha 2	1.71	326	⇑*e*P	Pn	16 21 46.7	+0.7
LCR2				*e*S	Sb	16 22 10.1	+0.8
VTR0	Volcan Turrial	1.84	337	*e*P	Pn	16 21 49.0	+1.1
CVTR	Volcan Turrial	1.84	337	*e*P	Pn	16 21 48.9	+1.0
GMAL	Guarumal, Vera	1.87	107	*e*P	Pn	16 21 48.1	+0.2
GMAL				*i* S	Sn	16 22 10.6	-0.8
RSUS3	Rio de Jesus,	1.89	100	*e*P	Pn	16 21 48.8	+0.6
RSUS3				*e*S	Sn	16 22 11.4	-0.5
STIA3	Santiago, Vera	2.05	96	*e*P	Pn	16 21 51.6	+1.2
STIA3				*e*S	Sn	16 22 16.4	+0.4
CALO3	Calobre, Verag	2.17	90	⇓*i*P	Pn	16 21 52.4	+0.3
CALO3				*e*S	Sn	16 22 19.0	+0.1
CACAO	El Cacao, Vera	2.36	114	*i* P	Pn	16 21 56.2	+1.5
CACAO				*e*S	Sn	16 22 24.1	+0.6
CHIT3	Chitre	2.62	98	*e*P	Pn	16 21 59.6	+1.4
PNME	Penonome	2.69	86	*e*P	Pn	16 22 00.9	+1.7
JTS	Las Juntas de	2.73	316	⇓*i*P	Pb	16 22 02.9	-2.0
JTS				*e*S	Sn	16 22 34.4	+1.7
AZU	Azuero	2.78	101	*e*P	Pn	16 22 02.2	+1.7
AZU				*e*S	Sn	16 22 33.2	-0.8
ACHO3	Achotines, Los	2.97	107	*e*P	Pn	16 22 04.3	+1.2
ZANG	Zanguenga, Cho	3.20	78	*e*P	Pn	16 22 05.7	-0.5
BCIP	Isla Barro Col	3.27	75	*e*P	Pn	16 22 08.1	+0.8
MLIR	Monte Lirio	3.28	73	*e*P	Pn	16 22 07.1	-0.2
FRIJ	El Hiral	3.39	74	*e*P	Pn	16 22 10.3	+1.4
UPA	Univ. de Panam	3.52	79	*e*P	Pn	16 22 10.2	-0.5

IDC ***10*** *16:26:40.8±2.1, 40°.95N×143°.32E, h0^{km}, mb3.5/6, mbtmp3.5/7, ML2.2/1, MS2.7/4, Error ellipse: s-maj=52.7km s-min=22.4km az=79.0*

JMA ***10*** *16:26:46.2±0.0, 40°.9N±0°.2×143°.2E±0°.3, h19^{km}, MV3.3/33, E OFF AOMORI PREF*

ISC 10 16:26:45.6±1.7**, 41°.0N**±0°.1×**143°.3E**±0°.3**, h31**^{km}**, n18, σ0^{s}.40**/8**, mb3.5**/6**, Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JEM	Erimo	1.07	354	P	Pn	16 27 04.8	+0.3
MJAR	Matsushiro Arr	5.93	224	Pn	Pn	16 28 11.6	+0.3
	0.1nm,0.3s,baz=28,slow=15,SNR=5.3						
	0.9nm,0.5s						
MJAR				AML	AML		
USRK	Ussuriysk Ar.	8.96	295	LR	LR	16 32 26.9	
	comp=Z,37nm,20.1s,baz=303,slow=39						
KLR	Kul'dur	11.62	319	LR	LR	16 34 53.1	
	comp=Z,24nm,20.3s,baz=133,slow=42						
KSRS	Korea Array	12.43	259	LR	LR	16 34 23.6	
	comp=Z,22nm,18.0s,baz=225,slow=37						
H11N2	WAKE ISLAND Hy	29.19	129	T	T	17 03 32.4	
	baz=322,slow=75,SNR=35						
H11N1	WAKE ISLAND Hy	29.20	129	T	T	17 03 32.9	
	baz=322,slow=75,SNR=36						
H11N3	WAKE ISLAND Hy	29.21	129	T	T	17 03 33.9	
	baz=322,slow=75,SNR=42						
H11S1	WAKE ISLAND Hy	30.04	131	T	T	17 04 34.4	
	baz=323,slow=74,SNR=3.8						
H11S3	WAKE ISLAND Hy	30.04	131	T	T	17 04 34.2	
	baz=323,slow=74,SNR=8.2						
H11S2	WAKE ISLAND Hy	30.06	131	T	T	17 04 34.7	
	baz=323						
ZALV	Zalesovo Beam	40.48	309	P	P	16 34 21.3	+0.1
	0.3nm,0.4s,baz=69,slow=7.9,SNR=2.1						
	0.3nm,0.4s						
MKAR	Makanchi Array	43.40	299	P	P	16 34 45.0	-0.3
	0.2nm,0.4s,baz=85,slow=11,SNR=5.6						
	0.2nm,0.4s						
KURBB	Kurchatov Arra	44.85	305	P	P	16 34 56.2	-0.5
	1.1nm,0.4s,baz=78,slow=8.8,SNR=11						
	1.1nm,0.4s						
BVAR	Borovoye Array	49.10	310	P	P	16 35 29.8	-0.1
	0.5nm,0.6s,baz=66,slow=7.2,SNR=4.8						
	0.5nm,0.6s						
WRA	Warramunga Arr	61.15	190	P	P	16 36 56.6	-0.5
	0.8nm,1.2s,baz=8.1,slow=6.7,SNR=2.0						
	0.8nm,1.2s						
ASAR	Alice Springs	64.87	190	P	P	16 37 22.1	+0.4
	0.1nm,0.3s,baz=1.3,slow=7.2,SNR=1.8						
	0.1nm,0.3s						
HFS	Hagfors	71.13	336	LR	LR	17 11 19.6	
	comp=Z,18nm,21.8s,baz=224,slow=38						

IDC ***10*** *16:37:31.2±1.8, 58°.77N×160°.67E, h0^{km}, mb3.7/7, mbtmp3.6/11, ML2.7/3, MS3.0/6, Error ellipse: s-maj=38.4km s-min=16.3km az=77.0*

KRSC ***10*** *16:37:31.2±1.7, 59°.00N×157°.89E, h21^{km}±19^{km}, Ml4.3*

MOS ***10*** *16:37:38.9±0.9, 58°.72N×157°.86E, h22^{km}, mb4.0/1, Error ellipse: s-maj=20.0km s-min=5.9km az=96.1*

NERS ***10*** *16:37:45.0, 58°.89N×158°.19E, h33^{km}*

ISC 10 16:37:38.1±0.6**, 58°.75N**±0°.03×**158°.82E**±0°.03**, h10**^{km}**, n56, σ2^{s}.10**/70**, mb3.8**/7**, MS3.3**/4**, Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALN	Palana	0.68	60	PN	Pg	16 37 50.3	-1.0
PALN	Palana	0.68	60	*e*P	Pg	16 37 50.4	-1.0
TIGL	Tigil	1.00	185	PN	Pg	16 37 55.7	-1.5
TIGL				S	Sb	16 38 11.6	+1.1
TIGL	Tigil	1.00	185	*e*P	Pg	16 37 55.8	-1.5
TIGL				*e*S	Sb	16 38 11.6	+1.1
OSSR	Ossora	2.25	75	PN	Pn	16 38 16.9	+1.6
OSSR				S	Sb	16 38 47.5	+0.9
OSSR	Ossora	2.25	75	*e*P	Pn	16 38 16.9	+1.6
OSSR				*e*S	Sb	16 38 47.5	+0.9
SRDR	Sredinnyy	2.49	168	PN	Pn	16 38 18.3	-0.4
SRDR	Sredinnyy	2.49	168	*e*P	Pn	16 38 18.4	-0.4
KLY	Klyuchi	2.64	157	PN	Pn	16 38 21.7	+1.0
KLY				S	Sb	16 39 00.4	+2.6
KLY	Klyuchi	2.64	157	*e*P	Pn	16 38 21.8	+1.0
KLY				*e*S	Sb	16 39 00.5	+2.6
KOZ	Kozyrevsk	2.76	168	PN	Pn	16 38 22.6	+0.2
KOZ	Kozyrevsk	2.76	168	*e*P	Pn	16 38 22.6	+0.2
ESO	Esso	2.84	181	PN	Pn	16 38 22.4	-1.0
ESO	Esso	2.84	181	*e*P	Pn	16 38 22.4	-1.0
CIRR	Tsirk	2.84	158	PN	Pn	16 38 25.7	+2.1
CIRR	Tsirk	2.84	158	*e*P	Pn	16 38 25.7	+2.1
KPT	Kopyto	2.90	164	PN	Pn	16 38 23.7	-0.6
KPT	Kopyto	2.90	164	*e*P	Pn	16 38 23.8	-0.6
KIRR	Kirishev	2.93	163	PN	Pn	16 38 23.7	-1.1
KIRR	Kirishev	2.93	163	*e*P	Pn	16 38 23.8	-1.1
BZWR	Bezymyannyi-We	2.94	161	PN	Pn	16 38 25.8	+0.8
BZWR	Bezymyannyi-We	2.94	161	*e*P	Pn	16 38 25.8	+0.8
ZLN	Zelenaya	2.95	158	PN	Pn	16 38 25.6	+0.6
ZLN	Zelenaya	2.95	158	*e*P	Pn	16 38 25.7	+0.6
BZP	Bezymyannyi-Pe	3.00	161	PN	Pn	16 38 25.7	-0.1
BZP	Bezymyannyi-Pe	3.00	161	*e*P	Pn	16 38 25.8	-0.1
KMNR	Kamenistaya	3.10	165	PN	Pn	16 38 28.9	+1.8
KMNR	Kamenistaya	3.10	165	*e*P	Pn	16 38 29.0	+1.8
KBTR	Krutoberegovo	3.34	138	PN	Pn	16 38 33.3	+3.0
KBTR	Krutoberegovo	3.34	138	*e*P	Pn	16 38 33.4	+3.0
GADL	Gadlja	3.96	287	*e*	Pg	16 38 55.3	+1.3
GADL				*e*Sg	Sg	16 39 42.4	-2.8
GADL				Sgmax		16 40 07.4	
	680nm,0.8s						
TLAR	Talaya	4.01	309	*e*P	Pn	16 38 40.3	+0.7
TLAR				*e*Pg	Pg	16 38 55.1	+0.2
TLAR				Pgmax		16 39 04.3	
	50nm,0.7s						
TLAR				*e*S	Sn	16 39 27.3	+0.6
TLAR				Smax		16 39 28.7	
	80nm,0.4s						
TLAR				*e*Sg	Sg	16 39 43.6	-3.3
TLAR				Sgmax		16 39 57.9	
	190nm,0.5s						
TILK	Tilichiki	4.09	62	PN	Pn	16 38 41.2	+0.6
TILK	Tilichiki	4.09	62	*e*P	Pn	16 38 41.2	+0.6
MA2	Magadan	4.22	285	Pn	Pb	16 38 50.3	-2.2
	4.4nm,0.4s,baz=97,slow=16,SNR=5.1						
MA2				Pg	Pg	16 38 57.4	-1.5
	5.1nm,0.3s,baz=98,slow=15,SNR=13						
MA2				Sn	Sb	16 39 46.2	+2.7
	4.0nm,0.3s,baz=26,slow=16,SNR=7.7						
MA2				LR	LR	16 40 25.5	
	comp=Z,81nm,19.8s,baz=185,slow=34						
MA2	Magadan	4.22	285	*e*	Pb	16 38 55.3	+2.9
MA2				*e*Pg	Pg	16 38 57.9	-1.1
MA2				Pgmax		16 38 59.9	
	20nm,0.6s						
MA2				*e*Sg	Sb	16 39 46.9	+3.4
MA2				Sgmax		16 40 09.2	
	80nm,0.8s						
MGD	Magadan 1	4.33	291	*e*P	Pn	16 38 46.3	+2.3
MGD				*e*Sg	Sg	16 39 52.6	-4.5
MGD				Sgmax		16 40 02.5	
	110nm,0.6s						
SEY	Seymchan	5.24	326	Pn	Pn	16 39 00.7	+4.3
	0.3nm,0.3s,baz=342,slow=20,SNR=2.2						
SEY				Pg	Pg	16 39 14.8	-3.6
	0.7nm,0.3s,baz=155,slow=15,SNR=5.8						
SEY				Lg	Lg	16 40 24.4	
	3.1nm,0.3s,baz=187,slow=17,SNR=5.2						
	0.9nm,0.4s						
SEY				AML	AML		
SEY	Seymchan	5.24	326	*e*P	Pn	16 38 57.7	+1.3
SEY				*e*Pg	Pg	16 39 16.9	-1.5
SEY				Pgmax		16 39 25.8	
SEY				*e*Sg	Sg	16 40 23.9	-2.3
SEY				Sgmax		16 40 40.0	
	30nm,0.9s						
TLON	Talon	5.31	285	*e*Sg	Sg	16 40 23.8	-4.6
TLON				Sgmax		16 40 46.4	
	220nm,0.7s						
PETK	Petropavlovsk-	5.69	187	Pn	Pn	16 39 03.7	+1.0
	0.2nm,0.3s,baz=39,slow=14,SNR=5.5						
	0.7nm,0.5s						
PETK				AML	AML		
SUUS	Susuman	6.59	312	*e*Sg	Sg	16 41 07.5	-2.0
SUUS				Sgmax		16 41 30.2	
	80nm,0.8s						
KLR	Kul'dur	18.43	251	Pn	Pn	16 41 59.4	+6.0
	baz=58,slow=15,SNR=1.4						
KLR				LR	LR	16 49 12.5	
	comp=Z,36nm,21.1s,baz=86,slow=36						
	0.7nm,0.5s						
MJAR	Matsushiro Arr	25.99	220	P	P	16 43 12.0	+1.1
	1.9nm,0.9s,baz=14,slow=9.1,SNR=5.2						
	1.9nm,0.9s						
MJAR	Matsushiro Arr	25.99	220	P	P	16 43 12.0	+1.1
KSRS	Korea Array	29.22	237	LR	LR	16 54 18.7	
	comp=Z,5.7nm,21.8s,baz=225,slow=34						
BBB	Bella Bella	40.01	66	LR	LR	17 02 51.6	
	comp=Z,36nm,18.3s,baz=133,slow=39						
KURK	Kurchatov	44.34	296	P	P	16 45 50.1	+2.1
KURBB	Kurchatov Arra	44.45	296	P	P	16 45 50.1	+1.3
	0.8nm,0.7s,baz=52,slow=8.4,SNR=7.0						
	0.8nm,0.7s						
MKAR	Makanchi Array	45.29	290	P	P	16 45 56.6	+1.0
	0.4nm,0.6s,baz=46,slow=6.2,SNR=2.4						
	0.4nm,0.6s						
BVAR	Borovoye Array	46.47	304	P	P	16 46 05.2	+0.4
	0.8nm,0.8s,baz=54,slow=7.5,SNR=3.5						
	0.8nm,0.8s						
ARTI	Arti	48.95	314	P	P	16 46 24.6	+0.7
	1.5nm,0.7s,baz=192,slow=6.8,SNR=3.3						
	1.5nm,0.7s						
AKTO	Aktyubinsk	53.59	309	LR	LR	17 10 55.7	
	comp=Z,29nm,21.3s,baz=266,slow=37						
NOA	NORSAR Array B	57.91	342	P	P	16 47 25.7	-4.1
	0.9nm,1.0s,baz=36,slow=3.8,SNR=3.5						
	0.9nm,1.0s						
PMG	Port Moresby	68.58	192	LR	LR	17 20 18.8	
	comp=Z,45nm,18.1s,baz=229,slow=37						
ASAR	Alice Springs	84.67	203	P	P	16 50 08.6	-3.2
	0.6nm,1.0s,baz=15,slow=5.2,SNR=5.7						
	0.6nm,1.0s						

UCR ***10*** *16:39:56.3±0.5, 8°.31N×83°.01W, h6^{km}±11^{km}, MW4.2, Presumed earthquake*

UPA ***10*** *16:39:57.1±1.3, 8°.33N×82°.95W, h1^{km}±3^{km}, MW3.8, Presumed earthquake*

ISC 10 16:39:57.1±0.9**, 8°.33N**±0°.03×**83°.00W**±0°.03**, h9**^{km}±8^{km}**, n45, σ1^{s}.09**/60**, 2C-5D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTPM	Petroterminale	0.17	137	⇓*i*P	Pg	16 40 00.7	-0.1
PTPM				*i* S	Sg	16 40 03.5	+0.3
PTPA	Petro Terminal	0.18	136	*e*P	Pg	16 40 00.6	-0.3
PTPA				*e*S	Sg	16 40 04.0	+0.5
NELY	Ciudad Neily	0.32	9	*e*P	Pg	16 40 03.7	+0.2
FITO	Golfito	0.33	332	*e*P	Pg	16 40 02.6	-1.1
FITO				*e*S	Sg	16 40 07.3	-0.8
PIRO	Carate, Puerto	0.34	282	*e*P	Pg	16 40 03.0	-0.9
PIRO	Carate, Puerto	0.34	282	*e*P	Pg	16 40 03.1	-0.7
PIRO				*i* S	Sg	16 40 08.9	+0.4
EDAD	Golfito	0.36	333	*e*P	Pg	16 40 03.2	-1.0
JIME	Puerto Jimenez	0.38	303	*e*P	Pg	16 40 04.5	-0.1
MLIR3	Monte Lirio, C	0.49	20	⇓*i*P	Pb	16 40 07.7	-0.2
MLIR3				*e*S	Sb	16 40 18.1	+2.9
BRU2	Volcan	0.55	33	*e*P	Pg	16 40 08.0	+0.1
BRU2	Volcan	0.55	33	*e*S	Sn	16 40 20.7	0.0
DVD	David	0.55	79	*e*P	Pg	16 40 07.7	-0.1
DVD				*e*S	Sb	16 40 16.9	0.0
LOMA3	Las Lomas, Chi	0.61	80	*e*P	Pg	16 40 08.5	-0.4
PTAR3	Potrerillos Ar	0.61	54	*e*P	Pg	16 40 08.8	-0.1
CHIR3	Chiriqui UPA,	0.66	84	⇓*i*P	Pg	16 40 09.1	-0.8
CHIR3				*i* S	Sb	16 40 20.3	+0.2
BQSF3	Alto Boquete,	0.69	54	*e*P	Pb	16 40 11.1	-0.2
BQSF3				*e*S	Sb	16 40 20.9	-0.2
EDP2	Potrero Grande	0.70	345	*e*P	Pg	16 40 10.5	-0.2
LNBQ3	Los Naranjos,	0.72	50	*e*P	Pg	16 40 10.8	-0.2
RBALA	Bur	1.00	57	*i* P	Pg	16 40 14.9	-1.4
RBALA				*e*S	Sg	16 40 29.1	-0.1
EDPE	Pejibaye, P	1.00	326	*e*P	Pg	16 40 14.5	-1.8
SAJE	San Jernim	1.13	333	*e*P	Pg	16 40 16.9	-1.9
BUS1	Rivas	1.42	329	*e*P	Pn	16 40 21.5	-2.0
LCR2	La Lucha 2	1.72	325	*e*P	Pn	16 40 26.6	-0.7
LCR2	La Lucha 2	1.72	325	⇑*e*P	Pn	16 40 28.0	+0.7
LCR2				*e*S	Sg	16 40 52.6	+0.2
ABRB	Las Abras (San	1.81	337	*e*P	Pn	16 40 29.3	+0.7
GMAL	Guarumal, Vera	1.84	108	⇓*e*P	Pn	16 40 28.0	-0.8
GMAL				*e*S	Sn	16 40 51.5	-0.6
RSUS3	Rio de Jesus,	1.85	101	*e*P	Pn	16 40 28.8	-0.1
STIA3	Santiago, Vera	2.02	96	*i* P	Pn	16 40 29.4	-1.9
STIA3				*i* S	Sn	16 40 57.2	+0.6
CACAO	El Cacao, Vera	2.33	115	*e*P	Pn	16 40 34.9	-0.6
CACAO				*e*S	Sn	16 41 05.5	+1.2
CHIT3	Chitre	2.58	98	*e*P	Pn	16 40 40.8	+1.8
PNME	Penonome	2.65	86	*e*P	Pn	16 40 38.7	-1.2
TOSI3	Tonosi	2.69	110	*e*P	Pn	16 40 41.0	+0.4
JTS	Las Juntas de	2.74	315	*e*P	Pn	16 40 43.0	+1.7
JTS	Las Juntas de	2.74	315	⇑*i*P	Pn	16 40 43.2	+1.9
JTS				*e*S	Sn	16 41 16.1	+1.5
AZU	Azuero	2.75	101	⇓*e*P	Pn	16 40 42.4	+1.1
AZU				*i* S	Sn	16 41 12.6	-2.1
ACHO3	Achotines, Los	2.94	108	*e*P	Pn	16 40 44.4	+0.4
ZANG	Zanguenga, Cho	3.16	78	*e*P	Pn	16 40 48.9	+2.0
BCIP	Isla Barro Col	3.23	75	*e*P	Pn	16 40 48.1	+0.1
BCIP				*e*S	Sn	16 41 26.3	-0.3
MLIR	Monte Lirio	3.24	74	*e*P	Pn	16 40 48.9	+0.9
CHOR3	La Chorrera	3.25	80	*e*P	Pn	16 40 46.3	-1.8
GAMB1	Gamboa	3.34	76	*e*P	Pn	16 40 49.9	+0.4
FRIJ	El Hiral	3.35	74	*e*P	Pn	16 40 49.9	+0.3
ARRA3	Arraijan, Pana	3.36	79	*e*P	Pn	16 40 44.9	-4.8
FLAM	Flamenco Islan	3.47	80	*e*P	Pn	16 40 50.1	-1.1
UPA	Univ. de Panam	3.49	79	*e*P	Pn	16 40 52.8	+1.3

IDC ***10*** *16:54:44.5±1.0, 25°.46N×97°.96E, h0^{km}, mb3.7/5, mbtmp3.5/6, ML3.1/1, MS3.4/3, Error ellipse: s-maj=26.0km s-min=17.0km az=63.0*

NEIC ***10*** *16:54:55.1±0.9, 23°.99N±0°.05×94°.88E±0°.08, h127^{km}±6^{km}, mb4.3/9, Error ellipse: s-maj=13.0km s-min=3.6km az=58.0*

NDI ***10*** *16:54:56.4±0.8, 23°.98N×94°.87E, h127^{km}, ML4.2, MW4.0, mb4.3(NEIC), Presumed earthquake*

ISC 10 16:54:55.5±0.8**, 23°.97N**±0°.05×**94°.77E**±0°.05**, h133**^{km}±8^{km}**, n51, σ1^{s}.43**/68**, mb4.0**/10**, Myanmar-India border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MORE	Moreh	0.50	302		Pn	16 55 14.8	-0.1
MORE				Sn	Sn	16 55 28.9	-0.7
IMP	Imphal	1.14	319	*e*P	Pn	16 55 20.9	+0.8
IMP				*e*S	Sn	16 55 38.8	0.0
IMP				IAML		16 55 39.2	
	comp=N,7µm,0.2s						
IMP				IAML		16 55 39.4	
	comp=E,6µm,0.2s						
KOHI	KOHIMA	1.84	341	*e*P	Pn	16 55 28.6	+0.7
KOHI				*e*S	Sn	16 55 52.0	-0.7
KOHI				IAML		16 55 54.5	
	comp=N,4µm,0.4s						
KOHI				IAML		16 55 55.6	
	comp=E,4µm,0.3s						
AZL	Aizawl	1.92	263	*e*P	Pn	16 55 29.3	+0.6
AZL				*e*S	Sn	16 55 55.2	+1.1
AZL				IAML		16 55 56.2	
	comp=N,4µm,0.3s						
AZL				IAML		16 55 57.0	
	comp=E,3µm,0.2s						
SILR	SILCHAR	1.96	295	*e*P	Pn	16 55 31.1	+1.9
SILR				*e*S	Sn	16 55 55.7	+0.7
SILR				IAML		16 55 57.9	
	comp=N,2µm,0.2s						
SILR				IAML		16 55 59.9	
	comp=E,2µm,0.2s						
MOKO	MOKOCHONG	2.35	355	*e*P	Pn	16 55 35.0	+0.8
MOKO				*e*S	Sn	16 56 02.4	-1.4
MOKO				IAML		16 56 05.1	
	comp=N,2µm,0.3s						
MOKO				IAML		16 56 06.0	
	comp=E,1µm,0.2s						
SHL	Shillong	3.06	302		Pn	16 55 43.6	+0.4
SHL				Sn	Sn	16 56 18.4	-1.7
SHL	Shillong	3.06	302	*e*P	Pn	16 55 43.9	+0.6
SHL				*e*S	Sn	16 56 18.0	-2.1
SHL				IAML		16 56 20.0	
	comp=N,618nm,0.1s						
SHL				IAML		16 56 20.1	
	comp=E,680nm,0.3s						
BRDH	Bariadhala	3.15	246	Pn	Sn	16 56 21.6	-0.1
	comp=E,99nm,0.3s,baz=258,slow=19,SNR=13						
TNCH	TengChong	3.58	72	Pn	Pn	16 55 49.3	-0.7
TNCH				Pg		16 56 03.0	
TNCH				Sn	Sn	16 56 31.9	-0.2
TNCH				Sg		16 56 48.0	
TNCH				smax	smax		
	comp=N,58nm,0.8s						
TNCH				smax	smax		
	comp=E,41nm,0.5s						
TNCH				LR	LR		
	comp=N,220nm,4.1s						
TNCH				LR	LR		
	comp=E,130nm,2.3s						
ZIRO	ZIRO	3.63	347	*e*P	Pn	16 55 51.2	+0.5
ZIRO				*e*S	Sn	16 56 30.6	-2.8
ZIRO				IAML		16 56 31.6	
	comp=E,631nm,0.2s						
ZIRO				IAML		16 56 31.7	
	comp=N,511nm,0.1s						
TAWA	Tawang	4.45	325	*e*P	Pn	16 56 02.7	+1.0
TAWA				*e*S	Sn	16 56 50.8	-2.3
TAWA				IAML		16 56 54.8	
	comp=N,696nm,0.2s						
TAWA				IAML		16 56 54.9	
	comp=E,405nm,0.2s						
CHTO	Chiang Mai	6.44	142	Pn	Pn	16 56 26.4	-1.7
LSA	Lhasa	6.56	331		Pn	16 56 29.8	-0.1
CMAR	Chiang Mai Arr	6.73	144	Pn	Pn	16 56 30.2	-1.7
	comp=E,0.1nm,0.3s,baz=312,slow=15,SNR=6.2						
	comp=E,0.2nm,0.5s						
CMAR				AML	AML		
CMAR	Chiang Mai Arr	6.73	144	Pn	Pn	16 56 30.6	-1.3
PZH	PanZhiHua	6.80	67	P	Pn	16 56 32.2	-0.8
ODAN	Odare	7.26	295	Pn	Pn	16 56 39.8	+0.5
	baz=304,slow=0.0						
ODAN				Sn	Sn	16 57 58.8	-1.6
	comp=E,159nm,0.4s,baz=304,slow=0.0						
ODAN				AML	AML		
KMI2	Kunming	7.36	79	P	Pn	16 56 41.4	+0.8
KMI2				pmax	pmax		
	comp=Z,7.0nm,0.8s						
RAMN	Ramite	7.95	294	Pn	Pn	16 56 49.4	+0.8
	baz=302,slow=0.0						
RAMN				Sn	Sn	16 58 13.9	-3.2
	comp=Z,42nm,0.4s,baz=302,slow=0.0						
RAMN				AML	AML		
EVN	Everest	8.18	301		Pn	16 56 52.8	+0.9
GUN	Gumba	8.91	298	Pn	Pn	16 57 02.4	+0.9
	baz=306,slow=0.0						
GUN				Sn	Sn	16 58 40.9	+0.5
	comp=Z,41nm,0.3s,baz=306,slow=0.0						
GUN				AML	AML		

PKI	**Pulchoki**	**9.16**	**295**	Pn	**Pn**	**16 57 05.3**	**+0.4**
	baz=303,slow=0.0						
PKI				Sn	**Sn**	**16 58 44.2**	**-2.3**
	comp=Z,20nm,0.4s,baz=303,slow=0.0						
PKI				AML	AML		
PKIN	**Phulchoki**	**9.18**	**295**	Pn	**Pn**	**16 57 05.2**	**+0.2**
	baz=303,slow=0.0						
PKIN				Sn	**Sn**	**16 58 43.7**	**-3.0**
	comp=Z,25nm,0.4s,baz=303,slow=0.0						
PKIN				AML	AML		
KKN	**Kakani**	**9.35**	**296**	Pn	**Pn**	**16 57 07.7**	**+0.4**
	baz=304,slow=0.0						
KKN				Sn	**Sn**	**16 58 48.1**	**-2.8**
	comp=Z,16nm,0.2s,baz=304,slow=0.0						
KKN				AML	AML		
DMN	**Daman**	**9.43**	**295**	Pn	**Pn**	**16 57 08.5**	**+0.1**
	baz=302,slow=0.0						
DMN				Sn	**Sn**	**16 58 50.2**	**-2.6**
	comp=Z,18nm,0.3s,baz=302,slow=0.0						
DMN				AML	AML		
GKN	**Gorkha**	**9.96**	**296**	Pn	**Pn**	**16 57 15.1**	**-0.3**
	baz=303,slow=0.0						
GKN				Sn	**Sn**	**16 59 03.1**	**-2.4**
	comp=Z,43nm,0.3s,baz=303,slow=0.0						
GKN				AML	AML		
DANN	**Dangsing**	**10.80**	**296**	Pn	**Pn**	**16 57 28.1**	**+1.3**
	baz=302,slow=0.0						
DANN				Sn	**Sn**	**16 59 23.3**	**-2.8**
	comp=Z,14nm,0.3s,baz=302,slow=0.0						
DANN				AML	AML		
PBA	**Port Blair**	**12.40**	**189**	Pn	**Pn**	**16 57 47.6**	**+0.1**
ENH	**Enshi**	**14.53**	**61**		**Pn**	**16 58 15.7**	**+0.8**
WMQ	**Urumqi**	**20.64**	**345**	*e*P	**P**	**16 59 25.6**	**+1.1**
HHC	**Hu-ho-hao-te**	**21.94**	**36**	*e*P	**P**	**16 59 37.6**	**-0.9**
HHC				pmax	pmax		
	comp=Z,14nm,0.5s						
HHC				pmax	pmax		
	comp=Z,43nm,4.6s						
KDJ	**Kajisay**	**23.27**	**325**	P	**P**	**16 59 51.3**	**-0.1**
KDJ				IAmb	IAmb	16 59 59.9	
	comp=Z,15nm,1.2s						
MKAR	**Makanchi Array**	**24.88**	**339**	P	**P**	**17 00 08.0**	**+2.2**
	comp=Z,0.6nm,0.5s,baz=154,slow=9.4,SNR=11						
	comp=Z,0.6nm,0.5s						
MKAR	**Makanchi Array**	**24.88**	**339**	P	**P**	**17 00 06.2**	**+0.4**
KURBB	**Kurchatov Arra**	**29.44**	**339**	P	**P**	**17 00 48.3**	**+1.9**
	comp=Z,0.2nm,0.3s,baz=143,slow=9.8,SNR=2.3						
	comp=Z,0.2nm,0.3s						
JHJ	**Hachijo jima 2**	**40.33**	**67**	LR	LR	17 17 28.9	
	comp=Z,24nm,19.9s,baz=164,slow=37						
ARTI	**Arti**	**41.81**	**330**	P	**P**	**17 02 33.4**	**+1.5**
ARTI				IAmb	IAmb	17 02 34.3	
	comp=Z,4.2nm,0.5s						
KNRA	**Kununurra**	**51.53**	**137**	P	**P**	**17 03 46.8**	**-1.2**
KNRA				IAmb	IAmb	17 04 02.4	
	comp=Z,2.9nm,1.1s						
FITZ	**Fitzroy Crossi**	**51.54**	**141**	P	**P**	**17 03 46.5**	**-1.5**
OBN	**Obninsk**	**52.58**	**322**	LR	LR	17 26 38.2	
	comp=Z,56nm,18.7s,baz=313,slow=36						
WB0	**Warramunga Arr**	**58.15**	**135**	P	**P**	**17 04 34.4**	**-1.2**
WB0				IAmb	IAmb	17 04 36.0	
	comp=Z,4.8nm,1.1s						
WRA	**Warramunga Arr**	**58.24**	**135**	P	**P**	**17 04 34.8**	**-1.5**
	comp=Z,0.5nm,0.4s,baz=322,slow=7.4,SNR=14						
	comp=Z,0.5nm,0.4s						
WR8	**Warramunga Arr**	**58.35**	**135**	P	**P**	**17 04 35.4**	**-1.6**
ARCES	**ARCESS Array B**	**60.52**	**338**	P	**P**	**17 04 52.5**	**+1.2**
	comp=Z,0.7nm,0.5s,baz=96,slow=8.2,SNR=1.8						
	comp=Z,0.7nm,0.5s						
ARCES	**ARCESS Array B**	**60.52**	**338**	P	**P**	**17 04 51.4**	**+0.2**
AS31	**Alice Springs**	**60.71**	**138**	P	**P**	**17 04 52.3**	**-0.9**
ASAR	**Alice Springs**	**60.71**	**138**	P	**P**	**17 04 52.6**	**-0.6**
	comp=Z,0.4nm,0.6s,baz=319,slow=6.9,SNR=9.8						
	comp=Z,0.4nm,0.6s						
ASAR	**Alice Springs**	**60.71**	**138**	P	**P**	**17 04 51.7**	**-1.5**
RDOG	**Red Dog Mine**	**72.48**	**23**	P	**P**	**17 06 07.5**	**+0.2**
DLBC	**Dease Lake**	**89.88**	**22**	LR	LR	17 48 50.5	
	comp=Z,29nm,18.2s,baz=324,slow=37						

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*IDC **10** 16:55:02.9±1.1, 15°.39S×75°.89W, h0^{km}, mb3.9/3, mbtmp3.8/7, ML3.7/4, MS3.5/6, Error ellipse: s-maj=28.1km s-min=14.3km az=51.0*

*NEIC **10** 16:55:05.0±1.5, 15°.26S±0°.07×75°.98W±0°.05, h10^{km}±1^{km}, mb4.1/5, Error ellipse: s-maj=13.3km s-min=7.2km az=206.0*

ISC 10 16:55:07.9±0.7**, 15°.27S**±0°.07×**75°.9W**±0°.1**, h35^{km}, n50, σ1ˢ.05**/38**, mb4.0**/4**, MS3.5**/5**, Near coast of Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNA	**Nana**	**3.39**	**344**	Pn	**Pn**	**16 55 57.4**	**-1.0**
	8.4nm,0.3s,baz=141,slow=7.6,SNR=16						
NNA				Sn	**Sn**	**16 56 37.3**	**-0.2**
	46nm,0.3s,baz=206,slow=18,SNR=7.5						
	17nm,0.3s						
NNA				AML	AML		
NNA	**Nana**	**3.39**	**344**		**Pn**	**16 55 57.1**	**-1.3**
NNA				Sn	**Sn**	**16 56 38.6**	**+1.1**
PB12	**IPOC Station P**	**6.29**	**123**		**Pn**	**16 56 39.0**	**+0.7**
PB18	**Visviri**	**6.58**	**111**	Pn	**Pn**	**16 56 42.9**	**+0.2**
PB16	**IPOC Station P**	**6.84**	**117**		**Pn**	**16 56 47.2**	**+0.9**
PSGCX	**Pisagua**	**7.00**	**129**		**Pn**	**16 56 48.4**	**+0.4**
PB11	**IPOC Station P**	**7.45**	**128**		**Pn**	**16 56 54.3**	**0.0**
LPAZ	**La Paz**	**7.55**	**99**	Pn	**Pn**	**16 56 57.2**	**+1.1**
	1.3nm,0.3s,baz=277,slow=8.6,SNR=15						
LPAZ				LR	LR	17 00 28.3	
	comp=Z,148nm,18.4s,baz=288,slow=43						
	3.0nm,0.3s						
LPAZ				AML	AML		
TA01	**Diego Aracena**	**7.57**	**135**		**Pn**	**16 56 55.9**	**0.0**
GO01	**Chusmiza**	**7.75**	**125**		**Pn**	**16 56 59.6**	**+0.8**
PB08	**IPOC Station P**	**8.05**	**128**		**Pn**	**16 57 03.4**	**+0.6**
CZSB	**Cruzeiro do Su**	**8.12**	**23**		**Pn**	**16 57 03.9**	**+0.4**
PB02	**IPOC Station P**	**8.29**	**137**		**Pn**	**16 57 05.8**	**0.0**
ATAH	**Atahualpa**	**8.45**	**343**	Pn	**Pn**	**16 57 08.5**	**+0.2**
	0.7nm,0.3s,baz=207,slow=6.7,SNR=4.5						
	1.6nm,0.5s						
ATAH				AML	AML		
PB07	**IPOC Station P**	**8.59**	**139**		**Pn**	**16 57 10.0**	**0.0**
PB03	**IPOC Station P**	**8.91**	**140**		**Pn**	**16 57 13.9**	**-0.5**
PB09	**IPOC Station P**	**9.05**	**137**		**Pn**	**16 57 17.1**	**+0.8**
PB05	**IPOC Station P**	**9.27**	**145**	Pn	**Pn**	**16 57 18.6**	**-0.6**
PB06	**IPOC Station P**	**9.51**	**142**	Pn	**Pn**	**16 57 22.6**	**0.0**
PB14	**IPOC Station P**	**10.64**	**152**	Pn	**Pn**	**16 57 37.7**	**-0.5**
AC01	**Pan de Azucar**	**11.90**	**156**	Pn	**Pn**	**16 57 54.9**	**-0.3**
AC02	**Maricunga**	**13.12**	**152**	Pn	**Pn**	**16 58 12.9**	**+0.6**
SIV	**San Ignacio**	**14.30**	**95**	Pn	**Pn**	**16 58 24.5**	**-3.6**
	baz=282,slow=15,SNR=6.8						
	1.1nm,0.6s						
AC05	**El Transito**	**14.47**	**160**	Pn	**Pn**	**16 58 28.2**	**-2.1**
CFA	**Coronel Fontan**	**17.70**	**158**	P	**P**	**16 59 14.3**	**+1.9**
	1.0nm,0.4s,baz=326,slow=12,SNR=6.4						
H03N1	**Juan Fernandez**	**18.29**	**188**	T	T	17 18 29.5	
	baz=9.1,slow=74,SNR=5131						
H03N2	**Juan Fernandez**	**18.29**	**188**	T	T	17 18 22.3	
	baz=253,slow=74,SNR=3430						
BOAV	**Boa Vista**	**23.24**	**42**	P	**P**	**17 00 10.1**	**-2.2**
BOAV				IAmb	IAmb	17 00 13.3	
	comp=Z,4.3nm,0.7s						
BDFB	**Brasilia**	**26.88**	**95**	LR	LR	17 12 25.8	
	comp=Z,109nm,21.1s,baz=299,slow=39						
MDP	**Montagnes des**	**30.67**	**50**	LR	LR	17 14 13.6	
	comp=Z,97nm,19.9s,baz=122,slow=37						
SJG	**San Juan**	**34.54**	**17**	LR	LR	17 18 21.0	
	comp=Z,39nm,18.2s,baz=112,slow=40						
TXAR	**Lajitas Array**	**51.82**	**329**	P	**P**	**17 04 13.6**	**+0.8**
	comp=Z,0.6nm,0.9s,baz=104,slow=5.3,SNR=3.4						
	comp=Z,0.6nm,0.9s						
TXAR	**Lajitas Array**	**51.82**	**329**	P	**P**	**17 04 12.7**	**-0.1**
ANMO	**Albuquerque**	**57.76**	**330**	P	**P**	**17 04 55.5**	**-0.3**
ANMO				IAmb	IAmb	17 05 36.2	
	comp=Z,2.9nm,1.2s						
TASM	**ASL Pad, Albuq**	**57.76**	**330**	P	**P**	**17 04 55.0**	**-0.8**
ISCO	**Idaho Springs**	**61.39**	**334**	P	**P**	**17 05 21.4**	**+0.5**
DBIC	**Dimbokro**	**73.67**	**78**	LR	LR	17 37 19.4	
	comp=Z,49nm,18.5s,baz=322,slow=34						
VNDA	**Vanda**	**81.75**	**191**	P	**P**	**17 07 22.4**	**-0.1**
	comp=Z,0.3nm,0.3s,baz=166,slow=3.5,SNR=7.7						
	comp=Z,0.3nm,0.3s						
VNDA	**Vanda**	**81.75**	**191**	IAmb	IAmb	17 07 31.7	
	comp=Z,2.1nm,1.4s						
TORD	**Torodi Ar. Bea**	**81.79**	**74**	P	**P**	**17 07 24.4**	**+0.5**
	comp=Z,2.1nm,0.8s,baz=256,slow=4.6,SNR=8.5						
	comp=Z,2.1nm,0.8s						
ESDC	**Sonseca Array**	**86.31**	**47**	LR	LR	17 43 06.8	
	comp=Z,25nm,19.9s,baz=202,slow=33						
H11N3	**WAKE ISLAND Hy**	**120.21**	**284**	T	T	19 25 34.3	
	baz=96,slow=74,SNR=91						
H11N2	**WAKE ISLAND Hy**	**120.23**	**284**	T	T	19 25 35.3	
	baz=96,slow=74,SNR=233						
H11N1	**WAKE ISLAND Hy**	**120.23**	**284**	T	T	19 25 35.5	
	baz=96,slow=74,SNR=65						
H11S2	**WAKE ISLAND Hy**	**120.26**	**283**	T	T	19 25 35.0	
	baz=98,slow=75,SNR=53						
H11S1	**WAKE ISLAND Hy**	**120.27**	**283**	T	T	19 25 36.2	
	baz=98,slow=75,SNR=44						
H11S3	**WAKE ISLAND Hy**	**120.28**	**283**	T	T	19 25 35.9	
	baz=98,slow=75,SNR=52						
ZALV	**Zalesovo Beam**	**138.56**	**17**	PKP	**PKPdf**	**17 14 30.4**	**+0.6**
	comp=Z,0.7nm,0.6s,baz=264,slow=2.9,SNR=4.9						
SONM	**Songino Array**	**147.48**	**357**	PKPbc	**PKPbc**	**17 14 49.2**	**+0.7**
	comp=Z,1.1nm,0.5s,baz=312,slow=2.4,SNR=4.8						
SONM	**Songino Array**	**147.48**	**357**		**PKPbc**	**17 14 47.9**	**-0.6**

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*IDC **10** 17:01:21.3±1.4, 67°.12N×21°.08E, h0^{km}, mbtmp3.0/4, ML2.1/4, Error ellipse: s-maj=26.0km s-min=12.3km az=113.0*

ISC 10 17:01:18.8±1.0**, 67°.22N**±0°.07×**21°.04E**±0°.06**, h10^{km}, n6, σ1ˢ.64**/9**, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SALU	**Saltoluokta**	**0.99**	**281**	*e*P	**Pg**	**17 01 38.3**	**+0.4**
HEF	**Hetta**	**1.56**	**39**	*e*P	**Pg**	**17 01 49.9**	**+1.3**
ARCES	**ARCESS Array B**	**2.86**	**33**	Pn	**Pb**	**17 02 08.4**	**-1.4**
	0.5nm,0.3s,baz=214,slow=14,SNR=60						
ARCES				Sn	**Sb**	**17 02 44.0**	**-0.7**
	0.6nm,0.3s,baz=216,slow=26,SNR=10						
	1.2nm,0.2s						
ARCES				AML	AML		
FINES	**FINESS Array B**	**6.19**	**157**	Pn	**Pn**	**17 02 51.7**	**+1.6**
	0.1nm,0.3s,baz=347,slow=13,SNR=6.7						
FINES				Sn	**Sn**	**17 03 59.0**	**-1.8**
	0.3nm,0.3s,baz=339,slow=21,SNR=5.3						
	3.7nm,0.9s						
FINES				AML	AML		
NOA	**NORSAR Array B**	**7.53**	**219**	Pn	**Pn**	**17 03 10.4**	**+1.8**
	baz=41,slow=12,SNR=1.0						
	0.1nm,0.4s						
HFS	**Hagfors**	**7.82**	**208**	Pn	**Pn**	**17 03 12.9**	**+0.5**
	0.1nm,0.3s,baz=20,slow=17,SNR=1.9						
HFS				Sn	**Sn**	**17 04 39.3**	**-1.5**
	0.1nm,0.3s,baz=31,slow=25,SNR=1.0						
	2.9nm,1.0s						
HFS				AML	AML		

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*IDC **10** 17:07:52.3±1.3, 5°.85S×129°.63E, h0^{km}, mb4.2/4, mbtmp4.0/7, ML3.8/3, Error ellipse: s-maj=61.6km s-min=17.0km az=80.0*

*DJA **10** 17:08:11.2±1.2, 6°S±8°×13°0E±°, h111^{km}±40^{km}, M4.2/6, mB4.9/2, mb4.1/2, MLv4.3/6, Mw(mB)4.2/2*

ISC 10 17:08:05.4±0.9**, 6°.74S**±0°.06×**129°.5E**±0°.1**, h150^{km}, n10, σ2ˢ.72**/13**, mb3.9**/4**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SAUI	**Saumlaki**	**2.19**	**124**	P	**Pn**	**17 08 46.1**	**+3.4**
SAUI				S	**Sn**	**17 09 12.2**	**+0.7**
SAUI				AML	AML		
FAKI	**Fak Fak**	**4.69**	**36**	P	**Pn**	**17 09 13.3**	**-1.5**
FAKI				AML	AML		
SWI	**Sorong**	**6.10**	**17**	P	**Pn**	**17 09 33.1**	**-0.4**
SWI				AML	AML		
FITZ	**Fitzroy Crossi**	**11.89**	**198**	Pn	**Pn**	**17 10 51.4**	**+1.1**
	0.7nm,0.3s,baz=25,slow=9.1,SNR=30						
FITZ				Sn	**Sn**	**17 12 58.3**	**-3.5**
	1.9nm,0.3s,baz=142,slow=14,SNR=8.9						
	1.4nm,0.3s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**13.95**	**161**	Pn	**Pn**	**17 11 14.9**	**-1.8**
	0.2nm,0.3s,baz=338,slow=13,SNR=14						
WRA				Sn	Sn	17 13 39.0	-12
	1.1nm,0.3s,baz=333,slow=22,SNR=10						
	0.5nm,0.5s						
WRA				AML	AML		
ASAR	**Alice Springs**	**17.36**	**166**	Pn	**Pn**	**17 11 59.7**	**+1.0**
	0.6nm,0.3s,baz=345,slow=10,SNR=58						
ASAR				Sn	**S**	**17 15 04.9**	**-6.1**
	0.3nm,0.3s,baz=346,slow=26,SNR=6.4						
	1.8nm,0.4s						
ASAR				AML	AML		
MKAR	**Makanchi Array**	**67.73**	**327**	P	**P**	**17 18 48.0**	**+1.3**
	2.6nm,0.4s,baz=116,slow=8.1,SNR=52						
	2.6nm,0.4s						
ZALV	**Zalesovo Beam**	**71.12**	**334**	P	**P**	**17 19 07.8**	**+0.5**
	0.5nm,0.4s,baz=126,slow=5.4,SNR=4.5						
	0.5nm,0.4s						
KURBB	**Kurchatov Arra**	**72.02**	**329**	P	**P**	**17 19 14.0**	**+1.2**
	1.1nm,0.3s,baz=125,slow=5.1,SNR=8.6						
	1.1nm,0.3s						
BVAR	**Borovoye Array**	**77.57**	**328**	P	**P**	**17 19 45.5**	**+0.9**
	0.5nm,0.5s,baz=108,slow=4.7,SNR=1.9						
	0.5nm,0.5s						

TRN 10 17:20:12.5, 18°.14N×62°.09W, h50^{km}, MD3.7, North-west of Barbuda., Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ANWB	**Willy Bob**	**0.55**	**148**	*e*P	Pn	17 20 26.1	+1.7
ANWB				*e*S	Sn	17 20 35.2	+2.2
SMRT	**St. Maarten**	**0.94**	**265**	*e*P	Pn	17 20 31.1	+1.6
SMRT				*e*S	Sn	17 20 43.8	+1.8
SKI	**Saint Kitts**	**1.01**	**218**	*e*P	Pn	17 20 32.7	+2.2
SKI				*e*S	Sn	17 20 46.3	+2.6
SEUS	**St. Eustatius**	**1.07**	**233**	*e*P	Pn	17 20 33.0	+1.8
SEUS				*e*S	Sn	17 20 47.3	+2.3
SABA	**Saba**	**1.21**	**245**	*e*P	Pn	17 20 33.7	+0.5
SABA				*e*S	Sn	17 20 51.0	+2.5
DHSZ	**Broadband at M**	**1.89**	**170**	*e*P	Pn	17 20 44.0	+1.7
DHSZ				*e*S	Sn	17 21 06.3	+1.4
DSDZ	**La Diserade, G**	**2.07**	**152**	*e*P	Pn	17 20 45.9	+1.1
DSDZ				*e*S	Sn	17 21 11.2	+1.9
MMLZ	**Guadeloupe Bro**	**2.12**	**169**	*e*P	Pn	17 20 47.7	+2.2
MMLZ				*e*S	Sn	17 21 13.1	+2.3
TBG	**Guadaloupe-3**	**2.32**	**169**	*e*P	Pn	17 20 50.7	+2.5
TBG				*e*S	Sn	17 21 17.0	+1.5
DWS	**Wesley**	**2.67**	**164**	x	Pn	17 20 50.5	-2.5
DWS				x	x	17 21 13.7	
DSLB	**Salisbury**	**2.77**	**166**	*e*P	Pn	17 20 56.1	+1.7
DSLB				*e*S	Sn	17 21 28.2	+1.7
BIM	**Bigot**	**3.73**	**165**	*e*P	Pn	17 21 09.2	+1.5
BIM				*e*S	Sn	17 21 51.2	+0.7

IDC 10 17:49:52.7±4.8**, 10°.04S×166°.03E, h0^{km}, mb3.6**/3**, mbtmp3.6**/3**, MS3.3**/5**, Error ellipse: s-maj=254.8km s-min=32.8km az=138.0, Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H11S2	**WAKE ISLAND Hy**	**28.35**	**1**	T	T	18 26 12.0	
	baz=181,slow=76,SNR=19						
H11S3	**WAKE ISLAND Hy**	**28.36**	**1**	T	T	18 26 12.6	
	baz=181,slow=76,SNR=18						
H11S1	**WAKE ISLAND Hy**	**28.37**	**1**	T	T	18 26 14.7	
	baz=181,slow=76,SNR=19						
H11N1	**WAKE ISLAND Hy**	**29.57**	**2**	T	T	18 27 42.7	
	baz=182,slow=76,SNR=5.2						
H11N3	**WAKE ISLAND Hy**	**29.58**	**2**	T	T	18 27 45.1	
	baz=182,slow=76,SNR=3.6						
H11N2	**WAKE ISLAND Hy**	**29.59**	**2**	T	T	18 27 44.7	
	baz=182,slow=76,SNR=4.1						
STKA	**Stephens Creek**	**31.37**	**223**	LR	LR	18 07 14.6	
	comp=Z,33nm,18.7s,baz=25,slow=33						
WRA	**Warramunga Arr**	**32.10**	**248**	P	P	17 56 21.8	-0.2
	0.9nm,0.8s,baz=79,slow=8.9,SNR=5.7						
	0.9nm,0.8s						
ASAR	**Alice Springs**	**33.50**	**242**	P	P	17 56 34.2	0.0
	0.4nm,1.0s,baz=68,slow=10,SNR=4.2						
	0.4nm,1.0s						
FITZ	**Fitzroy Crossi**	**39.92**	**254**	LR	LR	18 13 19.2	
	comp=Z,53nm,18.9s,baz=194,slow=35						
PPT	**Papeete**	**43.67**	**105**	LR	LR	18 13 22.1	
	comp=Z,25nm,19.9s,baz=260,slow=32						
ILAR	**Eielson Array**	**82.47**	**18**	P	P	18 02 16.8	+0.1
	0.5nm,0.7s,baz=228,slow=7.0,SNR=6.5						
ILAR				LR	LR	18 31 57.8	
	comp=Z,19nm,20.4s,baz=286,slow=31						
	0.5nm,0.7s						
DLBC	**Dease Lake**	**85.39**	**28**	LR	LR	18 38 04.9	
	comp=Z,13nm,18.4s,baz=85,slow=34						

KRSC 10 17:58:33.8±2.3**, 48°.94N×156°.97E, h21^{km}**±**42^{km}, Ml3.5, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	**1.83**	**343**	*e*P	Pn	17 59 03.8	-0.2
SKR				*e*S	Sn	17 59 26.1	-0.4
PAU	**Pauzhetka**	**2.53**	**358**	*e*S	Sb	17 59 47.6	-1.6
KDTR	**Khodutka, Kamc**	**2.96**	**13**	*e*P	Pb	17 59 22.7	-3.0
KDTR				*e*S	Sb	17 59 59.5	-1.9
ASAK	**Asacha**	**3.50**	**9**	*e*P	Pb	17 59 31.7	-3.3
MTVR	**Mutnovka**	**3.63**	**12**	*e*P	Pn	17 59 32.5	+3.7
MTVR				*e*S	Sb	18 00 16.4	-4.5
RUS	**Russkaya**	**3.63**	**15**	*e*P	Pn	17 59 31.8	+3.1
GRL	**Gorelyy**	**3.68**	**11**	*e*P	Pn	17 59 33.2	+3.6
GRL				*e*S	Sn	18 00 17.0	+4.7
PET	**Petropavlovsk**	**4.22**	**14**	*e*P	Pn	17 59 41.1	+4.2
PET				*e*S	Sn	18 00 29.9	+4.4
UGLR	**Uglovaya**	**4.43**	**15**	*e*P	Pn	17 59 45.3	+5.5
AVH	**Avacha**	**4.47**	**14**	*e*P	Pn	17 59 45.7	+5.3
SMAR	**Somma**	**4.48**	**14**	*e*P	Pn	17 59 45.7	+5.1
KOK	**Koryaka**	**4.48**	**13**	*e*P	Pn	17 59 45.9	+5.4
KRX	**Arik**	**4.55**	**13**	*e*P	Pn	17 59 46.4	+4.9
SPN	**Mys Shipunski**	**4.59**	**24**	*e*P	Pn	17 59 47.5	+5.7
MKZ	**Mys Kozlova**	**6.35**	**26**	*e*P	Pn	18 00 09.6	+3.6

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*BER **10** 18:04:04.3±3.2, 71°.07N×8°.91W, h19^{km}±7^{km}, ML3.2, Mw4.2, Confirmed Earthquake*

*DNK **10** 18:04:06.4±2.6, 71°.24N×10°.42W, h0^{km}±160^{km}, ML2.0, Presumed earthquake*

ISC 10 18:04:02.0±1.0**, 71°.30N**±0°.07×**9°.0W**±0°.1**, h10^{km}, n17, σ1ˢ.97**/15**, 4D, Jan Mayen Island region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JNW	**Jan Mayen West**	**0.32**	**148**	⇓*i*P	Pg	18 04 07.8	-0.4
JNW				*e*S	**Sg**	**18 04 10.9**	**-1.6**
JNW				IAML		18 04 11.8	
	comp=Z,11µm,0.3s						
JMIC	**Jan Mayen**	**0.34**	**155**	⇓*i*P	Pg	18 04 08.4	-0.4
JMIC				*e*S	**Sg**	**18 04 12.1**	**-1.2**
JMIC				IAML		18 04 18.8	
	comp=Z,4µm,0.4s						
JNE	**Jan Mayen East**	**0.37**	**145**	⇓*i*P	Pg	18 04 08.2	-1.1
JNE				*e*S	Sg	18 04 11.6	-2.6
JNE				IAML		18 04 12.2	
	comp=Z,7µm,0.3s						
JMI	**Jan Mayen**	**0.38**	**169**	⇓*i*P	**Pg**	**18 04 09.8**	**+0.4**
JMI				*e*S	**Sg**	**18 04 14.3**	**-0.1**
JMI				IAML		18 04 27.2	
	comp=Z,1µm,0.4s						
DBG	**Daneborg**	**4.50**	**317**	*e*P	**Pn**	**18 05 12.3**	**+2.2**
DBG				*e*S	**Sn**	**18 06 01.2**	**-1.2**
DBG	**Daneborg**	**4.50**	**317**	*i* P	**Pn**	**18 05 12.5**	**+2.4**
DBG				*i* S	**Sn**	**18 05 59.6**	**-2.8**
DAG	**Danmarks Havn**	**6.11**	**339**	*e*P	**Pn**	**18 05 32.3**	**+0.2**
DAG				*e*S	**Sn**	**18 06 39.6**	**-2.3**
DAG	**Danmarks Havn**	**6.11**	**339**	*i* P	**Pn**	**18 05 34.2**	**+2.1**
DAG				*i* S	**Sn**	**18 06 39.6**	**-2.3**
DAG				IAML		18 06 45.9	
	comp=Z,6.7nm,0.5s						
STEI	**Steigen**	**9.05**	**100**	*e*P	Pn	18 06 08.6	-3.8
BRBB	**Barentsburg B**	**9.07**	**31**	*e*P	Pn	18 06 13.2	+0.6
VAGH	**Vaagaholmen**	**9.15**	**109**	*e*P	Pn	18 06 09.6	-4.2
KONS	**Konsvik**	**9.26**	**110**	*e*P	Pn	18 06 09.4	-5.8
STOK	**Stokkvaagen**	**9.34**	**111**	*e*P	Pn	18 06 12.8	-3.5
STOK				*e*S	Sn	18 07 47.4	-14
STOK				IAML		18 08 03.8	
	comp=Z,6.3nm,0.6s						
SPA0	**Spitsbergen Ar**	**9.49**	**32**	*e*P	**Pn**	**18 06 20.4**	**+2.0**
LEIR	**Leirfjorden**	**9.51**	**112**	*e*P	Pn	18 06 15.2	-3.5
LEIR				*e*S	Sn	18 07 50.8	-15
LEIR				IAML		18 08 01.6	
	comp=Z,2.7nm,0.5s						
NOR	**Nord**	**10.50**	**354**	*e*P	**Pn**	**18 06 33.3**	**+1.1**
NOR				*e*S	Sn	18 08 26.2	-3.5
NOR	**Nord**	**10.50**	**354**	*e*P	**Pn**	**18 06 33.7**	**+1.5**
NOR				*e*S	Sn	18 08 25.7	-4.0

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*FCIAR **10** 18:13:51.0, 84°.50N×13°.42E, h10^{km}, station OMEGA has station magnitude of 3.60*

ISC 10 18:13:47.2±2.1**, 84°.8N**±0°.1×**15°.13E**±0°.09**, h10^{km}, n18, σ1ˢ.40**/22**, North of Svalbard**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NOR	**Nord**	**4.86**	**246**	Pn	**Pn**	**18 14 59.1**	**-1.1**
NOR	**Nord**	**4.86**	**246**	*e*P	**Pn**	**18 15 00.7**	**+0.5**
OMEGA	**Omega**	**5.62**	**117**	*e*P	**Pn**	**18 15 10.0**	**-0.6**
OMEGA				*e*S	**Sn**	**18 16 15.7**	**+0.7**
	28nm,1.9s						
OMEGA				AML	AML		
SPA0	**Spitsbergen Ar**	**6.67**	**178**	Pn	**Pn**	**18 15 26.0**	**+1.0**
	baz=13,slow=12						
SPA0	**Spitsbergen Ar**	**6.67**	**178**	*e*P	**Pn**	**18 15 25.2**	**+0.2**
SPA0				*e*S	**Sn**	**18 16 39.5**	**-1.4**
SPA0	**Spitsbergen Ar**	**6.67**	**178**	Pn	**Pn**	**18 15 26.0**	**+1.0**
BRBB	**Barentsburg B**	**6.75**	**182**	Pn	**Pn**	**18 15 27.6**	**+1.4**
BRBB	**Barentsburg B**	**6.75**	**182**	Pn	**Pn**	**18 15 27.6**	**+1.4**
BRBA	**Barentsburg A**	**6.79**	**182**	Pn	**Pn**	**18 15 28.0**	**+1.4**
BRBA	**Barentsburg A**	**6.79**	**182**	Pn	**Pn**	**18 15 28.0**	**+1.4**
HOPEN	**Hopen**	**8.47**	**164**	Pn	**Pn**	**18 15 50.1**	**+0.4**
HOPEN	**Hopen**	**8.47**	**164**	*e*P	**Pn**	**18 15 49.0**	**-0.6**
HOPEN				*e*S	**Sn**	**18 17 21.4**	**-3.6**
HOPEN	**Hopen**	**8.47**	**164**	*e*P	**Pn**	**18 15 49.5**	**-0.1**
HOPEN				*e*S	**Sn**	**18 17 27.0**	**+1.9**
HOPEN				IAML		18 17 41.1	
	comp=Z,12nm,0.8s						
BEAR	**Bear Island, N**	**10.39**	**174**	P	**Pn**	**18 16 15.8**	**-0.1**
	baz=359,slow=14						
VADS	**Vadso**	**14.98**	**161**	P	**Pn**	**18 17 19.3**	**+0.7**
KEV	**Kevo**	**15.28**	**164**	P	**Pn**	**18 17 22.9**	**+0.4**
ARA0	**ARCESS Array S**	**15.47**	**166**	Pn	**Pn**	**18 17 23.9**	**-1.2**
	baz=352,slow=12						
APA0	**Apatity Array**	**17.62**	**157**	P	**P**	**18 17 55.3**	**+2.0**
	baz=349,slow=18						

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*IDC **10** 18:19:20.8±0.7, 16°.69S×174°.26W, h0^{km}, mb3.9/10, mbtmp3.9/10, Error ellipse: s-maj=33.2km s-min=20.0km az=126.0*

ISC 10 18:19:44.5±0.8**, 16°.7S**±0°.2×**174°.5W**±0°.2**, h200^{km}, n16, σ0ˢ.48**/10**, mb3.6**/10**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H11S2	**WAKE ISLAND Hy**	**39.58**	**331**	T	T	19 08 46.7	
	baz=146,slow=76,SNR=11						
H11S3	**WAKE ISLAND Hy**	**39.59**	**331**	T	T	19 08 40.1	
	baz=146,slow=76,SNR=8.8						
H11S1	**WAKE ISLAND Hy**	**39.60**	**331**	T	T	19 08 42.5	
	baz=146,slow=76,SNR=7.8						
H11N3	**WAKE ISLAND Hy**	**40.56**	**332**	T	T	19 09 49.0	
	baz=146						
H11N1	**WAKE ISLAND Hy**	**40.56**	**332**	T	T	19 09 47.9	
	baz=146						
H11N2	**WAKE ISLAND Hy**	**40.58**	**332**	T	T	19 09 48.4	
	baz=146						
WRA	**Warramunga Arr**	**48.56**	**258**	P	**P**	**18 28 08.1**	**0.0**
	0.3nm,0.6s,baz=94,slow=7.6,SNR=4.7						
	0.3nm,0.6s						
ASAR	**Alice Springs**	**48.74**	**253**	P	**P**	**18 28 09.4**	**-0.1**
	0.8nm,0.5s,baz=88,slow=8.2,SNR=14						
	0.8nm,0.5s						
VNDA	**Vanda**	**61.98**	**186**	P	**P**	**18 29 42.1**	**-0.8**
	0.6nm,0.8s,baz=353,slow=4.7,SNR=4.1						
	0.6nm,0.8s						
QSPA	**South Pole Qui**	**73.35**	**180**	P	**P**	**18 30 54.8**	**+0.6**
	1.3nm,0.7s,baz=262,slow=5.1,SNR=7.7						
	1.3nm,0.7s						
PETK	**Petropavlovsk-**	**73.56**	**343**	P	**P**	**18 30 55.5**	**+0.2**
	2.2nm,0.8s,baz=160,slow=4.9,SNR=4.0						
	2.2nm,0.8s						
NVAR	**Mina Array Bea**	**75.97**	**42**	P	**P**	**18 31 10.0**	**+0.2**
	1.5nm,0.8s,baz=223,slow=9.7,SNR=9.4						

	1.5nm,0.8s						
TXAR	Lajitas Array	82.18	56	P	P	18 31 43.8	+0.2
	0.3nm,0.7s,baz=221,slow=6.6,SNR=3.4						
	0.3nm,0.7s						
PDAR	Pinedale Array	83.91	42	P	P	18 31 51.8	-0.6
	1.0nm,0.6s,baz=212,slow=3.7,SNR=12						
	1.0nm,0.6s						
ILAR	Eielson Array	83.92	12	P	P	18 31 51.2	-0.3
	0.3nm,0.6s,baz=206,slow=5.1,SNR=8.8						
	0.3nm,0.6s						
MAW	Mawson	86.24	199	P	P	18 32 03.5	+0.3
	1.3nm,0.9s,baz=239,slow=5.9,SNR=2.3						
	1.3nm,0.9s						

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*IDC **10** 18:32:28.5±1.5, 9°.91N×88°.67W, h0km, mb3.6/2, mbtmp3.8/3, ML1.7/1, Error ellipse: s-maj=36.3km s-min=19.9km az=39.0*
*CATAC **10** 18:32:49.8±0.6, 12°N±5°×8°6W±°, h147km±6km, M3.1/36, MLv3.1/36, confirmed*
*UCR **10** 18:32:49.2±1.2, 11°.99N×86°.20W, h157km±11km, MW3.5, Presumed earthquake*
*SNET **10** 18:32:50.9±16.0, 12°.08N×86°.28W, h163km, ML3.2, Presumed earthquake*
ISC 10 18:32:47.6±1.0**, 11°.94N**±0°.06×**86°.38W**±0°.06**, h167**km±6km**, n91, σ0s.88**/116**, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
UNAN	Cigeo UNAN	0.20	33	P	Pn	18 33 10.6	+0.7
UNAN				S	Sn	18 33 26.1	-1.0
SABN	Sabanita	0.22	86	P	Pn	18 33 11.1	+1.0
MAS3	Al N del Volca	0.22	68	P	Pn	18 33 10.3	+0.3
MAS3				S	Sn	18 33 26.9	-0.2
TISN	Laguna Tiscapa	0.23	29	P	Pn	18 33 10.4	+0.4
MASN	Masaya	0.23	79	P	Pn	18 33 11.0	+0.9
MASN				S	Sn	18 33 26.9	-0.3
MGAN	Managua	0.24	33	P	Pn	18 33 10.5	+0.4
NANN	Nandasmo	0.26	91	P	Pn	18 33 11.5	+1.4
NANN				S	Sn	18 33 26.9	-0.3
APQ2	Apoyeque	0.26	13	P	Pn	18 33 10.5	+0.4
WILN	Americas 2	0.29	41	P	Pn	18 33 10.8	+0.6
WILN				S	Sn	18 33 27.2	-0.2
COPN	Copaltepe	0.31	319	P	Pn	18 33 10.4	+0.2
COPN	Copaltepe	0.31	319	*e*P	Pn	18 33 15.5	+5.3
NADN	Granada	0.39	119	P	Pn	18 33 11.2	+0.8
MOMN	Momotombo	0.49	342	P	Pn	18 33 11.1	+0.2
MOMN				S	Sn	18 33 29.5	+0.6
MOM2	El Cardon	0.50	349	P	Pn	18 33 11.3	+0.4
MOM2				S	Sn	18 33 29.7	+0.8
LEVN	Ruinas Leon Vi	0.51	333	P	Pn	18 33 11.7	+0.8
LEVN				S	Sn	18 33 28.8	-0.1
CNGA	Al SSO del Vol	0.63	330	P	Pn	18 33 11.8	+0.1
CNGA				S	Sn	18 33 29.8	-0.3
CNGN	Cerro Negro	0.63	331	P	Pn	18 33 12.0	+0.4
PACN	Al O del Volca	0.68	324	P	Pn	18 33 12.6	+0.7
PACN				S	Sn	18 33 31.1	+0.5
ARIN	Rivas	0.72	132	P	Pn	18 33 13.0	+0.9
TEL3	Telica 3	0.77	324	P	Pn	18 33 13.0	+0.6
TELN	Telica	0.79	326	P	Pn	18 33 13.4	+0.8
TELN				S	Sn	18 33 30.5	-1.4
QUEN	Al S del Volca	0.79	325	P	Pn	18 33 13.0	+0.4
HERN	Volcan Telica	0.79	327	P	Pn	18 33 13.0	+0.3
HERN				S	Sn	18 33 32.1	+0.2
JAPN	Al SSO del Vol	0.81	121	P	Pn	18 33 14.1	+1.4
JAPN				S	Sn	18 33 31.7	0.0
MORN	Al O del Volca	0.82	119	P	Pn	18 33 13.5	+0.8
MORN				S	Sn	18 33 31.8	-0.2
OMEN	Al SSO del Vol	0.86	120	P	Pn	18 33 14.1	+1.1
OMEN				S	Sn	18 33 32.1	-0.3
BOAB	BOACO BROADBAN	0.86	54	P	Pn	18 33 13.3	+0.3
BOAB				S	Sn	18 33 32.2	-0.3
CRIN	San Cristobal	1.00	319	P	Pn	18 33 14.7	+0.6
CRIN				S	Sn	18 33 33.0	-1.5
MATN	Matagalpa	1.08	24	P	Pn	18 33 15.3	+0.6
LIMN	Finca el Limon	1.11	1	P	Pn	18 33 15.4	+0.3
CARN	Rivas	1.13	132	P	Pn	18 33 15.9	+0.8
CARN				S	Sn	18 33 35.1	-1.1
LCRUZ	La Cruz	1.13	139	*e*P	Pn	18 33 15.8	+0.6
LCRUZ				*e*S	Sn	18 33 35.9	-0.4
ACON	Acoyapa	1.18	89	P	Pn	18 33 15.7	+0.2
ACON				S	Sn	18 33 36.9	-0.1
BUAI	Buenos Aires	1.48	136	*e*P	Pn	18 33 18.4	0.0
LAPC	Finca la Perla	1.49	141	*e*P	Pn	18 33 17.8	-0.7
VORI	VORI	1.51	138	*e*P	Pn	18 33 20.5	+1.6
VRLE	La Escondida,	1.52	139	*e*P	Pn	18 33 19.6	+0.7
CSGN	Cosiguina Volc	1.54	312	P	Pn	18 33 19.5	+0.5
CSGN				S	Sn	18 33 43.1	-0.1
GPS2	Hotel Rincn d	1.56	139	*e*P	Pn	18 33 19.8	+0.6
ALIBA	Liberia Airpor	1.57	148	*e*P	Pn	18 33 20.4	+1.1
ALIBA				*e*S	Sn	18 33 44.1	+0.4
RCPN	Sur Rio San Ju	1.60	10	P	Pn	18 33 20.4	+0.8
RCVN	Varillal2	1.64	6	P	Pn	18 33 20.6	+0.5
MESS	Mesas	1.67	136	*e*P	Pn	18 33 20.1	-0.2
VMAR	Armenia, Volca	1.68	132	*e*P	Pn	18 33 20.5	+0.1
VMAR				*e*S	Sn	18 33 45.5	-0.1
OCON	Estacion meteo	1.68	357	P	Pn	18 33 21.2	+0.8
OCON				S	Sn	18 33 46.5	+0.6
UPAL	Upala	1.70	128	P	Pn	18 33 21.8	+1.3
UPAL				S	Sn	18 33 46.4	+0.4
HORNC	Hornillas	1.70	136	*e*P	Pn	18 33 21.2	+0.5
CANAL	Canalete	1.71	130	*e*P	Pn	18 33 20.6	-0.1
CUI	Cuipilapa	1.75	137	*e*P	Pn	18 33 21.9	+0.8
TENO	El Achiote	1.85	132	*e*P	Pn	18 33 23.1	+0.9
TIMP	Tierras Morena	1.90	135	*e*P	Pn	18 33 23.6	+0.8
CNCH	Conchagua	1.94	313	*e*P	Pn	18 33 41.0	+18
CNCH				*e*S	Sn	18 33 52.4	+1.5
CNCH	Conchagua	1.94	313	S	Sn	18 33 50.0	-0.9
JUD3	Juan Diaz 3	1.95	155	*e*P	Pn	18 33 24.1	+0.7
QUEB	Quebradon, Cot	1.96	132	*e*P	Pn	18 33 23.9	+0.4
COTE	Lago Cote	1.98	133	*e*P	Pn	18 33 24.0	+0.4
INTP	Intipuca	2.05	308	*e*S	Sn	18 33 52.5	-0.4
CHIK	Chiripa	2.08	136	*e*P	Pn	18 33 25.1	+0.3
TABAC	Tabacon	2.14	132	*e*P	Pn	18 33 26.3	+0.8
JTS	Las Juntas de	2.16	139	Pn	Pn	18 33 26.0	+0.3
	65nm,0.3s,baz=305,slow=17,SNR=86						
JTS				Sn	Sn	18 33 54.2	-1.0
	45nm,0.3s,baz=296,slow=22,SNR=19						
JTS	Las Juntas de	2.16	139	P	Pn	18 33 26.3	+0.7
JTS				S	Sn	18 33 54.3	-0.8
JTS	Las Juntas de	2.16	139	*e*P	Pn	18 33 25.8	+0.1
CEDE	Laguna Cedeo	2.19	131	*e*P	Pn	18 33 25.7	-0.4
ARE1	Arenal 1	2.20	132	*e*P	Pn	18 33 25.8	-0.4
VARE2	V. Arenal	2.20	132	*e*P	Pn	18 33 27.0	+0.8
JUCU	Jucuar¡n	2.24	306	*e*S	Sn	18 33 56.8	0.0
ALJI	Alcalda de J	2.54	303	*e*S	Sn	18 34 01.9	-1.1
PAQE	Paquera	2.54	146	*e*P	Pn	18 33 31.2	+1.0
VPL2	V. Platanar	2.55	129	*e*P	Pn	18 33 33.8	+3.4
VPL3	V. Platanar	2.58	128	*e*P	Pn	18 33 30.6	-0.1
TRB2	Turrubares	2.77	137	*e*P	Pn	18 33 34.3	+1.3
TCS1	Tacares	2.78	133	*e*P	Pn	18 33 31.1	-2.0
VBV1	V. Barva	2.89	129	*e*P	Pn	18 33 34.7	0.0
COEG	Centro de Oper	2.95	305	*e*P	Pn	18 33 52.6	+17
COEG				*e*S	Sn	18 34 10.7	-1.4
PICV	PH. Pirrs	3.15	137	*e*P	Pn	18 33 38.8	+1.2
VICA	Volcano Irazu	3.16	128	*e*P	Pn	18 33 39.8	+1.7
ABE2	San Pablo	3.19	134	*e*P	Pn	18 33 39.3	+1.0
LCR2	La Lucha 2	3.20	133	P	Pn	18 33 39.6	+1.2
LCR2	La Lucha 2	3.20	133	*e*P	Pn	18 33 39.4	+1.0
VTR0	Volcan Turrial	3.21	126	*e*P	Pn	18 33 39.6	+0.9
VTCV	VTCV, Calle Va	3.25	126	*e*P	Pn	18 33 40.1	+1.0
PIEC	Cerro El Cedra	3.32	134	*e*P	Pn	18 33 41.1	+1.2
BUS1	Rivas	3.51	132	*e*P	Pn	18 33 43.9	+1.2
CEVE	Cerro Verde	3.67	301	*e*S	Sn	18 34 30.3	+1.6
NUBE	Las Nubes	3.84	301	P	Pn	18 33 47.3	+0.8
NUBE				S	Sn	18 34 32.6	+0.3
OCHAL	Ojochal	3.90	136	P	Pn	18 33 48.7	+1.6
APG	El Apazote	5.00	308	Pn	Pn	18 33 48.8	-13
	baz=158,slow=11,SNR=1.8						
TXAR	Lajitas Array	23.63	320	P	P	18 37 44.3	+0.5
	0.3nm,0.5s,baz=135,slow=9.5,SNR=4.4						
	0.3nm,0.5s						
LPAZ	La Paz	33.36	147	P	P	18 39 05.5	-5.4
	1.2nm,0.4s,baz=351,slow=15,SNR=5.8						
	1.2nm,0.4s						
ASAR	Alice Springs	140.04	247	PKP	PKPdf	18 51 55.5	-1.6
	0.3nm,0.6s,baz=148,slow=2.9,SNR=1.6						
WRA	Warramunga Arr	140.13	253	PKP	PKPdf	18 51 55.9	-1.4
	0.5nm,0.9s,baz=93,slow=2.5,SNR=5.9						

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*SOME **10** 18:33:33.0, 39°.40N×73°.45E, h10km*
*KRNET **10** 18:33:39.1±0.1, 39°.65N×73°.33E, h14km, mb3.9*
*NNC **10** 18:33:40.9±2.0, 39°.73N×73°.50E, h0km, mb4.0, mpv3.6, Error ellipse: s-maj=16.0km s-min=9.4km az=173.0*
ISC 10 18:33:39.3±1.1**, 39°.67N**±0°.05×**73°.40E**±0°.02**, h10**km**, n65, σ2s.48**/101**, 39C-15D, Tajikistan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SFK	Sufi-Kurgan	0.36	13	⇑*i*P	Pb	18 33 46.9	-1.0
SFK				⇑*e*S	Sb	18 33 52.6	-1.1
OHH	Osh	0.98	332	⇑*i*P	Pg	18 33 57.6	-0.5
OHH				⇑*i*S	Sg	18 34 11.2	+0.3
DRK	Karamyk	1.25	262	⇓*e*P	Pn	18 34 02.1	-1.0
DRK				⇓*e*S	Sb	18 34 18.6	-0.8
SALK	Salom-Alik	1.26	15	⇑*e*P	Pg	18 34 03.3	-0.2
SALK				⇑*e*S	Sn	18 34 21.6	+1.4
ARSB	Arslanbob	1.69	349	⇑*e*P	Pb	18 34 10.6	+0.1
ARSB				⇑*i*S	Sg	18 34 33.8	+0.2
BTK	Batken	2.02	282	⇓*e*P	Pb	18 34 15.5	-0.7
BTK				⇓*e*S	Sb	18 34 42.3	+0.8
ARK	Arkit	2.39	333	⇑*e*P	Pb	18 34 21.2	-1.3
ARK				⇑*i*S	Sb	18 34 52.2	0.0
TRKS	Terek-Say	2.54	318	⇑*e*P	Pn	18 34 22.1	+1.4
TRKS				⇑*e*S	Sn	18 34 53.5	+1.8
NRN	Naryn	2.66	47	⇑*i*P	Pb	18 34 25.4	-1.7
NRN				⇑*i*S	Sb	18 34 59.3	-0.6
MNAS	Manas	2.90	347	⇓*e*P	Pb	18 34 28.5	-2.7
MNAS				⇓*i*S	Sb	18 35 04.7	-2.1
EKS2	Erkin-Say	3.01	5	P	Pb	18 34 32.3	-0.7
	SNR=14						
EKS2	Erkin-Say	3.01	5	⇑*i*P	Pb	18 34 30.2	-2.8
EKS2				⇑*i*S	Sb	18 35 07.7	-2.2
MRKS	Merke	3.08	358	Pg	Pb	18 34 34.3	+0.1
MRKS				Lg	Lg	18 35 19.1	
MRKS	Merke	3.08	358	*e*P	Pb	18 34 34.3	+0.1
	16nm,0.4s						
MRKS				*e*S	Sg	18 35 19.1	+0.9
	110nm,0.3s						
AAK	Ala-Archa	3.08	15	P	Pb	18 34 33.4	-0.9
	SNR=32						
AAK	Ala-Archa	3.08	15	⇑Pn	Pb	18 34 33.3	-1.0
	31nm,0.8s						
AAK				⇓Lg	Lg	18 35 14.8	
	36nm,0.7s						
AAK	Ala-Archa	3.08	15	⇓*e*P	Pb	18 34 31.4	-2.9
AAK				⇓*i*S	Sb	18 35 09.7	-2.4
KBK	Karagaybulak	3.21	21	P	Pg	18 34 39.5	-1.3
	SNR=36						
KBK	Karagaybulak	3.21	21	⇑*i*P	Pb	18 34 33.2	-3.3
KBK				⇑*i*S	Sb	18 35 12.7	-3.0
FRU1	Bishkek	3.28	16	⇑*i*P	Pb	18 34 34.3	-3.3
FRU1				⇑*i*S	Sb	18 35 14.7	-2.8
ULHL	Ulahol	3.36	39	P	Pg	18 34 41.4	-2.3
	SNR=11						
ULHL	Ulahol	3.36	39	⇑*e*P	Pb	18 34 35.5	-3.6
ULHL				⇑*i*S	Sb	18 35 16.9	-3.2
BOOM	Boomskoye usch	3.42	33	⇓*i*P	Pb	18 34 36.2	-3.8
BOOM				⇓*i*S	Sb	18 35 17.9	-3.7
CHMS	Chumysh	3.48	17	P	Pb	18 34 39.3	-1.8
	SNR=8.4						
CHMS	Chumysh	3.48	17	⇑*i*P	Pb	18 34 36.9	-4.2
CHMS				⇑*i*S	Sb	18 35 19.1	-4.3
TKM2	Tokmak 2	3.65	26	⇑*i*P	Pn	18 34 39.4	+3.4
TKM2				⇑*e*S	Sn	18 35 23.5	+4.2
USP	Ospenovka	3.69	13	P	Pb	18 34 41.1	-3.5
	SNR=9.5						
USP	Ospenovka	3.69	13	⇑*i*P	Pn	18 34 39.7	+3.2
USP				⇑*i*S	Sn	18 35 24.1	+4.0
KDJ	Kajisay	3.78	48	⇓*i*P	Pb	18 34 41.5	-4.7
KDJ				⇓*i*S	Sb	18 35 27.1	-5.0
KST	Kastek	3.89	29	Pg	Pb	18 34 48.6	+0.6
	1.2nm,0.2s						
KST				Lg	Lg	18 35 43.4	
	49nm,0.8s						
KST	Kastek	3.89	29	*e*P	Pb	18 34 48.6	+0.6
	1.2nm,0.2s						
KST				*e*S	Sg	18 35 43.4	-0.7
	49nm,0.8s						
SGDS	Sogindy	3.90	13	Pg	Pb	18 34 49.2	+1.1
SGDS				Lg	Lg	18 35 44.3	
KK31	Karatay Array	4.06	329	⇑Pn	Pn	18 34 45.4	+3.9
	1.4nm,0.3s,baz=146,slow=11,SNR=76						
KK31				⇑Pg	Pg	18 34 55.4	-1.7
	4.1nm,0.3s,baz=130,slow=12,SNR=22						
KK31				⇓Lg	Lg	18 35 49.4	
	11nm,0.3s,baz=145,slow=24,SNR=4.5						
BRLS	Borolday	4.30	323	Pg	Pb	18 34 53.7	-1.3
BRLS				Lg	Lg	18 35 51.7	
BRLS	Borolday	4.30	323	*e*P	Pb	18 34 54.4	-0.6
	4.0nm,0.2s						
BRLS				*e*S	Sg	18 35 52.6	-4.7
	34nm,0.4s						
TNSS	Tian-Shan	4.30	37	Pg	Pb	18 34 55.4	+0.2
	3.2nm,0.5s						
TNSS				Lg	Lg	18 35 54.7	
	9.7nm,0.7s						
TNSS	Tian-Shan	4.30	37	*e*P	Pb	18 34 55.4	+0.2
	3.2nm,0.5s						
TNSS				*e*S	Sg	18 35 54.7	-2.7
	9.7nm,0.7s						
KRBS	Karabastau	4.37	22	Pg	Pb	18 34 57.5	+1.3
	12nm,0.4s						
KRBS				Lg	Lg	18 35 58.6	
	46nm,0.5s						
KRBS	Karabastau	4.37	22	*e*P	Pb	18 34 57.5	+1.3
	12nm,0.4s						
KRBS				*e*S	Sg	18 35 58.6	-1.1
	46nm,0.5s						
MDOK	Medeo	4.44	37	Pg	Pb	18 34 58.5	+1.0
	4.8nm,0.5s						
MDOK				Lg	Lg	18 36 00.7	
	34nm,0.5s						
MDOK	Medeo	4.44	37	*e*P	Pb	18 34 58.5	+1.0
	4.8nm,0.5s						
MDOK				*e*S	Sg	18 36 00.7	-1.3
	34nm,0.5s						
KNDC	Almaty	4.45	36	⇑Pg	Pg	18 35 01.9	-2.6
	28nm,0.6s						
KNDC				⇑Lg	Lg	18 36 00.3	
	113nm,0.7s						
ANVS	Anan'yevo	4.48	45	⇑*i*P	Pn	18 34 51.2	+3.8
ANVS				⇑*i*S	Sn	18 35 43.7	+4.0
KOTS	Kotyrbulak	4.53	37	Pg	Pb	18 34 59.2	+0.2
	9.3nm,0.3s						
KOTS				Lg	Lg	18 36 01.5	
	87nm,0.6s						
KOTS	Kotyrbulak	4.53	37	*e*P	Pb	18 34 59.1	+0.2
	9.3nm,0.3s						
KOTS				*e*S	Sg	18 36 01.5	-3.2
	87nm,0.6s						
PRZ	Przheval'sk	4.71	52	⇑*e*P	Pn	18 34 54.5	+3.9
PRZ				⇑*i*S	Sn	18 35 49.7	+4.3
KTBS	Karatobe	4.73	30	Pg	Pb	18 35 03.7	+1.3
	0.2nm,0.1s						
KTBS				Lg	Lg	18 36 09.0	
	55nm,0.8s						
KTBS	Karatobe	4.73	30	*e*P	Pb	18 35 03.6	+1.3
	0.2nm,0.1s						
KTBS				*e*S	Sg	18 36 09.0	-2.2
	55nm,0.8s						
KUU	Kurty	4.76	27	Pg	Pb	18 35 05.1	+2.3
	2.0nm,0.1s						
KUU				Lg	Lg	18 36 11.2	
	38nm,0.4s						
KUU	Kurty	4.76	27	*e*P	Pb	18 35 05.1	+2.3
	2.0nm,0.1s						
KUU				*e*S	Sg	18 36 11.2	-1.0
	38nm,0.4s						
SATY	Saty	5.07	46	Pg	Pb	18 35 08.9	+0.8
	7.0nm,1.2s						
SATY				Lg	Lg	18 36 18.7	
	43nm,1.2s						
SATY	Saty	5.07	46	*e*P	Pb	18 35 08.9	+0.8
	7.0nm,1.2s						
SATY				*e*S	Sg	18 36 18.7	-3.3
	43nm,1.2s						
KURS	Kuram	5.23	42	Pg	Pb	18 35 13.3	+2.4
	4.8nm,0.5s						
KURS				Lg	Lg	18 36 25.2	
	15nm,1.2s						
KURS	Kuram	5.23	42	*e*P	Pb	18 35 13.3	+2.4
	4.8nm,0.5s						
KURS				*e*S	Sg	18 36 25.2	-2.1
	15nm,1.2s						
UZB	Uzynbulak	5.48	49	Pg	Pb	18 35 16.9	+1.8
	1.9nm,0.2s						
UZB				Lg	Lg	18 36 31.6	
	11nm,0.7s						
UZB	Uzynbulak	5.48	49	*e*P	Pb	18 35 16.9	+1.8
UZB				*e*S	Sg	18 36 31.6	-3.5
KPKS	Kokpek	5.49	45	Pg	Pb	18 35 16.7	+1.4
	0.3nm,0.1s						
KPKS				Lg	Lg	18 36 31.4	
	13nm,0.4s						
KPKS	Kokpek	5.49	45	*e*P	Pb	18 35 16.7	+1.4
	0.3nm,0.1s						
KPKS				*e*S	Sg	18 36 31.4	-4.1
	13nm,0.4s						
SHLS	Shalkode	5.74	51	Pg	Pg	18 35 26.6	-2.6
	2.8nm,0.4s						
SHLS				Lg	Lg	18 36 48.3	
	19nm,0.6s						
SHLS	Shalkode	5.74	51	*e*P	Pg	18 35 26.6	-2.6
	2.8nm,0.4s						
SHLS				*e*S	Sg	18 36 48.3	+4.8
	19nm,0.6s						
BLB	Baldybastay	5.83	39	Pg	Pb	18 35 24.0	+2.9
	5.5nm,0.8s						
BLB				Lg	Lg	18 36 44.0	
	33nm,0.7s						
PDGK	Podgornoye	5.86	49	⇑Pn	Pn	18 35 10.3	+4.0
	3.6nm,0.8s						
PDGK				⇑Pg	Pg	18 35 29.2	-2.2
	8.4nm,0.7s						
PDGK				⇓Lg	Lg	18 36 45.3	
	20nm,0.9s						
KNOS	Konyrlen	6.37	41	Pg	Pb	18 35 34.3	+4.1
	1.1nm,0.4s						
KNOS				Lg	Lg	18 37 01.6	
	8.7nm,0.7s						
DJR	Jarkent	6.66	44	Pg	Pb	18 35 40.3	+5.1
	1.8nm,0.4s						
DJR				Lg	Lg	18 37 12.1	
	6.9nm,0.1s						
DJR	Jarkent	6.66	44	*e*P	Pb	18 35 40.3	+5.1
	1.8nm,0.4s						
DJR				*e*S	Sg	18 37 12.1	-1.0
	6.9nm,0.1s						

HEL 10 18:38:23.5±0.7**, 67°.20N×20°.87E, h0**km**, ML0.8, Suspected explosion, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ERTU	Ertsjaerv	0.83	140	PG	Pg	18 38 37.8	-1.6
ERTU				SB	Sg	18 38 50.1	0.0
LANU	Lannavaara	0.96	26	PG	Pg	18 38 40.5	-1.4
LANU				SB	Sn	18 38 58.3	-0.3
KLF	Kolari	1.21	87	PG	Pg	18 38 44.9	-1.7
	baz=268						
KLF				smax	smax	18 39 00.1	
	comp=Z,0.4nm,0.2s						
KLF				SN	Sb	18 39 03.0	-0.3
HEF	Hetta	1.61	40	smax	smax	18 39 11.7	
	comp=Z,0.6nm,0.2s						
HEF				SN	Sb	18 39 15.1	+0.1
KALU	Kalix	1.67	142	PG	Pn	18 38 53.1	-0.9
KALU				SN	Sg	18 39 17.2	0.0
TOF	Tornio	1.78	128	PG	Pn	18 38 55.2	-0.2
TOF				smax	smax	18 39 16.6	
	comp=Z,0.5nm,0.2s						
TOF				SG	Sb	18 39 19.3	-0.4
KTK1	Kautokeino	2.03	25	SG	Sb	18 39 27.3	+0.3
RNF	Rovaniemi	2.11	104	PG	Pn	18 39 01.0	+1.0
RNF				SG	Sg	18 39 30.4	-1.0

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*HEL **10** 18:38:54.8±0.3, 67°.69N×33°.78E, h0km, ML1.5, Suspected explosion*
KOLA 10 18:38:54.9, 67°.64N×33°.83E, h0km**, ML1.5, Error ellipse: s-maj=2.9km s-min=1.5km az=140.0, Khibiny, mines Rasvumchorr, Central, Baltic States-Belarus-Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APA	Apatity	0.18	246	P	Pg	18 38 58.0	-0.3
APA				S	Sg	18 39 00.6	+0.1
APA0	Apatity Array	0.32	264	P	Pg	18 39 00.6	-0.5
APA0				S	Sg	18 39 05.0	-0.1
LVZ	Lovozero	0.41	50	P	Pg	18 39 02.1	-0.6
LVZ				S	Sg	18 39 07.8	0.0
LVZ	Lovozero	0.41	50	PG	Pg	18 39 02.4	-0.2
LVZ				SG	Sg	18 39 06.3	-1.6
KVDA	Kovda	1.02	202	P	Pg	18 39 13.7	-0.8
KVDA				S	Sg	18 39 26.3	-1.4
VRF	Varrio	1.61	276	PG	Pn	18 39 24.0	-0.6
VRF				smax	smax	18 39 42.5	
	comp=Z,3.9nm,0.2s						
VRF				SN	Sn	18 39 44.2	-1.9
TERR	Teriberka	1.64	16	P	Pn	18 39 24.2	-0.7
TERR				S	Sn	18 39 44.9	-1.7
OLKF	Oulanka, Finla	2.19	235	PG	Pb	18 39 34.0	-1.3
OLKF				smax	smax	18 39 59.9	
	comp=Z,2.1nm,0.2s						
OLKF				SG	Sb	18 40 02.8	-0.1
RAJF	Raja-Jooseppi	2.23	295	PG	Pn	18 39 33.7	+0.6
RAJF				SG	Sn	18 40 01.7	+0.4
MSF	Maaselka	2.57	230	PG	Pb	18 39 40.5	-1.3
MSF				SG	Sb	18 40 14.1	+0.1
VADS	Vadso	2.97	329	P	Pn	18 39 43.1	0.0
VADS				S	Sn	18 40 18.9	-0.5
RNF	Rovaniemi	3.22	255	PN	Pn	18 39 47.2	+0.5
	baz=67						
RNF				SB	Sn	18 40 27.1	+1.4
RANF	Ranua	3.23	243	SG	Pn	18 39 45.7	-1.0
RANF	Ranua	3.23	243	PN	Pn	18 39 45.7	-1.0
RANF				SG	Sb	18 40 33.6	+0.9
KEV	Kevo	3.27	314	PN	Pn	18 39 46.8	-0.5
KEV				SN	Sn	18 40 26.4	-0.5
ARA0	ARCESS Array S	3.59	306	SG	Pn	18 39 51.3	-0.5
ARA0	ARCESS Array S	3.59	306	PN	Pn	18 39 51.3	-0.5
ARA0				SN	Sn	18 40 35.0	+0.1
ARCES	ARCESS Array B	3.59	306	P	Pn	18 39 50.1	-1.7
ARCES				S	Sn	18 40 32.8	-2.1
KLF	Kolari	3.82	268	PG	Pb	18 40 03.8	+0.7
	baz=77						
HEF	Hetta	3.90	286	SG	Sb	18 40 55.6	+3.6
TOF	Tornio	4.06	252	PG	Pb	18 40 08.4	+1.2
TOF				SG	Sg	18 41 02.0	-3.2
KTK1	Kautokeino	4.16	294	SN	Sn	18 40 49.3	+0.5
LANU	Lannavaara	4.50	281	SG	Sb	18 41 12.0	+2.7
KALU	Kalix	4.52	252	SG	Sg	18 41 15.4	-4.4
ERTU	Ertsjaerv	4.68	262	SN	Sn	18 41 00.4	-1.1

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*YARS **10** 19:34:54.5, 72°.09N×127°.73E, h10km, mb4.2/6, ML2.9/2*
*MOS **10** 19:34:56.7±1.5, 71°.82N×127°.42E, h18km, mb4.4/3, Error ellipse: s-maj=30.8km s-min=10.7km az=95.8*
*IDC **10** 19:34:56.4±0.8, 72°.25N×127°.44E, h0km, mb3.7/10, mbtmp3.8/12, ML4.7/1, MS3.2/2, Error ellipse: s-maj=18.3km s-min=16.9km az=13.0*
*NEIC **10** 19:34:58.3±1.9, 72°.07N±0°.08×127°.6E±0°.3, h14km±5km, mb4.3/7, Error ellipse: s-maj=15.8km s-min=6.9km az=45.0*
ISC 10 19:34:57.3±0.6**, 72°.07N**±0°.06×**127°.50E**±0°.05**, h10**km**, n46, σ2s.08**/61**, mb3.9**/14**, Northern and central Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TIXI	Tiksi	0.60	134	P	Pb	19 35 09.6	-0.2
TIXI	Tiksi	0.60	134		Pb	19 35 09.6	-0.2
YBGR	Belaya Gora	7.22	110	*i* P	Pn	19 36 42.6	-0.1
YBGR				*i*		19 38 04.0	
YBGR	Belaya Gora	7.22	110	*e*Pn	Pn	19 36 40.8	-2.0
	8.1nm,0.3s						
YBGR				*e*Sn	Sn	19 38 01.0	-3.7
YBGR				*e*Sn	Sn	19 38 01.0	-3.7
YBGR				*e*Sg	Sg	19 38 50.5	+1.7
	3.9nm,0.6s						
YBGR				*e*Sg	Sg	19 38 50.5	+1.7
MOMR	Moma	7.89	128	*e*P	Pn	19 36 50.1	-1.8
MOMR				*e*		19 38 17.7	
MOMR	Moma	7.89	128	*e*Pn	Pn	19 36 50.1	-1.8
	0.3nm,0.4s						

MOMR				*e*Sn	Sn	19 38 18.4	-2.8
MOMR				*e*Sn	Sn	19 38 18.4	-2.8
MOMR				*e*Lg	Lg	19 39 04.1	
MOMR				*e*Lg	Lg	19 39 04.1	
MOMR				*e*Sg	Sg	19 39 15.1	+4.8
	2.8nm,1.2s						
MOMR				*e*Sg	Sg	19 39 15.1	+4.8
UNR	Ust'-Nera	9.48	135	*e*P	Pn	19 37 11.3	-2.3
UNR				*e*		19 38 55.7	
UNR	Ust'-Nera	9.48	135	*e*Pn	Pn	19 37 10.3	-3.3
	1.8nm,2.2s						
UNR				*e*Sn	Sn	19 38 58.0	-2.0
	3.0nm,1.1s						
UNR				*e*Sn	Sn	19 38 58.0	-2.0
UNR				*e*Lg	Lg	19 39 55.0	
	9.8nm,1.0s						
UNR				*e*Lg	Lg	19 39 55.0	
YAK	Yakutsk	10.12	174	Pn	Pn	19 37 23.9	+1.5
	3.9nm,0.3s,baz=276,slow=1.8,SNR=5.1						
YAK				Sn	Sn	19 39 14.0	-1.8
	baz=70,slow=15						
	9.6nm,0.3s						
YAK				AML	AML		
YAK	Yakutsk	10.12	174	*e*P	Pn	19 37 17.9	-4.5
YAK				*e*		19 39 07.9	
YAK	Yakutsk	10.12	174		Pn	19 37 22.9	+0.5
TBGR	Tabaga	10.33	174	*e*P	Pn	19 37 20.8	-4.5
TBGR				*e*		19 39 13.1	
TBGR	Tabaga	10.33	174	*e*Pn	Pn	19 37 24.0	-1.2
	1.0nm,0.8s						
TBGR				*e*Sn	Sn	19 39 21.1	+0.2
TBGR				*e*Sn	Sn	19 39 21.1	+0.2
	1.7nm,1.0s						
YCRN	Chernyshevskiy	10.70	220	*e*P	Pn	19 37 27.2	-3.1
YCRN				*e*		19 39 23.4	
YCRN	Chernyshevskiy	10.70	220	*e*Pn	Pn	19 37 28.3	-2.0
	2.1nm,1.1s						
YCRN				*e*Sn	Sn	19 39 29.9	-0.1
YCRN				*e*Sn	Sn	19 39 29.9	-0.1
YCRN				*e*Lg	Lg	19 40 35.1	
YCRN				*e*Lg	Lg	19 40 35.1	
	13nm,1.1s						
USMR	Ust'-Maya	12.03	163	*e*Pn	Pn	19 37 45.9	-2.5
	0.5nm,1.3s						
USMR				*e*Lg	Lg	19 41 16.7	
USMR				*e*Lg	Lg	19 41 16.7	
USMR				*e*Lg	Lg	19 41 16.7	
	1.5nm,0.9s						
OLMR	Olekminsk	12.07	197	*e*Pn	Pn	19 37 47.1	-1.9
	0.5nm,0.6s						
OLMR				*e*Sn	Sn	19 40 03.0	-0.5
OLMR				*e*Sn	Sn	19 40 03.0	-0.5
	2.3nm,0.9s						
SEY	Seymchan	13.09	122	Pn	Pn	19 38 05.8	+3.0
	1.9nm,0.9s,baz=4.1,slow=15,SNR=2.3						
NRIK	Noril'sk	13.29	278	Sn	Sn	19 40 24.8	-8.5
	0.7nm,0.3s,baz=223,slow=15,SNR=3.5						
CLNS	Chul'man	15.34	185	*e*Pn	Pn	19 38 31.3	-2.2
	0.6nm,0.7s						
CLNS				*e*S	Sn	19 41 22.4	-0.8
CLNS				*e*S	Sn	19 41 22.4	-0.8
	1.3nm,0.9s						
PETK	Petropavlovsk-	23.08	129	P	P	19 40 04.2	+1.6
	2.3nm,0.7s,baz=5.3,slow=7.8,SNR=5.3						
	2.3nm,0.7s						
PETK	Petropavlovsk-	23.08	129	P	P	19 40 03.7	+1.1
C23K	Itkillik River	24.91	55	P	P	19 40 20.7	+1.0
C23K				IAmb	IAmb	19 40 21.7	
	comp=Z,13nm,1.1s						
D23K	Nanushuk River	25.50	56	P	P	19 40 27.3	+2.1
D23K				IAmb	IAmb	19 40 42.6	
	comp=Z,11nm,1.3s						
ZALV	Zalesovo Beam	25.64	248	P	P	19 40 27.8	+1.3
	comp=Z,0.4nm,0.5s,baz=40,slow=11,SNR=2.0						
	comp=Z,0.4nm,0.5s						
ZALV	Zalesovo Beam	25.64	248	P	P	19 40 28.2	+1.6
ZALV	Zalesovo Beam	25.64	248	P	P	19 40 28.2	+1.6
SONM	Songino Array	26.20	213	P	P	19 40 33.8	+2.0
	comp=Z,1.1nm,0.6s,baz=16,slow=11,SNR=4.1						
	comp=Z,1.1nm,0.6s						
SONM	Songino Array	26.20	213	P	P	19 40 34.0	+2.2
SONM				pmax	pmax		
	comp=Z,3.0nm,1.2s						
SONM	Songino Array	26.20	213	P	P	19 40 34.0	+2.2
ILAR	Eielson Array	29.63	60	P	P	19 41 02.4	+0.3
	comp=Z,0.5nm,0.7s,baz=310,slow=7.1,SNR=5.7						
	comp=Z,0.5nm,0.7s						
MKAR	Makanchi Array	32.78	244	P	P	19 41 31.1	+1.0
	comp=Z,1.1nm,0.7s,baz=36,slow=6.7,SNR=7.2						
MKAR				LR	LR	19 55 22.0	
	comp=Z,32nm,18.0s,baz=176,slow=37						
	comp=Z,1.1nm,0.7s						
MKAR	Makanchi Array	32.78	244	P	P	19 41 30.3	+0.2
MAKZ	Makanchi	32.85	245	P	P	19 41 30.7	0.0
MAKZ				pmax	pmax		
	comp=Z,25nm,1.5s						
MAKZ	Makanchi	32.85	245	P	P	19 41 30.7	0.0
AAK	Ala-Archa	38.81	250	LR	LR	19 59 14.1	
	comp=Z,39nm,18.6s,baz=134,slow=38						
HFS	Hagfors	40.48	315	P	P	19 42 34.6	-0.9
	comp=Z,3.4nm,1.0s,baz=51,slow=11,SNR=3.6						
	comp=Z,3.4nm,1.0s						
AKASG	Malin Array Be	45.13	297	P	P	19 43 13.2	-0.1
	comp=Z,0.3nm,0.4s,baz=28,slow=8.8,SNR=2.2						
	comp=Z,0.3nm,0.4s						
AKASG	Malin Array Be	45.13	297	P	P	19 43 13.2	-0.1
AKASG				pmax	pmax		
	comp=Z,3.0nm,1.2s						
AKASG	Malin Array Be	45.13	297	IAmb	IAmb	19 43 42.3	
	comp=Z,3.5nm,1.2s						
BCYI	Bear Canyon	56.37	49	P	P	19 44 39.1	+0.8
BCYI				IAmb	IAmb	19 44 39.4	
	comp=Z,2.5nm,0.7s						
PDAR	Pinedale Array	58.72	46	P	P	19 44 54.6	-0.3
	comp=Z,0.3nm,0.5s,baz=20,slow=4.9,SNR=3.4						
	comp=Z,0.3nm,0.5s						
ESDC	Sonseca Array	63.49	320	P	P	19 45 27.1	0.0
	comp=Z,0.4nm,0.8s,baz=10,slow=5.6,SNR=4.4						
	comp=Z,0.4nm,0.8s						
ESDC	Sonseca Array	63.49	320	IAmb	IAmb	19 45 36.2	
	comp=Z,2.3nm,1.4s						
TXAR	Lajitas Array	72.91	45	P	P	19 46 26.2	-0.1
	comp=Z,0.2nm,0.5s,baz=358,slow=5.2,SNR=6.1						
	comp=Z,0.2nm,0.5s						
TXAR	Lajitas Array	72.91	45	P	P	19 46 25.5	-0.8

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*BJI **10** 19:42:44.8, 3°.71S×145°.65E, h14^{km}, mB4.9/6, mb4.5/31*
*IDC **10** 19:42:45.1±0.5, 3°.45S×145°.62E, h0^{km}, mb4.4/15, mbtmp4.4/18, ML4.3/1, MS3.3/20, Error ellipse: s-maj=19.5km s-min=11.8km az=77.0*
*NEIC **10** 19:42:46.8±2.0, 3°.44S±0°.07×145°.7E±0°.1, h10^{km}±1^{km}, mb4.7/52, Error ellipse: s-maj=18.5km s-min=11.5km az=103.0*
ISC 10 19:42:46.5±0.4**, 3°.46S**±0°.05×**145°.66E**±0°.09**, h10^{km}, n106, σ1.^{s}29**/80**, mb4.7**/47**, MS3.4**/17**, 2D, Near north coast of New Guinea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MANU	Manus Island	2.21	51		Pn	19 43 21.2	-2.1
PMG	Port Moresby	6.09	166	Pn	Pn	19 44 18.3	+1.6
	16nm,0.6s,baz=356,slow=7.3,SNR=5.3						
PMG				Sn	Sn	19 45 26.8	+0.2
	0.1nm,0.3s,baz=283,slow=19,SNR=1.1						
PMG				LR	LR	19 46 08.1	
	comp=Z,100nm,21.9s,baz=342,slow=33						
PMG	Port Moresby	6.09	166	Pn	Pn	19 44 16.0	-0.7
KRVT	Keravat (AS076	6.41	98	Pn	Pn	19 44 22.8	+1.7
	45nm,0.4s,baz=132,slow=13,SNR=4.5						
RABL	Rabaul	6.53	97	Pn	Pn	19 44 23.8	+1.0
CTA	Charters Tower	16.54	178	LR	LR	19 52 26.7	
	comp=Z,166nm,19.1s,baz=32,slow=35						
GUMO	Guam	16.96	357	LR	LR	19 53 12.1	
	comp=Z,56nm,18.7s,baz=184,slow=37						
WB0	Warramunga Arr	19.59	213		Pn	19 47 16.9	+0.6
WB0				IAmb	IAmb	19 47 20.9	
	comp=Z,42nm,1.4s						
WR8	Warramunga Arr	19.68	213		P	19 47 15.8	-0.2
WRAB	Tennant Creek	19.74	213	P	P	19 47 16.8	+0.1
WRA	Warramunga Arr	19.76	213	P	P	19 47 17.0	+0.1
	comp=Z,1.0nm,0.3s,baz=38,slow=11,SNR=39						
WRA				PcP	PcP	19 51 36.0	+0.6
	comp=Z,1.5nm,0.7s,baz=27,slow=1.9,SNR=9.7						
	comp=Z,11nm,0.8s						
WRA				AML	AML		
WRA	Warramunga Arr	19.76	213		P	19 47 16.0	-0.9
KNRA	Kununurra	20.59	233		P	19 47 24.2	-1.7
SOEI	Soe	22.14	253		P	19 47 43.4	+0.6
SOEI				IAmb	IAmb	19 47 57.2	
	comp=Z,38nm,0.8s						
AS31	Alice Springs	23.08	208		P	19 47 52.6	+0.1
ASAR	Alice Springs	23.08	208	P	P	19 47 53.0	+0.5
	comp=Z,6.2nm,0.7s,baz=37,slow=8.7,SNR=96						
ASAR				PcP	PcP	19 51 42.8	+0.9
	comp=Z,2.3nm,0.8s,baz=41,slow=2.3,SNR=13						
	comp=Z,6.2nm,0.7s						
ASAR	Alice Springs	23.08	208		P	19 47 50.4	-2.1
FITZ	Fitzroy Crossi	24.41	232	P	P	19 48 04.5	-1.0
	comp=Z,5.8nm,0.6s,baz=50,slow=11,SNR=11						
FITZ				LR	LR	19 58 54.8	
	comp=Z,147nm,21.2s,baz=38,slow=40						
	comp=Z,5.8nm,0.6s						
FITZ	Fitzroy Crossi	24.41	232		P	19 48 03.7	-1.8
TOLI2	Tolitoli	25.28	280		P	19 48 13.0	-0.3
TOLI2				IAmb	IAmb	19 48 18.3	
	comp=Z,9.5nm,0.8s						
KAPI	Kappang	25.88	266	LR	LR	19 58 01.5	
	comp=Z,26nm,22.0s,baz=96,slow=36						
STKA	Stephens Creek	28.52	187	P	P	19 48 42.3	-0.1
	comp=Z,1.7nm,0.7s,baz=312,slow=9.0,SNR=4.1						
STKA				LR	LR	20 00 10.2	
	comp=Z,155nm,19.9s,baz=24,slow=37						
	comp=Z,1.7nm,0.7s						
MJAR	Matsushiro Arr	40.40	351	LR	LR	20 07 09.0	
	comp=Z,22nm,18.5s,baz=166,slow=36						
NJ2	Nanjing	43.54	326	*e*P	P	19 50 52.1	+1.5
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
KSRS	Korea Array	43.92	340	P	P	19 50 54.9	+1.3
	comp=Z,2.2nm,0.9s,baz=156,slow=8.4,SNR=8.7						
KSRS				LR	LR	20 06 32.4	
	comp=Z,21nm,21.2s,baz=230,slow=32						
	comp=Z,2.2nm,0.9s						
RPZ	Rata Peaks	45.96	154	LR	LR	20 10 59.0	
	comp=Z,15nm,18.1s,baz=42,slow=37						
HNS	HongShan	49.80	328	⇓P	P	19 51 42.1	+2.5
KMI2	Kunming	50.41	307	P	P	19 51 46.5	+1.7
KMI2				sP	pwP	19 51 51.1	+0.9
KMI2				pmax	pmax		
	comp=Z,12nm,1.0s						
CN2	Changchun	50.44	341	*e*P	P	19 51 47.1	+2.7
CN2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
XAN	Xi'an	50.89	320	P	P	19 51 51.5	+3.5
XAN				pmax	pmax		
	comp=Z,8.0nm,1.2s						
CM31	Chiang Mai Arr	50.90	297	P	P	19 51 48.6	+0.3
CM31				IAmb	IAmb	19 51 54.7	
	comp=Z,6.9nm,1.0s						
CMAR	Chiang Mai Arr	50.90	297	P	P	19 51 49.2	+0.9
	comp=Z,3.0nm,0.8s,baz=121,slow=6.1,SNR=28						
	comp=Z,3.0nm,0.8s						
CMAR	Chiang Mai Arr	50.90	297		P	19 51 48.1	-0.2
CHTO	Chiang Mai	51.02	297	P	P	19 51 49.8	+0.5
BNX	BinXian	51.60	344	⇓P	P	19 51 55.3	+2.2
BNX				pmax	pmax		
	comp=Z,7.0nm,1.1s						
PZH	PanZhiHua	51.85	308	P	P	19 51 57.3	+1.8
KLR	Kul'dur	53.85	349	LR	LR	20 13 52.2	
	comp=Z,19nm,18.2s,baz=178,slow=35						
HHC	Hu-ho-hao-te	53.98	328	*e*P	P	19 52 13.1	+2.1
HHC				pmax	pmax		
	comp=Z,16nm,0.5s						
HHC				pmax	pmax		
	comp=Z,38nm,4.6s						
HEH	HeiHe	55.77	346	*e*P	P	19 52 27.6	+4.1
HEH				pmax	pmax		
	comp=Z,3.0nm,0.6s						
MORE	Moreh	57.01	302	P	P	19 52 31.7	-1.2
PETK	Petropavlovsk-	57.27	9	LR	LR	20 13 25.9	
	comp=Z,32nm,21.2s,baz=183,slow=32						
GTA2	Gaotai	60.03	320	*e*P	P	19 52 54.7	+0.8
GTA2				pP	sP	19 52 57.9	+0.6
GTA2				pmax	pmax		
	comp=Z,2.0nm,0.9s						
SHEM	Shemya Is, Ala	60.91	19	LR	LR	20 13 39.6	
	comp=Z,45nm,19.9s,baz=252,slow=30						
SONM	Songino Array	61.55	331	LR	LR	20 19 16.3	
	comp=Z,22nm,20.7s,baz=260,slow=36						
MA2	Magadan	62.97	3	LR	LR	20 19 31.9	
	comp=Z,10nm,19.5s,baz=136,slow=35						
EVN	Everest	64.60	303		P	19 53 24.3	-1.1
YAK	Yakutsk	66.45	352	P	P	19 53 35.7	-0.1
YAK				IAmb	IAmb	19 53 54.4	
	comp=Z,3.9nm,0.5s						
BILL	Bilibino	72.79	8	P	P	19 54 14.4	-0.5
VNDA	Vanda	74.51	176	P	P	19 54 25.0	+0.1
	comp=Z,1.7nm,0.8s,baz=316,slow=5.0,SNR=10						
VNDA				LR	LR	20 25 22.4	
	comp=Z,34nm,18.2s,baz=290,slow=34						
	comp=Z,1.7nm,0.8s						
VNDA	Vanda	74.51	176	P	P	19 54 24.7	-0.2
MKAR	Makanchi Array	74.70	320	P	P	19 54 26.9	+0.3
	comp=Z,1.4nm,0.9s,baz=103,slow=6.7,SNR=5.3						
MKAR				LR	LR	20 25 11.6	
	comp=Z,11nm,21.9s,baz=186,slow=34						
	comp=Z,1.4nm,0.9s						
MKAR	Makanchi Array	74.70	320	P	P	19 54 25.9	-0.7
ZAA0	Zalesovo Array	76.17	328	P	P	19 54 33.9	-0.9
ZALV	Zalesovo Beam	76.17	328	P	P	19 54 34.4	-0.4
	comp=Z,2.1nm,0.8s,baz=101,slow=4.3,SNR=9.5						
	comp=Z,2.1nm,0.8s						
ZALV	Zalesovo Beam	76.17	328	P	P	19 54 33.5	-1.3
NIL	Nilore	77.37	305	P	P	19 54 41.9	-0.3
KDAK	Kodiak Island	78.32	29	LR	LR	20 21 40.5	
	comp=Z,34nm,21.2s,baz=249,slow=30						
KURK	Kurchatov	78.39	323		P	19 54 46.7	-0.6
KURK				IAmb	IAmb	19 54 53.1	
	comp=Z,7.7nm,1.1s						
KURBB	Kurchatov Arra	78.41	323	P	P	19 54 47.1	-0.3
	comp=Z,1.9nm,0.9s,baz=107,slow=4.9,SNR=10						
	comp=Z,1.9nm,0.9s						
L19K	White Mountain	79.35	24		P	19 54 52.4	-0.1
M20K	Styx River	79.92	25		P	19 54 56.8	+1.2
M20K				IAmb	IAmb	19 55 03.2	
	comp=Z,9.1nm,1.2s						
J20K	Nowinta River	80.60	23	IAmb	IAmb	19 55 06.3	
	comp=Z,7.8nm,1.1s						
CAST	Castle Rocks	81.06	24	P	P	19 55 01.7	+0.2
E19K	Redstone River	81.16	19	IAmb	IAmb	19 55 04.9	
	comp=Z,8.4nm,0.8s						
KKAR	Karatay Array	81.57	314	P	P	19 55 04.5	-0.2
IMAR	Indian Mountai	81.61	21		P	19 55 05.0	+0.5
MLY	Manley	82.29	23	IAmb	IAmb	19 55 10.5	
	comp=Z,6.6nm,1.0s						
MCK	McKinley	82.46	24	IAmb	IAmb	19 55 15.0	
	comp=Z,11nm,1.2s						
NRIK	Noril'sk	82.47	342	P	P	19 55 08.7	-0.2
	comp=Z,8.1nm,1.0s,baz=115,slow=7.3,SNR=4.2						
	comp=Z,8.1nm,1.0s						
NEA2	Nenana	82.76	23	IAmb	IAmb	19 55 11.5	
	comp=Z,8.9nm,1.2s						
DHY	Denali Highway	82.85	25	IAmb	IAmb	19 55 12.9	
	comp=Z,6.3nm,0.8s						
G23K	Bananza Creek	83.28	21	IAmb	IAmb	19 55 15.4	
	comp=Z,3.8nm,0.8s						
ILAR	Eielson Array	83.69	23	P	P	19 55 15.0	-0.3
	comp=Z,6.5nm,0.8s,baz=254,slow=5.2,SNR=9.4						
	comp=Z,6.5nm,0.8s						
ILAR	Eielson Array	83.69	23		P	19 55 14.0	-1.4
H24K	Noodor Dome	83.72	22	IAmb	IAmb	19 55 17.4	
	comp=Z,4.8nm,0.8s						
BVAR	Borovoye Array	83.94	324	P	P	19 55 16.8	-0.1
	comp=Z,7.1nm,0.7s,baz=106,slow=5.8,SNR=29						
	comp=Z,7.1nm,0.7s						
MAW	Mawson	84.06	202	P	P	19 55 17.4	+0.2
	comp=Z,1.8nm,0.9s,baz=68,slow=8.4,SNR=3.7						
	comp=Z,1.8nm,0.9s						
MAW	Mawson	84.06	202	P	P	19 55 17.3	+0.1
BCAR	Beaver Creek A	85.25	26		P	19 55 23.8	+0.5
I26K	Coal Creek Min	85.36	24	P	P	19 55 23.8	0.0
BMAR	Burnt Mountain	85.53	21	P	P	19 55 26.0	+1.4
D25K	Kavik River	85.59	19	P	P	19 55 24.2	-0.6
G26K	Porcupine Rive	85.66	22		P	19 55 24.5	-0.6
O29M	Mount Kennedy	85.97	29	IAmb	IAmb	19 55 29.5	
	comp=Z,4.2nm,0.7s						
I27K	Kandik River	86.07	23	IAmb	IAmb	19 55 29.9	
	comp=Z,6.4nm,0.9s						
H27K	Steamboat Moun	86.29	23	IAmb	IAmb	19 55 30.8	
	comp=Z,4.3nm,0.9s						
QSPA	South Pole Qui	86.49	180	P	P	19 55 28.9	-0.6
	comp=Z,2.8nm,0.7s,baz=329,slow=0.9,SNR=29						
QSPA				LR	LR	20 33 17.6	
	comp=Z,35nm,19.2s,baz=352,slow=35						
	comp=Z,2.8nm,0.7s						
QSPA	South Pole Qui	86.49	180	P	P	19 55 28.7	-0.9
QSPA				IAmb	IAmb	19 55 29.6	
	comp=Z,5.0nm,0.9s						
HRA	Herat	86.50	305	P	P	19 55 29.7	-0.7
HRA				IAmb	IAmb	19 55 30.9	
	comp=Z,5.9nm,1.2s						
DAWY	Dawson	86.55	25	P	P	19 55 29.4	-0.3
HYT	Haines Junctio	86.61	29	IAmb	IAmb	19 55 32.6	
	comp=Z,5.4nm,0.9s						
I28M	Miner Creek	86.69	24	IAmb	IAmb	19 55 33.1	
	comp=Z,4.8nm,0.7s						
F28M	Old Crow	87.31	22	IAmb	IAmb	19 55 35.5	
	comp=Z,4.6nm,0.8s						
J30M	Hart River	87.97	25	IAmb	IAmb	19 55 38.9	
	comp=Z,4.2nm,0.8s						
H31M	Peel River	89.04	24	IAmb	IAmb	19 55 43.0	
	comp=Z,4.2nm,0.8s						
INK	Inuvik	89.80	22	LR	LR	20 35 27.3	
	comp=Z,20nm,18.1s,baz=257,slow=35						
AB31	Akbulak array	89.80	319		P	19 55 43.1	-2.4
AB31				IAmb	IAmb	19 55 44.9	
	comp=Z,2.9nm,0.8s						
ABKAR	Akbulak array	89.80	319		P	19 55 43.1	-2.4
YKA	Yellowknife Ar	97.56	27	P	P	19 56 20.5	-0.3
	comp=Z,1.7nm,0.7s,baz=282,slow=4.3,SNR=4.2						
YKA				LR	LR	20 33 07.6	
	comp=Z,19nm,21.2s,baz=320,slow=31						
	comp=Z,1.7nm,0.7s						
GERES	GERESS Array B	119.07	326	PKP	PKPdf	20 01 35.3	-0.7
	comp=Z,0.4nm,0.2s,baz=37,slow=3.9,SNR=4.8						
CPUP	Villa Florida	142.96	144	PKP	PKPdf	20 02 19.8	-1.6
	comp=Z,3.5nm,0.4s,baz=4.3,slow=3.5,SNR=5.0						
CPUP	Villa Florida	142.96	144		PKPdf	20 02 19.4	-2.0
TORD	Torodi Ar. Bea	143.12	287	PKP	PKPbc	20 02 19.8	+1.0
	comp=Z,0.9nm,0.7s,baz=85,slow=1.3,SNR=4.7						
SIV	San Ignacio	147.25	127	PKPbc	PKPbc	20 02 31.3	0.0
	comp=Z,9.6nm,0.8s,baz=210,slow=2.9,SNR=5.2						
DBIC	Dimbokro	150.46	277	PKPbc	PKPbc	20 02 39.8	+0.2
	comp=Z,3.5nm,0.8s,baz=180,slow=1.6,SNR=4.7						
DBIC	Dimbokro	150.46	277		PKPdf	20 02 32.6	-1.7

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*IDC **10** 19:46:32.9±41.0, 14°.91S×165°.36E, h0^{km}, mb3.9/4, mbtmp3.9/4, Error ellipse: s-maj=707.1km s-min=95.5km az=68.0*
*NEIC **10** 19:46:34.4±1.4, 14°.6S±0°.2×165°.4E±0°.1, h10^{km}±2^{km}, mb4.4/9, Error ellipse: s-maj=41.3km s-min=8.6km az=24.0*
ISC 10 19:46:34.9±2.9**, 14°.1S**±0°.4×**165°.5E**±0°.2**, h35^{km}, n15, σ1.^{s}73**/16**, mb4.2**/8**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SANVU	Saraoutou	2.10	129		Pn	19 47 07.9	+0.3
SANVU				Sn	Sn	19 47 32.4	0.0
EIDS	Eidsvold	17.58	228		P	19 50 42.3	+4.2
EIDS				IAmb	IAmb	19 51 03.1	
	comp=Z,34nm,1.4s						
STKA	Stephens Creek	28.12	227	P	P	19 52 21.0	-2.8
	comp=Z,1.5nm,0.5s,baz=59,slow=12,SNR=4.8						
	comp=Z,1.5nm,0.5s						
WR8	Warramunga Arr	30.19	255	P	P	19 52 41.8	-0.4
WR8				IAmb	IAmb	19 52 58.1	
	comp=Z,12nm,1.4s						
WB0	Warramunga Arr	30.27	255	P	P	19 52 43.0	+0.1
WB0				IAmb	IAmb	19 53 18.9	
	comp=Z,13nm,1.5s						
WRA	Warramunga Arr	30.34	255	P	P	19 52 43.4	-0.1
	comp=Z,1.0nm,0.6s,baz=85,slow=9.5,SNR=13						
	comp=Z,1.0nm,0.6s						
WRA	Warramunga Arr	30.34	255	P	P	19 52 43.1	-0.4
AS31	Alice Springs	31.31	248	P	P	19 52 51.7	-0.5
ASAR	Alice Springs	31.32	248	P	P	19 52 51.5	-0.7
	comp=Z,0.8nm,0.4s,baz=83,slow=9.0,SNR=7.8						
	comp=Z,0.8nm,0.4s						
BBOO	Buckleboo	32.63	230	P	P	19 53 02.0	-1.6
MTN	Manton Dam	33.44	268	P	P	19 53 13.2	+2.3
MTN				IAmb	IAmb	19 53 52.5	
	comp=Z,6.8nm,1.2s						
KNRA	Kununurra	35.52	263	P	P	19 53 29.4	+0.5
KNRA				IAmb	IAmb	19 54 03.0	
	comp=Z,6.2nm,1.3s						
FORT	Forrest	38.16	238	P	P	19 53 49.2	-1.9
FITZ	Fitzroy Crossi	38.46	259	P	P	19 53 54.3	+0.5
	comp=Z,1.0nm,0.8s,baz=83,slow=8.1,SNR=1.1						
	comp=Z,1.0nm,0.8s						
FITZ	Fitzroy Crossi	38.46	259	P	P	19 53 54.5	+0.6

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*SJA **10** 19:57:24.8±0.6, 21°.67S×68°.51W, h142^{km}±3^{km}, ML4.1, MW4.1*
*IDC **10** 19:57:26.8±2.2, 21°.60S×68°.20W, h123^{km}±18^{km}, mb3.9/12, mbtmp4.3/16, Error ellipse: s-maj=19.7km s-min=13.0km az=63.0*
*VAO **10** 19:57:26.4±0.6, 21°.65S×68°.24W, h132^{km}, mb4.5, Presumed earthquake*
*NEIC **10** 19:57:26.4±1.5, 21°.71S±0°.05×68°.47W±0°.08, h122^{km}±4^{km}, mb4.5/21, Mwr4.3(GUC), Error ellipse: s-maj=11.3km s-min=6.4km az=78.0*
*GUC **10** 19:57:26.8±0.8, 21°.68S×68°.48W, h128^{km}±5^{km}, ML4.3*
ISC 10 19:57:25.1±0.6**, 21°.68S**±0°.03×**68°.40W**±0°.04**, h119^{km}**±6^{km}**, n159, σ1.^{s}85**/182**, mb4.4**/17**, 14C-1D, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PB09	IPOC Station P	0.79	261	*e*P	Pn	19 57 41.3	-4.0
PB09				*e*P		19 57 47.0	
PB09				*e*S	Sn	19 58 03.2	+2.6
PB09				IAML		19 58 03.9	
	comp=Z,3μm,0.2s						
PB09	IPOC Station P	0.79	261	⇑*i*P	Pn	19 57 46.9	+1.5
PB09				*i* S	Sn	19 58 01.7	+1.1
PB09	IPOC Station P	0.79	261		Pn	19 57 46.6	+1.3
AF01	San Pedro de A	1.29	171	*e*P	Pn	19 57 52.7	+2.4
AF01				IAML		19 58 40.2	
	comp=Z,1μm,0.8s						
AF01	San Pedro de A	1.29	171	⇓*e*P	Pn	19 57 52.2	+1.9
AF01	San Pedro de A	1.29	171		Pn	19 57 52.3	+1.9
PB03	IPOC Station P	1.31	253	*e*P	Pn	19 57 51.6	+1.1
PB03				*e*S	Sn	19 58 10.9	+1.1
PB03				IAML		19 58 12.2	
	comp=Z,3μm,0.3s						
PB03	IPOC Station P	1.31	253	⇑*i*P	Pn	19 57 51.4	+0.9
PB03				*i* S	Sn	19 58 10.4	+0.6
PB03				IAML		19 58 11.7	
	comp=N,5μm,0.4s						
PB03	IPOC Station P	1.31	253		Pn	19 57 51.0	+0.6
PB07	IPOC Station P	1.39	268	*e*P	Pn	19 57 52.3	+1.0
PB07				*e*S	Sn	19 58 12.8	+1.6
PB07				IAML		19 58 14.3	
	comp=Z,3μm,0.3s						
PB07	IPOC Station P	1.39	268	⇑*i*P	Pn	19 57 52.2	+0.9
PB07				*i* S	Sn	19 58 11.9	+0.7
PB07				IAML		19 58 14.5	
	comp=N,4μm,0.2s						
PB07	IPOC Station P	1.39	268		Pn	19 57 51.8	+0.5
PB02	IPOC Station P	1.44	284	*e*P	Pn	19 57 52.8	+0.9
PB02				*e*S	Sn	19 58 14.4	+2.2
PB02				IAML		19 58 15.8	
	comp=Z,4μm,0.4s						
PB02	IPOC Station P	1.44	284	⇑*i*P	Pn	19 57 52.6	+0.8
PB02				*i* S	Sn	19 58 13.3	+1.1
PB02				IAML		19 58 17.8	
	comp=E,7μm,0.2s						
PB02	IPOC Station P	1.44	284		Pn	19 57 52.4	+0.6
PB06	IPOC Station P	1.50	226	*e*P	Pn	19 57 53.8	+1.2
PB06				*e*S	Sn	19 58 15.9	+2.4
PB06				IAML		19 58 17.7	
	comp=Z,1μm,0.6s						
PB06	IPOC Station P	1.50	226	⇑*i*P	Pn	19 57 53.8	+1.2
PB06				*i* S	Sn	19 58 14.8	+1.3
PB06				IAML		19 58 16.5	
	comp=E,3μm,0.1s						
PB06	IPOC Station P	1.50	226		Pn	19 57 53.3	+0.8
TA01	Diego Aracena	2.00	303	*e*P	Pn	19 57 59.1	+0.7
TA01				IAML		19 58 27.7	
	comp=Z,1μm,0.3s						
TA01	Diego Aracena	2.00	303	⇑*i*P	Pn	19 57 59.0	+0.5

TA01				i S	Sn	19 58 24.1	+0.2
TA01				IAML		19 58 26.2	
	comp=E,4µm,0.3s						
TA01	Diego Aracena	2.00	303		Pn	19 57 58.9	+0.4
PB05	IPOC Station P	2.04	235	eP	Pn	19 57 59.7	+0.6
PB05				eS	Sn	19 58 25.9	+0.8
PB05				IAML		19 58 32.3	
	comp=Z,695nm,0.5s						
PB05	IPOC Station P	2.04	235	⇑iP	Pn	19 57 59.7	+0.6
PB05				i S	Sn	19 58 24.8	-0.4
PB05				IAML		19 58 34.9	
	comp=N,1µm,0.7s						
PB05	IPOC Station P	2.04	235		Pn	19 57 59.3	+0.2
GO01	Chusmiza	2.13	339	eP	Pn	19 58 02.1	+1.5
GO01				eS	Sn	19 58 32.5	+4.7
GO01				IAML		19 58 33.2	
	comp=Z,697nm,0.1s						
GO01	Chusmiza	2.13	339	⇑iP	Pn	19 58 02.1	+1.5
GO01				IAML		19 58 33.1	
	comp=N,4µm,0.1s						
GO01	Chusmiza	2.13	339		Pn	19 58 01.9	+1.3
TA02	Huaiquique	2.14	310	eP	Pn	19 58 00.8	+0.6
TA02				eS	Sn	19 58 28.9	+1.8
TA02				IAML		19 58 29.8	
	comp=Z,1µm,0.1s						
TA02	Huaiquique	2.14	310	i P	Pn	19 58 00.5	+0.3
PB11	IPOC Station P	2.24	328	eP	Pn	19 58 02.4	+0.8
PB11				eS	Sn	19 58 30.7	+1.0
PB11				IAML		19 58 32.6	
	comp=Z,994nm,0.4s						
PB11	IPOC Station P	2.24	328	⇑iP	Pn	19 58 02.5	+0.8
PB11				i S	Sn	19 58 30.2	+0.5
PB11				IAML		19 58 32.3	
	comp=N,4µm,0.4s						
PB11	IPOC Station P	2.24	328		Pn	19 58 02.5	+0.8
PSGCX	Pisagua	2.62	322	eP	Pn	19 58 06.5	-0.1
PSGCX				eS	Sn	19 58 38.6	+0.1
PSGCX				IAML		19 58 42.5	
	comp=Z,790nm,0.7s						
PSGCX	Pisagua	2.62	322	⇑iP	Pn	19 58 06.4	-0.1
PSGCX				i S	Sn	19 58 37.5	-1.0
PSGCX	Pisagua	2.62	322		Pn	19 58 06.3	-0.3
YJA	Yavi	2.72	101	eP	Pn	19 58 11.3	+3.2
YJA				eS	Sn	19 58 46.4	+5.2
YJA	Yavi	2.72	101	eP	Pn	19 58 10.6	+2.5
HJA	Humahuaca	3.16	119	eP	Pn	19 58 16.3	+2.6
SALTA		3.17	144	eP	Pn	19 58 16.7	+2.7
PB14	IPOC Station P	3.47	212	eP	Pn	19 58 18.4	+0.6
PB14				eS	Sn	19 58 58.2	-0.3
PB14				IAML		19 59 13.2	
	comp=Z,151nm,0.3s						
PB14	IPOC Station P	3.47	212	eP	Pn	19 58 18.7	+0.9
PB14	IPOC Station P	3.47	212		Pn	19 58 18.3	+0.5
PB16	IPOC Station P	3.48	342	eP	Pn	19 58 19.6	+1.2
PB16				eS	Sn	19 59 03.4	+4.1
PB16				IAML		19 59 05.5	
	comp=Z,193nm,0.6s						
PB16	IPOC Station P	3.48	342	⇑eP	Pn	19 58 19.5	+1.2
PB16	IPOC Station P	3.48	342		Pn	19 58 19.4	+1.2
PB12	IPOC Station P	3.54	329	eP	Pn	19 58 18.0	-0.7
PB12				eS	Sn	19 58 58.0	-2.1
PB12				IAML		19 59 05.6	
	comp=Z,322nm,0.5s						
PB12	IPOC Station P	3.54	329	eP	Pn	19 58 17.8	-0.9
PB12	IPOC Station P	3.54	329		Pn	19 58 17.6	-1.1
AP01	Chacalluta	3.76	331	eP	Pn	19 58 21.7	+0.3
AP01				eS	Sn	19 59 06.4	+1.3
AP01				IAML		19 59 16.4	
	comp=Z,606nm,0.2s						
AP01	Chacalluta	3.76	331	eP	Pn	19 58 20.8	-0.7
SLA	San Lorenzo	4.03	139	eP	Pn	19 58 28.5	+3.2
SLA	San Lorenzo	4.03	139	⇑eP	Pn	19 58 27.9	+2.7
PB18	Visviri	4.19	346		Pn	19 58 31.7	+4.0
AC01	Pan de Azucar	4.89	204	eS	Sn	19 59 29.4	-2.7
AC01				IAML		19 59 51.8	
	comp=Z,87nm,0.7s						
AC01	Pan de Azucar	4.89	204		Pn	19 58 35.3	-1.2
FSA	Cafayete	4.94	154	eP	Pn	19 58 39.9	+2.5
FSA				eS	Sn	19 59 17.6	-16
AC02	Maricunga	5.18	187	eP	Pn	19 58 41.3	+0.4
AC02				eS	Sn	19 59 43.5	+3.7
AC02				IAML		20 00 17.4	
	comp=Z,51nm,0.6s						
AC02	Maricunga	5.18	187		Pn	19 58 41.2	+0.3
LPAZ	La Paz	5.37	3	P	Pn	19 58 46.1	+2.6
	comp=Z,10.0nm,0.5s,baz=195,slow=5.4,SNR=36						
LPAZ				S	Sn	19 59 45.2	+0.7
	comp=Z,8.5nm,0.5s,baz=50,slow=16,SNR=1.3						
LPAZ	La Paz	5.37	3		Pn	19 58 45.8	+2.2
LPAZ	La Paz	5.37	3	eP	Pn	19 58 45.1	+1.5
AC05	El Transito	7.33	193		Pn	19 59 07.1	-2.5
LCO	Las Campanas	7.59	195	Pn	Pn	19 59 09.9	-3.4
CO01	Juntas del Tor	8.41	190	Pn	Pn	19 59 22.8	-1.4
GO04	Tololo Observa	8.73	194	Pn	Pn	19 59 24.8	-3.9
SIV	San Ignacio	8.95	52	P	Pn	19 59 29.1	-2.4
	comp=Z,15nm,0.4s,baz=232,slow=11,SNR=82						
SIV				S	Sn	20 01 01.9	-8.6
	comp=Z,4.6nm,0.6s,baz=304,slow=22,SNR=7.6						
CO02	Combarbal	9.77	193	Pn	Pn	19 59 38.0	-4.5
CFA	Coronel Fontan	9.89	179	P	Pn	19 59 41.5	-2.5
	comp=Z,2.9nm,0.5s,baz=349,slow=13,SNR=10						
CFA				S	Sn	20 01 26.0	-7.3
	comp=Z,1.6nm,0.4s,baz=283,slow=17,SNR=2.3						
COIM	Forte Coimbra	10.08	82	eP	Pn	19 59 41.4	-5.3
CO04	Los Peladeros	10.58	192	Pn	Pn	19 59 48.5	-5.1
PTLB	Pontes e Lacer	10.74	56		Pn	19 59 53.6	-2.1
PTLB	Pontes e Lacer	10.74	56	eP	Pn	19 59 54.2	-1.5
BDQN	Bodoquena, MS	10.95	86	eP	Pn	19 59 55.4	-2.9
CPUP	Villa Florida	11.13	117	P	Pn	19 59 59.5	-1.2
	comp=Z,3.6nm,0.5s,baz=297,slow=14,SNR=9.0						
CPUP	Villa Florida	11.13	117	Pn	Pn	19 59 58.8	-1.9
CPUP	Villa Florida	11.13	117	eP	Pn	19 59 59.8	-0.9
VILB	Vilhena	11.68	43		Pn	20 00 06.8	-1.4
VILB	Vilhena	11.68	43	eP	Pn	20 00 07.6	-0.6
SJPY	San Joaquin	11.77	109	eP	Pn	20 00 08.7	-0.6
AQDB	Aquidauana	11.92	87		Pn	20 00 07.7	-3.5
AQDB	Aquidauana	11.92	87	eP	Pn	20 00 11.0	-0.2
SALV	Santo Antonio	13.33	67	eP	Pn	20 00 27.6	-2.0
PSAL	Palomas, Salto	13.46	136	eP	Pn	20 00 29.6	-1.6
CZSB	Cruzeiro do Su	14.47	343	Pn	Pn	20 00 42.7	-1.7
CZSB	Cruzeiro do Su	14.47	343	eP	Pn	20 00 45.0	+0.6
TRCB	Terra Rica	14.64	97		Pn	20 00 44.7	-1.8
TRCB	Terra Rica	14.64	97	eP	Pn	20 00 45.0	-1.5
PTGB	Pitanga	15.32	105	eP	P	20 00 55.6	-1.5
ANCO	Parque Anchore	15.56	146	eP	Pn	20 00 57.2	-0.6
CPSB	Cacapava Do Su	16.00	126	eP	Pn	20 01 01.6	-1.7
LDASE	Londrina, Braz	16.06	99	eP	Pn	20 01 03.7	-0.5
CLDB	Colider	16.16	50	eP	P	20 01 05.6	-0.8
ARAG	Araguaiana, MT	16.79	72	eP	P	20 01 12.9	-0.5
FRTB	Fartura	17.48	99	eP	Pn	20 01 20.8	-0.8
BB19B	Bebedouro	18.52	92	eP	P	20 01 32.3	-0.1
SNDB	Serra Nova Dou	18.98	62	eP	P	20 01 36.6	-0.8
PLCA	Paso Flores	19.09	185	P	Pn	20 01 41.0	+0.5
	comp=Z,4.3nm,1.0s,baz=333,slow=6.1,SNR=3.3						
IPMB	Ipameri, GO	19.34	83	eP	P	20 01 40.2	-1.1
SPB	Sao Paulo	19.45	100	eP	P	20 01 42.3	-0.1
PET01	Itanhaem-SP	19.62	102	eP	P	20 01 43.8	-0.5
VAO	Valinhos	19.87	98		P	20 01 46.1	-1.0
VAO				IAmb	IAmb	20 01 47.3	
	comp=Z,23nm,0.7s						
VAO	Valinhos	19.87	98	eP	P	20 01 46.0	-1.1
MACA	Manacapuru-AM	19.87	23	eP	P	20 01 46.1	-0.9
BDFB	Brasilia	20.21	76	P	P	20 01 50.2	-0.6
	comp=Z,2.6nm,0.4s,baz=237,slow=8.0,SNR=5.5						
	comp=Z,2.6nm,0.4s						
BDFB	Brasilia	20.21	76	P	P	20 01 50.1	-0.8
CANS	Sao Roque de M	20.59	90	eP	P	20 01 54.2	-0.7
ITTB	Itaituba	21.14	37	eP	P	20 01 59.5	-1.2
SGC2	Sao Gabriel da	21.44	4	eP	P	20 02 03.1	-0.7
BSCB	Bom Sucesso	22.01	93	eP	P	20 02 09.8	-0.3
SMTB	Santa Maria do	23.73	61	eP	P	20 02 26.4	-0.1
JANB	Januaria	23.77	78	eP	P	20 02 26.7	-0.2
SDBA	SAO DESIDERIO	24.25	71	eP	P	20 02 30.9	-0.4
BOAV	Boa Vista	25.13	19	P	P	20 02 39.0	-0.2
BOAV	Boa Vista	25.13	19	eP	P	20 02 37.2	-2.0
GUA01	Guaratinga, BA	27.46	84	eP	P	20 02 59.5	-0.6
TEIG	Tepich	45.95	334	P	P	20 05 33.0	-3.3
TEIG				IAmb	IAmb	20 05 33.3	
	comp=Z,8.5nm,0.5s						
TKL	Tuckaleechee C	58.85	345	IAmb	IAmb	20 07 12.3	
	comp=Z,7.3nm,0.8s						
V48A	Smith Brothers	59.71	343	P	P	20 07 17.6	+0.5
VNA3	Neumayer Olymp	59.76	161	⇑P	P	20 07 18.8	+1.7
	comp=Z,0.9nm,0.7s						
BRDY	Brady	60.29	330	P	P	20 07 21.7	+0.6
BRDY				IAmb	IAmb	20 07 22.7	
	comp=Z,4.2nm,0.7s						
VNA2	Neumayer--Watz	60.33	161	⇑P	P	20 07 22.6	+1.7
	comp=Z,1.0nm,0.7s,baz=288,slow=6.4						
WVT	Waverly	60.36	342	P	P	20 07 21.3	-0.2
S54A	Dingess, Beckl	60.39	348	P	P	20 07 22.5	+0.8
TXAR	Lajitas Array	61.05	325	P	P	20 07 27.7	+1.3
	comp=Z,0.9nm,0.7s,baz=148,slow=8.7,SNR=10						
	comp=Z,0.9nm,0.7s						
TXAR	Lajitas Array	61.05	325	P	P	20 07 27.6	+1.2
TX31	Lajitas Ar. Si	61.05	325	P	P	20 07 27.1	+0.7
DBIC	Dimbokro	68.33	73	P	P	20 08 14.1	+0.1
	comp=Z,4.5nm,0.6s,baz=229,slow=6.1,SNR=7.8						
	comp=Z,4.5nm,0.6s						
DBIC	Dimbokro	68.33	73	P	P	20 08 13.6	-0.4
QSPA	South Pole Qui	68.52	180	P	P	20 08 16.4	+1.9
	comp=Z,1.9nm,0.5s,baz=323,slow=0.8,SNR=37						
	comp=Z,1.9nm,0.5s						
QSPA	South Pole Qui	68.52	180	P	P	20 08 16.1	+1.6
PDAR	Pinedale Array	74.50	330	P	P	20 08 52.2	+1.5
	comp=Z,1.0nm,0.7s,baz=148,slow=8.7,SNR=6.9						
	comp=Z,1.0nm,0.7s						
PDAR	Pinedale Array	74.50	330	P	P	20 08 51.3	+0.5
ULM	Lac du Bonnet	75.63	342	P	P	20 08 57.2	+0.5
	comp=Z,5.2nm,0.5s,baz=144,slow=9.0,SNR=7.7						
	comp=Z,5.2nm,0.5s						
ULM	Lac du Bonnet	75.63	342	IAmb	IAmb	20 09 06.3	
	comp=Z,7.7nm,1.2s						
NVAR	Mina Array Bea	75.92	322	P	P	20 09 00.7	+1.7
	comp=Z,0.9nm,0.6s,baz=162,slow=7.9,SNR=7.7						
	comp=Z,0.9nm,0.6s						
NVAR	Mina Array Bea	75.92	322	P	P	20 08 60.0	+1.0
TORD	Torodi Ar. Bea	76.97	70	P	P	20 09 05.1	0.0
	comp=Z,2.1nm,0.5s,baz=252,slow=5.0,SNR=28						
	comp=Z,2.1nm,0.5s						
PAHR	Pah Rah Range	77.41	322	P	P	20 09 09.3	+2.1
PAHR				IAmb	IAmb	20 09 10.7	
	comp=Z,6.3nm,0.9s						
HLID	Hailey	77.44	328	P	P	20 09 10.1	+2.7
HLID				IAmb	IAmb	20 09 10.9	
	comp=Z,5.3nm,0.8s						
BOSA	Boshof	82.94	118	P	P	20 09 38.4	+1.1
	comp=Z,2.8nm,1.0s,baz=217,slow=5.1,SNR=2.1						
	comp=Z,2.8nm,1.0s						
BOSA	Boshof	82.94	118	P	P	20 09 38.2	+0.9
BOSA				IAmb	IAmb	20 10 14.3	
	comp=Z,20nm,1.4s						
MAW	Mawson	84.03	163	P	P	20 09 43.1	+1.3
	comp=Z,0.8nm,0.7s,baz=333,slow=2.3,SNR=1.4						
	comp=Z,0.8nm,0.7s						
MAW	Mawson	84.03	163	P	P	20 09 42.8	+0.9
ESDC	Sonseca Array	85.62	44	P	P	20 09 51.0	+0.6
	comp=Z,1.1nm,1.0s,baz=243,slow=5.0,SNR=6.5						
	comp=Z,1.1nm,1.0s						
YKA	Yellowknife Ar	91.51	340	P	P	20 10 18.6	+1.1
	comp=Z,4.2nm,0.6s,baz=138,slow=4.6,SNR=13						
	comp=Z,4.2nm,0.6s						
YKAW3	Yellowknife Wh	91.56	340	P	P	20 10 19.1	+1.3
WRA	Warramunga Arr	133.04	210	PKP	PKiKP	20 16 28.8	+0.2
	comp=Z,1.0nm,0.8s,baz=155,slow=1.8,SNR=3.0						
WRA	Warramunga Arr	133.04	210		PKPdf	20 16 27.8	+0.5
KURBB	Kurchatov Arra	141.22	34	PKP	PKPdf	20 16 42.4	+1.0
	comp=Z,0.4nm,0.7s,baz=298,slow=2.2,SNR=5.3						
ZALV	Zalesovo Beam	141.91	26	PKP	PKPdf	20 16 42.9	+0.4
	comp=Z,1.0nm,0.4s,baz=270,slow=2.4,SNR=6.9						
ZALV	Zalesovo Beam	141.91	26		PKPdf	20 16 42.6	+0.1
KSH2	Kashi	144.66	52	PKP	PKPdf	20 16 48.4	+0.3
MKAR	Makanchi Array	145.49	36	PKPbc	PKPab	20 16 50.4	+0.7
	comp=Z,1.1nm,0.6s,baz=331,slow=3.1,SNR=18						
MKAR	Makanchi Array	145.49	36		PKPab	20 16 50.6	+0.9
PDGK	Podgornoye	145.69	43	PKPdf	PKPab	20 16 51.7	+1.0
MJAR	Matsushiro Arr	152.55	309	PKPbc	PKiKP	20 17 08.9	+0.9
	comp=Z,2.0nm,0.9s,baz=54,slow=1.6,SNR=6.7						
MJAR	Matsushiro Arr	152.55	309		PKiKP	20 17 09.3	+1.3
HHC	Hu-ho-hao-te	160.88	0	eP	PKPdf	20 17 06.4	-5.0
PZH	PanZhiHua	169.79	60	PKP	PKPdf	20 17 17.5	-1.7

IDC 10 20:07:31.3±8.7**, 7.°96S**×**129.°80E, h98^{km}**±68^{km}**, mb4.0**/1**, mbtmp4.2**/4**, ML4.2**/3**, MS3.8**/1**, Error ellipse: s-maj=65.6km s-min=53.4km az=9.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	10.86	201	P	Pn	20 10 03.7	-0.1
	0.9nm,0.3s,baz=36,slow=11,SNR=51						
FITZ				S	Sn	20 12 03.8	+0.4
	10nm,0.3s,baz=82,slow=18,SNR=14						
	2.5nm,0.3s						
FITZ				AML	AML		
WRA	Warramunga Arr	12.70	160	P	Pn	20 10 27.2	-1.2
	1.4nm,0.3s,baz=343,slow=13,SNR=58						
WRA				S	Sn	20 12 49.0	+0.8
	3.4nm,0.6s,baz=338,slow=22,SNR=6.8						
	2.2nm,0.4s						
WRA				AML	AML		
ASAR	Alice Springs	16.11	166	P	P	20 11 13.8	+0.3
	1.0nm,0.3s,baz=342,slow=9.2,SNR=38						
ASAR				S	Sn	20 14 11.4	+0.8
	1.1nm,0.8s,baz=347,slow=24,SNR=5.2						
	4.4nm,0.5s						
ASAR				AML	AML		
STKA	Stephens Creek	26.21	157	P	P	20 12 57.0	0.0
	1.6nm,0.3s,baz=336,slow=9.7,SNR=14						
	1.6nm,0.3s						
BRDH	Bariadhala	48.19	310	LR	LR	20 40 02.4	
	comp=Z,85nm,18.4s,baz=292,slow=40						

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*SJA **10** 20:15:43.1±0.7, 27.°86S×71.°39W, h20^{km}±3^{km}, ML3.2, MW3.5*
*GUC **10** 20:15:45.7±0.7, 27.°88S×71.°34W, h22^{km}±4^{km}, ML2.9*
ISC 10 20:15:43.5±1.5**, 27.°88S**±0.°03×**71.°35W**±0.°08**, h19^{km}**±4^{km}**, n21,** σ**1.^{s}28**/31**, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	Llanos de Chal	0.41	143	eP	Pn	20 15 53.4	-0.9
AC04				eS	Sb	20 15 59.2	+1.2
AC04				IAML		20 16 01.2	
	comp=Z,1µm,0.5s						
AC04	Llanos de Chal	0.41	143	eP	Pn	20 15 53.4	-0.9
AC04				eS	Sb	20 15 58.9	+0.9
AC04				IAML		20 15 59.6	
	comp=E,4µm,0.3s						
AC06	Mina Casimiro	1.02	60	eP	Pg	20 16 03.2	-0.2
AC06				IAML		20 16 24.3	
	comp=N,374nm,0.3s						
GO03	Copiapo	1.03	74	eP	Pg	20 16 03.7	+0.1
GO03				eS	Sg	20 16 18.3	+1.2
GO03				IAML		20 16 23.7	
	comp=Z,393nm,0.6s						
GO03	Copiapo	1.03	74	eP	Pg	20 16 03.6	0.0
GO03				IAML		20 16 24.0	
	comp=N,478nm,0.3s						
LCO	Las Campanas	1.26	153	eP	Pg	20 16 08.0	-0.1
LCO				eS	Sg	20 16 25.7	+1.0
LCO	Las Campanas	1.26	153	eP	Pg	20 16 07.7	-0.3
LCO				eS	Sg	20 16 24.6	0.0
AC05	El Transito	1.34	135	eP	Pg	20 16 09.4	-0.2
AC05				IAML		20 16 31.1	
	comp=Z,221nm,0.3s						
AC05	El Transito	1.34	135	eP	Pg	20 16 09.3	-0.2
AC05				IAML		20 16 31.3	
	comp=N,315nm,0.5s						
AC01	Pan de Azucar	1.85	21	eP	Pn	20 16 14.4	+0.2
AC01				IAML		20 16 47.6	
	comp=Z,153nm,0.5s						
AC01	Pan de Azucar	1.85	21	eP	Pn	20 16 14.4	+0.2
GO04	Tololo Observa	2.33	168	eP	Pb	20 16 23.3	-1.9
GO04				eS	Sb	20 16 53.5	-0.1
GO04				IAML		20 17 01.3	
	comp=Z,273nm,0.3s						
GO04	Tololo Observa	2.33	168	eP	Pb	20 16 23.2	-1.9
CO01	Juntas del Tor	2.36	153	eP	Pb	20 16 24.8	-0.8
CO01				eS	Sb	20 16 54.7	+0.3
CO01				IAML		20 16 59.3	
	comp=Z,124nm,0.6s						
CO01	Juntas del Tor	2.36	153	eP	Pb	20 16 25.0	-0.6
CO01				IAML		20 16 58.6	
	comp=E,157nm,0.4s						
CO02	Combarbal	3.33	175	eP	Pn	20 16 36.3	+1.7
CO02				eS	Sn	20 17 16.5	+2.9
CO02				IAML		20 17 36.3	
	comp=Z,143nm,0.3s						
PB14	IPOC Station P	3.35	15	eP	Pn	20 16 34.6	-0.5
PB14				eS	Sg	20 17 32.5	+1.2
PB14				IAML		20 17 35.3	
	comp=Z,51nm,0.5s						
RTLS	Leoncito	4.29	156	eP	Pn	20 16 50.3	+2.2
RTLS				eS	Sg	20 18 00.3	-1.2
CFA	Coronel Fontan	4.59	145	eP	Pn	20 16 57.0	+5.0
CFA				eS	Sb	20 17 55.5	-3.0
PB05	IPOC Station P	5.11	12	eP	Pn	20 16 57.9	-1.3
PB06	IPOC Station P	5.40	18	eP	Pn	20 17 02.7	-0.5

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*ISK **10** 20:19:17.2, 38.°12N×38.°64E, h5^{km}, ML3.3/20*
*AFAD **10** 20:19:18.6, 38.°17N×38.°67E, h12^{km}±1^{km}, MW3.6*
ISC 10 20:19:18.1±1.1**, 38.°15N**±0.°02×**38.°66E**±0.°02**, h6^{km}**±9^{km}**, n59,** σ**0.^{s}93**/91**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MAYA	Malatya/Merkez	0.26	314	P	Pb	20 19 24.2	-1.1
MAYA				S	Sb	20 19 28.1	-2.0
NARI	Adyaman-Kaht	0.27	163	P	Pb	20 19 24.7	-0.8
NARI				S	Sb	20 19 29.5	-0.9
MDYL	Doganyol-Malat	0.34	61	Pg	Pb	20 19 25.8	-0.9
MDYL				AML	AML		
ESGZ	Sivrice-Elazig	0.42	48	Pg	Pg	20 19 26.6	+0.2
ESGZ				AML	AML		
ELZG	Elazig	0.43	36	P	Pg	20 19 26.8	+0.3
ELZG				S	Sg	20 19 33.0	+0.8
AZEY	Adyaman-Merk	0.47	224	P	Pb	20 19 28.8	0.0
AZEY				S	Sb	20 19 35.2	-0.8
CNGT	ngs	0.51	82	P	Pg	20 19 28.3	+0.4
CNGT				S	Sb	20 19 36.2	-1.0
SVRC	Sivrice-ELAZID	0.56	65	Pg	Pg	20 19 29.2	+0.3
SVRC				Sg	Sb	20 19 38.9	+0.1
SVRC				AML	AML		
HANM	anlurfa/Hi	0.59	163	P	Pb	20 19 30.7	-0.2
HANM				S	Sg	20 19 37.5	+0.3
ESIJ	Sivrice-Elazig	0.59	59	Pg	Pg	20 19 30.1	+0.5
ESIJ				Sg	Sb	20 19 40.3	+0.5
ESIJ				AML	AML		
AKCD	Akcadag	0.60	285	P	Pb	20 19 30.5	-0.6
AKCD				S	Sb	20 19 39.2	-0.8
ELZ	Elazig	0.69	38	P	Pg	20 19 31.4	0.0
ELZ				S	Sg	20 19 40.7	+0.3
URFA	Urfa	0.72	170	Pg	Pg	20 19 29.8	-2.1
URFA				AML	AML		
ATAB	Bozova	0.73	203	P	Pb	20 19 33.5	+0.1
ATAB				S	Sb	20 19 44.0	+0.3
MDNT	Maden	0.84	73	P	Pg	20 19 34.5	+0.2
MDNT				S	Sg	20 19 45.0	-0.2
AKCA	Adyaman/G¶l	0.85	246	P	Pn	20 19 35.8	-0.9
AKCA				S	Sn	20 19 48.4	-1.1
HEKM	Malatya_Hekimh	0.92	323	P	Pb	20 19 35.9	-0.6
HEKM				S	Sb	20 19 48.1	-1.0
ARPR	Arapgir-MALATY	0.98	345	Pg	Pg	20 19 36.9	0.0
SANL	SANLIURFA_Merk	1.01	165	P	Pn	20 19 38.6	-0.2
KOVA	Elazig, Kovanc	1.06	58	P	Pn	20 19 39.0	-0.7
DIYA	Diyarbakir	1.17	100	P	Pn	20 19 41.1	-0.1
DIYA				S	Sb	20 19 56.1	-0.2
GZT	Gaziantep	1.18	228	P	Pn	20 19 41.7	+0.4
GZT				S	Sn	20 19 57.2	-0.5
DYBB	Diyarbakir	1.18	99	Pn	Pn	20 19 41.4	+0.1
DYBB				Sn	Sn	20 19 58.7	+0.9
DYBB				AML	AML		
TNCL	Tunceli-Merkez	1.19	35	P	Pb	20 19 39.8	-1.4
TNCL				S	Sn	20 19 57.0	-1.0
ELBS	KAHRAMANMARAS	1.22	279	P	Pn	20 19 42.4	+0.6
ELBS				S	Sn	20 19 59.8	+1.1
CUGUR	Gurin_SVAS	1.23	298	P	Pg	20 19 41.8	0.0
CUGUR				S	Sn	20 19 59.8	+0.6
SURC	SANLIURFA_SURC	1.27	182	P	Pg	20 19 42.8	+0.5
SURC				S	Sn	20 20 00.1	+0.3
ILIC	ilic-Erzincan	1.31	357	Pn	Pg	20 19 43.8	+0.6
ILIC				AML	AML		
NZIP	Nizip/Gaziante	1.35	216	P	Pg	20 19 44.3	+0.3
KHMN	Narli-Kahraman	1.41	238	Pn	Pg	20 19 44.8	-0.3
KHMN				Sn	Sg	20 20 04.8	+1.4
KHMN				AML	AML		
KHMN	Narli-Kahraman	1.41	238	P	Pg	20 19 45.2	0.0
KHMN				S	Sg	20 20 04.0	+0.6
KAHM	Kahramanmaras,	1.47	245	P	Pg	20 19 46.2	0.0
KAHM				S	Sg	20 20 05.7	+0.5
GAZ	Gaziantep	1.51	230	Pn	Pb	20 19 46.0	-0.5
GAZ				AML	AML		
KMRS	Kahramanmaras	1.53	246	Pn	Pb	20 19 46.4	-0.6
KMRS				AML	AML		
KHMR	Kahramanmara	1.60	241	P	Pb	20 19 47.7	-0.5
KHMR				S	Sn	20 20 07.2	-0.9
EUZM	Uzumlu	1.76	27	P	Pb	20 19 50.3	-0.5
EUZM				S	Sg	20 20 14.4	-0.2
SARI	SarD1z-Kayseri	1.78	279	Pn	Pb	20 19 50.2	-1.1
SARI				Sn	Sb	20 20 14.1	0.0
SARI				AML	AML		
BNGB	Bingl	1.79	61	Pn	Pb	20 19 50.8	-0.7
BNGB				Sn	Sg	20 20 15.4	-0.3
BNGB				AML	AML		
KAMA	Osmaniye	1.85	239	P	Pb	20 19 51.4	-1.0
KUZU	Kuzuini	1.86	223	P	Pb	20 19 51.4	-1.2
CUAYA	Sivas-Altinyay	1.87	307	P	Pb	20 19 52.7	-0.1
CUAYA				S	Sb	20 20 16.8	+0.3
ANDN	Andirin	1.92	254	P	Pb	20 19 52.1	-1.4
ANDN				S	Sg	20 20 20.4	+0.7
YEDI	Yedisu-Bingol	1.96	48	Pn	Pb	20 19 53.3	-1.0
YEDI				AML	AML		
SVAN	Silvan-Diyarba	2.00	89	Pn	Pb	20 19 53.5	-1.5
SVAN				AML	AML		
SAIM	ADANA	2.04	266	P	Pb	20 19 55.0	-0.7
KELT	Kelkit	2.05	13	P	Pb	20 19 55.6	-0.3
KELT				S	Sg	20 20 23.4	-0.7
SCER	sogukcermik	2.09	326	P	Pb	20 19 56.9	+0.4
SCER				S	Sg	20 20 23.5	-1.7
SUSE	Susehri	2.09	350	P	Pb	20 19 56.7	+0.1
SVSK	Karacayir	2.19	324	Pn	Pb	20 19 56.5	-1.7
SVSK				AML	AML		
ALUC	Giresun/Alucra	2.20	2	P	Pb	20 19 57.6	-0.7
KARO	Karliova-Bingo	2.20	57	Pn	Pb	20 19 57.2	-1.2
KARO				AML	AML		
CUSAR	Sarkisla-SIVAS	2.28	305	P	Pb	20 19 58.8	-0.9
VRTB	Varto-Mus	2.41	64	Pn	Pn	20 19 59.5	+1.2
VRTB				AML	AML		
GURO	Guroymak-BITLI	2.68	80	Pn	Pn	20 20 03.2	+1.2
GURO				AML	AML		
KTUT	Trabzon	2.96	16	Pn	Pn	20 20 07.8	+2.1
KTUT				AML	AML		
KOPR	Koprukoy-ERZUR	3.09	52	Pn	Pn	20 20 09.7	+2.0
KOPR				AML	AML		
BEIL	Beino	4.12	210	eP	Pn	20 20 23.3	+1.7
HWQ	Hawqa	4.44	210	eP	Pn	20 20 28.1	+1.9
BHL	Bhannes	4.88	211	eP	Pn	20 20 34.5	+2.3

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*IDC **10** 20:23:31.1±0.6, 33.°09N×73.°66E, h0^{km}, mb4.2/27, mbtmp4.2/30, ML4.1/3, MS3.1/4, Error ellipse: s-maj=13.2km s-min=12.1km az=32.0*
*NNC **10** 20:23:31.3±8.0, 32.°83N×73.°84E, h25^{km}±81^{km}, mb4.4, Error ellipse: s-maj=51.9km s-min=32.6km az=156.0*
*NEIC **10** 20:23:33.6±2.4, 33.°08N±0.°05×73.°66E±0.°06, h10^{km}±1^{km}, mb4.3/28, Error ellipse: s-maj=10.3km s-min=7.6km az=221.0*
*NDI **10** 20:23:34.1±1.5, 33.°02N×73.°68E, h10^{km}, ML4.2, MW4.2, mb4.3(NEIC), Presumed earthquake*
ISC 10 20:23:32.7±0.5**, 33.°09N**±0.°05×**73.°70E**±0.°04**, h10^{km}, n119,** σ**1.^{s}82**/127**, mb4.2**/33**, MS3.0**/3**, 14C-6D, Pakistan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NIL	Nilore	0.67	326		Pg	20 23 46.6	+0.8
JMU	Jammu	1.00	108	eP	Pg	20 23 53.3	+1.4
JMU				eS	Sb	20 24 07.0	+1.7
JMU				IAML		20 24 07.1	
	comp=E,6µm,0.3s						
JMU				IAML		20 24 07.1	
	comp=N,6µm,0.3s						
BHK	Bhakra	2.83	126	eP	Pb	20 24 23.5	+0.1
BHK				eS	Sb	20 25 00.8	+2.8
BHK				IAML		20 25 01.1	

	comp=N,3µm,0.3s						
BHK				IAML		20 25 01.4	
	comp=E,2µm,0.3s						
ALCI	Alchi Leh	3.11	68	*e*P	Pn	20 24 23.9	+1.7
ALCI				*e*S	Sn	20 25 00.7	+1.0
ALCI				IAML		20 25 12.1	
	comp=N,4µm,0.4s						
ALCI				IAML		20 25 12.6	
	comp=E,3µm,0.2s						
SMLA	Simla	3.53	123	*e*P	Pn	20 24 29.5	+1.9
SMLA				*e*S	Sn	20 25 09.4	0.0
SMLA				IAML		20 25 21.4	
	comp=E,602nm,0.4s						
SMLA				IAML		20 25 21.4	
	comp=N,552nm,0.2s						
KBL	Kabul	4.14	292		Pn	20 24 37.0	+0.7
JOSI	Joshimath	5.59	115	*e*P	Pn	20 24 57.1	+1.0
JOSI				*e*S	Sn	20 25 58.4	-2.0
JOSI				IAML		20 26 01.8	
	comp=E,465nm,0.4s						
JOSI				IAML		20 26 02.2	
	comp=N,338nm,0.4s						
KSH2	Kashi	6.23	13	Pn	Pn	20 25 09.5	+4.7
KSH2				Sn	Sn	20 26 17.0	+0.8
KSH2				smax	smax		
	comp=N,73nm,0.7s						
KSH2				smax	smax		
	comp=E,100nm,0.6s						
DRK	Karamyk	6.56	347		Pn	20 25 11.5	+2.0
BTK	Batken	7.33	342		Pn	20 25 23.8	+3.9
ARSB	Arslanbob	8.24	356	Pn	Pn	20 25 34.2	+1.7
NRN	Naryn	8.53	12		Pn	20 25 38.9	+2.4
WUS	Wushi	9.21	27		Pn	20 25 46.9	+1.1
TARG	Taragay, Kyrgy	9.22	20		Pn	20 25 49.0	+2.9
ULHL	Ulahol	9.36	12	P	Pn	20 25 50.5	+2.7
	SNR=7.2						
KDJ	Kajisay	9.44	16	Pn	Pn	20 25 51.0	+2.1
BOOM	Boomskoye usch	9.55	10		Pn	20 25 52.4	+1.9
AAK	Ala-Archa	9.55	4	Pn	Pn	20 25 52.4	+2.0
	comp=E,4.1nm,0.3s,baz=176,slow=12,SNR=36						
AAK				Sn	Sn	20 27 37.2	-0.7
	comp=E,1.1nm,0.3s,baz=352,slow=16,SNR=3.8						
AAK				LR	LR	20 29 21.8	
	comp=E,39nm,19.9s,baz=160,slow=37						
	comp=E,15nm,0.5s						
AAK				AML	AML		
AAK	Ala-Archa	9.55	4	P	Pn	20 25 52.8	+2.4
	SNR=24						
AAK	Ala-Archa	9.55	4	⇑P	Pn	20 25 52.5	+2.1
	comp=E,19nm,0.9s						
AAK				⇑S	Sn	20 27 45.1	+7.2
	comp=E,4.7nm,0.6s						
AAK	Ala-Archa	9.55	4		Pn	20 25 52.7	+2.3
EKS2	Erkin-Say	9.56	0	P	Pn	20 25 53.7	+3.2
	SNR=28						
KBK	Karagaybulak	9.60	6	P	Pn	20 25 54.7	+3.6
	SNR=35						
FRU1	Bishkek	9.73	4		Pn	20 25 54.6	+1.8
CHMS	Chumysh	9.93	4	P	Pn	20 25 57.9	+2.4
	SNR=16						
TKM2	Tokmak 2	9.93	8	P	Pn	20 25 58.0	+2.4
	SNR=18						
USP	Ospenovka	10.18	3	P	Pn	20 26 01.7	+2.8
	SNR=7.2						
KK31	Karatay Array	10.31	347	⇑P	Pn	20 26 01.1	+0.4
	comp=E,23nm,0.4s,baz=160,slow=12,SNR=357						
KK31				⇓S	Sn	20 27 57.2	+1.0
	comp=E,36nm,0.8s,baz=165,slow=23,SNR=5.2						
KK31	Karatay Array	10.31	347		Pn	20 26 01.7	+1.1
KKAR	Karatay Array	10.31	347		Pn	20 26 01.6	+1.0
PDGK	Podgornoye	11.19	22	⇓P	Pn	20 26 13.8	+1.0
	comp=E,10nm,0.6s						
PDGK				⇓S	Sn	20 28 17.5	-0.4
	comp=E,13nm,0.8s						
PDGK	Podgornoye	11.19	22		Pn	20 26 14.3	+1.5
EVN	Everest	12.41	111		Pn	20 26 27.8	-2.2
MAKZ	Makanchi	15.09	22	⇑P	Pn	20 27 03.4	-2.5
	comp=E,16nm,0.9s						
MK31	Makanchi Array	15.17	23	P	Pn	20 27 06.1	-0.9
	comp=E,5.9nm,0.9s,baz=208,slow=14,SNR=51						
MKAR	Makanchi Array	15.17	23	Pn	Pn	20 27 06.3	-0.8
	comp=E,0.8nm,0.3s,baz=203,slow=12,SNR=34						
MKAR				Sn	Sn	20 29 52.1	-3.0
	comp=E,0.2nm,0.3s,baz=195,slow=26,SNR=1.7						
	comp=E,2.6nm,0.5s						
MKAR				AML	AML		
MKAR	Makanchi Array	15.17	23		Pn	20 27 07.4	+0.4
WMQ	Urumqi	15.30	42	*e*P	Pn	20 27 09.0	+0.1
WMQ				S	Sn	20 29 48.7	-10
WMQ				pmax	pmax		
	comp=Z,28nm,0.7s						
SHL	Shillong	17.52	111		Pn	20 27 33.5	-3.9
GOMU	GeErMu	17.64	74	P	Pn	20 27 34.7	-4.3
GOMU				pP	P	20 27 38.4	-1.6
GOMU				sP	pP	20 27 41.8	-1.1
GOMU				pmax	pmax		
	comp=Z,2.0nm,0.3s						
KURBB	Kurchatov Arra	17.88	10	Pn	Pn	20 27 39.3	-2.1
	comp=Z,0.2nm,0.3s,baz=196,slow=11,SNR=55						
	comp=Z,7.3nm,0.7s						
KURBB				AML	AML		
KURBB	Kurchatov Arra	17.88	10	⇑P	Pn	20 27 38.5	-2.9
	comp=Z,11nm,0.7s						
KURK	Kurchatov	17.98	10	⇑P	Pn	20 27 40.0	-2.7
	comp=Z,3.2nm,0.7s						
KURK	Kurchatov	17.98	10		Pn	20 27 40.2	-2.5
KURK				IAmb	IAmb	20 27 41.5	
	comp=Z,10.0nm,0.8s						
AB31	Akbulak array	19.14	332	⇑P	P	20 27 55.4	-0.5
	comp=Z,3.6nm,0.5s,baz=143,slow=10,SNR=62						
AB31	Akbulak array	19.14	332		P	20 27 54.9	-1.0
AB31				IAmb	IAmb	20 28 02.6	
	comp=Z,7.2nm,0.6s						
ABKAR	Akbulak array	19.14	332		P	20 27 54.7	-1.2
BVAR	Borovoye Array	20.07	354	P	P	20 28 06.5	+0.4
	comp=Z,8.9nm,0.7s,baz=163,slow=9.7,SNR=41						
	comp=Z,8.9nm,0.7s						
BORK	Borovoye	20.09	354		P	20 28 06.5	+0.2
BORK				IAmb	IAmb	20 28 11.6	
	comp=Z,6.7nm,0.6s						
AKTO	Aktyubinsk	20.84	331	P	P	20 28 14.3	-0.1
	comp=Z,15nm,0.6s,baz=143,slow=7.1,SNR=64						
	comp=Z,15nm,0.6s						
AKTO	Aktyubinsk	20.84	331	⇑P	P	20 28 14.4	0.0
	comp=Z,16nm,0.9s						
GTA2	Gaotai	21.91	66	*e*P	P	20 28 26.6	+0.4
GTA2				pP	pP	20 28 30.3	+1.1
GTA2				pmax	pmax		
	comp=Z,1.0nm,0.8s						
ZAA0	Zalesovo Array	22.30	17	⇑P	P	20 28 29.6	-0.5
	comp=Z,5.8nm,0.7s						
ZAA0	Zalesovo Array	22.30	17		P	20 28 29.5	-0.5
ZAA0				IAmb	IAmb	20 28 32.4	
	comp=Z,8.7nm,0.8s						
ZALV	Zalesovo Beam	22.30	17	P	P	20 28 29.2	-0.9
	comp=Z,10.0nm,0.6s,baz=209,slow=9.9,SNR=40						
	comp=Z,10.0nm,0.6s						
ARTI	Arti	25.59	340		P	20 29 01.3	-0.5
KBZ	Khabaz	26.23	303	P	P	20 29 09.0	+1.2
	comp=Z,3.5nm,0.9s,baz=121,slow=7.9,SNR=8.5						
	comp=Z,3.5nm,0.9s						
KVAR	Kislovodsk Arr	26.43	303	LR	LR	20 42 12.9	
	comp=Z,32nm,18.0s,baz=302,slow=42						
CHTO	Chiang Mai	26.69	116		P	20 29 12.5	+0.3
CHTO				IAmb	IAmb	20 29 16.3	
	comp=Z,2.9nm,0.6s						
CM31	Chiang Mai Arr	26.91	117	P	P	20 29 15.0	+0.9
CM31				IAmb	IAmb	20 29 15.8	
	comp=Z,6.4nm,1.1s						
CMAR	Chiang Mai Arr	26.91	117	P	P	20 29 14.8	+0.7
	comp=Z,1.8nm,0.4s,baz=296,slow=9.7,SNR=22						
	comp=Z,1.8nm,0.4s						
CMAR	Chiang Mai Arr	26.91	117	P	P	20 29 15.4	+1.4
SONM	Songino Array	28.65	49	P	P	20 29 30.2	+0.5
	comp=Z,0.5nm,0.5s,baz=250,slow=7.7,SNR=4.0						
	comp=Z,0.5nm,0.5s						
SONM	Songino Array	28.65	49	P	P	20 29 30.1	+0.5
BR131	Keskin Array S	32.71	293		P	20 30 06.3	+0.7
BR131				IAmb	IAmb	20 30 11.3	
	comp=Z,2.7nm,0.8s						
BRTR	Keskin Array B	32.71	293	P	P	20 30 05.2	-0.4
	comp=Z,1.0nm,0.8s,baz=100,slow=9.2,SNR=10						
	comp=Z,1.0nm,0.8s						
BRTR	Keskin Array B	32.71	293	P	P	20 30 06.9	+1.3
XLT	XiLinHaoTe	34.54	59	*e*P	P	20 30 24.1	+2.7
XLT				pmax	pmax		
	comp=Z,13nm,1.0s						
ELL	Elmali	35.86	288	P	P	20 30 35.1	+2.1
NRIK	Noril'sk	37.13	8	P	P	20 30 43.7	+0.6
	comp=Z,3.4nm,0.5s,baz=200,slow=6.0,SNR=4.6						
	comp=Z,3.4nm,0.5s						
NRIK	Noril'sk	37.13	8	P	P	20 30 43.6	+0.5
NRIK				IAmb	IAmb	20 30 59.9	
	comp=Z,6.5nm,0.9s						
VRI	Vrincioaia	37.91	304	⇑P	P	20 30 53.0	+2.9
PLOR	Plostina	37.97	304	⇑P	P	20 30 52.1	+1.5
COVR	Voineasa-Covas	38.28	304	⇓P	P	20 30 55.9	+2.7
TURR	Turia	38.42	304	⇑P	P	20 30 56.6	+2.2
MLR	Muntele Rosu	38.45	303		P	20 30 57.1	+2.4
MLR				IAmb	IAmb	20 31 02.5	
	comp=Z,9.3nm,0.8s						
MLR	Muntele Rosu	38.45	303	⇓P	P	20 30 57.8	+3.0
BURAR	Bucovina Array	39.05	306	P	P	20 31 00.8	+1.1
BUR08	Bucovina Ar. S	39.06	307	P	P	20 31 01.1	+1.2
VOIR		39.07	303	⇑P	P	20 31 02.7	+2.7
LOT	Lotru	39.98	303	⇓P	P	20 31 09.4	+1.9
MDVR	Moldovita	41.44	302	⇑P	P	20 31 21.4	+1.9
FINES	FINESS Array B	41.55	328	P	P	20 31 18.6	-1.5
	comp=Z,6.1nm,1.0s,baz=170,slow=12,SNR=6.2						
	comp=Z,6.1nm,1.0s						
FINES	FINESS Array B	41.55	328	P	P	20 31 18.3	-1.8
MORC	Moravsky Berou	44.21	309	P	P	20 31 42.9	+0.9
MORC				IAmb	IAmb	20 31 47.3	
	comp=Z,2.4nm,0.7s						
KRLC	Kraliky	44.70	310	*e*P	P	20 31 47.2	+1.3
OSTC	Ostas	45.07	311	*e*P	P	20 31 49.3	+0.6
ARCES	ARCESS Array B	45.13	338	P	P	20 31 48.5	-0.5
	comp=Z,1.1nm,0.4s,baz=113,slow=7.9,SNR=24						
	comp=Z,1.1nm,0.4s						
ARCES	ARCESS Array B	45.13	338	P	P	20 31 48.1	-0.8
ARCES				IAmb	IAmb	20 32 23.3	
	comp=Z,9.1nm,1.2s						
UPC	Upice	45.20	310	*e*P	P	20 31 51.6	+1.9
KLR	Kul'dur	45.45	51	P	P	20 31 51.9	+0.1
	comp=Z,1.3nm,0.5s,baz=312,slow=7.6,SNR=4.4						
	comp=Z,1.3nm,0.5s						
YAK	Yakutsk	45.52	33	P	P	20 31 52.1	0.0
	comp=Z,7.9nm,0.4s,baz=319,slow=0.9,SNR=4.1						
	comp=Z,7.9nm,0.4s						
YAK	Yakutsk	45.52	33	P	P	20 31 51.4	-0.7
USRK	Ussuriysk Ar.	45.98	58	P	P	20 31 55.6	-0.4
	comp=Z,2.5nm,0.7s,baz=246,slow=7.1,SNR=4.2						
	comp=Z,2.5nm,0.7s						
USRK	Ussuriysk Ar.	45.98	58	P	P	20 31 55.5	-0.6
ZVC	Zvikov	46.40	309	*e*P	P	20 32 00.2	+1.0
GERES	GERESS Array B	46.75	308	P	P	20 32 01.8	-0.3
	comp=Z,0.3nm,0.3s,baz=29,slow=6.1,SNR=3.8						
	comp=Z,0.3nm,0.3s						
HFS	Hagfors	47.12	324	P	P	20 32 03.9	-0.8
	comp=Z,2.8nm,0.6s,baz=115,slow=8.4,SNR=11						
	comp=Z,2.8nm,0.6s						
JNU	Nakatsue	47.36	73	LR	LR	20 53 54.5	
	comp=Z,80nm,18.5s,baz=84,slow=38						
TIXI	Tiksi	48.14	20	P	P	20 32 12.1	-0.4
TIXI				IAmb	IAmb	20 32 16.5	
	comp=Z,2.6nm,0.8s						
MURB	Monte Urbino	48.19	301	P	P	20 32 15.4	+2.1
NB2	NORSAR Subarra	48.44	325	P	P	20 32 14.0	-1.0
	comp=Z,5.0nm,0.7s,baz=97,slow=7.9						
NOA	NORSAR Array B	48.44	325	P	P	20 32 14.1	-1.0
	comp=Z,1.7nm,0.7s,baz=97,slow=7.6,SNR=9.2						
	comp=Z,1.7nm,0.7s						
SPITS	Spitsbergen Ar	51.31	347	P	P	20 32 36.4	-0.1
	comp=Z,8.1nm,0.9s,baz=99,slow=8.9,SNR=2.1						
	comp=Z,8.1nm,0.9s						
SENIN	Lac Senin/Sane	51.34	306		P	20 32 38.1	+0.6
SENIN				IAmb	IAmb	20 32 42.8	
	comp=Z,3.0nm,0.7s						
MJAR	Matsushiro Arr	52.18	67	P	P	20 32 43.5	-0.2
	comp=Z,0.7nm,0.5s,baz=297,slow=7.4,SNR=5.2						
	comp=Z,0.7nm,0.5s						
KEST	Kesra	52.30	292	P	P	20 32 43.9	-0.7
	comp=Z,4.3nm,1.1s,baz=39,slow=1.4,SNR=4.2						
	comp=Z,4.3nm,1.1s						
SEY	Seymchan	56.04	33	P	P	20 33 12.1	+0.7
	comp=Z,2.3nm,0.7s,baz=258,slow=11,SNR=7.1						
	comp=Z,2.3nm,0.7s						
EKA	Eskdalemuir Ar	56.29	318	P	P	20 33 12.7	-0.6
	comp=Z,0.4nm,0.5s,baz=76,slow=6.4,SNR=1.6						
	comp=Z,0.4nm,0.5s						
ESDC	Sonseca Array	61.06	301	P	P	20 33 46.8	0.0
	comp=Z,1.5nm,0.8s,baz=61,slow=7.0,SNR=14						
	comp=Z,1.5nm,0.8s						
ESDC	Sonseca Array	61.06	301	P	P	20 33 45.7	-1.2
GUMO	Guam	67.02	88	LR	LR	21 05 38.3	
	comp=Z,8.1nm,19.7s,baz=258,slow=38						
TORD	Torodi Ar. Bea	67.95	272	P	P	20 34 31.8	-0.4
	comp=Z,0.9nm,0.5s,baz=51,slow=7.0,SNR=8.6						
	comp=Z,0.9nm,0.5s						
BOSA	Boshof	76.66	223	P	P	20 35 24.3	+0.3
	comp=Z,2.7nm,0.7s,baz=9.7,slow=3.8,SNR=6.9						
	comp=Z,2.7nm,0.7s						
ILAR	Eielson Array	77.42	17	P	P	20 35 27.2	-0.5
	comp=Z,0.6nm,0.7s,baz=314,slow=5.2,SNR=8.2						
	comp=Z,0.6nm,0.7s						
ILAR	Eielson Array	77.42	17	P	P	20 35 27.0	-0.7
WRA	Warramunga Arr	78.29	123	P	P	20 35 33.4	+0.3
	comp=Z,0.9nm,0.4s,baz=322,slow=5.1,SNR=53						
	comp=Z,0.9nm,0.4s						
WRA	Warramunga Arr	78.29	123	P	P	20 35 32.9	-0.3
ASAR	Alice Springs	80.47	126	P	P	20 35 44.7	-0.3
	comp=Z,0.6nm,0.6s,baz=314,slow=4.8,SNR=7.7						
	comp=Z,0.6nm,0.6s						

PRU 10 20:31:19.5, 49°.93N×18°.54E, h0km, Czech and Slovak Republics

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OKC	Ostrava-Krasne	0.27	250	*e*PG	Pg	20 31 24.6	-0.1
OKC				*e*SG	Sg	20 31 28.5	+0.3
	3.0nm,0.4s						
STEB	Steborice	0.50	271	*e*SG	Sg	20 31 36.0	+0.6
MORC	Moravsky Berou	0.66	257	*e*PG	Pg	20 31 32.1	-0.1
MORC				*e*SG	Sg	20 31 40.0	-0.8
MAUC	Maruska	0.73	220	*e*PG	Pg	20 31 32.7	-0.8
MAUC				*e*SG	Sg	20 31 42.3	-0.6
LANS	Liptovska Anna	0.99	142	*e*PG	Pb	20 31 39.4	-0.1
LANS				*e*SG	Sb	20 31 52.6	-0.5
DPC	Dobruska-Polom	1.49	287	*e*PG	Pn	20 31 46.4	-1.1
DPC				*e*SG	Sg	20 32 06.5	-0.8
DPC	Dobruska-Polom	1.49	287	*e*P	Pn	20 31 46.6	-0.9
CHVC	Chvalec	1.73	293	*e*PG	Pn	20 31 50.0	-0.8
CHVC				*e*SG	Sn	20 32 13.9	+0.4
CHVC	Chvalec	1.73	293	*e*P	Pn	20 31 50.0	-0.8

IDC ***10*** *20:31:52.7±1.1, 7°.25S×147°.89E, h77km±11km, mb4.3/17, mbtmp4.7/22, MS3.3/23, Error ellipse: s-maj=15.1km s-min=8.0km az=118.0*

NEIC ***10*** *20:31:52.8±1.5, 7°.29S±0°.05×147°.91E±0°.02, h73km±7km, mb4.9/20, Error ellipse: s-maj=8.2km s-min=2.8km az=193.0*

GFZ ***10*** *20:31:54.3±0.9, 7°S±4°×14°8E±°, h78km±6km, M5.2/23, mb5.2/23*

DJA ***10*** *20:31:56.7±1.2, 7°S±7°×14°8E±1°3, h92km±5km, M4.9/27, mB5.4/11, mb5.1/27, MLv5.0/1, Mw(mB)4.8/11*

ISC 10 20:31:55.3±0.3, 7°.35S±0°.04×147°.78E±0°.04, h100km, n252, σ1ˢ55/245, mb4.9/55, 4C-2D, Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	2.13	197	P	Pn	20 32 28.3	-1.3
	3µm,0.5s,baz=20,slow=12,SNR=261						
PMG				S	Sn	20 32 55.7	0.0
	4µm,0.7s,baz=219,slow=17,SNR=12						
PMG	Port Moresby	2.13	197	S	Sn	20 32 54.7	-1.0
PMG	Port Moresby	2.13	197	P	Pn	20 32 28.8	-0.7
PMG	Port Moresby	2.13	197	S	Sn	20 32 54.9	-0.8
PMG	Port Moresby	2.13	197		Pn	20 32 27.1	-2.5
PMG	Port Moresby	2.13	197	P	Pn	20 32 28.2	-1.3
PMG				AML	AML		
PMG	Port Moresby	2.13	197	P	Pn	20 32 28.5	-1.1
KRVT	Keravat (AS076	5.20	55	P	Pn	20 33 05.9	-4.8
	263nm,0.6s,baz=312,slow=12,SNR=15						
KRVT				S	Sn	20 34 03.3	-6.2
	1µm,0.8s,baz=123,slow=24,SNR=6.4						
RABL	Rabaul	5.38	54		Pn	20 33 04.6	-8.6
COEN	Coen	7.97	214	S	Sn	20 35 14.1	-2.9
	comp=Z,6.4nm,0.9s						
GENI	Genyem	8.94	302	P	Pn	20 34 00.6	-0.9
GENI	Genyem	8.94	302	P	Pn	20 34 01.4	-0.1
	comp=Z,56nm,0.6s						
GENI	Genyem	8.94	302	P	Pn	20 33 58.6	-2.9
	comp=Z,62nm,0.6s						
MTSU	Mount Surprise	11.23	197	P	Pn	20 34 33.2	+0.4
	comp=Z,11nm,0.5s						
MTSU	Mount Surprise	11.23	197	P	Pn	20 34 33.0	+0.2
MTSU	Mount Surprise	11.23	197	S	Sn	20 36 37.1	+0.7
MTSU	Mount Surprise	11.23	197	P	Pn	20 34 33.1	+0.2
	comp=Z,11nm,0.5s						
TATA	Tatamba Isabel	11.96	96	P	Pn	20 34 43.1	+0.6
TATA	Tatamba Isabel	11.96	96	S	Sn	20 36 55.5	+1.5
SAVO	Savo Central	12.04	99	P	Pn	20 34 44.3	+0.7
SAVO	Savo Central	12.04	99	S	Sn	20 36 57.6	+1.4
HNR	Honiara	12.21	101	P	Pn	20 34 43.9	-2.0
	comp=Z,59nm,0.7s,baz=276,slow=10,SNR=1.4						
HNR				S	Sn	20 36 57.3	-2.9
	comp=Z,38nm,0.5s,baz=64,slow=13,SNR=1.5						
HNR				LR	LR	20 39 11.2	
	comp=Z,50nm,18.3s,baz=344,slow=36						
HNR	Honiara	12.21	101		Pn	20 34 42.2	-3.7
CTA	Charters Tower	12.74	187	P	Pn	20 34 54.0	+1.1
	comp=Z,9.0nm,0.9s						
CTA	Charters Tower	12.74	187	P	Pn	20 34 54.1	+1.3
	comp=Z,9.0nm,0.9s						
CTA	Charters Tower	12.74	187	P	Pn	20 34 53.2	+0.3
	comp=Z,12nm,0.7s,baz=5.9,slow=14,SNR=10						
CTA				S	Sn	20 37 14.8	+1.8
	comp=Z,2.7nm,0.3s,baz=78,slow=17,SNR=2.4						
CTA				LR	LR	20 39 39.2	
	comp=Z,105nm,19.1s,baz=27,slow=36						
CTAO	Charters Tower	12.74	187	Pn	Pn	20 34 50.2	-2.7
BAKI	Biak	13.15	297	P	Pn	20 34 59.4	+1.2
	comp=Z,35nm,0.6s						
MWPI	Manokwari, Pap	15.11	294	P	P	20 35 40.5	+14
QIS	Mount Isa	15.33	210	P	Pn	20 35 27.2	+1.0
	comp=Z,34nm,0.7s						
QIS				S	Sn	20 38 09.7	-5.9
QIS	Mount Isa	15.33	210	P	Pn	20 35 26.9	+0.7
	comp=Z,34nm,0.7s						
QIS	Mount Isa	15.33	210	P	Pn	20 35 26.6	+0.4
QIS	Mount Isa	15.33	210	P	Pn	20 35 26.4	+0.1
	comp=Z,34nm,0.7s						
KDU	Kakadu	15.97	249	P	Pn	20 35 33.5	-0.8
	comp=Z,32nm,0.6s						
KDU				S	Sn	20 38 25.4	-5.8
FAKI	Fak Fak	16.08	285		Pn	20 35 35.4	-0.2
MTN	Manton Dam	17.27	250	P	P	20 35 49.9	-0.3
	comp=Z,12nm,0.7s						
MTN				S	Sn	20 38 54.0	-8.5
MTN	Manton Dam	17.27	250		P	20 35 49.5	-0.7
SWI	Sorong	17.68	291	P	P	20 35 54.3	-0.5
	comp=Z,142nm,0.9s						
WB0	Warramunga Arr	17.91	225		P	20 35 57.0	-0.3
WR8	Warramunga Arr	17.96	224		P	20 35 57.8	-0.1
WRAB	Tennant Creek	18.05	225	P	P	20 35 59.6	+0.8
WRAB	Tennant Creek	18.05	225	P	P	20 35 58.7	-0.2
WRAB	Tennant Creek	18.05	225	P	P	20 35 59.7	+0.8
	comp=Z,52nm,1.0s						
WRA	Warramunga Arr	18.07	225	P	P	20 35 59.1	0.0
	comp=Z,25nm,0.6s,baz=50,slow=11,SNR=96						
WRA				S	S	20 39 09.5	-12
	comp=Z,16nm,0.9s,baz=52,slow=23,SNR=7.6						
WRA	Warramunga Arr	18.07	225	P	P	20 35 57.0	-2.1
EIDS	Eidsvold	18.19	170	P	P	20 36 01.0	+0.7
	comp=Z,18nm,1.0s						
QLP	Quilpie	19.42	190	P	Pn	20 36 15.5	-0.3
	comp=Z,216nm,0.8s						
QLP	Quilpie	19.42	190	P	P	20 36 14.8	+1.1
	comp=Z,216nm,0.8s						
QLP	Quilpie	19.42	190	P	P	20 36 14.2	+0.5
QLP	Quilpie	19.42	190	P	P	20 36 14.9	+1.2
	comp=Z,216nm,0.8s						
KNRA	Kununurra	20.37	244	P	P	20 36 23.6	-0.5
	comp=Z,78nm,0.7s						
KNRA				S	S	20 40 07.2	+0.1
KNRA	Kununurra	20.37	244		P	20 36 23.8	-0.3
AS17	Alice Springs	20.93	218	P	P	20 36 30.9	+0.8
	comp=Z,123nm,0.7s						
AS17	Alice Springs	20.93	218	P	P	20 36 30.8	+0.7
	comp=Z,123nm,0.7s						
AS01	Alice Springs	20.96	218	P	P	20 36 31.0	+0.6
	comp=Z,122nm,0.7s						
AS01	Alice Springs	20.96	218	P	P	20 36 31.0	+0.6
AS15	Alice Springs	20.96	218	P	P	20 36 31.3	+0.9
	comp=Z,162nm,0.6s						
AS15	Alice Springs	20.96	218	P	P	20 36 31.2	+0.7
	comp=Z,162nm,0.6s						
AS31	Alice Springs	20.98	218	P	P	20 36 31.5	+0.8
	comp=Z,47nm,0.6s						
AS31	Alice Springs	20.98	218	P	P	20 36 31.4	+0.6
	comp=Z,47nm,0.6s						
AS31	Alice Springs	20.98	218		P	20 36 31.3	+0.6
ASAR	Alice Springs	20.99	218	P	P	20 36 31.4	+0.7
	comp=Z,66nm,0.6s,baz=54,slow=9.5,SNR=864						
ASAR				S	S	20 40 19.9	+0.8
	comp=Z,12nm,0.9s,baz=39,slow=22,SNR=17						
ASAR				LR	LR	20 45 32.9	
	comp=Z,88nm,19.6s,baz=27,slow=39						
	comp=Z,66nm,0.6s						
ASAR	Alice Springs	20.99	218		P	20 36 31.4	+0.6
NLAI	Namlea	20.99	280	P	P	20 36 32.0	+1.2
	comp=Z,1µmcomp=Z,158nm,0.9s						
AS09	Alice Springs	20.99	218	P	P	20 36 31.5	+0.8
	comp=Z,123nm,0.7s						
AS09	Alice Springs	20.99	218	P	P	20 36 31.3	+0.6
	comp=Z,123nm,0.7s						
GUMO	Guam	21.01	352	P	P	20 36 28.3	-2.6
	comp=Z,23nm,0.6s,baz=183,slow=18,SNR=2.3						
GUMO				LR	LR	20 43 48.8	
	comp=Z,35nm,21.2s,baz=176,slow=34						
	comp=Z,23nm,0.6s						
GUMO	Guam	21.01	352	P	P	20 36 27.7	-3.2
AUALC	St Philip's Co	21.02	218	P	P	20 36 31.7	+0.7
AUALC	St Philip's Co	21.02	218	S	S	20 40 22.2	+2.6
INKA	Innaminka	21.34	197		P	20 36 34.7	+0.2
TNTI	Ternate	21.90	291	P	P	20 36 41.6	+1.1
TNTI	Ternate	21.90	291	S	S	20 40 39.6	+2.9
TNTI	Ternate	21.90	291	P	P	20 36 42.9	+2.4
	comp=Z,28nm,0.8s						
AULRC	Lightning Ridg	21.96	180	P	P	20 36 40.9	-0.1
DZM	Mont Dzumac	23.19	131	LR	LR	20 44 59.2	
	comp=Z,99nm,19.6s,baz=358,slow=34						
ARMA	Armidale	23.23	172	P	P	20 36 54.6	+0.7
	comp=Z,41nm,0.8s						
ARMA	Armidale	23.23	172	P	P	20 36 53.5	-0.4
	comp=Z,41nm,0.8s						
ARMA	Armidale	23.23	172		P	20 36 52.1	-1.8
SOEI	Soe	23.37	262	P	P	20 36 56.1	+0.7
SOEI	Soe	23.37	262	S	S	20 41 03.1	+2.2
SOEI	Soe	23.37	262		P	20 36 56.4	+1.0
SOEI	Soe	23.37	262	P	P	20 36 57.7	+2.3
	comp=Z,64nm,0.9s						
SOEI	Soe	23.37	262	P	P	20 36 57.2	+1.8
	comp=Z,65nm,0.9s						
FITZ	Fitzroy Crossi	24.06	242	P	P	20 37 01.9	+0.5
	comp=Z,171nm,0.5s,baz=60,slow=9.6,SNR=681						
FITZ				LR	LR	20 47 45.2	
	comp=Z,158nm,21.8s,baz=6.0,slow=39						
FITZ	Fitzroy Crossi	24.06	242	P	P	20 37 01.7	+0.3
FITZ	Fitzroy Crossi	24.06	242	P	P	20 37 01.8	+0.3
	comp=Z,68nm,0.7s						
CMSA	Cobar Meteorol	24.14	184	P	P	20 37 02.4	+0.5
	comp=Z,23nm,0.7s						
CMSA	Cobar Meteorol	24.14	184	P	P	20 37 02.3	+0.3
	comp=Z,24nm,0.8s						
CMSA	Cobar Meteorol	24.14	184	P	P	20 37 01.9	-0.1
CMSA	Cobar Meteorol	24.14	184	S	S	20 41 15.7	+2.9
CMSA	Cobar Meteorol	24.14	184	P	P	20 37 02.6	+0.6
	comp=Z,23nm,0.7s						
MNI	Manado	24.50	290	P	P	20 37 05.9	+0.4
AUDCS	Dubbo College	24.76	178	P	P	20 37 08.2	+0.5
AUDCS	Dubbo College	24.76	178	S	S	20 41 25.3	+2.5
STKA	Stephens Creek	25.07	192	P	P	20 37 10.7	+0.2
	comp=Z,21nm,0.6s,baz=359,slow=8.3,SNR=40						
STKA				LR	LR	20 47 30.5	
	comp=Z,181nm,18.9s,baz=23,slow=37						
	comp=Z,21nm,0.6s						
STKA	Stephens Creek	25.07	192	P	P	20 37 10.7	+0.2
	comp=Z,151nm,0.7s						
MMRI	Maumere	25.32	265	P	P	20 37 13.6	+0.6
MMRI	Maumere	25.32	265		P	20 37 12.4	-0.6
MMRI	Maumere	25.32	265	P	P	20 37 12.9	-0.1
MMRI	Maumere	25.32	265	P	P	20 37 13.1	+0.1
	comp=Z,216nm,0.7s						

WRKA	Warakurna	25.61	224	P	P	20 37 15.5	0.0
	comp=Z,60nm,0.7s						
LUWI	Luwuk	25.70	283	P	P	20 37 17.4	+1.0
LUWI	Luwuk	25.70	283		P	20 37 16.7	+0.3
LUWI	Luwuk	25.70	283	P	P	20 37 19.8	+3.4
LUWI	Luwuk	25.70	283	P	P	20 37 17.9	+1.5
	comp=Z,203nm,1.0s						
EDFI	Ende, Flores	25.87	265	P	P	20 37 17.3	-0.7
	comp=Z,106nm,0.9s						
GTOI	Gorontalo	25.95	287	P	P	20 37 21.0	+2.4
	comp=Z,970nmcomp=Z,133nm,0.8s						
KKSI	Kolaka, Sulawe	26.18	275	P	P	20 37 21.9	+1.1
	comp=Z,649nmcomp=Z,45nm,0.9s						
HTT	Hallett	27.21	196	P	P	20 37 31.1	+1.3
	comp=Z,10nm,0.6s						
HTT	Hallett	27.21	196	P	P	20 37 34.2	+4.4
HTT	Hallett	27.21	196	P	P	20 37 30.6	+0.8
WSI	Waingapu	27.27	263	P	P	20 37 31.5	+1.0
KAPI	Kappang	27.96	273	P	P	20 37 37.2	+0.6
	comp=Z,37nm,1.0s,baz=106,slow=7.2,SNR=7.3						
	comp=Z,37nm,1.0s						
KAPI	Kappang	27.96	273	P	P	20 37 37.5	+0.9
KAPI	Kappang	27.96	273	P	P	20 37 37.0	+0.3
KAPI	Kappang	27.96	273	P	P	20 37 37.3	+0.6
	comp=Z,18nm,0.9s						
KAPI	Kappang	27.96	273	P	P	20 37 37.3	+0.6
	comp=Z,34nm,0.9s						
TOLI2	Tolitoli	28.21	286	P	P	20 37 38.7	-0.2
TOLI2	Tolitoli	28.21	286	P	P	20 37 38.0	-0.9
TOLI2	Tolitoli	28.21	286	P	P	20 37 39.4	+0.4
	comp=Z,19nm,0.8s						
PCI	Palu	28.58	282	P	P	20 37 51.8	+10
AUMBR	Murray Bridge	28.73	195	P	P	20 37 44.0	+0.8
FORT	Forrest	29.73	216	P	P	20 37 51.9	-0.2
	comp=Z,19nm,0.6s						
FORT	Forrest	29.73	216	P	P	20 37 52.0	-0.2
	comp=Z,19nm,0.6s						
PLAI	Plampang	29.74	265	P	P	20 37 51.8	-0.6
ARPS	Mount Arapiles	29.78	190	P	P	20 37 44.0	-8.5
	comp=Z,6.2nm,1.0s						
MBWA	Marble Bar	30.38	240	P	P	20 37 58.1	+0.1
	comp=Z,83nm,0.8s						
MBWA	Marble Bar	30.38	240	P	P	20 37 58.3	+0.3
	comp=Z,83nm,0.8s						
MBWA	Marble Bar	30.38	240	P	P	20 37 58.1	+0.1
MBWA	Marble Bar	30.38	240	P	P	20 37 58.4	+0.3
MBWA	Marble Bar	30.38	240	P	P	20 37 57.5	-0.6
	comp=Z,83nm,0.8s						
MBWA	Marble Bar	30.38	240	P	P	20 37 58.3	+0.3
MBWA				pP	pP	20 38 16.5	-4.4
MSVF	Nonsavu	31.25	112	LR	LR	20 48 29.8	
	comp=Z,101nm,20.7s,baz=283,slow=32						
MYLDM	Lahad Datu	31.76	292	P	P	20 38 11.5	+1.3
MYLDM	Lahad Datu	31.76	292	P	P	20 38 10.2	0.0
MYLDM	Lahad Datu	31.76	292	P	P	20 38 12.5	+2.2
	comp=Z,16nm,0.9s						
JAGI	Jajag, Banyuwa	33.32	266	P	P	20 38 21.8	-2.1
	comp=Z,158nm,0.8s						
MEEK	Meekatharra	33.70	232	P	P	20 38 28.0	+0.9
	comp=Z,159nm,0.9s						
MEEK	Meekatharra	33.70	232	P	P	20 38 27.8	+0.7
	comp=Z,159nm,0.9s						
MEEK	Meekatharra	33.70	232	P	P	20 38 28.1	+0.9
MEEK	Meekatharra	33.70	232	P	P	20 38 28.1	+0.9
	comp=Z,159nm,0.9s						
KMBL	Kambalda	33.99	222	P	P	20 38 29.8	+0.2
	comp=Z,41nm,0.8s						
KMBL	Kambalda	33.99	222	P	P	20 38 30.2	+0.7
	comp=Z,41nm,0.8s						
MORW	Morawa	36.88	230	P	P	20 38 55.2	+0.9
	comp=Z,58nm,1.7s						
MORW	Morawa	36.88	230	P	P	20 38 54.9	+0.6
	comp=Z,58nm,1.7s						
MORW	Morawa	36.88	230	P	P	20 38 55.4	+1.1
KLBR	Kellerberrin	36.95	225	P	P	20 38 55.2	+0.4
	comp=Z,351nm,0.6s						
KLBR	Kellerberrin	36.95	225	P	P	20 38 55.0	+0.1
	comp=Z,351nm,0.6s						
KLBR	Kellerberrin	36.95	225	P	P	20 38 55.3	+0.4
KLBR	Kellerberrin	36.95	225	P	P	20 38 55.4	+0.5
	comp=Z,351nm,0.6s						
SMRI	Semarang	37.04	268	P	P	20 38 56.7	+0.8
BLDU	Ballidu	37.17	227	P	P	20 38 57.5	+0.8
	comp=Z,52nm,2.3s						
BLDU	Ballidu	37.17	227	P	P	20 38 57.3	+0.5
	comp=Z,52nm,2.3s						
NWAO	Narrogin (SRO)	38.07	224	P	P	20 39 04.8	+0.5
	comp=Z,44nm,0.6s						
NWAO	Narrogin (SRO)	38.07	224	P	P	20 39 04.8	+0.5
	comp=Z,44nm,0.6s						
NWAO	Narrogin (SRO)	38.07	224	P	P	20 39 04.7	+0.4
MUN	Mundaring	38.26	226	P	P	20 39 06.8	+0.9
	comp=Z,48nm,1.0s						
MUN	Mundaring	38.26	226	P	P	20 39 06.5	+0.6
	comp=Z,49nm,1.0s						
BBJI	Bungbulang	39.78	267	P	P	20 39 18.7	-0.3
BBJI	Bungbulang	39.78	267		P	20 39 18.0	-0.9
BBJI	Bungbulang	39.78	267	P	P	20 39 18.7	-0.3
	comp=Z,65nm,0.9s						
AFI	Afiamalu	40.24	103	LR	LR	20 54 21.4	
	comp=Z,26nm,19.4s,slow=34						
JHJ	Hachijo jima 2	40.96	350	LR	LR	20 55 13.6	
	comp=Z,22nm,20.4s,baz=203,slow=34						
MJAR	Matsushiro Arr	44.58	349	P	P	20 39 56.1	-1.4
	comp=Z,2.4nm,0.9s,baz=178,slow=8.8,SNR=11						
	comp=Z,2.4nm,0.9s						
MJAR	Matsushiro Arr	44.58	349	P	P	20 39 56.3	-1.1
MAJO	Matsushiro	44.58	349	P	P	20 39 58.7	+1.3
MAJO	Matsushiro	44.58	349	P	P	20 39 56.1	-1.3
MAJO	Matsushiro	44.58	349	P	P	20 39 56.4	-1.1
	comp=Z,10nm,0.8s						
MAJO	Matsushiro	44.58	349	P	P	20 39 56.3	-1.1
MAJO				x	x	20 40 17.4	
NJ2	Nanjing	47.93	326	*e*P	P	20 40 25.3	+1.6
NJ2				pmax	pmax		
	comp=Z,7.0nm,0.6s						
IPM	Ipoh	48.11	283	P	P	20 40 26.9	+1.4
IPM	Ipoh	48.11	283	P	P	20 40 26.1	+0.6
KSRS	Korea Array	48.29	339	P	P	20 40 25.7	-0.7
	comp=Z,2.2nm,0.9s,baz=160,slow=8.4,SNR=5.8						
	comp=Z,2.2nm,0.9s						
GSI	Gunungsitoli	50.81	278	P	P	20 40 46.3	+0.2
ASAJ	Asahikawa	51.44	355	LR	LR	21 00 56.6	
	comp=Z,16nm,21.8s,baz=265,slow=34						
USRK	Ussuriysk Ar.	53.26	346	LR	LR	21 02 57.4	
	comp=Z,20nm,18.4s,baz=93,slow=35						
HNS	HongShan	54.19	328	⇓P	P	20 41 11.1	+0.6
KMI2	Kunming	54.44	308	P	P	20 41 14.2	+1.3
KMI2				pP	pP	20 41 31.6	-4.9
KMI2				pmax	pmax		
	comp=Z,11nm,1.2s						
KMI2				pmax	pmax		
	comp=Z,140nm,5.4s						
CMAR	Chiang Mai Arr	54.57	299	P	P	20 41 15.1	+1.4
	comp=Z,7.2nm,0.6s,baz=122,slow=5.6,SNR=79						
	comp=Z,7.2nm,0.6s						
CHTO	Chiang Mai	54.71	299	P	P	20 41 15.6	+0.9
CHTO	Chiang Mai	54.71	299	P	P	20 41 15.7	+1.0
CHTO	Chiang Mai	54.71	299	P	P	20 41 16.1	+1.5
	comp=Z,8.9nm,1.2s						
CHTO	Chiang Mai	54.71	299	P	P	20 41 15.9	+1.3
CN2	Changchun	54.79	340	*e*P	P	20 41 18.5	+3.8
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
CD2	Chengdu	56.77	314	P	P	20 41 30.6	+1.4
CD2				pmax	pmax		
	comp=Z,20nm,0.4s						
TNCH	TengChong	57.74	306	⇑P	P	20 41 37.3	+1.0
TNCH				pmax	pmax		
	comp=Z,14nm,0.9s						
TNCH				pmax	pmax		
	comp=Z,100nm,6.9s						
HHC	Hu-ho-hao-te	58.38	328	*e*P	P	20 41 42.9	+2.5
HHC				pmax	pmax		
	comp=Z,8.0nm,0.5s						
HHC				pmax	pmax		
	comp=Z,51nm,5.7s						
DRV	Dumont d'Urvil	59.46	184	P	P	20 41 48.2	+0.9
DRV				pP	pP	20 42 08.8	-3.1
PETK	Petropavlovsk-	60.82	7	P	P	20 41 56.6	-0.1
	comp=Z,3.6nm,0.5s,baz=216,slow=7.6,SNR=2.5						
PETK				LR	LR	21 04 40.2	
	comp=Z,42nm,21.9s,baz=200,slow=32						
	comp=Z,3.6nm,0.5s						
PETK	Petropavlovsk-	60.82	7	P	P	20 41 55.9	-0.9
SHL	Shillong	63.40	303		P	20 42 15.1	+0.3
CASY	Casey	64.17	196	P	P	20 42 19.3	+0.5
GTA2	Gaotai	64.35	320	*e*P	P	20 42 20.9	+0.2
GTA2				pP	pP	20 42 34.3	-11
GTA2				pmax	pmax		
	comp=Z,3.0nm,1.2s						
LSA	Lhasa	65.67	307	P	P	20 42 31.5	+1.7
SONM	Songino Array	65.96	331	P	P	20 42 30.8	-0.1
	comp=Z,1.4nm,1.0s,baz=139,slow=4.9,SNR=5.1						
	comp=Z,1.4nm,1.0s						
SONM	Songino Array	65.96	331	P	P	20 42 30.4	-0.5
MA2	Magadan	66.75	2	LR	LR	21 08 44.0	
	comp=Z,13nm,21.9s,baz=182,slow=33						
PALK	Pallekele	68.45	281	LR	LR	21 15 55.2	
	comp=Z,38nm,18.4s,baz=112,slow=39						
EVN	Everest	68.50	304		P	20 42 48.6	+0.6
CCD	Concordia, Ant	69.12	187	P	P	20 42 51.6	+0.8
SEY	Seymchan	70.17	2	P	P	20 42 56.4	-0.4
	comp=Z,2.0nm,0.7s,baz=48,slow=7.8,SNR=3.7						
	comp=Z,2.0nm,0.7s						
VNDA	Vanda	70.52	177	P	P	20 42 59.9	+1.1
	comp=Z,5.2nm,0.6s,baz=333,slow=6.7,SNR=47						
	comp=Z,5.2nm,0.6s						
VNDA	Vanda	70.52	177		P	20 42 59.7	+0.9
VNDA	Vanda	70.52	177	P	P	20 42 60.0	+1.1
YAK	Yakutsk	70.59	351	LR	LR	21 13 27.4	
	comp=Z,21nm,18.7s,baz=152,slow=35						
SBA	Scott Base	71.16	176	P	P	20 43 04.7	+2.1
SBA				x	x	20 43 32.1	
WMQ	Urumqi	74.32	319	*e*P	P	20 43 24.8	+2.8
M14K	Bethel	78.43	23		P	20 43 45.0	+0.2
MKAR	Makanchi Array	79.03	320	P	P	20 43 48.8	+0.3
	comp=Z,1.0nm,0.6s,baz=102,slow=7.7,SNR=13						
	comp=Z,1.0nm,0.6s						
MKAR	Makanchi Array	79.03	320	P	P	20 43 48.2	-0.3
O16K	Kokwok River B	79.27	25	P	P	20 43 49.2	-0.2
ZALV	Zalesovo Beam	80.56	328	P	P	20 43 55.7	-0.8
	comp=Z,0.9nm,0.4s,baz=108,slow=6.0,SNR=7.5						
ZALV				LR	LR	21 18 55.5	
	comp=Z,21nm,21.8s,baz=78,slow=35						
	comp=Z,0.9nm,0.4s						
KSH2	Kashi	81.04	311	P	P	20 43 59.6	0.0
KSH2				pmax	pmax		
	comp=Z,4.0nm,0.9s						
MAW	Mawson	81.30	203	P	P	20 44 00.6	+0.3
	comp=Z,3.9nm,1.1s,baz=125,slow=6.4,SNR=6.4						
	comp=Z,3.9nm,1.1s						
MAW	Mawson	81.30	203	P	P	20 44 00.8	+0.6
NIL	Nilore	81.34	306	P	P	20 44 01.8	+0.6
NIL	Nilore	81.34	306	P	P	20 44 02.2	+1.1
	comp=Z,51nm,0.8s						
M20K	Styx River	82.56	24		P	20 44 07.2	+0.2
QSPA	South Pole Qui	82.62	180	P	P	20 44 08.1	+0.7
	comp=Z,16nm,0.6s,baz=292,slow=0.4,SNR=154						
	comp=Z,16nm,0.6s						
QSPA	South Pole Qui	82.62	180		P	20 44 07.6	+0.3
QSPA	South Pole Qui	82.62	180	P	P	20 44 08.1	+0.7
KURK	Kurchatov	82.75	323	P	P	20 44 07.7	-0.3
KURBB	Kurchatov Arra	82.77	323	P	P	20 44 08.2	0.0
	comp=Z,0.7nm,0.7s,baz=115,slow=4.5,SNR=2.5						
MLY	Manley	85.07	22		P	20 44 19.6	0.0
KK31	Karatay Array	85.78	314	P	P	20 44 23.7	+0.1
KKAR	Karatay Array	85.78	314	P	P	20 44 23.4	-0.3
COLA	College	86.09	23	P	P	20 44 24.9	+0.3
COLA	College	86.09	23	P	P	20 44 23.8	-0.8
COLA				pP	pP	20 44 45.0	-5.2
ILAR	Eielson Array	86.42	23	P	P	20 44 25.1	-1.1
	comp=Z,6.0nm,0.7s,baz=253,slow=5.0,SNR=69						
	comp=Z,6.0nm,0.7s						
NRIK	Noril'sk	86.79	342	LR	LR	21 23 44.2	
	comp=Z,23nm,19.2s,baz=125,slow=36						
MENT	Mentasta	86.95	25	P	P	20 44 30.5	+1.6
BCAR	Beaver Creek A	87.82	25	P	P	20 44 33.4	+0.2
BVAR	Borovoye Array	88.31	324	P	P	20 44 34.8	-0.8
	comp=Z,0.9nm,0.6s,baz=103,slow=4.6,SNR=4.8						
	comp=Z,0.9nm,0.6s						
BMAR	Burnt Mountain	88.38	21	P	P	20 44 36.0	+0.4
BBB	Bella Bella	92.15	38	LR	LR	21 19 15.8	
	comp=Z,17nm,20.3s,baz=224,slow=31						
ELIB	Princess Elisa	93.10	195	*d*P	P	20 44 58.1	+0.4
	comp=Z,4.5nm,0.8s						
YBH	Yreka Blue Hor	94.47	49	LR	LR	21 20 11.1	
	comp=Z,17nm,21.0s,baz=260,slow=31						
TROLL	Troll, Antarti	97.61	190	⇑P	P	20 45 18.3	0.0
	comp=Z,102nm,0.5s						
SNAA	Sanae	98.79	189	LR	LR	21 28 47.5	
	comp=Z,48nm,21.1s,baz=30,slow=34						
PFO	Pinyon Flats O	98.81	57	LR	LR	21 21 54.6	
	comp=Z,32nm,21.6s,baz=206,slow=30						
YKA	Yellowknife Ar	100.00	28	LR	LR	21 28 47.3	
	comp=Z,16nm,18.7s,baz=323,slow=34						
VNA2	Neumayer--Watz	100.13	188	⇑Pdiff	Pdif	20 45 29.8	+0.4
	comp=Z,1.2nm,0.6s,baz=151,slow=4.3						
VNA3	Neumayer Olymp	100.14	187	⇑Pdiff	Pdif	20 45 29.5	0.0
	comp=Z,2.3nm,0.7s						
BR104	Keskin Array S	113.19	310	P	Pdif	20 46 27.6	-0.7
GERES	GERESS Array B	123.45	325	PKP	PKiKP	20 50 41.0	-0.3
	comp=Z,0.3nm,0.3s,baz=96,slow=2.7,SNR=5.6						
GERES	GERESS Array B	123.45	325		PKPdf	20 50 40.7	-0.4
TORD	Torodi Ar. Bea	146.16	283	PKPbc	PKPbc	20 51 24.9	-0.2
	comp=Z,3.8nm,0.6s,baz=65,slow=3.7,SNR=26						
BDFB	Brasilia	152.31	146	PKPbc	PKiKP	20 51 41.1	+0.2
	comp=Z,4.7nm,0.6s,baz=207,slow=1.8,SNR=4.2						
BDFB	Brasilia	152.31	146		PKiKP	20 51 40.8	-0.2
DBIC	Dimbokro	152.83	270	PKPbc	PKiKP	20 51 42.5	+0.5
	comp=Z,3.7nm,0.6s,baz=137,slow=4.4,SNR=6.2						
DBIC	Dimbokro	152.83	270		PKiKP	20 51 41.8	-0.2

IDC 10 20:35:17.5±4.6**,37°.00S**×**52°.11E,h0**^{km}**,mb3.9**/2**,**
mbtmp3.9/3**,ML4.2**/1**,MS3.2**/3**,Error ellipse:**
s-maj=193.7km s-min=35.8km az=51.0,South Indian
Ocean

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OPO	Ambohidratompo	18.87	345	P	P	20 39 39.4	0.0
	0.1nm,0.3s,baz=161,slow=12,SNR=5.7						
	2.0nm,0.5s						
OPO				AML	AML		
BOSA	Boshof	24.01	283	LR	LR	20 48 07.3	
	comp=Z,36nm,18.2s,baz=162,slow=32						
LSZ	Lusaka	30.33	309	LR	LR	20 52 00.8	
	comp=Z,41nm,20.1s,baz=143,slow=33						
MAW	Mawson	31.25	172	LR	LR	20 51 24.2	
	comp=Z,68nm,22.0s,baz=16,slow=31						
H01W2	Cape Leeuwin H	49.46	107	T	T	21 36 41.7	
	baz=250,slow=74,SNR=10						
H01W3	Cape Leeuwin H	49.47	107	T	T	21 36 42.8	
	baz=250,slow=74,SNR=12						
H01W1	Cape Leeuwin H	49.48	107	T	T	21 36 43.0	
	baz=250,slow=74,SNR=10						
ASAR	Alice Springs	69.88	105	P	P	20 46 30.6	+0.2
	0.7nm,0.6s,baz=232,slow=6.1,SNR=5.2						
	0.7nm,0.6s						
WRA	Warramunga Arr	72.24	102	P	P	20 46 44.8	0.0
	1.1nm,0.8s,baz=232,slow=5.3,SNR=7.0						
	1.1nm,0.8s						
ILAR	Eielson Array	149.98	16	PKPbc	PKPbc	20 55 08.4	-0.5
	0.7nm,0.6s,baz=319,slow=2.5,SNR=8.5						

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*IDC **10** 20:39:14.4±0.7,27°.69S×71°.39W,h0^{km},mb4.3/7,*
mbtmp4.1/12,ML3.8/5,MS3.6/14,Error ellipse:
s-maj=20.7km s-min=13.0km az=83.0

*NEIC **10** 20:39:14.4±2.0,27°.75S±0°.04×71°.49W±0°.06,h10^{km}±1^{km},*
mb4.6/11,ML4.1(GUC),Error ellipse: s-maj=9.4km
s-min=5.8km az=74.0

*GFZ **10** 20:39:15.3±0.3,28°S±2°×7°2W±°,h10^{km},M4.7/14,*
mb4.7/14,confirmed

*GUC **10** 20:39:17.4±0.7,27°.88S×71°.39W,h27^{km}±3^{km},ML4.1*

ISC 10 20:39:13.4±1.6**,27°.74S**±0°.04×**71°.49W**±0°.06**,h3**^{km}±9^{km}**,**
n129,σ**1**^{s}**36**/125**,mb4.6**/14**,MS3.7**/10**,7C-5D,Near coast**
of northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.59	142	⇓*i*P	Pg	20 39 25.8	+1.1
AC04				*i* S	Sg	20 39 31.8	-0.6
AC04				IAML		20 39 32.4	
	comp=E,20µm,0.3s						
AC04	Llanos de Chal	0.59	142	Pg	Pg	20 39 25.6	+0.9
AC04	Llanos de Chal	0.59	142	P	Pg	20 39 25.8	+1.1
AC06	Mina Casimiro	1.07	69	⇓*i*P	Pn	20 39 35.5	+0.2
AC06				IAML		20 39 57.4	
	comp=N,7µm,0.7s						
AC06	Mina Casimiro	1.07	69		Pn	20 39 35.3	-0.1
GO03	Copiapo	1.12	83	⇓*i*P	Pn	20 39 35.9	-0.1
GO03				IAML		20 39 56.5	
	comp=E,5µm,0.6s						
GO03	Copiapo	1.12	83		Pn	20 39 35.8	-0.1
GO03	Copiapo	1.12	83	P	Pn	20 39 36.0	0.0
LCO	Las Campanas	1.44	152	⇓*i*P	Pn	20 39 39.9	-0.7
LCO				*i* S	Sb	20 39 56.7	-3.2
LCO				IAML		20 40 02.1	
	comp=E,32µm,0.6s						
LCO	Las Campanas	1.44	152		Pn	20 39 40.1	-0.5
AC05	El Transito	1.53	136	⇓*i*P	Pn	20 39 41.4	-0.3
AC05				*i* S	Sn	20 39 59.1	-3.1
AC05				IAML		20 40 02.6	
	comp=E,8µm,0.8s						
AC05	El Transito	1.53	136		Pn	20 39 41.7	0.0
AC05	El Transito	1.53	136	P	Pn	20 39 41.5	-0.1
AC01	Pan de Azucar	1.77	27	⇑*i*P	Pb	20 39 46.8	+0.2
AC01				IAML		20 40 23.7	
	comp=E,2µm,0.6s						
AC01	Pan de Azucar	1.77	27		Pb	20 39 46.6	+0.1
AC01	Pan de Azucar	1.77	27	P	Pb	20 39 46.9	+0.3
AC02	Maricunga	2.28	67	⇑*i*P	Pb	20 39 55.7	+0.1
AC02				*i* S	Sb	20 40 24.2	-0.1
AC02				IAML		20 40 30.7	
	comp=N,4µm,0.4s						
AC02	Maricunga	2.28	67		Pb	20 39 54.7	-0.8
AC02	Maricunga	2.28	67	P	Pb	20 39 55.8	+0.3
GO04	Tololo Observa	2.50	166	*e*P	Pn	20 39 55.2	+0.1
GO04				*i* S	Sn	20 40 25.9	-0.4
GO04	Tololo Observa	2.50	166	Pn	Pn	20 39 54.9	-0.2
GO04	Tololo Observa	2.50	166	P	Pn	20 39 57.9	+2.7
CO01	Juntas del Tor	2.54	152	*e*P	Pn	20 39 57.2	+1.5
CO01				*i* S	Sn	20 40 26.6	-0.7
CO01				IAML		20 40 32.2	
	comp=N,2µm,0.7s						
CO01	Juntas del Tor	2.54	152	Pn	Pn	20 39 57.2	+1.5
CO01	Juntas del Tor	2.54	152	P	Pn	20 39 57.9	+2.2
CO06	Fray Jorge	2.92	183	*e*P	Pn	20 39 59.4	-1.4
CO06				IAML		20 40 55.7	
	comp=E,634nm,0.9s						
CO06	Fray Jorge	2.92	183		Pn	20 39 59.2	-1.6
VCA	Vinchina	3.06	110	*e*P	Pb	20 40 07.7	-0.8
CO03	El Pedregal	3.17	167	*e*P	Pn	20 40 04.6	+0.5
CO03				IAML		20 40 58.0	
	comp=E,1µm,0.5s						
CO03	El Pedregal	3.17	167	Pn	Pn	20 40 03.9	-0.3
CO03	El Pedregal	3.17	167	P	Pn	20 40 07.0	+2.8
PB14	IPOC Station P	3.25	18	⇑*e*P	Pn	20 40 06.8	+1.2
PB14				IAML		20 41 07.0	
	comp=E,534nm,0.4s						
PB14	IPOC Station P	3.25	18		Pn	20 40 05.5	0.0
PB14	IPOC Station P	3.25	18	P	Pn	20 40 06.9	+1.4
CO02	Combarbal	3.48	173	*e*P	Pn	20 40 08.0	-0.5
CO02	Combarbal	3.48	173	Pn	Pn	20 40 08.0	-0.5
CO02	Combarbal	3.48	173	P	Pn	20 40 10.7	+2.2
CO04	Los Peladeros	4.31	174		Pn	20 40 19.5	-0.6
CFA	Coronel Fontan	4.78	145	Pn	Pn	20 40 28.3	+2.0
	comp=E,12nm,0.3s,baz=332,slow=11,SNR=8.6						
CFA				Sn	Sn	20 41 25.4	+3.3
	comp=E,3.9nm,0.3s,baz=303,slow=19,SNR=4.0						
	comp=E,20nm,0.4s						
CFA				AML	AML		
PB05	IPOC Station P	5.00	14		Pn	20 40 29.6	+0.2
PB05	IPOC Station P	5.00	14	P	Pn	20 40 30.4	+0.9
	comp=Z,147nm,0.7s						
CYA	Choya	5.07	99	*e*P	Pn	20 40 32.7	+2.4
VA03	San Esteban	5.07	171		Pn	20 40 31.1	+0.7
PB06	IPOC Station P	5.30	19		Pn	20 40 34.4	+0.7
PB06	IPOC Station P	5.30	19	P	Pn	20 40 35.0	+1.3
	comp=Z,122nm,0.6s						
MT02	Curacav	5.51	177		Pn	20 40 36.0	-0.3
PB03	IPOC Station P	5.88	16		Pn	20 40 41.8	+0.2
PB03	IPOC Station P	5.88	16	P	Pn	20 40 42.1	+0.5
	comp=Z,74nm,0.7s						
SLA	San Lorenzo	6.16	62	*e*P	Pn	20 40 49.8	+4.5
PB07	IPOC Station P	6.16	14	P	Pn	20 40 45.9	+0.4
	comp=Z,70nm,0.8s						
PB09	IPOC Station P	6.26	19	P	Pn	20 40 49.5	+2.7
	comp=Z,71nm,1.0s						
PB02	IPOC Station P	6.55	13	P	Pn	20 40 50.9	+0.1
	comp=Z,88nm,0.5s						
TCA	Tanti	6.99	122	*e*P	Pn	20 40 57.7	+0.9
BO02	Sierra Bellavi	7.05	175	P	Pn	20 40 57.5	-0.1
	comp=Z,24nm,0.6s						
PSGCX	Pisagua	8.20	9		Pn	20 41 12.3	-1.1
PSGCX	Pisagua	8.20	9	P	Pn	20 41 12.6	-0.8
	comp=Z,26nm,0.8s						
GO01	Chusmiza	8.30	15		Pn	20 41 15.0	-0.2
GO01	Chusmiza	8.30	15	P	Pn	20 41 15.0	-0.2
	comp=Z,20nm,0.7s						
H03N1	Juan Fernandez	8.56	227	Pn	Pn	20 41 15.2	-2.7
	baz=225,slow=74						
H03N1				T	T	20 50 10.0	
	baz=207,slow=74,SNR=2531						
H03N2	Juan Fernandez	8.57	227	Pn	Pn	20 41 15.7	-2.3
	baz=37,slow=74						
H03N2				T	T	20 50 10.6	
	baz=55,slow=74,SNR=1990						
H03S3	Juan Fernandez	8.80	225	Pn	Pn	20 41 18.2	-3.1
	baz=8.8,slow=76						
H03S3				Sn	Sn	20 42 51.0	-10
	baz=349,slow=74						
H03S1	Juan Fernandez	8.81	225	Pn	Pn	20 41 18.0	-3.4
	baz=8.8,slow=76						
H03S1				Sn	Sn	20 42 50.2	-11
	baz=191,slow=74						
H03S2	Juan Fernandez	8.82	225	Pn	Pn	20 41 18.2	-3.3
	baz=8.8,slow=76						
H03S2				Sn	Sn	20 42 51.2	-10
PB12	IPOC Station P	9.15	7	P	Pn	20 41 26.5	+0.1
	comp=Z,25nm,0.7s						
PB16	IPOC Station P	9.54	11		Pn	20 41 32.5	+0.3
PB16	IPOC Station P	9.54	11	P	Pn	20 41 32.6	+0.4
	comp=Z,12nm,0.6s						
LPAZ	La Paz	11.81	16	Pn	Pn	20 42 04.8	+1.4
	comp=Z,0.6nm,0.3s,baz=199,slow=7.4,SNR=7.8						
LPAZ				LR	LR	20 47 08.4	
	comp=Z,227nm,19.2s,baz=200,slow=40						
	comp=Z,1.6nm,0.5s						
LPAZ				AML	AML		
LPAZ	La Paz	11.81	16		Pn	20 42 04.6	+1.2
LPAZ	La Paz	11.81	16	P	Pn	20 42 04.4	+1.0
	comp=Z,9.9nm,0.6s						
CPUP	Villa Florida	12.70	87	Pn	Pn	20 42 14.6	-0.3
	comp=Z,0.1nm,0.3s,baz=212,slow=15,SNR=1.7						
CPUP				LR	LR	20 46 58.7	
	comp=Z,138nm,18.4s,baz=262,slow=37						
	comp=Z,0.8nm,0.3s						
CPUP				AML	AML		
PLCA	Paso Flores	12.98	177	Pn	Pn	20 42 20.3	+1.5
	baz=333,slow=11,SNR=1.8						
PLCA				LR	LR	20 47 13.2	
	comp=Z,292nm,19.3s,baz=352,slow=37						
	comp=Z,2.3nm,1.0s						
SIV	San Ignacio	15.16	42	Pn	Pn	20 42 44.2	-4.4
	comp=Z,0.1nm,0.3s,baz=234,slow=14,SNR=3.7						
SIV				LR	LR	20 49 38.2	
	comp=Z,153nm,20.3s,baz=157,slow=41						
	comp=Z,0.9nm,0.3s						
SIV				AML	AML		
TRCB	Terra Rica	17.74	78	Pn	Pn	20 43 20.4	-1.1
VILB	Vilhena	18.10	38		Pn	20 43 24.9	-1.1
CZSB	Cruzeiro do Su	19.94	356	P	P	20 43 46.4	-0.1
CZSB				IAmb	IAmb	20 43 55.1	
	comp=Z,17nm,0.8s						
ATAH	Atahualpa	21.52	341	LR	LR	20 50 54.6	
	comp=Z,63nm,19.7s,baz=163,slow=33						
SPB	Sao Paulo	22.06	85	P	P	20 44 10.6	+1.2
SPB				IAmb	IAmb	20 44 19.1	
	comp=Z,27nm,1.2s						
CLDB	Colider	22.34	44	P	P	20 44 13.3	+0.9
	comp=Z,8.5nm,1.3s						
VAO	Valinhos	22.64	83	P	P	20 44 14.5	-1.3
BDFB	Brasilia	24.86	66	P	P	20 44 38.3	+0.9
	comp=Z,5.8nm,0.7s,baz=257,slow=12,SNR=5.6						
BDFB				LR	LR	20 55 50.7	
	comp=Z,420nm,18.3s,baz=178,slow=40						
	comp=Z,5.8nm,0.7s						
BDFB	Brasilia	24.86	66	P	P	20 44 35.8	-1.7
BDFB				IAmb	IAmb	20 44 38.8	
	comp=Z,6.6nm,0.8s						
BOAV	Boa Vista	31.77	21	P	P	20 45 35.6	-3.4
BOAV				IAmb	IAmb	20 45 41.1	
	comp=Z,4.7nm,1.2s						

SDV	Santo Domingo	36.42	1	LR	LR	21 03 42.3	
	comp=Z,23nm,18.1s,baz=237,slow=40						
PMSA	Palmer Station	37.35	175	LR	LR	21 01 00.3	
	comp=Z,120nm,18.1s,baz=20,slow=35						
MDP	Montagnes des	37.38	32	LR	LR	21 03 00.1	
	comp=Z,106nm,18.4s,baz=144,slow=38						
VNA3	Neumayer Olymp	55.00	160	⇑P	P	20 48 45.9	+0.2
	comp=Z,4.3nm,1.0s						
VNA3	Neumayer Olymp	55.00	160	P	P	20 48 45.8	+0.2
	comp=Z,8.0nm,0.9s						
VNA1	Neumayer--Stat	55.27	159	⇑P	P	20 48 48.8	+1.3
	comp=Z,4.9nm,1.0s						
VNA2	Neumayer--Watz	55.62	159	⇑P	P	20 48 50.3	+0.2
	comp=Z,3.5nm,0.6s,baz=283,slow=7.3						
VNA2	Neumayer--Watz	55.62	159	P	P	20 48 50.9	+0.8
	comp=Z,9.8nm,0.9s						
SNAA	Sanae	57.23	159	⇑P	P	20 49 01.8	+0.2
SNAA	Sanae	57.23	159	P	P	20 49 01.7	+0.2
	comp=Z,5.8nm,0.8s,baz=302,slow=3.2,SNR=10						
	comp=Z,5.8nm,0.8s						
SNAA	Sanae	57.23	159	P	P	20 49 02.1	+0.6
SNAA				IAmb	IAmb	20 49 02.8	
	comp=Z,7.5nm,0.9s						
SNAA	Sanae	57.23	159	P	P	20 49 02.3	+0.7
	comp=Z,9.8nm,1.4s						
QSPA	South Pole Qui	62.48	180	P	P	20 49 39.1	+1.2
	comp=Z,4.9nm,1.0s,baz=131,slow=2.8,SNR=8.1						
	comp=Z,4.9nm,1.0s						
QSPA	South Pole Qui	62.48	180	P	P	20 49 38.3	+0.5
QSPA				IAmb	IAmb	20 49 50.8	
	comp=Z,7.7nm,0.9s						
TXAR	Lajitas Array	64.57	329	P	P	20 49 54.7	+2.6
	comp=Z,0.2nm,0.5s,baz=134,slow=11,SNR=2.5						
	comp=Z,0.2nm,0.5s						
TXAR	Lajitas Array	64.57	329	P	P	20 49 52.1	0.0
LCAR	Lake Charles	66.12	343	P	P	20 50 00.0	-1.8
LCAR				IAmb	IAmb	20 50 05.5	
	comp=Z,4.0nm,0.7s						
PPT	Papeete	71.74	259	LR	LR	21 13 22.7	
	comp=Z,41nm,21.2s,baz=160,slow=28						
DBIC	Dimbokro	72.79	73	P	P	20 50 44.6	+1.0
	comp=Z,8.3nm,0.7s,baz=238,slow=7.1,SNR=8.5						
DBIC				LR	LR	21 19 58.8	
	comp=Z,28nm,21.1s,baz=234,slow=34						
	comp=Z,8.3nm,0.7s						
DBIC	Dimbokro	72.79	73	IAmb	IAmb	20 50 45.4	
	comp=Z,9.7nm,0.7s						
PDAR	Pinedale Array	78.43	332	P	P	20 51 17.4	+1.7
	comp=Z,0.3nm,0.5s,baz=186,slow=5.5,SNR=1.1						
PDAR				LR	LR	21 24 34.2	
	comp=Z,23nm,20.8s,baz=234,slow=35						
	comp=Z,0.3nm,0.5s						
TSUM	Tsumeb	80.50	107	LR	LR	21 24 22.0	
	comp=Z,58nm,18.4s,baz=164,slow=34						
TORD	Torodi Ar. Bea	81.65	70	P	P	20 51 34.4	+1.0
	comp=Z,5.9nm,0.9s,baz=256,slow=5.1,SNR=13						
	comp=Z,5.9nm,0.9s						
BOSA	Boshof	82.58	118	P	P	20 51 38.8	+0.5
	comp=Z,13nm,1.9s						
KEST	Kesra	98.88	54	LR	LR	21 39 16.7	
	comp=Z,73nm,19.1s,baz=339,slow=36						
ASAR	Alice Springs	123.32	208	PKP	PKPdf	20 58 12.6	+0.1
	comp=Z,0.3nm,0.7s,baz=133,slow=2.7,SNR=4.4						
ASAR	Alice Springs	123.32	208		PKPdf	20 58 12.3	-0.2
H11S2	WAKE ISLAND Hy	126.11	273	T	T	23 17 26.0	
	baz=112,slow=75,SNR=17						
H11S1	WAKE ISLAND Hy	126.12	273	T	T	23 17 28.1	
	baz=112,slow=75,SNR=21						
H11S3	WAKE ISLAND Hy	126.13	273	T	T	23 17 28.8	
	baz=112,slow=75,SNR=20						
WRA	Warramunga Arr	126.41	211	PKP	PKPdf	20 58 19.4	+0.9
	comp=Z,1.2nm,0.8s,baz=155,slow=1.7,SNR=7.9						
WRA	Warramunga Arr	126.41	211		PKPdf	20 58 19.0	+0.6
KK31	Karatay Array	145.77	53	PKPdf	PKPab	20 58 54.8	+0.6
KKAR	Karatay Array	145.77	53	PKPdf	PKPbc	20 58 54.4	+0.5
BTK	Batken	146.63	59		PKPdf	20 58 53.9	-1.1
DRK	Karamyk	147.47	59	PKPdf	PKPdf	20 58 55.0	-1.7
KURK	Kurchatov	147.77	36		PKPbc	20 58 59.1	-0.1
KURBB	Kurchatov Arra	147.78	37	PKPbc	PKPbc	20 58 59.5	+0.2
	comp=Z,2.0nm,0.8s,baz=302,slow=3.5,SNR=14						
ARSB	Arslanbob	147.98	56		PKPdf	20 58 57.5	+0.1
ZAA0	Zalesovo Array	148.56	27		PKPdf	20 58 57.3	-0.3
ZAA0					PKiKP	20 59 02.8	0.0
ZALV	Zalesovo Beam	148.56	27	PKP	PKPdf	20 58 59.3	+1.6
	comp=Z,8.5nm,0.8s,baz=298,slow=3.1,SNR=15						
ZALV				PKPbc	PKiKP	20 59 03.2	+0.4
	comp=Z,8.5nm,0.8s,baz=310,slow=3.3,SNR=39						
ZALV	Zalesovo Beam	148.56	27		PKPdf	20 58 57.0	-0.6
AAK	Ala-Archa	148.72	53	PKPbc	PKPdf	20 58 59.7	+1.2
NRN	Naryn	150.14	54	PKPdf	PKPdf	20 58 58.1	-3.0
NRN					PKPbc	20 59 06.8	+0.7
TOLI2	Tolitoli	151.03	206	PKPbc	PKPbc	20 59 07.9	-0.7
MKAR	Makanchi Array	151.97	40	PKPbc	PKiKP	20 59 11.3	+1.2
	comp=Z,2.2nm,0.8s,baz=327,slow=2.1,SNR=9.7						
MKAR	Makanchi Array	151.97	40	PKPbc	PKPbc	20 59 10.4	+0.6

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*KRNET **10** 21:07:17.8±0.1, 42°.12N×72°.37E, h21^{km}, mb2.4*
*SOME **10** 21:07:18.0, 42°.13N×72°.42E, h10^{km}*
*NNC **10** 21:07:19.1±0.4, 42°.15N×72°.43E, h0^{km}, mb2.3, mpv2.7, Error ellipse: s-maj=4.4km s-min=1.3km az=1.0*
*ISU **10** 21:07:20, 42°.05N×72°.31E, h30^{km}*
*KNET **10** 21:07:24.1±0.7, 42°.18N×72°.75E, h36^{km}±3^{km}, ml1.6, Error ellipse: s-maj=10.1km s-min=4.8km az=151.0*
ISC 10 21:07:17.1±1.1**, 42°.14N**±0°.02×**72°.48E**±0°.02**, h6**^{km}±10^{km}**, n37, σ1^{s}25**/66**, 27C-18D, Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MNAS	Manas	0.35	3	⇑*i*P	Pb	21 07 25.6	-0.2
MNAS				⇑*i*S	Sb	21 07 31.0	-0.7
ARK	Arkit	0.51	228	⇑*i*P	Pg	21 07 26.8	-0.2
ARK				⇑*i*S	Sg	21 07 33.0	-0.7
MRKS	Merke	0.82	42	P	Pn	21 07 35.1	-0.2
	3.5nm,0.1s						
MRKS				S	Sn	21 07 46.9	-0.9
	24nm,0.1s						
MRKS	Merke	0.82	42	*e*P	Pn	21 07 35.1	-0.2
	3.5nm,0.1s						
MRKS				*e*S	Sn	21 07 46.9	-0.9
	24nm,0.1s						
ARSB	Arslanbob	0.90	155	⇑*i*P	Pb	21 07 35.0	-0.2
ARSB				⇑*i*S	Sb	21 07 47.4	-0.1
EKS2	Erkin-Say	1.09	61	⇑P	Pn	21 07 40.3	+1.1
	1.1nm,0.1s						
EKS2				⇑S	Sn	21 07 55.0	+0.3
	2.1nm,0.2s						
EKS2	Erkin-Say	1.09	61	⇑*e*P	Pn	21 07 39.4	+0.3
EKS2				⇑*i*S	Sn	21 07 55.1	+0.4
TRKS	Terek-Say	1.17	239	⇓*i*P	Pg	21 07 38.5	-1.0
TRKS				⇓*i*S	Sg	21 07 53.5	-1.2
KSNS	Kasansay	1.22	216	S	Sn	21 07 59.1	+1.6
UCH	Uchtor	1.52	86	⇑*i*P	Pg	21 07 47.1	+0.9
UCH				⇑*i*S	Sn	21 08 08.4	+2.9
AAK	Ala-Archa	1.57	71	⇑P	Pg	21 07 49.7	+2.5
	1.7nm,0.2s						
AAK				⇓S	Sg	21 08 09.8	+2.1
	2.2nm,0.2s						
AAK	Ala-Archa	1.57	71	⇓P	Pg	21 07 48.7	+1.5
	1.0nm,0.8s						
AAK				⇓S	Sg	21 08 10.3	+2.6
	0.8nm,0.6s						
AAK	Ala-Archa	1.57	71	⇓*i*P	Pg	21 07 47.9	+0.6
AAK				⇓*i*S	Sg	21 08 09.9	+2.2
PSK	Pskem	1.58	263	P	Pb	21 07 46.7	-0.1
PSK				S	Sb	21 08 07.5	+0.3
SALK	Salom-Alik	1.61	141	⇓*e*P	Pg	21 07 47.9	-0.1
SALK				⇓*i*S	Sg	21 08 09.8	+1.0
KK31	Karatay Array	1.74	304	P	Pb	21 07 49.9	+0.4
	1.3nm,0.3s,baz=126,slow=15,SNR=34						
KK31				⇑S	Sg	21 08 12.9	-0.2
	2.8nm,0.4s,baz=124,slow=26,SNR=4.7						
FRG	Fergana	1.84	197	S	Sg	21 08 19.8	+3.6
USP	Ospenovka	1.87	52	⇑P	Pg	21 07 53.9	+1.0
	3.0nm,0.1s						
USP				⇑S	Sg	21 08 17.2	+0.1
	6.3nm,0.2s						
CHMS	Chumysh	1.89	62	⇑P	Pg	21 07 53.3	+0.1
	1.2nm,0.1s						
CHMS				⇓S	Sg	21 08 16.4	-1.3
	2.7nm,0.1s						
CHMS	Chumysh	1.89	62	⇓*i*P	Pg	21 07 52.7	-0.5
CHMS				⇓*i*S	Sg	21 08 17.8	+0.1
KBK	Karagaybulak	1.90	73	⇑P	Pg	21 07 54.0	+0.5
	2.4nm,0.2s						
KBK				⇑S	Sg	21 08 17.8	-0.4
	9.2nm,0.3s						
KBK	Karagaybulak	1.90	73	⇑*e*P	Pg	21 07 53.1	-0.4
KBK				⇑*i*S	Sg	21 08 18.6	+0.4
CHMG	Chimgan	1.94	253	S	Sn	21 08 16.7	+1.3
SGDS	Sogindy	2.06	50	Pg	Pg	21 07 57.0	+0.5
	3.1nm,0.2s						
SGDS				Lg	Lg	21 08 24.7	
	4.0nm,0.1s						
BRLS	Borolday	2.14	295	Pg	Pg	21 07 58.1	-0.1
	1.6nm,0.2s						
BRLS				Lg	Lg	21 08 26.9	
	6.0nm,0.2s						
BRLS	Borolday	2.14	295	*e*P	Pg	21 07 58.1	-0.1
	1.6nm,0.2s						
BRLS				*e*S	Sg	21 08 26.9	+1.0
	6.0nm,0.2s						
TVKS	Tavaksay	2.19	256	S	Sg	21 08 26.4	-0.9
SFK	Sufi-Kurgan	2.26	160	⇑*i*P	Pb	21 07 57.2	-1.3
SFK				⇑*i*S	Sb	21 08 25.6	-1.2
BTK	Batken	2.43	212	⇓*i*P	Pn	21 07 58.4	+1.0
BTK				⇓*i*S	Sn	21 08 27.9	+0.4
TKM2	Tokmak 2	2.43	70	⇓*i*P	Pb	21 08 00.4	-1.0
TKM2				⇓*i*S	Sb	21 08 31.4	-0.3
BOOM	Boomskoye usch	2.59	81	⇑*i*P	Pb	21 08 02.6	-1.5
BOOM				⇑*i*S	Sb	21 08 35.2	-1.1
KST	Kastek	2.73	70	Pg	Pg	21 08 09.2	-0.1
	0.3nm,0.1s						
KST				Lg	Lg	21 08 45.6	
	7.1nm,0.3s						
KST	Kastek	2.73	70	*e*P	Pg	21 08 09.2	-0.1
	0.3nm,0.1s						
KST				*e*S	Sg	21 08 45.6	+0.9
	7.1nm,0.3s						
NRN	Naryn	2.73	104	⇑*i*P	Pb	21 08 04.1	-2.4
NRN				⇑*i*S	Sb	21 08 38.0	-2.3
ULHL	Ulahol	2.80	87	⇓*i*P	Pb	21 08 05.5	-2.1
ULHL				⇓*i*S	Sb	21 08 40.2	-2.1
KRBS	Karabastau	2.82	55	Pg	Pg	21 08 11.2	+0.1
	0.9nm,0.2s						
KRBS				Lg	Lg	21 08 49.0	
	0.9nm,0.2s						
KRBS	Karabastau	2.82	55	*e*P	Pg	21 08 11.2	+0.1
	0.9nm,0.2s						
KRBS				*e*S	Sg	21 08 49.0	+1.4
	0.9nm,0.2s						

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*SNET **10** 21:08:08.7±3.0, 12°.61N×86°.97W, h125^{km}, ML3.8, Presumed earthquake*
*CATAC **10** 21:08:08.9±0.3, 12°N±3°×8°7W±°, h126^{km}±2^{km}, M3.7/38, MLv3.7/38, Error ellipse: s-maj=8.9km s-min=4.0km az=42.0, confirmed*
ISC 10 21:08:08.2±1.7**, 12°.47N**±0°.08×**87°.04W**±0°.05**, h140**^{km}±10^{km}**, n48, σ0^{s}53**/74**, 12C-3D, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TEL3	Telica 3	0.21	62	⇑P	Pn	21 08 27.4	+0.1
CRIN	San Cristobal	0.23	356	⇑P	Pn	21 08 27.4	-0.1
CRIN				S	Sn	21 08 41.8	-0.3
TELN	Telica	0.24	57	⇑P	Pn	21 08 27.5	0.0
TELN				S	Sn	21 08 42.4	+0.3
PACN	Al O del Volca	0.24	83	⇑P	Pn	21 08 27.5	+0.1
PACN				S	Sn	21 08 42.0	+0.1
HERN	Volcan Telica	0.24	56	⇑P	Pn	21 08 27.2	-0.3
HERN				S	Sn	21 08 42.1	0.0
CNGA	Al SSO del Vol	0.33	86	⇑P	Pn	21 08 27.7	0.0
CNGN	Cerro Negro	0.33	85	⇑P	Pn	21 08 27.4	-0.3
CNGN				S	Sn	21 08 42.7	+0.2
ILCN	San Idelfonso	0.34	72	S	Sn	21 08 42.7	+0.2
LEVN	Ruinas Leon Vi	0.41	100	⇑P	Pn	21 08 28.3	+0.4
LEVN				S	Sn	21 08 43.6	+0.6
MOMN	Momotombo	0.49	98	⇑P	Pn	21 08 28.4	0.0
MOMN				S	Sn	21 08 43.7	0.0
COPN	Copaltepe	0.52	124	⇑P	Pn	21 08 28.2	-0.3
MOM2	El Cardon	0.54	94	⇓P	Pn	21 08 28.6	0.0
MOM2				S	Sn	21 08 44.5	+0.5
AESN	El Sauce Leon	0.64	49	P	Pn	21 08 29.0	-0.2
AMTN	Mateare	0.64	112	P	Pn	21 08 29.3	+0.1
AMTN				S	Sn	21 08 45.3	+0.2
CSGN	Cosiguina Volc	0.71	314	⇑P	Pn	21 08 29.7	-0.1
CSGN				S	Sn	21 08 46.5	+0.2
APQ2	Apoyeque	0.75	111	P	Pn	21 08 29.9	0.0
APQ2				S	Sn	21 08 46.8	+0.4
ABCN	Banco Central	0.79	116	P	Pn	21 08 30.6	+0.3
ABCN				S	Sn	21 08 47.4	+0.4
ALLN	Telcor Managua	0.81	113	P	Pn	21 08 30.1	-0.4
ALLN				S	Sn	21 08 47.4	+0.1
UNAN	Cigeo UNAN	0.83	116	⇓P	Pn	21 08 30.6	0.0
UNAN				S	Sn	21 08 47.6	-0.1
MGAN	Managua	0.84	113	P	Pn	21 08 30.5	-0.1
MGAN				S	Sn	21 08 47.4	-0.3
WILN	Americas 2	0.89	110	⇓P	Pn	21 08 30.8	-0.2
WILN				S	Sn	21 08 48.1	-0.3
AERN	Aeropuerto Man	0.91	111	P	Pn	21 08 30.5	-0.7
AERN				S	Sn	21 08 48.7	0.0
MAS3	Al N del Volca	0.95	118	P	Pn	21 08 31.2	-0.4
MAS3				S	Sn	21 08 48.8	-0.6
MASN	Masaya	0.99	119	P	Pn	21 08 30.6	-1.4
MASN				S	Sn	21 08 49.2	-0.9
SABN	Sabanita	1.00	121	P	Pn	21 08 31.8	-0.3
NANN	Nandasmo	1.04	121	P	Pn	21 08 32.1	-0.3
CNCH	Conchagua	1.11	316	⇑P	Pn	21 08 33.1	-0.1
MATN	Matagalpa	1.17	67	P	Pn	21 08 33.3	-0.5
LCND	La Caada	1.18	315	P	Pn	21 08 33.7	0.0
LCND				S	Sn	21 08 52.5	-0.6
NADN	Granada	1.22	126	P	Pn	21 08 34.6	+0.5
INTP	Intipuca	1.23	306	*e*P	Pn	21 08 34.4	+0.2
INTP				*e*S	Sn	21 08 53.8	-0.2
OCON	Estacion meteo	1.27	25	P	Pn	21 08 34.8	+0.1
RCFN	Al S de San Ju	1.32	37	P	Pn	21 08 35.2	-0.1
BOAB	BOACO BROADBAN	1.34	91	P	Pn	21 08 35.6	+0.3
RCVN	Varillal2	1.38	37	P	Pn	21 08 36.2	+0.3
RCPN	Sur Rio San Ju	1.39	41	P	Pn	21 08 36.3	+0.3
JUCU	Jucuar¡n	1.42	303	*e*P	Pn	21 08 37.1	+0.9
JUCU				*e*S	Sn	21 08 58.3	+0.7
RANC	El Ranchito	1.55	308	P	Pn	21 08 37.7	0.0
TGUH	Tegucigalpa,Un	1.59	352	P	Pn	21 08 38.7	+0.5
MORN	Al O del Volca	1.64	124	P	Pn	21 08 39.0	+0.4
OMEN	Al SSO del Vol	1.68	125	P	Pn	21 08 39.4	+0.4
ALJI	Alcalda de J	1.72	300	*e*P	Pn	21 08 40.2	+0.8
ALJI				*e*S	Sn	21 09 03.5	+0.1
ALJI	Alcalda de J	1.72	300	P	Pn	21 08 39.6	+0.2
ACON	Acoyapa	1.89	105	P	Pn	21 08 41.5	+0.1
COEG	Centro de Oper	2.13	303	*e*P	Pn	21 08 44.5	+0.1
COEG				*e*S	Sn	21 09 09.9	-2.2
BOQS	Boqueron	2.52	300	*e*P	Pn	21 08 50.5	+1.1
JAYA	Jayaque - finc	2.63	297	*e*P	Pn	21 08 51.5	+0.8
JAYA				*e*S	Sn	21 09 22.4	-0.9
CEVE	Cerro Verde	2.86	298	*e*P	Pn	21 08 53.9	+0.3
CEVE				*e*S	Sn	21 09 27.5	-1.1

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*IDC **10** 21:09:36.9±4.3, 26°.08N×110°.57W, h0^{km}, mb3.3/1, mbtmp3.2/5, ML3.8/3, MS2.8/3, Error ellipse: s-maj=59.8km s-min=18.4km az=180.0*
*MEX **10** 21:09:41.6±0.9, 26°.54N×110°.73W, h16^{km}±22^{km}, MD4.0, Presumed earthquake*
ISC 10 21:09:35.4±1.3**, 26°.42N**±0°.03×**110°.69W**±0°.03**, h3**^{km}±11^{km}**, n18, σ2^{s}06**/24**, 6C-1D, Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NE77	Loreto B.C.S	0.72	236	⇑*e*P	Pn	21 09 52.4	-0.1
NE77				*e*S	Sb	21 10 01.8	+0.9
NE77				⇑*e*		21 10 03.3	
NE77				IAML		21 10 03.3	
	comp=N,1µm,0.3s						
NE77				IAML		21 10 03.9	
	comp=E,2µm,0.3s						
NE77				⇑*e*		21 10 03.9	
SNIRB	San Nicol¡s	0.78	279	*e*P	Pb	21 09 52.5	+0.9
SNIRB				*e*S	Sg	21 10 02.0	+1.6
SNIRB				⇑*e*		21 10 04.4	
SNIRB				IAML		21 10 04.4	
	comp=E,6µm,0.3s						
SNIRB				IAML		21 10 05.4	
	comp=N,3µm,0.3s						
SNIRB				*e*		21 10 05.4	
UAGRB	Rancho Ultima	0.99	211	*e*P	Pn	21 09 56.2	0.0
UAGRB				*e*S	Sg	21 10 08.7	+1.3
GUYB	Guaymas	1.48	354	⇓*i*P	Pb	21 10 03.4	-0.2
GUYB				*e*S	Sn	21 10 20.7	-2.1
GUYB				IAML		21 10 25.8	
	comp=E,464nm,0.9s						
GUYB				⇑*e*		21 10 25.8	
EVAR0	San Evaristo	1.50	181	*e*P	Pg	21 10 04.6	+0.4
EVAR0				*e*S	Sn	21 10 21.9	-1.4
SRIG	Santa Rosalia	1.65	303	*e*P	Pn	21 10 05.4	+0.2
SRIG				*e*S	Sn	21 10 23.9	-3.0
SRIG				⇑*e*		21 10 28.5	
SRIG				IAML		21 10 28.5	
	comp=E,477nm,0.4s						
SRIG	Santa Rosalia	1.65	303	*e*P	Pb	21 10 06.1	-0.3
SRIG				*e*S	Sn	21 10 22.5	-4.4
TSIG	Topolobambo	1.70	118	*e*P	Pg	21 10 07.5	-0.4
TSIG				*e*S	Sg	21 10 29.2	-0.7
CSIG	Choix	2.12	78	*e*P	Pb	21 10 13.2	-1.2
LPIG	La Paz	2.33	171	Lg	Lg	21 10 30.8	
	comp=E,10nm,0.3s,baz=357,slow=18,SNR=3.8						
SLBS	Sierra La Lagu	2.81	166	*e*P	Pb	21 10 24.4	-1.8
TXAR	Lajitas Array	6.86	63	Pn	Pn	21 11 20.4	+3.4
	comp=E,0.2nm,0.3s,baz=235,slow=13,SNR=9.2						
TXAR				Pg	Pg	21 11 44.0	-2.9
	comp=E,0.1nm,0.3s,baz=235,slow=15,SNR=5.3						
TXAR				Sn	Sn	21 12 38.0	+2.3
	comp=E,0.3nm,0.3s,baz=250,slow=23,SNR=4.9						
TXAR				Lg	Lg	21 13 15.3	
	comp=E,0.6nm,0.3s,baz=251,slow=30,SNR=7.9						
TXAR				LR	LR	21 14 27.6	
	comp=E,44nm,19.8s,baz=242,slow=42						
	comp=E,0.3nm,0.2s						
TXAR				AML	AML		
ANMO	Albuquerque	9.25	22	Lg	Lg	21 14 39.5	
	comp=E,0.1nm,0.3s,baz=16,slow=19,SNR=3.6						
ANMO				LR	LR	21 15 14.5	
	comp=E,49nm,21.7s,baz=184,slow=36						
NVAR	Mina Array Bea	13.58	334	Pn	P	21 12 58.2	-0.2
	comp=E,0.1nm,0.5s,baz=142,slow=12,SNR=1.5						
ELK	Elko	14.78	346	Pn	P	21 13 12.7	+1.0
	comp=E,0.1nm,0.3s,baz=153,slow=11,SNR=3.6						
	comp=E,0.6nm,0.7s						
ELK				AML	AML		
PDAR	Pinedale Array	16.34	3	Pn	P	21 13 32.5	+3.5
	comp=E,0.1nm,0.3s,baz=191,slow=10,SNR=6.1						
	comp=E,0.2nm,0.3s						
PDAR				AML	AML		
CMIG	Matias Romero	17.36	119	LR	LR	21 20 51.0	
	comp=E,74nm,19.7s,baz=296,slow=39						
ILAR	Eielson Array	44.77	339	P	P	21 17 54.9	+5.0
	comp=E,0.4nm,0.8s,baz=121,slow=7.3,SNR=4.2						
	comp=E,0.4nm,0.8s						

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*IDC **10** 21:16:42.1±3.7, 33°.21N×140°.73E, h0^{km}, mb3.5/3, mbtmp3.6/4, ML3.2/1, Error ellipse: s-maj=145.1km s-min=16.3km az=70.0*
*NIED **10** 21:16:47.1, 33°.46N×140°.92E, h51^{km}, MW3.7, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}0.60; $M_{\theta\theta}$3.00; $M_{\phi\phi}$-3.60; $M_{r\theta}$1.33; $M_{\theta\phi}$0.71; $M_{\phi r}$-1.11; Fault plane solution: $M_0$3.81000×10^{14} NP1:ϕ_s38.00000°, δ62.00000°, λ174.00000°. NP2:ϕ_s131.00000°, δ85.00000°, λ28.00000°.*
*JMA **10** 21:16:47.1±0.1, 33°.5N±0°.3×140°.9E±0°.3, h51^{km}, MV3.6/53, E OFF HACHIJOJIMA ISLAND*
ISC 10 21:16:45.7±1.6**, 33°.43N**±0°.05×**141°.00E**±0°.08**, h29**^{km}±11^{km}**, n23, σ0^{s}83**/28**, mb3.5**/3**, Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHJ2	Mitsune	1.04	252	P	Pb	21 17 05.2	0.0
JHJ2				S	Sb	21 17 18.3	-0.1
JHCJ	Hachijojimakas	1.07	251	P	Pn	21 17 05.3	+0.6
JHCJ				S	Sb	21 17 18.4	-0.9
BSO1	Boso 1	1.22	359	P	Pb	21 17 07.1	-0.7
BSO1				S	Sb	21 17 23.8	+0.9
JMKN	Mikurajimanish	1.26	292	*i* P	Pn	21 17 07.7	+0.3
JMYK	Miyake Tsubota	1.36	298	P	Pn	21 17 09.3	+0.5
JMYK				S	Sn	21 17 25.9	0.0
JAOM	Aogashimamukai	1.42	227	P	Pn	21 17 10.3	+0.8
JAOM				S	Sn	21 17 28.8	+1.5
BSO3	Boso 3	1.43	344	P	Pn	21 17 10.1	+0.7
BSO4	Boso 4	1.65	341	P	Pn	21 17 13.6	+0.9
JKO	Kozu shima	1.73	296	P	Pn	21 17 14.4	+0.7
JKO				S	Sn	21 17 34.9	+0.1
JSKK	Shikinejimakit	1.74	302	P	Pn	21 17 14.5	+0.6
JSKK				S	Sn	21 17 35.2	0.0
JTHY	Toshimahigashi	1.79	308	P	Pn	21 17 15.3	+0.6
JTHY				*e*S	Sn	21 17 36.4	0.0
JIM2	Oshima 3	1.83	315	*i* P	Pn	21 17 15.4	+0.2
JIM2				S	Sn	21 17 36.3	-1.1
MJAR	Matsushiro Arr	3.86	324	Pn	Pn	21 17 45.0	+1.9
	1.8nm,0.3s,baz=146,slow=12,SNR=94						
MJAR				Sn	Sn	21 18 27.6	+0.1
	0.7nm,0.3s,baz=124,slow=14,SNR=4.7						
	19nm,0.6s						
MJAR				AML	AML		
JKN2	Miekihoku	4.02	283	P	Pn	21 17 46.5	+1.2
JKN2				S	Sn	21 18 31.1	-0.3
H11N2	WAKE ISLAND Hy	26.79	114	T	T	21 51 20.2	
	baz=306,slow=75,SNR=28						
H11N1	WAKE ISLAND Hy	26.79	114	T	T	21 51 22.2	
	baz=306,slow=75,SNR=22						
H11N3	WAKE ISLAND Hy	26.81	114	T	T	21 51 22.6	
	baz=306,slow=75,SNR=26						
H11S3	WAKE ISLAND Hy	27.37	117	T	T	21 52 02.2	
	baz=306,SNR=2.7						
H11S1	WAKE ISLAND Hy	27.37	116	T	T	21 51 60.0	
	baz=306						
H11S2	WAKE ISLAND Hy	27.39	117	T	T	21 52 10.3	
	baz=306						
MKAR	Makanchi Array	45.83	305	P	P	21 25 05.2	+0.2
	0.3nm,0.7s,baz=87,slow=10,SNR=4.4						
	0.3nm,0.7s						
WRA	Warramunga Arr	53.45	188	P	P	21 26 02.2	-1.0
	0.7nm,0.5s,baz=5.1,slow=7.5,SNR=16						
	0.7nm,0.5s						
ASAR	Alice Springs	57.18	188	P	P	21 26 29.1	-0.9
	0.2nm,0.4s,baz=9.5,slow=8.0,SNR=5.5						
	0.2nm,0.4s						

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*SJA **10** 21:24:34.5±0.8, 19°.12S×69°.55W, h101^{km}±3^{km}, ML3.5, MW3.6*
*GUC **10** 21:24:36.0±0.8, 19°.10S×69°.49W, h96^{km}±3^{km}, ML3.5*
ISC 10 21:24:37.4±1.5**, 19°.12S**±0°.03×**69°.57W**±0°.05**, h84**^{km}±10^{km}**, n32, σ1^{s}30**/50**, 4C-3D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB11	IPOC Station P	0.64	188	*e*P	Pn	21 24 52.5	-0.6
PB11				*e*S	Sn	21 25 05.3	+0.6
PB11				IAML		21 25 06.0	
	comp=Z,1µm,0.4s						
PB11	IPOC Station P	0.64	188	⇑*i*P	Pn	21 24 52.5	-0.6
PB11				*i* S	Sn	21 25 05.2	+0.6
PB11				IAML		21 25 06.2	
	comp=E,5µm,0.2s						
GO01	Chusmiza	0.65	147	*e*P	Pn	21 24 52.6	-0.9
GO01				*e*S	Sn	21 25 06.7	+1.4
GO01				IAML		21 25 06.9	
	comp=Z,1µm,0.1s						
GO01	Chusmiza	0.65	147	⇓*i*P	Pn	21 24 52.6	-0.9
GO01				*i* S	Sn	21 25 05.7	+0.3
PSGCX	Pisagua	0.71	228	*e*P	Pn	21 24 53.1	-0.5
PSGCX				*e*S	Sn	21 25 06.6	+0.9
PSGCX				IAML		21 25 10.8	
	comp=Z,621nm,0.2s						
PSGCX	Pisagua	0.71	228	⇑*i*P	Pn	21 24 53.1	-0.5
PSGCX				*i* S	Sn	21 25 06.4	+0.7
PB16	IPOC Station P	0.78	4	*e*P	Pn	21 24 48.6	-6.3
PB16				*e*S	Sn	21 25 08.7	+0.8
PB16	IPOC Station P	0.78	4	⇓*i*P	Pn	21 24 54.2	-0.8
PB16				*i* S	Sn	21 25 08.0	+0.1
PB16				IAML		21 25 09.7	
	comp=N,790nm,0.2s						
PB12	IPOC Station P	0.88	305	*e*P	Pn	21 24 54.6	-0.9
PB12				*e*S	Sn	21 25 10.0	+1.1
PB12				IAML		21 25 11.8	
	comp=Z,682nm,0.4s						
PB12	IPOC Station P	0.88	305	⇑*i*P	Pn	21 24 54.7	-0.9
PB12				*i* S	Sn	21 25 08.8	-0.1

AP01	Chacalluta	1.05	315	*e*P	Pn	21 24 56.8	-0.6
AP01				*e*S	Sn	21 25 13.9	+1.7
AP01				IAML		21 25 19.4	
	comp=Z,833nm,0.6s						
AP01	Chacalluta	1.05	315	*e*P	Pn	21 24 56.7	-0.6
AP01				⇑*e*		21 25 04.8	
AP01				*e*S	Sn	21 25 12.4	+0.2
AP01				IAML		21 25 17.4	
	comp=E,2µm,0.3s						
PB08	IPOC Station P	1.09	159	*e*P	Pn	21 24 57.3	-0.9
PB08				*e*S	Sn	21 25 14.4	+0.7
PB08				IAML		21 25 15.4	
	comp=Z,620nm,0.2s						
PB08	IPOC Station P	1.09	159	⇓*i*P	Pn	21 24 57.4	-0.8
PB08				*i* S	Sn	21 25 13.8	+0.2
PB08				IAML		21 25 16.3	
	comp=E,1µm,0.1s						
TA02	Huaiquique	1.26	205	*e*P	Pn	21 24 57.4	-2.5
TA02				*e*P		21 25 00.0	
TA02				*e*S	Sn	21 25 18.8	+2.0
TA02				IAML		21 25 23.8	
	comp=Z,737nm,0.3s						
TA02	Huaiquique	1.26	205	*e*P	Pn	21 24 58.8	-1.1
PB18	Visviri	1.53	3	*e*P	Pn	21 25 03.0	-0.8
TA01	Diego Aracena	1.55	202	*e*P	Pn	21 25 02.7	-0.9
TA01				*e*S	Sn	21 25 25.6	+2.3
TA01	Diego Aracena	1.55	202	*i* P	Pn	21 25 02.4	-1.2
TA01				*i* S	Sn	21 25 23.1	-0.2
TA01				IAML		21 25 28.9	
	comp=E,697nm,0.2s						
PB02	IPOC Station P	2.21	188	*e*P	Pn	21 25 11.3	-1.0
PB02				*e*S	Sn	21 25 41.6	+2.6
PB02				IAML		21 25 48.3	
	comp=Z,487nm,0.2s						
PB02	IPOC Station P	2.21	188	*e*P	Pn	21 25 11.2	-1.2
PB02				IAML		21 25 48.7	
	comp=E,693nm,0.3s						
PB07	IPOC Station P	2.61	187	*e*P	Pn	21 25 16.3	-1.5
PB07				*e*S	Sn	21 25 52.6	+3.9
PB07				IAML		21 25 54.6	
	comp=Z,243nm,0.4s						
PB07	IPOC Station P	2.61	187	*e*P	Pn	21 25 16.9	-0.9
PB07				IAML		21 25 58.5	
	comp=E,294nm,0.4s						
PB09	IPOC Station P	2.68	174	*e*P	Pn	21 25 05.6	-13
PB09				*e*S	Sn	21 25 50.6	+0.3
PB09				IAML		21 25 57.9	
	comp=Z,150nm,0.6s						
PB09	IPOC Station P	2.68	174	*i* P	Pn	21 25 17.8	-0.9
PB09				IAML		21 25 59.3	
	comp=E,150nm,0.4s						
PB03	IPOC Station P	2.92	183	*e*P	Pn	21 25 20.2	-1.7
PB03				*e*S	Sn	21 25 41.6	-14
PB03				*e*S		21 25 57.4	
PB03				IAML		21 26 10.9	
	comp=Z,155nm,0.3s						
PB03	IPOC Station P	2.92	183	*e*P	Pn	21 25 21.1	-0.8
PB03				IAML		21 26 04.5	
	comp=E,174nm,0.3s						
LPAZ	La Paz	3.13	26	*e*P	Pn	21 25 25.3	+0.1
PB06	IPOC Station P	3.57	180	*e*P	Pn	21 25 29.7	-1.0
PB06				*e*S	Sn	21 25 57.0	-15
PB06				IAML		21 26 22.2	
	comp=Z,65nm,0.3s						
PB06	IPOC Station P	3.57	180	*e*P	Pn	21 25 29.2	-1.5
PB05	IPOC Station P	3.76	189	*e*P	Pn	21 25 31.8	-1.5
PB05				*e*S	Sn	21 26 29.0	+13
PB05				IAML		21 26 31.7	
	comp=Z,46nm,0.5s						
PB05	IPOC Station P	3.76	189	*e*P	Pn	21 25 31.3	-2.0

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*IDC **10** 22:01:11.5±19.0, 1°.15S×148°.83E, h0km, mb3.8/3, mbtmp3.8/3, Error ellipse: s-maj=527.7km s-min=70.3km az=158.0*

*NEIC **10** 22:01:14.6±0.8, 1°.18S±0°.05×148°.53E±0°.10, h10km±1km, mb4.1/12, Error ellipse: s-maj=17.0km s-min=7.9km az=103.0*

ISC 10 22:01:17.1±0.8**, 1°.2S**±0°.1×**148°.5E**±0°.1**, h32km, n23, σ0s.64**/17**, mb4.0**/8**, Admiralty Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MANU	Manus Island	1.46	233		Pn	22 01 40.5	-0.8
MANU				Sn	Sn	22 01 59.7	+0.4
MTN	Manton Dam	20.78	235	P	P	22 05 56.7	+1.0
WB0	Warramunga Arr	23.10	216	P	P	22 06 20.6	+0.2
WB0				IAmb	IAmb	22 06 20.7	
	comp=Z,2.6nm,0.9s						
WR8	Warramunga Arr	23.18	215	P	P	22 06 21.0	-0.2
WR8				IAmb	IAmb	22 06 23.3	
	comp=Z,5.2nm,0.9s						
WRAB	Tennant Creek	23.25	216	P	P	22 06 21.7	-0.3
WRAB				IAmb	IAmb	22 06 24.0	
	comp=Z,4.5nm,0.9s						
WRA	Warramunga Arr	23.26	216	P	P	22 06 22.3	+0.2
	comp=Z,3.9nm,0.9s,baz=41,slow=9.8,SNR=16						
	comp=Z,3.9nm,0.9s						
WRA	Warramunga Arr	23.26	216	P	P	22 06 13.9	-8.2
H11S3	WAKE ISLAND Hy	26.46	42	T	T	22 34 19.2	
	baz=224,slow=75,SNR=825						
H11S2	WAKE ISLAND Hy	26.47	42	T	T	22 34 22.5	
	baz=224,slow=75,SNR=206						
H11S1	WAKE ISLAND Hy	26.48	42	T	T	22 34 23.9	
	baz=224,slow=75,SNR=290						
ASAR	Alice Springs	26.49	211	P	P	22 06 52.7	+1.0
	comp=Z,1.3nm,0.7s,baz=36,slow=10,SNR=11						
	comp=Z,1.3nm,0.7s						
H11N1	WAKE ISLAND Hy	27.47	40	T	T	22 35 37.3	
	baz=222,slow=76,SNR=19						
H11N3	WAKE ISLAND Hy	27.49	40	T	T	22 35 37.9	
	baz=222,slow=76,SNR=30						
H11N2	WAKE ISLAND Hy	27.49	40	T	T	22 35 37.0	
	baz=222,slow=76,SNR=29						
MBWA	Marble Bar	34.41	233	P	P	22 08 01.2	-0.6
MBWA				IAmb	IAmb	22 08 05.0	
	comp=Z,8.4nm,1.1s						
JHJ2	Mitsune	35.07	347	P	P	22 08 06.4	-0.8
JYT	Yasato	38.00	349	P	P	22 08 32.4	+0.2
ERM	Erimo	43.25	354	P	P	22 09 16.2	+0.7
THZ	Tophouse	46.00	155	P	P	22 09 37.5	0.0
VNDA	Vanda	76.63	177	P	P	22 13 03.6	-0.5
	comp=Z,0.3nm,0.5s,baz=341,slow=4.9,SNR=3.6						
	comp=Z,0.3nm,0.5s						
VNDA	Vanda	76.63	177	P	P	22 13 03.8	-0.4
VNDA				IAmb	IAmb	22 13 06.5	
	comp=Z,1.0nm,1.1s						
BRLK	Bradley Lake	76.64	27	P	P	22 13 04.3	-0.2
BRLK				IAmb	IAmb	22 13 06.8	
	comp=Z,4.5nm,0.8s						
QSPA	South Pole Qui	88.77	180	P	P	22 14 08.4	+0.8

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*DJA **10** 22:11:59.7±2.5, 5°N±23°×12°7E±°, h10km, M4.4/12, mb4.3/5, MLv4.5/12*

*NEIC **10** 22:12:08.0±1.4, 4°.15N±0°.06×126°.7E±0°.1, h10km±1km, mb4.4/15, Error ellipse: s-maj=19.4km s-min=9.8km az=73.0*

*IDC **10** 22:12:19.4±1.7, 4°.12N×126°.74E, h122km±16km, mb3.7/10, mbtmp4.1/11, MS3.1/3, Error ellipse: s-maj=59.5km s-min=11.2km az=67.0*

ISC 10 22:12:12.0±0.6**, 4°.10N**±0°.04×**126°.62E**±0°.09**, h45km, n48, σ2s.09**/45**, mb4.3**/17**, MS2.7**/3**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GSPH	General Santos	2.58	320	*i* P	Pn	22 12 47.7	-3.8
GSPH				*i* S	Sn	22 13 14.3	-7.5
DAV	Davao City (W)	3.13	341	P	Pn	22 13 08.1	+9.2
	82nm,0.4s,baz=83,slow=16,SNR=5.5						
DAV				S	Sn	22 13 45.7	+11
	110nm,0.5s,baz=45,slow=5.3,SNR=4.2						
DAV				LR	LR	22 14 29.9	
	comp=Z,422nm,18.6s,baz=140,slow=41						
DAV	Davao City (W)	3.13	341	Pn	Pn	22 12 58.1	-0.8
MNI	Manado	3.18	214	P	Pn	22 13 02.0	+2.4
MNI				AML	AML		
KCP	Kidapawan	3.27	332	*e*P	Pn	22 13 03.0	+2.1
KCP				*e*S	Sn	22 13 45.4	+6.9
TNTI	Ternate	3.39	167		Pn	22 13 01.6	-0.9
TNTI				Sn	Sn	22 13 42.2	+0.8
TNTI	Ternate	3.39	167	P	Pn	22 13 02.9	+0.5
TNTI				AML	AML		
CDOP	Cateel, Davao	3.67	357	*i* P	Pn	22 13 07.9	+1.7
CDOP				*i* S	Sn	22 13 50.4	+2.1
BIPH	Bislig	4.07	356	*e*P	Pn	22 13 17.9	+6.1
BIPH				*e*S	Sn	22 14 08.2	+10
GTOI	Gorontalo	4.98	226	P	Pn	22 13 27.0	+2.6
	35nm,0.8s						
LUWI	Luwuk	6.39	217	Pn	Pn	22 13 42.4	-1.3
LUWI	Luwuk	6.39	217	P	Pn	22 13 45.2	+1.5
TOLI2	Tolitoli	6.54	243	Pn	Pn	22 13 46.3	+0.5
SWI	Sorong	6.76	137	P	Pn	22 13 45.4	-3.4
SWI				AML	AML		
MYLDM	Lahad Datu	8.17	278		Pn	22 14 09.1	+1.1
MTN	Manton Dam	17.42	165	P	Pn	22 16 09.8	-2.1
MTN				IAmb	IAmb	22 16 13.0	
	comp=Z,4.8nm,0.5s						
JAGI	Jajag, Banyuwa	17.62	225		P	22 16 16.4	+1.4
JAGI				IAmb	IAmb	22 16 23.9	
	comp=Z,19nm,0.9s						
KNRA	Kununurra	19.76	174	P	P	22 16 38.4	0.0
FITZ	Fitzroy Crossi	22.08	182	P	P	22 17 03.3	-0.1
WB0	Warramunga Arr	24.92	162		P	22 17 30.0	-1.1
WRAB	Tennant Creek	25.06	163	P	P	22 17 31.7	-0.7
WRAB				IAmb	IAmb	22 17 33.2	
	comp=Z,8.0nm,0.7s						
WRA	Warramunga Arr	25.07	163	P	P	22 17 31.7	-0.8
	comp=Z,5.3nm,0.6s,baz=344,slow=10,SNR=68						
	comp=Z,5.3nm,0.6s						
WRA	Warramunga Arr	25.07	163		P	22 17 31.1	-1.4
WB2	Warramunga Arr	25.07	163	P	P	22 17 32.0	-0.5
WR8	Warramunga Arr	25.13	162		P	22 17 32.7	-0.3
WR8				IAmb	IAmb	22 17 36.5	
	comp=Z,11nm,1.1s						
WR0	Warramunga Arr	25.14	162	P	P	22 17 32.5	-0.6
WR0				IAmb	IAmb	22 17 33.9	
	comp=Z,7.8nm,0.8s						
ASAR	Alice Springs	28.50	166	P	P	22 18 02.9	-0.4
	comp=Z,0.8nm,0.5s,baz=346,slow=7.3,SNR=15						
	comp=Z,0.8nm,0.5s						
ASAR	Alice Springs	28.50	166	P	P	22 18 03.3	0.0
CMAR	Chiang Mai Arr	30.59	300	P	P	22 18 22.9	+0.9
	comp=Z,0.9nm,0.3s,baz=115,slow=8.0,SNR=7.1						
CMAR				LR	LR	22 31 05.4	
	comp=Z,14nm,18.2s,baz=250,slow=37						
	comp=Z,0.9nm,0.3s						
KSRS	Korea Array	33.22	2	LR	LR	22 35 57.4	
	comp=Z,7.0nm,18.1s,baz=190,slow=43						
EIDS	Eidsvold	37.71	142	P	P	22 19 23.4	0.0
EIDS				IAmb	IAmb	22 19 24.0	
	comp=Z,6.5nm,0.9s						
BBOO	Buckleboo	37.78	167	P	P	22 19 23.7	-0.3
STKA	Stephens Creek	38.51	159	P	P	22 19 30.6	+0.4
	comp=Z,7.5nm,0.8s,baz=341,slow=7.1,SNR=13						
	comp=Z,7.5nm,0.8s						
H11S3	WAKE ISLAND Hy	41.69	67	T	T	23 04 19.1	
	baz=252						
H11S1	WAKE ISLAND Hy	41.70	67	T	T	23 04 20.6	
	baz=252						
H11S2	WAKE ISLAND Hy	41.70	67	T	T	23 04 19.8	
	baz=252						
SONM	Songino Array	46.92	341	P	P	22 20 37.7	-0.5
	comp=Z,0.2nm,0.4s,baz=151,slow=6.6,SNR=1.8						
	comp=Z,0.2nm,0.4s						
MKAR	Makanchi Array	57.19	325	P	P	22 21 54.1	-0.5
	comp=Z,1.4nm,0.8s,baz=116,slow=7.2,SNR=6.0						
	comp=Z,1.4nm,0.8s						
MKAR	Makanchi Array	57.19	325	P	P	22 21 53.6	-1.0
ZALV	Zalesovo Beam	60.21	333	P	P	22 22 15.6	+0.2
	comp=Z,0.3nm,0.3s,baz=106,slow=9.1,SNR=1.6						
	comp=Z,0.3nm,0.3s						
KURBB	Kurchatov Arra	61.37	327	P	P	22 22 22.6	-0.8
	comp=Z,2.1nm,0.8s,baz=123,slow=6.4,SNR=22						
	comp=Z,2.1nm,0.8s						
KURK	Kurchatov	61.37	327	P	P	22 22 23.1	-0.2
KURK				IAmb	IAmb	22 22 24.8	
	comp=Z,3.1nm,0.8s						
BVAR	Borovoye Array	66.95	327	P	P	22 22 58.8	-1.1
	comp=Z,0.9nm,0.7s,baz=112,slow=6.4,SNR=4.0						
	comp=Z,0.9nm,0.7s						
NRIK	Noril'sk	70.05	346	P	P	22 23 17.2	-1.7
	comp=Z,1.7nm,0.3s,baz=146,slow=3.6,SNR=3.6						
	comp=Z,1.7nm,0.3s						
CASY	Casey	71.17	187	P	P	22 23 26.5	+0.8
CASY				IAmb	IAmb	22 23 28.0	
	comp=Z,3.6nm,1.1s						
VNDA	Vanda	83.80	173	P	P	22 24 37.4	+1.3
VNDA				IAmb	IAmb	22 24 37.8	
	comp=Z,1.3nm,1.1s						
QSPA	South Pole Qui	94.00	180	P	P	22 25 24.2	-0.9
RES	Resolute Bay	97.47	10	LR	LR	23 12 52.1	
	comp=Z,9.0nm,20.4s,baz=68,slow=37						

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*IDC **10** 22:26:35.8±0.6, 7°.62N×37°.14W, h0km, mb4.1/19, mbtmp4.1/19, MS3.9/58, Error ellipse: s-maj=22.8km s-min=13.8km az=142.0*

*GFZ **10** 22:26:37.4±0.2, 8°N±7°×3°7W±°, h10km, M4.5/28, mb4.5/28, Error ellipse: s-maj=19.7km s-min=6.9km az=134.4, confirmed*

*NEIC **10** 22:26:38.7±1.8, 7°.6N±0°.1×37°.14W±0°.05, h10km±1km, mb4.7/154, Error ellipse: s-maj=17.5km s-min=8.0km az=177.0*

*GCMT **10** 22:26:39.7±0.2, 7°.79N±0°.01×37°.17W±0°.01, h22km±1km, MW5.0/120, Moment Tensor Solution. s65,c88; s120,c199; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.33±.12; $M_{\theta\theta}$-0.52±.10; $M_{\phi\phi}$0.84±.09; $M_{r\theta}$0.52±.18; $M_{\theta\phi}$-4.56±.10; $M_{\phi r}$0.27±.16; Best double couple: $M_0$4.65100×10^{16} NP1:ϕ_s184.00000°,δ83.00000°, λ-4.00000°. NP2:ϕ_s275.00000°,δ86.00000°, λ-173.00000°. Principal axes: T 4.7790, Plg2.0000°, Azm49.0000°; N -0.2560, Plg82.0000°, Azm308.0000°; P -4.5230, Plg8.0000°, Azm139.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*INMG **10** 22:26:39.0±2.6, 8°.06N×37°.59W, h10km, M4.6, mb4.6, Ms3.9, #DIST_RANGE: DISTANT*

ISC 10 22:26:37.6±0.3**, 7°.53N**±0°.06×**37°.19W**±0°.06**, h10km, n340, σ1s.34**/284**, mb4.6**/149**, MS4.0**/58**, 3C, Central Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NBMO	Morrinhos-CE	11.14	195	*e*P	Pn	22 29 17.3	+0.2
NBPS	Pedro II - PI	12.59	200	*e*P	Pn	22 29 36.3	-0.6
NBPV	Pedro Velho	13.98	172	*e*P	Pn	22 29 58.3	+2.3
NBMA	Muriti-CE	14.88	186	*e*P	Pn	22 30 09.7	+1.4
SACV	Santiago Islan	15.22	60	Pn	Pn	22 30 06.8	-6.1
SACV	Santiago Islan	15.22	60	P	Pn	22 30 06.4	-6.5
	comp=Z,102nm,0.8s						
MDP	Montagnes des	15.55	262	Pn	Pn	22 30 14.9	-2.2
	comp=Z,1.0nm,0.3s,baz=73,slow=17,SNR=6.5						
MDP				Sn	Sn	22 32 51.8	-18
	comp=Z,0.3nm,0.3s,baz=10,slow=11,SNR=1.4						
MDP				LR	LR	22 34 55.6	
	comp=Z,479nm,21.6s,baz=39,slow=32						
NBTA	Tacaratu-PE	16.57	183	*e*P	Pn	22 30 32.5	+2.2
SMTB	Santa Maria do	19.30	213	*e*P	P	22 31 03.0	0.0
SDBA	SAO DESIDERIO	21.24	201	*e*P	P	22 31 25.0	+0.9
ITTB	Itaituba	21.96	238	*e*P	P	22 31 30.5	-1.3
JANB	Januaria	23.53	197	*e*P	P	22 31 49.1	+0.8
BOAV	Boa Vista	23.80	259		P	22 31 49.8	-1.0
BOAV	Boa Vista	23.80	259	*e*P	P	22 31 49.5	-1.3
SNDB	Serra Nova Dou	23.92	216	*e*P	P	22 31 51.9	-0.2
H05S1	Guadeloupe/Mar	24.19	288	T	T	22 56 35.7	
	SNR=43						
MPOM	Morne Pois Mar	24.22	289	P	P	22 31 53.8	-1.0
FDFM	Morne la Roset	24.57	289	P	P	22 31 58.6	+0.5
H05N1	Guadeloupe/Mar	24.91	293	T	T	22 57 29.3	
	SNR=16						
GDSD	La Dsirade Is	24.92	293	P	P	22 32 01.6	+0.4
TDBA	Terre de Bas,	25.31	291	P	P	22 32 05.5	+0.9
BDFB	Brasilia	25.40	205	P	P	22 32 06.3	+0.7
	comp=Z,14nm,0.9s,baz=24,slow=12,SNR=13						
BDFB				LR	LR	22 41 02.7	
	comp=Z,377nm,21.3s,baz=16,slow=34						
	comp=Z,14nm,0.9s						
BDFB	Brasilia	25.40	205		P	22 32 05.9	+0.4
MACA	Manacapuru-AM	25.74	246		P	22 32 07.6	-1.0
MACA				IAmb	IAmb	22 32 44.7	
	comp=Z,22nm,1.0s						
MACA	Manacapuru-AM	25.74	246	*e*P	P	22 32 08.8	+0.1
CLDB	Colider	26.03	226	*e*P	P	22 32 11.2	-0.1
CLDB	Colider	26.03	226	P	P	22 32 11.4	+0.1
	comp=Z,21nm,0.9s						
ARAG	Araguaiana, MT	27.26	212	*e*P	P	22 32 23.8	+1.5
H10N3	ASCENSION HYDR	27.29	124	T	T	23 01 09.6	
	baz=304,slow=75,SNR=30						
H10N2	ASCENSION HYDR	27.29	124	T	T	23 01 10.0	
	baz=304,slow=75,SNR=49						
H10N1	ASCENSION HYDR	27.31	124	T	T	23 01 11.2	
	baz=304,slow=75,SNR=59						
H10S3	ASCENSION HYDR	27.78	126	T	T	23 01 47.0	
	baz=302,slow=74,SNR=64						
H10S2	ASCENSION HYDR	27.80	126	T	T	23 01 50.9	
	baz=278,slow=74,SNR=70						
HUMP	Col San Antoni	29.82	293	P	P	22 32 45.4	+0.2
HUMP				IAmb	IAmb	22 32 49.8	
	comp=Z,12nm,1.0s						
SJG	San Juan	30.09	293	LR	LR	22 43 44.2	
	comp=Z,304nm,18.4s,baz=104,slow=34						
ECPR	Experimental S	30.34	294	P	P	22 32 49.6	-0.2
ECPR				IAmb	IAmb	22 32 54.5	
	comp=Z,18nm,1.0s						
CELP	Cerrillos	30.47	293	P	P	22 32 50.6	-0.3
OBIP	Obispado Ponce	30.49	293	P	P	22 32 52.2	+1.1
OBIP				IAmb	IAmb	22 33 03.7	
	comp=Z,13nm,1.4s						
VILB	Vilhena	30.61	228	P	P	22 32 52.4	+0.2
VILB				IAmb	IAmb	22 32 56.1	
	comp=Z,11nm,1.1s						
CRPR	Cabo Rojo, PR	30.94	293	P	P	22 32 54.2	-0.8
PRSN	Puerto Rico Se	31.03	293	P	P	22 32 57.0	+1.2
PMOZ	Porto Moniz, M	31.27	34	*e*LR	LR	22 40 46.2	
PMOZ				*i* IAMs_20	IAMs_20	22 42 20.2	
	comp=Z,198nm,22.0s						
PMOZ				*e*T	T	23 05 06.8	
FUL	Funchal	31.30	34	*e*T	T	23 05 13.8	
PMAR	Madeira	31.35	34	*e*T	T	23 05 09.2	
PTLB	Pontes e Lacer	31.53	224		P	22 33 00.2	0.0
PTLB	Pontes e Lacer	31.53	224	*e*P	P	22 33 00.3	0.0
DBIC	Dimbokro	32.09	89	LR	LR	22 43 49.6	
	comp=Z,186nm,18.7s,baz=257,slow=32						
SDV	Santo Domingo	33.13	275	LR	LR	22 47 40.4	
	comp=Z,156nm,18.3s,baz=84,slow=38						
SIV	San Ignacio	33.25	225	LR	LR	22 45 55.9	
	comp=Z,464nm,20.8s,baz=66,slow=35						
BANI	BANI	34.02	292	P	P	22 33 22.9	+0.7
SDDR	Presa de Saban	35.02	292	P	P	22 33 30.4	-0.4
SDDR				IAmb	IAmb	22 33 36.5	
	comp=Z,22nm,1.2s						
TIO	Tiouine	36.39	46	P	P	22 33 42.9	+0.4
	comp=Z,31nm,1.6s						
ROSC	El Rosal	37.01	268	P	P	22 33 48.9	+0.6
	comp=Z,15nm,0.6s,baz=80,slow=11,SNR=5.8						
	comp=Z,15nm,0.6s						
ROSC	El Rosal	37.01	268	P	P	22 33 48.1	-0.2
CZSB	Cruzeiro do Su	38.52	248		P	22 34 00.1	-0.6
TORD	Torodi Ar. Bea	38.62	78	P	P	22 34 00.8	-0.7
	comp=Z,2.7nm,0.5s,baz=273,slow=9.3,SNR=47						
	comp=Z,2.7nm,0.5s						
LPAZ	La Paz	38.71	232	P	P	22 34 03.1	+0.3
	comp=Z,13nm,0.8s,baz=45,slow=7.4,SNR=48						
LPAZ				LR	LR	22 49 11.0	
	comp=Z,261nm,21.1s,baz=47,slow=35						
	comp=Z,13nm,0.8s						
LPAZ	La Paz	38.71	232		P	22 34 03.0	+0.1
LPAZ				IAmb	IAmb	22 34 04.8	
	comp=Z,19nm,0.9s						
LPAZ	La Paz	38.71	232	*e*P	P	22 34 03.2	+0.3
LPAZ	La Paz	38.71	232	P	P	22 34 03.5	+0.7
	comp=Z,25nm,1.1s						
NMDO	Nuevo Mundo	38.77	294	P	P	22 34 03.3	+0.6
NMDO				IAmb	IAmb	22 34 16.3	
	comp=Z,18nm,1.3s						
SHEL	Horse Pasture	38.91	127	P	P	22 34 03.9	0.0
CPUP	Villa Florida	38.93	209	P	P	22 34 04.3	+0.4
	comp=Z,0.8nm,0.3s,baz=50,slow=7.9,SNR=2.8						
CPUP				LR	LR	22 49 42.4	
	comp=Z,257nm,19.2s,baz=48,slow=36						
	comp=Z,0.8nm,0.3s						
MD31	MD31	39.23	46	P	P	22 34 05.7	-0.8
MD01	Midelt array s	39.23	46	P	P	22 34 05.1	-1.4
MDT	Midelt	39.31	46	LR	LR	22 50 10.3	
	comp=Z,180nm,18.2s,baz=236,slow=36						
PBDV	Barranco-do-Ve	39.76	38	*e*P	P	22 34 10.3	-0.4
PBDV				*i* IAmb	IAmb	22 34 13.7	
	comp=Z,37nm,1.7s						
PVAQ	Vaqueiros	39.99	38	*e*S	S	22 40 24.8	+6.6
PVAQ				*e*LQ	LQ	22 43 39.3	
PVAQ				*e*LR	LR	22 44 59.4	
PVAQ				*i* IAMs_20	IAMs_20	22 47 02.9	
	comp=Z,220nm,22.0s						
PB18	Visviri	40.51	232	P	P	22 34 17.3	-0.4
PB18				IAmb	IAmb	22 34 46.2	
	comp=Z,24nm,1.1s						
EVO	Evora	40.56	36	*e*P	P	22 34 17.2	-0.1
EVO				*i* IAmb	IAmb	22 34 31.7	
	comp=Z,14nm,1.5s						
EVO	Evora	40.56	36	P	P	22 34 16.9	-0.5
	comp=Z,4.3nm,1.1s						
MTDJ	Mount Denham	40.65	289	P	P	22 34 19.4	+0.9
PARRA	Arraiolos	40.73	36	*e*P	P	22 34 18.8	0.0
PARRA				*i* IAmb	IAmb	22 34 22.0	
	comp=Z,16nm,1.9s						
PMTG	Montargil	40.80	35	*e*P	P	22 34 18.1	-1.2
PMTG				*i* IAmb	IAmb	22 34 49.4	
	comp=Z,18nm,1.8s						
PBAR	Barrancos	40.90	37	*e*P	P	22 34 19.4	-0.7
PBAR				*i* IAmb	IAmb	22 34 23.6	
	comp=Z,15nm,1.7s						
PB16	IPOC Station P	40.96	231		P	22 34 19.7	-1.8
PB16	IPOC Station P	40.96	231	P	P	22 34 19.0	-2.5
	comp=Z,7.2nm,0.4s						
PSARD	Sardoal	41.19	35	*e*P	P	22 34 22.2	-0.3
PSARD				*i* IAmb	IAmb	22 34 48.3	
	comp=Z,19nm,1.5s						
PCAS	Casmilo, Conde	41.32	34	*e*P	P	22 34 22.9	-0.7
PCAS				*i* IAmb	IAmb	22 34 23.6	
	comp=Z,23nm,1.3s						
PMRV	Marv??o	41.52	35	*e*P	P	22 34 25.2	0.0
PMRV				*i* IAmb	IAmb	22 34 26.3	
	comp=Z,24nm,1.2s						
PMRV				*e*S	S	22 40 48.4	+7.4
PMRV				*e*LQ	LQ	22 43 43.0	
PMRV				*e*LR	LR	22 45 38.3	
PMRV				*i* IAMs_20	IAMs_20	22 47 56.3	
	comp=Z,195nm,22.0s						
EMAL	Malaga-Limoner	41.65	41	P	P	22 34 27.1	+0.8
	comp=Z,5.2nm,1.3s						
PCBR	Castelo Branco	41.74	35	*e*P	P	22 34 27.1	0.0
OTAV	Otavalo	41.77	262	P	P	22 34 28.1	-0.1
OTAV	Otavalo	41.77	262	*e*P	P	22 34 27.9	-0.3
PB11	IPOC Station P	41.92	229	P	P	22 34 28.5	-0.4
PB11				IAmb	IAmb	22 34 33.3	
	comp=Z,15nm,1.1s						
PB11	IPOC Station P	41.92	229	P	P	22 34 27.4	-1.5
	comp=Z,18nm,1.1s						
MTE	Manteigas	42.09	34	*e*P	P	22 34 29.5	-0.4
MTE				*i* IAmb	IAmb	22 34 48.7	
	comp=Z,19nm,2.1s						
MTE				*e*S	S	22 40 56.7	+7.2
MTE				*e*LQ	LQ	22 44 11.9	
MTE				*e*LR	LR	22 45 37.7	
MTE				*i* IAMs_20	IAMs_20	22 48 02.7	
	comp=Z,267nm,22.0s						
MTE	Manteigas	42.09	34	P	P	22 34 29.4	-0.6
	comp=Z,13nm,1.3s						
PVIS	Viseu	42.11	34	*e*P	P	22 34 29.8	-0.3
PVRL	Vila Real	42.59	33	*e*P	P	22 34 33.7	-0.3
POLO	Lamas de Olo	42.62	33	*e*P	P	22 34 33.5	-0.8
POLO				*i* IAmb	IAmb	22 35 19.4	
	comp=Z,11nm,1.9s						
PGAV	Gavieira, Arco	42.78	32	*e*P	P	22 34 34.9	-0.7
PGAV				*i* IAmb	IAmb	22 35 06.8	
	comp=Z,29nm,2.0s						
PGAV				*e*S	S	22 41 04.3	+4.6
PGAV				*e*LQ	LQ	22 44 20.5	
PGAV				*e*LR	LR	22 46 06.1	
PGAV				*i* IAMs_20	IAMs_20	22 47 56.1	
	comp=Z,177nm,22.0s						
CAIB	Caibarien	43.29	295	P	P	22 34 40.2	+0.3
CAIB				IAmb	IAmb	22 34 55.2	
	comp=Z,14nm,1.2s						
PAB	San Pablo	43.39	38	P	P	22 34 39.2	-1.4
PAB	San Pablo	43.39	38	P	P	22 34 39.3	-1.2
	comp=Z,5.6nm,1.7s						
PBRG	Braganca	43.49	33	*e*P	P	22 34 40.6	-0.7
ATAH	Atahualpa	43.60	251	LR	LR	22 54 36.3	

	comp=Z,209nm,18.3s,baz=70,slow=38						
PB06	IPOC Station P	43.68	226	P	P	22 34 43.6	+0.4
ESDC	Sonseca Array	43.70	38	P	P	22 34 42.0	-1.0
	comp=Z,1.8nm,1.1s,baz=238,slow=8.5,SNR=11						
ESDC				LR	LR	22 49 23.8	
	comp=Z,207nm,20.1s,baz=232,slow=31						
	comp=Z,1.8nm,1.1s						
ESDC	Sonseca Array	43.70	38	P	P	22 34 42.3	-0.7
ESBB	Sonseca Array	43.70	38	P	P	22 34 43.0	0.0
TAM	Tamanrasset	43.74	65		P	22 34 43.6	-0.1
TAM				IAmb	IAmb	22 34 45.5	
	comp=Z,30nm,1.5s						
TAM	Tamanrasset	43.74	65	P	P	22 34 45.0	+1.2
	comp=Z,8.1nm,1.5s						
NNA	Nana	43.94	244	LR	LR	22 52 59.7	
	comp=Z,295nm,21.6s,baz=68,slow=36						
PB05	IPOC Station P	44.23	226	P	P	22 34 45.5	-2.0
L64A	Middleborough	45.38	324	P	P	22 34 55.5	-0.7
GGN	Saint George	45.41	331	P	P	22 34 56.7	+0.2
BCX	Boston College	45.82	325	P	P	22 35 00.6	+0.8
BCX				IAmb	IAmb	22 35 02.4	
	comp=Z,5.8nm,0.8s						
HRV	Adam Dziewonsk	46.15	325	P	P	22 35 03.2	+0.8
HRV				IAmb	IAmb	22 35 43.6	
	comp=Z,5.5nm,0.9s						
AC01	Pan de Azucar	46.62	223	P	P	22 35 06.9	+0.5
J61A	Chester	47.24	325	P	P	22 35 11.1	+0.1
J61A				IAmb	IAmb	22 35 19.4	
	comp=Z,11nm,1.2s						
V58A	Windy Hill, Pi	47.51	313	P	P	22 35 13.2	+0.1
V58A				IAmb	IAmb	22 35 21.7	
	comp=Z,12nm,1.1s						
TRY	Troy	47.51	324	P	P	22 35 14.2	+1.1
TRY				IAmb	IAmb	22 35 25.0	
	comp=Z,11nm,1.1s						
MVL	Millersville	47.63	319	P	P	22 35 14.3	+0.2
MVL				IAmb	IAmb	22 35 19.7	
	comp=Z,6.7nm,1.1s						
W57A	Gilead	47.88	311	P	P	22 35 17.6	+1.5
W57A				IAmb	IAmb	22 35 24.5	
	comp=Z,10nm,1.1s						
BOAB	BOACO BROADBAN	47.94	280	P	P	22 35 17.2	+0.3
L59A	Walton	48.02	322	P	P	22 35 17.6	+0.4
L59A				IAmb	IAmb	22 35 24.2	
	comp=Z,9.3nm,1.1s						
S57A	Dark Hollow, R	48.28	315	P	P	22 35 19.6	+0.5
S57A				IAmb	IAmb	22 35 34.9	
	comp=Z,12nm,1.2s						
FLET	Fletcher	48.33	326	P	P	22 35 19.6	+0.1
FLET				IAmb	IAmb	22 35 35.4	
	comp=Z,10.0nm,1.3s						
JSC	Jenkinsville	48.49	310	P	P	22 35 21.7	+1.0
JSC				IAmb	IAmb	22 35 34.2	
	comp=Z,10nm,1.3s						
CORI	Orista	48.75	39	P	P	22 35 22.4	-0.3
BLA	Blacksburg	49.07	314	P	P	22 35 26.5	+1.2
BLA				IAmb	IAmb	22 35 36.9	
	comp=Z,11nm,0.9s						
V55A	Taylorsville	49.08	312	P	P	22 35 25.9	+0.6
V55A				IAmb	IAmb	22 35 36.6	
	comp=Z,9.3nm,1.0s						
HODGE	Hodges	49.23	309	P	P	22 35 27.0	+0.5
HODGE				IAmb	IAmb	22 35 35.3	
	comp=Z,6.5nm,1.0s						
GO04	Tololo Observa	49.46	219	P	P	22 35 29.0	+0.4
U54A	Nelsons Funny	49.80	312	P	P	22 35 32.8	+1.9
U54A				IAmb	IAmb	22 35 39.6	
	comp=Z,7.3nm,0.8s						
WBO	Williamsburg	49.81	325	P	P	22 35 32.3	+1.6
WBO				IAmb	IAmb	22 35 39.1	
	comp=Z,10nm,1.3s						
BG3	Lake Jocassee	50.03	310	P	P	22 35 34.3	+1.7
BG3				IAmb	IAmb	22 35 44.6	
	comp=Z,7.8nm,1.0s						
TRIS	Tristan da Cun	50.10	154	P	P	22 35 34.1	+1.1
PAMR	Moraine State	50.57	318	P	P	22 35 37.9	+1.3
PAMR				IAmb	IAmb	22 35 45.5	
	comp=Z,7.3nm,0.9s						
PAOC	Oil Creek Stat	50.58	319	P	P	22 35 36.7	+0.1
PAOC				IAmb	IAmb	22 35 46.9	
	comp=Z,10.0nm,0.9s						
P53A	Whipple	50.77	316	P	P	22 35 39.2	+1.1
P53A				IAmb	IAmb	22 35 49.5	
	comp=Z,7.7nm,0.9s						
451A	Vernon	50.83	304	P	P	22 35 40.5	+1.8
KEST	Kesra	50.90	50	LR	LR	22 57 47.5	
	comp=Z,279nm,19.1s,baz=248,slow=37						
TKL	Tuckaleechee C	50.92	310	LR	LR	22 52 41.8	
	comp=Z,212nm,21.4s,baz=114,slow=31						
TKL	Tuckaleechee C	50.92	310	P	P	22 35 40.0	+0.6
TEIG	Tepich	50.98	290	P	P	22 35 40.2	+0.2
TEIG				IAmb	IAmb	22 35 43.9	
	comp=Z,20nm,1.4s						
X51A	Calhoun	51.35	309	P	P	22 35 43.8	+1.2
X51A				IAmb	IAmb	22 36 16.8	
	comp=Z,11nm,1.1s						
W50A	Signal Mountai	51.92	309	P	P	22 35 48.2	+1.3
W50A				IAmb	IAmb	22 35 57.8	
	comp=Z,11nm,1.2s						
P51A	Williamsport	51.93	315	P	P	22 35 47.2	+0.5
P51A				IAmb	IAmb	22 35 58.0	
	comp=Z,8.5nm,0.8s						
SADO	Sadowa	51.93	323	LR	LR	22 53 24.2	
	comp=Z,103nm,20.2s,baz=154,slow=31						
SSB	Saint Sauveur	52.07	37	P	P	22 35 47.3	-0.5
SSB	Saint Sauveur	52.07	37	P	P	22 35 47.9	+0.1
	comp=Z,7.4nm,1.2s						
MT09	Talagante	52.11	216	P	P	22 35 47.8	-0.5
Y49A	Blount Mountai	52.34	307	P	P	22 35 50.4	+0.4
SWET	Sewanee	52.41	309	P	P	22 35 51.0	+0.5
SWET				IAmb	IAmb	22 36 01.5	
	comp=Z,8.2nm,1.1s						
LRAL	Lakeview Retre	52.55	306	P	P	22 35 52.7	+1.1
LRAL				IAmb	IAmb	22 35 56.7	
	comp=Z,8.0nm,1.1s						
BO02	Sierra Bellavi	52.72	215	P	P	22 35 53.0	+0.2
BO02				IAmb	IAmb	22 35 54.5	
	comp=Z,12nm,1.0s						
U49A	Red Boiling Sp	52.74	311	P	P	22 35 53.8	+0.9
U49A				IAmb	IAmb	22 36 03.7	
	comp=Z,18nm,1.5s						
SCHQ	Schefferville	52.79	339	LR	LR	22 54 35.6	
	comp=Z,70nm,22.0s,baz=146,slow=32						
LOR	Lormes	52.80	34	P	P	22 35 52.4	-0.8
	comp=Z,5.5nm,1.1s						
VLDQ	Val d'Or	52.87	327	P	P	22 35 55.0	+1.4
VLDQ				IAmb	IAmb	22 36 00.4	
	comp=Z,13nm,1.4s						
R49A	Shelbyville	52.95	313	P	P	22 35 56.6	+2.2
R49A				IAmb	IAmb	22 36 05.3	
	comp=Z,10nm,1.2s						
CLTN	Cedars of Leba	53.01	310	P	P	22 35 56.4	+1.5
X48A	Hartselle	53.02	308	P	P	22 35 56.0	+1.0
X48A				IAmb	IAmb	22 36 05.1	
	comp=Z,9.4nm,1.1s						
V48A	Smith Brothers	53.27	309	P	P	22 35 57.1	+0.3
V48A				IAmb	IAmb	22 36 07.6	
	comp=Z,10nm,1.2s						
PAYG	Puerto Ayora	53.58	264	P	P	22 35 59.9	+0.5
CWF	Charnwood Fore	53.71	26	P	P	22 35 58.5	-1.3
	comp=Z,14nm,1.7s						
ML02	Panimavida	53.78	215		P	22 36 00.6	+0.2
WVT	Waverly	54.17	309	P	P	22 36 04.6	+1.2
WVT				IAmb	IAmb	22 36 14.2	
	comp=Z,17nm,1.5s						
SENIN	Lac Senin/Sane	54.28	37	P	P	22 36 03.5	-0.8
SENIN				IAmb	IAmb	22 36 05.2	
	comp=Z,9.0nm,1.4s						
BI02	San Fabin de	54.35	214		P	22 36 04.7	0.0
EKA	Eskdalemuir Ar	54.80	23	LR	LR	22 53 49.0	
	comp=Z,73nm,21.0s,baz=194,slow=30						
ECH	Echery	55.18	35		P	22 36 09.0	-1.5
ECH				IAmb	IAmb	22 36 10.8	
	comp=Z,7.5nm,1.3s						
ECH	Echery	55.18	35	P	P	22 36 09.4	-1.1
	comp=Z,5.6nm,1.3s						
BNALP	Bannalp	55.21	37	P	P	22 36 11.0	+0.1
	comp=Z,5.9nm,1.7s						
OLIL	Olney	55.25	312	P	P	22 36 12.6	+1.4
VAE	Valguarnera	55.33	49	LR	LR	22 58 25.5	
	comp=Z,327nm,20.7s,baz=294,slow=35						
MEM	Membach	55.88	32	P	P	22 36 14.9	-0.6
	comp=Z,11nm,1.9s						
BFO	Black Forest	55.90	35		P	22 36 14.8	-1.0
BFO				IAmb	IAmb	22 36 17.8	
	comp=Z,6.9nm,1.2s						
BFO	Black Forest	55.90	35	P	P	22 36 15.5	-0.2
DAVOX	Davos/Dischmat	56.03	37	LR	LR	22 56 26.1	
	comp=Z,306nm,21.6s,baz=256,slow=32						
M44A	Midewin, Midew	56.17	315	P	P	22 36 19.1	+1.3
DAVA	Damuels	56.28	37	*i* P	P	22 36 17.3	-1.4
	comp=Z,6.0nm,1.0s						
FDMO	Fiordimonte	56.42	43	P	P	22 36 19.9	+0.4
GO06	Curarrehue	56.60	211	P	P	22 36 21.0	+0.1
	comp=Z,15nm,2.1s						
FETA	Feichten	56.66	37	*i* P	P	22 36 20.6	-0.7
	comp=Z,6.4nm,1.1s						
CGRP	Cima Grappa	56.79	39	P	P	22 36 20.7	-1.6
	comp=Z,5.5nm,1.0s						
RETA	Reutte	56.90	37	*e*P	P	22 36 22.1	-0.9
	comp=Z,5.6nm,1.4s						
TNS	Taunus Mts	56.97	33	P	P	22 36 22.0	-1.3
	comp=Z,5.5nm,1.1s						
PLCA	Paso Flores	57.00	210	LR	LR	23 01 04.0	
	comp=Z,278nm,18.6s,baz=42,slow=36						
BUG	Bochum--Univer	57.01	32	P	P	22 36 22.9	-0.6
	comp=Z,9.8nm,1.3s						
MOTA	Moosalm	57.04	37	*i* P	P	22 36 22.8	-1.2
	comp=Z,7.3nm,1.7s						
SQTA	Sankt Quirin	57.04	37	*i* P	P	22 36 21.6	-2.4
	comp=Z,6.9nm,1.1s						
WATA	Walderalm	57.32	37	*e*P	P	22 36 23.7	-2.3
	comp=Z,3.8nm,0.9s						
WTTA	Wattenberg	57.32	38	*e*P	P	22 36 24.0	-2.1
	comp=Z,3.9nm,1.0s						
ABTA	Abfaltersbach	57.62	38	*i* P	P	22 36 26.7	-1.4
	comp=Z,4.2nm,1.1s						
LESA	Schwarzleotal	58.02	38	*i* P	P	22 36 29.3	-1.6
	comp=Z,3.0nm,1.1s						
GRC3	Grafenberg Arr	58.05	36	P	P	22 36 30.2	-0.7
	comp=Z,7.0nm,1.9s						
DRE	Drenchia	58.08	39	P	P	22 36 29.8	-1.4
	comp=Z,6.7nm,0.9s						
MYKA	Terra Mystica	58.27	39	*e*P	P	22 36 32.0	-0.5
	comp=Z,3.3nm,1.0s						
P40A	Paris	58.41	312	P	P	22 36 34.0	+0.4
P40A				IAmb	IAmb	22 36 41.0	
	comp=Z,9.5nm,1.0s						
BIOA	Bad Ischl, Aus	58.73	38	*e*P	P	22 36 34.8	-0.9
	comp=Z,4.7nm,1.3s						
S39A	Bolivar	58.83	310	P	P	22 36 36.9	+0.3
S39A				IAmb	IAmb	22 36 46.2	
	comp=Z,4.1nm,0.7s						
SOKA	Soboth	59.16	39	*i* P	P	22 36 38.5	-0.3
	comp=Z,5.2nm,1.1s						
MOA	Molln	59.18	38	*i* P	P	22 36 37.5	-1.3
	comp=Z,6.1nm,1.4s						
GERES	GERESS Array B	59.27	37	P	P	22 36 38.7	-0.8
	comp=Z,0.3nm,0.3s,baz=250,slow=6.4,SNR=4.6						
	comp=Z,0.3nm,0.3s						
KHC	Kasperske Hory	59.33	36	P	P	22 36 39.6	-0.3
	comp=Z,3.2nm,2.6s						
ARSA	Arzberg	59.70	39	*e*P	P	22 36 43.5	+1.0
	comp=Z,4.3nm,1.5s						
CLL	Collm	60.01	34	*e*S	S	22 44 59.0	+1.9
CLL				LV		22 54 00.0	
CLL				AMS	AMS	22 57 00.0	
	comp=Z,200nm,21.9s						
TSUM	Tsumeb	60.13	117	LR	LR	22 56 35.9	
	comp=Z,182nm,21.4s,baz=308,slow=30						
PRU	Pruhonice	60.27	36	P	P	22 36 45.1	-1.2
	comp=Z,2.9nm,1.8s						
BRG	Berggiesshubel	60.33	35	*e*P	P	22 36 38.9	-7.8
BRG				Amp		22 36 40.8	
	comp=Z,3.4nm,1.2s						
BRG	Berggiesshubel	60.33	35	Amp		22 37 33.8	
	comp=Z,1.6nm,1.0s						
BRG	Berggiesshubel	60.33	35	P	P	22 37 31.2	+8.4
RONA	Rosalia, Austr	60.36	39	*i* P	P	22 36 46.4	-0.7
	comp=Z,7.4nm,1.0s						
FRB	Frobisher Bay	60.45	345	LR	LR	22 58 55.2	
	comp=Z,70nm,21.8s,baz=135,slow=32						
TREC	Trest	60.53	37	P	P	22 36 46.5	-1.6
	comp=Z,4.6nm,1.2s						
MPLH	Magyarpolny	60.93	40	P	P	22 36 50.5	-0.4
	comp=Z,19nm,1.9s						
ZST	Bratislava	61.05	38	*e*P	P	22 36 51.6	-0.1
PHP	Peshkopia	61.06	46	P	P	22 36 49.8	-2.1
	comp=Z,5.5nm,2.1s						
VRAC	Vranov	61.19	37	LR	LR	22 59 42.4	
	comp=Z,159nm,22.0s,baz=251,slow=32						
VRAC	Vranov	61.19	37	P	P	22 36 51.5	-1.1
	comp=Z,1.7nm,2.1s						
MODS	Modra-Piesok	61.23	38	*e*P	P	22 36 52.5	-0.4
UPC	Upice	61.35	36	P	P	22 36 52.9	-0.7
	comp=Z,5.9nm,1.9s						
BRDY	Brady	62.08	301		P	22 36 58.0	-0.9
BRDY				IAmb	IAmb	22 37 08.2	
	comp=Z,4.2nm,0.9s						
KAN01	Argonia South	62.13	308	P	P	22 36 59.6	+0.4
GRG	Griva	62.28	48	P	P	22 36 59.8	-0.3
	comp=Z,15nm,1.4s						
LANS	Liptovska Anna	62.87	38	*e*P	P	22 37 04.4	+0.5
ECSD	EROS Data Cent	62.92	315	P	P	22 37 05.3	+1.0
ECSD				IAmb	IAmb	22 37 13.8	
	comp=Z,4.3nm,0.9s						
IDI	Anoyia	62.95	54	LR	LR	23 06 19.9	
	comp=Z,53nm,18.4s,baz=292,slow=38						
BGNE	Belgrade	63.40	313	P	P	22 37 07.6	0.0
DRGR		64.13	41	P	P	22 37 12.0	-0.4
	comp=Z,4.2nm,1.0s						
NOA	NORSAR Array B	64.27	24	P	P	22 37 12.1	-0.9
	comp=Z,2.8nm,1.0s,baz=233,slow=6.9,SNR=5.0						
NOA				LR	LR	23 00 04.3	
	comp=Z,86nm,21.9s,baz=230,slow=31						
	comp=Z,2.8nm,1.0s						
ULM	Lac du Bonnet	64.50	323	LR	LR	23 00 37.8	
	comp=Z,87nm,21.1s,baz=72,slow=32						
HFS	Hagfors	64.80	25	LR	LR	23 00 09.4	
	comp=Z,85nm,21.3s,baz=247,slow=31						
ARR	Arges	65.01	43	P	P	22 37 17.5	-0.6
	comp=Z,6.7nm,1.5s						
HUMR	Humele	65.03	44	P	P	22 37 17.6	-0.6
	comp=Z,18nm,1.4s						
VOIR		65.31	43	P	P	22 37 19.7	-0.4
	comp=Z,4.1nm,1.8s						
VOIR		65.31	43	P	P	22 37 20.2	+0.1
	comp=Z,4.1nm,1.9s						
TXAR	Lajitas Array	65.86	299	P	P	22 37 23.2	-0.8
	comp=Z,0.4nm,0.6s,baz=97,slow=6.5,SNR=6.2						
TXAR				LR	LR	23 05 31.8	
	comp=Z,28nm,21.5s,baz=82,slow=36						
	comp=Z,0.4nm,0.6s						
TXAR	Lajitas Array	65.86	299	P	P	22 37 23.6	-0.4
TX31	Lajitas Ar. Si	65.86	299	P	P	22 37 23.2	-0.8
JMIC	Jan Mayen	65.92	10	LR	LR	22 58 29.2	
	comp=Z,58nm,21.9s,baz=208,slow=29						
ALPN	Alpine	65.93	300		P	22 37 24.4	-0.1
ALPN				IAmb	IAmb	22 37 34.7	
	comp=Z,7.2nm,1.2s						
MLR	Muntele Rosu	65.94	43	LR	LR	23 04 18.3	
	comp=Z,76nm,21.1s,baz=280,slow=34						
MLR	Muntele Rosu	65.94	43		P	22 37 23.2	-1.0
MLR	Muntele Rosu	65.94	43	P	P	22 37 23.9	-0.3
	comp=Z,10nm,1.6s						
MLR	Muntele Rosu	65.94	43	P	P	22 37 24.4	+0.2
	comp=Z,10.0nm,1.6s						
BUR08	Bucovina Ar. S	66.00	41	P	P	22 37 24.4	-0.2
BUR08				IAmb	IAmb	22 37 39.0	
	comp=Z,8.9nm,1.4s						
BURAR	Bucovina Array	66.01	41	P	P	22 37 23.9	-0.7
TESR	Tescani	66.67	42	P	P	22 37 28.5	-0.2
	comp=Z,7.5nm,2.1s						
RNPP8	Varash	67.46	37	P	P	22 37 33.5	-0.1
RNPP9	Sopachiv	67.50	37	P	P	22 37 33.8	-0.1
SUR	Sutherland	67.96	129	LR	LR	23 01 48.8	
	comp=Z,100nm,18.3s,baz=292,slow=31						
SORM	Soroca	68.18	41	P	P	22 37 36.4	-1.8
	comp=Z,5.9nm,1.3s						
LUBAR	Lubar, Ukraine	68.24	39	P	P	22 37 37.0	-1.6
SDCO	Great Sand Dun	68.30	308	P	P	22 37 39.1	-0.4
SDCO				IAmb	IAmb	22 37 52.7	
	comp=Z,6.0nm,1.5s						
LSZ	Lusaka	68.61	110	LR	LR	23 02 28.9	
	comp=Z,84nm,19.4s,baz=296,slow=31						
ANMO	Albuquerque	68.75	304	LR	LR	23 04 01.5	
	comp=Z,217nm,21.2s,baz=98,slow=33						
LBTB	Lobatse	69.10	120	LR	LR	23 01 53.4	
	comp=Z,116nm,21.3s,baz=282,slow=31						
AK17	Malin Array Si	69.23	39	P	P	22 37 43.6	-1.1
AK21	Malin Array Si	69.25	38	P	P	22 37 43.9	-0.9
AK16	Malin Array Si	69.26	39	P	P	22 37 43.9	-1.0
AK22	Malin Array Si	69.26	38	P	P	22 37 43.9	-1.0
AK10	Malin Array Si	69.33	39	P	P	22 37 44.4	-1.0
AKASG	Malin Array Be	69.34	39	P	P	22 37 44.2	-1.2
	comp=Z,0.9nm,0.6s,baz=260,slow=5.5,SNR=4.6						
	comp=Z,0.9nm,0.6s						
AKBB	Malin Array Si	69.34	39	P	P	22 37 45.5	+0.1
BOSA	Boshof	70.04	124	LR	LR	23 01 59.0	
	comp=Z,54nm,20.9s,baz=340,slow=30						
BR105	Keskin Array S	70.47	51	P	P	22 37 52.6	-0.2
	comp=Z,2.9nm,1.0s						
BR106	Keskin Array S	70.47	51	P	P	22 37 52.4	-0.4
BR104	Keskin Array S	70.49	51	P	P	22 37 52.6	-0.3
	comp=Z,3.3nm,1.1s						
BR131	Keskin Array S	70.49	51	P	P	22 37 51.7	-1.2
BRTR	Keskin Array B	70.49	51	P	P	22 37 52.5	-0.4
	comp=Z,1.8nm,0.9s,baz=256,slow=5.0,SNR=8.4						
	comp=Z,1.8nm,0.9s						
BRTR	Keskin Array B	70.49	51	P	P	22 37 52.2	-0.7
O20A	White River Ci	70.71	310	P	P	22 37 55.1	+0.8
O20A				IAmb	IAmb	22 38 19.3	
	comp=Z,6.2nm,1.1s						
FINES	FINESS Array B	70.82	27	P	P	22 37 53.4	-0.8
	comp=Z,1.8nm,0.8s,baz=188,slow=3.9,SNR=3.7						
FINES				LR	LR	23 05 36.8	
	comp=Z,120nm,20.0s,baz=241,slow=33						
	comp=Z,1.8nm,0.8s						
FINES	FINESS Array B	70.82	27	P	P	22 37 53.1	-1.2
LPIG	La Paz	71.58	293	LR	LR	23 10 37.0	
	comp=Z,24nm,18.9s,baz=76,slow=37						
PDAR	Pinedale Array	71.99	312	P	P	22 38 02.3	+0.2
	comp=Z,0.1nm,0.3s,baz=104,slow=5.0,SNR=1.8						
PDAR				LR	LR	23 05 38.3	
	comp=Z,81nm,21.4s,baz=108,slow=32						
	comp=Z,0.1nm,0.3s						
PDAR	Pinedale Array	71.99	312	P	P	22 38 01.7	-0.4
RLMT	Red Lodge	72.07	315	P	P	22 38 03.0	+0.5
BNN	Bunyan	72.11	52	P	P	22 38 01.5	-1.2
BNN				IAmb	IAmb	22 38 03.5	
	comp=Z,5.5nm,1.1s						
TUC	Tucson	72.16	301	P	P	22 38 02.6	-0.5
P18A	Preston Nutter	72.19	309	P	P	22 38 03.0	-0.4
P18A				IAmb	IAmb	22 38 29.4	
	comp=Z,12nm,1.5s						
SRU	San Rafael Swe	72.36	309	P	P	22 38 04.8	+0.5
YNE	Yellowstone No	72.57	315	P	P	22 38 05.6	0.0
YNE				IAmb	IAmb	22 38 32.0	
	comp=Z,5.3nm,0.9s						
YMP	Mirror Lake Pl	72.65	314	P	P	22 38 07.3	+1.2
YMP				IAmb	IAmb	22 38 26.6	
	comp=Z,12nm,1.3s						
YPP	Pitchstone Pla	73.06	314	P	P	22 38 06.1	-2.4
YHH	Holmes Hill	73.14	314	P	P	22 38 09.8	+0.8
FXWY	Fox Creek	73.15	313	P	P	22 38 09.0	0.0
FXWY				IAmb	IAmb	22 38 20.4	
	comp=Z,10nm,1.5s						
TCUT	Toone Canyon	73.20	311	P	P	22 38 09.8	+0.5
TCUT				IAmb	IAmb	22 38 21.2	
	comp=Z,7.5nm,0.8s						
YMR	Madison River	73.21	314	P	P	22 38 09.6	+0.3
YMR				IAmb	IAmb	22 38 15.5	
	comp=Z,6.0nm,0.8s						
HWUT	Hardware Ranch	73.36	311		P	22 38 09.5	-0.7
HWUT				IAmb	IAmb	22 38 20.8	
	comp=Z,7.6nm,0.8s						
YHB	Horse Butte	73.38	314	P	P	22 38 10.6	+0.3
YHB				IAmb	IAmb	22 38 21.9	
	comp=Z,7.2nm,1.0s						
YHL	Hebgen Lake	73.39	314		P	22 38 10.3	-0.1
MTPU	Mount Pierson	73.59	307	P	P	22 38 11.6	-0.2
ARCES	ARCESS Array B	73.63	19	P	P	22 38 10.1	-0.9
	comp=Z,3.0nm,1.0s,baz=215,slow=7.7,SNR=3.6						
ARCES				LR	LR	23 06 11.0	
	comp=Z,75nm,20.0s,baz=236,slow=32						
	comp=Z,3.0nm,1.0s						
ARCES	ARCESS Array B	73.63	19	P	P	22 38 10.5	-0.5
ARCES				IAmb	IAmb	22 38 15.9	
	comp=Z,13nm,1.4s						
BOZ	Bozeman (W)	73.78	315	P	P	22 38 12.7	+0.2
BGU	Big Grassy Mou	74.41	310	P	P	22 38 17.4	+1.0
DLMT	Dillon	74.43	315	P	P	22 38 16.6	+0.3
DLMT				IAmb	IAmb	22 38 32.4	
	comp=Z,6.8nm,1.1s						
KMBO	Kilima Mbogo	74.73	93	LR	LR	23 07 35.6	
	comp=Z,78nm,21.5s,baz=157,slow=33						
SPITS	Spitsbergen Ar	75.59	10	LR	LR	23 05 00.4	
	comp=Z,48nm,18.0s,baz=236,slow=30						
HLID	Hailey	75.60	313	P	P	22 38 23.9	+0.8
ELK	Elko	76.08	310	P	P	22 38 25.4	-0.6
	comp=Z,0.4nm,0.5s,baz=149,slow=3.2,SNR=5.8						
ELK				LR	LR	23 08 33.8	
	comp=Z,130nm,21.0s,baz=96,slow=33						
	comp=Z,0.4nm,0.5s						
ELK	Elko	76.08	310	P	P	22 38 24.9	-1.1
LDM	Libby Dam	76.53	318		P	22 38 28.6	+0.4
LDM				IAmb	IAmb	22 38 39.5	
	comp=Z,7.8nm,1.1s						
ESJX	Sierra Juarez	76.54	301	P	P	22 38 30.5	+1.7
ESJX				IAmb	IAmb	22 38 36.1	
	comp=Z,7.0nm,1.3s						
PFO	Pinyon Flats O	76.95	303	LR	LR	23 11 01.4	
	comp=Z,78nm,18.7s,baz=95,slow=35						
KIV	Kislovodsk	77.53	47	P	P	22 38 33.6	-0.4
	comp=Z,5.1nm,1.6s						
KVAR	Kislovodsk Arr	77.53	47	LR	LR	23 13 34.4	
	comp=Z,30nm,20.5s,baz=112,slow=36						
YKA	Yellowknife Ar	77.55	332	P	P	22 38 32.9	-0.6
	comp=Z,1.7nm,0.8s,baz=96,slow=5.7,SNR=2.8						
	comp=Z,1.7nm,0.8s						
YKA	Yellowknife Ar	77.55	332	P	P	22 38 33.6	+0.1
TPH	Tonopah	77.57	307	P	P	22 38 34.4	-0.1
KBZ	Khabaz	77.67	47	P	P	22 38 34.1	-0.5
	comp=Z,1.4nm,0.7s,baz=84,slow=2.7,SNR=5.3						
	comp=Z,1.4nm,0.7s						
NEW	Newport	77.72	318	LR	LR	23 09 43.9	
	comp=Z,42nm,20.4s,baz=109,slow=33						
KVN	Kaiserville	78.25	308		P	22 38 38.2	-0.1
NVAR	Mina Array Bea	78.42	308	P	P	22 38 39.1	0.0
	comp=Z,0.2nm,0.4s,baz=66,slow=8.1,SNR=2.0						
NVAR				LR	LR	23 12 26.0	
	comp=Z,64nm,18.3s,baz=91,slow=35						
	comp=Z,0.2nm,0.4s						
GNI	Garni	79.03	51	LR	LR	23 14 28.4	
	comp=Z,44nm,21.7s,baz=291,slow=36						
MOD	Modoc Plateau	79.90	311		P	22 38 47.7	+0.5
MOD				IAmb	IAmb	22 38 59.4	
	comp=Z,8.8nm,1.1s						
BEKR	Beckworth	79.99	309	P	P	22 38 47.3	-0.4
PKD	Bear Valley Ra	80.26	305	P	P	22 38 49.4	+0.3
VNA1	Neumayer--Stat	80.41	171	⇑P	P	22 38 50.2	+1.3
	comp=Z,2.8nm,1.0s						
VNA3	Neumayer Olymp	80.72	171	⇑P	P	22 38 51.7	+1.1
	comp=Z,1.9nm,1.0s						
VNA3	Neumayer Olymp	80.72	171	P	P	22 38 51.2	+0.5
	comp=Z,3.9nm,1.2s						
HULI	Fort Hunter Li	80.82	305	P	P	22 38 51.0	-1.1
ORV	Oroville	80.88	309	P	P	22 38 52.5	+0.2
LON	Longmire	80.89	316	P	P	22 38 53.1	+0.9
MHC	Mount Hamilton	81.09	307	P	P	22 38 54.2	+0.7
YBH	Yreka Blue Hor	81.71	311	LR	LR	23 13 23.4	
	comp=Z,87nm,18.6s,baz=96,slow=34						
KIRV	Kirov	81.85	32	LR	LR	23 11 32.2	
	comp=Z,79nm,21.8s,baz=282,slow=33						
SNAA	Sanae	82.21	170	LR	LR	23 07 28.7	
	comp=Z,65nm,21.2s,baz=311,slow=30						
TROLL	Troll, Antarti	83.50	168	⇑P	P	22 39 06.0	+0.6
	comp=Z,37nm,0.7s						
BBB	Bella Bella	84.68	322	LR	LR	23 12 50.0	
	comp=Z,61nm,20.8s,baz=89,slow=33						
DLBC	Dease Lake	85.13	328	LR	LR	23 12 55.1	
	comp=Z,78nm,21.5s,baz=60,slow=33						
INK	Inuvik	85.40	338	LR	LR	23 14 41.1	
	comp=Z,167nm,19.5s,baz=67,slow=34						
G31M	Satah River	85.90	337		P	22 39 17.8	+0.3
ARTI	Arti	86.87	34	LR	LR	23 14 59.9	
	comp=Z,95nm,21.7s,baz=274,slow=34						
ILAR	Eielson Array	91.47	336	P	P	22 39 44.4	+0.3
	comp=Z,0.7nm,1.0s,baz=38,slow=6.1,SNR=4.8						
ILAR				LR	LR	23 17 54.7	
	comp=Z,102nm,20.1s,baz=79,slow=34						
	comp=Z,0.7nm,1.0s						
ILAR	Eielson Array	91.47	336	P	P	22 39 43.9	-0.2
NRIK	Noril'sk	94.52	17	LR	LR	23 20 05.5	
	comp=Z,35nm,20.9s,baz=308,slow=34						
CRZF	Crozet Islands	94.74	136	P	P	22 40 00.8	+1.4
	comp=Z,137nm,1.5s						
KDAK	Kodiak Island	96.77	331	LR	LR	23 20 36.4	

	comp=Z,99nm,21.4s,baz=63,slow=34						
KURBB	Kurchatov Arra	100.00	36	LR	LR	23 27 24.7	
	comp=Z,32nm,18.1s,baz=180,slow=36						
PPT2	Papeete2	113.54	254	*e*LR	LR	23 19 11.9	
	comp=Z,96nm,28.0s						
HHC	Hu-ho-hao-te	123.93	28	*e*P	PKPdf	22 45 31.5	-5.2
PZH	PanZhiHua	127.74	48	P	PKPdf	22 45 43.6	-0.8
NJ2	Nanjing	134.48	29	*e*P	PKPdf	22 45 56.5	-0.3
NJ2				pmax	pmax		
	comp=Z,6.0nm,0.5s						
ASAR	Alice Springs	161.82	153	PKPab	PKPab	22 47 24.7	-0.7
	comp=Z,1.1nm,0.9s,baz=188,slow=3.7,SNR=4.8						

NDI 10 22:27:51.4±1.8, 19.°95N×72.°78E, h10km, ML4.0, MW3.8, Presumed earthquake, Southern India

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BOM	Bombay	1.05	178	*e*P	Pg	22 28 10.1	-1.5
BOM				*e*S	Sg	22 28 25.4	+0.1
BOM				IAML		22 28 28.1	
	comp=E,16µm,0.1s						
BOM				IAML		22 28 29.8	
	comp=N,20µm,0.0s						
POO	Poona	1.74	144	*e*P	Pn	22 28 22.4	+0.7
POO				*e*S	Sn	22 28 43.7	-0.3
POO				IAML		22 28 46.1	
	comp=E,732nm,0.2s						
POO				IAML		22 28 46.9	
	comp=N,749nm,0.3s						
KAD	Karad	2.95	153	*e*P	Pn	22 28 39.2	+0.8
KAD				*e*S	Sn	22 29 13.5	-0.4
KAD				IAML		22 29 22.1	
	comp=E,5µm,0.5s						
KAD				IAML		22 29 23.8	
	comp=N,3µm,0.1s						
BHUJ	Bhuj	4.39	319	*e*P	Pn	22 28 58.4	+0.3
BHUJ				*e*S	Sn	22 29 47.2	-2.1
BHUJ				IAML		22 29 51.8	
	comp=N,64nm,0.6s						
BHUJ				IAML		22 29 52.1	
	comp=E,48nm,0.5s						
GOA	Goa	4.55	167	*e*P	Pn	22 29 00.8	+0.5
GOA				*e*S	Sn	22 29 51.2	-2.1
GOA				IAML		22 30 14.3	
	comp=E,443nm,0.4s						
GOA				IAML		22 30 16.5	
	comp=N,392nm,0.5s						
HYB	Hyderabad	6.02	114	*e*S	Sn	22 30 25.9	-3.9
HYB				IAML		22 30 54.7	
	comp=N,234nm,0.2s						
HYB				IAML		22 31 00.0	
	comp=E,126nm,0.6s						

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*SNET **10** 23:25:23.7±8.1, 14.°29N×91.°39W, h123km, ML3.4, Presumed earthquake*

*GCG **10** 23:25:28.8±0.7, 14.°07N×91.°33W, h60km±9km, MD4.1, Presumed earthquake*

*CATAC **10** 23:25:28.6±0.6, 14°N±3°×9°1W±°, h27km±4km, M3.5/11, MLv3.5/11, Error ellipse: s-maj=8.1km s-min=2.9km az=28.6, confirmed*

ISC 10 23:25:31.8±1.6, 14.°10N±0.°09×91.°13W±0.°06, h50km±16km, n22, σ1.s95/33, Guatemala

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STG8	El Palmar, Qui	0.41	329	*i* P	Pn	23 25 44.1	+1.9
STG8				*i* S	Sn	23 25 55.3	+5.6
FG8	Yepocapa, Chim	0.58	74	*i* P	Pn	23 25 41.6	-2.5
FG8				*i* S	Sn	23 25 51.3	-1.7
FG16	Alotenango, Sa	0.63	74	*i* P	Pn	23 25 42.4	-2.4
FG16				*i* S	Sn	23 25 53.0	-1.3
RTAL	Retalhuleu	0.69	308	P	Pn	23 25 42.5	-2.9
RTAL				S	Sn	23 25 52.8	-2.5
PCG5	San Vicente Pa	0.74	81	*i* P	Pn	23 25 43.7	-2.6
SOKI	Kika Raxquin	0.76	340	*i* P	Pn	23 25 45.2	-1.5
SOKI				*i* S	Sn	23 25 57.5	-0.1
APG	El Apazote	1.11	36	*i* P	Pn	23 25 51.2	0.0
FAME	Alcaldia de Sa	1.11	103	P	Pn	23 25 50.2	-0.9
FAME				S	Sn	23 26 05.4	0.0
HUEH	Huehuetenango	1.26	344	*e*S	Sn	23 26 12.1	+2.8
HUEH	Huehuetenango	1.26	344	S	Sn	23 26 09.6	+0.3
NUBE	Las Nubes	1.33	98	*i* P	Pn	23 25 53.7	-0.5
NUBE	Las Nubes	1.33	98	P	Pn	23 25 53.6	-0.5
NUBE				S	Sn	23 26 11.8	+1.0
CEVE	Cerro Verde	1.49	100	*e*P	Pn	23 25 56.3	-0.1
CEVE				*e*S	Sn	23 26 17.0	+2.1
CEVE	Cerro Verde	1.49	100	P	Pn	23 25 56.2	-0.2
CEVE				S	Sn	23 26 16.7	+1.8
UNIC	Universidad Ca	1.54	94	S	Sn	23 26 18.0	+2.1
JAYA	Jayaque - finc	1.69	105	*i* P	Pn	23 25 58.5	-0.7
JAYA	Jayaque - finc	1.69	105	*e*P	Pn	23 25 58.2	-0.9
JAYA	Jayaque - finc	1.69	105	P	Pn	23 25 58.2	-0.9
JAYA				S	Sn	23 26 19.5	-0.3
MTO3	Montecristo	1.74	80	P	Pn	23 25 59.1	-0.8
PMON	Piamonte	1.81	102	S	Sn	23 26 23.8	+1.4
LALI	Alcalda de L	1.86	109	S	Sn	23 26 24.7	+1.0
COEG	Centro de Oper	2.24	102	*e*P	Pn	23 26 07.1	+0.6
COEG				*e*S	Sn	23 26 35.7	+2.7

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*IDC **10** 23:33:24.5±0.7, 9.°32S×118.°17E, h0km, mb4.2/14, mbtmp4.2/16, ML4.1/2, MS3.4/1, Error ellipse: s-maj=28.2km s-min=14.8km az=66.0*

*DJA **10** 23:33:37.5±1.0, 9°S±3°×11°9E±°, h22km±9km, M4.8/25, mb4.8/10, mB5.4/6, MLv4.8/25, Mw(mB)4.8/6*

*NEIC **10** 23:33:37.1±2.0, 9.°13S±0.°04×118.°82E±0.°06, h100km±8km, mb4.3/23, Error ellipse: s-maj=9.4km s-min=1.6km az=122.0*

ISC 10 23:33:36.9±0.4, 9.°15S±0.°05×118.°90E±0.°04, h102km, n100, σ1.s65/100, mb4.2/27, Sumbawa region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DBNI	Kabupaten Domp	0.87	318	P	Pn	23 33 54.4	-1.7
DBNI				S	Sn	23 34 07.6	-2.9
DBNI				AML	AML		
PLAI	Plampang	1.16	286	P	Pn	23 33 57.5	-1.7
PLAI	Plampang	1.16	286	P	Pn	23 33 58.0	-1.2
PLAI				S	Sn	23 34 13.6	-2.4
PLAI				AML	AML		
LBFI	Labuhan Bajo,	1.18	56	P	Pn	23 33 59.0	-0.5
WSI	Waingapu	1.47	111	P	Pn	23 34 02.2	-0.7
WSI				S	Sn	23 34 22.4	-0.2
WSI				AML	AML		
TWSI	Taliwang, Sumb	2.04	281	P	Pn	23 34 09.9	-0.1
TWSI				S	Sn	23 34 35.3	0.0
TWSI				AML	AML		
EDFI	Ende, Flores	2.78	82	P	Pn	23 34 20.8	+0.9
EDFI				AML	AML		
MMRI	Maumere	3.34	81	P	Pn	23 34 28.9	+1.7
MMRI	Maumere	3.34	81		Pn	23 34 28.6	+1.4
MMRI	Maumere	3.34	81	P	Pn	23 34 29.4	+2.2
MMRI				AML	AML		
KHKI	Kahang-Kahang	3.35	283	P	Pn	23 34 29.7	+2.4
KHKI				AML	AML		
BSSI	Bau Bau, Buton	3.38	28	P	Pn	23 34 28.0	+0.2
BSSI				AML	AML		
DNP	Denpasar	3.68	277	P	Pn	23 34 34.3	+2.5
IGBI	Denpasar	3.72	275	P	Pn	23 34 32.5	+0.1
SRBI	Singaraja	3.80	286	P	Pn	23 34 35.2	+1.8
SRBI				AML	AML		
RTBI	Rangdo, Negare	3.97	280	P	Pn	23 34 35.8	0.0
RTBI				AML	AML		
KAPI	Kappang	4.19	12	Pn	Pn	23 34 38.6	-0.2
	12nm,0.3s,baz=177,slow=12,SNR=8.9						
KAPI				Sn	Sn	23 35 24.8	-1.9
	100nm,0.3s,baz=180,slow=23,SNR=30						
	19nm,0.2s						
KAPI				AML	AML		
KAPI	Kappang	4.19	12	P	Pn	23 34 39.7	+1.0
KAPI	Kappang	4.19	12		Pn	23 34 38.9	+0.1
KAPI				Sn	Sn	23 35 24.9	-1.9
JAGI	Jajag, Banyuwa	4.74	278	P	Pn	23 34 45.4	-0.8
JAGI	Jajag, Banyuwa	4.74	278	S	Sn	23 35 40.8	+0.8
JAGI	Jajag, Banyuwa	4.74	278		Pn	23 34 44.9	-1.2
JAGI	Jajag, Banyuwa	4.74	278	P	Pn	23 34 45.3	-0.9
JAGI				AML	AML		
BBSI	Bau Bau	5.14	45	P	Pn	23 34 54.6	+3.0
	0.8nm2µm257nm,0.8s						
BBSI				AML	AML		
SPSI	Sidrap Palu	5.22	10	P	Pn	23 34 56.9	+4.2
	0.3nm30nm,0.7s						
SPSI				AML	AML		
SOEI	Soe	5.33	97	P	Pn	23 34 54.9	+0.7
SOEI	Soe	5.33	97		Pn	23 34 55.2	+1.0
SOEI	Soe	5.33	97	P	Pn	23 34 55.7	+1.5
	1.1nm3µm211nm,0.6s						
SOEI				AML	AML		
BLJI	Banyuglugur	5.43	284	P	Pn	23 34 57.3	+1.8
BLJI				AML	AML		
MMSI	Mamuju	6.42	0	P	Pn	23 35 10.4	+1.5
	0.2nm48nm,0.6s						
MMSI				AML	AML		
SNJI	Sawahan-Nganju	7.19	280	P	Pn	23 35 31.3	+12
PCI	Palu	8.24	7	P	Pn	23 35 39.4	+5.7
	2µm65nm,1.0s						
UGM	Wanagama	8.38	278	P	Pn	23 35 36.7	+1.1
UGM	Wanagama	8.38	278	S	Sn	23 37 09.8	+1.3
UGM	Wanagama	8.38	278	Pn	Pn	23 35 35.6	0.0
NLAI	Namlea	10.04	55	P	Pn	23 36 04.2	+6.0
TOLI2	Tolitoli	10.36	11	Pn	Pn	23 36 04.0	+1.4
FITZ	Fitzroy Crossi	11.04	144	Pn	Pn	23 36 10.3	-1.5
	2.4nm,0.3s,baz=336,slow=9.8,SNR=15						
FITZ				Sn	Sn	23 38 04.5	-8.9
	5.5nm,0.3s,baz=148,slow=14,SNR=9.4						
FITZ	Fitzroy Crossi	11.04	144	Pn	Pn	23 36 11.0	-0.8
BBJI	Bungbulang	11.26	278	P	Pn	23 36 15.9	+1.1
BBJI	Bungbulang	11.26	278	Pn	Pn	23 36 13.0	-1.8
KNRA	Kununurra	11.61	125		Pn	23 36 18.7	-0.7
MBWA	Marble Bar	11.97	176	P	Pn	23 36 24.8	+0.6
MBWA	Marble Bar	11.97	176		Pn	23 36 23.6	-0.6
MTN	Manton Dam	12.56	108		Pn	23 36 30.4	-1.6
GIRL	Giralia	14.15	198	Pn	Pn	23 36 52.2	-0.4
FAKI	Fak Fak	14.64	66	Pn	Pn	23 36 58.6	-0.5
KKM	Kota Kinabalu	15.33	350		Pn	23 37 07.4	-0.5
KKM				IAmb	IAmb	23 37 19.5	
	comp=Z,22nm,1.0s						
MNAI	Manna	16.53	286		Pn	23 37 21.5	-1.3
WB0	Warramunga Arr	18.33	127	P	Pn	23 37 44.6	0.0
WRA	Warramunga Arr	18.38	127	P	Pn	23 37 45.4	+0.3
	comp=Z,0.6nm,0.3s,baz=301,slow=13,SNR=27						
WRA				S	S	23 40 59.7	-9.0
	comp=Z,2.6nm,0.6s,baz=309,slow=24,SNR=7.8						
	comp=Z,2.6nm,0.7s						
WRA				AML	AML		
WRA	Warramunga Arr	18.38	127	P	Pn	23 37 45.2	0.0
WRAB	Tennant Creek	18.38	127	P	Pn	23 37 45.5	+0.3
WRAB				IAmb	IAmb	23 38 24.3	
	comp=Z,8.2nm,0.8s						
WR8	Warramunga Arr	18.51	127	P	P	23 37 46.5	+1.1
AS31	Alice Springs	20.36	137	P	P	23 38 07.0	+1.6
ASAR	Alice Springs	20.36	137	P	Pn	23 38 07.8	-0.5
	comp=Z,6.2nm,0.5s,baz=314,slow=9.9,SNR=83						
ASAR				S	S	23 41 47.4	-0.6
	comp=Z,2.7nm,0.8s,baz=309,slow=23,SNR=8.4						
ASAR				LR	LR	23 46 26.4	
	comp=Z,88nm,18.7s,baz=290,slow=38						
	comp=Z,6.2nm,0.5s						
ASAR	Alice Springs	20.36	137	P	Pn	23 38 07.4	-0.9
COCO	West Island	21.89	260	P	P	23 38 22.0	+0.1
RPSI	Rantau Prapat	23.13	300	P	P	23 38 32.5	-1.9
RPSI				IAmb	IAmb	23 39 12.3	
	comp=Z,20nm,1.3s						
FORT	Forrest	23.16	160	P	P	23 38 34.7	+0.2
FORT				IAmb	IAmb	23 39 16.4	
	comp=Z,10nm,1.1s						
GSI	Gunungsitoli	23.65	295	P	P	23 38 37.9	-1.3
GSI				IAmb	IAmb	23 38 54.4	
	comp=Z,36nm,1.1s						
NWAO	Narrogin (SRO)	23.71	183	P	P	23 38 42.9	+3.3
	comp=Z,2.6nm,0.4s,baz=32,slow=10.0,SNR=1.2						
NWAO				S	S	23 42 58.0	+11
	comp=Z,9.3nm,0.7s,baz=313,slow=19,SNR=3.7						
BBOO	Buckleboo	28.39	149	P	P	23 39 22.7	+1.0
BBOO				IAmb	IAmb	23 40 00.8	
	comp=Z,28nm,1.4s						
STKA	Stephens Creek	30.90	140	P	P	23 39 46.5	+2.6
	comp=Z,4.2nm,0.6s,baz=319,slow=8.1,SNR=10						
	comp=Z,4.2nm,0.6s						
PBA	Port Blair	33.22	308	P	P	23 40 03.3	-1.1
CMAR	Chiang Mai Arr	33.77	324	P	P	23 40 07.2	-1.9
	comp=Z,0.4nm,0.5s,baz=144,slow=8.3,SNR=2.1						
	comp=Z,0.4nm,0.5s						
CMAR	Chiang Mai Arr	33.77	324	P	P	23 40 08.2	-1.0
PZH	PanZhiHua	39.16	335	P	P	23 40 57.7	+2.7
H08S2	Diego Garcia H	45.91	268	T	T	00 31 19.6	
	baz=96,slow=75,SNR=8.3						
H08S3	Diego Garcia H	45.92	268	T	T	00 31 20.4	
	baz=96,slow=75,SNR=12						
H08S1	Diego Carcia H	45.93	268	T	T	00 31 21.0	
	baz=96,slow=75,SNR=4.9						
KSRS	Korea Array	47.12	10	P	P	23 41 59.6	+0.8
	comp=Z,0.6nm,0.4s,baz=182,slow=8.7,SNR=2.0						
	comp=Z,0.6nm,0.4s						
HHC	Hu-ho-hao-te	50.20	353	*e*P	P	23 42 25.9	+3.4
HHC				pmax	pmax		
	comp=Z,8.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,35nm,4.4s						
GTA2	Gaotai	51.55	341	*e*P	P	23 42 33.9	+1.3
GTA2				pP	pP	23 42 54.7	-2.5
GTA2				pmax	pmax		
	comp=Z,6.0nm,0.9s						
USRK	Ussuriysk Ar.	54.41	12	P	P	23 42 54.5	+1.1
	comp=Z,2.4nm,0.6s,baz=196,slow=6.5,SNR=8.5						
	comp=Z,2.4nm,0.6s						
USRK	Ussuriysk Ar.	54.41	12	P	P	23 42 52.3	-1.1
CASY	Casey	57.34	184	P	P	23 43 14.2	+0.2
NNZ	Nelson	57.55	133	P	P	23 43 15.0	-1.0
ULN	Ulaanbaatar	57.73	351	P	P	23 43 18.1	+1.0
ULN				IAmb	IAmb	23 43 18.4	
	comp=Z,3.6nm,0.6s						
SONM	Songino Array	57.81	350	P	P	23 43 18.3	+0.6
	comp=Z,5.4nm,0.5s,baz=167,slow=8.4,SNR=28						
	comp=Z,5.4nm,0.5s						
SONM	Songino Array	57.81	350	P	P	23 43 18.6	+0.9
SONM				IAmb	IAmb	23 43 19.0	
	comp=Z,5.0nm,0.6s						
KSH2	Kashi	62.66	323	P	P	23 43 50.8	-0.2
KSH2				pmax	pmax		
	comp=Z,3.0nm,0.8s						
MKAR	Makanchi Array	64.54	333	P	P	23 44 02.8	-0.3
	comp=Z,2.4nm,0.6s,baz=154,slow=6.9,SNR=39						
	comp=Z,2.4nm,0.6s						
MKAR	Makanchi Array	64.54	333	P	P	23 44 02.5	-0.6
KURBB	Kurchatov Arra	69.06	334	P	P	23 44 31.1	-0.5
	comp=Z,1.4nm,0.5s,baz=141,slow=5.6,SNR=17						
	comp=Z,1.4nm,0.5s						
KURK	Kurchatov	69.08	334	P	P	23 44 31.3	-0.5
KURK				IAmb	IAmb	23 44 32.5	
	comp=Z,4.5nm,1.1s						
ZAA0	Zalesovo Array	69.14	339	P	P	23 44 31.3	-0.8
ZAA0				IAmb	IAmb	23 44 31.8	
	comp=Z,3.5nm,0.8s						
ZALV	Zalesovo Beam	69.14	339	P	P	23 44 31.2	-0.8
	comp=Z,3.8nm,0.4s,baz=138,slow=4.9,SNR=15						
	comp=Z,3.8nm,0.4s						
VNDA	Vanda	71.86	171	P	P	23 44 48.3	0.0
	comp=Z,0.4nm,0.4s,baz=323,slow=3.3,SNR=1.3						
	comp=Z,0.4nm,0.4s						
BVAR	Borovoye Array	74.38	332	P	P	23 45 02.7	-0.7
	comp=Z,1.4nm,0.6s,baz=149,slow=5.4,SNR=12						
	comp=Z,1.4nm,0.6s						
BORK	Borovoye	74.43	332	P	P	23 45 03.2	-0.5
AB31	Akbulak array	77.62	325	P	P	23 45 21.9	-0.1
AB31				IAmb	IAmb	23 45 22.3	
	comp=Z,4.1nm,1.1s						
ABKAR	Akbulak array	77.62	325	P	P	23 45 21.6	-0.4
ATD	Arta Tunnel	78.35	284	P	P	23 45 25.9	-0.9
ATD				IAmb	IAmb	23 45 29.4	
	comp=Z,6.0nm,1.2s						
RAYN	Ar Rayn	78.68	296	P	P	23 45 28.5	+0.1
RAYN				IAmb	IAmb	23 45 29.6	
	comp=Z,2.8nm,0.8s						
NRIK	Noril'sk	81.28	349	P	P	23 45 42.2	+0.9
	comp=Z,1.8nm,0.5s,baz=180,slow=4.0,SNR=2.4						
	comp=Z,1.8nm,0.5s						
KBZ	Khabaz	86.31	315	P	P	23 46 06.8	-0.7
	comp=Z,1.2nm,0.6s,baz=106,slow=3.2,SNR=5.9						
	comp=Z,1.2nm,0.6s						
BRTR	Keskin Array B	92.16	310	P	P	23 46 34.2	-1.2
	comp=Z,0.6nm,0.8s,baz=97,slow=6.0,SNR=3.9						
	comp=Z,0.6nm,0.8s						
TORD	Torodi Ar. Bea	118.39	280	PKP	PKPdf	23 52 13.3	-0.1
	comp=Z,1.1nm,1.1s,baz=86,slow=2.7,SNR=3.0						
ESDC	Sonseca Array	120.93	311	PKP	PKiKP	23 52 18.3	+0.4
	comp=Z,0.9nm,0.9s,baz=92,slow=3.8,SNR=6.4						

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*IDC **10** 23:40:10.9±1.8, 2.°91S×67.°72E, h0km, mb3.7/6, mbtmp3.7/6, MS3.4/15, Error ellipse: s-maj=47.1km s-min=36.9km az=28.0*

ISC 10 23:40:12.4±1.7, 2.°9S±0.°3×67.°7E±0.°2, h10km, n21, σ0.s74/7, mb3.8/6, MS3.4/14, Carlsberg Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALK	Pallekele	16.44	52	LR	LR	23 48 58.3	
	comp=Z,136nm,20.8s,baz=216,slow=32						
OPO	Ambohidratompo	25.42	231	LR	LR	23 53 50.5	
	comp=Z,96nm,18.7s,baz=74,slow=32						
BRDH	Bariadhala	34.53	41	LR	LR	00 01 51.5	
	comp=Z,74nm,18.4s,baz=203,slow=38						
MBAR	Mbarara	37.04	273	LR	LR	00 00 06.5	
	comp=Z,37nm,18.1s,baz=89,slow=32						
CMAR	Chiang Mai Arr	37.37	54	P	P	23 47 26.1	+0.5
	0.8nm,0.3s,baz=246,slow=10,SNR=5.4						
CMAR				LR	LR	00 01 21.8	
	comp=Z,57nm,18.6s,baz=195,slow=34						
	0.8nm,0.3s						
LSZ	Lusaka	40.83	250	LR	LR	00 02 06.8	
	comp=Z,84nm,18.5s,baz=95,slow=32						
AAK	Ala-Archa	45.76	7	LR	LR	00 07 28.6	
	comp=Z,36nm,18.2s,baz=174,slow=36						
LBTB	Lobatse	46.11	238	LR	LR	00 05 19.2	
	comp=Z,70nm,18.4s,baz=80,slow=33						
GNI	Garni	47.77	336	LR	LR	00 07 47.3	
	comp=Z,22nm,19.1s,baz=99,slow=35						
BOSA	Boshof	47.79	233	LR	LR	00 07 12.0	
	comp=Z,33nm,18.1s,baz=104,slow=34						
TSUM	Tsumeb	51.58	248	LR	LR	00 08 01.5	
	comp=Z,71nm,19.1s,baz=137,slow=32						
KAPI	Kappang	51.93	94	LR	LR	00 10 14.7	
	comp=Z,39nm,18.9s,baz=302,slow=35						
SUR	Sutherland	52.83	231	LR	LR	00 09 03.2	
	comp=Z,80nm,19.1s,baz=90,slow=33						
KURBB	Kurchatov Arra	54.14	8	P	P	23 49 37.0	-0.6
	1.0nm,1.0s,baz=204,slow=7.6,SNR=5.1						
	1.0nm,1.0s						
ZALV	Zalesovo Beam	58.44	12	P	P	23 50 07.2	-1.0
	0.2nm,0.3s,baz=217,slow=7.0,SNR=2.0						
	0.2nm,0.3s						
SONM	Songino Array	60.80	29	P	P	23 50 25.3	+0.5
	1.5nm,0.9s,baz=230,slow=6.9,SNR=6.0						
	1.5nm,0.9s						
WRA	Warramunga Arr	67.04	110	P	P	23 51 06.0	-0.4
	0.7nm,0.9s,baz=280,slow=6.5,SNR=3.3						
	0.7nm,0.9s						
KSRS	Korea Array	68.63	48	LR	LR	00 21 48.2	
	comp=Z,18nm,18.8s,baz=220,slow=36						
KLR	Kul'dur	75.61	37	LR	LR	00 25 32.8	
	comp=Z,15nm,18.7s,baz=231,slow=36						
ESDC	Sonseca Array	77.88	311	P	P	23 52 11.0	+0.3
	0.1nm,0.3s,baz=82,slow=6.4,SNR=1.7						
	0.1nm,0.3s						
TXAR	Lajitas Array	152.49	344	PKPbc	PKiKP	00 00 10.6	+0.4
	0.7nm,1.0s,baz=34,slow=1.5,SNR=4.4						

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*IDC **10** 23:43:27.4±3.5, 8.°48S×105.°56E, h0km, mb3.9/7, mbtmp3.9/7, Error ellipse: s-maj=150.7km s-min=28.5km az=47.0*

*DJA **10** 23:43:34.7±0.5, 8°S±5°×10°6E±°, h10km, M3.8/19, MLv3.8/19*

ISC 10 23:43:31.9±1.5, 8.°1S±0.°1×105.°66E±0.°07, h10km, n17, σ1.s16/17, mb4.0/7, South of Jawa

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKJI	Sukabumi	1.41	39	P	Pg	23 43 59.1	+0.2
SKJI				AML	AML		
CGJI	Cibinong	1.48	1	P	Pb	23 44 00.2	+0.7
CNJI	Cibinong	1.66	62	P	Pn	23 44 01.2	+0.2
CNJI				S	Sn	23 44 22.6	+0.2
CNJI				AML	AML		
CBJI	Citeko	2.05	35	P	Pn	23 44 05.1	-1.3
CBJI				AML	AML		
BBJI	Bungbulang	2.08	72	P	Pn	23 44 08.8	+1.9
CMJI	Cimerak	2.78	84	P	Pn	23 44 16.8	+0.3
CMJI				AML	AML		
KPJI	Karang Pucung	3.33	77	P	Pn	23 44 26.0	+1.9
KPJI				AML	AML		
MDSI	Maura Dua	3.88	338	P	Pn	23 44 33.4	+1.8
MDSI				AML	AML		
MNAI	Manna	4.58	324	P	Pn	23 44 42.3	+1.0
CMAR	Chiang Mai Arr	27.21	346	P	P	23 49 16.3	+0.2
	0.9nm,0.3s,baz=186,slow=10.0,SNR=4.9						
	0.9nm,0.3s						
WRA	Warramunga Arr	30.16	116	P	P	23 49 38.2	-4.2
	0.4nm,0.8s,baz=289,slow=9.5,SNR=2.4						
	0.4nm,0.8s						
SONM	Songino Array	55.69	1	P	P	23 53 08.3	-0.3
	0.4nm,0.4s,baz=196,slow=6.2,SNR=2.3						
	0.4nm,0.4s						
MKAR	Makanchi Array	58.48	341	P	P	23 53 27.6	-0.6
	1.3nm,0.5s,baz=146,slow=8.3,SNR=13						
	1.3nm,0.5s						
KURBB	Kurchatov Arra	63.04	341	P	P	23 53 58.2	-0.9
	1.1nm,1.0s,baz=161,slow=5.9,SNR=6.7						
	1.1nm,1.0s						
ZALV	Zalesovo Beam	64.27	347	P	P	23 54 06.0	-1.2
	0.8nm,0.3s,baz=157,slow=7.0,SNR=6.1						
	0.8nm,0.3s						
BVAR	Borovoye Array	67.87	338	P	P	23 54 29.5	-0.8
	1.5nm,0.6s,baz=134,slow=11,SNR=7.4						
	1.5nm,0.6s						
TXAR	Lajitas Array	145.29	49	PKPbc	PKPbc	00 03 09.3	-1.3
	0.5nm,0.8s,baz=325,slow=2.4,SNR=3.8						

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*IDC **10** 23:59:05.1±0.9, 55.°32S×29.°34W, h0km, mb3.9/5, mbtmp3.9/6, ML4.0/1, MS3.5/2, Error ellipse: s-maj=39.7km s-min=20.4km az=53.0*

*NEIC **10** 23:59:07.5±1.4, 55.°4S±0.°1×29.°6W±0.°2, h10km±1km, mb4.6/17, Error ellipse: s-maj=20.3km s-min=17.1km az=22.0*

ISC 10 23:59:09.2±0.7, 55.°4S±0.°1×29.°6W±0.°1, h28km, n42, σ0.s97/35, mb4.5/13, 5C, South Sandwich Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HOPE	Hope Point	4.16	282		Pn	00 00 09.8	-0.8
ORCD	Orcadas	9.68	230	Pn	Pn	00 01 24.9	-1.4
VNA1	Neumayer--Stat	17.95	157	⇑P	P	00 03 19.5	+2.9
	comp=Z,5.2nm,0.8s						
VNA3	Neumayer Olymp	18.10	159	⇑P	P	00 03 18.9	+0.5
	comp=Z,9.8nm,0.8s						
VNA2	Neumayer--Watz	18.34	157	⇑P	P	00 03 20.6	-0.5
	comp=Z,1.9nm,0.4s,baz=316,slow=13						
SNAA	Sanae	19.92	155	⇑P	P	00 03 37.4	-1.0
	comp=Z,112nm,0.7s						
SNAA	Sanae	19.92	155	P	P	00 03 38.0	-0.3
	comp=Z,0.4nm,0.3s,baz=309,slow=10,SNR=5.9						
	comp=Z,1.5nm,0.4s						
SNAA				AML	AML		
SNAA	Sanae	19.92	155	P	P	00 03 37.7	-0.6
TROLL	Troll, Antarti	21.46	153	⇑P	P	00 03 54.5	-0.5
	comp=Z,184nm,0.7s						
BELA	Belgrano 2	22.69	183	P	P	00 04 09.5	+1.6
MG03	Isla Dawson	23.51	257	P	P	00 04 17.0	+0.6
GO08	Villa O'Higgin	27.05	267	P	P	00 04 49.6	+0.8
PLCA	Paso Flores	30.56	281	LR	LR	00 17 42.9	
	comp=Z,24nm,18.3s,baz=141,slow=36						
QSPA	South Pole Qui	34.89	180	P	P	00 05 58.4	+0.5
	comp=Z,1.4nm,0.8s,baz=210,slow=1.6,SNR=10						
	comp=Z,1.4nm,0.8s						
QSPA	South Pole Qui	34.89	180	P	P	00 05 58.6	+0.7
CPUP	Villa Florida	35.36	314	P	P	00 06 01.8	-0.3
	comp=Z,1.5nm,0.8s,baz=157,slow=13,SNR=2.9						
	comp=Z,1.5nm,0.8s						
GO05	Hualane	35.40	287	P	P	00 06 00.9	-1.5
GO05				IAmb	IAmb	00 06 14.9	
	comp=Z,9.3nm,1.0s						
MT09	Talagante	35.82	290	P	P	00 06 05.1	-1.1
MT09				IAmb	IAmb	00 06 06.2	
	comp=Z,9.6nm,0.9s						
MT01	Popeta	35.90	289	P	P	00 06 05.3	-1.3
MT01				IAmb	IAmb	00 06 12.4	
	comp=Z,6.8nm,1.0s						
VA03	San Esteban	36.37	291	P	P	00 06 11.2	+0.4

CO04	Los Peladeros	37.15	291	P	P	00 06 18.2	+0.6
CO04				IAmb	IAmb	00 06 29.0	
	comp=Z,15nm,1.1s						
CO01	Juntas del Tor	38.32	295	P	P	00 06 28.8	+1.3
CO01				IAmb	IAmb	00 06 39.4	
	comp=Z,8.9nm,1.1s						
GO04	Tololo Observa	38.53	294	P	P	00 06 28.6	-0.7
AC05	El Transito	39.32	295	P	P	00 06 36.2	+0.3
AC05				IAmb	IAmb	00 06 46.7	
	comp=Z,13nm,1.1s						
MAW	Mawson	41.49	145	P	P	00 06 52.2	-0.9
	comp=Z,0.3nm,0.4s,baz=239,slow=9.2,SNR=1.2						
	comp=Z,0.3nm,0.4s						
PTLB	Pontes e Lacer	45.88	318	P	P	00 07 29.2	+0.2
PTLB				IAmb	IAmb	00 07 29.8	
	comp=Z,3.9nm,0.9s						
PB08	IPOC Station P	46.02	304	P	P	00 07 30.9	+0.4
GO01	Chusmiza	46.45	304	P	P	00 07 34.6	+0.6
GO01				IAmb	IAmb	00 07 35.9	
	comp=Z,5.0nm,0.7s						
BOSA	Boshof	47.12	79	P	P	00 07 38.0	-0.7
	comp=Z,0.9nm,0.7s,baz=197,slow=6.6,SNR=0.9						
	comp=Z,0.9nm,0.7s						
BOSA	Boshof	47.12	79	P	P	00 07 38.4	-0.4
H10S2	ASCENSION HYDR	47.77	20	T	T	00 59 11.0	
	baz=191,slow=74,SNR=25						
H10S3	ASCENSION HYDR	47.77	20	T	T	00 59 12.0	
	baz=29,slow=74,SNR=23						
H10N1	ASCENSION HYDR	48.88	20	T	T	01 00 35.7	
	baz=191,slow=75,SNR=17						
H10N3	ASCENSION HYDR	48.88	20	T	T	01 00 35.9	
	baz=191,slow=75,SNR=28						
LPAZ	La Paz	48.89	307	P	P	00 07 54.2	+1.1
	comp=Z,4.5nm,0.5s,baz=134,slow=5.0,SNR=24						
	comp=Z,4.5nm,0.5s						
LPAZ	La Paz	48.89	307	P	P	00 07 53.8	+0.7
LPAZ				IAmb	IAmb	00 07 54.9	
	comp=Z,5.0nm,0.7s						
H10N2	ASCENSION HYDR	48.90	20	T	T	01 00 34.6	
	baz=191,slow=75,SNR=26						
RPN	Rapa Nui	62.45	262	LR	LR	00 32 13.8	
	comp=Z,118nm,20.0s,baz=150,slow=32						
ILAR	Eielson Array	148.66	313	PKPbc	PKPbc	00 18 52.1	0.0
	comp=Z,2.2nm,0.7s,baz=122,slow=1.6,SNR=21						
F25K	Christian Rive	148.71	318		PKPbc	00 18 52.7	+0.6
E25K	Arctic Village	148.76	320		PKiKP	00 18 53.2	-0.4
SONM	Songino Array	152.02	87	PKPbc	PKiKP	00 19 01.1	-0.1
	comp=Z,0.4nm,0.5s,baz=275,slow=2.9,SNR=2.0						

*IDC **11** 00:51:08.7±4.2, 34°.66N×69°.67E, h0^{km}, mb3.7/5, mbtmp3.8/10, ML3.6/5, Error ellipse: s-maj=69.0km s-min=20.7km az=150.0*

*NNC **11** 00:51:14.6±2.2, 34°.75N×69°.34E, h35^{km}±66^{km}, mb4.2, mpv4.0, Error ellipse: s-maj=33.7km s-min=14.7km az=167.0*

ISC 11 00:51:15.6±2.0**, 34°.9N**±0°.2×**69°.3E**±0°.1**, h35**^{km}**, n17, σ2^{s}30**/20**, mb3.8**/4**, 4C, Southeastern Afghanistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BRLS	Borolday	8.14	3	Pg	Pn	00 53 10.3	-1.0
	4.9nm,0.4s						
BRLS				Lg	Lg	00 54 39.3	
	15nm,0.5s						
KK31	Karatay Array	8.26	6	P	Pn	00 53 14.0	+1.1
	1.1nm,0.2s,baz=188,slow=16,SNR=33						
KK31				⇑S	Sn	00 54 48.6	+3.7
	4.5nm,0.5s,baz=187,slow=23,SNR=2.9						
MRKS	Merke	8.42	20	Pg	Pn	00 53 16.5	+1.3
	5.1nm,0.4s						
MRKS				Lg	Lg	00 54 50.7	
	16nm,0.5s						
AAK	Ala-Archa	8.74	26	Pn	Pn	00 53 19.5	0.0
	1.6nm,0.3s,baz=206,slow=8.9,SNR=21						
AAK				Sn	Sn	00 54 58.5	+1.7
	1.3nm,0.3s,baz=312,slow=20,SNR=5.1						
	7.3nm,0.6s						
AAK				AML	AML		
AAK	Ala-Archa	8.74	26	⇑P	Pn	00 53 19.8	+0.3
	5.3nm,0.8s						
AAK				⇑S	Sn	00 54 58.8	+2.0
	4.7nm,0.8s						
SGDS	Sogindy	9.50	24	Pg	Pn	00 53 29.9	0.0
	5.2nm,0.4s						
SGDS				Lg	Lg	00 55 15.3	
	6.2nm,0.5s						
KRBS	Karabastau	10.09	27	P	Pn	00 53 38.0	+0.1
MKAR	Makanchi Array	15.41	36	Pn	Pn	00 54 48.3	-1.9
	0.2nm,0.3s,baz=211,slow=11,SNR=5.5						
	0.9nm,0.8s						
MKAR				AML	AML		
AB31	Akbulak array	15.93	337	⇑P	Pn	00 54 57.9	+0.9
	1.2nm,0.5s,baz=154,slow=14,SNR=60						
KURBB	Kurchatov Arra	17.10	20	Pn	Pn	00 55 08.2	-3.5
	0.5nm,0.3s,baz=210,slow=11,SNR=4.3						
	1.9nm,0.2s						
KURBB				AML	AML		
AKTO	Aktyubinsk	17.58	336	Pn	Pn	00 55 14.9	-2.8
	0.1nm,0.3s,baz=135,slow=10.0,SNR=3.6						
AKTO				Sn	Sn	00 58 27.4	-5.0
	0.1nm,0.3s,baz=66,slow=15,SNR=2.0						
	0.8nm,0.5s						
AKTO				AML	AML		
BVAR	Borovoye Array	18.15	2	P	P	00 55 23.7	-1.0
	0.1nm,0.3s,baz=168,slow=11,SNR=8.1						
	1.0nm,0.5s						
BVAR				AML	AML		
GNI	Garni	20.15	292	P	Pn	00 55 49.4	+0.5
	2.5nm,0.5s,baz=245,slow=11,SNR=4.1						
	2.5nm,0.5s						
ZALV	Zalesovo Beam	21.96	25	P	P	00 56 03.5	-2.5
	1.3nm,0.4s,baz=218,slow=9.5,SNR=9.9						
	1.3nm,0.4s						
KBZ	Khabaz	22.18	301	P	P	00 56 11.4	+2.9
	0.3nm,0.5s,baz=74,slow=7.4,SNR=4.5						
	0.3nm,0.5s						
ARCES	ARCESS Array B	42.12	339	P	P	00 59 04.1	+0.1
	1.4nm,0.7s,baz=108,slow=7.8,SNR=7.1						
	1.4nm,0.7s						
HFS	Hagfors	43.50	323	P	P	00 59 16.1	+0.8
	4.9nm,1.2s,baz=157,slow=7.8,SNR=1.8						
	4.9nm,1.2s						

*VAO **11** 00:57:12.0±1.5, 21°.12S×69°.39W, h81^{km}±8^{km}, mb4.4, Presumed earthquake*

*SJA **11** 00:57:19.8±0.5, 20°.82S×69°.08W, h129^{km}±3^{km}, ML3.9, MW3.9*

*NEIC **11** 00:57:20.7±1.2, 20°.85S±0°.03×69°.03W±0°.09, h124^{km}±6^{km}, mb4.6/16, ML4.0(GUC), Error ellipse: s-maj=12.4km s-min=4.0km az=98.0*

*GUC **11** 00:57:21.6±0.7, 20°.85S×68°.98W, h114^{km}±3^{km}, ML4.0*

*IDC **11** 00:57:33.4±2.4, 19°.83S×68°.24W, h187^{km}±19^{km}, mb3.5/4, mbtmp4.0/8, Error ellipse: s-maj=30.7km s-min=22.7km az=58.0*

ISC 11 00:57:20.1±0.6**, 20°.81S**±0°.03×**69°.09W**±0°.05**, h129**^{km}±5^{km}**, n115, σ1^{s}32**/139**, mb4.4**/8**, 8C, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB08	IPOC Station P	0.67	355	*e*P	Pn	00 57 40.7	+0.1
PB08				IAML		00 57 58.2	
	comp=Z,2µm,0.3s						
PB08	IPOC Station P	0.67	355	⇑*i*P	Pn	00 57 40.6	+0.1
PB08				*e*S	Sn	00 57 55.1	-0.9
PB08				IAML		00 57 55.9	
	comp=E,6µm,0.3s						
PB08	IPOC Station P	0.67	355		Pn	00 57 40.6	+0.1
PB08				Sn	Sn	00 57 55.2	-0.9
PB02	IPOC Station P	0.91	236	*e*P	Pn	00 57 42.7	+0.6
PB02				*e*S	Sn	00 58 00.9	+2.0
PB02				IAML		00 58 04.7	
	comp=Z,6µm,0.2s						
PB02	IPOC Station P	0.91	236	⇑*i*P	Pn	00 57 42.7	+0.6
PB02				*e*S	Sn	00 57 58.6	-0.2
PB02				IAML		00 58 01.1	
	comp=E,7µm,0.2s						
PB02	IPOC Station P	0.91	236		Pn	00 57 42.9	+0.8
PB09	IPOC Station P	0.99	188	*e*P	Pn	00 57 43.2	+0.2
PB09				*e*S	Sn	00 58 00.6	+0.3
PB09				IAML		00 58 01.4	
	comp=Z,3µm,0.8s						
PB09	IPOC Station P	0.99	188	⇑*i*P	Pn	00 57 43.1	+0.1
PB09				*e*S	Sn	00 57 59.6	-0.7
PB09				IAML		00 58 01.4	
	comp=N,5µm,0.9s						
PB09	IPOC Station P	0.99	188		Pn	00 57 42.7	-0.3
PB09				Sn	Sn	00 58 00.2	-0.2
TA01	Diego Aracena	1.05	283	*e*P	Pn	00 57 44.0	+0.7
TA01				*e*S	Sn	00 58 01.8	+0.8
TA01				IAML		00 58 07.4	
	comp=Z,786nm,0.3s						
TA01	Diego Aracena	1.05	283	⇑*i*P	Pn	00 57 44.0	+0.7
TA01				*e*S	Sn	00 58 01.3	+0.3
TA01	Diego Aracena	1.05	283		Pn	00 57 44.0	+0.7
TA02	Huaiquique	1.11	299	*e*P	Pn	00 57 44.8	+0.8
TA02				*e*S	Sn	00 58 02.8	+0.8
TA02				IAML		00 58 06.9	
	comp=Z,2µm,0.1s						
TA02	Huaiquique	1.11	299	*e*P	Pn	00 57 44.7	+0.8
TA02				*e*S	Sn	00 58 02.7	+0.6
GO01	Chusmiza	1.14	355	*e*P	Pn	00 57 45.4	+0.6
GO01				*e*S	Sn	00 58 04.3	+0.8
GO01				IAML		00 58 06.7	
	comp=Z,1µm,0.7s						
GO01	Chusmiza	1.14	355	*e*P	Pn	00 57 45.3	+0.5
GO01				*e*S	Sn	00 58 03.6	+0.2
GO01				IAML		00 58 05.1	
	comp=N,4µm,0.4s						
GO01	Chusmiza	1.14	355		Pn	00 57 45.3	+0.6
GO01				Sn	Sn	00 58 04.0	+0.5
PB11	IPOC Station P	1.17	333	*e*P	Pn	00 57 45.2	+0.5
PB11				*e*S	Sn	00 58 04.0	+0.5
PB11				IAML		00 58 09.1	
	comp=Z,1µm,0.4s						
PB11	IPOC Station P	1.17	333	⇑*i*P	Pn	00 57 45.2	+0.5
PB11				*e*S	Sn	00 58 04.0	+0.5
PB11				IAML		00 58 04.4	
	comp=E,3µm,0.2s						
PB11	IPOC Station P	1.17	333		Pn	00 57 45.3	+0.5
PB11				Sn	Sn	00 58 04.2	+0.7
PB07	IPOC Station P	1.18	219	*e*P	Pn	00 57 45.1	+0.4
PB07				*e*S	Sn	00 58 04.2	+0.6
PB07				IAML		00 58 05.3	
	comp=Z,2µm,0.4s						
PB07	IPOC Station P	1.18	219	⇑*i*P	Pn	00 57 45.2	+0.5
PB07				*e*S	Sn	00 58 03.1	-0.4
PB07				IAML		00 58 05.5	
	comp=E,3µm,0.4s						
PB07	IPOC Station P	1.18	219		Pn	00 57 45.5	+0.7
PB07				Sn	Sn	00 58 03.5	0.0
PB03	IPOC Station P	1.38	207	*e*P	Pn	00 57 47.1	+0.3
PB03				*e*S	Sn	00 58 07.0	-0.3
PB03				IAML		00 58 10.5	
	comp=Z,2µm,0.2s						
PB03	IPOC Station P	1.38	207	⇑*i*P	Pn	00 57 47.1	+0.3
PB03				*e*S	Sn	00 58 06.6	-0.7
PB03				IAML		00 58 09.6	
	comp=N,2µm,0.2s						
PB03	IPOC Station P	1.38	207		Pn	00 57 47.4	+0.5
PB03				Sn	Sn	00 58 06.8	-0.5
PSGCX	Pisagua	1.55	321	*e*P	Pn	00 57 49.3	+0.5
PSGCX				IAML		00 58 12.9	
	comp=Z,859nm,0.3s						
PSGCX	Pisagua	1.55	321	⇑*i*P	Pn	00 57 49.2	+0.5
PSGCX				*e*S	Sn	00 58 10.9	+0.3
PSGCX	Pisagua	1.55	321		Pn	00 57 49.7	+0.9
PSGCX				Sn	Sn	00 58 11.0	+0.3
PB06	IPOC Station P	1.94	193	*e*P	Pn	00 57 53.9	+0.5
PB06				*e*S	Sn	00 58 18.6	-0.3
PB06				IAML		00 58 22.5	
	comp=Z,738nm,0.3s						
PB06	IPOC Station P	1.94	193	*e*P	Pn	00 57 53.5	+0.1
PB06				IAML		00 58 22.2	
	comp=E,1µm,0.4s						
PB06	IPOC Station P	1.94	193		Pn	00 57 53.7	+0.3
PB06				Sn	Sn	00 58 18.4	-0.5
PB05	IPOC Station P	2.28	207	*e*P	Pn	00 57 58.1	+0.5
PB05				*e*S	Sn	00 58 25.3	-1.0
PB05				IAML		00 58 29.4	
	comp=Z,627nm,0.6s						
PB05	IPOC Station P	2.28	207	*e*P	Pn	00 57 57.8	+0.3
PB05				IAML		00 58 27.8	
	comp=E,838nm,0.2s						
PB05	IPOC Station P	2.28	207		Pn	00 57 57.6	0.0
AF01	San Pedro de A	2.29	158	*e*P	Pn	00 57 59.0	+1.2
AF01				*e*S	Sn	00 58 27.1	+0.3
AF01				IAML		00 58 45.7	
	comp=Z,468nm,0.6s						
AF01	San Pedro de A	2.29	158	*e*P	Pn	00 57 58.8	+0.9
AF01	San Pedro de A	2.29	158		Pn	00 57 58.1	+0.2
PB12	IPOC Station P	2.48	332	*e*P	Pn	00 58 00.8	+0.7
PB12				*e*S	Sn	00 58 27.8	-3.0
PB12				IAML		00 58 33.6	
	comp=Z,240nm,0.6s						
PB12	IPOC Station P	2.48	332	*e*P	Pn	00 58 00.3	+0.3
PB12	IPOC Station P	2.48	332		Pn	00 58 01.1	+1.0
PB16	IPOC Station P	2.50	351	*e*P	Pn	00 58 03.1	+2.4
PB16				*e*S	Sn	00 58 27.8	-4.1
PB16	IPOC Station P	2.50	351	*e*P	Pn	00 58 02.8	+2.0
PB16	IPOC Station P	2.50	351		Pn	00 58 02.4	+1.6
PB18	Visviri	3.23	353	*e*P	Pn	00 58 16.5	+6.3
PB14	IPOC Station P	3.98	197	*e*P	Pn	00 58 19.1	-0.8
PB14				*e*S	Sn	00 59 03.8	-2.5
PB14				IAML		00 59 06.0	
	comp=Z,99nm,0.3s						
PB14	IPOC Station P	3.98	197	*e*P	Pn	00 58 18.9	-1.0
PB14	IPOC Station P	3.98	197		Pn	00 58 19.1	-0.8
HJA	Humahuaca	4.17	126	*e*P	Pn	00 58 23.6	+1.2
HJA				*e*S	Sn	00 59 14.6	+4.0
LPAZ	La Paz	4.59	12	P	Pn	00 58 31.1	+2.8
	comp=Z,3.7nm,0.4s,baz=173,slow=4.0,SNR=34						
LPAZ				S	Sn	00 59 12.8	-8.4
	comp=Z,5.8nm,0.7s,baz=232,slow=17,SNR=5.2						
LPAZ	La Paz	4.59	12	*e*P	Pn	00 58 25.9	-2.4
LPAZ	La Paz	4.59	12		Pn	00 58 30.6	+2.3
LPAZ	La Paz	4.59	12	*e*P	Pn	00 58 24.5	-3.8
SLA	San Lorenzo	5.11	140	*e*P	Pn	00 58 33.7	-1.0
AC02	Maricunga	6.00	180		Pn	00 58 46.5	-0.5
AC06	Mina Casimiro	6.62	190	Pn	Pn	00 58 54.0	-0.9
GO03	Copiapo	6.83	189	Pn	Pn	00 58 57.5	-0.3
SIV	San Ignacio	8.99	59	P	Pn	00 59 23.6	-3.4
	comp=Z,4.7nm,0.4s,baz=252,slow=9.6,SNR=44						
CO01	Juntas del Tor	9.17	185	Pn	Pn	00 59 28.3	-1.2
GO04	Tololo Observa	9.45	189	Pn	Pn	00 59 32.4	-0.8
COIM	Forte Coimbra	10.64	87	*e*P	Pn	00 59 43.0	-6.0
MURT	Porto Murtinho	10.74	97	*e*P	Pn	00 59 46.2	-4.2
VILB	Vilhena	11.55	49		Pn	01 00 00.6	-0.6
VILB	Vilhena	11.55	49	*e*P	Pn	00 59 59.7	-1.5
CPUP	Villa Florida	12.10	119	P	P	01 00 18.1	+2.5
	comp=Z,2.9nm,1.0s,baz=328,slow=13,SNR=3.6						
CZSB	Cruzeiro do Su	13.47	344		Pn	01 00 27.2	+1.0
CZSB	Cruzeiro do Su	13.47	344	*e*P	Pn	01 00 23.1	-3.1
SALV	Santo Antonio	13.62	71	*e*P	Pn	01 00 26.9	-1.3
PP1B	Ponte de Pedra	13.80	79	*e*P	Pn	01 00 28.7	-1.7
GO05	Hualane	14.36	189	Pn	Pn	01 00 36.9	-0.5
CLDB	Colider	16.15	54	*e*P	Pn	01 01 00.0	+0.1
LDASE	Londrina, Braz	16.85	102	*e*P	Pn	01 01 06.9	-1.5
ARAG	Araguaiana, MT	17.17	76	*e*P	P	01 01 12.4	+0.5
FRTB	Fartura	18.27	102	*e*P	P	01 01 21.3	-2.6
SNDB	Serra Nova Dou	19.19	66	*e*P	P	01 01 32.6	-1.4
MACA	Manacapuru-AM	19.36	26	P	P	01 01 36.3	+0.4
MACA				IAmb	IAmb	01 01 38.8	
	comp=Z,42nm,0.7s						
MACA	Manacapuru-AM	19.36	26	*e*P	P	01 01 35.9	0.0
IPMB	Ipameri, GO	19.89	85	*e*P	P	01 01 41.1	-0.6
VAO	Valinhos	20.64	100	P	P	01 01 48.5	-1.2
BDFB	Brasilia	20.66	79	P	P	01 01 49.0	-1.0
	comp=Z,5.8nm,0.3s,baz=260,slow=8.5,SNR=12						
BDFB	Brasilia	20.66	79	P	P	01 01 52.0	+2.1
ITTB	Itaituba	20.88	40	*e*P	P	01 01 51.4	-0.8
PMNB	Patos De Minas	21.45	88	*e*P	P	01 01 57.3	-1.1
GO07	Milladeo Hill,	22.57	189	P	P	01 02 09.7	+0.2
BSCB	Bom Sucesso	22.71	95	*e*P	P	01 02 10.1	-1.2
SMTB	Santa Maria do	23.90	63	*e*P	P	01 02 22.2	0.0
DIAM	Diamantina, MG	24.07	88	*e*P	P	01 02 22.5	-1.4
JANB	Januaria	24.24	80	*e*P	P	01 02 24.5	-0.9
BOAV	Boa Vista	24.55	21	P	P	01 02 29.6	+1.7
BOAV	Boa Vista	24.55	21	*e*P	P	01 02 26.2	-1.8
SDBA	SAO DESIDERIO	24.61	74	*e*P	P	01 02 28.4	-0.3
GUA01	Guaratinga, BA	28.04	86	*e*P	P	01 02 58.1	-1.3
CXM	Morne La Croix	36.25	13	P	P	01 04 12.4	+1.3
MLPR	Magueyes Islan	38.59	3	P	P	01 04 30.7	0.0
MLPR				IAmb	IAmb	01 04 43.2	
	comp=Z,11nm,1.0s						
SABA	Saba	38.62	9	P	P	01 04 31.4	+0.5
CRPR	Cabo Rojo, PR	38.63	3	P	P	01 04 31.6	+0.6
OBIP	Obispado Ponce	38.69	4	P	P	01 04 33.4	+1.9
PDPR	Patillas Dam,	38.71	5	P	P	01 04 31.1	-0.6
PDPR				IAmb	IAmb	01 04 40.5	
	comp=Z,8.8nm,1.2s						
CELP	Cerrillos	38.73	4	P	P	01 04 33.5	+1.7
CELP				IAmb	IAmb	01 04 34.4	
	comp=Z,7.6nm,0.6s						
SJG	San Juan	38.79	4	P	P	01 04 32.4	+0.1
SJG				IAmb	IAmb	01 04 35.0	
	comp=Z,6.8nm,0.9s						
ECPR	Experimental S	38.98	4	P	P	01 04 33.9	0.0
ECPR				IAmb	IAmb	01 04 47.9	
	comp=Z,15nm,1.2s						
DBIC	Dimbokro	68.70	74	P	P	01 08 11.1	+0.8
	comp=Z,3.5nm,0.6s,baz=256,slow=6.8,SNR=2.4						
	comp=Z,3.5nm,0.6s						
TORD	Torodi Ar. Bea	77.28	71	P	P	01 09 01.6	+0.7
	comp=Z,1.3nm,0.5s,baz=252,slow=5.4,SNR=20						
	comp=Z,1.3nm,0.5s						
VNDA	Vanda	77.49	190	P	P	01 09 13.4	+12
	comp=Z,0.3nm,0.6s,baz=146,slow=3.6,SNR=2.0						
	comp=Z,0.3nm,0.6s						
ESDC	Sonseca Array	85.46	45	P	P	01 09 44.3	+0.8
	comp=Z,0.6nm,0.9s,baz=262,slow=4.7,SNR=4.3						
	comp=Z,0.6nm,0.9s						
H11S2	WAKE ISLAND Hy	127.62	278	T	T	03 36 12.1	
	baz=102,slow=74,SNR=29						
H11S1	WAKE ISLAND Hy	127.63	278	T	T	03 36 17.7	
	baz=102,slow=74,SNR=14						
H11S3	WAKE ISLAND Hy	127.64	278	T	T	03 36 13.4	
	baz=102,slow=74,SNR=14						
H11N3	WAKE ISLAND Hy	127.69	279	T	T	03 36 19.0	
	baz=102,slow=75,SNR=10						
H11N2	WAKE ISLAND Hy	127.70	279	T	T	03 36 19.2	
	baz=102,slow=75,SNR=7.4						
H11N1	WAKE ISLAND Hy	127.70	279	T	T	03 36 19.0	
	baz=102,slow=75,SNR=5.7						
MKAR	Makanchi Array	145.17	35	PKP	PKiKP	01 16 45.5	-0.8
	comp=Z,2.5nm,0.7s,baz=325,slow=4.0,SNR=13						
HHC	Hu-ho-hao-te	160.02	359	*e*P	PKPdf	01 17 07.3	+3.0
NJ2	Nanjing	166.74	329	*e*P	PKPdf	01 17 11.6	+0.9
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
PZH	PanZhiHua	169.87	54	PKP	PKPdf	01 17 12.4	-0.8

AUST 11 01:33:21.9±1.2**, 18°S**±6°×**12°0E**±°**, h11**^{km}±9^{km}**, mb4.3**/15**, ML2.9**/6**, Error ellipse: s-maj=16.0km s-min=4.7km az=138.0, confirmed, Western Australia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAAN	Eighty Mile Be	1.50	125	P	Pg	01 33 50.4	-0.3
CAAN				S	Sg	01 34 11.4	+1.2
CAAN				AML	AML		
AUBRM	Broome Senior	1.96	78	P	Pn	01 33 55.9	+0.7
AUBRM				S	Sn	01 34 20.8	+1.0
AUBRM				AML	AML		
AUBRM	Broome Senior	1.96	78	P	Pn	01 33 55.2	0.0
AUBRM				S	Sn	01 34 20.4	+0.6
AUBRM				AML	AML		
MBWA	Marble Bar	2.79	189	P	Pn	01 34 07.0	+0.4
MBWA				S	Sn	01 34 42.0	+1.7
MBWA				AML	AML		
FITZ	Fitzroy Crossi	5.16	88	P	Pn	01 34 38.0	-1.2
	comp=Z,2.5nm,2.1s,comp=Z,0.0nm						
FITZ				S	Sn	01 35 34.8	-4.0
FITZ				AML	AML		
FITZ	Fitzroy Crossi	5.16	88	P	Pn	01 34 38.0	-1.2
	comp=Z,2.5nm,2.1s,comp=Z,0.0nm						
FITZ				AML	AML		
GIRL	Giralia	7.02	232	P	Pn	01 35 05.1	+0.3
	comp=Z,71nm,1.7s,comp=Z,0.2nm						
GIRL				S	Sn	01 36 20.4	-4.2
GIRL				AML	AML		
CVQOZ	Cooralya Stati	8.30	222	P	Pn	01 35 25.7	+3.3
	comp=Z,19nm,1.1s						
CVQOZ				S	Sn	01 36 50.6	-5.6
MEEK	Meekatharra	8.34	190	P	Pn	01 35 23.6	+0.8
MEEK				S	Sn	01 36 53.2	-3.9
MEEK				AML	AML		
KNRA	Kununurra	8.61	73	P	Pn	01 35 26.4	-0.1
	comp=Z,4.8nm,2.0s,comp=Z,0.0nm						
KNRA				S	Sn	01 36 53.6	-10
KNRA				AML	AML		
MORW	Morawa	11.29	199	P	Pn	01 36 02.9	-0.4
	comp=Z,22nm,2.0s						
MORW				S	Sn	01 37 58.5	-11
BCON	Beacon, Wester	12.10	190	P	Pn	01 36 14.4	0.0
	comp=Z,47nm,1.9s						
BCON				S	Sn	01 38 21.2	-8.1
WATNG	Wattoning, WA	12.42	188	P	Pn	01 36 18.1	-0.6
	comp=Z,29nm,2.5s						
WATNG				S	Sn	01 38 28.5	-8.7
BLDU	Ballidu	12.58	194	P	Pn	01 36 20.1	-0.8
	comp=Z,30nm,3.0s						
BLDU				S	Sn	01 38 30.8	-10
KORDA	Koorda, Wester	12.67	191	P	Pn	01 36 21.7	-0.4
	comp=Z,35nm,1.8s						
KORDA				S	Sn	01 38 31.5	-12
KMBL	Kambalda	13.01	174	P	Pn	01 36 26.9	+0.1
KMBL				S	Sn	01 38 43.0	-8.5
KDU	Kakadu	13.10	66	P	Pn	01 36 28.1	+0.1
	comp=Z,4.2nm,1.1s						
KLBR	Kellerberrin	13.33	189	P	Pn	01 36 31.0	-0.1
	comp=Z,15nm,1.0s						
KLBR				S	Sn	01 38 49.1	-10
WRAB	Tennant Creek	13.44	99	P	Pn	01 36 03.7	-29
	comp=Z,7.2nm,1.5s						
WRAB				S	Sn	01 38 52.3	-10
MUN	Mundaring	14.00	194	P	Pn	01 36 39.1	-1.3
	comp=Z,25nm,1.8s						
MUN				S	Sn	01 39 04.8	-11
FORT	Forrest	14.24	151	P	Pn	01 36 41.4	-2.2
	comp=Z,13nm,2.1s						
FORT				S	Sn	01 39 12.8	-8.7
NWAO	Narrogin (SRO)	14.72	190	P	Pn	01 36 48.5	-1.6
	comp=Z,24nm,1.6s						
NWAO				S	Sn	01 39 21.3	-12

NDI 11 01:36:03.5±1.2**, 19°.99N×72°.85E, h5**^{km}**, ML3.7, MW3.7, Presumed earthquake, Southern India**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOM	Bombay	1.09	182	*e*P	Pg	01 36 24.3	-0.1
BOM				*e*x	x	01 36 37.5	
BOM				IAML		01 36 42.0	
	comp=E,2µm,0.3s						
BOM				IAML		01 36 43.4	
	comp=N,2µm,0.2s						
POO	Poona	1.73	147	*e*P	Pn	01 36 34.6	+0.2
POO				*e*S	Sn	01 36 57.3	+0.4
POO				IAML		01 36 58.0	
	comp=N,471nm,0.2s						
POO				IAML		01 36 58.0	
	comp=E,406nm,0.2s						
KAD	Karad	2.95	154	*e*P	Pn	01 36 50.9	-0.2
KAD				*e*S	Sn	01 37 27.4	+0.4
KAD				IAML		01 37 33.9	
	comp=E,906nm,0.2s						
KAD				IAML		01 37 34.0	
	comp=N,983nm,0.3s						
LATR	Latur	3.82	114	*e*P	Pn	01 37 02.9	-0.2
LATR				*e*S	Sn	01 37 46.0	-2.5
LATR				IAML		01 38 00.0	
	comp=E,685nm,0.1s						
LATR				IAML		01 38 00.1	
	comp=N,471nm,0.2s						
BHUJ	Bhuj	4.40	318	*e*S	Sn	01 38 00.3	-2.3
BHUJ				IAML		01 38 25.0	
	comp=N,39nm,0.2s						
BHUJ				IAML		01 38 25.3	
	comp=E,56nm,0.2s						
NGP	Nagpur	5.93	78	*e*P	Pn	01 37 32.1	0.0
NGP				*e*S	Sn	01 38 36.4	-4.1
NGP				IAML		01 39 07.8	
	comp=E,199nm,0.5s						
NGP				IAML		01 39 08.3	
	comp=N,124nm,0.6s						
HYB	Hyderabad	5.98	114	*e*P	Pn	01 37 33.4	+0.6
HYB				*e*S	Sn	01 38 37.5	-4.3
HYB				IAML		01 39 07.8	
	comp=N,194nm,0.3s						

HYB				IAML		01 39 07.8	
	comp=E,111nm,0.4s						

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*SJA **11** 02:02:27.0±0.8, 26°.81S×72°.50W, h10^{km}, ML4.5, MW3.9*
*GUC **11** 02:02:45.9±0.6, 27°.60S×71°.15W, h30^{km}±5^{km}, ML3.2*
ISC 11 02:02:39.4±1.8**, 27°.23S**±0°.04×**71°.52W**±0°.07**, h3**^{km}±14^{km}**,**
n20, σ2^s.86/29**, 4C-3D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	1.04	158	⇓eP	Pg	02 02 58.1	-1.3
AC04				eS	Sg	02 03 08.6	-4.4
AC04				IAML		02 03 11.4	
	comp=E,3μm,0.4s						
AC06	Mina Casimiro	1.04	97	⇓eP	Pn	02 03 01.2	+0.2
AC06				eS	Sg	02 03 12.1	-0.9
AC06				IAML		02 03 17.6	
	comp=N,1μm,0.7s						
GO03	Copiapo	1.20	108	⇓eP	Pn	02 03 03.1	+0.1
GO03				eS	Sg	02 03 14.2	-3.7
GO03				IAML		02 03 20.2	
	comp=N,1μm,0.3s						
AC01	Pan de Azucar	1.36	38	eP	Pg	02 03 08.1	+2.6
AC01				eS	Sn	02 03 23.8	0.0
LCO	Las Campanas	1.91	158	eP	Pn	02 03 12.8	-0.4
LCO				eS	Sg	02 03 47.4	+6.4
LCO				IAML		02 03 53.2	
	comp=Z,5μm,0.6s						
LCO	Las Campanas	1.91	158	⇑eP	Pn	02 03 12.7	-0.4
AC05	El Transito	1.94	146	eP	Pn	02 03 14.8	+1.4
AC05				eS	Sg	02 03 50.1	+8.4
AC05				IAML		02 03 52.7	
	comp=Z,1μm,0.7s						
AC05	El Transito	1.94	146	⇑eP	Pn	02 03 13.7	+0.3
AC05				eS	Sn	02 03 26.0	-12
AC05				IAML		02 03 27.9	
	comp=N,896nm,0.5s						
AC02	Maricunga	2.17	80	⇑eP	Pg	02 03 20.8	-0.2
PB14	IPOC Station P	2.79	21	eP	Pb	02 03 27.6	-2.4
GO04	Tololo Observa	3.00	168	eP	Pn	02 03 27.1	-0.9
GO04				eS	Sb	02 04 12.0	+1.3
GO04				IAML		02 04 30.3	
	comp=Z,891nm,0.5s						
GO04	Tololo Observa	3.00	168	⇑eP	Pn	02 03 27.3	-0.7
CO01	Juntas del Tor	3.01	156	eP	Pn	02 03 29.0	+0.8
CO01				IAML		02 04 25.9	
	comp=Z,490nm,0.3s						
CO01	Juntas del Tor	3.01	156	eP	Pn	02 03 29.0	+0.8
CO01				eS	Sn	02 03 43.0	-22
VCA	Vinchina	3.29	118	eP	Pb	02 03 36.0	-2.5
VCA				eS	Sg	02 04 26.5	+1.3
VCA				IAML		02 04 45.9	
	comp=Z,411nm,0.7s						
CO06	Fray Jorge	3.43	182	eP	Pn	02 03 31.4	-2.3
AROD	Rodeo	3.43	149	eP	Pn	02 03 36.3	+2.2
TINO	Tinogasta	3.60	104	eP	Pn	02 03 39.5	+3.3
TINO				eS	Sg	02 04 32.9	-2.2
TINO				IAML		02 04 49.4	
	comp=Z,254nm,0.6s						
CO02	Combarbal	3.98	174	eP	Pn	02 03 42.3	+0.9
CO04	Los Peladeros	4.82	174	eP	Pn	02 03 54.5	+1.5

NNC 11 02:05:43.8±11.0**, 37°.72N×71°.62E, h161**^{km}±221^{km}**, mb2.9, mpv3.7, 2C-2D, Error ellipse: s-maj=111.5km s-min=67.1km az=3.0, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AAK	Ala-Archa	5.38	23	⇓P	Pn	02 07 01.3	-1.1
	5.7nm,0.6s						
AAK				⇓S	Sn	02 08 03.7	-0.4
	2.5nm,0.7s						
KK31	Karatay Array	5.44	351	P	Pn	02 07 04.5	+1.4
	4.8nm,0.4s,baz=169,slow=14,SNR=53						
KK31				⇑S	Sn	02 08 08.3	+3.0
	2.3nm,0.3s,baz=174,slow=22,SNR=5.8						
AB31	Akbulak array	14.29	327	⇑P	P	02 09 00.4	-0.7
	1.4nm,0.6s,baz=139,slow=11,SNR=4.2						
AB31				S	Sn	02 11 33.8	-3.3
	0.6nm,0.6s,baz=150,slow=20,SNR=3.6						

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*IDC **11** 02:09:42.0±0.6, 33°.07N×139°.13E, h170^{km}±5^{km}, mb3.3/13, mbtmp3.8/15, Error ellipse: s-maj=23.7km s-min=17.1km az=55.0*
*NEIC **11** 02:09:42.8±1.4, 33°.10N±0°.06×139°.3E±0°.1, h171^{km}±4^{km}, mb4.2/10, Error ellipse: s-maj=14.4km s-min=3.8km az=56.0*
*JMA **11** 02:09:42.6±0.2, 33°.2N±0°.4×139°.5E±1°.0, h172^{km}±1^{km}, MV3.4/37, NEAR HACHIJOJIMA ISLAND*
ISC 11 02:09:42.6±0.7**, 33°.18N**±0°.07×**139°.39E**±0°.06**, h173**^{km}±5^{km}**,**
n63, σ0^s.85/70**, mb3.7**/19**, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHJ	Hachijo jima 2	0.34	100	P	Pn	02 10 06.0	+0.1
	250nm,0.3s,baz=225,slow=20,SNR=45						
JHJ				S	Sn	02 10 25.6	+1.7
	171nm,0.3s,baz=206,slow=22,SNR=7.3						
JHCJ	Hachijojimakas	0.36	107	eP	Pn	02 10 05.5	-0.5
JHJ2	Mitsune	0.37	101		Pn	02 10 06.0	-0.1
JHJ2	Mitsune	0.37	101	eP	Pn	02 10 06.0	-0.1
JMKN	Mikurajimanish	0.73	13	eP	Pn	02 10 07.6	-0.1
JMKN				eS	Sn	02 10 26.4	-0.8
JAOM	Aogashimamukai	0.78	156	eP	Pn	02 10 08.5	+0.4
JKO	Kozu shima	1.02	348	eP	Pn	02 10 09.8	+0.1
JKO				eS	Sn	02 10 30.9	0.0
JIM2	Oshima 3	1.53	1	eP	Pn	02 10 14.4	+0.1
JIZS	Izushimoda	1.59	345	eP	Pn	02 10 15.1	+0.3
JIZS				eS	Sn	02 10 40.0	+0.1
JSG	Sagara	1.79	326		Pn	02 10 17.6	+0.7
BSO3	Boso 3	1.87	30	eP	Pn	02 10 17.4	+0.1
BSO3				eS	Sn	02 10 44.8	+0.3
BSO1	Boso 1	1.98	42	eP	Pn	02 10 18.0	-0.2
BSO1				eS	Sn	02 10 45.8	-0.2
TTO2	TONANKAI O.B.S	2.05	286	P	Pn	02 10 20.0	+0.7
JOD2	Odawara 2	2.09	353	eP	Pn	02 10 20.3	+0.2
SHZ3	Shizuoka 3	2.12	333	eP	Pn	02 10 21.1	+0.6
TTO1	TONANKAI O.B.S	2.22	282	P	Pn	02 10 21.9	+0.6
JYN	Shimob	2.41	343	P	Pn	02 10 24.6	+0.8
JIE	Ise	2.54	299	P	Pn	02 10 25.5	+0.3
JIE				eS	Sn	02 10 58.5	0.0
JRY	Ryogami san	2.86	352	P	Pn	02 10 29.6	+0.5
JRY				eS	Sn	02 11 05.4	-0.1
INU	Inuyama	2.92	318		Pn	02 10 30.2	+0.3
JGF	Kuroka	2.94	326		Pn	02 10 30.6	+0.5
MJAR	Matsushiro Arr	3.49	344	P	Pn	02 10 36.7	-0.2
	6.3nm,0.6s,baz=174,slow=12,SNR=17						
MJAR	Matsushiro Arr	3.49	344		Pn	02 10 37.2	+0.3
MAJO	Matsushiro	3.49	344		Pn	02 10 37.6	+0.6
MJB9	Matsu-Tunnel	3.50	344		Pn	02 10 37.7	+0.7
JMN	Monobe	4.64	278	Pn	Pn	02 10 51.9	+0.2
JTM	Tenmabayashi	7.71	10	Pn	Pn	02 11 30.9	-1.0
ERM	Erimo	9.31	18	Pn	Pn	02 11 51.3	-1.7
KLR	Kul'dur	17.02	343	P	P	02 13 28.2	-1.1
	1.5nm,0.5s,baz=160,slow=12,SNR=2.6						
H11N2	WAKE ISLAND Hy	27.93	112	T	T	02 44 42.7	
	baz=306,slow=75,SNR=3.5						
H11N1	WAKE ISLAND Hy	27.94	112	T	T	02 44 40.6	
	baz=306,slow=75,SNR=3.4						
H11N3	WAKE ISLAND Hy	27.95	112	T	T	02 44 42.9	
	baz=306,slow=75,SNR=2.7						
ZALV	Zalesovo Beam	43.39	315	P	P	02 17 26.9	-0.8
	0.4nm,0.4s,baz=90,slow=12,SNR=2.1						
ZALV				PcP	PP	02 19 12.0	+0.1
	1.0nm,0.3s,baz=100,slow=3.7,SNR=4.4						
	0.4nm,0.4s						
MKAR	Makanchi Array	44.86	305	P	P	02 17 37.9	-1.6
	0.5nm,0.5s,baz=85,slow=9.4,SNR=4.9						
MKAR				PcP	PcP	02 19 17.9	-0.2
	0.2nm,0.4s,baz=72,slow=4.7,SNR=3.6						
	0.5nm,0.5s						
MKAR	Makanchi Array	44.86	305	P	P	02 17 38.4	-1.1
KURBB	Kurchatov Arra	47.15	311	P	P	02 17 56.4	-0.9
	0.5nm,0.4s,baz=89,slow=7.8,SNR=6.7						
	0.5nm,0.4s						
H18K	Honhosa River	48.80	30	P	P	02 18 10.9	+1.1
H18K				IAmb	IAmb	02 18 14.9	
	comp=Z,13nm,1.4s						
C19K	Lookout Ridge	49.14	25	P	P	02 18 13.9	+1.6
E19K	Redstone River	49.65	27	P	P	02 18 17.0	+0.9
E19K				IAmb	IAmb	02 18 18.6	
	comp=Z,5.2nm,0.8s						
WB0	Warramunga Arr	52.87	186	P	P	02 18 39.3	-1.2
WRA	Warramunga Arr	53.05	186	P	P	02 18 40.3	-1.5
	comp=Z,0.3nm,0.4s,baz=4.8,slow=7.9,SNR=6.1						
	comp=Z,0.3nm,0.4s						
ILAR	Eielson Array	53.64	31	P	P	02 18 46.5	+0.8
	comp=Z,0.4nm,0.7s,baz=276,slow=8.1,SNR=4.1						
	comp=Z,0.4nm,0.7s						
KKAR	Karatay Array	53.69	302	P	P	02 18 46.1	-0.3
BMAR	Burnt Mountain	54.51	27	P	P	02 18 54.1	+2.1
D27M	Malcolm River	55.76	25	P	P	02 19 03.1	+2.1
D27M				IAmb	IAmb	02 19 28.0	
	comp=Z,9.2nm,1.5s						
AB31	Akbulak array	59.19	311	P	P	02 19 24.3	-0.9
ABKAR	Akbulak array	59.19	311	P	P	02 19 23.9	-1.3
ARCES	ARCESS Array B	67.01	340	P	P	02 20 16.3	0.0
	comp=Z,1.2nm,0.8s,baz=59,slow=6.4,SNR=1.6						
	comp=Z,1.2nm,0.8s						
FINES	FINESS Array B	71.44	332	P	P	02 20 43.3	-0.4
	comp=Z,1.6nm,0.7s,baz=45,slow=4.9,SNR=11						
	comp=Z,1.6nm,0.7s						
FINES	FINESS Array B	71.44	332	P	P	02 20 43.6	0.0
AKASG	Malin Array Be	76.32	322	P	P	02 21 11.6	-0.5
	comp=Z,0.2nm,0.3s,baz=53,slow=5.6,SNR=3.2						
	comp=Z,0.2nm,0.3s						
HFS	Hagfors	76.90	335	P	P	02 21 15.4	+0.2
	comp=Z,1.5nm,0.9s,baz=54,slow=7.5,SNR=4.8						
	comp=Z,1.5nm,0.9s						
NOA	NORSAR Array B	77.08	337	P	P	02 21 16.2	-0.1
	comp=Z,0.3nm,0.5s,baz=46,slow=5.5,SNR=1.9						
	comp=Z,0.3nm,0.5s						
DLMT	Dillon	78.26	43	P	P	02 21 24.6	+1.3
DLMT				IAmb	IAmb	02 21 25.8	
	comp=Z,1.6nm,0.7s						
NVAR	Mina Array Bea	78.65	52	P	P	02 21 26.5	+0.8
	comp=Z,0.3nm,0.5s,baz=298,slow=4.5,SNR=5.6						
	comp=Z,0.3nm,0.5s						
BUR08	Bucovina Ar. S	80.27	321	P	P	02 21 34.0	-0.2
BUR08				IAmb	IAmb	02 21 51.6	
	comp=Z,5.2nm,1.4s						
BURAR	Bucovina Array	80.28	321	P	P	02 21 34.5	+0.4
CLL	Collm	83.58	329	*i* P	P	02 21 51.3	+0.2
GERES	GERESS Array B	85.08	327	P	P	02 21 58.1	-0.8
	comp=Z,0.4nm,0.4s,baz=38,slow=6.1,SNR=6.7						
	comp=Z,0.4nm,0.4s						
TX31	Lajitas Ar. Si	93.80	51	P	P	02 22 41.5	+1.2
TX31				IAmb	IAmb	02 22 42.5	
	comp=Z,2.8nm,1.3s						
TXAR	Lajitas Array	93.80	51	P	P	02 22 41.5	+1.1
	comp=Z,0.3nm,0.5s,baz=289,slow=2.3,SNR=7.2						
	comp=Z,0.3nm,0.5s						
TXAR	Lajitas Array	93.80	51	P	P	02 22 41.8	+1.4
LPAZ	La Paz	150.01	63	PKPbc	PKPbc	02 29 14.2	+0.3
	comp=Z,1.1nm,0.9s,baz=111,slow=3.2,SNR=3.9						

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*NEIC **11** 02:13:19.4±1.4, 38°.70N±0°.07×142°.8E±0°.1, h35^{km}±2^{km}, mb4.4/15, Error ellipse: s-maj=16.5km s-min=11.0km az=98.0*
*NIED **11** 02:13:21.0, 38°.72N×142°.27E, h40^{km}, MW4.1, Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M_{rr}0.55; $M_{\theta\theta}$0.04; $M_{\phi\phi}$-0.59; $M_{r\theta}$0.52; $M_{\theta\phi}$-0.28; $M_{\phi r}$1.19; Fault plane solution: $M_0$1.44000×10^{15} NP1: ϕ_s197.00000°, δ13.00000°, λ84.00000°. NP2: ϕ_s23.00000°, δ77.00000°, λ91.00000°.*
*JMA **11** 02:13:21.0±0.1, 38°.7N±0°.2×142°.3E±0°.2, h40^{km}, MD4.0/40, MV4.3/40, E OFF MIYAGI PREF*
JMA Felt I J1 at E OFF MIYAGI PREF .
*IDC **11** 02:13:25.3±2.8, 38°.48N×142°.21E, h84^{km}±23^{km}, mb3.7/16, mbtmp4.1/22, MS3.3/10, Error ellipse: s-maj=25.2km s-min=14.2km az=81.0*
ISC 11 02:13:17.6±3.4**, 38°.70N**±0°.05×**142°.58E**±0°.07**, h22**^{km}±24^{km}**,**
n99, σ1^s.98/86**, mb4.3**/26**, MS3.5**/9**, 1C-12D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OFUJ	Ofunato	0.80	298	⇓*i*P	Pn	02 13 33.0	-0.6
OFUJ				A	A	02 13 33.0	
	comp=N,8.0nm,0.5s,comp=E,5.0nm,0.5s						
OFUJ				⇓eS	Sn	02 13 41.4	-3.5
JKMT	Kesennumamotoy	0.87	277	⇓*i*P	Pn	02 13 33.5	-1.0
JKMT				A	A	02 13 33.5	
	comp=N,3.0nm,0.5s,comp=E,7.0nm,0.6s						
JKMT				⇓eS	Sn	02 13 41.9	-4.6
JIKH	Ishinomakikobu	0.96	246	A	A	02 13 35.2	
	comp=N,35nm,0.2s,comp=E,28nm,0.3s						
JIO	Ouri	1.00	256	⇓*i*P	Pn	02 13 35.2	-1.0
JIO				A	A	02 13 35.2	
	comp=N,8.0nm,0.5s,comp=E,4.0nm,0.5s						
JIO				⇓S	Sn	02 13 45.0	-4.6
MIYJ	Miyakonagasawa	1.05	326	A	A	02 13 37.8	
	comp=N,8.0nm,0.3s,comp=E,6.0nm,0.5s						
JMK	Ichinoseki	1.09	284	⇓*i*P	Pn	02 13 36.8	-0.7
JMK				A	A	02 13 36.8	
	comp=N,5.0nm,0.4s,comp=E,6.0nm,0.6s						
JMK				⇓eS	Sn	02 13 48.0	-3.9
JOM	Ohasama	1.26	308	⇓*i*P	Pn	02 13 40.1	+0.2
JOM				A	A	02 13 40.1	
	comp=N,11nm,0.4s,comp=E,18nm,0.6s						
JOM				⇓eS	Sn	02 13 53.8	-2.4
JOFO	Osakifurukawao	1.31	266	A	A	02 13 39.9	
	comp=N,16nm,1.0s,comp=E,23nm,0.6s						
JTH	Tanohata	1.35	336	eP	Pn	02 13 42.3	+1.1
JOU	Okura	1.54	258	⇓*i*P	Pn	02 13 43.3	-0.5
JOU				A	A	02 13 43.3	
	comp=N,13nm,0.4s,comp=E,9.0nm,0.4s						
JOU				⇓eS	Sn	02 13 59.9	-3.2
JSZI	Iwateshizukuis	1.64	310	A	A	02 13 45.4	
	comp=N,5.0nm,1.2s,comp=E,6.0nm,1.3s						
JKEN	Kujiedanarisaw	1.65	336	A	A	02 13 46.9	
	comp=N,6.0nm,2.3s,comp=E,5.0nm,1.7s						
JRG	Rokugo	1.67	295	A	A	02 13 45.4	
	comp=N,4.0nm,0.6s,comp=E,5.0nm,2.8s						
JTM	Tenmabayashi	2.38	331		Pn	02 13 57.0	+1.7
ERM	Erimo	3.34	7		Pn	02 14 08.9	+0.5
MJAR	Matsushiro Arr	4.09	239	P	Pn	02 14 20.5	+1.7
	comp=E,16nm,0.5s,baz=38,slow=13,SNR=54						
MJAR				S	Sn	02 15 04.1	-1.8
	comp=E,5.4nm,0.6s,baz=41,slow=12,SNR=4.4						
MJAR				LR	LR	02 16 11.4	
	comp=E,233nm,18.6s,baz=74,slow=45						
MJAR	Matsushiro Arr	4.09	239		Pn	02 14 20.9	+2.2
MAJO	Matsushiro	4.09	239		Pn	02 14 20.8	+2.1
MJB9	Matsu-Tunnel	4.09	240		Pn	02 14 20.6	+1.8
JGF	Kuroka	5.20	235		Pn	02 14 36.4	+2.4
INU	Inuyama	5.57	235		Pn	02 14 41.4	+2.3
JHJ2	Mitsune	6.01	203	Pn	Pn	02 14 45.0	-0.2
JHJ	Hachijo jima 2	6.02	203	P	Pn	02 14 47.1	+1.9
	comp=E,58nm,0.5s,baz=18,slow=19,SNR=5.1						
JHJ				S	Sn	02 15 50.1	-3.4
	comp=E,39nm,0.2s,baz=212,slow=23,SNR=1.6						
JMN	Monobe	8.61	237	Pn	Pn	02 15 22.8	+1.9
USRK	Ussuriysk Ar.	9.66	308	P	Pn	02 15 39.9	+4.7
	comp=E,24nm,0.9s,baz=120,slow=14,SNR=17						
USRK				LR	LR	02 18 55.9	
	comp=E,146nm,21.6s,baz=155,slow=34						
USRK	Ussuriysk Ar.	9.66	308		Pn	02 15 36.7	+1.5
USA0B	Ussuriysk Arra	9.66	308		Pn	02 15 37.2	+2.0
JNU	Nakatsue	11.00	243	P	Pn	02 15 55.2	+1.6
	comp=E,4.2nm,0.6s,baz=32,slow=9.5,SNR=4.4						
KSRS	Korea Array	11.62	268	P	Pn	02 16 05.0	+2.9
	comp=E,3.4nm,0.8s,baz=79,slow=14,SNR=11						
KSRS				LR	LR	02 20 02.6	
	comp=E,83nm,20.2s,baz=80,slow=35						
KLR	Kul'dur	13.08	327	P	P	02 16 29.5	-2.5
	comp=E,2.1nm,0.6s,baz=135,slow=14,SNR=4.4						
KLR				LR	LR	02 21 18.2	
	comp=E,116nm,18.9s,baz=97,slow=36						
DL2	Dalian	16.34	277	eP	P	02 17 13.0	+4.8
DL2				pmax	pmax		
	comp=Z,35nm,0.9s						
PET	Petropavlovsk	18.11	33	P	Pn	02 17 22.1	-5.4
	comp=Z,17nm,1.6s						
NJ2	Nanjing	20.42	258	eP	P	02 17 54.7	+1.5
NJ2				pmax	pmax		
	comp=Z,8.0nm,0.5s						
HNS	HongShan	21.96	275	⇑P	P	02 18 10.0	+0.3
HNS				S	S	02 22 14.8	+3.7
HNS				LR	LR		
	comp=E,94nm,15.1s						
HNS				LR	LR		
	comp=Z,120nm,13.5s						
HHC	Hu-ho-hao-te	23.87	285	eP	P	02 18 29.9	+0.4
HHC				pmax	pmax		
	comp=Z,11nm,0.6s						
WHN	Wuhan	24.55	259	P	P	02 18 35.0	-0.6
SONM	Songino Array	27.67	301	P	P	02 19 03.9	0.0
	comp=Z,0.7nm,0.5s,baz=99,slow=9.8,SNR=4.6						
	comp=Z,0.7nm,0.5s						
SONM	Songino Array	27.67	301	IAmb	IAmb	02 19 06.1	
	comp=Z,3.2nm,1.3s						
H11N2	WAKE ISLAND Hy	28.28	125	T	T	02 49 39.0	
	baz=317,slow=76,SNR=689						
H11N1	WAKE ISLAND Hy	28.29	125	T	T	02 49 39.7	
	baz=317,slow=76,SNR=562						
H11N3	WAKE ISLAND Hy	28.30	125	T	T	02 49 36.0	
	baz=317,slow=76,SNR=456						
H11S1	WAKE ISLAND Hy	29.06	127	T	T	02 50 36.7	
	baz=318,slow=76,SNR=87						
H11S3	WAKE ISLAND Hy	29.06	127	T	T	02 50 31.8	
	baz=318,slow=76,SNR=121						
H11S2	WAKE ISLAND Hy	29.07	127	T	T	02 50 33.8	
	baz=318,slow=76,SNR=66						
PZH	PanZhiHua	36.21	263	P	P	02 20 21.2	+2.2
GOMU	GeErMu	37.67	281	P	P	02 20 30.3	-1.3
GOMU				pP	pP	02 20 33.8	-4.2
GOMU				sP	sP	02 20 37.5	-3.1
GOMU				pmax	pmax		
	comp=Z,2.0nm,0.5s						
ZAA0	Zalesovo Array	41.49	311		P	02 21 02.8	+0.1
ZAA0				IAmb	IAmb	02 21 04.2	
	comp=Z,3.6nm,0.6s						
ZALV	Zalesovo Beam	41.49	311	P	P	02 21 03.0	+0.2
	comp=Z,3.2nm,0.5s,baz=87,slow=8.1,SNR=15						
ZALV				LR	LR	02 38 47.4	
	comp=Z,40nm,18.8s,baz=58,slow=37						
	comp=Z,3.2nm,0.5s						
ZALV	Zalesovo Beam	41.49	311		P	02 21 02.8	+0.1
MKAR	Makanchi Array	44.04	301	P	P	02 21 23.3	-0.2
	comp=Z,1.8nm,0.6s,baz=86,slow=10,SNR=15						
MKAR				LR	LR	02 40 32.6	
	comp=Z,25nm,18.6s,baz=102,slow=37						
	comp=Z,1.8nm,0.6s						
MKAR	Makanchi Array	44.04	301	P	P	02 21 22.9	-0.6
MAKZ	Makanchi	44.24	301	P	P	02 21 24.3	-0.9
MAKZ				IAmb	IAmb	02 21 30.2	
	comp=Z,7.2nm,1.4s						
SKT	Skwentna	45.58	37		P	02 21 32.8	-2.8
SKT				IAmb	IAmb	02 21 33.5	
	comp=Z,4.0nm,1.1s						
KURK	Kurchatov	45.65	307		P	02 21 34.1	-2.1
KURK				IAmb	IAmb	02 21 36.7	
	comp=Z,7.6nm,0.7s						
KURBB	Kurchatov Arra	45.72	307	P	P	02 21 36.6	-0.2
	comp=Z,9.3nm,0.7s,baz=82,slow=8.4,SNR=62						
	comp=Z,9.3nm,0.7s						
ILAR	Eielson Array	47.59	33	P	P	02 21 55.3	+4.0
	comp=Z,0.2nm,0.5s,baz=273,slow=6.2,SNR=2.7						
	comp=Z,0.2nm,0.5s						
BVAR	Borovoye Array	50.15	311	P	P	02 22 11.4	+0.4
	comp=Z,2.1nm,0.5s,baz=61,slow=7.3,SNR=5.8						
	comp=Z,2.1nm,0.5s						
AAK	Ala-Archa	50.52	298	LR	LR	02 45 13.7	
	comp=Z,22nm,19.6s,baz=113,slow=38						
HNR	Honiara	50.55	158	LR	LR	02 42 32.3	
	comp=Z,31nm,19.4s,baz=18,slow=35						
KKAR	Karatay Array	53.10	299	P	P	02 22 32.5	-0.8
ARTI	Arti	55.84	318		P	02 22 53.1	+0.2
AB31	Akbulak array	57.58	310	P	P	02 23 05.0	-0.4
AB31				IAmb	IAmb	02 23 05.9	
	comp=Z,2.4nm,0.6s						
ABKAR	Akbulak array	57.58	310	P	P	02 23 05.3	-0.1
WRA	Warramunga Arr	58.85	189	P	P	02 23 13.7	-0.8
	comp=Z,0.7nm,0.8s,baz=6.5,slow=6.5,SNR=4.2						
	comp=Z,0.7nm,0.8s						
ASAR	Alice Springs	62.57	189	P	P	02 23 39.3	-0.6
	comp=Z,0.5nm,0.3s,baz=10,slow=6.3,SNR=3.6						
	comp=Z,0.5nm,0.3s						
ARCES	ARCESS Array B	62.76	339	P	P	02 23 41.4	+0.8
	comp=Z,1.4nm,0.8s,baz=70,slow=8.0,SNR=4.8						
	comp=Z,1.4nm,0.8s						
ARCES	ARCESS Array B	62.76	339	IAmb	IAmb	02 23 57.0	
	comp=Z,14nm,1.5s						
FINES	FINESS Array B	67.77	332	P	P	02 24 13.8	+0.7
	comp=Z,2.9nm,0.8s,baz=108,slow=6.2,SNR=4.5						
	comp=Z,2.9nm,0.8s						
STKA	Stephens Creek	70.23	181	LR	LR	03 01 22.5	
	comp=Z,33nm,18.1s,baz=203,slow=41						
KIV	Kislovodsk	70.51	311	P	P	02 24 31.7	+1.1
KIV	Kislovodsk	70.51	311	P	P	02 24 29.4	-1.2
	comp=Z,8.7nm,1.0s						
KBZ	Khabaz	70.52	311	P	P	02 24 31.3	+0.8
	comp=Z,2.7nm,0.9s,baz=51,slow=4.6,SNR=7.2						
	comp=Z,2.7nm,0.9s						
HFS	Hagfors	72.94	336	P	P	02 24 45.7	+0.9
	comp=Z,0.5nm,0.4s,baz=36,slow=5.4,SNR=4.9						
	comp=Z,0.5nm,0.4s						
NB2	NORSAR Subarra	73.00	338	P	P	02 24 44.9	-0.3
	comp=Z,1.5nm,0.9s,baz=30,slow=6.5						
NOA	NORSAR Array B	73.00	338	P	P	02 24 46.2	+1.0
	comp=Z,0.4nm,0.6s,baz=51,slow=7.1,SNR=4.5						
	comp=Z,0.4nm,0.6s						
AKASG	Malin Array Be	73.54	323	P	P	02 24 48.6	+0.1
	comp=Z,0.7nm,0.4s,baz=49,slow=5.7,SNR=8.3						
	comp=Z,0.7nm,0.4s						
AKASG	Malin Array Be	73.54	323	IAmb	IAmb	02 24 49.9	
	comp=Z,2.0nm,0.9s						
AK01	Malin Array Si	73.55	322	P	P	02 24 47.9	-0.7
AK04	Malin Array Si	73.55	323	P	P	02 24 47.7	-0.9
AK08	Malin Array Si	73.57	322	P	P	02 24 47.6	-1.1
AK02	Malin Array Si	73.58	322	P	P	02 24 48.5	-0.2
AK11	Malin Array Si	73.58	323	P	P	02 24 47.8	-0.9
AK05	Malin Array Si	73.60	322	P	P	02 24 48.5	-0.4
AK16	Malin Array Si	73.62	323	P	P	02 24 48.0	-1.0
SFJD	Kangerlussuaq	74.14	5	LR	LR	02 57 53.8	
	comp=Z,30nm,21.0s,baz=88,slow=36						
LUBAR	Lubar, Ukraine	74.76	323	P	P	02 24 55.7	0.0
ARPR	Arapgir-MALATY	76.04	309	P	P	02 25 04.9	+1.5
ARPR				IAmb	IAmb	02 25 05.8	
	comp=Z,4.8nm,0.8s						
BUR08	Bucovina Ar. S	77.56	322	P	P	02 25 12.5	+0.8
BUR08				IAmb	IAmb	02 25 24.2	
	comp=Z,5.6nm,1.3s						
BURAR	Bucovina Array	77.57	322	P	P	02 25 12.6	+0.8
BRTR	Keskin Array B	78.43	312	P	P	02 25 16.8	0.0
	comp=Z,0.6nm,0.6s,baz=107,slow=3.1,SNR=5.7						
	comp=Z,0.6nm,0.6s						
BR104	Keskin Array S	78.44	312	P	P	02 25 16.1	-0.8
LANS	Liptovska Anna	79.10	326	eP	P	02 25 23.3	+3.1
UPC	Upice	79.54	329	AMS	AMS	03 10 20.0	
	comp=Z,300nm,13.1s						
KRLC	Kraliky	79.55	328	eP	P	02 25 23.9	+1.3
CLL	Collm	80.10	331	*i* P	P	02 25 26.4	+0.9
HSKC	Hora Svate Kat	80.49	330	AMS	AMS	03 10 10.0	
	comp=Z,200nm,12.9s						
CKRC	Cesky Krumlov	81.55	328	AMS	AMS	03 09 00.0	
	comp=Z,600nm,7.1s						
KHC	Kasperske Hory	81.60	329	eP	P	02 25 33.4	-0.2
KHC				AMS	AMS	03 09 30.0	
	comp=Z,500nm,8.3s						
GERES	GERESS Array B	81.77	329	P	P	02 25 35.2	+0.6
	comp=Z,0.5nm,0.6s,baz=23,slow=4.4,SNR=5.4						
	comp=Z,0.5nm,0.6s						

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*IDC **11** 02:28:18.6±2.0, 12°.60N×143°.15E, h111^{km}±22^{km}, mb3.8/8, mbtmp4.2/8, MS3.2/2, Error ellipse: s-maj=27.8km s-min=15.2km az=103.0*
*NEIC **11** 02:28:19.1±0.7, 12°.5N±0°.1×143°.1E±0°.1, h104^{km}±9^{km}, mb4.5/13, Error ellipse: s-maj=21.2km s-min=13.9km az=126.0*
ISC 11 02:28:17.9±0.6**, 12°.5N**±0°.1×**143°.1E**±0°.1**, h100**^{km}**, n30,**
σ0^s.66/26**, mb4.2**/13**, South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	2.04	58	P	Pn	02 28 51.2	+0.3
	225nm,0.3s,baz=211,slow=5.9,SNR=18						
GUMO				S	Sn	02 29 16.0	-0.2
	551nm,0.3s,baz=184,slow=23,SNR=7.6						
DPSS	Saipan	3.77	44	Pn	Pn	02 29 15.7	+1.7
PATS	Pohnpei	16.03	109	Pn	Pn	02 31 56.9	-0.7
PATS				IAmb	IAmb	02 31 57.6	
	comp=Z,66nm,1.1s						
DAV	Davao City (W)	18.08	254	LR	LR	02 38 39.8	
	comp=Z,26nm,21.8s,baz=63,slow=34						
FAKI	Fak Fak	18.73	216	P	P	02 32 29.7	+0.7

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FAKI                                      IAmb      IAmb      02 33 07.4
       comp=Z,37nm,1.1s
H11N1  WAKE ISLAND Hy 23.94   70   T         T         02 57 20.3
       baz=255,slow=75
H11N2  WAKE ISLAND Hy 23.95   69   T         T         02 57 25.9
       baz=255
H11N3  WAKE ISLAND Hy 23.96   70   T         T         02 57 21.8
       baz=255,slow=75
LUWI   Luwuk          24.25 238    P         P         02 33 25.4 -0.3
MTN    Manton Dam     27.84 206    P         P         02 33 57.4 -0.8
MTN                                IAmb      IAmb      02 34 00.5
       comp=Z,9.6nm,1.4s
KNRA   Kununurra      31.39 207    P         P         02 34 29.8 +0.3
KNRA                               IAmb      IAmb      02 34 56.5
       comp=Z,5.7nm,1.2s
WR8    Warramunga Arr 33.35 195    P         P         02 34 47.2 +0.5
WR8                                IAmb      IAmb      02 34 47.4
       comp=Z,7.4nm,0.6s
WRA    Warramunga Arr 33.38 195    P         P         02 34 47.2 +0.4
       comp=Z,10nm,0.7s,baz=18,slow=9.4,SNR=79
       comp=Z,10nm,0.7s
WRA    Warramunga Arr 33.38 195    P         P         02 34 46.0 -0.9
FITZ   Fitzroy Crossi 34.95 210    P         P         02 35 00.8 +0.3
AS31   Alice Springs  37.06 194    P         P         02 35 18.9 +0.5
ASAR   Alice Springs  37.06 194    P         P         02 35 19.1 +0.6
       comp=Z,4.9nm,0.4s,baz=22,slow=12,SNR=96
       comp=Z,4.9nm,0.4s
ASAR   Alice Springs  37.06 194    P         P         02 35 18.7 +0.2
CMAR   Chiang Mai Arr 42.87 284    P         P         02 36 06.7  0.0
       comp=Z,1.4nm,0.3s,baz=88,slow=6.8,SNR=4.9
       comp=Z,1.4nm,0.3s
STKA   Stephens Creek 44.16 182    P         P         02 36 16.7  0.0
       comp=Z,1.9nm,0.5s,baz=353,slow=7.8,SNR=5.8
       comp=Z,1.9nm,0.5s
BBOO   Buckleboo      45.56 188    P         P         02 36 28.1 +0.3
BBOO                               IAmb      IAmb      02 36 28.6
       comp=Z,8.8nm,0.7s
MORW   Morawa         48.90 212    P         P         02 36 54.2 +0.3
KURBB  Kurchatov Arra 64.33 320    P         P         02 38 41.8 -1.0
       comp=Z,0.8nm,0.6s,baz=103,slow=6.7,SNR=6.1
       comp=Z,0.8nm,0.6s
N19K   Bonanza Creek  65.85   28   P         P         02 38 52.9 +0.3
J19K   Poorman        66.42   25   P         P         02 38 56.5 +0.4
J19K                               IAmb      IAmb      02 39 02.4
       comp=Z,3.3nm,1.2s
CAST   Castle Rocks   67.72   26   P         P         02 39 04.8 +0.4
BVAR   Borovoye Array 69.70 322    P         P         02 39 16.4 -0.4
       comp=Z,0.6nm,0.4s,baz=95,slow=7.5,SNR=1.7
       comp=Z,0.6nm,0.4s
ILAR   Eielson Array  70.28   25   P         P         02 39 19.1 -1.0
       comp=Z,0.5nm,0.7s,baz=243,slow=6.7,SNR=7.6
       comp=Z,0.5nm,0.7s
NVAR   Mina Array Bea 88.94   51   P         P         02 41 01.1 -0.8
       comp=Z,0.3nm,0.7s,baz=261,slow=6.3,SNR=3.9
       comp=Z,0.3nm,0.7s
VNDA   Vanda          90.51 176    LR        LR        03 21 37.8
       comp=Z,36nm,18.3s,baz=272,slow=35
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IDC 11 02:33:45.1±2.0**,12°.74S**×**172°.64E,h0**km**,mb4.4**/4**,**
mbtmp4.4/4**,Error ellipse: s-maj=56.0km s-min=39.0km**
az=174.0,Santa Cruz Islands region

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Code   Station Name      Δ°   AZ°    Phase ID              Time      Res
                                   Op        ISC        h  m  s    ISC
STKA   Stephens Creek 34.27 231    P         P         02 40 34.4 +1.2
       5.1nm,0.5s,baz=67,slow=9.2,SNR=17
       5.1nm,0.5s
WRA    Warramunga Arr 37.38 254    P         P         02 40 59.5 -0.5
       4.3nm,0.5s,baz=85,slow=8.7,SNR=57
       4.3nm,0.5s
ASAR   Alice Springs  38.25 248    P         P         02 41 06.7 -0.7
       7.3nm,0.6s,baz=80,slow=8.8,SNR=82
       7.3nm,0.6s
QSPA   South Pole Qui 77.28 180    P         P         02 45 40.9 -0.4
       0.5nm,0.5s,baz=265,slow=2.1,SNR=7.9
       0.5nm,0.5s
ARCES  ARCESS Array B 119.56 347   PKP       PKiKP     02 52 36.7 +0.3
       0.5nm,0.5s,baz=66,slow=2.3,SNR=6.0
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*IDC **11** 02:45:26.2±3.0,29°.34S×177°.72W,h0km,mb3.9/5,*
mbtmp3.9/5,Error ellipse: s-maj=81.1km s-min=34.3km
az=37.0
ISC 11 02:45:34.8±2.3**,29°.4S**±0°.4×**177°.8W**±0°.3**,h63**km**,n6,**
σ**0§38**/6**,mb4.0**/5**,Kermadec Islands**

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Code   Station Name      Δ°   AZ°    Phase ID              Time      Res
                                   Op        ISC        h  m  s    ISC
STKA   Stephens Creek 34.88 255    P         P         02 52 20.2  0.0
       1.2nm,0.6s,baz=94,slow=15,SNR=1.9
       1.2nm,0.6s
ASAR   Alice Springs  43.34 266    P         P         02 53 30.6 -0.4
       0.3nm,0.3s,baz=105,slow=7.8,SNR=6.0
       0.3nm,0.3s
WRA    Warramunga Arr 44.24 271    P         P         02 53 38.0 -0.1
       1.0nm,0.3s,baz=111,slow=7.8,SNR=11
       1.0nm,0.3s
FITZ   Fitzroy Crossi 52.54 269    P         P         02 54 42.5 +0.5
       0.9nm,0.6s,baz=153,slow=9.0,SNR=1.6
       0.9nm,0.6s
QSPA   South Pole Qui 60.72 180    P         P         02 55 39.6  0.0
       1.4nm,0.7s,baz=219,slow=1.8,SNR=8.7
       1.4nm,0.7s
FINES  FINESS Array B 144.25 341   PKP       PKPdf     03 05 02.7 -0.1
       1.5nm,0.5s,baz=56,slow=3.5,SNR=18
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*ISK **11** 03:00:54.8,38°.22N×23°.10E,h1km,ML4.2/34*
*IDC **11** 03:00:55.5±0.5,38°.10N×23°.14E,h0km,mb4.1/20,*
mbtmp4.0/33,ML3.6/10,MS3.3/25,Error ellipse:
s-maj=9.6km s-min=8.2km az=12.0
*MOS **11** 03:00:56.6±1.2,38°.14N×23°.09E,h12km,mb4.5/19,Error*
ellipse: s-maj=5.0km s-min=2.7km az=90.5
*BEO **11** 03:00:57.6±0.5,38°.01N×23°.37E,h13km±3km,ML3.9/17*
*PDG **11** 03:00:57.8±0.9,38°.16N×23°.18E,h19km±1km,ML4.1/12,*
Error ellipse: s-maj=0.8km s-min=0.8km az=90.0
*SOF **11** 03:00:57.7,38°.25N±0°.08×23°.40E±0°.04,h2km±2km,*
MD4.3/16
*NEIC **11** 03:00:58.0±2.4,38°.13N±0°.05×23°.17E±0°.07,h10km±1km,*
mb4.3/23,Error ellipse: s-maj=9.5km s-min=8.7km
az=204.0
*THE **11** 03:00:58.5,38°.1N±0°.9×23°.2E±0°.5,h9km±2km,M4.2/15,*
MLh4.2/15
*MCSM **11** 03:00:58.9±1.7,38°N±3°×2°3E±°,h17km±14km,mb4.5,*
mB4.7,MLv4.6,Mw(mB)3.9
*ATH **11** 03:00:58.1,38°.12N×23°.18E,h13km,ML4.3/76,Latitude*
uncertainty: 0 km; Longitude uncertainty: 0 km
*GFZ **11** 03:00:59.4±0.1,38°N±2°×2°3E±°,h10km,M4.2/38,*
mb4.4/38
*AFAD **11** 03:01:02.0,38°.52N×23°.52E,h15km,MW4.1*
*NAO **11** 03:01:15.8,39°.51N×21°.13E,h10km,MB4.1*
ISC 11 03:00:58.4±0.6**,38°.11N**±0°.02×**23°.17E**±0°.01**,h16**km±4km**,**
n697,σ**1§51**/792**,mb4.2**/36**,MS3.5**/22**,36C-29D,Greece**

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Code   Station Name      Δ°   AZ°    Phase ID              Time      Res
                                   Op        ISC        h  m  s    ISC
VILL   Villia          0.12   64   P         Pg        03 01 01.6 -0.6
VILL                               S         Sg        03 01 04.1 -0.6
VILL                               AML       AML
VIL2   Platees         0.13   37   P         Pg        03 01 01.7 -0.5
VIL2                               S         Sg        03 01 04.1 -0.6
VIL2                               AML       AML
LTK    Loutraki        0.18 242    P         Pg        03 01 02.3 -0.6
LTK                                S         Sg        03 01 05.1 -0.9
LTK                                AML       AML
LTK    Loutraki        0.18 242    P         Pg        03 01 02.4 -0.6
LTK                                S         Sg        03 01 05.1 -0.9
LTK                                AML       AML
LOUT   Loutraki        0.20 232    P         Pg        03 01 02.7 -0.4
LOUT                               S         Sg        03 01 05.7 -0.6
LOUT                               AML       AML
ELFA   Athens-Elefsin  0.30 102    P         Pg        03 01 04.6 -0.1
ELFA                               AML       AML
STFN   Stefani         0.30   77   P         Pg        03 01 04.8  0.0
STFN                               S         Sg        03 01 09.3  0.0
STFN                               AML       AML
KIAA   Kiato           0.35 254    P         Pg        03 01 05.8 +0.2
KIAA                               S         Sb        03 01 11.1 -0.2
THAL   Thalero         0.41 260    P         Pg        03 01 06.6 -0.1
THAL                               S         Sg        03 01 12.6 +0.3
THAL                               AML       AML
ACHAR  Athens-Acharne  0.45   94   P         Pg        03 01 07.4 -0.1
ACHAR                              AML       AML
ATH    Athens Observa  0.45 107    P         Pg        03 01 07.3 -0.2
ATH                                S         Sg        03 01 13.4 -0.2
ATH                                AML       AML
ATH    Athens Observa  0.45 107    P         Pg        03 01 07.0 -0.5
ATH                                S         Sg        03 01 12.0 -1.6
ATH    Athens Observa  0.45 107    P         Pg        03 01 07.4  0.0
ATH                                S         Sg        03 01 12.0 -1.6
ATH                                AML       AML
NOAC   Athens-Thissio  0.45 107    P         Pg        03 01 07.4 -0.1
NOAC                               AML       AML
ATH5   Athens Parliam  0.47 106    P         Pg        03 01 06.7 -1.0
ATH5                               S         Sg        03 01 13.4 -0.7
ATH5                               AML       AML
ATHP   Athens-Neo Psi  0.49 103    P         Pg        03 01 07.8 -0.3
ATHP                               AML       AML
ATHU   Athens Univers  0.51 106    P         Pg        03 01 08.0 -0.4
ATHU                               S         Sg        03 01 14.9 -0.3
ATHU   Athens Univers  0.51 106    P         Pg        03 01 08.1 -0.4
MET2   Kameni Chora,   0.51 166    P         Pg        03 01 08.1 -0.4
MET4   Agioi Theodoro  0.52 160    P         Pg        03 01 08.4 -0.2
MET4                               AML       AML
MET6   Megalochori,Me  0.54 164    P         Pg        03 01 08.7 -0.4
PTL    Penteli         0.55   96   P         Pg        03 01 09.0 -0.3
PTL                                S         Sg        03 01 16.3 -0.4
PTL                                AML       AML
PTL    Penteli         0.55   96   P         Pg        03 01 08.9 -0.5
VLY    Voula,Athens    0.56 117    P         Pg        03 01 09.3  0.0
VLY                                S         Sg        03 01 16.2 -0.6
VLY                                AML       AML
VLY    Voula,Athens    0.56 117    P         Pg        03 01 09.0 -0.4
VLY                                AML       AML
MET1   Methana Town,   0.56 162    P         Pg        03 01 08.9 -0.5
MET1                               S         Sg        03 01 16.9  0.0
MET1                               AML       AML
LKR    Lokris          0.56 346    P         Pg        03 01 08.5 -0.9
LKR                                S         Sb        03 01 18.3 +0.9
LKR                                AML       AML
LKR    Lokris          0.56 346    P         Pg        03 01 08.7 -0.8
LKR                                AML       AML
ATAL   Atalanti        0.59 349    P         Pg        03 01 09.1 -1.0
ATAL                               S         Sb        03 01 19.4 +0.9
ATAL                               AML       AML
ATAL   Atalanti        0.59 349    P         Pg        03 01 09.3 -0.9
ATAL                               AML       AML
DION   Dionisos Attik  0.60   93   P         Pg        03 01 09.7 -0.5
DION                               S         Sg        03 01 17.7 -0.6
DION                               AML       AML
DION   Dionisos Attik  0.60   93   P         Pg        03 01 09.9 -0.4
DION                               AML       AML
DLFA   Delphi          0.65 305    P         Pg        03 01 10.2 -0.9
DLFA                               S         Sg        03 01 19.4 -0.3
DLFA                               AML       AML
GUR    Goura           0.68 255    P         Pg        03 01 10.9 -0.8
GUR                                AML       AML
AXAR   Agios Charalam  0.77 329    P         Pb        03 01 12.9 -0.5
AXAR                               S         Sn        03 01 25.3 -0.6
AXAR   Agios Charalam  0.77 329    P         Pb        03 01 12.4 -1.0
AXAR                               S         Sg        03 01 23.5 -0.1
YDRA   Hydra           0.79 163    P         Pb        03 01 13.1 -0.6
YDRA                               S         Sg        03 01 24.9 +0.6
YDRA                               AML       AML
LVRA   Laurium         0.80 119    P         Pb        03 01 14.1 +0.1
LVRA                               S         Sb        03 01 23.4 -1.2
LVRA                               AML       AML
KLV    Kalavryta, Ach  0.81 266    P         Pb        03 01 13.7 -0.4
KLV                                S         Sb        03 01 24.2 -0.5
KLV    Kalavryta, Ach  0.81 266    P         Pb        03 01 13.1 -0.9
KLV                                S         Sg        03 01 25.1 +0.3
TEME   Temeni, Aigial  0.84 279    P         Pg        03 01 14.8 +0.1
KLV1   Kalavrita       0.84 265    P         Pb        03 01 14.1 -0.5
KLV1                               AML       AML
KALE   Kalithea        0.86 289    P         Pg        03 01 15.3 +0.2
KALE                               S         Sn        03 01 27.3 -0.8
KALE                               AML       AML
KALE   Kalithea        0.86 289    P         Pb        03 01 14.4 -0.6
KALE                               S         Sg        03 01 26.4  0.0
KALE                               AML       AML
AIOA   Agios Ioannis,  0.88 276    P         Pb        03 01 14.6 -0.7
AIOA                               S         Sb        03 01 25.6 -1.2
KYMI   Kymi, Euboea I  0.90   54   P         Pb        03 01 14.9 -0.6
KYMI                               S         Sb        03 01 27.3  0.0
KYMI                               AML       AML
KYMI   Kymi, Euboea I  0.90   54   P         Pb        03 01 14.8 -0.8
KYMI                               S         Sg        03 01 27.4 -0.2
KYMI                               AML       AML
SERG   Sergoula        0.93 289    P         Pg        03 01 16.3 -0.1
SERG                               S         Sn        03 01 29.5 -0.2
SERG                               AML       AML
SERG   Sergoula        0.93 289    P         Pb        03 01 15.8 -0.3
SERG                               AML       AML
LAKA   Lakka           0.95 278    P         Pb        03 01 15.9 -0.5
LAKA                               S         Sb        03 01 28.8 +0.1
LAM2   Lamia           0.98 324    P         Pb        03 01 17.0  0.0
LAM2                               S         Sb        03 01 29.7  0.0
LAM2                               AML       AML
KARY   Karystos        1.00   94   P         Pn        03 01 17.6 -0.1
KARY                               S         Sb        03 01 30.4 +0.2
KARY                               AML       AML
KARY   Karystos        1.00   94   P         Pb        03 01 17.1 -0.2
KARY                               S         Sb        03 01 30.5 +0.2
KARY                               AML       AML
MG00   Magoula, Dorid  1.01 288    P         Pn        03 01 17.8 -0.1
MG00                               S         Sn        03 01 31.5 -0.2
MG00                               AML       AML
EFP    Efpalio         1.04 288    P         Pn        03 01 18.3  0.0
EFP                                S         Sn        03 01 32.6  0.0
EFP                                AML       AML
EFP    Efpalio         1.04 288    P         Pn        03 01 18.4  0.0
EFP                                S         Sb        03 01 31.8 +0.3
EFP                                AML       AML
ANX    Ano Chora       1.09 297    P         Pn        03 01 19.3 +0.2
ANX                                S         Sg        03 01 34.0 +0.1
ANX                                AML       AML
ANX    Ano Chora       1.09 297    P         Pn        03 01 19.1  0.0
ANX                                S         Sn        03 01 33.8 -0.1
ANX                                AML       AML
RIOA   Rio             1.10 280    P         Pg        03 01 19.6 -0.1
RIOA                               AML       AML
VVK    Vomvokou        1.11 287    P         Pn        03 01 19.6 +0.2
VVK                                S         Sb        03 01 32.9 -0.7
VVK                                AML       AML
PATC   Patra C         1.12 279    P         Pg        03 01 19.9 -0.2
PATC                               AML       AML
AGG    Agios Georgios  1.12 324    P         Pn        03 01 19.6 +0.1
AGG                                S         Sn        03 01 34.3 -0.3
AGG    Agios Georgios  1.12 324    P         Pb        03 01 18.0 -1.5
AGG                                S         Sb        03 01 34.0 +0.1
AGG    Agios Georgios  1.12 324    P         Pb        03 01 18.9 -0.6
AGG                                S         Sn        03 01 34.2 -0.4
AGG                                AML       AML
AGG    Agios Georgios  1.12 324    P         Pb        03 01 18.4 -1.0
PATG   Patra B         1.15 277    P         Pg        03 01 20.4 -0.1
PATG                               AML       AML
AOS2   Alonissos-2     1.16   27   P         Pn        03 01 19.6 -0.3
AOS2                               S         Sb        03 01 34.8 -0.1
AOS2                               AML       AML
DRO    Drossia         1.16 263    P         Pb        03 01 20.2 +0.1
DRO                                AML       AML
AGRP   Agrapidokambos  1.18 285    P         Pb        03 01 20.2 -0.1
AGRP                               S         Sg        03 01 36.2 -0.2
AGRP                               AML       AML
NEO    Neokhori        1.20    2   P         Pn        03 01 20.1 -0.3
NEO                                S         Sn        03 01 36.3 -0.1
NEO                                AML       AML
XOR    Xorichti        1.25    1   P         Pn        03 01 20.7 -0.6
XOR                                S         Sn        03 01 37.6 -0.2
XOR                                AML       AML
XOR    Xorichti        1.25    1   P         Pn        03 01 20.9 -0.3
VOL2   Volos           1.27 352    P         Pn        03 01 21.1 -0.2
VOL2                               AML       AML
AMT    Artemida-Makis  1.29 244    P         Pb        03 01 22.2 -0.1
AMT                                S         Sn        03 01 39.0 +0.3
AMT                                AML       AML
AAMF   Ano Amfeia      1.33 222    P         Pb        03 01 23.0 +0.1
VALY   Valyra          1.33 225    P         Pb        03 01 23.0  0.0
VALY                               AML       AML
EVR    Evrytania       1.34 307    P         Pb        03 01 23.0 -0.1
EVR                                AML       AML
RLS    Riolos of Patr  1.35 268    P         Pn        03 01 22.4  0.0
RLS                                AML       AML
ITM    Ithomi          1.35 227    Pn        Pn        03 01 22.1 -0.5
ITM                                Sn        Sg        03 01 42.3 +0.1
ITM                                AML       AML
ITM    Ithomi          1.35 227              Pb        03 01 23.2 -0.2
ITM    Ithomi          1.35 227    P         Pb        03 01 23.1 -0.3
ITM                                AML       AML
ITM    Ithomi          1.35 227    P         Pb        03 01 23.4  0.0
ZARO   Zacharo         1.36 243    P         Pb        03 01 23.9 +0.5
PVO    Paravola        1.39 292    P         Pb        03 01 24.1 +0.2
PVO                                AML       AML
MSL1   Messolongi      1.40 281    P         Pb        03 01 24.5 +0.4
VLI    Veliai          1.40 188    P         Pn        03 01 22.8 -0.4
VLI                                S         Sn        03 01 41.6 +0.3
VLI                                AML       AML
AXS    Araxos          1.42 274    P         Pb        03 01 24.5 +0.1
PLEV   Plevrona-Mesol  1.42 283    P         Pb        03 01 24.0 -0.5
MNVA   Monemvasia      1.42 184    P         Pn        03 01 23.6 +0.2
MNVA                               AML       AML
SOFA   Sofades         1.49 326    P         Pb        03 01 25.1 -0.5
SOFA                               AML       AML
NPS1   Neapolis Lacon  1.60 183    P         Pn        03 01 26.3 +0.4
CLEM   Kyllini,Ilia,G  1.62 263    P         Pn        03 01 26.7 +0.4
PDO    Prodromos       1.64 288    P         Pb        03 01 27.5 -0.6
PDO                                AML       AML
PYL    PYLOS           1.66 224    P         Pb        03 01 28.4 -0.1
PYL                                AML       AML
GINA   Giannouli       1.67 339    P         Pn        03 01 26.6 -0.4
GINA                               AML       AML
PYL1   Pylos           1.67 225    P         Pb        03 01 28.1 -0.6
PYL1                               AML       AML
TNSA   Tinos           1.68 109    P         Pn        03 01 26.5 -0.4
TNSA                               AML       AML
MILOS  Milos           1.69 143    P         Pn        03 01 26.3 -0.9
MILOS                              AML       AML
THL    Klokotos Trika  1.71 328    P         Pn        03 01 27.7 +0.2
MHLO   Agia Marina, M  1.72 145    P         Pn        03 01 27.7 +0.1
MTHA   Methoni         1.74 223    P         Pb        03 01 29.7 -0.1
MTHA                               AML       AML
AMPL   Ampelaki        1.74 298    P         Pb        03 01 29.1 -0.8
AMPL                               AML       AML
TYRN   Tyrnavos        1.76 336    P         Pn        03 01 28.2  0.0
KTHA   Kythira Island  1.85 183    Pn        Pn        03 01 29.9 +0.5
KTHA                               AML       AML
KTHA   Kythira Island  1.85 183    P         Pn        03 01 29.7 +0.3
KTHA                               AML       AML
KTHA   Kythira Island  1.85 183    P         Pn        03 01 30.1 +0.7
PAIG   Paliouri        1.86   12   P         Pn        03 01 29.1 -0.4
PAIG   Paliouri        1.86   12   P         Pn        03 01 29.1 -0.4
LTHK   Lithakia        1.89 259    P         Pb        03 01 32.1 -0.3
LTHK                               AML       AML
RTZL   Ratzakli, Kefa  1.89 270    P         Pn        03 01 31.0 +1.0
RTZL                               AML       AML
TETR   Tetrakomo, Epi  1.93 310    P         Pn        03 01 31.5 +0.9
TETR                               AML       AML
ORTH   Orthonies,Zaky  1.97 263    P         Pn        03 01 32.5 +1.4
ORTH                               AML       AML
SMHA   Samh            1.99 275    P         Pn        03 01 30.7 -0.6
EFSA   Agios Efstrati  2.01   44   P         Pn        03 01 30.9 -0.7
EFSA                               AML       AML
NAX1   Naxos Island    2.02 119    P         Pn        03 01 31.7  0.0
NYDR   Nydri-Lefkada   2.03 288    P         Pb        03 01 34.1 -0.8
VLS    Valsamata       2.04 273    P         Pb        03 01 33.7 -1.2
VLS                                AML       AML
EVGI   Lefkada island  2.04 285    P         Pb        03 01 34.1 -0.9
EVGI                               AML       AML
LIT    Litokhoron      2.06 345    P         Pn        03 01 32.3  0.0
LIT    Litokhoron      2.06 345              Pn        03 01 32.3  0.0
LIT    Litokhoron      2.06 345    P         Pn        03 01 32.3  0.0
LIT    Litokhoron      2.06 345    P         Pn        03 01 32.4 +0.1
FSK    Fiskardo        2.08 280    P         Pb        03 01 34.3 -1.4
FSK                                AML       AML
LKD2   Lefkada island  2.09 290    P         Pb        03 01 34.9 -0.9
LKD2                               AML       AML
LKD2   Lefkada island  2.09 290    P         Pb        03 01 35.8  0.0
TSLK   Tsoukalades, L  2.10 291    P         Pb        03 01 35.1 -0.9
TSLK                               AML       AML
DRAG   Dragano-Lefkad  2.12 287    P         Pb        03 01 35.0 -1.4
DRAG                               AML       AML
PRMD   Pramanda        2.15 312    P         Pb        03 01 36.0 -1.0
PRMD                               AML       AML
ANKY   Antikythira Is  2.24 177    P         Pn        03 01 34.8 +0.1
ANKY                               AML       AML
CHOS   Chios island    2.29   82   Pn        Pn        03 01 35.8 +0.3
CHOS                               AML       AML
CHOS   Chios island    2.29   82   P         Pn        03 01 35.5  0.0
CHOS                               AML       AML
CHOS   Chios island    2.29   82   P         Pb        03 01 38.7 -0.6
OUR    Ouranopolis     2.31   16   P         Pn        03 01 35.5 -0.2
KPRO   Kipourio        2.32 323    P         Pn        03 01 36.4 +0.5
KPRO                               AML       AML
LIA    Limnos Island   2.38   41   P         Pn        03 01 35.8 -0.8
LIA                                AML       AML
CMBO   Columbo, Santo  2.42 132    P         Pn        03 01 37.5 +0.4
HORT   Hortiatis       2.49 359    P         Pn        03 01 38.0 -0.2
THE    Thessaloniki    2.52 356    P         Pn        03 01 38.2 -0.5
THE    Thessaloniki    2.52 356    P         Pn        03 01 38.2 -0.5
THERA  Ancient Thera,  2.53 133    P         Pb        03 01 42.7 -0.7
KARB   zmir-Karabur    2.61   77   P         Pn        03 01 38.4 -1.3
KARB                               S         Sn        03 02 07.6 -3.4
ZEYE   Izmir, Urla-Ze  2.63   86   P         Pn        03 01 39.5 -0.6
ZEYE                               S         Sn        03 02 10.8 -0.8
IGT    Igoumenitsa     2.63 304    P         Pn        03 01 42.3 +2.1
IGT                                S         Sn        03 02 13.8 +2.0
IGT    Igoumenitsa     2.63 304   ePn        Pn        03 01 42.2 +2.1
IGT                               eSn        Sb        03 02 16.4 -0.8
GPNR   Gulpinar-Canak  2.68   59   Pn        Pn        03 01 40.6 -0.1
GPNR                               AML       AML
URLA   Izmir           2.71   84   Pn        Pn        03 01 41.5 +0.3
URLA                               AML       AML
URLA   Izmir           2.71   84   P         Pn        03 01 40.8 -0.5
URLA                               S         Sn        03 02 07.6 -6.0
SOH    Sokhos          2.71    3   P         Pn        03 01 40.2 -1.1
SOH    Sokhos          2.71    3   P         Pn        03 01 41.6 +0.3
BOZC   Bozcaada        2.83   51   Pn        Pn        03 01 42.2 -0.7
BOZC                               AML       AML
GRG    Griva           2.91 348    P         Pn        03 01 43.9  0.0
GRG    Griva           2.91 348    P         Pn        03 01 43.9  0.0
DGB    zmir            2.93   90   P         Pn        03 01 44.4 +0.2
DGB                                S         Sn        03 02 09.5 -9.5
BAGT   Foa             2.94   78   P         Pn        03 01 44.4 -0.1
BAGT                               S         Sb        03 02 23.9 -2.2
GADA   Gvkgeada        2.97   45   Pn        Pn        03 01 44.2 -0.6
GADA                               AML       AML
EZN    Ezine           3.00   54   Pn        Pn        03 01 45.0 -0.1
EZN                                AML       AML
EZN    Ezine           3.00   54   P         Pn        03 01 45.0 -0.1
EZN    Ezine           3.00   54   Pn        Pn        03 01 45.1 -0.1
EZN                                AML       AML
AYVA   Ayvalik         3.00   65   P         Pn        03 01 43.9 -1.3
AYVA                               S         Sn        03 02 23.1 +2.3
SRS    Serrai          3.02    6   P         Pn        03 01 44.8 -0.7
SRS    Serrai          3.02    6  ePn        Pn        03 01 45.3 -0.2
SRS                               eSn        Sn        03 02 21.8 +0.4
SRS    Serrai          3.02    6   P         Pn        03 01 45.5  0.0
SRN    Sarande         3.04 307    P         Pn        03 01 47.9 +2.2
KNT    Kendrikon       3.06 356    P         Pb        03 01 50.6 -1.7
BLCB   Balcova         3.06   84   Pn        Pn        03 01 46.9 +0.9
DKL    Dikili          3.08   71   Pn        Pn        03 01 46.2 -0.1
DKL                                AML       AML
KEK    Kerkira         3.08 302    Pn        Pn        03 01 45.2 -1.1
KEK                                AML       AML
KEK    Kerkira         3.08 302              Pn        03 01 46.7 +0.4
KEK    Kerkira         3.08 302    P         Pn        03 01 47.1 +0.8
KBN    Korca           3.12 324    P         Pn        03 01 48.3 +1.4
KBN                                S         Sn        03 02 24.1 +0.3
KBN    Korca           3.12 324    P         Pn        03 01 48.6 +1.7
IDI    Anoyia          3.14 153    Pn        Pn        03 01 47.1 -0.1
       54nm,0.3s,baz=337,slow=5.7,SNR=126
IDI                                Sn        Sn        03 02 23.2 -1.1
       19nm,0.3s,baz=48,slow=19,SNR=4.5
IDI    Anoyia          3.14 153    Pn        Pn        03 01 47.7 +0.6
IDI                                AML       AML
IDI    Anoyia          3.14 153              Pn        03 01 47.5 +0.4
ZEDA   zmir-Bergama    3.18   73   P         Pn        03 01 47.8 +0.1
ZEDA                               S         Sn        03 02 22.2 -3.0
GCAM   G?zelcaml?      3.24   96   Pn        Pn        03 01 49.5 +1.0
GCAM                               AML       AML
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GCAM	G?zelcaml?	3.24	96	P	Pn	03 01 50.1	+1.6
VAY	Valandovo	3.24	352	iPn	Pn	03 01 49.2	+0.7
COMU	Canakkale	3.25	51	Pn	Pn	03 01 48.4	-0.2
COMU				AML	AML		
DDIM	Aydin, Didim	3.29	100	P	Pn	03 01 52.2	+3.0
DDIM				S	Sn	03 02 23.3	-4.6
CAMT	Merkez	3.31	78	P	Pn	03 01 48.6	-0.9
GVD	Gavdhos	3.35	167	Pn	Pn	03 01 51.9	+1.9
GVD				AML	AML		
GVD	Gavdhos	3.35	167	P	Pb	03 01 55.6	-1.7
BUHA	Balikesir, Bur	3.35	64	P	Pn	03 01 48.6	-1.5
DUVT	Torbali	3.37	87	P	Pn	03 01 51.1	+0.8
DUVT				S	Sn	03 02 17.8	-12
GELI	Tayfur-Gelibol	3.44	47	Pn	Pn	03 01 50.9	-0.3
GELI				AML	AML		
MMB	Musomishta	3.46	7	P	Pn	03 01 51.9	+0.3
MMB	Musomishta	3.46	7	iP	Pn	03 01 51.7	+0.1
CAVK	Edirne/Enez-Ca	3.47	41	⇑P	Pn	03 01 51.4	-0.2
ENEZ	Enez	3.50	40	Pn	Pn	03 01 51.3	-0.7
ENEZ				AML	AML		
OHR	Ohrid	3.51	329	iPn	Pn	03 01 54.5	+2.2
BDRM	Kayabasi	3.55	106	P	Pn	03 01 53.0	+0.2
BDRM				S	Sn	03 02 23.7	-11
ALN	Alexandroupoli	3.56	38	Pn	Pn	03 01 52.1	-0.8
ALN				AML	AML		
ALN	Alexandroupoli	3.56	38	P	Pn	03 01 52.1	-0.8
ALN	Alexandroupoli	3.56	38		Pn	03 01 52.1	-0.8
ALN	Alexandroupoli	3.56	38	P	Pn	03 01 52.1	-0.8
CANM	Can-anakkale	3.57	57	Pn	Pn	03 01 52.4	-0.6
CANM				AML	AML		
ERIK	Erikli-Kesan	3.64	44	Pn	Pn	03 01 53.0	-1.0
ERIK				AML	AML		
PEHC	Pehcevo	3.67	357	iPn	Pn	03 01 55.4	+0.8
YAZI	Mula-Dat§a-	3.70	111	P	Pn	03 01 55.4	+0.6
YAZI				S	Sn	03 02 28.8	-9.2
VLO	Vlora	3.70	311	P	Pn	03 01 59.0	+4.2
KKB	Krupnik	3.73	360	P	Pn	03 01 54.6	-0.6
KKB	Krupnik	3.73	360	iP	Pn	03 01 55.7	+0.5
MLSB	Milas	3.74	101	Pn	Pn	03 01 56.5	+1.1
MLSB				AML	AML		
AYDN	Tasoluk	3.75	95	P	Pn	03 01 56.8	+1.3
DAT	Datca	3.77	110	Pn	Pn	03 01 57.5	+1.6
DAT				AML	AML		
DAT	Datca	3.77	110	P	Pn	03 01 56.0	+0.1
IZMR	zmir-demi	3.77	88	P	Pn	03 01 56.2	+0.4
BIGA	Biga-Canakkale	3.78	54	Pn	Pn	03 01 55.9	0.0
RZN	Rozhen	3.78	18	P	Pn	03 01 54.6	-1.5
RZN	Rozhen	3.78	18	iP	Pn	03 01 55.8	-0.3
BALY	Balya	3.83	63	P	Pn	03 01 57.6	+0.9
ZKR	Zakros	3.86	140	Pn	Pn	03 01 59.2	+2.1
ZKR				AML	AML		
ZKR	Zakros	3.86	140	P	Pn	03 02 01.6	+4.5
KDZ	Kurdzhali	3.89	25	Pn	Pn	03 01 56.5	-1.0
KDZ				AML	AML		
KDZ	Kurdzhali	3.89	25	P	Pn	03 01 56.5	-1.0
KDZ	Kurdzhali	3.89	25	iP	Pn	03 01 56.9	-0.6
KTTT	Salihli	3.91	80	P	Pn	03 01 58.8	+1.0
BALB	Balikesir	3.98	66	Pn	Pn	03 01 59.1	+0.4
BALB				AML	AML		
BALB	Balikesir	3.98	66		Pn	03 02 02.8	+4.1
GORD	Gordes-Manisa	4.01	77	Pn	Pn	03 01 59.5	+0.4
GORD				AML	AML		
GONE	Gonen-Balikesi	4.01	60	Pn	Pn	03 01 59.7	+0.6
UKOP	Uzunkopru-Edir	4.03	40	Pn	Pn	03 01 58.9	-0.4
UKOP				AML	AML		
SKO	Skopje	4.08	342	iPn	Pn	03 02 01.1	+1.0
KARP	Karpathos	4.10	127	Pn	Pn	03 02 01.9	+1.6
KARP				AML	AML		
KARP	Karpathos	4.10	127		Pn	03 02 01.8	+1.4
KARP	Karpathos	4.10	127	Pn	Pn	03 02 00.6	+0.3
KARP				AML	AML		
KARP	Karpathos	4.10	127	P	Pn	03 02 00.8	+0.5
KARP				AML	AML		
KARP	Karpathos	4.10	127	P	Pn	03 02 04.6	+4.3
ESEN	Aydn-Nazilli	4.10	93	P	Pn	03 01 59.8	-0.6
TIR	Tirane	4.12	323	P	Pn	03 02 02.9	+2.3
KIRA	zmir-Kiraz	4.12	87	P	Pn	03 02 01.5	+0.8
PHP	Peshkopia	4.14	330	P	Pn	03 02 02.0	+1.0
PHP				S	Sn	03 02 50.8	+1.7
PHP	Peshkopia	4.14	330	P	Pn	03 02 02.3	+1.4
GAZK	Gazikoy-TEKIRD	4.16	49	Pn	Pn	03 02 01.2	+0.1
GAZK				AML	AML		
MULA	Mugla, Merkez-	4.17	100	P	Pn	03 02 04.0	+2.6
YER	Yerkesik	4.17	102	Pn	Pn	03 02 03.2	+1.8
YER				AML	AML		
YER	Yerkesik	4.17	102	P	Pn	03 02 03.2	+1.8
PLD	Plovdiv	4.21	16	Pn	Pn	03 02 00.4	-1.4
PLD	Plovdiv	4.21	16	P	Pn	03 02 01.7	-0.1
PLD	Plovdiv	4.21	16	iP	Pn	03 02 01.9	+0.1
PLD	Plovdiv	4.21	16	ePn	Pn	03 02 01.9	+0.1
PLD				eSn	Sn	03 02 49.6	-1.0
SUSR	Susurluk-Balik	4.25	63	Pn	Pn	03 02 02.8	+0.4
SUSR				AML	AML		
TURN	Turunc	4.25	107	Pn	Pn	03 02 04.2	+1.8
TURN				AML	AML		
TURN	Turunc	4.25	107	P	Pn	03 02 02.8	+0.4
MANT	Manisa	4.25	83	P	Pn	03 02 03.8	+1.2
MANT	Manisa	4.25	83		Pn	03 02 03.9	+1.3
EDC	Edincik	4.27	57	Pn	Pn	03 02 02.9	+0.2
EDC				AML	AML		
EDC	Edincik	4.27	57	P	Pn	03 02 02.9	+0.2
DIM	Dimitrovgrad	4.34	24	iP	Pn	03 02 03.8	+0.1
PLNA	Plana	4.37	2	eP	Pn	03 02 04.9	+0.8
ARG	Arkhangelos	4.38	114	Pn	Pn	03 02 06.2	+2.0
ARG				AML	AML		
ARG	Arkhangelos	4.38	114	P	Pn	03 02 05.0	+0.7
ARG	Arkhangelos	4.38	114		Pn	03 02 05.0	+0.7
BOSS	Bosilegrad	4.41	353	ePn	Pn	03 02 05.4	+0.7
BOSS				eSn	Sn	03 02 56.8	+1.1
SULTU	Buldan	4.42	89	P	Pn	03 02 07.0	+2.2
SULTU				S	Sn	03 02 52.1	-3.8
BAND	Balkesir-Ban	4.43	58	⇓P	Pn	03 02 05.7	+0.8
HARTU	Esme	4.44	85	P	Pn	03 02 07.0	+1.9
DEMI	Demirci	4.44	76	P	Pn	03 02 04.9	-0.3
PGB	Panagyurishte	4.47	10	iP	Pn	03 02 05.5	+0.1
VTS	Vitosha	4.50	1	P	Pn	03 02 05.3	-0.7
VTS	Vitosha	4.50	1	iP	Pn	03 02 06.5	+0.5
VTS	Vitosha	4.50	1	ePn	Pn	03 02 06.5	+0.5
VTS				eSn	Sn	03 02 56.9	-1.2
DALY	Dalyan (Mula)	4.55	105	P	Pn	03 02 08.1	+1.6
TAVA	DENIZLI_Tavas	4.59	96	P	Pn	03 02 07.8	+0.6
TAVA	DENIZLI_Tavas	4.59	96	⇓P	Pn	03 02 10.1	+2.9
USAK	Uak-Merkez	4.63	81	P	Pn	03 02 09.5	+1.8
EDRB	Edirne	4.63	35	Pn	Pn	03 02 06.8	-0.8
EDRB				AML	AML		
DNIZ	Denizli-Tavas-	4.67	94	P	Pn	03 02 09.8	+1.5
BLSH	Balsha	4.74	1	iP	Pn	03 02 10.4	+1.2
SABU	Mula-Dalaman	4.79	104	P	Pn	03 02 11.9	+2.1
SABU				S	Sn	03 02 51.4	-14
BARS	Barje	4.81	348	ePn	Pn	03 02 10.9	+0.7
BARS				eSn	Sn	03 03 05.8	+0.2
ULC	Ulcinj	4.89	323	⇑iPn	Pn	03 02 11.8	+0.6
ULC				iSn	Sn	03 03 06.0	-1.4
ULC				AML	AML		
PASA	Karahalli, USA	4.98	85	P	Pn	03 02 13.8	+1.3
CAEL	Denizli, Camel	4.98	100	P	Pn	03 02 17.8	+5.2
GDZ	Gediz	5.04	77	P	Pn	03 02 13.3	0.0
JMB	Yambol	5.07	29	iP	Pn	03 02 13.2	-0.5
INCE	Denizli-Bozkur	5.08	93	P	Pn	03 02 17.2	+3.3
DRME	Dracevica, Mon	5.09	324	ePn	Pn	03 02 15.0	+1.1
DRME	Dracevica, Mon	5.09	324	⇓iPn	Pn	03 02 14.7	+0.8
DRME				iSn	Sn	03 03 10.5	-1.8
DRME				AML	AML		
PVY	Plav	5.11	332	⇓iPn	Pn	03 02 14.1	-0.2
PVY				iSn	Sn	03 03 11.1	-1.9
PVY				AML	AML		
IZZE	Mula-Seydike	5.11	107	P	Pn	03 02 16.9	+2.7
TIP	Timpagrande	5.13	284		Pn	03 02 15.5	+0.9
TIP	Timpagrande	5.13	284	⇑P	Pn	03 02 15.9	+1.3
TIP	Timpagrande	5.13	284	Pn	Pn	03 02 15.3	+0.7
	0.4nm958nm112nm,0.7s						
TIP				AML	AML		
TIP	Timpagrande	5.13	284	P	Pn	03 02 15.9	+1.3
	comp=Z,138nm,0.7s						
GOLH	Golhisar	5.14	98	P	Pn	03 02 19.1	+4.3
ZAPS	Zavoj	5.17	356	ePn	Pn	03 02 16.1	+1.0
CTYL	Yalikoy Yolu	5.18	48	Pn	Pn	03 02 15.7	+0.6
	comp=Z,0.3nmcomp=Z,6µmcomp=Z,74nm,0.8s						
CTYL				AML	AML		
PVL	Pavlikeni	5.23	16	iP	Pn	03 02 16.2	+0.3
KNIK	Mula-Seydike	5.25	102	P	Pn	03 02 21.6	+5.4
PDG	Podgorica	5.25	326		Pn	03 02 17.5	+1.4
PDG	Podgorica	5.25	326	ePn	Pn	03 02 17.7	+1.6
PDG				eSn	Sn	03 03 18.2	+1.9
PDG	Podgorica	5.25	326	⇑P	Pn	03 02 17.6	+1.4
PDG	Podgorica	5.25	326	ePn	Pn	03 02 16.4	+0.3
PDG	Podgorica	5.25	326	P	Pn	03 02 18.0	+1.8
	comp=Z,88nm,0.9s						
PDG	Podgorica	5.25	326	⇓iPn	Pn	03 02 16.9	+0.8
PDG				iSn	Sn	03 03 14.6	-1.7
PDG				AML	AML		
MPEP	Malo Peshtene	5.26	5	iP	Pn	03 02 16.8	+0.5
BNAZ	Uak-Banaz	5.30	82	P	Pn	03 02 17.2	+0.2
BUM	Brajici-Budva	5.32	323	⇓iPn	Pn	03 02 16.4	-0.7
BUM				iSn	Sn	03 03 16.2	-1.8
BUM				AML	AML		
SELS	Selova	5.34	344	ePn	Pn	03 02 18.2	+0.8
IVA	Berane	5.37	333	⇓iPn	Pn	03 02 18.5	+0.6
IVA				iSn	Sn	03 03 17.4	-2.0
IVA				AML	AML		
PLVB	Pleven	5.39	11	⇑P	Pn	03 02 18.3	+0.4
YLV	Yalova	5.40	61	Pn	Pn	03 02 18.2	0.0
	comp=Z,0.3nmcomp=Z,995nmcomp=Z,108nm,0.8s						
YLV				AML	AML		
AKAS	Kas	5.47	108	P	Pn	03 02 23.7	+4.5
KZIL	AFYON_Kizioren	5.49	86	P	Pn	03 02 21.8	+2.2
KOME	Kolasin	5.50	331	⇓iPn	Pn	03 02 20.6	+1.0
KOME				iSn	Sn	03 03 20.8	-1.6
KOME				AML	AML		
CEME	Cevo	5.50	325	⇓iPn	Pn	03 02 19.9	+0.3
CEME				iSn	Sn	03 03 20.4	-2.0
CEME				AML	AML		
ELL	Elmali	5.53	102	P	Pn	03 02 22.9	+2.8
ELL	Elmali	5.53	102		Pn	03 02 22.9	+2.8
SZH	Strazhitsa	5.57	22	iP	Pn	03 02 20.5	-0.1
VALD	Valchedram	5.58	2	iP	Pn	03 02 20.9	+0.3
MATE	Matera	5.62	299	⇑P	Pn	03 02 22.7	+1.6
HCY	Herceg Novi	5.62	322	ePn	Pn	03 02 21.3	+0.1
HCY	Herceg Novi	5.62	322	⇑iPn	Pn	03 02 21.6	+0.4
HCY				iSn	Sn	03 03 23.8	-1.5
HCY				AML	AML		
BOVS	Bovan	5.63	349	ePn	Pn	03 02 21.9	+0.6
BOVS				eSn	Sn	03 03 26.6	+1.0
BOVS	Bovan	5.63	349	⇑P	Pn	03 02 21.7	+0.4
NKME	Niksic	5.66	327	⇑iPn	Pn	03 02 22.4	+0.6
NKME				iSn	Sn	03 03 24.3	-2.1
NKME				AML	AML		
SJES	Sjenica	5.69	336	ePn	Pn	03 02 23.8	+1.5
SJES				eSn	Sn	03 03 29.7	+2.4
SJES	Sjenica	5.69	336	ePn	Pn	03 02 23.1	+0.8
GOCS	Kraljevo Serbi	5.72	343	ePn	Pn	03 02 23.4	+0.7
GOCS				eSn	Sn	03 03 28.5	+0.5
CEL	Celeste	5.74	274		Pn	03 02 23.6	+0.8
CEL	Celeste	5.74	274	Pn	Pn	03 02 23.1	+0.2
	comp=Z,0.3nmcomp=Z,520nmcomp=Z,40nm,0.9s						
CEL				AML	AML		
CEL	Celeste	5.74	274	P	Pn	03 02 23.8	+1.0
	comp=Z,40nm,0.9s						
ZAGS	Zajecar	5.74	353	ePn	Pn	03 02 23.5	+0.6
KORT	Korkueli	5.81	99	P	Pn	03 02 27.9	+4.0
ISP	Isparta	5.82	91	iP	Pn	03 02 27.7	+3.7
SILT	Sile	5.85	57	⇓P	Pn	03 02 24.6	+0.3
LOZB	Loznitsa	5.86	25	⇓P	Pn	03 02 24.1	-0.5
TREB	Trebinje	5.89	323	ePn	Pn	03 02 25.0	+0.1
TREB				eSn	Sn	03 03 33.0	+0.9
TREB	Trebinje	5.89	323	ePn	Pn	03 02 24.3	-0.6
ROIA	ROIAK	5.92	31	iP	Pn	03 02 25.6	+0.3
IVAS	Ivanjica	5.92	338	ePn	Pn	03 02 25.9	+0.5
IVAS				eSn	Sn	03 03 33.6	+0.7
BORA	Eskisehir	5.94	70		Pn	03 02 27.1	+1.4
BRY	Bratogost	5.95	325	ePn	Pn	03 02 25.7	-0.1
BRY	Bratogost	5.95	325	⇑iPn	Pn	03 02 26.4	+0.6
BRY				iSn	Sn	03 03 32.0	-1.7
BRY				AML	AML		
PLE	Pljevlja	5.95	332	⇑iPn	Pn	03 02 27.2	+1.3
PLE				iSn	Sn	03 03 32.1	-1.7
PLE				AML	AML		
VLAD	Vladila	5.96	9	⇑P	Pn	03 02 26.0	+0.2
PRD	Provadia	5.99	31	iP	Pn	03 02 26.2	0.0
AKUM	Antalya-Kumluc	6.00	105	P	Pn	03 02 29.9	+3.5
NEF	NEVSHA	6.02	30	iP	Pn	03 02 26.5	-0.2
GRUS	Gruza	6.07	343	ePn	Pn	03 02 27.9	+0.6
MARCO	Tramutola	6.12	293	P	Pn	03 02 30.1	+1.9
	comp=Z,96nm,0.7s						
KLINJ	Klinje	6.14	327	ePn	Pn	03 02 28.2	-0.2
STON	Ston	6.33	320	ePn	Pn	03 02 30.6	-0.3
STON				eSn	Sn	03 03 42.1	-0.6
KUBS	Kucevo	6.40	350	ePn	Pn	03 02 30.6	-1.3
BBLS	Lazi&#263i	6.42	335	ePn	Pn	03 02 33.6	+1.4
BBLS				eSn	Sn	03 03 44.1	-1.0
BBLS	Lazi&#263i	6.42	335	ePn	Pn	03 02 32.9	+0.7
DIVS	Divibare	6.45	339	ePn	Pn	03 02 33.9	+1.3
DIVS				eSn	Sn	03 03 46.7	+0.8
TRUS	Trudelj	6.45	342	ePn	Pn	03 02 33.1	+0.4
SRE	Strehaia	6.55	0	P	Pn	03 02 33.9	0.0
SRE	Strehaia	6.55	0	⇓P	Pn	03 02 34.0	0.0
HUMR	Humele	6.56	11	⇑P	Pn	03 02 34.0	0.0
HUMR	Humele	6.56	11	P	Pn	03 02 34.1	0.0
	comp=Z,66nm,0.9s						
MDUB	Mudurnu	6.66	67		Pn	03 02 36.6	+1.1
PSN	Preselentsi	6.68	33	eP	Pn	03 02 35.7	-0.1
MDVR	Moldovita	6.76	351	ePn	Pn	03 02 37.1	+0.3
MDVR	Moldovita	6.76	351	⇑P	Pn	03 02 36.6	-0.2
SGRT	San Giovanni R	6.77	305		Pn	03 02 37.0	0.0
HERR	Herculane	6.79	355	⇓P	Pn	03 02 36.7	-0.5
AVAS	Avala Beograd	6.88	344	ePn	Pn	03 02 38.6	+0.1
VAE	Valguarnera	6.96	268	Pn	Pn	03 02 41.1	+1.4
	comp=Z,7.2nm,0.7s,baz=204,slow=6.4,SNR=8.1						
VAE				Sn	Sn	03 03 55.3	-3.3
	comp=Z,1.0nm,0.3s,baz=16,slow=19,SNR=1.4						
TEKS	Tekeris	6.99	338	ePn	Pn	03 02 40.6	+0.5
TEKS	Tekeris	6.99	338	ePn	Pn	03 02 40.2	+0.1
RAFF	Raffo Rosso	7.04	265		Pn	03 02 40.0	-0.8
VRSS	Vrsac	7.14	349	ePn	Pn	03 02 42.5	+0.4
MFTR	Murfatlar	7.24	31	⇓P	Pn	03 02 43.3	-0.2
MTUR	Matau	7.25	11	P	Pn	03 02 44.5	+0.8
MTUR	Matau	7.25	11	⇑P	Pn	03 02 44.5	+0.8
PAOL	Paolisi	7.26	296		Pn	03 02 44.3	+0.6
GZR	Gura Zlata	7.28	358	P	Pn	03 02 44.1	0.0
GZR	Gura Zlata	7.28	358	ePn	Pn	03 02 43.9	-0.2
GZR	Gura Zlata	7.28	358	⇑P	Pn	03 02 44.1	0.0
ARR	Arges	7.33	8	⇓P	Pn	03 02 45.1	+0.3
ARR	Arges	7.33	8	P	Pn	03 02 44.9	+0.1
	comp=Z,41nm,0.8s						
LOT	Lotru	7.35	3	⇑P	Pn	03 02 44.9	-0.1
LOT	Lotru	7.35	3	P	Pn	03 02 45.1	+0.1
	comp=Z,28nm,0.7s						
ISR	Istrita	7.45	19	Pn	Pn	03 02 46.7	+0.4
	comp=Z,0.2nmcomp=Z,47nm,0.9s						
ISR				AML	AML		
VOIR		7.46	10	P	Pn	03 02 46.6	+0.2
VOIR		7.46	10	⇑P	Pn	03 02 46.7	+0.2
VOIR		7.46	10	Pn	Pn	03 02 46.8	+0.3
	comp=Z,0.2nmcomp=Z,661nmcomp=Z,68nm,0.9s						
VOIR				AML	AML		
VOIR		7.46	10	P	Pn	03 02 46.7	+0.2
	comp=Z,68nm,0.9s						
TIRR	Tirgusor	7.47	30	P	Pn	03 02 47.0	+0.5
TIRR	Tirgusor	7.47	30	⇑P	Pn	03 02 47.0	+0.5
TIRR	Tirgusor	7.47	30	Pn	Pn	03 02 46.4	-0.2
	comp=Z,0.1nmcomp=Z,29nm,0.7s						
TIRR				AML	AML		
FRGS	Fruska Gora	7.48	341	ePn	Pn	03 02 47.2	+0.5
FRGS				eSn	Sn	03 04 11.3	+0.1
FRGS	Fruska Gora	7.48	341	ePn	Pn	03 02 47.0	+0.3
TNR	Turnu Rosu	7.58	6	P	Pn	03 02 49.1	+1.0
TNR	Turnu Rosu	7.58	6	⇑P	Pn	03 02 49.2	+1.0
BZS	Buzias	7.59	352	P	Pn	03 02 48.1	-0.1
BZS	Buzias	7.59	352	ePn	Pn	03 02 48.3	+0.1
BZS				eSn	Sn	03 04 10.9	-3.0
BZS	Buzias	7.59	352	⇑P	Pn	03 02 48.1	-0.1
BZS	Buzias	7.59	352	P	Pn	03 02 48.3	+0.1
	comp=Z,14nm,1.1s						
MLR	Muntele Rosu	7.66	15	Pn	Pn	03 02 50.1	+0.7
	comp=Z,1.1nm,0.3s,baz=194,slow=12,SNR=38						
MLR				Sn	Sn	03 04 15.9	+0.1
	comp=Z,0.3nm,0.3s,baz=247,slow=19,SNR=0.9						
MLR				LR	LR	03 06 27.4	
	comp=Z,415nm,18.3s,baz=178,slow=43						
	comp=Z,22nm,0.6s						
MLR				AML	AML		
MLR	Muntele Rosu	7.66	15	ePn	Pn	03 02 50.1	+0.7
MLR	Muntele Rosu	7.66	15	⇓P	Pn	03 02 50.0	+0.7
MLR	Muntele Rosu	7.66	15	Pn	Pn	03 02 49.9	+0.6
	comp=Z,0.2nmcomp=Z,52nm,0.8s						
MLR				AML	AML		
MLR	Muntele Rosu	7.66	15	P	Pn	03 02 50.2	+0.8
	comp=Z,53nm,0.9s						
KKUL	Konya-Kulu	7.70	79	P	Pn	03 02 54.3	+4.4
	comp=Z,17nm,1.0s						
DEV	Deva	7.77	359	P	Pn	03 02 51.5	+0.8
DEV	Deva	7.77	359	⇓P	Pn	03 02 51.6	+0.8
DEV	Deva	7.77	359	P	Pn	03 02 51.7	+1.0
	comp=Z,30nm,0.7s						
TPGR	Topolog	7.81	29	⇑P	Pn	03 02 51.2	0.0
CLTB	Caltabellotta	7.90	269	P	Pn	03 02 55.1	+2.5
	comp=Z,134nm,0.7s						
CFR	Carcaliu	7.98	26	P	Pn	03 02 54.0	+0.5
CFR	Carcaliu	7.98	26	⇑P	Pn	03 02 54.1	+0.5
BLY	Banja Luka	8.01	328		Pn	03 02 54.0	-0.1
BLY	Banja Luka	8.01	328	ePn	Pn	03 02 54.2	+0.2
BLY	Banja Luka	8.01	328	⇓P	Pn	03 02 54.4	+0.4
BLY	Banja Luka	8.01	328	ePn	Pn	03 02 53.9	-0.1
BLY	Banja Luka	8.01	328	P	Pn	03 02 54.6	+0.6
	comp=Z,40nm,0.9s						
DOPR	Dopca	8.02	11	⇓P	Pn	03 02 54.7	+0.5
SAHR	Sahastru	8.05	18	⇓P	Pn	03 02 55.7	+1.2
COVR	Voineasa-Covas	8.05	15	⇑P	Pn	03 02 55.8	+1.2
MDB	Medias	8.08	6	P	Pn	03 02 56.3	+1.4
MDB	Medias	8.08	6	⇓P	Pn	03 02 56.4	+1.4
PLOR	Plostina	8.16	17	P	Pn	03 02 56.8	+0.7
PLOR	Plostina	8.16	17	⇑P	Pn	03 02 56.8	+0.7
BOSR	Bodos	8.17	12	⇑P	Pn	03 02 57.2	+1.0
VRI	Vrincioaia	8.19	18	P	Pn	03 02 57.0	+0.6
VRI	Vrincioaia	8.19	18	⇑P	Pn	03 02 57.0	+0.6
VRI	Vrincioaia	8.19	18	Pn	Pn	03 02 57.1	+0.6
	comp=Z,34nm,0.9s						
VRI	Vrincioaia	8.19	18	P	Pn	03 02 57.7	+1.2
	comp=Z,34nm,0.9s						
TURR	Turia	8.22	14	⇓P	Pn	03 02 57.6	+0.7
TLCR		8.23	29	P	Pn	03 02 57.6	+0.5
TLCR		8.23	29	⇑P	Pn	03 02 57.6	+0.5
BR105	Keskin Array S	8.30	76	Pn	Pn	03 02 58.5	+0.3
	comp=Z,100nmcomp=Z,9.7nm,0.8s						
BR106	Keskin Array S	8.30	75	Pn	Pn	03 02 58.5	+0.3
	comp=Z,85nmcomp=Z,8.8nm,0.8s						
BR104	Keskin Array S	8.32	76	Pn	Pn	03 02 58.9	+0.5
	comp=Z,92nmcomp=Z,11nm,0.8s						
BR131	Keskin Array S	8.32	76	iP	Pn	03 03 01.9	+3.5
BRTR	Keskin Array B	8.32	76	Pn	Pn	03 03 00.2	+1.8
	comp=Z,0.8nm,0.3s,baz=254,slow=14,SNR=27						
BRTR				LR	LR	03 06 56.8	
	comp=Z,367nm,18.9s,baz=260,slow=43						
	comp=Z,3.9nm,0.6s						
BRTR				AML	AML		
BRTR	Keskin Array B	8.32	76	eP	Pn	03 03 03.0	+4.6
BRTR				pmax	pmax		
	comp=Z,7.0nm,0.7s						
BRTR	Keskin Array B	8.32	76		Pn	03 02 59.8	+1.4
CIDE	Kastamonu/Cide	8.39	60	⇓P	Pn	03 03 01.1	+1.8
KIRS	Kirsehir-Merke	8.47	80	⇑P	Pn	03 03 03.0	+2.5
GHRR		8.54	20	Pn	Pn	03 03 01.5	+0.2
VLDR	Vladesti	8.55	24	⇑P	Pn	03 03 02.1	+0.8
ONER	Baraj Valea Uz	8.56	15	⇓P	Pn	03 03 02.6	+1.0
MARR	Marisel-Cluj	8.56	360	⇑P	Pn	03 03 01.7	0.0
CJR	Cluj-Napoca	8.61	2	P	Pn	03 03 04.2	+2.0
DRGR		8.68	358	P	Pn	03 03 03.3	0.0
DRGR		8.68	358	ePn	Pn	03 03 03.1	-0.2
DRGR		8.68	358	⇓P	Pn	03 03 03.3	0.0
DRGR		8.68	358	P	Pn	03 03 06.5	+3.2
	comp=Z,9.5nm,1.5s						
CSS	Mathiatis	8.76	108	Pn	Pn	03 03 04.9	+0.6
	comp=Z,12nm,1.2s						
MORH	Mrgy, Hungar	8.77	339	⇓P	Pn	03 03 05.3	+0.9
MORH	Mrgy, Hungar	8.77	339	ePn	Pn	03 03 04.4	0.0
MORH	Mrgy, Hungar	8.77	339	Pn	Pn	03 03 04.9	+0.5
	comp=Z,8.9nm,0.6s						
MORH	Mrgy, Hungar	8.77	339	P	Pn	03 03 05.9	+1.5
	comp=Z,9.9nm,0.6s						
TESR	Tescani	8.78	16	Pn	Pn	03 03 05.0	+0.4
	comp=Z,38nm,0.7s						
TESR	Tescani	8.78	16	P	Pn	03 03 07.3	+2.7
	comp=Z,39nm,0.7s						
BIZ	Bicaz	9.09	13	⇑P	Pn	03 03 10.1	+1.3
BZK	Bozkurt	9.15	62	Pn	Pn	03 03 10.1	+0.4
	comp=Z,51nm,1.2s						
PRAR	RASCA	9.52	13	⇓P	Pn	03 03 14.5	-0.2
BMR	Baia Mare	9.56	1	P	Pn	03 03 18.9	+3.6
	comp=Z,32nm,0.9s						
BEHE	Becsehely	9.60	333	ePn	Pn	03 03 14.2	-1.6
BURAR	Bucovina Array	9.62	8	P	Pn	03 03 17.2	+1.1
BURAR	Bucovina Array	9.62	8		Pn	03 03 16.8	+0.6
BURAR	Bucovina Array	9.62	8	⇓P	Pn	03 03 17.2	+1.1
BUD	Budapest	9.85	343	P	Pn	03 03 20.8	+1.6
BUD				pmax	pmax		
	comp=Z,20nm,0.6s						
BUD	Budapest	9.85	343	P	Pn	03 03 18.6	-0.6
	comp=Z,21nm,0.6s						
MPLH	Magyarpolny	9.96	337	Pn	Pn	03 03 21.1	+0.4
	comp=Z,50nm,0.8s						
MPLH	Magyarpolny	9.96	337	P	Pn	03 03 21.9	+1.3
	comp=Z,29nm,0.5s						
TRPA	Tarpa	10.03	358	P	Pn	03 03 24.3	+2.7
	comp=Z,15nm,1.0s						
PSZ	Piszkesteto	10.09	347	P	Pn	03 03 24.1	+1.5
PSZ	Piszkesteto	10.09	347		Pn	03 03 24.1	+1.5
PSZ	Piszkesteto	10.09	347	P	Pn	03 03 24.5	+1.9
	comp=Z,16nm,0.8s						
ABAH	Abaujker	10.28	353	P	Pn	03 03 26.3	+1.3
	comp=Z,8.8nm,0.8s						
NE56	Odesa	10.29	31	Pn	Pn	03 03 25.5	+0.3
SOKA	Soboth	10.46	328	iPn	Pn	03 03 26.8	-0.9
	comp=Z,4.4nm,0.6s						
SOKA				eSn	Sn	03 05 19.5	-5.0
	comp=Z,1.6nm,0.6s						
OBKA	Obir	10.54	326	ePn	Pn	03 03 30.7	+2.0
	comp=Z,0.7nm,0.2s						
OBKA				eSn	Sn	03 05 19.3	-7.2
	comp=Z,9.1nm,0.6s						
SORM	Soroca	10.71	19	Pn	Pn	03 03 31.5	+0.6
	comp=Z,3µmcomp=Z,8.3nm,1.4s						
DRE	Drenchia	10.71	322	P	Pn	03 03 36.3	+5.2
	comp=Z,16nm,1.0s						
KMPD	K-Podol'skiy	10.72	12	Pn	Pn	03 03 31.5	+0.4
ARSA	Arzberg	10.72	331	iPn	Pn	03 03 31.5	+0.2
	comp=Z,2.6nm,0.5s						
ARSA				eSn	Sn	03 05 26.5	-4.4
	comp=Z,4.0nm,0.9s						
ARSA	Arzberg	10.72	331	P	Pn	03 03 33.5	+2.2
	comp=Z,11nm,1.2s						
RONA	Rosalia, Austr	10.82	334	ePn	Pn	03 03 32.0	-0.6
	comp=Z,1.6nm,0.5s						
RONA				eSn	Sn	03 05 33.3	0.0
	comp=Z,2.0nm,0.6s						
KOLS	Kolonicke sedl	10.84	357	eP	Pn	03 03 36.7	+3.9
KOLS	Kolonicke sedl	10.84	357	ePN	Pn	03 03 36.7	+3.9
KOLS	Kolonicke sedl	10.84	357	P	Pn	03 03 35.1	+2.3
	comp=Z,14nm,0.8s						
MODS	Modra-Piesok	11.12	339	eP	Pn	03 03 39.5	+2.9
MODS				e		03 05 42.5	
MODS	Modra-Piesok	11.12	339	ePN	Pn	03 03 39.5	+2.9
MODS	Modra-Piesok	11.12	339	eSN	Sn	03 05 42.5	+2.0
MODS	Modra-Piesok	11.12	339	P	Pn	03 03 38.9	+2.3
	comp=Z,13nm,1.0s						
CONA	Conrad Observa	11.17	334	ePn	Pn	03 03 35.8	-1.5
	comp=Z,0.8nm,0.4s						
CONA				eSn	Sn	03 05 36.1	-5.8
	comp=Z,4.0nm,0.9s						
MMAI	Mount Meron Ar	11.18	113	Pn	Pn	03 03 37.1	-0.4
	comp=Z,0.8nm,0.3s,baz=295,slow=12,SNR=2.0						
	comp=Z,0.4nm,0.3s						
MMAI				AML	AML		
KEST	Kesra	11.32	262	Pn	Pn	03 03 38.4	-1.0
	comp=Z,0.2nm,0.3s,baz=97,slow=12,SNR=5.3						
KEST				Sn	Sn	03 05 38.7	-6.9
	baz=97,slow=21						
	comp=Z,1.8nm,0.7s						
KEST				AML	AML		
NIE	Niedzica	11.49	351	Pn	Pn	03 03 42.3	+0.6
	comp=Z,4.2nm,1.1s						
KBA	Koelnbreinsper	11.51	324	P	Pn	03 03 41.5	-0.6
KBA	Koelnbreinsper	11.51	324	iPn	Pn	03 03 41.8	-0.3
	comp=Z,1.2nm,0.5s						
KBA				eSn	Sn	03 05 45.9	-4.5
	comp=Z,1.4nm,0.6s						

KBA	**Koelnbreinsper**	11.51	324	P	Pn	03 03 41.5	-0.6
	comp=Z,7.2nm,0.8s						
KWP	**Kalwaria Pacla**	11.52	358	Pn	Pn	03 03 42.6	+0.5
	comp=Z,35nm,1.1s						
CTI	**Castel Tesino**	11.66	317	P	Pn	03 03 43.0	-1.1
CTI	**Castel Tesino**	11.66	317		Pn	03 03 43.0	-1.1
ABTA	**Abfaltersbach**	11.68	321	*e*Pn	Pn	03 03 42.6	-1.7
	comp=Z,2.8nm,0.5s						
ABTA				*e*Sn	Sn	03 05 48.4	-5.9
	comp=Z,5.2nm,0.6s						
MOA	**Molln**	11.71	329	*i* Pn	Pn	03 03 46.2	+1.5
	comp=Z,2.1nm,0.5s						
MOA				*e*Sn	Sn	03 05 51.7	-3.3
	comp=Z,4.2nm,1.3s						
MOA	**Molln**	11.71	329	P	Pn	03 03 45.8	+1.1
	comp=Z,9.7nm,0.7s						
KZIT	**Kziot**	11.71	124	P	Pn	03 03 44.5	-0.3
	comp=Z,28nm,0.8s						
BIOA	**Bad Ischl, Aus**	11.85	327	*e*Pn	Pn	03 03 48.4	+1.9
	comp=Z,2.3nm,0.7s						
BIOA				*e*Sn	Sn	03 05 56.8	-1.5
	comp=Z,2.1nm,0.4s						
LESA	**Schwarzleotal**	12.08	324	*i* Pn	Pn	03 03 51.0	+1.2
	comp=Z,1.1nm,0.3s						
MSBI	**Mazada**	12.10	120	P	Pn	03 03 49.7	-0.2
	comp=Z,4.9nm,0.7s						
MSBI	**Mazada**	12.10	120	P	Pn	03 03 49.8	-0.2
	comp=Z,20nm,0.7s						
VRAC	**Vranov**	12.16	339	LR	LR	03 08 57.5	
	comp=Z,81nm,19.3s,baz=167,slow=40						
GHAJ	**Ghor Haditha**	12.25	120		Pn	03 03 53.2	+1.1
GHAJ	**Ghor Haditha**	12.25	120	P	Pn	03 03 52.3	+0.3
	comp=Z,31nm,1.0s						
GHAJ	**Ghor Haditha**	12.25	120	P	Pn	03 03 54.3	+2.2
	comp=Z,31nm,1.0s						
RJOB	**Jochberg**	12.25	325	P	Pn	03 03 54.5	+2.4
	comp=Z,4.5nm,0.5s						
LUBAR	**Lubar, Ukraine**	12.26	14	Pn	Pn	03 03 52.0	-0.1
OJC	**Ojcow**	12.35	350	P	Pn	03 03 55.2	+1.9
OJC	**Ojcow**	12.35	350	Pn	Pn	03 03 54.2	+0.9
	comp=Z,11nm,1.2s						
OJC	**Ojcow**	12.35	350	P	Pn	03 03 55.2	+1.9
	comp=Z,11nm,1.2s						
WTTA	**Wattenberg**	12.47	321	*e*Pn	Pn	03 03 55.6	+0.5
	comp=Z,2.0nm,0.4s						
WTTA				*e*Sn	Sn	03 06 05.2	-8.5
	comp=Z,9.2nm,0.8s						
PRNI	**Paran**	12.47	125	P	Pn	03 03 54.9	-0.3
	comp=Z,49nm,0.8s						
WATA	**Walderalm**	12.54	321	*e*Pn	Pn	03 03 57.9	+1.7
	comp=Z,2.9nm,0.5s						
WATA				*e*Sn	Sn	03 06 08.9	-6.7
	comp=Z,2.2nm,0.6s						
SQTA	**Sankt Quirin**	12.65	320	*e*Pn	Pn	03 03 59.4	+1.7
	comp=Z,5.1nm,0.7s						
SQTA				*e*Sn	Sn	03 06 14.3	-3.9
	comp=Z,7.1nm,0.7s						
ASF	**Jabal al Asfar**	12.70	114	Pn	Pn	03 03 57.6	-0.7
	comp=Z,0.1nm,0.3s,baz=278,slow=15,SNR=3.0						
	comp=Z,2.2nm,1.0s						
ASF				AML	AML		
HRFI	**Mount Harif**	12.70	126	P	Pn	03 03 56.0	-2.3
	comp=Z,22nm,0.9s						
HRFI	**Mount Harif**	12.70	126	P	Pn	03 03 56.9	-1.5
	comp=Z,22nm,0.9s						
GERES	**GERESS Array B**	12.73	330	Pn	Pn	03 03 57.5	-1.2
	comp=Z,0.1nm,0.3s,baz=156,slow=17,SNR=6.2						
	comp=Z,0.5nm,0.2s						
GERES				AML	AML		
GERES	**GERESS Array B**	12.73	330	*e*P	Pn	03 04 02.1	+3.4
GERES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FETA	**Feichten**	12.77	318	*e*Pn	Pn	03 04 01.5	+2.2
	comp=Z,0.9nm,0.4s						
FETA				*e*Sn	Sn	03 06 14.8	-6.3
	comp=Z,1.5nm,0.5s						
MOTA	**Moosalm**	12.79	320	*e*Pn	Pn	03 03 59.7	+0.2
	comp=Z,2.2nm,0.5s						
MOTA				*e*Sn	Sn	03 06 15.8	-5.7
	comp=Z,6.8nm,0.7s						
EIL	**Elat**	12.90	127	Pn	Pn	03 03 59.2	-1.7
	comp=Z,1.1nm,0.3s,baz=344,slow=11,SNR=18						
EIL				Sn	Sn	03 06 14.9	-9.3
	comp=Z,0.2nm,0.3s,baz=41,slow=10,SNR=1.6						
	comp=Z,12nm,0.7s						
EIL				AML	AML		
EIL	**Elat**	12.90	127	P	Pn	03 04 00.5	-0.5
	comp=Z,15nm,0.7s						
EIL	**Elat**	12.90	127	P	Pn	03 03 59.6	-1.4
	comp=Z,15nm,0.7s						
KHC	**Kasperske Hory**	13.01	331	*i* P	Pn	03 04 05.2	+2.7
KHC	**Kasperske Hory**	13.01	331	*e*PN	Pn	03 04 04.8	+2.3
KHC	**Kasperske Hory**	13.01	331	Pn	Pn	03 04 02.7	+0.2
	comp=Z,4.6nm,0.9s						
RETA	**Reutte**	13.06	320	*e*Pn	Pn	03 04 01.7	-1.5
	comp=Z,1.2nm,0.5s						
RETA				*e*Sn	Sn	03 06 26.6	-1.4
	comp=Z,2.0nm,0.4s						
DAVOX	**Davos/Dischmat**	13.08	316	Pn	Pn	03 04 02.6	-1.0
	comp=Z,0.3nm,0.3s,baz=146,slow=15,SNR=5.8						
DAVOX				Sn	Sn	03 06 21.6	-7.1
	comp=Z,0.2nm,0.3s,baz=316,slow=20,SNR=5.6						
	comp=Z,0.6nm,0.4s						
DAVOX				AML	AML		
AK06	**Malin Array Si**	13.19	17	Pn	Pn	03 04 05.2	+0.3
TUE	**Stuetta**	13.20	314		Pn	03 04 05.4	+0.3
TUE	**Stuetta**	13.20	314	Pn	Pn	03 04 05.5	+0.3
	comp=Z,29nm,1.1s						
TUE	**Stuetta**	13.20	314	P	Pn	03 04 09.3	+4.1
	comp=Z,7.3nm,1.1s						
AK10	**Malin Array Si**	13.22	17	Pn	Pn	03 04 05.7	+0.5
RNPP5	**Staryi Chortor**	13.26	7	Pn	Pn	03 04 06.4	+0.6
KIEV	**Kiev**	13.29	17	Pn	Pn	03 04 07.0	+0.7
	comp=Z,27nm,1.0s						
AKASG	**Malin Array Be**	13.30	17	Pn	Pn	03 04 05.2	-1.2
	comp=Z,0.8nm,0.6s,baz=215,slow=13,SNR=4.1						
AKASG	**Malin Array Be**	13.30	17	*e*P	Pn	03 04 07.7	+1.3
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.6s						
AKBB	**Malin Array Si**	13.30	17	*i* P	Pn	03 04 08.1	+1.7
AKBB	**Malin Array Si**	13.30	17	Pn	Pn	03 04 06.7	+0.3
RNPP8	**Varash**	13.36	7	Pn	Pn	03 04 07.2	0.0
DAVA	**Damuels**	13.39	317	*e*Pn	Pn	03 04 10.3	+2.6
	comp=Z,0.8nm,0.3s						
DAVA				*e*Sn	Sn	03 06 30.6	-5.5
	comp=Z,3.8nm,0.5s						
PRU	**Pruhonice**	13.39	335	P	Pn	03 04 07.7	+0.2
PRU	**Pruhonice**	13.39	335	P	Pn	03 04 07.7	+0.2
	comp=Z,6.4nm,1.7s						
RNPP9	**Sopachiv**	13.44	7	Pn	Pn	03 04 08.7	+0.5
LPG	**La Plagne**	14.29	306	*e*P	P	03 04 25.1	-2.2
LPG				pmax	pmax		
	comp=Z,5.0nm,0.8s						
LPL	**La Plagne**	14.30	306	*e*P	P	03 04 25.0	-2.5
LPL				pmax	pmax		
	comp=Z,3.0nm,0.7s						
SENIN	**Lac Senin/Sane**	14.34	310		Pn	03 04 21.6	+0.7
BRG	**Berggiesshubel**	14.34	336	*e*P	P	03 04 34.7	+7.1
BRG				Amp		03 04 37.5	
	comp=Z,4.5nm,1.0s						
GRFO	**Grafenberg**	14.41	327	P	P	03 04 32.3	+3.9
GRF	**Grafenberg Arr**	14.41	327	P	P	03 04 31.5	+3.1
STU	**Stuttgart**	14.69	321	P	Pn	03 04 25.4	0.0
STU	**Stuttgart**	14.69	321	Pn	Pn	03 04 25.4	0.0
MOX	**Moxa**	14.99	330	P	P	03 04 36.9	+2.1
CLL	**Collm**	15.03	335	P	Pn	03 04 30.1	+0.2
CLL				pmax	pmax		
	comp=Z,11nm,0.8s						
CLL	**Collm**	15.03	335		Pn	03 04 30.1	+0.2
CLL				IAmb	IAmb	03 04 46.7	
	comp=Z,11nm,0.8s						
CLL	**Collm**	15.03	335	*e*PP	P	03 04 38.0	+2.8
CLL				*i* sPP		03 04 43.4	
CLL				*i* x	x	03 04 46.0	
	comp=Z,13nm,0.9s						
CLL				L	L	03 09 00.0	
EPOS	**Posof**	15.41	71	P	P	03 04 38.4	-1.2
	comp=Z,14nm,1.3s						
CDF	**Champ du Feu**	15.46	317	*e*P	P	03 04 42.9	+2.7
CDF				pmax	pmax		
	comp=Z,8.0nm,1.1s						
GEVA	**Gevas**	15.64	83	P	P	03 04 43.5	+1.2
GEVA				IAmb	IAmb	03 04 53.0	
	comp=Z,11nm,1.0s						
NEUR	**Neytrino**	15.68	65	*i* P	P	03 04 42.0	-0.7
HAU	**Haudompre**	15.75	314	*e*P	P	03 04 43.9	+0.6
HAU				pmax	pmax		
	comp=Z,9.0nm,0.9s						
DIGO	**Kars**	15.82	75	P	P	03 04 44.5	+0.2
	comp=Z,32nm,0.8s						
KIV	**Kislovodsk**	15.83	62	*e*P	Pn	03 04 41.9	+1.4
KIV				pmax	pmax		
	comp=Z,8.0nm,1.0s						
KIV				MLR	MLR		
	comp=Z,21nm,14.0s						
KIV	**Kislovodsk**	15.83	62		Pn	03 04 41.6	+1.0
KIV				IAmb	IAmb	03 04 50.1	
	comp=Z,16nm,1.2s						
KBZ	**Khabaz**	15.92	63	Pn	Pn	03 04 42.5	+1.0
	baz=282,slow=5.3,SNR=8.4						
	comp=Z,0.5nm,0.4s						
KBZ	**Khabaz**	15.92	63	*i* P	P	03 04 45.9	+0.8
TNS	**Taunus Mts**	16.03	324	P	P	03 04 48.8	+2.4
TNS	**Taunus Mts**	16.03	324	P	P	03 04 48.9	+2.4
CLZ	**Clausthal**	16.41	331	P	P	03 04 53.5	+2.9
	comp=Z,9.1nm,1.3s						
SMF	**Signal de Mont**	16.61	307	*e*P	P	03 04 52.9	+0.1
SMF				pmax	pmax		
	comp=Z,3.0nm,0.6s						
MNK	**Minsk**	16.71	10	*i* P	Pn	03 04 51.9	+0.3
MNK				*i* S	Sn	03 07 55.6	-1.1
MNK				pmax	pmax		
	comp=N,8.0nm,0.8s						
MNK				pmax	pmax		
	comp=Z,6.0nm,0.8s						
MNK				pmax	pmax		
	comp=E,14nm,0.8s						
MNK				MLR	MLR		
	comp=N,55nm,14.0s						
MNK				MLR	MLR		
	comp=E,235nm,14.0s						
MNK				MLR	MLR		
	comp=Z,260nm,14.0s						
MNK	**Minsk**	16.71	10	*i* P	Pn	03 04 51.9	+0.3
	comp=E,14nm,0.8s						
MNK				*i* P	Pn	03 04 51.9	+0.3
	comp=N,8.0nm,0.8s,baz=193						
MNK				*i* P	Pn	03 04 51.9	+0.3
	comp=Z,6.0nm,0.8s						
MNK				*i* PP	PnPn	03 05 01.0	+0.1
MNK				*i* S	Sn	03 07 55.7	-1.1
MNK				*i* SS	SnSn	03 08 10.1	+0.2
MNK				*i* LRM	MLR	03 12 06.5	
	comp=N,55nm,13.6s						
MNK				*i* LRM	MLR	03 12 16.8	
	comp=E,235nm,14.0s						
MNK				*i* LRM	MLR	03 12 21.6	
	comp=Z,260nm,13.9s						
LOR	**Lormes**	16.86	309	*e*P	P	03 04 57.4	+1.8
LOR				pmax	pmax		
	comp=Z,7.0nm,1.0s						
GNI	**Garni**	16.86	76	Pn	P	03 04 57.2	+1.4
	comp=Z,0.7nm,0.3s,baz=242,slow=17,SNR=5.7						
GNI				LR	LR	03 11 29.3	
	comp=Z,66nm,20.8s,baz=292,slow=38						
	comp=Z,2.3nm,0.3s						
GNI				AML	AML		
GNI	**Garni**	16.86	76	*i* P	P	03 04 57.1	+1.3
CAF	**Calviac**	17.19	300	*e*P	Pn	03 04 58.2	+0.5
CAF				pmax	pmax		
	comp=Z,7.0nm,1.0s						
CEST	**Esterri de Car**	17.29	292	IAmb	IAmb	03 05 04.6	
	comp=Z,37nm,1.5s						
VSR	**Storozhevoye**	17.30	36	*e*P	Pn	03 04 58.7	-0.3
VSR				pmax	pmax		
	comp=Z,11nm,1.0s						
PABE	**Paberze**	17.41	2	P	Pn	03 05 00.1	-0.2
PABE				IAmb	IAmb	03 05 14.0	
	comp=Z,21nm,0.9s						
VORR	**Voronezh**	17.64	35	P	P	03 05 12.1	+8.0
VORR				pmax	pmax		
	comp=Z,9.0nm,1.1s						
LPSR	**Galich'ya Gora**	18.18	32	P	Pn	03 05 09.5	-0.3
LPSR				pmax	pmax		
	comp=Z,27nm,1.0s						
VRH	**Novokhopyorsk**	18.52	39	P	P	03 05 13.8	0.0
VRH				pmax	pmax		
	comp=Z,8.0nm,0.8s						
ETSF	**Etsaut**	18.65	292	*e*P	Pn	03 05 17.7	+1.9
ETSF				pmax	pmax		
	comp=Z,22nm,1.0s						
AKT	**Akhty**	19.15	72	*e*P	Pn	03 05 23.6	+1.7
AKT				pmax	pmax		
	comp=Z,2.0nm,0.7s						
MFF	**Saint Martin d**	19.16	304	*e*P	Pn	03 05 21.5	-0.3
MFF				pmax	pmax		
	comp=Z,42nm,0.8s						
MFF	**Saint Martin d**	19.16	304	P	Pn	03 05 23.8	+2.0
	comp=Z,3.0nm,0.8s						
SJPF	**Ste Jean**	19.16	293	*e*P	Pn	03 05 22.0	+0.1
SJPF				pmax	pmax		
	comp=Z,3.0nm,0.7s						
OBN	**Obninsk**	19.28	24⇓	*e*P	P	03 05 22.5	+0.4
OBN				S	Sn	03 08 59.0	+0.2
OBN				pmax	pmax		
	comp=Z,10.0nm,0.9s						
OBN				MLR	MLR		
	comp=Z,70nm,13.0s						
LDF	**La Druitiere**	19.84	309	*e*P	P	03 05 28.1	-0.2
LDF				pmax	pmax		
	comp=Z,7.0nm,0.7s						
FLN	**La Foliniere**	20.13	310	*e*P	P	03 05 31.8	+0.3
FLN				pmax	pmax		
	comp=Z,31nm,1.4s						
GRR	**Gorron**	20.22	308	*e*P	P	03 05 30.9	-1.5
GRR				pmax	pmax		
	comp=Z,6.0nm,0.6s						
VSU	**Vasula**	20.50	5*c*	*e*P	Pn	03 05 37.5	-0.1
VSU				pmax	pmax		
	comp=Z,39nm,1.0s						
VSU	**Vasula**	20.50	5	P	Pn	03 05 38.2	+0.7
	comp=Z,56nm,1.1s						
UCM	**Universidad Co**	20.56	284	P	P	03 05 36.7	+0.4
	comp=Z,15nm,0.8s						
ESBB	**Sonseca Array**	21.15	283	IAmb	IAmb	03 05 47.7	
	comp=Z,9.9nm,1.1s						
ESDC	**Sonseca Array**	21.15	283	P	P	03 05 42.1	-0.6
	comp=Z,7.0nm,0.9s,baz=76,slow=11,SNR=50						
ESDC				LR	LR	03 12 47.4	
	comp=Z,43nm,19.5s,baz=78,slow=34						
	comp=Z,7.0nm,0.9s						
ESDC	**Sonseca Array**	21.15	283	P	P	03 05 41.8	-0.9
ESDC				IAmb	IAmb	03 05 51.3	
	comp=Z,20nm,1.3s						
SGMF	**Saint Gilles**	21.23	307	*e*P	P	03 05 43.4	0.0
SGMF				pmax	pmax		
	comp=Z,13nm,0.8s						
PAB	**San Pablo**	21.46	282	P	P	03 05 44.2	-1.8
PAB				pmax	pmax		
	comp=Z,7.0nm,0.9s						
PAB	**San Pablo**	21.46	282	P	P	03 05 44.2	-1.8
TAM	**Tamanrasset**	21.50	230	P	P	03 05 46.9	+0.3
TAM				pmax	pmax		
	comp=Z,9.0nm,0.7s						
TAM	**Tamanrasset**	21.50	230	P	P	03 05 46.9	+0.3
TAM				IAmb	IAmb	03 05 48.2	
	comp=Z,9.3nm,0.7s						
TAM	**Tamanrasset**	21.50	230	P	P	03 05 47.9	+1.3
	comp=Z,5.7nm,1.5s						
QUIF	**Quistinic**	21.52	306	*e*P	P	03 05 44.2	-2.2
QUIF				pmax	pmax		
	comp=Z,15nm,0.8s						
ROSF	**Rostrenen**	21.71	307	*e*P	P	03 05 48.6	0.0
ROSF				pmax	pmax		
	comp=Z,26nm,1.2s						
BELG	**Belogornoye**	22.22	42	*i* P	P	03 05 56.5	+2.5
BELG				pmax	pmax		
	comp=Z,8.0nm,1.2s						
HFS	**Hagfors**	22.85	348	P	P	03 05 59.9	-0.8
	comp=Z,0.6nm,0.3s,baz=138,slow=11,SNR=9.7						
HFS				LR	LR	03 16 06.2	
	comp=Z,83nm,18.5s,baz=162,slow=40						
	comp=Z,0.6nm,0.3s						
PBRG	**Braganca**	23.17	289	*e*P	P	03 06 04.9	+0.8
MD31	**MD31**	23.29	266	P	P	03 06 06.4	+0.9
FINES	**FINESS Array B**	23.43	4	P	P	03 06 05.5	-1.0
	comp=Z,7.6nm,1.1s,baz=185,slow=8.8,SNR=5.7						
	comp=Z,7.6nm,1.1s						
FINES	**FINESS Array B**	23.43	4	*e*P	P	03 06 10.5	+4.0
FINES				pmax	pmax		
	comp=Z,4.0nm,0.7s						
PBAR	**Barrancos**	23.71	280	*e*P	P	03 06 09.5	0.0
NC602	**NORSAR Array S**	23.80	346	P	P	03 06 11.2	+1.1
NORES	**NORESS Array B**	23.80	346	P	P	03 06 09.9	-0.2
PMRV	**Marv??o**	23.82	283	*e*P	P	03 06 10.1	-0.4
PCBR	**Castelo Branco**	23.84	284	*e*P	P	03 06 10.5	-0.2
MTE	**Manteigas**	23.84	285	*e*P	P	03 06 10.6	-0.2
MTE	**Manteigas**	23.84	285	P	P	03 06 09.1	-1.6
MTE				IAmb	IAmb	03 06 12.2	
	comp=Z,15nm,1.2s						
MTE	**Manteigas**	23.84	285	P	P	03 06 09.8	-1.0
	comp=Z,14nm,1.1s						
RAYN	**Ar Rayn**	23.98	121	P	P	03 06 11.8	-0.4
RAYN				pmax	pmax		
	comp=Z,9.0nm,1.4s						
RAYN	**Ar Rayn**	23.98	121	P	P	03 06 11.8	-0.4
RAYN				IAmb	IAmb	03 06 14.0	
	comp=Z,9.2nm,1.4s						
RAYN	**Ar Rayn**	23.98	121	P	P	03 06 13.3	+1.1
	comp=Z,5.1nm,1.2s						
PESTR	**Estremoz**	24.04	281	*e*P	P	03 06 12.6	0.0
PVIS	**Viseu**	24.08	286	*e*P	P	03 06 12.7	-0.3
NB2	**NORSAR Subarra**	24.15	346	P	P	03 06 13.7	+0.3
	comp=Z,8.4nm,1.0s,baz=160,slow=11						
NOA	**NORSAR Array B**	24.15	346	P	P	03 06 13.0	-0.4
	comp=Z,2.8nm,1.1s,baz=158,slow=8.9,SNR=7.6						
NOA				LR	LR	03 17 00.1	
	comp=Z,28nm,18.4s,baz=180,slow=40						
	comp=Z,2.8nm,1.1s						
NOA	**NORSAR Array B**	24.15	346	P	P	03 06 13.0	-0.4
PGAV	**Gavieira, Arco**	24.30	289	*e*P	P	03 06 15.1	-0.1
PVAQ	**Vaqueiros**	24.38	278	*e*P	P	03 06 15.0	-0.7
PBEJ	**Beja**	24.38	279	*e*P	P	03 06 15.8	0.0
PSARD	**Sardoal**	24.39	283	*e*P	P	03 06 16.4	+0.6
PARRA	**Arraiolos**	24.39	281	*e*P	P	03 06 14.7	-1.1
EVO	**Evora**	24.41	281	*e*P	P	03 06 16.0	0.0
PMTG	**Montargil**	24.50	282	*e*P	P	03 06 16.1	-0.7
PBDV	**Barranco-do-Ve**	24.58	278	*e*P	P	03 06 17.4	-0.2
PCAS	**Casmilo, Conde**	24.60	284	*e*P	P	03 06 17.5	-0.2
MESJ	**Messejana**	24.69	279	*e*P	P	03 06 18.4	-0.1
MESJ	**Messejana**	24.69	279	P	P	03 06 18.3	-0.3
MESJ				pmax	pmax		
	comp=Z,8.0nm,0.8s						
MESJ	**Messejana**	24.69	279	P	P	03 06 18.3	-0.3
MESJ				IAmb	IAmb	03 06 18.8	
	comp=Z,8.0nm,0.8s						
EKA	**Eskdalemuir Ar**	24.72	323	P	P	03 06 18.4	-0.2
	comp=Z,5.9nm,0.6s,baz=119,slow=9.0,SNR=14						
	comp=Z,5.9nm,0.6s						
KLMR	**Klimovskoe**	24.98	19	*e*P	P	03 06 20.1	-0.8
KLMR				pmax	pmax		
	comp=Z,29nm,1.4s						
PTEO	**Sao Teotonio**	25.14	279	*e*P	P	03 06 22.4	-0.2
PFVI	**Vila Bisbo**	25.30	278	*e*P	P	03 06 24.5	+0.4
KIRV	**Kirov**	26.60	31	LR	LR	03 16 26.7	
	comp=Z,58nm,21.9s,baz=232,slow=35						
KIRV	**Kirov**	26.60	31	*i* P	P	03 06 38.4	+2.8
AKTO	**Aktyubinsk**	27.56	52	LR	LR	03 20 15.5	
	comp=Z,45nm,19.8s,baz=327,slow=42						
ARTI	**Arti**	29.63	40	LR	LR	03 19 38.0	
	comp=Z,43nm,18.9s,baz=52,slow=38						
ARTI	**Arti**	29.63	40*c*	*i*P	P	03 07 03.1	+0.4
ARTI						03 10 07.7	
ARTI				S	S	03 11 56.1	-1.2
ARTI				pmax	pmax		
	comp=Z,2.0nm,0.7s						
ARTI	**Arti**	29.63	40	P	P	03 07 03.2	+0.4
ARTI				IAmb	IAmb	03 07 15.1	
	comp=Z,10nm,1.2s						
TORD	**Torodi Ar. Bea**	31.35	223	P	P	03 07 18.0	-0.2
	comp=Z,9.8nm,0.6s,baz=32,slow=9.2,SNR=56						
	comp=Z,9.8nm,0.6s						
ARCES	**ARCESS Array B**	31.51	2	P	P	03 07 18.7	-0.4
	comp=Z,2.0nm,0.8s,baz=188,slow=8.5,SNR=4.4						
ARCES				PcP	PcP	03 10 10.4	-1.1
	comp=Z,5.2nm,1.1s,baz=217,slow=0.6,SNR=3.8						
ARCES				LR	LR	03 21 18.5	
	comp=Z,116nm,21.7s,baz=220,slow=39						
	comp=Z,2.0nm,0.8s						
BVAR	**Borovoye Array**	35.57	50	P	P	03 07 55.0	+0.3
	comp=Z,0.9nm,0.6s,baz=260,slow=8.7,SNR=4.3						
	comp=Z,0.9nm,0.6s						
BVAR	**Borovoye Array**	35.57	50	P	P	03 07 55.0	+0.3
KKAR	**Karatay Array**	35.91	67	P	P	03 07 58.6	+0.9
KKAR	**Karatay Array**	35.91	67	P	P	03 07 58.6	+0.9
BORG	**Borgarnes**	37.20	330	LR	LR	03 26 51.2	
	comp=Z,72nm,19.1s,baz=101,slow=42						
AAK	**Ala-Archa**	38.87	67	P	P	03 08 22.8	-0.2
	comp=Z,1.0nm,0.4s,baz=181,slow=7.5,SNR=4.0						
AAK				LR	LR	03 26 09.8	
	comp=Z,14nm,18.4s,baz=242,slow=39						
	comp=Z,1.0nm,0.4s						
AAK	**Ala-Archa**	38.87	67	*i* P	P	03 08 26.8	+3.8
AAK				pmax	pmax		
	comp=Z,3.0nm,1.0s						
DBIC	**Dimbokro**	40.31	226	P	P	03 08 34.4	-0.6
	comp=Z,11nm,0.5s,baz=31,slow=9.3,SNR=20						
	comp=Z,11nm,0.5s						
DBIC	**Dimbokro**	40.31	226	P	P	03 08 34.2	-0.8
KURBB	**Kurchatov Arra**	40.59	54	P	P	03 08 37.0	+0.1
	comp=Z,1.4nm,0.8s,baz=278,slow=8.6,SNR=9.7						
	comp=Z,1.4nm,0.8s						
KURK	**Kurchatov**	40.64	54*c*	*e*P	P	03 08 41.3	+3.9
KURK				pmax	pmax		
	comp=Z,5.0nm,1.7s						
KURK	**Kurchatov**	40.64	54	P	P	03 08 37.0	-0.3
MK31	**Makanchi Array**	43.55	59*c*	*e*P	P	03 09 04.1	+2.8
MKAR	**Makanchi Array**	43.55	59	P	P	03 09 01.6	+0.3
	comp=Z,2.3nm,0.6s,baz=278,slow=6.7,SNR=15						
MKAR				LR	LR	03 29 32.2	
	comp=Z,30nm,18.2s,baz=312,slow=39						
	comp=Z,2.3nm,0.6s						
ZALV	**Zalesovo Beam**	44.18	48	P	P	03 09 06.1	-0.1
	comp=Z,3.9nm,0.6s,baz=270,slow=8.8,SNR=16						
ZALV				LR	LR	03 30 11.9	
	comp=Z,12nm,19.9s,baz=342,slow=40						
	comp=Z,3.9nm,0.6s						
ZALV	**Zalesovo Beam**	44.18	48	*e*P	P	03 09 05.8	-0.3
ZALV				pmax	pmax		
	comp=Z,5.0nm,0.7s						
ZALV	**Zalesovo Beam**	44.18	48		P	03 09 05.6	-0.5
NRIK	**Noril'sk**	45.92	26	LR	LR	03 29 54.4	
	comp=Z,53nm,20.6s,baz=246,slow=38						
NRIK	**Noril'sk**	45.92	26	*i* P	P	03 09 22.4	+2.6
NRIK				pmax	pmax		
	comp=Z,4.0nm,1.1s						
DGZ	**Jazzator, Alta**	46.38	54	*i* P	P	03 09 27.3	+3.4
DGZ				pmax	pmax		
	comp=Z,4.0nm,0.9s						
WMQ	**Urumqi**	47.96	62	*e*P	P	03 09 39.2	+3.0
WMQ				LR	LR		
	comp=Z,72nm,22.1s						
TSUM	**Tsumeb**	57.25	186	LR	LR	03 38 35.5	
	comp=Z,94nm,19.0s,baz=146,slow=40						
SONM	**Songino Array**	58.88	51	LR	LR	03 40 51.8	
	comp=Z,33nm,19.2s,baz=264,slow=41						
SCHQ	**Schefferville**	59.92	318	P	P	03 11 03.0	-0.3
	comp=Z,3.5nm,0.8s,baz=79,slow=6.3,SNR=7.8						
	comp=Z,3.5nm,0.8s						
SCHQ	**Schefferville**	59.92	318	IAmb	IAmb	03 11 11.4	
	comp=Z,20nm,1.4s						
LBTB	**Lobatse**	62.83	178	LR	LR	03 42 19.1	
	comp=Z,59nm,18.0s,baz=96,slow=40						
HHC	**Hu-ho-hao-te**	65.34	57	*e*P	P	03 11 41.3	+1.4
HHC				pmax	pmax		
	comp=Z,12nm,0.6s						
PZH	**PanZhiHua**	65.62	75	P	P	03 11 42.6	+0.7
BOSA	**Boshof**	66.40	178	P	P	03 11 46.2	-0.4
	comp=Z,2.3nm,0.6s,baz=344,slow=7.1,SNR=4.3						
	comp=Z,2.3nm,0.6s						
CMAR	**Chiang Mai Arr**	67.83	83	P	P	03 11 55.0	-0.9
	comp=Z,0.9nm,0.3s,baz=318,slow=6.7,SNR=4.4						
	comp=Z,0.9nm,0.3s						
BILL	**Bilibino**	70.60	14	*i* P	P	03 12 17.8	+5.5
BILL				pmax	pmax		
	comp=Z,3.0nm,1.0s						
KLR	**Kul'dur**	72.58	41	LR	LR	03 47 16.4	
	comp=Z,27nm,18.4s,baz=275,slow=38						
MA2	**Magadan**	73.50	25	LR	LR	03 51 06.7	
	comp=Z,16nm,18.3s,baz=107,slow=41						
ULM	**Lac du Bonnet**	76.98	325	P	P	03 12 49.6	-0.3
	comp=Z,0.8nm,0.4s,baz=83,slow=17,SNR=1.0						
	comp=Z,0.8nm,0.4s						
ULM	**Lac du Bonnet**	76.98	325	IAmb	IAmb	03 12 55.0	
	comp=Z,14nm,1.5s						
ILAR	**Eielson Array**	77.16	356	P	P	03 12 50.0	-0.8
	comp=Z,0.3nm,0.8s,baz=3.9,slow=4.0,SNR=2.5						
	comp=Z,0.3nm,0.8s						
KSRS	**Korea Array**	77.74	52	LR	LR	03 51 24.5	

	comp=Z,20nm,19.5s,baz=265,slow=39						
PETK	Petropavlovsk-	80.98	26	LR	LR	03 51 10.6	
	comp=Z,22nm,19.2s,baz=306,slow=37						
MJAR	Matsushiro Arr	84.52	47	LR	LR	03 54 25.6	
	comp=Z,21nm,18.6s,baz=196,slow=38						
NEW	Newport	87.03	335	LR	LR	03 56 49.4	
	comp=Z,21nm,18.3s,baz=4.0,slow=38						
PDAR	Pinedale Array	88.76	327	P	P	03 13 50.8	-0.7
	comp=Z,0.1nm,0.4s,baz=6.6,slow=3.3,SNR=3.6						
	comp=Z,0.1nm,0.4s						
TXAR	Lajitas Array	96.51	315	P	P	03 14 27.2	-0.2
	comp=Z,0.3nm,0.8s,baz=91,slow=5.0,SNR=3.6						
	comp=Z,0.3nm,0.8s						
ASAR	Alice Springs	120.09	98	PKP	PKPdf	03 19 47.1	-1.5
	comp=Z,0.7nm,0.8s,baz=274,slow=2.2,SNR=6.3						
QSPA	South Pole Qui	127.96	180	PKP	PKPdf	03 20 00.7	-1.7
	comp=Z,2.1nm,0.8s,baz=277,slow=2.0,SNR=9.9						

IDC 11 03:03:06.9±4.3**, 8°.93S**×**127°.14E, h0^{km}, mb4.0**/1**, mbtmp4.0**/4**, ML3.9**/3**, Error ellipse: s-maj=44.6km s-min=36.8km az=138.0, Timor region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	9.23	189	Pn	Pn	03 05 17.8	-3.6
	1.0nm,0.3s,baz=7.2,slow=12,SNR=23						
FITZ				Sn	Sn	03 06 54.5	-12
	2.5nm,0.3s,baz=334,slow=20,SNR=9.5						
	5.4nm,0.5s						
FITZ				AML	AML		
WRA	Warramunga Arr	12.97	148	Pn	Pn	03 06 07.8	-4.9
	0.6nm,0.3s,baz=324,slow=13,SNR=29						
WRA				Sn	Sn	03 08 24.8	-13
	1.1nm,0.3s,baz=330,slow=21,SNR=9.9						
	3.7nm,0.8s						
WRA				AML	AML		
ASAR	Alice Springs	16.02	157	Pn	Pn	03 06 49.8	-4.0
	0.4nm,0.3s,baz=328,slow=9.9,SNR=18						
ASAR				Sn	Sn	03 09 38.4	-14
	0.3nm,0.3s,baz=326,slow=22,SNR=7.9						
	1.3nm,0.8s						
ASAR				AML	AML		
STKA	Stephens Creek	26.49	152	P	P	03 08 45.4	-0.7
	2.1nm,0.8s,baz=332,slow=10,SNR=3.5						
	2.1nm,0.8s						

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*IDC **11** 03:06:32.5±1.0, 45°.18N×98°.38E, h0^{km}, mb3.6/9, mbtmp3.7/12, ML3.5/3, MS2.9/2, Error ellipse: s-maj=22.0km s-min=11.9km az=1.0*

ISC 11 03:06:33.9±1.0**, 45°.1N**±0°.2×**98°.22E**±0°.08**, h10^{km}, n14, σ0^{s}.87**/13**, mb3.6**/9**, Mongolia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	6.29	61	Pn	Pn	03 08 06.0	-0.9
	2.2nm,0.3s,baz=245,slow=15,SNR=21						
SONM				Pg	Pb	03 08 25.0	+1.4
	10nm,0.3s,baz=249,slow=15,SNR=14						
SONM				Lg	Lg	03 09 45.2	
	4.6nm,0.3s,baz=245,slow=36,SNR=4.5						
	6.1nm,0.5s						
SONM				AML	AML		
MKAR	Makanchi Array	11.23	285	Lg	Lg	03 12 25.1	
	0.5nm,0.3s,baz=87,slow=31,SNR=6.0						
MKAR				LR	LR	03 14 00.1	
	comp=Z,37nm,21.3s,baz=139,slow=40						
ZALV	Zalesovo Beam	12.43	320	Lg	Lg	03 12 54.9	
	0.2nm,0.3s,baz=182,slow=35,SNR=1.4						
KURBB	Kurchatov Arra	14.33	300	Pn	Pn	03 09 56.1	-0.6
	0.1nm,0.3s,baz=104,slow=13,SNR=13						
KURBB				Lg	Lg	03 14 03.8	
	baz=107,slow=32						
	0.4nm,0.5s						
KURBB				AML	AML		
BVAR	Borovoye Array	19.81	304	P	P	03 11 05.4	+1.1
	0.1nm,0.3s,baz=97,slow=12,SNR=16						
	4.5nm,0.6s						
BVAR				AML	AML		
KSRS	Korea Array	23.49	98	P	P	03 11 43.1	-0.7
	0.5nm,0.4s,baz=290,slow=9.0,SNR=5.1						
	0.5nm,0.4s						
ARCES	ARCESS Array B	42.74	330	P	P	03 14 30.0	-0.8
	1.4nm,0.6s,baz=83,slow=8.4,SNR=7.8						
	1.4nm,0.6s						
FINES	FINESS Array B	43.69	319	P	P	03 14 38.7	+0.2
	2.1nm,0.9s,baz=49,slow=6.6,SNR=1.4						
	2.1nm,0.9s						
BRTR	Keskin Array B	46.87	287	P	P	03 15 05.2	+0.9
	0.3nm,0.6s,baz=76,slow=6.1,SNR=2.9						
	0.3nm,0.6s						
HFS	Hagfors	49.86	319	P	P	03 15 26.6	-0.3
	1.0nm,0.6s,baz=76,slow=7.6,SNR=1.8						
HFS				LR	LR	03 36 38.1	
	comp=Z,20nm,20.8s,baz=354,slow=36						
	1.0nm,0.6s						
NOA	NORSAR Array B	50.63	321	P	P	03 15 32.2	-0.6
	0.6nm,0.8s,baz=69,slow=6.1,SNR=2.2						
	0.6nm,0.8s						
ILAR	Eielson Array	59.37	27	P	P	03 16 35.2	-0.6
	0.2nm,0.6s,baz=317,slow=5.7,SNR=2.9						
	0.2nm,0.6s						
WRA	Warramunga Arr	72.58	144	P	P	03 18 00.9	-0.4
	0.5nm,0.7s,baz=346,slow=6.2,SNR=2.8						
	0.5nm,0.7s						
ASAR	Alice Springs	75.75	147	P	P	03 18 20.4	+0.6
	0.1nm,0.3s,baz=344,slow=8.2,SNR=1.7						
	0.1nm,0.3s						

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*MOS **11** 03:45:50.8±0.9, 27°.21N×87°.71E, h11^{km}, mb4.5/15, Error ellipse: s-maj=11.6km s-min=5.8km az=118.4*

*IDC **11** 03:45:50.7±0.7, 27°.26N×87°.82E, h0^{km}, mb4.0/16, mbtmp4.0/19, ML4.1/2, MS2.9/6, Error ellipse: s-maj=26.7km s-min=13.7km az=48.0*

*DMN **11** 03:45:51.1±0.3, 26°.85N×88°.22E, h10^{km}, Ml5.0/9, Error ellipse: s-maj=8.9km s-min=4.8km az=5.0*

*GFZ **11** 03:45:52.1±0.3, 27°N±6°×8°8E±°, h10^{km}, M4.6/27, mb4.6/27, confirmed*

*NEIC **11** 03:45:52.9±1.6, 27°.25N±0°.09×87°.77E±0°.07, h10^{km}±1^{km}, mb4.4/32, Error ellipse: s-maj=16.5km s-min=9.5km az=203.0*

*NDI **11** 03:45:54.4±1.5, 27°.23N×87°.80E, h10^{km}, ML4.4, MW4.1, Presumed earthquake*

ISC 11 03:45:52.3±0.7**, 27°.32N**±0°.04×**87°.82E**±0°.02**, h8^{km}**±4^{km}**, n184, σ1^{s}.07**/199**, mb4.5**/75**, MS3.0**/3**, 10C-3D, Nepal**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ODAN	Odare	0.59	220	Pg	Pb	03 46 05.2	+0.1
	baz=271,slow=0.0						
ODAN				Sg	Sb	03 46 15.2	+1.5
	7μm,0.3s,baz=271,slow=0.0						
ODAN				AML	AML		
EVN	Everest	1.09	306		Pn	03 46 15.4	+0.9
EVN	Everest	1.09	306	P	Pn	03 46 15.4	+0.9
JPG	JALPAIGURI	1.11	134	*e*P	Pb	03 46 14.0	+0.3
JPG				*e*x	Sg	03 46 27.3	-0.7
JPG				IAML		03 46 27.9	
	comp=E,11μm,0.2s						
JPG				IAML		03 46 28.2	
	comp=N,11μm,0.1s						
RAMN	Ramite	1.15	252	Pn	Pn	03 46 16.1	+1.3
	baz=274,slow=0.0						
RAMN				Sn	Sn	03 46 34.9	+4.1
	comp=N,2μm,0.3s,baz=274,slow=0.0						
RAMN				AML	AML		
COBR	COOCHBEHAR	1.79	124	*e*P	Pn	03 46 24.2	+0.8
COBR				*e*S	Sn	03 46 47.2	+0.9
COBR				IAML		03 46 48.1	
	comp=N,11μm,0.3s						
COBR				IAML		03 46 48.2	
	comp=E,11μm,0.3s						
GUN	Gumba	1.82	289	Pn	Pg	03 46 28.2	+1.0
	baz=297,slow=0.0						
GUN				Sn	Sg	03 46 54.6	+3.8
	comp=E,2μm,0.3s,baz=297,slow=0.0						
GUN				AML	AML		
SHBG	Sahibganj	2.08	185	*e*P	Pb	03 46 29.5	-0.8
SHBG				*e*S	Sn	03 46 53.9	+0.3
SHBG				IAML		03 46 59.7	
	comp=N,6μm,0.2s						
SHBG				IAML		03 47 00.4	
	comp=E,5μm,0.2s						
PKI	Pulchoki	2.16	277	Pn	Pb	03 46 31.9	+0.1
	baz=287,slow=0.0						
PKI				Sn	Sg	03 47 01.5	-0.1
	comp=E,2μm,0.4s,baz=287,slow=0.0						
PKI				AML	AML		
PKIN	Phulchoki	2.17	277	Pn	Pb	03 46 32.1	+0.2
	baz=287,slow=0.0						
PKIN				Sn	Sg	03 47 01.6	-0.4
	comp=E,3μm,0.4s,baz=287,slow=0.0						
PKIN				AML	AML		
KKN	Kakani	2.30	282	Pn	Pb	03 46 34.3	+0.1
	baz=290,slow=0.0						
KKN				Sn	Sg	03 47 06.6	+0.3
	comp=E,1μm,0.2s,baz=290,slow=0.0						
KKN				AML	AML		
DHUB	DHUBRI	2.34	123	*e*P	Pn	03 46 32.5	+1.5
DHUB				*e*S	Sn	03 47 01.6	+1.7
DHUB				IAML		03 47 02.3	
	comp=N,2μm,0.2s						
DHUB				IAML		03 47 02.4	
	comp=E,2μm,0.2s						
DMN	Daman	2.43	277	Pn	Pb	03 46 35.5	-0.9
	baz=286,slow=0.0						
DMN				Sn	Sb	03 47 08.6	+2.1
	comp=E,1μm,0.4s,baz=286,slow=0.0						
DMN				AML	AML		
GKN	Gorkha	2.90	284	Pn	Pb	03 46 42.4	-2.0
	baz=291,slow=0.0						
GKN				Sn	Sb	03 47 19.6	-0.5
	comp=E,882nm,0.3s,baz=291,slow=0.0						
GKN				AML	AML		
DANN	Dangsing	3.74	287	Pn	Pn	03 46 52.7	+2.2
	baz=292,slow=0.0						
DANN				Sn	Sb	03 47 41.2	-3.1
	comp=E,238nm,0.3s,baz=292,slow=0.0						
DANN				AML	AML		
LSA	Lhasa	3.77	50	P	Pn	03 46 53.4	+2.2
LSA	Lhasa	3.77	50		Pn	03 46 53.4	+2.2
LSA	Lhasa	3.77	50	P	Pb	03 46 59.3	-0.1
SHL	Shillong	4.04	115	*e*P	Pn	03 46 57.4	+2.8
SHL				*e*S	Sn	03 47 43.7	+1.5
SHL				IAML		03 47 57.3	
	comp=N,1μm,0.4s						
SHL				IAML		03 47 57.9	
	comp=E,1μm,0.4s						
ZIRO	ZIRO	5.37	86	*e*P	Pn	03 47 14.6	+1.8
ZIRO				*e*S	Sn	03 48 14.3	-0.6
ZIRO				IAML		03 48 39.6	
	comp=E,859nm,0.4s						
ZIRO				IAML		03 48 39.6	
	comp=N,696nm,0.4s						
MORE	Moreh	6.60	116		Pn	03 47 28.1	-1.5
PZH	PanZhiHua	12.45	91	P	Pn	03 48 51.6	+1.6
CMAR	Chiang Mai Arr	13.52	128	Pn	Pn	03 49 04.8	+0.4
	comp=N,0.8nm,0.3s,baz=307,slow=13,SNR=5.0						
CMAR				LR	LR	03 55 57.5	
	comp=N,38nm,19.4s,baz=270,slow=45						
CMAR	Chiang Mai Arr	13.52	128	*i* P	Pn	03 49 05.5	+1.1
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
NIL	Nilore	14.05	300	P	Pn	03 49 09.3	-2.4
NIL	Nilore	14.05	300		Pn	03 49 09.2	-2.4
NIL	Nilore	14.05	300	P	Pn	03 49 11.3	-0.4
	comp=Z,12nm,0.9s						
KSH2	Kashi	15.61	322	P	P	03 49 37.1	+0.1
KSH2				sP	sP	03 49 42.6	+1.2
KSH2				pmax	pmax		
	comp=Z,8.0nm,0.8s						
LZH	Lanzhou	16.18	53	*e*P	Pn	03 49 40.0	-0.2
LZH				sP	pP	03 49 46.7	+0.3
LZH				pmax	pmax		
	comp=Z,18nm,1.5s						
WMQ	Urumqi	16.47	360	*e*P	P	03 49 47.4	+1.0
PDGK	Podgornoye	17.34	339	P	P	03 49 55.9	-0.3
PDGK	Podgornoye	17.34	339		P	03 49 55.9	-0.3
KBL	Kabul	17.63	299	P	Pn	03 49 58.0	-0.5
KBL				pmax	pmax		
	comp=Z,5.0nm,1.0s						
KBL	Kabul	17.63	299	Pn	Pn	03 49 58.0	-0.5
AAK	Ala-Archa	18.75	328	P	Pn	03 50 13.5	+1.4
	comp=Z,0.6nm,0.3s,baz=220,slow=7.9,SNR=4.9						
AAK				LR	LR	03 57 33.0	
	comp=Z,17nm,20.4s,baz=136,slow=37						
	comp=Z,2.0nm,0.4s						
AAK				AML	AML		
AAK	Ala-Archa	18.75	328	*i* P	Pn	03 50 12.3	+0.2
AAK				pmax	pmax		
	comp=Z,12nm,2.6s						
AAK	Ala-Archa	18.75	328	Pn	Pn	03 50 13.7	+1.6
BTK	Batken	18.97	316	P	Pn	03 50 15.6	+0.8
	comp=Z,5.2nm,0.7s						
ARK	Arkit	19.43	322	P	Pn	03 50 22.4	+2.2
	comp=Z,14nm,0.5s						
MK31	Makanchi Array	19.92	349	*ce*P	Pn	03 50 27.0	+0.9
MKAR	Makanchi Array	19.92	349	P	P	03 50 24.9	+0.4
	comp=Z,0.6nm,0.3s,baz=162,slow=11,SNR=14						
MKAR				LR	LR	03 59 26.4	
	comp=Z,52nm,18.1s,baz=159,slow=41						
	comp=Z,1.4nm,0.4s						
MKAR				AML	AML		
MKAR	Makanchi Array	19.92	349	*ce*P	Pn	03 50 26.2	+0.1
MKAR	Makanchi Array	19.92	349		Pn	03 50 25.5	-0.6
MAKZ	Makanchi	19.99	348	P	Pn	03 50 26.4	-0.5
MAKZ	Makanchi	19.99	348	P	Pn	03 50 26.4	-0.5
MAKZ	Makanchi	19.99	348	P	Pn	03 50 27.8	+0.9
	comp=Z,3.3nm,2.2s						
PALK	Pallekele	21.05	200	*i* P	P	03 50 34.6	-2.2
KK31	Karatay Array	21.10	323	P	P	03 50 36.5	-0.7
KK31	Karatay Array	21.10	323	P	P	03 50 36.5	-0.7
KKAR	Karatay Array	21.10	323	P	P	03 50 36.6	-0.6
KKAR	Karatay Array	21.10	323	P	P	03 50 36.6	-0.6
DGZ	Jazzator, Alta	22.35	359	*i* P	P	03 50 51.9	+1.2
DGZ				pmax	pmax		
	comp=Z,4.0nm,1.0s						
HHC	Hu-ho-hao-te	23.76	49	*e*P	P	03 51 05.1	-0.2
HHC				pmax	pmax		
	comp=Z,8.0nm,0.6s						
KURBB	Kurchatov Arra	24.33	346	P	P	03 51 10.8	+0.5
	comp=Z,2.5nm,0.6s,baz=159,slow=9.8,SNR=20						
	comp=Z,2.5nm,0.6s						
KURK	Kurchatov	24.39	346	*ce*P	P	03 51 11.4	+0.5
KURK				pmax	pmax		
	comp=Z,7.0nm,1.3s						
KURK	Kurchatov	24.39	346		P	03 51 11.1	+0.2
KURK				IAmb	IAmb	03 51 12.3	
	comp=Z,10nm,1.2s						
KURK	Kurchatov	24.39	346	P	P	03 51 11.7	+0.8
	comp=Z,5.9nm,1.2s						
SONM	Songino Array	25.10	30	P	P	03 51 17.6	0.0
	comp=Z,2.2nm,0.5s,baz=216,slow=9.7,SNR=11						
SONM				LR	LR	04 02 17.7	
	comp=Z,42nm,20.0s,baz=244,slow=39						
	comp=Z,2.2nm,0.5s						
SONM	Songino Array	25.10	30	P	P	03 51 18.0	+0.5
SONM				pmax	pmax		
	comp=Z,5.0nm,1.1s						
SONM	Songino Array	25.10	30	P	P	03 51 18.0	+0.5
SONM				IAmb	IAmb	03 51 27.0	
	comp=Z,4.5nm,1.1s						
ULN	Ulaanbaatar	25.43	31	*ce*P	P	03 51 21.5	+1.0
ULN				pmax	pmax		
	comp=Z,10.0nm,1.7s						
ULN	Ulaanbaatar	25.43	31	P	P	03 51 20.4	-0.1
ULN				IAmb	IAmb	03 51 29.8	
	comp=Z,7.8nm,1.1s						
ZAA0	Zalesovo Array	26.70	356	P	P	03 51 31.1	-0.7
ZALV	Zalesovo Beam	26.70	356	P	P	03 51 31.9	+0.2
	comp=Z,1.4nm,0.3s,baz=178,slow=9.9,SNR=10						
ZALV				LR	LR	04 03 44.5	
	comp=Z,36nm,18.3s,baz=82,slow=40						
	comp=Z,1.4nm,0.3s						
ZALV	Zalesovo Beam	26.70	356	*i* P	P	03 51 31.7	0.0
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ZALV	Zalesovo Beam	26.70	356		P	03 51 31.3	-0.5
BORK	Borovoye	28.81	338	*i* P	P	03 51 50.4	-0.3
BORK				pmax	pmax		
	comp=Z,2.0nm,0.9s						
AB31	Akbulak array	30.66	323		P	03 52 06.8	-0.3
ABKAR	Akbulak array	30.66	323	P	P	03 52 06.7	-0.4
KIV	Kislovodsk	39.73	307	*e*P	P	03 53 25.4	0.0
KIV				pmax	pmax		
	comp=Z,3.0nm,1.0s						
YAK	Yakutsk	44.36	27	*i* P	P	03 54 03.3	+0.6
YAK				pmax	pmax		
	comp=Z,12nm,0.5s						
OBN	Obninsk	46.09	322	⇓*e*P	P	03 54 15.5	-1.0
OBN				*e**PP	pP	03 54 18.4	-1.4
OBN				*SP	sP	03 54 21.0	+0.3
OBN						03 55 52.0	
OBN				PPP	PPP	03 56 49.0	
OBN				pmax	pmax		
	comp=Z,3.0nm,0.6s						
OBN				MLR	MLR		
	comp=Z,13nm,7.0s						
BR131	Keskin Array S	46.20	300	P	P	03 54 18.4	+0.5
BR131				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BR131	Keskin Array S	46.20	300	P	P	03 54 18.4	+0.5
BRTR	Keskin Array B	46.20	300	P	P	03 54 18.6	+0.6
	comp=Z,0.6nm,0.5s,baz=114,slow=6.9,SNR=5.0						
	comp=Z,0.6nm,0.5s						
BRTR	Keskin Array B	46.20	300	P	P	03 54 18.1	+0.2
ELL	Elmali	49.34	296	P	P	03 54 43.1	+0.8
ELL				pmax	pmax		
	comp=Z,12nm,1.0s						
ELL	Elmali	49.34	296		P	03 54 43.1	+0.8
AKASG	Malin Array Be	49.67	315	P	P	03 54 44.3	-0.2
	comp=Z,0.7nm,0.3s,baz=86,slow=6.0,SNR=13						
	comp=Z,0.7nm,0.3s						
AKASG	Malin Array Be	49.67	315	IAmb	IAmb	03 54 47.3	
	comp=Z,4.2nm,1.2s						
AKBB	Malin Array Si	49.67	315	P	P	03 54 44.0	-0.5
AKBB				pmax	pmax		
	comp=Z,5.0nm,0.4s						
AKBB	Malin Array Si	49.67	315	P	P	03 54 44.0	-0.5
KIEV	Kiev	49.68	315	P	P	03 54 44.0	-0.5
	comp=Z,4.6nm,0.6s						
VRI	Vrincioaia	51.16	308	⇓P	P	03 54 57.2	+1.3
VRI	Vrincioaia	51.16	308	P	P	03 54 57.1	+1.3
	comp=Z,9.0nm,0.7s						
TESR	Tescani	51.21	309	P	P	03 54 57.3	+1.1
	comp=Z,10nm,1.9s						
PLOR	Plostina	51.22	308	⇑P	P	03 54 58.0	+1.7
TURR	Turia	51.66	309	⇓P	P	03 55 00.9	+1.4
MLR	Muntele Rosu	51.72	308	P	P	03 55 01.6	+1.4
MLR				pmax	pmax		
	comp=Z,9.0nm,0.7s						
MLR	Muntele Rosu	51.72	308	P	P	03 55 01.6	+1.4
MLR	Muntele Rosu	51.72	308	⇑P	P	03 55 01.7	+1.4
MLR	Muntele Rosu	51.72	308	P	P	03 55 01.9	+1.8
	comp=Z,12nm,0.8s						
BURAR	Bucovina Array	52.18	311	P	P	03 55 04.4	+0.8
BURAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
BURAR	Bucovina Array	52.18	311	P	P	03 55 04.4	+0.8
BURAR				IAmb	IAmb	03 55 05.2	
	comp=Z,2.0nm,0.7s						
BURAR	Bucovina Array	52.18	311	⇑P	P	03 55 04.1	+0.6
BUR08	Bucovina Ar. S	52.19	311		P	03 55 04.1	+0.5
BUR08				IAmb	IAmb	03 55 04.9	
	comp=Z,2.0nm,0.7s						
ARR	Arges	52.65	308	P	P	03 55 07.3	+0.3
	comp=Z,4.4nm,0.7s						
APE	Apeiranthos	52.78	297	P	P	03 55 07.8	-0.3
	comp=Z,2μm,0.7s						
FINES	FINESS Array B	52.93	328	P	P	03 55 08.9	+0.2
	comp=Z,2.2nm,0.5s,baz=111,slow=7.9,SNR=20						
	comp=Z,2.2nm,0.5s						
FINES	FINESS Array B	52.93	328	*ce*P	P	03 55 09.0	+0.3
FINES				pmax	pmax		
	comp=Z,2.0nm,0.5s						
PABE	Paberze	53.24	320	P	P	03 55 11.3	+0.3
	comp=Z,19nm,0.6s						
PAIG	Paliouri	53.82	301	P	P	03 55 16.0	+0.4
	comp=Z,7.4nm,1.1s						
DRGR		53.91	310	P	P	03 55 17.3	+1.0
	comp=Z,5.9nm,0.9s						
TRPA	Tarpa	53.97	311	P	P	03 55 16.4	-0.1
	comp=Z,5.3nm,0.8s						
GRG	Griva	54.66	302	P	P	03 55 21.8	0.0
	comp=Z,26nm,0.7s						
ARCES	ARCESS Array B	55.06	338	P	P	03 55 24.4	+0.2
	comp=Z,3.9nm,0.8s,baz=110,slow=8.0,SNR=12						
	comp=Z,3.9nm,0.8s						
OJC	Ojcow	55.68	314	P	P	03 55 29.0	0.0
	comp=Z,10nm,2.3s						
LANS	Liptovska Anna	55.96	313	*e*P	P	03 55 32.2	+1.2
LANS	Liptovska Anna	55.96	313	*e*P	P	03 55 32.2	+1.2
MORH	Mrgy, Hungar	56.76	309	P	P	03 55 37.0	+0.3
	comp=Z,3.9nm,1.0s						
SRO	Srobarova	56.83	311	*e*P	P	03 55 39.0	+1.8
SRO	Srobarova	56.83	311	*e*P	P	03 55 38.9	+1.8
STEB	Steborice	57.00	314	*e*P	P	03 55 39.0	+0.6
MORC	Moravsky Berou	57.16	313	P	P	03 55 40.3	+0.7
MORC				pmax	pmax		
	comp=Z,6.0nm,1.3s						
MORC	Moravsky Berou	57.16	313	P	P	03 55 40.3	+0.7
MORC				IAmb	IAmb	03 55 41.0	
	comp=Z,6.3nm,1.3s						
ZST	Bratislava	57.60	312	*e*P	P	03 55 44.8	+2.2
ZST	Bratislava	57.60	312	*e*P	P	03 55 44.8	+2.2
KRLC	Kraliky	57.63	314	*e*P	P	03 55 43.5	+0.6
KRLC	Kraliky	57.63	314	*e*P	P	03 55 43.5	+0.6
KRLC	Kraliky	57.63	314	P	P	03 55 43.3	+0.5
	comp=Z,3.5nm,0.9s						
DPC	Dobruska-Polom	57.90	314	*e*P	P	03 55 45.8	+1.0
DPC	Dobruska-Polom	57.90	314	*e*P	P	03 55 45.8	+1.0
UPC	Upice	58.08	314	P	P	03 55 46.5	+0.5
	comp=Z,4.4nm,1.2s						
CONA	Conrad Observa	58.45	311	*i* P	P	03 55 49.2	+0.5
	comp=Z,1.9nm,0.6s						
ARSA	Arzberg	58.77	311	*e*P	P	03 55 50.3	-0.5
	comp=Z,1.9nm,0.6s						
HFS	Hagfors	58.87	326	P	P	03 55 51.4	+0.1
	comp=Z,4.6nm,0.6s,baz=99,slow=9.3,SNR=15						
	comp=Z,4.6nm,0.6s						
SOKA	Soboth	59.18	310	*e*P	P	03 55 52.9	-0.9
	comp=Z,3.7nm,1.1s						
ZVC	Zvikov	59.37	313	*e*P	P	03 55 55.3	+0.3
CKRC	Cesky Krumlov	59.37	313	*e*P	P	03 55 54.7	-0.3
CKRC	Cesky Krumlov	59.37	313	*e*P	P	03 55 54.7	-0.3
MOA	Molln	59.53	311	*e*P	P	03 55 55.7	-0.4
	comp=Z,2.0nm,0.5s						
GEC2	GERESS Array S	59.76	313	P	P	03 55 58.8	+0.9
	comp=Z,5.6nm,1.4s						
GERES	GERESS Array B	59.76	313	P	P	03 55 58.3	+0.5
	comp=Z,3.7nm,0.8s,baz=90,slow=6.7,SNR=23						
	comp=Z,3.7nm,0.8s						
GERES	GERESS Array B	59.76	313	P	P	03 55 58.4	+0.6
KHC	Kasperske Hory	59.80	313	*ce*P	P	03 55 58.6	+0.5
KHC				pmax	pmax		
	comp=Z,3.0nm,1.3s						
KHC	Kasperske Hory	59.80	313	*e*P	P	03 55 58.4	+0.4
KHC	Kasperske Hory	59.80	313	P	P	03 55 58.4	+0.4
KHC				IAmb	IAmb	03 55 59.4	
	comp=Z,3.0nm,0.7s						
KHC	Kasperske Hory	59.80	313	P	P	03 55 58.5	+0.5
	comp=Z,4.9nm,1.1s						
NC405	NORSAR Array S	59.81	327	P	P	03 55 57.6	-0.3
NORES	NORESS Array B	59.91	327	P	P	03 55 58.0	-0.5
BIOA	Bad Ischl, Aus	59.97	311	*i* P	P	03 55 59.3	+0.1
	comp=Z,2.2nm,0.5s						
NB2	NORSAR Subarra	60.06	327	P	P	03 55 58.9	-0.7
	comp=Z,1.6nm,0.8s,baz=86,slow=6.5						
NOA	NORSAR Array B	60.06	327	P	P	03 55 58.9	-0.7
	comp=Z,1.7nm,0.7s,baz=90,slow=6.7,SNR=7.1						
NOA				LR	LR	04 24 26.3	
	comp=Z,11nm,18.4s,baz=0.0,slow=38						
	comp=Z,1.7nm,0.7s						
DRE	Drenchia	60.21	310	P	P	03 56 00.8	-0.1
	comp=Z,10nm,0.9s						
KBA	Koelnbreinsper	60.26	311	*e*P	P	03 56 01.0	-0.3
	comp=Z,0.9nm,0.4s						
LESA	Schwarzleotal	60.66	311	*i* P	P	03 56 03.8	-0.2
	comp=Z,2.1nm,0.5s						
WIMM	Wimmelburg	60.79	316	P	P	03 56 05.3	+0.7
	comp=Z,39nm,1.8s						
ABTA	Abfaltersbach	60.88	310	*e*P	P	03 56 04.9	-0.6
	comp=Z,3.2nm,0.7s						
GRC1	Grafenberg Arr	61.16	313	P	P	03 56 07.4	+0.1
	comp=Z,7.7nm,0.7s						
NRCA	Norcia	61.19	306	P	P	03 56 07.8	+0.1
WTTA	Wattenberg	61.38	311	*e*P	P	03 56 08.6	-0.4
	comp=Z,7.3nm,1.4s						
WTTA	Wattenberg	61.38	311	P	P	03 56 08.0	-1.0
	comp=Z,5.4nm,0.9s						
WATA	Walderalm	61.41	311	*e*P	P	03 56 09.6	+0.5
	comp=Z,3.2nm,0.6s						
CLZ	Clausthal	61.45	316	P	P	03 56 10.2	+1.1
	comp=Z,15nm,0.8s						
SQTA	Sankt Quirin	61.68	311	*i* P	P	03 56 10.1	-0.8

	comp=Z,4.6nm,0.8s						
MOTA	Moosalm	61.72	311	*e*P	P	03 56 10.6	-0.7
	comp=Z,4.9nm,0.9s						
RETA	Reutte	61.92	311	*i* P	P	03 56 11.8	-0.8
	comp=Z,5.0nm,1.2s						
FETA	Feichten	62.03	311	*e*P	P	03 56 11.6	-1.7
	comp=Z,2.7nm,0.8s						
CLTB	Caltabellotta	62.30	300	P	P	03 56 12.3	-2.9
	comp=Z,53nm,1.4s						
UBR	Ueberruh	62.32	312	P	P	03 56 14.8	-0.4
	comp=Z,7.3nm,2.1s						
FUORN	Ofenpass-Fuorn	62.43	311	P	P	03 56 17.5	+1.4
FUORN				IAmb	IAmb	03 56 18.1	
	comp=Z,2.6nm,0.7s						
DAVA	Damuels	62.55	311	*i* P	P	03 56 16.8	-0.1
	comp=Z,7.2nm,0.8s						
DAVA	Damuels	62.55	311	P	P	03 56 16.9	+0.1
	comp=Z,12nm,0.9s						
TNS	Taunus Mts	62.92	315	P	P	03 56 19.4	+0.4
	comp=Z,9.7nm,2.0s						
ECH	Echery	64.15	313	P	P	03 56 27.0	-0.3
	comp=Z,4.1nm,0.9s						
SENIN	Lac Senin/Sane	64.48	311	P	P	03 56 29.1	-0.6
SENIN				IAmb	IAmb	03 56 30.5	
	comp=Z,4.0nm,0.9s						
WRA	Warramunga Arr	65.09	131	P	P	03 56 33.0	-0.6
	comp=Z,0.4nm,0.5s,baz=319,slow=7.3,SNR=8.2						
	comp=Z,0.4nm,0.5s						
WRA	Warramunga Arr	65.09	131	*ce*P	P	03 56 34.2	+0.5
ASAR	Alice Springs	67.44	134	P	P	03 56 48.4	-0.4
	comp=Z,0.4nm,0.4s,baz=315,slow=6.7,SNR=5.8						
	comp=Z,0.4nm,0.4s						
EKA	Eskdalemuir Ar	68.53	322	P	P	03 56 55.2	+0.1
	comp=Z,0.3nm,0.3s,baz=71,slow=7.1,SNR=4.3						
	comp=Z,0.3nm,0.3s						
E19K	Redstone River	73.95	21	P	P	03 57 28.4	+0.6
E19K				IAmb	IAmb	03 57 29.0	
	comp=Z,3.8nm,0.7s						
ESDC	Sonseca Array	74.40	307	P	P	03 57 31.0	+0.1
	comp=Z,0.2nm,0.6s,baz=64,slow=6.9,SNR=5.3						
	comp=Z,0.2nm,0.6s						
ESDC	Sonseca Array	74.40	307	IAmb	IAmb	03 57 42.8	
	comp=Z,5.3nm,1.4s						
G19K	Purcell Mounta	74.72	22		P	03 57 33.3	+1.0
G19K				IAmb	IAmb	03 57 46.8	
	comp=Z,3.5nm,1.1s						
BMAR	Burnt Mountain	77.79	18		P	03 57 50.9	+1.2
CAST	Castle Rocks	78.06	23	P	P	03 57 52.2	+1.0
E29M	Blow River	78.82	16	P	P	03 57 56.1	+0.7
E29M				IAmb	IAmb	03 57 56.9	
	comp=Z,3.5nm,0.9s						
ILAR	Eielson Array	78.92	21	P	P	03 57 55.5	-0.4
	comp=Z,0.8nm,0.7s,baz=306,slow=4.7,SNR=7.6						
	comp=Z,0.8nm,0.7s						
SKT	Skwentna	79.15	24	P	P	03 57 57.4	+0.1
SKT				IAmb	IAmb	03 57 57.8	
	comp=Z,4.2nm,0.6s						
G29M	Pine Creek	79.92	17	P	P	03 58 02.1	+0.7
G29M				IAmb	IAmb	03 58 19.8	
	comp=Z,13nm,1.5s						
SML	Sawmill	80.42	24	P	P	03 58 04.9	+0.6
SML				pmax	pmax		
	comp=Z,7.0nm,0.8s						
SML	Sawmill	80.42	24	P	P	03 58 04.6	+0.4
TORD	Torodi Ar. Bea	80.69	280	P	P	03 58 05.6	-0.8
	comp=Z,0.3nm,0.5s,baz=85,slow=4.0,SNR=1.9						
	comp=Z,0.3nm,0.5s						
CPUP	Villa Florida	148.94	264	PKPbc	PKPbc	04 05 39.5	-1.6
	comp=Z,0.6nm,0.5s,baz=90,slow=4.0,SNR=3.3						

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*NEIC **11** 04:25:44.4±0.9, 6.°0N±0.°1×123.°82E±0.°09, h540km±11km, mb4.1/17, Error ellipse: s-maj=18.4km s-min=12.4km az=178.0*

*IDC **11** 04:25:45.4±2.3, 5.°95N×123.°83E, h562km±28km, mb3.3/10, mbtmp4.2/10, Error ellipse: s-maj=102.9km s-min=11.6km az=65.0*

ISC 11 04:25:44.5±0.6**, 5.°94N**±0.°09×**123.°8E**±0.°2**, h550**km**, n32, σ0.s67**/35**, mb3.9**/18**, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TOLI2	Tolitoli	5.65	212	P	P	04 27 19.8	-0.3
FAKI	Fak Fak	12.21	136	P	P	04 28 24.8	-0.5
MTN	Manton Dam	20.05	159	P	P	04 29 40.9	-0.2
MTN				IAmb	IAmb	04 29 41.4	
	comp=Z,4.0nm,1.0s						
FITZ	Fitzroy Crossi	23.96	176	P	P	04 30 15.8	-0.3
WRA	Warramunga Arr	27.74	158	P	P	04 30 49.0	-0.5
	comp=Z,3.2nm,0.5s,baz=342,slow=9.1,SNR=47						
WRA				ScP	ScP	04 36 35.3	-1.8
	comp=Z,0.4nm,0.5s,baz=338,slow=3.1,SNR=6.4						
	comp=Z,3.2nm,0.5s						
WRA	Warramunga Arr	27.74	158	P	P	04 30 47.9	-1.6
WR8	Warramunga Arr	27.82	158	P	P	04 30 49.6	-0.5
WR8				IAmb	IAmb	04 30 50.4	
	comp=Z,7.9nm,1.3s						
AS31	Alice Springs	31.05	162	P	P	04 31 18.1	0.0
AS31				IAmb	IAmb	04 31 19.3	
	comp=Z,1.6nm,0.8s						
ASAR	Alice Springs	31.05	162	P	P	04 31 18.1	+0.1
	comp=Z,3.0nm,0.5s,baz=341,slow=6.9,SNR=25						
	comp=Z,3.0nm,0.5s						
ASAR	Alice Springs	31.05	162	P	P	04 31 18.5	+0.4
MORW	Morawa	35.59	192	P	P	04 31 56.4	+0.2
FORT	Forrest	36.74	174	P	P	04 32 06.1	+0.5
FORT				IAmb	IAmb	04 32 17.9	
	comp=Z,6.8nm,0.9s						
INKA	Innaminka	37.28	155	P	P	04 32 11.1	+0.9
INKA				IAmb	IAmb	04 32 13.5	
	comp=Z,5.5nm,1.3s						
NWAO	Narrogin (SRO)	39.15	189	P	P	04 32 26.2	+1.0
BBOO	Buckleboo	40.27	164	P	P	04 32 34.8	+0.5
BBOO				IAmb	IAmb	04 33 14.1	
	comp=Z,16nm,1.3s						
STKA	Stephens Creek	41.27	157	P	P	04 32 42.8	+0.5
	comp=Z,1.9nm,0.4s,baz=351,slow=6.8,SNR=5.0						
	comp=Z,1.9nm,0.4s						
SONM	Songino Array	44.31	343	P	P	04 33 06.2	+0.3
	comp=Z,1.1nm,0.8s,baz=166,slow=8.4,SNR=3.6						
SONM				PcP	PcP	04 34 37.9	-0.1
	comp=Z,0.5nm,0.7s,baz=192,slow=4.3,SNR=2.0						
	comp=Z,1.1nm,0.8s						
MKAR	Makanchi Array	54.08	326	P	P	04 34 18.3	+0.5
	comp=Z,2.1nm,0.4s,baz=120,slow=7.8,SNR=32						
MKAR				PcP	PcP	04 35 13.6	-0.4
	comp=Z,0.6nm,0.5s,baz=130,slow=4.0,SNR=5.1						
	comp=Z,2.1nm,0.4s						
MAKZ	Makanchi	54.26	326	P	P	04 34 19.4	+0.3
KDJ	Kajisay	54.75	319	P	P	04 34 23.5	+0.7
KDJ				IAmb	IAmb	04 34 28.8	
	comp=Z,6.7nm,1.1s						
ZALV	Zalesovo Beam	57.30	334	P	P	04 34 39.5	-0.4
	comp=Z,0.5nm,0.4s,baz=93,slow=7.2,SNR=2.6						
	comp=Z,0.5nm,0.4s						
KURBB	Kurchatov Arra	58.30	328	P	P	04 34 46.9	+0.1
	comp=Z,2.9nm,0.7s,baz=127,slow=6.1,SNR=20						
	comp=Z,2.9nm,0.7s						
KURK	Kurchatov	58.31	328	P	P	04 34 47.2	+0.3
KURK				IAmb	IAmb	04 34 47.7	
	comp=Z,4.5nm,0.8s						
AB31	Akbulak array	68.58	321	P	P	04 35 52.3	-0.3
ABKAR	Akbulak array	68.58	321	P	P	04 35 52.3	-0.3
C19K	Lookout Ridge	79.72	21	P	P	04 36 56.2	+1.0
C23K	Itkillik River	82.94	20	P	P	04 37 12.2	+0.6
PWL	Port Wells	83.82	29	P	P	04 37 16.1	0.0
PWL				IAmb	IAmb	04 37 17.5	
	comp=Z,8.8nm,1.2s						
BMAR	Burnt Mountain	85.19	23	P	P	04 37 23.4	+0.6
BRTR	Keskin Array B	86.35	309	P	P	04 37 28.9	-0.1
	comp=Z,0.5nm,0.8s,baz=159,slow=8.6,SNR=3.6						
	comp=Z,0.5nm,0.8s						
ARCES	ARCESS Array B	87.37	340	P	P	04 37 32.9	-0.1
	comp=Z,2.3nm,1.0s,baz=76,slow=3.8,SNR=3.6						
	comp=Z,2.3nm,1.0s						
FINES	FINESS Array B	88.50	332	P	P	04 37 37.2	-1.1
	comp=Z,3.0nm,1.0s,baz=73,slow=6.6,SNR=4.4						
	comp=Z,3.0nm,1.0s						

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*IDC **11** 04:44:30.6±0.7, 50.°34N×173.°94E, h0km, mb4.2/27, mbtmp4.3/29, ML4.5/3, MS3.5/45, Error ellipse: s-maj=18.3km s-min=11.1km az=178.0*

*BJI **11** 04:44:32.0, 50.°60N×174.°00E, h10km, mB4.7/4, mb4.6/25, Ms4.7/12, Ms7 4.5/12*

*NEIC **11** 04:44:32.9±2.1, 50.°50N±0.°08×173.°99E±0.°09, h10km±4km, mb4.7/245, ML4.7(AEIC), Error ellipse: s-maj=11.2km s-min=8.4km az=194.0*

*GFZ **11** 04:44:33.5±0.3, 51.°N±10.°×17.°4E±.°, h10km, M4.9/17, mb4.6/17, confirmed*

*GCMT **11** 04:44:33.9±0.4, 50.°38N±0.°02×173.°94E±0.°03, h15km±2km, MW4.8/85, Moment Tensor Solution. s7,c8; s85,c124; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.35±.09; $M_{\theta\theta}$1.18±.08; $M_{\phi\phi}$-0.82±.07; $M_{r\theta}$0.04±.22; $M_{\theta\phi}$-1.09±.06; $M_{\phi r}$-0.78±.27; Best double couple: $M_0$1.70000×10^{16} NP1:ϕ_s72.00000°, δ63.00000°, λ-166.00000°. NP2: ϕ_s335.00000°, δ78.00000°, λ-28.00000°. Principal axes: T 1.7210, Plg10.0000°, Azm26.0000°; N -0.0420, Plg60.0000°, Azm134.0000°; P -1.6790, Plg28.0000°, Azm290.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*MOS **11** 04:44:34.3±1.0, 50.°49N×173.°64E, h32km, mb4.7/15 Error ellipse: s-maj=8.5km s-min=4.2km az=131.1*

*KRSC **11** 04:44:34.9±2.0, 50.°61N×173.°31E, h33km±43km, Ml5.0*

*AEIC **11** 04:44:35.5±3.3, 50.°40N±0.°07×173.°82E±0.°09, h10km±4km, Error ellipse: s-maj=10.9km s-min=8.6km az=192.0*

ISC 11 04:44:32.7±0.4**, 50.°49N**±0.°07×**173.°92E**±0.°04**, h10**km**, n398, σ2.s12**/292**, mb4.7**/154**, MS3.6**/48**, 12C, South of Aleutian Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHEM	Shemya Is, Ala	2.25	3	Pn	Pn	04 45 09.4	-0.5
	404nm,0.3s,baz=176,slow=6.4,SNR=751						
SHEM				LR	LR	04 45 37.0	
	comp=Z,644nm,20.1s,baz=146,slow=28						
SHEM				Sn	Sn	04 45 37.5	-0.1
	437nm,0.3s,baz=315,slow=20,SNR=13						
	986nm,0.2s						
SHEM				AML	AML		
SMY	Shemya	2.25	3	P	Pn	04 45 09.1	-0.8
SMY	Shemya	2.25	3	P	Pn	04 45 09.2	-0.6
SMY				S	Sn	04 45 37.3	-0.3
SMY	Shemya	2.25	3		Pn	04 45 09.2	-0.6
SMY	Shemya	2.25	3		Sn	04 45 36.0	-1.6
LSNW	Little Sitkin	3.25	61		Pn	04 45 23.2	-0.5
LSNW					Sn	04 45 59.9	-2.5
LSSE	Little Sitkin	3.26	62		Pn	04 45 23.6	-0.2
LSSE					Sn	04 46 00.5	-2.2
LSPA	Little Sitkin	3.27	62		Pn	04 45 23.1	-0.9
LSPA					Sn	04 46 00.8	-2.2
AMKA	Amchitka	3.52	73		Pn	04 45 25.4	-1.9
CESW	Semis' Southwe	3.82	66		Pn	04 45 31.3	-0.2
CESW					Sn	04 46 13.8	-2.7
CERB	Semis' Cerberu	3.87	66		Pn	04 45 31.7	-0.5
CERB					Sn	04 46 14.8	-2.9
CERB					Lg	04 46 15.0	
CEPE	Semis' Perret	3.89	66		Pn	04 45 32.1	-0.4
CEPE					Sn	04 46 15.4	-2.9
CEPE					Lg	04 46 16.1	
GAKI	Gareloi-Kavalg	4.71	74		Pn	04 45 42.7	-1.0
GAKI					Sn	04 46 33.4	-5.0
GAKI					Lg	04 46 33.7	
GALAA	Gareloi Lava P	4.78	72		Pn	04 45 44.3	-0.3
GALAA					Sn	04 46 36.7	-3.3
GANE	Gareloi Northe	4.79	71		Pn	04 45 44.2	-0.6
GANE					Sn	04 46 36.7	-3.6
GAEA	Gareloi East	4.80	72		Pn	04 45 44.3	-0.6
TANO	Tanaga North	5.21	71		Pn	04 45 50.0	-0.5
TANO					Sn	04 46 46.0	-4.6
TASE	Tanaga Southea	5.24	72		Sn	04 46 47.5	-3.9
TAFL	Tanaga Flats	5.31	73		Pn	04 45 51.5	-0.4
TAFL					Sn	04 46 49.4	-3.7
TAPA	Tanaga Point A	5.37	73		Pn	04 45 52.4	-0.4
KIMD	Kanaga Island	5.71	74		Pn	04 45 56.7	-0.8
KIMD					Pn	04 45 56.8	-0.7
KIMD					Sn	04 46 59.2	-3.9
KICM	Kanaga Island	5.77	72		Pn	04 45 58.1	-0.2
KICM					Sn	04 46 59.9	-4.5
KIKV	Kanaga Island	5.78	73		Pn	04 45 57.8	-0.6
KIKV					Sn	04 46 59.6	-5.0
KIWB	Kanaga Island	5.78	73		Pn	04 45 57.8	-0.7
ADK	Adak	6.07	73	P	Pn	04 46 01.7	-0.7
ADK	Adak	6.07	73	P	Pn	04 46 01.8	-0.7
ADK	Adak	6.07	73		Sn	04 47 06.1	-5.8
ADK	Adak	6.07	73	Pn	Pn	04 46 01.8	-0.6
ADK	Adak	6.07	73	P	Pn	04 46 01.8	-0.6
	comp=Z,232nm,0.7s						
ADAG	Mount Adagdak	6.14	72		Pn	04 46 02.6	-0.8
ADAG					Sn	04 47 08.9	-4.7
ETKA	Kagalaska Isla	6.24	74		Pn	04 46 03.7	-1.1
GSCK	Great Sitkin C	6.41	72		Pn	04 46 06.5	-0.7
GSCK					Sn	04 47 15.7	-4.7
GSTD	Great Sitkin T	6.43	72		Pn	04 46 06.9	-0.6
GSTD					Sn	04 47 16.4	-4.5
GSMY	Great Sitkin M	6.48	72		Pn	04 46 07.3	-0.8
GSMY					Sn	04 47 18.4	-3.7
BKI	Bering	6.74	318	P	Pn	04 46 10.3	-1.2
BKI				S	Sn	04 47 22.2	-6.0
BKI	Bering	6.74	318	*e*P	Pn	04 46 10.4	-1.2
BKI				*e*S	Sn	04 47 22.3	-6.0
KOWE	Korovin West	7.63	71		Pn	04 46 22.6	-1.3
KOWE					Sn	04 47 45.8	-4.5
ATKA	Atka Island	7.64	72	P	Pn	04 46 23.1	-0.8
ATKA	Atka Island	7.64	72		Pn	04 46 23.2	-0.7
ATKA	Atka Island	7.64	72		Sn	04 47 44.6	-5.9
KOKL	Mount Kliuchef	7.66	72		Pn	04 46 23.4	-0.8
KOKL					Sn	04 47 47.4	-3.6
KOFP	Korovin Flat P	7.71	72		Pn	04 46 24.1	-0.9
KOFP					Sn	04 47 48.8	-3.5
KOSE	Korovin Southe	7.75	72		Pn	04 46 24.6	-0.8
MKZ	Mys Kozlova	8.47	303	P	Pn	04 46 33.7	-1.6
MKZ	Mys Kozlova	8.47	303	*e*P	Pn	04 46 33.7	-1.6
KBTR	Krutoberegovo	8.76	315	P	Pn	04 46 38.6	-0.7
KBTR	Krutoberegovo	8.76	315	*e*P	Pn	04 46 38.6	-0.7
SPN	Mys Shipunski	9.00	292	P	Pn	04 46 41.3	-1.2
SPN				S	Sn	04 48 16.5	-7.3
SPN	Mys Shipunski	9.00	292	*e*P	Pn	04 46 41.4	-1.2
SPN				*e*S	Sn	04 48 16.6	-7.3
NLC	Nalytchevo	9.41	292	P	Pn	04 46 47.3	-0.9
NLC	Nalytchevo	9.41	292	*e*P	Pn	04 46 47.3	-0.9
TUMD	Tumrok D	9.44	305	P	Pn	04 46 49.7	+1.1
TUMD	Tumrok D	9.44	305	*e*P	Pn	04 46 49.8	+1.1
KII	Karymskiy	9.55	297	P	Pn	04 46 49.2	-1.0
KII	Karymskiy	9.55	297	*e*P	Pn	04 46 49.2	-1.0
TUMR	Tumrok	9.60	305	P	Pn	04 46 50.3	-0.6
TUMR	Tumrok	9.60	305	*e*P	Pn	04 46 50.3	-0.6
ZLN	Zelenaya	9.61	310	P	Pn	04 46 52.1	+1.2
ZLN	Zelenaya	9.61	310	*e*P	Pn	04 46 52.1	+1.2
CIRR	Tsirk	9.68	311	P	Pn	04 46 53.4	+1.4
CIRR	Tsirk	9.68	311	*e*P	Pn	04 46 53.5	+1.4
SDLR	Sedlovina	9.71	292	P	Pn	04 46 51.8	-0.5
SDLR	Sedlovina	9.71	292	*e*P	Pn	04 46 51.9	-0.5
BZMR	Bezymyannaya	9.72	309	P	Pn	04 46 53.9	+1.4
BZMR	Bezymyannaya	9.72	309	*e*P	Pn	04 46 53.9	+1.4
UGLR	Uglovaya	9.73	292	P	Pn	04 46 52.3	-0.4
UGLR	Uglovaya	9.73	292	*e*P	Pn	04 46 52.3	-0.4
BZWR	Bezymyannyi-We	9.73	309	P	Pn	04 46 54.0	+1.3
BZWR	Bezymyannyi-We	9.73	309	*e*P	Pn	04 46 54.0	+1.3
DALK	Dalny	9.74	291	P	Pn	04 46 52.4	-0.3
DALK	Dalny	9.74	291	*e*P	Pn	04 46 52.4	-0.3
SMAR	Somma	9.75	292	P	Pn	04 46 52.2	-0.8
SMAR	Somma	9.75	292	*e*P	Pn	04 46 52.3	-0.8
KMNR	Kamenistaya	9.76	308	P	Pn	04 46 53.8	+0.7
KMNR	Kamenistaya	9.76	308	*e*P	Pn	04 46 53.8	+0.7
AVH	Avacha	9.79	292	P	Pn	04 46 53.2	-0.3
AVH	Avacha	9.79	292	*e*P	Pn	04 46 53.2	-0.3
KRER	Koryakskii	9.79	293	P	Pn	04 46 53.4	-0.2
KRER	Koryakskii	9.79	293	*e*P	Pn	04 46 53.4	-0.2
PET	Petropavlovsk	9.80	291	*e*P	Pn	04 46 53.9	+0.4
PET				*e*S	Sn	04 48 40.1	-3.4
PET				pmax	pmax		
	comp=Z,97nm,0.8s						
PET				MLR	MLR		
	comp=Z,300nm,17.0s						
PET	Petropavlovsk	9.80	291		Pn	04 46 53.3	-0.2
PET	Petropavlovsk	9.80	291	*e*P	Pn	04 46 53.6	+0.1
PET				*e*S	Sn	04 48 36.7	-6.8
PET	Petropavlovsk	9.80	291	P	Pn	04 46 53.0	-0.5
	comp=Z,81nm,0.5s						
RUS	Russkaya	9.81	287	P	Pn	04 46 52.6	-1.0
RUS				S	Sn	04 48 36.6	-7.2
RUS	Russkaya	9.81	287	*e*P	Pn	04 46 52.7	-1.0
RUS				*e*S	Sn	04 48 36.6	-7.2
KOK	Koryaka	9.86	292	P	Pn	04 46 53.6	-0.8
KOK	Koryaka	9.86	292	*e*P	Pn	04 46 53.6	-0.8
KRX	Arik	9.86	293	P	Pn	04 46 53.8	-0.6
KRX	Arik	9.86	293	*e*P	Pn	04 46 53.9	-0.6
MTVR	Mutnovka	10.02	288	P	Pn	04 46 55.9	-0.7
MTVR	Mutnovka	10.02	288	*e*P	Pn	04 46 55.9	-0.7
KDTR	Khodutka, Kamc	10.04	284	P	Pn	04 46 55.2	-1.6
KDTR	Khodutka, Kamc	10.04	284	*e*P	Pn	04 46 55.3	-1.6
KRMR	Karymshinskiy	10.09	290	P	Pn	04 46 56.6	-0.8
KRMR				S	Sn	04 48 42.7	-7.8
KRMR	Karymshinskiy	10.09	290	*e*P	Pn	04 46 56.7	-0.8
KRMR				*e*S	Sn	04 48 42.8	-7.7
GRL	Gorelyy	10.09	288	P	Pn	04 46 57.9	+0.3
GRL	Gorelyy	10.09	288	*e*P	Pn	04 46 57.9	+0.3
ASAK	Asacha	10.18	287	P	Pn	04 46 58.4	-0.4
ASAK				S	Sn	04 48 45.3	-7.7
ASAK	Asacha	10.18	287	*e*P	Pn	04 46 58.5	-0.4
ASAK				*e*S	Sn	04 48 45.4	-7.7
SRDR	Sredinnyy	10.28	310	P	Pn	04 47 01.4	+1.2
SRDR	Sredinnyy	10.28	310	*e*P	Pn	04 47 01.4	+1.2
GNL	Ganaly	10.34	294	P	Pn	04 47 00.9	-0.1
GNL	Ganaly	10.34	294	*e*P	Pn	04 47 00.9	-0.1
PEA0B	Petropavlovsk-	10.38	291	*ce*P	Pn	04 47 01.2	-0.3
PEA0B	Petropavlovsk-	10.38	291		Pn	04 47 01.8	+0.3
PETK	Petropavlovsk-	10.38	291	Pn	Pn	04 47 01.6	+0.1
	comp=Z,19nm,0.3s,baz=113,slow=18,SNR=118						
PETK				Sn	Sn	04 48 52.4	-5.4
	comp=Z,4.4nm,0.3s,baz=94,slow=19,SNR=5.5						
PETK				LR	LR	04 50 45.9	
	comp=Z,138nm,20.3s,baz=109,slow=36						
PETK				AML	AML		
PETK	Petropavlovsk-	10.38	291		Pn	04 47 01.9	+0.4
ESO	Esso	10.62	307	P	Pn	04 47 05.0	+0.3
ESO	Esso	10.62	307	*e*P	Pn	04 47 05.1	+0.3
APC	Apacha	10.68	290	P	Pn	04 47 05.8	+0.2
APC	Apacha	10.68	290	*e*P	Pn	04 47 05.8	+0.2
PAU	Pauzhetka	10.83	282	P	Pn	04 47 06.7	-0.9
PAU	Pauzhetka	10.83	282	*e*P	Pn	04 47 06.7	-0.9
TILK	Tilichiki	10.90	339	P	Pn	04 47 09.7	+1.2
TILK	Tilichiki	10.90	339	*e*P	Pn	04 47 09.8	+1.2
SKR	Severo-Kuril's	11.32	278	P	Pn	04 47 12.3	-2.0
SKR	Severo-Kuril's	11.32	278	*e*P	Pn	04 47 12.4	-2.0
SPIA	Saint Paul Isl	11.49	48	P	Pn	04 47 17.5	+0.9
UNV	Unalaska Valle	12.47	67	P	Pn	04 47 28.9	-1.1
UNV	Unalaska Valle	12.47	67		Pn	04 47 29.8	-0.3
AKUT	Akutan	12.94	66	P	Pn	04 47 36.4	0.0
AKUT	Akutan	12.94	66		Pn	04 47 36.7	+0.2
M11K	Mekoryuk	14.95	41	P	Pn	04 48 06.1	+2.3
MA2	Magadan	16.01	313	LR	LR	04 54 19.0	
	comp=Z,144nm,20.0s,baz=100,slow=36						
SDPT	Sand Point	16.14	63		Pn	04 48 16.4	-3.0
M13K	Dall Lake	16.19	43	P	P	04 48 22.5	-0.6
M13K				IAmb	IAmb	04 48 26.0	
	comp=Z,33nm,0.8s						
K13K	Kusilvak Mount	16.43	38	P	P	04 48 24.6	-1.3
K13K				IAmb	IAmb	04 48 26.2	
	comp=Z,67nm,0.9s						
CNBA	Chernabura Isl	16.60	65	P	Pn	04 48 21.4	-3.9
CNBA				IAmb	IAmb	04 48 23.6	
	comp=Z,22nm,0.4s						
O14K	Tigyukauivet M	16.67	49		Pn	04 48 27.0	+0.9
N14K	Kuskokwak Cree	16.73	46		Pn	04 48 27.7	+0.9
N14K				IAmb	IAmb	04 48 29.1	
	comp=Z,75nm,0.8s						
L14K	Kuka Creek	16.92	41	P	P	04 48 31.0	-0.2
L14K				IAmb	IAmb	04 48 32.1	
	comp=Z,56nm,1.1s						
SEY	Seymchan	17.06	325	Pn	Pn	04 48 31.9	+0.8
	comp=Z,0.4nm,0.3s,baz=118,slow=12,SNR=12						
	comp=Z,6.0nm,0.7s						
SEY				AML	AML		
SEY	Seymchan	17.06	325	*e*P	Pn	04 48 30.2	-0.8
SEY				pmax	pmax		
	comp=Z,9.0nm,1.0s						
O15K	Ungalikthiuk R	17.34	50	P	Pn	04 48 34.8	+0.2
ANM	Nome	17.83	30	P	P	04 48 42.5	+1.3
ANM				pmax	pmax		
	comp=Z,54nm,1.1s						
ANM	Nome	17.83	30	P	P	04 48 42.5	+1.3
ANM				IAmb	IAmb	04 48 44.5	
	comp=Z,54nm,1.1s						
K15K	Wolf Creek Mou	17.87	39	IAmb	IAmb	04 48 45.9	
	comp=Z,43nm,1.1s						
BILL	Bilibino	18.00	351	*i* P	Pn	04 48 42.7	0.0
BILL				pmax	pmax		
	comp=Z,12nm,1.4s						
J16K	Anvik River	18.74	37	P	Pn	04 48 52.7	+0.9
P17K	Kvichak River	19.02	51	IAmb	IAmb	04 49 00.2	
	comp=Z,55nm,0.7s						
N17K	Nushagak Hills	19.04	47	IAmb	IAmb	04 48 58.0	
	comp=Z,65nm,1.5s						
M17K	Holitna River	19.23	44	IAmb	IAmb	04 49 00.6	
	comp=Z,45nm,0.9s						
K17K	Iditarod	19.39	40	IAmb	IAmb	04 49 03.9	
	comp=Z,38nm,1.1s						
J17K	VABM Dome	19.39	38	IAmb	IAmb	04 49 02.9	
	comp=Z,53nm,1.0s						
N18K	Kilae Creek	19.69	47	IAmb	IAmb	04 49 05.2	
	comp=Z,45nm,1.4s						
TYV	Tymovskoe	19.75	283	*e*P	Pn	04 49 03.9	0.0
TYV				pmax	pmax		
	comp=Z,23nm,1.5s						
TYV				pmax	pmax		
	comp=Z,300nm,4.7s						
O18K	Koktuh Hills	19.79	50	IAmb	IAmb	04 49 07.4	
	comp=Z,59nm,0.9s						
O19K	Port Alsworth	20.31	49	P	P	04 49 07.4	-1.1
O19K				IAmb	IAmb	04 49 11.8	
	comp=Z,33nm,0.8s						
J18K	Innoko River	20.37	39	P	Pn	04 49 11.1	-0.1
Q19K	Cape Douglas,	20.37	53	P	P	04 49 09.5	+0.2
Q19K				IAmb	IAmb	04 49 14.0	
	comp=Z,49nm,0.9s						
N19K	Bonanza Creek	20.39	47	P	Pn	04 49 11.3	-0.3
N19K				IAmb	IAmb	04 49 16.5	
	comp=Z,37nm,0.8s						
H18K	Honhosa River	20.56	34	IAmb	IAmb	04 49 17.8	
	comp=Z,31nm,0.6s						
KDAK	Kodiak Island	20.77	57	P	P	04 49 13.1	-0.3
	comp=Z,13nm,0.6s,baz=284,slow=2.7,SNR=21						
	comp=Z,13nm,0.6s						
KDAK	Kodiak Island	20.77	57	P	P	04 49 12.8	-0.6
KDAK				IAmb	IAmb	04 49 18.6	
	comp=Z,24nm,1.1s						
KDAK	Kodiak Island	20.77	57	P	P	04 49 11.9	-1.5
	comp=Z,31nm,0.7s						
YSS	Yuzhno-Sakhali	20.78	272	*e*P	P	04 49 08.4	-5.2
YSS				*e*		04 49 23.9	
YSS				*e*S	S	04 52 49.4	-16
YSS				*e*SS	Sn	04 53 19.0	+8.6
YSS				pmax	pmax		
	comp=Z,30nm,1.2s						
YSS				pmax	pmax		
	comp=Z,100nm,5.6s						
YSS				MLR	MLR		
	comp=Z,300nm,14.0s						
G18K	Tagagawik	20.87	32	IAmb	IAmb	04 49 20.5	
	comp=Z,45nm,1.1s						
RDOG	Red Dog Mine	20.98	24	P	P	04 49 16.8	+1.1
J19K	Poorman	21.04	39	P	P	04 49 16.8	+0.4
J19K				IAmb	IAmb	04 49 22.7	
	comp=Z,36nm,1.1s						
M20K	Styx River	21.33	45	IAmb	IAmb	04 49 25.5	
	comp=Z,16nm,0.7s						
K20K	Telida	21.41	41	IAmb	IAmb	04 49 26.9	
	comp=Z,26nm,0.8s						
CNPM	China Poot	21.70	52	IAmb	IAmb	04 49 26.9	
	comp=Z,30nm,0.8s						
F19K	Shaleruckik Mo	21.70	30	IAmb	IAmb	04 49 28.4	
	comp=Z,38nm,1.0s						
J20K	Nowinta River	21.70	39	IAmb	IAmb	04 49 30.4	
	comp=Z,76nm,1.5s						
BRLK	Bradley Lake	21.91	51	IAmb	IAmb	04 49 27.3	
	comp=Z,21nm,0.8s						
SKT	Skwentna	22.08	45	IAmb	IAmb	04 49 32.5	
	comp=Z,27nm,1.0s						
CAST	Castle Rocks	22.27	42	IAmb	IAmb	04 49 34.0	
	comp=Z,39nm,1.2s						
SUA	Susitna One	22.31	47	IAmb	IAmb	04 49 33.5	
	comp=Z,20nm,0.8s						
SLKM	Skilak Lake	22.37	50	IAmb	IAmb	04 49 33.1	
	comp=Z,14nm,0.8s						

F20K	**Avaraart Lake**	**22.49**	**31**	IAmb	IAmb	04 49 35.6	
	comp=Z,18nm,0.9s						
IMAR	**Indian Mountai**	**22.64**	**35**	P	**P**	**04 49 34.0**	**+0.4**
M22K	**Willow**	**22.67**	**46**	IAmb	IAmb	04 49 38.2	
	comp=Z,33nm,0.9s						
SEW	**Seward**	**22.68**	**51**	IAmb	IAmb	04 49 35.9	
	comp=Z,36nm,1.0s						
RC01	**Rabbit Creek A**	**22.71**	**48**	IAmb	IAmb	04 49 36.3	
	comp=Z,34nm,1.1s						
CUT	**Chulitna**	**22.76**	**45**	IAmb	IAmb	04 49 38.2	
	comp=Z,21nm,0.9s						
I21K	**Tanana**	**22.96**	**37**	IAmb	IAmb	04 49 41.1	
	comp=Z,42nm,1.0s						
G21K	**Allakaket**	**22.98**	**34**	IAmb	IAmb	04 49 40.8	
	comp=Z,32nm,0.9s						
TRF	**Thorofare Moun**	**23.05**	**42**	IAmb	IAmb	04 49 43.2	
	comp=Z,24nm,0.9s						
D20K	**Etivluk River**	**23.17**	**27**	IAmb	IAmb	04 49 42.7	
	comp=Z,48nm,1.1s						
GHO	**Glory Hole Cre**	**23.23**	**47**	IAmb	IAmb	04 49 57.8	
	comp=Z,13nm,0.8s						
PWL	**Port Wells**	**23.34**	**49**	IAmb	IAmb	04 49 41.9	
	comp=Z,26nm,0.7s						
KNK	**Knik Glacier**	**23.38**	**48**	IAmb	IAmb	04 49 43.3	
	comp=Z,25nm,0.8s						
H22K	**Ishtalitna Cre**	**23.48**	**36**	IAmb	IAmb	04 49 46.0	
	comp=Z,54nm,1.3s						
MCK	**McKinley**	**23.71**	**42**	IAmb	IAmb	04 49 47.2	
	comp=Z,22nm,1.1s						
I23K	**Minto, Yukon-K**	**23.98**	**38**	IAmb	IAmb	04 49 51.6	
	comp=Z,11nm,0.7s						
FID	**Port Fidalgo**	**24.23**	**50**	IAmb	IAmb	04 49 51.2	
	comp=Z,27nm,1.0s						
WRH	**Wood River Hil**	**24.28**	**40**	IAmb	IAmb	04 49 54.0	
	comp=Z,24nm,0.9s						
G23K	**Bananza Creek**	**24.31**	**35**	IAmb	IAmb	04 49 52.8	
	comp=Z,18nm,0.8s						
CCB	**Clear Creek Bu**	**24.45**	**40**	IAmb	IAmb	04 49 55.5	
	comp=Z,20nm,0.9s						
COLA	**College**	**24.50**	**40**	P	**P**	**04 49 50.3**	**-1.4**
COLA	**College**	**24.50**	**40**	P	**P**	**04 49 53.0**	**+1.3**
COLA				pmax	pmax		
	comp=Z,36nm,0.9s						
COLA	**College**	**24.50**	**40**	P	**P**	**04 49 53.0**	**+1.3**
COLA	**College**	**24.50**	**40**	P	**P**	**04 49 52.9**	**+1.3**
	comp=Z,44nm,1.0s						
EYAK	**Cordova Ski Ar**	**24.56**	**50**	IAmb	IAmb	04 49 54.6	
	comp=Z,26nm,0.9s						
KLU	**Klutina**	**24.59**	**48**	IAmb	IAmb	04 49 55.8	
	comp=Z,18nm,0.9s						
DIV	**Divide**	**24.62**	**49**	IAmb	IAmb	04 49 55.6	
	comp=Z,23nm,0.9s						
HDA	**Harding Lake**	**24.74**	**41**	IAmb	IAmb	04 49 59.2	
	comp=Z,14nm,1.1s						
IL31		**24.86**	**40**	IAmb	IAmb	04 49 56.3	
	comp=Z,10nm,0.8s						
ILAR	**Eielson Array**	**24.86**	**40**	P	**P**	**04 49 54.4**	**-0.6**
	comp=Z,6.7nm,0.6s,baz=249,slow=8.8,SNR=48						
ILAR				LR	LR	05 01 49.1	
	comp=Z,154nm,18.3s,baz=250,slow=42						
	comp=Z,6.7nm,0.6s						
K24K	**Donnelly Dome**	**25.08**	**43**	IAmb	IAmb	04 49 59.1	
	comp=Z,20nm,0.8s						
HARP	**HAARP**	**25.09**	**46**	IAmb	IAmb	04 50 02.7	
	comp=Z,36nm,1.2s						
F24K	**Squaw Lake**	**25.41**	**34**	IAmb	IAmb	04 50 03.0	
	comp=Z,26nm,0.9s						
E24K	**Your Creek**	**25.42**	**32**	IAmb	IAmb	04 50 03.1	
	comp=Z,21nm,1.1s						
PRP	**Porcupine Dome**	**25.62**	**39**	IAmb	IAmb	04 50 04.5	
	comp=Z,8.0nm,0.7s						
MENT	**Mentasta**	**25.83**	**45**	IAmb	IAmb	04 50 07.2	
	comp=Z,19nm,0.7s						
SCRK	**Sand Creek**	**25.90**	**43**	IAmb	IAmb	04 50 06.9	
	comp=Z,26nm,1.0s						
L26K	**Log Cabin Wild**	**26.01**	**45**	IAmb	IAmb	04 50 09.0	
	comp=Z,13nm,0.8s						
M26K	**Nabesna, AK**	**26.09**	**46**	IAmb	IAmb	04 50 24.5	
	comp=Z,13nm,0.9s						
F25K	**Christian Rive**	**26.23**	**34**	IAmb	IAmb	04 50 10.6	
	comp=Z,18nm,0.9s						
BMAR	**Burnt Mountain**	**26.56**	**35**	P	**P**	**04 50 12.2**	**+1.7**
YAK	**Yakutsk**	**26.58**	**313**	LR	LR	05 00 38.2	
	comp=Z,74nm,21.1s,baz=91,slow=36						
YAK	**Yakutsk**	**26.58**	**313**	*e*P	**P**	**04 50 11.4**	**+0.8**
YAK				*e*		04 50 52.3	
YAK				*e*PPP	PPP	04 50 59.5	
YAK				*e*S	**S**	**04 54 46.0**	**+1.2**
YAK				*e*SS	**SnSn**	**04 55 47.5**	**+0.9**
YAK				*e*SSS	SSS	04 56 03.2	
YAK				pmax	pmax		
	comp=Z,23nm,1.0s						
YAK				pmax	pmax		
	comp=N,2.0nm,0.9s						
YAK				pmax	pmax		
	comp=E,13nm,1.3s						
YAK				pmax	pmax		
	comp=Z,58nm,2.3s						
YAK				pmax	pmax		
	comp=E,36nm,2.8s						
YAK				pmax	pmax		
	comp=N,12nm,1.6s						
YAK				smax	smax		
	comp=N,4.0nm,0.7s						
YAK				smax	smax		
	comp=E,2.0nm,0.6s						
YAK				MLR	MLR		
	comp=Z,91nm,14.0s						
YAK				MLR	MLR		
	comp=N,92nm,13.0s						
YAK				MLR	MLR		
	comp=E,77nm,14.0s						
M27K	**Edge Creek, AK**	**26.60**	**47**	IAmb	IAmb	04 50 16.0	
	comp=Z,23nm,0.9s						
L27K	**Beaver Creek,**	**26.70**	**45**	IAmb	IAmb	04 50 16.8	
	comp=Z,11nm,0.7s						
G26K	**Porcupine Rive**	**26.71**	**36**	IAmb	IAmb	04 50 25.2	
	comp=Z,26nm,1.1s						
BCAR	**Beaver Creek A**	**26.72**	**45**	P	**P**	**04 50 13.1**	**+1.1**
K27K	**Chicken**	**26.73**	**43**	IAmb	IAmb	04 50 14.3	
	comp=Z,21nm,0.7s						
F26K	**Sheenjek River**	**26.81**	**34**	IAmb	IAmb	04 50 15.8	
	comp=Z,21nm,0.8s						
KLR	**Kul'dur**	**26.95**	**284**	LR	LR	05 01 17.7	
	comp=Z,145nm,19.2s,baz=63,slow=37						
PCA	**Pinnacle**	**27.27**	**52**	IAmb	IAmb	04 50 24.6	
	comp=Z,22nm,0.8s						
PNL	**Peninsula**	**27.71**	**53**	P	**P**	**04 50 20.9**	**+0.1**
I28M	**Miner Creek**	**27.88**	**40**	IAmb	IAmb	04 50 23.9	
	comp=Z,8.3nm,0.8s						
O29M	**Mount Kennedy**	**28.10**	**51**	IAmb	IAmb	04 50 48.7	
	comp=Z,10nm,0.9s						
M29M	**Somme Creek**	**28.19**	**47**	IAmb	IAmb	04 50 27.3	
	comp=Z,13nm,0.7s						
F28M	**Old Crow**	**28.35**	**36**	IAmb	IAmb	04 50 29.6	
	comp=Z,14nm,1.1s						
L29M	**L29M**	**28.38**	**45**	IAmb	IAmb	04 50 29.1	
	comp=Z,15nm,0.9s						
D27M	**Malcolm River**	**28.41**	**32**	IAmb	IAmb	04 50 34.8	
	comp=Z,22nm,1.2s						
I29M	**Ogilvie Camp,**	**28.54**	**41**	IAmb	IAmb	04 50 44.6	
	comp=Z,6.5nm,0.7s						
HYT	**Haines Junctio**	**28.62**	**50**	IAmb	IAmb	04 50 32.8	
	comp=Z,10nm,0.8s						
H29M	**Whitestone**	**28.65**	**39**	IAmb	IAmb	04 51 12.1	
	comp=Z,16nm,1.5s						
K29M	**Barlow Dome**	**28.71**	**44**	IAmb	IAmb	04 50 32.3	
	comp=Z,9.9nm,0.8s						
N30M	**Aishikik Lake**	**28.82**	**49**	IAmb	IAmb	04 50 39.1	
	comp=Z,9.9nm,0.9s						
G29M	**Pine Creek**	**28.91**	**37**	IAmb	IAmb	04 50 34.3	
	comp=Z,10nm,0.8s						
MJAR	**Matsushiro Arr**	**29.09**	**255**	LR	LR	05 03 33.6	
	comp=Z,11nm,18.2s,baz=56,slow=39						
E29M	**Blow River**	**29.26**	**34**	IAmb	IAmb	04 50 47.0	
	comp=Z,19nm,1.5s						
I30M	**Mount Dempster**	**29.33**	**41**	IAmb	IAmb	04 50 51.7	
	comp=Z,5.6nm,0.6s						
EPYK	**Eagle Plains**	**29.33**	**39**	IAmb	IAmb	04 50 37.5	
	comp=Z,9.8nm,0.7s						
G30M	**tAoh Zraii Nji**	**29.62**	**37**	IAmb	IAmb	04 50 41.0	
	comp=Z,9.2nm,0.9s						
SKAG	**Skagway**	**29.79**	**53**	IAmb	IAmb	04 50 41.8	
	comp=Z,7.7nm,1.0s						
F30M	**Barrier River**	**29.88**	**36**	IAmb	IAmb	04 50 43.4	
	comp=Z,21nm,1.1s						
H31M	**Peel River**	**30.23**	**40**	IAmb	IAmb	04 50 45.5	
	comp=Z,5.9nm,0.8s						
S32K	**Killisnoo**	**30.43**	**57**	IAmb	IAmb	04 50 47.7	
	comp=Z,9.6nm,0.9s						
P32M	**Atlin**	**30.59**	**52**	IAmb	IAmb	04 50 49.4	
	comp=Z,16nm,0.8s						
F31M	**Tsiigehtchic**	**30.64**	**37**	IAmb	IAmb	04 50 49.1	
	comp=Z,8.2nm,0.9s						
INK	**Inuvik**	**30.84**	**35**	P	**P**	**04 50 50.5**	**+2.1**
INK	**Inuvik**	**30.84**	**35**	IAmb	IAmb	04 50 51.1	
	comp=Z,11nm,0.9s						
INK	**Inuvik**	**30.84**	**35**	P	**P**	**04 50 50.5**	**+2.1**
	comp=Z,13nm,1.3s						
P33M	**Teslin, Yukon**	**30.97**	**51**	IAmb	IAmb	04 50 54.0	
	comp=Z,16nm,0.9s						
H11N2	**WAKE ISLAND Hy**	**31.20**	**193**	T	T	05 23 30.1	
	baz=6.2,SNR=4.3						
H11N3	**WAKE ISLAND Hy**	**31.21**	**193**	T	T	05 23 31.2	
	baz=6.2,slow=74,SNR=5.6						
H11N1	**WAKE ISLAND Hy**	**31.21**	**193**	T	T	05 23 30.2	
	baz=6.2,slow=74,SNR=5.3						
S34M	**Telegraph Cree**	**32.17**	**55**	IAmb	IAmb	04 51 03.6	
	comp=Z,8.2nm,0.8s						
H11S1	**WAKE ISLAND Hy**	**32.43**	**193**	T	T	05 25 09.8	
	baz=8.7,slow=76,SNR=5.0						
H11S3	**WAKE ISLAND Hy**	**32.44**	**193**	T	T	05 24 58.9	
	baz=8.7,slow=76,SNR=4.2						
H11S2	**WAKE ISLAND Hy**	**32.44**	**193**	T	T	05 25 03.4	
	baz=8.7,slow=76,SNR=3.0						
DLBC	**Dease Lake**	**32.65**	**54**	LR	LR	05 04 49.0	
	comp=Z,175nm,19.2s,baz=260,slow=37						
KSRS	**Korea Array**	**35.01**	**266**	P	**P**	**04 51 25.0**	**-0.1**
	comp=Z,1.5nm,0.7s,baz=46,slow=8.9,SNR=4.7						
KSRS				LR	LR	05 05 29.5	
	comp=Z,42nm,19.7s,baz=200,slow=36						
	comp=Z,1.5nm,0.7s						
BBB	**Bella Bella**	**35.42**	**64**	LR	LR	05 06 36.0	
	comp=Z,52nm,18.5s,baz=284,slow=37						
JNU	**Nakatsue**	**35.88**	**258**	LR	LR	05 05 36.6	
	comp=Z,78nm,21.4s,baz=107,slow=35						
YKA	**Yellowknife Ar**	**39.13**	**44**	P	**P**	**04 52 00.9**	**+1.0**
	comp=Z,5.5nm,0.8s,baz=289,slow=8.2,SNR=6.0						
YKA				LR	LR	05 09 57.8	
	comp=Z,170nm,19.1s,baz=247,slow=39						
	comp=Z,5.5nm,0.8s						
YKA	**Yellowknife Ar**	**39.13**	**44**	*ce*P	**P**	**04 52 01.5**	**+1.6**
YKA				pmax	pmax		
	comp=Z,6.0nm,0.8s						
LLLB	**Lillooet**	**39.63**	**64**	IAmb	IAmb	04 52 06.7	
	comp=Z,9.1nm,0.7s						
RES	**Resolute Bay**	**42.42**	**23**	LR	LR	05 12 59.4	
	comp=Z,76nm,19.4s,baz=63,slow=40						
EPH	**Ephrata**	**42.48**	**67**	P	**P**	**04 52 28.1**	**+0.3**
NRIK	**Noril'sk**	**42.80**	**329**	LR	LR	05 11 32.6	
	comp=Z,50nm,19.4s,baz=68,slow=38						
NRIK	**Noril'sk**	**42.80**	**329**	*i* P	**P**	**04 52 31.5**	**+1.5**
NRIK				pmax	pmax		
	comp=Z,2.0nm,1.0s						
WAH2	**Wahluke Slope**	**42.80**	**68**	IAmb	IAmb	04 52 32.7	
	comp=Z,16nm,1.5s						
SONM	**Songino Array**	**42.85**	**294**	P	**P**	**04 52 31.2**	**+0.4**
	comp=Z,0.8nm,0.5s,baz=55,slow=6.1,SNR=4.3						
SONM				LR	LR	05 11 38.7	
	comp=Z,135nm,19.6s,baz=106,slow=38						
	comp=Z,0.8nm,0.5s						
SONM	**Songino Array**	**42.85**	**294**	IAmb	IAmb	04 52 34.1	
	comp=Z,2.5nm,1.3s						
HAWA	**Hanford**	**43.01**	**69**	P	**P**	**04 52 31.7**	**-0.3**
EDM	**Edmonton**	**43.22**	**57**	IAmb	IAmb	04 52 35.4	
	comp=Z,16nm,0.7s						
HHC	**Hu-ho-hao-te**	**43.43**	**282**	*e*P	**P**	**04 52 35.1**	**-0.5**
HHC				pmax	pmax		
	comp=Z,12nm,0.6s						
HNS	**HongShan**	**43.47**	**276**	⇑P	**P**	**04 52 38.4**	**+2.6**
HNS				S	**S**	**04 59 06.9**	**+2.8**
HNS				L	L		
	comp=Z,230nm,14.3s						
HNS				L	L		
	comp=Z,140nm,13.5s						
HNS				L	L		
	comp=Z,270nm,14.3s						
NEW	**Newport**	**43.48**	**65**	LR	LR	05 10 58.8	
	comp=Z,65nm,18.7s,baz=294,slow=36						
NEW	**Newport**	**43.48**	**65**	P	**P**	**04 52 36.6**	**+0.8**
NEW	**Newport**	**43.48**	**65**	P	**P**	**04 52 36.6**	**+0.8**
	comp=Z,6.4nm,1.0s						
YBH	**Yreka Blue Hor**	**43.57**	**76**	LR	LR	05 07 12.1	
	comp=Z,73nm,21.1s,baz=302,slow=31						
YBH	**Yreka Blue Hor**	**43.57**	**76**	P	**P**	**04 52 37.9**	**+1.2**
YBH	**Yreka Blue Hor**	**43.57**	**76**	P	**P**	**04 52 37.9**	**+1.2**
GUMO	**Guam**	**43.73**	**223**	LR	LR	05 07 25.6	
	comp=Z,94nm,19.9s,baz=222,slow=32						
NJ2	**Nanjing**	**44.20**	**267**	*e*P	**P**	**04 52 42.2**	**+0.5**
NJ2				pmax	pmax		
	comp=Z,6.0nm,0.6s						
HATC	**Hat Creek Radi**	**44.87**	**76**	IAmb	IAmb	04 52 49.1	
	comp=Z,8.8nm,0.9s						
PNTR	**Pine Nut**	**47.04**	**77**	IAmb	IAmb	04 53 30.6	
	comp=Z,4.8nm,0.7s						
BCYI	**Bear Canyon**	**47.77**	**68**	IAmb	IAmb	04 53 11.9	
	comp=Z,3.4nm,0.8s						
WHN	**Wuhan**	**48.07**	**269**	P	**P**	**04 53 13.4**	**+1.2**
WHN				pmax	pmax		
	comp=Z,42nm,1.1s						
NVAR	**Mina Array Bea**	**48.24**	**77**	P	**P**	**04 53 13.8**	**0.0**
	comp=Z,1.6nm,0.7s,baz=292,slow=7.1,SNR=18						
NVAR				PcP	**PcP**	**04 54 40.8**	**+0.1**
	comp=Z,0.7nm,0.7s,baz=262,slow=2.6,SNR=4.2						
NVAR				LR	LR	05 09 42.7	
	comp=Z,48nm,21.9s,baz=296,slow=31						
	comp=Z,1.6nm,0.7s						
ELK	**Elko**	**48.74**	**73**	LR	LR	05 10 37.8	
	comp=Z,55nm,21.6s,baz=306,slow=32						
TPUB	**Ta-pu**	**49.18**	**257**	P	**P**	**04 53 22.0**	**+1.1**
TPUB	**Ta-pu**	**49.18**	**257**	P	**P**	**04 53 23.6**	**+2.7**
	comp=Z,19nm,1.0s						
TPNV	**Topopah Spring**	**50.44**	**77**	IAmb	IAmb	04 53 31.9	
	comp=Z,4.9nm,0.8s						
DUG	**Dugway, Tooele**	**50.55**	**72**	P	**P**	**04 53 32.3**	**+1.1**
DUG	**Dugway, Tooele**	**50.55**	**72**	P	**P**	**04 53 32.3**	**+1.1**
	comp=Z,3.9nm,1.2s						
SPITS	**Spitsbergen Ar**	**50.86**	**354**	P	**P**	**04 53 33.7**	**+0.7**
	comp=Z,5.0nm,0.8s,baz=51,slow=8.7,SNR=5.1						
SPITS				LR	LR	05 13 14.0	
	comp=Z,49nm,21.6s,baz=22,slow=34						
	comp=Z,5.0nm,0.8s						
PRN	**Pahroc Range**	**50.90**	**76**	IAmb	IAmb	04 53 59.0	
	comp=Z,8.2nm,1.3s						
PDAR	**Pinedale Array**	**50.94**	**67**	P	**P**	**04 53 34.4**	**+0.1**
	comp=Z,1.1nm,0.6s,baz=297,slow=2.8,SNR=15						
PDAR				LR	LR	05 13 34.7	
	comp=Z,21nm,20.4s,baz=308,slow=34						
	comp=Z,1.1nm,0.6s						
LZH	**Lanzhou**	**51.13**	**282**	*e*P	**P**	**04 53 36.2**	**+0.5**
LZH				sP	pwP	04 53 44.2	+0.4
LZH				pmax	pmax		
	comp=Z,19nm,1.3s						
ZALV	**Zalesovo Beam**	**51.20**	**311**	P	**P**	**04 53 36.3**	**+0.5**
	comp=Z,0.5nm,0.4s,baz=57,slow=5.3,SNR=1.9						
	comp=Z,0.5nm,0.4s						
GTA2	**Gaotai**	**51.52**	**288**	*e*P	**P**	**04 53 39.3**	**+0.7**
GTA2				pmax	pmax		
	comp=Z,9.0nm,1.2s						
GTA2				L	L		
	comp=Z,430nm,17.8s						
GTA2				L	L		
	comp=Z,480nm,17.1s						
GTA2				L	L		
	comp=Z,680nm,18.4s						
RDMU	**Red Mountain**	**52.27**	**69**	IAmb	IAmb	04 53 57.4	
	comp=Z,5.7nm,0.8s						
DGZ	**Jazzator, Alta**	**52.37**	**305**	*i* P	**P**	**04 53 45.5**	**+0.7**
DGZ				pmax	pmax		
	comp=Z,2.0nm,1.0s						
PFO	**Pinyon Flats O**	**52.44**	**81**	LR	LR	05 11 32.7	
	comp=Z,60nm,21.5s,baz=299,slow=31						
ULM	**Lac du Bonnet**	**53.95**	**53**	P	**P**	**04 53 56.2**	**0.0**
	comp=Z,1.7nm,0.7s,baz=311,slow=9.3,SNR=1.4						
ULM				LR	LR	05 17 29.7	
	comp=Z,106nm,19.7s,baz=310,slow=37						
	comp=Z,1.7nm,0.7s						
ULM	**Lac du Bonnet**	**53.95**	**53**	IAmb	IAmb	04 54 38.5	
	comp=Z,14nm,1.3s						
PV10	**Paradox Valley**	**53.97**	**71**	IAmb	IAmb	04 54 35.5	
	comp=Z,11nm,1.4s						
PV19	**Morning Glory**	**54.04**	**71**	IAmb	IAmb	04 54 20.2	
	comp=Z,16nm,1.5s						
PV12	**Saucer Basin,**	**54.15**	**71**	IAmb	IAmb	04 53 59.4	
	comp=Z,5.0nm,0.9s						
PV13	**Radium Mtn., P**	**54.24**	**71**	IAmb	IAmb	04 54 00.0	
	comp=Z,6.0nm,0.8s						
ISCO	**Idaho Springs**	**55.11**	**68**	P	**P**	**04 54 07.2**	**+2.0**
ISCO	**Idaho Springs**	**55.11**	**68**	P	**P**	**04 54 07.2**	**+2.0**
	comp=Z,2.9nm,2.3s						
WMQ	**Urumqi**	**55.85**	**299**	*e*P	**P**	**04 54 14.7**	**+4.6**
WMQ				pmax	pmax		
	comp=Z,13nm,0.7s						
WMQ				L	L		
	comp=Z,440nm,13.1s						
WMQ				L	L		
	comp=Z,340nm,16.7s						
WMQ				L	L		
	comp=Z,240nm,18.9s						
FRB	**Frobisher Bay**	**56.09**	**28**	LR	LR	05 22 32.8	
	comp=Z,90nm,18.2s,baz=298,slow=41						
KURK	**Kurchatov**	**56.19**	**310**	*ce*P	**P**	**04 54 12.7**	**+0.3**
KURK				pmax	pmax		
	comp=Z,10.0nm,1.3s						
KURK	**Kurchatov**	**56.19**	**310**	P	**P**	**04 54 12.5**	**+0.2**
KURK				IAmb	IAmb	04 54 14.0	
	comp=Z,7.5nm,0.9s						
KURK	**Kurchatov**	**56.19**	**310**	P	**P**	**04 54 12.4**	**0.0**
	comp=Z,11nm,1.1s						
KURBB	**Kurchatov Arra**	**56.29**	**310**	P	**P**	**04 54 13.1**	**0.0**
	comp=Z,3.4nm,0.6s,baz=52,slow=6.9,SNR=19						
	comp=Z,3.4nm,0.6s						
MK31	**Makanchi Array**	**56.87**	**305**	*ce*P	**P**	**04 54 17.0**	**-0.3**
MKAR	**Makanchi Array**	**56.87**	**305**	P	**P**	**04 54 16.4**	**-0.9**
	comp=Z,1.3nm,0.7s,baz=55,slow=7.4,SNR=8.5						
	comp=Z,1.3nm,0.7s						
MKAR	**Makanchi Array**	**56.87**	**305**	*i* P	**P**	**04 54 16.8**	**-0.5**
MAKZ	**Makanchi**	**57.02**	**305**	P	**P**	**04 54 17.9**	**-0.5**
	comp=Z,3.0nm,1.4s						
EYMN	**Ely**	**57.64**	**52**	P	**P**	**04 54 23.3**	**+0.6**
	comp=Z,9.4nm,1.1s						
ECSD	**EROS Data Cent**	**57.70**	**59**	P	**P**	**04 54 22.9**	**-0.3**
	comp=Z,3.7nm,1.0s						
KRVT	**Keravat (AS076**	**57.75**	**206**	LR	LR	05 14 10.1	
	comp=Z,95nm,20.0s,baz=16,slow=31						
ANMO	**Albuquerque**	**57.78**	**73**	LR	LR	05 16 32.7	
	comp=Z,49nm,21.6s,baz=313,slow=33						
ARCES	**ARCESS Array B**	**58.07**	**347**	P	**P**	**04 54 25.4**	**0.0**
	comp=Z,3.8nm,0.9s,baz=20,slow=11,SNR=4.6						
ARCES				LR	LR	05 19 55.8	
	comp=Z,46nm,20.6s,baz=41,slow=36						
	comp=Z,3.8nm,0.9s						
SFJD	**Kangerlussuaq**	**58.09**	**19**	LR	LR	05 21 21.9	
	comp=Z,34nm,20.5s,baz=60,slow=38						
BVAR	**Borovoye Array**	**58.47**	**316**	P	**P**	**04 54 28.8**	**+0.4**
	comp=Z,6.0nm,0.6s,baz=50,slow=7.5,SNR=19						
	comp=Z,6.0nm,0.6s						
BORK	**Borovoye**	**58.49**	**317**	*i* P	**P**	**04 54 28.7**	**+0.1**
BORK				pmax	pmax		
	comp=Z,8.0nm,0.9s						
PZH	**PanZhiHua**	**58.89**	**275**	P	**P**	**04 54 33.8**	**+1.9**
PH02	**Texas Public H**	**60.20**	**69**	IAmb	IAmb	04 54 42.5	
	comp=Z,6.0nm,0.8s						
MNTX	**Cornudas Mount**	**60.64**	**75**	P	**P**	**04 54 44.5**	**+0.7**
MNTX				IAmb	IAmb	04 54 45.7	
	comp=Z,4.5nm,0.9s						
MNTX	**Cornudas Mount**	**60.64**	**75**	P	**P**	**04 54 44.9**	**+1.1**
	comp=Z,6.0nm,0.9s						
ARTI	**Arti**	**60.90**	**325**	P	**P**	**04 54 45.9**	**+0.8**
	comp=Z,2.6nm,0.6s,baz=69,slow=7.8,SNR=4.4						
ARTI				LR	LR	05 23 13.4	
	comp=Z,52nm,19.3s,baz=30,slow=38						
	comp=Z,2.6nm,0.6s						
ARTI	**Arti**	**60.90**	**325**	*c i*P	**P**	**04 54 46.9**	**+1.8**
ARTI						04 55 28.4	
ARTI				S	**S**	**05 03 05.8**	**+3.2**
ARTI				SS	**SS**	**05 06 59.7**	**-1.1**
ARTI				pmax	pmax		
	comp=Z,10.0nm,1.2s						
ARTI	**Arti**	**60.90**	**325**	IAmb	IAmb	04 54 46.9	
	comp=Z,13nm,1.2s						
HNR	**Honiara**	**60.90**	**196**	LR	LR	05 17 01.6	
	comp=Z,104nm,21.8s,baz=26,slow=32						
TPB28		**61.20**	**74**	IAmb	IAmb	04 54 49.3	
	comp=Z,2.0nm,0.6s						
VHRN	**Van Horn**	**61.51**	**75**	P	**P**	**04 54 50.1**	**+0.2**
VHRN				IAmb	IAmb	04 55 12.3	
	comp=Z,4.8nm,1.2s						
128A	**Castleberry Fa**	**61.78**	**72**	IAmb	IAmb	04 55 13.5	
	comp=Z,6.8nm,1.3s						
POST	**Post**	**62.06**	**71**	IAmb	IAmb	04 54 54.6	
	comp=Z,4.2nm,0.9s						
MNHN	**Monahans**	**62.50**	**73**	IAmb	IAmb	04 54 57.5	
	comp=Z,4.8nm,0.8s						
LPIG	**La Paz**	**62.88**	**84**	LR	LR	05 16 01.3	
	comp=Z,20nm,20.2s,baz=338,slow=30						
TX31	**Lajitas Ar. Si**	**63.34**	**76**	IAmb	IAmb	04 55 03.6	
	comp=Z,5.6nm,1.1s						
TXAR	**Lajitas Array**	**63.34**	**76**	P	**P**	**04 55 02.0**	**-0.1**
	comp=Z,2.9nm,0.8s,baz=301,slow=4.5,SNR=23						
	comp=Z,2.9nm,0.8s						
TXAR	**Lajitas Array**	**63.34**	**76**	P	**P**	**04 55 02.1**	**+0.1**
TXAR	**Lajitas Array**	**63.34**	**76**	P	**P**	**04 55 02.1**	**+0.1**
SLBS	**Sierra La Lagu**	**63.41**	**84**	P	**P**	**04 55 00.5**	**-2.0**
	comp=Z,10nm,2.3s						
SCHQ	**Schefferville**	**63.45**	**34**	P	**P**	**04 55 02.5**	**+0.2**
	comp=Z,4.2nm,0.8s,baz=346,slow=6.8,SNR=4.0						
SCHQ				LR	LR	05 24 32.9	
	comp=Z,118nm,19.1s,baz=328,slow=38						
	comp=Z,4.2nm,0.8s						
SCHQ	**Schefferville**	**63.45**	**34**	IAmb	IAmb	04 55 34.0	
	comp=Z,10nm,1.1s						
AAK	**Ala-Archa**	**63.76**	**306**	*ce*P	**P**	**04 55 06.2**	**+1.5**
AAK				pmax	pmax		
	comp=Z,6.0nm,1.7s						
AAK	**Ala-Archa**	**63.76**	**306**	P	**P**	**04 55 05.6**	**+0.9**
	comp=Z,3.9nm,1.4s						
ASAI	**AK-SAY(Kyrgyzs**	**63.91**	**303**	P	**P**	**04 55 06.6**	**+0.7**
	comp=Z,5.1nm,1.6s						
KKAR	**Karatay Array**	**65.45**	**308**	P	**P**	**04 55 14.3**	**-1.3**
KKAR	**Karatay Array**	**65.45**	**308**	P	**P**	**04 55 14.3**	**-1.3**
FINES	**FINESS Array B**	**65.48**	**344**	P	**P**	**04 55 15.9**	**+0.5**
	comp=Z,3.0nm,0.9s,baz=22,slow=7.2,SNR=5.1						
	comp=Z,3.0nm,0.9s						
FCAR	**Ozark Folk Cen**	**65.59**	**63**	IAmb	IAmb	04 55 27.3	
	comp=Z,3.2nm,0.7s						
AKTO	**Aktyubinsk**	**65.60**	**321**	P	**P**	**04 55 16.4**	**+0.1**
	comp=Z,3.7nm,0.6s,baz=54,slow=6.4,SNR=8.8						
	comp=Z,3.7nm,0.6s						
KSH2	**Kashi**	**65.69**	**302**	P	**P**	**04 55 18.5**	**+1.2**
KSH2				pmax	pmax		
	comp=Z,8.0nm,0.9s						
KSH2				L	L		
	comp=Z,550nm,17.7s						
KSH2				L	L		
	comp=Z,430nm,18.0s						
KSH2				L	L		
	comp=Z,220nm,14.7s						
AB31	**Akbulak array**	**65.72**	**319**	P	**P**	**04 55 18.1**	**+1.0**
AB31				IAmb	IAmb	04 55 18.9	
	comp=Z,4.3nm,0.8s						
ABKAR	**Akbulak array**	**65.72**	**319**	P	**P**	**04 55 17.8**	**+0.6**
SHL	**Shillong**	**65.78**	**281**	P	**P**	**04 55 17.9**	**-0.2**
SADO	**Sadowa**	**65.95**	**48**	LR	LR	05 24 36.2	
	comp=Z,72nm,20.5s,baz=340,slow=36						
CMAR	**Chiang Mai Arr**	**66.47**	**271**	P	**P**	**04 55 21.9**	**-0.4**
	comp=Z,1.2nm,0.4s,baz=30,slow=6.4,SNR=5.4						
CMAR				LR	LR	05 22 44.8	
	comp=Z,14nm,21.9s,baz=100,slow=34						
	comp=Z,1.2nm,0.4s						
CMAR	**Chiang Mai Arr**	**66.47**	**271**	*i* P	**P**	**04 55 24.5**	**+2.1**
BTK	**Batken**	**67.53**	**306**	P	**P**	**04 55 29.8**	**+0.8**
BTK	**Batken**	**67.53**	**306**	P	**P**	**04 55 29.8**	**+0.8**
	comp=Z,8.0nm,0.9s						
NOA	**NORSAR Array B**	**67.95**	**351**	P	**P**	**04 55 32.1**	**+0.9**
	comp=Z,0.6nm,0.7s,baz=11,slow=6.3,SNR=2.0						
NOA				LR	LR	05 25 25.6	
	comp=Z,16nm,21.8s,baz=25,slow=36						
	comp=Z,0.6nm,0.7s						
HFS	**Hagfors**	**68.58**	**350**	P	**P**	**04 55 35.3**	**+0.2**
	comp=Z,3.4nm,1.1s,baz=350,slow=7.5,SNR=2.1						
	comp=Z,3.4nm,1.1s						
OBN	**Obninsk**	**68.91**	**335**	⇑*e*P	**P**	**04 55 37.0**	**-0.2**
OBN				*SP	**pwP**	**04 55 43.0**	**-2.2**
OBN						04 56 01.0	
OBN				S	**S**	**05 04 37.0**	**-4.1**
OBN				pmax	pmax		
	comp=Z,3.0nm,0.6s						
OBN				MLR	MLR		
	comp=Z,73nm,18.0s						
SBUM	**Sibu**	**70.41**	**249**	P	**P**	**04 55 49.5**	**+2.4**
SBUM	**Sibu**	**70.41**	**249**	P	**P**	**04 55 50.0**	**+2.9**
	comp=Z,27nm,1.2s						

NIL	**Nilore**	**70.99**	**300**	P	**P**	**04 55 51.4**	**+1.0**
NIL	**Nilore**	**70.99**	**300**	P	**P**	**04 55 51.4**	**+1.0**
KAPI	**Kappang**	**72.20**	**238**	LR	LR	05 34 01.3	
	comp=Z,4.9nm,18.0s,baz=355,slow=41						
CTA	**Charters Tower**	**74.39**	**207**	LR	LR	05 28 00.0	
	comp=Z,33nm,18.5s,baz=40,slow=35						
AKASG	**Malin Array Be**	**74.79**	**338**	P	**P**	**04 56 13.2**	**+0.5**
	comp=Z,1.9nm,0.6s,baz=354,slow=1.0,SNR=5.3						
	comp=Z,1.9nm,0.6s						
KIV	**Kislovodsk**	**76.81**	**326**	*e*P	**P**	**04 56 25.0**	**+0.6**
KIV				pmax	pmax		
	comp=Z,4.0nm,1.1s						
KBZ	**Khabaz**	**76.93**	**326**	P	**P**	**04 56 25.2**	**+0.3**
	comp=Z,1.0nm,0.3s,baz=152,slow=0.2,SNR=5.6						
KBZ				LR	LR	05 34 59.4	
	comp=Z,35nm,18.3s,baz=22,slow=39						
	comp=Z,1.0nm,0.3s						
KBZ	**Khabaz**	**76.93**	**326**	*ce*P	**P**	**04 56 27.0**	**+2.0**
KBZ				pmax	pmax		
	comp=Z,4.0nm,1.0s						
SHA1	**Shidzhatmaz**	**77.01**	**326**	*ce*P	**P**	**04 56 26.3**	**+0.6**
AKT	**Akhty**	**77.04**	**322**	*e*P	**P**	**04 56 26.5**	**+0.7**
AKT				*e*		04 56 38.0	
AKT				pmax	pmax		
	comp=Z,9.0nm,1.2s						
CLL	**Collm**	**77.29**	**348**	L	L	05 24 00.0	
CMIG	**Matias Romero**	**77.76**	**78**	LR	LR	05 29 41.2	
	comp=Z,16nm,19.6s,baz=340,slow=35						
WRA	**Warramunga Arr**	**78.33**	**218**	P	**P**	**04 56 31.1**	**-1.8**
	comp=Z,0.9nm,0.7s,baz=30,slow=6.4,SNR=7.0						
	comp=Z,0.9nm,0.7s						
TRPA	**Tarpa**	**78.72**	**341**	P	**P**	**04 56 37.3**	**+2.5**
	comp=Z,6.0nm,0.9s						
KHC	**Kasperske Hory**	**79.33**	**347**	*ce*P	**P**	**04 56 38.7**	**+0.4**
KHC				pmax	pmax		
	comp=Z,5.0nm,2.5s						
GNI	**Garni**	**79.35**	**323**	LR	LR	05 35 53.5	
	comp=Z,80nm,20.8s,baz=38,slow=39						
ASAR	**Alice Springs**	**81.87**	**217**	P	**P**	**04 56 50.7**	**-1.3**
	comp=Z,1.0nm,0.8s,baz=22,slow=3.9,SNR=7.7						
	comp=Z,1.0nm,0.8s						
BRTR	**Keskin Array B**	**83.63**	**330**	P	**P**	**04 57 01.5**	**+0.2**
	comp=Z,1.4nm,0.7s,baz=66,slow=3.0,SNR=8.3						
	comp=Z,1.4nm,0.7s						
BRTR	**Keskin Array B**	**83.63**	**330**	*ce*P	**P**	**04 57 03.0**	**+1.6**
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
BRTR	**Keskin Array B**	**83.63**	**330**	P	**P**	**04 57 02.3**	**+1.0**
MMAI	**Mount Meron Ar**	**89.13**	**326**	LR	LR	05 40 59.9	
	comp=Z,22nm,19.8s,baz=40,slow=38						
SJG	**San Juan**	**93.75**	**56**	LR	LR	05 42 14.0	
	comp=Z,40nm,19.1s,baz=328,slow=37						
MDT	**Midelt**	**97.05**	**359**	LR	LR	05 43 51.6	
	comp=Z,21nm,18.1s,baz=67,slow=37						
SDV	**Santo Domingo**	**98.81**	**65**	LR	LR	05 43 31.8	
	comp=Z,31nm,21.9s,baz=107,slow=36						
H03N2	**Juan Fernandez**	**125.42**	**101**	T	T	07 21 38.1	
	baz=312,slow=77,SNR=7.6						
H03N1	**Juan Fernandez**	**125.43**	**101**	T	T	07 21 38.7	
	baz=312,slow=77,SNR=9.1						
H03N3	**Juan Fernandez**	**125.43**	**101**	T	T	07 22 06.1	
	baz=312,slow=77,SNR=18						
BOSA	**Boshof**	**147.80**	**301**	PKPbc	**PKPdf**	**05 04 15.9**	**+1.1**
	comp=Z,4.1nm,1.1s,baz=63,slow=2.3,SNR=3.2						

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*SOME **11** 04:46:45.5, 42°.50N×84°.57E, h5^{km}*

*NNC **11** 04:46:45.8±4.0, 42°.15N×84°.50E, h0^{km}, mb3.5, mpv3.2, Error ellipse: s-maj=30.3km s-min=18.2km az=149.0*

ISC 11 04:46:47.2±2.9**, 42°.5N**±0°.1×**84°.4E**±0°.1**, h10^{km}, n14,** σ**1^{s}.85**/25**, 6C-1D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KTMS	**Ketmen**	**3.10**	**290**	Pg	**Pg**	**04 47 45.7**	**-0.9**
	2.4nm,0.2s						
KTMS				Lg	Lg	04 48 29.2	
	34nm,0.4s						
KTMS	**Ketmen**	**3.10**	**290**	*e*P	**Pg**	**04 47 45.7**	**-0.9**
	2.4nm,0.2s						
KTMS				*e*S	**Sg**	**04 48 29.2**	**+2.4**
	34nm,0.4s						
SHLS	**Shalkode**	**3.67**	**283**	Pg	**Pb**	**04 47 50.7**	**-1.5**
	12nm,0.2s						
SHLS				Lg	Lg	04 48 38.0	
	77nm,0.4s						
SHLS	**Shalkode**	**3.67**	**283**	*e*P	**Pb**	**04 47 50.7**	**-1.5**
	12nm,0.2s						
SHLS				*e*S	**Sb**	**04 48 38.0**	**+1.3**
	77nm,0.4s						
PDGK	**Podgornoye**	**3.68**	**285**	⇑Pn	**Pn**	**04 47 47.0**	**+2.8**
	0.3nm,0.2s						
PDGK				⇑Pg	**Pg**	**04 47 57.5**	**-0.2**
	3.8nm,0.6s						
PDGK				⇑Sn	**Sb**	**04 48 35.7**	**-1.4**
	4.0nm,0.3s						
PDGK				⇓Lg	Lg	04 48 47.7	
	22nm,0.6s						
DJR	**Jarkent**	**3.82**	**301**	Pg	**Pg**	**04 47 57.9**	**-2.5**
	1.5nm,0.2s						
DJR				Lg	Lg	04 48 50.2	
	13nm,0.6s						
DJR	**Jarkent**	**3.82**	**301**	*e*P	**Pg**	**04 47 57.9**	**-2.5**
	1.5nm,0.2s						
DJR				*e*S	**Sg**	**04 48 50.2**	**+0.4**
	13nm,0.6s						
UZB	**Uzynbulak**	**3.98**	**282**	Pg	**Pg**	**04 48 01.7**	**-1.8**
	3.0nm,0.3s						
UZB				Lg	Lg	04 48 56.8	
	35nm,0.6s						
UZB	**Uzynbulak**	**3.98**	**282**	*e*P	**Pg**	**04 48 01.7**	**-1.8**
	3.0nm,0.3s						
UZB				*e*S	**Sg**	**04 48 56.8**	**+1.6**
	35nm,0.6s						
KPKS	**Kokpek**	**4.28**	**286**	*e*P	**Pg**	**04 48 07.4**	**-1.8**
	0.2nm,0.1s						
KPKS				*e*S	**Sg**	**04 49 06.7**	**+2.0**
	34nm,0.4s						
SATY	**Saty**	**4.42**	**280**	*e*P	**Pg**	**04 48 10.2**	**-1.6**
	4.5nm,0.1s						
SATY				*e*S	**Sg**	**04 49 11.2**	**+2.1**
	20nm,0.3s						
MK31	**Makanchi Array**	**4.59**	**342**	Pn	Pb	04 48 01.0	-6.7
	0.1nm,0.4s,baz=151,slow=14,SNR=10.0						
MK31				⇑Pg	**Pg**	**04 48 15.1**	**+0.1**
	1.8nm,0.5s,baz=158,slow=16,SNR=6.6						
MK31				⇑Sn	**Sb**	**04 49 01.9**	**-1.2**
	1.7nm,0.6s						
MK31				⇑Lg	Lg	04 49 19.7	
	6.6nm,0.6s,baz=158,slow=28,SNR=7.0						
ARXS	**Arharly**	**5.08**	**293**	*e*P	**Pg**	**04 48 21.8**	**-2.6**
	1.7nm,0.3s						
ARXS				*e*S	**Sg**	**04 49 30.7**	**+0.6**
	15nm,0.4s						
KTBS	**Karatobe**	**5.76**	**285**	*e*P	**Pg**	**04 48 35.2**	**-2.3**
	0.1nm,0.1s						
KTBS				*e*S	**Sg**	**04 49 53.6**	**+1.6**
	10nm,0.6s						

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*MAN **11** 04:52:24.0, 13°.11N×120°.77E, h11^{km}, MS4.6*

MAN INTENSITY V - SANTA CRUZ OCCIDENTAL MINDORO; . INTENSITY IV - ABRA DE ILOG SABLAYAN AND MAMBURAO OCCIDENTAL MINDORO; PUERTO GALERA ORIENTAL MINDORO; . INTENSITY II - BATANGAS CITY.

*BJI **11** 04:52:25.1, 12°.71N×121°.13E, h73^{km}, mB4.8/9, mb4.6/40, Ms4.2/22, Ms7 4.1/21*

*NEIC **11** 04:52:32.4±1.2, 13°.16N±0°.06×120°.9E±0°.1, h77^{km}±7^{km}, mb4.6/57, Error ellipse: s-maj=17.9km s-min=8.5km az=92.0*

*IDC **11** 04:52:35.0±4.2, 13°.11N×120°.82E, h111^{km}±40^{km}, mb4.0/24, mbtmp4.4/24, MS3.8/21, Error ellipse: s-maj=20.6km s-min=11.3km az=66.0*

ISC 11 04:52:26.3±0.4**, 13°.11N**±0°.03×**120°.81E**±0°.04**, h25^{km}, n130,** σ**1^{s}.50**/107**, mb4.6**/57**, MS3.8**/22**, 2C, Mindoro**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PGP	**Puerto Galera**	**0.41**	**19**	*e*P	**Pb**	**04 52 33.0**	**-2.2**
PGP				*e*S	**Sb**	**04 52 38.4**	**-2.8**
TGY	**Tagaytay City**	**0.99**	**7**	*e*P	**Pn**	**04 52 44.1**	**-0.6**
TGY				*e*S	**Sn**	**04 52 58.2**	**+0.2**
BOAC	**Boac**	**1.06**	**71**	*e*P	**Pb**	**04 52 46.2**	**+0.1**
BOAC				*e*S	**Sn**	**04 53 03.3**	**+3.7**
LQP	**Lukban**	**1.22**	**35**	*i* P	**Pn**	**04 52 47.3**	**-0.7**
LQP				*i* S	**Sn**	**04 53 01.7**	**-2.2**
GQP	**Guinayangan**	**1.77**	**63**	*e*P	**Pb**	**04 52 57.5**	**-0.7**
GQP				*e*S	**Sb**	**04 53 20.3**	**+0.2**
IBAJ	**Ibajay, Aklan**	**1.85**	**134**	*e*P	**Pb**	**04 52 58.0**	**-1.4**
IBAJ				*e*S	**Sn**	**04 53 17.7**	**-1.3**
BOLP	**Bolinao**	**3.37**	**345**	*e*P	**Pn**	**04 53 19.1**	**+1.8**
BOLP				*i* S	**Sn**	**04 53 57.4**	**+0.9**
PPR	**Puerto Princes**	**3.89**	**212**	*e*P	**Pn**	**04 53 25.5**	**+0.9**
PPR				*e*S	**Sn**	**04 54 08.4**	**-1.1**
LLP	**Lapu-Lapu**	**4.15**	**132**	*e*P	**Pn**	**04 53 29.7**	**+1.5**
LLP				*i* S	**Sb**	**04 54 30.9**	**+2.3**
SZP	**Santa**	**4.43**	**356**		Pn	04 53 36.7	+4.8
PLP	**Palo**	**4.51**	**115**	*e*P	**Pn**	**04 53 34.9**	**+1.8**
TBP	**Tagbilaran**	**4.53**	**138**	*e*P	**Pn**	**04 53 35.4**	**+2.0**
TBP				*e*S	Sb	04 54 50.4	+11
CVP	**Callao Caves**	**4.67**	**12**	*e*P	**Pn**	**04 53 36.4**	**+1.1**
DCPH	**Dipolog City**	**5.14**	**151**	*i* P	**Pn**	**04 53 42.4**	**+0.6**
DAV	**Davao City (W)**	**7.62**	**142**	LR	LR	04 57 47.4	
	comp=Z,2µm,18.6s,baz=326,slow=41						
MYLDM	**Lahad Datu**	**8.20**	**196**		Pn	04 54 29.3	+5.4
TWG	**Pinlang**	**9.66**	**1**	Pn	**Pn**	**04 54 46.3**	**+2.5**
YOJ	**Yonaguni jima**	**11.48**	**10**		**Pn**	**04 55 12.2**	**+3.5**
YHNB	**Yeheng**	**11.51**	**3**		**Pn**	**04 55 11.5**	**+2.3**
QIZ	**Qiongzhong**	**12.07**	**301**	P	**Pn**	**04 55 21.6**	**+4.7**
QIZ				S	**Sn**	**04 57 34.5**	**+3.7**
QIZ				L	L		
	comp=N,210nm,13.2s						
QIZ				L	L		
	comp=E,370nm,17.5s						
QIZ				L	L		
	comp=Z,570nm,15.4s						
JOW	**Kunigami**	**15.34**	**26**		**Pn**	**04 56 02.7**	**+1.4**
JOW				IAmb	IAmb	04 56 09.6	
	comp=Z,65nm,1.0s						
WHN	**Wuhan**	**18.35**	**342**	P	**Pn**	**04 56 43.0**	**+3.9**
WHN				pmax	pmax		
	comp=Z,50nm,1.0s						
NJ2	**Nanjing**	**18.94**	**355**	*e*P	**Pn**	**04 56 48.4**	**+2.1**
NJ2				pmax	pmax		
	comp=Z,11nm,0.5s						
JSU	**Suzuyama**	**20.34**	**24**	P	**P**	**04 57 01.5**	**+0.5**
JSU				IAmb	IAmb	04 57 02.9	
	comp=Z,27nm,1.1s						
KMI2	**Kunming**	**20.82**	**308**	P	Pn	04 57 09.0	+0.1
KMI2				pP	sP	04 57 27.0	+10
KMI2				pmax	pmax		
	comp=Z,13nm,1.0s						
KMI2				L	L		
	comp=Z,160nm,16.2s						
KMI2				L	L		
	comp=Z,240nm,19.8s						
KMI2				L	L		
	comp=Z,280nm,17.5s						
CM31	**Chiang Mai Arr**	**21.70**	**287**	P	**P**	**04 57 17.9**	**+2.2**
CM31				IAmb	IAmb	04 57 18.8	
	comp=Z,31nm,0.9s						
CMAR	**Chiang Mai Arr**	**21.70**	**287**	P	**P**	**04 57 17.4**	**+1.8**
	comp=Z,15nm,0.8s,baz=98,slow=8.3,SNR=91						
CMAR				LR	LR	05 06 31.0	
	comp=Z,76nm,18.1s,baz=105,slow=38						
	comp=Z,15nm,0.8s						
CMAR	**Chiang Mai Arr**	**21.70**	**287**		**P**	**04 57 17.1**	**+1.5**
CHTO	**Chiang Mai**	**21.77**	**288**		**P**	**04 57 17.2**	**+0.9**
JNU	**Nakatsue**	**21.94**	**23**	P	**P**	**04 57 20.0**	**+1.9**
	comp=Z,5.8nm,0.9s,baz=169,slow=12,SNR=4.9						
	comp=Z,5.8nm,0.9s						
JNU	**Nakatsue**	**21.94**	**23**	IAmb	IAmb	04 58 00.4	
	comp=Z,7.7nm,0.5s						
LYN	**LuoYang**	**22.65**	**342**	P	**P**	**04 57 26.1**	**+0.5**
LYN				pmax	pmax		
	comp=Z,12nm,0.8s						
XAN	**Xi'an**	**23.47**	**335**	⇑P	**P**	**04 57 33.0**	**-1.1**
XAN				pmax	pmax		
	comp=Z,16nm,0.7s						
CD2	**Chengdu**	**23.68**	**321**	*e*P	**P**	**04 57 36.8**	**+0.6**
RPSI	**Rantau Prapat**	**24.00**	**246**	P	**P**	**04 57 39.9**	**+0.6**
KSRS	**Korea Array**	**25.06**	**13**	P	**P**	**04 57 48.9**	**+0.2**
	comp=Z,4.1nm,0.9s,baz=189,slow=10,SNR=14						
	comp=Z,4.1nm,0.9s						
JHJ	**Hachijo jima 2**	**26.39**	**38**	LR	LR	05 07 53.8	
	comp=Z,182nm,20.4s,baz=318,slow=35						
JGF	**Kuroka**	**26.91**	**31**	P	**P**	**04 58 04.5**	**-1.1**
JGF				IAmb	IAmb	04 58 10.9	
	comp=Z,14nm,1.0s						
BJI2	**Beijing**	**27.11**	**352**	P	**P**	**04 58 08.6**	**+1.3**
BJI2				pmax	pmax		
	comp=Z,5.0nm,0.8s						
BJT	**Baijiatuau**	**27.11**	**352**	P	**P**	**04 58 07.6**	**+0.3**
LZDM	**Lanzhou Array**	**27.48**	**329**	P	**P**	**04 58 12.0**	**+1.0**
	comp=Z,1.6nm,0.3s,baz=155,slow=8.2,SNR=4.9						
	comp=Z,1.6nm,0.3s						
LZH	**Lanzhou**	**27.50**	**329**	*e*P	**P**	**04 58 09.6**	**-1.4**
LZH				pmax	pmax		
	comp=Z,36nm,1.7s						
HHC	**Hu-ho-hao-te**	**28.80**	**345**	*e*P	**P**	**04 58 25.1**	**+2.6**
HHC				pmax	pmax		
	comp=Z,9.0nm,0.5s						
BRDH	**Bariadhala**	**29.29**	**293**	LR	LR	05 11 06.3	
	comp=Z,394nm,18.4s,baz=148,slow=38						
SHL	**Shillong**	**29.90**	**299**		**P**	**04 58 32.0**	**-0.5**
LSA	**Lhasa**	**32.04**	**306**		**P**	**04 58 51.4**	**-0.3**
GTA2	**Gaotai**	**32.18**	**329**	*e*P	**P**	**04 58 52.3**	**-0.1**
GTA2				pmax	pmax		
	comp=Z,20nm,0.9s						
USRK	**Ussuriysk Ar.**	**32.43**	**15**	LR	LR	05 12 47.3	
	comp=Z,52nm,19.9s,baz=191,slow=37						
GOMU	**GeErMu**	**32.77**	**319**	P	**P**	**04 58 58.9**	**+1.0**
GOMU				pmax	pmax		
	comp=Z,4.0nm,0.7s						
BNX	**BinXian**	**33.00**	**8**	⇑P	**P**	**04 58 59.1**	**-0.2**
BNX				pmax	pmax		
	comp=Z,8.0nm,1.1s						
EVN	**Everest**	**34.95**	**300**		**P**	**04 59 17.6**	**+0.3**
WRA	**Warramunga Arr**	**35.44**	**158**	P	**P**	**04 59 19.9**	**-0.8**
	comp=Z,5.4nm,0.7s,baz=339,slow=9.3,SNR=33						
	comp=Z,5.4nm,0.7s						
WRA	**Warramunga Arr**	**35.44**	**158**		**P**	**04 59 20.1**	**-0.6**
WR8	**Warramunga Arr**	**35.51**	**157**		**P**	**04 59 20.7**	**-0.7**
SONM	**Songino Array**	**36.65**	**344**	P	**P**	**04 59 30.0**	**-1.0**
	comp=Z,4.7nm,0.8s,baz=168,slow=9.7,SNR=15						
	comp=Z,4.7nm,0.8s						
SONM	**Songino Array**	**36.65**	**344**	P	**P**	**04 59 29.6**	**-1.4**
SONM				IAmb	IAmb	04 59 33.2	
	comp=Z,4.3nm,0.9s						
KLR	**Kul'dur**	**37.13**	**12**	LR	LR	05 16 17.9	
	comp=Z,112nm,19.3s,baz=220,slow=38						
AS31	**Alice Springs**	**38.73**	**161**		**P**	**04 59 48.8**	**+0.1**
AS31				IAmb	IAmb	04 59 50.4	
	comp=Z,3.0nm,0.5s						
ASAR	**Alice Springs**	**38.73**	**161**	P	**P**	**04 59 48.6**	**-0.1**
	comp=Z,4.8nm,0.5s,baz=338,slow=6.6,SNR=71						
	comp=Z,4.8nm,0.5s						
ASAR	**Alice Springs**	**38.73**	**161**		**P**	**04 59 48.9**	**+0.2**
PALK	**Pallekele**	**39.87**	**266**	LR	LR	05 15 53.0	
	comp=Z,88nm,18.4s,baz=82,slow=35						
WMQ	**Urumqi**	**41.74**	**324**	*e*P	**P**	**05 00 15.0**	**+1.5**
WMQ				pP	sP	05 00 32.0	+7.8
WMQ				pmax	pmax		
	comp=Z,16nm,0.7s						
WMQ				L	L		
	comp=Z,430nm,13.9s						
WMQ				L	L		
	comp=Z,410nm,19.5s						
WMQ				L	L		
	comp=Z,240nm,18.9s						
MORW	**Morawa**	**42.18**	**186**	P	**P**	**05 00 16.5**	**-0.7**
MORW				IAmb	IAmb	05 00 27.7	
	comp=Z,15nm,1.0s						
FORT	**Forrest**	**44.19**	**171**	P	**P**	**05 00 33.5**	**+0.1**
FORT				IAmb	IAmb	05 00 45.0	
	comp=Z,15nm,1.1s						
INKA	**Innaminka**	**44.97**	**155**		**P**	**05 00 40.3**	**+0.6**
INKA				IAmb	IAmb	05 00 46.4	
	comp=Z,14nm,0.8s						
PDGK	**Podgornoye**	**46.52**	**318**		**P**	**05 00 51.9**	**-0.1**
MK31	**Makanchi Array**	**46.57**	**324**	P	**P**	**05 00 52.1**	**0.0**
MK31				IAmb	IAmb	05 00 53.3	
	comp=Z,11nm,0.8s						
MKAR	**Makanchi Array**	**46.57**	**324**	P	**P**	**05 00 52.0**	**-0.2**
	comp=Z,12nm,0.8s,baz=129,slow=8.8,SNR=82						
MKAR				PcP	**PcP**	**05 02 24.6**	**-1.5**
	comp=Z,0.9nm,0.6s,baz=104,slow=3.7,SNR=2.4						
MKAR				LR	LR	05 21 52.1	
	comp=Z,265nm,18.4s,baz=97,slow=38						
	comp=Z,12nm,0.8s						
MAKZ	**Makanchi**	**46.76**	**324**		**P**	**05 00 53.0**	**-0.6**
TARG	**Taragay, Kyrgy**	**46.94**	**316**	IAmb	IAmb	05 01 20.3	
	comp=Z,6.3nm,1.0s						
KSH2	**Kashi**	**47.54**	**312**	P	**P**	**05 01 00.4**	**+0.4**
KSH2				pmax	pmax		
	comp=Z,7.0nm,1.0s						
NRN	**Naryn**	**48.06**	**315**	IAmb	IAmb	05 01 05.3	
	comp=Z,11nm,0.9s						
ULHL	**Ulahol**	**48.22**	**316**	P	**P**	**05 01 05.8**	**+0.6**
	SNR=8.9						
BOOM	**Boomskoye usch**	**48.52**	**316**	IAmb	IAmb	05 01 08.7	
	comp=Z,9.8nm,1.4s						
TKM2	**Tokmak 2**	**48.92**	**316**	P	**P**	**05 01 10.9**	**+0.2**
	SNR=8.2						
STKA	**Stephens Creek**	**48.97**	**156**	P	**P**	**05 01 10.7**	**-0.1**
	comp=Z,3.1nm,0.6s,baz=333,slow=12,SNR=6.8						
	comp=Z,3.1nm,0.6s						
KBK	**Karagaybulak**	**49.26**	**316**	P	**P**	**05 01 13.9**	**+0.7**
	SNR=5.3						
YAK	**Yakutsk**	**49.26**	**6**	LR	LR	05 26 26.8	
	comp=Z,66nm,18.2s,baz=210,slow=41						
PETK	**Petropavlovsk-**	**49.49**	**28**	P	**P**	**05 01 14.9**	**+0.3**
	comp=Z,4.2nm,0.7s,baz=235,slow=5.1,SNR=5.9						
PETK				LR	LR	05 22 50.5	
	comp=Z,18nm,21.8s,baz=236,slow=37						
	comp=Z,4.2nm,0.7s						
AAK	**Ala-Archa**	**49.56**	**315**		**P**	**05 01 15.7**	**+0.2**
AAK				IAmb	IAmb	05 01 17.5	
	comp=Z,4.2nm,0.7s						
USP	**Ospenovka**	**49.80**	**316**	P	**P**	**05 01 16.8**	**-0.4**
	SNR=6.3						
EKS2	**Erkin-Say**	**50.06**	**315**	P	**P**	**05 01 19.7**	**+0.5**
	SNR=7.5						
ARSB	**Arslanbob**	**50.14**	**313**	P	**P**	**05 01 19.5**	**-0.5**
KURBB	**Kurchatov Arra**	**50.74**	**326**	P	**P**	**05 01 23.6**	**-0.5**
	comp=Z,15nm,0.8s,baz=121,slow=8.3,SNR=82						
	comp=Z,15nm,0.8s						
KURK	**Kurchatov**	**50.74**	**327**		**P**	**05 01 23.8**	**-0.3**
KBL	**Kabul**	**51.32**	**304**	P	**P**	**05 01 28.8**	**-0.2**
MA2	**Magadan**	**51.42**	**19**	LR	LR	05 24 58.2	
	comp=Z,37nm,20.4s,baz=216,slow=38						
KK31	**Karatay Array**	**52.46**	**315**		**P**	**05 01 37.1**	**-0.1**
KKAR	**Karatay Array**	**52.46**	**315**		**P**	**05 01 36.7**	**-0.4**
BVAR	**Borovoye Array**	**56.32**	**326**	P	**P**	**05 02 04.4**	**-0.6**
	comp=Z,3.4nm,0.6s,baz=121,slow=9.3,SNR=15						
	comp=Z,3.4nm,0.6s						
HRA	**Herat**	**56.85**	**303**	IAmb	IAmb	05 02 09.9	
	comp=Z,6.2nm,0.9s						
NRIK	**Noril'sk**	**60.01**	**347**	LR	LR	05 29 57.1	
	comp=Z,137nm,20.9s,baz=148,slow=37						
AB31	**Akbulak array**	**61.25**	**319**		**P**	**05 02 38.4**	**-0.9**
ABKAR	**Akbulak array**	**61.25**	**319**		**P**	**05 02 38.2**	**-1.1**
AKTO	**Aktyubinsk**	**62.73**	**320**	P	**P**	**05 02 48.3**	**-1.1**
	comp=Z,5.6nm,0.6s,baz=99,slow=7.0,SNR=14						
AKTO				LR	LR	05 32 03.7	
	comp=Z,285nm,18.6s,baz=175,slow=38						
	comp=Z,5.6nm,0.6s						
ARTI	**Arti**	**64.02**	**327**	P	**P**	**05 02 55.6**	**-2.1**
	comp=Z,3.2nm,0.6s,baz=162,slow=3.2,SNR=6.0						
	comp=Z,3.2nm,0.6s						
RAYN	**Ar Rayn**	**71.56**	**291**		**P**	**05 03 45.7**	**-0.3**
KBZ	**Khabaz**	**72.35**	**312**	P	**P**	**05 03 49.3**	**-0.9**
	comp=Z,2.7nm,0.8s,baz=176,slow=6.6,SNR=6.8						
	comp=Z,2.7nm,0.8s						
RPZ	**Rata Peaks**	**72.75**	**144**	LR	LR	05 36 29.3	
	comp=Z,19nm,18.7s,baz=209,slow=36						
URZ	**Urewera**	**73.35**	**137**	LR	LR	05 36 56.6	
	comp=Z,30nm,20.3s,baz=318,slow=36						
G21K	**Allakaket**	**76.36**	**24**	IAmb	IAmb	05 04 13.7	
	comp=Z,5.5nm,0.9s						
CAST	**Castle Rocks**	**77.09**	**27**	IAmb	IAmb	05 04 18.2	
	comp=Z,5.8nm,0.6s						
BPAW	**Bear Paw Mtn.**	**77.53**	**27**	IAmb	IAmb	05 04 20.2	
	comp=Z,4.8nm,0.8s						
MCK	**McKinley**	**78.47**	**27**	IAmb	IAmb	05 04 25.0	
	comp=Z,6.0nm,0.7s						
PMR	**Palmer**	**78.61**	**29**	IAmb	IAmb	05 04 24.5	
	comp=Z,10nm,1.4s						
ILAR	**Eielson Array**	**79.23**	**26**	P	**P**	**05 04 27.5**	**-1.6**
	comp=Z,0.4nm,0.7s,baz=240,slow=5.0,SNR=6.2						
	comp=Z,0.4nm,0.7s						
BRTR	**Keskin Array B**	**79.60**	**308**	P	**P**	**05 04 30.9**	**-1.0**
	comp=Z,1.4nm,0.7s,baz=127,slow=3.7,SNR=7.0						
	comp=Z,1.4nm,0.7s						
ARCES	**ARCESS Array B**	**79.67**	**339**	P	**P**	**05 04 29.9**	**-1.5**
	comp=Z,1.5nm,0.5s,baz=71,slow=6.4,SNR=17						
ARCES				LR	LR	05 43 37.3	
	comp=Z,116nm,18.6s,baz=265,slow=38						
	comp=Z,1.5nm,0.5s						
ARCES	**ARCESS Array B**	**79.67**	**339**	IAmb	IAmb	05 04 36.0	
	comp=Z,11nm,1.4s						
K24K	**Donnelly Dome**	**79.85**	**27**	IAmb	IAmb	05 04 40.7	
	comp=Z,4.7nm,0.7s						
SPITS	**Spitsbergen Ar**	**80.19**	**348**	P	**P**	**05 04 32.6**	**-1.5**
	comp=Z,2.8nm,0.6s,baz=134,slow=10,SNR=2.0						
SPITS				LR	LR	05 44 06.8	
	comp=Z,82nm,21.0s,baz=66,slow=39						
	comp=Z,2.8nm,0.6s						
I26K	**Coal Creek Min**	**80.70**	**25**	IAmb	IAmb	05 04 37.3	
	comp=Z,4.0nm,0.8s						
FINES	**FINESS Array B**	**80.85**	**331**	P	**P**	**05 04 36.4**	**-1.6**
	comp=Z,2.1nm,0.8s,baz=46,slow=5.5,SNR=6.3						
	comp=Z,2.1nm,0.8s						
I27K	**Kandik River**	**81.27**	**25**		**P**	**05 04 40.2**	**-0.1**
G29M	**Pine Creek**	**82.37**	**23**	IAmb	IAmb	05 04 46.5	
	comp=Z,5.8nm,0.9s						
H29M	**Whitestone**	**82.42**	**24**	IAmb	IAmb	05 04 53.4	
	comp=Z,8.0nm,1.1s						
M29M	**Somme Creek**	**83.38**	**27**		**P**	**05 04 52.4**	**+1.0**
I30M	**Mount Dempster**	**83.49**	**24**		**P**	**05 04 51.3**	**-0.6**
MLR	**Muntele Rosu**	**84.14**	**315**	P	**P**	**05 04 55.0**	**-0.7**
	comp=Z,4.7nm,0.7s,baz=215,slow=5.0,SNR=6.9						
MLR				LR	LR	05 47 11.0	
	comp=Z,69nm,18.1s,baz=5.5,slow=39						
	comp=Z,4.7nm,0.7s						
MLR	**Muntele Rosu**	**84.14**	**315**	IAmb	IAmb	05 04 56.1	
	comp=Z,4.6nm,0.7s						
BURAR	**Bucovina Array**	**84.16**	**317**	P	**P**	**05 04 54.6**	**-1.0**
BURAR				IAmb	IAmb	05 04 55.7	
	comp=Z,2.9nm,0.8s						
BUR08	**Bucovina Ar. S**	**84.17**	**317**		**P**	**05 04 54.5**	**-1.2**
BUR08				IAmb	IAmb	05 04 55.5	
	comp=Z,4.9nm,1.1s						
HFS	**Hagfors**	**87.04**	**331**	P	**P**	**05 05 07.5**	**-2.0**
	comp=Z,1.0nm,0.6s,baz=64,slow=3.4,SNR=1.6						
	comp=Z,1.0nm,0.6s						
NB2	**NORSAR Subarra**	**87.83**	**333**	P	**P**	**05 05 09.7**	**-3.7**
	comp=Z,0.9nm,0.7s,baz=66,slow=4.8						
NOA	**NORSAR Array B**	**87.83**	**333**	P	**P**	**05 05 10.9**	**-2.5**
	comp=Z,1.5nm,0.8s,baz=67,slow=4.7,SNR=5.2						
NOA				LR	LR	05 47 38.2	
	comp=Z,65nm,18.2s,baz=60,slow=38						
	comp=Z,1.5nm,0.8s						
CLL	**Collm**	**90.66**	**323**	L	L	05 47 00.0	
GERES	**GERESS Array B**	**91.15**	**321**	P	**P**	**05 05 28.1**	**-1.2**
	comp=Z,0.5nm,0.2s,baz=90,slow=8.0,SNR=2.2						
	comp=Z,0.5nm,0.2s						
PPT2	**Papeete2**	**93.52**	**107**	*e*LR	LR	05 36 02.1	
	comp=Z,69nm,24.8s						
EKA	**Eskdalemuir Ar**	**97.24**	**331**	LR	LR	05 54 56.9	
	comp=Z,68nm,18.4s,baz=6.0,slow=38						
BORG	**Borgarnes**	**97.26**	**345**	LR	LR	05 53 46.6	
	comp=Z,45nm,19.9s,baz=334,slow=38						

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*IDC **11** 04:56:24.7±1.8, 22°.01N×143°.13E, h237^{km}±16^{km}, mb3.9/23, mbtmp4.5/25, Error ellipse: s-maj=15.7km s-min=9.0km az=78.0*

*NEIC **11** 04:56:25.3±1.5, 21°.99N±0°.06×143°.1E±0°.1, h237^{km}±5^{km}, mb4.5/125, Error ellipse: s-maj=16.4km s-min=8.1km az=69.0*

*JMA **11** 04:56:27.0±0.3, 22°N±2°×14°3E±°, h229^{km}±2^{km}, MV5.1/31, IOTO ISLANDS REGION*

ISC 11 04:56:24.6±0.4**, 22°.04N**±0°.05×**143°.16E**±0°.08**, h237^{km}, n165,** σ**1^{s}.14**/124**, mb4.4**/89**, 5C, Volcano Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHH2	**Haha-jima-NKT2**	**4.66**	**349**	*e*P	**Pn**	**04 57 35.4**	**-0.4**
JHH2				*e*S	**S**	**04 58 29.1**	**-3.2**
CBIJ	**Chichi jima**	**5.11**	**350**	*e*P	**Pn**	**04 57 40.7**	**-0.6**
CBIJ				*e*S	**S**	**04 58 38.2**	**-4.2**
DPSS	**Saipan**	**7.21**	**159**	Pn	**Pn**	**04 58 06.7**	**-1.2**
DPSS				Sn	**S**	**04 59 29.8**	**-0.8**
JHJ2	**Mitsune**	**11.42**	**346**		**P**	**04 59 05.5**	**+0.1**
BSO1	**Boso 1**	**12.71**	**352**	*e*P	**Pn**	**04 59 17.9**	**+1.1**

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
BSO3	Boso 3	12.93	350	eP	Pn	04 59 20.3	+0.6
BSO4	Boso 4	13.14	350	eP	Pn	04 59 22.2	-0.3
JTNC	Tanabenakahech	13.49	332	eP	P	04 59 28.7	+0.2
JIE	Ise	13.55	337	eP	Pn	04 59 28.7	+1.1
JKN2	Miekihoku	13.58	335	eP	Pn	04 59 29.0	+1.0
JOD2	Odawara 2	13.65	346	eP	Pn	04 59 28.6	-0.2
JOD2				eS	S	05 01 54.2	-5.8
JAMN	Amaminishikomi	14.09	299	eP	P	04 59 38.0	+2.9
JMN	Monobe	14.23	327		P	04 59 38.0	+1.2
INU	Inuyama	14.31	339	P	Pn	04 59 37.2	+0.3
JOW	Kunigami	14.37	292	P	P	04 59 39.8	+1.5
JRY	Ryogami san	14.41	346	eP	Pn	04 59 37.5	-0.7
JRY				eS	S	05 02 09.9	-7.7
JGF	Kuroka	14.43	341		Pn	04 59 38.4	0.0
JSU	Suzuyama	14.74	312		Pn	04 59 42.5	+0.3
MJAR	Matsushiro Arr	15.08	345	P	P	04 59 45.3	-0.7
	17nm,0.8s,baz=164,slow=9.4,SNR=34						
MJAR	Matsushiro Arr	15.08	345	P	P	04 59 46.1	+0.1
MJAR				IAmb	IAmb	04 59 48.0	
	comp=Z,16nm,0.7s						
MAJO	Matsushiro	15.08	344		Pn	04 59 47.2	+1.0
MJB9	Matsu-Tunnel	15.08	344		Pn	04 59 47.4	+1.1
JNU	Nakatsue	15.49	318	P	P	04 59 51.0	+0.3
	comp=Z,30nm,0.8s,baz=122,slow=6.2,SNR=16						
JHS	Saijyo	15.63	328	eP	Pn	04 59 54.6	+1.8
JTM	Tenmabayashi	18.77	355		P	05 00 27.5	+1.2
TJN	Taejon	19.82	320	P	P	05 00 37.6	+0.2
ERM	Erimo	19.92	360	P	P	05 00 40.4	+1.9
KSRS	Korea Array	20.23	323	P	P	05 00 42.4	+0.5
	comp=Z,22nm,0.7s,baz=145,slow=8.6,SNR=67						
	comp=Z,22nm,0.7s						
SSLB	Suanglung	20.53	279	P	P	05 00 46.2	+0.9
SSLB				IAmb	IAmb	05 00 48.6	
	comp=Z,12nm,1.0s						
JKA	Kamikawa-asahi	22.02	359	P	P	05 01 00.9	+1.1
NJ2	Nanjing	23.79	300	eP	P	05 01 16.8	+0.8
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
USA0B	Ussuriysk Arra	23.95	340	P	P	05 01 17.3	0.0
USA0B				IAmb	IAmb	05 01 21.2	
	comp=Z,8.9nm,0.8s						
USRK	Ussuriysk Ar.	23.95	340	P	P	05 01 17.4	+0.1
	comp=Z,6.2nm,0.7s,baz=175,slow=12,SNR=8.6						
	comp=Z,6.2nm,0.7s						
USRK	Ussuriysk Ar.	23.95	340	P	P	05 01 17.0	-0.3
BNX	BinXian	26.92	335	⇑P	P	05 01 45.1	+1.2
BNX				pmax	pmax		
	comp=Z,9.0nm,0.7s						
HNS	HongShan	28.92	308	⇑P	P	05 02 03.0	+1.2
HNS				pmax	pmax		
	comp=Z,20nm,0.8s						
HEH	HeiHe	30.76	340	eP	P	05 02 18.3	+0.5
HEH				pmax	pmax		
	comp=Z,18nm,0.8s						
HHC	Hu-ho-hao-te	32.59	312	eP	P	05 02 34.7	+0.7
HHC				pmax	pmax		
	comp=Z,14nm,0.6s						
PETK	Petropavlovsk-	32.95	16	P	P	05 02 37.6	+0.7
	comp=Z,2.7nm,0.7s,baz=268,slow=5.8,SNR=3.6						
	comp=Z,2.7nm,0.7s						
PZH	PanZhiHua	37.90	285	P	P	05 03 19.6	+0.1
ULN	Ulaanbaatar	38.69	321	P	P	05 03 25.7	-0.1
SONM	Songino Array	39.06	320	P	P	05 03 29.3	+0.5
	comp=Z,4.1nm,0.4s,baz=124,slow=7.2,SNR=21						
SONM				ScP	ScP	05 08 58.0	-1.3
	comp=Z,0.5nm,0.3s,baz=136,slow=2.9,SNR=4.9						
	comp=Z,4.1nm,0.4s						
SONM	Songino Array	39.06	320		P	05 03 29.1	+0.2
KNRA	Kununurra	40.05	202	P	P	05 03 37.2	+0.1
GTA2	Gaotai	40.72	305	eP	P	05 03 43.5	+1.0
GTA2				pmax	pmax		
	comp=Z,7.0nm,0.7s						
JAGI	Jajag, Banyuwa	41.58	226	P	P	05 03 48.5	-1.2
WB0	Warramunga Arr	42.42	192		P	05 03 55.7	-0.6
WRA	Warramunga Arr	42.61	192	P	P	05 03 57.5	-0.4
	comp=Z,13nm,0.6s,baz=18,slow=8.4,SNR=105						
WRA				PcP	PcP	05 05 45.5	0.0
	comp=Z,2.4nm,0.6s,baz=10,slow=3.6,SNR=10						
WRA				ScP	ScP	05 09 13.3	-0.2
	comp=Z,2.9nm,0.9s,baz=11,slow=4.0,SNR=12						
	comp=Z,13nm,0.6s						
WRA	Warramunga Arr	42.61	192		P	05 03 55.6	-2.3
FITZ	Fitzroy Crossi	43.42	205		P	05 04 03.9	-0.4
UGM	Wanagama	43.70	231	P	P	05 04 06.1	-0.6
ATKA	Atka Island	44.43	37	P	P	05 04 12.5	+0.6
BBJI	Bungbulang	45.51	234	P	P	05 04 19.6	-1.4
BBJI				IAmb	IAmb	05 04 40.3	
	comp=Z,31nm,1.4s						
AS31	Alice Springs	46.31	192		P	05 04 26.4	-0.7
ASAR	Alice Springs	46.32	192	P	P	05 04 26.2	-0.8
	comp=Z,3.4nm,0.5s,baz=16,slow=11,SNR=52						
ASAR				PcP	PcP	05 05 58.1	-0.1
	comp=Z,1.6nm,0.8s,baz=34,slow=2.3,SNR=7.6						
ASAR				ScP	ScP	05 09 28.8	+0.1
	comp=Z,1.8nm,0.9s,baz=14,slow=3.7,SNR=12						
	comp=Z,3.4nm,0.5s						
ASAR	Alice Springs	46.32	192	P	P	05 04 26.1	-1.0
AKUT	Akutan	49.85	37	P	P	05 04 53.9	+0.2
AKUT				IAmb	IAmb	05 04 55.1	
	comp=Z,19nm,0.9s						
EVN	Everest	51.03	289	P	P	05 05 03.2	-0.5
GIRL	Giralia	52.60	214	P	P	05 05 14.1	-0.3
SDPT	Sand Point	53.15	36	P	P	05 05 17.9	0.0
K13K	Kusilvak Mount	53.29	28	P	P	05 05 20.1	+1.2
STKA	Stephens Creek	53.63	182	P	P	05 05 21.2	-0.5
	comp=Z,3.9nm,0.7s,baz=2.3,slow=6.7,SNR=8.1						
	comp=Z,3.9nm,0.7s						
ZAA0	Zalesovo Array	53.93	322		P	05 05 23.5	-0.2
ZAA0				IAmb	IAmb	05 05 24.5	
	comp=Z,10nm,0.7s						
ZALV	Zalesovo Beam	53.93	322	P	P	05 05 23.8	+0.1
	comp=Z,13nm,0.6s,baz=107,slow=7.9,SNR=31						
	comp=Z,13nm,0.6s						
ZALV	Zalesovo Beam	53.93	322		P	05 05 23.2	-0.5
M14K	Bethel	54.05	30		P	05 05 25.5	+1.1
M14K				IAmb	IAmb	05 05 26.9	
	comp=Z,10nm,0.7s						
MKAR	Makanchi Array	54.45	312	P	P	05 05 28.4	+0.8
	comp=Z,2.2nm,0.6s,baz=95,slow=8.1,SNR=7.0						
	comp=Z,2.2nm,0.6s						
MKAR	Makanchi Array	54.45	312		P	05 05 27.8	+0.1
CHGN	Chignik	54.51	36	P	P	05 05 27.4	-0.5
CHGN				IAmb	IAmb	05 05 28.2	
	comp=Z,11nm,0.7s						
MAKZ	Makanchi	54.67	312		P	05 05 29.6	+0.4
J17K	VABM Dome	56.22	27	P	P	05 05 41.4	+1.5
PDGK	Podgornoye	56.26	308		P	05 05 40.6	-0.1
K17K	Iditarod	56.34	28		P	05 05 42.1	+1.3
K17K				IAmb	IAmb	05 05 43.7	
	comp=Z,15nm,1.0s						
N18K	Kilae Creek	56.87	31	P	P	05 05 45.9	+1.3
L18K	Granite Mounta	56.91	29	IAmb	IAmb	05 05 47.6	
	comp=Z,11nm,1.4s						
KURK	Kurchatov	57.21	317		P	05 05 47.1	0.0
KURK				IAmb	IAmb	05 05 48.1	
	comp=Z,11nm,0.8s						
G18K	Tagagawik	57.24	25	IAmb	IAmb	05 05 49.2	
	comp=Z,8.9nm,0.9s						
KURBB	Kurchatov Arra	57.26	317	P	P	05 05 47.8	+0.4
	comp=Z,16nm,0.7s,baz=93,slow=7.6,SNR=76						
	comp=Z,16nm,0.7s						
O19K	Port Alsworth	57.52	32	IAmb	IAmb	05 05 51.1	
	comp=Z,12nm,0.7s						
N19K	Bonanza Creek	57.58	31	IAmb	IAmb	05 05 52.0	
	comp=Z,6.6nm,0.7s						
NRIK	Noril'sk	57.67	340	P	P	05 05 50.0	0.0
	comp=Z,2.9nm,0.5s,baz=113,slow=9.9,SNR=3.7						
	comp=Z,2.9nm,0.5s						
NRIK	Noril'sk	57.67	340	IAmb	IAmb	05 05 50.7	
	comp=Z,3.9nm,0.7s						
J19K	Poorman	57.87	27		P	05 05 53.0	+1.5
J19K				IAmb	IAmb	05 05 53.7	
	comp=Z,6.8nm,0.7s						
G19K	Purcell Mounta	57.93	24	IAmb	IAmb	05 05 54.0	
	comp=Z,6.3nm,0.8s						
E19K	Redstone River	58.32	23	IAmb	IAmb	05 05 57.0	
	comp=Z,15nm,1.1s						
K20K	Telida	58.37	28	IAmb	IAmb	05 05 57.7	
	comp=Z,8.0nm,0.9s						
J20K	Nowinta River	58.55	27	IAmb	IAmb	05 05 59.0	
	comp=Z,20nm,1.4s						
BOOM	Boomskoye usch	58.88	307	IAmb	IAmb	05 06 01.1	
	comp=Z,4.8nm,0.6s						
IMAR	Indian Mountai	59.19	25	P	P	05 06 01.7	+1.2
CAST	Castle Rocks	59.26	28	IAmb	IAmb	05 06 03.3	
	comp=Z,10nm,0.8s						
KSH2	Kashi	59.36	303	P	P	05 06 04.3	+1.9
KSH2				pmax	pmax		
	comp=Z,4.0nm,0.7s						
G21K	Allakaket	59.42	25	IAmb	IAmb	05 06 04.7	
	comp=Z,14nm,1.1s						
H21K	Melozitna Rive	59.48	26	IAmb	IAmb	05 06 05.2	
	comp=Z,10nm,0.8s						
I21K	Tanana	59.70	26	IAmb	IAmb	05 06 06.7	
	comp=Z,13nm,0.8s						
BPAW	Bear Paw Mtn.	59.88	28	IAmb	IAmb	05 06 07.3	
	comp=Z,11nm,0.7s						
TRF	Thorofare Moun	60.05	28	IAmb	IAmb	05 06 08.0	
	comp=Z,12nm,0.8s						
MLY	Manley	60.17	27		P	05 06 08.1	+0.8
MLY				IAmb	IAmb	05 06 09.6	
	comp=Z,6.8nm,0.8s						
GHO	Glory Hole Cre	60.39	30	IAmb	IAmb	05 06 10.1	
	comp=Z,6.8nm,0.6s						
E22K	Anaktuvuk Pass	60.48	23	IAmb	IAmb	05 06 12.0	
	comp=Z,9.9nm,0.9s						
PWL	Port Wells	60.55	32	IAmb	IAmb	05 06 11.3	
	comp=Z,20nm,1.2s						
KNK	Knik Glacier	60.56	31	IAmb	IAmb	05 06 11.3	
	comp=Z,9.7nm,0.7s						
SML	Sawmill	60.67	30	IAmb	IAmb	05 06 12.7	
	comp=Z,15nm,0.9s						
MCK	McKinley	60.70	28	IAmb	IAmb	05 06 12.1	
	comp=Z,8.1nm,1.0s						
I23K	Minto, Yukon-K	60.77	27	IAmb	IAmb	05 06 14.3	
	comp=Z,6.3nm,0.7s						
NEA2	Nenana	60.79	27	IAmb	IAmb	05 06 13.4	
	comp=Z,8.2nm,1.1s						
G23K	Bananza Creek	60.82	25	IAmb	IAmb	05 06 14.4	
	comp=Z,11nm,1.1s						
H23K	Yukon River	60.83	26	IAmb	IAmb	05 06 14.3	
	comp=Z,8.7nm,0.8s						
COLD	Coldfoot	60.87	24	IAmb	IAmb	05 06 14.6	
	comp=Z,6.5nm,0.8s						
SCM	Sheep Creek Mo	61.15	30	IAmb	IAmb	05 06 15.7	
	comp=Z,12nm,0.8s						
HDA	Harding Lake	61.67	28	IAmb	IAmb	05 06 18.6	
	comp=Z,5.8nm,0.6s						
E24K	Your Creek	61.69	23	IAmb	IAmb	05 06 19.7	
	comp=Z,6.3nm,0.7s						
IL31		61.75	27	IAmb	IAmb	05 06 18.3	
	comp=Z,7.6nm,0.7s						
ILAR	Eielson Array	61.75	27	P	P	05 06 17.4	-0.3
	comp=Z,6.4nm,0.7s,baz=261,slow=5.4,SNR=63						
	comp=Z,6.4nm,0.7s						
ILAR	Eielson Array	61.75	27		P	05 06 16.9	-0.8
KLU	Klutina	61.78	31	IAmb	IAmb	05 06 20.0	
	comp=Z,5.4nm,0.6s						
G24K	Hadweenzic Riv	61.81	25	IAmb	IAmb	05 06 21.4	
	comp=Z,10nm,1.0s						
K24K	Donnelly Dome	62.10	28	IAmb	IAmb	05 06 23.1	
	comp=Z,8.1nm,0.9s						
BMRM	Bremner River	62.37	32	IAmb	IAmb	05 06 24.0	
	comp=Z,10nm,0.8s						
BVAR	Borovoye Array	62.40	319	P	P	05 06 22.9	+0.6
	comp=Z,18nm,0.5s,baz=90,slow=7.0,SNR=55						
	comp=Z,18nm,0.5s						
BORK	Borovoye	62.44	319		P	05 06 23.2	+0.6
F25K	Christian Rive	62.66	24	IAmb	IAmb	05 06 26.9	
	comp=Z,8.2nm,1.0s						
KKAR	Karatay Array	62.83	308		P	05 06 26.1	+0.8
BMAR	Burnt Mountain	63.04	24	P	P	05 06 28.4	+2.0
MCARA	McCarthy VSAT	63.16	31	IAmb	IAmb	05 06 29.2	
	comp=Z,10nm,1.0s						
G26K	Porcupine Rive	63.29	25	IAmb	IAmb	05 06 33.5	
	comp=Z,6.2nm,0.8s						
D27M	Malcolm River	64.58	23	IAmb	IAmb	05 06 39.0	
	comp=Z,7.4nm,0.8s						
I28M	Miner Creek	64.74	27	IAmb	IAmb	05 06 39.4	
	comp=Z,6.7nm,0.8s						
F28M	Old Crow	64.86	24	IAmb	IAmb	05 06 40.7	
	comp=Z,9.7nm,0.8s						
O29M	Mount Kennedy	65.32	32	IAmb	IAmb	05 06 44.2	
	comp=Z,7.3nm,1.1s						
M29M	Somme Creek	65.34	30	IAmb	IAmb	05 06 43.6	
	comp=Z,5.1nm,0.7s						
H29M	Whitestone	65.40	26	IAmb	IAmb	05 06 43.9	
	comp=Z,8.5nm,0.8s						
I29M	Ogilvie Camp,	65.42	27	IAmb	IAmb	05 06 43.8	
	comp=Z,6.8nm,1.1s						
L29M	L29M	65.49	29	IAmb	IAmb	05 06 45.1	
	comp=Z,7.2nm,0.9s						
G29M	Pine Creek	65.56	25	IAmb	IAmb	05 06 45.3	
	comp=Z,12nm,0.9s						
K29M	Barlow Dome	65.75	29	IAmb	IAmb	05 06 46.5	
	comp=Z,6.3nm,0.8s						
G30M	tAoh Zraii Nji	66.27	25	IAmb	IAmb	05 06 49.7	
	comp=Z,14nm,1.0s						
G31M	Satah River	67.03	25		P	05 06 52.8	+0.9
H31M	Peel River	67.05	26	IAmb	IAmb	05 06 54.2	
	comp=Z,11nm,0.8s						
AB31	Akbulak array	69.29	316		P	05 07 06.5	+0.2
ABKAR	Akbulak array	69.29	316		P	05 07 06.2	-0.1
SNZO	South Karori	69.49	155	P	P	05 07 06.5	-0.9
MSWZ	Moikau Station	69.80	155	P	P	05 07 08.9	-0.4
AKTO	Aktyubinsk	70.30	317	P	P	05 07 12.4	0.0
	comp=Z,3.1nm,0.6s,baz=89,slow=5.7,SNR=9.9						
	comp=Z,3.1nm,0.6s						
YKA	Yellowknife Ar	76.16	28	P	P	05 07 46.8	+0.4
	comp=Z,2.6nm,0.6s,baz=294,slow=5.9,SNR=7.7						
	comp=Z,2.6nm,0.6s						
I02E	Swisshome, OR	77.06	48	P	P	05 07 52.7	+1.0
J01E	Myrtle Point	77.30	49	P	P	05 07 53.8	+0.7
KRMB	Red Mountain	77.83	50	P	P	05 07 57.3	+1.0
KRMB				IAmb	IAmb	05 08 08.9	
	comp=Z,12nm,1.5s						
KEV	Kevo	78.03	341	P	P	05 07 56.2	-0.3
ARCES	ARCESS Array B	78.59	341	P	P	05 07 59.6	0.0
	comp=Z,2.5nm,0.6s,baz=67,slow=9.5,SNR=17						
	comp=Z,2.5nm,0.6s						
ARCES	ARCESS Array B	78.59	341	P	P	05 07 59.3	-0.4
ARCES				IAmb	IAmb	05 08 03.9	
	comp=Z,17nm,1.3s						
BEKR	Beckworth	80.93	51	P	P	05 08 13.4	+0.4
KBZ	Khabaz	82.12	314	P	P	05 08 19.1	+0.2
	comp=Z,5.3nm,0.8s,baz=82,slow=3.4,SNR=15						
	comp=Z,5.3nm,0.8s						
FINES	FINESS Array B	82.86	334	P	P	05 08 21.8	-0.5
	comp=Z,4.7nm,0.6s,baz=66,slow=5.2,SNR=27						
	comp=Z,4.7nm,0.6s						
NVAR	Mina Array Bea	82.95	52	P	P	05 08 24.5	+0.9
	comp=Z,0.9nm,0.7s,baz=270,slow=5.6,SNR=9.3						
	comp=Z,0.9nm,0.7s						
PDAR	Pinedale Array	87.17	45	P	P	05 08 45.0	+0.6
	comp=Z,0.3nm,0.8s,baz=148,slow=1.4,SNR=3.5						
	comp=Z,0.3nm,0.8s						
PDAR	Pinedale Array	87.17	45	P	P	05 08 45.0	+0.6
HFS	Hagfors	88.41	337	P	P	05 08 47.7	-1.8
	comp=Z,2.5nm,0.7s,baz=64,slow=10,SNR=4.7						
	comp=Z,2.5nm,0.7s						
NOA	NORSAR Array B	88.62	339	P	P	05 08 49.2	-1.4
	comp=Z,0.9nm,0.7s,baz=46,slow=4.7,SNR=3.5						
	comp=Z,0.9nm,0.7s						
BRTR	Keskin Array B	90.09	313	P	P	05 08 56.8	-1.3
	comp=Z,0.5nm,0.7s,baz=64,slow=4.6,SNR=2.1						
	comp=Z,0.5nm,0.7s						
QSPA	South Pole Qui	111.83	180	PKiKP	PKiKP	05 14 30.3	-0.4
	comp=Z,0.7nm,0.5s,baz=285,slow=1.7,SNR=11						
TROLL	Troll, Antarti	125.28	194	⇑PKPdf	PKiKP	05 14 57.3	+0.4
	comp=Z,85nm,0.9s						
VNA3	Neumayer Olymp	128.32	191	⇑PKPdf	PKiKP	05 15 03.6	+0.8
	comp=Z,2.0nm,0.8s						
VNA1	Neumayer--Stat	128.56	192	⇑PKPdf	PKiKP	05 15 04.4	+1.2
	comp=Z,2.7nm,0.9s						
PLCA	Paso Flores	146.00	131	PKPbc	PKPdf	05 15 36.6	+1.1
	comp=Z,6.4nm,0.9s,baz=243,slow=3.6,SNR=9.7						
LPAZ	La Paz	149.93	85	PKPbc	PKPbc	05 15 48.9	+0.5
	comp=Z,1.5nm,0.6s,baz=358,slow=1.6,SNR=8.8						

NNC 11 05:07:41.8±15.0**, 36.°94N**×**70.°69E, h123**^{km}±297^{km}**, mb3.0, mpv3.6, 2D, Error ellipse: s-maj=131.6km s-min=90.3km az=2.0, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KK31	Karatay Array	6.16	359	P	Pn	05 09 11.9	+1.6
	6.0nm,0.4s,baz=184,slow=15,SNR=45						
KK31				S	Sn	05 10 21.6	+2.2
	9.2nm,0.5s,baz=184,slow=22,SNR=18						
AAK	Ala-Archa	6.40	26	⇓P	Pn	05 09 12.9	-0.7
	1.0nm,0.5s						
AAK				⇓S	Sn	05 10 23.5	-2.0
	9.7nm,0.7s						
MK31	Makanchi Array	13.09	38	P	Pn	05 10 40.8	-2.1
	1.1nm,0.7s,baz=225,slow=11,SNR=6.3						
AB31	Akbulak array	14.58	331	P	P	05 11 03.6	-1.4
	0.3nm,0.5s,baz=125,slow=6.8,SNR=8.8						
NB2	NORSAR Subarra	43.88	323	P	P	05 15 29.6	-6.1
	comp=Z,0.4nm,0.4s,baz=98,slow=7.9						

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*SSNC **11** 05:29:03.8±1.0, 18.°18N×77.°01W, h18^{km}±9^{km}, MD3.0, ML1.6, Presumed earthquake*
*JSN **11** 05:29:06.7±0.4, 18.°11N×76.°66W, h10^{km}±2^{km}, MD2.0, Confirmed Earthquake*
ISC 11 05:29:02.0±1.1**, 18.°37N**±0.°03×**76.°64W**±0.°07**, h9**^{km}±12^{km}**, n12, σ0^{s}.99**/21**, 5C-5D, Jamaica region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GWJ	Greenwich	0.30	196	⇓iP	Pb	05 29 09.0	-0.8
GWJ				⇓iP	Pb	05 29 09.1	-0.8
GWJ				i S	Sg	05 29 11.1	-1.2
STH	Stony Hill	0.33	209	⇓iP	Pb	05 29 09.8	-0.4
STH				⇓iP		05 29 09.8	
STH				i S	Sg	05 29 12.3	-0.7
STH				⇓iS		05 29 12.5	
HOJ	Hope	0.38	196	⇑iP	Pg	05 29 09.9	+0.4
HOJ				⇑iP	Pg	05 29 09.9	+0.4
PCJ	Portland Cotta	0.80	218	⇑iP	Pb	05 29 17.3	-0.8
CVJ	Coleyville	0.86	261	⇑iP	Pn	05 29 21.8	+1.3
CVJ				⇑iS	Sn	05 29 33.0	-0.3
MCJ	Malvern	1.09	246	i P	Pg	05 29 24.5	+1.5
CHIV	Chivirico	1.61	8	eP	Pg	05 29 33.4	+0.4
CHIV				eS	Sg	05 29 53.7	-0.2
LMGC	Las Mercedes	1.72	349	eP	Pb	05 29 32.4	-1.5
LMGC				eS	Sb	05 29 54.6	-1.1
LMGC				eSg	Sg	05 29 57.8	+0.4
LMGC				IAML		05 29 59.5	
	comp=N,14nm,0.1s						
LMGC				IAML		05 30 00.3	
	comp=E,13nm,0.1s						
MARVS	Santiago de Cu	1.77	23	eP	Pg	05 29 37.4	+1.4
MARVS				eS	Sg	05 29 59.9	+1.0
YAR	Yar	2.01	8	eP	Pg	05 29 39.6	-1.0
YAR				IAML		05 30 08.1	
	comp=E,0.9nm,0.1s						
YAR				IAML		05 30 08.7	
	comp=N,1.0nm,0.1s						
PINC	Pinares de May	2.25	21	eP	Pb	05 29 42.2	-0.8
PINC				IAML		05 30 14.6	
	comp=E,4.6nm,0.1s						
PINC				IAML		05 30 16.3	
	comp=N,4.3nm,0.1s						
QMBU	Quimbuelo	2.51	43	eP	Pb	05 29 47.1	-0.3
QMBU				IAML		05 30 19.5	
	comp=N,1.1nm,0.3s						
QMBU				IAML		05 30 20.4	
	comp=E,1.3nm,0.2s						

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*IDC **11** 05:35:44.6±1.9, 29.°39S×69.°57W, h0^{km}, mb4.1/4, mbtmp4.1/5, ML4.1/1, Error ellipse: s-maj=68.2km s-min=26.7km az=136.0*
*SJA **11** 05:35:59.1±0.7, 29.°72S×69.°09W, h110^{km}±3^{km}, ML3.9, MW3.9*
*NEIC **11** 05:35:59.3±1.2, 29.°73S±0.°04×69.°10W±0.°07, h115^{km}±8^{km}, mb4.4/8, ML4.1(GUC), Error ellipse: s-maj=9.6km s-min=4.5km az=58.0*
*GUC **11** 05:35:59.6±0.6, 29.°68S×69.°33W, h121^{km}±4^{km}, ML4.1*
ISC 11 05:35:58.5±0.6**, 29.°70S**±0.°02×**69.°14W**±0.°03**, h120**^{km}±5^{km}**, n116, σ1^{s}.39**/177**, mb4.2**/4**, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ACDV	Cuesta del Vie	0.47	177	eP	Pn	05 36 16.4	-0.1
ACDV				IAML		05 36 29.4	
	comp=Z,2µm,0.4s						
ACDV				eS	Sn	05 36 29.4	-0.7
AROD	Rodeo	0.55	212	eP	Pn	05 36 17.3	+0.1
CO01	Juntas del Tor	0.87	251	eP	Pn	05 36 20.7	+1.1
CO01				eS	Sn	05 36 37.0	+1.5
CO01	Juntas del Tor	0.87	251	eP	Pn	05 36 20.7	+1.1
CO01				i S	Sn	05 36 36.6	+1.1
CO01	Juntas del Tor	0.87	251		Pn	05 36 20.6	+1.0
CO01				Sn	Sn	05 36 36.2	+0.8
ACCO	Cerro Coronel	0.89	176	eP	Pn	05 36 20.0	+0.1
ACCO				eS	Sn	05 36 35.5	-0.4
ACCO				IAML		05 36 37.1	
	comp=Z,963nm,0.2s						
VCA	Vinchina	1.26	41	eP	Pn	05 36 24.8	+1.3
VCA				eS	Sn	05 36 44.4	+2.0
VCA				IAML		05 36 45.1	
	comp=Z,5µm,0.3s						
AC05	El Transito	1.31	311	eP	Pn	05 36 25.2	+1.3
AC05				eS	Sn	05 36 44.5	+1.3
AC05				IAML		05 36 47.0	
	comp=Z,665nm,0.5s						
AC05	El Transito	1.31	311	eP	Pn	05 36 25.2	+1.3
AC05				i S	Sn	05 36 44.2	+1.0
AC05				IAML		05 36 45.5	
	comp=N,3µm,0.2s						
AC05	El Transito	1.31	311		Pn	05 36 25.3	+1.3
AC05				Sn	Sn	05 36 44.0	+0.8
GO04	Tololo Observa	1.51	252	eP	Pn	05 36 27.4	+1.0
GO04				eS	Sn	05 36 49.4	+1.9
GO04				IAML		05 36 51.0	
	comp=Z,2µm,0.3s						
GO04	Tololo Observa	1.51	252	eP	Pn	05 36 27.2	+0.9
GO04				i S	Sn	05 36 47.4	0.0
GO04	Tololo Observa	1.51	252		Pn	05 36 27.3	+1.0
GO04				Sn	Sn	05 36 48.5	+1.0
LCO	Las Campanas	1.52	296	eP	Pn	05 36 27.2	+0.7
LCO				eS	Sn	05 36 48.4	+0.7
LCO				IAML		05 36 48.8	
	comp=Z,2µm,0.3s						
LCO	Las Campanas	1.52	296	eP	Pn	05 36 27.1	+0.5
LCO				i S	Sn	05 36 47.9	+0.2
LCO	Las Campanas	1.52	296		Pn	05 36 27.1	+0.7
LCO				Sn	Sn	05 36 47.6	-0.2
RTLL	Cerro Villicun	1.72	161	eP	Pn	05 36 29.3	+0.7
RTLL				eS	Sn	05 36 51.9	+0.3
RTLL				IAML		05 36 53.0	
	comp=Z,962nm,0.3s						
AVFE	Valle Fertil	1.75	124	eP	Pn	05 36 29.3	+0.4
AVFE				eS	Sn	05 36 51.8	-0.3
AVFE				IAML		05 36 52.7	
	comp=Z,2µm,0.3s						
CO03	El Pedregal	1.75	229		Pn	05 36 29.9	+0.8
ZON	Zonda	1.88	168	eP	Pn	05 36 31.2	+0.6
ZON				eS	Sn	05 36 55.5	+0.4
ZON	Zonda	1.88	168		Pn	05 36 30.7	+0.2
ZON				Sn	Sn	05 36 54.5	-0.6
SJA	San Juan	1.89	165	eP	Pn	05 36 32.0	+1.4
SJA				eS	Sn	05 36 55.8	+0.6
SJA				IAML		05 36 58.2	
	comp=Z,365nm,0.2s						
ACLC	CERRO LA CRUZ	1.93	82	eP	Pn	05 36 31.9	+0.6
ACLC				eS	Sn	05 36 56.9	+0.7
ACLC				IAML		05 37 00.1	
	comp=Z,557nm,0.6s						
CFA	Coronel Fontan	2.05	158	eP	Pn	05 36 33.4	+0.7
CFA				eS	Sn	05 36 59.4	+0.6
CFA				IAML		05 37 04.9	
	comp=Z,351nm,0.2s						
RTLS	Leoncito	2.09	184	eP	Pn	05 36 34.8	+1.3
RTLS				eS	Sn	05 37 00.2	+0.1
RTLS				IAML		05 37 02.5	
	comp=Z,2µm,0.7s						
TINO	Tinogasta	2.14	41	eP	Pn	05 36 34.8	+0.9
TINO				eS	Sn	05 37 01.8	+0.9
TINO				IAML		05 37 05.4	
	comp=Z,2µm,0.5s						
CO02	Combarbal	2.19	226	eP	Pn	05 36 35.4	+0.8
CO02				eS	Sn	05 37 03.5	+1.4
CO02				IAML		05 37 09.9	
	comp=Z,955nm,0.3s						
CO02	Combarbal	2.19	226	eP	Pn	05 36 35.1	+0.5
CO02				i S	Sn	05 37 02.9	+0.8
CO02				IAML		05 37 09.7	
	comp=N,4µm,0.2s						
CO02	Combarbal	2.19	226		Pn	05 36 35.0	+0.5
CO02				Sn	Sn	05 37 02.6	+0.5
AC04	Llanos de Chal	2.25	311	eP	Pn	05 36 35.8	+0.6

AC04				*e*S	Sn	05 37 05.0	+1.8
AC04				IAML		05 37 14.6	
	comp=Z,336nm,0.5s						
AC04	**Llanos de Chal**	2.25	311	*e*P	Pn	05 36 35.8	+0.6
AC04				*i* S	Sn	05 37 02.8	-0.5
AC04				IAML		05 37 13.1	
	comp=N,782nm,0.5s						
AC04	**Llanos de Chal**	2.25	311		Pn	05 36 35.8	+0.6
GO03	**Copiapo**	2.31	335	*e*P	Pn	05 36 37.1	+1.1
GO03				*e*S	Sn	05 37 06.9	+2.2
GO03				IAML		05 37 09.5	
	comp=Z,266nm,0.6s						
GO03	**Copiapo**	2.31	335	*e*P	Pn	05 36 37.1	+1.1
GO03				*i* S	Sn	05 37 05.0	+0.3
GO03				IAML		05 37 09.4	
	comp=N,669nm,0.3s						
GO03	**Copiapo**	2.31	335		Pn	05 36 37.1	+1.1
CO06	**Fray Jorge**	2.36	245	*e*P	Pn	05 36 36.1	-0.5
CO06				*i* S	Sn	05 37 05.2	-0.5
CO06	**Fray Jorge**	2.36	245		Pn	05 36 36.1	-0.5
AC06	**Mina Casimiro**	2.57	335	*e*P	Pn	05 36 39.8	+0.6
AC06				*i* S	Sn	05 37 10.5	0.0
AC06				IAML		05 37 18.5	
	comp=E,317nm,0.2s						
AC06	**Mina Casimiro**	2.57	335		Pn	05 36 40.2	+0.9
CO04	**Los Peladeros**	2.81	214	*e*P	Pn	05 36 43.0	+0.4
CO04				*i* S	Sn	05 37 18.1	+1.5
CO04				IAML		05 37 23.1	
	comp=N,1µm,0.5s						
CO04	**Los Peladeros**	2.81	214		Pn	05 36 43.1	+0.4
AC02	**Maricunga**	2.86	0	*e*P	Pn	05 36 45.7	+2.3
AC02				*e*S	Sn	05 37 21.0	+3.1
AC02				IAML		05 37 23.9	
	comp=Z,214nm,0.4s						
AC02	**Maricunga**	2.86	0	*e*P	Pn	05 36 45.8	+2.3
AC02				*i* S	Sn	05 37 21.3	+3.4
AC02				IAML		05 37 25.8	
	comp=E,380nm,0.3s						
AC02	**Maricunga**	2.86	0		Pn	05 36 45.8	+2.3
ACAN	**Cantantal**	3.06	147	*e*P	Pn	05 36 46.7	+1.0
ACAN				IAML		05 37 26.2	
	comp=Z,1µm,0.4s						
ARCO	**CERRO ARCO**	3.13	177	*e*P	Pn	05 36 48.9	+2.2
ARCO				*e*S	Sn	05 37 14.0	-10
ARCO				IAML		05 37 32.0	
	comp=Z,257nm,0.3s						
CYA	**Choya**	3.18	68	*e*P	Pn	05 36 47.7	+0.4
CYA				*e*S	Sn	05 37 24.2	-0.7
CYA				IAML		05 37 25.4	
	comp=Z,411nm,0.7s						
VA03	**San Esteban**	3.28	201	*e*P	Pn	05 36 49.9	+1.2
VA03				*e*S	Sn	05 37 26.4	-0.8
VA03				IAML		05 37 40.9	
	comp=Z,368nm,0.7s						
VA03	**San Esteban**	3.28	201	*e*P	Pn	05 36 49.8	+1.2
VA03				*i* S	Sn	05 37 29.2	+2.0
VA03				IAML		05 37 36.0	
	comp=N,984nm,0.5s						
VA03	**San Esteban**	3.28	201		Pn	05 36 49.8	+1.2
AAGR	**Agrelo**	3.38	176	*e*P	Pn	05 36 51.5	+1.5
AAGR				*e*S	Sn	05 37 33.2	+3.5
AAGR				IAML		05 37 39.9	
	comp=Z,198nm,0.5s						
ROCH	**El Roble**	3.63	206	*e*P	Pn	05 36 53.2	-0.2
ROCH				*e*P	Pn	05 36 53.2	-0.2
ROCH				*i* S	Sn	05 37 36.9	+1.1
ROCH				*i* S		05 37 37.4	
PEL	**Peldehue**	3.67	201	*e*P	Pn	05 36 54.1	+0.3
PEL				*i* S	Sn	05 37 37.7	+1.2
PEL	**Peldehue**	3.67	201		Pn	05 36 53.6	-0.2
MT10	**Hacienda Santa**	3.75	198	*e*P	Pn	05 36 55.6	+0.7
MT10				*i* S	Sn	05 37 40.6	+2.0
AC01	**Pan de Azucar**	3.77	340	*e*P	Pn	05 36 55.8	+0.8
AC01				*e*S	Sn	05 37 36.3	-2.4
AC01				IAML		05 37 51.2	
	comp=Z,115nm,0.4s						
AC01	**Pan de Azucar**	3.77	340		Pn	05 36 56.1	+1.0
MT04	**Ro Olivares**	3.79	193	*e*P	Pn	05 36 57.3	+1.9
MT04				*e*S	Sn	05 37 40.2	+0.7
MT04				*e*S		05 37 45.7	
MT04				IAML		05 38 01.8	
	comp=Z,93nm,0.3s						
MT08	**Bocatoma Ro**	3.81	191	Pn	Pn	05 36 56.7	+1.1
MT14	**Cerro Cal¡n**	3.87	198	*e*P	Pn	05 36 57.6	+1.2
MT14				*i* S	Sn	05 37 42.9	+1.7
MT16	**CCHEN**	3.90	197	*e*P	Pn	05 36 57.6	+0.8
MT16				*i* S	Sn	05 37 43.3	+1.5
MT16	**CCHEN**	3.90	197		Pn	05 36 57.0	+0.2
MT05	**Renca**	3.92	200	*e*P	Pn	05 36 57.4	+0.3
MT05				*e*S	Sn	05 37 42.1	-0.4
MT05				IAML		05 37 51.6	
	comp=Z,233nm,0.5s						
MT05	**Renca**	3.92	200		Pn	05 36 57.0	-0.1
MT02	**Curacav**	3.93	205	*e*P	Pn	05 36 56.5	-0.7
MT02				*e*S	Sn	05 37 40.8	-1.9
MT02				IAML		05 37 53.5	
	comp=Z,222nm,0.3s						
MT02	**Curacav**	3.93	205	*e*P	Pn	05 36 56.5	-0.7
MT02				*i* S	Sn	05 37 43.3	+0.6
MT02	**Curacav**	3.93	205		Pn	05 36 56.7	-0.5
MT03	**Universidad Ad**	3.96	197	*e*P	Pn	05 36 58.5	+0.9
MT03				*e*S	Sn	05 37 43.1	-0.2
MT03				IAML		05 37 55.7	
	comp=Z,347nm,0.4s						
MT03	**Universidad Ad**	3.96	197	*e*P	Pn	05 36 58.3	+0.7
MT03				*i* S	Sn	05 37 45.1	+1.8
MT03	**Universidad Ad**	3.96	197		Pn	05 36 58.0	+0.5
MT15	**Las Vizcachas**	4.05	196	*e*P	Pn	05 36 59.5	+0.6
MT15				*i* S	Sn	05 37 47.1	+1.5
MT13	**San Alfonso**	4.15	193	*e*P	Pn	05 37 01.2	+1.1
MT13				*e*S	Sn	05 37 48.0	+0.1
MT13				IAML		05 38 02.4	
	comp=Z,87nm,0.6s						
MT13	**San Alfonso**	4.15	193		Pn	05 37 00.2	+0.1
MT12	**Pirque**	4.19	196	*e*P	Pn	05 37 00.8	+0.1
MT12				*i* S	Sn	05 37 50.2	+1.3
LMEL	**Las Melosas**	4.23	192	*e*P	Pn	05 37 03.2	+1.9
LMEL				*i* S	Sn	05 37 52.6	+2.6
TCA	**Tanti**	4.25	114	*e*P	Pn	05 37 01.4	-0.1
TCA				*e*S	Sn	05 37 34.9	-15
TCA				IAML		05 37 50.8	
	comp=Z,104nm,0.5s						
MT09	**Talagante**	4.36	201		Pn	05 37 01.9	-1.0
BO04	**La Punta**	4.45	196		Pn	05 37 03.6	-0.5
MT01	**Popeta**	4.52	203	*e*P	Pn	05 37 03.9	-1.1
MT01				*e*S	Sn	05 37 54.9	-1.8
MT01				IAML		05 38 10.8	
	comp=Z,159nm,0.6s						
MT01	**Popeta**	4.52	203		Pn	05 37 03.3	-1.7
FSA	**Cafayete**	4.54	39	*e*P	Pn	05 37 06.6	+1.0
FSA				*e*S	Sn	05 37 55.3	-2.3
BO01	**Tunca**	4.96	199	*e*P	Pn	05 37 09.4	-1.5
BO01				*e*S	Sn	05 38 06.8	-0.3
BO01				IAML		05 38 20.7	
	comp=Z,56nm,0.5s						
BO01	**Tunca**	4.96	199		Pn	05 37 09.3	-1.6
PB14	**IPOC Station P**	5.18	347	*e*P	Pn	05 37 14.4	+0.1
PB14				IAML		05 38 27.2	
	comp=Z,64nm,0.4s						
PB14	**IPOC Station P**	5.18	347		Pn	05 37 14.2	-0.1
BO02	**Sierra Bellavi**	5.26	195	*e*P	Pn	05 37 14.0	-1.0
BO02				*e*P		05 37 14.6	
BO02				*e*S	Sn	05 38 14.4	-0.2
BO02				IAML		05 38 44.5	
	comp=Z,85nm,0.5s						
BO02	**Sierra Bellavi**	5.26	195		Pn	05 37 14.3	-0.7
GO05	**Hualane**	5.79	203		Pn	05 37 19.7	-2.5
PB05	**IPOC Station P**	6.89	352		Pn	05 37 35.2	-1.9
BI02	**San Fabin de**	7.17	194		Pn	05 37 39.0	-1.7
PB03	**IPOC Station P**	7.64	356		Pn	05 37 46.3	-1.0
PB09	**IPOC Station P**	7.87	359		Pn	05 37 50.8	+0.3
PB07	**IPOC Station P**	7.97	355		Pn	05 37 51.0	-0.9
PB02	**IPOC Station P**	8.37	355		Pn	05 37 55.9	-1.3
PB08	**IPOC Station P**	9.52	360		Pn	05 38 12.9	0.0
GO01	**Chusmiza**	9.99	360		Pn	05 38 17.4	-1.9
CPUP	**Villa Florida**	10.97	75	Pn	Pn	05 38 29.5	-2.5
	comp=Z,0.3nm,0.3s,baz=250,slow=14,SNR=7.6						
	comp=Z,0.7nm,0.3s						
CPUP				AML	AML		
CPUP	**Villa Florida**	10.97	75	Pn	Pn	05 38 29.1	-3.0
PB18	**Visviri**	12.06	358	Pn	Pn	05 38 44.7	-2.4
LPAZ	**La Paz**	13.38	4	Pn	Pn	05 39 03.3	-1.1
CPSB	**Cacapava Do Su**	13.62	97	Pn	Pn	05 39 05.8	-1.0
AQDB	**Aquidauana**	15.24	56	Pn	Pn	05 39 27.8	+0.4
VILB	**Vilhena**	18.62	28	P	P	05 40 06.1	-0.7
VILB				IAmb	IAmb	05 40 09.7	
	comp=Z,7.7nm,0.6s						
VAO	**Valinhos**	20.95	77	P	P	05 40 31.3	-0.8
VAO				IAmb	IAmb	05 40 46.2	
	comp=Z,45nm,1.5s						
BDFB	**Brasilia**	23.94	59	P	P	05 41 03.2	+1.3
	comp=Z,3.9nm,0.7s,baz=221,slow=9.1,SNR=5.1						
	comp=Z,3.9nm,0.7s						
BDFB	**Brasilia**	23.94	59	P	P	05 41 00.8	-1.0
BDFB				IAmb	IAmb	05 41 04.7	
	comp=Z,16nm,1.2s						
MG03	**Isla Dawson**	24.15	182	P	P	05 41 04.7	+1.5
PMSA	**Palmer Station**	35.24	176	P	P	05 42 43.0	+2.0
PMSA				IAmb	IAmb	05 43 10.5	
	comp=Z,9.8nm,1.1s						
QSPA	**South Pole Qui**	60.52	180	P	P	05 45 58.7	+2.9
	comp=Z,1.6nm,0.8s,baz=174,slow=2.7,SNR=8.9						
	comp=Z,1.6nm,0.8s						
QSPA	**South Pole Qui**	60.52	180	P	P	05 45 57.8	+1.9
DBIC	**Dimbokro**	71.45	71	P	P	05 47 07.2	+0.8
	comp=Z,5.5nm,1.0s,baz=231,slow=6.5,SNR=2.5						
	comp=Z,5.5nm,1.0s						
DBIC	**Dimbokro**	71.45	71	P	P	05 47 07.0	+0.7
TORD	**Torodi Ar. Bea**	80.40	69	P	P	05 47 59.7	+2.5
	comp=Z,0.5nm,0.5s,baz=268,slow=6.6,SNR=5.0						
	comp=Z,0.5nm,0.5s						
MKAR	**Makanchi Array**	152.03	44	PKPbc	PKiKP	05 55 42.2	+2.5
	comp=Z,0.2nm,0.5s,baz=290,slow=3.9,SNR=2.1						
HHC	**Hu-ho-hao-te**	168.86	357	*e*P	PKPdf	05 55 45.3	-6.1
PZH	**PanZhiHua**	171.34	109	PKP	PKPdf	05 55 49.3	-4.0

IDC 11 05:47:45.4±1.4**, 32°.82N×105°.95E, h0^{km}, mb3.7**/2**, mbtmp3.7**/3**, ML4.2**/1**, MS2.8**/1**, Error ellipse: s-maj=129.6km s-min=18.9km az=60.0, Sichuan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LZDM	**Lanzhou Array**	3.64	330	Pn	Pn	05 48 45.5	+2.1
	baz=161,slow=14						
LZDM				Lg	Lg	05 49 39.4	
	baz=150,slow=33						
	8.4nm,0.3s						
GUMO	**Guam**	40.27	109	LR	LR	06 12 36.4	
	comp=Z,11nm,18.2s,baz=100,slow=37						
WRA	**Warramunga Arr**	59.07	149	P	P	05 57 47.3	-0.2
	0.7nm,0.7s,baz=341,slow=7.0,SNR=8.3						
	0.7nm,0.7s						
ASAR	**Alice Springs**	62.18	151	P	P	05 58 08.6	-0.1
	0.4nm,0.4s,baz=338,slow=7.7,SNR=4.5						
	0.4nm,0.4s						

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*GCG **11** 06:14:00.5±0.9, 13°.71N×90°.92W, h46^{km}±22^{km}, MD3.7, Presumed earthquake*

*SNET **11** 06:14:03.6±1.9, 13°.87N×90°.69W, h66^{km}, ML2.7, Presumed earthquake*

ISC 11 06:14:00.3±4.4**, 13°.7N**±0°.2×**90°.9W**±0°.2**, h67^{km}**±25^{km}**, n9, σ0^{s}.73**/15**, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FG8	**Yepocapa, Chim**	0.69	32	*i* P	Pn	06 14 14.8	-0.2
FG8				*i* S	Sn	06 14 26.1	+0.4
FG16	**Alotenango, Sa**	0.72	34	*i* P	Pn	06 14 15.1	-0.3
FG16				*i* S	Sn	06 14 26.6	0.0
NUBE	**Las Nubes**	1.14	78	*i* P	Pn	06 14 20.3	-0.3
NUBE				*i* S	Sn	06 14 35.3	-0.5
CEVE	**Cerro Verde**	1.28	83	*e*P	Pn	06 14 22.6	+0.1
CEVE				*e*S	Sn	06 14 40.1	+1.0
APG	**El Apazote**	1.40	19	*i* P	Pn	06 14 23.5	-0.5
APG				*i* S	Sn	06 14 43.1	+1.3
JAYA	**Jayaque - finc**	1.44	91	*e*P	Pn	06 14 24.2	-0.3
JAYA				*e*S	Sn	06 14 41.9	-0.9
LOMA	**Loma Larga**	1.71	91	*e*P	Pn	06 14 28.6	+0.5
ESQI	**Esquipulas**	1.78	60	*e*P	Pn	06 14 28.1	-0.9
COEG	**Centro de Oper**	1.99	91	*e*S	Sn	06 14 56.5	+0.6

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*ASRS **11** 06:29:26.0±1.6, 54°.17N×86°.41E, h0^{km}, M2.5(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 11 06:29:30.5±3.2**, 54°.04N×86°.33E, h0^{km}, mbtmp2.8**/2**, ML2.6**/2**, Error ellipse: s-maj=25.3km s-min=13.8km az=78.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	0.90	265	I	I	06 33 30.0	
	baz=81,slow=321,SNR=3.8						
ZALV	**Zalesovo Beam**	0.90	265	Pg	Pg	06 29 47.2	-0.4
	0.5nm,0.3s,baz=85,slow=17,SNR=6.8						
ZALV				Lg	Lg	06 30 02.1	
	1.9nm,0.3s,baz=83,slow=28,SNR=10						
KURBB	**Kurchatov Arra**	5.88	238	Pn	Pn	06 31 00.3	+1.6
	0.1nm,0.3s,baz=54,slow=13,SNR=6.6						
KURBB				Lg	Lg	06 32 34.4	
	baz=59,slow=30,SNR=2.4						
	1.0nm,0.5s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	7.70	201	Pn	Pn	06 31 24.3	+0.5
	0.1nm,0.3s,baz=26,slow=13,SNR=7.1						
	0.1nm,0.3s						
MKAR				AML	AML		

IDC 11 06:35:17.3±3.8**, 53°.45N×87°.47E, h0^{km}, mbtmp2.4**/2**, ML2.1**/2**, Error ellipse: s-maj=34.1km s-min=19.7km az=71.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	1.66	289	I	I	06 45 50.0	
	baz=107,slow=326,SNR=2.0						
ZALV	**Zalesovo Beam**	1.66	289	Pg	Pn	06 35 47.2	-0.4
	0.4nm,0.3s,baz=107,slow=17,SNR=6.6						
ZALV				Lg	Lg	06 36 10.6	
	0.5nm,0.3s,baz=106,slow=26,SNR=5.1						
KURBB	**Kurchatov Arra**	6.20	246	Pn	Pn	06 36 51.8	+1.8
	baz=60,slow=15,SNR=3.2						
	0.2nm,0.5s						
MKAR	**Makanchi Array**	7.44	209	Pn	Pn	06 37 07.8	+0.7
	baz=26,slow=14,SNR=1.4						
	0.1nm,0.5s						

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*SJA **11** 06:37:51.8±0.7, 33°.29S×70°.99W, h75^{km}±1^{km}, ML3.6, MW3.6*

*GUC **11** 06:37:52.9±0.8, 33°.28S×71°.02W, h75^{km}±2^{km}, ML3.6*

ISC 11 06:37:54.7±1.2**, 33°.31S**±0°.02×**71°.04W**±0°.04**, h60^{km}**±5^{km}**, n47, σ1^{s}.03**/87**, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MT02	**Curacav**	0.10	299	*e*P	Pn	06 38 03.4	-0.3
MT02				*e*S	Sn	06 38 12.4	+2.2
MT02				IAML		06 38 13.2	
	comp=Z,1µm,0.5s						
MT02	**Curacav**	0.10	299	*e*P	Pn	06 38 03.4	-0.3
MT02				*i* S	Sn	06 38 11.1	+0.9
MT05	**Renca**	0.26	109	*e*P	Pn	06 38 04.0	-0.5
MT05				*e*S	Sn	06 38 12.8	+1.0
MT05				IAML		06 38 13.6	
	comp=Z,1µm,0.1s						
MT05	**Renca**	0.26	109	*e*P	Pn	06 38 04.1	-0.5
MT05				*i* S	Sn	06 38 12.5	+0.7
MT05				IAML		06 38 14.4	
	comp=E,8µm,0.2s						
ROCH	**El Roble**	0.34	4	*e*P	Pn	06 38 04.6	-0.7
ROCH				*e*P	Pn	06 38 04.6	-0.7
ROCH				*i* S	Sn	06 38 13.3	+0.3
ROCH				*i* S		06 38 13.5	
ROCH				IAML		06 38 14.2	
	comp=N,9µm,0.2s						
PEL	**Peldehue**	0.34	61	*e*P	Pn	06 38 03.8	-1.4
PEL				*e*S	Sn	06 38 13.5	+0.8
PEL				IAML		06 38 15.1	
	comp=Z,1µm,0.2s						
PEL	**Peldehue**	0.34	61	*e*P	Pn	06 38 03.8	-1.4
PEL				*i* S	Sn	06 38 12.9	+0.2
PEL				IAML		06 38 14.0	
	comp=E,4µm,0.3s						
MT10	**Hacienda Santa**	0.42	86	*e*P	Pn	06 38 05.1	-0.9
MT10				*i* S	Sn	06 38 14.8	+0.6
MT10				IAML		06 38 19.0	
	comp=E,5µm,0.4s						
MT14	**Cerro Cal¡n**	0.43	102	*e*P	Pn	06 38 05.1	-0.9
MT14				*i* S	Sn	06 38 14.3	+0.1
MT16	**CCHEN**	0.45	106	*e*P	Pn	06 38 05.4	-0.8
MT16				*i* S	Sn	06 38 14.7	+0.2
MT16				IAML		06 38 15.8	
	comp=N,3µm,0.5s						
MT09	**Talagante**	0.47	175	*e*P	Pn	06 38 06.0	-0.5
MT09				*i* S	Sn	06 38 15.4	+0.3
MT03	**Universidad Ad**	0.48	113	*e*P	Pn	06 38 05.7	-0.9
MT03				*e*S	Sn	06 38 15.4	+0.3
MT03				IAML		06 38 16.3	
	comp=Z,7µm,0.1s						
MT03	**Universidad Ad**	0.48	113	*e*P	Pn	06 38 05.8	-0.8
MT03				*i* S	Sn	06 38 15.3	+0.2
MT15	**Las Vizcachas**	0.53	123	*e*P	Pn	06 38 06.0	-1.0
MT15				*i* S	Sn	06 38 15.9	-0.1
MT01	**Popeta**	0.58	198	*e*P	Pn	06 38 07.0	-0.6
MT01				*e*S	Sn	06 38 18.0	+1.0
MT01				IAML		06 38 18.9	
	comp=Z,4µm,0.1s						
MT01	**Popeta**	0.58	198	*e*P	Pn	06 38 07.2	-0.4
MT01				*i* S	Sn	06 38 17.6	+0.6
MT01				IAML		06 38 18.7	
	comp=N,6µm,0.2s						
MT12	**Pirque**	0.59	136	*e*P	Pn	06 38 06.8	-0.9
MT12				*i* S	Sn	06 38 17.4	+0.2
MT12				IAML		06 38 19.1	
	comp=N,6µm,0.2s						
VA03	**San Esteban**	0.68	37	*e*P	Pn	06 38 07.6	-1.3
VA03				*e*S	Sn	06 38 18.7	-0.3
VA03				IAML		06 38 20.2	
	comp=Z,2µm,0.2s						
VA03	**San Esteban**	0.68	37	*e*P	Pn	06 38 07.5	-1.3
VA03				*i* S	Sn	06 38 18.5	-0.6
VA03				IAML		06 38 19.3	
	comp=E,4µm,0.3s						
MT04	**Ro Olivares**	0.76	98	*e*P	Pn	06 38 08.8	-1.1
MT04				*e*S	Sn	06 38 20.9	-0.1
MT04				IAML		06 38 21.8	
	comp=Z,865nm,0.5s						
MT04	**Ro Olivares**	0.76	98	*e*P	Pn	06 38 08.8	-1.1
MT04				*i* S	Sn	06 38 20.3	-0.7
MT04				IAML		06 38 21.1	
	comp=E,2µm,0.2s						
MT13	**San Alfonso**	0.76	125	*e*P	Pn	06 38 08.9	-0.9
MT13				*e*S	Sn	06 38 21.1	+0.2
MT13				IAML		06 38 22.1	
	comp=Z,1µm,0.5s						
MT13	**San Alfonso**	0.76	125	*e*P	Pn	06 38 08.9	-0.9
MT13				*i* S	Sn	06 38 20.9	0.0
MT13				IAML		06 38 21.7	
	comp=N,4µm,0.2s						
BO04	**La Punta**	0.77	153	*e*P	Pn	06 38 08.8	-1.1
BO04				*i* S	Sn	06 38 21.0	+0.1
BO04				IAML		06 38 22.1	
	comp=N,2µm,0.2s						
LMEL	**Las Melosas**	0.88	128	*e*P	Pn	06 38 10.5	-0.9
LMEL				*i* S	Sn	06 38 23.7	+0.1
LMEL				IAML		06 38 25.2	
	comp=N,6µm,0.2s						
BO01	**Tunca**	1.08	182	*e*P	Pn	06 38 12.9	-0.9
BO01				*e*S	Sn	06 38 28.2	+0.2
BO01				IAML		06 38 28.5	
	comp=Z,1µm,0.3s						
BO01	**Tunca**	1.08	182	*e*P	Pn	06 38 12.9	-0.9
BO01				*i* S	Sn	06 38 28.1	+0.1
BO01				IAML		06 38 28.6	
	comp=E,1µm,0.1s						
BO03	**Pichilemu**	1.41	213	*e*P	Pn	06 38 16.6	-1.6
BO03				*i* S	Sn	06 38 35.3	-0.6
BO03				IAML		06 38 41.6	
	comp=N,831nm,0.3s						
BO02	**Sierra Bellavi**	1.50	172	*e*P	Pn	06 38 18.6	-0.8
BO02				*e*S	Sn	06 38 39.3	+1.3
BO02				IAML		06 38 44.1	
	comp=Z,2µm,0.2s						
BO02	**Sierra Bellavi**	1.50	172	*e*P	Pn	06 38 18.5	-0.9
BO02				*i* S	Sn	06 38 38.3	+0.3
ARCO	**CERRO ARCO**	1.83	76	*e*P	Pn	06 38 24.7	+0.7
GO05	**Hualane**	1.85	203	*e*P	Pn	06 38 23.2	-1.0
GO05				*e*S	Sn	06 38 48.2	+1.6
GO05				IAML		06 38 53.7	
	comp=Z,448nm,0.2s						
GO05	**Hualane**	1.85	203	*e*P	Pn	06 38 22.6	-1.6
GO05				*i* S	Sn	06 38 46.8	+0.2
AAGR	**Agrelo**	1.86	84	*e*P	Pn	06 38 25.1	+0.6
CO02	**Combarbal**	2.10	1	*e*P	Pn	06 38 26.2	-1.4
CO02				IAML		06 38 59.7	
	comp=Z,315nm,0.6s						
RTLS	**Leoncito**	2.10	45	*e*P	Pn	06 38 28.7	+0.9
RTLS				*e*S	Sn	06 38 51.4	-1.6
RTLS				IAML		06 38 58.7	
	comp=Z,410nm,0.8s						
AVIZ	**Vizcacheras**	2.12	95	*e*P	Pn	06 38 28.3	+0.5
ML02	**Panimavida**	2.47	187	*e*P	Pn	06 38 32.1	-0.4
ML02				IAML		06 39 07.5	
	comp=Z,331nm,0.3s						
ZON	**Zonda**	2.66	49	*e*P	Pn	06 38 36.1	+0.9
ZON				*e*S	Sn	06 39 04.9	-1.4
EDS3	**Malargue**	2.80	152	*e*P	Pn	06 38 38.7	+1.4
CFA	**Coronel Fontan**	2.91	55	*e*S	Sn	06 39 14.3	+1.9
RTLL	**Cerro Villicun**	2.93	48	*e*P	Pn	06 38 38.9	0.0
RTLL				*e*S	Sn	06 39 08.9	-4.1
RTLL				*e*S		06 39 13.5	
RTLL				IAML		06 39 16.2	
	comp=Z,146nm,0.8s						
GO04	**Tololo Observa**	3.13	4	*e*S	Sn	06 39 19.6	+1.4
GO04				IAML		06 39 29.9	
	comp=Z,196nm,0.5s						
ACCO	**Cerro Coronel**	3.19	32	*e*P	Pn	06 38 43.0	+0.4
ACCO				*e*S	Sn	06 39 18.9	-0.7
ACCO				IAML		06 39 27.8	
	comp=Z,117nm,0.4s						
AROD	**Rodeo**	3.40	23	*e*P	Pn	06 38 46.1	+0.5
AROD				*e*S	Sn	06 39 25.9	+0.9
CO01	**Juntas del Tor**	3.42	14	*e*P	Pn	06 38 45.2	-0.5
CO01				*e*S	Sn	06 39 25.4	+0.3
ACLC	**CERRO LA CRUZ**	5.21	43	*e*S	Sn	06 40 10.9	+1.8
ACLC				*e*S	Sn	06 40 10.9	+1.8
ACLC				IAML		06 40 13.8	
	comp=Z,24nm,0.9s						

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*IDC **11** 06:39:56.3±3.4, 53°.60N×88°.10E, h0^{km}, mbtmp2.9/2, ML2.6/2, Error ellipse: s-maj=29.3km s-min=19.7km az=89.0*

ASRS 11 06:39:54.0±0.7**, 53°.67N×88°.20E, h0^{km}, M2.7**(MOS)**, The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	2.02	279	I	I	06 52 40.0	
	0.1nm,0.8s,baz=95,slow=323,SNR=16						
ZALV	**Zalesovo Beam**	2.02	279	Pn	Pb	06 40 31.4	-0.2
	1.5nm,0.3s,baz=98,slow=12,SNR=39						
ZALV				Sn	Sg	06 40 58.3	-0.6
	2.7nm,0.3s,baz=100,slow=26,SNR=13						
KURBB	**Kurchatov Arra**	6.68	247	Pn	Pn	06 41 35.5	+2.2
	0.1nm,0.3s,baz=61,slow=14,SNR=6.0						
KURBB				Lg	Lg	06 43 25.5	
	0.1nm,0.3s,baz=62,slow=31,SNR=6.2						
	1.0nm,0.5s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	7.85	211	Pn	Pn	06 41 52.1	+2.7
	0.1nm,0.3s,baz=32,slow=14,SNR=5.5						
MKAR				Lg	Lg	06 43 57.0	
	0.1nm,0.3s,baz=24,slow=28,SNR=2.3						
	0.2nm,0.4s						
MKAR				AML	AML		

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*IDC **11** 06:45:10.7±0.9, 48°.90S×121°.05E, h0^{km}, mb4.1/7, mbtmp4.2/8, ML2.3/1, MS3.5/14, Error ellipse: s-maj=37.6km s-min=16.6km az=106.0*

*NEIC **11** 06:45:12.0±1.3, 49°.0S±0°.1×121°.2E±0°.2, h10^{km}±1^{km}, mb4.3/15, Error ellipse: s-maj=26.4km s-min=18.1km az=97.0*

ISC 11 06:45:11.8±0.6**, 48°.89S**±0°.08×**121°.1E**±0°.1**, h10^{km}, n52,**

σ$0\overset{s}{.}76$/32, mb4.2/13, MS3.4/14, 5C, Western Indian-Antarctic Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H01W1	Cape Leeuwin H	14.89	337	T	T	07 03 57.9	
	baz=161,slow=74,SNR=429						
H01W2	Cape Leeuwin H	14.89	337	T	T	07 03 55.1	
	baz=161,slow=74,SNR=420						
H01W3	Cape Leeuwin H	14.91	337	T	T	07 03 55.8	
	baz=161,slow=74,SNR=383						
NWAO	Narrogin (SRO)	16.20	348	Pn	Pn	06 48 56.7	-2.8
	0.6nm,0.3s,baz=173,slow=12,SNR=2.9						
	2.2nm,0.4s						
NWAO				AML	AML		
NWAO	Narrogin (SRO)	16.20	348	Pn	Pn	06 49 00.1	+0.6
NWAO				IAmb	IAmb	06 49 03.3	
	comp=Z,17nm,1.0s						
MORW	Morawa	20.17	347	P	P	06 49 46.4	+0.1
MORW				IAmb	IAmb	06 49 55.2	
	comp=Z,28nm,1.4s						
TOO	Toolangi	21.00	67	P	P	06 49 55.2	-0.1
TOO				IAmb	IAmb	06 49 59.0	
	comp=Z,7.4nm,1.1s						
STKA	Stephens Creek	22.98	50	P	P	06 50 18.1	+1.6
	comp=Z,4.3nm,0.9s,baz=197,slow=12,SNR=4.5						
STKA				LR	LR	06 58 24.2	
	comp=Z,99nm,18.2s,baz=205,slow=34						
	comp=Z,4.3nm,0.9s						
ASAR	Alice Springs	27.15	27	P	P	06 50 55.1	0.0
	comp=Z,4.7nm,1.1s,baz=193,slow=8.8,SNR=15						
ASAR				LR	LR	07 01 22.9	
	comp=Z,49nm,18.1s,baz=252,slow=36						
	comp=Z,4.7nm,1.1s						
ASAR	Alice Springs	27.15	27	P	P	06 50 54.9	-0.3
AS31	Alice Springs	27.15	27	P	P	06 50 55.4	+0.2
AS31				IAmb	IAmb	06 50 58.5	
	comp=Z,2.3nm,1.3s						
MBWA	Marble Bar	27.69	357	P	P	06 51 00.8	+0.8
WRA	Warramunga Arr	30.80	25	P	P	06 51 27.2	-0.4
	comp=Z,1.1nm,0.9s,baz=195,slow=11,SNR=5.1						
	comp=Z,1.1nm,0.9s						
WRA	Warramunga Arr	30.80	25	P	P	06 51 27.8	+0.2
FITZ	Fitzroy Crossi	30.94	9	LR	LR	07 02 59.5	
	comp=Z,81nm,19.1s,baz=186,slow=34						
FITZ	Fitzroy Crossi	30.94	9	P	P	06 51 28.9	0.0
WB0	Warramunga Arr	30.98	25	P	P	06 51 28.2	-1.1
WB0				IAmb	IAmb	06 51 39.4	
	comp=Z,3.9nm,1.1s						
VNDA	Vanda	32.65	165	P	P	06 51 43.9	+0.5
	comp=Z,2.8nm,0.7s,baz=306,slow=8.4,SNR=16						
VNDA				LR	LR	07 04 01.6	
	comp=Z,241nm,19.2s,baz=312,slow=35						
	comp=Z,2.8nm,0.7s						
VNDA	Vanda	32.65	165	P	P	06 51 42.9	-0.5
VNDA				IAmb	IAmb	06 51 45.0	
	comp=Z,4.5nm,0.9s						
MAW	Mawson	34.18	215	LR	LR	07 02 40.7	
	comp=Z,114nm,20.2s,baz=39,slow=31						
MAW	Mawson	34.18	215	P	P	06 51 56.6	-0.2
RPZ	Rata Peaks	34.41	101	LR	LR	07 03 42.8	
	comp=Z,24nm,20.1s,baz=38,slow=32						
CTA	Charters Tower	35.13	44	LR	LR	07 06 23.5	
	comp=Z,107nm,18.7s,baz=216,slow=36						
QSPA	South Pole Qui	41.23	180	P	P	06 52 56.9	+0.3
	comp=Z,1.7nm,0.5s,baz=287,slow=1.3,SNR=19						
QSPA				LR	LR	07 09 03.4	
	comp=Z,124nm,20.0s,baz=346,slow=35						
	comp=Z,1.7nm,0.5s						
QSPA	South Pole Qui	41.23	180	P	P	06 52 56.5	-0.1
QSPA				IAmb	IAmb	06 53 07.9	
	comp=Z,7.8nm,1.1s						
KAPI	Kappang	43.73	358	LR	LR	07 11 19.9	
	comp=Z,59nm,18.1s,baz=188,slow=36						
HNR	Honiara	51.01	53	LR	LR	07 15 08.9	
	comp=Z,39nm,18.6s,baz=286,slow=35						
TROLL	Troll, Antarti	51.97	200	⇑P	P	06 54 20.2	-0.4
	comp=Z,100nm,0.8s						
BELA	Belgrano 2	52.62	186	P	P	06 54 24.8	-0.4
BELA				IAmb	IAmb	06 54 25.6	
	comp=Z,4.5nm,1.0s						
SNAA	Sanae	53.40	199	⇑P	P	06 54 31.9	+0.8
	comp=Z,34nm,0.4s						
SNAA	Sanae	53.40	199	P	P	06 54 31.2	+0.1
	comp=Z,3.3nm,0.8s,baz=145,slow=5.4,SNR=6.7						
	comp=Z,3.3nm,0.8s						
SNAA	Sanae	53.40	199	P	P	06 54 30.6	-0.5
SNAA				IAmb	IAmb	06 54 33.4	
	comp=Z,6.6nm,1.0s						
ROCAM	Rodrigues Isla	54.22	281	P	P	06 54 38.5	+0.8
VNA2	Neumayer--Watz	54.93	198	⇑P	P	06 54 41.9	-0.3
	comp=Z,1.3nm,0.5s,baz=145,slow=7.8						
VNA3	Neumayer Olymp	55.14	197	⇑P	P	06 54 43.1	-0.6
	comp=Z,2.4nm,0.8s						
VNA1	Neumayer--Stat	55.32	198	⇑P	P	06 54 45.0	0.0
	comp=Z,6.1nm,1.0s						
DAV	Davao City (W)	55.87	5	LR	LR	07 21 21.3	
	comp=Z,28nm,18.5s,baz=34,slow=39						
H08S2	Diego Garcia H	57.84	299	T	T	07 57 29.7	
	baz=144,slow=76,SNR=15						
H08S1	Diego Carcia H	57.85	299	T	T	07 57 31.0	
	baz=144,slow=76,SNR=14						
H08S3	Diego Garcia H	57.86	299	T	T	07 57 29.5	
	baz=144,slow=76,SNR=17						
GUMO	Guam	65.69	26	LR	LR	07 25 00.5	
	comp=Z,6.8nm,19.7s,baz=186,slow=36						
PALK	Pallekele	66.14	315	LR	LR	07 20 27.5	
	comp=Z,76nm,21.3s,baz=150,slow=32						
CMAR	Chiang Mai Arr	69.88	338	LR	LR	07 24 40.6	
	comp=Z,22nm,21.2s,baz=200,slow=34						
BOSA	Boshof	72.58	246	P	P	06 56 40.0	+0.6
	comp=Z,2.5nm,0.9s,baz=146,slow=5.9,SNR=2.3						
	comp=Z,2.5nm,0.9s						
BOSA	Boshof	72.58	246	P	P	06 56 39.4	0.0
H10S2	ASCENSION HYDR	110.51	227	T	T	09 04 20.7	
	baz=148,slow=74,SNR=11						
H10S3	ASCENSION HYDR	110.53	227	T	T	09 04 23.2	
	baz=72,slow=74,SNR=9.3						
BOZ	Bozeman (W)	144.67	75	PKPdf	PKPdf	07 04 47.9	-0.3
PDAR	Pinedale Array	144.75	80	PKP	PKPbc	07 04 48.0	+0.4
	comp=Z,0.2nm,0.3s,baz=292,slow=4.5,SNR=6.6						
LYMT	Lyon Mountain	144.81	72	PKPdf	PKPbc	07 04 48.0	+0.4
APMT	Aspermont	145.76	102	PKPdf	PKPbc	07 04 50.5	-0.2
EKA	Eskdalemuir Ar	145.96	302	PKPbc	PKPdf	07 04 50.3	+0.5
	comp=Z,1.3nm,0.6s,baz=108,slow=4.6,SNR=1.7						

*IDC **11** 07:00:16.5±4.1, 55°.54N×86°.29E, h0^{km}, mbtmp3.1/2, ML2.6/2, Error ellipse: s-maj=27.9km s-min=24.6km az=26.0*

ASRS 11 07:00:13.0±0.9**, 55°.66N×86°.14E, h0^{km}, M2.9**(MOS)**, The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	1.88	205	I	I	07 10 30.0	
	0.1nm,0.9s,baz=23,slow=322,SNR=5.2						
ZALV	Zalesovo Beam	1.88	205	Pg	Pb	07 00 48.5	+0.3
	6.3nm,0.3s,baz=25,slow=18,SNR=38						
ZALV				Lg	Lg	07 01 14.1	
	6.7nm,0.3s,baz=26,slow=28,SNR=11						
KURBB	Kurchatov Arra	6.81	225	Pn	Pn	07 01 58.3	+4.1
	0.1nm,0.3s,baz=45,slow=13,SNR=1.9						
KURBB				Lg	Lg	07 03 54.8	
	baz=49,slow=32						
	0.6nm,0.2s						
KURBB				AML	AML		
MKAR	Makanchi Array	9.20	197	Pn	Pn	07 02 29.5	+2.5
	0.1nm,0.3s,baz=25,slow=12,SNR=2.3						
MKAR				Sn	Sn	07 04 09.5	-1.7
	0.1nm,0.3s,baz=19,slow=22,SNR=2.3						
MKAR				Lg	Lg	07 04 58.8	
	0.1nm,0.3s,baz=29,slow=30,SNR=5.4						
	0.4nm,0.7s						
MKAR				AML	AML		

*IDC **11** 07:05:01.1±3.6, 53°.65N×88°.05E, h0^{km}, mbtmp3.3/2, ML2.6/2, Error ellipse: s-maj=28.0km s-min=21.3km az=60.0*

ASRS 11 07:05:01.0±1.5**, 53°.59N×88°.09E, h0^{km}, M2.7**(MOS)**, The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	1.97	282	I	I	07 17 10.0	
	baz=97,slow=327,SNR=7.4						
ZALV	Zalesovo Beam	1.97	282	Pg	Pn	07 05 36.1	+0.5
	1.3nm,0.3s,baz=100,slow=16,SNR=8.8						
ZALV				Lg	Lg	07 06 03.7	
	1.4nm,0.3s,baz=98,slow=28,SNR=10						
KURBB	Kurchatov Arra	6.59	247	Pn	Pn	07 06 40.3	+1.2
	0.1nm,0.3s,baz=63,slow=14,SNR=2.5						
KURBB				Lg	Lg	07 08 30.4	
	baz=64,slow=29,SNR=2.3						
	3.1nm,0.2s						
KURBB				AML	AML		
MKAR	Makanchi Array	7.75	211	Pn	Pn	07 06 57.1	+2.1
	0.1nm,0.3s,baz=26,slow=13,SNR=4.2						
	0.2nm,0.3s						
MKAR				AML	AML		

*UCR **11** 07:06:20.9±0.6, 8°.26N×82°.98W, h18^{km}±5^{km}, MW3.5, Presumed earthquake*

*UPA **11** 07:06:21.4±1.6, 8°.29N×82°.96W, h10^{km}±7^{km}, MW3.0, Presumed earthquake*

ISC 11 07:06:20.9±1.1**, 8°.28N**±0°.03×**82°.99W**±0°.03**, h15**^{km}±9^{km}**, n22, σ$0\overset{s}{.}70$**/35**, 1C-2D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTPA	Petro Terminal	0.14	125	eP	Pb	07 06 25.0	-0.3
PTPA				eS	Sb	07 06 28.6	+0.5
LMNES	Limones	0.22	145	i P	Pb	07 06 26.6	+0.1
LMNES				eS	Sb	07 06 32.0	+1.6
PIRO	Carate, Puerto	0.37	290	eP	Pg	07 06 28.8	+0.3
NELY	Ciudad Neily	0.37	6	eP	Pg	07 06 28.6	+0.1
NELY				eS	Sb	07 06 35.2	+0.5
NELY	Ciudad Neily	0.37	6	⇓iP	Pg	07 06 28.7	+0.3
NELY				eS	Sb	07 06 35.6	+0.9
FITO	Golfito	0.38	334	eP	Pg	07 06 28.1	-0.5
FITO				eS	Sg	07 06 34.2	+0.2
JIME	Puerto Jimenez	0.42	307	eP	Pg	07 06 29.5	+0.1
VITO	San Vito	0.54	2	eP	Pg	07 06 32.0	+0.5
VITO				eS	Sb	07 06 40.5	+0.9
SCLRA	Santa Clara, W	0.58	20	⇑iP	Pb	07 06 33.2	+0.3
SCLRA				eS	Sn	07 06 45.2	+1.0
BRU2	Volcan	0.59	30	eP	Pg	07 06 32.2	-0.3
BRU2	Volcan	0.59	30	eP	Pb	07 06 33.1	+0.1
BRU2				eS	Sb	07 06 42.8	+1.6
CLLRA	Cordillera,	0.59	39	i P	Pb	07 06 33.0	0.0
CLLRA				eS	Sb	07 06 41.1	-0.1
BGUAL	Bijagual, Pana	0.69	71	⇓iP	Pg	07 06 34.3	0.0
BGUAL				eS	Sg	07 06 43.3	-0.1
BQTLY	Boquete Panama	0.70	48	eP	Pg	07 06 34.7	-0.1
BQTLY				eS	Sb	07 06 45.7	+1.2
EDP2	Potrero Grande	0.76	346	eP	Pg	07 06 35.6	-0.1
RBALA	Bur	1.02	54	i P	Pb	07 06 39.6	-0.6
RBALA				eS	Sn	07 06 54.3	-0.3
EDPE	Pejibaye, P	1.05	327	eP	Pb	07 06 39.7	-1.1
SAJE	San Jernim	1.18	334	eP	Pn	07 06 41.9	-1.1
KKNTU	Kakintº	1.29	64	i P	Pn	07 06 43.6	-0.8
KKNTU				eS	Sb	07 07 01.0	-0.4
BRIBI	Bribri	1.34	7	eP	Pb	07 06 46.3	+0.5
BUS1	Rivas	1.47	329	eP	Pn	07 06 46.9	-0.4
ABE2	San Pablo	1.77	323	eP	Pn	07 06 50.4	-0.7

*IDC **11** 07:15:16.0±1.1, 41°.49N×78°.74E, h0^{km}, mb3.6/7, mbtmp3.7/14, ML3.4/7, MS2.6/2, Error ellipse: s-maj=15.6km s-min=13.7km az=14.0*

*KRNET **11** 07:15:19.1±0.1, 41°.90N×78°.50E, h16^{km}, mb4.2*

*SOME **11** 07:15:19.3, 41°.95N×78°.53E, h10^{km}, MS3.0*

*NNC **11** 07:15:20.2±0.7, 41°.96N×78°.57E, h0^{km}, mb4.9, mpv4.6, Error ellipse: s-maj=4.8km s-min=2.3km az=165.0*

ISC 11 07:15:19.5±1.1**, 41°.90N**±0°.03×**78°.46E**±0°.02**, h10**^{km}±7^{km}**, n95, σ$1\overset{s}{.}76$**/154**, mb3.7**/5**, 32C-20D, Kyrgyzstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TARG	Taragay, Kyrgy	0.52	251	⇑iP	Pg	07 15 29.6	0.0
TARG				⇑iS	Sg	07 15 37.3	+0.8
PRZ	Przheval'sk	0.59	356	⇑iP	Pg	07 15 30.6	-0.4
PRZ				⇑iS	Sg	07 15 38.8	0.0
KDJ	Kajisay	0.98	284	⇑iP	Pb	07 15 38.1	-0.6
KDJ				⇑iS	Sg	07 15 51.8	+0.6
ANVS	Anan'yevo	1.06	327	⇑iP	Pn	07 15 39.6	-1.1
ANVS				⇑iS	Sn	07 15 54.4	-1.2
SATY	Saty	1.16	358	P	Pb	07 15 41.1	-0.7
	58nm,0.2s						
SATY				S	Sn	07 15 56.2	-1.8
	852nm,0.2s						
SATY	Saty	1.16	358	eP	Pb	07 15 41.1	-0.7
	58nm,0.2s						
SATY				eS	Sn	07 15 56.2	-1.8
	852nm,0.2s						
UZB	Uzynbulak	1.32	18	P	Pb	07 15 43.0	-1.4
	104nm,0.3s						
UZB				S	Sn	07 15 59.9	-2.0
	532nm,0.4s						
UZB	Uzynbulak	1.32	18	eP	Pb	07 15 43.0	-1.4
	104nm,0.3s						
UZB				eS	Sn	07 15 59.9	-2.0
	532nm,0.4s						
SHLS	Shalkode	1.46	30	P	Pg	07 15 48.9	+1.2
	421nm,0.4s						
SHLS				S	Sg	07 16 10.0	+3.4
	3µm,0.6s						
SHLS	Shalkode	1.46	30	eP	Pg	07 15 48.9	+1.2
	421nm,0.4s						
SHLS				eS	Sg	07 16 10.0	+3.4
	3µm,0.6s						
KPKS	Kokpek	1.58	6	P	Pb	07 15 48.1	-0.8
	0.1nm,0.1s						
KPKS				S	Sb	07 16 08.4	-0.5
	751nm,0.5s						
KPKS	Kokpek	1.58	6	eP	Pb	07 15 48.1	-0.8
	0.1nm,0.1s						
KPKS				eS	Sb	07 16 08.4	-0.5
	751nm,0.5s						
TNSS	Tian-Shan	1.60	316	P	Pg	07 15 49.9	-0.3
	268nm,0.2s						
TNSS				S	Sg	07 16 11.9	+1.0
	279nm,0.4s						
TNSS	Tian-Shan	1.60	316	eP	Pg	07 15 49.9	-0.3
	268nm,0.2s						
TNSS				eS	Sg	07 16 11.9	+1.0
	279nm,0.4s						
KURS	Kuram	1.61	353	P	Pg	07 15 49.3	-1.0
	63nm,0.2s						
KURS				S	Sg	07 16 10.6	-0.5
	254nm,0.5s						
KURS	Kuram	1.61	353	eP	Pg	07 15 49.3	-1.0
	63nm,0.2s						
KURS				eS	Sg	07 16 10.6	-0.5
	254nm,0.5s						
PDGK	Podgornoye	1.62	28	⇓P	Pb	07 15 48.1	-1.5
	45nm,0.2s						
PDGK				⇑S	Sb	07 16 09.3	-0.9
	634nm,0.5s						
MDOK	Medeo	1.64	321	Pg	Pg	07 15 50.5	-0.5
	730nm,0.2s						
MDOK				Lg	Lg	07 16 12.6	
	706nm,0.3s						
MDOK	Medeo	1.64	321	eP	Pg	07 15 50.5	-0.5
	730nm,0.2s						
MDOK				eS	Sg	07 16 12.6	+0.3
	706nm,0.3s						
KOTS	Kotyrbulak	1.67	324	P	Pg	07 15 51.1	-0.4
	600nm,0.2s						
KOTS				S	Sg	07 16 13.8	+0.6
	842nm,0.3s						
KOTS	Kotyrbulak	1.67	324	eP	Pg	07 15 51.1	-0.4
	600nm,0.2s						
KOTS				eS	Sg	07 16 13.8	+0.6
	842nm,0.3s						
ULHL	Ulahol	1.69	283	P	Pg	07 15 51.5	-0.3
	SNR=422						
ULHL	Ulahol	1.69	283	⇑iP	Pb	07 15 50.7	-0.1
ULHL				⇑iS	Sg	07 16 13.9	+0.2
KNDC	Almaty	1.72	321	⇓P	Pg	07 15 51.6	-0.9
	342nm,0.5s						
KNDC				⇑S	Sg	07 16 15.1	+0.2
	868nm,0.7s						
AAA	Alma-Ata	1.74	320	P	Pg	07 15 52.8	0.0
	2µm,0.2s						
AAA				S	Sg	07 16 17.0	+1.6
	75nm,0.4s						
AAA	Alma-Ata	1.74	320	eP	Pg	07 15 52.8	0.0
	2µm,0.2s						
AAA				eS	Sg	07 16 17.0	+1.6
	75nm,0.4s						
IZV	Izvestkoviy	1.78	311	P	Pg	07 15 53.1	-0.5
	268nm,0.3s						
IZV				S	Sg	07 16 17.6	+0.9
	1µm,0.2s						
IZV	Izvestkoviy	1.78	311	eP	Pg	07 15 53.1	-0.5
	268nm,0.3s						
IZV				eS	Sg	07 16 17.6	+0.9
	1µm,0.2s						
NRN	Naryn	1.90	257	⇓iP	Pb	07 15 54.9	+0.5
NRN				⇓iS	Sg	07 16 20.8	+0.3
MTBS	Maitube	1.94	310	Pg	Pg	07 15 56.0	-0.7
	728nm,0.3s						
MTBS				Lg	Lg	07 16 22.3	
	1µm,0.3s						
MTBS	Maitube	1.94	310	eP	Pg	07 15 56.0	-0.7
	728nm,0.3s						
MTBS				eS	Sg	07 16 22.3	+0.4
	1µm,0.3s						
BOOM	Boomskoye usch	1.96	288	⇑iP	Pb	07 15 55.2	-0.2
BOOM				⇑iS	Sg	07 16 21.7	-0.9
KTMS	Ketmen	2.09	41	Pg	Pb	07 15 55.9	-1.6
	240nm,0.3s						
KTMS				Lg	Lg	07 16 22.0	
	761nm,0.5s						
KTMS	Ketmen	2.09	41	eP	Pb	07 15 55.9	-1.6
	240nm,0.3s						
KTMS				eS	Sb	07 16 22.0	-1.6
	761nm,0.5s						
KST	Kastek	2.17	303	Pg	Pg	07 15 59.9	-1.3
	182nm,0.3s						
KST				Lg	Lg	07 16 28.8	
	2µm,0.7s						
KST	Kastek	2.17	303	eP	Pg	07 15 59.9	-1.3
	182nm,0.3s						
KST				eS	Sg	07 16 28.9	-0.5
	2µm,0.7s						
BLB	Baldybastay	2.20	0	Pg	Pb	07 15 59.2	-0.2
	659nm,0.2s						
BLB				Lg	Lg	07 16 28.2	
	861nm,0.6s						
KTBS	Karatobe	2.24	325	Pg	Pb	07 15 59.8	-0.3
	92nm,0.1s						
KTBS				Lg	Lg	07 16 28.7	
	569nm,0.3s						
KTBS	Karatobe	2.24	325	eP	Pb	07 15 59.8	-0.3
	92nm,0.1s						
KTBS				eS	Sb	07 16 28.8	+0.9
	569nm,0.3s						
TKM2	Tokmak 2	2.35	297	P	Pb	07 16 02.6	+0.5
	SNR=443						
TKM2	Tokmak 2	2.35	297	⇓iP	Pb	07 16 00.7	-1.4
TKM2				⇓iS	Sb	07 16 31.2	-0.1
ARXS	Arharly	2.36	349	Pg	Pb	07 16 01.6	-0.6
	259nm,0.3s						
ARXS				Lg	Lg	07 16 32.2	
	2µm,0.7s						
ARXS	Arharly	2.36	349	eP	Pb	07 16 01.6	-0.6
	259nm,0.3s						
ARXS				eS	Sb	07 16 32.2	+0.8
	2µm,0.7s						
KNOS	Konyrlen	2.52	12	Pg	Pb	07 16 04.3	-0.6
	86nm,0.3s						
KNOS				Lg	Lg	07 16 37.0	
KUU	Kurty	2.53	323	Pg	Pb	07 16 05.7	+0.6
	177nm,0.4s						
KUU				Lg	Lg	07 16 38.9	
	378nm,0.5s						
KUU	Kurty	2.53	323	eP	Pb	07 16 05.7	+0.6
	177nm,0.4s						
KUU				eS	Sg	07 16 38.9	-1.9
	378nm,0.5s						
DJR	Jarkent	2.62	21	Pg	Pb	07 16 06.0	-0.7
	86nm,0.3s						
DJR				Lg	Lg	07 16 39.5	
	2µm,0.4s						
DJR	Jarkent	2.62	21	eP	Pb	07 16 06.0	-0.7
	86nm,0.3s						
DJR				eS	Sb	07 16 39.5	+0.5
	2µm,0.4s						
KBK	Karagaybulak	2.71	287	P	Pb	07 16 08.5	+0.2
	SNR=48						
KBK	Karagaybulak	2.71	287	⇓iP	Pb	07 16 05.8	-2.4
KBK				⇓iS	Sb	07 16 39.9	-1.7
KRBS	Karabastau	2.73	312	Pg	Pb	07 16 09.1	+0.8
	216nm,0.5s						
KRBS				Lg	Lg	07 16 45.0	
	216nm,0.6s						
KRBS	Karabastau	2.73	312	eP	Pb	07 16 09.1	+0.8
	216nm,0.5s						
KRBS				eS	Sg	07 16 45.0	-2.1
	216nm,0.6s						
UCH	Uchtor	2.96	278	⇑iP	Pb	07 16 09.3	-3.2
UCH				⇑iS	Sb	07 16 45.9	-3.0
CHMS	Chumysh	2.96	293	P	Pb	07 16 11.2	-1.1
	SNR=7.6						
CHMS	Chumysh	2.96	293	⇓iP	Pb	07 16 08.8	-3.5
CHMS				⇓iS	Sb	07 16 45.3	-3.2
FRU1	Bishkek	2.98	289	⇓iP	Pb	07 16 09.7	-3.0
FRU1				⇓iS	Sb	07 16 46.5	-2.7
AAK	Ala-Archa	3.03	285	Pn	Pb	07 16 12.6	-1.1
	24nm,0.3s,baz=115,slow=9.1,SNR=113						
AAK				Sn	Sg	07 16 54.2	-2.7
	79nm,0.3s,baz=270,slow=18,SNR=32						
	51nm,0.3s						
AAK				AML	AML		
AAK	Ala-Archa	3.03	285	P	Pb	07 16 12.8	-0.9
	SNR=83						
AAK	Ala-Archa	3.03	285	⇑Pg	Pg	07 16 16.9	-0.7
	264nm,0.5s						
AAK				⇓Lg	Lg	07 16 57.6	
	1µm,0.5s						
AAK	Ala-Archa	3.03	285	⇓iP	Pb	07 16 10.2	-3.5
AAK				⇓iS	Sb	07 16 47.5	-3.3
TDK	Taldyqorghan	3.11	359	Pg	Pb	07 16 15.1	+0.3
	124nm,0.4s						
TDK				Lg	Lg	07 16 55.2	
	1µm,0.8s						
TDK	Taldyqorghan	3.11	359	eP	Pb	07 16 15.1	+0.3
	124nm,0.4s						
TDK				eS	Sg	07 16 55.2	-4.0
	1µm,0.8s						
SGDS	Sogindy	3.22	300	Pg	Pb	07 16 17.6	+0.8
	56nm,0.4s						
SGDS				Lg	Lg	07 16 59.7	
	306nm,0.7s						
USP	Ospenovka	3.23	296	P	Pb	07 16 14.3	-2.6
	SNR=26						
USP	Ospenovka	3.23	296	⇓iP	Pn	07 16 12.8	+2.5
USP				⇓iS	Sb	07 16 52.0	-4.3
KAPS	Kapalarasan	3.45	11	Pg	Pb	07 16 21.2	+0.4
KAPS				Lg	Lg	07 17 05.5	
KAPS	Kapalarasan	3.45	11	eP	Pb	07 16 21.2	+0.4
KAPS				eS	Sg	07 17 05.5	-4.9
KSH2	Kashi	3.52	220	Pn	Pb	07 16 20.0	-2.0
KSH2				Sn	Sg	07 17 11.6	-1.0
KSH2				smax	smax		
	comp=N,170nm,0.9s						
KSH2				smax	smax		
	comp=E,120nm,0.9s						
EKS2	Erkin-Say	3.56	284	P	Pb	07 16 22.1	-0.4
	SNR=19						
EKS2	Erkin-Say	3.56	284	⇑iP	Pn	07 16 17.5	+2.6
EKS2				⇑iS	Sn	07 17 00.1	+3.1
SALK	Salom-Alik	3.63	255	⇑iP	Pn	07 16 18.6	+2.7
SALK				⇑iS	Sn	07 17 01.8	+2.9
MRKS	Merke	3.97	284	Pg	Pb	07 16 32.0	+2.4
	comp=E,39nm,0.4s						
MRKS				Lg	Lg	07 17 24.4	
	comp=E,322nm,0.5s						
MRKS	Merke	3.97	284	eP	Pb	07 16 32.0	+2.4
	comp=E,39nm,0.4s						
MRKS				eS	Sg	07 17 24.4	-2.6
	comp=E,322nm,0.5s						
SFK	Sufi-Kurgan	4.20	245	⇑iP	Pn	07 16 26.4	+2.6
SFK				⇑iS	Sn	07 17 15.6	+2.6
MNAS	Manas	4.46	280	⇑iP	Pn	07 16 30.1	+2.8
MNAS				⇑iS	Sn	07 17 21.8	+2.4
OHH	Osh	4.49	254	⇑iP	Pn	07 16 30.4	+2.7
OHH				⇑iS	Sn	07 17 22.5	+2.5
ARK	Arkit	4.85	271	⇑iP	Pn	07 16 35.5	+2.8
ARK				⇑iS	Sn	07 17 31.1	+2.1

TRKS	**Terek-Say**	**5.49**	**269**	⇓*e*P	**Pn**	**07 16 43.9**	**+2.4**
TRKS				⇓*i*S	**Sn**	**07 17 45.9**	**+1.2**
MK31	**Makanchi Array**	**5.62**	**28**	Pn	**Pn**	**07 16 45.3**	**+2.3**
	comp=E,6.1nm,0.5s,baz=208,slow=12,SNR=155						
MK31				⇑Sn	**Sn**	**07 17 49.0**	**+1.3**
	comp=E,18nm,0.6s,baz=203,slow=25,SNR=5.2						
MK31				Lg	Lg	07 18 15.9	
	comp=E,21nm,0.6s,baz=213,slow=27,SNR=5.9						
MKAR	**Makanchi Array**	**5.62**	**28**	Pn	**Pn**	**07 16 45.5**	**+2.4**
	comp=E,3.7nm,0.3s,baz=210,slow=13,SNR=69						
MKAR				Sn	**Sn**	**07 17 48.6**	**+1.0**
	comp=E,7.1nm,0.3s,baz=208,slow=23,SNR=9.5						
MKAR				Lg	Lg	07 18 13.4	
	comp=E,13nm,0.3s,baz=212,slow=27,SNR=7.9						
MKAR				LR	LR	07 18 44.9	
	comp=E,20nm,21.1s,baz=332,slow=36						
	comp=E,9.4nm,0.5s						
MKAR				AML	AML		
KK31	**Karatay Array**	**6.00**	**284**	⇓Pg	**Pg**	**07 17 10.6**	**-3.7**
	comp=E,11nm,0.5s,baz=101,slow=15,SNR=44						
KK31				Lg	Lg	07 18 29.7	
	comp=E,19nm,0.5s,baz=98,slow=29,SNR=9.4						
BTK	**Batken**	**6.07**	**255**	⇑*e*P	**Pn**	**07 16 51.9**	**+2.6**
BTK				⇑*i*S	**Sn**	**07 17 59.7**	**+0.9**
WMQ	**Urumqi**	**7.06**	**71**	*e*P	Pn	07 17 08.4	+5.5
WMQ				smax	smax		
	comp=N,63nm,0.9s						
WMQ				smax	smax		
	comp=E,71nm,1.3s						
KURBB	**Kurchatov Arra**	**8.73**	**0**	Pn	**Pn**	**07 17 28.7**	**+3.0**
	comp=E,0.1nm,0.3s,baz=193,slow=12,SNR=6.2						
KURBB				Sn	Sn	07 19 12.5	+8.3
	comp=E,0.4nm,0.3s,baz=3.0,slow=12,SNR=4.8						
KURBB				Lg	Lg	07 19 52.3	
	comp=E,0.3nm,0.3s,baz=176,slow=29,SNR=5.4						
	comp=E,0.7nm,0.3s						
KURBB				AML	AML		
BVAR	**Borovoye Array**	**12.39**	**337**	Pn	**Pn**	**07 18 17.8**	**+2.0**
	baz=151,slow=14,SNR=4.5						
BVAR				Sn	**Sn**	**07 20 35.7**	**+1.8**
	comp=E,0.1nm,0.3s,baz=153,slow=26,SNR=2.3						
BVAR				Lg	Lg	07 21 49.1	
	comp=E,0.1nm,0.3s,baz=146,slow=25,SNR=5.7						
	comp=E,1.4nm,0.6s						
ZALV	**Zalesovo Beam**	**12.79**	**17**	Pn	**Pn**	**07 18 23.1**	**+1.9**
	comp=E,0.2nm,0.3s,baz=204,slow=14,SNR=4.9						
ZALV				Sn	**Sn**	**07 20 42.1**	**-1.3**
	comp=E,0.4nm,0.3s,baz=208,slow=24,SNR=3.5						
ZALV				Lg	Lg	07 22 05.4	
	baz=203,slow=25						
	comp=E,1.6nm,0.8s						
ZALV				AML	AML		
AKTO	**Aktyubinsk**	**16.50**	**308**	Pn	**P**	**07 19 12.2**	**-1.4**
	comp=E,0.2nm,0.3s,baz=94,slow=9.3,SNR=5.1						
AKTO				Lg	Lg	07 24 12.2	
	comp=E,0.1nm,0.3s,baz=29,slow=19,SNR=3.6						
AKTO				LR	LR	07 25 29.3	
	comp=E,53nm,20.8s,baz=72,slow=36						
	comp=E,0.8nm,0.3s						
AKTO				AML	AML		
ARTI	**Arti**	**19.46**	**325**	P	**Pn**	**07 19 48.5**	**+1.2**
	comp=E,0.6nm,0.3s,baz=105,slow=5.7,SNR=4.2						
ARTI				S	S	07 23 35.2	+9.4
	comp=E,4.4nm,0.6s,baz=232,slow=19,SNR=6.1						
	comp=E,1.4nm,0.3s						
ARTI				AML	AML		
SONM	**Songino Array**	**20.61**	**64**	P	**P**	**07 19 57.5**	**-1.4**
	comp=E,0.5nm,0.6s,baz=250,slow=12,SNR=3.7						
	comp=E,0.5nm,0.6s						
BRTR	**Keskin Array B**	**33.70**	**282**	P	**P**	**07 22 01.7**	**+0.7**
	comp=E,0.5nm,0.5s,baz=117,slow=7.5,SNR=3.5						
	comp=E,0.5nm,0.5s						
FINES	**FINESS Array B**	**36.64**	**320**	P	**P**	**07 22 27.2**	**+1.4**
	comp=E,1.2nm,0.7s,baz=64,slow=8.7,SNR=3.5						
	comp=E,1.2nm,0.7s						
ARCES	**ARCESS Array B**	**38.65**	**333**	P	**P**	**07 22 44.0**	**+1.3**
	comp=E,1.4nm,0.6s,baz=96,slow=7.6,SNR=6.4						
	comp=E,1.4nm,0.6s						
ILAR	**Eielson Array**	**67.90**	**19**	P	**P**	**07 26 17.5**	**-0.3**
	comp=E,0.4nm,0.8s,baz=327,slow=5.6,SNR=5.9						
	comp=E,0.4nm,0.8s						
TORD	**Torodi Ar. Bea**	**71.52**	**271**	P	**P**	**07 26 39.7**	**-1.1**
	comp=E,0.4nm,0.6s,baz=55,slow=5.4,SNR=2.5						
	comp=E,0.4nm,0.6s						
ASAR	**Alice Springs**	**82.95**	**130**	P	**P**	**07 27 41.4**	**-3.3**
	comp=E,0.3nm,0.8s,baz=314,slow=5.2,SNR=4.3						
	comp=E,0.3nm,0.8s						

SCB 11 07:18:56.4±0.9,21°.24S×67°.68W,h218^{km}±25^{km},MB4.3, ML3.0/3,Error ellipse: s-maj=21.4km s-min=15.7km az=1.0,Chile-Bolivia border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PB08	**IPOC Station P**	**1.76**	**308**	P	Pn	07 19 35.0	+0.6
PB02	**IPOC Station P**	**2.06**	**267**	P	Pn	07 19 37.6	+0.6
PB02				S	S	07 20 08.5	0.0
PB02				IAML		07 20 10.0	
	76nm,0.4s						
GO01	**Chusmiza**	**2.11**	**318**	P	Pn	07 19 38.3	+0.4
PB06	**IPOC Station P**	**2.28**	**230**	P	Pn	07 19 40.0	+0.7
PB06				S	S	07 20 12.4	-0.2
PB06				IAML		07 20 14.2	
	38nm,0.4s						
PB11	**IPOC Station P**	**2.36**	**308**	P	Pn	07 19 40.2	0.0
PB11				S	S	07 20 13.6	-0.5
PB11				IAML		07 20 17.1	
	30nm,0.2s						
PB16	**IPOC Station P**	**3.36**	**329**	P	Pn	07 19 53.3	+1.5
PB14	**IPOC Station P**	**4.20**	**216**	P	Pn	07 20 02.0	+0.4
BBOJ	**La Paz, Jacaqu**	**4.27**	**353**	P	Pn	07 20 03.6	+0.8
BBOD	**La Paz, Gloria**	**4.66**	**349**	P	Pn	07 20 08.3	+0.7
LPAZ	**La Paz**	**4.94**	**355**	P	Pn	07 20 11.4	+0.2
BBOB	**La Paz, Bander**	**5.09**	**355**	P	Pn	07 20 13.2	+0.2

HEL 11 07:31:12.7±0.1,60°.22N×24°.92E,h0^{km},ML0.9, Explosion,Finland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HEL1	**Helsinki**	**0.05**	**204**	PG	Pg	07 31 13.6	0.0
	baz=31						
HEL1				SG	Sg	07 31 14.1	-0.1
LAUT	**Lauttasaari He**	**0.08**	**205**	PG	Pg	07 31 14.2	+0.1
LAUT				SG	Sg	07 31 15.1	0.0
VUOS	**Vuosaari Helsi**	**0.12**	**105**	PG	Pg	07 31 14.8	-0.1
FIA0	**FINESS Array S**	**1.35**	**24**	smax	smax	07 31 53.4	
	comp=Z,0.6nm,0.2s						
FIA0				SN	Sg	07 31 55.3	-0.8

KOLA ***11*** *07:31:25.1,64°.53N×31°.99E,h0^{km},ML1.8,Karelia*

HEL 11 07:31:21.3±0.1,63°.97N×28°.08E,h0^{km},ML1.7, Suspected explosion,Finland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NIF	**Nilsia**	**0.60**	**192**	PG	Pg	07 31 32.3	-0.4
NIF				SG	Sg	07 31 39.4	-1.0
NIF				smax	smax	07 31 40.2	
	comp=Z,9.7nm,0.2s						
RMF	**Romuvaara**	**0.85**	**72**	PG	Pg	07 31 36.8	-0.8
RMF				smax	smax	07 31 47.5	
	comp=Z,7.0nm,0.2s						
RMF				SG	Sg	07 31 47.7	-0.8
OUL	**Oulu**	**1.46**	**321**	PN	Pn	07 31 48.4	-0.5
OUL				SN	Sg	07 32 07.8	-0.4
OUF	**Merijarvi**	**1.52**	**287**	PG	Pn	07 31 48.7	-1.0
OUF				smax	smax	07 32 06.9	
	comp=Z,8.2nm,0.2s						
OUF				SN	Sg	07 32 09.5	-0.5
SUF	**Sumiainen**	**1.53**	**216**	*e*P	Pn	07 31 49.8	0.0
SUF	**Sumiainen**	**1.53**	**216**	PN	Pn	07 31 49.3	-0.5
	baz=31						
SUF				smax	smax	07 32 07.2	
	comp=Z,3.8nm,0.2s						
SUF				SN	Sn	07 32 10.5	+0.1
OBF4	**Vikkela, Lumij**	**1.55**	**304**	PN	Pn	07 31 49.6	-0.5
	baz=122						
OBF4				smax	smax	07 32 07.7	
	comp=Z,4.1nm,0.2s						
KU1	**Kurvinen**	**1.72**	**21**	PG	Pn	07 31 52.2	-0.3
KU2	**Taivalkoski**	**1.75**	**2**	SN	Sg	07 32 17.2	-0.1
OBF0	**Syolatti, Pyha**	**1.76**	**289**	PG	Pn	07 31 53.1	+0.1
OBF0				smax	smax	07 32 13.9	
	comp=Z,6.9nm,0.2s						
OBF0				SN	Sb	07 32 16.9	-0.2
JOF	**Joensuu**	**1.80**	**125**	*e*P	Pn	07 31 53.9	+0.4
JOF	**Joensuu**	**1.80**	**125**	PN	Sn	07 32 16.9	0.0
JOF	**Joensuu**	**1.80**	**125**	PG	Pn	07 31 53.4	-0.1
	baz=311						
JOF				SG	Sn	07 32 16.9	0.0
MSF	**Maaselka**	**1.99**	**11**	PG	Pn	07 31 57.0	+0.8
	baz=188						
MSF				SG	Sg	07 32 24.4	-0.7
KAF	**Kangasniemi**	**2.03**	**204**	PG	Pb	07 31 58.0	-1.1
KAF				smax	smax	07 32 21.7	
	comp=Z,5.4nm,0.2s						
KAF				SG	Sb	07 32 24.7	-0.1
OBF8	**Ulkokalla**	**2.06**	**282**	PG	Pb	07 31 58.6	-0.9
OBF8				smax	smax	07 32 22.5	
	comp=Z,2.4nm,0.2s						
RANF	**Ranua**	**2.12**	**346**	PG	Pb	07 31 59.5	-1.1
RANF				SG	Sb	07 32 26.3	-1.2
KEF	**Keuruu**	**2.33**	**220**	*e*P	Pb	07 32 03.1	-1.0
KEF	**Keuruu**	**2.33**	**220**	PG	Pb	07 32 03.1	-1.0
KEF				smax	smax	07 32 30.2	
	comp=Z,5.1nm,0.2s						
KEF				SG	Sb	07 32 32.8	-0.5
OLKF	**Oulanka, Finla**	**2.42**	**13**	PG	Pb	07 32 04.0	-1.7
OLKF				smax	smax	07 32 32.8	
	comp=Z,2.5nm,0.2s						
OLKF				SG	Sb	07 32 35.3	-0.8
RUF	**Ruokolahti**	**2.59**	**171**	PG	Pb	07 32 06.7	-1.8
RUF				smax	smax	07 32 37.7	
	comp=Z,4.3nm,0.2s						
RUF				SG	Sb	07 32 40.6	-0.2
VAF	**Ylistaro**	**2.60**	**251**	*e*P	Pb	07 32 07.2	-1.5
VAF	**Ylistaro**	**2.60**	**251**	PG	Pb	07 32 06.8	-1.9
VAF				SB	Sb	07 32 40.9	-0.2
VAF	**Ylistaro**	**2.60**	**251**	PG	Pb	07 32 06.8	-1.9
VAF				smax	smax	07 32 38.0	
	comp=Z,3.1nm,0.2s						
VAF				SG	Sb	07 32 40.9	-0.2
TOF	**Tornio**	**2.65**	**325**	PB	Pn	07 32 06.0	+0.8
TOF				SB	Sn	07 32 38.4	+0.5
TOF				smax	smax	07 32 39.3	
	comp=Z,1.1nm,0.2s						
FIA0	**FINESS Array S**	**2.70**	**201**	PN	Pn	07 32 04.2	-1.7
FIA0				smax	smax	07 32 40.9	
	comp=Z,2.3nm,0.2s						
FIA0				SG	Sb	07 32 44.2	+0.2
KALU	**Kalix**	**2.77**	**315**	PB	Pn	07 32 08.1	+1.3
KALU				SB	Sn	07 32 42.1	+1.3
RNF	**Rovaniemi**	**2.79**	**343**	PG	Pb	07 32 11.8	-0.1
RNF				SG	Sb	07 32 45.6	-0.9
BURU	**Burvik**	**2.99**	**285**	PB	Pn	07 32 10.7	+0.9
	baz=95						
SJUU	**Sjulsmark**	**3.18**	**302**	*e*P	Pn	07 32 13.1	+0.7
UMAU	**Umeaa**	**3.27**	**272**	PN	Pn	07 32 13.8	+0.1
KPF	**Kankaanpaa**	**3.49**	**235**	PB	Pn	07 32 19.3	+2.6
ERTU	**Ertsjaerv**	**3.58**	**319**	PN	Pn	07 32 19.6	+1.5
ERTU				SB	Sn	07 33 04.8	+3.8
KLF	**Kolari**	**3.69**	**334**	PN	Pn	07 32 20.7	+1.1
	baz=150						
KLF				SN	Sn	07 33 03.1	-0.7
HEMU	**Hemsoen**	**4.71**	**259**	PN	Pn	07 32 34.0	+0.5
LANU	**Lannavaara**	**4.79**	**331**	*e*P	Pn	07 32 36.7	+2.2
ARCES	**ARCESS Array B**	**5.68**	**351**	P	Pn	07 32 48.5	+1.7
ARCES				S	Sn	07 33 51.7	-0.9

VAO ***11*** *07:35:52.6±1.4,21°.35S×69°.69W,h16^{km}±9^{km},mb6.1, Presumed earthquake*

MOS ***11*** *07:35:54.2±1.3,21°.39S×69°.92W,h35^{km},mb6.3/31, MS5.7/13,Error ellipse: s-maj=10.8km s-min=5.7km az=101.1*

UCR ***11*** *07:35:54.3±1.4,21°.98S×70°.83W,h20^{km}±999^{km},MW5.8, Presumed earthquake*

SJA ***11*** *07:35:55.5±0.6,21°.36S×69°.89W,h58^{km}±4^{km},ML6.2, MW6.3*

CATAC ***11*** *07:35:55.7±0.2,21°S±2°×7°0W±°,h53^{km}±2^{km},M6.4/25, mb6.2/25,mB6.8/24,MLv6.8/5,Mw(mB)6.6/24, MwMwp6.1/18,Mwp6.1/18,Error ellipse: s-maj=7.2km s-min=3.2km az=69.4,confirmed*

IDC ***11*** *07:35:55.4±1.6,21°.37S×69°.76W,h35^{km}±12^{km},mb5.3/21, mbtmp5.6/28,ML5.5/7,MS5.6/51,Error ellipse: s-maj=13.1km s-min=7.8km az=81.0*

BJI ***11*** *07:35:56.9,21°.55S×69°.90W,h40^{km},mB5.9/55,Ms6.1/90, Ms7 6.1/88*

IPGP ***11*** *07:35:56.0,21°.38S×69°.92W,h55^{km},Mw6.3,Fault plane solution: NP1:ϕ_s313.00000°,δ64.00000°,λ166.00000°. NP2:ϕ_s49.00000°,δ77.00000°,λ27.00000°.*

PTWC ***11*** *07:35:56,21°.40S×70°.10W,h38^{km},Mwp6.4/12*

GFZ ***11*** *07:35:56.5±0.1,21°S±1°×7°0W±°,h46^{km}±2^{km},M6.4/66, mB6.8/64,mb6.4/66,Mw(mB)6.7/64*

GFZ ***11*** *07:35:56.4,21°.40S×69°.77W,h47^{km},Mw6.2/125,Moment Tensor Solution. Moment tensor: Scale 10^{18}Nm; M_{rr}0.57; $M_{\theta\theta}$-2.41; $M_{\phi\phi}$1.84; $M_{r\theta}$0.67; $M_{\theta\phi}$0.03; $M_{\phi r}$1.07; Fault plane solution: $M_0$2.52037×10^{18} NP1: ϕ_s312.04667°,δ58.77269°,λ166.42877°. NP2: ϕ_s49.17998°,δ78.42464°,λ31.95126°. Principal axes: T 2.4772, Plg30.5623°, Azm275.0110°; N 0.0842, Plg56.2265°, Azm67.0143°; P -2.5614, Plg12.9854°, Azm177.1846°;*

GUC ***11*** *07:35:56.1±0.7,21°.36S×69°.91W,h54^{km}±2^{km},ML6.0*

NEIC ***11*** *07:35:57.2±1.8,21°.40S±0°.04×69°.91W±0°.09,h51^{km}±1^{km}, mb6.6/112,Mwb6.1/167,Mww6.2/19,Mww6.3(GUC),Error ellipse: s-maj=13.5km s-min=6.8km az=269.0,Moment Tensor Solution. Moment tensor: Scale 10^{18}Nm; M_{rr}1.08; $M_{\theta\theta}$-1.72; $M_{\phi\phi}$0.64; $M_{r\theta}$0.52; $M_{\theta\phi}$-0.15; $M_{\phi r}$0.86; Fault plane solution: $M_0$1.81000×10^{18} NP1: ϕ_s297.85000°,δ44.44000°,λ143.37000°. NP2: ϕ_s55.81000°,δ65.31000°,λ51.80000°. Principal axes: T 1.7773, Plg53.0000°, Azm279.0000°; N 0.0691, Plg34.0000°, Azm74.0000°; P -1.8465, Plg12.0000°, Azm172.0000°;*

NEIC ***11*** *07:35:57.9,21°.41S×69°.89W,h51^{km}*

ISC-PP ***11*** *07:35:57,21°.40S×69°.91W,h58^{km},Mwppsm6.5,Moment Tensor Solution. s30 Moment tensor: Scale 10^{18}Nm; M_{rr}0.10±.10; $M_{\theta\theta}$-0.55±.16; $M_{\phi\phi}$0.50±.14; $M_{r\theta}$0.19±.18; $M_{\theta\phi}$0.20±.11; $M_{\phi r}$0.38±.13; Fault plane solution: $M_0$6.76000×10^{18} NP1:ϕ_s64.80000°,δ81.20000°, λ22.40000°. NP2:ϕ_s331.20000°,δ67.90000°,λ170.50000°.*

NEIC ***11*** *07:35:57.8,21°.40S×69°.91W,h51^{km}*

GCMT ***11*** *07:36:01.2±0.1,21°.38S×69°.99W,h57^{km},MW6.2/170, Moment Tensor Solution. s166,c364; s170,c612; Duration: 3^{s}2 Moment tensor: Scale 10^{18}Nm; M_{rr}0.40±.01; $M_{\theta\theta}$-2.87±.01; $M_{\phi\phi}$2.47±.02; $M_{r\theta}$0.45±.01; $M_{\theta\phi}$0.20±.01; $M_{\phi r}$1.00±.02; Best double couple: $M_0$2.91300×10^{18} NP1:ϕ_s315.00000°,δ69.00000°, λ169.00000°. NP2:ϕ_s49.00000°,δ80.00000°,λ22.00000°. Principal axes: T 2.8960, Plg22.0000°, Azm274.0000°; N 0.0360, Plg66.0000°, Azm73.0000°; P -2.9310, Plg7.0000°, Azm181.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s. Triangular moment-rate function*

NEIC ***11*** *07:36:04.7,21°.40S×70°.01W,h46^{km},Moment Tensor Solution. Duration: 6^{s}6 Moment tensor: Scale 10^{18}Nm; M_{rr}0.70; $M_{\theta\theta}$-2.28; $M_{\phi\phi}$1.58; $M_{r\theta}$0.21; $M_{\theta\phi}$0.00; $M_{\phi r}$0.88; Fault plane solution: $M_0$2.22000×10^{18} NP1: ϕ_s310.56000°,δ64.75000°,λ159.16000°. NP2: ϕ_s49.78000°,δ71.23000°,λ26.78000°. Principal axes: T 2.1317, Plg32.0000°, Azm272.0000°; N 0.1681, Plg58.0000°, Azm82.0000°; P -2.2999, Plg4.0000°, Azm179.0000°;*

ISC 11 07:35:56.3±0.2,21°.40S±0°.02×69°.86W±0°.03,h47^{km}±1^{km}, h47^{km}:pP-P,n1193,σ2^{s}76/1351,mb6.3/193,MS5.7/79, 90C-73D,Northern Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PB02	**IPOC Station P**	**0.09**	**339**	*e*P	**Pn**	**07 36 04.9**	**+0.9**
PB02				IAML		07 36 15.4	
	comp=Z,977µm,0.5s						
PB02	**IPOC Station P**	**0.09**	**339**	⇑*e*P	**Pn**	**07 36 04.8**	**+0.9**
PB02				*e*S	**Sn**	**07 36 10.8**	**+1.6**
PB02				IAML		07 36 14.6	
	comp=E,1259µm,0.4s						
PB02	**IPOC Station P**	**0.09**	**339**		**Pn**	**07 36 04.8**	**+0.9**
PB02	**IPOC Station P**	**0.09**	**339**	P	**Pn**	**07 36 05.3**	**+1.4**
PB02	**IPOC Station P**	**0.09**	**339**	P	**Pn**	**07 36 05.2**	**+1.2**
PB02				S	**Sn**	**07 36 10.5**	**+1.2**
PB02	**IPOC Station P**	**0.09**	**339**	P	**Pn**	**07 36 04.8**	**+0.9**
PB07	**IPOC Station P**	**0.32**	**184**	*e*P	**Pn**	**07 36 06.9**	**+1.2**
PB07				IAML		07 36 18.4	
	comp=Z,904µm,1.2s						
PB07	**IPOC Station P**	**0.32**	**184**	⇑*e*P	**Pn**	**07 36 06.6**	**+1.0**
PB07				*e*S	**Sn**	**07 36 14.7**	**+2.5**
PB07				IAML		07 36 15.8	
	comp=N,813µm,0.6s						
PB07	**IPOC Station P**	**0.32**	**184**		**Pn**	**07 36 06.3**	**+0.7**
PB07	**IPOC Station P**	**0.32**	**184**	P	**Pn**	**07 36 06.8**	**+1.2**
PB03	**IPOC Station P**	**0.65**	**171**	*e*P	**Pn**	**07 36 10.8**	**+1.3**
PB03				IAML		07 36 25.0	
	comp=Z,872µm,0.8s						
PB03	**IPOC Station P**	**0.65**	**171**	⇓*e*P	**Pn**	**07 36 10.7**	**+1.3**
PB03				*e*S	**Sn**	**07 36 21.1**	**+2.2**
PB03				IAML		07 36 22.3	
	comp=E,917µm,0.2s						
PB03	**IPOC Station P**	**0.65**	**171**		**Pn**	**07 36 10.6**	**+1.1**
PB03	**IPOC Station P**	**0.65**	**171**	P	**Pn**	**07 36 10.2**	**+0.7**
PB09	**IPOC Station P**	**0.70**	**124**	*e*P	**Pn**	**07 36 11.3**	**+1.2**
PB09				IAML		07 36 25.8	
	comp=Z,755µm,0.8s						
PB09	**IPOC Station P**	**0.70**	**124**	⇓*e*P	**Pn**	**07 36 11.2**	**+1.2**
PB09				*e*S	**Sn**	**07 36 21.8**	**+1.7**
PB09				IAML		07 36 23.3	
	comp=E,1240µm,0.5s						
PB09	**IPOC Station P**	**0.70**	**124**		**Pn**	**07 36 11.2**	**+1.2**
PB09	**IPOC Station P**	**0.70**	**124**	P	**Pn**	**07 36 11.5**	**+1.4**
PB09				S	**Sn**	**07 36 21.5**	**+1.5**
PB09	**IPOC Station P**	**0.70**	**124**	P	**Pn**	**07 36 10.8**	**+0.8**
TA01	**Diego Aracena**	**0.88**	**340**	*e*P	**Pn**	**07 36 11.7**	**-0.8**
TA01				IAML		07 36 31.3	
	comp=Z,371µm,0.7s						
TA01	**Diego Aracena**	**0.88**	**340**	⇓*e*P	**Pn**	**07 36 11.9**	**-0.4**
TA01				*e*S	**Sn**	**07 36 23.6**	**-0.5**
TA01	**Diego Aracena**	**0.88**	**340**		**Pn**	**07 36 12.0**	**-0.4**
TA01	**Diego Aracena**	**0.88**	**340**	P	**Pn**	**07 36 12.0**	**-0.4**
TA01	**Diego Aracena**	**0.88**	**340**	P	**Pn**	**07 36 12.1**	**-0.3**
TA02	**Huaiquique**	**1.15**	**347**	*e*P	**Pn**	**07 36 16.2**	**+0.1**
TA02				IAML		07 36 34.9	
	comp=Z,365µm,0.4s						
TA02	**Huaiquique**	**1.15**	**347**	⇓*e*P	**Pn**	**07 36 15.9**	**-0.2**
PB06	**IPOC Station P**	**1.32**	**168**	*e*P	**Pn**	**07 36 19.7**	**+1.1**
PB06	**IPOC Station P**	**1.32**	**168**	⇓*e*P	**Pn**	**07 36 19.6**	**+1.0**
PB06				*e*S	**Sn**	**07 36 32.9**	**-2.2**
PB06				IAML		07 36 41.5	
	comp=N,501µm,0.4s						
PB06	**IPOC Station P**	**1.32**	**168**		**Pn**	**07 36 19.5**	**+1.0**
PB06	**IPOC Station P**	**1.32**	**168**	P	**Pn**	**07 36 19.6**	**+1.0**
PB06	**IPOC Station P**	**1.32**	**168**	P	**Pn**	**07 36 19.6**	**+1.0**
PB06				S	**Sn**	**07 36 32.7**	**-2.5**
PB06	**IPOC Station P**	**1.32**	**168**	P	**Pn**	**07 36 19.7**	**+1.0**
PB08	**IPOC Station P**	**1.42**	**28**	P	**Pn**	**07 36 20.9**	**+0.8**
PB08				S	**Sn**	**07 36 37.9**	**+0.1**
PB08	**IPOC Station P**	**1.42**	**28**	*e*P	**Pn**	**07 36 20.5**	**+0.4**
PB08				*e*S	**Sn**	**07 36 38.9**	**+1.2**
PB08				IAML		07 36 41.6	
	comp=Z,300µm,0.4s						
PB08	**IPOC Station P**	**1.42**	**28**	⇓*e*P	**Pn**	**07 36 20.4**	**+0.4**
PB08				*e*S	**Sn**	**07 36 38.4**	**+0.7**
PB08				IAML		07 36 42.0	
	comp=E,503µm,0.1s						
PB08	**IPOC Station P**	**1.42**	**28**		**Pn**	**07 36 20.1**	**+0.1**
PB08	**IPOC Station P**	**1.42**	**28**	P	**Pn**	**07 36 20.3**	**+0.3**
PB08	**IPOC Station P**	**1.42**	**28**	P	**Pn**	**07 36 20.4**	**+0.4**
PB05	**IPOC Station P**	**1.48**	**192**	*e*P	**Pn**	**07 36 22.0**	**+1.4**
PB05				*e*S	**Sn**	**07 36 36.4**	**-2.4**
PB05				IAML		07 36 45.4	
	comp=Z,633µm,1.7s						
PB05	**IPOC Station P**	**1.48**	**192**	⇓*e*P	**Pn**	**07 36 22.0**	**+1.4**
PB05	**IPOC Station P**	**1.48**	**192**		**Pn**	**07 36 22.0**	**+1.4**
PB05	**IPOC Station P**	**1.48**	**192**	P	**Pn**	**07 36 22.1**	**+1.4**
PB11	**IPOC Station P**	**1.64**	**7**	*e*P	**Pn**	**07 36 23.3**	**+0.3**
PB11				IAML		07 36 49.0	
	comp=Z,269µm,0.6s						
PB11	**IPOC Station P**	**1.64**	**7**	⇓*e*P	**Pn**	**07 36 23.1**	**+0.1**
PB11				*e*S	**Sn**	**07 36 44.0**	**+1.0**
PB11	**IPOC Station P**	**1.64**	**7**		**Pn**	**07 36 23.2**	**+0.3**
PB11	**IPOC Station P**	**1.64**	**7**	P	**Pn**	**07 36 23.2**	**+0.3**
PSGCX	**Pisagua**	**1.81**	**352**	*e*P	**Pn**	**07 36 25.2**	**0.0**
PSGCX				*e*S	**Sn**	**07 36 50.6**	**+3.6**
PSGCX				IAML		07 37 02.3	
	comp=Z,93µm,0.8s						
PSGCX	**Pisagua**	**1.81**	**352**	⇓*e*P	**Pn**	**07 36 25.1**	**-0.1**
PSGCX				*e*S	**Sn**	**07 36 47.9**	**+0.9**
PSGCX	**Pisagua**	**1.81**	**352**		**Pn**	**07 36 25.1**	**-0.1**
PSGCX	**Pisagua**	**1.81**	**352**	P	**Pn**	**07 36 25.2**	**0.0**
PSGCX	**Pisagua**	**1.81**	**352**	P	**Pn**	**07 36 25.2**	**0.0**
GO01	**Chusmiza**	**1.83**	**20**	*e*P	**Pn**	**07 36 26.6**	**+0.8**
GO01				*e*S	**Sn**	**07 36 51.2**	**+3.1**
GO01				IAML		07 36 53.7	
	comp=Z,279µm,0.9s						
GO01	**Chusmiza**	**1.83**	**20**	⇓*e*P	**Pn**	**07 36 26.4**	**+0.6**
GO01				*e*S	**Sn**	**07 36 49.4**	**+1.3**
GO01				IAML		07 36 52.8	
	comp=E,368µm,0.3s						
GO01	**Chusmiza**	**1.83**	**20**		**Pn**	**07 36 26.8**	**+1.0**
GO01	**Chusmiza**	**1.83**	**20**	P	**Pn**	**07 36 26.6**	**+0.8**
GO01	**Chusmiza**	**1.83**	**20**	P	**Pn**	**07 36 26.6**	**+0.8**
AF01	**San Pedro de A**	**2.19**	**135**	*e*P	**Pn**	**07 36 34.5**	**+3.9**
AF01				*e*S	**Sn**	**07 36 51.7**	**-4.9**
AF01				IAML		07 37 25.1	
	comp=Z,585µm,0.9s						
AF01	**San Pedro de A**	**2.19**	**135**	⇓*e*P	**Pn**	**07 36 34.2**	**+3.7**
AF01	**San Pedro de A**	**2.19**	**135**		**Pn**	**07 36 33.9**	**+3.3**
PX02	**IPOC Station P**	**2.45**	**353**	⇓*e*P	**Pn**	**07 36 32.8**	**-1.1**
PB12	**IPOC Station P**	**2.81**	**351**	*e*P	**Pn**	**07 36 38.9**	**0.0**
PB12				IAML		07 37 29.0	
	comp=Z,78µm,0.4s						
PB12	**IPOC Station P**	**2.81**	**351**	⇓*e*P	**Pn**	**07 36 38.5**	**-0.3**
PB12				*e*S	**Sn**	**07 37 12.0**	**+0.5**
PB12				IAML		07 37 30.8	
	comp=E,76µm,0.6s						
PB12	**IPOC Station P**	**2.81**	**351**		**Pn**	**07 36 39.9**	**+1.1**
PB12	**IPOC Station P**	**2.81**	**351**	P	**Pn**	**07 36 38.8**	**0.0**
AP01	**Chacalluta**	**3.05**	**351**	*e*P	**Pn**	**07 36 43.1**	**+1.0**
AP01				IAML		07 37 41.8	
	comp=Z,113µm,1.2s						
AP01	**Chacalluta**	**3.05**	**351**	⇓*e*P	**Pn**	**07 36 42.3**	**+0.3**
AP01	**Chacalluta**	**3.05**	**351**		**Pn**	**07 36 42.5**	**+0.4**
AP01	**Chacalluta**	**3.05**	**351**	P	**Pn**	**07 36 42.5**	**+0.4**
AP01	**Chacalluta**	**3.05**	**351**	P	**Pn**	**07 36 42.5**	**+0.4**
PB16	**IPOC Station P**	**3.07**	**6**	*e*P	**Pn**	**07 36 44.3**	**+1.4**
PB16				IAML		07 37 41.3	
	comp=Z,50µm,0.6s						
PB16	**IPOC Station P**	**3.07**	**6**	⇓*e*P	**Pn**	**07 36 44.0**	**+1.1**
PB16	**IPOC Station P**	**3.07**	**6**		**Pn**	**07 36 44.2**	**+1.4**
PB16	**IPOC Station P**	**3.07**	**6**	P	**Pn**	**07 36 44.2**	**+1.4**
PB16	**IPOC Station P**	**3.07**	**6**	P	**Pn**	**07 36 44.2**	**+1.4**
PB14	**IPOC Station P**	**3.25**	**189**	P	**Pn**	**07 36 45.4**	**+0.3**
PB14	**IPOC Station P**	**3.25**	**189**	*e*P	**Pn**	**07 36 45.4**	**+0.3**
PB14				IAML		07 37 41.9	
	comp=Z,126µm,2.2s						
PB14	**IPOC Station P**	**3.25**	**189**	⇓*e*P	**Pn**	**07 36 45.2**	**+0.1**
PB14	**IPOC Station P**	**3.25**	**189**		**Pn**	**07 36 46.1**	**+1.0**
PB14	**IPOC Station P**	**3.25**	**189**	P	**Pn**	**07 36 45.6**	**+0.5**
PB18	**Visviri**	**3.81**	**5**	⇓*e*P	**Pn**	**07 36 56.1**	**+3.2**
PB18	**Visviri**	**3.81**	**5**		**Pn**	**07 36 55.1**	**+2.1**
PB18	**Visviri**	**3.81**	**5**	P	**Pn**	**07 36 56.4**	**+3.4**
YJA	**Yavi**	**4.11**	**102**	*e*P	**Pn**	**07 37 01.8**	**+4.8**
YJA	**Yavi**	**4.11**	**102**	*e*P	**Pn**	**07 37 01.6**	**+4.6**
SALTA		**4.29**	**132**	*e*P	**Pn**	**07 37 03.5**	**+3.9**
SALTA				*e*S	Sn	07 37 37.5	-11
SALTA				IAML		07 38 58.0	
	comp=Z,22µm,2.7s						
HJA	**Humahuaca**	**4.50**	**114**	*e*P	Pn	07 37 07.4	+5.1
AC01	**Pan de Azucar**	**4.77**	**188**	*e*P	**Pn**	**07 37 04.9**	**-0.8**
AC01				IAML		07 38 41.0	
	comp=Z,49µm,0.7s						
AC01	**Pan de Azucar**	**4.77**	**188**	⇓*e*P	**Pn**	**07 37 04.2**	**-1.5**
AC01	**Pan de Azucar**	**4.77**	**188**		**Pn**	**07 37 05.0**	**-0.8**
AC01	**Pan de Azucar**	**4.77**	**188**	P	**Pn**	**07 37 04.0**	**-1.7**
AC01	**Pan de Azucar**	**4.77**	**188**	P	**Pn**	**07 37 05.0**	**-0.7**
AC01				S	**Sn**	**07 37 59.7**	**-0.1**
AC01	**Pan de Azucar**	**4.77**	**188**	P	**Pn**	**07 37 05.0**	**-0.7**
SLA	**San Lorenzo**	**5.20**	**130**	⇓*e*P	**Pn**	**07 37 15.8**	**+4.2**
I08BO	**LAS PENAS INFR**	**5.33**	**15**	Pn	Pn	07 37 20.0	+6.1

```
         baz=198,slow=19
I08BO                              Lg     Lg      07 38 40.0
         baz=265,slow=30
LPAZ  La Paz            5.34  18   Pn     Pn      07 37 16.8 +2.7
         comp=Z,70nm,0.3s,baz=195,slow=7.5,SNR=544
LPAZ                               LR     LR      07 39 47.5
         comp=Z,200µm,21.8s,baz=155,slow=44
         comp=Z,796nm,0.5s
LPAZ                               AML    AML
LPAZ  La Paz            5.34  18   P      Pn      07 37 15.6 +1.5
LPAZ  La Paz            5.34  18          Pn      07 37 16.2 +2.1
LPAZ  La Paz            5.34  18   P      Pn      07 37 16.5 +2.4
         comp=Z,57nmcomp=Z,492µmcomp=Z,230µmcomp=Z,4µm,1.1s
LPAZ                               AML    AML
LPAZ                               AML    AML
LPAZ  La Paz            5.34  18   P      Pn      07 37 16.9 +2.7
         comp=Z,231µmcomp=Z,10µm,1.8s
AC02  Maricunga         5.45 173          Pn      07 37 17.0 +1.5
AC02  Maricunga         5.45 173   P      Pn      07 37 17.3 +1.9
AC02  Maricunga         5.45 173   P      Pn      07 37 17.3 +1.9
         comp=Z,26µm,0.8s,comp=Z,334µm
AC06  Mina Casimiro     5.95 184          Pn      07 37 21.4 -0.5
GO03  Copiapo           6.17 183          Pn      07 37 23.6 -1.5
GO03  Copiapo           6.17 183   P      Pn      07 37 23.7 -1.3
GO03  Copiapo           6.17 183  ⇓P      Pn      07 37 23.5 -1.5
GO03  Copiapo           6.17 183   P      Pn      07 37 23.7 -1.3
         comp=Z,9µm,1.1s,comp=Z,140µm
AC04  Llanos de Chal    6.86 189   P      Pn      07 37 31.3 -3.1
AC04  Llanos de Chal    6.86 189   P      Pn      07 37 31.3 -3.1
         comp=Z,161µmcomp=Z,19µm,1.2s
AC05  El Transito       7.41 183   P      Pn      07 37 40.8 -1.3
         comp=Z,169µmcomp=Z,14µm,0.9s
LCO   Las Campanas      7.61 186   P      Pn      07 37 42.6 -2.4
LCO   Las Campanas      7.61 186          Pn      07 37 42.6 -2.4
LCO   Las Campanas      7.61 186  ⇑P      Pn      07 37 42.0 -2.9
LCO   Las Campanas      7.61 186   P      Pn      07 37 43.1 -1.9
CO01  Juntas del Tor    8.54 181          Pn      07 37 56.2 -1.4
CO01  Juntas del Tor    8.54 181   P      Pn      07 37 56.1 -1.5
         comp=Z,82µmcomp=Z,12µm,1.0s
GO04  Tololo Observa    8.77 185          Pn      07 37 58.7 -2.1
GO04  Tololo Observa    8.77 185  ⇓P      Pn      07 37 57.6 -3.2
GO04  Tololo Observa    8.77 185   P      Pn      07 37 58.5 -2.3
         comp=Z,89µmcomp=Z,13µm,0.8s
CO03  El Pedregal       9.43 184          Pn      07 38 07.2 -2.4
CO02  Combarbal         9.81 186  ⇓P      Pn      07 38 10.9 -4.0
CO02  Combarbal         9.81 186   P      Pn      07 38 11.1 -3.9
         comp=Z,53µmcomp=Z,5µm,0.9s
SIV   San Ignacio       9.91  59   Pn     Pn      07 38 15.0 -1.3
         comp=Z,13nm,0.3s,baz=246,slow=12,SNR=550
         comp=Z,565nm,0.6s
SIV                                AML    AML
ZON   Zonda            10.16 174   P      Pn      07 38 18.2 -1.4
ZON   Zonda            10.16 174          Pn      07 38 18.2 -1.4
ZON   Zonda            10.16 174  ⇓P      Pn      07 38 17.7 -1.9
ZON   Zonda            10.16 174   P      Pn      07 38 18.8 -0.8
         comp=E,34µmcomp=E,2µm,1.3s
CFA   Coronel Fontan   10.27 172   Pn     Pn      07 38 19.6 -1.5
         comp=E,51nm,0.3s,baz=357,slow=13,SNR=683
CFA                                Sn     Sn      07 40 19.4 +4.7
         comp=E,10nm,0.3s,baz=139,slow=20,SNR=1.1
CFA                                LR     LR      07 42 46.9
         comp=E,21µm,18.2s,baz=352,slow=40
         comp=E,125nm,0.3s
CFA                                AML    AML
CO04  Los Peladeros    10.64 185          Pn      07 38 22.7 -3.8
CO04  Los Peladeros    10.64 185   P      Pn      07 38 23.1 -3.4
         comp=Z,80µmcomp=Z,8µm,1.0s,comp=Z,80µm
VA03  San Esteban      11.33 183   P      Pn      07 38 32.9 -2.8
         comp=Z,64µmcomp=Z,6µm,1.2s
COIM  Forte Coimbra    11.40  85  eP      Pn      07 38 32.9 -3.7
NNA   Nana             11.50 323   Pn     Pn      07 38 38.6 +0.6
         comp=Z,16nm,0.3s,baz=159,slow=10,SNR=27
NNA                                Sn     Sn      07 40 40.3 -4.8
         comp=Z,43nm,0.3s,baz=187,slow=9.2,SNR=3.5
NNA                                LR     LR      07 42 41.0
         comp=Z,40µm,20.8s,baz=162,slow=35
         comp=Z,39nm,0.3s
NNA                                AML    AML
NNA   Nana             11.50 323 i P      Pn      07 38 37.6 -0.5
NNA   Nana             11.50 323          Pn      07 38 37.6 -0.5
NNA   Nana             11.50 323   P      Pn      07 38 38.5 +0.5
         comp=Z,51µmcomp=Z,7µmcomp=Z,492nm,0.7s
NNA   Nana             11.50 323  ⇑P      Pn      07 38 38.5 +0.5
NNA   Nana             11.50 323   P      Pn      07 38 39.0 +0.9
NNA                                S      Sn      07 40 39.3 -5.9
NNA   Nana             11.50 323   P      Pn      07 38 40.9 +2.9
         comp=Z,7µmcomp=Z,611nm,0.8s,comp=Z,7µm
PEL   Peldehue         11.72 183   P      Pn      07 38 38.0 -2.9
PEL   Peldehue         11.72 183  ⇑P      Pn      07 38 37.5 -3.4
PEL   Peldehue         11.72 183   P      Pn      07 38 37.3 -3.6
PEL                                S      Sn      07 40 53.0 +2.7
PEL   Peldehue         11.72 183   P      Pn      07 38 42.5 +1.6
         comp=Z,52µmcomp=Z,4µm,1.5s
PTLB  Pontes e Lacer   11.77  62          Pn      07 38 40.2 -1.5
PTLB  Pontes e Lacer   11.77  62  eP      Pn      07 38 36.5 -5.2
BDQN  Bodoquena, MS    12.29  88  eP      Pn      07 38 45.5 -3.2
CPUP  Villa Florida    12.47 116   Pn     Pn      07 38 49.8 -1.3
         comp=Z,3.4nm,0.3s,baz=298,slow=13,SNR=66
CPUP                               LR     LR      07 44 43.5
         comp=Z,24µm,21.0s,baz=292,slow=43
         comp=Z,147nm,0.8s
CPUP                               AML    AML
CPUP  Villa Florida    12.47 116   P      Pn      07 38 50.9 -0.2
CPUP  Villa Florida    12.47 116          Pn      07 38 50.9 -0.2
CPUP  Villa Florida    12.47 116  ⇑P      Pn      07 38 50.3 -0.9
CPUP  Villa Florida    12.47 116   P      Pn      07 38 50.5 -0.6
         comp=Z,13µmcomp=Z,691nm,1.8s
VILB  Vilhena          12.48  49          Pn      07 38 51.3 -0.1
VILB  Vilhena          12.48  49  eP      Pn      07 38 48.5 -2.9
BO01  Tunca            12.99 185   P      Pn      07 38 57.8 -0.3
         comp=Z,26µmcomp=Z,2µm,1.5s
SJPY  San Joaquin      13.15 108  eP      Pn      07 38 57.4 -3.0
BO03  Pichilemu        13.18 188   P      Pn      07 39 02.4 +1.7
         comp=Z,31µmcomp=Z,4µm,1.3s,comp=Z,31µm
AQDB  Aquidauana       13.27  89  eP      Pn      07 38 58.9 -3.2
AQDB  Aquidauana       13.27  89   P      Pn      07 38 59.4 -2.7
         comp=Z,16µmcomp=Z,942nm,0.8s
BO02  Sierra Bellavi   13.37 183  ⇑P      Pn      07 38 58.2 -5.2
BO02  Sierra Bellavi   13.37 183   P      Pn      07 39 05.3 +1.9
         comp=Z,36µmcomp=Z,3µm,1.0s,comp=Z,36µm
GO05  Hualane          13.68 187  ⇑P      Pn      07 39 01.6 -6.1
GO05  Hualane          13.68 187   P      Pn      07 39 08.2 +0.6
         comp=Z,46µmcomp=Z,4µm,1.4s,comp=Z,46µm
CZSB  Cruzeiro do Su   13.87 348   P      Pn      07 39 07.5 -2.8
CZSB  Cruzeiro do Su   13.87 348  eP      Pn      07 39 06.0 -4.3
ML02  Panimavida       14.37 185   Pn     Pn      07 39 17.1 +0.1
ML02  Panimavida       14.37 185   P      Pn      07 39 17.4 +0.4
         comp=Z,67µmcomp=Z,6µm,1.1s,comp=Z,67µm
H03N1 Juan Fernandez   14.43 212   Pn     Pn      07 39 17.0 -0.4
         baz=48,slow=74
H03N2 Juan Fernandez   14.43 212   Pn     Pn      07 39 16.9 -0.6
         baz=213,slow=74
SALV  Santo Antonio    14.49  70  eP      Pn      07 39 14.3 -4.4
VA04  Juan Fernndez    14.55 211          Pn      07 39 17.9 -1.5
VA04  Juan Fernndez    14.55 211  ⇓P      Pn      07 39 17.6 -1.7
VA04  Juan Fernndez    14.55 211   P      Pn      07 39 17.8 -1.5
         comp=Z,36µmcomp=Z,2µm,0.9s
PSAL  Palomas, Salto   14.61 134  eP      Pn      07 39 17.4 -2.8
PP1B  Ponte de Pedra   14.62  78  eP      Pn      07 39 17.4 -3.1
H03S3 Juan Fernandez   14.74 211   Pn     Pn      07 39 20.0 -1.6
         baz=33,slow=14
H03S3                              Sn     Sn      07 41 59.8 -3.6
H03S3                              T      T       07 53 58.2
         baz=47,slow=72,SNR=148
H03S1 Juan Fernandez   14.75 211   Pn     Pn      07 39 20.0 -1.7
         baz=33,slow=14
H03S1                              Sn     Sn      07 41 59.4 -4.4
H03S1                              T      T       07 53 59.9
         baz=47,slow=72,SNR=44
H03S2 Juan Fernandez   14.75 211   Pn     Pn      07 39 20.2 -1.5
         baz=33,slow=14
H03S2                              Sn     Sn      07 41 59.9 -3.9
H03S2                              T      T       07 54 06.4
         baz=47,slow=72,SNR=173
BI02  San Fabin de     15.26 184   Pn     Pn      07 39 28.2 -0.5
BI02  San Fabin de     15.26 184   P      Pn      07 39 28.6 -0.1
         comp=Z,20µmcomp=Z,1µm,0.9s,comp=Z,20µm
BI05  Punta Hualpn     15.56 190          Pn      07 39 32.2 -0.3
TRCB  Terra Rica       16.03  98  eP      Pn      07 39 36.2 -2.5
TRCB  Terra Rica       16.03  98   P      Pn      07 39 36.8 -1.8
         comp=Z,59µmcomp=Z,3µm,0.7s,comp=Z,59µm
C2SB  Chapadao do Su   16.20  84  eP      Pn      07 39 38.3 -2.5
C2SB  Chapadao do Su   16.20  84   P      Pn      07 39 40.9  0.0
         comp=Z,91µmcomp=Z,5µm,1.6s,comp=Z,91µm
ATAH  Atahualpa        16.41 329   Pn     P       07 39 46.9 +0.9
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         comp=Z,2.4nm,0.3s,baz=161,slow=9.0,SNR=52
ATAH                               Sn     Sn      07 42 47.9 +2.7
         comp=Z,1.0nm,0.3s,baz=342,slow=20,SNR=0.9
         comp=Z,177nm,0.9s
ATAH                               AML    AML
ANCO  Parque Anchore   16.57 143  eP      Pn      07 39 41.3 -4.0
PTGB  Pitanga          16.71 105  eP      Pn      07 39 45.5 -1.7
LPA   La Plata         17.06 145c iP      Pn      07 39 48.7 -2.7
LPA                                pP     pP      07 40 05.4 +1.5
LPA                                S      S       07 43 27.3  +19
CLDB  Colider          17.08  54  eP      Pn      07 39 48.8 -3.0
CLDB  Colider          17.08  54   P      Pn      07 39 51.0 -0.8
         comp=Z,12µmcomp=Z,668nm,1.2s
CPSB  Cacapava Do Su   17.27 125  eP      Pn      07 39 51.2 -2.9
CPSB  Cacapava Do Su   17.27 125   P      Pn      07 39 51.5 -2.5
         comp=Z,27µmcomp=Z,1µm,0.9s,comp=Z,27µm
LDASE Londrina, Braz   17.45 100  eP      Pn      07 39 54.0 -2.4
ARAG  Araguaiana, MT   18.02  75  eP      P       07 40 00.0 -3.4
GO06  Curarrehue       18.18 184   P      P       07 40 04.4 -0.7
GO06                               IAmb   IAmb    07 40 09.9
         comp=Z,5µm,1.6s
GO06  Curarrehue       18.18 184  ⇓P      P       07 40 04.1 -1.0
GO06  Curarrehue       18.18 184   P      P       07 40 04.5 -0.7
         comp=Z,37µmcomp=Z,2µm,1.2s,comp=Z,37µm
LR03  Panguipulli      18.30 186   P      Pn      07 40 06.4 -0.2
FRTB  Fartura          18.87 100  eP      P       07 40 11.2 -1.6
FRTB  Fartura          18.87 100   P      P       07 40 12.3 -0.5
         comp=Z,57µmcomp=Z,2µm,0.8s
PLCA  Paso Flores      19.28 182   P      P       07 40 17.2 +0.1
         comp=Z,8.3nm,0.3s,baz=4.1,slow=13,SNR=150
PLCA                               S      Sn      07 43 54.4 +0.5
         comp=Z,40nm,0.9s,baz=307,slow=20,SNR=1.4
         comp=Z,352nm,0.8s
PLCA                               AML    AML
PLCA  Paso Flores      19.28 182   P      Pn      07 40 18.1 -0.4
PLCA                               pmax   pmax
         comp=Z,2µm,1.4s
PLCA  Paso Flores      19.28 182   P      Pn      07 40 18.1 -0.4
PLCA  Paso Flores      19.28 182  ⇑P      P       07 40 17.3 +0.1
PLCA  Paso Flores      19.28 182  eP      P       07 40 17.5 +0.4
PLCA  Paso Flores      19.28 182   P      Pn      07 40 18.4 -0.2
         comp=Z,43µmcomp=Z,2µm,1.5s
MCRA  Macar, Loja      19.56 329   P      P       07 40 21.1 +0.7
         comp=Z,86µmcomp=Z,50µmcomp=Z,784nm,0.9s
LL03  Petrohue         19.79 186   P      P       07 40 23.5 +0.8
LL03                               IAmb   IAmb    07 40 32.9
         comp=Z,4µm,0.9s
LL03  Petrohue         19.79 186   P      Pn      07 40 24.0 -0.5
         comp=Z,55µmcomp=Z,6µm,0.9s
BB19B Bebedouro        19.89  93  eP      P       07 40 22.4 -1.5
SNDB  Serra Nova Dou   20.09  65  eP      P       07 40 23.4 -2.7
LL05  Los Muermos      20.18 188   P      Pn      07 40 28.0 -1.0
         comp=Z,45µmcomp=Z,3µm,0.9s,comp=Z,45µm
MACA  Manacapuru-AM    20.21  27  eP      P       07 40 24.8 -2.6
IPMB  Ipameri, GO      20.66  84  eP      P       07 40 29.9 -2.5
SPB   Sao Paulo        20.84 100   P      P       07 40 33.3 -0.8
SPB   Sao Paulo        20.84 100  ⇑P      P       07 40 32.7 -1.5
SPB   Sao Paulo        20.84 100   P      P       07 40 34.0 -0.2
SPB                                S      S       07 44 15.5 -8.5
SPB   Sao Paulo        20.84 100  eP      P       07 40 32.6 -1.5
SPB   Sao Paulo        20.84 100   P      P       07 40 32.9 -1.2
         comp=Z,25µmcomp=Z,809nm,1.8s
PET01 Itanhaem-SP      21.01 102  eP      P       07 40 34.0 -2.0
PUYO  Puyo, Santa Ro   21.33 337   S      S       07 44 32.9 -1.2
BDFB  Brasilia         21.48  78   P      P       07 40 39.9 -1.4
         comp=Z,143nm,0.5s,baz=247,slow=12,SNR=184
BDFB                               S      S       07 44 31.2 -6.0
         comp=Z,33nm,0.9s,baz=270,slow=20,SNR=1.0
BDFB                               LR     LR      07 50 00.4
         comp=Z,19µm,20.1s,baz=259,slow=40
         comp=Z,143nm,0.5s
BDFB  Brasilia         21.48  78   P      P       07 40 40.7 -0.6
BDFB                               pmax   pmax
         comp=Z,2µm,1.5s
BDFB  Brasilia         21.48  78   P      P       07 40 40.7 -0.6
LL07  Hotel Espejo d   21.58 187   P      P       07 40 41.8 -0.1
LL07                               IAmb   IAmb    07 41 02.1
         comp=Z,6µm,1.4s
LL07  Hotel Espejo d   21.58 187   P      P       07 40 43.4 +1.4
         comp=Z,59µmcomp=Z,4µm,1.2s,comp=Z,59µm
CHSH  Refugio Sur-Vo   21.65 335   S      S       07 44 38.0 -3.2
LL02  Futaleuf         21.79 184   P      P       07 40 44.3 +0.2
LL02  Futaleuf         21.79 184  ⇑P      P       07 40 44.0 -0.1
LL02  Futaleuf         21.79 184   P      P       07 40 44.4 +0.2
         comp=Z,19µmcomp=Z,1µm,1.5s,comp=Z,19µm
ITTB  Itaituba         21.79  41  eP      P       07 40 40.9 -3.5
PIAT  Ana Tenorio      21.87 337   P      P       07 40 47.8 +2.1
         comp=Z,117µmcomp=Z,56µmcomp=Z,2µm,1.5s
GO07  Milladeo Hill,   21.88 187   P      P       07 40 45.9 +0.7
GO07                               IAmb   IAmb    07 41 07.1
         comp=Z,4µm,1.1s
GO07  Milladeo Hill,   21.88 187   P      P       07 40 47.4 +2.2
         comp=Z,32µmcomp=Z,3µm,0.8s
CANS  Sao Roque de M   21.96  91  eP      P       07 40 43.7 -2.6
PTLC  Puerto Leguiza   21.98 347   P      P       07 40 39.7 -6.7
PMNB  Patos De Minas   22.20  87  ⇑P      P       07 40 47.0 -1.8
PMNB  Patos De Minas   22.20  87  eP      P       07 40 46.1 -2.8
PMNB  Patos De Minas   22.20  87   P      P       07 40 47.4 -1.5
         comp=Z,13µmcomp=Z,376nm,1.2s,comp=Z,13µm
SLOR  San Lorenzo -    22.21 337   P      P       07 40 51.1 +1.7
SLOR                               S      S       07 44 51.3 -0.3
ANTS  Antisana-Sarah   22.30 338   P      P       07 40 51.5 +0.9
ANTS                               S      S       07 44 56.8 +3.3
PPLP  Puerto Lpez      22.42 330   P      P       07 40 52.2 +1.0
         comp=Z,35µmcomp=Z,12µmcomp=Z,659nm,0.8s
IMBA  Imbabura, San    23.03 338   S      S       07 45 08.4 +2.6
OTAV  Otavalo          23.09 338   P      P       07 40 59.9 +1.2
OTAV                               pmax   pmax
         comp=Z,2µm,2.0s
OTAV  Otavalo          23.09 338   P      P       07 40 59.9 +1.2
OTAV  Otavalo          23.09 338   P      P       07 40 59.1 +0.5
         comp=Z,87µmcomp=Z,49µmcomp=Z,683nm,2.1s
OTAV  Otavalo          23.09 338  ⇑P      P       07 40 59.5 +0.9
OTAV  Otavalo          23.09 338   P      P       07 40 59.8 +1.2
OTAV                               S      S       07 45 07.7 +1.0
OTAV  Otavalo          23.09 338  eP      P       07 40 58.6  0.0
OTAV  Otavalo          23.09 338   P      P       07 40 59.8 +1.2
         comp=Z,48µmcomp=Z,1µm,2.7s
CUSE  Cuicocha Este    23.13 338   P      P       07 41 00.8 +1.8
         comp=Z,155µmcomp=Z,48µmcomp=Z,1µm,2.1s
PAC1  Pacto, Paraso    23.24 337   P      P       07 41 00.5 +0.7
         comp=Z,68µmcomp=Z,55µmcomp=Z,2µm,2.6s
TULM  Tulcn-Chalpat    23.31 340   P      P       07 41 02.1 +1.3
         comp=Z,78µmcomp=Z,121µmcomp=Z,5µm,2.0s
BSCB  Bom Sucesso      23.39  94  eP      P       07 40 58.3 -2.8
BSCB  Bom Sucesso      23.39  94   P      P       07 41 00.1 -1.0
         comp=Z,13µmcomp=Z,379nm,0.9s,comp=Z,13µm
CMBC  Cumbal           23.53 340   P      P       07 41 05.5 +2.6
MACC  Macarena, Meta   23.73 350   P      P       07 41 03.0 -1.3
         comp=Z,50µmcomp=Z,15µmcomp=Z,538nm,1.7s
CRUC  La Cruz          23.86 342   P      P       07 41 13.3 +7.4
GARC  Garzon, Huila    24.08 346   P      P       07 41 07.1 -0.7
         comp=Z,91µmcomp=Z,131µmcomp=Z,6µm,2.0s
COYC  Coyhaique        24.18 184   P      P       07 41 08.6 +0.5
COYC                               IAmb   IAmb    07 41 31.5
         comp=Z,4µm,1.5s
COYC  Coyhaique        24.18 184  ⇓P      P       07 41 08.4 +0.3
COYC  Coyhaique        24.18 184   P      P       07 41 06.9 -1.3
COYC                               S      S       07 45 20.7 -2.3
COYC  Coyhaique        24.18 184   P      P       07 41 08.6 +0.5
         comp=Z,21µmcomp=Z,2µm,1.4s,comp=Z,21µm
BBAC  Balboa, Cauca    24.38 342   P      P       07 41 10.7 +0.2
         comp=Z,74µmcomp=Z,66µmcomp=Z,8µm,1.3s
BETC  Betania          24.55 346   P      P       07 41 15.0 +3.1
POPC  Popayan, Colom   24.71 344   P      P       07 41 14.7 +1.2
         comp=Z,95µmcomp=Z,108µmcomp=Z,4µm,2.0s
SMTB  Santa Maria do   24.81  63  eP      P       07 41 12.6 -1.6
DIAM  Diamantina, MG   24.82  87  eP      P       07 41 12.9 -1.5
MC01  Montes Claros    24.93  84  eP      P       07 41 13.3 -2.0
BOAV  Boa Vista        25.36  22   P      P       07 41 18.6 -0.5
BOAV  Boa Vista        25.36  22   P      P       07 41 18.6 -0.5
         comp=Z,32µmcomp=Z,20µmcomp=Z,1µm,1.4s
BOAV  Boa Vista        25.36  22  eP      P       07 41 18.1 -1.0
PRAC  Prado            25.44 348   P      P       07 41 20.4 +0.5
         comp=Z,60µmcomp=Z,94µmcomp=Z,5µm,1.9s
PRAC  Prado            25.44 348   P      P       07 41 20.2 +0.2
PRAC                               S      S       07 45 46.1 +2.2
SDBA  SAO DESIDERIO    25.47  73  eP      P       07 41 18.6 -1.7
VILC  Villavicencio,   25.63 351   P      P       07 41 22.1 +0.3
ORTC  Ortega, Tolima   25.70 348   P      P       07 41 23.0 +0.7
         comp=Z,67µmcomp=Z,155µmcomp=Z,11µm,1.5s
CVER  Cruz Verde, Cu   26.09 350   P      P       07 41 26.4 +0.1
         comp=Z,67µmcomp=Z,3µm,1.7s
CHIC  Chingaza         26.15 351   P      P       07 41 26.3 -0.4
         comp=Z,49µmcomp=Z,40µmcomp=Z,2µm,1.5s
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CAM01 Campos-RJ        26.21  96  eP      P       07 41 24.5 -2.4
ARMEC Armenia, Quind   26.42 347   P      P       07 41 31.8 +2.9
ROSC  El Rosal         26.44 350   P      P       07 41 29.6 +0.2
         comp=Z,78nm,0.6s,baz=149,slow=5.1,SNR=33
ROSC                               LR     LR      07 52 45.6
         comp=Z,52µm,21.6s,baz=192,slow=38
         comp=Z,78nm,0.6s
ROSC  El Rosal         26.44 350   P      P       07 41 30.7 +1.3
ROSC                               pmax   pmax
         comp=Z,6µm,1.6s
ROSC  El Rosal         26.44 350   P      P       07 41 30.7 +1.3
ROSC  El Rosal         26.44 350   P      P       07 41 31.3 +1.9
         comp=Z,50µmcomp=Z,48µmcomp=Z,2µm,2.1s
ARCA  Ara§uai, MG      26.73  85  eP      P       07 41 30.3 -1.3
GUY2C Guyana, Caldas   27.01 348   P      P       07 41 34.7 +0.1
         comp=Z,50µmcomp=Z,34µmcomp=Z,2µm,1.5s
SJMB  Sao Joao De Ma   27.06  89  eP      P       07 41 33.3 -1.2
GO08  Villa O’Higgin   27.09 184   P      P       07 41 36.1 +1.6
GO08                               IAmb   IAmb    07 42 01.8
         comp=Z,1µm,1.1s
GO08  Villa O’Higgin   27.09 184   P      P       07 41 36.8 +2.3
         comp=Z,15µmcomp=Z,1µm,1.3s,comp=Z,15µm
SPBC  San Pablo de B   27.20 351   P      P       07 41 34.9 -1.0
         comp=Z,38µmcomp=Z,32µmcomp=Z,2µm,1.5s
PIZC  Pizarro, Choco   27.22 343   P      P       07 41 38.9 +3.0
         comp=Z,75µmcomp=Z,130µmcomp=Z,7µm,1.9s
NORC  Norcasia         27.25 349   P      P       07 41 35.1 -1.1
         comp=Z,38µmcomp=Z,31µmcomp=Z,2µm,1.3s
RUSC  La Rusia         27.31 353   P      P       07 41 36.8 -0.5
         comp=Z,56µmcomp=Z,97µmcomp=Z,7µm,1.3s
RUSC  La Rusia         27.31 353   P      P       07 41 37.1 -0.2
RUSC                               S      S       07 46 09.0 -5.2
BSFB  Barra de Sao F   27.35  90  eP      P       07 41 36.2 -0.9
BSFB  Barra de Sao F   27.35  90   P      P       07 41 36.6 -0.5
         comp=Z,10µmcomp=Z,116nm,0.7s
RIB01 Linhares ES      27.69  91  eP      P       07 41 37.9 -2.2
CBOC  Ciudad Bolivar   27.76 347   P      P       07 41 40.4 -0.6
         comp=Z,35µmcomp=Z,19µmcomp=Z,1µm,1.6s
BARC  Barichara        28.01 353   P      P       07 41 43.0 -0.3
         comp=Z,38µmcomp=Z,44µmcomp=Z,3µm,1.7s
PTBC  PUERTO BERRIO,   28.13 350   P      P       07 41 41.8 -2.3
         comp=Z,32µmcomp=Z,22µmcomp=Z,2µm,1.6s
SOLC  Bahia Solano     28.44 344   P      P       07 41 48.7 +1.9
PAYG  Puerto Ayora     28.66 313   P      P       07 41 47.6 -1.2
PAYG  Puerto Ayora     28.66 313   P      P       07 41 46.8 -2.1
         comp=Z,7µmcomp=Z,267nm,1.9s,comp=Z,7µm
PAMC  Pamplona, Colo   28.70 354   P      P       07 41 48.5 -1.2
GUA01 Guaratinga, BA   28.80  86  eP      P       07 41 48.4 -1.6
CMC01 Camacan, BA      29.38  83  eP      P       07 41 54.1 -1.2
PTAC  Punta Ardita,    29.43 344   P      P       07 41 56.1 +0.5
         comp=Z,25µmcomp=Z,1µm,1.5s
UREC  San Jos de Ur    29.50 349   P      P       07 41 54.7 -1.6
         comp=Z,27µmcomp=Z,22µmcomp=Z,1µm,1.6s
NBIT  Itapeh - BA      29.58  83  eP      P       07 41 54.6 -2.5
OCAC  Ocana            29.65 353   P      P       07 41 54.4 -3.4
         comp=Z,20µmcomp=Z,10µmcomp=Z,659nm,1.4s
APAC  Apartado, Choc   29.86 347   P      P       07 42 00.4 +1.0
         comp=Z,45µmcomp=Z,30µmcomp=Z,2µm,1.6s
SDV   Santo Domingo    30.11 358   LR     LR      07 55 12.7
         comp=Z,53µm,19.2s,baz=183,slow=38
SDV   Santo Domingo    30.11 358   P      P       07 42 00.5 -1.4
SDV                                IAmb   IAmb    07 42 21.1
         comp=Z,2µm,1.5s
SDV   Santo Domingo    30.11 358   P      P       07 42 00.4 -1.4
         comp=Z,141µmcomp=Z,78µmcomp=Z,6µm,1.2s
SDV   Santo Domingo    30.11 358   P      P       07 42 00.1 -1.8
         comp=Z,77µmcomp=Z,6µm,1.2s,comp=Z,77µm
SDV   Santo Domingo    30.11 358   P      P       07 42 00.6 -1.4
SDV                                pP     pP      07 42 13.0 -1.5
CACAO El Cacao, Vera   30.54 338   P      P       07 42 07.4 +2.0
         comp=Z,13µmcomp=Z,498nm,2.1s
LCBC  Los crdobas,     30.74 347   P      P       07 42 09.6 +2.4
         comp=Z,44µmcomp=Z,40µmcomp=Z,2µm,1.3s
AZU   Azuero           30.76 340   P      P       07 42 09.7 +2.3
         comp=Z,24µmcomp=Z,10µmcomp=Z,298nm,2.4s
GMAL  Guarumal, Vera   31.06 338   P      P       07 42 12.1 +2.1
         comp=Z,13µmcomp=Z,511nm,2.4s
MDP   Montagnes des    31.29  35   LR     LR      07 55 54.7
         comp=Z,26µm,19.9s,baz=208,slow=38
MPGF  Montagnes des    31.29  35  ⇑P      P       07 42 10.9 -1.2
MG02  Cerro Sombrero   31.33 179  ⇓P      P       07 42 13.4 +1.4
MG02  Cerro Sombrero   31.33 179   P      P       07 42 13.8 +1.8
         comp=Z,3µm,1.1s
PNME  Penonome         31.43 340   P      P       07 42 15.2 +1.9
         comp=Z,17µmcomp=Z,838nm,1.7s
SJCC  San Jacinto, C   31.54 350   P      P       07 42 13.3 -1.0
         comp=Z,25µmcomp=Z,39µmcomp=Z,3µm,1.4s
SJCC  San Jacinto, C   31.54 350   P      P       07 42 13.2 -1.0
EFI   East Falkland    31.58 166 i P      P       07 42 14.2  0.0
EFI                                pmax   pmax
         comp=Z,417nm,1.0s
EFI                                MLR    MLR
         comp=Z,43µm,22.0s
EFI   East Falkland    31.58 166   P      P       07 42 14.5 +0.2
EFI                                IAmb   IAmb    07 42 35.0
         comp=Z,734nm,1.0s
EFI   East Falkland    31.58 166  ⇓P      P       07 42 14.4 +0.1
EFI   East Falkland    31.58 166   P      P       07 42 13.5 -0.8
EFI   East Falkland    31.58 166   P      P       07 42 14.6 +0.3
         comp=Z,9µmcomp=Z,838nm,1.1s
EFI   East Falkland    31.58 166   P      P       07 42 14.3  0.0
EFI                                sP     sP      07 42 33.5 +0.6
UPA   Univ. de Panam   31.65 342   P      P       07 42 16.9 +1.7
         comp=Z,10µmcomp=Z,6µmcomp=Z,267nm,1.9s
GO10  Punta Arenas     31.71 181  ⇑P      P       07 42 17.9 +2.4
GO10  Punta Arenas     31.71 181   P      P       07 42 18.7 +3.2
         comp=Z,962nm,1.3s
BCIP  Isla Barro Col   31.92 341   P      P       07 42 18.6 +1.0
         comp=Z,22µmcomp=Z,13µmcomp=Z,598nm,1.9s
BCIP  Isla Barro Col   31.92 341  ⇑P      P       07 42 18.9 +1.3
BCIP  Isla Barro Col   31.92 341   P      P       07 42 17.5 -0.1
BCIP                               S      S       07 47 24.7 -0.9
BCIP  Isla Barro Col   31.92 341   P      P       07 42 19.1 +1.5
         comp=Z,14µmcomp=Z,614nm,1.9s
NBPS  Pedro II - PI    32.35  62  eP      P       07 42 19.7 -1.8
CDITO Canoas           32.41 335   P      P       07 42 22.4 +0.5
CDITO                              S      S       07 47 32.6 -0.7
PIRO  Carate, Puerto   32.44 335   P      P       07 42 22.0 -0.2
BRU2  Volcan           32.55 336  eP      P       07 42 25.9 +2.6
TRN   Trinidad (W)     32.92  15  eP      P       07 42 25.1 -1.2
TRN                                x      S       07 47 39.6 -1.5
EDP2  Potrero Grande   32.94 335  eP      P       07 42 29.0 +2.4
NBTA  Tacaratu-PE      32.94  73  eP      P       07 42 24.3 -2.3
URI   Uribia           32.96 356   P      P       07 42 22.3 -4.4
URI                                S      S       07 47 29.4  -12
URIC  Uribia, Colomb   32.96 356   P      P       07 42 25.0 -1.7
         comp=Z,13µmcomp=Z,11µmcomp=Z,539nm,1.8s
NBMA  Muriti-CE        33.11  70  eP      P       07 42 26.8 -1.4
BURE  Buenos Aires     33.14 335  eP      P       07 42 30.7 +2.4
DRK0  Durika           33.19 335   P      P       07 42 28.5 -0.4
EDPE  Pejibaye, P      33.22 335  eP      P       07 42 31.5 +2.5
BRIBI Bribri           33.35 336  eP      P       07 42 33.0 +2.9
USHA  Ushuaia          33.40 178   LR     LR      07 58 09.2
         comp=Z,16µm,19.3s,baz=9.5,slow=40
BUS1  Rivas            33.65 335  eP      P       07 42 34.5 +1.2
QUEP  Quepos           33.71 334   P      P       07 42 29.9 -3.3
PIEC  Cerro El Cedra   33.80 334  eP      P       07 42 36.9 +2.6
PICV  PH. Pirrs        33.90 334  eP      P       07 42 37.5 +2.5
ABE2  San Pablo        33.91 334  eP      P       07 42 37.4 +2.1
LCR2  La Lucha 2       33.92 334   P      P       07 42 36.6 +1.2
LCR2  La Lucha 2       33.92 334  eP      P       07 42 37.3 +1.9
REPA  Paraso           33.95 335  eP      P       07 42 38.1 +2.5
PCAYA Pacayas          34.01 335  eP      P       07 42 38.8 +2.7
VTCV  VTCV, Calle Va   34.03 335  eP      P       07 42 38.5 +2.2
ACOS  Acosta           34.04 334  eP      P       07 42 38.7 +2.5
ABRB  Las Abras (San   34.05 335  eP      P       07 42 38.9 +2.4
CVTQ  Turrialba Volc   34.07 335  eP      P       07 42 39.5 +2.7
CVTR  Volcan Turrial   34.08 335  eP      P       07 42 39.6 +2.7
VICA  Volcano Irazu    34.08 335  eP      P       07 42 38.9 +1.9
RVLA  Villa Bonita     34.09 335  eP      P       07 42 39.3 +2.8
NBMO  Morrinhos-CE     34.11  62  eP      P       07 42 35.7 -1.1
ECI   Escuela Centro   34.12 334  eP      P       07 42 39.9 +2.9
CVIMO Finca Echandi    34.16 335  eP      P       07 42 38.4 +1.0
HDC   Heredia          34.20 334  ⇑P      P       07 42 40.1 +2.5
HDC   Heredia          34.20 334  eP      P       07 42 40.3 +2.6
HDC   Heredia          34.20 334  eP      P       07 42 38.4 +0.7
HDC   Heredia          34.20 334   P      P       07 42 40.5 +2.9
         comp=Z,25µmcomp=Z,812nm,2.2s,comp=Z,25µm
HDC   Heredia          34.20 334   PcP    PcP     07 45 09.1 -4.7
HEME  Heredia, Merce   34.21 334  eP      P       07 42 41.7 +4.0
GRW   Mount Saint Ca   34.31  14  eP      P       07 42 37.1 -1.4
GRW                                x      S       07 48 01.4 -1.5
GRHS  Sauteurs         34.38  14  eP      P       07 42 34.3 -4.7
GRSS  Sisters          34.46  14  eP      P       07 42 38.6 -1.1
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GRSS                                x       S        07 48 13.2 +8.3
VPL2  V. Platanar       34.59 334  eP       P        07 42 44.0 +2.9
JTS   Las Juntas de     34.81 333   LR      LR       07 57 05.8
      comp=Z,11µm,21.9s,baz=154,slow=36
JTS   Las Juntas de     34.81 333  i P      P        07 42 43.3 +0.5
JTS                                 pmax    pmax
      comp=Z,172nm,1.9s
JTS                                 MLR     MLR
      comp=Z,11µm,22.0s
JTS   Las Juntas de     34.81 333   P       P        07 42 45.0 +2.2
JTS   Las Juntas de     34.81 333  ⇑P       P        07 42 44.4 +1.6
JTS   Las Juntas de     34.81 333  eP       P        07 42 44.9 +2.0
JTS   Las Juntas de     34.81 333   P       P        07 42 44.4 +1.6
      comp=Z,12µmcomp=Z,344nm,2.6s,comp=Z,12µm
JTS   Las Juntas de     34.81 333   P       P        07 42 45.1 +2.3
JTS                                 pP      pP       07 42 57.7 +2.1
VACR  Volcan Arenal     34.86 334  eP       P        07 42 45.3 +2.0
ARE1  Arenal 1          34.87 334  eP       P        07 42 46.1 +2.8
VARE2 V. Arenal         34.87 334  eP       P        07 42 46.2 +2.8
CEDE  Laguna Cedeo      34.88 334  eP       P        07 42 46.4 +2.9
JUD3  Juan Diaz 3       34.95 332  eP       P        07 42 46.3 +2.2
QUEB  Quebradon, Cot    35.09 334  eP       P        07 42 47.5 +2.3
BAGA  Bagaces           35.15 333  eP       P        07 42 47.5 +1.8
TENO  El Achiote        35.19 334  eP       P        07 42 48.1 +1.9
CUI   Cuipilapa         35.23 333  eP       P        07 42 48.4 +2.0
HORNC Hornillas         35.28 333  eP       P        07 42 49.4 +2.4
MESS  Mesas             35.31 333  eP       P        07 42 49.7 +2.4
ALIBA Liberia Airpor    35.33 333  eP       P        07 42 50.1 +2.9
CANAL Canalete          35.34 334  eP       P        07 42 49.5 +2.1
VMAR  Armenia, Volca    35.35 333  eP       P        07 42 48.8 +1.4
CLARA Aguas Claras      35.35 333  eP       P        07 42 49.7 +2.2
UPAL  Upala             35.38 334  eP       P        07 42 48.8 +1.2
GPS2  Hotel Rincn d     35.39 333  eP       P        07 42 50.4 +2.5
VRLE  La Escondida,     35.43 333  eP       P        07 42 50.4 +2.2
LAPC  Finca la Perla    35.44 333  eP       P        07 42 49.2 +1.0
BUAI  Buenos Aires      35.49 333  eP       P        07 42 50.2 +1.5
PEJA  Penjamo Buenos    35.50 333  eP       P        07 42 51.3 +2.5
BBGH  Gun Hill          35.79  17  eP       P        07 42 56.9 +5.7
BBGH                                x       S        07 48 28.5 +3.1
BLUN  Bluefields        35.90 336   P       P        07 42 52.6 +0.5
      comp=Z,163nm,2.0s
SLCP  Castries, St.     36.25  15  eP       P        07 42 54.0 -1.1
SLCP                                x       S        07 48 32.2 -0.3
SLBI  Saint Lucia, B    36.27  15  eP       P        07 42 53.3 -2.0
SLBI                                x       S        07 48 23.9 -8.8
RPN   Rapa Nui          36.33 253   LR      LR       07 54 14.1
      comp=Z,5µm,18.5s,baz=98,slow=30
RPN   Rapa Nui          36.33 253   P       P        07 42 58.4 +2.6
      comp=Z,386nm,1.9s
PRVC  Isla de Provid    36.36 341   P       P        07 42 57.3 +1.2
      comp=Z,31µmcomp=Z,34µmcomp=Z,1µm,1.8s
NBPV  Pedro Velho       36.60  71  eP       P        07 42 57.3 -0.9
MPOM  Morne Pois Mar    36.70  15   P       P        07 42 56.7 -2.3
      comp=Z,26µmcomp=Z,2µm,1.6s
BIM   Bigot             36.72  14  eP       P        07 42 57.1 -2.1
BIM                                 x       S        07 48 38.2 -1.6
BIM   Bigot             36.72  14   P       P        07 42 56.7 -2.5
      comp=Z,26µmcomp=Z,2µm,1.4s
FDFM  Morne la Roset    36.91  14   P       P        07 42 58.5 -2.3
FDFM                                pP      pP       07 43 12.4 -1.3
SVN   Savane Anatole    37.02  14   P       P        07 43 01.1 -0.6
SVN   Savane Anatole    37.02  14  eP       P        07 43 00.6 -1.1
SVN                                 x       S        07 48 59.4  +15
ILAM  Ilet Lapin Mar    37.02  15  eP       P        07 43 11.5  +10
MGAN  Managua           37.02 333   P       P        07 43 03.8 +2.1
      comp=Z,18µmcomp=Z,618nm,2.5s
MGAN  Managua           37.02 333   P       P        07 43 02.8 +1.1
      comp=Z,17µmcomp=Z,648nm,1.8s
BOAB  BOACO BROADBAN37.05 334  ⇑P       P        07 42 57.1 -4.8
BOAB  BOACO BROADBAN37.05 334   P       P        07 43 02.7 +0.8
      comp=Z,17µmcomp=Z,367nm,2.5s
CNGN  Cerro Negro       37.53 332   P       P        07 43 07.1 +1.0
      comp=Z,73µmcomp=Z,2µm,1.1s
DSLB  Salisbury         37.54  13  eP       P        07 42 55.1  -11
DSLB                                x       S        07 48 54.6 +2.5
SIUN  Universidad Ur    37.85 336   P       P        07 43 09.8 +1.1
CRIN  San Cristobal     37.86 332   P       P        07 43 09.2 +0.3
CRIN                                IAmb    IAmb     07 43 49.0
      comp=Z,1µm,2.0s
TBG   Guadaloupe-3      37.89  13  eP       P        07 43 05.4 -3.6
MMLZ  Guadeloupe Bro    38.07  13  eP       P        07 43 19.3 +8.8
DHSZ  Broadband at M    38.27  13  eP       P        07 43 09.8 -2.5
DSDZ  La Diserade, G    38.46  14  eP       P        07 43 10.7 -3.1
MLYT  Lee's Yard        38.63  12  eP       P        07 43 23.9 +8.7
SKI   Saint Kitts       39.12  11  eP       P        07 43 17.3 -2.1
TGUH  Tegucigalpa,Un    39.17 333   P       P        07 43 20.6 +0.7
      comp=Z,17µmcomp=Z,9µmcomp=Z,448nm,1.3s
TGUH  Tegucigalpa,Un    39.17 333  ⇑P       P        07 43 20.5 +0.6
TGUH  Tegucigalpa,Un    39.17 333   P       P        07 43 20.7 +0.8
      comp=Z,10µmcomp=Z,453nm,1.3s
SEUS  St. Eustatius     39.24  10  eP       P        07 43 17.8 -2.5
SEUS                                x       S        07 49 22.9 +5.3
SABA  Saba              39.32  10  eP       P        07 43 20.6 -0.4
SABA                                x       S        07 49 27.6 +8.6
SJG   San Juan          39.44   6   LR      LR       08 01 32.3
      comp=Z,12µm,19.4s,baz=205,slow=39
SJG   San Juan          39.44   6   P       P        07 43 19.3 -2.7
      comp=Z,16µmcomp=Z,30µmcomp=Z,2µm,1.2s
SJG   San Juan          39.44   6  ⇑P       P        07 43 18.9 -3.1
SJG   San Juan          39.44   6  eP       P        07 43 19.5 -2.5
SJG                                 x       S        07 49 17.3 -3.4
SJG   San Juan          39.44   6   P       P        07 43 19.5 -2.5
      comp=Z,31µmcomp=Z,2µm,1.2s
SJG   San Juan          39.44   6   P       P        07 43 19.5 -2.5
SJG                                 pP      pP       07 43 32.8 -2.1
SJG                                 sP      sP       07 43 39.4 -1.2
PCJ   Portland Cotta    39.55 349  i P      P        07 43 22.9  0.0
ANWB  Willy Bob         39.63  12  ⇑P       P        07 43 19.9 -3.6
ANWB  Willy Bob         39.63  12  eP       P        07 43 18.9 -4.6
ANWB  Willy Bob         39.63  12   P       P        07 43 19.4 -4.2
      comp=Z,14µmcomp=Z,858nm,1.3s
SMRT  St. Maarten       39.77  10  eP       P        07 43 21.4 -3.4
SMRT  St. Maarten       39.77  10   P       P        07 43 21.1 -3.7
      comp=Z,21µmcomp=Z,2µm,1.4s,comp=Z,21µm
STH   Stony Hill        39.82 350⇑iP       P        07 43 25.2  0.0
STH                                i P      P        07 43 25.5 +0.3
CVJ   Coleyville        40.09 349  i P      P        07 43 27.8 +0.2
SDDR  Presa de Saban    40.16 358  eP       P        07 43 22.1 -5.9
SC01  Santiago de lo    40.59 359   P       P        07 43 30.9 -0.6
SC01                                IAmb    IAmb     07 43 51.3
      comp=Z,2µm,1.3s
GTBY  Guantanamo Bay    41.40 353   P       P        07 43 32.4 -5.7
GTBY  Guantanamo Bay    41.40 353  ⇑P       P        07 43 37.0 -1.1
GTBY  Guantanamo Bay    41.40 353  eP       P        07 43 36.8 -1.4
GTBY  Guantanamo Bay    41.40 353   P       P        07 43 37.3 -0.8
      comp=Z,11µmcomp=Z,553nm,1.8s
APG   El Apazote        41.45 329   LR      LR       08 00 28.0
      comp=Z,783nm,20.0s,baz=250,slow=36
MARVS Santiago de Cu    41.57 351  eP       P        07 43 38.0 -1.6
CHIV  Chivirico         41.62 351  eP       P        07 43 38.4 -1.5
QMBU  Quimbuelo         41.63 353  eP       P        07 43 36.6 -3.5
PILO  Pilon             41.72 349  eP       P        07 43 40.8  0.0
LMGC  Las Mercedes      41.80 350  eP       P        07 43 39.6 -1.8
FSCY  Frank Sound, G    41.95 344  eP       P        07 43 43.4 +0.7
YAR   Yar               42.00 351  eP       P        07 43 41.8 -1.3
NMDO  Nuevo Mundo       42.01 353  eP       P        07 43 40.4 -2.8
CBCY  The Bluff, Cay    42.02 346  eP       P        07 43 43.9 +0.7
LCCY  Blossom Villag    42.02 346  eP       P        07 43 44.1 +0.8
PINC  Pinares de May    42.03 352  eP       P        07 43 39.4 -3.9
HLGC  Holguin           42.47 351  eP       P        07 43 47.7 +0.8
GRTK  Grand Turk        42.67 358   P       P        07 43 49.9 +1.4
      comp=Z,24µmcomp=Z,29µmcomp=Z,1µm,1.6s
GRTK  Grand Turk        42.67 358  eP       P        07 43 53.5 +5.0
CCCC  Cccc              43.04 349  eP       P        07 43 51.2 -0.3
PMSA  Palmer Station    43.52 176   P       P        07 43 55.8 +0.8
PMSA                                IAmb    IAmb     07 44 17.8
      comp=Z,758nm,0.9s
PMSA  Palmer Station    43.52 176  ⇓P       P        07 43 56.8 +1.8
PMSA  Palmer Station    43.52 176  eP       P        07 43 56.1 +1.2
PMSA  Palmer Station    43.52 176   P       P        07 43 57.1 +2.1
      comp=Z,9µmcomp=Z,908nm,0.9s
PMSA  Palmer Station    43.52 176   P       P        07 43 57.0 +2.1
PMSA                                sP      sP       07 44 16.6 +2.8
MGV   Manicaragua       44.36 347  eP       P        07 44 00.5 -1.6
CAIB  Caibarien         44.62 347  eP       P        07 44 04.7 +0.5
TEIG  Tepich            45.12 335   P       P        07 44 08.4 +0.2
TEIG                                IAmb    IAmb     07 44 29.5
      comp=Z,2µm,1.6s
TEIG  Tepich            45.12 335   P       P        07 44 07.0 -1.2
TEIG  Tepich            45.12 335  ⇑P       P        07 44 08.0 -0.3
TEIG  Tepich            45.12 335   P       P        07 44 08.4 +0.2
      comp=Z,17µmcomp=Z,766nm,1.3s
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TEIG  Tepich            45.12 335   P       P        07 44 08.4 +0.2
TEIG                                pP      pP       07 44 21.9 +0.5
TEIG                                sP      sP       07 44 28.8 +1.9
CMIG  Matias Romero     45.44 325   LR      LR       08 02 12.1
      comp=Z,6µm,21.4s,baz=151,slow=35
CAMR  Camarioca         45.59 345   P       P        07 44 12.6 +0.7
CAMR  Camarioca         45.59 345  eP       P        07 44 11.8 -0.1
SOR   Soroa             45.76 343   P       P        07 44 12.9 -0.4
SOR                                 pmax    pmax
      comp=Z,1µm,1.4s
SOR   Soroa             45.76 343   P       P        07 44 12.8 -0.4
SOR                                 IAmb    IAmb     07 44 34.4
      comp=Z,1µm,1.4s
SOR   Soroa             45.76 343  eP       P        07 44 12.7 -0.6
SOR   Soroa             45.76 343   P       P        07 44 13.4 +0.2
      comp=Z,17µmcomp=Z,572nm,2.7s
SMAI  San Martin Ant    46.76 179   P       P        07 44 21.8 +1.3
TLIG  Tlapa             47.86 322  ⇑P       P        07 44 31.3 +1.4
060A  Indiantown        49.21 348   P       P        07 44 40.3 +0.3
UNM   Universidad Na    49.62 323   P       P        07 44 46.2 +2.7
      comp=Z,14µmcomp=Z,806nm,2.8s
UNM   Universidad Na    49.62 323   P       P        07 44 46.1 +2.5
UNM                                 sP      sP       07 45 06.6 +4.5
DWPF  Disney Wildern    50.48 347   P       P        07 44 49.4 -0.1
DWPF  Disney Wildern    50.48 347  ⇑P       P        07 44 49.5  0.0
DWPF  Disney Wildern    50.48 347   P       P        07 44 49.8 +0.2
      comp=Z,20µmcomp=Z,1µm,1.4s
DWPF  Disney Wildern    50.48 347   P       P        07 44 49.3 -0.2
DWPF                                pP      pP       07 45 04.0 +1.1
MOIG  Morelia           51.05 321  ⇑P       P        07 44 55.8 +1.5
TRIS  Tristan da Cun    51.85 121   P       P        07 45 00.9 +1.0
TRIS                                IAmb    IAmb     07 45 21.2
      comp=Z,713nm,1.0s
TRIS  Tristan da Cun    51.85 121   P       P        07 45 01.4 +1.5
      comp=Z,13µmcomp=Z,797nm,1.5s
656A  Willston          51.93 346   P       P        07 44 60.0 -0.5
456A  Hilliard          53.13 347   P       P        07 45 09.5 +0.2
553A  Crawfordville     53.17 344   P       P        07 45 10.1 +0.4
BBSR  BB Station        53.70   5   P       P        07 45 12.9 -0.5
BBSR                                IAmb    IAmb     07 45 33.2
      comp=Z,645nm,1.3s
BBSR  BB Station        53.70   5  ⇓P       P        07 45 12.0 -1.4
BBSR  BB Station        53.70   5   P       P        07 45 12.6 -0.9
BBSR                                pP      pP       07 45 25.8 -1.0
257A  Skidaway Islan    54.14 348   P       P        07 45 16.7  0.0
TIGA  Tifton            54.16 346   P       P        07 45 16.2 -0.7
TIGA                                IAmb    IAmb     07 45 37.8
      comp=Z,1µm,1.5s
ZAIG  Zacatecas         54.26 322   P       P        07 45 18.7 +0.6
ZAIG                                IAmb    IAmb     07 45 41.7
      comp=Z,396nm,1.0s
ZAIG  Zacatecas         54.26 322  ⇑P       P        07 45 19.6 +1.5
ZAIG  Zacatecas         54.26 322   P       P        07 45 19.8 +1.7
      comp=Z,6µmcomp=Z,488nm,1.1s
352A  Blakely           54.53 344   P       P        07 45 18.9 -0.6
CSU   Charleston Sou    54.95 350   P       P        07 45 23.0 +0.4
H10N3 ASCENSION HYDR54.97  85   P       P        07 45 24.5 +1.7
      baz=249,slow=5.7,SNR=6.6
H10N1 ASCENSION HYDR54.99  85   P       P        07 45 24.3 +1.4
      baz=249,slow=5.7,SNR=7.6
H10N2 ASCENSION HYDR54.99  85   P       P        07 45 25.3 +2.3
      baz=249,slow=5.7,SNR=7.1
ASCN  Ascension         55.07  85   P       P        07 45 24.4 +0.5
ASCN  Ascension         55.07  85   P       P        07 45 24.0 +0.1
      comp=Z,15µmcomp=Z,719nm,1.3s
NHSC  New Hope          55.09 349   P       P        07 45 23.5 -0.1
NHSC  New Hope          55.09 349  ⇑P       P        07 45 23.9 +0.3
152A  Waverly Hall      55.61 345   P       P        07 45 26.1 -1.2
152A                                IAmb    IAmb     07 45 47.7
      comp=Z,497nm,1.3s
KVTX  Kingsville        55.70 330   P       P        07 45 30.1 +2.0
      comp=Z,22µmcomp=Z,1µm,1.8s
Y57A  Sumter            56.02 349   P       P        07 45 30.1 -0.1
Y57A                                IAmb    IAmb     07 45 51.5
      comp=Z,909nm,1.1s
GOGA  Godfrey           56.03 346   P       P        07 45 29.3 -1.0
GOGA  Godfrey           56.03 346  ⇓P       P        07 45 28.2 -2.1
GOGA  Godfrey           56.03 346   P       P        07 45 29.4 -0.9
      comp=Z,7µmcomp=Z,267nm,1.7s
JSC   Jenkinsville      56.43 349   P       P        07 45 32.4 -0.7
JSC                                 pmax    pmax
      comp=Z,488nm,1.1s
JSC   Jenkinsville      56.43 349   P       P        07 45 32.4 -0.7
JSC                                 IAmb    IAmb     07 45 54.3
      comp=Z,487nm,1.1s
LRAL  Lakeview Retre    56.55 343   P       P        07 45 32.8 -1.3
LRAL                                IAmb    IAmb     07 45 54.4
      comp=Z,520nm,1.3s
LRAL  Lakeview Retre    56.55 343  ⇑P       P        07 45 33.0 -1.1
HODGE Hodges            56.57 348   P       P        07 45 33.5 -0.7
HODGE                               IAmb    IAmb     07 45 55.1
      comp=Z,529nm,1.4s
BIRD  Birdtown, Kers    56.64 350   P       P        07 45 34.6 -0.1
BIRD                                IAmb    IAmb     07 45 56.0
      comp=Z,970nm,1.1s
HKT   Hockley           56.85 333c iP       P        07 45 36.1  0.0
HKT                                 pmax    pmax
      comp=Z,518nm,1.3s
HKT                                 MLR     MLR
      comp=Z,4µm,23.0s
HKT   Hockley           56.85 333   P       P        07 45 36.9 +0.8
HKT                                 IAmb    IAmb     07 45 59.0
      comp=Z,1µm,1.4s
HKT   Hockley           56.85 333  ⇑P       P        07 45 36.5 +0.4
HKT   Hockley           56.85 333   P       P        07 45 36.6 +0.4
      comp=Z,16µmcomp=Z,780nm,1.8s
HKT   Hockley           56.85 333   P       P        07 45 36.8 +0.7
HKT                                 pP      pP       07 45 50.5 +1.0
Z47A  Carrollton        57.01 342   P       P        07 45 36.1 -1.2
Z47A                                IAmb    IAmb     07 45 57.6
      comp=Z,1µm,1.5s
EF02  Christine         57.04 330   P       P        07 45 38.1 +0.5
BG3   Lake Jocassee     57.44 347   P       P        07 45 39.9 -0.5
BG3                                 IAmb    IAmb     07 46 01.4
      comp=Z,426nm,1.2s
X51A  Calhoun           57.46 345   P       P        07 45 39.3 -1.2
X51A                                IAmb    IAmb     07 46 01.0
      comp=Z,886nm,1.3s
V58A  Windy Hill, Pi    57.55 351   P       P        07 45 40.8 -0.3
143A  Socs Landing,     57.61 338   P       P        07 45 41.2 -0.3
FPAL  Fort Paine        57.61 345   P       P        07 45 40.7 -0.9
NATX  Nacogdoches       57.96 335  ⇑P       P        07 45 44.6 +0.6
TKL   Tuckaleechee C    58.26 347   LR      LR       08 14 33.4
      comp=Z,4µm,18.2s,baz=154,slow=40
TKL   Tuckaleechee C    58.26 347  ⇑P       P        07 45 44.8 -1.2
BELA  Belgrano 2        58.97 172   P       P        07 45 52.1 +1.6
BELA                                IAmb    IAmb     07 46 13.3
      comp=Z,365nm,1.2s
V48A  Smith Brothers    59.06 344   P       P        07 45 50.8 -0.8
TZTN  Tazewell          59.07 347   P       P        07 45 51.3 -0.3
TZTN                                IAmb    IAmb     07 46 12.3
      comp=Z,743nm,1.4s
TZTN  Tazewell          59.07 347  ⇑P       P        07 45 50.5 -1.2
TZTN  Tazewell          59.07 347   P       P        07 45 50.8 -0.9
      comp=Z,9µmcomp=Z,451nm,1.7s
JCT   Junction City     59.07 330   P       P        07 45 51.1 -0.7
JCT                                 pmax    pmax
      comp=Z,381nm,1.1s
JCT   Junction City     59.07 330   P       P        07 45 51.1 -0.7
JCT                                 IAmb    IAmb     07 46 14.1
      comp=Z,381nm,1.1s
JCT   Junction City     59.07 330  ⇑P       P        07 45 51.4 -0.5
BLA   Blacksburg        59.14 350   P       P        07 45 52.2  0.0
BLA                                 pmax    pmax
      comp=Z,3µm,1.9s
BLA   Blacksburg        59.14 350   P       P        07 45 52.2  0.0
HPIG                    59.25 323  ⇑P       P        07 45 54.0 +0.6
SLBS  Sierra La Lagu    59.42 317  ⇑P       P        07 45 56.0 +1.5
SLBS  Sierra La Lagu    59.42 317   P       P        07 45 56.3 +1.8
      comp=Z,10µmcomp=Z,666nm,1.9s
SLBS  Sierra La Lagu    59.42 317   P       P        07 45 56.4 +2.0
SLBS                                sP      sP       07 46 16.9 +3.7
U49A  Red Boiling Sp    59.53 345   P       P        07 45 53.6 -1.2
U49A                                IAmb    IAmb     07 46 15.3
      comp=Z,468nm,1.2s
WVT   Waverly           59.69 343  ⇑P       P        07 45 54.2 -1.8
WVT   Waverly           59.69 343   P       P        07 45 54.5 -1.5
      comp=Z,10µmcomp=Z,671nm,1.4s
WVT   Waverly           59.69 343   P       P        07 45 54.6 -1.3
WVT                                 pP      pP       07 46 08.4 -1.1
CBN   Corbin Frederi    59.71 353  ⇑P       P        07 45 56.0  0.0
MIAR  Mount Ida         60.03 337  ⇑P       P        07 45 57.8 -0.6
MIAR  Mount Ida         60.03 337  ⇑P       P        07 45 57.8 -0.6
MIAR  Mount Ida         60.03 337   P       P        07 45 58.0 -0.4
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      comp=Z,15µmcomp=Z,1µm,1.4s
TXAR  Lajitas Array     60.05 326   P       P        07 45 58.6  0.0
      comp=Z,14nm,0.7s,baz=149,slow=8.5,SNR=192
TXAR                                S       S        07 54 03.8 -4.5
      comp=Z,1.8nm,1.1s,baz=113,slow=3.4,SNR=2.4
TXAR                                LR      LR       08 10 42.9
      comp=Z,6µm,21.5s,baz=120,slow=35
TXAR                                PKP2bc  P'P'bc   08 15 33.5 +3.1
      comp=Z,1.3nm,1.1s,baz=204,slow=2.7,SNR=4.5
      comp=Z,14nm,0.7s
TXAR  Lajitas Array     60.05 326   P       P        07 45 58.1 -0.6
R55A  Marlinton         60.15 351   P       P        07 45 59.5 +0.4
GLAT  Glass             60.23 342   P       P        07 45 58.7 -0.9
VNA3  Neumayer Olymp    60.45 161  ⇓P       P        07 46 01.4 +0.6
      comp=Z,131nm,0.9s
VNA3                               ⇓pP      pP       07 46 15.7 +1.1
      comp=Z,292nm,0.8s
VNA3                               ⇓sP      sP       07 46 22.1 +1.9
      comp=Z,264nm,0.8s
VNA3                               ⇑S       S        07 54 14.6 +2.2
      comp=E,6.2nm,1.3s
VNA3                               ⇑P'P'df  P'P'df   08 15 29.3 +3.5
      comp=Z,5.6nm,1.0s
VNA3  Neumayer Olymp    60.45 161   P       P        07 46 01.7 +0.8
      comp=Z,5µmcomp=Z,576nm,0.9s
VNA1  Neumayer--Stat    60.67 160  ⇓P       P        07 46 03.5 +1.2
      comp=Z,260nm,1.2s
VNA1                               ⇓pP      pP       07 46 17.6 +1.5
      comp=Z,266nm,1.0s
VNA1                               ⇑P'P'df  P'P'df   08 15 29.7 +4.3
      comp=Z,13nm,1.3s
P61A  Hammonton         60.93 356   P       P        07 46 04.8 +0.5
VNA2  Neumayer--Watz    61.04 161  ⇓P       P        07 46 05.5 +0.7
      comp=Z,130nm,1.0s,baz=287,slow=6.7
VNA2                               ⇓pP      pP       07 46 19.6 +1.2
      comp=Z,282nm,0.9s,baz=290,slow=6.3
VNA2                               ⇓sP      sP       07 46 25.9 +2.0
      comp=Z,222nm,0.9s,baz=295,slow=6.7
VNA2                               ⇑S       S        07 54 21.3 +1.5
      comp=E,15nm,1.1s
VNA2                               ⇑P'P'df  P'P'df   08 15 28.6 +3.7
      comp=Z,4.4nm,0.8s,baz=77,slow=1.7
VNA2  Neumayer--Watz    61.04 161   P       P        07 46 05.6 +0.8
      comp=Z,4µmcomp=Z,515nm,0.9s
PBMO  Poplar Bluff      61.04 341   P       P        07 46 04.4 -0.7
WCI   Wyandotte Cave    61.29 345   P       P        07 46 05.8 -1.0
WCI   Wyandotte Cave    61.29 345  ⇑P       P        07 46 05.0 -1.8
WCI   Wyandotte Cave    61.29 345   P       P        07 46 05.2 -1.6
      comp=Z,12µmcomp=Z,731nm,1.4s
WCI   Wyandotte Cave    61.29 345   P       P        07 46 04.9 -1.8
WCI                                 pP      pP       07 46 19.4 -1.0
WCI                                 sP      sP       07 46 26.1 +0.1
MCWV  Mont Chateau      61.45 351  ⇓P       P        07 46 07.2 -0.7
SSPA  Standing Stone    62.17 353   P       P        07 46 12.8 +0.2
SSPA                                pP      pP       07 46 27.9 +1.6
WMOK  Wichita Mounta    62.23 333   P       P        07 46 11.9 -1.4
WMOK  Wichita Mounta    62.23 333   P       P        07 46 12.2 -1.0
      comp=Z,5µmcomp=Z,284nm,1.7s
CCM   Cathedral Cave    62.47 341   P       P        07 46 14.0 -0.8
CCM                                 pP      pP       07 46 27.6 -0.8
ACSO  Alum Creek Sta    62.52 349  ⇑P       P        07 46 14.2 -0.8
SNAA  Sanae             62.66 161  ⇓P       P        07 46 16.4 +0.6
      comp=Z,4µm,1.0s
SNAA                               ⇓pP      pP       07 46 30.6 +1.2
      comp=Z,5µm,0.7s
SNAA                               ⇓sP      sP       07 46 37.0 +2.0
      comp=Z,8µm,0.9s
SNAA                               ⇑S       S        07 54 41.3 +0.8
      comp=E,130nm,0.9s
SNAA                               ⇑P'P'df  P'P'df   08 15 23.9 +1.6
      comp=Z,109nm,1.1s
SNAA  Sanae             62.66 161   P       P        07 46 16.4 +0.6
      comp=Z,293nm,1.1s,baz=280,slow=6.1,SNR=171
SNAA                                S       S        07 54 38.8 -1.6
      comp=Z,1.5nm,0.8s,baz=317,slow=13,SNR=1.2
SNAA                                PKPPKP  P'P'df   08 15 21.0 -1.3
      comp=Z,8.6nm,1.2s,baz=102,slow=3.1,SNR=10
      comp=Z,293nm,1.1s
SNAA  Sanae             62.66 161d iP       P        07 46 16.4 +0.6
SNAA                                pmax    pmax
      comp=Z,380nm,1.2s
SNAA                                MLR     MLR
      comp=Z,5µm,19.0s
SNAA  Sanae             62.66 161   P       P        07 46 16.1 +0.3
SNAA                                IAmb    IAmb     07 46 38.1
      comp=Z,602nm,1.1s
SNAA  Sanae             62.66 161  ⇑P       P        07 46 16.3 +0.6
SNAA  Sanae             62.66 161   P       P        07 46 16.5 +0.8
      comp=Z,4µmcomp=Z,549nm,1.1s
MNTX  Cornudas Mount    62.82 326  ⇑P       P        07 46 16.5 -0.8
MNTX  Cornudas Mount    62.82 326   P       P        07 46 16.7 -0.5
      comp=Z,6µmcomp=Z,362nm,1.4s
NPNY  Mohonk Preserv    62.96 356   P       P        07 46 18.2 +0.2
R40A  Maddies Statio    63.00 340   P       P        07 46 17.3 -0.9
BINY  Binghamton        63.53 355  ⇑P       P        07 46 22.0 +0.2
BINY  Binghamton        63.53 355   P       P        07 46 22.3 +0.5
      comp=Z,23µmcomp=Z,2µm,1.2s
HRV   Adam Dziewonsk    63.61 359   P       P        07 46 21.3 -0.9
HRV                                 pmax    pmax
      comp=Z,1µm,1.0s
HRV   Adam Dziewonsk    63.61 359   P       P        07 46 21.3 -0.9
HRV   Adam Dziewonsk    63.61 359  ⇑P       P        07 46 20.9 -1.3
HRV   Adam Dziewonsk    63.61 359   P       P        07 46 21.7 -0.5
      comp=Z,17µmcomp=Z,1µm,1.2s
HRV   Adam Dziewonsk    63.61 359   P       P        07 46 22.4 +0.2
HRV                                 pP      pP       07 46 36.5 +0.6
AMTX  Amarillo          63.61 331  ⇑P       P        07 46 21.7 -0.8
ERPA  Erie              63.89 352  ⇑P       P        07 46 23.9 -0.1
HDIL  Hopedale          64.24 344  ⇑P       P        07 46 24.5 -1.9
TROLL Troll, Antarti    64.38 161  ⇓P       P        07 46 28.0 +0.8
      comp=Z,4µm,0.8s
TROLL                              ⇓pP      pP       07 46 42.0 +1.1
      comp=Z,12µm,0.8s
TROLL                              ⇑S       S        07 55 03.4 +1.5
      comp=E,177nm,0.9s
TROLL                              ⇑P'P'df  P'P'df   08 15 20.1 +0.5
      comp=Z,296nm,1.0s
NCB   Newcomb           65.17 357   P       P        07 46 32.4  0.0
NCB                                 IAmb    IAmb     07 46 54.2
      comp=Z,1µm,1.2s
KSU1  Kansas State U    65.19 337   P       P        07 46 31.5 -1.2
KSU1                                IAmb    IAmb     07 46 53.5
      comp=Z,1µm,1.5s
CRNM  Carthage          65.29 327   P       P        07 46 34.0 +0.4
PECO  Prince Edward     65.34 354   P       P        07 46 33.0 -0.4
PECO                                IAmb    IAmb     07 46 54.6
      comp=Z,1µm,1.1s
LBNH  Lisbon            65.35 358  ⇑P       P        07 46 34.0 +0.5
LONY  Lake Ozonia       65.84 356  ⇑P       P        07 46 36.6 -0.2
ANMO  Albuquerque       65.94 328   S       S        07 55 23.0 +0.9
      comp=Z,0.8nm,0.8s,baz=320,slow=19,SNR=1.2
ANMO                                LR      LR       08 15 48.2
      comp=Z,5µm,20.7s,baz=130,slow=36
ANMO  Albuquerque       65.94 328ceP       P        07 46 38.2 +0.4
ANMO                                pmax    pmax
      comp=Z,243nm,1.1s
ANMO  Albuquerque       65.94 328  ⇑P       P        07 46 38.3 +0.4
ANMO  Albuquerque       65.94 328   P       P        07 46 38.6 +0.8
      comp=Z,11µmcomp=Z,462nm,1.9s
ANMO  Albuquerque       65.94 328   P       P        07 46 38.7 +0.9
ANMO                                pP      pP       07 46 52.8 +1.2
ANMO                                sP      sP       07 47 00.5 +3.4
K43A  Burlington        66.02 345   P       P        07 46 37.0 -0.9
CBKS  Cedar Bluff       66.12 335  ⇑P       P        07 46 38.6 -0.1
TUC   Tucson            66.22 323   P       P        07 46 40.7 +1.1
TUC                                 pP      pP       07 46 54.5 +1.2
TUC                                 sP      sP       07 47 01.9 +3.1
PKME  Peaks-Kenny Pk    66.35   0  ⇑P       P        07 46 38.9 -1.0
SADO  Sadowa            66.39 353   LR      LR       08 17 05.0
      comp=Z,9µm,20.3s,baz=185,slow=37
OTT   Ottawa            66.69 356   P       P        07 46 42.0 -0.1
JFWS  Jewell Farm       66.70 344  ⇑P       P        07 46 41.1 -1.2
NVL   N'lazarevskaya    67.24 159  eP       P        07 46 44.1 -1.3
NVL                                ePPP     PPP      07 50 53.8
NVL                                 pmax    pmax
      comp=Z,238nm,1.2s
NVL                                 MLR     MLR
      comp=Z,3µm,17.0s
I42A  Draeger Farm,     67.28 345   P       P        07 46 45.4 -0.6
I42A                                IAmb    IAmb     07 47 06.8
      comp=Z,940nm,1.1s
L34A  Svendsen Farm,    67.66 339   P       P        07 46 47.6 -0.8
SDCO  Great Sand Dun    67.72 330  ⇑P       P        07 46 49.8 +0.6
BATG  Bathurst New B    68.44   3   P       P        07 46 53.4 +0.3
BATG                                IAmb    IAmb     07 47 14.9
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       comp=Z,752nm,1.1s
MVCO  Mesa Verde        68.74 328 ⇑P        P         07 46 56.2 +0.7
QSPA  South Pole Qui    68.79 180  P        P         07 46 55.9 +0.5
       comp=Z,185nm,0.8s,baz=271,slow=0.6,SNR=620
QSPA                               S        S         07 55 57.6 +2.2
       comp=Z,4.2nm,1.2s,baz=15,slow=20,SNR=1.5
QSPA                               PKP2bc   P'P'bc    08 15 06.0 -6.6
       comp=Z,8.1nm,1.1s,baz=287,slow=3.6,SNR=7.3
QSPA                               LR       LR        08 16 19.9
       comp=Z,5µm,21.9s,baz=170,slow=35
       comp=Z,185nm,0.8s
QSPA  South Pole Qui    68.79 180  P        P         07 46 56.1 +0.7
QSPA                               IAmb     IAmb      07 47 18.6
       comp=Z,455nm,1.1s
QSPA  South Pole Qui    68.79 180  P        P         07 46 57.0 +1.6
QSPA                               pP       pP        07 47 11.8 +2.6
OGNE  Ogallala          68.86 334 ⇑P        P         07 46 55.9 -0.1
F42A  Maple Grove Fa    68.87 346  P        P         07 46 55.2 -0.7
F42A                               IAmb     IAmb      07 47 16.5
       comp=Z,2µm,2.0s
G40A  Rib Lake          68.89 345  P        P         07 46 54.9 -1.2
G40A                               IAmb     IAmb      07 47 16.9
       comp=Z,1µm,1.8s
WUAZ  Wupatki           68.94 325 ⇑P        P         07 46 57.9 +1.2
ECSD  EROS Data Cent    69.31 340 ⇑P        P         07 46 57.7 -1.0
ISCO  Idaho Springs     69.43 331  P        P         07 47 00.4 +0.5
ISCO  Idaho Springs     69.43 331 ⇑P        P         07 47 00.3 +0.5
DBIC  Dimbokro          69.56  74  P        P         07 47 00.5 -0.3
       comp=Z,86nm,1.0s,baz=242,slow=6.0,SNR=36
DBIC                               S        S         07 56 01.9 -3.9
       comp=Z,2.6nm,0.8s,baz=148,slow=19,SNR=1.1
DBIC                               LR       LR        08 17 07.9
       comp=Z,6µm,18.9s,baz=247,slow=36
       comp=Z,86nm,1.0s
DBIC  Dimbokro          69.56  74  P        P         07 47 00.7 -0.1
DBIC                               pmax     pmax
       comp=Z,496nm,1.0s
DBIC  Dimbokro          69.56  74  P        P         07 47 00.7 -0.1
DBIC                               IAmb     IAmb      07 47 22.5
       comp=Z,496nm,1.0s
DBIC  Dimbokro          69.56  74  P        P         07 47 00.8  0.0
DBIC                               pP       pP        07 47 15.5 +0.9
HMU   Henry Mountain    70.43 327  P        P         07 47 06.8 +0.8
HMU                                IAmb     IAmb      07 47 30.3
       comp=Z,1µm,1.2s
BELC  Belle Mtn. Jos    70.46 321  P        P         07 47 07.0 +0.9
PFO   Pinyon Flats O    70.46 320  LR       LR        08 14 38.9
       comp=Z,3µm,19.8s,baz=132,slow=33
PFO   Pinyon Flats O    70.46 320 i P       P         07 47 08.0 +1.9
PFO                                pmax     pmax
       comp=Z,819nm,1.3s
PFO   Pinyon Flats O    70.46 320  P        P         07 47 07.8 +1.7
       comp=Z,6µmcomp=Z,359nm,1.3s
PFO   Pinyon Flats O    70.46 320  P        P         07 47 07.9 +1.9
PFO                                pP       pP        07 47 22.2 +2.2
ELIB  Princess Elisa    70.83 161 dP        P         07 47 08.8 +0.9
       comp=Z,142nm,1.1s
ELIB                              dpP       pP        07 47 23.3 +1.5
HOR   Horta             71.06  33 eP        P         07 47 28.7  +19
HOR                               i IAmb    IAmb      07 47 31.2
       comp=Z,219nm,1.2s
HOR                               eS        S         07 56 31.6 +9.4
HOR                               eSS       SS        08 01 03.6 +6.8
HOR                               eLR       LR        08 09 59.0
HOR                               i IAMs_20 IAMs_20   08 16 54.7
       comp=Z,8µm,18.0s
CALA  Caldeira          71.06  33 eP        P         07 47 29.6  +20
CALA                              i IAmb    IAmb      07 47 31.4
       comp=Z,277nm,1.1s
CALA                              eS        S         07 56 29.0 +6.5
F33A  5 Mile Ranch,     71.10 341  P        P         07 47 09.1 -0.4
F33A                               IAmb     IAmb      07 47 30.4
       comp=Z,514nm,1.1s
PICO  Pico              71.14  33 eP        P         07 47 24.5  +14
PICO                              i IAmb    IAmb      07 47 27.3
       comp=Z,149nm,1.1s
PICO                              eS        S         07 56 33.4  +10
PICO                              eLR       LR        08 09 59.0
PICO                              i IAMs_20 IAMs_20   08 16 57.6
       comp=Z,8µm,20.0s
PID   Ribeirinha        71.25  34 eP        P         07 47 25.8  +15
ROSA  Rosais            71.40  33 eP        P         07 47 24.9  +13
ROSA                              i IAmb    IAmb      07 47 28.9
       comp=Z,152nm,1.4s
ROSA                              eS        S         07 56 33.7 +7.4
ROSA                              eLR       LR        08 10 03.0
ROSA                              i IAMs_20 IAMs_20   08 17 04.4
       comp=Z,8µm,18.0s
SRBC  Serra Branca      71.74  33 eP        P         07 47 26.6  +13
SRBC                              i IAmb    IAmb      07 47 30.6
       comp=Z,217nm,1.1s
SRBC                              eS        SKiKP     07 56 49.6 +1.5
SRBC                              eLR       LR        08 10 16.9
SRBC                              i IAMs_20 IAMs_20   08 17 13.2
       comp=Z,8µm,20.0s
PGRA  Graciosa          71.77  33 eP        P         07 47 27.4  +14
PGRA                              i IAmb    IAmb      07 47 35.7
       comp=Z,326nm,1.6s
PGRA                              eS        SKiKP     07 56 41.7 -6.5
PGRA                              eLR       LR        08 10 20.9
PGRA                              i IAMs_20 IAMs_20   08 17 14.6
       comp=Z,9µm,20.0s
TCRU  Three Creeks R    71.82 326  P        P         07 47 15.5 +1.1
TCRU                               IAmb     IAmb      07 47 37.9
       comp=Z,1µm,1.6s
PSMN  Pico do Norte,    71.82  36 eP        P         07 47 27.8  +14
PSMN                              i IAmb    IAmb      07 47 30.2
       comp=Z,74nm,1.6s
PSMN                              eS        S         07 56 37.7 +6.4
ADH   Angra Heroismo    71.87  34 eP        P         07 47 28.7  +14
ADH                               i IAmb    IAmb      07 47 36.5
       comp=Z,375nm,1.2s
ADH                               eS        SKiKP     07 56 41.7 -6.6
ADH                               eSS       SS        08 01 15.8 +6.4
ADH                               eLR       LR        08 10 36.9
ADH                               i IAMs_20 IAMs_20   08 16 24.6
       comp=Z,4µm,20.0s
PSBA  Serra de Santa    71.91  34 eP        P         07 47 27.5  +13
PAGU  Agualva, Azore    71.98  34 eP        P         07 47 29.6  +15
PAGU                              i IAmb    IAmb      07 47 32.3
       comp=Z,175nm,1.5s
PAGU                              eS        S         07 56 35.7 +2.7
PAGU                              eSS       SS        08 01 15.8 +4.7
PAGU                              eLR       LR        08 10 36.9
PAGU                              i IAMs_20 IAMs_20   08 16 37.1
       comp=Z,4µm,20.0s
PDA   Ponta Delgada     72.03  36 eP        P         07 47 30.3  +15
PDA                               i IAmb    IAmb      07 47 31.7
       comp=Z,387nm,1.3s
PSET  Sete Cidades      72.06  35 eP        P         07 47 29.0  +13
PSET                              i IAmb    IAmb      07 47 32.6
       comp=Z,248nm,1.1s
PSET                              eS        SKiKP     07 56 43.6 -5.0
PSET                              eLR       LR        08 10 50.8
PSET                              i IAMs_20 IAMs_20   08 16 15.7
       comp=Z,4µm,20.0s
CMLA  Cha da Macela     72.12  36 eP        P         07 47 33.5  +18
CMLA                              i IAmb    IAmb      07 47 37.6
       comp=Z,247nm,1.3s
CMLA                              eS        SKiKP     07 56 43.6 -5.1
CMLA                              eSS       SS        08 01 21.7 +8.5
CMLA                              eLR       LR        08 10 54.8
PGRON Lagoa das Cont    72.21  36 eP        P         07 47 31.1  +15
BART  Pico Bartolome    72.33  36 eS        SKiKP     07 56 43.6 -5.5
RSSD  Black Hills       72.33 335  P        P         07 47 17.8 +0.5
RSSD                               pmax     pmax
       comp=Z,624nm,1.4s
RSSD  Black Hills       72.33 335  P        P         07 47 18.0 +0.7
RSSD                               pP       pP        07 47 32.1 +0.9
AGMN  Agassiz Nation    73.19 342  P        P         07 47 21.4 -0.6
DUG   Dugway, Tooele    73.19 327 ⇑P        P         07 47 23.5 +1.1
ACRG  Accra             73.32  77  P        P         07 47 23.5 -0.1
ACRG  Accra             73.32  77  P        P         07 47 23.6 +0.1
       comp=Z,6µmcomp=Z,212nm,1.3s
CWC   Cottonwood Cre    73.37 321  P        P         07 47 24.6 +1.0
CWC                                IAmb     IAmb      07 47 47.2
       comp=Z,625nm,1.2s
PDAR  Pinedale Array    73.59 331  P        P         07 47 25.1 +0.3
       comp=Z,12nm,0.6s,baz=144,slow=5.5,SNR=108
PDAR                               S        SKiKP     07 56 50.8 -0.3
       comp=Z,0.5nm,0.8s,baz=11,slow=7.1,SNR=1.6
PDAR                               LR       LR        08 22 35.8
       comp=Z,1µm,20.1s,baz=120,slow=38
       comp=Z,12nm,0.6s
PDAR  Pinedale Array    73.59 331  P        P         07 47 24.2 -0.6
PMOZ  Porto Moniz, M    73.73  44 eS        S         07 57 01.3 +8.0
PMOZ                              eLQ       LQ        08 06 03.4
PMOZ                              eLR       LR        08 07 15.0
PMOZ                              i IAMs_20 IAMs_20   08 16 35.0
       comp=Z,3µm,22.0s
PPTF  Pamatai, Papee    74.46 257  P        P         07 47 33.7 +3.4
PPT   Papeete           74.48 257  P        P         07 47 31.5 +1.2
       comp=Z,114nm,1.1s,baz=80,slow=10,SNR=7.6
PPT                                LR       LR        08 13 14.7
       comp=Z,1µm,18.7s,baz=108,slow=30
       comp=Z,114nm,1.1s
ELK   Elko              74.84 326  LR       LR        08 19 58.0
       comp=Z,5µm,19.6s,baz=132,slow=35
ELK   Elko              74.84 326 ⇑P        P         07 47 32.9 +0.8
NVAR  Mina Array Bea    74.87 322  P        P         07 47 33.5 +1.1
       comp=Z,29nm,0.8s,baz=149,slow=6.0,SNR=238
       comp=Z,29nm,0.8s
ULM   Lac du Bonnet     74.96 343  P        P         07 47 31.7 -0.5
       comp=Z,32nm,0.7s,baz=148,slow=6.5,SNR=38
ULM                                LR       LR        08 24 52.1
       comp=Z,3µm,18.8s,baz=142,slow=39
       comp=Z,32nm,0.7s
ULM   Lac du Bonnet     74.96 343c iP       P         07 47 31.1 -1.2
ULM   Lac du Bonnet     74.96 343  P        P         07 47 31.5 -0.8
ULM                                IAmb     IAmb      07 47 53.3
       comp=Z,544nm,1.1s
SAO   San Andreas Ge    75.60 319  P        P         07 47 37.4 +1.1
SBA   Scott Base        75.76 191  P        P         07 47 39.0 +2.4
SBA   Scott Base        75.76 191  P        P         07 47 39.5 +2.9
CMB   Columbia Colle    75.81 321  P        P         07 47 38.4 +0.9
SCHQ  Schefferville     75.97   2  P        P         07 47 37.7 -0.2
       comp=Z,40nm,0.9s,baz=186,slow=4.8,SNR=29
SCHQ                               LR       LR        08 22 46.0
       comp=Z,2µm,19.5s,baz=193,slow=37
       comp=Z,40nm,0.9s
SCHQ  Schefferville     75.97   2  P        P         07 47 37.5 -0.4
SCHQ                               IAmb     IAmb      07 47 59.6
       comp=Z,746nm,1.2s
BOZ   Bozeman (W)       76.72 331  P        P         07 47 43.4 +0.7
VNDA  Vanda             76.79 190  P        P         07 47 44.6 +2.1
       comp=Z,25nm,0.9s,baz=135,slow=5.5,SNR=77
       comp=Z,25nm,0.9s
VNDA  Vanda             76.79 190  P        P         07 47 44.2 +1.8
VNDA  Vanda             76.79 190  P        P         07 47 45.2 +2.7
VNDA                               pP       sP        07 48 00.1 -1.9
SYO   Syowa Base        76.90 160⇑iP        P         07 47 43.0 -0.2
SYO   Syowa Base        76.90 160⇓iP        P         07 47 44.3 +1.1
BEKR  Beckworth         77.02 322  P        P         07 47 45.1 +0.6
BEKR                               IAmb     IAmb      07 48 07.9
       comp=Z,625nm,1.3s
TORD  Torodi Ar. Bea    78.16  71  P        P         07 47 50.4 -0.8
       comp=Z,30nm,0.6s,baz=252,slow=5.6,SNR=120
TORD                               LR       LR        08 21 32.6
       comp=Z,5µm,19.8s,baz=254,slow=35
       comp=Z,30nm,0.6s
BMO   Blue Mountains    78.86 328  P        P         07 47 55.0 +0.5
SUR   Sutherland        79.39 121  LR       LR        08 19 39.9
       comp=Z,5µm,21.1s,baz=241,slow=33
SUR   Sutherland        79.39 121  P        P         07 47 59.5 +1.5
TIO   Tiouine           79.46  51  P        P         07 47 58.1  0.0
KMPM  Mount Pierce      79.56 321  P        P         07 47 59.6 +1.3
KMPM                               IAmb     IAmb      07 48 21.9
       comp=Z,764nm,1.2s
YBH   Yreka Blue Hor    79.59 323  LR       LR        08 24 03.6
       comp=Z,2µm,18.2s,baz=132,slow=36
AVE   Averroes          80.63  49  P        P         07 48 04.9 +0.6
AVE   Averroes          80.63  49  P        P         07 48 04.8 +0.6
AVE                                IAmb     IAmb      07 48 27.0
       comp=Z,783nm,1.1s
FFC   Flin Flon         80.66 342 i P       P         07 48 04.0 +0.1
FFC   Flin Flon         80.66 342  P        P         07 48 03.7 -0.1
FFC                                pP       pP        07 48 19.4 +1.4
TSUM  Tsumeb            80.92 107  LR       LR        08 20 19.7
       comp=Z,4µm,21.4s,baz=262,slow=33
TSUM  Tsumeb            80.92 107  P        P         07 48 06.7 +0.4
TSUM  Tsumeb            80.92 107 i P       P         07 48 07.2 +0.9
TSUM  Tsumeb            80.92 107  P        P         07 48 07.2 +0.9
HAWA  Hanford           81.05 328  P        P         07 48 06.8 +0.6
HAWA                               IAmb     IAmb      07 48 29.4
       comp=Z,686nm,1.1s
NEW   Newport           81.22 330  LR       LR        08 26 36.2
       comp=Z,2µm,21.3s,baz=130,slow=37
NEW   Newport           81.22 330  P        P         07 48 06.9 -0.2
COR   Corvallis         81.79 325  P        P         07 48 11.4 +1.3
COR                                pmax     pmax
       comp=Z,1µm,1.2s
COR   Corvallis         81.79 325  P        P         07 48 11.9 +1.8
COR                                pP       sP        07 48 27.1 -2.6
PFVI  Vila Bisbo        81.80  45  P        P         07 48 10.0 -0.3
PFVI  Vila Bisbo        81.80  45 eP        P         07 48 11.0 +0.6
PFVI                              i IAmb    IAmb      07 48 32.9
       comp=Z,317nm,1.4s
PFVI  Vila Bisbo        81.80  45  P        P         07 48 10.6 +0.2
MORF  Marmelete         82.01  45 eP        P         07 48 12.0 +0.5
MORF                               IAmb     IAmb      07 48 34.5
       comp=Z,419nm,1.6s
MORF                              eS        S         07 58 22.6 +0.3
MORF  Marmelete         82.01  45 eP        P         07 48 12.1 +0.6
MORF                              i IAmb    IAmb      07 48 34.9
       comp=Z,283nm,1.7s
MORF  Marmelete         82.01  45 eP        P         07 48 12.0 +0.5
MORF                              eS        S         07 58 22.6 +0.3
EDA   Edea              82.10  83  P        P         07 48 13.6 +1.1
PTEO  Sao Teotonio      82.10  45 eP        P         07 48 12.8 +0.9
PTEO                              i IAmb    IAmb      07 48 35.6
       comp=Z,529nm,1.5s
IFR   Ifrane            82.36  50  P        P         07 48 14.6 +0.9
MDT   Midelt            82.37  50  LR       LR        08 25 53.4
       comp=Z,4µm,19.1s,baz=254,slow=36
RAR   Rarotonga         82.42 250  LR       LR        08 17 23.9
       comp=Z,2µm,20.2s,baz=112,slow=30
PBDV  Barranco-do-Ve    82.45  45  P        P         07 48 13.8  0.0
PBDV  Barranco-do-Ve    82.45  45 eP        P         07 48 14.9 +1.1
PBDV                              i IAmb    IAmb      07 48 37.2
       comp=Z,252nm,1.5s
LIS   Lisbon            82.49  43 eP        P         07 48 14.5 +0.6
LIS                                IAmb     IAmb      07 48 35.3
       comp=Z,555nm,1.9s
LIS                               eS        S         07 58 27.4 +0.3
LIS   Lisbon            82.49  43 eP        P         07 48 14.5 +0.6
LIS                               eS        S         07 58 27.4 +0.3
PLOUS Minas do Lousa    82.58  44 eP        P         07 48 14.9 +0.5
PLOUS                             i IAmb    IAmb      07 48 36.8
       comp=Z,148nm,1.5s
MESJ  Messejana         82.60  45 eP        P         07 48 15.0 +0.5
MESJ                               IAmb     IAmb      07 48 36.8
       comp=Z,159nm,1.2s
MESJ                              eS        S         07 58 28.5 +0.3
MESJ  Messejana         82.60  45 eP        P         07 48 15.1 +0.5
MESJ                              i IAmb    IAmb      07 48 37.2
       comp=Z,189nm,1.3s
MESJ  Messejana         82.60  45 eP        P         07 48 15.0 +0.5
MESJ                              eS        S         07 58 28.5 +0.3
PCVE  Castro Verde      82.60  45  P        P         07 48 13.8 -0.7
PCVE  Castro Verde      82.60  45 eP        P         07 48 15.3 +0.8
PCVE                              i IAmb    IAmb      07 48 37.2
       comp=Z,185nm,1.3s
PVAQ  Vaqueiros         82.69  45 eP        P         07 48 15.5 +0.5
PVAQ                              i IAmb    IAmb      07 48 37.6
       comp=Z,125nm,1.8s
PVAQ                              eS        SKSac     07 58 32.4 -0.2
PVAQ                              eLQ       LQ        08 09 04.5
PVAQ                              eLR       LR        08 12 13.5
PVAQ                              i IAMs_20 IAMs_20   08 21 12.9
       comp=Z,4µm,20.0s
MOE   Montemor          82.90  44 eP        P         07 48 16.3 +0.3
MOE                               i IAmb    IAmb      07 48 38.7
       comp=Z,268nm,1.2s
EGRO  El Granado        82.91  45  P        P         07 48 15.8 -0.3
PBEJ  Beja              82.94  45 eP        P         07 48 16.7 +0.4
PBEJ                              i IAmb    IAmb      07 48 38.8
       comp=Z,149nm,1.3s
EVO   Evora             83.12  44  P        P         07 48 17.1 -0.1
EVO   Evora             83.12  44 eP        P         07 48 17.3 +0.1
EVO                               i IAmb    IAmb      07 48 39.6
       comp=Z,127nm,1.5s
PSBE  So Bento          83.17  43 eP        P         07 48 18.0 +0.5
PSBE                              i IAmb    IAmb      07 48 40.9
       comp=Z,253nm,1.8s
PARRA Arraiolos         83.26  44 eP        P         07 48 18.3 +0.4
PARRA                             i IAmb    IAmb      07 48 40.5
       comp=Z,215nm,1.3s
PMTG  Montargil         83.29  44 eP        P         07 48 18.3 +0.3
PMTG                              i IAmb    IAmb      07 48 40.6
       comp=Z,284nm,1.4s
EDM   Edmonton          83.30 335  P        P         07 48 16.7 -1.2
EDM                                pmax     pmax
       comp=Z,981nm,1.1s
EDM   Edmonton          83.30 335  P        P         07 48 16.7 -1.2
EDM                                IAmb     IAmb      07 48 39.1
       comp=Z,981nm,1.1s
ECEU  Ceuta             83.45  48  P        P         07 48 19.4 +0.4
PBAR  Barrancos         83.56  45  P        P         07 48 19.4 -0.1
PBAR  Barrancos         83.56  45 eP        P         07 48 19.9 +0.4
PBAR                              i IAmb    IAmb      07 48 42.0
       comp=Z,145nm,1.3s
EMIN  Mina Concepcio    83.58  45  P        P         07 48 19.4 -0.2
PESTR Estremoz          83.58  44  P        P         07 48 20.0 +0.3
PESTR Estremoz          83.58  44 eP        P         07 48 20.4 +0.7
PESTR                             i IAmb    IAmb      07 48 42.2
       comp=Z,91nm,1.7s
PSARD Sardoal           83.63  43 eP        P         07 48 20.2 +0.4
PSARD                             i IAmb    IAmb      07 48 42.6
       comp=Z,347nm,1.5s
ESPR  Espera            83.64  46  P        P         07 48 20.0 +0.1
PCAS  Casmilo, Conde    83.67  43 eP        P         07 48 20.4 +0.4
PCAS                              i IAmb    IAmb      07 48 42.4
       comp=Z,193nm,1.5s
PMRV  Marv??o           84.02  44 eP        P         07 48 21.6 -0.2
PMRV                              i IAmb    IAmb      07 48 43.8
       comp=Z,137nm,1.3s
PMRV                              eS        S         07 58 44.5 +1.9
PMRV                              eLQ       LQ        08 10 19.7
PMRV                              eLR       LR        08 11 23.3
PMRV                              i IAMs_20 IAMs_20   08 22 50.3
       comp=Z,4µm,20.0s
IVI   Ivigtut           84.16  10  P        P         07 48 21.9  0.0
IVI                                IAmb     IAmb      07 48 44.1
       comp=Z,408nm,1.2s
PCBR  Castelo Branco    84.20  43 eP        P         07 48 22.6  0.0
PCBR                              i IAmb    IAmb      07 48 44.7
       comp=Z,202nm,1.5s
PTO   Porto             84.22  42 eP        P         07 48 22.9 +0.1
PTO                               i IAmb    IAmb      07 48 45.6
       comp=Z,424nm,1.5s
BOSA  Boshof            84.27 118  P        P         07 48 23.5 -0.2
       comp=Z,142nm,1.0s,baz=249,slow=4.4,SNR=80
BOSA                               LR       LR        08 21 55.4
       comp=Z,6µm,21.7s,baz=250,slow=33
       comp=Z,142nm,1.0s
BOSA  Boshof            84.27 118  P        P         07 48 23.8 +0.1
BOSA                               pmax     pmax
       comp=Z,174nm,1.0s
BOSA  Boshof            84.27 118  P        P         07 48 23.8 +0.1
BOSA  Boshof            84.27 118 i P       P         07 48 24.1 +0.5
BOSA  Boshof            84.27 118  P        P         07 48 24.3 +0.6
PVIS  Viseu             84.42  42 eP        P         07 48 23.9  0.0
MTE   Manteigas         84.47  43 eP        P         07 48 24.3 +0.2
MTE                               i IAmb    IAmb      07 48 46.8
       comp=Z,376nm,1.3s
MTE                               eS        SKSac     07 58 43.7 -0.5
MTE                               eLQ       LQ        08 10 19.7
MTE                               eLR       LR        08 15 12.6
MTE                               i IAMs_20 IAMs_20   08 23 07.6
       comp=Z,5µm,22.0s
MTE   Manteigas         84.47  43  P        P         07 48 24.6 +0.5
MAW   Mawson            84.68 164  P        P         07 48 25.5 +0.8
       comp=Z,245nm,1.0s,baz=221,slow=7.0,SNR=208
MAW                                PKKPbc   PKKPbc    08 06 34.0 -2.0
       comp=Z,3.2nm,0.9s,baz=18,slow=3.2,SNR=5.1
       comp=Z,245nm,1.0s
MAW   Mawson            84.68 164  P        P         07 48 25.7 +1.0
       comp=Z,45nm,1.1s,comp=Z,0.0nmcomp=Z,0.0nm,1.6s
PVRL  Vila Real         84.85  42 i IAmb    IAmb      07 48 48.8
       comp=Z,359nm,1.5s
POLO  Lamas de Olo      84.86  42 eP        P         07 48 26.1  0.0
POLO                              i IAmb    IAmb      07 48 48.9
       comp=Z,108nm,1.8s
FRB   Frobisher Bay     84.87   1  LR       LR        08 28 08.7
       comp=Z,2µm,20.5s,baz=182,slow=37
PGAV  Gavieira, Arco    84.90  41 eP        P         07 48 26.3  0.0
PGAV                              i IAmb    IAmb      07 48 48.9
       comp=Z,332nm,1.5s
PGAV                              eS        SKSac     07 58 46.7 -0.2
PGAV                              eLQ       LQ        08 10 32.4
PGAV                              eLR       LR        08 15 12.6
PGAV                              i IAMs_20 IAMs_20   08 23 30.8
       comp=Z,8µm,20.0s
PCAB  Cabril            84.90  42 i IAmb    IAmb      07 48 48.8
       comp=Z,390nm,1.5s
TAM   Tamanrasset       85.57  64  P        P         07 48 30.9 +0.7
TAM   Tamanrasset       85.57  64  P        P         07 48 31.4 +1.2
PBRG  Braganca          85.75  42 eP        P         07 48 30.2 -0.3
PBRG                              i IAmb    IAmb      07 48 53.3
       comp=Z,350nm,1.6s
LBTB  Lobatse           85.86 115  LR       LR        08 23 10.7
       comp=Z,4µm,20.2s,baz=240,slow=33
LBTB  Lobatse           85.86 115  P        P         07 48 31.6 -0.1
LBTB                               pmax     pmax
       comp=Z,296nm,1.3s
LBTB  Lobatse           85.86 115  P        P         07 48 31.6 -0.1
LBTB  Lobatse           85.86 115 i P       P         07 48 32.3 +0.7
LBTB  Lobatse           85.86 115  P        P         07 48 32.2 +0.5
OSBL  Sidi Abdelli      86.00  50  P        P         07 48 33.1 +1.2
PAB   San Pablo         86.07  45  P        P         07 48 32.0 -0.2
PAB                                pmax     pmax
       comp=Z,215nm,1.1s
PAB   San Pablo         86.07  45  P        P         07 48 32.0 -0.2
PAB   San Pablo         86.07  45  P        P         07 48 32.6 +0.4
ESDC  Sonseca Array     86.39  45  P        P         07 48 34.0 +0.3
       comp=Z,10nm,0.9s,baz=245,slow=5.1,SNR=48
ESDC                               PKKPbc   PKKPbc    08 06 31.6 -0.6
       comp=Z,0.6nm,0.8s,baz=54,slow=2.8,SNR=4.3
ESDC                               LR       LR        08 26 15.6
       comp=Z,3µm,19.3s,baz=235,slow=35
       comp=Z,10nm,0.9s
ESDC  Sonseca Array     86.39  45  P        P         07 48 33.2 -0.5
ESDC                               IAmb     IAmb      07 48 55.8
       comp=Z,759nm,1.4s
ODJA  Bouhanifia        86.83  50  P        P         07 48 37.3 +1.3
OFRG  Douar Fergoug     87.06  50  P        P         07 48 38.0 +1.0
EASA  Ain Sidi Ali      87.50  52  P        P         07 48 40.9 +1.5
AFDJ  Sidi Ladjel       88.83  51  P        P         07 48 46.3 +0.8
EARB  Arib              88.83  50  P        P         07 48 46.3 +0.8
EDDR  Deurdeur          88.84  51  P        P         07 48 46.1 +0.5
BBB   Bella Bella       89.08 328  LR       LR        08 30 28.0
       comp=Z,1µm,21.7s,baz=120,slow=37
ABKD  Sidi Amar         89.15  50  P        P         07 48 47.7 +0.7
ADCK  Dar Chioukh       89.24  52  P        P         07 48 49.1 +1.5
SFJD  Kangerlussuaq     89.30   7  P        P         07 48 48.5 +1.6
       comp=Z,6.5nm,0.7s,baz=186,slow=10,SNR=1.9
SFJD                               LR       LR        08 27 09.2
       comp=Z,3µm,21.8s,baz=192,slow=34
       comp=Z,6.5nm,0.7s
DRV   Dumont d'Urvil    89.38 191  P        P         07 48 48.5 +1.0
DRV   Dumont d'Urvil    89.38 191  P        P         07 48 49.0 +1.5
DRV                                pP       pP        07 49 03.7 +1.8
AFRS  Ain Fares         89.89  52  P        P         07 48 51.7 +1.1
ABSD  Ouled Sidi Bra    90.02  52  P        P         07 48 52.5 +1.4
BLWY  Bulawayo          90.28 112 i P       P         07 48 58.9 +6.0
ATKJ  Tikjda            90.41  51  P        P         07 48 54.4 +1.3
YKA   Yellowknife Ar    90.80 341  P        P         07 48 54.0  0.0
       comp=Z,42nm,0.9s,baz=141,slow=4.6,SNR=62
YKA                                LR       LR        08 33 35.2
       comp=Z,2µm,18.6s,baz=128,slow=38
       comp=Z,42nm,0.9s
YKA   Yellowknife Ar    90.80 341  P        P         07 48 54.0  0.0
YKA   Yellowknife Ar    90.80 341  P        P         07 48 54.0  0.0
CKTS  El Kantara        91.03  52  P        P         07 48 58.2 +2.4
DFRA  Djebel Bou Aff    91.73  51  P        P         07 49 13.1  +14
LSZ   Lusaka            91.77 107  LR       LR        08 27 10.0
       comp=Z,6µm,21.9s,baz=254,slow=34
CASM  Ain Smara         92.06  52  P        P         07 49 14.6  +14
CKFL  Kef-Lekhel        92.29  52  P        P         07 49 16.6  +15
CAEH  'Ain El Ouahch    92.54  51  P        P         07 49 17.6  +15
CMAH  Djebel Manchou    92.89  52  P        P         07 49 18.8  +14
BORG  Borgarnes         93.61  19  P        P         07 49 06.9 -0.1
       comp=Z,23nm,1.0s,baz=203,slow=13,SNR=2.0
BORG                               LR       LR        08 28 27.1
       comp=Z,2µm,21.5s,baz=226,slow=34
       comp=Z,23nm,1.0s
URZ   Urewera           93.63 227  LR       LR        08 24 22.0
       comp=Z,3µm,18.8s,baz=115,slow=31
DLBC  Dease Lake        93.71 333  LR       LR        08 34 12.1
       comp=Z,4µm,21.2s,baz=84,slow=37
KEST  Kesra             93.95  53  P        P         07 49 09.7 +0.3
       comp=Z,9.4nm,1.0s,baz=100,slow=1.0,SNR=5.7
KEST                               LR       LR        08 30 29.2
       comp=Z,4µm,20.8s,baz=250,slow=35
       comp=Z,9.4nm,1.0s
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KEST	**Kesra**	**93.95**	**53**	P	**P**	**07 49 10.1**	**+0.8**
	SNR=6.8						
KEST	**Kesra**	**93.95**	**53**	P	**P**	**07 49 08.1**	**-1.2**
RPZ	**Rata Peaks**	**94.51**	**219**	LR	LR	08 22 26.4	
	comp=Z,581nm,21.6s,baz=102,slow=30						
SSB	**Saint Sauveur**	**94.59**	**43**	P	**P**	**07 49 12.1**	**+0.1**
SSB				pmax	pmax		
	comp=Z,51nm,1.2s						
SSB	**Saint Sauveur**	**94.59**	**43**	P	**P**	**07 49 12.1**	**+0.1**
EKA	**Eskdalemuir Ar**	**95.00**	**32**	P	**P**	**07 49 12.5**	**-1.1**
	comp=Z,4.6nm,0.9s,baz=238,slow=7.8,SNR=3.5						
EKA				LR	LR	08 27 49.6	
	comp=Z,5µm,21.8s,baz=242,slow=33						
	comp=Z,4.6nm,0.9s						
JIS	**Juneau Island**	**95.52**	**331**	P	**P**	**07 49 16.5**	**+0.7**
AFI	**Afiamalu**	**95.75**	**253**	LR	LR	08 23 41.1	
	comp=Z,1µm,19.7s,baz=116,slow=30						
BESE	**Bessie Mountai**	**95.89**	**331**	P	**P**	**07 49 17.6**	**-0.1**
DOU	**Dourbes**	**96.70**	**39**	*d*P	**P**	**07 49 20.5**	**-0.9**
DOU				*d*pP	**pP**	**07 49 35.2**	**-0.5**
DOU				*d*sP	**sP**	**07 49 41.1**	**0.0**
UCC	**Uccle**	**96.87**	**38**	*d*P	**P**	**07 49 21.5**	**-0.6**
UCC				*d*pP	**pP**	**07 49 35.9**	**-0.6**
UCC				*d*sP	**sP**	**07 49 41.9**	**+0.1**
BMRD	**Maredsous**	**96.89**	**39**	*d*P	**P**	**07 49 21.3**	**-1.0**
BMRD				*d*pP	**pP**	**07 49 35.2**	**-1.4**
RCHB	**Rochefort**	**97.10**	**39**	*d*P	**P**	**07 49 22.3**	**-0.9**
RCHB				*d*pP	**pP**	**07 49 36.7**	**-0.9**
RCHB				*d*sP	**sP**	**07 49 43.0**	**+0.1**
RES	**Resolute Bay**	**97.20**	**353**	LR	LR	08 35 25.5	
	comp=Z,5µm,21.6s,baz=157,slow=37						
WLF	**Walferdange**	**97.44**	**39**	P	**P**	**07 49 23.2**	**-1.6**
WLF	**Walferdange**	**97.44**	**39**	*d*P	**P**	**07 49 24.5**	**-0.2**
WLF				*d*pP	**pP**	**07 49 38.7**	**-0.4**
WLF	**Walferdange**	**97.44**	**39**	*e*Pdiff	**P**	**07 49 24.6**	**-0.2**
MEM	**Membach**	**97.74**	**39**	*d*P	Pdif	07 49 26.5	+0.3
MEM				*d*pP	pP	07 49 40.2	-0.3
MEM				*d*sP	sP	07 49 46.2	+0.5
TUE	**Stuetta**	**98.14**	**43**	P	**P**	**07 49 27.9**	**-0.4**
	comp=Z,145nm,1.9s						
BFO	**Black Forest**	**98.22**	**41**	*e*Pdiff	**P**	**07 49 27.8**	**-0.5**
BFO				*e*pPdiff	**pP**	**07 49 41.9**	**-0.8**
	baz=250,slow=4.6						
DAVOX	**Davos/Dischmat**	**98.60**	**43**	LR	LR	08 32 56.1	
	comp=Z,2µm,20.6s,baz=246,slow=35						
DAVA	**Damuels**	**98.79**	**43**	*i* pPdiff	Pdif	07 49 44.9	+14
	comp=Z,43nm,1.5s						
DAVA				*i* PKiKP	**PKiKP**	**07 53 58.9**	**-3.3**
	comp=Z,40nm,1.3s						
BUG	**Bochum--Univer**	**98.80**	**38**	*e*Pdiff	**P**	**07 49 30.1**	**-0.7**
STU	**Stuttgart**	**98.92**	**41**	*e*Pdiff	**P**	**07 49 30.5**	**-0.9**
TNS	**Taunus Mts**	**99.02**	**40**	*e*Pdiff	**Pdif**	**07 49 31.3**	**-0.6**
UBR	**Ueberruh**	**99.08**	**42**	*e*Pdiff	**Pdif**	**07 49 32.0**	**-0.3**
UBR				*e*pPdiff	**pP**	**07 49 46.7**	**+0.1**
	baz=250,slow=4.6						
FETA	**Feichten**	**99.23**	**43**	*i* pPdiff	**Pdif**	**07 49 46.9**	**+14**
	comp=Z,50nm,1.3s						
FETA				*i* PKiKP	**PKiKP**	**07 53 59.4**	**-3.5**
	comp=Z,32nm,1.7s						
KASTN	**Kahler Asten**	**99.38**	**39**	*e*Pdiff	**Pdif**	**07 49 32.7**	**-0.8**
RETA	**Reutte**	**99.42**	**43**	*i* pPdiff	**Pdif**	**07 49 47.4**	**+14**
	comp=Z,31nm,1.4s						
RETA				*i* PKiKP	**PKiKP**	**07 54 02.3**	**-0.8**
	comp=Z,23nm,1.3s						
IBBN	**Ibbenburen**	**99.42**	**37**	*e*Pdiff	**Pdif**	**07 49 33.7**	**+0.1**
IBBN				*e*pPdiff	**pP**	**07 49 48.1**	**+0.2**
	baz=250,slow=4.6						
MOTA	**Moosalm**	**99.58**	**43**	*i* pPdiff	**Pdif**	**07 49 48.0**	**+13**
	comp=Z,35nm,1.2s						
MOTA				*i* PKiKP	**PKiKP**	**07 54 03.1**	**-0.4**
	comp=Z,44nm,1.5s						
SQTA	**Sankt Quirin**	**99.61**	**43**	*i* pPdiff	**Pdif**	**07 49 48.7**	**+14**
	comp=Z,89nm,1.4s						
SQTA				*i* PKiKP	**PKiKP**	**07 54 01.2**	**-2.4**
	comp=Z,31nm,1.8s						
MBAR	**Mbarara**	**99.65**	**94**	LR	LR	08 31 28.9	
	comp=Z,4µm,21.7s,baz=244,slow=34						
WATA	**Walderalm**	**99.88**	**43**	*i* pPdiff	**Pdif**	**07 49 49.5**	**+14**
	comp=Z,56nm,1.3s						
WATA				*i* PKiKP	**PKiKP**	**07 54 03.5**	**-0.6**
	comp=Z,42nm,1.6s						
WTTA	**Wattenberg**	**99.89**	**43**	*i* pPdiff	**Pdif**	**07 49 49.0**	**+13**
	comp=Z,60nm,1.1s						
WTTA				*i* PKiKP	**PKiKP**	**07 54 04.6**	**+0.5**
	comp=Z,38nm,1.6s						
ABTA	**Abfaltersbach**	**100.27**	**44**	*i* pPdiff	**Pdif**	**07 49 51.0**	**+13**
	comp=Z,53nm,1.2s						
ABTA				*e*PKiKP	**PKiKP**	**07 54 05.6**	**+0.9**
	comp=Z,9.1nm,1.0s						
GTTG	**Gottingen**	**100.40**	**39**	*e*Pdiff	**Pdif**	**07 49 38.1**	**+0.1**
GTTG				*e*pPdiff	pP	07 49 52.6	+0.2
	baz=250,slow=4.6						
RETH	**Rethem/Aller,**	**100.49**	**37**	*e*Pdiff	**Pdif**	**07 49 38.8**	**+0.5**
GRF	**Grafenberg Arr**	**100.49**	**41**	*e*Pdiff	**Pdif**	**07 49 38.8**	**+0.3**
GRF				*e*pPdiff	pP	07 49 53.2	+0.3
	baz=250,slow=4.6						
GRF				*e*L	L	08 34 52.6	
	comp=Z,2µm,21.3s						
LESA	**Schwarzleotal**	**100.61**	**43**	*i* pPdiff	**Pdif**	**07 49 53.2**	**+14**
	comp=Z,9.3nm,0.8s						
LESA				*i* PKiKP	**PKiKP**	**07 54 03.8**	**-1.5**
	comp=Z,29nm,1.4s						
CLZ	**Clausthal**	**100.75**	**38**	*e*Pdiff	**Pdif**	**07 49 39.6**	**0.0**
CLZ				*e*pPdiff	**pPdif**	**07 49 53.4**	**-0.5**
	baz=250,slow=4.6						
KBA	**Koelnbreinsper**	**100.92**	**44**	*i* pPdiff	**Pdif**	**07 49 53.7**	**+13**
	comp=Z,20nm,1.1s						
KBA				*e*PKiKP	**PKiKP**	**07 54 06.6**	**+0.6**
	comp=Z,30nm,1.5s						
MYKA	**Terra Mystica**	**100.97**	**44**	*i* pPdiff	**Pdif**	**07 49 54.8**	**+14**
	comp=Z,14nm,0.9s						
MYKA				*i* PKiKP	**PKiKP**	**07 54 07.0**	**+1.0**
	comp=Z,25nm,1.7s						
ASSE	**Asse, Remlinge**	**101.02**	**38**	*e*Pdiff	**Pdif**	**07 49 41.3**	**+0.6**
ASSE				*e*pPdiff	pP	07 49 55.2	+0.1
	baz=250,slow=4.6						
MOX	**Moxa**	**101.06**	**40**	*e*Pdiff	**Pdif**	**07 49 40.9**	**-0.1**
MOX				*e*pPdiff	**pPdif**	**07 49 55.4**	**+0.1**
	baz=250,slow=4.6						
MOX				*e*L	L	08 32 18.0	
	comp=Z,5µm,21.6s						
BIOA	**Bad Ischl, Aus**	**101.31**	**43**	*i* pPdiff	**Pdif**	**07 49 56.3**	**+14**
	comp=Z,31nm,1.6s						
BIOA				*i* PKiKP	**PKiKP**	**07 54 06.1**	**-0.3**
	comp=Z,42nm,1.5s						
WET	**Wettzell**	**101.32**	**42**	*e*Pdiff	**Pdif**	**07 49 42.3**	**+0.1**
WET				*e*pPdiff	**pPdif**	**07 49 56.6**	**+0.1**
	baz=250,slow=4.6						
PLN	**Plauen**	**101.33**	**40**	*e*Pdiff	**Pdif**	**07 49 43.0**	**+0.8**
PLN				*e*pPdiff	**pPdif**	**07 49 56.5**	**0.0**
	baz=250,slow=4.6						
NEUB	**Neuenburg**	**101.35**	**39**	*e*Pdiff	**Pdif**	**07 49 42.3**	**+0.1**
FLTG	**Flechtingen**	**101.42**	**38**	*e*Pdiff	**Pdif**	**07 49 42.7**	**+0.3**
FLTG				*e*pPdiff	**pPdif**	**07 49 56.7**	**-0.1**
	baz=250,slow=4.6						
NKC	**Novy Kostel**	**101.42**	**40**	*i* P	**Pdif**	**07 49 42.3**	**-0.3**
NKC				*e*		08 08 25.7	
NKC				MLR	MLR		
	comp=Z,4µm,24.2s						
NKC	**Novy Kostel**	**101.42**	**40**	*e*PDIFF	**Pdif**	**07 49 42.3**	**-0.3**
NKC				*e*x	x	08 01 37.2	
NKC				*e*SS	SS	08 08 25.7	+4.3
NKC				AMS	AMS	08 32 50.0	
	comp=Z,4µm,24.2s						
BSEG	**Bad Segeberg**	**101.45**	**36**	*e*Pdiff	**Pdif**	**07 49 42.3**	**-0.3**
TANN	**Tannenbergstha**	**101.49**	**40**	*e*Pdiff	**Pdif**	**07 49 43.7**	**+0.7**
TANN				*e*pPdiff	pP	07 49 57.7	+0.3
	baz=250,slow=4.6						
OBKA	**Obir**	**101.52**	**45**	*i* pPdiff	**Pdif**	**07 49 56.3**	**+13**
	comp=Z,14nm,0.8s						
OBKA				*i* PKiKP	**PKiKP**	**07 54 07.6**	**+0.6**
	comp=Z,23nm,1.3s						
GEC2	**GERESS Array S**	**101.73**	**42**	*e*Pdiff	**Pdif**	**07 49 43.9**	**-0.2**
GEC2				*e*pPdiff	**pPdif**	**07 49 58.4**	**0.0**
	baz=250,slow=4.6						
GERES	**GERESS Array B**	**101.73**	**42**	P	**Pdif**	**07 49 43.6**	**-0.5**
	comp=Z,0.8nm,0.3s,baz=225,slow=5.1,SNR=6.6						
GERES				PP	**PP**	**07 53 56.4**	**+1.0**
	comp=Z,0.8nm,0.3s,baz=220,slow=8.0,SNR=4.6						
GERES				PKKPbc	**PKKPbc**	**08 05 48.1**	**-3.6**
	comp=Z,0.8nm,0.2s,baz=298,slow=2.1,SNR=3.7						
KHC	**Kasperske Hory**	**101.75**	**42**	*i* P	**Pdif**	**07 49 44.5**	**+0.4**
KHC				*e*		07 54 05.0	
KHC				*e*		08 08 40.8	
KHC				MLR	MLR		
	comp=Z,3µm,24.5s						
KHC	**Kasperske Hory**	**101.75**	**42**	*e*PDIFF	**Pdif**	**07 49 44.5**	**+0.4**
KHC				*e*x	x	07 50 05.0	
KHC				*e*PKP	**PKiKP**	**07 54 05.0**	**-2.2**
KHC				*e*XS	**sS**	**08 01 44.5**	**-1.7**
KHC				*e*x	x	08 08 40.8	
KHC				AMS	AMS	08 29 20.0	
	comp=Z,3µm,24.5s						
MOA	**Molln**	**101.77**	**43**	*i* pPdiff	**Pdif**	**07 49 58.5**	**+14**
	comp=Z,19nm,1.4s						
MOA				*e*PKiKP	**PKiKP**	**07 54 09.9**	**+2.6**
	comp=Z,24nm,1.2s						
SOKA	**Soboth**	**101.89**	**44**	*i* pPdiff	**Pdif**	**07 49 57.9**	**+13**
	comp=Z,11nm,1.4s						
SOKA				*e*PKiKP	**PKiKP**	**07 54 10.3**	**+2.7**
	comp=Z,23nm,1.6s						
CKRC	**Cesky Krumlov**	**102.11**	**42**	AMS	AMS	08 29 50.0	
	comp=Z,3µm,23.3s						
CLL	**Collm**	**102.11**	**40**	*e*Pdiff	**Pdif**	**07 49 46.0**	**+0.4**
CLL				*e*pPdiff	**pPdif**	**07 49 59.7**	**-0.1**
	baz=250,slow=4.6						
CLL	**Collm**	**102.11**	**40**	*e*Pdif	**Pdif**	**07 49 45.0**	**-0.6**
CLL				*i* pPdif	**pPdif**	**07 50 00.0**	**+0.1**
	comp=Z,15nm,1.3s						
CLL				*i* sPdif	**sPdif**	**07 50 05.9**	**+0.7**
	comp=Z,28nm,1.4s						
CLL				*e*PP	**PP**	**07 53 57.0**	**-1.0**
CLL				*e*pPP		07 54 11.0	
CLL				*i* sPP		07 54 19.9	
	comp=Z,146nm,1.9s						
CLL				*e*PPP	PPP	07 56 06.0	
CLL				*e*SKSac	**SKSac**	**08 00 22.0**	**+1.0**
CLL				*e*SKKSac	**SKKSac**	**08 01 00.0**	**+0.6**
CLL				*e*sSdif	**sSdif**	**08 01 42.0**	**-6.8**
CLL				*e*SP	**SP**	**08 02 50.0**	**-7.9**
CLL				*e*PS	**PS**	**08 03 02.0**	**-2.2**
CLL				*e*SPP	SPP	08 03 40.0	
CLL				*e*x	x	08 07 24.0	
CLL				*e*SS	**SS**	**08 08 32.0**	**+1.2**
CLL				*e*x	x	08 10 18.0	
CLL				*e*SSS	SSS	08 12 30.0	
CLL				*e*x	x	08 14 12.0	
CLL				L	L	08 16 00.0	
CLL				LH		08 17 00.0	
CLL				AMS	AMS	08 32 00.0	
	comp=Z,0.0nm,20.2s						
CLL				AMS	AMS	08 32 00.0	
	comp=N,1µm,22.3s						
CLL				AMS	AMS	08 32 00.0	
	comp=E,4µm,21.2s						
CLL				AMS	AMS	08 32 00.0	
	comp=Z,5µm,21.5s						
HSKC	**Hora Svate Kat**	**102.14**	**40**	AMS	AMS	08 33 20.0	
	comp=Z,5µm,24.6s						
ZVC	**Zvikov**	**102.23**	**42**	AMS	AMS	08 29 40.0	
	comp=Z,3µm,24.7s						
ARSA	**Arzberg**	**102.39**	**44**	*i* pPdiff	**Pdif**	**07 50 00.8**	**+14**
	comp=Z,7.9nm,1.1s						
ARSA				*e*PKiKP	**PKiKP**	**07 54 11.4**	**+3.0**
	comp=Z,20nm,1.4s						
BRG	**Berggiesshubel**	**102.53**	**40**	*e*Pdiff	**Pdif**	**07 49 47.5**	**+0.1**
BRG				*e*pPdiff	**pPdif**	**07 50 02.7**	**+0.9**
	baz=250,slow=4.6						
BRG	**Berggiesshubel**	**102.53**	**40**⇓	*e*Pif		07 49 54.0	
BRG				Amp		07 49 56.9	
	comp=Z,4.0nm,1.0s						
BRG				⇓pPif		07 50 02.3	
BRG				Amp		07 50 04.0	
	comp=Z,7.6nm,1.3s						
BRG				⇓sPif		07 50 08.5	
BRG				Amp		07 50 10.4	
	comp=Z,19nm,1.3s						
BRG				PP	**PKiKP**	**07 54 10.3**	**+1.8**
BRG				Amp		07 54 18.6	
	comp=Z,24nm,1.3s						
BRG	**Berggiesshubel**	**102.53**	**40**	SP	SP	08 02 55.0	-7.4
BRG	**Berggiesshubel**	**102.53**	**40**	SS	SS	08 08 35.0	-1.7
PRU	**Pruhonice**	**102.62**	**41**	*e*XS	sS	08 01 50.6	-3.0
PRU				*e*SS	**SS**	**08 08 40.8**	**+2.9**
PRU				AMS	AMS	08 29 50.0	
	comp=Z,3µm,24.3s						
CONA	**Conrad Observa**	**102.81**	**43**	*i* pPdiff	**Pdif**	**07 50 02.4**	**+13**
	comp=Z,6.3nm,1.2s						
CONA				*e*PKiKP	**PKiKP**	**07 54 10.6**	**+1.3**
	comp=Z,31nm,1.8s						
RONA	**Rosalia, Austr**	**103.02**	**44**	*i* pPdiff	**Pdif**	**07 50 03.8**	**+14**
	comp=Z,6.3nm,0.9s						
RONA				*e*PKiKP	**PKiKP**	**07 54 10.4**	**+0.9**
	comp=Z,28nm,1.5s						
UPC	**Upice**	**103.67**	**41**	*e*XS		08 02 01.1	
UPC				*e*x	x	08 08 41.5	
UPC				AMS	AMS	08 34 00.0	
	comp=Z,3µm,24.8s						
VRAC	**Vranov**	**103.69**	**42**	PP	**PP**	**07 54 08.6**	**-1.3**
	comp=Z,1.8nm,0.3s,baz=258,slow=8.4,SNR=3.4						
ILAR	**Eielson Array**	**103.78**	**335**	Pdiff	**Pdif**	**07 49 52.0**	**-0.7**
	comp=Z,0.7nm,0.8s,baz=129,slow=4.1,SNR=8.3						
ILAR				PP	**PP**	**07 54 08.6**	**-1.6**
	comp=Z,3.6nm,1.1s,baz=104,slow=7.1,SNR=5.4						
OSTC	**Ostas**	**103.81**	**41**	AMS	AMS	08 34 10.0	
	comp=Z,3µm,24.0s						
DPC	**Dobruska-Polom**	**103.82**	**41**	*e*XS		08 02 03.5	
DPC				*e*x	x	08 08 50.3	
DPC				AMS	AMS	08 34 20.0	
	comp=Z,3µm,21.0s						
MODS	**Modra-Piesok**	**103.85**	**43**	*i* P	**Pdif**	**07 49 59.5**	**+6.1**
MODS	**Modra-Piesok**	**103.85**	**43**	*e*PDIFF	**Pdif**	**07 49 59.5**	**+6.1**
MODS				*e*		07 50 07.9	
COLA	**College**	**104.20**	**334**	P	**Pdif**	**07 49 54.3**	**-0.2**
OKC	**Ostrava-Krasne**	**104.80**	**42**	AMS	AMS	08 34 00.0	
	comp=Z,2µm,21.0s						
VYHS	**Vyhne**	**104.88**	**43**	*i* P	**Pdif**	**07 50 05.7**	**+7.7**
VYHS				*e*		07 54 18.9	
VYHS	**Vyhne**	**104.88**	**43**	*e*PDIFF	**Pdif**	**07 50 05.7**	**+7.7**
VYHS				*e*PP	**PP**	**07 54 18.9**	**0.0**
HFS	**Hagfors**	**105.17**	**31**	PKKPab	PKKPab	08 05 57.2	+1.4
	comp=Z,5.5nm,1.0s,baz=69,slow=8.7,SNR=3.5						
R9F13	**Warsaw-Wawer**	**107.22**	**40**	*e*PKiKP	**PKiKP**	**07 54 17.8**	**+0.7**
SPITS	**Spitsbergen Ar**	**110.02**	**13**	PKKPab	PKKPab	08 05 34.9	+1.0
	comp=Z,9.3nm,0.6s,baz=153,slow=4.4,SNR=10						
MNK	**Minsk**	**111.59**	**38**	*i* P	**Pdif**	**07 50 27.6**	**0.0**
MNK				*i*		07 55 06.9	
MNK				*i* PPP	PPP	07 57 28.1	
MNK				*i*		08 01 35.1	
MNK				*i* SS	SS	08 10 40.7	+1.4
MNK				pmax	pmax		
	comp=E,11nm,0.7s						
MNK				pmax	pmax		
	comp=N,18nm,0.9s						
MNK				pmax	pmax		
	comp=Z,9.0nm,0.8s						
MNK				MLR	MLR		
	comp=N,2µm,18.0s						
MNK				MLR	MLR		
	comp=E,1µm,19.0s						
MNK				MLR	MLR		
	comp=Z,3µm,18.0s						
MNK	**Minsk**	**111.59**	**38**	*i* P	**Pdif**	**07 50 27.6**	**0.0**
	comp=E,11nm,0.7s						
MNK				*i* P	**Pdif**	**07 50 27.6**	**0.0**
	comp=N,18nm,0.9s						
MNK				*i* P	**Pdif**	**07 50 27.6**	**0.0**
	comp=Z,9.0nm,0.8s,baz=263						
MNK				*i* PP	**PP**	**07 55 06.9**	**-0.6**
MNK				*i* PPP	PPP	07 57 28.1	
MNK				*i* PKS	**PKSdf**	**07 58 02.4**	**+0.8**
MNK				*i* SKS	**SKSdf**	**08 01 35.1**	**+1.9**
MNK				*i* PS	**PKKPbc**	**08 05 19.2**	**-1.8**
MNK				*i* SS	**SS**	**08 10 40.7**	**+1.4**
MNK				*i* SSS	SSS	08 14 20.0	
ARCES	**ARCESS Array B**	**111.73**	**22**	PKKPbc	PKKPbc	08 05 17.2	-3.8
	comp=Z,0.9nm,0.5s,baz=90,slow=2.4,SNR=6.5						
ARCES				PKKPab	**PKKPab**	**08 05 28.0**	**+1.6**
	comp=Z,4.4nm,0.7s,baz=88,slow=2.9,SNR=7.9						
KIEV	**Kiev**	**111.92**	**43**	PKiKP	**PKiKP**	**07 54 25.8**	**-0.2**
AKASG	**Malin Array Be**	**111.94**	**43**	PKiKP	**PKiKP**	**07 54 25.6**	**-0.4**
	comp=Z,0.1nm,0.3s,baz=258,slow=3.6,SNR=4.2						
AKASG				PKKPbc	**PKKPbc**	**08 05 19.4**	**-0.4**
	comp=Z,2.5nm,0.8s,baz=71,slow=4.0,SNR=4.8						
AKASG				PKKP	**PKKPdf**	**08 05 36.1**	**-3.2**
	comp=Z,1.9nm,0.7s,baz=70,slow=3.7,SNR=5.4						
AKBB	**Malin Array Si**	**111.94**	**43***c*	*i*PKIKP	**PKiKP**	**07 54 23.8**	**-2.2**
BRTR	**Keskin Array B**	**113.50**	**55**	PKiKP	**PKiKP**	**07 54 29.5**	**-0.1**
	comp=Z,2.6nm,0.9s,baz=195,slow=3.2,SNR=8.8						
SIM	**Simferopol'**	**114.54**	**49**	P	**Pdif**	**07 50 54.0**	**+13**
SIM				SP	SP	08 05 06.0	+4.5
SIM				pmax	pmax		
	comp=Z,40nm,9.4s						
SIM				pmax	pmax		
	comp=Z,150nm,10.5s						
SIM				pmax	pmax		
	comp=E,270nm,7.8s						
APA	**Apatity**	**114.65**	**24**	*i* PKIKP	PKPdf	07 54 29.9	-0.8
APA				*e*		07 55 30.4	
APA				*e*PS	**PS**	**08 05 00.0**	**-7.8**
APA				*e*SS	SS	08 11 19.1	+0.1
APA				pmax	pmax		
	comp=Z,6.0nm,1.0s						
OBN	**Obninsk**	**116.64**	**38**⇓	*i*PKIKP	**PKiKP**	**07 54 35.2**	**+0.3**
OBN				*e*		07 54 49.8	
OBN						08 01 48.0	
OBN				*i* PS	**PS**	**08 05 20.6**	**-5.7**
OBN				*e*		08 06 36.0	
OBN				*i* SS	SS	08 11 41.0	-4.7
OBN				pmax	pmax		
	comp=Z,25nm,1.7s						
OBN				MLR	MLR		
	comp=Z,4µm,19.0s						
ANN	**Anapa**	**116.87**	**50**	*i* PKIKP	**PKPdf**	**07 54 35.3**	**-0.3**
ANN				*e*		07 54 49.9	
ANN				*e*		08 01 23.0	
ANN				pmax	pmax		
	comp=Z,19nm,0.9s						
ADZR	**Andozero**	**116.98**	**28**	*e*PKIKP	PKiKP	07 54 48.5	+13
ADZR				pmax	pmax		
	comp=Z,30nm,1.2s						
MOS	**Moscow**	**117.23**	**37**	*i* PKIKP	**PKiKP**	**07 54 36.1**	**+0.1**
MOS				*e*		07 55 53.8	
MOS				*e*		08 01 27.9	
MOS				*e*SS	SS	08 12 02.2	+8.8
KLMR	**Klimovskoe**	**117.89**	**31**	*e*PKIKP	**PKiKP**	**07 54 40.4**	**+3.3**
KLMR				pmax	pmax		
	comp=Z,76nm,1.4s						
LPSR	**Galich'ya Gora**	**118.07**	**41**	*e*PKIKP	**PKPdf**	**07 54 37.0**	**-0.7**
LPSR				pmax	pmax		
	comp=Z,58nm,1.0s						
VSR	**Storozhevoye**	**118.24**	**42**	*e*PKIKP	**PKPdf**	**07 54 38.1**	**0.0**
VSR				pmax	pmax		
	comp=Z,32nm,1.1s						
VORR	**Voronezh**	**118.26**	**42**	PKIKP	**PKPdf**	**07 54 37.9**	**-0.2**
VORR				pmax	pmax		
	comp=Z,59nm,1.3s						
SOC	**Sochi**	**118.43**	**51**	*i* PKIKP	**PKPdf**	**07 54 38.1**	**-0.6**
SOC				*e*		07 54 50.7	
SOC				*e*		07 55 55.9	
SOC				*e*PPP	PPP	07 58 27.5	
SOC				*e*PS	**PS**	**08 05 45.2**	**+2.1**
SOC				pmax	pmax		
	comp=Z,10.0nm,0.8s						
STKA	**Stephens Creek**	**119.05**	**211**	PKP	**PKiKP**	**07 54 40.7**	**+0.2**
	comp=Z,2.6nm,0.6s,baz=200,slow=0.4,SNR=8.5						
STKA				PKKPbc	**PKKPbc**	**08 04 53.7**	**-1.1**
	comp=Z,1.9nm,0.6s,baz=37,slow=0.3,SNR=4.8						
STKA	**Stephens Creek**	**119.05**	**211**	*i* PKIKP	**PKiKP**	**07 54 41.0**	**+0.5**
ERBR	**Yeremizino-Bor**	**119.07**	**49**	*i* PKIKP	**PKPdf**	**07 54 39.4**	**-0.5**
ERBR				*e*		07 54 54.5	
ERBR				pmax	pmax		
	comp=Z,23nm,0.6s						
LABN	**Labinsk**	**119.21**	**50**	*i* PKIKP	**PKPdf**	**07 54 39.8**	**-0.4**
LABN				*e*		08 01 33.4	
LABN				pmax	pmax		
	comp=Z,48nm,0.7s						
VRH	**Novokhopyorsk**	**119.84**	**42**	*e*PKIKP	**PKPdf**	**07 54 40.8**	**-0.4**
VRH				pmax	pmax		
	comp=Z,42nm,1.2s						
NEUR	**Neytrino**	**120.59**	**52**	*i* PKIKP	**PKiKP**	**07 54 44.4**	**+1.1**
KIV	**Kislovodsk**	**120.60**	**51**	*i* P	**Pdif**	**07 51 08.0**	**-0.1**
KIV				*i*		07 54 43.0	
KIV				*e*		07 56 10.5	
KIV				*e*PS	**PS**	**08 06 01.9**	**-0.9**
KIV				*e*SS	SS	08 12 39.0	+1.2
KIV				pmax	pmax		
	comp=Z,14nm,1.1s						
KIV				MLR	MLR		
	comp=Z,1µm,22.0s						
KIV	**Kislovodsk**	**120.60**	**51**	PKiKP	**PKiKP**	**07 54 43.4**	**+0.3**
RAYN	**Ar Rayn**	**120.69**	**75**	PKIKP	**PKiKP**	**07 54 44.7**	**+0.8**
KBZ	**Khabaz**	**120.75**	**51**	PKP	**PKiKP**	**07 54 43.9**	**+0.7**
	comp=Z,14nm,0.8s,baz=219,slow=0.7,SNR=28						
KBZ	**Khabaz**	**120.75**	**51***c*	*i*PKIKP	**PKiKP**	**07 54 44.3**	**+1.1**
QLP	**Quilpie**	**121.98**	**216**	P	**PKiKP**	**07 54 47.9**	**+1.6**
QLP	**Quilpie**	**121.98**	**216**	P	**PKiKP**	**07 54 46.5**	**+0.2**
BILL	**Bilibino**	**122.11**	**338***c*	*i*PKIKP	**PKiKP**	**07 54 46.4**	**+1.2**
BILL				pmax	pmax		
	comp=Z,18nm,1.7s						
KIRV	**Kirov**	**123.21**	**33***c*	*i*PKIKP	**PKiKP**	**07 54 48.5**	**+0.9**
BELG	**Belogornoye**	**123.38**	**41**	*i* PKIKP	**PKiKP**	**07 54 48.3**	**+0.1**
MAK	**Makhachkala**	**124.11**	**52**	*e*P	**Pdif**	**07 51 18.5**	**-5.1**
MAK				*i*		07 54 49.1	
MAK				*e*		07 55 04.1	
MAK				*e*		07 56 35.9	
MAK				*e*PPP	PPP	07 59 13.9	
MAK				*e*		08 01 44.7	
MAK				*e*PS	**PS**	**08 06 29.7**	**-4.0**
MAK				*e*SS	SS	08 13 28.1	+5.8
MAK				*e*SSS	SSS	08 17 59.2	
MAK				pmax	pmax		
	comp=Z,161nm,1.0s						
AKT	**Akhty**	**124.31**	**54**	*i* PKIKP	**PKiKP**	**07 54 50.5**	**-0.1**
AKT				*e*		07 56 36.5	
AKT				*e*PPP	PPP	07 59 11.5	
AKT				*e*SP	SP	08 06 31.5	+1.9
AKT				*e*SS	**SS**	**08 13 26.5**	**+1.2**
AKT				pmax	pmax		
	comp=Z,52nm,1.2s						
MUN	**Mundaring**	**126.61**	**186**	P	**PKPdf**	**07 54 54.8**	**-0.1**
KLBR	**Kellerberrin**	**126.80**	**188**	P	**PKiKP**	**07 54 56.3**	**+0.5**
KLBR	**Kellerberrin**	**126.80**	**188**	P	**PKiKP**	**07 54 55.6**	**-0.2**
H11S2	**WAKE ISLAND Hy**	**126.99**	**277**	T	T	10 14 25.2	
	baz=103,slow=74,SNR=9420						
H11S1	**WAKE ISLAND Hy**	**126.99**	**278**	T	T	10 14 26.0	
	baz=103,slow=74,SNR=9683						
H11S3	**WAKE ISLAND Hy**	**127.00**	**277**	T	T	10 14 26.7	
	baz=103,slow=74,SNR=9448						
H11N3	**WAKE ISLAND Hy**	**127.07**	**279**	T	T	10 14 30.2	
	baz=103,slow=75,SNR=7725						
H11N2	**WAKE ISLAND Hy**	**127.08**	**279**	T	T	10 15 01.0	
	baz=103,slow=75,SNR=7236						
H11N1	**WAKE ISLAND Hy**	**127.08**	**279**	T	T	10 14 36.6	
	baz=103,slow=75,SNR=8161						
MZR	**Muzera**	**127.80**	**77**	*i* PKiKP	**PKiKP**	**07 54 58.7**	**+0.7**
	SNR=5.9						
BLDU	**Ballidu**	**127.90**	**187**	P	**PKiKP**	**07 55 00.3**	**+2.3**
BLDU	**Ballidu**	**127.90**	**187**	P	**PKPdf**	**07 54 57.7**	**+0.3**
MTSU	**Mount Surprise**	**128.38**	**223**	P	**PKiKP**	**07 55 00.4**	**+1.1**
MTSU	**Mount Surprise**	**128.38**	**223**	P	**PKiKP**	**07 54 59.5**	**+0.2**
ARTI	**Arti**	**128.49**	**34**	*i* PKIKP	**PKiKP**	**07 54 59.2**	**+1.0**
ARTI						07 57 03.4	
ARTI						08 02 07.4	
ARTI				MLR	MLR		
	comp=Z,4µm,22.0s						
TIXI	**Tiksi**	**128.58**	**353**	PKP	**PKPdf**	**07 54 57.2**	**-0.2**
	comp=Z,16nm,0.8s,baz=50,slow=3.9,SNR=24						
TIXI	**Tiksi**	**128.58**	**353***c*	*i*PKIKP	**PKPdf**	**07 54 57.4**	**+0.1**
TIXI				pmax	pmax		
	comp=Z,19nm,0.7s						
QIS	**Mount Isa**	**129.32**	**217**	P	**PKiKP**	**07 55 01.5**	**+0.4**
QIS	**Mount Isa**	**129.32**	**217**	P	**PKiKP**	**07 55 01.7**	**+0.6**
AJN	**Ajban**	**129.41**	**75**	*i* PKiKP	**PKPdf**	**07 55 00.3**	**0.0**
	SNR=6.8						
SVE	**Sverdlovsk**	**129.48**	**33**	*i* PKIKP	**PKiKP**	**07 55 00.1**	**-0.1**
SVE				pmax	pmax		
	comp=Z,53nm,1.3s						
SVE				MLR	MLR		
	comp=Z,5µm,21.0s						
MORW	**Morawa**	**129.50**	**187**	P	**PKiKP**	**07 55 01.4**	**+0.1**
AS01	**Alice Springs**	**129.56**	**209**	P	**PKiKP**	**07 55 01.4**	**-0.2**
ASAR	**Alice Springs**	**129.58**	**209**	PKhKP	PKPpre	07 54 45.6	
	comp=Z,0.8nm,0.8s,baz=141,slow=1.8,SNR=6.5						
ASAR				PKP	**PKPdf**	**07 55 01.0**	**+0.1**
	comp=Z,11nm,0.8s,baz=144,slow=2.2,SNR=54						
ASAR	**Alice Springs**	**129.58**	**209**	PKIKP	**PKPdf**	**07 55 01.0**	**+0.1**
SEY	**Seymchan**	**129.66**	**336**	PKP	**PKiKP**	**07 55 00.7**	**+0.3**
	comp=Z,38nm,0.9s,baz=82,slow=2.3,SNR=28						
SEY	**Seymchan**	**129.66**	**336**	*i* PKIKP	**PKPdf**	**07 54 58.1**	**-1.5**
SEY				pmax	pmax		
	comp=Z,47nm,0.9s						
ASUD	**Al Ashush, Dub**	**129.72**	**75**	*i* PKiKP	**PKiKP**	**07 55 02.2**	**+0.5**
	SNR=9.5						
FAQ	**Al Faqa, Dubai**	**129.98**	**75**	*i* PKPdf	**PKPdf**	**07 55 01.1**	**-0.3**

	SNR=8.7						
NAZ	Nazwa, Dubai	130.07	75	i PKPdf	PKPdf	07 55 01.3	-0.3
	SNR=7.4						
NRIK	Noril'sk	130.13	10	PKP	PKiKP	07 55 01.1	0.0
	comp=Z,6.7nm,0.8s,baz=59,slow=5.3,SNR=6.1						
NRIK	Noril'sk	130.13	10	i PKIKP	PKiKP	07 55 01.5	+0.3
UMQ	Umm Al-Quwin	130.14	74	i PKiKP	PKiKP	07 55 02.7	+0.2
	SNR=9.0						
AKTO	Aktyubinsk	130.15	41	PKIKP	PKPdf	07 55 01.2	+0.2
ASHO	Ashiyiah	130.39	75	i PKiKP	PKiKP	07 55 02.9	-0.2
	SNR=7.9						
HATD	Hatta, Dubai	130.47	75	i PKPdf	PKPdf	07 55 02.1	-0.2
	SNR=7.7						
UOSS	Minazif	130.56	75	i PKPdf	PKPdf	07 55 01.6	-0.9
	SNR=5.8						
MSFE	Esma-Masafi	130.57	74	i PKiKP	PKPdf	07 55 02.5	-0.1
	SNR=6.2						
SHME	Shamm	130.63	74	i PKiKP	PKPdf	07 55 03.0	+0.4
	SNR=7.2						
MDH	Madha	130.69	75	i PKiKP	PKiKP	07 55 03.8	+0.1
	SNR=8.5						
SOHO	SOHO	130.74	76	i PKPdf	PKPdf	07 55 02.6	-0.3
	SNR=7.3						
AB31	Akbulak array	131.68	42	i PKIKP	PKiKP	07 55 04.9	0.0
PEA0B	Petropavlovsk-	131.96	323c	iPKIKP	PKiKP	07 55 06.0	+0.7
PETK	Petropavlovsk-	131.96	323	PKP	PKiKP	07 55 04.9	-0.5
	comp=Z,22nm,0.9s,baz=83,slow=4.6,SNR=16						
MA2	Magadan	132.24	333	PKP	PKPdf	07 55 05.1	+0.5
	comp=Z,4.2nm,0.3s,baz=92,slow=6.0,SNR=4.1						
MA2	Magadan	132.24	333c	iPKIKP	PKiKP	07 55 06.7	+1.0
MA2				pmax	pmax		
	comp=Z,15nm,1.3s						
PMG	Port Moresby	132.47	234c	iPKIKP	PKiKP	07 55 07.9	+0.3
PMG				pmax	pmax		
	comp=Z,67nm,2.5s						
WRA	Warramunga Arr	132.58	212	PKhKP	PKPpre	07 54 51.7	
	comp=Z,1.0nm,0.8s,baz=150,slow=1.5,SNR=10						
WRA				PKP	PKPdf	07 55 07.0	+0.4
	comp=Z,8.4nm,0.6s,baz=152,slow=1.8,SNR=11						
WRAB	Tennant Creek	132.58	212	P	PKiKP	07 55 08.0	+0.3
WRAB	Tennant Creek	132.58	212	P	PKiKP	07 55 07.2	-0.5
BORK	Borovoye	136.16	34	i PKIKP	PKiKP	07 55 13.7	-0.2
BVAR	Borovoye Array	136.21	34	PKhKP	PKPpre	07 55 01.2	
	comp=Z,1.0nm,0.6s,baz=276,slow=2.8,SNR=4.4						
BVAR				PKP	PKPdf	07 55 12.7	+0.4
	comp=Z,9.5nm,0.7s,baz=288,slow=1.4,SNR=16						
YAK	Yakutsk	137.22	347	PKhKP	PKPpre	07 55 02.7	
	comp=Z,13nm,0.4s,baz=48,slow=1.3,SNR=5.1						
YAK				PKP	PKPdf	07 55 14.2	+0.4
	comp=Z,30nm,0.7s,baz=333,slow=1.6,SNR=10.0						
YAK				PP	PP	07 57 59.8	+1.4
	comp=Z,14nm,0.5s,baz=6.0,slow=12,SNR=4.8						
YAK	Yakutsk	137.22	347	i PKIKP	PKPdf	07 55 12.7	-1.1
YAK				e		07 57 56.0	
YAK				pmax	pmax		
	comp=Z,43nm,0.9s						
YAK				pmax	pmax		
	comp=Z,358nm,2.0s						
YAK				pmax	pmax		
	comp=N,237nm,2.3s						
YAK				pmax	pmax		
	comp=E,182nm,3.0s						
YAK				MLR	MLR		
	comp=Z,3µm,24.0s						
YAK				MLR	MLR		
	comp=N,2µm,24.0s						
YAK				MLR	MLR		
	comp=E,882nm,20.0s						
IUG	Iuzhnay	140.59	49	ePKIKP	PKPdf	07 55 21.2	+0.4
IUG				e		07 58 21.1	
IUG	Iuzhnay	140.59	49	ePKP	PKPdf	07 55 21.2	+0.4
IUG				ePP	PP	07 58 21.1	+0.6
KK31	Karatay Array	140.60	47	i PKIKP	PKiKP	07 55 22.3	-1.0
NKL	Nikolayevsk	140.62	331	i PKIKP	PKPdf	07 55 20.0	-0.3
NKL				MLR	MLR		
	comp=E,6µm,17.0s						
NKL				MLR	MLR		
	comp=N,6µm,26.0s						
TYV	Tymovskoe	141.13	327	ePKIKP	PKiKP	07 55 22.9	-1.2
TYV				pmax	pmax		
	comp=Z,21nm,1.1s						
TYV				pmax	pmax		
	comp=Z,400nm,5.2s						
DZA	Taraz	141.23	47	ePKIKP	PKPdf	07 55 22.3	+0.5
DZA	Taraz	141.23	47	ePKP	PKPdf	07 55 22.4	+0.5
KURK	Kurchatov	141.73	32	i PKIKP	PKPdf	07 55 23.4	+1.0
KURBB	Kurchatov Arra	141.74	33	PKhKP	PKPpre	07 55 18.2	
	comp=Z,4.8nm,0.6s,baz=303,slow=3.3,SNR=23						
KURBB	Kurchatov Arra	141.74	33	PKHKP	PKPpre	07 55 17.9	
ZALV	Zalesovo Beam	142.24	24	PKhKP	PKPpre	07 55 20.0	
	comp=Z,20nm,0.7s,baz=299,slow=3.4,SNR=23						
ARSB	Arslanbob	142.94	49	PKIKP	PKPdf	07 55 23.4	-1.7
SGDS	Sogindy	143.23	45	ePKP	PKPdf	07 55 25.9	+0.4
YSS	Yuzhno-Sakhali	143.32	322	ePKIKP	PKPbc	07 55 22.7	+0.2
YSS				e		07 55 29.2	
YSS				e		07 55 39.4	
YSS				e		07 58 34.4	
YSS				eSS	SS	08 17 13.6	+0.2
YSS				pmax	pmax		
	comp=Z,20nm,1.0s						
AAK	Ala-Archa	143.48	46	i PKIKP	PKPdf	07 55 24.9	-1.1
AAK	Ala-Archa	143.48	46	i PKPdf	PKPbc	07 55 24.4	+1.0
	SNR=13						
KUU	Kurty	144.14	43	ePKIKP	PKPdf	07 55 27.4	+0.5
KUU	Kurty	144.14	43	ePKP	PKPdf	07 55 27.5	+0.5
GRNR	Gornyy	144.18	331	⇑iPKIKP	PKPdf	07 55 25.9	-0.9
GRNR				pmax	pmax		
	comp=Z,70nm,1.3s						
AAA	Alma-Ata	144.83	44	ePKIKP	PKPdf	07 55 28.7	+0.4
AAA	Alma-Ata	144.83	44	ePKP	PKPdf	07 55 28.7	+0.4
TDK	Taldyqorghan	144.88	40	ePKIKP	PKPdf	07 55 28.7	+0.5
TDK	Taldyqorghan	144.88	40	ePKP	PKPdf	07 55 28.7	+0.5
ASAJ	Asahikawa	144.89	318	PKP	PKPdf	07 55 28.4	+0.2
	comp=Z,127nm,1.0s,baz=321,slow=2.4,SNR=24						
TNSS	Tian-Shan	144.93	44	ePKIKP	PKPdf	07 55 28.8	0.0
TNSS	Tian-Shan	144.93	44	ePKP	PKPdf	07 55 28.9	0.0
MDOK	Medeo	144.94	44	ePKIKP	PKPdf	07 55 28.8	+0.3
MDOK				e		07 58 47.4	
MDOK	Medeo	144.94	44	ePKP	PKPdf	07 55 28.9	+0.3
MDOK				ePP	PP	07 58 47.5	+0.8
ZEA	Zeya	145.18	342	i PKIKP	PKPdf	07 55 28.8	+0.4
ZEA				e		07 55 44.3	
ZEA				pmax	pmax		
	comp=Z,180nm,1.7s						
ZEA				pmax	pmax		
	comp=Z,1µm,3.9s						
NIL	Nilore	145.27	61	PKIKP	PKPdf	07 55 29.3	0.0
MNGI	Mangalore	145.32	98	eP	PKPbc	07 55 23.5	-6.1
KSH2	Kashi	145.57	51	PKPbc	PKPab	07 55 31.1	+0.8
KSH2				sPKP	sPKPdf	07 55 45.8	-4.0
KSH2				PP	PP	07 58 52.5	+1.8
KSH2				PPMZ			
	comp=Z,420nm,6.2s						
KSH2				L	L		
	comp=Z,2µm,21.6s						
KSH2				L	L		
	comp=Z,1µm,23.0s						
KSH2				L	L		
	comp=Z,3µm,21.8s						
DPSS	Saipan	145.66	266		PKPdf	07 55 29.0	-1.3
KPKS	Kokpek	145.84	43	ePKP2	PKPbc	07 55 30.4	-0.2
KPKS	Kokpek	145.84	43	ePKP	PKPbc	07 55 30.4	-0.2
SATY	Saty	145.86	43	ePKP2	PKPdf	07 55 30.4	+0.3
SATY	Saty	145.86	43	ePKP	PKPdf	07 55 30.4	+0.3
KAD	Karad	145.88	91	eP	PKPdf	07 55 24.3	-6.5
MAKZ	Makanchi	145.89	35	PKIKP	PKPdf	07 55 29.5	-0.4
MAKZ	Makanchi	145.89	35		PKPdf	07 55 29.7	-0.2
BKNR	BIKANER	145.97	71	eP	PKPdf	07 55 24.7	-5.8
GUMO	Guam	146.04	263	PKPbc	PKPbc	07 55 31.6	-0.3
	comp=Z,560nm,1.0s,baz=169,slow=5.2,SNR=33						
GUMO	Guam	146.04	263	PKIKP	PKPdf	07 55 29.8	-1.2
GUMO	Guam	146.04	263	PKPdf	PKPdf	07 55 29.8	-1.2
MK31	Makanchi Array	146.07	35	i PKP2	PKPbc	07 55 30.9	-0.2
MKAR	Makanchi Array	146.07	35	PKPbc	PKPbc	07 55 30.8	-0.3
	comp=Z,52nm,0.7s,baz=322,slow=2.8,SNR=241						
MKAR	Makanchi Array	146.07	35	PKP2	PKPdf	07 55 30.2	0.0
MKAR	Makanchi Array	146.07	35	PKPbc	PKPdf	07 55 30.2	0.0
SOEI	Soe	146.07	206	PKP	PKPdf	07 55 30.8	-0.6
PRZ	Przheval'sk	146.14	44	PKP2	PKPbc	07 55 31.4	-0.3
PRZ	Przheval'sk	146.14	44	PKPbc	PKPbc	07 55 31.4	-0.3
UZB	Uzynbulak	146.21	43	ePKP2	PKPdf	07 55 31.0	+0.3
UZB	Uzynbulak	146.21	43	ePKP	PKPdf	07 55 31.0	+0.3
SRGN	SRI GANGA NAGA	146.35	68	eP	PKPdf	07 55 25.3	-5.9
UDPR	Udaipur	146.38	78	eP	PKPdf	07 55 24.8	-6.6
PDGK	Podgornoye	146.42	42	PKP2	PKPbc	07 55 32.9	+0.5
SRNI	Srinagar	146.45	60	eP	PKPdf	07 55 25.6	-5.8
SHLS	Shalkode	146.49	43	ePKIKP	PKPdf	07 55 31.9	+0.7
SHLS	Shalkode	146.49	43	ePKP	PKPdf	07 55 31.9	+0.7
DGZ	Jazzator, Alta	146.52	27	i PKP2	PKPbc	07 55 32.0	-0.5
JMU	Jammu	146.73	63	eP	PKPdf	07 55 25.9	-5.8
KOD	Kodaikanal	146.74	104	eP	PKPdf	07 55 25.9	-6.7
ZSN	Zaisan	146.97	32	ePKIKP	PKPdf	07 55 32.2	+0.5
ZSN				e		07 58 59.3	
ZSN	Zaisan	146.97	32	ePKP	PKPdf	07 55 32.2	+0.5
ZSN				ePP	PP	07 58 59.4	+1.3
AJM	Ajmer	147.22	74	eP	PKPdf	07 55 28.0	-4.8
KLR	Kul'dur	147.34	333	PKPbc	PKPdf	07 55 33.0	+0.7
	comp=Z,32nm,0.9s,baz=42,slow=2.7,SNR=37						
KLR	Kul'dur	147.34	333	i PKHKP	PKPpre	07 55 30.6	
KLR				pmax	pmax		
	comp=Z,24nm,1.6s						
THN	Thein Dam	147.56	63	eP	PKPdf	07 55 27.5	-5.7
TSSA	Tissa	147.81	62	eP	PKPdf	07 55 27.6	-6.2
SALM	Salem	147.91	102	eP	PKPdf	07 55 28.6	-5.6
TEY	Ternei	147.92	323	ePKHKP	PKPpre	07 55 30.3	
HEH	HeiHe	148.15	339	PKPbc	PKPdf	07 55 33.1	-0.4
HEH				PP	PP	07 59 12.5	+7.9
HEH				PPMZ			
	comp=Z,2µm,5.6s						
HEH				L	L		
	comp=Z,2µm,23.4s						
HEH				L	L		
	comp=Z,2µm,22.6s						
HEH				L	L		
	comp=Z,5µm,23.4s						
BHK	Bhakra	148.28	65	eP	PKPdf	07 55 28.0	-6.4
PALK	Pallekele	148.29	112	P	PKPab	07 55 51.1	+10
PALK	Pallekele	148.29	112	PKPbc	PKPbc	07 55 36.8	-1.5
ALCI	Alchi Leh	148.32	59	eP	PKPdf	07 55 28.5	-6.3
RTK	Rohtak	148.64	69	eP	PKPdf	07 55 33.6	-1.3
MALK	Mahakanadarawa	148.69	110	PKP	PKPdf	07 55 37.3	+1.8
CGRH	CHANDIGARH	148.72	66	eP	PKPdf	07 55 28.9	-6.2
KUDL	Kundal	148.79	71	eP	PKPdf	07 55 29.4	-5.9
KKR	Kurukshetra	148.87	67	eP	PKPdf	07 55 29.7	-5.7
IRK	Irkutsk	148.88	7	ePKIKP	PKPdf	07 55 35.7	+1.0
IRK				pmax	pmax		
	comp=Z,598nm,2.2s						
MOY	Mondy	148.96	11	ePKIKP	PKPdf	07 55 36.9	+1.9
MOY				pmax	pmax		
	comp=Z,349nm,2.0s						
AKL	Akola	149.11	85	eP	PKPdf	07 55 28.7	-7.3
BHGR	Bahadurgarh	149.13	70	eP	PKPdf	07 55 30.3	-5.5
AYAN	Aya Nagar	149.32	70	eP	PKPdf	07 55 30.1	-6.0
CIT	Chita	149.32	356	ePKHKP	PKPpre	07 55 36.5	
CIT				e		07 55 44.9	
CIT				e		07 59 10.1	
CIT				pmax	pmax		
	comp=Z,708nm,2.7s						
NPLP	NPLP New Delhi	149.34	70	eP	PKPdf	07 55 29.7	-6.5
NDI	New Delhi	149.37	70	eP	PKPdf	07 55 30.3	-5.9
LDR	Lodi Road	149.39	70	eP	PKPdf	07 55 30.0	-6.1
JMIU	JAMIA UNIVERSI	149.45	70	eP	PKPdf	07 55 29.7	-6.6
BISR	Bishrakh	149.58	70	eP	PKPdf	07 55 30.5	-6.0
GUNA	GUNA	149.67	78	eP	PKPdf	07 55 30.1	-6.8
MERT	Meerut	149.79	69	eP	PKPdf	07 55 30.9	-6.0
KLP	Kalpa	149.82	64	eP	PKPdf	07 55 30.9	-6.4
ASOR	Ausora	149.85	69	eP	PKPdf	07 55 29.4	-7.6
HYB	Hyderabad	149.97	92	ePKPdf	PKPdf	07 55 36.2	-1.3
HYB				ePKiKP	PKPbc	07 55 42.8	+0.3
HYB				IAMs_20	IAMs_20	07 56 02.5	
	comp=Z,2µm,12.3s						
HYB				eSKKSac	SKKSac	08 06 01.6	-3.0
UGON	Onchagaon	150.02	70	eP	PKPdf	07 55 31.6	-5.6
HNLY	HANLEY	150.13	61	eP	PKPdf	07 55 31.4	-6.6
UTK	UTTARKASHI	150.14	65	eP	PKPdf	07 55 31.1	-6.4
AGRA	Agra	150.15	72	eP	PKPdf	07 55 32.9	-4.5
ZAK	Zakamensk	150.58	9	ePKIKP	PKPdf	07 55 38.5	+0.9
ZAK				pmax	pmax		
	comp=Z,67nm,1.6s						
TKRD	Thakurdwara	150.74	68	eP	PKPdf	07 55 32.2	-6.1
JHNI	Jhansi	150.83	76	eP	PKPdf	07 55 32.2	-6.4
HILR	Hailar Array B	150.89	347	PKPbc	PKPbc	07 55 43.6	0.0
	comp=Z,3.7nm,0.5s,baz=129,slow=2.1,SNR=6.9						
WMQ	Urumqi	150.90	35	ePKPbc	PKPdf	07 55 39.4	+1.2
WMQ				pPKP	pPKPdf	07 55 52.3	-0.7
WMQ				sPKP	sPKPdf	07 55 59.6	+1.4
WMQ				L	L		
	comp=Z,2µm,23.1s						
WMQ				L	L		
	comp=Z,3µm,16.9s						
WMQ				L	L		
	comp=Z,3µm,18.5s						
USRK	Ussuriysk Ar.	150.94	327	PKPbc	PKiKP	07 55 44.3	-0.1
	comp=Z,57nm,0.9s,baz=50,slow=2.2,SNR=18						
NGP	Nagpur	151.05	85	eP	PKPdf	07 55 32.8	-6.2
JOSI	Joshimath	151.11	65	eP	PKPdf	07 55 33.2	-5.9
MJAR	Matsushiro Arr	151.31	308	PKPbc	PKiKP	07 55 45.3	-0.3
	comp=Z,36nm,0.9s,baz=111,slow=0.8,SNR=12						
FRKB	FARRUKHABAD	151.58	72	eP	PKPdf	07 55 33.6	-6.1
VJD	Vijayawada	151.71	95	eP	PKPdf	07 55 33.6	-6.5
MDJ	Mudanjiang	151.82	330	PKPbc	PKPbc	07 55 45.6	-0.3
MDJ				PP	PP	07 59 36.0	+10
MDJ				PPMZ			
	comp=Z,2µm,11.5s						
MDJ				L	L		
	comp=Z,1µm,22.8s						
MDJ				L	L		
	comp=Z,2µm,23.6s						
MDJ				L	L		
	comp=Z,4µm,22.4s						
PTH	Pithoragarh	151.84	67	eP	PKPdf	07 55 33.9	-6.3
BNX	BinXian	151.91	334	⇓PKPbc	PKPdf	07 55 38.7	-0.9
BNX				pPKP	pPKPdf	07 55 54.3	-0.1
BNX				S		08 08 17.1	
BNX				SS	SS	08 18 52.3	+2.9
BNX				L	L		
	comp=Z,2µm,29.3s						
BNX				L	L		
	comp=Z,830nm,24.9s						
BNX				L	L		
	comp=Z,4µm,31.4s						
SANI	Sanana	152.00	216	PKP	PKPdf	07 55 36.6	-4.1
KAPI	Kappang	152.11	201	PKPbc	PKiKP	07 55 48.2	+0.4
	comp=Z,64nm,0.8s,baz=166,slow=3.7,SNR=9.4						
LKN	LUCKNOW	152.80	73	eP	PKPdf	07 55 35.1	-6.3
SONM	Songino Array	153.46	6	PKP	PKPdf	07 55 43.0	+1.0
	comp=Z,9.1nm,0.8s,baz=274,slow=0.5,SNR=32						
SONM				PKPbc	PKiKP	07 55 50.0	+0.2
	comp=Z,20nm,0.8s,baz=312,slow=1.2,SNR=22						
SONM				PKPab	sPKPdf	07 56 02.7	+0.7
	comp=Z,41nm,1.0s,baz=322,slow=2.4,SNR=11						
ALBI	Allahabad	153.72	76	eP	PKPdf	07 55 36.4	-6.4
BLSP	Bilaspur	154.03	83	eP	PKPdf	07 55 38.0	-5.4
CN2	Changchun	154.29	334	PKPbc	PKPdf	07 55 42.7	-0.4
CN2				PPMZ			
	comp=Z,300nm,8.9s						
CN2				L	L		
	comp=Z,1µm,26.0s						
CN2				L	L		
	comp=Z,1µm,26.0s						
CN2				L	L		
	comp=Z,1µm,26.1s						
LUWI	Luwuk	154.50	211	PKP	PKPdf	07 55 43.9	-0.5
VAR	Varanasi	154.80	76	eP	PKPdf	07 55 38.1	-6.2
RAGD	RAYAGADA	154.90	90	eP	PKPdf	07 55 38.6	-6.1
VLK	Valmikinagar	155.41	71	eP	PKPdf	07 55 39.0	-6.1
HHU	Hamhung	156.31	325	PKPbc	PKPdf	07 55 46.1	+0.2
HHU				PP	PP	07 59 56.5	+5.0
HHU				AMS	AMS		
	comp=Z,574nm,3.3s						
SNY	Shenyang	156.70	334	PKP	PKPdf	07 55 46.4	0.0
SNY				PPMZ			
	comp=Z,670nm,10.2s						
SNY				L	L		
	comp=Z,1µm,24.0s						
SNY				L	L		
	comp=Z,400nm,25.0s						
SNY				L	L		
	comp=Z,2µm,25.7s						
XLT	XiLinHaoTe	157.03	349	ePKP	PKPdf	07 55 47.4	+0.5
XLT				pPKP	pPKPdf	07 55 57.8	-3.9
XLT				sPKP	sPKPdf	07 56 02.0	-5.0
XLT				PKPab	PKPab	07 56 17.5	+0.3
XLT				PKS	PKSdf	07 59 15.6	-5.1
XLT				L	L		
	comp=Z,1µm,32.0s						
XLT				L	L		
	comp=Z,1µm,29.6s						
SUJ	Sinuiju	157.70	330	PKPbc	PKPdf	07 55 47.6	-0.1
KSRS	Korea Array	157.79	320	PKP	PKPdf	07 55 49.2	+1.3
	comp=Z,11nm,1.0s,baz=47,slow=1.2,SNR=35						
PYAG	Pyongyang	157.89	326	PKPbc	PKPdf	07 55 48.0	0.0
PYAG				PP	PP	08 00 04.3	+4.1
PYAG				AMS	AMS		
	comp=Z,270nm,4.9s						
JNU	Nakatsue	158.22	307	PKPab	PKPab	07 56 23.1	+0.3
	comp=Z,13nm,0.9s,baz=117,slow=3.8,SNR=4.5						
INCN	Inchon	158.53	322	PKP2	PKPab	07 56 24.8	+0.9
HJU	Haeju	158.65	324	PKPbc	PKPdf	07 55 48.6	-0.3
HJU				PP	PP	08 00 08.2	+3.9
HJU				AMS	AMS		
	comp=Z,28nm,1.6s						
GTA2	Gaotai	159.90	24	ePKP	PKPdf	07 55 51.0	+0.4
GTA2				sPKP	sPKPdf	07 56 07.0	-3.6
GTA2				PPMZ			
	comp=Z,680nm,7.8s						
GTA2				L	L		
	comp=Z,2µm,23.2s						
GTA2				L	L		
	comp=Z,1µm,22.2s						
GTA2				L	L		
	comp=Z,3µm,21.3s						
DL2	Dalian	159.96	333	PKP	PKPdf	07 55 50.0	-0.4
DL2				sPKP	sPKPdf	07 56 05.9	-4.6
DL2				PKPab	PKPab	07 56 28.9	-1.0
DL2				SS	SS	08 20 17.3	+1.2
DL2				PPMZ			
	comp=Z,2µm,7.3s						
DL2				L	L		
	comp=Z,3µm,25.8s						
DL2				L	L		
	comp=Z,1µm,21.2s						
DL2				L	L		
	comp=Z,4µm,26.1s						
GOMU	GeErMu	160.10	39	PKP	PKPdf	07 55 50.2	-1.0
GOMU				PP	PP	08 00 16.7	+3.8
GOMU				PPMZ			
	comp=Z,260nm,6.7s						
GOMU				L	L		
	comp=Z,2µm,19.6s						
GOMU				L	L		
	comp=Z,900nm,19.1s						
GOMU				L	L		
	comp=Z,2µm,19.4s						
HHC	Hu-ho-hao-te	160.57	357	⇑iPKP	PKPdf	07 55 52.8	+1.6
HHC				SS	SS	08 20 21.5	-0.6
HHC				PPMZ			
	comp=Z,1µm,6.7s						
HHC				L	L		
	comp=Z,2µm,26.1s						
HHC				L	L		
	comp=Z,1µm,24.4s						
HHC				L	L		
	comp=Z,3µm,24.4s						
BTO2	Baotou	160.72	1	ePKP	PKPdf	07 55 52.4	+1.0
BTO2				PKPab	PKPab	07 56 34.8	+1.5
BTO2				L	L		
	comp=Z,2µm,21.0s						
BTO2				L	L		
	comp=Z,3µm,18.9s						
BTO2				L	L		
	comp=Z,3µm,20.2s						
BJI2	Beijing	160.74	346	PKP	PKPdf	07 55 52.2	+0.9
BJI2				pPKP	pPKPdf	07 56 07.2	+1.1
BJI2				PPMZ			
	comp=Z,430nm,7.0s						
BJI2				L	L		
	comp=Z,1µm,19.8s						
BJI2				L	L		
	comp=Z,760nm,21.0s						
BJI2				L	L		
	comp=Z,2µm,22.0s						
DHUB	DHUBRI	161.00	72	eP	PKPdf	07 55 46.0	-6.0
TAWA	Tawang	162.27	66	eP	PKPdf	07 55 47.4	-6.3
SHL	Shillong	162.75	73	eP	PKPdf	07 55 47.7	-6.4
HNS	HongShan	163.57	347	⇓PKP	PKPdf	07 55 55.8	+1.6
HNS				pPKP	pPKPdf	07 56 10.4	+1.4
HNS				PKPab	PKPab	07 56 46.1	+0.4
HNS				PP	PP	08 00 31.9	+1.8
HNS				PPMZ			
	comp=Z,2µm,7.9s						
HNS				L	L		
	comp=Z,2µm,20.6s						
HNS				L	L		
	comp=Z,1µm,22.1s						
HNS				L	L		
	comp=Z,4µm,22.4s						
TIY	Taiyuan	163.62	354	PKP	PKPdf	07 55 54.8	+0.4
TIY				PPMZ			
	comp=Z,2µm,4.5s						
TIY				L	L		
	comp=Z,1µm,27.5s						
TIY				L	L		
	comp=Z,3µm,27.5s						
TIY				L	L		
	comp=Z,2µm,35.0s						
SILR	SILCHAR	163.70	75	eP	PKPdf	07 55 48.5	-6.1
AZL	Aizawl	163.72	79	eP	PKPdf	07 55 46.3	-8.6
ZIRO	ZIRO	163.97	64	eP	PKPdf	07 55 49.3	-5.8
ITAN	ITANAGAR	163.98	66	eP	PKPdf	07 55 49.2	-5.8
TIA	Tai'an	164.03	339	PKP	PKPdf	07 55 55.2	+0.5
TIA				pPKP	pPKPdf	07 56 09.2	-0.3
TIA				PP	PP	08 00 39.3	+6.6
TIA				L	L		
	comp=Z,730nm,20.6s						
TIA				L	L		
	comp=Z,2µm,24.5s						
TIA				L	L		
	comp=Z,4µm,20.6s						
SAIH	SAIHA	164.05	83	eP	PKPdf	07 55 49.0	-6.2
LZH	Lanzhou	164.37	19	PKP	PKPdf	07 55 56.5	+1.3
LZH				sPKP	sPKPdf	07 56 11.4	-3.9
LZH				PKPab	pPKPab	07 56 58.4	-5.5
LZH				PP	PP	08 00 41.9	+7.2
LZH				SKKS		08 07 20.0	
LZH				SS	SS	08 21 10.5	+8.4
LZH				L	L		
	comp=Z,2µm,18.4s						
LZH				L	L		
	comp=Z,2µm,18.4s						
LZH				L	L		
	comp=Z,4µm,20.6s						
LZDM	Lanzhou Array	164.44	20	PKP	PKPdf	07 55 55.8	+0.3
	comp=Z,2.2nm,0.3s,baz=290,slow=4.3,SNR=2.5						
JORH	JORHAT	164.55	67	eP	PKPdf	07 55 47.8	-7.6
KOHI	KOHIMA	164.69	71	eP	PKPdf	07 55 49.5	-6.3
IMP	Imphal	164.72	74	eP	PKPdf	07 55 49.2	-6.5
MOKO	MOKOCHONG	164.90	68	eP	PKPdf	07 55 50.1	-5.8
SSE	Sheshan	166.17	317	PKP	PKPdf	07 55 57.9	+1.3
SSE				PP	PP	08 00 49.7	+5.1
SSE				SS	SS	08 21 24.9	+3.3
SSE				PPMZ			
	comp=Z,560nm,5.7s						
SSE				L	L		
	comp=Z,900nm,21.6s						
SSE				L	L		
	comp=Z,390nm,21.3s						
LYN	LuoYang	166.74	352	PKP	PKPdf	07 55 58.0	+1.0
LYN				PKPab	PKPab	07 56 59.6	-0.1
LYN				L	L		
	comp=Z,2µm,20.6s						
LYN				L	L		
	comp=Z,2µm,23.6s						
LYN				L	L		
	comp=Z,5µm,24.6s						
NJ2	Nanjing	166.85	326	ePKP	PKPdf	07 55 57.0	-0.1
NJ2				sPKP	sPKPdf	07 56 13.9	-3.3
NJ2				PKPab	PKPab	07 57 00.1	-0.3
NJ2				SS	SS	08 21 27.3	-0.5
NJ2				PPMZ			
	comp=Z,1µm,6.6s						
NJ2				L	L		
	comp=Z,2µm,23.4s						
NJ2				L	L		
	comp=Z,1µm,19.7s						
NJ2				L	L		
	comp=Z,4µm,23.9s						
TNCH	TengChong	168.72	69	PKP	PKPdf	07 55 57.6	-1.3
TNCH				sPKP	sPKPdf	07 56 11.5	-7.5
TNCH				PP	PP	08 01 05.3	+6.4
TNCH				SKKS		08 07 38.0	
TNCH				PPMZ			

	comp=Z,2µm,12.1s						
TNCH				L	L		
	comp=Z,2µm,22.3s						
TNCH				L	L		
	comp=Z,1µm,22.6s						
TNCH				L	L		
	comp=Z,4µm,20.6s						
CD2	**Chengdu**	**168.94**	**30**	PKP	**PKPdf**	**07 55 58.8**	**+0.1**
CD2				pPKP	pPKPdf	07 56 14.5	+0.9
CD2				sPKP	sPKPdf	07 56 19.3	+0.5
CD2				PP	**PP**	**08 00 59.2**	**+0.8**
CD2				SKS	**SKSdf**	**08 02 58.7**	**-0.1**
CD2				SKKS	**SKKSac**	**08 07 40.1**	**-2.4**
CD2				SS	**SS**	**08 21 48.5**	**-0.1**
CD2				PPMZ			
	comp=Z,400nm,5.1s						
CD2				L	L		
	comp=Z,4µm,36.3s						
CD2				L	L		
	comp=Z,3µm,35.3s						
CD2				L	L		
	comp=Z,4µm,34.3s						
CMAR	**Chiang Mai Arr**	**169.07**	**104**	PKP	**PKPdf**	**07 55 59.6**	**+0.5**
	comp=Z,3.7nm,0.7s,baz=272,slow=2.1,SNR=21						
CMAR				PKPab	**PKPab**	**07 57 11.2**	**+0.4**
	comp=Z,5.4nm,0.8s,baz=251,slow=5.4,SNR=8.9						
CMAR				PP	**PP**	**08 00 58.7**	**-1.9**
	comp=Z,2.0nm,0.3s,baz=223,slow=3.4,SNR=4.7						
WHN	**Wuhan**	**170.14**	**338**	PKP	**PKPdf**	**07 55 59.9**	**+0.6**
WHN				pPKP	**pPKPdf**	**07 56 15.3**	**+1.1**
WHN				sPKP	**sPKPdf**	**07 56 20.1**	**+0.7**
WHN				PKPab	**PKPab**	**07 57 14.9**	**0.0**
WHN				SKKS		08 07 47.9	
WHN				L	L		
	comp=Z,7µm,17.4s						
WHN				L	L		
	comp=Z,4µm,19.5s						
WHN				L	L		
	comp=Z,8µm,33.2s						
PZH	**PanZhiHua**	**170.80**	**55**	PKP	**PKPdf**	**07 55 59.7**	**-0.3**
PZH				sPKP	**sPKPdf**	**07 56 13.4**	**-6.7**
PZH				SKKS		08 07 49.6	
PZH				PPMZ			
	comp=Z,710nm,7.2s						
PZH				L	L		
	comp=Z,1µm,22.0s						
PZH				L	L		
	comp=Z,1µm,21.2s						
PZH				L	L		
	comp=Z,3µm,20.9s						
QZH2	**Quanzhou**	**171.46**	**296**	PKP	**PKPdf**	**07 56 01.4**	**+1.2**
QZH2				pPKP	**pPKPdf**	**07 56 16.5**	**+1.4**
QZH2				PKPab	**PKPab**	**07 57 20.2**	**-1.0**
QZH2				PP	**PP**	**08 01 11.1**	**-1.1**
QZH2				SKKS		08 07 55.0	
QZH2				SS	**SS**	**08 22 17.6**	**+1.8**
QZH2				L	L		
	comp=Z,1µm,22.0s						
QZH2				L	L		
	comp=Z,3µm,22.7s						
QZH2				L	L		
	comp=Z,4µm,28.5s						
KMI2	**Kunming**	**172.25**	**60**	⇑PKP	**PKPdf**	**07 56 01.1**	**+0.2**
KMI2				pPKP	pPKPdf	07 56 16.4	+0.6
CNSH	**ChangSha**	**172.79**	**340**	PKP	**PKPdf**	**07 56 00.9**	**+0.2**
CNSH				SS	SS	08 22 25.7	-0.2
CNSH				PPMZ			
	comp=Z,530nm,6.4s						
CNSH				L	L		
	comp=Z,1µm,13.4s						
CNSH				L	L		
	comp=Z,2µm,12.8s						
CNSH				L	L		
	comp=Z,3µm,23.3s						
GZH2	**Guangzhou**	**176.05**	**305**	⇓PKP	**PKPdf**	**07 56 01.9**	**0.0**
GZH2				PKPab	**PKPab**	**07 57 40.9**	**-0.7**
GZH2				PP	**PP**	**08 01 33.7**	**-0.6**
GZH2				SKKS		08 08 22.1	
GZH2				SS	**SS**	**08 22 58.8**	**-0.9**
GZH2				L	L		
	comp=Z,2µm,21.6s						
GZH2				L	L		
	comp=Z,2µm,21.7s						
GZH2				L	L		
	comp=Z,4µm,25.2s						
GULI	**GuiLin**	**176.12**	**357**	⇓PKP	**PKPdf**	**07 55 59.6**	**-2.3**
GULI				L	L		
	comp=Z,2µm,26.0s						
GULI				L	L		
	comp=Z,2µm,23.4s						
GULI				L	L		
	comp=Z,4µm,26.9s						
QIZ	**Qiongzhong**	**177.62**	**173**	PKP	**PKPdf**	**07 56 03.3**	**+1.0**
QIZ				PKPab	PKPab	07 57 51.7	+3.4
QIZ				PP	**PP**	**08 01 41.9**	**+1.8**
QIZ				SKKS		08 08 25.7	
QIZ				SS	**SS**	**08 23 14.6**	**+2.9**
QIZ				PPMZ			
	comp=Z,2µm,14.1s						
QIZ				L	L		
	comp=Z,2µm,20.6s						
QIZ				L	L		
	comp=Z,1µm,21.1s						
QIZ				L	L		
	comp=Z,3µm,22.7s						

*IDC **11** 07:43:55.2±3.2, 53°.63N×87°.19E, h0^{km}, mbtmp2.7/2, ML2.3/2, Error ellipse: s-maj=27.4km s-min=20.4km az=91.0*

ASRS 11 07:43:52.0±0.9, 53°.62N×87°.04E, h0^{km}, M2.5(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	**1.36**	**285**	I	I	07 52 40.0	
	baz=104,slow=323,SNR=3.3						
ZALV	**Zalesovo Beam**	**1.36**	**285**	Pg	Pb	07 44 20.9	+2.7
	0.3nm,0.3s,baz=101,slow=15,SNR=4.8						
ZALV				Lg	Lg	07 44 43.0	
	0.6nm,0.3s,baz=102,slow=27,SNR=5.9						
KURBB	**Kurchatov Arra**	**6.04**	**244**	Pn	Pn	07 45 27.4	+5.0
	0.1nm,0.3s,baz=58,slow=13,SNR=5.1						
KURBB				Lg	Lg	07 47 09.5	
	0.1nm,0.3s,baz=56,slow=35,SNR=4.1						
	0.4nm,0.3s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**7.47**	**206**	Pn	Pn	07 45 48.2	+5.9
	baz=26,slow=15,SNR=1.7						
	0.1nm,0.3s						

PRE 11 07:46:46.3±0.4, 27°.75S×31°.67E, h5^{km}, ML2.9, Presumed earthquake, South Africa

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HOED	**Hoedspruit, Li**	**3.39**	**349**	*e*P	Pn	07 47 40.9	+1.0
HOED				*e*S	Sn	07 48 20.3	-0.3
HOED				IAML		07 49 27.3	
	comp=Z,17nm,0.7s						
RUST	**Rust De Winter**	**3.77**	**311**	*e*P	Pn	07 47 46.0	+0.8
RUST				*e*S	Sn	07 48 29.4	-0.5
RUST				IAML		07 49 13.2	
	comp=Z,7.3nm,0.5s						
HRAO	**HartRAO**	**4.01**	**297**	*e*P	Pn	07 47 49.2	+0.7
HRAO				*e*S	Sn	07 48 35.5	-0.6
BOSA	**Boshof**	**5.72**	**260**	*e*P	Pn	07 48 12.9	+0.8
BOSA				*e*S	Sn	07 49 16.4	-1.9
BOSA				IAML		07 49 17.2	
	comp=Z,17nm,0.6s						
CRAIL	**Swartwater, Li**	**5.82**	**327**	*e*P	Pn	07 48 14.2	+0.9
CRAIL				*e*S	Sn	07 49 18.4	-2.2
CRAIL				IAML		07 49 44.5	
	comp=Z,580nm,0.7s						
LBTB	**Lobatse**	**6.09**	**295**	*e*P	Pn	07 48 18.4	+1.3
LBTB				*e*S	Sn	07 49 25.5	-1.7
LBTB				IAML		07 49 26.2	
	comp=Z,18nm,0.6s						

SOME 11 07:55:03.7, 44°.55N×77°.00E, h5^{km}, Eastern Kazakhstan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRBS	**Karabastau**	**1.28**	**229**	*e*P	Pg	07 55 27.8	-0.4
	15nm,1.1s						
KRBS				*e*S	Sb	07 55 45.0	-0.1
	22nm,1.0s						
KOTS	**Kotyrbulak**	**1.32**	**176**	*e*P	Pn	07 55 27.3	-1.6
	99nm,1.0s						
KOTS				*e*S	Sg	07 55 44.4	-1.7
	137nm,0.9s						
KURS	**Kuram**	**1.36**	**141**	*e*P	Pn	07 55 29.1	-0.3
	83nm,1.3s						
KURS				*e*S	Sb	07 55 47.3	0.0
	494nm,1.0s						
MDOK	**Medeo**	**1.39**	**179**	*e*S	Sb	07 55 46.8	-1.4
	174nm,1.1s						
KST	**Kastek**	**1.68**	**207**	*e*P	Pg	07 55 35.7	-0.2
	6.9nm,1.1s						
KST				*e*S	Sg	07 55 58.7	+1.0
	48nm,1.3s						
SATY	**Saty**	**1.81**	**145**	*e*P	Pb	07 55 36.8	-0.5
	22nm,0.6s						
SATY				*e*S	Sb	07 56 00.5	+0.2
	132nm,1.1s						
SHLS	**Shalkode**	**2.26**	**127**	*e*P	Pg	07 55 49.7	+2.6
	144nm,0.9s						
SHLS				*e*S	Sg	07 56 22.6	+6.3
	104nm,1.1s						

*PAS **11** 07:55:45.5±1.2, 36°.441N±0°.008×117°.995W±0°.009, h4^{km}±2^{km}, Error ellipse: s-maj=1.5km s-min=0.3km az=221.0*

*NEIC **11** 07:55:45.3±1.3, 36°.435N±0°.010×117°.98W±0°.01, h9^{km}±7^{km}, ML4.0/176, ML4.2/320(PAS), Error ellipse: s-maj=1.8km s-min=1.5km az=74.0*

*IDC **11** 07:55:46.2±1.1, 36°.44N×117°.86W, h0^{km}, mb3.5/1, mbtmp3.4/7, ML3.5/7, MS3.9/1, Error ellipse: s-maj=16.5km s-min=8.1km az=76.0*

ISC 11 07:55:45.8±0.9, 36°.43N±0°.02×117°.99W±0°.02, h5^{km}±7^{km}, n150, σ0^{s}.93/167, California-Nevada border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CWC	**Cottonwood Cre**	**0.07**	**275**		**Pg**	**07 55 47.2**	**-0.4**
CGO	**Cerro Gordo**	**0.19**	**53**		**Pg**	**07 55 49.4**	**-0.3**
CGO					**Sg**	**07 55 52.5**	**+0.2**
MFS	**McCloud Flat S**	**0.34**	**161**		**Pg**	**07 55 51.9**	**-0.4**
MFS					**Sg**	**07 55 57.3**	**+0.5**
DAC	**Darwin (Calif)**	**0.36**	**116**		**Pg**	**07 55 52.2**	**-0.6**
DAC					**Sg**	**07 55 57.5**	**0.0**
WRVM	**Rose V. Centra**	**0.43**	**169**		**Pg**	**07 55 53.8**	**-0.4**
WRVM					**Sg**	**07 56 00.2**	**+0.4**
WCSM	**Coso Springs S**	**0.45**	**156**		**Pg**	**07 55 54.1**	**-0.3**
WCSM					**Sg**	**07 56 00.6**	**+0.4**
JRC2	**Joshua Ridge**	**0.47**	**162**		**Pg**	**07 55 54.5**	**-0.4**
JRC2					**Sg**	**07 56 01.6**	**+0.4**
WVPM	**Volcano Peak E**	**0.50**	**164**		**Pg**	**07 55 55.1**	**-0.5**
WVPM					**Sg**	**07 56 02.3**	**+0.3**
MPMC	**Manual Prospec**	**0.55**	**132**		**Pg**	**07 55 55.8**	**-0.7**
MPMC				IAML		07 56 04.2	
	comp=E,13µm,0.5s						
MPMC				IAML		07 56 13.2	
	comp=N,8µm,0.7s						
MPMC	**Manual Prospec**	**0.55**	**132**		**Sg**	**07 56 03.2**	**-0.5**
RCWM	**Renegade Canyo**	**0.56**	**150**		**Pg**	**07 55 56.1**	**-0.5**
RCWM					**Sg**	**07 56 04.2**	**+0.4**
WNMM	**Nine Mile Cany**	**0.59**	**173**		**Pg**	**07 55 56.6**	**-0.6**
WNMM					**Sg**	**07 56 04.9**	**0.0**
TIN	**Tinemaha, Big**	**0.65**	**343**		**Pg**	**07 55 57.7**	**-0.6**
TIN	**Tinemaha, Big**	**0.65**	**343**		**Sg**	**07 56 07.0**	**+0.2**
TOW	**Tower One**	**0.65**	**163**		**Pg**	**07 55 58.2**	**-0.1**
SPG2	**Springville 2**	**0.67**	**250**		**Pg**	**07 55 57.8**	**-0.8**
SPG2					**Sg**	**07 56 06.5**	**-0.8**
CLC	**China Lake**	**0.69**	**152**		**Pg**	**07 55 58.5**	**-0.7**
CLC					**Sg**	**07 56 07.6**	**-0.6**
GRAC	**Grapevine Rang**	**0.75**	**42**		**Pg**	**07 55 59.8**	**-0.5**
GRAC				IAML		07 56 10.9	
	comp=N,9µm,0.8s						
GRAC				IAML		07 56 13.3	
	comp=E,11µm,0.6s						
GRAC	**Grapevine Rang**	**0.75**	**42**		**Sg**	**07 56 10.2**	**+0.1**
WORM	**Onyx Ranch**	**0.76**	**195**		**Pg**	**07 55 59.6**	**-0.9**
WORM					**Sg**	**07 56 09.8**	**-0.6**
SRTC	**Snort**	**0.77**	**165**		**Pg**	**07 56 00.4**	**-0.1**
WHFM	**Hanning Flat**	**0.79**	**202**		**Pg**	**07 56 00.2**	**-0.8**
GPO	**China Lake**	**0.83**	**161**		**Pg**	**07 56 01.3**	**-0.4**
WASM	**Alta Sierra Ca**	**0.83**	**214**		**Pg**	**07 56 01.0**	**-0.7**
WASM					**Sg**	**07 56 12.1**	**-0.5**
LCH	**Last Change Ra**	**0.84**	**19**		**Pg**	**07 56 00.8**	**-1.3**
ISA	**Isabella, Lake**	**0.86**	**207**		**Pg**	**07 56 01.5**	**-0.8**
ISA	**Isabella, Lake**	**0.86**	**207**		**Sg**	**07 56 12.8**	**-0.7**
ISA	**Isabella, Lake**	**0.86**	**207**	IAML		07 56 13.5	
	comp=E,5µm,0.6s						
ISA				IAML		07 56 15.2	
	comp=N,3µm,0.7s						
WBSM	**Bird Springs**	**0.90**	**188**		**Pg**	**07 56 02.3**	**-0.8**
FURC	**Furnace Creek,**	**0.91**	**88**		**Pg**	**07 56 02.5**	**-0.8**
FURC	**Furnace Creek,**	**0.91**	**88**		**Sg**	**07 56 15.3**	**+0.2**
FURC	**Furnace Creek,**	**0.91**	**88**	IAML		07 56 22.8	
	comp=N,5µm,0.7s						
FURC				IAML		07 56 24.0	
	comp=E,7µm,0.7s						
LRMC	**Laurel Mtn Rad**	**0.98**	**165**		**Sg**	**07 56 17.3**	**-0.2**
LRMC	**Laurel Mtn Rad**	**0.98**	**165**		**Pg**	**07 56 03.9**	**-0.8**
LRMC	**Laurel Mtn Rad**	**0.98**	**165**	IAML		07 56 17.9	
	comp=E,4µm,0.6s						
LRMC				IAML		07 56 22.6	
	comp=N,3µm,0.5s						
QSM	**Queen of Sheba**	**1.02**	**117**		**Pg**	**07 56 04.5**	**-0.9**
QSM	**Queen of Sheba**	**1.02**	**117**		**Sg**	**07 56 18.8**	**+0.1**
QSM	**Queen of Sheba**	**1.02**	**117**	IAML		07 56 22.1	
	comp=N,7µm,0.8s						
QSM				IAML		07 56 23.3	
	comp=E,5µm,0.6s						
CCCA	**Chr Cany lake**	**1.04**	**150**		**Pg**	**07 56 05.4**	**-0.3**
GMN	**Gold Mountain**	**1.05**	**34**		**Pg**	**07 56 04.8**	**-1.1**
GMN				IAML		07 56 19.8	
	comp=N,3µm,0.6s						
VES	**Vestal, Richgr**	**1.06**	**237**		**Pg**	**07 56 05.5**	**-0.7**
VES	**Vestal, Richgr**	**1.06**	**237**		**Sg**	**07 56 20.0**	**0.0**
VES	**Vestal, Richgr**	**1.06**	**237**	IAML		07 56 21.2	
	comp=E,6µm,0.6s						
VES				IAML		07 56 22.6	
	comp=N,9µm,0.8s						
GWY	**Greenwater Val**	**1.10**	**103**		**Pg**	**07 56 05.8**	**-1.1**
GWY				IAML		07 56 26.3	
	comp=N,3µm,0.8s						
GWY				IAML		07 56 26.3	
	comp=E,5µm,0.8s						
VOG	**Valley Oaks Go**	**1.13**	**265**		**Sg**	**07 56 21.8**	**-0.3**
WCT	**Wildcat Mounta**	**1.16**	**72**		**Pg**	**07 56 06.8**	**-1.2**
WCT				IAML		07 56 27.3	
	comp=E,3µm,0.6s						
WCT				IAML		07 56 29.4	
	comp=N,2µm,0.7s						
DTP	**Desert Tortois**	**1.17**	**174**		**Pg**	**07 56 07.2**	**-1.1**
DTP					**Sg**	**07 56 23.2**	**-0.2**
CCAC	**Calif City Air**	**1.28**	**181**		**Pg**	**07 56 09.0**	**-1.3**
CCAC					**Sg**	**07 56 26.3**	**-0.6**
MAGC	**SCE Magundon P**	**1.31**	**215**		**Pn**	**07 56 10.1**	**-0.6**
TEJ	**El Tejon**	**1.33**	**205**		**Pn**	**07 56 09.8**	**-1.3**
TEJ					**Sg**	**07 56 27.2**	**-1.3**
MLAC	**Mammoth, Mammo**	**1.37**	**331**		**Pn**	**07 56 10.8**	**-1.1**
BAKC	**Calstate**	**1.41**	**220**		**Pg**	**07 56 13.0**	**+0.1**
MCSM	**Casa Diablo Ho**	**1.42**	**329**		**Pn**	**07 56 11.7**	**-0.9**
ARVC	**Arvin**	**1.47**	**208**		**Pn**	**07 56 12.7**	**-0.2**
MDPB	**Devils Postpil**	**1.48**	**324**		**Pn**	**07 56 12.1**	**-1.3**
MDPB				IAML		07 56 36.4	
	comp=E,2µm,0.9s						
MDPB				IAML		07 56 36.6	
	comp=N,2µm,1.0s						
GSC	**Goldstone, Bar**	**1.48**	**139**		**Pn**	**07 56 11.4**	**-1.9**
GSC				IAML		07 56 37.7	
	comp=N,3µm,0.9s						
FRI	**Friant**	**1.49**	**293**		**Pn**	**07 56 12.1**	**-1.1**
FRI					**Sn**	**07 56 31.1**	**-1.8**
SHOC	**Shoshone, Teco**	**1.49**	**110**		**Pn**	**07 56 11.2**	**-2.0**
TPNV	**Topopah Spring**	**1.49**	**69**		**Pn**	**07 56 12.6**	**-0.8**
TPNV				IAML		07 56 42.6	
	comp=N,2µm,0.9s						
TPNV				IAML		07 56 44.4	
	comp=N,2µm,1.1s						
TJR	**Tejon Ranch**	**1.53**	**204**		**Pn**	**07 56 13.3**	**-0.5**
TJR					**Sn**	**07 56 33.6**	**-0.5**
EDW2	**Edwards Air Fo**	**1.55**	**180**		**Pn**	**07 56 13.2**	**-0.9**
EDW2					**Sn**	**07 56 34.0**	**-0.6**
TPO	**Tropico Hills**	**1.56**	**187**		**Pn**	**07 56 13.7**	**-0.6**
TPO				IAML		07 56 45.2	
	comp=N,3µm,0.7s						
TPO				IAML		07 56 47.0	
	comp=E,2µm,0.9s						
HYS	**Haystack Butte**	**1.60**	**167**		**Pn**	**07 56 13.9**	**-0.9**
THC	**Tehachapi Micr**	**1.62**	**200**		**Pn**	**07 56 14.9**	**-0.3**
FOXC	**Fox Airport**	**1.70**	**187**		**Pn**	**07 56 15.8**	**-0.4**
SBB	**Saddle Back Bu**	**1.75**	**175**		**Pn**	**07 56 15.8**	**-1.0**
TPH	**Tonopah**	**1.75**	**20**	Pn	**Pn**	**07 56 16.2**	**-0.8**
TPH				IAML		07 56 43.5	
	comp=E,2µm,0.9s						
TPH				IAML		07 56 48.7	
	comp=N,2µm,0.7s						
RRX	**Edison Barstow**	**1.75**	**152**		**Pb**	**07 56 18.6**	**+0.1**
ALV	**Alvord Mountai**	**1.76**	**141**		**Pn**	**07 56 15.8**	**-1.2**
CRGC	**Crocker Grade**	**1.84**	**230**		**Pn**	**07 56 19.0**	**+0.8**
LHV	**Little Huntoon**	**1.86**	**348**		**Pn**	**07 56 18.6**	**+0.3**
LHV				IAML		07 56 55.5	
	comp=N,1µm,1.0s						
LHV				IAML		07 56 59.2	
	comp=E,1µm,0.8s						
MPI	**Mount Pinos, F**	**1.87**	**210**		**Pn**	**07 56 19.2**	**+0.4**
CARC	**Carrizo Plain**	**1.88**	**234**		**Pb**	**07 56 19.6**	**-1.0**
YEG	**Yeguas Mountai**	**1.88**	**239**		**Pn**	**07 56 19.6**	**+0.9**
BCW	**Bitter Crk WRg**	**1.89**	**218**		**Pn**	**07 56 19.6**	**+0.8**
CJV	**Casa Juvan**	**1.90**	**184**		**Pb**	**07 56 20.7**	**-0.4**
LRRC	**Littlerock Res**	**1.90**	**181**		**Pb**	**07 56 20.5**	**-0.5**
LOK	**Lockwood Valle**	**1.93**	**208**		**Pn**	**07 56 20.1**	**+0.7**
TUQ	**Turquoise Moun**	**1.95**	**120**		**Pn**	**07 56 18.2**	**-1.5**
SMMC	**Simmler**	**1.97**	**236**		**Pn**	**07 56 20.6**	**+0.7**
HOLC	**Holcomb Ridge**	**1.98**	**176**		**Pn**	**07 56 19.1**	**-0.9**
JNH	**Juniper Hills**	**1.98**	**179**		**Pb**	**07 56 21.8**	**-0.7**
NV11	**Mina Array Sit**	**2.00**	**356**		**Pn**	**07 56 20.2**	**-0.2**
NVAR	**Mina Array Bea**	**2.01**	**353**	Pn	**Pn**	**07 56 20.5**	**-0.1**
	comp=E,138nm,0.3s,baz=174,slow=9.4,SNR=661						
NVAR				Pg	**Pb**	**07 56 22.6**	**-0.4**
	comp=E,176nm,0.3s,baz=169,slow=15,SNR=487						
NVAR				Lg	Lg	07 56 49.6	
	comp=E,97nm,0.3s,baz=63,slow=30,SNR=5.0						
NVAR				AML	AML		
TMC	**Table Mountain**	**2.07**	**173**		**Pn**	**07 56 20.7**	**-0.8**
TSCN	**Private Proper**	**2.11**	**246**		**Pn**	**07 56 22.3**	**+0.5**
PKD	**Bear Valley Ra**	**2.12**	**257**		**Pn**	**07 56 21.6**	**-0.3**
PKD				IAML		07 56 59.6	
	comp=N,2µm,1.0s						
PKD				IAML		07 57 05.8	
	comp=E,2µm,0.9s						
PKM	**Mcpherson Peak**	**2.14**	**224**		**Pn**	**07 56 23.4**	**+1.1**
MTPC	**Mountain Pass**	**2.19**	**115**		**Pn**	**07 56 21.7**	**-1.4**
MTPC				IAML		07 56 58.4	
	comp=E,601nm,0.6s						
MTPC				IAML		07 57 01.4	
	comp=N,604nm,0.9s						
MWC	**Mount Wilson**	**2.21**	**181**		**Pn**	**07 56 22.5**	**-0.7**
MWC				IAML		07 57 02.9	
	comp=E,708nm,1.2s						
MWC				IAML		07 57 12.0	
	comp=N,827nm,0.6s						
BFSC	**Mount Baldy Ra**	**2.21**	**173**		**Pn**	**07 56 22.4**	**-0.8**
BFSC				IAML		07 56 59.3	
	comp=E,928nm,0.9s						
BLCC	**Black Canyon**	**2.25**	**194**		**Pn**	**07 56 23.7**	**-0.1**
PASC	**Pasadena Art C**	**2.26**	**184**		**Pn**	**07 56 22.9**	**-0.9**
PASC				IAML		07 57 07.1	
	comp=E,746nm,0.5s						
PMPB	**Monarch Peak**	**2.28**	**265**		**Pn**	**07 56 23.8**	**-0.3**
SHPR	**Sheep Range**	**2.28**	**87**		**Pn**	**07 56 23.2**	**-1.2**
PSRC	**Puddingstone R**	**2.34**	**176**		**Pn**	**07 56 24.9**	**-0.1**
DJJ	**Donna J Jenkin**	**2.35**	**189**		**Pn**	**07 56 24.7**	**-0.4**
WAKR	**Walker**	**2.37**	**331**		**Pn**	**07 56 26.4**	**+0.9**
PSAM	**San Ardo**	**2.38**	**261**		**Pn**	**07 56 25.8**	**+0.4**
BBGB	**Big Mountain B**	**2.46**	**274**		**Pn**	**07 56 26.7**	**0.0**
RAMR	**Ramage Ranch**	**2.46**	**252**		**Pn**	**07 56 27.4**	**+0.8**
CMB	**Columbia Colle**	**2.49**	**311**		**Pn**	**07 56 27.5**	**+0.4**
CMB				IAML		07 57 07.4	
	comp=E,1µm,0.8s						
PRN	**Pahroc Range**	**2.55**	**67**		**Pn**	**07 56 27.2**	**-0.7**
PRN				IAML		07 57 17.3	
	comp=E,1µm,0.8s						
KVN	**Kaiserville**	**2.61**	**358**		**Pn**	**07 56 28.9**	**0.0**
YERR	**Yerington**	**2.73**	**339**		**Pn**	**07 56 30.3**	**-0.3**
YERR				IAML		07 57 17.9	
	comp=E,379nm,0.8s						
DANC	**Danby, Needles**	**2.78**	**129**		**Pn**	**07 56 31.2**	**+0.2**
SAO	**San Andreas Ge**	**2.80**	**278**		**Pn**	**07 56 31.1**	**-0.2**
ELS	**Elsinore Mount**	**2.82**	**170**		**Pn**	**07 56 31.1**	**-0.5**
BELC	**Belle Mtn. Jos**	**2.93**	**145**		**Pn**	**07 56 32.2**	**-1.0**
BELC				IAML		07 57 27.0	
	comp=N,419nm,0.7s						
BELC				IAML		07 57 36.2	
	comp=E,405nm,0.8s						
PNTR	**Pine Nut**	**2.94**	**335**		**Pn**	**07 56 34.2**	**+0.8**
PNTR				IAML		07 57 36.8	
	comp=E,527nm,1.0s						
PNTR				IAML		07 57 44.2	
	comp=N,556nm,0.9s						
FORD	**Fort Ord Natur**	**3.06**	**276**		**Pn**	**07 56 35.4**	**+0.6**
MHC	**Mount Hamilton**	**3.06**	**288**		**Pn**	**07 56 35.2**	**+0.2**
DNR	**Dunn Ranch,Anz**	**3.07**	**158**		**Pn**	**07 56 34.4**	**-0.7**
PMD	**Palm Desert**	**3.08**	**154**		**Pn**	**07 56 34.5**	**-0.6**
PMD				IAML		07 57 27.8	
	comp=E,278nm,0.7s						
PFO	**Pinyon Flats O**	**3.08**	**155**	Pn	**Pn**	**07 56 34.9**	**-0.3**
	comp=E,3.4nm,0.3s,baz=344,slow=10,SNR=50						
PFO				Pg	**Pb**	**07 56 42.8**	**+1.5**
	comp=E,32nm,0.3s,baz=334,slow=16,SNR=34						
PFO				Lg	Lg	07 57 22.9	
	comp=E,25nm,0.3s,baz=256,slow=15,SNR=6.7						
	comp=E,26nm,0.7s						
PFO				AML	AML		
PFO	**Pinyon Flats O**	**3.08**	**155**		**Pn**	**07 56 34.6**	**-0.7**
PFO				IAML		07 57 30.4	
	comp=E,275nm,2.2s						
IRM	**Iron Mountain**	**3.25**	**133**		**Pn**	**07 56 36.0**	**-1.5**
IRM				IAML		07 57 38.6	
	comp=E,287nm,1.1s						
IRM				IAML		07 57 41.1	
	comp=N,275nm,1.4s						
BORC	**Borrego Spring**	**3.41**	**157**		**Pn**	**07 56 39.1**	**-0.6**
BORC				IAML		07 57 40.5	
	comp=E,283nm,1.7s						
BORC				IAML		07 57 47.7	
	comp=N,240nm,0.8s						
PAHR	**Pah Rah Range**	**3.45**	**342**		**Pn**	**07 56 41.2**	**+0.9**
BC3	**Big Chuckawall**	**3.47**	**142**		**Pn**	**07 56 39.4**	**-1.2**
BC3				IAML		07 57 43.5	
	comp=N,226nm,1.1s						
BC3				IAML		07 57 47.2	
	comp=E,425nm,1.2s						
DPP	**Dos Picos Cty**	**3.53**	**166**		**Pn**	**07 56 40.6**	**-0.8**
DPP				IAML		07 57 43.1	
	comp=E,194nm,1.1s						
JRSC	**Jasper Ridge**	**3.54**	**287**		**Pn**	**07 56 41.1**	**-0.3**
JRSC				IAML		07 57 45.2	
	comp=N,229nm,1.2s						
JRSC				IAML		07 57 59.5	
	comp=E,385nm,1.1s						
W13A	**Hualapai Mount**	**3.60**	**111**		**Pn**	**07 56 41.8**	**-0.6**
W13A				IAML		07 57 42.0	
	comp=N,185nm,1.1s						
LCMT	**Little Creek M**	**3.86**	**80**		**Pn**	**07 56 45.8**	**-0.2**
CCUT	**Cedar City**	**3.87**	**72**		**Pn**	**07 56 45.8**	**-0.5**
BAR	**Barrett**	**3.90**	**163**		**Pn**	**07 56 45.8**	**-0.6**
BAR				IAML		07 57 48.6	
	comp=E,191nm,0.6s						
BLYC	**Blythe**	**3.91**	**132**		**Pn**	**07 56 45.1**	**-1.3**
BLYC				IAML		07 57 50.7	
	comp=E,223nm,0.9s						
BLYC				IAML		07 57 52.7	
	comp=N,229nm,1.0s						
CVS	**Carmenet Viney**	**4.04**	**300**		**Pn**	**07 56 48.6**	**+0.4**
CVS				IAML		07 57 58.7	
	comp=N,207nm,0.9s						
CVS				IAML		07 58 02.7	
	comp=E,250nm,1.5s						
BMN	**Battle Mountai**	**4.04**	**8**		**Pn**	**07 56 46.8**	**-1.6**
SZCU	**Shurtz Canyon**	**4.09**	**72**		**Pn**	**07 56 48.0**	**-1.3**
YUH	**Yuha Desert**	**4.14**	**155**		**Pn**	**07 56 48.4**	**-1.4**
ORV	**Oroville**	**4.17**	**319**		**Pn**	**07 56 50.9**	**+0.8**
ORV				IAML		07 57 58.0	
	comp=N,296nm,0.9s						

KNB	**Kanab**	**4.19**	**80**		**Pn**	**07 56 50.7**	**+0.1**
KNB				IAML		07 58 11.5	
	comp=N,125nm,1.2s						
FARB	**Farallon Islan**	**4.20**	**289**		**Pn**	**07 56 50.6**	**+0.1**
CBX	**Cerro Bola**	**4.25**	**165**		**Pn**	**07 56 51.4**	**0.0**
MCCM	**Marconi Confer**	**4.25**	**295**		**Pn**	**07 56 51.8**	**+0.6**
MCCM				IAML		07 58 18.8	
	comp=N,212nm,1.4s						
U15A	**North Rim**	**4.60**	**88**		**Pn**	**07 56 56.8**	**+0.5**
U15A				IAML		07 58 16.5	
	comp=N,93nm,0.9s						
U15A				IAML		07 58 34.8	
	comp=E,114nm,1.1s						
PKCU	**Pink Cliffs**	**4.66**	**76**		**Pn**	**07 56 57.8**	**+0.6**
PKCU				IAML		07 58 40.1	
	comp=E,166nm,1.2s						
PKCU				IAML		07 58 50.3	
	comp=N,134nm,1.8s						
CCX	**Cicese**	**4.69**	**166**		**Pn**	**07 56 57.0**	**-0.2**
CCX				IAML		07 58 22.1	
	comp=N,77nm,1.0s						
CCX				IAML		07 58 30.7	
	comp=E,108nm,1.3s						
ESJX	**Sierra Juarez**	**4.73**	**158**		**Pn**	**07 56 57.7**	**-0.3**
ESJX				IAML		07 58 23.2	
	comp=E,84nm,1.4s						
Y14A	**Wickenburg**	**4.78**	**120**		**Pn**	**07 56 58.1**	**-0.5**
Y14A				IAML		07 58 22.2	
	comp=E,146nm,0.7s						
Y14A				IAML		07 58 34.2	
	comp=N,136nm,1.1s						
ELK	**Elko**	**4.81**	**26**	Pn	**Pn**	**07 56 59.5**	**+0.3**
	comp=N,2.2nm,0.3s,baz=220,slow=11,SNR=22						
ELK				Pg	**Pg**	**07 57 15.4**	**-2.7**
	comp=N,2.3nm,0.3s,baz=240,slow=14,SNR=6.5						
ELK				Lg	Lg	07 58 15.9	
	comp=N,9.5nm,0.3s,baz=104,slow=22,SNR=14						
	comp=N,12nm,0.5s						
ELK				AML	AML		
ELK	**Elko**	**4.81**	**26**		**Pn**	**07 56 59.5**	**+0.3**
ELK				IAML		07 58 18.7	
	comp=N,81nm,0.7s						
VTX	**Valle De La Tr**	**5.35**	**159**	Pn	**Pn**	**07 57 06.2**	**-0.3**
VTX				IAML		07 58 48.3	
	comp=N,53nm,1.4s						
VTX				IAML		07 58 51.9	
	comp=E,84nm,1.8s						
YBH	**Yreka Blue Hor**	**6.44**	**327**	Pn	**Pn**	**07 57 24.5**	**+3.2**
	comp=E,0.2nm,0.3s,baz=115,slow=12,SNR=8.2						
YBH				Lg	Lg	07 59 06.3	
	comp=E,0.5nm,0.3s,baz=278,slow=24,SNR=7.8						
YBH				LR	LR	07 59 40.5	
	comp=E,906nm,18.8s,baz=208,slow=36						
	comp=E,2.7nm,0.8s						
YBH				AML	AML		
PDAR	**Pinedale Array**	**9.07**	**43**	Pn	**Pn**	**07 58 00.3**	**+2.6**
	comp=E,0.1nm,0.3s,baz=221,slow=5.7,SNR=5.1						
PDAR				Lg	Lg	08 00 30.4	
	comp=E,0.2nm,0.3s,baz=243,slow=28,SNR=2.1						
	comp=E,0.9nm,0.8s						
PDAR				AML	AML		
ANMO	**Albuquerque**	**9.50**	**96**	Pn	**Pn**	**07 58 05.1**	**+1.6**
	comp=E,0.1nm,0.3s,baz=277,slow=14,SNR=4.0						
	comp=E,1.5nm,0.9s						
ANMO				AML	AML		
TXAR	**Lajitas Array**	**13.96**	**116**	Pn	**Pn**	**07 59 06.5**	**+2.1**
	baz=293,slow=10,SNR=6.9						
TXAR				Lg	Lg	08 03 03.7	
	baz=304,slow=31,SNR=2.8						
	comp=E,0.9nm,1.1s						
ILAR	**Eielson Array**	**33.19**	**338**	P	**P**	**08 02 26.3**	**+3.1**
	comp=E,0.6nm,0.9s,baz=127,slow=8.8,SNR=4.3						
	comp=E,0.6nm,0.9s						
HHC	**Hu-ho-hao-te**	**90.66**	**325**	*e*P	**P**	**08 08 47.0**	**-2.7**
HHC				pmax	pmax		
	comp=Z,13nm,0.6s						

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*IDC **11** 08:00:34.2±4.4, 55°.49N×86°.18E, h0^{km}, mbtmp3.1/2, ML2.5/2, Error ellipse: s-maj=32.8km s-min=25.5km az=12.0*

ASRS 11 08:00:30.0±0.8**, 55°.60N×86°.11E, h0**^{km}**, M2.8**(MOS)**, The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	**ZALESOVO INFRA**	**1.82**	**205**	I	I	08 10 40.0	
	0.1nm,0.8s,baz=24,slow=325,SNR=8.6						
ZALV	**Zalesovo Beam**	**1.82**	**205**	Pg	Pg	08 01 04.8	0.0
	3.1nm,0.3s,baz=23,slow=14,SNR=26						
ZALV				Lg	Lg	08 01 30.2	
	2.4nm,0.3s,baz=29,slow=25,SNR=7.8						
KURBB	**Kurchatov Arra**	**6.76**	**226**	Pn	Pn	08 02 14.7	+4.4
	0.1nm,0.3s,baz=45,slow=14,SNR=1.4						
KURBB				Lg	Lg	08 04 08.2	
	baz=46,slow=34,SNR=1.1						
	0.4nm,0.4s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**9.14**	**197**	Pn	Pn	08 02 46.7	+3.6
	0.1nm,0.3s,baz=16,slow=14,SNR=2.1						
	1.2nm,0.9s						
MKAR				AML	AML		

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*ASRS **11** 08:05:05.0±1.1, 54°.31N×86°.17E, h0^{km}, M2.9(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 11 08:05:08.8±3.0**, 54°.22N×86°.04E, h0**^{km}**, mbtmp3.4**/3**, ML2.9**/3**, Error ellipse: s-maj=25.2km s-min=11.5km az=67.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	**ZALESOVO INFRA**	**0.77**	**250**	I	I	08 10 00.0	
	baz=69,slow=326,SNR=3.4						
ZALV	**Zalesovo Beam**	**0.77**	**249**	Pg	Pg	08 05 22.4	-1.1
	1.5nm,0.3s,baz=71,slow=18,SNR=12						
ZALV				Lg	Lg	08 05 35.0	
	10nm,0.3s,baz=68,slow=27,SNR=9.8						
KURBB	**Kurchatov Arra**	**5.84**	**235**	Pn	Pn	08 06 38.0	+1.4
	0.3nm,0.3s,baz=52,slow=13,SNR=19						
KURBB				Lg	Lg	08 08 13.4	
	baz=48,slow=34,SNR=1.6						
	1.4nm,0.4s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**7.81**	**199**	Pn	Pn	08 07 04.5	+0.8
	0.5nm,0.3s,baz=15,slow=14,SNR=15						
MKAR				Sn	Sn	08 08 31.3	-1.5
	0.1nm,0.3s,baz=24,slow=28,SNR=1.5						
	0.8nm,0.3s						
MKAR				AML	AML		
BVAR	**Borovoye Array**	**9.38**	**269**	Pn	Pn	08 07 24.5	-0.6
	baz=84,slow=13,SNR=1.7						
	0.8nm,0.5s						

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*ASRS **11** 08:06:44.0±2.0, 53°.75N×91°.07E, h0^{km}, M3.2(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 11 08:06:52.3±3.5**, 53°.51N×90°.63E, h0**^{km}**, mbtmp3.2**/3**, ML2.7**/3**, Error ellipse: s-maj=27.7km s-min=25.0km az=62.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	**ZALESOVO INFRA**	**3.48**	**280**	I	I	08 30 20.0	
	0.1nm,2.3s,baz=91,slow=321,SNR=18						
ZALV	**Zalesovo Beam**	**3.48**	**280**	Pn	Pn	08 07 49.2	+1.6
	1.3nm,0.3s,baz=99,slow=14,SNR=6.2						
ZALV				Lg	Lg	08 08 42.1	
	0.6nm,0.3s,baz=93,slow=25,SNR=5.1						
	2.8nm,0.3s						
ZALV				AML	AML		
KURBB	**Kurchatov Arra**	**8.00**	**254**	Pn	Pn	08 08 51.0	+1.4
	0.1nm,0.3s,baz=64,slow=14,SNR=4.2						
KURBB				Sn	Sn	08 10 19.3	-1.4
	baz=66,slow=25						
KURBB				Lg	Lg	08 11 05.6	
	0.1nm,0.3s,baz=69,slow=31,SNR=8.5						
	1.7nm,0.8s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**8.59**	**222**	Pn	Pn	08 08 59.0	+1.2
	0.2nm,0.3s,baz=42,slow=13,SNR=3.5						
MKAR				Lg	Lg	08 11 21.2	
	baz=29,slow=24						
	0.4nm,0.4s						
MKAR				AML	AML		
WMQ	**Urumqi**	**9.89**	**192**	*e*P	Pn	08 09 18.2	+2.6
WMQ				pmax	pmax		
	comp=Z,14nm,0.7s						
WMQ				LR	LR		
	comp=N,1µm,20.7s						
WMQ				LR	LR		
	comp=E,940nm,23.8s						
WMQ				LR	LR		
	comp=Z,1µm,24.3s						
SONM	**Songino Array**	**11.49**	**113**	Lg	Lg	08 12 48.4	
	comp=Z,0.2nm,0.3s,baz=307,slow=28,SNR=3.6						

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*PAS **11** 08:14:10.2±1.1, 36°.438N±0°.009×117°.993W±0°.009, h4^{km}±2^{km}, Error ellipse: s-maj=1.4km s-min=0.9km az=202.0*

NEIC 11 08:14:10.2±1.2**, 36°.430N**±0°.004×**117°.99W**±0°.01**, h7**^{km}±3^{km}**, ML3.3**/134**, ML3.6**/92(PAS)**, Error ellipse: s-maj=1.5km s-min=0.4km az=75.0, California-Nevada border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CWC	**Cottonwood Cre**	**0.08**	**277**	Pg	Pg	08 14 12.0	-0.4
CGO	**Cerro Gordo**	**0.19**	**51**		Pg	08 14 14.1	-0.1
CGO					Sg	08 14 17.3	+0.4
MFS	**McCloud Flat S**	**0.33**	**161**		Pg	08 14 16.7	-0.1
MFS					Sg	08 14 21.6	+0.5
DAC	**Darwin (Calif)**	**0.35**	**116**		Pg	08 14 16.9	-0.3
DAC					Sg	08 14 22.2	+0.4
WRVM	**Rose V. Centra**	**0.43**	**170**		Pg	08 14 18.5	-0.1
WRVM					Sg	08 14 24.9	+0.7
WCSM	**Coso Springs S**	**0.44**	**156**		Pg	08 14 18.7	-0.1
WCSM					Sg	08 14 25.2	+0.6
JRC2	**Joshua Ridge**	**0.47**	**162**		Pg	08 14 19.3	-0.1
JRC2					Sg	08 14 26.1	+0.7
WVPM	**Volcano Peak E**	**0.50**	**164**		Pg	08 14 19.8	-0.1
WVPM					Sg	08 14 27.0	+0.6
MPMC	**Manual Prospec**	**0.55**	**133**		Pg	08 14 20.6	-0.3
MPMC	**Manual Prospec**	**0.55**	**133**		Sg	08 14 28.3	+0.3
MPMC	**Manual Prospec**	**0.55**	**133**	IAML		08 14 28.6	
	comp=N,2µm,0.4s						
MPMC				IAML		08 14 28.9	
	comp=E,3µm,0.4s						
RCWM	**Renegade Canyo**	**0.55**	**150**		Pg	08 14 20.8	-0.1
RCWM					Sg	08 14 28.9	+0.8
WNMM	**Nine Mile Cany**	**0.59**	**174**		Pg	08 14 21.3	-0.3
WNMM					Sg	08 14 29.7	+0.4
TOW	**Tower One**	**0.65**	**164**		Pg	08 14 22.9	+0.3
TIN	**Tinemaha, Big**	**0.65**	**343**		Sg	08 14 31.6	+0.1
TIN	**Tinemaha, Big**	**0.65**	**343**		Pg	08 14 22.4	-0.5
TIN	**Tinemaha, Big**	**0.65**	**343**	IAML		08 14 34.1	
	comp=N,6µm,0.6s						
TIN				IAML		08 14 35.5	
	comp=E,4µm,0.5s						
SPG2	**Springville 2**	**0.67**	**250**		Pg	08 14 22.6	-0.6
SPG2					Sg	08 14 31.3	-0.6
CLC	**China Lake**	**0.69**	**153**		Sg	08 14 32.9	+0.5
CLC	**China Lake**	**0.69**	**153**		Pg	08 14 23.2	-0.2
CLC	**China Lake**	**0.69**	**153**	IAML		08 14 38.0	
	comp=E,464nm,0.6s						
CLC				IAML		08 14 38.1	
	comp=N,446nm,0.6s						
GRAC	**Grapevine Rang**	**0.75**	**41**		Sg	08 14 35.0	+0.5
GRAC	**Grapevine Rang**	**0.75**	**41**	Pg	Pg	08 14 24.2	-0.6
GRAC	**Grapevine Rang**	**0.75**	**41**	IAML		08 14 38.4	
	comp=E,3µm,0.6s						
GRAC				IAML		08 14 39.1	
	comp=N,3µm,0.4s						
SRTC	**Snort**	**0.76**	**165**		Pg	08 14 25.1	+0.2
WORM	**Onyx Ranch**	**0.76**	**196**		Pg	08 14 24.3	-0.6
WORM					Sg	08 14 34.4	-0.4
WHFM	**Hanning Flat**	**0.79**	**202**		Pg	08 14 24.9	-0.5
WHFM					Sg	08 14 35.4	-0.2
GPO	**China Lake**	**0.82**	**161**		Pg	08 14 26.0	0.0
WASM	**Alta Sierra Ca**	**0.83**	**214**		Pg	08 14 25.8	-0.5
WASM					Sg	08 14 37.0	-0.1
LCH	**Last Change Ra**	**0.85**	**19**		Pg	08 14 25.5	-1.0
LCH					Sg	08 14 36.7	-0.9
ISA	**Isabella, Lake**	**0.86**	**208**		Pg	08 14 26.5	-0.3
ISA				IAML		08 14 39.1	
	comp=N,1µm,0.2s						
ISA				IAML		08 14 39.8	
	comp=E,1µm,0.2s						
ISA	**Isabella, Lake**	**0.86**	**208**		Sg	08 14 37.7	-0.3
WBSM	**Bird Springs**	**0.90**	**188**		Pg	08 14 27.1	-0.5
WBSM					Sg	08 14 39.2	0.0
FURC	**Furnace Creek,**	**0.91**	**87**		Pg	08 14 27.1	-0.5
FURC					Sg	08 14 39.6	+0.2
FURC	**Furnace Creek,**	**0.91**	**87**	IAML		08 14 48.6	
	comp=E,1µm,0.7s						
FURC				IAML		08 14 53.4	
	comp=N,1µm,0.7s						
LRMC	**Laurel Mtn Rad**	**0.98**	**165**		Pg	08 14 28.6	-0.4
LRMC					Sg	08 14 41.6	-0.2
LRMC	**Laurel Mtn Rad**	**0.98**	**165**	IAML		08 14 42.5	
	comp=E,780nm,0.6s						
LRMC				IAML		08 14 47.3	
	comp=N,760nm,0.4s						
QSM	**Queen of Sheba**	**1.02**	**117**		Pg	08 14 29.2	-0.5
QSM					Sg	08 14 42.9	-0.1
QSM	**Queen of Sheba**	**1.02**	**117**	IAML		08 14 47.0	
	comp=E,1µm,0.5s						
CCCA	**Chr Cany lake**	**1.03**	**151**		Pg	08 14 30.1	0.0
GMN	**Gold Mountain**	**1.05**	**34**		Pg	08 14 29.5	-0.8
GMN					Sg	08 14 43.7	-0.3
GMN	**Gold Mountain**	**1.05**	**34**	IAML		08 14 44.4	
	comp=N,1µm,0.5s						
GMN				IAML		08 14 45.4	
	comp=E,838nm,0.5s						
VES	**Vestal, Richgr**	**1.07**	**237**		Sg	08 14 44.7	+0.2
VES	**Vestal, Richgr**	**1.07**	**237**		Pg	08 14 30.4	-0.3
VES	**Vestal, Richgr**	**1.07**	**237**	IAML		08 14 45.0	
	comp=N,2µm,0.4s						
VES				IAML		08 14 46.1	
	comp=E,1µm,0.4s						
GWY	**Greenwater Val**	**1.09**	**103**		Pg	08 14 30.6	-0.6
GWY	**Greenwater Val**	**1.09**	**103**	IAML		08 14 51.3	
	comp=N,581nm,0.9s						
GWY				IAML		08 14 51.4	
	comp=E,969nm,0.7s						
VOG	**Valley Oaks Go**	**1.13**	**265**		Sg	08 14 46.6	0.0
WCT	**Wildcat Mounta**	**1.15**	**71**		Pg	08 14 31.6	-0.8
WCT				IAML		08 14 39.1	
	comp=N,432nm,0.5s						
WCT				IAML		08 14 52.0	
	comp=E,551nm,0.5s						
DTP	**Desert Tortois**	**1.17**	**174**		Pg	08 14 31.9	-0.7
DTP					Sg	08 14 47.8	+0.1
CCAC	**Calif City Air**	**1.27**	**181**		Pn	08 14 33.8	-0.7
TEJ	**El Tejon**	**1.33**	**206**		Pn	08 14 34.5	-0.7
TEJ					Sb	08 14 52.3	-0.3
MLAC	**Mammoth, Mammo**	**1.38**	**331**		Pn	08 14 35.6	-0.5
BAKC	**Calstate**	**1.41**	**220**		Pb	08 14 36.9	0.0
MCSM	**Casa Diablo Ho**	**1.43**	**329**		Pn	08 14 36.5	-0.3
ARVC	**Arvin**	**1.47**	**208**		Pn	08 14 37.5	+0.4
ARVC					Sg	08 14 57.2	-0.3
GSC	**Goldstone, Bar**	**1.48**	**139**		Pn	08 14 37.3	0.0
GSC				IAML		08 15 00.2	
	comp=E,624nm,0.9s						
GSC				IAML		08 15 02.6	
	comp=N,513nm,0.8s						
SHOC	**Shoshone, Teco**	**1.48**	**110**		Pn	08 14 37.6	+0.3
MDPB	**Devils Postpil**	**1.49**	**324**		Pn	08 14 37.4	-0.2
MDPB					Sn	08 14 56.9	-0.5
MDPB	**Devils Postpil**	**1.49**	**324**	IAML		08 14 57.3	
	comp=N,577nm,0.5s						
MDPB				IAML		08 14 58.0	
	comp=E,483nm,0.2s						
TPNV	**Topopah Spring**	**1.49**	**69**		Pn	08 14 37.5	0.0
TPNV				IAML		08 15 06.9	
	comp=E,524nm,0.8s						
TPNV				IAML		08 15 09.1	
	comp=E,402nm,0.8s						
TJR	**Tejon Ranch**	**1.53**	**204**		Pn	08 14 38.2	+0.2
TJR					Sb	08 14 58.4	-0.1
EDW2	**Edwards Air Fo**	**1.54**	**180**		Pn	08 14 38.0	-0.3
TPO	**Tropico Hills**	**1.56**	**187**		Pn	08 14 38.8	+0.4
TPO				IAML		08 15 02.1	
	comp=E,445nm,0.6s						
TPO				IAML		08 15 09.9	
	comp=N,485nm,0.7s						
HYS	**Haystack Butte**	**1.60**	**168**		Pb	08 14 40.3	+0.1
THC	**Tehachapi Micr**	**1.61**	**200**		Pn	08 14 39.7	+0.4
FOXC	**Fox Airport**	**1.69**	**187**		Pb	08 14 41.4	-0.3
SBB	**Saddle Back Bu**	**1.74**	**176**		Pb	08 14 42.5	-0.1
RRX	**Edison Barstow**	**1.75**	**152**		Pg	08 14 43.6	-0.2
TPH	**Tonopah**	**1.75**	**20**		Pn	08 14 41.0	-0.2
TPH				IAML		08 15 08.2	
	comp=E,511nm,0.7s						
TPH				IAML		08 15 08.7	
	comp=N,488nm,0.8s						
ALV	**Alvord Mountai**	**1.75**	**141**		Pg	08 14 43.4	-0.5
LEOC	**Leona Valley**	**1.81**	**188**		Pb	08 14 44.2	+0.5
CARC	**Carrizo Plain**	**1.88**	**234**		Pb	08 14 44.4	-0.6
YEG	**Yeguas Mountai**	**1.88**	**239**		Pb	08 14 44.6	-0.4
BCW	**Bitter Crk WRg**	**1.89**	**218**		Pb	08 14 44.5	-0.6
CJV	**Casa Juvan**	**1.90**	**184**		Pb	08 14 45.4	+0.1
LRRC	**Littlerock Res**	**1.90**	**181**		Pb	08 14 45.2	0.0
OSI	**Osito Audit: C**	**1.91**	**199**		Pb	08 14 44.4	-1.0
TUQ	**Turquoise Moun**	**1.94**	**120**		Pb	08 14 46.0	-0.1
SMMC	**Simmler**	**1.98**	**236**		Pb	08 14 45.4	-1.2
TSCN	**Private Proper**	**2.11**	**246**		Pn	08 14 47.3	+1.4
PKD	**Bear Valley Ra**	**2.12**	**258**		Pn	08 14 47.0	+0.8
PKD				IAML		08 15 21.5	
	comp=E,273nm,0.8s						
PKD				IAML		08 15 25.9	
	comp=N,307nm,0.9s						
PKM	**Mcpherson Peak**	**2.14**	**225**		Pb	08 14 48.2	-1.3
MTPC	**Mountain Pass**	**2.19**	**115**		Pn	08 14 46.6	-0.5
MTPC				IAML		08 15 23.3	
	comp=E,147nm,0.5s						
BFSC	**Mount Baldy Ra**	**2.20**	**173**		Pn	08 14 47.6	+0.3
MWC	**Mount Wilson**	**2.20**	**182**		Pn	08 14 47.9	+0.6
MWC				IAML		08 15 22.0	
	comp=N,192nm,0.5s						
MWC				IAML		08 15 22.9	
	comp=E,143nm,0.5s						
PASC	**Pasadena Art C**	**2.26**	**184**		Pn	08 14 48.6	+0.6
PASC				IAML		08 15 32.0	
	comp=E,160nm,0.5s						
SHPR	**Sheep Range**	**2.28**	**87**	Pn	Pn	08 14 48.1	-0.3
PMPB	**Monarch Peak**	**2.28**	**265**		Pn	08 14 48.5	+0.1
CFSC	**Central Fire S**	**2.39**	**166**		Pn	08 14 50.6	+0.8
RAMR	**Ramage Ranch**	**2.47**	**252**		Pn	08 14 52.4	+1.5
CMB	**Columbia Colle**	**2.50**	**311**		Pn	08 14 52.4	+1.0
CMB				IAML		08 15 29.4	
	comp=E,230nm,0.5s						
PRN	**Pahroc Range**	**2.54**	**67**	Pn	Pn	08 14 52.3	+0.3
PRN				IAML		08 15 38.5	
	comp=N,228nm,0.6s						
HULI	**Fort Hunter Li**	**2.66**	**262**		Pn	08 14 55.0	+1.5
HULI				IAML		08 15 39.2	
	comp=N,174nm,0.7s						
HULI				IAML		08 15 48.1	
	comp=E,179nm,1.0s						
YERR	**Yerington**	**2.74**	**339**	Pn	Pn	08 14 54.3	-0.4
YERR				IAML		08 15 50.3	
	comp=E,80nm,0.4s						
SAO	**San Andreas Ge**	**2.81**	**278**		Pn	08 14 56.0	+0.5
ELS	**Elsinore Mount**	**2.81**	**170**		Pn	08 14 56.1	+0.4
BELC	**Belle Mtn. Jos**	**2.92**	**146**		Pn	08 14 57.0	-0.2
BELC				IAML		08 15 50.1	
	comp=N,80nm,0.6s						
BELC				IAML		08 16 00.8	
	comp=E,66nm,0.9s						
DNR	**Dunn Ranch,Anz**	**3.06**	**158**		Pn	08 14 59.2	+0.1
MHC	**Mount Hamilton**	**3.07**	**288**		Pn	08 14 59.7	+0.5
MHC				IAML		08 16 00.1	
	comp=E,125nm,0.8s						
PFO	**Pinyon Flats O**	**3.08**	**156**		Pn	08 14 59.6	+0.3
IRM	**Iron Mountain**	**3.25**	**133**	Pn	Pn	08 15 00.8	-0.8
DPP	**Dos Picos Cty**	**3.53**	**166**		Pn	08 15 05.9	+0.4
JRSC	**Jasper Ridge**	**3.54**	**287**	Pn	Pn	08 15 06.2	+0.6
JRSC				IAML		08 16 09.3	
	comp=N,43nm,1.1s						
JRSC				IAML		08 16 24.2	
	comp=E,61nm,1.2s						
W13A	**Hualapai Mount**	**3.59**	**111**		Pn	08 15 07.2	+0.7
LCMT	**Little Creek M**	**3.85**	**80**		Pn	08 15 10.3	+0.3
CCUT	**Cedar City**	**3.87**	**72**		Pn	08 15 10.6	+0.3
BAR	**Barrett**	**3.89**	**163**		Pn	08 15 10.9	+0.4
BAR				IAML		08 16 13.2	
	comp=E,41nm,0.6s						
BLYC	**Blythe**	**3.90**	**132**		Pn	08 15 10.3	-0.2
BLYC				IAML		08 16 17.3	
	comp=N,37nm,0.9s						
BLYC				IAML		08 16 20.7	
	comp=E,35nm,1.6s						
BMN	**Battle Mountai**	**4.04**	**8**	Pn	Pn	08 15 13.9	+1.3
KNB	**Kanab**	**4.19**	**80**	Pn	Pn	08 15 15.2	+0.5
CBX	**Cerro Bola**	**4.25**	**165**		Pn	08 15 16.5	+1.1
CBX				IAML		08 16 30.0	
	comp=N,49nm,1.4s						
MCCM	**Marconi Confer**	**4.26**	**295**	Pn	Pn	08 15 16.1	+0.6
MCCM				IAML		08 16 43.5	
	comp=N,37nm,1.7s						
U15A	**North Rim**	**4.59**	**88**		Pn	08 15 21.2	+0.9
PKCU	**Pink Cliffs**	**4.66**	**76**		Pn	08 15 22.3	+1.1
PKCU				IAML		08 16 54.5	
	comp=E,29nm,2.8s						
PKCU				IAML		08 17 15.4	
	comp=N,25nm,2.5s						
Y14A	**Wickenburg**	**4.78**	**120**		Pn	08 15 21.8	-0.9
Y14A				IAML		08 16 46.8	
	comp=E,26nm,0.7s						
Y14A				IAML		08 16 48.5	
	comp=N,23nm,0.7s						
ELK	**Elko**	**4.81**	**26**	Pn	Pn	08 15 23.3	0.0
ELK				IAML		08 16 43.4	
	comp=N,20nm,0.7s						
113A	**Mohawk Valley,**	**5.04**	**135**	Pn	Pn	08 15 26.8	+0.5
VTX	**Valle De La Tr**	**5.35**	**159**	Pn	Pn	08 15 31.6	+1.0
VTX				IAML		08 17 06.7	
	comp=N,11nm,3.8s						
VTX				IAML		08 17 13.1	
	comp=E,13nm,2.7s						
HMU	**Henry Mountain**	**5.98**	**73**	Pn	Pn	08 15 40.2	+0.9
P18A	**Preston Nutter**	**6.89**	**60**	Pn	Pn	08 15 51.6	-0.4
PV05	**Paradox Valley**	**7.28**	**74**	Pn	Pn	08 15 59.0	+1.9
PV18	**Skein Mesa, Pa**	**7.45**	**73**	Pn	Pn	08 15 59.3	-0.2

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*IDC **11** 08:14:55.5±3.6, 53°.71N×87°.92E, h0^{km}, mbtmp2.8/2, ML2.5/2, Error ellipse: s-maj=27.2km s-min=19.1km az=71.0*

ASRS 11 08:14:52.0±1.2**, 53°.68N×87°.95E, h0**^{km}**, M2.7**(MOS)**, The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	**ZALESOVO INFRA**	**1.87**	**280**	I	I	08 27 15.0	
	baz=97,slow=323,SNR=10						
ZALV	**Zalesovo Beam**	**1.87**	**280**	Pg	Pg	08 15 29.2	+1.3
	1.6nm,0.3s,baz=96,slow=14,SNR=14						
ZALV				Lg	Lg	08 15 55.4	
	2.0nm,0.3s,baz=97,slow=24,SNR=9.1						
KURBB	**Kurchatov Arra**	**6.55**	**246**	Pn	Pn	08 16 34.0	+4.5
	0.1nm,0.3s,baz=62,slow=14,SNR=4.7						
KURBB				Lg	Lg	08 18 22.8	
	baz=64,slow=37,SNR=2.2						
	0.4nm,0.4s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**7.79**	**210**	Pn	Pn	08 16 51.6	+5.1
	0.1nm,0.3s,baz=26,slow=13,SNR=1.6						
MKAR				Lg	Lg	08 19 00.5	
	0.1nm,0.3s,baz=27,slow=30,SNR=1.6						
	0.1nm,0.3s						
MKAR				AML	AML		

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*GUC **11** 08:18:12.9±0.9, 21°.36S×69°.86W, h53^{km}±3^{km}, ML3.9*
*SJA **11** 08:18:12.2±0.8, 21°.36S×69°.86W, h54^{km}±3^{km}, ML3.9, MW3.8*

ISC 11 08:18:14.2±1.2**, 21°.38S**±0°.02×**69°.86W**±0°.05**, h48**^{km}±7^{km}**, n29,** σ1^{s}.**17**/51**, 1C-3D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB02	**IPOC Station P**	**0.07**	**325**	*e*P	**Pn**	**08 18 21.8**	**-0.1**
PB02				*e*S	**Sn**	**08 18 27.4**	**+0.2**
PB02				IAML		08 18 28.1	
	comp=Z,20µm,0.1s						
PB02	**IPOC Station P**	**0.07**	**325**	⇑*i*P	**Pn**	**08 18 21.6**	**-0.2**
PB02				*e*S	**Sn**	**08 18 27.4**	**+0.2**
PB02				IAML		08 18 27.8	
	comp=E,37µm,0.2s						

PB07	IPOC Station P	0.35	185	*e*P	Pn	08 18 23.5	-0.4
PB07				*e*S	Sn	08 18 31.5	+0.8
PB07				IAML		08 18 31.6	
	comp=Z,8µm,0.2s						
PB07	IPOC Station P	0.35	185	*e*P	Pn	08 18 23.8	-0.1
PB07				*e*S	Sn	08 18 31.2	+0.5
PB07				IAML		08 18 31.6	
	comp=E,11µm,0.2s						
PB03	IPOC Station P	0.68	172	*e*P	Pn	08 18 26.8	-1.0
PB03				*e*S	Sn	08 18 37.9	+0.3
PB03				IAML		08 18 39.7	
	comp=Z,6µm,0.2s						
PB03	IPOC Station P	0.68	172	*e*P	Pn	08 18 27.6	-0.2
PB03				*e*S	Sn	08 18 37.7	+0.2
PB03				IAML		08 18 38.8	
	comp=E,10µm,0.2s						
PB09	IPOC Station P	0.71	126	*e*P	Pn	08 18 28.2	0.0
PB09				*e*S	Sn	08 18 39.0	+0.7
PB09				IAML		08 18 39.6	
	comp=Z,4µm,0.4s						
PB09	IPOC Station P	0.71	126	*e*P	Pn	08 18 28.0	-0.2
PB09				*e*S	Sn	08 18 38.2	-0.1
PB09				IAML		08 18 39.3	
	comp=E,11µm,0.4s						
TA01	Diego Aracena	0.86	339	*e*P	Pn	08 18 28.8	-1.3
TA01				*e*S	Sn	08 18 41.6	0.0
TA01	Diego Aracena	0.86	339	⇓*i*P	Pn	08 18 28.6	-1.4
TA01				*e*S	Sn	08 18 40.3	-1.3
TA02	Huaiquique	1.13	347	*e*P	Pn	08 18 32.7	-1.0
TA02				*e*S	Sn	08 18 48.2	+0.2
TA02				IAML		08 18 50.1	
	comp=Z,4µm,0.1s						
TA02	Huaiquique	1.13	347	*e*P	Pn	08 18 32.6	-1.0
TA02				*e*S	Sn	08 18 47.8	-0.3
PB06	IPOC Station P	1.35	169	⇓*i*P	Pn	08 18 36.4	-0.5
PB06				*e*S	Sn	08 18 54.2	+0.4
PB06				IAML		08 18 57.1	
	comp=E,2µm,0.3s						
PB08	IPOC Station P	1.39	28	*e*P	Pn	08 18 37.0	-0.6
PB08				*e*S	Sn	08 18 55.2	+0.1
PB08				IAML		08 18 55.6	
	comp=Z,2µm,0.1s						
PB08	IPOC Station P	1.39	28	⇓*i*P	Pn	08 18 37.0	-0.6
PB08				*e*S	Sn	08 18 54.6	-0.5
PB08				IAML		08 18 56.1	
	comp=E,3µm,0.3s						
PB05	IPOC Station P	1.51	192	*e*P	Pn	08 18 39.4	+0.5
PB05				*e*S	Sn	08 18 59.6	+2.1
PB05				IAML		08 19 01.8	
	comp=Z,854nm,0.6s						
PB05	IPOC Station P	1.51	192	*e*P	Pn	08 18 39.0	+0.1
PB05				IAML		08 19 02.7	
	comp=E,1µm,0.2s						
PB11	IPOC Station P	1.62	7	*e*P	Pn	08 18 39.6	-0.8
PB11				IAML		08 19 03.0	
	comp=Z,2µm,0.2s						
PB11	IPOC Station P	1.62	7	*e*P	Pn	08 18 39.7	-0.8
PB11				*e*S	Sn	08 18 60.0	-0.3
PB11				IAML		08 19 02.7	
	comp=N,3µm,0.3s						
PSGCX	Pisagua	1.79	352	*e*P	Pn	08 18 42.1	-0.7
PSGCX				*e*S	Sn	08 19 07.9	+3.5
PSGCX	Pisagua	1.79	352	*e*P	Pn	08 18 41.6	-1.1
PSGCX				*e*S	Sn	08 19 04.7	+0.3
GO01	Chusmiza	1.81	20	*e*P	Pn	08 18 43.1	-0.2
GO01				IAML		08 19 09.2	
	comp=Z,1µm,0.2s						
GO01	Chusmiza	1.81	20	*e*P	Pn	08 18 43.2	-0.2
GO01				*e*S	Sn	08 19 05.6	+0.2
AF01	San Pedro de A	2.21	136	*e*P	Pn	08 18 47.5	-1.2
AF01				*e*S	Sn	08 19 16.0	+1.0
AF01				IAML		08 19 41.5	
	comp=Z,1µm,0.8s						
PB12	IPOC Station P	2.78	351	*e*P	Pn	08 18 55.3	-1.1
PB12				*e*S	Sn	08 19 33.3	+4.4
PB12				IAML		08 19 49.1	
	comp=Z,286nm,0.3s						
AP01	Chacalluta	3.02	351	*e*P	Pn	08 19 00.8	+1.2
AP01				IAML		08 19 52.9	
	comp=Z,328nm,0.3s						
PB16	IPOC Station P	3.04	6	*e*P	Pn	08 19 01.0	+0.6
PB16				IAML		08 19 50.9	
	comp=Z,164nm,1.6s						
PB14	IPOC Station P	3.27	189	*e*P	Pn	08 19 02.0	-1.4
PB14				*e*S	Sn	08 19 50.0	+8.8
PB14				IAML		08 20 01.3	
	comp=Z,133nm,0.4s						
AC01	Pan de Azucar	4.80	188	*e*P	Pn	08 19 21.9	-2.1
AC01				IAML		08 20 47.2	
	comp=Z,73nm,0.8s						

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*IDC **11** 08:20:26.0±3.4, 53°.56N×87°.63E, h0^{km}, mbtmp3.0/2, ML2.8/2, Error ellipse: s-maj=26.7km s-min=17.7km az=70.0*

ASRS 11 08:20:22.0±0.9**, 53°.60N×87°.68E, h0**^{km}**, M2.7**(MOS)**, The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	ZALESOVO INFRA	1.74	283	I	I	08 31 40.0	
	baz=102,slow=323,SNR=6.3						
ZALV	Zalesovo Beam	1.74	283	Pg	Pg	08 20 57.3	+2.0
	1.7nm,0.3s,baz=99,slow=20,SNR=13						
ZALV				Lg	Lg	08 21 21.8	
	1.9nm,0.3s,baz=100,slow=23,SNR=8.3						
KURBB	Kurchatov Arra	6.38	246	Pn	Pn	08 22 01.6	+4.5
	0.1nm,0.3s,baz=62,slow=14,SNR=2.6						
KURBB				Lg	Lg	08 23 45.8	
	0.1nm,0.3s,baz=64,slow=31,SNR=2.3						
	0.4nm,0.3s						
KURBB				AML	AML		
MKAR	Makanchi Array	7.64	209	Pn	Pn	08 22 19.1	+4.6
	0.4nm,0.3s,baz=29,slow=13,SNR=11						
MKAR				Lg	Lg	08 24 23.4	
	baz=29,slow=29,SNR=1.3						
	0.4nm,0.3s						
MKAR				AML	AML		

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*IDC **11** 08:25:06.9±2.7, 21°.42S×69°.92W, h41^{km}±25^{km}, mb3.7/9, mbtmp4.0/14, ML4.2/5, Error ellipse: s-maj=27.5km s-min=15.3km az=84.0*

*SJA **11** 08:25:06.2±1.1, 21°.38S×69°.85W, h47^{km}±4^{km}, ML4.8, MW4.4*

*GUC **11** 08:25:06.7±0.9, 21°.39S×69°.89W, h48^{km}±3^{km}, ML4.6*

*GFZ **11** 08:25:07.7±0.2, 21°S±2°×7°0W±°, h47^{km}, M4.7/16, mb4.5/16, confirmed*

*NEIC **11** 08:25:07.6±1.3, 21°.43S±0°.03×69°.95W±0°.06, h45^{km}±6^{km}, mb4.6/38, Mwr4.5(GUC), Error ellipse: s-maj=8.2km s-min=4.8km az=97.0*

ISC 11 08:25:07.0±0.5**, 21°.40S**±0°.02×**69°.92W**±0°.04**, h46**^{km}±4^{km}**, n171,** σ1^{s}.**29**/185**, mb4.5**/38**, 6C-12D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PB02	IPOC Station P	0.09	16	*e*P	Pn	08 25 14.9	+0.4
PB02				*e*S	Sn	08 25 20.2	+0.4
PB02				IAML		08 25 20.6	
	comp=Z,155µm,0.2s						
PB02	IPOC Station P	0.09	16	⇓*i*P	Pn	08 25 14.9	+0.4
PB02				*e*S	Sn	08 25 20.1	+0.4
PB02	IPOC Station P	0.09	16	Pn	Pn	08 25 15.1	+0.5
PB02	IPOC Station P	0.09	16	P	Pn	08 25 15.0	+0.4
PB07	IPOC Station P	0.32	174	*e*P	Pn	08 25 16.6	+0.3
PB07				*e*S	Sn	08 25 23.6	+0.8
PB07				IAML		08 25 24.0	
	comp=Z,51µm,0.3s						
PB07	IPOC Station P	0.32	174	⇑*i*P	Pn	08 25 16.8	+0.5
PB07				*e*S	Sn	08 25 23.5	+0.7
PB07				IAML		08 25 24.3	
	comp=E,57µm,0.3s						
PB07	IPOC Station P	0.32	174	Pn	Pn	08 25 16.7	+0.5
PB07	IPOC Station P	0.32	174	P	Pn	08 25 16.8	+0.5
PB03	IPOC Station P	0.66	166	*i*P	Pn	08 25 20.9	+0.6
PB03				*e*S	Sn	08 25 30.6	+0.8
PB03				IAML		08 25 31.7	
	comp=Z,54µm,0.3s						
PB03	IPOC Station P	0.66	166	⇓*i*P	Pn	08 25 20.7	+0.4
PB03				*e*S	Sn	08 25 30.2	+0.4
PB03				IAML		08 25 31.8	
	comp=N,35µm,0.3s						
PB03	IPOC Station P	0.66	166	Pn	Pn	08 25 20.7	+0.4
PB03	IPOC Station P	0.66	166	P	Pn	08 25 20.7	+0.4
PB09	IPOC Station P	0.74	122	*e*P	Pn	08 25 21.4	-0.1
PB09				*e*S	Sn	08 25 31.4	-0.4
PB09				IAML		08 25 32.4	
	comp=Z,26µm,0.6s						
PB09	IPOC Station P	0.74	122	⇑*i*P	Pn	08 25 21.3	-0.1
PB09				*e*S	Sn	08 25 31.2	-0.6
PB09				IAML		08 25 32.4	
	comp=N,51µm,0.4s						
PB09	IPOC Station P	0.74	122	Pn	Pn	08 25 21.4	-0.1
PB09	IPOC Station P	0.74	122	P	Pn	08 25 21.4	+0.1
TA01	Diego Aracena	0.87	344	*e*P	Pn	08 25 22.9	0.0
TA01				*e*S	Sn	08 25 35.4	+0.9
TA01				IAML		08 25 36.2	
	comp=Z,10µm,0.8s						
TA01	Diego Aracena	0.87	344	*e*P	Pn	08 25 22.9	0.0
TA01				*e*S	Sn	08 25 34.6	+0.1
TA01				IAML		08 25 38.4	
	comp=N,23µm,0.3s						
TA01	Diego Aracena	0.87	344		Pn	08 25 22.9	0.0
TA01	Diego Aracena	0.87	344	P	Pn	08 25 22.9	0.0
TA02	Huaiquique	1.14	350	*i*P	Pn	08 25 27.1	+0.5
TA02				*e*S	Sn	08 25 42.2	+1.0
TA02				IAML		08 25 44.6	
	comp=Z,56µm,0.1s						
TA02	Huaiquique	1.14	350	*e*P	Pn	08 25 26.9	+0.3
TA02				*e*S	Sn	08 25 42.0	+0.8
PB06	IPOC Station P	1.34	166	⇓*i*P	Pn	08 25 29.7	+0.2
PB06				*e*S	Sn	08 25 47.0	+0.8
PB06				IAML		08 25 52.7	
	comp=E,15µm,0.3s						
PB06	IPOC Station P	1.34	166	Pn	Pn	08 25 29.7	+0.2
PB06	IPOC Station P	1.34	166	P	Pn	08 25 29.8	+0.4
PB08	IPOC Station P	1.45	30	*i*P	Pn	08 25 31.7	+0.6
PB08				*e*S	Sn	08 25 49.7	+0.6
PB08				IAML		08 25 52.2	
	comp=Z,6µm,0.3s						
PB08	IPOC Station P	1.45	30	⇓*i*P	Pn	08 25 31.5	+0.4
PB08				*e*S	Sn	08 25 49.4	+0.3
PB08				IAML		08 25 51.7	
	comp=E,12µm,0.3s						
PB08	IPOC Station P	1.45	30	Pn	Pn	08 25 31.4	+0.2
PB08	IPOC Station P	1.45	30	P	Pn	08 25 31.6	+0.4
PB05	IPOC Station P	1.47	190	*e*P	Pn	08 25 32.4	+1.2
PB05				*e*S	Sn	08 25 51.8	+2.5
PB05				IAML		08 25 53.7	
	comp=Z,4µm,0.4s						
PB05	IPOC Station P	1.47	190	⇓*i*P	Pn	08 25 32.3	+1.2
PB05				*e*S	Sn	08 25 51.4	+2.1
PB05				IAML		08 25 55.9	
	comp=E,8µm,0.2s						
PB05	IPOC Station P	1.47	190	Pn	Pn	08 25 32.2	+1.0
PB05	IPOC Station P	1.47	190	P	Pn	08 25 32.2	+1.0
PB11	IPOC Station P	1.65	9	*e*P	Pn	08 25 34.1	+0.4
PB11				*e*S	Sn	08 25 54.4	+0.5
PB11				IAML		08 25 57.5	
	comp=Z,12µm,0.3s						
PB11	IPOC Station P	1.65	9	⇓*i*P	Pn	08 25 34.2	+0.4
PB11				*e*S	Sn	08 25 54.6	+0.7
PB11				IAML		08 25 57.9	
	comp=N,30µm,0.5s						
PB11	IPOC Station P	1.65	9	Pn	Pn	08 25 34.6	+0.8
PB11	IPOC Station P	1.65	9	P	Pn	08 25 34.2	+0.4
PSGCX	Pisagua	1.81	354	*e*P	Pn	08 25 36.4	+0.6
PSGCX				*e*S	Sn	08 25 58.3	+0.6
PSGCX	Pisagua	1.81	354		Pn	08 25 36.4	+0.6
PSGCX	Pisagua	1.81	354	P	Pn	08 25 36.5	+0.7
GO01	Chusmiza	1.86	22	*e*P	Pn	08 25 37.3	+0.5
GO01				*e*S	Sn	08 25 59.3	-0.1
GO01				IAML		08 26 02.6	
	comp=Z,11µm,0.7s						
GO01	Chusmiza	1.86	22	*e*P	Pn	08 25 37.6	+0.8
GO01				*e*S	Sn	08 26 00.3	+1.0
GO01				IAML		08 26 06.3	
	comp=E,16µm,0.2s						
GO01	Chusmiza	1.86	22	Pn	Pn	08 25 38.0	+1.2
GO01	Chusmiza	1.86	22	P	Pn	08 25 37.7	+0.8
AF01	San Pedro de A	2.23	134	⇓*e*P	Pn	08 25 44.6	+2.8
AF01	San Pedro de A	2.23	134		Pn	08 25 44.5	+2.6
PX02	IPOC Station P	2.44	354	*e*P	Pn	08 25 43.6	-1.0
PB12	IPOC Station P	2.80	352	*e*P	Pn	08 25 49.9	+0.4
PB12	IPOC Station P	2.80	352		Pn	08 25 49.9	+0.4
PB12	IPOC Station P	2.80	352	P	Pn	08 25 50.0	+0.6
AP01	Chacalluta	3.04	352	*e*P	Pn	08 25 55.2	+2.5
AP01	Chacalluta	3.04	352		Pn	08 25 52.2	-0.5
AP01	Chacalluta	3.04	352	P	Pn	08 25 56.0	+3.3
PB16	IPOC Station P	3.08	7	⇓*e*P	Pn	08 25 55.3	+1.6
PB16	IPOC Station P	3.08	7		Pn	08 25 55.5	+1.9
PB16	IPOC Station P	3.08	7	P	Pn	08 25 55.6	+1.9
PB14	IPOC Station P	3.24	188	⇓*e*P	Pn	08 25 55.5	-0.2
PB14	IPOC Station P	3.24	188		Pn	08 25 55.5	-0.2
PB14	IPOC Station P	3.24	188	P	Pn	08 25 55.7	0.0
PB18	Visviri	3.82	6	*e*P	Pn	08 26 08.0	+4.1
PB18	Visviri	3.82	6		Pn	08 26 07.8	+4.0
YJA	Yavi	4.17	101	*e*P	Pn	08 26 14.4	+5.8
AC01	Pan de Azucar	4.76	187	⇓*e*P	Pn	08 26 14.9	-1.4
AC01	Pan de Azucar	4.76	187		Pn	08 26 15.5	-0.8
SLA	San Lorenzo	5.24	130	*e*P	Pn	08 26 26.7	+3.7
LPAZ	La Paz	5.36	19	P	Pn	08 26 26.8	+1.7
	comp=E,2.6nm,0.3s,baz=195,slow=6.9,SNR=53						
	comp=E,24nm,0.7s						
LPAZ				AML	AML		
LPAZ	La Paz	5.36	19		Pn	08 26 28.4	+3.3
AC02	Maricunga	5.46	173		Pn	08 26 27.3	+1.0
AC02	Maricunga	5.46	173	P	Pn	08 26 27.7	+1.4
	comp=Z,329nm,0.7s						
AC06	Mina Casimiro	5.94	184		Pn	08 26 30.7	-1.8
GO03	Copiapo	6.17	183		Pn	08 26 33.5	-2.2
AC04	Llanos de Chal	6.85	189		Pn	08 26 41.5	-3.5
AC05	El Transito	7.41	182		Pn	08 26 51.0	-1.7
LCO	Las Campanas	7.61	185		Pn	08 26 53.0	-2.6
CO01	Juntas del Tor	8.54	181		Pn	08 27 06.7	-1.7
CO02	Combarbal	9.81	185	Pn	Pn	08 27 21.7	-3.9
SIV	San Ignacio	9.96	59	P	Pn	08 27 25.9	-1.8
	comp=Z,0.1nm,0.3s,baz=255,slow=9.1,SNR=29						
	comp=Z,5.2nm,0.5s						
SIV				AML	AML		
ZON	Zonda	10.16	174		Pn	08 27 28.6	-1.8
CFA	Coronel Fontan	10.27	172	P	Pn	08 27 29.6	-2.2
	comp=Z,3.2nm,0.3s,baz=353,slow=12,SNR=133						
CFA				S	Sn	08 29 31.2	+5.6
	comp=Z,2.9nm,0.5s,baz=300,slow=20,SNR=1.2						
	comp=Z,5.6nm,0.3s						
CFA				AML	AML		
VA03	San Esteban	11.33	183		Pn	08 27 42.9	-3.5
NNA	Nana	11.47	324	P	Pn	08 27 55.2	+6.9
	comp=Z,4.6nm,0.4s,baz=282,slow=14,SNR=2.2						
NNA				S	Sn	08 29 52.2	-3.0
	comp=Z,7.9nm,0.5s,baz=165,slow=14,SNR=2.1						
PTLB	Pontes e Lacer	11.82	62		Pn	08 27 51.9	-1.2
MT03	Universidad Ad	12.05	182	Pn	Pn	08 27 55.5	-0.8
CPUP	Villa Florida	12.52	116	P	Pn	08 28 03.0	+0.4
	comp=Z,0.1nm,0.3s,baz=277,slow=12,SNR=4.9						
	comp=Z,0.9nm,0.5s						
CPUP				AML	AML		
VILB	Vilhena	12.52	49		Pn	08 28 03.0	+0.3
BO02	Sierra Bellavi	13.36	183	P	Pn	08 28 14.5	+0.4
	comp=Z,22nm,0.8s						
ML02	Panimavida	14.37	185	Pn	Pn	08 28 26.6	-1.0
ML02	Panimavida	14.37	185	P	Pn	08 28 27.3	-0.3
	comp=Z,54nm,0.7s						
H03N1	Juan Fernandez	14.39	212	T	T	08 43 51.3	
	baz=35,slow=74,SNR=76						
H03N2	Juan Fernandez	14.40	212	T	T	08 43 45.1	
	baz=227,slow=74,SNR=56						
BI02	San Fabin de	15.25	184	Pn	Pn	08 28 38.8	-0.6
BI02	San Fabin de	15.25	184	P	Pn	08 28 39.2	-0.2
	comp=Z,15nm,1.2s						
TRCB	Terra Rica	16.08	98		P	08 28 51.6	-1.2
TRCB				IAmb	IAmb	08 29 04.9	
	comp=Z,26nm,0.8s						
TRCB	Terra Rica	16.08	98	P	P	08 28 52.6	-0.2
	comp=Z,32nm,0.4s						
CLDB	Colider	17.12	55	P	Pn	08 29 03.0	-0.2
	comp=Z,9.9nm,1.1s						
CPSB	Cacapava Do Su	17.31	125	P	Pn	08 29 02.2	-3.2
	comp=Z,20nm,2.0s						
GO06	Curarrehue	18.17	184	P	P	08 29 15.3	-0.6
FRTB	Fartura	18.93	100	P	P	08 29 22.6	-1.7
	comp=Z,42nm,0.9s						
PLCA	Paso Flores	19.28	181	P	Pn	08 29 28.4	-0.9
	comp=Z,0.3nm,0.3s,baz=1.4,slow=12,SNR=9.9						
	comp=Z,6.6nm,0.9s						
PLCA				AML	AML		
PLCA	Paso Flores	19.28	181	P	P	08 29 28.2	+0.2
BDFB	Brasilia	21.54	78	P	P	08 29 53.2	+0.6
	comp=Z,2.0nm,0.6s,baz=264,slow=9.2,SNR=3.4						
	comp=Z,2.0nm,0.6s						
BDFB	Brasilia	21.54	78	P	P	08 29 53.6	+0.9
SLOR	San Lorenzo -	22.19	337	P	P	08 30 00.2	+0.2
SLOR				IAmb	IAmb	08 30 28.6	
	comp=Z,16nm,0.8s						
COYC	Coyhaique	24.17	184	P	P	08 30 18.9	0.0
COYC				IAmb	IAmb	08 30 31.8	
	comp=Z,34nm,1.5s						
BOAV	Boa Vista	25.38	22		P	08 30 29.8	-0.4
BOAV				IAmb	IAmb	08 30 48.6	
	comp=Z,19nm,0.7s						
ROSC	El Rosal	26.43	350	P	P	08 30 41.2	+1.0
	comp=Z,3.6nm,0.3s,baz=184,slow=19,SNR=1.3						
	comp=Z,3.6nm,0.3s						
GO08	Villa O’Higgin	27.08	184	P	P	08 30 44.5	-0.7
GO08				IAmb	IAmb	08 30 60.0	
	comp=Z,17nm,1.3s						
MG03	Isla Dawson	32.39	181	P	P	08 31 32.3	+0.1
VA02	Isla de Pascua	36.36	253	P	P	08 32 06.1	-0.8
TEIG	Tepich	45.10	335	P	P	08 33 19.2	+0.3
ZAIG	Zacatecas	54.22	322	P	P	08 34 30.0	+1.4
	comp=Z,9.3nm,0.9s						
HNDO	Hondo	58.00	330		P	08 34 55.6	+0.4
HNDO				IAmb	IAmb	08 34 56.4	
	comp=Z,5.0nm,0.6s						
WVT	Waverly	59.68	343	P	P	08 35 04.9	-1.8
	comp=Z,6.0nm,0.8s						
MIAR	Mount Ida	60.02	338	P	P	08 35 08.9	-0.1
MIAR				IAmb	IAmb	08 35 28.9	
	comp=Z,6.4nm,0.7s						
MIAR	Mount Ida	60.02	338	P	P	08 35 08.7	-0.4
	comp=Z,12nm,0.9s						
TXAR	Lajitas Array	60.02	326	P	P	08 35 09.4	+0.1
	comp=Z,0.5nm,0.6s,baz=152,slow=9.2,SNR=8.1						
	comp=Z,0.5nm,0.6s						
VNA3	Neumayer Olymp	60.47	161	⇓P	P	08 35 12.0	+0.2
	comp=Z,1.2nm,0.8s						
VNA3				⇑pP	pP	08 35 25.2	+0.1
	comp=Z,4.4nm,0.7s						
VNA3	Neumayer Olymp	60.47	161	P	P	08 35 11.7	0.0
	comp=Z,7.0nm,0.8s						
VNA2	Neumayer--Watz	61.05	161	⇑pP	pP	08 35 29.2	+0.1
	comp=Z,3.3nm,0.6s,baz=287,slow=6.5						
TPB05	Hovey Rd	61.12	327	P	P	08 35 16.8	0.0
TPB05				IAmb	IAmb	08 35 18.0	
	comp=Z,3.4nm,0.6s						
MNHN	Monahans	61.17	328		P	08 35 17.4	+0.3
MNHN				IAmb	IAmb	08 35 37.0	
	comp=Z,5.5nm,0.9s						
TPB01	Permian Basin	61.37	327	P	P	08 35 18.0	-0.4
TPB01				IAmb	IAmb	08 35 38.1	
	comp=Z,3.8nm,0.7s						
SN07	Snyder 07	61.73	331	P	P	08 35 20.5	-0.3
VHRN	Van Horn	61.86	326		P	08 35 22.6	+0.7
VHRN				IAmb	IAmb	08 35 42.6	
	comp=Z,5.2nm,0.8s						
TPB28		62.31	327	P	P	08 35 25.3	+0.5
TPB28				IAmb	IAmb	08 35 46.2	
	comp=Z,3.6nm,0.9s						
SNAA	Sanae	62.68	161	⇑pP	pP	08 35 39.2	-0.9
	comp=Z,77nm,0.6s						
SNAA	Sanae	62.68	161	P	P	08 35 26.6	-0.2
	comp=Z,7.4nm,1.3s						
S39A	Bolivar	62.77	339	P	P	08 35 26.8	-0.8
MNTX	Cornudas Mount	62.79	326	P	P	08 35 28.1	+0.2
MNTX				IAmb	IAmb	08 35 47.9	
	comp=Z,2.8nm,0.8s						
MNTX	Cornudas Mount	62.79	326	P	P	08 35 27.7	-0.2
	comp=Z,6.7nm,2.7s						
R40A	Maddies Statio	62.98	340		P	08 35 28.3	-0.7
MSTX	Muleshoe	63.33	330	P	P	08 35 31.0	-0.6
MSTX				IAmb	IAmb	08 35 51.6	
	comp=Z,12nm,1.1s						
P40A	Paris	64.05	341	P	P	08 35 35.6	-0.4
TROLL	Troll, Antarti	64.39	161	⇓P	P	08 35 38.5	+0.4
	comp=Z,35nm,0.5s						
TROLL				⇑pP	pP	08 35 51.2	-0.4
	comp=Z,156nm,0.6s						
ALQ	Albuquerque	65.91	328		P	08 35 48.0	-0.5
ALQ	Albuquerque	65.91	328		P	08 35 48.1	-0.4
ALQ				IAmb	IAmb	08 36 11.7	
	comp=Z,2.1nm,0.9s						
ANMO	Albuquerque	65.91	328	P	P	08 35 48.8	+0.3
ANMO	Albuquerque	65.91	328	P	P	08 35 48.3	-0.2
	comp=Z,2.6nm,1.2s						
TASM	ASL Pad, Albuq	65.91	328	P	P	08 35 48.7	+0.2
TASM				IAmb	IAmb	08 36 09.3	
	comp=Z,5.0nm,1.4s						
TASM	ASL Pad, Albuq	65.91	328	P	P	08 35 48.2	-0.3
TASM				IAmb	IAmb	08 36 11.8	
	comp=Z,2.1nm,0.9s						
SDCO	Great Sand Dun	67.69	330	P	P	08 36 00.6	+0.8
SDCO				IAmb	IAmb	08 36 21.2	
	comp=Z,3.3nm,0.8s						
BGNE	Belgrade	67.76	337	P	P	08 35 59.8	-0.1
MVCO	Mesa Verde	68.71	328	P	P	08 36 07.1	+0.9
	comp=Z,6.5nm,1.1s						
QSPA	South Pole Qui	68.79	180	P	P	08 36 07.2	+1.0
	comp=Z,1.5nm,0.4s,baz=144,slow=6.3,SNR=41						
	comp=Z,1.5nm,0.4s						
PV01	Paradox Valley	69.46	328	P	P	08 36 11.4	+0.6
PV01				IAmb	IAmb	08 36 32.7	
	comp=Z,3.8nm,0.8s						
SRU	San Rafael Swe	71.19	328	P	P	08 36 22.0	+0.7
SRU				IAmb	IAmb	08 36 42.8	
	comp=Z,6.5nm,0.9s						
RSSD	Black Hills	72.31	335	P	P	08 36 29.1	+1.1
	comp=Z,5.0nm,2.0s						
PDAR	Pinedale Array	73.56	331	P	P	08 36 34.9	-0.6
	comp=Z,0.3nm,0.6s,baz=141,slow=7.9,SNR=4.7						
	comp=Z,0.3nm,0.6s						
HWUT	Hardware Ranch	73.61	329	P	P	08 36 36.9	+1.2
	comp=Z,5.2nm,0.9s						
AHID	Auburn Hatcher	74.27	330	P	P	08 36 39.8	+0.2
	comp=Z,5.8nm,0.8s						
NVAR	Mina Array Bea	74.84	323	P	P	08 36 43.9	+0.9
	comp=Z,0.8nm,0.7s,baz=163,slow=6.6,SNR=6.4						
	comp=Z,0.8nm,0.7s						
YNE	Yellowstone No	75.52	332	P	P	08 36 47.4	+0.6
YNE				IAmb	IAmb	08 37 08.3	
	comp=Z,9.9nm,0.9s						
HLID	Hailey	76.46	328	P	P	08 36 54.0	+1.9
	comp=Z,3.1nm,1.2s						
VNDA	Vanda	76.78	190	P	P	08 36 53.3	0.0
	comp=Z,1.0nm,1.2s,baz=225,slow=2.9,SNR=1.9						
	comp=Z,1.0nm,1.2s						
TORD	Torodi Ar. Bea	78.21	71	P	P	08 37 02.0	-0.3
	comp=Z,0.5nm,0.6s,baz=249,slow=4.9,SNR=3.5						
	comp=Z,0.5nm,0.6s						
PLID	Pearl Lake	78.36	329	P	P	08 37 03.7	+1.0
PINE	Pine Mountain	79.96	325		P	08 37 12.3	+0.8
PINE				IAmb	IAmb	08 37 33.1	
	comp=Z,15nm,1.5s						
MAW	Mawson	84.69	164	P	P	08 37 36.0	+0.3
	comp=Z,0.7nm,0.5s,baz=236,slow=7.3,SNR=2.0						
	comp=Z,0.7nm,0.5s						
H11S2	WAKE ISLAND Hy	126.93	278	T	T	11 03 34.6	
	baz=103,slow=74,SNR=421						
H11S1	WAKE ISLAND Hy	126.94	278	T	T	11 03 35.2	
	baz=103,slow=74,SNR=359						
H11S3	WAKE ISLAND Hy	126.95	278	T	T	11 03 35.6	
	baz=103,slow=74,SNR=256						
H11N3	WAKE ISLAND Hy	127.01	279	T	T	11 03 49.7	
	baz=102,slow=75,SNR=273						
H11N2	WAKE ISLAND Hy	127.03	279	T	T	11 03 50.1	
	baz=102,slow=75,SNR=200						
H11N1	WAKE ISLAND Hy	127.03	279	T	T	11 03 55.9	
	baz=102,slow=75,SNR=139						
WRA	Warramunga Arr	132.55	212	PKP	PKPdf	08 44 16.3	-1.1
	comp=Z,0.2nm,0.5s,baz=139,slow=2.0,SNR=1.5						
KURBB	Kurchatov Arra	141.77	33	PKP	PKPdf	08 44 33.9	+0.6
	comp=Z,0.2nm,0.3s,baz=289,slow=2.8,SNR=1.3						
MKAR	Makanchi Array	146.10	35	PKPbc	PKPbc	08 44 42.1	0.0
	comp=Z,1.3nm,0.6s,baz=325,slow=4.3,SNR=15						
WMQ	Urumqi	150.93	35	*e*PKPbc	PKPdf	08 44 48.4	-0.7
HHC	Hu-ho-hao-te	160.57	357	*e*P	PKPdf	08 45 03.0	+0.9
NJ2	Nanjing	166.82	325	*e*P	PKPdf	08 45 07.7	-0.3
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
PZH	PanZhiHua	170.84	55	PKP	PKPdf	08 45 10.2	-0.7

WEL 11 08:31:07.3±0.9,37°S±6°×18°0E±°,h12^{km},M3.5/12, ML3.4/14,MLv3.5/12,Error ellipse: s-maj=9.7km s-min=7.7km az=100.7,confirmed,Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	Matakaoa Point	1.42	230	P	Pn	08 31 32.3	-0.6
MXZ				S	Sn	08 31 50.5	-1.0
MXZ				AML	AML		
MXZ				AML	AML		
WMGZ	Waiomatatini S	1.53	221	P	Pb	08 31 35.4	-0.2
WMGZ				S	Sg	08 31 56.0	-0.7
WMGZ				AML	AML		
WMGZ				AML	AML		
PKGZ	Pakihiroa	1.75	226	P	Pb	08 31 38.5	-0.9
PKGZ				S	Sn	08 31 59.6	-0.2
PKGZ				AML	AML		
PKGZ				AML	AML		
PUZ	Puketiti	1.81	218	P	Pn	08 31 38.8	+0.6
PUZ				S	Sn	08 32 00.8	-0.3
PUZ				AML	AML		
PUZ				AML	AML		
HAZ	Te Kaha	1.86	233	P	Pn	08 31 39.1	0.0
HAZ				S	Sn	08 32 02.7	+0.2
HAZ				AML	AML		
HAZ				AML	AML		
TWGZ	Tauwhareparae	2.03	221	P	Pn	08 31 42.0	+0.7
TWGZ				S	Sn	08 32 06.5	-0.2
TWGZ				AML	AML		
TWGZ				AML	AML		
RUGZ	Raukumara Rang	2.06	230	P	Pn	08 31 42.8	+1.0
RUGZ				AML	AML		
RUGZ				AML	AML		
CNGZ	Carnagh Statio	2.16	212	P	Pn	08 31 43.8	+0.7
CNGZ				AML	AML		
CNGZ				AML	AML		
WIZ	White Island	2.17	246	P	Pn	08 31 42.8	-0.4
TKGZ	Te Karaka	2.29	219	P	Pn	08 31 44.9	-0.1
TKGZ				S	Sn	08 32 12.4	-0.7
TKGZ				AML	AML		
TKGZ				AML	AML		
MWZ	Matawai	2.39	225	P	Pn	08 31 46.5	+0.2
MWZ				S	Sn	08 32 14.2	-1.3
MWZ				AML	AML		
MWZ				AML	AML		
RIGZ	Rimuhau	2.54	216	P	Pn	08 31 48.1	-0.4
RIGZ				S	Sn	08 32 18.4	-1.0
RIGZ				AML	AML		
RIGZ				AML	AML		
URZ	Urewera	2.59	231	P	Pn	08 31 48.9	-0.1
URZ				S	Sn	08 32 18.4	-2.0
URZ				AML	AML		
URZ				AML	AML		
PRGZ	Paritu Road	2.67	212	P	Pn	08 31 49.7	-0.4
PRGZ				S	Sn	08 32 20.5	-1.9
PRGZ				AML	AML		
KNZ	Kokohu	2.84	213	P	Pn	08 31 51.2	-1.3
MHGZ	Mahia Peninsul	2.85	209	P	Pn	08 31 52.3	-0.4
MHGZ				AML	AML		
RTZ	Ruatahuna	2.90	227	P	Pn	08 31 53.4	+0.1
RTZ				S	Sn	08 32 27.8	-0.3
RTZ				AML	AML		
TGRZ	Tauranga	2.93	248	P	Pn	08 31 53.1	-0.6
TGRZ				AML	AML		
MUGZ	Murupara	2.93	231	P	Pn	08 31 53.5	-0.3
RRRZ	Republican Roa	3.02	235	P	Pn	08 31 55.7	+0.7
RAHZ	Arahi	3.04	222	P	Pn	08 31 55.5	+0.2
MTHZ	Maungataniwha	3.13	225	P	Pn	08 31 57.1	+0.5
KMRZ	Kaimai	3.20	247	P	Pn	08 31 57.2	-0.4
ALRZ	Allen Road	3.25	233	P	Pn	08 31 58.4	+0.2
NMHZ	Naumai	3.33	222	P	Pn	08 31 59.7	+0.5
TOZ	Tahuroa Road	3.50	251	P	Pn	08 32 00.9	-0.6
BKZ	Black Stump Fm	3.55	224	P	Pn	08 32 01.4	-0.9
MKAZ	Moumakai	3.64	262	P	Pn	08 32 02.9	-0.6
WIAZ	Waiheke Island	3.65	267	P	Pn	08 32 03.4	-0.2
WIAZ				AML	AML		
KWHZ	Kaweka Forest	3.77	222	P	Pn	08 32 04.6	-0.7
ETAZ	East Tamaki Re	3.82	264	P	Pn	08 32 06.0	+0.1
KAHZ	Kahuranaki	3.83	214	P	Pn	08 32 04.3	-1.8
MBAZ	Motutapu North	3.84	267	P	Pn	08 32 06.2	0.0
BHHZ	Black Hill Sta	4.01	224	P	Pn	08 32 07.9	-0.7
AWAZ	Awhitu Peninsu	4.05	263	P	Pn	08 32 09.2	+0.1
SNVZ	South Ngauruho	4.07	230	P	Pn	08 32 09.0	-0.5
RVAZ	Riverhead Bore	4.09	267	P	Pn	08 32 10.4	+0.7
RVAZ				AML	AML		
RVAZ				AML	AML		
WTAZ	Waiatarua	4.10	265	P	Pn	08 32 10.3	+0.5
MOVZ	Moawhango	4.13	227	P	Pn	08 32 09.9	-0.5
WHVZ	Whangaehu Hut	4.16	230	P	Pn	08 32 10.3	-0.5
WNVZ	Wahianoa	4.18	229	P	Pn	08 32 10.5	-0.5
PNHZ	Pukenui	4.25	219	P	Pn	08 32 09.8	-2.0
HIZ	Hauiti	4.25	243	P	Pn	08 32 12.8	+0.9
WCZ	Waipu Caves	4.36	278	P	Pn	08 32 13.4	0.0
WCZ				AML	AML		
TSZ	Takapari Road	4.47	220	P	Pn	08 32 12.6	-2.4
OUZ	Omahuta	5.13	284	P	Pn	08 32 23.0	-1.0
CTZ	Chatham Island	7.62	159	P	Pn	08 32 57.2	-0.8
CTZ				S	Sn	08 34 15.3	-8.9

IDC 11 08:31:48.6±8.0,8°.40S×129°.72E,h91^{km}±63^{km},mb3.5/1, mbtmp3.8/4,ML3.9/3,Error ellipse: s-maj=62.1km s-min=50.0km az=179.0,Timor Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	10.43	202	P	Pn	08 34 13.8	-1.5
	0.6nm,0.3s,baz=18,slow=13,SNR=16						
FITZ				S	Sn	08 36 09.2	-1.0
	4.7nm,0.5s,baz=87,slow=18,SNR=6.1						
	1.3nm,0.4s						
FITZ				AML	AML		
WRA	Warramunga Arr	12.32	159	P	Pn	08 34 41.8	+1.0
	0.9nm,0.3s,baz=344,slow=13,SNR=26						
WRA				S	Sn	08 36 57.2	+0.9
	6.2nm,0.6s,baz=343,slow=24,SNR=17						
	1.4nm,0.4s						
WRA				AML	AML		
ASAR	Alice Springs	15.71	166	P	P	08 35 26.1	-0.8
	0.4nm,0.3s,baz=348,slow=13,SNR=29						
ASAR				S	Sn	08 38 18.6	+0.2
	0.5nm,0.6s,baz=350,slow=25,SNR=2.7						
	1.4nm,0.7s						
ASAR				AML	AML		
STKA	Stephens Creek	25.84	156	P	P	08 37 11.7	+0.1
	0.7nm,0.4s,baz=343,slow=11,SNR=4.0						
	0.7nm,0.4s						

IDC 11 08:33:16.8±0.8,43°.43N×135°.79E,h347^{km}±7^{km},mb3.2/8, mbtmp4.0/17,Error ellipse: s-maj=13.3km s-min=10.0km az=0.0

JMA 11 08:33:17.4±0.6,43°N±2°×13°6E±°,h373^{km},MV3.7/24, EASTERN SEA OF JAPAN

ISC 11 08:33:15.7±0.6,43°.31N±0°.06×135°.98E±0°.06,h350^{km},n31, σ2^{s}.00/39,mb3.4/8,Primorye

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHST	Hiyamasetana	3.00	106	eP	Pn	08 34 16.8	+1.8
USRK	Ussuriysk Ar.	3.02	288	P	Pn	08 34 15.2	+0.1
	22nm,0.4s,baz=91,slow=9.9,SNR=65						
USRK				S	S	08 35 01.7	-1.3
	8.1nm,0.8s,baz=85,slow=19,SNR=4.6						
JSH	Shimam	3.06	101	eP	Pn	08 34 17.1	+1.5
JSK	Shakotan	3.28	88	eP	Pn	08 34 19.4	+1.9
JKB	Kayabe	4.00	109	P	Pn	08 34 26.1	+1.5
JIW	Iwasaki	4.05	131	P	Pn	08 34 26.8	+1.5
JOT	Ohata	4.23	115	P	Pn	08 34 28.2	+1.2
ASAJ	Asahikawa	4.87	78	P	Pn	08 34 35.9	+2.1
	23nm,0.4s,baz=253,slow=8.6,SNR=46						
ASAJ				S	S	08 35 38.2	+1.3
	6.9nm,0.5s,baz=124,slow=22,SNR=1.6						
JRG	Rokugo	5.25	137	P	Pn	08 34 39.3	+1.1
JRG				eS	S	08 35 44.4	-0.4
JCH	Churui	5.47	95	P	Pn	08 34 40.4	0.0
JCH				S	S	08 35 45.3	-3.7
JTKR	Abashiri--Toko	5.79	81	P	Pn	08 34 45.5	+1.5
JMK	Ichinoseki	5.89	136	P	Pn	08 34 45.2	0.0
JMM	Marumori	6.56	144	P	Pn	08 34 52.8	-0.1
JMM				eS	S	08 36 09.0	-2.9
KLR	Kul'dur	6.60	335	P	Pn	08 34 52.9	-0.4
	2.8nm,0.6s,baz=144,slow=13,SNR=5.9						
KLR				S	S	08 36 09.9	-2.6
	1.4nm,0.7s,baz=21,slow=18,SNR=2.0						
MJAR	Matsushiro Arr	6.98	165	P	Pn	08 35 02.1	+4.2
	3.3nm,0.5s,baz=350,slow=11,SNR=8.3						
JFK	Kawauchi	7.02	146	eP	Pn	08 34 57.9	-0.4
JFK				eS	S	08 36 17.6	-4.2
NEM2	Nemuro 2	7.12	86	eP	Pn	08 34 59.1	-0.3
NEM2				eS	S	08 36 17.7	-6.1
JRY	Ryogami san	7.63	162	eP	Pn	08 35 06.8	+1.3
KSRS	Korea Array	8.48	229	P	P	08 35 17.2	-1.1
	3.2nm,0.5s,baz=47,slow=11,SNR=14						
JNU	Nakatsue	10.93	203	P	P	08 35 46.3	+0.7
	7.6nm,0.6s,baz=0.0,slow=13,SNR=9.7						
HILR	Hailar Array B	12.80	305	P	P	08 36 06.0	0.0
	1.8nm,0.4s,baz=110,slow=12,SNR=3.1						
PETK	Petropavlovsk-	17.42	48	P	P	08 36 57.4	+1.2
	2.3nm,0.7s,baz=237,slow=6.4,SNR=4.3						
MA2	Magadan	18.64	24	P	P	08 37 09.6	+0.6
	8.7nm,0.7s,baz=210,slow=13,SNR=5.9						
SONM	Songino Array	21.13	293	P	P	08 37 33.4	-0.4
	2.2nm,0.5s,baz=88,slow=9.4,SNR=8.4						
	2.2nm,0.5s						
ZALV	Zalesovo Beam	34.72	306	P	P	08 39 32.7	-0.8
	0.8nm,0.4s,baz=76,slow=8.9,SNR=3.8						
	0.8nm,0.4s						
MKAR	Makanchi Array	37.47	294	P	P	08 39 56.2	-0.5
	1.2nm,0.6s,baz=83,slow=11,SNR=11						
	1.2nm,0.6s						
KURBB	Kurchatov Arra	39.00	301	P	P	08 40 08.7	-0.5
	0.7nm,0.4s,baz=81,slow=8.8,SNR=7.0						
	0.7nm,0.4s						
BVAR	Borovoye Array	43.37	307	P	P	08 40 44.3	-0.1
	1.2nm,0.5s,baz=63,slow=10,SNR=4.5						
	1.2nm,0.5s						
ILAR	Eielson Array	46.59	35	P	P	08 41 11.7	+2.3
	1.6nm,0.6s,baz=285,slow=7.8,SNR=28						
	1.6nm,0.6s						
FINES	FINESS Array B	61.31	329	P	P	08 42 54.9	+0.3
	1.5nm,0.6s,baz=48,slow=5.9,SNR=6.3						
	1.5nm,0.6s						
WRA	Warramunga Arr	62.96	182	P	P	08 43 07.3	+1.3
	0.2nm,0.4s,baz=346,slow=7.2,SNR=2.0						
	0.2nm,0.4s						

SJA 11 08:39:42.0±0.9,21°.38S×69°.86W,h44^{km}±3^{km},ML3.6, MW3.4

GUC 11 08:39:42.7±0.7,21°.37S×69°.86W,h46^{km}±1^{km},ML3.6

ISC 11 08:39:43.9±1.2,21°.38S±0°.03×69°.86W±0°.06,h38^{km}±7^{km}, n20,σ0^{s}.67/40,1C-4D,Northern Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PB02	IPOC Station P	0.07	333	eP	Pn	08 39 49.2	-1.1
PB02				eS	Sn	08 39 55.5	+0.9
PB02				IAML		08 39 56.5	
	comp=Z,7µm,0.2s						
PB02	IPOC Station P	0.07	333	eP	Pn	08 39 49.5	-0.8
PB02				eS	Sn	08 39 56.0	+1.3
PB02				IAML		08 39 56.8	
	comp=E,12µm,0.2s						
PB07	IPOC Station P	0.34	184⇓	eP	Pn	08 39 52.6	0.0
PB07				eS	Sn	08 39 59.5	0.0
PB07				IAML		08 39 59.8	
	comp=N,4µm,0.4s						
PB03	IPOC Station P	0.67	171	eP	Pn	08 39 56.4	-0.8
PB03				eS	Sn	08 40 06.7	+0.2
PB03				IAML		08 40 07.5	
	comp=Z,5µm,0.1s						
PB03	IPOC Station P	0.67	171⇓	eP	Pn	08 39 56.5	-0.7
PB03				eS	Sn	08 40 06.2	-0.3
PB03				IAML		08 40 07.5	
	comp=E,4µm,0.2s						
PB09	IPOC Station P	0.71	126	eP	Pn	08 39 56.9	-0.7
PB09				eS	Sn	08 40 07.3	-0.1
PB09				IAML		08 40 07.8	
	comp=Z,3µm,0.2s						
PB09	IPOC Station P	0.71	126⇑	eP	Pn	08 39 57.1	-0.5
PB09				eS	Sn	08 40 07.1	-0.3
PB09				IAML		08 40 07.8	
	comp=E,7µm,0.2s						
TA01	Diego Aracena	0.86	340	eP	Pn	08 39 58.5	-1.0
TA01				eS	Sn	08 40 11.7	+0.7
TA01				IAML		08 40 14.4	
	comp=Z,588nm,0.3s						
TA01	Diego Aracena	0.86	340⇓	eP	Pn	08 39 58.6	-1.0
TA01				eS	Sn	08 40 10.7	-0.3
TA02	Huaiquique	1.13	347	eP	Pn	08 40 02.2	-1.0
TA02				eS	Sn	08 40 18.0	+0.5
TA02				IAML		08 40 20.9	
	comp=Z,1µm,0.1s						
TA02	Huaiquique	1.13	347	eP	Pn	08 40 03.0	-0.2
TA02				eS	Sn	08 40 18.0	+0.5
PB08	IPOC Station P	1.40	28	eP	Pn	08 40 07.0	-0.2
PB08				eS	Sn	08 40 25.6	+0.9
PB08				IAML		08 40 25.9	
	comp=Z,913nm,0.1s						
PB08	IPOC Station P	1.40	28⇓	eP	Pn	08 40 07.2	-0.1
PB08				eS	Sn	08 40 25.4	+0.7
PB08				IAML		08 40 26.0	
	comp=E,2µm,0.3s						
PB05	IPOC Station P	1.50	192	eP	Pn	08 40 08.3	-0.1
PB05				eS	Sn	08 40 27.6	+0.9
PB05				IAML		08 40 34.2	
	comp=Z,326nm,0.3s						
PB05	IPOC Station P	1.50	192	eP	Pn	08 40 08.4	+0.1
PB05				eS	Sn	08 40 27.8	+1.1
PB05				IAML		08 40 30.5	
	comp=E,667nm,0.3s						
PB11	IPOC Station P	1.62	7	eP	Pn	08 40 09.8	-0.2
PB11				eS	Sn	08 40 29.8	-0.1
PB11				IAML		08 40 31.6	
	comp=Z,729nm,0.3s						
PB11	IPOC Station P	1.62	7	eP	Pn	08 40 09.9	-0.2
PB11				eS	Sn	08 40 30.1	+0.2
PB11				IAML		08 40 33.3	
	comp=E,1µm,0.3s						
PSGCX	Pisagua	1.79	352	eP	Pn	08 40 12.2	-0.2
PSGCX				eS	Sn	08 40 34.4	+0.5
GO01	Chusmiza	1.82	20	eP	Pn	08 40 13.4	+0.3
GO01				eS	Sn	08 40 36.0	+0.9
GO01				IAML		08 40 37.7	
	comp=Z,531nm,0.1s						
GO01	Chusmiza	1.82	20	eP	Pn	08 40 13.3	+0.3
GO01				eS	Sn	08 40 36.0	+0.9

ISN 11 08:42:34.1±1.3,34°.55N×45°.74E,h16^{km},ML3.1, Presumed earthquake

TEH 11 08:42:38.0,34°.35N×45°.77E,h16^{km}±101^{km},ML2.8, Presumed earthquake

ISC 11 08:42:36.7±1.2,34°.35N±0°.06×45°.60E±0°.08,h10^{km},n8, σ2^{s}.10/9,Iran-Iraq border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IGHG	Ghaleghazi	0.80	91	Pg	Pb	08 42 51.7	-1.1
ILBA	Ilam Banvizeh	0.88	145	Pg	Pg	08 42 53.5	-0.1
KCHF	Cheshme Sefid,	1.19	93	Pg	Pn	08 42 58.8	-0.8
IBDR	Badra	1.26	167	iP	Pn	08 42 59.8	-0.6
	baz=354						
IBDR				iS	Sn	08 43 19.9	+2.6
IBDR				IAML		08 43 21.1	
	comp=N,186nm,0.8s						
IBDR				IAML		08 43 21.8	
	comp=E,326nm,0.8s						
IKRK	Kirkuk	1.48	316	iP	Pn	08 42 59.1	-4.3
IKRK				iS	Sn	08 43 19.3	-3.4
IKRK				IAML		08 43 20.2	
	comp=E,369nm,0.2s						
IKRK				IAML		08 43 20.5	
	comp=N,421nm,0.2s						
SNQR	Sonqor, Kerman	1.75	72	Pg	Pn	08 43 07.3	-0.1
IALM	Almabolaq	2.18	76	Pn	Pn	08 43 13.8	+0.5
MAHB	Mahabad	2.42	2	Pn	Pb	08 43 22.8	+2.4

IDC 11 08:45:04.2±3.6,53°.67N×87°.92E,h0^{km},mbtmp2.8/2, ML2.4/2,Error ellipse: s-maj=26.1km s-min=18.7km az=73.0

ASRS 11 08:45:00.0±1.0,53°.67N×87°.94E,h0^{km},M2.8(MOS),The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.,Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	ZALESOVO INFRA	1.87	280	I	I	08 57 00.0	
	baz=98,slow=324,SNR=2.5						
ZALV	Zalesovo Beam	1.87	280	Pg	Pg	08 45 37.6	+1.7
	1.5nm,0.3s,baz=98,slow=16,SNR=14						
ZALV				Lg	Lg	08 46 03.6	
	1.8nm,0.3s,baz=97,slow=32,SNR=14						
KURBB	Kurchatov Arra	6.54	246	Pn	Pn	08 46 43.3	+5.9
	0.1nm,0.3s,baz=62,slow=14,SNR=2.5						
KURBB				Sn	Sn	08 47 56.5	+3.7
	baz=59,slow=25,SNR=1.0						
KURBB				Lg	Lg	08 48 31.9	
	baz=63,slow=32,SNR=5.6						
	0.5nm,0.4s						
KURBB				AML	AML		
MKAR	Makanchi Array	7.77	210	Pn	Pn	08 46 59.7	+5.3
	0.1nm,0.3s,baz=26,slow=13,SNR=1.6						
MKAR				Lg	Lg	08 49 06.9	
	0.1nm,0.3s,baz=26,slow=30,SNR=1.8						
	0.2nm,0.4s						
MKAR				AML	AML		

IDC 11 08:48:11.7±1.2,4°.09N×126°.58E,h0^{km},mb3.9/7, mbtmp3.9/7,Error ellipse: s-maj=94.2km s-min=16.8km az=70.0

ISC 11 08:48:17.4±0.9,4°.0N±0°.1×127°.1E±0°.3,h36^{km},n10, σ2^{s}.98/11,mb4.0/7,Talaud Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KCP	Kidapawan	3.61	327	iP	Pn	08 49 10.3	-0.6
CDOP	Cateel, Davao	3.84	350	iP	Pn	08 49 11.5	-2.5
CDOP				iS	Sn	08 50 03.0	+5.2
BUKP	Musuan	4.37	333	eP	Pn	08 49 23.9	+2.6
BUKP				iS	Sn	08 50 20.6	+9.5
FITZ	Fitzroy Crossi	21.98	184	P	P	08 53 08.8	+0.4
	0.9nm,0.4s,baz=1.7,slow=12,SNR=6.7						
	0.9nm,0.4s						
WRA	Warramunga Arr	24.81	164	P	P	08 53 38.4	+2.0
	1.0nm,0.4s,baz=343,slow=11,SNR=22						
	1.0nm,0.4s						
ASAR	Alice Springs	28.27	167	P	P	08 54 08.6	+1.1
	0.3nm,0.5s,baz=352,slow=6.7,SNR=6.6						
	0.3nm,0.5s						
STKA	Stephens Creek	38.23	160	P	P	08 55 35.4	+1.3
	2.2nm,0.7s,baz=335,slow=8.9,SNR=4.8						
	2.2nm,0.7s						
SONM	Songino Array	47.18	341	P	P	08 56 45.8	-0.8
	1.0nm,0.5s,baz=149,slow=7.3,SNR=1.8						
	1.0nm,0.5s						
MKAR	Makanchi Array	57.56	325	P	P	08 57 59.9	-3.7
	0.5nm,0.4s,baz=117,slow=8.0,SNR=7.5						
	0.5nm,0.4s						
KURBB	Kurchatov Arra	61.73	327	P	P	08 58 28.9	-3.2
	1.3nm,0.5s,baz=126,slow=6.4,SNR=7.5						
	1.3nm,0.5s						

IDC 11 08:50:01.0±3.4,53°.53N×87°.59E,h0^{km},mbtmp2.9/2, ML2.7/2,Error ellipse: s-maj=26.6km s-min=16.3km az=72.0

ASRS 11 08:49:58.0±1.1,53°.57N×87°.65E,h0^{km},M2.8(MOS),The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.,Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	ZALESOVO INFRA	1.72	284	I	I	09 01 20.0	
	baz=101,slow=322,SNR=6.0						
ZALV	Zalesovo Beam	1.72	284	Pg	Pg	08 50 32.1	+1.1
	1.4nm,0.3s,baz=106,slow=13,SNR=14						
ZALV				Lg	Lg	08 50 55.9	
	2.6nm,0.3s,baz=103,slow=26,SNR=7.4						
KURBB	Kurchatov Arra	6.35	246	Pn	Pn	08 51 36.1	+3.4
	0.1nm,0.3s,baz=63,slow=14,SNR=4.4						
KURBB				Lg	Lg	08 53 18.8	
	baz=62,slow=32,SNR=2.3						
	0.5nm,0.4s						
KURBB				AML	AML		
MKAR	Makanchi Array	7.61	209	Pn	Pn	08 51 53.9	+3.9
	0.3nm,0.3s,baz=30,slow=14,SNR=7.4						
MKAR				Sn	Sn	08 53 15.6	-1.3
	0.1nm,0.3s,baz=29,slow=23,SNR=1.5						
MKAR				Lg	Lg	08 53 59.0	
	baz=32,slow=33,SNR=1.2						
	0.4nm,0.4s						
MKAR				AML	AML		

IDC 11 09:09:48.5±4.6,54°.22N×87°.43E,h0^{km},mbtmp2.8/2, ML2.4/2,Error ellipse: s-maj=40.8km s-min=24.3km az=55.0

ASRS 11 09:09:49.0±0.8,54°.13N×87°.15E,h0^{km},M2.5(MOS),The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.,Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	ZALESOVO INFRA	1.39	263	I	I	09 18 10.0	
	baz=82,slow=323,SNR=5.7						
ZALV	Zalesovo Beam	1.39	263	Pg	Pb	09 10 16.8	+1.1
	2.2nm,0.3s,baz=75,slow=16,SNR=11						
ZALV				Lg	Lg	09 10 40.7	
	1.0nm,0.3s,baz=76,slow=24,SNR=3.2						
KURBB	Kurchatov Arra	6.34	240	Pn	Pn	09 11 25.5	+1.9
	0.1nm,0.3s,baz=50,slow=13,SNR=4.6						
	0.4nm,0.3s						
KURBB				AML	AML		
MKAR	Makanchi Array	7.97	205	Pn	Pn	09 11 49.7	+3.6
	0.1nm,0.3s,baz=24,slow=14,SNR=1.5						
	0.1nm,0.3s						
MKAR				AML	AML		

TAP 11 09:16:04.6,23°.85N×121°.70E,h47^{km},ML2.1,C,Taiwan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TEYL	Yanliau Villag	0.10	280	eP	Pn	09 16 12.4	+0.4
SHUL	Shoufeng	0.14	243	P	Pn	09 16 12.4	+0.2
SHUL				S	Sn	09 16 18.6	+1.1
TEGC	Jichi Village	0.20	226	iP	Pn	09 16 12.9	+0.3
TEGC				eS	Sn	09 16 18.6	+0.4
ETM	Tongmen	0.22	301	P	Pn	09 16 12.8	+0.1
ETM				iS	Sn	09 16 18.8	+0.3
ESL	Shilin	0.25	261	iP	Pn	09 16 12.9	-0.1
ESL				S	Sn	09 16 18.6	-0.2
ESL	Shilin	0.25	261	eP	Pn	09 16 12.9	0.0
ESL				eS	Sn	09 16 18.4	-0.5
TWD	Chiawan	0.25	337	iP	Pn	09 16 13.1	+0.1
TWD				S	Sn	09 16 19.1	+0.2
LXIB	Xiulin Townshi	0.31	303	P	Pn	09 16 13.3	-0.4
LXIB				S	Sn	09 16 20.4	+0.2
WARBT	Fenglin Townsh	0.32	245	P	Pn	09 16 12.8	-0.8
WARBT				eS	Sn	09 16 19.5	-0.5
WARBT	Fenglin Townsh	0.32	245	iP	Pn	09 16 13.1	-0.5
WARBT				eS	Sn	09 16 19.0	-1.0
NACB	Ninganchiao	0.34	343	P	Pn	09 16 13.5	-0.3
NACB				S	Sn	09 16 20.7	+0.4
ETLH	Xiulin Townshi	0.41	331	eP	Pn	09 16 13.5	-1.1
ETLH				eS	Sn	09 16 21.2	-0.6
HGSD	Ruisui	0.44	215	P	Pn	09 16 14.7	-0.2
HGSD				eS	Sn	09 16 22.8	+0.6
EAHA	Aohua	0.48	4	P	Pn	09 16 15.2	-0.1
EAHA				iS	Sn	09 16 23.9	+0.8
EHYH	Wanrong	0.48	223	eP	Pn	09 16 15.8	+0.3
EHYH				S	Sn	09 16 23.0	-0.1
EHYH	Wanrong	0.48	223	S	Sn	09 16 15.4	-7.7
EHY	Hungye	0.49	225	P	Pn	09 16 15.8	+0.2
EHY				S	Sn	09 16 23.1	-0.2
OWD	Renai	0.49	282	P	Pn	09 16 15.7	0.0
OWD	Renai	0.49	282	eP	Pn	09 16 15.6	-0.1
WHF	Hehuan Shan	0.49	306	P	Pn	09 16 15.6	-0.4
WHF				iS	Sn	09 16 23.5	-0.6
VWDT	VWDT	0.52	259	P	Pn	09 16 15.9	0.0
VWDT				S	Sn	09 16 24.1	+0.2
VWDT	VWDT	0.52	259	eP	Pn	09 16 15.9	0.0
WUSB	Renai	0.55	285	P	Pn	09 16 16.5	+0.1
WUSB				S	Sn	09 16 25.2	+0.3
WUSB	Renai	0.55	285	P	Pn	09 16 16.7	+0.3
WUSB				S	Sn	09 16 25.1	+0.2

FUSS	Fushou	0.57	314	P	Pn	09 16 17.0	+0.2
FUSS				S	Sn	09 16 26.0	+0.4
EYUL	Yuli	0.61	215	P	Pn	09 16 16.7	-0.4
EYUL				S	Sn	09 16 25.3	-0.8
EYUL	Yuli	0.61	215	S	Sn	09 16 17.0	-9.0
TWT	Tachien	0.62	310	P	Pn	09 16 17.4	0.0
TWT				S	Sn	09 16 27.4	+0.8
EOS4	EOS4	0.63	64	P	Pn	09 16 17.4	+0.5
EOS4				S	Sn	09 16 26.0	+0.3
TDCB	Techi	0.64	309	P	Pn	09 16 17.7	+0.2
TDCB				S	Sn	09 16 27.1	+0.3
NNSB	Datong	0.64	333	P	Pn	09 16 17.9	+0.2
NNSB				S	Sn	09 16 27.1	+0.1
NNSH	Datong	0.64	333	P	Pn	09 16 17.7	0.0
NNSH				S	Sn	09 16 26.7	-0.2
LATG	Datong	0.70	347	P	Pn	09 16 18.8	+0.5
LATG				S	Sn	09 16 28.5	+0.3
EOS3	EOS3	0.71	52	eP	Pn	09 16 19.2	+1.0
EOS3				eS	Sn	09 16 29.4	+1.3
WCS	Beigang Elemen	0.75	286	P	Pn	09 16 19.6	+0.8
WCS				eS	Sn	09 16 32.2	+3.0
NDT	Datong Townshi	0.77	347	P	Pn	09 16 19.5	+0.3
NDT				S	Sn	09 16 30.4	+0.7
ENTT	Nioudou	0.80	351	P	Pn	09 16 19.9	+0.3
ENTT				S	Sn	09 16 31.0	+0.7
ELDTW	Lidau	0.91	224	P	Pn	09 16 20.6	-0.6
ELDTW				S	Sn	09 16 33.1	-0.1

TAP 11 09:16:07.0, 23°.54N × 121°.27E, h28^{km}, ML2.0, B, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EHY	Hungye	0.06	126	eP	Pb	09 16 12.1	+0.2
EHYH	Wanrong	0.09	124	P	Pb	09 16 11.6	-0.4
HGSD	Ruisui	0.15	109	P	Pn	09 16 13.0	-0.5
HGSD				eS	Sb	09 16 18.2	+2.0
EYUL	Yuli	0.20	166	P	Pb	09 16 12.8	-0.2
VWDT	VWDT	0.24	331	eS	Sb	09 16 20.9	+3.1
ECBN	Changbin	0.28	143	P	Pb	09 16 14.2	+0.2
ECBN				S	Sn	09 16 19.9	-0.7
YUS	Yu-Shan	0.29	260	eP	Pn	09 16 15.3	-0.5
YUS				i S	Sb	09 16 20.3	+0.5
TEGC	Jichi Village	0.30	57	P	Pb	09 16 14.8	+0.6
TEGC				i S	Sn	09 16 20.3	-0.8
FULB	Fuli	0.34	176	P	Pn	09 16 15.6	-0.6
FULB				S	Sn	09 16 21.6	-0.6
SHUL	Shoufeng	0.36	48	i P	Pb	09 16 15.4	+0.2
SHUL				S	Sn	09 16 22.2	-0.4
CHKH	Chenggong	0.37	161	eP	Pb	09 16 15.2	0.0
CHKH				eS	Sn	09 16 22.1	-0.7
SSLB	Suanglung	0.38	310	P	Pb	09 16 15.5	+0.1
EHD	Haiduan	0.40	188	i P	Pb	09 16 15.9	+0.2
EHD				i S	Sn	09 16 22.8	-0.7
ELDTW	Lidau	0.42	213	P	Pb	09 16 15.8	-0.3
ELDTW				eS	Sb	09 16 22.7	+0.3
ALS	Alishan	0.42	266	eP	Pn	09 16 17.2	-0.3
ALS				S	Sb	09 16 23.2	+0.5
ECS	Chishang	0.45	186	P	Pb	09 16 16.7	+0.2
ECS				S	Sn	09 16 24.3	-0.4
CHKT	Chengkung	0.45	168	P	Pb	09 16 17.0	+0.4
CHKT				S	Sn	09 16 24.0	-0.8

IDC 11 09:27:53.3±2.1, 32°.60N × 136°.43E, h0^{km}, mb3.3/2, mbtmp3.2/3, ML2.2/1, Error ellipse: s-maj=150.8km s-min=17.3km az=105.0

JMA 11 09:27:55.3±0.2, 32°.7N±0°.8 × 135°.9E±0°.7, h33^{km}±1^{km}, MV3.3/34, S OFF KII PENINSULA

ISC 11 09:27:56.0±3.8**, 32°.8N**±0°.2 × **135°.82E**±0°.09**, h25**^{km}±16^{km}**, n10, σ0^{s}.61**/15**, Southeast of Shikoku**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JWKM	Wakayamakushim	0.68	356	P	Pb	09 28 09.2	+0.1
JWKM				eS	Sb	09 28 19.0	+0.9
JMMH	Miemihama	1.06	9	P	Pn	09 28 14.8	-0.4
JMMH				S	Sb	09 28 28.3	-0.7
JTNC	Tanabenakahech	1.06	351	P	Pn	09 28 15.1	-0.2
JTNC				eS	Sb	09 28 28.3	-0.7
JWM	Minabe	1.14	340	P	Pn	09 28 16.2	-0.1
JWM				eS	Sn	09 28 30.9	-0.3
TTO1	TONANKAI O.B.S	1.17	43	P	Pn	09 28 15.9	-0.5
TTO1				eS	Sn	09 28 31.9	+0.3
TTO2	TONANKAI O.B.S	1.39	46	eP	Pn	09 28 19.1	-0.5
TTO2				eS	Sn	09 28 37.6	+0.6
JWY	Kouya	1.45	353	P	Pn	09 28 21.1	+0.3
MJAR	Matsushiro Arr	4.24	27	Pn	Pn	09 28 59.9	+0.8
	0.1nm,0.3s,baz=203,slow=16,SNR=4.7						
MJAR				Sn	Sn	09 29 47.6	-0.2
	0.2nm,0.3s,baz=235,slow=44,SNR=5.1						
	1.2nm,0.4s						
MJAR				AML	AML		
WRA	Warramunga Arr	52.44	182	P	P	09 37 05.5	-1.1
	0.2nm,0.5s,baz=1.4,slow=7.7,SNR=1.9						
	0.2nm,0.5s						
ASAR	Alice Springs	56.15	182	P	P	09 37 34.2	+0.6
	0.3nm,0.6s,baz=12,slow=13,SNR=7.5						
	0.3nm,0.6s						

NNC 11 09:44:11.7±2.0, 51°.11N × 73°.77E, h0^{km}, mb3.4, mpv3.1, Error ellipse: s-maj=32.5km s-min=11.5km az=27.0, Suspected Mining explosion.

IDC 11 09:44:14.7±1.6, 51°.01N × 73°.76E, h0^{km}, mbtmp2.9/4, ML2.3/4, Error ellipse: s-maj=28.2km s-min=9.8km az=34.0

ISC 11 09:44:15.2±1.2**, 50°.9N**±0°.1 × **73°.58E**±0°.09**, h0**^{km}**, n10, σ1^{s}.51**/12**, 3C-6D, Central Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BVB9	Borovoye Array	2.89	318	⇓Pg	Pn	09 45 02.1	-0.4
	2.7nm,0.5s						
BVB9				⇑Lg	Lg	09 45 44.8	
	13nm,0.6s						
BVAR	Borovoye Array	2.90	318	Pn	Pn	09 45 04.1	+1.5
	0.2nm,0.3s,baz=133,slow=17,SNR=15						
BVAR				Lg	Lg	09 45 46.5	
	0.3nm,0.3s,baz=134,slow=28,SNR=5.8						
	4.1nm,0.5s						
BVAR				AML	AML		
KURBB	Kurchatov Arra	3.16	93	Pn	Pn	09 45 05.8	-0.3
	0.4nm,0.3s,baz=279,slow=14,SNR=24						
KURBB				Lg	Lg	09 45 51.1	
	1.1nm,0.3s,baz=278,slow=30,SNR=11						
	4.5nm,0.4s						
KURBB				AML	AML		
KURBB	Kurchatov Arra	3.16	93	⇓Pg	Pn	09 45 05.7	-0.5
	14nm,0.5s,baz=278,slow=14						
KURBB				⇑Lg	Lg	09 45 50.0	
	93nm,0.7s,baz=279,slow=26						
KURK	Kurchatov	3.20	92	⇑Pg	Pn	09 45 06.7	-0.1
	1.9nm,0.5s						
KURK				⇓Lg	Lg	09 45 51.8	
	13nm,0.6s						
MK31	Makanchi Array	7.07	122	⇓Pg	Pb	09 46 20.0	+1.2
	0.5nm,0.5s,baz=300,slow=13,SNR=8.5						
MK31				⇓Sn	Sn	09 47 22.7	+1.8
	1.2nm,0.7s						
MK31				⇓Lg	Lg	09 47 55.6	
	4.4nm,0.7s,baz=318,slow=24,SNR=8.1						
MKAR	Makanchi Array	7.07	122	Pn	Pn	09 45 58.4	-1.5
	0.1nm,0.3s,baz=317,slow=13,SNR=2.8						
MKAR				Pg	Pb	09 46 20.7	+1.9
	0.5nm,0.3s,baz=312,slow=18,SNR=8.4						
MKAR				Sn	Sn	09 47 18.6	-2.4
	0.1nm,0.3s,baz=312,slow=17,SNR=3.1						
MKAR				Lg	Lg	09 47 53.1	
	0.4nm,0.3s,baz=312,slow=32,SNR=4.1						
	0.2nm,0.4s						
MKAR				AML	AML		
I46RU	ZALESOVO INFRA	7.51	62	I	I	10 30 50.0	
	baz=251,slow=323,SNR=6.5						
ZALV	Zalesovo Beam	7.51	62	Pn	Pn	09 46 04.7	-1.3
	0.4nm,0.3s,baz=258,slow=14,SNR=1.7						
	0.8nm,0.5s						
ZALV				AML	AML		
AB31	Akbulak array	8.93	265	P	Pn	09 46 25.0	-0.3
	0.4nm,0.5s,baz=80,slow=9.3,SNR=12						

GUC 11 09:48:07.5±0.8, 21°.34S × 69°.90W, h54^{km}±3^{km}, ML4.0

SJA 11 09:48:07.0±0.5, 21°.34S × 69°.91W, h38^{km}±2^{km}, ML3.9, MW3.8

ISC 11 09:48:06.1±1.5**, 21°.35S**±0°.02 × **69°.95W**±0°.06**, h16**^{km}±12^{km}**, n37, σ1^{s}.69**/51**, 3C-5D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB02	IPOC Station P	0.06	59	eP	Pg	09 47 58.2	-11
PB02				IAML		09 48 22.8	
	comp=Z,29μm,0.3s						
PB02	IPOC Station P	0.06	59	⇑iP	Pg	09 48 16.5	+7.2
PB02				eS	Sg	09 48 22.3	+11
PB02				IAML		09 48 22.8	
	comp=E,33μm,0.1s						
PB07	IPOC Station P	0.38	171	eP	Pg	09 48 01.5	-12
PB07				IAML		09 48 26.5	
	comp=Z,12μm,0.2s						
PB07	IPOC Station P	0.38	171	⇑iP	Pn	09 48 18.5	+1.4
PB07				eS	Sb	09 48 26.0	+5.7
PB07				IAML		09 48 26.4	
	comp=E,16μm,0.2s						
PB03	IPOC Station P	0.72	165	eP	Pn	09 48 22.2	+0.5
PB03				IAML		09 48 36.0	
	comp=Z,6μm,0.2s						
PB03	IPOC Station P	0.72	165	⇓iP	Pn	09 48 22.3	+0.5
PB03				eS	Sn	09 48 32.3	-0.2
PB03				IAML		09 48 33.9	
	comp=N,7μm,0.3s						
PB09	IPOC Station P	0.80	124	eP	Pg	09 48 10.0	-12
PB09				IAML		09 48 33.7	
	comp=Z,4μm,0.5s						
PB09	IPOC Station P	0.80	124	⇓iP	Pn	09 48 22.7	-0.1
PB09				eS	Sn	09 48 33.0	-1.4
PB09				IAML		09 48 34.1	
	comp=E,7μm,0.1s						
TA01	Diego Aracena	0.81	345	eP	Pn	09 48 23.5	+0.7
TA01	Diego Aracena	0.81	345	⇓iP	Pn	09 48 23.3	+0.5
TA01				eS	Sb	09 48 34.6	+2.2
TA02	Huaiquique	1.09	351	eP	Pg	09 48 27.4	+0.3
TA02				eS	Sn	09 48 45.2	+3.8
TA02				IAML		09 48 45.6	
	comp=Z,3μm,0.1s						
TA02	Huaiquique	1.09	351	eP	Pg	09 48 27.4	+0.3
TA02				eS	Sb	09 48 41.8	+1.4
TA02				IAML		09 48 44.6	
	comp=E,9μm,0.2s						
PB06	IPOC Station P	1.39	165	⇓iP	Pn	09 48 31.1	0.0
PB06				eS	Sb	09 48 49.5	+0.1
PB06				IAML		09 48 52.0	
	comp=E,2μm,0.3s						
PB08	IPOC Station P	1.42	32	eP	Pn	09 48 31.7	+0.2
PB08				IAML		09 48 52.4	
	comp=Z,1μm,0.2s						
PB08	IPOC Station P	1.42	32	⇑iP	Pn	09 48 31.8	+0.2
PB08				IAML		09 48 50.4	
	comp=N,4μm,0.3s						
PB05	IPOC Station P	1.51	189	eP	Pn	09 48 33.6	+1.0
PB05				eS	Sb	09 48 53.6	+0.7
PB05				IAML		09 48 56.5	
	comp=Z,1μm,0.6s						
PB05	IPOC Station P	1.51	189	eP	Pn	09 48 33.6	+1.0
PB05				eS	Sn	09 48 52.9	+0.8
PB05				IAML		09 48 57.4	
	comp=E,2μm,0.3s						
PB11	IPOC Station P	1.61	10	eP	Pn	09 48 34.3	+0.4
PB11				eS	Sn	09 48 54.9	+0.5
PB11				IAML		09 48 58.1	
	comp=Z,1μm,0.3s						
PB11	IPOC Station P	1.61	10	eP	Pn	09 48 34.5	+0.6
PB11				eS	Sn	09 48 54.2	-0.2
PB11				IAML		09 48 57.3	
	comp=N,2μm,0.2s						
PSGCX	Pisagua	1.75	355	eP	Pn	09 48 36.3	+0.4
PSGCX				eS	Sn	09 48 54.6	-3.3
PSGCX				IAML		09 49 03.6	
	comp=Z,613nm,0.2s						
PSGCX	Pisagua	1.75	355	eP	Pn	09 48 36.3	+0.4
GO01	Chusmiza	1.82	23	eP	Pn	09 48 37.9	+0.8
GO01				eS	Sn	09 49 00.7	+0.7
GO01				IAML		09 49 02.0	
	comp=Z,1μm,0.5s						
GO01	Chusmiza	1.82	23	eP	Pn	09 48 37.9	+0.8
GO01				eS	Sn	09 49 00.1	+0.1
GO01				IAML		09 49 02.7	
	comp=E,4μm,0.1s						
AF01	San Pedro de A	2.29	134	eP	Pb	09 48 45.9	-1.3
AF01				eS	Sn	09 49 09.9	-1.5
AF01				IAML		09 49 34.7	
	comp=Z,1μm,0.7s						
AF01	San Pedro de A	2.29	134	⇓eP	Pb	09 48 45.8	-1.4
PX02	IPOC Station P	2.39	354	eP	Pn	09 48 43.8	-0.9
PB12	IPOC Station P	2.75	353	eP	Pn	09 48 49.9	+0.4
PB12				eS	Sn	09 49 17.9	-4.6
PB12				IAML		09 49 37.0	
	comp=Z,317nm,1.1s						
PB12	IPOC Station P	2.75	353	eP	Pn	09 48 49.6	0.0
AP01	Chacalluta	2.99	353	eP	Pn	09 48 56.2	+3.5
AP01				IAML		09 49 42.1	
	comp=Z,461nm,0.3s						
PB16	IPOC Station P	3.03	8	eP	Pn	09 48 55.4	+1.5
PB16				eS	Sb	09 49 36.6	-0.3
PB16				IAML		09 49 49.3	
	comp=Z,175nm,0.5s						
PB16	IPOC Station P	3.03	8	eP	Pn	09 48 55.2	+1.3
PB14	IPOC Station P	3.29	187	eP	Pn	09 48 56.6	-0.6
PB14				eS	Sb	09 49 44.1	0.0
PB14				IAML		09 49 55.1	
	comp=Z,186nm,0.8s						
PB14	IPOC Station P	3.29	187	eP	Pn	09 48 56.5	-0.7
PB18	Visviri	3.77	7	eP	Pb	09 49 10.8	-1.8
AC01	Pan de Azucar	4.81	187	eP	Pn	09 49 16.4	-1.6
AC01				IAML		09 50 42.0	
	comp=Z,95nm,0.8s						
AC01	Pan de Azucar	4.81	187	eP	Pn	09 49 16.3	-1.6
SLA	San Lorenzo	5.29	130	eP	Pn	09 49 26.8	+2.1

IDC 11 09:50:02.2±3.4, 53°.60N × 87°.71E, h0^{km}, mbtmp3.3/2, ML2.7/2, Error ellipse: s-maj=25.9km s-min=16.2km az=76.0

ASRS 11 09:50:01.0±1.0**, 53°.54N** × **87°.64E, h0**^{km}**, M2.8**(MOS)**, The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	1.73	285	I	I	09 59 40.0	
	baz=102,slow=325,SNR=4.4						
ZALV	Zalesovo Beam	1.73	285	Pg	Pg	09 50 34.3	+0.2
	1.6nm,0.3s,baz=103,slow=16,SNR=9.1						
ZALV				Lg	Lg	09 50 57.9	
	2.3nm,0.3s,baz=100,slow=27,SNR=8.6						
KURBB	Kurchatov Arra	6.33	246	Pn	Pn	09 51 37.9	+2.4
	0.1nm,0.3s,baz=62,slow=14,SNR=1.8						
KURBB				Lg	Lg	09 53 25.6	
	0.4nm,0.3s,baz=63,slow=32,SNR=6.8						
	2.2nm,0.2s						
KURBB				AML	AML		
MKAR	Makanchi Array	7.58	209	Pn	Pn	09 51 56.2	+3.6
	0.2nm,0.3s,baz=30,slow=13,SNR=4.6						
MKAR				Sn	Sn	09 53 21.9	+2.7
	baz=31,slow=25,SNR=1.5						
MKAR				Lg	Lg	09 54 00.4	
	0.1nm,0.3s,baz=25,slow=32,SNR=5.0						
	0.3nm,0.3s						
MKAR				AML	AML		

SJA 11 10:13:42.7±1.2, 21°.35S × 69°.83W, h53^{km}±5^{km}, ML3.9, MW3.8

GUC 11 10:13:43.1±0.8, 21°.35S × 69°.86W, h54^{km}±3^{km}, ML3.9

NEIC 11 10:13:44±1.3, 21°.39S±0°.03 × 69°.91W±0°.05, h52^{km}±3^{km}, mb4.5/8, ML3.9(GUC), Error ellipse: s-maj=6.4km s-min=4.7km az=68.0

ISC 11 10:13:43.5±0.7**, 21°.37S**±0°.03 × **69°.89W**±0°.05**, h52**^{km}±5^{km}**, n77, σ1^{s}.00**/103**, mb4.5**/4**, 4C-8D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB02	IPOC Station P	0.05	348	i P	Pn	10 13 52.1	+0.5
PB02				eS	Sn	10 13 58.1	+0.8
PB02				IAML		10 13 58.5	
	comp=Z,20μm,0.3s						
PB02	IPOC Station P	0.05	348	⇑eP	Pn	10 13 52.0	+0.5
PB02				eS	Sn	10 13 57.9	+0.6
PB02				IAML		10 13 58.4	
	comp=E,23μm,0.2s						
PB02	IPOC Station P	0.05	348	Pn	Pn	10 13 52.0	+0.5
PB02				Sn	Sn	10 13 57.9	+0.6
PB07	IPOC Station P	0.36	180	i P	Pn	10 13 54.2	+0.6
PB07				eS	Sn	10 14 01.6	+0.9
PB07				IAML		10 14 01.7	
	comp=Z,12μm,0.1s						
PB07	IPOC Station P	0.36	180	⇑eP	Pn	10 13 54.1	+0.5
PB07				eS	Sn	10 14 01.5	+0.8
PB07				IAML		10 14 02.0	
	comp=E,19μm,0.3s						
PB07	IPOC Station P	0.36	180		Pn	10 13 54.1	+0.5
PB07				Sn	Sn	10 14 01.3	+0.5
PB03	IPOC Station P	0.69	170	i P	Pn	10 13 57.9	+0.4
PB03				eS	Sn	10 14 07.9	+0.4
PB03				IAML		10 14 08.2	
	comp=Z,8μm,0.2s						
PB03	IPOC Station P	0.69	170	⇓eP	Pn	10 13 57.8	+0.4
PB03				eS	Sn	10 14 07.8	+0.4
PB03				IAML		10 14 08.4	
	comp=E,7μm,0.1s						
PB03	IPOC Station P	0.69	170		Pn	10 13 57.8	+0.4
PB03				Sn	Sn	10 14 07.8	+0.4
PB09	IPOC Station P	0.74	126	i P	Pn	10 13 58.3	+0.3
PB09				eS	Sn	10 14 09.0	+0.5
PB09				IAML		10 14 09.1	
	comp=Z,3μm,0.4s						
PB09	IPOC Station P	0.74	126	⇓eP	Pn	10 13 58.2	+0.3
PB09				eS	Sn	10 14 08.9	+0.5
PB09				IAML		10 14 09.3	
	comp=E,7μm,0.5s						
PB09	IPOC Station P	0.74	126		Pn	10 13 58.2	+0.3
PB09				Sn	Sn	10 14 08.9	+0.5
TA01	Diego Aracena	0.84	341	i P	Pn	10 13 59.1	-0.1
TA01				eS	Sn	10 14 11.1	+0.4
TA01				IAML		10 14 13.6	
	comp=Z,1μm,0.4s						
TA01	Diego Aracena	0.84	341	⇓eP	Pn	10 13 58.9	-0.3
TA01				eS	Sn	10 14 10.8	+0.1
TA01				IAML		10 14 13.9	
TA01	Diego Aracena	0.84	341		Pn	10 13 58.9	-0.3
TA02	Huaiquique	1.11	348	i P	Pn	10 14 03.5	+0.6
TA02				eS	Sn	10 14 18.8	+1.7
TA02				IAML		10 14 22.2	
	comp=Z,2μm,0.1s						
TA02	Huaiquique	1.11	348	eP	Pn	10 14 02.9	0.0
TA02				eS	Sn	10 14 17.9	+0.8
TA02				IAML		10 14 20.2	
	comp=N,6μm,0.2s						
PB06	IPOC Station P	1.36	168		Pn	10 14 06.5	+0.2
PB06				Sn	Sn	10 14 24.0	+0.6
PB08	IPOC Station P	1.40	29	i P	Pn	10 14 07.5	+0.5
PB08				eS	Sn	10 14 24.7	+0.1
PB08				IAML		10 14 25.8	
	comp=Z,968nm,0.3s						
PB08	IPOC Station P	1.40	29	⇑eP	Pn	10 14 07.2	+0.2
PB08				eS	Sn	10 14 24.5	-0.1
PB08				IAML		10 14 26.0	
	comp=N,2μm,0.1s						
PB08	IPOC Station P	1.40	29	Pn	Pn	10 14 07.4	+0.4
PB05	IPOC Station P	1.51	191	i P	Pn	10 14 09.3	+1.1
PB05				eS	Sn	10 14 29.2	+2.3
PB05				IAML		10 14 32.0	
	comp=Z,965nm,1.0s						
PB05	IPOC Station P	1.51	191	⇓eP	Pn	10 14 09.2	+0.9
PB05				eS	Sn	10 14 28.3	+1.4
PB05				IAML		10 14 32.9	
	comp=E,2μm,0.4s						
PB05	IPOC Station P	1.51	191		Pn	10 14 08.9	+0.6
PB11	IPOC Station P	1.61	8	i P	Pn	10 14 10.2	+0.5
PB11				eS	Sn	10 14 30.3	+0.8
PB11				IAML		10 14 34.5	
	comp=Z,839nm,0.2s						
PB11	IPOC Station P	1.61	8	⇓eP	Pn	10 14 09.8	+0.1
PB11				eS	Sn	10 14 29.9	+0.4
PB11				IAML		10 14 32.6	
	comp=E,2μm,0.2s						
PB11	IPOC Station P	1.61	8		Pn	10 14 09.9	+0.1
PSGCX	Pisagua	1.77	353	⇓eP	Pn	10 14 11.9	0.0
PSGCX				eS	Sn	10 14 34.7	+1.3
PSGCX	Pisagua	1.77	353		Pn	10 14 11.9	0.0
GO01	Chusmiza	1.81	21	i P	Pn	10 14 13.7	+0.9
GO01				eS	Sn	10 14 35.2	+0.4
GO01				IAML		10 14 37.5	
	comp=Z,1μm,0.5s						
GO01	Chusmiza	1.81	21	⇓eP	Pn	10 14 13.5	+0.8
GO01				eS	Sn	10 14 35.4	+0.6
GO01	Chusmiza	1.81	21		Pn	10 14 13.5	+0.8
AF01	San Pedro de A	2.23	135		Pn	10 14 20.8	+2.5
PB12	IPOC Station P	2.77	351	eP	Pn	10 14 25.2	-0.3
PB12				eS	Sn	10 14 57.2	-0.6
PB12				IAML		10 15 13.2	
	comp=E,482nm,0.3s						
PB12	IPOC Station P	2.77	351		Pn	10 14 25.4	-0.1
AP01	Chacalluta	3.01	352	Pn	Pn	10 14 31.3	+2.6
PB16	IPOC Station P	3.04	7	⇑eP	Pn	10 14 30.8	+1.2
PB16	IPOC Station P	3.04	7		Pn	10 14 30.2	+0.6
PB14	IPOC Station P	3.28	188	⇓eP	Pn	10 14 31.9	-0.8
PB14	IPOC Station P	3.28	188		Pn	10 14 32.1	-0.6
PB18	Visviri	3.78	6	eP	Pn	10 14 46.1	+6.4
PB18	Visviri	3.78	6	Pn	Pn	10 14 40.3	+0.5
AC01	Pan de Azucar	4.80	188	Pn	Pn	10 14 51.9	-1.5
LPAZ	La Paz	5.32	18	Pn	Pn	10 15 00.2	-0.8
AC02	Maricunga	5.49	173		Pn	10 15 03.9	+0.8
AC06	Mina Casimiro	5.98	184	Pn	Pn	10 15 07.5	-2.0
GO03	Copiapo	6.21	183	Pn	Pn	10 15 11.1	-1.6
AC04	Llanos de Chal	6.89	189	Pn	Pn	10 15 19.8	-2.2
AC05	El Transito	7.45	183	Pn	Pn	10 15 28.4	-1.3
LCO	Las Campanas	7.65	185	Pn	Pn	10 15 31.1	-1.5
CO01	Juntas del Tor	8.58	181	Pn	Pn	10 15 44.9	-0.4
GO04	Tololo Observa	8.81	185	Pn	Pn	10 15 47.3	-1.1
CO06	Fray Jorge	9.40	189	Pn	Pn	10 15 53.5	-2.8
CO03	El Pedregal	9.46	184	Pn	Pn	10 15 54.9	-2.3
CO02	Combarbal	9.85	186	Pn	Pn	10 16 02.7	+0.2
CO04	Los Peladeros	10.68	185	Pn	Pn	10 16 12.6	-1.5
VA03	San Esteban	11.37	183	Pn	Pn	10 16 23.0	-0.3
PTLB	Pontes e Lacer	11.78	62	Pn	Pn	10 16 27.7	-1.2
MT02	Curacav	11.90	185	Pn	Pn	10 16 28.5	-2.0
MT05	Renca	12.00	183	Pn	Pn	10 16 29.3	-2.6
VILB	Vilhena	12.47	49	Pn	Pn	10 16 36.9	-1.5
MT01	Popeta	12.51	185	Pn	Pn	10 16 39.4	+0.6
BO04	La Punta	12.59	183	Pn	Pn	10 16 38.3	-1.7
BI05	Punta Hualpn	15.59	190	Pn	Pn	10 17 20.3	+0.4
BOAV	Boa Vista	25.33	22	P	P	10 19 05.2	-0.5
LCR2	La Lucha 2	33.88	334	P	P	10 20 21.5	-0.3
LCR2				IAmb	IAmb	10 20 27.1	
	comp=Z,5.1nm,1.0s						
CELP	Cerrillos	39.33	5	P	P	10 21 08.1	+0.2
CELP				IAmb	IAmb	10 21 17.4	
	comp=Z,11nm,1.0s						
ESPZ	Base Esperanza	42.91	172	P	P	10 21 36.4	-0.3
BG3	Lake Jocassee	57.40	347	P	P	10 23 27.1	+0.3
BG3				IAmb	IAmb	10 23 46.3	
	comp=Z,3.0nm,1.1s						
TXAR	Lajitas Array	60.01	326	P	P	10 23 45.8	+0.7
128A	Castleberry Fa	62.07	329	P	P	10 23 59.5	+0.5
QSPA	South Pole Qui	68.82	180	P	P	10 24 42.4	+0.1
DBIC	Dimbokro	69.57	74	P	P	10 24 48.0	+0.4
DBIC				IAmb	IAmb	10 25 04.0	
	comp=Z,9.4nm,1.1s						
WMQ	Urumqi	150.88	35	ePKPbc	PKPdf	10 33 25.2	+0.4
WMQ				sPKP	sPKPdf	10 33 42.6	-3.9
HHC	Hu-ho-hao-te	160.54	357	eP	PKPdf	10 33 38.9	+1.1
NJ2	Nanjing	166.81	326	eP	PKPdf	10 33 43.7	0.0
NJ2				pmax	pmax		
	comp=Z,13nm,0.5s						
PZH	PanZhiHua	170.79	55	PKP	PKPdf	10 33 45.4	-1.2

IDC 11 10:18:05.1±0.8, 7°.83S × 104°.38E, h0^{km}, mb4.1/13, mbtmp4.1/13, Error ellipse: s-maj=31.1km s-min=12.9km az=57.0

NEIC 11 10:18:06.4±1.4, 7°.82S±0°.07 × 104°.30E±0°.07, h10^{km}±1^{km}, mb4.5/29, Error ellipse: s-maj=12.1km s-min=10.6km az=218.0

DJA 11 10:18:08.5±1.1, 8°S±9° × 10°4E±°, h10^{km}, M4.5/19, mB5.3/1, mb4.9/4, MLv4.3/19, Mw(mB)4.7/1

ISC 11 10:18:06.5±3.4**, 7°.84S**±0°.07 × **104°.30E**±0°.07**, h14**^{km}±21^{km}**,**

n75,σ1^{s}.18/77,mb4.4/27,4C,Southwest of Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CGJI	Cibinong	1.84	49	P	Pn	10 18 37.0	-0.6
CGJI				AML	AML		
KASI	Kota Agung	2.31	5	P	Pn	10 18 43.7	-0.4
KASI				AML	AML		
SKJI	Sukabumi	2.38	70	P	Pg	10 19 03.8	+12
SBJI	Serang	2.49	47	P	Pn	10 18 47.3	+0.7
SBJI				AML	AML		
CNJI	Cibinong	2.85	80	P	Pn	10 18 50.9	-0.7
CNJI				AML	AML		
CBJI	Citeko	2.89	61	P	Pn	10 18 52.2	+0.1
CBJI				AML	AML		
MDSI	Maura Dua	3.33	358	P	Pn	10 18 58.4	+0.2
MDSI				AML	AML		
BBJI	Bungbulang	3.34	84		Pn	10 18 57.1	-1.2
MNAI	Manna	3.71	339	Pn	Pn	10 19 03.7	+0.4
UGM	Wanagama	6.16	91	Pn	Pn	10 19 37.5	+0.3
UGM	Wanagama	6.16	91	P	Pn	10 19 37.9	+0.7
	158nm,1.0s						
SNJI	Sawahan-Nganju	7.39	90	P	Pn	10 19 56.3	+2.2
COCO	West Island	8.53	239	Pn	Pn	10 20 09.7	0.0
JAGI	Jajag, Banyuwa	9.77	94	Pn	Pn	10 20 26.9	+0.2
GSI	Gunungsitoli	11.29	323	Pn	Pn	10 20 46.8	-0.8
RPSI	Rantau Prapat	11.76	333	Pn	Pn	10 20 53.5	-0.5
SBUM	Sibu	12.91	38	Pn	Pn	10 21 09.4	-0.3
MMRI	Maumere	17.77	94		Pn	10 22 13.4	-0.2
TOLI2	Tolitoli	18.68	62	P	P	10 22 23.9	-0.5
MYLDM	Lahad Datu	19.18	48	P	P	10 22 29.5	-0.3
MYLDM				IAmb	IAmb	10 22 51.4	
	comp=Z,32nm,0.9s						
SOEI	Soe	19.82	97	P	P	10 22 36.0	-1.1
FITZ	Fitzroy Crossi	23.13	118	P	P	10 23 14.2	+1.7
	comp=Z,0.9nm,0.7s,baz=302,slow=10,SNR=1.7						
FITZ				S	S	10 27 23.1	-0.5
	comp=Z,1.7nm,1.0s,baz=268,slow=15,SNR=1.8						
	comp=Z,0.9nm,0.7s						
FITZ	Fitzroy Crossi	23.13	118	P	P	10 23 13.0	+0.5
KNRA	Kununurra	25.16	110	P	P	10 23 31.1	-0.5
CM31	Chiang Mai Arr	26.66	349	P	P	10 23 44.7	-0.4
CM31				IAmb	IAmb	10 23 47.1	
	comp=Z,12nm,0.8s						
CMAR	Chiang Mai Arr	26.66	349	P	P	10 23 45.8	+0.7
	comp=Z,7.6nm,0.8s,baz=183,slow=8.4,SNR=47						
	comp=Z,7.6nm,0.8s						
CMAR	Chiang Mai Arr	26.66	349	P	P	10 23 44.1	-1.0
CHTO	Chiang Mai	27.00	349	P	P	10 23 48.9	+0.7
CHTO				IAmb	IAmb	10 23 49.9	
	comp=Z,11nm,0.7s						
WB0	Warramunga Arr	31.47	115	P	P	10 24 28.3	+0.3
WB0				IAmb	IAmb	10 24 49.3	
	comp=Z,14nm,1.4s						
WRA	Warramunga Arr	31.48	116	P	P	10 24 28.8	+0.8
	comp=Z,1.6nm,0.8s,baz=287,slow=11,SNR=7.8						
	comp=Z,1.6nm,0.8s						
WRA	Warramunga Arr	31.48	116	P	P	10 24 27.8	-0.3
H08S2	Diego Garcia H	31.52	268	T	T	10 58 13.1	
	baz=90,slow=74						
H08S3	Diego Garcia H	31.53	268	T	T	10 58 19.6	
	baz=90,slow=74						
H08S1	Diego Carcia H	31.54	268	T	T	10 58 35.3	
	baz=90						
AS31	Alice Springs	32.44	122	P	P	10 24 36.2	-0.3
ASAR	Alice Springs	32.44	122	P	P	10 24 38.2	+1.7
	comp=Z,0.7nm,0.9s,baz=306,slow=7.7,SNR=6.2						
ASAR				PcP	PcP	10 27 25.6	+1.8
	comp=Z,0.6nm,1.0s,baz=297,slow=3.5,SNR=2.6						
	comp=Z,0.7nm,0.9s						
ASAR	Alice Springs	32.44	122	P	P	10 24 37.5	+1.0
ASAR					PcP	10 27 23.8	0.0
LZDM	Lanzhou Array	43.56	359	P	P	10 26 11.2	+0.8
	comp=Z,1.8nm,0.3s,baz=195,slow=9.0,SNR=1.5						
	comp=Z,1.8nm,0.3s						
MGBR	Mount Gambier	44.28	138	P	P	10 26 15.0	-0.9
GTA2	Gaotai	47.27	355	*e*P	P	10 26 41.3	+1.7
GTA2				pmax	pmax		
	comp=Z,5.0nm,1.3s						
KSRS	Korea Array	50.18	25	P	P	10 27 02.2	+0.5
	comp=Z,0.9nm,0.6s,baz=217,slow=7.9,SNR=4.3						
	comp=Z,0.9nm,0.6s						
JYT	Yasato	55.30	35	P	P	10 27 40.0	+0.3
SONM	Songino Array	55.46	2	P	P	10 27 41.3	+0.5
	comp=Z,2.2nm,0.8s,baz=171,slow=10,SNR=4.0						
	comp=Z,2.2nm,0.8s						
SONM	Songino Array	55.46	2	P	P	10 27 40.8	0.0
SONM				IAmb	IAmb	10 27 43.4	
	comp=Z,3.3nm,0.8s						
SONM				PcP	PcP	10 28 39.8	-1.1
ULN	Ulaanbaatar	55.51	2	P	P	10 27 41.0	-0.3
ULN				IAmb	IAmb	10 28 03.9	
	comp=Z,2.5nm,0.8s						
KDJ	Kajisay	55.57	336	P	P	10 27 41.5	-0.3
KDJ				IAmb	IAmb	10 27 55.8	
	comp=Z,5.5nm,1.0s						
PDGK	Podgornoye	55.69	338	P	P	10 27 42.1	-0.5
BOOM	Boomskoye usch	56.38	335	P	P	10 27 46.5	-1.1
BOOM				IAmb	IAmb	10 28 07.7	
	comp=Z,7.2nm,1.4s						
MDJ	Mudanjiang	56.98	21	P	P	10 27 52.5	+0.9
MDJ				IAmb	IAmb	10 28 16.5	
	comp=Z,8.9nm,1.1s						
BNX	BinXian	57.21	19	⇑P	P	10 27 54.7	+1.5
BNX				pmax	pmax		
	comp=Z,10.0nm,0.9s						
USA0B	Ussuriysk Arra	57.52	23	P	P	10 27 55.3	-0.1
USRK	Ussuriysk Ar.	57.52	23	P	P	10 27 55.5	+0.1
	comp=Z,3.6nm,0.8s,baz=208,slow=4.9,SNR=5.6						
	comp=Z,3.6nm,0.8s						
USRK	Ussuriysk Ar.	57.52	23	P	P	10 27 54.6	-0.8
MKAR	Makanchi Array	57.81	342	P	P	10 27 57.7	+0.3
	comp=Z,1.6nm,0.8s,baz=140,slow=7.7,SNR=6.8						
	comp=Z,1.6nm,0.8s						
MKAR	Makanchi Array	57.81	342	P	P	10 27 56.2	-1.3
HRA	Herat	57.85	319	P	P	10 27 56.4	-1.7
HRA				IAmb	IAmb	10 27 57.9	
	comp=Z,4.1nm,0.7s						
HRA				PcP	PcP	10 28 47.9	-2.8
MAKZ	Makanchi	57.92	342	P	P	10 27 58.0	-0.2
MAKZ				IAmb	IAmb	10 28 09.7	
	comp=Z,3.7nm,1.4s						
MAKZ				PcP	PcP	10 28 50.0	-0.4
HEH	HeiHe	61.24	17	*e*P	P	10 28 21.2	+0.2
HEH				pmax	pmax		
	comp=Z,5.0nm,0.7s						
SANVU	Saraoutou	61.89	103	P	P	10 28 24.7	-1.4
KURBB	Kurchatov Arra	62.36	342	P	P	10 28 29.2	+0.7
	comp=Z,1.4nm,0.8s,baz=160,slow=5.7,SNR=5.9						
	comp=Z,1.4nm,0.8s						
KURK	Kurchatov	62.41	342	P	P	10 28 28.8	-0.1
KURK				IAmb	IAmb	10 28 30.6	
	comp=Z,2.1nm,0.6s						
MCQ	Macquarie Isla	63.62	148	P	P	10 28 36.5	-0.4
ZAA0	Zalesovo Array	63.71	347		P	10 28 37.8	+0.3
ZALV	Zalesovo Beam	63.71	347	P	P	10 28 37.9	+0.4
	comp=Z,3.3nm,0.6s,baz=157,slow=4.1,SNR=15						
	comp=Z,3.3nm,0.6s						
AB31	Akbulak array	68.79	331	P	P	10 29 11.2	+1.0
AB31				IAmb	IAmb	10 29 21.5	
	comp=Z,2.1nm,0.8s						
ABKAR	Akbulak array	68.79	331	P	P	10 29 11.3	+1.1
VNDA	Vanda	75.65	169	P	P	10 29 51.1	+0.4
	comp=Z,0.6nm,0.7s,baz=290,slow=3.4,SNR=8.2						
	comp=Z,0.6nm,0.7s						
VNDA	Vanda	75.65	169	P	P	10 29 51.2	+0.5
VNDA				IAmb	IAmb	10 29 52.9	
	comp=Z,2.9nm,1.4s						
QSPA	South Pole Qui	82.16	180	P	P	10 30 27.3	+0.5
	comp=Z,1.8nm,1.0s,baz=309,slow=4.7,SNR=4.5						
	comp=Z,1.8nm,1.0s						
QSPA	South Pole Qui	82.16	180	P	P	10 30 27.0	+0.2
QSPA				IAmb	IAmb	10 30 30.6	
	comp=Z,3.1nm,1.1s						
VNA2	Neumayer--Watz	89.57	198	⇑P	PKiKP	10 36 06.5	+5.9
	comp=Z,0.4nm,0.2s,baz=310,slow=14						
VNA1	Neumayer--Stat	89.94	198	⇑P	PKiKP	10 35 58.6	-2.6
	comp=Z,0.5nm,0.2s						
VNA3	Neumayer Olymp	90.12	197	⇑P	PKiKP	10 36 02.6	+1.0
	comp=Z,0.7nm,0.2s						
TXAR	Lajitas Array	146.11	47	PKPbc	PKPab	10 37 49.1	+1.5
	comp=Z,1.6nm,0.8s,baz=298,slow=1.5,SNR=19						
TXAR	Lajitas Array	146.11	47	PKPdf	PKPdf	10 37 44.6	-1.6

IDC ***11*** *10:19:43.1±1.0,35°.73N×140°.61E,h0^{km},mb3.6/6, mbtmp3.6/8,ML3.1/2,MS2.9/2,Error ellipse: s-maj=21.3km s-min=14.4km az=78.0*

JMA ***11*** *10:19:47.3±0.1,35°.9N±0°.3×140°.5E±0°.4,h37^{km}±1^{km}, MD3.9/38,MV3.6/38,SOUTHERN IBARAKI PREF*

JMA Felt II J1 at SOUTHERN IBARAKI PREF .

NIED ***11*** *10:19:47.3,35°.86N×140°.53E,h37^{km},MW3.9,Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M$_{rr}$3.37; M$_{\theta\theta}$-3.25; M$_{\phi\phi}$-0.12; M$_{r\theta}$1.57; M$_{\theta\phi}$-2.42; M$_{\phi r}$6.95; Fault plane solution: M$_0$8.15000×10^{14} NP1: φ$_s$266.00000°,δ24.00000°,λ151.00000°. NP2: φ$_s$23.00000°,δ78.00000°,λ68.00000°.*

ISC 11 10:19:48.7±0.8,35°.84N±0°.04×140°.54E±0°.08,h50^{km},n26, σ2^{s}.50/21,mb3.6/6,6D,Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JIHU	Itakohorinouch	0.13	354	⇓P	Pn	10 19 54.0	-2.6
JIHU				A	A	10 19 54.0	
	comp=N,21nm,0.4s,comp=E,64nm,0.8s						
JIHU				⇓S	Sn	10 19 59.1	-3.2
JSMT	Sammumatsuo	0.21	202	⇓*e*P	Pn	10 19 54.6	-2.5
JSMT				A	A	10 19 54.6	
	comp=N,23nm,1.6s,comp=E,53nm,0.6s						
JSMT				⇓S	Sn	10 20 00.3	-2.7
JCAJ	Choshiashikaji	0.28	114	A	A	10 19 55.1	
	comp=N,55nm,0.4s,comp=E,30nm,0.5s						
JYT	Yasato	0.48	324	P	Pn	10 19 57.4	-2.4
JYT				A	A	10 19 57.4	
	comp=N,30nm,0.7s,comp=E,17nm,0.3s						
JYT				S	Sn	10 20 04.0	-3.6
JHYU	Hitachinakayam	0.51	4	A	A	10 19 57.5	
	comp=N,9.0nm,0.4s,comp=E,7.0nm,0.4s						
JCCN	Chibachonan	0.52	209	A	A	10 19 58.2	
	comp=N,10.0nm,0.3s,comp=E,10.0nm,1.1s						
JHO	Hitachi	0.77	1	⇓*i*P	Pn	10 20 01.2	-2.2
JHO				⇓*e*S	Sn	10 20 10.9	-3.2
BSO4	Boso 4	0.86	191	*e*P	Pn	10 20 03.9	-0.6
BSO3	Boso 3	1.03	182	P	Pn	10 20 05.6	-1.0
JAG	Ashikaga	1.06	304	*e*P	Pn	10 20 05.2	-2.0
MJAR	Matsushiro Arr	2.02	291	Pn	Pn	10 20 18.9	-1.3
	comp=E,1.1nm,0.3s,baz=93,slow=8.8,SNR=39						
MJAR				Sn	Sn	10 20 44.2	-0.1
	comp=E,1.6nm,0.3s,baz=66,slow=14,SNR=3.6						
	comp=E,4.4nm,0.4s						
MJAR				AML	AML		
JHJ	Hachijo jima 2	2.78	193	Pn	Pn	10 20 27.9	-2.9
	comp=E,40nm,0.3s,baz=29,slow=13,SNR=14						
JHJ				Sn	Sn	10 20 59.1	-4.0
	comp=E,42nm,0.3s,baz=195,slow=23,SNR=7.2						
	comp=E,85nm,0.3s						
JHJ				AML	AML		
KSRS	Korea Array	10.27	283	LR	LR	10 26 06.4	
	comp=E,57nm,20.8s,baz=130,slow=37						
USRK	Ussuriysk Ar.	10.62	324	LR	LR	10 26 00.3	
	comp=E,60nm,19.3s,baz=121,slow=35						
H11N2	WAKE ISLAND Hy	28.18	118	T	T	10 54 47.5	
	baz=310,slow=75,SNR=16						
H11N1	WAKE ISLAND Hy	28.18	118	T	T	10 54 58.7	
	baz=310,slow=75,SNR=17						
H11N3	WAKE ISLAND Hy	28.19	118	T	T	10 54 48.8	
	baz=310,slow=75,SNR=12						
H11S1	WAKE ISLAND Hy	28.84	120	T	T	10 55 40.2	
	baz=312						
H11S3	WAKE ISLAND Hy	28.84	120	T	T	10 55 32.2	
	baz=312						
H11S2	WAKE ISLAND Hy	28.85	120	T	T	10 55 33.7	
	baz=312						
ZALV	Zalesovo Beam	42.21	313	P	P	10 27 39.1	+2.6
	comp=E,1.3nm,0.8s,baz=94,slow=4.5,SNR=5.3						
	comp=E,1.3nm,0.8s						
KURBB	Kurchatov Arra	46.19	309	P	P	10 28 10.3	+1.9
	comp=E,2.4nm,0.8s,baz=86,slow=8.2,SNR=15						
	comp=E,2.4nm,0.8s						
ILAR	Eielson Array	50.88	32	P	P	10 28 46.1	+1.9
	comp=E,0.5nm,0.8s,baz=282,slow=6.0,SNR=4.4						
	comp=E,0.5nm,0.8s						
WRA	Warramunga Arr	55.78	187	P	P	10 29 20.7	0.0
	comp=E,0.7nm,0.6s,baz=2.8,slow=7.6,SNR=9.8						
	comp=E,0.7nm,0.6s						
ASAR	Alice Springs	59.51	187	P	P	10 29 47.5	+0.7
	comp=E,0.3nm,0.8s,baz=13,slow=7.7,SNR=4.6						
	comp=E,0.3nm,0.8s						
PDAR	Pinedale Array	79.01	45	P	P	10 31 49.2	+1.6
	comp=E,0.2nm,0.5s,baz=306,slow=9.5,SNR=2.5						
	comp=E,0.2nm,0.5s						

GUC 11 10:45:56.3±0.8,21°.34S×69°.90W,h47^{km}±1^{km},ML2.9, 3C-1D,Northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB02	IPOC Station P	0.02	12	*e*P	Pn	10 46 04.3	+0.5
PB02				*e*S	Sn	10 46 09.6	+0.7
PB02				IAML		10 46 10.1	
	comp=E,2μm,0.1s						
PB07	IPOC Station P	0.39	178	⇓*e*P	Pn	10 46 06.5	+0.2
PB07				*e*S	Sn	10 46 13.7	+0.3
PB07				IAML		10 46 13.9	
	comp=E,732nm,0.1s						
PB03	IPOC Station P	0.72	169	*e*P	Pn	10 46 10.4	+0.1
PB03				*e*S	Sn	10 46 20.6	0.0
PB03				IAML		10 46 21.6	
PB09	IPOC Station P	0.76	127	⇑*e*P	Pn	10 46 11.2	+0.2
PB09				*e*S	Sn	10 46 21.2	-0.4
PB09				IAML		10 46 22.2	
	comp=E,1μm,0.2s						
TA01	Diego Aracena	0.81	341	*e*P	Pn	10 46 11.8	+0.3
TA01				*e*S	Sn	10 46 23.0	+0.6
TA02	Huaiquique	1.08	348	*e*P	Pn	10 46 16.4	+1.3
TA02				*e*S	Sn	10 46 30.3	+1.3
TA02				IAML		10 46 32.9	
	comp=N,1μm,0.2s						
PB08	IPOC Station P	1.38	31	⇑*e*P	Pn	10 46 20.5	+1.0
PB08				*e*S	Sn	10 46 38.1	+1.3
PB08				IAML		10 46 39.4	
	comp=E,366nm,0.2s						
PB05	IPOC Station P	1.53	190	⇑*e*P	Pn	10 46 22.5	+1.1
PB05				*e*S	Sn	10 46 42.0	+1.8
PB11	IPOC Station P	1.58	8	*e*P	Pn	10 46 23.3	+1.2
PB11				*e*S	Sn	10 46 43.0	+1.4
PB11				IAML		10 46 47.5	
	comp=N,115nm,0.2s						
PSGCX	Pisagua	1.74	353	*e*P	Pn	10 46 25.2	+1.0
PSGCX				*e*S	Sn	10 46 47.0	+1.7
GO01	Chusmiza	1.79	22	*e*P	Pn	10 46 26.7	+1.6
GO01				*e*S	Sn	10 46 49.1	+2.2
GO01				IAML		10 46 51.5	
	comp=N,369nm,0.1s						

SJA 11 10:46:39.4±0.6,21°.13S×68°.93W,h132^{km}±5^{km},ML3.7, MW3.7,Chile-Bolivia border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB09	IPOC Station P	0.72	204	*e*P	Pn	10 47 01.4	+1.0
PB09				*e*S	Sn	10 47 17.0	+0.7
PB09				IAML		10 47 20.0	
	comp=Z,708nm,0.3s						
PB02	IPOC Station P	0.92	258	*e*P	Pn	10 47 02.6	+0.7
PB02				*e*S	Sn	10 47 19.6	+0.6
PB02				IAML		10 47 22.4	
	comp=Z,4μm,0.3s						
PB08	IPOC Station P	1.01	348	*e*P	Pn	10 47 03.7	+0.6
PB08				*e*S	Sn	10 47 21.6	+0.7
PB08				IAML		10 47 24.4	
	comp=Z,426nm,0.2s						
PB03	IPOC Station P	1.19	220	*e*P	Pn	10 47 05.4	+0.9
PB03				*e*S	Sn	10 47 24.0	+0.4
PB03				IAML		10 47 28.6	
	comp=Z,979nm,0.2s						
TA01	Diego Aracena	1.30	296	*e*P	Pn	10 47 06.0	+0.5
TA01				*e*S	Sn	10 47 26.5	+1.2
TA01				IAML		10 47 30.9	
	comp=Z,489nm,0.3s						
TA02	Huaiquique	1.42	307	*e*P	Pn	10 47 07.3	+0.6
TA02				*e*S	Sn	10 47 28.3	+0.8
TA02				IAML		10 47 33.1	
	comp=Z,712nm,0.1s						

SJA ***11*** *11:00:03.4±1.0,21°.34S×69°.82W,h50^{km}±4^{km},ML3.4, MW3.6*

GUC ***11*** *11:00:03.7±0.7,21°.34S×69°.89W,h53^{km}±3^{km},ML3.5*

ISC 11 11:00:04.9±1.3,21°.35S±0°.03×69°.85W±0°.06,h48^{km}±7^{km}, n21,σ0^{s}.56/42,2C-8D,Northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB02	IPOC Station P	0.05	302	*e*P	Pn	11 00 12.4	-0.1
PB02				*e*S	Sn	11 00 18.2	+0.4
PB02				IAML		11 00 18.8	
	comp=Z,6μm,0.2s						
PB02	IPOC Station P	0.05	302	⇑*e*P	Pn	11 00 12.4	-0.1
PB02				*e*S	Sn	11 00 18.1	+0.4
PB02				IAML		11 00 18.5	
	comp=E,13μm,0.2s						
PB07	IPOC Station P	0.38	185	*i* P	Pn	11 00 14.8	-0.1
PB07				*e*S	Sn	11 00 22.1	+0.3
PB07				IAML		11 00 22.3	
	comp=Z,3μm,0.2s						
PB07	IPOC Station P	0.38	185	⇓*e*P	Pn	11 00 14.4	-0.4
PB07				*e*S	Sn	11 00 21.9	0.0
PB07				IAML		11 00 22.3	
	comp=E,4μm,0.2s						
PB03	IPOC Station P	0.70	173	*i* P	Pn	11 00 18.4	-0.4
PB03				*e*S	Sn	11 00 29.1	+0.3
PB03				IAML		11 00 29.6	
	comp=Z,2μm,0.3s						
PB03	IPOC Station P	0.70	173	⇓*e*P	Pn	11 00 18.2	-0.6
PB03				*e*S	Sn	11 00 28.4	-0.5
PB03				IAML		11 00 29.7	
	comp=E,3μm,0.1s						
PB09	IPOC Station P	0.72	128	*e*P	Pn	11 00 18.7	-0.3
PB09				*e*S	Sn	11 00 28.8	-0.4
PB09				IAML		11 00 30.3	
	comp=Z,2μm,0.4s						
PB09	IPOC Station P	0.72	128	⇓*e*P	Pn	11 00 18.7	-0.3
PB09				*e*S	Sn	11 00 28.8	-0.4
PB09				IAML		11 00 29.9	
	comp=E,3μm,0.4s						
TA01	Diego Aracena	0.84	338	*i* P	Pn	11 00 19.6	-0.8
TA01				*e*S	Sn	11 00 32.0	+0.4
TA01				IAML		11 00 33.8	
	comp=Z,319nm,0.7s						
TA01	Diego Aracena	0.84	338	⇓*e*P	Pn	11 00 19.3	-1.1
TA01				*e*S	Sn	11 00 31.4	-0.3
TA02	Huaiquique	1.10	346	*i* P	Pn	11 00 24.0	+0.1
TA02				*e*S	Sn	11 00 38.2	+0.2
TA02				IAML		11 00 40.6	
	comp=Z,963nm,0.1s						
TA02	Huaiquique	1.10	346	*e*P	Pn	11 00 23.4	-0.5
TA02				*e*S	Sn	11 00 37.9	-0.2
PB08	IPOC Station P	1.36	29	*e*P	Pn	11 00 27.4	-0.5
PB08				*e*S	Sn	11 00 45.5	+0.5
PB08				IAML		11 00 46.3	
	comp=Z,647nm,0.1s						
PB08	IPOC Station P	1.36	29	⇓*e*P	Pn	11 00 27.7	-0.2
PB08				*e*S	Sn	11 00 45.3	+0.2
PB08				IAML		11 00 47.0	
	comp=E,2μm,0.1s						
PB05	IPOC Station P	1.53	192	*e*P	Pn	11 00 30.0	0.0
PB05				*e*S	Sn	11 00 50.8	+1.9
PB05				IAML		11 00 52.4	
	comp=Z,277nm,0.6s						
PB05	IPOC Station P	1.53	192	⇑*e*P	Pn	11 00 29.8	-0.1
PB05				*e*S	Sn	11 00 49.0	+0.2
PB05				IAML		11 00 53.8	
	comp=E,542nm,0.4s						
PB11	IPOC Station P	1.59	7	⇓*e*P	Pn	11 00 30.5	-0.2
PB11				*e*S	Sn	11 00 50.9	+0.7
PB11				IAML		11 00 53.7	
	comp=Z,513nm,0.2s						
PB11	IPOC Station P	1.59	7	⇓*e*P	Pn	11 00 30.3	-0.4
PB11				*e*S	Sn	11 00 50.4	+0.2
PB11				IAML		11 00 53.6	
	comp=N,710nm,0.6s						
PSGCX	Pisagua	1.76	352	⇓*e*P	Pn	11 00 32.3	-0.7
PSGCX				*e*S	Sn	11 00 54.5	+0.2
GO01	Chusmiza	1.78	20	*e*P	Pn	11 00 33.7	+0.1
GO01				*e*S	Sn	11 00 56.4	+1.1
GO01				IAML		11 00 59.6	
	comp=Z,344nm,0.3s						
GO01	Chusmiza	1.78	20	*e*P	Pn	11 00 33.9	+0.3
GO01				*e*S	Sn	11 00 56.2	+0.9

SDD ***11*** *11:25:03.1±3.4,18°.53N×69°.17W,h127^{km}±14^{km},MD3.7, ML3.1,MW3.2,Presumed earthquake*

OSPL ***11*** *11:25:04.0±1.6,18°.47N×69°.08W,h136^{km}±12^{km},ML2.9, Presumed earthquake*

ISC 11 11:25:03.4±1.5,18°.51N±0°.06×69°.16W±0°.03,h131^{km}±9^{km}, n27,σ1^{s}.72/44,31C,Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HIDR	Higuey Centro	0.43	78	⇑*i*P	Pn	11 25 21.8	-0.3
HIDR				⇑*i*S	Sn	11 25 35.1	-1.3
HIDR				IAML		11 25 39.1	
	comp=N,1μm,0.2s						
SDD	Santo Domingo	0.72	266	*i* P	Pn	11 25 23.8	-0.2
SDD				*e*S	Sn	11 25 39.5	-0.1
SDD				IAML		11 25 42.2	
	comp=Z,237nm,0.1s						
SDD	Santo Domingo	0.72	266	⇑*i*P	Pn	11 25 23.8	-0.2
SDD				⇑*i*S	Sn	11 25 38.8	-0.8
SDD				IAML		11 25 43.0	
	comp=N,74nm,0.2s						
PCDR	Punta Cana, DR	0.74	89	*i* P	Pn	11 25 24.4	+0.3
PCDR				IAML		11 25 44.8	
	comp=Z,156nm,0.7s						
PCDR	Punta Cana, DR	0.74	89	⇑*i*P	Pn	11 25 24.0	-0.1
PCDR				⇑*i*S	Sn	11 25 41.2	+1.4
PCDR				IAML		11 25 43.3	
	comp=N,185nm,0.2s						
SMDR	Samana, DR	0.78	358	⇑*i*P	Pn	11 25 23.9	-0.6
SMDR				⇑*i*S	Sn	11 25 40.4	-0.1
SMDR				IAML		11 25 46.5	
	comp=N,882nm,0.7s						
NADR	Nagua	1.07	322	⇑*i*P	Pn	11 25 28.9	+1.9
NADR				⇑*i*S	Sn	11 25 45.7	+0.6
NADR				IAML		11 25 54.8	
	comp=N,744nm,0.3s						
BANI	BANI	1.15	265	⇑*i*P	Pn	11 25 28.5	+0.6
BANI				⇑*i*S	Sn	11 25 48.0	+1.5
BANI				IAML		11 25 49.6	
	comp=N,794nm,0.2s						
ABDR	Alto Bandera	1.43	283	⇑*i*P	Pn	11 25 30.9	-0.2
ABDR				⇑*i*S	Sn	11 25 52.9	+0.7
ABDR				IAML		11 25 55.5	
	comp=N,351nm,0.2s						
SC01	Santiago de lo	1.75	302	⇑*i*P	Pn	11 25 35.2	+0.9
SC01				IAML		11 26 01.8	
	comp=N,225nm,0.2s						
AGPR	Aguadilla, PR	1.94	91	⇑*i*S	Sn	11 26 02.0	-0.2
AGPR				IAML		11 26 03.5	
	comp=N,69nm,0.4s						
PODR	Polo	2.04	261	⇑*i*P	Pn	11 25 38.1	0.0
PODR				⇑*i*S	Sn	11 26 02.2	-2.5
SDDR	Presa de Saban	2.07	284	*i* P	Pn	11 25 39.8	+1.4
SDDR	Presa de Saban	2.07	284	⇑*i*S	Sn	11 26 02.9	-2.2
SDDR				IAML		11 26 11.8	
	comp=N,57nm,1.1s						
MLPR	Magueyes Islan	2.08	105	⇑*i*P	Pn	11 25 39.8	+1.5
MLPR				⇑*i*S	Sn	11 26 04.2	-0.9
MLPR				IAML		11 26 10.1	
	comp=N,8.8nm,0.4s						
LONE3	El Aguacate, B	2.19	273	*i* P	Pn	11 25 39.9	+0.1
LONE3				*e*S	Sn	11 26 06.7	-1.0
LONE3				IAML		11 26 09.5	
	comp=Z,15nm,0.6s						
LUDR	Luperon	2.19	309	⇑*i*P	Pn	11 25 40.9	+1.2
LUDR				⇑*i*S	Sn	11 26 06.6	-0.9
LODU1	El Espartillar	2.20	266	*i* P	Pn	11 25 40.4	+0.5
LODU1				IAML		11 26 12.4	
	comp=Z,87nm,0.4s						
LOVI	El Cajuil, Ovi	2.22	252	*i* P	Pn	11 25 39.7	-0.3
LOVI				*e*S	Sn	11 26 06.4	-1.7
LOVI				IAML		11 26 08.4	
	comp=Z,96nm,0.6s						
REDR	Restauracion	2.22	288	⇑*i*P	Pn	11 25 43.6	+3.6
REDR				⇑*i*S	Sn	11 26 14.3	+6.1
REDR				IAML		11 26 18.2	
	comp=N,113nm,0.1s						
AOPR	Arecibo Observ	2.29	94	⇑*i*P	Pn	11 25 41.3	+0.3
AOPR				⇑*i*S	Sn	11 26 07.6	-2.3

AOPR				IAML		11 26 14.7	
	comp=N,146nm,0.2s						
LOPP1	Punta Rusia, P	2.35	305	iP	Pn	11 25 40.9	-0.7
LOPP1				eS	Sn	11 26 10.6	-0.6
LOPP1				IAML		11 26 15.3	
	comp=Z,36nm,0.5s						
LOBH	Bahia de las A	2.44	255	iP	Pn	11 25 43.0	+0.1
LOBH				eS	Sn	11 26 12.4	-0.9
LOBH				IAML		11 26 18.1	
	comp=Z,65nm,0.3s						
CELP	Cerrillos	2.49	100	⇑iP	Pn	11 25 45.4	+2.0
CELP				IAML		11 26 38.3	
	comp=N,11nm,0.3s						
JIDR	Jimani	2.56	270	⇑iP	Pn	11 25 45.1	+0.8
JIDR				IAML		11 26 31.1	
	comp=N,44nm,0.1s						
MCDR	Montecristi	2.73	301	⇑iS	Sn	11 26 17.6	-2.3
MCDR				IAML		11 26 30.3	
	comp=N,57nm,0.3s						
GRTK	Grand Turk	3.52	328	⇑iS	Sn	11 26 34.0	-4.1
GRTK				IAML		11 26 38.1	
	comp=N,54nm,0.2s						

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*SDD **11** 11:42:27.6±4.3, 20°.16N×70°.80W, h26km±10km, MD3.7, ML3.4, MW3.5, Presumed earthquake*

*OSPL **11** 11:42:31.1±2.0, 20°.16N×70°.77W, h0km±8km, ML3.3, Presumed earthquake*

ISC 11 11:42:29.5±1.2**, 20°.16N**±0°.03×**70°.80W**±0°.03**, h15**km±10km**, n28, σ0^s.81**/45**, 29C-1D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LUDR	Luperon	0.30	208	⇑iP	Pb	11 42 36.5	-0.2
SODR	Sosua Marina B	0.46	152	⇑iP	Pb	11 42 39.2	-0.1
SODR				⇑iS	Sb	11 42 45.5	-0.5
SODR				IAML		11 42 59.6	
	comp=N,3µm,1.0s						
LOPP1	Punta Rusia, P	0.48	231	iP	Pb	11 42 40.6	+0.8
LOPP1				IAML		11 42 50.4	
	comp=Z,1µm,0.3s						
MADR	Mao Valverde	0.66	205	⇑iP	Pb	11 42 42.6	-0.1
MADR				⇑iS	Sn	11 42 53.9	-0.5
MADR				IAML		11 42 55.4	
	comp=N,3µm,1.2s						
SC01	Santiago de lo	0.73	174	iP	Pb	11 42 44.1	0.0
SC01				IAML		11 43 01.9	
	comp=Z,741nm,0.9s						
SC01	Santiago de lo	0.73	174	⇑iP	Pn	11 42 45.8	+0.4
SC01				⇑iS	Sn	11 42 55.7	-0.7
SC01				IAML		11 43 04.0	
	comp=N,1µm,0.6s						
MCDR	Montecristi	0.84	252	⇑iP	Pb	11 42 46.3	+0.4
MCDR				⇑iS	Sg	11 42 55.5	-1.6
MCDR				IAML		11 43 06.0	
	comp=N,932nm,0.5s						
LODA1	ITESIL, Dajabo	1.05	234	iP	Pn	11 42 50.1	+0.5
LODA1				eS	Sn	11 43 04.7	+0.6
LODA1				IAML		11 43 08.2	
	comp=Z,1µm,1.3s						
LODA1	ITESIL, Dajabo	1.05	234	⇑iP	Pb	11 42 48.3	-1.1
LODA1				IAML		11 43 11.0	
	comp=N,3µm,0.3s						
REDR	Restauracion	1.14	209	⇑iP	Pg	11 42 52.0	+0.6
REDR				⇑iS	Sn	11 43 07.2	+1.0
REDR				IAML		11 43 12.4	
	comp=N,2µm,0.2s						
NADR	Nagua	1.20	132	⇑iP	Pn	11 42 51.2	-0.6
NADR				⇑iS	Sg	11 43 09.4	+1.0
NADR				IAML		11 43 12.2	
	comp=N,1µm,0.4s						
SDDR	Presa de Saban	1.26	201	iP	Pn	11 42 52.3	-0.4
SDDR				eS	Sg	11 43 10.1	-0.2
SDDR	Presa de Saban	1.26	201	⇑iP	Pn	11 42 52.3	-0.4
SDDR				⇑iS	Sn	11 43 09.6	+0.2
SDDR				IAML		11 43 13.2	
	comp=N,695nm,0.6s						
ABDR	Alto Bandera	1.35	173	⇑iP	Pn	11 42 53.4	-0.8
ABDR				⇑iS	Sn	11 43 12.6	+0.4
ABDR				IAML		11 43 14.3	
	comp=N,582nm,0.5s						
GRTK	Grand Turk	1.38	347	iP	Pb	11 42 54.8	-0.2
GRTK				eS	Sg	11 43 14.4	+0.4
GRTK	Grand Turk	1.38	347	⇓iP	Pb	11 42 54.7	-0.3
GRTK				⇑iS	Sn	11 43 11.0	-1.2
GRTK				IAML		11 43 16.6	
	comp=N,1µm,0.3s						
LONE3	El Aguacate, B	1.67	202	iP	Pb	11 42 59.4	-0.6
LONE3				eS	Sb	11 43 21.9	+1.0
LONE3				IAML		11 43 23.4	
	comp=Z,161nm,0.3s						
SMDR	Samana, DR	1.75	119	⇑iP	Pn	11 42 59.9	+0.5
SMDR				⇑iS	Sb	11 43 22.7	-0.5
SMDR				IAML		11 43 35.0	
	comp=N,252nm,0.7s						
NEDR	Neiba UASD	1.77	199	⇑iP	Pb	11 43 01.3	-0.4
NEDR				IAML		11 43 32.9	
	comp=N,177nm,1.3s						
BANI	BANI	1.81	166	⇑iP	Pn	11 43 01.0	+0.7
BANI				IAML		11 43 31.5	
	comp=N,527nm,0.9s						
SDD	Santo Domingo	1.89	153	iP	Pn	11 43 01.7	+0.4
SDD				eS	Sb	11 43 26.2	-1.1
SDD				IAML		11 43 31.7	
	comp=Z,369nm,0.4s						
SDD	Santo Domingo	1.89	153	⇑iP	Pn	11 43 01.1	-0.2
SDD				⇑iS	Sb	11 43 26.9	-0.3
SDD				IAML		11 43 31.4	
	comp=N,220nm,0.5s						
LODU1	El Espartillar	1.91	199	iP	Pb	11 43 03.8	-0.2
LODU1				IAML		11 43 30.6	
	comp=Z,428nm,0.5s						
JIDR	Jimani	1.93	211	⇑iP	Pn	11 43 03.3	+1.5
JIDR				IAML		11 43 34.4	
	comp=N,368nm,0.4s						
PODR	Polo	2.04	193	⇑iP	Pb	11 43 05.2	-1.1
LOVI	El Cajuil, Ovi	2.41	193	iP	Pb	11 43 10.8	-1.8
LOBH	Bahia de las A	2.42	199	iP	Pb	11 43 11.6	-1.3
HIDR	Higuey Centro	2.51	128	⇑iP	Pn	11 43 10.4	+0.6
HIDR				⇑iS	Sn	11 43 41.8	+1.5
HIDR				IAML		11 43 43.1	
	comp=N,165nm,0.5s						

IDC 11 11:49:34.6±3.4**, 31°.68S×178°.37W, h0**km**, mb4.0**/2**, mbtmp4.0**/3**, ML3.8**/1**, Error ellipse: s-maj=72.4km s-min=47.3km az=111.0, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	7.54	208	Pn	Pn	11 51 24.9	-0.8
	1.4nm,0.3s,baz=36,slow=8.7,SNR=10						
URZ				Sn	Sn	11 52 47.0	-5.0
	1.3nm,0.3s,baz=248,slow=22,SNR=8.7						
	5.0nm,0.4s						
URZ				AML	AML		
ASAR	Alice Springs	42.74	268	P	P	11 57 33.9	-0.1
	0.8nm,0.5s,baz=108,slow=7.4,SNR=25						
	0.8nm,0.5s						
WRA	Warramunga Arr	43.85	274	P	P	11 57 42.8	0.0
	1.8nm,0.5s,baz=112,slow=8.0,SNR=45						
	1.8nm,0.5s						
QSPA	South Pole Qui	58.43	180	P	P	11 59 37.4	+5.5
	1.7nm,0.6s,baz=18,slow=4.2,SNR=10.0						
FINES	FINESS Array B	146.23	339	PKPbc	PKPdf	12 09 15.4	+0.3
	1.7nm,0.8s,baz=35,slow=3.2,SNR=2.0						

NOU 11 11:59:01.6, 17°.58S×168°.30E, h52km**, MLv4.3**/21**, Vanuatu Islands, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DVP	Devils Point	0.18	217	P	Pn	11 59 12.2	+2.2
RTV	Rentapao	0.24	151	P	Pn	11 59 12.2	+1.7
RTV	Rentapao	0.24	151	S	Sn	11 59 19.4	+2.6
SANVU	Saraoutou	2.37	333	P	Pn	11 59 37.5	-0.5
MARNC	Mare, Loyalty	3.89	184	P	Pn	11 59 58.1	-0.8
YATNC	Mamie plateau,	4.65	196	P	Pn	12 00 09.3	0.0
KOUNC	Koumac, New Ca	4.81	231	P	Pn	12 00 10.9	-0.6
NOUC	Port Laguerre	4.88	202	P	Pn	12 00 12.7	+0.3
OUENC	Ouen Island, N	5.00	196	P	Pn	12 00 14.5	+0.3
ONTNC	Ouen Toro	5.01	200	P	Pn	12 00 15.6	+1.3
NGOA	Tingoa Renbel	9.97	306	P	Pn	12 01 23.2	+0.9

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*IDC **11** 12:53:14.9±3.4, 17°.72S×178°.64W, h617km±23km, mb3.1/5, mbtmp4.1/6, Error ellipse: s-maj=105.6km s-min=31.3km az=143.0*

ISC 11 12:53:12.5±2.6**, 18°.1S**±0°.6×**178°.3W**±0°.5**, h600**km**, n6, σ1^s.27**/8**, mb3.9**/5**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	3.47	275	P	P	12 54 36.2	+1.6
	9.4nm,0.9s,baz=148,slow=12,SNR=4.3						
CTA	Charters Tower	33.51	261	P	P	12 59 03.2	-1.0
	5.8nm,0.9s,baz=88,slow=7.9,SNR=2.1						
	5.8nm,0.9s						
STKA	Stephens Creek	38.64	241	P	P	12 59 46.9	+0.8
	4.2nm,1.1s,baz=67,slow=7.7,SNR=3.3						
	4.2nm,1.1s						
WRA	Warramunga Arr	44.69	260	P	P	13 00 33.0	-0.8
	1.4nm,0.5s,baz=96,slow=7.4,SNR=46						
WRA				PcP	PcP	13 02 01.2	-1.8
	0.4nm,0.9s,baz=90,slow=3.7,SNR=1.7						
	1.4nm,0.5s						
ASAR	Alice Springs	44.84	254	P	P	13 00 34.9	-0.1
	6.4nm,0.6s,baz=88,slow=8.7,SNR=147						
ASAR				PcP	PcP	13 02 03.8	+0.2
	0.2nm,0.6s,baz=96,slow=3.6,SNR=1.7						
	6.4nm,0.6s						
ILAR	Eielson Array	86.01	13	P	P	13 04 50.0	0.0
	0.1nm,0.5s,baz=205,slow=4.9,SNR=2.1						
	0.1nm,0.5s						

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*SJA **11** 12:57:46.8±0.8, 31°.16S×72°.11W, h40km±999km, ML3.4, MW3.7*

*GUC **11** 12:57:46.4±0.6, 31°.15S×72°.17W, h35km±8km, ML3.7*

ISC 11 12:57:43.8±1.1**, 31°.15S**±0°.02×**72°.12W**±0°.06**, h12**km**, n48, σ1^s.75**/87**, 9C-5D, Off coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CO06	Fray Jorge	0.64	41	⇓iP	Pn	12 58 01.6	+3.0
CO06				iS	Sn	12 58 09.8	+1.2
CO06				IAML		12 58 10.6	
	comp=E,10µm,0.3s						
CO02	Combarbal	0.96	93	eP	Pn	12 58 04.6	+1.4
CO02				eS	Sb	12 58 15.7	+0.5
CO02				IAML		12 58 17.2	
	comp=Z,2µm,0.7s						
CO02	Combarbal	0.96	93	⇓iP	Pn	12 58 04.6	+1.4
CO02				iS	Sb	12 58 15.5	+0.3
CO02				IAML		12 58 17.4	
	comp=N,6µm,0.5s						
CO04	Los Peladeros	1.32	132	⇑iP	Pg	12 58 10.2	+1.0
CO04				iS	Sb	12 58 24.9	-0.8
CO04				IAML		12 58 25.6	
	comp=N,2µm,0.4s						
GO04	Tololo Observa	1.50	50	eP	Pn	12 58 07.0	-3.8
GO04				eP	Pg	12 58 12.8	+0.1
GO04				eS	Sn	12 58 30.6	+0.2
GO04				IAML		12 58 33.8	
	comp=Z,1µm,0.3s						
GO04	Tololo Observa	1.50	50	⇓iP	Pg	12 58 12.7	+0.1
GO04				iS	Sn	12 58 28.9	-1.5
GO04				IAML		12 58 35.5	
	comp=N,3µm,0.2s						
ROCH	El Roble	2.04	153	⇑iP	Pb	12 58 20.6	-0.4
ROCH				iS	Sn	12 58 43.0	-0.8
VA03	San Esteban	2.09	141	eP	Pb	12 58 21.3	-0.4
VA03				eS	Sn	12 58 45.2	+0.5
VA03				IAML		12 58 49.3	
	comp=Z,288nm,0.8s						
VA03	San Esteban	2.09	141	⇑iP	Pb	12 58 21.1	-0.5
VA03				iS	Sn	12 58 44.0	-0.7
VA03				IAML		12 58 50.9	
	comp=E,610nm,0.1s						
CO01	Juntas del Tor	2.10	57	eP	Pb	12 58 21.9	-0.2
CO01				eS	Sn	12 58 46.0	+0.7
CO01				IAML		12 58 47.3	
	comp=Z,229nm,0.2s						
CO01	Juntas del Tor	2.10	57	⇓iP	Pb	12 58 21.8	-0.2
CO01				iS	Sn	12 58 45.5	+0.2
CO01				IAML		12 58 46.8	
	comp=N,651nm,0.4s						
MT02	Curacav	2.26	159	eP	Pb	12 58 23.3	-1.2
MT02				eS	Sn	12 58 50.2	+1.4
MT02				IAML		12 58 51.1	
	comp=Z,79nm,1.1s						
MT02	Curacav	2.26	159	iP	Pb	12 58 23.1	-1.4
PEL	Peldehue	2.33	149	eP	Pb	12 58 24.4	-1.3
PEL				eS	Sn	12 58 51.9	+1.4
PEL				IAML		12 58 52.5	
	comp=Z,145nm,0.5s						
PEL	Peldehue	2.33	149	iP	Pb	12 58 24.5	-1.3
PEL				iS	Sn	12 58 49.6	-0.9
LCO	Las Campanas	2.46	30	eP	Pb	12 58 26.8	-1.4
LCO				eS	Sn	12 58 54.9	+0.7
LCO				IAML		12 58 55.9	
	comp=Z,507nm,0.2s						
LCO	Las Campanas	2.46	30	⇓iP	Pb	12 58 26.6	-1.6
LCO				iS	Sn	12 58 53.9	-0.4
AROD	Rodeo	2.48	67	eP	Pb	12 58 28.6	+0.1
AROD				eS	Sb	12 58 57.5	-1.8
RTLS	Leoncito	2.50	106	eP	Pb	12 58 28.8	+0.1
RTLS				eS	Sn	12 58 51.9	-3.1
RTLS				IAML		12 59 02.9	
	comp=Z,713nm,0.9s						
MT10	Hacienda Santa	2.50	148	⇑iP	Pb	12 58 27.1	-1.6
MT10				iS	Sn	12 58 54.4	-0.6
MT10				IAML		12 59 02.2	
	comp=N,501nm,0.5s						
MT05	Renca	2.52	153	eP	Pb	12 58 27.4	-1.6
MT05				eS	Sn	12 58 56.1	+0.8
MT05				IAML		12 59 06.7	
	comp=Z,115nm,0.6s						
MT05	Renca	2.52	153	iP	Pb	12 58 27.0	-2.0
MT05				IAML		12 59 07.3	
	comp=E,408nm,0.3s						
MT14	Cerro Cal¡n	2.61	149	⇑iP	Pb	12 58 28.6	-1.9
MT14				iS	Sn	12 58 57.5	+0.1
MT14				IAML		12 59 10.1	
	comp=E,348nm,0.5s						
ACCO	Cerro Coronel	2.69	79	eP	Pb	12 58 31.4	-0.6
ACCO				eS	Sb	12 59 04.3	-0.8
ACCO				IAML		12 59 05.4	
	comp=Z,111nm,0.5s						
MT03	Universidad Ad	2.70	150	eP	Pb	12 58 30.1	-2.0
MT03				eS	Sb	12 59 02.5	-2.8
MT03				IAML		12 59 03.6	
	comp=Z,137nm,0.5s						
MT03	Universidad Ad	2.70	150	eP	Pn	12 58 29.4	+2.2
MT03				eS	Sn	12 58 59.4	-0.5
MT03				IAML		12 59 02.8	
	comp=N,224nm,0.5s						
ACDV	Cuesta del Vie	2.77	70	eP	Pb	12 58 32.3	-0.9
ACDV				eS	Sb	12 59 06.7	-0.5
ACDV				IAML		12 59 21.0	
	comp=Z,75nm,0.7s						
MT09	Talagante	2.78	160	⇑iP	Pb	12 58 31.3	-2.2
MT09				iS	Sn	12 59 02.3	+0.4
MT09				IAML		12 59 04.0	
	comp=E,221nm,0.4s						
MT15	Las Vizcachas	2.79	151	eP	Pn	12 58 31.0	+2.6
MT01	Popeta	2.80	165	eP	Pn	12 58 31.1	+2.7
MT01				eS	Sn	12 59 01.1	-1.1
MT01				IAML		12 59 18.3	
	comp=Z,62nm,0.5s						
MT01	Popeta	2.80	165	⇑iP	Pn	12 58 31.0	+2.6
MT01				iS	Sn	12 59 00.5	-1.7
MT04	Ro Olivares	2.80	144	eP	Pb	12 58 31.9	-2.0
MT04				eS	Sb	12 59 05.4	-2.9
MT04				IAML		12 59 18.4	
	comp=Z,80nm,0.5s						
MT04	Ro Olivares	2.80	144	iP	Pb	12 58 31.9	-2.0
MT12	Pirque	2.89	153	iP	Pn	12 58 32.3	+2.5
MT12				iS	Sn	12 59 03.6	-1.0
MT12				IAML		12 59 16.1	
	comp=N,251nm,0.5s						
ZON	Zonda	2.97	98	eP	Pn	12 58 32.6	+1.8
ZON				eS	Sn	12 59 09.1	+2.7
ZON				IAML		12 59 09.9	
	comp=Z,145nm,0.8s						
MT13	San Alfonso	3.01	149	eP	Pn	12 58 34.5	+3.0
MT13				eS	Sn	12 59 08.6	+1.1
MT13				IAML		12 59 20.5	
	comp=Z,105nm,0.6s						
MT13	San Alfonso	3.01	149	iP	Pn	12 58 34.4	+3.0
MT13				iS	Sn	12 59 06.8	-0.7
MT13				IAML		12 59 21.7	
	comp=E,143nm,0.4s						
SJA	San Juan	3.07	98	eP	Pg	12 58 48.0	+5.4
SJA				eS	Sn	12 59 07.0	-1.8
SJA				IAML		12 59 12.6	
	comp=Z,112nm,0.1s						
AC04	Llanos de Chal	3.08	17	eP	Pn	12 58 34.7	+2.5
AC04				eS	Sn	12 59 08.9	0.0
AC04				IAML		12 59 11.2	
	comp=Z,121nm,0.4s						
AC04	Llanos de Chal	3.08	17	⇑iP	Pn	12 58 34.8	+2.5
AC04				IAML		12 59 10.3	
	comp=E,228nm,0.2s						
BO04	La Punta	3.10	156	⇑iP	Pn	12 58 35.0	+2.4
BO04				IAML		12 59 10.8	
	comp=N,128nm,0.7s						
RTLL	Cerro Villicun	3.13	94	eP	Pb	12 58 36.8	-2.6
RTLL				eS	Sn	12 59 12.0	+1.7
RTLL				IAML		12 59 15.3	
	comp=Z,100nm,0.4s						
LMEL	Las Melosas	3.14	149	iP	Pn	12 58 36.4	+3.2
LMEL				iS	Sn	12 59 10.0	-0.7
ARCO	CERRO ARCO	3.19	123	eP	Pb	12 58 39.7	-0.8
ARCO				eS	Sn	12 58 54.8	-17
ARCO				IAML		12 59 08.2	
	comp=Z,66nm,0.5s						
BO01	Tunca	3.34	165	eS	Sn	12 59 14.9	-0.6
BO01				IAML		12 59 17.7	
	comp=Z,34nm,0.4s						
BO02	Sierra Bellavi	3.80	163	iP	Pn	12 58 44.9	+2.7
BO02				eS	Sn	12 59 24.9	-1.9
GO03	Copiapo	3.91	25	eS	Sn	12 59 25.6	-4.0
GO03				IAML		12 59 46.9	
	comp=Z,88nm,0.4s						
GO03	Copiapo	3.91	25	iP	Pn	12 58 46.0	+2.2
GO03				iS	Sn	12 59 29.9	+0.3

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*JMA **11** 13:01:00.2±0.4, 23°N±2°×12°3E±°, h49km, MV2.3/11, FAR S OFF ISHIGAKIJIMA*

*TAP **11** 13:01:01.2, 22°.70N×122°.60E, h49km, ML3.1, D*

ISC 11 13:01:00.8±1.3**, 22°.68N**±0°.04×**122°.69E**±0°.04**, h50**km**, n91, σ1^s.52**/157**, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LDUT	Ludao	1.12	270	P	Pn	13 01 19.6	-0.6
LDUT				eS	Sn	13 01 32.4	-2.2
LYUB	Lan-yu	1.22	237	P	Pn	13 01 21.1	-0.4
LYUB				S	Sn	13 01 35.0	-2.0
LAY	Lan-yu	1.23	239	eS	Sn	13 01 34.6	-2.5
CHKT	Chengkung	1.29	289	iP	Pn	13 01 21.2	-1.2
CHKT				eS	Sn	13 01 35.3	-3.3
CHKH	Chenggong	1.30	294	P	Pn	13 01 21.3	-1.2
CHKH				S	Sn	13 01 35.8	-3.0
EDH	Donghe	1.31	283	P	Pn	13 01 21.8	-0.9
EDH				eS	Sn	13 01 36.4	-2.6
FULB	Fuli	1.39	292	P	Pn	13 01 22.5	-1.2
FULB				S	Sn	13 01 38.6	-2.3
ECS	Chishang	1.42	287	P	Pn	13 01 23.8	-0.4
ECS				S	Sn	13 01 41.0	-0.7
HGSD	Ruisui	1.42	305	P	Pn	13 01 22.9	-1.3
HGSD				eS	Sn	13 01 39.0	-2.7
EYUL	Yuli	1.43	298	P	Pn	13 01 23.5	-0.8
EHD	Haiduan	1.45	289	P	Pn	13 01 24.0	-0.5
EHD				eS	Sn	13 01 39.6	-2.7
LONT	Longtian	1.46	279	P	Pn	13 01 24.9	+0.3
LONT				eS	Sn	13 01 40.1	-2.5
TEGC	Jichi Village	1.47	314	eS	Sn	13 01 41.2	-1.8
EOS4	EOS4	1.48	347	S	Sn	13 01 41.8	-0.8
EHYH	Wanrong	1.48	304	P	Pn	13 01 24.1	-0.8
EHYH				eS	Sn	13 01 40.9	-2.3
TWGBT	Beinan	1.49	276	P	Pn	13 01 25.1	0.0
TWGBT				eS	Sn	13 01 41.7	-1.8
TWG	Pinlang	1.50	276	eP	Pn	13 01 24.7	-0.6
TWG				S	Sn	13 01 41.6	-2.1
EHY	Hungye	1.50	304	P	Pn	13 01 24.4	-1.0
EHY				eS	Sn	13 01 43.0	-0.8
SHUL	Shoufeng	1.51	317	P	Pn	13 01 24.7	-0.8
SHUL				S	Sn	13 01 42.2	-1.8
EGFH	Guangfu	1.52	311	P	Pn	13 01 25.1	-0.5
EGFH				S	Sn	13 01 43.5	-0.8
TEYL	Yanliau Villag	1.55	320	eS	Sn	13 01 45.1	+0.1
WARBT	Fenglin Townsh	1.58	311	P	Pn	13 01 25.6	-0.9
WARBT				eS	Sn	13 01 43.5	-2.2
ECL	Taimali	1.60	267	eP	Pn	13 01 26.2	-0.4
ECL				eS	Sn	13 01 44.2	-2.1
ESL	Shilin	1.62	315	P	Pn	13 01 25.6	-1.3
ELDTW	Lidau	1.62	289	P	Pn	13 01 26.4	-0.7
ELDTW				eS	Sn	13 01 44.5	-2.4
EOS3	EOS3	1.64	348	eP	Pn	13 01 27.7	+0.7
EOS3				S	Sn	13 01 46.8	0.0
TAW	Tawu	1.69	259	P	Pn	13 01 29.0	+1.2
ETM	Tongmen	1.69	320	eP	Pn	13 01 26.7	-1.1
ETM				eS	Sn	13 01 47.9	-0.5
TAWH	Dawu Township	1.70	259	P	Pn	13 01 28.8	+0.8
TAWH				S	Sn	13 01 48.6	+0.1
HATJ	Hateruma jima	1.71	37	P	Pn	13 01 28.1	-0.1
HATJ				S	Sn	13 01 48.3	-0.6
TWD	Chiawan	1.72	325	eP	Pn	13 01 28.1	-0.2
TWD				eS	Sn	13 01 46.9	-2.2
EAST	Anshuo	1.73	261	eP	Pn	13 01 28.9	+0.5
EAST				eS	Sn	13 01 49.9	+0.6
ETL	Fush Village	1.77	327	eS	Sn	13 01 48.5	-1.9
LXIB	Xiulin Townshi	1.78	319	eP	Pn	13 01 29.1	-0.2
LXIB				eS	Sn	13 01 49.2	-1.5
VWDT	VWDT	1.78	307	P	Pn	13 01 29.1	0.0
VWDT				eS	Sn	13 01 49.7	-0.9
JYNG	Yonagunijimaku	1.78	8	P	Pn	13 01 29.7	+0.6
JYNG				S	Sn	13 01 51.3	+0.7
EOS2	EOS2	1.78	347	eS	Sn	13 01 51.3	+0.8
NACB	Ninganchiao	1.80	326	P	Pn	13 01 28.5	-0.8
NACB				S	Sn	13 01 48.8	-2.2
YOJ	Yonaguni jima	1.80	9	P	Pn	13 01 29.9	+0.6
YOJ				S	Sn	13 01 51.6	+0.5
SLIU	Shizi	1.81	256	P	Pn	13 01 29.6	+0.1
SLIU				eS	Sn	13 01 50.1	-1.2
TSEB	Hengchuen, Pin	1.83	245	eS	Sn	13 01 53.2	+1.5
STYH	Taoyuan	1.83	286	P	Pn	13 01 30.4	+0.6
STYH				eS	Sn	13 01 50.5	-1.3
SMST	Manzhou Townsh	1.83	249	eP	Pn	13 01 31.1	+1.2
SMST				eS	Sn	13 01 51.4	-0.5
STYT	Tauyuan	1.84	286	P	Pn	13 01 30.0	-0.1
ETLH	Xiulin Townshi	1.88	324	P	Pn	13 01 30.0	-0.6
ETLH				eS	Sn	13 01 51.4	-1.8
OWD	Renai	1.88	313	P	Pn	13 01 30.4	-0.3
OWD				eS	Sn	13 01 51.5	-1.8
TWKBT	Hengchun	1.89	247	eP	Pn	13 01 31.3	+0.8
TWKBT				eS	Sn	13 01 53.4	+0.2
MASBT	Mashibuluo	1.90	268	P	Pn	13 01 31.0	+0.3
MASBT				eS	Sn	13 01 50.0	-3.6
SSD	Sandimen	1.90	272	eP	Pn	13 01 30.3	-0.5
IRIF	Iriomote-Funau	1.91	30	P	Pn	13 01 30.9	0.0
ALS	Alishan	1.92	296	eP	Pn	13 01 32.2	+0.9
HEN	Hengchun	1.93	250	eS	Sn	13 01 54.3	+0.2
SCZT	Fangliau	1.94	261	eP	Pn	13 01 32.8	+1.6
SSLB	Suanglung	1.94	305	eP	Pn	13 01 31.6	+0.3
SSLB				eS	Sn	13 01 52.1	-2.5
ENA	Nanau	1.95	334	eP	Pn	13 01 29.2	-2.2
ENA				eS	Sn	13 01 51.8	-2.9
EWUT	Wuta	1.95	335	eP	Pn	13 01 32.2	+0.8
WUSB	Renai	1.95	313	eP	Pn	13 01 31.5	0.0
WUSB				eS	Sn	13 01 52.9	-2.0
WHF	Hehuan Shan	1.96	318	eP	Pn	13 01 31.9	-0.1
WHF				S	Sn	13 01 53.9	-1.7
WHYT	Xinyi Township	1.97	301	eP	Pn	13 01 32.7	+0.9
JKRS	Kuro-shima	1.97	38	P	Pn	13 01 32.1	+0.4
JKRS				S	Sn	13 01 54.6	-0.6
SGST	Jiashian	1.98	282	P	Pn	13 01 32.9	+1.0
SGST				eS	Sn	13 01 55.7	+0.1
WTP	Ta-pu	1.99	287	P	Pn	13 01 33.9	+1.8
WTP				S	Sn	13 01 58.7	+2.8
TPUB	Ta-pu	2.00	289	P	Pn	13 01 34.0	+1.9
TPUB				S	Sn	13 01 58.6	+2.7
SCST	Cishan	2.04	276	eP	Pn	13 01 34.9	+2.3
FUSS	Fushou	2.05	320	P	Pn	13 01 33.1	+0.1
FUSS				S	Sn	13 01 56.5	-1.0

CHN1	Nanshi	2.05	285	P	Pn	13 01 35.1	+2.3
WCKO	Fanlu	2.06	292	*e*P	Pn	13 01 35.4	+2.4
WCKO				*e*S	Sn	13 02 01.0	+3.5
CHN5	Tsauling	2.06	297	*e*P	Pn	13 01 34.9	+1.8
CHN5				*e*S	Sn	13 01 58.2	+0.6
TWM1	Shoushan	2.10	274	*e*P	Pn	13 01 37.4	+4.0
TDCB	Techi	2.11	318	*e*S	Sn	13 01 58.4	-0.4
TWK	Hsinying	2.11	287	P	Pn	13 01 35.9	+2.3
TWK				*e*S	Sn	13 02 02.4	+3.6
NNSB	Datong	2.12	326	P	Pn	13 01 34.0	+0.2
NNSB				S	Sn	13 01 57.7	-1.3
NNS	Nan Shan	2.13	326	*e*P	Pn	13 01 33.9	-0.1
NNS				*e*S	Sn	13 01 58.7	-0.7
WCS	Beigang Elemen	2.13	310	*e*P	Pn	13 01 34.7	+0.8
WCS				*e*S	Sn	13 01 57.9	-1.4
LATG	Datong	2.13	330	*e*P	Pn	13 01 34.4	+0.4
LATG				*e*S	Sn	13 01 58.5	-1.0
NDS	Dongshan	2.14	336	*e*P	Pn	13 01 35.1	+1.0
NDS				*e*S	Sn	13 01 59.0	-0.5
JIJ	Ishigaki jima	2.15	38	P	Pn	13 01 33.9	-0.2
JIJ				*e*S	Sn	13 01 58.0	-1.6
NDT	Datong Townshi	2.20	331	*e*S	Sn	13 01 58.4	-2.5
ENTT	Nioudou	2.21	332	*e*P	Pn	13 01 36.0	+1.0
ENTT				*e*S	Sn	13 02 00.8	-0.3
WDLH	Douliu	2.22	297	*e*P	Pn	13 01 37.7	+2.6
WDLH				*e*S	Sn	13 02 02.1	+0.7
FUSB	Fushanzhiwuyua	2.31	334	*e*P	Pn	13 01 37.6	+1.2
FUSB				*e*S	Sn	13 02 04.2	+0.7
YHNB	Yeheng	2.32	329	*e*P	Pn	13 01 37.1	+0.5
YHNB				*e*S	Sn	13 02 03.0	-1.0
NSK	Sanguang	2.33	329	*e*S	Sn	13 02 03.5	-0.8
JISG	Ishigakijimahi	2.41	38	*e*P	Pn	13 01 37.5	-0.3
JISG				*e*S	Sn	13 02 04.7	-1.4
WSL	Shuilin Townsh	2.42	291	*e*S	Sn	13 02 08.7	+2.5
TIPB	Shuangxi	2.42	341	*e*P	Pn	13 01 39.1	+1.2
TIPB				*e*S	Sn	13 02 06.9	+0.6
TWQ1	Liyutan	2.42	314	*e*P	Pn	13 01 40.1	+2.2
TWQ1				*e*S	Sn	13 02 08.8	+2.5
NFF	Wufeng Townshi	2.42	324	*e*P	Pn	13 01 39.5	+1.5
NFF				*e*S	Sn	13 02 07.5	+1.1
NSTT	Nanjuang	2.48	322	*e*P	Pn	13 01 40.6	+1.9
NSTT				*e*S	Sn	13 02 08.9	+1.0
LIOB	Emei	2.49	322	P	Pn	13 01 41.1	+2.3
LIOB				*e*S	Sn	13 02 09.2	+1.2
SXI1	Grass Mountain	2.52	343	P	Pn	13 01 39.9	+0.6
SXI1				*e*S	Sn	13 02 09.3	+0.4

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*IDC **11** 13:03:41.6±1.2,30°.48N×139°.71E,h0^{km},mb3.5/3, mbtmp3.5/5,ML2.1/2,Error ellipse: s-maj=67.6km s-min=14.5km az=89.0*

*JMA **11** 13:03:47.0±0.4,31˚N±2˚×14˚1E±˚,h12^{km},MV4.1/12, NEAR TORISHIMA IS*

ISC 11 13:03:46.7±1.0,**30°.74N**±0°.07×**139°.7E**±0°.2,**h35**^{km},**n10, σ1^{s}97**/9,**mb3.6**/3,**Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHJ	Hachijo jima 2	2.38	2	Pn	Pn	13 04 25.0	+1.8
	2.7nm,0.3s,baz=265,slow=23,SNR=6.9						
JHJ				Sn	Sn	13 04 53.0	+1.9
	10nm,0.3s,baz=279,slow=22,SNR=6.6						
	67nm,0.8s						
JHJ				AML	AML		
BSO1	Boso 1	4.06	15	*e*P	Pn	13 04 44.0	-1.8
CBIJ	Chichi jima	4.25	148	*e*P	Pn	13 04 50.9	+1.9
MJAR	Matsushiro Arr	5.92	349	Pn	Pn	13 05 18.2	+6.3
	baz=162,slow=12,SNR=2.2						
MJAR				Sn	Sn	13 06 19.0	+0.6
	baz=163,slow=27						
	0.9nm,0.5s						
H11N2	WAKE ISLAND Hy	26.89	108	T	T	13 38 26.8	
	baz=296						
H11N1	WAKE ISLAND Hy	26.90	108	T	T	13 38 07.9	
	baz=296						
H11N3	WAKE ISLAND Hy	26.91	108	T	T	13 38 37.1	
	baz=296						
MKAR	Makanchi Array	46.49	307	P	P	13 12 11.6	+1.1
	0.1nm,0.4s,baz=102,slow=6.6,SNR=2.4						
	0.1nm,0.4s						
WRA	Warramunga Arr	50.65	186	P	P	13 12 40.9	-1.7
	0.6nm,0.3s,baz=4.1,slow=7.8,SNR=21						
WRA				PcP	PcP	13 13 58.3	-1.5
	0.5nm,0.8s,baz=360,slow=3.7,SNR=4.8						
	0.6nm,0.3s						
ASAR	Alice Springs	54.38	187	P	P	13 13 08.5	-1.6
	0.3nm,0.5s,baz=18,slow=13,SNR=8.6						
	0.3nm,0.5s						

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*DSN **11** 13:11:32.0±1.0,27°.27N×54°.97E,h10^{km},ML2.8/9,Error ellipse: s-maj=14.3km s-min=9.1km az=86.0*

*TEH **11** 13:11:33.1,27°.11N×55°.13E,h10^{km}±229^{km},ML2.8, Presumed earthquake*

ISC 11 13:11:33.5±1.1,**27°.15N**±0°.07×**55°.06E**±0°.07,**h17**^{km},**n13, σ1^{s}19**/14,**Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BNDS	Bandar-Abbas	1.02	76	Pg	Pb	13 11 52.6	-0.4
IBND	Bandar-abas	1.35	77	Pg	Pb	13 11 58.0	-0.4
SHME	Shamm	1.46	138	P	Pn	13 11 59.8	+0.6
KHL1	Khalili_Fars	1.64	288	Pg	Pg	13 12 04.3	-0.8
BANOM	Banah	1.65	137	P	Pn	13 12 02.9	+1.1
LMD1	Lamerd	1.70	277	Pg	Pg	13 12 06.4	+0.2
MSFE	Esma-Masafi	2.04	151	P	Pb	13 12 09.1	-1.1
UOSS	Minazif	2.42	155	P	Pn	13 12 14.0	+1.6
FAQ	Al Faqa, Dubai	2.44	168	P	Pn	13 12 13.7	+1.0
HATD	Hatta, Dubai	2.51	157	P	Pn	13 12 15.2	+1.6
ASHO	Ashiyiah	2.61	160	P	Pn	13 12 16.9	+1.9
ASHO				S	Sb	13 12 50.8	-1.0
JASK	Jask - Hormozg	2.82	116	Pn	Pn	13 12 18.6	+0.7
ALNE	Al Ain	3.14	168	P	Pn	13 12 23.1	+0.8

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*UCR **11** 13:12:56.0±1.0,10°.86N×85°.80W,h54^{km}±4^{km},MW3.7, Presumed earthquake*

*CATAC **11** 13:12:57.4±0.3,11˚N±3˚×8˚6W±˚,h39^{km}±3^{km},M3.2/24, MLv3.2/24,Error ellipse: s-maj=6.8km s-min=3.1km az=43.1,confirmed*

ISC 11 13:12:57.3±1.3,**10°.89N**±0°.04×**85°.70W**±0°.05,**h60**^{km}±7^{km}, **n58, σ0^{s}50**/82,**2C-8D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LCRUZ	La Cruz	0.20	19	*e*P	Pn	13 13 06.3	-0.5
LCRUZ				*e*S	Sn	13 13 13.7	+0.1
LAPC	Finca la Perla	0.29	115	*e*P	Pn	13 13 05.7	-1.6
LAPC				*e*S	Sn	13 13 13.6	-1.0
ALIBA	Liberia Airpor	0.33	153	*e*P	Pn	13 13 07.6	0.0
ALIBA				*e*S	Sn	13 13 16.4	+1.3
VRLE	La Escondida,	0.34	107	*e*P	Pn	13 13 07.4	-0.4
CARN	Rivas	0.34	30	⇓P	Pn	13 13 07.5	-0.2
CARN				S	Sn	13 13 15.4	+0.1
CARN	Rivas	0.34	30	*e*P	Pn	13 13 07.5	-0.2
CARN				*e*S	Sn	13 13 15.6	+0.3
VORI	VORI	0.35	101	*e*P	Pn	13 13 07.5	-0.5
GPS3	Bodega del ICE	0.35	112	*e*P	Pn	13 13 07.9	0.0
GPS3				*e*S	Sn	13 13 17.0	+1.5
BUAI	Buenos Aires	0.36	92	*e*P	Pn	13 13 08.1	+0.2
GPS1	Guardaparques	0.36	108	*e*P	Pn	13 13 07.6	-0.4
GPS2	Hotel Rincn d	0.37	112	*e*P	Pn	13 13 07.6	-0.4
PEJA	Penjamo Buenos	0.38	89	*e*P	Pn	13 13 08.1	0.0
MESS	Mesas	0.52	107	*e*P	Pn	13 13 09.3	-0.2
MESS				*e*S	Sn	13 13 19.5	+1.2
CLARA	Aguas Claras	0.52	101	*e*P	Pn	13 13 09.5	-0.1
HORNC	Hornillas	0.54	109	*e*P	Pn	13 13 09.5	-0.2
HORNC				*e*S	Sn	13 13 19.3	+0.5
BAGA	Bagaces	0.56	130	*e*P	Pn	13 13 09.5	-0.4
CUI	Cuipilapa	0.57	114	*e*P	Pn	13 13 09.8	-0.3
CUI				*e*S	Sn	13 13 19.9	+0.5
VMAR	Armenia, Volca	0.58	97	*e*P	Pn	13 13 09.9	-0.3
OMEN	Al SSO del Vol	0.62	6	⇓P	Pn	13 13 10.2	-0.4
OMEN				S	Sn	13 13 20.7	+0.4
JAPN	Al SSO del Vol	0.63	2	⇑P	Pn	13 13 10.8	+0.1
JAPN				S	Sn	13 13 20.8	+0.2
MORN	Al O del Volca	0.66	4	⇓P	Pn	13 13 10.6	-0.5
MORN				S	Sn	13 13 20.9	-0.2
UPAL	Upala	0.67	89	P	Pn	13 13 10.9	-0.3
UPAL				S	Sn	13 13 21.8	+0.5
TENO	El Achiote	0.73	104	*e*P	Pn	13 13 11.6	-0.4
TIMP	Tierras Morena	0.73	114	*e*P	Pn	13 13 11.2	-0.8
JUD3	Juan Diaz 3	0.73	168	*e*P	Pn	13 13 11.4	-0.7
QUEB	Quebradon, Cot	0.83	108	*e*P	Pn	13 13 13.1	-0.1
NADN	Granada	0.92	339	S	Sn	13 13 26.8	0.0
JTS	Las Juntas de	0.94	129	⇓P	Pn	13 13 14.0	-0.6
JTS				S	Sn	13 13 27.0	-0.4
JTS	Las Juntas de	0.94	129	*e*P	Pn	13 13 13.6	-1.0
TABAC	Tabacon	0.99	113	*e*P	Pn	13 13 15.1	-0.3
CASO	Castillo	1.05	115	*e*P	Pn	13 13 15.9	-0.2
ARE1	Arenal 1	1.05	114	*e*P	Pn	13 13 16.2	+0.2
VARE2	V. Arenal	1.05	114	*e*P	Pn	13 13 16.2	+0.1
CEDE	Laguna Cedeo	1.06	112	*e*P	Pn	13 13 16.3	+0.2
VACR	Volcan Arenal	1.08	112	*e*P	Pn	13 13 16.5	0.0
NANN	Nandasmo	1.12	338	⇓P	Pn	13 13 17.5	+0.5
NANN				S	Sn	13 13 31.7	+0.1
SABN	Sabanita	1.16	337	⇓P	Pn	13 13 16.9	-0.5
MASN	Masaya	1.18	338	P	Pn	13 13 18.2	+0.4
MASN				S	Sn	13 13 33.5	+0.5
ACON	Acoyapa	1.19	26	P	Pn	13 13 17.5	-0.3
ACON				S	Sn	13 13 33.3	+0.1
ACON	Acoyapa	1.19	26	*e*P	Pn	13 13 17.6	-0.2
MAS3	Al N del Volca	1.22	338	P	Pn	13 13 18.1	-0.2
COVE	Coope Vega, Sa	1.28	97	⇑P	Pn	13 13 18.7	-0.4
UNAN	Cigeo UNAN	1.34	335	P	Pn	13 13 19.6	-0.3
UNAN				S	Sn	13 13 37.0	+0.3
BOAB	BOACO BROADBAN	1.55	1	⇓P	Pn	13 13 22.3	-0.4
BOAB				S	Sn	13 13 41.2	-0.7
COPN	Copaltepe	1.55	326	⇓P	Pn	13 13 22.8	+0.1
MOM2	El Cardon	1.72	333	P	Pn	13 13 25.1	+0.1
MOM2				S	Sn	13 13 46.7	+0.8
MOMN	Momotombo	1.72	331	P	Pn	13 13 24.8	-0.3
MOMN				S	Sn	13 13 45.8	-0.2
LEVN	Ruinas Leon Vi	1.75	329	P	Pn	13 13 25.5	+0.1
LEVN				S	Sn	13 13 47.1	+0.4
CNGA	Al SSO del Vol	1.87	328	P	Pn	13 13 26.4	-0.7
CNGN	Cerro Negro	1.88	329	P	Pn	13 13 26.4	-0.7
CNGN				S	Sn	13 13 50.4	+0.5
ESPN	Las Esperanzas	1.89	46	P	Pn	13 13 27.1	-0.1
LCR2	La Lucha 2	2.02	124	P	Pn	13 13 29.5	+0.2
MATN	Matagalpa	2.04	354	P	Pn	13 13 29.1	-0.3
BLUN	Bluefields	2.19	59	P	Pn	13 13 30.7	-0.6
CRIN	San Cristobal	2.23	324	S	Sn	13 13 58.7	+0.1
BUS1	Rivas	2.33	124	*e*P	Pn	13 13 33.4	-0.3
RCVN	Varillal2	2.72	350	P	Pn	13 13 38.9	+0.1
CSGN	Cosiguina Volc	2.76	319	P	Pn	13 13 39.4	+0.1
CSGN				S	Sn	13 14 11.5	0.0

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*IDC **11** 13:19:33.3±4.0,2°.62S×138°.51E,h223^{km}±43^{km},mb3.0/5, mbtmp3.5/7,Error ellipse: s-maj=35.9km s-min=12.9km az=101.0*

ISC 11 13:19:14.5±1.3,**2°.4S**±0°.1×**138°.3E**±0°.3,**h32**^{km},**n7, σ3^{s}35**/9, **mb3.6**/5,**Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	17.83	192	P	P	13 23 24.3	+3.5
	0.5nm,0.7s,baz=10,slow=11,SNR=7.3						
WRA				S	Sn	13 26 35.3	-2.9
	0.4nm,0.7s,baz=17,slow=23,SNR=4.9						
FITZ	Fitzroy Crossi	19.92	218	P	Pn	13 23 47.7	+2.1
	0.9nm,0.9s,baz=44,slow=12,SNR=1.5						
FITZ				S	S	13 27 21.8	-4.6
	2.2nm,0.7s,baz=100,slow=14,SNR=3.7						
ASAR	Alice Springs	21.53	191	P	P	13 24 04.6	+3.4
	0.6nm,0.7s,baz=23,slow=11,SNR=7.1						
	0.6nm,0.7s						
CMAR	Chiang Mai Arr	43.96	300	P	P	13 27 20.0	+0.9
	0.4nm,0.3s,baz=123,slow=9.4,SNR=4.1						
	0.4nm,0.3s						
SONM	Songino Array	57.31	335	P	P	13 29 00.1	+0.6
	1.0nm,0.5s,baz=131,slow=4.4,SNR=2.6						
	1.0nm,0.5s						
MKAR	Makanchi Array	69.34	322	P	P	13 30 18.5	-0.6
	0.4nm,0.7s,baz=120,slow=8.6,SNR=3.7						
	0.4nm,0.7s						
ILAR	Eielson Array	85.75	25	P	P	13 31 47.5	-2.8
	0.2nm,0.6s,baz=269,slow=7.5,SNR=2.0						
	0.2nm,0.6s						

KRSC 11 13:35:17.4±1.4,**55°.38N×166°.18E,h39**^{km}±11^{km},**Ml3.8, Komandorsky Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BKI	Bering	0.21	214	*i* P	Pn	13 35 25.2	-0.6
BKI				*e*S	Sn	13 35 30.7	-2.3
KBTR	Krutoberegovo	2.07	295	*e*P	Pn	13 35 50.2	+0.6
KBTR				*e*S	Sn	13 36 17.4	+3.2
MKZ	Mys Kozlova	2.69	254	*e*P	Pn	13 36 01.3	+3.1
MKZ				*e*S	Sn	13 36 33.9	+4.5
KIRR	Kirishev	3.35	282	*e*P	Pn	13 36 10.9	+3.5
KPT	Kopyto	3.42	282	*e*P	Pn	13 36 13.1	+4.8
TUMR	Tumrok	3.45	271	*e*P	Pn	13 36 12.6	+3.9
KOZ	Kozyrevsk	3.63	283	*e*P	Pn	13 36 15.3	+4.2
KII	Karymskiy	4.13	254	*e*P	Pn	13 36 22.3	+4.3
ESO	Esso	4.27	280	*e*P	Pn	13 36 25.4	+5.5
SPN	Mys Shipunski	4.27	240	*e*P	Pn	13 36 23.6	+3.8
SPN				*e*S	Sn	13 37 11.7	+3.4
SDLR	Sedlovina	4.76	247	*e*P	Pn	13 36 31.3	+4.6
SMAR	Somma	4.81	247	*e*P	Pn	13 36 32.1	+4.6
KRER	Koryakskii	4.82	247	*e*P	Pn	13 36 32.5	+4.9
UGLR	Uglovaya	4.82	246	*e*P	Pn	13 36 32.3	+4.8
AVH	Avacha	4.84	247	*e*P	Pn	13 36 32.8	+5.0
KRX	Arik	4.84	248	*e*P	Pn	13 36 32.5	+4.7
KOK	Koryaka	4.88	248	*e*P	Pn	13 36 33.1	+4.8
DALK	Dalny	4.95	245	*e*S	Sn	13 37 30.3	+5.2
KRMR	Karymshinskiy	5.38	245	*e*P	Pn	13 36 39.7	+4.6
KRMR				*e*S	Sn	13 37 42.0	+6.4
RUS	Russkaya	5.41	240	*e*P	Pn	13 36 40.3	+4.9
MTVR	Mutnovka	5.54	242	*e*P	Pn	13 36 41.3	+3.9
GRL	Gorelyy	5.56	243	*e*P	Pn	13 36 42.5	+4.9

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*SDD **11** 13:37:23.5±2.3,18°.04N×68°.61W,h88^{km}±16^{km},MD3.6, ML2.6,MW3.1,Presumed earthquake*

*OSPL **11** 13:37:25.5±0.6,17°.67N×68°.56W,h25^{km}±13^{km},ML2.6, Presumed earthquake*

ISC 11 13:37:24.7±1.5,**18°.0N**±0°.1×**68°.62W**±0°.04,**h89**^{km}±16^{km}, **n16, σ0^{s}79**/27,**19C-1D, Mona Passage**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PCDR	Punta Cana, DR	0.56	24	*i* P	Pn	13 37 40.1	+0.2
PCDR				*e*S	Sn	13 37 51.7	+0.6
PCDR				IAML		13 37 54.8	
	comp=Z,57nm,0.8s						
PCDR	Punta Cana, DR	0.56	24	⇑*i*P	Pn	13 37 40.0	+0.2
PCDR				⇑*i*S	Sn	13 37 52.2	+1.1
PCDR				IAML		13 37 53.0	
	comp=N,164nm,0.5s						
HIDR	Higuey Centro	0.60	352	⇑*i*P	Pn	13 37 39.8	-0.4
HIDR				⇑*i*S	Sn	13 37 51.2	-0.4
HIDR				IAML		13 37 52.3	
	comp=N,605nm,0.2s						
HATOM	Hato Mayor del	1.07	318	⇑*i*P	Pn	13 37 44.2	-0.9
HATOM				⇑*i*S	Sn	13 37 58.7	-1.8
HATOM				IAML		13 38 00.2	
	comp=N,131nm,0.3s						
SMDR	Samana, DR	1.40	338	⇓*i*P	Pn	13 37 48.7	-0.3
SMDR				⇑*i*S	Sn	13 38 07.8	+0.4
SMDR				IAML		13 38 09.1	
	comp=N,113nm,0.5s						
CRPR	Cabo Rojo, PR	1.44	89	⇑*i*P	Pn	13 37 49.3	-0.3
CRPR				IAML		13 38 16.2	
	comp=N,31nm,0.2s						
MLPR	Magueyes Islan	1.50	91	⇑*i*P	Pn	13 37 50.2	-0.2
MLPR				⇑*i*S	Sn	13 38 10.1	+0.2
MLPR				IAML		13 38 13.2	
	comp=N,7.8nm,0.4s						
AGPR	Aguadilla, PR	1.51	72	⇑*i*P	Pn	13 37 52.1	+1.6
AGPR				⇑*i*S	Sn	13 38 10.4	+0.3
AGPR				IAML		13 38 14.7	
	comp=N,67nm,0.5s						
AOPR	Arecibo Observ	1.81	79	⇑*i*P	Pn	13 37 54.0	-0.4
AOPR				⇑*i*S	Sn	13 38 16.7	-0.3
AOPR				IAML		13 38 19.0	
	comp=N,156nm,0.2s						
OBIP	Obispado Ponce	1.92	88	*i* P	Pn	13 37 54.8	-1.0
CELP	Cerrillos	1.95	87	⇑*i*P	Pn	13 37 55.9	-0.3
CELP				⇑*i*S	Sn	13 38 19.5	-0.7
CELP				IAML		13 38 26.4	
	comp=N,18nm,0.3s						
ABDR	Alto Bandera	2.07	293	⇑*i*P	Pn	13 37 58.5	+0.4
ABDR				IAML		13 38 35.6	
	comp=N,29nm,0.2s						
SC01	Santiago de lo	2.45	306	⇑*i*S	Sn	13 38 33.0	+0.9
SC01				IAML		13 39 07.8	
	comp=N,98nm,0.1s						
PODR	Polo	2.53	274	⇑*i*P	Pn	13 38 04.1	0.0
LOVI	El Cajuil, Ovi	2.62	266	*i* P	Pn	13 38 05.8	+0.8
LOVI				*e*S	Sn	13 38 35.4	-0.7
LOVI				IAML		13 38 35.8	
	comp=Z,55nm,1.0s						
LOBH	Bahia de las A	2.87	268	*i* P	Pn	13 38 09.6	+1.1
LOBH				*e*S	Sn	13 38 41.6	-0.6
LOBH				IAML		13 38 44.7	
	comp=Z,36nm,3.5s						

IDC 11 13:41:03.9±1.2,**22°.96N×93°.29E,h0**^{km},**mb3.5**/3, **mbtmp3.4**/4,**ML3.0**/1,**Error ellipse: s-maj=29.6km s-min=15.3km az=12.0, Myanmar-India border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BRDH	Bariadhala	1.54	260	Pg	Pn	13 41 32.5	-0.3
	66nm,0.3s,baz=73,slow=12,SNR=3.7						
BRDH				Lg	Lg	13 41 58.3	
	52nm,0.3s,baz=238,slow=18,SNR=6.5						
CMAR	Chiang Mai Arr	6.94	129	Pn	Pn	13 42 48.8	+1.9
	0.1nm,0.3s,baz=310,slow=12,SNR=6.6						
CMAR				Pg	Pg	13 43 15.0	-1.9
	baz=309,slow=13,SNR=4.2						
	0.8nm,0.7s						
CMAR				AML	AML		
MKAR	Makanchi Array	25.38	342	P	P	13 46 33.7	+0.9
	0.5nm,0.8s,baz=163,slow=8.9,SNR=3.9						
	0.5nm,0.8s						
WRA	Warramunga Arr	58.51	134	P	P	13 51 01.8	-0.6
	0.5nm,1.1s,baz=324,slow=7.2,SNR=7.1						
	0.5nm,1.1s						
ASAR	Alice Springs	60.88	137	P	P	13 51 18.8	+0.1
	0.4nm,0.5s,baz=320,slow=6.6,SNR=14						
	0.4nm,0.5s						

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*IDC **11** 13:55:44.9±4.5,4°.99S×129°.65E,h190^{km}±40^{km},mb3.7/6, mbtmp4.1/9,Error ellipse: s-maj=62.7km s-min=12.0km az=70.0*

ISC 11 13:55:44.1±0.7,**5°.01S**±0°.06×**129°.72E**±0°.08,**h182**^{km},**n26, σ2^{s}68**/29,**mb3.8**/6,**Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BNDI	Bandanaira	0.52	21	P	Pn	13 56 10.4	+1.1
BNDI	Bandanaira	0.52	21	S	Sn	13 56 28.3	-0.4
FAKI	Fak Fak	3.27	51	P	Pn	13 56 34.1	-2.1
SAUI	Saumlaki	3.35	152	P	Pn	13 56 39.2	+2.0
SAUI	Saumlaki	3.35	152	S	Sn	13 57 20.4	+1.7
SANI	Sanana	4.74	308	P	Pn	13 56 54.8	0.0
DRS	Darwin Rock St	7.47	171	P	Pn	13 57 30.7	+0.2
FITZ	Fitzroy Crossi	13.61	197	P	Pn	13 58 51.2	+1.3
	3.6nm,0.5s,baz=32,slow=11,SNR=26						
FITZ				S	Sn	14 01 15.0	-6.5
	1.5nm,0.5s,baz=120,slow=14,SNR=2.6						
FITZ	Fitzroy Crossi	13.61	197	P	P	13 58 53.7	+0.9
WRA	Warramunga Arr	15.51	164	P	Pn	13 59 12.8	-0.7
	0.6nm,0.4s,baz=343,slow=13,SNR=33						
WRA				S	S	14 01 56.9	-10
	0.9nm,0.4s,baz=174,slow=18,SNR=8.9						
QIS	Mount Isa	18.20	149	P	P	13 59 44.6	+1.1
QIS	Mount Isa	18.20	149	S	S	14 03 04.0	+1.5
MBWA	Marble Bar	18.75	210	P	P	13 59 50.4	+0.9
ASAR	Alice Springs	18.99	168	P	Pn	13 59 54.0	-0.8
	2.2nm,0.5s,baz=349,slow=11,SNR=41						
ASAR				S	S	14 03 17.8	-0.2
	0.3nm,0.5s,baz=352,slow=18,SNR=1.8						
AS01	Alice Springs	18.99	168	P	Pn	13 59 54.3	-0.6
AS01	Alice Springs	18.99	168	S	S	14 03 20.3	+2.2
MTSU	Mount Surprise	19.34	134	P	P	13 59 57.8	+2.0
MTSU	Mount Surprise	19.34	134	S	S	14 03 27.2	+2.2
MEEK	Meekatharra	23.98	205	P	P	14 00 42.6	+0.5
MEEK	Meekatharra	23.98	205	S	S	14 04 48.8	+3.1
CMAR	Chiang Mai Arr	38.26	308	P	P	14 02 46.4	-0.7
	0.7nm,0.4s,baz=139,slow=7.4,SNR=8.8						
	0.7nm,0.4s						
MKAR	Makanchi Array	66.42	326	P	P	14 06 13.5	-0.3
	2.0nm,0.4s,baz=113,slow=7.8,SNR=46						
	2.0nm,0.4s						
ZALV	Zalesovo Beam	69.68	334	P	P	14 06 32.6	-1.2
	1.1nm,0.5s,baz=121,slow=5.7,SNR=5.9						
	1.1nm,0.5s						
KURBB	Kurchatov Arra	70.67	328	P	P	14 06 39.6	-0.3
	3.1nm,0.7s,baz=130,slow=5.5,SNR=25						
	3.1nm,0.7s						
BVAR	Borovoye Array	76.24	328	P	P	14 07 12.5	+0.1
	0.4nm,0.4s,baz=119,slow=5.2,SNR=3.0						
	0.4nm,0.4s						
QSPA	South Pole Qui	84.96	180	P	P	14 07 59.1	+0.4
	1.7nm,1.1s,baz=326,slow=5.7,SNR=2.3						
	1.7nm,1.1s						

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*BJI **11** 13:58:29.0,61°.60N×152°.20W,h123^{km},mB4.7/4, mb4.7/24*

*NEIC **11** 13:58:31.2,61°.65N×152°.10W,h26^{km}*

*NEIC **11** 13:58:31.9±0.8,61°.64N±0°.04×152°.26W±0°.07, h121^{km}±4^{km},mb4.6/25,ML4.5/224,Mwr4.4/123, ML4.3(AEIC),Error ellipse: s-maj=6.0km s-min=5.0km az=186.0,Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}3.38; $M_{\theta\theta}$-4.47; $M_{\phi\phi}$1.10; $M_{r\theta}$-0.55; $M_{\theta\phi}$0.97; $M_{\phi r}$1.79; Fault plane solution: $M_0$4.55000×10^{15} NP1:ϕ_s73.65000°,δ45.81000°,λ49.26000°. NP2: ϕ_s304.67000°,δ57.09000°,λ123.87000°. Principal axes: T 4.3561, Plg61.0000°, Azm270.0000°; N 0.3715, Plg28.0000°, Azm105.0000°; P -4.7276, Plg6.0000°, Azm11.0000°;*

*IDC **11** 13:58:31.8±0.6,61°.75N×152°.36W,h118^{km}±4^{km},mb4.0/28, mbtmp4.4/32,MS3.2/7 Error ellipse: s-maj=11.1km s-min=9.2km az=18.0*

*AEIC **11** 13:58:32.6±0.8,61°.63N±0°.04×152°.18W±0°.08, h122^{km}±2^{km},Error ellipse: s-maj=6.0km s-min=5.3km az=194.0*

ISC 11 13:58:31.8±0.4,**61°.62N**±0°.03×**152°.25W**±0°.03, **h122**^{km}±3^{km},**n344, σ0^{s}96**/322,**mb4.4**/47,**1C, Southern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STLK	Strandline Lak	0.24	122		Pn	13 58 48.8	0.0
STLK				Sn	Sn	13 59 01.7	0.0
STLK				IAML		13 59 02.8	
	comp=N,4µm,0.9s						
SPNN	North Nagishla	0.34	220		Pn	13 58 49.7	+0.4
SPWE	Spurr West	0.38	203		Pn	13 58 49.9	+0.4
SPWE					Sn	13 59 03.3	+0.5
CKL	Chakachamna La	0.43	186		Pn	13 58 49.9	+0.2
M20K	Styx River	0.49	302		Pn	13 58 50.1	0.0
M20K				Sn	Sn	13 59 03.5	-0.3
M20K				IAML		13 59 04.4	
	comp=E,5µm,0.9s						
SKT	Skwentna	0.49	43		Pn	13 58 49.8	-0.2
SKT				Sn	Sn	13 59 03.7	0.0
SKT				IAML		13 59 04.4	
	comp=E,14µm,0.9s						
SUA	Susitna One	0.74	102		Pn	13 58 52.2	+0.5
SUA					Sn	13 59 07.5	+0.6
SUA	Susitna One	0.74	102	IAML		13 59 08.9	
	comp=N,7µm,0.4s						
SUA				IAML		13 59 09.8	
	comp=E,8µm,0.6s						
CAPN	Captain Cook N	1.01	148		Pn	13 58 55.8	+1.8
M22K	Willow	1.02	82		Pn	13 58 54.7	+0.5
M22K					Sn	13 59 11.5	+0.4
M19K	Big River Lodg	1.06	286		Pn	13 58 54.8	+0.3
M19K					Sn	13 59 12.1	+0.3
DFR	Drift River	1.06	192		Pn	13 58 55.0	+0.4
DFR					Sn	13 59 12.6	+0.7
RDT	Redoubt	1.06	184		Pn	13 58 54.7	+0.1
RDT					Sn	13 59 11.9	0.0
RDJH	Redoubt Jeurge	1.07	195		Pn	13 58 55.4	+0.6
RDJH					Sn	13 59 12.9	+0.7
NCT	North Crescent	1.12	197		Pn	13 58 55.7	+0.5

NCT					Sn	13 59 13.5	+0.5
L20K	Farewell, AK	1.15	319		Pn	13 58 55.7	+0.2
L20K					Sn	13 59 13.0	-0.5
L20K	Farewell, AK	1.15	319	IAML		13 59 14.4	
	comp=N,4µm,0.7s						
L20K				IAML		13 59 15.0	
	comp=E,2µm,0.9s						
CUT	Chulitna	1.22	49		Pn	13 58 56.5	+0.3
CUT	Chulitna	1.22	49		Sn	13 59 15.2	+0.6
PPLA	Purkeypile	1.28	1		Pn	13 58 57.2	+0.2
PPLA	Purkeypile	1.28	1		Sn	13 59 15.9	-0.2
PPLA	Purkeypile	1.28	1	IAML		13 59 17.3	
	comp=N,5µm,1.2s						
PPLA				IAML		13 59 21.3	
	comp=E,5µm,1.1s						
RC01	Rabbit Creek A	1.32	113		Pn	13 58 57.3	0.0
RC01				IAML		13 59 18.7	
	comp=E,14µm,0.2s						
RC01				IAML		13 59 19.0	
	comp=N,14µm,0.4s						
RC01	Rabbit Creek A	1.32	113		Sn	13 59 17.0	+0.2
L19K	White Mountain	1.35	296		Pn	13 58 58.0	+0.3
L19K	White Mountain	1.35	296		Sn	13 59 17.2	-0.2
N19K	Bonanza Creek	1.35	234		Pn	13 58 58.0	+0.2
N19K	Bonanza Creek	1.35	234		Sn	13 59 17.5	+0.1
PMR	Palmer	1.49	90	P	Pn	13 58 57.7	-1.4
PMR	Palmer	1.49	90		Sn	13 59 19.4	-0.6
SLKM	Skilak Lake	1.49	138		Pn	13 58 58.9	-0.3
SLKM				IAML		13 59 24.4	
	comp=E,10µm,0.3s						
SLKM	Skilak Lake	1.49	138		Sn	13 59 19.3	-0.8
GHO	Glory Hole Cre	1.59	83		Pn	13 58 59.8	-0.7
GHO				IAML		13 59 24.0	
	comp=E,9µm,0.3s						
GHO				IAML		13 59 24.2	
	comp=N,8µm,0.6s						
O22K	Cooper Landing	1.68	132		Pn	13 59 01.4	0.0
O22K	Cooper Landing	1.68	132		Sn	13 59 23.0	-0.9
ILSW	Iliamna Southw	1.70	195	Pn	Pn	13 59 02.0	+0.2
M18K	Stony River	1.72	267		Pn	13 59 01.8	0.0
O19K	Port Alsworth	1.75	216		Pn	13 59 02.6	+0.3
O19K				IAML		13 59 26.9	
	comp=N,2µm,0.5s						
O19K				IAML		13 59 27.0	
	comp=E,2µm,0.5s						
CAST	Castle Rocks	1.80	2		Pn	13 59 02.7	-0.2
CAST				IAML		13 59 26.7	
	comp=N,2µm,0.9s						
CAST				IAML		13 59 27.3	
	comp=E,1µm,0.6s						
KNK	Knik Glacier	1.83	95		Pn	13 59 02.5	-0.7
KNK	Knik Glacier	1.83	95		Sn	13 59 26.9	-0.4
SML	Sawmill	1.88	83		Sn	13 59 27.7	-0.6
SML	Sawmill	1.88	83		Pn	13 59 03.0	-0.8
SML	Sawmill	1.88	83	IAML		13 59 28.9	
	comp=E,9µm,0.6s						
SML				IAML		13 59 29.3	
	comp=N,10µm,0.3s						
K20K	Telida	1.93	335		Pn	13 59 04.4	-0.1
K20K	Telida	1.93	335		Sn	13 59 28.7	-0.8
HOM	Homer	2.00	171		Pn	13 59 05.1	-0.1
N18K	Kilae Creek	2.00	243		Pn	13 59 05.5	+0.1
WAT7	Susitna Watana	2.00	51		Pn	13 59 05.3	-0.1
WAT7					Sn	13 59 30.4	-0.7
BRSE	Bradley Lake S	2.03	158		Pn	13 59 04.9	-0.8
BRSE					Sn	13 59 30.1	-1.5
KTH	Kantishna Hill	2.03	17		Pn	13 59 05.7	-0.1
KTH				IAML		13 59 32.8	
	comp=E,3µm,0.5s						
KTH				IAML		13 59 34.0	
	comp=N,6µm,0.7s						
KTH	Kantishna Hill	2.03	17		Sn	13 59 30.7	-1.0
PWL	Port Wells	2.04	110		Pn	13 59 05.0	-0.8
PWL	Port Wells	2.04	110		Sn	13 59 30.7	-1.2
TRF	Thorofare Moun	2.05	26		Pn	13 59 06.0	0.0
TRF				IAML		13 59 33.8	
	comp=E,5µm,0.3s						
TRF				IAML		13 59 35.0	
	comp=N,5µm,0.5s						
SEW	Seward	2.05	137		Sn	13 59 29.8	-2.2
SEW	Seward	2.05	137		Pn	13 59 05.2	-0.6
SEW				IAML		13 59 37.8	
	comp=N,5µm,0.4s						
SEW				IAML		13 59 41.9	
	comp=E,5µm,0.5s						
WAT1	Susitna Watana	2.11	53		Pn	13 59 06.5	-0.2
CNPM	China Poot	2.16	166		Pn	13 59 06.6	-0.7
CNPM				IAML		13 59 34.1	
	comp=E,5µm,0.6s						
CNPM	China Poot	2.16	166		Sn	13 59 33.1	-1.5
L18K	Granite Mounta	2.18	288		Pn	13 59 07.9	+0.4
CHUM	Lake Minchumin	2.27	359		Pn	13 59 08.6	+0.1
O18K	Koktuh Hills	2.29	221		Pn	13 59 09.4	+0.4
O18K				IAML		13 59 39.3	
	comp=N,690nm,0.8s						
WAT6	Susitna Watana	2.33	64		Pn	13 59 09.1	-0.4
AGU	Augustine-Summ	2.35	195		Pn	13 59 10.2	+0.5
SCM	Sheep Creek Mo	2.35	83		Pn	13 59 09.1	-0.7
RND	Reindeer	2.38	40		Sn	13 59 38.5	-1.2
RND	Reindeer	2.38	40		Pn	13 59 09.8	-0.3
RND				IAML		13 59 39.8	
	comp=N,4µm,0.4s						
RND				IAML		13 59 40.2	
	comp=E,4µm,0.3s						
M17K	Holitna River	2.50	267		Pn	13 59 11.7	+0.2
BPAW	Bear Paw Mtn.	2.55	13		Pn	13 59 11.7	-0.6
BPAW				IAML		13 59 43.4	
	comp=E,3µm,0.9s						
BPAW				IAML		13 59 43.6	
	comp=N,3µm,0.9s						
MCK	McKinley	2.61	34		Pn	13 59 12.9	-0.1
MCK				IAML		13 59 46.9	
	comp=E,3µm,0.4s						
MCK				IAML		13 59 48.8	
	comp=N,2µm,0.7s						
N17K	Nushagak Hills	2.64	248		Pn	13 59 13.7	+0.3
P18K	Big Mountain,	2.68	215		Pn	13 59 14.4	+0.4
DHY	Denali Highway	2.70	55		Pn	13 59 14.2	-0.1
J20K	Nowinta River	2.71	342		Pn	13 59 14.0	-0.2
J20K				IAML		14 00 07.2	
	comp=E,674nm,0.7s						
J18K	Innoko River	2.77	314		Pn	13 59 15.2	+0.1
Q19K	Cape Douglas,	2.79	195		Pn	13 59 15.1	-0.3
Q19K				IAML		14 00 05.7	
	comp=N,1µm,0.7s						
Q19K				IAML		14 00 15.7	
	comp=E,2µm,1.1s						
J19K	Poorman	2.84	328		Pn	13 59 15.7	-0.2
BWN	Browne	2.86	25	IAML		13 59 56.4	
	comp=N,3µm,0.8s						
BWN				IAML		14 00 00.3	
	comp=E,2µm,0.8s						
P23K	Montague Islan	2.88	122		Pn	13 59 15.2	-1.3
L17K	Donlin	2.91	283		Pn	13 59 17.3	+0.5
FID	Port Fidalgo	2.93	105		Pn	13 59 15.2	-2.0
KLU	Klutina	3.03	90		Pn	13 59 17.6	-1.0
K17K	Iditarod	3.04	294		Pn	13 59 19.0	+0.4
K17K	Iditarod	3.04	294	IAML		13 59 55.7	
	comp=E,650nm,1.1s						
DIV	Divide	3.16	96	IAML		13 59 57.7	
	comp=E,2µm,0.4s						
PS11	TAPS Pump St11	3.25	79		Pn	13 59 21.5	+0.3
NEA2	Nenana	3.31	24	IAML		13 59 59.7	
	comp=N,776nm,0.8s						
NEA2				IAML		14 00 00.0	
	comp=E,862nm,0.6s						
EYAK	Cordova Ski Ar	3.34	106	P	Pn	13 59 20.8	-1.6
EYAK	Cordova Ski Ar	3.34	106	IAML		14 00 03.7	
	comp=E,1µm,0.4s						
EYAK				IAML		14 00 04.0	
	comp=N,2µm,0.5s						
I20K	Naaghedeneel	3.34	343	IAML		14 00 04.3	
	comp=N,1µm,1.1s						
I20K				IAML		14 00 35.5	
	comp=E,2µm,1.2s						
PS12	TAPS Pump St12	3.41	89		Pn	13 59 22.2	-1.2
WRH	Wood River Hil	3.43	32	IAML		14 00 04.0	
	comp=E,941nm,0.6s						
WRH				IAML		14 00 04.7	
	comp=N,671nm,0.5s						
HARP	HAARP	3.43	74		Pn	13 59 24.1	+0.4
MLY	Manley	3.49	11	IAML		14 00 19.5	
	comp=E,459nm,0.9s						
MLY				IAML		14 00 19.8	
	comp=N,531nm,0.9s						
PS10	TAPS Pump St10	3.50	56		Pn	13 59 25.8	+1.1
I21K	Tanana	3.57	2	IAML		14 00 06.3	
	comp=E,452nm,0.9s						
I21K				IAML		14 00 23.4	
	comp=N,360nm,1.0s						
CCB	Clear Creek Bu	3.64	32	IAML		14 00 12.7	
	comp=N,873nm,0.3s						
CCB				IAML		14 00 14.1	
	comp=E,826nm,0.3s						
MID	Middleton Isla	3.66	124		Pn	13 59 25.7	-1.0
MID	Middleton Isla	3.66	124	IAML		14 00 09.6	
	comp=N,1µm,0.8s						
MID				IAML		14 00 09.6	
	comp=E,1µm,0.9s						
Q16K	King Salmon	3.69	219		Pn	13 59 27.7	+0.6
K24K	Donnelly Dome	3.70	51		Pn	13 59 27.6	+0.4
BMRM	Bremner River	3.75	97	IAML		14 00 13.6	
	comp=N,1µm,0.4s						
BMRM				IAML		14 00 13.6	
	comp=E,1µm,0.6s						
I23K	Minto, Yukon-K	3.77	19	IAML		14 00 36.4	
	comp=E,400nm,0.6s						
I23K				IAML		14 00 37.7	
	comp=N,431nm,0.7s						
COLA	College	3.82	29	P	Pn	13 59 28.1	-0.7
COLA	College	3.82	29	S	Sn	14 00 13.1	+0.1
PS08	TAPS Pump Stn8	3.83	38		Pn	13 59 28.3	-0.6
Q17K	Contact Creek	3.83	210		Pn	13 59 29.7	+0.5
KDAK	Kodiak Island	3.86	183	P	Pn	13 59 27.6	-1.8
	comp=N,116nm,0.3s,baz=38,slow=4.9,SNR=593						
KDAK				S	Sn	14 00 09.1	-4.9
	comp=N,175nm,0.5s,baz=296,slow=4.3,SNR=5.0						
KDAK	Kodiak Island	3.86	183	IAML		14 00 22.6	
	comp=N,252nm,0.8s						
KDAK				IAML		14 00 31.2	
	comp=N,230nm,0.7s						
P16K	Nushagak River	3.86	230		Pn	13 59 30.1	+0.7
P16K	Nushagak River	3.86	230	IAML		14 00 54.4	
	comp=E,405nm,0.7s						
P16K				IAML		14 01 04.5	
	comp=N,480nm,1.1s						
RAGM	Ragged Mountai	3.89	105		Pn	13 59 28.4	-1.5
CAHL	Cahill	3.90	205		Pn	13 59 30.4	+0.4
ILAR	Eielson Array	3.98	35	P	Pn	13 59 30.2	-0.8
	comp=N,142nm,0.4s,baz=219,slow=13,SNR=806						
ILAR				S	Sn	14 00 14.5	-2.5
	comp=N,211nm,0.4s,baz=187,slow=30,SNR=5.4						
RIDG	Independent Ri	4.02	55		Pn	13 59 31.0	-0.5
GLB	Gilahina Butte	4.05	89		Pn	13 59 31.1	-0.8
GLB	Gilahina Butte	4.05	89	IAML		14 00 19.4	
	comp=E,808nm,0.4s						
GLB				IAML		14 00 19.7	
	comp=N,1µm,0.6s						
H21K	Melozitna Rive	4.06	357	IAML		14 00 43.8	
	comp=N,181nm,1.1s						
H21K				IAML		14 00 46.2	
	comp=E,219nm,0.7s						
N15K	Kwethluk River	4.10	253		Pn	13 59 33.2	+0.6
N15K	Kwethluk River	4.10	253	IAML		14 00 37.0	
	comp=N,222nm,0.9s						
N15K				IAML		14 00 39.9	
	comp=E,181nm,0.8s						
M15K	Kasigluk River	4.19	261		Pn	13 59 34.1	+0.3
MENT	Mentasta	4.20	68	P	Pn	13 59 33.5	-0.4
MENT	Mentasta	4.20	68	S	Sn	14 00 23.1	+1.0
MENT	Mentasta	4.20	68		Pn	13 59 33.6	-0.4
KAIM	Kayak Island	4.20	110		Pn	13 59 31.8	-2.1
KAIM	Kayak Island	4.20	110	IAML		14 00 32.6	
	comp=N,529nm,0.6s						
KAIM				IAML		14 00 50.0	
	comp=E,558nm,1.0s						
J16K	Anvik River	4.22	297		Pn	13 59 34.3	+0.1
VRDI	Verde Repeater	4.25	91	IAML		14 00 24.3	
	comp=N,598nm,0.9s						
VRDI				IAML		14 00 53.0	
	comp=E,389nm,1.0s						
H22K	Ishtalitna Cre	4.30	5	IAML		14 00 23.4	
	comp=E,263nm,1.1s						
H22K				IAML		14 00 26.1	
	comp=N,168nm,0.8s						
PLK5	Peulik 5	4.32	215		Pn	13 59 36.1	+0.6
J25K	Salcha River,	4.33	43	IAML		14 00 28.3	
	comp=N,1µm,0.4s						
BERG	Berg Lake	4.34	103		Pn	13 59 34.2	-1.6
L26K	Log Cabin Wild	4.38	67		Pn	13 59 36.8	+0.4
H23K	Yukon River	4.39	15		Pn	13 59 36.0	-0.4
H23K	Yukon River	4.39	15	IAML		14 00 27.8	
	comp=N,324nm,0.9s						
H23K				IAML		14 00 28.8	
	comp=E,379nm,0.7s						
PLK2	Peulik 2	4.39	210		Pn	13 59 37.2	+0.8
PS06	TAPS Pump Stn6	4.39	14		Pn	13 59 36.1	-0.3
IM03		4.43	352		Pn	13 59 36.9	0.0
MCARA	McCarthy VSAT	4.43	89		Pn	13 59 36.6	-0.3
M26K	Nabesna, AK	4.43	76	IAML		14 00 28.8	
	comp=E,888nm,0.4s						
M26K				IAML		14 00 56.5	
	comp=N,982nm,0.7s						
OHAK	Old Harbor	4.45	187		Pn	13 59 34.6	-2.6
SCRK	Sand Creek	4.47	54	IAML		14 00 27.7	
	comp=N,1µm,0.4s						
H18K	Honhosa River	4.48	325		Pn	13 59 37.7	0.0
O15K	Ungalikthiuk R	4.49	240		Pn	13 59 38.3	+0.6
CRQM	Cirque	4.50	97	IAML		14 00 30.4	
	comp=N,1µm,0.6s						
CRQM				IAML		14 00 32.8	
	comp=E,988nm,0.6s						
I17K	Unalakleet	4.50	304	IAML		14 00 30.2	
	comp=E,170nm,1.0s						
R17L	Mt. Peulik Vol	4.51	209		Pn	13 59 38.9	+0.8
PLBL	Peulik Blue Cr	4.57	212		Pn	13 59 39.0	+0.1
TGL	Tana Glacier	4.64	97	IAML		14 00 33.2	
	comp=N,1µm,0.6s						
TGL				IAML		14 00 35.0	
	comp=E,783nm,0.6s						
H24K	Noodor Dome	4.65	23	IAML		14 00 59.8	
	comp=N,210nm,0.7s						
H24K				IAML		14 01 03.0	
	comp=E,207nm,0.9s						
BALM	Baldy	4.81	93		Pn	13 59 41.1	-1.1
R16K	Pilot Point	4.88	216		Pn	13 59 44.0	+1.0
R16K	Pilot Point	4.88	216	IAML		14 01 41.3	
	comp=N,275nm,1.2s						
R16K				IAML		14 01 41.5	
	comp=E,241nm,1.2s						
BARK	Barkley Ridge	4.90	100		Pn	13 59 42.6	-0.8
PRP	Porcupine Dome	4.93	35	IAML		14 00 40.7	
	comp=E,578nm,0.6s						
PRP				IAML		14 00 42.0	
	comp=N,675nm,0.4s						
N14K	Kuskokwak Cree	4.93	254		Pn	13 59 44.5	+0.9
N14K	Kuskokwak Cree	4.93	254	IAML		14 01 37.4	
	comp=E,120nm,1.1s						
N14K				IAML		14 01 44.5	
	comp=N,141nm,1.1s						
G21K	Allakaket	4.94	354		Pn	13 59 43.8	0.0
G21K	Allakaket	4.94	354	IAML		14 01 09.0	
	comp=E,95nm,1.1s						
G21K				IAML		14 01 21.4	
	comp=N,137nm,0.8s						
M27K	Edge Creek, AK	4.95	77		Pn	13 59 44.7	+0.6
M27K	Edge Creek, AK	4.95	77	IAML		14 01 09.3	
	comp=E,341nm,0.9s						
M27K				IAML		14 01 17.9	
	comp=N,374nm,1.0s						
L14K	Kuka Creek	5.01	271	IAML		14 01 45.8	
	comp=E,129nm,1.2s						
L14K				IAML		14 01 53.7	
	comp=N,111nm,1.2s						
G19K	Purcell Mounta	5.01	337		Pn	13 59 44.2	-0.6
CYK	Cape Yakataga	5.02	104		Pn	13 59 44.5	-0.4
L27K	Beaver Creek,	5.07	69		Pn	13 59 45.5	-0.1
L27K	Beaver Creek,	5.07	69	IAML		14 00 44.8	
	comp=E,190nm,0.7s						
L27K				IAML		14 01 08.3	
	comp=N,241nm,1.1s						
BARN	Barnard Glacie	5.13	92	IAML		14 00 50.6	
	comp=E,569nm,0.6s						
BARN				IAML		14 01 15.8	
	comp=N,526nm,0.8s						
GRNC	Granite Creek	5.16	95	IAML		14 00 45.3	
	comp=E,565nm,0.8s						
G23K	Bananza Creek	5.20	10	IAML		14 00 49.4	
	comp=N,140nm,0.8s						
G23K				IAML		14 00 58.0	
	comp=E,121nm,0.9s						
K27K	Chicken	5.25	58		Pn	13 59 47.5	-0.5
K27K	Chicken	5.25	58	IAML		14 00 49.8	
	comp=N,434nm,0.5s						
K27K				IAML		14 00 54.1	
	comp=E,393nm,0.5s						
PS05	TAPS Pump Stn5	5.25	7		Pn	13 59 47.9	-0.1
YAH	Yahtse	5.27	99		Pn	13 59 46.3	-2.2
YAH	Yahtse	5.27	99	IAML		14 00 50.0	
	comp=N,637nm,0.6s						
YAH				IAML		14 00 50.4	
	comp=E,517nm,0.7s						
BVCY	Beaver Creek	5.42	77		Pn	13 59 50.9	+0.6
H25L	Birch Creek	5.45	28		Pn	13 59 50.5	-0.1
I26K	Coal Creek Min	5.50	44		Pn	13 59 51.3	0.0
YUK3	Moose Creek	5.61	83		Pn	13 59 52.7	-0.3
CHX	Chaix Hills	5.67	101		Pn	13 59 53.2	-0.4
COLD	Coldfoot	5.70	8		Pn	13 59 53.6	-0.3
ANPB	Aniakchak Plen	5.74	215		Pn	13 59 55.3	+0.7
YUK8	Steele Glacier	6.00	88		Pn	13 59 58.1	-0.2
PCA	Pinnacle	6.06	99		Pn	13 59 57.9	-1.0
F17K	Baldwin Pennin	6.24	325		Pn	14 00 01.5	+0.3
G15K	Niukluk	6.29	308		Pn	14 00 02.0	0.0
BRWY	Burwash Landin	6.33	86		Pn	14 00 02.5	-0.1
DAWY	Dawson	6.38	62		Pn	14 00 02.5	-0.6
G26K	Porcupine Rive	6.49	31		Pn	14 00 03.3	-1.2
M29M	Somme Creek	6.54	77		Pn	14 00 05.8	+0.4
VNSG	Veniaminof 6	6.55	216		Pn	14 00 05.7	+0.1
E23K	Chandalar	6.56	9		Pn	14 00 05.6	0.0
H27K	Steamboat Moun	6.61	41		Pn	14 00 05.7	-0.5
PNL	Peninsula	6.62	102	P	Pn	14 00 05.9	-0.5
PNL	Peninsula	6.62	102		Pn	14 00 05.7	-0.8
F25K	Christian Rive	6.63	22		Pn	14 00 05.8	-0.8
ANM	Nome	6.64	302		Pn	14 00 07.9	+1.2
BM03	Burnt Mountain	6.68	26		Pn	14 00 06.3	-1.0
I28M	Miner Creek	6.70	50		Pn	14 00 07.1	-0.5
YUK6	Outpost Mounta	6.73	90		Pn	14 00 07.9	-0.3
L29M	L29M	6.74	71		Pn	14 00 08.5	+0.5
O29M	Mount Kennedy	6.79	95		Pn	14 00 08.5	-0.3
E18K	Tukpahlearik C	6.84	332		Pn	14 00 09.9	+0.6
E20K	Nigu River	6.87	348		Pn	14 00 10.4	+0.6
E17K	Hotham Inlet	6.87	327		Pn	14 00 09.9	+0.2
YUK5	Granite Creek	6.93	88		Pn	14 00 10.5	-0.3
PS04	TAPS Pump Stn4	6.94	9		Pn	14 00 11.0	+0.3
G27K	Doyon Strip	6.95	37		Pn	14 00 09.5	-1.4
J29N	Klondike Camp	6.98	60		Pn	14 00 11.2	-0.1
F26K	Sheenjek River	7.01	26		Pn	14 00 10.5	-1.2
E25K	Arctic Village	7.11	21		Pn	14 00 12.4	-0.6
K29M	Barlow Dome	7.12	65		Pn	14 00 13.1	-0.2
TOLK	Toolik Lake Re	7.14	8		Pn	14 00 14.2	+0.8
HYT	Haines Junctio	7.17	90		Pn	14 00 13.5	-0.4
N30M	Aishikik Lake	7.25	85		Pn	14 00 14.2	-0.7
D22K	Ayikyak River	7.29	359		Pn	14 00 15.6	+0.1
D19K	Kuna River	7.33	343		Pn	14 00 16.1	+0.2
F14K	Arctic Creek	7.37	308		Pn	14 00 17.1	+0.6
D23K	Nanushuk River	7.40	4		Pn	14 00 18.1	+1.1
P30M	Million Dollar	7.61	95		Pn	14 00 19.3	-0.6
SDPT	Sand Point	7.62	218	P	Pn	14 00 19.7	-0.2
SDPT	Sand Point	7.62	218	S	Sn	14 01 42.8	-1.8
C21K	Knifeblade Rid	7.64	353		Pn	14 00 20.9	+0.8
H29M	Whitestone	7.65	47		Pn	14 00 19.7	-0.6
J30M	Hart River	7.80	61		Pn	14 00 22.6	+0.2
CNBA	Chernabura Isl	7.84	213		Pn	14 00 20.5	-2.4
N31M	Braeburn, Yuko	7.87	84		Pn	14 00 23.0	-0.3
RDOG	Red Dog Mine	7.88	330		Pn	14 00 24.3	+1.0
PS1A	Pavlof South-1	7.95	223		Pn	14 00 25.2	+0.8
I30M	Mount Dempster	7.97	56		Pn	14 00 23.6	-1.1
F28M	Old Crow	8.01	36		Pn	14 00 23.9	-1.3
TNA	Tin City	8.02	306		Pn	14 00 25.1	-0.1
PN7A	Pavlof North-7	8.03	224		Pn	14 00 27.2	+1.7
PLBC	Pleasant Camp	8.12	98		Pn	14 00 26.8	0.0
G29M	Pine Creek	8.14	43		Pn	14 00 26.1	-0.8
C24K	Franklin Bluff	8.26	9		Pn	14 00 28.6	+0.2
EPYK	Eagle Plains	8.31	48		Pn	14 00 28.1	-1.0
DTNA	Dutton South F	8.34	223		Pn	14 00 29.4	-0.3
DT1	Dutton Round H	8.39	223		Pn	14 00 30.3	0.0
WHY	Whitehorse	8.46	89		Pn	14 00 30.4	-0.9
SKAG	Skagway	8.61	97	P	Pn	14 00 33.4	+0.1
C16K	Lisburne Hills	8.66	326		Pn	14 00 34.8	+0.9
B18K	Kokolik River	8.71	337		Pn	14 00 34.6	+0.1
C27K	Jago River	8.77	20		Pn	14 00 34.6	-0.7
B22K	Teshekpuk Lake	8.77	357		Pn	14 00 33.9	-1.4
G30M	tAoh Zraii Nji	8.78	45		Pn	14 00 34.1	-1.4
PS01	TAPS Pump Stn	8.80	8		Pn	14 00 35.1	-0.5
E28M	Babbage River	8.80	32		Pn	14 00 33.5	-2.3
C26K	Camden Bay	8.85	17		Pn	14 00 36.6	+0.2
S31K	Pelican	8.86	107		Pn	14 00 35.3	-1.4
D27M	Malcolm River	8.96	27		Pn	14 00 37.2	-0.7
H31M	Peel River	8.97	54		Pn	14 00 37.6	-0.5
E29M	Blow River	9.09	36		Pn	14 00 38.6	-1.0
BESE	Bessie Mountai	9.20	102		Pn	14 00 41.1	-0.2
N32M	Quiet Lake	9.21	84		Pn	14 00 41.1	-0.2
F30M	Barrier River	9.25	42		Pn	14 00 41.2	-0.7
P32M	Atlin	9.34	94		Pn	14 00 42.3	-0.8
G31M	Satah River	9.43	48		Pn	14 00 42.9	-1.3
JIS	Juneau Island	9.56	103	P	Pn	14 00 46.1	0.0
P33M	Teslin, Yukon	9.56	90		Pn	14 00 45.4	-0.8
SIT	Sitka	9.77	110	P	Pn	14 00 48.2	-0.7
SIT	Sitka	9.77	110		Pn	14 00 48.2	-0.7
F31M	Tsiigehtchic	9.85	46		Pn	14 00 48.0	-1.8
S32K	Killisnoo	9.88	107		Pn	14 00 50.2	-0.1
INK	Inuvik	10.34	42	P	Pn	14 00 55.1	-1.4
	comp=E,36nm,0.5s,baz=252,slow=15,SNR=116						
INK				S	Sn	14 02 46.9	-3.4
	comp=E,11nm,0.6s,baz=122,slow=30,SNR=1.8						
UNV	Unalaska Valle	10.88	231	P	Pn	14 01 04.3	+0.5
UNV	Unalaska Valle	10.88	231	S	Sn	14 03 04.1	+0.7
DLBC	Dease Lake	11.54	96	P	Pn	14 01 13.1	+0.4
	comp=E,3.4nm,0.4s,baz=272,slow=8.0,SNR=18						
DLBC				S	Sn	14 03 15.5	-4.1
	comp=E,2.3nm,0.4s,baz=102,slow=24,SNR=1.4						
DLBC				LR	LR	14 06 27.7	
	comp=E,22nm,20.6s,baz=268,slow=41						
CRAG	Craig	11.71	113	P	Pn	14 01 15.0	+0.2
A36M	Sachs Harbour	14.69	34	Pn	Pn	14 01 51.9	-1.2
ATKA	Atka Island	15.17	241		Pn	14 01 60.0	+0.7
ATKA				IAmb	IAmb	14 02 02.1	
	comp=Z,52nm,1.0s						
BBB	Bella Bella	16.12	115	P	P	14 02 14.9	+2.9
	comp=Z,11nm,0.9s,baz=288,slow=5.7,SNR=11						
BBB				S	Sn	14 05 08.4	-1.5
	comp=Z,5.5nm,0.7s,baz=56,slow=17,SNR=8.9						
BBB				LR	LR	14 07 39.1	
	comp=Z,35nm,20.7s,baz=10.0,slow=34						
ADK	Adak	16.46	245	P	P	14 02 17.1	+1.3
KIWB	Kanaga Island	16.69	245		Pn	14 02 17.3	-0.8
YKAW3	Yellowknife Wh	17.48	70	IAmb	IAmb	14 02 28.9	
	comp=Z,19nm,0.8s						
YKA	Yellowknife Ar	17.50	71	P	Pn	14 02 28.2	+0.4
	comp=Z,18nm,0.7s,baz=283,slow=11,SNR=19						
YKA				pP	pP	14 02 51.2	+2.0
	comp=Z,5.9nm,0.6s,baz=288,slow=11,SNR=3.4						
YKA				ScP	ScP	14 10 23.6	-0.2
	comp=Z,1.1nm,0.5s,baz=290,slow=2.1,SNR=5.2						
YKAW1	Yellowknife Wh	17.56	71	IAmb	IAmb	14 02 29.8	
	comp=Z,22nm,0.8s						
AMKA	Amchitka	18.59	249	P	P	14 02 37.8	-1.3
AMKA				IAmb	IAmb	14 02 49.8	
	comp=Z,30nm,0.8s						
EDM	Edmonton	22.26	94	P	P	14 03 19.9	+1.5
NEW	Newport	23.84	108	LR	LR	14 13 57.8	
	comp=Z,30nm,18.0s,baz=278,slow=39						
BLKN	Baker Lake	24.99	59	P	P	14 03 44.6	+1.1
BLKN				IAmb	IAmb	14 03 47.7	
	comp=Z,23nm,1.1s						
K05A	Summer Lake	26.55	121	P	P	14 03 57.1	-1.0
LYMT	Lyon Mountain	27.01	104	P	P	14 04 02.5	+0.3
PEA0B	Petropavlovsk-	27.64	275	P	P	14 04 06.8	-0.8
PEA0B				IAmb	IAmb	14 04 09.5	
	comp=Z,21nm,1.1s						
PETK	Petropavlovsk-	27.64	275	P	P	14 04 07.2	-0.4
	comp=Z,3.7nm,0.5s,baz=68,slow=13,SNR=15						
	comp=Z,3.7nm,0.5s						
ILON	Igloolik, Nuna	28.57	44	P	P	14 04 15.2	-0.4
ILON				IAmb	IAmb	14 04 19.1	
	comp=Z,8.6nm,0.9s						
NVAR	Mina Array Bea	31.24	122	P	P	14 04 41.3	+1.7
	comp=Z,0.4nm,0.5s,baz=332,slow=9.8,SNR=2.9						
NVAR				pP	pP	14 05 06.7	+0.4
	comp=Z,1.8nm,0.7s,baz=312,slow=9.1,SNR=7.5						
NVAR				PcP	PcP	14 07 31.9	+0.8
	comp=Z,0.7nm,0.7s,baz=247,slow=1.6,SNR=4.1						

NVAR				ScP	ScP	14 11 03.0	+0.6
	comp=Z,0.7nm,0.6s,baz=340,slow=5.4,SNR=4.0						
	comp=Z,0.4nm,0.5s						
PDAR	Pinedale Array	31.47	107	P	P	14 04 43.2	+1.5
	comp=Z,2.1nm,0.2s,baz=335,slow=7.6,SNR=5.5						
PDAR				pP	pP	14 05 07.3	-1.0
	comp=Z,0.8nm,0.2s,baz=317,slow=6.3,SNR=2.0						
PDAR				PcP	PcP	14 07 31.7	0.0
	comp=Z,0.5nm,0.5s,baz=348,slow=2.4,SNR=1.2						
PDAR				ScP	ScP	14 11 02.8	-0.3
	comp=Z,0.5nm,0.5s,baz=101,slow=2.3,SNR=4.4						
	comp=Z,2.1nm,0.2s						
RSSD	Black Hills	32.99	100	P	P	14 04 56.2	+1.2
RSSD				IAmb	IAmb	14 04 57.7	
	comp=Z,3.4nm,0.5s						
TPNV	Topopah Spring	33.34	121	P	P	14 05 00.1	+2.1
YAK	Yakutsk	34.78	306	P	P	14 05 08.6	-1.3
PV13	Radium Mtn., P	35.51	111	P	P	14 05 19.2	+2.4
DAG	Danmarks Havn	38.83	15	*i* P	P	14 05 43.4	-0.6
SPITS	Spitsbergen Ar	40.27	4	P	P	14 05 54.9	-1.0
	comp=Z,5.3nm,0.8s,baz=17,slow=6.1,SNR=10						
	comp=Z,5.3nm,0.8s						
SCHQ	Schefferville	42.39	59	P	P	14 06 14.1	+0.6
	comp=Z,2.1nm,0.7s,baz=215,slow=9.4,SNR=1.3						
	comp=Z,2.1nm,0.7s						
NRIK	Noril'sk	42.60	333	P	P	14 06 14.8	-0.2
	comp=Z,8.1nm,0.4s,baz=52,slow=6.0,SNR=9.3						
	comp=Z,8.1nm,0.4s						
NRIK	Noril'sk	42.60	333	IAmb	IAmb	14 06 16.2	
	comp=Z,10nm,0.6s						
POST	Post	43.04	108	IAmb	IAmb	14 06 21.5	
	comp=Z,4.7nm,0.7s						
HEH	HeiHe	43.52	293	*e*P	P	14 06 21.4	-1.3
HEH				pmax	pmax		
	comp=Z,12nm,0.8s						
TXAR	Lajitas Array	45.24	113	P	P	14 06 38.7	+2.0
	comp=Z,0.9nm,0.6s,baz=302,slow=5.4,SNR=14						
TXAR				pP	pP	14 07 06.7	+1.9
	comp=Z,0.8nm,0.7s,baz=339,slow=6.8,SNR=4.5						
TXAR				PcP	PcP	14 08 14.9	+0.4
	comp=Z,0.6nm,0.4s,baz=76,slow=0.9,SNR=12						
TXAR				ScP	ScP	14 11 55.6	+0.2
	comp=Z,0.2nm,0.7s,baz=5.5,slow=4.8,SNR=2.5						
	comp=Z,0.9nm,0.6s						
USRK	Ussuriysk Ar.	45.98	284	P	P	14 06 40.5	-1.7
	comp=Z,3.5nm,0.8s,baz=22,slow=6.2,SNR=4.8						
	comp=Z,3.5nm,0.8s						
HILR	Hailar Array B	47.35	298	P	P	14 06 52.9	+0.1
	comp=Z,1.7nm,0.3s,baz=52,slow=9.3,SNR=4.5						
	comp=Z,1.7nm,0.3s						
MJAR	Matsushiro Arr	49.06	273	P	P	14 07 04.6	-1.5
	comp=Z,2.6nm,1.0s,baz=17,slow=6.6,SNR=5.9						
	comp=Z,2.6nm,1.0s						
ARCES	ARCESS Array B	49.12	1	P	P	14 07 05.2	-1.0
	comp=Z,0.4nm,0.3s,baz=358,slow=8.5,SNR=4.5						
	comp=Z,0.4nm,0.3s						
CN2	Changchun	49.29	289	*e*P	P	14 07 07.3	-0.4
CN2				pmax	pmax		
	comp=Z,10.0nm,0.8s						
KSRS	Korea Array	53.19	282	P	P	14 07 37.2	+0.3
	comp=Z,9.6nm,0.7s,baz=29,slow=7.2,SNR=36						
KSRS				LR	LR	14 34 14.9	
	comp=Z,6.8nm,18.1s,baz=235,slow=40						
	comp=Z,9.6nm,0.7s						
ULN	Ulaanbaatar	53.86	305	IAmb	IAmb	14 07 43.2	
	comp=Z,8.0nm,0.8s						
SONM	Songino Array	54.14	305	P	P	14 07 44.8	+1.0
	comp=Z,9.2nm,0.7s,baz=36,slow=7.7,SNR=19						
	comp=Z,9.2nm,0.7s						
SONM	Songino Array	54.14	305	IAmb	IAmb	14 07 45.7	
	comp=Z,8.8nm,0.7s						
ZAA0	Zalesovo Array	56.28	323	IAmb	IAmb	14 07 59.5	
	comp=Z,8.2nm,0.6s						
ZALV	Zalesovo Beam	56.28	323	P	P	14 07 58.7	-0.3
	comp=Z,7.6nm,0.5s,baz=30,slow=7.0,SNR=33						
	comp=Z,7.6nm,0.5s						
NOA	NORSAR Array B	57.01	10	P	P	14 08 02.2	-1.9
	comp=Z,1.5nm,0.8s,baz=351,slow=7.0,SNR=4.1						
	comp=Z,1.5nm,0.8s						
FINES	FINESS Array B	57.25	1	P	P	14 08 05.6	0.0
	comp=Z,1.4nm,0.6s,baz=358,slow=7.3,SNR=6.0						
	comp=Z,1.4nm,0.6s						
FINES	FINESS Array B	57.25	1	P	P	14 08 05.8	+0.2
HHC	Hu-ho-hao-te	57.77	297	*e*P	P	14 08 11.0	+1.2
HHC				pmax	pmax		
	comp=Z,13nm,0.7s						
HFS	Hagfors	58.09	8	P	P	14 08 10.6	-1.0
	comp=Z,1.2nm,0.5s,baz=336,slow=3.3,SNR=7.2						
	comp=Z,1.2nm,0.5s						
BVAR	Borovoye Array	60.80	332	P	P	14 08 30.1	-0.1
	comp=Z,5.7nm,0.6s,baz=29,slow=7.3,SNR=19						
	comp=Z,5.7nm,0.6s						
EKA	Eskdalemuir Ar	60.87	20	P	P	14 08 30.1	-0.6
	comp=Z,1.3nm,0.5s,baz=331,slow=5.0,SNR=4.5						
EKA				pP	pP	14 08 59.8	-0.3
	comp=Z,1.6nm,0.5s,baz=329,slow=5.3,SNR=2.7						
	comp=Z,1.3nm,0.5s						
KURBB	Kurchatov Arra	61.00	326	P	P	14 08 31.4	-0.2
	comp=Z,3.7nm,0.4s,baz=30,slow=6.7,SNR=25						
	comp=Z,3.7nm,0.4s						
LYN	LuoYang	62.63	292	P	P	14 08 42.6	-0.2
LYN				pmax	pmax		
	comp=Z,24nm,0.9s						
MKAR	Makanchi Array	63.39	321	P	P	14 08 47.1	-0.6
	comp=Z,2.3nm,0.5s,baz=35,slow=6.7,SNR=30						
	comp=Z,2.3nm,0.5s						
MKAR	Makanchi Array	63.39	321		P	14 08 46.9	-0.8
GTA2	Gaotai	63.75	305	P	P	14 08 50.6	+0.3
GTA2				pmax	pmax		
	comp=Z,17nm,0.8s						
AKASG	Malin Array Be	68.02	359	P	P	14 09 17.0	-0.3
	comp=Z,4.1nm,0.7s,baz=6.9,slow=6.6,SNR=9.2						
AKASG				pP	pP	14 09 47.4	-0.1
	comp=Z,0.9nm,0.4s,baz=4.6,slow=6.5,SNR=2.1						
	comp=Z,4.1nm,0.7s						
GOMU	GeErMu	68.53	307	P	P	14 09 21.6	+0.4
GOMU				pmax	pmax		
	comp=Z,10.0nm,0.8s						
GERES	GERESS Array B	69.31	10	P	P	14 09 25.3	-0.1
	comp=Z,0.7nm,0.4s,baz=347,slow=5.5,SNR=4.3						
GERES				pP	pP	14 09 53.6	-2.1
	comp=Z,0.4nm,0.5s,baz=359,slow=9.2,SNR=2.4						
	comp=Z,0.7nm,0.4s						
WATA	Walderalm	70.61	12	*i* P	P	14 09 34.9	+1.5
	comp=Z,3.6nm,0.5s						
LESA	Schwarzleotal	70.63	11	*i* P	P	14 09 35.0	+1.5
	comp=Z,0.9nm,0.4s						
KBA	Koelnbreinsper	71.03	10	*i* P	P	14 09 36.7	+0.7
	comp=Z,2.6nm,0.5s						
SOKA	Soboth	71.56	9	*i* P	P	14 09 39.8	+0.7
	comp=Z,2.7nm,0.9s						
OBKA	Obir	71.69	10	*i* P	P	14 09 40.0	+0.1
	comp=Z,4.5nm,0.5s						
KSH2	Kashi	72.37	323	P	P	14 09 44.4	+0.2
KSH2				pmax	pmax		
	comp=Z,5.0nm,0.4s						
PZH	PanZhiHua	74.22	296	P	P	14 09 56.5	+1.3
KBZ	Khabaz	74.29	349	P	P	14 09 55.2	+0.1
	comp=Z,3.7nm,0.8s,baz=346,slow=6.3,SNR=8.3						
	comp=Z,3.7nm,0.8s						
ESDC	Sonseca Array	75.82	25	P	P	14 10 04.6	+0.5
	comp=Z,1.1nm,0.8s,baz=349,slow=5.1,SNR=6.4						
ESDC				pP	pP	14 10 32.9	-1.8
	comp=Z,0.8nm,0.7s,baz=341,slow=5.6,SNR=2.0						
ESDC				LR	LR	14 46 55.4	
	comp=Z,24nm,18.1s,baz=128,slow=38						
	comp=Z,1.1nm,0.8s						
BRTR	Keskin Array B	78.89	355	P	P	14 10 22.1	+0.8
	comp=Z,1.0nm,0.6s,baz=2.6,slow=2.3,SNR=5.7						
	comp=Z,1.0nm,0.6s						
KEST	Kesra	81.84	15	P	P	14 10 37.6	+0.6
	comp=Z,4.2nm,0.8s,baz=336,slow=10,SNR=5.6						
	comp=Z,4.2nm,0.8s						
CMAR	Chiang Mai Arr	82.51	295	P	P	14 10 40.0	-0.7
	comp=Z,3.5nm,0.9s,baz=3.8,slow=5.9,SNR=28						
	comp=Z,3.5nm,0.9s						
ATAH	Atahualpa	88.66	108	LR	LR	14 53 19.7	
	comp=Z,30nm,18.2s,baz=137,slow=37						
NNA	Nana	93.64	108	LR	LR	14 54 41.5	
	comp=Z,109nm,21.8s,baz=106,slow=36						
VNDA	Vanda	141.73	195	PKhKP	PKPpre	14 17 42.1	
	comp=Z,0.2nm,0.6s,baz=311,slow=14,SNR=1.5						
BOSA	Boshof	146.95	4	PKPbc	PKPbc	14 17 58.9	-0.6
	comp=Z,4.7nm,0.7s,baz=357,slow=3.4,SNR=9.8						
QSPA	South Pole Qui	151.43	180	PKPbc	PKPbc	14 18 08.8	-0.6
	comp=Z,9.5nm,0.7s,baz=321,slow=1.0,SNR=94						
TROLL	Troll, Antarti	165.77	147	⇑PKPab	PKPab	14 19 20.5	0.0
	comp=Z,105nm,0.8s						

UCR ***11*** *14:13:26.8±0.3, 8°.26N×82°.84W, h21km±2km, MW3.6, Presumed earthquake*

UPA ***11*** *14:13:26.8±1.1, 9°.26N×82°.81W, h0km±787km, ML2.9, Presumed earthquake*

ISC 11 14:13:27.2±1.0, **8°.35N**±0°.04×**82°.84W**±0°.04, **h13**km, **n17**, σ**0ˢ.78**/21, **Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTPA	Petro Terminal	0.15	192	*e*P	Pg	14 13 31.1	+0.2
PTPA				*e*S	Sg	14 13 34.3	+0.9
NELY	Ciudad Neily	0.32	341	*e*P	Pb	14 13 34.6	-0.2
FITO	Golfito	0.42	312	*e*P	Pg	14 13 35.2	-0.4
FITO				*e*S	Sg	14 13 42.3	+1.1
BRU2	Volcan	0.47	18	*e*P	Pb	14 13 37.4	-0.1
BRU2	Volcan	0.47	18	*i* P	Pb	14 13 37.4	-0.1
BRU2				*e*S	Sb	14 13 45.7	+1.3
BRU2				IAML		14 13 49.9	
	comp=E,1μm,0.5s						
PIRO	Carate, Puerto	0.50	277	*e*P	Pb	14 13 36.5	-1.4
RBALA	Bur	0.86	52	*i* P	Pg	14 13 42.8	-1.2
RBALA				*e*S	Sg	14 13 54.6	-0.6
EDPE	Pejibaye, P	1.09	318	*e*P	Pb	14 13 47.1	-0.9
BRIBI	Bribri	1.27	1	*e*P	Pb	14 13 51.3	+0.3
BUS1	Rivas	1.50	323	*e*P	Pn	14 13 53.3	-1.0
PIEC	Cerro El Cedra	1.68	319	*e*P	Pn	14 13 56.2	-0.4
ABE2	San Pablo	1.81	318	*e*P	Pn	14 13 59.0	+0.7
VTCV	VTCV, Calle Va	1.85	332	*e*P	Pn	14 13 59.3	+0.4
ABRB	Las Abras (San	1.86	332	*e*P	Pn	14 13 59.7	+0.6
VTR0	Volcan Turrial	1.90	331	*e*P	Pn	14 14 00.3	+0.6
CVTR	Volcan Turrial	1.90	331	*e*P	Pn	14 13 60.0	+0.3
VBV1	V. Barva	2.15	325	*e*P	Pn	14 14 03.4	+0.3

IDC ***11*** *14:53:24.3±2.0, 3°.05N×128°.54E, h0km, mb3.5/4, mbtmp3.6/4, Error ellipse: s-maj=157.9km s-min=26.4km az=69.0*

ISC 11 14:53:25.1±1.8, **3°.2N**±0°.3×**129°.1E**±0°.4, **h10**km, **n5**, σ**0ˢ.47**/5, **mb3.8**/4, **North of Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	Don Marcelino,	4.39	311	*e*P	Pg	14 54 49.4	+0.1
WRA	Warramunga Arr	23.59	167	P	P	14 58 36.3	+0.1
	0.6nm,0.8s,baz=346,slow=11,SNR=9.1						
	0.6nm,0.8s						
MKAR	Makanchi Array	59.31	324	P	P	15 03 27.2	-0.1
	0.4nm,0.6s,baz=110,slow=8.0,SNR=4.3						
	0.4nm,0.6s						
ZALV	Zalesovo Beam	62.11	332	P	P	15 03 46.5	+0.4
	0.4nm,0.4s,baz=130,slow=6.4,SNR=2.2						
	0.4nm,0.4s						
KURBB	Kurchatov Arra	63.43	327	P	P	15 03 54.5	-0.5
	0.4nm,0.4s,baz=128,slow=5.9,SNR=2.7						
	0.4nm,0.4s						

PRE 11 15:02:21.9±0.7, **25°.88S**×**28°.89E**, **h0**km, **ML1.4**, **Suspected explosion, South Africa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RUST	Rust De Winter	0.72	333	*e*P	Pg	15 02 36.0	+0.3
RUST				*e*S	Sg	15 02 45.9	+0.8
RUST				IAML		15 04 03.1	
	comp=Z,7.4nm,0.8s						
HRAO	HartRAO	1.09	269	*e*P	Pg	15 02 43.2	+0.4
HRAO				*e*S	Sb	15 02 57.7	-0.8
WTBG	Waterberg Wild	1.66	360	*e*P	Pb	15 02 53.3	-0.2
WTBG				*e*S	Sg	15 03 15.6	+0.2
WTBG				IAML		15 03 17.9	
	comp=Z,3.1nm,0.3s						
HOED	Hoedspruit, Li	2.36	52	*e*P	Pn	15 03 02.7	+0.8
HOED				*e*S	Sn	15 03 32.3	+0.7
HOED				IAML		15 04 43.6	
	comp=Z,1.6nm,0.5s						
LBTB	Lobatse	3.10	285	*e*P	Pn	15 03 13.5	+1.3
LBTB				*e*S	Sn	15 03 50.2	+0.2
LBTB				IAML		15 05 14.3	
	comp=Z,1.1nm,0.6s						
CRAIL	Swartwater, Li	3.12	349	*e*P	Pn	15 03 13.4	+0.9
CRAIL				*e*S	Sn	15 03 50.5	-0.1
BOSA	Boshof	4.23	229	*e*P	Pn	15 03 28.8	+1.1
BOSA				*e*S	Sn	15 04 16.6	-1.3
BOSA				IAML		15 05 57.8	
	comp=Z,1.2nm,0.7s						

KRSC 11 15:03:31.2±1.6, **49°.94N**×**157°.03E**, **h20**km±27km, **Ml4.0**, **East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	0.95	322	*e*P	Pb	15 03 48.1	-0.8
SKR				*e*S	Sb	15 04 00.4	-0.6
PAU	Pauzhetka	1.53	355	*e*P	Pb	15 03 58.8	-0.1
PAU				*e*S	Sb	15 04 18.5	+0.6
KDTR	Khodutka, Kamc	1.98	19	*e*P	Pn	15 04 05.0	+1.4
KDTR				*e*S	Sb	15 04 30.2	-0.7
MIPR	Malaya Ipel'ka	2.34	356	*e*P	Pn	15 04 10.5	+1.8
ASAK	Asacha	2.50	12	*e*P	Pb	15 04 13.7	-1.9
MTVR	Mutnovka	2.65	15	*e*P	Pn	15 04 15.0	+2.1
MTVR				*e*S	Sb	15 04 48.3	-1.8
RUS	Russkaya	2.66	20	*e*P	Pn	15 04 14.3	+1.3
RUS				*e*S	Sb	15 04 47.6	-2.8
GRL	Gorelyy	2.69	14	*e*P	Pb	15 04 16.2	-2.6
KRMR	Karymshinskiy	2.97	13	*e*S	Sb	15 04 55.9	-3.5
PET	Petropavlovsk	3.25	18	*e*P	Pn	15 04 24.0	+3.0
PET				*e*S	Sn	15 05 02.3	+3.2
DALK	Dalny	3.28	19	*e*P	Pn	15 04 23.8	+2.4
UGLR	Uglovaya	3.46	18	*e*P	Pb	15 04 28.5	-3.3
AVH	Avacha	3.49	17	*e*P	Pb	15 04 29.1	-3.4
KOK	Koryaka	3.50	16	*e*P	Pb	15 04 28.7	-3.8
SMAR	Somma	3.50	18	*e*P	Pb	15 04 28.8	-3.9
KRER	Koryakskii	3.53	17	*e*P	Pb	15 04 29.6	-3.6
SDLR	Sedlovina	3.54	18	*e*P	Pb	15 04 30.0	-3.2
KRX	Arik	3.57	16	*e*P	Pb	15 04 30.3	-3.4
SPN	Mys Shipunski	3.67	29	*e*P	Pn	15 04 30.7	+3.8
SPN				*e*S	Sn	15 05 13.9	+4.4
MKZ	Mys Kozlova	5.45	30	*e*P	Pn	15 04 54.6	+3.4

NOU ***11*** *15:08:56.8, 20°.87S×177°.61W, h542km, mb4.2/14, Fiji Islands Region*

IDC ***11*** *15:09:14.5±1.6, 21°.82S×179°.44W, h596km±28km, mb3.0/6, mbtmp4.1/9, Error ellipse: s-maj=34.2km s-min=21.7km az=13.0*

ISC 11 15:09:14.2±0.9, **21°.9S**±0°.1×**179°.4W**±0°.1, **h600**km, **n23**, σ**1ˢ.61**/25, **mb3.7**/6, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	4.80	330	P	P	15 10 46.5	+0.7
	9.4nm,0.3s,baz=250,slow=22,SNR=34						
AFI	Afiamalu	10.76	44	P	P	15 11 38.9	-1.8
	9.6nm,0.5s,baz=131,slow=4.9,SNR=6.3						
MARNC	Mare, Loyalty	11.70	270	P	P	15 11 49.7	-0.2
DZM	Mont Dzumac	13.14	267	P	P	15 12 03.7	-0.8
	8.0nm,0.9s,baz=84,slow=20,SNR=5.4						
OUZ	Omahuta	14.61	203	P	P	15 12 19.4	+0.8
URZ	Urewera	16.57	190	P	P	15 12 33.6	-2.9
	8.7nm,0.3s,baz=243,slow=3.5,SNR=20						
URZ	Urewera	16.57	190	P	P	15 12 33.7	-2.9
HIZ	Hauiti	17.27	195	P	P	15 12 42.1	-0.8
BKZ	Black Stump Fm	17.55	191	P	P	15 12 42.9	-2.7
BFZ	Birch Farm	19.07	190	P	P	15 12 57.4	-1.9
QRZ	Quartz Range	20.06	198	P	P	15 13 08.2	-0.1
KHZ	Kahutara	21.29	195	P	P	15 13 17.4	-1.8
JCZ	Jackson Bay	24.17	201	P	P	15 13 44.0	-1.0
CTAO	Charters Tower	32.08	267	P	P	15 14 54.5	+0.7
STKA	Stephens Creek	36.01	246	P	P	15 15 26.8	+0.4
	1.4nm,0.6s,baz=67,slow=9.8,SNR=5.8						
	1.4nm,0.6s						
STKA	Stephens Creek	36.01	246	P	P	15 15 27.4	+1.0
ASAR	Alice Springs	42.94	258	P	P	15 16 22.1	+0.1
	4.9nm,0.8s,baz=99,slow=8.3,SNR=70						
ASAR				S	S	15 22 03.1	-1.9
	0.3nm,0.7s,baz=97,slow=14,SNR=3.1						
	4.9nm,0.8s						
WRAB	Tennant Creek	43.13	264	P	P	15 16 23.0	-0.4
WRA	Warramunga Arr	43.13	264	P	P	15 16 23.2	-0.3
	2.6nm,0.6s,baz=95,slow=7.9,SNR=73						
WRA				S	S	15 22 05.4	-2.4
	0.2nm,0.7s,baz=101,slow=14,SNR=1.2						
	2.6nm,0.6s						
FITZ	Fitzroy Crossi	51.56	264	P	P	15 17 26.8	+0.4
VNDA	Vanda	56.40	185	P	P	15 18 01.3	+1.9
	0.2nm,0.4s,baz=14,slow=6.4,SNR=2.0						
	0.2nm,0.4s						
QSPA	South Pole Qui	68.16	180	P	P	15 19 16.5	+1.0
	1.1nm,0.7s,baz=45,slow=16,SNR=8.5						
	1.1nm,0.7s						
CMAR	Chiang Mai Arr	89.37	290	P	P	15 21 10.3	+1.9
	0.5nm,0.7s,baz=151,slow=3.4,SNR=4.6						
	0.5nm,0.7s						

SJA ***11*** *15:10:43.8±0.8, 21°.34S×69°.92W, h50km±4km, ML3.8, MW3.7*

GUC ***11*** *15:10:45.6±0.8, 21°.35S×69°.85W, h48km±3km, ML3.9*

ISC 11 15:10:45.7±1.3, **21°.34S**±0°.03×**69°.94W**±0°.06, **h44**km±7km, **n23**, σ**0ˢ.66**/40, **1C-10D**, **Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB02	IPOC Station P	0.05	60	*e*P	Pn	15 10 52.4	-0.4
PB02				*e*S	Sn	15 10 58.3	+0.5
PB02				IAML		15 11 00.4	
	comp=Z,18μm,0.1s						
PB02	IPOC Station P	0.05	60	⇓*i*P	Pn	15 10 52.8	0.0
PB02				*i* S	Sn	15 10 58.4	+0.5
PB02				IAML		15 10 58.5	
	comp=N,36μm,0.1s						
PB07	IPOC Station P	0.38	172	*e*P	Pn	15 10 55.0	-0.4
PB07				*e*S	Sn	15 11 02.4	0.0
PB07				IAML		15 11 02.4	
	comp=Z,7μm,0.1s						
PB07	IPOC Station P	0.38	172	⇓*i*P	Pn	15 10 55.0	-0.4
PB07				*i* S	Sn	15 11 02.2	0.0
PB07				IAML		15 11 02.6	
	comp=N,8μm,0.1s						
PB03	IPOC Station P	0.72	166	⇓*i*P	Pn	15 10 59.1	-0.6
PB03				*i* S	Sn	15 11 09.2	-0.6
PB03				IAML		15 11 10.6	
	comp=E,6μm,0.1s						
PB09	IPOC Station P	0.79	125	⇓*i*P	Pn	15 10 59.8	-0.8
PB09				*i* S	Sn	15 11 10.0	-1.5
PB09				IAML		15 11 11.1	
	comp=E,11μm,0.2s						
TA01	Diego Aracena	0.81	344	*e*P	Pn	15 10 59.8	-0.8
TA01				*e*S	Sn	15 11 12.0	+0.5
TA01				IAML		15 11 15.7	
	comp=Z,1μm,0.3s						
TA01	Diego Aracena	0.81	344	⇓*i*P	Pn	15 10 59.9	-0.8
TA01				*i* S	Sn	15 11 11.2	-0.3
TA01				IAML		15 11 14.8	
	comp=N,2μm,0.1s						
TA02	Huaiquique	1.08	351	*e*P	Pn	15 11 03.5	-0.9
TA02				*e*S	Sn	15 11 19.2	+0.9
TA02				IAML		15 11 20.7	
	comp=Z,3μm,0.3s						
TA02	Huaiquique	1.08	351	*e*P	Pn	15 11 03.8	-0.6
TA02				IAML		15 11 20.9	
	comp=N,11μm,0.2s						
PB08	IPOC Station P	1.41	32	*e*P	Pn	15 11 08.8	-0.4
PB08				*e*S	Sn	15 11 26.7	0.0
PB08				IAML		15 11 28.1	
	comp=Z,2μm,0.1s						
PB08	IPOC Station P	1.41	32	⇓*i*P	Pn	15 11 08.6	-0.5
PB08				*i* S	Sn	15 11 26.4	-0.3
PB08				IAML		15 11 27.7	
	comp=E,4μm,0.2s						
PB05	IPOC Station P	1.52	189	*e*P	Pn	15 11 10.6	0.0
PB05				IAML		15 11 33.7	
	comp=Z,538nm,0.2s						
PB05	IPOC Station P	1.52	189	⇓*i*P	Pn	15 11 10.2	-0.3
PB05				*i* S	Sn	15 11 30.4	+1.2
PB05				IAML		15 11 33.4	
	comp=E,859nm,0.4s						
PB11	IPOC Station P	1.60	10	*e*P	Pn	15 11 11.3	-0.4
PB11				*e*S	Sn	15 11 31.5	+0.3
PB11				IAML		15 11 33.6	
	comp=Z,1μm,0.4s						
PB11	IPOC Station P	1.60	10	⇓*i*P	Pn	15 11 11.2	-0.4
PB11				*i* S	Sn	15 11 31.4	+0.3
PB11				IAML		15 11 34.5	
	comp=E,2μm,0.2s						
PSGCX	Pisagua	1.75	354	*e*P	Pn	15 11 12.8	-0.8
PSGCX				IAML		15 11 39.5	
	comp=Z,356nm,0.2s						
PSGCX	Pisagua	1.75	354	⇓*i*P	Pn	15 11 13.2	-0.4
PSGCX				*i* S	Sn	15 11 34.9	+0.2
GO01	Chusmiza	1.81	23	*e*P	Pn	15 11 14.8	0.0
GO01				*e*S	Sn	15 11 37.6	+0.8
GO01				IAML		15 11 39.5	
	comp=Z,1μm,0.1s						
GO01	Chusmiza	1.81	23	⇓*i*P	Pn	15 11 14.7	-0.1
GO01				*i* S	Sn	15 11 37.5	+0.8
GO01				IAML		15 11 39.8	
	comp=N,7μm,0.1s						
AF01	San Pedro de A	2.29	135	*e*P	Pn	15 11 22.6	+1.3
PB12	IPOC Station P	2.74	352	⇑*i*P	Pn	15 11 26.8	-0.5
PB12				IAML		15 12 16.3	
	comp=E,372nm,0.7s						
PB16	IPOC Station P	3.02	8	*e*P	Pn	15 11 32.2	+0.7

TAP ***11*** *15:26:12.6, 24°.67N×122°.42E, h103km, ML2.7, C*

JMA ***11*** *15:26:12.9±0.2, 25°N±3°×122°.5E±0°.6, h94km±1km, MV1.5/10, NW OFF ISHIGAKIJIMA IS*

ISC 11 15:26:13.2±1.5, **24°.62N**±0°.04×**122°.49E**±0°.03, **h92**km±8km, **n68**, σ**0ˢ.89**/122, **Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EOS2	EOS2	0.30	230	P	Pn	15 26 27.2	+0.5
EOS2				S	Sn	15 26 38.6	+1.9
EOS3	EOS3	0.36	205	P	Pn	15 26 27.9	+0.9
EOS3				S	Sn	15 26 39.4	+2.2
JYNG	Yonagunijimaku	0.45	111	*e*P	Pn	15 26 27.7	0.0
JYNG				*e*S	Sn	15 26 38.5	0.0
YOJ	Yonaguni jima	0.50	108	P	Pn	15 26 28.0	-0.1
YOJ				S	Sn	15 26 39.1	-0.1
YOJ	Yonaguni jima	0.50	108	*e*P	Pn	15 26 28.0	-0.1
YOJ				*e*S	Sn	15 26 39.1	-0.1
EOS4	EOS4	0.52	198	*e*P	Pn	15 26 28.3	+0.5
EOS4				S	Sn	15 26 39.7	+1.0
TWB1	Santiao Chiao	0.60	311	P	Pn	15 26 28.7	-0.2
EWUT	Wuta	0.67	255	P	Pn	15 26 29.5	0.0
EWUT				S	Sn	15 26 41.8	0.0
TIPB	Shuangxi	0.70	301	*i* P	Pn	15 26 29.8	0.0
TIPB				S	Sn	15 26 41.7	-0.6
NDS	Dongshan	0.70	272	P	Pn	15 26 29.9	+0.1
NDS				S	Sn	15 26 42.1	-0.2
ENA	Nanau	0.70	255	P	Pn	15 26 27.6	-2.3
ENA				S	Sn	15 26 40.1	-2.3
SXI1	Grass Mountain	0.73	311	P	Pn	15 26 30.1	-0.2
SXI1				S	Sn	15 26 43.4	+0.4
TWE	Neicheng	0.75	278	P	Pn	15 26 30.3	0.0
TWE				*e*S	Sn	15 26 43.0	-0.2
FUSB	Fushanzhiwuyua	0.83	280	P	Pn	15 26 31.2	0.0
FUSB				S	Sn	15 26 44.1	-0.7
ENTT	Nioudou	0.84	272	P	Pn	15 26 31.7	+0.4
LATG	Datong	0.88	265	*i* P	Pn	15 26 32.2	+0.4
LATG				S	Sn	15 26 46.3	+0.6
NDT	Datong Townshi	0.89	269	P	Pn	15 26 32.4	+0.6
NDT				S	Sn	15 26 46.2	+0.5
NWLT	Wulai	0.91	280	P	Pn	15 26 31.7	-0.3
NWLT				S	Sn	15 26 45.3	-0.9
NACB	Ninganchiao	0.93	242	P	Pn	15 26 31.6	-0.5
NACB				S	Sn	15 26 45.9	-0.5
TWD	Chiawan	0.97	237	P	Pn	15 26 32.1	-0.6
TWD				*e*S	Sn	15 26 46.3	-1.0
TATO	Taipei	0.98	292	P	Pn	15 26 32.1	-0.6
TATO				S	Sn	15 26 46.2	-1.2
YM01	YM01	0.99	303	P	Pn	15 26 32.7	-0.2
YM01				S	Sn	15 26 46.9	-0.9
ETLH	Xiulin Townshi	1.00	246	P	Pn	15 26 32.8	-0.3
ETLH				S	Sn	15 26 47.8	-0.3
YHNB	Yeheng	1.01	273	*i* P	Pn	15 26 33.5	+0.3
YHNB				S	Sn	15 26 48.0	-0.3
NNSB	Datong	1.02	260	*i* P	Pn	15 26 33.4	0.0
NNSB				S	Sn	15 26 48.4	-0.2
NNSH	Datong	1.02	260	P	Pn	15 26 33.4	0.0
NNSH				S	Sn	15 26 48.4	-0.2

NNS	Nan Shan	1.03	260	P	Pn	15 26 33.5	+0.1
NNS				S	Sn	15 26 48.6	-0.1
NSK	Sanguang	1.03	274	iP	Pn	15 26 33.6	+0.2
NSK				S	Sn	15 26 48.4	-0.2
TEYL	Yanliau Villag	1.10	228	P	Pn	15 26 33.6	-0.6
TEYL				eS	Sn	15 26 49.6	-0.3
ETM	Tongmen	1.11	235	P	Pn	15 26 33.8	-0.5
ETM				S	Sn	15 26 49.4	-0.9
LXIB	Xiulin Townshi	1.15	239	iP	Pn	15 26 34.3	-0.5
LXIB				S	Sn	15 26 50.2	-0.9
NTY	Taoyuan	1.15	290	eP	Pn	15 26 34.3	-0.4
NTY				eS	Sn	15 26 50.3	-0.6
IRIF	Iriomote-Funau	1.17	104	P	Pn	15 26 34.8	-0.1
IRIF				eS	Sn	15 26 51.4	+0.1
SHUL	Shoufeng	1.18	226	P	Pn	15 26 34.7	-0.4
SHUL				S	Sn	15 26 51.3	-0.2
FUSS	Fushou	1.19	252	P	Pn	15 26 35.8	+0.3
FUSS				S	Sn	15 26 51.9	-0.3
KSHI	Guanxi Townshi	1.20	278	P	Pn	15 26 36.0	+0.6
WHF	Hehuan Shan	1.21	247	P	Pn	15 26 35.9	0.0
WHF				S	Sn	15 26 52.5	-0.5
NFF	Wufeng Townshi	1.25	271	P	Pn	15 26 36.1	+0.1
NFF				eS	Sn	15 26 52.9	-0.2
TWT	Tachien	1.25	254	eS	Sn	15 26 52.8	-0.5
ESL	Shilin	1.25	231	P	Pn	15 26 35.2	-0.7
ESL				S	Sn	15 26 51.6	-1.5
TDCB	Techi	1.26	254	S	Sn	15 26 53.4	-0.3
NJD	Zhudong	1.28	276	eP	Pn	15 26 36.0	-0.3
LIOB	Emei	1.34	272	P	Pn	15 26 37.3	+0.2
LIOB				eS	Sn	15 26 55.0	-0.1
WARBT	Fenglin Townsh	1.35	229	P	Pn	15 26 36.2	-0.9
WARBT				S	Sn	15 26 53.8	-1.4
NSTT	Nanjuang	1.35	271	eP	Pn	15 26 37.2	0.0
NSTT				S	Sn	15 26 55.2	-0.1
OWD	Renai	1.37	241	P	Pn	15 26 37.4	-0.1
OWD				eS	Sn	15 26 54.8	-1.1
WUSB	Renai	1.40	244	P	Pn	15 26 38.2	+0.3
WUSB				eS	Sn	15 26 56.4	-0.1
JKRS	Kuro-shima	1.44	105	P	Pn	15 26 38.5	+0.3
WHP	Taichung City	1.45	257	P	Pn	15 26 39.6	+1.2
WHP				eS	Sn	15 26 57.6	+0.1
HGSD	Ruisui	1.48	221	eP	Pn	15 26 38.6	-0.2
HGSD				eS	Sn	15 26 57.7	-0.4
VWDT	VWDT	1.50	235	P	Pn	15 26 39.2	+0.2
VWDT				eS	Sn	15 26 57.8	-0.8
EHYH	Wanrong	1.53	223	eP	Pn	15 26 38.5	-0.9
EHYH				eS	Sn	15 26 57.3	-1.9
JIJ	Ishigaki jima	1.53	99	P	Pn	15 26 39.1	-0.2
JIJ				eS	Sn	15 26 58.7	-0.5
EHY	Hungye	1.54	224	eP	Pn	15 26 37.6	-1.9
EHY				eS	Sn	15 26 57.1	-2.2
WCS	Beigang Elemen	1.54	249	eP	Pn	15 26 40.6	+1.1
WCS				S	Sn	15 27 00.8	+1.3
SMLT	Sun Moon Lake	1.62	244	eS	Sn	15 27 03.8	+2.3
SSLB	Suanglung	1.62	240	eP	Pn	15 26 41.9	+1.3
SSLB				eS	Sn	15 27 02.9	+1.5
JISG	Ishigakijimahi	1.66	91	eP	Pn	15 26 40.8	-0.2
WHYT	Xinyi Township	1.75	239	P	Pn	15 26 43.2	+1.0
WHYT				eS	Sn	15 27 05.6	+1.2
FULB	Fuli	1.78	218	eP	Pn	15 26 42.4	-0.3
FULB				S	Sn	15 27 04.5	-0.6
WJS	Zhushan	1.79	244	eS	Sn	15 27 07.2	+2.0
ALS	Alishan	1.89	235	eP	Pn	15 26 44.9	+0.6
ALS				eS	Sn	15 27 08.4	+0.4
ELDTW	Lidau	1.96	224	eP	Pn	15 26 44.3	-0.7
ELDTW				eS	Sn	15 27 08.0	-1.3
EDH	Donghe	1.96	214	eS	Sn	15 27 07.2	-2.0
JTJ	Tarama	2.02	89	eS	Sn	15 27 10.6	+0.2
WCKO	Fanlu	2.08	236	eS	Sn	15 27 13.9	+1.9
STYH	Taoyuan	2.13	228	S	Sn	15 27 14.6	+1.6
TPUB	Ta-pu	2.15	233	eP	Pn	15 26 49.4	+2.0
TPUB				S	Sn	15 27 14.8	+1.3

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*SSNC **11** 15:45:12.4±1.5, 19°.13N×72°.89W, h20^{km}±13^{km}, MD3.5, ML3.2, Presumed earthquake*

*SDD **11** 15:45:14.7±2.5, 19°.07N×73°.28W, h51^{km}±46^{km}, MD3.7, ML3.6, MW3.2, Presumed earthquake*

*JSN **11** 15:45:16.3±0.9, 19°.20N×73°.18W, h0^{km}±5^{km}, MD3.9, Presumed earthquake*

*OSPL **11** 15:45:16.1±1.7, 19°.04N×73°.22W, h0^{km}±12^{km}, ML3.3, Presumed earthquake*

ISC 11 15:45:13.4±1.1, **19°.23N**±0°.04×**73°.19W**±0°.02, **h15**^{km}±10^{km}, **n41**, σ**1^{s}72**/76, **24C-2D, Haiti region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LODA1	ITESIL, Dajabo	1.43	77	iP	Pg	15 45 41.8	+0.7
LODA1				eS	Sg	15 46 01.2	+1.5
LODA1				IAML		15 46 04.7	
	comp=Z,1µm,0.2s						
LODA1	ITESIL, Dajabo	1.43	77	⇑iP	Pg	15 45 41.5	+0.5
LODA1				⇑iS	Sg	15 46 01.0	+1.3
LODA1				IAML		15 46 03.0	
	comp=N,3µm,0.2s						
JIDR	Jimani	1.46	120	⇑iP	Pn	15 45 39.1	-0.2
JIDR				⇑iS	Sg	15 45 59.8	-0.8
JIDR				IAML		15 46 02.2	
	comp=N,640nm,0.3s						
MCDR	Montecristi	1.59	65	⇑iP	Pg	15 45 44.5	+0.6
MCDR				⇑iS	Sg	15 46 06.5	+1.9
MCDR				IAML		15 46 09.7	
	comp=N,878nm,0.2s						
REDR	Restauracion	1.69	92	⇑iP	Pn	15 45 40.6	-1.9
REDR				⇑iS	Sn	15 45 59.9	-4.1
REDR				IAML		15 46 02.1	
	comp=N,2µm,0.2s						
LONE3	El Aguacate, B	1.75	110	iP	Pb	15 45 45.2	-0.1
LONE3				eS	Sb	15 46 07.9	+0.7
LONE3				IAML		15 46 09.5	
	comp=Z,226nm,1.0s						
QMBU	Quimbuelo	1.81	302	eP	Pn	15 45 44.5	+0.4
QMBU				eS	Sn	15 46 07.8	+1.0
QMBU				IAML		15 46 11.8	
	comp=E,150nm,0.2s						
QMBU				IAML		15 46 11.8	
	comp=N,115nm,0.3s						
QMBU	Quimbuelo	1.81	302	⇑iP	Pn	15 45 44.5	+0.4
QMBU				⇑iS	Sn	15 46 07.9	+1.0
QMBU				IAML		15 46 13.9	
	comp=N,111nm,0.3s						
SDDR	Presa de Saban	1.81	97	⇓iP	Pb	15 45 46.8	+0.5
SDDR				⇓iS	Sg	15 46 10.7	-1.1
SDDR	Presa de Saban	1.81	97	eP	Pb	15 45 46.6	+0.2
SDDR				eS	Sb	15 46 09.5	+0.6
SDDR				IAML		15 46 11.4	
	comp=N,372nm,0.6s						
SDDR				IAML		15 46 16.3	
	comp=N,499nm,0.5s						
SDDR	Presa de Saban	1.81	97	iP	Pb	15 45 46.6	+0.2
SDDR				eS	Sg	15 46 10.6	-1.1
SDDR	Presa de Saban	1.81	97	⇑iP	Pb	15 45 46.5	+0.2
SDDR				⇑iS	Sn	15 46 08.6	+1.6
SDDR				IAML		15 46 16.4	
	comp=N,487nm,0.5s						
NEDR	Neiba UASD	1.83	114	⇑iP	Pb	15 45 46.1	-0.6
NEDR				IAML		15 46 13.1	
	comp=N,505nm,0.5s						
LODU1	El Espartillar	1.84	118	iP	Pn	15 45 45.9	+1.3
LODU1				IAML		15 46 16.9	
	comp=Z,363nm,0.4s						
GTBY	Guantanamo Bay	1.94	291	⇑iP	Pb	15 45 48.8	+0.2
GTBY				iS	Sb	15 46 14.3	+1.7
GTBY	Guantanamo Bay	1.94	291	eP	Pn	15 45 46.5	+0.5
GTBY				eS	Sn	15 46 10.8	+0.6
GTBY				IAML		15 46 15.8	
	comp=Z,306nm,0.4s						
GTBY				IAML		15 46 16.9	
	comp=Z,219nm,0.3s						
GTBY	Guantanamo Bay	1.94	291	iP	Pb	15 45 48.8	+0.2
GTBY				eS	Sb	15 46 14.1	+1.4
GTBY	Guantanamo Bay	1.94	291	⇑iP	Pn	15 45 46.8	+0.8
GTBY				IAML		15 46 16.9	
	comp=N,218nm,0.2s						
LOPP1	Punta Rusia, P	1.98	71	iP	Pg	15 45 51.0	-0.4
LOPP1				IAML		15 46 23.0	
	comp=Z,209nm,0.3s						
MADR	Mao Valverde	2.00	80	⇑iP	Pg	15 45 50.7	-1.0
MADR				⇑iS	Sg	15 46 17.5	-0.2
MADR				IAML		15 46 20.5	
	comp=N,572nm,0.4s						
LOBH	Bahia de las A	2.00	133	iP	Pn	15 45 47.1	+0.4
LOBH				eS	Sn	15 46 11.6	+0.1
LOBH				IAML		15 46 13.7	
	comp=Z,157nm,0.7s						
PODR	Polo	2.09	120	⇑iP	Pn	15 45 49.1	+0.9
PODR				⇑iS	Sb	15 46 17.1	0.0
NMDO	Nuevo Mundo	2.15	308	eP	Pb	15 45 51.5	-0.6
NMDO				eS	Sb	15 46 19.0	+0.4
NMDO				IAML		15 46 24.7	
	comp=N,29nm,0.0s						
NMDO				IAML		15 46 28.9	
	comp=E,33nm,0.1s						
MOAC	Moa	2.19	311	eP	Pb	15 45 52.6	-0.2
MOAC				eS	Sb	15 46 20.2	+0.4
MOAC				eSg	Sg	15 46 23.4	-0.6
MOAC				IAML		15 46 26.6	
	comp=E,42nm,0.3s						
MOAC				IAML		15 46 29.9	
	comp=N,35nm,0.3s						
LUDR	Luperon	2.21	72	⇑iP	Pb	15 45 53.9	+0.8
LOVI	El Cajuil, Ovi	2.24	129	iP	Pn	15 45 50.8	+0.8
LOVI				IAML		15 46 25.3	
	comp=Z,129nm,0.8s						
ABDR	Alto Bandera	2.46	99	⇑iP	Pb	15 45 56.1	-1.4
ABDR				⇑iS	Sb	15 46 27.7	-0.1
ABDR				IAML		15 46 33.3	
	comp=N,190nm,0.3s						
MARVS	Santiago de Cu	2.67	287	eP	Pn	15 45 56.4	+0.5
MARVS				eS	Sn	15 46 30.1	+2.0
MARVS				IAML		15 46 34.5	
	comp=N,86nm,0.1s						
MARVS				IAML		15 46 36.1	
	comp=E,137nm,0.1s						
PINC	Pinares de May	2.75	297	eP	Pn	15 45 58.2	+1.1
PINC				eS	Sb	15 46 34.6	-1.4
PINC				IAML		15 46 39.3	
	comp=E,65nm,0.1s						
PINC				IAML		15 46 40.7	
	comp=N,67nm,0.1s						
GRTK	Grand Turk	2.98	40	iP	Pb	15 46 04.5	-1.8
GRTK	Grand Turk	2.98	40	⇑iP	Pn	15 46 03.8	+3.6
GRTK				⇑iS	Sb	15 46 40.7	-1.7
GRTK				IAML		15 46 53.8	
	comp=N,55nm,0.7s						
CHIV	Chivirico	3.13	284	eP	Pn	15 46 03.5	+1.2
CHIV				eS	Sn	15 46 41.2	+1.7
CHIV				IAML		15 46 49.8	
	comp=E,40nm,0.2s						
CHIV				IAML		15 46 50.2	
	comp=N,54nm,0.1s						
HLGC	Holguin	3.17	302	eP	Pg	15 46 12.2	-1.9
HLGC				eS	Sg	15 46 57.8	+2.6
YAR	Yar	3.20	291	eP	Pn	15 46 05.7	+2.4
YAR				eS	Sb	15 46 46.6	-2.2
GWJ	Greenwich	3.55	252	iP	Pn	15 46 12.1	+3.9
GWJ				iP	Pn	15 46 12.1	+3.9
GWJ				iS	Sn	15 46 53.4	+3.4
STH	Stony Hill	3.62	252	iS	Sn	15 46 54.6	+2.9
STH				iS	Sb	15 46 55.7	-5.4
LMGC	Las Mercedes	3.69	284	eP	Pn	15 46 10.7	+0.7
LMGC				eS	Sn	15 46 51.6	-1.7
PILO	Pilon	4.04	280	eP	Pn	15 46 12.9	-1.9
PILO				eS	Sn	15 47 01.5	-0.4
CVJ	Coleyville	4.24	257	iP	Pn	15 46 17.7	0.0
MTDJ	Mount Denham	4.24	257	eP	Pn	15 46 17.1	-0.6
MTDJ				eS	Sn	15 47 06.7	-0.3
CCCC	Cccc	4.73	295	eP	Pn	15 46 21.8	-2.4
CCCC				eS	Sn	15 47 14.9	-4.0

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*IDC **11** 15:47:16.5±0.8, 29°.79S×178°.78W, h193^{km}±9^{km}, mb3.2/3, mbtmp3.9/5, Error ellipse: s-maj=30.7km s-min=21.6km az=118.0*

ISC 11 15:47:17.3±0.7, **29°.85S**±0°.07×**179°.0W**±0°.1, **h200**^{km}, **n36**, σ**2^{s}38**/54, **mb3.3**/4, **Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GLKZ	Green Lake	1.13	59	P	Pn	15 47 47.3	-0.7
GLKZ				S	Sn	15 48 15.0	+3.3
GLKZ				AML	AML		
RIZ	Raoul Island	1.14	58	P	Pn	15 47 46.8	-1.2
RIZ				AML	AML		
RAO	Raoul Island	1.14	59	P	Pn	15 47 46.2	-1.9
	407nm,0.2s,baz=91,slow=11,SNR=5.2						
RAO				S	Sn	15 48 06.7	-5.1
	301nm,0.3s,baz=91,slow=19,SNR=1.9						
GRZ	Great Barrier	7.88	214	S	Sn	15 50 42.6	+4.9
MXZ	Matakaoa Point	8.01	195	S	Sn	15 50 45.3	+4.6
WMGZ	Waiomatatini S	8.23	194	P	Pn	15 49 12.3	-1.1
WMGZ				S	Sn	15 50 47.6	+1.6
HAZ	Te Kaha	8.32	198	P	Pn	15 49 15.2	+0.7
HAZ				S	Sn	15 50 50.2	+2.1
PKGZ	Pakihiroa	8.35	196	P	Pn	15 49 12.0	-3.0
PKGZ				S	Sn	15 50 48.3	-0.6
PUZ	Puketiti	8.50	195	P	Pn	15 49 15.8	-1.2
PUZ				S	Sn	15 50 54.5	+2.0
RUGZ	Raukumara Rang	8.54	198	P	Pn	15 49 23.0	+5.4
RUGZ				S	Sn	15 50 54.4	+0.8
TKGZ	Te Karaka	8.95	196	P	Pn	15 49 22.0	-0.7
TKGZ				S	Sn	15 51 06.1	+3.0
URZ	Urewera	8.98	200	P	Pn	15 49 23.3	+0.2
	8.0nm,0.9s,baz=249,slow=3.7,SNR=11						
URZ				S	Sn	15 51 02.8	-0.9
	7.3nm,0.3s,baz=176,slow=15,SNR=14						
URZ	Urewera	8.98	200	P	Pn	15 49 21.0	-2.1
URZ				S	Sn	15 51 05.7	+1.9
KRHZ	Kereru	10.47	200	S	Sn	15 51 38.3	-1.1
PNHZ	Pukenui	10.77	200	P	Pn	15 49 42.7	-3.7
PNHZ				S	Sn	15 51 43.5	-3.1
WPHZ	Waipukurau	10.84	199	P	Pn	15 49 47.0	-0.3
WPHZ				S	Sn	15 51 46.8	-1.5
TSZ	Takapari Road	10.98	201	P	Pn	15 49 48.7	-0.3
TSZ				S	Sn	15 51 48.2	-3.2
DVHZ	Dannevirke	11.14	199	P	Pn	15 49 49.5	-1.6
DVHZ				S	Sn	15 51 52.6	-2.7
POWZ	Post Office Ro	11.34	201	P	Pn	15 49 51.1	-2.6
POWZ				S	Sn	15 52 00.4	+0.3
PRWZ	Pori Road	11.43	200	S	Sn	15 52 00.2	-2.0
BFZ	Birch Farm	11.47	198	P	Pn	15 49 55.3	0.0
BFZ				S	Sn	15 52 00.3	-2.9
MRZ	Mangatainoka R	11.65	201	P	Pn	15 49 56.5	-1.1
MRZ				S	Sn	15 52 01.3	-6.1
TIWZ	Tintock	11.66	199	P	Pn	15 49 57.3	-0.5
TIWZ				S	Sn	15 52 04.2	-3.6
HOWZ	Holdsworth Sta	11.88	200	P	Pn	15 50 01.0	+0.5
HOWZ				S	Sn	15 52 08.8	-4.2
MSVF	Nonsavu	12.35	347	P	Pn	15 50 06.7	0.0
	12nm,0.9s,baz=186,slow=21,SNR=6.2						
CTZ	Chatham Island	13.99	173	P	P	15 50 35.2	+6.4
CTZ				S	Sn	15 53 04.3	+1.1
ASAR	Alice Springs	42.24	267	P	P	15 54 52.6	+1.5
	0.2nm,0.5s,baz=98,slow=6.4,SNR=4.9						
ASAR				PcP	PcP	15 56 41.6	+0.4
	0.2nm,0.7s,baz=107,slow=4.1,SNR=1.5 0.2nm,0.5s						
WRA	Warramunga Arr	43.18	272	P	P	15 55 00.5	+1.8
	0.4nm,0.4s,baz=110,slow=6.4,SNR=11 0.4nm,0.4s						
QSPA	South Pole Qui	60.26	180	P	P	15 57 07.7	+3.4
	0.5nm,0.6s,baz=85,slow=1.4,SNR=5.7						
PETK	Petropavlovsk-	85.06	346	P	P	15 59 29.4	-0.6
	3.3nm,0.9s,baz=157,slow=5.6,SNR=5.1 3.3nm,0.9s						
FINES	FINESS Array B	144.32	340	PKhKP	PKPpre	16 06 26.1	
	1.0nm,0.4s,baz=46,slow=4.0,SNR=18						
HFS	Hagfors	148.52	348	PKPbc	PKiKP	16 06 40.0	-1.1
	1.3nm,0.7s,baz=15,slow=6.3,SNR=1.9						
AKASG	Malin Array Be	150.32	323	PKPbc	PKiKP	16 06 44.2	-0.9
	0.2nm,0.4s,baz=53,slow=1.8,SNR=4.5						
MMAI	Mount Meron Ar	150.52	285	PKPbc	PKiKP	16 06 46.1	-0.1
	0.9nm,0.4s,baz=136,slow=6.3,SNR=4.4						
BRTR	Keskin Array B	151.55	299	PKPbc	PKPbc	16 06 46.5	-1.3
	0.5nm,0.5s,baz=139,slow=4.6,SNR=2.9						
TORD	Torodi Ar. Bea	163.37	182	PKPab	PKPab	16 07 49.4	+1.2
	0.2nm,0.5s,baz=178,slow=3.0,SNR=1.9						

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*IDC **11** 15:57:49.8±1.3, 2°.11S×12°.45W, h0^{km}, mb4.1/8, mbtmp4.1/9, ML3.1/1, MS3.6/22, Error ellipse: s-maj=58.1km s-min=22.4km az=127.0*

ISC 11 15:57:51.5±1.2, **2°.1S**±0°.3×**12°.3W**±0°.3, **h10**^{km}, **n35**, σ**1^{s}43**/9, **mb4.3**/7, **MS3.5**/21, **North of Ascension Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H10N2	ASCENSION HYDR	6.06	201	T	T	16 05 09.2	
	baz=23,slow=74,SNR=91						
H10N1	ASCENSION HYDR	6.08	200	T	T	16 05 12.8	
	baz=23,slow=74,SNR=106						
H10N3	ASCENSION HYDR	6.08	201	T	T	16 05 10.5	
	baz=23,slow=74,SNR=66						
H10S2	ASCENSION HYDR	7.17	199	T	T	16 06 44.6	
	baz=22,slow=74,SNR=13						
H10S3	ASCENSION HYDR	7.17	199	T	T	16 06 44.6	
	baz=198,slow=74,SNR=5.8						
DBIC	Dimbokro	11.49	41	Pn	Pn	16 00 34.5	-1.2
	0.1nm,0.3s,baz=237,slow=7.9,SNR=3.8						
DBIC				Sn	Sn	16 02 35.6	-8.6
	0.2nm,0.3s,baz=163,slow=6.4,SNR=1.9						
DBIC				LR	LR	16 04 22.2	
	comp=Z,222nm,20.1s,baz=212,slow=34 2.9nm,0.8s						
DBIC				AML	AML		
TORD	Torodi Ar. Bea	20.59	42	P	P	16 02 30.2	-0.7
	3.5nm,0.8s,baz=226,slow=11,SNR=15 3.5nm,0.8s						
BDFB	Brasilia	37.63	247	LR	LR	16 18 03.8	
	comp=Z,60nm,19.1s,baz=121,slow=32						
MDP	Montagnes des	40.89	280	LR	LR	16 19 17.9	
	comp=Z,94nm,18.3s,baz=309,slow=32						
LSZ	Lusaka	42.04	111	LR	LR	16 19 33.1	
	comp=Z,158nm,19.9s,baz=157,slow=31						
LBTB	Lobatse	43.07	125	LR	LR	16 20 28.5	
	comp=Z,109nm,19.3s,baz=156,slow=32						
MBAR	Mbarara	43.09	89	LR	LR	16 21 52.0	
	comp=Z,142nm,20.3s,baz=270,slow=33						
BOSA	Boshof	44.47	130	LR	LR	16 21 48.2	
	comp=Z,76nm,18.7s,baz=168,slow=32						
CPUP	Villa Florida	49.42	237	LR	LR	16 24 35.2	
	comp=Z,43nm,20.1s,baz=75,slow=32						
KMBO	Kilima Mbogo	49.58	90	LR	LR	16 25 31.7	
	comp=Z,125nm,20.8s,baz=95,slow=33						
DAVOX	Davos/Dischmat	52.47	19	LR	LR	16 30 19.3	
	comp=Z,38nm,18.8s,baz=259,slow=37						
EIL	Elat	55.12	51	LR	LR	16 31 35.6	
	comp=Z,49nm,19.3s,baz=238,slow=37						
GERES	GERESS Array B	55.56	21	P	P	16 07 26.1	-1.1
	0.7nm,0.4s,baz=189,slow=5.9,SNR=11 0.7nm,0.4s						
SJG	San Juan	56.64	293	LR	LR	16 26 07.1	
	comp=Z,27nm,21.9s,baz=92,slow=30						
LPAZ	La Paz	56.65	252	LR	LR	16 31 30.5	
	comp=Z,68nm,18.3s,baz=52,slow=36						
MMAI	Mount Meron Ar	57.00	48	LR	LR	16 32 09.1	
	comp=Z,34nm,19.5s,baz=204,slow=36						
VRAC	Vranov	57.00	22	LR	LR	16 33 29.5	
	comp=Z,22nm,18.6s,baz=207,slow=38						
ASF	Jabal al Asfar	57.73	49	LR	LR	16 31 50.3	
	comp=Z,41nm,21.5s,baz=206,slow=35						
MLR	Muntele Rosu	58.29	31	LR	LR	16 34 00.1	
	comp=Z,40nm,20.0s,baz=174,slow=37						
SDV	Santo Domingo	59.11	282	LR	LR	16 29 46.7	
	comp=Z,33nm,18.6s,baz=82,slow=32						
BRTR	Keskin Array B	59.19	40	P	P	16 07 54.7	+1.7
	1.6nm,0.9s,baz=215,slow=8.4,SNR=7.7 1.6nm,0.9s						
AKASG	Malin Array Be	63.44	28	P	P	16 08 22.0	+0.6
	0.7nm,0.6s,baz=228,slow=6.7,SNR=4.5 0.7nm,0.6s						
PLCA	Paso Flores	64.92	225	LR	LR	16 34 44.3	
	comp=Z,57nm,18.5s,baz=179,slow=34						
ATAH	Atahualpa	65.98	263	LR	LR	16 37 10.4	
	comp=Z,24nm,18.6s,baz=109,slow=36						
KBZ	Khabaz	67.18	40	P	P	16 08 46.8	+1.0
	1.8nm,0.8s,baz=244,slow=6.0,SNR=3.8 1.8nm,0.8s						
FINES	FINESS Array B	69.88	19	P	P	16 09 04.2	+1.9
	4.9nm,1.1s,baz=203,slow=9.1,SNR=3.3 4.9nm,1.1s						
JTS	Las Juntas de	73.30	281	LR	LR	16 44 02.2	
	comp=Z,15nm,18.1s,baz=56,slow=38						
SADO	Sadowa	75.25	317	LR	LR	16 35 04.1	
	comp=Z,33nm,21.7s,baz=149,slow=30						
ULM	Lac du Bonnet	87.47	320	P	P	16 10 38.4	-1.0
	2.5nm,0.6s,baz=18,slow=6.4,SNR=3.1 2.5nm,0.6s						
QSPA	South Pole Qui	87.97	180	P	P	16 10 41.0	-0.6
	2.0nm,1.0s,baz=178,slow=2.6,SNR=5.9 2.0nm,1.0s						

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*IDC **11** 16:09:47.1±4.4, 24°.44N×125°.52E, h0^{km}, mb3.3/5, mbtmp3.3/5, Error ellipse: s-maj=291.5km s-min=23.3km az=64.0*

*JMA **11** 16:09:52.5±0.2, 24°.3N±0°.9×125°.3E±0°.8, h33^{km}, MV3.1/13, NEAR MIYAKOJIMA ISLAND*

ISC 11 16:09:53.5±1.4, **24°.4N**±0°.1×**125°.27E**±0°.07, **h42**^{km}±14^{km}, **n16**, σ**0^{s}96**/26, **mb3.3**/5, **Southwestern Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JMJ2	Miyako jima3	0.38	7	iP	Pn	16 10 02.5	-0.4
JMJ2				S	Sn	16 10 09.8	+0.3
JOGS	Gusukube	0.42	17	iP	Pn	16 10 03.1	-0.2
JOGS				S	Sn	16 10 11.1	+0.9
JIRJ	Irabujima	0.48	351	iP	Pn	16 10 03.6	-0.5
JIRJ				S	Sn	16 10 12.1	+0.6
JIKM	Ikemajima	0.56	358	P	Pn	16 10 05.1	-0.1
JIKM				S	Sn	16 10 14.4	+1.0
JTJ	Tarama	0.59	298	iP	Pn	16 10 04.6	-0.9
JTJ				S	Sn	16 10 13.5	-0.6
JISG	Ishigakijimahi	0.91	285	iP	Pn	16 10 08.8	-1.0
JISG				eS	Sn	16 10 21.0	-0.7
JIJ	Ishigaki jima	1.03	270	P	Pn	16 10 10.9	-0.6
JIJ				eS	Sn	16 10 25.5	+0.7
JKRS	Kuro-shima	1.16	264	P	Pn	16 10 13.5	+0.2
JKRS				eS	Sn	16 10 29.2	+1.3
HATJ	Hateruma jima	1.37	258	P	Pn	16 10 15.6	-0.5
HATJ				eS	Sn	16 10 31.8	-1.4
IRIF	Iriomote-Funau	1.41	269	P	Pn	16 10 17.6	+1.0
IRIF				eS	Sn	16 10 36.9	+2.9
JYNG	Yonagunijimaku	2.12	273	eP	Pn	16 10 26.6	+0.2
MKAR	Makanchi Array	40.85	314	P	P	16 17 31.7	+0.5
	0.2nm,0.3s,baz=104,slow=8.1,SNR=7.2 0.2nm,0.3s						
ZALV	Zalesovo Beam	42.18	325	P	P	16 17 41.2	-0.6
	0.3nm,0.4s,baz=108,slow=12,SNR=2.0 0.3nm,0.4s						
KURBB	Kurchatov Arra	44.42	318	P	P	16 18 00.1	+0.2
	0.1nm,0.4s,baz=106,slow=9.0,SNR=2.0 0.1nm,0.4s						
WRA	Warramunga Arr	44.91	168	P	P	16 18 04.0	-0.3
	0.5nm,1.1s,baz=347,slow=8.2,SNR=1.0 0.5nm,1.1s						
ASAR	Alice Springs	48.47	169	P	P	16 18 31.7	-0.3
	0.3nm,0.7s,baz=351,slow=9.7,SNR=2.0 0.3nm,0.7s						

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*SJA **11** 16:13:38.6±0.5, 28°.01S×71°.57W, h15^{km}±2^{km}, ML3.3, MW3.6*

*GUC **11** 16:13:42.4±0.7, 28°.04S×71°.42W, h25^{km}±3^{km}, ML2.9*

ISC 11 16:13:37.2±1.5, **28°.06S**±0°.03×**71°.61W**±0°.06, **h14**^{km}±10^{km}, **n24**, σ**1^{s}79**/38, **2C-4D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.49	107	eP	Pn	16 13 49.3	-0.4
AC04				eS	Sn	16 13 57.9	-0.1
AC04	Llanos de Chal	0.49	107	⇓iP	Pn	16 13 49.6	-0.1
AC04				iS	Sg	16 13 54.3	+0.8
AC04				IAML		16 13 54.7	
	comp=E,4µm,0.3s						
LCO	Las Campanas	1.23	140	eP	Pg	16 14 02.8	+1.8
LCO				eS	Sn	16 14 20.4	+3.6
LCO				IAML		16 14 23.2	
	comp=Z,847nm,0.7s						
LCO	Las Campanas	1.23	140	iP	Pg	16 14 02.8	+1.8
LCO				iS	Sn	16 14 17.7	+0.8
GO03	Copiapo	1.30	69	eP	Pg	16 14 02.5	+0.2
GO03				eS	Sg	16 14 19.9	+0.7
GO03				IAML		16 14 20.1	
	comp=Z,544nm,0.9s						
GO03	Copiapo	1.30	69	⇓iP	Pg	16 14 02.1	-0.1
GO03				iS	Sb	16 14 17.6	-0.3
GO03				IAML		16 14 22.1	
	comp=N,768nm,0.5s						
AC06	Mina Casimiro	1.31	58	⇓iP	Pg	16 14 02.1	-0.3

AC06				*i* S	Sb	16 14 16.8	-1.5
AC06				IAML		16 14 23.8	
	comp=E,543nm,0.5s						
AC05	El Transito	1.40	124	*e*P	Pg	16 14 05.2	+1.0
AC05				*e*S	Sg	16 14 24.8	+2.3
AC05				IAML		16 14 31.0	
	comp=Z,181nm,0.5s						
AC05	El Transito	1.40	124	⇓*i*P	Pg	16 14 05.1	+0.9
AC05				*i* S	Sn	16 14 21.6	+0.8
AC05				IAML		16 14 26.5	
	comp=N,262nm,0.4s						
AC01	Pan de Azucar	2.11	25	*e*P	Pb	16 14 14.0	-1.2
AC01				*e*S	Sb	16 14 41.9	+0.7
AC01				IAML		16 14 48.6	
	comp=Z,100nm,0.7s						
AC01	Pan de Azucar	2.11	25	⇑*i*P	Pb	16 14 13.8	-1.3
GO04	Tololo Observa	2.22	162	*e*P	Pg	16 14 18.8	-1.0
GO04				IAML		16 14 54.7	
	comp=Z,268nm,0.4s						
CO01	Juntas del Tor	2.32	146	*e*P	Pb	16 14 19.3	+0.3
CO01				*e*S	Sb	16 14 49.5	+1.9
CO01				IAML		16 14 56.6	
	comp=Z,143nm,0.5s						
AC02	Maricunga	2.52	62	*e*P	Pb	16 14 22.1	-0.4
AC02				*e*S	Sb	16 14 53.0	-0.5
AC02				IAML		16 15 12.1	
	comp=Z,374nm,0.8s						
AC02	Maricunga	2.52	62	⇑*i*P	Pb	16 14 21.9	-0.5
AC02				*i* S	Sn	16 14 52.0	+3.2
AROD	Rodeo	2.81	139	*e*P	Pn	16 14 07.6	-14
ACDV	Cuesta del Vie	3.02	135	*e*P	Pn	16 14 21.3	-3.4
ACDV				IAML		16 15 17.6	
	comp=Z,91nm,0.6s						
CO02	Combarbal	3.17	171	*e*P	Pb	16 14 31.4	-2.0
CO02				IAML		16 15 24.1	
	comp=Z,150nm,0.6s						
ACCO	Cerro Coronel	3.35	139	*e*P	Pn	16 14 31.9	+2.4
ACCO				IAML		16 15 30.1	
	comp=Z,57nm,0.5s						
TINO	Tinogasta	3.57	91	*e*P	Pb	16 14 38.4	-1.7
TINO				*e*S	Sg	16 15 30.4	-1.4
TINO				IAML		16 15 33.7	
	comp=Z,53nm,0.6s						
PB14	IPOC Station P	3.59	18	*e*P	Pn	16 14 34.0	+1.3
PB14				*e*S	Sg	16 15 31.9	-0.6
PB14				IAML		16 15 38.4	
	comp=Z,54nm,0.8s						
RTLS	Leoncito	4.23	152	*e*P	Pb	16 14 49.5	-2.0
ACLC	CERRO LA CRUZ	4.30	109	*e*P	Pb	16 14 48.0	-4.8
ACLC				*e*S	Sb	16 15 42.6	-2.1
ACLC				IAML		16 15 46.0	
	comp=Z,23nm,1.0s						
CFA	Coronel Fontan	4.58	141	*e*P	Pb	16 14 52.9	-4.5

IDC 11 16:27:26.3±1.5**,30°.44S**×**178°.30W,h0^{km},mb3.4**/3**,
mbtmp3.4**/3**,Error ellipse: s-maj=35.4km s-min=20.3km
az=117.0,Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	1.23	16	Pn	Pg	16 27 48.8	-1.1
	59nm,0.3s,baz=191,slow=24,SNR=1.4						
RAO				Sn	Sg	16 28 05.6	-0.2
	284nm,0.3s,baz=93,slow=21,SNR=5.3						
ASAR	Alice Springs	42.85	267	P	P	16 35 26.7	+0.2
	0.2nm,0.6s,baz=105,slow=7.0,SNR=7.3						
	0.2nm,0.6s						
WRA	Warramunga Arr	43.84	272	P	P	16 35 34.4	-0.1
	0.3nm,0.4s,baz=110,slow=8.1,SNR=15						
	0.3nm,0.4s						
QSPA	South Pole Qui	59.67	180	P	P	16 37 33.4	+1.1
	0.4nm,0.8s,baz=0.0,slow=2.0,SNR=0.8						
	0.4nm,0.8s						
FINES	FINESS Array B	145.09	340	PKPbc	PKPbc	16 47 01.3	-3.1
	2.0nm,0.9s,baz=73,slow=4.4,SNR=6.7						

*KRNET **11** 16:42:34.4±0.1, 42°.35N×79°.80E, h22^{km}, mb2.3*
*SOME **11** 16:42:35.2, 42°.32N×79°.75E, h15^{km}*
*NNC **11** 16:42:36.1±0.7, 42°.34N×79°.72E, h6^{km}±15^{km}, mb2.7,
mpv3.0, Error ellipse: s-maj=4.7km s-min=3.2km az=137.0*
ISC 11 16:42:34.6±2.3**,42°.32N**±0°.06×**79°.77E**±0°.08**,h0^{km}**±12^{km}**,
n20,**σ**1^{s}.00**/35**,10C-4D,Lake Issyk-Kul region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHLS	Shalkode	0.87	345	P	Pb	16 42 52.3	-0.3
	25nm,0.1s						
SHLS				S	Sb	16 43 04.3	-0.5
	24nm,0.1s						
SHLS	Shalkode	0.87	345	*e*P	Pg	16 42 51.8	+0.6
	25nm,0.1s						
SHLS				*e*S	Sg	16 43 03.3	+0.8
	27nm,0.2s						
UZB	Uzynbulak	0.99	327	P	Pb	16 42 54.6	-0.1
	4.3nm,0.3s						
UZB				S	Sb	16 43 08.0	-0.4
	8.9nm,0.1s						
UZB	Uzynbulak	0.99	327	*e*P	Pb	16 42 54.6	-0.1
	4.3nm,0.3s						
UZB				*e*S	Sb	16 43 08.1	-0.4
	8.9nm,0.1s						
PRZ	Przheval'sk	1.03	280	⇓*e*P	Pg	16 42 53.9	-0.4
PRZ				⇓*e*S	Sg	16 43 08.2	+0.6
PDGK	Podgornoye	1.03	349	⇑P	Pb	16 42 55.0	-0.3
	1.9nm,0.3s						
PDGK				⇑S	Sn	16 43 09.8	-1.8
	2.5nm,0.5s						
TARG	Taragay, Kyrgy	1.58	249	⇑*e*P	Pb	16 43 03.9	-0.9
TARG				⇑*e*S	Sg	16 43 25.6	+0.4
ANVS	Anan'yevo	1.62	287	⇑*e*P	Pn	16 43 04.4	-0.1
ANVS				⇑*e*S	Sb	16 43 26.2	-0.3
KDJ	Kajisay	1.93	265	⇓*e*P	Pb	16 43 09.4	-1.3
KDJ				⇓*e*S	Sb	16 43 34.9	-0.5
KNOS	Konyrlen	2.08	348	Pg	Pb	16 43 13.7	+0.4
	3.5nm,0.1s						
KNOS				Lg	Lg	16 43 41.1	
	8.3nm,0.1s						
MDOK	Medeo	2.17	294	Pg	Pb	16 43 15.6	+0.7
	2.3nm,0.1s						
MDOK				Lg	Lg	16 43 44.4	
	7.7nm,0.3s						
MDOK	Medeo	2.17	294	*e*P	Pb	16 43 15.6	+0.7
	2.3nm,0.1s						
MDOK				*e*S	Sg	16 43 44.4	0.0
	7.7nm,0.3s						
ULHL	Ulahol	2.62	270	⇑*e*P	Pn	16 43 19.1	+0.8
ULHL				⇑*e*S	Sn	16 43 51.6	+0.8
KTBS	Karatobe	2.66	303	Pg	Pb	16 43 24.0	+0.9
	0.3nm,0.1s						
KTBS				Lg	Lg	16 43 58.4	
	15nm,0.4s						
KTBS	Karatobe	2.66	303	*e*P	Pb	16 43 24.0	+0.9
	0.3nm,0.1s						
KTBS				*e*S	Sg	16 43 58.4	-1.6
	15nm,0.4s						
BOOM	Boomskoye usch	2.84	275	⇑*e*P	Pn	16 43 22.0	+0.7
BOOM				⇑*e*S	Sn	16 43 56.9	+0.6
KST	Kastek	2.90	286	Pg	Pb	16 43 28.6	+1.4
	0.5nm,0.2s						
KST				Lg	Lg	16 44 06.5	
	6.1nm,0.5s						
KST	Kastek	2.90	286	*e*P	Pb	16 43 28.6	+1.4
	0.5nm,0.2s						
KST				*e*S	Sg	16 44 06.5	-1.2
	6.1nm,0.5s						
KRBS	Karabastau	3.30	296	Pg	Pb	16 43 35.4	+1.4
	0.5nm,0.2s						
KRBS				Lg	Lg	16 44 18.2	
	1.1nm,0.4s						
KRBS	Karabastau	3.30	296	*e*P	Pb	16 43 35.4	+1.4
	0.5nm,0.2s						
KRBS				*e*S	Sg	16 44 18.2	-2.4
	1.1nm,0.4s						

*IDC **11** 16:47:12.7±0.6, 6°.55N×60°.37E, h0^{km}, mb4.0/19,
mbtmp4.0/19, MS3.7/46, Error ellipse: s-maj=16.7km
s-min=14.9km az=34.0*
*NEIC **11** 16:47:14.5±1.5, 6°.63N±0°.08×60°.26E±0°.09, h10^{km}±1^{km},
mb4.3/23, Error ellipse: s-maj=17.6km s-min=11.9km
az=233.0*
*GFZ **11** 16:47:17.4±0.7, 7°N±11°×6°0E±°, h10^{km}, M4.5/12,
mb4.5/12, confirmed*
ISC 11 16:47:14.3±0.4**,6°.57N**±0°.07×**60°.44E**±0°.06**,h10^{km},n121,
σ1^{s}.55**/89**,mb4.3**/39**,MS3.7**/46**,4D,Carlsberg Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSEY	Mahe Island	12.22	204	Pn	Pn	16 50 05.3	-3.2
GOA	Goa	15.84	55	*e*P	Pn	16 50 53.5	-4.0
GOA				IAmb	IAmb	16 51 00.7	
	comp=Z,31nm,0.2s						
GOA				*e*S	Sn	16 53 52.4	-0.8
TRD	Trivandrum	16.48	82	*e*P	Pn	16 51 03.0	-2.8
TRD				IAmb	IAmb	16 51 07.4	
	comp=Z,31nm,1.3s						
TRD				*e*S	Sn	16 54 09.7	+0.6
POO	Poona	17.66	46	*e*P	Pn	16 51 18.1	-2.5
POO				IAmb	IAmb	16 51 19.2	
	comp=Z,5.9nm,0.8s						
POO				*e*S	Sn	16 54 36.4	-1.2
ATD	Arta Tunnel	18.06	287	P	Pn	16 51 24.9	-0.6
	comp=Z,0.1nm,0.4s,baz=88,slow=11,SNR=1.1						
ATD				LR	LR	16 56 57.3	
	comp=Z,7.1nm,20.5s,baz=107,slow=32						
ATD	Arta Tunnel	18.06	287	Pn	Pn	16 51 17.5	-8.1
ATD	Arta Tunnel	18.06	287	P	P	16 51 29.4	+3.4
	comp=Z,14nm,1.3s						
DGAR	Diego Garcia	18.34	139	P	P	16 51 28.9	-0.1
UOSS	Minazif	18.72	348		P	16 51 29.9	-3.3
UOSS				IAmb	IAmb	16 51 36.2	
	comp=Z,26nm,1.1s						
UOSS	Minazif	18.72	348	P	Pn	16 51 34.3	+0.7
	comp=Z,24nm,1.1s						
PALK	Pallekele	20.12	87	LR	LR	16 58 04.6	
	comp=Z,285nm,18.6s,baz=261,slow=32						
RAYN	Ar Rayn	22.15	321		P	16 52 08.3	-2.2
RAYN				IAmb	IAmb	16 52 12.3	
	comp=Z,6.5nm,0.7s						
RAYN	Ar Rayn	22.15	321	P	P	16 52 09.8	-0.6
	comp=Z,9.4nm,0.7s						
KMBO	Kilima Mbogo	24.38	253	P	P	16 52 32.8	-0.4
	baz=86,slow=14						
KMBO				LR	LR	17 00 55.2	
	comp=Z,246nm,21.8s,baz=102,slow=34						
LODK	Lodwar	25.18	264		P	16 52 39.4	-0.9
LODK	Lodwar	25.18	264	P	P	16 52 42.6	+2.3
	comp=Z,6.7nm,1.1s						
OPO	Ambohidratompo	28.20	207	LR	LR	17 01 21.2	
	comp=Z,212nm,19.9s,baz=82,slow=30						
MBAR	Mbarara	30.49	258	LR	LR	17 06 24.8	
	comp=Z,123nm,18.4s,baz=90,slow=38						
EIL	Elat	33.23	317	LR	LR	17 06 52.8	
	comp=Z,115nm,18.2s,baz=154,slow=36						
ASF	Jabal al Asfar	33.63	322	LR	LR	17 07 23.5	
	comp=Z,112nm,18.3s,baz=206,slow=36						
BRDH	Bariadhala	34.06	59	LR	LR	17 07 44.0	
	comp=Z,326nm,18.7s,baz=236,slow=36						
BTK	Batken	34.62	14	P	P	16 54 03.4	-0.4
BTK	Batken	34.62	14	P	P	16 54 06.9	+3.2
	comp=Z,7.9nm,1.1s						
MMAI	Mount Meron Ar	35.12	322	P	P	16 54 08.8	+0.6
	comp=Z,0.2nm,0.3s,baz=72,slow=4.7,SNR=1.8						
MMAI				LR	LR	17 08 10.3	
	comp=Z,87nm,18.8s,baz=140,slow=36						
	comp=Z,0.2nm,0.3s						
GNI	Garni	36.28	339	LR	LR	17 09 45.2	
	comp=Z,37nm,19.6s,baz=156,slow=37						
ARSB	Arslanbob	36.37	16	P	P	16 54 19.2	+0.3
ARSB				IAmb	IAmb	16 54 27.2	
	comp=Z,5.0nm,1.2s						
MORE	Moreh	36.91	58		P	16 54 24.9	+1.4
MORE				IAmb	IAmb	16 54 27.4	
	comp=Z,4.7nm,0.9s						
LSA	Lhasa	36.94	48		P	16 54 22.5	-1.8
LSA				IAmb	IAmb	16 54 30.2	
	comp=Z,4.5nm,0.8s						
LSA	Lhasa	36.94	48	P	P	16 54 27.3	+3.0
	comp=Z,6.8nm,1.1s						
KK31	Karatay Array	37.45	12	P	P	16 54 27.0	-0.9
KK31				IAmb	IAmb	16 54 41.2	
	comp=Z,11nm,1.4s						
KKAR	Karatay Array	37.45	12		P	16 54 27.0	-0.9
AAK	Ala-Archa	38.01	17	LR	LR	17 10 04.4	
	comp=Z,134nm,21.9s,baz=207,slow=36						
AAK	Ala-Archa	38.01	17		P	16 54 32.1	-0.7
AAK				IAmb	IAmb	16 54 43.1	
	comp=Z,6.3nm,1.1s						
AAK	Ala-Archa	38.01	17	P	P	16 54 35.9	+3.1
	comp=Z,3.7nm,0.8s						
ARPR	Arapgir-MALATY	38.03	332	P	P	16 54 34.3	+1.3
	comp=Z,12nm,1.4s						
BOOM	Boomskoye usch	38.31	19	P	P	16 54 34.6	-0.7
BOOM				IAmb	IAmb	16 55 00.3	
	comp=Z,7.8nm,1.5s						
KDJ	Kajisay	38.40	20	P	P	16 54 35.5	-0.6
KDJ				IAmb	IAmb	16 54 46.4	
	comp=Z,9.8nm,1.4s						
KELT	Kelkit	38.46	334	P	P	16 54 40.7	+4.1
	comp=Z,13nm,1.4s						
LSZ	Lusaka	38.64	236	LR	LR	17 09 46.6	
	comp=Z,212nm,18.1s,baz=38,slow=35						
CMAR	Chiang Mai Arr	39.30	69	P	P	16 54 45.6	+1.8
	comp=Z,2.5nm,1.0s,baz=258,slow=8.3,SNR=9.0						
CMAR				PcP	PcP	16 56 52.0	-0.6
	comp=Z,0.7nm,0.9s,baz=252,slow=3.6,SNR=4.1						
CMAR				LR	LR	17 09 38.7	
	comp=Z,62nm,21.8s,baz=260,slow=34						
	comp=Z,2.5nm,1.0s						
CMAR	Chiang Mai Arr	39.30	69	P	P	16 54 44.8	+1.0
CMAR				PcP	PcP	16 56 52.9	+0.2
CHTO	Chiang Mai	39.38	68	P	P	16 54 44.6	+0.2
KBZ	Khabaz	40.09	340	P	P	16 54 50.9	+0.9
	comp=Z,2.3nm,0.9s,baz=184,slow=7.2,SNR=5.1						
KBZ				LR	LR	17 11 34.3	
	comp=Z,42nm,21.7s,baz=161,slow=36						
	comp=Z,2.3nm,0.9s						
PDGK	Podgornoye	40.27	22		P	16 54 50.8	-0.8
BRTR	Keskin Array B	40.87	328	P	P	16 54 56.7	0.0
	comp=Z,1.2nm,0.9s,baz=163,slow=8.7,SNR=5.6						
BRTR				PcP	PcP	16 56 56.3	-1.1
	comp=Z,0.9nm,0.9s,baz=152,slow=6.5,SNR=3.6						
BRTR				LR	LR	17 12 26.1	
	comp=Z,42nm,19.6s,baz=128,slow=37						
	comp=Z,1.2nm,0.9s						
BRTR	Keskin Array B	40.87	328	P	P	16 54 55.8	-0.9
MATP	Matopo	41.30	229	LR	LR	17 09 33.8	
	comp=Z,192nm,21.0s,baz=333,slow=32						
AB31	Akbulak array	42.54	360	P	P	16 55 09.4	-0.7
AKTO	Aktyubinsk	43.77	358	LR	LR	17 15 02.1	
	comp=Z,66nm,20.2s,baz=188,slow=38						
PZH	PanZhiHua	44.00	58	P	P	16 55 24.8	+2.4
MKAR	Makanchi Array	44.26	21	P	P	16 55 24.7	+0.7
	comp=Z,0.9nm,0.9s,baz=210,slow=6.5,SNR=5.1						
MKAR				LR	LR	17 15 07.8	
	comp=Z,70nm,20.3s,baz=146,slow=38						
	comp=Z,0.9nm,0.9s						
MKAR	Makanchi Array	44.26	21	P	P	16 55 24.1	+0.1
LBTB	Lobatse	46.21	226	LR	LR	17 12 01.1	
	comp=Z,203nm,21.1s,baz=58,slow=32						
KURBB	Kurchatov Arra	46.44	16	P	P	16 55 41.9	+0.8
	comp=Z,1.8nm,0.8s,baz=214,slow=8.0,SNR=15						
	comp=Z,1.8nm,0.8s						
KURK	Kurchatov	46.54	16		P	16 55 42.5	+0.5
KURK				IAmb	IAmb	16 55 50.6	
	comp=Z,3.9nm,0.9s						
KURK	Kurchatov	46.54	16	P	P	16 55 42.8	+0.9
	comp=Z,5.8nm,0.9s						
BVAR	Borovoye Array	47.02	8	P	P	16 55 47.8	+2.0
	comp=Z,0.5nm,0.5s,baz=158,slow=9.3,SNR=1.5						
	comp=Z,0.5nm,0.5s						
GTA2	Gaotai	48.18	41	*e*P	P	16 55 58.8	+3.7
GTA2				pmax	pmax		
	comp=Z,2.0nm,1.2s						
BOSA	Boshof	48.72	222	P	P	16 56 00.0	+0.6
	comp=Z,2.6nm,0.9s,baz=65,slow=6.0,SNR=2.3						
BOSA				LR	LR	17 15 01.8	
	comp=Z,133nm,18.4s,baz=62,slow=34						
	comp=Z,2.6nm,0.9s						
BOSA	Boshof	48.72	222	P	P	16 55 59.2	-0.2
TSUM	Tsumeb	49.38	238	LR	LR	17 16 19.5	
	comp=Z,184nm,18.5s,baz=43,slow=35						
ARR	Arges	49.56	327	P	P	16 56 04.5	-1.1
	comp=Z,4.2nm,0.9s						
ARTI	Arti	49.71	358	LR	LR	17 16 30.9	
	comp=Z,36nm,19.7s,baz=133,slow=35						
AKASG	Malin Array Be	51.10	335	P	P	16 56 15.7	-1.2
	comp=Z,1.2nm,0.8s,baz=134,slow=6.6,SNR=6.1						
AKASG				LR	LR	17 22 01.6	
	comp=Z,23nm,19.0s,baz=176,slow=41						
	comp=Z,1.2nm,0.8s						
ZAA0	Zalesovo Array	51.20	18	P	P	16 56 17.2	-0.5
ZAA0				IAmb	IAmb	16 56 25.7	
	comp=Z,4.4nm,0.9s						
ZALV	Zalesovo Beam	51.20	18	P	P	16 56 17.6	-0.1
	comp=Z,4.3nm,1.0s,baz=218,slow=7.0,SNR=9.9						
ZALV				LR	LR	17 19 49.0	
	comp=Z,55nm,19.0s,baz=196,slow=38						
	comp=Z,4.3nm,1.0s						
ZALV	Zalesovo Beam	51.20	18	P	P	16 56 17.4	-0.3
KIRV	Kirov	52.59	353	LR	LR	17 21 04.0	
	comp=Z,84nm,18.8s,baz=168,slow=39						
H04N1	CROZET ISLANDS	53.06	188	T	T	17 53 31.2	
	baz=10,slow=76,SNR=368						
H04N2	CROZET ISLANDS	53.06	188	T	T	17 53 30.0	
	baz=10,slow=76,SNR=334						
H04N3	CROZET ISLANDS	53.08	188	T	T	17 53 30.2	
	baz=10,slow=76,SNR=311						
KOLS	Kolonicke sedl	53.09	329	*e*P	P	16 56 34.0	+2.1
KOLS	Kolonicke sedl	53.09	329	P	P	16 56 33.1	+1.2
	comp=Z,6.7nm,0.9s						
MORH	Mrgy, Hungar	53.41	325	P	P	16 56 34.0	-0.3
SUR	Sutherland	54.06	222	LR	LR	17 16 12.7	
	comp=Z,130nm,21.3s,baz=82,slow=32						
VYHS	Vyhne	54.62	327	*e*P	P	16 56 42.8	-0.3
LANS	Liptovska Anna	54.67	328	*e*P	P	16 56 43.5	0.0
MODS	Modra-Piesok	55.40	326	*e*P	P	16 56 50.7	+1.9
MORC	Moravsky Berou	56.06	328		P	16 56 52.0	-1.5
SONM	Songino Array	56.67	35	P	P	16 56 57.5	-0.6
	comp=Z,0.8nm,0.4s,baz=282,slow=7.0,SNR=3.7						
	comp=Z,0.8nm,0.4s						
SONM	Songino Array	56.67	35	P	P	16 56 57.6	-0.4
SONM				IAmb	IAmb	16 57 06.5	
	comp=Z,3.6nm,1.2s						
HHC	Hu-ho-hao-te	56.83	45	*e*P	P	16 57 01.8	+2.5
HHC				pmax	pmax		
	comp=Z,12nm,0.7s						
TORD	Torodi Ar. Bea	58.15	281	P	P	16 57 08.1	-0.7
	comp=Z,1.1nm,1.0s,baz=93,slow=7.2,SNR=3.5						
	comp=Z,1.1nm,1.0s						
KAPI	Kappang	60.31	100	LR	LR	17 23 19.5	
	comp=Z,59nm,18.0s,baz=298,slow=36						
SENIN	Lac Senin/Sane	60.35	320		P	16 57 22.8	-1.0
FINES	FINESS Array B	60.41	342	P	P	16 57 23.2	-0.5
	comp=Z,1.4nm,0.7s,baz=141,slow=7.0,SNR=1.8						
FINES				LR	LR	17 26 09.2	
	comp=Z,33nm,18.2s,baz=137,slow=39						
	comp=Z,1.4nm,0.7s						
FINES	FINESS Array B	60.41	342	P	P	16 57 22.8	-0.8
DAV	Davao City (W)	64.63	85	LR	LR	17 25 44.1	
	comp=Z,32nm,20.0s,baz=242,slow=36						
DBIC	Dimbokro	64.82	274	LR	LR	17 27 05.8	
	comp=Z,115nm,18.2s,baz=122,slow=37						
NRIK	Noril'sk	65.16	10	LR	LR	17 29 10.6	
	comp=Z,77nm,20.1s,baz=198,slow=39						
ESDC	Sonseca Array	66.20	310	P	P	16 58 00.9	-1.6
	comp=Z,1.9nm,0.9s,baz=102,slow=5.7,SNR=14						
	comp=Z,1.9nm,0.9s						
ARCES	ARCESS Array B	66.87	347	LR	LR	17 29 48.3	
	comp=Z,50nm,20.6s,baz=164,slow=38						
KSRS	Korea Array	68.18	52	P	P	16 58 14.8	-0.2
	comp=Z,1.1nm,0.6s,baz=268,slow=5.7,SNR=4.1						
KSRS				LR	LR	17 30 04.7	
	comp=Z,22nm,18.3s,baz=220,slow=38						
	comp=Z,1.1nm,0.6s						
FITZ	Fitzroy Crossi	68.82	112	LR	LR	17 21 33.6	
	comp=Z,50nm,22.0s,baz=277,slow=30						
JNU	Nakatsue	70.06	57	LR	LR	17 30 06.6	
	comp=Z,53nm,20.2s,baz=265,slow=37						
KLR	Kul'dur	72.87	41	LR	LR	17 32 01.3	
	comp=Z,159nm,19.2s,baz=250,slow=37						
MAW	Mawson	74.01	179	P	P	16 58 50.7	+1.0
	comp=Z,2.5nm,0.9s,baz=310,slow=6.9,SNR=4.8						
	comp=Z,2.5nm,0.9s						
MAW	Mawson	74.01	179	P	P	16 58 51.2	+1.4
SPITS	Spitsbergen Ar	75.03	351	LR	LR	17 35 20.5	
	comp=Z,36nm,18.1s,baz=120,slow=38						
MJAR	Matsushiro Arr	76.29	54	LR	LR	17 33 21.6	
	comp=Z,22nm,19.9s,baz=236,slow=36						
TIXI	Tiksi	77.08	18	LR	LR	17 35 38.8	
	comp=Z,53nm,18.6s,baz=238,slow=38						
WRA	Warramunga Arr	77.25	112	P	P	16 59 09.4	+0.1
	comp=Z,3.0nm,0.9s,baz=291,slow=4.7,SNR=16						
	comp=Z,3.0nm,0.9s						
WRA	Warramunga Arr	77.25	112		P	16 59 09.5	+0.1
ASAR	Alice Springs	77.64	116	P	P	16 59 11.6	0.0
	comp=Z,4.4nm,0.9s,baz=284,slow=5.2,SNR=47						
	comp=Z,4.4nm,0.9s						
ASAR	Alice Springs	77.64	116	P	P	16 59 11.2	-0.3
ASAJ	Asahikawa	79.83	46	LR	LR	17 36 08.0	
	comp=Z,70nm,19.3s,baz=278,slow=37						
BORG	Borgarnes	80.58	335	LR	LR	17 38 35.0	
	comp=Z,27nm,18.4s,baz=356,slow=38						
MA2	Magadan	84.55	31	LR	LR	17 40 10.7	
	comp=Z,53nm,18.2s,baz=260,slow=38						
STKA	Stephens Creek	85.97	123	P	P	16 59 55.2	-0.1
	comp=Z,3.6nm,0.9s,baz=288,slow=6.4,SNR=4.6						
STKA				LR	LR	17 32 51.2	
	comp=Z,52nm,19.5s,baz=207,slow=32						
	comp=Z,3.6nm,0.9s						
TROLL	Troll, Antarti	86.79	195	⇓P	P	17 00 00.4	+1.8
	comp=Z,133nm,0.9s						
VNA2	Neumayer--Watz	89.09	198	⇓P	P	17 00 10.3	+0.9
	comp=Z,2.8nm,0.9s,baz=37,slow=5.5						
PETK	Petropavlovsk-	89.14	37	LR	LR	17 42 28.0	
	comp=Z,60nm,19.0s,baz=284,slow=37						
VNA1	Neumayer--Stat	89.25	198	⇓P	P	17 00 11.9	+1.8
	comp=Z,4.0nm,1.0s						
VNA3	Neumayer Olymp	89.90	198	⇓P	P	17 00 13.9	+0.7
	comp=Z,6.4nm,0.8s						
VNA3	Neumayer Olymp	89.90	198	P	P	17 00 14.4	+1.2
	comp=Z,11nm,0.8s						
QSPA	South Pole Qui	96.52	180	LR	LR	17 39 48.1	
	comp=Z,101nm,18.6s,baz=278,slow=33						
RES	Resolute Bay	97.49	354	LR	LR	17 49 55.8	
	comp=Z,42nm,20.1s,baz=319,slow=39						
SHEM	Shemya Is, Ala	98.75	34	LR	LR	17 45 57.1	
	comp=Z,60nm,21.9s,baz=7.0,slow=36						
PDAR	Pinedale Array	130.06	350	PKP	PKPdf	17 06 25.0	-0.2
	comp=Z,0.3nm,0.7s,baz=32,slow=2.8,SNR=2.1						
NVAR	Mina Array Bea	135.22	359	PKP	PKPdf	17 06 35.2	+0.2
	comp=Z,0.7nm,0.7s,baz=352,slow=4.2,SNR=2.7						
TXAR	Lajitas Array	141.17	338	PKhKP	PKPpre	17 06 38.9	
	comp=Z,0.4nm,0.7s,baz=129,slow=1.8,SNR=4.4						
TXAR				PKP	PKPdf	17 06 46.2	+0.2
	comp=Z,0.2nm,0.4s,baz=225,slow=9.1,SNR=5.2						

*IDC **11** 16:57:50.4±0.9, 33°.02N×142°.17E, h0^{km}, mb3.5/8,
mbtmp3.5/9, ML2.3/1, MS3.6/2, Error ellipse: s-maj=23.5km
s-min=14.4km az=53.0*
*JMA **11** 16:57:57.1±0.4, 33°N±1°×14°2E±°, h45^{km}, MV3.2/19, E
OFF HACHIJOJIMA ISLAND*
ISC 11 16:57:56.9±0.9**,32°.91N**±0°.07×**141°.71E**±0°.09**,h41^{km},n20,
σ1^{s}.68**/20**,mb3.5**/8**,Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHJ2	Mitsune	1.60	278	*e*P	Pn	16 58 22.9	+0.3
JHJ2				*e*S	Sn	16 58 42.5	+0.4
JHJ	Hachijo jima 2	1.63	278	Pn	Pn	16 58 21.6	-1.5
	32nm,0.3s,baz=59,slow=23,SNR=26						
JHJ				Sn	Sn	16 58 43.2	+0.4
	60nm,0.3s,baz=149,slow=23,SNR=8.8						
JAOM	Aogashimamukai	1.70	255	*e*P	Pn	16 58 24.4	+0.4
BSO1	Boso 1	1.84	341	P	Pn	16 58 26.2	+0.7
BSO1				*e*S	Sn	16 58 50.7	+3.4
JMKN	Mikurajimanish	2.02	300	*e*P	Pn	16 58 28.0	-0.4
BSO3	Boso 3	2.13	333	*e*S	Sn	16 58 55.7	+0.9
MJAR	Matsushiro Arr	4.63	322	Pn	Pn	16 59 04.9	+0.6
	0.1nm,0.3s,baz=137,slow=11,SNR=7.5						
MJAR				Sn	Sn	16 59 53.5	-3.2
	0.1nm,0.3s,baz=140,slow=23,SNR=4.6						
	1.7nm,0.6s						
MJAR				AML	AML		
H11N2	WAKE ISLAND Hy	26.04	114	T	T	17 30 53.2	
	baz=306						
H11N1	WAKE ISLAND Hy	26.04	114	T	T	17 30 50.5	
	baz=306						
H11N3	WAKE ISLAND Hy	26.05	114	T	T	17 31 04.9	
	baz=306						
ZALV	Zalesovo Beam	44.94	316	P	P	17 06 08.2	+0.6
	0.3nm,0.5s,baz=118,slow=8.5,SNR=1.8						
	0.3nm,0.5s						
MKAR	Makanchi Array	46.61	306	P	P	17 06 22.0	+1.1
	0.3nm,0.5s,baz=79,slow=7.5,SNR=2.1						

	0.3nm,0.5s						
KURBB	Kurchatov Arra	48.80	311	P	P	17 06 38.4	+0.6
	0.4nm,0.5s,baz=89,slow=8.5,SNR=7.8						
	0.4nm,0.5s						
ILAR	Eielson Array	52.88	31	P	P	17 07 04.2	-4.0
	0.2nm,0.6s,baz=256,slow=6.0,SNR=4.2						
	0.2nm,0.6s						
WRA	Warramunga Arr	53.02	189	P	P	17 07 10.5	+0.7
	0.9nm,0.7s,baz=6.6,slow=7.7,SNR=12						
	0.9nm,0.7s						
BVAR	Borovoye Array	53.58	315	P	P	17 07 14.6	+1.1
	0.4nm,0.7s,baz=113,slow=3.7,SNR=1.7						
	0.4nm,0.7s						
ASAR	Alice Springs	56.75	189	P	P	17 07 37.0	+0.4
	0.2nm,0.7s,baz=2.7,slow=6.4,SNR=5.4						
ASAR				LR	LR	17 32 25.3	
	comp=Z,61nm,18.1s,baz=265,slow=36						
	0.2nm,0.7s						
STKA	Stephens Creek	64.44	180	P	P	17 08 29.6	+0.7
	2.0nm,0.9s,baz=333,slow=9.0,SNR=3.0						
	2.0nm,0.9s						
SFJD	Kangerlussuaq	79.96	5	LR	LR	17 50 41.1	
	comp=Z,21nm,18.0s,baz=108,slow=40						
QSPA	South Pole Qui	122.66	180	PKP	PKiKP	17 16 48.3	+0.9
	0.5nm,0.9s,baz=300,slow=3.1,SNR=3.2						

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*IDC **11** 16:58:27.4±0.6, 2°.39S×11°.91W, h0^{km}, mb4.2/15, mbtmp4.2/16, ML3.2/1, MS3.7/29, Error ellipse: s-maj=24.3km s-min=14.4km az=119.0*

*NEIC **11** 16:58:27.5±2.8, 2°.44S±0°.09×12°.3W±0°.1, h10^{km}±1^{km}, mb4.4/13, Error ellipse: s-maj=21.3km s-min=13.4km az=293.0*

ISC 11 16:58:27.7±0.4**, 2°.37S**±0°.07×**12°.09W**±0°.09**, h10**^{km}**, n68, σ1s.81**/40**, mb4.3**/22**, MS3.7**/28**, 5D, North of Ascension Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
H10N2	ASCENSION HYDR	5.93	204	T	T	17 05 51.0	
	baz=25,slow=74,SNR=282						
H10N1	ASCENSION HYDR	5.94	204	T	T	17 05 54.4	
	baz=25,slow=74,SNR=360						
H10N3	ASCENSION HYDR	5.94	204	T	T	17 06 01.3	
	baz=25,slow=74,SNR=287						
ASCN	Ascension	5.97	202	Pn	Pn	16 59 52.6	-3.7
H10S2	ASCENSION HYDR	7.02	201	T	T	17 07 19.4	
	baz=198,slow=74,SNR=64						
H10S3	ASCENSION HYDR	7.03	201	T	T	17 07 26.9	
	baz=22,slow=74,SNR=27						
DBIC	Dimbokro	11.52	39	Pn	Pn	17 01 09.9	-2.5
	0.2nm,0.3s,baz=330,slow=15,SNR=2.1						
DBIC				LR	LR	17 04 56.2	
	comp=Z,354nm,20.0s,baz=220,slow=34						
	3.7nm,0.9s						
DBIC				AML	AML		
DBIC	Dimbokro	11.52	39	Pn	Pn	17 01 13.1	+0.7
SHEL	Horse Pasture	14.88	156	Pn	Pn	17 01 58.5	+0.1
TOA0	Torodi Ar. Sit	20.61	41	P	P	17 03 03.4	-3.9
TORD	Torodi Ar. Bea	20.61	41	P	P	17 03 06.7	-0.7
	1.6nm,0.8s,baz=226,slow=10,SNR=6.3						
TORD				LR	LR	17 10 28.4	
	comp=Z,274nm,20.1s,baz=193,slow=35						
	1.6nm,0.8s						
SACV	Santiago Islan	20.66	327	P	P	17 03 04.5	-3.4
SACV				IAmb	IAmb	17 03 27.9	
	comp=Z,17nm,1.0s						
MD31	MD31	35.72	11	P	P	17 05 24.9	-1.9
BDFB	Brasilia	37.77	247	LR	LR	17 19 03.9	
	comp=Z,84nm,19.2s,baz=105,slow=33						
BDFB	Brasilia	37.77	247	P	P	17 05 41.0	-3.5
BDFB				IAmb	IAmb	17 05 41.7	
	comp=Z,2.5nm,0.8s						
MDP	Montagnes des	41.18	280	P	P	17 06 15.1	+2.1
	comp=Z,3.4nm,0.6s,baz=88,slow=16,SNR=2.1						
MDP				LR	LR	17 19 04.5	
	comp=Z,90nm,20.9s,baz=134,slow=30						
	comp=Z,3.4nm,0.6s						
LSZ	Lusaka	41.72	110	LR	LR	17 21 56.4	
	comp=Z,107nm,18.3s,baz=168,slow=34						
LSZ	Lusaka	41.72	110	P	P	17 06 17.3	-0.2
LBTB	Lobatse	42.72	125	LR	LR	17 21 43.2	
	comp=Z,98nm,18.1s,baz=173,slow=33						
MBAR	Mbarara	42.85	88	LR	LR	17 22 14.7	
	comp=Z,229nm,21.2s,baz=273,slow=34						
MBAR	Mbarara	42.85	88	P	P	17 06 26.6	-0.2
MBAR				IAmb	IAmb	17 06 42.6	
	comp=Z,4.3nm,0.9s						
KEST	Kesra	42.88	26	P	P	17 06 27.7	+1.2
	comp=Z,2.4nm,1.0s,baz=222,slow=13,SNR=1.7						
	comp=Z,2.4nm,1.0s						
KEST	Kesra	42.88	26	P	P	17 06 25.8	-0.7
MATP	Matopo	43.46	117	LR	LR	17 22 45.8	
	comp=Z,165nm,18.5s,baz=323,slow=34						
BOSA	Boshof	44.12	130	P	P	17 06 36.0	-0.8
	comp=Z,2.8nm,0.8s,baz=290,slow=16,SNR=3.9						
	comp=Z,2.8nm,0.8s						
VAE	Valguarnera	46.65	29	LR	LR	17 26 36.6	
	comp=Z,125nm,18.1s,baz=130,slow=36						
BOAV	Boa Vista	48.65	275		P	17 07 11.0	-1.5
BOAV				IAmb	IAmb	17 07 29.1	
	comp=Z,7.7nm,1.0s						
KMBO	Kilima Mbogo	49.33	89	LR	LR	17 26 25.8	
	comp=Z,234nm,19.7s,baz=107,slow=34						
CPUP	Villa Florida	49.50	237	P	P	17 07 22.4	+3.7
	comp=Z,0.8nm,0.4s,baz=53,slow=10,SNR=3.2						
CPUP				LR	LR	17 25 14.0	
	comp=Z,75nm,21.4s,baz=73,slow=32						
	comp=Z,0.8nm,0.4s						
SIV	San Ignacio	50.06	251	LR	LR	17 27 27.2	
	comp=Z,83nm,19.6s,baz=306,slow=35						
DAVOX	Davos/Dischmat	52.63	19	LR	LR	17 30 54.5	
	comp=Z,58nm,19.0s,baz=238,slow=37						
EIL	Elat	55.08	51	LR	LR	17 32 19.0	
	comp=Z,114nm,18.2s,baz=222,slow=37						
GERES	GERESS Array B	55.70	20	P	P	17 08 06.0	+1.6
	comp=Z,1.7nm,0.6s,baz=201,slow=6.8,SNR=15						
	comp=Z,1.7nm,0.6s						
GERES	GERESS Array B	55.70	20	P	P	17 08 05.7	+1.2
LPAZ	La Paz	56.81	252	P	P	17 08 16.4	+2.9
	comp=Z,0.9nm,0.6s,baz=76,slow=3.2,SNR=4.4						
LPAZ				LR	LR	17 32 17.6	
	comp=Z,65nm,18.6s,baz=72,slow=36						
	comp=Z,0.9nm,0.6s						
SJG	San Juan	56.97	293	LR	LR	17 27 05.9	
	comp=Z,40nm,21.5s,baz=104,slow=30						
MMAI	Mount Meron Ar	56.98	48	LR	LR	17 34 52.3	
	comp=Z,63nm,19.1s,baz=213,slow=38						
VRAC	Vranov	57.13	22	LR	LR	17 33 42.1	
	comp=Z,33nm,18.6s,baz=184,slow=37						
ASF	Jabal al Asfar	57.70	49	LR	LR	17 32 57.2	
	comp=Z,69nm,21.0s,baz=206,slow=36						
MLR	Muntele Rosu	58.37	31	LR	LR	17 34 43.9	
	comp=Z,67nm,19.0s,baz=180,slow=37						
BRTR	Keskin Array B	59.22	40	P	P	17 08 30.8	+1.3
	comp=Z,1.7nm,0.9s,baz=221,slow=7.4,SNR=8.8						
BRTR				LR	LR	17 34 28.0	
	comp=Z,39nm,21.9s,baz=307,slow=36						
	comp=Z,1.7nm,0.9s						
BNN	Bunyan	60.20	42	P	P	17 08 37.5	+1.2
BNN				IAmb	IAmb	17 08 45.2	
	comp=Z,4.7nm,0.9s						
AKASG	Malin Array Be	63.54	28	P	P	17 08 58.6	+0.2
	comp=Z,0.3nm,0.3s,baz=236,slow=6.8,SNR=5.8						
AKASG				LR	LR	17 38 56.0	
	comp=Z,24nm,18.4s,baz=174,slow=38						
	comp=Z,0.3nm,0.3s						
NOA	NORSAR Array B	65.75	12	LR	LR	17 39 13.1	
	comp=Z,11nm,18.2s,baz=105,slow=37						
ATAH	Atahualpa	66.20	263	LR	LR	17 36 23.1	
	comp=Z,98nm,20.5s,baz=90,slow=34						
GNI	Garni	66.88	44	LR	LR	17 43 13.9	
	comp=Z,35nm,18.0s,baz=212,slow=40						
KBZ	Khabaz	67.21	40	P	P	17 09 24.0	+1.7
	comp=Z,2.4nm,0.9s,baz=288,slow=3.2,SNR=3.7						
	comp=Z,2.4nm,0.9s						
VNA1	Neumayer--Stat	68.22	179	⇓P	P	17 09 29.0	+0.8
	comp=Z,8.5nm,1.1s						
VNA2	Neumayer--Watz	68.52	178	⇓P	P	17 09 30.4	+0.3
	comp=Z,7.9nm,0.8s,baz=356,slow=6.1						
VNA3	Neumayer Olymp	68.79	179	⇓P	P	17 09 31.6	-0.1
	comp=Z,5.9nm,1.0s						
SNAA	Sanae	69.46	177	⇓P	P	17 09 36.3	+0.3
	comp=Z,91nm,0.7s						
SNAA	Sanae	69.46	177	P	P	17 09 36.4	+0.4
	comp=Z,6.1nm,1.0s,baz=345,slow=5.1,SNR=8.8						
	comp=Z,6.1nm,1.0s						
SNAA	Sanae	69.46	177	P	P	17 09 36.2	+0.3
OBN	Obninsk	69.78	27	LR	LR	17 41 15.2	
	comp=Z,91nm,21.4s,baz=96,slow=37						
FINES	FINESS Array B	70.03	18	P	P	17 09 40.0	+0.5
	comp=Z,3.0nm,0.8s,baz=201,slow=5.0,SNR=10						
	comp=Z,3.0nm,0.8s						
FINES	FINESS Array B	70.03	18	P	P	17 09 41.5	+2.0
TROLL	Troll, Antarti	70.16	175	⇓P	P	17 09 41.0	+0.7
	comp=Z,244nm,0.6s						
JTS	Las Juntas de	73.59	281	LR	LR	17 41 22.6	
	comp=Z,33nm,18.3s,baz=49,slow=35						
BELA	Belgrano 2	76.40	185		P	17 10 15.5	-1.4
BELA				IAmb	IAmb	17 10 18.6	
	comp=Z,9.6nm,1.2s						
MAW	Mawson	82.11	158	P	P	17 10 49.8	+1.5
	comp=Z,8.0nm,0.7s,baz=293,slow=6.3,SNR=16						
	comp=Z,8.0nm,0.7s						
MAW	Mawson	82.11	158	P	P	17 10 50.4	+2.1
MAW				IAmb	IAmb	17 10 51.1	
	comp=Z,1.8nm,0.8s						
QSPA	South Pole Qui	87.72	180	P	P	17 11 17.8	+1.1
	comp=Z,8.5nm,1.0s,baz=223,slow=2.0,SNR=19						
	comp=Z,8.5nm,1.0s						
QSPA	South Pole Qui	87.72	180	P	P	17 11 17.4	+0.7
TXAR	Lajitas Array	92.52	299	P	P	17 11 40.2	+0.3
	comp=Z,0.2nm,0.5s,baz=95,slow=6.9,SNR=2.7						
	comp=Z,0.2nm,0.5s						
ANMO	Albuquerque	94.93	305	LR	LR	17 50 11.5	
	comp=Z,39nm,18.4s,baz=74,slow=33						
PDAR	Pinedale Array	97.09	313	LR	LR	17 52 43.1	
	comp=Z,22nm,19.2s,baz=140,slow=34						
ASAR	Alice Springs	137.99	130	PKhKP	PKPpre	17 17 44.6	
	comp=Z,0.9nm,1.0s,baz=226,slow=2.8,SNR=5.8						
ASAR				PKP	PKiKP	17 17 55.8	0.0
	comp=Z,0.7nm,0.9s,baz=237,slow=1.8,SNR=3.4						
WRA	Warramunga Arr	140.29	125	PKhKP	PKPpre	17 17 52.4	
	comp=Z,0.5nm,0.8s,baz=230,slow=2.3,SNR=5.0						

IDC 11 17:03:25.7±383.0**, 67°.24N×38°.41E, h0**^{km}**, Error ellipse: s-maj=154.6km s-min=141.0km az=97.0, Baltic States-Belarus-Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I37NO	I37NO	7.60	293	I	I	17 52 00.0	
	baz=94,slow=326,SNR=0.7						
I31KZ	AKTYUBINSK INF	19.54	140	I	I	19 05 47.2	
	baz=333,slow=317,SNR=3.4						
I46RU	ZALESOVO INFRA	25.63	98	I	I	19 40 40.0	
	baz=322,slow=328,SNR=1.7						

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*IDC **11** 17:12:38.6±4.1, 35°.52N×71°.37E, h0^{km}, mb3.8/3, mbtmp3.5/6, ML2.8/3, Error ellipse: s-maj=98.6km s-min=28.0km az=137.0*

*NNC **11** 17:12:57.8±7.0, 37°.84N×71°.67E, h0^{km}, mb3.9, mpv3.6, Error ellipse: s-maj=49.3km s-min=44.3km az=158.0*

ISC 11 17:12:54.2±2.3**, 36°.2N**±0°.2×**71°.4E**±0°.2**, h119**^{km}**, n12, σ1s.56**/11**, 1C-2D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IUG	Iuzhnay	6.05	351	Pg	Pn	17 14 21.4	+0.1
	6.6nm,0.2s						
IUG				Lg	Lg	17 15 25.0	
	62nm,0.2s						
MRKS	Merke	6.71	12	Pg	Pn	17 14 30.1	-0.2
	5.8nm,0.5s						
MRKS				Lg	Lg	17 15 40.8	
	6.5nm,0.3s						
AAK	Ala-Archa	6.89	20	⇓Pg	Pn	17 14 33.0	+0.3
	0.9nm,0.5s						
AAK				⇑Lg	Lg	17 15 45.6	
	1.3nm,0.6s						
BRLS	Borolday	6.94	351	Pg	Pn	17 14 29.2	-4.1
	1.2nm,0.1s						
BRLS				Lg	Lg	17 15 38.8	
	6.9nm,0.3s						
KK31	Karatay Array	6.95	355	Pg	Pn	17 14 32.5	-0.9
	1.0nm,0.2s,baz=180,slow=13,SNR=44						
KK31				⇓Lg	Lg	17 15 44.8	
	4.3nm,0.3s,baz=182,slow=22,SNR=9.8						
MKAR	Makanchi Array	13.38	34	Pn	Pn	17 15 57.7	-1.6
	baz=214,slow=12,SNR=1.9						
	0.1nm,0.4s						
KURBB	Kurchatov Arra	15.34	17	Pn	Pn	17 16 23.9	-0.2
	baz=207,slow=10,SNR=2.7						
	0.2nm,0.3s						
AB31	Akbulak array	15.51	331	P	Pn	17 16 24.1	-2.1
	0.4nm,0.3s,baz=220,slow=43,SNR=27						
BVAR	Borovoye Array	16.86	358	P	P	17 16 42.4	-0.5
	baz=178,slow=7.2,SNR=2.7						
	0.4nm,0.5s						
ZALV	Zalesovo Beam	20.09	24	P	P	17 17 18.9	+0.8
	2.3nm,0.3s,baz=207,slow=10.0,SNR=19						
	2.3nm,0.3s						
ARCES	ARCESS Array B	41.55	338	P	P	17 20 32.6	+3.1
	2.2nm,0.9s,baz=104,slow=11,SNR=4.2						
	2.2nm,0.9s						
TORD	Torodi Ar. Bea	66.00	269	P	P	17 23 27.3	-1.0
	0.2nm,0.4s,baz=45,slow=7.5,SNR=1.6						
	0.2nm,0.4s						

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*NOU **11** 17:16:56.7, 25°.66S×179°.81E, h489^{km}, ML3.6/15, South of Fiji Islands*

*IDC **11** 17:16:57.8±0.9, 25°.52S×179°.58E, h497^{km}±9^{km}, mb3.5/15, mbtmp4.4/18, Error ellipse: s-maj=13.6km s-min=11.9km az=71.0*

*NEIC **11** 17:16:57.6±1.6, 25°.57S±0°.09×179°.6E±0°.1, h490^{km}±6^{km}, mb4.3/62, Error ellipse: s-maj=15.3km s-min=13.4km az=96.0*

ISC 11 17:16:58.5±0.3**, 25°.49S**±0°.05×**179°.55E**±0°.06**, h507**^{km}**, n159, σ1s.74**/175**, mb4.2**/45**, 7C, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RIZ	Raoul Island	4.36	150	P	P	17 18 21.1	+0.9
RIZ				S	S	17 19 30.1	+3.1
RIZ				AML	AML		
RAO	Raoul Island	4.37	150	P	P	17 18 19.8	-0.5
	503nm,0.2s,baz=53,slow=8.3,SNR=8.6						
RAO				S	S	17 19 24.0	-3.2
	418nm,0.2s,baz=146,slow=22,SNR=3.2						
RAO	Raoul Island	4.37	150	P	P	17 18 15.3	-5.0
RAO				S	S	17 19 23.2	-4.0
GLKZ	Green Lake	4.38	150	P	P	17 18 18.7	-1.7
GLKZ				S	S	17 19 25.6	-1.7
GLKZ				AML	AML		
LKBA	Tubou, Lakemba	7.38	12	P	P	17 18 48.1	-0.7
MSVF	Nonsavu	7.84	349	P	P	17 18 53.2	-0.4
	4.2nm,0.5s,baz=98,slow=10,SNR=4.4						
MSVF	Nonsavu	7.84	349	P	P	17 18 50.4	-3.3
MSVF	Nonsavu	7.84	349	P	P	17 18 46.2	-7.5
DGTI	Dogotuki	9.14	1	P	P	17 19 06.9	-0.2
MARNC	Mare, Loyalty	11.30	288	P	P	17 19 29.8	+0.1
WCZ	Waipu Caves	11.34	202	P	P	17 19 27.2	-2.6
FUTU	Fugatoga	11.34	12	P	P	17 19 30.7	+0.6
NIUE	Niue	11.64	59	P	P	17 19 30.8	-2.5
NIUE	Niue	11.64	59	P	P	17 19 31.3	-2.1
NIUE				S	S	17 21 40.8	-0.1
WIAZ	Waiheke Island	11.88	197	P	P	17 19 36.4	+0.8
MBAZ	Motutapu North	11.93	198	P	P	17 19 36.1	0.0
OUENC	Ouen Island, N	12.02	282	P	P	17 19 38.2	+0.9
MXZ	Matakaoa Point	12.08	185	P	P	17 19 37.0	-0.7
MXZ	Matakaoa Point	12.08	185	P	P	17 19 36.8	-1.0
ETAZ	East Tamaki Re	12.09	198	P	P	17 19 43.3	+5.5
HAZ	Te Kaha	12.32	187	P	P	17 19 39.1	-1.1
HAZ				S	S	17 21 57.8	+4.3
WMGZ	Waiomatatini S	12.33	184	P	P	17 19 39.6	-0.8
WMGZ				S	S	17 22 01.4	+7.6
PKGZ	Pakihiroa	12.40	185	P	P	17 19 41.0	-0.1
DZM	Mont Dzumac	12.47	283	P	P	17 19 43.4	+1.2
	25nm,0.7s,baz=120,slow=13,SNR=18						
NOUC	Port Laguerre	12.59	283	P	P	17 19 44.5	+1.2
NOUC	Port Laguerre	12.59	283	P	P	17 19 44.8	+1.6
PUZ	Puketiti	12.59	185	P	P	17 19 42.7	-0.4
PUZ				S	S	17 22 00.3	+1.4
TOZ	Tahuroa Road	12.68	195	P	P	17 19 44.3	+0.3
URZ	Urewera	12.90	189	P	P	17 19 42.9	-3.4
	17nm,0.5s,baz=174,slow=0.6,SNR=22						
URZ				S	S	17 21 59.4	-5.2
	35nm,0.7s,baz=59,slow=23,SNR=13						
URZ	Urewera	12.90	189	P	P	17 19 42.9	-3.4
URZ	Urewera	12.90	189	S	S	17 22 00.7	-4.0
URZ	Urewera	12.90	189	P	P	17 19 43.2	-3.1
URZ				S	S	17 22 04.9	+0.2
MWZ	Matawai	12.92	187	P	P	17 19 45.0	-1.6
MWZ				S	S	17 22 09.9	+4.6
TKGZ	Te Karaka	12.99	186	P	P	17 19 46.8	-0.5
TKGZ				S	S	17 22 11.3	+4.8
CNGZ	Carnagh Statio	13.01	185	P	P	17 19 47.1	-0.3
CNGZ				S	S	17 22 09.2	+2.4
MUGZ	Murupara	13.16	190	P	P	17 19 52.6	+3.5
MUGZ				S	S	17 22 12.6	+2.8
TLZ	Tolley Road	13.25	194	P	P	17 19 50.2	+0.2
RIGZ	Rimuhau	13.27	186	P	P	17 19 49.7	-0.5
RIGZ				S	S	17 22 12.8	+1.0
RAHZ	Arahi	13.55	188	P	P	17 19 50.1	-3.1
RAHZ				S	S	17 22 14.9	-2.4
HIZ	Hauiti	13.58	196	P	P	17 19 52.1	-1.4
AFI	Afiamalu	14.11	37	P	P	17 19 54.7	-4.8
	12nm,0.6s,baz=116,slow=9.2,SNR=6.0						
AFI	Afiamalu	14.11	37	P	P	17 19 55.0	-4.5
TCW	Tory Channel	16.28	194	P	P	17 20 18.2	-3.5
QRZ	Quartz Range	16.38	199	P	P	17 20 21.1	-1.6
QRZ	Quartz Range	16.38	199	S	S	17 23 09.8	-0.7
QRZ	Quartz Range	16.38	199	P	P	17 20 21.2	-1.6
GVZ	Greta Valley S	18.24	195	P	P	17 20 37.6	-2.9
LTZ	Lake Taylor	18.26	197		P	17 20 38.0	-2.7
OXZ	Oxford	18.83	197	P	P	17 20 42.9	-3.0
RPZ	Rata Peaks	19.46	199	P	P	17 20 50.3	-1.3
	1.8nm,0.6s,baz=22,slow=2.7,SNR=7.6						
ARMA	Armidale	25.12	252	P	P	17 21 42.0	-0.7
ARMA				IAmb	IAmb	17 22 15.0	
	comp=Z,15nm,1.1s						
EIDS	Eidsvold	25.69	264	P	P	17 21 47.0	-0.8
CAN	Canberra	28.02	242	P	P	17 22 08.2	0.0
CAN				IAmb	IAmb	17 22 09.6	
	comp=Z,18nm,1.4s						
AULRC	Lightning Ridg	28.24	255	P	P	17 22 11.8	+1.7
CMSA	Cobar Meteorol	30.28	251	P	P	17 22 28.4	+0.6
CMSA	Cobar Meteorol	30.28	251	S	S	17 26 55.1	+3.5
CTAO	Charters Tower	31.11	273	P	P	17 22 35.1	-0.1
TOO	Toolangi	31.26	239	P	P	17 22 36.4	+0.1
QLP	Quilpie	31.69	260	P	P	17 22 40.4	+0.3
MTSU	Mount Surprise	33.45	276	P	P	17 22 56.2	+1.1
STKA	Stephens Creek	33.78	250	P	P	17 22 58.1	+0.4
	comp=Z,6.0nm,0.5s,baz=99,slow=10,SNR=27						
	comp=Z,6.0nm,0.5s						
PMG	Port Moresby	34.66	292	P	P	17 23 05.5	+0.2
INKA	Innaminka	34.67	258		P	17 23 06.2	+0.9
INKA				IAmb	IAmb	17 23 07.2	
	comp=Z,7.2nm,0.8s						
HTT	Hallett	36.07	248	P	P	17 23 17.0	+0.1
QIS	Mount Isa	36.99	269	P	P	17 23 24.9	+0.2
BBOO	Buckleboo	38.47	249	P	P	17 23 35.9	-0.6
AS31	Alice Springs	41.40	262		P	17 23 60.0	-0.3
AS31				IAmb	IAmb	17 24 01.5	
	comp=Z,5.5nm,0.6s						
ASAR	Alice Springs	41.40	262	P	P	17 24 00.2	-0.1
	comp=Z,7.6nm,0.5s,baz=89,slow=6.8,SNR=370						
ASAR				ScP	ScP	17 28 48.4	+0.2
	comp=Z,0.9nm,0.8s,baz=117,slow=4.4,SNR=4.9						
ASAR				S	S	17 29 32.0	-6.4
	comp=Z,1.5nm,0.9s,baz=95,slow=16,SNR=7.0						
	comp=Z,7.6nm,0.5s						
ASAR	Alice Springs	41.40	262		P	17 23 60.0	-0.3
WR8	Warramunga Arr	41.77	268		P	17 24 02.6	-0.6
WR8				IAmb	IAmb	17 24 03.5	
	comp=Z,14nm,0.8s						
WRAB	Tennant Creek	41.91	268	P	P	17 24 03.4	-1.0
WRAB				IAmb	IAmb	17 24 04.6	
	comp=Z,14nm,0.9s						
WB0	Warramunga Arr	41.92	268		P	17 24 03.5	-0.9
WRA	Warramunga Arr	41.92	268	P	P	17 24 04.0	-0.5
	comp=Z,15nm,0.6s,baz=99,slow=6.9,SNR=270						
WRA				ScP	ScP	17 28 53.7	+3.4
	comp=Z,0.4nm,0.8s,baz=107,slow=3.4,SNR=5.9						
WRA				S	S	17 29 43.9	-2.0
	comp=Z,4.2nm,1.0s,baz=104,slow=15,SNR=11						
	comp=Z,15nm,0.6s						
WRA	Warramunga Arr	41.92	268		P	17 24 02.9	-1.5
WRA				ScP	ScP	17 28 52.8	+2.5
FORT	Forrest	45.39	251	P	P	17 24 30.6	-0.7
FORT				IAmb	IAmb	17 25 08.2	
	comp=Z,12nm,1.0s						
MTN	Manton Dam	47.19	276	P	P	17 24 45.0	-0.1
MTN				IAmb	IAmb	17 25 22.5	
	comp=Z,7.0nm,1.4s						
KNRA	Kununurra	48.29	271		P	17 24 53.5	+0.1
KNRA				IAmb	IAmb	17 24 54.9	
	comp=Z,17nm,1.0s						
FITZ	Fitzroy Crossi	50.32	267		P	17 25 08.9	+0.5
FAKI	Fak Fak	50.67	288	P	P	17 25 10.4	-0.7
VNDA	Vanda	52.77	185	P	P	17 25 25.4	+0.2
	comp=Z,0.9nm,0.7s,baz=356,slow=6.0,SNR=7.3						
	comp=Z,0.9nm,0.7s						
VNDA	Vanda	52.77	185	P	P	17 25 25.1	0.0
CASY	Casey	58.51	206	P	P	17 26 04.7	-0.6
TOLI2	Tolitoli	62.59	286	P	P	17 26 33.3	+0.1
TOLI2				IAmb	IAmb	17 26 35.5	
	comp=Z,6.2nm,1.1s						
QSPA	South Pole Qui	64.60	180	P	P	17 26 45.9	+0.6
	comp=Z,7.7nm,0.6s,baz=340,slow=0.7,SNR=85						
	comp=Z,7.7nm,0.6s						
QSPA	South Pole Qui	64.60	180		P	17 26 45.6	+0.3
QSPA				IAmb	IAmb	17 26 46.8	
	comp=Z,9.4nm,0.8s						
MJAR	Matsushiro Arr	72.98	326	P	P	17 27 36.4	+0.2
	comp=Z,1.4nm,0.6s,baz=148,slow=7.1,SNR=3.9						
	comp=Z,1.4nm,0.6s						
MJAR	Matsushiro Arr	72.98	326	P	P	17 27 36.3	+0.1
MJB9	Matsu-Tunnel	72.98	326	P	P	17 27 36.6	+0.4
MJB9				IAmb	IAmb	17 28 19.6	
	comp=Z,4.3nm,0.9s						
BELA	Belgrano 2	74.92	173	P	P	17 27 46.1	-0.5
BELA				IAmb	IAmb	17 27 46.6	
	comp=Z,5.6nm,0.6s						
MAW	Mawson	76.12	201	P	P	17 27 53.6	+0.1
	comp=Z,2.0nm,0.6s,baz=139,slow=7.3,SNR=6.0						
	comp=Z,2.0nm,0.6s						
MAW	Mawson	76.12	201	P	P	17 27 53.5	+0.1
ADK	Adak	77.11	2	P	P	17 27 59.0	+0.1
KSRS	Korea Array	79.20	321	P	P	17 28 11.2	+0.8
	comp=Z,1.1nm,0.6s,baz=137,slow=6.4,SNR=5.0						
	comp=Z,1.1nm,0.6s						
PEA0B	Petropavlovsk-	80.54	347	P	P	17 28 17.8	+0.6
PETK	Petropavlovsk-	80.54	347	P	P	17 28 18.3	+1.1
	comp=Z,1.2nm,0.5s,baz=160,slow=5.4,SNR=1.8						
	comp=Z,1.2nm,0.5s						
ESPZ	Base Esperanza	80.92	158	P	P	17 28 19.0	-0.1
TROLL	Troll, Antarti	82.74	181	⇑P	P	17 28 28.2	-0.3
	comp=Z,764nm,0.5s						
SNAA	Sanae	83.09	179	P	P	17 28 29.2	-1.0
	comp=Z,3.7nm,0.9s,baz=236,slow=15,SNR=5.6						
	comp=Z,3.7nm,0.9s						
SNAA	Sanae	83.09	179	P	P	17 28 29.9	-0.3
VNA3	Neumayer Olymp	83.32	177	⇑P	P	17 28 30.6	-0.7
	comp=Z,15nm,0.7s						
VNA2	Neumayer--Watz	83.73	178	⇑P	P	17 28 32.8	-0.5
	comp=Z,2.8nm,0.6s,baz=185,slow=3.9						
VNA1	Neumayer--Stat	83.97	177	⇑P	P	17 28 35.0	+0.6
	comp=Z,7.1nm,1.0s						
O02D	Mt. Diablo Mer	84.53	41	P	P	17 28 38.8	+1.0
O02D				IAmb	IAmb	17 28 40.8	
	comp=Z,4.2nm,0.9s						
KHBM	Hayfork Bally	84.58	40	P	P	17 28 38.3	+0.1
KRMB	Red Mountain	84.75	39	P	P	17 28 39.6	+0.7
KRMB				IAmb	IAmb	17 29 18.5	
	comp=Z,13nm,1.4s						
CLC	China Lake	85.08	47	P	P	17 28 41.9	+1.4
M02C	Callahan	85.27	40	P	P	17 28 42.8	+1.5
M02C				IAmb	IAmb	17 28 49.5	
	comp=Z,4.8nm,1.4s						
MPMC	Manual Prospec	85.29	46	P	P	17 28 42.4	+0.6
YBH	Yreka Blue Hor	85.57	39	P	P	17 28 42.2	-0.6
	comp=Z,0.8nm,0.5s,baz=218,slow=3.8,SNR=3.6						
	comp=Z,0.8nm,0.5s						
YBH	Yreka Blue Hor	85.57	39	P	P	17 28 43.8	+1.0
GRAC	Grapevine Rang	85.92	46	P	P	17 28 45.5	+0.9
GRAC				IAmb	IAmb	17 28 47.3	
	comp=Z,2.2nm,0.8s						
GMN	Gold Mountain	86.17	46	P	P	17 28 46.7	+0.8
NVAR	Mina Array Bea	86.17	44	P	P	17 28 46.4	+0.5
	comp=Z,1.4nm,0.8s,baz=223,slow=8.6,SNR=7.6						
	comp=Z,1.4nm,0.8s						
TPNV	Topopah Spring	86.62	46		P	17 28 49.1	+1.0
TPH	Tonopah	86.65	45	P	P	17 28 49.1	+0.9
TPH				IAmb	IAmb	17 28 50.2	

	comp=Z,4.4nm,1.0s						
KVN	**Kaiserville**	**86.67**	**44**	P	**P**	**17 28 49.1**	**+0.8**
J04A	**Umpqua Nationa**	**86.88**	**39**	P	**P**	**17 28 50.6**	**+1.5**
J04A				IAmb	IAmb	17 28 51.6	
	comp=Z,13nm,1.1s						
Q19K	**Cape Douglas,**	**86.99**	**14**	P	**P**	**17 28 49.2**	**+0.1**
K05A	**Summer Lake**	**87.24**	**39**	P	**P**	**17 28 52.0**	**+1.2**
K05A				IAmb	IAmb	17 28 53.4	
	comp=Z,5.0nm,1.1s						
PLCA	**Paso Flores**	**87.45**	**134**	P	**P**	**17 28 53.0**	**+1.0**
	comp=Z,4.7nm,1.1s,baz=242,slow=7.2,SNR=3.2						
	comp=Z,4.7nm,1.1s						
O18K	**Koktuh Hills**	**87.53**	**12**	P	**P**	**17 28 51.7**	**+0.1**
O18K				IAmb	IAmb	17 29 12.2	
	comp=Z,9.6nm,1.1s						
WIFE	**Three Sisters-**	**87.56**	**38**	P	**P**	**17 28 53.8**	**+1.5**
WIFE				IAmb	IAmb	17 28 54.8	
	comp=Z,3.8nm,0.8s						
PINE	**Pine Mountain**	**87.88**	**39**		**P**	**17 28 54.1**	**+0.3**
PINE				IAmb	IAmb	17 28 56.5	
	comp=Z,5.5nm,0.8s						
ILSW	**Iliamna Southw**	**88.06**	**13**	P	**P**	**17 28 54.5**	**+0.4**
ILSW				IAmb	IAmb	17 29 18.1	
	comp=Z,8.2nm,1.2s						
EFI	**East Falkland**	**88.08**	**148**	P	**P**	**17 28 55.0**	**+0.5**
N18K	**Kilae Creek**	**88.16**	**12**	P	**P**	**17 28 54.6**	**+0.2**
N18K				IAmb	IAmb	17 29 08.3	
	comp=Z,8.2nm,1.4s						
M17K	**Holitna River**	**88.56**	**11**	P	**P**	**17 28 57.2**	**+0.9**
U15A	**North Rim**	**88.96**	**48**	P	**P**	**17 29 00.4**	**+1.3**
U15A				IAmb	IAmb	17 29 01.8	
	comp=Z,3.1nm,0.9s						
L18K	**Granite Mounta**	**89.46**	**11**	P	**P**	**17 29 01.3**	**+0.8**
L18K				IAmb	IAmb	17 29 42.1	
	comp=Z,6.7nm,1.4s						
CMAR	**Chiang Mai Arr**	**89.69**	**291**	P	**P**	**17 29 03.4**	**+0.8**
	comp=Z,0.2nm,0.3s,baz=119,slow=5.2,SNR=4.5						
	comp=Z,0.2nm,0.3s						
CMAR	**Chiang Mai Arr**	**89.69**	**291**	P	**P**	**17 29 02.2**	**-0.4**
L19K	**White Mountain**	**89.75**	**12**	P	**P**	**17 29 02.5**	**+0.6**
L19K				IAmb	IAmb	17 29 03.4	
	comp=Z,3.4nm,0.9s						
SUA	**Susitna One**	**89.91**	**14**	P	**P**	**17 29 02.9**	**+0.1**
J17K	**VABM Dome**	**90.18**	**9**	P	**P**	**17 29 04.0**	**+0.3**
TXAR	**Lajitas Array**	**91.61**	**58**	P	**P**	**17 29 12.4**	**+1.1**
	comp=Z,0.9nm,0.9s,baz=210,slow=7.2,SNR=9.0						
	comp=Z,0.9nm,0.9s						
TXAR	**Lajitas Array**	**91.61**	**58**	P	**P**	**17 29 11.8**	**+0.5**
KURK	**Kurchatov**	**116.06**	**316**		**PKPdf**	**17 34 41.6**	**-1.6**
KURBB	**Kurchatov Arra**	**116.10**	**316**	PKP	**PKPdf**	**17 34 41.6**	**-1.7**
	comp=Z,0.7nm,0.2s,baz=116,slow=1.6,SNR=5.6						
AAK	**Ala-Archa**	**117.52**	**307**	PKP	**PKPdf**	**17 34 47.1**	**+0.5**
	comp=Z,0.7nm,0.3s,baz=344,slow=7.2,SNR=1.4						
BVAR	**Borovoye Array**	**121.35**	**318**	PKP	**PKPdf**	**17 34 52.8**	**-0.6**
	comp=Z,1.8nm,0.5s,baz=132,slow=3.4,SNR=9.7						
ARCES	**ARCESS Array B**	**133.35**	**348**	PKP	**PKPdf**	**17 35 15.5**	**-0.2**
	comp=Z,1.7nm,0.8s,baz=51,slow=2.0,SNR=7.5						
ARCES				SKPbc	**SKPbc**	**17 37 57.0**	**+0.6**
	comp=Z,5.8nm,1.1s,baz=356,slow=3.6,SNR=4.9						
FINES	**FINESS Array B**	**139.81**	**341**	PKhKP	PKPpre	17 35 20.0	
	comp=Z,1.4nm,0.8s,baz=291,slow=3.3,SNR=5.7						
FINES				PKP	**PKPdf**	**17 35 28.0**	**+0.1**
	comp=Z,2.0nm,0.7s,baz=30,slow=1.7,SNR=5.5						
FINES				SKPbc	**SKPbc**	**17 38 16.2**	**+0.5**
	comp=Z,2.4nm,0.7s,baz=53,slow=4.1,SNR=9.7						
KBZ	**Khabaz**	**140.47**	**309**	PKP	**PKPdf**	**17 35 29.0**	**-0.6**
	comp=Z,0.7nm,0.6s,baz=98,slow=6.4,SNR=1.7						
NC303	**NORSAR Array S**	**143.38**	**350**		PKPab	17 35 32.4	+0.1
NB2	**NORSAR Subarra**	**143.58**	**350**	PKP	PKPab	17 35 33.2	0.0
	comp=Z,2.5nm,0.5s,baz=16,slow=3.3						
NOA	**NORSAR Array B**	**143.58**	**350**	PKP	PKPab	17 35 33.3	+0.1
	comp=Z,4.2nm,0.7s,baz=22,slow=3.8,SNR=16						
HFS	**Hagfors**	**144.01**	**348**	PKP	PKPbc	17 35 34.4	-0.3
	comp=Z,4.2nm,0.4s,baz=48,slow=4.4,SNR=28						
AKASG	**Malin Array Be**	**146.06**	**326**	PKPbc	**PKPdf**	**17 35 40.8**	**+1.6**
	comp=Z,1.2nm,0.4s,baz=46,slow=4.1,SNR=9.2						
AKASG				SKP	**SKPdf**	**17 38 24.1**	**-0.9**
	comp=Z,0.4nm,0.5s,baz=64,slow=2.2,SNR=1.4						
MMAI	**Mount Meron Ar**	**147.95**	**292**	PKPbc	**PKPbc**	**17 35 46.7**	**-0.2**
	comp=Z,3.8nm,0.4s,baz=64,slow=7.6,SNR=20						
BRTR	**Keskin Array B**	**148.18**	**305**	PKPbc	**PKPbc**	**17 35 47.5**	**+0.2**
	comp=Z,0.7nm,0.4s,baz=124,slow=2.9,SNR=5.2						
BRTR	**Keskin Array B**	**148.18**	**305**		**PKPbc**	**17 35 46.3**	**-1.0**
EKA	**Eskdalemuir Ar**	**150.12**	**3**	PKPbc	**PKPbc**	**17 35 51.0**	**-0.3**
	comp=Z,0.9nm,0.4s,baz=350,slow=3.1,SNR=8.5						
KOLS	**Kolonicke sedl**	**150.63**	**329**	*e*PKP	**PKPbc**	**17 35 52.9**	**+0.2**
OSTC	**Ostas**	**151.87**	**337**	⇑*e*PKP	**PKPbc**	**17 35 56.4**	**+0.9**
DPC	**Dobruska-Polom**	**152.00**	**337**	⇑*e*PKP	**PKPbc**	**17 35 56.8**	**+1.0**
KRLC	**Kraliky**	**152.06**	**336**	⇑*e*PKP	**PKPbc**	**17 35 56.8**	**+0.9**
CLL	**Collm**	**152.24**	**342**	*i* PKPbc	**PKPbc**	**17 35 56.8**	**+0.6**
	comp=Z,5.0nm,0.6s						
CLL				*i* PKPab	**PKPab**	**17 36 08.7**	**+0.2**
KHC	**Kasperske Hory**	**153.98**	**339**	*e*PKPAB	**PKPab**	**17 36 11.0**	**-5.0**
TORD	**Torodi Ar. Bea**	**167.56**	**190**	PKP	**PKPdf**	**17 36 05.9**	**-1.0**
	comp=Z,0.4nm,0.7s,baz=246,slow=2.5,SNR=2.1						
TORD				PKPab	**PKPab**	**17 37 15.5**	**-0.6**
	comp=Z,1.3nm,0.8s,baz=180,slow=3.7,SNR=6.4						

SDD ***11*** *17:21:13.5±2.1, 18.°98N×73.°28W, h51^{km}±999^{km}, MD3.7, ML2.7, MW3.0, Presumed earthquake*
OSPL ***11*** *17:21:15.1±1.5, 19.°05N×73.°20W, h0^{km}±11^{km}, ML2.7, Presumed earthquake*
ISC 11 17:21:15.3±2.6**, 19.°02N**±0.°07×**73.°30W**±0.°05**, h31**^{km}±26^{km}**, n16, σ0^{s}86**/24**, 12C, Haiti region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JIDR	**Jimani**	**1.48**	**111**	⇑*i*P	**Pn**	**17 21 38.0**	**-1.7**
JIDR				*i* S	**Sn**	**17 21 58.1**	**+0.1**
JIDR				IAML		17 22 01.0	
	comp=N,66nm,0.3s						
LODA1	**ITESIL, Dajabo**	**1.60**	**71**	*i* P	**Pn**	**17 21 41.3**	**-0.2**
LODA1				*e*S	**Sn**	**17 22 00.4**	**-0.6**
LODA1				IAML		17 22 02.0	
	comp=Z,708nm,2.0s						
MCDR	**Montecristi**	**1.78**	**61**	⇑*i*P	**Pn**	**17 21 44.7**	**+0.8**
MCDR				⇑*i*S	**Sn**	**17 22 06.6**	**+1.1**
MCDR				IAML		17 22 08.8	
	comp=N,111nm,0.2s						
LONE3	**El Aguacate, B**	**1.80**	**103**	*i* P	**Pn**	**17 21 43.5**	**-0.8**
LONE3				*e*S	**Sn**	**17 22 06.7**	**+0.6**
LONE3				IAML		17 22 08.8	
	comp=Z,25nm,1.9s						
REDR	**Restauracion**	**1.81**	**85**	⇑*i*P	Pn	17 21 39.5	-4.8
REDR				IAML		17 22 00.9	
	comp=N,348nm,0.2s						
QMBU	**Quimbuelo**	**1.84**	**310**	⇑*i*P	**Pn**	**17 21 44.4**	**-0.5**
QMBU				⇑*i*S	**Sn**	**17 22 05.5**	**-1.6**
QMBU				IAML		17 22 41.6	
	comp=N,12nm,1.2s						
LODU1	**El Espartillar**	**1.86**	**111**	*i* P	**Pn**	**17 21 45.2**	**+0.2**
LODU1				IAML		17 22 13.3	
	comp=Z,50nm,0.3s						
SDDR	**Presa de Saban**	**1.91**	**91**	*i* P	**Pn**	**17 21 45.9**	**+0.1**
SDDR				*e*S	**Sn**	**17 22 09.0**	**+0.2**
SDDR	**Presa de Saban**	**1.91**	**91**	⇑*i*P	**Pn**	**17 21 45.1**	**-0.7**
SDDR				⇑*i*S	**Sn**	**17 22 08.3**	**-0.4**
SDDR				IAML		17 22 15.4	
	comp=N,48nm,0.4s						
GTBY	**Guantanamo Bay**	**1.93**	**298**	*i* P	**Pn**	**17 21 47.7**	**+1.7**
GTBY				*e*S	**Sb**	**17 22 13.6**	**+0.1**
GTBY	**Guantanamo Bay**	**1.93**	**298**	⇑*i*P	**Pn**	**17 21 45.8**	**-0.2**
GTBY				IAML		17 22 20.8	
	comp=N,18nm,1.1s						
LOBH	**Bahia de las A**	**1.96**	**126**	*i* P	**Pn**	**17 21 46.0**	**-0.4**
LOBH				*e*S	**Sn**	**17 22 10.7**	**+0.8**
LOBH				IAML		17 22 15.0	
	comp=Z,38nm,1.7s						
PODR	**Polo**	**2.10**	**114**	⇑*i*P	**Pn**	**17 21 48.6**	**+0.1**
LOPP1	**Punta Rusia, P**	**2.15**	**67**	*i* P	**Pn**	**17 21 48.4**	**-0.7**
LOPP1				IAML		17 22 21.0	
	comp=Z,59nm,1.1s						
LOVI	**El Cajuil, Ovi**	**2.21**	**123**	*i* P	**Pn**	**17 21 50.0**	**+0.2**
LOVI				IAML		17 22 22.7	
	comp=Z,52nm,0.6s						
ABDR	**Alto Bandera**	**2.54**	**94**	⇑*i*P	Pn	17 21 56.0	+1.2
ABDR				⇑*i*S	**Sn**	**17 22 25.6**	**+0.7**
ABDR				IAML		17 22 30.7	
	comp=N,27nm,0.6s						

IDC ***11*** *17:36:06.4±8.1, 36.°38N×71.°40E, h137^{km}±72^{km}, mb3.0/1, mbtmp3.4/6, MS3.1/1, Error ellipse: s-maj=64.2km s-min=42.7km az=45.0*
NNC ***11*** *17:36:08.6±6.3, 37.°88N×71.°50E, h0^{km}, mb3.9, mpv3.7, Error ellipse: s-maj=44.7km s-min=40.2km az=164.0*
ISC 11 17:36:02.5±1.5**, 36.°2N**±0.°1×**71.°1E**±0.°2**, h102**^{km}**, n14, σ1^{s}72**/14**, 1C-2D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IUG	**Iuzhnay**	**5.99**	**352**	Pg	**Pn**	**17 37 30.6**	**+1.9**
	6.9nm,0.2s						
IUG				Lg	Lg	17 38 33.0	
	8.8nm,0.3s						
MRKS	**Merke**	**6.72**	**13**	Pg	**Pn**	**17 37 40.4**	**+1.8**
	6.8nm,0.2s						
MRKS				Lg	Lg	17 38 50.5	
	8.2nm,0.3s						
BRLS	**Borolday**	**6.88**	**352**	Pg	**Pn**	**17 37 38.7**	**-2.1**
	3.3nm,0.1s						
BRLS				Lg	Lg	17 38 47.2	
	3.5nm,0.2s						
KK31	**Karatay Array**	**6.90**	**356**	Pg	**Pn**	**17 37 42.6**	**+1.7**
	3.3nm,0.3s,baz=179,slow=12,SNR=52						
KK31				⇓Lg	Lg	17 38 53.6	
	1.8nm,0.5s,baz=187,slow=24,SNR=5.8						
AAK	**Ala-Archa**	**6.92**	**21**	P	**Pn**	**17 37 43.1**	**+1.6**
	1.8nm,0.3s,baz=183,slow=7.2,SNR=4.7						
AAK				S	**Sn**	**17 38 56.4**	**-2.4**
	2.5nm,0.5s,baz=146,slow=23,SNR=7.3						
AAK	**Ala-Archa**	**6.92**	**21**	⇓Pg	**Pn**	**17 37 44.4**	**+3.0**
	0.4nm,0.4s						
AAK				⇑Lg	Lg	17 38 57.9	
	2.5nm,0.8s						
MKAR	**Makanchi Array**	**13.46**	**35**	P	**Pn**	**17 39 09.8**	**+0.6**
	0.4nm,0.9s,baz=218,slow=16,SNR=1.6						
AB31	**Akbulak array**	**15.39**	**331**	P	**Pn**	**17 39 33.7**	**-0.2**
	0.2nm,0.3s,baz=152,slow=11,SNR=12						
BVAR	**Borovoye Array**	**16.82**	**358**	P	**P**	**17 39 51.8**	**-0.2**
	0.5nm,0.5s,baz=172,slow=12,SNR=2.6						
AKTO	**Aktyubinsk**	**17.08**	**330**	P	**P**	**17 39 55.3**	**+0.3**
	0.7nm,0.3s,baz=208,slow=1.4,SNR=4.3						
ZALV	**Zalesovo Beam**	**20.13**	**24**	P	**P**	**17 40 27.8**	**-0.4**
	0.4nm,0.4s,baz=210,slow=13,SNR=2.3						
DAVOX	**Davos/Dischmat**	**46.01**	**303**	LR	LR	18 05 43.5	
	comp=Z,20nm,18.6s,baz=167,slow=39						
WRA	**Warramunga Arr**	**81.75**	**122**	P	**P**	**17 48 09.2**	**-0.8**
	0.1nm,0.4s,baz=318,slow=5.2,SNR=6.6						
	0.1nm,0.4s						
ASAR	**Alice Springs**	**84.00**	**125**	P	**P**	**17 48 21.3**	**-0.4**
	10nm,0.3s,baz=314,slow=5.2,SNR=4.6						

AZER ***11*** *17:43:47.1, 38.°55N×44.°62E, h10^{km}, ml2.6*
ISK ***11*** *17:43:47.9, 38.°59N×44.°45E, h5^{km}, ML2.7/9*
TEH ***11*** *17:43:52.5, 38.°53N×44.°98E, h4^{km}±138^{km}, ML2.6, Presumed earthquake*
ISC 11 17:43:47.1±1.2**, 38.°54N**±0.°03×**44.°62E**±0.°02**, h4**^{km}±11^{km}**, n29, σ1^{s}26**/46**, Turkey-Iran border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CLDR	**Caldiran**	**0.81**	**318**	Pg	**Pg**	**17 44 01.8**	**-0.9**
CLDR				Sg	**Sg**	**17 44 13.1**	**-0.2**
CLDR				AML	AML		
ISHB	**Shabestar**	**0.83**	**108**	Pg	**Pb**	**17 44 03.8**	**-0.4**
IMRD	**Marand**	**0.87**	**78**	Pg	**Pg**	**17 44 04.0**	**+0.2**
NAX	**Nakhchivan**	**0.93**	**47**	P	**Pb**	**17 44 05.6**	**-0.3**
NAX				S	**Sn**	**17 44 20.4**	**-0.6**
VANB	**Van**	**0.96**	**274**	Pg	**Pg**	**17 44 04.7**	**-0.9**
VANB				Sg	**Sg**	**17 44 17.6**	**-0.5**
VANB				AML	AML		
SBZ	**Shahbuz**	**1.12**	**40**	P	**Pg**	**17 44 08.8**	**+0.1**
SBZ				S	**Sn**	**17 44 27.0**	**+1.1**
ORD	**Ordubad**	**1.15**	**70**	P	**Pn**	**17 44 10.2**	**+0.1**
ORD				S	**Sn**	**17 44 27.1**	**+0.8**
HYR	**Heyderabad**	**1.19**	**9**	P	**Pg**	**17 44 11.1**	**+1.1**
HYR				S	**Sn**	**17 44 28.1**	**+0.6**
HAKT	**HAKKARI**	**1.22**	**217**	P	**Pb**	**17 44 10.2**	**-0.6**
HAKT				S	**Sn**	**17 44 29.8**	**+1.6**
ITBZ	**Tabriz**	**1.24**	**104**	Pg	**Pn**	**17 44 10.6**	**-0.8**
AKDM	**Akdamar-Van**	**1.30**	**261**	Pn	**Pn**	**17 44 10.6**	**-1.7**
AKDM				Sn	**Sn**	**17 44 29.1**	**-1.2**
AKDM				AML	AML		
IAZR	**Azarshahr**	**1.38**	**128**	Pg	**Pg**	**17 44 14.1**	**+0.6**
IGDI	**IGDIR**	**1.39**	**343**	P	**Pg**	**17 44 14.3**	**+0.5**
IGDI				S	**Sg**	**17 44 37.1**	**+5.3**
TASB	**TASBURUN-IGDIR**	**1.47**	**349**	Pn	**Pg**	**17 44 15.6**	**+0.3**
TASB				Sn	**Sg**	**17 44 35.9**	**+1.5**
TASB				AML	AML		
CUKT	**Cukurca**	**1.52**	**212**	Pn	**Pg**	**17 44 17.3**	**+1.1**
CUKT				AML	AML		
GNI	**Garni**	**1.61**	**3**	Pn	**Pg**	**17 44 18.1**	**+0.1**
GNI				AML	AML		
AGRB	**Hanur-Agry**	**1.63**	**310**	Pn	**Pb**	**17 44 17.1**	**-0.9**
AGRB				AML	AML		
IHRS	**Heris**	**1.92**	**96**	Pg	**Pb**	**17 44 23.0**	**+0.2**
GURO	**Guroymak-BITLI**	**2.03**	**271**	Pn	**Pn**	**17 44 22.6**	**+0.4**
GURO				AML	AML		
QRD	**Qoradiz**	**2.30**	**66**	P	**Pb**	**17 44 28.3**	**-0.9**
QRD				S	**Sg**	**17 45 00.2**	**-0.8**
GDB	**GEDABAY**	**2.35**	**22**	P	**Pb**	**17 44 29.2**	**-1.0**
GDB				S	**Sg**	**17 45 02.0**	**-0.6**
GANJ	**Ganja**	**2.48**	**32**	P	**Pb**	**17 44 31.5**	**-0.9**
GANJ				S	**Sg**	**17 45 05.9**	**-1.0**
AGDM	**Agdam**	**2.49**	**50**	P	**Pb**	**17 44 31.2**	**-1.2**
AGDM				S	**Sg**	**17 45 06.1**	**-0.9**
ISRB	**Sarab**	**2.51**	**106**	Pn	**Pb**	**17 44 33.0**	**+0.1**
GRMI	**Germi**	**2.58**	**83**	Pn	**Pb**	**17 44 32.8**	**-1.2**
QZX	**Qazax, Azerbai**	**2.58**	**13**	P	**Pb**	**17 44 32.9**	**-1.1**
QZX				S	**Sb**	**17 45 07.0**	**+0.8**
SVAN	**Silvan-Diyarba**	**2.72**	**263**	Pn	**Pn**	**17 44 32.4**	**+0.8**
YRD	**Yardimli**	**2.86**	**81**	P	**Pb**	**17 44 36.6**	**-2.2**
YRD				S	**Sb**	**17 45 14.9**	**+0.6**
LRK	**Lerik**	**2.92**	**87**	P	**Pb**	**17 44 38.1**	**-1.8**
LRK				S	**Sb**	**17 45 16.1**	**+0.1**

IDC ***11*** *17:52:10.8±0.5, 5.°70S×29.°58E, h0^{km}, mb4.1/23, mbtmp4.1/27, ML1.9/1, MS3.6/26, Error ellipse: s-maj=19.2km s-min=9.7km az=92.0*
NEIC ***11*** *17:52:10.9±1.6, 5.°86S±0.°02×29.°76E±0.°09, h10^{km}±1^{km}, mb4.4/39, Error ellipse: s-maj=15.2km s-min=3.2km az=82.0*
GFZ ***11*** *17:52:11.9±0.3, 6°S±4°×3°0E±°, h10^{km}, M4.5/11, mb4.5/11, Error ellipse: s-maj=13.9km s-min=7.2km az=107.2, confirmed*
ISC 11 17:52:11.8±0.4**, 5.°84S**±0.°04×**29.°67E**±0.°08**, h15**^{km}**, n114, σ1^{s}66**/99**, mb4.4**/43**, MS3.6**/20**, 4C, Lake Tanganyika region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MBAR	**Mbarara**	**5.32**	**12**	Pn	**Pn**	**17 53 31.3**	**+0.4**
	76nm,0.3s,baz=188,slow=1.4,SNR=47						
MBAR				Sn	**Sn**	**17 54 30.3**	**-1.8**
	252nm,0.3s,baz=74,slow=23,SNR=9.6						
MBAR				Lg	Lg	17 54 49.4	
	175nm,0.3s,baz=68,slow=22,SNR=6.2						
MBAR				LR	LR	17 55 46.3	
	comp=Z,607nm,21.9s,baz=187,slow=42						
MBAR	**Mbarara**	**5.32**	**12**		**Pn**	**17 53 31.5**	**+0.6**
MBAR	**Mbarara**	**5.32**	**12**	P	**Pn**	**17 53 32.3**	**+1.4**
	comp=Z,113nm,0.6s						
KMBO	**Kilima Mbogo**	**8.90**	**59**	LR	LR	17 57 58.6	
	comp=Z,568nm,19.8s,baz=72,slow=39						
KIBK	**Kibwezi**	**9.05**	**68**		**Pn**	**17 54 19.4**	**-2.8**
KIBK	**Kibwezi**	**9.05**	**68**	P	**Pn**	**17 54 21.7**	**-0.5**
	comp=Z,34nm,0.8s						
LSZ	**Lusaka**	**9.49**	**189**	Pn	**Pn**	**17 54 29.4**	**+1.2**
	comp=Z,15nm,0.3s,baz=8.4,slow=12,SNR=25						
LSZ				Sn	**Sn**	**17 56 07.7**	**-7.0**
	comp=Z,4.1nm,0.3s,baz=120,slow=16,SNR=3.4						
LSZ				Lg	Lg	17 57 06.0	
	comp=Z,6.1nm,0.3s,baz=26,slow=9.5,SNR=6.0						
LSZ				LR	LR	17 57 19.6	
	comp=Z,115nm,20.8s,baz=358,slow=32						
LSZ	**Lusaka**	**9.49**	**189**		**Pn**	**17 54 28.0**	**-0.2**
LSZ	**Lusaka**	**9.49**	**189**	P	**Pn**	**17 54 30.4**	**+2.3**
	comp=Z,37nm,0.9s						
LODK	**Lodwar**	**10.82**	**32**		**Pn**	**17 54 43.3**	**-3.1**
LODK	**Lodwar**	**10.82**	**32**	P	**Pn**	**17 54 43.6**	**-2.8**
	comp=Z,50nm,0.8s						
MATP	**Matopo**	**14.54**	**184**	Pn	**Pn**	**17 55 37.2**	**-0.1**
	comp=Z,4.3nm,0.9s,baz=5.5,slow=15,SNR=4.1						
MATP				Sn	**Sn**	**17 58 14.8**	**-3.6**
	comp=Z,0.3nm,0.3s,baz=298,slow=13,SNR=2.2						
MATP				Lg	Lg	17 59 47.2	
	comp=Z,0.5nm,0.3s,baz=262,slow=21,SNR=3.8						
MATP				LR	LR	18 01 44.7	
	comp=Z,191nm,19.6s,baz=5.0,slow=39						
TSUM	**Tsumeb**	**17.74**	**220**	Pn	**Pn**	**17 56 18.5**	**-0.2**
	comp=Z,0.2nm,0.3s,baz=41,slow=10.0,SNR=5.3						
TSUM				Sn	Sn	17 59 20.2	-16
	comp=Z,0.6nm,0.3s,baz=309,slow=12,SNR=6.4						
TSUM				Lg	Lg	18 01 38.5	
	comp=Z,0.2nm,0.3s,baz=86,slow=14,SNR=3.3						
TSUM				LR	LR	18 03 31.1	
	comp=Z,261nm,19.3s,baz=42,slow=38						
	comp=Z,4.0nm,1.0s						
TSUM				AML	AML		
TSUM	**Tsumeb**	**17.74**	**220**		**Pn**	**17 56 17.5**	**-1.2**
TSUM	**Tsumeb**	**17.74**	**220**	P	**P**	**17 56 19.2**	**-0.3**
	comp=Z,19nm,1.2s						
LBTB	**Lobatse**	**19.46**	**191**	P	**Pn**	**17 56 39.4**	**-0.1**
	comp=Z,4.2nm,0.8s,baz=7.7,slow=14,SNR=5.6						
LBTB				S	**Sn**	**18 00 16.9**	**-0.8**
	comp=Z,3.7nm,0.9s,baz=263,slow=16,SNR=1.9						
LBTB				Lg	Lg	18 02 16.9	
	comp=Z,0.2nm,0.3s,baz=142,slow=22,SNR=1.5						
LBTB				LR	LR	18 04 25.9	
	comp=Z,366nm,18.5s,baz=24,slow=38						
LBTB	**Lobatse**	**19.46**	**191**		**P**	**17 56 35.2**	**-3.0**
LBTB	**Lobatse**	**19.46**	**191**	P	**Pn**	**17 56 39.1**	**-0.3**
	comp=Z,13nm,2.2s						
OPO	**Ambohidratompo**	**21.26**	**128**	P	**P**	**17 57 01.8**	**+3.9**
	comp=Z,4.4nm,1.0s,baz=341,slow=19,SNR=1.9						
OPO				LR	LR	18 04 28.7	
	comp=Z,180nm,18.7s,baz=113,slow=34						
	comp=Z,4.4nm,1.0s						
ABPO	**Ambohimpanom**	**21.54**	**129**	P	**P**	**17 56 57.6**	**-3.4**
ABPO				IAmb	IAmb	17 57 29.8	
	comp=Z,24nm,1.4s						
ATD	**Arta Tunnel**	**21.68**	**37**	Lg	Lg	18 03 35.2	
	baz=218,slow=21,SNR=1.0						
EDA	**Edea**	**21.71**	**296**	P	**P**	**17 56 59.9**	**-2.7**
VOI	**Vohitsoka**	**23.01**	**136**	P	**P**	**17 57 14.8**	**-1.7**
VOI				IAmb	IAmb	17 57 32.7	
	comp=Z,23nm,1.4s						
BOSA	**Boshof**	**23.03**	**190**	P	**P**	**17 57 18.6**	**+1.9**
	comp=Z,5.7nm,1.0s,baz=22,slow=8.6,SNR=5.1						
BOSA				Lg	Lg	18 04 13.2	
	comp=Z,0.1nm,0.3s,baz=86,slow=22,SNR=2.4						
BOSA				LR	LR	18 06 34.2	
	comp=Z,322nm,18.1s,baz=32,slow=37						
	comp=Z,5.7nm,1.0s						
BOSA	**Boshof**	**23.03**	**190**		**P**	**17 57 15.6**	**-1.0**
BOSA	**Boshof**	**23.03**	**190**	P	**P**	**17 57 19.9**	**+3.2**
	comp=Z,25nm,1.9s						
SUR	**Sutherland**	**27.67**	**196**	LR	LR	18 08 28.0	
	comp=Z,150nm,20.1s,baz=56,slow=35						
TORD	**Torodi Ar. Bea**	**33.59**	**304**	P	**P**	**17 58 51.3**	**-0.5**
	comp=Z,9.5nm,0.8s,baz=118,slow=8.3,SNR=54						
	comp=Z,9.5nm,0.8s						
EIL	**Elat**	**35.67**	**8**	LR	LR	18 13 07.0	
	comp=Z,71nm,19.1s,baz=178,slow=35						
SHEL	**Horse Pasture**	**36.14**	**251**	P	**P**	**17 59 13.1**	**-0.8**
DBIC	**Dimbokro**	**36.63**	**289**	P	**P**	**17 59 17.5**	**-0.5**
	comp=Z,3.7nm,0.6s,baz=112,slow=7.7,SNR=5.2						
	comp=Z,3.7nm,0.6s						
DBIC	**Dimbokro**	**36.63**	**289**	P	**P**	**17 59 17.6**	**-0.4**
DBIC				IAmb	IAmb	17 59 26.5	
	comp=Z,15nm,1.4s						
ASF	**Jabal al Asfar**	**38.43**	**10**	LR	LR	18 13 57.4	
	comp=Z,49nm,18.4s,baz=206,slow=34						
MMAI	**Mount Meron Ar**	**39.03**	**8**	LR	LR	18 15 03.9	
	comp=Z,62nm,18.0s,baz=180,slow=35						
ITM	**Ithomi**	**43.41**	**351**	P	**P**	**18 00 14.3**	**+0.3**
ITM				IAmb	IAmb	18 00 31.2	
	comp=Z,7.7nm,1.0s						
MANT	**Manisa**	**44.12**	**359**	P	**P**	**18 00 18.5**	**-1.5**
MANT				IAmb	IAmb	18 00 23.8	
	comp=Z,3.8nm,0.6s						
RAFF	**Raffo Rosso**	**45.17**	**343**		**P**	**18 00 26.7**	**-1.4**
VAE	**Valguarnera**	**45.39**	**343**	LR	LR	18 20 22.8	
	comp=Z,97nm,19.0s,baz=134,slow=37						
BR131	**Keskin Array S**	**45.49**	**4**		**P**	**18 00 30.4**	**-0.4**
BR131				IAmb	IAmb	18 00 32.2	
	comp=Z,3.0nm,0.8s						
BRTR	**Keskin Array B**	**45.49**	**4**	P	**P**	**18 00 31.2**	**+0.5**
	comp=Z,1.7nm,0.6s,baz=180,slow=7.9,SNR=13						
BRTR				LR	LR	18 20 41.9	
	comp=Z,28nm,18.8s,baz=147,slow=38						
	comp=Z,1.7nm,0.6s						
BRTR	**Keskin Array B**	**45.49**	**4**		**P**	**18 00 30.7**	**-0.1**
KEST	**Kesra**	**45.55**	**337**	P	**P**	**18 00 30.7**	**-0.6**
	comp=Z,3.5nm,0.9s,baz=318,slow=8.1,SNR=4.5						
	comp=Z,3.5nm,0.9s						
BZK	**Bozkurt**	**47.74**	**4**	P	**P**	**18 00 48.0**	**-0.2**
GNI	**Garni**	**47.83**	**16**	LR	LR	18 20 38.2	
	comp=Z,39nm,20.1s,baz=196,slow=36						
MDT	**Midelt**	**50.38**	**322**	P	**P**	**18 01 10.2**	**+1.5**
	comp=Z,2.3nm,0.7s,baz=16,slow=6.9,SNR=4.9						
	comp=Z,2.3nm,0.7s						
MD31	**MD31**	**50.51**	**322**	P	**P**	**18 01 09.8**	**0.0**
MD31				IAmb	IAmb	18 01 12.3	
	comp=Z,4.2nm,0.9s						
MD01	**Midelt array s**	**50.51**	**322**	P	**P**	**18 01 09.5**	**-0.3**
KBZ	**Khabaz**	**50.77**	**12**	P	**P**	**18 01 11.7**	**+0.4**
	comp=Z,2.5nm,0.8s,baz=177,slow=4.6,SNR=7.7						
	comp=Z,2.5nm,0.8s						
MLR	**Muntele Rosu**	**51.21**	**357**	LR	LR	18 26 00.7	
	comp=Z,42nm,18.3s,baz=179,slow=40						
PALK	**Pallekele**	**52.56**	**76**	LR	LR	18 20 55.9	
	comp=Z,53nm,19.2s,baz=163,slow=33						
BURAR	**Bucovina Array**	**53.37**	**356**	P	**P**	**18 01 30.7**	**-0.1**
ESBB	**Sonseca Array**	**54.90**	**329**	P	**P**	**18 01 42.2**	**+0.1**
ESBB				IAmb	IAmb	18 01 43.6	
	comp=Z,4.0nm,0.8s						
ESDC	**Sonseca Array**	**54.90**	**329**	P	**P**	**18 01 42.8**	**+0.7**
	comp=Z,3.7nm,0.7s,baz=144,slow=7.4,SNR=38						
	comp=Z,3.7nm,0.7s						
ESDC	**Sonseca Array**	**54.90**	**329**		**P**	**18 01 42.2**	**+0.1**
ESDC				IAmb	IAmb	18 01 43.6	
	comp=Z,5.8nm,0.9s						
PAB	**San Pablo**	**55.01**	**328**	P	**P**	**18 01 42.5**	**-0.4**
PAB				IAmb	IAmb	18 02 11.6	
	comp=Z,7.3nm,1.4s						
TUE	**Stuetta**	**55.13**	**343**	P	**P**	**18 01 43.3**	**-0.5**
TUE				IAmb	IAmb	18 01 58.5	
	comp=Z,7.3nm,1.2s						
DAVOX	**Davos/Dischmat**	**55.26**	**344**	P	**P**	**18 01 43.8**	**-0.9**
	comp=Z,0.9nm,0.5s,baz=170,slow=6.1,SNR=1.7						
DAVOX				LR	LR	18 26 23.8	
	comp=Z,53nm,18.2s,baz=140,slow=37						
	comp=Z,0.9nm,0.5s						
PVAQ	**Vaqueiros**	**55.37**	**324**	P	**P**	**18 01 45.6**	**+0.2**
	comp=Z,10nm,1.8s						
SSB	**Saint Sauveur**	**55.65**	**339**	P	**P**	**18 01 47.1**	**-0.2**
SSB				IAmb	IAmb	18 01 48.5	
	comp=Z,3.0nm,0.8s						
SSB	**Saint Sauveur**	**55.65**	**339**	P	**P**	**18 01 47.4**	**+0.1**
	comp=Z,5.9nm,1.7s						
ATE	**Arette**	**55.94**	**333**	P	**P**	**18 01 50.1**	**+0.6**
	comp=Z,9.5nm,1.0s						
CKRC	**Cesky Krumlov**	**56.07**	**348**	*e*P	P	18 02 03.8	+14
VRAC	**Vranov**	**56.10**	**350**	P	**P**	**18 01 51.8**	**+1.3**
	comp=Z,0.8nm,0.3s,baz=135,slow=17,SNR=1.7						
VRAC				LR	LR	18 29 34.9	
	comp=Z,26nm,19.1s,baz=221,slow=40						
	comp=Z,0.8nm,0.3s						
GEC2	**GERESS Array S**	**56.23**	**347**	P	**P**	**18 01 50.5**	**-1.0**
GEC2				IAmb	IAmb	18 02 04.5	
	comp=Z,2.9nm,1.1s						
GERES	**GERESS Array B**	**56.23**	**347**	P	**P**	**18 01 51.4**	**-0.1**
	comp=Z,0.4nm,0.3s,baz=166,slow=7.8,SNR=4.1						
	comp=Z,0.4nm,0.3s						
GERES	**GERESS Array B**	**56.23**	**347**	P	**P**	**18 01 50.8**	**-0.6**
PESTR	**Estremoz**	**56.29**	**325**	P	**P**	**18 01 52.5**	**+0.5**
	comp=Z,6.7nm,1.8s						
EVO	**Evora**	**56.30**	**325**	P	**P**	**18 01 52.4**	**+0.3**
	comp=Z,1.8nm,0.8s						
AKASG	**Malin Array Be**	**56.32**	**360**	P	**P**	**18 01 52.2**	**+0.3**
	comp=Z,0.2nm,0.3s,baz=189,slow=6.7,SNR=2.0						
	comp=Z,0.2nm,0.3s						
AKASG	**Malin Array Be**	**56.32**	**360**	IAmb	IAmb	18 01 58.0	
	comp=Z,1.9nm,1.1s						
KHC	**Kasperske Hory**	**56.52**	**347**	*e*P	**P**	**18 01 53.6**	**+0.1**
KHC				*e*x	x	18 02 06.6	
ZVC	**Zvikov**	**56.68**	**348**	*e*P	**P**	**18 01 53.7**	**-0.9**
MFF	**Saint Martin d**	**58.54**	**336**	P	**P**	**18 02 07.9**	**+0.2**
	comp=Z,1.8nm,1.6s						
AB31	**Akbulak array**	**60.89**	**22**	P	**P**	**18 02 22.9**	**-0.9**

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
AB31				IAmb	IAmb	18 02 23.6	
	comp=Z,2.4nm,1.1s						
ABKAR	Akbulak array	60.89	22	P	P	18 02 22.9	-0.9
KK31	Karatay Array	61.16	33	P	P	18 02 26.1	+0.2
KK31				IAmb	IAmb	18 02 27.8	
	comp=Z,3.4nm,1.1s						
KKAR	Karatay Array	61.16	33	P	P	18 02 25.8	-0.1
AAK	Ala-Archa	63.10	36	LR	LR	18 32 56.5	
	comp=Z,123nm,18.7s,baz=246,slow=39						
MAW	Mawson	65.64	167	P	P	18 02 57.9	+2.8
	comp=Z,0.9nm,0.8s,baz=9.8,slow=18,SNR=1.7						
	comp=Z,0.9nm,0.8s						
ARTI	Arti	66.35	17		P	18 02 59.4	-0.4
EKA	Eskdalemuir Ar	66.75	340	LR	LR	18 32 32.3	
	comp=Z,44nm,19.0s,baz=183,slow=36						
BRDH	Bariadhala	66.86	62	LR	LR	18 32 34.3	
	comp=Z,75nm,18.1s,baz=170,slow=36						
FINES	FINESS Array B	67.15	358	P	P	18 03 04.1	-0.6
	comp=Z,4.9nm,1.1s,baz=176,slow=13,SNR=4.7						
	comp=Z,4.9nm,1.1s						
BVAR	Borovoye Array	67.98	25	P	P	18 03 10.0	-0.3
	comp=Z,1.3nm,0.8s,baz=188,slow=4.5,SNR=3.8						
	comp=Z,1.3nm,0.8s						
TROLL	Troll, Antarti	68.21	189	⇑P	P	18 03 15.4	+3.9
	comp=Z,131nm,1.1s						
NOA	NORSAR Array B	68.23	350	P	P	18 03 11.0	-0.6
	comp=Z,0.8nm,0.8s,baz=162,slow=5.8,SNR=3.3						
	comp=Z,0.8nm,0.8s						
VNA1	Neumayer--Stat	69.09	193	⇑P	P	18 03 21.0	+4.1
	comp=Z,4.9nm,1.0s						
VNA2	Neumayer--Watz	69.11	192	⇑P	P	18 03 20.4	+3.3
	comp=Z,2.7nm,0.8s,baz=35,slow=6.2						
VNA3	Neumayer Olymp	69.84	193	⇑P	P	18 03 24.6	+3.0
	comp=Z,2.1nm,0.7s						
MAKZ	Makanchi	69.86	35	P	P	18 03 20.8	-1.3
MAKZ				IAmb	IAmb	18 03 34.1	
	comp=Z,5.0nm,1.1s						
MKAR	Makanchi Array	70.03	36	P	P	18 03 23.8	+0.6
	comp=Z,1.7nm,0.9s,baz=242,slow=7.7,SNR=4.1						
MKAR				LR	LR	18 36 52.1	
	comp=Z,46nm,21.3s,baz=147,slow=38						
	comp=Z,1.7nm,0.9s						
MKAR	Makanchi Array	70.03	36	P	P	18 03 22.1	-1.0
KURBB	Kurchatov Arra	70.19	31	P	P	18 03 24.8	+0.8
	comp=Z,3.7nm,0.2s,baz=244,slow=6.9,SNR=4.1						
	comp=Z,3.7nm,0.2s						
KURK	Kurchatov	70.29	31	P	P	18 03 24.8	+0.2
KURK	Kurchatov	70.29	31	IAmb	IAmb	18 03 29.4	
	comp=Z,6.7nm,1.2s						
CMAR	Chiang Mai Arr	72.40	69	P	P	18 03 39.5	+1.5
	comp=Z,0.6nm,0.7s,baz=263,slow=7.4,SNR=4.4						
	comp=Z,0.6nm,0.7s						
ZAA0	Zalesovo Array	75.26	30	P	P	18 03 53.0	-1.0
ZALV	Zalesovo Beam	75.26	30	P	P	18 03 53.6	-0.4
	comp=Z,0.7nm,0.6s,baz=256,slow=6.0,SNR=4.7						
ZALV				LR	LR	18 40 15.8	
	comp=Z,46nm,18.3s,baz=190,slow=38						
	comp=Z,0.7nm,0.6s						
ZALV	Zalesovo Beam	75.26	30	P	P	18 03 53.0	-1.0
KEV	Kevo	75.46	359	P	P	18 03 56.1	+1.2
PZH	PanZhiHua	76.73	61	P	P	18 04 03.3	+0.1
EFI	East Falkland	84.05	219	P	P	18 04 41.9	-0.1
QSPA	South Pole Qui	84.23	180	P	P	18 04 45.3	+2.6
	comp=Z,3.4nm,1.1s,baz=245,slow=3.2,SNR=11						
	comp=Z,3.4nm,1.1s						
QSPA	South Pole Qui	84.23	180	P	P	18 04 44.7	+2.0
SONM	Songino Array	85.46	41	P	P	18 04 50.8	+1.5
	comp=Z,0.5nm,0.6s,baz=256,slow=7.5,SNR=4.3						
	comp=Z,0.5nm,0.6s						
SONM	Songino Array	85.46	41	IAmb	IAmb	18 04 52.3	
	comp=Z,3.9nm,1.5s						
PMSA	Palmer Station	86.34	205	P	P	18 04 52.5	-0.6
HHC	Hu-ho-hao-te	87.68	49	eP	P	18 04 58.9	-1.4
HHC				pmax	pmax		
	comp=Z,17nm,0.6s						
FITZ	Fitzroy Crossi	93.85	109	P	P	18 05 30.0	+0.6
LPAZ	La Paz	95.82	253	LR	LR	18 45 21.2	
	comp=Z,43nm,19.6s,baz=88,slow=33						
SCHQ	Schefferville	98.49	324	LR	LR	18 50 36.1	
	comp=Z,40nm,18.9s,baz=101,slow=36						
PDAR	Pinedale Array	128.55	322	PKP	PKPdf	18 11 19.1	+0.2
	comp=Z,0.6nm,0.8s,baz=72,slow=4.8,SNR=4.2						
TXAR	Lajitas Array	130.20	304	PKP	PKiKP	18 11 23.7	+0.6
	comp=Z,0.4nm,0.8s,baz=132,slow=1.9,SNR=4.1						
NVAR	Mina Array Bea	136.47	323	PKP	PKiKP	18 11 36.6	+0.9
	comp=Z,0.2nm,0.5s,baz=126,slow=0.9,SNR=3.6						

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*KRNET **11** 17:58:35.4±0.1, 41°.89N×78°.55E, h15km, mb3.1*
*SOME **11** 17:58:36.5, 41°.92N×78°.50E, h10km*
*NNC **11** 17:58:37.5±1.0, 41°.95N×78°.53E, h0km, mb3.4, mpv3.5, Error ellipse: s-maj=6.7km s-min=3.6km az=160.0, Suspected Mining explosion.*
ISC 11 17:58:36.8±1.2**, 41°.91N**±0°.05×**78°.50E**±0°.04**, h0km, n50, σ1.s05**/86**, 20C-15D, Kyrgyzstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
TARG	Taragay, Kyrgy	0.55	251	⇓eP	Pg	17 58 46.7	-0.6
TARG				⇓eS	Sg	17 58 54.9	+0.5
PRZ	Przheval'sk	0.58	353	⇑eP	Pg	17 58 47.3	-0.6
PRZ				⇑eS	Sg	17 58 55.9	+0.5
KDJ	Kajisay	1.00	283	⇑eP	Pg	17 58 55.0	-1.1
KDJ				⇑eS	Sg	17 59 09.3	+0.2
ANVS	Anan'yevo	1.07	325	⇓eP	Pg	17 58 56.3	-1.0
ANVS				⇓eS	Sb	17 59 11.7	-1.2
UZB	Uzynbulak	1.30	17	P	Pg	17 59 00.5	-1.2
	6.9nm,0.2s						
UZB				S	Sg	17 59 17.6	-0.9
	27nm,0.2s						
UZB	Uzynbulak	1.30	17	eP	Pg	17 59 00.5	-1.2
	6.9nm,0.2s						
UZB				eS	Sg	17 59 17.6	-0.9
	27nm,0.2s						
KPKS	Kokpek	1.56	5	P	Pn	17 59 05.7	-0.3
	0.2nm,0.1s						
KPKS				S	Sg	17 59 26.3	-0.7
	44nm,0.3s						
KPKS	Kokpek	1.56	5	eP	Pn	17 59 05.7	-0.3
	0.2nm,0.1s						
KPKS				eS	Sg	17 59 26.3	-0.7
	44nm,0.3s						
KURS	Kuram	1.59	351	P	Pn	17 59 06.0	-0.4
	3.3nm,0.1s						
KURS				S	Sg	17 59 28.8	+0.7
	18nm,0.2s						
KURS	Kuram	1.59	351	eP	Pn	17 59 07.0	+0.6
	3.3nm,0.1s						
KURS				eS	Sg	17 59 28.8	+0.7
	18nm,0.2s						
PDGK	Podgornoye	1.60	27	⇑P	Pn	17 59 05.3	-1.2
	4.2nm,0.4s						
PDGK				⇓S	Sn	17 59 26.7	-1.2
	16nm,0.5s						
TNSS	Tian-Shan	1.61	315	P	Pn	17 59 07.2	+0.4
	15nm,0.1s						
TNSS				S	Sn	17 59 28.8	+0.3
	15nm,0.3s						
TNSS	Tian-Shan	1.61	315	eP	Pn	17 59 07.2	+0.4
	15nm,0.1s						
TNSS				eS	Sn	17 59 28.8	+0.3
	15nm,0.3s						
MDOK	Medeo	1.65	320	Pg	Pn	17 59 07.7	+0.5
	18nm,0.2s						
MDOK				Lg	Lg	17 59 29.9	
	40nm,0.3s						
MDOK	Medeo	1.65	320	eP	Pn	17 59 07.7	+0.5
	18nm,0.2s						
MDOK				eS	Sg	17 59 29.9	+0.2
	40nm,0.3s						
KOTS	Kotyrbulak	1.67	323	P	Pn	17 59 08.4	+0.8
	41nm,0.2s						
KOTS				S	Sg	17 59 30.9	+0.4
	49nm,0.2s						
KOTS	Kotyrbulak	1.67	323	eP	Pn	17 59 08.4	+0.8
	41nm,0.2s						
KOTS				eS	Sg	17 59 30.9	+0.4
	49nm,0.2s						
ULHL	Ulahol	1.71	282	⇑eP	Pn	17 59 07.8	-0.3
ULHL				⇑eS	Sb	17 59 31.4	0.0
KNDC	Almaty	1.73	320	⇑P	Pb	17 59 09.4	-0.1
	19nm,0.5s						
KNDC				⇑S	Sg	17 59 32.8	+0.5
	18nm,0.3s						
NRN	Naryn	1.93	257	⇓eP	Pn	17 59 11.7	+0.5
NRN				⇓eS	Sb	17 59 38.0	+0.2
BOOM	Boomskoye usch	1.98	288	⇓eP	Pn	17 59 12.2	+0.4
BOOM				⇓eS	Sb	17 59 38.9	-0.4
BLB	Baldybastay	2.19	360	Pg	Pb	17 59 16.6	-0.8
	21nm,0.2s						
BLB				Lg	Lg	17 59 45.4	
	49nm,0.2s						
KST	Kastek	2.19	302	Pg	Pb	17 59 17.1	-0.3
	10nm,0.2s						
KST				Lg	Lg	17 59 45.8	
	67nm,0.3s						
KST	Kastek	2.19	302	eP	Pb	17 59 17.1	-0.3
	10nm,0.2s						
KST				eS	Sb	17 59 45.8	+0.7
	67nm,0.3s						
KTBS	Karatobe	2.24	324	Pg	Pb	17 59 17.5	-0.7
	2.1nm,0.1s						
KTBS				Lg	Lg	17 59 46.5	
	36nm,0.2s						
KTBS	Karatobe	2.24	324	eP	Pb	17 59 17.5	-0.7
	2.1nm,0.1s						
KTBS				eS	Sb	17 59 46.5	0.0
	36nm,0.2s						
ARXS	Arharly	2.35	348	Pg	Pb	17 59 18.9	-1.2
	11nm,0.2s						
ARXS				Lg	Lg	17 59 49.4	
	86nm,0.4s						
ARXS	Arharly	2.35	348	eP	Pb	17 59 18.9	-1.2
	11nm,0.2s						
ARXS				eS	Sb	17 59 49.4	-0.4
	86nm,0.4s						
TKM2	Tokmak 2	2.37	296	⇑eP	Pn	17 59 17.6	+0.4
TKM2				⇑eS	Sn	17 59 48.3	+1.2
KNOS	Konyrlen	2.50	11	Pg	Pb	17 59 21.6	-1.1
	2.6nm,0.1s						
KNOS				Lg	Lg	17 59 53.6	
	44nm,0.3s						
KUU	Kurty	2.54	322	Pg	Pb	17 59 23.0	-0.2
	11nm,0.2s						
KUU				Lg	Lg	17 59 56.1	
	33nm,0.3s						
KUU	Kurty	2.54	322	eP	Pb	17 59 23.0	-0.2
	11nm,0.2s						
KUU				eS	Sb	17 59 56.1	+1.1
	33nm,0.3s						
KBK	Karagaybulak	2.74	287	⇑eP	Pn	17 59 22.6	+0.4
KBK				⇑eS	Sn	17 59 57.0	+1.0
KRBS	Karabastau	2.74	312	Pg	Pb	17 59 26.5	-0.2
	12nm,0.3s						
KRBS				Lg	Lg	18 00 02.2	
	9.3nm,0.2s						
KRBS	Karabastau	2.74	312	eP	Pb	17 59 26.5	-0.2
	12nm,0.3s						
KRBS				eS	Sb	18 00 02.2	+1.4
	9.3nm,0.2s						
CHMS	Chumysh	2.98	293	⇓eP	Pn	17 59 25.9	+0.6
CHMS				⇓eS	Sn	18 00 02.6	+0.8
FRU1	Bishkek	3.00	289	⇑eP	Pn	17 59 26.5	+0.8
FRU1				⇑iS	Sn	18 00 03.7	+1.3
AAK	Ala-Archa	3.06	285	⇓Pg	Pb	17 59 30.3	-1.9
	1.9nm,0.6s						
AAK				⇑Lg	Lg	18 00 13.0	
	8.8nm,0.6s						
AAK	Ala-Archa	3.06	285	⇑eP	Pn	17 59 27.1	+0.5
AAK				⇑eS	Sn	18 00 04.8	+0.9
TDK	Taldyqorghan	3.09	359	Pg	Pb	17 59 33.0	+0.3
	14nm,0.2s						
TDK				Lg	Lg	18 00 13.1	
	66nm,0.3s						
TDK	Taldyqorghan	3.09	359	eP	Pb	17 59 33.0	+0.3
	14nm,0.2s						
TDK				eS	Sb	18 00 13.1	+2.1
	66nm,0.3s						
SGDS	Sogindy	3.24	300	Pg	Pb	17 59 36.3	+1.0
	3.2nm,0.2s						
SGDS				Lg	Lg	18 00 19.2	
	16nm,0.4s						
USP	Ospenovka	3.25	296	⇑eP	Pn	17 59 29.7	+0.6
USP				⇑eS	Sn	18 00 09.1	+0.7
KAPS	Kapalarasan	3.43	10	Pg	Pb	17 59 38.8	+0.3
	1.3nm,0.0s						
KAPS				Lg	Lg	18 00 23.1	
	45nm,0.2s						
KAPS	Kapalarasan	3.43	10	eP	Pb	17 59 38.8	+0.3
	1.3nm,0.0s						
KAPS				eS	Sb	18 00 23.1	+2.3
	45nm,0.2s						
EKS2	Erkin-Say	3.58	284	⇓eP	Pn	17 59 34.3	+0.6
EKS2				⇓eS	Sn	18 00 17.2	+0.4
MRKS	Merke	4.00	284	Pg	Pb	17 59 50.1	+2.0
	2.9nm,0.1s						
MRKS				Lg	Lg	18 00 42.4	
	3.8nm,0.1s						
MRKS	Merke	4.00	284	eP	Pb	17 59 50.1	+2.0
	2.9nm,0.1s						
MRKS				eS	Sg	18 00 42.4	-2.7
	3.8nm,0.1s						
MK31	Makanchi Array	5.59	28	Pn	Pn	18 00 04.0	+2.8
	0.2nm,0.5s,baz=207,slow=13,SNR=10						
MK31				Sn	Sn	18 01 07.8	+1.7
	1.0nm,0.6s,baz=210,slow=24,SNR=4.0						
KK31	Karatay Array	6.02	284	⇓Pg	Pg	18 00 28.5	-3.7
	1.4nm,0.7s,baz=90,slow=16,SNR=9.5						
KK31				Lg	Lg	18 01 45.6	
	0.6nm,0.3s,baz=102,slow=29,SNR=6.6						

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*IDC **11** 18:09:00.5±1.6, 24°.15N×94°.15E, h0km, mb3.3/6, mbtmp3.3/7, ML4.1/1, MS3.7/1, Error ellipse: s-maj=77.7km s-min=13.1km az=60.0*
*BKK **11** 18:09:09.6±0.9, 25°N±11°×9°6E±°, h10km, M4.0/9, mb4.0/4, mB4.7/2, Mjma3.7/9, ML4.3/8, MLv4.1/8, Mw(mB)3.9/2*
*GFZ **11** 18:09:09.1±0.3, 25°N±3°×9°6E±°, h10km, M3.9/9, mb4.3/1, Error ellipse: s-maj=7.5km s-min=5.3km az=27.6, confirmed*
ISC 11 18:09:08.3±1.0**, 24°.7N**±0°.1×**96°.1E**±0°.2**, h10km, n14, σ3.s00**/11**, mb3.5**/6**, Myanmar**

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
NPW	Naypyitaw	4.94	179	P	Pn	18 10 23.7	+1.1
CMAI	Chiengmai2	5.53	149	P	Pg	18 10 53.1	-1.2
CHTO	Chiang Mai	6.48	155	P	Pn	18 10 45.2	+1.4
	0.2nm0.0nm0.1nm4.7nm,0.5s						
CHTO				AML	AML		
CHTO				AML	AML		
CMAR	Chiang Mai Arr	6.80	156	Pn	Pn	18 10 48.9	+0.6
	0.8nm,0.3s,baz=330,slow=14,SNR=16						
CMAR				Pg	Pg	18 11 14.8	-3.9
	0.4nm,0.3s,baz=335,slow=17,SNR=6.0						
CMAR				Lg	Lg	18 12 43.9	
	0.2nm,0.3s,baz=330,slow=26,SNR=4.4						
	1.4nm,0.5s						
CMAR				AML	AML		
LAMP	Lampang	7.03	151	P	Pn	18 10 53.6	+2.3
LAMP				AML	AML		
LAMP				AML	AML		
UTTA	Uttaradit	8.13	148	P	Pn	18 11 07.8	+1.4
EVN	Everest	8.88	293	P	Pn	18 11 18.8	+1.5
	comp=Z,8.8nm,0.5s						
SONM	Songino Array	24.46	17	P	P	18 14 31.8	+4.3
	comp=Z,0.3nm,0.6s,baz=202,slow=11,SNR=1.7						
	comp=Z,0.3nm,0.6s						
MKAR	Makanchi Array	24.61	337	P	P	18 14 22.9	-5.8
	comp=Z,0.3nm,0.8s,baz=149,slow=8.2,SNR=1.9						
	comp=Z,0.3nm,0.8s						
ZALV	Zalesovo Beam	30.36	347	P	P	18 15 14.8	-5.3
	comp=Z,0.2nm,0.3s,baz=179,slow=6.9,SNR=1.6						
	comp=Z,0.2nm,0.3s						
BVAR	Borovoye Array	34.23	332	P	P	18 15 44.1	-10
	comp=Z,0.4nm,0.6s,baz=122,slow=8.0,SNR=1.2						
	comp=Z,0.4nm,0.6s						
OBN	Obninsk	52.71	322	LR	LR	18 43 11.3	
	comp=Z,80nm,21.1s,baz=111,slow=39						
WRA	Warramunga Arr	57.97	137	P	P	18 18 59.0	-2.3
	comp=Z,0.5nm,0.9s,baz=318,slow=7.3,SNR=3.1						
	comp=Z,0.5nm,0.9s						
ASAR	Alice Springs	60.52	140	P	P	18 19 19.1	+0.2
	comp=Z,0.3nm,0.5s,baz=321,slow=6.7,SNR=9.4						
	comp=Z,0.3nm,0.5s						

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*IDC **11** 18:12:29.4±1.4, 2°.36S×12°.04W, h0km, mb4.0/10, mbtmp4.0/10, MS3.7/1, Error ellipse: s-maj=84.5km s-min=20.4km az=103.0*
ISC 11 18:12:30.9±1.3**, 2°.4S**±0°.2×**12°.0W**±0°.5**, h10km, n20, σ0.s61**/13**, mb4.2**/11**, 3D, North of Ascension Island**

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
H10N2	ASCENSION HYDR	5.96	204	T	T	18 19 45.2	
	baz=24,slow=75,SNR=39						
H10N1	ASCENSION HYDR	5.97	204	T	T	18 19 54.9	
	baz=24,slow=75,SNR=40						
H10N3	ASCENSION HYDR	5.98	205	T	T	18 19 56.9	
	baz=24,slow=75,SNR=36						
H10S2	ASCENSION HYDR	7.06	202	T	T	18 21 24.1	
	baz=198,slow=74,SNR=9.1						
H10S3	ASCENSION HYDR	7.06	202	T	T	18 21 25.7	
	baz=22,slow=74,SNR=4.8						
TORD	Torodi Ar. Bea	20.55	41	P	P	18 17 09.4	-0.5
	1.3nm,0.8s,baz=228,slow=12,SNR=5.1						
	1.3nm,0.8s						
MBAR	Mbarara	42.76	88	LR	LR	18 36 30.8	
	comp=Z,89nm,18.3s,baz=138,slow=34						
H05S1	Guadeloupe/Mar	51.17	291	T	T	19 16 19.9	
	SNR=11						
GERES	GERESS Array B	55.67	20	P	P	18 22 08.2	+0.7
	0.9nm,0.6s,baz=203,slow=7.0,SNR=8.2						
	0.9nm,0.6s						
BRTR	Keskin Array B	59.16	40	P	P	18 22 32.3	0.0
	1.1nm,1.0s,baz=226,slow=7.7,SNR=4.4						
	1.1nm,1.0s						
AKASG	Malin Array Be	63.50	28	P	P	18 23 00.3	-1.0
	0.3nm,0.4s,baz=232,slow=5.7,SNR=3.3						
	0.3nm,0.4s						
KBZ	Khabaz	67.16	40	P	P	18 23 26.2	+1.1
	1.0nm,0.6s,baz=225,slow=4.3,SNR=3.5						
	1.0nm,0.6s						
VNA2	Neumayer--Watz	68.52	178	⇓P	P	18 23 32.9	-0.3
	comp=Z,2.4nm,0.7s,baz=354,slow=6.3						
VNA3	Neumayer Olymp	68.79	179	⇓P	P	18 23 34.2	-0.8
	comp=Z,1.5nm,1.0s						
SNAA	Sanae	69.45	177	P	P	18 23 39.3	+0.2
	comp=Z,0.7nm,0.4s,baz=350,slow=6.1,SNR=2.7						
	comp=Z,0.7nm,0.4s						
FINES	FINESS Array B	70.01	18	P	P	18 23 42.5	0.0
	comp=Z,0.6nm,0.5s,baz=224,slow=5.8,SNR=6.2						
	comp=Z,0.6nm,0.5s						
TROLL	Troll, Antarti	70.15	175	⇓P	P	18 23 43.5	0.0
	comp=Z,88nm,0.6s						
ARCES	ARCESS Array B	76.09	13	P	P	18 24 18.4	-0.1
	comp=Z,0.9nm,0.6s,baz=223,slow=3.4,SNR=3.8						
	comp=Z,0.9nm,0.6s						
MAW	Mawson	82.08	158	P	P	18 24 51.6	+0.4
	comp=Z,2.3nm,0.7s,baz=294,slow=12,SNR=6.1						
	comp=Z,2.3nm,0.7s						
QSPA	South Pole Qui	87.71	180	P	P	18 25 19.8	-0.1
	comp=Z,3.3nm,1.0s,baz=239,slow=2.5,SNR=8.4						
	comp=Z,3.3nm,1.0s						

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*IDC **11** 18:16:28.1±2.2, 3°.95N×126°.93E, h0km, mb3.3/4, mbtmp3.3/4, MS2.8/1, Error ellipse: s-maj=130.7km s-min=28.2km az=69.0*
*MAN **11** 18:16:33.0, 4°.32N×126°.12E, h1km, MS3.6*
ISC 11 18:16:30.7±1.5**, 4°.17N**±0°.08×**126°.2E**±0°.3**, h10km, n8, σ3.s03**/8**, mb3.4**/4**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
DDMP	Don Marcelino,	1.99	345	eP	Pn	18 17 05.1	+0.7
DDMP				eS	Sg	18 17 30.9	-3.7
CDOP	Cateel, Davao	3.59	3	i P	Pb	18 17 32.9	-1.5
CDOP				i S	Sb	18 18 16.7	-1.4
BIPH	Bislig	3.99	2	eP	Pb	18 17 42.7	+1.6
BIPH				eS	Sn	18 18 21.0	+2.2
FITZ	Fitzroy Crossi	22.14	181	P	P	18 21 23.4	-3.3
	1.2nm,0.9s,baz=1.6,slow=12,SNR=1.6						
	1.2nm,0.9s						
WRA	Warramunga Arr	25.26	162	P	P	18 21 52.4	-4.8
	0.7nm,0.8s,baz=343,slow=9.3,SNR=9.2						
	0.7nm,0.8s						
ASAR	Alice Springs	28.66	165	P	P	18 22 23.5	-4.5
	0.2nm,0.7s,baz=342,slow=9.2,SNR=1.9						
	0.2nm,0.7s						
JHJ	Hachijo jima 2	31.46	22	LR	LR	18 38 47.9	
	comp=Z,17nm,18.2s,baz=269,slow=43						
MKAR	Makanchi Array	56.91	325	P	P	18 26 19.1	+3.1
	0.3nm,0.6s,baz=115,slow=7.3,SNR=1.9						
	0.3nm,0.6s						

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*MOS **11** 18:34:19.8±1.3, 45°.18N×153°.37E, h42km, mb4.2/1, Error ellipse: s-maj=25.0km s-min=12.1km az=54.3*
*IDC **11** 18:34:22.0±2.1, 47°.70N×151°.98E, h196km±20km, mb3.2/11, mbtmp3.7/15, Error ellipse: s-maj=23.7km s-min=13.7km az=127.0*
*SKHL **11** 18:34:21.2±0.2, 45°.00N×153°.60E, h55km±4km, mb4.5/3*
*JMA **11** 18:34:25.0±0.9, 47°N±7°×15°2E±°, h262km, MV3.7/14, KURILE ISLANDS REGION*
ISC 11 18:34:22.3±1.4**, 46°.6N**±0°.2×**152°.3E**±0°.2**, h250km, n36, σ2.s10**/34**, mb3.2**/10**, 1D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
REI	Reidovoe	3.29	248	eP	Pn	18 35 19.5	+1.6
REI				AMB	AMB	18 35 22.2	
	90nm,0.6s						
REI				eS	S	18 36 03.4	+1.5
REI				A	A	18 36 08.6	
	40nm,0.3s						
REI				A	A	18 36 08.6	
	20nm,0.3s						
KUR	Kuril'sk	3.40	248	eS	S	18 36 07.0	+2.8
KUR				A	A	18 36 15.8	
	50nm,0.3s						
KUR				A	A	18 36 15.8	
	70nm,0.3s						
YUK	Yuzh-Kuril'sk	5.23	243	d iPN	Pn	18 35 42.9	+2.1
YUK				eS	S	18 36 44.5	+1.0
YUK				pmax	pmax		
	comp=Z,108nm,0.7s						
YUK				pmax	pmax		
	comp=E,45nm,0.4s						
YUK				pmax	pmax		
	comp=N,42nm,0.6s						
YUK				smax	smax		
	comp=N,104nm,0.5s						
YUK				smax	smax		
	comp=E,129nm,0.7s						
YUK	Yuzh-Kuril'sk	5.23	243	i P	Pn	18 35 42.9	+2.1
YUK				AMB	AMB	18 35 57.8	
	comp=E,110nm,0.7s						
YUK				eS	S	18 36 44.5	+1.0
YUK				A	A	18 36 45.8	
	comp=E,130nm,0.6s						
YUK				A	A	18 36 45.8	
	comp=E,150nm,0.6s						
RUSJ	Misakicho	5.58	246	ePN	Pn	18 35 49.3	+4.2
RUSJ				eS	S	18 36 55.9	+4.6
NEM2	Nemuro 2	5.68	238	P	Pn	18 35 46.9	+0.6
NEM2				eS	S	18 36 51.7	-1.8
NMR	Nemuro--Hokkai	5.68	238	ePN	Pn	18 35 47.0	+0.6
NMR	Nemuro--Hokkai	5.68	238	eP	Pn	18 35 47.0	+0.6
NMR				eS	S	18 36 51.4	-2.2
JNK	Nakash	6.17	244	eP	Pn	18 35 55.0	+2.5
JNK				eS	S	18 37 06.3	+1.7
AKK	Akkeshi	6.41	239	eP	Pn	18 35 56.6	+1.1
AKK				eS	S	18 37 08.3	-1.9
JAK	Akkeshi	6.51	239	P	Pn	18 35 57.3	+0.6
JAK				eS	S	18 37 10.6	-1.9
JAR	Ashorobuto	6.91	245	eP	Pn	18 36 03.8	+2.1
JAR				eS	S	18 37 21.5	-0.1
JOB	Onbets	7.08	242	eP	Pn	18 36 04.7	+0.7
JOB				eS	S	18 37 23.7	-1.8
ASAJ	Asahikawa	7.29	254	P	Pn	18 36 08.3	+1.7
	comp=E,6.2nm,0.6s,baz=86,slow=13,SNR=9.0						
PETK	Petropavlovsk-	7.40	26	P	Pn	18 35 56.0	-12
	comp=E,2.6nm,0.8s,baz=212,slow=13,SNR=8.5						
PETK				S	S	18 37 22.3	-10
	comp=E,3.2nm,0.9s,baz=222,slow=21,SNR=2.1						
JCH	Churui	7.53	242	eP	Pn	18 36 09.7	+0.1
JCH				eS	S	18 37 32.6	-3.3
MJAR	Matsushiro Arr	14.55	231	P	P	18 37 46.5	+9.4
	comp=E,1.4nm,0.8s,baz=25,slow=12,SNR=5.4						
SEY	Seymchan	16.39	0	P	P	18 37 47.7	-9.3
	comp=E,1.3nm,0.5s,baz=167,slow=18,SNR=5.0						
KSRS	Korea Array	20.24	252	P	Pn	18 38 42.5	-1.5
	comp=E,2.5nm,0.8s,baz=50,slow=11,SNR=5.9						
	comp=E,2.5nm,0.8s						
H11N2	WAKE ISLAND Hy	29.32	151	T	T	19 12 15.1	
	baz=340,slow=76,SNR=7.0						
H11N1	WAKE ISLAND Hy	29.33	151	T	T	19 12 16.7	

	baz=340,slow=76,SNR=7.5						
H11N3	WAKE ISLAND Hy	29.33	151	T	T	19 12 13.0	
	baz=340,slow=76,SNR=4.4						
H11S1	WAKE ISLAND Hy	30.39	152	T	T	19 13 34.1	
	baz=341,slow=76,SNR=5.3						
H11S3	WAKE ISLAND Hy	30.40	152	T	T	19 13 38.2	
	baz=341,slow=76,SNR=6.8						
H11S2	WAKE ISLAND Hy	30.41	152	T	T	19 13 41.5	
	baz=341,slow=76,SNR=4.6						
ILAR	Eielson Array	37.02	38	P	P	18 41 06.3	-1.4
	comp=E,0.1nm,0.4s,baz=274,slow=9.7,SNR=1.5						
	comp=E,0.1nm,0.4s						
KURK	Kurchatov	47.02	303	P	P	18 42 27.2	-1.2
KURBB	Kurchatov Arra	47.11	303	P	P	18 42 27.2	-1.9
	comp=E,0.4nm,0.3s,baz=71,slow=8.4,SNR=1.6						
	comp=E,0.4nm,0.3s						
BVAR	Borovoye Array	50.56	309	P	P	18 42 53.7	-1.5
	comp=E,0.4nm,0.4s,baz=64,slow=6.6,SNR=2.2						
	comp=E,0.4nm,0.4s						
CMAR	Chiang Mai Arr	51.81	256	P	P	18 43 11.1	+6.2
	comp=E,0.2nm,0.3s,baz=50,slow=8.4,SNR=4.3						
	comp=E,0.2nm,0.3s						
FINES	FINESS Array B	63.97	334	P	P	18 44 26.3	-2.2
	comp=E,0.9nm,0.3s,baz=33,slow=6.9,SNR=20						
	comp=E,0.9nm,0.3s						
WRA	Warramunga Arr	68.18	198	P	P	18 45 06.5	+11
	comp=E,0.3nm,0.7s,baz=12,slow=6.7,SNR=2.6						
	comp=E,0.3nm,0.7s						
HFS	Hagfors	68.43	339	P	P	18 44 54.9	-1.9
	comp=E,1.5nm,0.7s,baz=46,slow=6.2,SNR=4.5						
	comp=E,1.5nm,0.7s						
ASAR	Alice Springs	71.88	198	P	P	18 45 30.2	+12
	comp=E,0.4nm,0.5s,baz=11,slow=6.1,SNR=3.0						
	comp=E,0.4nm,0.5s						
EKA	Eskdalemuir Ar	76.38	346	P	P	18 45 43.0	-0.6
	comp=E,0.5nm,0.4s,baz=18,slow=5.2,SNR=2.3						
	comp=E,0.5nm,0.4s						
TXAR	Lajitas Array	78.04	60	P	P	18 45 56.5	+3.1
	comp=E,0.2nm,0.6s,baz=324,slow=3.6,SNR=2.9						
	comp=E,0.2nm,0.6s						

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*IDC **11** 18:40:46.7±0.9, 6.°59N×60.°38E, h0^{km}, mb3.8/9, mbtmp3.8/9, MS3.6/16, Error ellipse: s-maj=27.5km s-min=20.7km az=19.0*

ISC 11 18:40:48.1±1.0**, 6.°6N**±0.°2×**60.°4E**±0.°1**, h10^{km}, n27, σ0.^{s}84**/11**, mb3.8**/9**, MS3.6**/16**, Carlsberg Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	Pallekele	20.18	87	LR	LR	18 51 37.8	
	comp=Z,151nm,18.1s,baz=248,slow=32						
KMBO	Kilima Mbogo	24.33	252	P	P	18 46 07.2	+0.6
	baz=64,slow=14						
KMBO				LR	LR	18 54 39.0	
	comp=Z,75nm,20.1s,baz=98,slow=34						
MBAR	Mbarara	30.43	258	LR	LR	18 57 27.8	
	comp=Z,68nm,21.7s,baz=110,slow=33						
BRDH	Bariadhala	34.10	59	LR	LR	19 00 19.5	
	comp=Z,140nm,18.6s,baz=256,slow=34						
CMAR	Chiang Mai Arr	39.35	69	P	P	18 48 17.1	-1.0
	0.3nm,0.4s,baz=252,slow=8.5,SNR=4.8						
CMAR				LR	LR	19 04 56.2	
	comp=Z,29nm,18.1s,baz=225,slow=37						
	0.3nm,0.4s						
BRTR	Keskin Array B	40.82	328	P	P	18 48 29.9	-0.2
	0.8nm,0.9s,baz=141,slow=9.3,SNR=4.1						
	0.8nm,0.9s						
MKAR	Makanchi Array	44.27	22	P	P	18 48 57.7	-0.2
	0.4nm,0.7s,baz=221,slow=11,SNR=2.3						
	0.4nm,0.7s						
LBTB	Lobatse	46.18	226	LR	LR	19 05 47.7	
	comp=Z,119nm,18.4s,baz=100,slow=32						
KURBB	Kurchatov Arra	46.44	16	P	P	18 49 15.7	+0.7
	2.3nm,0.2s,baz=220,slow=7.3,SNR=1.5						
	2.3nm,0.2s						
BOSA	Boshof	48.69	222	LR	LR	19 07 56.4	
	comp=Z,121nm,18.7s,baz=150,slow=34						
TSUM	Tsumeb	49.33	238	LR	LR	19 08 25.9	
	comp=Z,134nm,18.2s,baz=145,slow=34						
AKASG	Malin Array Be	51.06	335	P	P	18 49 50.7	+0.1
	0.1nm,0.3s,baz=134,slow=6.7,SNR=4.3						
	0.1nm,0.3s						
ZALV	Zalesovo Beam	51.20	18	LR	LR	19 12 24.6	
	comp=Z,33nm,18.3s,baz=174,slow=37						
H04N1	CROZET ISLANDS	53.07	187	T	T	19 47 21.3	
	baz=11,slow=75,SNR=231						
H04N2	CROZET ISLANDS	53.07	187	T	T	19 47 20.0	
	baz=11,slow=75,SNR=218						
H04N3	CROZET ISLANDS	53.08	187	T	T	19 47 20.8	
	baz=11,slow=75,SNR=182						
SUR	Sutherland	54.04	222	LR	LR	19 11 37.1	
	comp=Z,138nm,18.5s,baz=108,slow=34						
SONM	Songino Array	56.70	35	P	P	18 50 33.2	+1.1
	0.4nm,0.4s,baz=225,slow=5.9,SNR=1.8						
SONM				LR	LR	19 15 05.3	
	comp=Z,61nm,20.0s,baz=263,slow=36						
	0.4nm,0.4s						
NRIK	Noril'sk	65.15	10	LR	LR	19 22 44.9	
	comp=Z,33nm,19.4s,baz=170,slow=39						
ESDC	Sonseca Array	66.15	310	P	P	18 51 35.6	-0.5
	0.7nm,0.7s,baz=98,slow=6.0,SNR=7.1						
	0.7nm,0.7s						
ARCES	ARCESS Array B	66.84	347	LR	LR	19 23 22.7	
	comp=Z,18nm,19.8s,baz=210,slow=38						
KLR	Kul'dur	72.89	41	LR	LR	19 26 33.4	
	comp=Z,61nm,18.0s,baz=283,slow=38						
TIXI	Tiksi	77.09	18	LR	LR	19 28 54.7	
	comp=Z,38nm,19.4s,baz=212,slow=38						
WRA	Warramunga Arr	77.31	112	P	P	18 52 43.7	+0.2
	1.3nm,1.0s,baz=292,slow=5.1,SNR=5.9						
	1.3nm,1.0s						
ASAR	Alice Springs	77.70	116	P	P	18 52 46.3	+0.6
	1.6nm,0.8s,baz=284,slow=4.9,SNR=12						
	1.6nm,0.8s						
GUMO	Guam	83.14	77	LR	LR	19 28 48.0	
	comp=Z,16nm,19.1s,baz=232,slow=35						
TXAR	Lajitas Array	141.13	338	PKP	PKPdf	19 00 18.4	-1.3
	0.6nm,1.0s,baz=16,slow=5.0,SNR=3.1						

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*IDC **11** 18:43:55.4±1.5, 35.°91N×68.°69E, h0^{km}, mb3.8/5, mbtmp3.8/10, ML3.2/5, MS3.7/1, Error ellipse: s-maj=28.1km s-min=20.4km az=95.0*

ISC 11 18:43:59.3±1.4**, 36.°0N**±0.°1×**68.°7E**±0.°1**, h30^{km}, n13, σ3.^{s}12**/16**, mb3.8**/5**, 2C-1D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KK31	Karatay Array	7.28	10	P	Pn	18 45 45.5	+1.9
	0.4nm,0.2s,baz=200,slow=16,SNR=23						
KK31				⇓S	Sn	18 47 08.3	+3.2
	1.6nm,0.5s,baz=198,slow=22						
AAK	Ala-Archa	8.03	32	Pn	Pn	18 45 54.4	+0.3
	0.8nm,0.3s,baz=216,slow=8.7,SNR=22						
AAK				Sn	Sn	18 47 25.3	+1.3
	0.6nm,0.3s,baz=214,slow=15,SNR=11						
	6.3nm,0.6s						
AAK				AML	AML		
AAK	Ala-Archa	8.03	32	⇑P	Pn	18 45 56.4	+2.3
	2.0nm,0.5s						
AAK				⇑S	Sn	18 47 29.2	+5.2
	6.0nm,0.8s						
MKAR	Makanchi Array	14.84	39	Pn	Pn	18 47 25.9	-1.1
	0.1nm,0.3s,baz=232,slow=14,SNR=3.7						
MKAR				Sn	S	18 50 20.3	-7.7
	0.1nm,0.3s,baz=224,slow=30,SNR=1.8						
	0.7nm,0.8s						
MKAR				AML	AML		
KURBB	Kurchatov Arra	16.29	23	Pn	Pn	18 47 43.7	-2.0
	0.1nm,0.3s,baz=211,slow=10,SNR=7.1						
	1.6nm,0.2s						
KURBB				AML	AML		
AKTO	Aktyubinsk	16.43	335	Pn	Pn	18 47 44.6	-3.0
	0.2nm,0.3s,baz=131,slow=9.3,SNR=4.3						
	0.7nm,0.5s						
AKTO				AML	AML		
BVAR	Borovoye Array	17.11	3	P	Pn	18 47 54.5	-1.7
	baz=185,slow=11,SNR=6.2						
	1.0nm,0.7s						
ZALV	Zalesovo Beam	21.21	27	P	P	18 48 43.3	+0.9
	5.0nm,0.6s,baz=220,slow=10,SNR=22						
	5.0nm,0.6s						
ARTI	Arti	21.62	344	P	P	18 48 46.9	+0.2
	2.6nm,0.7s,baz=163,slow=19,SNR=5.6						
	2.6nm,0.7s						
BELG	Belogornoye	22.22	324	P	P	18 48 53.2	0.0
	6.1nm,0.7s,baz=98,slow=16,SNR=4.4						
	6.1nm,0.7s						
ESDC	Sonseca Array	56.09	297	LR	LR	19 24 19.0	
	comp=Z,62nm,18.6s,baz=133,slow=43						
WRA	Warramunga Arr	83.27	120	P	P	18 56 24.0	+0.7
	0.7nm,1.1s,baz=321,slow=5.0,SNR=6.2						
	0.7nm,1.1s						
ASAR	Alice Springs	85.46	123	P	P	18 56 35.6	+1.2
	0.3nm,0.8s,baz=309,slow=5.9,SNR=1.9						
	0.3nm,0.8s						

KRSC 11 18:44:47.8±1.4**, 49.°51N×158.°47E, h46^{km}**±24^{km}**, Ml4.4, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	1.92	309	eP	Pn	18 45 18.4	+0.5
SKR				eS	Sn	18 45 40.9	+0.2
PAU	Pauzhetka	2.23	332	eP	Pn	18 45 24.7	+2.6
PAU				eS	Sn	18 45 52.2	+3.8
KDTR	Khodutka, Kamc	2.31	354	eP	Pn	18 45 26.2	+2.9
KDTR				eS	Sn	18 45 54.5	+3.9
ASAK	Asacha	2.90	353	eP	Pn	18 45 34.7	+3.3
RUS	Russkaya	2.93	1	eP	Pn	18 45 34.8	+3.1
RUS				eS	Sn	18 46 09.1	+3.5
MTVR	Mutnovka	2.98	357	eP	Pn	18 45 36.0	+3.3
MTVR				eS	Sn	18 46 10.8	+3.7
GRL	Gorelyy	3.06	355	eP	Pn	18 45 37.3	+3.6
KRMR	Karymshinskiy	3.33	356	eP	Pn	18 45 41.2	+4.0
KRMR				eS	Sn	18 46 20.2	+4.7
APC	Apacha	3.52	347	eP	Pn	18 45 43.5	+3.7
PET	Petropavlovsk	3.52	2	eP	Pn	18 45 43.5	+3.7
PET				eS	Sn	18 46 24.6	+4.4
DALK	Dalny	3.53	3	eP	Pn	18 45 43.6	+3.6
DALK				eS	Sn	18 46 24.4	+4.0
INSR	Institute	3.56	1	eP	Pn	18 45 44.1	+3.7
INSR				eS	Sn	18 46 25.3	+4.1
NLC	Nalytchevo	3.71	8	eS	Sn	18 46 28.7	+3.9
UGLR	Uglovaya	3.71	3	eP	Pn	18 45 46.6	+4.0
SPN	Mys Shipunski	3.72	15	eP	Pn	18 45 47.0	+4.4
SPN				eS	Sn	18 46 30.6	+5.4
AVH	Avacha	3.76	2	eP	Pn	18 45 47.5	+4.2
SMAR	Somma	3.76	3	eP	Pn	18 45 47.2	+3.8
SDLR	Sedlovina	3.78	4	eP	Pn	18 45 46.8	+3.3
KOK	Koryaka	3.79	2	eP	Pn	18 45 48.1	+4.4
KRER	Koryakskii	3.80	3	eP	Pn	18 45 48.2	+4.2
KRX	Arik	3.85	2	eP	Pn	18 45 48.7	+4.1
KII	Karymskiy	4.57	7	eP	Pn	18 45 59.9	+5.5
MKZ	Mys Kozlova	5.44	20	eP	Pn	18 46 09.3	+3.2
TUMR	Tumrok	5.87	9	eP	Pn	18 46 16.6	+4.4
KMNR	Kamenistaya	6.35	9	eP	Pn	18 46 23.9	+5.1
ESO	Esso	6.43	1	eP	Pn	18 46 24.4	+4.7
BZWR	Bezymyannyi-We	6.58	10	eP	Pn	18 46 27.3	+5.3
BZGR	Bezymyannyi-Gr	6.58	11	eP	Pn	18 46 25.9	+4.0
ZLN	Zelenaya	6.67	11	eP	Pn	18 46 27.9	+4.7
CIRR	Tsirk	6.76	11	eP	Pn	18 46 29.9	+5.5
KBTR	Krutoberegovo	7.21	20	eP	Pn	18 46 34.5	+4.1

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*IDC **11** 18:53:47.8±0.9, 10.°46N×138.°25E, h0^{km}, mb3.7/8, mbtmp3.7/9, ML4.3/1, MS2.8/3, Error ellipse: s-maj=22.0km s-min=17.4km az=156.0*

ISC 11 18:53:51.4±0.9**, 10.°5N**±0.°1×**138.°5E**±0.°1**, h26^{km}, n17, σ1.^{s}80**/10**, mb3.7**/8**, Western Caroline Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	6.99	63	Pn	Pn	18 55 34.8	+2.7
	5.1nm,0.3s,baz=300,slow=8.1,SNR=6.8						
GUMO				Sn	Sn	18 56 48.1	-2.8
	1.4nm,0.3s,baz=180,slow=20,SNR=1.8						
GUMO				LR	LR	18 58 01.0	
	comp=Z,107nm,20.9s,baz=240,slow=35						
	13nm,0.4s						
GUMO				AML	AML		
DAV	Davao City (W)	13.17	256	LR	LR	19 01 06.0	
	comp=Z,47nm,21.1s,baz=94,slow=34						
H11S3	WAKE ISLAND Hy	28.44	70	T	T	19 30 02.1	
	baz=253,slow=74,SNR=4.4						
H11S1	WAKE ISLAND Hy	28.45	70	T	T	19 30 07.9	
	baz=253						
H11S2	WAKE ISLAND Hy	28.45	71	T	T	19 29 44.9	
	baz=253,slow=74,SNR=6.3						
KSRS	Korea Array	28.48	342	LR	LR	19 09 56.9	
	comp=Z,12nm,20.2s,baz=235,slow=34						
H11N1	WAKE ISLAND Hy	28.90	68	T	T	19 30 20.2	
	baz=254,slow=75,SNR=6.2						
H11N2	WAKE ISLAND Hy	28.91	68	T	T	19 30 24.7	
	baz=254,slow=75,SNR=5.8						
H11N3	WAKE ISLAND Hy	28.92	68	T	T	19 30 23.5	
	baz=254,slow=75,SNR=6.3						
WRA	Warramunga Arr	30.51	188	P	P	19 00 02.4	-0.2
	0.7nm,1.0s,baz=8.5,slow=9.5,SNR=2.0						
	0.7nm,1.0s						
ASAR	Alice Springs	34.23	187	P	P	19 00 35.2	-0.1
	0.8nm,0.9s,baz=16,slow=11,SNR=6.6						
	0.8nm,0.9s						
CMAR	Chiang Mai Arr	39.01	286	P	P	19 01 15.9	-0.2
	1.4nm,0.9s,baz=99,slow=6.9,SNR=11						
	1.4nm,0.9s						
SONM	Songino Array	45.96	330	P	P	19 02 13.8	+1.3
	0.3nm,0.6s,baz=133,slow=8.7,SNR=1.1						
	0.3nm,0.6s						
MKAR	Makanchi Array	59.50	319	P	P	19 03 53.2	+0.8
	0.9nm,0.6s,baz=101,slow=8.6,SNR=7.4						
	0.9nm,0.6s						
KURBB	Kurchatov Arra	63.05	322	P	P	19 04 15.2	-1.1
	0.9nm,0.7s,baz=102,slow=6.2,SNR=6.7						
	0.9nm,0.7s						
BVAR	Borovoye Array	68.53	323	P	P	19 04 49.8	-1.9
	0.4nm,0.6s,baz=106,slow=11,SNR=4.7						
	0.4nm,0.6s						
ILAR	Eielson Array	74.04	25	P	P	19 05 24.1	-0.7
	0.4nm,0.6s,baz=259,slow=6.1,SNR=3.3						
	0.4nm,0.6s						

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*AEIC **11** 18:58:16.4±2.1, 51.°80N±0.°02×178.°14W±0.°01, h10^{km}±2^{km}, Error ellipse: s-maj=3.2km s-min=1.3km az=170.0*

NEIC 11 18:58:16.8±0.7**, 51.°84N**±0.°04×**178.°14W**±0.°01**, h17^{km}**±1^{km}**, ML3.5**/12**, ML3.0**(AEIC)**, Error ellipse: s-maj=5.5km s-min=1.0km az=173.0, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TACS	Tanaga Cape Sa	0.03	356		Pg	18 58 19.6	-0.2
TACS					Sg	18 58 21.7	-0.3
TASE	Tanaga Southea	0.06	90		Pg	18 58 19.9	-0.1
TASE	Tanaga Southea	0.06	90		Sg	18 58 21.9	-0.2
TANO	Tanaga North	0.08	7		Pg	18 58 20.2	+0.1
TANO	Tanaga North	0.08	7		Sg	18 58 22.3	0.0
TAFP	Tanaga Falls P	0.12	55		Pg	18 58 20.4	-0.1
TAFP	Tanaga Falls P	0.12	55		Sb	18 58 23.0	-0.1
TAFL	Tanaga Flats	0.17	118		Pg	18 58 21.2	+0.1
TAFL					Sb	18 58 24.4	-0.1
TAPA	Tanaga Point A	0.20	95		Pb	18 58 21.9	-0.2
TAPA					Sb	18 58 25.5	-0.1
GAEA	Gareloi East	0.38	262		Pb	18 58 24.9	-0.2
GAEA	Gareloi East	0.38	262		Sb	18 58 30.7	-0.1
GANE	Gareloi Northe	0.40	268		Pg	18 58 25.1	+0.2
GANE	Gareloi Northe	0.40	268		Sb	18 58 31.0	-0.2
GALAA	Gareloi Lava P	0.40	260		Pg	18 58 25.1	+0.1
GALAA	Gareloi Lava P	0.40	260		Sb	18 58 31.1	-0.2
GANO	Gareloi North	0.41	268		Pg	18 58 25.1	-0.1
GASW	Gareloi Southw	0.45	263		Pg	18 58 25.6	-0.3
GAKI	Gareloi-Kavalg	0.51	237		Pg	18 58 26.4	-0.5
GAKI					Sg	18 58 33.1	-0.5
KIMD	Kanaga Island	0.56	97		Pg	18 58 27.8	-0.2
KIMD					Sb	18 58 36.0	0.0
KICM	Kanaga Island	0.59	81		Pb	18 58 28.6	0.0
KIKV	Kanaga Island	0.60	85		Pg	18 58 28.7	+0.1
KIKV	Kanaga Island	0.60	85		Sb	18 58 37.4	+0.3
KIWB	Kanaga Island	0.61	88		Pg	18 58 28.7	-0.1
KIWB				Sg	Sg	18 58 36.9	-0.1
KINC	Kanaga Island	0.63	81		Pb	18 58 29.3	0.0
KIRH	Kanaga Island	0.65	84		Pg	18 58 29.6	0.0
ADK	Adak	0.90	86		Pb	18 58 33.4	-0.5
ADK				Sg	Sb	18 58 45.5	-0.2
ADK				IAML		18 58 50.4	
	1μm,0.3s						
ADK				IAML		18 58 50.5	
	1μm,0.2s						
ADAG	Mount Adagdak	0.96	81		Pb	18 58 34.7	-0.3
ETKA	Kagalaska Isla	1.07	88		Pb	18 58 36.2	-0.7
GSCK	Great Sitkin C	1.23	81		Pb	18 58 39.6	-0.1
GSSP	Great Sitkin S	1.24	77		Pn	18 58 39.0	-0.3
GSTD	Great Sitkin T	1.25	79		Pn	18 58 39.1	-0.5
GSMY	Great Sitkin M	1.30	80		Pn	18 58 40.3	0.0
GSTR	Great Sitkin T	1.31	78		Pn	18 58 40.2	-0.2
GSTR				Sg	Sb	18 58 58.3	+0.8
GSTR				IAML		18 59 07.0	
	comp=E,1μm,0.3s						
CEPE	Semis' Perret	1.38	276		Pn	18 58 41.2	0.0
CERB	Semis' Cerberu	1.39	275		Pn	18 58 41.6	+0.2
CESW	Semis' Southwe	1.43	274		Pn	18 58 41.5	-0.4
AMKA	Amchitka	1.66	255		Pn	18 58 45.5	+0.4
AMKA					Sn	18 59 06.3	+0.3
AMKA				IAML		18 59 08.4	
	comp=E,451nm,0.5s						
AMKA				IAML		18 59 08.4	
	comp=N,567nm,0.6s						
KOWE	Korovin West	2.46	76		Pn	18 58 56.4	+0.3
ATKA	Atka Island	2.46	80		Pn	18 58 56.0	-0.1
ATKA				Sn	Sn	18 59 26.4	+0.6
ATKA				IAML		18 59 31.3	
	comp=N,175nm,0.6s						
KONE	Korovin Northe	2.54	76		Pn	18 58 58.1	+0.9
SMY	Shemya	4.85	284	Pn	Pn	18 59 20.7	-8.2
UNV	Unalaska Valle	7.33	69	Pn	Pn	19 00 06.1	+3.2
LVA	Lava Point	7.67	68	Pn	Pn	19 00 08.6	+1.0

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*IDC **11** 19:05:28.0±7.2, 12.°79S×167.°63E, h0^{km}, mb3.8/4, mbtmp3.8/4, Error ellipse: s-maj=170.6km s-min=50.9km az=19.0*

*NEIC **11** 19:05:55.4±1.5, 13.°17S±0.°09×167.°3E±0.°3, h217^{km}±14^{km}, mb4.0/9, Error ellipse: s-maj=37.9km s-min=9.9km az=102.0*

ISC 11 19:05:53.8±3.0**, 13.°0S**±0.°3×**167.°1E**±0.°3**, h200^{km}, n15, σ0.^{s}78**/16**, mb3.8**/7**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SANVU	Saraoutou	2.44	177	Pn	Pn	19 06 37.6	+0.7
SANVU				Sn	Sn	19 07 10.4	-0.4
COEN	Coen	23.25	265	P	P	19 10 42.2	-1.3
STKA	Stephens Creek	29.99	227	P	P	19 11 43.7	0.0
	1.4nm,0.7s,baz=52,slow=12,SNR=2.9						
	1.4nm,0.7s						
WR8	Warramunga Arr	31.94	253	P	P	19 12 00.5	-0.6
WR8				IAmb	IAmb	19 12 13.4	
	comp=Z,5.0nm,1.2s						
WB0	Warramunga Arr	32.02	254	P	P	19 12 01.4	-0.3
WB0				IAmb	IAmb	19 12 31.0	
	comp=Z,7.8nm,1.3s						
WRA	Warramunga Arr	32.09	253	P	P	19 12 02.1	-0.2
	comp=Z,0.3nm,0.5s,baz=84,slow=9.4,SNR=8.8						
	comp=Z,0.3nm,0.5s						
AS31	Alice Springs	33.14	247	P	P	19 12 11.0	-0.4
ASAR	Alice Springs	33.14	247	P	P	19 12 11.3	-0.1
	comp=Z,0.7nm,0.4s,baz=77,slow=8.8,SNR=28						
	comp=Z,0.7nm,0.4s						
ASAR	Alice Springs	33.14	247	P	P	19 12 10.8	-0.6
BBOO	Buckleboo	34.51	230	P	P	19 12 22.8	-0.2
KNRA	Kununurra	37.17	261	P	P	19 12 46.9	+1.0
KNRA				IAmb	IAmb	19 13 13.3	
	comp=Z,4.3nm,1.1s						
FORT	Forrest	40.03	237	P	P	19 13 09.7	+0.2
FITZ	Fitzroy Crossi	40.17	257	P	P	19 13 12.4	+1.6
QSPA	South Pole Qui	77.02	180	P	P	19 17 23.9	-0.5
	comp=Z,0.6nm,0.5s,baz=34,slow=3.6,SNR=2.4						
	comp=Z,0.6nm,0.5s						
QSPA	South Pole Qui	77.02	180	P	P	19 17 23.7	-0.7
QSPA				IAmb	IAmb	19 17 24.8	
	comp=Z,1.9nm,1.1s						

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*IDC **11** 19:10:07.2±1.0, 15.°78N×119.°63E, h0^{km}, mb3.7/9, mbtmp3.7/10, MS3.4/2, Error ellipse: s-maj=56.7km s-min=17.3km az=62.0*

*MAN **11** 19:10:11.0, 15.°67N×119.°16E, h17^{km}, MS3.7*

ISC 11 19:10:12.2±0.7**, 15.°53N**±0.°05×**119.°36E**±0.°07**, h31^{km}, n17, σ1.^{s}59**/20**, mb3.6**/9**, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOLP	Bolinao	1.00	32	i P	Pn	19 10 30.4	+0.3
BOLP				i S	Sb	19 10 44.1	+0.3
PCPS	Palayan City	1.86	118	eP	Pn	19 10 42.7	+0.8
PCPS				eS	Sb	19 11 07.3	-1.0
TGY	Tagaytay City	2.08	133	eP	Pb	19 10 55.0	+5.7
LQP	Lukban	2.54	123	eP	Pb	19 10 56.3	-0.8
LQP				eS	Sb	19 11 30.1	+2.1
CVP	Callao Caves	3.20	47	eP	Pn	19 11 01.5	+1.2
CVP				eS	Sn	19 11 34.2	-3.3
PACPP	Pamplona Cagay	3.48	33	i P	Pn	19 11 06.5	+2.2
PACPP				i S	Sn	19 11 46.8	+2.3
CMAR	Chiang Mai Arr	19.74	281	P	Pn	19 14 41.6	+0.4
	1.3nm,0.8s,baz=98,slow=9.3,SNR=12						
CMAR				LR	LR	19 21 29.2	
	comp=Z,24nm,21.3s,baz=175,slow=34						
SONM	Songino Array	33.95	344	P	P	19 16 52.0	-0.8
	0.6nm,0.7s,baz=150,slow=6.3,SNR=2.7						
	0.6nm,0.7s						
WRA	Warramunga Arr	38.20	157	P	P	19 17 29.8	+0.4
	1.0nm,0.9s,baz=341,slow=8.2,SNR=8.2						
	1.0nm,0.9s						
ASAR	Alice Springs	41.47	160	P	P	19 17 57.2	+0.7
	1.0nm,0.8s,baz=341,slow=8.8,SNR=15						
	1.0nm,0.8s						
MKAR	Makanchi Array	43.80	323	P	P	19 18 14.3	-0.8
	0.3nm,0.7s,baz=111,slow=8.2,SNR=1.8						
	0.3nm,0.7s						
ZALV	Zalesovo Beam	46.85	333	P	P	19 18 37.7	-1.4
	0.4nm,0.6s,baz=120,slow=8.5,SNR=2.0						
	0.4nm,0.6s						
KURBB	Kurchatov Arra	47.96	326	P	P	19 18 45.0	-2.8
	0.6nm,0.7s,baz=128,slow=8.3,SNR=6.1						
	0.6nm,0.7s						
BVAR	Borovoye Array	53.54	325	P	P	19 19 30.7	+0.8
	0.5nm,0.5s,baz=112,slow=8.5,SNR=2.9						
	0.5nm,0.5s						
KBZ	Khabaz	69.71	311	P	P	19 21 18.8	-0.3
	1.0nm,0.7s,baz=90,slow=5.1,SNR=2.3						
	1.0nm,0.7s						
FINES	FINESS Array B	78.06	331	P	P	19 22 07.1	-0.6
	1.2nm,0.6s,baz=66,slow=1.7,SNR=4.8						
	1.2nm,0.6s						
KEST	Kesra	96.53	310	LR	LR	20 12 26.0	
	comp=Z,81nm,18.1s,baz=332,slow=39						

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*IDC **11** 19:16:51.4±1.1, 56.°17S×28.°11W, h0^{km}, mb3.9/3, mbtmp3.9/4, ML3.5/1, Error ellipse: s-maj=51.8km s-min=26.6km az=77.0*

ISC 11 19:17:03.0±1.0**, 56.°4S**±0.°2×**28.°1W**±0.°3**, h100^{km}, n14, σ1.^{s}46**/9**, 1C-3D, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNA1	Neumayer--Stat	16.69	157	⇑P	Pn	19 20 49.8	-0.6
	comp=Z,5.2nm,1.2s						
VNA3	Neumayer Olymp	16.86	159	⇓P	Pn	19 20 51.0	-1.5
	comp=Z,2.1nm,0.8s						
VNA2	Neumayer--Watz	17.09	157	⇓P	Pn	19 20 56.4	+1.1
	comp=Z,1.6nm,1.0s,baz=315,slow=11						
SNAA	Sanae	18.66	155	P	P	19 21 11.3	-1.4
	comp=Z,0.2nm,0.3s,baz=312,slow=14,SNR=4.4						
	comp=Z,1.3nm,0.4s						
SNAA				AML	AML		
TROLL	Troll, Antarti	20.18	153	⇓P	P	19 21 28.3	-1.1
	comp=Z,114nm,0.8s						
QSPA	South Pole Qui	33.89	180	P	P	19 23 37.7	+1.8
	comp=Z,4.1nm,1.0s,baz=186,slow=2.8,SNR=8.7						
	comp=Z,4.1nm,1.0s						
H10S2	ASCENSION HYDR	48.44	18	T	T	20 17 35.0	
	baz=189,slow=74,SNR=666						
H10S3	ASCENSION HYDR	48.44	18	T	T	20 17 35.3	
	baz=31,slow=74,SNR=1066						
H10N1	ASCENSION HYDR	49.56	18	T	T	20 18 59.1	
	baz=189,slow=75,SNR=222						
H10N3	ASCENSION HYDR	49.56	18	T	T	20 18 58.6	
	baz=189,slow=75,SNR=511						
H10N2	ASCENSION HYDR	49.57	18	T	T	20 18 58.0	
	baz=189,slow=75,SNR=392						
LPAZ	La Paz	50.17	306	P	P	19 25 47.9	-1.2
	comp=Z,0.4nm,0.5s,baz=164,slow=7.4,SNR=1.9						
	comp=Z,0.4nm,0.5s						
TORD	Torodi Ar. Bea	73.56	30	P	P	19 28 25.4	+0.4
	comp=Z,0.8nm,0.7s,baz=199,slow=6.4,SNR=4.8						

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
	comp=Z,0.8nm,0.7s						
ILAR	**Eielson Array**	**149.96**	**311**	PKPbc	**PKPbc**	**19 36 41.2**	**+1.1**
	comp=Z,2.1nm,0.8s,baz=114,slow=1.4,SNR=18						

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*IDC **11** 19:18:23.8±1.4,6$\overset{\circ}{.}$41S×147$\overset{\circ}{.}$14E,h0^{km},mb3.6/4,mbtmp3.7/6,ML3.2/1,MS3.2/1,Error ellipse: s-maj=43.4km s-min=18.5km az=86.0*

ISC 11 19:18:30.3±1.2**,6$\overset{\circ}{.}$5S**±0$\overset{\circ}{.}$1×**147$\overset{\circ}{.}$1E**±0$\overset{\circ}{.}$2**,h49^{km},n8,**σ**1$\overset{s}{.}$63**/8,**mb3.6**/4**,Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**2.90**	**178**	Pn	**Pn**	**19 19 11.5**	**-2.5**
	11nm,0.3s,baz=347,slow=5.3,SNR=10						
PMG				Sn	**Sn**	**19 19 49.5**	**+1.8**
	4.3nm,0.3s,baz=357,slow=19,SNR=3.7						
WRA	**Warramunga Arr**	**18.22**	**222**	P	**Pn**	**19 22 39.5**	**-0.3**
	0.1nm,0.3s,baz=49,slow=12,SNR=7.6						
	1.7nm,0.7s						
WRA				AML	AML		
ASAR	**Alice Springs**	**21.27**	**215**	P	**P**	**19 23 13.7**	**+1.0**
	2.1nm,0.6s,baz=33,slow=12,SNR=28						
	2.1nm,0.6s						
KAPI	**Kappang**	**27.23**	**272**	LR	LR	19 36 24.7	
	comp=Z,52nm,18.9s,baz=299,slow=40						
CMAR	**Chiang Mai Arr**	**53.55**	**298**	P	**P**	**19 27 46.0**	**-0.6**
	0.2nm,0.3s,baz=112,slow=7.5,SNR=5.8						
	0.2nm,0.3s						
QSPA	**South Pole Qui**	**83.48**	**180**	P	**P**	**19 30 53.8**	**+1.1**
	0.6nm,0.6s,baz=14,slow=1.5,SNR=5.2						
	0.6nm,0.6s						
ILAR	**Eielson Array**	**85.90**	**23**	P	**P**	**19 31 04.7**	**0.0**
	0.2nm,0.8s,baz=255,slow=3.5,SNR=1.9						
	0.2nm,0.8s						
TORD	**Torodi Ar. Bea**	**145.28**	**284**	PKPbc	**PKPdf**	**19 38 04.9**	**+1.1**
	0.8nm,0.6s,baz=85,slow=3.9,SNR=5.6						

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*JMA **11** 19:31:04.7±0.1,24°N±1°×122$\overset{\circ}{.}$2E±0$\overset{\circ}{.}$3,h53^{km}±2^{km},MV2.7/12,TAIWAN REGION*

*TAP **11** 19:31:05.1,24$\overset{\circ}{.}$26N×122$\overset{\circ}{.}$19E,h57^{km},ML3.6,B*

ISC 11 19:31:05.3±1.2**,24$\overset{\circ}{.}$24N**±0$\overset{\circ}{.}$02×**122$\overset{\circ}{.}$24E**±0$\overset{\circ}{.}$02**,h50**^{km}±5^{km}**,n205,**σ**1$\overset{s}{.}$33**/381**,7C-4D,Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EOS3	**EOS3**	**0.09**	**57**	P	**Pn**	**19 31 13.6**	**+0.7**
EOS3				S	**Sn**	**19 31 19.9**	**+1.6**
EOS4	**EOS4**	**0.14**	**147**	P	**Pn**	**19 31 13.4**	**+0.6**
EOS4				S	**Sn**	**19 31 19.3**	**+1.2**
EOS2	**EOS2**	**0.18**	**359**	P	**Pn**	**19 31 13.9**	**+0.5**
EOS2				S	**Sn**	**19 31 20.9**	**+1.8**
EHP	**Heping Village**	**0.46**	**279**	*e*P	**Pn**	**19 31 17.2**	**+1.1**
EAHA	**Aohua**	**0.46**	**282**	⇑P	**Pn**	**19 31 15.7**	**-0.4**
EAHA				S	**Sn**	**19 31 23.9**	**+0.1**
EWUT	**Wuta**	**0.47**	**297**	⇑P	**Pn**	**19 31 15.8**	**-0.4**
EWUT				S	**Sn**	**19 31 23.4**	**-0.5**
ENA	**Nanau**	**0.49**	**293**	⇑*e*P	**Pn**	**19 31 13.6**	**-2.8**
ENA				*e*S	**Sn**	**19 31 22.3**	**-2.1**
ETL	**Fush Village**	**0.56**	**262**	P	**Pn**	**19 31 16.8**	**-0.6**
ETL				S	**Sn**	**19 31 25.7**	**-0.3**
NACB	**Ninganchiao**	**0.59**	**264**	P	**Pn**	**19 31 16.3**	**-1.3**
NACB	**Ninganchiao**	**0.59**	**264**	S	**Sn**	**19 31 23.5**	**-3.0**
NACB	**Ninganchiao**	**0.59**	**264**	⇑P	**Pn**	**19 31 16.7**	**-0.9**
NACB				S	**Sn**	**19 31 26.0**	**-0.5**
TWD	**Chiawan**	**0.60**	**255**	P	**Pn**	**19 31 17.1**	**-0.7**
TWD				S	**Sn**	**19 31 26.0**	**-0.8**
NDS	**Dongshan**	**0.62**	**310**	⇑*i*P	**Pn**	**19 31 17.8**	**-0.2**
NDS				S	**Sn**	**19 31 26.9**	**-0.2**
EGS		**0.67**	**336**	P	**Pn**	**19 31 18.2**	**-0.4**
EGS				S	**Sn**	**19 31 28.8**	**+0.6**
JYNG	**Yonagunijimaku**	**0.68**	**72**	P	**Pn**	**19 31 19.0**	**+0.2**
JYNG				*e*S	**Sn**	**19 31 29.1**	**+0.5**
ETLH	**Xiulin Townshi**	**0.69**	**268**	P	**Pn**	**19 31 18.3**	**-0.7**
ETLH				S	**Sn**	**19 31 28.2**	**-0.7**
ILA	**Ilan**	**0.69**	**320**	P	**Pn**	**19 31 19.6**	**+0.7**
ILA				S	**Sn**	**19 31 30.0**	**+1.2**
TEYL	**Yanliau Villag**	**0.69**	**238**	P	**Pn**	**19 31 18.3**	**-0.6**
TEYL				S	**Sn**	**19 31 28.5**	**-0.2**
TWE	**Neicheng**	**0.71**	**313**	⇑P	**Pn**	**19 31 19.2**	**0.0**
TWE				S	**Sn**	**19 31 29.3**	**+0.1**
LATG	**Datong**	**0.71**	**295**	⇓P	**Pn**	**19 31 19.0**	**-0.3**
LATG				S	**Sn**	**19 31 29.2**	**-0.2**
NTC	**Toucheng**	**0.72**	**329**	P	**Pn**	**19 31 20.2**	**+1.0**
NTC				*e*S	**Sn**	**19 31 31.4**	**+2.0**
ENTT	**Nioudou**	**0.73**	**304**	⇑P	**Pn**	**19 31 19.4**	**0.0**
ENTT				S	**Sn**	**19 31 29.8**	**+0.1**
ETM	**Tongmen**	**0.73**	**248**	P	**Pn**	**19 31 18.6**	**-0.8**
ETM				S	**Sn**	**19 31 28.9**	**-0.8**
YOJ	**Yonaguni jima**	**0.74**	**72**	P	**Pn**	**19 31 19.7**	**+0.1**
YOJ	**Yonaguni jima**	**0.74**	**72**	S	**Sn**	**19 31 30.4**	**+0.4**
YOJ	**Yonaguni jima**	**0.74**	**72**	⇓P	**Pn**	**19 31 19.6**	**+0.1**
YOJ				S	**Sn**	**19 31 30.8**	**+0.8**
YOJ	**Yonaguni jima**	**0.74**	**72**	*e*P	**Pn**	**19 31 19.7**	**+0.1**
YOJ				*e*S	**Sn**	**19 31 30.8**	**+0.8**
NDT	**Datong Townshi**	**0.75**	**299**	*e*P	**Pn**	**19 31 19.8**	**0.0**
NDT				*e*S	**Sn**	**19 31 30.5**	**+0.3**
SHUL	**Shoufeng**	**0.76**	**234**	P	**Pn**	**19 31 19.2**	**-0.7**
SHUL				S	**Sn**	**19 31 30.9**	**+0.5**
LXIB	**Xiulin Townshi**	**0.78**	**254**	P	**Pn**	**19 31 19.8**	**-0.5**
LXIB				S	**Sn**	**19 31 30.8**	**-0.3**
FUSB	**Fushanzhiwuyua**	**0.79**	**312**	P	**Pn**	**19 31 20.4**	**+0.2**
FUSB				S	**Sn**	**19 31 31.6**	**+0.4**
NNSB	**Datong**	**0.80**	**284**	P	**Pn**	**19 31 19.9**	**-0.6**
NNSB				S	**Sn**	**19 31 31.5**	**-0.1**
NNSH	**Datong**	**0.80**	**284**	P	**Pn**	**19 31 19.9**	**-0.5**
NNSH				S	**Sn**	**19 31 31.3**	**-0.3**
TWB1	**Santiao Chiao**	**0.80**	**344**	P	**Pn**	**19 31 19.9**	**-0.4**
TWB1				S	**Sn**	**19 31 30.1**	**-1.3**
NNS	**Nan Shan**	**0.81**	**285**	P	**Pn**	**19 31 20.2**	**-0.4**
NNS				S	**Sn**	**19 31 31.6**	**-0.2**
TIPB	**Shuangxi**	**0.82**	**333**	P	**Pn**	**19 31 20.2**	**-0.4**
TIPB				S	**Sn**	**19 31 31.1**	**-0.8**
TEGC	**Jichi Village**	**0.82**	**231**	*e*P	**Pn**	**19 31 18.3**	**-2.4**
TEGC				S	**Sn**	**19 31 31.7**	**-0.2**
ESL	**Shilin**	**0.84**	**240**	P	**Pn**	**19 31 20.2**	**-0.7**
ESL				S	**Sn**	**19 31 31.6**	**-0.8**
NWLT	**Wulai**	**0.86**	**309**	P	**Pn**	**19 31 21.1**	**0.0**
NWLT				S	**Sn**	**19 31 32.4**	**-0.4**
WHF	**Hehuan Shan**	**0.89**	**264**	P	**Pn**	**19 31 21.3**	**-0.6**
WHF				*e*S	**Sn**	**19 31 33.7**	**-0.4**
YHNB	**Yeheng**	**0.89**	**299**	P	**Pn**	**19 31 21.6**	**-0.1**
YHNB	**Yeheng**	**0.89**	**299**	S	**Sn**	**19 31 33.1**	**-0.6**
YHNB	**Yeheng**	**0.89**	**299**	⇓P	**Pn**	**19 31 21.6**	**-0.1**
YHNB				S	**Sn**	**19 31 33.0**	**-0.6**
FUSS	**Fushou**	**0.91**	**271**	P	**Pn**	**19 31 22.3**	**+0.3**
FUSS				S	**Sn**	**19 31 34.0**	**-0.2**
NSK	**Sanguang**	**0.91**	**299**	⇓P	**Pn**	**19 31 21.7**	**-0.2**
NSK				S	**Sn**	**19 31 33.1**	**-1.0**
SXI1	**Grass Mountain**	**0.91**	**339**	P	**Pn**	**19 31 21.4**	**-0.5**
SXI1				*e*S	**Sn**	**19 31 32.9**	**-1.3**
WFSB	**Wu-fen Shan**	**0.93**	**334**	P	**Pn**	**19 31 21.6**	**-0.4**
WFSB				S	**Sn**	**19 31 33.6**	**-0.7**
EGFH	**Guangfu**	**0.93**	**233**	*i* P	**Pn**	**19 31 21.1**	**-0.9**
EGFH				S	**Sn**	**19 31 34.5**	**0.0**
WARBT	**Fenglin Townsh**	**0.93**	**237**	P	**Pn**	**19 31 21.2**	**-0.9**
WARBT				S	**Sn**	**19 31 34.0**	**-0.6**
TWA	**Mucha**	**0.95**	**321**	P	**Pn**	**19 31 22.3**	**0.0**
TWA				S	**Sn**	**19 31 35.4**	**+0.5**
TWT	**Tachien**	**0.97**	**271**	P	**Pn**	**19 31 23.5**	**+0.7**
TWT				*i* S	**Sn**	**19 31 35.5**	**-0.1**
NHDH	**Xindian Distri**	**0.97**	**318**	P	**Pn**	**19 31 22.8**	**+0.2**
NHDH				S	**Sn**	**19 31 35.8**	**+0.5**
TDCB	**Techi**	**0.98**	**271**	*i* P	**Pn**	**19 31 23.6**	**+0.6**
TDCB				*i* S	**Sn**	**19 31 35.4**	**-0.5**
TATO	**Taipei**	**1.00**	**317**	P	**Pn**	**19 31 23.3**	**+0.2**
TATO	**Taipei**	**1.00**	**317**	S	**Sn**	**19 31 36.5**	**+0.4**
TATO	**Taipei**	**1.00**	**317**	P	**Pn**	**19 31 23.1**	**0.0**
TATO				S	**Sn**	**19 31 36.9**	**+0.7**
TNOU	**National Taiwa**	**1.00**	**335**	P	**Pn**	**19 31 21.8**	**-1.2**
TNOU				S	**Sn**	**19 31 34.5**	**-1.7**
NHY	**Taipei**	**1.00**	**323**	P	**Pn**	**19 31 24.3**	**+1.3**
NHY				S	**Sn**	**19 31 36.2**	**+0.1**
OWD	**Renai**	**1.01**	**254**	P	**Pn**	**19 31 22.9**	**-0.3**
OWD				*i* S	**Sn**	**19 31 35.9**	**-0.6**
TAP	**Taipei**	**1.04**	**320**	P	**Pn**	**19 31 24.6**	**+1.1**
TAP				S	**Sn**	**19 31 37.2**	**+0.2**
BACT	**New Taipei Cit**	**1.05**	**317**	*e*P	**Pn**	**19 31 25.1**	**+1.5**
BACT				*e*S	**Sn**	**19 31 38.7**	**+1.5**
HGSD	**Ruisui**	**1.05**	**225**	*e*P	**Pn**	**19 31 24.2**	**+0.5**
HGSD				*e*S	**Sn**	**19 31 37.7**	**+0.4**
WUSB	**Renai**	**1.05**	**257**	*i* P	**Pn**	**19 31 23.9**	**0.0**
WUSB				S	**Sn**	**19 31 37.2**	**-0.3**
YM01	**YM01**	**1.09**	**326**	P	**Pn**	**19 31 23.7**	**-0.6**
YM01				S	**Sn**	**19 31 37.4**	**-0.9**
NFF	**Wufeng Townshi**	**1.09**	**291**	P	**Pn**	**19 31 24.8**	**+0.4**
NFF				*e*S	**Sn**	**19 31 39.6**	**+1.2**
NWRT	**Kuosheng**	**1.09**	**332**	*e*P	**Pn**	**19 31 25.9**	**+1.6**
NWRT				*e*S	**Sn**	**19 31 40.3**	**+1.9**
EHYH	**Wanrong**	**1.10**	**228**	*e*P	**Pn**	**19 31 24.5**	**+0.1**
EHYH				S	**Sn**	**19 31 37.2**	**-1.3**
KSHI	**Guanxi Townshi**	**1.10**	**299**	*i* P	**Pn**	**19 31 25.2**	**+0.8**
KSHI				*e*S	**Sn**	**19 31 40.4**	**+1.7**
EHY	**Hungye**	**1.11**	**229**	P	**Pn**	**19 31 23.7**	**-0.8**
EHY				S	**Sn**	**19 31 37.8**	**-0.9**
VWDT	**VWDT**	**1.11**	**245**	P	**Pn**	**19 31 24.6**	**+0.1**
VWDT				S	**Sn**	**19 31 38.4**	**-0.3**
YM08	**YM08**	**1.11**	**328**	P	**Pn**	**19 31 23.6**	**-1.0**
YM08				*e*S	**Sn**	**19 31 36.7**	**-2.2**
ZUZH	**Zhuzihu**	**1.11**	**326**	P	**Pn**	**19 31 23.9**	**-0.7**
ZUZH				S	**Sn**	**19 31 37.6**	**-1.3**
TWS1	**Kuangyinshan**	**1.14**	**319**	P	**Pn**	**19 31 24.6**	**-0.3**
TWS1				S	**Sn**	**19 31 40.3**	**+0.9**
NTY	**Taoyuan**	**1.14**	**312**	S	**Sn**	**19 31 39.5**	**0.0**
ANP	**Anpu**	**1.15**	**326**	P	**Pn**	**19 31 25.2**	**+0.1**
ANP				S	**Sn**	**19 31 38.4**	**-1.4**
NJD	**Zhudong**	**1.16**	**296**	P	**Pn**	**19 31 25.7**	**+0.6**
NJD				S	**Sn**	**19 31 41.4**	**+1.5**
ECBN	**Changbin**	**1.16**	**218**	P	**Pn**	**19 31 24.3**	**-0.9**
ECBN				S	**Sn**	**19 31 39.4**	**-0.6**
NTST	**Danshui**	**1.17**	**322**	P	**Pn**	**19 31 25.5**	**+0.2**
NTST				S	**Sn**	**19 31 39.6**	**-0.5**
WHP	**Taichung City**	**1.18**	**272**	P	**Pn**	**19 31 26.3**	**+0.8**
WHP				S	**Sn**	**19 31 40.6**	**+0.1**
LIOB	**Emei**	**1.18**	**290**	*e*P	**Pn**	**19 31 26.3**	**+0.7**
LIOB				S	**Sn**	**19 31 41.5**	**+0.9**
TWY	**Chenhua**	**1.19**	**331**	*e*P	**Pn**	**19 31 27.3**	**+1.8**
TWY				S	**Sn**	**19 31 39.8**	**-0.7**
WPL	**Puli Township**	**1.19**	**259**	P	**Pn**	**19 31 25.6**	**0.0**
WPL				S	**Sn**	**19 31 40.3**	**-0.4**
NSTT	**Nanjuang**	**1.19**	**290**	*i* P	**Pn**	**19 31 26.3**	**+0.7**
NSTT				*i* S	**Sn**	**19 31 41.3**	**+0.6**
NCU	**National Centr**	**1.20**	**308**	S	**Sn**	**19 31 41.3**	**+0.3**
NCUH	**Zhongli**	**1.20**	**308**	*e*S	**Sn**	**19 31 41.3**	**+0.3**
DPDB	**Guoxing**	**1.21**	**261**	P	**Pn**	**19 31 26.6**	**+0.6**
DPDB				S	**Sn**	**19 31 41.8**	**+0.5**
EYUL	**Yuli**	**1.22**	**224**	*e*P	**Pn**	**19 31 26.0**	**0.0**
EYUL				*e*S	**Sn**	**19 31 42.3**	**+0.8**
WCS	**Beigang Elemen**	**1.22**	**262**	P	**Pn**	**19 31 26.1**	**+0.1**
WCS				*e*S	**Sn**	**19 31 42.4**	**+0.9**
HSN1	**Hsinchu**	**1.23**	**296**	P	**Pn**	**19 31 26.7**	**+0.5**
HSN1				S	**Sn**	**19 31 43.1**	**+1.4**
SSLB	**Suanglung**	**1.25**	**249**	P	**Pn**	**19 31 26.6**	**0.0**
SSLB	**Suanglung**	**1.25**	**249**	S	**Sn**	**19 31 42.5**	**+0.2**
SSLB	**Suanglung**	**1.25**	**249**	P	**Pn**	**19 31 26.5**	**0.0**
SSLB				*e*S	**Sn**	**19 31 42.4**	**+0.1**
SBCB	**Hsinchu**	**1.27**	**296**	P	**Pn**	**19 31 26.3**	**-0.3**
SBCB				*e*S	**Sn**	**19 31 44.2**	**+1.7**
SMLT	**Sun Moon Lake**	**1.27**	**254**	P	**Pn**	**19 31 26.4**	**-0.4**
SMLT				S	**Sn**	**19 31 42.3**	**-0.5**
HSN	**Hsinchu**	**1.28**	**296**	P	**Pn**	**19 31 26.8**	**-0.1**
HSN				*e*S	**Sn**	**19 31 42.8**	**-0.1**
CHKH	**Chenggong**	**1.29**	**217**	P	**Pn**	**19 31 25.9**	**-1.1**
CHKH				*e*S	**Sn**	**19 31 41.6**	**-1.6**
TYC	**Yuchr**	**1.30**	**256**	P	**Pn**	**19 31 27.5**	**+0.4**
TYC				S	**Sn**	**19 31 43.3**	**-0.1**
NJN	**Zhunan**	**1.32**	**290**	*e*P	**Pn**	**19 31 30.3**	**+2.9**
NJN				S	**Sn**	**19 31 44.6**	**+0.7**
NHW	**Xinwu Township**	**1.32**	**306**	*e*P	**Pn**	**19 31 28.3**	**+0.8**
NHW				*e*S	**Sn**	**19 31 44.8**	**+0.8**
TWQ1	**Liyutan**	**1.34**	**275**	P	**Pn**	**19 31 28.4**	**+0.8**
TWQ1				S	**Sn**	**19 31 45.6**	**+1.2**
FULB	**Fuli**	**1.35**	**220**	*e*P	**Pn**	**19 31 27.3**	**-0.4**
FULB				*e*S	**Sn**	**19 31 43.9**	**-0.7**
NMLH	**Miaoli**	**1.35**	**283**	P	**Pn**	**19 31 28.6**	**+0.8**
NMLH				S	**Sn**	**19 31 45.5**	**+0.9**
NSY	**Sanyi**	**1.36**	**278**	P	**Pn**	**19 31 29.1**	**+1.2**
NSY				*e*S	**Sn**	**19 31 47.3**	**+2.5**
IRIF	**Iriomote-Funau**	**1.37**	**86**	*e*P	**Pn**	**19 31 28.0**	**0.0**
IRIF				*e*S	**Sn**	**19 31 45.0**	**0.0**
WHYT	**Xinyi Township**	**1.37**	**247**	*e*P	**Pn**	**19 31 28.5**	**+0.3**
WHYT				*e*S	**Sn**	**19 31 47.0**	**+1.7**
CHKT	**Chengkung**	**1.39**	**215**	*e*P	**Pn**	**19 31 27.1**	**-1.1**
CHKT				S	**Sn**	**19 31 43.2**	**-2.2**
YUS	**Yu-Shan**	**1.39**	**238**	P	**Pn**	**19 31 29.1**	**+0.3**
YUS				*e*S	**Sn**	**19 31 46.5**	**+0.2**
PCYT	**Pengchaiyu**	**1.40**	**354**	P	**Pn**	**19 31 28.0**	**-0.4**
PCYT				*e*S	**Sn**	**19 31 46.9**	**+1.2**
WWF	**Wufeng**	**1.42**	**262**	P	**Pn**	**19 31 30.0**	**+1.3**
WWF				*e*S	**Sn**	**19 31 49.4**	**+3.2**
TCU	**Taichung**	**1.43**	**267**	P	**Pn**	**19 31 29.9**	**+1.1**
TCU				*e*S	**Sn**	**19 31 49.0**	**+2.5**
EHD	**Haiduan**	**1.44**	**221**	*e*P	**Pn**	**19 31 28.6**	**-0.4**
EHD				*e*S	**Sn**	**19 31 43.9**	**-2.8**
WJS	**Zhushan**	**1.44**	**254**	P	**Pn**	**19 31 30.5**	**+1.5**
WJS				S	**Sn**	**19 31 49.0**	**+2.2**
HATJ	**Hateruma jima**	**1.45**	**97**	*e*P	**Pn**	**19 31 29.9**	**+0.9**
WDJ	**Dajia District**	**1.46**	**275**	P	**Pn**	**19 31 30.0**	**+0.7**
WDJ				*e*S	**Sn**	**19 31 48.8**	**+1.5**
WNT1	**Nantou City**	**1.46**	**257**	P	**Pn**	**19 31 31.0**	**+1.7**
WNT1				S	**Sn**	**19 31 50.0**	**+2.8**
WNT	**Mingjian**	**1.46**	**256**	P	**Pn**	**19 31 31.2**	**+1.9**
WNT				S	**Sn**	**19 31 49.4**	**+2.1**
ECS	**Chishang**	**1.47**	**220**	P	**Pn**	**19 31 29.9**	**+0.5**
ECS				S	**Sn**	**19 31 48.6**	**+1.1**
ALS	**Alishan**	**1.50**	**241**	P	**Pn**	**19 31 31.1**	**+1.0**
ALS				S	**Sn**	**19 31 48.8**	**+0.3**
EDH	**Donghe**	**1.52**	**214**	*e*P	**Pn**	**19 31 29.1**	**-1.0**
EDH				S	**Sn**	**19 31 46.5**	**-2.2**
ELDTW	**Lidau**	**1.53**	**227**	P	**Pn**	**19 31 30.0**	**-0.3**
ELDTW				*e*S	**Sn**	**19 31 48.5**	**-0.5**
WYL	**Yuanlin Townsh**	**1.54**	**260**	P	**Pn**	**19 31 31.5**	**+1.2**
WYL				S	**Sn**	**19 31 51.8**	**+2.7**
WCHH	**Zhanghua**	**1.54**	**265**	P	**Pn**	**19 31 31.4**	**+1.0**
WCHH				S	**Sn**	**19 31 51.2**	**+2.0**
WCH1	**Changhua City**	**1.55**	**264**	P	**Pn**	**19 31 31.1**	**+0.6**
WCH1				S	**Sn**	**19 31 50.6**	**+1.2**
CHN5	**Tsauling**	**1.56**	**246**	P	**Pn**	**19 31 32.0**	**+1.2**
CHN5				*e*S	**Sn**	**19 31 51.8**	**+2.0**
WWCA	**Taichung City**	**1.56**	**271**	*e*P	**Pn**	**19 31 32.9**	**+2.2**
WWCA				*e*S	**Sn**	**19 31 52.9**	**+3.2**
JKRS	**Kuro-shima**	**1.62**	**90**	*e*P	**Pn**	**19 31 32.0**	**+0.6**
JKRS				*e*S	**Sn**	**19 31 52.0**	**+0.9**
WGK	**Gukeng**	**1.62**	**251**	P	**Pn**	**19 31 33.1**	**+1.5**
WGK				*e*S	**Sn**	**19 31 53.7**	**+2.4**
WDL	**Douliou City**	**1.64**	**252**	P	**Pn**	**19 31 33.6**	**+1.9**
WDL				*e*S	**Sn**	**19 31 55.4**	**+3.8**
WDLH	**Douliu**	**1.65**	**251**	P	**Pn**	**19 31 33.4**	**+1.6**
WDLH				S	**Sn**	**19 31 53.8**	**+2.0**
LONT	**Longtian**	**1.67**	**218**	*e*P	**Pn**	**19 31 29.7**	**-2.5**
LONT				S	**Sn**	**19 31 50.9**	**-1.4**
WCKO	**Fanlu**	**1.69**	**242**	P	**Pn**	**19 31 33.5**	**+1.0**
WCKO				S	**Sn**	**19 31 54.6**	**+1.6**
LDUT	**Ludao**	**1.71**	**204**	P	**Pn**	**19 31 32.2**	**-0.5**
LDUT				*e*S	**Sn**	**19 31 50.1**	**-3.2**
STYH	**Taoyuan**	**1.71**	**232**	P	**Pn**	**19 31 33.8**	**+1.1**
STYH				S	**Sn**	**19 31 53.3**	**0.0**
STYT	**Tauyuan**	**1.73**	**232**	P	**Pn**	**19 31 34.4**	**+1.4**
STYT				S	**Sn**	**19 31 54.9**	**+1.0**
WRL	**Guolierlin Hig**	**1.73**	**259**	P	**Pn**	**19 31 34.0**	**+1.1**
WRL				*e*S	**Sn**	**19 31 55.9**	**+2.0**
TPUB	**Ta-pu**	**1.74**	**238**	P	**Pn**	**19 31 34.5**	**+1.3**
TPUB	**Ta-pu**	**1.74**	**238**	S	**Sn**	**19 31 55.8**	**+1.6**
TPUB	**Ta-pu**	**1.74**	**238**	P	**Pn**	**19 31 34.5**	**+1.3**
TPUB				S	**Sn**	**19 31 55.9**	**+1.7**
JIJ	**Ishigaki jima**	**1.75**	**85**	*e*P	**Pn**	**19 31 32.9**	**-0.3**
JIJ				*e*S	**Sn**	**19 31 53.7**	**-0.6**
RLNB	**Erlin**	**1.75**	**259**	P	**Pn**	**19 31 34.1**	**+1.0**
RLNB				*e*S	**Sn**	**19 31 56.6**	**+2.3**
CHN2	**Minshiung**	**1.76**	**247**	*e*S	**Sn**	**19 31 58.5**	**+4.0**
TWGBT	**Beinan**	**1.77**	**217**	P	**Pn**	**19 31 33.5**	**0.0**
TWGBT	**Beinan**	**1.77**	**217**	P	**Pn**	**19 31 32.6**	**-0.9**
TWGBT				*e*S	**Sn**	**19 31 52.4**	**-2.4**
TWG	**Pinlang**	**1.77**	**217**	P	**Pn**	**19 31 33.0**	**-0.5**
TWG				S	**Sn**	**19 31 52.6**	**-2.2**
WTK	**Tuku**	**1.77**	**252**	P	**Pn**	**19 31 34.9**	**+1.3**
WTK				S	**Sn**	**19 31 56.5**	**+1.5**
TTN	**Taitung**	**1.78**	**214**	*e*P	**Pn**	**19 31 34.8**	**+1.1**
TTN				*e*S	**Sn**	**19 31 56.5**	**+1.4**
WTP	**Ta-pu**	**1.78**	**237**	P	**Pn**	**19 31 35.1**	**+1.4**
WTP				S	**Sn**	**19 31 56.8**	**+1.5**
CHY	**Chiayi**	**1.81**	**246**	P	**Pn**	**19 31 35.7**	**+1.6**
CHY				*e*S	**Sn**	**19 31 59.0**	**+3.1**
WTCT	**Ta-ch'eng**	**1.82**	**259**	*e*P	**Pn**	**19 31 34.5**	**+0.2**
WTCT				*e*S	**Sn**	**19 31 59.1**	**+2.9**
TWK	**Hsinying**	**1.87**	**239**	P	**Pn**	**19 31 35.7**	**+0.8**
TWK				S	**Sn**	**19 31 59.2**	**+1.8**
CHN1	**Nanshi**	**1.88**	**237**	P	**Pn**	**19 31 36.1**	**+1.1**
CHN1				*e*S	**Sn**	**19 32 00.3**	**+2.6**
SNST	**Tainan City**	**1.89**	**238**	P	**Pn**	**19 31 37.0**	**+1.9**
SNST				*e*S	**Sn**	**19 32 00.5**	**+2.7**
WMLT	**Mailiao**	**1.89**	**257**	*e*P	**Pn**	**19 31 37.0**	**+1.9**
WMLT				*e*S	**Sn**	**19 31 60.0**	**+2.2**
SGST	**Jiashian**	**1.90**	**233**	P	**Pn**	**19 31 36.0**	**+0.7**
SGST				S	**Sn**	**19 31 59.3**	**+1.2**
SLGT	**Liugui**	**1.91**	**230**	P	**Pn**	**19 31 37.5**	**+2.1**
SLGT				*e*S	**Sn**	**19 32 01.4**	**+3.0**
JISG	**Ishigakijimahi**	**1.93**	**79**	*e*P	**Pn**	**19 31 35.3**	**-0.3**
JISG				*e*S	**Sn**	**19 31 58.1**	**-0.5**
WSF	**Szhu**	**1.94**	**252**	P	**Pn**	**19 31 36.7**	**+1.0**
WSF				*e*S	**Sn**	**19 32 01.7**	**+2.8**
WSL	**Shuilin Townsh**	**1.97**	**249**	P	**Pn**	**19 31 37.5**	**+1.3**
WSL				S	**Sn**	**19 32 02.6**	**+2.9**
ICHU	**Yijhu**	**1.99**	**244**	P	**Pn**	**19 31 37.4**	**+0.9**
ICHU				S	**Sn**	**19 32 02.0**	**+1.7**
ECL	**Taimali**	**2.01**	**216**	P	**Pn**	**19 31 36.4**	**-0.4**
ECL				*e*S	**Sn**	**19 32 00.7**	**-0.1**
CHN8	**Yiju**	**2.06**	**245**	P	**Pn**	**19 31 38.7**	**+1.3**
CHN8				S	**Sn**	**19 32 04.2**	**+2.4**
CHN3	**Shinhua**	**2.07**	**236**	P	**Pn**	**19 31 39.3**	**+1.7**
CHN3				S	**Sn**	**19 32 04.2**	**+2.1**
SCST	**Cishan**	**2.09**	**230**	P	**Pn**	**19 31 39.5**	**+1.6**
SCST				S	**Sn**	**19 32 06.6**	**+3.9**
SSD	**Sandimen**	**2.09**	**225**	P	**Pn**	**19 31 39.8**	**+1.9**
SSD				S	**Sn**	**19 32 04.6**	**+1.9**
SSHA	**Shanhua**	**2.09**	**239**	P	**Pn**	**19 31 39.3**	**+1.4**
SSHA				S	**Sn**	**19 32 04.8**	**+2.0**
TSMG	**Majia**	**2.11**	**224**	P	**Pn**	**19 31 39.8**	**+1.6**
TSMG				S	**Sn**	**19 32 05.5**	**+2.3**
SHHT	**Tainan City**	**2.11**	**235**	P	**Pn**	**19 31 39.9**	**+1.7**
SHHT				S	**Sn**	**19 32 05.4**	**+2.2**
SCLT	**Jiali**	**2.15**	**241**	*e*P	**Pn**	**19 31 40.5**	**+1.8**
SCLT				*e*S	**Sn**	**19 32 06.6**	**+2.5**
TWM1	**Shoushan**	**2.18**	**230**	*e*P	**Pn**	**19 31 39.6**	**+0.5**
TWM1				*e*S	**Sn**	**19 32 06.4**	**+1.5**
MASBT	**Mashibuluo**	**2.19**	**223**	P	**Pn**	**19 31 40.4**	**+1.2**
MASBT				S	**Sn**	**19 32 06.6**	**+1.5**
TSPT	**Pingtung City**	**2.23**	**226**	P	**Pn**	**19 31 41.2**	**+1.4**
TSPT				*e*S	**Sn**	**19 32 07.5**	**+1.4**
TAW	**Tawu**	**2.24**	**214**	*e*P	**Pn**	**19 31 41.0**	**+1.1**
TAW				S	**Sn**	**19 32 04.6**	**-1.7**
TAI	**Tainan**	**2.24**	**237**	P	**Pn**	**19 31 41.0**	**+1.1**
TAI				*e*S	**Sn**	**19 32 07.3**	**+0.9**
EAST	**Anshuo**	**2.24**	**215**	*e*P	**Pn**	**19 31 41.5**	**+1.5**
EAST				*e*S	**Sn**	**19 32 07.6**	**+1.1**
TSCK	**Chigu Township**	**2.25**	**242**	P	**Pn**	**19 31 40.7**	**+0.6**
TSCK				S	**Sn**	**19 32 08.4**	**+1.8**
TAWH	**Dawu Township**	**2.26**	**214**	*e*P	**Pn**	**19 31 41.0**	**+0.8**
TAWH				S	**Sn**	**19 32 05.2**	**-1.6**
LAY	**Lan-yu**	**2.28**	**196**	P	**Pn**	**19 31 39.8**	**-0.7**
LAY				S	**Sn**	**19 32 06.8**	**-0.5**
SNJT	**Kaohsiung City**	**2.29**	**230**	*e*P	**Pn**	**19 31 41.8**	**+1.2**
SNJT				*e*S	**Sn**	**19 32 09.0**	**+1.5**
LYUB	**Lan-yu**	**2.30**	**195**	*e*P	**Pn**	**19 31 40.9**	**+0.1**
LYUB				S	**Sn**	**19 32 06.5**	**-1.5**
SSPT	**Xinbi**	**2.32**	**222**	P	**Pn**	**19 31 42.8**	**+1.7**
SSPT				S	**Sn**	**19 32 10.4**	**+2.0**
SCZT	**Fangliau**	**2.38**	**219**	P	**Pn**	**19 31 43.0**	**+1.2**
SCZT				*e*S	**Sn**	**19 32 11.1**	**+1.3**
SLIU	**Shizi**	**2.41**	**214**	P	**Pn**	**19 31 42.7**	**+0.4**
SLIU				S	**Sn**	**19 32 11.0**	**+0.5**
WLCH	**Liuqiu**	**2.54**	**223**	*e*P	**Pn**	**19 31 44.9**	**+0.9**
WLCH				*e*S	**Sn**	**19 32 15.0**	**+1.3**
PNG	**Penghu**	**2.54**	**255**	*e*P	**Pn**	**19 31 44.7**	**+0.6**
PNG				S	**Sn**	**19 32 12.9**	**-0.9**
PHUB	**P'eng-hu**	**2.54**	**254**	P	**Pn**	**19 31 43.8**	**-0.3**
PHUB				S	**Sn**	**19 32 12.7**	**-1.1**
TWP	**Hsiaoliuchiu**	**2.55**	**223**	P	**Pn**	**19 31 45.5**	**+1.3**
TWP				*e*S	**Sn**	**19 32 15.4**	**+1.3**
WDGT	**Dungji**	**2.55**	**248**	P	**Pn**	**19 31 44.8**	**+0.6**
WDGT				S	**Sn**	**19 32 13.4**	**-0.7**
SMST	**Manzhou Townsh**	**2.55**	**211**	P	**Pn**	**19 31 45.3**	**+1.0**
SMST				*e*S	**Sn**	**19 32 12.0**	**-2.1**
HEN	**Hengchun**	**2.61**	**212**	*e*P	**Pn**	**19 31 44.6**	**-0.5**
HEN				*e*S	**Sn**	**19 32 16.6**	**+1.1**
TSEB	**Hengchuen, Pin**	**2.63**	**208**	*e*P	**Pn**	**19 31 46.9**	**+1.6**
TSEB				*e*S	**Sn**	**19 32 17.6**	**+1.6**
TWKBT	**Hengchun**	**2.63**	**210**	P	**Pn**	**19 31 45.2**	**-0.2**
TWKBT				S	**Sn**	**19 32 16.1**	**0.0**
TWK1	**Hengchun**	**2.63**	**210**	P	**Pn**	**19 31 46.6**	**+1.2**
TWK1				*e*S	**Sn**	**19 32 17.3**	**+1.2**
VWUC	**VWUC**	**2.64**	**287**	*e*P	**Pn**	**19 31 44.5**	**-1.0**
VCHM	**Qimei**	**2.77**	**249**	P	**Pn**	**19 31 47.2**	**0.0**
VCHM				S	**Sn**	**19 32 18.2**	**-1.1**
MSUT	**Lienchiang**	**2.84**	**313**	*e*P	**Pn**	**19 31 50.2**	**+2.0**
JMJ	**Miyako jima 2**	**2.84**	**78**	*e*P	**Pn**	**19 31 48.4**	**+0.1**
PTMZ	**Houxiangcun**	**2.94**	**286**	*e*P	**Pn**	**19 31 48.4**	**-1.3**
LYJJ	**Jianjiangzhen**	**3.21**	**316**	*e*P	**Pn**	**19 31 51.6**	**-1.6**
XPSS	**Dashiqiu**	**3.26**	**326**	*e*P	**Pn**	**19 31 53.0**	**-0.9**
MHZQ	**Yeshan**	**3.45**	**303**	*e*P	**Pn**	**19 31 55.0**	**-1.5**
KNM	**Kinmen**	**3.47**	**274**	P	Pn	19 31 59.8	+2.9
KNM				S	**Sn**	**19 32 36.3**	**-0.4**
KNMB	**Chin-men Tao**	**3.52**	**274**	P	**Pn**	**19 31 56.4**	**-1.0**
AXDP	**Jialang**	**3.94**	**281**	P	**Pn**	**19 32 02.5**	**-0.7**
DSXP	**Dongshan**	**4.43**	**264**	*e*P	**Pn**	**19 32 08.7**	**-1.3**
DSXP				*e*S	**Sn**	**19 32 56.3**	**-4.0**
SXFK	**Yanhouchang**	**4.68**	**298**	*e*P	**Pn**	**19 32 13.1**	**-0.4**
SXFK				*e*S	**Sn**	**19 33 02.7**	**-3.7**

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*IDC **11** 19:49:04.8±1.4,17$\overset{\circ}{.}$78N×122$\overset{\circ}{.}$90E,h0^{km},mb3.4/6,mbtmp3.4/6,Error ellipse: s-maj=62.3km s-min=19.2km az=59.0*

*MAN **11** 19:49:18.0,16$\overset{\circ}{.}$66N×120$\overset{\circ}{.}$17E,h56^{km},MS3.8*

ISC 11 19:49:17.0±0.9**,16$\overset{\circ}{.}$72N**±0$\overset{\circ}{.}$05×**120$\overset{\circ}{.}$07E**±0$\overset{\circ}{.}$09**,h43^{km},n14,**σ**3$\overset{s}{.}$49**/15**,mb3.5**/5**,Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOLP	**Bolinao**	**0.36**	**204**	*i* P	Pn	19 49 30.9	+4.7
BOLP				*e*S	**Sn**	**19 49 40.5**	**+7.8**
CVP	**Callao Caves**	**1.95**	**59**	*i* P	**Pn**	**19 49 50.1**	**+2.5**
CVP				*i* S	**Sn**	**19 50 13.0**	**+2.2**
PACPP	**Pamplona Cagay**	**2.12**	**35**	*i* P	**Pn**	**19 49 52.8**	**+2.7**
PACPP				*e*S	**Sn**	**19 50 18.3**	**+3.0**
PCPS	**Palayan City**	**2.26**	**155**	*e*P	Pn	19 49 43.0	-9.0
PCPS				*e*S	Sn	19 50 03.0	-16
TGY	**Tagaytay City**	**2.73**	**162**	*e*P	**Pn**	**19 50 01.4**	**+2.9**
LQP	**Lukban**	**2.95**	**151**	*e*P	**Pn**	**19 50 03.5**	**+1.8**
LQP				*e*S	**Sn**	**19 50 38.5**	**+2.5**
GQP	**Guinayangan**	**3.62**	**140**	*e*P	**Pn**	**19 50 12.2**	**+1.6**
GQP				*i* S	**Sn**	**19 50 55.7**	**+3.7**
PPR	**Puerto Princes**	**7.02**	**191**	*e*P	**Pn**	**19 50 56.4**	**-0.9**
CMAR	**Chiang Mai Arr**	**20.21**	**278**	P	Pn	19 54 09.6	+19
	0.6nm,0.8s,baz=95,slow=8.8,SNR=5.3						
	0.6nm,0.8s						
WRA	**Warramunga Arr**	**39.03**	**158**	P	P	19 56 34.1	-5.7
	0.3nm,0.3s,baz=340,slow=8.3,SNR=11						
	0.3nm,0.3s						
ASAR	**Alice Springs**	**42.35**	**161**	P	**P**	**19 57 02.6**	**-4.6**
	0.9nm,0.7s,baz=342,slow=8.1,SNR=11						
	0.9nm,0.7s						
MKAR	**Makanchi Array**	**43.27**	**322**	P	**P**	**19 57 14.9**	**+0.4**
	0.1nm,0.3s,baz=120,slow=9.8,SNR=7.0						
	0.1nm,0.3s						
KURBB	**Kurchatov Arra**	**47.37**	**325**	P	**P**	**19 57 46.9**	**+0.1**
	0.2nm,0.5s,baz=125,slow=8.9,SNR=6.3						
	0.2nm,0.5s						
BVAR	**Borovoye Array**	**52.96**	**325**	P	**P**	**19 58 27.7**	**-1.4**
	0.2nm,0.4s,baz=105,slow=11,SNR=1.9						
	0.2nm,0.4s						

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*NOU **11** 20:11:02.1,36$\overset{\circ}{.}$63S×177$\overset{\circ}{.}$21E,h0^{km},MLv3.9/10,Off E. Coast of N. Island, N.Z.*

*WEL **11** 20:11:03.5±0.6,37°S±4°×17°7E±°,h5^{km},M3.8/23,ML3.7/22,MLv3.8/23,Error ellipse: s-maj=5.8km s-min=3.1km az=27.1,confirmed*

*IDC **11** 20:11:06.4±2.0,37$\overset{\circ}{.}$02S×176$\overset{\circ}{.}$60E,h0^{km},mb3.7/4,* *mbtmp3.7/4, MS3.6/6, Error ellipse: s-maj=63.6km s-min=18.2km az=58.0*

ISC 11 20:11:03.1±1.6,**36°.74S**±0°.05×**177°.16E**±0°.03,**h3**^{km}±10^{km},**n98,**σ1^{s}**21**/93,**mb3.9**/6,**MS3.6**/4,**1C-2D,Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WSRZ	White Island S	0.78	179	P	Pb	20 11 19.2	-0.1
WSRZ				AML	AML		
WSRZ				AML	AML		
WIZ	White Island	0.79	178	P	Pb	20 11 19.1	-0.4
WIZ				S	Sb	20 11 30.5	0.0
WIZ				AML	AML		
WIZ				AML	AML		
MYRZ	Mayor Island	0.91	234	P	Pb	20 11 21.4	-0.3
MYRZ				S	Sb	20 11 33.3	-0.9
MYRZ				AML	AML		
MYRZ				AML	AML		
WHRZ	Whale Island	1.12	188	P	Pn	20 11 25.2	-0.6
WHRZ				AML	AML		
WHRZ				AML	AML		
HAZ	Te Kaha	1.13	154	P	Pb	20 11 24.1	-1.3
HAZ				S	Sg	20 11 40.1	+0.6
HAZ				AML	AML		
HAZ				AML	AML		
TGRZ	Tauranga	1.22	216	P	Pn	20 11 25.7	-1.4
TGRZ				AML	AML		
TGRZ				AML	AML		
MXZ	Matakaoa Point	1.23	132	P	Pn	20 11 26.0	-1.3
MXZ	Matakaoa Point	1.23	132	S	Sn	20 11 43.2	-1.2
MXZ	Matakaoa Point	1.23	132	P	Pn	20 11 25.9	-1.3
MXZ				S	Sn	20 11 43.3	-1.1
MXZ				AML	AML		
MXZ				AML	AML		
RUGZ	Raukumara Rang	1.29	162	P	Pn	20 11 27.4	-0.8
RUGZ				S	Sg	20 11 45.4	+0.8
RUGZ				AML	AML		
RUGZ				AML	AML		
MARZ	Manawahe	1.30	197	P	Pn	20 11 26.2	-2.1
MARZ				AML	AML		
MARZ				AML	AML		
PKGZ	Pakihiroa	1.34	147	P	Pn	20 11 28.1	-0.7
PKGZ				AML	AML		
PKGZ				AML	AML		
TMHS	Thames High Sc	1.35	252	S	Sn	20 11 46.2	-1.3
EDRZ	Edgecumbe	1.41	194	P	Pg	20 11 30.5	+0.4
EDRZ				AML	AML		
EDRZ				AML	AML		
LIRZ	Lichensteins R	1.41	206	P	Pg	20 11 30.5	+0.4
LIRZ				AML	AML		
LIRZ				AML	AML		
TACG	Te Aroha Colle	1.42	235	S	Sg	20 11 48.5	-0.3
GRZ	Great Barrier	1.46	289	P	Pn	20 11 29.3	-1.1
GRZ				AML	AML		
GRZ				AML	AML		
WMGZ	Waiomatatini S	1.47	138	P	Pg	20 11 31.3	0.0
WMGZ				AML	AML		
WMGZ				AML	AML		
KMRZ	Kaimai	1.47	221	P	Pb	20 11 30.8	-0.4
KMRZ				AML	AML		
KMRZ				AML	AML		
URZ	Urewera	1.52	182	Pn	Pn	20 11 30.1	-1.1
	14nm,0.3s,baz=332,slow=3.9,SNR=44						
URZ				Sn	Sn	20 11 49.1	-2.4
	64nm,0.3s,baz=228,slow=16,SNR=10						
URZ	Urewera	1.52	182	P	Pn	20 11 30.4	-0.8
URZ	Urewera	1.52	182	S	Sg	20 11 54.1	+2.2
URZ	Urewera	1.52	182	P	Pn	20 11 30.2	-1.0
URZ				AML	AML		
URZ				AML	AML		
TWGZ	Tauwhareparae	1.57	156	P	Pb	20 11 32.9	-0.1
TWGZ				AML	AML		
TWGZ				AML	AML		
PUZ	Puketiti	1.59	147	P	Pg	20 11 33.4	-0.2
PUZ				AML	AML		
PUZ				AML	AML		
MWZ	Matawai	1.62	170	P	Pn	20 11 31.6	-1.0
MWZ				AML	AML		
MWZ				AML	AML		
WIAZ	Waiheke Island	1.63	268	P	Pn	20 11 31.6	-1.2
WIAZ				AML	AML		
WIAZ				AML	AML		
MKAZ	Moumakai	1.65	257	P	Pn	20 11 31.7	-1.3
MKAZ				AML	AML		
MKAZ				AML	AML		
TOZ	Tahuroa Road	1.65	233	P	Pn	20 11 32.4	-0.7
TOZ				S	Sb	20 11 54.2	-1.3
TOZ				AML	AML		
TOZ				AML	AML		
RAGZ	Rawiri	1.76	174	P	Pb	20 11 36.2	0.0
RAGZ				AML	AML		
RAGZ				AML	AML		
TKGZ	Te Karaka	1.78	162	P	Pb	20 11 35.5	-0.9
TKGZ				AML	AML		
TKGZ				AML	AML		
ETAZ	East Tamaki Re	1.81	263	P	Pn	20 11 35.0	-0.2
MBAZ	Motutapu North	1.82	268	P	Pn	20 11 34.6	-0.8
MBAZ				AML	AML		
MBAZ				AML	AML		
ABAZ	Army Bay	1.88	274	P	Pn	20 11 36.1	-0.1
ABAZ				S	Sb	20 12 01.5	-0.5
ABAZ				AML	AML		
ABAZ				AML	AML		
CNGZ	Carnagh Statio	1.93	155	P	Pb	20 11 39.1	+0.1
RIGZ	Rimuhau	2.02	167	P	Pb	20 11 40.4	-0.2
AWAZ	Awhitu Peninsu	2.05	260	P	Pn	20 11 38.4	-0.1
TLZ	Tolley Road	2.05	219	P	Pn	20 11 38.0	-0.6
RVAZ	Riverhead Bore	2.08	268	P	Pn	20 11 38.9	0.0
WTAZ	Waiatarua	2.09	264	P	Pn	20 11 39.1	0.0
WTAZ				AML	AML		
RAHZ	Arahi	2.17	182	P	Pb	20 11 42.8	-0.4
NMHZ	Naumai	2.37	187	P	Pb	20 11 46.1	-0.5
WCZ	Waipu Caves	2.41	289	P	Pn	20 11 42.9	-0.6
WCZ				AML	AML		
WCZ				AML	AML		
RITZ	Rihia Road	2.46	204	P	Pg	20 11 50.3	0.0
BKZ	Black Stump Fm	2.48	192	P	Pn	20 11 45.2	+0.7
BKZ	Black Stump Fm	2.48	192	P	Pb	20 11 47.3	-1.1
HIZ	Hauiti	2.55	225	P	Pn	20 11 45.4	0.0
HIZ	Hauiti	2.55	225	P	Pn	20 11 45.3	0.0
NTVZ	North Tongarir	2.63	206	P	Pg	20 11 52.6	-1.0
TMVZ	Te Maari	2.64	205	P	Pb	20 11 52.1	+1.0
KRVZ	Karewarewa	2.64	207	P	Pg	20 11 53.1	-0.7
WTVZ	West Tongariro	2.68	207	P	Pg	20 11 53.2	-1.3
OTVZ	Oturere	2.69	206	P	Pb	20 11 51.9	-0.2
TWVZ	Taurewa	2.70	210	P	Pn	20 11 47.8	+0.2
SNVZ	South Ngauruho	2.72	206	P	Pb	20 11 53.2	+0.6
MCHZ	McNeill Hill	2.73	188	P	Pb	20 11 50.9	-1.7
KWHZ	Kaweka Forest	2.74	192	P	Pb	20 11 51.9	-1.0
FWVZ	Far West T-bar	2.81	206	P	Pb	20 11 54.6	+0.4
MAVZ	Matarangi	2.82	206	P	Pb	20 11 54.8	+0.4
WHVZ	Whangaehu Hut	2.83	206	P	Pb	20 11 54.3	-0.2
WNVZ	Wahianoa	2.86	205	P	Pb	20 11 54.2	-0.8
BHHZ	Black Hill Sta	2.88	197	P	Pb	20 11 53.6	-1.6
MOVZ	Moawhango	2.88	202	P	Pb	20 11 53.5	-1.8
KRHZ	Kereru	2.96	192	P	Pb	20 11 53.8	-2.9
VRZ	Vera Road	3.05	218	P	Pn	20 11 52.9	+0.6
KAHZ	Kahuranaki	3.06	184	P	Pb	20 11 54.8	-3.4
PNHZ	Pukenui	3.26	193	P	Pn	20 11 56.4	+1.2
OUZ	Omahuta	3.27	297	P	Pn	20 11 55.2	-0.1
OUZ	Omahuta	3.27	297	P	Pn	20 11 55.4	+0.1
OUZ				AML	AML		
OUZ				AML	AML		
TSZ	Takapari Road	3.44	196	P	Pb	20 12 01.8	-3.1
WAZ	Wanganui	3.46	209	P	Pb	20 12 03.3	-1.8
KHEZ	Kahui Hut	3.56	223	P	Pn	20 12 00.0	+0.6
KHEZ	Kahui Hut	3.56	223	P	Pb	20 12 06.3	-0.6
BFZ	Birch Farm	4.00	190	P	Pn	20 12 05.7	+0.3
BFZ	Birch Farm	4.00	190	P	Pn	20 12 07.1	+1.7
MRZ	Mangatainoka R	4.11	197	P	Pn	20 12 07.7	+0.9
HOWZ	Holdsworth Sta	4.35	197	P	Pn	20 12 11.3	+1.1
KIW	Kapiti Island	4.47	202	P	Pn	20 12 15.3	+3.4
DUWZ	D'Urville Isla	4.78	211	P	Pb	20 12 21.2	-6.4
SNZO	South Karori	4.95	202	P	Pn	20 12 18.7	+0.3
QRZ	Quartz Range	5.45	220	P	Pn	20 12 30.9	+5.6
MRNZ	Matariki Terra	5.78	215	P	Pn	20 12 36.2	+6.4
THZ	Tophouse	6.00	212	P	Pn	20 12 36.1	+3.2
OXZ	Oxford	7.66	209	P	Pn	20 13 00.6	+4.9
DZM	Mont Dzumac	17.33	325	LR	LR	20 20 02.2	
	comp=Z,98nm,18.2s,baz=50,slow=31						
MSVF	Nonsavu	18.95	3	LR	LR	20 21 17.8	
	comp=Z,91nm,18.0s,baz=195,slow=32						
STKA	Stephens Creek	29.67	269	LR	LR	20 27 33.9	
	comp=Z,96nm,19.1s,baz=207,slow=34						
CTA	Charters Tower	31.66	293	LR	LR	20 31 11.1	
	comp=Z,73nm,18.5s,baz=210,slow=38						
ASAR	Alice Springs	39.27	277	P	P	20 18 33.6	+0.2
	0.5nm,0.7s,baz=121,slow=8.0,SNR=8.7						
	0.5nm,0.7s						
WRA	Warramunga Arr	40.87	282	P	P	20 18 46.9	+0.3
	0.7nm,0.8s,baz=124,slow=7.4,SNR=5.6						
	0.7nm,0.8s						
QSPA	South Pole Qui	53.38	180	P	P	20 20 25.4	+1.5
	0.9nm,0.8s,baz=58,slow=4.1,SNR=6.0						
	0.9nm,0.8s						
DAV	Davao City (W)	65.00	301	LR	LR	20 52 50.0	
	comp=Z,45nm,18.2s,baz=182,slow=39						
TROLL	Troll, Antarti	71.48	182	⇑P	P	20 22 31.9	+7.1
	comp=Z,64nm,1.0s						
VNA3	Neumayer Olymp	72.21	178	⇓P	P	20 22 35.7	+6.7
	comp=Z,1.8nm,0.8s						
VNA2	Neumayer--Watz	72.59	178	⇓P	P	20 22 38.2	+6.9
	comp=Z,1.5nm,0.7s,baz=174,slow=5.4						
PLCA	Paso Flores	81.05	135	LR	LR	20 55 19.7	
	comp=Z,75nm,18.4s,baz=180,slow=33						
CMAR	Chiang Mai Arr	91.82	292	P	P	20 24 14.7	+1.8
	comp=Z,0.4nm,0.6s,baz=133,slow=3.8,SNR=4.5						
	comp=Z,0.4nm,0.6s						
FINES	FINESS Array B	149.34	333	PKPbc	PKPab	20 30 56.4	-0.8
	comp=Z,1.2nm,0.7s,baz=38,slow=3.4,SNR=5.3						

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*IDC **11** 20:25:47.1±1.5, 4°.51S×145°.92E, h0^{km}, mb3.4/4, mbtmp3.4/6, ML2.7/2, Error ellipse: s-maj=35.0km s-min=19.0km az=76.0*

ISC 11 20:25:50.7±1.3,**4°.5S**±0°.1×**145°.8E**±0°.2,**h22**^{km}**,n6,**σ1^{s}**18**/7,**mb3.5**/4,**Near north coast of New Guinea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	5.02	165	Pn	Pn	20 27 06.2	+1.5
	2.7nm,0.3s,baz=319,slow=7.6,SNR=6.0						
PMG				Sn	Sn	20 28 01.1	-1.0
	0.8nm,0.3s,baz=282,slow=13,SNR=1.5						
	12nm,0.5s						
PMG				AML	AML		
WRA	Warramunga Arr	18.98	215	P	Pn	20 30 10.7	-0.9
	0.1nm,0.3s,baz=42,slow=12,SNR=8.2						
	0.5nm,0.6s						
WRA				AML	AML		
ASAR	Alice Springs	22.24	210	P	P	20 30 45.8	-0.4
	0.2nm,0.7s,baz=43,slow=6.6,SNR=4.5						
	0.2nm,0.7s						
FITZ	Fitzroy Crossi	23.92	234	P	P	20 31 03.5	+0.2
	1.4nm,0.7s,baz=57,slow=10.0,SNR=4.1						
	1.4nm,0.7s						
CMAR	Chiang Mai Arr	51.55	298	P	P	20 34 56.2	+0.8
	0.4nm,0.7s,baz=126,slow=5.5,SNR=4.5						
	0.4nm,0.7s						
ILAR	Eielson Array	84.59	23	P	P	20 38 21.2	-0.9
	0.4nm,0.7s,baz=257,slow=5.4,SNR=4.2						
	0.4nm,0.7s						

IDC 11 20:29:49.7±2.6,**10°.69S**×**118°.88E,h0**^{km}**,mb3.6**/1,**mbtmp3.6**/4,**ML3.7**/3,**Error ellipse: s-maj=198.9km s-min=24.3km az=52.0,South of Sumbawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	9.86	139	Pn	Pn	20 32 09.5	-3.3
	1.1nm,0.3s,baz=322,slow=14,SNR=39						
FITZ				Sn	Sn	20 33 46.8	-17
	1.0nm,0.3s,baz=166,slow=19,SNR=6.8						
	3.4nm,0.4s						
FITZ				AML	AML		
WRA	Warramunga Arr	17.51	124	P	Pn	20 33 54.6	-0.9
	0.2nm,0.3s,baz=297,slow=13,SNR=16						
WRA				S	Sn	20 36 53.7	-18
	0.4nm,0.8s,baz=280,slow=22,SNR=2.5						
	0.2nm,0.3s						
WRA				AML	AML		
ASAR	Alice Springs	19.28	134	P	Pn	20 34 17.1	-0.1
	0.2nm,0.3s,baz=305,slow=12,SNR=16						
ASAR				S	Sn	20 37 36.0	-18
	0.5nm,0.9s,baz=305,slow=21,SNR=3.8						
	0.8nm,0.6s						
ASAR				AML	AML		
MKAR	Makanchi Array	65.90	333	P	P	20 40 37.3	-0.1
	0.7nm,1.0s,baz=133,slow=6.8,SNR=1.8						
	0.7nm,1.0s						

KRSC 11 20:32:07.6±0.7,**54°.00N**×**168°.33E,h15**^{km}±13^{km}**,Ml3.8, Komandorsky Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BKI	Bering	1.82	312	*e*P	Pn	20 32 39.4	+1.0
BKI				*e*S	Sb	20 33 02.9	-0.4
MKZ	Mys Kozlova	3.91	281	*e*P	Pn	20 33 10.6	+3.6
MKZ				*e*S	Sn	20 33 56.9	+4.3
BZGR	Bezymyannyi-Gr	4.81	297	*e*S	Sn	20 34 19.8	+4.9
SPN	Mys Shipunski	5.04	263	*e*S	Sn	20 34 25.6	+5.2
KII	Karymskiy	5.24	274	*e*P	Pn	20 33 30.1	+4.7
UGLR	Uglovaya	5.72	266	*e*P	Pn	20 33 35.9	+3.9
SMAR	Somma	5.72	266	*e*P	Pn	20 33 36.8	+4.7
KRER	Koryakskii	5.74	267	*e*P	Pn	20 33 37.1	+4.7
KRX	Arik	5.79	268	*e*P	Pn	20 33 37.5	+4.5
KOK	Koryaka	5.81	267	*e*P	Pn	20 33 37.3	+4.0
GNL	Ganaly	6.16	271	*e*P	Pn	20 33 42.9	+4.9
MTVR	Mutnovka	6.28	260	*e*P	Pn	20 33 44.2	+4.5

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*BUT **11** 20:49:04.0±1.7, 44°.30N±0°.03×115°.20W±0°.05, h7^{km}±5^{km}, Error ellipse: s-maj=6.5km s-min=3.0km az=57.0*

NEIC 11 20:49:03.5±1.6,**44°.31N**±0°.03×**115°.17W**±0°.04,**h12**^{km}±10^{km}**,ML3.2**/108,**ML3.6**/26(BUT),**Error ellipse: s-maj=4.5km s-min=3.1km az=55.0,Western Idaho**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HLID	Hailey	0.93	144		Pg	20 49 21.1	-0.3
HLID				Sg	Sg	20 49 33.2	-0.3
HLID				IAML		20 49 38.6	
	647nm,0.4s						
PLID	Pearl Lake	0.98	323		Pg	20 49 22.2	-0.2
PLID				Sg	Sg	20 49 35.1	0.0
PLID				IAML		20 49 39.9	
	531nm,0.5s						
MFID	Camas Ranch	1.02	208		Pg	20 49 22.7	-0.4
MFID				Sg	Sg	20 49 36.1	-0.3
CNCI	Crows Nest Can	1.29	107		Pg	20 49 28.4	0.0
BMO	Blue Mountains	1.62	290		Pn	20 49 32.3	+0.3
BMO					Sb	20 49 53.7	-0.2
BMO				IAML		20 49 55.8	
	181nm,0.3s						
MCMT	McKenzie Canyo	1.73	72		Pb	20 49 35.1	-0.4
MOMT	Monida	2.01	81		Pb	20 49 40.0	-0.1
DLMT	Dillon	2.11	59		Pb	20 49 40.4	-1.4
F10A	Beach Ranch, E	2.21	319		Pn	20 49 41.7	+1.6
F10A				IAML		20 50 16.4	
	comp=E,214nm,0.3s						
VCMT	Victor	2.24	18		Pn	20 49 42.0	+1.4
HBMT	Mount Humbug	2.34	50		Pn	20 49 43.6	+1.4
LRM	Limekiln Ridge	2.45	51		Pn	20 49 44.9	+1.3
BPMT	Black Pine Rid	2.45	29		Pn	20 49 44.8	+1.2
BUT	Butte	2.51	46		Pn	20 49 45.4	+1.1
BUT				IAML		20 50 32.6	
	comp=E,119nm,0.9s						
BUT				IAML		20 50 33.4	
	comp=N,86nm,1.0s						
J08A	Circle Bar Ran	2.58	249		Pn	20 49 46.0	+0.8
MSO	Missoula	2.66	18		Pn	20 49 47.5	+1.2
LNOR	Lincton Mounta	2.70	306		Pn	20 49 48.0	+1.1
QLMT	Earthquake Lak	2.72	78		Pb	20 49 49.8	-2.4
BOZ	Bozeman (W)	2.82	62		Pn	20 49 49.9	+1.3
BOZ				IAML		20 50 34.0	
	comp=N,91nm,0.5s						
G08A	Pilot Rock	2.87	291		Pn	20 49 49.6	+0.4
YHB	Horse Butte	2.87	80		Pn	20 49 50.7	+1.3
YHB				IAML		20 50 36.6	
	comp=N,80nm,3.7s						
YHB				IAML		20 50 39.9	
	comp=E,58nm,1.8s						
YHL	Hebgen Lake	2.90	78		Pn	20 49 51.6	+1.9
ELMT	Elliston	2.90	39		Pn	20 49 50.5	+0.8
PCMT	Pistol Creek	3.01	15		Pn	20 49 52.6	+1.4
YMR	Madison River	3.03	82		Pn	20 49 52.7	+1.2
E09A	Wood Farm, Sta	3.04	317		Pn	20 49 50.9	-0.5
E09A				IAML		20 50 33.3	
	comp=N,44nm,0.5s						
FXWY	Fox Creek	3.06	101		Pn	20 49 53.7	+1.7
FXWY				IAML		20 50 40.1	
	comp=N,55nm,0.6s						
HVU	Hansel Valley	3.08	144		Pn	20 49 54.3	+2.2
YFT	Old Faithful	3.11	86		Pb	20 49 57.0	-1.9
YFT				IAML		20 50 48.5	
	comp=N,40nm,1.2s						
YHH	Holmes Hill	3.12	80		Pn	20 49 55.5	+2.6
YPP	Pitchstone Pla	3.13	89		Pn	20 49 55.5	+2.4
YPP				IAML		20 50 51.2	
	comp=N,44nm,1.0s						
YPP				IAML		20 50 54.5	
	comp=E,52nm,1.0s						
FBMT	Ferry Basin	3.14	9		Pn	20 49 54.2	+1.3
BEMT	Mount Belmont	3.15	38		Pn	20 49 54.2	+1.0
WVOR	Wild Horse Val	3.15	235		Pn	20 49 54.6	+1.5
WVOR				IAML		20 50 42.3	
	comp=E,74nm,0.7s						
WVOR				IAML		20 50 44.1	
	comp=E,66nm,1.1s						
YPT	Yellepit	3.20	304	Pn	Pn	20 49 53.4	-0.2
YNM	Yellowstone No	3.22	81		Pn	20 49 56.2	+2.1
YNR	Norris Junctio	3.24	81		Pn	20 49 56.2	+1.8
YNR				IAML		20 50 48.6	
	comp=E,65nm,0.7s						
YNR				IAML		20 50 48.8	
	comp=N,69nm,0.7s						
BHMT	Big Hole Peak	3.27	2		Pn	20 49 56.4	+1.6
SWMT	Swartz Lake	3.30	14		Pn	20 49 56.7	+1.6
SNOW	Snow King Moun	3.30	103		Pn	20 49 56.4	+1.1
SNOW				IAML		20 50 56.3	
	comp=N,71nm,0.8s						
SNOW				IAML		20 50 58.8	
	comp=N,59nm,1.2s						
AHID	Auburn Hatcher	3.34	116		Pn	20 49 57.6	+1.9
AHID				IAML		20 50 55.9	
	comp=N,47nm,0.7s						
AHID				IAML		20 50 56.9	
	comp=N,75nm,0.6s						
LYMT	Lyon Mountain	3.34	36		Pn	20 49 56.7	+0.9
LOHW	Long Hollow	3.37	100		Pb	20 49 59.8	-3.5
LOHW				IAML		20 50 56.5	
	comp=N,38nm,0.8s						
JTMT	Jette	3.49	10		Pn	20 49 58.4	+0.7
E08A	Dider Farm, El	3.50	310	Pn	Pn	20 49 57.8	0.0
E08A				IAML		20 51 35.2	
	comp=E,59nm,0.1s						
ELK	Elko	3.57	181		Pn	20 50 01.4	+2.5
ELK				IAML		20 50 55.3	
	comp=E,29nm,0.4s						
ELK				IAML		20 50 59.1	
	comp=E,28nm,0.6s						
SPUT	South Promonto	3.61	145		Pn	20 50 01.6	+2.2
SPUT				IAML		20 51 00.8	
	comp=N,30nm,0.8s						
SPUT				IAML		20 51 10.9	
	comp=E,27nm,0.8s						
YMP	Mirror Lake Pl	3.61	81		Pn	20 50 01.9	+2.4
YMP				IAML		20 51 22.1	
	comp=E,28nm,1.9s						
HAWA	Hanford	3.71	306		Pn	20 50 00.4	-0.4
BGU	Big Grassy Mou	3.73	154		Pn	20 50 03.5	+2.4
BGU				IAML		20 51 04.0	
	comp=N,26nm,0.9s						
BGU				IAML		20 51 07.2	
	comp=E,35nm,1.0s						
YNE	Yellowstone No	3.75	78		Pn	20 50 03.1	+1.7
YNE				IAML		20 51 03.4	
	comp=N,52nm,0.4s						
YNE				IAML		20 52 04.7	
	comp=E,37nm,2.4s						
HWUT	Hardware Ranch	3.78	134		Pb	20 50 06.5	-3.8
HWUT				IAML		20 51 09.2	
	comp=E,23nm,0.7s						
D08A	Wollman Farm,	3.80	318		Pn	20 50 01.7	-0.2
WAH2	Wahluke Slope	3.94	310		Pn	20 50 04.9	+1.1
WAH2				IAML		20 51 22.5	
	comp=N,40nm,0.6s						
WAH2				IAML		20 51 28.1	
	comp=E,46nm,0.5s						
E07A	Sunnyside	3.99	306		Pn	20 50 04.4	-0.1
E07A				IAML		20 51 00.4	
	comp=N,33nm,0.5s						
E07A				IAML		20 51 24.4	
	comp=E,21nm,0.9s						
G06A	Carlson Farm,	4.00	285		Pn	20 50 04.6	-0.1
G06A				IAML		20 51 13.3	
	comp=N,28nm,1.3s						
C09A	Chrisman Ranch	4.11	329		Pn	20 50 05.4	-0.7
LDM	Libby Dam	4.14	359		Pn	20 50 08.9	+2.3
BMN	Battle Mountai	4.17	202		Pn	20 50 10.2	+3.1
GCMT	Greycliff	4.17	67		Pn	20 50 08.0	+0.9
NEW	Newport	4.18	342		Pn	20 50 08.2	+1.0
NEW				IAML		20 51 25.2	
	comp=N,38nm,0.8s						
NEW				IAML		20 51 26.4	
	comp=N,29nm,0.6s						
PINE	Pine Mountain	4.19	265		Pn	20 50 08.6	+1.0
RLMT	Red Lodge	4.28	77		Pn	20 50 10.8	+2.1
RLMT				IAML		20 51 24.0	
	comp=N,34nm,0.6s						
RLMT				IAML		20 51 27.8	
	comp=N,29nm,0.7s						
PD31	Pinedale Array	4.36	109		Pn	20 50 11.2	+1.3
PDAR	Pinedale Array	4.36	109		Pn	20 50 10.3	+0.5
K05A	Summer Lake	4.46	251		Pn	20 50 12.1	+1.0
K05A				IAML		20 51 48.7	
	comp=E,16nm,2.1s						
K05A				IAML		20 51 51.2	
	comp=N,16nm,2.0s						
MOD	Modoc Plateau	4.46	239		Pn	20 50 12.9	+1.7
MOD				IAML		20 51 33.6	
	comp=N,23nm,0.9s						
MOD				IAML		20 51 41.6	
	comp=E,25nm,1.0s						
DUG	Dugway, Tooele	4.47	156		Pn	20 50 13.2	+2.0
DUG				IAML		20 51 29.4	
	comp=E,18nm,1.1s						
DUG				IAML		20 51 35.2	
	comp=E,20nm,0.9s						
HOOD	Mount Hood Mea	4.72	285		Pn	20 50 14.6	-0.2
HOOD				IAML		20 51 35.0	
	comp=E,22nm,1.1s						
HOOD				IAML		20 52 00.1	
	comp=N,23nm,1.1s						
WIFE	Three Sisters-	4.79	269		Pn	20 50 15.0	-0.7
WIFE				IAML		20 51 43.2	
	comp=N,13nm,1.1s						
WIFE				IAML		20 51 56.2	
	comp=E,14nm,1.8s						
NLU	North Lily Min	4.92	151		Pn	20 50 19.4	+1.8
BSUT	Blindstream Ca	4.99	138		Pn	20 50 20.6	+2.0
PAHR	Pah Rah Range	5.57	216		Pn	20 50 28.6	+2.3
RDMU	Red Mountain	5.58	130		Pn	20 50 30.8	+4.3
L04D	Klamath Falls	5.62	251		Pn	20 50 26.9	-0.1
KVN	Kaiserville	5.70	204		Pn	20 50 31.6	+3.4
HATC	Hat Creek Radi	5.81	235		Pn	20 50 30.8	+1.1
BEKR	Beckworth	5.89	223	Pn	Pn	20 50 33.5	+2.8
PNTR	Pine Nut	6.18	214	Pn	Pn	20 50 36.7	+1.8

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*BJI **11** 21:08:19.4, 32°.22N×137°.93E, h385^{km}, mB4.7/16, mb4.6/61*

*JMA **11** 21:08:20.8±0.4, 32°N±2°×13°8E±°, h399^{km}±3^{km}, MV4.1/33, FAR S OFF TOKAI DISTRICT*

*NIED **11** 21:08:20.8, 32°.31N×137°.94E, h399^{km}, MW4.8, Moment Tensor Solution. s3 Moment tensor: Scale 10^{16}Nm; M_{rr}0.11; $M_{\theta\theta}$-0.85; $M_{\phi\phi}$0.74; $M_{r\theta}$-0.41; $M_{\theta\phi}$-0.48; $M_{\phi r}$-1.28; Fault plane solution: $M_0$1.62000×10^{16} NP1: ϕ_s114.00000°,δ35.00000°,λ176.00000°. NP2: ϕ_s207.00000°,δ88.00000°,λ55.00000°.*

*GFZ **11** 21:08:20.9±0.5, 32°N±5°×13°8E±°, h380^{km}±4^{km}, M4.5/21, mb4.7/21*

*IDC **11** 21:08:22.0±0.5, 32°.27N×137°.76E, h378^{km}±4^{km}, mb3.9/33, mbtmp4.7/40, Error ellipse: s-maj=8.1km s-min=7.1km*

az=69.0

MOS ***11*** *21:08:21.0±0.8, 32°.25N×137°.74E, h382^{km}, mb4.7/65, Error ellipse: s-maj=6.7km s-min=4.3km az=108.5*

NEIC ***11*** *21:08:22.2±1.2, 32°.24N±0°.08×137°.80E±0°.09, h377^{km}±5^{km}, mb4.4/458, Error ellipse: s-maj=12.3km s-min=10.7km az=132.0*

ISC 11 21:08:21.8±0.4**, 32°.21N**±0°.04×**137°.83E**±0°.04**, h378**^{km}±3^{km}**, n767, σ0^{s}99**/820**, mb4.4**/304**, 19C-6D, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TTO1	TONANKAI O.B.S	1.66	328	eP	Pn	21 09 15.0	+1.8
TTO3	TONANKAI O.B.S	1.69	348	P	Pn	21 09 15.6	+2.0
TTO3				S	S	21 09 59.4	+4.1
TTO4	TONANKAI O.B.S	1.81	352	eS	S	21 09 59.2	+2.7
JHJ	Hachijo jima 2	1.88	61	P	Pn	21 09 15.7	+0.7
	356nm,0.4s,baz=314,slow=18,SNR=38						
JHJ				S	S	21 09 58.7	+0.9
	591nm,0.4s,baz=229,slow=22,SNR=10.0						
JHJ2	Mitsune	1.90	61	P	Pn	21 09 15.3	+0.3
JHJ2	Mitsune	1.90	61		Pn	21 09 15.6	+0.5
JHJ2	Mitsune	1.90	61	eP	Pn	21 09 16.7	+1.6
JIE	Ise	2.37	337	P	Pn	21 09 19.3	+1.0
JIE				eS	S	21 10 04.6	+0.8
JTNC	Tanabenakahech	2.46	311	P	Pn	21 09 19.8	+0.8
JTNC				eS	S	21 10 06.1	+1.0
JSG	Sagara	2.48	7	P	Pn	21 09 19.1	+0.1
JWY	Kouya	2.75	317	eP	Pn	21 09 22.5	+1.3
JWY				eS	S	21 10 10.4	+1.2
JOD2	Odawara 2	3.22	19	eP	Pn	21 09 25.6	+0.4
JAI	Aioi	3.25	300	P	Pn	21 09 26.4	+1.0
JYN	Shimob	3.33	10	P	Pn	21 09 26.7	+0.5
JGF	Kuroka	3.41	353	P	Pn	21 09 27.3	+0.4
JGF	Kuroka	3.41	353		Pn	21 09 27.5	+0.6
JGF	Kuroka	3.41	353	P	Pn	21 09 27.9	+1.1
JYTA	Yamagatataniai	3.50	345	P	Pn	21 09 28.3	+0.7
BSO1	Boso 1	3.58	46	P	Pn	21 09 26.5	-1.4
BSO1				eS	S	21 10 19.0	-2.4
JMN	Monobe	3.65	296	P	Pn	21 09 29.8	+0.6
JMN	Monobe	3.65	296		Pn	21 09 30.4	+1.2
JMN	Monobe	3.65	296	P	Pn	21 09 30.6	+1.4
JMN	Monobe	3.65	296	P	Pn	21 09 30.4	+1.2
JWT	Wachi	3.67	327	P	Pn	21 09 30.1	+0.8
JWT				eS	S	21 10 24.0	+0.1
JRY	Ryogami san	3.90	13	eP	Pn	21 09 31.3	-0.1
JRY				eS	S	21 10 26.6	-1.4
JKG	Kaga	4.24	343	eP	Pn	21 09 34.6	-0.2
JTO	Tosashimizu	4.30	280	P	Pn	21 09 36.6	+1.2
MJAR	Matsushiro Arr	4.33	4	P	Pn	21 09 35.1	-0.6
	44nm,0.7s,baz=185,slow=9.9,SNR=130						
MJAR				S	S	21 10 32.8	-3.0
	17nm,0.8s,baz=172,slow=18,SNR=6.0						
MJAR	Matsushiro Arr	4.33	4	P	Pn	21 09 35.5	-0.2
MJAR	Matsushiro Arr	4.33	4		Pn	21 09 35.5	-0.2
MAJO	Matsushiro	4.33	4	P	Pn	21 09 35.0	-0.8
MAJO	Matsushiro	4.33	4	i P	Pn	21 09 35.0	-0.8
MAJO	Matsushiro	4.33	4		Pn	21 09 35.4	-0.4
MAJO	Matsushiro	4.33	4	P	Pn	21 09 35.6	-0.2
MJB9	Matsu-Tunnel	4.34	4		Pn	21 09 35.5	-0.3
JHS	Saijyo	4.82	307	P	Pn	21 09 41.7	+0.9
JOI	OKI	5.56	318	eP	Pn	21 09 48.6	-0.1
JNU	Nakatsue	5.93	281	P	Pn	21 09 54.0	+1.1
	130nm,0.8s,baz=90,slow=6.9,SNR=63						
JNU				S	S	21 11 05.2	-1.8
	17nm,0.7s,baz=119,slow=23,SNR=4.4						
JSU	Suzuyama	6.32	266	Pn	Pn	21 09 57.6	+0.5
JTU	Tsushima	7.42	290	P	P	21 10 10.8	+0.2
JTM	Tenmabayashi	8.95	16	P	Pn	21 10 27.5	+0.3
JTM	Tenmabayashi	8.95	16		Pn	21 10 26.7	-0.6
TJN	Taejon	9.61	298	P	P	21 10 36.0	+0.5
TJN	Taejon	9.61	298	i P	P	21 10 35.8	+0.3
TJN	Taejon	9.61	298		P	21 10 35.0	-0.6
TJN	Taejon	9.61	298	P	P	21 10 37.0	+1.4
	comp=Z,539nm,1.0s						
KSRS	Korea Array	9.68	305	P	P	21 10 36.9	+0.6
	comp=Z,46nm,0.5s,baz=121,slow=10,SNR=157						
JOW	Kunigami	9.90	240		P	21 10 38.9	-0.1
INCN	Inchon	10.60	303	P	Pn	21 10 47.8	+1.1
INCN	Inchon	10.60	303	P	Pn	21 10 47.4	+0.7
INCN	Inchon	10.60	303		Pn	21 10 47.4	+0.7
INCN	Inchon	10.60	303	P	Pn	21 10 47.0	+0.3
	comp=Z,355nm,0.8s						
ERM	Erimo	10.67	22	P	Pn	21 10 47.5	+0.1
ERM	Erimo	10.67	22		Pn	21 10 47.5	+0.1
JEM	Erimo	10.67	22	P	Pn	21 10 47.8	+0.4
ASAJ	Asahikawa	12.46	16	P	Pn	21 11 08.2	-0.2
	comp=Z,9.7nm,0.5s,baz=222,slow=12,SNR=7.2						
ASAJ				S	S	21 13 19.8	-4.3
	comp=Z,18nm,0.7s,baz=38,slow=29,SNR=7.5						
JKA	Kamikawa-asahi	12.46	16	P	P	21 11 07.4	+0.3
USA0B	Ussuriysk Arra	12.82	341	i P	P	21 11 10.6	-0.4
USA0B	Ussuriysk Arra	12.82	341	P	P	21 11 10.8	-0.2
USRK	Ussuriysk Ar.	12.82	341	P	P	21 11 10.8	-0.2
	comp=Z,14nm,0.6s,baz=152,slow=10,SNR=24						
USRK	Ussuriysk Ar.	12.82	341		P	21 11 09.8	-1.2
MDJ	Mudanjiang	13.96	335		P	21 11 23.2	-0.3
YOJ	Yonaguni jima	15.15	243	P	P	21 11 36.0	-0.8
YOJ				pmax	pmax		
	comp=Z,68nm,1.1s						
YOJ	Yonaguni jima	15.15	243	P	P	21 11 36.0	-0.8
YSS	Yuzhno-Sakhali	15.20	13	eP	P	21 11 37.1	+0.1
YSS				eS	S	21 14 16.6	-2.2
YSS				pmax	pmax		
	comp=Z,100nm,2.9s						
YSS				pmax	pmax		
	comp=Z,10.0nm,0.9s						
YSS				smax	smax		
	comp=N,200nm,2.3s						
YSS				smax	smax		
	comp=E,200nm,2.7s						
YSS	Yuzhno-Sakhali	15.20	13		P	21 11 36.1	-0.9
BNX	BinXian	15.73	332	⇓P	P	21 11 42.2	-0.7
BNX				S	S	21 14 30.8	+1.3
BNX				pmax	pmax		
	comp=E,61nm,0.6s						
YHNB	Yeheng	16.30	247	P	P	21 11 48.0	-1.2
NACB	Ninganchiao	16.39	245	P	P	21 11 48.3	-1.9
NACB				IAmb	IAmb	21 11 56.4	
	comp=Z,13nm,0.6s						
SSLB	Suanglung	17.09	245		P	21 11 56.3	-1.5
SSLB				IAmb	IAmb	21 11 58.6	
	comp=Z,31nm,1.0s						
SSLB	Suanglung	17.09	245	P	P	21 11 56.9	-0.9
	comp=Z,31nm,0.8s						
TWG	Pinlang	17.55	242	P	P	21 12 01.1	-1.5
TWG				IAmb	IAmb	21 12 06.3	
	comp=Z,13nm,0.7s						
TWG	Pinlang	17.55	242	P	P	21 12 01.5	-1.0
	comp=Z,23nm,0.9s						
TIA	Tai'an	17.58	289	P	P	21 12 01.8	-1.0
TIA				pmax	pmax		
	comp=Z,16nm,1.5s						
KLR	Kul'dur	17.61	347	P	P	21 12 01.9	-1.0
	comp=Z,30nm,0.6s,baz=160,slow=8.4,SNR=81						
KLR	Kul'dur	17.61	347	eP	P	21 12 00.5	-2.3
KLR				pmax	pmax		
	comp=Z,7.0nm,0.8s						
TPUB	Ta-pu	17.61	244	P	P	21 12 02.4	-0.8
TPUB				IAmb	IAmb	21 12 06.3	
	comp=Z,22nm,0.7s						
TPUB	Ta-pu	17.61	244	P	P	21 12 02.9	-0.3
	comp=Z,34nm,1.0s						
TYV	Tymovskoe	18.98	9	eP	P	21 12 18.4	+1.1
TYV				pmax	pmax		
	comp=Z,13nm,0.8s						
TYV				pmax	pmax		
	comp=Z,200nm,3.7s						
BJT	Baijiatuau	19.13	300	P	P	21 12 17.3	-1.8
BJT				pmax	pmax		
	comp=Z,40nm,0.6s						
BJT	Baijiatuau	19.13	300		P	21 12 17.3	-1.8
HEH	HeiHe	19.62	340	eP	P	21 12 22.4	-1.4
HEH				S	S	21 15 41.7	-0.5
HEH				pmax	pmax		
	comp=Z,22nm,0.9s						
GUMO	Guam	19.62	159	P	P	21 12 24.5	+0.2
	comp=Z,41nm,0.8s,baz=11,slow=16,SNR=4.4						
HNS	HongShan	19.66	292	⇑P	P	21 12 22.6	-1.8
HNS				pmax	pmax		
	comp=Z,25nm,0.7s						
WHN	Wuhan	20.11	271	P	P	21 12 28.6	-0.2
WHN				S	S	21 15 53.5	+2.9
XLT	XiLinHaoTe	20.66	311	eP	P	21 12 33.5	-0.2
XLT				pmax	pmax		
	comp=Z,50nm,0.8s						
LYN	LuoYang	21.30	283	P	P	21 12 38.1	-1.4
LYN				pmax	pmax		
	comp=Z,47nm,1.0s						
HIA	Hailar	21.77	327	P	P	21 12 43.6	-0.1
HIA				pmax	pmax		
	comp=Z,19nm,0.7s						
HIA	Hailar	21.77	327		P	21 12 43.6	-0.1
HIA				IAmb	IAmb	21 12 45.5	
	comp=Z,19nm,0.7s						
HILR	Hailar Array B	21.98	327	P	P	21 12 45.5	0.0
	comp=Z,15nm,0.5s,baz=133,slow=10,SNR=20						
	comp=Z,15nm,0.5s						
HHC	Hu-ho-hao-te	22.74	300	⇓iP	P	21 12 52.0	-0.6
HHC				pmax	pmax		
	comp=Z,26nm,0.7s						
ZEA	Zeya	22.82	344	eP	P	21 12 53.5	+0.5
ZEA				pmax	pmax		
	comp=N,10.0nm,0.9s						
ZEA				pmax	pmax		
	comp=Z,20nm,0.7s						
BTO2	Baotou	23.96	299	eP	P	21 13 03.2	-0.5
BTO2				S	S	21 16 57.5	+5.3
BTO2				pmax	pmax		
	comp=Z,71nm,0.9s						
BTO2				pmax	pmax		
	comp=Z,410nm,3.9s						
BTO2				L	L		
	comp=Z,210nm,4.3s						
BTO2				L	L		
	comp=Z,320nm,10.8s						
BTO2				L	L		
	comp=Z,470nm,14.8s						
XAN	Xi'an	24.25	282	⇓P	P	21 13 05.4	-0.9
XAN				pmax	pmax		
	comp=Z,120nm,0.6s						
ENH	Enshi	24.29	273		P	21 13 06.2	-0.5
ENH				IAmb	IAmb	21 13 07.4	
	comp=Z,16nm,0.6s						
PEA0B	Petropavlovsk-	25.33	29	P	P	21 13 15.8	+0.2
PEA0B				pmax	pmax		
	comp=Z,21nm,1.2s						
PEA0B	Petropavlovsk-	25.33	29	P	P	21 13 15.8	+0.2
PEA0B				IAmb	IAmb	21 13 39.2	
	comp=Z,21nm,1.1s						
PETK	Petropavlovsk-	25.33	29	P	P	21 13 16.7	+1.1
	comp=Z,3.2nm,0.7s,baz=225,slow=2.0,SNR=4.3						
PETK				ScP	ScP	21 19 37.9	-1.3
	comp=Z,3.6nm,0.7s,baz=294,slow=1.5,SNR=6.0						
	comp=Z,3.2nm,0.7s						
PETK	Petropavlovsk-	25.33	29	P	P	21 13 16.2	+0.6
ULN	Ulaanbaatar	28.04	313	ceP	P	21 13 40.3	+0.4
ULN				pmax	pmax		
	comp=Z,13nm,0.6s						
ULN	Ulaanbaatar	28.04	313	P	P	21 13 40.1	+0.2
ULN				IAmb	IAmb	21 13 41.6	
	comp=Z,17nm,0.6s						
ULN	Ulaanbaatar	28.04	313	P	P	21 13 40.1	+0.2
ULN	Ulaanbaatar	28.04	313	P	P	21 13 40.4	+0.5
	comp=Z,23nm,0.8s						
LZH	Lanzhou	28.31	287	eP	P	21 13 42.1	-0.3
LZH				pP	pP	21 14 51.0	-0.9
LZH				pmax	pmax		
	comp=Z,25nm,1.3s						
LZDM	Lanzhou Array	28.43	287	P	P	21 13 42.9	-0.8
	comp=Z,6.6nm,0.5s,baz=103,slow=6.7,SNR=4.9						
	comp=Z,6.6nm,0.5s						
SONM	Songino Array	28.44	312	P	P	21 13 43.6	+0.2
	comp=Z,13nm,0.8s,baz=112,slow=7.1,SNR=39						
SONM				ScP	ScP	21 19 48.7	-0.2
	comp=Z,0.9nm,0.6s,baz=124,slow=2.5,SNR=6.5						
	comp=Z,13nm,0.8s						
SONM	Songino Array	28.44	312		P	21 13 43.1	-0.3
SONM				IAmb	IAmb	21 13 45.4	
	comp=Z,11nm,0.7s						
SONM					ScP	21 19 49.3	+0.4
MA2	Magadan	28.70	14	P	P	21 13 45.9	+0.5
	comp=Z,7.5nm,0.5s,baz=191,slow=10,SNR=6.3						
	comp=Z,7.5nm,0.5s						
MA2	Magadan	28.70	14	P	P	21 13 45.5	+0.2
MA2				IAmb	IAmb	21 13 47.3	
	comp=Z,11nm,0.6s						
CD2	Chengdu	29.00	277	P	P	21 13 47.5	-0.9
CD2				S	S	21 18 10.6	-0.8
CD2				pmax	pmax		
	comp=Z,20nm,0.7s						
CD2				pmax	pmax		
	comp=Z,160nm,6.7s						
CD2				L	L		
	comp=Z,260nm,9.0s						
CD2				L	L		
	comp=Z,220nm,10.0s						
CD2				L	L		
	comp=Z,310nm,10.2s						
YAK	Yakutsk	30.30	352	eP	P	21 13 58.8	-0.5
YAK				e*PP	pP	21 15 05.4	-3.8
YAK				e		21 15 15.2	
YAK				e		21 16 48.2	
YAK				eS	S	21 18 32.4	+1.8
YAK				e*SS	sS	21 20 43.6	+6.7
YAK				eSS	SS	21 20 59.7	-0.2
YAK				e		21 23 46.2	
YAK				pmax	pmax		
	comp=Z,8.0nm,0.8s						
YAK				pmax	pmax		
	comp=Z,23nm,2.2s						
YAK				pmax	pmax		
	comp=E,26nm,2.5s						
YAK				pmax	pmax		
	comp=N,20nm,2.8s						
YAK				smax	smax		
	comp=E,11nm,1.4s						
YAK				smax	smax		
	comp=N,58nm,2.5s						
YAK	Yakutsk	30.30	352	P	P	21 13 58.7	-0.5
	comp=Z,20nm,0.7s						
ZAK	Zakamensk	31.30	316	eP	P	21 14 07.9	-0.4
ZAK				pmax	pmax		
	comp=Z,12nm,0.9s						
KMI2	Kunming	31.48	266	P	P	21 14 12.1	+1.8
KMI2				pmax	pmax		
	comp=Z,5.0nm,0.6s						
GTA2	Gaotai	31.53	294	P	P	21 14 09.8	-0.7
GTA2				pmax	pmax		
	comp=Z,26nm,0.8s						
PZH	PanZhiHua	31.86	269	P	P	21 14 14.5	+1.0
SLVN	Son La	32.05	259	P	P	21 14 15.8	+0.8
SEY	Seymchan	32.11	12	P	P	21 14 15.4	+0.4
	comp=Z,2.1nm,0.6s,baz=190,slow=6.5,SNR=5.7						
	comp=Z,2.1nm,0.6s						
DLV	Lat	33.67	240	P	P	21 14 30.1	+0.9
	comp=Z,17nm,1.0s						
FAKI	Fak Fak	35.34	190	P	P	21 14 42.5	-0.6
GOMU	GeErMu	35.59	289	P	P	21 14 44.8	-0.6
GOMU				pmax	pmax		
	comp=Z,35nm,0.8s						
CHTO	Chiang Mai	37.34	259	P	P	21 14 59.7	-0.2
CHTO				pmax	pmax		
	comp=Z,17nm,0.8s						
CHTO	Chiang Mai	37.34	259		P	21 14 59.7	-0.2
CHTO				IAmb	IAmb	21 15 01.9	
	comp=Z,17nm,0.8s						
CHTO	Chiang Mai	37.34	259	P	P	21 14 58.6	-1.3
	comp=Z,28nm,0.9s						
CHTO	Chiang Mai	37.34	259	P	P	21 14 59.7	-0.2
	comp=Z,28nm,0.9s						
CMAR	Chiang Mai Arr	37.51	258	P	P	21 15 01.4	+0.1
	comp=Z,6.3nm,0.8s,baz=48,slow=7.6,SNR=46						
CMAR				ScP	S	21 20 21.4	-0.4
	comp=Z,0.2nm,0.4s,baz=24,slow=3.6,SNR=4.1						
	comp=Z,6.3nm,0.8s						
CMAR	Chiang Mai Arr	37.51	258	ceP	P	21 15 01.3	0.0
CMAR	Chiang Mai Arr	37.51	258		P	21 15 00.7	-0.5
KIWB	Kanaga Island	38.02	45	P	P	21 15 05.5	+0.4
SBUM	Sibu	38.16	224	P	P	21 15 06.9	+0.2
ADK	Adak	38.31	45	P	P	21 15 07.2	-0.2
ADK				pmax	pmax		
	comp=Z,36nm,1.1s						
ADK	Adak	38.31	45	P	P	21 15 07.2	-0.2
MORE	Moreh	38.96	270		P	21 15 11.4	-1.7
MORE				IAmb	IAmb	21 15 13.0	
	comp=Z,22nm,0.9s						
NPW	Naypyitaw	39.24	262	P	P	21 15 16.1	+0.6
	comp=Z,41nm,0.9s						
BILL	Bilibino	39.48	16	ceP	P	21 15 17.8	+1.1
BILL				pmax	pmax		
	comp=Z,7.0nm,0.6s						
TIXI	Tiksi	39.79	356	ceP	P	21 15 18.8	-0.4
TIXI				pmax	pmax		
	comp=Z,3.0nm,0.8s						
LSA	Lhasa	39.87	279	P	P	21 15 20.4	-0.7
LSA	Lhasa	39.87	279		P	21 15 20.4	-0.7
LSA	Lhasa	39.87	279	i P	P	21 15 21.4	+0.3
	SNR=8.5						
ATKA	Atka Island	39.88	45	P	P	21 15 19.1	-1.1
WMQ	Urumqi	40.60	301	eP	P	21 15 27.7	+1.4
WMQ				pmax	pmax		
	comp=Z,22nm,0.8s						
WMQ				L	L		
	comp=Z,31nm,15.9s						
DGZ	Jazzator, Alta	41.04	310	d iP	P	21 15 30.0	+0.1
DGZ				pmax	pmax		
	comp=Z,15nm,0.8s						
CLES	Cleveland East	42.57	45		P	21 15 42.1	+0.2
SPIA	Saint Paul Isl	43.14	39	P	P	21 15 47.7	+1.4
ZAA0	Zalesovo Array	43.17	316		P	21 15 46.0	-0.5
ZALV	Zalesovo Beam	43.17	316	P	P	21 15 45.9	-0.7
	comp=Z,3.8nm,0.4s,baz=84,slow=8.1,SNR=29						
ZALV				PcP	PcP	21 17 27.9	-0.3
	comp=Z,3.7nm,0.7s,baz=88,slow=4.1,SNR=9.1						
ZALV				ScP	ScP	21 20 41.3	-1.3
	comp=Z,1.4nm,0.6s,baz=123,slow=4.8,SNR=6.4						
	comp=Z,3.8nm,0.4s						
SOEI	Soe	43.70	200	P	P	21 15 49.7	-1.7
SOEI				IAmb	IAmb	21 16 15.9	
	comp=Z,50nm,1.5s						
EVN	Everest	44.02	278		P	21 15 54.2	-0.2
EVN	Everest	44.02	278	P	P	21 15 54.6	+0.2
	comp=Z,37nm,0.7s						
IPM	Ipoh	44.12	239	P	P	21 15 53.8	-0.9
IPM				IAmb	IAmb	21 15 54.6	
	comp=Z,11nm,0.7s						
MK31	Makanchi Array	44.36	306	ceP	P	21 15 55.7	-0.4
MKAR	Makanchi Array	44.36	306	P	P	21 15 55.7	-0.4
	comp=Z,20nm,0.7s,baz=90,slow=9.7,SNR=120						
MKAR				ScP	ScP	21 20 46.9	-0.8
	comp=Z,0.9nm,0.6s,baz=95,slow=3.8,SNR=4.1						
	comp=Z,20nm,0.7s						
MKAR	Makanchi Array	44.36	306		P	21 15 55.5	-0.6
MAKZ	Makanchi	44.57	306	P	P	21 15 57.6	-0.2
MAKZ				pmax	pmax		
	comp=Z,12nm,0.6s						
MAKZ	Makanchi	44.57	306		P	21 15 57.6	-0.2
MAKZ				IAmb	IAmb	21 15 58.7	
	comp=Z,11nm,0.6s						
MAKZ	Makanchi	44.57	306	P	P	21 15 57.6	-0.2
	comp=Z,18nm,0.6s						
UNV	Unalaska Valle	44.71	44	P	P	21 15 59.2	+0.5
UNV				IAmb	IAmb	21 16 28.4	
	comp=Z,30nm,1.4s						
LVA	Lava Point	45.02	44	P	P	21 15 60.0	-1.2
LVA				IAmb	IAmb	21 16 25.7	
	comp=Z,30nm,1.0s						
COEN	Coen	46.19	173	P	P	21 16 07.6	-2.9
	comp=Z,21nm,0.8s						
HNR	Honiara	46.49	149	P	P	21 16 17.2	+4.3
NRIK	Noril'sk	46.51	338	P	P	21 16 12.0	-0.4
	comp=Z,5.9nm,0.7s,baz=115,slow=10,SNR=6.8						
	comp=Z,5.9nm,0.7s						
NRIK	Noril'sk	46.51	338	i P	P	21 16 11.6	-0.8
NRIK				pmax	pmax		
	comp=Z,4.0nm,0.6s						
NRIK	Noril'sk	46.51	338		P	21 16 11.8	-0.5
PDGK	Podgornoye	46.58	301	P	P	21 16 12.9	-0.6
PDGK	Podgornoye	46.58	301		P	21 16 12.9	-0.6
KURK	Kurchatov	46.74	311	ceP	P	21 16 13.3	-1.0
KURK				pmax	pmax		
	comp=Z,21nm,0.7s						
KURK	Kurchatov	46.74	311		P	21 16 13.4	-1.0
KURK				IAmb	IAmb	21 16 15.2	
	comp=Z,21nm,0.8s						
KURK	Kurchatov	46.74	311	P	P	21 16 13.6	-0.8
	comp=Z,31nm,0.8s						
KURBB	Kurchatov Arra	46.80	311	P	P	21 16 14.1	-0.8
	comp=Z,15nm,0.8s,baz=92,slow=7.3,SNR=100						
KURBB				PcP	PcP	21 17 40.0	-0.9
	comp=Z,1.1nm,0.2s,baz=114,slow=4.1,SNR=4.2						
	comp=Z,15nm,0.8s						
SNJI	Sawahan-Nganju	46.91	217	P	P	21 16 16.1	-0.2
	comp=Z,21nm,1.0s						
K13K	Kusilvak Mount	46.94	33	P	P	21 16 17.0	+1.2
WUS	Wushi	47.06	298		P	21 16 16.9	-0.3
ANM	Nome	47.24	29	P	P	21 16 18.4	+0.4
ANM	Nome	47.24	29	P	P	21 16 18.4	+0.4
ANM				IAmb	IAmb	21 16 20.0	
	comp=Z,11nm,0.8s						
M13K	Dall Lake	47.28	35	P	P	21 16 19.8	+1.4
M13K				IAmb	IAmb	21 16 20.6	
	comp=Z,18nm,0.9s						
PRZ	Przheval'sk	47.48	300	P	P	21 16 20.8	+0.4
PRZ				pmax	pmax		
	comp=Z,32nm,0.8s						
PRZ	Przheval'sk	47.48	300	P	P	21 16 20.8	+0.4
J14K	Nanvaranak Lak	47.61	32	P	P	21 16 21.8	+1.0
SDSI	Sungai Dareh	47.65	233	P	P	21 16 21.6	-0.2
UGM	Wanagama	47.65	218	P	P	21 16 20.7	-1.2
L14K	Kuka Creek	47.76	34	P	P	21 16 22.2	+0.2
F15K	North Star Dit	47.84	28	P	P	21 16 23.8	+1.3
F15K				IAmb	IAmb	21 16 25.0	
	comp=Z,17nm,0.7s						
M14K	Bethel	48.02	35		P	21 16 25.1	+1.2
M14K				IAmb	IAmb	21 16 26.1	
	comp=Z,19nm,0.7s						
TARG	Taragay, Kyrgy	48.03	299	P	P	21 16 25.4	+0.5
TARG	Taragay, Kyrgy	48.03	299		P	21 16 25.4	+0.5
TARG	Taragay, Kyrgy	48.03	299	P	P	21 16 25.1	+0.2
	comp=Z,14nm,0.9s						
N14K	Kuskokwak Cree	48.04	36	P	P	21 16 25.3	+1.2
N14K				IAmb	IAmb	21 16 26.1	
	comp=Z,13nm,0.7s						
O14K	Tigyukauivet M	48.17	37	P	P	21 16 25.7	+0.5
O14K				IAmb	IAmb	21 17 06.2	
	comp=Z,26nm,1.3s						
C16K	Lisburne Hills	48.31	25	P	P	21 16 26.4	+0.3
C16K				IAmb	IAmb	21 16 44.9	
	comp=Z,36nm,1.2s						
SDPT	Sand Point	48.31	42	P	P	21 16 25.4	-0.9
KNRA	Kununurra	48.40	192	P	P	21 16 27.6	+0.3
KDJ	Kajisay	48.43	300	P	P	21 16 27.7	+0.1
KDJ	Kajisay	48.43	300	P	P	21 16 27.7	+0.1
K15K	Wolf Creek Mou	48.45	33	P	P	21 16 28.6	+1.4
MDSI	Maura Dua	48.53	228	P	P	21 16 27.7	-0.7
	comp=Z,30nm,1.0s						
G16K	Koyuk River	48.69	29	P	P	21 16 29.6	+0.7
GSI	Gunungsitoli	48.80	239	P	P	21 16 29.9	-0.6
CNBA	Chernabura Isl	48.81	43	P	P	21 16 29.8	-0.2
CNBA				IAmb	IAmb	21 16 30.5	
	comp=Z,20nm,0.6s						
N15K	Kwethluk River	48.86	36		P	21 16 31.4	+1.0
N15K				IAmb	IAmb	21 16 32.4	
	comp=Z,19nm,0.7s						
VNFG	Fog Glacier, M	48.87	41	P	P	21 16 29.8	-0.8
O15K	Ungalikthiuk R	48.90	37	P	P	21 16 31.2	+0.5
O15K				IAmb	IAmb	21 16 32.5	
	comp=Z,18nm,0.7s						
ASAI	AK-SAY(Kyrgyzs	49.12	298	P	P	21 16 33.2	+0.2
	comp=Z,7.2nm,0.8s						
L16K	Owhat River	49.33	34	P	P	21 16 34.8	+1.0
F17K	Baldwin Pennin	49.36	28	P	P	21 16 34.9	+1.0
NRN	Naryn	49.41	299	P	P	21 16 34.3	-0.9
NRN	Naryn	49.41	299	P	P	21 16 34.3	-0.9
M16K	Timber Creek	49.50	35		P	21 16 36.2	+1.1
CHGN	Chignik	49.51	41	P	P	21 16 34.6	-0.6
CHGN				IAmb	IAmb	21 16 40.3	
	comp=Z,9.0nm,0.6s						
H17K	Granite Mounta	49.61	30	P	P	21 16 37.3	+1.4
J17K	VABM Dome	49.73	32		P	21 16 38.0	+1.3
J17K				IAmb	IAmb	21 16 39.1	
	comp=Z,13nm,0.7s						
O16K	Kokwok River B	49.82	37		P	21 16 38.5	+1.1
K17K	Iditarod	49.99	33		P	21 16 40.3	+1.5
K17K				IAmb	IAmb	21 16 41.0	
	comp=Z,12nm,0.7s						
KSH2	Kashi	50.19	296	P	P	21 16 41.0	+0.2
KSH2				pmax	pmax		
	comp=Z,12nm,0.7s						
M17K	Holitna River	50.27	34		P	21 16 41.2	+0.3
M17K				IAmb	IAmb	21 16 43.2	
	comp=Z,11nm,0.8s						

G18K	Tagagawik	50.29	29		P	21 16 41.4	+0.5
G18K				IAmb	IAmb	21 16 42.6	
	comp=Z,14nm,0.8s						
H18K	Honhosa River	50.29	30		P	21 16 41.5	+0.6
H18K				IAmb	IAmb	21 16 43.0	
	comp=Z,11nm,0.7s						
N17K	Nushagak Hills	50.33	36	P	P	21 16 42.3	+1.0
C19K	Lookout Ridge	50.56	24	P	P	21 16 44.9	+1.9
C19K				IAmb	IAmb	21 16 55.9	
	comp=Z,41nm,1.5s						
P17K	Kvichak River	50.64	37	P	P	21 16 43.6	+0.1
L18K	Granite Mounta	50.69	33	P	P	21 16 45.2	+1.3
F19K	Shaleruckik Mo	50.79	27		P	21 16 45.0	+0.4
J18K	Innoko River	50.79	32		P	21 16 45.0	+0.3
G19K	Purcell Mounta	50.96	28		P	21 16 45.8	0.0
D19K	Kuna River	50.96	25	P	P	21 16 46.5	+0.6
D19K				IAmb	IAmb	21 16 47.7	
	comp=Z,11nm,0.6s						
N18K	Kilae Creek	50.98	35		P	21 16 47.0	+1.0
E19K	Redstone River	51.10	27		P	21 16 47.5	+0.6
ACHA	Angle Creek He	51.21	39	P	P	21 16 47.6	-0.2
O18K	Koktuh Hills	51.29	37		P	21 16 49.3	+0.9
O18K				IAmb	IAmb	21 16 51.7	
	comp=Z,13nm,0.6s						
J19K	Poorman	51.33	31		P	21 16 49.3	+0.8
J19K				IAmb	IAmb	21 16 50.3	
	comp=Z,10.0nm,0.6s						
FITZ	Fitzroy Crossi	51.37	195	P	P	21 16 50.0	+0.6
	comp=Z,2.2nm,0.8s,baz=82,slow=9.1,SNR=4.0						
	comp=Z,2.2nm,0.8s						
FITZ	Fitzroy Crossi	51.37	195	P	P	21 16 50.5	+1.1
D20K	Etivluk River	51.54	25		P	21 16 51.1	+1.0
D20K				IAmb	IAmb	21 16 52.3	
	comp=Z,13nm,0.6s						
L19K	White Mountain	51.55	34	P	P	21 16 51.2	+1.0
F20K	Avaraart Lake	51.62	27	P	P	21 16 51.5	+0.8
ARSB	Arslanbob	51.66	300	P	P	21 16 51.6	0.0
ARSB	Arslanbob	51.66	300		P	21 16 51.6	0.0
N19K	Bonanza Creek	51.67	35		P	21 16 52.1	+0.9
O19K	Port Alsworth	51.74	36	P	P	21 16 52.6	+1.0
BVAR	Borovoye Array	51.74	315	P	P	21 16 51.1	-0.7
	comp=Z,6.2nm,0.5s,baz=98,slow=7.6,SNR=43						
BVAR				PcP	PcP	21 17 58.6	-0.5
	comp=Z,4.2nm,0.6s,baz=87,slow=5.7,SNR=7.7						
BVAR				ScP	ScP	21 21 17.8	-1.0
	comp=Z,1.8nm,0.6s,baz=97,slow=6.0,SNR=6.5						
	comp=Z,6.2nm,0.5s						
M19K	Big River Lodg	51.75	34	P	P	21 16 52.6	+0.8
BORK	Borovoye	51.78	315	i P	P	21 16 51.4	-0.7
BORK				pmax	pmax		
	comp=Z,14nm,1.0s						
BORK	Borovoye	51.78	315		P	21 16 51.8	-0.3
BORK				IAmb	IAmb	21 16 53.6	
	comp=Z,9.6nm,0.7s						
WB0	Warramunga Arr	51.79	184	P	P	21 16 51.8	-0.6
SII	Sitkinak Islan	51.85	41	P	P	21 16 52.0	-0.6
SII				IAmb	IAmb	21 16 53.5	
	comp=Z,13nm,0.7s						
I20K	Naaghedeneel	51.89	30	P	P	21 16 53.9	+1.3
WRAB	Tennant Creek	51.95	184	P	P	21 16 52.6	-1.1
WRAB	Tennant Creek	51.95	184	P	P	21 16 52.6	-1.1
WRA	Warramunga Arr	51.96	184	P	P	21 16 54.1	+0.4
	comp=Z,1.1nm,0.5s,baz=0.9,slow=7.6,SNR=28						
WRA				PcP	PcP	21 18 01.8	+1.4
	comp=Z,0.7nm,0.6s,baz=358,slow=3.9,SNR=5.3						
WRA				ScP	ScP	21 21 19.9	-0.2
	comp=Z,0.4nm,0.8s,baz=358,slow=4.8,SNR=5.0						
	comp=Z,1.1nm,0.5s						
WRA	Warramunga Arr	51.96	184	i P	P	21 16 54.0	+0.2
WRA	Warramunga Arr	51.96	184	P	P	21 16 53.5	-0.2
WR8	Warramunga Arr	51.97	184	P	P	21 16 54.1	+0.3
K20K	Telida	51.97	32		P	21 16 53.5	+0.2
K20K				IAmb	IAmb	21 16 55.6	
	comp=Z,14nm,0.7s						
J20K	Nowinta River	51.99	31		P	21 16 54.3	+0.9
J20K				IAmb	IAmb	21 16 55.6	
	comp=Z,15nm,0.7s						
L20K	Farewell, AK	52.02	33	P	P	21 16 54.5	+0.8
Q19K	Cape Douglas,	52.08	38	P	P	21 16 53.7	-0.5
IMAR	Indian Mountai	52.29	29	P	P	21 16 56.1	+0.5
OHAK	Old Harbor	52.32	40		P	21 16 55.5	-0.3
OHAK				IAmb	IAmb	21 16 56.6	
	comp=Z,9.7nm,0.7s						
ILSW	Iliamna Southw	52.33	36	P	P	21 16 56.0	-0.1
M20K	Styx River	52.35	34		P	21 16 56.9	+0.7
G21K	Allakaket	52.44	28		P	21 16 57.2	+0.5
E21K	Killik River	52.46	26	P	P	21 16 57.9	+1.0
E21K				IAmb	IAmb	21 17 35.0	
	comp=Z,21nm,1.4s						
F21K	Alatna River	52.51	27		P	21 16 58.0	+0.8
CTAO	Charters Tower	52.62	170	P	P	21 16 59.3	+0.8
CTAO				pmax	pmax		
	comp=Z,32nm,1.5s						
CTAO	Charters Tower	52.62	170	P	P	21 16 59.3	+0.8
CTAO				IAmb	IAmb	21 17 25.2	
	comp=Z,32nm,1.5s						
KDAK	Kodiak Island	52.67	39	P	P	21 16 58.8	+0.4
	comp=Z,28nm,0.7s,baz=265,slow=4.5,SNR=36						
	comp=Z,28nm,0.7s						
KDAK	Kodiak Island	52.67	39		P	21 16 58.8	+0.4
KDAK	Kodiak Island	52.67	39	P	P	21 16 56.2	-2.3
	comp=Z,36nm,0.7s						
PPLA	Purkeypile	52.81	33	P	P	21 17 00.4	+0.8
PPLA				IAmb	IAmb	21 17 01.8	
	comp=Z,14nm,0.6s						
CAST	Castle Rocks	52.87	32	P	P	21 17 01.1	+1.2
CAST				IAmb	IAmb	21 17 02.0	
	comp=Z,10nm,0.8s						
DRK	Karamyk	52.95	298	P	P	21 17 01.1	-0.1
DRK				pmax	pmax		
	comp=Z,11nm,0.7s						
DRK	Karamyk	52.95	298	P	P	21 17 01.1	-0.1
DRK				IAmb	IAmb	21 17 02.4	
	comp=Z,11nm,0.7s						
STLK	Strandline Lak	52.97	34	P	P	21 17 01.1	+0.5
TRKS	Terek-Say	52.97	300	P	P	21 17 00.8	-0.3
D22K	Ayikyak River	52.98	25	P	P	21 17 01.7	+1.2
D22K				IAmb	IAmb	21 17 02.7	
	comp=Z,10nm,0.6s						
KK31	Karatay Array	53.09	302	P	P	21 17 01.7	-0.1
KK31				pmax	pmax		
	comp=Z,17nm,0.7s						
KK31	Karatay Array	53.09	302	P	P	21 17 01.7	-0.1
KK31				IAmb	IAmb	21 17 03.0	
	comp=Z,17nm,0.7s						
KKAR	Karatay Array	53.09	302	P	P	21 17 01.9	+0.1
KKAR	Karatay Array	53.09	302		P	21 17 01.9	+0.1
SKT	Skwentna	53.11	34	P	P	21 17 02.3	+0.8
E22K	Anaktuvuk Pass	53.23	26	P	P	21 17 03.5	+1.1
E22K				IAmb	IAmb	21 17 04.4	
	comp=Z,11nm,0.7s						
H22K	Ishtalitna Cre	53.26	29		P	21 17 04.0	+1.4
H22K				IAmb	IAmb	21 17 05.1	
	comp=Z,17nm,0.7s						
CNPM	China Poot	53.31	37		P	21 17 03.4	+0.4
CNPM				IAmb	IAmb	21 17 05.5	
	comp=Z,17nm,0.6s						
BPAW	Bear Paw Mtn.	53.37	31	P	P	21 17 03.0	-0.4
KTH	Kantishna Hill	53.39	32		P	21 17 04.3	+0.6
NIL	Nilore	53.41	290	P	P	21 17 04.7	+0.5
NIL				pmax	pmax		
	comp=Z,28nm,0.7s						
NIL	Nilore	53.41	290		P	21 17 04.7	+0.5
NIL	Nilore	53.41	290	P	P	21 17 04.6	+0.5
	comp=Z,43nm,0.8s						
BRLK	Bradley Lake	53.47	37	P	P	21 17 04.4	+0.1
BRLK				IAmb	IAmb	21 17 06.1	
	comp=Z,18nm,0.7s						
SUA	Susitna One	53.49	34	P	P	21 17 04.5	+0.1
SUA				IAmb	IAmb	21 17 05.9	
	comp=Z,13nm,0.7s						
MLY	Manley	53.49	30		P	21 17 05.2	+0.8
MLY				IAmb	IAmb	21 17 06.5	
	comp=Z,14nm,0.7s						
BTK	Batken	53.55	299	P	P	21 17 05.0	-0.2
BTK	Batken	53.55	299	P	P	21 17 05.0	-0.2
TRF	Thorofare Moun	53.67	32	P	P	21 17 06.1	+0.3
CUT	Chulitna	53.70	33	P	P	21 17 05.8	0.0
CUT				IAmb	IAmb	21 17 06.6	
	comp=Z,13nm,0.7s						
D23K	Nanushuk River	53.71	25	P	P	21 17 07.2	+1.5
D23K				IAmb	IAmb	21 17 42.6	
	comp=Z,25nm,1.4s						
SLKM	Skilak Lake	53.77	36		P	21 17 07.4	+1.0
SLKM				IAmb	IAmb	21 17 25.2	
	comp=Z,12nm,0.8s						
M22K	Willow	53.78	34	P	P	21 17 06.2	-0.1
C23K	Itkillik River	53.80	24	P	P	21 17 07.7	+1.3
G23K	Bananza Creek	53.84	28		P	21 17 07.4	+0.6
G23K				IAmb	IAmb	21 17 08.8	
	comp=Z,9.6nm,0.7s						
RC01	Rabbit Creek A	53.99	35	P	P	21 17 08.2	+0.4
RC01				IAmb	IAmb	21 17 26.8	
	comp=Z,12nm,0.9s						
H23K	Yukon River	54.01	29	P	P	21 17 08.9	+0.9
H23K				IAmb	IAmb	21 17 10.6	
	comp=Z,12nm,0.8s						
E23K	Chandalar	54.05	26		P	21 17 09.0	+0.7
I23K	Minto, Yukon-K	54.08	30	P	P	21 17 09.0	+0.5
SEW	Seward	54.18	36	P	P	21 17 09.2	0.0
NEA2	Nenana	54.20	31	P	P	21 17 09.5	+0.1
NEA2				IAmb	IAmb	21 17 11.2	
	comp=Z,18nm,0.7s						
PMR	Palmer	54.26	34	P	P	21 17 11.0	+1.2
PMR	Palmer	54.26	34	P	P	21 17 10.9	+1.2
MCK	McKinley	54.28	32	P	P	21 17 10.2	+0.3
MCK	McKinley	54.28	32		P	21 17 10.2	+0.3
RND	Reindeer	54.32	32	P	P	21 17 10.8	+0.5
RND				pmax	pmax		
	comp=Z,22nm,0.6s						
RND	Reindeer	54.32	32	P	P	21 17 10.8	+0.5
GHO	Glory Hole Cre	54.35	34	P	P	21 17 10.8	+0.2
GHO				IAmb	IAmb	21 17 12.7	
	comp=Z,12nm,0.6s						
D24K	Happy Valley	54.39	25	P	P	21 17 11.4	+0.8
D24K				IAmb	IAmb	21 17 12.7	
	comp=Z,15nm,0.8s						
C24K	Franklin Bluff	54.46	24	P	P	21 17 12.1	+1.1
E24K	Your Creek	54.47	26	P	P	21 17 11.5	+0.2
KNK	Knik Glacier	54.59	35	P	P	21 17 12.1	-0.1
SML	Sawmill	54.63	34	P	P	21 17 12.3	-0.1
SML				IAmb	IAmb	21 17 13.7	
	comp=Z,14nm,0.7s						
PWL	Port Wells	54.68	35	P	P	21 17 11.6	-1.2
F24K	Squaw Lake	54.69	27		P	21 17 13.7	+0.9
F24K				IAmb	IAmb	21 17 15.2	
	comp=Z,10nm,0.7s						
H24K	Noodor Dome	54.70	29		P	21 17 14.0	+1.1
H24K				IAmb	IAmb	21 17 15.2	
	comp=Z,13nm,0.6s						
COLA	College	54.72	30	P	P	21 17 13.8	+0.8
COLA				pmax	pmax		
	comp=Z,22nm,0.7s						
COLA	College	54.72	30	P	P	21 17 13.8	+0.8
COLA	College	54.72	30	P	P	21 17 14.3	+1.3
	comp=Z,25nm,0.7s						
CCB	Clear Creek Bu	54.75	31	P	P	21 17 13.5	+0.3
G24K	Hadweenzic Riv	54.85	28	P	P	21 17 15.1	+1.2
DHY	Denali Highway	55.00	32	P	P	21 17 16.1	+0.9
SCM	Sheep Creek Mo	55.10	34	P	P	21 17 16.2	+0.4
SCM				pmax	pmax		
	comp=Z,17nm,0.7s						
SCM	Sheep Creek Mo	55.10	34	P	P	21 17 16.2	+0.4
SCM				IAmb	IAmb	21 17 17.3	
	comp=Z,17nm,0.7s						
HDA	Harding Lake	55.13	31	P	P	21 17 15.1	-0.8
HDA				IAmb	IAmb	21 17 16.5	
	comp=Z,11nm,0.7s						
IL31		55.14	30	P	P	21 17 14.9	-1.0
IL31				IAmb	IAmb	21 17 18.1	
	comp=Z,8.0nm,0.6s						
ILAR	Eielson Array	55.14	30	P	P	21 17 15.6	-0.4
	comp=Z,4.9nm,0.6s,baz=275,slow=5.1,SNR=60						
	comp=Z,4.9nm,0.6s						
ILAR	Eielson Array	55.14	30	P	P	21 17 15.9	-0.1
ILAR	Eielson Array	55.14	30	P	P	21 17 15.9	-0.1
P23K	Montague Islan	55.21	36	P	P	21 17 17.1	+0.5
D25K	Kavik River	55.27	25	P	P	21 17 17.7	+0.8
GLI	Glacier Island	55.28	35	P	P	21 17 17.5	+0.4
GLI				IAmb	IAmb	21 17 19.2	
	comp=Z,19nm,0.7s						
F25K	Christian Rive	55.55	27	P	P	21 17 20.6	+1.6
FID	Port Fidalgo	55.60	35	P	P	21 17 19.2	-0.1
FID				IAmb	IAmb	21 17 20.5	
	comp=Z,17nm,0.7s						
HIN	Hinchinbrook I	55.62	36	P	P	21 17 19.9	+0.5
HIN				IAmb	IAmb	21 17 21.1	
	comp=Z,16nm,0.6s						
K24K	Donnelly Dome	55.67	31	P	P	21 17 20.0	+0.2
K24K				IAmb	IAmb	21 17 21.5	
	comp=Z,10.0nm,0.8s						
AS31	Alice Springs	55.69	184	P	P	21 17 21.2	+0.8
ASAR	Alice Springs	55.69	184	P	P	21 17 20.5	+0.2
	comp=Z,1.0nm,0.6s,baz=15,slow=12,SNR=20						
ASAR				ScP	ScP	21 21 36.4	0.0
	comp=Z,0.4nm,0.7s,baz=358,slow=5.2,SNR=2.4						
	comp=Z,1.0nm,0.6s						
ASAR	Alice Springs	55.69	184	P	P	21 17 20.6	+0.3
ASAR					ScP	21 21 37.0	+0.7
KLU	Klutina	55.80	34	P	P	21 17 21.1	+0.4
J25K	Salcha River,	55.80	30	P	P	21 17 20.6	-0.1
MBWA	Marble Bar	55.83	201	P	P	21 17 20.5	-0.8
DIV	Divide	55.91	35	P	P	21 17 22.0	+0.4
DIV				IAmb	IAmb	21 17 23.7	
	comp=Z,8.2nm,0.6s						
BMAR	Burnt Mountain	55.97	27	P	P	21 17 22.4	+0.6
EYAK	Cordova Ski Ar	55.98	35	P	P	21 17 22.7	+0.8
EYAK				IAmb	IAmb	21 17 23.6	
	comp=Z,10nm,0.7s						
HARP	HAARP	56.07	33	P	P	21 17 23.0	+0.4
HARP				IAmb	IAmb	21 17 24.5	
	comp=Z,14nm,0.6s						
RIDG	Independent Ri	56.09	32	P	P	21 17 22.5	-0.2
F26K	Sheenjek River	56.12	27		P	21 17 24.4	+1.6
F26K				IAmb	IAmb	21 17 25.7	
	comp=Z,9.1nm,0.7s						
C27K	Jago River	56.20	24	P	P	21 17 23.9	+0.5
G26K	Porcupine Rive	56.30	28	P	P	21 17 24.8	+0.7
SCRK	Sand Creek	56.45	31		P	21 17 24.4	-1.0
SCRK				IAmb	IAmb	21 17 26.4	
	comp=Z,8.9nm,0.6s						
KBL	Kabul	56.46	293	P	P	21 17 25.8	-0.2
KBL				pmax	pmax		
	comp=Z,12nm,0.7s						
KBL	Kabul	56.46	293		P	21 17 25.8	-0.2
KBL				IAmb	IAmb	21 17 26.7	
	comp=Z,12nm,0.7s						
KBL	Kabul	56.46	293	P	P	21 17 25.5	-0.5
	comp=Z,18nm,0.8s						
BMRM	Bremner River	56.49	35		P	21 17 26.3	+0.7
RAGM	Ragged Mountai	56.52	36	P	P	21 17 26.6	+0.8
RAGM				IAmb	IAmb	21 17 28.9	
	comp=Z,8.8nm,0.6s						
MENT	Mentasta	56.68	32	P	P	21 17 27.6	+0.8
MENT				IAmb	IAmb	21 17 28.8	
	comp=Z,12nm,0.6s						
KAIM	Kayak Island	56.71	36	P	P	21 17 27.9	+0.9
GLB	Gilahina Butte	56.81	34	P	P	21 17 28.4	+0.6
L26K	Log Cabin Wild	56.84	32	P	P	21 17 28.7	+0.8
L26K				IAmb	IAmb	21 17 29.8	
	comp=Z,8.2nm,0.7s						
SVE	Sverdlovsk	56.88	320	eP	P	21 17 28.1	-0.2
SVE				pmax	pmax		
	comp=Z,17nm,0.7s						
BERG	Berg Lake	57.00	35	P	P	21 17 29.1	0.0
VRDI	Verde Repeater	57.01	34	P	P	21 17 29.2	-0.1
VRDI				IAmb	IAmb	21 17 30.9	
	comp=Z,9.5nm,0.7s						
E27K	Coleen River	57.05	26	P	P	21 17 30.4	+1.0
M26K	Nabesna, AK	57.07	33		P	21 17 30.1	+0.4
G27K	Doyon Strip	57.15	28	P	P	21 17 30.8	+0.7
D27M	Malcolm River	57.19	25	P	P	21 17 31.1	+0.7
D27M				IAmb	IAmb	21 18 12.3	
	comp=Z,21nm,1.4s						
MCARA	McCarthy VSAT	57.19	34		P	21 17 31.0	+0.6
CRQM	Cirque	57.23	35	P	P	21 17 31.6	+0.7
CRQM				IAmb	IAmb	21 17 33.9	
	comp=Z,14nm,0.7s						
H27K	Steamboat Moun	57.26	28		P	21 17 31.6	+0.8
H27K				IAmb	IAmb	21 17 34.0	
	comp=Z,7.8nm,0.7s						
K27K	Chicken	57.28	31	P	P	21 17 31.4	+0.4
I27K	Kandik River	57.29	29		P	21 17 31.6	+0.5
I27K				IAmb	IAmb	21 17 33.6	
	comp=Z,8.2nm,0.6s						
TGL	Tana Glacier	57.38	35	P	P	21 17 32.3	+0.5
TGL				IAmb	IAmb	21 17 34.1	
	comp=Z,12nm,0.7s						
L27K	Beaver Creek,	57.52	32	P	P	21 17 32.9	+0.2
BCAR	Beaver Creek A	57.54	32		P	21 17 33.3	+0.5
M27K	Edge Creek, AK	57.59	33	P	P	21 17 33.5	+0.2
M27K				IAmb	IAmb	21 17 35.0	
	comp=Z,10nm,0.6s						
BARN	Barnard Glacie	57.89	34	P	P	21 17 35.9	+0.4
BARN				IAmb	IAmb	21 17 37.4	
	comp=Z,11nm,0.6s						
GRNC	Granite Creek	57.90	35	P	P	21 17 35.9	+0.3
GRNC				IAmb	IAmb	21 17 37.4	
	comp=Z,12nm,0.6s						
YAH	Yahtse	57.97	35	P	P	21 17 36.5	+0.5
YAH				IAmb	IAmb	21 17 37.7	
	comp=Z,9.4nm,0.7s						
I28M	Miner Creek	58.01	29		P	21 17 35.8	-0.2
I28M				IAmb	IAmb	21 17 38.0	
	comp=Z,9.3nm,0.7s						
ARTI	Arti	58.18	320	d iP	P	21 17 36.5	-0.8
ARTI						21 18 23.7	
ARTI				S	S	21 25 07.2	-1.1
ARTI				pmax	pmax		
	comp=Z,13nm,0.6s						
ARTI	Arti	58.18	320		P	21 17 36.0	-1.2
LOGN	Logan Glacier	58.25	35	P	P	21 17 38.3	+0.4
E29M	Blow River	58.39	26	P	P	21 17 39.0	+0.5
PALK	Pallekele	58.46	258	P	P	21 17 40.4	+0.5
H29M	Whitestone	58.53	28	P	P	21 17 40.6	+1.0
G29M	Pine Creek	58.56	27	P	P	21 17 41.1	+1.3
G29M				IAmb	IAmb	21 17 42.3	
	comp=Z,14nm,0.7s						
O28M	Mount Upton	58.65	35	P	P	21 17 40.8	0.0
I29M	Ogilvie Camp,	58.69	29	P	P	21 17 41.2	+0.5
PCA	Pinnacle	58.74	35	P	P	21 17 42.1	+0.9
PCA				IAmb	IAmb	21 17 45.1	
	comp=Z,12nm,0.7s						
AB31	Akbulak array	58.85	312		P	21 17 41.4	-0.6
ABKAR	Akbulak array	58.85	312	P	P	21 17 41.2	-0.7
M29M	Somme Creek	59.15	33		P	21 17 45.5	+1.6
M29M				IAmb	IAmb	21 17 46.6	
	comp=Z,15nm,0.7s						
EPYK	Eagle Plains	59.16	28	P	P	21 17 44.8	+0.9
L29M	L29M	59.17	32		P	21 17 45.0	+1.0
L29M				IAmb	IAmb	21 17 46.7	
	comp=Z,9.7nm,0.9s						
G30M	tAoh Zraii Nji	59.25	27	P	P	21 17 44.8	+0.4
G30M				IAmb	IAmb	21 17 48.0	
	comp=Z,9.3nm,0.8s						
K29M	Barlow Dome	59.30	31		P	21 17 45.6	+0.7
F30M	Barrier River	59.30	26	P	P	21 17 45.8	+1.1
F30M				IAmb	IAmb	21 17 46.9	
	comp=Z,8.0nm,0.7s						
I30M	Mount Dempster	59.52	29		P	21 17 47.2	+0.8
I30M				IAmb	IAmb	21 17 48.9	
	comp=Z,12nm,0.6s						
O29M	Mount Kennedy	59.53	35	P	P	21 17 47.4	+0.9
O29M				IAmb	IAmb	21 17 49.1	
	comp=Z,14nm,0.7s						
J30M	Hart River	59.66	30	P	P	21 17 48.3	+0.9
HYT	Haines Junctio	59.93	34		P	21 17 50.4	+1.2
HYT				IAmb	IAmb	21 17 51.6	
	comp=Z,9.6nm,0.7s						
INK	Inuvik	60.01	25	P	P	21 17 50.0	+0.6
INK	Inuvik	60.01	25	P	P	21 17 50.0	+0.6
INK				IAmb	IAmb	21 17 50.9	
	comp=Z,5.7nm,0.6s						
G31M	Satah River	60.02	27	P	P	21 17 49.7	+0.2
G31M				IAmb	IAmb	21 17 50.6	
	comp=Z,8.2nm,0.7s						
H31M	Peel River	60.23	28		P	21 17 50.8	-0.2
H31M				IAmb	IAmb	21 17 52.7	
	comp=Z,13nm,0.7s						
DZM	Mont Dzumac	60.52	149	P	P	21 17 54.2	+0.6
	comp=Z,9.3nm,0.9s,baz=4.4,slow=13,SNR=3.3						
	comp=Z,9.3nm,0.9s						
M31M	Drury Creek, Y	61.05	32	P	P	21 17 57.1	+0.5
M31M				IAmb	IAmb	21 17 58.4	
	comp=Z,10nm,0.7s						
WHY	Whitehorse	61.22	34		P	21 17 58.8	+1.0
HRA	Herat	61.79	295		P	21 18 01.6	-0.6
HRA				IAmb	IAmb	21 18 03.5	
	comp=Z,8.4nm,0.6s						
P33M	Teslin, Yukon	62.33	34		P	21 18 05.0	-0.1
MMPY	Sheldon Lake,	62.34	31		P	21 18 05.7	+0.5
KIRV	Kirov	62.34	324	ceP	P	21 18 04.7	-0.4
Q32M	Nakina River	62.97	36		P	21 18 10.7	+1.2
U33K	Whale Pass	63.43	39	P	P	21 18 13.4	+1.3
U33K				IAmb	IAmb	21 18 41.7	
	comp=Z,13nm,1.2s						
R33M	Jennings River	63.47	35		P	21 18 13.1	+0.5
CRAG	Craig	63.63	39	P	P	21 18 15.2	+1.6
STKA	Stephens Creek	63.84	176	P	P	21 18 15.6	+0.5
	comp=Z,1.8nm,0.7s,baz=333,slow=4.4,SNR=3.7						
	comp=Z,1.8nm,0.7s						
S34M	Telegraph Cree	63.87	36	P	P	21 18 16.4	+1.4
S34M				IAmb	IAmb	21 18 17.7	
	comp=Z,3.5nm,0.6s						
SPITS	Spitsbergen Ar	64.67	349	P	P	21 18 19.4	-0.5
	comp=Z,8.1nm,0.9s,baz=33,slow=5.5,SNR=2.7						
	comp=Z,8.1nm,0.9s						
SPITS	Spitsbergen Ar	64.67	349	P	P	21 18 20.2	+0.3
SPITS				pmax	pmax		
	comp=Z,25nm,1.3s						
BBOO	Buckleboo	64.69	182	P	P	21 18 20.2	-0.3
DIB	Dawson Inlet,	64.75	42	P	P	21 18 21.1	+0.3
DIB				IAmb	IAmb	21 18 39.9	
	comp=Z,14nm,1.0s						
BELG	Belogornoye	65.33	318	i P	P	21 18 23.6	-0.9
BELG				pmax	pmax		
	comp=Z,3.0nm,0.7s						
ARCES	ARCESS Array B	67.46	339	P	P	21 18 37.6	+0.1
	comp=Z,5.4nm,0.7s,baz=64,slow=5.5,SNR=13						
	comp=Z,5.4nm,0.7s						
VRH	Novokhopyorsk	69.17	318	eP	P	21 18 47.6	-0.7
VRH				pmax	pmax		
	comp=Z,11nm,0.8s						
YKA	Yellowknife Ar	69.45	28	P	P	21 18 49.9	+0.1
	comp=Z,4.4nm,0.6s,baz=304,slow=6.3,SNR=11						
	comp=Z,4.4nm,0.6s						
YKAW1	Yellowknife Wh	69.50	28	P	P	21 18 50.2	+0.1
AKT	Akhty	69.58	307	eP	P	21 18 50.9	-0.3
AKT				e*PP	pP	21 20 14.9	+1.0
AKT				e		21 21 30.2	
AKT				eS	S	21 27 29.1	+1.1
AKT				pmax	pmax		
	comp=Z,31nm,0.7s						
SHME	Shamm	70.01	289	P	P	21 18 54.1	+0.2
LKRN	Lenkeran, Azer	70.04	304	P	P	21 18 54.0	+0.2
SEKA	Sheki	70.06	307	P	P	21 18 53.8	-0.2
LPSR	Galich'ya Gora	70.10	320	eP	P	21 18 53.6	-0.3
LPSR				pmax	pmax		
	comp=Z,17nm,0.9s						
OBN	Obninsk	70.18	323	⇑iP	P	21 18 54.2	-0.1
OBN						21 19 20.0	
OBN				*SP	sP	21 20 56.0	-1.1
OBN				eS	S	21 27 36.1	+2.0
OBN				pmax	pmax		
	comp=Z,12nm,0.8s						
MSFE	Esma-Masafi	70.30	288	P	P	21 18 55.4	-0.3
MNGR	Mingechevir, A	70.32	306	P	P	21 18 55.8	+0.3
VORR	Voronezh	70.37	319	eP	P	21 18 55.1	-0.5
VORR				pmax	pmax		
	comp=Z,13nm,1.0s						
UOSS	Minazif	70.46	288	P	P	21 18 56.3	-0.2
SOHO	SOHO	70.56	287	i P	P	21 18 57.1	0.0
	SNR=7.9						
HATD	Hatta, Dubai	70.57	288	i P	P	21 18 57.5	+0.2
	SNR=6.0						
VSR	Storozhevoye	70.61	319	eP	P	21 18 56.7	-0.3
VSR				pmax	pmax		
	comp=Z,15nm,0.9s						
VORD	Divnogorie	70.65	318	eP	P	21 18 55.3	-1.9
VORD				pmax	pmax		
	comp=Z,10.0nm,0.9s						
ASHO	Ashiyiah	70.69	287	P	P	21 18 58.2	+0.1
GANJ	Ganja	70.90	306	P	P	21 18 59.3	+0.3
FAQ	Al Faqa, Dubai	71.04	288	P	P	21 18 59.8	-0.3
ALNE	Al Ain	71.23	287	i P	P	21 19 01.0	-0.2
	SNR=6.9						
FINES	FINESS Array B	71.69	332	P	P	21 19 02.6	-0.5
	comp=Z,7.5nm,0.6s,baz=72,slow=5.8,SNR=42						
	comp=Z,7.5nm,0.6s						
FINES	FINESS Array B	71.69	332	P	P	21 19 02.5	-0.7
KBZ	Khabaz	71.79	311	P	P	21 19 04.2	+0.1
	comp=Z,21nm,0.8s,baz=84,slow=4.9,SNR=58						
	comp=Z,21nm,0.8s						

KBZ	**Khabaz**	**71.79**	**311**	*ce*P	**P**	**21 19 04.1**	**0.0**
KBZ				pmax	pmax		
	comp=Z,21nm,0.8s						
LLLB	**Lillooet**	**71.80**	**41**	P	**P**	**21 19 04.8**	**+0.7**
LLLB				IAmb	IAmb	21 19 05.9	
	comp=Z,6.9nm,0.7s						
KIV	**Kislovodsk**	**71.82**	**311**	*e*P	**P**	**21 19 04.1**	**-0.4**
KIV				pmax	pmax		
	comp=Z,18nm,1.0s						
KIV	**Kislovodsk**	**71.82**	**311**	P	**P**	**21 19 04.6**	**+0.2**
KIV	**Kislovodsk**	**71.82**	**311**	P	**P**	**21 19 04.9**	**+0.5**
KIV	**Kislovodsk**	**71.82**	**311**	P	**P**	**21 19 04.3**	**-0.2**
	comp=Z,19nm,0.9s						
KIV	**Kislovodsk**	**71.82**	**311**	P	**P**	**21 19 04.6**	**+0.2**
	comp=Z,24nm,0.9s						
SHA1	**Shidzhatmaz**	**71.94**	**311**	*ce*P	**P**	**21 19 05.9**	**+0.6**
NAX	**Nakhchivan**	**72.13**	**305**	P	**P**	**21 19 06.7**	**+0.3**
NLWA	**Neilton Lookou**	**72.18**	**45**	P	**P**	**21 19 07.4**	**+1.0**
NLWA				IAmb	IAmb	21 19 09.1	
	comp=Z,7.2nm,0.7s						
VSU	**Vasula**	**73.09**	**329**	*ce*P	**P**	**21 19 10.1**	**-1.3**
VSU				pmax	pmax		
	comp=Z,32nm,1.7s						
STD	**Studebaker Rid**	**73.72**	**45**	P	**P**	**21 19 16.1**	**+0.6**
I02E	**Swisshome, OR**	**73.77**	**48**	P	**P**	**21 19 17.1**	**+1.4**
I02E				IAmb	IAmb	21 19 17.7	
	comp=Z,5.6nm,0.8s						
SOC	**Sochi**	**73.89**	**312**	*e*P	**P**	**21 19 16.0**	**-0.4**
SOC				*e*		21 22 03.7	
SOC				*e*PPP	PPP	21 23 52.2	
SOC				*e*S	**S**	**21 28 11.3**	**-5.1**
SOC				pmax	pmax		
	comp=Z,11nm,0.7s						
G04A	**Mulino**	**74.08**	**46**	P	**P**	**21 19 18.3**	**+0.9**
LTY	**Liberty**	**74.14**	**44**	P	**P**	**21 19 18.1**	**+0.3**
J01E	**Myrtle Point**	**74.17**	**49**	P	**P**	**21 19 18.9**	**+0.9**
J01E				IAmb	IAmb	21 19 20.4	
	comp=Z,7.1nm,0.8s						
GEVA	**Gevas**	**74.22**	**305**	P	**P**	**21 19 18.9**	**+0.4**
GEVA				IAmb	IAmb	21 19 21.1	
	comp=Z,8.8nm,0.9s						
H04D	**Lebanon**	**74.26**	**47**	P	**P**	**21 19 19.6**	**+1.2**
H04D				IAmb	IAmb	21 19 20.4	
	comp=Z,5.7nm,0.8s						
BUCK	**Buck Mountain**	**74.26**	**48**	P	**P**	**21 19 19.6**	**+1.0**
HOOD	**Mount Hood Mea**	**74.53**	**46**	P	**P**	**21 19 21.2**	**+1.0**
K02D	**Willamette Mer**	**74.57**	**49**	P	**P**	**21 19 21.3**	**+0.9**
K02D				IAmb	IAmb	21 19 22.1	
	comp=Z,6.0nm,0.9s						
MXC	**Moxie City**	**74.71**	**44**	P	**P**	**21 19 21.2**	**+0.2**
MXC				IAmb	IAmb	21 19 23.1	
	comp=Z,7.2nm,0.7s						
EPH	**Ephrata**	**74.72**	**43**	P	**P**	**21 19 21.5**	**+0.4**
G05A	**Wamic**	**74.77**	**46**	P	**P**	**21 19 22.5**	**+1.1**
MNK	**Minsk**	**74.80**	**325**	*i* P	**P**	**21 19 21.8**	**+0.5**
MNK				*i*		21 19 33.5	
MNK				*i* *PP	**pwP**	**21 20 46.4**	**-1.4**
MNK				*i* *SP	**sP**	**21 21 26.9**	**+1.9**
MNK				*i*		21 22 15.0	
MNK				*i* PPP	PPP	21 24 02.7	
MNK				*i* S	**S**	**21 28 27.3**	**+1.3**
MNK				*i* SSS	SSS	21 36 41.4	
MNK				pmax	pmax		
	comp=Z,16nm,0.8s						
MNK				pmax	pmax		
	comp=N,8.0nm,1.0s						
MNK				pmax	pmax		
	comp=E,17nm,1.0s						
MNK	**Minsk**	**74.80**	**325**	*i* P	**P**	**21 19 21.9**	**+0.5**
	comp=E,17nm,1.0s						
MNK				*i* P	**P**	**21 19 21.9**	**+0.5**
	comp=N,8.0nm,1.0s						
MNK				*i* P	**P**	**21 19 21.9**	**+0.5**
	comp=Z,16nm,0.8s,baz=56						
MNK				*i* pP	**pwP**	**21 20 46.5**	**-1.4**
MNK				*i* sP	**sP**	**21 21 27.0**	**+1.9**
MNK				*i* PP	**PP**	**21 22 15.0**	**+1.0**
MNK				*i* PPP	PPP	21 24 02.8	
MNK				*i* S	**S**	**21 28 27.3**	**+1.3**
MNK				*i* sS	**sS**	**21 30 47.8**	**-6.5**
MNK				*i* SS	**SS**	**21 33 32.5**	**+10**
MNK				*i* SSS	SSS	21 36 41.5	
GURO	**Guroymak-BITLI**	**74.81**	**306**	P	**P**	**21 19 21.8**	**-0.1**
GURO				IAmb	IAmb	21 19 24.0	
	comp=Z,9.8nm,0.8s						
I04A	**Tendick Farm,**	**74.82**	**48**	P	**P**	**21 19 22.8**	**+1.1**
I04A				IAmb	IAmb	21 19 23.7	
	comp=Z,8.5nm,0.7s						
KSXB	**Camp Six Broad**	**74.86**	**50**	P	**P**	**21 19 22.7**	**+0.6**
KSXB				IAmb	IAmb	21 19 24.1	
	comp=Z,6.5nm,1.0s						
L02F	**Cave Junction**	**74.92**	**50**	P	**P**	**21 19 22.4**	**+0.2**
L02F				IAmb	IAmb	21 19 24.6	
	comp=Z,4.3nm,0.7s						
E07A	**Sunnyside**	**74.98**	**44**	P	**P**	**21 19 22.9**	**+0.4**
E07A				IAmb	IAmb	21 19 25.9	
	comp=Z,5.9nm,0.7s						
WAH2	**Wahluke Slope**	**75.05**	**44**	P	**P**	**21 19 23.8**	**+0.9**
WIFE	**Three Sisters-**	**75.06**	**47**	P	**P**	**21 19 24.0**	**+0.7**
WIFE				IAmb	IAmb	21 19 25.6	
	comp=Z,7.5nm,0.8s						
BBOR	**Butler Butte**	**75.11**	**49**	P	**P**	**21 19 24.5**	**+1.0**
G06A	**Carlson Farm,**	**75.19**	**46**	P	**P**	**21 19 24.1**	**+0.3**
G06A				IAmb	IAmb	21 19 26.0	
	comp=Z,5.8nm,0.9s						
I05D	**Terrebonne, OR**	**75.22**	**47**	P	**P**	**21 19 24.4**	**+0.4**
C09A	**Chrisman Ranch**	**75.25**	**43**	P	**P**	**21 19 23.4**	**-0.7**
C09A				IAmb	IAmb	21 19 25.4	
	comp=Z,6.4nm,0.8s						
HAWA	**Hanford**	**75.25**	**44**	P	**P**	**21 19 24.7**	**+0.6**
HAWA				IAmb	IAmb	21 19 27.2	
	comp=Z,4.6nm,0.8s						
D08A	**Wollman Farm,**	**75.27**	**43**	P	**P**	**21 19 24.8**	**+0.6**
D08A				IAmb	IAmb	21 19 25.9	
	comp=Z,7.8nm,0.8s						
F07A	**Phinny Hill Vi**	**75.28**	**45**	P	**P**	**21 19 24.8**	**+0.7**
J04A	**Umpqua Nationa**	**75.29**	**48**	P	**P**	**21 19 25.6**	**+1.0**
KMPM	**Mount Pierce**	**75.41**	**51**	P	**P**	**21 19 25.6**	**+0.5**
KMPM				IAmb	IAmb	21 19 27.3	
	comp=Z,5.6nm,0.9s						
KHMM	**Horse Mountain**	**75.43**	**51**	P	**P**	**21 19 25.2**	**-0.2**
KHMM				IAmb	IAmb	21 19 27.6	
	comp=Z,7.8nm,1.1s						
E08A	**Dider Farm, El**	**75.48**	**44**	P	**P**	**21 19 26.0**	**+0.7**
E08A				IAmb	IAmb	21 19 27.2	
	comp=Z,7.6nm,0.7s						
NEW	**Newport**	**75.66**	**42**	P	**P**	**21 19 26.9**	**+0.5**
NEW				pmax	pmax		
	comp=Z,4.0nm,0.8s						
NEW	**Newport**	**75.66**	**42**	P	**P**	**21 19 26.9**	**+0.5**
YBH	**Yreka Blue Hor**	**75.67**	**50**	P	**P**	**21 19 27.9**	**+1.3**
YBH				pmax	pmax		
	comp=Z,4.0nm,0.7s						
YBH	**Yreka Blue Hor**	**75.67**	**50**	P	**P**	**21 19 27.9**	**+1.3**
YBH				IAmb	IAmb	21 19 28.9	
	comp=Z,4.2nm,0.7s						
L04D	**Klamath Falls**	**75.68**	**49**	P	**P**	**21 19 27.7**	**+0.9**
PINE	**Pine Mountain**	**75.74**	**47**	P	**P**	**21 19 28.4**	**+1.3**
M02C	**Callahan**	**75.75**	**50**	P	**P**	**21 19 27.7**	**+0.6**
M02C				IAmb	IAmb	21 19 29.6	
	comp=Z,5.4nm,0.7s						
KHBM	**Hayfork Bally**	**75.88**	**51**	P	**P**	**21 19 28.1**	**+0.2**
E09A	**Wood Farm, Sta**	**76.01**	**44**	P	**P**	**21 19 28.8**	**+0.5**
E09A				IAmb	IAmb	21 19 30.3	
	comp=Z,7.7nm,0.7s						
PABE	**Paberze**	**76.05**	**328**	P	**P**	**21 19 28.1**	**-0.2**
KCPM	**Cahto Peak**	**76.13**	**52**	P	**P**	**21 19 29.5**	**+0.3**
KCPM				IAmb	IAmb	21 19 31.0	
	comp=Z,8.6nm,1.0s						
AK03	**Malin Array Si**	**76.25**	**322**	P	**P**	**21 19 28.8**	**-0.8**
LNOR	**Lincton Mounta**	**76.27**	**44**	P	**P**	**21 19 29.8**	**0.0**
AKASG	**Malin Array Be**	**76.27**	**322**	P	**P**	**21 19 29.0**	**-0.6**
	comp=Z,4.6nm,0.4s,baz=52,slow=5.9,SNR=39						
	comp=Z,4.6nm,0.4s						
AKASG	**Malin Array Be**	**76.27**	**322**	P	**P**	**21 19 29.2**	**-0.4**
AKBB	**Malin Array Si**	**76.27**	**322**	*ce*P	**P**	**21 19 28.9**	**-0.7**
AKBB				pmax	pmax		
	comp=Z,13nm,0.5s						
AKBB	**Malin Array Si**	**76.27**	**322**		**P**	**21 19 28.1**	**-1.5**
AKBB	**Malin Array Si**	**76.27**	**322**	P	**P**	**21 19 28.7**	**-0.9**
AK01	**Malin Array Si**	**76.28**	**322**	P	**P**	**21 19 28.7**	**-1.0**
KIEV	**Kiev**	**76.28**	**322**	P	**P**	**21 19 28.3**	**-1.4**
KIEV				pmax	pmax		
	comp=Z,14nm,0.7s						
KIEV	**Kiev**	**76.28**	**322**		**P**	**21 19 28.3**	**-1.4**
KIEV	**Kiev**	**76.28**	**322**	*i* P	**P**	**21 19 29.2**	**-0.5**
	SNR=12						
KIEV	**Kiev**	**76.28**	**322**	P	**P**	**21 19 28.6**	**-1.1**
	comp=Z,88nm,0.7s						
M03C	**McCloud**	**76.28**	**50**	P	**P**	**21 19 31.1**	**+1.1**
AK09	**Malin Array Si**	**76.28**	**322**	P	**P**	**21 19 29.0**	**-0.7**
AK04	**Malin Array Si**	**76.29**	**322**	P	**P**	**21 19 28.8**	**-0.9**
AK08	**Malin Array Si**	**76.29**	**322**	P	**P**	**21 19 29.0**	**-0.7**
AK02	**Malin Array Si**	**76.30**	**322**	P	**P**	**21 19 28.9**	**-0.9**
AK11	**Malin Array Si**	**76.31**	**322**	P	**P**	**21 19 28.9**	**-1.0**
K05A	**Summer Lake**	**76.32**	**48**	P	**P**	**21 19 30.6**	**+0.2**
O02D	**Mt. Diablo Mer**	**76.41**	**51**	P	**P**	**21 19 30.6**	**-0.2**
O02D				IAmb	IAmb	21 19 33.1	
	comp=Z,4.5nm,0.7s						
I07A	**Izee**	**76.48**	**46**	P	**P**	**21 19 31.2**	**+0.1**
HATC	**Hat Creek Radi**	**76.95**	**50**	P	**P**	**21 19 34.3**	**+0.6**
O03E	**Paynes Creek**	**76.99**	**51**	P	**P**	**21 19 34.0**	**0.0**
O03E				IAmb	IAmb	21 19 35.4	
	comp=Z,6.3nm,0.8s						
ARPR	**Arapgir-MALATY**	**77.04**	**308**	P	**P**	**21 19 34.0**	**-0.4**
ARPR				IAmb	IAmb	21 19 36.0	
	comp=Z,7.5nm,0.8s						
MOD	**Modoc Plateau**	**77.12**	**49**		**P**	**21 19 34.6**	**-0.2**
MOD				IAmb	IAmb	21 19 36.7	
	comp=Z,6.6nm,0.8s						
HFS	**Hagfors**	**77.22**	**335**	P	**P**	**21 19 34.1**	**-0.6**
	comp=Z,5.0nm,0.8s,baz=64,slow=6.8,SNR=7.3						
	comp=Z,5.0nm,0.8s						
NC405	**NORSAR Array S**	**77.23**	**336**	P	**P**	**21 19 34.3**	**-0.5**
NC303	**NORSAR Array S**	**77.26**	**336**	P	**P**	**21 19 34.7**	**-0.3**
SUW	**Suwalki**	**77.32**	**327**	P	**P**	**21 19 35.0**	**-0.4**
SUW	**Suwalki**	**77.32**	**327**	P	**P**	**21 19 35.0**	**-0.4**
MCCM	**Marconi Confer**	**77.38**	**53**	P	**P**	**21 19 36.3**	**+0.3**
BMO	**Blue Mountains**	**77.40**	**45**	P	**P**	**21 19 36.4**	**+0.2**
BMO				pmax	pmax		
	comp=Z,5.0nm,0.7s						
BMO	**Blue Mountains**	**77.40**	**45**		**P**	**21 19 36.4**	**+0.2**
BMO				IAmb	IAmb	21 19 38.0	
	comp=Z,5.2nm,0.7s						
NC204	**NORSAR Array S**	**77.43**	**337**	P	**P**	**21 19 35.6**	**-0.3**
NB2	**NORSAR Subarra**	**77.45**	**336**	P	**P**	**21 19 35.3**	**-0.7**
	comp=Z,12nm,1.0s,baz=44,slow=5.6						
NOA	**NORSAR Array B**	**77.45**	**336**	P	**P**	**21 19 35.5**	**-0.5**
	comp=Z,5.0nm,0.8s,baz=44,slow=5.5,SNR=14						
	comp=Z,5.0nm,0.8s						
LUBAR	**Lubar, Ukraine**	**77.49**	**322**	P	**P**	**21 19 35.4**	**-1.0**
J08A	**Circle Bar Ran**	**77.50**	**47**	P	**P**	**21 19 37.9**	**+1.1**
JTMT	**Jette**	**77.54**	**41**		**P**	**21 19 38.2**	**+1.3**
ORV	**Oroville**	**77.58**	**51**	P	**P**	**21 19 36.8**	**-0.3**
ORV				pmax	pmax		
	comp=Z,5.0nm,0.8s						
ORV	**Oroville**	**77.58**	**51**	P	**P**	**21 19 36.8**	**-0.3**
ORV				IAmb	IAmb	21 19 38.4	
	comp=Z,4.8nm,0.8s						
TOKA	**Tokat**	**77.62**	**310**	P	**P**	**21 19 36.9**	**-0.5**
TOKA				IAmb	IAmb	21 19 42.8	
	comp=Z,3.8nm,0.5s						
RNPP8	**Varash**	**77.64**	**323**	P	**P**	**21 19 36.7**	**-0.5**
WVOR	**Wild Horse Val**	**77.89**	**47**	P	**P**	**21 19 40.1**	**+1.2**
WVOR				pmax	pmax		
	comp=Z,7.0nm,0.7s						
WVOR	**Wild Horse Val**	**77.89**	**47**	P	**P**	**21 19 40.1**	**+1.2**
WVOR				IAmb	IAmb	21 19 40.9	
	comp=Z,6.8nm,0.7s						
PLID	**Pearl Lake**	**78.04**	**44**		**P**	**21 19 39.5**	**-0.3**
BEKR	**Beckworth**	**78.16**	**50**	P	**P**	**21 19 41.1**	**+0.6**
SORM	**Soroca**	**78.20**	**320**	P	**P**	**21 19 39.2**	**-1.1**
	comp=Z,12nm,0.8s						
AFDM	**Forest Hills D**	**78.24**	**51**		**P**	**21 19 41.0**	**+0.2**
PURM	**Purcari**	**78.27**	**318**	P	**P**	**21 19 40.4**	**-0.3**
	comp=Z,2μmcomp=Z,22nm,0.5s						
GAZ	**Gaziantep**	**78.79**	**307**	P	**P**	**21 19 41.8**	**-2.0**
GAZ				IAmb	IAmb	21 19 45.1	
	comp=Z,6.5nm,0.9s						
BNN	**Bunyan**	**78.82**	**309**		**P**	**21 19 43.8**	**-0.2**
BNN				IAmb	IAmb	21 19 46.6	
	comp=Z,8.5nm,1.0s						
PAHR	**Pah Rah Range**	**78.88**	**50**	P	**P**	**21 19 44.8**	**+0.4**
PAHR				IAmb	IAmb	21 19 46.1	
	comp=Z,3.8nm,0.7s						
KMPD	**K-Podol'skiy**	**78.97**	**321**	P	**P**	**21 19 43.1**	**-1.4**
ILGA	**Ilgaz**	**79.01**	**312**	P	**P**	**21 19 45.4**	**+0.2**
PNTR	**Pine Nut**	**79.07**	**51**	P	**P**	**21 19 45.5**	**0.0**
PNTR				IAmb	IAmb	21 19 48.1	
	comp=Z,7.5nm,0.7s						
MFID	**Camas Ranch**	**79.08**	**45**	P	**P**	**21 19 45.5**	**+0.2**
MFID				IAmb	IAmb	21 19 47.3	
	comp=Z,6.2nm,0.7s						
CMB	**Columbia Colle**	**79.12**	**52**	P	**P**	**21 19 45.7**	**+0.2**
CMB				pmax	pmax		
	comp=Z,4.0nm,0.7s						
CMB	**Columbia Colle**	**79.12**	**52**	P	**P**	**21 19 45.7**	**+0.2**
CMB				IAmb	IAmb	21 19 47.1	
	comp=Z,4.0nm,0.7s						
YERR	**Yerington**	**79.36**	**51**	P	**P**	**21 19 46.0**	**-1.1**
YERR				IAmb	IAmb	21 19 48.8	
	comp=Z,5.8nm,0.6s						
BBGB	**Big Mountain B**	**79.45**	**53**	P	**P**	**21 19 47.5**	**0.0**
WAKR	**Walker**	**79.50**	**51**	P	**P**	**21 19 48.4**	**+0.6**
HULI	**Fort Hunter Li**	**79.61**	**54**	P	**P**	**21 19 48.9**	**+0.7**
RAYN	**Ar Rayn**	**79.69**	**291**	P	**P**	**21 19 48.3**	**-0.6**
RAYN				pmax	pmax		
	comp=Z,11nm,0.7s						
RAYN	**Ar Rayn**	**79.69**	**291**		**P**	**21 19 48.3**	**-0.6**
RAYN	**Ar Rayn**	**79.69**	**291**	*i* P	**P**	**21 19 48.9**	**0.0**
	SNR=32						
BR131	**Keskin Array S**	**79.78**	**311**	*i* P	**P**	**21 19 49.1**	**-0.1**
BR131	**Keskin Array S**	**79.78**	**311**		**P**	**21 19 48.9**	**-0.3**
BR131				IAmb	IAmb	21 19 50.8	
	comp=Z,11nm,0.9s						
BRTR	**Keskin Array B**	**79.78**	**311**	P	**P**	**21 19 49.2**	**0.0**
	comp=Z,7.3nm,0.8s,baz=106,slow=4.2,SNR=41						
	comp=Z,7.3nm,0.8s						
BRTR	**Keskin Array B**	**79.78**	**311**	*ce*P	**P**	**21 19 49.2**	**0.0**
BRTR				pmax	pmax		
	comp=Z,8.0nm,0.8s						
BRTR	**Keskin Array B**	**79.78**	**311**		**P**	**21 19 48.7**	**-0.5**
BR104	**Keskin Array S**	**79.79**	**311**	P	**P**	**21 19 48.6**	**-0.6**
	comp=Z,65nmcomp=Z,11nm,0.8s						
BR106	**Keskin Array S**	**79.79**	**311**	P	**P**	**21 19 48.8**	**-0.4**
	comp=Z,51nmcomp=Z,7.9nm,0.8s						
BR105	**Keskin Array S**	**79.80**	**311**	P	**P**	**21 19 48.8**	**-0.5**
	comp=Z,63nmcomp=Z,11nm,0.8s						
PMPB	**Monarch Peak**	**79.81**	**54**	P	**P**	**21 19 50.4**	**+1.1**
PMPB				IAmb	IAmb	21 19 55.3	
	comp=Z,7.4nm,0.9s						
HLID	**Hailey**	**79.84**	**45**		**P**	**21 19 50.5**	**+1.0**
HLID				IAmb	IAmb	21 19 52.3	
	comp=Z,4.0nm,0.8s						
DLMT	**Dillon**	**79.86**	**42**		**P**	**21 19 49.5**	**0.0**
BMN	**Battle Mountai**	**79.88**	**49**	P	**P**	**21 19 50.3**	**+0.6**
BMN				pmax	pmax		
	comp=Z,6.0nm,0.8s						
BMN	**Battle Mountai**	**79.88**	**49**	P	**P**	**21 19 50.3**	**+0.6**
BMN				IAmb	IAmb	21 19 51.9	
	comp=Z,5.8nm,0.8s						
MCMT	**McKenzie Canyo**	**80.03**	**43**	P	**P**	**21 19 52.0**	**+1.5**
KVN	**Kaiserville**	**80.07**	**50**	P	**P**	**21 19 51.1**	**+0.3**
KVN				pmax	pmax		
	comp=Z,5.0nm,0.7s						
KVN	**Kaiserville**	**80.07**	**50**		**P**	**21 19 51.1**	**+0.3**
KVN				IAmb	IAmb	21 19 52.6	
	comp=Z,5.2nm,0.7s						
TESR	**Tescani**	**80.09**	**319**	P	**P**	**21 19 50.1**	**-0.4**
PKD	**Bear Valley Ra**	**80.13**	**54**	P	**P**	**21 19 51.2**	**+0.3**
PKD				IAmb	IAmb	21 19 52.7	
	comp=Z,5.5nm,0.7s						
BUR08	**Bucovina Ar. S**	**80.20**	**321**		**P**	**21 19 50.5**	**-0.7**
BUR08				IAmb	IAmb	21 19 53.0	
	comp=Z,5.8nm,0.9s						
MDPB	**Devils Postpil**	**80.20**	**52**	P	**P**	**21 19 51.2**	**-0.4**
BURAR	**Bucovina Array**	**80.21**	**321**	P	**P**	**21 19 51.6**	**+0.4**
BURAR				pmax	pmax		
	comp=Z,4.0nm,0.8s						
BURAR	**Bucovina Array**	**80.21**	**321**		**P**	**21 19 51.0**	**-0.2**
BURAR				IAmb	IAmb	21 19 52.9	
	comp=Z,4.3nm,0.8s						
LHV	**Little Huntoon**	**80.25**	**51**	P	**P**	**21 19 51.5**	**0.0**
LHV				IAmb	IAmb	21 19 53.4	
	comp=Z,6.5nm,1.1s						
KWP	**Kalwaria Pacla**	**80.27**	**323**	P	**P**	**21 19 51.3**	**-0.1**
	comp=Z,18nm,0.8s						
BOZ	**Bozeman (W)**	**80.27**	**42**	P	**P**	**21 19 52.2**	**+0.5**
BOZ				pmax	pmax		
	comp=Z,5.0nm,0.7s						
BOZ	**Bozeman (W)**	**80.27**	**42**	P	**P**	**21 19 52.2**	**+0.5**
BOZ				IAmb	IAmb	21 19 53.4	
	comp=Z,4.8nm,0.7s						
NVAR	**Mina Array Bea**	**80.28**	**51**	P	**P**	**21 19 53.1**	**+1.1**
	comp=Z,3.1nm,0.6s,baz=290,slow=5.0,SNR=23						
	comp=Z,3.1nm,0.6s						
NVAR	**Mina Array Bea**	**80.28**	**51**	P	**P**	**21 19 52.2**	**+0.2**
NV11	**Mina Array Sit**	**80.38**	**51**	P	**P**	**21 19 53.3**	**+1.0**
VRI	**Vrincioaia**	**80.43**	**319**	P	**P**	**21 19 52.5**	**+0.2**
	comp=Z,14nm,0.8s						
Q09A	**Carvers**	**80.79**	**50**	P	**P**	**21 19 54.4**	**-0.1**
MDUB	**Mudurnu**	**80.92**	**312**	P	**P**	**21 19 55.1**	**0.0**
KOLS	**Kolonicke sedl**	**80.93**	**323**	*e*P	**P**	**21 19 54.8**	**-0.1**
KOLS	**Kolonicke sedl**	**80.93**	**323**	*e*P	**P**	**21 19 54.8**	**-0.1**
ELK	**Elko**	**80.95**	**47**	P	**P**	**21 19 56.2**	**+0.8**
ELK				IAmb	IAmb	21 19 58.8	
	comp=Z,4.0nm,0.7s						
YHL	**Hebgen Lake**	**80.97**	**42**		**P**	**21 19 56.7**	**+1.1**
YHL				IAmb	IAmb	21 19 57.7	
	comp=Z,5.3nm,0.9s						
YHB	**Horse Butte**	**81.03**	**42**	P	**P**	**21 19 56.0**	**+0.3**
YHB				IAmb	IAmb	21 19 58.4	
	comp=Z,5.5nm,0.8s						
TPH	**Tonopah**	**81.19**	**50**	P	**P**	**21 19 56.3**	**-0.4**
TPH				pmax	pmax		
	comp=Z,7.0nm,0.8s						
TPH	**Tonopah**	**81.19**	**50**	P	**P**	**21 19 56.2**	**-0.4**
TPH				IAmb	IAmb	21 19 59.3	
	comp=Z,6.8nm,0.8s						
YHH	**Holmes Hill**	**81.20**	**42**	P	**P**	**21 19 57.2**	**+0.5**
YNM	**Yellowstone No**	**81.32**	**42**	P	**P**	**21 19 56.3**	**-1.0**
OJC	**Ojcow**	**81.34**	**325**	P	**P**	**21 19 55.8**	**-1.2**
OJC	**Ojcow**	**81.34**	**325**		**P**	**21 19 55.8**	**-1.2**
CWC	**Cottonwood Cre**	**81.53**	**52**	P	**P**	**21 19 58.4**	**0.0**
YPP	**Pitchstone Pla**	**81.54**	**43**	P	**P**	**21 19 58.7**	**+0.2**
GMN	**Gold Mountain**	**81.59**	**51**	P	**P**	**21 19 59.4**	**+0.6**
GMN				IAmb	IAmb	21 20 01.3	
	comp=Z,4.4nm,0.7s						
GRAC	**Grapevine Rang**	**81.69**	**51**	P	**P**	**21 19 59.4**	**+0.3**
GRAC				IAmb	IAmb	21 20 10.3	
	comp=Z,4.6nm,0.7s						
BORA	**Eskisehir**	**81.72**	**312**	P	**P**	**21 19 58.5**	**-0.8**
BORA				IAmb	IAmb	21 19 59.3	
	comp=Z,8.0nm,0.9s						
FXWY	**Fox Creek**	**81.79**	**43**	P	**P**	**21 20 00.0**	**+0.3**
HVU	**Hansel Valley**	**81.86**	**45**	P	**P**	**21 20 00.3**	**+0.2**
HVU				pmax	pmax		
	comp=Z,10.0nm,0.6s						
HVU	**Hansel Valley**	**81.86**	**45**		**P**	**21 20 00.3**	**+0.2**
LOHW	**Long Hollow**	**82.05**	**43**	P	**P**	**21 20 01.1**	**0.0**
MPMC	**Manual Prospec**	**82.14**	**52**	P	**P**	**21 20 01.8**	**+0.2**
MPMC				IAmb	IAmb	21 20 03.3	
	comp=Z,3.4nm,0.5s						
CLC	**China Lake**	**82.20**	**53**	P	**P**	**21 20 01.6**	**-0.2**
CLC				pmax	pmax		
	comp=Z,4.0nm,0.7s						
CLC	**China Lake**	**82.20**	**53**	P	**P**	**21 20 01.6**	**-0.2**
CLC				IAmb	IAmb	21 20 03.7	
	comp=Z,3.7nm,0.7s						
BGU	**Big Grassy Mou**	**82.21**	**46**	P	**P**	**21 20 01.1**	**-0.7**
AHID	**Auburn Hatcher**	**82.27**	**44**	P	**P**	**21 20 02.4**	**+0.2**
AHID				IAmb	IAmb	21 20 04.0	
	comp=Z,4.4nm,0.8s						
MMAI	**Mount Meron Ar**	**82.28**	**304**	P	**P**	**21 20 01.7**	**-0.5**
	comp=Z,1.8nm,0.7s,baz=28,slow=6.5,SNR=6.2						
	comp=Z,1.8nm,0.7s						
TPO	**Tropico Hills**	**82.30**	**54**	P	**P**	**21 20 02.0**	**-0.3**
WCT	**Wildcat Mounta**	**82.30**	**51**	P	**P**	**21 20 02.4**	**+0.1**
FURC	**Furnace Creek,**	**82.33**	**52**	P	**P**	**21 20 02.8**	**+0.5**
FURC				IAmb	IAmb	21 20 05.5	
	comp=Z,11nm,1.1s						
LRMC	**Laurel Mtn Rad**	**82.33**	**53**	P	**P**	**21 20 02.7**	**+0.1**
SPUT	**South Promonto**	**82.34**	**46**	P	**P**	**21 20 03.0**	**+0.5**
SPUT				IAmb	IAmb	21 20 06.0	
	comp=Z,5.2nm,0.8s						
TPNV	**Topopah Spring**	**82.46**	**51**	P	**P**	**21 20 03.2**	**0.0**
TPNV				pmax	pmax		
	comp=Z,7.0nm,0.7s						
TPNV	**Topopah Spring**	**82.46**	**51**		**P**	**21 20 03.2**	**0.0**
TPNV				IAmb	IAmb	21 20 04.9	
	comp=Z,7.5nm,0.7s						
STEB	**Steborice**	**82.50**	**326**	*e*P	**P**	**21 20 03.3**	**+0.3**
CCCA	**Chr Cany lake**	**82.52**	**53**	P	**P**	**21 20 03.3**	**-0.1**
CCCA				IAmb	IAmb	21 20 05.8	
	comp=Z,3.9nm,0.8s						
KSP	**Ksiaz**	**82.58**	**327**	P	**P**	**21 20 03.5**	**+0.1**
	comp=Z,15nm,0.9s						
QSM	**Queen of Sheba**	**82.61**	**52**	P	**P**	**21 20 04.2**	**+0.4**
QSM				IAmb	IAmb	21 20 05.4	
	comp=Z,7.8nm,0.7s						
GWY	**Greenwater Val**	**82.61**	**52**		**P**	**21 20 04.1**	**+0.1**
GWY				IAmb	IAmb	21 20 05.5	
	comp=Z,6.5nm,0.7s						
CSS	**Mathiatis**	**82.63**	**307**	P	**P**	**21 20 04.1**	**+0.2**
HWUT	**Hardware Ranch**	**82.69**	**45**	P	**P**	**21 20 04.0**	**-0.4**
HWUT				IAmb	IAmb	21 20 06.6	
	comp=Z,7.7nm,0.9s						
MORC	**Moravsky Berou**	**82.72**	**326**	P	**P**	**21 20 03.6**	**-0.6**
MORC				pmax	pmax		
	comp=Z,5.0nm,0.9s						
MORC	**Moravsky Berou**	**82.72**	**326**	P	**P**	**21 20 03.5**	**-0.6**
MORC				IAmb	IAmb	21 20 05.3	
	comp=Z,4.8nm,0.9s						
MORC	**Moravsky Berou**	**82.72**	**326**	*e*P	**P**	**21 20 03.7**	**-0.4**
DUG	**Dugway, Tooele**	**82.77**	**47**	P	**P**	**21 20 04.5**	**-0.2**
DUG				pmax	pmax		
	comp=Z,9.0nm,0.7s						
DUG	**Dugway, Tooele**	**82.77**	**47**		**P**	**21 20 04.5**	**-0.2**
PSZ	**Piszkesteto**	**82.80**	**323**	P	**P**	**21 20 04.5**	**-0.1**
PSZ				pmax	pmax		
	comp=Z,4.0nm,0.9s						
PSZ	**Piszkesteto**	**82.80**	**323**	P	**P**	**21 20 04.5**	**-0.1**
DPC	**Dobruska-Polom**	**82.91**	**327**	P	**P**	**21 20 05.1**	**0.0**
	comp=Z,11nm,0.8s						
VYHS	**Vyhne**	**82.95**	**324**	*e*P	**P**	**21 20 05.7**	**+0.4**
VYHS	**Vyhne**	**82.95**	**324**	*e*P	**P**	**21 20 05.7**	**+0.4**
PRN	**Pahroc Range**	**82.98**	**50**		**P**	**21 20 06.8**	**+1.0**
PRN				IAmb	IAmb	21 20 07.9	
	comp=Z,3.9nm,0.8s						
GSC	**Goldstone, Bar**	**83.02**	**53**	P	**P**	**21 20 05.8**	**-0.2**
GSC				pmax	pmax		
	comp=Z,6.0nm,1.1s						
GSC	**Goldstone, Bar**	**83.02**	**53**	P	**P**	**21 20 05.8**	**-0.2**
GSC				IAmb	IAmb	21 20 07.8	
	comp=Z,6.2nm,1.1s						
SHOC	**Shoshone, Teco**	**83.04**	**52**	P	**P**	**21 20 06.2**	**+0.2**
PSUT	**Pine Spring**	**83.10**	**49**		**P**	**21 20 06.8**	**+0.3**
PSUT				IAmb	IAmb	21 20 08.2	
	comp=Z,5.1nm,0.7s						
GHAJ	**Ghor Haditha**	**83.10**	**303**	P	**P**	**21 20 05.6**	**-0.7**
CTU	**Camp Tracy**	**83.13**	**46**	P	**P**	**21 20 07.0**	**+0.4**
PD31	**Pinedale Array**	**83.17**	**43**	P	**P**	**21 20 06.7**	**-0.1**
PDAR	**Pinedale Array**	**83.17**	**43**	P	**P**	**21 20 07.4**	**+0.6**
	comp=Z,2.7nm,0.7s,baz=285,slow=2.6,SNR=16						
	comp=Z,2.7nm,0.7s						
PDAR	**Pinedale Array**	**83.17**	**43**		**P**	**21 20 06.5**	**-0.3**
JAVC	**Velka Javorina**	**83.28**	**325**	*e*P	**P**	**21 20 08.1**	**+1.1**
NLU	**North Lily Min**	**83.37**	**47**	P	**P**	**21 20 07.4**	**-0.5**
NLU				IAmb	IAmb	21 20 09.9	
	comp=Z,6.1nm,0.7s						
SHPR	**Sheep Range**	**83.43**	**51**	P	**P**	**21 20 07.8**	**-0.4**
SHPR				IAmb	IAmb	21 20 10.1	
	comp=Z,4.8nm,0.7s						
VRAC	**Vranov**	**83.49**	**326**	*e*P	**P**	**21 20 08.0**	**0.0**
ELS	**Elsinore Mount**	**83.53**	**54**	P	**P**	**21 20 07.8**	**-0.9**
ELS				IAmb	IAmb	21 20 10.5	
	comp=Z,3.5nm,0.7s						
MPU	**Maple Canyon**	**83.61**	**46**	P	**P**	**21 20 10.0**	**+1.0**
SMOL	**Smolenice**	**83.63**	**325**	*e*P	**P**	**21 20 09.9**	**+1.2**
CLL	**Collm**	**83.74**	**329**	P	**P**	**21 20 08.6**	**-0.6**
CLL				pmax	pmax		
	comp=Z,5.0nm,0.8s						
CLL	**Collm**	**83.74**	**329**	P	**P**	**21 20 08.6**	**-0.6**
CLL				IAmb	IAmb	21 20 10.3	
	comp=Z,5.2nm,0.8s						
CLL	**Collm**	**83.74**	**329**	*i* P	**P**	**21 20 08.1**	**-1.1**
	comp=Z,8.0nm,1.1s						
KRUC	**Moravsky**	**83.76**	**326**	*e*P	**P**	**21 20 09.3**	**0.0**
MTPC	**Mountain Pass**	**83.76**	**52**	P	**P**	**21 20 10.2**	**+0.4**
MTPC				IAmb	IAmb	21 20 11.5	
	comp=Z,6.5nm,0.6s						
ELL	**Elmali**	**83.89**	**310**	P	**P**	**21 20 10.4**	**0.0**
ELL				pmax	pmax		

	comp=Z,12nm,1.0s						
ELL	Elmali	83.89	310	P	P	21 20 10.4	0.0
CCUT	Cedar City	83.99	49		P	21 20 11.6	+0.6
ZST	Bratislava	84.01	325	*e*P	P	21 20 11.3	+0.7
ZST	Bratislava	84.01	325	*e*P	P	21 20 11.3	+0.7
DNR	Dunn Ranch,Anz	84.13	54	P	P	21 20 12.0	+0.4
PFO	Pinyon Flats O	84.22	54	*i* P	P	21 20 13.0	+0.9
PFO	Pinyon Flats O	84.22	54		P	21 20 12.5	+0.4
DPP	Dos Picos Cty	84.23	55	P	P	21 20 11.8	-0.3
DPP				IAmb	IAmb	21 20 13.3	
	comp=Z,6.8nm,0.6s						
PMD	Palm Desert	84.25	54	P	P	21 20 11.9	-0.2
TMUT	Trail Mountain	84.30	47	P	P	21 20 11.8	-0.8
TMUT				IAmb	IAmb	21 20 16.4	
	comp=Z,3.1nm,0.6s						
BELC	Belle Mtn. Jos	84.31	53	P	P	21 20 12.6	0.0
LCMT	Little Creek M	84.38	50	P	P	21 20 13.3	+0.5
LCMT				IAmb	IAmb	21 20 14.9	
	comp=Z,6.0nm,0.7s						
MTPU	Mount Pierson	84.45	48	P	P	21 20 13.9	+0.5
MTPU				IAmb	IAmb	21 20 15.9	
	comp=Z,5.5nm,0.7s						
P17A	Butcher Ranch,	84.48	46	P	P	21 20 13.8	+0.5
RDMU	Red Mountain	84.52	45	P	P	21 20 14.3	+0.7
RDMU				IAmb	IAmb	21 20 15.6	
	comp=Z,7.3nm,0.7s						
ZVC	Zvikov	84.53	327	*e*P	P	21 20 13.4	+0.2
Q16A	Castle Valley	84.55	47	P	P	21 20 14.4	+0.7
BAR	Barrett	84.60	55	P	P	21 20 13.8	-0.1
P18A	Preston Nutter	84.69	46	P	P	21 20 14.5	-0.1
IRM	Iron Mountain	84.80	53	P	P	21 20 14.8	-0.1
CBX	Cerro Bola	84.82	55	P	P	21 20 15.0	-0.1
SRU	San Rafael Swe	84.83	47	P	P	21 20 15.1	-0.1
SRU				pmax	pmax		
	comp=Z,13nm,0.7s						
SRU	San Rafael Swe	84.83	47	P	P	21 20 15.1	-0.1
BC3	Big Chuckawall	84.88	53	P	P	21 20 15.3	-0.1
BC3				IAmb	IAmb	21 20 16.9	
	comp=Z,5.4nm,0.7s						
CKRC	Cesky Krumlov	84.91	326	*e*P	P	21 20 15.5	+0.4
CKRC	Cesky Krumlov	84.91	326	*e*P	P	21 20 15.5	+0.4
KHC	Kasperske Hory	85.03	327	*ce*P	P	21 20 14.6	-1.1
KHC	Kasperske Hory	85.03	327	*e*P	P	21 20 15.6	-0.1
KHC	Kasperske Hory	85.03	327	P	P	21 20 15.4	-0.3
W13A	Hualapai Mount	85.09	51		P	21 20 16.7	+0.2
W13A				IAmb	IAmb	21 20 18.0	
	comp=Z,3.0nm,0.7s						
YUH	Yuha Desert	85.14	54	P	P	21 20 16.6	+0.1
YUH				IAmb	IAmb	21 20 17.9	
	comp=Z,4.4nm,0.7s						
ULM	Lac du Bonnet	85.15	31	P	P	21 20 15.9	-0.3
	comp=Z,4.1nm,0.7s,baz=264,slow=2.9,SNR=3.7						
	comp=Z,4.1nm,0.7s						
ULM	Lac du Bonnet	85.15	31	P	P	21 20 16.0	-0.2
ULM	Lac du Bonnet	85.15	31	P	P	21 20 16.0	-0.2
ULM				IAmb	IAmb	21 20 18.2	
	comp=Z,5.4nm,0.9s						
GERES	GERESS Array B	85.18	327	P	P	21 20 15.8	-0.7
	comp=Z,1.0nm,0.6s,baz=45,slow=4.0,SNR=12						
	comp=Z,1.0nm,0.6s						
GERES	GERESS Array B	85.18	327	P	P	21 20 15.0	-1.5
U15A	North Rim	85.34	50		P	21 20 18.4	+0.5
U15A				IAmb	IAmb	21 20 20.4	
	comp=Z,6.5nm,0.8s						
HMU	Henry Mountain	85.42	48	P	P	21 20 18.4	+0.3
HMU				IAmb	IAmb	21 20 20.7	
	comp=Z,6.2nm,0.7s						
ESJX	Sierra Juarez	85.49	55	P	P	21 20 18.7	+0.2
ESJX				IAmb	IAmb	21 20 20.2	
	comp=Z,6.2nm,0.7s						
PV21	Cone Mtn., Par	86.12	46	P	P	21 20 21.5	0.0
PV23	Carpenter Ridg	86.17	46	P	P	21 20 22.2	+0.4
PV10	Paradox Valley	86.20	46	P	P	21 20 22.6	+0.7
PV22	Blue Mesa, Par	86.26	46	P	P	21 20 22.0	-0.1
PV22				IAmb	IAmb	21 20 26.4	
	comp=Z,4.0nm,0.8s						
PV20	West Nyswonger	86.27	46	P	P	21 20 23.0	+0.8
PV19	Morning Glory	86.28	46	P	P	21 20 22.7	+0.5
PV17	East Wray Mesa	86.31	46	P	P	21 20 22.4	0.0
PV17				IAmb	IAmb	21 20 24.3	
	comp=Z,7.8nm,0.9s						
PV16	Nyswonger Mesa	86.32	46	P	P	21 20 22.5	+0.1
PV16				IAmb	IAmb	21 20 25.5	
	comp=Z,5.8nm,0.8s						
PV18	Skein Mesa, Pa	86.36	46		P	21 20 22.4	-0.3
Y14A	Wickenburg	86.36	52	P	P	21 20 22.9	+0.4
Y14A				IAmb	IAmb	21 20 26.4	
	comp=Z,4.0nm,1.0s						
PV12	Saucer Basin,	86.38	46	P	P	21 20 22.1	-0.7
PV03	Paradox Valley	86.39	46	P	P	21 20 23.0	+0.2
PV03				IAmb	IAmb	21 20 24.8	
	comp=Z,4.0nm,1.0s						
PV07	Paradox Valley	86.40	46	P	P	21 20 22.7	-0.1
PV07				IAmb	IAmb	21 20 25.2	
	comp=Z,4.9nm,1.0s						
PV13	Radium Mtn., P	86.47	46	P	P	21 20 23.1	0.0
PV13				IAmb	IAmb	21 20 24.4	
	comp=Z,3.9nm,0.9s						
PV02	Paradox Valley	86.49	46	P	P	21 20 23.2	0.0
EPLO	Experimental L	86.51	31		P	21 20 22.9	+0.1
113A	Mohawk Valley,	86.54	53		P	21 20 22.6	-0.7
PV01	Paradox Valley	86.64	46	P	P	21 20 23.3	-0.7
PV01				IAmb	IAmb	21 20 25.2	
	comp=Z,6.5nm,1.3s						
BMRD	Maredsous	87.95	332	*d*P	P	21 20 28.9	-0.7
BFO	Black Forest	87.98	329	*i* P	P	21 20 30.5	+0.7
F33A	5 Mile Ranch,	88.16	35		P	21 20 30.4	-0.3
FUORN	Ofenpass-Fuorn	88.39	327	P	P	21 20 30.8	-1.3
FUORN				IAmb	IAmb	21 20 32.7	
	comp=Z,6.5nm,0.8s						
SDCO	Great Sand Dun	88.75	45	P	P	21 20 34.4	+0.4
EYMN	Ely	88.78	31	P	P	21 20 33.6	0.0
EYMN				IAmb	IAmb	21 20 34.8	
	comp=Z,6.2nm,1.0s						
TBO	Thunder Bay	89.12	29	P	P	21 20 35.1	0.0
TBO				IAmb	IAmb	21 20 51.3	
	comp=Z,9.8nm,1.2s						
E38A	The Farm, Brul	89.78	32	P	P	21 20 38.1	-0.1
TASM	ASL Pad, Albuq	89.98	48	P	P	21 20 40.2	+0.6
TASM	ASL Pad, Albuq	89.98	48		P	21 20 40.4	+0.7
TASM				IAmb	IAmb	21 20 41.7	
	comp=Z,1.5nm,0.9s						
SBM	South Baldy	90.14	49	P	P	21 20 41.0	+0.3
Y22A	Socorro	90.31	49	P	P	21 20 41.2	+0.1
121A	Cookes Peak, D	90.67	50	P	P	21 20 43.6	+0.7
121A				IAmb	IAmb	21 20 45.2	
	comp=Z,3.5nm,0.8s						
MNTX	Cornudas Mount	92.77	50		P	21 20 52.5	+0.1
MNTX				IAmb	IAmb	21 20 54.0	
	comp=Z,2.5nm,0.8s						
GDL2	Guadalupe Moun	93.09	49	P	P	21 20 54.3	+0.4
TPB28		93.35	49	P	P	21 20 54.8	-0.4
TPB28				IAmb	IAmb	21 20 57.5	
	comp=Z,4.4nm,0.8s						
VHRN	Van Horn	93.62	50		P	21 20 55.4	-1.1
VHRN				IAmb	IAmb	21 20 58.2	
	comp=Z,2.4nm,0.7s						
TX31	Lajitas Ar. Si	95.43	50		P	21 21 04.8	+0.1
TX31				IAmb	IAmb	21 21 06.4	
	comp=Z,3.1nm,0.7s						
TXAR	Lajitas Array	95.43	50	P	P	21 21 05.8	+1.2
	comp=Z,3.4nm,0.6s,baz=296,slow=3.0,SNR=38						
TXAR	Lajitas Array	95.43	50		P	21 21 04.8	+0.1
TORD	Torodi Ar. Bea	118.39	310	PKP	PKPdf	21 26 24.5	-1.0
	comp=Z,0.5nm,0.5s,baz=359,slow=0.7,SNR=6.5						
QSPA	South Pole Qui	121.97	180	PKP	PKPdf	21 26 30.7	-0.1
	comp=Z,0.7nm,0.5s,baz=63,slow=2.3,SNR=12						
TROLL	Troll, Antarti	133.75	198	⇑SKPbc	SKPbc	21 29 46.7	+0.9
	comp=Z,111nm,0.6s						
VNA2	Neumayer--Watz	136.88	196	⇑SKPbc	SKPbc	21 29 55.9	+0.6
	comp=Z,4.6nm,0.7s,baz=105,slow=1.7						
VNA3	Neumayer Olymp	137.16	195	⇑SKPbc	SKPbc	21 29 56.3	+0.1
	comp=Z,2.7nm,0.7s						
VNA1	Neumayer--Stat	137.28	196	⇑SKPbc	SKPbc	21 29 57.2	+0.8
	comp=Z,3.4nm,0.7s						
PMSA	Palmer Station	144.72	164	PKPbc	PKPab	21 27 14.7	+1.3
MACA	Manacapuru-AM	146.27	35	PKPdf	PKPdf	21 27 15.8	-1.6
MACA				PKPbc	PKPab	21 27 20.0	-0.8
LPAZ	La Paz	151.62	62	PKPbc	PKPbc	21 27 33.0	-0.1
	comp=Z,1.0nm,0.5s,baz=266,slow=1.6,SNR=7.8						
LPAZ	La Paz	151.62	62		PKiKP	21 27 34.3	+0.8

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*SJA **11** 21:14:41.1±0.6,21°.36S×69°.87W,h59^{km}±5^{km},ML3.3, MW3.5*

*GUC **11** 21:14:43.0±0.8,21°.37S×69°.78W,h51^{km}±3^{km},ML3.4*

ISC 11 21:14:42.4±1.3,**21°.37S**±0°.03×**69°.89W**±0°.06,**h54**^{km}±8^{km},
n30,σ0^{s}.64/41,**2C-9D,Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB02	IPOC Station P	0.05	355	*e*P	Pn	21 14 50.8	+0.1
PB02				IAML		21 14 57.6	
	comp=Z,6μm,0.1s						
PB02	IPOC Station P	0.05	355	⇑*i*P	Pn	21 14 50.7	+0.1
PB02				*i* S	Sn	21 14 56.5	0.0
PB02				IAML		21 14 57.0	
	comp=E,10μm,0.1s						
PB07	IPOC Station P	0.35	179	*e*P	Pn	21 14 52.4	-0.2
PB07				IAML		21 15 01.0	
	comp=Z,3μm,0.1s						
PB07	IPOC Station P	0.35	179	⇑*i*P	Pn	21 14 52.6	+0.1
PB07				*i* S	Sn	21 15 00.1	+0.3
PB07				IAML		21 15 00.6	
	comp=N,6μm,0.3s						
PB03	IPOC Station P	0.69	169	*e*P	Pn	21 14 56.2	0.0
PB03				IAML		21 15 10.2	
	comp=Z,3μm,0.1s						
PB03	IPOC Station P	0.69	169	⇓*i*P	Pn	21 14 56.3	0.0
PB03				*i* S	Sn	21 15 06.3	-0.2
PB03				IAML		21 15 07.4	
	comp=E,3μm,0.1s						
PB09	IPOC Station P	0.74	125	*e*P	Pn	21 14 56.8	-0.2
PB09				IAML		21 15 09.8	
	comp=Z,740nm,0.2s						
PB09	IPOC Station P	0.74	125	⇓*i*P	Pn	21 14 56.7	-0.2
PB09				*i* S	Sn	21 15 06.5	-1.0
PB09				IAML		21 15 08.0	
	comp=E,2μm,0.4s						
TA01	Diego Aracena	0.84	341	*e*P	Pn	21 14 57.7	-0.5
TA01				IAML		21 15 12.3	
	comp=Z,340nm,0.5s						
TA01	Diego Aracena	0.84	341	⇓*i*P	Pn	21 14 57.6	-0.5
TA02	Huaiquique	1.12	348	*e*P	Pn	21 15 02.0	+0.3
TA02				*e*S	Sn	21 15 17.1	+0.9
TA02				IAML		21 15 21.7	
	comp=Z,822nm,0.1s						
TA02	Huaiquique	1.12	348	*i* P	Pn	21 15 02.0	+0.3
PB06	IPOC Station P	1.36	167	*e*P	Pn	21 15 05.3	0.0
PB06				IAML		21 15 27.5	
	comp=Z,364nm,0.3s						
PB06	IPOC Station P	1.36	167	⇓*i*P	Pn	21 15 05.1	-0.2
PB06				*i* S	Sn	21 15 22.9	+0.6
PB06				IAML		21 15 26.1	
	comp=E,659nm,0.1s						
PB08	IPOC Station P	1.40	30	*e*P	Pn	21 15 06.1	+0.1
PB08				IAML		21 15 29.7	
	comp=Z,315nm,0.5s						
PB08	IPOC Station P	1.40	30	⇓*i*P	Pn	21 15 05.9	-0.1
PB08				*i* S	Sn	21 15 23.1	-0.5
PB08				IAML		21 15 24.9	
	comp=E,935nm,0.2s						
PB05	IPOC Station P	1.50	191	*e*P	Pn	21 15 07.7	+0.6
PB05				IAML		21 15 30.5	
	comp=Z,330nm,0.9s						
PB05	IPOC Station P	1.50	191	⇓*i*P	Pn	21 15 07.7	+0.6
PB05				*i* S	Sn	21 15 27.1	+1.4
PB05				IAML		21 15 31.5	
	comp=E,526nm,0.4s						
PB11	IPOC Station P	1.62	8	*e*P	Pn	21 15 09.0	+0.3
PB11				IAML		21 15 31.3	
	comp=Z,355nm,0.4s						
PB11	IPOC Station P	1.62	8	⇓*i*P	Pn	21 15 08.5	-0.2
PB11				*i* S	Sn	21 15 28.4	-0.1
PB11				IAML		21 15 31.2	
	comp=E,742nm,0.3s						
PSGCX	Pisagua	1.78	353	*e*P	Pn	21 15 10.5	-0.3
PSGCX				IAML		21 15 39.0	
	comp=Z,139nm,0.4s						
PSGCX	Pisagua	1.78	353	⇓*i*P	Pn	21 15 10.5	-0.3
PSGCX				*i* S	Sn	21 15 32.9	+0.5
GO01	Chusmiza	1.81	21	*e*P	Pn	21 15 12.0	+0.4
GO01				*e*S	Sn	21 15 34.5	+0.7
GO01				IAML		21 15 36.5	
	comp=Z,497nm,0.3s						
GO01	Chusmiza	1.81	21	⇓*i*P	Pn	21 15 12.1	+0.4
GO01				*i* S	Sn	21 15 33.7	0.0
AF01	San Pedro de A	2.24	135	*e*P	Pn	21 15 27.5	+10
AF01				*e*S	Sn	21 15 45.6	+1.8
AF01				IAML		21 16 09.9	
	comp=Z,423nm,0.5s						
PB12	IPOC Station P	2.77	351	*e*P	Pn	21 15 23.9	-0.5
PB12				*e*S	Sn	21 15 42.6	-14
PB12				IAML		21 16 11.4	
	comp=Z,109nm,0.8s						
PB12	IPOC Station P	2.77	351	*i* P	Pn	21 15 23.9	-0.5
PB12				IAML		21 16 13.0	
	comp=N,120nm,0.3s						
PB16	IPOC Station P	3.04	7	*e*P	Pn	21 15 17.5	-11
PB16				IAML		21 16 20.5	
	comp=Z,41nm,0.4s						
PB14	IPOC Station P	3.27	188	*e*P	Pn	21 15 30.6	-0.9
PB14				IAML		21 16 23.7	
	comp=Z,39nm,0.5s						
AC01	Pan de Azucar	4.80	188	*e*P	Pn	21 15 50.4	-1.8
AC01				IAML		21 17 23.1	
	comp=Z,32nm,2.2s						

IDC 11 21:14:59.3±2.3,**2°.45N**×**128°.04E,h0**^{km}**,mb3.5**/3,
mbtmp3.6/3,**Error ellipse: s-maj=152.7km
s-min=27.8km az=67.0,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	23.09	165	P	P	21 20 07.0	+0.1
	1.2nm,0.4s,baz=344,slow=11,SNR=16						
	1.2nm,0.4s						
ASAR	Alice Springs	26.58	168	P	P	21 20 39.0	-0.3
	0.5nm,0.5s,baz=348,slow=7.2,SNR=9.3						
	0.5nm,0.5s						
MKAR	Makanchi Array	59.34	325	P	P	21 25 03.5	+0.2
	0.1nm,0.4s,baz=121,slow=7.5,SNR=1.5						
	0.1nm,0.4s						

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*SOME **11** 21:15:57.4,44°.30N×74°.80E,h15^{km}*

*NNC **11** 21:15:57.4±0.7,44°.27N×74°.78E,h0^{km},mb3.6,mpv3.4,
Error ellipse: s-maj=5.6km s-min=3.0km az=157.0,
Suspected Mining explosion.*

*KNET **11** 21:15:59.3±0.5,44°.15N×74°.84E,h16^{km}±5^{km},ml2.6,Error
ellipse: s-maj=5.5km s-min=2.9km az=152.0*

ISC 11 21:15:56.1±1.0,**44°.30N**±0°.04×**74°.70E**±0°.03,**h0**^{km}**,n43,
σ0^{s}.69**/73,**11C-10D,Central Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SGDS	Sogindy	0.85	183	P	Pb	21 16 13.0	-0.7
	19nm,0.1s						
SGDS				S	Sg	21 16 23.9	+0.6
	118nm,0.1s						
KRBS	Karabastau	0.93	130	P	Pg	21 16 14.0	+0.2
	10nm,0.1s						
KRBS				S	Sg	21 16 25.8	0.0
	30nm,0.1s						
KRBS	Karabastau	0.93	130	*e*P	Pg	21 16 14.0	+0.2
	10nm,0.1s						
KRBS				*e*S	Sg	21 16 25.8	0.0
	30nm,0.1s						
USP	Ospenovka	1.04	188	⇓P	Pb	21 16 16.5	-0.4
	15nm,0.1s,SNR=23						
USP				⇑S	Sg	21 16 30.0	+0.5
	98nm,0.2s						
KUU	Kurty	1.25	108	P	Pg	21 16 19.6	-0.4
	16nm,0.1s						
KUU				S	Sg	21 16 35.8	-0.4
	156nm,0.3s						
KUU	Kurty	1.25	108	*e*P	Pg	21 16 19.6	-0.4
	16nm,0.1s						
KUU				*e*S	Sg	21 16 35.8	-0.4
	156nm,0.3s						
CHMS	Chumysh	1.30	178	⇓P	Pb	21 16 21.1	-0.3
	33nm,0.1s,SNR=18						
CHMS				⇑S	Sg	21 16 38.0	+0.2
	59nm,0.2s						
TKM2	Tokmak 2	1.52	154	⇑P	Pn	21 16 24.6	-0.1
	14nm,0.1s,SNR=15						
TKM2				⇑S	Sg	21 16 43.1	-1.9
	94nm,0.1s						
KTBS	Karatobe	1.54	112	P	Pn	21 16 24.6	-0.2
	6.5nm,0.1s						
KTBS				S	Sg	21 16 44.4	-1.3
	87nm,0.3s						
KTBS	Karatobe	1.54	112	*e*P	Pn	21 16 24.6	-0.2
	6.5nm,0.1s						
KTBS				*e*S	Sg	21 16 44.4	-1.3
	87nm,0.3s						
KST	Kastek	1.55	143	P	Pb	21 16 25.5	-0.3
	8.1nm,0.4s						
KST				S	Sb	21 16 45.8	-0.2
	68nm,0.2s						
KST	Kastek	1.55	143	*e*P	Pb	21 16 25.5	-0.3
	8.1nm,0.4s						
KST				*e*S	Sb	21 16 45.8	-0.2
	68nm,0.2s						
KBK	Karagaybulak	1.65	174	⇑P	Pg	21 16 27.5	-0.2
	101nm,0.1s,SNR=77						
KBK				⇑S	Sb	21 16 48.7	-0.1
	122nm,0.2s						
AAK	Ala-Archa	1.67	185	⇓P	Pg	21 16 28.1	+0.1
	76nm,0.2s,SNR=65						
AAK				⇑S	Sg	21 16 50.0	+0.4
	23nm,0.2s						
AAK	Ala-Archa	1.67	185	⇓P	Pg	21 16 28.1	+0.1
	6.1nm,0.3s						
AAK				⇑S	Sg	21 16 49.9	+0.4
	1.7nm,0.3s						
EKS2	Erkin-Say	1.77	203	⇓P	Pg	21 16 29.7	-0.2
	19nm,0.2s,SNR=80						
EKS2				⇓S	Sg	21 16 53.6	+0.8
	54nm,0.3s						
MRKS	Merke	1.89	215	P	Pb	21 16 31.6	+0.1
	8.3nm,0.1s						
MRKS				S	Sg	21 16 56.7	0.0
	66nm,0.2s						
MRKS	Merke	1.89	215	*e*P	Pg	21 16 31.8	-0.4
	12nm,0.2s						
MRKS				*e*S	Sg	21 16 56.5	-0.1
	73nm,0.2s						
KNDC	Almaty	1.96	123	⇑P	Pb	21 16 32.9	+0.2
	14nm,0.3s						
KNDC				⇓S	Sg	21 16 58.7	-0.4
	43nm,0.5s						
KOTS	Kotyrbulak	2.04	121	Pg	Pb	21 16 34.4	+0.2
	3.4nm,0.1s						
KOTS				Lg	Lg	21 17 01.5	
	112nm,0.2s						
KOTS	Kotyrbulak	2.04	121	*e*P	Pb	21 16 34.4	+0.2
	3.4nm,0.1s						
KOTS				*e*S	Sg	21 17 01.5	-0.3
	112nm,0.2s						
MDOK	Medeo	2.04	123	Pg	Pb	21 16 33.7	-0.5
	18nm,0.3s						
MDOK				Lg	Lg	21 16 59.8	
	71nm,0.5s						
MDOK	Medeo	2.04	123	*e*P	Pb	21 16 33.7	-0.5
	18nm,0.3s						
MDOK				*e*S	Sb	21 16 59.8	-0.4
	71nm,0.5s						
TNSS	Tian-Shan	2.06	127	Pg	Pb	21 16 34.6	0.0
	2.2nm,0.2s						
TNSS				Lg	Lg	21 17 01.3	
	27nm,0.3s						
TNSS	Tian-Shan	2.06	127	*e*P	Pb	21 16 34.6	0.0
	2.2nm,0.2s						
TNSS				*e*S	Sb	21 17 01.3	+0.4
	27nm,0.3s						
ARXS	Arharly	2.25	91	Pg	Pb	21 16 36.7	-0.9
	7.0nm,0.3s						
ARXS				Lg	Lg	21 17 05.3	
	31nm,0.1s						
ARXS	Arharly	2.25	91	*e*P	Pb	21 16 36.7	-0.9
	7.0nm,0.3s						
ARXS				*e*S	Sb	21 17 05.3	-0.6
	31nm,0.1s						
ULHL	Ulahol	2.34	151	⇑P	Pb	21 16 37.9	-1.4
	5.3nm,0.1s,SNR=27						
ULHL				⇑S	Sb	21 17 08.0	-0.7
	27nm,0.2s						
KURS	Kuram	2.64	107	Pg	Pb	21 16 44.3	+0.1
	7.0nm,0.3s						
KURS				Lg	Lg	21 17 17.9	
	12nm,0.3s						
KURS	Kuram	2.64	107	*e*P	Pb	21 16 44.3	+0.1
	7.0nm,0.3s						
KURS				*e*S	Sb	21 17 17.9	+0.8
	12nm,0.3s						
BLB	Baldybastay	2.72	93	Pg	Pb	21 16 44.8	-0.9
	7.7nm,0.2s						
BLB				Lg	Lg	21 17 19.1	
	23nm,0.2s						
TDK	Taldyqorghan	2.74	74	Pg	Pb	21 16 46.0	+0.1
	7.7nm,0.1s						
TDK				Lg	Lg	21 17 20.8	
	32nm,0.3s						
TDK	Taldyqorghan	2.74	74	*e*P	Pb	21 16 46.0	+0.1
	7.7nm,0.1s						
TDK				*e*S	Sb	21 17 20.8	+0.9
	32nm,0.3s						
SATY	Saty	2.96	113	Pg	Pb	21 16 49.2	-0.6
	2.0nm,0.1s						
SATY				Lg	Lg	21 17 27.0	
	25nm,0.1s						
SATY	Saty	2.96	113	*e*P	Pb	21 16 49.1	-0.6
	2.0nm,0.1s						
SATY				*e*S	Sb	21 17 27.0	+0.5
	25nm,0.1s						
KPKS	Kokpek	3.00	105	Pg	Pb	21 16 50.1	-0.2
	0.2nm,0.1s						
KPKS				Lg	Lg	21 17 28.1	
	13nm,0.3s						
KPKS	Kokpek	3.00	105	*e*P	Pb	21 16 50.1	-0.2
	0.2nm,0.1s						
KPKS				*e*S	Sb	21 17 28.1	+0.6
	13nm,0.3s						
KNOS	Konyrlen	3.21	87	Pg	Pb	21 16 54.2	+0.1
KNOS				Lg	Lg	21 17 35.1	
KK31	Karatay Array	3.26	250	⇓Pg	Pg	21 16 57.7	-0.9
	0.2nm,0.2s,baz=69,slow=15,SNR=143						
KK31				Lg	Lg	21 17 39.0	
	6.8nm,0.4s,baz=64,slow=30,SNR=6.5						
PDGK	Podgornoye	3.60	104	⇓Pg	Pg	21 17 04.2	-0.8
	1.9nm,0.5s						
PDGK				⇓Sn	Sn	21 17 39.3	+2.8
	3.8nm,0.5s						
IUG	Iuzhnay	4.03	239	Pg	Pg	21 17 11.6	-1.8
	22nm,0.5s						
IUG				Lg	Lg	21 18 05.0	
	24nm,0.4s						
IUG	Iuzhnay	4.03	239	*e*P	Pg	21 17 12.6	-0.7
	22nm,0.5s						
IUG				*e*S	Sg	21 18 06.5	+0.9
	52nm,0.5s						
MK31	Makanchi Array	5.88	62	Pn	Pn	21 17 24.9	+0.4
	0.8nm,0.5s,baz=267,slow=15,SNR=32						

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*IDC **11** 21:22:56.5±2.6,39°.32N×142°.88E,h0^{km},mb3.3/3,
mbtmp3.3/4,ML2.6/1,Error ellipse: s-maj=50.9km
s-min=30.7km az=94.0*

*JMA **11** 21:23:05.0±0.1,39°.0N±0°.2×142°.4E±0°.3,h33^{km},MV3.5/35,
E OFF MIYAGI PREF*

ISC 11 21:23:03.1±1.6,**39°.01N**±0°.07×**142°.4E**±0°.1,**h27**^{km}**,n16,
σ1^{s}.61**/13,**mb3.3**/3,**Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OFUJ	Ofunato	0.60	277	P	Pn	21 23 16.4	+0.6
OFUJ				S	Sn	21 23 24.2	-0.5
MIYJ	Miyakonagasawa	0.74	320	P	Pn	21 23 18.9	+1.0
JKMT	Kesennumamotoy	0.78	256	P	Pn	21 23 18.5	+0.2
JKMT				S	Sn	21 23 27.6	-1.4
JMK	Ichinoseki	0.95	267	P	Pb	21 23 21.4	+0.5
JOM	Ohasama	1.00	298	P	Pb	21 23 22.8	+1.0
JOM				*e*S	Sn	21 23 35.3	+0.7
JIO	Ouri	1.01	237	P	Pb	21 23 21.4	-0.5
MJAR	Matsushiro Arr	4.16	235	Pn	Pn	21 24 08.2	+3.4
	0.3nm,0.3s,baz=34,slow=13,SNR=13						
	2.0nm,0.5s						
MJAR				AML	AML		
H11N2	WAKE ISLAND Hy	28.54	125	T	T	21 59 19.6	
	baz=317,slow=75,SNR=53						
H11N1	WAKE ISLAND Hy	28.55	125	T	T	21 59 21.3	
	baz=317,slow=75,SNR=80						
H11N3	WAKE ISLAND Hy	28.56	125	T	T	21 59 21.0	
	baz=317,slow=75,SNR=60						

H11S1	WAKE ISLAND Hy	29.33	127	T	T	22 00 18.9	
	baz=319,slow=76,SNR=9.2						
H11S3	WAKE ISLAND Hy	29.33	127	T	T	22 00 19.8	
	baz=319,slow=76,SNR=14						
H11S2	WAKE ISLAND Hy	29.35	127	T	T	22 00 19.8	
	baz=319,slow=76,SNR=12						
ZALV	Zalesovo Beam	41.21	311	P	P	21 30 44.4	-0.8
	0.2nm,0.3s,baz=92,slow=10,SNR=1.6						
	0.2nm,0.3s						
MKAR	Makanchi Array	43.78	301	P	P	21 31 03.5	-2.8
	0.3nm,0.5s,baz=81,slow=8.2,SNR=4.0						
	0.3nm,0.5s						
WRA	Warramunga Arr	59.13	189	P	P	21 33 01.4	+0.2
	0.2nm,0.5s,baz=8.3,slow=6.8,SNR=1.9						
	0.2nm,0.5s						

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*AEIC **11** 21:34:25.0±1.2, 61°.35N±0°.02×149°.83W±0°.05, h36^{km}±3^{km}, Error ellipse: s-maj=3.2km s-min=3.1km az=74.0*

NEIC 11 21:34:24.7±1.5**, 61°.39N**±0°.02×**149°.87W**±0°.01**, h35**^{km}±4^{km}**, ML3.5**/206**, ML3.3**(AEIC)**, Error ellipse: s-maj=3.2km s-min=0.8km az=183.0, Southern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RC01	Rabbit Creek A	0.31	168		Pn	21 34 31.8	-0.9
RC01					Sn	21 34 37.9	-0.4
M22K	Willow	0.39	342		Pn	21 34 33.0	-0.7
M22K					Sn	21 34 39.6	-0.3
M22K				IAML		21 34 40.7	
	comp=E,4μm,0.4s						
M22K				IAML		21 34 41.0	
	comp=N,5μm,0.7s						
PMR	Palmer	0.41	60		Pn	21 34 33.1	-0.9
PMR	Palmer	0.41	60		Sn	21 34 40.2	-0.3
PMR	Palmer	0.41	60	IAML		21 34 40.8	
	comp=N,5μm,0.3s						
PMR				IAML		21 34 41.0	
	comp=E,3μm,0.4s						
SUA	Susitna One	0.43	281		Pn	21 34 33.6	-0.9
SUA					Sn	21 34 41.4	+0.2
SUA	Susitna One	0.43	281	IAML		21 34 41.8	
	comp=E,3μm,0.8s						
SUA				IAML		21 34 41.9	
	comp=N,4μm,0.4s						
GHO	Glory Hole Cre	0.59	49		Pn	21 34 35.9	-0.8
GHO	Glory Hole Cre	0.59	49		Sn	21 34 45.1	-0.1
GHO	Glory Hole Cre	0.59	49	IAML		21 34 46.1	
	comp=E,5μm,0.3s						
GHO				IAML		21 34 46.5	
	comp=N,3μm,0.2s						
KNK	Knik Glacier	0.68	87	Pn	Pn	21 34 36.9	-0.9
KNK				IAML		21 34 49.5	
	comp=N,2μm,0.2s						
KNK				IAML		21 34 51.0	
	comp=E,2μm,0.4s						
KNK	Knik Glacier	0.68	87		Sn	21 34 47.6	+0.4
SML	Sawmill	0.85	60		Pn	21 34 39.3	-0.8
SML				Sn	Sn	21 34 52.2	+0.8
SML				IAML		21 34 54.1	
	comp=E,1μm,0.5s						
SML				IAML		21 34 54.7	
	comp=N,1μm,0.3s						
CAPN	Captain Cook N	0.88	226		Pn	21 34 41.1	+0.5
SLKM	Skilak Lake	0.90	191		Pn	21 34 39.7	-1.2
SLKM	Skilak Lake	0.90	191		Sn	21 34 51.8	-0.9
SLKM	Skilak Lake	0.90	191	IAML		21 34 54.2	
	comp=N,2μm,0.2s						
SLKM				IAML		21 34 54.6	
	comp=E,2μm,0.4s						
O22K	Cooper Landing	0.91	176		Pn	21 34 40.0	-1.0
O22K	Cooper Landing	0.91	176		Sn	21 34 53.1	+0.2
PWL	Port Wells	0.91	125		Pn	21 34 40.0	-1.0
PWL				Sn	Sn	21 34 53.1	+0.1
STLK	Strandline Lak	0.95	278		Pn	21 34 41.4	-0.2
STLK				Sn	Sn	21 34 54.2	+0.2
STLK				IAML		21 34 55.0	
	comp=E,1μm,0.2s						
STLK				IAML		21 34 55.3	
	comp=N,2μm,0.4s						
SKT	Skwentna	0.99	308		Pn	21 34 41.9	-0.3
SKT				Sn	Sn	21 34 55.3	+0.4
SKT				IAML		21 34 56.1	
	comp=E,1μm,0.2s						
SKT				IAML		21 34 56.5	
	comp=N,2μm,0.6s						
CUT	Chulitna	1.04	350		Pn	21 34 42.9	+0.2
CUT					Sn	21 34 57.2	+1.2
M23K	Glacier View	1.10	67		Pn	21 34 43.5	-0.2
M23K					Sn	21 34 59.1	+1.4
SPCP	Crater Peak Br	1.11	265		Pn	21 34 43.6	-0.2
SPCP					Sn	21 34 58.8	+0.8
SCM	Sheep Creek Mo	1.29	69	Pn	Pn	21 34 46.3	0.0
SCM	Sheep Creek Mo	1.29	69		Sn	21 35 03.8	+1.4
SPWE	Spurr West	1.30	266		Pn	21 34 46.0	-0.5
SEW	Seward	1.30	171		Pn	21 34 45.5	-0.9
SEW				IAML		21 35 06.7	
	comp=N,604nm,0.3s						
SPNN	North Nagishla	1.36	270		Pn	21 34 47.6	+0.2
GLI	Glacier Island	1.44	110		Pn	21 34 47.8	-0.5
GLI					Sn	21 35 06.3	+0.4
WAT7	Susitna Watana	1.53	18		Pn	21 34 50.4	+0.8
WAT6	Susitna Watana	1.56	39		Pn	21 34 50.5	+0.4
WAT1	Susitna Watana	1.57	23		Pn	21 34 50.7	+0.5
DFR	Drift River	1.59	241		Pn	21 34 50.1	-0.3
M20K	Styx River	1.64	289		Pn	21 34 51.5	+0.5
M20K				IAML		21 35 16.1	
	comp=N,296nm,0.8s						
M20K				IAML		21 35 16.2	
	comp=E,687nm,0.7s						
RDJH	Redoubt Jeurge	1.64	242		Sn	21 35 11.9	+0.9
BRLK	Bradley Lake	1.71	198		Pn	21 34 51.4	-0.6
BRLK				IAML		21 35 15.5	
	comp=E,373nm,0.4s						
BRLK				IAML		21 35 19.5	
	comp=N,428nm,0.2s						
NCT	North Crescent	1.71	242		Sn	21 35 13.4	+0.7
VMT	TAPS Tl Valdez	1.72	99		Pn	21 34 51.9	-0.2
FID	Port Fidalgo	1.77	110		Pn	21 34 52.0	-0.8
P23K	Montague Islan	1.85	138		Pn	21 34 53.0	-0.8
P23K				IAML		21 35 24.4	
	comp=N,644nm,0.5s						
PPLA	Purkeypile	1.87	325		Pn	21 34 55.0	+0.7
PPLA				IAML		21 35 22.6	
	comp=N,327nm,0.8s						
PPLA				IAML		21 35 22.9	
	comp=E,371nm,0.5s						
O20K	Slope Mountain	1.89	227		Pn	21 34 54.4	-0.1
KLU	Klutina	1.90	85	Pn	Pn	21 34 54.3	-0.4
KLU				IAML		21 35 22.8	
	comp=E,425nm,0.2s						
HIN	Hinchinbrook I	1.92	120		Pn	21 34 54.0	-0.9
HIN	Hinchinbrook I	1.92	120	IAML		21 35 24.6	
	comp=E,619nm,0.9s						
HOM	Homer	1.94	208	Pn	Pn	21 34 54.7	-0.5
CNPM	China Poot	1.99	201		Pn	21 34 55.3	-0.5
CNPM				IAML		21 35 26.9	
	comp=E,381nm,0.4s						
CNPM				IAML		21 35 27.2	
	comp=N,272nm,0.4s						
DIV	Divide	2.00	96		Pn	21 34 55.8	-0.2
DIV				IAML		21 35 25.7	
	comp=E,507nm,0.3s						
DHY	Denali Highway	2.06	33	IAML		21 35 26.7	
	comp=E,392nm,0.3s						
DHY				IAML		21 35 27.1	
	comp=N,220nm,0.3s						
IVE	Iliamna Volcan	2.07	230		Pn	21 34 57.0	0.0
TRF	Thorofare Moun	2.08	355		Pn	21 34 57.8	+0.6
TRF				IAML		21 35 28.7	
	comp=N,412nm,0.6s						
TRF				IAML		21 35 28.7	
	comp=E,226nm,0.7s						
RND	Reindeer	2.08	13		Pn	21 34 58.0	+0.9
ILSW	Iliamna Southw	2.14	230		Pn	21 34 58.2	+0.1
ILSW				IAML		21 35 32.4	
	comp=E,175nm,0.4s						
EYAK	Cordova Ski Ar	2.18	111		Pn	21 34 57.7	-0.7
EYAK	Cordova Ski Ar	2.18	111	IAML		21 35 31.3	
	comp=N,315nm,0.5s						
EYAK				IAML		21 35 35.1	
	comp=E,223nm,0.8s						
L20K	Farewell, AK	2.19	302	Pn	Pn	21 34 58.3	-0.3
L20K				IAML		21 35 39.7	
	comp=N,207nm,0.8s						
L20K				IAML		21 35 42.9	
	comp=E,195nm,0.7s						
PS11	TAPS Pump St11	2.20	70		Pn	21 34 59.1	+0.3
M19K	Big River Lodg	2.22	285		Pn	21 34 59.5	+0.5
KTH	Kantishna Hill	2.23	348		Pn	21 35 00.2	+1.1
KTH	Kantishna Hill	2.23	348	IAML		21 35 29.9	
	comp=E,348nm,0.7s						
KTH				IAML		21 35 32.9	
	comp=N,225nm,0.7s						
CAST	Castle Rocks	2.29	334		Pn	21 34 60.0	0.0
N19K	Bonanza Creek	2.31	258		Pn	21 35 00.3	-0.1
MCK	McKinley	2.39	10		Pn	21 35 02.5	+1.1
MCK				IAML		21 35 45.2	
	comp=N,152nm,0.9s						
P19K	Oil Pt	2.41	225		Pn	21 35 01.8	+0.2
HARP	HAARP	2.45	63		Pn	21 35 03.3	+1.1
O19K	Port Alsworth	2.49	243		Pn	21 35 02.0	-0.6
O19K				IAML		21 35 34.1	
	comp=N,383nm,0.4s						
O19K				IAML		21 35 39.3	
	comp=E,383nm,0.4s						
L19K	White Mountain	2.50	291		Pn	21 35 03.1	+0.2
L19K				IAML		21 35 49.9	
	comp=N,123nm,0.8s						
N25K	Chitina, Valde	2.54	83		Pn	21 35 03.0	-0.4
BMRM	Bremner River	2.58	97		Pn	21 35 04.1	+0.1
BMRM				IAML		21 35 41.0	
	comp=N,288nm,0.4s						
BMRM				IAML		21 35 44.8	
	comp=E,290nm,0.7s						
MID	Middleton Isla	2.63	137	Pn	Pn	21 35 05.3	+0.6
MID				IAML		21 35 54.5	
	comp=E,171nm,0.8s						
MID				IAML		21 36 03.1	
	comp=N,197nm,1.2s						
AUJK	Augustine Jueg	2.70	222		Pn	21 35 05.5	-0.1
WACK	Wrangell Chich	2.71	75		Pn	21 35 06.2	+0.3
AUI	Augustine Isla	2.71	222		Pn	21 35 05.8	0.0
RAGM	Ragged Mountai	2.73	109		Pn	21 35 05.2	-0.8
BPAW	Bear Paw Mtn.	2.77	350		Pn	21 35 06.9	+0.3
K20K	Telida	2.78	317		Pn	21 35 07.1	+0.3
K20K				IAML		21 35 47.8	
	comp=E,132nm,0.7s						
BWN	Browne	2.80	4		Pn	21 35 07.0	+0.1
BWN				IAML		21 35 56.9	
	comp=N,219nm,1.1s						
GLB	Gilahina Butte	2.91	86		Pn	21 35 08.6	0.0
GLB				IAML		21 35 54.3	
	comp=E,117nm,0.6s						
GLB				IAML		21 35 56.1	
	comp=N,254nm,0.6s						
N18K	Kilae Creek	3.02	259		Pn	21 35 09.9	0.0
O18K	Koktuh Hills	3.05	242		Pn	21 35 10.1	-0.3
O18K				IAML		21 36 11.1	
	comp=N,112nm,0.7s						
KAIM	Kayak Island	3.06	116		Pn	21 35 11.8	+1.3
KAIM				IAML		21 36 11.1	
	comp=E,102nm,1.0s						
K24K	Donnelly Dome	3.07	36		Pn	21 35 13.7	+2.9
VRDI	Verde Repeater	3.10	90		Pn	21 35 10.7	-0.5
VRDI				IAML		21 35 59.1	
	comp=N,135nm,0.5s						
VRDI				IAML		21 36 07.4	
	comp=E,87nm,0.9s						
Q19K	Cape Douglas,	3.11	219		Pn	21 35 11.1	-0.1
BERG	Berg Lake	3.17	106		Pn	21 35 10.9	-1.2
WRH	Wood River Hil	3.20	14		Pn	21 35 14.1	+1.7
NEA2	Nenana	3.24	6		Pn	21 35 13.7	+0.7
MENT	Mentasta	3.28	59		Pn	21 35 14.5	+1.0
MCARA	McCarthy VSAT	3.29	87		Pn	21 35 15.9	+2.2
RIDG	Independent Ri	3.31	42		Pn	21 35 15.5	+1.4
RIDG				IAML		21 36 01.6	
	comp=N,149nm,0.6s						
HDA	Harding Lake	3.31	22		Pn	21 35 14.7	+0.7
HDA				IAML		21 36 01.9	
	comp=E,92nm,0.4s						
HDA				IAML		21 36 04.2	
	comp=N,127nm,0.2s						
CRQM	Cirque	3.33	98		Pn	21 35 14.6	+0.2
L18K	Granite Mounta	3.34	287		Pn	21 35 14.9	+0.5
CCB	Clear Creek Bu	3.40	15		Pn	21 35 15.9	+0.7
M26K	Nabesna, AK	3.41	70		Pn	21 35 15.8	+0.4
M26K				IAML		21 36 10.3	
	comp=E,78nm,0.4s						
M26K				IAML		21 36 29.1	
	comp=N,71nm,0.5s						
J20K	Nowinta River	3.42	327	IAML		21 36 14.8	
	comp=E,82nm,0.5s						
J20K				IAML		21 36 16.6	
	comp=N,78nm,0.5s						
L26K	Log Cabin Wild	3.47	59		Pn	21 35 16.2	0.0
L26K				IAML		21 36 18.7	
	comp=N,174nm,0.4s						
L26K				IAML		21 36 21.7	
	comp=E,172nm,0.4s						
TGL	Tana Glacier	3.48	97		Pn	21 35 16.4	0.0
COLA	College	3.62	14	IAML		21 36 11.5	
	comp=E,151nm,0.4s						
M17K	Holitna River	3.64	274	IAML		21 36 21.1	
	comp=N,124nm,0.9s						
M17K				IAML		21 36 31.4	
	comp=E,125nm,0.7s						
IL31		3.66	20		Pn	21 35 19.8	+1.1
MDM	Murphy Dome	3.66	11		Pn	21 35 19.6	+0.8
N17K	Nushagak Hills	3.67	260	IAML		21 36 02.0	
	comp=E,50nm,0.8s						
N17K				IAML		21 36 19.7	
	comp=N,49nm,0.6s						
MLY	Manley	3.68	354		Pn	21 35 19.4	+0.4
J19K	Poorman	3.72	317		Pn	21 35 20.0	+0.4
J19K	Poorman	3.72	317	IAML		21 36 17.6	
	comp=E,53nm,0.8s						
J19K				IAML		21 36 20.7	
	comp=N,57nm,0.9s						
BARK	Barkley Ridge	3.74	102		Pn	21 35 19.1	-0.8
KAHG	Katmai Hook Gl	3.74	221		Pn	21 35 19.7	-0.2
SCRK	Sand Creek	3.75	44	IAML		21 36 21.3	
	comp=N,76nm,0.7s						
SCRK				IAML		21 36 22.7	
	comp=E,83nm,0.6s						
Q18K	Katmai Hardscr	3.77	225		Pn	21 35 20.0	-0.4
I23K	Minto, Yukon-K	3.78	3		Pn	21 35 21.1	+0.7
I23K	Minto, Yukon-K	3.78	3	IAML		21 36 30.5	
	comp=N,53nm,0.8s						
KARR	Katmai Rainbow	3.78	222		Pn	21 35 20.4	-0.1
J25K	Salcha River,	3.83	30		Pn	21 35 22.1	+0.9
J25K	Salcha River,	3.83	30	IAML		21 36 14.5	
	comp=N,65nm,0.4s						
POKR	Poker Plat Res	3.90	15		Pn	21 35 23.2	+1.1
KAWH	Katmai	3.91	222		Pn	21 35 22.0	-0.2
I21K	Tanana	3.92	347		Pn	21 35 23.4	+1.0
I21K	Tanana	3.92	347	IAML		21 36 10.2	
	comp=N,45nm,0.7s						
BARN	Barnard Glacie	3.98	91		Pn	21 35 23.4	0.0
BARN	Barnard Glacie	3.98	91	IAML		21 36 30.3	
	comp=E,82nm,0.5s						
BARN				IAML		21 36 30.6	
	comp=N,71nm,0.6s						
GRNC	Granite Creek	4.00	96		Pn	21 35 23.6	0.0
GRNC	Granite Creek	4.00	96	IAML		21 36 25.7	
	comp=N,93nm,0.6s						
GRNC				IAML		21 36 29.7	
	comp=E,53nm,1.0s						
I20K	Naaghedeneel	4.01	331		Pn	21 35 24.5	+0.9
KAKN	Katmai Knife C	4.06	222		Pn	21 35 24.1	-0.2
YAH	Yahtse	4.10	101		Pn	21 35 24.5	-0.5
YAH	Yahtse	4.10	101	IAML		21 36 27.1	
	comp=N,65nm,0.7s						
YAH				IAML		21 36 35.7	
	comp=E,62nm,0.8s						
BC01	Beaver Creek A	4.12	62		Pn	21 35 25.6	+0.4
L27K	Beaver Creek,	4.12	62		Pn	21 35 25.4	+0.3
K17K	Iditarod	4.19	292	IAML		21 36 41.3	
	comp=N,54nm,1.0s						
K17K				IAML		21 36 44.2	
	comp=E,54nm,0.7s						
MGLS	Mageik Landsli	4.22	222		Pn	21 35 26.4	-0.1
CAHL	Cahill	4.33	222		Pn	21 35 28.0	-0.1
YUK2	White River	4.33	81		Pn	21 35 28.5	+0.4
LOGN	Logan Glacier	4.34	94		Pn	21 35 28.1	-0.1
LOGN	Logan Glacier	4.34	94	IAML		21 36 39.3	
	comp=N,55nm,0.7s						
LOGN				IAML		21 36 40.9	
	comp=E,45nm,0.7s						
Q17K	Contact Creek	4.36	227		Pn	21 35 28.4	-0.1
M16K	Timber Creek	4.41	269	IAML		21 36 50.1	
	comp=N,28nm,1.1s						
O16K	Kokwok River B	4.45	250		Pn	21 35 29.5	-0.1
O16K	Kokwok River B	4.45	250	IAML		21 36 43.5	
	comp=N,38nm,1.0s						
YUK3	Moose Creek	4.51	81		Pn	21 35 30.8	+0.2
OHAK	Old Harbor	4.53	204		Pn	21 35 28.3	-2.4
OHAK	Old Harbor	4.53	204	IAML		21 36 43.5	
	comp=E,35nm,1.1s						
H24K	Noodor Dome	4.55	10		Pn	21 35 32.0	+1.0
H22K	Ishtalitna Cre	4.57	352		Pn	21 35 31.6	+0.3
L16K	Owhat River	4.61	278	IAML		21 36 56.0	
	comp=E,23nm,0.7s						
H20K	Anotleneega Mo	4.69	334		Pn	21 35 33.4	+0.4
J17K	VABM Dome	4.74	299	IAML		21 37 01.2	
	comp=N,30nm,0.7s						
J17K				IAML		21 37 07.4	
	comp=E,24nm,0.8s						
O28M	Mount Upton	4.74	93		Pn	21 35 33.2	-0.6
O28M	Mount Upton	4.74	93	IAML		21 36 47.5	
	comp=E,31nm,0.5s						
O28M				IAML		21 36 59.0	
	comp=N,34nm,0.8s						
YUK8	Steele Glacier	4.87	87		Pn	21 35 35.4	-0.2
PCA	Pinnacle	4.89	101		Pn	21 35 34.8	-0.9
PLK2	Peulik 2	4.90	225		Pn	21 35 36.3	+0.5
PLK5	Peulik 5	4.92	229		Pn	21 35 36.5	+0.5
I26K	Coal Creek Min	4.96	35	IAML		21 37 00.2	
	comp=E,49nm,0.6s						
I26K				IAML		21 37 08.3	
	comp=N,45nm,0.8s						
R17L	Mt. Peulik Vol	5.01	224		Pn	21 35 37.6	+0.3
N15K	Kwethluk River	5.16	261		Pn	21 35 39.5	+0.2
N15K	Kwethluk River	5.16	261	IAML		21 37 12.4	
	comp=E,35nm,0.8s						
N15K				IAML		21 37 15.4	
	comp=N,28nm,1.0s						
J16K	Anvik River	5.35	295	IAML		21 37 23.8	
	comp=E,15nm,0.9s						
H18K	Honhosa River	5.38	318	IAML		21 37 29.8	
	comp=N,14nm,1.1s						
G21K	Allakaket	5.39	344		Pn	21 35 43.6	+1.1
G21K	Allakaket	5.39	344	IAML		21 36 46.6	
	comp=N,30nm,0.7s						
G21K				IAML		21 36 47.7	
	comp=E,23nm,0.7s						
O15K	Ungalikthiuk R	5.43	250		Pn	21 35 42.9	-0.1
M29M	Somme Creek	5.49	74		Pn	21 35 44.2	+0.2
I17K	Unalakleet	5.59	301		Pn	21 35 45.6	+0.5
G19K	Purcell Mounta	5.75	329		Pn	21 35 48.0	+0.6
G18K	Tagagawik	5.98	323		Pn	21 35 51.0	+0.5
N14K	Kuskokwak Cree	6.00	261		Pn	21 35 50.9	+0.1
F21K	Alatna River	6.06	347		Pn	21 35 52.4	+0.7
F20K	Avaraart Lake	6.23	338		Pn	21 35 54.6	+0.6
F19K	Shaleruckik Mo	6.46	331		Pn	21 35 57.8	+0.5
BM05	Burnt Mountain	6.48	18		Pn	21 35 58.6	+1.1
J14K	Nanvaranak Lak	6.58	288		Pn	21 35 59.0	+0.3
M13K	Dall Lake	6.65	267		Pn	21 36 00.6	+0.8
G16K	Koyuk River	6.89	311		Pn	21 36 03.9	+0.8
F17K	Baldwin Pennin	7.13	320		Pn	21 36 08.0	+1.7
E17K	Hotham Inlet	7.72	323		Pn	21 36 15.5	+1.0

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*SJA **11** 21:41:41.6±0.6, 21°.36S×69°.91W, h54^{km}±4^{km}, ML3.8, MW3.8*

*GUC **11** 21:41:43.6±0.6, 21°.36S×69°.79W, h50^{km}±2^{km}, ML3.8*

ISC 11 21:41:43.2±1.3**, 21°.35S**±0°.03×**69°.95W**±0°.06**, h49**^{km}±8^{km}**, n27,**σ**1^s.05**/39**, 1C, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB02	IPOC Station P	0.05	59	*e*P	Pn	21 41 50.9	0.0
PB02				IAML		21 41 58.8	
	comp=Z,18μm,0.1s						
PB02	IPOC Station P	0.05	59	⇑*i*P	Pn	21 41 51.1	+0.2
PB02				*e*S	Sn	21 41 56.8	+0.4
PB02				IAML		21 41 57.0	
	comp=N,12μm,0.2s						
PB07	IPOC Station P	0.38	172	*e*P	Pn	21 41 52.9	-0.4
PB07				*e*S	Sn	21 42 00.4	0.0
PB07				IAML		21 42 01.0	
	comp=Z,12μm,0.2s						
PB07	IPOC Station P	0.38	172	*e*P	Pn	21 41 53.1	-0.1
PB07				*e*S	Sn	21 42 00.3	0.0
PB07				IAML		21 42 00.9	
	comp=N,10μm,0.1s						
PB03	IPOC Station P	0.72	166	*e*P	Pn	21 41 56.8	-0.6
PB03				IAML		21 42 09.0	
	comp=Z,5μm,0.2s						
PB03	IPOC Station P	0.72	166	*e*P	Pn	21 41 56.9	-0.5
PB03				*e*S	Sn	21 42 07.1	-0.5
PB03				IAML		21 42 08.3	
	comp=N,5μm,0.1s						
PB09	IPOC Station P	0.79	124	*e*P	Pn	21 41 57.4	-0.9
PB09				IAML		21 42 10.0	
	comp=Z,3μm,0.5s						
PB09	IPOC Station P	0.79	124	*e*P	Pn	21 41 57.3	-1.0
PB09				*e*S	Sn	21 42 07.5	-1.8
PB09				IAML		21 42 08.6	
	comp=N,8μm,0.2s						
TA01	Diego Aracena	0.81	344	*e*P	Pn	21 41 58.2	-0.2
TA01				*e*S	Sn	21 42 10.4	+1.0
TA01				IAML		21 42 16.0	
	comp=Z,1μm,0.3s						
TA01	Diego Aracena	0.81	344	*e*P	Pn	21 41 58.0	-0.3
TA02	Huaiquique	1.09	351	*e*P	Pn	21 42 02.0	-0.1
TA02				*e*S	Sn	21 42 17.8	+1.8
TA02				IAML		21 42 20.4	
	comp=Z,3μm,0.3s						
TA02	Huaiquique	1.09	351	*e*P	Pn	21 42 02.5	+0.4
PB06	IPOC Station P	1.40	166	*e*P	Pn	21 42 05.9	-0.5
PB06				IAML		21 42 28.1	
	comp=Z,810nm,0.2s						
PB06	IPOC Station P	1.40	166	*e*P	Pn	21 42 05.7	-0.8
PB06				IAML		21 42 26.6	
	comp=E,2μm,0.2s						
PB08	IPOC Station P	1.41	32	*e*P	Pn	21 42 06.7	-0.2
PB08				IAML		21 42 26.6	
	comp=Z,774nm,0.2s						
PB08	IPOC Station P	1.41	32	*e*P	Pn	21 42 06.4	-0.5
PB08				*e*S	Sn	21 42 23.9	-0.6
PB08				IAML		21 42 25.5	
	comp=N,2μm,0.2s						
PB05	IPOC Station P	1.52	189	*e*P	Pn	21 42 08.2	+0.2
PB05				*e*S	Sn	21 42 17.0	-10
PB05				IAML		21 42 30.5	
	comp=Z,688nm,0.5s						
PB05	IPOC Station P	1.52	189	*e*P	Pn	21 42 08.3	+0.2
PB05				*e*S	Sn	21 42 27.5	+0.8
PB05				IAML		21 42 32.3	
	comp=E,1μm,0.5s						
PB11	IPOC Station P	1.60	10	*e*P	Pn	21 42 09.5	+0.3
PB11				IAML		21 42 32.9	
	comp=Z,945nm,0.4s						
PB11	IPOC Station P	1.60	10	*e*P	Pn	21 42 09.1	-0.2
PSGCX	Pisagua	1.75	355	*e*P	Pn	21 42 11.4	+0.1
PSGCX				*e*S	Sn	21 42 29.2	-3.2
PSGCX				IAML		21 42 36.7	
	comp=Z,388nm,0.3s						
PSGCX	Pisagua	1.75	355	*e*P	Pn	21 42 11.1	-0.2
GO01	Chusmiza	1.81	23	*e*P	Pn	21 42 12.4	0.0
GO01				*e*S	Sn	21 42 34.8	+0.3
GO01				IAML		21 42 37.1	
	comp=N,2μm,0.2s						
AF01	San Pedro de A	2.29	135	*e*P	Pn	21 42 20.4	+1.7
AF01				*e*S	Sn	21 42 49.3	+3.4
AF01				IAML		21 43 10.8	
	comp=Z,1μm,0.6s						
PB12	IPOC Station P	2.74	352	*e*P	Pn	21 42 24.7	-0.1
PB12				IAML		21 43 11.8	
	comp=Z,298nm,0.4s						
PB16	IPOC Station P	3.02	8	*e*P	Pn	21 42 29.1	0.0
PB16				IAML		21 43 23.5	
	comp=Z,133nm,0.4s						
PB14	IPOC Station P	3.29	187	*e*P	Pn	21 42 31.3	-1.2
PB14				IAML		21 43 30.4	
	comp=Z,121nm,0.3s						

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*IDC **11** 21:45:12.4±2.3, 52°.52N×98°.39E, h0^{km}, mbtmp2.8/3, ML2.4/3, Error ellipse: s-maj=45.6km s-min=11.5km az=23.0*

*ASRS **11** 21:45:12.3±0.2, 52°N±2°×9°8E±°, h8^{km}, MLh4.0/9, Error*

ellipse: s-maj=4.8km s-min=2.2km az=15.4, confirmed
MOS ***11*** *21:45:21.8±1.8, 51°.74N×98°.15E, h6^{km}, mb3.8/1, Error ellipse: s-maj=13.6km s-min=10.0km az=170.4*
ISC 11 21:45:18.0±0.7**, 51°.99N**±0°.04×**98°.16E**±0°.03**, h10**^{km}**, n31, σ2^{s}91**/50**, 2D, Tuva-Buryatia-Mongolia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ORL	Orlik	1.15	61	⇓*i*P	Pb	21 45 38.7	-1.4
ORL				*e*		21 45 53.7	
ORL				pmax	pmax		
	comp=Z,217nm,0.5s						
ORL				smax	smax		
	comp=E,907nm,0.5s						
TDJR	Todzha	1.34	289	*e*P	Pg	21 45 42.8	-0.8
TDJR				*e*S	Sg	21 46 01.0	+0.1
TDJR	Todzha	1.34	289	Pg	Pg	21 45 42.8	-0.8
TDJR				Sg	Sg	21 46 01.3	+0.4
TDJR				AML	AML		
KNGR	Kungurtug, Tuv	1.44	197	*i* P	Pn	21 45 44.0	-0.3
KNGR				*e*S	Sn	21 46 02.8	-0.5
KNGR	Kungurtug, Tuv	1.44	197	⇓Pg	Pn	21 45 44.0	-0.3
KNGR				Sg	Sg	21 46 03.9	-0.4
KNGR				AML	AML		
MOY	Mondy	1.79	99	*i* PN	Pn	21 45 49.3	+0.3
MOY	Mondy	1.79	99	Pg	Pb	21 45 49.6	-1.2
MOY				Sg	Sb	21 46 13.1	-0.2
MOY				AML	AML		
KZLR	Kyzyl	2.32	264	*e*PN	Pb	21 46 00.0	+0.1
KZLR				*e*S	Sg	21 46 30.0	-2.4
KZLR	Kyzyl	2.32	264	Pg	Pb	21 45 58.9	-1.0
KZLR				Sg	Sb	21 46 28.4	-0.2
KZLR				AML	AML		
ARS	Arshan	2.64	90	*e*PN	Pb	21 46 04.6	-0.7
ZAK	Zakamensk	3.60	115	*e*PN	Pn	21 46 14.2	+0.3
ZAK				pmax	pmax		
	comp=Z,54nm,0.5s						
ZAK	Zakamensk	3.60	115	Pg	Pb	21 46 19.8	-1.9
ZAK				Sg	Sg	21 47 10.1	-3.3
ZAK				AML	AML		
MINR	Mina	3.76	322	*e*PN	Pg	21 46 26.4	-3.5
MINR	Mina	3.76	322	Pg	Pg	21 46 26.6	-3.3
MINR				Sg	Sg	21 47 17.3	-1.3
MINR				AML	AML		
IRK	Irkutsk	3.77	84	*e*PN	Pb	21 46 23.8	-0.8
IRK				*e*S	Sb	21 47 11.6	+1.2
IRK	Irkutsk	3.77	84	Sg	Sb	21 47 12.3	+2.0
IVK	Ivanovka	3.88	90	*e*PN	Pb	21 46 25.8	-0.6
CERR	Cheremushki	4.22	285	Pg	Pg	21 46 35.3	-3.4
CERR				Sg	Sb	21 47 26.9	+3.7
CERR				AML	AML		
DJO	Djoy, Khakassi	4.33	283	Pg	Pb	21 46 36.2	+2.1
DJO				Sg	Sb	21 47 30.0	+3.7
DJO				AML	AML		
BGT	Bolshoye Golou	4.47	86	*e*PN	Pb	21 46 37.2	+0.6
VEH	Verkhnyaya Baz	4.95	288	Pn	Pn	21 46 28.1	-4.3
VEH				Pg	Pb	21 46 47.0	+2.3
VEH				Sg	Sg	21 47 51.3	-5.3
VEH				AML	AML		
TEL	Teeli	5.07	262	Pn	Pn	21 46 36.2	+2.1
TEL				Pg	Pb	21 46 50.0	+3.3
TEL				Sg	Sb	21 47 51.6	+4.0
TEL				AML	AML		
TRG	Tyrgan	5.07	78	*e*PN	Pn	21 46 38.3	+4.2
LUZB	Luzhba, Kemero	5.86	290	Pg	Pg	21 47 05.8	-4.3
LUZB				Sg	Sb	21 48 16.4	+6.0
LUZB				AML	AML		
OGRR	Ongureny	5.96	70	*e*PN	Pn	21 46 47.7	+1.6
OGRR				pmax	pmax		
	comp=Z,12nm,0.5s						
TASR	Tashtagol	6.35	281	Sg	Sg	21 48 36.1	-5.4
ULGR	Ulagan, Altay	6.54	262	Pn	Pn	21 47 02.1	+7.8
ULGR				Pg	Pg	21 47 19.0	-4.1
ULGR				Sg	Sb	21 48 37.9	+7.8
SONM	Songino Array	6.75	125	Pn	Pn	21 46 58.8	+1.7
	comp=Z,0.2nm,0.3s,baz=334,slow=16,SNR=2.3						
SONM				Pg	Pb	21 47 16.9	+1.5
	comp=Z,1.5nm,0.3s,baz=306,slow=18,SNR=14						
SONM				Lg	Lg	21 48 47.3	
	comp=Z,2.7nm,0.3s,baz=299,slow=28,SNR=6.0						
	comp=Z,0.3nm,0.5s						
SONM				AML	AML		
ZALV	Zalesovo Beam	8.29	289	Pn	Pn	21 47 13.7	-4.5
	comp=Z,0.1nm,0.3s,baz=84,slow=16,SNR=1.4						
ZALV				Pg	Pb	21 47 41.2	-0.3
	comp=Z,0.2nm,0.3s,baz=101,slow=14,SNR=4.2						
ZALV				Lg	Lg	21 49 31.5	
	comp=Z,0.2nm,0.3s,baz=100,slow=24,SNR=3.7						
	comp=Z,0.3nm,0.4s						
ZALV				AML	AML		
MKAR	Makanchi Array	11.57	250	Pn	Pn	21 48 05.2	+2.1
	baz=64,slow=15,SNR=1.1						
MKAR				Lg	Lg	21 51 21.5	
	comp=Z,0.1nm,0.3s,baz=72,slow=28,SNR=5.9						
	comp=Z,0.1nm,0.5s						
KURBB	Kurchatov Arra	12.36	271	Lg	Lg	21 51 44.3	
	baz=74,slow=34						

GFZ ***11*** *21:57:00.1±0.8, 27°N±5°×14°1E±°, h416^{km}±7^{km}, M4.6/24, mb4.7/24*
BJI ***11*** *21:57:20.9, 28°.65N×139°.13E, h487^{km}, mB4.6/10, mb4.9/54*
JMA ***11*** *21:57:21.3±0.3, 28°.8N±0°.8×13°9E±°, h501^{km}±4^{km}, MV4.4/30, W OFF OGASAWARA*
NIED ***11*** *21:57:21.3, 28°.80N×139°.33E, h501^{km}, MW4.6, Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M_{rr}-7.56; $M_{\theta\theta}$9.05; $M_{\phi\phi}$-1.49; $M_{r\theta}$-0.14; $M_{\theta\phi}$-3.52; $M_{\phi r}$-1.91; Fault plane solution: $M_0$9.16000×10^{15} NP1: ϕ_s89.00000°, δ47.00000°, λ-116.00000°. NP2: ϕ_s304.00000°, δ49.00000°, λ-65.00000°.*
MOS ***11*** *21:57:22.3±0.7, 28°.82N×138°.92E, h484^{km}, mb4.7/55 Error ellipse: s-maj=7.8km s-min=4.6km az=112.2*
NEIC ***11*** *21:57:23.8±1.5, 28°.87N±0°.08×139°.0E±0°.1, h483^{km}±5^{km}, mb4.2/261, Error ellipse: s-maj=13.6km s-min=11.6km az=100.0*
IDC ***11*** *21:57:25.8±1.1, 28°.83N×138°.90E, h512^{km}±11^{km}, mb3.9/33, mbtmp4.7/37, Error ellipse: s-maj=10.0km s-min=6.9km az=77.0*
ISC 11 21:57:23.8±0.4**, 28°.84N**±0°.04×**139°.06E**±0°.05**, h492**^{km}±4^{km}**, n588, σ1^{s}20**/636**, mb4.3**/231**, 21C-7D, Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	Chichi jima	3.27	121	*e*P	P	21 58 33.1	-3.0
CBIJ				*e*S	S	21 59 29.5	-5.3
JHH2	Haha-jima-NKT2	3.53	128	P	P	21 58 35.5	-2.6
JHH2				S	S	21 59 33.6	-4.8
JHCJ	Hachijojimakas	4.27	8	*e*P	P	21 58 42.9	-1.0
JHJ2	Mitsune	4.31	9	P	P	21 58 43.3	-0.9
JHJ2	Mitsune	4.31	9	S	S	21 59 47.5	-2.3
JHJ2	Mitsune	4.31	9		P	21 58 43.7	-0.5
JHJ2				S	S	21 59 47.3	-2.5
JHJ2	Mitsune	4.31	9	*e*P	P	21 58 43.3	-0.9
JHJ	Hachijo jima 2	4.32	8	P	P	21 58 43.0	-1.1
	437nm,0.2s,baz=234,slow=23,SNR=109						
JHJ				S	S	21 59 44.5	-5.4
	375nm,0.4s,baz=55,slow=22,SNR=5.8						
JTNC	Tanabenakahech	5.78	330	*e*P	P	21 58 58.1	+0.5
JTNC				*e*S	S	22 00 13.6	-0.6
JSG	Sagara	5.87	353	P	P	21 58 58.6	+0.2
JIE	Ise	5.89	341	*e*P	P	21 58 59.4	+0.8
JIE				*e*S	S	22 00 16.9	+0.7
BSO1	Boso 1	6.03	15	P	P	21 58 58.5	-0.8
BSO1				S	S	22 00 14.7	-2.9
JOD2	Odawara 2	6.41	0	*e*P	P	21 59 02.0	-1.7
JOD2				*e*S	S	22 00 21.7	-3.9
JMN	Monobe	6.59	319	P	P	21 59 06.9	+1.4
JMN	Monobe	6.59	319		P	21 59 05.8	+0.2
JMN	Monobe	6.59	319	P	P	21 59 07.2	+1.7
	comp=Z,79nm,0.9s						
JTO	Tosashimizu	6.71	308	*e*P	P	21 59 07.3	+0.7
JGF	Kuroka	6.90	348	P	P	21 59 08.7	+0.1
JGF	Kuroka	6.90	348		P	21 59 08.3	-0.3
JGF	Kuroka	6.90	348	P	P	21 59 08.4	-0.2
	comp=Z,131nm,0.8s						
JRY	Ryogami san	7.16	359	P	P	21 59 09.9	-1.4
JYT	Yasato	7.43	7	P	P	21 59 14.4	+0.4
JMZ	Minamidaito 2	7.59	248	P	P	21 59 15.9	+0.1
JMZ	Minamidaito 2	7.59	248		P	21 59 17.3	+1.5
JMZ	Minamidaito 2	7.59	248	*e*P	P	21 59 16.0	+0.2
MJAR	Matsushiro Arr	7.72	355	P	P	21 59 15.0	-1.9
	comp=Z,51nm,0.6s,baz=170,slow=12,SNR=140						
MJAR				S	S	22 00 43.3	-6.5
	comp=Z,10nm,0.8s,baz=138,slow=15,SNR=4.8						
MJAR	Matsushiro Arr	7.72	355	P	P	21 59 15.6	-1.4
MAJO	Matsushiro	7.72	355	P	P	21 59 15.5	-1.5
MAJO	Matsushiro	7.72	355	P	P	21 59 15.7	-1.3
MAJO	Matsushiro	7.72	355		P	21 59 15.7	-1.3
MAJO	Matsushiro	7.72	355	P	P	21 59 15.5	-1.5
	comp=Z,206nm,0.9s						
MJB9	Matsu-Tunnel	7.72	355		P	21 59 15.5	-1.5
JSU	Suzuyama	7.91	292	P	P	21 59 20.1	+1.1
JSU	Suzuyama	7.91	292	P	P	21 59 19.9	+0.9
JHS	Saijyo	7.95	322	P	P	21 59 20.4	+1.0
JHS				*e*S	S	22 00 55.1	+0.8
JNU	Nakatsue	8.22	303	P	P	21 59 23.9	+1.7
	comp=Z,29nm,0.7s,baz=358,slow=3.5,SNR=17						
JNU				S	S	22 00 56.4	-3.1
	comp=Z,20nm,1.1s,baz=278,slow=17,SNR=1.3						
JSJ	Shimokoshiki	8.56	292	*e*P	P	21 59 27.3	+1.5
JAMN	Amaminishikomi	8.71	268	*e*P	P	21 59 28.9	+1.5
JOW	Kunigami	9.75	261	P	P	21 59 39.1	+0.6
JOW	Kunigami	9.75	261		P	21 59 38.2	-0.3
JOW	Kunigami	9.75	261	P	P	21 59 38.0	-0.5
	comp=Z,57nm,1.1s						
JOW	Kunigami	9.75	261	*e*P	P	21 59 40.1	+1.6
JTU	Tsushima	9.99	307	P	P	21 59 42.6	+1.7
JMK	Ichinoseki	10.25	10	*e*P	P	21 59 43.3	-0.2
JMK				*e*S	S	22 01 36.3	-2.3
JKE	Kume jima 2	11.17	260	*e*P	P	21 59 54.0	+0.4
JTM	Tenmabayashi	12.04	7	P	P	22 00 02.8	+0.3
JTM	Tenmabayashi	12.04	7	P	P	22 00 02.9	+0.3
JTM	Tenmabayashi	12.04	7	P	P	22 00 01.6	-0.9
	comp=Z,317nm,0.8s						
JOT	Ohata	12.62	7	*e*P	P	22 00 09.7	+0.9
KSRS	Korea Array	12.68	316	P	P	22 00 09.2	-0.3
	comp=Z,7.5nm,0.5s,baz=127,slow=10,SNR=23						
JOSM	Okushiri--Mats	13.22	1	*e*P	P	22 00 15.7	+0.5
ERM	Erimo	13.56	13	P	P	22 00 19.3	+0.5
ERM	Erimo	13.56	13	*i* P	P	22 00 18.4	-0.4
ERM	Erimo	13.56	13		P	22 00 18.7	-0.1
JEM	Erimo	13.57	13	P	P	22 00 19.3	+0.5
DPSS	Saipan	14.89	154	P	P	22 00 33.2	0.0
YOJ	Yonaguni jima	14.99	257	P	P	22 00 32.5	-1.6
YOJ	Yonaguni jima	14.99	257	P	P	22 00 31.7	-2.4
YOJ	Yonaguni jima	14.99	257	P	P	22 00 31.7	-2.4
ASAJ	Asahikawa	15.51	10	P	P	22 00 39.5	+0.2
	comp=Z,16nm,0.6s,baz=274,slow=4.8,SNR=12						
ASAJ	Asahikawa	15.51	10	P	P	22 00 39.4	+0.2
ASAJ				pmax	pmax		
	comp=Z,27nm,0.9s						
JKA	Kamikawa-asahi	15.51	10	P	P	22 00 39.4	+0.1
JTKR	Abashiri--Toko	15.60	13	*e*P	P	22 00 39.7	-0.4
GUMO	Guam	16.11	159	P	P	22 00 46.5	+0.6
	comp=Z,425nm,0.9s,baz=220,slow=3.6,SNR=21						
GUMO	Guam	16.11	159	P	P	22 00 45.6	-0.3
GUMO				pmax	pmax		
	comp=Z,492nm,1.0s						
GUMO	Guam	16.11	159	P	P	22 00 45.6	-0.3
NACB	Ninganchiao	16.30	257	P	P	22 00 45.3	-2.6
NACB	Ninganchiao	16.30	257	P	P	22 00 45.1	-2.8
YHNB	Yeheng	16.33	259	P	P	22 00 45.9	-2.3
YHNB	Yeheng	16.33	259	P	P	22 00 46.0	-2.3
USA0B	Ussuriysk Arra	16.34	342	P	P	22 00 47.4	-0.6
USA0B				pmax	pmax		
	comp=Z,18nm,0.6s						
USA0B	Ussuriysk Arra	16.34	342	P	P	22 00 47.4	-0.6
USRK	Ussuriysk Ar.	16.34	342	P	P	22 00 47.6	-0.4
	comp=Z,16nm,0.4s,baz=153,slow=8.9,SNR=35						
USRK	Ussuriysk Ar.	16.34	342		P	22 00 47.0	-0.9
SSLB	Suanglung	16.99	257	P	P	22 00 53.9	-1.2
SSLB	Suanglung	16.99	257	P	P	22 00 53.9	-1.2
SSLB	Suanglung	16.99	257	P	P	22 00 53.8	-1.2
	comp=Z,34nm,0.6s						
TWG	Pinlang	17.26	254	P	P	22 00 55.8	-1.9
TPUB	Ta-pu	17.44	256	P	P	22 00 58.3	-1.2
TPUB	Ta-pu	17.44	256	P	P	22 00 58.1	-1.4
TPUB	Ta-pu	17.44	256	P	P	22 00 58.6	-0.9
	comp=Z,20nm,0.8s						
DL2	Dalian	17.59	309	P	P	22 00 58.6	-2.0
DL2				pmax	pmax		
	comp=Z,72nm,1.0s						
YSS	Yuzhno-Sakhali	18.32	8	*e*P	P	22 01 07.7	+0.5
YSS				*e*S	S	22 04 09.9	+0.4
YSS				pmax	pmax		
	comp=Z,100nm,4.3s						
YSS				smax	smax		
	comp=N,200nm,4.3s						
YSS				smax	smax		
	comp=E,100nm,3.9s						
YSS	Yuzhno-Sakhali	18.32	8	P	P	22 01 06.2	-1.1
YSS	Yuzhno-Sakhali	18.32	8	P	P	22 01 05.2	-2.0
	comp=Z,84nm,0.8s						
KNMB	Chin-men Tao	18.98	262	P	P	22 01 13.8	+0.3
KLR	Kul'dur	21.12	347	P	P	22 01 32.6	-0.2
	comp=Z,8.1nm,0.5s,baz=171,slow=7.5,SNR=28						
	comp=Z,8.1nm,0.5s						
KLR	Kul'dur	21.12	347	*e*P	P	22 01 32.2	-0.6
KLR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
WHN	Wuhan	21.52	281	P	P	22 01 37.2	+0.5
WHN				pmax	pmax		
	comp=Z,120nm,0.6s						
BJT	Baijiatuau	21.87	307	P	P	22 01 39.0	-0.7
BJT				pmax	pmax		
	comp=Z,16nm,0.7s						
BJT	Baijiatuau	21.87	307		P	22 01 39.0	-0.7
HNS	HongShan	22.06	299	⇓P	P	22 01 41.0	-0.5
HNS				pmax	pmax		
	comp=Z,31nm,0.7s						
TYV	Tymovskoe	22.17	6	*e*P	P	22 01 43.2	+1.0
TYV				*e*S	S	22 05 18.4	+7.2
TYV				pmax	pmax		
	comp=Z,38nm,0.8s						
TYV				pmax	pmax		
	comp=Z,100nm,3.1s						
TYV				smax	smax		
	comp=N,200nm,4.3s						
TYV				smax	smax		
	comp=E,200nm,4.3s						
CNSH	ChangSha	22.95	275	P	P	22 01 50.0	+0.4
CNSH				pmax	pmax		
	comp=E,15nm,0.6s						
HEH	HeiHe	23.14	341	*e*P	P	22 01 51.6	+0.6
HEH				pmax	pmax		
	comp=E,5.0nm,0.7s						
LYN	LuoYang	23.30	291	P	P	22 01 52.5	-0.1
LYN				pmax	pmax		
	comp=E,45nm,0.7s						
HILR	Hailar Array B	25.40	330	P	P	22 02 10.9	-0.1
	comp=E,4.8nm,0.5s,baz=157,slow=8.0,SNR=4.8						
	comp=E,4.8nm,0.5s						
HHC	Hu-ho-hao-te	25.44	305	*e*P	P	22 02 13.8	+2.1
HHC				pmax	pmax		
	comp=E,7.0nm,0.7s						
ENH	Enshi	25.73	280		P	22 02 13.8	-0.5
XAN	Xi'an	26.18	289	⇓P	P	22 02 18.0	-0.2
XAN				pmax	pmax		
	comp=E,69nm,0.8s						
ZEA	Zeya	26.34	344	*e*P	P	22 02 19.9	+0.6
ZEA				pmax	pmax		
	comp=Z,10.0nm,0.5s						
PETK	Petropavlovsk-	27.87	24	P	P	22 02 33.7	+0.9
	comp=Z,7.4nm,0.8s,baz=195,slow=1.8,SNR=6.8						
	comp=Z,7.4nm,0.8s						
PETK	Petropavlovsk-	27.87	24	P	P	22 02 31.9	-0.9
PET	Petropavlovsk	28.16	25	P	P	22 02 34.2	-1.0
MWPI	Manokwari, Pap	29.98	190	P	P	22 02 53.1	+1.4
	comp=Z,45nm,0.7s						
TNTI	Ternate	30.06	204	P	P	22 02 51.5	-0.9
TNTI				IAmb	IAmb	22 02 59.4	
	comp=Z,12nm,0.9s						
LZH	Lanzhou	30.46	293	⇓P	P	22 02 55.8	0.0
LZH				pP	pP	22 04 19.3	+0.5
LZH				pmax	pmax		
	comp=Z,62nm,1.7s						
SWI	Sorong	30.46	196	P	P	22 02 56.0	+0.2
	comp=Z,47nm,0.6s						
LZDM	Lanzhou Array	30.57	293	P	P	22 02 56.4	-0.5
	comp=Z,60nm,0.9s,baz=103,slow=6.7,SNR=30						
LZDM				PcP	PcP	22 05 41.8	+1.0
	comp=Z,2.8nm,0.4s,baz=64,slow=3.4,SNR=5.0						
	comp=Z,60nm,0.9s						
CD2	Chengdu	30.60	283	P	P	22 02 56.9	-0.1
CD2				pmax	pmax		
	comp=Z,80nm,0.5s						
ULN	Ulaanbaatar	31.16	316	*ce*P	P	22 03 02.0	+0.4
ULN				pmax	pmax		
	comp=Z,41nm,1.3s						
ULN	Ulaanbaatar	31.16	316	P	P	22 03 01.7	+0.1
ULN	Ulaanbaatar	31.16	316	P	P	22 03 01.8	+0.1
GENI	Genyem	31.27	178	P	P	22 03 05.1	+2.4
	comp=Z,63nm,0.8s						
SONM	Songino Array	31.55	316	P	P	22 03 05.2	+0.3
	comp=Z,12nm,0.6s,baz=129,slow=8.7,SNR=61						
SONM				PcP	PcP	22 05 43.3	+0.4
	comp=Z,1.1nm,0.4s,baz=149,slow=3.5,SNR=7.5						
	comp=Z,12nm,0.6s						
SONM	Songino Array	31.55	316		P	22 03 04.4	-0.5
SONM				IAmb	IAmb	22 03 06.1	
	comp=Z,18nm,1.2s						
MA2	Magadan	31.76	11	*ce*P	P	22 03 07.5	+1.1
MA2				pmax	pmax		
	comp=Z,64nm,2.5s						
MA2	Magadan	31.76	11	P	P	22 03 06.4	0.0
MA2	Magadan	31.76	11	P	P	22 03 06.4	0.0
	comp=Z,42nm,0.9s						
FAKI	Fak Fak	32.24	193	P	P	22 03 11.0	-0.1
KMI2	Kunming	32.48	272	⇓P	P	22 03 14.1	+0.8
KMI2				pmax	pmax		
	comp=Z,30nm,1.0s						
SLVN	Son La	32.61	265	P	P	22 03 14.4	+0.1
SLVN	Son La	32.61	265	P	P	22 03 15.2	+0.9
	comp=Z,19nm,1.4s						
PZH	PanZhiHua	33.04	275	P	P	22 03 18.5	+0.5
YAK	Yakutsk	33.77	352	*e*P	P	22 03 23.5	+0.1
YAK				*e**PP	pP	22 04 49.6	+1.1
YAK				*e*		22 04 59.9	
YAK				*e*S	S	22 08 13.4	+2.1
YAK				*e**SS	SS	22 11 00.0	-9.4
YAK				*e*		22 12 45.5	
YAK				pmax	pmax		
	comp=Z,10.0nm,1.0s						
YAK				pmax	pmax		
	comp=N,4.0nm,1.3s						
YAK				pmax	pmax		
	comp=Z,39nm,2.3s						
YAK				pmax	pmax		
	comp=N,37nm,2.4s						
YAK				pmax	pmax		
	comp=E,19nm,2.8s						
YAK				smax	smax		
	comp=E,30nm,1.4s						
YAK				smax	smax		
	comp=N,85nm,1.7s						
GTA2	Gaotai	33.97	299	P	P	22 03 25.6	-0.1
GTA2				PcP	PcP	22 05 50.2	+0.3
GTA2				S	S	22 08 12.8	-2.5
GTA2				pmax	pmax		
	comp=N,31nm,0.9s						
ZAK	Zakamensk	34.48	319	*e*P	P	22 03 29.2	-0.6
ZAK				pmax	pmax		
	comp=Z,15nm,1.1s						
SEY	Seymchan	35.19	11	*ce*P	P	22 03 36.9	+1.5
SEY				pmax	pmax		
	comp=Z,13nm,2.5s						
GOMU	GeErMu	37.76	293	P	P	22 03 57.1	-0.4
GOMU				pmax	pmax		
	comp=Z,46nm,0.9s						
CHTO	Chiang Mai	37.87	264	P	P	22 03 58.1	-0.1
CHTO				pmax	pmax		
	comp=Z,17nm,0.7s						
CHTO	Chiang Mai	37.87	264	P	P	22 03 58.1	-0.1
CHTO	Chiang Mai	37.87	264	P	P	22 03 58.1	-0.1
	comp=Z,27nm,0.8s						
CHTO	Chiang Mai	37.87	264	P	P	22 03 58.4	+0.2
	comp=Z,27nm,0.8s						
CM31	Chiang Mai Arr	38.01	263	P	P	22 03 59.6	+0.2
CM31				IAmb	IAmb	22 04 00.6	
	comp=Z,9.6nm,0.8s						
CMAR	Chiang Mai Arr	38.01	263	P	P	22 03 59.8	+0.4
	comp=Z,5.1nm,0.7s,baz=83,slow=4.6,SNR=39						
CMAR				PcP	PcP	22 06 03.8	+1.4
	comp=Z,1.1nm,0.6s,baz=46,slow=0.8,SNR=6.5						
	comp=Z,5.1nm,0.7s						
CMAR	Chiang Mai Arr	38.01	263		P	22 03 59.4	0.0
CMAR					PcP	22 06 03.3	+0.9
NPW	Naypyitaw	39.96	267	P	P	22 04 16.0	+0.9
	comp=Z,29nm,1.0s						
LSA	Lhasa	41.56	283	P	P	22 04 28.4	0.0
LSA				pmax	pmax		
	comp=Z,6.0nm,0.6s						
LSA	Lhasa	41.56	283	P	P	22 04 28.4	0.0
LSA				IAmb	IAmb	22 04 30.0	
	comp=Z,5.7nm,0.6s						
ATKA	Atka Island	41.57	42	P	P	22 04 27.5	+0.1
SHL	Shillong	41.87	277	P	P	22 04 29.7	-0.9
SHL				pmax	pmax		
	comp=Z,49nm,1.3s						
SHL	Shillong	41.87	277		P	22 04 29.7	-0.9
MTN	Manton Dam	42.14	192	P	P	22 04 32.2	-0.3
BILL	Bilibino	42.43	15	*ce*P	P	22 04 35.0	+0.9
BILL				pmax	pmax		
	comp=Z,30nm,1.7s						
BILL	Bilibino	42.43	15	P	P	22 04 34.2	+0.1
BILL				IAmb	IAmb	22 04 35.8	
	comp=Z,12nm,0.8s						
TIXI	Tiksi	43.23	355	*ce*P	P	22 04 41.5	+1.3
TIXI				pmax	pmax		
	comp=Z,9.0nm,2.5s						
TIXI	Tiksi	43.23	355	P	P	22 04 40.3	0.0
WMQ	Urumqi	43.31	304	*e*P	P	22 04 42.6	+1.1
WMQ				pmax	pmax		
	comp=Z,24nm,0.7s						
DGZ	Jazzator, Alta	44.06	313	*d i*P	P	22 04 47.7	+0.4
DGZ				pmax	pmax		
	comp=Z,20nm,1.0s						
KNRA	Kununurra	45.36	194		P	22 04 57.6	+0.2
KNRA				IAmb	IAmb	22 04 58.3	
	comp=Z,5.0nm,0.7s						
EVN	Everest	45.65	282	P	P	22 05 01.2	+0.7
EVN	Everest	45.65	282	P	P	22 05 01.4	+1.0
	comp=Z,34nm,0.6s						
PSI	Prapat	46.11	243	P	P	22 05 03.0	-0.5
PSI				pmax	pmax		
	comp=Z,15nm,1.0s						
RPSI	Rantau Prapat	46.17	243	P	P	22 05 03.0	-0.9
RPSI				IAmb	IAmb	22 05 04.9	
	comp=Z,15nm,1.0s						
ZAA0	Zalesovo Array	46.36	318		P	22 05 03.7	-1.0
ZAA0				IAmb	IAmb	22 05 04.9	
	comp=Z,9.1nm,1.1s						
ZALV	Zalesovo Beam	46.36	318	P	P	22 05 04.2	-0.5
	comp=Z,4.4nm,0.6s,baz=97,slow=6.8,SNR=25						
ZALV				PcP	PcP	22 06 29.4	-0.5
	comp=Z,5.4nm,0.7s,baz=109,slow=3.5,SNR=12						
	comp=Z,4.4nm,0.6s						
ZALV	Zalesovo Beam	46.36	318	*i* P	P	22 05 04.1	-0.6
ZALV				pmax	pmax		
	comp=Z,5.0nm,0.6s						
PBA	Port Blair	46.37	258	P	P	22 05 05.8	+0.5
UNV	Unalaska Valle	46.46	42	P	P	22 05 05.2	-0.2
UNV				IAmb	IAmb	22 05 07.1	
	comp=Z,13nm,1.2s						
LVA	Lava Point	46.79	41	P	P	22 05 08.4	+0.4
BBJI	Bungbulang	47.10	225	P	P	22 05 11.4	+0.5
MDSI	Maura Dua	47.13	231	P	P	22 05 11.5	+0.4
	comp=Z,42nm,0.9s						
MK31	Makanchi Array	47.23	308	*ce*P	P	22 05 11.6	+0.1
MKAR	Makanchi Array	47.23	308	P	P	22 05 11.4	-0.1
	comp=Z,11nm,0.6s,baz=90,slow=8.9,SNR=88						
MKAR				PcP	PcP	22 06 33.2	0.0
	comp=Z,5.0nm,0.8s,baz=85,slow=5.5,SNR=10						
MKAR				ScP	ScP	22 09 39.4	-0.5
	comp=Z,0.6nm,0.4s,baz=80,slow=4.9,SNR=6.3						
	comp=Z,11nm,0.6s						
MKAR	Makanchi Array	47.23	308	*ce*P	P	22 05 11.3	-0.2
MKAR				pmax	pmax		
	comp=Z,11nm,0.6s						
MKAR	Makanchi Array	47.23	308	P	P	22 05 11.4	-0.1
MKAR					PcP	22 06 32.8	-0.5
MAKZ	Makanchi	47.45	308	P	P	22 05 12.9	-0.2
MAKZ				pmax	pmax		
	comp=Z,12nm,0.6s						
MAKZ	Makanchi	47.45	308	P	P	22 05 12.9	-0.2
MAKZ	Makanchi	47.45	308	P	P	22 05 12.7	-0.4
	comp=Z,21nm,1.2s						

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GSI   Gunungsitoli      48.09 243    P      P      22 05 18.8 +0.5
FITZ  Fitzroy Crossi    48.43 197    S      S      22 11 41.2 -3.4
      comp=Z,4.8nm,1.2s,baz=158,slow=12,SNR=3.0
FITZ  Fitzroy Crossi    48.43 197           P      22 05 20.7  0.0
WB0   Warramunga Arr    48.53 186           P      22 05 21.0 -0.4
WRAB  Tennant Creek     48.70 186 ceP       P      22 05 22.4 -0.3
WRAB  Tennant Creek     48.70 186    P      P      22 05 22.4 -0.3
WRAB                                 IAmb   IAmb   22 05 22.9
      comp=Z,7.7nm,0.5s
WR8   Warramunga Arr    48.71 186           P      22 05 22.2 -0.5
WRA   Warramunga Arr    48.71 186    P      P      22 05 22.6 -0.2
      comp=Z,8.0nm,0.4s,baz=3.4,slow=7.8,SNR=178
WRA                                  PcP    PcP    22 06 39.7 +0.8
      comp=Z,4.0nm,0.7s,baz=2.6,slow=3.9,SNR=9.0
WRA                                  S      S      22 11 45.4 -3.0
      comp=Z,2.5nm,0.8s,baz=7.2,slow=14,SNR=11
      comp=Z,8.0nm,0.4s
WRA   Warramunga Arr    48.71 186  i P      P      22 05 22.6 -0.2
WRA                                  pmax   pmax
      comp=Z,9.0nm,0.4s
WRA   Warramunga Arr    48.71 186           P      22 05 22.0 -0.8
K13K  Kusilvak Mount    49.23  31    P      P      22 05 27.1 +1.0
K13K                                 IAmb   IAmb   22 05 46.6
      comp=Z,6.5nm,1.1s
PDGK  Podgornoye        49.28 304    P      P      22 05 26.5 -0.5
PDGK  Podgornoye        49.28 304           P      22 05 26.5 -0.5
WUS   Wushi             49.65 301           P      22 05 29.8 +0.1
WUS                                  IAmb   IAmb   22 05 31.5
      comp=Z,22nm,1.3s
KURK  Kurchatov         49.79 314 ceP       P      22 05 30.0 -0.4
KURK                                 pmax   pmax
      comp=Z,30nm,0.9s
KURK  Kurchatov         49.79 314           P      22 05 30.2 -0.2
KURK  Kurchatov         49.79 314    P      P      22 05 30.2 -0.2
      comp=Z,34nm,1.2s
KURBB Kurchatov Arra    49.84 313    P      P      22 05 30.5 -0.3
      comp=Z,26nm,0.6s,baz=92,slow=8.3,SNR=407
KURBB                                S      S      22 11 59.6 -3.7
      comp=Z,0.3nm,0.7s,baz=94,slow=11,SNR=3.3
      comp=Z,26nm,0.6s
J14K  Nanvaranak Lak    49.94  30    P      P      22 05 32.1 +0.8
J14K                                 IAmb   IAmb   22 05 33.2
      comp=Z,7.5nm,0.9s
NRIK  Noril'sk          50.03 339    P      P      22 05 32.2 +0.3
      comp=Z,14nm,0.8s,baz=112,slow=8.5,SNR=12
      comp=Z,14nm,0.8s
NRIK  Noril'sk          50.03 339  i P      P      22 05 31.6 -0.3
NRIK                                 pmax   pmax
      comp=Z,12nm,0.6s
NRIK  Noril'sk          50.03 339           P      22 05 31.8 -0.1
NRIK                                 IAmb   IAmb   22 05 32.8
      comp=Z,16nm,0.8s
PRZ   Przheval'sk       50.14 303    P      P      22 05 33.3 -0.1
PRZ                                  pmax   pmax
      comp=Z,44nm,1.2s
PRZ   Przheval'sk       50.14 303    P      P      22 05 33.3 -0.1
N14K  Kuskokwak Cree    50.18  34    P      P      22 05 34.0 +0.9
N14K                                 IAmb   IAmb   22 05 49.2
      comp=Z,24nm,1.3s
F15K  North Star Dit    50.34  27    P      P      22 05 35.4 +1.2
F15K                                 IAmb   IAmb   22 05 48.4
      comp=Z,13nm,1.3s
CNBA  Chernabura Isl    50.60  41    P      P      22 05 36.2 -0.1
TARG  Taragay, Kyrgy    50.65 302    P      P      22 05 37.7 +0.3
TARG                                 pmax   pmax
      comp=Z,17nm,1.1s
TARG  Taragay, Kyrgy    50.65 302           P      22 05 37.7 +0.3
TARG                                 IAmb   IAmb   22 05 39.3
      comp=Z,17nm,1.1s
TARG  Taragay, Kyrgy    50.65 302    P      P      22 05 38.3 +0.9
      comp=Z,15nm,1.0s
K15K  Wolf Creek Mou    50.74  31    P      P      22 05 38.2 +1.0
K15K                                 IAmb   IAmb   22 05 39.3
      comp=Z,5.8nm,0.5s
O15K  Ungalikthiuk R    50.98  35    P      P      22 05 39.9 +0.8
O15K                                 IAmb   IAmb   22 06 04.9
      comp=Z,28nm,1.5s
N15K  Kwethluk River    51.01  34    P      P      22 05 40.6 +1.3
N15K                                 IAmb   IAmb   22 05 41.4
      comp=Z,12nm,1.1s
KDJ   Kajisay           51.07 303    P      P      22 05 40.6 +0.4
KDJ   Kajisay           51.07 303           P      22 05 40.6 +0.4
KDJ                                  IAmb   IAmb   22 05 42.6
      comp=Z,8.9nm,0.9s
J16K  Anvik River       51.37  30    P      P      22 05 43.2 +1.4
CHGN  Chignik           51.39  39    P      P      22 05 41.9 -0.1
CHGN                                 IAmb   IAmb   22 06 17.0
      comp=Z,11nm,1.2s
I17K  Unalakleet        51.47  29    P      P      22 05 43.7 +1.2
I17K                                 IAmb   IAmb   22 06 26.7
      comp=Z,16nm,1.2s
L16K  Owhat River       51.57  32    P      P      22 05 44.1 +0.9
M16K  Timber Creek      51.70  33    P      P      22 05 45.3 +1.1
M16K                                 IAmb   IAmb   22 06 13.5
      comp=Z,9.8nm,1.4s
ASAI  AK-SAY(Kyrgyzs    51.70 301    P      P      22 05 45.7 +0.7
      comp=Z,10nm,1.1s
ULHL  Ulahol            51.75 303    P      P      22 05 45.9 +0.6
      SNR=7.4
F17K  Baldwin Pennin    51.88  26    P      P      22 05 46.5 +1.1
F17K                                 IAmb   IAmb   22 05 47.6
      comp=Z,22nm,1.1s
O16K  Kokwok River B    51.92  35    P      P      22 05 46.8 +1.0
BOOM  Boomskoye usch    51.95 303    P      P      22 05 47.1 +0.5
BOOM                                               22 06 52.0
BOOM                                 pmax   pmax
      comp=Z,11nm,0.6s
BOOM  Boomskoye usch    51.95 303           P      22 05 47.1 +0.5
BOOM                                 IAmb   IAmb   22 05 47.9
      comp=Z,11nm,0.6s
BOOM                                 PcP    PcP    22 06 52.0 +1.1
NRN   Naryn             52.03 302    P      P      22 05 47.7 +0.3
NRN   Naryn             52.03 302           P      22 05 47.7 +0.3
NRN                                  IAmb   IAmb   22 05 48.9
      comp=Z,14nm,1.3s
H17K  Granite Mounta    52.04  28    P      P      22 05 47.9 +1.3
J17K  VABM Dome         52.07  30           P      22 05 48.0 +1.2
J17K                                 IAmb   IAmb   22 05 49.4
      comp=Z,5.2nm,0.7s
TKM2  Tokmak 2          52.15 304    P      P      22 05 48.8 +0.7
      SNR=7.2
K17K  Iditarod          52.29  31           P      22 05 50.1 +1.7
K17K                                 IAmb   IAmb   22 05 51.1
      comp=Z,9.2nm,0.9s
AS31  Alice Springs     52.43 186           P      22 05 50.1 +0.1
ASAR  Alice Springs     52.43 186    P      P      22 05 50.1 +0.1
      comp=Z,2.4nm,0.5s,baz=16,slow=12,SNR=40
ASAR                                 PcP    PcP    22 06 53.8 +1.1
      comp=Z,2.6nm,0.8s,baz=12,slow=4.3,SNR=10
ASAR                                 S      S      22 12 35.4 -3.4
      comp=Z,1.3nm,1.0s,baz=12,slow=10,SNR=6.4
      comp=Z,2.4nm,0.5s
ASAR  Alice Springs     52.43 186    P      P      22 05 50.2 +0.2
ASAR  Alice Springs     52.43 186    P      P      22 05 50.2 +0.2
M17K  Holitna River     52.49  33    P      P      22 05 51.9 +2.0
M17K                                 IAmb   IAmb   22 05 52.6
      comp=Z,14nm,1.2s
N17K  Nushagak Hills    52.49  34    P      P      22 05 50.9 +1.0
KBK   Karagaybulak      52.66 303    P      P      22 05 52.3 +0.7
      SNR=13
KSH2  Kashi             52.68 299    P      P      22 05 52.5 +0.6
KSH2                                 pmax   pmax
      comp=Z,19nm,0.7s
H18K  Honhosa River     52.73  28           P      22 05 52.2 +0.6
H18K                                 IAmb   IAmb   22 05 53.7
      comp=Z,8.4nm,1.1s
CHMS  Chumysh           52.76 304    P      P      22 05 52.6 +0.4
      SNR=6.8
G18K  Tagagawik         52.77  27    P      P      22 05 52.5 +0.6
FRU1  Bishkek           52.87 304    P      P      22 05 53.2 +0.1
FRU1                                 pmax   pmax
      comp=Z,17nm,0.9s
FRU1  Bishkek           52.87 304    P      P      22 05 53.2 +0.1
FRU1                                 IAmb   IAmb   22 05 54.4
      comp=Z,17nm,0.9s
USP   Ospenovka         52.91 304    P      P      22 05 53.5 +0.2
      SNR=7.1
L18K  Granite Mounta    52.95  32    P      P      22 05 54.1 +0.9
AAK   Ala-Archa         52.99 303    P      P      22 05 54.5 +0.4
      SNR=6.8
AAK   Ala-Archa         52.99 303 ceP       P      22 05 54.2 +0.1
AAK   Ala-Archa         52.99 303           P      22 05 54.3 +0.2
AAK                                  IAmb   IAmb   22 05 54.7
      comp=Z,6.7nm,0.6s
AAK   Ala-Archa         52.99 303  i P      P      22 05 54.5 +0.4
      SNR=7.3
AAK   Ala-Archa         52.99 303    P      P      22 05 54.5 +0.4
      comp=Z,12nm,1.5s
MBWA  Marble Bar        53.09 203    P      P      22 05 55.4 +0.7
MBWA                                 IAmb   IAmb   22 05 56.0
      comp=Z,11nm,0.7s
J18K  Innoko River      53.13  30    P      P      22 05 55.5 +1.1
C19K  Lookout Ridge     53.22  23    P      P      22 05 56.1 +1.1
C19K                                 IAmb   IAmb   22 05 56.9
      comp=Z,17nm,1.1s
O18K  Koktuh Hills      53.40  35    P      P      22 05 58.2 +1.7
EKS2  Erkin-Say         53.51 304    P      P      22 05 58.1 +0.3
      SNR=9.6
D19K  Kuna River        53.58  24    P      P      22 05 58.3 +0.7
D19K                                 IAmb   IAmb   22 05 58.6
      comp=Z,29nm,1.4s
E19K  Redstone River    53.66  25           P      22 05 59.6 +1.4
E19K                                 IAmb   IAmb   22 06 00.2
      comp=Z,8.8nm,1.0s
J19K  Poorman           53.69  30           P      22 05 59.3 +0.9
L19K  White Mountain    53.80  32    P      P      22 06 00.5 +1.2
M19K  Big River Lodg    53.99  32    P      P      22 06 02.7 +2.0
Q19K  Cape Douglas,     54.14  36    P      P      22 06 01.3 -0.4
D20K  Etivluk River     54.16  24    P      P      22 06 02.6 +0.8
D20K                                 IAmb   IAmb   22 06 07.5
      comp=Z,32nm,1.5s
OHAK  Old Harbor        54.26  38    P      P      22 06 02.9 +0.3
ARSB  Arslanbob         54.29 302    P      P      22 06 03.3  0.0
ARSB                                 pmax   pmax
      comp=Z,12nm,0.7s
ARSB  Arslanbob         54.29 302           P      22 06 03.3  0.0
ARSB                                 IAmb   IAmb   22 06 04.5
      comp=Z,12nm,0.7s
K20K  Telida            54.29  31           P      22 06 03.9 +1.1
J20K  Nowinta River     54.36  30           P      22 06 04.2 +1.1
M20K  Styx River        54.58  33    P      P      22 06 05.7 +0.8
KDAK  Kodiak Island     54.66  38    P      P      22 06 05.2 -0.2
KDAK  Kodiak Island     54.66  38    P      P      22 06 05.2 -0.2
BVAR  Borovoye Array    54.89 317    P      P      22 06 07.1  0.0
      comp=Z,16nm,0.5s,baz=92,slow=8.5,SNR=79
BVAR                                 PcP    PcP    22 07 01.8  0.0
      comp=Z,6.1nm,0.6s,baz=94,slow=3.3,SNR=6.7
BVAR                                 S      S      22 13 06.7 -3.9
      comp=Z,1.2nm,0.7s,baz=95,slow=11,SNR=6.4
      comp=Z,16nm,0.5s
BORK  Borovoye          54.93 317  i P      P      22 06 07.3 -0.1
BORK                                 pmax   pmax
      comp=Z,35nm,1.1s
BORK  Borovoye          54.93 317           P      22 06 06.9 -0.5
PPLA  Purkeypile        55.10  31    P      P      22 06 10.1 +1.5
CAST  Castle Rocks      55.19  31    P      P      22 06 10.0 +0.9
CNPM  China Poot        55.40  36    P      P      22 06 10.3 -0.2
DRK   Karamyk           55.50 300    P      P      22 06 12.0  0.0
DRK                                  pmax   pmax
      comp=Z,14nm,0.6s
DRK   Karamyk           55.50 300    P      P      22 06 12.0  0.0
DRK                                  IAmb   IAmb   22 06 13.4
      comp=Z,14nm,0.6s
BRLK  Bradley Lake      55.58  35    P      P      22 06 11.3 -0.5
NIL   Nilore            55.63 293    P      P      22 06 13.5 +0.9
NIL   Nilore            55.63 293    P      P      22 06 13.5 +0.9
      comp=Z,38nm,0.7s
BPAW  Bear Paw Mtn.     55.73  30    P      P      22 06 13.9 +1.1
KK31  Karatay Array     55.82 305    P      P      22 06 13.9 +0.1
KK31                                 pmax   pmax
      comp=Z,29nm,0.8s
KK31  Karatay Array     55.82 305           P      22 06 13.9 +0.1
KKAR  Karatay Array     55.82 305    P      P      22 06 13.7 -0.1
KKAR  Karatay Array     55.82 305           P      22 06 13.7 -0.1
SLKM  Skilak Lake       55.92  34    P      P      22 06 14.1 -0.2
TRF   Thorofare Moun    56.00  31    P      P      22 06 15.6 +0.8
BTK   Batken            56.13 301    P      P      22 06 15.5 -0.7
BTK   Batken            56.13 301    P      P      22 06 15.5 -0.7
BTK                                  IAmb   IAmb   22 06 17.1
      comp=Z,16nm,1.3s
RC01  Rabbit Creek A    56.17  34    P      P      22 06 16.1 +0.2
RC01                                 IAmb   IAmb   22 06 17.2
      comp=Z,7.5nm,0.4s
SEW   Seward            56.30  35    P      P      22 06 17.0 +0.2
D23K  Nanushuk River    56.33  24    P      P      22 06 18.6 +1.7
D23K                                 IAmb   IAmb   22 06 35.6
      comp=Z,20nm,1.4s
G23K  Bananza Creek     56.34  27    P      P      22 06 18.4 +1.4
C23K  Itkillik River    56.47  23    P      P      22 06 19.0 +1.3
E23K  Chandalar         56.62  25    P      P      22 06 20.4 +1.5
RND   Reindeer          56.64  31    P      P      22 06 19.7 +0.5
RND   Reindeer          56.64  31    P      P      22 06 19.7 +0.5
KNK   Knik Glacier      56.79  33    P      P      22 06 20.4 +0.1
PWL   Port Wells        56.85  34    P      P      22 06 20.5 -0.1
PWL                                  IAmb   IAmb   22 06 24.6
      comp=Z,5.0nm,0.7s
SML   Sawmill           56.85  33    P      P      22 06 20.7  0.0
SML   Sawmill           56.85  33    P      P      22 06 20.6  0.0
SML                                  IAmb   IAmb   22 06 20.9
      comp=Z,18nm,1.5s
E24K  Your Creek        57.04  25    P      P      22 06 23.1 +1.2
E24K                                 IAmb   IAmb   22 06 24.3
      comp=Z,13nm,1.4s
H24K  Noodor Dome       57.15  28    P      P      22 06 24.0 +1.4
F24K  Squaw Lake        57.23  26    P      P      22 06 24.5 +1.4
SCM   Sheep Creek Mo    57.33  33    P      P      22 06 24.6 +0.6
SCM   Sheep Creek Mo    57.33  33    P      P      22 06 24.6 +0.6
SCM                                  IAmb   IAmb   22 06 25.6
      comp=Z,18nm,1.2s
G24K  Hadweenzic Riv    57.35  27    P      P      22 06 24.9 +1.0
HDA   Harding Lake      57.50  30    P      P      22 06 25.0  0.0
IL31                    57.53  29    P      P      22 06 25.0 -0.1
ILAR  Eielson Array     57.53  29    P      P      22 06 24.8 -0.4
      comp=Z,0.6nm,0.4s,baz=257,slow=5.1,SNR=17
      comp=Z,0.6nm,0.4s
ILAR  Eielson Array     57.53  29    P      P      22 06 25.2  0.0
ILAR  Eielson Array     57.53  29    P      P      22 06 25.2  0.0
D25K  Kavik River       57.90  24    P      P      22 06 29.2 +1.5
D25K                                 IAmb   IAmb   22 06 30.0
      comp=Z,18nm,1.4s
F25K  Christian Rive    58.09  26    P      P      22 06 30.8 +1.8
F25K                                 IAmb   IAmb   22 06 31.7
      comp=Z,12nm,1.5s
J25K  Salcha River,     58.19  29    P      P      22 06 28.9 -0.8
HARP  HAARP             58.34  32    P      P      22 06 31.9 +1.2
RIDG  Independent Ri    58.43  30    P      P      22 06 31.9 +0.5
F26K  Sheenjek River    58.67  26    P      P      22 06 35.0 +2.1
BMRM  Bremner River     58.67  34    P      P      22 06 34.0 +0.9
BMRM                                 IAmb   IAmb   22 06 34.4
      comp=Z,6.1nm,0.5s
KBL   Kabul             58.78 295    P      P      22 06 34.1 -0.4
KBL   Kabul             58.78 295           P      22 06 34.1 -0.4
KBL                                  IAmb   IAmb   22 06 35.4
      comp=Z,10nm,0.8s
KBL   Kabul             58.78 295    P      P      22 06 34.6 +0.1
      comp=Z,18nm,1.0s
PALK  Pallekele         58.87 261    P      P      22 06 35.2 +0.1
PALK  Pallekele         58.87 261    P      P      22 06 35.2 +0.1
MENT  Mentasta          58.97  31    P      P      22 06 35.5 +0.4
GLB   Gilahina Butte    59.02  33    P      P      22 06 36.1 +0.7
G27K  Doyon Strip       59.66  27    P      P      22 06 41.0 +1.4
I27K  Kandik River      59.74  28    P      P      22 06 41.7 +1.5
I27K                                 IAmb   IAmb   22 07 22.9
      comp=Z,8.8nm,1.4s
D27M  Malcolm River     59.82  24    P      P      22 06 42.3 +1.7
D27M                                 IAmb   IAmb   22 07 12.2
      comp=Z,8.7nm,1.1s
L27K  Beaver Creek,     59.83  31    P      P      22 06 41.6 +0.8
BCAR  Beaver Creek A    59.85  31    P      P      22 06 41.5 +0.6
WOH   Wood Valley       59.88  83    P      P      22 06 43.1 +1.2
GRNC  Granite Creek     60.08  34    P      P      22 06 42.9 +0.2
SVE   Sverdlovsk        60.16 322 ceP       P      22 06 43.1 +0.1
SVE                                  pmax   pmax
      comp=Z,21nm,0.7s
FORT  Forrest           60.20 191    P      P      22 06 43.9 +0.3
FORT                                 IAmb   IAmb   22 06 56.0
      comp=Z,10nm,1.0s
E28M  Babbage River     60.37  25    P      P      22 06 45.4 +1.2
E28M                                 IAmb   IAmb   22 06 46.3
      comp=Z,15nm,1.4s
STKA  Stephens Creek    60.43 178    P      P      22 06 45.5 +0.4
      comp=Z,3.1nm,0.6s,baz=347,slow=6.0,SNR=6.7
      comp=Z,3.1nm,0.6s
I28M  Miner Creek       60.45  28    P      P      22 06 46.1 +1.2
O28M  Mount Upton       60.84  34    P      P      22 06 48.5 +0.6
H29M  Whitestone        61.02  27    P      P      22 06 49.7 +1.2
H29M                                 IAmb   IAmb   22 07 15.3
      comp=Z,19nm,1.5s
G29M  Pine Creek        61.08  27    P      P      22 06 50.2 +1.2
G29M                                 IAmb   IAmb   22 07 09.5
      comp=Z,12nm,1.2s
BBOO  Buckleboo         61.38 183    P      P      22 06 51.6 +0.3
M29M  Somme Creek       61.44  32    P      P      22 06 52.2 +0.7
ARTI  Arti              61.45 321 d iP      P      22 06 51.2 -0.4
ARTI                                               22 07 26.5
ARTI                                 S      S      22 14 33.8 -0.2
ARTI                                 SS     SS     22 18 40.9 -4.4
ARTI                                 pmax   pmax
      comp=Z,26nm,0.9s
ARTI  Arti              61.45 321           P      22 06 50.8 -0.8
L29M  L29M              61.49  31    P      P      22 06 52.6 +0.8
MORW  Morawa            61.64 203    P      P      22 06 54.0 +0.9
F30M  Barrier River     61.86  26    P      P      22 06 55.7 +1.6
F30M                                 IAmb   IAmb   22 06 56.0
      comp=Z,7.1nm,0.9s
AB31  Akbulak array     61.90 313           P      22 06 54.1 -0.5
ABKAR Akbulak array     61.90 313           P      22 06 53.7 -0.9
I30M  Mount Dempster    61.96  28    P      P      22 06 55.4 +0.5
J30M  Hart River        62.07  29    P      P      22 06 56.4 +0.8
J30M                                 IAmb   IAmb   22 07 32.0
      comp=Z,6.5nm,1.3s
HYT   Haines Junctio    62.13  33    P      P      22 06 58.3 +2.2
G31M  Satah River       62.55  26    P      P      22 06 58.8 +0.4
G31M                                 IAmb   IAmb   22 07 40.1
      comp=Z,9.1nm,1.1s
INK   Inuvik            62.60  25    P      P      22 06 59.3 +0.5
INK   Inuvik            62.60  25    P      P      22 06 59.3 +0.5
INK                                  IAmb   IAmb   22 07 32.6
      comp=Z,7.0nm,1.1s
H31M  Peel River        62.70  28    P      P      22 07 00.5 +0.9
H31M                                 IAmb   IAmb   22 07 12.8
      comp=Z,6.6nm,0.8s
M31M  Drury Creek, Y    63.35  32    P      P      22 07 04.6 +0.7
M31M                                 IAmb   IAmb   22 07 34.9
      comp=Z,4.2nm,1.1s
HRA   Herat             64.20 297           P      22 07 10.1 +0.1
P32M  Atlin             64.24  34           P      22 07 09.9 +0.3
P32M                                 IAmb   IAmb   22 07 30.2
      comp=Z,7.5nm,1.1s
KIRV  Kirov             65.69 325 ceP       P      22 07 18.9 +0.2
SPITS Spitsbergen Ar    68.17 349    P      P      22 07 34.8 +1.1
      comp=Z,2.4nm,0.5s,baz=95,slow=9.3,SNR=12
      comp=Z,2.4nm,0.5s
BELG  Belogornoye       68.55 319  i P      P      22 07 36.3 -0.1
BELG                                 pmax   pmax
      comp=Z,8.0nm,0.9s
KLMR  Klimovskoe        69.68 329  eP       P      22 07 42.0 -1.1
KLMR                                 pmax   pmax
      comp=Z,30nm,1.4s
ARCES ARCESS Array B    70.98 340    P      P      22 07 51.0 +0.3
      comp=Z,6.3nm,0.6s,baz=65,slow=8.0,SNR=42
      comp=Z,6.3nm,0.6s
ARCES ARCESS Array B    70.98 340    IAmb   IAmb   22 07 51.7
      comp=Z,7.8nm,0.8s
YKA   Yellowknife Ar    71.92  28    P      P      22 07 56.4 +0.1
      comp=Z,8.0nm,1.0s,baz=300,slow=5.8,SNR=6.7
      comp=Z,8.0nm,1.0s
YKA   Yellowknife Ar    71.92  28 ceP       P      22 07 56.4 +0.1
YKA                                  pmax   pmax
      comp=Z,9.0nm,1.0s
SHME  Shamm             72.13 290  i P      P      22 07 58.9 +0.7
      SNR=8.1
MSFE  Esma-Masafi       72.39 290    P      P      22 08 00.7 +0.9
VRH   Novokhopyorsk     72.39 319  eP       P      22 07 58.6 -0.6
VRH                                  pmax   pmax
      comp=Z,22nm,0.9s
AKT   Akhty             72.46 308  eP       P      22 07 59.9 -0.1
AKT                                e                22 08 14.2
AKT                                  pmax   pmax
      comp=Z,44nm,0.7s
UOSS  Minazif           72.52 289           P      22 08 00.0 -0.5
UOSS  Minazif           72.52 289  i P      P      22 08 00.6 +0.1
      SNR=7.0
UOSS  Minazif           72.52 289    P      P      22 08 01.0 +0.4
      comp=Z,17nm,1.3s
SOHO  SOHO              72.58 288  i P      P      22 08 01.2 +0.3
      SNR=24
HATD  Hatta, Dubai      72.63 289  i P      P      22 08 01.4 +0.3
      SNR=13
MOS   Moscow            72.70 325  eP       P      22 08 01.5 +0.6
ASHO  Ashiyiah          72.75 289  i P      P      22 08 02.3 +0.4
      SNR=11
LKRN  Lenkeran, Azer    72.81 305    P      P      22 08 01.6 -0.3
SEKA  Sheki             72.94 308    P      P      22 08 02.8 +0.1
MNGR  Mingechevir, A    73.19 308    P      P      22 08 02.9 -1.1
ALNE  Al Ain            73.26 289  i P      P      22 08 05.2 +0.4
      SNR=12
LPSR  Galich'ya Gora    73.37 321  eP       P      22 08 04.7 -0.2
LPSR                                 pmax   pmax
      comp=Z,29nm,1.0s
OBN   Obninsk           73.52 324⇑iP        P      22 08 06.0 +0.4
OBN                                e                22 08 18.2
OBN                                  *PP    pP     22 09 49.0 +0.1
OBN                                                22 11 02.0
OBN                                  pmax   pmax
      comp=Z,28nm,1.0s
VORR  Voronezh          73.62 320  eP       P      22 08 06.7 +0.4
VORR                                 pmax   pmax
      comp=Z,20nm,0.8s
GANJ  Ganja             73.77 308    P      P      22 08 07.1 -0.4
NEEM  North Greenlan    73.78   2  i P      P      22 08 07.5 +0.3
NEEM                                 IAmb   IAmb   22 08 08.2
      comp=Z,6.8nm,0.6s
VSR   Storozhevoye      73.84 320  eP       P      22 08 07.5 -0.1
VSR                                  pmax   pmax
      comp=Z,20nm,0.8s
VORD  Divnogorie        73.88 320  eP       P      22 08 06.1 -1.7
VORD                                 pmax   pmax
      comp=Z,10.0nm,0.8s
KBZ   Khabaz            74.80 312    P      P      22 08 13.6 +0.5
      comp=Z,26nm,0.8s,baz=104,slow=3.5,SNR=47
      comp=Z,26nm,0.8s
KBZ   Khabaz            74.80 312 ceP       P      22 08 13.5 +0.5
KBZ                                  pmax   pmax
      comp=Z,32nm,0.9s
KIV   Kislovodsk        74.84 312  eP       P      22 08 13.8 +0.3
KIV                                  pmax   pmax
      comp=Z,23nm,1.0s
KIV   Kislovodsk        74.84 312           P      22 08 13.7 +0.2
KIV   Kislovodsk        74.84 312  i P      P      22 08 15.4 +1.9
      SNR=7.6
KIV   Kislovodsk        74.84 312    P      P      22 08 13.8 +0.3
      comp=Z,25nm,0.9s
SHA1  Shidzhatmaz       74.95 312 ceP       P      22 08 15.9 +1.6
NAX   Nakhchivan        74.96 307    P      P      22 08 13.9 -0.4
FINES FINESS Array B    75.15 333    P      P      22 08 14.5 -0.3
      comp=Z,13nm,0.6s,baz=65,slow=5.6,SNR=104
      comp=Z,13nm,0.6s
STD   Studebaker Rid    75.34  45    P      P      22 08 15.9 -0.4
STD                                  IAmb   IAmb   22 08 18.8
      comp=Z,6.9nm,0.7s
LON   Longmire          75.37  45    P      P      22 08 16.5 +0.1
LON   Longmire          75.37  45    P      P      22 08 16.5 +0.1
LON                                  IAmb   IAmb   22 08 22.6
      comp=Z,3.3nm,0.8s
MZR   Muzera            75.59 288  i P      P      22 08 18.0  0.0
      SNR=9.3
BUCK  Buck Mountain     75.76  47           P      22 08 19.7 +1.1
BUCK                                 IAmb   IAmb   22 08 21.5
      comp=Z,8.7nm,0.7s
H04D  Lebanon           75.78  47    P      P      22 08 19.6 +0.9
H04D                                 IAmb   IAmb   22 08 22.0
      comp=Z,5.5nm,0.8s
LTY   Liberty           75.83  44    P      P      22 08 18.7 -0.3
LTY                                  IAmb   IAmb   22 08 20.5
      comp=Z,2.9nm,0.7s
RTZ   Ruatahuna         75.88 150    P      P      22 08 19.3 +0.2
HOOD  Mount Hood Mea    76.11  46    P      P      22 08 21.4 +0.8
HOOD                                 IAmb   IAmb   22 08 22.9
      comp=Z,6.0nm,0.8s
TKNZ  Takaka Hill       76.29 154    P      P      22 08 21.1 -0.2
ARBE  Arbavere          76.31 331    P      P      22 08 18.1 -3.1
      comp=Z,173nm,0.9s
I04A  Tendick Farm,     76.31  47           P      22 08 22.6 +0.9
I04A                                 IAmb   IAmb   22 08 23.6
      comp=Z,3.5nm,0.7s
MXC   Moxie City        76.38  44    P      P      22 08 22.6 +0.7
MXC                                  IAmb   IAmb   22 08 24.1
      comp=Z,5.5nm,1.0s
VSU   Vasula            76.52 330 ceP       P      22 08 20.9 -1.5
VSU                                  pmax   pmax
      comp=Z,26nm,0.8s
VSU   Vasula            76.52 330    P      P      22 08 20.0 -2.4
      comp=Z,45nm,1.0s
```

WIFE	Three Sisters-	76.58	47		P	22 08 24.2	+0.9
WIFE				IAmb	IAmb	22 08 25.7	
	comp=Z,6.3nm,0.8s						
J04A	Umpqua Nationa	76.76	48	P	P	22 08 25.5	+1.2
SOC	Sochi	76.93	313	*e*P	P	22 08 24.6	-0.4
SOC				*e*S	S	22 17 32.0	-0.5
SOC				*e*SS	SS	22 22 41.0	-0.7
SOC				*e*SSS	SSS	22 26 04.8	
SOC				pmax	pmax		
	comp=Z,17nm,0.8s						
YBH	Yreka Blue Hor	77.05	49	P	P	22 08 26.8	+1.0
YBH	Yreka Blue Hor	77.05	49		P	22 08 26.8	+1.0
L04D	Klamath Falls	77.10	49	P	P	22 08 26.6	+0.5
L04D				IAmb	IAmb	22 08 28.1	
	comp=Z,3.6nm,0.7s						
M02C	Callahan	77.11	50	P	P	22 08 27.3	+1.2
PINE	Pine Mountain	77.26	47		P	22 08 29.1	+2.1
PINE				IAmb	IAmb	22 08 29.7	
	comp=Z,9.6nm,0.7s						
NEW	Newport	77.47	42	P	P	22 08 28.9	+0.9
	comp=Z,2.0nm,0.5s,baz=307,slow=5.2,SNR=4.4						
	comp=Z,2.0nm,0.5s						
O02D	Mt. Diablo Mer	77.70	51	P	P	22 08 31.1	+1.7
O02D				IAmb	IAmb	22 08 32.0	
	comp=Z,9.9nm,1.5s						
K05A	Summer Lake	77.79	48	P	P	22 08 31.0	+1.1
K05A				IAmb	IAmb	22 08 32.4	
	comp=Z,6.0nm,0.9s						
MNK	Minsk	78.17	326	*i* P	P	22 08 32.0	+0.5
MNK				*i*		22 08 39.0	
MNK				*i* *PP	pP	22 10 17.9	+1.5
MNK				*i* *SP	sP	22 11 08.9	+2.0
MNK				*i*		22 11 37.0	
MNK				*i* PPP	PPP	22 13 28.9	
MNK				*i* S	S	22 17 46.7	+1.5
MNK				pmax	pmax		
	comp=N,4.0nm,0.8s						
MNK				pmax	pmax		
	comp=E,19nm,0.9s						
MNK				pmax	pmax		
	comp=Z,22nm,0.9s						
MNK	Minsk	78.17	326	*i* P	P	22 08 32.0	+0.5
	comp=E,19nm,0.9s						
MNK				*i* P	P	22 08 32.0	+0.5
	comp=N,4.0nm,0.8s						
MNK				*i* P	P	22 08 32.0	+0.5
	comp=Z,22nm,0.9s,baz=57						
MNK				*i* pP	pP	22 10 17.9	+1.5
MNK				*i* sP	sP	22 11 09.0	+2.0
MNK				*i* PP	PP	22 11 37.0	+0.9
MNK				*i* PPP	PPP	22 13 29.0	
MNK				*i* S	S	22 17 46.7	+1.5
MNK				*i* sS	sS	22 20 56.2	+3.3
MNK				*i* SS	SS	22 22 42.6	-17
SUMG	Summit	78.84	359	*i* P	P	22 08 35.0	-0.3
SUMG				IAmb	IAmb	22 08 41.2	
	comp=Z,26nm,1.4s						
ORV	Oroville	78.87	51	P	P	22 08 36.4	+0.8
ORV	Oroville	78.87	51	P	P	22 08 36.4	+0.8
ORV				IAmb	IAmb	22 08 36.9	
	comp=Z,3.1nm,0.7s						
BMO	Blue Mountains	79.04	45	P	P	22 08 36.3	-0.2
BMO	Blue Mountains	79.04	45	P	P	22 08 36.3	-0.2
BEKR	Beckworth	79.50	50	P	P	22 08 39.0	-0.1
BEKR				IAmb	IAmb	22 08 40.7	
	comp=Z,5.5nm,0.6s						
AK03	Malin Array Si	79.56	323	P	P	22 08 38.2	-0.8
AKASG	Malin Array Be	79.57	323	P	P	22 08 38.4	-0.6
	comp=Z,6.7nm,0.7s,baz=52,slow=5.6,SNR=29						
	comp=Z,6.7nm,0.7s						
AKASG	Malin Array Be	79.57	323	P	P	22 08 38.0	-1.0
AKASG				IAmb	IAmb	22 08 39.6	
	comp=Z,4.2nm,0.8s						
AKBB	Malin Array Si	79.57	323	*ce*P	P	22 08 38.1	-0.9
AKBB				pmax	pmax		
	comp=Z,11nm,0.8s						
AKBB	Malin Array Si	79.57	323		P	22 08 37.9	-1.1
AKBB				IAmb	IAmb	22 08 39.4	
	comp=Z,13nm,0.8s						
AKBB	Malin Array Si	79.57	323	P	P	22 08 38.1	-0.9
AK01	Malin Array Si	79.58	323	P	P	22 08 38.3	-0.8
KIEV	Kiev	79.58	323	P	P	22 08 37.8	-1.3
KIEV				pmax	pmax		
	comp=Z,12nm,0.9s						
KIEV	Kiev	79.58	323		P	22 08 37.8	-1.3
KIEV				IAmb	IAmb	22 08 39.4	
	comp=Z,12nm,0.8s						
KIEV	Kiev	79.58	323	*i* P	P	22 08 38.5	-0.6
	SNR=7.6						
KIEV	Kiev	79.58	323	P	P	22 08 38.1	-1.0
	comp=Z,63nm,0.8s						
AK09	Malin Array Si	79.58	322	P	P	22 08 38.6	-0.5
AK23	Malin Array Si	79.59	323	P	P	22 08 38.3	-0.8
AK04	Malin Array Si	79.59	323	P	P	22 08 38.2	-0.9
AK08	Malin Array Si	79.59	322	P	P	22 08 38.3	-0.8
ARPR	Arapgir-MALATY	79.96	309	P	P	22 08 41.0	-0.5
PAHR	Pah Rah Range	80.23	50	P	P	22 08 43.1	+0.1
CMB	Columbia Colle	80.36	52	P	P	22 08 43.6	+0.1
CMB	Columbia Colle	80.36	52	P	P	22 08 43.6	+0.1
CMB				IAmb	IAmb	22 08 45.3	
	comp=Z,4.2nm,0.9s						
PNTR	Pine Nut	80.39	51	P	P	22 08 43.8	-0.1
PNTR				IAmb	IAmb	22 08 45.9	
	comp=Z,4.2nm,0.9s						
TOKA	Tokat	80.61	311	P	P	22 08 44.9	+0.2
TOKA				IAmb	IAmb	22 08 46.3	
	comp=Z,18nm,1.3s						
YERR	Yerington	80.68	51	P	P	22 08 45.0	-0.3
YERR				IAmb	IAmb	22 08 47.2	
	comp=Z,4.8nm,0.8s						
MFID	Camas Ranch	80.68	45	P	P	22 08 45.0	-0.2
MFID				IAmb	IAmb	22 08 47.2	
	comp=Z,3.0nm,0.6s						
SUW	Suwalki	80.71	327	P	P	22 08 44.3	-0.6
SUW	Suwalki	80.71	327	P	P	22 08 44.3	-0.6
HFS	Hagfors	80.72	336	P	P	22 08 43.9	-0.9
	comp=Z,3.5nm,0.6s,baz=93,slow=7.4,SNR=13						
	comp=Z,3.5nm,0.6s						
NC405	NORSAR Array S	80.73	337		P	22 08 44.4	-0.5
WAKR	Walker	80.78	51		P	22 08 46.9	+1.0
LUBAR	Lubar, Ukraine	80.79	322	P	P	22 08 44.5	-0.9
BAL3X	Bal3x, Balta	80.87	320	P	P	22 08 45.6	-0.3
RNPP9	Sopachiv	80.91	324	P	P	22 08 45.6	-0.4
NB201	NORSAR Array S	80.92	337	P	P	22 08 45.4	-0.6
NC204	NORSAR Array S	80.94	337	P	P	22 08 45.2	-0.9
LYMT	Lyon Mountain	80.94	41	P	P	22 08 47.4	+0.8
NB2	NORSAR Subarra	80.95	337	P	P	22 08 45.6	-0.5
	comp=Z,3.4nm,0.6s,baz=47,slow=5.1						
NOA	NORSAR Array B	80.95	337	P	P	22 08 45.4	-0.8
	comp=Z,9.1nm,0.8s,baz=47,slow=4.9,SNR=19						
	comp=Z,9.1nm,0.8s						
RNPP5	Staryi Chortor	81.02	324	P	P	22 08 45.9	-0.7
NC602	NORSAR Array S	81.06	337		P	22 08 46.0	-0.7
NBO00	NORSAR Array S	81.11	337	P	P	22 08 46.2	-0.7
NAO01	NORSAR Array S	81.21	337	P	P	22 08 46.6	-0.8
PKD	Bear Valley Ra	81.27	54	P	P	22 08 49.3	+1.0
PKD				IAmb	IAmb	22 08 55.6	
	comp=Z,4.6nm,0.9s						
KVN	Kaiserville	81.42	50	P	P	22 08 50.1	+0.9
KVN	Kaiserville	81.42	50		P	22 08 50.1	+0.9
SORM	Soroca	81.46	321	P	P	22 08 48.4	-0.5
	comp=Z,20nm,1.0s						
HLID	Hailey	81.49	45		P	22 08 50.4	+0.9
LHV	Little Huntoon	81.55	51	P	P	22 08 51.1	+1.5
LHV				IAmb	IAmb	22 08 52.1	
	comp=Z,2.9nm,0.7s						
NVAR	Mina Array Bea	81.59	51	P	P	22 08 51.4	+1.3
	comp=Z,2.8nm,0.6s,baz=296,slow=5.8,SNR=22						
	comp=Z,2.8nm,0.6s						
NVAR	Mina Array Bea	81.59	51	P	P	22 08 51.0	+0.9
GAZ	Gaziantep	81.67	308		P	22 08 50.0	-0.4
BNN	Bunyan	81.77	310		P	22 08 51.5	+0.5
RAYN	Ar Rayn	81.92	292	P	P	22 08 52.7	+0.8
RAYN				pmax	pmax		
	comp=Z,26nm,0.9s						
RAYN	Ar Rayn	81.92	292		P	22 08 52.7	+0.8
RAYN	Ar Rayn	81.92	292	*i* P	P	22 08 52.5	+0.7
	SNR=40						
ILGA	Ilgaz	82.05	313	P	P	22 08 52.9	+0.5
ILGA				IAmb	IAmb	22 08 54.1	
	comp=Z,13nm,0.9s						
KMPD	K-Podol'skiy	82.26	322	P	P	22 08 51.8	-1.2
ELK	Elko	82.44	48	P	P	22 08 55.4	+0.9
ELK	Elko	82.44	48		P	22 08 55.4	+0.9
ELK				IAmb	IAmb	22 08 56.2	
	comp=Z,2.8nm,0.6s						
YHL	Hebgen Lake	82.75	42	P	P	22 08 57.3	+1.3
YHL				IAmb	IAmb	22 08 58.4	
	comp=Z,3.4nm,0.8s						
BR131	Keskin Array S	82.79	311	*i* P	P	22 08 56.1	0.0
BR131	Keskin Array S	82.79	311		P	22 08 56.0	-0.1
BR131				IAmb	IAmb	22 08 57.0	
	comp=Z,10nm,0.8s						
BRTR	Keskin Array B	82.79	311	P	P	22 08 55.9	-0.2
	comp=Z,6.5nm,0.8s,baz=104,slow=4.2,SNR=33						
	comp=Z,6.5nm,0.8s						
BRTR	Keskin Array B	82.79	311		P	22 08 55.7	-0.4
BR104	Keskin Array S	82.80	311	P	P	22 08 55.9	-0.2
	comp=Z,72nmcomp=Z,9.8nm,1.0s						
BR106	Keskin Array S	82.80	311	P	P	22 08 55.9	-0.2
	comp=Z,78nmcomp=Z,8.9nm,1.2s						
BR105	Keskin Array S	82.81	311	P	P	22 08 56.0	-0.2
	comp=Z,76nmcomp=Z,10nm,1.0s						
GMN	Gold Mountain	82.88	51	P	P	22 08 57.7	+1.0
GMN				IAmb	IAmb	22 08 58.5	
	comp=Z,3.5nm,0.6s						
MPMC	Manual Prospec	83.35	53	P	P	22 09 00.0	+0.9
CLC	China Lake	83.40	53	P	P	22 08 59.9	+0.8
CLC	China Lake	83.40	53	P	P	22 08 59.9	+0.8
HVU	Hansel Valley	83.46	46	P	P	22 09 00.9	+1.5
HVU				pmax	pmax		
	comp=Z,7.0nm,0.6s						
HVU	Hansel Valley	83.46	46	P	P	22 09 00.9	+1.5
BUR08	Bucovina Ar. S	83.48	322		P	22 08 59.7	+0.3
BUR08				IAmb	IAmb	22 09 00.3	
	comp=Z,5.5nm,1.0s						
BURAR	Bucovina Array	83.49	321	P	P	22 08 59.4	0.0
BURAR				IAmb	IAmb	22 09 00.6	
	comp=Z,4.2nm,0.8s						
LRMC	Laurel Mtn Rad	83.51	53	P	P	22 09 00.6	+0.8
LRMC				IAmb	IAmb	22 09 01.4	
	comp=Z,3.2nm,0.9s						
FXWY	Fox Creek	83.51	43	P	P	22 09 01.2	+1.5
FURC	Furnace Creek,	83.58	52	P	P	22 09 00.1	+0.2
FURC				IAmb	IAmb	22 09 01.9	
	comp=Z,7.2nm,0.7s						
VRI	Vrincioaia	83.67	319	P	P	22 09 00.6	+0.4
	comp=Z,544nmcomp=Z,7.7nm,1.5s						
CCCA	Chr Cany lake	83.71	53	P	P	22 09 00.5	-0.2
CCCA				IAmb	IAmb	22 09 02.5	
	comp=Z,6.0nm,0.9s						
TPNV	Topopah Spring	83.75	51	P	P	22 09 01.5	+0.5
TPNV				pmax	pmax		
	comp=Z,6.0nm,0.7s						
TPNV	Topopah Spring	83.75	51		P	22 09 01.4	+0.5
TPNV				IAmb	IAmb	22 09 02.7	
	comp=Z,6.4nm,0.7s						
BGU	Big Grassy Mou	83.76	46	P	P	22 09 01.5	+0.5
QSM	Queen of Sheba	83.83	52	P	P	22 09 01.6	+0.4
QSM				IAmb	IAmb	22 09 03.0	
	comp=Z,7.1nm,0.8s						
GWY	Greenwater Val	83.86	52		P	22 09 01.6	+0.1
GWY				IAmb	IAmb	22 09 03.2	
	comp=Z,5.1nm,0.8s						
SPUT	South Promonto	83.92	46	P	P	22 09 01.2	-0.5
SPUT				IAmb	IAmb	22 09 41.9	
	comp=Z,5.2nm,0.9s						
SFJD	Kangerlussuaq	84.19	4	P	P	22 09 03.4	+1.1
SFJD				pmax	pmax		
	comp=Z,15nm,1.2s						
SFJD	Kangerlussuaq	84.19	4	P	P	22 09 03.4	+1.1
SFJD	Kangerlussuaq	84.19	4	*i* P	P	22 09 00.8	-1.4
SFJD				IAmb	IAmb	22 09 09.8	
	comp=Z,30nm,1.4s						
GSC	Goldstone, Bar	84.22	53	P	P	22 09 03.9	+0.7
GSC				pmax	pmax		
	comp=Z,5.0nm,0.9s						
GSC	Goldstone, Bar	84.22	53	P	P	22 09 03.9	+0.7
GSC				IAmb	IAmb	22 09 05.0	
	comp=Z,5.3nm,0.9s						
DUG	Dugway, Tooele	84.30	47	P	P	22 09 03.8	+0.2
DUG				pmax	pmax		
	comp=Z,4.0nm,0.7s						
DUG	Dugway, Tooele	84.30	47		P	22 09 03.8	+0.2
DUG				IAmb	IAmb	22 09 05.6	
	comp=Z,3.6nm,0.7s						
HWUT	Hardware Ranch	84.31	45	P	P	22 09 04.1	+0.4
HWUT				IAmb	IAmb	22 09 05.9	
	comp=Z,6.0nm,0.8s						
PRN	Pahroc Range	84.32	50	P	P	22 09 04.0	+0.2
PRN				IAmb	IAmb	22 09 06.0	
	comp=Z,6.7nm,1.2s						
PSUT	Pine Spring	84.52	49	P	P	22 09 04.7	-0.1
SHPR	Sheep Range	84.73	51	P	P	22 09 06.6	+0.8
SHPR				IAmb	IAmb	22 09 08.3	
	comp=Z,3.1nm,0.9s						
MCQ	Macquarie Isla	84.75	168	P	P	22 09 05.8	+0.8
MCQ				pmax	pmax		
	comp=Z,79nm,0.7s						
MCQ	Macquarie Isla	84.75	168	P	P	22 09 05.8	+0.8
PDAR	Pinedale Array	84.89	44	P	P	22 09 07.5	+0.9
	comp=Z,0.8nm,0.5s,baz=302,slow=2.8,SNR=6.0						
	comp=Z,0.8nm,0.5s						
MMAI	Mount Meron Ar	85.05	305	P	P	22 09 07.4	+0.1
	comp=Z,2.9nm,0.6s,baz=37,slow=13,SNR=3.5						
	comp=Z,2.9nm,0.6s						
PFO	Pinyon Flats O	85.34	54	*i* P	P	22 09 10.7	+1.9
BELC	Belle Mtn. Jos	85.46	54	P	P	22 09 09.1	-0.3
BELC				IAmb	IAmb	22 09 10.8	
	comp=Z,3.0nm,0.7s						
KSP	Ksiaz	85.98	328	P	P	22 09 11.5	+0.1
	comp=Z,10nm,0.9s						
BC3	Big Chuckawall	86.03	54	P	P	22 09 12.4	+0.3
BC3				IAmb	IAmb	22 09 14.4	
	comp=Z,3.4nm,0.9s						
MORC	Moravsky Berou	86.10	326	P	P	22 09 10.8	-1.2
MORC	Moravsky Berou	86.10	326	P	P	22 09 10.8	-1.2
MORC				IAmb	IAmb	22 09 11.8	
	comp=Z,3.1nm,1.0s						
MORC	Moravsky Berou	86.10	326	*e*P	P	22 09 11.2	-0.8
DPC	Dobruska-Polom	86.30	327	P	P	22 09 12.8	-0.2
	comp=Z,5.1nm,2.8s						
JAVC	Velka Javorina	86.64	326	*e*P	P	22 09 16.5	+1.9
ELL	Elmali	86.86	311	P	P	22 09 15.8	-0.2
ELL				pmax	pmax		
	comp=Z,11nm,1.2s						
ELL	Elmali	86.86	311	P	P	22 09 15.8	-0.2
ELL				IAmb	IAmb	22 09 27.0	
	comp=Z,11nm,1.2s						
VRAC	Vranov	86.87	326	*e*P	P	22 09 15.3	-0.3
KRUC	Moravsky	87.14	326	*e*P	P	22 09 16.1	-0.8
ULM	Lac du Bonnet	87.46	32	P	P	22 09 18.5	+0.2
	comp=Z,3.8nm,0.9s,baz=305,slow=6.0,SNR=3.2						
	comp=Z,3.8nm,0.9s						
ULM	Lac du Bonnet	87.46	32	IAmb	IAmb	22 09 22.6	
	comp=Z,5.5nm,1.0s						
RONA	Rosalia, Austr	88.10	325	*e*P	P	22 09 21.1	-0.3
	comp=Z,3.3nm,0.8s,SNR=4.7						
CONA	Conrad Observa	88.16	326	*i* P	P	22 09 21.7	-0.1
	comp=Z,4.5nm,0.9s						
KHC	Kasperske Hory	88.43	328	*ce*P	P	22 09 23.0	0.0
KHC	Kasperske Hory	88.43	328	*e*P	P	22 09 22.5	-0.5
KHC	Kasperske Hory	88.43	328		P	22 09 22.1	-0.9
KHC				IAmb	IAmb	22 09 23.3	
	comp=Z,2.7nm,0.8s						
GEC2	GERESS Array S	88.58	327	P	P	22 09 22.6	-1.1
GEC2				IAmb	IAmb	22 09 23.2	
	comp=Z,3.0nm,0.8s						
GERES	GERESS Array B	88.58	327	P	P	22 09 22.9	-0.9
	comp=Z,2.0nm,0.6s,baz=35,slow=4.9,SNR=18						
	comp=Z,2.0nm,0.6s						
GERES	GERESS Array B	88.58	327	P	P	22 09 21.9	-1.8
ARSA	Arzberg	88.79	325	P	P	22 09 24.1	-0.5
ARSA				IAmb	IAmb	22 09 25.1	
	comp=Z,3.6nm,1.0s						
ARSA	Arzberg	88.79	325	*i* P	P	22 09 24.2	-0.5
	comp=Z,3.7nm,1.0s						
MOA	Molln	89.00	326	*i* P	P	22 09 24.9	-0.7
	comp=Z,1.6nm,0.7s						
BIOA	Bad Ischl, Aus	89.41	327	*i* P	P	22 09 26.9	-0.7
	comp=Z,2.9nm,0.8s						
SOKA	Soboth	89.43	325	*i* P	P	22 09 27.0	-0.8
	comp=Z,6.4nm,1.0s,SNR=5.0						
KBA	Koelnbreinsper	89.98	326	*i* P	P	22 09 29.1	-1.3
	comp=Z,2.1nm,0.9s						
LESA	Schwarzleotal	90.06	327	*i* P	P	22 09 29.0	-1.7
	comp=Z,4.7nm,0.9s						
EKA	Eskdalemuir Ar	90.14	340	P	P	22 09 30.4	-0.3
	comp=Z,2.4nm,0.7s,baz=43,slow=3.6,SNR=7.7						
	comp=Z,2.4nm,0.7s						
ABTA	Abfaltersbach	90.62	326	*i* P	P	22 09 31.5	-1.8
	comp=Z,4.7nm,0.9s,SNR=4.7						
WATA	Walderalm	90.65	327	*i* P	P	22 09 32.3	-1.1
	comp=Z,2.8nm,0.9s						
WTTA	Wattenberg	90.67	327	*i* P	P	22 09 31.6	-2.0
	comp=Z,1.4nm,0.6s						
MOTA	Moosalm	90.87	328	*i* P	P	22 09 33.2	-1.3
	comp=Z,4.0nm,1.1s						
SQTA	Sankt Quirin	90.91	327	*i* P	P	22 09 32.7	-2.0
	comp=Z,3.9nm,1.1s						
RETA	Reutte	90.92	328	*i* P	P	22 09 33.1	-1.6
	comp=Z,4.7nm,1.3s						
DUN6	Lazy B Ranch	91.08	52	P	P	22 09 35.3	-0.5
FETA	Feichten	91.28	328	*i* P	P	22 09 35.4	-1.0
	comp=Z,3.3nm,1.0s						
BFO	Black Forest	91.41	330	*i* P	P	22 09 36.5	-0.3
BFO	Black Forest	91.41	330		P	22 09 35.5	-1.3
TASM	ASL Pad, Albuq	91.44	48	P	P	22 09 37.5	+0.1
TASM				IAmb	IAmb	22 09 40.0	
	comp=Z,3.1nm,0.8s						
TASM	ASL Pad, Albuq	91.44	48	P	P	22 09 37.7	+0.2
TASM				IAmb	IAmb	22 09 40.0	
	comp=Z,3.2nm,0.9s						
ANMO	Albuquerque	91.44	48	P	P	22 09 38.0	+0.6
	comp=Z,2.6nm,0.7s,baz=316,slow=4.0,SNR=7.1						
	comp=Z,2.6nm,0.7s						
ANMO	Albuquerque	91.44	48	*ce*P	P	22 09 38.4	+1.0
ANMO	Albuquerque	91.44	48	P	P	22 09 37.4	0.0
ANMO				IAmb	IAmb	22 09 39.9	
	comp=Z,2.8nm,0.8s						
ALQ	Albuquerque	91.44	48		P	22 09 37.7	+0.2
ALQ				IAmb	IAmb	22 09 40.0	
	comp=Z,3.6nm,0.9s						
ALQ	Albuquerque	91.44	48		P	22 09 37.7	+0.2
ALQ				IAmb	IAmb	22 09 39.9	
	comp=Z,3.5nm,0.8s						
DAVA	Damuels	91.48	328	*i* P	P	22 09 36.4	-0.9
	comp=Z,6.7nm,0.9s						
SBM	South Baldy	91.54	50		P	22 09 39.1	+0.9
ITM	Ithomi	91.77	315	P	P	22 09 38.6	-0.1
HSIG		91.79	55	P	P	22 09 39.6	+0.7
HSIG				IAmb	IAmb	22 09 40.9	
	comp=Z,3.4nm,0.9s						
FUORN	Ofenpass-Fuorn	91.79	327	P	P	22 09 38.3	-0.6
TXAR	Lajitas Array	96.73	51	P	P	22 10 02.2	+0.7
	comp=Z,0.5nm,0.6s,baz=302,slow=3.1,SNR=7.8						
	comp=Z,0.5nm,0.6s						
QSPA	South Pole Qui	118.60	180	PKP	PKPdf	22 15 14.1	-0.5
	comp=Z,3.0nm,0.7s,baz=286,slow=1.0,SNR=23						
QSPA	South Pole Qui	118.60	180		PKiKP	22 15 14.7	0.0
TORD	Torodi Ar. Bea	121.35	309	PKP	PKPdf	22 15 19.7	-1.6
	comp=Z,2.2nm,0.5s,baz=42,slow=1.2,SNR=43						
TROLL	Troll, Antarti	130.84	196	⇑PKPdf	PKPdf	22 15 37.8	-0.2
	comp=Z,127nm,0.6s						
VNA2	Neumayer--Watz	133.91	195	⇓PKPdf	PKPdf	22 15 43.5	0.0
	comp=Z,4.2nm,0.6s,baz=124,slow=1.7						
VNA3	Neumayer Olymp	134.16	194	PKPdf	PKPdf	22 15 44.6	+0.6
	comp=Z,2.2nm,0.7s						
BOAV	Boa Vista	143.71	34		PKPab	22 16 01.3	-0.4
ESPZ	Base Esperanza	143.90	168	PKPbc	PKPdf	22 16 01.8	-0.1
LPAZ	La Paz	152.04	69	PKPbc	PKiKP	22 16 25.4	+0.8
	comp=Z,3.8nm,0.7s,baz=285,slow=3.4,SNR=8.0						
PLCA	Paso Flores	153.07	124	PKPbc	PKiKP	22 16 25.5	+0.2
	comp=Z,2.5nm,0.8s,baz=234,slow=2.4,SNR=4.1						
PLCA				PKPab	PKPab	22 16 39.1	-0.2
	comp=Z,2.4nm,0.7s,baz=248,slow=5.0,SNR=4.5						

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*IDC **11** 21:57:41.3±3.5, 5°.48S×147°.66E, h169^{km}±30^{km}, mb3.4/8, mbtmp3.8/10, Error ellipse: s-maj=39.6km s-min=20.3km az=87.0*

ISC 11 21:57:41.4±0.9**, 5°.57S**±0°.09×**147°.6E**±0°.3**, h170^{km}, n12, σ1^{s}.18**/13**, mb3.5**/8**, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	3.84	187	P	Pn	21 58 41.2	+1.1
	5.8nm,0.3s,baz=36,slow=19,SNR=1.5						
PMG				S	Sn	21 59 23.2	-2.8
	37nm,0.5s,baz=272,slow=1.3,SNR=10						
WRA	Warramunga Arr	19.27	221	P	P	22 01 54.0	+0.8
	1.5nm,0.3s,baz=50,slow=12,SNR=35						
ASAR	Alice Springs	22.33	215	P	P	22 02 26.5	+1.2
	3.3nm,0.4s,baz=49,slow=8.4,SNR=94						
	3.3nm,0.4s						
SONM	Songino Array	64.35	330	P	P	22 07 58.3	-0.8
	0.3nm,0.4s,baz=120,slow=8.8,SNR=2.4						
	0.3nm,0.4s						
VNDA	Vanda	72.30	177	P	P	22 08 48.1	+0.3
	0.6nm,0.7s,baz=354,slow=6.0,SNR=5.6						
	0.6nm,0.7s						
MKAR	Makanchi Array	77.58	320	P	P	22 09 19.1	+0.4
	0.1nm,0.4s,baz=115,slow=5.7,SNR=1.3						
	0.1nm,0.4s						
ZALV	Zalesovo Beam	79.00	328	P	P	22 09 25.9	-0.3
	1.1nm,0.4s,baz=109,slow=6.2,SNR=5.0						
	1.1nm,0.4s						
QSPA	South Pole Qui	84.39	180	P	P	22 09 55.4	+0.9
	0.4nm,0.4s,baz=247,slow=1.8,SNR=7.9						
	0.4nm,0.4s						
ILAR	Eielson Array	84.84	23	P	P	22 09 56.3	-0.2
	0.3nm,0.6s,baz=267,slow=7.5,SNR=4.0						
	0.3nm,0.6s						
BVAR	Borovoye Array	86.80	324	P	P	22 10 06.1	-0.3
	0.3nm,0.3s,baz=110,slow=6.3,SNR=1.7						
	0.3nm,0.3s						
TXAR	Lajitas Array	109.00	61	Pdiff	Pdif	22 11 47.8	0.0
	1.1nm,1.1s,baz=282,slow=2.4,SNR=4.3						
TORD	Torodi Ar. Bea	145.60	285	PKPbc	PKPdf	22 16 59.5	-0.9
	0.6nm,0.6s,baz=84,slow=3.0,SNR=4.8						

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*ISK **11** 22:06:05.7, 38°.75N×43°.19E, h2^{km}, ML3.5/17*

*AFAD **11** 22:06:06.3, 38°.76N×43°.17E, h7^{km}±2^{km}, ML3.2*

ISC 11 22:06:06.9±0.9**, 38°.77N**±0°.02×**43°.17E**±0°.02**, h15^{km}**±8^{km}**, n42, σ0^{s}.69**/51**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VANB	Van	0.24	136	Pg	Pb	22 06 12.9	-0.2
VANB				Sg	Sg	22 06 17.7	+1.6
VANB				AML	AML		
ERCV	ERCIS-VAN	0.28	27	Pg	Pg	22 06 12.8	-0.3
ERCV				Sg	Sb	22 06 17.8	-0.6
ERCV				AML	AML		
TVAN	Van	0.30	143	P	Pg	22 06 13.0	-0.4
TVAN				S	Sg	22 06 17.7	-0.2
ADCV	BITLIS_Adilcev	0.35	276	P	Pb	22 06 14.9	-0.1
VMUR	Van-Muradiye	0.38	55	P	Pg	22 06 14.6	-0.2
VMUR				S	Sg	22 06 19.7	-0.5
VMUR				IAML		22 06 21.0	
	comp=N,9µm,0.3s						
VMUR				IAML		22 06 21.0	
	comp=E,5µm,0.3s						
AKDM	Akdamar-Van	0.47	199	Pg	Pg	22 06 15.2	-1.1
AKDM				Sg	Sg	22 06 22.7	+0.1
AKDM				AML	AML		
GEVA	Gevas	0.47	191	P	Pg	22 06 15.6	-0.7
GEVA				S	Sg	22 06 22.6	0.0
GEVA				IAML		22 06 26.0	
	comp=N,1µm,0.4s						
GEVA				IAML		22 06 27.0	
	comp=E,1µm,0.4s						
MLAZ	Malazgirt-MUS	0.61	308	Pg	Pg	22 06 18.9	-0.1
MLAZ				Sg	Sb	22 06 28.7	+0.8
MLAZ				AML	AML		
OZAP	Van, Ozalp-Mer	0.65	99	P	Pg	22 06 19.9	+0.2
OZAP				S	Sb	22 06 30.1	+1.0
DORK	Agr/Tutak/Do	0.69	334	P	Pg	22 06 20.2	-0.2
CLDR	Caldiran	0.69	57	Pg	Pg	22 06 19.5	-1.0
CLDR				AML	AML		
CLDR	Caldiran	0.69	57	P	Pg	22 06 19.5	-1.0
AGRB	Hanur-Agry	0.82	350	Pg	Pg	22 06 22.3	-0.6
AGRB				AML	AML		
DYDN	Diyadin	0.87	27	P	Pg	22 06 22.8	-1.1
BLIS	Bitlis-Merkez	0.90	247	P	Pg	22 06 23.7	-0.7
GURO	Guroymak-BITLI	0.92	257	Pg	Pg	22 06 24.1	-0.7
GURO				AML	AML		
PERV	Siirt/Pervari-	0.96	211	P	Pg	22 06 24.8	-0.8
KOTA	Agri, Merkez-K	1.03	1	P	Pg	22 06 26.0	-0.9
SRTM	Siirt_Merkez	1.25	232	P	Pb	22 06 30.6	+0.3
HAKT	HAKKARI	1.28	161	P	Pn	22 06 29.9	-0.5
MUSM	Mu-Merkez	1.30	268	P	Pn	22 06 30.0	-0.7
IGDI	IGDIR	1.30	32	P	Pn	22 06 30.6	0.0
VRTB	Varto-Mus	1.39	287	Pn	Pg	22 06 33.5	-0.2

VRTB				AML	AML		
VRTB	**Varto-Mus**	1.39	287	P	Pg	22 06 33.6	-0.2
SIRN	**Sırnak**	1.41	205	P	Pg	22 06 33.5	-0.5
TASB	**TASBURUN-IGDIR**	1.47	34	Pn	Pn	22 06 33.7	+0.8
TASB				Sn	Sg	22 06 54.8	+0.5
TASB				AML	AML		
YOVA	**Hakkari_Yksek**	1.47	143	P	Pn	22 06 33.2	+0.1
CUKT	**Cukurca**	1.56	167	Pn	Pb	22 06 35.1	-0.4
CUKT				AML	AML		
CUKT	**Cukurca**	1.56	167	P	Pb	22 06 35.2	-0.3
KOPR	**Koprukoy-ERZUR**	1.59	320	Pn	Pb	22 06 36.1	0.0
KOPR				AML	AML		
HOMI	**Horasan**	1.61	323	P	Pb	22 06 37.1	+0.6
DIGO	**Kars**	1.65	5	P	Pg	22 06 38.4	-0.3
SVAN	**Silvan-Diyarba**	1.67	249	Pn	Pb	22 06 36.8	-0.5
SVAN				AML	AML		
SVAN	**Silvan-Diyarba**	1.67	249	P	Pb	22 06 37.8	+0.5
SLHN	**Bingol, Solhan**	1.69	277	P	Pb	22 06 37.6	-0.1
BTMN	**Batman**	1.73	240	P	Pb	22 06 39.0	+0.5
KARO	**Karliova-Bingo**	1.74	289	Pn	Pb	22 06 38.2	-0.4
KARO				AML	AML		
GNI	**Garni**	1.84	41	Pn	Pn	22 06 39.4	+1.3
GNI				AML	AML		
KARS	**Kars**	1.86	358	Pn	Pb	22 06 39.9	-0.7
KARS				AML	AML		
SENK	**Senkaya-Erzuru**	1.90	341	Pn	Pb	22 06 40.6	-0.8
SENK				AML	AML		
MIDY	**Mardin/Midyat-**	1.95	226	P	Pn	22 06 40.9	+1.3
BNGB	**Bingl**	1.96	277	Pn	Pb	22 06 41.5	-0.8
BNGB				AML	AML		

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*IDC **11** 22:13:42.9±1.9, 43°.00N×141°.62E, h0^{km}, mb4.1/9, mbtmp4.0/10, ML2.5/1, Error ellipse: s-maj=48.1km s-min=22.5km az=105.0*

*NEIC **11** 22:13:55.1±1.4, 42°.49N±0°.06×141°.5E±0°.1, h132^{km}±9^{km}, mb5.0/4, Error ellipse: s-maj=13.2km s-min=7.7km az=109.0*

*JMA **11** 22:13:55.5±0.1, 42°.5N±0°.4×141°.5E±0°.5, h124^{km}±1^{km}, MV3.1/37, S OFF TOMAKOMAI*

ISC 11 22:13:54.6±0.7**, 42°.49N**±0°.04×**141°.52E**±0°.04**, h131**^{km}±5^{km}**, n40, σ0ˢ96**/62**, mb4.1**/10**, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JIAM	**Iburiatsuma**	0.32	66	P	Pn	22 14 13.4	+0.6
JEW	**Eniwo**	0.35	351	*i* P	Pn	22 14 13.1	+0.2
JEW				S	Sn	22 14 26.2	-0.7
JNB	**Noboribetsu**	0.36	266	P	Pn	22 14 13.1	+0.2
JNB				S	Sn	22 14 26.1	-0.8
JBT2	**Biratori 2**	0.68	65	*i* P	Pn	22 14 15.4	+0.6
JBT2				S	Sn	22 14 31.1	+0.9
JKB	**Kayabe**	0.71	211	*i* P	Pn	22 14 15.3	+0.3
JKB				*e*S	Sn	22 14 30.2	-0.2
JISS	**Ishikarishitsu**	0.79	354	P	Pn	22 14 16.2	+0.6
JISS				S	Sn	22 14 31.4	-0.2
JYM2	**Yakumo 2**	0.93	247	*i* P	Pn	22 14 17.4	+0.5
JYM2				S	Sn	22 14 33.2	-0.6
JNBK	**Urakawa-nobuka**	0.94	103	*i* P	Pn	22 14 17.8	+0.9
JNBK				S	Sn	22 14 35.0	+1.2
JSH	**Shimam**	1.10	278	P	Pn	22 14 18.9	+0.5
JOT	**Ohata**	1.17	198	*i* P	Pn	22 14 19.7	+0.6
JOT				*e*S	Sn	22 14 38.2	+0.5
JHR	**Hokuryu**	1.26	7	P	Pn	22 14 21.1	+1.0
JHR				S	Sn	22 14 40.1	+0.7
ERM	**Erimo**	1.30	111		Pn	22 14 21.8	+1.3
ERM				Sn	Sn	22 14 40.1	-0.1
JCH	**Churui**	1.36	84	*i* P	Pn	22 14 21.9	+0.8
JCH				S	Sn	22 14 41.5	+0.1
JOSM	**Okushiri--Mats**	1.57	256	P	Pn	22 14 24.0	+0.5
JKK2	**Kamakawa 2**	1.65	33	*i* P	Pn	22 14 24.9	+0.6
JKK2				S	Sn	22 14 46.2	-0.9
JTM	**Tenmabayashi**	1.74	191		Pn	22 14 26.0	+0.6
JTM				Sn	Sn	22 14 48.8	-0.1
JKA	**Kamikawa-asahi**	1.80	25		Pn	22 14 26.6	+0.5
JKA				Sn	Sn	22 14 49.4	-0.9
JAR	**Ashorobuto**	1.84	63	*i* P	Pn	22 14 26.6	+0.1
JAR				S	Sn	22 14 50.3	-0.7
JSS	**Shosan**	1.92	7	P	Pn	22 14 29.0	+1.5
JSS				S	Sn	22 14 53.9	+1.1
JANG	**Nango**	2.12	180	P	Pn	22 14 30.0	0.0
JANG				S	Sn	22 14 55.5	-1.6
MJAR	**Matsushiro Arr**	6.47	204	Pn	Pn	22 15 29.6	+2.2
	0.1nm,0.3s,baz=27,slow=14,SNR=4.4						
	0.8nm,0.4s						
MJAR				AML	AML		
MJAR	**Matsushiro Arr**	6.47	204		Pn	22 15 27.9	+0.4
SEY	**Seymchan**	21.45	14	P	P	22 18 28.8	-3.2
	2.4nm,0.3s,baz=195,slow=11,SNR=8.6						
	2.4nm,0.3s						
ZALV	**Zalesovo Beam**	38.48	307	P	P	22 21 05.8	+2.2
	1.5nm,0.6s,baz=90,slow=8.9,SNR=9.1						
	1.5nm,0.6s						
ZALV	**Zalesovo Beam**	38.48	307	P	P	22 21 02.8	-0.8
MKAR	**Makanchi Array**	41.50	297	P	P	22 21 29.5	+0.9
	0.3nm,0.6s,baz=81,slow=11,SNR=1.4						
	0.3nm,0.6s						
MKAR	**Makanchi Array**	41.50	297	P	P	22 21 28.8	+0.2
KURK	**Kurchatov**	42.80	304	P	P	22 21 37.4	-1.6
KURBB	**Kurchatov Arra**	42.88	303	P	P	22 21 40.8	+1.1
	1.3nm,0.3s,baz=75,slow=9.1,SNR=8.7						
	1.3nm,0.3s						
GHO	**Glory Hole Cre**	44.36	40	P	P	22 21 50.3	-1.2
GHO				IAmb	IAmb	22 21 56.2	
	comp=Z,11nm,0.7s						
BVAR	**Borovoye Array**	47.09	309	P	P	22 22 14.0	+1.1
	comp=Z,1.7nm,0.3s,baz=80,slow=9.4,SNR=16						
	comp=Z,1.7nm,0.3s						
HYB	**Hyderabad**	58.59	265	*e*P	P	22 23 37.9	+0.1
HYB				*e*pP	pP	22 24 09.0	+0.1
HYB				*e*PcP	PcP	22 24 26.5	-0.2
HYB				*e*PP	PP	22 25 49.1	+0.3
HYB				*e*S	S	22 31 32.3	+0.5
HYB				*e*ScS	ScS	22 33 14.6	-0.5
ARCES	**ARCESS Array B**	58.94	338	P	P	22 23 40.2	+0.7
	comp=Z,3.2nm,0.9s,baz=48,slow=7.2,SNR=4.1						
	comp=Z,3.2nm,0.9s						
ARCES	**ARCESS Array B**	58.94	338	P	P	22 23 40.0	+0.5
ARCES				IAmb	IAmb	22 24 39.8	
	comp=Z,55nm,1.9s						
FINES	**FINESS Array B**	64.05	331	P	P	22 24 14.9	+1.0
	comp=Z,3.0nm,0.7s,baz=51,slow=7.6,SNR=12						
	comp=Z,3.0nm,0.7s						
FINES	**FINESS Array B**	64.05	331	P	P	22 24 13.9	0.0
HFS	**Hagfors**	69.17	335	P	P	22 24 47.4	+1.0
	comp=Z,1.0nm,0.3s,baz=35,slow=5.4,SNR=14						
	comp=Z,1.0nm,0.3s						
NB201	**NORSAR Array S**	69.17	337	P	P	22 24 46.9	+0.5
NB2	**NORSAR Subarra**	69.20	337	P	P	22 24 47.5	+0.8
	comp=Z,1.1nm,0.5s,baz=36,slow=6.5						
NOA	**NORSAR Array B**	69.20	337	P	P	22 24 47.4	+0.7
	comp=Z,0.7nm,0.7s,baz=29,slow=8.2,SNR=1.5						
	comp=Z,0.7nm,0.7s						

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*AZER **11** 22:23:45.6, 41°.83N×46°.16E, h30^{km}, ml2.5*

*MOS **11** 22:23:46.5, 41°.88N×46°.40E, h20^{km}, MPVA3.4*

*NORS **11** 22:23:46.2, 41°.90N×46°.33E, h10^{km}, MPVA3.3*

*DRS **11** 22:23:47.5, 41°.84N×46°.28E, h24^{km}*

ISC 11 22:23:48.0±0.9**, 41°.87N**±0°.02×**46°.41E**±0°.02**, h17**^{km}±7^{km}**, n47, σ1ˢ65**/92**, Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZKTA	**Zakatala**	0.28	146	P	Pg	22 23 53.1	-1.1
ZKTA				S	Sg	22 23 58.7	+0.3
KMKR	**Kumukh**	0.57	63	*e*Pg	Pn	22 23 59.6	-2.1
KMKR				*e*Sg	Sn	22 24 09.1	-1.7
GNBR	**Gunib**	0.66	38	*e*Pg	Pn	22 24 01.0	-1.7
GNBR				*e*Sg	Sn	22 24 11.4	-1.3
XNZR	**Khunzakh**	0.70	18	*e*Pg	Pg	22 24 01.6	-0.3
XNZR				*e*Sg	Sn	22 24 12.4	-1.5
BTLR	**Botlikh**	0.80	350	*e*Pg	Pb	22 24 01.9	-1.6
BTLR				*e*Sg	Sb	22 24 13.1	-1.0
ARKR	**Arakani**	0.85	31	*e*Pg	Pn	22 24 04.2	-1.1
ARKR				*e*Sg	Sn	22 24 16.8	-0.6
UNCR	**Uncukul**	0.89	19	*e*Pg	Pg	22 24 04.5	-0.8
UNCR				*e*Sg	Sn	22 24 17.6	-0.6
SEKA	**Sheki**	0.89	138	P	Pb	22 24 04.5	-0.5
SEKA				S	Sn	22 24 18.5	+0.2
URKR	**Urkarakh**	0.96	72	*e*Pg	Pn	22 24 06.6	-0.2
URKR				*e*Sg	Sn	22 24 21.3	+1.2
KRNR	**Karanay**	1.02	21	*e*Pg	Pn	22 24 06.9	-0.8
KRNR				*e*Sg	Sn	22 24 21.6	-0.1
AKT	**Akhty**	1.06	111	*e*Pg	Pb	22 24 07.5	-0.6
AKT				*e*Sg	Sn	22 24 23.1	+0.4
BUJR	**Buynaksk**	1.08	28	*e*Pg	Pg	22 24 08.9	0.0
BUJR				*e*Sg	Sn	22 24 24.8	+1.8
SGKR	**Sergokala**	1.10	57	*e*Pg	Pg	22 24 09.4	+0.1
SGKR				*e*Sg	Sn	22 24 25.9	+2.5
QZX	**Qazax, Azerbai**	1.13	224	P	Pn	22 24 05.0	-4.1
QZX				S	Sb	22 24 20.3	-3.2
DBC	**Dubki**	1.19	15	*e*Pg	Pg	22 24 09.8	-1.2
DBC				*e*Sg	Sg	22 24 26.7	+0.2
DLMR	**Dylym**	1.21	8	*e*Pg	Pg	22 24 10.3	-1.1
DLMR				*e*Sg	Sg	22 24 27.2	+0.1
MNGR	**Mingechevir, A**	1.21	155	P	Pn	22 24 07.8	-2.3
MNGR				S	Sn	22 24 26.4	+0.2
GANJ	**Ganja**	1.23	183	P	Pn	22 24 07.3	-3.2
GANJ				S	Sb	22 24 23.6	-2.8
GDB	**GEDABAY**	1.25	203	P	Pn	22 24 06.8	-4.2
GDB				S	Sn	22 24 23.0	-4.5
KSMR	**Kasumkent**	1.31	101	*e*Pg	Pg	22 24 12.2	-1.2
KSMR				*e*Sg	Sg	22 24 31.4	+0.9
MAK	**Makhachkala**	1.35	36	*e*Pg	Pg	22 24 12.9	-1.3
MAK				*e*Sg	Sg	22 24 32.1	+0.3
GROC	**Groznyy**	1.40	341	*e*Pg	Pg	22 24 14.9	-0.2
GROC				*e*Sg	Sg	22 24 33.3	-0.1
QBL	**Gabala**	1.42	130	Pg	Pb	22 24 13.4	-0.7
QBL				Sg	Sg	22 24 34.5	+0.7
QSAR	**Qusar**	1.43	104	Pg	Pg	22 24 14.9	-0.7
QSAR				Sg	Sg	22 24 38.9	+4.6
DRN	**Derbent**	1.44	83	*e*Pg	Pg	22 24 14.1	-1.7
DRN				*e*Sg	Sg	22 24 35.1	+0.6
XNQ	**Khinaliq**	1.48	118	Pg	Pb	22 24 14.4	-0.7
XNQ				Sg	Sg	22 24 39.0	+3.3
KMGR	**Komgaron**	1.65	316	*e*Pg	Pb	22 24 17.8	-0.2
KMGR				*e*Sg	Sb	22 24 39.5	+1.1
QUBA	**Quba, Azerbaij**	1.65	108	Pg	Pg	22 24 18.7	-1.0
QUBA				Sg	Sg	22 24 44.9	+3.8
BRDA	**Brd**	1.71	160	Pg	Pn	22 24 16.6	-0.5
BRDA				Sg	Sg	22 24 43.4	+0.2
IML	**Ismayilli**	1.72	128	Pg	Pb	22 24 19.2	+0.1
IML				Sg	Sg	22 24 46.0	+2.7
LACR	**Lac**	1.83	302	*e*Pg	Pn	22 24 18.9	0.0
LACR				*e*Sg	Sn	22 24 41.9	+0.1
AGDM	**Agdam**	1.84	163	Pg	Pn	22 24 19.7	+0.8
AGDM				Sg	Sb	22 24 44.0	0.0
ZRD	**Zardab**	1.86	148	Pg	Pb	22 24 21.4	-0.2
ZRD				Sg	Sg	22 24 48.3	+0.4
PQL	**Pirkuli**	1.97	123	Pg	Pb	22 24 23.2	-0.3
PQL				Sg	Sg	22 24 52.9	+1.5
KDMR	**Kurdemir**	2.01	138	Pg	Pb	22 24 23.8	-0.3
KDMR				Sg	Sg	22 24 52.0	-0.7
SIZA	**Siyzn**	2.03	112	Pg	Pg	22 24 25.5	-1.6
SIZA				Sg	Sg	22 24 57.4	+3.9
BTKR	**Batakoyurt**	2.04	318	*e*Pg	Pb	22 24 23.9	-0.7
BTKR				*e*Sg	Sb	22 24 51.5	+1.8
ARNR	**Ardon**	2.04	310	*e*Pg	Pb	22 24 24.1	-0.6
ARNR				*e*Sg	Sb	22 24 50.8	+1.0
KORR	**Kora**	2.12	306	*e*Pg	Pn	22 24 24.1	+1.4
KORR				*e*Sg	Sb	22 24 52.0	+0.1
GNI	**Garni**	2.14	217	*e*Pg	Pn	22 24 22.8	-0.3
GNI				*e*Sg	Sn	22 24 49.9	+0.6
ATGJ	**Altiaghaj**	2.15	117	Pg	Pg	22 24 27.6	-1.7
ATGJ				Sg	Sg	22 25 01.1	+3.7
STDR	**Stavd-Durt**	2.29	312	*e*Pn	Pn	22 24 26.4	+1.4
STDR				*e*Sn	Sb	22 24 57.0	+0.1
BLQ	**Beylaqan**	2.32	158	Pg	Pn	22 24 27.7	+2.2
BLQ				Sg	Sb	22 24 58.4	+0.7
LSNR	**Lesken**	2.37	307	*e*Pn	Pb	22 24 30.8	+0.5
LSNR				*e*Sn	Sb	22 25 01.5	+2.3
HYR	**Heyderabad**	2.46	209	Pg	Pn	22 24 28.6	+1.2
HYR				Sg	Sn	22 25 00.8	+3.7
QRD	**Qoradiz**	2.51	164	Pg	Pn	22 24 30.6	+2.6
QRD				Sg	Sb	22 25 03.7	+0.6
SBZ	**Shahbuz**	2.56	195	Pg	Pn	22 24 30.2	+1.4
SBZ				Sg	Sb	22 25 04.2	-0.5

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*SDD **11** 22:55:59.9±2.5, 20°.14N×70°.70W, h24^{km}±7^{km}, MD3.5, ML2.7, MW2.9, Presumed earthquake*

*OSPL **11** 22:56:03.0±2.2, 20°.16N×70°.65W, h0^{km}±11^{km}, ML2.5, Presumed earthquake*

ISC 11 22:56:00.6±1.2**, 20°.18N**±0°.03×**70°.66W**±0°.05**, h11**^{km}±11^{km}**, n17, σ1ˢ15**/27**, 12C, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LUDR	**Luperon**	0.40	224	⇑*i*P	Pg	22 56 08.3	-0.1
LUDR				⇑*i*S	Sb	22 56 15.7	0.0
SODR	**Sosua Marina B**	0.43	169	⇑*i*P	Pn	22 56 11.2	-1.7
SODR				⇑*i*S	Sb	22 56 18.2	+1.4
SODR				IAML		22 56 22.6	
	comp=N,450nm,0.8s						
LOPP1	**Punta Rusia, P**	0.60	237	*i* P	Pn	22 56 14.1	-1.0
LOPP1				*e*S	Sb	22 56 22.0	+0.3
LOPP1				IAML		22 56 23.3	
	comp=Z,156nm,1.1s						
SC01	**Santiago de lo**	0.75	185	*i* P	Pn	22 56 16.3	-0.9
MCDR	**Montecristi**	0.98	253	⇑*i*S	Sn	22 56 33.7	-0.5
MCDR				IAML		22 56 45.2	
	comp=N,93nm,0.6s						
REDR	**Restauracion**	1.22	215	⇑*i*P	Pg	22 56 24.9	+0.8
REDR				⇑*i*S	Sn	22 56 44.3	+4.0
REDR				IAML		22 56 44.8	
	comp=N,277nm,0.2s						
SDDR	**Presa de Saban**	1.33	206	*i* P	Pb	22 56 25.0	-0.7
SDDR				*e*S	Sn	22 56 42.5	-0.5
SDDR	**Presa de Saban**	1.33	206	*i* P	Pn	22 56 24.9	-0.4
SDDR				*i* S	Sn	22 56 42.5	-0.5
SDDR				IAML		22 56 46.0	
	comp=N,112nm,0.5s						
ABDR	**Alto Bandera**	1.36	179	*i* P	Pg	22 56 26.3	-0.5
ABDR				⇑*i*S	Sg	22 56 45.0	+0.4
ABDR				IAML		22 56 45.4	
	comp=N,88nm,0.5s						
GRTK	**Grand Turk**	1.40	342	*i* P	Pg	22 56 27.3	-0.1
GRTK				*e*S	Sg	22 56 46.8	+1.2
GRTK	**Grand Turk**	1.40	342	⇑*i*P	Pg	22 56 27.4	-0.1
GRTK				⇑*i*S	Sg	22 56 46.0	+0.4
GRTK				IAML		22 56 49.2	
	comp=N,200nm,0.3s						
LONE3	**El Aguacate, B**	1.74	206	*i* P	Pb	22 56 31.7	-1.0
LONE3				*e*S	Sb	22 56 54.7	+0.1
LONE3				IAML		22 56 57.6	
	comp=Z,27nm,0.5s						
BANI	**BANI**	1.80	171	⇑*i*P	Pb	22 56 33.7	0.0
BANI				IAML		22 57 04.1	
	comp=N,68nm,0.5s						
HATOM	**Hato Mayor del**	1.84	139	*i* P	Pb	22 56 34.4	+0.1
HATOM				IAML		22 57 04.2	
	comp=N,21nm,0.6s						
LODU1	**El Espartillar**	1.97	203	*i* P	Pb	22 56 36.2	-0.4
LODU1				IAML		22 57 03.0	
	comp=Z,91nm,0.5s						
JIDR	**Jimani**	2.02	214	⇑*i*P	Pn	22 56 35.5	+0.8
JIDR				IAML		22 57 13.5	
	comp=N,90nm,0.8s						
LOBH	**Bahia de las A**	2.48	202	*i* P	Pb	22 56 44.0	-1.3
LOBH				IAML		22 57 16.9	
	comp=Z,25nm,4.3s						

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*TRN **11** 23:01:00.0, 10°.30N×62°.95W, h72^{km}, MD4.0, Venezuela.*

*FUNV **11** 23:01:19.8, 10°.54N×62°.81W, h18^{km}, MW3.3, Presumed earthquake*

ISC 11 23:01:18.2±2.1**, 10°.48N**±0°.07×**62°.88W**±0°.04**, h19**^{km}±6^{km}**, n13, σ1ˢ09**/25**, Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DMDM	**Guralp CMG5TDE**	1.32	81	*e*P	Pn	23 01 41.7	+0.2
DMDM				*e*S	Sg	23 01 59.9	-1.1
PSMG	**Mucurapo Girls**	1.33	82	*e*P	Pn	23 01 41.2	-0.5
PSMG				*e*S	Sn	23 01 59.2	+0.3
TRN	**Trinidad (W)**	1.46	83	*e*P	Pn	23 01 44.0	+0.6
TRN				*e*S	Sn	23 02 01.9	-0.1
TRN	**Trinidad (W)**	1.46	83	*e*P	Pn	23 01 44.4	+1.0
TRN				*e*S	Sb	23 02 03.6	+0.8
GRGR	**Grenville**	2.03	36	*e*P	Pn	23 01 51.8	+0.5
GRGR				*e*S	Sn	23 02 14.4	-1.8
GRGR	**Grenville**	2.03	36	*e*P	Pn	23 01 52.3	+1.0
GRGR				*e*S	Sb	23 02 18.6	-0.8
GRW	**Mount Saint Ca**	2.05	35	*e*P	Pn	23 01 53.7	+2.0
GRW				*e*S	Sb	23 02 19.1	-0.8
GRSS	**Sisters**	2.19	34	*e*P	Pn	23 01 54.4	+0.9
GRSS				*e*S	Sn	23 02 21.6	+1.5
SLBI	**Saint Lucia, B**	3.98	28	*e*P	Pn	23 02 19.5	+1.3
SLBI				*e*S	Sn	23 03 04.2	-0.1
TACV	**Tcata**	4.10	266	*e*P	Pn	23 02 21.4	+1.5
TACV				*e*S	Sn	23 03 07.0	-0.4
BIM	**Bigot**	4.38	24	*e*P	Pn	23 02 23.6	-0.2
BENV	**Beln**	4.68	264	*e*P	Pn	23 02 28.7	+0.8
BENV				*e*S	Sn	23 03 20.4	-1.2
TURV	**Turiamo**	4.88	270	*e*P	Pn	23 02 31.2	+0.7
TURV				*e*S	Sn	23 03 25.3	-1.3

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*IDC **11** 23:04:37.4±0.5, 62°.14S×58°.23W, h0^{km}, mb4.3/13, mbtmp4.3/15, ML4.2/2, MS4.2/28, Error ellipse: s-maj=16.3km s-min=11.5km az=88.0*

*NEIC **11** 23:04:39.2±2.2, 62°.35S±0°.05×58°.5W±0°.2, h10^{km}±1^{km}, mb4.5/4, Error ellipse: s-maj=13.8km s-min=4.4km az=236.0*

*GFZ **11** 23:04:40.3±0.2, 62°S±3°×5°8W±°, h10^{km}, M4.7/25, mb4.7/25, confirmed*

*GCMT **11** 23:04:42.2±0.2, 62°.33S±0°.01×58°.29W±0°.03, h15^{km}±1^{km}, MW5.0/119, Moment Tensor Solution. s47, c55; s119, c174; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.06±.13; $M_{\theta\theta}$0.63±.10; $M_{\phi\phi}$0.43±.12; $M_{r\theta}$0.98±.35; $M_{\theta\phi}$4.19±.09; $M_{\phi r}$-1.79±.37; Best double couple: $M_0$4.75100×10^{16} NP1:ϕ_s267.00000°, δ66.00000°, λ-17.00000°. NP2:ϕ_s4.00000°, δ75.00000°, λ-155.00000°. Principal axes: T 4.7790, Plg6.0000°, Azm134.0000°; N -0.0510, Plg61.0000°, Azm34.0000°; P -4.7240, Plg28.0000°, Azm227.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 11 23:04:39.4±0.3**, 62°.31S**±0°.05×**58°.36W**±0°.05**, h10**^{km}**, n120, σ2ˢ10**/106**, mb4.6**/37**, MS4.3**/28**, 7C-4D, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JUBA	**Jubany**	0.16	296	*e*P	Pg	23 04 41.0	-1.8
JUBA				*e*S	Sg	23 04 44.5	-0.6
JUBA				IAML		23 04 50.3	
	comp=Z,151µm,0.9s						
ESPZ	**Base Esperanza**	1.26	151	*e*P	Pn	23 05 00.8	-2.2
ESPZ				*e*S	Sb	23 05 16.5	-2.9
ESPZ	**Base Esperanza**	1.26	151	Pn	Pn	23 05 01.0	-2.0
ESPZ				Sn	Sb	23 05 16.3	-3.2
PMSA	**Palmer Station**	3.55	223	Pn	Pn	23 05 33.2	-1.2
	comp=Z,14nm,0.3s,baz=57,slow=8.5,SNR=46						
PMSA				Sn	Sn	23 06 13.8	-2.6
	comp=Z,7.6nm,0.3s,baz=308,slow=11,SNR=3.7						
	comp=Z,41nm,0.4s						
PMSA				AML	AML		
PMSA	**Palmer Station**	3.55	223	*e*P	Pn	23 05 33.5	-1.0
PMSA				*e*S	Sn	23 06 19.3	+2.9
PMSA				IAML		23 06 41.0	
	comp=Z,427nm,0.8s						
PMSA	**Palmer Station**	3.55	223	Pn	Pn	23 05 32.4	-2.1
PMSA	**Palmer Station**	3.55	223	P	Pn	23 05 33.5	-1.0
ORCD	**Orcadas**	6.70	83		Pn	23 06 17.3	-0.3
SMAI	**San Martin Ant**	6.90	208	*i* P	Pn	23 06 19.6	-0.8
SMAI	**San Martin Ant**	6.90	208	Pn	Pn	23 06 19.1	-1.3
USHA	**Ushuaia**	9.15	320	Pn	Pn	23 06 46.1	-5.1
	comp=Z,3.0nm,0.3s,baz=211,slow=18,SNR=1.4						
USHA				Sn	Sn	23 08 24.1	-10
	comp=Z,1.5nm,0.3s,baz=286,slow=1.9,SNR=1.4						
USHA				LR	LR	23 09 46.1	
	comp=Z,3µm,18.8s,baz=105,slow=34						
	comp=Z,13nm,0.4s						
USHA				AML	AML		
DSPA	**Despedida**	9.87	324	Pn	Pn	23 07 01.0	-0.1
EFI	**East Falkland**	10.66	1	*e*P	Pn	23 07 12.9	+1.0
EFI	**East Falkland**	10.66	1	Pn	Pn	23 07 12.6	+0.7
EFI	**East Falkland**	10.66	1	P	Pn	23 07 12.8	+0.9
	comp=Z,77nm,1.5s						
MG02	**Cerro Sombrero**	11.17	324	Pn	Pn	23 07 19.3	+0.4
BELA	**Belgrano 2**	17.34	163	Pn	Pn	23 08 40.4	-0.6
VNA3	**Neumayer Olymp**	20.55	136	⇑P	P	23 09 17.4	-0.2
	comp=Z,21nm,0.8s						
VNA3	**Neumayer Olymp**	20.55	136	⇓ScP	ScP	23 16 55.3	-8.9
	comp=Z,4.1nm,0.8s						
VNA3	**Neumayer Olymp**	20.55	136	P	P	23 09 18.2	+0.6
	comp=Z,36nm,0.8s						
LL02	**Futaleuf**	20.73	331	P	P	23 09 21.1	+1.3
	comp=Z,32nm,1.5s						
VNA1	**Neumayer--Stat**	21.02	135	⇑P	P	23 09 23.3	+0.7
	comp=Z,22nm,0.8s						
VNA1				⇓ScP	ScP	23 16 59.9	-5.3
	comp=Z,5.1nm,0.7s						
VNA2	**Neumayer--Watz**	21.29	135	⇑P	P	23 09 25.8	+0.2
	comp=Z,14nm,0.7s,baz=260,slow=9.5						
VNA2	**Neumayer--Watz**	21.29	135	⇓ScP	ScP	23 17 02.5	-3.5
	comp=Z,3.2nm,0.6s,baz=263,slow=9.9						
VNA2	**Neumayer--Watz**	21.29	135	P	P	23 09 25.9	+0.2
	comp=Z,34nm,1.8s						
SNAA	**Sanae**	22.72	138	⇑P	P	23 09 40.8	-0.1
	comp=Z,362nm,1.1s						
SNAA				⇑S	Sn	23 13 57.4	-5.8
	comp=E,16nm,0.3s						
SNAA	**Sanae**	22.72	138	P	P	23 09 41.2	+0.3
	comp=E,22nm,1.1s,baz=250,slow=7.1,SNR=17						
SNAA				LR	LR	23 17 06.7	
	comp=E,1µm,21.2s,baz=262,slow=33						
	comp=E,22nm,1.1s						
SNAA	**Sanae**	22.72	138	P	P	23 09 40.6	-0.3
SNAA				IAmb	IAmb	23 09 44.2	
	comp=Z,23nm,1.0s						
SNAA	**Sanae**	22.72	138	P	P	23 09 41.5	+0.5
	comp=Z,31nm,1.4s						
LL05	**Los Muermos**	22.80	330	P	P	23 09 45.2	+3.2
	comp=Z,97nm,0.9s						
PLCA	**Paso Flores**	22.82	336	P	P	23 09 38.5	-3.8
	comp=Z,6.7nm,1.0s,baz=166,slow=8.2,SNR=13						
PLCA				LR	LR	23 17 25.3	
	comp=Z,915nm,21.5s,baz=160,slow=34						
	comp=Z,6.7nm,1.0s						
PLCA	**Paso Flores**	22.82	336	P	P	23 09 44.1	+1.9
	comp=Z,38nm,2.2s						
GO06	**Curarrehue**	24.11	335	P	P	23 09 56.0	+1.0
	comp=Z,61nm,1.0s						
TROLL	**Troll, Antarti**	24.36	139	⇑P	P	23 09 57.2	+0.1
	comp=Z,526nm,0.7s						
TROLL				⇑S	S	23 14 26.1	+10
	comp=E,134nm,0.8s						
BI02	**San Fabin de**	26.90	337	P	P	23 10 21.1	+0.8
	comp=Z,19nm,2.0s						
QSPA	**South Pole Qui**	27.92	180	P	P	23 10 29.8	+0.5
	comp=Z,4.9nm,0.8s,baz=164,slow=3.0,SNR=21						
QSPA				PcP	PcP	23 13 44.3	0.0
	comp=Z,1.6nm,0.7s,baz=157,slow=1.1,SNR=2.0						
QSPA				LR	LR	23 22 27.5	
	comp=Z,435nm,21.5s,baz=166,slow=38						
	comp=Z,4.9nm,0.8s						
QSPA	**South Pole Qui**	27.92	180	P	P	23 10 31.7	+2.3
	comp=Z,18nm,1.7s						
GO05	**Hualane**	28.62	336	P	P	23 10 36.0	+0.3
	comp=Z,26nm,1.6s						
BO01	**Tunca**	29.07	338	P	P	23 10 39.6	0.0
	comp=Z,20nm,2.1s						
ELIB	**Princess Elisa**	30.56	143	*d*P	P	23 10 52.1	-0.5
	comp=Z,2.6nm,0.8s						
VA03	**San Esteban**	30.57	340	P	P	23 10 56.1	+3.1
	comp=Z,46nm,1.9s						
ZON	**Zonda**	31.49	343	P	P	23 11 01.4	+0.4
	comp=E,14nm,1.7s						
CO02	**Combarbal**	32.17	339	P	P	23 11 08.0	+0.8
	comp=Z,58nm,1.3s						
GO04	**Tololo Observa**	33.15	340	P	P	23 11 16.1	+0.2
	comp=Z,39nm,1.1s						
CO01	**Juntas del Tor**	33.23	341	P	P	23 11 18.9	+2.3
	comp=Z,30nm,1.1s						
AC05	**El Transito**	34.38	341	P	P	23 11 26.8	+0.3
	comp=Z,21nm,0.8s						
AC04	**Llanos de Chal**	35.12	340	P	P	23 11 33.0	+0.3
	comp=Z,42nm,1.3s						
CPUP	**Villa Florida**	35.98	2	P	P	23 11 38.0	-2.1
	comp=Z,3.8nm,1.0s,baz=171,slow=7.5,SNR=5.3						
CPUP				LR	LR	23 26 47.2	
	comp=Z,289nm,18.2s,baz=180,slow=37						

	comp=Z,3.8nm,1.0s						
AC02	**Maricunga**	**36.19**	**344**	P	**P**	**23 11 44.3**	**+1.8**
	comp=Z,14nm,2.9s						
SBA	**Scott Base**	**37.42**	**194**	P	**P**	**23 11 54.1**	**+2.3**
	comp=Z,6.5nm,1.0s						
VNDA	**Vanda**	**38.25**	**193**	P	**P**	**23 12 00.1**	**+1.2**
	comp=Z,0.6nm,0.8s,baz=138,slow=3.6,SNR=3.8						
VNDA				PcP	**PcP**	**23 14 13.9**	**+1.2**
	comp=Z,1.1nm,0.9s,baz=153,slow=2.4,SNR=2.7						
VNDA				LR	LR	23 28 48.9	
	comp=Z,453nm,19.5s,baz=146,slow=38						
	comp=Z,0.6nm,0.8s						
SALTA		**38.45**	**348**	P	**P**	**23 12 03.3**	**+1.6**
	comp=Z,8.0nm,1.3s						
PB05	**IPOC Station P**	**40.25**	**343**	P	**P**	**23 12 17.8**	**+1.6**
	comp=Z,19nm,0.8s						
MAW	**Mawson**	**43.63**	**152**	P	**P**	**23 12 43.8**	**+0.6**
	comp=Z,3.9nm,1.0s,baz=217,slow=7.5,SNR=8.4						
MAW				LR	LR	23 31 02.6	
	comp=Z,1μm,18.2s,baz=216,slow=36						
	comp=Z,3.9nm,1.0s						
MAW	**Mawson**	**43.63**	**152**	P	**P**	**23 12 43.3**	**+0.1**
	comp=Z,1.2nm,1.4s						
PB16	**IPOC Station P**	**44.61**	**345**	P	**P**	**23 12 53.4**	**+1.1**
	comp=Z,8.2nm,1.7s						
SIV	**San Ignacio**	**46.30**	**356**	LR	LR	23 34 18.4	
	comp=Z,478nm,18.1s,baz=189,slow=39						
LPAZ	**La Paz**	**46.48**	**347**	P	**P**	**23 13 05.4**	**-1.7**
	comp=Z,1.2nm,0.7s,baz=175,slow=6.9,SNR=5.4						
LPAZ				LR	LR	23 33 35.3	
	comp=Z,251nm,19.3s,baz=162,slow=38						
	comp=Z,1.2nm,0.7s						
LPAZ	**La Paz**	**46.48**	**347**	P	**P**	**23 13 07.5**	**+0.4**
	comp=Z,5.2nm,1.7s						
BDFB	**Brasilia**	**47.18**	**14**	P	**P**	**23 13 10.5**	**-1.5**
	comp=Z,4.6nm,0.7s,baz=180,slow=4.0,SNR=8.4						
BDFB				LR	LR	23 32 06.9	
	comp=Z,258nm,21.2s,baz=168,slow=35						
	comp=Z,4.6nm,0.7s						
CLDB	**Colider**	**51.38**	**3**	P	**P**	**23 13 43.5**	**-0.6**
	comp=Z,8.9nm,1.1s						
NNA	**Nana**	**51.97**	**337**	LR	LR	23 33 30.0	
	comp=Z,142nm,19.4s,baz=161,slow=33						
SUR	**Sutherland**	**56.94**	**97**	LR	LR	23 33 07.8	
	comp=Z,355nm,21.6s,baz=210,slow=30						
ATAH	**Atahualpa**	**57.00**	**336**	LR	LR	23 35 42.4	
	comp=Z,164nm,19.3s,baz=164,slow=33						
BOSA	**Boshof**	**62.17**	**99**	P	**P**	**23 14 59.1**	**-1.6**
	comp=Z,3.7nm,0.8s,baz=222,slow=5.5,SNR=4.5						
BOSA				LR	LR	23 35 47.9	
	comp=Z,165nm,20.7s,baz=202,slow=30						
	comp=Z,3.7nm,0.8s						
BOSA	**Boshof**	**62.17**	**99**	P	**P**	**23 14 59.3**	**-1.4**
BOSA				IAmb	IAmb	23 15 04.2	
	comp=Z,1.8nm,0.7s						
H10N3	**ASCENSION HYDR**	**63.02**	**50**	T	T	00 23 37.9	
	baz=202,slow=74,SNR=61						
H10N1	**ASCENSION HYDR**	**63.03**	**50**	T	T	00 23 39.4	
	baz=202,slow=74,SNR=52						
H10N2	**ASCENSION HYDR**	**63.04**	**50**	T	T	00 23 34.3	
	baz=202,slow=74,SNR=67						
OTAV	**Otavalo**	**64.21**	**338**	P	**P**	**23 15 16.0**	**+1.3**
	comp=Z,6.5nm,1.0s						
LBTB	**Lobatse**	**65.39**	**97**	LR	LR	23 38 18.1	
	comp=Z,282nm,21.2s,baz=220,slow=31						
POGA	**Pongola**	**66.20**	**104**	P	**P**	**23 15 27.6**	**+0.6**
	comp=Z,32nm,1.5s						
ROSC	**El Rosal**	**68.07**	**343**	LR	LR	23 48 14.2	
	comp=Z,330nm,18.3s,baz=225,slow=38						
URZ	**Urewera**	**70.32**	**224**	LR	LR	23 42 15.6	
	comp=Z,163nm,20.3s,baz=180,slow=32						
SDV	**Santo Domingo**	**71.61**	**347**	LR	LR	23 50 29.7	
	comp=Z,263nm,18.2s,baz=176,slow=38						
FOMA	**Nahampoana Res**	**74.98**	**115**	P	**P**	**23 16 19.5**	**-1.1**
LSZ	**Lusaka**	**75.01**	**94**	P	**P**	**23 16 20.6**	**-0.4**
LSZ	**Lusaka**	**75.01**	**94**	P	**P**	**23 16 21.1**	**+0.1**
	comp=Z,14nm,0.9s						
PPT	**Papeete**	**75.18**	**261**	LR	LR	23 41 02.1	
	comp=Z,156nm,21.1s,baz=174,slow=29						
JTS	**Las Juntas de**	**75.27**	**333**	LR	LR	23 44 13.2	
	comp=Z,65nm,19.0s,baz=173,slow=32						
JTS	**Las Juntas de**	**75.27**	**333**	P	**P**	**23 16 22.3**	**+0.1**
	comp=Z,11nm,1.6s						
DBIC	**Dimbokro**	**79.98**	**54**	P	**P**	**23 16 48.6**	**+0.1**
	comp=Z,3.2nm,0.8s,baz=202,slow=4.6,SNR=2.3						
	comp=Z,3.2nm,0.8s						
SJG	**San Juan**	**80.38**	**352**	LR	LR	23 54 19.1	
	comp=Z,182nm,19.9s,baz=162,slow=37						
OPO	**Ambohidratompo**	**80.73**	**112**	LR	LR	23 47 49.7	
	comp=Z,88nm,18.1s,baz=271,slow=32						
APG	**El Apazote**	**81.08**	**329**	LR	LR	23 47 25.0	
	comp=Z,16nm,21.7s,baz=263,slow=32						
CMIG	**Matias Romero**	**84.21**	**325**	LR	LR	23 46 27.9	
	comp=Z,171nm,21.4s,baz=163,slow=30						
TEIG	**Tepich**	**85.62**	**332**	P	**P**	**23 17 16.8**	**-0.8**
	comp=Z,7.6nm,1.0s						
AFI	**Afiamalu**	**88.23**	**243**	LR	LR	23 49 47.6	
	comp=Z,72nm,19.6s,baz=188,slow=31						
TORD	**Torodi Ar. Bea**	**88.43**	**58**	P	**P**	**23 17 30.2**	**-1.3**
	comp=Z,1.2nm,0.9s,baz=202,slow=5.5,SNR=4.1						
	comp=Z,1.2nm,0.9s						
MSVF	**Nonsavu**	**88.78**	**233**	LR	LR	23 48 32.7	
	comp=Z,159nm,21.7s,baz=183,slow=30						
ASAR	**Alice Springs**	**93.77**	**191**	P	**P**	**23 17 56.1**	**-0.3**
	comp=Z,1.2nm,0.9s,baz=159,slow=4.5,SNR=5.3						
	comp=Z,1.2nm,0.9s						
LPIG	**La Paz**	**95.50**	**314**	LR	LR	23 52 58.4	
	comp=Z,41nm,19.3s,baz=190,slow=30						
WRA	**Warramunga Arr**	**97.41**	**192**	P	**P**	**23 18 13.2**	**+0.1**
	comp=Z,1.0nm,0.8s,baz=175,slow=4.1,SNR=5.2						
	comp=Z,1.0nm,0.8s						
TKL	**Tuckaleechee C**	**99.76**	**339**	LR	LR	00 09 20.7	
	comp=Z,87nm,18.3s,baz=151,slow=39						
GERES	**GERESS Array B**	**124.66**	**50**	PKP	**PKPdf**	**23 23 36.2**	**-1.6**
	comp=Z,0.5nm,0.4s,baz=204,slow=2.3,SNR=8.6						
GERES	**GERESS Array B**	**124.66**	**50**		**PKPdf**	**23 23 36.6**	**-1.3**
CMAR	**Chiang Mai Arr**	**133.42**	**150**	PKP	**PKPdf**	**23 23 55.5**	**+0.1**
	comp=Z,0.7nm,0.3s,baz=225,slow=4.2,SNR=5.7						
NOA	**NORSAR Array B**	**133.87**	**39**	PKP	**PKPdf**	**23 23 53.2**	**-1.7**
	comp=Z,0.7nm,0.7s,baz=178,slow=3.5,SNR=2.0						
FINES	**FINESS Array B**	**138.91**	**47**	PKP	**PKPdf**	**23 24 04.0**	**-0.2**
	comp=Z,4.7nm,1.1s,baz=222,slow=3.7,SNR=4.2						
PZH	**PanZhiHua**	**141.82**	**150**	PKP	**PKiKP**	**23 24 20.7**	**+7.0**
ILAR	**Eielson Array**	**142.53**	**315**	PKhKP	PKPpre	23 24 05.8	
	comp=Z,0.3nm,0.6s,baz=205,slow=3.2,SNR=4.4						
ARCES	**ARCESS Array B**	**144.11**	**37**	PKP	**PKPab**	**23 24 10.1**	**-0.9**
	comp=Z,11nm,0.8s,baz=253,slow=1.8,SNR=16						
L18K	**Granite Mounta**	**144.37**	**307**	PKPdf	**PKPab**	**23 24 12.6**	**+0.5**
KDJ	**Kajisay**	**147.03**	**107**	PKPbc	**PKPdf**	**23 24 21.3**	**+1.8**
SPITS	**Spitsbergen Ar**	**147.12**	**21**	PKPbc	**PKPdf**	**23 24 18.8**	**+0.5**
	comp=Z,7.8nm,0.8s,baz=309,slow=3.0,SNR=4.0						
H17K	**Granite Mounta**	**147.12**	**310**	PKPbc	**PKPdf**	**23 24 20.6**	**+2.1**
SPB2	**Spitsbergen Ar**	**147.12**	**22**	PKPdf	**PKPdf**	**23 24 19.8**	**+1.5**
G18K	**Tagagawik**	**147.19**	**312**	PKPdf	**PKPdf**	**23 24 19.8**	**+1.1**
K13K	**Kusilvak Mount**	**147.25**	**303**		**PKPdf**	**23 24 21.0**	**+2.1**
LZDM	**Lanzhou Array**	**151.34**	**149**	PKPbc	**PKPbc**	**23 24 32.9**	**+0.1**
	comp=Z,1.1nm,0.3s,baz=191,slow=1.5,SNR=4.9						
LZH	**Lanzhou**	**151.50**	**149**	*e*P	**PKPbc**	**23 24 34.0**	**+1.1**
LZH				pP	PKPab	23 24 43.3	+1.9
LZH				pmax	pmax		
	comp=Z,19nm,1.3s						
BVAR	**Borovoye Array**	**151.79**	**85**	PKPbc	**PKPbc**	**23 24 32.1**	**-0.8**
	comp=Z,6.2nm,0.7s,baz=222,slow=2.2,SNR=20						
MJAR	**Matsushiro Arr**	**152.22**	**210**	PKPbc	**PKPbc**	**23 24 33.4**	**-0.9**
	comp=Z,0.5nm,0.4s,baz=161,slow=3.2,SNR=2.1						
WMQ	**Urumqi**	**152.95**	**117**	*e*PKPbc	**PKPab**	**23 24 46.0**	**-1.2**
WMQ				LR	LR		
	comp=Z,59nm,19.7s						
MKAR	**Makanchi Array**	**152.96**	**107**	PKPbc	**PKPbc**	**23 24 34.7**	**-1.0**
	comp=Z,2.0nm,0.7s,baz=226,slow=2.2,SNR=13						
MKAR	**Makanchi Array**	**152.96**	**107**		**PKPbc**	**23 24 35.1**	**-0.6**
GTA2	**Gaotai**	**153.57**	**140**	PKPbc	**PKiKP**	**23 24 38.6**	**+1.1**
KURBB	**Kurchatov Arra**	**154.01**	**97**	PKP	**PKPdf**	**23 24 28.7**	**-1.0**
	comp=Z,0.9nm,0.7s,baz=237,slow=2.3,SNR=4.0						
ZALV	**Zalesovo Beam**	**159.10**	**97**	PKPab	**PKPab**	**23 25 14.2**	**+1.1**
	comp=Z,1.3nm,0.7s,baz=235,slow=5.1,SNR=5.0						
SONM	**Songino Array**	**163.15**	**142**	PKPab	**PKPab**	**23 25 32.3**	**+1.1**
	comp=Z,1.1nm,0.8s,baz=218,slow=4.6,SNR=4.6						

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*BJI **11** 23:30:50.9,4°37S×153°54E,h64^{km},mB5.1/7,mb4.9/44*
*NEIC **11** 23:30:52.8±1.4,4°61S±0°07×153°24E±0°07,h60^{km}±5^{km}, mb4.8/176,Error ellipse: s-maj=10.8km s-min=10.4km az=155.0*
*IDC **11** 23:30:53.5±1.6,4°66S×153°18E,h72^{km}±11^{km},mb4.5/24, mbtmp4.8/26,MS3.5/18,Error ellipse: s-maj=16.4km s-min=8.7km az=109.0*
*GFZ **11** 23:30:53.5±0.3,5°S±3°×15°3E±°,h69^{km},M5.2/33, mb5.1/33,confirmed*
*DJA **11** 23:30:54.4±0.7,5°S±4°×15°3E±°,h77^{km}±7^{km},M5.1/31, mb4.9/31,mB5.5/6,MLv5.2/1,Mw(mB)5.0/6*
ISC 11 23:30:51.4±0.3,**4°65S**±0°04×**153°24E**±0°06,**h55^{km},n367, σ1^{s}19**/373,**mb4.9**/143,**MS3.5**/16,**4C-3D,New Ireland region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RABL	**Rabaul**	**1.17**	**293**		**Pn**	**23 31 13.1**	**+1.5**
KRVT	**Keravat (AS076**	**1.26**	**286**	P	**Pn**	**23 31 14.1**	**+1.3**
	6μm,0.3s,baz=133,slow=2.1,SNR=191						
KRVT				S	**Sn**	**23 31 30.5**	**+1.8**
	35μm,0.4s,baz=228,slow=23,SNR=26						
KRVT				LR	LR	23 31 45.6	
	comp=Z,2μm,18.7s,baz=104,slow=44						
MANU	**Manus Island**	**6.41**	**294**	Pn	**Pn**	**23 32 23.9**	**+0.5**
PMG	**Port Moresby**	**7.67**	**232**	P	**Pn**	**23 32 42.2**	**+1.7**
	34nm,0.8s,baz=16,slow=10.0,SNR=6.8						
PMG				S	**Sn**	**23 34 05.6**	**-0.5**
	64nm,0.3s,baz=301,slow=24,SNR=8.5						
PMG	**Port Moresby**	**7.67**	**232**		**Pn**	**23 32 41.6**	**+1.1**
PMG					**Sn**	**23 34 05.7**	**-0.4**
PMG	**Port Moresby**	**7.67**	**232**	P	**Pn**	**23 32 42.6**	**+2.0**
	0.5nm49nm,0.7s						
PMG				AML	AML		
PMG	**Port Moresby**	**7.67**	**232**	P	**Pn**	**23 32 42.9**	**+2.3**
	comp=Z,50nm,0.7s						
PATS	**Pohnpei**	**12.48**	**24**		**Pn**	**23 33 46.8**	**+0.4**
PATS	**Pohnpei**	**12.48**	**24**	P	**Pn**	**23 33 47.3**	**+0.9**
	comp=Z,187nm,0.8s						
MTSU	**Mount Surprise**	**16.00**	**212**	P	**P**	**23 34 36.8**	**+1.2**
	comp=Z,18nm,0.9s						
CTA	**Charters Tower**	**16.79**	**203**	LR	LR	23 40 56.3	
	comp=Z,185nm,20.2s,baz=32,slow=36						
CTAO	**Charters Tower**	**16.79**	**203**		**P**	**23 34 44.0**	**-0.4**
BAKI	**Biak**	**17.45**	**281**	P	**Pn**	**23 34 51.1**	**-0.1**
	comp=Z,45nm,1.1s						
KOUNC	**Koumac, New Ca**	**19.11**	**147**	P	**Pn**	**23 35 11.2**	**-0.1**
KOUNC				IAmb	IAmb	23 35 19.5	
	comp=Z,48nm,0.9s						
GUMO	**Guam**	**19.93**	**335**	P	**Pn**	**23 35 20.4**	**-0.6**
	comp=Z,60nm,0.3s,baz=177,slow=9.1,SNR=8.1						
GUMO				LR	LR	23 42 24.7	
	comp=Z,53nm,19.9s,baz=126,slow=35						
GUMO	**Guam**	**19.93**	**335**	P	**P**	**23 35 19.7**	**+0.7**
GUMO	**Guam**	**19.93**	**335**	P	**Pn**	**23 35 21.9**	**+0.9**
	comp=Z,182nm,0.8s						
QIS	**Mount Isa**	**20.64**	**219**	P	Pn	23 35 28.8	-0.6
EIDS	**Eidsvold**	**20.71**	**186**	P	Pn	23 35 28.9	-1.3
EIDS				IAmb	IAmb	23 35 44.8	
	comp=Z,78nm,1.7s						
FAKI	**Fak Fak**	**21.02**	**274**	P	**P**	**23 35 30.6**	**-0.2**
FAKI				IAmb	IAmb	23 35 50.2	
	comp=Z,59nm,1.1s						
FAKI	**Fak Fak**	**21.02**	**274**	P	**P**	**23 35 32.4**	**+1.6**
	comp=Z,43nm,1.1s						
DPSS	**Saipan**	**21.09**	**340**	P	**P**	**23 35 32.6**	**+1.1**
DZM	**Mont Dzumac**	**21.53**	**145**	LR	LR	23 43 17.7	
	comp=Z,246nm,20.3s,baz=262,slow=34						
ONTNC	**Ouen Toro**	**21.72**	**145**	P	**P**	**23 35 39.6**	**+1.4**
ONTNC				IAmb	IAmb	23 35 51.6	
	comp=Z,29nm,0.8s						
OUENC	**Ouen Island, N**	**22.03**	**145**	P	**P**	**23 35 42.3**	**+0.8**
OUENC				IAmb	IAmb	23 36 03.4	
	comp=Z,22nm,0.8s						
MARNC	**Mare, Loyalty**	**22.04**	**141**	P	**P**	**23 35 41.6**	**0.0**
SWI	**Sorong**	**22.27**	**279**	P	**P**	**23 35 45.9**	**+1.7**
	comp=Z,42nm,0.9s						
MTN	**Manton Dam**	**23.30**	**248**		**P**	**23 35 54.0**	**-0.8**
MTN				IAmb	IAmb	23 35 56.8	
	comp=Z,40nm,1.4s						
WB0	**Warramunga Arr**	**23.73**	**229**		**P**	**23 35 58.7**	**0.0**
WB0				IAmb	IAmb	23 36 15.6	
	comp=Z,26nm,1.0s						
WR8	**Warramunga Arr**	**23.76**	**229**		**P**	**23 35 59.3**	**+0.2**
WR8				IAmb	IAmb	23 36 05.0	
	comp=Z,19nm,0.7s						
WRAB	**Tennant Creek**	**23.86**	**229**	P	**P**	**23 36 00.3**	**+0.3**
WRAB				IAmb	IAmb	23 36 15.9	
	comp=Z,115nm,1.9s						
WRAB	**Tennant Creek**	**23.86**	**229**	P	**P**	**23 36 00.3**	**+0.3**
	comp=Z,23nm,1.0s						
WRA	**Warramunga Arr**	**23.88**	**229**	P	**P**	**23 36 00.2**	**+0.1**
	comp=Z,9.0nm,0.3s,baz=51,slow=10.0,SNR=84						
WRA				S	**S**	**23 40 11.9**	**-0.7**
	comp=Z,1.7nm,0.9s,baz=50,slow=17,SNR=4.7						
	comp=Z,9.0nm,0.3s						
WRA	**Warramunga Arr**	**23.88**	**229**	P	**P**	**23 35 59.3**	**-0.9**
ARMA	**Armidale**	**25.68**	**183**	P	**P**	**23 36 17.7**	**+1.2**
INKA	**Innaminka**	**25.87**	**206**		**P**	**23 36 18.9**	**+0.8**
KNRA	**Kununurra**	**26.43**	**244**		**P**	**23 36 22.7**	**-0.7**
KNRA				IAmb	IAmb	23 36 27.5	
	comp=Z,26nm,0.6s						
AS31	**Alice Springs**	**26.56**	**223**		**P**	**23 36 24.6**	**+0.2**
ASAR	**Alice Springs**	**26.56**	**223**	P	**P**	**23 36 24.1**	**-0.4**
	comp=Z,2.0nm,0.8s,baz=55,slow=9.0,SNR=17						
ASAR				S	**S**	**23 40 54.1**	**-1.2**
	comp=Z,0.9nm,0.8s,baz=45,slow=14,SNR=4.1						
ASAR				LR	LR	23 46 49.0	
	comp=Z,177nm,19.2s,baz=106,slow=36						
	comp=Z,2.0nm,0.8s						
ASAR	**Alice Springs**	**26.56**	**223**	P	**P**	**23 36 25.4**	**+0.9**
CMSA	**Cobar Meteorol**	**27.68**	**194**	P	**P**	**23 36 34.0**	**-0.3**
STKA	**Stephens Creek**	**29.21**	**201**	P	**P**	**23 36 47.8**	**-0.3**
	comp=Z,5.3nm,0.8s,baz=8.7,slow=8.4,SNR=6.3						
	comp=Z,5.3nm,0.8s						
STKA	**Stephens Creek**	**29.21**	**201**	P	**P**	**23 36 47.7**	**-0.3**
	comp=Z,46nm,1.8s						
DAV	**Davao City (W)**	**29.96**	**293**	LR	LR	23 46 43.6	
	comp=Z,57nm,21.4s,baz=120,slow=32						
FITZ	**Fitzroy Crossi**	**30.12**	**241**	LR	LR	23 50 24.0	
	comp=Z,126nm,20.1s,baz=179,slow=39						
FITZ	**Fitzroy Crossi**	**30.12**	**241**		**P**	**23 36 55.5**	**-0.7**
FITZ	**Fitzroy Crossi**	**30.12**	**241**	P	**P**	**23 36 55.8**	**-0.4**
	comp=Z,5.6nm,0.8s						
GTOI	**Gorontalo**	**30.66**	**279**	P	**P**	**23 37 01.7**	**+0.7**
TOLI2	**Tolitoli**	**32.93**	**279**	P	**P**	**23 37 22.3**	**+1.2**
FORT	**Forrest**	**35.19**	**219**	P	**P**	**23 37 39.6**	**-0.7**
FORT				IAmb	IAmb	23 37 55.7	
	comp=Z,17nm,1.1s						
MYLDM	**Lahad Datu**	**36.05**	**285**	P	**P**	**23 37 49.0**	**+1.0**
	comp=Z,10nm,0.7s						
MBWA	**Marble Bar**	**36.43**	**240**		**P**	**23 37 50.5**	**-0.7**
MBWA	**Marble Bar**	**36.43**	**240**	P	**P**	**23 37 50.6**	**-0.5**
	comp=Z,34nm,0.8s						
MBWA	**Marble Bar**	**36.43**	**240**	P	**P**	**23 37 50.4**	**-0.8**
RAO	**Raoul Island**	**36.67**	**135**	LR	LR	23 50 03.6	
	comp=Z,142nm,19.8s,baz=146,slow=31						
JMZ	**Minamidaito 2**	**37.06**	**326**	P	**P**	**23 37 56.8**	**+0.4**
KKM	**Kota Kinabalu**	**38.47**	**286**	P	**P**	**23 38 08.1**	**-0.5**
KKM				IAmb	IAmb	23 38 09.4	
	comp=Z,15nm,0.8s						
KKM	**Kota Kinabalu**	**38.47**	**286**	P	**P**	**23 38 07.7**	**-0.9**
	comp=Z,20nm,0.9s						
KKM	**Kota Kinabalu**	**38.47**	**286**	P	**P**	**23 38 08.3**	**-0.3**
	comp=Z,20nm,0.9s						
JAGI	**Jajag, Banyuwa**	**39.01**	**262**	P	**P**	**23 38 11.5**	**-1.5**
JOW	**Kunigami**	**39.53**	**324**		**P**	**23 38 17.7**	**+0.5**
JOW	**Kunigami**	**39.53**	**324**	P	**P**	**23 38 18.6**	**+1.4**
	comp=Z,57nm,0.8s						
MEEK	**Meekatharra**	**39.65**	**233**	P	**P**	**23 38 17.6**	**-0.7**
	comp=Z,27nm,0.7s						
URZ	**Urewera**	**39.90**	**150**	LR	LR	23 52 05.6	
	comp=Z,132nm,18.2s,baz=230,slow=32						
SNZO	**South Karori**	**41.26**	**155**	P	**P**	**23 38 32.5**	**+1.3**
BSWZ	**Blackbirch Sta**	**41.26**	**156**	P	**P**	**23 38 32.3**	**+1.0**
YOJ	**Yonaguni jima**	**41.27**	**316**	P	**P**	**23 38 32.2**	**+0.6**
LTZ	**Lake Taylor**	**41.57**	**159**	P	**P**	**23 38 34.9**	**+1.1**
LTZ				IAmb	IAmb	23 38 55.9	
	comp=Z,21nm,0.8s						
MSWZ	**Moikau Station**	**41.57**	**155**	P	**P**	**23 38 34.7**	**+0.8**
GIRL	**Giralia**	**41.73**	**241**	P	**P**	**23 38 35.0**	**-0.4**
YULB	**Yu-li**	**41.81**	**313**	P	**P**	**23 38 36.1**	**0.0**
YULB				IAmb	IAmb	23 38 37.8	
	comp=Z,14nm,0.7s						
YULB	**Yu-li**	**41.81**	**313**	P	**P**	**23 38 36.2**	**+0.1**
	comp=Z,20nm,0.8s						
RPZ	**Rata Peaks**	**41.97**	**161**	LR	LR	23 56 08.3	
	comp=Z,47nm,18.2s,baz=50,slow=36						
GVZ	**Greta Valley S**	**42.01**	**158**	P	**P**	**23 38 37.9**	**+0.5**
NACB	**Ninganchiao**	**42.08**	**314**	P	**P**	**23 38 38.4**	**+0.2**
NACB				IAmb	IAmb	23 38 39.5	
	comp=Z,21nm,0.7s						
NACB	**Ninganchiao**	**42.08**	**314**	P	**P**	**23 38 38.6**	**+0.4**
	comp=Z,29nm,0.9s						
TPUB	**Ta-pu**	**42.24**	**313**	P	**P**	**23 38 38.9**	**-0.8**
TPUB				IAmb	IAmb	23 38 39.7	
	comp=Z,15nm,0.7s						
LBZ	**Lake Benmore**	**42.29**	**162**	P	**P**	**23 38 40.6**	**+0.9**
LBZ				IAmb	IAmb	23 39 01.5	
	comp=Z,33nm,1.2s						
SSLB	**Suanglung**	**42.30**	**313**		**P**	**23 38 40.1**	**0.0**
SSLB				IAmb	IAmb	23 38 40.7	
	comp=Z,20nm,1.2s						
MQZ	**McQueen's Vall**	**42.51**	**159**	P	**P**	**23 38 42.6**	**+1.2**
YHNB	**Yeheng**	**42.55**	**315**	P	**P**	**23 38 42.9**	**+0.8**
YHNB				IAmb	IAmb	23 38 48.1	
	comp=Z,29nm,1.0s						
YHNB	**Yeheng**	**42.55**	**315**	P	**P**	**23 38 43.0**	**+0.9**
	comp=Z,26nm,0.8s						
MLZ	**Mavora Lakes**	**42.59**	**164**	P	**P**	**23 38 40.2**	**-2.0**
JGF	**Kuroka**	**42.72**	**341**	P	**P**	**23 38 42.4**	**-0.9**
JGF				IAmb	IAmb	23 38 48.1	
	comp=Z,76nm,2.0s						
MORW	**Morawa**	**42.78**	**231**	P	**P**	**23 38 45.2**	**+1.3**
ODZ	**Otahua Downs**	**43.02**	**162**	P	**P**	**23 38 46.4**	**+0.8**
WHZ	**Wether Hill Ro**	**43.03**	**165**	P	**P**	**23 38 44.0**	**-1.7**
JNU	**Nakatsue**	**43.13**	**332**	P	**P**	**23 38 46.5**	**-0.2**
	comp=Z,26nm,0.7s,baz=124,slow=3.1,SNR=12						
	comp=Z,26nm,0.7s						
MJAR	**Matsushiro Arr**	**43.32**	**342**	P	**P**	**23 38 46.5**	**-1.6**
	comp=Z,1.1nm,0.5s,baz=169,slow=6.6,SNR=4.9						
MJAR				PcP	**PcP**	**23 40 36.6**	**+0.4**
	comp=Z,5.9nm,0.8s,baz=152,slow=3.7,SNR=10						
MJAR				LR	LR	23 55 05.8	
	comp=Z,25nm,18.4s,baz=170,slow=34						
	comp=Z,1.1nm,0.5s						
MJAR	**Matsushiro Arr**	**43.32**	**342**	P	**P**	**23 38 47.0**	**-1.1**
MJAR					**PcP**	**23 40 36.3**	**+0.1**
NWAO	**Narrogin (SRO)**	**43.81**	**226**	P	**P**	**23 38 54.0**	**+1.8**
BBJI	**Bungbulang**	**45.41**	**264**		**P**	**23 39 03.5**	**-1.8**
BBJI				IAmb	IAmb	23 39 07.0	
	comp=Z,26nm,1.0s						
JTM	**Tenmabayashi**	**46.57**	**347**	P	**P**	**23 39 13.7**	**-0.1**
DLV	**Lat**	**47.46**	**291**	P	**P**	**23 39 21.7**	**+0.3**
	comp=Z,23nm,0.9s						
KSRS	**Korea Array**	**48.06**	**333**	P	**P**	**23 39 25.8**	**+0.3**
	comp=Z,6.6nm,0.7s,baz=149,slow=7.6,SNR=18						
KSRS				LR	LR	23 59 37.5	
	comp=Z,21nm,18.4s,baz=155,slow=36						
	comp=Z,6.6nm,0.7s						
INCN	**Inchon**	**48.69**	**332**	P	**P**	**23 39 31.1**	**+0.8**
	comp=Z,76nm,1.1s						
INCN	**Inchon**	**48.69**	**332**	P	**P**	**23 39 31.0**	**+0.7**
INCN				x	x	23 39 50.8	
NJ2	**Nanjing**	**49.01**	**321**	*e*P	**P**	**23 39 34.4**	**+1.6**
NJ2				pmax	pmax		
	comp=Z,11nm,0.5s						
JKA	**Kamikawa-asahi**	**49.48**	**350**	P	**P**	**23 39 36.5**	**+0.3**
ASAJ	**Asahikawa**	**49.48**	**350**	P	**P**	**23 39 37.0**	**+0.8**
	comp=Z,6.0nm,0.4s,baz=210,slow=14,SNR=4.4						
ASAJ				LR	LR	23 57 28.1	
	comp=Z,42nm,21.9s,baz=66,slow=32						
	comp=Z,6.0nm,0.4s						
SDSI	**Sungai Dareh**	**51.87**	**272**	P	**P**	**23 39 54.7**	**-0.1**
	comp=Z,19nm,0.7s						
USA0B	**Ussuriysk Arra**	**52.25**	**341**	P	**P**	**23 39 57.1**	**0.0**
USA0B				IAmb	IAmb	23 39 58.6	
	comp=Z,12nm,0.8s						
USRK	**Ussuriysk Ar.**	**52.25**	**341**	P	**P**	**23 39 57.4**	**+0.4**
	comp=Z,11nm,0.8s,baz=177,slow=7.7,SNR=15						
	comp=Z,11nm,0.8s						
USRK	**Ussuriysk Ar.**	**52.25**	**341**		**P**	**23 39 57.2**	**+0.1**
MDJ	**Mudanjiang**	**53.43**	**339**	P	**P**	**23 40 06.1**	**+0.3**
	comp=Z,15nm,0.9s						
HNS	**HongShan**	**55.09**	**323**	⇑P	**P**	**23 40 18.3**	**+0.3**
HNS				pmax	pmax		
	comp=Z,24nm,1.3s						
BNX	**BinXian**	**55.19**	**338**	⇓P	**P**	**23 40 18.6**	**0.0**
BNX				pmax	pmax		
	comp=Z,27nm,0.7s						
KLR	**Kul'dur**	**56.83**	**343**	P	**P**	**23 40 30.5**	**+0.3**
	comp=Z,8.8nm,0.7s,baz=181,slow=4.4,SNR=23						
KLR				PcP	**PcP**	**23 41 25.7**	**+0.4**
	comp=Z,3.8nm,0.3s,baz=178,slow=1.7,SNR=11						
KLR				LR	LR	00 05 22.4	
	comp=Z,39nm,18.6s,baz=182,slow=36						
	comp=Z,8.8nm,0.7s						
PEA0B	**Petropavlovsk-**	**57.66**	**3**	P	**P**	**23 40 36.7**	**+0.6**
PETK	**Petropavlovsk-**	**57.66**	**3**	P	**P**	**23 40 36.9**	**+0.9**
	comp=Z,4.3nm,0.6s,baz=165,slow=6.4,SNR=9.0						
PETK				LR	LR	00 01 26.9	
	comp=Z,27nm,21.7s,baz=146,slow=32						
	comp=Z,4.3nm,0.6s						
CMAR	**Chiang Mai Arr**	**58.21**	**295**	P	**P**	**23 40 41.4**	**+0.9**
	comp=Z,7.5nm,0.7s,baz=120,slow=5.6,SNR=57						
	comp=Z,7.5nm,0.7s						
CMAR	**Chiang Mai Arr**	**58.21**	**295**		**P**	**23 40 41.6**	**+1.1**
CHTO	**Chiang Mai**	**58.32**	**295**	P	**P**	**23 40 40.6**	**-0.7**
PZH	**PanZhiHua**	**58.65**	**305**	P	**P**	**23 40 46.6**	**+3.0**
CD2	**Chengdu**	**58.97**	**310**	P	**P**	**23 40 46.2**	**+0.5**
HEH	**HeiHe**	**59.05**	**341**	*e*P	**P**	**23 40 44.5**	**-1.3**
HEH				pmax	pmax		
	comp=Z,15nm,0.7s						
HHC	**Hu-ho-hao-te**	**59.18**	**324**	*e*P	**P**	**23 40 51.6**	**+4.6**
HHC				pmax	pmax		
	comp=Z,7.0nm,0.5s						
SHEM	**Shemya Is, Ala**	**59.83**	**15**	LR	LR	00 02 16.1	
	comp=Z,69nm,20.8s,baz=164,slow=32						
NPW	**Naypyitaw**	**61.14**	**295**	P	**P**	**23 41 01.9**	**+1.3**
	comp=Z,16nm,0.8s						
LZH	**Lanzhou**	**61.43**	**316**	*e*P	**P**	**23 41 04.6**	**+2.1**
LZH				pP	pP	23 41 20.7	+3.0
LZH				pmax	pmax		
	comp=Z,30nm,1.3s						
LZDM	**Lanzhou Array**	**61.47**	**315**	P	**P**	**23 41 04.2**	**+1.2**
	comp=Z,2.9nm,0.3s,baz=123,slow=5.5,SNR=8.5						
	comp=Z,2.9nm,0.3s						
DRV	**Dumont d'Urvil**	**62.59**	**186**	P	**P**	**23 41 10.3**	**+0.8**
MA2	**Magadan**	**64.05**	**359**	P	**P**	**23 41 19.8**	**+0.6**
	comp=Z,14nm,0.6s,baz=136,slow=5.6,SNR=7.6						
MA2				LR	LR	00 08 58.3	
	comp=Z,22nm,19.0s,baz=144,slow=36						
	comp=Z,14nm,0.6s						
MA2	**Magadan**	**64.05**	**359**		**P**	**23 41 19.5**	**+0.2**
MA2				IAmb	IAmb	23 41 20.7	
	comp=Z,22nm,1.0s						
MA2	**Magadan**	**64.05**	**359**	P	**P**	**23 41 19.2**	**-0.1**
	comp=Z,23nm,0.9s						
MA2	**Magadan**	**64.05**	**359**	P	**P**	**23 41 19.9**	**+0.6**
MORE	**Moreh**	**64.11**	**300**		**P**	**23 41 19.6**	**-0.8**
MORE				IAmb	IAmb	23 41 20.3	
	comp=Z,9.9nm,0.6s						
GTA2	**Gaotai**	**65.92**	**317**	*e*P	**P**	**23 41 33.2**	**+1.2**
GTA2				sP	PcP	23 42 01.7	-0.8
GTA2				pmax	pmax		
	comp=Z,18nm,1.2s						
SONM	**Songino Array**	**66.43**	**328**	P	**P**	**23 41 36.2**	**+1.0**
	comp=Z,2.2nm,0.5s,baz=146,slow=6.3,SNR=14						
	comp=Z,2.2nm,0.5s						
SONM	**Songino Array**	**66.43**	**328**	P	**P**	**23 41 35.9**	**+0.7**
UNV	**Unalaska Valle**	**67.30**	**25**	P	**P**	**23 41 40.5**	**+0.2**
UNV				IAmb	IAmb	23 42 37.5	
	comp=Z,26nm,1.4s						
LVA	**Lava Point**	**67.72**	**24**	P	**P**	**23 41 44.1**	**+1.1**
AKUT	**Akutan**	**67.81**	**25**	P	**P**	**23 41 43.2**	**-0.3**
EVN	**Everest**	**71.63**	**301**	P	**P**	**23 42 08.8**	**+0.4**
EVN				IAmb	IAmb	23 42 09.7	
	comp=Z,4.9nm,0.6s						
VNDA	**Vanda**	**72.97**	**178**	P	**P**	**23 42 16.0**	**+1.4**
	comp=Z,3.0nm,0.8s,baz=330,slow=6.1,SNR=16						
	comp=Z,3.0nm,0.8s						
VNDA	**Vanda**	**72.97**	**178**		**P**	**23 42 15.3**	**+0.6**
VNDA	**Vanda**	**72.97**	**178**	P	**P**	**23 42 16.2**	**+1.5**
	comp=Z,5.3nm,0.8s						
VNDA	**Vanda**	**72.97**	**178**	P	**P**	**23 42 16.1**	**+1.4**
BILI	**Bilibino, Chuk**	**73.13**	**5**	P	**P**	**23 42 16.2**	**+0.4**
	comp=Z,13nm,0.8s						
O14K	**Tigyukauivet M**	**73.14**	**23**	P	**P**	**23 42 15.9**	**-0.1**
PALK	**Pallekele**	**73.35**	**279**	P	**P**	**23 42 17.1**	**-1.1**
O15K	**Ungalikthiuk R**	**73.65**	**23**	P	**P**	**23 42 18.8**	**-0.1**
O15K				IAmb	IAmb	23 43 32.5	
	comp=Z,28nm,1.6s						
K13K	**Kusilvak Mount**	**73.81**	**19**	P	**P**	**23 42 20.7**	**+0.9**
K13K				IAmb	IAmb	23 44 22.5	
	comp=Z,30nm,1.8s						
M14K	**Bethel**	**73.90**	**21**	P	**P**	**23 42 21.1**	**+0.8**
M14K				IAmb	IAmb	23 42 40.5	
	comp=Z,19nm,1.3s						
L14K	**Kuka Creek**	**74.06**	**20**	P	**P**	**23 42 22.0**	**+0.8**

L14K				IAmb	IAmb	23 42 22.3	
	comp=Z,28nm,1.6s						
N15K	Kwethluk River	74.20	22	P	P	23 42 22.2	0.0
N15K				IAmb	IAmb	23 43 39.7	
	comp=Z,32nm,1.8s						
SII	Sitkinak Islan	74.43	27	P	P	23 42 23.1	-0.5
SII				IAmb	IAmb	23 42 24.5	
	comp=Z,12nm,0.6s						
J14K	Nanvaranak Lak	74.75	19	P	P	23 42 26.0	+0.8
J14K				IAmb	IAmb	23 42 27.6	
	comp=Z,5.7nm,0.7s						
ACHA	Angle Creek He	74.89	25	P	P	23 42 26.1	-0.2
K15K	Wolf Creek Mou	75.11	20	P	P	23 42 28.5	+1.1
K15K				IAmb	IAmb	23 42 29.1	
	comp=Z,5.8nm,0.7s						
M16K	Timber Creek	75.18	22	P	P	23 42 28.9	+1.1
M16K				IAmb	IAmb	23 42 29.5	
	comp=Z,7.2nm,0.8s						
OHAK	Old Harbor	75.21	27	P	P	23 42 28.2	+0.1
L16K	Owhat River	75.44	21	P	P	23 42 30.0	+0.7
L16K				IAmb	IAmb	23 43 13.5	
	comp=Z,28nm,2.0s						
N17K	Nushagak Hills	75.54	23	P	P	23 42 30.2	+0.3
N17K				IAmb	IAmb	23 43 02.3	
	comp=Z,17nm,1.8s						
KDAK	Kodiak Island	75.84	27	LR	LR	00 12 10.1	
	comp=Z,72nm,19.6s,baz=141,slow=33						
KDAK	Kodiak Island	75.84	27	P	P	23 42 31.6	0.0
KDAK				IAmb	IAmb	23 43 49.6	
	comp=Z,34nm,1.9s						
O18K	Koktuh Hills	75.92	24	P	P	23 42 31.9	-0.2
O18K				IAmb	IAmb	23 42 58.5	
	comp=Z,25nm,1.9s						
WMQ	Urumqi	75.93	317	*e*P	P	23 42 34.0	+1.4
WMQ				pmax	pmax		
	comp=Z,20nm,0.7s						
WMQ	Urumqi	75.93	317	P	P	23 42 33.8	+1.2
PTCN	Pitcairn Islan	75.97	115	P	P	23 42 33.5	+0.4
M17K	Holitna River	75.99	22	P	P	23 42 33.6	+1.1
M17K				IAmb	IAmb	23 43 13.4	
	comp=Z,18nm,1.6s						
Q19K	Cape Douglas,	76.03	25		P	23 42 32.2	-0.5
J16K	Anvik River	76.10	20	P	P	23 42 34.3	+1.3
J16K				IAmb	IAmb	23 44 14.1	
	comp=Z,23nm,1.8s						
N18K	Kilae Creek	76.14	23	P	P	23 42 33.7	+0.4
K17K	Iditarod	76.51	21	P	P	23 42 35.9	+0.5
J17K	VABM Dome	76.69	20	P	P	23 42 37.5	+1.2
N19K	Bonanza Creek	76.77	23	P	P	23 42 37.1	+0.1
L18K	Granite Mounta	76.78	22	P	P	23 42 38.3	+1.4
L18K				IAmb	IAmb	23 44 42.5	
	comp=Z,15nm,1.6s						
ILSW	Iliamna Southw	76.84	25	P	P	23 42 37.3	-0.1
ILSW				IAmb	IAmb	23 43 07.8	
	comp=Z,13nm,1.4s						
G16K	Koyuk River	76.99	17	P	P	23 42 38.7	+0.7
G16K				IAmb	IAmb	23 42 39.7	
	comp=Z,7.2nm,0.9s						
CNPM	China Poot	77.39	26		P	23 42 39.9	-0.5
H17K	Granite Mounta	77.43	19		P	23 42 41.3	+0.8
H17K				IAmb	IAmb	23 42 42.2	
	comp=Z,6.2nm,0.7s						
L19K	White Mountain	77.44	22		P	23 42 41.4	+0.7
L19K				IAmb	IAmb	23 42 42.2	
	comp=Z,6.3nm,0.7s						
M19K	Big River Lodg	77.45	23	P	P	23 42 41.3	+0.6
J18K	Innoko River	77.55	21		P	23 42 41.7	+0.5
BRLK	Bradley Lake	77.67	25	P	P	23 42 41.3	-0.6
BRLK				IAmb	IAmb	23 45 16.2	
	comp=Z,6.2nm,0.5s						
M20K	Styx River	77.93	23	P	P	23 42 43.4	0.0
L20K	Farewell, AK	77.98	22	P	P	23 42 44.0	+0.3
H18K	Honhosa River	78.07	19	P	P	23 42 44.5	+0.4
H18K				IAmb	IAmb	23 45 14.6	
	comp=Z,28nm,1.9s						
STLK	Strandline Lak	78.22	24	P	P	23 42 45.0	0.0
C16K	Lisburne Hills	78.25	15	P	P	23 42 44.8	-0.1
J19K	Poorman	78.26	21		P	23 42 45.5	+0.3
SLKM	Skilak Lake	78.34	25		P	23 42 45.4	-0.3
SLKM				IAmb	IAmb	23 42 46.1	
	comp=Z,8.7nm,0.6s						
K20K	Telida	78.43	21		P	23 42 46.5	+0.4
SEW	Seward	78.46	25	P	P	23 42 46.1	-0.2
G18K	Tagagawik	78.46	18	P	P	23 42 46.4	+0.1
SUA	Susitna One	78.64	24	P	P	23 42 46.3	-1.1
SUA				IAmb	IAmb	23 42 47.6	
	comp=Z,6.3nm,0.7s						
RDOG	Red Dog Mine	78.72	15	P	P	23 42 47.2	-0.4
RC01	Rabbit Creek A	78.85	25	P	P	23 42 48.6	+0.2
PPLA	Purkeypile	78.86	22	P	P	23 42 49.0	+0.3
PPLA				IAmb	IAmb	23 43 35.6	
	comp=Z,38nm,2.0s						
J20K	Nowinta River	78.89	21		P	23 42 49.0	+0.4
ZSN	Zaisan	79.04	320	*e*P	P	23 42 50.4	+0.6
G19K	Purcell Mounta	79.11	18	P	P	23 42 50.3	+0.5
CAST	Castle Rocks	79.20	22	P	P	23 42 50.1	-0.2
PWL	Port Wells	79.32	25	P	P	23 42 51.2	+0.2
PWL				IAmb	IAmb	23 42 51.8	
	comp=Z,13nm,0.7s						
F19K	Shaleruckik Mo	79.34	18	P	P	23 42 51.6	+0.6
F19K				IAmb	IAmb	23 45 15.7	
	comp=Z,24nm,1.8s						
SML	Sawmill	79.80	24	P	P	23 42 53.8	+0.1
SML				IAmb	IAmb	23 42 54.4	
	comp=Z,9.9nm,0.7s						
GLI	Glacier Island	79.86	25	P	P	23 42 54.0	+0.1
GLI				IAmb	IAmb	23 43 19.7	
	comp=Z,16nm,1.0s						
TRF	Thorofare Moun	79.89	22	P	P	23 42 54.3	0.0
TRF				IAmb	IAmb	23 42 57.8	
	comp=Z,20nm,1.8s						
E19K	Redstone River	79.91	17	P	P	23 42 54.9	+0.9
E19K				IAmb	IAmb	23 42 56.3	
	comp=Z,23nm,1.4s						
FID	Port Fidalgo	80.06	26	P	P	23 42 54.4	-0.7
FID				IAmb	IAmb	23 44 03.9	
	comp=Z,10nm,1.0s						
IMAR	Indian Mountai	80.09	19		P	23 42 55.5	+0.4
D19K	Kuna River	80.33	16	P	P	23 42 56.9	+0.6
C19K	Lookout Ridge	80.33	15	P	P	23 42 57.5	+1.1
RND	Reindeer	80.42	23	P	P	23 42 56.6	-0.4
MKAR	Makanchi Array	80.50	319	P	P	23 42 58.1	+0.4
	comp=Z,9.3nm,0.6s,baz=96,slow=7.5,SNR=84						
	comp=Z,9.3nm,0.6s						
MKAR	Makanchi Array	80.50	319		P	23 42 58.6	+0.9
MCK	McKinley	80.55	22		P	23 42 57.0	-0.6
MCK				IAmb	IAmb	23 42 57.6	
	comp=Z,8.1nm,0.8s						
MLY	Manley	80.58	21		P	23 42 58.0	+0.2
MLY				IAmb	IAmb	23 42 58.4	
	comp=Z,5.9nm,0.7s						
KAIM	Kayak Island	80.59	27	P	P	23 42 58.5	+0.6
MAKZ	Makanchi	80.71	319		P	23 42 59.4	+0.5
MAKZ				IAmb	IAmb	23 43 00.1	
	comp=Z,20nm,0.7s						
MAKZ	Makanchi	80.71	319	P	P	23 42 59.4	+0.5
	comp=Z,34nm,0.7s						
MAKZ	Makanchi	80.71	319	P	P	23 42 59.3	+0.5
DHY	Denali Highway	80.83	23	P	P	23 43 00.1	+0.8
D20K	Etivluk River	80.89	16	P	P	23 43 00.1	+0.7
F21K	Alatna River	80.91	18	P	P	23 43 00.1	+0.6
F21K				IAmb	IAmb	23 45 47.9	
	comp=Z,16nm,1.6s						
WUS	Wushi	81.13	313		P	23 43 01.4	0.0
WUS				IAmb	IAmb	23 43 03.1	
	comp=Z,9.7nm,0.8s						
WUS	Wushi	81.13	313	P	P	23 43 02.3	+0.9
	comp=Z,14nm,0.8s						
WUS	Wushi	81.13	313	P	P	23 43 02.2	+0.8
I23K	Minto, Yukon-K	81.14	21	P	P	23 43 00.9	+0.2
I23K				IAmb	IAmb	23 43 12.0	
	comp=Z,11nm,1.4s						
WRH	Wood River Hil	81.25	22	P	P	23 43 01.4	+0.1
WRH				IAmb	IAmb	23 45 16.6	
	comp=Z,12nm,0.9s						
ZAA0	Zalesovo Array	81.27	326		P	23 43 00.7	-1.0
ZAA0				IAmb	IAmb	23 43 02.5	
	comp=Z,4.5nm,0.6s						
ZALV	Zalesovo Beam	81.27	326	P	P	23 43 01.1	-0.6
	comp=Z,5.0nm,0.4s,baz=111,slow=6.3,SNR=23						
	comp=Z,5.0nm,0.4s						
ZALV	Zalesovo Beam	81.27	326		P	23 43 00.9	-0.8
H23K	Yukon River	81.43	20	P	P	23 43 01.5	-0.8
H23K				IAmb	IAmb	23 43 40.1	
	comp=Z,17nm,1.6s						
SHLS	Shalkode	81.44	315	⇑*i*P	P	23 43 01.7	-1.3
	comp=Z,7.1nm,0.6s						
CCB	Clear Creek Bu	81.45	22	P	P	23 43 01.3	-1.0
PDGK	Podgornoye	81.46	315		P	23 43 03.2	+0.2
GLB	Gilahina Butte	81.53	26	P	P	23 43 03.4	+0.5
COLA	College	81.55	22	P	P	23 43 01.8	-1.0
	comp=Z,7.5nm,1.0s						
VRDI	Verde Repeater	81.59	26	P	P	23 43 03.9	+0.5
VRDI				IAmb	IAmb	23 43 04.7	
	comp=Z,16nm,1.8s						
G23K	Bananza Creek	81.75	20	P	P	23 43 04.2	+0.2
G23K				IAmb	IAmb	23 46 04.4	
	comp=Z,22nm,1.8s						
UZB	Uzynbulak	81.75	315	⇑*i*P	P	23 43 04.9	+0.3
IL31		81.85	22	P	P	23 43 03.3	-1.1
IL31				IAmb	IAmb	23 43 03.4	
	comp=Z,16nm,1.9s						
ILAR	Eielson Array	81.85	22	P	P	23 43 03.1	-1.4
	comp=Z,2.2nm,0.7s,baz=250,slow=5.5,SNR=22						
	comp=Z,2.2nm,0.7s						
ILAR	Eielson Array	81.85	22		P	23 43 03.2	-1.3
E22K	Anaktuvuk Pass	81.96	18	P	P	23 43 05.7	+0.7
E22K				IAmb	IAmb	23 45 10.3	
	comp=Z,33nm,1.9s						
PRZ	Przheval'sk	82.03	314	P	P	23 43 06.0	-0.2
PRZ				IAmb	IAmb	23 43 08.7	
	comp=Z,21nm,0.9s						
PRZ	Przheval'sk	82.03	314	P	P	23 43 07.8	+1.6
	comp=Z,27nm,0.9s						
KPKS	Kokpek	82.06	315	*e*P	P	23 43 06.6	+0.4
SATY	Saty	82.16	314	*e*P	P	23 43 07.1	+0.3
TARG	Taragay, Kyrgy	82.29	313		P	23 43 07.3	-0.5
TARG	Taragay, Kyrgy	82.29	313	P	P	23 43 08.7	+0.9
	comp=Z,6.2nm,0.7s						
J25K	Salcha River,	82.35	22	P	P	23 43 06.2	-1.0
J25K				IAmb	IAmb	23 43 07.5	
	comp=Z,5.5nm,0.7s						
L26K	Log Cabin Wild	82.42	24	P	P	23 43 07.8	+0.2
TDK	Taldyqorghan	82.63	316	*e*P	P	23 43 09.5	+0.5
	comp=Z,18nm,1.1s						
M27K	Edge Creek, AK	82.75	25	P	P	23 43 09.2	-0.2
M27K				IAmb	IAmb	23 43 10.8	
	comp=Z,5.7nm,0.8s						
KDJ	Kajisay	82.83	313		P	23 43 10.7	+0.4
KDJ				IAmb	IAmb	23 43 12.2	
	comp=Z,17nm,0.7s						
KDJ	Kajisay	82.83	313	P	P	23 43 11.4	+1.0
	comp=Z,27nm,0.8s						
ASAI	AK-SAY(Kyrgyzs	83.05	312	P	P	23 43 12.6	+0.9
	comp=Z,10nm,1.0s						
L27K	Beaver Creek,	83.07	25	P	P	23 43 11.0	+0.1
BCAR	Beaver Creek A	83.09	25	P	P	23 43 10.2	-0.9
MDOK	Medeo	83.16	314	*e*P	P	23 43 12.5	+0.6
TNSS	Tian-Shan	83.20	314	*e*P	P	23 43 12.5	0.0
AAA	Alma-Ata	83.26	314	*e*P	P	23 43 12.8	+0.3
	comp=Z,9.2nm,0.9s						
KSH2	Kashi	83.41	310	P	P	23 43 14.4	+1.1
KSH2				pP	pP	23 43 27.1	-1.3
KSH2				pmax	pmax		
	comp=Z,9.0nm,0.8s						
D24K	Happy Valley	83.44	18	P	P	23 43 12.8	+0.2
ULHL	Ulahol	83.54	313	P	P	23 43 15.1	+1.0
	SNR=5.3						
NRN	Naryn	83.54	312		P	23 43 14.7	+0.5
NRN				IAmb	IAmb	23 43 17.2	
	comp=Z,8.5nm,1.2s						
BOOM	Boomskoye usch	83.81	313		P	23 43 15.8	+0.5
BOOM				IAmb	IAmb	23 43 17.2	
	comp=Z,14nm,1.0s						
BOOM	Boomskoye usch	83.81	313	P	P	23 43 16.4	+1.1
	comp=Z,18nm,1.0s						
KUU	Kurty	83.82	315	*e*P	P	23 43 15.6	+0.4
	comp=Z,6.4nm,0.8s						
SIT	Sitka	83.92	31	P	P	23 43 13.8	-1.5
SIT				IAmb	IAmb	23 44 36.7	
	comp=Z,16nm,1.1s						
KURK	Kurchatov	83.92	322		P	23 43 15.1	-0.3
KURK				IAmb	IAmb	23 43 16.3	
	comp=Z,9.4nm,0.7s						
KURK	Kurchatov	83.92	322	P	P	23 43 15.4	0.0
	comp=Z,20nm,1.3s						
KURK	Kurchatov	83.92	322	P	P	23 43 15.5	0.0
KURK				PcP	PcP	23 43 19.1	-0.3
BMAR	Burnt Mountain	83.95	20	P	P	23 43 15.2	-0.2
KURBB	Kurchatov Arra	83.95	322	P	P	23 43 15.3	-0.3
	comp=Z,7.0nm,0.8s,baz=110,slow=4.0,SNR=56						
	comp=Z,7.0nm,0.8s						
G26K	Porcupine Rive	84.01	21		P	23 43 15.9	+0.3
G26K				IAmb	IAmb	23 43 18.9	
	comp=Z,5.5nm,0.8s						
HYT	Haines Junctio	84.10	27		P	23 43 16.7	+0.3
TKM2	Tokmak 2	84.14	314	P	P	23 43 17.7	+0.6
	SNR=26						
I27K	Kandik River	84.21	22	P	P	23 43 17.0	+0.3
I27K				IAmb	IAmb	23 43 50.6	
	comp=Z,13nm,1.6s						
M29M	Somme Creek	84.25	26		P	23 43 17.4	+0.4
NIL	Nilore	84.25	304		P	23 43 17.5	-0.2
NIL	Nilore	84.25	304	P	P	23 43 17.9	+0.3
	comp=Z,26nm,0.7s						
H27K	Steamboat Moun	84.51	22	P	P	23 43 19.7	+1.5
KBK	Karagaybulak	84.56	313	P	P	23 43 20.1	+0.9
	SNR=11						
L29M	L29M	84.64	25	P	P	23 43 19.5	+0.6
CHMS	Chumysh	84.77	314	P	P	23 43 20.4	+0.4
	SNR=32						
FRU1	Bishkek	84.82	314	P	P	23 43 20.7	+0.3
FRU1	Bishkek	84.82	314	P	P	23 43 21.3	+1.0
AAK	Ala-Archa	84.88	313	P	P	23 43 21.8	+1.0
	SNR=30						
AAK	Ala-Archa	84.88	313		P	23 43 21.4	+0.6
AAK	Ala-Archa	84.88	313	P	P	23 43 21.8	+1.0
	comp=Z,43nm,0.8s						
AAK	Ala-Archa	84.88	313	P	P	23 43 21.4	+0.6
SGDS	Sogindy	84.94	314	⇑*i*P	P	23 43 21.2	+0.3
	comp=Z,6.5nm,0.6s						
USP	Ospenovka	85.00	314	P	P	23 43 22.1	+0.9
	SNR=40						
K29M	Barlow Dome	85.15	25		P	23 43 21.9	+0.3
QSPA	South Pole Qui	85.31	180	P	P	23 43 23.0	+0.6
	comp=Z,6.4nm,0.8s,baz=338,slow=2.5,SNR=34						
	comp=Z,6.4nm,0.8s						
QSPA	South Pole Qui	85.31	180		P	23 43 22.8	+0.4
QSPA				IAmb	IAmb	23 44 07.9	
	comp=Z,9.9nm,0.7s						
QSPA	South Pole Qui	85.31	180	P	P	23 43 23.7	+1.3
	comp=Z,10nm,1.0s						
EKS2	Erkin-Say	85.41	313	P	P	23 43 24.5	+1.1
	SNR=42						
ARSB	Arslanbob	85.75	312		P	23 43 25.0	-0.1
OHH	Osh	85.76	311	P	P	23 43 24.7	-0.4
	comp=Z,58nm,0.8s						
MAW	Mawson	85.88	203	P	P	23 43 25.3	+0.3
	comp=Z,2.5nm,0.6s,baz=102,slow=3.8,SNR=12						
	comp=Z,2.5nm,0.6s						
MAW	Mawson	85.88	203	P	P	23 43 24.9	-0.1
J30M	Hart River	85.90	24	P	P	23 43 25.6	+0.3
D27M	Malcolm River	85.96	19	P	P	23 43 26.2	+0.8
NRIK	Noril'sk	85.96	341	P	P	23 43 25.1	-0.2
	comp=Z,13nm,0.5s,baz=116,slow=3.8,SNR=26						
	comp=Z,13nm,0.5s						
NRIK	Noril'sk	85.96	341		P	23 43 25.3	0.0
DRK	Karamyk	86.34	310	P	P	23 43 29.2	+0.9
	comp=Z,21nm,0.9s						
ARK	Arkit	86.59	312	P	P	23 43 30.0	+0.8
	comp=Z,10nm,0.7s						
BTK	Batken	87.18	310	P	P	23 43 32.3	+0.2
BTK				IAmb	IAmb	23 43 33.4	
	comp=Z,13nm,0.9s						
BTK	Batken	87.18	310	P	P	23 43 32.6	+0.5
	comp=Z,20nm,1.3s						
DZA	Taraz	87.22	313	*e*P	P	23 43 32.5	+0.3
G31M	Satah River	87.46	22	P	P	23 43 32.3	-0.4
KBL	Kabul	87.84	305	P	P	23 43 34.0	-1.5
KBL				IAmb	IAmb	23 43 40.0	
	comp=Z,3.9nm,0.8s						
KBL	Kabul	87.84	305	P	P	23 43 34.6	-1.0
	comp=Z,5.5nm,0.8s						
KK31	Karatay Array	87.85	313		P	23 43 34.8	-0.3
KK31				IAmb	IAmb	23 43 35.9	
	comp=Z,7.6nm,0.8s						
KKAR	Karatay Array	87.85	313		P	23 43 34.4	-0.7
IUG	Iuzhnay	88.06	312	*e*P	P	23 43 36.5	+0.2
	comp=Z,6.8nm,0.8s						
BRLS	Borolday	88.33	313	*e*P	P	23 43 37.5	+0.1
	comp=Z,3.6nm,0.8s						
BVAR	Borovoye Array	89.38	323	P	P	23 43 41.4	-0.8
	comp=Z,36nm,0.7s,baz=101,slow=5.6,SNR=201						
	comp=Z,36nm,0.7s						
BORK	Borovoye	89.43	323		P	23 43 41.1	-1.2
HRA	Herat	93.42	304		P	23 44 00.6	-0.9
HRA				IAmb	IAmb	23 44 01.7	
	comp=Z,4.0nm,1.1s						
AB31	Akbulak array	95.65	319		P	23 44 09.2	-1.9
AB31				IAmb	IAmb	23 44 10.6	
	comp=Z,4.7nm,0.8s						
ABKAR	Akbulak array	95.65	319		P	23 44 08.8	-2.3
ARTI	Arti	96.54	326	P	P	23 44 13.2	-1.8
	comp=Z,5.7nm,0.7s,baz=90,slow=3.4,SNR=12						
ARTI				LR	LR	00 28 22.9	
	comp=Z,53nm,21.7s,baz=226,slow=36						
	comp=Z,5.7nm,0.7s						
ARTI	Arti	96.54	326		P	23 44 12.7	-2.3
FINES	FINESS Array B	111.09	336	Pdiff	Pdif	23 45 18.8	-0.9
	comp=Z,1.8nm,0.7s,baz=76,slow=5.9,SNR=9.6						
AKASG	Malin Array Be	114.63	325	PKP	PKiKP	23 49 25.0	-0.6
	comp=Z,1.0nm,0.4s,baz=65,slow=2.0,SNR=6.4						
BRTR	Keskin Array B	115.53	312	PKP	PKiKP	23 49 27.9	-0.1
	comp=Z,0.5nm,0.4s,baz=94,slow=1.9,SNR=5.1						
BRTR	Keskin Array B	115.53	312		PKiKP	23 49 27.6	-0.3
NB2	NORSAR Subarra	116.92	340	PKPdf	PKPdf	23 49 29.4	-0.4
	comp=Z,3.1nm,0.9s,baz=39,slow=1.9						
NOA	NORSAR Array B	116.92	340	PKP	PKPdf	23 49 29.4	-0.4
	comp=Z,1.2nm,0.7s,baz=85,slow=2.1,SNR=4.8						
KOLS	Kolonicke sedl	119.44	325	*e*PKP	PKiKP	23 49 35.4	+0.4
BOSA	Boshof	120.07	233	PKP	PKPdf	23 49 36.6	-0.3
	comp=Z,2.7nm,0.9s,baz=117,slow=2.3,SNR=2.0						
STEB	Steborice	121.37	328	*e*PKPDF	PKiKP	23 49 39.6	+0.8
STEB				*e*SKP	SKPdf	23 53 04.9	-4.8
MORC	Moravsky Berou	121.58	328	*e*PKP	PKPdf	23 49 39.2	+0.1
MAUC	Maruska	121.67	327	*e*PKPDF	PKiKP	23 49 40.4	+1.0
MAUC				*e*SKP	SKPdf	23 53 06.2	-4.1
KRLC	Kraliky	121.81	329	*e*PKPDF	PKiKP	23 49 40.4	+0.7
KRLC				*e*SKP	SKPdf	23 53 05.7	-4.9
OSTC	Ostas	121.81	329	*e*PKPDF	PKiKP	23 49 40.5	+0.8
OSTC				*e*SKP	SKPdf	23 53 04.7	-5.8
DPC	Dobruska-Polom	121.88	329	*e*PKPDF	PKiKP	23 49 40.2	+0.4
DPC				*e*SKP	SKPdf	23 53 05.2	-5.5
UPC	Upice	121.95	329	*e*SKP	SKPdf	23 53 05.0	-5.8
MODS	Modra-Piesok	122.53	327	*e*PKP	PKiKP	23 49 41.9	+0.8
KRUC	Moravsky	122.61	328	*e*PKP	PKiKP	23 49 41.2	0.0
BRG	Berggiesshubel	122.75	331	⇓*i*Pif	PKPdf	23 49 42.0	+0.7
BRG				Amp		23 49 42.7	
	comp=Z,6.2nm,0.8s						
CLL	Collm	122.93	331	*i* PKPdf	PKPdf	23 49 41.6	0.0
	comp=Z,9.0nm,0.8s						
HSKC	Hora Svate Kat	123.17	331	*e*PKPDF	PKiKP	23 49 43.0	+0.6
HSKC				*e*SKP	SKPdf	23 53 05.6	-7.5
WINA	Alland / Wiene	123.34	327	*i* PKiKP	PKiKP	23 49 43.2	+0.4
	comp=Z,5.4nm,0.9s						
RONA	Rosalia, Austr	123.46	326	*i* PKiKP	PKiKP	23 49 43.4	+0.4
	comp=Z,4.7nm,1.0s						
CONA	Conrad Observa	123.56	327	*i* PKiKP	PKiKP	23 49 43.4	+0.1
	comp=Z,2.0nm,0.6s						
CKRC	Cesky Krumlov	123.85	328	*e*PKPDF	PKiKP	23 49 44.3	+0.5
CKRC				*e*SKP	SKPdf	23 53 09.7	-4.8
KHC	Kasperske Hory	124.04	329	*e*PKPDF	PKiKP	23 49 44.6	+0.5
KHC				*e*SKP	SKPdf	23 53 09.1	-5.7
GERES	GERESS Array B	124.15	329	PKP	PKiKP	23 49 44.3	-0.1
	comp=Z,5.5nm,0.8s,baz=90,slow=1.3,SNR=36						
SOKA	Soboth	124.75	326	*e*PKP	PKPdf	23 49 45.4	0.0
	comp=Z,2.8nm,0.9s						
KBA	Koelnbreinsper	125.44	327	*e*PKP	PKPdf	23 49 45.9	-0.9
	comp=Z,5.2nm,1.2s						
MYKA	Terra Mystica	125.55	327	*i* PKP	PKPdf	23 49 46.3	-0.6
	comp=Z,4.0nm,1.1s						
LESA	Schwarzleotal	125.58	328	*i* PKP	PKPdf	23 49 46.9	0.0
	comp=Z,4.1nm,0.5s,SNR=6.4						
EKA	Eskdalemuir Ar	126.01	344	PKP	PKPdf	23 49 46.9	-0.4
	comp=Z,1.4nm,0.6s,baz=12,slow=2.8,SNR=6.3						
ABTA	Abfaltersbach	126.09	327	*i* PKP	PKPdf	23 49 47.7	-0.2
	comp=Z,8.3nm,1.1s						
WATA	Walderalm	126.21	328	*i* PKP	PKPdf	23 49 48.1	-0.1
	comp=Z,5.7nm,0.7s						
WTTA	Wattenberg	126.23	328	*i* PKiKP	PKiKP	23 49 48.7	-0.1
	comp=Z,6.3nm,0.5s,SNR=8.8						
MOTA	Moosalm	126.45	329	*i* PKiKP	PKPdf	23 49 48.9	+0.2
	comp=Z,13nm,1.1s,SNR=4.7						
SQTA	Sankt Quirin	126.48	329	*i* PKiKP	PKiKP	23 49 49.1	-0.1
	comp=Z,5.4nm,0.6s						
RETA	Reutte	126.53	329	*e*PKiKP	PKPdf	23 49 48.9	+0.1
	comp=Z,2.0nm,0.5s,SNR=5.0						
MEM	Membach	126.59	335	*d*PKP	PKiKP	23 49 49.1	0.0
FETA	Feichten	126.86	329	*i* PKiKP	PKiKP	23 49 49.8	-0.2
	comp=Z,6.6nm,0.8s						
DAVA	Damuels	127.12	329	*i* PKiKP	PKiKP	23 49 50.4	0.0
	comp=Z,9.9nm,0.9s						
DAVOX	Davos/Dischmat	127.45	329	PKP	PKPdf	23 49 50.3	-0.4
	comp=Z,5.6nm,0.6s,baz=191,slow=0.5,SNR=11						
LPAZ	La Paz	134.10	118	PKP	PKiKP	23 50 05.4	-0.5
	comp=Z,0.9nm,0.5s,baz=77,slow=1.8,SNR=4.2						
KEST	Kesra	134.59	318	PKP	PKiKP	23 50 05.3	-0.4
	comp=Z,1.7nm,0.6s,baz=358,slow=3.6,SNR=6.6						
KEST	Kesra	134.59	318		PKiKP	23 50 05.8	+0.1
ESDC	Sonseca Array	139.50	333	PKP	PKiKP	23 50 15.0	-0.7
	comp=Z,0.7nm,0.7s,baz=3.7,slow=3.1,SNR=7.0						
TORD	Torodi Ar. Bea	150.68	289	PKPbc	PKPbc	23 50 37.7	-0.8
	comp=Z,20nm,0.7s,baz=69,slow=2.2,SNR=110						
BDFB	Brasilia	150.86	134	PKPbc	PKPbc	23 50 38.4	-0.7
	comp=Z,5.5nm,0.5s,baz=98,slow=4.5,SNR=3.6						
BDFB	Brasilia	150.86	134		PKiKP	23 50 39.7	0.0

NOU **11** *23:34:10.0, 24°.09S×178°.80W, h576^{km}, mb4.3/12, South of Fiji Islands*

NEIC **11** *23:34:11.5±1.1, 24°.1S±0°.1×179°.8E±0°.1, h504^{km}±9^{km}, mb4.1/10, Error ellipse: s-maj=20.6km s-min=17.2km az=129.0*

IDC **11** *23:34:13.6±1.5, 23°.99S×179°.52E, h533^{km}±15^{km}, mb3.5/8, mbtmp4.4/9, Error ellipse: s-maj=17.8km s-min=13.9km az=170.0*

ISC 11 23:34:11.8±0.5**, 24°.13S**±0°.06×**179°.77E**±0°.07**, h526**^{km}**, n91,** σ**1.^{s}58**/104**, mb3.9**/15**, 5C, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GLKZ	Green Lake	5.51	158	P	P	23 35 45.0	+0.3
GLKZ				S	S	23 36 59.3	-1.4
GLKZ				AML	AML		
LKBA	Tubou, Lakemba	6.01	13	P	P	23 35 48.4	-1.1
MSVF	Nonsavu	6.56	346	P	P	23 35 53.5	-1.4
	10nm,0.5s,baz=177,slow=5.9,SNR=9.7						
MSVF	Nonsavu	6.56	346	P	P	23 35 53.6	-1.2
TAVE	Taveuni	7.39	2	P	P	23 36 02.9	0.0
NIUE	Niue	10.82	64	P	P	23 36 36.9	-1.2
NIUE	Niue	10.82	64	P	P	23 36 43.0	+4.9
NIUE				S	S	23 38 36.2	-2.2
MARNC	Mare, Loyalty	11.14	281	P	P	23 36 40.0	-1.4
OUENC	Ouen Island, N	12.00	276	P	P	23 36 50.9	+0.5
OUZ	Omahuta	12.28	204	P	P	23 36 56.1	+3.0
GRZ	Great Barrier	12.64	196	P	P	23 36 59.1	+2.3
WCZ	Waipu Caves	12.67	200	P	P	23 37 00.2	+3.1
WIAZ	Waiheke Island	13.24	196	P	P	23 37 11.0	+7.9
MBAZ	Motutapu North	13.28	197	P	P	23 37 12.2	+8.7
MXZ	Matakaoa Point	13.45	185	P	P	23 37 06.0	+0.8
MKAZ	Moumakai	13.53	196	P	P	23 37 07.4	+1.3
AWAZ	Awhitu Peninsu	13.62	198	P	P	23 37 08.3	+1.1
HAZ	Te Kaha	13.69	187	P	P	23 37 08.5	+0.7
HAZ				S	S	23 39 32.1	-0.7
WMGZ	Waiomatatini S	13.70	185	P	P	23 37 07.9	0.0
PKGZ	Pakihiroa	13.77	186	P	P	23 37 13.3	+4.6
RUGZ	Raukumara Rang	13.91	187	P	P	23 37 11.8	+1.5
PUZ	Puketiti	13.96	185	P	P	23 37 12.8	+2.2
PUZ				S	S	23 39 38.0	-0.1
TOZ	Tahuroa Road	14.04	194	P	P	23 37 13.7	+2.2
TWGZ	Tauwhareparae	14.09	186	P	P	23 37 13.6	+1.6
TWGZ				S	S	23 39 40.4	-0.2
URZ	Urewera	14.27	189	P	P	23 37 13.3	-0.6
	16nm,0.5s,baz=340,slow=1.6,SNR=23						
URZ				S	S	23 39 41.2	-2.7
	18nm,0.9s,baz=54,slow=23,SNR=8.8						
URZ	Urewera	14.27	189	P	P	23 37 13.0	-0.8
URZ	Urewera	14.27	189	P	P	23 37 11.8	-2.0
URZ				S	S	23 39 40.4	-3.5
MWZ	Matawai	14.29	187	P	P	23 37 13.6	-0.5
MWZ				S	S	23 39 45.1	+0.6
RIGZ	Rimuhau	14.63	186	P	P	23 37 17.6	-0.1
RIGZ				S	S	23 39 45.5	-5.5

HIZ	Hauiti	14.94	195	P	P	23 37 23.0	+2.2
NMHZ	Naumai	15.13	189	P	P	23 37 23.0	+0.1
NMHZ				S	S	23 40 00.0	-0.5
BKZ	Black Stump Fm	15.25	190	P	P	23 37 23.4	-0.7
BKZ	Black Stump Fm	15.25	190	P	P	23 37 23.3	-0.7
BKZ				S	S	23 39 57.9	-4.7
NGZ	Ngauruhoe	15.41	192	P	P	23 37 27.1	+1.2
WAZ	Wanganui	16.10	193	P	P	23 37 33.2	+0.4
TSZ	Takapari Road	16.20	191	P	P	23 37 33.8	0.0
BFZ	Birch Farm	16.77	189	P	P	23 37 38.0	-1.3
BFZ	Birch Farm	16.77	189	S	S	23 40 28.7	-0.2
BFZ	Birch Farm	16.77	189	P	P	23 37 38.4	-0.9
BFZ				S	S	23 40 28.7	-0.2
MRZ	Mangatainoka R	16.86	191	P	P	23 37 39.3	-0.8
MRZ				S	S	23 40 26.1	-4.3
SNZO	South Karori	17.65	193	P	P	23 37 46.4	-1.1
SNZO	South Karori	17.65	193	S	S	23 40 41.5	-1.8
QRZ	Quartz Range	17.72	198	P	P	23 37 49.0	+0.9
QRZ	Quartz Range	17.72	198	P	P	23 37 49.1	+0.9
NNZ	Nelson	17.86	196	P	P	23 37 49.2	-0.2
THZ	Tophouse	18.49	196	P	P	23 37 54.7	-0.6
DSZ	Denniston Nort	18.78	199	P	P	23 37 58.3	+0.5
KHZ	Kahutara	18.96	194	P	P	23 37 59.5	+0.1
LTZ	Lake Taylor	19.61	197	P	P	23 38 04.7	-0.7
LTZ	Lake Taylor	19.61	197	P	P	23 38 04.7	-0.7
FOZ	Fox Glacier	21.02	201	P	P	23 38 18.9	+0.8
JCZ	Jackson Bay	21.84	202	P	P	23 38 26.1	+0.5
CTA	Charters Tower	31.27	271	P	P	23 39 49.7	+1.0
	4.5nm,0.3s,baz=97,slow=10,SNR=9.4						
	4.5nm,0.3s						
TOO	Toolangi	32.15	237	P	P	23 39 56.7	+0.7
TOO				IAmb	IAmb	23 40 11.3	
	comp=Z,3.3nm,1.1s						
TAU	Tasmania Unive	32.62	227	P	P	23 40 00.8	+0.9
TAU				IAmb	IAmb	23 40 04.7	
	comp=Z,14nm,1.1s						
ASAR	Alice Springs	41.79	261	P	P	23 41 15.7	+0.3
	comp=Z,1.5nm,0.7s,baz=94,slow=7.4,SNR=9.6						
ASAR				ScP	ScP	23 46 01.2	+1.6
	comp=Z,0.4nm,0.8s,baz=115,slow=5.5,SNR=4.1						
ASAR				S	S	23 46 51.5	-3.5
	comp=Z,0.5nm,0.8s,baz=96,slow=17,SNR=3.9						
	comp=Z,1.5nm,0.7s						
ASAR	Alice Springs	41.79	261	P	P	23 41 15.6	+0.1
WR8	Warramunga Arr	42.03	267	P	P	23 41 16.5	-0.8
WR8				IAmb	IAmb	23 41 20.6	
	comp=Z,4.0nm,1.0s						
WRA	Warramunga Arr	42.18	266	P	P	23 41 18.3	-0.3
	comp=Z,2.2nm,0.5s,baz=91,slow=6.3,SNR=15						
WRA				ScP	ScP	23 46 02.5	+1.3
	comp=Z,1.0nm,0.9s,baz=99,slow=3.6,SNR=4.6						
WRA				S	S	23 46 56.5	-4.1
	comp=Z,1.0nm,0.9s,baz=99,slow=14,SNR=4.7						
	comp=Z,2.2nm,0.5s						
WRA	Warramunga Arr	42.18	266	P	P	23 41 17.8	-0.7
FORT	Forrest	46.03	250	P	P	23 41 47.8	-0.4
FORT				IAmb	IAmb	23 41 48.6	
	comp=Z,7.4nm,0.7s						
QSPA	South Pole Qui	65.96	180	P	P	23 44 07.4	+1.8
	comp=Z,7.9nm,0.6s,baz=118,slow=0.7,SNR=10						
	comp=Z,7.9nm,0.6s						
QSPA	South Pole Qui	65.96	180	P	P	23 44 07.1	+1.5
MJAR	Matsushiro Arr	71.97	326	P	P	23 44 41.5	-0.5
	comp=Z,1.8nm,0.7s,baz=162,slow=4.9,SNR=5.3						
	comp=Z,1.8nm,0.7s						
MAW	Mawson	77.46	200	P	P	23 45 13.8	+1.4
	comp=Z,3.9nm,0.6s,baz=124,slow=5.8,SNR=8.5						
	comp=Z,3.9nm,0.6s						
MAW	Mawson	77.46	200	P	P	23 45 13.9	+1.5
MAW				IAmb	IAmb	23 45 14.6	
	comp=Z,1.2nm,1.1s						
PETK	Petropavlovsk-	79.27	347	P	P	23 45 22.9	+0.7
	comp=Z,2.9nm,0.8s,baz=99,slow=5.3,SNR=1.8						
	comp=Z,2.9nm,0.8s						
TROLL	Troll, Antarti	84.10	181	⇑P	P	23 45 47.6	+0.7
	comp=Z,419nm,0.6s						
VNA3	Neumayer Olymp	84.66	177	⇑P	P	23 45 49.5	0.0
	comp=Z,5.9nm,0.7s						
VNA2	Neumayer--Watz	85.08	178	⇑P	P	23 45 51.6	+0.1
	comp=Z,4.6nm,0.6s,baz=178,slow=3.7						
VNA1	Neumayer--Stat	85.31	177	⇑P	P	23 45 53.0	+0.4
	comp=Z,3.7nm,0.8s						
TX31	Lajitas Ar. Si	90.73	58	P	P	23 46 20.2	+1.3
TXAR	Lajitas Array	90.73	58	P	P	23 46 20.4	+1.5
	comp=Z,0.9nm,0.8s,baz=222,slow=6.2,SNR=12						
	comp=Z,0.9nm,0.8s						
TXAR	Lajitas Array	90.73	58	P	P	23 46 20.1	+1.2
KURBB	Kurchatov Arra	115.26	316	PKP	PKPdf	23 51 52.7	-0.5
	comp=Z,0.3nm,0.7s,baz=93,slow=1.6,SNR=5.4						
BVAR	Borovoye Array	120.47	319	PKP	PKPdf	23 52 02.8	-0.3
	comp=Z,1.1nm,0.7s,baz=55,slow=1.7,SNR=6.8						
HFS	Hagfors	142.73	349	PKhKP	PKPpre	23 52 40.9	
	comp=Z,1.8nm,0.3s,baz=52,slow=2.6,SNR=19						
AKASG	Malin Array Be	145.05	327	PKP	PKPdf	23 52 48.4	-0.5
	comp=Z,0.5nm,0.3s,baz=45,slow=3.9,SNR=4.4						
BRTR	Keskin Array B	147.54	307	PKPbc	PKPbc	23 52 57.1	0.0
	comp=Z,0.6nm,0.6s,baz=154,slow=5.2,SNR=4.4						
MMAI	Mount Meron Ar	147.60	294	PKPbc	PKPbc	23 52 58.0	+0.6
	comp=Z,1.6nm,0.5s,baz=59,slow=3.9,SNR=7.2						
MMAI	Mount Meron Ar	147.60	294		PKPbc	23 52 58.0	+0.6
EKA	Eskdalemuir Ar	148.76	3	PKPbc	PKPbc	23 52 59.3	-0.1
	comp=Z,2.1nm,0.9s,baz=346,slow=2.9,SNR=4.6						
CSS	Mathiatis	149.00	298	PKPbc	PKiKP	23 53 01.4	-0.3
BUR08	Bucovina Ar. S	149.03	326	PKPbc	PKiKP	23 53 01.8	+0.3
BURAR	Bucovina Array	149.04	326	PKPbc	PKiKP	23 53 02.5	+1.0
CLL	Collm	151.01	343		PKiKP	23 53 05.5	+0.2
CLL	Collm	151.01	343	*i* PKPbc	PKiKP	23 53 05.1	-0.2
	comp=Z,5.0nm,0.8s						
BRG	Berggiesshubel	151.13	341	⇑*e*PKPb	PKPbc	23 53 06.0	+0.8
BRG	Berggiesshubel	151.13	341	Amp		23 53 06.5	
	comp=Z,4.6nm,0.9s						
ELL	Elmali	151.26	303	PKPbc	PKiKP	23 53 06.8	+0.3
TORD	Torodi Ar. Bea	168.93	190	PKP	PKPdf	23 53 18.8	-0.5
	comp=Z,1.4nm,0.7s,baz=222,slow=1.9,SNR=2.0						
TORD				PKPab	PKPab	23 54 34.3	+0.7
	comp=Z,2.2nm,0.8s,baz=173,slow=3.5,SNR=4.2						

IDC ***11*** *23:46:02.5±0.9, 15°.58S×12°.94W, h0*^{km}*, mb4.3/14, mbtmp4.3/14, Error ellipse: s-maj=43.4km s-min=16.0km az=94.0*

GFZ ***11*** *23:46:04.1±0.3, 15°S±5°×1°3W±°, h10*^{km}*, M4.7/29, mb4.7/29, Error ellipse: s-maj=16.3km s-min=9.3km az=76.2, confirmed*

GCMT ***11*** *23:46:04.5±0.3, 15°.47S±0°.04×13°.27W±0°.02, h12*^{km}*, MW4.9/88, Moment Tensor Solution. s14,c15; s88,c110; Duration: 0 Moment tensor: Scale* 10^{16}*Nm;* M_{rr}*-1.34±.08;* $M_{\theta\theta}$*-0.22±.09;* $M_{\phi\phi}$*1.56±.06;* $M_{r\theta}$*1.71±.34;* $M_{\theta\phi}$*-0.03±.06;* $M_{\phi r}$*-1.10±.26; Best double couple:* M_0*2.44400×*10^{16} *NP1:*ϕ_s*199.00000°, δ29.00000°, λ-35.00000°. NP2:* ϕ_s*320.00000°, δ74.00000°, λ-114.00000°. Principal axes: T 2.1290, Plg25.0000°, Azm69.0000°; N 0.6310, Plg23.0000°, Azm327.0000°; P -2.7600, Plg54.0000°, Azm200.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

NEIC ***11*** *23:46:04.5±1.6, 15°.56S±0°.10×12°.78W±0°.08, h10*^{km}*±1*^{km}*, mb5.0/118 Error ellipse: s-maj=16.9km s-min=13.5km az=169.0*

ISC 11 23:46:04.0±0.3**, 15°.53S**±0°.07×**12°.89W**±0°.06**, h10**^{km}**, n203, σ1s.03**/203**, mb4.8**/100**, 2C-2D, Southern Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SHEL	Horse Pasture	6.90	94	Pn	Pn	23 47 42.8	-2.5
SHEL	Horse Pasture	6.90	94	P	Pn	23 47 46.8	+1.5
	comp=Z,148nm,1.0s						
H10N1	ASCENSION HYDR	7.80	348	T	T	23 55 51.7	
	baz=172,slow=76,SNR=6.9						
H10N3	ASCENSION HYDR	7.81	348	T	T	23 55 50.3	
	baz=172,slow=76,SNR=20						
H10N2	ASCENSION HYDR	7.82	348	T	T	23 55 45.7	
	baz=172,slow=76,SNR=8.7						
TRIS	Tristan da Cun	21.45	179	P	P	23 50 51.4	-1.2
DBIC	Dimbokro	23.45	20	P	P	23 51 13.2	-0.6
	comp=Z,5.1nm,1.0s,baz=118,slow=7.7,SNR=6.2						
	comp=Z,5.1nm,1.0s						
DBIC	Dimbokro	23.45	20	P	P	23 51 12.8	-1.0
WIN	Windhoek	29.16	109	P	P	23 52 03.8	-2.1
EDA	Edea	29.81	52	P	P	23 52 11.1	-0.4
EDA				IAmb	IAmb	23 52 20.8	
	comp=Z,23nm,1.4s						
TORD	Torodi Ar. Bea	31.94	28	P	P	23 52 30.3	0.0
	comp=Z,5.2nm,1.0s,baz=208,slow=9.0,SNR=6.1						
	comp=Z,5.2nm,1.0s						
LBTB	Lobatse	37.21	111	P	P	23 53 14.7	-1.3
LBTB	Lobatse	37.21	111	P	P	23 53 18.0	+2.0
BOSA	Boshof	37.51	117	P	P	23 53 17.3	-1.1
	comp=Z,5.1nm,1.0s,baz=264,slow=5.5,SNR=3.6						
	comp=Z,5.1nm,1.0s						
BOSA	Boshof	37.51	117	P	P	23 53 17.4	-1.1
LSZ	Lusaka	39.56	95	P	P	23 53 34.6	-1.3
LSZ	Lusaka	39.56	95	P	P	23 53 39.8	+3.9
	comp=Z,9.4nm,2.3s						
POGA	Pongola	42.94	114	P	P	23 54 02.4	-1.0
POGA				IAmb	IAmb	23 54 10.5	
	comp=Z,33nm,1.5s						
POGA	Pongola	42.94	114	P	P	23 54 06.1	+2.7
	comp=Z,40nm,1.9s						
PTLB	Pontes e Lacer	44.49	264	P	P	23 54 15.5	-0.5
MD01	Midelt array s	48.75	9	P	P	23 54 49.2	-0.1
LODK	Lodwar	51.33	73	P	P	23 55 08.2	-0.9
LPAZ	La Paz	52.98	261	P	P	23 55 20.5	-1.6
PB08	IPOC Station P	53.55	256	P	P	23 55 24.2	-1.8
EVO	Evora	53.97	5	P	P	23 55 28.6	+0.5
	comp=Z,5.3nm,1.3s						
CART	Cartagena	54.01	12	P	P	23 55 26.8	-1.6
CART				IAmb	IAmb	23 55 30.2	
	comp=Z,11nm,1.0s						
CART	Cartagena	54.01	12	P	P	23 55 28.9	+0.5
	comp=Z,9.9nm,0.9s						
PB16	IPOC Station P	54.05	258	P	P	23 55 29.9	0.0
PB07	IPOC Station P	54.11	254	P	P	23 55 31.1	+1.3
PB07				IAmb	IAmb	23 55 37.1	
	comp=Z,12nm,1.1s						
CO01	Juntas del Tor	54.17	244	P	P	23 55 30.4	+0.2
CO01				IAmb	IAmb	23 55 35.3	
	comp=Z,17nm,0.9s						
PB14	IPOC Station P	54.44	251	P	P	23 55 33.5	+1.2
PB14				IAmb	IAmb	23 55 35.8	
	comp=Z,28nm,1.3s						
LCO	Las Campanas	54.67	245	P	P	23 55 35.6	+1.6
GO04	Tololo Observa	54.79	244	P	P	23 55 35.4	+0.7
PEL	Peldehue	54.84	240	P	P	23 55 36.0	+1.2
MT09	Talagante	55.14	240	P	P	23 55 37.0	-0.1
KEST	Kesra	55.17	22	P	P	23 55 38.5	+1.5
	comp=Z,12nm,1.2s,baz=269,slow=6.3,SNR=5.4						
	comp=Z,12nm,1.2s						
KEST	Kesra	55.17	22		P	23 55 37.9	+0.9
KEST				IAmb	IAmb	23 55 45.6	
	comp=Z,16nm,1.1s						
VNA1	Neumayer--Stat	55.17	178	⇓P	P	23 55 36.8	+0.4
	comp=Z,4.9nm,0.9s						
VNA1				⇑pP	pwP	23 55 41.7	-1.0
	comp=Z,7.1nm,1.1s						
VNA2	Neumayer--Watz	55.47	178	⇓P	P	23 55 38.6	0.0
	comp=Z,3.5nm,1.0s,baz=357,slow=9.4						
VNA2				⇑pP	sP	23 55 43.3	+1.5
	comp=Z,4.0nm,0.9s,baz=358,slow=9.1						
VNA2	Neumayer--Watz	55.47	178	P	P	23 55 38.7	0.0
	comp=Z,12nm,1.3s						
ESDC	Sonseca Array	55.55	8	P	P	23 55 40.2	+0.5
	comp=Z,0.7nm,0.7s,baz=190,slow=7.9,SNR=6.1						
	comp=Z,0.7nm,0.7s						
BI02	San Fabin de	55.63	236		P	23 55 41.9	+1.4
BI02				IAmb	IAmb	23 55 44.1	
	comp=Z,27nm,1.3s						
CXM	Morne La Croix	56.43	300	P	P	23 55 47.1	+0.6
CXM				IAmb	IAmb	23 56 06.1	
	comp=Z,20nm,0.9s						
SNAA	Sanae	56.44	176	P	P	23 55 45.2	-0.5
	comp=Z,2.4nm,0.9s,baz=263,slow=6.4,SNR=4.0						
	comp=Z,2.4nm,0.9s						
SNAA	Sanae	56.44	176		P	23 55 45.4	-0.3
SNAA				IAmb	IAmb	23 55 51.8	
	comp=Z,13nm,1.3s						
SNAA	Sanae	56.44	176	P	P	23 55 45.8	+0.1
	comp=Z,9.2nm,1.5s						
GO10	Punta Arenas	58.75	217	P	P	23 56 02.0	-0.2
CZSB	Cruzeiro do Su	58.94	270	P	P	23 56 02.3	-1.8
CEST	Esterri de Car	59.29	12	P	P	23 56 04.8	-1.3
CEST				IAmb	IAmb	23 56 13.8	
	comp=Z,11nm,1.1s						
PMSA	Palmer Station	60.03	203	P	P	23 56 11.6	+0.9
PMSA				IAmb	IAmb	23 56 24.6	
	comp=Z,11nm,1.0s						
HUMP	Col San Antoni	61.98	301	P	P	23 56 26.1	+1.3
HUMP				IAmb	IAmb	23 56 28.2	
	comp=Z,16nm,1.1s						
SDV	Santo Domingo	62.12	289	P	P	23 56 26.5	+0.4
AQU	L'Aquila	62.49	22	P	P	23 56 27.1	-0.6
AQU				IAmb	IAmb	23 56 32.4	
	comp=Z,11nm,1.0s						
ECPR	Experimental S	62.49	301	P	P	23 56 28.9	+0.8
SSB	Saint Sauveur	62.56	14	P	P	23 56 30.1	+2.0
SSB				IAmb	IAmb	23 56 35.8	
	comp=Z,11nm,1.3s						
FDMO	Fiordimonte	62.98	21	P	P	23 56 31.7	+0.8
FDMO				IAmb	IAmb	23 56 38.1	
	comp=Z,12nm,1.3s						
BELA	Belgrano 2	63.29	185	P	P	23 56 33.8	+1.1
ZCCA	Zocca	63.45	19	P	P	23 56 34.4	+0.3
ROSC	El Rosal	64.08	283	P	P	23 56 38.3	-1.0
ROSC				IAmb	IAmb	23 56 40.5	
	comp=Z,14nm,1.2s						
LIT	Litokhoron	64.40	30	P	P	23 56 40.2	-0.2
LIT				IAmb	IAmb	23 56 47.6	
	comp=Z,12nm,1.0s						
LIT	Litokhoron	64.40	30	P	P	23 56 41.2	+0.8
	comp=Z,16nm,1.1s						
EIL	Elat	64.41	46	P	P	23 56 41.3	+0.6
	comp=Z,7.1nm,1.4s						
PHP	Peshkopia	64.73	27	P	P	23 56 44.3	+1.7
	comp=Z,10.0nm,1.2s						
TUE	Stuetta	64.89	17	P	P	23 56 44.1	+0.4
TUE				IAmb	IAmb	23 56 50.0	
	comp=Z,14nm,1.4s						
TUE	Stuetta	64.89	17	P	P	23 56 43.7	0.0
	comp=Z,7.8nm,2.0s						
BOURR	Bourrignon	65.19	15	P	P	23 56 43.8	-1.7
	comp=Z,13nm,1.6s						
DAVA	Damuels	65.79	17	*i* P	P	23 56 48.5	-0.9
	comp=Z,6.8nm,1.1s						
FETA	Feichten	65.79	17	*e*P	P	23 56 48.4	-1.1
	comp=Z,5.0nm,1.1s						
ABTA	Abfaltersbach	66.08	19	*i* P	P	23 56 51.5	+0.2
	comp=Z,7.3nm,1.3s						
SQTA	Sankt Quirin	66.11	18	*i* P	P	23 56 51.7	+0.3
	comp=Z,4.3nm,0.9s						
MOTA	Moosalm	66.19	18	*e*P	P	23 56 51.0	-1.1
	comp=Z,2.7nm,1.0s						
UBR	Ueberruh	66.21	17	P	P	23 56 52.3	+0.2
	comp=Z,11nm,1.6s						
ACOM	Acomizza, Ital	66.22	20	P	P	23 56 52.6	+0.4
RETA	Reutte	66.22	17	*i* P	P	23 56 51.8	-0.3
	comp=Z,5.2nm,1.2s						
WTTA	Wattenberg	66.27	18	*e*P	P	23 56 52.7	+0.1
	comp=Z,7.6nm,1.1s						
WTTA	Wattenberg	66.27	18	P	P	23 56 52.7	+0.1
	comp=Z,8.1nm,1.1s						
MYKA	Terra Mystica	66.33	20	*i* P	P	23 56 54.4	+1.6
	comp=Z,7.3nm,1.2s						
BFO	Black Forest	66.33	15		P	23 56 52.9	+0.1
BFO				IAmb	IAmb	23 56 59.2	
	comp=Z,14nm,1.4s						
BFO	Black Forest	66.33	15	P	P	23 56 52.9	+0.1
OBKA	Obir	66.52	20	*i* P	P	23 56 55.0	+0.8
	comp=Z,7.1nm,1.8s						
OTAV	Otavalo	66.56	277	P	P	23 56 55.4	-0.1
KBA	Koelnbreinsper	66.63	19	*i* P	P	23 56 55.8	+0.9
	comp=Z,9.9nm,1.3s						
KBA	Koelnbreinsper	66.63	19	P	P	23 56 54.1	-0.8
	comp=Z,9.1nm,1.5s						
LESA	Schwarzleotal	66.73	19	*i* P	P	23 56 55.1	-0.3
	comp=Z,7.5nm,1.5s						
SOKA	Soboth	66.83	21	*i* P	P	23 56 56.4	+0.3
	comp=Z,5.8nm,1.1s						
WLF	Walferdange	67.06	13	P	P	23 56 58.1	+0.8
WLF				IAmb	IAmb	23 57 04.4	
	comp=Z,16nm,1.2s						
BIOA	Bad Ischl, Aus	67.27	19	*i* P	P	23 56 58.6	-0.2
	comp=Z,3.0nm,0.9s						
FRGS	Fruska Gora	67.31	24	P	P	23 57 00.3	+1.3
	comp=Z,8.0nm,1.2s						
ARSA	Arzberg	67.50	21		P	23 57 00.2	0.0
ARSA				IAmb	IAmb	23 57 07.6	
	comp=Z,9.8nm,1.1s						
ARSA	Arzberg	67.50	21	*i* P	P	23 57 01.0	+0.7
	comp=Z,4.8nm,1.0s						
ARSA	Arzberg	67.50	21	P	P	23 57 01.3	+1.0
	comp=Z,12nm,1.2s						
MOA	Molln	67.61	19	*i* P	P	23 57 00.7	-0.2
	comp=Z,5.2nm,1.1s						
MOA	Molln	67.61	19	P	P	23 57 00.4	-0.5
	comp=Z,6.3nm,1.1s						
MORH	Mrgy, Hungar	67.73	23	P	P	23 57 02.9	+1.2
	comp=Z,5.3nm,2.2s						
RONA	Rosalia, Austr	68.15	21	*i* P	P	23 57 04.9	+0.5
	comp=Z,7.2nm,1.2s						
CONA	Conrad Observa	68.20	20	*i* P	P	23 57 04.9	+0.2
	comp=Z,3.4nm,0.9s						
GEC2	GERESS Array S	68.31	19	P	P	23 57 04.2	-1.2
GEC2				IAmb	IAmb	23 57 12.1	
	comp=Z,10nm,1.4s						
GEC2	GERESS Array S	68.31	19	P	P	23 57 03.9	-1.5
	comp=Z,5.5nm,1.5s						
GERES	GERESS Array B	68.31	19	P	P	23 57 05.5	+0.1
	comp=Z,0.9nm,0.7s,baz=176,slow=6.3,SNR=7.4						
	comp=Z,0.9nm,0.7s						
GERES	GERESS Array B	68.31	19	P	P	23 57 04.4	-0.9
BORA	Eskisehir	68.32	35	P	P	23 57 05.8	+0.2
WET	Wettzell	68.33	18	P	P	23 57 04.4	-1.0
	comp=Z,6.5nm,1.4s						
KHC	Kasperske Hory	68.53	18	P	P	23 57 06.6	-0.1
MODS	Modra-Piesok	69.07	21	*e*P	P	23 57 11.9	+1.9
MODS				*e*		23 57 16.9	
MODS	Modra-Piesok	69.07	21	P	P	23 57 10.6	+0.6
	comp=Z,24nm,1.2s						
LOT	Lotru	69.19	27	P	P	23 57 11.4	+0.4
	comp=Z,7.6nm,1.3s						
KRUC	Moravsky	69.36	20	*e*P	P	23 57 11.7	-0.1
KRUC	Moravsky	69.36	20	P	P	23 57 10.8	-1.0
	comp=Z,6.1nm,1.4s						
ARR	Arges	69.50	27	P	P	23 57 13.5	+0.6
	comp=Z,5.5nm,1.1s						
JAVC	Velka Javorina	69.62	21	*e*P	P	23 57 14.5	+1.0
PSZ	Piszkesteto	69.62	23	P	P	23 57 14.5	+0.9
	comp=Z,7.4nm,1.8s						
VRAC	Vranov	69.64	20	P	P	23 57 14.4	+0.9
	comp=Z,0.8nm,0.3s,baz=198,slow=6.3,SNR=3.7						
	comp=Z,0.8nm,0.3s						
VRAC	Vranov	69.64	20	*e*P	P	23 57 13.2	-0.3
VRAC	Vranov	69.64	20	P	P	23 57 13.9	+0.3
	comp=Z,2.1nm,1.3s						
VYHS	Vyhne	69.72	22	*e*P	P	23 57 15.4	+1.4
VYHS				*e*		23 57 20.1	
BR131	Keskin Array S	70.00	37		P	23 57 16.5	+0.4
BRTR	Keskin Array B	70.00	37	P	P	23 57 17.8	+1.6
	comp=Z,3.2nm,1.0s,baz=205,slow=5.5,SNR=12						
	comp=Z,3.2nm,1.0s						
BRTR	Keskin Array B	70.00	37		P	23 57 16.8	+0.6
BRG	Berggiesshubel	70.18	18	*e*P	P	23 57 20.2	+3.4
BRG				Amp		23 57 23.6	
	comp=Z,3.2nm,1.0s						
BRG				PP	PP	23 59 54.2	+1.8
BRG				Amp		23 59 57.1	
	comp=Z,6.6nm,1.4s						
MLR	Muntele Rosu	70.19	28	P	P	23 57 17.6	+0.4
	comp=Z,19nm,1.2s,baz=188,slow=5.8,SNR=9.3						
MLR	Muntele Rosu	70.19	28		P	23 57 17.5	+0.4
MLR				IAmb	IAmb	23 57 24.1	
	comp=Z,23nm,1.3s						
MLR	Muntele Rosu	70.19	28	P	P	23 57 17.7	+0.6
	comp=Z,13nm,1.2s						
ANDN	Andirin	70.22	40	P	P	23 57 19.7	+2.2
	comp=Z,28nm,1.5s						
CLL	Collm	70.30	17	*e*P	P	23 57 18.0	+0.5
CLL				LH		23 59 00.0	
CLL				L	L	00 04 00.0	
CLL				AMS	AMS	00 34 00.0	
	comp=N,200nm,15.2s						
CLL				AMS	AMS	00 34 00.0	
	comp=E,100nm,18.6s						
CLL				AMS	AMS	00 35 00.0	
	comp=Z,100nm,19.6s						
MAW	Mawson	70.33	157	P	P	23 57 17.9	+0.4
	comp=Z,1.9nm,0.6s,baz=254,slow=7.0,SNR=10						
	comp=Z,1.9nm,0.6s						
MAW	Mawson	70.33	157	P	P	23 57 17.8	+0.2
MORC	Moravsky Berou	70.36	20		P	23 57 17.6	-0.4
MORC	Moravsky Berou	70.36	20	*e*P	P	23 57 16.9	-1.1
MORC	Moravsky Berou	70.36	20	P	P	23 57 18.3	+0.3
	comp=Z,8.3nm,1.2s						
TIRR	Tirgusor	70.56	30	P	P	23 57 17.9	-1.4
NMDO	Nuevo Mundo	70.74	299	P	P	23 57 21.3	+0.5
NMDO				IAmb	IAmb	23 57 30.2	
	comp=Z,18nm,1.4s						
BURAR	Bucovina Array	71.51	26	P	P	23 57 25.2	+0.1
OJC	Ojcow	71.51	21		P	23 57 24.2	-0.7
OJC	Ojcow	71.51	21	P	P	23 57 25.0	+0.1
	comp=Z,11nm,1.4s						
ARPR	Arapgir-MALATY	72.39	40	P	P	23 57 30.8	+0.1
ARPR				IAmb	IAmb	23 57 39.3	
	comp=Z,16nm,1.3s						
KELT	Kelkit	73.59	39	P	P	23 57 39.4	+1.5
	comp=Z,20nm,1.3s						
KOPT	Kop Dagi	74.28	40		P	23 57 41.4	-0.5
GURO	Guroymak-BITLI	74.39	42	P	P	23 57 42.0	-0.4
QSPA	South Pole Qui	74.63	180	P	P	23 57 43.4	-0.1
	comp=Z,5.1nm,1.1s,baz=211,slow=5.9,SNR=6.2						
	comp=Z,5.1nm,1.1s						
QSPA	South Pole Qui	74.63	180		P	23 57 44.2	+0.8
QSPA				IAmb	IAmb	23 57 50.7	
	comp=Z,19nm,1.3s						
GBN	Guysborough	74.93	327	P	P	23 57 45.0	-0.2
KIEV	Kiev	75.55	26	P	P	23 57 48.5	-0.1
KIEV				IAmb	IAmb	23 57 55.0	
	comp=Z,22nm,1.4s						
KIEV	Kiev	75.55	26	P	P	23 57 48.4	-0.3
	comp=Z,13nm,1.3s						
AKASG	Malin Array Be	75.56	26	P	P	23 57 48.5	-0.2
	comp=Z,4.2nm,1.0s,baz=224,slow=6.1,SNR=15						
	comp=Z,4.2nm,1.0s						
AKASG	Malin Array Be	75.56	26	P	P	23 57 47.5	-1.3
AKASG				IAmb	IAmb	23 57 54.8	
	comp=Z,11nm,1.2s						
AKBB	Malin Array Si	75.56	26	P	P	23 57 48.3	-0.4
AKBB				IAmb	IAmb	23 57 55.0	
	comp=Z,24nm,1.4s						
BILN	Bilwi Airport	75.62	289	P	P	23 57 49.4	-0.4
JTS	Las Juntas de	75.82	285	P	P	23 57 51.0	-0.1
SUW	Suwalki	75.82	21	P	P	23 57 50.2	+0.1
EPOS	Posof	76.52	40	P	P	23 57 56.6	+2.0
	comp=Z,11nm,1.5s						
GNI	Garni	77.02	42	P	P	23 57 56.5	-1.0
BOAB	BOACO BROADBAN	77.18	287	P	P	23 57 58.4	-0.3
KBZ	Khabaz	77.90	38	P	P	23 58 03.2	+1.1
	comp=Z,1.6nm,0.9s,baz=239,slow=5.9,SNR=3.5						
	comp=Z,1.6nm,0.9s						
KIV	Kislovodsk	77.91	38	P	P	23 58 02.5	+0.1
KIV				IAmb	IAmb	23 58 10.1	
	comp=Z,19nm,1.3s						
KIV	Kislovodsk	77.91	38	P	P	23 58 03.7	+1.3
	comp=Z,13nm,1.6s						
UOSS	Minazif	78.43	60	P	P	23 58 04.5	-1.1
UOSS	Minazif	78.43	60	P	P	23 58 07.0	+1.5
	comp=Z,10nm,1.3s						
T59A	Double "B" Far	80.15	313	IAmb	IAmb	23 58 19.9	
	comp=Z,10nm,0.9s						
Q56A	Snyder Ridge,	82.25	314		P	23 58 25.0	-0.8
Q56A				IAmb	IAmb	23 58 31.1	
	comp=Z,17nm,1.0s						
FINES	FINESS Array B	82.72	18	P	P	23 58 28.0	+0.4
FIA1	FINESS Array S	82.72	18	P	P	23 58 28.1	+0.4
TRQ	Mont Tremblant	82.75	322	P	P	23 58 29.5	+1.2
TRQ				IAmb	IAmb	23 58 32.2	
	comp=Z,16nm,1.0s						
GOGA	Godfrey	82.97	307	P	P	23 58 30.2	+0.6
GOGA				IAmb	IAmb	23 58 34.3	
	comp=Z,17nm,1.5s						
U54A	Nelsons Funny	83.02	311	P	P	23 58 28.7	-1.3
U54A				IAmb	IAmb	23 58 35.5	
	comp=Z,13nm,1.0s						
BG3	Lake Jocassee	83.21	309	P	P	23 58 30.4	-0.5
BG3				IAmb	IAmb	23 58 36.4	
	comp=Z,11nm,1.1s						
352A	Blakely	83.35	305	P	P	23 58 31.0	-0.7
Q54A	Coxs Mills	83.37	313	P	P	23 58 31.9	+0.2
Q54A				IAmb	IAmb	23 58 43.6	
	comp=Z,21nm,1.5s						
ERPA	Erie	84.19	316	P	P	23 58 35.2	-0.5
O53A	New Philadelph	84.19	314	P	P	23 58 35.2	-0.5
Q52A	Bidwell	84.37	313	P	P	23 58 36.9	+0.2

O52A	Adamsville	84.56	314	P	P	23 58 37.1	-0.6
O52A				IAmb	IAmb	23 58 42.9	
	comp=Z,15nm,1.0s						
P52A	Corning	84.56	314	P	P	23 58 38.3	+0.6
SADO	Sadowa	84.85	319	P	P	23 58 39.3	+0.3
SADO				IAmb	IAmb	23 58 43.0	
	comp=Z,11nm,1.0s						
V48A	Smith Brothers	86.43	308	P	P	23 58 46.8	-0.3
V48A				IAmb	IAmb	23 58 51.5	
	comp=Z,11nm,1.1s						
WVT	Waverly	87.33	309		P	23 58 51.9	+0.4
WVT				IAmb	IAmb	23 58 55.5	
	comp=Z,11nm,1.1s						
BLO	Bloomington	87.49	312	P	P	23 58 53.1	+1.0
BLO				IAmb	IAmb	23 58 55.5	
	comp=Z,9.2nm,0.9s						
N47A	Urbana	87.56	314	P	P	23 58 52.6	+0.2
CCM	Cathedral Cave	90.56	309		P	23 59 07.1	+0.4
X40A	Basin Creek Fa	90.63	306	P	P	23 59 07.0	-0.1
AB31	Akbulak array	90.84	39	P	P	23 59 08.1	+0.4
ABKAR	Akbulak array	90.84	39	P	P	23 59 07.4	-0.3
R40A	Maddies Statio	91.40	309		P	23 59 11.6	+1.1
R40A				IAmb	IAmb	23 59 15.1	
	comp=Z,12nm,1.1s						
JFWS	Jewell Farm	91.46	314	P	P	23 59 10.4	-0.3
JFWS				IAmb	IAmb	23 59 15.0	
	comp=Z,11nm,1.1s						
HKT	Hockley	91.68	300	P	P	23 59 11.9	-0.1
HHAR	Hobbs	92.04	307	P	P	23 59 13.2	-0.4
I40A	Norwalk	92.05	315	P	P	23 59 14.3	+0.9
U38A	Gravette	92.43	307	P	P	23 59 15.6	+0.2
U38A				IAmb	IAmb	23 59 19.9	
	comp=Z,9.2nm,1.3s						
TBO	Thunder Bay	92.87	320	P	P	23 59 17.0	-0.1
DEOK	Depew	93.89	306	P	P	23 59 22.8	+0.7
DEOK				IAmb	IAmb	23 59 26.7	
	comp=Z,10nm,1.0s						
LOOK	Love County	93.92	304	P	P	23 59 22.7	+0.4
I37A	Lemond, Waseca	93.99	314	P	P	23 59 23.5	+1.1
I37A				IAmb	IAmb	23 59 43.1	
	comp=Z,10nm,1.2s						
W35A	Tecumseh	94.00	305	P	P	23 59 22.9	+0.3
W35A				IAmb	IAmb	23 59 27.8	
	comp=Z,12nm,1.3s						
OK052	Battle Ridge R	94.17	306	P	P	23 59 23.9	+0.4
T35A	Sooner Cattle	94.20	307	P	P	23 59 22.9	-0.6
T35A				IAmb	IAmb	23 59 28.2	
	comp=Z,6.7nm,1.1s						
OK048	Pawnee Station	94.40	306	P	P	23 59 25.7	+1.2
OK048				IAmb	IAmb	23 59 33.2	
	comp=Z,10nm,1.3s						
BRDY	Brady	94.67	301	P	P	23 59 26.6	+0.7
WTFS	Witchita Falls	94.89	304	P	P	23 59 26.1	-0.7
JCT	Junction City	95.13	300	P	P	23 59 28.1	+0.1
JCT				IAmb	IAmb	23 59 36.7	
	comp=Z,6.2nm,1.1s						
HYB	Hyderabad	95.88	74	ePKiKP	PKiKP	00 04 10.2	-0.8
HYB				eSKSac	SKSac	00 10 06.6	-2.1
HYB				eSKKSac	SKKSac	00 10 29.6	-3.4
MNHN	Monahans	97.81	300	P	Pdif	23 59 40.2	0.0
MNHN				IAmb	IAmb	23 59 44.7	
	comp=Z,5.1nm,1.2s						
TXAR	Lajitas Array	98.11	298	P	P	23 59 40.4	-1.2
	comp=Z,1.5nm,1.1s,baz=139,slow=7.8,SNR=3.5						
	comp=Z,1.5nm,1.1s						
TXAR	Lajitas Array	98.11	298	P	P	23 59 40.6	-1.0
TX31	Lajitas Ar. Si	98.11	298	P	P	23 59 40.4	-1.2
TX31				IAmb	IAmb	23 59 45.7	
	comp=Z,5.1nm,1.4s						

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*IDC **11** 23:46:59.3±1.7, 1°.87S×137°.45E, h0km, mb3.7/5, mbtmp3.6/7, ML3.4/2, Error ellipse: s-maj=76.6km s-min=21.6km az=84.0*

ISC 11 23:47:05.5±1.5**, 2°.2S**±0°.1×**137°.0E**±0°.3**, h35**km**, n7,** σ**3s.66**/7**,** **mb3.7**/5**, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	17.87	188	P	Pn	23 51 13.6	+2.1
	0.2nm,0.3s,baz=6.1,slow=12,SNR=5.7						
WRA				S	Sn	23 54 25.9	-3.9
	0.9nm,0.7s,baz=13,slow=22,SNR=4.8						
	0.2nm,0.3s						
WRA				AML	AML		
FITZ	Fitzroy Crossi	19.36	214	P	Pn	23 51 33.8	+4.3
	0.1nm,0.3s,baz=31,slow=12,SNR=2.0						
FITZ				S	S	23 55 03.1	-2.4
	2.0nm,1.0s,baz=150,slow=9.9,SNR=1.9						
	1.0nm,0.7s						
FITZ				AML	AML		
ASAR	Alice Springs	21.59	188	P	P	23 51 55.1	+2.6
	0.5nm,0.3s,baz=16,slow=10,SNR=12						
	0.5nm,0.3s						
MKAR	Makanchi Array	68.30	323	P	P	23 58 03.4	+0.2
	0.5nm,0.7s,baz=111,slow=7.9,SNR=2.6						
	0.5nm,0.7s						
ZALV	Zalesovo Beam	70.59	330	P	P	23 58 15.5	-1.6
	0.4nm,0.3s,baz=115,slow=6.8,SNR=1.7						
	0.4nm,0.3s						
VNDA	Vanda	76.49	175	P	P	23 58 50.4	-1.0
	0.5nm,0.8s,baz=342,slow=4.3,SNR=3.4						
	0.5nm,0.8s						
BVAR	Borovoye Array	77.87	325	P	P	23 58 59.7	+0.1
	0.9nm,0.6s,baz=94,slow=5.8,SNR=5.8						
	0.9nm,0.6s						

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*IDC **11** 23:49:56.6±3.1, 15°.58S×13°.14W, h0km, mb3.9/6, mbtmp3.9/6, Error ellipse: s-maj=153.9km s-min=28.2km az=93.0*

ISC 11 23:49:58.4±2.8**, 15°.6S**±0°.2×**13°.1W**±0°.9**, h10**km**, n9,** σ**0s.64**/6**,** **mb4.0**/5**, Southern Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H10N1	ASCENSION HYDR	7.79	350	T	T	23 59 49.3	
	baz=165						
H10N3	ASCENSION HYDR	7.80	350	T	T	23 59 49.7	
	baz=165						
H10N2	ASCENSION HYDR	7.81	350	T	T	23 59 50.4	
	baz=165						
TORD	Torodi Ar. Bea	32.08	28	P	P	23 56 25.5	-0.2
	2.1nm,0.7s,baz=212,slow=9.6,SNR=9.2						
	2.1nm,0.7s						
ESDC	Sonseca Array	55.62	9	P	P	23 59 34.8	+0.3
	0.2nm,0.5s,baz=194,slow=7.2,SNR=1.6						
	0.2nm,0.5s						
BRTR	Keskin Array B	70.16	37	P	P	00 01 12.2	+0.7
	0.9nm,0.7s,baz=210,slow=7.3,SNR=6.2						
	0.9nm,0.7s						
MLR	Muntele Rosu	70.32	28	P	P	00 01 12.2	-0.1
	2.5nm,0.8s,baz=211,slow=5.9,SNR=4.3						
	2.5nm,0.8s						
MAW	Mawson	70.37	157	P	P	00 01 12.2	0.0
	1.4nm,0.7s,baz=292,slow=6.6,SNR=7.4						
	1.4nm,0.7s						
AKASG	Malin Array Be	75.69	26	P	P	00 01 43.0	-0.8
	0.2nm,0.3s,baz=222,slow=6.3,SNR=4.5						
	0.2nm,0.3s						

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*IDC **11** 23:54:10.2±0.6, 15°.53S×13°.29W, h0km, mb4.2/18, mbtmp4.2/18, MS4.1/53, Error ellipse: s-maj=21.7km s-min=14.5km az=111.0*

*GFZ **11** 23:54:12.6±0.2, 16°S±4°×1°3W±°, h10km, M4.7/41, mb4.7/41, Error ellipse: s-maj=12.5km s-min=7.6km az=99.2, confirmed*

*NEIC **11** 23:54:12.4±1.3, 15°.56S±0°.06×13°.23W±0°.09, h10km±1km, mb5.0/58, Error ellipse: s-maj=16.1km s-min=5.6km az=239.0*

*GCMT **11** 23:54:14.4±0.2, 15°.64S±0°.03×13°.32W±0°.01, h13km±1km, MW4.9/122, Moment Tensor Solution. s37,c40; s122,c180; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-2.86±.16; $M_{\theta\theta}$0.17±.09; $M_{\phi\phi}$2.69±.11; $M_{r\theta}$0.97±.29; $M_{\theta\phi}$0.08±.06; $M_{\phi r}$-0.97±.21; Best double couple: $M_0$3.07600×10^{16} NP1:ϕ_s196.00000°, δ37.00000°, λ-65.00000°. NP2:ϕ_s345.00000°, δ57.00000°, λ-108.00000°. Principal axes: T 2.8570, Plg10.0000°, Azm88.0000°; N 0.4410, Plg15.0000°, Azm355.0000°; P -3.2950, Plg72.0000°, Azm210.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 11 23:54:11.8±0.4**, 15°.57S**±0°.08×**13°.26W**±0°.07**, h10**km**, n213,** σ**0s.81**/174**, mb4.6**/99**, MS4.2**/54**, 1D, Southern Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHEL	Horse Pasture	7.25	94	Pn	Pn	23 55 58.1	+0.3
DBIC	Dimbokro	23.61	21	P	P	23 59 22.6	-0.4
	4.4nm,0.8s,baz=214,slow=11,SNR=4.6						
DBIC				LR	LR	00 06 37.7	
	comp=Z,339nm,18.4s,baz=202,slow=32						
	4.4nm,0.8s						
DBIC	Dimbokro	23.61	21	P	P	23 59 22.6	-0.4
TSUM	Tsumeb	29.64	102	LR	LR	00 09 42.6	
	comp=Z,546nm,21.7s,baz=270,slow=31						
TSUM	Tsumeb	29.64	102	P	P	00 00 17.3	-0.6
TORD	Torodi Ar. Bea	32.14	28	P	P	00 00 39.3	-0.4
	5.2nm,0.6s,baz=212,slow=7.8,SNR=40						
TORD				LR	LR	00 11 26.9	
	comp=Z,576nm,19.4s,baz=167,slow=32						
	5.2nm,0.6s						
BDFB	Brasilia	33.45	265	P	P	00 00 50.7	-0.7
	1.0nm,0.3s,baz=101,slow=5.2,SNR=1.9						
BDFB				LR	LR	00 11 46.4	
	comp=Z,691nm,20.6s,baz=123,slow=32						
	1.0nm,0.3s						
SUR	Sutherland	35.15	125	LR	LR	00 13 28.1	
	comp=Z,306nm,18.1s,baz=277,slow=33						
LBTB	Lobatse	37.53	111	LR	LR	00 14 41.1	
	comp=Z,450nm,19.5s,baz=269,slow=33						
LBTB	Lobatse	37.53	111	P	P	00 01 25.9	-0.5
	comp=Z,10nm,1.7s						
BOSA	Boshof	37.81	117	P	P	00 01 27.7	-1.0
	comp=Z,3.4nm,0.8s,baz=286,slow=6.5,SNR=4.7						
BOSA				LR	LR	00 14 50.8	
	comp=Z,439nm,18.5s,baz=271,slow=33						
	comp=Z,3.4nm,0.8s						
BOSA	Boshof	37.81	117	P	P	00 01 28.6	-0.2
BOSA				IAmb	IAmb	00 01 57.0	
	comp=Z,27nm,1.6s						
LSZ	Lusaka	39.91	95	LR	LR	00 16 22.3	
	comp=Z,756nm,19.5s,baz=274,slow=33						
LSZ	Lusaka	39.91	95	P	P	00 01 46.9	+0.3
	comp=Z,11nm,2.4s						
MATP	Matopo	39.93	103	LR	LR	00 16 04.5	
	comp=Z,699nm,20.2s,baz=254,slow=33						
CLDB	Colider	41.62	271	P	P	00 02 00.6	0.0
	comp=Z,5.8nm,2.2s						
TAM	Tamanrasset	42.32	26	P	P	00 02 07.5	+1.3
	comp=Z,1.9nm,1.9s						
CPUP	Villa Florida	42.35	248	P	P	00 02 05.4	-0.9
	comp=Z,2.0nm,0.3s,baz=90,slow=9.1,SNR=4.9						
CPUP				LR	LR	00 16 40.8	
	comp=Z,287nm,20.5s,baz=85,slow=32						
	comp=Z,2.0nm,0.3s						
POGA	Pongola	43.25	113	P	P	00 02 13.9	+0.3
	comp=Z,36nm,1.9s						
MBAR	Mbarara	45.89	75	LR	LR	00 21 00.3	
	comp=Z,320nm,18.8s,baz=232,slow=35						
SIV	San Ignacio	45.93	263	LR	LR	00 19 57.7	
	comp=Z,210nm,19.4s,baz=114,slow=34						
MDT	Midelt	48.81	10	LR	LR	00 21 03.8	
	comp=Z,201nm,18.9s,baz=190,slow=33						
MD01	Midelt array s	48.84	10		P	00 02 57.8	+0.1
AVE	Averroes	48.91	6	P	P	00 02 57.8	-0.3
BOAV	Boa Vista	50.03	287	P	P	00 03 06.0	-1.0
BOAV				IAmb	IAmb	00 03 14.9	
	comp=Z,20nm,1.8s						
ORCD	Orcadas	50.50	199	P	P	00 03 09.7	-0.1
LODK	Lodwar	51.67	73	P	P	00 03 17.6	-1.9
KMBO	Kilima Mbogo	51.83	79	LR	LR	00 23 20.6	
	comp=Z,214nm,20.1s,baz=242,slow=34						
LPAZ	La Paz	52.63	261	P	P	00 03 27.4	+0.2
	comp=Z,0.3nm,0.4s,baz=86,slow=4.9,SNR=1.6						
LPAZ				LR	LR	00 24 20.4	
	comp=Z,260nm,19.7s,baz=102,slow=34						
	comp=Z,0.3nm,0.4s						
AC02	Maricunga	52.92	248	P	P	00 03 28.4	-0.8
AC02				IAmb	IAmb	00 03 41.6	
	comp=Z,36nm,1.6s						
PB16	IPOC Station P	53.70	259	P	P	00 03 34.5	-0.6
PB16				IAmb	IAmb	00 05 32.5	
	comp=Z,34nm,2.0s						
CO01	Juntas del Tor	53.84	244	P	P	00 03 35.8	+0.2
CO01	Juntas del Tor	53.84	244	P	P	00 03 37.0	+1.5
	comp=Z,27nm,2.8s						
GO03	Copiapo	53.91	247	P	P	00 03 34.9	-1.0
EVO	Evora	54.03	5	P	P	00 03 38.2	+1.9
	comp=Z,3.5nm,1.1s						
VNA1	Neumayer--Stat	55.15	178	P	P	00 03 45.1	+1.1
	comp=Z,7.0nm,1.1s						
PLCA	Paso Flores	55.31	231	LR	LR	00 24 33.3	
	comp=Z,255nm,20.0s,baz=88,slow=33						
KEST	Kesra	55.33	22	P	P	00 03 44.9	-1.0
	comp=Z,9.3nm,1.0s,baz=175,slow=4.9,SNR=7.3						
KEST				LR	LR	00 28 18.6	
	comp=Z,160nm,18.1s,baz=156,slow=37						
	comp=Z,9.3nm,1.0s						
KEST	Kesra	55.33	22		P	00 03 45.6	-0.2
KEST				IAmb	IAmb	00 03 48.9	
	comp=Z,28nm,1.4s						
PAB	San Pablo	55.45	8	P	P	00 03 46.8	+0.1
VNA2	Neumayer--Watz	55.45	178	P	P	00 03 46.7	+0.4
	comp=Z,3.2nm,1.0s,baz=5.9,slow=7.5						
VNA2	Neumayer--Watz	55.45	178	P	P	00 03 46.7	+0.4
	comp=Z,11nm,1.6s						
ESDC	Sonseca Array	55.63	9	P	P	00 03 48.2	+0.3
	comp=Z,1.2nm,0.7s,baz=192,slow=7.1,SNR=4.2						
ESDC				LR	LR	00 26 22.1	
	comp=Z,116nm,19.1s,baz=182,slow=35						
	comp=Z,1.2nm,0.7s						
ESDC	Sonseca Array	55.63	9		P	00 03 48.0	0.0
ESDC				IAmb	IAmb	00 03 55.6	
	comp=Z,53nm,1.8s						
VNA3	Neumayer Olymp	55.70	179	P	P	00 03 48.1	0.0
	comp=Z,0.7nm,0.6s						
VNA3	Neumayer Olymp	55.70	179	P	P	00 03 47.6	-0.4
	comp=Z,4.1nm,1.9s						
UCM	Universidad Co	56.36	9	P	P	00 03 53.6	+0.4
	comp=Z,8.8nm,2.1s						
SNAA	Sanae	56.44	176	P	P	00 03 54.0	+0.7
	comp=Z,1.3nm,0.6s,baz=314,slow=9.3,SNR=3.8						
	comp=Z,1.3nm,0.6s						
SNAA	Sanae	56.44	176	P	P	00 03 53.4	0.0
	comp=Z,6.1nm,1.5s						
TROLL	Troll, Antarti	57.20	174	P	P	00 03 59.1	+0.2
	comp=Z,43nm,0.6s						
OPO	Ambohidratompo	57.63	102	LR	LR	00 25 40.9	
	comp=Z,75nm,20.8s,baz=74,slow=33						
VAE	Valguarnera	58.84	26	LR	LR	00 28 30.7	
	comp=Z,390nm,18.9s,baz=164,slow=35						
CEST	Esterri de Car	59.40	12	P	P	00 04 15.6	+1.1
CEST				IAmb	IAmb	00 04 23.0	
	comp=Z,19nm,1.3s						
ATE	Arette	59.49	11	P	P	00 04 16.2	+1.2
	comp=Z,7.9nm,0.8s						
SJAF	Saint Jean de	59.64	14	P	P	00 04 16.7	+0.6
	comp=Z,7.7nm,1.6s						
PMSA	Palmer Station	59.87	203	LR	LR	00 23 36.5	
	comp=Z,116nm,20.1s,baz=90,slow=30						
CEL	Celeste	60.12	26	P	P	00 04 20.9	+1.3
CEL				IAmb	IAmb	00 04 27.1	
	comp=Z,19nm,1.1s						
CEL	Celeste	60.12	26	P	P	00 04 20.6	+1.1
	comp=Z,19nm,1.7s						
MTLF	Montolieu	60.31	13	P	P	00 04 20.9	+0.2
	comp=Z,5.5nm,1.0s						
ELIB	Princess Elisa	60.36	168	dP	P	00 04 21.9	+1.0
	comp=Z,2.6nm,0.8s						
TIP	Timpagrande	61.26	26	P	P	00 04 27.6	+0.3
TIP				IAmb	IAmb	00 04 29.2	
	comp=Z,14nm,1.4s						
NNA	Nana	61.67	265	LR	LR	00 29 44.8	
	comp=Z,347nm,19.8s,baz=136,slow=35						
ATD	Arta Tunnel	61.72	67	LR	LR	00 30 22.6	
	comp=Z,6.6nm,18.0s,baz=245,slow=35						
ATD	Arta Tunnel	61.72	67	P	P	00 04 31.1	+0.3
ATD				IAmb	IAmb	00 05 45.5	
	comp=Z,12nm,1.6s						
SDV	Santo Domingo	61.80	289	LR	LR	00 29 30.4	
	comp=Z,229nm,20.8s,baz=83,slow=34						
SJG	San Juan	61.92	301	LR	LR	00 30 00.6	
	comp=Z,38nm,18.0s,baz=102,slow=35						
IDI	Anoyia	62.18	35	LR	LR	00 30 58.1	
	comp=Z,80nm,19.5s,baz=174,slow=36						
ORIF	Oris-en-Rattie	62.66	15	P	P	00 04 37.8	+1.1
	comp=Z,6.8nm,1.6s						
SSB	Saint Sauveur	62.67	14	P	P	00 04 37.2	+0.6
	comp=Z,11nm,2.3s						
ROSC	El Rosal	63.74	284	LR	LR	00 31 60.0	
	comp=Z,1μm,18.4s,baz=105,slow=36						
ATAH	Atahualpa	64.21	270	LR	LR	00 32 58.0	
	comp=Z,324nm,19.1s,baz=127,slow=36						
GIMEL	St. Georges /	64.27	15	P	P	00 04 47.5	+0.2
	comp=Z,12nm,1.0s						
XOR	Xorichti	64.37	31	P	P	00 04 48.6	+0.6
	comp=Z,33nm,0.8s						
LIT	Litokhoron	64.60	30		P	00 04 48.8	-0.7
LIT				IAmb	IAmb	00 04 50.8	
	comp=Z,9.1nm,0.7s						
LIT	Litokhoron	64.60	30	P	P	00 04 49.8	+0.3
	comp=Z,16nm,0.8s						
EIL	Elat	64.68	46	LR	LR	00 31 28.1	
	comp=Z,148nm,19.0s,baz=178,slow=35						
EIL	Elat	64.68	46	P	P	00 04 51.4	+1.2
	comp=Z,5.7nm,1.6s						
PHP	Peshkopia	64.92	27	P	P	00 04 52.1	+0.6
	comp=Z,14nm,1.0s						
TUE	Stuetta	65.03	17	P	P	00 04 52.5	+0.1
	comp=Z,6.6nm,2.0s						
BOURR	Bourrignon	65.31	15	P	P	00 04 54.2	+0.3
	comp=Z,12nm,2.3s						
CTI	Castel Tesino	65.33	19	P	P	00 04 55.0	+0.8
DAVOX	Davos/Dischmat	65.46	17	LR	LR	00 33 44.0	
	comp=Z,108nm,19.3s,baz=236,slow=36						
DAVA	Damuels	65.92	17	iP	P	00 04 57.8	-0.2
	comp=Z,4.6nm,0.8s						
DAVA	Damuels	65.92	17	P	P	00 04 58.3	+0.3
	comp=Z,15nm,1.5s						
FETA	Feichten	65.92	18	iP	P	00 04 58.1	0.0
	comp=Z,2.3nm,0.7s						
ECH	Echery	66.06	15	P	P	00 04 58.7	0.0
	comp=Z,3.9nm,1.6s						
ABTA	Abfaltersbach	66.22	19	iP	P	00 05 00.6	+0.7
	comp=Z,2.0nm,0.7s						
SQTA	Sankt Quirin	66.25	18	iP	P	00 04 59.8	-0.3
	comp=Z,0.2nm,0.3s						
MOTA	Moosalm	66.33	18	eP	P	00 05 01.2	+0.5
	comp=Z,2.4nm,0.7s						
UBR	Ueberruh	66.34	17	P	P	00 05 01.3	+0.6
	comp=Z,15nm,1.1s						
RETA	Reutte	66.35	18	eP	P	00 05 00.6	-0.1
	comp=Z,3.0nm,1.0s						
WTTA	Wattenberg	66.41	18	eP	P	00 05 01.0	-0.2
	comp=Z,6.9nm,0.8s						
WTTA	Wattenberg	66.41	18	P	P	00 05 01.7	+0.5
	comp=Z,11nm,1.5s						
BFO	Black Forest	66.46	16	P	P	00 05 01.4	+0.1
BFO				IAmb	IAmb	00 05 08.4	
	comp=Z,8.9nm,1.2s						
WATA	Walderalm	66.46	18	eP	P	00 05 01.7	+0.2
	comp=Z,8.9nm,1.4s						
MYKA	Terra Mystica	66.48	20	eP	P	00 05 04.0	+2.4
	comp=Z,1.5nm,0.4s						
KBA	Koelnbreinsper	66.78	19	iP	P	00 05 03.7	+0.1
	comp=Z,2.7nm,1.2s						
LESA	Schwarzleotal	66.87	19	iP	P	00 05 04.0	-0.1
	comp=Z,1.4nm,0.8s						
SOKA	Soboth	66.99	21	iP	P	00 05 06.0	+1.2
	comp=Z,2.8nm,0.7s						
MMAI	Mount Meron Ar	67.03	43	LR	LR	00 34 38.5	
	comp=Z,57nm,18.2s,baz=212,slow=36						
SESA	Seetaler Alpe,	67.21	20	eP	P	00 05 06.7	+0.3
BIOA	Bad Ischl, Aus	67.41	19	iP	P	00 05 06.9	-0.6
	comp=Z,0.8nm,0.6s						
ASF	Jabal al Asfar	67.52	45	LR	LR	00 33 03.0	
	comp=Z,112nm,18.9s,baz=206,slow=34						
ARSA	Arzberg	67.65	21		P	00 05 09.9	+0.9
ARSA				IAmb	IAmb	00 05 17.0	
	comp=Z,42nm,2.0s						
ARSA	Arzberg	67.65	21	eP	P	00 05 09.8	+0.9
	comp=Z,2.6nm,0.7s						
ARSA	Arzberg	67.65	21	P	P	00 05 10.2	+1.3
	comp=Z,12nm,1.1s						
MOA	Molln	67.75	20	iP	P	00 05 09.3	-0.2
	comp=Z,3.6nm,0.9s						
MOA	Molln	67.75	20	P	P	00 05 09.4	-0.2
	comp=Z,7.7nm,1.1s						
MORH	Mrgy, Hungar	67.90	23	P	P	00 05 11.5	+1.1
	comp=Z,4.4nm,1.5s						
MEM	Membach	68.03	13	P	P	00 05 12.8	+1.6
	comp=Z,15nm,1.7s						
RONA	Rosalia, Austr	68.30	21	eP	P	00 05 14.3	+1.2
	comp=Z,4.2nm,1.1s						
CONA	Conrad Observa	68.35	21	iP	P	00 05 14.3	+0.9
	comp=Z,3.0nm,0.9s						
GEC2	GERESS Array S	68.45	19	P	P	00 05 13.7	-0.4
GEC2				IAmb	IAmb	00 05 21.4	
	comp=Z,7.2nm,1.2s						
GEC2	GERESS Array S	68.45	19	P	P	00 05 14.2	+0.2
GERES	GERESS Array B	68.45	19	P	P	00 05 14.3	+0.2
	comp=Z,1.8nm,0.7s,baz=193,slow=5.5,SNR=13						
	comp=Z,1.8nm,0.7s						
GERES	GERESS Array B	68.45	19	P	P	00 05 13.6	-0.4
WET	Wettzell	68.47	18	P	P	00 05 14.2	+0.2
	comp=Z,7.8nm,2.0s						
BORA	Eskisehir	68.55	35	P	P	00 05 13.7	-1.1
BORA				IAmb	IAmb	00 05 16.7	
	comp=Z,26nm,1.5s						
CKRC	Cesky Krumlov	68.62	19	eP	P	00 05 15.3	+0.3
KHC	Kasperske Hory	68.67	19	eP	P	00 05 14.6	-0.7
KHC	Kasperske Hory	68.67	19	P	P	00 05 15.2	-0.1
KHC				IAmb	IAmb	00 05 36.3	
	comp=Z,20nm,2.0s						
MODS	Modra-Piesok	69.22	21	P	P	00 05 19.9	+1.2
	comp=Z,24nm,1.4s						
RAYN	Ar Rayn	69.33	57	P	P	00 05 19.6	-0.4
RAYN				IAmb	IAmb	00 05 30.2	
	comp=Z,18nm,2.0s						
LOT	Lotru	69.38	27	P	P	00 05 19.8	-0.1
	comp=Z,5.4nm,1.2s						
KRUC	Moravsky	69.51	20	eP	P	00 05 20.6	+0.1
KRUC				e		00 05 26.5	
KRUC	Moravsky	69.51	20	P	P	00 05 20.8	+0.3
	comp=Z,6.3nm,1.8s						
ARR	Arges	69.69	27	P	P	00 05 21.8	0.0
	comp=Z,7.1nm,0.9s						
PRU	Pruhonice	69.72	19	P	P	00 05 22.5	+0.8
	comp=Z,5.3nm,0.5s						
JAVC	Velka Javorina	69.77	21	eP	P	00 05 23.2	+1.0
JAVC				e		00 05 29.3	
VRAC	Vranov	69.79	20	LR	LR	00 34 58.0	
	comp=Z,148nm,21.1s,baz=212,slow=35						
VRAC	Vranov	69.79	20	eP	P	00 05 22.3	+0.1
VRAC				e		00 05 29.1	
VRAC	Vranov	69.79	20	P	P	00 05 22.4	+0.1
	comp=Z,2.4nm,2.9s						
PSZ	Piszkesteto	69.79	23	P	P	00 05 23.4	+1.1
	comp=Z,9.9nm,1.9s						
WIMM	Wimmelburg	70.21	16	P	P	00 05 25.4	+0.8
	comp=Z,24nm,2.5s						
BR131	Keskin Array S	70.24	37		P	00 05 25.2	-0.2
BRTR	Keskin Array B	70.24	37	P	P	00 05 26.4	+1.1
	comp=Z,3.3nm,0.8s,baz=209,slow=6.3,SNR=18						
BRTR				LR	LR	00 34 58.7	
	comp=Z,57nm,21.7s,baz=216,slow=35						
	comp=Z,3.3nm,0.8s						
BRTR	Keskin Array B	70.24	37		P	00 05 24.9	-0.5
MAUC	Maruska	70.26	21	eP	P	00 05 25.2	+0.1
MLR	Muntele Rosu	70.38	28	LR	LR	00 37 17.8	
	comp=Z,172nm,19.4s,baz=186,slow=37						
MLR	Muntele Rosu	70.38	28		P	00 05 25.2	-0.8
MLR	Muntele Rosu	70.38	28	P	P	00 05 26.4	+0.4
	comp=Z,17nm,1.3s						
CLL	Collm	70.43	17	LV		00 41 00.0	
MAW	Mawson	70.44	157	P	P	00 05 26.7	+0.8
	comp=Z,3.7nm,0.7s,baz=283,slow=5.7,SNR=19						
MAW				LR	LR	00 29 46.6	
	comp=Z,205nm,19.4s,baz=350,slow=30						
	comp=Z,3.7nm,0.7s						
MAW	Mawson	70.44	157	P	P	00 05 26.5	+0.5
ANDN	Andirin	70.47	40	P	P	00 05 28.6	+1.9
	comp=Z,18nm,1.3s						
MORC	Moravsky Berou	70.51	21	P	P	00 05 26.1	-0.6
MORC	Moravsky Berou	70.51	21	eP	P	00 05 27.3	+0.6
MORC				e		00 05 33.8	
MORC	Moravsky Berou	70.51	21	P	P	00 05 27.1	+0.4
ABAH	Abaujker	70.62	24	P	P	00 05 28.2	+0.9
	comp=Z,8.8nm,1.6s						
STEB	Steborice	70.72	21	eP	P	00 05 28.1	+0.2
GAZ	Gaziantep	70.76	41	P	P	00 05 28.5	0.0
GAZ				IAmb	IAmb	00 05 30.6	
	comp=Z,6.9nm,1.0s						
TIRR	Tirgusor	70.77	30	P	P	00 05 26.8	-1.5

TIRR				IAmb	IAmb	00 05 29.1	
	comp=Z,38nm,1.4s						
BNN	**Bunyan**	70.97	39	P	P	00 05 28.9	-0.9
BNN				IAmb	IAmb	00 05 31.9	
	comp=Z,23nm,1.8s						
EKA	**Eskdalemuir Ar**	71.14	6	LR	LR	00 36 00.4	
	comp=Z,83nm,18.0s,baz=186,slow=35						
ILGA	**Ilgaz**	71.16	36	P	P	00 05 30.1	-1.0
OJC	**Ojcow**	71.67	22	P	P	00 05 33.6	0.0
TOKA	**Tokat**	72.28	38	P	P	00 05 37.4	-0.2
KELT	**Kelkit**	73.84	39	P	P	00 05 48.5	+1.5
	comp=Z,29nm,1.8s						
KOPT	**Kop Dagi**	74.53	40		P	00 05 52.2	+1.0
QSPA	**South Pole Qui**	74.60	180	P	P	00 05 51.8	+0.8
	comp=Z,2.1nm,0.9s,baz=241,slow=2.9,SNR=9.2						
QSPA				LR	LR	00 33 51.5	
	comp=Z,122nm,19.1s,baz=244,slow=32						
	comp=Z,2.1nm,0.9s						
QSPA	**South Pole Qui**	74.60	180		P	00 05 51.5	+0.5
QSPA				IAmb	IAmb	00 05 59.1	
	comp=Z,16nm,1.4s						
QSPA	**South Pole Qui**	74.60	180	P	P	00 05 52.6	+1.6
	comp=Z,10nm,1.9s						
GURO	**Guroymak-BITLI**	74.65	42		P	00 05 52.0	+0.3
HAKT	**HAKKARI**	75.19	44	P	P	00 05 56.8	+1.9
	comp=Z,19nm,2.0s						
JTS	**Las Juntas de**	75.49	285	LR	LR	00 38 04.0	
	comp=Z,514nm,21.2s,baz=111,slow=35						
KIEV	**Kiev**	75.74	26	P	P	00 05 55.9	-1.5
KIEV				IAmb	IAmb	00 06 04.4	
	comp=Z,43nm,1.8s						
KIEV	**Kiev**	75.74	26	P	P	00 05 56.9	-0.6
	comp=Z,15nm,2.0s						
AKASG	**Malin Array Be**	75.75	26	P	P	00 05 57.1	-0.4
	comp=Z,2.6nm,0.7s,baz=224,slow=6.1,SNR=14						
AKASG				LR	LR	00 38 11.6	
	comp=Z,62nm,21.4s,baz=206,slow=35						
	comp=Z,2.6nm,0.7s						
AKASG	**Malin Array Be**	75.75	26	P	P	00 05 56.2	-1.3
AKASG				IAmb	IAmb	00 06 04.1	
	comp=Z,33nm,1.9s						
AKBB	**Malin Array Si**	75.75	26	P	P	00 05 57.0	-0.5
AKBB				IAmb	IAmb	00 06 04.5	
	comp=Z,48nm,1.8s						
SUW	**Suwalki**	75.98	21	P	P	00 05 58.4	-0.3
SIUN	**Universidad Ur**	76.46	289	P	P	00 06 03.1	+0.7
EPOS	**Posof**	76.77	40	P	P	00 06 05.2	+1.4
	comp=Z,10.0nm,1.9s						
BOAB	**BOACO BROADBAN**	76.85	287	P	P	00 06 04.4	-0.2
KONO	**Kongsberg**	77.22	12	P	P	00 06 06.3	+0.7
GNI	**Garni**	77.28	42	P	P	00 06 06.3	-0.4
GNI				IAmb	IAmb	00 06 16.3	
	comp=Z,27nm,1.6s						
KBZ	**Khabaz**	78.15	38	P	P	00 06 12.0	+0.8
	comp=Z,1.2nm,0.8s,baz=222,slow=6.6,SNR=3.7						
	comp=Z,1.2nm,0.8s						
KIV	**Kislovodsk**	78.15	38		P	00 06 11.6	+0.2
KIV				IAmb	IAmb	00 06 19.3	
	comp=Z,23nm,1.4s						
KIV	**Kislovodsk**	78.15	38	P	P	00 06 12.4	+1.0
	comp=Z,10nm,1.8s						
KVAR	**Kislovodsk Arr**	78.16	38	LR	LR	00 41 28.3	
	comp=Z,35nm,19.4s,baz=22,slow=36						
HFS	**Hagfors**	78.52	13	LR	LR	00 43 12.0	
	comp=Z,63nm,18.8s,baz=208,slow=38						
UOSS	**Minazif**	78.75	60		P	00 06 14.8	-0.2
UOSS				IAmb	IAmb	00 06 16.4	
	comp=Z,12nm,0.7s						
UOSS	**Minazif**	78.75	60	P	P	00 06 15.8	+0.7
	comp=Z,22nm,1.1s						
NOA	**NORSAR Array B**	78.82	12	LR	LR	00 42 56.7	
	comp=Z,50nm,18.1s,baz=210,slow=37						
APG	**El Apazote**	82.09	288	LR	LR	00 42 35.0	
	comp=Z,14nm,21.7s,baz=92,slow=35						
FINES	**FINESS Array B**	82.86	18	P	P	00 06 36.3	+0.2
	comp=Z,2.2nm,0.7s,baz=224,slow=5.3,SNR=5.1						
FINES				LR	LR	00 44 24.7	
	comp=Z,78nm,18.8s,baz=233,slow=36						
	comp=Z,2.2nm,0.7s						
FINES	**FINESS Array B**	82.86	18	P	P	00 06 34.9	-1.2
BG3	**Lake Jocassee**	82.95	309	P	P	00 06 37.7	+0.4
BG3				IAmb	IAmb	00 06 45.6	
	comp=Z,38nm,1.8s						
Y52A	**Lilburn**	83.35	308	P	P	00 06 40.0	+0.7
O54A	**Avella**	83.36	315	P	P	00 06 39.6	+0.4
SCHQ	**Schefferville**	83.48	332	P	P	00 06 39.8	+0.2
	comp=Z,3.0nm,0.7s,baz=202,slow=5.8,SNR=3.8						
SCHQ				LR	LR	00 36 38.3	
	comp=Z,131nm,22.0s,baz=114,slow=30						
	comp=Z,3.0nm,0.7s						
SCHQ	**Schefferville**	83.48	332	P	P	00 06 39.5	0.0
SCHQ				IAmb	IAmb	00 07 01.9	
	comp=Z,39nm,1.9s						
PAOC	**Oil Creek Stat**	83.49	316	P	P	00 06 40.3	+0.4
PAMR	**Moraine State**	83.50	315	P	P	00 06 40.4	+0.4
DELO	**Deloro Mine**	83.57	320	P	P	00 06 41.4	+1.2
TKL	**Tuckaleechee C**	83.86	309	LR	LR	00 38 07.5	
	comp=Z,104nm,18.0s,baz=152,slow=32						
N53A	**Lisbon**	83.95	315	P	P	00 06 41.5	-0.8
Q52A	**Bidwell**	84.14	313	P	P	00 06 43.5	+0.3
Q52A				IAmb	IAmb	00 06 50.2	
	comp=Z,17nm,1.1s						
250A	**Grady**	84.33	305	P	P	00 06 45.0	+0.7
SADO	**Sadowa**	84.64	319	LR	LR	00 35 44.9	
	comp=Z,77nm,21.5s,baz=138,slow=30						
CLTN	**Cedars of Leba**	85.94	309	P	P	00 06 52.4	+0.1
CMIG	**Matias Romero**	86.77	289	LR	LR	00 45 35.8	
	comp=Z,184nm,21.6s,baz=136,slow=36						
VNDA	**Vanda**	87.05	179	LR	LR	00 41 17.5	
	comp=Z,117nm,18.1s,baz=252,slow=32						
ARCES	**ARCESS Array B**	89.16	13	LR	LR	00 49 08.7	
	comp=Z,67nm,18.9s,baz=218,slow=37						
CCM	**Cathedral Cave**	90.31	309	P	P	00 07 15.4	+2.2
	comp=Z,12nm,1.7s						
PALK	**Pallekele**	95.72	84	LR	LR	00 50 19.0	
	comp=Z,88nm,18.0s,baz=258,slow=35						
DRK	**Karamyk**	96.01	51	P	P	00 07 39.1	-0.7
HYB	**Hyderabad**	96.22	74	*e*PKiKP	PKiKP	00 12 18.8	-0.6
HYB				*e*SKSac	SKSac	00 18 16.8	-1.4
HYB				*e*SKKSac	SKKSac	00 18 40.9	-2.4
ULM	**Lac du Bonnet**	97.18	320	LR	LR	00 45 56.7	
	comp=Z,83nm,18.2s,baz=42,slow=32						
TXAR	**Lajitas Array**	97.81	298	P	P	00 07 47.4	-0.7
	comp=Z,0.1nm,0.6s,baz=86,slow=6.8,SNR=3.8						
	comp=Z,0.1nm,0.6s						
AAK	**Ala-Archa**	98.75	48	LR	LR	00 52 17.0	
	comp=Z,114nm,20.8s,baz=257,slow=35						
WRA	**Warramunga Arr**	132.46	137	PKP	PKPdf	00 13 26.6	-0.8
	comp=Z,0.3nm,0.6s,baz=246,slow=1.8,SNR=5.0						
MJAR	**Matsushiro Arr**	147.14	45	PKPbc	PKPdf	00 13 54.1	+0.7
	comp=Z,1.4nm,0.6s,baz=326,slow=2.4,SNR=5.3						

TEH ***12*** *00:17:02.8, 34°.63N×46°.13E, h8^{km}±62^{km}, ML2.5, Presumed earthquake*

ISN ***12*** *00:17:11.9±2.0, 34°.63N×46°.13E, h8^{km}, ML2.3, Presumed earthquake*

ISC 12 00:17:04.3±2.0**, 34°.64N**±0°.07×**46°.2E**±0°.1**, h10^{km}, n9, σ2^{s}07**/10**, Western Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IDHR	**Dehrash**	0.15	68	Pg	Pg	00 17 07.8	0.0
IDHR				Sg	Sg	00 17 10.6	+0.3
IGHG	**Ghaleghazi**	0.43	137	Pg	Pb	00 17 12.8	-1.2
ILBA	**Ilam Banvizeh**	1.02	180	Pg	Pg	00 17 21.8	-2.0
SNJK	**Sanadaj _Korde**	1.06	42	Pg	Pb	00 17 24.4	-0.4
SNQR	**Sonqor, Kerman**	1.18	79	Pg	Pg	00 17 26.9	-0.1
IBZA	**Bozab**	1.37	97	Pg	Pg	00 17 30.4	-0.2
IBDR	**Badra**	1.55	189	*i* P	Pg	00 17 41.1	+7.2
	baz=6.1						
IBDR				*i* S	Sg	00 17 58.8	+4.8
IBDR				IAML		00 18 06.5	
	comp=N,40nm,0.2s						
IBDR				IAML		00 18 06.7	
	comp=E,67nm,0.3s						
IALM	**Almabolaq**	1.62	82	Pg	Pg	00 17 35.4	0.0
HGHA	**Hamedan- Ghaye**	2.33	68	Pn	Pb	00 17 45.4	-1.0

DJA 12 00:19:46.1±2.5**, 3°N**±18°×**12°6E**±°**, h81^{km}**±39^{km}**, M3.6**/7**, MLv3.6**/7**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GAMI	**Galela, Maluku**	1.69	128	P	Pn	00 20 14.7	+0.8
GAMI				AML	AML		
MNI	**Manado**	2.16	228	P	Pn	00 20 18.7	-1.6
MNI				AML	AML		
DDMP	**Don Marcelino,**	3.28	347	*e*P	Pn	00 20 36.6	+1.4
DDMP				*e*S	Sn	00 21 07.6	-5.6

NOU ***12*** *00:41:33.1, 11°.94S×165°.92E, h0^{km}, MLv5.2/14, Santa Cruz Islands*

NEIC ***12*** *00:41:34.7±1.4, 11°.8S±0°.1×166°.1E±0°.1, h35^{km}±2^{km}, mb4.5/17, Error ellipse: s-maj=23.4km s-min=16.6km az=104.0*

IDC ***12*** *00:41:40.8±0.9, 12°.15S×166°.01E, h91^{km}±7^{km}, mb3.9/10, mbtmp4.3/12, MS3.6/18, Error ellipse: s-maj=24.6km s-min=18.8km az=90.0*

ISC 12 00:41:40.6±0.6**, 12°.12S**±0°.08×**166°.20E**±0°.09**, h100^{km}, n65, σ1^{s}28**/47**, mb4.4**/19**, Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SANVU	**Saraoutou**	3.45	164	P	Pn	00 42 32.1	-0.3
SANVU	**Saraoutou**	3.45	164		Pn	00 42 30.1	-2.3
HURO	**Huro Makira**	4.52	291	P	Pn	00 42 37.6	-9.3
NGOA	**Tingoa Renbel**	6.03	275	P	Pn	00 42 59.2	-8.2
HNR	**Honiara**	6.70	293	LR	LR	00 45 43.8	
	comp=Z,1μm,21.4s,baz=162,slow=37						
SAVO	**Savo Central**	6.94	295	P	Pn	00 43 12.6	-7.1
TATA	**Tatamba Isabel**	7.30	300	P	Pn	00 43 16.4	-8.3
KOUNC	**Koumac, New Ca**	8.58	192	P	Pn	00 43 40.2	-1.8
KOUNC	**Koumac, New Ca**	8.58	192	Pn	Pn	00 43 40.3	-1.7
MARNC	**Mare, Loyalty**	9.47	170	P	Pn	00 43 54.0	-0.1
MARNC	**Mare, Loyalty**	9.47	170	Pn	Pn	00 43 51.3	-2.8
DZM	**Mont Dzumac**	9.90	179	P	Pn	00 43 58.5	-1.5
	10nm,0.6s,baz=12,slow=21,SNR=13						
YATNC	**Mamie plateau,**	9.91	176	P	Pn	00 43 58.5	-1.6
NOUC	**Port Laguerre**	9.93	179	P	Pn	00 44 00.2	-0.1
ONTNC	**Ouen Toro**	10.13	179	P	Pn	00 44 03.8	+0.6
ONTNC	**Ouen Toro**	10.13	179	Pn	Pn	00 44 02.4	-0.8
OUENC	**Ouen Island, N**	10.26	177	P	Pn	00 44 04.2	-0.7
OUENC	**Ouen Island, N**	10.26	177	Pn	Pn	00 44 03.1	-1.7
MSVF	**Nonsavu**	12.74	117	LR	LR	00 48 37.3	
	comp=Z,766nm,19.2s,baz=322,slow=32						
MSVF	**Nonsavu**	12.74	117	Pn	Pn	00 44 36.5	-1.7
KRVT	**Keravat (AS076**	16.02	298	LR	LR	00 51 50.1	
	comp=Z,148nm,20.2s,baz=106,slow=38						
PMG	**Port Moresby**	18.90	276	P	P	00 45 52.4	-1.1
	29nm,0.9s,baz=120,slow=6.3,SNR=4.2						
PMG				LR	LR	00 52 33.6	
	comp=Z,309nm,21.4s,baz=94,slow=35						
CTA	**Charters Tower**	20.72	245	LR	LR	00 52 50.1	
	comp=Z,152nm,22.0s,baz=50,slow=33						
AFI	**Afiamalu**	21.53	97	LR	LR	00 53 15.8	
	comp=Z,133nm,18.8s,baz=290,slow=32						
ARMA	**Armidale**	22.67	214	P	P	00 46 33.3	-0.5
ARMA				IAmb	IAmb	00 46 39.2	
	comp=Z,33nm,1.5s						
URZ	**Urewera**	27.79	161	LR	LR	00 57 16.2	
	comp=Z,176nm,19.4s,baz=312,slow=34						
STKA	**Stephens Creek**	29.99	225	P	P	00 47 38.9	-0.9
	comp=Z,1.3nm,0.5s,baz=67,slow=16,SNR=1.9						
STKA				LR	LR	00 59 02.2	
	comp=Z,115nm,19.4s,baz=18,slow=35						
	comp=Z,1.3nm,0.5s						
THZ	**Tophouse**	30.11	170	P	P	00 47 42.0	+1.2
THZ				IAmb	IAmb	00 48 00.3	
	comp=Z,5.7nm,0.8s						
WB0	**Warramunga Arr**	31.47	252		P	00 47 53.0	-0.1
WB0				IAmb	IAmb	00 47 53.5	
	comp=Z,10nm,0.9s						
WRA	**Warramunga Arr**	31.55	252	P	P	00 47 52.9	-0.9
	comp=Z,2.7nm,0.7s,baz=84,slow=9.2,SNR=25						
	comp=Z,2.7nm,0.7s						
WRA	**Warramunga Arr**	31.55	252	P	P	00 47 53.1	-0.7
LBZ	**Lake Benmore**	32.34	175	P	P	00 48 01.8	+1.6
AS31	**Alice Springs**	32.73	245		P	00 48 03.9	-0.1
ASAR	**Alice Springs**	32.73	245	P	P	00 48 03.6	-0.4
	comp=Z,4.4nm,0.7s,baz=71,slow=9.6,SNR=49						
ASAR				PcP	PcP	00 50 48.5	+1.1
	comp=Z,0.7nm,0.9s,baz=97,slow=2.4,SNR=4.1						
ASAR				LR	LR	01 00 09.9	
	comp=Z,116nm,19.3s,baz=194,slow=34						
	comp=Z,4.4nm,0.7s						
ASAR	**Alice Springs**	32.73	245	P	P	00 48 02.8	-1.2
GUMO	**Guam**	33.16	320	LR	LR	01 02 24.8	
	comp=Z,95nm,18.1s,baz=124,slow=38						
RAR	**Rarotonga**	33.77	110	LR	LR	01 01 51.5	
	comp=Z,87nm,18.4s,baz=278,slow=36						
BBOO	**Buckleboo**	34.44	228	P	P	00 48 19.8	+1.1
KNRA	**Kununurra**	36.48	260	P	P	00 48 35.7	-0.7
KNRA				IAmb	IAmb	00 48 38.8	
	comp=Z,8.9nm,1.4s						
FITZ	**Fitzroy Crossi**	39.55	256	P	P	00 49 02.1	0.0
FORT	**Forrest**	39.80	236	P	P	00 49 04.9	+0.8
FORT				IAmb	IAmb	00 49 15.2	
	comp=Z,12nm,1.0s						
PPT	**Papeete**	43.02	103	LR	LR	01 05 25.2	
	comp=Z,82nm,19.8s,baz=196,slow=33						
MBWA	**Marble Bar**	45.28	252	P	P	00 49 48.3	-0.4
MBWA				IAmb	IAmb	00 49 50.4	
	comp=Z,9.2nm,0.9s						
SHEM	**Shemya Is, Ala**	64.94	5	LR	LR	01 15 14.2	
	comp=Z,37nm,19.8s,baz=196,slow=31						
VNDA	**Vanda**	65.43	181	P	P	00 52 14.3	+2.1
	comp=Z,1.1nm,0.6s,baz=350,slow=9.0,SNR=6.4						
	comp=Z,1.1nm,0.6s						
VNDA	**Vanda**	65.43	181	P	P	00 52 13.7	+1.4
VNDA				IAmb	IAmb	00 52 18.5	
	comp=Z,4.3nm,1.3s						
CLES	**Cleveland East**	67.86	15	P	P	00 52 27.4	-0.6
KLR	**Kul'dur**	68.21	336	LR	LR	01 19 59.2	
	comp=Z,56nm,21.1s,baz=237,slow=34						
SPIA	**Saint Paul Isl**	71.74	13	P	P	00 52 51.0	-0.6
MA2	**Magadan**	72.53	352	LR	LR	01 19 27.0	
	comp=Z,34nm,21.3s,baz=130,slow=31						
CMAR	**Chiang Mai Arr**	72.95	294	P	P	00 53 00.1	+0.4
	comp=Z,0.8nm,0.3s,baz=110,slow=6.1,SNR=2.0						
CMAR				LR	LR	01 27 59.5	
	comp=Z,20nm,18.0s,baz=40,slow=38						
	comp=Z,0.8nm,0.3s						
QSPA	**South Pole Qui**	77.89	180	P	P	00 53 28.1	+0.8
	comp=Z,4.6nm,1.1s,baz=268,slow=1.1,SNR=14						
	comp=Z,4.6nm,1.1s						
QSPA	**South Pole Qui**	77.89	180	P	P	00 53 28.7	+1.4
QSPA				IAmb	IAmb	00 53 30.9	
	comp=Z,3.7nm,1.0s						
K15K	**Wolf Creek Mou**	78.34	15	P	P	00 53 29.9	+0.4
K15K				IAmb	IAmb	00 53 31.4	
	comp=Z,8.3nm,1.3s						
SONM	**Songino Array**	79.79	324	P	P	00 53 38.7	+0.8
	comp=Z,0.6nm,0.5s,baz=127,slow=4.4,SNR=4.7						
	comp=Z,0.6nm,0.5s						
SONM	**Songino Array**	79.79	324	P	P	00 53 35.6	-2.4
GTA2	**Gaotai**	80.19	314	*e*P	P	00 53 48.4	+8.1
GTA2				pmax	pmax		
	comp=Z,6.0nm,1.0s						
ILAR	**Eielson Array**	84.39	18	P	P	00 54 02.2	+0.8
	comp=Z,0.3nm,0.6s,baz=231,slow=5.7,SNR=2.7						
ILAR				pP	pP	00 54 25.9	-1.0
	comp=Z,1.0nm,0.9s,baz=221,slow=6.7,SNR=4.0						
	comp=Z,0.3nm,0.6s						
NVAR	**Mina Array Bea**	86.38	50	LR	LR	01 31 34.2	
	comp=Z,42nm,18.1s,baz=270,slow=34						
MKAR	**Makanchi Array**	94.60	317	P	P	00 54 49.6	-0.6
	comp=Z,1.0nm,0.7s,baz=90,slow=5.7,SNR=6.0						
MKAR				pP	pP	00 55 15.8	+1.2
	comp=Z,4.7nm,0.7s,baz=103,slow=6.0,SNR=13						
	comp=Z,1.0nm,0.7s						
MKAR	**Makanchi Array**	94.60	317	P	P	00 54 49.2	-1.1
ZALV	**Zalesovo Beam**	94.68	324	pP	pP	00 55 17.0	+1.8
	comp=Z,2.9nm,0.5s,baz=116,slow=5.8,SNR=11						
NRIK	**Noril'sk**	97.28	339	LR	LR	01 35 56.2	
	comp=Z,26nm,21.5s,baz=108,slow=34						
KURBB	**Kurchatov Arra**	97.78	320	P	Pdif	00 55 05.3	+0.7
	comp=Z,0.2nm,0.2s,baz=103,slow=5.6,SNR=1.3						
KURBB				pP	pP	00 55 31.1	+1.6
	comp=Z,0.6nm,0.4s,baz=104,slow=4.0,SNR=4.0						
	comp=Z,0.2nm,0.2s						
NOA	**NORSAR Array B**	127.85	345	PKP	PKiKP	01 00 37.5	+2.7
	comp=Z,1.1nm,0.8s,baz=87,slow=1.7,SNR=3.2						

TRN 12 00:51:16.3, 10°.38N×62°.75W, h1^{km}, MD3.6, Venezuela., Near coast of Venezuela

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DMDM	**Guralp CMG5TDE**	1.22	75	*e*P	Pg	00 51 39.9	0.0
DMDM				*e*S	Sn	00 51 57.9	+0.1
PSKH	**Kent House, Po**	1.25	76	*e*P	Pb	00 51 40.7	+0.1
PSKH				*e*S	Sn	00 51 58.3	0.0
TRN	**Trinidad (W)**	1.35	78	*e*P	Pb	00 51 42.9	+0.4
TRN				*e*S	Sn	00 52 01.8	+0.8
GRGR	**Grenville**	2.05	32	*e*S	Sn	00 52 18.8	+0.6

DJA ***12*** *00:58:11.1±0.8, 10°S±2°×11°8E±°, h21^{km}±7^{km}, M4.9/42, mb4.8/34, mB5.4/17, MLv5.0/42, Mw(mB)4.8/17*

IDC ***12*** *00:58:12.8±2.5, 9°.23S×117°.73E, h87^{km}±22^{km}, mb4.0/14, mbtmp4.3/16, MS3.4/2, Error ellipse: s-maj=25.9km s-min=10.2km az=79.0*

NEIC ***12*** *00:58:12.2±2.2, 9°.31S±0°.06×117°.74E±0°.04, h71^{km}±7^{km}, mb4.3/29, Error ellipse: s-maj=9.3km s-min=3.7km az=206.0*

ISC 12 00:58:13.6±0.4**, 9°.34S**±0°.05×**117°.77E**±0°.04**, h100^{km}, n127, σ2^{s}18**/122**, mb4.3**/23**, 2D, Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLAI	**Plampang**	0.51	0	P	Pn	00 58 25.9	-3.5
PLAI	**Plampang**	0.51	0	S	Sn	00 58 35.7	-5.5
PLAI	**Plampang**	0.51	0	P	Pn	00 58 25.8	-3.6
PLAI				S	Sn	00 58 35.8	-5.5
PLAI				AML	AML		
DBNI	**Kabupaten Domp**	0.99	33	P	Pn	00 58 32.3	-1.6
DBNI				S	Sn	00 58 46.5	-2.6
DBNI				AML	AML		
TWSI	**Taliwang, Sumb**	1.06	304	P	Pn	00 58 32.3	-2.4
TWSI				S	Sn	00 58 46.9	-3.7
TWSI				AML	AML		
KHKI	**Kahang-Kahang**	2.35	294	P	Pn	00 58 50.6	-0.1
WSI	**Waingapu**	2.51	98	P	Pn	00 58 51.0	-1.8
WSI				AML	AML		
DNP	**Denpasar**	2.62	284	P	Pn	00 58 54.1	-0.1
IGBI	**Denpasar**	2.65	281	P	Pn	00 58 53.5	-1.1
IGBI				AML	AML		
SRBI	**Singaraja**	2.82	296	P	Pn	00 58 55.8	-1.1
SRBI				AML	AML		
BASI	**Baing, Sumba**	2.90	108	P	Pn	00 58 56.0	-2.0
BASI				AML	AML		
RTBI	**Rangdo, Negare**	2.93	287	P	Pn	00 58 58.0	-0.4
RTBI				AML	AML		
BYJI	**Banyuwangi**	3.56	288	P	Pn	00 59 06.2	-0.6
BYJI				AML	AML		
JAGI	**Jajag, Banyuwa**	3.68	283	P	Pn	00 59 06.5	-1.9
JAGI	**Jajag, Banyuwa**	3.68	283	S	Sn	00 59 48.3	-2.7
JAGI	**Jajag, Banyuwa**	3.68	283		Pn	00 59 05.8	-2.7
JAGI				Sn	Sn	00 59 47.8	-3.2
JAGI	**Jajag, Banyuwa**	3.68	283	P	Pn	00 59 06.6	-1.9
JAGI				AML	AML		
ABJI	**Asem Bagus**	3.82	293	P	Pn	00 59 09.6	-0.8
ABJI				AML	AML		
EDFI	**Ende, Flores**	3.91	82	P	Pn	00 59 11.5	-0.2
EDFI				AML	AML		
BSSI	**Bau Bau, Buton**	4.16	40	P	Pn	00 59 15.3	+0.3
BSSI				AML	AML		
MKS	**Makassar**	4.42	22	P	Pn	00 59 18.5	0.0
MKS				AML	AML		
BLJI	**Banyuglugur**	4.43	291	P	Pn	00 59 17.4	-1.1
BLJI				AML	AML		
MMRI	**Maumere**	4.46	81	P	Pn	00 59 19.2	+0.1
MMRI	**Maumere**	4.46	81	S	Sn	01 00 10.6	+0.7
MMRI	**Maumere**	4.46	81		Pn	00 59 18.3	-0.7
MMRI	**Maumere**	4.46	81	P	Pn	00 59 19.2	+0.1
MMRI				AML	AML		
KAPI	**Kappang**	4.72	25	P	Pn	00 59 22.2	-0.4
	50nm,0.2s,baz=202,slow=9.8,SNR=32						
KAPI				S	Sn	01 00 14.4	-1.8
	370nm,0.5s,baz=98,slow=23,SNR=38						
KAPI				LR	LR	01 01 14.6	
	comp=Z,182nm,20.7s,baz=256,slow=39						
KAPI	**Kappang**	4.72	25		Pn	00 59 22.6	+0.1
KAPI				Sn	Sn	01 00 14.1	-2.1
KAPI	**Kappang**	4.72	25	P	Pn	00 59 22.8	+0.2
KAPI				AML	AML		
SPSI	**Sidrap Palu**	5.69	20	P	Pn	00 59 38.5	+2.8
	0.5nm1μm63nm,0.7s						
SPSI				AML	AML		
PMSI	**Majene**	5.91	11	P	Pn	00 59 39.1	+0.4
PMSI				AML	AML		
BBSI	**Bau Bau**	6.10	52	P	Pn	00 59 43.0	+1.7
	0.7nm140nm,0.6s						
BBSI				AML	AML		
SNJI	**Sawahan-Nganju**	6.15	284	P	Pn	00 59 39.8	-2.2
	0.8nm55nm,0.6s						
SNJI				AML	AML		
SJI	**Sawahan**	6.15	285	P	Pn	00 59 42.0	0.0
KKSI	**Kolaka, Sulawe**	6.42	37	P	Pn	00 59 49.6	+4.0
SOEI	**Soe**	6.42	94	P	Pn	00 59 45.3	-0.4
SOEI	**Soe**	6.42	94	S	Sn	01 00 56.3	-1.3
SOEI	**Soe**	6.42	94		Pn	00 59 43.5	-2.2
SOEI				Sn	Sn	01 00 56.3	-1.3
SOEI	**Soe**	6.42	94	P	Pn	00 59 44.4	-1.3
	0.8nm2μm215nm,1.0s						
SOEI				AML	AML		
PCJI	**Pacitan**	6.62	279	P	Pn	00 59 46.7	-1.6
	1.6nm213nm,1.4s						
PCJI				AML	AML		
MMSI	**Mamuju**	6.70	10	P	Pn	00 59 50.3	+0.8
	0.2nm68nm,0.7s						
MMSI				AML	AML		
WOJI	**Wonogiri, Jawa**	6.94	282	P	Pn	00 59 53.2	+0.6
	0.8nm61nm,0.7s						
WOJI				AML	AML		
KDI	**Kendari**	7.19	42	P	Pn	00 59 59.3	+3.2
	0.2nm4μm44nm,1.3s						
KDI				AML	AML		
UGM	**Wanagama**	7.31	281	P	Pn	00 59 59.1	+1.4
	259nm,1.7s						
PCI	**Palu**	8.62	14	P	Pn	01 00 20.1	+4.5
KPJI	**Karang Pucung**	8.97	282	P	Pn	01 00 19.5	-0.9
	40nm,0.7s						
LUWI	**Luwuk**	9.62	31	P	Pn	01 00 32.2	+3.0
LUWI	**Luwuk**	9.62	31		Pn	01 00 31.4	+2.1
LUWI	**Luwuk**	9.62	31	P	Pn	01 00 32.1	+2.9
BBJI	**Bungbulang**	10.19	280	Pn	Pn	01 00 34.8	-2.2
BBJI	**Bungbulang**	10.19	280	P	Pn	01 00 35.1	-1.9
	32nm,1.6s						
SANI	**Sanana**	10.91	49	P	Pn	01 00 48.6	+1.7
SANI	**Sanana**	10.91	49	P	Pn	01 00 48.5	+1.7
	1μm107nm,1.4s						
NLAI	**Namlea**	11.07	57	P	Pn	01 00 54.4	+5.5
GTOI	**Gorontalo**	11.20	28	P	Pn	01 00 54.2	+3.6
	20nm,0.8s						
FITZ	**Fitzroy Crossi**	11.58	140	P	Pn	01 00 51.8	-3.9
	19nm,0.6s,baz=331,slow=9.7,SNR=90						
FITZ				S	Sn	01 02 52.1	-11
	15nm,0.5s,baz=200,slow=19,SNR=7.7						
FITZ	**Fitzroy Crossi**	11.58	140		Pn	01 00 52.1	-3.6
MBWA	**Marble Bar**	11.90	171	P	Pn	01 00 55.6	-4.4
MBWA	**Marble Bar**	11.90	171		Pn	01 00 57.4	-2.6
KNRA	**Kununurra**	12.44	122		Pn	01 01 04.3	-2.9
MTN	**Manton Dam**	13.56	106		Pn	01 01 18.4	-3.6
GIRL	**Giralia**	13.66	194	Pn	Pn	01 01 19.8	-3.3
KKM	**Kota Kinabalu**	15.36	354		P	01 01 47.5	0.0
KKM				IAmb	IAmb	01 01 57.6	
	comp=Z,14nm,0.8s						
MNAI	**Manna**	15.52	288		P	01 01 47.7	-1.5
FAKI	**Fak Fak**	15.73	67	Pn	Pn	01 01 47.5	-2.2
FAKI				IAmb	IAmb	01 01 54.5	
	comp=Z,42nm,1.0s						
WB0	**Warramunga Arr**	19.12	125	P	Pn	01 02 29.6	-1.1
WRA	**Warramunga Arr**	19.16	125	P	Pn	01 02 29.3	-2.0
	comp=Z,7.2nm,0.7s,baz=297,slow=14,SNR=55						
WRA				S	S	01 05 52.9	-8.5
	comp=Z,3.6nm,0.7s,baz=305,slow=25,SNR=5.9						
WRA	**Warramunga Arr**	19.16	125	P	Pn	01 02 30.1	-1.1
WRAB	**Tennant Creek**	19.17	125	P	Pn	01 02 29.9	-1.4
WRAB	**Tennant Creek**	19.17	125	P	Pn	01 02 29.2	-2.1
WRAB				IAmb	IAmb	01 02 43.9	
	comp=Z,10nm,0.8s						
WR8	**Warramunga Arr**	19.30	125	P	Pn	01 02 31.1	-1.8
WR8				IAmb	IAmb	01 02 37.8	
	comp=Z,19nm,0.9s						
AS31	**Alice Springs**	21.00	135	P	Pn	01 02 49.8	-2.9
ASAR	**Alice Springs**	21.00	135	P	Pn	01 02 49.9	-2.8
	comp=Z,11nm,0.8s,baz=323,slow=12,SNR=68						
ASAR				S	S	01 06 35.4	-2.1
	comp=Z,2.9nm,0.8s,baz=314,slow=23,SNR=5.6						

ASAR				ScP	ScP	01 10 23.9	+3.2
	comp=Z,1.2nm,0.7s,baz=325,slow=1.5,SNR=4.8						
	comp=Z,11nm,0.8s						
AS01	Alice Springs	21.03	135	P	P	01 02 50.3	+0.8
FORT	Forrest	23.39	157	P	P	01 03 14.4	+0.9
NWAO	Narrogin (SRO)	23.48	181	P	P	01 03 15.4	+1.0
	comp=Z,15nm,0.6s,baz=6.8,slow=6.6,SNR=12						
NWAO				S	S	01 07 24.2	+3.7
	comp=Z,9.7nm,0.4s,baz=253,slow=1.3,SNR=5.6						
	comp=Z,15nm,0.6s						
NWAO	Narrogin (SRO)	23.48	181	P	P	01 03 15.4	+1.0
NWAO	Narrogin (SRO)	23.48	181	P	P	01 03 15.5	+1.1
NWAO	Narrogin (SRO)	23.48	181	P	P	01 03 15.1	+0.7
QIS	Mount Isa	23.82	120	P	P	01 03 19.5	+1.9
MTSU	Mount Surprise	27.20	112	P	P	01 03 50.6	+2.5
INKA	Innaminka	28.36	133	P	P	01 04 00.4	+2.1
INKA				IAmb	IAmb	01 04 01.2	
	comp=Z,4.1nm,0.8s						
BBOO	Buckleboo	28.83	147	P	P	01 04 04.1	+1.6
BBOO				IAmb	IAmb	01 04 27.6	
	comp=Z,7.6nm,1.0s						
CTA	Charters Tower	29.50	114	P	P	01 04 09.5	+0.9
	comp=Z,6.6nm,0.8s,baz=180,slow=19,SNR=4.1						
	comp=Z,6.6nm,0.8s						
CTAO	Charters Tower	29.50	114	P	P	01 04 10.1	+1.5
CTAO				IAmb	IAmb	01 04 15.9	
	comp=Z,10.0nm,1.1s						
STKA	Stephens Creek	31.48	139	P	P	01 04 27.3	+1.4
	comp=Z,4.7nm,0.5s,baz=310,slow=7.6,SNR=9.9						
	comp=Z,4.7nm,0.5s						
STKA	Stephens Creek	31.48	139	P	P	01 04 27.8	+1.9
MGBR	Mount Gambier	34.95	148	P	P	01 04 56.9	+0.9
TOO	Toolangi	37.62	143	P	P	01 05 21.2	+2.4
TOO				IAmb	IAmb	01 05 22.7	
	comp=Z,3.4nm,0.8s						
ARMA	Armidale	37.89	128	P	P	01 05 24.5	+3.2
ARMA				IAmb	IAmb	01 05 52.2	
	comp=Z,8.1nm,0.9s						
CAN	Canberra	38.47	137	P	P	01 05 28.4	+2.4
PZH	PanZhiHua	38.88	337	P	P	01 05 37.2	+7.6
JSU	Suzuyama	42.39	16	P	P	01 06 03.7	+5.5
H08S2	Diego Garcia H	44.79	269	T	T	01 53 49.6	
	baz=95,slow=75,SNR=5.1						
H08S3	Diego Garcia H	44.80	269	T	T	01 53 46.9	
	baz=95,slow=75,SNR=8.8						
H08S1	Diego Carcia H	44.81	269	T	T	01 53 52.6	
	baz=95,slow=75,SNR=7.2						
KSRS	Korea Array	47.51	11	P	P	01 06 39.0	+0.4
	comp=Z,2.0nm,0.7s,baz=180,slow=8.5,SNR=3.3						
	comp=Z,2.0nm,0.7s						
MJAR	Matsushiro Arr	49.52	22	P	P	01 06 53.6	-0.5
	comp=Z,1.1nm,0.7s,baz=186,slow=8.9,SNR=2.5						
	comp=Z,1.1nm,0.7s						
MJAR	Matsushiro Arr	49.52	22	P	P	01 06 55.0	+0.8
HHC	Hu-ho-hao-te	50.26	354	eP	P	01 07 08.9	+9.1
HHC				pmax	pmax		
	comp=Z,12nm,0.6s						
USA0B	Ussuriysk Arra	54.82	12	P	P	01 07 33.2	0.0
USRK	Ussuriysk Ar.	54.82	12	P	P	01 07 33.0	-0.2
	comp=Z,4.6nm,0.7s,baz=187,slow=6.4,SNR=8.6						
	comp=Z,4.6nm,0.7s						
USRK	Ussuriysk Ar.	54.82	12	P	P	01 07 33.1	-0.1
SONM	Songino Array	57.81	351	P	P	01 07 54.3	-0.3
	comp=Z,1.7nm,0.6s,baz=171,slow=8.5,SNR=7.5						
	comp=Z,1.7nm,0.6s						
SONM	Songino Array	57.81	351	P	P	01 07 54.6	+0.1
SONM				IAmb	IAmb	01 07 54.7	
	comp=Z,1.3nm,0.6s						
WMQ	Urumqi	59.54	335	eP	P	01 08 14.8	+8.2
WMQ				LR	LR		
	comp=Z,61nm,24.1s						
MKAR	Makanchi Array	64.21	334	P	P	01 08 36.5	-1.4
	comp=Z,1.0nm,0.6s,baz=144,slow=6.4,SNR=11						
	comp=Z,1.0nm,0.6s						
MKAR	Makanchi Array	64.21	334	P	P	01 08 36.8	-1.1
ARSB	Arslanbob	65.07	324	P	P	01 08 43.1	-0.6
ARSB				IAmb	IAmb	01 08 43.5	
	comp=Z,2.6nm,0.7s						
MAW	Mawson	68.51	200	P	P	01 09 07.2	+2.4
	comp=Z,2.4nm,0.9s,baz=52,slow=10,SNR=4.0						
	comp=Z,2.4nm,0.9s						
MAW	Mawson	68.51	200	P	P	01 09 07.0	+2.2
ABPO	Ambohimpanom	68.70	253	P	P	01 09 08.3	+1.0
ABPO				IAmb	IAmb	01 09 31.5	
	comp=Z,6.3nm,1.1s						
KURK	Kurchatov	68.77	334	P	P	01 09 08.6	+1.9
ZALV	Zalesovo Beam	68.93	340	P	P	01 09 06.0	-1.7
	comp=Z,0.7nm,0.3s,baz=145,slow=5.4,SNR=4.7						
	comp=Z,0.7nm,0.3s						
ZALV	Zalesovo Beam	68.93	340	P	P	01 09 07.1	-0.5
VOI	Vohitsoka	68.99	250	P	P	01 09 10.3	+1.3
VOI				IAmb	IAmb	01 09 30.6	
	comp=Z,5.4nm,0.9s						
VNDA	Vanda	71.85	171	P	P	01 09 27.1	+2.0
	comp=Z,1.1nm,0.5s,baz=309,slow=7.8,SNR=8.4						
	comp=Z,1.1nm,0.5s						
VNDA	Vanda	71.85	171	P	P	01 09 27.3	+2.2
SBA	Scott Base	72.86	170	P	P	01 09 34.2	+3.1
SBA				IAmb	IAmb	01 09 35.2	
	comp=Z,2.5nm,0.8s						
BVAR	Borovoye Array	74.03	332	P	P	01 09 39.4	+1.1
	comp=Z,1.4nm,0.6s,baz=126,slow=7.5,SNR=4.3						
	comp=Z,1.4nm,0.6s						
AB31	Akbulak array	77.14	325	P	P	01 09 56.1	-0.1
ABKAR	Akbulak array	77.14	325	P	P	01 09 55.6	-0.6
QSPA	South Pole Qui	80.66	180	P	P	01 10 17.6	+2.3
	comp=Z,3.9nm,0.8s,baz=293,slow=1.5,SNR=22						
	comp=Z,3.9nm,0.8s						
QSPA	South Pole Qui	80.66	180	P	P	01 10 17.2	+1.9
QSPA				IAmb	IAmb	01 10 18.3	
	comp=Z,6.4nm,1.0s						
TROLL	Troll, Antarti	88.72	196	P	P	01 10 58.5	+2.8
	comp=Z,72nm,0.5s						
TROLL				⇓pP	pwP	01 11 22.1	-3.2
	comp=Z,91nm,0.6s						
VNA2	Neumayer--Watz	91.99	196	P	P	01 11 13.2	+2.4
	comp=Z,0.8nm,0.6s,baz=115,slow=4.7						
VNA2				⇓pP	pwP	01 11 36.8	-3.6
	comp=Z,1.3nm,0.7s						
MLR	Muntele Rosu	97.86	315	LR	LR	02 02 49.9	
	comp=Z,37nm,18.7s,baz=2.0,slow=40						

KRSC 12 01:55:38.8±0.9, 55°.60N×164°.31E, h49km±24km, Ml3.6, Komandorsky Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BKI	Bering	1.03	112	eP	Pn	01 55 58.9	+2.1
BKI				eS	Sn	01 56 13.5	+3.4
KBTR	Krutoberegovo	1.04	306	eP	Pn	01 55 56.3	-0.7
MKZ	Mys Kozlova	1.82	236	eP	Pn	01 56 09.1	+1.6
MKZ				eS	Sn	01 56 31.3	+1.9
SMKR	Semkarok	1.87	303	eP	Pn	01 56 09.8	+1.3
SMKR				eS	Sn	01 56 32.7	+1.9
ZLN	Zelenaya	2.02	283	eP	Pn	01 56 13.3	+2.8
BZGR	Bezymyannyi-Gr	2.07	281	eP	Pn	01 56 13.7	+2.5
BZGR				eS	Sn	01 56 39.7	+3.9
KLY	Klyuchi	2.18	291	eP	Pn	01 56 13.0	+0.5
BZWR	Bezymyannyi-We	2.19	281	eP	Pn	01 56 15.4	+2.6
TUMD	Tumrok D	2.27	261	eS	Sn	01 56 43.7	+3.2
KIRR	Kirishev	2.27	281	eP	Pn	01 56 16.5	+2.5
KMNR	Kamenistaya	2.31	275	eP	Pn	01 56 17.7	+3.3
KMNR				eS	Sn	01 56 46.5	+4.8
KPT	Kopyto	2.34	281	eP	Pn	01 56 17.7	+2.8
KPT				eS	Sn	01 56 46.2	+3.9
TUMR	Tumrok	2.40	264	eP	Pn	01 56 19.3	+3.7
KOZ	Kozyrevsk	2.55	282	eP	Pn	01 56 20.0	+2.5
SRDR	Sredinnyy	2.68	287	eP	Pn	01 56 22.3	+2.9
KII	Karymskiy	3.22	243	eP	Pn	01 56 30.2	+3.2
SPN	Mys Shipunski	3.55	227	eP	Pn	01 56 33.5	+2.2
KRER	Koryakskii	3.98	237	eP	Pn	01 56 41.3	+3.9
SMAR	Somma	3.98	236	eP	Pn	01 56 40.6	+3.1
KRX	Arik	4.00	238	eP	Pn	01 56 41.1	+3.6
UGLR	Uglovaya	4.00	235	eP	Pn	01 56 41.2	+3.6
AVH	Avacha	4.01	237	eP	Pn	01 56 41.7	+3.9
KOK	Koryaka	4.04	237	eP	Pn	01 56 41.8	+3.6
GNL	Ganaly	4.17	245	eP	Pn	01 56 43.8	+3.9
RUS	Russkaya	4.67	230	eP	Pn	01 56 49.2	+2.6
MTVR	Mutnovka	4.78	232	eP	Pn	01 56 51.9	+3.6
GRL	Gorelyy	4.78	233	eP	Pn	01 56 52.1	+3.8

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*JMA **12** 02:11:29.7±0.2, 28°.7N±0°.6×12°9E±°, h121km±2km, MV3.5/24, NEAR TOKARA ISLANDS*

*IDC **12** 02:11:30.2±1.4, 28°.63N×128°.72E, h125km±12km, mb3.6/2, mbtmp3.9/5, MS3.4/1, Error ellipse: s-maj=70.5km s-min=12.5km az=103.0*

ISC 12 02:11:29.9±1.0, 28°.66N±0°.05×128°.76E±0°.06, h128km±7km, n27, σ0ˢ79/44, Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAMN	Amaminishikomi	0.55	139	i P	Pn	02 11 48.8	-0.2
JAMN				S	Sn	02 12 03.2	-0.3
JTAJ	Takarajima	0.62	38	P	Pn	02 11 48.9	-0.6
JTAJ				eS	Sn	02 12 03.1	-1.2
JAM	Amami Oshima	0.78	108	P	Pn	02 11 50.4	-0.2
JAM				eS	Sn	02 12 06.2	-0.2
JTK	Tokunoshima	0.89	169	P	Pn	02 11 51.8	+0.2
JTK				S	Sn	02 12 08.2	+0.2
JZK	Kikaishima	1.12	108	P	Pn	02 11 54.9	+1.2
JZK				S	Sn	02 12 13.3	+1.5
JOKE	Okinoerabujima	1.30	188	i P	Pn	02 11 56.1	+0.3
JOKE				S	Sn	02 12 15.6	+0.3
JNN	Nakanoshima	1.53	39	P	Pn	02 11 58.2	+0.1
JNN				S	Sn	02 12 19.6	-0.1
JYRO	Yoronjima	1.65	190	i P	Pn	02 11 59.5	-0.1
JYRO				S	Sn	02 12 21.9	-0.4
JIH	Iheya	1.77	204	i P	Pn	02 12 01.0	0.0
JIH				eS	Sn	02 12 25.0	+0.4
JOW	Kunigami	1.87	193	P	Pn	02 12 02.6	+0.4
	baz=129,slow=20						
JOW				S	Sn	02 12 26.3	-0.6
	baz=142,slow=19						
JOW	Kunigami	1.87	193	i P	Pn	02 12 02.0	-0.2
JOW				eS	Sn	02 12 26.3	-0.6
JKC	Kuchinoerabu	2.19	34	eP	Pn	02 12 05.7	-0.3
JYAK	Yakushimahirau	2.19	44	P	Pn	02 12 05.4	-0.7
JYAK				eS	Sn	02 12 31.8	-2.1
JNTH	Nagotoyohara	2.23	197	P	Pn	02 12 06.8	+0.1
JAGN	Aguni-jima	2.46	214	i P	Pn	02 12 09.3	-0.3
JAGN				S	Sn	02 12 39.5	-0.5
JMTN	Minamitane	2.54	47	eP	Pn	02 12 10.1	-0.5
JMTN				eS	Sn	02 12 42.1	+0.3
JJT3	Tamagusuku3	2.65	199	P	Pn	02 12 12.5	+0.5
JJT3				eS	Sn	02 12 43.9	-0.5
JTN	Tanegashima 3	2.77	44	P	Pn	02 12 12.9	-0.6
JTN				eS	Sn	02 12 46.5	-0.6
JKE	Kume jima 2	2.91	218	i P	Pn	02 12 14.8	-0.5
JKDJ	Kitadaitoujima	3.52	140	i P	Pn	02 12 23.7	+0.5
JKDJ				S	Sn	02 13 02.8	-1.6
JMZ	Minamidaito 2	3.58	142	i P	Pn	02 12 24.2	+0.2
JMZ				S	Sn	02 13 03.4	-2.5
JNU	Nakatsue	4.80	22	P	Pn	02 12 41.0	+0.7
	53nm,0.5s,baz=168,slow=9.6,SNR=58						
KSRS	Korea Array	8.80	356	P	Pn	02 13 34.4	+0.4
	2.6nm,0.7s,baz=173,slow=13,SNR=5.4						
MJAR	Matsushiro Arr	11.18	43	P	Pn	02 14 07.2	+1.1
	0.4nm,0.3s,baz=241,slow=13,SNR=2.5						
LZDM	Lanzhou Array	22.36	295	LR	LR	02 26 37.6	
	comp=Z,88nm,18.1s,baz=250,slow=41						
FITZ	Fitzroy Crossi	46.58	184	P	P	02 19 45.5	+0.4
	1.8nm,0.5s,baz=5.0,slow=11,SNR=13						
	1.8nm,0.5s						
WRA	Warramunga Arr	48.62	173	P	P	02 20 00.9	+0.1
	0.8nm,0.6s,baz=354,slow=8.0,SNR=9.4						
	0.8nm,0.6s						

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*UCR **12** 02:17:40.5±0.5, 8°.29N×83°.00W, h6km±8km, MW3.6, Presumed earthquake*

*UPA **12** 02:17:40.3±1.4, 8°.28N×83°.04W, h17km±3km, ML2.6, MW2.9, Presumed earthquake*

ISC 12 02:17:40.5±1.0, 8°.28N±0°.04×83°.01W±0°.04, h17km±7km, n22, σ0ˢ93/32, 2D, Costa Rica

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTPM	Petroterminale	0.15	122	i P	Pb	02 17 44.7	-0.2
PTPM				eS	Sg	02 17 49.2	+1.7
PTPA	Petro Terminal	0.16	121	eP	Pg	02 17 44.4	-0.4
PTPA				eS	Sg	02 17 47.0	-0.8
LMNES	Limones	0.23	141	i P	Pb	02 17 46.3	0.0
PIRO	Carate, Puerto	0.35	290	eP	Pg	02 17 47.2	-0.7
NELY	Ciudad Neily	0.37	9	eP	Pg	02 17 47.9	-0.4
NELY	Ciudad Neily	0.37	9	eP	Pb	02 17 48.8	+0.1
NELY				eS	Sb	02 17 54.7	+0.6
JIME	Puerto Jimenez	0.40	309	eP	Pg	02 17 48.8	0.0
VITO	San Vito	0.53	4	eS	Sb	02 18 00.8	+1.9
DVD	David	0.57	74	eP	Pb	02 17 52.2	+0.1
SCLRA	Santa Clara, W	0.59	22	eP	Pb	02 17 52.6	+0.1
SCLRA				eS	Sb	02 18 02.1	+1.4
BRU2	Volcan	0.60	32	i P	Pg	02 17 52.2	-0.3
BRU2				eS	Sb	02 18 01.8	+1.0
CLLRA	Cordillera,	0.60	40	i P	Pb	02 17 52.8	+0.1
CLLRA				eS	Sb	02 18 02.4	+1.4
CHIR3	Chiriqui UPA,	0.68	80	eS	Sb	02 18 05.0	+2.0
BGUAL	Bijagual, Pana	0.70	71	⇓eP	Pg	02 17 54.1	-0.3
BGUAL				eS	Sn	02 18 06.1	-0.1
BQTLY	Boquete Panama	0.72	49	eP	Pb	02 17 54.9	+0.2
EDP2	Potrero Grande	0.75	347	eP	Pg	02 17 54.5	-0.7
RBALA	Bur	1.03	55	eP	Pb	02 17 59.2	-0.7
RBALA				i P	Pg	02 17 59.4	-1.2
RBALA				eS	Sb	02 18 13.2	0.0
RBALA				IAML		02 18 16.8	
	comp=Z,151nm,0.5s						
SAJE	San Jernim	1.17	335	eP	Pb	02 18 01.0	-1.4
KKNTU	Kakintº	1.31	65	⇓iP	Pn	02 18 03.2	-0.8
KKNTU				eS	Sb	02 18 20.1	-1.1
BUS1	Rivas	1.46	330	eP	Pn	02 18 06.2	-0.3
PIEC	Cerro El Cedra	1.63	325	eP	Pn	02 18 09.1	+0.4
ABE2	San Pablo	1.75	324	eP	Pn	02 18 10.8	+0.4

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*MOS **12** 02:37:28.4±0.8, 17°.83S×178°.06W, h564km, mb5.5/21, Error ellipse: s-maj=10.4km s-min=8.4km az=149.5*

*BJI **12** 02:37:28.2, 17°.59S×177°.71W, h562km, mB5.6/14, mb5.6/40*

*NEIC **12** 02:37:29.9±2.2, 17°.88S±0°.09×178°.01W±0°.08, h560km±4km, mb5.1/464, Mww5.6/11, Error ellipse: s-maj=12.7km s-min=11.2km az=212.0*

*NEIC **12** 02:37:30.2, 17°.97S×178°.10W, h560km*

*NOU **12** 02:37:30.7, 17°.89S×177°.98W, h582km, ML5.4/189, Fiji Islands Region*

*GFZ **12** 02:37:30.5±0.3, 18°S±3°×17°8W±°, h580km±4km, M5.6/40, mb5.8/40*

*GFZ **12** 02:37:30.7, 17°.90S×178°.04W, h562km, Mw5.5/13, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}-0.70; $M_{\theta\theta}$1.00; $M_{\phi\phi}$-0.30; $M_{r\theta}$-1.39; $M_{\theta\phi}$0.49; $M_{\phi r}$-2.07; Fault plane solution: $M_0$2.69219×10^{17} NP1:ϕ_s36.88892°, δ82.37404°, λ-106.72390°. NP2:ϕ_s283.05975°, δ18.33524°, λ-24.95172°. Principal axes: T 2.6581, Plg35.2659°, Azm141.3198°; N 0.0670, Plg16.5717°, Azm39.1723°; P -2.7251, Plg49.9110°, Azm288.4695°;*

*PTWC **12** 02:37:30, 17°.80S×177°.90W, h595km, Mwp5.5/4, FIJI REGION*

*IDC **12** 02:37:31.3±0.5, 17°.87S×178°.03W, h585km±5km, mb4.9/22, mbtmp5.8/24, Error ellipse: s-maj=9.9km s-min=7.0km az=164.0*

*GCMT **12** 02:37:32.8±0.4, 18°.03S±0°.04×178°.07W±0°.04, h583km±3km, MW5.7/48, Moment Tensor Solution. s48,c68; Duration: 1ˢ7 Moment tensor: Scale 10^{17}Nm; M_{rr}-1.26±.12; $M_{\theta\theta}$1.34±.19; $M_{\phi\phi}$-0.08±.18; $M_{r\theta}$-2.13±.19; $M_{\theta\phi}$0.68±.16; $M_{\phi r}$-3.17±.17; Best double couple: $M_0$4.08800×10^{17} NP1:ϕ_s273.00000°, δ15.00000°, λ-35.00000°. NP2:ϕ_s37.00000°, δ81.00000°, λ-103.00000°. Principal axes: T 3.9880, Plg35.0000°, Azm138.0000°; N 0.1940, Plg12.0000°, Azm39.0000°; P -4.1870, Plg52.0000°, Azm292.0000°; nsta1 refers to body waves, cutoff=40s. Triangular moment-rate function*

*NEIC **12** 02:37:36.7, 17°.97S×178°.10W, h560km, Moment Tensor Solution. Duration: 3ˢ2 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.95; $M_{\theta\theta}$1.81; $M_{\phi\phi}$-0.87; $M_{r\theta}$-0.65; $M_{\theta\phi}$0.90; $M_{\phi r}$-2.29; Fault plane solution: $M_0$2.99000×10^{17} NP1: ϕ_s286.43000°, δ36.49000°, λ-19.22000°. NP2:ϕ_s32.09000°, δ78.71000°, λ-124.93000°. Principal axes: T 2.7176, Plg25.0000°, Azm149.0000°; N 0.4894, Plg34.0000°, Azm40.0000°; P -3.2070, Plg45.0000°, Azm267.0000°;*

ISC 12 02:37:30.6±0.3, 17°.92S±0°.04×177°.90W±0°.04, h582km±3km, h582km:pP-P, n1117, σ1ˢ23/1034, mb5.4/438, 18C-56D, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LKBA	Tubou, Lakemba	0.92	250	P	P	02 38 40.4	+0.6
LKBA	Tubou, Lakemba	0.92	250	S	S	02 39 38.0	+1.9
LKBA	Tubou, Lakemba	0.92	250	P	P	02 38 40.8	+1.0
TAVE	Taveuni	2.26	302	P	P	02 38 45.2	+0.8
TAVE	Taveuni	2.26	302	S	S	02 39 46.3	+1.9
TAVE	Taveuni	2.26	302	P	P	02 38 45.7	+1.3
DGTI	Dogotuki	2.77	305	P	P	02 38 47.2	+0.2
DGTI	Dogotuki	2.77	305	S	S	02 39 50.3	+1.2
DGTI	Dogotuki	2.77	305	P	P	02 38 47.6	+0.6
FUTU	Fugatoga	3.60	357	P	P	02 38 51.5	-0.6
FUTU	Fugatoga	3.60	357	S	S	02 39 58.1	-0.2
FUTU	Fugatoga	3.60	357		P	02 38 51.9	-0.2
FUTU	Fugatoga	3.60	357	P	P	02 38 52.1	0.0
FUTU	Fugatoga	3.60	357	P	P	02 38 51.4	-0.6
FUTU				S	S	02 39 57.0	-1.3
FUTU				AML	AML		
FUTU	Fugatoga	3.60	357	P	P	02 38 52.1	0.0
MSVF	Nonsavu	3.86	272	P	P	02 38 55.2	+1.4
	15μm,0.7s,baz=119,slow=6.0,SNR=5494						
MSVF				S	S	02 40 04.5	+2.9
	1μm,1.1s,baz=116,slow=22,SNR=7.2						
MSVF	Nonsavu	3.86	272	P	P	02 38 54.1	+0.3
MSVF	Nonsavu	3.86	272	P	P	02 38 54.7	+0.9
MSVF	Nonsavu	3.86	272	P	P	02 38 55.3	+1.4
MSVF	Nonsavu	3.86	272	P	P	02 38 54.7	+0.9
MSVF				S	S	02 40 04.4	+2.8
MSVF				AML	AML		
MSVF	Nonsavu	3.86	272	P	P	02 38 55.4	+1.6
AFI	Afiamalu	7.12	57	P	P	02 39 19.5	-1.6
	1μm,0.7s,baz=170,slow=1.7,SNR=179						
AFI				S	S	02 40 46.8	-4.6
	486nm,0.5s,baz=57,slow=24,SNR=5.6						
AFI	Afiamalu	7.12	57	P	P	02 39 19.3	-1.8
	905nm,1.1s						
AFI				AML	AML		
AFI	Afiamalu	7.12	57	P	P	02 39 19.4	-1.7
AFI	Afiamalu	7.12	57	P	P	02 39 19.3	-1.8
AFI	Afiamalu	7.12	57	P	P	02 39 19.3	-1.8
AFI				S	S	02 40 43.9	-7.5
AFI				AML	AML		
AFI	Afiamalu	7.12	57	P	P	02 39 19.7	-1.4
	comp=Z,3μm,1.1s						
NIUE	Niue	7.66	100	P	P	02 39 26.5	+0.5
FUNA	Funafuti	9.76	343	P	P	02 39 45.1	-1.6
	comp=Z,804nm,1.7s						
FUNA	Funafuti	9.76	343	P	P	02 39 45.1	-1.6
FUNA	Funafuti	9.76	343	P	P	02 39 45.3	-1.4
	comp=Z,1μm,1.7s						
RIZ	Raoul Island	11.27	180	P	P	02 39 59.5	-2.2
RAO	Raoul Island	11.28	180	P	P	02 39 59.9	-1.9
RAO	Raoul Island	11.28	180	P	P	02 39 59.9	-1.9
GLKZ	Green Lake	11.29	180	P	P	02 39 57.9	-4.0
GLKZ				S	S	02 42 01.5	-4.8
RTV	Rentapao	13.02	268	P	P	02 40 18.6	-1.1
	comp=Z,4μm,0.8s						
RTV	Rentapao	13.02	268	S	S	02 42 39.1	+0.3
	comp=Z,4μm,0.8s						
RTV	Rentapao	13.02	268	P	P	02 40 18.2	-1.5
MARNC	Mare, Loyalty	13.71	253	P	P	02 40 24.4	-2.4
	comp=Z,1μm,1.1s						
MARNC	Mare, Loyalty	13.71	253	S	S	02 42 50.3	-1.1
	comp=Z,1μm,1.1s						
MARNC	Mare, Loyalty	13.71	253		P	02 40 23.7	-3.1
SANVU	Saraoutou	14.48	278	P	P	02 40 31.9	-2.5
	comp=Z,893nm,0.8s						
SANVU	Saraoutou	14.48	278	S	S	02 43 06.3	+1.2
	comp=Z,893nm,0.8s						
SANVU	Saraoutou	14.48	278		P	02 40 31.4	-3.0
SANVU	Saraoutou	14.48	278	P	P	02 40 31.0	-3.4
SANVU	Saraoutou	14.48	278	P	P	02 40 32.0	-2.4
	comp=Z,893nm,0.8s						
YATNC	Mamie plateau,	14.87	251	P	P	02 40 35.8	-2.3
	comp=Z,280nm,0.7s						
OUENC	Ouen Island, N	15.00	250	P	P	02 40 37.6	-1.7
	comp=Z,345nm,0.7s						
OUENC	Ouen Island, N	15.00	250	S	S	02 43 13.7	-0.2
	comp=Z,345nm,0.7s						
OUENC	Ouen Island, N	15.00	250		P	02 40 37.7	-1.6
OUENC	Ouen Island, N	15.00	250	P	P	02 40 37.9	-1.4
DZM	Mont Dzumac	15.28	252	P	P	02 40 40.7	-1.4
	comp=Z,156nm,0.5s,baz=82,slow=4.4,SNR=135						
ONTNC	Ouen Toro	15.32	251	P	P	02 40 41.1	-1.3
	comp=Z,481nm,1.1s						
ONTNC	Ouen Toro	15.32	251	S	S	02 43 19.3	0.0
	comp=Z,481nm,1.1s						
ONTNC	Ouen Toro	15.32	251		P	02 40 41.1	-1.3
ONTNC	Ouen Toro	15.32	251	P	P	02 40 41.2	-1.2
NOUC	Port Laguerre	15.41	252	P	P	02 40 41.8	-1.5
	comp=Z,740nm,1.1s						
NOUC	Port Laguerre	15.41	252	S	S	02 43 20.7	-0.1
	comp=Z,740nm,1.1s						
NOUC	Port Laguerre	15.41	252	P	P	02 40 41.7	-1.5
KOUNC	Koumac, New Ca	17.02	258	P	P	02 40 58.6	+0.5
	comp=Z,1μm,1.4s						
KOUNC	Koumac, New Ca	17.02	258	S	S	02 43 47.4	+0.3
	comp=Z,1μm,1.4s						
KOUNC	Koumac, New Ca	17.02	258		P	02 40 58.6	+0.5
KOUNC	Koumac, New Ca	17.02	258	P	P	02 40 58.9	+0.8
NFK	Norfolk Island	17.05	227	P	P	02 40 59.5	+1.3
	comp=Z,373nm,1.0s						
NFK	Norfolk Island	17.05	227	P	P	02 40 59.7	+1.5
NFK	Norfolk Island	17.05	227	P	P	02 40 59.7	+1.5
RAR	Rarotonga	17.40	104	P	P	02 41 02.5	+1.0
	comp=Z,211nm,0.8s,baz=248,slow=6.7,SNR=51						
RAR	Rarotonga	17.40	104	P	P	02 41 02.4	+1.0
	comp=Z,210nm,1.1s						
RAR	Rarotonga	17.40	104	P	P	02 41 02.6	+1.1
RAR	Rarotonga	17.40	104	P	P	02 41 02.6	+1.1
RAR	Rarotonga	17.40	104	P	P	02 41 02.5	+1.0
RAR	Rarotonga	17.40	104	P	P	02 41 02.6	+1.1
	comp=Z,364nm,1.1s						
OUZ	Omahuta	18.81	202	P	P	02 41 15.6	+1.4
OUZ	Omahuta	18.81	202	P	P	02 41 16.4	+2.2
OUZ	Omahuta	18.81	202	P	P	02 41 15.6	+1.4
OUZ	Omahuta	18.81	202	P	P	02 41 16.4	+2.2
	comp=Z,859nm,0.8s						
GRZ	Great Barrier	19.18	197	P	P	02 41 17.8	+0.3
WCZ	Waipu Caves	19.21	199	P	P	02 41 19.4	+1.5
MXZ	Matakaoa Point	19.85	189	P	P	02 41 22.5	-1.0
MYRZ	Mayor Island	19.96	194	P	P	02 41 22.3	-2.4
WIZ	White Island	20.00	191	P	P	02 41 24.8	-0.2
MKAZ	Moumakai	20.06	196	P	P	02 41 26.6	+1.1
WMGZ	Waiomatatini S	20.08	189	P	P	02 41 24.5	-1.3
HAZ	Te Kaha	20.12	190	P	P	02 41 24.5	-1.5
PKGZ	Pakihiroa	20.18	189	P	P	02 41 25.3	-1.3
PUZ	Puketiti	20.35	189	P	P	02 41 27.8	-0.4
WHRZ	Whale Island	20.36	192	P	P	02 41 26.9	-1.4
TGRZ	Tauranga	20.39	193	P	P	02 41 28.3	-0.2
TWGZ	Tauwhareparae	20.50	189	P	P	02 41 27.4	-2.1
TOZ	Tahuroa Road	20.57	195		P	02 41 30.8	+0.8
TOZ	Tahuroa Road	20.57	195	P	P	02 41 30.4	+0.4
MWZ	Matawai	20.73	190	P	P	02 41 29.1	-2.4
URZ	Urewera	20.73	191	P	P	02 41 28.4	-3.1
	comp=Z,324nm,0.7s,baz=307,slow=1.5,SNR=146						
URZ				S	S	02 44 40.1	-5.9
	comp=Z,52nm,0.8s,baz=326,slow=22,SNR=3.1						
URZ	Urewera	20.73	191	P	P	02 41 29.5	-2.0
URZ	Urewera	20.73	191	P	P	02 41 28.4	-3.1
URZ	Urewera	20.73	191	P	P	02 41 29.0	-2.5
URZ	Urewera	20.73	191	P	P	02 41 28.9	-2.6
	comp=Z,526nm,0.8s						
HURO	Huro Makira	20.92	288	P	P	02 41 31.9	-1.7
	comp=Z,142nm,0.8s						
TLZ	Tolley Road	21.12	194	P	P	02 41 35.6	+0.4
HIZ	Hauiti	21.47	196		P	02 41 39.0	+0.9
HIZ	Hauiti	21.47	196	P	P	02 41 39.0	+0.9
HIZ	Hauiti	21.47	196	P	P	02 41 38.5	+0.3
HIZ	Hauiti	21.47	196	P	P	02 41 39.1	+0.9
	comp=Z,269nm,1.6s						
BKZ	Black Stump Fm	21.72	192	P	P	02 41 38.3	-2.2
BKZ	Black Stump Fm	21.72	192	S	S	02 45 03.5	+1.6
BKZ	Black Stump Fm	21.72	192	P	P	02 41 37.6	-2.9
BKZ	Black Stump Fm	21.72	192	P	P	02 41 37.9	-2.6
NGZ	Ngauruhoe	21.92	194	P	P	02 41 39.8	-2.6
VRZ	Vera Road	22.07	195	P	P	02 41 44.3	+0.8
NGOA	Tingoa Renbel	22.22	284	P	P	02 41 44.5	-0.7
	comp=Z,653nm,1.1s						
NEZ	North Egmont	22.38	196	P	P	02 41 47.6	+1.2
KHEZ	Kahui Hut	22.43	197	P	P	02 41 48.3	+1.5
	comp=Z,372nm,1.6s						

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HNR   Honiara           23.10 289 P      P      02 41 52.3 -0.7
BFZ   Birch Farm        23.23 191 P      P      02 41 52.1 -1.8
      comp=Z,135nm,0.7s
BFZ   Birch Farm        23.23 191 P      P      02 41 51.7 -2.2
BFZ   Birch Farm        23.23 191 P      P      02 41 51.6 -2.3
BFZ   Birch Farm        23.23 191 P      P      02 41 52.3 -1.6
      comp=Z,135nm,0.7s
SAVO  Savo Central      23.33 289 P      P      02 41 54.4 -0.8
      comp=Z,391nm,1.0s
MRZ   Mangatainoka R    23.35 193        P      02 41 52.3 -2.6
MRZ   Mangatainoka R    23.35 193 P      P      02 41 51.7 -3.2
TATA  Tatamba Isabel    23.66 291 P      P      02 41 56.7 -1.3
      comp=Z,733nm,1.0s
TATA  Tatamba Isabel    23.66 291 P      P      02 41 56.8 -1.3
MSWZ  Moikau Station    24.14 193 P      P      02 41 60.0 -2.0
SNZO  South Karori      24.16 194 P      P      02 42 00.4 -1.6
      comp=Z,268nm,0.7s
SNZO  South Karori      24.16 194 P      P      02 42 00.3 -1.8
SNZO  South Karori      24.16 194 P      P      02 42 00.7 -1.3
      comp=Z,461nm,0.7s
QRZ   Quartz Range      24.27 198 P      P      02 42 02.8 -0.2
      comp=Z,271nm,1.0s
QRZ   Quartz Range      24.27 198 P      P      02 42 02.4 -0.6
NNZ   Nelson            24.39 196 P      P      02 42 02.2 -2.0
LHI   Lord Howe Isla    24.85 233 P      P      02 42 08.2 -0.2
      comp=Z,98nm,0.8s
LHI   Lord Howe Isla    24.85 233 P      P      02 42 08.8 +0.5
THZ   Tophouse          25.03 196 P      P      02 42 08.3 -1.6
DSZ   Denniston Nort    25.32 198 P      P      02 42 11.4 -1.0
KHZ   Kahutara          25.48 195 P      P      02 42 12.1 -1.6
KHZ   Kahutara          25.48 195 P      P      02 42 11.8 -1.8
KHZ   Kahutara          25.48 195 P      P      02 42 11.5 -2.1
KHZ   Kahutara          25.48 195 P      P      02 42 11.9 -1.8
      comp=Z,247nm,0.9s
CTZ   Chatham Island    25.76 178 P      P      02 42 18.3 +2.2
      comp=Z,745nm,1.1s
CTZ   Chatham Island    25.76 178 P      P      02 42 18.1 +2.0
CTZ   Chatham Island    25.76 178 P      P      02 42 18.6 +2.5
GVZ   Greta Valley S    26.12 195 P      P      02 42 17.6 -1.8
LTZ   Lake Taylor       26.15 197 P      P      02 42 17.5 -2.2
INZ   Inchbonnie        26.33 198 P      P      02 42 18.6 -2.5
OXZ   Oxford            26.72 196 P      P      02 42 21.3 -3.3
WVZ   Waitaha Valley    26.86 199 P      P      02 42 23.6 -2.3
PPT   Papeete           26.97  94 P      P      02 42 28.4 +1.2
      comp=Z,256nm,0.7s,baz=82,slow=3.5,SNR=72
      comp=Z,256nm,0.7s
PPTF  Pamatai, Papee    26.98  94 P      P      02 42 28.0 +0.6
      comp=Z,514nm,1.0s
PPTF  Pamatai, Papee    26.98  94 P      P      02 42 28.5 +1.2
PPTF  Pamatai, Papee    26.98  94 P      P      02 42 28.6 +1.2
      comp=Z,514nm,1.0s
GC1S  Gold Coast 1 S    28.14 244 P      P      02 42 37.7 +0.4
      comp=Z,372nm,0.8s
AUBSH Beerwah State     28.32 246 P      P      02 42 38.2 -0.7
      comp=Z,358nm,1.0s
JCZ   Jackson Bay       28.38 200 P      P      02 42 38.0 -1.2
      comp=Z,821nm,0.5s
ODZ   Otahua Downs      28.69 197 P      P      02 42 40.1 -1.6
      comp=Z,73nm,0.9s
ODZ   Otahua Downs      28.69 197 P      P      02 42 40.2 -1.5
      comp=Z,73nm,0.9s
TW1H  Toowoomba 1 Ha    29.32 246 P      P      02 42 47.3 -0.3
      comp=Z,2µm,0.8s
AUTOO Toowoomba Stat    29.32 245 P      P      02 42 47.3 -0.3
      comp=Z,2µm,0.9s
GD1S  Gladstone Soft    29.45 253 P      P      02 42 48.2 -0.5
      comp=Z,457nm,0.9s
EIDS  Eidsvold          29.71 250 P      P      02 42 50.1 -0.8
      comp=Z,474nm,0.9s
EIDS  Eidsvold          29.71 250 P      P      02 42 50.0 -0.8
      comp=Z,474nm,0.9s
EIDS  Eidsvold          29.71 250        P      02 42 50.2 -0.8
EIDS  Eidsvold          29.71 250 P      P      02 42 50.2 -0.7
      comp=Z,474nm,0.9s
AUNRC North Rockhamp    29.99 254 P      P      02 42 52.4 -0.9
      comp=Z,311nm,1.1s
DCZ   Deep Cove         30.16 201 P      P      02 42 54.3 -0.1
DCZ                               IAmb   IAmb   02 42 55.8
      comp=Z,95nm,0.8s
ARMA  Armidale          30.35 240 P      P      02 42 56.5 +0.1
      comp=Z,391nm,0.9s
ARMA  Armidale          30.35 240 P      P      02 42 56.5 +0.1
      comp=Z,391nm,0.9s
ARMA  Armidale          30.35 240 P      P      02 42 57.0 +0.6
      comp=Z,390nm,0.9s
SYZ   Scrubby Hill      30.48 198 P      P      02 42 57.0 -0.1
      comp=Z,211nm,1.1s
PYZ   Puysegur Point    30.93 201 IAmb   IAmb   02 43 05.0
      comp=Z,89nm,0.8s
AUPHS Peel High Scho    31.16 239 P      P      02 43 03.2 -0.1
      comp=Z,606nm,1.1s
AUKHS Kincumber High    31.56 235 P      P      02 43 06.7 +0.1
      comp=Z,597nm,0.9s
MGCD  Mangrove Creek    31.68 235 P      P      02 43 08.5 +0.9
      comp=Z,268nm,0.8s
MGCD  Mangrove Creek    31.68 235 P      P      02 43 07.9 +0.3
      comp=Z,269nm,0.8s
MGCD  Mangrove Creek    31.68 235 P      P      02 43 07.8 +0.2
      comp=Z,275nm,0.8s
MGCD  Mangrove Creek    31.68 235 P      P      02 43 08.2 +0.6
      comp=Z,268nm,0.8s
RMQ   Roma              31.95 249 P      P      02 43 10.4 +0.4
      comp=Z,154nm,0.9s
RMQ   Roma              31.95 249 P      P      02 43 10.1 +0.1
      comp=Z,154nm,0.9s
RMQ   Roma              31.95 249 P      P      02 43 10.0  0.0
      comp=Z,154nm,0.9s
RMQ   Roma              31.95 249 P      P      02 43 10.2 +0.2
      comp=Z,154nm,0.9s
SYDH  Sydney Hard Ro    32.17 235 P      P      02 43 11.6 -0.1
      comp=Z,327nm,0.9s
WOLH  Wollongong Har    32.30 233 P      P      02 43 12.8 -0.1
      comp=Z,300nm,0.8s
RABL  Rabaul            32.32 291 P      P      02 43 11.9 -1.4
AUAYR Ayr State High    32.85 262 P      P      02 43 17.0 -0.7
      comp=Z,374nm,0.9s
AUUHS Ulladulla High    32.98 232 P      P      02 43 18.5 -0.1
      comp=Z,381nm,1.0s
AULRC Lightning Ridg    33.16 243 P      P      02 43 19.4 -0.8
      comp=Z,593nm,1.1s
AUDCS Dubbo College     33.34 238 P      P      02 43 21.6  0.0
      comp=Z,313nm,1.1s
TV1H  Townsville Har    33.45 262 P      P      02 43 21.6 -1.2
      comp=Z,248nm,0.8s
CNB   Canberra Magne    33.80 233 P      P      02 43 26.2 +0.6
      comp=Z,21nm,0.9s
CNB   Canberra Magne    33.80 233 P      P      02 43 26.0 +0.4
      comp=Z,21nm,0.9s
CTA   Charters Tower    33.92 261 P      P      02 43 26.2 -0.5
      comp=Z,271nm,1.2s
CTA   Charters Tower    33.92 261 P      P      02 43 26.1 -0.6
      comp=Z,271nm,1.2s
CTA   Charters Tower    33.92 261 P      P      02 43 26.1 -0.6
      comp=Z,378nm,0.7s,baz=93,slow=9.9,SNR=417
CTA                               ScP    ScP    02 48 39.0 +0.7
      comp=Z,21nm,1.0s,baz=79,slow=3.0,SNR=7.7
      comp=Z,378nm,0.7s
CTA   Charters Tower    33.92 261 P      P      02 43 25.6 -1.1
      comp=Z,20nm,1.2s
CTAO  Charters Tower    33.92 261 P      P      02 43 25.6 -1.1
      comp=Z,247nm,1.1s
CTAO  Charters Tower    33.92 261 P      P      02 43 26.2 -0.5
CTAO                              pmax   pmax
      comp=Z,414nm,0.8s
CTAO  Charters Tower    33.92 261 P      P      02 43 26.2 -0.5
CTAO  Charters Tower    33.92 261 P      P      02 43 26.2 -0.5
      comp=Z,684nm,1.1s
PATS  Pohnpei           34.01 314 P      P      02 43 27.9 +0.4
      comp=Z,321nm,1.1s
PATS  Pohnpei           34.01 314 P      P      02 43 27.6 +0.1
      comp=Z,321nm,1.1s
PATS  Pohnpei           34.01 314 P      P      02 43 27.7 +0.2
      comp=Z,347nm,1.1s
PATS  Pohnpei           34.01 314 P      P      02 43 27.9 +0.4
      comp=Z,321nm,1.1s
AUMHS Melrose High S    34.02 233 P      P      02 43 27.3 -0.1
      comp=Z,841nm,0.9s
AUMTS Mt Stromlo        34.08 233 P      P      02 43 27.6 -0.3
      comp=Z,513nm,0.9s
CAN   Canberra          34.08 233 P      P      02 43 28.2 +0.4
      comp=Z,486nm,0.9s
CAN   Canberra          34.08 233 P      P      02 43 27.4 -0.5
      comp=Z,744nm,0.9s
CAN   Canberra          34.08 233 P      P      02 43 28.0 +0.1
CAN                               pmax   pmax
      comp=Z,334nm,0.8s
CAN   Canberra          34.08 233        P      02 43 28.0 +0.1
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CAN   Canberra          34.08 233 P      P      02 43 28.2 +0.4
      comp=Z,486nm,0.9s
CAN   Canberra          34.08 233 P      P      02 43 27.7 -0.2
CAN                               x      pP     02 45 01.3 -1.7
MILA  Mila              34.64 230 P      P      02 43 32.9 +0.3
      comp=Z,55nm,1.4s
MILA  Mila              34.64 230 P      P      02 43 32.5 -0.1
      comp=Z,55nm,1.4s
AUSMG Snowy Mountain    34.79 231 P      P      02 43 33.9 +0.1
      comp=Z,787nm,1.1s
PMG   Port Moresby      34.94 279 P      P      02 43 35.4 +0.2
      comp=Z,1µm,0.9s,baz=78,slow=5.8,SNR=151
PMG   Port Moresby      34.94 279 P      P      02 43 35.1 -0.1
      comp=Z,2µm,1.0s
PMG   Port Moresby      34.94 279ceP     P      02 43 34.5 -0.7
PMG                               pmax   pmax
      comp=Z,1µm,0.8s
PMG   Port Moresby      34.94 279        P      02 43 35.7 +0.5
PMG   Port Moresby      34.94 279 P      P      02 43 35.3 +0.1
PMG   Port Moresby      34.94 279 P      P      02 43 35.9 +0.6
      comp=Z,2µm,1.0s
PMG   Port Moresby      34.94 279 P      P      02 43 35.4 +0.2
PMG                               PcP    PcP    02 45 51.8 +0.7
CMSA  Cobar Meteorol    35.56 241 P      P      02 43 40.3 +0.1
      comp=Z,713nm,0.9s
CMSA  Cobar Meteorol    35.56 241 P      P      02 43 40.2  0.0
      comp=Z,713nm,0.9s
CMSA  Cobar Meteorol    35.56 241 P      P      02 43 39.4 -0.8
      comp=Z,713nm,0.9s
CMSA  Cobar Meteorol    35.56 241 P      P      02 43 40.3 +0.1
      comp=Z,713nm,0.9s
MTSU  Mount Surprise    35.88 264 P      P      02 43 42.5 -0.5
      comp=Z,278nm,0.7s
MTSU  Mount Surprise    35.88 264 P      P      02 43 42.5 -0.5
      comp=Z,278nm,0.7s
MTSU  Mount Surprise    35.88 264 P      P      02 43 42.2 -0.9
      comp=Z,278nm,0.7s
MTSU  Mount Surprise    35.88 264 P      P      02 43 42.6 -0.5
      comp=Z,278nm,0.7s
QLP   Quilpie           35.98 249 P      P      02 43 43.2 -0.5
      comp=Z,1µm,0.9s
QLP   Quilpie           35.98 249 P      P      02 43 43.2 -0.5
      comp=Z,1µm,0.9s
QLP   Quilpie           35.98 249 P      P      02 43 42.7 -1.0
      comp=Z,1µm,0.9s
QLP   Quilpie           35.98 249 P      P      02 43 43.4 -0.3
      comp=Z,1µm,0.9s
AUSSC Sale College,     36.57 229 P      P      02 43 49.0 +0.6
      comp=Z,394nm,0.9s
GLAD  Gladstone         37.18 225 P      P      02 43 53.4 +0.1
      comp=Z,265nm,0.8s
TOO   Toolangi          37.53 231 P      P      02 43 56.8 +0.5
      comp=Z,247nm,1.0s
TOO   Toolangi          37.53 231 P      P      02 43 56.5 +0.2
      comp=Z,247nm,1.0s
TOO   Toolangi          37.53 231 P      P      02 43 56.5 +0.2
MANU  Manus Island      37.55 291 P      P      02 43 57.2 +0.5
AUMAG Moama Anglican    37.59 234 P      P      02 43 57.1 +0.4
      comp=Z,695nm,1.1s
TAOE  Nuku Hiva Isla    37.75  81 P      P      02 44 00.0 +1.5
      comp=Z,258nm,0.8s
TAOE  Nuku Hiva Isla    37.75  81 P      P      02 43 59.9 +1.5
CORO  Coronation Par    37.97 224 P      P      02 44 00.3 +0.6
      comp=Z,298nm,0.9s
MLBS  Spotswood, Mel    38.07 231 P      P      02 44 00.7 +0.1
      comp=Z,273nm,0.8s
MOO   Moorlands         38.41 223 P      P      02 44 03.6 +0.4
      comp=Z,178nm,1.8s
MOO   Moorlands         38.41 223 P      P      02 44 03.7 +0.4
      comp=Z,178nm,1.8s
MOO   Moorlands         38.41 223 P      P      02 44 04.1 +0.8
      comp=Z,178nm,1.8s
AUTAR Taroona High S    38.54 222 P      P      02 44 04.7 +0.4
      comp=Z,166nm,1.2s
TAU   Tasmania Unive    38.55 222 P      P      02 44 04.3 -0.1
      comp=Z,134nm,1.0s
TAU   Tasmania Unive    38.55 222 P      P      02 44 03.9 -0.5
TAU                               pmax   pmax
      comp=Z,90nm,1.0s
TAU   Tasmania Unive    38.55 222 P      P      02 44 03.9 -0.5
TAU                               IAmb   IAmb   02 44 05.5
      comp=Z,90nm,0.9s
TAU   Tasmania Unive    38.55 222 P      P      02 44 03.9 -0.5
      comp=Z,132nm,1.0s
AUBRN Burnie High Sc    38.65 226 P      P      02 44 05.6 +0.4
      comp=Z,248nm,1.1s
BRAT  Ballarat          38.69 232 P      P      02 44 05.9 +0.3
      comp=Z,227nm,0.8s
AUMTC Mt Clear Colle    38.75 232 P      P      02 44 06.4 +0.4
      comp=Z,343nm,1.1s
STKA  Stephens Creek    39.04 241 P      P      02 44 08.9 +0.3
      comp=Z,528nm,0.9s,baz=82,slow=8.6,SNR=545
STKA                              ScP    ScP    02 48 58.2 +0.9
      comp=Z,20nm,1.0s,baz=84,slow=1.9,SNR=3.8
      comp=Z,528nm,0.9s
STKA  Stephens Creek    39.04 241 i P    P      02 44 07.1 -1.5
STKA  Stephens Creek    39.04 241 P      P      02 44 09.1 +0.5
      comp=Z,3µm,1.0s
WAKE  Wake Island       39.97 337 P      P      02 44 15.2 -0.8
      comp=Z,267nm,0.8s
WAKE  Wake Island       39.97 337 P      P      02 44 15.4 -0.6
WAKE  Wake Island       39.97 337 P      P      02 44 15.5 -0.6
      comp=Z,509nm,0.8s
WAKE  Wake Island       39.97 337 P      P      02 44 15.4 -0.6
ARPS  Mount Arapiles    40.03 234 P      P      02 44 16.1 -0.3
      comp=Z,84nm,1.1s
AUHPC Hawkesdale P12    40.08 232 P      P      02 44 17.1 +0.4
      comp=Z,226nm,1.1s
QIS   Mount Isa         40.12 259 P      P      02 44 16.4 -1.0
      comp=Z,90nm,0.7s
QIS   Mount Isa         40.12 259 P      P      02 44 16.2 -1.2
      comp=Z,90nm,0.7s
QIS   Mount Isa         40.12 259 P      P      02 44 15.8 -1.6
      comp=Z,90nm,0.7s
QIS   Mount Isa         40.12 259 P      P      02 44 16.4 -1.0
      comp=Z,90nm,0.7s
H11N3 WAKE ISLAND Hy    40.27 338 P      P      02 44 17.5 -0.7
      baz=172,slow=11,SNR=21
H11N1 WAKE ISLAND Hy    40.27 338 P      P      02 44 17.5 -0.7
      baz=172,slow=11,SNR=29
H11N2 WAKE ISLAND Hy    40.28 338 P      P      02 44 17.6 -0.7
      baz=172,slow=11,SNR=12
MGBR  Mount Gambier     41.27 233 P      P      02 44 26.4 +0.1
MGBR                              IAmb   IAmb   02 44 27.7
      comp=Z,73nm,1.4s
HTT   Hallett           41.55 240 P      P      02 44 28.8 +0.2
      comp=Z,221nm,1.2s
HTT   Hallett           41.55 240 P      P      02 44 28.6  0.0
      comp=Z,221nm,1.2s
HTT   Hallett           41.55 240 P      P      02 44 28.4 -0.2
      comp=Z,549nm,1.2s
HTT   Hallett           41.55 240 P      P      02 44 28.5  0.0
AUMBR Murray Bridge     41.61 237 P      P      02 44 28.6 -0.3
      comp=Z,998nm,1.0s
GHSS  Government Hou    42.11 238 P      P      02 44 32.8  0.0
      comp=Z,510nm,0.8s
PTPS  Port Pirie        42.27 240 P      P      02 44 34.6 +0.5
      comp=Z,726nm,0.8s
BBOO  Buckleboo         43.82 241 P      P      02 44 46.0 -0.2
      comp=Z,734nm,1.4s
BBOO  Buckleboo         43.82 241 P      P      02 44 45.4 -0.8
      comp=Z,735nm,1.4s
BBOO  Buckleboo         43.82 241 P      P      02 44 45.9 -0.2
BBOO  Buckleboo         43.82 241 P      P      02 44 46.1 -0.1
      comp=Z,734nm,1.4s
GENI  Genyem            43.83 285 P      P      02 44 47.7 +1.2
      comp=Z,2µm,1.1s
GENI  Genyem            43.83 285 P      P      02 44 47.1 +0.5
      comp=Z,1µm,1.4s
AUCAS Cummins Area S    44.32 239 P      P      02 44 49.4 -0.6
      comp=Z,618nm,0.9s
WR8   Warramunga Arr    44.95 259 P      P      02 44 53.8 -1.3
WRAB  Tennant Creek     45.09 259 P      P      02 44 54.3 -1.9
      comp=Z,397nm,1.3s
WRAB  Tennant Creek     45.09 259ceP     P      02 44 54.5 -1.7
WRAB                              pmax   pmax
      comp=Z,372nm,0.7s
WRAB  Tennant Creek     45.09 259 P      P      02 44 55.0 -1.2
      comp=Z,729nm,1.3s
WRAB  Tennant Creek     45.09 259 P      P      02 44 54.7 -1.5
WRAB                              pP     pP     02 46 38.1 -1.0
WRAB                              x      pwP    02 46 44.0 +1.3
WRA   Warramunga Arr    45.10 259 P      P      02 44 55.2 -1.1
      comp=Z,355nm,0.7s,baz=95,slow=7.4,SNR=787
WRA                               PcP    PcP    02 46 24.4 +0.1
      comp=Z,25nm,0.6s,baz=93,slow=3.9,SNR=4.9
WRA                               ScP    ScP    02 49 23.5 +1.5
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      comp=Z,6.9nm,0.8s,baz=87,slow=4.8,SNR=6.6
WRA                               S      S      02 50 49.5 -4.6
      comp=Z,13nm,0.8s,baz=97,slow=14,SNR=5.2
WRA                               P4KPbc        03 22 37.2
      comp=Z,1.0nm,0.8s,baz=95,slow=4.1,SNR=9.1
      comp=Z,355nm,0.7s
WRA   Warramunga Arr    45.10 259        P      02 44 54.9 -1.4
WRA                               IAmb   IAmb   02 44 56.2
      comp=Z,54nm,0.7s
AS17  Alice Springs     45.17 254 P      P      02 44 56.3 -0.5
      comp=Z,3µm,0.7s
AS01  Alice Springs     45.21 254 P      P      02 44 56.2 -0.8
      comp=Z,3µm,0.8s
AS09  Alice Springs     45.22 254 P      P      02 44 56.6 -0.5
      comp=Z,2µm,0.8s
AS15  Alice Springs     45.24 254 P      P      02 44 56.8 -0.5
      comp=Z,2µm,0.8s
AS31  Alice Springs     45.25 254 P      P      02 44 56.9 -0.5
      comp=Z,605nm,0.9s
AS31  Alice Springs     45.25 254 P      P      02 44 56.8 -0.6
      comp=Z,605nm,0.9s
AS31  Alice Springs     45.25 254 P      P      02 44 56.8 -0.6
ASAR  Alice Springs     45.25 254 P      P      02 44 56.9 -0.5
      comp=Z,2µm,0.8s,baz=86,slow=8.8,SNR=5912
ASAR                              PcP    PcP    02 46 25.1 +0.2
      comp=Z,37nm,0.5s,baz=109,slow=4.0,SNR=5.1
ASAR                              S      S      02 50 53.2 -2.9
      comp=Z,47nm,0.9s,baz=90,slow=16,SNR=26
ASAR                              P4KPbc        03 22 38.5
      comp=Z,0.4nm,0.4s,baz=91,slow=5.4,SNR=4.8
AUALC St Philip's Co    45.27 254 P      P      02 44 56.6 -0.9
      comp=Z,2µm,1.0s
KDU   Kakadu            48.04 269 P      P      02 45 17.6 -0.8
      comp=Z,276nm,0.8s
BAKI  Biak              48.11 285 P      P      02 45 20.0 +1.0
      comp=Z,10µmcomp=Z,1µm,1.0s
GUMO  Guam              48.26 308 P      P      02 45 20.0 +0.1
      comp=Z,674nm,0.9s
GUMO  Guam              48.26 308 P      P      02 45 19.8 -0.2
GUMO                              pmax   pmax
      comp=Z,893nm,0.9s
GUMO  Guam              48.26 308 P      P      02 45 19.8 -0.2
GUMO  Guam              48.26 308 P      P      02 45 20.1 +0.1
      comp=Z,1µm,0.9s
GUMO  Guam              48.26 308 P      P      02 45 19.3 -0.7
GUMO                              PcP    PcP    02 46 35.5 -0.1
MTN   Manton Dam        49.28 268 P      P      02 45 26.5 -1.0
      comp=Z,273nm,0.8s
KMPI  Kaimana, Papua    49.43 281 P      P      02 45 29.1 +0.4
      comp=Z,8µmcomp=Z,885nm,1.0s
DRS   Darwin Rock St    49.59 269 P      P      02 45 28.7 -1.1
      comp=Z,281nm,0.8s
MWPI  Manokwari, Pap    50.12 284 P      P      02 45 34.4 +0.7
      comp=Z,15µmcomp=Z,1µm,1.1s
WRKA  Warakurna         50.30 252 P      P      02 45 34.5 -0.4
      comp=Z,491nm,0.9s
SAUI  Saumlaki          50.34 274 P      P      02 45 35.1 -0.2
      comp=Z,1µm,1.3s
SAUI  Saumlaki          50.34 274 P      P      02 45 36.6 +1.3
      comp=Z,13µmcomp=Z,1µm,1.3s
SAUI  Saumlaki          50.34 274 P      P      02 45 36.1 +0.8
      comp=Z,1µm,1.3s
FORT  Forrest           50.44 245 P      P      02 45 34.9 -0.9
      comp=Z,363nm,0.9s
KNRA  Kununurra         50.97 264 P      P      02 45 39.1 -0.7
      comp=Z,325nm,1.1s
FAKI  Fak Fak           51.05 281 P      P      02 45 39.8 -0.7
      comp=Z,258nm,1.4s
FAKI  Fak Fak           51.05 281 P      P      02 45 40.0 -0.5
FAKI  Fak Fak           51.05 281 P      P      02 45 39.8 -0.7
FAKI  Fak Fak           51.05 281 P      P      02 45 40.0 -0.5
      comp=Z,258nm,1.4s
BNDI  Bandanaira        52.71 278 P      P      02 45 52.2 -0.2
      comp=Z,1µm,1.1s
BNDI  Bandanaira        52.71 278 P      P      02 45 52.4  0.0
      comp=Z,1µm,1.1s
BNDI  Bandanaira        52.71 278 P      P      02 45 52.2 -0.2
      comp=Z,1µm,1.1s
SWI   Sorong            52.72 283 P      P      02 45 51.8 -0.6
FITZ  Fitzroy Crossi    53.50 260 P      P      02 45 57.5 -0.4
      comp=Z,90nm,0.7s,baz=110,slow=4.2,SNR=94
      comp=Z,90nm,0.7s
FITZ  Fitzroy Crossi    53.50 260 IAmb   IAmb   02 45 58.8
      comp=Z,84nm,1.5s
MSAI  Masohi            54.02 279 P      P      02 46 01.0 -0.7
      comp=Z,5µmcomp=Z,544nm,0.7s
KMBL  Kambalda          55.74 244 P      P      02 46 12.2 -1.2
      comp=Z,86nm,1.1s
NLAI  Namlea            55.77 278 P      P      02 46 13.2 -0.7
      comp=Z,9µmcomp=Z,913nm,1.3s
DRV   Dumont d'Urvil    55.80 199 P      P      02 46 13.6 +0.5
DRV   Dumont d'Urvil    55.80 199 P      P      02 46 13.4 +0.3
DRV                               pP     pwP    02 48 06.8 +1.0
SOEI  Soe               56.55 270 P      P      02 46 19.4  0.0
SOEI  Soe               56.55 270 P      P      02 46 19.8 +0.4
      comp=Z,2µm,1.0s
SOEI  Soe               56.55 270 P      P      02 46 19.9 +0.5
SOEI  Soe               56.55 270 P      P      02 46 20.5 +1.1
      comp=Z,2µm,1.0s
TNTI  Ternate           56.93 283 P      P      02 46 21.3 -0.5
      comp=Z,735nm,1.0s
TNTI  Ternate           56.93 283        P      02 46 21.4 -0.4
TNTI  Ternate           56.93 283 P      P      02 46 21.4 -0.4
      comp=Z,1µmcomp=Z,7µmcomp=Z,728nm,1.0s
TNTI  Ternate           56.93 283 P      P      02 46 21.8 -0.1
      comp=Z,735nm,1.0s
GAMI  Galela, Maluku    56.95 284 P      P      02 46 20.2 -1.7
      comp=Z,3µmcomp=Z,358nm,1.0s
SANI  Sanana            57.22 279 P      P      02 46 22.4 -1.4
SANI  Sanana            57.22 279 P      P      02 46 22.9 -0.9
      comp=Z,809nm,1.1s
SANI  Sanana            57.22 279 P      P      02 46 22.8 -1.0
      comp=Z,7µmcomp=Z,807nm,1.0s
SANI  Sanana            57.22 279 P      P      02 46 23.1 -0.7
      comp=Z,809nm,1.1s
MBWA  Marble Bar        58.54 256 P      P      02 46 31.8 -0.8
      comp=Z,361nm,1.1s
MBWA  Marble Bar        58.54 256 P      P      02 46 31.3 -1.3
      comp=Z,208nm,1.1s
MBWA  Marble Bar        58.54 256 P      P      02 46 31.7 -1.0
MBWA  Marble Bar        58.54 256 P      P      02 46 31.8 -0.8
      comp=Z,361nm,1.1s
MBWA  Marble Bar        58.54 256 P      P      02 46 31.6 -1.0
MBWA                              pP     pP     02 48 25.4 +1.2
MMRI  Maumere           58.78 271 P      P      02 46 33.3 -1.1
      comp=Z,766nm,1.0s
MMRI  Maumere           58.78 271 P      P      02 46 33.2 -1.1
      comp=Z,7µmcomp=Z,757nm,1.0s
MMRI  Maumere           58.78 271 P      P      02 46 33.6 -0.7
      comp=Z,766nm,1.0s
AUKUL Kulin High Sch    58.87 242 P      P      02 46 33.9 -0.7
      comp=Z,697nm,0.9s
MEEK  Meekatharra       58.88 249 P      P      02 46 33.9 -0.9
      comp=Z,290nm,0.9s
MEEK  Meekatharra       58.88 249 P      P      02 46 33.6 -1.3
      comp=Z,289nm,0.9s
MEEK  Meekatharra       58.88 249 P      P      02 46 33.9 -0.9
      comp=Z,290nm,0.9s
AUALB St Joseph's Co    59.01 240 P      P      02 46 35.3 -0.2
      comp=Z,218nm,1.1s
KLBR  Kellerberrin      59.25 244 P      P      02 46 36.5 -0.8
      comp=Z,1µm,0.8s
KLBR  Kellerberrin      59.25 244 P      P      02 46 36.1 -1.1
      comp=Z,1µm,0.8s
KLBR  Kellerberrin      59.25 244 P      P      02 46 36.4 -0.8
      comp=Z,1µm,0.8s
EDFI  Ende, Flores      59.27 270 P      P      02 46 36.2 -1.5
      comp=Z,6µmcomp=Z,672nm,1.1s
BBSI  Bau Bau           59.35 274 P      P      02 46 36.4 -1.8
      comp=Z,4µmcomp=Z,212nm,0.9s
MNI   Manado            59.53 283 P      P      02 46 38.6 -0.7
      comp=Z,3µmcomp=Z,8µmcomp=Z,569nm,0.9s
NWAO  Narrogin (SRO)    59.63 242 P      P      02 46 39.3 -0.4
      comp=Z,204nm,1.1s
NWAO  Narrogin (SRO)    59.63 242 P      P      02 46 39.0 -0.7
      comp=Z,98nm,0.9s,baz=100,slow=5.5,SNR=36
      comp=Z,98nm,0.9s
NWAO  Narrogin (SRO)    59.63 242 P      P      02 46 39.0 -0.7
      comp=Z,155nm,1.1s
NWAO  Narrogin (SRO)    59.63 242 P      P      02 46 39.2 -0.5
NWAO                              pmax   pmax
      comp=Z,138nm,1.0s
NWAO  Narrogin (SRO)    59.63 242        P      02 46 39.2 -0.5
NWAO                              IAmb   IAmb   02 46 40.2
      comp=Z,138nm,0.9s
NWAO  Narrogin (SRO)    59.63 242 P      P      02 46 39.3 -0.4
      comp=Z,194nm,1.1s
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KDI	Kendari	59.78	276	P	P	02 46 40.1	-0.9
RKGY	Rocky Gully	59.78	240	P	P	02 46 40.9	+0.2
	comp=Z,71nm,1.5s						
BASI	Baing, Sumba	59.95	268	P	P	02 46 42.2	+0.1
	comp=Z,10µmcomp=Z,946nm,1.2s						
BLDU	Ballidu	60.21	245	P	P	02 46 42.5	-1.1
	comp=Z,228nm,1.1s						
BLDU	Ballidu	60.21	245	P	P	02 46 42.8	-0.8
	comp=Z,228nm,1.1s						
WSI	Waingapu	60.35	269	P	P	02 46 44.4	-0.4
SBA	Scott Base	60.44	184	P	P	02 46 46.6	+2.4
SBA				pmax	pmax		
	comp=Z,151nm,1.1s						
SBA	Scott Base	60.44	184	P	P	02 46 46.6	+2.4
SBA				IAmb	IAmb	02 46 47.8	
	comp=Z,151nm,1.1s						
SBA	Scott Base	60.44	184	P	P	02 46 46.7	+2.5
	comp=Z,176nm,1.2s						
SBA	Scott Base	60.44	184	P	P	02 46 46.5	+2.3
SBA				pP	pwP	02 48 42.1	+2.8
VNDA	Vanda	60.47	185	P	P	02 46 45.9	+1.4
	comp=Z,27nm,0.9s,baz=1.5,slow=7.0,SNR=146						
	comp=Z,27nm,0.9s						
VNDA	Vanda	60.47	185	P	P	02 46 45.9	+1.4
VNDA				IAmb	IAmb	02 46 47.1	
	comp=Z,123nm,1.4s						
DDMP	Don Marcelino,	60.54	288	*e*P	P	02 46 44.4	-1.6
MUN	Mundaring	60.55	243	P	P	02 46 45.2	-0.6
	comp=Z,280nm,0.8s						
LUWI	Luwuk	60.58	279	P	P	02 46 46.5	+0.2
LUWI	Luwuk	60.58	279	P	P	02 46 46.5	+0.2
	comp=Z,921nm,1.1s						
LUWI	Luwuk	60.58	279	P	P	02 46 46.5	+0.2
LUWI	Luwuk	60.58	279	P	P	02 46 46.4	+0.1
	comp=Z,10µmcomp=Z,914nm,1.1s						
LUWI	Luwuk	60.58	279	P	P	02 46 46.7	+0.4
	comp=Z,922nm,1.1s						
CDOP	Cateel, Davao	60.59	290	*e*P	P	02 46 44.7	-1.6
KKSI	Kolaka, Sulawe	60.63	275	P	P	02 46 46.3	-0.3
	comp=Z,246nm,1.0s						
AUHAR	St Anne's Scho	60.75	242	P	P	02 46 47.1	0.0
	comp=Z,367nm,1.2s						
MORW	Morawa	60.92	246	P	P	02 46 47.2	-1.1
	comp=Z,174nm,1.2s						
MORW	Morawa	60.92	246	P	P	02 46 47.6	-0.6
MORW				IAmb	IAmb	02 46 48.0	
	comp=Z,96nm,0.8s						
MORW	Morawa	60.92	246	P	P	02 46 47.5	-0.8
	comp=Z,174nm,1.2s						
GTOI	Gorontalo	60.94	281	P	P	02 46 48.7	+0.1
	comp=Z,4µmcomp=Z,428nm,0.9s						
LBFI	Labuhan Bajo,	61.06	270	P	P	02 46 47.9	-1.5
DAV	Davao City (W)	61.06	289	P	P	02 46 48.8	-0.6
	comp=Z,234nm,0.4s,baz=41,slow=2.4,SNR=9.7						
	comp=Z,234nm,0.4s						
DAV	Davao City (W)	61.06	289	IAmb	IAmb	02 46 50.6	
	comp=Z,575nm,1.1s						
DAV	Davao City (W)	61.06	289	P	P	02 46 47.0	-2.4
BSSI	Bau Bau, Buton	61.14	273	P	P	02 46 49.3	-0.6
	comp=Z,4µmcomp=Z,403nm,1.1s						
APSI	Ampana	61.68	279	P	P	02 46 54.0	+0.5
	comp=Z,8µmcomp=Z,723nm,1.1s						
H01W1	Cape Leeuwin H	62.09	240	P	P	02 46 56.8	+1.2
	baz=109,slow=7.2,SNR=4.9						
H01W3	Cape Leeuwin H	62.10	240	P	P	02 46 56.7	+1.1
	baz=109,slow=7.2,SNR=5.2						
H01W2	Cape Leeuwin H	62.11	240	P	P	02 46 56.5	+0.9
	baz=109,slow=7.2,SNR=6.1						
KAPI	Kappang	62.17	274	P	P	02 46 56.3	-0.3
	comp=Z,86nm,0.7s,baz=121,slow=4.2,SNR=32						
	comp=Z,86nm,0.7s						
KAPI	Kappang	62.17	274	P	P	02 46 56.0	-0.7
	comp=Z,96nm,1.1s						
KAPI	Kappang	62.17	274	*i* P	P	02 46 55.9	-0.7
KAPI				pmax	pmax		
	comp=Z,146nm,1.1s						
KAPI	Kappang	62.17	274	P	P	02 46 56.6	0.0
KAPI				IAmb	IAmb	02 46 57.4	
	comp=Z,272nm,1.4s						
KAPI	Kappang	62.17	274	P	P	02 46 56.1	-0.7
KAPI	Kappang	62.17	274	P	P	02 46 56.4	-0.3
	comp=Z,184nm,1.1s						
KAPI	Kappang	62.17	274	P	P	02 46 55.9	-0.8
KAPI				pP	pP	02 48 53.9	+2.7
SPSI	Sidrap Palu	62.48	275	P	P	02 46 57.1	-1.5
	comp=Z,3µmcomp=Z,296nm,0.9s						
DBNI	Kabupaten Domp	62.55	270	P	P	02 46 57.6	-1.5
PLAI	Plampang	62.98	269	P	P	02 47 00.8	-1.0
	comp=Z,971nm,1.1s						
PLAI	Plampang	62.98	269	P	P	02 47 00.8	-1.0
	comp=Z,8µmcomp=Z,962nm,1.1s						
PLAI	Plampang	62.98	269	P	P	02 47 01.1	-0.7
	comp=Z,971nm,1.1s						
TOLI2	Tolitoli	63.19	281	P	P	02 47 02.0	-1.2
	comp=Z,330nm,1.2s						
TOLI2	Tolitoli	63.19	281	P	P	02 47 02.7	-0.5
TOLI2	Tolitoli	63.19	281	P	P	02 47 02.5	-0.7
	comp=Z,330nm,1.2s						
PLP	Palo	63.36	293	*e*P	P	02 47 02.9	-1.3
PCI	Palu	63.39	278	P	P	02 47 05.6	+1.1
	comp=Z,1µm,1.1s						
PMSI	Majene	63.43	275	P	P	02 47 05.0	+0.2
	comp=Z,9µmcomp=Z,835nm,1.1s						
MMSI	Mamuju	63.69	276	P	P	02 47 06.4	0.0
DCPH	Dipolog City	63.69	289	*i* P	P	02 47 04.0	-2.4
TBP	Tagbilaran	63.70	291	*i* P	P	02 47 05.7	-0.7
TWSI	Taliwang, Sumb	63.85	269	P	P	02 47 06.3	-1.1
	comp=Z,8µmcomp=Z,1µm,1.0s						
CCD	Concordia, Ant	64.97	194	P	P	02 47 14.1	+0.2
CCD				x	x	02 49 01.4	
CCD				pP	pwP	02 49 13.8	+4.4
KHKI	Kahang-Kahang	65.16	269	P	P	02 47 15.1	-0.6
	comp=Z,3µmcomp=Z,320nm,1.2s						
DNP	Denpasar	65.46	268	P	P	02 47 17.4	-0.1
IGBI	Denpasar	65.48	268	P	P	02 47 17.0	-0.7
SRBI	Singaraja	65.62	269	P	P	02 47 17.7	-0.8
	comp=Z,7µmcomp=Z,540nm,1.1s						
RTBI	Rangdo, Negare	65.77	269	P	P	02 47 18.4	-1.1
	comp=Z,7µmcomp=Z,679nm,0.9s						
JMZ	Minamidaito 2	65.86	310	P	P	02 47 19.7	0.0
	comp=Z,261nm,1.3s						
JMZ	Minamidaito 2	65.86	310	P	P	02 47 19.6	0.0
BKB	Balikpapan	66.05	277	P	P	02 47 21.3	+0.1
BKB	Balikpapan	66.05	277	P	P	02 47 23.2	+2.0
	comp=Z,5µmcomp=Z,380nm,0.9s						
BKB	Balikpapan	66.05	277	P	P	02 47 23.2	+2.0
	comp=Z,384nm,0.9s						
CASY	Casey	66.33	205	P	P	02 47 22.4	+0.4
CASY				IAmb	IAmb	02 47 23.2	
	comp=Z,37nm,1.1s						
JAGI	Jajag, Banyuwa	66.52	268	P	P	02 47 22.4	-1.7
	comp=Z,920nm,0.9s						
JAGI	Jajag, Banyuwa	66.52	268	P	P	02 47 22.3	-1.8
JAGI	Jajag, Banyuwa	66.52	268	P	P	02 47 22.7	-1.5
	comp=Z,920nm,0.9s						
ABJI	Asem Bagus	66.63	269	P	P	02 47 24.3	-0.5
	comp=Z,481nm,1.2s						
MYLDM	Lahad Datu	66.78	284	P	P	02 47 27.1	+1.3
	comp=Z,315nm,1.4s						
MYLDM	Lahad Datu	66.78	284	P	P	02 47 27.0	+1.3
	comp=Z,4µmcomp=Z,315nm,1.4s						
GQP	Guinayangan	66.79	294	*i* P	P	02 47 45.2	+20
KMMI	Kalianget	67.09	270	P	P	02 47 27.7	+0.1
	comp=Z,401nm,1.0s						
BLJI	Banyuglugur	67.25	269	P	P	02 47 27.8	-0.8
	comp=Z,7µmcomp=Z,793nm,0.9s						
BBKI	Banjar Baru	67.31	274	P	P	02 47 29.3	+0.3
	comp=Z,8µmcomp=Z,660nm,1.8s						
LQP	Lukban	67.67	294	*e*P	P	02 47 30.8	-0.6
CAAP	Casiguran, Aur	68.18	296	*e*P	P	02 47 33.7	-0.4
MJAR	Matsushiro Arr	68.21	323	PKPPKP		03 15 44.8	
	comp=Z,0.3nm,0.3s,baz=317,slow=2.2,SNR=4.1						
JOW	Kunigami	68.60	309	P	P	02 47 37.2	+0.7
	comp=Z,518nm,1.1s						
SNJI	Sawahan-Nganju	68.99	268	P	P	02 47 39.8	+0.5
	comp=Z,6µmcomp=Z,578nm,1.0s						
SJI	Sawahan	68.99	268	P	P	02 47 38.9	-0.4
	comp=Z,946nm,0.9s						
KKM	Kota Kinabalu	69.21	284	P	P	02 47 40.3	-0.3
	comp=Z,315nm,1.2s						
KKM	Kota Kinabalu	69.21	284	P	P	02 47 40.0	-0.6
	comp=Z,4µmcomp=Z,315nm,1.2s						
NGJI	Ngawi	69.39	269	P	P	02 47 42.8	+1.3
	comp=Z,693nm,0.9s						
PCJI	Pacitan	69.43	268	P	P	02 47 41.5	-0.2
KIWB	Kanaga Island	69.48	0	P	P	02 47 40.9	-0.3
ADK	Adak	69.52	1	P	P	02 47 41.2	-0.2
	comp=Z,111nm,1.5s						
ADK	Adak	69.52	1	P	P	02 47 41.1	-0.3
ADK				pmax	pmax		
	comp=Z,459nm,1.6s						
ADK	Adak	69.52	1	P	P	02 47 41.1	-0.3
JMJ	Miyako jima 2	69.75	306	P	P	02 47 44.4	+1.0
	comp=Z,2µm,0.9s						
WOJI	Wonogiri, Jawa	69.77	268	P	P	02 47 43.4	-0.4
ATKA	Atka Island	69.90	2	P	P	02 47 43.0	-0.7
UGM	Wanagama	70.13	268	P	P	02 47 45.4	-0.6
	comp=Z,1µm,0.9s						
UGM	Wanagama	70.13	268	P	P	02 47 45.6	-0.4
SMRI	Semarang	70.45	269	P	P	02 47 47.7	-0.1
	comp=Z,721nm,0.9s						
SMRI	Semarang	70.45	269	P	P	02 47 47.8	-0.1
	comp=Z,731nm,0.9s						
CLES	Cleveland East	70.79	5	P	P	02 47 48.4	-0.5
YOJ	Yonaguni jima	71.35	304	P	P	02 47 52.5	-0.3
	comp=Z,742nm,1.0s						
YOJ	Yonaguni jima	71.35	304	P	P	02 47 52.5	-0.3
YOJ				pmax	pmax		
	comp=Z,742nm,1.0s						
STKI	Sintang	71.60	276	P	P	02 47 55.1	+0.5
	comp=Z,754nm,0.9s						
CTJI	Waduk Cacaban	71.65	268	P	P	02 47 54.7	-0.2
	comp=Z,7µmcomp=Z,589nm,1.1s						
SBUM	Sibu	71.68	279	P	P	02 47 54.9	-0.1
	comp=Z,214nm,1.2s						
SBUM	Sibu	71.68	279	IAmb	IAmb	02 47 56.6	
	comp=Z,136nm,0.9s						
SBUM	Sibu	71.68	279	P	P	02 47 55.0	-0.1
	comp=Z,3µmcomp=Z,214nm,1.2s						
KPJI	Karang Pucung	71.80	268	P	P	02 47 55.1	-0.6
	comp=Z,429nm,1.3s						
TWGBT	Beinan	72.08	302	P	P	02 47 54.9	-2.2
	comp=Z,196nm,0.7s						
QSPA	South Pole Qui	72.13	180	P	P	02 47 57.8	+1.0
	comp=Z,159nm,1.0s,baz=16,slow=0.8,SNR=520						
QSPA				pP	pP	02 49 56.8	+1.6
	comp=Z,36nm,0.9s,baz=58,slow=3.9,SNR=7.7						
	comp=Z,159nm,1.0s						
QSPA	South Pole Qui	72.13	180	P	P	02 47 57.8	+1.0
QSPA	South Pole Qui	72.13	180	P	P	02 47 57.9	+1.0
QSPA				pP	pP	02 49 56.6	+1.4
CMJI	Cimerak	72.14	267	P	P	02 47 56.5	-1.2
	comp=Z,485nm,1.1s						
UNV	Unalaska Valle	72.14	7	P	P	02 47 55.2	-1.5
	comp=Z,93nm,0.9s						
UNV	Unalaska Valle	72.14	7	IAmb	IAmb	02 47 56.7	
	comp=Z,56nm,0.8s						
YULB	Yu-li	72.18	303	P	P	02 47 56.1	-1.6
	comp=Z,150nm,0.8s						
NACB	Ninganchiao	72.33	303	P	P	02 47 57.9	-0.6
	comp=Z,420nm,1.1s						
LVA	Lava Point	72.51	7	IAmb	IAmb	02 47 58.7	
	comp=Z,270nm,1.8s						
AKUT	Akutan	72.52	7	IAmb	IAmb	02 47 59.1	
	comp=Z,296nm,2.0s						
SSLB	Suanglung	72.65	303	P	P	02 47 58.8	-1.6
	comp=Z,245nm,1.1s						
TPUB	Ta-pu	72.67	302	P	P	02 47 59.0	-1.6
	comp=Z,777nm,0.9s						
YHNB	Yeheng	72.74	304	P	P	02 48 00.5	-0.5
	comp=Z,242nm,1.4s						
TATO	Taipei	72.80	304	P	P	02 48 00.9	-0.3
	comp=Z,425nm,1.3s						
TATO	Taipei	72.80	304	P	P	02 48 00.6	-0.6
BBJI	Bungbulang	72.98	268	P	P	02 48 01.2	-1.4
	comp=Z,337nm,0.8s						
BBJI	Bungbulang	72.98	268	P	P	02 48 01.2	-1.4
	comp=Z,3µmcomp=Z,338nm,0.8s						
PET	Petropavlovsk	73.51	345	P	P	02 48 03.8	-0.8
	comp=Z,627nm,1.5s						
PET	Petropavlovsk	73.51	345	*ce*P	P	02 48 03.9	-0.7
PET				pmax	pmax		
	comp=Z,62nm,0.9s						
PET	Petropavlovsk	73.51	345	P	P	02 48 04.2	-0.3
PET	Petropavlovsk	73.51	345	P	P	02 48 03.6	-0.9
	comp=Z,5µmcomp=Z,155nm,1.5s						
PET	Petropavlovsk	73.51	345	P	P	02 48 03.7	-0.9
CNJI	Cibinong	73.52	268	P	P	02 48 04.6	-1.0
	comp=Z,6µmcomp=Z,642nm,1.0s						
PETK	Petropavlovsk-	73.82	345	P	P	02 48 06.1	-0.2
	comp=Z,88nm,0.7s,baz=127,slow=6.6,SNR=92						
	comp=Z,88nm,0.7s						
PETK	Petropavlovsk-	73.82	345	P	P	02 48 06.4	0.0
PETK	Petropavlovsk-	73.82	345	P	P	02 48 06.4	0.0
CBJI	Citeko	74.04	268	P	P	02 48 07.2	-1.3
	comp=Z,849nm,0.9s						
SKJI	Sukabumi	74.16	268	P	P	02 48 08.1	-1.1
TPI	Tanjungpandan	74.36	272	P	P	02 48 10.2	-0.1
	comp=Z,3µmcomp=Z,264nm,1.0s						
SDPT	Sand Point	74.47	10	P	P	02 48 09.4	-0.5
	comp=Z,150nm,1.1s						
SDPT	Sand Point	74.47	10	IAmb	IAmb	02 48 10.1	
	comp=Z,104nm,0.8s						
SBJI	Serang	74.81	268	P	P	02 48 12.0	-0.9
	comp=Z,11µmcomp=Z,1µm,1.2s						
QZH2	Quanzhou	75.09	303	⇓*i*P	P	02 48 14.5	+0.4
QZH2				pmax	pmax		
	comp=Z,290nm,1.0s						
QZH2				pmax	pmax		
	comp=Z,540nm,4.8s						
CGJI	Cibinong	75.09	268	P	P	02 48 13.0	-1.4
CHGN	Chignik	75.74	11	IAmb	IAmb	02 48 17.4	
	comp=Z,87nm,1.0s						
PPBI	Pangkal Pinang	75.98	272	P	P	02 48 20.0	+0.6
KMPM	Mount Pierce	76.59	39	IAmb	IAmb	02 50 43.8	
	comp=Z,38nm,1.4s						
KMRM	Mail Ridge	76.72	40	IAmb	IAmb	02 50 32.1	
	comp=Z,54nm,1.4s						
SII	Sitkinak Islan	76.83	13	IAmb	IAmb	02 48 24.2	
	comp=Z,111nm,0.8s						
USRK	Ussuriysk Ar.	76.90	325	P	P	02 48 22.9	-0.8
	comp=Z,242nm,1.1s,baz=126,slow=7.4,SNR=4.2						
	comp=Z,242nm,1.1s						
MDSI	Maura Dua	77.15	269	P	P	02 48 23.8	-1.9
	comp=Z,3µmcomp=Z,269nm,1.0s						
VTX	Valle De La Tr	77.16	51	IAmb	IAmb	02 48 28.4	
	comp=Z,47nm,1.7s						
ESJX	Sierra Juarez	77.35	50	IAmb	IAmb	02 48 29.9	
	comp=Z,52nm,1.9s						
HKPS	Hong Kong Po S	77.54	298	P	P	02 48 28.1	+0.4
	comp=Z,208nm,1.2s						
OHAK	Old Harbor	77.63	13	P	P	02 48 27.3	0.0
	comp=Z,88nm,1.2s						
OHAK	Old Harbor	77.63	13	IAmb	IAmb	02 48 28.6	
	comp=Z,57nm,0.9s						
O03E	Paynes Creek	77.93	40	IAmb	IAmb	02 50 38.2	
	comp=Z,60nm,1.7s						
DSRI	Dabo	77.98	273	P	P	02 48 30.6	+0.4
	comp=Z,3µmcomp=Z,285nm,1.1s						
SLBS	Sierra La Lagu	78.15	60	P	P	02 48 33.1	+2.1
SLBS				IAmb	IAmb	02 48 34.4	
	comp=Z,130nm,1.8s						
KDAK	Kodiak Island	78.30	14	P	P	02 48 31.4	+0.5
KDAK				pmax	pmax		
	comp=Z,235nm,1.6s						
KDAK	Kodiak Island	78.30	14	P	P	02 48 31.4	+0.5
KDAK				IAmb	IAmb	02 48 32.4	
	comp=Z,235nm,1.6s						
M03C	McCloud	78.31	40	IAmb	IAmb	02 50 38.7	
	comp=Z,35nm,1.2s						
NJ2	Nanjing	78.32	309	⇓*i*P	P	02 48 32.2	+0.6
NJ2				pmax	pmax		
	comp=Z,82nm,0.8s						
P16K	Nushagak River	78.40	10	IAmb	IAmb	02 48 32.3	
	comp=Z,228nm,1.2s						
TPRI	Tanjung Pinang	78.46	275	P	P	02 48 33.0	+0.2
	comp=Z,274nm,0.9s						
DLV	Lat	78.46	287	P	P	02 48 33.7	+0.7
	comp=Z,142nm,1.3s						
MDJ	Mudanjiang	78.47	325	P	P	02 48 33.4	+1.3
MDJ				pmax	pmax		
	comp=Z,380nm,1.3s						
JMBI	JAMBI	78.51	272	P	P	02 48 35.0	+1.9
L04D	Klamath Falls	78.77	39	IAmb	IAmb	02 50 41.5	
	comp=Z,61nm,1.6s						
KSI	Kapahiang	78.90	270	P	P	02 48 34.6	-0.6
O16K	Kokwok River B	78.91	10	IAmb	IAmb	02 48 33.8	
	comp=Z,36nm,0.8s						
M13K	Dall Lake	78.94	7	IAmb	IAmb	02 48 36.2	
	comp=Z,54nm,1.1s						
I02E	Swisshome, OR	79.02	36	IAmb	IAmb	02 50 46.4	
	comp=Z,59nm,1.7s						
RYN	Ryan	79.07	43	IAmb	IAmb	02 50 49.5	
	comp=Z,29nm,0.8s						
NVAR	Mina Array Bea	79.10	44	P	P	02 48 37.4	+1.4
	comp=Z,3.0nm,0.8s,baz=226,slow=7.8,SNR=21						
NVAR				pP	pP	02 50 38.3	+0.7
	comp=Z,6.3nm,0.9s,baz=228,slow=9.4,SNR=4.3						
NVAR				PKPPKP	P'P'df	03 15 27.6	+2.6
	comp=Z,0.7nm,0.9s,baz=72,slow=2.5,SNR=4.3						
Q19K	Cape Douglas,	79.12	13	IAmb	IAmb	02 48 36.3	
	comp=Z,111nm,1.0s						
N15K	Kwethluk River	79.15	9	IAmb	IAmb	02 48 37.0	
	comp=Z,39nm,0.8s						
BTDF	Bukit Timah Da	79.31	275	P	P	02 48 37.3	0.0
	comp=Z,248nm,0.9s						
BTDF	Bukit Timah Da	79.31	275	P	P	02 48 37.4	+0.1
	comp=Z,2µmcomp=Z,248nm,0.9s						
MYKOM	Kota Tinggi	79.38	275	P	P	02 48 37.5	-0.1
	comp=Z,185nm,1.4s						
MYKOM	Kota Tinggi	79.38	275	IAmb	IAmb	02 48 39.1	
	comp=Z,175nm,1.1s						
MYKOM	Kota Tinggi	79.38	275	P	P	02 48 37.6	-0.1
	comp=Z,2µmcomp=Z,185nm,1.4s						
MASI	Maura Aman, Be	79.39	270	P	P	02 48 37.7	-0.1
	comp=Z,574nm,1.4s						
M14K	Bethel	79.45	8	IAmb	IAmb	02 48 38.6	
	comp=Z,104nm,1.2s						
J04A	Umpqua Nationa	79.49	38	IAmb	IAmb	02 48 40.3	
	comp=Z,37nm,0.7s						
BUCK	Buck Mountain	79.57	37	IAmb	IAmb	02 48 40.6	
	comp=Z,30nm,1.1s						
O18K	Koktuh Hills	79.67	11	IAmb	IAmb	02 48 39.1	
	comp=Z,154nm,0.9s						
HSIG		79.70	55	IAmb	IAmb	02 48 41.6	
	comp=Z,54nm,1.9s						
QIZ	Qiongzhong	79.90	294	P	P	02 48 40.2	0.0
QIZ				pmax	pmax		
	comp=Z,66nm,1.2s						
QIZ	Qiongzhong	79.90	294	P	P	02 48 40.8	+0.6
K05A	Summer Lake	79.91	39	IAmb	IAmb	02 50 47.6	
	comp=Z,42nm,1.2s						
L14K	Kuka Creek	79.93	7	IAmb	IAmb	02 48 41.2	
	comp=Z,44nm,0.9s						
N17K	Nushagak Hills	79.95	10	IAmb	IAmb	02 48 40.6	
	comp=Z,66nm,1.4s						
M16K	Timber Creek	80.13	9	IAmb	IAmb	02 48 42.9	
	comp=Z,200nm,1.1s						
O19K	Port Alsworth	80.16	12	IAmb	IAmb	02 48 41.4	
	comp=Z,134nm,0.8s						
CNPM	China Poot	80.18	13	IAmb	IAmb	02 48 42.0	
	comp=Z,60nm,1.0s						
ILSW	Iliamna Southw	80.20	12	IAmb	IAmb	02 48 41.5	
	comp=Z,102nm,0.8s						
HOM	Homer	80.22	13	IAmb	IAmb	02 48 42.3	
	comp=Z,126nm,0.8s						
F03A	Seaside	80.31	35	IAmb	IAmb	02 48 44.2	
	comp=Z,31nm,1.1s						
N18K	Kilae Creek	80.32	11	IAmb	IAmb	02 48 41.8	
	comp=Z,20nm,0.8s						
KRJI	Kerinci	80.45	271	P	P	02 48 44.4	+1.0
	comp=Z,328nm,0.8s						
G04A	Mulino	80.47	36	IAmb	IAmb	02 48 45.9	
	comp=Z,25nm,0.8s						
BRLK	Bradley Lake	80.48	13	IAmb	IAmb	02 48 43.3	
	comp=Z,53nm,0.8s						
PINE	Pine Mountain	80.50	38	IAmb	IAmb	02 48 45.9	
	comp=Z,29nm,1.0s						
E03A	Lebam	80.69	35	IAmb	IAmb	02 48 46.1	
	comp=Z,34nm,1.0s						
N19K	Bonanza Creek	80.70	11	IAmb	IAmb	02 48 43.5	
	comp=Z,33nm,0.9s						
L16K	Owhat River	80.71	9	IAmb	IAmb	02 48 45.5	
	comp=Z,116nm,1.1s						
M17K	Holitna River	80.73	10	IAmb	IAmb	02 48 46.0	
	comp=Z,154nm,1.0s						
SDSI	Sungai Dareh	80.83	272	P	P	02 48 43.8	-1.4
	comp=Z,174nm,1.0s						
WISH	Wishkah	80.94	34	IAmb	IAmb	02 50 51.5	
	comp=Z,43nm,1.3s						
HOOD	Mount Hood Mea	81.00	36	IAmb	IAmb	02 48 47.6	
	comp=Z,24nm,1.1s						
WHN	Wuhan	81.00	306	P	P	02 48 46.2	+0.5
WHN				pmax	pmax		
	comp=Z,2µm,2.0s						
CNSH	ChangSha	81.07	303	P	P	02 48 46.8	+0.7
CNSH				S	S	02 58 14.1	+5.5
CNSH				pmax	pmax		
	comp=Z,130nm,1.1s						
SEW	Seward	81.11	14	IAmb	IAmb	02 48 46.2	
	comp=Z,29nm,0.9s						
WVOR	Wild Horse Val	81.11	40	P	P	02 48 47.7	+1.5
WVOR	Wild Horse Val	81.11	40	IAmb	IAmb	02 50 53.7	
	comp=Z,30nm,1.4s						
G05A	Wamic	81.14	37	IAmb	IAmb	02 48 54.0	
	comp=Z,21nm,1.0s						
STD	Studebaker Rid	81.23	35	IAmb	IAmb	02 48 49.3	
	comp=Z,27nm,1.0s						
SLKM	Skilak Lake	81.29	13	IAmb	IAmb	02 48 47.4	
	comp=Z,91nm,0.9s						
TUC	Tucson	81.33	52	P	P	02 48 49.6	+2.2
TUC				pmax	pmax		
	comp=Z,16nm,1.1s						
TUC	Tucson	81.33	52	P	P	02 48 49.6	+2.2
TUC	Tucson	81.33	52	P	P	02 48 49.9	+2.5
TUC				x	pP	02 50 51.3	+1.2
MA2	Magadan	81.34	344	P	P	02 48 46.0	-0.7
	comp=Z,47nm,0.8s,baz=144,slow=5.3,SNR=25						
	comp=Z,47nm,0.8s						
MA2	Magadan	81.34	344	P	P	02 48 45.7	-1.0
	comp=Z,523nm,1.0s						
MA2	Magadan	81.34	344	*ce*P	P	02 48 45.9	-0.9
MA2				pmax	pmax		
	comp=Z,96nm,1.2s						
MA2	Magadan	81.34	344	P	P	02 48 45.8	-0.9
O22K	Cooper Landing	81.38	14	IAmb	IAmb	02 49 19.6	
	comp=Z,64nm,0.5s						
P23K	Montague Islan	81.50	15	IAmb	IAmb	02 48 48.5	
	comp=Z,50nm,1.0s						
BKNI	Bangkinang	81.59	273	P	P	02 48 48.7	-0.4
BKNI	Bangkinang	81.59	273	P	P	02 48 49.4	+0.3
	comp=Z,472nm,1.3s						
BKNI	Bangkinang	81.59	273	P	P	02 48 49.6	+0.5
	comp=Z,5µmcomp=Z,477nm,1.3s						
L18K	Granite Mounta	81.63	10	IAmb	IAmb	02 48 50.2	
	comp=Z,192nm,1.5s						
J08A	Circle Bar Ran	81.72	39	IAmb	IAmb	02 48 51.7	
	comp=Z,26nm,1.2s						
M19K	Big River Lodg	81.73	11	IAmb	IAmb	02 48 49.5	
	comp=Z,25nm,0.8s						
PDSI	Padang	81.76	272	P	P	02 48 48.7	-1.3
	comp=Z,201nm,1.0s						
STLK	Strandline Lak	81.85	12	IAmb	IAmb	02 48 49.4	
	comp=Z,41nm,0.9s						
L19K	White Mountain	81.90	11	IAmb	IAmb	02 48 52.0	
	comp=Z,156nm,1.7s						
RC01	Rabbit Creek A	81.92	13	IAmb	IAmb	02 48 50.7	
	comp=Z,93nm,1.3s						
PPI	Padang Panjang	81.96	272	P	P	02 48 50.6	-0.4
CBB	Campbell River	81.97	31	IAmb	IAmb	02 48 52.3	
	comp=Z,27nm,1.1s						
PWL	Port Wells	82.03	14	IAmb	IAmb	02 48 51.0	
	comp=Z,63nm,0.9s						
SUA	Susitna One	82.04	13	IAmb	IAmb	02 48 51.0	
	comp=Z,53nm,0.7s						
HIN	Hinchinbrook I	82.07	15	IAmb	IAmb	02 48 51.4	
	comp=Z,84nm,1.4s						
U15A	North Rim	82.17	48	IAmb	IAmb	02 51 02.2	
	comp=Z,42nm,1.4s						
KAIM	Kayak Island	82.20	16	IAmb	IAmb	02 48 52.8	
	comp=Z,65nm,0.9s						
GLI	Glacier Island	82.34	15	IAmb	IAmb	02 48 52.5	
	comp=Z,71nm,0.8s						
SKT	Skwentna	82.34	12	IAmb	IAmb	02 48 51.8	
	comp=Z,20nm,0.9s						
FID	Port Fidalgo	82.38	15	IAmb	IAmb	02 48 52.8	
	comp=Z,51nm,1.2s						
EYAK	Cordova Ski Ar	82.39	15	P	P	02 48 52.1	+0.1
	comp=Z,27nm,1.2s						
EYAK	Cordova Ski Ar	82.39	15	IAmb	IAmb	02 48 53.1	
	comp=Z,46nm,1.3s						
WUAZ	Wupatki	82.39	49	IAmb	IAmb	02 51 03.0	
	comp=Z,27nm,1.2s						
M22K	Willow	82.43	13	IAmb	IAmb	02 48 53.0	
	comp=Z,154nm,1.1s						
A04D	Lummi Island	82.49	33	IAmb	IAmb	02 48 55.2	
	comp=Z,65nm,0.9s						
KNK	Knik Glacier	82.50	14	IAmb	IAmb	02 48 53.5	
	comp=Z,37nm,0.8s						
PMR	Palmer	82.50	13	P	P	02 48 52.0	-0.6
	comp=Z,44nm,1.4s						

PMR	Palmer	82.50	13	IAmb	IAmb	02 48 53.5	
	comp=Z,79nm,1.4s						
G08A	Pilot Rock	82.53	38	IAmb	IAmb	02 48 55.6	
	comp=Z,31nm,1.3s						
RAGM	Ragged Mountai	82.53	16	IAmb	IAmb	02 48 54.1	
	comp=Z,69nm,1.1s						
GHO	Glory Hole Cre	82.71	13	IAmb	IAmb	02 48 54.6	
	comp=Z,86nm,0.8s						
DUN6	Lazy B Ranch	82.72	53	IAmb	IAmb	02 51 02.8	
	comp=Z,81nm,1.2s						
E07A	Sunnyside	82.74	36	IAmb	IAmb	02 48 56.5	
	comp=Z,28nm,1.1s						
BERG	Berg Lake	82.79	16	IAmb	IAmb	02 48 55.7	
	comp=Z,143nm,1.6s						
J18K	Innoko River	82.79	9	IAmb	IAmb	02 48 55.5	
	comp=Z,81nm,0.9s						
U33K	Whale Pass	82.81	23	IAmb	IAmb	02 48 56.5	
	comp=Z,38nm,1.2s						
SML	Sawmill	82.87	14	IAmb	IAmb	02 49 08.3	
	comp=Z,19nm,0.9s						
DIV	Divide	82.89	15	IAmb	IAmb	02 48 55.6	
	comp=Z,53nm,0.9s						
IPM	Ipoh	82.90	277	P	P	02 48 56.0	+0.2
	comp=Z,385nm,1.0s						
IPM	Ipoh	82.90	277	P	P	02 48 55.9	+0.2
	comp=Z,4µmcomp=Z,385nm,1.0s						
HPIG		83.02	59	IAmb	IAmb	02 48 59.2	
	comp=Z,55nm,1.8s						
BMRM	Bremner River	83.04	16	IAmb	IAmb	02 48 56.6	
	comp=Z,132nm,1.4s						
PPLA	Purkeypile	83.05	12	IAmb	IAmb	02 48 55.1	
	comp=Z,42nm,1.4s						
S31K	Pelican	83.09	21	IAmb	IAmb	02 48 57.6	
	comp=Z,46nm,1.1s						
MNSI	Mandailing Nat	83.12	273	P	P	02 48 56.0	-0.8
	comp=Z,149nm,1.0s						
SCM	Sheep Creek Mo	83.12	14	IAmb	IAmb	02 48 56.8	
	comp=Z,76nm,0.7s						
K20K	Telida	83.13	11	IAmb	IAmb	02 48 56.9	
	comp=Z,67nm,0.8s						
KLU	Klutina	83.16	15	IAmb	IAmb	02 48 57.1	
	comp=Z,63nm,1.4s						
CRQM	Cirque	83.25	16	IAmb	IAmb	02 48 57.9	
	comp=Z,78nm,1.0s						
YAH	Yahtse	83.30	17	IAmb	IAmb	02 48 58.5	
	comp=Z,68nm,0.8s						
TGL	Tana Glacier	83.33	17	IAmb	IAmb	02 48 58.2	
	comp=Z,86nm,1.2s						
WRAK	Wrangell Islan	83.33	24	IAmb	IAmb	02 48 58.9	
	comp=Z,26nm,0.9s						
PNL	Peninsula	83.42	19	P	P	02 48 57.3	0.0
	comp=Z,78nm,1.2s						
PCA	Pinnacle	83.51	18	IAmb	IAmb	02 48 59.1	
	comp=Z,46nm,1.1s						
CAST	Castle Rocks	83.55	11	IAmb	IAmb	02 48 57.5	
	comp=Z,75nm,0.8s						
VRDI	Verde Repeater	83.56	16	IAmb	IAmb	02 48 59.4	
	comp=Z,116nm,1.4s						
GRNC	Granite Creek	83.61	17	IAmb	IAmb	02 48 59.7	
	comp=Z,64nm,1.1s						
PMSA	Palmer Station	83.61	157	P	P	02 48 59.5	+1.4
PMSA				IAmb	IAmb	02 49 00.8	
	comp=Z,125nm,1.1s						
PMSA	Palmer Station	83.61	157	*e*P	P	02 48 59.3	+1.1
PMSA	Palmer Station	83.61	157	P	P	02 48 59.6	+1.4
GLB	Gilahina Butte	83.65	16	IAmb	IAmb	02 48 59.0	
	comp=Z,43nm,0.8s						
MCARA	McCarthy VSAT	83.80	16	IAmb	IAmb	02 49 00.5	
	comp=Z,64nm,1.2s						
KTH	Kantishna Hill	83.89	12	IAmb	IAmb	02 48 59.5	
	comp=Z,49nm,0.9s						
LOGN	Logan Glacier	83.89	17	IAmb	IAmb	02 49 01.1	
	comp=Z,49nm,1.0s						
G16K	Koyuk River	83.90	6	IAmb	IAmb	02 52 24.4	
	comp=Z,159nm,1.4s						
SEY	Seymchan	83.90	347	*ce*P	P	02 48 58.5	-1.0
SEY				pmax	pmax		
	comp=Z,187nm,1.3s						
BARN	Barnard Glacie	83.90	17	IAmb	IAmb	02 49 01.2	
	comp=Z,66nm,0.9s						
F10A	Beach Ranch, E	83.92	38	IAmb	IAmb	02 49 01.9	
	comp=Z,22nm,1.0s						
TRF	Thorofare Moun	83.92	12	IAmb	IAmb	02 49 00.2	
	comp=Z,85nm,0.8s						
JIS	Juneau Island	83.97	21	P	P	02 49 00.3	+0.4
	comp=Z,27nm,1.2s						
ZAIG	Zacatecas	83.99	64	IAmb	IAmb	02 49 04.8	
	comp=Z,23nm,1.1s						
MAW	Mawson	84.01	200	P	P	02 49 01.1	+0.9
	comp=Z,10nm,0.7s,baz=140,slow=3.9,SNR=41						
MAW				pP	pwP	02 51 05.6	-0.6
	comp=Z,10nm,0.9s,baz=114,slow=5.0,SNR=5.8						
	comp=Z,10nm,0.7s						
MAW	Mawson	84.01	200	P	P	02 49 00.9	+0.8
BESE	Bessie Mountai	84.03	21	IAmb	IAmb	02 49 02.5	
	comp=Z,52nm,1.2s						
LLLB	Lillooet	84.07	32	IAmb	IAmb	02 49 02.6	
	comp=Z,26nm,1.4s						
O28M	Mount Upton	84.08	18	IAmb	IAmb	02 49 02.1	
	comp=Z,43nm,0.8s						
HARP	HAARP	84.13	15	IAmb	IAmb	02 49 02.0	
	comp=Z,76nm,0.9s						
O29M	Mount Kennedy	84.18	18	IAmb	IAmb	02 49 02.3	
	comp=Z,21nm,0.9s						
DHY	Denali Highway	84.20	13	IAmb	IAmb	02 49 02.2	
	comp=Z,103nm,1.6s						
PSI	Prapat	84.36	275	P	P	02 49 01.9	-1.2
	comp=Z,376nm,1.0s						
PSI	Prapat	84.36	275	P	P	02 49 02.1	-1.0
	comp=Z,3µmcomp=Z,348nm,1.0s						
BPAW	Bear Paw Mtn.	84.37	12	IAmb	IAmb	02 49 02.8	
	comp=Z,77nm,1.7s						
MCK	McKinley	84.45	13	IAmb	IAmb	02 49 03.0	
	comp=Z,94nm,1.1s						
SKAG	Skagway	84.55	20	P	P	02 49 03.8	+1.1
	comp=Z,35nm,1.3s						
SKAG	Skagway	84.55	20	IAmb	IAmb	02 49 05.3	
	comp=Z,76nm,1.5s						
M26K	Nabesna, AK	84.67	16	IAmb	IAmb	02 49 04.8	
	comp=Z,69nm,1.0s						
BWN	Browne	84.73	12	IAmb	IAmb	02 49 04.3	
	comp=Z,144nm,1.2s						
S34M	Telegraph Cree	84.87	23	IAmb	IAmb	02 49 06.7	
	comp=Z,45nm,0.9s						
HYT	Haines Junctio	84.92	19	IAmb	IAmb	02 49 06.5	
	comp=Z,24nm,0.9s						
M27K	Edge Creek, AK	84.92	16	IAmb	IAmb	02 49 06.5	
	comp=Z,87nm,1.1s						
TSI	Tuntungan	84.92	275	P	P	02 49 05.9	+0.2
	comp=Z,189nm,0.9s						
MENT	Mentasta	84.94	15	P	P	02 49 04.7	0.0
	comp=Z,40nm,1.3s						
MENT	Mentasta	84.94	15	IAmb	IAmb	02 49 06.1	
	comp=Z,44nm,1.2s						
L26K	Log Cabin Wild	85.10	15	IAmb	IAmb	02 49 06.9	
	comp=Z,39nm,1.2s						
GSI	Gunungsitoli	85.18	273	P	P	02 49 07.7	+0.7
	comp=Z,553nm,1.0s						
GSI	Gunungsitoli	85.18	273	P	P	02 49 07.9	+0.9
	comp=Z,548nm,1.0s						
P32M	Atlin	85.18	21	IAmb	IAmb	02 49 07.4	
	comp=Z,16nm,0.8s						
K24K	Donnelly Dome	85.19	14	IAmb	IAmb	02 49 07.1	
	comp=Z,99nm,0.8s						
Q32M	Nakina River	85.22	22	IAmb	IAmb	02 49 08.3	
	comp=Z,130nm,1.8s						
NEW	Newport	85.24	36	P	P	02 49 06.9	+0.4
RIDG	Independent Ri	85.35	14	IAmb	IAmb	02 49 07.8	
	comp=Z,63nm,1.1s						
PV10	Paradox Valley	85.37	47	IAmb	IAmb	02 51 19.6	
	comp=Z,21nm,1.0s						
PV23	Carpenter Ridg	85.42	47	IAmb	IAmb	02 51 20.2	
	comp=Z,21nm,0.9s						
HDA	Harding Lake	85.46	13	IAmb	IAmb	02 49 07.8	
	comp=Z,37nm,0.8s						
PV04	Paradox Valley	85.47	47	IAmb	IAmb	02 51 20.4	
	comp=Z,19nm,1.1s						
CCB	Clear Creek Bu	85.49	13	IAmb	IAmb	02 49 07.7	
	comp=Z,75nm,1.2s						
L27K	Beaver Creek,	85.52	16	IAmb	IAmb	02 49 08.3	
	comp=Z,17nm,1.0s						
BCAR	Beaver Creek A	85.53	16	P	P	02 49 07.8	+0.3
N30M	Aishikik Lake	85.54	18	IAmb	IAmb	02 49 10.4	
	comp=Z,18nm,1.0s						
TX31	Lajitas Ar. Si	85.60	57	IAmb	IAmb	02 49 12.2	
	comp=Z,54nm,1.4s						
TXAR	Lajitas Array	85.60	57	P	P	02 49 10.9	+2.3
	comp=Z,13nm,0.8s,baz=218,slow=5.8,SNR=146						
TXAR				pP	pP	02 51 13.8	+0.8
	comp=Z,3.3nm,1.0s,baz=232,slow=6.2,SNR=5.8						
	comp=Z,13nm,0.8s						
TXAR	Lajitas Array	85.60	57	P	P	02 49 11.0	+2.3
TXAR	Lajitas Array	85.60	57	P	P	02 49 11.0	+2.3
WHY	Whitehorse	85.61	20	IAmb	IAmb	02 49 09.3	
	comp=Z,44nm,0.9s						
IMAR	Indian Mountai	85.61	10	P	P	02 49 07.7	-0.1
TLIG	Tlapa	85.62	70	IAmb	IAmb	02 49 11.8	
	comp=Z,16nm,0.9s						
I23K	Minto, Yukon-K	85.63	12	IAmb	IAmb	02 49 08.3	
	comp=Z,64nm,1.5s						
TIY	Taiyuan	85.64	312	*e*P	P	02 49 09.4	+0.7
TIY				pmax	pmax		
	comp=Z,130nm,0.7s						
KCSI	Kotacane, Aceh	85.68	275	P	P	02 49 08.8	-0.5
	comp=Z,2µmcomp=Z,165nm,1.0s						
COLA	College	85.68	12	P	P	02 49 07.4	-0.7
	comp=Z,45nm,1.2s						
COLA	College	85.68	12	*i* P	P	02 49 07.2	-0.9
COLA				pmax	pmax		
	comp=Z,65nm,1.1s						
COLA	College	85.68	12	P	P	02 49 07.5	-0.7
COLA	College	85.68	12	P	P	02 49 07.5	-0.5
COLA				pP	pwP	02 51 14.2	-1.2
ALQ	Albuquerque	85.73	51	IAmb	IAmb	02 51 16.1	
	comp=Z,18nm,1.4s						
ANMO	Albuquerque	85.73	51	*i* P	P	02 49 10.7	+1.4
ANMO	Albuquerque	85.73	51	P	P	02 49 10.9	+1.6
SCRK	Sand Creek	85.75	14	IAmb	IAmb	02 49 09.3	
	comp=Z,25nm,1.1s						
IL31		85.79	13	IAmb	IAmb	02 49 09.2	
	comp=Z,69nm,1.2s						
ILAR	Eielson Array	85.79	13	P	P	02 49 07.8	-0.8
	comp=Z,24nm,1.0s,baz=231,slow=5.4,SNR=118						
ILAR				pP	pP	02 51 13.9	+0.9
	comp=Z,4.0nm,1.0s,baz=225,slow=5.2,SNR=5.1						
	comp=Z,24nm,1.0s						
TPB28		85.87	55	IAmb	IAmb	02 50 46.4	
	comp=Z,8.7nm,0.4s						
M29M	Somme Creek	85.92	17	IAmb	IAmb	02 49 10.5	
	comp=Z,21nm,0.8s						
SLVN	Son La	85.93	294	P	P	02 49 11.4	+1.0
	comp=Z,65nm,1.1s						
P33M	Teslin, Yukon	85.95	21	IAmb	IAmb	02 49 11.3	
	comp=Z,14nm,0.9s						
N31M	Braeburn, Yuko	85.96	19	IAmb	IAmb	02 49 11.4	
	comp=Z,43nm,1.0s						
J25K	Salcha River,	85.98	13	IAmb	IAmb	02 49 10.7	
	comp=Z,88nm,1.6s						
R33M	Jennings River	86.00	22	IAmb	IAmb	02 49 12.2	
	comp=Z,42nm,1.4s						
ALPN	Alpine	86.03	56	IAmb	IAmb	02 49 13.9	
	comp=Z,44nm,1.5s						
TPB01	Permian Basin	86.14	56	IAmb	IAmb	02 49 14.1	
	comp=Z,24nm,1.4s						
TPTI		86.16	275	P	P	02 49 11.7	+0.1
	comp=Z,3µmcomp=Z,347nm,1.1s						
K27K	Chicken	86.26	15	IAmb	IAmb	02 49 12.8	
	comp=Z,39nm,1.2s						
LDM	Libby Dam	86.36	36	IAmb	IAmb	02 49 13.8	
	comp=Z,19nm,1.1s						
TPB05	Hovey Rd	86.49	56	IAmb	IAmb	02 49 16.2	
	comp=Z,38nm,1.5s						
BILL	Bilibino	86.50	354	*ce*P	P	02 49 11.6	-0.3
BILL				pmax	pmax		
	comp=Z,53nm,1.0s						
BILL	Bilibino	86.50	354	P	P	02 49 11.9	0.0
FXWY	Fox Creek	86.50	42	IAmb	IAmb	02 51 31.0	
	comp=Z,23nm,1.6s						
GO08	Villa O'Higgin	86.53	140	P	P	02 49 15.1	+2.4
GO08				IAmb	IAmb	02 49 16.1	
	comp=Z,65nm,1.1s						
L29M	L29M	86.54	17	IAmb	IAmb	02 49 14.3	
	comp=Z,92nm,1.2s						
SNSI	Sinabang, Aceh	86.71	274	P	P	02 49 16.1	+1.9
	comp=Z,374nm,1.4s						
PRP	Porcupine Dome	86.73	13	IAmb	IAmb	02 49 16.8	
	comp=Z,14nm,0.9s						
G23K	Bananza Creek	86.91	11	IAmb	IAmb	02 52 48.3	
	comp=Z,35nm,0.8s						
M31M	Drury Creek, Y	86.93	19	IAmb	IAmb	02 49 15.3	
	comp=Z,19nm,1.1s						
DAWY	Dawson	86.97	16	IAmb	IAmb	02 49 15.9	
	comp=Z,45nm,1.2s						
YHL	Hebgen Lake	86.98	41	IAmb	IAmb	02 51 26.5	
	comp=Z,32nm,1.4s						
PDAR	Pinedale Array	87.03	43	P	P	02 49 16.1	+0.7
	comp=Z,1.5nm,0.7s,baz=225,slow=2.8,SNR=18						
PDAR				pP	pP	02 51 20.9	+0.8
	comp=Z,2.5nm,0.8s,baz=232,slow=3.6,SNR=8.1						
PDAR				PKKPbc	PKKPbc	03 07 04.5	-0.9
	comp=Z,0.5nm,0.6s,baz=78,slow=3.7,SNR=4.2						
PDAR	Pinedale Array	87.03	43	P	P	02 49 15.7	+0.3
BOZ	Bozeman (W)	87.07	40	IAmb	IAmb	02 51 23.1	
	comp=Z,27nm,1.8s						
I26K	Coal Creek Min	87.07	14	IAmb	IAmb	02 49 16.2	
	comp=Z,76nm,1.5s						
SAND	Sanderson	87.08	57	IAmb	IAmb	02 49 18.2	
	comp=Z,21nm,1.2s						
MLSI	Meulaboh, Aceh	87.21	275	P	P	02 49 16.6	+0.1
WTLY	Watson Lake, Y	87.28	22	IAmb	IAmb	02 49 18.0	
	comp=Z,43nm,1.5s						
K29M	Barlow Dome	87.29	17	IAmb	IAmb	02 49 17.8	
	comp=Z,72nm,1.4s						
COLD	Coldfoot	87.34	10	IAmb	IAmb	02 52 48.4	
	comp=Z,36nm,0.8s						
J29N	Klondike Camp	87.59	16	IAmb	IAmb	02 49 20.0	
	comp=Z,25nm,0.8s						
I27K	Kandik River	87.68	14	IAmb	IAmb	02 49 18.8	
	comp=Z,32nm,1.5s						
I28M	Miner Creek	87.95	15	IAmb	IAmb	02 49 19.4	
	comp=Z,17nm,0.9s						
COYC	Coyhaique	87.97	137	P	P	02 49 21.9	+2.4
F24K	Squaw Lake	88.01	11	IAmb	IAmb	02 52 57.4	
	comp=Z,31nm,0.7s						
J30M	Hart River	88.19	17	IAmb	IAmb	02 49 21.8	
	comp=Z,48nm,1.6s						
H27K	Steamboat Moun	88.22	14	IAmb	IAmb	02 49 21.7	
	comp=Z,23nm,1.0s						
MMPY	Sheldon Lake,	88.22	20	IAmb	IAmb	02 49 22.2	
	comp=Z,42nm,0.9s						
OZNA	Ozona	88.24	57	IAmb	IAmb	02 49 23.4	
	comp=Z,53nm,1.7s						
KMI2	Kunming	88.27	297	⇓P	P	02 49 22.8	+1.3
KMI2				pmax	pmax		
	comp=Z,110nm,1.3s						
KMI2				pmax	pmax		
	comp=Z,430nm,5.6s						
I29M	Ogilvie Camp,	88.29	16	IAmb	IAmb	02 49 21.4	
	comp=Z,38nm,1.2s						
BMAR	Burnt Mountain	88.57	12	P	P	02 49 22.3	+0.6
SGCY	Sterling City	88.61	56	IAmb	IAmb	02 51 36.5	
	comp=Z,15nm,1.2s						
BSI	Banda Aceh	88.64	276	P	P	02 49 23.7	+0.5
	comp=Z,179nm,1.4s						
G27K	Doyon Strip	88.67	14	IAmb	IAmb	02 49 23.7	
	comp=Z,17nm,1.3s						
I30M	Mount Dempster	88.68	16	IAmb	IAmb	02 49 23.6	
	comp=Z,32nm,1.1s						
833A	Chaparral WMA,	88.69	60	IAmb	IAmb	02 49 25.9	
	comp=Z,18nm,1.2s						
BTO2	Baotou	88.74	314	*e*P	P	02 49 24.0	+0.8
BTO2				PP	PP	02 53 06.8	+3.4
BTO2				pmax	pmax		
	comp=Z,90nm,1.1s						
POST	Post	88.75	55	IAmb	IAmb	02 49 25.0	
	comp=Z,7.7nm,0.8s						
HBVL	Hebbronville	88.84	61	IAmb	IAmb	02 49 27.8	
	comp=Z,62nm,1.5s						
H29M	Whitestone	88.96	15	IAmb	IAmb	02 49 24.8	
	comp=Z,51nm,0.9s						
ELIB	Princess Elisa	89.20	186	*d*P	P	02 49 24.9	0.0
	comp=Z,52nm,0.8s						
ELIB				*d*pP	pP	02 51 28.9	-1.6
ELIB				*d*sP	sP	02 52 25.1	-3.7
HNDO	Hondo	89.22	59	IAmb	IAmb	02 49 28.6	
	comp=Z,30nm,0.9s						
SYO	Syowa Base	89.25	193	⇑*e*P	P	02 49 24.4	-0.5
CMAR	Chiang Mai Arr	89.34	290	P	P	02 49 27.5	+1.1
	comp=Z,68nm,1.0s,baz=110,slow=2.9,SNR=210						
	comp=Z,68nm,1.0s						
CMAR	Chiang Mai Arr	89.34	290	P	P	02 49 27.1	+0.7
CHTO	Chiang Mai	89.46	290	P	P	02 49 27.5	+0.6
	comp=Z,86nm,1.4s						
CHTO	Chiang Mai	89.46	290	P	P	02 49 27.7	+0.8
CHTO				pmax	pmax		
	comp=Z,213nm,0.7s						
CHTO	Chiang Mai	89.46	290	P	P	02 49 27.7	+0.8
CHTO	Chiang Mai	89.46	290	P	P	02 49 27.2	+0.3
	comp=Z,1µmcomp=Z,144nm,1.4s						
CHTO	Chiang Mai	89.46	290	P	P	02 49 27.9	+1.0
CD2	Chengdu	89.48	303	P	P	02 49 26.9	+0.1
CD2				pmax	pmax		
	comp=Z,70nm,0.8s						
CD2				pmax	pmax		
	comp=Z,430nm,6.1s						
EPYK	Eagle Plains	89.49	15	IAmb	IAmb	02 49 27.2	
	comp=Z,49nm,1.0s						
PZH	PanZhiHua	89.59	298	P	P	02 49 28.3	+0.8
PZH				pmax	pmax		
	comp=Z,10.0nm,0.8s						
G29M	Pine Creek	89.59	15	IAmb	IAmb	02 49 27.6	
	comp=Z,36nm,1.1s						
H31M	Peel River	89.68	16	IAmb	IAmb	02 49 27.8	
	comp=Z,26nm,1.0s						
YAK	Yakutsk	89.77	338	*e*S	SKSac	02 59 03.5	+1.3
APMT	Aspermont	89.92	55	IAmb	IAmb	02 49 30.6	
	comp=Z,38nm,1.8s						
ABTX	Abilene, Hawle	90.04	56	IAmb	IAmb	02 49 31.4	
	comp=Z,39nm,1.4s						
BRDY	Brady	90.07	57	IAmb	IAmb	02 49 31.5	
	comp=Z,9.4nm,1.1s						
TROLL	Troll, Antarti	90.30	180	⇑P	P	02 49 30.0	0.0
	comp=Z,3µm,0.9s						
TROLL				⇑SKSac	SKSac	02 59 05.7	0.0
	comp=E,135nm,0.9s						
SNAA	Sanae	90.57	178	⇑P	P	02 49 30.8	-0.3
	comp=Z,427nm,0.7s						
SNAA				⇑SKSac	SKSac	02 59 07.0	-0.1
	comp=N,377nm,1.0s						
SNAA	Sanae	90.57	178	P	P	02 49 31.0	-0.1
	comp=N,28nm,1.0s,baz=200,slow=4.9,SNR=50						
	comp=N,28nm,1.0s						
SNAA	Sanae	90.57	178	*i* P	P	02 49 30.5	-0.6
SNAA				pmax	pmax		
	comp=Z,53nm,1.2s						
SNAA	Sanae	90.57	178	IAmb	IAmb	02 49 32.1	
	comp=Z,56nm,1.2s						
F30M	Barrier River	90.69	15	IAmb	IAmb	02 49 33.3	
	comp=Z,22nm,1.0s						
VNA3	Neumayer Olymp	90.69	176	⇑P	P	02 49 31.4	-0.2
	comp=Z,85nm,0.7s						
VNA3				pP	pP	02 51 37.9	+0.8
	comp=Z,12nm,0.7s						
VNA3				⇑SKSac	SKSac	02 59 07.0	-0.7
	comp=E,14nm,1.3s						
VNA3				⇓S	S	02 59 34.6	-3.8
	comp=E,155nm,2.0s						
GO06	Curarrehue	90.80	132	IAmb	IAmb	02 49 35.5	
	comp=Z,51nm,1.1s						
PLCA	Paso Flores	90.97	133	P	P	02 49 34.7	+1.1
	comp=Z,17nm,0.9s,baz=227,slow=4.7,SNR=22						
	comp=Z,17nm,0.9s						
PLCA	Paso Flores	90.97	133	*e*P	P	02 49 33.8	+0.2
VNA2	Neumayer--Watz	91.14	177	⇑P	P	02 49 33.7	0.0
	comp=Z,66nm,0.7s,baz=181,slow=3.6						
VNA2				⇑pP	pwP	02 51 42.4	-0.6
	comp=Z,14nm,0.7s,baz=186,slow=1.9						
VNA2				⇓SKSac	SKSac	02 59 09.8	-0.3
	comp=E,6.8nm,1.1s						
VNA2				⇓S	S	02 59 38.4	-3.8
	comp=E,110nm,2.4s						
LZH	Lanzhou	91.28	308	*e*P	P	02 49 36.0	+0.9
LZH				pmax	pmax		
	comp=E,130nm,1.7s						
LZH				pmax	pmax		
	comp=E,330nm,4.1s						
NVL	N'lazarevskaya	91.28	183	⇓*i*P	P	02 49 33.6	-0.7
NVL				*e*S	SKSac	02 59 09.8	-1.1
NVL				pmax	pmax		
	comp=Z,21nm,0.9s						
LZDM	Lanzhou Array	91.35	307	P	P	02 49 36.6	+1.0
	comp=Z,35nm,0.9s,baz=84,slow=6.1,SNR=17						
	comp=Z,35nm,0.9s						
VNA1	Neumayer--Stat	91.36	177	⇑P	P	02 49 34.8	+0.2
	comp=Z,97nm,0.9s						
VNA1				pP	pwP	02 51 44.0	+0.1
	comp=Z,31nm,1.0s						
TNCH	TengChong	91.84	296	P	P	02 49 38.8	+0.8
TNCH				pmax	pmax		
	comp=Z,54nm,0.7s						
TNCH				pmax	pmax		
	comp=Z,240nm,4.1s						
R32A	Long Quarter,	92.81	51	IAmb	IAmb	02 49 44.1	
	comp=Z,16nm,0.8s						
MTO3	Montecristo	92.99	76	IAmb	IAmb	02 52 05.8	
	comp=Z,12nm,1.2s						
ORCD	Orcadas	93.07	159	P	P	02 49 44.0	+1.3
W35A	Tecumseh	93.08	54	IAmb	IAmb	02 51 55.5	
	comp=Z,22nm,1.5s						
ULN	Ulaanbaatar	93.48	319	*ce*P	P	02 49 44.4	-0.5
ULN				pmax	pmax		
	comp=Z,333nm,1.7s						
ULN	Ulaanbaatar	93.48	319	P	P	02 49 44.6	-0.3
SONM	Songino Array	93.88	319	P	P	02 49 46.2	-0.6
	comp=Z,9.3nm,0.9s,baz=135,slow=4.6,SNR=44						
	comp=Z,9.3nm,0.9s						
SONM	Songino Array	93.88	319	P	P	02 49 46.1	-0.6
YKA	Yellowknife Ar	94.14	25	P	P	02 49 47.2	-0.1
	comp=Z,7.4nm,0.8s,baz=246,slow=4.6,SNR=12						
	comp=Z,7.4nm,0.8s						
GTA2	Gaotai	95.48	310	P	P	02 49 54.3	+0.1
GTA2				pmax	pmax		
	comp=Z,21nm,1.0s						
TIXI	Tiksi	96.29	345	*ce*P	P	02 49 55.7	-1.2
TIXI				pmax	pmax		
	comp=Z,16nm,0.9s						
TIXI	Tiksi	96.29	345	P	P	02 49 55.8	-1.0
ZAK	Zakamensk	96.70	321	*e*P	P	02 49 58.5	-0.9
ZAK				pmax	pmax		
	comp=Z,11nm,1.3s						
LPAZ	La Paz	102.95	112	Pdiff	Pdif	02 50 30.2	+1.6
	comp=Z,2.7nm,0.8s,baz=219,slow=3.8,SNR=11						
LPAZ	La Paz	102.95	112	*e*P	Pdif	02 50 27.6	-1.0
HYB	Hyderabad	107.69	283	*e*Pdif	Pdif	02 50 48.6	-0.3
HYB				*e*PKiKP	PKiKP	02 54 52.8	-0.3
HYB				*e*SKSac	SKSac	03 00 33.6	+0.7
HYB				*e*SKKSac	SKKSac	03 01 27.7	-1.2
ZSN	Zaisan	107.82	315	*e*PKiKP	PKiKP	02 54 53.8	+1.3
ZALV	Zalesovo Beam	108.54	322	Pdiff	Pdif	02 50 50.7	-1.1
	comp=Z,0.7nm,0.3s,baz=98,slow=7.6,SNR=6.2						
MKAR	Makanchi Array	109.49	314	Pdiff	Pdif	02 50 55.0	-1.2
	comp=Z,1.3nm,0.6s,baz=79,slow=5.1,SNR=8.0						
MKAR				PKKPbc	PKKPbc	03 06 02.9	-0.3
	comp=Z,3.7nm,0.9s,baz=264,slow=3.5,SNR=6.8						
SEM	Semipalatinsk	111.11	318	*i* PKIKP	PKiKP	02 54 59.9	+1.1
SEM	Semipalatinsk	111.11	318	*e*PKiKP	PKiKP	02 54 60.0	+1.1
SHLS	Shalkode	111.15	310	*i* PKIKP	PKiKP	02 54 59.4	+0.4
SHLS	Shalkode	111.15	310	*e*PKiKP	PKiKP	02 54 59.5	+0.4
UZB	Uzynbulak	111.47	310	*i* PKIKP	PKiKP	02 55 00.6	+0.9
UZB	Uzynbulak	111.47	310	*e*PKiKP	PKiKP	02 55 00.6	+0.9
KPKS	Kokpek	111.74	310	*i* PKIKP	PKiKP	02 55 01.2	+1.1
KPKS	Kokpek	111.74	310	*e*PKiKP	PKiKP	02 55 01.2	+1.1
SATY	Saty	111.92	310	*i* PKIKP	PKiKP	02 55 01.5	+1.0
SATY	Saty	111.92	310	*e*PKiKP	PKiKP	02 55 01.6	+1.0
TDK	Taldyqorghan	112.05	312	*i* PKIKP	PKiKP	02 55 01.8	+1.3
TDK	Taldyqorghan	112.05	312	*e*PKiKP	PKiKP	02 55 01.9	+1.3
KURBB	Kurchatov Arra	112.21	318	Pdiff	Pdif	02 51 06.5	-1.7
	comp=Z,0.1nm,0.3s,baz=161,slow=5.9,SNR=1.4						
KURBB				PKKPbc	PKKPbc	03 05 54.4	-0.2
	comp=Z,1.1nm,0.5s,baz=273,slow=3.8,SNR=6.0						
MDOK	Medeo	112.91	310	*i* PKIKP	PKiKP	02 55 03.4	+1.0
MDOK	Medeo	112.91	310	*e*PKiKP	PKiKP	02 55 03.5	+1.0
TNSS	Tian-Shan	112.98	310	*i* PKIKP	PKiKP	02 55 03.6	+0.7
TNSS	Tian-Shan	112.98	310	*e*PKiKP	PKiKP	02 55 03.6	+0.7
AAA	Alma-Ata	113.01	310	*i* PKIKP	PKiKP	02 55 03.6	+1.1
AAA	Alma-Ata	113.01	310	*e*PKiKP	PKiKP	02 55 03.6	+1.1
KUU	Kurty	113.47	311	*i* PKIKP	PKiKP	02 55 04.5	+1.2
KUU	Kurty	113.47	311	*e*PKiKP	PKiKP	02 55 04.6	+1.2
SGDS	Sogindy	114.69	310	*e*PKiKP	PKiKP	02 55 06.8	+1.0
DZA	Taraz	117.10	309	*i* PKIKP	PKiKP	02 55 11.5	+1.1
DZA	Taraz	117.10	309	*e*PKiKP	PKiKP	02 55 11.6	+1.1
IUG	Iuzhnay	118.06	309	*i* PKIKP	PKiKP	02 55 13.2	+0.9
IUG	Iuzhnay	118.06	309	*e*PKiKP	PKiKP	02 55 13.3	+0.9
BRLS	Borolday	118.19	310	*i* PKIKP	PKiKP	02 55 13.7	+1.2
BRLS	Borolday	118.19	310	*e*PKiKP	PKiKP	02 55 13.8	+1.2
CHM	Chimkent	118.38	309	*i* PKIKP	PKiKP	02 55 14.0	+1.2
CHM	Chimkent	118.38	309	*e*PKiKP	PKiKP	02 55 14.1	+1.2
SNDB	Serra Nova Dou	119.51	116	*e*P	PKPdf	02 55 15.4	-0.4
SJMB	Sao Joao De Ma	124.02	128	*e*P	PKPdf	02 55 22.7	-1.7
SDBA	SAO DESIDERIO	124.68	120	*e*P	PKPdf	02 55 25.1	-0.7

ARCES	ARCESS Array B	126.41	350	PKKPbc	PKKPbc	03 05 01.6	-2.0
	comp=Z,2.4nm,0.8s,baz=252,slow=2.3,SNR=5.5						
BOSA	Boshof	128.60	206	PKP	PKiKP	02 55 34.0	+0.2
	comp=Z,2.8nm,0.9s,baz=123,slow=4.2,SNR=5.3						
BOSA	Boshof	128.60	206	PKIKP	PKiKP	02 55 34.0	+0.2
OBN	Obninsk	134.53	333	ePKIKP	PKPdf	02 55 43.2	+0.1
OBN				e		02 58 23.8	
OBN				pmax	pmax		
	comp=Z,70nm,1.1s						
ERBR	Yeremizino-Bor	137.82	320	i PKIKP	PKiKP	02 55 52.0	+0.3
ERBR				e		02 57 56.4	
ERBR				pmax	pmax		
	comp=Z,266nm,1.1s						
LABN	Labinsk	138.17	318	i PKIKP	PKiKP	02 55 53.3	+0.9
LABN				pmax	pmax		
	comp=Z,234nm,1.0s						
MNK	Minsk	138.46	338	i PKIKP	PKiKP	02 55 53.8	+1.2
MNK				i		02 58 48.8	
MNK				i PPP	PPP	03 01 57.4	
MNK				i		03 02 09.3	
MNK				i SS	SS	03 16 19.8	+4.0
MNK				i SSS	SSS	03 21 40.1	
MNK				pmax	pmax		
	comp=E,141nm,1.0s						
MNK				pmax	pmax		
	comp=N,31nm,0.8s						
MNK				pmax	pmax		
	comp=Z,102nm,0.7s						
MNK	Minsk	138.46	338	i PKiKP	PKiKP	02 55 53.9	+1.2
	comp=E,141nm,1.0s						
MNK				i PKiKP	PKiKP	02 55 53.9	+1.2
	comp=N,31nm,0.8s						
MNK				i PKiKP	PKiKP	02 55 53.9	+1.2
	comp=Z,102nm,0.7s,baz=39						
MNK				i pPKiKP	pPKPdf	02 58 04.1	-0.7
MNK				i sPKiKP	PP	02 58 43.6	-4.7
MNK				i PP	PP	02 58 48.9	+0.6
MNK				i PPP	PPP	03 01 57.4	
MNK				i SKS	SKSac	03 02 09.3	-1.4
MNK				i SS	SS	03 16 19.9	+4.0
MNK				i SSS	SSS	03 21 40.2	
ANN	Anapa	140.15	320	i PKIKP	PKiKP	02 55 56.6	+0.2
ANN				e		02 58 05.7	
ANN				pmax	pmax		
	comp=Z,209nm,1.0s						
EKA	Eskdalemuir Ar	142.44	5	PKhKP	PKPpre	02 55 53.9	
	comp=Z,8.0nm,0.7s,baz=329,slow=3.1,SNR=17						
ILTH	Belurgan, Co L	143.38	8	eP	PKPab	02 55 57.4	-0.3
HPK	Haverah Park	143.92	4	eP	PKPab	02 55 59.7	0.0
DSB	Dublin	144.13	9	PKP	PKPbc	02 55 58.7	-1.5
WLF1	Llynfaes	144.34	7	eP	PKPdf	02 56 00.9	0.0
LMK	Market Rasen	144.49	2	eP	PKPbc	02 56 01.4	+0.1
VAL	Valentia	144.69	13	PKP	PKPbc	02 56 02.1	+0.2
STNC	Stoke	144.74	4	eP	PKPab	02 56 02.7	-0.2
BURAR	Bucovina Array	144.85	333		PKPdf	02 56 01.4	-0.7
BURAR	Bucovina Array	144.85	333	⇓P	PKPdf	02 56 01.7	-0.5
FOEL	Foel Wylfa	144.86	6	eP	PKPbc	02 56 02.8	+0.3
IWEX	Carrickbyrne,	144.92	9	eP	PKPbc	02 56 02.9	+0.2
BR131	Keskin Array S	145.13	315	PKHKP	PKPpre	02 56 02.0	
BR131	Keskin Array S	145.13	315		PKPdf	02 56 02.0	-0.9
BRTR	Keskin Array B	145.13	315	PKPbc	PKPbc	02 56 03.6	-0.3
	comp=Z,73nm,0.7s,baz=138,slow=3.4,SNR=323						
BRTR				SKKPbc	SKKPbc	03 06 49.8	+0.4
	comp=Z,4.5nm,0.9s,baz=227,slow=4.5,SNR=12						
BRTR	Keskin Array B	145.13	315		PKPdf	02 56 02.2	-0.8
CWF	Charnwood Fore	145.16	4	eP	PKPbc	02 56 03.5	+0.1
HLM1	Long Mynd	145.26	5	eP	PKPbc	02 56 03.9	+0.2
BEIL	Beino	145.44	305	eP	PKPbc	02 56 05.1	+0.3
OSTC	Ostas	145.54	344	ePKHKP	PKPpre	02 56 03.6	
OSTC	Ostas	145.54	344	ePKP	PKPdf	02 56 03.6	+0.5
CHVC	Chvalec	145.55	344	ePKIKP	PKPbc	02 56 05.2	+0.6
CHVC	Chvalec	145.55	344	ePKP	PKPbc	02 56 05.2	+0.6
CLL	Collm	145.58	348	⇓iPKIKP	PKPbc	02 56 04.9	+0.3
CLL				pmax	pmax		
	comp=Z,233nm,0.9s						
CLL	Collm	145.58	348	ePKPdf	PKPdf	02 56 03.0	-0.1
CLL				⇓iPKPbc	PKPbc	02 56 04.9	+0.3
	comp=Z,233nm,0.9s						
UPC	Upice	145.64	344	ePKIKP	PKPbc	02 56 05.5	+0.6
UPC	Upice	145.64	344	ePKP	PKPbc	02 56 05.5	+0.6
UPC				ex	x	03 06 08.7	
OKC	Ostrava-Krasne	145.64	342	ePKIKP	PKPbc	02 56 05.3	+0.4
OKC	Ostrava-Krasne	145.64	342	ePKP	PKPbc	02 56 05.3	+0.4
STEB	Steborice	145.67	342	ePKP	PKPdf	02 56 03.7	+0.4
STEB				ex	PKPbc	02 56 05.6	+0.6
DPC	Dobruska-Polom	145.70	344	ePKHKP	PKPpre	02 56 04.0	
DPC				e		02 56 06.0	
DPC	Dobruska-Polom	145.70	344	ePKP	PKPdf	02 56 04.0	+0.6
DPC				ex	PKPbc	02 56 06.0	+0.9
HWQ	Hawqa	145.71	305	eP	PKPbc	02 56 05.5	-0.2
MCH1	Michaelchurch	145.76	6	eP	PKPbc	02 56 05.1	0.0
KRLC	Kraliky	145.82	343	ePKHKP	PKPpre	02 56 04.0	
KRLC	Kraliky	145.82	343	ePKP	PKPdf	02 56 04.0	+0.4
LANS	Liptovska Anna	145.82	340	ePKIKP	PKPab	02 56 06.7	-0.6
LANS	Liptovska Anna	145.82	340	ePKP	PKPab	02 56 06.7	-0.6
MORC	Moravsky Berou	145.88	342	ePKP	PKPdf	02 56 04.3	+0.6
MORC				e		02 56 06.0	
ELMS	Elmsett, Ipswi	145.89	1	eP	PKPbc	02 56 05.7	+0.2
ZAHL	Zahle	145.90	304	eP	PKPbc	02 56 06.4	+0.1
MONM	Monmouth	145.94	5	eP	PKPbc	02 56 05.7	+0.1
KECS	Kecovo	146.04	338	ePKIKP	PKPbc	02 56 06.8	+0.8
KECS	Kecovo	146.04	338	ePKP	PKPbc	02 56 06.8	+0.8
STRD	Stroud	146.05	5	eP	PKPbc	02 56 05.9	-0.1
RCY	Rachaya	146.06	304	eP	PKPbc	02 56 07.0	+0.2
BHL	Bhannes	146.07	305	eP	PKPbc	02 56 06.9	+0.2
RICC	Richard	146.07	346	ePKP	PKPbc	02 56 07.0	+1.0
HSKC	Hora Svate Kat	146.15	347	ePKP	PKPdf	02 56 04.6	+0.4
HSKC				ex	x	03 06 18.5	
MAUC	Maruska	146.16	341	ePKP	PKPdf	02 56 04.8	+0.6
MAUC				ex	PKPbc	02 56 07.2	+0.8
QRWL	Qaraoun	146.16	304	eP	PKPbc	02 56 07.2	+0.2
SHBL	Chebaa	146.18	304	eP	PKPbc	02 56 07.2	+0.1
DQRL	Deir Qamar	146.20	304	eP	PKPbc	02 56 07.6	+0.5
MBAR	Mbarara	146.34	240	PKIKP	PKPbc	02 56 08.6	+0.4
MBAR	Mbarara	146.34	240		PKPbc	02 56 08.6	+0.4
SWN1	Swindon	146.34	4	eP	PKPbc	02 56 07.0	+0.2
PRU	Pruhonice	146.48	345	ePKIKP	PKPbc	02 56 07.7	+0.5
PRU				e		02 56 10.3	
PRU	Pruhonice	146.48	345	ePKP	PKPbc	02 56 07.7	+0.5
PRU				ex	PKPbc	02 56 10.3	+3.1
MMAI	Mount Meron Ar	146.55	303	PKPbc	PKPbc	02 56 08.5	+0.5
	comp=Z,91nm,0.6s,baz=34,slow=3.6,SNR=291						
VRAC	Vranov	146.57	343	ePKP	PKPdf	02 56 05.2	+0.3
VRAC				e		02 56 07.9	
VRAC				e		02 56 10.9	
WOL	Wolverton	146.58	4	eP	PKPbc	02 56 07.4	0.0
VYHS	Vyhne	146.60	340	ePKHKP	PKPpre	02 56 05.0	
VYHS				e		02 56 08.0	
VYHS	Vyhne	146.60	340	ePKP	PKPdf	02 56 05.0	+0.1
VYHS				e		02 56 08.0	
JAVC	Velka Javorina	146.65	341	ePKP	PKPbc	02 56 06.5	-1.3
JAVC				e		02 56 09.4	
BMOL	Mol	146.70	357	dPKP	PKPbc	02 56 08.3	+0.6
NKC	Novy Kostel	146.71	348	ePKIKP	PKPdf	02 56 06.1	+1.0
NKC	Novy Kostel	146.71	348	ePKP	PKPdf	02 56 06.1	+1.0
NKC				ex	PKPbc	02 56 08.5	+0.6
BOST	Ostende	146.75	359	dPKP	PKPbc	02 56 07.6	-0.2
BOPT	Opiter	146.77	356	dPKPdf	PKPdf	02 56 05.9	+0.8
BOPT				dPKP	PKPbc	02 56 08.2	+0.3
ELSH	Elham, Standar	146.84	1	eP	PKPbc	02 56 08.7	+0.6
KRUC	Moravsky	146.85	343	ePKP	PKPdf	02 56 05.6	+0.3
KRUC				e		02 56 08.5	
KRUC				e		02 56 11.9	
TREC	Trest	146.88	344	ePKP	PKPdf	02 56 05.9	+0.5
TREC				ex	PKPbc	02 56 08.7	+0.4
SMOL	Smolenice	147.03	341	ePKIKP	PKiKP	02 56 09.8	-0.7
SMOL				e		02 56 13.4	
ZVC	Zvikov	147.08	345	ePKP	PKPdf	02 56 06.0	+0.3
ZVC				ex	PKPbc	02 56 09.5	+0.7
HMNX	Herstmonceux	147.10	2	eP	PKPbc	02 56 09.4	+0.6
UCC	Uccle	147.15	357	dPKP	PKPbc	02 56 09.1	+0.1
MODS	Modra-Piesok	147.20	341	ePKHKP	PKPpre	02 56 06.8	
MODS				e		02 56 10.1	
MODS	Modra-Piesok	147.20	341	ePKP	PKPdf	02 56 06.8	+0.8
MODS				e		02 56 10.1	
DYA	Yadsworthy	147.21	7	eP	PKPbc	02 56 08.9	-0.2
MEM	Membach	147.24	355	dPKPdf	PKPdf	02 56 06.6	+0.7
MEM				dPKP	PKPbc	02 56 09.3	+0.1
SRO	Srobarova	147.37	340	ePKHKP	PKPpre	02 56 10.3	
SRO				e		02 56 14.7	
SRO	Srobarova	147.37	340	ePKP	PKPbc	02 56 10.3	+0.7
SRO				e		02 56 14.7	
ZST	Bratislava	147.42	341	ePKHKP	PKPpre	02 56 11.2	
ZST				e		02 56 15.2	
ZST	Bratislava	147.42	341	ePKP	PKiKP	02 56 11.2	-0.1
ZST				e		02 56 15.2	
GRFO	Grafenberg	147.47	349	PKHKP	PKPpre	02 56 10.3	
GRFO	Grafenberg	147.47	349		PKPbc	02 56 10.3	+0.5
CSS	Mathiatis	147.47	308		PKPbc	02 56 09.8	-0.5
BCLA	Clavier	147.48	356	dPKPdf	PKPdf	02 56 06.1	-0.2
BCLA				dPKP	PKPbc	02 56 09.8	0.0
BCLA				dPKiKP	PKiKP	02 56 11.6	+0.3
KHC	Kasperske Hory	147.51	346	ePKIKP	PKPdf	02 56 06.8	+0.3
KHC				e		02 56 10.7	
KHC	Kasperske Hory	147.51	346	ePKP	PKPdf	02 56 06.8	+0.3
CKRC	Cesky Krumlov	147.62	345	ePKHKP	PKPpre	02 56 10.8	
CKRC	Cesky Krumlov	147.62	345	ePKP	PKPbc	02 56 10.8	+0.5
BMRD	Maredsous	147.63	357	dPKP	PKPbc	02 56 10.3	+0.1
SZH	Strazhitsa	147.65	326	P	PKPbc	02 56 09.4	-1.1
SZH	Strazhitsa	147.65	326	i P	PKPbc	02 56 10.6	+0.1
RCHB	Rochefort	147.75	356	dPKPdf	PKPdf	02 56 07.0	+0.2
RCHB				dPKP	PKPbc	02 56 10.4	-0.1
RCHB				dPKiKP	PKiKP	02 56 12.1	+0.2
GERES	GERESS Array B	147.75	346	PKPbc	PKPbc	02 56 10.3	-0.4
	comp=Z,60nm,0.7s,baz=27,slow=2.5,SNR=82						
GERES	GERESS Array B	147.75	346	PKIKP	PKPdf	02 56 06.5	-0.4
GERES	GERESS Array B	147.75	346		PKPdf	02 56 06.5	-0.4
WINA	Alland / Wiene	147.80	342	i PKP	PKPdf	02 56 07.2	+0.3
	SNR=55						
DOU	Dourbes	147.84	357	dPKPdf	PKPdf	02 56 06.8	-0.1
DOU				dPKP	PKPbc	02 56 11.0	+0.3
DOU				dPKiKP	PKiKP	02 56 12.4	+0.3
JMB	Yambol	147.88	325	P	PKPbc	02 56 10.5	-0.6
JMB	Yambol	147.88	325	i P	PKPbc	02 56 11.1	0.0
CONA	Conrad Observa	148.02	342	ePKP	PKPdf	02 56 07.2	-0.3
	comp=Z,3.4nm,0.9s						
CONA				i PKP	PKPbc	02 56 12.0	+0.6
	comp=Z,49nm,0.7s,SNR=43						
CONA				ePKP	PKPab	02 56 17.1	+0.8
	comp=Z,27nm,0.7s						
RONA	Rosalia, Austr	148.10	342	ePKP	PKPdf	02 56 07.6	+0.1
	comp=Z,7.9nm,1.0s						
RONA				i PKP	PKPbc	02 56 12.1	+0.6
	comp=Z,47nm,0.7s,SNR=32						
RONA				ePKP	PKPab	02 56 17.5	+0.9
	comp=Z,45nm,0.8s						
WLF	Walferdange	148.17	355	PKP	PKPbc	02 56 11.9	+0.3
WLF	Walferdange	148.17	355	dPKPdf	PKPdf	02 56 08.3	+0.9
WLF				dPKP	PKiKP	02 56 12.3	-0.5
PVL	Pavlikeni	148.17	327	i P	PKPbc	02 56 12.0	+0.2
MOA	Molln	148.53	344	ePKP	PKPdf	02 56 08.0	-0.2
	comp=Z,6.8nm,1.1s						
MOA				i PKP	PKPbc	02 56 12.8	+0.2
	comp=Z,18nm,0.7s,SNR=15						
MOA				ePKP	PKPab	02 56 18.3	0.0
	comp=Z,91nm,1.2s						
MOA				ePP	PP	02 59 42.1	-5.5
	comp=Z,26nm,1.3s						
JSA	Saint Aubin	148.62	5	eP	PKPbc	02 56 13.0	+0.4
MORH	Mrgy, Hungar	148.63	338	⇓iP	PKPbc	02 56 12.3	-0.5
VALD	Valchedram	148.63	330	i P	PKPbc	02 56 13.2	+0.3
DIM	Dimitrovgrad	148.71	325	P	PKPbc	02 56 13.1	0.0
MPEP	Malo Peshtene	148.73	329	i P	PKPbc	02 56 13.5	+0.3
ARSA	Arzberg	148.74	342	ePKP	PKPdf	02 56 07.3	-1.2
	comp=Z,0.6nm,0.5s						
ARSA				i PKP	PKPbc	02 56 13.0	-0.1
	comp=Z,11nm,0.9s,SNR=15						
ARSA				ePKP	PKPab	02 56 19.3	+0.1
	comp=Z,17nm,1.0s						
BIOA	Bad Ischl, Aus	148.84	345	i PKP	PKPdf	02 56 07.4	-1.3
	comp=Z,9.9nm,1.4s,SNR=26						
BIOA				ePKP	PKPbc	02 56 13.1	-0.2
	comp=Z,48nm,1.0s						
BIOA				ePKP	PKPab	02 56 19.9	+0.2
	comp=Z,69nm,0.7s						
BEHE	Becsehely	149.05	340	eP	PKPbc	02 56 13.8	0.0
FRGS	Fruska Gora	149.07	335	⇓iP	PKPbc	02 56 13.9	-0.1
PLD	Plovdiv	149.08	326	P	PKPbc	02 56 13.4	-0.6
KDZ	Kurdzhali	149.12	325	P	PKPbc	02 56 14.0	-0.2
PGB	Panagyurishte	149.12	327	i P	PKPbc	02 56 14.3	+0.1
SESA	Seetaler Alpe,	149.13	343	i PKP	PKPdf	02 56 08.8	-0.5
	comp=Z,28nm,1.2s,SNR=90						
SESA				ePKP	PKPbc	02 56 14.1	-0.3
	comp=Z,125nm,0.7s						
SESA				ePKP	PKPab	02 56 21.1	+0.1
	comp=Z,241nm,0.7s						
ELL	Elmali	149.16	313	PKHKP	PKPpre	02 56 13.7	
ELL	Elmali	149.16	313		PKPbc	02 56 13.7	-0.9
ALN	Alexandroupoli	149.21	323	P	PKPbc	02 56 12.8	-1.6
KOGS	Kog	149.24	341	i PKPbc	PKPbc	02 56 13.8	-0.4
KOGS				ePKPab	PKPab	02 56 20.9	-0.3
BFO	Black Forest	149.25	352	PKHKP	PKPpre	02 56 14.0	
BFO	Black Forest	149.25	352		PKPbc	02 56 14.0	-0.3
ENEZ	Enez	149.26	323	P	PKPbc	02 56 13.1	-1.4
LESA	Schwarzleotal	149.32	346	i PKP	PKPdf	02 56 09.3	-0.2
	comp=Z,12nm,1.3s,SNR=25						
LESA				ePKP	PKPbc	02 56 14.5	-0.1
	comp=Z,45nm,0.8s						
LESA				ePKP	PKPab	02 56 21.8	+0.1
	comp=Z,64nm,0.8s						
BLSH	Balsha	149.32	329	i P	PKiKP	02 56 15.2	-0.3
SOKA	Soboth	149.40	342	i PKP	PKPdf	02 56 09.4	-0.3
	comp=Z,8.4nm,1.1s,SNR=45						
SOKA				ePKP	PKPbc	02 56 14.4	-0.4
	comp=Z,28nm,0.8s						
SOKA				ePKP	PKPab	02 56 21.6	-0.4
	comp=Z,64nm,1.3s						
SOKA				ePP	PP	02 59 44.7	-8.0
	comp=Z,43nm,1.4s						
RZN	Rozhen	149.40	325	P	PKPbc	02 56 14.1	-1.0
KBA	Koelnbreinsper	149.48	345	i PKP	PKPbc	02 56 14.5	-0.6
	comp=Z,71nm,1.0s,SNR=18						
KBA				ePKP	PKPab	02 56 22.2	-0.3
	comp=Z,15nm,0.8s						
VTS	Vitosha	149.52	328	P	PKPbc	02 56 15.0	-0.3
VTS	Vitosha	149.52	328	i P	PKPbc	02 56 15.5	+0.2
PLNA	Plana	149.53	328	i P	PKiKP	02 56 15.8	-0.2
WATA	Walderalm	149.65	347	i PKP	PKPdf	02 56 09.7	-0.4
	comp=Z,4.8nm,0.9s,SNR=42						
WATA				ePKP	PKPbc	02 56 15.3	-0.1
	comp=Z,35nm,0.7s						
WATA				ePKP	PKPab	02 56 22.7	-0.4
	comp=Z,21nm,0.7s						
RETA	Reutte	149.67	348	i PKP	PKPdf	02 56 10.1	0.0
	comp=Z,6.6nm,1.0s,SNR=35						
RETA				ePKP	PKPbc	02 56 15.4	0.0
	comp=Z,25nm,0.7s						
RETA				ePKP	PKPab	02 56 22.6	-0.5
	comp=Z,14nm,1.2s						
OBKA	Obir	149.69	343	i PKP	PKPbc	02 56 14.9	-0.6
	comp=Z,26nm,0.8s,SNR=9.6						
OBKA				ePKP	PKPab	02 56 22.8	-0.5
	comp=Z,27nm,0.8s						
TEKS	Tekeris	149.69	335	⇓iP	PKPbc	02 56 15.2	-0.3
WTTA	Wattenberg	149.70	347	i PKP	PKPdf	02 56 10.3	+0.1
	comp=Z,11nm,0.9s,SNR=71						
WTTA				ePKP	PKPbc	02 56 15.8	+0.1
	comp=Z,70nm,0.7s						
WTTA				ePKP	PKPab	02 56 23.2	-0.2
	comp=Z,34nm,0.9s						
WTTA				ePP	PP	02 59 48.2	-6.2
	comp=Z,52nm,1.1s						
MOTA	Moosalm	149.74	348	i PKP	PKPdf	02 56 10.2	0.0
	comp=Z,12nm,0.8s,SNR=28						
MOTA				ePKP	PKPbc	02 56 15.6	-0.1
	comp=Z,32nm,0.7s						
MOTA				ePKP	PKPab	02 56 23.2	-0.3
	comp=Z,42nm,0.8s						
MOTA				i PP	PP	02 59 48.6	-6.0
	comp=Z,49nm,1.2s						
EZN	Ezine	149.74	321	P	PKPbc	02 56 14.1	-1.5
GADA	Gvkgeada	149.76	322	P	PKPdf	02 56 11.8	+1.5
SMTH	Samothraki Isl	149.79	323	P	PKPbc	02 56 14.6	-1.2
MYKA	Terra Mystica	149.82	344	ePKP	PKPdf	02 56 09.0	-1.2
	comp=Z,0.3nm,0.3s						
MYKA				i PKP	PKPbc	02 56 15.1	-0.7
	comp=Z,58nm,0.6s,SNR=20						
MYKA				ePKP	PKPab	02 56 23.0	-0.8
	comp=Z,47nm,0.8s						
SQTA	Sankt Quirin	149.83	348	i PKP	PKPdf	02 56 10.1	-0.2
	comp=Z,7.7nm,0.9s,SNR=42						
SQTA				ePKP	PKPbc	02 56 15.9	0.0
	comp=Z,48nm,0.7s						
SQTA				ePKP	PKPab	02 56 23.5	-0.4
	comp=Z,28nm,0.7s						
SQTA				ePP	PP	02 59 49.3	-5.8
	comp=Z,67nm,1.2s						
ABTA	Abfaltersbach	150.00	346	i PKP	PKPdf	02 56 09.9	-0.7
	comp=Z,8.6nm,0.9s,SNR=43						
ABTA				ePKP	PKPbc	02 56 15.6	-0.6
	comp=Z,116nm,0.7s						
ABTA				ePKP	PKPab	02 56 24.7	+0.2
	comp=Z,44nm,0.7s						
DAVA	Damuels	150.02	349	ePKP	PKPdf	02 56 10.9	+0.2
	comp=Z,7.2nm,1.0s						
DAVA				i PKP	PKPbc	02 56 16.5	+0.1
	comp=Z,81nm,0.9s,SNR=22						
DAVA				ePKP	PKPab	02 56 23.8	-0.9
	comp=Z,11nm,0.7s						
DAVA				ePP	PP	02 59 54.2	-2.0
	comp=Z,23nm,1.2s						
MMB	Musomishta	150.03	326	P	PKPbc	02 56 15.1	-1.3
MMB	Musomishta	150.03	326	i P	PKPbc	02 56 16.1	-0.3
CRES	Cresnjevec Ost	150.04	341	i PKPbc	PKPbc	02 56 16.1	-0.2
YER	Yerkesik	150.07	315	P	PKPbc	02 56 16.1	-0.5
NVR	Nevrokopi	150.11	326	P	PKPbc	02 56 15.4	-1.2
LJU	Ljubljana	150.12	342	i PKPbc	PKPbc	02 56 16.4	0.0
LJU				i PKPab	PKPab	02 56 24.6	-0.3
FETA	Feichten	150.12	348	i PKP	PKPdf	02 56 10.7	-0.1
	comp=Z,9.8nm,0.9s,SNR=22						
FETA				ePKP	PKPbc	02 56 16.8	+0.2
	comp=Z,39nm,0.8s						
FETA				ePKP	PKPab	02 56 24.6	-0.5
	comp=Z,50nm,0.8s						
FETA				i PP	PP	02 59 50.5	-6.3
	comp=Z,12nm,1.1s						
PRK	Paraskevi	150.13	320	P	PKPbc	02 56 15.8	-0.9
KKB	Krupnik	150.14	327	P	PKPbc	02 56 15.7	-0.9
KKB	Krupnik	150.14	327	i P	PKPbc	02 56 16.7	+0.1
BLCB	Balcova	150.18	318	P	PKPbc	02 56 15.7	-1.0
BBLS	Lazi&#263i	150.30	334	⇓iP	PKPbc	02 56 17.0	0.0
PEHC	Pehcevo	150.31	328	i P	PKPbc	02 56 16.8	-0.3
JAVS	Javornik	150.39	343	i PKPbc	PKPbc	02 56 16.7	-0.5
BLY	Banja Luka	150.41	338	⇓iP	PKPbc	02 56 16.9	-0.2
SRS	Serrai	150.42	326	P	PKPbc	02 56 15.7	-1.6
SJES	Sjenica	150.55	333	⇓iP	PKPbc	02 56 17.8	+0.2
ARG	Arkhangelos	150.66	314	P	PKPbc	02 56 17.5	-0.5
PLE	Pljevlja	150.75	334	⇓iPKP	PKPbc	02 56 18.0	-0.1
OUR	Ouranopolis	150.75	324	P	PKPbc	02 56 16.5	-1.6
KNT	Kendrikon	150.76	327	P	PKiKP	02 56 20.6	+2.2
SOH	Sokhos	150.76	326	P	PKPbc	02 56 16.2	-1.9
CHOS	Chios island	150.79	319	P	PKPbc	02 56 17.6	-0.8
VAY	Valandovo	150.81	327	⇓iP	PKPbc	02 56 17.1	-1.0
IVA	Berane	150.90	332	⇓iPKP	PKPbc	02 56 18.2	-0.2
PLG	Polygyros	151.02	325	P	PKPbc	02 56 17.1	-1.6
HORT	Hortiatis	151.05	326	P	PKPbc	02 56 17.0	-1.9
UPM	Unac-Piva	151.05	334	eP	PKPbc	02 56 17.8	-1.1
UPM	Unac-Piva	151.05	334	⇓iPKP	PKPbc	02 56 18.0	-0.9
KOME	Kolasin	151.08	333	⇓iPKP	PKPbc	02 56 18.0	-0.8
PVY	Plav	151.09	332	⇓iPKP	PKPbc	02 56 18.5	-0.4
GRG	Griva	151.16	327	P	PKPbc	02 56 17.0	-2.0
PAIG	Paliouri	151.20	324	P	PKPbc	02 56 16.4	-2.7
KLINJ	Klinje	151.21	334	eP	PKPbc	02 56 18.4	-0.7
NKME	Niksic	151.39	334	⇓iPKP	PKPbc	02 56 19.0	-0.5
BRY	Bratogost	151.45	334	⇓iP	PKPbc	02 56 18.9	-0.8
BRY	Bratogost	151.45	334	⇓iPKP	PKPbc	02 56 19.1	-0.6
PDG	Podgorica	151.53	333	⇓iP	PKPbc	02 56 19.2	-0.5
PDG	Podgorica	151.53	333	⇓iPKP	PKPbc	02 56 18.8	-0.9
CEME	Cevo	151.59	333	⇓iPKP	PKPbc	02 56 19.3	-0.6
PHP	Peshkopia	151.59	330	P	PKPbc	02 56 19.2	-0.8
TREB	Trebinje	151.69	334	eP	PKPbc	02 56 19.2	-0.9
LIT	Litokhoron	151.73	326	P	PKPbc	02 56 18.9	-1.4
DRME	Dracevica, Mon	151.76	333	⇓iP	PKPbc	02 56 19.4	-0.9
DRME	Dracevica, Mon	151.76	333	⇓iPKP	PKPbc	02 56 18.9	-1.4
BUM	Brajici-Budva	151.80	333	⇓iPKP	PKPbc	02 56 19.0	-1.4
HCY	Herceg Novi	151.85	334	eP	PKPbc	02 56 19.6	-0.8
HCY	Herceg Novi	151.85	334	⇓iPKP	PKPbc	02 56 19.6	-0.8
OHR	Ohrid	151.86	329	⇓iP	PKPbc	02 56 20.6	+0.1
ULC	Ulcinj	151.91	332	⇓iPKP	PKPbc	02 56 18.3	-2.3
KBN	Korca	152.23	328	P	PKPbc	02 56 20.5	-1.0
VLC	Villacollemand	152.93	347	PKP	PKPbc	02 56 20.4	-2.3
IDI	Anoyia	153.37	315	PKP	PKPdf	02 56 16.7	+0.7
PCAB	Cabril	154.76	18	ePKPab	PKPab	02 56 46.4	+1.6
PBRG	Braganca	155.02	16	ePKPdf	PKPdf	02 56 17.2	-0.7
PBRG				ePKPab	PKPab	02 56 45.7	-0.3
PTO	Porto	155.10	19	ePKPab	PKPab	02 56 46.4	+0.1
POLO	Lamas de Olo	155.13	18	ePKPab	PKPab	02 56 45.9	-0.7
PVRL	Vila Real	155.25	18	ePKPab	PKPab	02 56 46.4	-0.5
PVIS	Viseu	155.71	19	ePKPdf	PKPdf	02 56 21.7	+2.8
PVIS				ePKPab	PKPab	02 56 49.0	0.0
MTE	Manteigas	156.10	18	ePKPdf	PKPdf	02 56 19.9	+0.5
MTE				ePKPab	PKPab	02 56 51.3	+0.6
PCAS	Casmilo, Conde	156.12	20	ePKPab	PKPab	02 56 50.5	-0.2
PSBE	So Bento	156.50	22	ePKPab	PKPab	02 56 53.1	+0.7
PCBR	Castelo Branco	156.64	19	ePKPdf	PKPdf	02 56 21.0	+0.9
PCBR				ePKPab	PKPab	02 56 53.2	+0.3
PSARD	Sardoal	156.64	20	ePKPdf	PKPdf	02 56 20.6	+0.5
PSARD				ePKPab	PKPab	02 56 52.6	-0.3
PMAFR	Mafra	156.82	23	ePKPab	PKPab	02 56 53.9	+0.1
PMRV	Marv??o	157.04	19	ePKPdf	PKPdf	02 56 20.6	0.0
PMRV				ePKPab	PKPab	02 56 55.0	+0.2
PMTG	Montargil	157.09	21	ePKPdf	PKPdf	02 56 21.0	+0.4
PMTG				ePKPab	PKPab	02 56 55.1	+0.2
UCM	Universidad Co	157.22	11	PKP	PKPdf	02 56 21.9	+1.0
PARRA	Arraiolos	157.38	21	ePKPdf	PKPdf	02 56 21.6	+0.6
PARRA				ePKPab	PKPab	02 56 56.4	+0.1
PESTR	Estremoz	157.49	20	ePKPab	PKPab	02 56 56.7	+0.1
EVO	Evora	157.65	21	ePKPdf	PKPdf	02 56 22.1	+0.7
EVO				ePKPab	PKPab	02 56 57.5	+0.2
ESDC	Sonseca Array	157.70	12	PKP	PKPdf	02 56 20.8	-0.7
	comp=Z,1.5nm,0.9s,baz=348,slow=3.9,SNR=12						
ESDC				PKPab	PKPab	02 56 56.8	-0.8
	comp=Z,9.0nm,0.9s,baz=344,slow=4.4,SNR=29						
ESDC	Sonseca Array	157.70	12		PKPdf	02 56 21.5	+0.1
PAB	San Pablo	157.74	13	PKIKP	PKPdf	02 56 21.7	+0.1
PAB	San Pablo	157.74	13		PKPdf	02 56 21.7	+0.1
PLOUS	Minas do Lousa	157.95	23	ePKPdf	PKPdf	02 56 22.8	+1.1
PLOUS				ePKPab	PKPab	02 56 59.0	+0.3
PBEJ	Beja	158.15	22	ePKPdf	PKPdf	02 56 23.2	+1.2
PBEJ				ePKPab	PKPab	02 56 60.0	+0.4
MESJ	Messejana	158.19	22	ePKPdf	PKPdf	02 56 22.7	+0.6
MESJ	Messejana	158.19	22	ePKPdf	PKPdf	02 56 22.4	+0.4
MESJ	Messejana	158.19	22	ePKIKP	PKPdf	02 56 22.5	+0.4
PTEO	Sao Teotonio	158.26	24	ePKPdf	PKPdf	02 56 23.0	+0.9
PTEO				ePKPab	PKPab	02 57 00.7	+0.6
PBAR	Barrancos	158.30	20	ePKPdf	PKPdf	02 56 22.0	-0.1
PBAR				ePKPab	PKPab	02 56 59.7	-0.5
PCVE	Castro Verde	158.44	22	ePKPab	PKPab	02 57 01.5	+0.7
MORF	Marmelete	158.50	24	ePKPdf	PKPdf	02 56 23.0	+0.6
MORF	Marmelete	158.50	24	ePKPdf	PKPdf	02 56 23.6	+1.1
MORF	Marmelete	158.50	24	ePKIKP	PKPdf	02 56 23.6	+1.1
PVAQ	Vaqueiros	158.76	22	ePKPab	PKPab	02 57 02.9	+0.6
KEST	Kesra	161.13	341	PKP	PKPdf	02 56 24.8	-0.7
	comp=Z,5.2nm,0.9s,baz=38,slow=8.2,SNR=5.6						
KEST				PKPab	PKPab	02 57 12.3	-0.4
	comp=Z,41nm,1.0s,baz=337,slow=2.2,SNR=24						
MD01	Midelt array s	163.89	21		PKPdf	02 56 29.2	+0.9
DBIC	Dimbokro	166.92	148	PKP	PKPdf	02 56 29.9	-1.3
	comp=Z,2.2nm,0.7s,baz=151,slow=3.2,SNR=3.6						
DBIC				PKPab	PKPab	02 57 38.6	-0.1
	comp=Z,12nm,0.8s,baz=221,slow=5.5,SNR=10						
TORD	Torodi Ar. Bea	175.24	175	PKP	PKPdf	02 56 34.2	-1.0
	comp=Z,6.1nm,1.0s,baz=332,slow=0.9,SNR=19						
TORD				PKPab	PKPab	02 58 15.4	0.0
	comp=Z,6.0nm,0.9s,baz=184,slow=3.9,SNR=15						

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*NIED **12** 02:37:59.6, 36.°53N×140.°70E, h54km, MW3.9, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}4.59; $M_{\theta\theta}$0.64; $M_{\phi\phi}$-5.23; $M_{r\theta}$1.43; $M_{\theta\phi}$-2.10; $M_{\phi r}$7.02; Fault plane solution: $M_0$8.89000×10^{14} NP1: ϕ_s206.00000°, δ19.00000°, λ104.00000°. NP2: ϕ_s12.00000°, δ72.00000°, λ86.00000°.*

*JMA **12** 02:37:59.6±0.1, 36.°5N±0.°2×140.°7E±0.°6, h54km, MD4.0/35, MV4.1/35, NORTHERN IBARAKI PREF*

JMA Felt III J1 at NORTHERN IBARAKI PREF .

*IDC **12** 02:38:00.1±1.9, 36.°42N×140.°87E, h70km±17km, mb3.7/11, mbtmp4.0/16, Error ellipse: s-maj=19.2km s-min=12.1km az=65.0*

*NEIC **12** 02:38:00.5±2.0, 36.°47N±0.°07×140.°77E±0.°10, h64km±9km, mb4.4/8, Error ellipse: s-maj=11.6km s-min=10.0km az=102.0*

ISC 12 02:37:59.3±0.9, **36.°51N**±0.°05×**140.°81E**±0.°08, **h53**km±6km, **n57**, σ**1.°19**/54, **mb4.0**/15, **4D**, **Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHO	Hitachi	0.22	296	P	Pn	02 38 08.2	+0.1
JHO				A	A	02 38 08.2	
	comp=N,26nm,0.2s,comp=E,69nm,0.2s						
JHO				S	Sn	02 38 13.9	-0.5
JHYU	Hitachinakayam	0.25	227	*i* P	Pn	02 38 08.5	+0.2
JHYU				A	A	02 38 08.5	
	comp=N,73nm,0.3s,comp=E,89nm,0.3s						
JHYU				*e*S	Sn	02 38 14.6	-0.1
JYT	Yasato	0.58	241	⇓P	Pn	02 38 11.1	-0.5
JYT				A	A	02 38 11.1	
	comp=N,44nm,0.3s,comp=E,46nm,0.5s						
JYT				⇓S	Sn	02 38 19.0	-1.6
ONAJ	Iwakimizuishiy	0.59	359	*i* P	Pn	02 38 11.6	-0.2
ONAJ				S	Sn	02 38 20.2	-0.7
JCAJ	Choshiashikaji	0.79	177	A	A	02 38 15.1	
	comp=N,5.0nm,0.4s,comp=E,6.0nm,0.8s						
JSB	Shiboa	0.85	303	A	A	02 38 14.5	
	comp=N,5.0nm,0.9s,comp=E,4.0nm,4.3s						
JFK	Kawauchi	0.85	3	*i* P	Pn	02 38 14.8	-0.4
JFK				S	Sn	02 38 25.7	-1.2
JAG	Ashikaga	1.10	266	⇓*i*P	Pn	02 38 17.8	-0.6
JOTO	OTAMA OYAMA	1.11	340	*i* P	Pn	02 38 18.7	+0.1
JFY	Yanaizu	1.26	315	⇓*i*P	Pn	02 38 20.4	-0.2
MJAR	Matsushiro Arr	2.10	272	P	Pn	02 38 31.6	-0.4
	comp=E,51nm,0.3s,baz=100,slow=11,SNR=415						
MJAR				S	Sn	02 39 00.0	+3.1
	comp=E,54nm,0.4s,baz=88,slow=30,SNR=3.7						
MJAR	Matsushiro Arr	2.10	272		Pn	02 38 31.8	-0.2
MAJO	Matsushiro	2.10	272		Pn	02 38 32.3	+0.2
MJB9	Matsu-Tunnel	2.10	272		Pn	02 38 32.3	+0.2
JGF	Kuroka	2.94	253		Pn	02 38 45.1	+1.5
JHJ	Hachijo jima 2	3.49	194	P	Pn	02 38 51.8	+0.8
	comp=E,62nm,0.4s,baz=277,slow=22,SNR=14						
JHJ				S	Sn	02 39 30.5	-0.6
	comp=E,170nm,0.2s,baz=67,slow=23,SNR=8.0						
JHJ2	Mitsune	3.49	194	Pn	Pn	02 38 52.0	+0.9
JTM	Tenmabayashi	4.27	3	Pn	Pn	02 39 03.6	+1.9
ERM	Erimo	5.79	18	Pn	Pn	02 39 22.9	+0.5
ASAJ	Asahikawa	7.71	10	P	Pn	02 39 49.6	+0.8
	comp=E,4.0nm,0.3s,baz=174,slow=25,SNR=5.1						
JKA	Kamikawa-asahi	7.71	10		Pn	02 39 49.0	+0.1
USRK	Ussuriysk Ar.	10.21	321	P	Pn	02 40 24.8	+1.8
	comp=E,3.1nm,0.8s,baz=110,slow=12,SNR=2.8						
KSRS	Korea Array	10.36	279	P	Pn	02 40 27.5	+2.4
	comp=E,2.0nm,0.7s,baz=93,slow=14,SNR=2.9						
SONM	Songino Array	27.68	305	P	P	02 43 42.3	0.0
	comp=E,1.2nm,0.7s,baz=105,slow=9.4,SNR=4.9						
	comp=E,1.2nm,0.7s						
H11N2	WAKE ISLAND Hy	28.30	119	T	T	03 13 44.5	
	baz=313,slow=75,SNR=8.3						
H11N1	WAKE ISLAND Hy	28.31	119	T	T	03 13 47.7	
	baz=313,slow=75,SNR=13						
H11N3	WAKE ISLAND Hy	28.32	119	T	T	03 13 50.9	
	baz=313,slow=75,SNR=13						
H11S1	WAKE ISLAND Hy	28.99	121	T	T	03 14 42.2	
	baz=314,slow=75,SNR=39						
H11S3	WAKE ISLAND Hy	28.99	121	T	T	03 14 42.8	
	baz=314,slow=75,SNR=28						
H11S2	WAKE ISLAND Hy	29.01	121	T	T	03 14 41.3	
	baz=314,slow=75,SNR=27						
ZALV	Zalesovo Beam	41.91	313	P	P	02 45 44.1	-0.1
	comp=E,1.3nm,0.4s,baz=85,slow=6.6,SNR=7.2						
	comp=E,1.3nm,0.4s						
ZALV	Zalesovo Beam	41.91	313	P	P	02 45 40.6	-3.7
MKAR	Makanchi Array	43.99	302	P	P	02 46 01.6	+0.3
	comp=E,0.8nm,0.8s,baz=88,slow=11,SNR=4.1						
	comp=E,0.8nm,0.8s						
MKAR	Makanchi Array	43.99	302	P	P	02 46 01.2	-0.1
KURK	Kurchatov	45.88	308	P	P	02 46 16.1	0.0
KURK				IAmb	IAmb	02 46 17.7	
	comp=Z,2.0nm,0.7s						
KURBB	Kurchatov Arra	45.94	308	P	P	02 46 15.5	-1.1
	comp=Z,1.5nm,0.5s,baz=84,slow=8.2,SNR=15						
	comp=Z,1.5nm,0.5s						
PDGK	Podgornoye	46.59	298	P	P	02 46 22.2	+0.2
ILAR	Eielson Array	50.19	32	P	P	02 46 49.7	+0.5
	comp=Z,0.8nm,0.7s,baz=271,slow=6.2,SNR=10						
	comp=Z,0.8nm,0.7s						
YAH	Yahtse	53.05	37	P	P	02 47 12.8	+1.9
YAH				IAmb	IAmb	02 47 20.7	
	comp=Z,8.7nm,1.4s						
I28M	Miner Creek	53.06	31	P	P	02 47 12.2	+1.5
I28M				IAmb	IAmb	02 47 33.9	
	comp=Z,4.2nm,1.4s						
I30M	Mount Dempster	54.57	31	P	P	02 47 24.5	+2.7
I30M				IAmb	IAmb	02 47 25.1	
	comp=Z,4.0nm,0.9s						
ARTI	Arti	56.54	319	P	P	02 47 35.2	-0.7
AB31	Akbulak array	57.91	310	P	P	02 47 44.7	-1.0
ABKAR	Akbulak array	57.91	310	P	P	02 47 43.4	-2.3
FINES	FINESS Array B	69.05	332	P	P	02 48 58.7	-0.3
	comp=Z,1.9nm,0.7s,baz=35,slow=7.0,SNR=8.1						
	comp=Z,1.9nm,0.7s						
FINES	FINESS Array B	69.05	332	P	P	02 48 58.0	-0.9
KBZ	Khabaz	70.88	311	P	P	02 49 09.7	-0.8
	comp=Z,1.4nm,0.8s,baz=18,slow=2.0,SNR=4.0						
	comp=Z,1.4nm,0.8s						
NC405	NORSAR Array S	74.27	337	P	P	02 49 30.2	-0.1
AKASG	Malin Array Be	74.41	322	P	P	02 49 30.8	-0.6
	comp=Z,0.9nm,0.5s,baz=50,slow=4.5,SNR=5.6						
	comp=Z,0.9nm,0.5s						
NB2	NORSAR Subarra	74.48	337	P	P	02 49 31.5	-0.2
	comp=Z,0.8nm,0.6s,baz=42,slow=5.9						
NOA	NORSAR Array B	74.48	337	P	P	02 49 31.1	-0.6
	comp=Z,1.2nm,0.6s,baz=39,slow=5.7,SNR=5.3						
	comp=Z,1.2nm,0.6s						
BURAR	Bucovina Array	78.42	321	P	P	02 49 54.1	-0.2
BRTR	Keskin Array B	78.83	311	P	P	02 49 56.4	-0.4
	comp=Z,0.6nm,0.8s,baz=69,slow=6.8,SNR=4.1						
	comp=Z,0.6nm,0.8s						
CLL	Collm	81.31	330	*i* P	P	02 50 09.6	-0.1
GERES	GERESS Array B	82.90	328	P	P	02 50 17.8	-0.4
	comp=Z,0.4nm,0.3s,baz=46,slow=5.8,SNR=6.2						
	comp=Z,0.4nm,0.3s						
H03N2	Juan Fernandez	147.44	97	T	T	05 42 46.6	
	baz=324,slow=74,SNR=12						
H03N1	Juan Fernandez	147.46	97	T	T	05 42 51.2	
	baz=298,slow=74,SNR=17						

JMA ***12*** *02:44:09.7±0.1, 38°.7N±0°.2×142°.3E±0°.2, h43^{km}, MD6.2/32, MW6.1/32, E OFF MIYAGI PREF*

JMA Felt IV J1 at E OFF MIYAGI PREF .

MOS ***12*** *02:44:09.0±0.9, 38°.78N×142°.30E, h39^{km}, mb6.2/84, MS6.1/49, Error ellipse: s-maj=5.7km s-min=4.0km az=107.0*

MOS Felt (II) at Goryachiy Plyazh, Yuzhno-Kuril'sk.

NIED ***12*** *02:44:09.7, 38°.72N×142°.27E, h43^{km}, MW6.1, Moment Tensor Solution. s3 Moment tensor: Scale 10^{18}Nm; M_{rr}0.97; $M_{\theta\theta}$0.21; $M_{\phi\phi}$-1.18; $M_{r\theta}$0.49; $M_{\theta\phi}$-0.35; $M_{\phi r}$1.11; Fault plane solution: $M_0$1.65000×10^{18} NP1: ϕ_s180.00000°, δ22.00000°, λ70.00000°. NP2:ϕ_s22.00000°, δ69.00000°, λ98.00000°.*

BJI ***12*** *02:44:09.3, 38°.75N×142°.14E, h48^{km}, mB6.0/71, mb6.1/93, Ms6.2/99, Ms7 6.2/97*

ISC-PP ***12*** *02:44:11, 38°.75N×142°.25E, h35^{km}±2^{km}, Mwppsm6.4, Moment Tensor Solution. s44 Moment tensor: Scale 10^{18}Nm; M_{rr}0.69±.26; $M_{\theta\theta}$-0.52±.27; $M_{\phi\phi}$-0.05±.19; $M_{r\theta}$0.10±.18; $M_{\theta\phi}$0.12±.18; $M_{\phi r}$0.31±.30; Fault plane solution: $M_0$4.95000×10^{18} NP1:ϕ_s103.50000°, δ48.20000°, λ71.70000°. NP2:ϕ_s309.90000°, δ45.00000°, λ109.30000°.*

IPGP ***12*** *02:44:11.0, 38°.76N×142°.25E, h40^{km}, Mw6.1, Fault plane solution: NP1:ϕ_s187.00000°, δ23.00000°, λ78.00000°. NP2:ϕ_s20.00000°, δ68.00000°, λ95.00000°.*

NEIC ***12*** *02:44:11, 38°.76N×142°.25E, h32^{km}*

NEIC ***12*** *02:44:11.2±2.0, 38°.75N±0°.04×142°.25E±0°.09, h34^{km}±1^{km}, mb5.8/856, Ms_20 5.7/526, Mwb6.0/195, Mww6.1/30, Error ellipse: s-maj=12.5km s-min=6.1km az=105.0, Moment Tensor Solution. Moment tensor: Scale 10^{18}Nm; M_{rr}0.83; $M_{\theta\theta}$-0.03; $M_{\phi\phi}$-0.80; $M_{r\theta}$0.44; $M_{\theta\phi}$0.07; $M_{\phi r}$0.83; Fault plane solution: $M_0$1.25000×10^{18} NP1:ϕ_s17.73000°, δ70.13000°, λ104.96000°. NP2:ϕ_s159.56000°, δ24.68000°, λ54.46000°. Principal axes: T 1.3193, Plg62.0000°, Azm311.0000°; N -0.1534, Plg14.0000°, Azm193.0000°; P -1.1659, Plg24.0000°, Azm96.0000°;*

BGR ***12*** *02:44:11.9, 38°.83N×142°.91E, h33^{km}, mb6.0, Ms6.0*

NEIC ***12*** *02:44:11, 38°.76N×142°.25E, h32^{km}*

GFZ ***12*** *02:44:12.0, 38°.74N×142°.17E, h42^{km}, Mw6.1/260, Moment Tensor Solution. Moment tensor: Scale 10^{18}Nm; M_{rr}0.94; $M_{\theta\theta}$0.02; $M_{\phi\phi}$-0.96; $M_{r\theta}$0.51; $M_{\theta\phi}$-0.32; $M_{\phi r}$1.21; Fault plane solution: $M_0$1.65347×10^{18} NP1: ϕ_s190.10817°, δ18.91752°, λ78.93480°. NP2:ϕ_s21.78826°, δ71.44713°, λ93.76330°. Principal axes: T 1.5994, Plg63.3675°, Azm297.7310°; N 0.1033, Plg3.5675°, Azm200.5893°; P -1.7027, Plg26.3547°, Azm108.8194°;*

GFZ ***12*** *02:44:12.0±0.1, 39°N±2°×14°2E±°, h40^{km}±1^{km}, M6.0/137, mB6.4/109, mb6.0/137, Mw(mB)6.1/109, MwMwp5.9/90, Mwp6.0/90 Error ellipse: s-maj=4.6km s-min=3.0km az=122.9, confirmed*

PTWC ***12*** *02:44:12, 38°.80N×142°.20E, h51^{km}, Mwp6.0/11*

IDC ***12*** *02:44:12.8±1.4, 38°.77N×142°.15E, h55^{km}±11^{km}, mb5.4/38, mbtmp5.7/46, MS5.7/87, Error ellipse: s-maj=10.4km s-min=7.1km az=96.0*

NEIC ***12*** *02:44:14.4, 38°.56N×142°.50E, h36^{km}, Moment Tensor Solution. Duration: 5^{s}7 Moment tensor: Scale 10^{18}Nm; M_{rr}0.62; $M_{\theta\theta}$0.12; $M_{\phi\phi}$-0.75; $M_{r\theta}$0.57; $M_{\theta\phi}$0.08; $M_{\phi r}$1.30; Fault plane solution: $M_0$1.58000×10^{18} NP1: ϕ_s151.83000°, δ17.22000°, λ42.77000°. NP2:ϕ_s20.37000°, δ78.40000°, λ102.82000°. Principal axes: T 1.6030, Plg55.0000°, Azm306.0000°; N -0.0383, Plg13.0000°, Azm198.0000°; P -1.5646, Plg32.0000°, Azm100.0000°;*

GCMT ***12*** *02:44:15.2±0.1, 38°.70N×142°.18E, h43^{km}, MW6.1/172, Moment Tensor Solution. s167,c393; s172,c624; Duration: 2^{s}8 Moment tensor: Scale 10^{18}Nm; M_{rr}1.35±.01; $M_{\theta\theta}$0.02±.01; $M_{\phi\phi}$-1.37±.01; $M_{r\theta}$0.54±.01; $M_{\theta\phi}$-0.37±.01; $M_{\phi r}$1.30±.01; Best double couple: $M_0$1.99200×10^{18} NP1:ϕ_s187.00000°, δ23.00000°, λ78.00000°. NP2:ϕ_s20.00000°, δ68.00000°, λ95.00000°. Principal axes: T 1.9440, Plg67.0000°, Azm300.0000°; N 0.0970, Plg5.0000°, Azm198.0000°; P -2.0390, Plg22.0000°, Azm106.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s. Triangular moment-rate function*

ISC 12 02:44:11.4±0.2**, 38°.77N**±0°.02×**142°.13E**±0°.03**, h39**^{km}±2^{km}**, h39**^{km}**:pP-P, n2219,** σ1^s**65**/1726**, mb5.9**/802**, MS5.7**/408**, 157C-70D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OFUJ	Ofunato	0.48	311	⇓*i*P	Pn	02 44 21.7	0.0
OFUJ				A	A	02 44 21.7	
	comp=N,2µm,3.9s,comp=E,2µm,0.7s						
OFUJ				⇓S	Sn	02 44 30.8	+1.7
JKMT	Kesennumamotoy	0.52	275	⇓*i*P	Pn	02 44 22.2	-0.1
JKMT				A	A	02 44 22.2	
	comp=N,796nm,1.6s,comp=E,2µm,1.4s						
JKMT				⇓*e*S	Sn	02 44 30.9	+1.0
JIO	Ouri	0.69	243	⇓*i*P	Pn	02 44 24.0	-0.7
JIO				A	A	02 44 24.0	
	comp=N,2µm,2.9s,comp=E,782nm,3.5s						
JIO				⇓S	Sn	02 44 34.2	+0.1
JMK	Ichinoseki	0.73	285	⇓*i*P	Pn	02 44 25.6	+0.3
JMK				A	A	02 44 25.6	
	comp=N,464nm,1.4s,comp=E,715nm,0.8s						
JMK				⇓S	Sn	02 44 36.8	+1.6
MIYJ	Miyakonagasawa	0.84	343	A	A	02 44 26.4	
	comp=N,713nm,0.8s,comp=E,645nm,1.5s						
JOM	Ohasama	0.96	317	⇓*i*P	Pn	02 44 28.8	+0.5
JOM				A	A	02 44 28.8	
	comp=N,795nm,3.0s,comp=E,822nm,2.3s						
JOM				⇓*e*S	Sn	02 44 41.7	+0.9
JOFO	Osakifurukawao	0.97	261	A	A	02 44 28.6	
	comp=N,4µm,1.4s,comp=E,5µm,2.3s						
JTH	Tanohata	1.19	350	A	A	02 44 31.3	
	comp=N,280nm,1.2s,comp=E,533nm,2.6s						
JOU	Okura	1.22	251	A	A	02 44 32.1	
	comp=N,1µm,1.9s,comp=E,1µm,2.1s						
JSZI	Iwateshizukuis	1.33	317	A	A	02 44 34.0	
	comp=N,2µm,2.0s,comp=E,2µm,1.8s						
JKZ	Kuzumaki	1.36	333	A	A	02 44 34.3	
	comp=N,571nm,2.7s,comp=E,850nm,2.8s						
JMM	Marumori	1.39	230	A	A	02 44 34.0	
	comp=N,768nm,1.9s,comp=E,427nm,2.9s						
JYK	Kaneyama	1.39	277	A	A	02 44 35.0	
	comp=N,504nm,3.2s,comp=E,936nm,4.0s						
JMST	Minamisoumatoc	1.43	224	A	A	02 44 34.5	
	comp=N,443nm,3.5s,comp=E,305nm,2.0s						
JKEN	Kujiedanarisaw	1.47	347	A	A	02 44 35.5	
	comp=N,915nm,0.8s,comp=E,591nm,0.8s						
JANG	Nango	1.67	344	A	A	02 44 38.5	
	comp=N,285nm,3.2s,comp=E,309nm,4.0s						
JYW	Yuwa	1.68	298	A	A	02 44 39.2	
	comp=N,1µm,3.5s,comp=E,1µm,1.9s						
JYS	Shirataka	1.71	252	A	A	02 44 39.2	
	comp=N,1µm,1.6s,comp=E,667nm,2.0s						
JYYZ	Yamagatayuza	1.73	279	A	A	02 44 39.9	
	comp=N,1µm,3.8s,comp=E,3µm,3.6s						
JYAR	Yonezawaarcadi	1.78	242	A	A	02 44 40.0	
	comp=N,676nm,1.0s,comp=E,718nm,2.4s						
JAH	Hinai	1.83	321	A	A	02 44 41.1	
	comp=N,522nm,3.6s,comp=E,439nm,3.2s						
JOTO	OTAMA OYAMA	1.86	230	A	A	02 44 40.9	
	comp=N,813nm,3.0s,comp=E,579nm,1.3s						
JYA	Atsumi	1.90	265	A	A	02 44 42.2	
	comp=N,374nm,2.6s,comp=E,450nm,0.7s						
ONAJ	Iwakimizuishiy	1.97	213	A	A	02 44 42.0	
	comp=N,223nm,1.7s,comp=E,242nm,4.3s						
JTB	Tobi-shima	2.05	283	A	A	02 44 44.5	
	comp=N,375nm,4.8s,comp=E,485nm,3.6s						
JFFD	Fukushimafurud	2.08	217	A	A	02 44 43.7	
	comp=N,164nm,1.7s,comp=E,218nm,2.5s						
JNTW	Noshirotokiwa	2.14	315	A	A	02 44 45.6	
	comp=N,2µm,2.2s,comp=E,3µm,2.8s						
JTM	Tenmabayashi	2.18	338	P	Pn	02 44 48.3	+3.2
JTM	Tenmabayashi	2.18	338	S	Sn	02 45 13.1	+2.3
JTM	Tenmabayashi	2.18	338		Pn	02 44 46.6	+1.6
JTM	Tenmabayashi	2.18	338	P	Pn	02 44 47.6	+2.5
JTM	Tenmabayashi	2.18	338	⇑P	Pn	02 44 46.0	+1.0
JTM	Tenmabayashi	2.18	338	P	Pn	02 44 47.4	+2.3
JAW	Awa shima	2.28	263	A	A	02 44 47.5	
	comp=N,724nm,5.0s,comp=E,264nm,3.4s						
JARK	Aomorirokkasho	2.31	345	A	A	02 44 47.5	
	comp=N,220nm,1.5s,comp=E,221nm,3.3s						
JHHS	Hirosakihyakuz	2.33	325	A	A	02 44 48.1	
	comp=N,2µm,5.1s,comp=E,2µm,4.7s						
JFY	Yanaizu	2.35	235	A	A	02 44 48.0	
	comp=N,326nm,2.2s,comp=E,309nm,3.1s						
JNS	Sasagawa	2.41	248	A	A	02 44 49.1	
	comp=N,783nm,4.7s,comp=E,315nm,3.7s						
JIW	Iwasaki	2.45	319	A	A	02 44 50.1	
	comp=N,696nm,4.2s,comp=E,473nm,4.3s						
JHO	Hitachi	2.48	210	A	A	02 44 49.2	
	comp=N,104nm,1.2s,comp=E,137nm,4.6s						
JSB	Shiboa	2.51	225	A	A	02 44 50.0	
	comp=N,643nm,3.8s,comp=E,548nm,4.3s						
JAHD	Aomorihigashid	2.57	347	A	A	02 44 51.1	
	comp=N,380nm,1.6s,comp=E,414nm,1.1s						
JOG3	Oga3	2.63	297	A	A	02 44 45.7	
	comp=N,655nm,3.1s,comp=E,390nm,4.2s						
JSI2	Shiura 2	2.64	330	A	A	02 44 52.5	
	comp=N,698nm,1.8s,comp=E,678nm,4.7s						
JHYU	Hitachinakayam	2.72	207	A	A	02 44 52.4	
	comp=N,128nm,2.0s,comp=E,140nm,3.7s						
JOT	Ohata	2.74	343	A	A	02 44 53.7	
	comp=N,143nm,4.9s,comp=E,208nm,4.3s						
JUON	Uonuma	2.89	238	A	A	02 44 55.7	
	comp=N,188nm,4.1s,comp=E,145nm,5.0s						
JIZZ	Izumozaki	2.97	246	A	A	02 44 57.0	
	comp=N,1µm,4.2s,comp=E,925nm,6.1s						
JYT	Yasato	2.97	212	A	A	02 44 56.1	
	comp=N,180nm,1.7s,comp=E,165nm,1.9s						
JKT	Katashina	3.04	230	A	A	02 44 57.7	
	comp=N,294nm,3.1s,comp=E,220nm,3.1s						
JSR	Shiriuchi	3.05	335	A	A	02 44 58.3	
	comp=N,418nm,2.8s,comp=E,340nm,4.8s						
JIHU	Itakohorinouch	3.08	205	A	A	02 44 57.4	
	comp=N,634nm,2.7s,comp=E,777nm,2.1s						
JAG	Ashikaga	3.16	223	A	A	02 44 59.2	
	comp=N,157nm,3.5s,comp=E,136nm,3.1s						
JOMM	Oshimamatsumae	3.20	330	A	A	02 45 00.4	
	comp=N,366nm,3.1s,comp=E,283nm,3.7s						
JCAJ	Choshiashikaji	3.21	199	A	A	02 44 59.1	
	comp=N,177nm,3.0s,comp=E,176nm,3.5s						
JKB	Kayabe	3.23	345	A	A	02 45 00.5	
	comp=N,102nm,2.2s,comp=E,180nm,4.3s						
ERM	Erimo	3.34	13	P	Pn	02 45 01.9	+0.9
ERM	Erimo	3.34	13	*ce*P	Pn	02 45 01.3	+0.3
ERM				pmax	pmax		
	comp=Z,787nm,1.0s						
ERM	Erimo	3.34	13		Pn	02 45 00.3	-0.7
ERM	Erimo	3.34	13	P	Pn	02 45 00.9	0.0
ERM	Erimo	3.34	13	⇑P	Pn	02 45 00.3	-0.7
ERM	Erimo	3.34	13	P	Pn	02 45 01.0	0.0
JEM	Erimo	3.34	13	P	Pn	02 45 01.9	+0.9
JEM	Erimo	3.34	13	A	A	02 45 01.4	
	comp=N,102nm,3.6s,comp=E,93nm,4.3s						
JGK	Kuni	3.54	233	A	A	02 45 04.8	
	comp=N,229nm,3.6s,comp=E,144nm,4.7s						
JNBK	Urakawa-nobuka	3.54	7	A	A	02 45 04.4	
	comp=N,347nm,3.8s,comp=E,178nm,4.1s						
JJN	Nakama	3.55	243	A	A	02 45 05.2	
	comp=N,280nm,5.5s,comp=E,230nm,4.4s						
JYM2	Yakumo 2	3.60	339	A	A	02 45 06.0	
	comp=N,137nm,5.2s,comp=E,123nm,3.6s						
TOK	Tokyo	3.61	212	A	A	02 45 05.2	
	comp=N,471nm,4.7s,comp=E,466nm,5.6s						
JTHR	Tokachihiroo	3.63	14	A	A	02 45 05.4	
	comp=N,66nm,2.2s,comp=E,102nm,3.8s						
JSHD	Hidakashinhida	3.65	4	A	A	02 45 06.0	
	comp=N,308nm,5.5s,comp=E,252nm,2.5s						
JCCN	Chibachonan	3.70	205	A	A	02 45 06.3	
	comp=N,519nm,2.5s,comp=E,424nm,5.3s						
JHU2	Hanno	3.70	219	A	A	02 45 06.7	
	comp=N,107nm,2.8s,comp=E,94nm,1.2s						
I30JP	ISUMI INFRASON	3.75	203	P	Pn	02 45 07.6	+0.9
	baz=8.1,slow=13,SNR=1.3						
JRY	Ryogami san	3.76	224	A	A	02 45 07.7	
	comp=N,149nm,4.7s,comp=E,102nm,5.5s						
MAJO	Matsushiro	3.83	236	P	Pn	02 45 08.1	+0.3
MAJO	Matsushiro	3.83	236	S	Sn	02 45 50.8	-0.7
MAJO	Matsushiro	3.83	236	P	Pn	02 45 09.2	+1.5
MAJO	Matsushiro	3.83	236		Pn	02 45 09.2	+1.5
MAJO	Matsushiro	3.83	236	P	Pn	02 45 09.4	+1.7
MAJO	Matsushiro	3.83	236	⇓P	Pn	02 45 09.2	+1.5
MAJO	Matsushiro	3.83	236	P	Pn	02 45 09.5	+1.7
MJAR	Matsushiro Arr	3.83	236	P	Pn	02 45 09.1	+1.3
	comp=E,3µm,0.7s,baz=37,slow=12,SNR=462						
MJAR				S	Sn	02 45 55.4	+3.9
	comp=E,2µm,0.7s,baz=45,slow=14,SNR=4.4						
MJAR				LR	LR	02 46 51.1	
	comp=E,254µm,20.1s,baz=64,slow=41						
MJB9	Matsu-Tunnel	3.83	236		Pn	02 45 09.2	+1.5
MJB9	Matsu-Tunnel	3.83	236	P	Pn	02 45 09.4	+1.6
JIAM	Iburiatsuma	3.85	358	A	A	02 45 09.0	
	comp=N,323nm,4.8s,comp=E,207nm,3.4s						
JOSM	Okushiri--Mats	3.88	329	A	A	02 45 10.1	
	comp=N,179nm,3.7s,comp=E,195nm,4.3s						
JKUC	kamogawauchiur	3.92	204	A	A	02 45 09.3	
	comp=N,272nm,2.8s,comp=E,268nm,3.0s						
JSGW	Sagamiharawaka	3.93	217	A	A	02 45 09.8	
	comp=N,122nm,2.9s,comp=E,134nm,2.1s						
JCH	Churui	3.95	13	A	A	02 45 10.1	
	comp=N,120nm,3.0s,comp=E,97nm,3.6s						
JSZ	Suzu	3.98	252	A	A	02 45 11.5	
	comp=N,116nm,4.4s,comp=E,121nm,3.3s						
JHST	Hiyamasetana	4.03	336	A	A	02 45 12.1	
	comp=N,177nm,4.4s,comp=E,141nm,3.8s						
JYO	Yokosk	4.05	210	A	A	02 45 11.3	
	comp=N,234nm,2.4s,comp=E,297nm,2.4s						
JEW	Eniwo	4.10	353	A	A	02 45 12.7	
	comp=N,133nm,4.2s,comp=E,149nm,3.4s						
TATJ	Tateyama 2	4.14	206	A	A	02 45 12.4	
	comp=N,612nm,2.5s,comp=E,750nm,2.6s						
JSH	Shimam	4.18	338	A	A	02 45 14.2	
	comp=N,56nm,5.4s,comp=E,123nm,3.4s						
JOD2	Odawara 2	4.26	216	A	A	02 45 14.5	
	comp=N,210nm,2.4s,comp=E,181nm,2.6s						
JNT	Takato	4.30	229	A	A	02 45 15.5	
	comp=N,117nm,5.5s,comp=E,91nm,2.1s						
JOB	Onbets	4.33	17	A	A	02 45 15.2	
	comp=N,166nm,2.8s,comp=E,145nm,2.9s						
JYN	Shimob	4.34	222	A	A	02 45 15.9	
	comp=N,279nm,1.8s,comp=E,128nm,2.5s						
JTT	Ttatey	4.38	242	A	A	02 45 16.7	
	comp=N,122nm,3.6s,comp=E,178nm,3.0s						
JFR	Furan	4.41	4	A	A	02 45 16.7	
	comp=N,56nm,2.3s,comp=E,50nm,4.3s						
JFNN	Fujinakano	4.51	219	A	A	02 45 18.0	
	comp=N,207nm,5.2s,comp=E,216nm,3.1s						
JISS	Ishikarishitsu	4.54	353	A	A	02 45 18.7	
	comp=N,145nm,3.6s,comp=E,129nm,3.0s						
JHTM	Izuhatsuma	4.55	214	A	A	02 45 18.5	
	comp=N,294nm,1.3s,comp=E,285nm,1.8s						
JIM2	Oshima 3	4.59	209	A	A	02 45 18.9	
	comp=N,148nm,4.8s,comp=E,151nm,3.5s						
JGN	Niukaw	4.60	238	A	A	02 45 19.8	
	comp=N,80nm,5.3s,comp=E,71nm,3.7s						
JAK	Akkeshi	4.65	24	A	A	02 45 19.5	
	comp=N,80nm,2.3s,comp=E,120nm,2.5s						
JAR	Ashorobuto	4.69	15	A	A	02 45 20.4	
	comp=N,80nm,2.1s,comp=E,85nm,3.7s						
JAB	Ashibetsu	4.73	1	A	A	02 45 21.3	
	comp=N,160nm,1.4s,comp=E,121nm,1.5s						
JSK	Shakotan	4.75	345	A	A	02 45 21.9	
	comp=N,50nm,3.5s,comp=E,80nm,4.7s						
JIZS	Izushimoda	4.81	214	A	A	02 45 22.1	
	comp=N,77nm,2.0s,comp=E,80nm,1.6s						
JTHY	Toshimahigashi	4.81	209	A	A	02 45 22.0	
	comp=N,160nm,4.9s,comp=E,173nm,5.8s						
JNY	Yasuok	4.82	226	A	A	02 45 22.7	
	comp=N,329nm,1.7s,comp=E,140nm,2.6s						
SHZ3	Shizuoka 3	4.85	222	A	A	02 45 22.9	
	comp=N,91nm,2.6s,comp=E,112nm,1.2s						
JKHN	Kushirohamanak	4.88	27	A	A	02 45 22.6	
	comp=N,59nm,3.5s,comp=E,74nm,3.5s						
JGF	Kuroka	4.95	232	P	Pn	02 45 24.0	+0.7
JGF	Kuroka	4.95	232	S	Sn	02 46 18.6	-0.7
JGF	Kuroka	4.95	232		Pn	02 45 25.8	+2.6
JGF	Kuroka	4.95	232	P	Pn	02 45 26.1	+2.8
JGF	Kuroka	4.95	232	⇑P	Pn	02 45 25.9	+2.6
JGF	Kuroka	4.95	232	P	Pn	02 45 26.2	+2.9
	comp=Z,62µmcomp=Z,7µm,0.9s,comp=Z,108µm						
JNIO	Niijimaoohara	4.97	208	A	A	02 45 24.1	
	comp=N,169nm,2.4s,comp=E,131nm,2.9s						
JHR	Hokuryu	4.98	357	A	A	02 45 24.9	
	comp=N,113nm,4.3s,comp=E,105nm,3.3s						
JKK2	Kamakawa 2	5.12	5	A	A	02 45 26.7	
	comp=N,54nm,3.0s,comp=E,57nm,2.7s						
JMYK	Miyake Tsubota	5.14	205	A	A	02 45 26.4	
	comp=N,66nm,3.6s,comp=E,84nm,4.3s						
JKO	Kozu shima	5.17	209	A	A	02 45 27.0	
	comp=N,165nm,3.5s,comp=E,154nm,4.3s						
JSG	Sagara	5.17	219	P	Pn	02 45 27.0	+0.8
	comp=E,5µm,0.7s						
JSG				AML	AML		
JSG	Sagara	5.17	219	S	Sn	02 46 24.0	-0.6
	comp=E,5µm,0.7s						
JSG				AML	AML		
JSG	Sagara	5.17	219		Pn	02 45 28.4	+2.2
JSG	Sagara	5.17	219	P	Pn	02 45 28.5	+2.2
JSG	Sagara	5.17	219	⇑P	Pn	02 45 28.7	+2.5
JSG	Sagara	5.17	219	P	Pn	02 45 27.8	+1.6
	comp=Z,55µmcomp=Z,101µmcomp=Z,5µm,0.7s						
JSG	Sagara	5.17	219	A	A	02 45 27.3	
	comp=N,218nm,4.0s,comp=E,156nm,4.8s						
JKKS	Kakegawashinom	5.21	221	A	A	02 45 27.9	
	comp=N,184nm,2.6s,comp=E,216nm,2.6s						
JAO	Obara	5.24	230	A	A	02 45 28.6	
	comp=N,94nm,3.7s,comp=E,109nm,2.3s						
HMMJ	Hamamatsu 2	5.27	224	A	A	02 45 28.8	
	comp=N,54nm,3.6s,comp=E,54nm,4.5s						
JMP	Maruseppu	5.32	10	A	A	02 45 29.3	
	comp=N,55nm,2.7s,comp=E,40nm,3.4s						
NMR	Nemuro--Hokkai	5.34	29	⇓*i*P	Pn	02 45 25.2	-3.3
NMR				*e*S	Sn	02 46 22.8	-5.9
NEM2	Nemuro 2	5.34	30	A	A	02 45 29.0	
	comp=N,21nm,2.3s,comp=E,29nm,2.6s						
JSSY	Shinshiroyabe	5.34	225	A	A	02 45 29.9	
	comp=N,58nm,5.0s,comp=E,51nm,2.4s						
JYTA	Yamagatataniai	5.35	235	A	A	02 45 30.2	
	comp=N,66nm,3.9s,comp=E,42nm,2.7s						
JKA	Kamikawa-asahi	5.35	4		Pn	02 45 28.8	+0.1
JKA	Kamikawa-asahi	5.35	4		Sn	02 46 33.4	+4.3
JKA	Kamikawa-asahi	5.35	4	P	Pn	02 45 29.5	+0.8
JKA	Kamikawa-asahi	5.35	4	P	Pn	02 45 29.9	+1.1
	comp=Z,20µmcomp=Z,2µm,1.2s,comp=Z,78µm						
ASAJ	Asahikawa	5.36	4	P	Pn	02 45 29.3	+0.6
	comp=Z,258nm,0.5s,baz=214,slow=8.6,SNR=99						
ASAJ				S	Sn	02 46 33.4	+4.3
	comp=Z,1µm,0.7s,baz=62,slow=30,SNR=4.2						
ASAJ	Asahikawa	5.36	4	A	A	02 45 30.0	
	comp=N,47nm,3.9s,comp=E,51nm,3.5s						
JTKR	Abashiri--Toko	5.37	14	A	A	02 45 29.8	
	comp=N,32nm,2.6s,comp=E,28nm,3.3s						
JNSB	Nemuroshibetsu	5.45	22	A	A	02 45 30.7	
	comp=N,94nm,3.3s,comp=E,82nm,3.4s						
JICN	Ichinomiyachia	5.46	232	A	A	02 45 31.7	

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      comp=N,109nm,2.6s,comp=E,109nm,3.4s
JRA   Rausu              5.63  23   A       A        02 45 33.3
      comp=N,25nm,4.3s,comp=E,45nm,3.3s
TTO5  TONANKAI O.B.S     5.74 220   A       A        02 45 35.1
      comp=N,250nm,5.9s,comp=E,234nm,5.1s
JAA   Atsumi             5.75 226   A       A        02 45 35.6
      comp=N,108nm,5.0s,comp=E,78nm,3.1s
RUSJ  Misakicho          5.82  23⇑iP    Pn       02 45 33.3  -1.8
RUSJ                             eS     Sn       02 46 38.0  -2.6
JEG   Eigenji            5.85 233   A       A        02 45 37.3
      comp=N,41nm,3.5s,comp=E,47nm,4.7s
JHJ2  Mitsune            5.95 199   P       Pn       02 45 36.1  -0.8
      comp=E,7µm,0.9s
JHJ2                                AML     AML
JHJ2  Mitsune            5.95 199   S       Sn       02 46 42.7  -1.1
      comp=E,7µm,0.9s
JHJ2                                AML     AML
JHJ2  Mitsune            5.95 199           Pn       02 45 35.5  -1.4
JHJ2  Mitsune            5.95 199   P       Pn       02 45 36.4  -0.5
JHJ2  Mitsune            5.95 199  ⇑P       Pn       02 45 35.4  -1.6
JHJ2  Mitsune            5.95 199   P       Pn       02 45 36.5  -0.5
      comp=Z,51µmcomp=Z,7µm,0.9s,comp=Z,29µm
JHJ2  Mitsune            5.95 199   A       A        02 45 37.5
      comp=N,36nm,3.7s,comp=E,46nm,3.2s
JHJ   Hachijo jima 2     5.95 199   P       Pn       02 45 36.8  -0.2
      comp=E,914nm,0.3s,baz=300,slow=20,SNR=40
JHJ                                 S       Sn       02 46 41.2  -2.6
      comp=E,2µm,0.3s,baz=30,slow=23,SNR=7.0
JHJ                                 LR      LR       02 48 23.4
      comp=E,47µm,21.7s,baz=358,slow=42
YUK   Yuzh-Kuril'sk      5.96  27  eP       Pn       02 45 35.3  -1.7
YUK                                eS       Sn       02 46 38.7  -5.3
YUK                                 pmax    pmax
      comp=E,2µm,0.4s
YUK                                 pmax    pmax
      comp=Z,3µm,0.4s
YUK                                 pmax    pmax
      comp=N,1µm,0.5s
YUK                                 smax    smax
      comp=N,20µm,1.2s
YUK                                 smax    smax
      comp=E,28µm,1.0s
YUK                                 smax    smax
      comp=N,7µm,0.4s
YUK                                 smax    smax
      comp=E,17µm,0.5s
TTO4  TONANKAI O.B.S     6.02 219   A       A        02 45 39.1
      comp=N,222nm,3.4s,comp=E,207nm,5.9s
JIE   Ise                6.17 227   A       A        02 45 41.5
      comp=N,70nm,3.6s,comp=E,58nm,3.5s
JSE   Soyaes             6.20   3   A       A        02 45 41.7
      comp=N,22nm,2.3s,comp=E,32nm,2.6s
JKY   Yasaka             6.42 243   A       A        02 45 45.4
      comp=N,57nm,4.6s,comp=E,63nm,3.6s
TTO2  TONANKAI O.B.S     6.50 221   A       A        02 45 46.2
      comp=N,193nm,3.4s,comp=E,241nm,4.3s
JKN2  Miekihoku          6.53 228   A       A        02 45 46.5
      comp=N,44nm,5.0s,comp=E,57nm,4.1s
JWK2  Keihoku            6.54 359   A       A        02 45 46.7
      comp=N,40nm,3.3s,comp=E,39nm,4.9s
JAOM  Aogashimamukai     6.58 198   A       A        02 45 46.4
      comp=N,41nm,2.8s,comp=E,42nm,5.8s
TTO1  TONANKAI O.B.S     6.71 222   A       A        02 45 49.1
      comp=N,254nm,5.5s,comp=E,307nm,4.4s
JKSM  Kasumi             6.75 244   A       A        02 45 50.0
      comp=N,41nm,4.3s,comp=E,41nm,3.6s
JMIK  Miki               6.92 237   A       A        02 45 52.2
      comp=N,52nm,4.5s,comp=E,38nm,4.1s
JWY   Kouya              6.95 231   A       A        02 45 52.6
      comp=N,43nm,3.7s,comp=E,30nm,3.2s
JMMH  Miemihama          6.98 227   A       A        02 45 52.7
      comp=N,25nm,2.6s,comp=E,36nm,3.2s
JAWN  Awajishima-nag     7.21 236   A       A        02 45 56.2
      comp=N,58nm,4.1s,comp=E,35nm,4.4s
JTNC  Tanabenakahech     7.22 229   A       A        02 45 56.2
      comp=N,47nm,4.2s,comp=E,35nm,4.5s
JWKM  Wakayamakushim     7.40 226   A       A        02 45 58.6
      comp=N,33nm,4.9s,comp=E,48nm,5.5s
TEY   Ternei             7.50 328  eP       Pn       02 45 54.3  -3.8
KUR   Kuril'sk           7.74  32d iP       Pn       02 46 00.2  -1.2
KUR                                eS       Sn       02 47 21.6  -6.2
KUR                                 pmax    pmax
      comp=Z,601nm,0.6s
KUR                                 pmax    pmax
      comp=N,340nm,0.8s
KUR                                 pmax    pmax
      comp=E,290nm,0.8s
KUR                                 pmax    pmax
      comp=Z,6µm,5.8s
KUR                                 smax    smax
      comp=E,3µm,0.4s
KUR                                 smax    smax
      comp=N,2µm,0.5s
KUR                                 smax    smax
      comp=N,17µm,5.1s
KUR                                 smax    smax
      comp=E,14µm,6.5s
YSS   Yuzhno-Sakhali     8.19   3   P       Pn       02 46 08.3  +0.7
      comp=E,1µm,1.1s
YSS   Yuzhno-Sakhali     8.19   3αeP      Pn       02 46 07.8  +0.2
YSS                                eS       Sn       02 47 38.3  -0.6
YSS                                 pmax    pmax
      comp=Z,3µm,4.7s
YSS                                 pmax    pmax
      comp=N,3µm,4.5s
YSS                                 pmax    pmax
      comp=N,730nm,1.0s
YSS                                 pmax    pmax
      comp=Z,940nm,1.0s
YSS                                 smax    smax
      comp=E,10µm,4.2s
YSS                                 smax    smax
      comp=N,600nm,1.2s
YSS                                 smax    smax
      comp=E,640nm,1.1s
YSS                                 MLR     MLR
      comp=Z,33µm,15.0s
YSS   Yuzhno-Sakhali     8.19   3           Pn       02 46 07.6   0.0
YSS   Yuzhno-Sakhali     8.19   3   P       Pn       02 46 07.6   0.0
YSS   Yuzhno-Sakhali     8.19   3  ⇑P       Pn       02 46 07.5  -0.1
YSS   Yuzhno-Sakhali     8.19   3   P       Pn       02 46 08.6  +0.9
      comp=Z,8µmcomp=Z,1µm,1.1s,comp=Z,42µm
JMN   Monobe             8.35 235   P       Pn       02 46 10.8  +0.9
      comp=Z,1µm,1.0s
JMN   Monobe             8.35 235           Pn       02 46 11.1  +1.2
JMN   Monobe             8.35 235   P       Pn       02 46 11.7  +1.8
JMN   Monobe             8.35 235  ⇑P       Pn       02 46 11.2  +1.2
JMN   Monobe             8.35 235   P       Pn       02 46 11.7  +1.8
      comp=Z,81µmcomp=Z,9µmcomp=Z,1µm,1.0s
VLA   Vladivostok        8.89 303d iP       Pn       02 46 20.2  +3.1
USA0B Ussuriysk Arra     9.34 309c iP       Pn       02 46 26.7  +3.3
USA0B Ussuriysk Arra     9.34 309           Pn       02 46 26.8  +3.3
USRK  Ussuriysk Ar.      9.34 309   P       Pn       02 46 24.5  +1.1
      comp=Z,60nm,0.8s,baz=121,slow=14,SNR=221
USRK                                LR      LR       02 49 54.8
      comp=Z,129µm,19.4s,baz=119,slow=37
USRK  Ussuriysk Ar.      9.34 309   P       Pn       02 46 25.8  +2.4
USRK  Ussuriysk Ar.      9.34 309           Pn       02 46 25.8  +2.4
PSTR  Posyet             9.43 298  i P      Pn       02 46 26.1  +1.5
UGL   Uglegorsk         10.31 360  eP       Pn       02 46 35.4  -1.1
UGL                                eS       Sn       02 48 28.6  -2.1
UGL                                 pmax    pmax
      comp=Z,2µm,7.8s
UGL                                 pmax    pmax
      comp=Z,176nm,1.2s
UGL                                 smax    smax
      comp=E,4µm,3.5s
UGL                                 smax    smax
      comp=N,6µm,7.1s
UGL                                 MLR     MLR
      comp=N,29µm,14.0s
UGL                                 MLR     MLR
      comp=E,27µm,14.0s
UGL                                 MLR     MLR
      comp=Z,21µm,14.0s
JNU   Nakatsue          10.72 242   P       Pn       02 46 44.5  +2.2
      comp=Z,669nm,0.8s,baz=51,slow=7.8,SNR=124
JNU                                 LR      LR       02 51 10.9
      comp=Z,125µm,20.9s,baz=48,slow=39
MDJ   Mudanjiang        11.04 306   P       Pn       02 46 49.8  +3.1
MDJ                                 PP      PnPn     02 46 56.5  +2.2
MDJ                                 sP               02 47 00.9
MDJ                                 S       Sn       02 48 52.9  +4.1
MDJ                                 SS      SnSn     02 49 07.0  +6.4
MDJ                                 ScS     ScS      02 59 47.4  +0.5
MDJ                                 pmax    pmax
      comp=Z,130nm,2.0s
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MDJ                                 L       L
      comp=Z,54µm,18.6s
MDJ                                 L       L
      comp=Z,93µm,17.2s
MDJ                                 L       L
      comp=Z,156µm,22.0s
MDJ   Mudanjiang        11.04 306   P       Pn       02 46 48.4  +1.7
      comp=Z,1µm,0.9s
MDJ   Mudanjiang        11.04 306           Pn       02 46 49.2  +2.5
MDJ   Mudanjiang        11.04 306   P       Pn       02 46 50.2  +3.6
      comp=Z,121µmcomp=Z,23µmcomp=Z,1µm,0.9s
JTU   Tsushima          11.07 251   P       Pn       02 46 46.9  -0.2
      comp=Z,525nm,1.2s
JTU   Tsushima          11.07 251  ⇑P       Pn       02 46 50.5  +3.5
JTU   Tsushima          11.07 251   P       Pn       02 46 48.7  +1.6
      comp=Z,74µmcomp=Z,12µmcomp=Z,524nm,1.2s
KSRS  Korea Array       11.27 268   P       Pn       02 46 52.8  +3.0
      comp=Z,580nm,0.8s,baz=81,slow=14,SNR=307
KSRS                                LR      LR       02 50 51.6
      comp=Z,89µm,20.3s,baz=80,slow=35
TJN   Taejon            11.96 263   P       Pn       02 47 01.2  +2.0
      comp=Z,4µm,1.0s
TJN   Taejon            11.96 263  i P      Pn       02 47 02.6  +3.4
TJN   Taejon            11.96 263           Pn       02 47 03.2  +3.9
TJN   Taejon            11.96 263   P       Pn       02 47 03.5  +4.2
      comp=Z,310µmcomp=Z,75µmcomp=Z,4µm,1.0s
JSU   Suzuyama          11.99 236   P       Pn       02 46 59.7   0.0
      comp=Z,988nm,1.0s
JSU   Suzuyama          11.99 236           Pn       02 46 59.6   0.0
JSU   Suzuyama          11.99 236   P       Pn       02 47 01.6  +1.9
JSU   Suzuyama          11.99 236  ⇑P       Pn       02 47 01.1  +1.4
JSU   Suzuyama          11.99 236   P       Pn       02 47 00.3  +0.6
      comp=Z,69µmcomp=Z,8µmcomp=Z,988nm,1.0s
TYV   Tymovskoe         12.10   2  eP       Pn       02 47 01.0  -0.1
TYV                                eS       Sn       02 49 13.8  -0.7
TYV                                 pmax    pmax
      comp=Z,65nm,1.3s
TYV                                 pmax    pmax
      comp=Z,1µm,4.0s
TYV                                 smax    smax
      comp=N,71nm,1.2s
TYV                                 smax    smax
      comp=E,103nm,1.2s
TYV                                 smax    smax
      comp=N,2µm,5.2s
TYV                                 smax    smax
      comp=E,4µm,5.2s
INCN  Inchon            12.28 269   P       Pn       02 47 05.6  +2.0
      comp=E,887nm,1.2s
INCN  Inchon            12.28 269   S       Sn       02 49 18.8  -0.2
      comp=E,887nm,1.2s
INCN  Inchon            12.28 269   P       Pn       02 47 08.3  +4.7
INCN                                S       Sn       02 49 30.1   +11
INCN  Inchon            12.28 269   P       Pn       02 47 06.4  +2.8
INCN  Inchon            12.28 269           Pn       02 47 06.4  +2.8
INCN  Inchon            12.28 269  ⇑P       Pn       02 47 06.9  +3.3
INCN  Inchon            12.28 269   P       Pn       02 47 06.0  +2.4
      comp=Z,98µmcomp=Z,11µmcomp=Z,926nm,1.2s
KLR   Kul'dur           12.84 328   P       Pn       02 47 12.0  +0.8
      comp=Z,111nm,0.9s,baz=136,slow=12,SNR=116
KLR                                 LR      LR       02 52 08.0
      comp=Z,108µm,19.4s,baz=145,slow=37
KLR   Kul'dur           12.84 328  eP       Pn       02 47 09.4  -1.8
KLR                                 pmax    pmax
      comp=Z,66nm,1.3s
BNX   BinXian           12.93 307  ⇑P       Pn       02 47 13.2  +0.7
BNX                                 S       Sn       02 49 36.4  +1.4
BNX                                 pmax    pmax
      comp=Z,450nm,0.9s
BNX                                 pmax    pmax
      comp=Z,12µm,8.7s
BNX                                 L       L
      comp=Z,37µm,17.4s
BNX                                 L       L
      comp=Z,63µm,19.5s
BNX                                 L       L
      comp=Z,107µm,18.4s
CN2   Changchun         13.51 297  eP       Pn       02 47 20.1  -0.3
CN2                                eS       Sn       02 49 48.4  -0.7
CN2                                 pmax    pmax
      comp=Z,3µm,7.0s
CN2                                 L       L
      comp=Z,15µm,17.0s
CN2                                 L       L
      comp=Z,26µm,17.0s
CN2                                 L       L
      comp=Z,27µm,18.1s
NKL   Nikolayevsk       14.42 356  eP       Pn       02 47 29.4  -3.2
NKL                                eS       Sn       02 50 07.9  -3.2
NKL                                 pmax    pmax
      comp=N,187nm,1.2s
NKL                                 pmax    pmax
      comp=E,509nm,1.2s
NKL                                 pmax    pmax
      comp=Z,647nm,1.2s
NKL                                 smax    smax
      comp=E,408nm,2.1s
NKL                                 smax    smax
      comp=N,648nm,2.0s
NKL                                 MLR     MLR
      comp=E,57µm,16.0s
NKL                                 MLR     MLR
      comp=N,60µm,18.0s
NKL                                 MLR     MLR
      comp=Z,68µm,17.0s
SNY   Shenyang          14.48 288  ⇑P       Pn       02 47 34.2  +0.6
SNY                                 S       Sn       02 50 21.9  +9.1
SNY                                 pmax    pmax
      comp=Z,55nm,1.2s
SNY                                 L       L
      comp=Z,10µm,16.8s
SNY                                 L       L
      comp=Z,57µm,17.8s
SNY                                 L       L
      comp=Z,86µm,18.9s
OKH   Okha              14.79   2c iP       Pn       02 47 25.8   -12
OKH                                 pmax    pmax
      comp=Z,1µm,8.5s
SKR   Severo-Kuril's    15.48  35  eP       Pn       02 47 43.4  -3.3
SKR                                 pmax    pmax
      comp=Z,224nm,0.9s
SKR                                 pmax    pmax
      comp=Z,200nm,3.1s
SKR                                 MLR     MLR
      comp=Z,19µm,16.0s
HEH   HeiHe             15.53 322  eP       Pn       02 47 44.6  -2.7
HEH                                 pP      P        02 47 51.2  +0.1
HEH                                 S       S        02 50 45.7  -6.7
HEH                                 pmax    pmax
      comp=Z,120nm,0.8s
HEH                                 pmax    pmax
      comp=Z,8µm,8.8s
HEH                                 L       L
      comp=Z,60µm,19.5s
HEH                                 L       L
      comp=Z,63µm,16.0s
HEH                                 L       L
      comp=Z,116µm,16.3s
JMZ   Minamidaito 2     15.85 219   P       Pn       02 47 51.2  -0.4
      comp=Z,745nm,1.1s
DL2   Dalian            15.98 277   P       Pn       02 47 54.8  +1.6
DL2                                 S       Sn       02 50 50.5  +1.3
DL2                                 pmax    pmax
      comp=Z,2µm,1.0s
DL2                                 pmax    pmax
      comp=Z,14µm,4.7s
DL2                                 L       L
      comp=Z,39µm,13.7s
DL2                                 L       L
      comp=Z,77µm,16.6s
DL2                                 L       L
      comp=Z,96µm,17.5s
JOW   Kunigami          16.63 228   P       Pn       02 47 59.9  -1.7
      comp=Z,519nm,1.1s
PETK  Petropavlovsk-    17.91  32   LR      LR       02 55 45.9
      comp=Z,10µm,20.2s,baz=215,slow=39
ZEA   Zeya              18.11 331  eP       P        02 48 18.1  -1.6
ZEA                                e                 02 51 37.5
ZEA                                 pmax    pmax
      comp=N,380nm,1.0s
ZEA                                 pmax    pmax
      comp=E,220nm,1.0s
ZEA                                 pmax    pmax
      comp=Z,920nm,1.0s
ZEA                                 MLR     MLR
      comp=N,26µm,16.0s
ZEA                                 MLR     MLR
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      comp=Z,40µm,16.0s
PET   Petropavlovsk     18.25  33   P       Pn       02 48 23.6  +2.2
      comp=Z,627nm,1.5s
PET   Petropavlovsk     18.25  33  eP       P        02 48 21.2   0.0
PET                                eS       Sn       02 51 37.8  -6.1
PET                                 pmax    pmax
      comp=Z,120nm,1.7s
PET                                 pmax    pmax
      comp=Z,1µm,4.2s
PET                                 pmax    pmax
      comp=Z,3µm,3.4s
PET                                 MLR     MLR
      comp=Z,10µm,16.0s
PET   Petropavlovsk     18.25  33   P       Pn       02 48 22.7  +1.3
SSE   Sheshan           18.78 252   P       P        02 48 26.1  -1.1
SSE                                 S       Sn       02 51 48.5  -8.5
SSE                                 pmax    pmax
      comp=Z,1µm,1.0s
SSE                                 L       L
      comp=Z,3µm,16.5s
SSE                                 L       L
      comp=Z,7µm,16.8s
HIA   Hailar            19.15 310   P       P        02 48 30.7  -0.5
      comp=Z,275nm,0.9s
HIA   Hailar            19.15 310   S       S        02 52 07.3  +1.2
      comp=Z,275nm,0.9s
HIA   Hailar            19.15 310   P       P        02 48 28.3  -2.9
HIA   Hailar            19.15 310   P       P        02 48 28.3  -2.9
      comp=Z,58µmcomp=Z,5µmcomp=Z,275nm,0.9s
HILR  Hailar Array B    19.27 311   P       P        02 48 30.9  -1.6
      comp=Z,169nm,0.6s,baz=118,slow=12,SNR=93
HILR                                LR      LR       02 56 15.4
      comp=Z,58µm,18.6s,baz=70,slow=38
JMJ   Miyako jima 2     19.91 231   P       Pn       02 48 40.9  -0.6
      comp=Z,9µm,1.0s
JMJ   Miyako jima 2     19.91 231   S       S        02 52 20.6  -1.0
      comp=Z,9µm,1.0s
JMJ   Miyako jima 2     19.91 231   P       P        02 48 38.2  -1.5
TIA   Tai'an            19.99 270   P       P        02 48 39.3  -1.2
TIA                                 PP      PnPn     02 49 02.6  +5.4
TIA                                 S       S        02 52 17.6  -5.5
TIA                                 SS      SnSn     02 52 51.1   +10
TIA                                 ScS     ScS      03 00 10.1  -1.0
TIA                                 pmax    pmax
      comp=Z,570nm,1.0s
TIA                                 pmax    pmax
      comp=Z,2µm,3.5s
TIA                                 L       L
      comp=Z,35µm,17.9s
TIA                                 L       L
      comp=Z,24µm,17.9s
TIA                                 L       L
      comp=Z,61µm,24.0s
BJI2  Beijing           20.09 282   P       P        02 48 40.3  -1.1
BJI2                                pP      pP       02 48 48.6  -2.7
BJI2                                S       S        02 52 20.8  -4.1
BJI2                                pmax    pmax
      comp=Z,150nm,0.8s
BJI2                                pmax    pmax
      comp=Z,1µm,3.5s
BJI2                                L       L
      comp=Z,11µm,14.6s
BJT   Baijiatuau        20.09 282   P       P        02 48 41.8  +0.3
      comp=Z,422nm,0.8s
BJT   Baijiatuau        20.09 282   S       S        02 52 25.9  +1.0
      comp=Z,422nm,0.8s
BJT   Baijiatuau        20.09 282   P       P        02 48 38.9  -2.6
BJT                                 pmax    pmax
      comp=Z,295nm,0.7s
BJT                                 MLR     MLR
      comp=Z,35µm,19.0s
BJT   Baijiatuau        20.09 282   P       P        02 48 38.9  -2.6
BJT                                 IAmb    IAmb     02 48 46.0
      comp=Z,295nm,0.7s
BJT   Baijiatuau        20.09 282   IAMs_20 IAMs_20  02 56 14.2
      comp=Z,35µm,19.0s
BJT   Baijiatuau        20.09 282   P       P        02 48 39.8  -1.7
      comp=Z,61µmcomp=Z,7µmcomp=Z,422nm,0.8s
NJ2   Nanjing           20.09 258  ⇑P       P        02 48 40.4  -1.2
NJ2                                 sP      sP       02 48 56.1  -0.4
NJ2                                 S       S        02 52 25.6  +0.4
NJ2                                 sS      sS       02 52 37.5  -2.8
NJ2                                 pmax    pmax
      comp=Z,680nm,0.9s
NJ2                                 pmax    pmax
      comp=Z,7µm,11.6s
NJ2                                 L       L
      comp=Z,24µm,16.4s
NJ2                                 L       L
      comp=Z,23µm,19.2s
NJ2                                 L       L
      comp=Z,46µm,19.7s
XLT   XiLinHaoTe        20.18 293  eP       P        02 48 40.0  -2.6
XLT                                 sP      sP       02 48 58.0  +0.4
XLT                                 S       S        02 52 19.1  -7.9
XLT                                 sS      sS       02 52 37.8  -4.3
XLT                                 pmax    pmax
      comp=Z,710nm,0.8s
XLT                                 pmax    pmax
      comp=Z,4µm,8.8s
XLT                                 L       L
      comp=Z,16µm,19.1s
XLT                                 L       L
      comp=Z,33µm,17.0s
MA2   Magadan           21.54  12   P       P        02 48 57.0  +0.1
      comp=Z,227nm,0.9s,baz=201,slow=10.0,SNR=28
MA2                                 LR      LR       02 57 23.4
      comp=Z,11µm,21.1s,baz=197,slow=37
      comp=Z,227nm,0.9s
MA2   Magadan           21.54  12ceP       P        02 48 57.1  +0.1
MA2                                 pmax    pmax
      comp=Z,435nm,1.3s
MA2                                 MLR     MLR
      comp=Z,13µm,22.0s
MA2   Magadan           21.54  12   IAmb    IAmb     02 49 05.0
      comp=Z,315nm,0.9s
MA2   Magadan           21.54  12   P       P        02 48 56.9  -0.1
MA2   Magadan           21.54  12   P       P        02 48 56.6  -0.4
      comp=Z,8µmcomp=Z,510nm,1.0s
YOJ   Yonaguni jima     21.59 234   P       P        02 48 58.6  +0.9
      comp=Z,356nm,0.8s
YOJ   Yonaguni jima     21.59 234   S       S        02 52 54.5  -0.3
      comp=Z,356nm,0.8s
YOJ   Yonaguni jima     21.59 234   P       P        02 48 57.5  -0.2
YOJ   Yonaguni jima     21.59 234   P       P        02 48 53.7  -4.0
      comp=Z,23µmcomp=Z,4µmcomp=Z,356nm,0.8s
HNS   HongShan          21.60 275  ⇑P       P        02 48 55.4  -2.4
HNS                                 S       S        02 52 50.1  -4.9
HNS                                 pmax    pmax
      comp=Z,380nm,0.9s
HNS                                 L       L
      comp=Z,16µm,14.3s
HNS                                 L       L
      comp=Z,69µm,15.9s
HNS                                 L       L
      comp=Z,64µm,15.9s
TATO  Taipei            22.21 238   P       P        02 49 03.8  -0.7
      comp=Z,702nm,0.9s
TATO  Taipei            22.21 238   P       P        02 49 03.0  -1.4
TATO                                S       S        02 53 01.7  -5.0
TATO  Taipei            22.21 238   P       P        02 49 02.0  -2.5
      comp=Z,28µmcomp=Z,9µmcomp=Z,702nm,0.9s
YHNB  Yeheng            22.50 237   P       P        02 49 06.4  -1.2
      comp=Z,511nm,0.9s
YHNB  Yeheng            22.50 237   S       S        02 53 12.3  +0.3
      comp=Z,511nm,0.9s
YHNB  Yeheng            22.50 237   P       P        02 49 03.5  -4.1
YHNB                                IAmb    IAmb     02 49 07.8
      comp=Z,375nm,0.8s
YHNB                                IAMs_20 IAMs_20  02 58 52.8
      comp=Z,34µm,18.0s
NACB  Ninganchiao       22.70 236   P       P        02 49 07.8  -1.8
      comp=Z,497nm,0.8s
NACB  Ninganchiao       22.70 236   S       S        02 53 15.1  -0.3
      comp=Z,497nm,0.8s
NACB  Ninganchiao       22.70 236   IAMs_20 IAMs_20  02 58 13.1
      comp=Z,29µm,21.0s
TIY   Taiyuan           23.31 277  eP       P        02 49 18.5  +2.7
TIY                                 S       S        02 53 24.1  -1.5
TIY                                 pmax    pmax
      comp=Z,530nm,1.1s
TIY                                 pmax    pmax
      comp=Z,3µm,8.1s
TIY                                 L       L
      comp=Z,30µm,16.5s
TIY                                 L       L
      comp=Z,44µm,17.5s
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TIY				L	L		
	comp=Z,64µm,17.5s						
SSLB	**Suanglung**	**23.39**	**236**	P	**P**	**02 49 14.3**	**-2.3**
	comp=Z,636nm,1.0s						
SSLB	**Suanglung**	**23.39**	**236**	S	**S**	**02 53 26.4**	**-0.5**
	comp=Z,636nm,1.0s						
SSLB	**Suanglung**	**23.39**	**236**	IAMs_20	IAMs_20	02 58 35.3	
	comp=Z,37µm,22.0s						
YULB	**Yu-li**	**23.44**	**235**	P	**P**	**02 49 16.7**	**-0.5**
	comp=Z,355nm,0.9s						
YULB	**Yu-li**	**23.44**	**235**	S	**S**	**02 53 27.4**	**-0.4**
	comp=Z,355nm,0.9s						
HHC	**Hu-ho-hao-te**	**23.52**	**285**	⇓*i*P	**P**	**02 49 22.5**	**+4.6**
HHC				pmax	pmax		
	comp=Z,340nm,0.7s						
HHC	**Hu-ho-hao-te**	**23.52**	**285**	⇑*i*P	**P**	**02 49 15.8**	**-2.1**
HHC				sP	pP	02 49 29.6	+1.3
HHC				S	**S**	**02 53 20.4**	**-8.7**
HHC				SS	**SnSn**	**02 54 15.9**	**+8.6**
HHC				pmax	pmax		
	comp=Z,260nm,1.0s						
HHC				pmax	pmax		
	comp=Z,3µm,6.7s						
HHC				L	L		
	comp=Z,18µm,14.7s						
HHC				L	L		
	comp=Z,74µm,15.4s						
HHC				L	L		
	comp=Z,89µm,15.6s						
CIT	**Chita**	**23.86**	**313**	*e*P	**P**	**02 49 18.5**	**-2.5**
CIT				*e*		02 49 31.0	
CIT				*e*		02 50 03.5	
CIT				*e*		02 53 34.9	
CIT				*e*		02 54 26.0	
CIT				pmax	pmax		
	comp=Z,3µm,2.2s						
TPUB	**Ta-pu**	**23.94**	**236**	P	**P**	**02 49 19.4**	**-2.5**
	comp=Z,686nm,1.0s						
TPUB	**Ta-pu**	**23.94**	**236**	S	**S**	**02 53 37.0**	**+1.2**
	comp=Z,686nm,1.0s						
TPUB	**Ta-pu**	**23.94**	**236**	IAMs_20	IAMs_20	02 59 03.9	
	comp=Z,33µm,22.0s						
TWGBT	**Beinan**	**23.99**	**235**	P	**P**	**02 49 21.3**	**-1.0**
	comp=Z,1µm,0.9s						
TWGBT	**Beinan**	**23.99**	**235**	S	**S**	**02 53 37.4**	**+0.7**
	comp=Z,1µm,0.9s						
TWG	**Pinlang**	**24.00**	**235**	P	**P**	**02 49 20.1**	**-2.3**
LYN	**LuoYang**	**24.11**	**269**	P	**P**	**02 49 21.9**	**-1.5**
LYN				sP	sP	02 49 38.2	-0.8
LYN				S	**S**	**02 53 33.3**	**-5.1**
LYN				SS	**SnSn**	**02 54 23.2**	**+1.4**
LYN				pmax	pmax		
	comp=Z,2µm,0.9s						
LYN				pmax	pmax		
	comp=Z,6µm,8.5s						
LYN				L	L		
	comp=Z,27µm,16.5s						
LYN				L	L		
	comp=Z,38µm,23.1s						
LYN				L	L		
	comp=Z,60µm,24.5s						
QZH2	**Quanzhou**	**24.19**	**242**	⇑*i*P	**P**	**02 49 22.2**	**-1.9**
QZH2				sP	**pP**	**02 49 36.9**	**+2.0**
QZH2				S	**S**	**02 53 38.0**	**-1.8**
QZH2				pmax	pmax		
	comp=Z,330nm,1.1s						
QZH2				pmax	pmax		
	comp=Z,4µm,6.5s						
QZH2				L	L		
	comp=Z,24µm,15.1s						
QZH2				L	L		
	comp=Z,17µm,13.7s						
QZH2				L	L		
	comp=Z,34µm,15.1s						
WHN	**Wuhan**	**24.21**	**259**	⇑*i*P	**P**	**02 49 23.8**	**-0.5**
WHN				sP	**pP**	**02 49 35.8**	**+0.7**
WHN				S	**S**	**02 53 34.6**	**-5.5**
WHN				pmax	pmax		
	comp=Z,850nm,0.9s						
WHN				pmax	pmax		
	comp=Z,10µm,3.5s						
WHN				L	L		
	comp=Z,30µm,12.5s						
WHN				L	L		
	comp=Z,81µm,14.5s						
WHN				L	L		
	comp=Z,155µm,18.0s						
YAK	**Yakutsk**	**24.52**	**346**	pmax	pmax		
	comp=E,78nm,1.3s						
YAK	**Yakutsk**	**24.52**	**346**	*e*P	**P**	**02 49 25.3**	**-1.5**
YAK				*e**PP	**pP**	**02 49 34.8**	**-2.7**
YAK				*e*PPP	PPP	02 50 05.9	
YAK				*e*		02 53 02.6	
YAK				*e*S	**S**	**02 53 42.7**	**-1.7**
YAK				*e**SS	**sS**	**02 54 01.0**	**-0.8**
YAK				*e*		03 00 27.3	
YAK				pmax	pmax		
	comp=Z,398nm,1.1s						
YAK				pmax	pmax		
	comp=E,88nm,1.4s						
YAK				pmax	pmax		
	comp=N,264nm,1.1s						
YAK				smax	smax		
	comp=N,10µm,5.6s						
YAK				smax	smax		
	comp=E,4µm,4.8s						
YAK				MLR	MLR		
	comp=N,14µm,15.0s						
YAK				MLR	MLR		
	comp=Z,24µm,17.0s						
YAK				MLR	MLR		
	comp=E,19µm,26.0s						
YAK	**Yakutsk**	**24.52**	**346**	P	**P**	**02 49 25.1**	**-1.7**
YAK	**Yakutsk**	**24.52**	**346**	*e*P	**P**	**02 49 25.0**	**-1.7**
YAK	**Yakutsk**	**24.52**	**346**	*e**PP		02 51 24.5	
YAK	**Yakutsk**	**24.52**	**346**	*e*		02 53 04.9	
YAK	**Yakutsk**	**24.52**	**346**	*e*PPP	PPP	02 55 09.9	
YAK	**Yakutsk**	**24.52**	**346**	*e*		02 59 33.2	
YAK	**Yakutsk**	**24.52**	**346**	*e*SSS	SSS	03 09 30.9	
YAK	**Yakutsk**	**24.52**	**346**	smax	smax		
	comp=E,2µm,8.6s						
YAK	**Yakutsk**	**24.52**	**346**	pmax	pmax		
	comp=E,234nm,2.0s						
YAK	**Yakutsk**	**24.52**	**346**	pmax	pmax		
	comp=N,300nm,2.8s						
YAK	**Yakutsk**	**24.52**	**346**	pmax	pmax		
	comp=Z,472nm,2.9s						
YAK	**Yakutsk**	**24.52**	**346**	pmax	pmax		
	comp=N,308nm,1.1s						
YAK	**Yakutsk**	**24.52**	**346**	pmax	pmax		
	comp=Z,639nm,1.2s						
KNMB	**Chin-men Tao**	**24.65**	**242**		**P**	**02 49 26.2**	**-2.2**
KNMB				IAmb	IAmb	02 49 29.7	
	comp=Z,832nm,1.0s						
KNMB				IAMs_20	IAMs_20	02 59 20.9	
	comp=Z,19µm,20.0s						
BTO2	**Baotou**	**24.80**	**285**	*e*P	**P**	**02 49 28.8**	**-1.0**
BTO2				pP	**pP**	**02 49 38.4**	**-2.1**
BTO2				PP	**PnPn**	**02 50 03.6**	**+0.5**
BTO2				S	**S**	**02 53 49.0**	**-0.7**
BTO2				pmax	pmax		
	comp=Z,790nm,1.3s						
BTO2				pmax	pmax		
	comp=Z,8µm,7.6s						
BTO2				L	L		
	comp=Z,53µm,13.1s						
BTO2				L	L		
	comp=Z,179µm,15.2s						
BTO2				L	L		
	comp=Z,214µm,15.5s						
SEY	**Seymchan**	**24.98**	**11**	LR	LR	02 59 34.6	
	comp=Z,15µm,21.7s,baz=202,slow=37						
SEY	**Seymchan**	**24.98**	**11**	*e*P	**P**	**02 49 31.1**	**+0.1**
SEY				pmax	pmax		
	comp=Z,407nm,1.0s						
GUMO	**Guam**	**25.20**	**174**	LR	LR	02 58 08.5	
	comp=Z,7µm,20.8s,baz=9.5,slow=33						
GUMO	**Guam**	**25.20**	**174**	P	**P**	**02 49 34.6**	**+1.3**
	comp=Z,300nm,1.2s						
GUMO	**Guam**	**25.20**	**174**	S	**S**	**02 53 57.9**	**+1.9**
	comp=Z,300nm,1.2s						
GUMO	**Guam**	**25.20**	**174**	P	**P**	**02 49 34.0**	**+0.7**
	comp=Z,7µmcomp=Z,6µmcomp=Z,544nm,1.2s						
SMY	**Shemya**	**26.06**	**47**	P	**P**	**02 49 42.8**	**+2.0**
	comp=Z,359nm,0.9s						
CNSH	**ChangSha**	**26.44**	**255**	P	**P**	**02 49 43.9**	**-0.7**
CNSH				S	**S**	**02 54 15.3**	**-0.3**
CNSH				pmax	pmax		
	comp=Z,550nm,1.1s						
CNSH				L	L		
	comp=Z,14µm,14.6s						
CNSH				L	L		
	comp=Z,14µm,16.4s						
CNSH				L	L		
	comp=Z,21µm,13.3s						
ULN	**Ulaanbaatar**	**26.90**	**301**	S	**S**	**02 54 19.4**	**-3.4**
ULN	**Ulaanbaatar**	**26.90**	**301**	*d* *i*P	**P**	**02 49 50.2**	**+1.5**
ULN				pmax	pmax		
	comp=Z,333nm,1.7s						
ULN				MLR	MLR		
	comp=Z,32µm,18.0s						
XAN	**Xi'an**	**27.05**	**270**	⇑P	**P**	**02 49 48.7**	**-1.4**
XAN				S	**S**	**02 54 20.3**	**-5.0**
XAN				pmax	pmax		
	comp=Z,320nm,1.5s						
XAN				pmax	pmax		
	comp=Z,5µm,9.4s						
XAN				L	L		
	comp=Z,27µm,18.9s						
XAN				L	L		
	comp=Z,35µm,19.4s						
XAN				L	L		
	comp=Z,35µm,19.6s						
SONM	**Songino Array**	**27.33**	**301**	P	**P**	**02 49 53.1**	**+0.5**
	comp=Z,92nm,0.7s,baz=99,slow=9.1,SNR=75						
SONM				LR	LR	03 01 13.5	
	comp=Z,37µm,18.6s,baz=108,slow=37						
	comp=Z,92nm,0.7s						
SONM	**Songino Array**	**27.33**	**301**	IAmb	IAmb	02 49 55.2	
	comp=Z,879nm,1.8s						
ENH	**Enshi**	**28.09**	**262**	IAmb	IAmb	02 50 06.0	
	comp=Z,1µm,0.7s						
ENH				IAMs_20	IAMs_20	03 00 59.0	
	comp=Z,21µm,22.0s						
ENH	**Enshi**	**28.09**	**262**	P	**P**	**02 49 59.5**	**+0.2**
	comp=Z,31µmcomp=Z,14µmcomp=Z,2µm,0.8s						
SZP	**Santa**	**28.36**	**228**	P	**P**	**02 50 02.4**	**+0.6**
	comp=Z,553nm,0.9s						
SZP	**Santa**	**28.36**	**228**	P	**P**	**02 50 02.1**	**+0.3**
	comp=Z,8µmcomp=Z,553nm,0.9s						
GZH2	**Guangzhou**	**28.49**	**246**	⇑*i*P	**P**	**02 50 03.4**	**+0.4**
GZH2				S	**S**	**02 54 47.5**	**-0.5**
GZH2				pmax	pmax		
	comp=Z,310nm,0.9s						
GZH2				pmax	pmax		
	comp=Z,4µm,8.4s						
GZH2				L	L		
	comp=Z,37µm,15.6s						
GZH2				L	L		
	comp=Z,33µm,15.6s						
GZH2				L	L		
	comp=Z,71µm,15.9s						
H11N2	**WAKE ISLAND Hy**	**28.60**	**124**	T	T	03 20 31.8	
	baz=317,slow=75,SNR=2728						
H11N1	**WAKE ISLAND Hy**	**28.61**	**125**	T	T	03 20 32.5	
	baz=317,slow=75,SNR=3906						
H11N3	**WAKE ISLAND Hy**	**28.62**	**124**	T	T	03 20 39.7	
	baz=317,slow=75,SNR=3710						
WAKE	**Wake Island**	**28.77**	**125**	P	**P**	**02 50 07.0**	**+1.5**
	comp=Z,81nm,1.6s						
WAKE	**Wake Island**	**28.77**	**125**	IAMs_20	IAMs_20	02 59 16.8	
	comp=Z,15µm,21.0s						
HKC	**Hong Kong Obse**	**28.98**	**244**	⇑P	**P**	**02 50 08.0**	**+0.7**
HKPS	**Hong Kong Po S**	**29.02**	**244**	P	**P**	**02 50 09.1**	**+1.4**
	comp=Z,362nm,1.1s						
HKPS	**Hong Kong Po S**	**29.02**	**244**		**P**	**02 50 08.0**	**+0.3**
HKPS				IAmb	IAmb	02 50 09.9	
	comp=Z,286nm,0.9s						
HKPS				IAMs_20	IAMs_20	03 01 51.4	
	comp=Z,16µm,20.0s						
HKPS	**Hong Kong Po S**	**29.02**	**244**	P	**P**	**02 50 09.0**	**+1.3**
	comp=Z,18µmcomp=Z,5µmcomp=Z,365nm,0.9s,comp=Z,5µm						
H11S1	**WAKE ISLAND Hy**	**29.38**	**126**	T	T	03 21 20.6	
	baz=318,slow=76,SNR=1700						
H11S3	**WAKE ISLAND Hy**	**29.38**	**126**	T	T	03 21 20.7	
	baz=318,slow=76,SNR=2349						
IRK	**Irkutsk**	**29.39**	**310**	*e*P	**P**	**02 50 10.5**	**-0.2**
IRK				*e*		02 55 02.0	
IRK				pmax	pmax		
	comp=Z,698nm,2.1s						
H11S2	**WAKE ISLAND Hy**	**29.39**	**126**	T	T	03 21 33.1	
	baz=318,slow=76,SNR=1513						
MCO	**Taipa Grande**	**29.53**	**244**	P	**P**	**02 50 13.0**	**+0.8**
ZAK	**Zakamensk**	**29.68**	**306**	*e*P	**P**	**02 50 13.8**	**+0.4**
ZAK				*e*		02 56 43.9	
ZAK				pmax	pmax		
	comp=Z,432nm,1.2s						
ZAK				pmax	pmax		
	comp=Z,31nm,1.2s						
GULI	**GuiLin**	**29.93**	**253**	P	**P**	**02 50 14.4**	**-1.3**
GULI				sP	**sP**	**02 50 30.5**	**-0.8**
GULI				S	**S**	**02 55 05.8**	**-4.8**
GULI				pmax	pmax		
	comp=Z,300nm,0.8s						
GULI				L	L		
	comp=Z,13µm,18.4s						
GULI				L	L		
	comp=Z,12µm,18.4s						
GULI				L	L		
	comp=Z,17µm,14.8s						
LZH	**Lanzhou**	**30.38**	**277**	P	**P**	**02 50 19.1**	**-0.7**
LZH				sP	sP	02 50 38.1	+2.7
LZH				PP	**PnPn**	**02 51 21.8**	**+2.9**
LZH				S	**S**	**02 55 11.9**	**-5.9**
LZH				sS	sS	02 55 38.1	+2.9
LZH				pmax	pmax		
	comp=Z,630nm,1.7s						
LZH				pmax	pmax		
	comp=Z,3µm,4.5s						
LZH				L	L		
	comp=Z,23µm,16.8s						
LZH				L	L		
	comp=Z,48µm,17.1s						
LZH				L	L		
	comp=Z,71µm,16.5s						
LZDM	**Lanzhou Array**	**30.53**	**277**	P	**P**	**02 50 21.4**	**+0.1**
	comp=Z,148nm,0.8s,baz=77,slow=6.7,SNR=30						
LZDM				PcP	**PcP**	**02 53 18.4**	**-1.1**
	comp=Z,20nm,0.6s,baz=29,slow=3.3,SNR=3.5						
LZDM				ScP	**ScP**	**02 56 57.7**	**-1.2**
	comp=Z,4.1nm,0.3s,baz=73,slow=5.0,SNR=3.8						
LZDM				LR	LR	03 03 25.5	
	comp=Z,53µm,18.4s,baz=70,slow=38						
	comp=Z,148nm,0.8s						
MOY	**Mondy**	**31.29**	**308**	*e*P	**P**	**02 50 28.0**	**+0.4**
MOY				pmax	pmax		
	comp=Z,662nm,3.6s						
ADK	**Adak**	**31.35**	**52**	IAMs_20	IAMs_20	03 00 38.6	
	comp=Z,12µm,22.0s						
GYA	**Guiyang**	**32.10**	**258**	⇑P	**P**	**02 50 34.9**	**-0.1**
GYA				S	**S**	**02 55 41.4**	**-3.4**
GYA				pmax	pmax		
	comp=Z,380nm,0.8s						
GYA				L	L		
	comp=Z,14µm,18.0s						
GYA				L	L		
	comp=Z,27µm,20.8s						
GYA				L	L		
	comp=Z,41µm,20.8s						
BILL	**Bilibino**	**32.20**	**17**	*c* *i*P	**P**	**02 50 35.4**	**+0.1**
BILL				pmax	pmax		
	comp=Z,146nm,1.0s						
BILL				MLR	MLR		
	comp=Z,7µm,19.0s						
BILL	**Bilibino**	**32.20**	**17**	P	**P**	**02 50 34.8**	**-0.5**
BILL				IAmb	IAmb	02 50 41.2	
	comp=Z,108nm,0.9s						
BILL	**Bilibino**	**32.20**	**17**	P	**P**	**02 50 34.9**	**-0.5**
BILI	**Bilibino, Chuk**	**32.26**	**17**	P	**P**	**02 50 35.6**	**-0.2**
	comp=Z,2µmcomp=Z,154nm,1.1s						
CD2	**Chengdu**	**32.27**	**268**	P	**P**	**02 50 35.5**	**-0.9**
CD2				pP	pP	02 50 45.5	-1.7
CD2				sP	sP	02 50 49.4	-2.6
CD2				PP	**PP**	**02 51 48.2**	**-1.5**
CD2				S	**S**	**02 55 43.6**	**-3.7**
CD2				sS	sS	02 56 03.2	-1.6
CD2				pmax	pmax		
	comp=Z,860nm,0.9s						
CD2				pmax	pmax		
	comp=Z,4µm,8.4s						
CD2				L	L		
	comp=Z,30µm,15.9s						
CD2				L	L		
	comp=Z,33µm,18.8s						
CD2				L	L		
	comp=Z,43µm,17.5s						
GTA2	**Gaotai**	**32.66**	**285**	P	**P**	**02 50 39.8**	**0.0**
GTA2				PP	**PnPn**	**02 51 46.8**	**-1.6**
GTA2				PcP	**PcP**	**02 53 26.6**	**+1.6**
GTA2				S	**S**	**02 55 55.1**	**+1.8**
GTA2				ScP	**ScP**	**02 57 04.6**	**-1.1**
GTA2				ScS	**ScS**	**03 01 04.6**	**-0.9**
GTA2				pmax	pmax		
	comp=Z,350nm,1.1s						
GTA2				pmax	pmax		
	comp=Z,3µm,8.8s						
GTA2				L	L		
	comp=Z,22µm,18.4s						
GTA2				L	L		
	comp=Z,80µm,17.5s						
GTA2				L	L		
	comp=Z,101µm,18.1s						
ATKA	**Atka Island**	**32.91**	**51**	P	**P**	**02 50 43.8**	**+2.2**
	comp=Z,174nm,1.1s						
ATKA	**Atka Island**	**32.91**	**51**	IAMs_20	IAMs_20	03 01 47.0	
	comp=Z,14µm,21.0s						
KNGR	**Kungurtug, Tuv**	**33.36**	**306**	*c* *i*P	**P**	**02 50 47.9**	**+2.1**
KNGR				pmax	pmax		
	comp=Z,589nm,1.0s						
KNGR				MLR	MLR		
	comp=Z,39µm,17.0s						
TIXI	**Tiksi**	**33.64**	**352**	LR	LR	03 05 57.9	
	comp=Z,20µm,19.4s,baz=166,slow=39						
TIXI	**Tiksi**	**33.64**	**352**	*ce*P	**P**	**02 50 47.3**	**-0.5**
TIXI				pmax	pmax		
	comp=Z,124nm,1.1s						
TIXI				MLR	MLR		
	comp=Z,18µm,18.0s						
TIXI	**Tiksi**	**33.64**	**352**		**P**	**02 50 47.0**	**-0.8**
TIXI				IAmb	IAmb	02 50 56.0	
	comp=Z,129nm,1.1s						
QIZ	**Qiongzhong**	**34.18**	**244**	P	**P**	**02 50 53.8**	**+0.8**
QIZ				sP	**pP**	**02 51 05.6**	**+1.7**
QIZ				PP	**PP**	**02 52 11.1**	**+0.2**
QIZ				S	**S**	**02 56 18.1**	**+1.2**
QIZ				pmax	pmax		
	comp=Z,100nm,0.9s						
QIZ				pmax	pmax		
	comp=Z,2µm,9.8s						
QIZ				L	L		
	comp=Z,14µm,17.5s						
QIZ				L	L		
	comp=Z,11µm,17.7s						
QIZ				L	L		
	comp=Z,24µm,15.4s						
QIZ	**Qiongzhong**	**34.18**	**244**	IAMs_20	IAMs_20	03 06 11.5	
	comp=Z,14µm,18.0s						
QIZ	**Qiongzhong**	**34.18**	**244**	P	**P**	**02 50 54.6**	**+1.5**
	comp=Z,16µmcomp=Z,3µmcomp=Z,126nm,1.0s						
QIZ	**Qiongzhong**	**34.18**	**244**	P	**P**	**02 50 54.2**	**+1.2**
QIZ				pP	**pP**	**02 51 02.9**	**-1.0**
DAV	**Davao City (W)**	**34.92**	**210**	LR	LR	03 05 10.1	
	comp=Z,9µm,20.7s,baz=43,slow=36						
PATS	**Pohnpei**	**34.99**	**151**	P	**P**	**02 51 00.3**	**+0.3**
	comp=Z,310nm,1.1s						
PATS	**Pohnpei**	**34.99**	**151**	P	**P**	**02 51 00.7**	**+0.7**
	comp=Z,334nm,1.1s						
PATS	**Pohnpei**	**34.99**	**151**	IAMs_20	IAMs_20	03 01 48.8	
	comp=Z,18µm,22.0s						
MIDW	**Midway**	**35.12**	**95**	IAMs_20	IAMs_20	03 01 52.0	
	comp=Z,17µm,22.0s						
KMI2	**Kunming**	**35.79**	**260**	⇑P	**P**	**02 51 06.8**	**-0.4**
KMI2				sP	sP	02 51 23.7	+0.9
KMI2				PP	**PP**	**02 52 28.8**	**-0.1**
KMI2				S	**S**	**02 56 38.4**	**-3.7**
KMI2				pmax	pmax		
	comp=Z,420nm,0.9s						
KMI2				pmax	pmax		
	comp=Z,4µm,7.7s						
KMI2				L	L		
	comp=Z,22µm,17.7s						
KMI2				L	L		
	comp=Z,25µm,18.7s						
KMI2				L	L		
	comp=Z,36µm,20.9s						
PZH	**PanZhiHua**	**35.87**	**262**	P	**P**	**02 51 07.9**	**+0.2**
PZH				PP	**PP**	**02 52 29.5**	**-0.1**
PZH				S	**S**	**02 56 42.5**	**-0.6**
PZH				SS	**SnSn**	**02 59 09.0**	**+0.7**
PZH				pmax	pmax		
	comp=Z,270nm,0.7s						
PZH				pmax	pmax		
	comp=Z,4µm,5.1s						
PZH				L	L		
	comp=Z,11µm,15.3s						
PZH				L	L		
	comp=Z,18µm,14.9s						
PZH				L	L		
	comp=Z,26µm,15.5s						
SPIA	**Saint Paul Isl**	**35.91**	**43**	P	**P**	**02 51 09.3**	**+1.8**
	comp=Z,225nm,1.4s						
SLVN	**Son La**	**37.05**	**253**	P	**P**	**02 51 18.4**	**+0.7**
	comp=Z,141nm,1.0s						
SLVN	**Son La**	**37.05**	**253**	P	**P**	**02 51 17.5**	**-0.3**
SLVN				IAmb	IAmb	02 51 21.5	
	comp=Z,115nm,0.9s						
SLVN				IAMs_20	IAMs_20	03 08 26.8	
	comp=Z,12µm,20.0s						
SLVN	**Son La**	**37.05**	**253**	P	**P**	**02 51 18.4**	**+0.7**
	comp=Z,14µmcomp=Z,3µmcomp=Z,141nm,1.0s,comp=Z,3µm						
GOMU	**GeErMu**	**37.31**	**281**	P	**P**	**02 51 18.1**	**-2.1**
GOMU				PP	**PnPn**	**02 52 47.3**	**+0.9**
GOMU				S	S	02 56 52.5	-13
GOMU				L	L		
	comp=Z,27µm,16.5s						
GOMU				L	L		
	comp=Z,20µm,16.6s						
GOMU				L	L		
	comp=Z,31µm,16.5s						
GAMI	**Galela, Maluku**	**39.03**	**203**	P	**P**	**02 51 34.8**	**+0.5**
	comp=Z,4µmcomp=Z,278nm,1.2s						
TNA	**Tin City**	**39.07**	**30**		**P**	**02 51 35.9**	**+1.8**
TNA				IAmb	IAmb	02 51 41.1	
	comp=Z,150nm,0.9s						
TNA				IAMs_20	IAMs_20	03 07 23.8	
	comp=Z,4µm,21.0s						
TNA	**Tin City**	**39.07**	**30**	⇑P	**P**	**02 51 36.0**	**+1.8**
TNCH	**TengChong**	**39.12**	**263**	⇑P	**P**	**02 51 35.3**	**0.0**
TNCH				PP	**PnPn**	**02 53 10.2**	**+2.1**
TNCH				S	**S**	**02 57 33.0**	**+0.5**
TNCH				SS	**SS**	**03 00 18.4**	**-7.6**
TNCH				pmax	pmax		
	comp=Z,950nm,1.0s						
TNCH				pmax	pmax		
	comp=Z,7µm,3.5s						
TNCH				L	L		
	comp=Z,8µm,12.5s						
TNCH				L	L		
	comp=Z,14µm,15.5s						
TNCH				L	L		
	comp=Z,19µm,16.3s						
K13K	**Kusilvak Mount**	**39.57**	**36**		**P**	**02 51 39.8**	**+1.4**
K13K				IAmb	IAmb	02 51 58.8	
	comp=Z,194nm,1.3s						
K13K				IAMs_20	IAMs_20	03 10 34.0	
	comp=Z,3µm,19.0s						
MYLDM	**Lahad Datu**	**39.72**	**219**	P	**P**	**02 51 41.6**	**+1.5**
	comp=Z,607nm,1.2s						
MYLDM	**Lahad Datu**	**39.72**	**219**		**P**	**02 51 41.9**	**+1.9**
MYLDM	**Lahad Datu**	**39.72**	**219**	⇑P	**P**	**02 51 42.4**	**+2.3**
MYLDM	**Lahad Datu**	**39.72**	**219**	P	**P**	**02 51 42.5**	**+2.5**
	comp=Z,14µmcomp=Z,6µmcomp=Z,607nm,1.2s						
MYLDM	**Lahad Datu**	**39.72**	**219**	P	**P**	**02 51 42.6**	**+2.5**
	comp=Z,14µmcomp=Z,6µmcomp=Z,607nm,1.2s						
ANM	**Nome**	**39.83**	**32**	P	**P**	**02 51 42.6**	**+2.1**
DGZ	**Jazzator, Alta**	**39.86**	**304**	*c* *i*P	**P**	**02 51 42.6**	**+1.4**
DGZ				pmax	pmax		
	comp=Z,929nm,0.8s						
DGZ				MLR	MLR		
	comp=Z,54µm,18.0s						
M13K	**Dall Lake**	**39.95**	**39**	IAmb	IAmb	02 52 02.6	
	comp=Z,203nm,1.0s						
DLV	**Lat**	**40.08**	**237**	IAmb	IAmb	02 51 55.1	
	comp=Z,241nm,1.0s						
DLV	**Lat**	**40.08**	**237**	P	**P**	**02 51 44.7**	**+1.3**
	comp=Z,254nm,0.9s						
KKM	**Kota Kinabalu**	**40.14**	**222**		**P**	**02 51 44.2**	**+0.5**
KKM				IAmb	IAmb	02 52 14.4	
	comp=Z,246nm,1.2s						

KKM	**Kota Kinabalu**	**40.14**	**222**	⇑P	**P**	**02 51 43.8**	**+0.1**
KKM	**Kota Kinabalu**	**40.14**	**222**	P	**P**	**02 51 45.0**	**+1.3**
	comp=Z,11µmcomp=Z,4µmcomp=Z,136nm,1.0s						
KKM	**Kota Kinabalu**	**40.14**	**222**	P	**P**	**02 51 44.9**	**+1.3**
	comp=Z,11µmcomp=Z,4µmcomp=Z,136nm,1.0s						
BAKI	**Biak**	**40.15**	**189**	P	**P**	**02 51 45.6**	**+2.0**
TNTI	**Ternate**	**40.16**	**203**	P	**P**	**02 51 44.7**	**+0.9**
	comp=Z,240nm,1.5s						
TNTI	**Ternate**	**40.16**	**203**		**P**	**02 51 44.1**	**+0.3**
TNTI	**Ternate**	**40.16**	**203**	P	**P**	**02 51 44.6**	**+0.8**
	comp=Z,5µmcomp=Z,241nm,1.2s						
TNTI	**Ternate**	**40.16**	**203**	P	**P**	**02 51 44.3**	**+0.5**
	comp=Z,3µmcomp=Z,4µmcomp=Z,240nm,1.5s,comp=Z,4µm						
J14K	**Nanvaranak Lak**	**40.22**	**35**		**P**	**02 51 45.1**	**+1.3**
J14K				IAmb	IAmb	02 51 50.6	
	comp=Z,89nm,0.9s						
MNI	**Manado**	**40.38**	**207**	P	**P**	**02 51 46.9**	**+1.3**
	comp=Z,654nm,1.0s						
L14K	**Kuka Creek**	**40.40**	**38**	IAmb	IAmb	02 52 06.0	
	comp=Z,206nm,1.2s						
F15K	**North Star Dit**	**40.41**	**31**	P	**P**	**02 51 47.5**	**+2.1**
F15K				IAmb	IAmb	02 52 01.6	
	comp=Z,167nm,1.0s						
WMQ	**Urumqi**	**40.59**	**295**	⇑P	**P**	**02 51 48.4**	**+1.2**
WMQ				sP	sP	02 52 04.3	+1.3
WMQ				PcS	**PcS**	**02 57 40.3**	**+0.9**
WMQ				S	**S**	**02 57 55.3**	**+1.3**
WMQ				pmax	pmax		
	comp=Z,750nm,1.1s						
WMQ				pmax	pmax		
	comp=Z,5µm,3.8s						
WMQ				L	L		
	comp=Z,10µm,17.5s						
WMQ				L	L		
	comp=Z,17µm,16.3s						
WMQ				L	L		
	comp=Z,18µm,24.1s						
WMQ	**Urumqi**	**40.59**	**295**	P	**P**	**02 51 48.9**	**+1.7**
WMQ				ScP	**ScP**	**02 57 33.4**	**-1.6**
M14K	**Bethel**	**40.67**	**39**	IAmb	IAmb	02 52 08.0	
	comp=Z,154nm,1.0s						
SWI	**Sorong**	**40.69**	**197**	P	**P**	**02 51 48.6**	**+0.5**
	comp=Z,4µmcomp=Z,206nm,0.9s						
O14K	**Tigyukauivet M**	**40.88**	**41**		**P**	**02 51 50.7**	**+1.5**
O14K				IAmb	IAmb	02 52 09.8	
	comp=Z,449nm,1.9s						
C16K	**Lisburne Hills**	**40.90**	**27**	IAmb	IAmb	02 51 55.1	
	comp=Z,132nm,0.9s						
K15K	**Wolf Creek Mou**	**41.08**	**36**	IAmb	IAmb	02 52 11.7	
	comp=Z,252nm,1.4s						
ZAA0	**Zalesovo Array**	**41.19**	**311**	P	**P**	**02 51 51.6**	**-0.2**
ZAA0				IAmb	IAmb	02 51 53.7	
	comp=Z,301nm,0.8s						
ZALV	**Zalesovo Beam**	**41.19**	**311**	P	**P**	**02 51 51.3**	**-0.6**
	comp=Z,175nm,0.5s,baz=87,slow=6.2,SNR=366						
ZALV				PcP	**PcP**	**02 53 50.1**	**-0.3**
	comp=Z,46nm,0.8s,baz=90,slow=3.8,SNR=4.0						
ZALV				LR	LR	03 09 45.1	
	comp=Z,39µm,18.7s,baz=84,slow=37						
	comp=Z,175nm,0.5s						
ZALV	**Zalesovo Beam**	**41.19**	**311**	*i* P	**P**	**02 51 51.2**	**-0.6**
ZALV				pmax	pmax		
	comp=Z,331nm,0.9s						
ZIRO	**ZIRO**	**41.52**	**269**	*e*P	**P**	**02 51 53.9**	**-1.3**
ZIRO				IAmb	IAmb	02 52 02.3	
	comp=Z,45nm,1.0s						
JORH	**JORHAT**	**41.59**	**268**	*e*P	**P**	**02 51 55.8**	**+0.3**
JORH				IAmb	IAmb	02 51 58.4	
	comp=Z,189nm,0.8s						
MOKO	**MOKOCHONG**	**41.59**	**267**	*e*P	**P**	**02 51 52.9**	**-2.7**
MOKO				IAmb	IAmb	02 52 17.9	
	comp=Z,107nm,0.4s						
O15K	**Ungalikthiuk R**	**41.61**	**41**	P	**P**	**02 51 55.7**	**+0.4**
O15K				IAmb	IAmb	02 52 15.5	
	comp=Z,362nm,1.5s						
J16K	**Anvik River**	**41.64**	**35**	IAmb	IAmb	02 52 03.9	
	comp=Z,69nm,0.9s						
J16K				IAMs_20	IAMs_20	03 10 35.1	
	comp=Z,4µm,20.0s						
I17K	**Unalakleet**	**41.69**	**34**	IAmb	IAmb	02 52 16.5	
	comp=Z,132nm,1.1s						
I17K				IAMs_20	IAMs_20	03 08 06.5	
	comp=Z,3µm,21.0s						
RDOG	**Red Dog Mine**	**41.70**	**28**	P	**P**	**02 51 56.5**	**+0.6**
RDOG				IAmb	IAmb	02 52 02.4	
	comp=Z,286nm,1.6s						
CHNA	**Chernabura Isl**	**41.72**	**48**	P	**P**	**02 51 58.7**	**+2.6**
	comp=Z,92nm,1.0s						
CNBA	**Chernabura Isl**	**41.72**	**48**	IAMs_20	IAMs_20	03 07 15.7	
	comp=Z,10µm,22.0s						
GTOI	**Gorontalo**	**41.80**	**209**	P	**P**	**02 51 57.1**	**-0.2**
	comp=Z,6µmcomp=Z,494nm,1.2s						
ITAN	**ITANAGAR**	**41.81**	**269**	*e*P	**P**	**02 51 56.1**	**-1.2**
ITAN				IAmb	IAmb	02 52 01.6	
	comp=Z,247nm,1.1s						
ZSN	**Zaisan**	**41.85**	**301**	*e*P	**P**	**02 51 57.9**	**+0.5**
ZSN				*e*S	**S**	**02 58 14.9**	**+2.5**
ZSN				pmax	pmax		
	comp=Z,265nm,0.9s						
ZSN	**Zaisan**	**41.85**	**301**	*e*P	**P**	**02 51 57.9**	**+0.5**
	comp=Z,265nm,0.9s						
ZSN				*e*S	**S**	**02 58 15.0**	**+2.5**
F17K	**Baldwin Pennin**	**41.94**	**30**	IAmb	IAmb	02 52 13.7	
	comp=Z,180nm,0.9s						
NRIK	**Noril'sk**	**41.94**	**334**	P	**P**	**02 51 57.1**	**-0.7**
	comp=Z,109nm,0.6s,baz=109,slow=8.8,SNR=79						
NRIK				LR	LR	03 10 22.5	
	comp=Z,50µm,19.4s,baz=107,slow=37						
	comp=Z,109nm,0.6s						
NRIK	**Noril'sk**	**41.94**	**334**	*c i*P	**P**	**02 51 57.1**	**-0.7**
NRIK				pmax	pmax		
	comp=Z,284nm,1.3s						
NRIK				MLR	MLR		
	comp=Z,46µm,19.0s						
NRIK	**Noril'sk**	**41.94**	**334**	P	**P**	**02 51 57.7**	**-0.2**
NRIK				IAmb	IAmb	02 52 02.2	
	comp=Z,318nm,1.2s						
M16K	**Timber Creek**	**42.16**	**38**	IAmb	IAmb	02 52 20.1	
	comp=Z,282nm,1.4s						
H17K	**Granite Mounta**	**42.19**	**33**	IAmb	IAmb	02 52 07.0	
	comp=Z,93nm,0.9s						
TOLI2	**Tolitoli**	**42.27**	**213**	P	**P**	**02 52 01.1**	**0.0**
	comp=Z,142nm,1.0s						
TOLI2	**Tolitoli**	**42.27**	**213**		**P**	**02 52 00.9**	**-0.2**
TOLI2				IAmb	IAmb	02 52 07.1	
	comp=Z,163nm,1.1s						
TOLI2	**Tolitoli**	**42.27**	**213**	P	**P**	**02 52 01.2**	**+0.1**
	comp=Z,8µmcomp=Z,3µmcomp=Z,131nm,1.0s,comp=Z,3µm						
CHTO	**Chiang Mai**	**42.29**	**254**	P	**P**	**02 52 02.1**	**+0.8**
	comp=Z,197nm,0.7s						
CHTO	**Chiang Mai**	**42.29**	**254**	P	**P**	**02 52 01.2**	**0.0**
CHTO				S	**S**	**02 58 15.8**	**-3.7**
CHTO	**Chiang Mai**	**42.29**	**254**		**P**	**02 52 01.6**	**+0.4**
CHTO				IAmb	IAmb	02 52 13.4	
	comp=Z,213nm,0.7s						
CHTO				IAMs_20	IAMs_20	03 10 37.3	
	comp=Z,8µm,20.0s						
CHTO	**Chiang Mai**	**42.29**	**254**	⇑P	**P**	**02 52 00.8**	**-0.5**
CHTO	**Chiang Mai**	**42.29**	**254**	P	**P**	**02 52 01.4**	**+0.1**
	comp=Z,4µmcomp=Z,330nm,0.7s						
CHTO	**Chiang Mai**	**42.29**	**254**	P	**P**	**02 52 01.8**	**+0.5**
	comp=Z,15µmcomp=Z,4µmcomp=Z,328nm,0.7s,comp=Z,4µm						
J17K	**VABM Dome**	**42.34**	**35**	IAmb	IAmb	02 52 18.1	
	comp=Z,385nm,1.4s						
E18K	**Tukpahlearik C**	**42.40**	**29**	IAmb	IAmb	02 52 08.6	
	comp=Z,132nm,0.9s						
FAKI	**Fak Fak**	**42.47**	**195**	P	**P**	**02 52 03.3**	**+0.6**
	comp=Z,192nm,0.8s						
FAKI	**Fak Fak**	**42.47**	**195**		**P**	**02 52 02.8**	**+0.1**
FAKI	**Fak Fak**	**42.47**	**195**	⇑P	**P**	**02 52 02.8**	**+0.1**
FAKI	**Fak Fak**	**42.47**	**195**	P	**P**	**02 52 03.5**	**+0.8**
	comp=Z,6µmcomp=Z,4µmcomp=Z,189nm,0.7s						
FAKI	**Fak Fak**	**42.47**	**195**	P	**P**	**02 52 02.5**	**-0.2**
	comp=Z,6µmcomp=Z,4µmcomp=Z,192nm,0.8s						
CM31	**Chiang Mai Arr**	**42.50**	**254**	P	**P**	**02 52 04.1**	**+1.1**
	SNR=14						
CM31	**Chiang Mai Arr**	**42.50**	**254**	IAmb	IAmb	02 52 15.5	
	comp=Z,88nm,0.6s						
CMAR	**Chiang Mai Arr**	**42.50**	**254**	P	**P**	**02 52 02.9**	**-0.2**
	comp=Z,30nm,0.8s,baz=46,slow=6.5,SNR=40						
CMAR				PcP	**PcP**	**02 53 55.8**	**+0.5**
	comp=Z,16nm,0.9s,baz=26,slow=1.3,SNR=4.4						
CMAR				LR	LR	03 10 54.5	
	comp=Z,7µm,19.8s,baz=50,slow=38						
	comp=Z,30nm,0.8s						
CMAR	**Chiang Mai Arr**	**42.50**	**254**	*i* P	**P**	**02 52 03.7**	**+0.7**
CMAR				pmax	pmax		
	comp=Z,31nm,0.8s						
CMAR	**Chiang Mai Arr**	**42.50**	**254**	P	**P**	**02 52 03.3**	**+0.3**
O16K	**Kokwok River B**	**42.52**	**41**	IAmb	IAmb	02 52 22.9	
	comp=Z,490nm,2.0s						
P16K	**Nushagak River**	**42.55**	**41**	IAmb	IAmb	02 52 10.5	
	comp=Z,253nm,1.0s						
K17K	**Iditarod**	**42.61**	**36**	IAmb	IAmb	02 52 24.2	
	comp=Z,276nm,1.1s						
LSA	**Lhasa**	**42.64**	**274**	P	**P**	**02 52 06.3**	**+1.7**
LSA	**Lhasa**	**42.64**	**274**	IAmb	IAmb	02 52 08.2	
	comp=Z,307nm,1.0s						
LSA	**Lhasa**	**42.64**	**274**	*i* P	**P**	**02 52 05.5**	**+0.9**
	SNR=75						
LSA	**Lhasa**	**42.64**	**274**	P	**P**	**02 52 06.3**	**+1.7**
	comp=Z,18µmcomp=Z,5µmcomp=Z,319nm,1.0s						
LSA	**Lhasa**	**42.64**	**274**	P	**P**	**02 52 06.3**	**+1.7**
LSA				ScP	**ScP**	**02 57 44.5**	**+0.6**
IMP	**Imphal**	**42.78**	**266**	*e*P	**P**	**02 52 01.3**	**-4.0**
IMP				IAmb	IAmb	02 52 08.2	
	comp=Z,214nm,0.9s						
MORE	**Moreh**	**42.81**	**265**	IAmb	IAmb	02 52 23.7	
	comp=Z,174nm,0.7s						
MORE				IAMs_20	IAMs_20	03 10 33.9	
	comp=Z,13µm,21.0s						
G18K	**Tagagawik**	**42.87**	**31**	IAmb	IAmb	02 52 22.0	
	comp=Z,520nm,1.7s						
H18K	**Honhosa River**	**42.88**	**32**	IAmb	IAmb	02 52 21.2	
	comp=Z,246nm,1.1s						
M17K	**Holitna River**	**42.92**	**38**	IAmb	IAmb	02 52 26.6	
	comp=Z,183nm,0.9s						
N17K	**Nushagak Hills**	**43.00**	**39**	IAmb	IAmb	02 52 28.4	
	comp=Z,233nm,1.4s						
C19K	**Lookout Ridge**	**43.15**	**26**	IAmb	IAmb	02 52 14.4	
	comp=Z,168nm,1.0s						
SANI	**Sanana**	**43.26**	**204**	P	**P**	**02 52 07.9**	**-1.2**
SANI	**Sanana**	**43.26**	**204**	P	**P**	**02 52 08.8**	**-0.3**
	comp=Z,295nm,0.9s						
SANI	**Sanana**	**43.26**	**204**	⇑P	**P**	**02 52 07.6**	**-1.5**
SANI	**Sanana**	**43.26**	**204**	P	**P**	**02 52 08.7**	**-0.3**
	comp=Z,6µmcomp=Z,5µmcomp=Z,293nm,0.9s						
SANI	**Sanana**	**43.26**	**204**	P	**P**	**02 52 08.5**	**-0.6**
	comp=Z,6µmcomp=Z,5µmcomp=Z,295nm,0.9s,comp=Z,5µm						
P17K	**Kvichak River**	**43.36**	**41**	P	**P**	**02 52 10.6**	**+1.2**
P17K				IAmb	IAmb	02 52 57.6	
	comp=Z,117nm,0.8s						
F19K	**Shaleruckik Mo**	**43.37**	**30**	IAmb	IAmb	02 52 29.3	
	comp=Z,589nm,2.0s						
LUWI	**Luwuk**	**43.44**	**209**	P	**P**	**02 52 08.6**	**-1.9**
LUWI	**Luwuk**	**43.44**	**209**	P	**P**	**02 52 11.7**	**+1.2**
	comp=Z,438nm,1.1s						
LUWI	**Luwuk**	**43.44**	**209**	P	**P**	**02 52 10.9**	**+0.4**
	comp=Z,5µmcomp=Z,438nm,1.1s						
LUWI	**Luwuk**	**43.44**	**209**	P	**P**	**02 52 09.3**	**-1.2**
	comp=Z,5µmcomp=Z,437nm,1.1s,comp=Z,5µm						
G19K	**Purcell Mounta**	**43.54**	**31**	IAmb	IAmb	02 52 26.2	
	comp=Z,116nm,1.0s						
D19K	**Kuna River**	**43.54**	**28**	IAmb	IAmb	02 52 17.4	
	comp=Z,371nm,1.0s						
MSAI	**Masohi**	**43.65**	**199**	P	**P**	**02 52 15.2**	**+3.0**
	comp=Z,10µmcomp=Z,378nm,1.9s						
MSAI				pP	**pP**	**02 52 25.8**	**+2.5**
	comp=Z,10µmcomp=Z,378nm,1.9s						
N18K	**Kilae Creek**	**43.65**	**39**	IAmb	IAmb	02 52 36.1	
	comp=Z,117nm,0.9s						
E19K	**Redstone River**	**43.68**	**29**	IAmb	IAmb	02 52 18.8	
	comp=Z,157nm,0.9s						
SILR	**SILCHAR**	**43.69**	**266**	*e*P	**P**	**02 52 10.8**	**-1.8**
SILR				IAmb	IAmb	02 52 17.0	
	comp=Z,113nm,0.7s						
MK31	**Makanchi Array**	**43.70**	**301**	*i* P	**P**	**02 52 12.6**	**+0.2**
MK31				pmax	pmax		
	comp=Z,145nm,0.7s						
MKAR	**Makanchi Array**	**43.70**	**301**	P	**P**	**02 52 12.2**	**-0.3**
	comp=Z,144nm,0.7s,baz=84,slow=8.7,SNR=233						
MKAR				LR	LR	03 11 11.6	
	comp=Z,19µm,19.1s,baz=64,slow=37						
	comp=Z,144nm,0.7s						
MKAR	**Makanchi Array**	**43.70**	**301**	P	**P**	**02 52 12.3**	**-0.1**
MKAR	**Makanchi Array**	**43.70**	**301**	P	**P**	**02 52 12.3**	**-0.1**
APSI	**Ampana**	**43.75**	**210**	P	**P**	**02 52 13.3**	**+0.3**
	comp=Z,7µmcomp=Z,760nm,1.2s						
KRVT	**Keravat (AS076**	**43.83**	**166**	LR	LR	03 10 01.2	
	comp=Z,3µm,20.2s,baz=346,slow=35						
NPW	**Naypyitaw**	**43.84**	**258**	P	**P**	**02 52 14.9**	**+1.1**
	comp=Z,8µmcomp=Z,7µmcomp=Z,495nm,0.9s						
MAKZ	**Makanchi**	**43.91**	**301**	P	**P**	**02 52 14.4**	**+0.3**
MAKZ				IAmb	IAmb	02 52 31.4	
	comp=Z,266nm,0.9s						
MAKZ	**Makanchi**	**43.91**	**301**	⇑P	**P**	**02 52 13.9**	**-0.2**
MAKZ	**Makanchi**	**43.91**	**301**	P	**P**	**02 52 14.7**	**+0.6**
	comp=Z,17µmcomp=Z,8µmcomp=Z,303nm,1.0s						
J19K	**Poorman**	**43.93**	**34**	IAmb	IAmb	02 52 20.9	
	comp=Z,140nm,0.9s						
O18K	**Koktuh Hills**	**43.98**	**40**	IAmb	IAmb	02 52 35.0	
	comp=Z,153nm,1.2s						
SHL	**Shillong**	**44.02**	**268**	P	**P**	**02 52 15.0**	**-0.3**
SHL	**Shillong**	**44.02**	**268**	*e*P	P	02 52 10.5	-4.9
SHL				IAmb	IAmb	02 52 18.7	
	comp=Z,116nm,1.4s						
NLAI	**Namlea**	**44.05**	**202**	P	**P**	**02 52 17.3**	**+1.9**
	comp=Z,8µmcomp=Z,3µmcomp=Z,158nm,1.2s						
D20K	**Etivluk River**	**44.12**	**27**	IAmb	IAmb	02 52 22.2	
	comp=Z,295nm,1.0s						
B20K	**Meade River**	**44.18**	**25**	IAmb	IAmb	02 52 22.3	
	comp=Z,251nm,1.0s						
F20K	**Avaraart Lake**	**44.20**	**30**	IAmb	IAmb	02 52 31.7	
	comp=Z,73nm,1.0s						
AZL	**Aizawl**	**44.32**	**265**	*e*P	**P**	**02 52 15.8**	**-1.9**
AZL				IAmb	IAmb	02 52 41.6	
	comp=Z,24nm,2.5s						
SEM	**Semipalatinsk**	**44.36**	**306**	*c i*P	**P**	**02 52 18.1**	**+0.2**
SEM				pmax	pmax		
	comp=Z,163nm,0.9s						
SEM				MLR	MLR		
	comp=Z,18µm,15.0s						
SEM	**Semipalatinsk**	**44.36**	**306**	⇑*i*P	**P**	**02 52 18.1**	**+0.2**
	comp=Z,163nm,0.9s						
SEM				LR	LR	03 11 14.8	
	comp=Z,18µm,14.8s						
I20K	**Naaghedeneel**	**44.48**	**33**	IAmb	IAmb	02 52 35.1	
	comp=Z,282nm,1.3s						
PCI	**Palu**	**44.49**	**213**	P	**P**	**02 52 19.1**	**+0.1**
	comp=Z,8µmcomp=Z,614nm,1.2s						
BNDI	**Bandanaira**	**44.54**	**198**	P	**P**	**02 52 20.4**	**+1.1**
	comp=Z,1µm,1.1s						
BNDI	**Bandanaira**	**44.54**	**198**	P	**P**	**02 52 22.2**	**+2.9**
BNDI	**Bandanaira**	**44.54**	**198**	P	**P**	**02 52 20.4**	**+1.1**
	comp=Z,16µmcomp=Z,1µm,1.1s						
K20K	**Telida**	**44.58**	**35**	IAmb	IAmb	02 52 39.8	
	comp=Z,164nm,1.1s						
SII	**Sitkinak Islan**	**44.67**	**45**	IAMs_20	IAMs_20	03 09 56.0	
	comp=Z,9µm,21.0s						
SAIH	**SAIHA**	**44.76**	**263**	*e*P	**P**	**02 52 20.3**	**-0.9**
SAIH				IAmb	IAmb	02 52 24.5	
	comp=Z,126nm,0.7s						
Q19K	**Cape Douglas,**	**44.81**	**42**	IAmb	IAmb	02 53 03.6	
	comp=Z,101nm,0.6s						
IMAR	**Indian Mountai**	**44.88**	**31**	P	**P**	**02 52 22.9**	**+1.4**
G21K	**Allakaket**	**45.02**	**31**	IAmb	IAmb	02 52 38.5	
	comp=Z,108nm,0.9s						
E21K	**Killik River**	**45.04**	**28**	IAmb	IAmb	02 52 29.2	
	comp=Z,135nm,0.9s						
F21K	**Alatna River**	**45.09**	**30**	IAmb	IAmb	02 53 01.3	
	comp=Z,349nm,2.0s						
OHAK	**Old Harbor**	**45.10**	**44**	P	**P**	**02 52 25.4**	**+2.0**
	comp=Z,99nm,0.9s						
H21K	**Melozitna Rive**	**45.24**	**32**	IAmb	IAmb	02 52 40.2	
	comp=Z,109nm,1.1s						
DHUB	**DHUBRI**	**45.27**	**270**	*e*P	**P**	**02 52 21.4**	**-3.7**
DHUB				IAmb	IAmb	02 52 28.8	
	comp=Z,42nm,0.9s						
SBUM	**Sibu**	**45.29**	**225**	P	**P**	**02 52 26.4**	**+1.0**
	comp=Z,142nm,1.2s						
SBUM	**Sibu**	**45.29**	**225**	IAmb	IAmb	02 52 27.2	
	comp=Z,145nm,1.1s						
SBUM				IAMs_20	IAMs_20	03 11 38.2	
	comp=Z,10µm,20.0s						
SBUM	**Sibu**	**45.29**	**225**	⇑P	**P**	**02 52 25.8**	**+0.5**
SBUM	**Sibu**	**45.29**	**225**	P	**P**	**02 52 25.9**	**+0.5**
	comp=Z,10µmcomp=Z,142nm,1.2s						
SBUM	**Sibu**	**45.29**	**225**	P	**P**	**02 52 24.8**	**-0.6**
	comp=Z,10µmcomp=Z,3µmcomp=Z,142nm,1.2s						
KURK	**Kurchatov**	**45.33**	**307**	P	**P**	**02 52 25.0**	**-0.3**
KURK				S	**S**	**02 59 02.1**	**-1.0**
KURK	**Kurchatov**	**45.33**	**307**	*ce*P	**P**	**02 52 24.7**	**-0.6**
KURK				pmax	pmax		
	comp=Z,1µm,0.9s						
KURK				MLR	MLR		
	comp=Z,28µm,17.0s						
KURK	**Kurchatov**	**45.33**	**307**	P	**P**	**02 52 24.7**	**-0.6**
KURK	**Kurchatov**	**45.33**	**307**	P	**P**	**02 52 24.9**	**-0.4**
	comp=Z,18µmcomp=Z,14µmcomp=Z,1µm,0.9s						
KURK	**Kurchatov**	**45.33**	**307**	P	**P**	**02 52 26.3**	**+1.0**
KURK				ScP	**ScP**	**02 57 53.6**	**-0.2**
KURBB	**Kurchatov Arra**	**45.40**	**307**	P	**P**	**02 52 25.7**	**-0.2**
	comp=Z,796nm,0.8s,baz=82,slow=8.2,SNR=183						
KURBB				LR	LR	03 12 10.4	
	comp=Z,29µm,18.4s,baz=78,slow=37						
	comp=Z,796nm,0.8s						
KURBB	**Kurchatov Arra**	**45.40**	**307**	P	**P**	**02 52 25.9**	**0.0**
KDAK	**Kodiak Island**	**45.44**	**43**	LR	LR	03 11 01.4	
	comp=Z,10µm,21.8s,baz=244,slow=35						
KDAK	**Kodiak Island**	**45.44**	**43**	*i* P	**P**	**02 52 24.9**	**-1.1**
KDAK				pmax	pmax		
	comp=Z,164nm,0.9s						
KDAK				MLR	MLR		
	comp=Z,13µm,21.0s						
KDAK	**Kodiak Island**	**45.44**	**43**	P	**P**	**02 52 25.8**	**-0.3**
KDAK				IAmb	IAmb	02 52 48.5	
	comp=Z,122nm,0.9s						
KDAK	**Kodiak Island**	**45.44**	**43**	IAMs_20	IAMs_20	03 10 27.1	
	comp=Z,11µm,22.0s						
KDAK	**Kodiak Island**	**45.44**	**43**	⇑P	**P**	**02 52 25.0**	**-1.1**
KDAK	**Kodiak Island**	**45.44**	**43**	P	**P**	**02 52 26.7**	**+0.6**
	comp=Z,4µmcomp=Z,2µmcomp=Z,142nm,1.4s						
B22K	**Teshekpuk Lake**	**45.50**	**25**	IAmb	IAmb	02 52 41.5	
	comp=Z,146nm,0.8s						
I21K	**Tanana**	**45.56**	**33**	IAmb	IAmb	02 52 47.6	
	comp=Z,149nm,1.3s						
D22K	**Ayikyak River**	**45.56**	**27**	IAmb	IAmb	02 52 33.8	
	comp=Z,240nm,0.9s						
STLK	**Strandline Lak**	**45.61**	**38**	IAmb	IAmb	02 52 47.8	
	comp=Z,188nm,1.3s						
BRDH	**Bariadhala**	**45.70**	**265**	LR	LR	03 15 37.1	
	comp=Z,15µm,18.0s,baz=70,slow=41						
SKT	**Skwentna**	**45.74**	**37**	IAmb	IAmb	02 52 48.4	
	comp=Z,145nm,1.5s						
HOM	**Homer**	**45.79**	**40**	IAmb	IAmb	02 52 52.6	
	comp=Z,161nm,0.9s						
E22K	**Anaktuvuk Pass**	**45.81**	**29**	IAmb	IAmb	02 52 35.7	
	comp=Z,204nm,1.0s						
H22K	**Ishtalitna Cre**	**45.84**	**32**	IAmb	IAmb	02 52 45.4	
	comp=Z,89nm,0.9s						
BPAW	**Bear Paw Mtn.**	**45.97**	**34**	IAmb	IAmb	02 52 50.6	
	comp=Z,386nm,1.8s						
CNPM	**China Poot**	**46.01**	**41**	IAmb	IAmb	02 52 54.2	
	comp=Z,76nm,0.8s						
MLY	**Manley**	**46.08**	**33**	IAmb	IAmb	02 52 47.1	
	comp=Z,123nm,1.0s						
BKB	**Balikpapan**	**46.11**	**216**	P	**P**	**02 52 31.7**	**-0.1**
	comp=Z,739nm,1.3s						
BKB	**Balikpapan**	**46.11**	**216**	IAmb	IAmb	02 52 34.1	
	comp=Z,764nm,1.1s						
BKB	**Balikpapan**	**46.11**	**216**	P	**P**	**02 52 32.8**	**+1.0**
	comp=Z,12µmcomp=Z,9µmcomp=Z,735nm,1.3s						
BKB	**Balikpapan**	**46.11**	**216**	P	**P**	**02 52 32.2**	**+0.4**
	comp=Z,12µmcomp=Z,9µmcomp=Z,740nm,1.3s						
SUA	**Susitna One**	**46.14**	**38**	IAmb	IAmb	02 52 56.4	
	comp=Z,161nm,0.8s						
BRLK	**Bradley Lake**	**46.17**	**40**	IAmb	IAmb	02 52 55.8	
	comp=Z,108nm,0.9s						
KDI	**Kendari**	**46.18**	**208**	P	**P**	**02 52 33.5**	**+1.1**
TRF	**Thorofare Moun**	**46.28**	**35**	IAmb	IAmb	02 52 52.8	
	comp=Z,81nm,0.9s						
D23K	**Nanushuk River**	**46.29**	**27**	IAmb	IAmb	02 52 49.8	
	comp=Z,244nm,1.1s						
CUT	**Chulitna**	**46.32**	**37**	IAmb	IAmb	02 52 53.8	
	comp=Z,189nm,1.0s						
C23K	**Itkillik River**	**46.39**	**26**	IAmb	IAmb	02 52 49.5	
	comp=Z,470nm,1.1s						
M22K	**Willow**	**46.42**	**37**	IAmb	IAmb	02 52 57.7	
	comp=Z,107nm,1.0s						
SLKM	**Skilak Lake**	**46.45**	**39**	IAmb	IAmb	02 52 53.0	
	comp=Z,296nm,1.6s						
MMSI	**Mamuju**	**46.48**	**213**	P	**P**	**02 52 36.4**	**+1.6**
	comp=Z,6µmcomp=Z,3µmcomp=Z,129nm,1.0s						
PDGK	**Podgornoye**	**46.48**	**297**	P	**P**	**02 52 34.5**	**-0.2**
SHLS	**Shalkode**	**46.55**	**296**	*c i*P	**P**	**02 52 33.4**	**-1.8**
SHLS				*e*S	**S**	**02 59 19.2**	**-2.0**
SHLS	**Shalkode**	**46.55**	**296**	⇑*i*P	**P**	**02 52 33.4**	**-1.8**
SHLS				*e*S	**S**	**02 59 19.3**	**-2.0**
H23K	**Yukon River**	**46.59**	**32**	IAmb	IAmb	02 52 55.9	
	comp=Z,168nm,1.0s						
E23K	**Chandalar**	**46.63**	**29**	IAmb	IAmb	02 52 51.6	
	comp=Z,289nm,1.1s						
KKSI	**Kolaka, Sulawe**	**46.74**	**209**	P	**P**	**02 52 38.9**	**+2.2**
	comp=Z,9µmcomp=Z,5µmcomp=Z,246nm,1.1s						
TDK	**Taldyqorghan**	**46.76**	**299**	*e*P	**P**	**02 52 37.3**	**+0.6**
TDK				*e*S	**S**	**02 59 26.3**	**+2.4**
TDK				pmax	pmax		
	comp=Z,218nm,0.8s						
TDK				MLR	MLR		
	comp=Z,17µm,18.0s						
TDK	**Taldyqorghan**	**46.76**	**299**	*e*P	**P**	**02 52 37.3**	**+0.6**
	comp=Z,218nm,0.8s						
TDK				*e*S	**S**	**02 59 26.4**	**+2.4**
TDK				LR	LR	03 12 44.7	
	comp=Z,17µm,18.3s						
EVN	**Everest**	**46.82**	**274**	⇑P	**P**	**02 52 40.2**	**+2.2**
UZB	**Uzynbulak**	**46.87**	**297**	*c i*P	**P**	**02 52 38.0**	**+0.3**
UZB				*e*S	**S**	**02 59 27.8**	**+2.1**
UZB				pmax	pmax		
	comp=Z,181nm,1.4s						
UZB	**Uzynbulak**	**46.87**	**297**	⇑*i*P	**P**	**02 52 38.1**	**+0.3**
	comp=Z,181nm,1.4s						
UZB				*e*S	**S**	**02 59 27.9**	**+2.1**
MCK	**McKinley**	**46.88**	**35**	IAmb	IAmb	02 52 57.0	
	comp=Z,137nm,1.1s						
PMR	**Palmer**	**46.90**	**38**	P	**P**	**02 52 38.7**	**+1.2**
	comp=Z,158nm,1.3s						
PMR	**Palmer**	**46.90**	**38**	P	**P**	**02 52 39.5**	**+2.0**
PMR	**Palmer**	**46.90**	**38**	IAmb	IAmb	02 52 56.8	
	comp=Z,110nm,0.9s						
RND	**Reindeer**	**46.93**	**35**	IAmb	IAmb	02 52 54.0	
	comp=Z,183nm,1.1s						
KPKS	**Kokpek**	**47.01**	**297**	*e*P	**P**	**02 52 39.4**	**+0.7**
KPKS	**Kokpek**	**47.01**	**297**	*e*P	**P**	**02 52 39.4**	**+0.7**
C24K	**Franklin Bluff**	**47.05**	**26**	IAmb	IAmb	02 52 54.4	
	comp=Z,444nm,1.1s						
E24K	**Your Creek**	**47.05**	**29**	IAmb	IAmb	02 52 45.6	
	comp=Z,159nm,1.0s						
PMSI	**Majene**	**47.21**	**212**	P	**P**	**02 52 41.2**	**+0.7**
	comp=Z,7µmcomp=Z,5µmcomp=Z,284nm,0.9s						
H24K	**Noodor Dome**	**47.28**	**32**	IAmb	IAmb	02 53 01.2	
	comp=Z,207nm,1.4s						
SPSI	**Sidrap Palu**	**47.28**	**211**	P	**P**	**02 52 40.8**	**-0.2**
	comp=Z,3µmcomp=Z,171nm,1.2s						
COLA	**College**	**47.31**	**33**	*c i*P	**P**	**02 52 41.5**	**+0.8**
COLA				pmax	pmax		
	comp=Z,223nm,1.4s						
COLA				MLR	MLR		
	comp=Z,2µm,19.0s						
COLA	**College**	**47.31**	**33**	P	**P**	**02 52 41.7**	**+1.0**
SATY	**Saty**	**47.32**	**297**	*e*P	**P**	**02 52 41.7**	**+0.5**
SATY				*e*S	**S**	**02 59 34.2**	**+2.0**
SATY	**Saty**	**47.32**	**297**	*e*P	**P**	**02 52 41.7**	**+0.5**
SATY				*e*S	**S**	**02 59 34.2**	**+2.0**
WUS	**Wushi**	**47.33**	**294**	P	**P**	**02 52 41.3**	**-0.1**
	comp=Z,18µmcomp=Z,7µmcomp=Z,536nm,1.1s						
WUS	**Wushi**	**47.33**	**294**	P	**P**	**02 52 43.0**	**+1.6**
WUS				ScP	**ScP**	**02 58 04.6**	**+2.1**
CCB	**Clear Creek Bu**	**47.34**	**33**	IAmb	IAmb	02 53 02.3	
	comp=Z,143nm,1.4s						
PWL	**Port Wells**	**47.34**	**39**	IAmb	IAmb	02 53 05.2	
	comp=Z,116nm,0.9s						
PWL				IAMs_20	IAMs_20	03 14 34.9	
	comp=Z,6µm,20.0s						
G24K	**Hadweenzic Riv**	**47.43**	**31**	IAmb	IAmb	02 52 58.0	
	comp=Z,153nm,1.1s						
PRZ	**Przheval'sk**	**47.50**	**296**	P	**P**	**02 52 43.3**	**+0.6**
PRZ	**Przheval'sk**	**47.50**	**296**	P	**P**	**02 52 43.3**	**+0.6**
	comp=Z,16µmcomp=Z,7µmcomp=Z,316nm,1.0s						
DHY	**Denali Highway**	**47.62**	**36**	IAmb	IAmb	02 53 02.8	
	comp=Z,145nm,1.2s						
BBSI	**Bau Bau**	**47.62**	**207**	P	**P**	**02 52 46.1**	**+2.5**
	comp=Z,8µmcomp=Z,8µmcomp=Z,257nm,0.9s						
STKI	**Sintang**	**47.69**	**224**	P	**P**	**02 52 45.2**	**+1.0**
	comp=Z,9µmcomp=Z,435nm,1.1s						
HDA	**Harding Lake**	**47.72**	**34**	IAmb	IAmb	02 53 03.0	
	comp=Z,91nm,0.8s						
IL31		**47.73**	**33**	IAmb	IAmb	02 52 58.8	
	comp=Z,128nm,0.9s						
ILAR	**Eielson Array**	**47.73**	**33**	P	**P**	**02 52 43.8**	**-0.2**
	comp=Z,27nm,0.8s,baz=266,slow=6.1,SNR=47						

ILAR				LR	LR	03 13 47.9	
	comp=Z,3µm,22.0s,baz=271,slow=37						
ILAR				PKP2bc		03 24 19.6	
	comp=Z,2.1nm,1.2s,baz=44,slow=1.1,SNR=5.0						
	comp=Z,27nm,0.8s						
ILAR	**Eielson Array**	**47.73**	**33**	P	**P**	**02 52 43.9**	**0.0**
ILAR	**Eielson Array**	**47.73**	**33**	P	**P**	**02 52 43.9**	**0.0**
SCM	**Sheep Creek Mo**	**47.74**	**37**	IAmb	IAmb	02 53 08.9	
	comp=Z,164nm,1.0s						
P23K	**Montague Islan**	**47.89**	**40**	IAmb	IAmb	02 53 09.5	
	comp=Z,170nm,1.0s						
GLI	**Glacier Island**	**47.95**	**38**	IAmb	IAmb	02 53 06.1	
	comp=Z,107nm,0.8s						
F25K	**Christian Rive**	**48.13**	**29**	IAmb	IAmb	02 52 54.3	
	comp=Z,69nm,0.8s						
E25K	**Arctic Village**	**48.15**	**29**	IAmb	IAmb	02 53 04.6	
	comp=Z,460nm,1.8s						
PMG	**Port Moresby**	**48.15**	**173**	P	**P**	**02 52 49.0**	**+1.3**
	comp=Z,26nm,0.8s,baz=359,slow=5.2,SNR=4.9						
PMG				LR	LR	03 12 13.6	
	comp=Z,2µm,21.9s,baz=317,slow=35						
	comp=Z,26nm,0.8s						
PMG	**Port Moresby**	**48.15**	**173**	P	**P**	**02 52 47.6**	**-0.1**
	comp=Z,59nm,0.9s						
PMG	**Port Moresby**	**48.15**	**173**	P	**P**	**02 52 49.0**	**+1.3**
PMG	**Port Moresby**	**48.15**	**173**		**P**	**02 52 47.3**	**-0.4**
PMG				IAmb	IAmb	02 53 20.2	
	comp=Z,96nm,1.2s						
TARG	**Taragay, Kyrgy**	**48.16**	**295**	P	**P**	**02 52 48.3**	**+0.1**
	comp=Z,16µmcomp=Z,5µmcomp=Z,304nm,0.9s						
MDOK	**Medeo**	**48.24**	**297**	*e*P	**P**	**02 52 48.7**	**+0.4**
MDOK				*e*S	**S**	**02 59 47.2**	**+2.0**
MDOK	**Medeo**	**48.24**	**297**	*e*P	**P**	**02 52 48.8**	**+0.4**
MDOK				*e*S	**S**	**02 59 47.2**	**+2.0**
MDOK				LR	LR	03 13 40.5	
KAPI	**Kappang**	**48.24**	**211**	LR	LR	03 13 41.7	
	comp=Z,2µm,20.7s,baz=7.0,slow=37						
KAPI	**Kappang**	**48.24**	**211**	P	**P**	**02 52 49.9**	**+1.5**
	comp=Z,213nm,1.1s						
KAPI	**Kappang**	**48.24**	**211**	P	**P**	**02 52 48.3**	**-0.1**
KAPI				S	**S**	**02 59 44.3**	**-1.0**
KAPI	**Kappang**	**48.24**	**211**	*c i*P	**P**	**02 52 49.0**	**+0.6**
KAPI				pmax	pmax		
	comp=Z,430nm,1.0s						
KAPI				MLR	MLR		
	comp=Z,3µm,21.0s						
KAPI	**Kappang**	**48.24**	**211**	P	**P**	**02 52 48.6**	**+0.2**
KAPI	**Kappang**	**48.24**	**211**	⇑P	**P**	**02 52 47.4**	**-1.1**
KAPI	**Kappang**	**48.24**	**211**	P	**P**	**02 52 49.1**	**+0.6**
	comp=Z,3µmcomp=Z,213nm,1.1s						
FID	**Port Fidalgo**	**48.26**	**39**	P	**P**	**02 52 47.6**	**-0.5**
PRP	**Porcupine Dome**	**48.26**	**32**	IAmb	IAmb	02 53 03.9	
	comp=Z,108nm,0.9s						
AAA	**Alma-Ata**	**48.31**	**297**	*e*P	**P**	**02 52 49.3**	**+0.5**
AAA				pmax	pmax		
	comp=Z,190nm,1.2s						
AAA				MLR	MLR		
	comp=Z,11µm,16.0s						
AAA	**Alma-Ata**	**48.31**	**297**	*e*P	**P**	**02 52 49.3**	**+0.5**
	comp=Z,190nm,1.2s						
AAA				LR	LR	03 13 42.3	
	comp=Z,11µm,15.9s						
TNSS	**Tian-Shan**	**48.35**	**297**	*e*P	**P**	**02 52 49.6**	**+0.1**
TNSS	**Tian-Shan**	**48.35**	**297**	*e*P	**P**	**02 52 49.7**	**+0.1**
KLU	**Klutina**	**48.44**	**38**	IAMs_20	IAMs_20	03 15 13.9	
	comp=Z,5µm,19.0s						
KDJ	**Kajisay**	**48.47**	**296**	P	**P**	**02 52 50.8**	**+0.6**
KUU	**Kurty**	**48.50**	**298**	*e*P	**P**	**02 52 50.7**	**+0.5**
KUU				pmax	pmax		
	comp=Z,151nm,1.2s						
KUU	**Kurty**	**48.50**	**298**	*e*P	**P**	**02 52 50.8**	**+0.5**
	comp=Z,151nm,1.2s						
KUU				LR	LR	03 13 49.5	
MKS	**Makassar**	**48.54**	**211**	P	**P**	**02 52 52.1**	**+1.4**
BMAR	**Burnt Mountain**	**48.54**	**30**	P	**P**	**02 52 51.0**	**+0.8**
EYAK	**Cordova Ski Ar**	**48.64**	**39**	P	**P**	**02 52 53.4**	**+2.4**
	comp=Z,117nm,0.9s						
EYAK	**Cordova Ski Ar**	**48.64**	**39**	IAmb	IAmb	02 53 15.1	
	comp=Z,127nm,0.9s						
EYAK				IAMs_20	IAMs_20	03 13 30.2	
	comp=Z,7µm,22.0s						
HARP	**HAARP**	**48.70**	**36**	IAmb	IAmb	02 53 20.7	
	comp=Z,165nm,0.9s						
F26K	**Sheenjek River**	**48.70**	**29**	IAmb	IAmb	02 52 58.9	
	comp=Z,175nm,0.8s						
C27K	**Jago River**	**48.79**	**27**	IAmb	IAmb	02 53 08.3	
	comp=Z,397nm,1.4s						
G26K	**Porcupine Rive**	**48.88**	**30**	IAmb	IAmb	02 53 09.4	
	comp=Z,128nm,1.1s						
BSSI	**Bau Bau, Buton**	**48.99**	**209**	P	**P**	**02 52 55.4**	**+1.3**
	comp=Z,4µmcomp=Z,287nm,1.1s						
BBKI	**Banjar Baru**	**49.00**	**217**	P	**P**	**02 52 54.2**	**-0.1**
SCRK	**Sand Creek**	**49.05**	**34**	IAmb	IAmb	02 53 13.6	
	comp=Z,138nm,1.0s						
ULHL	**Ulahol**	**49.09**	**296**	P	**P**	**02 52 55.9**	**+0.9**
	SNR=29						
BMRM	**Bremner River**	**49.14**	**38**	IAmb	IAmb	02 53 20.8	
	comp=Z,173nm,1.0s						
RAGM	**Ragged Mountai**	**49.19**	**39**	IAMs_20	IAMs_20	03 13 16.7	
	comp=Z,9µm,22.0s						
BOOM	**Boomskoye usch**	**49.22**	**297**	P	**P**	**02 52 56.9**	**+0.9**
MENT	**Mentasta**	**49.29**	**35**	P	**P**	**02 52 58.6**	**+2.6**
	comp=Z,179nm,1.3s						
MENT	**Mentasta**	**49.29**	**35**	IAmb	IAmb	02 53 16.6	
	comp=Z,213nm,1.2s						
TKM2	**Tokmak 2**	**49.32**	**297**	P	**P**	**02 52 57.1**	**+0.3**
	SNR=244						
ASAI	**AK-SAY(Kyrgyzs**	**49.34**	**295**	P	**P**	**02 52 58.2**	**+1.1**
	comp=Z,4µmcomp=Z,149nm,1.1s,comp=Z,4µm						
KAIM	**Kayak Island**	**49.39**	**39**	IAmb	IAmb	02 53 43.8	
	comp=Z,99nm,0.9s						
L26K	**Log Cabin Wild**	**49.45**	**35**	IAmb	IAmb	02 53 17.7	
	comp=Z,145nm,1.0s						
GLB	**Gilahina Butte**	**49.45**	**37**	IAmb	IAmb	02 53 24.9	
	comp=Z,86nm,0.9s						
NRN	**Naryn**	**49.54**	**295**	IAmb	IAmb	02 53 04.0	
	comp=Z,133nm,1.0s						
BOK	**Bokaro**	**49.60**	**270**	*e*P	**P**	**02 52 56.2**	**-2.7**
BOK				IAmb	IAmb	02 53 02.9	
	comp=Z,41nm,0.5s						
E27K	**Coleen River**	**49.63**	**28**	IAmb	IAmb	02 53 14.9	
	comp=Z,140nm,1.1s						
VRDI	**Verde Repeater**	**49.66**	**38**	IAmb	IAmb	02 53 22.9	
	comp=Z,85nm,0.8s						
TATA	**Tatamba Isabel**	**49.71**	**157**	P	**P**	**02 53 01.2**	**+1.5**
	comp=Z,106nm,1.6s						
D27M	**Malcolm River**	**49.77**	**27**	IAmb	IAmb	02 53 15.9	
	comp=Z,136nm,1.1s						
SGDS	**Sogindy**	**49.82**	**298**	⇑*i*P	**P**	**02 53 00.8**	**+0.4**
SGDS				*e*S	**S**	**03 00 09.5**	**+2.3**
MCARA	**McCarthy VSAT**	**49.84**	**37**	IAmb	IAmb	02 53 19.0	
	comp=Z,109nm,0.9s						
BVAR	**Borovoye Array**	**49.84**	**311**	P	**P**	**02 52 59.9**	**-0.4**
	comp=Z,151nm,0.5s,baz=73,slow=7.8,SNR=282						
BVAR				PcP	**PcP**	**02 54 21.1**	**+0.7**
	comp=Z,80nm,0.6s,baz=63,slow=3.7,SNR=4.5						
	comp=Z,151nm,0.5s						
KBK	**Karagaybulak**	**49.86**	**297**	P	**P**	**02 53 01.0**	**+0.2**
	SNR=120						
BORK	**Borovoye**	**49.88**	**311**	*c i*P	**P**	**02 53 01.2**	**+0.6**
BORK				pmax	pmax		
	comp=Z,171nm,0.6s						
BORK				MLR	MLR		
	comp=Z,25µm,17.0s						
BORK	**Borovoye**	**49.88**	**311**	P	**P**	**02 53 00.2**	**-0.4**
K27K	**Chicken**	**49.88**	**34**	IAmb	IAmb	02 53 20.7	
	comp=Z,156nm,1.0s						
CHMS	**Chumysh**	**49.88**	**298**	P	**P**	**02 53 01.4**	**+0.6**
	SNR=28						
USP	**Ospenovka**	**49.97**	**298**	P	**P**	**02 53 01.1**	**-0.4**
	SNR=70						
TGL	**Tana Glacier**	**50.03**	**38**	IAmb	IAmb	02 53 27.9	
	comp=Z,109nm,1.0s						
L27K	**Beaver Creek,**	**50.13**	**35**	IAmb	IAmb	02 53 23.0	
	comp=Z,136nm,1.1s						
BCAR	**Beaver Creek A**	**50.15**	**35**	P	**P**	**02 53 03.8**	**+1.2**
AAK	**Ala-Archa**	**50.18**	**297**	P	**P**	**02 53 03.8**	**+0.5**
	comp=Z,67nm,0.6s,baz=95,slow=5.9,SNR=81						
AAK				LR	LR	03 15 39.2	
	comp=Z,16µm,19.7s,baz=74,slow=38						
	comp=Z,67nm,0.6s						
AAK	**Ala-Archa**	**50.18**	**297**	P	**P**	**02 53 03.0**	**-0.2**
	SNR=84						
AAK	**Ala-Archa**	**50.18**	**297**	P	**P**	**02 53 02.9**	**-0.4**
AAK				S	**S**	**03 00 08.1**	**-4.4**
AAK	**Ala-Archa**	**50.18**	**297**	*i* P	**P**	**02 53 03.5**	**+0.2**
AAK				pmax	pmax		
	comp=Z,112nm,0.9s						
AAK				MLR	MLR		
	comp=Z,15µm,19.0s						
AAK	**Ala-Archa**	**50.18**	**297**	P	**P**	**02 53 03.1**	**-0.1**
AAK				IAmb	IAmb	02 53 07.1	
	comp=Z,110nm,0.9s						
AAK	**Ala-Archa**	**50.18**	**297**	⇑P	**P**	**02 53 02.9**	**-0.4**
AAK	**Ala-Archa**	**50.18**	**297**	*i* P	**P**	**02 53 03.3**	**0.0**
	SNR=90						
AAK	**Ala-Archa**	**50.18**	**297**	P	**P**	**02 53 03.7**	**+0.4**
	comp=Z,18µmcomp=Z,3µmcomp=Z,119nm,0.8s						
AAK	**Ala-Archa**	**50.18**	**297**	P	**P**	**02 53 04.3**	**+1.0**
AAK				PcP	**PcP**	**02 54 22.1**	**0.0**
M27K	**Edge Creek, AK**	**50.22**	**36**	IAmb	IAmb	02 53 27.8	
	comp=Z,127nm,1.0s						
M27K				IAMs_20	IAMs_20	03 14 52.8	
	comp=Z,6µm,22.0s						
F28M	**Old Crow**	**50.33**	**29**	IAmb	IAmb	02 53 20.4	
	comp=Z,123nm,1.1s						
E28M	**Babbage River**	**50.35**	**28**	IAmb	IAmb	02 53 20.3	
	comp=Z,129nm,1.0s						
SAVO	**Savo Central**	**50.44**	**157**	P	**P**	**02 53 06.3**	**+1.1**
	comp=Z,80nm,1.9s						
IPM	**Ipoh**	**50.53**	**238**	P	**P**	**02 53 06.1**	**+0.1**
	comp=Z,701nm,1.0s						
IPM	**Ipoh**	**50.53**	**238**	⇑P	**P**	**02 53 05.8**	**-0.1**
IPM	**Ipoh**	**50.53**	**238**	P	**P**	**02 53 05.9**	**-0.1**
IPM	**Ipoh**	**50.53**	**238**	P	**P**	**02 53 06.0**	**0.0**
	comp=Z,8µmcomp=Z,701nm,1.0s						
GRNC	**Granite Creek**	**50.56**	**38**	IAmb	IAmb	02 53 29.8	
	comp=Z,122nm,1.1s						
YAH	**Yahtse**	**50.63**	**39**	IAmb	IAmb	02 53 26.7	
	comp=Z,145nm,1.1s						
KSH2	**Kashi**	**50.66**	**293**	P	**P**	**02 53 08.5**	**+1.6**
KSH2				pP	pP	02 53 20.0	+1.8
KSH2				S	**S**	**03 00 18.8**	**-0.5**
KSH2				pmax	pmax		
	comp=Z,130nm,1.0s						
KSH2				pmax	pmax		
	comp=Z,4µm,6.5s						
KSH2				L	L		
	comp=Z,13µm,16.5s						
KSH2				L	L		
	comp=Z,13µm,19.2s						
KSH2				L	L		
	comp=Z,13µm,18.2s						
MMRI	**Maumere**	**50.67**	**206**	P	**P**	**02 53 08.2**	**+1.3**
	comp=Z,387nm,2.0s						
MMRI	**Maumere**	**50.67**	**206**	P	**P**	**02 53 07.1**	**+0.2**
	comp=Z,8µmcomp=Z,8µmcomp=Z,388nm,2.0s						
MMRI	**Maumere**	**50.67**	**206**	P	**P**	**02 53 06.4**	**-0.5**
	comp=Z,8µmcomp=Z,7µmcomp=Z,388nm,2.0s						
EKS2	**Erkin-Say**	**50.67**	**298**	P	**P**	**02 53 06.5**	**-0.4**
	SNR=128						
HNR	**Honiara**	**50.74**	**157**	LR	LR	03 12 55.2	
	comp=Z,14µm,21.5s,baz=47,slow=34						
MYKOM	**Kota Tinggi**	**50.75**	**233**	P	**P**	**02 53 08.7**	**+1.1**
	comp=Z,260nm,1.5s						
MYKOM	**Kota Tinggi**	**50.75**	**233**	⇑P	**P**	**02 53 07.1**	**-0.5**
MYKOM	**Kota Tinggi**	**50.75**	**233**	P	**P**	**02 53 08.6**	**+1.0**
	comp=Z,5µmcomp=Z,260nm,1.5s						
MYKOM	**Kota Tinggi**	**50.75**	**233**	P	**P**	**02 53 08.1**	**+0.5**
	comp=Z,5µmcomp=Z,260nm,1.5s						
EDFI	**Ende, Flores**	**50.96**	**206**	P	**P**	**02 53 08.4**	**-0.8**
	comp=Z,6µmcomp=Z,5µmcomp=Z,283nm,1.6s						
TPRI	**Tanjung Pinang**	**51.01**	**232**	P	**P**	**02 53 10.8**	**+1.2**
	comp=Z,10µmcomp=Z,588nm,1.0s						
DAWY	**Dawson**	**51.04**	**34**	IAmb	IAmb	02 53 29.5	
	comp=Z,249nm,2.0s						
SOEI	**Soe**	**51.06**	**203**	P	**P**	**02 53 08.9**	**-1.1**
SOEI	**Soe**	**51.06**	**203**	P	**P**	**02 53 11.0**	**+1.0**
	comp=Z,494nm,1.0s						
SOEI	**Soe**	**51.06**	**203**	⇑P	**P**	**02 53 09.2**	**-0.8**
SOEI	**Soe**	**51.06**	**203**	P	**P**	**02 53 10.1**	**+0.1**
	comp=Z,5µmcomp=Z,490nm,1.0s						
SOEI	**Soe**	**51.06**	**203**	P	**P**	**02 53 09.8**	**-0.2**
	comp=Z,5µmcomp=Z,493nm,1.0s,comp=Z,5µm						
H29M	**Whitestone**	**51.11**	**31**	IAmb	IAmb	02 53 53.8	
	comp=Z,74nm,0.9s						
BTDF	**Bukit Timah Da**	**51.13**	**233**	P	**P**	**02 53 11.5**	**+1.0**
	comp=Z,274nm,1.1s						
BTDF	**Bukit Timah Da**	**51.13**	**233**	P	**P**	**02 53 11.4**	**+1.0**
	comp=Z,7µmcomp=Z,4µmcomp=Z,274nm,1.1s						
G29M	**Pine Creek**	**51.14**	**30**	IAmb	IAmb	02 53 17.2	
	comp=Z,155nm,0.9s						
I29M	**Ogilvie Camp,**	**51.28**	**32**	IAmb	IAmb	02 53 31.2	
	comp=Z,105nm,0.9s						
M29M	**Somme Creek**	**51.76**	**36**	IAmb	IAmb	02 53 35.6	
	comp=Z,95nm,1.1s						
L29M	**L29M**	**51.78**	**35**	IAmb	IAmb	02 53 43.5	
	comp=Z,216nm,1.1s						
K29M	**Barlow Dome**	**51.90**	**34**	IAmb	IAmb	02 53 36.5	
	comp=Z,108nm,0.9s						
PNL	**Peninsula**	**51.93**	**39**	P	**P**	**02 53 18.7**	**+2.8**
	comp=Z,88nm,1.5s						
KDU	**Kakadu**	**51.98**	**192**	P	**P**	**02 53 16.7**	**+0.1**
	comp=Z,90nm,1.5s						
KDU	**Kakadu**	**51.98**	**192**	P	**P**	**02 53 16.5**	**-0.2**
	comp=Z,90nm,1.5s						
DBNI	**Kabupaten Domp**	**51.99**	**210**	P	**P**	**02 53 16.3**	**-0.5**
	comp=Z,6µmcomp=Z,3µmcomp=Z,120nm,0.9s						
DSRI	**Dabo**	**52.08**	**231**	P	**P**	**02 53 18.9**	**+1.3**
	comp=Z,10µmcomp=Z,5µmcomp=Z,237nm,1.4s						
I30M	**Mount Dempster**	**52.10**	**32**	IAMs_20	IAMs_20	03 16 47.6	
	comp=Z,6µm,22.0s						
TPI	**Tanjungpandan**	**52.13**	**226**	P	**P**	**02 53 18.5**	**+0.6**
	comp=Z,10µmcomp=Z,5µmcomp=Z,370nm,1.0s						
OHH	**Osh**	**52.13**	**295**	P	**P**	**02 53 17.2**	**-0.6**
O29M	**Mount Kennedy**	**52.18**	**38**	IAmb	IAmb	02 53 43.3	
	comp=Z,87nm,0.9s						
ARK	**Arkit**	**52.24**	**297**	P	**P**	**02 53 19.0**	**+0.4**
J30M	**Hart River**	**52.25**	**33**	IAmb	IAmb	02 53 38.9	
	comp=Z,75nm,0.9s						
DZA	**Taraz**	**52.28**	**299**	*e*P	**P**	**02 53 19.3**	**+0.5**
DZA				pmax	pmax		
	comp=Z,164nm,0.8s						
DZA	**Taraz**	**52.28**	**299**	*e*P	**P**	**02 53 19.4**	**+0.5**
	comp=Z,164nm,0.8s						
WSI	**Waingapu**	**52.31**	**208**	P	**P**	**02 53 21.0**	**+1.9**
	comp=Z,5µmcomp=Z,250nm,0.5s						
HURO	**Huro Makira**	**52.34**	**155**	P	**P**	**02 53 20.7**	**+1.4**
	comp=Z,95nm,1.2s						
MTN	**Manton Dam**	**52.36**	**194**	P	**P**	**02 53 19.6**	**0.0**
	comp=Z,79nm,1.5s,comp=Z,0.0nm						
MTN	**Manton Dam**	**52.36**	**194**	P	**P**	**02 53 19.4**	**-0.2**
	comp=Z,79nm,1.5s,comp=Z,0.0nm						
MTN	**Manton Dam**	**52.36**	**194**	P	**P**	**02 53 18.9**	**-0.6**
MTN				IAmb	IAmb	02 53 20.8	
	comp=Z,122nm,1.2s						
PLAI	**Plampang**	**52.50**	**211**	P	**P**	**02 53 21.6**	**+1.0**
	comp=Z,173nm,1.1s						
PLAI	**Plampang**	**52.50**	**211**	P	**P**	**02 53 19.5**	**-1.1**
	comp=Z,7µmcomp=Z,3µmcomp=Z,171nm,1.1s						
PLAI	**Plampang**	**52.50**	**211**	P	**P**	**02 53 19.2**	**-1.4**
	comp=Z,7µmcomp=Z,3µmcomp=Z,173nm,1.1s,comp=Z,3µm						
PPBI	**Pangkal Pinang**	**52.51**	**228**	P	**P**	**02 53 22.2**	**+1.5**
KMMI	**Kalianget**	**52.56**	**216**	P	**P**	**02 53 21.9**	**+0.9**
	comp=Z,214nm,1.1s						
INK	**Inuvik**	**52.59**	**28**	LR	LR	03 16 39.7	
	comp=Z,3µm,20.9s,baz=274,slow=37						
INK	**Inuvik**	**52.59**	**28**	P	**P**	**02 53 21.8**	**+1.2**
INK	**Inuvik**	**52.59**	**28**	IAmb	IAmb	02 53 36.2	
	comp=Z,100nm,0.8s						
INK	**Inuvik**	**52.59**	**28**	P	**P**	**02 53 21.8**	**+1.2**
	comp=Z,1µmcomp=Z,132nm,1.2s						
G31M	**Satah River**	**52.59**	**30**	IAmb	IAmb	02 53 36.3	
	comp=Z,85nm,0.8s						
F31M	**Tsiigehtchic**	**52.69**	**29**	IAmb	IAmb	02 53 37.6	
	comp=Z,200nm,1.2s						
LHMI	**Lhok Sumawe**	**52.76**	**243**	IAMs_20	IAMs_20	03 16 42.6	
	comp=Z,7µm,20.0s						
LHMI	**Lhok Sumawe**	**52.76**	**243**	P	**P**	**02 53 23.0**	**+0.4**
	comp=Z,9µmcomp=Z,576nm,1.1s						
LHMI	**Lhok Sumawe**	**52.76**	**243**	P	**P**	**02 53 23.7**	**+1.1**
	comp=Z,12µmcomp=Z,9µmcomp=Z,580nm,1.1s						
KK31	**Karatay Array**	**52.76**	**299**	P	**P**	**02 53 21.8**	**-0.6**
KKAR	**Karatay Array**	**52.76**	**299**	P	**P**	**02 53 21.7**	**-0.7**
KKAR	**Karatay Array**	**52.76**	**299**		**P**	**02 53 21.7**	**-0.7**
TWSI	**Taliwang, Sumb**	**52.78**	**212**	P	**P**	**02 53 21.6**	**-1.1**
	comp=Z,4µmcomp=Z,259nm,1.1s						
SMLA	**Simla**	**52.81**	**283**	*e*P	**P**	**02 53 21.3**	**-1.5**
SMLA				IAmb	IAmb	02 53 27.5	
	comp=Z,121nm,0.9s						
TSI	**Tuntungan**	**52.90**	**240**	P	**P**	**02 53 24.6**	**+1.0**
	comp=Z,113nm,0.8s						
TRKS	**Terek-Say**	**52.91**	**297**	P	**P**	**02 53 23.5**	**-0.2**
KHKI	**Kahang-Kahang**	**52.99**	**214**	P	**P**	**02 53 24.8**	**+0.6**
ABJI	**Asem Bagus**	**53.09**	**215**	P	**P**	**02 53 25.8**	**+0.8**
	comp=Z,198nm,1.0s						
PSI	**Prapat**	**53.17**	**239**	P	**P**	**02 53 26.7**	**+0.9**
	comp=Z,333nm,1.5s						
PSI	**Prapat**	**53.17**	**239**	P	**P**	**02 53 26.4**	**+0.6**
PSI	**Prapat**	**53.17**	**239**	P	**P**	**02 53 26.1**	**+0.3**
	comp=Z,11µmcomp=Z,4µmcomp=Z,308nm,1.5s						
N31M	**Braeburn, Yuko**	**53.22**	**36**	IAmb	IAmb	02 53 46.4	
	comp=Z,164nm,1.0s						
BRLS	**Borolday**	**53.25**	**299**	*e*P	**P**	**02 53 27.9**	**+1.9**
BRLS	**Borolday**	**53.25**	**299**	*e*P	**P**	**02 53 27.9**	**+1.9**
RPSI	**Rantau Prapat**	**53.25**	**239**	P	**P**	**02 53 26.4**	**+0.2**
	comp=Z,11µmcomp=Z,4µmcomp=Z,308nm,1.5s,comp=Z,4µm						
BLJI	**Banyuglugur**	**53.34**	**216**	P	**P**	**02 53 28.2**	**+1.4**
	comp=Z,94nm,0.8s						
RTBI	**Rangdo, Negare**	**53.36**	**214**	P	**P**	**02 53 26.7**	**-0.3**
	comp=Z,6µmcomp=Z,434nm,1.0s						
IUG	**Iuzhnay**	**53.45**	**298**	*e*P	**P**	**02 53 27.9**	**+0.4**
IUG				pmax	pmax		
	comp=Z,217nm,1.3s						
IUG	**Iuzhnay**	**53.45**	**298**	*e*P	**P**	**02 53 27.9**	**+0.4**
	comp=Z,217nm,1.3s						
JMBI	**JAMBI**	**53.56**	**231**	P	**P**	**02 53 31.6**	**+3.1**
BKNI	**Bangkinang**	**53.65**	**235**	P	**P**	**02 53 29.4**	**+0.2**
BKNI	**Bangkinang**	**53.65**	**235**	P	**P**	**02 53 30.8**	**+1.6**
	comp=Z,1µm,1.1s						
BKNI	**Bangkinang**	**53.65**	**235**	IAMs_20	IAMs_20	03 17 38.3	
	comp=Z,8µm,19.0s						
BKNI	**Bangkinang**	**53.65**	**235**	⇑P	**P**	**02 53 29.3**	**+0.2**
BKNI	**Bangkinang**	**53.65**	**235**	P	**P**	**02 53 30.2**	**+1.0**
BKNI	**Bangkinang**	**53.65**	**235**	P	**P**	**02 53 30.5**	**+1.3**
	comp=Z,10µmcomp=Z,11µmcomp=Z,1µm,1.1s,comp=Z,11µm						
M31M	**Drury Creek, Y**	**53.67**	**35**	IAmb	IAmb	02 53 49.3	
	comp=Z,95nm,1.1s						
M31M				IAMs_20	IAMs_20	03 15 30.0	
	comp=Z,5µm,22.0s						
CHM	**Chimkent**	**53.67**	**299**	*e*P	**P**	**02 53 29.6**	**+0.5**
CHM				pmax	pmax		
	comp=Z,98nm,0.7s						
CHM	**Chimkent**	**53.67**	**299**	*e*P	**P**	**02 53 29.6**	**+0.5**
	comp=Z,98nm,0.7s						
CHM				LR	LR	03 16 57.4	
BTK	**Batken**	**53.70**	**296**	P	**P**	**02 53 29.9**	**+0.5**
BTK	**Batken**	**53.70**	**296**	IAmb	IAmb	02 53 46.9	
	comp=Z,145nm,1.0s						
BSI	**Banda Aceh**	**53.72**	**244**	P	**P**	**02 53 30.1**	**+0.4**
	comp=Z,133nm,1.0s						
JAGI	**Jajag, Banyuwa**	**53.72**	**215**	P	**P**	**02 53 30.8**	**+1.2**
	comp=Z,141nm,0.9s						
JAGI	**Jajag, Banyuwa**	**53.72**	**215**	IAmb	IAmb	02 53 48.3	
	comp=Z,162nm,1.1s						
JAGI	**Jajag, Banyuwa**	**53.72**	**215**	P	**P**	**02 53 31.9**	**+2.3**
	comp=Z,6µmcomp=Z,140nm,0.9s						
JAGI	**Jajag, Banyuwa**	**53.72**	**215**	P	**P**	**02 53 26.9**	**-2.7**
	comp=Z,6µmcomp=Z,141nm,0.9s						
MLSI	**Meulaboh, Aceh**	**53.82**	**242**	P	**P**	**02 53 30.1**	**-0.3**
SKAG	**Skagway**	**53.98**	**39**	P	**P**	**02 53 33.6**	**+2.6**
	comp=Z,48nm,1.7s						
SKAG	**Skagway**	**53.98**	**39**	⇑P	**P**	**02 53 32.9**	**+1.9**
TPTI		**54.02**	**241**	P	**P**	**02 53 33.1**	**+1.3**
	comp=Z,117nm,1.0s						
NGJI	**Ngawi**	**54.02**	**219**	P	**P**	**02 53 33.6**	**+1.8**
	comp=Z,695nm,1.3s						
SJI	**Sawahan**	**54.19**	**218**	P	**P**	**02 53 33.2**	**+0.1**
	comp=Z,567nm,1.2s						
SVE	**Sverdlovsk**	**54.23**	**318**	*de*P	**P**	**02 53 32.9**	**0.0**
SVE				*e*		02 55 37.9	
SVE				*e*S	**S**	**03 01 08.0**	**+0.8**
SVE				pmax	pmax		
	comp=Z,555nm,1.1s						
SVE				pmax	pmax		
	comp=Z,1µm,10.3s						
SVE				MLR	MLR		
	comp=E,18µm,16.0s						
SVE				MLR	MLR		
	comp=Z,38µm,16.0s						
SVE				MLR	MLR		
	comp=N,7µm,16.0s						
SNJI	**Sawahan-Nganju**	**54.24**	**218**	P	**P**	**02 53 34.2**	**+0.6**
	comp=N,9µmcomp=N,5µmcomp=N,327nm,1.2s						
MNSI	**Mandailing Nat**	**54.24**	**236**	P	**P**	**02 53 33.8**	**+0.4**
	comp=N,124nm,0.8s						
SMRI	**Semarang**	**54.26**	**220**	P	**P**	**02 53 34.7**	**+1.2**
	comp=N,621nm,1.1s						
SMRI	**Semarang**	**54.26**	**220**	⇑P	**P**	**02 53 34.0**	**+0.5**
SMRI	**Semarang**	**54.26**	**220**	P	**P**	**02 53 34.4**	**+0.9**
	comp=N,11µmcomp=N,618nm,1.1s						
SMRI	**Semarang**	**54.26**	**220**	P	**P**	**02 53 34.2**	**+0.6**
	comp=Z,11µmcomp=Z,621nm,1.1s,comp=Z,11µm						
SDSI	**Sungai Dareh**	**54.38**	**233**	P	**P**	**02 53 34.9**	**+0.5**
	comp=Z,11µmcomp=Z,9µmcomp=Z,660nm,1.3s						
NIL	**Nilore**	**54.63**	**287**	P	**P**	**02 53 37.2**	**+1.1**
NIL	**Nilore**	**54.63**	**287**	P	**P**	**02 53 36.7**	**+0.5**
NIL	**Nilore**	**54.63**	**287**	P	**P**	**02 53 36.6**	**+0.5**
	comp=Z,20µmcomp=Z,11µmcomp=Z,916nm,0.9s,comp=Z,11µm						
PPI	**Padang Panjang**	**54.66**	**235**	P	**P**	**02 53 37.0**	**+0.5**
	comp=Z,11µmcomp=Z,3µmcomp=Z,109nm,1.0s						
WOJI	**Wonogiri, Jawa**	**54.69**	**219**	P	**P**	**02 53 37.9**	**+1.2**
	comp=Z,9µmcomp=Z,189nm,1.3s						
SIT	**Sitka**	**54.71**	**42**	P	**P**	**02 53 38.8**	**+2.5**
	comp=Z,73nm,1.5s						
SIT	**Sitka**	**54.71**	**42**	P	**P**	**02 53 39.1**	**+2.8**
P32M	**Atlin**	**54.73**	**38**	IAmb	IAmb	02 53 57.3	
	comp=Z,123nm,1.4s						
R32K	**Eaglecrest**	**54.74**	**40**	IAmb	IAmb	02 53 57.7	
	comp=Z,236nm,2.0s						
JIS	**Juneau Island**	**54.81**	**40**	P	**P**	**02 53 39.1**	**+2.1**
	comp=Z,82nm,1.5s						
CTJI	**Waduk Cacaban**	**54.86**	**221**	P	**P**	**02 53 38.6**	**+0.7**
	comp=Z,9µmcomp=Z,617nm,1.2s						
VIS	**Vishakhapatnam**	**54.93**	**265**	*e*P	**P**	**02 53 37.6**	**-0.8**
VIS				IAmb	IAmb	02 53 40.5	
	comp=Z,128nm,1.9s						
UGM	**Wanagama**	**54.95**	**219**	P	**P**	**02 53 38.7**	**+0.1**
	comp=Z,1µm,1.2s						
UGM	**Wanagama**	**54.95**	**219**	P	**P**	**02 53 38.2**	**-0.4**
UGM	**Wanagama**	**54.95**	**219**	P	**P**	**02 53 37.9**	**-0.7**
	comp=Z,1µm,1.2s						
PDSI	**Padang**	**54.97**	**234**	P	**P**	**02 53 38.9**	**+0.1**
P33M	**Teslin, Yukon**	**54.97**	**37**	IAmb	IAmb	02 53 59.1	
	comp=Z,171nm,1.4s						
GSI	**Gunungsitoli**	**55.18**	**239**	P	**P**	**02 53 41.8**	**+1.5**
	comp=Z,1µm,1.2s						
GSI	**Gunungsitoli**	**55.18**	**239**	⇑P	**P**	**02 53 40.6**	**+0.3**
GSI	**Gunungsitoli**	**55.18**	**239**	P	**P**	**02 53 41.0**	**+0.7**
GSI	**Gunungsitoli**	**55.18**	**239**	P	**P**	**02 53 40.9**	**+0.6**
	comp=Z,15µmcomp=Z,1µm,1.2s,comp=Z,15µm						
SNSI	**Sinabang, Aceh**	**55.21**	**241**	P	**P**	**02 53 41.6**	**+1.1**
KRJI	**Kerinci**	**55.25**	**232**	P	**P**	**02 53 41.4**	**+0.5**
	comp=Z,10µmcomp=Z,659nm,1.0s						
KPJI	**Karang Pucung**	**55.27**	**221**	P	**P**	**02 53 41.2**	**+0.4**
	comp=Z,419nm,1.0s						
MDSI	**Maura Dua**	**55.52**	**228**	P	**P**	**02 53 42.6**	**-0.1**
	comp=Z,7µmcomp=Z,542nm,1.2s						
ARTI	**Arti**	**55.55**	**318**	P	**P**	**02 53 41.9**	**-0.5**
	comp=Z,354nm,0.7s,baz=71,slow=4.6,SNR=283						
ARTI				LR	LR	03 20 04.6	
	comp=Z,49µm,18.2s,baz=73,slow=39						
	comp=Z,354nm,0.7s						
ARTI	**Arti**	**55.55**	**318**	*c i*P	**P**	**02 53 41.9**	**-0.5**
ARTI						02 54 41.3	
ARTI						02 55 48.1	
ARTI				PPP	PPP	02 57 00.0	
ARTI				S	**S**	**03 01 24.5**	**-0.5**
ARTI						03 03 27.0	
ARTI				pmax	pmax		
	comp=Z,695nm,1.2s						
ARTI				pmax	pmax		
	comp=Z,1µm,9.1s						
ARTI				MLR	MLR		
	comp=Z,45µm,17.0s						
ARTI	**Arti**	**55.55**	**318**		**P**	**02 53 42.0**	**-0.5**
ARTI	**Arti**	**55.55**	**318**	P	**P**	**02 53 43.0**	**+0.6**
KNRA	**Kununurra**	**55.59**	**196**	P	**P**	**02 53 43.5**	**+0.5**
	comp=Z,77nm,1.1s,comp=Z,0.0nm						
KNRA	**Kununurra**	**55.59**	**196**	P	**P**	**02 53 43.0**	**0.0**
	comp=Z,77nm,1.1s,comp=Z,0.0nm						
KNRA	**Kununurra**	**55.59**	**196**	P	**P**	**02 53 42.7**	**-0.3**
KNRA				IAmb	IAmb	02 53 44.6	
	comp=Z,70nm,1.0s						
MASI	**Maura Aman, Be**	**55.60**	**231**	P	**P**	**02 53 44.0**	**+0.7**
Q32M	**Nakina River**	**55.64**	**39**	IAmb	IAmb	02 54 04.5	
	comp=Z,277nm,1.9s						
KSI	**Kapahiang**	**55.79**	**230**	P	**P**	**02 53 47.1**	**+2.4**
R33M	**Jennings River**	**56.12**	**38**	IAmb	IAmb	02 54 07.8	
	comp=Z,189nm,1.7s						

SISI	**Saibi**	**56.16**	**235**	P	**P**	**02 53 48.2**	**+0.9**
	comp=Z,6µmcomp=Z,307nm,0.9s						
U33K	**Whale Pass**	**56.17**	**42**	IAmb	IAmb	02 54 08.8	
	comp=Z,101nm,1.3s						
WRAK	**Wrangell Islan**	**56.47**	**42**	⇑P	**P**	**02 53 50.9**	**+1.9**
BHPL	**Bhopal**	**56.50**	**274**	eP	**P**	**02 53 46.7**	**-3.1**
BHPL				IAmb	IAmb	02 53 57.1	
	comp=Z,38nm,1.0s						
POHA	**Pohakuloa**	**56.54**	**91**	IAMs_20	IAMs_20	03 11 05.1	
	comp=Z,5µm,22.0s						
S34M	**Telegraph Cree**	**56.56**	**40**	IAmb	IAmb	02 54 10.8	
	comp=Z,209nm,1.8s						
MTSU	**Mount Surprise**	**56.64**	**178**	P	**P**	**02 53 51.3**	**+0.8**
	comp=Z,58nm,0.8s						
MTSU	**Mount Surprise**	**56.64**	**178**	P	**P**	**02 53 50.6**	**0.0**
	comp=Z,58nm,0.8s						
MTSU	**Mount Surprise**	**56.64**	**178**	P	**P**	**02 53 51.9**	**+1.3**
	comp=Z,58nm,0.8s						
MTSU	**Mount Surprise**	**56.64**	**178**	P	**P**	**02 53 51.3**	**+0.8**
	comp=Z,539nmcomp=Z,58nm,0.8s,comp=Z,539nm						
DLBC	**Dease Lake**	**56.92**	**39**	LR	LR	03 17 29.2	
	comp=Z,2µm,20.8s,baz=286,slow=35						
AB31	**Akbulak array**	**57.27**	**309**	P	**P**	**02 53 54.3**	**-0.4**
AB31	**Akbulak array**	**57.27**	**309**		**P**	**02 53 54.1**	**-0.7**
ABKAR	**Akbulak array**	**57.27**	**309**		**P**	**02 53 53.9**	**-0.9**
KBL	**Kabul**	**57.34**	**290**	P	**P**	**02 53 56.1**	**+0.3**
	SNR=116						
KBL	**Kabul**	**57.34**	**290**	P	**P**	**02 53 56.0**	**+0.3**
KBL				pmax	pmax		
	comp=Z,291nm,1.1s						
KBL	**Kabul**	**57.34**	**290**		**P**	**02 53 56.0**	**+0.3**
KBL	**Kabul**	**57.34**	**290**	P	**P**	**02 53 55.9**	**+0.1**
	comp=Z,15µmcomp=Z,4µmcomp=Z,273nm,0.9s,comp=Z,4µm						
TV1H	**Townsville Har**	**57.89**	**175**	P	**P**	**02 54 00.9**	**+1.6**
	comp=Z,48nm,1.1s						
AKTO	**Aktyubinsk**	**57.95**	**311**	P	**P**	**02 53 59.6**	**+0.1**
	comp=Z,192nm,0.8s,baz=68,slow=6.1,SNR=190						
AKTO				LR	LR	03 20 20.4	
	comp=Z,23µm,18.5s,baz=63,slow=37						
	comp=Z,192nm,0.8s						
AKTO	**Aktyubinsk**	**57.95**	**311**	P	**P**	**02 53 59.7**	**+0.2**
ALE	**Alert**	**58.35**	**4**	P	**P**	**02 54 02.9**	**+1.0**
ALE	**Alert**	**58.35**	**4**	P	**P**	**02 54 02.8**	**+0.9**
ALE				pP	**pP**	**02 54 13.6**	**+0.2**
HOPEN	**Hopen**	**58.50**	**346**	eP	**P**	**02 54 03.9**	**+1.0**
HOPEN				IVmB_BB		02 54 04.5	
	comp=Z,4µm,3.2s						
HOPEN				esP	**sP**	**02 54 18.2**	**-0.8**
HOPEN				ePP	**PP**	**02 56 14.1**	**+2.0**
HOPEN				eS	**S**	**03 02 06.7**	**+3.5**
HOPEN				IVMs_BB	IVMs_BB	03 21 12.8	
	comp=Z,4µm,4.0s						
FITZ	**Fitzroy Crossi**	**58.64**	**198**	P	**P**	**02 54 05.2**	**+0.6**
	comp=Z,36nm,1.6s,comp=Z,0.0nm						
FITZ	**Fitzroy Crossi**	**58.64**	**198**	P	**P**	**02 54 04.8**	**+0.2**
	comp=Z,36nm,1.6s,comp=Z,0.0nm						
FITZ	**Fitzroy Crossi**	**58.64**	**198**	P	**P**	**02 54 05.0**	**+0.5**
	comp=Z,93nm,1.0s,baz=8.9,slow=10,SNR=26						
FITZ				LR	LR	03 17 20.2	
	comp=Z,2µm,22.0s,baz=16,slow=34						
	comp=Z,93nm,1.0s						
FITZ	**Fitzroy Crossi**	**58.64**	**198**	P	**P**	**02 54 05.2**	**+0.6**
	comp=Z,1µmcomp=Z,544nmcomp=Z,36nm,1.6s						
CTA	**Charters Tower**	**58.67**	**175**	P	**P**	**02 54 04.3**	**-0.5**
	comp=Z,12nm,1.0s						
CTA	**Charters Tower**	**58.67**	**175**	P	**P**	**02 54 04.3**	**-0.5**
	comp=Z,12nm,1.0s						
CTA	**Charters Tower**	**58.67**	**175**	P	**P**	**02 54 04.8**	**0.0**
	comp=Z,15nm,0.9s,baz=4.7,slow=5.6,SNR=11						
CTA				LR	LR	03 18 29.5	
	comp=Z,1µm,21.6s,baz=344,slow=35						
	comp=Z,15nm,0.9s						
CTA	**Charters Tower**	**58.67**	**175**	P	**P**	**02 54 05.8**	**+1.0**
	comp=Z,0.9nm,1.0s						
CTAO	**Charters Tower**	**58.67**	**175**	P	**P**	**02 54 06.1**	**+1.3**
	comp=Z,11nm,0.9s						
CTAO	**Charters Tower**	**58.67**	**175**	P	**P**	**02 54 03.4**	**-1.4**
CTAO				pmax	pmax		
	comp=Z,43nm,1.1s						
CTAO	**Charters Tower**	**58.67**	**175**	P	**P**	**02 54 03.4**	**-1.4**
CTAO	**Charters Tower**	**58.67**	**175**	⇑P	**P**	**02 54 05.1**	**+0.3**
CTAO	**Charters Tower**	**58.67**	**175**	P	**P**	**02 54 04.4**	**-0.5**
	comp=Z,31nm,1.0s						
WB9	**Warramunga Arr**	**58.70**	**189**	P	**P**	**02 54 04.5**	**-0.5**
	comp=Z,194nm,0.8s						
WB9	**Warramunga Arr**	**58.70**	**189**	P	**P**	**02 54 04.3**	**-0.7**
	comp=Z,194nm,0.8s						
SANVU	**Saraoutou**	**58.82**	**151**	P	**P**	**02 54 06.9**	**+1.0**
	comp=Z,208nm,1.3s						
SANVU	**Saraoutou**	**58.82**	**151**		**P**	**02 54 05.2**	**-0.7**
SANVU	**Saraoutou**	**58.82**	**151**	⇑P	**P**	**02 54 06.2**	**+0.4**
SANVU	**Saraoutou**	**58.82**	**151**	P	**P**	**02 54 06.3**	**+0.4**
	comp=Z,2µmcomp=Z,208nm,1.3s,comp=Z,2µm						
HYB	**Hyderabad**	**58.83**	**268**	eP	**P**	**02 54 02.4**	**-3.7**
HYB				IAmb	IAmb	02 54 07.1	
	comp=Z,28nm,1.1s						
HYB	**Hyderabad**	**58.83**	**268**	eP	**P**	**02 54 05.6**	**-0.5**
HYB				epP	**pP**	**02 54 17.1**	**-0.5**
HYB				ePcP	**PcP**	**02 54 55.7**	**+0.3**
HYB				ePP	**PP**	**02 56 17.2**	**+0.8**
HYB				eS	**S**	**03 02 11.1**	**+2.0**
HYB				eScS	**ScS**	**03 03 53.9**	**+0.7**
HYB				IAMs_20	IAMs_20	03 21 14.2	
	comp=Z,8µm,18.6s						
HYB	**Hyderabad**	**58.83**	**268**	eScS	**ScS**	**03 03 53.9**	**+0.7**
HYB	**Hyderabad**	**58.83**	**268**	eP	**P**	**02 54 06.2**	**0.0**
HYB	**Hyderabad**	**58.83**	**268**	epP	pP	02 54 17.1	-0.5
HYB	**Hyderabad**	**58.83**	**268**	ePcP	**PcP**	**02 54 55.6**	**+0.2**
HYB	**Hyderabad**	**58.83**	**268**	ePP	PP	02 56 17.2	+0.8
HYB	**Hyderabad**	**58.83**	**268**	eS	**S**	**03 02 11.1**	**+2.0**
WRAB	**Tennant Creek**	**58.85**	**189**	P	**P**	**02 54 05.1**	**-0.9**
	comp=Z,76nm,0.8s						
WRAB	**Tennant Creek**	**58.85**	**189**	ceP	**P**	**02 54 05.6**	**-0.4**
WRAB				pmax	pmax		
	comp=Z,161nm,0.8s						
WRAB	**Tennant Creek**	**58.85**	**189**	P	**P**	**02 54 05.4**	**-0.6**
	comp=Z,2µmcomp=Z,140nm,0.8s						
WR0	**Warramunga Arr**	**58.85**	**188**	P	**P**	**02 54 05.5**	**-0.6**
	comp=Z,158nm,0.8s						
WR0	**Warramunga Arr**	**58.85**	**188**	P	**P**	**02 54 05.1**	**-1.0**
	comp=Z,158nm,0.8s						
WR8	**Warramunga Arr**	**58.85**	**188**	P	**P**	**02 54 04.2**	**-1.8**
WB2	**Warramunga Arr**	**58.85**	**189**	P	**P**	**02 54 05.6**	**-0.5**
	comp=Z,175nm,0.8s						
WB2	**Warramunga Arr**	**58.85**	**189**	P	**P**	**02 54 05.0**	**-1.1**
	comp=Z,175nm,0.8s						
WR1	**Warramunga Arr**	**58.86**	**189**	P	**P**	**02 54 05.6**	**-0.5**
	comp=Z,156nm,0.7s						
WRA	**Warramunga Arr**	**58.86**	**189**	P	**P**	**02 54 04.0**	**-2.1**
	comp=Z,73nm,0.8s,baz=8.6,slow=7.1,SNR=84						
WRA				LR	LR	03 19 16.4	
	comp=Z,3µm,20.9s,baz=90,slow=36						
WRA				PKPPKP	**P'P'df**	**03 23 41.5**	**+6.6**
	comp=Z,1.2nm,1.0s,baz=156,slow=1.6,SNR=5.0						
	comp=Z,73nm,0.8s						
WRA	**Warramunga Arr**	**58.86**	**189**	P	**P**	**02 54 04.6**	**-1.5**
WRA	**Warramunga Arr**	**58.86**	**189**	P	**P**	**02 54 04.6**	**-1.5**
WB1	**Warramunga Ar.**	**58.87**	**189**	P	**P**	**02 54 06.5**	**+0.3**
	comp=Z,182nm,0.7s						
SPA0	**Spitsbergen Ar**	**58.94**	**349**	eP	**P**	**02 54 05.4**	**-0.6**
SPA0				IVmB_BB		02 54 07.2	
	comp=Z,3µm,3.2s						
SPA0				ePP	**PP**	**02 56 18.1**	**+2.0**
SPA0				eS	**S**	**03 02 08.5**	**-0.4**
SPA0				eScS	**ScS**	**03 03 54.3**	**+2.2**
SPA0				IVMs_BB	IVMs_BB	03 18 47.3	
	comp=Z,2µm,3.9s						
SPB2	**Spitsbergen Ar**	**58.94**	**349**	P	**P**	**02 54 06.8**	**+0.8**
SPB2				IAmb	IAmb	02 54 47.3	
	comp=Z,108nm,1.1s						
SPITS	**Spitsbergen Ar**	**58.94**	**349**	P	**P**	**02 54 06.2**	**+0.1**
	comp=Z,15nm,0.6s,baz=84,slow=10,SNR=24						
SPITS				LR	LR	03 20 12.9	
	comp=Z,4µm,20.6s,baz=34,slow=37						
	comp=Z,15nm,0.6s						
QIS	**Mount Isa**	**59.06**	**183**	P	**P**	**02 54 07.1**	**-0.4**
	comp=Z,66nm,1.0s						
QIS	**Mount Isa**	**59.06**	**183**	P	**P**	**02 54 08.7**	**+1.2**
	comp=Z,66nm,1.0s						
QIS	**Mount Isa**	**59.06**	**183**	P	**P**	**02 54 07.0**	**-0.5**
	comp=Z,66nm,1.0s						
KIRV	**Kirov**	**59.21**	**322**	LR	LR	03 22 42.3	
	comp=Z,6µm,21.0s,baz=64,slow=39						
KIRV	**Kirov**	**59.21**	**322**	ceP	**P**	**02 54 08.0**	**-0.2**
NOR	**Nord**	**59.36**	**356**	P	**P**	**02 54 09.5**	**+0.6**
NOR	**Nord**	**59.36**	**356**	i P	**P**	**02 54 08.8**	**-0.1**
NOR				IAmb	IAmb	02 54 10.6	
	comp=Z,76nm,1.1s						
HSPB	**Hornsund (broa**	**59.87**	**348**	ePKP	**PcP**	**02 54 53.4**	**-5.2**
MDRS	**Chennai**	**60.06**	**263**	eP	**P**	**02 54 13.7**	**-0.9**
MDRS				IAmb	IAmb	02 54 28.7	
	comp=Z,71nm,0.3s						
BBB	**Bella Bella**	**60.43**	**45**	LR	LR	03 18 24.6	
	comp=Z,2µm,20.9s,baz=296,slow=34						
LVZ	**Lovozero**	**60.77**	**336**	ceP	**P**	**02 54 19.2**	**+0.4**
LVZ				pmax	pmax		
	comp=Z,111nm,1.0s						
LVZ				MLR	MLR		
	comp=Z,16µm,17.0s						
LVZ	**Lovozero**	**60.77**	**336**	P	**P**	**02 54 18.6**	**-0.1**
LVZ				IAmb	IAmb	02 54 23.0	
	comp=Z,81nm,0.9s						
LVZ	**Lovozero**	**60.77**	**336**	P	**P**	**02 54 18.4**	**-0.4**
	comp=Z,4µmcomp=Z,105nm,1.0s						
LVZ	**Lovozero**	**60.77**	**336**	P	**P**	**02 54 19.1**	**+0.3**
	comp=Z,11µmcomp=Z,4µmcomp=Z,97nm,1.0s,comp=Z,4µm						
LVZ	**Lovozero**	**60.77**	**336**	P	**P**	**02 54 18.6**	**-0.1**
LVZ				x	x	02 54 27.1	
RES	**Resolute Bay**	**60.78**	**15**	LR	LR	03 23 54.5	
	comp=Z,2µm,20.1s,baz=313,slow=39						
RES	**Resolute Bay**	**60.78**	**15**	P	**P**	**02 54 18.7**	**0.0**
RES				pmax	pmax		
	comp=Z,79nm,0.9s						
RES	**Resolute Bay**	**60.78**	**15**		**P**	**02 54 18.7**	**0.0**
RES				IAmb	IAmb	02 54 52.9	
	comp=Z,79nm,0.9s						
RES	**Resolute Bay**	**60.78**	**15**	P	**P**	**02 54 19.0**	**+0.3**
	comp=Z,2µmcomp=Z,104nm,1.2s						
BJO1	**Bjornoya**	**60.94**	**345**	eP	**P**	**02 54 20.1**	**+0.4**
BJO1				IVmB		02 54 22.3	
	comp=Z,3µm,3.3s						
BJO1				eS	**S**	**03 02 34.8**	**+0.2**
BJO1				IVMs_BB	IVMs_BB	03 23 27.0	
	comp=Z,4µm,4.1s						
VADS	**Vadso**	**61.15**	**339**	eP	**P**	**02 54 20.7**	**-0.6**
VADS				IVmB		02 54 25.7	
	comp=Z,2µm,1.0s						
VADS				ePP	**PP**	**02 56 34.8**	**-0.9**
VADS				eS	**S**	**03 02 37.5**	**+0.1**
VADS				eSS	**SS**	**03 06 41.4**	**+4.4**
VADS				IVMs_BB	IVMs_BB	03 25 32.4	
	comp=Z,6µm,17.1s						
APA	**Apatity**	**61.34**	**336**	eP	**P**	**02 54 21.4**	**-1.2**
APA				e		02 55 00.3	
APA				e		02 56 36.4	
APA				eS	**S**	**03 02 37.6**	**-2.4**
APA				e		03 04 10.8	
APA				eSS	**SS**	**03 06 38.0**	**-2.0**
APA				pmax	pmax		
	comp=Z,88nm,0.9s						
APA				MLR	MLR		
	comp=Z,17µm,22.4s						
ADZR	**Andozero**	**61.52**	**331**	c iP	**P**	**02 54 24.4**	**+0.5**
ADZR				S	**S**	**03 02 40.2**	**-2.1**
ADZR				pmax	pmax		
	comp=Z,191nm,0.6s						
ADZR				MLR	MLR		
	comp=Z,26µm,17.0s						
POO	**Poona**	**61.87**	**272**	eP	**P**	**02 54 23.0**	**-4.0**
POO				IAmb	IAmb	02 54 28.1	
	comp=Z,42nm,1.2s						
YKAW3	**Yellowknife Wh**	**61.99**	**31**		**P**	**02 54 27.3**	**+0.2**
YKAW3				IAmb	IAmb	02 54 42.1	
	comp=Z,212nm,1.6s						
KEV	**Kevo**	**62.02**	**339**		**P**	**02 54 27.5**	**+0.4**
KEV				IAmb	IAmb	02 54 31.4	
	comp=Z,78nm,0.9s						
KEV				IAMs_20	IAMs_20	03 24 14.5	
	comp=Z,7µm,22.0s						
KEV	**Kevo**	**62.02**	**339**	P	**P**	**02 54 28.4**	**+1.2**
	comp=Z,10µmcomp=Z,129nm,2.7s						
YKA	**Yellowknife Ar**	**62.03**	**31**	P	**P**	**02 54 27.2**	**-0.1**
	comp=Z,32nm,1.1s,baz=304,slow=6.0,SNR=13						
YKA				LR	LR	03 22 00.6	
	comp=Z,2µm,21.4s,baz=301,slow=36						
	comp=Z,32nm,1.1s						
YKA	**Yellowknife Ar**	**62.03**	**31**	i P	**P**	**02 54 28.2**	**+0.9**
YKA				pmax	pmax		
	comp=Z,32nm,0.9s						
YKAW1	**Yellowknife Wh**	**62.08**	**31**	IAmb	IAmb	02 54 42.8	
	comp=Z,184nm,1.4s						
AUNRC	**North Rockhamp**	**62.29**	**171**	P	**P**	**02 54 30.7**	**+1.3**
	comp=Z,168nm,1.0s						
HRA	**Herat**	**62.35**	**293**		**P**	**02 54 31.2**	**+1.0**
HAMF	**Hammerfest**	**62.37**	**341**	eP	**P**	**02 54 27.9**	**-1.6**
HAMF				IVmB_BB		02 54 30.1	
	comp=Z,2µm,3.9s						
HAMF				eS	**S**	**03 02 54.6**	**+1.7**
HAMF				eSS	**SS**	**03 06 57.6**	**+1.6**
HAMF				IVMs_BB	IVMs_BB	03 23 35.2	
	comp=Z,3µm,4.7s						
BHUJ	**Bhuj**	**62.53**	**279**	eP	**P**	**02 54 30.1**	**-1.1**
BHUJ				IAmb	IAmb	02 54 33.2	
	comp=Z,32nm,1.4s						
AS15	**Alice Springs**	**62.55**	**188**	P	**P**	**02 54 31.5**	**+0.3**
	comp=Z,85nm,0.7s						
AS17	**Alice Springs**	**62.57**	**188**	P	**P**	**02 54 31.6**	**+0.2**
	comp=Z,104nm,0.8s						
AS01	**Alice Springs**	**62.58**	**188**	P	**P**	**02 54 32.6**	**+1.2**
	comp=Z,117nm,0.8s						
ARA0	**ARCESS Array S**	**62.58**	**339**	eP	**P**	**02 54 31.0**	**+0.1**
ARA0				IVmB_BB		02 54 32.0	
	comp=Z,2µm,3.3s						
ARA0				ePP	**PP**	**02 56 49.8**	**+1.5**
ARA0				eS	**S**	**03 02 55.4**	**-0.1**
ARA0				IVMs_BB	IVMs_BB	03 26 17.0	
	comp=Z,5µm,19.4s						
ARCES	**ARCESS Array B**	**62.58**	**339**	P	**P**	**02 54 30.6**	**-0.3**
	comp=Z,40nm,0.8s,baz=54,slow=8.1,SNR=164						
ARCES				LR	LR	03 24 50.6	
	comp=Z,6µm,20.9s,baz=53,slow=39						
	comp=Z,40nm,0.8s						
ARCES	**ARCESS Array B**	**62.58**	**339**	P	**P**	**02 54 31.3**	**+0.4**
ARCES				pmax	pmax		
	comp=Z,69nm,1.0s						
ARCES	**ARCESS Array B**	**62.58**	**339**	P	**P**	**02 54 31.3**	**+0.4**
ARCES				IAmb	IAmb	02 54 35.1	
	comp=Z,69nm,1.0s						
AS31	**Alice Springs**	**62.58**	**188**	P	**P**	**02 54 31.2**	**-0.3**
	comp=Z,17nm,0.7s						
AS31	**Alice Springs**	**62.58**	**188**		**P**	**02 54 30.9**	**-0.5**
ASAR	**Alice Springs**	**62.58**	**188**	P	**P**	**02 54 29.7**	**-1.7**
	comp=Z,48nm,0.7s,baz=7.3,slow=4.1,SNR=53						
ASAR				LR	LR	03 21 31.7	
	comp=Z,4µm,21.7s,baz=357,slow=36						
ASAR				PKPPKP	**P'P'df**	**03 23 33.8**	**+4.7**
	comp=Z,0.8nm,0.8s,baz=152,slow=4.1,SNR=4.1						
	comp=Z,48nm,0.7s						
ASAR	**Alice Springs**	**62.58**	**188**	P	**P**	**02 54 30.4**	**-1.1**
ASAR	**Alice Springs**	**62.58**	**188**	P	**P**	**02 54 30.4**	**-1.1**
KLMR	**Klimovskoe**	**62.60**	**327**	eP	**P**	**02 54 30.3**	**-0.8**
KLMR				e*PP	**pP**	**02 54 42.5**	**-0.2**
KLMR				e		02 56 48.2	
KLMR				pmax	pmax		
	comp=Z,429nm,1.5s						
KLMR				MLR	MLR		
	comp=Z,21µm,16.0s						
AUALC	**St Philip's Co**	**62.61**	**189**	P	**P**	**02 54 32.6**	**+1.0**
	comp=Z,117nm,0.8s						
AS09	**Alice Springs**	**62.61**	**188**	P	**P**	**02 54 31.9**	**+0.2**
	comp=Z,119nm,0.8s						
MALK	**Mahakanadarawa**	**62.71**	**258**	PKP	**P**	**02 54 32.7**	**+0.1**
MALK	**Mahakanadarawa**	**62.71**	**258**	P	**P**	**02 54 32.4**	**-0.2**
MALK	**Mahakanadarawa**	**62.71**	**258**	P	**P**	**02 54 33.3**	**+0.7**
	comp=Z,11µmcomp=Z,3µmcomp=Z,125nm,2.0s,comp=Z,3µm						
BELG	**Belogornoye**	**62.92**	**317**	LR	LR	03 24 03.9	
	comp=Z,31µm,18.7s,baz=59,slow=38						
BELG	**Belogornoye**	**62.92**	**317**	c iP	**P**	**02 54 33.8**	**+0.4**
BELG				pmax	pmax		
	comp=Z,74nm,1.0s						
BELG				MLR	MLR		
	comp=Z,4µm,18.0s						
MBWA	**Marble Bar**	**63.20**	**203**	P	**P**	**02 54 35.5**	**-0.1**
	comp=Z,130nm,1.1s,comp=Z,0.0nm						
MBWA	**Marble Bar**	**63.20**	**203**	P	**P**	**02 54 36.0**	**+0.4**
	comp=Z,75nm,1.1s						
MBWA	**Marble Bar**	**63.20**	**203**	P	P	02 54 30.6	-4.9
MBWA	**Marble Bar**	**63.20**	**203**		**P**	**02 54 34.0**	**-1.6**
MBWA				IAmb	IAmb	02 54 39.6	
	comp=Z,87nm,0.9s						
MBWA	**Marble Bar**	**63.20**	**203**	P	**P**	**02 54 35.3**	**-0.2**
	comp=Z,6µmcomp=Z,130nm,1.1s						
PALK	**Pallekele**	**63.30**	**257**	LR	LR	03 24 35.0	
	comp=Z,5µm,20.7s,baz=44,slow=38						
PALK	**Pallekele**	**63.30**	**257**	P	**P**	**02 54 36.4**	**-0.2**
PALK	**Pallekele**	**63.30**	**257**	P	**P**	**02 54 36.8**	**+0.2**
PALK				pmax	pmax		
	comp=Z,120nm,1.0s						
PALK				MLR	MLR		
	comp=Z,7µm,21.0s						
PALK	**Pallekele**	**63.30**	**257**		**P**	**02 54 36.8**	**+0.2**
PALK				IAmb	IAmb	02 54 37.8	
	comp=Z,120nm,1.0s						
PALK	**Pallekele**	**63.30**	**257**	IAMs_20	IAMs_20	03 24 23.9	
	comp=Z,7µm,21.0s						
PALK	**Pallekele**	**63.30**	**257**	P	**P**	**02 54 37.1**	**+0.6**
PALK	**Pallekele**	**63.30**	**257**	i P	**P**	**02 54 37.1**	**+0.6**
	SNR=12						
PALK	**Pallekele**	**63.30**	**257**	P	**P**	**02 54 37.3**	**+0.8**
	comp=Z,13µmcomp=Z,4µmcomp=Z,178nm,1.9s						
PALK	**Pallekele**	**63.30**	**257**	P	**P**	**02 54 37.0**	**+0.4**
PALK				x	x	02 54 45.4	
TULEG	**Thule**	**63.31**	**8**	IAMs_20	IAMs_20	03 25 00.4	
	comp=Z,4µm,21.0s						
TULEG	**Thule**	**63.31**	**8**	i P	**P**	**02 54 35.6**	**0.0**
TULEG				IAmb	IAmb	02 54 39.4	
	comp=Z,126nm,0.8s						
KTK1	**Kautokeino**	**63.53**	**339**	eP	**P**	**02 54 37.4**	**+0.1**
KTK1				IVmB_BB		02 54 38.4	
	comp=Z,2µm,3.3s						
KTK1				ePP	**PP**	**02 56 58.6**	**+1.9**
KTK1				eS	**S**	**03 03 06.1**	**-1.4**
KTK1				IVMs_BB	IVMs_BB	03 26 45.0	
	comp=Z,6µm,20.7s						
SGF	**Sodankyl**	**63.58**	**337**	P	**P**	**02 54 37.8**	**+0.3**
SGF				pmax	pmax		
	comp=Z,251nm,0.9s						
SGF	**Sodankyl**	**63.58**	**337**	P	**P**	**02 54 38.2**	**+0.7**
	comp=Z,10µmcomp=Z,3µmcomp=Z,251nm,0.9s						
GOA	**Goa**	**63.63**	**269**	eP	**P**	**02 54 35.8**	**-2.9**
GOA				IAmb	IAmb	02 54 40.2	
	comp=Z,30nm,0.6s						
MSF	**Maaselka**	**63.72**	**335**	P	**P**	**02 54 38.6**	**+0.1**
MSF	**Maaselka**	**63.72**	**335**	P	**P**	**02 54 38.6**	**+0.1**
	comp=Z,10µmcomp=Z,4µmcomp=Z,197nm,1.2s						
NEEM	**North Greenlan**	**63.77**	**3**	i P	**P**	**02 54 39.1**	**0.0**
NEEM				IAmb	IAmb	02 54 43.8	
	comp=Z,172nm,0.9s						
JETT	**Jettan, Norway**	**63.93**	**341**	eP	**P**	**02 54 40.2**	**+0.4**
JETT				IVmB_BB		02 54 40.9	
	comp=Z,3µm,3.4s						
JETT				eS	**S**	**03 03 15.7**	**+3.2**
JETT				IVMs_BB	IVMs_BB	03 27 03.3	
	comp=Z,5µm,13.4s						
DAG	**Danmarks Havn**	**64.10**	**355**	P	**P**	**02 54 41.1**	**+0.3**
DAG				pmax	pmax		
	comp=Z,154nm,1.1s						
DAG	**Danmarks Havn**	**64.10**	**355**	i P	**P**	**02 54 40.0**	**-0.8**
DAG				IAmb	IAmb	02 54 45.1	
	comp=Z,105nm,0.9s						
DAG	**Danmarks Havn**	**64.10**	**355**	P	**P**	**02 54 41.1**	**+0.3**
	comp=Z,154nm,1.1s						
CLRS	**Cowichan Lake**	**64.26**	**47**	IAmb	IAmb	02 55 02.5	
	comp=Z,112nm,1.6s						
TRO	**Tromso**	**64.26**	**341**	P	**P**	**02 54 42.2**	**+0.2**
TRO	**Tromso**	**64.26**	**341**	eP	**P**	**02 54 42.1**	**+0.2**
TRO				eS	**S**	**03 03 19.2**	**+2.8**
TRO				IVMs_BB	IVMs_BB	03 24 33.7	
	comp=Z,2µm,24.6s						
EIDS	**Eidsvold**	**64.35**	**171**	P	**P**	**02 54 43.9**	**+0.9**
	comp=Z,52nm,0.7s						
EIDS	**Eidsvold**	**64.35**	**171**	P	**P**	**02 54 44.5**	**+1.5**
	comp=Z,51nm,0.7s						
EIDS	**Eidsvold**	**64.35**	**171**		**P**	**02 54 43.4**	**+0.4**
EIDS				IAmb	IAmb	02 54 55.4	
	comp=Z,174nm,1.8s						
EIDS	**Eidsvold**	**64.35**	**171**	P	**P**	**02 54 43.9**	**+0.9**
	comp=Z,52nm,0.7s						
FUTU	**Fugatoga**	**64.56**	**137**	IAMs_20	IAMs_20	03 16 02.4	
	comp=Z,6µm,22.0s						
NOUC	**Port Laguerre**	**64.65**	**155**	P	**P**	**02 54 46.2**	**+1.2**
	comp=Z,98nm,1.3s						
DZM	**Mont Dzumac**	**64.67**	**155**	P	**P**	**02 54 45.5**	**+0.2**
	comp=Z,18nm,1.0s,baz=47,slow=8.6,SNR=6.4						
DZM				LR	LR	03 19 35.6	
	comp=Z,11µm,21.9s,baz=330,slow=33						
	comp=Z,18nm,1.0s						
PGC	**Sidney**	**64.73**	**47**	IAmb	IAmb	02 55 05.4	
	comp=Z,195nm,2.0s						
WRKA	**Warakurna**	**64.78**	**194**	P	**P**	**02 54 45.9**	**-0.1**
	comp=Z,64nm,1.7s						
QLP	**Quilpie**	**65.04**	**178**	P	**P**	**02 54 47.9**	**+0.4**
	comp=Z,274nm,1.0s						
QLP	**Quilpie**	**65.04**	**178**	P	**P**	**02 54 48.9**	**+1.4**
	comp=Z,274nm,1.0s						
NLWA	**Neilton Lookou**	**65.13**	**48**	IAmb	IAmb	02 55 18.9	
	comp=Z,129nm,1.1s						
RMQ	**Roma**	**65.21**	**173**	P	**P**	**02 54 49.8**	**+1.2**
	comp=Z,72nm,1.6s						
OUL	**Oulu**	**65.26**	**335**	P	**P**	**02 54 48.9**	**+0.4**
OUL				pmax	pmax		
	comp=Z,257nm,0.9s						
OUL	**Oulu**	**65.26**	**335**	P	**P**	**02 54 49.1**	**+0.6**
	comp=Z,10µmcomp=Z,5µmcomp=Z,257nm,0.9s,comp=Z,5µm						
A05A	**Maple Falls**	**65.33**	**46**	IAmb	IAmb	02 55 33.3	
	comp=Z,72nm,1.1s						
POIN	**Pond Inlet**	**65.41**	**12**	IAmb	IAmb	02 55 12.1	
	comp=Z,70nm,1.0s						
MSVF	**Nonsavu**	**65.51**	**142**	P	**P**	**02 54 52.3**	**+1.5**
	comp=Z,50nm,1.6s						
MSVF	**Nonsavu**	**65.51**	**142**	P	**P**	**02 54 51.5**	**+0.7**
E03A	**Lebam**	**65.75**	**49**	IAmb	IAmb	02 55 22.6	
	comp=Z,115nm,1.2s						
COCO	**West Island**	**66.00**	**230**	P	**P**	**02 54 55.9**	**+2.0**
	comp=Z,232nm,1.5s						
COCO	**West Island**	**66.00**	**230**	P	**P**	**02 54 54.0**	**+0.1**
COCO				pmax	pmax		
	comp=Z,527nm,1.2s						
COCO	**West Island**	**66.00**	**230**	P	**P**	**02 54 54.0**	**+0.1**
COCO	**West Island**	**66.00**	**230**	P	**P**	**02 54 56.4**	**+2.5**
	comp=Z,232nm,1.5s						
COCO	**West Island**	**66.00**	**230**	P	**P**	**02 54 55.2**	**+1.3**
	comp=Z,455nm,1.5s						
F03A	**Seaside**	**66.07**	**50**	IAmb	IAmb	02 55 30.9	
	comp=Z,164nm,1.3s						
INKA	**Innaminka**	**66.18**	**181**		**P**	**02 54 54.4**	**-0.4**
INKA				IAmb	IAmb	02 55 00.1	
	comp=Z,65nm,0.8s						
MOS	**Moscow**	**66.20**	**323**	c iP	**P**	**02 54 54.7**	**0.0**
MOS				e		02 55 10.3	
MOS				e		02 57 19.7	
MOS				i S	**S**	**03 03 39.7**	**-0.9**
MOS				e		03 04 45.4	
MOS				pmax	pmax		
	comp=Z,553nm,1.5s						
MOS				pmax	pmax		
	comp=Z,2µm,3.0s						
MOS				pmax	pmax		
	comp=N,1µm,3.0s						
MOS				pmax	pmax		
	comp=E,700nm,3.0s						
MOS				pmax	pmax		
	comp=N,178nm,1.1s						
MOS				pmax	pmax		
	comp=E,142nm,1.1s						
MOS				smax	smax		
	comp=N,2µm,5.0s						
MOS				MLR	MLR		
	comp=E,14µm,15.0s						
MOS				MLR	MLR		
	comp=Z,20µm,15.0s						
MOS				MLR	MLR		
	comp=N,10µm,14.0s						
KULLO	**Kullorsuaq**	**66.20**	**6**	i P	**P**	**02 54 54.4**	**-0.1**
KULLO				IAmb	IAmb	02 54 58.3	
	comp=Z,78nm,0.9s						
STEI	**Steigen**	**66.42**	**341**	eP	**P**	**02 54 54.9**	**-1.0**
STEI				IVmB_BB		02 55 33.1	
	comp=Z,2µm,2.9s						
STEI				eS	**S**	**03 03 42.3**	**-0.6**
STEI				IVMs_BB	IVMs_BB	03 27 12.9	
	comp=Z,4µm,19.8s						
DBG	**Daneborg**	**66.59**	**355**	i P	**P**	**02 54 57.5**	**+0.6**
DBG				IAmb	IAmb	02 55 00.5	
	comp=Z,56nm,1.2s						
G03D	**McMinnville, O**	**66.62**	**50**	IAmb	IAmb	02 55 31.9	
	comp=Z,161nm,1.5s						
VRH	**Novokhopyorsk**	**66.68**	**318**	eP	**P**	**02 54 55.3**	**-2.6**

VRH				*e*S	**S**	**03 03 39.0**	**-7.5**
VRH				pmax	pmax		
	comp=Z,170nm,0.7s						
VRH				pmax	pmax		
	comp=Z,560nm,1.6s						
VRH				smax	smax		
	comp=N,2µm,10.9s						
VRH				MLR	MLR		
	comp=Z,34µm,16.0s						
STD	**Studebaker Rid**	**66.70**	**49**	IAmb	IAmb	02 55 05.1	
	comp=Z,94nm,0.9s						
LOF	**Lofoten**	**66.70**	**341**	*e*P	**P**	**02 54 58.4**	**+0.6**
LOF				IVmB_BB		02 55 00.2	
	comp=Z,2µm,5.0s						
LOF				*e*S	**S**	**03 03 46.6**	**+0.3**
LOF				IVMs_BB	IVMs_BB	03 28 14.2	
	comp=Z,4µm,15.7s						
FAUS	**Fauske**	**66.81**	**340**	*e*P	**P**	**02 54 58.5**	**0.0**
FAUS				IVmB_BB		02 54 59.5	
	comp=Z,3µm,3.2s						
FAUS				*e*S	**S**	**03 03 45.7**	**-2.0**
FAUS				IVMs_BB	IVMs_BB	03 29 09.8	
	comp=Z,5µm,18.2s						
I02E	**Swisshome, OR**	**66.86**	**51**	IAmb	IAmb	02 55 20.3	
	comp=Z,269nm,1.9s						
COR	**Corvallis**	**66.93**	**51**	P	**P**	**02 55 01.1**	**+1.5**
COR	**Corvallis**	**66.93**	**51**	P	**P**	**02 55 01.7**	**+2.1**
	comp=Z,4µmcomp=Z,2µmcomp=Z,90nm,1.2s						
PUL	**Pulkovo**	**66.98**	**329**	*ce*P	**P**	**02 55 00.8**	**+1.1**
PUL				pmax	pmax		
	comp=Z,498nm,1.3s						
PUL				MLR	MLR		
	comp=Z,20µm,18.0s						
OBN	**Obninsk**	**67.05**	**323**	LR	LR	03 26 43.5	
	comp=Z,11µm,18.4s,baz=52,slow=38						
OBN	**Obninsk**	**67.05**	**323**	*ce*P	**P**	**02 54 59.4**	**-0.8**
OBN				*i* *PP	**pP**	**02 55 09.9**	**-1.9**
OBN				*i* *SP	**sP**	**02 55 14.1**	**-2.2**
OBN				*e*		02 55 29.1	
OBN				*e*		02 57 28.5	
OBN				*e*PPP	PPP	02 59 05.4	
OBN				*e*S	**S**	**03 03 51.2**	**+0.3**
OBN				*e*SS	**SS**	**03 08 14.4**	**+5.1**
OBN				pmax	pmax		
	comp=Z,453nm,1.3s						
OBN				MLR	MLR		
	comp=Z,17µm,16.0s						
OBN	**Obninsk**	**67.05**	**323**	P	**P**	**02 55 00.3**	**+0.1**
OBN	**Obninsk**	**67.05**	**323**	⇑P	**P**	**02 55 00.4**	**+0.2**
OBN	**Obninsk**	**67.05**	**323**	P	**P**	**02 55 00.1**	**-0.1**
	comp=Z,7µmcomp=Z,393nm,1.3s						
OBN	**Obninsk**	**67.05**	**323**	P	**P**	**02 54 59.8**	**-0.3**
	comp=Z,12µmcomp=Z,7µmcomp=Z,396nm,1.3s						
OBN	**Obninsk**	**67.05**	**323**	P	**P**	**02 55 00.3**	**+0.1**
OBN				pP	**pP**	**02 55 10.5**	**-1.3**
LTY	**Liberty**	**67.06**	**47**	IAmb	IAmb	02 55 32.3	
	comp=Z,68nm,1.0s						
G04A	**Mulino**	**67.10**	**50**	IAmb	IAmb	02 55 35.5	
	comp=Z,92nm,0.9s						
B08A	**Colville Reser**	**67.22**	**46**	IAmb	IAmb	02 55 21.5	
	comp=Z,198nm,1.7s						
H04D	**Lebanon**	**67.31**	**51**	IAmb	IAmb	02 55 36.2	
	comp=Z,93nm,1.2s						
BUCK	**Buck Mountain**	**67.33**	**51**	IAmb	IAmb	02 55 34.1	
	comp=Z,207nm,1.5s						
LPSR	**Galich'ya Gora**	**67.34**	**320**	*e*P	**P**	**02 55 00.1**	**-2.0**
LPSR				pmax	pmax		
	comp=Z,290nm,0.9s						
LPSR				pmax	pmax		
	comp=Z,310nm,1.0s						
LPSR				MLR	MLR		
	comp=Z,20µm,17.0s						
ILON	**Igloolik, Nuna**	**67.44**	**15**	IAmb	IAmb	02 55 07.0	
	comp=Z,135nm,1.3s						
HOOD	**Mount Hood Mea**	**67.53**	**49**	IAmb	IAmb	02 55 10.2	
	comp=Z,95nm,0.9s						
FINES	**FINESS Array B**	**67.55**	**332**	P	**P**	**02 55 02.3**	**-0.9**
	comp=Z,202nm,0.9s,baz=46,slow=5.5,SNR=177						
FINES				LR	LR	03 26 47.4	
	comp=Z,14µm,18.5s,baz=50,slow=38						
	comp=Z,202nm,0.9s						
FINES	**FINESS Array B**	**67.55**	**332**	P	**P**	**02 55 02.2**	**-1.0**
BLKN	**Baker Lake**	**67.58**	**24**		**P**	**02 55 03.1**	**-0.3**
BLKN				IAmb	IAmb	02 55 08.4	
	comp=Z,134nm,0.9s						
EDM	**Edmonton**	**67.64**	**39**	IAmb	IAmb	02 55 22.9	
	comp=Z,111nm,1.1s						
MXC	**Moxie City**	**67.64**	**48**	IAmb	IAmb	02 55 24.5	
	comp=Z,193nm,1.8s						
VAF	**Ylistaro**	**67.67**	**335**	P	**P**	**02 55 04.6**	**+0.6**
VAF				pmax	pmax		
	comp=Z,144nm,0.9s						
VORR	**Voronezh**	**67.72**	**319**	*e*P	**P**	**02 55 02.5**	**-2.0**
VORR				*e*S	**S**	**03 03 54.3**	**-4.8**
VORR				pmax	pmax		
	comp=Z,310nm,1.0s						
VORR				pmax	pmax		
	comp=Z,150nm,0.4s						
VORR				smax	smax		
	comp=N,1µm,8.7s						
VORR				MLR	MLR		
	comp=Z,23µm,16.0s						
AFI	**Afiamalu**	**67.82**	**131**	LR	LR	03 18 35.8	
	comp=Z,5µm,21.9s,baz=318,slow=30						
AFI	**Afiamalu**	**67.82**	**131**	IAMs_20	IAMs_20	03 18 13.4	
	comp=Z,6µm,21.0s						
VAGH	**Vaagaholmen**	**67.83**	**340**	*e*P	**P**	**02 55 03.9**	**-1.0**
VAGH				IVmB_BB		02 55 05.5	
	comp=Z,2µm,3.7s						
VAGH				*e*S	**S**	**03 04 00.0**	**+0.2**
VAGH				IVMs_BB	IVMs_BB	03 28 42.4	
	comp=Z,5µm,14.5s						
MAK	**Makhachkala**	**67.84**	**308**	⇑*i*P	**P**	**02 55 05.0**	**-0.4**
MAK				*e*		02 57 35.0	
MAK				*e*PPP	PPP	02 59 18.0	
MAK				*e*S	**S**	**03 04 01.1**	**+0.3**
MAK				*e*SS	**SS**	**03 08 25.0**	**+2.9**
MAK				pmax	pmax		
	comp=Z,238nm,1.5s						
MAK				MLR	MLR		
	comp=Z,18µm,16.0s						
RAUS	**Rausandaksla**	**67.84**	**340**	*e*P	**P**	**02 55 04.0**	**-1.0**
RAUS				*e*S	**S**	**03 04 04.4**	**+4.3**
RAUS				IVMs_BB	IVMs_BB	03 29 23.7	
	comp=Z,7µm,16.2s						
NGCH	**Negor - Chabah**	**67.89**	**285**	P	**P**	**02 55 07.2**	**+1.1**
E07A	**Sunnyside**	**67.91**	**48**	IAmb	IAmb	02 55 26.2	
	comp=Z,244nm,1.7s						
MOR8	**Moi Rana**	**67.94**	**340**	*e*P	**P**	**02 55 03.9**	**-1.8**
MOR8				IVmB_BB		02 55 05.2	
	comp=Z,2µm,3.4s						
MOR8				*e*S	**S**	**03 04 00.0**	**-1.3**
MOR8				IVMs_BB	IVMs_BB	03 29 11.0	
	comp=Z,7µm,17.6s						
VSR	**Storozhevoye**	**68.00**	**319**	*e*P	**P**	**02 55 04.3**	**-2.0**
VSR				*e*S	**S**	**03 03 56.2**	**-6.3**
VSR				pmax	pmax		
	comp=Z,140nm,0.5s						
VSR				pmax	pmax		
	comp=Z,2µm,2.7s						
VSR				smax	smax		
	comp=N,1µm,11.4s						
VSR				MLR	MLR		
	comp=Z,27µm,15.0s						
UPNV	**Upernavik**	**68.02**	**6**	*i* P	**P**	**02 55 06.1**	**0.0**
UPNV				IAmb	IAmb	02 55 10.4	
	comp=Z,50nm,0.9s						
KONS	**Konsvik**	**68.04**	**340**	*e*P	**P**	**02 55 04.9**	**-1.3**
KONS				AMP		02 55 04.9	
	comp=Z,6µm,16.0s						
KONS				*e*S	**S**	**03 04 05.6**	**+3.2**
KONS				IVMs_BB	IVMs_BB	03 28 38.1	
	comp=Z,6µm,16.0s						
KSXB	**Camp Six Broad**	**68.06**	**53**	IAmb	IAmb	02 56 00.5	
	comp=Z,87nm,1.3s						
AULRC	**Lightning Ridg**	**68.07**	**175**	P	**P**	**02 55 08.3**	**+1.5**
	comp=Z,122nm,1.4s						
VORD	**Divnogorie**	**68.08**	**318**	*e*P	**P**	**02 55 04.7**	**-2.1**
VORD				*e*S	S	03 03 52.4	-11
VORD				pmax	pmax		
	comp=Z,140nm,0.7s						
VORD				pmax	pmax		
	comp=Z,330nm,1.3s						
VORD				smax	smax		
	comp=N,230nm,6.2s						
VORD				MLR	MLR		
	comp=Z,10µm,15.0s						
C09A	**Chrisman Ranch**	**68.11**	**46**	IAmb	IAmb	02 55 54.5	
	comp=Z,67nm,1.1s						
G06A	**Carlson Farm,**	**68.18**	**49**	IAmb	IAmb	02 55 29.1	
	comp=Z,175nm,1.6s						
HAWA	**Hanford**	**68.18**	**48**		**P**	**02 55 08.6**	**+1.0**
HAWA				IAmb	IAmb	02 55 37.6	
	comp=Z,98nm,1.6s						
STOK	**Stokkvaagen**	**68.19**	**340**	*e*P	**P**	**02 55 05.9**	**-1.3**
STOK				*e*S	**S**	**03 04 06.3**	**+2.1**
STOK				IVMs_BB	IVMs_BB	03 28 41.8	
	comp=Z,5µm,15.4s						
I05D	**Terrebonne, OR**	**68.25**	**50**	IAmb	IAmb	02 55 37.5	
	comp=Z,138nm,1.6s						
LEIR	**Leirfjorden**	**68.34**	**340**	*e*P	**P**	**02 55 07.7**	**-0.4**
LEIR				IVmB_BB		02 55 08.7	
	comp=Z,2µm,3.4s						
LEIR				*e*S	**S**	**03 04 06.3**	**+0.4**
LEIR				IVMs_BB	IVMs_BB	03 29 48.1	
	comp=Z,6µm,13.8s						
J04A	**Umpqua Nationa**	**68.39**	**51**	IAmb	IAmb	02 55 15.7	
	comp=Z,80nm,0.9s						
JNW	**Jan Mayen West**	**68.49**	**350**	*e*P	**P**	**02 55 10.1**	**+1.1**
JNW				*e*S	**S**	**03 04 13.3**	**+5.7**
JNW				IVMs_BB	IVMs_BB	03 23 49.2	
	comp=Z,5µm,3.7s						
NEW	**Newport**	**68.50**	**45**	LR	LR	03 22 12.2	
	comp=Z,979nm,21.8s,baz=304,slow=33						
NEW	**Newport**	**68.50**	**45**		**P**	**02 55 09.5**	**0.0**
NEW				IAmb	IAmb	02 55 56.9	
	comp=Z,72nm,1.1s						
NEW	**Newport**	**68.50**	**45**	P	**P**	**02 55 10.4**	**+0.9**
	comp=Z,3µmcomp=Z,1µmcomp=Z,52nm,1.6s						
AKT	**Akhty**	**68.50**	**306**	*e*P	**P**	**02 55 09.6**	**-0.2**
AKT				*e**PP	**pP**	**02 55 22.2**	**+0.7**
AKT				*e*		02 55 34.2	
AKT				*e*		02 57 42.0	
AKT				*e*PPP	PPP	02 59 20.6	
AKT				*e*S	**S**	**03 04 08.7**	**-0.3**
AKT				*e**SS	**sS**	**03 04 31.2**	**+2.4**
AKT				*e*		03 05 02.8	
AKT				*e*SS	**SS**	**03 08 31.2**	**-1.5**
AKT				pmax	pmax		
	comp=Z,469nm,1.1s						
AKT				pmax	pmax		
	comp=Z,296nm,1.0s						
AKT				pmax	pmax		
	comp=N,30nm,0.5s						
AKT				pmax	pmax		
	comp=E,93nm,1.0s						
AKT				smax	smax		
	comp=N,190nm,2.6s						
AKT				smax	smax		
	comp=E,155nm,3.2s						
AKT				MLR	MLR		
	comp=Z,25µm,16.0s						
AKT				MLR	MLR		
	comp=E,19µm,16.0s						
AKT				MLR	MLR		
	comp=N,14µm,17.0s						
JMIC	**Jan Mayen**	**68.54**	**350**	LR	LR	03 27 24.6	
	comp=N,2µm,19.1s,baz=56,slow=38						
MEEK	**Meekatharra**	**68.69**	**203**	P	**P**	**02 55 10.4**	**-0.3**
	comp=Z,64nm,1.1s						
MEEK	**Meekatharra**	**68.69**	**203**	P	**P**	**02 55 11.1**	**+0.3**
	comp=Z,64nm,1.1s						
MEEK	**Meekatharra**	**68.69**	**203**	P	**P**	**02 55 10.5**	**-0.3**
	comp=Z,64nm,1.1s						
PINE	**Pine Mountain**	**68.79**	**50**	IAmb	IAmb	02 55 18.5	
	comp=Z,88nm,1.0s						
L04D	**Klamath Falls**	**68.83**	**52**	IAmb	IAmb	02 55 18.2	
	comp=Z,99nm,0.9s						
YBH	**Yreka Blue Hor**	**68.84**	**53**	LR	LR	03 17 57.4	
	comp=Z,2µm,22.0s,baz=300,slow=29						
ARBE	**Arbavere**	**68.90**	**331**	P	**P**	**02 55 12.5**	**+0.8**
	comp=Z,17µmcomp=Z,1µm,1.2s,comp=Z,17µm						
E09A	**Wood Farm, Sta**	**68.91**	**47**	IAmb	IAmb	02 55 32.3	
	comp=Z,260nm,1.8s						
SUMG	**Summit**	**68.95**	**0**	PKP	**P**	**02 55 13.3**	**+0.9**
SUMG	**Summit**	**68.95**	**0**	P	**P**	**02 55 13.3**	**+0.9**
SUMG	**Summit**	**68.95**	**0**	*i* P	**P**	**02 55 13.4**	**+1.0**
SUMG				IAmb	IAmb	02 55 18.2	
	comp=Z,201nm,0.9s						
SEKA	**Sheki**	**68.99**	**306**	P	**P**	**02 55 11.9**	**-0.8**
LNOR	**Lincton Mounta**	**69.19**	**47**	IAmb	IAmb	02 55 33.5	
	comp=Z,120nm,1.8s						
VSU	**Vasula**	**69.25**	**329**	*ce*P	**P**	**02 55 13.9**	**0.0**
VSU				pmax	pmax		
	comp=Z,321nm,0.8s						
VSU				MLR	MLR		
	comp=Z,23µm,18.0s						
VSU	**Vasula**	**69.25**	**329**	P	**P**	**02 55 13.5**	**-0.4**
	comp=Z,10µmcomp=Z,6µmcomp=Z,412nm,1.1s						
MNGR	**Mingechevir, A**	**69.30**	**306**	P	**P**	**02 55 14.2**	**-0.3**
LKRN	**Lenkeran, Azer**	**69.35**	**303**	P	**P**	**02 55 14.6**	**-0.3**
GOF	**Gofitskoye**	**69.36**	**312**	*c i*P	**P**	**02 55 14.7**	**-0.2**
GOF				*e*S	**S**	**03 04 16.8**	**-2.1**
HMDM	**Hanimaadhoo**	**69.39**	**262**	P	**P**	**02 55 17.6**	**+2.1**
	comp=Z,540nm,1.3s						
HMDM	**Hanimaadhoo**	**69.39**	**262**	P	**P**	**02 55 16.8**	**+1.3**
	comp=Z,542nm,1.3s						
ARMA	**Armidale**	**69.40**	**171**	P	**P**	**02 55 16.2**	**+1.0**
	comp=Z,48nm,1.2s						
ARMA	**Armidale**	**69.40**	**171**	P	**P**	**02 55 16.4**	**+1.2**
	comp=Z,48nm,1.2s						
K05A	**Summer Lake**	**69.41**	**51**	IAmb	IAmb	02 55 34.1	
	comp=Z,195nm,1.3s						
KCPM	**Cahto Peak**	**69.42**	**55**	IAMs_20	IAMs_20	03 21 53.1	
	comp=Z,4µm,20.0s						
M03C	**McCloud**	**69.46**	**53**	IAmb	IAmb	02 56 04.2	
	comp=Z,94nm,1.0s						
O02D	**Mt. Diablo Mer**	**69.65**	**54**	IAMs_20	IAMs_20	03 20 14.3	
	comp=Z,6µm,21.0s						
F10A	**Beach Ranch, E**	**69.74**	**47**	IAmb	IAmb	02 55 48.8	
	comp=Z,143nm,2.0s						
GANJ	**Ganja**	**69.85**	**306**	P	**P**	**02 55 17.6**	**-0.4**
NSS	**Namsos**	**69.86**	**339**	*e*P	**P**	**02 55 18.0**	**+0.4**
NCK	**Nalchik**	**69.92**	**310**	*c i*P	**P**	**02 55 18.9**	**+0.5**
NCK				pmax	pmax		
	comp=Z,245nm,1.1s						
NCK				MLR	MLR		
	comp=Z,7µm,18.0s						
AUPHS	**Peel High Scho**	**69.99**	**172**	P	**P**	**02 55 19.8**	**+1.1**
	comp=Z,44nm,1.2s						
CMSA	**Cobar Meteorol**	**70.03**	**177**	P	**P**	**02 55 20.0**	**+1.1**
	comp=Z,88nm,1.2s						
CMSA	**Cobar Meteorol**	**70.03**	**177**	P	**P**	**02 55 19.7**	**+0.8**
	comp=Z,88nm,1.2s						
CMSA	**Cobar Meteorol**	**70.03**	**177**	P	**P**	**02 55 19.5**	**+0.6**
	comp=Z,88nm,1.2s						
CMSA				pP	**pP**	**02 55 31.6**	**+1.0**
JASK	**Jask - Hormozg**	**70.06**	**288**	P	**P**	**02 55 21.5**	**+2.0**
	SNR=26						
HATC	**Hat Creek Radi**	**70.13**	**53**	IAmb	IAmb	02 55 47.3	
	comp=Z,108nm,0.9s						
NIAQ	**Niaqornat**	**70.16**	**5**	*i* P	**P**	**02 55 20.6**	**+1.4**
NIAQ				IAmb	IAmb	02 55 21.5	
	comp=Z,108nm,1.1s						
KVAR	**Kislovodsk Arr**	**70.20**	**311**	LR	LR	03 29 19.5	
	comp=Z,9µm,18.6s,baz=260,slow=39						
KIV	**Kislovodsk**	**70.20**	**311**	P	**P**	**02 55 20.5**	**+0.3**
KIV	**Kislovodsk**	**70.20**	**311**	*e*P	**P**	**02 55 20.2**	**0.0**
KIV				*e*		02 57 56.3	
KIV				*e*PPP	PPP	02 59 35.8	
KIV				*e*S	**S**	**03 04 28.8**	**-0.1**
KIV				*e*SS	**SS**	**03 09 02.7**	**+4.0**
KIV				pmax	pmax		
	comp=Z,713nm,3.7s						
KIV				pmax	pmax		
	comp=Z,733nm,1.0s						
KIV				MLR	MLR		
	comp=Z,6µm,18.0s						
KIV	**Kislovodsk**	**70.20**	**311**	P	**P**	**02 55 20.5**	**+0.3**
KIV	**Kislovodsk**	**70.20**	**311**	*i* P	**P**	**02 55 20.1**	**0.0**
	SNR=145						
KIV	**Kislovodsk**	**70.20**	**311**	⇑P	**P**	**02 55 21.1**	**+0.9**
KIV	**Kislovodsk**	**70.20**	**311**	P	**P**	**02 55 20.4**	**+0.3**
	comp=Z,7µmcomp=Z,726nm,1.1s						
KIV	**Kislovodsk**	**70.20**	**311**	P	**P**	**02 55 20.3**	**+0.1**
	comp=Z,12µmcomp=Z,9µmcomp=Z,930nm,1.1s						
KIV	**Kislovodsk**	**70.20**	**311**	P	**P**	**02 55 21.1**	**+0.9**
KIV				pP	**pP**	**02 55 31.3**	**-0.6**
KBZ	**Khabaz**	**70.21**	**310**	P	**P**	**02 55 19.9**	**-0.2**
	comp=Z,272nm,0.9s,baz=59,slow=3.4,SNR=294						
KBZ				LR	LR	03 31 17.3	
	comp=Z,10µm,18.4s,baz=36,slow=40						
	comp=Z,272nm,0.9s						
KBZ	**Khabaz**	**70.21**	**310**	*c i*P	**P**	**02 55 21.1**	**+1.0**
KBZ				MLR	MLR		
	comp=Z,11µm,18.0s						
O03E	**Paynes Creek**	**70.21**	**54**	IAmb	IAmb	02 55 36.2	
	comp=Z,91nm,1.0s						
MTSE	**Matsula**	**70.22**	**331**	P	**P**	**02 55 20.2**	**+0.4**
	comp=Z,21µmcomp=Z,2µm,0.9s						
KHAM	**Kharkiv**	**70.23**	**319**	P	**P**	**02 55 20.3**	**+0.1**
TBLG	**Delisi**	**70.23**	**308**	P	**P**	**02 55 19.9**	**-0.4**
SAATT	**Saattut**	**70.28**	**5**	*i* P	**P**	**02 55 20.9**	**+0.9**
SAATT				IAmb	IAmb	02 55 25.8	
	comp=Z,173nm,0.9s						
STKA	**Stephens Creek**	**70.29**	**180**	P	**P**	**02 55 20.7**	**+0.2**
	comp=Z,221nm,1.1s						
STKA	**Stephens Creek**	**70.29**	**180**	P	**P**	**02 55 19.6**	**-0.9**
	comp=Z,14nm,0.7s,baz=345,slow=7.2,SNR=13						
STKA				LR	LR	03 26 09.4	
	comp=Z,2µm,21.9s,baz=17,slow=36						
	comp=Z,14nm,0.7s						
STKA	**Stephens Creek**	**70.29**	**180**	P	**P**	**02 55 20.9**	**+0.4**
	comp=Z,11nm,1.1s						
STKA	**Stephens Creek**	**70.29**	**180**	P	**P**	**02 55 20.4**	**0.0**
	comp=Z,221nm,1.1s						
BMO	**Blue Mountains**	**70.34**	**48**	IAmb	IAmb	02 55 41.4	
	comp=Z,173nm,2.0s						
SHA1	**Shidzhatmaz**	**70.34**	**311**	*ce*P	**P**	**02 55 22.1**	**+0.9**
FORT	**Forrest**	**70.42**	**193**	P	**P**	**02 55 21.1**	**-0.2**
	comp=Z,93nm,0.9s						
FORT	**Forrest**	**70.42**	**193**	IAmb	IAmb	02 55 25.7	
	comp=Z,71nm,0.8s						
SCO	**Scoresbysund**	**70.45**	**354**	IAMs_20	IAMs_20	03 24 58.0	
	comp=Z,3µm,21.0s						
SCO	**Scoresbysund**	**70.45**	**354**	*i* P	**P**	**02 55 22.3**	**+1.2**
SCO				IAmb	IAmb	02 55 25.6	
	comp=Z,140nm,1.4s						
ERBR	**Yeremizino-Bor**	**70.47**	**313**	*c i*P	**P**	**02 55 22.7**	**+1.1**
ERBR				*e**PP	**pP**	**02 55 34.0**	**+0.7**
ERBR				*e*		02 57 55.3	
ERBR				*i* S	**S**	**03 04 33.2**	**+1.5**
ERBR				pmax	pmax		
	comp=Z,660nm,0.9s						
ERBR				MLR	MLR		
	comp=E,19µm,16.0s						
ERBR				MLR	MLR		
	comp=N,16µm,15.0s						
NEUR	**Neytrino**	**70.59**	**310**	*c i*P	**P**	**02 55 24.0**	**+1.3**
NEUR				pmax	pmax		
	comp=Z,78nm,0.9s						
NEUR				MLR	MLR		
	comp=Z,20µm,18.0s						
MCCM	**Marconi Confer**	**70.73**	**56**	IAMs_20	IAMs_20	03 20 00.8	
	comp=Z,4µm,21.0s						
CVS	**Carmenet Viney**	**70.89**	**56**	IAmb	IAmb	02 55 44.3	
	comp=Z,119nm,1.6s						
CVS				IAMs_20	IAMs_20	03 19 58.0	
	comp=Z,5µm,22.0s						
AUDCS	**Dubbo College**	**70.90**	**174**	P	**P**	**02 55 25.4**	**+1.2**
	comp=Z,76nm,1.3s						
FARB	**Farallon Islan**	**70.91**	**57**	IAMs_20	IAMs_20	03 20 03.4	
	comp=Z,3µm,21.0s						
WVOR	**Wild Horse Val**	**70.95**	**51**	P	**P**	**02 55 26.1**	**+1.3**
	comp=Z,3µmcomp=Z,1µmcomp=Z,56nm,1.6s,comp=Z,1µm						
LABN	**Labinsk**	**70.95**	**312**	*c i*P	**P**	**02 55 25.9**	**+1.3**
LABN				*e**PP	**pP**	**02 55 37.2**	**+0.9**
LABN				*e*		02 58 03.9	
LABN				*e*S	**S**	**03 04 38.7**	**+1.3**
LABN				pmax	pmax		
	comp=Z,586nm,0.9s						
LABN				MLR	MLR		
	comp=N,22µm,16.0s						
LABN				MLR	MLR		
	comp=E,14µm,15.0s						
LABN				MLR	MLR		
	comp=Z,12µm,15.0s						
PLID	**Pearl Lake**	**70.96**	**47**	IAmb	IAmb	02 55 44.8	
	comp=Z,138nm,1.8s						
WSAR	**Wadi Sarin**	**70.97**	**285**	LR	LR	03 29 29.8	
	comp=Z,13nm,20.2s,baz=98,slow=38						
WSAR	**Wadi Sarin**	**70.97**	**285**	P	**P**	**02 55 26.0**	**+0.9**
	SNR=27						
JLN	**Jalan Bani Buh**	**71.00**	**283**	P	**P**	**02 55 25.3**	**0.0**
	SNR=28						
SAQQ	**Saqqaq**	**71.04**	**5**	*i* P	**P**	**02 55 25.4**	**+0.7**
SAQQ				IAmb	IAmb	02 55 29.5	
	comp=Z,130nm,0.9s						
WBK	**Wadi Bani Khal**	**71.07**	**284**	P	**P**	**02 55 26.1**	**+0.4**
	SNR=52						
MSO	**Missoula**	**71.08**	**45**	IAmb	IAmb	02 55 45.3	
	comp=Z,185nm,1.9s						
GNI	**Garni**	**71.13**	**307**	LR	LR	03 29 56.3	
	comp=Z,16µm,18.8s,baz=56,slow=39						
GNI	**Garni**	**71.13**	**307**	P	**P**	**02 55 26.9**	**+0.9**
GNI	**Garni**	**71.13**	**307**	*ce*P	**P**	**02 55 27.4**	**+1.4**
GNI				pmax	pmax		
	comp=Z,238nm,1.3s						
GNI				MLR	MLR		
	comp=Z,15µm,18.0s						
GNI	**Garni**	**71.13**	**307**	P	**P**	**02 55 27.0**	**+1.0**
GNI	**Garni**	**71.13**	**307**	P	**P**	**02 55 26.1**	**+0.1**
	comp=Z,5µmcomp=Z,206nm,1.2s						
GNI	**Garni**	**71.13**	**307**	P	**P**	**02 55 27.6**	**+1.6**
	comp=Z,13µmcomp=Z,5µmcomp=Z,207nm,1.2s						
BIDO	**Bidbid**	**71.19**	**285**	P	**P**	**02 55 27.1**	**+0.7**
	SNR=47						
BANOM	**Banah**	**71.20**	**288**	P	**P**	**02 55 27.2**	**+0.7**
BANOM	**Banah**	**71.20**	**288**	*i* P	**P**	**02 55 26.5**	**+0.1**
	SNR=16						
NAX	**Nakhchivan**	**71.21**	**305**	P	**P**	**02 55 25.9**	**-0.5**
SHME	**Shamm**	**71.24**	**289**	P	**P**	**02 55 27.2**	**+0.5**
	SNR=22						
SHME	**Shamm**	**71.24**	**289**	*i* P	**P**	**02 55 26.7**	**0.0**
	SNR=46						
MNK	**Minsk**	**71.38**	**326**	*c i*P	**P**	**02 55 28.0**	**+1.0**
MNK	**Minsk**	**71.38**	**326**	*i* P	**P**	**02 55 28.0**	**+1.0**
	comp=E,135nm,0.9s						
MNK				*i* P	**P**	**02 55 28.0**	**+1.0**
	comp=N,155nm,1.1s						
MNK				*i* P	**P**	**02 55 28.0**	**+1.0**
	comp=Z,397nm,0.9s,baz=49						
MNK				*i* PcP	**PcP**	**02 55 47.0**	**+0.5**
MNK				*i* PP	**PP**	**02 58 06.8**	**+1.7**
MNK				*i* PPP	PPP	02 59 50.5	
MNK				*i* S	**S**	**03 04 45.0**	**+3.0**
MNK				*i* SS	**SS**	**03 09 21.7**	**+5.8**
MNK				*i* SSS	SSS	03 12 41.6	
MNK				*i* LQ	LQ	03 22 03.5	
MNK				*i* LR	LR	03 27 30.3	
MNK				*i* LRM	MLR	03 29 29.2	
	comp=E,16µm,15.9s						
MNK				*i* LRM	MLR	03 29 29.2	
	comp=N,13µm,15.8s						
MNK				*i* LRM	MLR	03 29 29.2	
	comp=Z,25µm,16.8s						
BBOO	**Buckleboo**	**71.44**	**185**	P	**P**	**02 55 27.5**	**0.0**
	comp=Z,92nm,0.8s						
BBOO	**Buckleboo**	**71.44**	**185**	P	**P**	**02 55 27.8**	**+0.3**
	comp=Z,92nm,0.8s						
BBOO	**Buckleboo**	**71.44**	**185**	IAmb	IAmb	02 55 32.0	
	comp=Z,58nm,0.8s						
BBOO	**Buckleboo**	**71.44**	**185**	P	**P**	**02 55 27.5**	**0.0**
	comp=Z,92nm,0.8s						
SMDO	**Samad**	**71.51**	**285**	P	**P**	**02 55 29.1**	**+0.7**
	SNR=62						
MDH	**Madha**	**71.55**	**288**	P	**P**	**02 55 28.2**	**-0.3**
	SNR=28						
MDH	**Madha**	**71.55**	**288**	*i* P	**P**	**02 55 28.2**	**-0.3**
	SNR=28						
JRSC	**Jasper Ridge**	**71.57**	**57**	IAMs_20	IAMs_20	03 19 32.0	
	comp=Z,3µm,22.0s						
MASF	**Masafi**	**71.61**	**288**	P	**P**	**02 55 29.9**	**+0.9**
	SNR=51						
MSFE	**Esma-Masafi**	**71.62**	**288**	*i* P	**P**	**02 55 28.9**	**-0.1**
	SNR=49						
GDH	**Godhavn**	**71.67**	**6**	*i* P	**P**	**02 55 29.4**	**+0.9**
GDH				IAmb	IAmb	02 55 33.2	
	comp=Z,85nm,1.0s						
MORW	**Morawa**	**71.75**	**204**	P	**P**	**02 55 29.5**	**+0.1**
	comp=Z,131nm,1.2s						
MORW	**Morawa**	**71.75**	**204**	P	**P**	**02 55 29.1**	**-0.3**
	comp=Z,130nm,1.2s						
MORW	**Morawa**	**71.75**	**204**	IAmb	IAmb	02 55 30.5	
	comp=Z,122nm,1.1s						
MORW	**Morawa**	**71.75**	**204**	P	**P**	**02 55 29.4**	**-0.1**
	comp=Z,131nm,1.2s						
HOQ	**Hoqain**	**71.77**	**286**	P	**P**	**02 55 29.8**	**-0.1**
	SNR=50						

UOSS	**Minazif**	**71.82**	**288**	P	**P**	**02 55 30.4**	**+0.2**
UOSS	**Minazif**	**71.82**	**288**	P	**P**	**02 55 30.2**	**0.0**
UOSS	**Minazif**	**71.82**	**288**	IAMs_20	IAMs_20	03 31 42.8	
	comp=Z,4µm,20.0s						
UOSS	**Minazif**	**71.82**	**288**	*i* P	**P**	**02 55 29.8**	**-0.4**
	SNR=48						
UOSS	**Minazif**	**71.82**	**288**	P	**P**	**02 55 30.4**	**+0.2**
DIGO	**Kars**	**71.83**	**307**	P	**P**	**02 55 31.6**	**+1.3**
	comp=Z,14µmcomp=Z,734nm,1.5s						
JMDO	**Jabal Madar**	**71.86**	**284**	P	**P**	**02 55 30.1**	**-0.4**
	SNR=45						
ILULI	**Ilulissat**	**71.89**	**5**	IAmb	IAmb	02 55 34.8	
	comp=Z,103nm,0.8s						
ILULI	**Ilulissat**	**71.89**	**5**	*i* P	**P**	**02 55 30.4**	**+0.6**
ILULI				IAmb	IAmb	02 55 34.5	
	comp=Z,100nm,0.8s						
UMQ	**Umm Al-Quwin**	**71.89**	**288**	P	**P**	**02 55 31.9**	**+1.3**
	SNR=8.3						
UMQ	**Umm Al-Quwin**	**71.89**	**288**	*i* P	**P**	**02 55 31.7**	**+1.1**
	SNR=10						
HTT	**Hallett**	**71.90**	**183**	P	**P**	**02 55 31.0**	**+0.7**
	comp=Z,33nm,1.2s						
HTT	**Hallett**	**71.90**	**183**	P	**P**	**02 55 30.9**	**+0.7**
	comp=Z,81nm,1.5s						
FFC	**Flin Flon**	**71.94**	**33**	P	**P**	**02 55 31.0**	**+0.6**
FFC				IAmb	IAmb	02 55 48.3	
	comp=Z,127nm,1.1s						
FFC	**Flin Flon**	**71.94**	**33**	P	**P**	**02 55 31.0**	**+0.6**
	comp=Z,4µmcomp=Z,1µmcomp=Z,122nm,1.5s						
FFC				pP	**pP**	**02 55 42.2**	**+0.1**
HATD	**Hatta, Dubai**	**71.94**	**288**	P	**P**	**02 55 31.8**	**+0.8**
	SNR=97						
HATD	**Hatta, Dubai**	**71.94**	**288**	*i* P	**P**	**02 55 31.4**	**+0.4**
	SNR=93						
WELL	**Weller Preserv**	**71.96**	**55**	IAMs_20	IAMs_20	03 20 38.1	
	comp=Z,4µm,21.0s						
MHC	**Mount Hamilton**	**72.00**	**56**	IAMs_20	IAMs_20	03 20 47.2	
	comp=Z,3µm,21.0s						
SOHO	**SOHO**	**72.04**	**287**	P	**P**	**02 55 31.9**	**+0.4**
SOHO	**SOHO**	**72.04**	**287**	*i* P	**P**	**02 55 31.4**	**-0.1**
	SNR=31						
VSLR	**Vesyoloye**	**72.05**	**312**	*i* P	**P**	**02 55 31.1**	**-0.2**
VSLR				pmax	pmax		
	comp=Z,457nm,1.0s						
VSLR				MLR	MLR		
	comp=Z,10µm,19.0s						
ASHO	**Ashiyiah**	**72.08**	**287**	P	**P**	**02 55 32.1**	**+0.3**
	SNR=74						
ASHO	**Ashiyiah**	**72.08**	**287**	*i* P	**P**	**02 55 31.9**	**+0.1**
	SNR=106						
SOC	**Sochi**	**72.17**	**312***c*	*i*P	**P**	**02 55 32.2**	**+0.3**
SOC				*e*		02 58 12.1	
SOC				*e*PPP	PPP	02 59 55.2	
SOC				*e*S	**S**	**03 04 51.7**	**+0.3**
SOC				pmax	pmax		
	comp=Z,150nm,0.8s						
SOC				MLR	MLR		
	comp=Z,9µm,18.0s						
FCC	**Fort Churchill**	**72.20**	**27**	IAmb	IAmb	02 55 36.9	
	comp=Z,114nm,1.0s						
NAZ	**Nazwa, Dubai**	**72.20**	**288**	P	**P**	**02 55 32.8**	**+0.3**
	SNR=34						
NAZ	**Nazwa, Dubai**	**72.20**	**288**	*i* P	**P**	**02 55 32.5**	**0.0**
	SNR=43						
KMBL	**Kambalda**	**72.28**	**198**	P	**P**	**02 55 32.5**	**0.0**
	comp=Z,31nm,1.9s						
BSY	**Bisya**	**72.33**	**285**	P	**P**	**02 55 32.2**	**-1.1**
	SNR=41						
PABE	**Paberze**	**72.36**	**328**	P	**P**	**02 55 33.6**	**+0.7**
	comp=Z,36µmcomp=Z,560nm,1.1s,comp=Z,36µm						
FAQ	**Al Faqa, Dubai**	**72.39**	**288**	P	**P**	**02 55 33.6**	**0.0**
	SNR=33						
FAQ	**Al Faqa, Dubai**	**72.39**	**288**	*i* P	**P**	**02 55 33.6**	**0.0**
	SNR=51						
CMB	**Columbia Colle**	**72.41**	**55**	IAMs_20	IAMs_20	03 21 01.1	
	comp=Z,5µm,21.0s						
SAO	**San Andreas Ge**	**72.46**	**57**	P	**P**	**02 55 34.8**	**+1.0**
OZAP	**Van, Ozalp-Mer**	**72.46**	**306**	⇓P	**P**	**02 55 35.1**	**+1.0**
ARQ	**Araqi**	**72.50**	**286**	P	**P**	**02 55 33.9**	**-0.4**
	SNR=45						
EGMT	**Eagleton**	**72.60**	**42**	IAmb	IAmb	02 55 40.4	
	comp=Z,95nm,1.0s						
SYDH	**Sydney Hard Ro**	**72.61**	**172**	P	**P**	**02 55 35.8**	**+1.4**
	comp=Z,41nm,1.2s						
NC303	**NORSAR Array S**	**72.61**	**337**	IAmb	IAmb	02 55 36.4	
	comp=Z,234nm,1.3s						
MOL	**Molde**	**72.63**	**340**	*e*P	**P**	**02 55 34.5**	**+0.2**
MOL				IVmB		02 55 38.7	
	comp=Z,2µm,2.9s						
MOL				*e*S	**S**	**03 04 56.0**	**0.0**
MOL				IVMs_BB	IVMs_BB	03 30 40.5	
	comp=Z,3µm,5.4s						
DOMB	**Dombas**	**72.64**	**339**	*e*P	**P**	**02 55 34.9**	**+0.5**
DOMB				IVmB		02 55 36.5	
	comp=Z,2µm,1.9s						
DOMB				*e*S	**S**	**03 04 57.1**	**+0.8**
DOMB				IVMs_BB	IVMs_BB	03 29 45.0	
	comp=Z,5µm,25.2s						
ASUD	**Al Ashush, Dub**	**72.66**	**288**	P	**P**	**02 55 35.2**	**0.0**
	SNR=30						
ASUD	**Al Ashush, Dub**	**72.66**	**288**	*i* P	**P**	**02 55 35.5**	**+0.3**
	SNR=58						
ALNE	**Al Ain**	**72.67**	**287**	P	**P**	**02 55 34.9**	**-0.3**
	SNR=56						
ALNE	**Al Ain**	**72.67**	**287**	*i* P	**P**	**02 55 35.1**	**-0.2**
	SNR=35						
DLMT	**Dillon**	**72.72**	**45**	IAmb	IAmb	02 56 19.8	
	comp=Z,115nm,1.1s						
ANN	**Anapa**	**72.74**	**314***d*	*i*P	**P**	**02 55 35.3**	**0.0**
ANN				*e**PP	**pP**	**02 55 46.7**	**-0.3**
ANN				*e*		02 58 15.3	
ANN				*e*S	**S**	**03 04 55.9**	**-2.0**
ANN				pmax	pmax		
	comp=Z,195nm,0.9s						
ANN				MLR	MLR		
	comp=Z,11µm,16.0s						
ANN				MLR	MLR		
	comp=E,11µm,16.0s						
ANN				MLR	MLR		
	comp=N,5µm,15.0s						
HFS	**Hagfors**	**72.74**	**336**	P	**P**	**02 55 34.2**	**-0.9**
	comp=N,73nm,0.7s,baz=47,slow=8.7,SNR=23						
HFS				LR	LR	03 30 31.6	
	comp=N,25µm,18.6s,baz=38,slow=38						
	comp=N,73nm,0.7s						
MHTO	**MHTO**	**72.76**	**283**	P	**P**	**02 55 35.6**	**-0.2**
	SNR=100						
HLID	**Hailey**	**72.78**	**48**	P	**P**	**02 55 37.0**	**+1.1**
	comp=Z,3µmcomp=Z,894nmcomp=Z,30nm,1.6s						
NB2	**NORSAR Subarra**	**72.81**	**337**	P	**P**	**02 55 34.6**	**-0.9**
	comp=Z,2µm,3.3s,baz=37,slow=6.2						
NB2	**NORSAR Subarra**	**72.81**	**337**	P	**P**	**02 55 31.7**	**-3.8**
NB2				pmax	pmax		
	comp=Z,1µm,2.9s						
NB2	**NORSAR Subarra**	**72.81**	**337**	P	**P**	**02 55 34.6**	**-0.9**
NOA	**NORSAR Array B**	**72.81**	**337**	P	**P**	**02 55 34.6**	**-0.9**
	comp=Z,98nm,0.9s,baz=50,slow=5.5,SNR=121						
NOA				PP	**PP**	**02 58 20.4**	**+3.3**
	comp=Z,15nm,0.9s,baz=44,slow=8.8,SNR=3.7						
NOA				LR	LR	03 30 14.5	
	comp=Z,19µm,21.6s,baz=45,slow=38						
	comp=Z,98nm,0.9s						
PBUR	**Paburge**	**72.83**	**329**	P	**P**	**02 55 36.4**	**+0.8**
	comp=Z,9µmcomp=Z,8µmcomp=Z,418nm,0.9s,comp=Z,8µm						
AUCAS	**Cummins Area S**	**72.91**	**186**	P	**P**	**02 55 37.5**	**+1.3**
	comp=Z,134nm,1.0s						
AJN	**Ajban**	**72.95**	**288**	P	**P**	**02 55 37.3**	**+0.4**
	SNR=21						
AJN	**Ajban**	**72.95**	**288**	*i* P	**P**	**02 55 36.3**	**-0.6**
	SNR=30						
NC602	**NORSAR Array S**	**72.95**	**337**	*e*P	**P**	**02 55 35.5**	**-0.8**
NC602				IVmB_BB		02 55 41.5	
	comp=Z,2µm,4.5s						
NC602				*e*S	**S**	**03 04 58.9**	**-0.9**
NC602				IVMs_BB	IVMs_BB	03 30 04.8	
	comp=Z,7µm,20.9s						
NC602	**NORSAR Array S**	**72.95**	**337**	IAmb	IAmb	02 55 53.7	
	comp=Z,247nm,1.6s						
HOMI	**Horasan**	**72.95**	**308**	⇑P	**P**	**02 55 37.3**	**+0.3**
BLDU	**Ballidu**	**72.98**	**203**	P	**P**	**02 55 36.6**	**-0.1**
	comp=Z,139nm,1.3s						
BLDU	**Ballidu**	**72.98**	**203**	P	**P**	**02 55 36.7**	**-0.1**
	comp=Z,139nm,1.3s						
BLDU	**Ballidu**	**72.98**	**203**	P	**P**	**02 55 36.5**	**-0.2**
	comp=Z,139nm,1.3s						
HULI	**Fort Hunter Li**	**73.03**	**57**	IAmb	IAmb	02 56 27.4	
	comp=Z,77nm,1.0s						
NAO01	**NORSAR Array S**	**73.06**	**337**	IAmb	IAmb	02 55 41.5	
	comp=Z,118nm,0.9s						
NAO01	**NORSAR Array S**	**73.06**	**337**	P	**P**	**02 55 37.3**	**+0.3**
	comp=Z,1µmcomp=Z,67nm,1.0s						
AKN	**Aaknes**	**73.10**	**340**	*e*P	**P**	**02 55 37.6**	**+0.4**
AKN				IVmB		02 55 37.8	
	comp=Z,2µm,1.8s						
AKN				*e*S	**SKiKP**	**03 05 03.5**	**-2.4**
AKN				IVMs_BB	IVMs_BB	03 31 12.8	
	comp=Z,6µm,16.1s						
AK03	**Malin Array Si**	**73.26**	**322**	P	**P**	**02 55 37.2**	**-1.1**
GEVA	**Gevas**	**73.26**	**306**	IAmb	IAmb	02 55 41.2	
	comp=Z,159nm,1.3s						
AKASG	**Malin Array Be**	**73.27**	**322**	P	**P**	**02 55 37.4**	**-1.0**
	comp=Z,118nm,0.7s,baz=46,slow=6.1,SNR=333						
AKASG				LR	LR	03 30 48.9	
	comp=Z,23µm,18.5s,baz=52,slow=38						
	comp=Z,118nm,0.7s						
AKASG	**Malin Array Be**	**73.27**	**322**	*i* P	**P**	**02 55 37.4**	**-1.0**
AKASG				pmax	pmax		
	comp=Z,121nm,0.6s						
AKASG	**Malin Array Be**	**73.27**	**322**	P	**P**	**02 55 37.2**	**-1.2**
AKBB	**Malin Array Si**	**73.27**	**322***c*	*i*P	**P**	**02 55 37.1**	**-1.3**
AKBB				pmax	pmax		
	comp=Z,360nm,0.9s						
AKBB				MLR	MLR		
	comp=Z,24µm,17.0s						
AKBB	**Malin Array Si**	**73.27**	**322**	P	**P**	**02 55 37.7**	**-0.7**
AK23	**Malin Array Si**	**73.28**	**322**	P	**P**	**02 55 37.4**	**-1.0**
AK01	**Malin Array Si**	**73.29**	**322**	P	**P**	**02 55 37.6**	**-0.8**
KIEV	**Kiev**	**73.29**	**322**	P	**P**	**02 55 37.5**	**-0.9**
KIEV				pmax	pmax		
	comp=Z,286nm,1.0s						
KIEV				MLR	MLR		
	comp=Z,24µm,19.0s						
KIEV	**Kiev**	**73.29**	**322**	P	**P**	**02 55 37.5**	**-0.9**
KIEV	**Kiev**	**73.29**	**322**	*i* P	**P**	**02 55 38.5**	**0.0**
	SNR=171						
KIEV	**Kiev**	**73.29**	**322**	⇓P	**P**	**02 55 38.6**	**+0.2**
KIEV	**Kiev**	**73.29**	**322**	P	**P**	**02 55 37.6**	**-0.9**
	comp=Z,20µmcomp=Z,1µm,1.0s						
KIEV	**Kiev**	**73.29**	**322**	P	**P**	**02 55 37.6**	**-0.8**
	comp=Z,10µmcomp=Z,5µmcomp=Z,357nm,1.0s						
KIEV	**Kiev**	**73.29**	**322**	P	**P**	**02 55 38.5**	**0.0**
AK04	**Malin Array Si**	**73.29**	**322**	P	**P**	**02 55 37.6**	**-0.9**
AK09	**Malin Array Si**	**73.30**	**322**	P	**P**	**02 55 37.7**	**-0.8**
AK08	**Malin Array Si**	**73.30**	**322**	P	**P**	**02 55 37.7**	**-0.8**
AK22	**Malin Array Si**	**73.31**	**322**	P	**P**	**02 55 37.8**	**-0.8**
NVAR	**Mina Array Bea**	**73.50**	**54**	P	**P**	**02 55 40.9**	**+0.6**
	comp=Z,14nm,0.8s,baz=288,slow=5.6,SNR=47						
NVAR				LR	LR	03 25 54.1	
	comp=Z,2µm,19.3s,baz=288,slow=34						
	comp=Z,14nm,0.8s						
NVAR	**Mina Array Bea**	**73.50**	**54**	P	**P**	**02 55 40.2**	**0.0**
KAAM	**Kaadhehdhoo**	**73.52**	**257**	P	**P**	**02 55 40.4**	**+0.1**
KAAM	**Kaadhehdhoo**	**73.52**	**257**	IAmb	IAmb	02 55 43.0	
	comp=Z,595nm,1.1s						
KAAM	**Kaadhehdhoo**	**73.52**	**257**	P	**P**	**02 55 42.1**	**+1.8**
	comp=Z,9µmcomp=Z,579nm,1.1s						
KAAM	**Kaadhehdhoo**	**73.52**	**257**	P	**P**	**02 55 41.9**	**+1.5**
	comp=Z,9µmcomp=Z,581nm,1.2s						
AUMBR	**Murray Bridge**	**73.58**	**182**	P	**P**	**02 55 41.0**	**+0.9**
	comp=Z,77nm,1.4s						
KLBR	**Kellerberrin**	**73.59**	**202**	P	**P**	**02 55 40.4**	**+0.1**
	comp=Z,234nm,0.8s						
KLBR	**Kellerberrin**	**73.59**	**202**	P	**P**	**02 55 40.6**	**+0.3**
	comp=Z,234nm,0.8s						
KLBR	**Kellerberrin**	**73.59**	**202**	P	**P**	**02 55 39.5**	**-0.8**
	comp=Z,2µmcomp=Z,234nm,0.8s						
SUW	**Suwalki**	**73.73**	**327**	*e*PKP	**P**	**02 55 41.1**	**+0.1**
SUW	**Suwalki**	**73.73**	**327**	P	**P**	**02 55 41.9**	**+0.9**
OSL	**Oslo**	**73.83**	**337**	IVmB_BB		02 55 42.8	
	comp=Z,4µm,3.2s						
OSL				*e*P	**P**	**02 55 43.0**	**+1.5**
OSL				*e*S	**SKiKP**	**03 05 06.0**	**-1.0**
OSL				IVMs_BB	IVMs_BB	03 30 29.4	
	comp=Z,6µm,24.4s						
KOPT	**Kop Dagi**	**73.84**	**308**	IAmb	IAmb	02 55 45.4	
	comp=Z,178nm,1.1s						
YHB	**Horse Butte**	**73.88**	**45**	IAmb	IAmb	02 56 02.6	
	comp=Z,213nm,2.0s						
SKAR	**Skarslia**	**73.95**	**338**	*e*P	**P**	**02 55 42.2**	**0.0**
SKAR				IVmB_BB		02 55 44.0	
	comp=Z,3µm,3.1s						
SKAR				*e*S	**S**	**03 05 10.9**	**-0.4**
SKAR				IVMs_BB	IVMs_BB	03 31 01.3	
	comp=Z,10µm,16.1s						
Q09A	**Carvers**	**73.96**	**53**	IAmb	IAmb	02 55 49.1	
	comp=Z,66nm,0.8s						
AUMTS	**Mt Stromlo**	**73.99**	**174**	P	**P**	**02 55 43.8**	**+1.2**
	comp=Z,65nm,1.3s						
CAN	**Canberra**	**73.99**	**174**	P	**P**	**02 55 43.8**	**+1.2**
	comp=Z,54nm,1.2s						
CAN	**Canberra**	**73.99**	**174**	P	**P**	**02 55 43.8**	**+1.2**
	comp=Z,83nm,1.2s						
CAN	**Canberra**	**73.99**	**174**	P	P	02 55 47.7	+5.1
CAN				pmax	pmax		
	comp=Z,55nm,1.2s						
CAN	**Canberra**	**73.99**	**174**	IAMs_20	IAMs_20	03 27 09.4	
	comp=Z,4µm,22.0s						
CAN	**Canberra**	**73.99**	**174**	P	**P**	**02 55 44.0**	**+1.3**
	comp=Z,54nm,1.2s						
ELK	**Elko**	**74.00**	**50**	LR	LR	03 26 49.0	
	comp=Z,2µm,19.6s,baz=310,slow=34						
AUMHS	**Melrose High S**	**74.04**	**174**	P	**P**	**02 55 43.9**	**+1.0**
	comp=Z,41nm,1.2s						
FOO	**Floro**	**74.10**	**340**	*e*P	**P**	**02 55 42.8**	**-0.1**
FOO				IVmB		02 55 43.6	
	comp=Z,2µm,1.6s						
FOO				*e*S	**S**	**03 05 14.2**	**+1.5**
FOO				IVMs_BB	IVMs_BB	03 31 45.6	
	comp=Z,7µm,15.8s						
SFJD	**Kangerlussuaq**	**74.11**	**5**	LR	LR	03 29 08.5	
	comp=Z,7µm,22.0s,baz=347,slow=36						
SFJD	**Kangerlussuaq**	**74.11**	**5**	P	**P**	**02 55 43.3**	**+0.3**
SFJD				pmax	pmax		
	comp=Z,96nm,0.9s						
SFJD				MLR	MLR		
	comp=Z,7µm,22.0s						
SFJD	**Kangerlussuaq**	**74.11**	**5**	P	**P**	**02 55 43.3**	**+0.3**
SFJD				IAmb	IAmb	02 55 48.0	
	comp=Z,96nm,0.9s						
SFJD	**Kangerlussuaq**	**74.11**	**5**	*i* P	**P**	**02 55 43.9**	**+0.9**
SFJD				IAmb	IAmb	02 55 47.7	
	comp=Z,93nm,0.9s						
SFJD	**Kangerlussuaq**	**74.11**	**5**	P	**P**	**02 55 44.1**	**+1.1**
	comp=Z,122nm,0.9s						
HYA	**Hoyanger**	**74.15**	**339**	*e*P	**P**	**02 55 45.5**	**+2.2**
HYA				*e*S	**S**	**03 05 13.6**	**+0.3**
HYA				IVMs_BB	IVMs_BB	03 31 42.6	
	comp=Z,6µm,20.4s						
AUUHS	**Ulladulla High**	**74.16**	**173**	P	**P**	**02 55 44.8**	**+1.3**
	comp=Z,52nm,1.3s						
MZWR	**Madinat Zayed**	**74.23**	**288**	P	**P**	**02 55 44.4**	**0.0**
YFT	**Old Faithful**	**74.26**	**45**	IAmb	IAmb	02 56 04.3	
	comp=Z,186nm,1.6s						
JRN	**Qarnain Island**	**74.31**	**289**	P	**P**	**02 55 43.5**	**-1.4**
	SNR=27						
RNPP9	**Sopachiv**	**74.35**	**324**	P	**P**	**02 55 44.8**	**+0.1**
TIN	**Tinemaha, Big**	**74.37**	**55**	IAMs_20	IAMs_20	03 22 22.0	
	comp=Z,4µm,21.0s						
STRU	**Stroemstad**	**74.40**	**336**	*i* P	**P**	**02 55 44.4**	**-0.4**
KONO	**Kongsberg**	**74.40**	**337***c*	*e*P	**P**	**02 55 46.1**	**+1.3**
KONO				pmax	pmax		
	comp=Z,212nm,2.5s						
KONO				MLR	MLR		
	comp=Z,18µm,19.0s						
KONO	**Kongsberg**	**74.40**	**337**	*e*P	**P**	**02 55 44.5**	**-0.3**
KONO				*e*PP	**PP**	**02 58 33.6**	**+2.9**
KONO				*e*S	**S**	**03 05 17.7**	**+1.5**
KONO				IVMs_BB	IVMs_BB	03 31 10.3	
	comp=Z,6µm,14.6s						
KONO	**Kongsberg**	**74.40**	**337**	P	**P**	**02 55 45.1**	**+0.3**
KONO				IAmb	IAmb	02 55 46.1	
	comp=Z,185nm,1.4s						
KONO	**Kongsberg**	**74.40**	**337**	P	**P**	**02 55 45.5**	**+0.7**
	comp=Z,9µmcomp=Z,111nm,2.2s						
MUN	**Mundaring**	**74.41**	**203**	P	**P**	**02 55 45.3**	**+0.3**
	comp=Z,55nm,0.9s,comp=Z,0.0nm						
MUN	**Mundaring**	**74.41**	**203**	P	**P**	**02 55 45.3**	**+0.3**
	comp=Z,54nm,0.9s						
RNPP8	**Varash**	**74.42**	**324**	P	**P**	**02 55 45.1**	**0.0**
YMP	**Mirror Lake Pl**	**74.46**	**45**	IAmb	IAmb	02 56 11.1	
	comp=Z,126nm,1.4s						
SIM	**Simferopol'**	**74.49**	**316***d*	*e*P	**P**	**02 55 45.8**	**+0.2**
SIM				*e**PP	**PcP**	**02 56 01.0**	**+1.0**
SIM				*e*		02 58 29.0	
SIM				*e*S	**S**	**03 05 14.0**	**-3.7**
SIM				pmax	pmax		
	comp=Z,393nm,0.9s						
SIM				pmax	pmax		
	comp=Z,400nm,5.0s						
AUKUL	**Kulin High Sch**	**74.49**	**201**	P	**P**	**02 55 45.4**	**-0.1**
	comp=Z,113nm,1.5s						
LUBAR	**Lubar, Ukraine**	**74.50**	**322**	P	**P**	**02 55 45.0**	**-0.6**
VES	**Vestal, Richgr**	**74.54**	**56**	IAmb	IAmb	02 56 05.5	
	comp=Z,187nm,1.4s						
SUE	**Sulen**	**74.63**	**340**	*e*P	**P**	**02 55 45.8**	**-0.2**
SUE				IVmB_BB		02 56 03.1	
	comp=Z,6µm,3.9s						
SUE				*e*S	**S**	**03 05 19.1**	**+0.5**
SUE				IVMs_BB	IVMs_BB	03 31 52.5	
	comp=Z,7µm,13.7s						
CWC	**Cottonwood Cre**	**74.83**	**55**	IAMs_20	IAMs_20	03 20 54.3	
	comp=Z,3µm,22.0s						
BLEU	**Blekinge**	**74.95**	**332**	*i* P	**P**	**02 55 46.7**	**-1.3**
FRB	**Frobisher Bay**	**74.96**	**14**	LR	LR	03 33 24.2	
	comp=Z,3µm,18.5s,baz=338,slow=39						
FRB	**Frobisher Bay**	**74.96**	**14**	P	**P**	**02 55 47.0**	**-0.9**
FRB	**Frobisher Bay**	**74.96**	**14**	P	**P**	**02 55 48.0**	**0.0**
	comp=Z,3µmcomp=Z,238nm,1.1s						
MZR	**Muzera**	**74.97**	**287**	P	**P**	**02 55 47.9**	**-0.9**
	SNR=62						
MZR	**Muzera**	**74.97**	**287**	*i* P	**P**	**02 55 49.0**	**+0.2**
	SNR=28						
ASK	**Askoy**	**74.99**	**340**	*e*P	**P**	**02 55 49.0**	**+0.9**
ASK				IVmB_BB		02 55 50.7	
	comp=Z,4µm,3.5s						
ASK				*e*S	**S**	**03 05 24.9**	**+2.2**
ASK				IVMs_BB	IVMs_BB	03 32 05.8	
	comp=Z,7µm,22.2s						
NWAO	**Narrogin (SRO)**	**74.99**	**202**	P	**P**	**02 55 49.0**	**+0.5**
	comp=Z,165nm,1.7s						
NWAO	**Narrogin (SRO)**	**74.99**	**202**	P	**P**	**02 55 49.0**	**+0.5**
	comp=Z,271nm,1.7s						
NWAO	**Narrogin (SRO)**	**74.99**	**202**	P	**P**	**02 55 48.7**	**+0.3**
	comp=Z,95nm,1.0s,baz=25,slow=6.1,SNR=19						
	comp=Z,95nm,1.0s						
NWAO	**Narrogin (SRO)**	**74.99**	**202**	P	**P**	**02 55 48.8**	**+0.3**
	comp=Z,127nm,1.7s						
NWAO	**Narrogin (SRO)**	**74.99**	**202**	P	**P**	**02 55 50.1**	**+1.7**
	comp=Z,127nm,1.7s						
NWAO	**Narrogin (SRO)**	**74.99**	**202**	P	P	02 55 43.6	-4.8
NWAO	**Narrogin (SRO)**	**74.99**	**202**	P	**P**	**02 55 48.3**	**-0.1**
NWAO				IAmb	IAmb	02 55 49.7	
	comp=Z,165nm,1.1s						
NWAO	**Narrogin (SRO)**	**74.99**	**202**	P	**P**	**02 55 48.5**	**+0.1**
	comp=Z,159nm,1.7s						
NWAO	**Narrogin (SRO)**	**74.99**	**202**	P	**P**	**02 55 48.2**	**-0.3**
BER	**Bergen**	**75.04**	**339**	*e*P	**P**	**02 55 49.9**	**+1.4**
BER				*e*S	**S**	**03 05 23.6**	**+0.4**
BER				IVMs_BB	IVMs_BB	03 32 08.9	
	comp=Z,9µm,15.3s						
ISA	**Isabella, Lake**	**75.05**	**56**	IAMs_20	IAMs_20	03 21 49.9	
	comp=Z,3µm,22.0s						
TJOU	**Tjoern**	**75.05**	**335**	*i* P	**P**	**02 55 48.8**	**+0.2**
AUSMG	**Snowy Mountain**	**75.06**	**175**	P	**P**	**02 55 50.3**	**+1.5**
	comp=Z,30nm,1.4s						
ODD1	**Odda**	**75.06**	**339**	*e*P	**P**	**02 55 48.7**	**0.0**
ODD1				IVmB_BB		02 55 50.3	
	comp=Z,4µm,4.1s						
ODD1				*e*S	**S**	**03 05 27.5**	**+3.8**
ODD1				IVMs_BB	IVMs_BB	03 31 45.6	
	comp=Z,8µm,21.6s						
ARPS	**Mount Arapiles**	**75.17**	**180**	P	**P**	**02 55 49.4**	**+0.1**
	comp=Z,12nm,1.3s						
AHID	**Auburn Hatcher**	**75.18**	**47**	P	**P**	**02 55 50.9**	**+1.0**
	comp=Z,3µmcomp=Z,1µmcomp=Z,56nm,1.3s,comp=Z,1µm						
AHID				pP	**PcP**	**02 56 02.9**	**-0.4**
LAO	**LASA Array**	**75.30**	**41**	IAmb	IAmb	02 55 56.5	
	comp=Z,118nm,1.0s						
LAO				IAMs_20	IAMs_20	03 28 33.1	
	comp=Z,3µm,21.0s						
SPUT	**South Promonto**	**75.31**	**49**	IAmb	IAmb	02 56 11.3	
	comp=Z,225nm,1.8s						
SAKB	**Bahrain**	**75.40**	**292**	P	**P**	**02 55 50.1**	**-1.1**
SORM	**Soroca**	**75.41**	**321**	P	**P**	**02 55 49.9**	**-0.9**
SORM	**Soroca**	**75.41**	**321**	⇑P	**P**	**02 55 50.9**	**0.0**
SORM	**Soroca**	**75.41**	**321**	P	**P**	**02 55 50.0**	**-0.9**
	comp=Z,5µmcomp=Z,299nm,1.1s						
MPMC	**Manual Prospec**	**75.44**	**55**	IAMs_20	IAMs_20	03 21 57.5	
	comp=Z,3µm,22.0s						
ONAU	**Onsala**	**75.46**	**335**	*i* P	**P**	**02 55 50.6**	**-0.3**
FABU	**Falkenberg**	**75.50**	**334**	*i* P	**P**	**02 55 50.5**	**-0.7**
OSI	**Osito Audit: C**	**75.51**	**57**	IAMs_20	IAMs_20	03 24 49.4	
	comp=Z,3µm,20.0s						
DEL	**Delary**	**75.51**	**333**	*i* P	**P**	**02 55 49.4**	**-1.9**
BLS5	**Blasjo**	**75.52**	**338**	*e*P	**P**	**02 55 51.5**	**+0.2**
BLS5				IVmB_BB		02 55 52.9	
	comp=Z,3µm,4.6s						
BLS5				*e*S	**S**	**03 05 30.3**	**+1.6**
BLS5				IVMs_BB	IVMs_BB	03 32 09.9	
	comp=Z,9µm,15.5s						
FURC	**Furnace Creek,**	**75.60**	**55**	IAmb	IAmb	02 56 23.1	
	comp=Z,100nm,1.1s						
HWUT	**Hardware Ranch**	**75.64**	**48**	IAmb	IAmb	02 56 07.7	
	comp=Z,105nm,1.2s						
HWUT	**Hardware Ranch**	**75.64**	**48**	P	**P**	**02 55 53.9**	**+1.4**
	comp=Z,4µmcomp=Z,1µmcomp=Z,85nm,1.3s						
LRMC	**Laurel Mtn Rad**	**75.67**	**56**	IAMs_20	IAMs_20	03 22 11.5	
	comp=Z,3µm,22.0s						
TPO	**Tropico Hills**	**75.68**	**57**	IAmb	IAmb	02 56 13.1	
	comp=Z,248nm,1.8s						
TPNV	**Topopah Spring**	**75.69**	**54**	IAmb	IAmb	02 56 23.7	
	comp=Z,95nm,0.9s						
TPNV				IAMs_20	IAMs_20	03 23 14.0	
	comp=Z,5µm,21.0s						
PURM	**Purcari**	**75.72**	**319**	⇑P	**P**	**02 55 52.9**	**+0.2**
PURM	**Purcari**	**75.72**	**319**	P	**P**	**02 55 52.5**	**-0.1**
	comp=Z,5µmcomp=Z,527nm,0.9s						
MILA	**Mila**	**75.73**	**174**	P	**P**	**02 55 54.4**	**+1.7**
	comp=Z,20nm,0.9s						
DUG	**Dugway, Tooele**	**75.80**	**50**	P	**P**	**02 55 54.8**	**+1.3**
DUG	**Dugway, Tooele**	**75.80**	**50**	P	**P**	**02 55 54.8**	**+1.3**
	comp=Z,4µmcomp=Z,1µmcomp=Z,84nm,0.9s,comp=Z,1µm						
HOMB	**Homborsund**	**75.85**	**337**	*e*P	**P**	**02 55 53.4**	**+0.2**
HOMB				IVmB_BB		02 55 57.7	
	comp=Z,3µm,6.3s						
HOMB				*e*S	**S**	**03 05 34.0**	**+1.7**
HOMB				IVMs_BB	IVMs_BB	03 32 18.5	
	comp=Z,7µm,14.4s						
R9F13	**Warsaw-Wawer**	**75.88**	**327**	*e*P	**P**	**02 55 54.2**	**+0.8**
	comp=Z,4.7nm,0.9s						
R9F13				*e*PP	**PP**	**02 58 44.1**	**+0.8**
R9F13				*e*S	**S**	**03 05 33.9**	**+1.1**
KIS	**Kishinev**	**75.94**	**320**	P	**P**	**02 55 54.5**	**+0.6**
KIS	**Kishinev**	**75.94**	**320**	P	**P**	**02 55 53.7**	**-0.2**
	comp=Z,2µmcomp=Z,142nm,1.0s						
ANGG	**Ammassalik, Gr**	**75.95**	**360**	*i* P	**P**	**02 55 54.1**	**+0.5**
ANGG				IAmb	IAmb	02 55 57.6	
	comp=Z,121nm,1.1s						
BRAT	**Ballarat**	**75.96**	**179**	P	**P**	**02 55 55.2**	**+1.4**
	comp=Z,8.6nm,0.9s						
ISOG	**Isortoq, Green**	**76.01**	**0**	*i* P	**P**	**02 55 54.6**	**+0.6**
ISOG				IAmb	IAmb	02 55 58.7	
	comp=Z,84nm,0.9s						
AUMTC	**Mt Clear Colle**	**76.02**	**179**	P	**P**	**02 55 56.0**	**+1.8**
	comp=Z,29nm,1.2s						
TOO	**Toolangi**	**76.03**	**177**	P	**P**	**02 55 56.9**	**+2.6**
	comp=Z,12nm,1.1s						
TOO	**Toolangi**	**76.03**	**177**	IAmb	IAmb	02 55 57.4	
	comp=Z,14nm,1.1s						
KMY	**Karmoy**	**76.04**	**339**	*e*P	**P**	**02 55 56.2**	**+1.9**
KMY				*e*S	**S**	**03 05 36.9**	**+2.5**
KMY				IVMs_BB	IVMs_BB	03 32 26.4	
	comp=Z,6µm,14.3s						
KMPD	**K-Podol'skiy**	**76.04**	**322**	P	**P**	**02 55 54.0**	**-0.5**
TCUT	**Toone Canyon**	**76.04**	**48**	IAmb	IAmb	02 56 15.4	
	comp=Z,245nm,1.4s						
PDAR	**Pinedale Array**	**76.05**	**46**	P	**P**	**02 55 54.1**	**-0.8**
	comp=Z,20nm,0.7s,baz=293,slow=4.3,SNR=88						
PDAR				PKKPbc	**PKKPbc**	**03 15 09.2**	**+0.3**
	comp=Z,0.3nm,0.8s,baz=280,slow=8.9,SNR=4.0						
	comp=Z,20nm,0.7s						
PDAR	**Pinedale Array**	**76.05**	**46**	P	**P**	**02 55 54.3**	**-0.7**
PASC	**Pasadena Art C**	**76.14**	**57**	IAMs_20	IAMs_20	03 25 06.8	
	comp=Z,4µm,20.0s						
BSD	**Bornholm Skovb**	**76.19**	**332**	*i* P	**P**	**02 55 55.1**	**0.0**
BSD				IAmb	IAmb	02 55 56.5	
	comp=Z,312nm,1.1s						
MWC	**Mount Wilson**	**76.19**	**57**	IAMs_20	IAMs_20	03 25 09.2	
	comp=Z,4µm,20.0s						

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SNART Snartemo          76.19 337 eP       P        02 55 56.2 +1.0
SNART                             eS       S        03 05 38.7 +2.6
SNART                             IVMs_BB  IVMs_BB  03 31 20.4
      comp=Z,6µm,22.3s
SNART Snartemo          76.19 337 i P      P        02 55 55.8 +0.7
PSUT  Pine Spring       76.21  52 IAmb     IAmb     02 56 20.7
      comp=Z,125nm,1.4s
SHAO  Shalim            76.28 282 P        P        02 55 55.6 -0.8
SHAO  Shalim            76.28 282 i P      P        02 55 56.5 +0.2
      SNR=5.7
BEL   Belsk             76.31 327 ePKP     P        02 55 56.8 +0.9
BEL   Belsk             76.31 327 P        P        02 55 57.3 +1.4
BEL   Belsk             76.31 327 P        P        02 55 57.3 +1.4
      comp=Z,461µmcomp=Z,38µm,0.8s
LVV   L'vov             76.31 324 P        P        02 55 55.7 -0.3
LUNU  Lund              76.32 333 i P      P        02 55 55.9  0.0
NLU   North Lily Min    76.39  50 IAmb     IAmb     02 56 11.8
      comp=Z,112nm,1.5s
BFSC  Mount Baldy Ra    76.44  57 IAMs_20  IAMs_20  03 25 27.9
      comp=Z,3µm,20.0s
IASR  Iasi              76.45 320 ⇓P       P        02 55 57.2 +0.5
BZK   Bozkurt           76.47 313 ⇑P       P        02 55 57.3 +0.3
BZK   Bozkurt           76.47 313 P        P        02 55 57.6 +0.6
      comp=Z,5µmcomp=Z,347nm,1.0s
LEOM  Leova             76.59 319 P        P        02 55 58.2 +0.6
COP   Copenhagen        76.63 333 i P      P        02 55 58.6 +1.0
COP                               IAmb     IAmb     02 55 59.5
      comp=Z,446nm,0.9s
RKGY  Rocky Gully       76.64 201 P        P        02 55 59.1 +1.3
      comp=Z,40nm,1.3s
GKP   Gorka Klasztor    76.70 330 ePKP     P        02 55 58.7 +0.6
VASR  Vaslui            76.70 320 ⇑P       P        02 55 59.4 +1.1
NUUK  Nuuk              76.80   6 i P      P        02 55 59.7 +1.3
NUUK                              IAmb     IAmb     02 56 03.7
      comp=Z,132nm,0.9s
DMTO  DMTO              76.98 282 P        P        02 55 59.2 -1.1
LLD   Lille Linde       76.99 333 i P      P        02 56 00.3 +0.6
LLD                               IAmb     IAmb     02 56 01.4
      comp=Z,97nm,0.8s
PRAR  RASCA             76.99 321 ⇓P       P        02 56 00.1 +0.2
BIR   Birlad            77.04 320 ⇓P       P        02 56 00.9 +0.7
KWP   Kalwaria Pacla    77.05 324 ePKP     P        02 56 01.3 +1.1
KWP   Kalwaria Pacla    77.05 324 P        P        02 56 00.6 +0.4
      comp=Z,11µmcomp=Z,832nm,1.3s
VLDR  Vladesti          77.10 319 ⇓P       P        02 56 00.6 +0.1
CIDE  Kastamonu/Cide    77.12 314 ⇓P       P        02 56 01.2 +0.6
MUD   Monsted U'grnd    77.12 335 i P      P        02 56 01.2 +0.9
MUD                               IAmb     IAmb     02 56 01.8
      comp=Z,125nm,1.1s
GIRR  Girov             77.13 321 ⇓P       P        02 56 00.7  0.0
TLCR                    77.17 318 ⇑P       P        02 56 01.0 +0.2
VARL  Varlezi           77.18 319 ⇑P       P        02 56 01.9 +1.0
RGN   Rugen             77.21 332 eP       P        02 56 02.7 +1.8
      comp=Z,557nm,1.3s,baz=36,slow=5.3
RAO   Raoul Island      77.26 145 LR       LR       03 23 55.1
      comp=Z,3µm,20.5s,baz=320,slow=31
GIUM  Giurgiulesti      77.28 319 ⇑P       P        02 56 01.4 -0.1
TATR  Tatarca           77.28 319 ⇑P       P        02 56 02.5 +0.9
GHRR                    77.30 320 ⇑P       P        02 56 02.6 +1.0
GHRR                    77.30 320 P        P        02 56 02.2 +0.6
BIZ   Bicaz             77.34 321 ⇓P       P        02 56 02.7 +0.9
TESR  Tescani           77.37 320 ⇑P       P        02 56 02.4 +0.4
NEGRR Negrea            77.41 319 ⇑P       P        02 56 02.8 +0.6
JURR  Jurilovca         77.42 318 ⇑P       P        02 56 02.8 +0.5
SCHL  Schela            77.46 319 ⇑P       P        02 56 03.4 +0.9
RDMU  Red Mountain      77.46  48 IAmb     IAmb     02 56 09.1
      comp=Z,119nm,0.9s
IZVR  Izvoarele         77.47 319 ⇑P       P        02 56 03.5 +0.9
TUDR                    77.48 319 ⇓P       P        02 56 02.7 +0.1
SCHLR Schela            77.48 319 ⇓P       P        02 56 03.3 +0.7
COSR  Cosmesti PH       77.48 319 ⇑P       P        02 56 03.6 +1.0
P17A  Butcher Ranch,    77.49  49 IAmb     IAmb     02 56 09.3
      comp=Z,89nm,0.9s
CFR   Carcaliu          77.53 319 ⇓P       P        02 56 03.0 +0.1
LCMT  Little Creek M    77.54  52 IAmb     IAmb     02 56 18.6
      comp=Z,106nm,1.4s
PANC  Panciu            77.56 320 ⇑P       P        02 56 03.4 +0.4
Q16A  Castle Valley     77.59  50 IAmb     IAmb     02 56 19.7
      comp=Z,100nm,1.3s
TPGR  Topolog           77.60 318 ⇑P       P        02 56 03.6 +0.3
PFO   Pinyon Flats O    77.61  57 LR       LR       03 24 09.4
      comp=Z,4µm,21.9s,baz=294,slow=31
PFO   Pinyon Flats O    77.61  57 i P      P        02 56 02.4 -1.4
PFO                               pmax     pmax
      comp=Z,40nm,1.1s
PFO   Pinyon Flats O    77.61  57 P        P        02 56 03.9 +0.2
PFO                               IAmb     IAmb     02 56 23.8
      comp=Z,157nm,1.9s
PFO   Pinyon Flats O    77.61  57 IAMs_20  IAMs_20  03 26 04.0
      comp=Z,3µm,20.0s
PFO   Pinyon Flats O    77.61  57 P        P        02 56 04.7 +1.0
      comp=Z,4µmcomp=Z,1µmcomp=Z,33nm,1.2s
PFO   Pinyon Flats O    77.61  57 P        P        02 56 04.4 +0.6
ONER  Baraj Valea Uz    77.62 320 ⇓P       P        02 56 03.9 +0.4
BELC  Belle Mtn. Jos    77.67  56 IAMs_20  IAMs_20  03 24 14.5
      comp=Z,3µm,20.0s
ODBI  Odobesti          77.68 320 ⇓P       P        02 56 04.8 +1.1
RBK   Rabkut            77.68 283 P        P        02 56 03.0 -1.2
      SNR=5.7
ULM   Lac du Bonnet     77.75  34 P        P        02 56 02.7 -1.3
      comp=Z,14nm,0.8s,baz=317,slow=7.0,SNR=18
ULM                               LR       LR       03 33 36.7
      comp=Z,2µm,19.0s,baz=328,slow=38
      comp=Z,14nm,0.8s
ULM   Lac du Bonnet     77.75  34c iP      P        02 56 03.9 -0.1
ULM   Lac du Bonnet     77.75  34 IAmb     IAmb     02 56 21.4
      comp=Z,103nm,1.3s
KOLS  Kolonicke sedl    77.75 324 eP       P        02 56 03.7 -0.4
KOLS  Kolonicke sedl    77.75 324 ePKP     P        02 56 03.7 -0.4
SSRD  Sdr. Stenderup    77.76 335 i P      P        02 56 04.9 +1.0
SSRD                              IAmb     IAmb     02 56 06.2
      comp=Z,817nm,1.4s
WHFO  Wadi Hawf         77.76 283 P        P        02 56 03.4 -1.3
      SNR=8.6
VRI   Vrincioaia        77.77 320 P        P        02 56 04.3  0.0
VRI   Vrincioaia        77.77 320 ⇓P       P        02 56 04.8 +0.5
MDND  Maddock           77.78  37 IAMs_20  IAMs_20  03 27 49.9
      comp=Z,3µm,22.0s
KNB   Kanab             77.80  52 IAmb     IAmb     02 56 25.7
      comp=Z,238nm,1.7s
PLOR  Plostina          77.82 320 P        P        02 56 04.4 -0.2
PLOR  Plostina          77.82 320 ⇑P       P        02 56 04.9 +0.3
SRU   San Rafael Swe    77.85  49 IAmb     IAmb     02 56 25.1
      comp=Z,90nm,0.8s
STHS  Stebnicka Huta    77.87 325 eP       P        02 56 02.9 -1.9
STHS  Stebnicka Huta    77.87 325 ePKP     P        02 56 02.9 -1.9
TIRR  Tirgusor          77.87 318 ⇓P       P        02 56 04.8  0.0
SAHR  Sahastru          77.89 320 ⇓P       P        02 56 04.9 -0.1
OJC   Ojcow             77.92 326 ePKP     P        02 56 05.9 +0.9
HARR  Harsova           77.97 318 ⇓P       P        02 56 05.7 +0.4
GRER                    77.98 319 ⇓P       P        02 56 05.9 +0.4
TURR  Turia             78.00 320 ⇑P       P        02 56 06.1 +0.5
BISRR Bisoca            78.00 320 ⇑P       P        02 56 06.1 +0.4
TLBR  Topalu            78.00 318 ⇓P       P        02 56 05.5 -0.1
EFOR  EFORIE            78.01 317 ⇑P       P        02 56 05.3 -0.3
BAR   Barrett           78.05  58 IAMs_20  IAMs_20  03 23 52.5
      comp=Z,3µm,20.0s
COVR  Voineasa-Covas    78.05 320 ⇑P       P        02 56 05.5 -0.4
MFTR  Murfatlar         78.06 318 ⇑P       P        02 56 05.9 +0.1
BMR   Baia Mare         78.08 323 ⇑P       P        02 56 05.4 -0.6
OZUR                    78.08 320 ⇓P       P        02 56 05.7 -0.3
ARCR  ARCALIA           78.09 322 ⇑P       P        02 56 06.0  0.0
BR131 Keskin Array S    78.13 312 P        P        02 56 02.8 -3.8
      SNR=83
BRTR  Keskin Array B    78.13 312 PP       PP       02 59 02.4 -0.4
      comp=Z,25nm,1.0s,baz=74,slow=5.3,SNR=4.6
BRTR                              PKKPbc   PKKPbc   03 15 05.5 +1.3
      comp=Z,0.9nm,0.8s,baz=154,slow=3.7,SNR=4.9
BRTR                              LR       LR       03 35 54.4
      comp=Z,5µm,19.5s,baz=56,slow=40
E28A  Huff              78.16  39 IAmb     IAmb     02 56 11.8
      comp=Z,97nm,0.8s
E28A                              IAMs_20  IAMs_20  03 32 04.8
      comp=Z,3µm,21.0s
BOSR  Bodos             78.16 320 ⇓P       P        02 56 06.6 +0.1
RSSD  Black Hills       78.16  42 P        P        02 56 06.3 -0.4
RSSD                              pmax     pmax
      comp=Z,376nm,2.0s
RSSD  Black Hills       78.16  42 P        P        02 56 06.3 -0.4
RSSD  Black Hills       78.16  42 P        P        02 56 07.1 +0.3
      comp=Z,3µmcomp=Z,1µmcomp=Z,74nm,1.5s,comp=Z,1µm
MANR  Mangalia          78.22 317 ⇑P       P        02 56 06.6 -0.1
BC3   Big Chuckawall    78.24  56 IAMs_20  IAMs_20  03 26 48.5
      comp=Z,3µm,20.0s
NIE   Niedzica          78.29 325 ePKP     P        02 56 08.6 +1.5
NEHR  Nehoiu            78.30 320 ⇑P       P        02 56 06.6 -0.7
PGOR  Pogoanele         78.30 319 ⇑P       P        02 56 06.9 -0.3
AMRR  Amara             78.33 319 ⇑P       P        02 56 06.8 -0.5
DOPR  Dopca             78.37 321 ⇓P       P        02 56 07.1 -0.5
ISR   Istrita           78.38 319 ⇓P       P        02 56 07.3 -0.4
TGMR  Targu Mures       78.41 321 ⇓P       P        02 56 07.4 -0.3
ICOR  Ion Corvin        78.43 318 ⇑P       P        02 56 08.2 +0.3
MLR   Muntele Rosu      78.43 320 LR       LR       03 33 49.3
      comp=Z,21µm,18.4s,baz=46,slow=38
MLR   Muntele Rosu      78.43 320 P        P        02 56 04.8 -3.3
SKMB  Sankelmark Bun    78.44 334 P        P        02 56 09.5 +1.7
      comp=Z,9µmcomp=Z,9µmcomp=Z,452nm,1.2s
HMU   Henry Mountain    78.48  50 IAmb     IAmb     02 56 35.2
      comp=Z,180nm,1.3s
RUE   Ruedersdorf       78.66 331 eP       P        02 56 10.4 +1.4
      comp=Z,320nm,1.2s,baz=36,slow=5.3
BSEG  Bad Segeberg      78.77 333 eP       P        02 56 11.2 +1.7
      comp=Z,217nm,1.1s,baz=36,slow=5.3
OKC   Ostrava-Krasne    78.91 327 AMS      AMS      03 33 50.0
      comp=Z,15µm,16.0s
KSP   Ksiaz             78.93 328 ePKP     P        02 56 11.5 +1.0
STEB  Steborice         79.00 327 eP       P        02 56 12.1 +1.1
DGAR  Diego Garcia      79.09 251ceP       P        02 56 13.7 +1.8
DGAR                              pmax     pmax
      comp=Z,590nm,1.7s
GORT1 Trebel            79.17 332 eP       P        02 56 13.6 +1.8
      comp=Z,2.4nm,1.2s,baz=36,slow=5.3
PV23  Carpenter Ridg    79.17  49 IAmb     IAmb     02 56 18.6
      comp=Z,156nm,0.9s
OSTC  Ostas             79.18 328 AMS      AMS      03 33 40.0
      comp=Z,18µm,17.2s
AGMN  Agassiz Nation    79.19  35 IAMs_20  IAMs_20  03 30 17.0
      comp=Z,3µm,21.0s
AGMN  Agassiz Nation    79.19  35 P        P        02 56 11.7 -0.3
      comp=Z,1µmcomp=Z,61nm,1.4s,comp=Z,1µm
MORC  Moravsky Berou    79.22 327 eP       P        02 56 13.2 +1.0
MORC  Moravsky Berou    79.22 327 ⇑P       P        02 56 13.3 +1.1
CHVC  Chvalec           79.22 328 AMS      AMS      03 33 50.0
      comp=Z,18µm,17.2s
DPC   Dobruska-Polom    79.29 328 eP       P        02 56 13.8 +1.2
DPC                               eS       S        03 06 09.1 -0.9
DPC                               MLR      MLR
      comp=Z,14µm,17.8s
DPC   Dobruska-Polom    79.29 328 eP       P        02 56 13.8 +1.2
DPC                               eS       S        03 06 09.1 -0.9
DPC                               AMS      AMS      03 33 50.0
      comp=Z,14µm,17.8s
PRD   Provadia          79.29 317 i P      P        02 56 09.3 -3.4
UPC   Upice             79.30 328 eP       P        02 56 14.0 +1.4
UPC                               e                 02 56 14.4
UPC                               eS       S        03 06 07.3 -2.6
UPC                               MLR      MLR
      comp=Z,19µm,17.3s
UPC   Upice             79.30 328 eP       P        02 56 14.0 +1.4
UPC                               eS       S        03 06 07.3 -2.6
UPC                               AMS      AMS      03 33 40.0
      comp=Z,19µm,17.3s
KRLC  Kraliky           79.31 328 eP       P        02 56 12.9 +0.2
KRLC                              eS       S        03 06 09.8 -0.4
KRLC                              MLR      MLR
      comp=Z,14µm,16.9s
KRLC  Kraliky           79.31 328 eP       P        02 56 12.9 +0.2
KRLC                              eS       S        03 06 09.8 -0.4
KRLC                              AMS      AMS      03 34 00.0
      comp=Z,14µm,16.9s
BORR  Bors              79.31 323 ⇓P       P        02 56 14.1 +1.3
PV17  East Wray Mesa    79.32  49 IAmb     IAmb     02 56 19.3
      comp=Z,132nm,0.9s
PV16  Nyswonger Mesa    79.32  49 IAmb     IAmb     02 56 19.4
      comp=Z,75nm,0.8s
PV07  Paradox Valley    79.40  49 IAmb     IAmb     02 56 40.6
      comp=Z,125nm,1.6s
PV03  Paradox Valley    79.40  49 IAmb     IAmb     02 56 19.8
      comp=Z,65nm,0.8s
RAZG  Razgrad           79.48 318 ⇑P       P        02 56 14.3 +0.5
PV02  Paradox Valley    79.50  49 IAmb     IAmb     02 56 23.1
      comp=Z,97nm,0.9s
LOT   Lotru             79.54 321 ⇑P       P        02 56 15.2 +1.0
LOZB  Loznitsa          79.57 318 ⇑P       P        02 56 15.4 +1.2
PSZ   Piszkesteto       79.58 325 ⇑P       P        02 56 15.5 +1.2
HUMR  Humele            79.59 320 ⇓P       P        02 56 15.5 +1.2
VYHS  Vyhne             79.62 326 eP       P        02 56 15.6 +1.2
VYHS  Vyhne             79.62 326 eP       P        02 56 15.6 +1.2
PV01  Paradox Valley    79.64  49 IAmb     IAmb     02 56 35.2
      comp=Z,122nm,1.5s
DEV   Deva              79.65 322 ⇑P       P        02 56 15.5 +0.9
WUAZ  Wupatki           79.65  53 IAMs_20  IAMs_20  03 25 47.8
      comp=Z,3µm,21.0s
FLTG  Flechtingen       79.73 332 eP       P        02 56 16.0 +1.1
      comp=Z,206nm,0.9s,baz=36,slow=5.3
COPA  Copaceanca        79.75 319 ⇑P       P        02 56 16.1 +1.0
BRG   Berggiesshubel    79.85 330 eP       P        02 56 17.2 +1.6
      comp=Z,2µm,2.7s,baz=36,slow=5.3
BRG   Berggiesshubel    79.85 330 eP       P        02 56 16.8 +1.2
BRG                               Amp               02 56 20.2
      comp=Z,98nm,0.8s
BRG                               ⇑PP      PcP      02 56 22.5 -0.6
BRG                               Amp               02 56 23.2
      comp=Z,51nm,0.8s
BRG                               sP       sP       02 56 32.6 +0.6
BRG                               Amp               02 56 33.3
      comp=Z,46nm,0.9s
BRG                               PP       PP       02 59 15.0 -1.5
BRG                               Amp               02 59 23.9
      comp=Z,17nm,0.9s
BRG   Berggiesshubel    79.85 330 S        S        03 06 13.0 -2.7
BRG   Berggiesshubel    79.85 330 SS       SS       03 11 18.0 -6.2
JAVC  Velka Javorina    79.85 326 eP       P        02 56 18.1 +2.4
BSZH  Besenyszg         79.86 324 ⇑P       P        02 56 16.7 +1.0
CLL   Collm             79.87 330 i P      P        02 56 16.1 +0.4
CLL                               i *SP    sP       02 56 32.8 +0.7
CLL                               eS       S        03 06 12.0 -4.0
CLL                               pmax     pmax
      comp=Z,247nm,1.0s
CLL                               MLR      MLR
      comp=Z,15µm,17.3s
CLL   Collm             79.87 330 eP       P        02 56 16.1 +0.4
      comp=Z,210nm,0.9s,baz=36,slow=5.3
CLL   Collm             79.87 330 P        P        02 56 16.2 +0.5
      comp=Z,4µmcomp=Z,247nm,0.9s
CLL   Collm             79.87 330 i P      P        02 56 16.1 +0.4
      comp=Z,247nm,1.0s
CLL                               ePmax             02 56 17.0
      comp=Z,0.0nm,6.5s
CLL                               i x      x        02 56 19.2
      comp=Z,229nm,0.9s
CLL                               i sP     sP       02 56 32.8 +0.7
CLL                               ex       x        02 59 09.0
CLL                               ePP      PP       02 59 20.0 +3.3
CLL                               ePPP     PPP      03 01 06.0
CLL                               eS       S        03 06 12.0 -4.0
CLL                               eSS      SS       03 11 24.0 -0.5
CLL                               eSSS     SSS      03 14 54.0
CLL                               eSSSS             03 17 42.0
CLL                               LH                03 19 00.0
CLL                               L        L        03 23 00.0
CLL                               AMS      AMS      03 34 00.0
      comp=N,14µm,17.4s
CLL                               AMS      AMS      03 34 00.0
      comp=E,4µm,17.4s
CLL                               AMS      AMS      03 34 00.0
      comp=Z,15µm,17.3s
CLL                               AMS      AMS      03 35 00.0
      comp=Z,0.0nm,16.1s
VRAC  Vranov            79.97 327 LR       LR       03 34 43.3
      comp=Z,17µm,18.1s,baz=36,slow=38
VRAC  Vranov            79.97 327 eP       P        02 56 17.2 +0.9
VRAC  Vranov            79.97 327 ⇑P       P        02 56 17.1 +0.9
IVI   Ivigtut           80.02   5 i P      P        02 56 17.2 +0.9
IVI                               IAmb     IAmb     02 56 20.8
      comp=Z,59nm,0.8s
IVI   Ivigtut           80.02   5 P        P        02 56 17.0 +0.7
      comp=Z,80nm,1.2s
RICC  Richard           80.04 329 eP       P        02 56 18.7 +2.1
RICC                              AMS      AMS      03 34 30.0
      comp=Z,25µm,16.8s
GZR   Gura Zlata        80.07 321 ⇑P       P        02 56 18.2 +1.3
RETH  Rethem/Aller,     80.08 333 eP       P        02 56 17.6 +0.9
      comp=Z,157nm,1.1s,baz=36,slow=5.3
ASSE  Asse, Remlinge    80.10 332 eP       P        02 56 17.5 +0.7
      comp=Z,115nm,1.1s,baz=36,slow=5.3
SMOL  Smolenice         80.22 326 eP       P        02 56 19.9 +2.3
NRS   Narsarsuaq        80.23   4 i P      P        02 56 19.2 +1.8
NRS                               IAmb     IAmb     02 56 24.7
      comp=Z,45nm,1.1s
ISCO  Idaho Springs     80.24  46 P        P        02 56 19.3 +1.0
ISCO  Idaho Springs     80.24  46 P        P        02 56 19.5 +1.2
      comp=Z,4µmcomp=Z,842nmcomp=Z,52nm,1.0s,comp=Z,842nm
KRUC  Moravsky          80.25 327 eP       P        02 56 18.5 +0.7
HSKC  Hora Svate Kat    80.26 330 eP       P        02 56 19.5 +1.7
HSKC                              AMS      AMS      03 34 50.0
      comp=Z,23µm,16.8s
VLAD  Vladila           80.26 320 ⇑P       P        02 56 19.0 +1.1
MVCO  Mesa Verde        80.30  50 IAmb     IAmb     02 56 33.7
      comp=Z,248nm,1.8s
MVCO  Mesa Verde        80.30  50 P        P        02 56 19.6 +1.0
      comp=Z,4µmcomp=Z,1µmcomp=Z,80nm,1.7s,comp=Z,1µm
PRU   Pruhonice         80.30 329 eP       P        02 56 18.7 +0.7
PRU                               eS       S        03 06 21.2 +0.7
PRU                               MLR      MLR
      comp=Z,19µm,17.4s
PRU   Pruhonice         80.30 329 eP       P        02 56 18.7 +0.7
PRU                               eS       S        03 06 21.2 +0.7
PRU                               AMS      AMS      03 34 30.0
      comp=Z,19µm,17.4s
AMBH  Ambrzfalva        80.35 323 ⇑P       P        02 56 19.5 +1.2
SRO   Srobarova         80.36 325 eP       P        02 56 20.5 +2.1
SRO   Srobarova         80.36 325 eP       P        02 56 20.5 +2.1
SRE   Strehaia          80.38 321 ⇑P       P        02 56 19.7 +1.1
MODS  Modra-Piesok      80.39 326 eP       P        02 56 20.0 +1.4
MODS  Modra-Piesok      80.39 326 eP       P        02 56 20.0 +1.4
NEUB  Neuenburg         80.42 331 eP       P        02 56 19.6 +1.0
      comp=Z,198nm,1.0s,baz=36,slow=5.3
CLZ   Clausthal         80.44 332 eP       P        02 56 20.3 +1.5
      comp=Z,217nm,1.0s,baz=36,slow=5.3
TREC  Trest             80.45 328 eP       P        02 56 19.3 +0.4
TREC                              AMS      AMS      03 34 40.0
      comp=Z,14µm,17.6s
BZS   Buzias            80.47 322 ⇓P       P        02 56 19.6 +0.6
RAYN  Ar Rayn           80.52 292 P        P        02 56 18.9 -0.9
RAYN  Ar Rayn           80.52 292 P        P        02 56 19.8 +0.1
RAYN  Ar Rayn           80.52 292 i P      P        02 56 19.9 +0.1
      SNR=8.0
RAYN  Ar Rayn           80.52 292 P        P        02 56 20.2 +0.5
      comp=Z,12µmcomp=Z,4µmcomp=Z,192nm,1.8s
RAYN  Ar Rayn           80.52 292 P        P        02 56 20.0 +0.2
SUSD  Miller            80.54  39 IAMs_20  IAMs_20  03 31 37.7
      comp=Z,3µm,20.0s
PLVB  Pleven            80.58 319 ⇑P       P        02 56 20.8 +1.1
ZST   Bratislava        80.60 326 eP       P        02 56 26.8 +7.1
ZST   Bratislava        80.60 326 eP       P        02 56 26.8 +7.1
HERR  Herculane         80.61 321 ⇓P       P        02 56 20.7 +0.9
RMGR  Halanga-Turnu     80.64 321 ⇑P       P        02 56 21.3 +1.4
RAR   Rarotonga         80.73 127 LR       LR       03 25 01.1
      comp=Z,3µm,21.9s,baz=316,slow=30
BAIL  Bailesti          80.78 320 ⇓P       P        02 56 21.9 +1.2
TANN  Tannenbergstha    80.79 330 eP       P        02 56 22.2 +1.5
      comp=Z,338nm,2.2s,baz=36,slow=5.3
PUNG  Punghina          80.80 321 ⇑P       P        02 56 21.6 +0.8
F33A  5 Mile Ranch,     80.81  37 IAmb     IAmb     02 56 38.0
      comp=Z,87nm,0.9s
F33A                              IAMs_20  IAMs_20  03 30 14.8
      comp=Z,4µm,22.0s
GTTG  Gottingen         80.83 332 eP       P        02 56 22.1 +1.3
      comp=Z,157nm,1.0s,baz=36,slow=5.3
PLN   Plauen            80.85 330 eP       P        02 56 21.8 +0.8
      comp=Z,40nm,1.1s,baz=36,slow=5.3
BAND  Balkesir-Ban      80.85 315 ⇑P       P        02 56 22.2 +1.0
BANR  Banloc            80.87 322 ⇓P       P        02 56 22.2 +1.1
ZVC   Zvikov            80.87 329 eP       P        02 56 22.8 +1.7
ZVC                               AMS      AMS      03 34 40.0
      comp=Z,18µm,19.2s
MOX   Moxa              80.94 331 eP       P        02 56 22.4 +1.0
      comp=Z,154nm,1.2s,baz=36,slow=5.3
MOX                               eL       L        03 33 30.7
      comp=Z,7µm,21.3s
NKC   Novy Kostel       80.94 330 eP       P        02 56 22.5 +1.0
NKC                               eS       S        03 06 26.2 -1.1
NKC                               MLR      MLR
      comp=Z,15µm,16.6s
NKC   Novy Kostel       80.94 330 eP       P        02 56 22.5 +1.0
NKC                               eS       S        03 06 26.2 -1.1
NKC                               AMS      AMS      03 35 10.0
      comp=Z,15µm,16.6s
MOO   Moorlands         80.96 176 P        P        02 56 23.0 +1.7
      comp=Z,58nm,1.7s
IBBN  Ibbenburen        80.99 334 eP       P        02 56 22.2 +0.5
      comp=Z,191nm,0.9s,baz=36,slow=5.3
ASF   Jabal al Asfar    81.01 304 LR       LR       03 36 04.2
      comp=Z,7µm,19.2s,baz=40,slow=38
MDVR  Moldovita         81.03 322 ⇑P       P        02 56 22.3 +0.2
MPLH  Magyarpolny       81.19 325 P        P        02 56 23.3 +0.5
      comp=Z,9µmcomp=Z,484nm,1.3s
KEPZ  Antalya-Kepez     81.19 311 ⇑P       P        02 56 23.4 +0.3
ISP   Isparta           81.21 312 IAmb     IAmb     02 56 25.6
      comp=Z,76nm,0.9s
CKRC  Cesky Krumlov     81.31 328 eP       PP       02 59 26.8 -1.9
CKRC                              AMS      AMS      03 34 10.0
      comp=Z,15µm,21.5s
KHC   Kasperske Hory    81.36 329 eP       P        02 56 25.1 +1.3
KHC                               eS       S        03 06 31.0 -0.7
KHC                               MLR      MLR
      comp=Z,23µm,18.8s
KHC   Kasperske Hory    81.36 329 eP       P        02 56 25.1 +1.3
KHC                               eS       S        03 06 31.0 -0.7
KHC                               AMS      AMS      03 35 00.0
      comp=Z,23µm,18.8s
KHC   Kasperske Hory    81.36 329 P        P        02 56 24.1 +0.3
      comp=Z,4µmcomp=Z,221nm,1.2s
EYMN  Ely               81.38  33 P        P        02 56 23.7 -0.1
      comp=Z,4µmcomp=Z,1µmcomp=Z,103nm,1.3s,comp=Z,1µm
EYMN                              pP       pP       02 56 35.1 -0.5
UBBA  Unterbreizbach    81.40 332 eP       P        02 56 20.2 -3.6
      comp=Z,199nm,1.7s,baz=36,slow=5.3
MORH  Mrgy, Hungar      81.42 324 ⇑P       P        02 56 24.6 +0.6
MMAI  Mount Meron Ar    81.42 306 P        P        02 56 23.9 -0.5
      comp=Z,88nm,0.8s,baz=22,slow=14,SNR=14
MMAI                              LR       LR       03 35 60.0
      comp=Z,5µm,21.6s,baz=32,slow=38
      comp=Z,88nm,0.8s
TAU   Tasmania Unive    81.44 176 P        P        02 56 25.2 +1.4
CSS   Mathiatis         81.44 308 IAMs_20  IAMs_20  03 36 35.8
      comp=Z,4µm,22.0s
CSS   Mathiatis         81.44 308 P        P        02 56 25.0 +0.6
      comp=Z,10µmcomp=Z,4µmcomp=Z,208nm,1.0s
HSUJ  Al Zarqa          81.51 304 P        P        02 56 25.7 +0.8
      comp=Z,5µmcomp=Z,223nm,1.0s
GEC2  GERESS Array S    81.54 328 eP       P        02 56 25.2 +0.4
      comp=Z,68nm,0.8s,baz=36,slow=5.3
GERES GERESS Array B    81.54 328 P        P        02 56 25.1 +0.4
      comp=Z,38nm,0.6s,baz=33,slow=5.3,SNR=20
GERES                             PP       PP       02 59 31.5 +0.9
      comp=Z,17nm,0.9s,baz=39,slow=6.8,SNR=4.8
GERES                             PKKPbc   PKKPbc   03 14 57.7 +0.9
      comp=Z,2.3nm,0.7s,baz=186,slow=1.3,SNR=14
GERES                             PKPPKP   P'P'df   03 23 06.1 -1.1
      comp=Z,0.3nm,0.2s,baz=270,slow=1.3,SNR=3.8
      comp=Z,38nm,0.6s
WET   Wettzell          81.63 329 eP       P        02 56 26.1 +0.9
      comp=Z,153nm,1.2s,baz=36,slow=5.3
KASTN Kahler Asten      81.67 333 eP       P        02 56 25.9 +0.5
      comp=Z,99nm,1.1s,baz=36,slow=5.3
EKA   Eskdalemuir Ar    81.69 341 P        P        02 56 25.7 +0.4
      comp=Z,14nm,0.6s,baz=22,slow=5.2,SNR=26
EKA                               PP       PP       02 59 32.2 +0.7
      comp=Z,8.8nm,0.9s,baz=20,slow=6.9,SNR=3.6
EKA                               LR       LR       03 36 59.7
      comp=Z,9µm,19.1s,baz=30,slow=39
      comp=Z,14nm,0.6s
ESK   Eskdalemuir       81.71 341 P        P        02 56 26.0 +0.6
ESK                               pmax     pmax
      comp=Z,120nm,1.3s
ESK                               MLR      MLR
      comp=Z,9µm,20.0s
ESK   Eskdalemuir       81.71 341 P        P        02 56 26.0 +0.6
ESK                               IAmb     IAmb     02 56 27.7
      comp=Z,120nm,1.3s
ESK   Eskdalemuir       81.71 341 P        P        02 56 26.3 +0.9
      comp=Z,9µmcomp=Z,4µmcomp=Z,76nm,1.2s,comp=Z,4µm
ESK   Eskdalemuir       81.71 341 P        P        02 56 26.4 +0.9
      comp=Z,9µmcomp=Z,4µmcomp=Z,75nm,1.2s
QRNJ  Al-Qirein         81.76 305 P        P        02 56 26.1 +0.1
      comp=Z,194µmcomp=Z,26µm,0.9s
EDMD  Edmundbyers       81.82 340 P        P        02 56 27.2 +1.2
      comp=Z,8µmcomp=Z,60nm,0.8s
GRF   Grafenberg Arr    81.85 330 eP       P        02 56 27.9 +1.5
      comp=Z,126nm,1.4s,baz=36,slow=5.3
GRF                               eL       L        03 34 58.9
      comp=Z,6µm,21.3s
GRFO  Grafenberg        81.85 330 P        P        02 56 27.7 +1.4
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GRFO				PcP	PcP	02 56 30.8	-1.1
BOVS	Bovan	81.87	321	⇑P	P	02 56 27.3	+0.8
BUG	Bochum--Univer	81.88	333	eP	P	02 56 27.0	+0.6
	comp=Z,152nm,1.2s,baz=36,slow=5.3						
UJAP	Al Uja	82.08	305	P	P	02 56 27.4	-0.3
	comp=Z,10µmcomp=Z,5µmcomp=Z,196nm,1.1s						
TUC	Tucson	82.11	55	P	P	02 56 28.6	+0.5
TUC	Tucson	82.11	55	IAMs_20	IAMs_20	03 26 57.0	
	comp=Z,3µm,22.0s						
TUC	Tucson	82.11	55	P	P	02 56 28.9	+0.8
	comp=Z,3µmcomp=Z,1µmcomp=Z,24nm,1.8s,comp=Z,1µm						
TUC				pP	pP	02 56 40.8	+0.9
SALP	Salfit	82.18	305	P	P	02 56 28.5	+0.1
	comp=Z,7µmcomp=Z,455nm,1.2s						
ECSD	EROS Data Cent	82.21	39	IAmb	IAmb	02 56 33.3	
	comp=Z,76nm,0.9s						
ECSD	EROS Data Cent	82.21	39	IAMs_20	IAMs_20	03 32 51.9	
	comp=Z,3µm,21.0s						
ECSD	EROS Data Cent	82.21	39	P	P	02 56 28.4	+0.1
	comp=Z,2µmcomp=Z,102nm,1.5s,comp=Z,2µm						
KOGS	Kog	82.31	326	i P	P	02 56 28.9	+0.2
KESW	Keswick, Cumbr	82.34	340	P	P	02 56 29.2	+0.4
	comp=Z,195nm,1.6s						
E38A	The Farm, Brul	82.38	34	IAmb	IAmb	02 56 33.6	
	comp=Z,86nm,0.8s						
E38A				IAMs_20	IAMs_20	03 32 41.5	
	comp=Z,2µm,21.0s						
GHAJ	Ghor Haditha	82.44	304	P	P	02 56 30.1	+0.5
	comp=Z,10µmcomp=Z,6µmcomp=Z,257nm,1.2s						
KSCO	Kaye Shedlock’	82.46	45	IAmb	IAmb	02 56 45.0	
	comp=Z,278nm,1.7s						
TNS	Taunus Mts	82.47	332	eP	P	02 56 30.3	+0.8
	comp=Z,60nm,0.8s,baz=36,slow=5.3						
THAS	Thassos island	82.51	317	P	P	02 56 30.4	+0.6
LISJ	El Lisan	82.53	304	P	P	02 56 30.1	0.0
	comp=Z,5µmcomp=Z,203nm,1.4s						
MSBI	Mazada	82.56	304	P	P	02 56 30.5	+0.2
	comp=Z,3µmcomp=Z,1µmcomp=Z,31nm,2.4s						
HIZ	Hauiti	82.58	155	IAMs_20	IAMs_20	03 26 49.0	
	comp=Z,4µm,22.0s						
CLGH	Cloghs, Cushen	82.64	342	P	P	02 56 31.4	+1.1
	comp=Z,205nm,2.2s						
AMAZ	Amatzia	82.70	305	P	P	02 56 31.2	+0.1
	comp=Z,8µmcomp=Z,7µmcomp=Z,462nm,1.1s						
BOPT	Opiter	82.72	334	dP	P	02 56 30.7	-0.1
T25A	Trinidad	82.75	48	IAmb	IAmb	02 56 37.4	
	comp=Z,64nm,0.9s						
BMOL	Mol	82.82	334	dP	P	02 56 31.0	-0.3
	comp=Z,112nm,1.1s						
SPMN	Marine on St.	82.89	36	IAMs_20	IAMs_20	03 37 02.8	
	comp=Z,3µm,20.0s						
MXZ	Matakaoa Point	82.94	152	IAMs_20	IAMs_20	03 28 16.6	
	comp=Z,4µm,22.0s						
IDGL	Inch Island, C	82.98	343	P	P	02 56 32.4	+0.4
IDGL	Inch Island, C	82.98	343	P	P	02 56 33.0	+1.0
	comp=Z,215nm,1.4s						
MEM	Membach	83.02	334	dP	P	02 56 32.0	-0.4
	comp=Z,76nm,1.0s						
HSNJ	Maan	83.04	303	P	P	02 56 33.6	+0.6
	comp=Z,28µmcomp=Z,21µmcomp=Z,2µm,1.0s						
TASM	ASL Pad, Albuq	83.04	50	IAmb	IAmb	02 56 48.3	
	comp=Z,90nm,1.3s						
TASM	ASL Pad, Albuq	83.04	50	IAmb	IAmb	02 56 48.3	
	comp=Z,89nm,1.3s						
TASM	ASL Pad, Albuq	83.04	50	IAMs_20	IAMs_20	03 28 04.6	
	comp=Z,3µm,22.0s						
TASM	ASL Pad, Albuq	83.04	50	IAMs_20	IAMs_20	03 28 05.4	
	comp=Z,3µm,22.0s						
TASM	ASL Pad, Albuq	83.04	50	IAMs_20	IAMs_20	03 28 04.6	
	comp=Z,3µm,22.0s						
TASM	ASL Pad, Albuq	83.04	50	IAMs_20	IAMs_20	03 28 04.7	
	comp=Z,3µm,22.0s						
ANMO	Albuquerque	83.04	50	LR	LR	03 28 26.9	
	comp=Z,2µm,21.4s,baz=322,slow=32						
ANMO	Albuquerque	83.04	50	ceP	P	02 56 33.0	0.0
ANMO				pmax	pmax		
	comp=Z,76nm,1.7s						
ANMO				MLR	MLR		
	comp=Z,2µm,20.0s						
ANMO	Albuquerque	83.04	50	P	P	02 56 33.9	+0.9
ANMO	Albuquerque	83.04	50	IAMs_20	IAMs_20	03 28 05.4	
	comp=Z,3µm,22.0s						
ANMO	Albuquerque	83.04	50	P	P	02 56 34.4	+1.4
	comp=Z,4µmcomp=Z,1µmcomp=Z,45nm,1.1s,comp=Z,1µm						
ABQ	Albuquerque	83.04	50	IAMs_20	IAMs_20	03 28 05.4	
	comp=Z,3µm,22.0s						
ALQ	Albuquerque	83.04	50	IAmb	IAmb	02 56 48.3	
	comp=Z,99nm,1.4s						
ALQ				IAMs_20	IAMs_20	03 28 04.4	
	comp=Z,3µm,22.0s						
ALQ	Albuquerque	83.04	50	IAmb	IAmb	02 56 48.3	
	comp=Z,95nm,1.3s						
ALQ				IAMs_20	IAMs_20	03 28 04.4	
	comp=Z,3µm,22.0s						
FUR	Furstenfeldbru	83.06	329	eP	P	02 56 34.1	+1.5
	comp=Z,386nm,1.3s,baz=36,slow=5.3						
URZ	Urewera	83.13	153	LR	LR	03 29 38.7	
	comp=Z,3µm,21.6s,baz=325,slow=33						
CRES	Cresnjevec Ost	83.15	326	eP	P	02 56 33.1	0.0
CRES				eS	S	03 06 47.7	-2.4
BLY	Banja Luka	83.20	324	⇓P	P	02 56 34.4	+1.0
SKO	Skopje	83.22	320	⇑iP	P	02 56 34.7	+1.1
STU	Stuttgart	83.38	331	P	P	02 56 34.9	+0.7
STU				pmax	pmax		
	comp=Z,533nm,1.1s						
STU	Stuttgart	83.38	331	eP	P	02 56 34.9	+0.7
	comp=Z,693nm,1.4s,baz=36,slow=5.3						
LJU	Ljubljana	83.38	326	eP	P	02 56 34.3	-0.1
LJU				ePP	PP	02 59 48.3	+2.5
BCLA	Clavier	83.42	334	dP	P	02 56 33.9	-0.5
	comp=Z,58nm,0.9s						
BCLA				dPcP	PcP	02 56 37.9	-0.9
BCLA				dpP	pP	02 56 44.0	-2.3
BCLA				dsP	sP	02 56 48.0	-2.8
UCC	Uccle	83.42	335	dP	P	02 56 33.8	-0.6
THE	Thessaloniki	83.42	318	P	P	02 56 34.8	+0.2
PRNI	Paran	83.42	304	P	P	02 56 34.5	-0.3
	comp=Z,18µmcomp=Z,1µm,1.1s						
KZIT	Kziot	83.45	305	P	P	02 56 35.3	+0.3
	comp=Z,8µmcomp=Z,7µmcomp=Z,587nm,1.2s						
CWF	Charnwood Fore	83.49	339	P	P	02 56 35.5	+0.7
	comp=Z,8µmcomp=Z,127nm,1.0s						
BDRM	Kayabasi	83.51	313	⇓P	P	02 56 36.2	+1.0
BOST	Ostende	83.51	336	dP	P	02 56 34.6	-0.2
	comp=Z,59nm,0.9s						
SCHQ	Schefferville	83.52	16	P	P	02 56 34.7	-0.2
	comp=Z,49nm,0.7s,baz=332,slow=5.3,SNR=18						
SCHQ				LR	LR	03 38 36.4	
	comp=Z,1µm,18.1s,baz=338,slow=39						
	comp=Z,49nm,0.7s						
SCHQ	Schefferville	83.52	16	IAmb	IAmb	02 56 39.8	
	comp=Z,58nm,0.8s						
I37A	Lemond, Waseca	83.53	37	IAMs_20	IAMs_20	03 31 59.0	
	comp=Z,4µm,21.0s						
HRFI	Mount Harif	83.61	303	P	P	02 56 35.8	0.0
	comp=Z,10µmcomp=Z,6µmcomp=Z,372nm,1.4s						
L34A	Svendsen Farm,	83.63	40	IAmb	IAmb	02 56 52.6	
	comp=Z,122nm,0.9s						
L34A				IAMs_20	IAMs_20	03 39 58.6	
	comp=Z,2µm,20.0s						
ILTH	Belurgan, Co L	83.66	342	P	P	02 56 36.5	+1.0
RCHB	Rochefort	83.67	334	dP	P	02 56 33.5	-2.1
	comp=Z,61nm,1.0s						
RCHB				dPcP	PcP	02 56 39.0	-0.8
319A	Douglas	83.69	55	IAmb	IAmb	02 56 42.3	
	comp=Z,88nm,0.9s						
BMRD	Maredsous	83.70	334	dP	P	02 56 34.9	-1.0
	comp=Z,95nm,1.0s						
BMRD				dPcP	PcP	02 56 39.1	-0.8
WLF	Walferdange	83.76	333	P	P	02 56 36.6	+0.4
WLF	Walferdange	83.76	333	dP	P	02 56 37.4	+1.2
WLF	Walferdange	83.76	333	eP	P	02 56 37.9	+1.7
	comp=Z,291nm,1.6s,baz=36,slow=5.3						
AQBJ	Aqaba	83.80	303	P	P	02 56 36.0	-0.8
	comp=Z,12µmcomp=Z,686nm,1.0s						
121A	Cookes Peak, D	83.86	53	IAmb	IAmb	02 56 43.6	
	comp=Z,66nm,0.9s						
EIL	Elat	83.91	303	LR	LR	03 38 24.0	
	comp=Z,11µm,18.6s,baz=46,slow=39						
EIL	Elat	83.91	303	P	P	02 56 37.3	0.0
	comp=Z,9µmcomp=Z,5µmcomp=Z,257nm,1.2s						
UBR	Ueberruh	83.91	330	eP	P	02 56 38.2	+1.1
	comp=Z,98nm,1.1s,baz=36,slow=5.3						
DOU	Dourbes	83.94	334	dP	P	02 56 37.0	0.0
DOU				dPcP	PcP	02 56 40.5	-0.5
QRZ	Quartz Range	83.94	157	IAMs_20	IAMs_20	03 31 24.2	
	comp=Z,4µm,20.0s						
PDG	Podgorica	83.97	321	⇓P	P	02 56 37.8	+0.4
TRI	Trieste	83.98	326	IAmb	IAmb	02 56 37.0	
	comp=Z,116nm,0.9s						
G40A	Rib Lake	84.02	34	IAmb	IAmb	02 56 42.4	
	comp=Z,69nm,0.8s						
G40A				IAMs_20	IAMs_20	03 34 01.7	
	comp=Z,3µm,21.0s						
BFO	Black Forest	84.07	331	eP	P	02 56 39.0	+1.2
	comp=Z,253nm,1.1s,baz=36,slow=5.3						
BFO	Black Forest	84.07	331	P	P	02 56 38.2	+0.4
CBKS	Cedar Bluff	84.18	44	IAmb	IAmb	02 56 56.8	
	comp=Z,96nm,1.1s						
DSB	Dublin	84.39	342	P	P	02 56 39.6	+0.3
DSB	Dublin	84.39	342	P	P	02 56 39.6	+0.3
DSB	Dublin	84.39	342	P	P	02 56 40.3	+1.0
	comp=Z,4µmcomp=Z,140nm,1.1s,comp=Z,4µm						
ECH	Echery	84.60	332	P	P	02 56 41.1	+0.6
ECH	Echery	84.60	332	P	P	02 56 41.1	+0.6
	comp=Z,7µmcomp=Z,3µmcomp=Z,133nm,0.9s						
HMNX	Herstmonceux	84.65	337	P	P	02 56 41.7	+1.1
	comp=Z,8µmcomp=Z,379nm,2.1s						
KARP	Karpathos	84.73	312	P	P	02 56 41.6	+0.1
	comp=Z,7µmcomp=Z,405nm,1.0s						
KARP	Karpathos	84.73	312	P	P	02 56 41.5	+0.1
	comp=Z,15µmcomp=Z,7µmcomp=Z,405nm,1.0s						
KARP	Karpathos	84.73	312	P	P	02 56 42.0	+0.6
	comp=Z,15µmcomp=Z,7µmcomp=Z,405nm,1.0s,comp=Z,7µm						
DAVOX	Davos/Dischmat	84.73	329	LR	LR	03 37 58.2	
	comp=Z,19µm,18.3s,baz=24,slow=38						
MRZ	Mangatainoka R	84.75	155	IAmb	IAmb	02 57 03.9	
	comp=Z,60nm,0.9s						
I40A	Norwalk	84.91	35	IAmb	IAmb	02 56 59.5	
	comp=Z,66nm,1.0s						
I40A				IAMs_20	IAMs_20	03 41 10.3	
	comp=Z,3µm,20.0s						
PPT	Papeete	84.91	117	LR	LR	03 26 49.3	
	comp=Z,4µm,21.3s,baz=288,slow=30						
THZ	Tophouse	84.91	157	P	P	02 56 42.7	+0.8
THZ				IAmb	IAmb	02 57 06.7	
	comp=Z,79nm,1.4s						
THZ				IAMs_20	IAMs_20	03 33 12.9	
	comp=Z,4µm,21.0s						
IGLA	Glengowla, Co	84.93	343	P	P	02 56 42.3	+0.3
BFZ	Birch Farm	84.99	155	IAMs_20	IAMs_20	03 33 06.9	
	comp=Z,3µm,21.0s						
R32A	Long Quarter,	85.02	44	IAmb	IAmb	02 57 04.8	
	comp=Z,109nm,1.6s						
EPT	El Paso	85.17	53	IAmb	IAmb	02 57 04.8	
	comp=Z,59nm,1.2s						
TUE	Stuetta	85.20	329	P	P	02 56 43.9	+0.1
	comp=Z,14µmcomp=Z,530nm,0.9s						
BNALP	Bannalp	85.23	330	P	P	02 56 44.5	+0.6
	comp=Z,7µmcomp=Z,4µmcomp=Z,196nm,0.8s,comp=Z,4µm						
IWEX	Carrickbyrne,	85.28	341	P	P	02 56 44.7	+0.9
IWEX	Carrickbyrne,	85.28	341	P	P	02 56 44.3	+0.5
	comp=Z,200nm,1.6s						
VLO	Vlora	85.32	320	P	P	02 56 45.3	+1.1
	comp=Z,6µmcomp=Z,291nm,1.3s						
INZ	Inchbonnie	85.37	159	IAmb	IAmb	02 56 48.5	
	comp=Z,126nm,1.8s						
PH02	Texas Public H	85.39	47	IAmb	IAmb	02 56 50.7	
	comp=Z,68nm,0.9s						
SRN	Sarande	85.51	319	P	P	02 56 45.3	+0.2
	comp=Z,4µmcomp=Z,158nm,1.0s						
ZKR	Zakros	85.58	312	P	P	02 56 46.9	+1.2
	comp=Z,6µmcomp=Z,466nm,1.0s,comp=Z,6µm						
E46A	Sault Ste Mari	85.59	30	IAmb	IAmb	02 56 50.0	
	comp=Z,126nm,1.2s						
E46A				IAMs_20	IAMs_20	03 35 12.2	
	comp=Z,3µm,22.0s						
KSU1	Kansas State U	85.64	42	IAmb	IAmb	02 56 50.5	
	comp=Z,74nm,0.8s						
I42A	Draeger Farm,	85.67	34	IAMs_20	IAMs_20	03 34 09.4	
	comp=Z,3µm,21.0s						
H43A	Windswept, Lux	85.71	33	IAMs_20	IAMs_20	03 36 30.6	
	comp=Z,2µm,22.0s						
JFWS	Jewell Farm	85.84	36	IAmb	IAmb	02 56 51.3	
	comp=Z,67nm,0.9s						
JFWS				IAMs_20	IAMs_20	03 33 58.0	
	comp=Z,4µm,22.0s						
AMTX	Amarillo	85.90	48	IAmb	IAmb	02 56 53.2	
	comp=Z,63nm,0.9s						
JCZ	Jackson Bay	85.91	161	P	P	02 56 48.7	+1.8
	comp=Z,42nm,0.9s						
MNTX	Cornudas Mount	85.92	52	P	P	02 56 47.1	-0.2
	comp=Z,4µmcomp=Z,779nmcomp=Z,37nm,1.2s						
MNTX				pP	pP	02 57 00.1	+0.8
HTL	Hartland	85.94	340	P	P	02 56 48.0	+1.0
	comp=Z,2µmcomp=Z,1µmcomp=Z,46nm,1.4s						
N38A	Joes South For	86.07	39	IAMs_20	IAMs_20	03 35 21.1	
	comp=Z,2µm,21.0s						
OXZ	Oxford	86.09	159	P	P	02 56 47.6	-0.1
OXZ				IAmb	IAmb	02 57 05.2	
	comp=Z,70nm,1.2s						
RPZ	Rata Peaks	86.18	159	LR	LR	03 30 13.9	
	comp=Z,543nm,21.6s,baz=306,slow=32						
IDI	Anoyia	86.22	313	LR	LR	03 41 10.1	
	comp=Z,3µm,19.6s,baz=22,slow=40						
IDI	Anoyia	86.22	313	P	P	02 56 47.7	-1.2
KAN08	Anthony NE Sta	86.29	44	IAmb	IAmb	02 56 54.3	
	comp=Z,69nm,0.9s						
GIMEL	St. Georges /	86.34	331	P	P	02 56 49.8	+0.5
	comp=Z,8µmcomp=Z,3µmcomp=Z,88nm,1.2s,comp=Z,3µm						
OK038	West end E0370	86.42	45	IAMs_20	IAMs_20	03 34 58.6	
	comp=Z,3µm,21.0s						
TPB28		86.48	52	IAmb	IAmb	02 56 56.5	
	comp=Z,46nm,0.8s						
VAL	Valentia	86.50	343	P	P	02 56 49.0	-0.9
VAL	Valentia	86.50	343	P	P	02 56 50.2	+0.4
LBZ	Lake Benmore	86.56	160	IAmb	IAmb	02 57 07.8	
	comp=Z,106nm,1.2s						
MATE	Matera	86.57	322	⇑P	P	02 56 50.3	0.0
SMWD	Samnorwood	86.57	47	IAmb	IAmb	02 56 56.4	
	comp=Z,66nm,1.0s						
TPB11	China Draw	86.58	51	IAmb	IAmb	02 57 05.6	
	comp=Z,125nm,1.9s						
LOR	Lormes	86.60	333	P	P	02 56 51.0	+0.5
LOR	Lormes	86.60	333	P	P	02 56 51.0	+0.5
	comp=Z,6µmcomp=Z,4µmcomp=Z,193nm,1.0s,comp=Z,4µm						
VLDQ	Val d'Or	86.61	25	IAmb	IAmb	02 56 54.3	
	comp=Z,78nm,0.9s						
MQZ	McQueen’s Vall	86.62	158	IAMs_20	IAMs_20	03 29 51.1	
	comp=Z,4µm,22.0s						
VLC	Villacollemand	86.66	327	P	P	02 56 49.7	-1.2
VLC	Villacollemand	86.66	327	P	P	02 56 51.9	+1.1
	comp=Z,7µmcomp=Z,2µmcomp=Z,80nm,1.5s						
I45A	Fountain	86.71	33	IAMs_20	IAMs_20	03 37 52.9	
	comp=Z,3µm,22.0s						
P38A	Dawn	86.81	40	IAMs_20	IAMs_20	03 34 07.8	
	comp=Z,3µm,21.0s						
L42A	Oliver, Polo	86.82	36	IAmb	IAmb	02 56 56.0	
	comp=Z,61nm,0.8s						
L42A				IAMs_20	IAMs_20	03 32 18.9	
	comp=Z,3µm,22.0s						
K43A	Burlington	86.87	35	IAmb	IAmb	02 57 08.7	
	comp=Z,55nm,0.9s						
K43A				IAMs_20	IAMs_20	03 34 35.2	
	comp=Z,3µm,21.0s						
CCA1	Carnmenellis	86.87	340	P	P	02 56 52.0	+0.3
	comp=Z,6µmcomp=Z,100nm,1.2s						
MLZ	Mavora Lakes	86.96	162	IAmb	IAmb	02 56 54.6	
	comp=Z,60nm,1.3s						
MLZ				IAMs_20	IAMs_20	03 35 09.2	
	comp=Z,2µm,19.0s						
128A	Castleberry Fa	87.03	50	IAmb	IAmb	02 57 07.5	
	comp=Z,85nm,1.7s						
DKNS	Dickens	87.21	48	IAmb	IAmb	02 57 12.6	
	comp=Z,43nm,0.8s						
MARCO	Tramutola	87.27	322	P	P	02 56 54.7	+0.7
	comp=Z,2µmcomp=Z,55nm,1.4s						
TPB06	Permian Basin	87.28	51	IAmb	IAmb	02 57 09.7	
	comp=Z,120nm,1.6s						
N41A	Harden Midland	87.28	37	IAMs_20	IAMs_20	03 33 38.2	
	comp=Z,4µm,21.0s						
ODZ	Otahua Downs	87.30	160	IAmb	IAmb	02 57 11.5	
	comp=Z,75nm,1.4s						
POST	Post	87.30	49	IAmb	IAmb	02 57 09.7	
	comp=Z,61nm,1.2s						
ODSA	Odessa	87.35	50	IAmb	IAmb	02 57 08.9	
	comp=Z,141nm,1.8s						
WHZ	Wether Hill Ro	87.41	162	IAMs_20	IAMs_20	03 35 22.2	
	comp=Z,3µm,19.0s						
OK051	E0350 and S346	87.44	44	IAmb	IAmb	02 57 14.5	
	comp=Z,148nm,1.7s						
OK048	Pawnee Station	87.45	44	IAmb	IAmb	02 57 08.4	
	comp=Z,64nm,1.2s						
L44A	Lake County Fo	87.48	35	IAMs_20	IAMs_20	03 35 03.2	
	comp=Z,4µm,21.0s						
P40A	Paris	87.62	39	IAMs_20	IAMs_20	03 35 28.2	
	comp=Z,3µm,21.0s						
SN07	Snyder 07	87.64	48	IAmb	IAmb	02 57 10.2	
	comp=Z,178nm,1.9s						
WMOK	Wichita Mounta	87.66	46	P	P	02 56 56.3	+0.4
WMOK	Wichita Mounta	87.66	46	IAMs_20	IAMs_20	03 35 04.6	
	comp=Z,2µm,20.0s						
WMOK	Wichita Mounta	87.66	46	P	P	02 56 56.3	+0.4
	comp=Z,874nmcomp=Z,32nm,1.0s						
OK052	Battle Ridge R	87.84	44	IAmb	IAmb	02 57 11.0	
	comp=Z,120nm,1.4s						
LPIG	La Paz	87.84	61	LR	LR	03 30 37.5	
	comp=Z,2µm,19.9s,baz=310,slow=32						
J47A	Sunmer	87.95	32	IAMs_20	IAMs_20	03 39 09.8	
	comp=Z,3µm,21.0s						
ROSF	Rostrenen	87.99	338	P	P	02 56 58.3	+1.2
ROSF	Rostrenen	87.99	338	P	P	02 56 58.3	+1.2
	comp=Z,3µmcomp=Z,147nm,1.4s,comp=Z,3µm						
SSB	Saint Sauveur	88.04	332	IAmb	IAmb	02 56 58.6	
	comp=Z,98nm,1.4s						
SSB	Saint Sauveur	88.04	332	P	P	02 56 58.2	+0.7
	comp=Z,7µmcomp=Z,2µmcomp=Z,73nm,1.3s						
SSB	Saint Sauveur	88.04	332	P	P	02 56 57.3	-0.2
M44A	Midewin, Midew	88.05	35	IAMs_20	IAMs_20	03 35 48.4	
	comp=Z,3µm,21.0s						
DEOK	Depew	88.11	44	IAmb	IAmb	02 57 03.4	
	comp=Z,55nm,0.9s						
HDIL	Hopedale	88.14	37	IAMs_20	IAMs_20	03 34 50.8	
	comp=Z,3µm,22.0s						
I49A	Point Hope	88.19	31	IAMs_20	IAMs_20	03 38 15.0	
	comp=Z,3µm,21.0s						
BUKO	Buck Lake	88.23	28	IAmb	IAmb	02 57 03.1	
	comp=Z,59nm,1.0s						
ICQ	Pointe Anglais	88.33	19	IAmb	IAmb	02 57 03.7	
	comp=Z,46nm,0.9s						
SGCY	Sterling City	88.34	49	IAmb	IAmb	02 57 04.4	
	comp=Z,56nm,1.0s						
SLBS	Sierra La Lagu	88.36	61	IAMs_20	IAMs_20	03 31 19.9	
	comp=Z,3µm,20.0s						
SLBS	Sierra La Lagu	88.36	61	P	P	02 57 00.3	+0.9
	comp=Z,3µmcomp=Z,1µmcomp=Z,42nm,1.8s						
SLBS				P	pP	02 57 11.3	-0.1
S39A	Bolivar	88.39	41	IAmb	IAmb	02 57 03.7	
	comp=Z,58nm,0.9s						
CALF	Calern	88.41	329	P	P	02 56 59.1	-0.3
	comp=Z,6µmcomp=Z,1µmcomp=Z,43nm,0.9s,comp=Z,1µm						
TUL3	Leonard	88.44	43	IAmb	IAmb	02 57 18.3	
	comp=Z,50nm,1.0s						
R40A	Maddies Statio	88.47	40	IAMs_20	IAMs_20	03 35 18.6	
	comp=Z,2µm,21.0s						
MFF	Saint Martin d	88.55	335	P	P	02 57 00.9	+1.1
MFF	Saint Martin d	88.55	335	P	P	02 57 00.9	+1.1
	comp=Z,1µmcomp=Z,815nmcomp=Z,45nm,1.4s						
WTFS	Witchita Falls	88.55	47	IAmb	IAmb	02 57 15.1	
	comp=Z,122nm,1.5s						
TXAR	Lajitas Array	88.62	53	P	P	02 57 00.0	-0.6
	comp=Z,12nm,0.7s,baz=293,slow=3.0,SNR=78						
TXAR				PKKPbc	PKKPbc	03 14 44.6	+4.6
	comp=Z,0.5nm,0.7s,baz=150,slow=5.9,SNR=5.6						
TXAR				LR	LR	03 31 55.9	
	comp=Z,2µm,20.7s,baz=322,slow=32						
	comp=Z,12nm,0.7s						
TXAR	Lajitas Array	88.62	53	P	P	02 56 59.9	-0.6
LDAQ	Lac Daran	88.68	22	IAmb	IAmb	02 57 05.2	
	comp=Z,45nm,0.8s						
ABTX	Abilene, Hawle	88.70	48	IAmb	IAmb	02 57 14.6	
	comp=Z,96nm,1.4s						
P43A	Skaggs, Pawnee	88.75	37	IAmb	IAmb	02 57 06.0	
	comp=Z,89nm,1.0s						
U38A	Gravette	88.80	42	IAmb	IAmb	02 57 06.2	
	comp=Z,56nm,0.9s						
CEL	Celeste	88.81	321	P	P	02 57 00.8	-0.5
	comp=Z,2µmcomp=Z,146nm,0.9s						
SADO	Sadowa	88.90	28	LR	LR	03 37 28.7	
	comp=Z,2µm,21.5s,baz=356,slow=36						
SADO	Sadowa	88.90	28	IAmb	IAmb	02 57 06.1	
	comp=Z,37nm,1.0s						
HPIG		89.01	56	IAmb	IAmb	02 57 18.0	
	comp=Z,86nm,1.7s						
HPIG		89.01	56	P	P	02 57 02.7	+0.1
	comp=Z,3µmcomp=Z,1µmcomp=Z,37nm,2.2s						
HPIG				P	pP	02 57 15.0	+0.5
LOOK	Love County	89.11	46	IAmb	IAmb	02 57 20.0	
	comp=Z,79nm,1.2s						
CCM	Cathedral Cave	89.16	39	P	P	02 57 02.4	-0.5
CCM				pmax	pmax		
	comp=Z,106nm,0.9s						
CCM				MLR	MLR		
	comp=Z,2µm,21.0s						
CCM	Cathedral Cave	89.16	39	P	P	02 57 02.4	-0.5
TRQ	Mont Tremblant	89.22	25	IAmb	IAmb	02 57 07.9	
	comp=Z,91nm,1.1s						
K50A	Casco	89.24	31	IAMs_20	IAMs_20	03 43 22.8	
	comp=Z,2µm,18.0s						
SFIN	Lafayette	89.29	35	IAMs_20	IAMs_20	03 35 33.5	
	comp=Z,3µm,21.0s						
LMQ	La Malbaie	89.32	21	IAmb	IAmb	02 57 08.2	
	comp=Z,64nm,1.0s						
N47A	Urbana	89.51	34	IAMs_20	IAMs_20	03 36 35.9	
	comp=Z,3µm,21.0s						
Z35A	Perchaven, San	89.56	46	IAMs_20	IAMs_20	03 33 16.7	
	comp=Z,2µm,21.0s						
FVM	French Village	89.62	39	IAmb	IAmb	02 57 10.2	
	comp=Z,63nm,0.9s						
DELO	Deloro Mine	89.67	27	IAmb	IAmb	02 57 09.9	
	comp=Z,76nm,0.9s						
P46A	Rosedale	89.85	36	IAMs_20	IAMs_20	03 35 36.1	
	comp=Z,3µm,20.0s						
ATD	Arta Tunnel	89.99	285	LR	LR	03 41 34.8	
	comp=Z,128nm,18.9s,baz=44,slow=38						
ATD	Arta Tunnel	89.99	285	P	P	02 57 08.8	+1.6
	SNR=39						
ATD	Arta Tunnel	89.99	285	P	P	02 57 08.7	+1.6
	comp=Z,6µmcomp=Z,4µmcomp=Z,245nm,1.6s,comp=Z,4µm						
T42A	Van Buren	90.03	40	IAmb	IAmb	02 57 12.1	
	comp=Z,88nm,1.1s						
BRDY	Brady	90.05	49	IAmb	IAmb	02 57 20.9	
	comp=Z,48nm,0.9s						
WBO	Williamsburg	90.06	26	IAmb	IAmb	02 57 11.5	
	comp=Z,54nm,0.9s						
D62A	Allapoint, All	90.10	21	IAMs_20	IAMs_20	03 44 16.6	
	comp=Z,2µm,18.0s						
N49A	Columbus Grove	90.13	33	IAMs_20	IAMs_20	03 37 42.4	
	comp=Z,2µm,22.0s						
VAE	Valguarnera	90.15	321	LR	LR	03 42 51.9	
	comp=Z,15µm,18.0s,baz=82,slow=39						
JCT	Junction City	90.16	50	IAMs_20	IAMs_20	03 31 56.8	
	comp=Z,3µm,22.0s						
MNTQ	Montreal, Queb	90.16	24	IAmb	IAmb	02 57 12.3	
	comp=Z,54nm,1.0s						
FW13	Cleburne	90.18	47	IAmb	IAmb	02 57 13.3	
	comp=Z,53nm,1.0s						
CTZ	Chatham Island	90.21	151	IAMs_20	IAMs_20	03 30 48.8	
	comp=Z,3µm,21.0s						
M50A	Fremont	90.21	32	IAMs_20	IAMs_20	03 40 19.5	
	comp=Z,2µm,21.0s						
O48B	Farmland	90.25	34	IAMs_20	IAMs_20	03 36 58.7	
	comp=Z,4µm,22.0s						
MSEY	Mahe Island	90.28	264	P	P	02 57 05.9	-2.6
MSEY	Mahe Island	90.28	264	P	P	02 57 07.2	-1.3
MSEY				pmax	pmax		
	comp=Z,52nm,1.0s						
MSEY				MLR	MLR		
	comp=Z,2µm,21.0s						
MSEY	Mahe Island	90.28	264	P	P	02 57 07.2	-1.3
MSEY				IAmb	IAmb	02 57 12.7	
	comp=Z,52nm,1.0s						
MSEY	Mahe Island	90.28	264	IAMs_20	IAMs_20	03 37 32.3	
	comp=Z,2µm,21.0s						
MSEY	Mahe Island	90.28	264	P	P	02 57 08.9	+0.4
MSEY	Mahe Island	90.28	264	P	P	02 57 08.4	-0.1
	comp=Z,64nm,1.0s						
MSEY				P	pP	02 57 21.1	+0.6
RAFF	Raffo Rosso	90.38	321	IAmb	IAmb	02 57 33.8	
	comp=Z,55nm,0.9s						
E62A	Clayton Lake	90.39	21	IAMs_20	IAMs_20	03 44 39.3	
	comp=Z,2µm,18.0s						
FCAR	Ozark Folk Cen	90.39	41	IAmb	IAmb	02 57 26.1	
	comp=Z,106nm,1.3s						
PECO	Prince Edward	90.40	27	IAmb	IAmb	02 57 12.9	
	comp=Z,62nm,0.9s						
S44A	Carbondale	90.42	38	IAMs_20	IAMs_20	03 33 32.2	
	comp=Z,2µm,22.0s						
WHTX	Lake Whitney,	90.43	47	IAmb	IAmb	02 57 14.4	
	comp=Z,54nm,0.9s						
WHTX				IAMs_20	IAMs_20	03 36 28.8	
	comp=Z,3µm,21.0s						
BLO	Bloomington	90.52	36	IAmb	IAmb	02 57 14.4	

	comp=Z,64nm,1.2s						
MEDO	**Medina**	**90.53**	**28**	IAmb	IAmb	02 57 14.3	
	comp=Z,76nm,0.9s						
MTLF	**Montolieu**	**90.56**	**332**	P	**P**	**02 57 10.3**	**+1.0**
	comp=Z,5µmcomp=Z,2µmcomp=Z,45nm,1.0s						
LONY	**Lake Ozonia**	**90.63**	**25**	IAmb	IAmb	02 57 29.5	
	comp=Z,83nm,1.6s						
TREL	**Terrell**	**90.66**	**46**	IAmb	IAmb	02 57 27.2	
	comp=Z,33nm,0.9s						
MIAR	**Mount Ida**	**90.66**	**43**	P	**P**	**02 57 10.2**	**+0.3**
MIAR				AP	**pP**	**02 57 21.5**	**-0.3**
MIAR	**Mount Ida**	**90.66**	**43**	IAmb	IAmb	02 57 15.3	
	comp=Z,60nm,0.8s						
MIAR				IAMs_20	IAMs_20	03 40 16.8	
	comp=Z,2µm,22.0s						
MIAR	**Mount Ida**	**90.66**	**43**	P	**P**	**02 57 10.2**	**+0.3**
	comp=Z,3µmcomp=Z,1µmcomp=Z,102nm,0.8s						
MIAR				P	**pP**	**02 57 21.5**	**-0.3**
O49A	**Covington**	**90.67**	**34**	IAmb	IAmb	02 57 14.9	
	comp=Z,58nm,0.9s						
O49A				IAMs_20	IAMs_20	03 37 33.6	
	comp=Z,3µm,22.0s						
BATG	**Bathurst New B**	**90.71**	**19**	IAmb	IAmb	02 57 15.3	
	comp=Z,52nm,1.0s						
WHAR	**Wooly Hollow**	**90.77**	**42**	IAmb	IAmb	02 57 15.4	
	comp=Z,78nm,0.9s						
P48A	**Milroy**	**90.78**	**35**	IAmb	IAmb	02 57 29.7	
	comp=Z,129nm,1.6s						
P48A				IAMs_20	IAMs_20	03 37 23.7	
	comp=Z,3µm,20.0s						
M52A	**Chesterland**	**90.79**	**31**	IAMs_20	IAMs_20	03 45 51.8	
	comp=Z,2µm,19.0s						
ERPA	**Erie**	**90.84**	**30**	IAmb	IAmb	02 57 16.1	
	comp=Z,57nm,0.8s						
Z38A	**Mt. Pleasant**	**90.87**	**45**	IAmb	IAmb	02 57 24.4	
	comp=Z,114nm,1.3s						
CFNY	**Clifton-Fine,**	**90.87**	**26**	IAmb	IAmb	02 57 15.6	
	comp=Z,73nm,0.8s						
N51A	**Ashland**	**90.89**	**32**	IAMs_20	IAMs_20	03 39 24.6	
	comp=Z,3µm,21.0s						
SJAF	**Saint Jean de**	**91.06**	**331**	P	**P**	**02 57 11.9**	**+0.3**
	comp=Z,4µmcomp=Z,2µmcomp=Z,36nm,0.9s,comp=Z,2µm						
FLET	**Fletcher**	**91.07**	**24**	IAmb	IAmb	02 57 16.7	
	comp=Z,63nm,1.1s						
EJON	**La Jonquera**	**91.08**	**331**	P	**P**	**02 57 11.2**	**-0.6**
EJON	**La Jonquera**	**91.08**	**331**	P	**P**	**02 57 11.2**	**-0.6**
	comp=Z,5µmcomp=Z,1µmcomp=Z,36nm,1.2s						
X40A	**Basin Creek Fa**	**91.10**	**43**	IAmb	IAmb	02 57 27.2	
	comp=Z,76nm,1.3s						
UALR	**University of**	**91.14**	**42**	IAmb	IAmb	02 57 27.3	
	comp=Z,130nm,1.9s						
J57A	**Williamstown**	**91.21**	**27**	IAMs_20	IAMs_20	03 38 05.8	
	comp=Z,2µm,21.0s						
ACSO	**Alum Creek Sta**	**91.21**	**33**	IAMs_20	IAMs_20	03 44 53.0	
	comp=Z,2µm,19.0s						
435B	**Jarrell**	**91.24**	**48**	IAmb	IAmb	02 57 26.7	
	comp=Z,119nm,1.6s						
T45A	**Paducah**	**91.25**	**38**	IAMs_20	IAMs_20	03 37 20.2	
	comp=Z,2µm,21.0s						
NCB	**Newcomb**	**91.32**	**25**	IAmb	IAmb	02 57 17.8	
	comp=Z,46nm,0.8s						
G62A	**West of Eustis**	**91.37**	**22**	IAmb	IAmb	02 57 18.7	
	comp=Z,51nm,1.1s						
G62A				IAMs_20	IAMs_20	03 42 14.1	
	comp=Z,3µm,21.0s						
WCI	**Wyandotte Cave**	**91.39**	**36**	P	**P**	**02 57 13.0**	**-0.2**
WCI				pmax	pmax		
	comp=Z,54nm,1.0s						
WCI	**Wyandotte Cave**	**91.39**	**36**	P	**P**	**02 57 13.0**	**-0.2**
WCI				IAmb	IAmb	02 57 18.5	
	comp=Z,54nm,0.9s						
WCI	**Wyandotte Cave**	**91.39**	**36**	IAMs_20	IAMs_20	03 35 08.8	
	comp=Z,2µm,21.0s						
WCI	**Wyandotte Cave**	**91.39**	**36**	P	P	02 57 24.9	+12
	comp=Z,38nm,1.2s						
PAOC	**Oil Creek Stat**	**91.48**	**30**	IAmb	IAmb	02 57 19.0	
	comp=Z,81nm,1.3s						
CEST	**Esterri de Car**	**91.56**	**332**	IAmb	IAmb	02 57 16.1	
	comp=Z,73nm,1.1s						
K57A	**Scipio Center**	**91.62**	**27**	IAmb	IAmb	02 57 19.2	
	comp=Z,61nm,1.0s						
K57A				IAMs_20	IAMs_20	03 44 04.6	
	comp=Z,2µm,20.0s						
N53A	**Lisbon**	**91.62**	**31**	IAmb	IAmb	02 57 18.9	
	comp=Z,40nm,1.0s						
N53A				IAMs_20	IAMs_20	03 39 56.7	
	comp=Z,3µm,22.0s						
J59A	**Piesco**	**91.68**	**26**	IAmb	IAmb	02 57 19.3	
	comp=Z,58nm,0.8s						
PKME	**Peaks-Kenny Pk**	**91.69**	**22**	IAmb	IAmb	02 57 35.0	
	comp=Z,58nm,1.2s						
MCVT	**Middlebury Col**	**91.75**	**25**	IAmb	IAmb	02 57 20.1	
	comp=Z,32nm,0.8s						
L56A	**Greenwood**	**91.75**	**28**	IAMs_20	IAMs_20	03 44 10.2	
	comp=Z,3µm,20.0s						
H62A	**Milan**	**91.77**	**23**	IAMs_20	IAMs_20	03 42 31.5	
	comp=Z,4µm,21.0s						
O52A	**Adamsville**	**91.79**	**32**	IAmb	IAmb	02 57 20.1	
	comp=Z,58nm,1.1s						
O52A				IAMs_20	IAMs_20	03 40 01.3	
	comp=Z,2µm,21.0s						
P51A	**Williamsport**	**91.80**	**33**	IAmb	IAmb	02 57 19.9	
	comp=Z,54nm,1.0s						
PAMR	**Moraine State**	**91.80**	**31**	IAmb	IAmb	02 57 34.8	
	comp=Z,88nm,1.3s						
CORI	**Orista**	**91.81**	**331**	IAmb	IAmb	02 57 17.0	
	comp=Z,83nm,1.4s						
ATE	**Arette**	**91.83**	**334**	P	**P**	**02 57 14.2**	**-1.0**
	comp=Z,4µmcomp=Z,997nmcomp=Z,26nm,1.1s						
LBNH	**Lisbon**	**91.83**	**24**	IAMs_20	IAMs_20	03 44 18.2	
	comp=Z,2µm,20.0s						
R49A	**Shelbyville**	**91.85**	**35**	IAmb	IAmb	02 57 35.2	
	comp=Z,89nm,1.5s						
R49A				IAMs_20	IAMs_20	03 37 01.0	
	comp=Z,3µm,21.0s						
O53A	**New Philadelph**	**91.94**	**32**	IAmb	IAmb	02 57 20.9	
	comp=Z,58nm,1.1s						
Q51A	**Peebles**	**92.06**	**34**	IAMs_20	IAMs_20	03 38 16.4	
	comp=Z,4µm,22.0s						
P52A	**Corning**	**92.07**	**33**	IAmb	IAmb	02 57 21.1	
	comp=Z,36nm,1.0s						
NATX	**Nacogdoches**	**92.18**	**45**	IAMs_20	IAMs_20	03 34 48.2	
	comp=Z,4µm,22.0s						
HNH	**Hanover**	**92.19**	**24**	IAMs_20	IAMs_20	03 40 24.9	
	comp=Z,2µm,22.0s						
WVL	**Waterville**	**92.23**	**22**	IAmb	IAmb	02 57 22.2	
	comp=Z,32nm,1.0s						
WVL				IAMs_20	IAMs_20	03 43 07.7	
	comp=Z,2µm,20.0s						
R50A	**Paris**	**92.24**	**35**	IAmb	IAmb	02 57 22.4	
	comp=Z,48nm,1.1s						
R50A				IAMs_20	IAMs_20	03 38 09.3	
	comp=Z,3µm,22.0s						
G65A	**Princeton**	**92.24**	**21**	IAmb	IAmb	02 57 22.4	
	comp=Z,38nm,1.1s						
G65A				IAMs_20	IAMs_20	03 40 08.0	
	comp=Z,2µm,22.0s						
BINY	**Binghamton**	**92.27**	**27**	IAmb	IAmb	02 57 21.8	
	comp=Z,39nm,1.1s						
BINY				IAMs_20	IAMs_20	03 44 15.0	
	comp=Z,2µm,20.0s						
BINY	**Binghamton**	**92.27**	**27**	P	**P**	**02 57 17.6**	**+0.3**
	comp=Z,48nm,1.3s						
O54A	**Avella**	**92.33**	**31**	IAmb	IAmb	02 57 22.7	
	comp=Z,38nm,0.8s						
O54A				IAMs_20	IAMs_20	03 42 19.7	
	comp=Z,2µm,20.0s						
I62A	**Tamworth**	**92.34**	**24**	IAMs_20	IAMs_20	03 42 51.8	
	comp=Z,3µm,21.0s						
WVT	**Waverly**	**92.35**	**38**	P	**P**	**02 57 17.7**	**0.0**
WVT				pmax	pmax		
	comp=Z,30nm,0.9s						
WVT				MLR	MLR		
	comp=Z,2µm,20.0s						
WVT	**Waverly**	**92.35**	**38**	P	**P**	**02 57 17.7**	**0.0**
WVT				IAmb	IAmb	02 57 22.8	
	comp=Z,30nm,0.9s						
WVT	**Waverly**	**92.35**	**38**	IAMs_20	IAMs_20	03 41 45.4	
	comp=Z,2µm,20.0s						
WVT	**Waverly**	**92.35**	**38**	P	**P**	**02 57 18.1**	**+0.3**
	comp=Z,2µmcomp=Z,45nm,1.1s						
LMN	**Caledonia Moun**	**92.35**	**18**	IAmb	IAmb	02 57 22.2	
	comp=Z,39nm,0.8s						
I63A	**Otisfield**	**92.42**	**23**	IAMs_20	IAMs_20	03 42 59.7	
	comp=Z,3µm,21.0s						
J61A	**Chester**	**92.43**	**25**	IAmb	IAmb	02 57 23.4	
	comp=Z,31nm,0.8s						
P53A	**Whipple**	**92.50**	**32**	IAmb	IAmb	02 57 23.5	
	comp=Z,39nm,1.1s						
P53A				IAMs_20	IAMs_20	03 40 31.2	
	comp=Z,3µm,22.0s						
735A	**Kenedy**	**92.53**	**49**	IAMs_20	IAMs_20	03 34 34.5	
	comp=Z,3µm,20.0s						
Q52A	**Bidwell**	**92.57**	**33**	IAmb	IAmb	02 57 23.5	
	comp=Z,58nm,1.4s						
Q52A				IAMs_20	IAMs_20	03 38 07.1	
	comp=Z,2µm,21.0s						
M57A	**Sunshine Farm,**	**92.61**	**28**	IAMs_20	IAMs_20	03 44 55.8	
	comp=Z,3µm,20.0s						
TRY	**Troy**	**92.61**	**26**	IAmb	IAmb	02 57 39.1	
	comp=Z,102nm,1.5s						
TRY				IAMs_20	IAMs_20	03 42 28.9	
	comp=Z,3µm,21.0s						
L59A	**Walton**	**92.61**	**27**	IAmb	IAmb	02 57 24.0	
	comp=Z,60nm,0.9s						
L59A				IAMs_20	IAMs_20	03 42 40.0	
	comp=Z,3µm,22.0s						
EMMW	**East Machias**	**92.72**	**21**	IAmb	IAmb	02 57 23.9	
	comp=Z,43nm,1.0s						
MAHO	**Mahon**	**92.73**	**329**	P	**P**	**02 57 18.3**	**-1.0**
HKT	**Hockley**	**92.87**	**47**	P	**P**	**02 57 20.2**	**+0.1**
HKT				pmax	pmax		
	comp=Z,70nm,1.6s						
HKT	**Hockley**	**92.87**	**47**	P	**P**	**02 57 20.2**	**+0.1**
HKT				IAmb	IAmb	02 57 34.7	
	comp=Z,70nm,1.6s						
HKT				IAMs_20	IAMs_20	03 34 19.2	
	comp=Z,3µm,22.0s						
HKT	**Hockley**	**92.87**	**47**	P	**P**	**02 57 20.9**	**+0.8**
	comp=Z,3µmcomp=Z,931nmcomp=Z,27nm,1.8s						
MCWV	**Mont Chateau**	**92.99**	**31**	IAmb	IAmb	02 57 26.9	
	comp=Z,32nm,0.8s						
MCWV				IAMs_20	IAMs_20	03 45 21.1	
	comp=Z,3µm,20.0s						
U49A	**Red Boiling Sp**	**93.02**	**37**	IAmb	IAmb	02 57 25.8	
	comp=Z,38nm,0.8s						
U49A				IAMs_20	IAMs_20	03 36 56.0	
	comp=Z,3µm,21.0s						
T50A	**Nancy**	**93.04**	**36**	IAmb	IAmb	02 57 25.9	
	comp=Z,38nm,0.8s						
T50A				IAMs_20	IAMs_20	03 37 34.6	
	comp=Z,3µm,21.0s						
S51A	**Beattyville**	**93.09**	**35**	IAmb	IAmb	02 57 25.9	
	comp=Z,30nm,0.8s						
S51A				IAMs_20	IAMs_20	03 38 23.9	
	comp=Z,3µm,22.0s						
K62A	**Royalston**	**93.14**	**25**	IAMs_20	IAMs_20	03 40 40.0	
	comp=Z,3µm,22.0s						
V48A	**Smith Brothers**	**93.15**	**38**	IAmb	IAmb	02 57 26.3	
	comp=Z,29nm,0.9s						
V48A				IAMs_20	IAMs_20	03 38 08.5	
	comp=Z,2µm,20.0s						
Q54A	**Coxs Mills**	**93.16**	**32**	IAmb	IAmb	02 57 26.7	
	comp=Z,42nm,0.9s						
Q54A				IAMs_20	IAMs_20	03 41 11.6	
	comp=Z,3µm,21.0s						
L61B	**Northampton**	**93.19**	**25**	IAMs_20	IAMs_20	03 43 25.2	
	comp=Z,2µm,20.0s						
N58A	**Sunbury**	**93.19**	**28**	IAmb	IAmb	02 57 41.0	
	comp=Z,72nm,1.5s						
N58A				IAMs_20	IAMs_20	03 44 22.3	
	comp=Z,2µm,20.0s						
143A	**Socs Landing,**	**93.23**	**43**	IAMs_20	IAMs_20	03 39 49.9	
	comp=Z,2µm,20.0s						
Y45A	**Yeager Farm, C**	**93.29**	**41**	IAMs_20	IAMs_20	03 39 53.4	
	comp=Z,3µm,21.0s						
ETOS	**Mallorca**	**93.42**	**330**	P	**P**	**02 57 21.6**	**-1.0**
HRV	**Adam Dziewonsk**	**93.51**	**24**	IAMs_20	IAMs_20	03 41 45.6	
	comp=Z,3µm,22.0s						
WES	**Weston**	**93.69**	**24**	IAMs_20	IAMs_20	03 41 52.5	
	comp=Z,3µm,21.0s						
441A	**DeRidder**	**93.76**	**45**	IAMs_20	IAMs_20	03 36 09.1	
	comp=Z,3µm,22.0s						
Q56A	**Snyder Ridge,**	**93.78**	**31**	IAmb	IAmb	02 57 42.6	
	comp=Z,31nm,1.1s						
Q56A				IAMs_20	IAMs_20	03 44 35.1	
	comp=Z,2µm,20.0s						
P57A	**Homestead Farm**	**93.87**	**30**	IAMs_20	IAMs_20	03 44 17.4	
	comp=Z,2µm,21.0s						
ZAIG	**Zacatecas**	**93.92**	**57**	IAmb	IAmb	02 57 40.7	
	comp=Z,52nm,1.4s						
ZAIG	**Zacatecas**	**93.92**	**57**	P	**P**	**02 57 27.3**	**+1.7**
	comp=Z,568nmcomp=Z,26nm,1.1s						
S54A	**Dingess, Beckl**	**93.96**	**33**	IAMs_20	IAMs_20	03 43 55.8	
	comp=Z,3µm,20.0s						
KEST	**Kesra**	**93.98**	**323**	PP	**PP**	**03 01 13.6**	**+2.8**
	comp=Z,11nm,1.1s,baz=265,slow=12,SNR=5.1						
KEST				LR	LR	03 44 36.5	
	comp=Z,17µm,18.5s,baz=28,slow=39						
KEST	**Kesra**	**93.98**	**323**	P	**P**	**02 57 21.7**	**-3.6**
	SNR=5.6						
SWET	**Sewanee**	**94.00**	**38**	IAmb	IAmb	02 57 29.9	
	comp=Z,38nm,0.9s						
TZTN	**Tazewell**	**94.02**	**35**	IAmb	IAmb	02 57 30.5	
	comp=Z,48nm,1.1s						
TZTN				IAMs_20	IAMs_20	03 37 14.5	
	comp=Z,3µm,22.0s						
TZTN	**Tazewell**	**94.02**	**35**	P	**P**	**02 57 26.4**	**+0.9**
	comp=Z,43nm,1.1s						
R55A	**Marlinton**	**94.05**	**32**	IAmb	IAmb	02 57 30.7	
	comp=Z,32nm,0.9s						
R55A				IAMs_20	IAMs_20	03 47 24.2	
	comp=Z,2µm,20.0s						
VBMS	**Vicksburg**	**94.08**	**42**	IAMs_20	IAMs_20	03 40 35.4	
	comp=Z,2µm,20.0s						
X48A	**Hartselle**	**94.08**	**39**	IAMs_20	IAMs_20	03 46 52.2	
	comp=Z,2µm,20.0s						
WSPT	**Westport, CT**	**94.11**	**26**	IAMs_20	IAMs_20	03 43 14.7	
	comp=Z,3µm,21.0s						
L64A	**Middleborough**	**94.25**	**24**	IAMs_20	IAMs_20	03 42 06.3	
	comp=Z,4µm,22.0s						
N62A	**Caumsett State**	**94.28**	**26**	IAMs_20	IAMs_20	03 43 23.1	
	comp=Z,2µm,22.0s						
W50A	**Signal Mountai**	**94.31**	**37**	IAMs_20	IAMs_20	03 37 24.2	
	comp=Z,3µm,22.0s						
M63A	**Gales Ferry**	**94.34**	**25**	IAMs_20	IAMs_20	03 40 40.6	
	comp=Z,3µm,22.0s						
146A	**Union**	**94.51**	**41**	IAMs_20	IAMs_20	03 40 07.8	
	comp=Z,3µm,21.0s						
Z47A	**Carrollton**	**94.57**	**40**	IAmb	IAmb	02 57 32.8	
	comp=Z,31nm,1.0s						
Z47A				IAMs_20	IAMs_20	03 36 25.3	
	comp=Z,2µm,22.0s						
EIBI	**Ibiza**	**94.63**	**330**	P	**P**	**02 57 26.9**	**-1.3**
TKL	**Tuckaleechee C**	**94.65**	**36**	LR	LR	03 39 56.3	
	comp=Z,2µm,21.7s,baz=334,slow=35						
TKL	**Tuckaleechee C**	**94.65**	**36**	IAmb	IAmb	02 57 33.1	
	comp=Z,25nm,0.8s						
M65A	**Busby, Falmout**	**94.65**	**24**	IAMs_20	IAMs_20	03 42 29.0	
	comp=Z,3µm,21.0s						
U54A	**Nelsons Funny**	**94.81**	**34**	IAmb	IAmb	02 57 33.3	
	comp=Z,116nm,1.8s						
U54A				IAMs_20	IAMs_20	03 39 50.5	
	comp=Z,4µm,22.0s						
FURI	**Furi**	**94.81**	**285**	P	**P**	**02 57 31.5**	**+1.7**
FURI	**Furi**	**94.81**	**285**	P	**P**	**02 57 31.2**	**+1.5**
	comp=Z,5µmcomp=Z,3µmcomp=Z,173nm,1.3s						
ECAL	**Calabor**	**94.82**	**337**	P	**P**	**02 57 28.3**	**-0.8**
BLA	**Blacksburg**	**94.83**	**33**	IAmb	IAmb	02 57 34.1	
	comp=Z,31nm,1.0s						
BLA				IAMs_20	IAMs_20	03 46 57.1	
	comp=Z,2µm,20.0s						
Y49A	**Blount Mountai**	**94.87**	**39**	IAMs_20	IAMs_20	03 38 16.2	
	comp=Z,3µm,22.0s						
PBRG	**Braganca**	**94.94**	**337**	*e*P	**P**	**02 57 30.1**	**+0.5**
PBRG				*i* IAmb	IAmb	02 57 47.9	
	comp=Z,57nm,1.8s						
S57A	**Dark Hollow, R**	**94.97**	**32**	IAMs_20	IAMs_20	03 41 00.8	
	comp=Z,2µm,22.0s						
ECHE	**Chera**	**95.00**	**332**	P	**P**	**02 57 29.6**	**-0.4**
X51A	**Calhoun**	**95.04**	**37**	IAMs_20	IAMs_20	03 37 56.8	
	comp=Z,2µm,21.0s						
W52A	**Murphy**	**95.04**	**36**	IAMs_20	IAMs_20	03 38 09.8	
	comp=Z,2µm,20.0s						
V53A	**Saluda**	**95.08**	**35**	IAMs_20	IAMs_20	03 39 11.7	
	comp=Z,3µm,21.0s						
UCM	**Universidad Co**	**95.17**	**334**	P	**P**	**02 57 31.1**	**+0.5**
CBN	**Corbin Frederi**	**95.23**	**30**	IAMs_20	IAMs_20	03 42 31.4	
	comp=Z,2µm,20.0s						
R58B	**Mineral**	**95.23**	**31**	IAMs_20	IAMs_20	03 45 00.6	
	comp=Z,3µm,21.0s						
LRAL	**Lakeview Retre**	**95.24**	**40**	IAMs_20	IAMs_20	03 47 24.1	
	comp=Z,3µm,21.0s						
PGAV	**Gavieira, Arco**	**95.25**	**338**	*e*P	**P**	**02 57 31.3**	**+0.2**
PGAV				*i* IAmb	IAmb	02 57 45.8	
	comp=Z,44nm,1.4s						
PGAV				*e*S	S	03 08 19.6	-24
PGAV				*e*LQ	LQ	03 26 55.0	
PGAV				*e*LR	LR	03 29 29.5	
PGAV				*i* IAMs_20	IAMs_20	03 44 30.4	
	comp=Z,6µm,20.0s						
346A	**Big Creek Wild**	**95.28**	**42**	IAMs_20	IAMs_20	03 40 49.5	
	comp=Z,2µm,21.0s						
PCAB	**Cabril**	**95.41**	**338**	*e*P	**P**	**02 57 32.5**	**+0.8**
U56A	**King**	**95.58**	**33**	IAMs_20	IAMs_20	03 41 09.8	
	comp=Z,3µm,22.0s						
BG3	**Lake Jocassee**	**95.58**	**36**	IAmb	IAmb	02 57 37.7	
	comp=Z,38nm,0.8s						
V55A	**Taylorsville**	**95.64**	**34**	IAMs_20	IAMs_20	03 39 14.4	
	comp=Z,3µm,21.0s						
POLO	**Lamas de Olo**	**95.65**	**338**	*e*P	**P**	**02 57 33.5**	**+0.6**
POLO				*i* IAmb	IAmb	02 57 51.1	
	comp=Z,24nm,1.4s						
PVRL	**Vila Real**	**95.72**	**338**	*e*P	**P**	**02 57 33.0**	**-0.1**
PVRL				*i* IAmb	IAmb	02 57 51.6	
	comp=Z,57nm,1.7s						
ESDC	**Sonseca Array**	**95.98**	**334**	P	**P**	**02 57 33.3**	**-1.1**
	comp=Z,11nm,1.0s,baz=17,slow=4.1,SNR=17						
ESDC				PP	**PP**	**03 01 27.0**	**+1.0**
	comp=Z,14nm,1.0s,baz=27,slow=6.7,SNR=8.3						
ESDC				LR	LR	03 46 01.2	
	comp=Z,12µm,19.1s,baz=18,slow=39						
	comp=Z,11nm,1.0s						
ESDC	**Sonseca Array**	**95.98**	**334**	P	**P**	**02 57 33.3**	**-1.1**
Y52A	**Lilburn**	**95.99**	**37**	IAMs_20	IAMs_20	03 38 25.9	
	comp=Z,3µm,22.0s						
ETOB	**Tobarra**	**96.05**	**332**	P	**P**	**02 57 30.7**	**-4.0**
PTO	**Porto**	**96.11**	**338**	*e*P	**P**	**02 57 34.8**	**0.0**
PTO				*i* IAmb	IAmb	02 57 54.2	
	comp=Z,32nm,2.1s						
T59A	**Double "B" Far**	**96.22**	**31**	IAMs_20	IAMs_20	03 46 14.7	
	comp=Z,3µm,20.0s						
PAB	**San Pablo**	**96.23**	**335**	P	**P**	**02 57 36.2**	**+0.7**
	comp=Z,4µmcomp=Z,676nmcomp=Z,18nm,1.0s						
PAULI	**Pauline**	**96.23**	**35**	IAmb	IAmb	02 57 40.1	
	comp=Z,22nm,0.8s						
PVIS	**Viseu**	**96.29**	**338**	*e*P	**P**	**02 57 36.1**	**+0.3**
250A	**Grady**	**96.45**	**40**	IAMs_20	IAMs_20	03 48 10.3	
	comp=Z,2µm,20.0s						
MTE	**Manteigas**	**96.47**	**337**	*e*P	**P**	**02 57 37.2**	**+0.6**
MTE				*i* IAmb	IAmb	02 57 58.6	
	comp=Z,32nm,1.5s						
MTE				*e*S	**SKSac**	**03 08 17.1**	**+6.8**
MTE				*e*LQ	LQ	03 26 19.4	
MTE				*e*LR	LR	03 29 51.9	
MTE				*i* IAMs_20	IAMs_20	03 46 54.7	
	comp=Z,11µm,18.0s						
MTE	**Manteigas**	**96.47**	**337**	P	**P**	**02 57 37.4**	**+0.8**
V58A	**Windy Hill, Pi**	**96.59**	**33**	IAMs_20	IAMs_20	03 48 21.5	
	comp=Z,2µm,19.0s						
GOGA	**Godfrey**	**96.64**	**37**	IAMs_20	IAMs_20	03 39 07.2	
	comp=Z,3µm,22.0s						
152A	**Waverly Hall**	**96.66**	**38**	IAMs_20	IAMs_20	03 40 17.6	
	comp=Z,3µm,20.0s						
BRAL	**Brewton**	**96.71**	**41**	IAMs_20	IAMs_20	03 47 56.1	
	comp=Z,2µm,22.0s						
CART	**Cartagena**	**96.78**	**331**	P	**P**	**02 57 33.7**	**-4.3**
PCBR	**Castelo Branco**	**96.96**	**337**	*e*P	**P**	**02 57 38.3**	**-0.4**
PCBR				*i* IAmb	IAmb	02 57 41.0	
	comp=Z,26nm,1.8s						
PMRV	**Marv??o**	**97.31**	**337**	*e*P	Pdif	02 57 41.1	+0.6
PMRV				*i* IAmb	IAmb	02 57 58.6	
	comp=Z,35nm,1.6s						
PMRV				*e*S	S	03 08 29.4	-32
PMRV				*e*LQ	LQ	03 26 38.2	
PMRV				*e*LR	LR	03 30 38.0	
PMRV				*i* IAMs_20	IAMs_20	03 44 54.1	
	comp=Z,10µm,22.0s						
W59A	**Clinton**	**97.41**	**33**	IAMs_20	IAMs_20	03 41 05.2	
	comp=Z,3µm,21.0s						
154A	**Montrose**	**97.47**	**37**	IAMs_20	IAMs_20	03 39 32.2	
	comp=Z,3µm,22.0s						
V61A	**Roper**	**97.63**	**31**	IAMs_20	IAMs_20	03 47 16.2	
	comp=Z,2µm,20.0s						
PSBE	**So Bento**	**97.66**	**338**	*e*P	Pdif	02 57 44.4	+2.4
PSBE				*i* IAmb	IAmb	02 58 05.8	
	comp=Z,42nm,1.8s						
451A	**Vernon**	**97.82**	**40**	IAMs_20	IAMs_20	03 49 05.4	
	comp=Z,2µm,20.0s						
PESTR	**Estremoz**	**97.89**	**337**	*e*P	Pdif	02 57 43.5	+0.5
PESTR				*i* IAmb	IAmb	02 58 09.6	
	comp=Z,19nm,1.7s						
PMTG	**Montargil**	**97.90**	**337**	*e*P	**P**	**02 57 41.7**	**-1.3**
PMTG				*i* IAmb	IAmb	02 58 01.1	
	comp=Z,29nm,1.5s						
PARRA	**Arraiolos**	**98.08**	**337**	*e*P	Pdif	02 57 44.2	+0.3
PARRA				*i* IAmb	IAmb	02 58 09.7	
	comp=Z,22nm,1.1s						
TIGA	**Tifton**	**98.21**	**38**	IAMs_20	IAMs_20	03 41 14.7	
	comp=Z,3µm,20.0s						
PMAFR	**Mafra**	**98.32**	**338**	*e*Pdif	Pdif	02 57 45.5	+0.6
EVO	**Evora**	**98.33**	**337**	P	**P**	**02 57 41.2**	**-3.7**
EVO	**Evora**	**98.33**	**337**	*e*Pdif	**P**	**02 57 43.7**	**-1.3**
PBAR	**Barrancos**	**98.35**	**336**	*e*Pdif	Pdif	02 57 45.2	+0.2
Y60A	**Bolivia**	**98.50**	**33**	IAMs_20	IAMs_20	03 41 48.1	
	comp=Z,3µm,21.0s						
LIS	**Lisbon**	**98.50**	**338**	*e*Pdif	**P**	**02 57 45.2**	**-0.5**
LIS				*e*PP	**PP**	**03 01 46.1**	**+0.8**
LIS				IAMs_20	IAMs_20	03 45 53.4	
	comp=Z,10µm,22.3s						
LIS	**Lisbon**	**98.50**	**338**	*e*Pdif	Pdif	02 57 47.6	+1.9
LIS	**Lisbon**	**98.50**	**338**	*e*P	**P**	**02 57 45.2**	**-0.5**
LIS				*e*		03 01 46.1	
PBEJ	**Beja**	**98.75**	**336**	*e*Pdif	Pdif	02 57 47.5	+0.6
EMAL	**Malaga-Limoner**	**98.76**	**333**	P	**P**	**02 57 43.9**	**-2.9**
553A	**Crawfordville**	**98.82**	**40**	IAMs_20	IAMs_20	03 49 57.7	
	comp=Z,2µm,19.0s						
PLOUS	**Minas do Lousa**	**98.91**	**337**	*e*Pdif	Pdif	02 57 49.1	+1.6
257A	**Skidaway Islan**	**98.97**	**36**	IAMs_20	IAMs_20	03 50 51.9	
	comp=Z,3µm,19.0s						
MESJ	**Messejana**	**99.03**	**337**	*e*Pdif	**Pdif**	**02 57 47.6**	**-0.5**
MESJ				*e*PP	**PP**	**03 01 50.1**	**+0.7**
MESJ				*e*SS	SS	03 16 06.2	+4.0
MESJ				IAMs_20	IAMs_20	03 44 03.1	
	comp=Z,15µm,31.6s						
MESJ	**Messejana**	**99.03**	**337**	*e*Pdif	**Pdif**	**02 57 48.8**	**+0.8**
MESJ	**Messejana**	**99.03**	**337**	*e*P	**Pdif**	**02 57 47.6**	**-0.5**
MESJ				*e*		03 01 50.1	
MESJ				*e*SS	SS	03 16 06.2	+4.1
MESJ	**Messejana**	**99.03**	**337**	IAmb	IAmb	02 58 29.9	
	comp=Z,34nm,1.5s						
PCVE	**Castro Verde**	**99.16**	**336**	*e*Pdif	**Pdif**	**02 57 49.3**	**+0.6**
PVAQ	**Vaqueiros**	**99.27**	**336**	*e*Pdif	**Pdif**	**02 57 49.4**	**+0.2**
PVAQ				*e*LQ	LQ	03 28 11.6	
PVAQ				*e*LR	LR	03 31 13.0	
PVAQ				*i* IAMs_20	IAMs_20	03 47 10.3	
	comp=Z,17µm,22.0s						
PTEO	**Sao Teotonio**	**99.45**	**337**	*e*Pdif	**Pdif**	**02 57 52.2**	**+2.3**
PBDV	**Barranco-do-Ve**	**99.49**	**336**	*e*Pdif	**Pdif**	**02 57 51.7**	**+1.5**
456A	**Hilliard**	**99.55**	**37**	IAMs_20	IAMs_20	03 50 48.2	
	comp=Z,2µm,20.0s						
MORF	**Marmelete**	**99.65**	**337**	*e*Pdif	**Pdif**	**02 57 50.4**	**-0.5**
MORF				*e*PP	**PP**	**03 01 54.9**	**+0.8**
MORF				IAMs_20	IAMs_20	03 44 15.9	
	comp=N,16µm,41.6s						
MORF	**Marmelete**	**99.65**	**337**	*e*Pdif	**Pdif**	**02 57 52.6**	**+1.7**
MORF	**Marmelete**	**99.65**	**337**	*e*P	**Pdif**	**02 57 50.4**	**-0.5**
MORF				*e*		03 01 54.9	
PFVI	**Vila Bisbo**	**99.87**	**337**	*e*Pdif	**Pdif**	**02 57 53.3**	**+1.5**
656A	**Willston**	**100.43**	**39**	IAMs_20	IAMs_20	03 46 53.5	
	comp=Z,2µm,21.0s						
LODK	**Lodwar**	**100.85**	**283**	IAMs_20	IAMs_20	03 49 32.0	
	comp=Z,3µm,21.0s						
DWPF	**Disney Wildern**	**102.01**	**38**	IAMs_20	IAMs_20	03 46 16.4	
	comp=Z,2µm,21.0s						
KIBK	**Kibwezi**	**102.44**	**277**	PP	**PP**	**03 02 16.7**	**0.0**
KIBK	**Kibwezi**	**102.44**	**277**	P	**Pdif**	**02 58 04.1**	**+0.4**
	comp=Z,15nm,1.4s						
060A	**Indiantown**	**103.42**	**38**	IAMs_20	IAMs_20	03 47 26.9	
	comp=Z,2µm,20.0s						
TEIG	**Tepich**	**104.69**	**48**	IAMs_20	IAMs_20	03 44 49.9	
	comp=Z,2µm,21.0s						
BBSR	**BB Station**	**104.95**	**23**	IAMs_20	IAMs_20	03 48 11.7	
	comp=Z,2µm,21.0s						
ABPO	**Ambohimpanom**	**105.38**	**258**	IAMs_20	IAMs_20	03 46 08.2	
	comp=Z,2µm,21.0s						
PMPST	**Porto Santo, M**	**105.77**	**341**	*e*Pdif	**Pdif**	**02 58 20.6**	**+2.4**
PMOZ	**Porto Moniz, M**	**106.22**	**342**	*e*LQ	LQ	03 30 39.9	
PMOZ				*e*LR	LR	03 34 34.0	
PMOZ				*i* IAMs_20	IAMs_20	03 50 10.1	
	comp=Z,3µm,20.0s						

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PMAR  Madeira          106.25 342  ePdif    Pdif     02 58 25.2 +4.6
VOI   Vohitsoka        107.39 256  IAMs_20  IAMs_20  03 45 32.5
      comp=Z,3µm,22.0s
FOMA  Nahampoana Res   109.00 253  IAMs_20  IAMs_20  03 49 25.2
      comp=Z,2µm,20.0s
TGUH  Tegucigalpa,Un   110.07  52  IAMs_20  IAMs_20  03 46 34.7
      comp=Z,2µm,21.0s
GTBY  Guantanamo Bay   111.98  38  IAMs_20  IAMs_20  03 51 53.4
      comp=Z,2µm,22.0s
MTDJ  Mount Denham     112.21  41  IAMs_20  IAMs_20  03 54 33.6
      comp=Z,2µm,22.0s
GRTK  Grand Turk       112.42  34  IAMs_20  IAMs_20  03 51 44.8
      comp=Z,3µm,22.0s
SDDR  Presa de Saban   114.57  35  IAMs_20  IAMs_20  03 54 26.9
      comp=Z,3µm,22.0s
TORD  Torodi Ar. Bea   116.49 316  PKP      PKPdf    03 02 49.6 -1.9
      comp=Z,4.9nm,0.8s,baz=22,slow=1.8,SNR=15
TORD                               PP       PP       03 04 01.4 +3.7
      comp=Z,9.2nm,0.9s,baz=37,slow=4.1,SNR=5.3
TORD                               PKKPbc   PKKPbc   03 13 19.4 +1.3
      comp=Z,0.6nm,0.7s,baz=167,slow=1.1,SNR=3.8
VNDA  Vanda            116.65 175  PKP      PKPdf    03 02 48.9 -1.0
      comp=Z,3.2nm,0.7s,baz=314,slow=3.7,SNR=12
VNDA                               PKKPbc   PKKPbc   03 13 21.6 +2.8
      comp=Z,1.6nm,0.8s,baz=173,slow=5.0,SNR=5.6
SBA   Scott Base       117.32 174  PKIKP    PKiKP    03 02 51.6 +0.4
SBA   Scott Base       117.32 174           PKiKP    03 02 51.6 +0.4
SJG   San Juan         117.52  31  IAMs_20  IAMs_20  03 53 04.8
      comp=Z,3µm,22.0s
LSZ   Lusaka           118.00 273  PKIKP    PKPdf    03 02 53.9 -0.5
LSZ                                MLR      MLR
      comp=Z,3µm,21.0s
LSZ   Lusaka           118.00 273           PKPdf    03 02 53.9 -0.5
SMRT  St. Maarten      118.74  28  IAMs_20  IAMs_20  03 58 15.1
      comp=Z,2µm,21.0s
SABA  Saba             119.08  28  IAMs_20  IAMs_20  03 54 47.9
      comp=Z,2µm,20.0s
SEUS  St. Eustatius    119.29  28  IAMs_20  IAMs_20  03 54 53.5
      comp=Z,2µm,22.0s
ANWB  Willy Bob        119.55  26  IAMs_20  IAMs_20  03 53 50.5
      comp=Z,2µm,21.0s
ABD   La Joyeuse, An   120.76  27  IAMs_20  IAMs_20  03 55 53.5
      comp=Z,2µm,20.0s
GDHS  Morne Mazeau,    120.85  27  IAMs_20  IAMs_20  03 57 14.5
      comp=Z,2µm,21.0s
GDSD  La Dsirade Is    121.06  26  IAMs_20  IAMs_20  03 56 52.4
      comp=Z,2µm,22.0s
CBE   Ff, Capester     121.09  27  IAMs_20  IAMs_20  03 57 22.4
      comp=Z,2µm,21.0s
MAGL  Barre de l'ile   121.32  27  IAMs_20  IAMs_20  04 01 05.3
      comp=Z,2µm,20.0s
MAW   Mawson           121.34 206  PKP      PKPdf    03 02 58.2 -0.8
      comp=Z,5.9nm,0.6s,baz=93,slow=0.5,SNR=19
MAW                                PP       PP       03 04 33.0 +1.8
      comp=Z,3.9nm,0.8s,baz=72,slow=11,SNR=3.7
MAW   Mawson           121.34 206  PKIKP    PKPdf    03 02 58.8 -0.3
MAW   Mawson           121.34 206           PKPdf    03 02 58.8 -0.3
SVN   Savane Anatole   122.38  27  IAMs_20  IAMs_20  04 02 08.6
      comp=Z,2µm,22.0s
FDFM  Morne la Roset   122.49  27  IAMs_20  IAMs_20  03 55 45.2
      comp=Z,2µm,22.0s
BIM   Bigot            122.72  27  IAMs_20  IAMs_20  03 56 01.4
      comp=Z,2µm,22.0s
MPOM  Morne Pois Mar   122.86  27  IAMs_20  IAMs_20  03 56 05.1
      comp=Z,2µm,22.0s
SDV   Santo Domingo    123.63  40  IAMs_20  IAMs_20  04 02 58.4
      comp=Z,2µm,21.0s
BARC  Barichara        124.24  44  P        PKiKP    03 03 12.5 +5.5
      comp=Z,31nm,1.0s
GRGR  Grenville        124.70  29  IAMs_20  IAMs_20  03 57 38.1
      comp=Z,2µm,22.0s
ROSC  El Rosal         125.05  46  PKP      PKiKP    03 03 08.6 -0.2
      comp=Z,21nm,0.7s,baz=77,slow=10,SNR=11
ORTC  Ortega, Tolima   125.28  48  P        PKPdf    03 03 05.2 -3.2
      comp=Z,27nm,0.9s
DBIC  Dimbokro         125.39 318  PKP      PKPdf    03 03 07.8 -0.7
      comp=Z,20nm,0.7s,baz=25,slow=2.5,SNR=14
DBIC                               PP       PP       03 04 57.1 -1.3
      comp=Z,27nm,1.1s,baz=49,slow=7.1,SNR=6.3
PRAC  Prado            125.64  48  P        PKPdf    03 03 06.9 -2.3
      comp=Z,30nm,1.1s
OTAV  Otavalo          126.24  54  PKIKP    PKiKP    03 03 11.7 +0.5
OTAV  Otavalo          126.24  54  eP       PKPdf    03 03 06.1 -4.7
GARC  Garzon, Huila    126.52  49  P        PKPdf    03 03 10.4 -0.7
      comp=Z,923nmcomp=Z,32nm,0.7s
BOSA  Boshof           127.43 261  PKP      PKPdf    03 03 11.8 -0.3
      comp=Z,22nm,0.8s,baz=79,slow=1.6,SNR=17
QSPA  South Pole Qui   128.51 180  PKP      PKPdf    03 03 11.4 -1.6
      comp=Z,18nm,0.7s,baz=176,slow=0.3,SNR=31
QSPA  South Pole Qui   128.51 180  IAMs_20  IAMs_20  03 55 13.8
      comp=Z,1µm,20.0s
SYO   Syowa Base       130.01 207⇑eP       PKPdf    03 03 12.8 -2.8
BOAV  Boa Vista        134.02  32           PKiKP    03 03 26.0 -0.3
BOAV  Boa Vista        134.02  32  eP       PKPdf    03 03 21.9 -3.1
ELIB  Princess Elisa   135.23 203  dPKPdf   PKPdf    03 03 25.2 -0.4
MACA  Manacapuru-AM    138.91  36  eP       PKPdf    03 03 30.9 -3.2
NVL   N'lazarevskaya   139.11 203  ePKHKP   PKPpre   03 03 24.0
NVL                                pmax     pmax
      comp=Z,6.0nm,0.9s
TROLL Troll, Antarti   141.06 199  PKPdf    PKPdf    03 03 28.9 -7.4
      comp=Z,2µm,0.7s
SNAA  Sanae            142.57 197  PKPdf    PKPdf    03 03 33.0 -5.9
      comp=Z,561nm,0.7s
SNAA  Sanae            142.57 197  PKhKP    PKPpre   03 03 33.0
      comp=Z,37nm,1.0s,baz=136,slow=3.4,SNR=29
SNAA                               PP       PP       03 06 48.0 +0.6
      comp=Z,7.5nm,1.0s,baz=105,slow=8.4,SNR=3.3
SNAA  Sanae            142.57 197  IAMs_20  IAMs_20  04 07 25.7
      comp=Z,1µm,19.0s
VNA2  Neumayer--Watz   144.14 197 ⇑PKPdf    PKPab    03 03 38.1 -1.3
      comp=Z,124nm,0.7s,baz=124,slow=2.3
VNA3  Neumayer Olymp   144.39 195 ⇑PKPdf    PKPab    03 03 38.5 -1.8
      comp=Z,79nm,0.7s
VNA1  Neumayer--Stat   144.54 196 ⇑PKPdf    PKPbc    03 03 41.0 -0.1
      comp=Z,138nm,0.9s
NBMO  Morrinhos-CE     144.65   4  eP       PKPab    03 03 41.3 -1.6
LPAZ  La Paz           145.31  58  PKPbc    PKPbc    03 03 45.5 -0.4
      comp=Z,32nm,0.6s,baz=324,slow=2.7,SNR=55
LPAZ  La Paz           145.31  58  P        PKPpre   03 03 25.1
      comp=Z,8µmcomp=Z,1µmcomp=Z,66nm,1.1s
LPAZ  La Paz           145.31  58  eP       PKPbc    03 03 42.0 -3.9
NBPS  Pedro II - PI    145.63   6  eP       PKPdf    03 03 42.8 -3.3
SMAI  San Martin Ant   146.49 161           PKPdf    03 03 46.0 +0.3
H03N2 Juan Fernandez   146.60  94  T        T        05 48 22.6
      baz=323,slow=74,SNR=125
H03N1 Juan Fernandez   146.62  94  T        T        05 48 26.2
      baz=299,slow=74,SNR=146
PB08  IPOC Station P   147.26  64  PKP      PKPdf    03 03 49.2 +0.3
VILB  Vilhena          147.55  44  eP       PKPdf    03 03 45.7 -3.4
NBPV  Pedro Velho      147.71 355  eP       PKPdf    03 03 46.5 -3.0
CLDB  Colider          147.94  35  eP       PKPdf    03 03 46.5 -3.3
PB09  IPOC Station P   148.27  67           PKPdf    03 03 51.8 +1.4
NBMA  Muriti-CE        148.72   2  eP       PKPdf    03 03 48.0 -3.2
SMTB  Santa Maria do   148.97  19  eP       PKPdf    03 03 48.2 -3.4
PB14  IPOC Station P   149.12  72  PKP      PKPbc    03 03 55.6 -0.4
PMSA  Palmer Station   149.78 158           PKPbc    03 03 56.0 +0.1
PMSA  Palmer Station   149.78 158  eP       PKPdf    03 03 49.2 -2.0
PTLB  Pontes e Lacer   150.18  45  eP       PKPdf    03 03 49.9 -3.4
NBTA  Tacaratu-PE      150.48   0  eP       PKPdf    03 03 51.4 -2.6
SNDB  Serra Nova Dou   150.76  28  eP       PKPdf    03 03 51.7 -2.6
LCO   Las Campanas     151.19  80  PKIKP    PKPbc    03 03 59.9 -1.0
LCO   Las Campanas     151.19  80           PKPbc    03 03 59.9 -1.0
SALV  Santo Antonio    152.36  39  eP       PKPdf    03 03 54.3 -2.4
PEL   Peldehue         152.94  88  PKIKP    PKPbc    03 04 01.0 -3.4
SDBA  SAO DESIDERIO    153.01  15  eP       PKPdf    03 03 53.7 -4.1
MT16  CCHEN            153.17  89           PKPdf    03 03 57.5  0.0
ARAG  Araguaiana, MT   153.96  32  eP       PKPdf    03 03 54.6 -4.4
PP1B  Ponte de Pedra   154.21  40  eP       PKPdf    03 03 55.0 -4.3
COIM  Forte Coimbra    154.51  48  eP       PKPdf    03 03 59.9 +0.2
PLCA  Paso Flores      154.87 105  PKP      PKPdf    03 03 59.8 +0.1
      comp=Z,7.2nm,0.8s,baz=236,slow=3.7,SNR=9.8
PLCA                               PKPbc    PKiKP    03 04 08.9 +0.6
      comp=Z,12nm,0.9s,baz=232,slow=4.6,SNR=11
PLCA                               PKPab    pPKPbc   03 04 22.2 +1.6
      comp=Z,14nm,1.0s,baz=204,slow=0.4,SNR=4.4
PLCA  Paso Flores      154.87 105  eP       PKPdf    03 03 56.7 -3.0
BDFB  Brasilia         155.29  24  PKP      PKPdf    03 04 01.6 +0.7
      comp=Z,4.3nm,0.9s,baz=352,slow=6.5,SNR=4.8
BDFB  Brasilia         155.29  24           PKPdf    03 04 00.8 -0.2
BDQN  Bodoquena, MS    155.53  47  eP       PKPdf    03 03 59.8 -1.3
JANB  Januaria         155.71  15  eP       PKPdf    03 04 00.5 -1.0
MURT  Porto Murtinho   155.96  50  eP       PKPdf    03 03 57.8 -3.8
AQDB  Aquidauana       156.15  45  eP       PKPdf    03 03 58.0 -3.8
C2SB  Chapadao do Su   156.20  37  eP       PKPdf    03 03 58.0 -3.9
NBIT  Itapeh - BA      156.21   4  eP       PKPdf    03 03 59.4 -2.7
CMC01 Camacan, BA      156.64   4  eP       PKPdf    03 03 59.0 -3.6
MC01  Montes Claros    157.39  15  eP       PKPdf    03 04 02.3 -1.4
IPMB  Ipameri, GO      157.41  26  eP       PKPdf    03 03 59.8 -3.9
GUA01 Guaratinga, BA   157.83   5  eP       PKPdf    03 04 01.8 -2.3
SJPY  San Joaquin      159.36  54  eP       PKPdf    03 04 03.8 -2.0
CPUP  Villa Florida    159.49  59  PKP      PKPdf    03 04 06.4 +0.6
      comp=Z,3.6nm,0.9s,baz=328,slow=3.1,SNR=7.3
CPUP                               PKPab    PKPab    03 04 43.8 -0.1
      comp=Z,3.7nm,0.6s,baz=341,slow=6.8,SNR=6.3
CPUP  Villa Florida    159.49  59  eP       PKPdf    03 04 03.5 -2.3
TRCB  Terra Rica       159.69  43  eP       PKPdf    03 04 02.6 -3.6
SJMB  Sao Joao De Ma   159.80   9  eP       PKPdf    03 04 05.6 -0.8
BSFB  Barra de Sao F   159.97   8  eP       PKPdf    03 04 03.2 -3.3
BB19B Bebedouro        160.11  31  eP       PKPdf    03 04 03.3 -3.5
CANS  Sao Roque de M   160.17  24  eP       PKPdf    03 04 03.2 -3.7
RIB01 Linhares ES      160.49   7  eP       PKPdf    03 04 05.6 -1.6
LDASE Londrina, Braz   160.96  40  eP       PKPdf    03 04 05.6 -2.0
BSCB  Bom Sucesso      161.32  21  eP       PKPdf    03 04 05.8 -2.3
FRTB  Fartura          161.68  36  eP       PKPdf    03 04 05.0 -3.3
LPA   La Plata         163.49  83ce PKIKP   PKPdf    03 04 02.8 -6.9
CPSB  Cacapava Do Su   164.72  62  eP       PKPdf    03 04 07.8 -3.2
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DJA 12 02:49:52.4±0.3**, 8°S**±2°×**10°.7E**±°**, h10^{km}, M4.6**/35**, mB5.5**/1**, mb4.9**/4**, MLv4.4**/35**, Mw(mB)5.0**/1**, South of Jawa**

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Code  Station Name      Δ°   AZ°   Phase ID          Time      Res
                                   Op     ISC      h  m  s    ISC
CNJI  Cibinong          0.90  17   P      Pg       02 50 09.4 -0.3
CNJI                               S      Sb       02 50 21.8 -0.3
CNJI                               AML    AML
BBJI  Bungbulang        1.05  48   P      Pg       02 50 10.6 -2.1
SKJI  Sukabumi          1.20 345   P      Pb       02 50 14.2 -1.0
SKJI                               AML    AML
CMJI  Cimerak           1.62  76   P      Pn       02 50 18.8 -2.2
CGJI  Cibinong          1.93 323   P      Pn       02 50 25.8 +0.5
CGJI                               AML    AML
SBJI  Serang            2.16 340   P      Pn       02 50 29.6 +1.1
SBJI                               AML    AML
KPJI  Karang Pucung     2.21  68   P      Pn       02 50 29.4 +0.2
KPJI                               AML    AML
CTJI  Waduk Cacaban     2.58  64   P      Pn       02 50 34.5 +0.3
KASI  Kota Agung        3.52 318   P      Pn       02 50 46.7 -0.5
KASI                               AML    AML
UGM   Wanagama          3.64  86   P      Pn       02 50 49.2 +0.4
UGM                                AML    AML
PCJI  Pacitan           4.27  91   P      Pn       02 50 56.7 -0.9
MDSI  Maura Dua         4.53 324   P      Pn       02 51 00.7 -0.4
MDSI                               AML    AML
SNJI  Sawahan-Nganju    4.87  86   P      Pn       02 51 06.1 +0.2
MNAI  Manna             5.42 314   P      Pn       02 51 12.6 -0.8
      278nm,2.2s
KCSI  Kotacane, Aceh   14.73 322   P      P        02 53 26.8 -0.4
      122nm,1.0s
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*MOS **12** 02:50:41.3±1.1, 38°.76N×142°.34E, h37^{km}, mb5.3/25, Error ellipse: s-maj=15.4km s-min=7.8km az=80.7*

*JMA **12** 02:50:42.1±0.1, 38°.7N±0°.2×142°.3E±0°.2, h42^{km}, MD4.9/35, MV5.1/35, E OFF MIYAGI PREF*

JMA Felt III J1 at E OFF MIYAGI PREF .

*NIED **12** 02:50:42.1, 38°.70N×142°.26E, h42^{km}, MW4.9, Moment Tensor Solution. s3 Moment tensor: Scale 10^{16}Nm; M_{rr}1.16; $M_{\theta\theta}$-0.21; $M_{\phi\phi}$-0.95; $M_{r\theta}$1.33; $M_{\theta\phi}$-0.72; $M_{\phi r}$2.02; Fault plane solution: $M_0$2.73000×10^{16} NP1: ϕ_s209.00000°, δ14.00000°, λ85.00000°. NP2: ϕ_s33.00000°, δ76.00000°, λ91.00000°.*

*IDC **12** 02:50:43.6±1.8, 38°.66N×142°.16E, h43^{km}±16^{km}, mb4.4/25, mbtmp4.7/32, ML4.6/7 Error ellipse: s-maj=15.0km s-min=11.9km az=113.0*

*NEIC **12** 02:50:43.4±2.2, 38°.68N±0°.06×142°.3E±0°.1, h39^{km}±6^{km}, mb5.0/35, Error ellipse: s-maj=12.6km s-min=9.0km az=104.0*

*BJI **12** 02:50:43.3, 38°.47N×142°.30E, h71^{km}, mb5.0/26*

ISC 12 02:50:43.0±0.6**, 38°.64N**±0°.05×**142°.37E**±0°.05**, h41**^{km}±4^{km}**, h41**^{km}**:pP-P, n226,** $\sigma 1^{s}64$/225**, mb5.0**/76**, 6C-8D, Near east coast of eastern Honshu**

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Code  Station Name      Δ°   AZ°   Phase ID          Time      Res
                                   Op     ISC      h  m  s    ISC
OFUJ  Ofunato           0.71 309   P      Pn       02 50 54.3 -2.2
OFUJ                               A      A        02 50 54.3
      comp=N,67nm,2.0s,comp=E,68nm,1.0s
OFUJ                              eS      Sn       02 51 02.9 -3.4
JKMT  Kesennumamotoy    0.73 284⇓iP      Pn       02 50 54.6 -2.1
JKMT                               A      A        02 50 54.6
      comp=N,52nm,0.6s,comp=E,80nm,0.9s
JKMT                              ⇓S      Sn       02 51 03.3 -3.4
JIKH  Ishinomakikobu    0.78 246   A      A        02 50 56.1
      comp=N,176nm,0.3s,comp=E,202nm,0.3s
JIO   Ouri              0.82 258   P      Pn       02 50 56.2 -1.9
JIO                                A      A        02 50 56.2
      comp=N,97nm,2.2s,comp=E,30nm,1.3s
JIO                                S      Sn       02 51 06.0 -3.1
JMK   Ichinoseki        0.96 290  ⇓P      Pn       02 50 58.0 -1.9
JMK                                A      A        02 50 58.0
      comp=N,71nm,0.3s,comp=E,29nm,0.6s
JMK                               ⇓S      Sn       02 51 09.1 -3.2
MIYJ  Miyakonagasawa    1.03 336   A      A        02 50 59.1
      comp=N,31nm,1.5s,comp=E,40nm,0.6s
JOFO  Osakifurukawao    1.15 269   A      A        02 51 00.8
      comp=N,236nm,1.4s,comp=E,254nm,3.5s
JOM   Ohasama           1.19 315⇓iP      Pn       02 51 01.5 -1.6
JOM                                A      A        02 51 01.5
      comp=N,82nm,0.3s,comp=E,186nm,0.4s
JOM                               ⇓S      Sn       02 51 15.8 -2.3
JTH   Tanohata          1.36 343  i P     Pn       02 51 03.9 -1.6
JTH                                A      A        02 51 03.9
      comp=N,22nm,1.2s,comp=E,24nm,3.4s
JOU   Okura             1.37 259   A      A        02 51 04.3
      comp=N,85nm,1.6s,comp=E,67nm,2.3s
JMM   Marumori          1.46 239   A      A        02 51 06.1
      comp=N,27nm,4.0s,comp=E,27nm,3.3s
JMST  Minamisoumatoc    1.48 233   A      A        02 51 06.5
      comp=N,23nm,3.1s,comp=E,27nm,2.8s
JRG   Rokugo            1.55 300   A      A        02 51 06.5
      comp=N,42nm,2.0s,comp=E,47nm,3.6s
JSZI  Iwateshizukuis    1.56 315   A      A        02 51 06.6
      comp=N,69nm,3.9s,comp=E,68nm,5.3s
JKZ   Kuzumaki          1.57 329   A      A        02 51 07.0
      comp=N,29nm,3.5s,comp=E,29nm,0.7s
JKEN  Kujiedanarisaw    1.65 342   A      A        02 51 08.2
      comp=N,45nm,0.3s,comp=E,45nm,0.8s
JYS   Shirataka         1.86 258   A      A        02 51 11.4
      comp=N,48nm,2.5s,comp=E,42nm,2.0s
JYAR  Yonezawaarcadi    1.90 248   A      A        02 51 12.2
      comp=N,53nm,1.4s,comp=E,51nm,1.1s
JOTO  OTAMA OYAMA       1.94 237   A      A        02 51 13.0
      comp=N,49nm,2.6s,comp=E,31nm,1.3s
JYA   Atsumi            2.08 270   A      A        02 51 14.4
      comp=N,28nm,3.5s,comp=E,30nm,0.9s
JTM   Tenmabayashi      2.37 335   P      Pn       02 51 20.6 +1.2
JTM   Tenmabayashi      2.37 335          Pn       02 51 19.2 -0.1
JAHD  Aomorihigashid    2.74 343   A      A        02 51 23.9
      comp=N,27nm,0.7s,comp=E,27nm,0.8s
ERM   Erimo             3.43  10   P      Pn       02 51 34.4 +0.6
ERM   Erimo             3.43  10   S      Sn       02 52 14.4 +1.2
ERM   Erimo             3.43  10ceP      Pn       02 51 33.3 -0.5
ERM                                pmax   pmax
      comp=Z,501nm,2.5s
ERM   Erimo             3.43  10   Pn     Pn       02 51 33.7 -0.1
JEM   Erimo             3.43  10   P      Pn       02 51 34.6 +0.8
JEM   Erimo             3.43  10   S      Sn       02 52 14.5 +1.3
MJAR  Matsushiro Arr    3.91 239   P      Pn       02 51 40.9 +0.3
      comp=Z,5.3nm,0.3s,baz=52,slow=9.8,SNR=40
MJAR                               S      Sn       02 52 21.7 -3.6
      comp=Z,43nm,0.5s,baz=273,slow=9.7,SNR=4.5
      comp=Z,77nm,0.5s
MJAR                               AML    AML
MAJO  Matsushiro        3.91 239   P      Pn       02 51 42.1 +1.5
MAJO  Matsushiro        3.91 239   P      Pn       02 51 42.6 +2.0
MAJO  Matsushiro        3.91 239   Pn     Pn       02 51 42.5 +2.0
MJB9  Matsu-Tunnel      3.91 239   Pn     Pn       02 51 42.4 +1.9
JGF   Kuroka            5.03 234   P      Pn       02 51 58.5 +2.7
JSG   Sagara            5.19 222   P      Pn       02 51 59.8 +1.7
NMR   Nemuro--Hokkai    5.37  27  eP      Pn       02 51 58.1 -2.3
NMR                               eS      Sn       02 52 54.4 -6.5
ASAJ  Asahikawa         5.48   2   P      Pn       02 52 01.9  0.0
      comp=Z,19nm,0.3s,baz=187,slow=12,SNR=10
      comp=Z,52nm,0.4s
ASAJ                               AML    AML
ASAJ  Asahikawa         5.48   2   P      Pn       02 52 02.0  0.0
JKA   Kamikawa-asahi    5.48   2   Pn     Pn       02 52 01.8 -0.1
RUSJ  Misakicho         5.88  21  eP      Pn       02 52 06.5 -0.9
RUSJ                              eS      Sn       02 53 09.3 -4.1
JHJ2  Mitsune           5.89 201   P      Pn       02 52 07.5 -0.1
JHJ2  Mitsune           5.89 201   Pn     Pn       02 52 07.6 -0.1
JHJ   Hachijo jima 2    5.89 202   P      Pn       02 52 07.2 -0.5
      comp=Z,67nm,0.3s,baz=269,slow=20,SNR=9.1
JHJ                                S      Sn       02 53 10.4 -3.5
      comp=Z,228nm,0.3s,baz=211,slow=22,SNR=6.0
      comp=Z,111nm,0.3s
JHJ                                AML    AML
YUK   Yuzh-Kuril'sk     6.00  25c iP      Pn       02 52 07.2 -1.9
YUK                               eS      Sn       02 53 10.7 -5.7
YUK                                pmax   pmax
      comp=E,146nm,0.3s
YUK                                pmax   pmax
      comp=Z,429nm,0.3s
YUK                                pmax   pmax
      comp=N,82nm,0.2s
YUK                                smax   smax
      comp=N,2µm,0.5s
YUK                                smax   smax
      comp=E,629nm,0.5s
TEY   Ternei            7.71 328  eP      Pn       02 52 31.4 -1.2
KUR   Kuril'sk          7.76  30   P      Pn       02 52 32.9 -0.3
KUR                               eS      Sn       02 53 54.1 -5.6
KUR                                smax   smax
      comp=E,289nm,0.5s
KUR                                smax   smax
      comp=N,206nm,0.3s
YSS   Yuzhno-Sakhali    8.32   2   P      Pn       02 52 32.7 -8.2
YSS   Yuzhno-Sakhali    8.32   2  eP      Pn       02 52 41.5 +0.6
YSS                               eS      Sn       02 54 12.6 -0.9
YSS                                pmax   pmax
      comp=Z,90nm,1.2s
YSS                                smax   smax
      comp=N,100nm,1.2s
JMN   Monobe            8.43 237   P      Pn       02 52 44.0 +1.4
JMN   Monobe            8.43 237   Pn     Pn       02 52 44.2 +1.6
USRK  Ussuriysk Ar.     9.57 309   P      Pn       02 52 57.4 -0.8
      comp=N,7.5nm,0.3s,baz=121,slow=13,SNR=26
      comp=N,43nm,0.8s
USRK                               AML    AML
MDJ   Mudanjiang       11.27 306   P      Pn       02 53 24.8 +3.4
MDJ                                pmax   pmax
      comp=N,62nm,1.5s
KSRS  Korea Array      11.46 269   P      Pn       02 53 23.9 -0.1
      comp=N,1.3nm,0.3s,baz=80,slow=14,SNR=15
      comp=N,26nm,0.9s
KSRS                               AML    AML
KLR   Kul'dur          13.05 328   P      Pn       02 53 46.1 +0.5
      comp=N,2.1nm,0.3s,baz=163,slow=11,SNR=7.5
      comp=N,6.7nm,0.8s
KLR                                AML    AML
HILR  Hailar Array B   19.50 311   P      P        02 55 04.0 -2.4
      baz=114,slow=12
      comp=N,12nm,0.2s
TIA   Tai'an           20.18 271   P      P        02 55 14.1 +0.1
TIA                                pmax   pmax
      comp=N,32nm,1.0s
NJ2   Nanjing          20.25 258  eP      P        02 55 15.6 +0.9
NJ2                                pmax   pmax
      comp=N,12nm,0.7s
XLT   XiLinHaoTe       20.41 293  eP      P        02 55 15.9 -0.6
XLT                                pP     pP       02 55 27.6 +1.0
XLT                                pmax   pmax
      comp=N,42nm,1.1s
MA2   Magadan          21.63  12   P      P        02 55 28.5 -0.8
      comp=N,15nm,0.5s,baz=203,slow=16,SNR=6.1
      comp=N,15nm,0.5s
MA2   Magadan          21.63  12ceP      P        02 55 29.6 +0.2
MA2                                pmax   pmax
      comp=Z,62nm,1.2s
MA2   Magadan          21.63  12   P      P        02 55 29.6 +0.2
MA2                                IAmb   IAmb     02 55 30.6
      comp=Z,70nm,1.2s
HHC   Hu-ho-hao-te     23.74 285  eP      P        02 55 50.5 -0.9
HHC                                pmax   pmax
      comp=Z,13nm,1.2s
YAK   Yakutsk          24.69 346  i P     P        02 55 58.9 -0.8
YAK                                pmax   pmax
      comp=Z,44nm,0.9s
BTO2  Baotou           25.02 285  eP      P        02 56 02.3 -0.8
BTO2                               pmax   pmax
      comp=Z,53nm,0.8s
SEY   Seymchan         25.07  11ceP      P        02 56 05.5 +2.3
SEY                                pmax   pmax
      comp=Z,38nm,1.0s
SONM  Songino Array    27.56 301   P      P        02 56 25.3 -0.7
      comp=Z,3.5nm,0.4s,baz=96,slow=9.3,SNR=9.0
      comp=Z,3.5nm,0.4s
SONM  Songino Array    27.56 301   IAmb   IAmb     02 56 49.1
      comp=Z,95nm,2.0s
H11N2 WAKE ISLAND Hy   28.37 125   T      T        03 26 48.8
      baz=316,slow=75,SNR=8.9
H11N1 WAKE ISLAND Hy   28.38 125   T      T        03 26 55.8
      baz=316,slow=75,SNR=8.0
H11N3 WAKE ISLAND Hy   28.39 125   T      T        03 26 52.6
      baz=316,slow=75,SNR=8.7
H11S1 WAKE ISLAND Hy   29.15 127   T      T        03 27 56.1
      baz=318,slow=76,SNR=9.8
H11S3 WAKE ISLAND Hy   29.15 127   T      T        03 27 59.3
      baz=318,slow=76,SNR=12
H11S2 WAKE ISLAND Hy   29.16 127   T      T        03 28 02.4
      baz=318,slow=76,SNR=12
LZH   Lanzhou          30.58 277  eP      P        02 56 50.7 -2.3
LZH                                pmax   pmax
      comp=Z,51nm,1.8s
BILL  Bilibino         32.28  17  i P     P        02 57 07.8 +0.5
BILL                               pmax   pmax
      comp=Z,13nm,1.0s
PZH   PanZhiHua        36.04 263   P      P        02 57 42.1 +1.5
DGZ   Jazzator, Alta   40.09 304  i P     P        02 58 14.5  0.0
DGZ                                pmax   pmax
      comp=Z,51nm,1.0s
WMQ   Urumqi           40.82 295  eP      P        02 58 23.1 +2.7
WMQ                                S      S        03 04 27.6 -1.0
WMQ                                pmax   pmax
      comp=Z,46nm,1.7s
ZALV  Zalesovo Beam    41.42 311   P      P        02 58 24.6 -0.5
      comp=Z,22nm,0.4s,baz=90,slow=8.6,SNR=36
      comp=Z,22nm,0.4s
ZSN   Zaisan           42.08 301  eP      P        02 58 29.0 -1.7
ZSN                                pmax   pmax
      comp=Z,86nm,1.9s
ZSN   Zaisan           42.08 301  eP      P        02 58 29.1 -1.7
      comp=Z,86nm,1.9s
NRIK  Noril'sk         42.14 334  i P     P        02 58 31.3 +0.5
NRIK                               pmax   pmax
      comp=Z,77nm,1.6s
CMAR  Chiang Mai Arr   42.65 254   P      P        02 58 36.1 +0.6
      comp=Z,1.0nm,0.4s,baz=56,slow=14,SNR=5.0
      comp=Z,1.0nm,0.4s
H18K  Honhosa River    42.89  32          P        02 58 38.0 +1.1
H18K                               IAmb   IAmb     02 58 56.9
      comp=Z,27nm,1.2s
MK31  Makanchi Array   43.93 301ceP      P        02 58 45.1 -0.6
MKAR  Makanchi Array   43.93 301   P      P        02 58 45.3 -0.3
      comp=Z,18nm,0.8s,baz=84,slow=9.5,SNR=22
      comp=Z,18nm,0.8s
D20K  Etivluk River    44.16  27          P        02 58 48.7 +1.5
D20K                               IAmb   IAmb     02 59 03.8
      comp=Z,34nm,1.0s
SEM   Semipalatinsk    44.59 306  eP      P        02 58 49.2 -1.9
SEM   Semipalatinsk    44.59 306  eP      P        02 58 49.3 -1.9
KURK  Kurchatov        45.56 307  i P     P        02 58 57.4 -1.1
KURK                               pmax   pmax
      comp=Z,53nm,0.9s
KURK  Kurchatov        45.56 307   P      P        02 58 57.8 -0.7
KURK  Kurchatov        45.56 307   IAmb   IAmb     02 58 58.9
      comp=Z,50nm,0.8s
KURK  Kurchatov        45.56 307   P      P        02 58 57.7 -0.7
KURK                               PcP    PcP      03 00 36.0 -0.5
KURBB Kurchatov Arra   45.63 307   P      P        02 58 57.8 -1.3
      comp=Z,41nm,0.6s,baz=80,slow=8.0,SNR=25
      comp=Z,41nm,0.6s
SHLS  Shalkode         46.78 297  eP      P        02 59 04.1 -4.3
SHLS  Shalkode         46.78 297  eP      P        02 59 04.1 -4.3
TDK   Taldyqorghan     46.99 299  eP      P        02 59 08.2 -1.7
TDK   Taldyqorghan     46.99 299  eP      P        02 59 08.2 -1.7
UZB   Uzynbulak        47.09 297  eP      P        02 59 08.9 -2.0
UZB   Uzynbulak        47.09 297  eP      P        02 59 08.9 -2.0
KPKS  Kokpek           47.24 297  eP      P        02 59 10.1 -1.8
KPKS  Kokpek           47.24 297  eP      P        02 59 10.1 -1.8
SATY  Saty             47.55 297  eP      P        02 59 12.5 -1.9
SATY  Saty             47.55 297  eP      P        02 59 12.5 -1.9
WUS   Wushi            47.55 294   PcP    PcP      03 00 43.8 -0.1
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IL31		47.74	33	P	P	02 59 15.9	+0.6
ILAR	Eielson Array	47.74	33	P	P	02 59 16.8	+1.4
	comp=Z,1.6nm,0.6s,baz=270,slow=6.2,SNR=9.6						
	comp=Z,1.6nm,0.6s						
ILAR	Eielson Array	47.74	33		P	02 59 15.9	+0.6
MDOK	Medeo	48.47	297	*e*P	P	02 59 19.6	-1.9
MDOK	Medeo	48.47	297	*e*P	P	02 59 19.6	-1.9
AAA	Alma-Ata	48.54	297	*e*P	P	02 59 20.1	-1.9
AAA				pmax	pmax		
	comp=Z,10.0nm,0.4s						
AAA	Alma-Ata	48.54	297	*e*P	P	02 59 20.2	-1.9
	comp=Z,9.7nm,0.4s						
TNSS	Tian-Shan	48.58	297	*e*P	P	02 59 20.2	-2.4
TNSS	Tian-Shan	48.58	297	*e*P	P	02 59 20.3	-2.4
F26K	Sheenjek River	48.72	29		P	02 59 25.3	+2.3
F26K				IAmb	IAmb	02 59 42.1	
	comp=Z,14nm,0.8s						
KUU	Kurty	48.73	298	*e*P	P	02 59 21.5	-1.8
KUU				pmax	pmax		
	comp=Z,19nm,1.7s						
KUU	Kurty	48.73	298	*e*P	P	02 59 21.6	-1.8
	comp=Z,19nm,1.7s						
SGDS	Sogindy	50.05	298	*e*P	P	02 59 31.5	-2.0
BVAR	Borovoye Array	50.07	311	P	P	02 59 31.6	-1.8
	comp=Z,12nm,0.5s,baz=71,slow=8.3,SNR=13						
	comp=Z,12nm,0.5s						
BORK	Borovoye	50.11	312	*i* P	P	02 59 33.2	-0.5
BORK				pmax	pmax		
	comp=Z,14nm,0.9s						
AAK	Ala-Archa	50.41	297	*i* P	P	02 59 36.3	-0.1
AAK				pmax	pmax		
	comp=Z,11nm,1.1s						
I30M	Mount Dempster	52.11	32		P	02 59 50.8	+2.0
I30M				IAmb	IAmb	03 00 07.2	
	comp=Z,11nm,0.7s						
DZA	Taraz	52.51	299	*e*P	P	02 59 50.1	-1.8
DZA				pmax	pmax		
	comp=Z,11nm,0.6s						
DZA	Taraz	52.51	299	*e*P	P	02 59 50.1	-1.8
	comp=Z,10nm,0.6s						
BRLS	Borolday	53.48	299	*e*P	P	02 59 58.6	-0.4
BRLS	Borolday	53.48	299	*e*P	P	02 59 58.6	-0.4
IUG	Iuzhnay	53.67	298	*e*P	P	02 59 58.6	-2.0
IUG				pmax	pmax		
	comp=Z,28nm,1.0s						
IUG	Iuzhnay	53.67	298	*e*P	P	02 59 58.6	-2.0
	comp=Z,28nm,1.0s						
CHM	Chimkent	53.90	299	*e*P	P	03 00 00.4	-1.7
	comp=Z,4.1nm,0.3s						
NIL	Nilore	54.85	288	P	P	03 00 09.1	0.0
NIL				pmax	pmax		
	comp=Z,112nm,1.5s						
NIL	Nilore	54.85	288		P	03 00 09.1	0.0
ARTI	Arti	55.78	318	P	P	03 00 14.7	-0.7
	comp=Z,19nm,0.4s,baz=71,slow=4.7,SNR=25						
	comp=Z,19nm,0.4s						
ARTI	Arti	55.78	318	*i* P	P	03 00 15.7	+0.3
ARTI				pmax	pmax		
	comp=Z,12nm,0.8s						
ARTI	Arti	55.78	318	P	P	03 00 14.7	-0.7
ARTI				pP	pP	03 00 26.9	-0.3
AKTO	Aktyubinsk	58.18	311	P	P	03 00 31.9	-0.6
	comp=Z,7.7nm,0.6s,baz=40,slow=4.2,SNR=8.1						
	comp=Z,7.7nm,0.6s						
ALE	Alert	58.47	4	P	P	03 00 34.7	+0.6
WR8	Warramunga Arr	58.75	189	P	P	03 00 36.2	-0.5
WR8				IAmb	IAmb	03 00 37.7	
	comp=Z,23nm,1.1s						
WRA	Warramunga Arr	58.75	189	P	P	03 00 36.1	-0.6
	comp=Z,4.3nm,0.5s,baz=7.7,slow=7.0,SNR=12						
	comp=Z,4.3nm,0.5s						
WRA	Warramunga Arr	58.75	189	*i* P	P	03 00 36.8	0.0
WRA				pmax	pmax		
	comp=Z,4.0nm,0.5s						
WRA	Warramunga Arr	58.75	189		P	03 00 35.7	-1.0
SPITS	Spitsbergen Ar	59.10	349	P	P	03 00 38.5	-0.1
	comp=Z,8.2nm,1.0s,baz=80,slow=6.9,SNR=6.2						
	comp=Z,8.2nm,1.0s						
ASAR	Alice Springs	62.48	189	P	P	03 01 02.1	0.0
	comp=Z,2.4nm,0.9s,baz=8.8,slow=7.1,SNR=4.6						
	comp=Z,2.4nm,0.9s						
ARCES	ARCESS Array B	62.77	339	P	P	03 01 02.2	-1.3
	comp=Z,1.9nm,0.6s,baz=44,slow=7.7,SNR=7.7						
	comp=Z,1.9nm,0.6s						
OBN	Obninsk	67.27	323	*e*P	P	03 01 32.3	-0.6
OBN				*e*		03 02 00.5	
OBN				*e*		03 03 59.3	
OBN				*e*PPP	PPP	03 05 34.8	
OBN				*e*S	S	03 10 27.1	+2.4
OBN				*e*SS	SS	03 14 46.6	+2.7
OBN				pmax	pmax		
	comp=Z,28nm,1.2s						
OBN				MLR	MLR		
	comp=Z,4µm,17.0s						
FINES	FINESS Array B	67.75	332	P	P	03 01 34.4	-1.5
	comp=Z,11nm,0.8s,baz=40,slow=9.9,SNR=7.9						
	comp=Z,11nm,0.8s						
FINES	FINESS Array B	67.75	332	*i* P	P	03 01 35.5	-0.4
FINES				pmax	pmax		
	comp=Z,12nm,0.8s						
PINE	Pine Mountain	68.73	51		P	03 01 44.1	+1.5
PINE				IAmb	IAmb	03 02 00.6	
	comp=Z,25nm,1.5s						
L04D	Klamath Falls	68.76	53		P	03 01 44.1	+1.4
L04D				IAmb	IAmb	03 02 00.3	
	comp=Z,11nm,0.9s						
YBH	Yreka Blue Hor	68.77	53	P	P	03 01 45.4	+2.6
YBH				pmax	pmax		
	comp=Z,4.0nm,1.0s						
YBH	Yreka Blue Hor	68.77	53		P	03 01 45.4	+2.6
K05A	Summer Lake	69.35	51	P	P	03 01 49.1	+2.7
K05A				IAmb	IAmb	03 02 05.0	
	comp=Z,25nm,1.3s						
GOF	Gofitskoye	69.59	312	*ce*P	P	03 01 47.6	-0.1
KIV	Kislovodsk	70.43	311	*e*P	P	03 01 52.8	-0.2
KIV				pmax	pmax		
	comp=Z,47nm,1.1s						
KIV	Kislovodsk	70.43	311		P	03 01 52.7	-0.2
KIV	Kislovodsk	70.43	311	P	P	03 01 53.0	+0.1
KIV				pP	pP	03 02 05.9	+0.9
KBZ	Khabaz	70.44	311	P	P	03 01 53.1	+0.3
	comp=Z,12nm,0.8s,baz=126,slow=2.9,SNR=7.0						
	comp=Z,12nm,0.8s						
KBZ	Khabaz	70.44	311	*i* P	P	03 01 52.8	0.0
KBZ				pmax	pmax		
	comp=Z,16nm,0.9s						
MNK	Minsk	71.59	326	*i* P	P	03 02 00.0	+0.3
MNK				*i*		03 04 39.0	
MNK				*i* PPP	PPP	03 06 22.9	
MNK				*i* S	S	03 11 17.5	+1.8
MNK				*i* SS	SS	03 15 53.5	+3.0
MNK				pmax	pmax		
	comp=E,19nm,0.9s						
MNK				pmax	pmax		
	comp=N,7.0nm,0.7s						
MNK				pmax	pmax		
	comp=Z,33nm,1.0s						
MNK	Minsk	71.59	326	*i* P	P	03 02 00.0	+0.3
	comp=E,19nm,0.9s						
MNK				*i* P	P	03 02 00.0	+0.3
	comp=N,7.0nm,0.7s						
MNK				*i* P	P	03 02 00.0	+0.3
	comp=Z,33nm,1.0s,baz=49						
MNK				*i* PP	PP	03 04 39.1	+0.8
MNK				*i* PPP	PPP	03 06 22.9	
MNK				*i* S	S	03 11 17.5	+1.8
MNK				*i* SS	SS	03 15 53.5	+3.0
MNK				*i* SSS	SSS	03 19 16.5	
MNK				*i* LR	LR	03 34 06.0	
UOSS	Minazif	72.04	288	P	P	03 02 02.4	-0.5
UOSS				pP	pP	03 02 16.2	+1.2
HFS	Hagfors	72.94	336	P	P	03 02 07.7	+0.1
	comp=Z,3.0nm,0.4s,baz=54,slow=7.5,SNR=10						
	comp=Z,3.0nm,0.4s						
ANN	Anapa	72.97	314	*e*P	P	03 02 07.3	-0.7
ANN				pmax	pmax		
	comp=Z,26nm,0.8s						
NB2	NORSAR Subarra	73.00	337	P	P	03 02 07.7	-0.3
	comp=Z,7.4nm,0.7s,baz=37,slow=6.5						
NB2	NORSAR Subarra	73.00	337	P	P	03 02 07.8	-0.2
NB2				pmax	pmax		
	comp=Z,3.0nm,0.7s						
NOA	NORSAR Array B	73.00	337	P	P	03 02 07.9	-0.2
	comp=Z,4.2nm,0.7s,baz=38,slow=6.0,SNR=8.4						
	comp=Z,4.2nm,0.7s						
NORES	NORESS Array B	73.14	337	P	P	03 02 08.1	-0.7
KVN	Kaiserville	73.19	53	IAmb	IAmb	03 02 27.7	
	comp=Z,15nm,1.3s						
NVAR	Mina Array Bea	73.43	54	P	P	03 02 12.9	+1.8
	comp=Z,2.1nm,0.8s,baz=276,slow=5.0,SNR=5.0						
	comp=Z,2.1nm,0.8s						
AKASG	Malin Array Be	73.50	322	P	P	03 02 10.2	-0.8
	comp=Z,9.4nm,0.7s,baz=46,slow=5.9,SNR=14						
	comp=Z,9.4nm,0.7s						
AKASG	Malin Array Be	73.50	322	*i* P	P	03 02 10.1	-0.9
AKASG				pmax	pmax		
	comp=Z,10.0nm,0.7s						
AKASG	Malin Array Be	73.50	322	IAmb	IAmb	03 02 11.5	
	comp=Z,9.4nm,1.1s						
KIEV	Kiev	73.51	322	P	P	03 02 10.5	-0.6
KIEV				pP	pP	03 02 22.9	-0.3
GURO	Guroymak-BITLI	74.00	307	IAmb	IAmb	03 02 15.6	
	comp=Z,17nm,1.0s						
PDAR	Pinedale Array	76.01	46	P	P	03 02 27.1	+1.0
	comp=Z,1.4nm,0.7s,baz=243,slow=1.1,SNR=15						
	comp=Z,1.4nm,0.7s						
RDMU	Red Mountain	77.41	48	IAmb	IAmb	03 02 51.8	
	comp=Z,20nm,1.3s						
ILGA	Ilgaz	77.45	313	P	P	03 02 34.6	+0.4
ILGA				IAmb	IAmb	03 02 35.8	
	comp=Z,20nm,0.9s						
SRU	San Rafael Swe	77.79	50	IAmb	IAmb	03 02 53.1	
	comp=Z,7.1nm,0.8s						
RSSD	Black Hills	78.13	42	P	P	03 02 39.0	+1.0
RSSD				PcP	PcP	03 02 44.5	-3.0
BRTR	Keskin Array B	78.36	312	P	P	03 02 39.1	-0.1
	comp=Z,1.9nm,0.5s,baz=99,slow=3.1,SNR=16						
	comp=Z,1.9nm,0.5s						
LANS	Liptovska Anna	79.07	326	*e*P	P	03 02 44.1	+1.3
LANS	Liptovska Anna	79.07	326	*e*P	P	03 02 44.1	+1.3
PV10	Paradox Valley	79.15	49	IAmb	IAmb	03 03 01.2	
	comp=Z,19nm,0.9s						
MORC	Moravsky Berou	79.43	327	*e*P	P	03 02 44.8	+0.1
VYHS	Vyhne	79.84	326	*e*P	P	03 02 47.7	+0.8
VYHS	Vyhne	79.84	326	*e*P	P	03 02 47.7	+0.8
BRG	Berggiesshubel	80.06	330	*e*P	P	03 02 48.3	+0.3
BRG				Amp		03 02 48.7	
	comp=Z,8.6nm,0.9s						
JAVC	Velka Javorina	80.07	327	*e*P	P	03 02 49.5	+1.3
CLL	Collm	80.08	330	*i* P	P	03 02 48.2	0.0
CLL				*e**SP	sP	03 03 08.0	+3.0
CLL				pmax	pmax		
	comp=Z,16nm,0.9s						
CLL	Collm	80.08	330		P	03 02 47.9	-0.3
CLL				IAmb	IAmb	03 02 49.2	
	comp=Z,12nm,0.8s						
CLL	Collm	80.08	330	*i* P	P	03 02 48.2	0.0
	comp=Z,16nm,0.9s						
CLL				*e*pPcP		03 03 08.0	
VRAC	Vranov	80.19	327	*e*P	P	03 02 48.6	-0.2
KRUC	Moravsky	80.46	327	*e*P	P	03 02 50.5	+0.2
SRO	Srobarova	80.58	326	*e*P	P	03 02 52.4	+1.5
SRO	Srobarova	80.58	326	*e*P	P	03 02 52.4	+1.5
MODS	Modra-Piesok	80.61	326	*e*P	P	03 02 51.3	+0.2
MODS	Modra-Piesok	80.61	326	*e*P	P	03 02 51.3	+0.2
WINA	Alland / Wiene	81.33	327	*i* P	P	03 02 55.8	+0.9
	SNR=5.2						
RONA	Rosalia, Austr	81.55	326	*i* P	P	03 02 56.6	+0.5
	comp=Z,17nm,0.9s,SNR=7.3						
CONA	Conrad Observa	81.56	327	*i* P	P	03 02 56.8	+0.5
	comp=Z,15nm,1.0s,SNR=4.8						
MMAI	Mount Meron Ar	81.66	306	P	P	03 02 57.5	+0.5
	comp=Z,4.6nm,0.8s,baz=32,slow=14,SNR=4.8						
	comp=Z,4.6nm,0.8s						
GERES	GERESS Array B	81.75	329	P	P	03 02 56.9	-0.3
	comp=Z,2.3nm,0.7s,baz=46,slow=5.8,SNR=4.3						
	comp=Z,2.3nm,0.7s						
GRFO	Grafenberg	82.06	330	P	P	03 02 59.8	+1.0
MOA	Molln	82.30	328	*e*P	P	03 03 00.4	+0.3
	comp=Z,9.1nm,1.1s						
BIOA	Bad Ischl, Aus	82.68	328	*i* P	P	03 03 02.6	+0.6
	comp=Z,9.7nm,1.0s,SNR=4.1						
SESA	Seetaler Alpe,	82.75	327	*e*P	P	03 03 03.2	+0.6
	comp=Z,15nm,0.7s						
SOKA	Soboth	82.89	327	*i* P	P	03 03 03.0	-0.2
	comp=Z,22nm,1.1s,SNR=7.3						
KBA	Koelnbreinsper	83.29	328	*i* P	P	03 03 06.6	+1.2
	comp=Z,11nm,0.7s,SNR=6.2						
LESA	Schwarzleotal	83.29	328	*i* P	P	03 03 05.2	-0.1
	comp=Z,14nm,1.0s,SNR=5.4						
MYKA	Terra Mystica	83.52	327	*i* P	P	03 03 05.7	-0.7
	comp=Z,4.1nm,0.7s,SNR=4.9						
RCHB	Rochefort	83.87	334	*d*P	P	03 03 08.0	-0.1
BMRD	Maredsous	83.90	334	*d*P	P	03 03 08.0	-0.3
MOTA	Moosalm	84.00	329	*e*P	P	03 03 09.0	0.0
	comp=Z,8.9nm,0.8s						
RETA	Reutte	84.02	329	*e*P	P	03 03 09.1	+0.1
	comp=Z,15nm,1.1s						
PDG	Podgorica	84.19	321	P	P	03 03 08.4	-1.5
BFO	Black Forest	84.27	331	*i* P	P	03 03 10.7	+0.5
BFO	Black Forest	84.27	331	P	P	03 03 09.9	-0.3
BFO				pP	pP	03 03 23.2	+0.7
LIT	Litokhoron	84.28	318	P	P	03 03 09.4	-1.0
LIT				pmax	pmax		
	comp=Z,18nm,0.9s						
LIT	Litokhoron	84.28	318	P	P	03 03 09.4	-1.0
LIT				IAmb	IAmb	03 03 10.5	
	comp=Z,18nm,0.9s						
DAVA	Damuels	84.53	330	*e*P	P	03 03 11.7	0.0
	comp=Z,13nm,1.0s						
TXAR	Lajitas Array	88.55	53	P	P	03 03 32.9	+1.3
	comp=Z,0.8nm,0.7s,baz=300,slow=3.0,SNR=6.8						
	comp=Z,0.8nm,0.7s						
TXAR	Lajitas Array	88.55	53	P	P	03 03 30.3	-1.3
VNA2	Neumayer--Watz	144.07	196	PKPdf	PKPbc	03 10 11.8	+0.9
	comp=Z,8.8nm,0.6s,baz=131,slow=5.3						
VNA3	Neumayer Olymp	144.31	195	PKPdf	PKPab	03 10 11.2	-0.2
	comp=Z,7.0nm,0.7s						
LPAZ	La Paz	145.22	59	PKPbc	PKPdf	03 10 17.3	+0.1
	comp=Z,1.1nm,0.4s,baz=45,slow=8.8,SNR=6.4						
LPAZ	La Paz	145.22	59		PKPbc	03 10 16.8	-0.1

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*JMA **12** 03:00:17.2±0.1, 38°.7N±0°.2×142°.3E±0°.3, h41^{km}, MV4.1/32, E OFF MIYAGI PREF*

JMA Felt I J1 at E OFF MIYAGI PREF .

*IDC **12** 03:00:21.4±3.4, 38°.62N×142°.07E, h78^{km}±31^{km}, mb3.4/4, mbtmp3.8/7, Error ellipse: s-maj=37.4km s-min=22.4km az=79.0*

ISC 12 03:00:18.2±2.0**, 38°.68N**±0°.07×**142°.2E**±0°.2**, h44**^{km}±18^{km}**, n18,** σ1^s.**28**/17**, mb3.7**/4**, 6D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OFUJ	Ofunato	0.56	315	⇓*i*P	Pn	03 00 29.1	-0.7
OFUJ				⇓S	Sn	03 00 37.3	-0.9
JKMT	Kesennumamotoy	0.56	283	⇓*i*P	Pn	03 00 29.6	-0.3
JKMT				⇓S	Sn	03 00 37.9	-0.3
JIO	Ouri	0.69	251	*i* P	Pn	03 00 31.3	-0.2
JIO				S	Sn	03 00 41.1	0.0
JMK	Ichinoseki	0.79	290	⇓*i*P	Pn	03 00 32.9	0.0
JMK				⇓S	Sn	03 00 44.0	+0.4
JOM	Ohasama	1.04	319	P	Pn	03 00 36.4	-0.1
JOM				A	A	03 00 36.4	
	comp=N,12nm,0.3s,comp=E,14nm,0.4s						
JOM				*e*S	Sn	03 00 49.7	-0.1
MJAR	Matsushiro Arr	3.81	237	P	Pn	03 01 15.6	+1.3
	comp=E,2.1nm,0.3s,baz=37,slow=14,SNR=7.3						
JHJ	Hachijo jima 2	5.88	200	P	Pn	03 01 44.0	+1.3
	comp=E,125nm,0.8s,baz=211,slow=21,SNR=1.9						
USRK	Ussuriysk Ar.	9.42	309	P	Pn	03 02 35.1	+3.8
	comp=E,11nm,0.9s,baz=126,slow=17,SNR=9.3						
H11N2	WAKE ISLAND Hy	28.53	124	T	T	03 36 34.2	
	baz=320,slow=74,SNR=4.7						
H11N1	WAKE ISLAND Hy	28.54	124	T	T	03 36 35.0	
	baz=320,slow=74,SNR=3.5						
H11N3	WAKE ISLAND Hy	28.55	124	T	T	03 36 48.9	
	baz=320						
H11S1	WAKE ISLAND Hy	29.30	126	T	T	03 37 33.7	
	baz=318,slow=76,SNR=4.1						
H11S3	WAKE ISLAND Hy	29.30	126	T	T	03 37 33.5	
	baz=318,slow=76,SNR=3.9						
H11S2	WAKE ISLAND Hy	29.32	126	T	T	03 37 29.2	
	baz=318,slow=76,SNR=4.5						
ZALV	Zalesovo Beam	41.27	311	P	P	03 07 58.6	-0.2
	comp=E,0.7nm,0.4s,baz=91,slow=7.6,SNR=2.7						
	comp=E,0.7nm,0.4s						
KURBB	Kurchatov Arra	45.48	307	P	P	03 08 31.9	-0.9
	comp=E,1.5nm,0.6s,baz=80,slow=7.9,SNR=7.9						
	comp=E,1.5nm,0.6s						
ILAR	Eielson Array	47.78	33	P	P	03 08 50.9	+0.2
	comp=E,0.3nm,0.7s,baz=269,slow=6.4,SNR=4.5						
	comp=E,0.3nm,0.7s						
WRA	Warramunga Arr	58.78	189	P	P	03 10 11.1	-0.8
	comp=E,0.3nm,0.5s,baz=8.8,slow=6.9,SNR=4.9						
	comp=E,0.3nm,0.5s						

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*NEIC **12** 03:02:52.9±1.6, 38°.70N±0°.07×142°.2E±0°.1, h35^{km}±2^{km}, mb4.2/8, Error ellipse: s-maj=16.8km s-min=10.3km az=110.0*

*JMA **12** 03:02:52.3±0.1, 38°.7N±0°.2×142°.3E±0°.2, h41^{km}, MD4.1/34, MV4.3/34, E OFF MIYAGI PREF*

JMA Felt I J1 at E OFF MIYAGI PREF .

*IDC **12** 03:02:54.7±2.2, 38°.59N×142°.18E, h61^{km}±21^{km}, mb3.7/13, mbtmp4.0/17, ML3.5/4, Error ellipse: s-maj=20.1km s-min=13.3km az=93.0*

ISC 12 03:02:52.9±1.6**, 38°.68N**±0°.05×**142°.23E**±0°.10**, h40**^{km}±15^{km}**, n54,** σ1^s.**20**/53**, mb4.0**/17**, 8D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OFUJ	Ofunato	0.60	313	⇓P	Pn	03 03 04.2	-0.8
OFUJ				A	A	03 03 04.2	
	comp=N,12nm,0.4s,comp=E,9.0nm,0.6s						
OFUJ				⇓S	Sn	03 03 12.4	-1.2
JKMT	Kesennumamotoy	0.61	283	⇓*i*P	Pn	03 03 04.7	-0.4
JKMT				A	A	03 03 04.7	
	comp=N,7.0nm,0.3s,comp=E,9.0nm,0.4s						
JKMT				⇓S	Sn	03 03 13.0	-0.8
JIKH	Ishinomakikobu	0.70	239	A	A	03 03 06.5	
	comp=N,30nm,0.3s,comp=E,23nm,0.2s						
JIO	Ouri	0.73	253	⇓*i*P	Pn	03 03 06.5	-0.3
JIO				⇓S	Sn	03 03 16.2	-0.5
JMK	Ichinoseki	0.84	289	⇓*i*P	Pn	03 03 08.1	-0.2
JMK				⇓S	Sn	03 03 18.3	-1.1
JOM	Ohasama	1.08	318	*i* P	Pn	03 03 11.4	-0.2
JOM				A	A	03 03 11.4	
	comp=N,19nm,0.4s,comp=E,28nm,0.3s						
JOM				S	Sn	03 03 25.0	-0.3
JOU	Okura	1.27	256	A	A	03 03 31.4	
	comp=N,11nm,0.3s,comp=E,7.0nm,0.3s						
JOU				S	Sn	03 03 31.4	+1.3
JTH	Tanohata	1.29	347	P	Pn	03 03 13.9	-0.6
JTM	Tenmabayashi	2.29	337		Pn	03 03 28.4	+0.2
ERM	Erimo	3.41	12	Pn	Pn	03 03 43.3	-0.2
MJAR	Matsushiro Arr	3.84	238	P	Pn	03 03 50.5	+1.0
	comp=E,0.8nm,0.3s,baz=36,slow=13,SNR=7.2						
	comp=E,4.5nm,0.3s						
MJAR				AML	AML		
MAJO	Matsushiro	3.84	238		Pn	03 03 51.4	+1.8
MJB9	Matsu-Tunnel	3.84	238		Pn	03 03 52.0	+2.5
JGF	Kuroka	4.96	233		Pn	03 04 08.2	+3.3
JKA	Kamikawa-asahi	5.44	3		Pn	03 04 10.9	-0.6
ASAJ	Asahikawa	5.44	3	P	Pn	03 04 14.1	+2.6
	comp=E,1.5nm,0.3s,baz=314,slow=31,SNR=1.5						
	comp=E,4.2nm,0.3s						
ASAJ				AML	AML		
JHJ2	Mitsune	5.89	200	Pn	Pn	03 04 17.4	-0.2
JHJ	Hachijo jima 2	5.89	200	P	Pn	03 04 18.8	+1.1
	comp=E,11nm,0.3s,baz=63,slow=14,SNR=1.1						
JHJ				S	Sn	03 05 21.9	-2.0
	comp=E,44nm,0.3s,baz=234,slow=23,SNR=1.9						
	comp=E,36nm,0.3s						
JHJ				AML	AML		
JMN	Monobe	8.36	236	Pn	Pn	03 04 51.9	+0.2
USA0B	Ussuriysk Arra	9.46	309		Pn	03 05 09.0	+2.4
USRK	Ussuriysk Ar.	9.46	309	P	Pn	03 05 09.3	+2.7
	comp=E,0.8nm,0.3s,baz=120,slow=13,SNR=15						
	comp=E,22nm,0.9s						
USRK				AML	AML		
SEY	Seymchan	25.06	11	P	P	03 08 14.5	+1.4
	comp=E,2.4nm,0.2s,baz=19,slow=22,SNR=1.4						
	comp=E,2.4nm,0.2s						
SONM	Songino Array	27.45	301	P	P	03 08 35.6	+0.6
	comp=E,0.7nm,0.5s,baz=98,slow=11,SNR=2.9						
	comp=E,0.7nm,0.5s						
H11N2	WAKE ISLAND Hy	28.49	124	T	T	03 38 56.7	
	baz=316,slow=75,SNR=8.9						
H11N1	WAKE ISLAND Hy	28.50	125	T	T	03 39 11.5	
	baz=316,slow=75,SNR=8.1						
H11N3	WAKE ISLAND Hy	28.50	124	T	T	03 39 11.0	
	baz=316,slow=75,SNR=7.6						
H11S1	WAKE ISLAND Hy	29.26	126	T	T	03 40 08.3	
	baz=318,slow=76,SNR=8.1						
H11S3	WAKE ISLAND Hy	29.26	127	T	T	03 40 08.5	
	baz=318,slow=76,SNR=7.6						
H11S2	WAKE ISLAND Hy	29.27	126	T	T	03 40 09.9	
	baz=318,slow=76,SNR=6.9						
ZAA0	Zalesovo Array	41.31	311	P	P	03 10 34.5	+0.2
ZALV	Zalesovo Beam	41.31	311	P	P	03 10 34.1	-0.2
	comp=E,1.7nm,0.5s,baz=92,slow=8.4,SNR=6.3						
	comp=E,1.7nm,0.5s						
ZALV	Zalesovo Beam	41.31	311	P	P	03 10 33.3	-1.0
L16K	Owhat River	42.00	37	P	P	03 10 40.3	+0.5
L16K				IAmb	IAmb	03 10 45.2	
	comp=Z,5.7nm,1.4s						
MKAR	Makanchi Array	43.82	301	P	P	03 10 54.5	-0.3
	comp=Z,0.9nm,0.7s,baz=88,slow=10,SNR=4.1						
	comp=Z,0.9nm,0.7s						
MKAR	Makanchi Array	43.82	301	P	P	03 10 53.6	-1.2
J19K	Poorman	43.96	34	P	P	03 10 56.0	+0.3
J19K				IAmb	IAmb	03 10 57.1	
	comp=Z,3.4nm,1.1s						
KURBB	Kurchatov Arra	45.52	307	P	P	03 11 08.0	-0.3
	comp=Z,2.7nm,0.6s,baz=82,slow=8.4,SNR=14						
	comp=Z,2.7nm,0.6s						
ILAR	Eielson Array	47.76	33	P	P	03 11 25.6	0.0
	comp=Z,0.7nm,0.6s,baz=263,slow=6.2,SNR=9.3						
	comp=Z,0.7nm,0.6s						
F26K	Sheenjek River	48.74	29	P	P	03 11 35.0	+1.9
BVAR	Borovoye Array	49.96	311	P	P	03 11 42.4	-0.3
	comp=Z,0.9nm,0.5s,baz=81,slow=8.9,SNR=3.5						
	comp=Z,0.9nm,0.5s						
AB31	Akbulak array	57.39	310	P	P	03 12 36.4	-0.6
AB31				IAmb	IAmb	03 12 48.8	
	comp=Z,1.4nm,0.7s						
ABKAR	Akbulak array	57.39	310	P	P	03 12 36.3	-0.7
WR8	Warramunga Arr	58.77	189	P	P	03 12 46.4	-0.5
WR8				IAmb	IAmb	03 13 29.1	
	comp=Z,2.8nm,0.9s						
WRA	Warramunga Arr	58.78	189	P	P	03 12 45.9	-1.1
	comp=Z,0.7nm,0.5s,baz=10,slow=7.1,SNR=6.3						
	comp=Z,0.7nm,0.5s						
WRA	Warramunga Arr	58.78	189	P	P	03 12 45.5	-1.5
ASAR	Alice Springs	62.51	189	P	P	03 13 12.1	-0.3
	comp=Z,0.4nm,0.6s,baz=4.2,slow=4.8,SNR=5.9						
	comp=Z,0.4nm,0.6s						
ASAR	Alice Springs	62.51	189	P	P	03 13 12.4	+0.1
FINES	FINESS Array B	67.67	332	P	P	03 13 44.4	-1.0
	comp=Z,3.6nm,0.9s,baz=39,slow=11,SNR=2.8						
	comp=Z,3.6nm,0.9s						
AKASG	Malin Array Be	73.40	322	P	P	03 14 19.8	-0.7
	comp=Z,0.6nm,0.5s,baz=48,slow=6.0,SNR=4.2						
	comp=Z,0.6nm,0.5s						
NVAR	Mina Array Bea	73.49	54	P	P	03 14 21.2	-0.4
	comp=Z,0.6nm,0.9s,baz=298,slow=3.2,SNR=4.2						
	comp=Z,0.6nm,0.9s						
NVAR	Mina Array Bea	73.49	54	P	P	03 14 21.8	+0.2
PDAR	Pinedale Array	76.06	46	P	P	03 14 36.9	+0.5
	comp=Z,0.4nm,0.6s,baz=287,slow=1.9,SNR=6.1						
	comp=Z,0.4nm,0.6s						
PDAR	Pinedale Array	76.06	46	P	P	03 14 36.7	+0.3
PV10	Paradox Valley	79.21	49	P	P	03 14 55.4	+1.3

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*JMA **12** 03:30:52.6±0.1, 38°.7N±0°.2×142°.3E±0°.3, h40^{km}, MD4.0/40, MV4.0/40, E OFF MIYAGI PREF*

JMA Felt I J1 at E OFF MIYAGI PREF .

*IDC **12** 03:30:53.9±3.7, 38°.72N×142°.56E, h63^{km}±26^{km}, mb3.5/5, mbtmp3.7/9, ML3.1/4, Error ellipse: s-maj=45.9km s-min=24.6km az=88.0*

ISC 12 03:30:51.5±2.4**, 38°.67N**±0°.07×**142°.3E**±0°.1**, h27**^{km}±14^{km}**, n16,** σ1^s.**34**/22**, mb3.9**/5**, 10D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OFUJ	Ofunato	0.63	310	⇓*i*P	Pn	03 31 04.5	-0.2
OFUJ				⇓S	Sb	03 31 12.8	+0.3
JKMT	Kesennumamotoy	0.65	282	⇓*i*P	Pn	03 31 04.9	0.0
JKMT				⇓S	Sb	03 31 13.3	+0.3
JIO	Ouri	0.77	254	⇓*i*P	Pn	03 31 06.6	+0.1

JIO				⇓S	**Sb**	**03 31 16.5**	**+0.2**
JMK	**Ichinoseki**	**0.88**	**289**	⇓*i*P	**Pn**	**03 31 08.3**	**+0.2**
JMK				⇓S	**Sb**	**03 31 19.3**	**-0.2**
JOM	**Ohasama**	**1.11**	**316**	⇓*i*P	**Pb**	**03 31 11.6**	**-0.5**
JOM				A	A	03 31 11.6	
	comp=N,7.0nm,0.3s,comp=E,11nm,0.3s						
JOM				⇓S	**Sb**	**03 31 25.3**	**-0.9**
JTH	**Tanohata**	**1.30**	**345**	P	**Pn**	**03 31 14.1**	**+0.2**
JTH				S	**Sn**	**03 31 30.0**	**-0.5**
JOU	**Okura**	**1.31**	**257**	*i* P	**Pb**	**03 31 14.9**	**-0.6**
JOU				A	A	03 31 14.9	
	comp=N,6.0nm,0.4s,comp=E,4.0nm,0.4s						
JOU				S	**Sn**	**03 31 31.2**	**+0.5**
MJAR	**Matsushiro Arr**	**3.88**	**238**	P	**Pn**	**03 31 52.1**	**+2.8**
	comp=E,0.5nm,0.3s,baz=37,slow=13,SNR=26						
	comp=E,2.9nm,0.4s						
MJAR				AML	AML		
ASAJ	**Asahikawa**	**5.44**	**2**	P	**Pn**	**03 32 11.5**	**+0.7**
	comp=E,0.6nm,0.3s,baz=290,slow=28,SNR=1.7						
	comp=E,2.2nm,0.3s						
ASAJ				AML	AML		
USRK	**Ussuriysk Ar.**	**9.50**	**309**	P	**Pn**	**03 33 10.8**	**+4.4**
	comp=E,0.3nm,0.3s,baz=126,slow=12,SNR=8.4						
	comp=E,9.4nm,0.9s						
USRK				AML	AML		
KSRS	**Korea Array**	**11.39**	**268**	P	Pn	03 33 38.9	+6.5
	comp=E,0.2nm,0.3s,baz=85,slow=15,SNR=1.8						
	comp=E,1.3nm,0.7s						
KSRS				AML	AML		
ZALV	**Zalesovo Beam**	**41.34**	**311**	P	**P**	**03 38 33.6**	**-1.1**
	comp=E,1.3nm,0.6s,baz=90,slow=9.3,SNR=5.3						
	comp=E,1.3nm,0.6s						
MKAR	**Makanchi Array**	**43.86**	**301**	P	**P**	**03 38 54.9**	**-0.4**
	comp=E,0.5nm,0.5s,baz=89,slow=10,SNR=2.6						
	comp=E,0.5nm,0.5s						
KURBB	**Kurchatov Arra**	**45.56**	**307**	P	**P**	**03 39 08.0**	**-0.7**
	comp=E,1.6nm,0.5s,baz=83,slow=8.5,SNR=16						
	comp=E,1.6nm,0.5s						
BVAR	**Borovoye Array**	**49.99**	**311**	P	**P**	**03 39 43.0**	**-0.1**
	comp=E,0.6nm,0.5s,baz=60,slow=8.5,SNR=3.0						
	comp=E,0.6nm,0.5s						
WRA	**Warramunga Arr**	**58.78**	**189**	P	**P**	**03 40 46.5**	**-0.8**
	comp=E,0.4nm,0.6s,baz=8.5,slow=7.1,SNR=3.2						
	comp=E,0.4nm,0.6s						

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*IDC **12** 03:31:44.9±3.6, 9°.83N×127°.93E, h0^{km}, mb3.5/4, mbtmp3.5/4, MS4.3/1, Error ellipse: s-maj=286.5km s-min=24.5km az=68.0*

*MAN **12** 03:31:48.0, 9°.30N×127°.02E, h12^{km}, MS3.0*

ISC 12 03:31:48.1±1.2**, 9°.33N**±0°.05×**127°.04E**±0°.08**, h10^{km}, n12, σ1^{s}52**/19**, mb3.6**/4**, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BIPH	**Bislig**	**1.32**	**210**	*i* P	**Pg**	**03 32 14.7**	**+1.2**
BIPH				*i* S	**Sg**	**03 32 31.1**	**+0.5**
CDOP	**Cateel, Davao**	**1.65**	**201**	*i* P	**Pn**	**03 32 15.8**	**-1.3**
CDOP				*i* S	**Sn**	**03 32 34.9**	**-3.4**
BUKP	**Musuan**	**2.43**	**234**	*i* P	**Pn**	**03 32 28.7**	**+0.8**
BUKP				*i* S	**Sn**	**03 32 58.1**	**+0.4**
CGP	**Cagayan de Oro**	**2.47**	**250**	*e*P	**Pn**	**03 32 29.2**	**+0.8**
CGP				*e*S	**Sn**	**03 32 57.9**	**-0.8**
PLP	**Palo**	**2.72**	**312**	*e*P	**Pn**	**03 32 32.6**	**+0.7**
PLP				*e*S	**Sn**	**03 33 04.4**	**-0.5**
KCP	**Kidapawan**	**3.00**	**220**	*e*P	**Pg**	**03 32 47.2**	**+1.4**
LLP	**Lapu-Lapu**	**3.18**	**288**	*e*P	**Pn**	**03 32 38.6**	**+0.4**
LLP				*i* S	**Sb**	**03 33 20.1**	**-3.5**
DCPH	**Dipolog City**	**3.71**	**259**	*i* P	**Pn**	**03 32 46.7**	**+1.1**
DCPH				*i* S	**Sn**	**03 33 29.3**	**-0.1**
WRA	**Warramunga Arr**	**29.97**	**166**	P	**P**	**03 37 57.5**	**+0.6**
	0.4nm,0.5s,baz=349,slow=8.6,SNR=4.7						
WRA				LR	LR	03 52 06.4	
	comp=Z,534nm,20.6s,baz=118,slow=40						
	0.4nm,0.5s						
ASAR	**Alice Springs**	**33.48**	**169**	P	**P**	**03 38 29.2**	**+1.4**
	0.2nm,0.6s,baz=350,slow=7.7,SNR=1.9						
	0.2nm,0.6s						
MKAR	**Makanchi Array**	**53.23**	**323**	P	**P**	**03 41 06.5**	**-0.4**
	0.6nm,0.7s,baz=128,slow=8.4,SNR=2.7						
	0.6nm,0.7s						
KURBB	**Kurchatov Arra**	**57.27**	**325**	P	**P**	**03 41 34.6**	**-1.2**
	0.6nm,0.6s,baz=124,slow=6.5,SNR=5.3						
	0.6nm,0.6s						

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*MAN **12** 03:33:04.0, 5°.54N×126°.07E, h75^{km}, MS3.8*

*IDC **12** 03:33:05.9±3.2, 5°.93N×126°.31E, h124^{km}±15^{km}, mb3.1/4, mbtmp3.5/4, Error ellipse: s-maj=224.4km s-min=18.9km az=65.0*

ISC 12 03:33:04.7±1.3**, 5°.60N**±0°.08×**126°.00E**±0°.10**, h99^{km}**±10^{km}**, n13, σ1^{s}58**/22**, mb3.5**/4**, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DDMP	**Don Marcelino,**	**0.58**	**330**	*i* P	**Pn**	**03 33 21.1**	**0.0**
DDMP				*e*S	**Sn**	**03 33 32.1**	**-1.1**
GSPH	**General Santos**	**1.16**	**295**	*i* P	**Pn**	**03 33 28.8**	**+1.8**
GSPH				*i* S	**Sn**	**03 33 43.0**	**-0.8**
DAV	**Davao City (W)**	**1.52**	**344**	P	**Pn**	**03 33 31.4**	**+0.2**
	187nm,0.3s,baz=263,slow=17,SNR=5.1						
DAV				S	**Sn**	**03 33 51.9**	**+0.5**
	332nm,0.3s,baz=232,slow=19,SNR=8.5						
DMPH	**Davao City--Mi**	**1.56**	**342**	*e*P	**Pn**	**03 33 32.9**	**+1.2**
DMPH				*i* S	**Sn**	**03 33 51.5**	**-0.6**
KCP	**Kidapawan**	**1.67**	**327**	*i* P	**Pn**	**03 33 34.3**	**+1.1**
KCP				*i* S	**Sn**	**03 33 55.0**	**+0.2**
CDOP	**Cateel, Davao**	**2.22**	**11**	*i* P	**Pn**	**03 33 40.8**	**+0.7**
CDOP				*i* S	**Sn**	**03 34 05.7**	**-1.5**
BUKP	**Musuan**	**2.45**	**338**	*e*P	**Pn**	**03 33 44.3**	**+1.0**
BUKP				*e*S	**Sn**	**03 34 11.1**	**-1.7**
BIPH	**Bislig**	**2.60**	**8**	*e*P	**Pn**	**03 33 45.6**	**+0.5**
BIPH				*e*S	**Sn**	**03 34 19.3**	**+3.3**
CGP	**Cagayan de Oro**	**3.12**	**336**	*e*P	**Pn**	**03 33 54.6**	**+2.5**
CGP				*e*S	**Sn**	**03 34 29.5**	**+0.8**
WRA	**Warramunga Arr**	**26.67**	**162**	P	**P**	**03 38 35.2**	**+0.6**
	0.2nm,0.4s,baz=342,slow=9.0,SNR=5.4						
	0.2nm,0.4s						
ASAR	**Alice Springs**	**30.09**	**165**	P	**P**	**03 39 06.3**	**+1.3**
	0.3nm,0.5s,baz=342,slow=8.2,SNR=1.7						
	0.3nm,0.5s						
MKAR	**Makanchi Array**	**55.62**	**325**	P	**P**	**03 42 28.4**	**-1.9**
	0.3nm,0.3s,baz=113,slow=6.1,SNR=5.2						
	0.3nm,0.3s						
KURBB	**Kurchatov Arra**	**59.79**	**327**	P	**P**	**03 42 56.9**	**-2.5**
	0.3nm,0.4s,baz=129,slow=5.7,SNR=4.0						
	0.3nm,0.4s						

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*SOME **12** 03:38:45.8, 42°.37N×71°.25E, h10^{km}*

*KRNET **12** 03:38:46.1±0.1, 42°.20N×71°.15E, h28^{km}, mb2.4*

*NNC **12** 03:38:46.6±1.2, 42°.46N×71°.20E, h0^{km}, mb2.4, mpv2.9, Error ellipse: s-maj=9.1km s-min=6.1km az=10.0, Suspected Mining explosion.*

ISC 12 03:38:44.1±0.8**, 42°.26N**±0°.04×**71°.17E**±0°.03**, h0^{km}, n17, σ0^{s}69**/32**, 9C-3D, Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DZA	**Taraz**	**0.65**	**11**	P	**Pg**	**03 38 56.4**	**-0.1**
	60nm,0.1s						
DZA				S	**Sg**	**03 39 04.5**	**-0.3**
	123nm,0.2s						
DZA	**Taraz**	**0.65**	**11**	*e*P	**Pg**	**03 38 56.4**	**-0.1**
	60nm,0.1s						
DZA				*e*S	**Sg**	**03 39 04.5**	**-0.3**
	123nm,0.2s						
TRKS	**Terek-Say**	**0.72**	**182**	⇑*i*P	**Pb**	**03 39 00.3**	**+0.6**
TRKS				⇑*i*S	**Sb**	**03 39 10.7**	**+0.5**
ARK	**Arkit**	**0.75**	**127**	⇓*i*P	**Pb**	**03 39 00.1**	**+0.1**
ARK				⇓*i*S	**Sb**	**03 39 10.5**	**-0.3**
IUG	**Iuzhnay**	**0.85**	**263**	P	**Pb**	**03 39 02.2**	**+0.4**
	7.4nm,0.2s						
IUG				S	**Sb**	**03 39 14.6**	**+0.7**
	52nm,0.2s						
IUG	**Iuzhnay**	**0.85**	**263**	*e*P	**Pb**	**03 39 02.2**	**+0.4**
	7.4nm,0.2s						
IUG				*e*S	**Sb**	**03 39 14.6**	**+0.7**
	52nm,0.2s						
KK31	**Karatay Array**	**0.98**	**330**	⇑P	**Pg**	**03 39 02.8**	**0.0**
	0.6nm,0.2s,baz=133,slow=14,SNR=76						
KK31				⇓S	**Sg**	**03 39 14.2**	**-1.3**
	2.4nm,0.1s,baz=132,slow=24						
BRLS	**Borolday**	**1.25**	**309**	P	**Pg**	**03 39 07.6**	**-0.4**
	1.3nm,0.2s						
BRLS				S	**Sg**	**03 39 23.9**	**-0.4**
	9.0nm,0.2s						
BRLS	**Borolday**	**1.25**	**309**	*e*P	**Pg**	**03 39 07.7**	**-0.4**
	1.3nm,0.2s						
BRLS				*e*S	**Sg**	**03 39 23.9**	**-0.4**
	9.0nm,0.2s						
MRKS	**Merke**	**1.60**	**71**	P	**Pn**	**03 39 13.6**	**-0.1**
	2.8nm,0.1s						
MRKS				S	**Sn**	**03 39 34.2**	**-0.8**
	10nm,0.2s						
MRKS	**Merke**	**1.60**	**71**	*e*P	**Pn**	**03 39 13.6**	**-0.1**
	2.8nm,0.1s						
MRKS				*e*S	**Sn**	**03 39 34.2**	**-0.8**
	10nm,0.2s						
ARSB	**Arslanbob**	**1.64**	**124**	⇑*i*P	**Pb**	**03 39 14.9**	**-0.4**
ARSB				⇑*i*S	**Sn**	**03 39 36.1**	**-0.2**
EKS2	**Erkin-Say**	**1.97**	**77**	⇑*i*P	**Pb**	**03 39 20.3**	**-0.6**
EKS2				⇑*i*S	**Sn**	**03 39 44.9**	**+0.6**
AAK	**Ala-Archa**	**2.49**	**80**	⇑Pn	**Pb**	**03 39 30.3**	**+0.6**
	0.5nm,0.5s						
AAK				⇑Sn	**Sb**	**03 40 01.6**	**+0.6**
	1.0nm,0.5s						
SGDS	**Sogindy**	**2.81**	**64**	Pg	**Pb**	**03 39 35.3**	**+0.1**
	1.6nm,0.2s						
SGDS				Lg	Lg	03 40 10.9	
	3.6nm,0.1s						
KRBS	**Karabastau**	**3.60**	**65**	Pg	**Pb**	**03 39 49.1**	**+0.3**
	1.8nm,0.4s						
KRBS				Lg	Lg	03 40 35.5	
	0.6nm,0.3s						
KRBS	**Karabastau**	**3.60**	**65**	*e*P	**Pb**	**03 39 49.0**	**+0.3**
	1.8nm,0.4s						
KRBS				*e*S	**Sb**	**03 40 35.5**	**+2.5**
	0.6nm,0.3s						

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*BJI **12** 03:49:02.4, 38°.64N×142°.29E, h42^{km}, mB4.9/6, mb4.8/54*

*MOS **12** 03:49:03.8±0.8, 38°.83N×142°.21E, h37^{km}, mb5.0/51, Error ellipse: s-maj=6.7km s-min=4.1km az=112.9*

*NIED **12** 03:49:04.3, 38°.71N×142°.27E, h42^{km}, MW4.7, Moment Tensor Solution. s3 Moment tensor: Scale 10^{16}Nm; M_{rr}0.94; $M_{\theta\theta}$0.01; $M_{\phi\phi}$-0.95; $M_{r\theta}$-0.26; $M_{\theta\phi}$-0.01; $M_{\phi r}$0.74; Fault plane solution: $M_0$1.23000×10^{16} NP1: ϕ_s193.00000°, δ27.00000°, λ112.00000°. NP2: ϕ_s348.00000°, δ65.00000°, λ79.00000°.*

*JMA **12** 03:49:04.3±0.1, 38°.7N±0°.2×142°.3E±0°.2, h42^{km}, MD4.7/36, MV5.0/36, E OFF MIYAGI PREF*

JMA Felt II J1 at E OFF MIYAGI PREF .

*NEIC **12** 03:49:04.5, 38°.72N×142°.39E, h32^{km}*

*IDC **12** 03:49:05.2±0.7, 38°.68N×142°.30E, h45^{km}±5^{km}, mb4.3/28, mbtmp4.5/36, ML4.1/7, MS4.0/5, Error ellipse: s-maj=12.5km s-min=10.0km az=107.0*

*GFZ **12** 03:49:05.6±0.2, 39°N±3°×14°2E±°, h40^{km}, M5.1/69, mb4.9/69, confirmed*

*NEIC **12** 03:49:05.2±1.5, 38°.70N±0°.05×142°.28E±0°.10, h44^{km}±5^{km}, mb4.9/129, Mwr4.5/19, Error ellipse: s-maj=10.9km s-min=6.7km az=98.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}3.98; $M_{\theta\theta}$0.85; $M_{\phi\phi}$-4.83; $M_{r\theta}$-0.96; $M_{\theta\phi}$0.32; $M_{\phi r}$3.96; Fault plane solution: $M_0$6.05000×10^{15} NP1:ϕ_s187.35000°, δ24.57000°, λ107.00000°. NP2:ϕ_s348.77000°, δ66.57000°, λ82.39000°. Principal axes: T 5.6246, Plg68.0000°, Azm245.0000°; N 0.7812, Plg7.0000°, Azm352.0000°; P -6.4059, Plg21.0000°, Azm85.0000°;*

ISC 12 03:49:04.2±0.4**, 38°.68N**±0°.04×**142°.34E**±0°.04**, h36^{km}**±1^{km}**, h37^{km}:pP-P, n533, σ1^{s}20**/505**, mb4.8**/214**, 28C-20D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OFUJ	**Ofunato**	**0.65**	**308**	⇓*i*P	**Pn**	**03 49 16.4**	**-0.7**
OFUJ				A	A	03 49 16.4	
	comp=N,87nm,1.5s,comp=E,74nm,0.6s						
OFUJ				⇓S	**Sn**	**03 49 24.9**	**-1.1**
JKMT	**Kesennumamotoy**	**0.69**	**281**	⇓*i*P	**Pn**	**03 49 16.8**	**-0.6**
JKMT				A	A	03 49 16.8	
	comp=N,16nm,0.7s,comp=E,49nm,0.6s						
JKMT				⇓S	**Sn**	**03 49 25.6**	**-1.1**
JIKH	**Ishinomakikobu**	**0.78**	**242**	A	A	03 49 18.4	
JIO	**Ouri**	**0.81**	**254**	⇓*i*P	**Pn**	**03 49 18.5**	**-0.5**
JIO				A	A	03 49 18.5	
	comp=N,27nm,1.3s,comp=E,23nm,0.5s						
JIO				⇓S	**Sn**	**03 49 28.0**	**-1.7**
JMK	**Ichinoseki**	**0.91**	**287**	⇓*i*P	**Pn**	**03 49 20.1**	**-0.3**
JMK				A	A	03 49 20.1	
	comp=N,29nm,0.3s,comp=E,17nm,1.5s						
JMK				⇓S	**Sn**	**03 49 31.2**	**-1.1**
MIYJ	**Miyakonagasawa**	**0.98**	**336**	A	A	03 49 21.1	
	comp=N,41nm,1.1s,comp=E,38nm,1.1s						
JOFO	**Osakifurukawao**	**1.12**	**266**	A	A	03 49 23.1	
	comp=N,68nm,0.5s,comp=E,65nm,3.9s						
JOM	**Ohasama**	**1.13**	**315**	⇓*i*P	**Pn**	**03 49 23.5**	**0.0**
JOM				A	A	03 49 23.5	
	comp=N,83nm,0.4s,comp=E,84nm,0.7s						
JOM				⇓S	**Sn**	**03 49 37.4**	**-0.3**
JTH	**Tanohata**	**1.31**	**344**	P	**Pn**	**03 49 26.0**	**+0.2**
JTH				A	A	03 49 26.0	
	comp=N,10.0nm,0.3s,comp=E,17nm,0.8s						
JTH				S	**Sn**	**03 49 41.5**	**-0.6**
JOU	**Okura**	**1.35**	**257**	A	A	03 49 26.7	
	comp=N,33nm,1.9s,comp=E,28nm,0.7s						
JMM	**Marumori**	**1.46**	**237**	A	A	03 49 28.5	
	comp=N,23nm,2.3s,comp=E,12nm,1.6s						
JMST	**Minamisoumatoc**	**1.49**	**230**	A	A	03 49 29.0	
	comp=N,12nm,1.1s,comp=E,13nm,1.0s						
JRG	**Rokugo**	**1.50**	**299**	A	A	03 49 28.7	
	comp=N,21nm,0.8s,comp=E,26nm,0.4s						
JSZI	**Iwateshizukuis**	**1.51**	**315**	A	A	03 49 28.7	
	comp=N,33nm,3.8s,comp=E,36nm,1.3s						
JKZ	**Kuzumaki**	**1.52**	**329**	A	A	03 49 29.1	
	comp=N,19nm,0.7s,comp=E,21nm,0.8s						
JYK	**Kaneyama**	**1.56**	**279**	A	A	03 49 29.6	
	comp=N,7.0nm,1.5s,comp=E,8.0nm,2.0s						
JKEN	**Kujiedanarisaw**	**1.60**	**343**	A	A	03 49 30.2	
	comp=N,32nm,0.7s,comp=E,36nm,0.9s						
JFK	**Kawauchi**	**1.75**	**222**	A	A	03 49 32.9	
	comp=N,5.0nm,2.8s,comp=E,5.0nm,2.8s						
JANG	**Nango**	**1.80**	**340**	A	A	03 49 33.2	
	comp=N,18nm,0.8s,comp=E,12nm,1.6s						
JYS	**Shirataka**	**1.84**	**256**	A	A	03 49 33.8	
	comp=N,17nm,2.8s,comp=E,18nm,1.3s						
JYW	**Yuwa**	**1.86**	**298**	A	A	03 49 33.8	
	comp=N,49nm,0.9s,comp=E,66nm,0.8s						
JYAR	**Yonezawaarcadi**	**1.89**	**247**	A	A	03 49 34.6	
	comp=N,48nm,1.0s,comp=E,45nm,1.2s						
JYYZ	**Yamagatayuza**	**1.91**	**281**	A	A	03 49 34.5	
	comp=N,22nm,1.6s,comp=E,26nm,2.0s						
JOTO	**OTAMA OYAMA**	**1.94**	**235**	A	A	03 49 35.4	
	comp=N,22nm,1.8s,comp=E,24nm,1.5s						
ONAJ	**Iwakimizuishiy**	**1.99**	**218**	A	A	03 49 36.5	
	comp=N,8.0nm,0.3s,comp=E,13nm,0.4s						
JYA	**Atsumi**	**2.05**	**268**	A	A	03 49 36.8	
	comp=N,9.0nm,0.8s,comp=E,16nm,1.0s						
JNTW	**Noshirotokiwa**	**2.31**	**314**	A	A	03 49 40.3	
	comp=N,61nm,3.1s,comp=E,56nm,1.9s						
JTM	**Tenmabayashi**	**2.32**	**335**		**Pn**	**03 49 40.4**	**+0.6**
JTM				Sn	**Sn**	**03 50 07.4**	**+0.4**
JTM	**Tenmabayashi**	**2.32**	**335**	P	**Pn**	**03 49 42.0**	**+2.3**
JFY	**Yanaizu**	**2.44**	**239**	A	A	03 49 42.5	
	comp=N,4.0nm,3.7s,comp=E,5.0nm,1.7s						
JARK	**Aomorirokkasho**	**2.44**	**343**	A	A	03 49 42.3	
	comp=N,10.0nm,0.7s,comp=E,9.0nm,0.8s						
JHHS	**Hirosakihyakuz**	**2.49**	**323**	A	A	03 49 42.8	
	comp=N,49nm,2.3s,comp=E,37nm,2.4s						
JNS	**Sasagawa**	**2.53**	**251**	A	A	03 49 43.7	
	comp=N,7.0nm,5.9s,comp=E,4.0nm,2.8s						
JSB	**Shiboa**	**2.57**	**229**	A	A	03 49 44.5	
	comp=N,11nm,1.3s,comp=E,12nm,3.0s						
JIW	**Iwasaki**	**2.62**	**317**	A	A	03 49 44.8	
	comp=N,23nm,1.4s,comp=E,12nm,0.9s						
JAHD	**Aomorihigashid**	**2.69**	**344**	A	A	03 49 45.9	
	comp=N,19nm,0.7s,comp=E,20nm,1.6s						
JSI2	**Shiura 2**	**2.80**	**329**	A	A	03 49 47.3	
	comp=N,16nm,1.5s,comp=E,19nm,2.9s						
JOG3	**Oga3**	**2.81**	**297**	A	A	03 49 40.3	
	comp=N,13nm,1.4s,comp=E,15nm,1.7s						
JOT	**Ohata**	**2.87**	**340**	A	A	03 49 48.5	
	comp=N,5.0nm,1.8s,comp=E,5.0nm,4.3s						
JKT	**Katashina**	**3.10**	**233**	A	A	03 49 52.2	
	comp=N,5.0nm,3.1s,comp=E,6.0nm,4.9s						
JSR	**Shiriuchi**	**3.20**	**333**	A	A	03 49 53.1	
	comp=N,6.0nm,4.4s,comp=E,8.0nm,2.2s						
JOMM	**Oshimamatsumae**	**3.35**	**329**	A	A	03 49 55.1	
	comp=N,6.0nm,2.4s,comp=E,6.0nm,5.1s						
ERM	**Erimo**	**3.39**	**10**	*i* P	**Pn**	**03 49 55.2**	**+0.8**
ERM	**Erimo**	**3.39**	**10**		**Pn**	**03 49 54.3**	**-0.1**
ERM	**Erimo**	**3.39**	**10**	P	**Pn**	**03 49 58.8**	**+4.3**
JNBK	**Urakawa-nobuka**	**3.61**	**5**	A	A	03 49 59.1	
	comp=N,8.0nm,2.9s,comp=E,5.0nm,2.8s						
JSHD	**Hidakashinhida**	**3.72**	**2**	A	A	03 50 00.7	
	comp=N,6.0nm,3.2s,comp=E,8.0nm,3.0s						
JYM2	**Yakumo 2**	**3.74**	**337**	A	A	03 50 00.8	
	comp=N,3.0nm,1.8s,comp=E,3.0nm,4.1s						
MJAR	**Matsushiro Arr**	**3.91**	**238**	P	**Pn**	**03 50 03.8**	**+2.1**
	comp=E,8.6nm,0.3s,baz=38,slow=11,SNR=219						
MJAR				S	**Sn**	**03 50 45.5**	**-0.8**
	comp=E,38nm,0.7s,baz=56,slow=16,SNR=5.9						
MJAR				LR	LR	03 51 44.1	
	comp=E,2µm,20.2s,baz=79,slow=41						
	comp=E,115nm,0.5s						
MJAR				AML	AML		
MJAR	**Matsushiro Arr**	**3.91**	**238**	P	**Pn**	**03 50 03.7**	**+2.0**
MAJO	**Matsushiro**	**3.91**	**238**	P	**Pn**	**03 50 04.0**	**+2.3**
MAJO	**Matsushiro**	**3.91**	**238**		**Pn**	**03 50 04.0**	**+2.3**
MAJO	**Matsushiro**	**3.91**	**238**	P	**Pn**	**03 50 04.2**	**+2.5**
MJB9	**Matsu-Tunnel**	**3.91**	**238**		**Pn**	**03 50 04.0**	**+2.3**
JCH	**Churui**	**4.00**	**11**	A	A	03 50 04.8	
	comp=N,2.0nm,3.3s,comp=E,3.0nm,1.6s						
JGF	**Kuroka**	**5.03**	**234**		**Pn**	**03 50 19.8**	**+2.8**
JGF	**Kuroka**	**5.03**	**234**	P	**Pn**	**03 50 20.4**	**+3.4**
	comp=Z,391nm,0.7s						
NMR	**Nemuro--Hokkai**	**5.34**	**28**	*e*P	**Pn**	**03 50 19.8**	**-1.4**
NMR				*e*S	**Sn**	**03 51 16.2**	**-5.2**
JKA	**Kamikawa-asahi**	**5.43**	**2**		**Sn**	**03 51 25.4**	**+1.7**
JKA	**Kamikawa-asahi**	**5.43**	**2**		**Pn**	**03 50 21.8**	**-0.7**
JKA	**Kamikawa-asahi**	**5.43**	**2**	P	**Pn**	**03 50 24.0**	**+1.5**
	comp=Z,85nm,0.7s						
ASAJ	**Asahikawa**	**5.43**	**2**	P	**Pn**	**03 50 23.8**	**+1.2**
	comp=Z,5.1nm,0.3s,baz=239,slow=7.4,SNR=17						
ASAJ				S	**Sn**	**03 51 25.4**	**+1.7**
	comp=Z,108nm,0.8s,baz=266,slow=32,SNR=5.4						
	comp=Z,46nm,1.0s						
ASAJ				AML	AML		
RUSJ	**Misakicho**	**5.84**	**21**	*e*P	**Pn**	**03 50 28.2**	**+0.1**
RUSJ				*e*S	**Sn**	**03 51 32.2**	**-1.6**
JHJ2	**Mitsune**	**5.92**	**201**	Pn	**Pn**	**03 50 29.3**	**+0.1**
JHJ	**Hachijo jima 2**	**5.92**	**201**	P	**Pn**	**03 50 29.1**	**-0.2**
	comp=Z,49nm,0.3s,baz=282,slow=4.6,SNR=17						
JHJ				S	**Sn**	**03 51 33.1**	**-2.8**
	comp=Z,228nm,0.4s,baz=229,slow=23,SNR=5.9						
JHJ				LR	LR	03 52 06.1	
	comp=Z,434nm,21.2s,baz=332,slow=31						
	comp=Z,95nm,0.3s						
JHJ				AML	AML		
YUK	**Yuzh-Kuril'sk**	**5.97**	**25**	*e*P	**Pn**	**03 50 28.6**	**-1.3**
YUK				*e*S	**Sn**	**03 51 32.7**	**-4.2**
YUK				pmax	pmax		
	comp=Z,272nm,0.6s						
YUK				pmax	pmax		
	comp=E,107nm,0.5s						
YUK				pmax	pmax		
	comp=N,112nm,0.4s						
YUK				smax	smax		
	comp=N,1µm,0.6s						
YUK				smax	smax		
	comp=E,550nm,0.3s						
TEY	**Ternei**	**7.65**	**328**	*e*P	**Pn**	**03 50 53.5**	**+0.5**
YSS	**Yuzhno-Sakhali**	**8.27**	**2**	*ce*P	**Pn**	**03 51 02.3**	**+0.8**
YSS				pmax	pmax		
	comp=Z,52nm,1.3s						
YSS	**Yuzhno-Sakhali**	**8.27**	**2**	Pn	**Pn**	**03 51 01.9**	**+0.5**
YSS	**Yuzhno-Sakhali**	**8.27**	**2**	P	**Pn**	**03 51 02.3**	**+0.8**
	comp=Z,34nm,0.7s						
JMN	**Monobe**	**8.43**	**237**		**Pn**	**03 51 03.4**	**-0.4**
JMN	**Monobe**	**8.43**	**237**	P	**Pn**	**03 51 06.6**	**+2.8**
	comp=Z,47nm,0.8s						
USA0B	**Ussuriysk Arra**	**9.52**	**309**	P	**Pn**	**03 51 20.6**	**+2.0**
USA0B	**Ussuriysk Arra**	**9.52**	**309**		**Pn**	**03 51 20.6**	**+2.0**
USRK	**Ussuriysk Ar.**	**9.52**	**309**	P	**Pn**	**03 51 20.2**	**+1.6**
	comp=Z,3.2nm,0.3s,baz=116,slow=14,SNR=36						
	comp=Z,31nm,0.7s						
USRK				AML	AML		
USRK	**Ussuriysk Ar.**	**9.52**	**309**	P	**Pn**	**03 51 20.6**	**+2.0**
USRK	**Ussuriysk Ar.**	**9.52**	**309**		**Pn**	**03 51 20.6**	**+2.0**
JNU	**Nakatsue**	**10.82**	**243**	P	**Pn**	**03 51 38.6**	**+2.2**
	comp=Z,2.0nm,0.3s,baz=296,slow=0.0,SNR=14						
JNU				LR	LR	03 56 14.4	
	comp=Z,1µm,18.6s,baz=47,slow=40						
	comp=Z,14nm,0.5s						
JNU				AML	AML		
MDJ	**Mudanjiang**	**11.22**	**306**	P	**Pn**	**03 51 43.4**	**+1.5**
MDJ				pmax	pmax		
	comp=Z,17nm,1.7s						
MDJ	**Mudanjiang**	**11.22**	**306**		**Pn**	**03 51 42.2**	**+0.4**
MDJ	**Mudanjiang**	**11.22**	**306**	P	**Pn**	**03 51 44.0**	**+2.1**
	comp=Z,49nm,0.8s						
KSRS	**Korea Array**	**11.43**	**268**	P	**Pn**	**03 51 47.1**	**+2.4**
	comp=Z,1.1nm,0.3s,baz=80,slow=14,SNR=29						
KSRS				LR	LR	03 55 44.0	
	comp=Z,683nm,19.0s,baz=90,slow=35						
	comp=Z,18nm,0.8s						
KSRS				AML	AML		
KLR	**Kul'dur**	**13.00**	**328**	P	**Pn**	**03 52 06.7**	**+0.6**
	comp=Z,0.3nm,0.3s,baz=130,slow=13,SNR=7.5						
	comp=Z,3.8nm,0.9s						
KLR				AML	AML		
KLR	**Kul'dur**	**13.00**	**328**	*e*P	**Pn**	**03 52 05.1**	**-1.0**
KLR				pmax	pmax		
	comp=Z,2.0nm,1.0s						
BNX	**BinXian**	**13.11**	**307**	⇑P	**Pn**	**03 52 09.8**	**+2.1**
BNX				pmax	pmax		
	comp=Z,15nm,0.8s						
DL2	**Dalian**	**16.15**	**277**	P	**Pn**	**03 52 49.5**	**+1.3**
DL2				pmax	pmax		
	comp=Z,79nm,1.1s						
JOW	**Kunigami**	**16.69**	**229**		**Pn**	**03 52 56.3**	**+1.1**
PETK	**Petropavlovsk-**	**17.90**	**31**	P	**Pn**	**03 53 09.3**	**-0.7**
	comp=Z,4.4nm,1.0s,baz=215,slow=12,SNR=2.0						
ZEA	**Zeya**	**18.26**	**330**	*e*P	**P**	**03 53 12.9**	**-1.4**
ZEA				pmax	pmax		
	comp=E,10.0nm,0.9s						
ZEA				pmax	pmax		
	comp=N,10.0nm,1.1s						
ZEA				pmax	pmax		
	comp=Z,30nm,0.9s						
HILR	**Hailar Array B**	**19.44**	**311**	P	**P**	**03 53 24.8**	**-2.6**
	comp=Z,5.0nm,0.4s,baz=119,slow=12,SNR=8.4						
TIA	**Tai'an**	**20.15**	**271**	P	Pn	03 53 37.2	0.0
TIA				pmax	pmax		
	comp=Z,31nm,1.0s						
NJ2	**Nanjing**	**20.23**	**258**	*e*P	**P**	**03 53 36.2**	**+0.2**
NJ2				pmax	pmax		
	comp=Z,29nm,0.7s						
BJI2	**Beijing**	**20.26**	**282**	P	**P**	**03 53 34.7**	**-1.6**
BJI2				pP	Pn	03 53 42.0	+3.6
BJI2				pmax	pmax		
	comp=Z,14nm,0.8s						
BJT	**Baijiatuau**	**20.26**	**282**	P	**P**	**03 53 34.9**	**-1.4**
BJT				pmax	pmax		
	comp=Z,18nm,0.9s						
BJT	**Baijiatuau**	**20.26**	**282**		**P**	**03 53 34.9**	**-1.4**
BJT	**Baijiatuau**	**20.26**	**282**	P	**P**	**03 53 35.0**	**-1.4**
	comp=Z,22nm,0.8s						
XLT	**XiLinHaoTe**	**20.36**	**293**	*e*P	**P**	**03 53 35.6**	**-1.9**
XLT				pP	pP	03 53 46.3	-0.6
XLT				PP	**PnPn**	**03 53 56.2**	**+1.2**
XLT				pmax	pmax		
	comp=Z,52nm,0.9s						
MA2	**Magadan**	**21.59**	**12**	P	**P**	**03 53 49.7**	**-0.8**
	comp=Z,7.7nm,0.3s,baz=174,slow=14,SNR=4.3						
	comp=Z,7.7nm,0.3s						
MA2	**Magadan**	**21.59**	**12**	*ce*P	**P**	**03 53 51.8**	**+1.3**
MA2				pmax	pmax		
	comp=Z,63nm,2.5s						
MA2	**Magadan**	**21.59**	**12**	P	**P**	**03 53 49.6**	**-0.8**
MA2				IAmb	IAmb	03 54 04.5	
	comp=Z,37nm,1.2s						
MA2	**Magadan**	**21.59**	**12**	P	**P**	**03 53 49.7**	**-0.8**
	comp=Z,27nm,1.1s						
MA2	**Magadan**	**21.59**	**12**	P	**P**	**03 53 51.3**	**+0.8**
	comp=Z,25nm,1.1s						
HNS	**HongShan**	**21.77**	**275**	⇑P	**P**	**03 53 50.5**	**-2.1**
HNS				pmax	pmax		
	comp=Z,21nm,0.8s						
SSLB	**Suanglung**	**23.47**	**237**	P	**P**	**03 54 08.4**	**-2.1**
	comp=Z,32nm,0.8s						
HHC	**Hu-ho-hao-te**	**23.69**	**285**	*e*P	**P**	**03 54 12.7**	**+0.1**
HHC				pmax	pmax		

	comp=Z,15nm,0.7s						
TPUB	Ta-pu	24.02	237	P	P	03 54 13.9	-1.8
TPUB				IAmb	IAmb	03 54 32.1	
	comp=Z,40nm,1.1s						
TPUB	Ta-pu	24.02	237	P	P	03 54 13.3	-2.4
	comp=Z,35nm,0.8s						
TWG	Pinlang	24.08	235	P	P	03 54 15.3	-0.9
TWG				IAmb	IAmb	03 54 23.2	
	comp=Z,31nm,0.5s						
TWG	Pinlang	24.08	235	P	P	03 54 16.1	0.0
	comp=Z,44nm,0.7s						
LYN	LuoYang	24.27	269	P	P	03 54 16.3	-1.6
LYN				pmax	pmax		
	comp=Z,61nm,0.9s						
WHN	Wuhan	24.35	259	P	P	03 54 16.0	-2.6
YAK	Yakutsk	24.64	346	*e*P	P	03 54 19.7	-1.2
YAK				*e**PP	pP	03 54 25.9	-5.2
YAK				*e*PPP	PPP	03 54 58.4	
YAK				*e*		03 57 56.2	
YAK				*e*S	S	03 58 39.1	-0.5
YAK				*e**SS	sS	03 58 54.3	-0.4
YAK				*e*SS	SnSn	03 59 27.8	+0.8
YAK				*e*SSS	SSS	03 59 42.6	
YAK				*e*		04 05 23.7	
YAK				pmax	pmax		
	comp=Z,36nm,1.4s						
YAK				pmax	pmax		
	comp=E,4.0nm,1.9s						
YAK				pmax	pmax		
	comp=N,8.0nm,0.9s						
YAK				smax	smax		
	comp=E,162nm,4.8s						
YAK				smax	smax		
	comp=N,106nm,2.2s						
YAK	Yakutsk	24.64	346	P	P	03 54 19.9	-1.0
YAK	Yakutsk	24.64	346	P	P	03 54 20.7	-0.2
	comp=Z,57nm,0.8s						
SEY	Seymchan	25.04	11	*e*P	P	03 54 24.8	+0.3
SEY				pmax	pmax		
	comp=Z,23nm,1.0s						
CNSH	ChangSha	26.58	256	P	P	03 54 38.8	0.0
CNSH				pmax	pmax		
	comp=Z,18nm,1.0s						
ULN	Ulaanbaatar	27.08	301	*ce*P	P	03 54 44.1	+0.8
ULN				pmax	pmax		
	comp=Z,14nm,1.7s						
ULN	Ulaanbaatar	27.08	301	P	P	03 54 42.3	-1.1
ULN	Ulaanbaatar	27.08	301	P	P	03 54 43.5	+0.2
	comp=Z,31nm,0.8s						
ULN	Ulaanbaatar	27.08	301	P	P	03 54 43.9	+0.6
	comp=Z,7.8nm,0.8s						
ENH	Enshi	28.23	263		P	03 54 52.5	-1.2
ENH	Enshi	28.23	263	P	P	03 54 53.3	-0.4
	comp=Z,61nm,0.6s						
H11N2	WAKE ISLAND Hy	28.42	125	T	T	04 25 22.7	
	baz=317,slow=75,SNR=2054						
H11N1	WAKE ISLAND Hy	28.43	125	T	T	04 25 23.4	
	baz=317,slow=75,SNR=1611						
H11N3	WAKE ISLAND Hy	28.44	125	T	T	04 25 37.2	
	baz=317,slow=75,SNR=997						
H11S1	WAKE ISLAND Hy	29.20	127	T	T	04 26 19.2	
	baz=318,slow=76,SNR=238						
H11S3	WAKE ISLAND Hy	29.20	127	T	T	04 26 17.5	
	baz=318,slow=76,SNR=319						
H11S2	WAKE ISLAND Hy	29.22	127	T	T	04 26 17.3	
	baz=318,slow=76,SNR=131						
ZAK	Zakamensk	29.86	306	*e*P	P	03 55 07.5	-0.5
ZAK				pmax	pmax		
	comp=Z,15nm,1.2s						
LZH	Lanzhou	30.55	277	*e*P	P	03 55 17.2	+2.9
LZH				pP	sP	03 55 27.9	-1.2
LZH				pmax	pmax		
	comp=Z,37nm,1.5s						
LZDM	Lanzhou Array	30.70	277	P	P	03 55 15.0	-0.8
	comp=Z,2.2nm,0.3s,baz=87,slow=12,SNR=7.5						
	comp=Z,2.2nm,0.3s						
BILL	Bilibino	32.24	17	*ce*P	P	03 55 29.8	+1.1
BILL				pmax	pmax		
	comp=Z,8.0nm,1.0s						
GTA2	Gaotai	32.83	285	*e*P	P	03 55 34.5	+0.1
GTA2				pmax	pmax		
	comp=Z,9.0nm,0.9s						
KMI2	Kunming	35.93	260	P	P	03 56 01.5	+0.1
KMI2				pmax	pmax		
	comp=Z,15nm,1.1s						
PZH	PanZhiHua	36.02	263	P	P	03 56 04.1	+2.1
GOMU	GeErMu	37.48	281	P	P	03 56 12.1	-2.6
GOMU				pmax	pmax		
	comp=Z,4.0nm,0.5s						
MYLDM	Lahad Datu	39.75	219		P	03 56 34.3	+0.9
MYLDM	Lahad Datu	39.75	219	P	P	03 56 34.3	+0.9
	comp=Z,26nm,1.2s						
MYLDM	Lahad Datu	39.75	219	P	P	03 56 36.3	+2.9
	comp=Z,26nm,1.2s						
DGZ	Jazzator, Alta	40.04	304	*i* P	P	03 56 36.4	+0.7
DGZ				pmax	pmax		
	comp=Z,25nm,0.7s						
F15K	North Star Dit	40.41	31	P	P	03 56 39.5	+1.2
F15K				IAmb	IAmb	03 56 54.1	
	comp=Z,17nm,1.0s						
WMQ	Urumqi	40.77	295	*e*P	P	03 56 42.5	+0.8
WMQ				sP	sP	03 56 55.8	-1.0
WMQ				pmax	pmax		
	comp=Z,15nm,0.7s						
ZAA0	Zalesovo Array	41.36	311		P	03 56 45.9	-0.4
ZAA0				IAmb	IAmb	03 56 47.0	
	comp=Z,12nm,0.7s						
ZALV	Zalesovo Beam	41.36	311	P	P	03 56 46.3	-0.1
	comp=Z,11nm,0.5s,baz=84,slow=7.9,SNR=48						
ZALV				pP	pP	03 56 58.7	+1.9
	comp=Z,9.3nm,0.6s,baz=102,slow=9.2,SNR=6.9						
	comp=Z,11nm,0.5s						
ZALV	Zalesovo Beam	41.36	311		P	03 56 45.8	-0.6
ZSN	Zaisan	42.03	301	*e*P	P	03 56 51.9	0.0
ZSN				pmax	pmax		
	comp=Z,19nm,0.8s						
ZSN	Zaisan	42.03	301	*e*P	P	03 56 51.9	0.0
	comp=Z,18nm,0.8s						
NRIK	Noril'sk	42.09	334	P	P	03 56 51.7	-0.4
	comp=Z,3.5nm,0.4s,baz=93,slow=16,SNR=3.9						
	comp=Z,3.5nm,0.4s						
NRIK	Noril'sk	42.09	334		P	03 56 51.7	-0.4
J17K	VABM Dome	42.32	35	P	P	03 56 56.1	+2.1
J17K				IAmb	IAmb	03 57 10.3	
	comp=Z,28nm,1.0s						
CHTO	Chiang Mai	42.42	255	P	P	03 56 54.7	-0.7
CHTO				pmax	pmax		
	comp=Z,8.0nm,0.6s						
CHTO	Chiang Mai	42.42	255	P	P	03 56 54.7	-0.7
CHTO	Chiang Mai	42.42	255	P	P	03 56 55.3	-0.1
	comp=Z,11nm,0.7s						
CHTO	Chiang Mai	42.42	255	P	P	03 56 55.6	+0.2
	comp=Z,11nm,0.7s						
CHTO				pP	pP	03 57 06.1	+0.2
CMAR	Chiang Mai Arr	42.63	254	P	P	03 56 56.7	-0.4
	comp=Z,1.3nm,0.4s,baz=36,slow=5.2,SNR=6.3						
	comp=Z,1.3nm,0.4s						
CMAR	Chiang Mai Arr	42.63	254	*ce*P	P	03 56 57.5	+0.4
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
G18K	Tagagawik	42.86	31	IAmb	IAmb	03 57 13.5	
	comp=Z,17nm,0.8s						
H18K	Honhosa River	42.86	32	IAmb	IAmb	03 57 13.7	
	comp=Z,20nm,0.8s						
M17K	Holitna River	42.89	38	IAmb	IAmb	03 57 14.9	
	comp=Z,19nm,0.9s						
F19K	Shaleruckik Mo	43.37	30		P	03 57 03.3	+0.9
G19K	Purcell Mounta	43.53	31	IAmb	IAmb	03 57 19.1	
	comp=Z,12nm,0.9s						
D19K	Kuna River	43.54	27	IAmb	IAmb	03 57 20.8	
	comp=Z,34nm,0.9s						
E19K	Redstone River	43.68	29	IAmb	IAmb	03 57 20.8	
	comp=Z,30nm,1.0s						
MK31	Makanchi Array	43.88	301	*i* P	P	03 57 06.2	-0.7
MK31				pmax	pmax		
	comp=Z,8.0nm,0.7s						
MKAR	Makanchi Array	43.88	301	P	P	03 57 07.0	+0.1
	comp=Z,7.4nm,0.6s,baz=84,slow=10.0,SNR=41						
	comp=Z,7.4nm,0.6s						
MKAR	Makanchi Array	43.88	301	*ce*P	P	03 57 07.0	+0.1
MKAR				pmax	pmax		
	comp=Z,8.0nm,0.6s						
MKAR	Makanchi Array	43.88	301		P	03 57 06.4	-0.5
O18K	Koktuh Hills	43.95	40		P	03 57 07.4	+0.1
MAKZ	Makanchi	44.09	301	P	P	03 57 08.8	+0.2
MAKZ				pmax	pmax		
	comp=Z,16nm,1.0s						
MAKZ	Makanchi	44.09	301		P	03 57 08.8	+0.2
MAKZ				IAmb	IAmb	03 57 12.7	
	comp=Z,16nm,0.9s						
MAKZ	Makanchi	44.09	301	P	P	03 57 08.8	+0.2
	comp=Z,22nm,0.8s						
D20K	Etivluk River	44.13	27	IAmb	IAmb	03 57 24.1	
	comp=Z,31nm,0.8s						
SHL	Shillong	44.17	268	P	P	03 57 08.7	-1.0
SHL	Shillong	44.17	268		P	03 57 08.7	-1.0
K20K	Telida	44.56	35	IAmb	IAmb	03 57 28.2	
	comp=Z,20nm,1.0s						
G21K	Allakaket	45.01	31	IAmb	IAmb	03 57 31.4	
	comp=Z,18nm,1.0s						
KDAK	Kodiak Island	45.39	43	P	P	03 57 19.8	+1.0
KDAK				pmax	pmax		
	comp=Z,10.0nm,0.9s						
KDAK	Kodiak Island	45.39	43		P	03 57 19.8	+1.0
KDAK				IAmb	IAmb	03 57 33.8	
	comp=Z,9.9nm,0.9s						
KDAK	Kodiak Island	45.39	43	P	P	03 57 19.5	+0.8
	comp=Z,15nm,1.1s						
KURK	Kurchatov	45.51	307	*ce*P	P	03 57 19.3	-0.5
KURK				pmax	pmax		
	comp=Z,36nm,0.7s						
KURK	Kurchatov	45.51	307		P	03 57 19.3	-0.5
KURK	Kurchatov	45.51	307	P	P	03 57 19.5	-0.2
	comp=Z,54nm,1.3s						
KURBB	Kurchatov Arra	45.58	307	P	P	03 57 20.0	-0.3
	comp=Z,33nm,0.7s,baz=81,slow=8.2,SNR=183						
	comp=Z,33nm,0.7s						
MLY	Manley	46.07	33	IAmb	IAmb	03 57 40.1	
	comp=Z,18nm,1.0s						
SUA	Susitna One	46.11	38	IAmb	IAmb	03 57 40.5	
	comp=Z,15nm,1.1s						
TRF	Thorofare Moun	46.26	35	IAmb	IAmb	03 57 42.4	
	comp=Z,11nm,1.0s						
SHLS	Shalkode	46.73	297	*e*P	P	03 57 27.1	-2.6
SHLS	Shalkode	46.73	297	*e*P	P	03 57 27.1	-2.6
PMR	Palmer	46.87	38	P	P	03 57 30.3	0.0
PMR				pmax	pmax		
	comp=Z,18nm,1.2s						
PMR	Palmer	46.87	38	P	P	03 57 30.3	0.0
PMR				IAmb	IAmb	03 57 45.1	
	comp=Z,18nm,1.2s						
TDK	Taldyqorghan	46.95	299	*e*P	P	03 57 31.2	0.0
TDK				pmax	pmax		
	comp=Z,7.0nm,0.6s						
TDK	Taldyqorghan	46.95	299	*e*P	P	03 57 31.2	0.0
	comp=Z,7.5nm,0.6s						
EVN	Everest	46.98	274	IAmb	IAmb	03 57 35.4	
	comp=Z,11nm,0.6s						
EVN	Everest	46.98	274	P	P	03 57 33.1	+0.7
	comp=Z,15nm,0.6s						
UZB	Uzynbulak	47.05	297	*e*P	P	03 57 31.8	-0.4
UZB	Uzynbulak	47.05	297	*e*P	P	03 57 31.9	-0.4
E24K	Your Creek	47.05	29	IAmb	IAmb	03 57 47.3	
	comp=Z,21nm,0.9s						
KPKS	Kokpek	47.19	297	*e*P	P	03 57 33.1	-0.1
KPKS	Kokpek	47.19	297	*e*P	P	03 57 33.1	-0.1
SML	Sawmill	47.24	37	IAmb	IAmb	03 57 47.9	
	comp=Z,14nm,1.0s						
H24K	Noodor Dome	47.27	32	IAmb	IAmb	03 57 49.1	
	comp=Z,13nm,1.0s						
COLA	College	47.30	33	P	P	03 57 35.6	+2.0
	comp=Z,11nm,1.0s						
CCB	Clear Creek Bu	47.33	33	IAmb	IAmb	03 57 50.7	
	comp=Z,16nm,1.3s						
SATY	Saty	47.50	297	*e*P	P	03 57 35.5	-0.2
SATY	Saty	47.50	297	*e*P	P	03 57 35.5	-0.2
WUS	Wushi	47.51	294	P	P	03 57 36.5	+0.7
	comp=Z,14nm,1.1s						
HDA	Harding Lake	47.71	34	IAmb	IAmb	03 57 51.5	
	comp=Z,19nm,1.0s						
IL31		47.72	33	IAmb	IAmb	03 57 51.7	
	comp=Z,17nm,0.9s						
ILAR	Eielson Array	47.72	33	P	P	03 57 38.0	+1.1
	comp=Z,2.9nm,0.7s,baz=266,slow=6.2,SNR=32						
ILAR				pP	pP	03 57 49.2	+2.0
	comp=Z,12nm,0.9s,baz=270,slow=6.7,SNR=29						
	comp=Z,2.9nm,0.7s						
ILAR	Eielson Array	47.72	33		P	03 57 37.7	+0.8
TARG	Taragay, Kyrgy	48.34	295	P	P	03 57 43.5	+0.9
TARG	Taragay, Kyrgy	48.34	295	IAmb	IAmb	03 58 11.9	
	comp=Z,7.1nm,1.0s						
TARG	Taragay, Kyrgy	48.34	295	P	P	03 57 43.5	+0.9
	comp=Z,7.8nm,0.8s						
KLU	Klutina	48.41	38	IAmb	IAmb	03 57 58.5	
	comp=Z,15nm,1.1s						
MDOK	Medeo	48.42	297	*e*P	P	03 57 42.7	-0.1
MDOK	Medeo	48.42	297	*e*P	P	03 57 42.7	-0.1
AAA	Alma-Ata	48.49	297	*e*P	P	03 57 43.2	-0.1
AAA				pmax	pmax		
	comp=Z,11nm,0.4s						
AAA	Alma-Ata	48.49	297	*e*P	P	03 57 43.2	-0.1
	comp=Z,11nm,0.4s						
TNSS	Tian-Shan	48.53	297	*e*P	P	03 57 43.7	-0.3
TNSS	Tian-Shan	48.53	297	*e*P	P	03 57 43.7	-0.3
BMAR	Burnt Mountain	48.54	30		P	03 57 45.3	+2.0
KUU	Kurty	48.68	298	*e*P	P	03 57 44.6	-0.1
KUU	Kurty	48.68	298	*e*P	P	03 57 44.6	-0.1
BMRM	Bremner River	49.11	38	IAmb	IAmb	03 58 09.0	
	comp=Z,23nm,1.2s						
MENT	Mentasta	49.27	35	IAmb	IAmb	03 58 07.3	
	comp=Z,15nm,1.0s						
BOOM	Boomskoye usch	49.41	297	P	P	03 57 50.9	+0.5
BOOM	Boomskoye usch	49.41	297	IAmb	IAmb	03 58 25.5	
	comp=Z,6.4nm,0.8s						
ASAI	AK-SAY(Kyrgyzs	49.52	295	P	P	03 57 52.1	+0.5
	comp=Z,6.5nm,1.0s						
VRDI	Verde Repeater	49.63	38	IAmb	IAmb	03 58 07.6	
	comp=Z,13nm,1.2s						
M26K	Nabesna, AK	49.67	36	IAmb	IAmb	03 58 08.2	
	comp=Z,13nm,1.1s						
K27K	Chicken	49.86	34	IAmb	IAmb	03 58 08.6	
	comp=Z,15nm,1.0s						
SGDS	Sogindy	50.00	298	*e*P	P	03 57 54.7	-0.1
BVAR	Borovoye Array	50.02	311	P	P	03 57 54.6	-0.1
	comp=Z,7.8nm,0.5s,baz=67,slow=7.9,SNR=38						
BVAR				PcP	PcP	03 59 14.6	+0.4
	comp=Z,4.8nm,0.5s,baz=61,slow=4.3,SNR=5.0						
	comp=Z,7.8nm,0.5s						
BORK	Borovoye	50.05	311	*i* P	P	03 57 54.9	-0.1
BORK				pmax	pmax		
	comp=Z,7.0nm,0.6s						
BORK	Borovoye	50.05	311		P	03 57 55.0	+0.1
BORK				IAmb	IAmb	03 57 55.6	
	comp=Z,7.3nm,0.6s						
L27K	Beaver Creek,	50.11	35	IAmb	IAmb	03 58 12.0	
	comp=Z,19nm,1.1s						
BCAR	Beaver Creek A	50.13	35		P	03 57 56.9	+1.5
AAK	Ala-Archa	50.36	297	P	P	03 57 57.2	-0.5
AAK				pmax	pmax		
	comp=Z,6.0nm,1.1s						
AAK	Ala-Archa	50.36	297		P	03 57 57.2	-0.5
AAK	Ala-Archa	50.36	297	P	P	03 57 57.8	+0.1
	comp=Z,4.0nm,1.7s						
I28M	Miner Creek	50.58	32	IAmb	IAmb	03 58 14.3	
	comp=Z,13nm,1.0s						
KSH2	Kashi	50.84	293	P	P	03 58 02.0	+0.6
KSH2				pmax	pmax		
	comp=Z,6.0nm,1.1s						
ARSB	Arslanbob	51.88	296	IAmb	IAmb	03 58 14.4	
	comp=Z,7.5nm,0.6s						
MTN	Manton Dam	52.32	194		P	03 58 11.4	-0.8
MTN				IAmb	IAmb	03 58 13.7	
	comp=Z,10nm,1.2s						
ARK	Arkit	52.42	297	P	P	03 58 14.0	+1.0
DZA	Taraz	52.46	299	*e*P	P	03 58 13.0	-0.2
DZA				pmax	pmax		
	comp=Z,8.0nm,0.8s						
DZA	Taraz	52.46	299	*e*P	P	03 58 13.1	-0.2
	comp=Z,8.2nm,0.8s						
INK	Inuvik	52.59	28	P	P	03 58 16.0	+2.3
INK	Inuvik	52.59	28	P	P	03 58 16.0	+2.3
	comp=Z,12nm,1.2s						
KK31	Karatay Array	52.94	299	*i* P	P	03 58 16.2	-0.6
KKAR	Karatay Array	52.94	299	P	P	03 58 16.0	-0.7
KKAR	Karatay Array	52.94	299		P	03 58 16.0	-0.7
TRKS	Terek-Say	53.09	297	P	P	03 58 18.5	+0.4
N31M	Braeburn, Yuko	53.19	36	IAmb	IAmb	03 58 36.0	
	comp=Z,20nm,1.1s						
PSI	Prapat	53.27	239	P	P	03 58 19.9	+0.4
PSI				pmax	pmax		
	comp=Z,10.0nm,0.9s						
BRLS	Borolday	53.43	299	*e*P	P	03 58 21.5	+1.2
BRLS	Borolday	53.43	299	*e*P	P	03 58 21.6	+1.2
IUG	Iuzhnay	53.62	298	*e*P	P	03 58 21.8	-0.1
IUG				pmax	pmax		
	comp=Z,10.0nm,1.3s						
IUG	Iuzhnay	53.62	298	*e*P	P	03 58 21.8	-0.1
	comp=Z,9.9nm,1.3s						
CHM	Chimkent	53.85	299	*e*P	P	03 58 23.4	0.0
CHM				pmax	pmax		
	comp=Z,8.0nm,0.7s						
CHM	Chimkent	53.85	299	*e*P	P	03 58 23.5	0.0
	comp=Z,7.7nm,0.7s						
BTK	Batken	53.88	296	P	P	03 58 23.7	-0.1
SVE	Sverdlovsk	54.40	318	*e*P	P	03 58 27.7	+0.5
SVE				pmax	pmax		
	comp=Z,20nm,0.9s						
NIL	Nilore	54.80	288	P	P	03 58 29.6	-0.9
NIL				pmax	pmax		
	comp=Z,19nm,0.7s						
NIL	Nilore	54.80	288		P	03 58 29.6	-0.9
NIL	Nilore	54.80	288	P	P	03 58 31.3	+0.7
	comp=Z,30nm,0.7s						
KNRA	Kununurra	55.55	196		P	03 58 35.7	-0.1
ARTI	Arti	55.72	318	*c i*P	P	03 58 36.3	-0.4
ARTI						03 59 38.1	
ARTI				S	S	04 06 18.4	-2.1
ARTI				SS	SS	04 09 58.2	-7.4
ARTI				pmax	pmax		
	comp=Z,35nm,1.2s						
ARTI	Arti	55.72	318		P	03 58 36.5	-0.2
AB31	Akbulak array	57.44	310	*i* P	P	03 58 48.7	-0.4
AB31	Akbulak array	57.44	310		P	03 58 48.6	-0.5
AB31				IAmb	IAmb	03 58 49.5	
	comp=Z,10nm,0.6s						
ABKAR	Akbulak array	57.44	310		P	03 58 48.5	-0.6
KBL	Kabul	57.52	290	P	P	03 58 49.3	-0.8
KBL				pmax	pmax		
	comp=Z,15nm,1.2s						
KBL	Kabul	57.52	290	P	P	03 58 49.3	-0.8
KBL				IAmb	IAmb	03 58 56.8	
	comp=Z,14nm,1.1s						
KBL	Kabul	57.52	290	P	P	03 58 49.4	-0.7
	comp=Z,13nm,1.0s						
AKTO	Aktyubinsk	58.12	311	P	P	03 58 53.1	-0.7
FITZ	Fitzroy Crossi	58.61	199		P	03 58 58.0	+0.6
FITZ	Fitzroy Crossi	58.61	199	P	P	03 58 58.3	+0.8
	comp=Z,2.4nm,1.8s						
FITZ				pP	pP	03 59 09.9	+1.7
WB0	Warramunga Arr	58.62	189		P	03 58 57.2	-0.3
WRAB	Tennant Creek	58.78	189	*ce*P	P	03 58 57.8	-0.9
WRAB				pmax	pmax		
	comp=Z,12nm,0.7s						
WRAB	Tennant Creek	58.78	189	P	P	03 58 58.6	0.0
	comp=Z,17nm,0.9s						
WR8	Warramunga Arr	58.79	189		P	03 58 58.5	-0.2
WRA	Warramunga Arr	58.80	189	P	P	03 58 58.6	-0.2
	comp=Z,14nm,0.8s,baz=7.5,slow=6.9,SNR=86						
	comp=Z,14nm,0.8s						
WRA	Warramunga Arr	58.80	189		P	03 58 57.4	-1.3
SPITS	Spitsbergen Ar	59.05	349	P	P	03 59 00.2	+0.3
	comp=Z,3.7nm,0.7s,baz=55,slow=6.4,SNR=5.9						
	comp=Z,3.7nm,0.7s						
KIRV	Kirov	59.38	323	*ce*P	P	03 59 02.7	+0.3
APA	Apatity	61.49	336	*e*P	P	03 59 14.4	-2.3
APA				*e*		03 59 57.3	
APA				*e*		04 01 35.2	
APA				pmax	pmax		
	comp=Z,6.0nm,0.9s						
APA				MLR	MLR		
	comp=Z,907nm,4.3s						
YKA	Yellowknife Ar	62.02	31	P	P	03 59 20.3	0.0
	comp=Z,1.6nm,0.7s,baz=299,slow=7.2,SNR=2.7						
YKA				pP	pP	03 59 32.9	+1.9
	comp=Z,3.1nm,0.9s,baz=301,slow=5.9,SNR=3.8						
	comp=Z,1.6nm,0.7s						
AS31	Alice Springs	62.52	189		P	03 59 23.9	-0.2
ASAR	Alice Springs	62.52	189	P	P	03 59 24.1	0.0
	comp=Z,5.3nm,0.7s,baz=11,slow=5.9,SNR=54						
	comp=Z,5.3nm,0.7s						
ASAR	Alice Springs	62.52	189		P	03 59 24.0	-0.1
ARCES	ARCESS Array B	62.71	339	P	P	03 59 24.5	-0.4
	comp=Z,0.8nm,0.4s,baz=53,slow=7.6,SNR=21						
	comp=Z,0.8nm,0.4s						
ARCES	ARCESS Array B	62.71	339	IAmb	IAmb	03 59 33.4	
	comp=Z,11nm,1.3s						
KLMR	Klimovskoe	62.76	328	*e*P	P	03 59 23.5	-1.8
KLMR				pmax	pmax		
	comp=Z,21nm,1.4s						
E03A	Lebam	65.68	49	P	P	03 59 46.2	+1.5
E03A				IAmb	IAmb	04 00 02.1	
	comp=Z,13nm,1.0s						
MOS	Moscow	66.36	323	*e*P	P	03 59 49.3	+0.4
STD	Studebaker Rid	66.64	49	IAmb	IAmb	04 00 06.8	
	comp=Z,8.9nm,0.8s						
OBN	Obninsk	67.21	323	*de*P	P	03 59 54.4	+0.1
OBN				*e**PP	pP	04 00 03.3	-1.9
OBN				*e**SP	sP	04 00 07.6	-2.0
OBN				*e*		04 00 21.5	
OBN				*e*PPP	PPP	04 04 01.2	
OBN				pmax	pmax		
	comp=Z,25nm,1.4s						
OBN				MLR	MLR		
	comp=Z,259nm,17.0s						
FINES	FINESS Array B	67.70	332	P	P	03 59 57.1	-0.2
	comp=Z,11nm,0.8s,baz=58,slow=7.9,SNR=19						
	comp=Z,11nm,0.8s						
NEW	Newport	68.44	45	P	P	04 00 03.5	+1.2
NEW	Newport	68.44	45	P	P	04 00 03.5	+1.2
	comp=Z,6.5nm,1.3s						
PINE	Pine Mountain	68.72	51	IAmb	IAmb	04 00 20.2	
	comp=Z,11nm,1.0s						
L04D	Klamath Falls	68.75	53	IAmb	IAmb	04 00 19.9	
	comp=Z,12nm,0.9s						
SUMG	Summit	69.04	0	P	P	04 00 06.3	+0.3
SUMG				pmax	pmax		
	comp=Z,12nm,0.9s						
SUMG	Summit	69.04	0		P	04 00 06.3	+0.3
SUMG				IAmb	IAmb	04 00 07.9	
	comp=Z,12nm,0.9s						
K05A	Summer Lake	69.34	51	IAmb	IAmb	04 00 25.9	
	comp=Z,18nm,1.2s						
GOF	Gofitskoye	69.54	312	*ce*P	P	04 00 09.3	+0.2
O03E	Paynes Creek	70.13	54	IAmb	IAmb	04 00 28.4	
	comp=Z,22nm,1.5s						
STKA	Stephens Creek	70.20	181	P	P	04 00 12.4	-0.7
	comp=Z,1.7nm,0.7s,baz=307,slow=16,SNR=4.0						
	comp=Z,1.7nm,0.7s						
KIV	Kislovodsk	70.38	311	*e*P	P	04 00 14.6	+0.3
KIV				pmax	pmax		
	comp=Z,35nm,1.1s						
KIV	Kislovodsk	70.38	311		P	04 00 14.6	+0.3
KIV	Kislovodsk	70.38	311	⇑P	P	04 00 15.7	+1.4
KIV	Kislovodsk	70.38	311	P	P	04 00 14.2	-0.2
	comp=Z,39nm,1.0s						
KIV	Kislovodsk	70.38	311	P	P	04 00 15.0	+0.6
	comp=Z,50nm,1.0s						
KBZ	Khabaz	70.38	311	P	P	04 00 15.1	+0.8
	comp=Z,12nm,0.9s,baz=61,slow=2.7,SNR=24						
	comp=Z,12nm,0.9s						
SHA1	Shidzhatmaz	70.52	311	*ce*P	P	04 00 16.4	+1.0
WVOR	Wild Horse Val	70.88	51	P	P	04 00 19.5	+2.0
WVOR	Wild Horse Val	70.88	51	P	P	04 00 19.5	+2.0
	comp=Z,5.1nm,2.0s						
BEKR	Beckworth	71.29	54	IAmb	IAmb	04 00 35.1	
	comp=Z,6.8nm,0.9s						
MNK	Minsk	71.54	326	*i* P	P	04 00 21.9	+0.9
MNK				*i*		04 03 00.8	
MNK				*i* PPP	PPP	04 04 44.6	
MNK				*i* S	S	04 09 39.0	+1.8
MNK				*i* SS	SS	04 14 16.0	+4.4
MNK				pmax	pmax		
	comp=N,4.0nm,0.7s						
MNK				pmax	pmax		
	comp=Z,18nm,0.8s						
MNK				pmax	pmax		
	comp=E,11nm,0.8s						
MNK	Minsk	71.54	326	*i* P	P	04 00 21.9	+0.9
	comp=E,11nm,0.8s						
MNK				*i* P	P	04 00 21.9	+0.9
	comp=N,4.0nm,0.7s						
MNK				*i* P	P	04 00 21.9	+0.9
	comp=Z,18nm,0.8s,baz=48						
MNK				*i* PP	PP	04 03 00.8	+1.3
MNK				*i* PPP	PPP	04 04 44.6	
MNK				*i* S	S	04 09 39.0	+1.8
MNK				*i* SS	SS	04 14 16.1	+4.4
MNK				*i* SSS	SSS	04 17 39.2	

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MNK                                  i LR    LR       04 32 25.7
NACGM  Naroch            71.75 327  eP      P        04 00 22.6 +0.3
       comp=Z,25nm,0.9s,baz=48
UOSS   Minazif           72.00 288          P        04 00 23.9 -0.4
UOSS                                 IAmb   IAmb     04 00 24.9
       comp=Z,7.8nm,0.8s
UOSS   Minazif           72.00 288   P      P        04 00 24.4  0.0
       comp=Z,13nm,1.2s
HLID   Hailey            72.72  48   P      P        04 00 29.9 +1.3
       comp=Z,2.2nm,0.5s
HLID                                 pP     sP       04 00 42.6 -0.8
HFS    Hagfors           72.89 336   P      P        04 00 29.0  0.0
       comp=Z,2.7nm,0.4s,baz=50,slow=7.9,SNR=16
       comp=Z,2.7nm,0.4s
NB2    NORSAR Subarra    72.95 337   P      P        04 00 29.6 +0.2
       comp=Z,3.2nm,0.7s,baz=37,slow=6.2
NOA    NORSAR Array B    72.95 337   P      P        04 00 29.4 -0.1
       comp=Z,3.7nm,0.6s,baz=38,slow=6.0,SNR=14
       comp=Z,3.7nm,0.6s
NORES  NORESS Array B    73.09 337   P      P        04 00 29.9 -0.3
HOMI   Horasan           73.13 308  ⇑P      P        04 00 29.8 -1.4
LHV    Little Huntoon    73.40  54   IAmb   IAmb     04 00 49.2
       comp=Z,19nm,1.3s
AK03   Malin Array Si    73.42 322   P      P        04 00 31.5 -0.8
AKASG  Malin Array Be    73.44 322   P      P        04 00 32.1 -0.4
       comp=Z,7.2nm,0.6s,baz=47,slow=5.9,SNR=37
       comp=Z,7.2nm,0.6s
AKASG  Malin Array Be    73.44 322ceP       P        04 00 32.0 -0.4
AKASG                                pmax   pmax
       comp=Z,8.0nm,0.6s
AKASG  Malin Array Be    73.44 322   IAmb   IAmb     04 00 33.3
       comp=Z,5.2nm,1.1s
AKBB   Malin Array Si    73.44 322ceP       P        04 00 32.0 -0.4
AKBB   Malin Array Si    73.44 322          P        04 00 32.0 -0.4
AKBB                                 IAmb   IAmb     04 00 33.0
       comp=Z,19nm,0.9s
AKBB   Malin Array Si    73.44 322   P      P        04 00 32.1 -0.4
AK23   Malin Array Si    73.45 322   P      P        04 00 32.0 -0.5
AK01   Malin Array Si    73.45 322   P      P        04 00 31.9 -0.6
KIEV   Kiev              73.45 322   P      P        04 00 31.9 -0.6
KIEV                                 pmax   pmax
       comp=Z,16nm,0.9s
KIEV   Kiev              73.45 322          P        04 00 31.9 -0.6
KIEV                                 IAmb   IAmb     04 00 33.0
       comp=Z,16nm,0.9s
KIEV   Kiev              73.45 322  ⇑P      P        04 00 32.3 -0.2
KIEV   Kiev              73.45 322   P      P        04 00 31.9 -0.6
       comp=Z,90nm,0.9s
KIEV                                 pP     pP       04 00 41.3 -2.2
       comp=Z,90nm,0.9s
KIEV   Kiev              73.45 322   P      P        04 00 32.3 -0.2
       comp=Z,23nm,0.9s
AK04   Malin Array Si    73.45 322   P      P        04 00 31.6 -0.9
AK09   Malin Array Si    73.47 322   P      P        04 00 32.2 -0.4
AK08   Malin Array Si    73.47 322   P      P        04 00 32.0 -0.6
AK22   Malin Array Si    73.47 323   P      P        04 00 32.0 -0.6
GURO   Guroymak-BITLI    73.94 307   IAmb   IAmb     04 00 37.4
       comp=Z,14nm,0.9s
RNPP9  Sopachiv          74.52 324   P      P        04 00 38.3 -0.4
RNPP8  Varash            74.58 324   P      P        04 00 39.2 +0.1
LUBAR  Lubar, Ukraine    74.66 322   P      P        04 00 39.4 -0.2
NWAO   Narrogin (SRO)    74.97 202   LR     LR       04 36 53.8
       comp=Z,156nm,18.9s,baz=275,slow=38
BAL3X  Bal3x, Balta      75.09 320   P      P        04 00 41.9 -0.2
SORM   Soroca            75.58 321  ⇑P      P        04 00 44.5 -0.4
SORM   Soroca            75.58 321   P      P        04 00 44.6 -0.3
       comp=Z,12nm,1.0s
HWUT   Hardware Ranch    75.58  48   P      P        04 00 47.1 +1.7
       comp=Z,9.5nm,1.2s
PDAR   Pinedale Array    76.00  46   P      P        04 00 48.8 +1.0
       comp=Z,2.0nm,0.6s,baz=266,slow=2.3,SNR=29
       comp=Z,2.0nm,0.6s
PDAR   Pinedale Array    76.00  46   P      P        04 00 48.4 +0.7
KMPD   K-Podol'skiy      76.21 322   P      P        04 00 48.2 -0.3
BUR08  Bucovina Ar. S    77.46 322          P        04 00 55.7 -0.1
BUR08                                IAmb   IAmb     04 00 58.6
       comp=Z,6.5nm,0.8s
BURAR  Bucovina Array    77.47 322          P        04 00 56.0 +0.3
BURAR                                IAmb   IAmb     04 00 56.9
       comp=Z,5.5nm,0.7s
BURAR  Bucovina Array    77.47 322  ⇓P      P        04 00 55.7  0.0
TESR   Tescani           77.53 320   P      P        04 00 55.2 -0.9
       comp=Z,18nm,1.1s
ULM    Lac du Bonnet     77.73  34   P      P        04 00 56.5 -0.5
       comp=Z,2.9nm,0.8s,baz=167,slow=6.9,SNR=3.3
       comp=Z,2.9nm,0.8s
ULM    Lac du Bonnet     77.73  34   IAmb   IAmb     04 00 57.9
       comp=Z,4.8nm,0.9s
KOLS   Kolonicke sedl    77.91 324  eP      P        04 00 58.7 +0.6
KOLS                                 pmax   pmax
       comp=Z,7.0nm,1.3s
KOLS   Kolonicke sedl    77.91 324  eP      P        04 00 58.7 +0.6
STHS   Stebnicka Huta    78.03 325  eP      P        04 00 59.4 +0.6
STHS                                 pmax   pmax
       comp=Z,10.0nm,1.4s
STHS   Stebnicka Huta    78.03 325  eP      P        04 00 59.4 +0.6
OJC    Ojcow             78.08 326   P      P        04 00 59.0  0.0
OJC                                  AP     pP       04 01 11.9 +1.9
OJC    Ojcow             78.08 326   P      P        04 00 58.8 -0.2
       comp=Z,18nm,1.6s
OJC    Ojcow             78.08 326   P      P        04 00 60.0 +1.0
       comp=Z,17nm,1.6s
OJC                                  pP     pP       04 01 11.9 +1.9
TURR   Turia             78.17 320  ⇓P      P        04 01 00.5 +0.9
BRTR   Keskin Array B    78.30 312   P      P        04 01 00.7 +0.1
       comp=Z,1.8nm,0.4s,baz=111,slow=3.0,SNR=24
       comp=Z,1.8nm,0.4s
BRTR   Keskin Array B    78.30 312          P        04 01 00.4 -0.2
BR106  Keskin Array S    78.31 312   P      P        04 01 00.2 -0.4
       comp=Z,31nmcomp=Z,3.2nm,1.2s
BR104  Keskin Array S    78.31 312   P      P        04 01 00.2 -0.5
       comp=Z,42nmcomp=Z,4.4nm,1.1s
BR105  Keskin Array S    78.32 312   P      P        04 01 00.3 -0.4
       comp=Z,4.4nm,0.7s
TRPA   Tarpa             78.37 324   P      P        04 01 01.4 +0.8
       comp=Z,18nm,0.9s
NIE    Niedzica          78.45 326   P      P        04 01 00.8 -0.3
       comp=Z,5.4nm,1.0s
DOPR   Dopca             78.54 321  ⇓P      P        04 01 02.6 +1.0
BSEG   Bad Segeberg      78.92 333   P      P        04 01 04.5 +1.0
BSEG   Bad Segeberg      78.92 333   P      P        04 01 04.5 +1.0
       comp=Z,20nm,1.0s
LANS   Liptovska Anna    79.01 326  eP      P        04 01 05.8 +1.6
LANS                                 pmax   pmax
       comp=Z,4.0nm,0.9s
LANS   Liptovska Anna    79.01 326  eP      P        04 01 05.8 +1.6
KSP    Ksiaz             79.08 329   P      P        04 01 04.2 -0.3
       comp=Z,15nm,1.2s
VOIR                     79.08 320   P      P        04 01 05.8 +1.1
VOIR                     79.08 320  ⇑P      P        04 01 05.0 +0.3
VOIR                     79.08 320   P      P        04 01 04.4 -0.3
       comp=Z,5.9nm,1.7s
VOIR                     79.08 320   P      P        04 01 05.8 +1.1
       comp=Z,5.9nm,1.7s
MARR   Marisel-Cluj      79.14 322  ⇓P      P        04 01 05.0  0.0
STEB   Steborice         79.16 327  eP      P        04 01 05.8 +0.9
STEB                                ex      x        04 01 19.8
ARR    Arges             79.34 321  ⇑P      P        04 01 06.3 +0.2
ARR    Arges             79.34 321   P      P        04 01 07.4 +1.3
       comp=Z,20nm,1.1s
MORC   Moravsky Berou    79.37 327   P      P        04 01 06.9 +0.7
MORC                                 pmax   pmax
       comp=Z,13nm,1.0s
MORC   Moravsky Berou    79.37 327  eP      P        04 01 06.5 +0.3
MORC   Moravsky Berou    79.37 327  ⇓P      P        04 01 06.7 +0.5
MORC   Moravsky Berou    79.37 327   P      P        04 01 06.9 +0.7
       comp=Z,12nm,1.0s
CHVC   Chvalec           79.38 328  eP      P        04 01 06.7 +0.6
CHVC   Chvalec           79.38 328  eP      P        04 01 06.7 +0.6
DPC    Dobruska-Polom    79.45 328  eP      P        04 01 07.7 +1.1
DPC    Dobruska-Polom    79.45 328  eP      P        04 01 07.7 +1.1
DPC    Dobruska-Polom    79.45 328   P      P        04 01 06.2 -0.4
       comp=Z,7.7nm,1.4s
DPC    Dobruska-Polom    79.45 328   P      P        04 01 07.7 +1.1
       comp=Z,7.7nm,1.4s
UPC    Upice             79.45 328  eP      P        04 01 07.3 +0.8
UPC    Upice             79.45 328  eP      P        04 01 07.3 +0.8
KRLC   Kraliky           79.47 328  eP      P        04 01 07.0 +0.3
KRLC   Kraliky           79.47 328  eP      P        04 01 07.0 +0.3
KRLC   Kraliky           79.47 328   P      P        04 01 07.7 +1.1
       comp=Z,11nm,0.9s
KRLC                                 pP     pP       04 01 19.8 +2.1
MAUC   Maruska           79.56 327  eP      P        04 01 07.9 +0.7
LOT    Lotru             79.71 321   P      P        04 01 08.4 +0.2
       comp=Z,5.1nm,1.7s
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PSZ    Piszkesteto       79.74 325   P      P        04 01 08.7 +0.5
PSZ    Piszkesteto       79.74 325  ⇓P      P        04 01 08.9 +0.7
PSZ    Piszkesteto       79.74 325   P      P        04 01 08.7 +0.5
VYHS   Vyhne             79.78 326  eP      P        04 01 08.7 +0.3
VYHS                                 pmax   pmax
       comp=Z,8.0nm,1.0s
VYHS   Vyhne             79.78 326  eP      P        04 01 08.7 +0.3
FLTG   Flechtingen       79.88 332   P      P        04 01 07.7 -1.1
       comp=Z,20nm,0.8s
BRG    Berggiesshubel    80.00 330   P      P        04 01 09.9 +0.4
BRG    Berggiesshubel    80.00 330   P      P        04 01 09.9 +0.4
       comp=Z,11nm,1.1s
BRG                                  pP     pP       04 01 20.3 -0.3
BRG    Berggiesshubel    80.00 330  i P     P        04 01 09.9 +0.4
BRG                                  Amp             04 01 10.5
       comp=Z,6.0nm,0.8s
BRG                                  pP     sP       04 01 23.5 -1.4
BRG                                  Amp             04 01 24.1
       comp=Z,4.6nm,0.9s
JAVC   Velka Javorina    80.01 327  eP      P        04 01 10.9 +1.2
CLL    Collm             80.03 330  i P     P        04 01 09.5 -0.1
CLL                                 e*PP    pP       04 01 22.0 +1.3
CLL                                 e*SP    sP       04 01 27.0 +2.0
CLL                                  pmax   pmax
       comp=Z,15nm,0.9s
CLL    Collm             80.03 330   P      P        04 01 09.5 -0.1
       comp=Z,17nm,0.9s
CLL    Collm             80.03 330   P      P        04 01 09.6  0.0
       comp=Z,17nm,0.9s
CLL    Collm             80.03 330  i P     P        04 01 09.5 -0.1
       comp=Z,15nm,0.9s
CLL                                 epP     pP       04 01 22.0 +1.3
CLL                                 esP     sP       04 01 27.0 +2.0
VRAC   Vranov            80.13 327   P      P        04 01 11.3 +1.0
VRAC   Vranov            80.13 327  eP      P        04 01 10.8 +0.5
VRAC   Vranov            80.13 327  ⇑P      P        04 01 11.1 +0.8
VRAC   Vranov            80.13 327   P      P        04 01 11.3 +1.0
       comp=Z,4.5nm,1.1s
MVCO   Mesa Verde        80.23  50   P      P        04 01 12.7 +1.4
       comp=Z,5.5nm,1.5s
GZR    Gura Zlata        80.23 322  ⇓P      P        04 01 10.9 -0.1
SMOL   Smolenice         80.38 326  eP      P        04 01 12.8 +1.2
SMOL                                 pmax   pmax
       comp=Z,2.0nm,0.9s
KRUC   Moravsky          80.40 327  eP      P        04 01 12.1 +0.4
HSKC   Hora Svate Kat    80.41 330  eP      P        04 01 12.2 +0.4
HSKC   Hora Svate Kat    80.41 330   P      P        04 01 12.4 +0.6
       comp=Z,13nm,0.9s
PRU    Pruhonice         80.45 329  eP      P        04 01 12.2 +0.3
PRU    Pruhonice         80.45 329  eP      P        04 01 12.2 +0.3
PRU    Pruhonice         80.45 329   P      P        04 01 12.7 +0.7
       comp=Z,9.4nm,1.0s
PRU                                  pP     pP       04 01 22.5 -0.5
SRO    Srobarova         80.52 326  eP      P        04 01 13.3 +1.0
SRO                                  pmax   pmax
       comp=Z,13nm,0.9s
SRO    Srobarova         80.52 326  eP      P        04 01 13.3 +1.0
MODS   Modra-Piesok      80.55 326  eP      P        04 01 13.6 +1.1
MODS                                 pmax   pmax
       comp=Z,20nm,1.2s
MODS   Modra-Piesok      80.55 326  eP      P        04 01 13.6 +1.1
MODS   Modra-Piesok      80.55 326   P      P        04 01 13.8 +1.3
       comp=Z,17nm,1.2s
CLZ    Clausthal         80.59 332   P      P        04 01 13.4 +0.7
       comp=Z,14nm,1.3s
TREC   Trest             80.61 328   P      P        04 01 13.8 +1.0
TREC   Trest             80.61 328  eP      P        04 01 13.5 +0.7
TREC   Trest             80.61 328   P      P        04 01 13.8 +1.0
       comp=Z,13nm,1.4s
BZS    Buzias            80.63 322   P      P        04 01 12.2 -0.8
BZS    Buzias            80.63 322   P      P        04 01 12.2 -0.8
       comp=Z,4.9nm,2.1s
RAYN   Ar Rayn           80.70 293   P      P        04 01 13.7 -0.1
RAYN   Ar Rayn           80.70 293   P      P        04 01 13.7 -0.1
       comp=Z,9.4nm,1.4s
ZVC    Zvikov            81.03 329  eP      P        04 01 15.7 +0.7
MDVR   Moldovita         81.20 322  ⇓P      P        04 01 15.2 -0.9
WINA   Alland / Wiene    81.28 327  i P     P        04 01 17.3 +1.0
       SNR=5.7
MPLH   Magyarpolny       81.35 325   P      P        04 01 15.7 -1.1
       comp=Z,10.0nm,1.1s
SOP    Sopron            81.39 326   P      P        04 01 18.1 +1.1
SOP    Sopron            81.39 326   P      P        04 01 18.1 +1.1
       comp=Z,14nm,1.1s
CKRC   Cesky Krumlov     81.46 328  eP      P        04 01 18.0 +0.6
CKRC   Cesky Krumlov     81.46 328  eP      P        04 01 18.0 +0.6
RONA   Rosalia, Austr    81.49 326  i P     P        04 01 17.9 +0.3
       comp=Z,14nm,1.3s,SNR=8.0
RONA                                epP     pP       04 01 28.5 -0.2
       comp=Z,9.6nm,1.2s
CONA   Conrad Observa    81.50 327  i P     P        04 01 17.9 +0.2
       comp=Z,7.4nm,0.9s,SNR=5.5
CONA                                epP     pP       04 01 26.7 -2.1
       comp=Z,7.8nm,1.6s
KHC    Kasperske Hory    81.52 329ceP       P        04 01 18.5 +0.8
KHC                                  pmax   pmax
       comp=Z,18nm,1.7s
KHC    Kasperske Hory    81.52 329  eP      P        04 01 18.4 +0.8
KHC                                 epP     pP       04 01 30.0 +1.3
KHC    Kasperske Hory    81.52 329   P      P        04 01 18.4 +0.7
       comp=Z,12nm,1.1s
KHC                                  pP     pP       04 01 30.1 +1.3
MORH   Mrgy, Hungar      81.58 324   P      P        04 01 17.9 -0.1
       comp=Z,5.3nm,1.2s
MMAI   Mount Meron Ar    81.60 306   P      P        04 01 18.9 +0.4
       comp=Z,4.2nm,0.7s,baz=33,slow=3.4,SNR=8.9
       comp=Z,4.2nm,0.7s
GERES  GERESS Array B    81.69 329   P      P        04 01 18.6 -0.1
       comp=Z,2.4nm,0.6s,baz=35,slow=4.9,SNR=23
       comp=Z,2.4nm,0.6s
GERES  GERESS Array B    81.69 329   P      P        04 01 18.3 -0.4
WET    Wettzell          81.79 329   P      P        04 01 19.7 +0.6
WET    Wettzell          81.79 329   P      P        04 01 19.7 +0.6
       comp=Z,5.2nm,2.0s
EKA    Eskdalemuir Ar    81.82 341   P      P        04 01 19.3 +0.2
       comp=Z,2.1nm,0.8s,baz=9.8,slow=5.4,SNR=4.0
       comp=Z,2.1nm,0.8s
GRA3   Grafenberg Arr    81.91 330   P      P        04 01 20.5 +0.8
       comp=Z,24nm,0.9s
GRA1   Grafenberg Arr    82.00 330   P      P        04 01 21.0 +0.8
       comp=Z,24nm,1.4s
GRF    Grafenberg Arr    82.00 330   P      P        04 01 21.0 +0.8
GRB3   Grafenberg Arr    82.06 330   P      P        04 01 21.3 +0.8
       comp=Z,16nm,0.9s
GRB2   Grafenberg Arr    82.17 330   P      P        04 01 21.7 +0.7
       comp=Z,16nm,0.9s
ARSA   Arzberg           82.17 327  eP      P        04 01 20.8 -0.4
       comp=Z,4.3nm,0.9s
ARSA                                esP     pP       04 01 33.5 +1.2
       comp=Z,6.7nm,1.7s
ARSA   Arzberg           82.17 327   P      P        04 01 22.0 +0.8
       comp=Z,7.7nm,1.2s
ARSA                                 pP     pP       04 01 33.3 +1.0
MOA    Molln             82.24 328  eP      P        04 01 21.8 +0.3
       comp=Z,1.9nm,0.8s
GRB5   Grafenberg Arr    82.29 330   P      P        04 01 22.5 +0.8
       comp=Z,14nm,0.9s
GRC1   Grafenberg Arr    82.44 330   P      P        04 01 22.9 +0.4
       comp=Z,15nm,0.9s
GRC3   Grafenberg Arr    82.50 330   P      P        04 01 23.1 +0.3
       comp=Z,12nm,1.2s
GRC3                                 pP     pP       04 01 34.8 +0.8
BIOA   Bad Ischl, Aus    82.63 328  i P     P        04 01 23.6 +0.1
       comp=Z,4.7nm,0.7s,SNR=6.6
BIOA                                esP     pP       04 01 36.0 +1.3
       comp=Z,6.5nm,1.1s
SESA   Seetaler Alpe,    82.69 327  i P     P        04 01 24.4 +0.3
       comp=Z,22nm,0.7s,SNR=7.3
SESA                                epP     pP       04 01 34.3 -1.0
       comp=Z,8.8nm,0.7s
SOKA   Soboth            82.83 326  i P     P        04 01 24.5 -0.1
       comp=Z,5.1nm,0.7s,SNR=6.7
SOKA                                esP     pP       04 01 36.9 +1.1
       comp=Z,17nm,1.5s
RJOB   Jochberg          82.94 328   P      P        04 01 26.0 +0.8
       comp=Z,8.4nm,0.9s
ANMO   Albuquerque       82.97  51ceP       P        04 01 26.6 +0.8
ANMO                                 pmax   pmax
       comp=Z,4.0nm,1.3s
ANMO   Albuquerque       82.97  51   P      P        04 01 28.0 +2.2
       comp=Z,3.6nm,1.5s
OBKA   Obir              83.17 327  i P     P        04 01 26.1 -0.3
       comp=Z,1.5nm,0.8s,SNR=5.1
FUR    Furstenfeldbru    83.21 329   P      P        04 01 27.1 +0.6
FUR    Furstenfeldbru    83.21 329   P      P        04 01 27.1 +0.6
       comp=Z,24nm,0.9s
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KBA    Koelnbreinsper    83.23 328   P      P        04 01 27.3 +0.4
KBA    Koelnbreinsper    83.23 328  i P     P        04 01 26.6 -0.3
       comp=Z,3.7nm,0.7s,SNR=9.7
KBA    Koelnbreinsper    83.23 328   P      P        04 01 27.3 +0.4
       comp=Z,16nm,1.0s
LESA   Schwarzleotal     83.24 328  i P     P        04 01 26.9 +0.1
       comp=Z,8.2nm,0.9s,SNR=8.5
MYKA   Terra Mystica     83.46 327  eP      P        04 01 27.6 -0.3
       comp=Z,1.7nm,0.4s
ACOM   Acomizza, Ital    83.58 327   P      P        04 01 28.5 -0.2
       comp=Z,25nm,0.7s
HRFI   Mount Harif       83.79 304   pP     pP       04 01 42.7 +1.7
       comp=Z,12nm,1.4s
ABTA   Abfaltersbach     83.84 328  eP      P        04 01 29.7 -0.2
       comp=Z,6.4nm,1.1s
ABTA                                i sP    pP       04 01 42.3 +1.3
       comp=Z,7.2nm,1.3s
BMRD   Maredsous         83.85 334  dP      P        04 01 29.7  0.0
FUSE   Fusea             83.90 327   P      P        04 01 29.1 -1.0
       comp=Z,18nm,0.9s
FUSE                                 pP     pP       04 01 42.3 +1.1
MOTA   Moosalm           83.94 329  i P     P        04 01 30.3 -0.1
       comp=Z,4.1nm,0.8s,SNR=6.6
RETA   Reutte            83.96 329  i P     P        04 01 30.4 -0.1
       comp=Z,4.7nm,0.7s,SNR=8.9
RETA                                epP     pP       04 01 39.7 -1.9
       comp=Z,11nm,1.2s
SQTA   Sankt Quirin      84.00 329  i P     P        04 01 30.5 -0.2
       comp=Z,3.0nm,0.7s
SQTA                                i sP    pP       04 01 42.8 +1.0
       comp=Z,6.3nm,1.1s
EIL    Elat              84.08 303   P      P        04 01 31.0 -0.3
       comp=Z,8.8nm,1.2s
PHP    Peshkopia         84.11 320   P      P        04 01 31.5 +0.2
PHP    Peshkopia         84.11 320   P      P        04 01 31.5 +0.2
       comp=Z,14nm,1.3s
PDG    Podgorica         84.14 321  ⇑P      P        04 01 30.1 -1.2
PDG    Podgorica         84.14 321   P      P        04 01 31.2 -0.1
       comp=Z,27nm,0.9s
FETA   Feichten          84.35 329  eP      P        04 01 32.6  0.0
       comp=Z,3.2nm,0.7s
DAVA   Damuels           84.47 330  i P     P        04 01 33.0 -0.2
       comp=Z,4.6nm,0.9s,SNR=5.9
DAVA                                epP     pP       04 01 41.7 -2.7
       comp=Z,6.7nm,1.1s
DAVA   Damuels           84.47 330   P      P        04 01 33.7 +0.5
       comp=Z,22nm,1.3s
KBN    Korca             84.72 319   P      P        04 01 34.7 +0.3
KBN    Korca             84.72 319   P      P        04 01 34.7 +0.3
       comp=Z,23nm,1.0s
ECH    Echery            84.75 332   P      P        04 01 34.4  0.0
ECH    Echery            84.75 332   P      P        04 01 34.4  0.0
       comp=Z,11nm,1.8s
FUORN  Ofenpass-Fuorn    84.86 329   P      P        04 01 35.8 +0.5
       comp=Z,24nm,1.3s
TUE    Stuetta           85.35 330   P      P        04 01 37.8 +0.1
       comp=Z,8.0nm,1.2s
BNALP  Bannalp           85.39 330   P      P        04 01 37.8  0.0
       comp=Z,13nm,0.9s
LOR    Lormes            86.75 333   P      P        04 01 43.2 -1.1
       comp=Z,12nm,1.7s
TXAR   Lajitas Array     88.54  53   P      P        04 01 54.3 +1.0
       comp=Z,1.2nm,0.6s,baz=298,slow=3.0,SNR=25
TXAR                                 pP     sP       04 02 07.2 -1.2
       comp=Z,1.3nm,0.6s,baz=297,slow=2.7,SNR=11
       comp=Z,1.2nm,0.6s
CCM    Cathedral Cave    89.12  39   P      P        04 01 56.6 +0.8
CCM                                  pmax   pmax
       comp=Z,11nm,1.1s
ESDC   Sonseca Array     96.13 334   P      P        04 02 27.8 -0.3
       comp=Z,0.5nm,0.6s,baz=15,slow=3.9,SNR=5.1
       comp=Z,0.5nm,0.6s
QSPA   South Pole Qui   128.42 180   PKP    PKPdf    04 08 05.6 -0.3
       comp=Z,2.0nm,0.6s,baz=292,slow=1.6,SNR=17
SNAA   Sanae            142.54 197   PKhKP  PKPpre   04 08 27.8
       comp=Z,1.7nm,0.7s,baz=144,slow=7.3,SNR=4.2
VNA2   Neumayer--Watz   144.10 196  ⇑PKPdf  PKPab    04 08 32.5 +0.2
       comp=Z,10nm,0.6s,baz=127,slow=3.4
VNA3   Neumayer Olymp   144.34 195  ⇑PKPdf  PKPab    04 08 31.8 -1.5
       comp=Z,5.9nm,0.7s
VNA1   Neumayer--Stat   144.50 196   PKPdf  PKPbc    04 08 34.4 +0.3
       comp=Z,18nm,1.0s
LPAZ   La Paz           145.22  59   PKPbc  PKPbc    04 08 38.5 -0.2
       comp=Z,1.8nm,0.6s,baz=3.8,slow=2.4,SNR=13
LPAZ   La Paz           145.22  59   PKIKP  PKPbc    04 08 38.6 -0.1
LPAZ   La Paz           145.22  59          PKPbc    04 08 38.6 -0.1
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IDC ***12*** *04:35:06.1±0.9, 16.°41S×173.°71W, h90km±7km, mb3.8/12, mbtmp4.2/14, Error ellipse: s-maj=28.8km s-min=9.3km az=136.0*

NEIC ***12*** *04:35:06.8±1.9, 16.°55S±0.°04×173.°28W±0.°08, h79km±7km, mb4.4/20, Error ellipse: s-maj=12.3km s-min=4.0km az=111.0*

ISC 12 04:35:03.4±0.5**, 16.°57S**±0.°07×**173.°67W**±0.°08**, h66km, n78, σ1.s23**/78**, mb4.3**/21**, 1D, Tonga Islands**

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Code   Station Name        Δ°   AZ°   Phase ID          Time       Res
                                      Op     ISC       h  m  s     ISC
AFI    Afiamalu           3.21  35    P      Pn        04 35 52.2 +0.7
       289nm,0.2s,baz=165,slow=1.0,SNR=118
AFI                                   S      Sn        04 36 26.1 -2.6
       232nm,0.4s,baz=303,slow=7.1,SNR=3.5
AFI    Afiamalu           3.21  35    Pn     Pn        04 35 52.1 +0.6
AFI    Afiamalu           3.21  35    P      Pn        04 35 52.2 +0.7
AFI                                   S      Sn        04 36 26.0 -2.7
AFI                                   AML    AML
NIUE   Niue               4.35 126           Pn        04 36 06.6 -0.4
FUTU   Fugatoga           4.84 297           Pn        04 36 22.3 +8.5
FUTU   Fugatoga           4.84 297    P      Pn        04 36 21.9 +8.2
FUTU                                  AML    AML
MSVF   Nonsavu            8.00 260    P      Pn        04 37 03.1 +6.1
       65nm,0.8s,baz=94,slow=11,SNR=33
MSVF   Nonsavu            8.00 260           Pn        04 37 05.9 +8.9
MSVF   Nonsavu            8.00 260    P      Pn        04 37 06.1 +9.1
RAR    Rarotonga         13.94 112    P      Pn        04 38 17.9 +0.1
       13nm,0.7s,baz=230,slow=11,SNR=4.4
RAR    Rarotonga         13.94 112           Pn        04 38 17.6 -0.2
DZM    Mont Dzumac       19.54 251    P      P         04 39 27.2 +1.3
       16nm,1.0s,baz=81,slow=15,SNR=7.6
WCZ    Waipu Caves       22.05 207    P      P         04 39 52.9 +0.3
MXZ    Matakaoa Point    22.08 197    P      P         04 39 53.6 +0.7
WMGZ   Waiomatatini S    22.29 197    P      P         04 39 57.6 +2.4
HAZ    Te Kaha           22.41 198    P      P         04 39 56.5  0.0
PUZ    Puketiti          22.57 197    P      P         04 39 58.3 +0.1
MKAZ   Moumakai          22.72 204    P      P         04 39 59.4 -0.3
MWZ    Matawai           23.02 198    P      P         04 40 02.7 -0.2
URZ    Urewera           23.08 199    P      P         04 40 02.4 -1.1
KMRZ   Kaimai            23.09 201    P      P         04 40 04.9 +1.4
TOZ    Tahuroa Road      23.14 202           P         04 40 04.1 +0.1
TOZ    Tahuroa Road      23.14 202    P      P         04 40 04.6 +0.6
RAGZ   Rawiri            23.20 198    P      P         04 40 05.8 +1.1
RIGZ   Rimuhau           23.30 197    P      P         04 40 06.7 +1.1
MUGZ   Murupara          23.39 199    P      P         04 40 06.2 -0.1
RTZ    Ruatahuna         23.45 199    P      P         04 40 07.4 +0.4
RTZ    Ruatahuna         23.45 199    P      P         04 40 07.9 +0.9
RAHZ   Arahi             23.69 198    P      P         04 40 10.1 +0.9
MTHZ   Maungataniwha     23.71 199    P      P         04 40 10.8 +1.4
NMHZ   Naumai            23.94 198    P      P         04 40 12.9 +1.4
BKZ    Black Stump Fm    24.10 199    P      P         04 40 12.8 -0.1
MCHZ   McNeill Hill      24.29 198    P      P         04 40 17.1 +2.6
TMVZ   Te Maari          24.31 200    P      P         04 40 15.1 +0.2
OTVZ   Oturere           24.37 200    P      P         04 40 14.4 -1.1
SNVZ   South Ngauruho    24.40 200    P      P         04 40 14.7 -1.0
BHHZ   Black Hill Sta    24.53 199    P      P         04 40 15.5 -1.3
WNVZ   Wahianoa          24.54 200    P      P         04 40 15.7 -1.2
KAHZ   Kahuranaki        24.56 198    P      P         04 40 20.1 +3.0
PXZ    Pawanui           24.79 198    P      P         04 40 20.4 +1.4
PNHZ   Pukenui           24.88 199    P      P         04 40 21.0 +1.0
LREZ   Lake Rotokare     25.07 202    P      P         04 40 22.6 +0.9
BFZ    Birch Farm        25.57 198    P      P         04 40 29.5 +3.4
QRZ    Quartz Range      26.96 204    P      P         04 40 41.3 +2.5
STKA   Stephens Creek    43.24 241    P      P         04 42 57.1 -1.2
       3.9nm,1.0s,baz=32,slow=5.2,SNR=5.1
STKA                                  pP     sP        04 43 20.6 -1.2
       2.0nm,0.8s,baz=57,slow=7.1,SNR=2.3
       3.9nm,1.0s
WRA    Warramunga Arr    49.33 258    P      P         04 43 44.8 -1.6
       0.3nm,0.4s,baz=96,slow=7.5,SNR=8.0
WRA                                   pP     sP        04 44 10.2 +0.2
       1.0nm,0.9s,baz=94,slow=5.3,SNR=3.7
       0.3nm,0.4s
AS31   Alice Springs     49.51 253    P      P         04 43 46.3 -1.4
ASAR   Alice Springs     49.51 253    P      P         04 43 46.2 -1.5
       7.0nm,0.5s,baz=90,slow=8.4,SNR=163
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ASAR				pP	**sP**	**04 44 11.7**	**+0.3**
	4.2nm,0.7s,baz=88,slow=8.5,SNR=5.5						
	7.0nm,0.5s						
ASAR	**Alice Springs**	**49.51**	**253**	P	**P**	**04 43 45.6**	**-2.2**
VNDA	**Vanda**	**62.19**	**186**	P	**P**	**04 45 17.8**	**+0.3**
	1.0nm,0.9s,baz=21,slow=6.5,SNR=5.9						
	1.0nm,0.9s						
QSPA	**South Pole Qui**	**73.48**	**180**	P	**P**	**04 46 28.5**	**-0.2**
	2.5nm,0.8s,baz=60,slow=1.9,SNR=11						
	2.5nm,0.8s						
QSPA	**South Pole Qui**	**73.48**	**180**	P	**P**	**04 46 28.8**	**0.0**
KSXB	**Camp Six Broad**	**74.08**	**36**	P	**P**	**04 46 32.6**	**+0.1**
M02C	**Callahan**	**74.38**	**37**	P	**P**	**04 46 35.6**	**+1.3**
YBH	**Yreka Blue Hor**	**74.68**	**37**	P	**P**	**04 46 36.0**	**0.0**
	1.6nm,0.5s,baz=186,slow=2.0,SNR=12						
	1.6nm,0.5s						
YBH	**Yreka Blue Hor**	**74.68**	**37**		**P**	**04 46 37.2**	**+1.2**
NVAR	**Mina Array Bea**	**75.37**	**42**	P	**P**	**04 46 41.3**	**+1.1**
	1.6nm,0.9s,baz=219,slow=7.6,SNR=3.5						
	1.6nm,0.9s						
NVAR	**Mina Array Bea**	**75.37**	**42**	P	**P**	**04 46 39.2**	**-1.0**
MOD	**Modoc Plateau**	**76.20**	**38**		**P**	**04 46 45.5**	**+0.7**
MOD				IAmb	IAmb	04 46 46.1	
	comp=Z,3.8nm,1.0s						
M16K	**Timber Creek**	**78.22**	**7**	P	**P**	**04 46 56.8**	**+1.3**
ELK	**Elko**	**78.63**	**41**	P	**P**	**04 46 58.9**	**+0.4**
	comp=Z,2.4nm,0.8s,baz=253,slow=8.7,SNR=11						
	comp=Z,2.4nm,0.8s						
M17K	**Holitna River**	**78.78**	**8**	P	**P**	**04 47 00.1**	**+1.6**
M17K				IAmb	IAmb	04 47 00.9	
	comp=Z,5.0nm,0.9s						
SUA	**Susitna One**	**79.89**	**11**	P	**P**	**04 47 05.1**	**+0.4**
SUA				IAmb	IAmb	04 47 06.0	
	comp=Z,4.0nm,0.8s						
J16K	**Anvik River**	**80.25**	**6**	P	**P**	**04 47 08.0**	**+1.5**
J16K				IAmb	IAmb	04 47 08.7	
	comp=Z,4.5nm,0.8s						
HLID	**Hailey**	**80.69**	**39**		**P**	**04 47 10.6**	**+1.1**
HLID				IAmb	IAmb	04 47 11.4	
	comp=Z,4.0nm,0.9s						
VHRN	**Van Horn**	**81.05**	**54**		**P**	**04 47 12.9**	**+1.3**
VHRN				IAmb	IAmb	04 47 13.5	
	comp=Z,3.6nm,0.8s						
TXAR	**Lajitas Array**	**81.48**	**56**	P	**P**	**04 47 14.8**	**+0.9**
	comp=Z,1.6nm,1.1s,baz=223,slow=7.0,SNR=11						
	comp=Z,1.6nm,1.1s						
TXAR	**Lajitas Array**	**81.48**	**56**	P	**P**	**04 47 15.1**	**+1.1**
ANMO	**Albuquerque**	**81.75**	**50**	P	**P**	**04 47 15.7**	**+0.3**
	comp=Z,1.3nm,0.8s,baz=237,slow=6.1,SNR=6.2						
	comp=Z,1.3nm,0.8s						
DLMT	**Dillon**	**82.76**	**38**	P	**P**	**04 47 21.3**	**+0.9**
DLMT				IAmb	IAmb	04 47 22.1	
	comp=Z,4.2nm,0.8s						
BW06	**Boulder Array**	**83.30**	**42**	P	**P**	**04 47 23.8**	**+0.4**
BW06				IAmb	IAmb	04 47 24.2	
	comp=Z,3.4nm,0.7s						
PD31	**Pinedale Array**	**83.30**	**42**		**P**	**04 47 23.3**	**0.0**
PD31				IAmb	IAmb	04 47 24.2	
	comp=Z,3.4nm,0.7s						
PDAR	**Pinedale Array**	**83.30**	**42**	P	**P**	**04 47 23.6**	**+0.3**
	comp=Z,4.0nm,0.8s,baz=209,slow=3.3,SNR=30						
	comp=Z,4.0nm,0.8s						
ILAR	**Eielson Array**	**83.64**	**11**	P	**P**	**04 47 24.1**	**-0.1**
	comp=Z,0.8nm,0.7s,baz=227,slow=5.5,SNR=12						
	comp=Z,0.8nm,0.7s						
L29M	**L29M**	**84.12**	**15**	P	**P**	**04 47 27.7**	**+0.9**
L29M				IAmb	IAmb	04 47 28.1	
	comp=Z,4.3nm,1.1s						
ELIB	**Princess Elisa**	**90.95**	**185**	*d*P	**P**	**04 47 59.4**	**-0.5**
BRTR	**Keskin Array B**	**146.88**	**320**	PKPbc	**PKPbc**	**04 54 38.9**	**+0.1**
	comp=Z,1.5nm,0.7s,baz=156,slow=3.7,SNR=8.0						
BRTR	**Keskin Array B**	**146.88**	**320**		**PKPbc**	**04 54 38.6**	**-0.1**

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*IDC **12** 04:48:16.2±3.6, 6°.76S×104°.47E, h0^{km}, mb3.8/7, mbtmp3.8/7, Error ellipse: s-maj=199.0km s-min=18.6km az=50.0*

*DJA **12** 04:48:21.7±0.4, 7°S±3°×10°5E±°, h10^{km}, M4.0/24, MLv4.0/24*

ISC 12 04:48:23.1±1.0, **6°.5S**±0°.1×**104°.6E**±0°.1, **h40**^{km}, **n27**, σ1^{s}.**78**/21, **mb3.9**/7, **Sunda Strait**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KASI	**Kota Agung**	**1.01**	**356**	P	**Pn**	**04 48 39.6**	**-1.3**
KASI				AML	AML		
CGJI	**Cibinong**	**1.13**	**94**	P	**Pn**	**04 48 40.3**	**-2.1**
BLSI	**Bandar Lampung**	**1.35**	**30**	P	**Pn**	**04 48 45.8**	**+0.3**
BLSI				AML	AML		
LWLI	**Liwa**	**1.59**	**342**	P	**Pn**	**04 48 50.1**	**+1.1**
SBJI	**Serang**	**1.62**	**75**	P	**Pn**	**04 48 49.8**	**+0.7**
SKJI	**Sukabumi**	**2.04**	**103**	P	**Pn**	**04 48 57.8**	**+2.9**
SKJI				AML	AML		
MDSI	**Maura Dua**	**2.08**	**349**	P	**Pn**	**04 48 56.6**	**+1.1**
CBJI	**Citeko**	**2.28**	**87**	P	**Pn**	**04 49 00.2**	**+1.9**
CBJI				AML	AML		
CNJI	**Cibinong**	**2.66**	**107**	P	**Pn**	**04 49 04.3**	**+0.8**
CNJI				AML	AML		
MNAI	**Manna**	**2.69**	**324**	P	**Pn**	**04 49 05.3**	**+1.3**
LHSI	**Lahat**	**2.89**	**339**	P	**Pn**	**04 49 07.9**	**+1.2**
LHSI				AML	AML		
BBJI	**Bungbulang**	**3.20**	**107**	P	**Pn**	**04 49 12.3**	**+1.3**
SOEI	**Soe**	**19.77**	**101**	P	**Pn**	**04 52 56.1**	**+4.2**
WRA	**Warramunga Arr**	**31.82**	**118**	P	**P**	**04 54 42.5**	**-1.9**
	1.3nm,0.6s,baz=288,slow=12,SNR=16						
	1.3nm,0.6s						
H08S2	**Diego Garcia H**	**31.84**	**266**	T	T	05 28 28.6	
	baz=89,slow=75,SNR=13						
H08S3	**Diego Garcia H**	**31.85**	**266**	T	T	05 28 29.8	
	baz=89,slow=75,SNR=13						
H08S1	**Diego Carcia H**	**31.86**	**266**	T	T	05 28 28.4	
	baz=89,slow=75,SNR=10.0						
ASAR	**Alice Springs**	**32.94**	**124**	P	**P**	**04 54 51.7**	**-2.4**
	0.2nm,0.5s,baz=298,slow=7.5,SNR=5.0						
	0.2nm,0.5s						
STKA	**Stephens Creek**	**42.76**	**131**	P	**P**	**04 56 15.3**	**-1.5**
	1.6nm,0.4s,baz=296,slow=6.8,SNR=4.7						
	1.6nm,0.4s						
MKAR	**Makanchi Array**	**56.67**	**342**	P	**P**	**04 58 02.1**	**-0.3**
	0.8nm,0.8s,baz=152,slow=9.8,SNR=7.1						
	0.8nm,0.8s						
H04N2	**CROZET ISLANDS**	**60.05**	**220**	T	T	06 03 16.3	
	baz=67,slow=74,SNR=13						
H04N1	**CROZET ISLANDS**	**60.06**	**220**	T	T	06 03 24.1	
	baz=67,SNR=15						
H04N3	**CROZET ISLANDS**	**60.06**	**220**	T	T	06 03 16.3	
	baz=67,slow=74,SNR=14						
KURBB	**Kurchatov Arra**	**61.22**	**341**	P	**P**	**04 58 33.6**	**-0.3**
	0.2nm,0.3s,baz=161,slow=5.7,SNR=4.1						
	0.2nm,0.3s						
ZALV	**Zalesovo Beam**	**62.52**	**347**	P	**P**	**04 58 43.1**	**+0.6**
	0.7nm,0.4s,baz=149,slow=5.9,SNR=4.6						
	0.7nm,0.4s						
BVAR	**Borovoye Array**	**66.02**	**338**	P	**P**	**04 59 05.8**	**+0.2**
	0.5nm,0.4s,baz=114,slow=9.9,SNR=4.1						
	0.5nm,0.4s						
TXAR	**Lajitas Array**	**145.04**	**46**	PKPbc	**PKPdf**	**05 07 56.9**	**-0.2**
	0.3nm,0.7s,baz=187,slow=0.7,SNR=5.1						

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*IDC **12** 04:57:00.6±1.6, 10°.21S×118°.73E, h0^{km}, mb3.6/2, mbtmp3.5/5, ML3.4/3, Error ellipse: s-maj=41.5km s-min=20.9km az=77.0*

*DJA **12** 04:57:06.0±0.5, 10°S±5°×11°9E±°, h10^{km}, M3.8/12, mB4.6/1, mb3.9/3, MLv3.7/12, Mw(mB)3.8/1*

ISC 12 04:57:03.8±1.0, **10°.27S**±0°.08×**118°.96E**±0°.05, **h10**^{km}, **n15**, σ1^{s}.**57**/20, **South of Sumbawa**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WSI	**Waingapu**	**1.45**	**66**	P	**Pn**	**04 57 31.3**	**+1.2**
WSI				S	**Sg**	**04 57 51.5**	**+1.1**
WSI				AML	AML		
BASI	**Baing, Sumba**	**1.59**	**88**	P	**Pg**	**04 57 35.0**	**+0.6**
BASI				AML	AML		
PLAI	**Plampang**	**1.85**	**321**	P	**Pn**	**04 57 36.6**	**+1.0**
PLAI				S	**Sn**	**04 57 58.6**	**-0.4**
PLAI				AML	AML		
DBNI	**Kabupaten Domp**	**1.87**	**340**	P	**Pn**	**04 57 37.2**	**+1.3**
DBNI				S	**Sn**	**04 58 00.6**	**+1.1**
DBNI				AML	AML		
LBFI	**Labuhan Bajo,**	**2.00**	**27**	P	**Pn**	**04 57 38.5**	**+0.8**
TWSI	**Taliwang, Sumb**	**2.55**	**306**	P	**Pn**	**04 57 46.7**	**+1.4**
TWSI				S	**Sn**	**04 58 17.9**	**+1.5**
TWSI				AML	AML		
EDFI	**Ende, Flores**	**3.09**	**61**	P	**Pn**	**04 57 53.1**	**+0.3**
EDFI				AML	AML		
KHKI	**Kahang-Kahang**	**3.81**	**299**	P	**Pn**	**04 58 03.8**	**+1.2**
KHKI				AML	AML		
BSSI	**Bau Bau, Buton**	**4.37**	**20**	P	**Pn**	**04 58 12.3**	**+2.0**
KAPI	**Kappang**	**5.28**	**9**	Pn	**Pn**	**04 58 23.9**	**+1.1**
	4.2nm,0.3s,baz=128,slow=15,SNR=6.1						
KAPI				Sn	**Sn**	**04 59 21.7**	**-2.0**
	7.2nm,0.3s,baz=171,slow=19,SNR=4.4						
	9.0nm,0.3s						
KAPI				AML	AML		
KAPI	**Kappang**	**5.28**	**9**	P	**Pn**	**04 58 24.0**	**+1.2**
	0.1nm8.8nm,0.9s						
KAPI				AML	AML		
WRA	**Warramunga Arr**	**17.68**	**125**	P	**Pn**	**05 01 09.8**	**-0.6**
	0.1nm,0.3s,baz=300,slow=14,SNR=2.5						
	0.3nm,0.5s						
WRA				AML	AML		
ASAR	**Alice Springs**	**19.52**	**135**	P	**P**	**05 01 33.0**	**+1.4**
	baz=320,slow=13,SNR=6.7						
	0.6nm,0.6s						
MKAR	**Makanchi Array**	**65.56**	**333**	P	**P**	**05 07 45.0**	**-2.7**
	0.7nm,0.6s,baz=150,slow=8.0,SNR=4.8						
	0.7nm,0.6s						
KURBB	**Kurchatov Arra**	**70.08**	**334**	P	**P**	**05 08 13.2**	**-2.9**
	0.2nm,0.6s,baz=146,slow=5.1,SNR=2.5						
	0.2nm,0.6s						

IDC 12 05:01:12.3±4.8, **22°.92S**×**148°.85E, h0**^{km}, **mbtmp3.2**/3, **ML3.0**/3, **Error ellipse: s-maj=50.9km s-min=29.3km az=42.0, Queensland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	**11.00**	**214**	Pn	Pn	05 03 49.4	-1.6
	0.1nm,0.3s,baz=34,slow=15,SNR=2.9						
	1.8nm,0.9s						
STKA				AML	AML		
ASAR	**Alice Springs**	**13.75**	**264**	Pn	Pn	05 04 27.1	-1.5
	0.1nm,0.3s,baz=84,slow=14,SNR=2.2						
ASAR				Sn	Sn	05 06 53.8	-8.5
	0.1nm,0.3s,baz=84,slow=24,SNR=4.9						
ASAR				Lg	Lg	05 08 23.4	
	0.2nm,0.3s,baz=83,slow=29,SNR=6.0						
	0.3nm,0.8s						
ASAR				AML	AML		
WRA	**Warramunga Arr**	**13.83**	**280**	Pn	Pn	05 04 27.6	-2.2
	0.1nm,0.3s,baz=100,slow=13,SNR=5.1						
WRA				Sn	Sn	05 06 54.3	-10
	0.1nm,0.3s,baz=105,slow=24,SNR=3.2						
WRA				Lg	Lg	05 08 24.5	
	0.4nm,0.3s,baz=111,slow=28,SNR=7.3						
	0.3nm,0.7s						
WRA				AML	AML		

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*TIR **12** 05:27:22.5, 42°.68N×19°.82E, h12^{km}, Ml2.4/3*

*PDG **12** 05:27:23.4±0.0, 42°.61N×19°.84E, h4^{km}, MD2.7/5, ML2.6/12, Error ellipse: s-maj=0.0km s-min=0.1km az=0.0*

*BEO **12** 05:27:23.6±0.2, 42°.62N×19°.86E, h5^{km}±2^{km}, ML2.2/13*

ISC 12 05:27:23.4±0.9, **42°.62N**±0°.02×**19°.85E**±0°.02, **h6**^{km}±7^{km}, **n34**, σ0^{s}.**79**/63, **7C-5D, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PVY	**Plav**	**0.09**	**110**	⇓ *i*Pg	**Pg**	**05 27 25.2**	**-0.3**
PVY				*i* Sg	**Sg**	**05 27 26.8**	**-0.1**
PVY				AML	AML		
IVA	**Berane**	**0.25**	**7**	⇑ *i*Pg	**Pg**	**05 27 28.4**	**+0.1**
IVA				*i* Sg	**Sg**	**05 27 32.7**	**+1.0**
IVA				AML	AML		
KOME	**Kolasin**	**0.33**	**313**	⇑ *i*Pg	**Pg**	**05 27 29.9**	**0.0**
KOME				*i* Sg	**Sg**	**05 27 35.0**	**+0.6**
KOME				AML	AML		
PDG	**Podgorica**	**0.48**	**246**	P	**Pg**	**05 27 31.8**	**-0.8**
PDG				S	**Sg**	**05 27 39.2**	**+0.3**
PDG	**Podgorica**	**0.48**	**246**	*e*Pg	**Pg**	**05 27 31.9**	**-0.8**
PDG				*e*Sg	**Sg**	**05 27 39.2**	**+0.3**
PDG	**Podgorica**	**0.48**	**246**	⇑ *i*Pg	**Pg**	**05 27 31.8**	**-0.8**
PDG				*i* Sg	**Sg**	**05 27 39.4**	**+0.5**
PDG				AML	AML		
SDA	**Shkodra**	**0.63**	**205**	P	**Pg**	**05 27 35.6**	**+0.2**
SDA				S	**Sb**	**05 27 45.5**	**-0.2**
SDA				AML	AML	05 27 49.5	
	0.5nm,0.3s						
SJES	**Sjenica**	**0.64**	**8**	*e*Pg	**Pg**	**05 27 35.3**	**-0.5**
SJES				*e*Sg	**Sg**	**05 27 44.1**	**-0.1**
DRME	**Dracevica, Mon**	**0.66**	**229**	⇓ *i*Pg	**Pg**	**05 27 35.0**	**-1.0**
DRME				*i* Sg	**Sg**	**05 27 45.2**	**+0.6**
DRME				AML	AML		
NKME	**Niksic**	**0.68**	**282**	⇑ *i*Pg	**Pg**	**05 27 35.9**	**-0.5**
NKME				*i* Sg	**Sb**	**05 27 46.1**	**-1.1**
NKME				AML	AML		
CEME	**Cevo**	**0.69**	**264**	⇑ *i*Pg	**Pg**	**05 27 35.8**	**-0.9**
CEME				*i* Sg	**Sb**	**05 27 46.6**	**-1.1**
CEME				AML	AML		
BUM	**Brajici-Budva**	**0.78**	**246**	⇓ *i*Pg	**Pg**	**05 27 37.5**	**-0.8**
BUM				*i* Sg	**Sb**	**05 27 49.4**	**-0.7**
BUM				AML	AML		
PLE	**Pljevlja**	**0.78**	**335**	⇑ *i*Pg	**Pg**	**05 27 38.3**	**-0.1**
PLE				*i* Sg	**Sb**	**05 27 50.5**	**+0.2**
PLE				AML	AML		
ULC	**Ulcinj**	**0.80**	**214**	⇓ *i*Pg	**Pg**	**05 27 37.9**	**-0.8**
ULC				*i* Sg	**Sb**	**05 27 50.0**	**-0.7**
ULC				AML	AML		
IVAS	**Ivanjica**	**0.98**	**13**	*e*Pg	**Pg**	**05 27 40.9**	**-1.2**
IVAS				*e*Sg	**Sg**	**05 27 53.7**	**-1.1**
BRY	**Bratogost**	**1.00**	**286**	⇑ *i*Pg	**Pg**	**05 27 41.9**	**-0.7**
BRY				*i* Sg	**Sb**	**05 27 57.5**	**+0.8**
BRY				AML	AML		
HCY	**Herceg Novi**	**1.02**	**260**	⇓ *i*Pg	**Pg**	**05 27 41.9**	**-1.0**
HCY				*i* Sg	**Sb**	**05 27 57.7**	**+0.7**
HCY				AML	AML		
PHP	**Peshkopia**	**1.04**	**155**	P	**Pg**	**05 27 42.0**	**-1.2**
PHP				S	**Sn**	**05 27 58.8**	**-0.5**
PHP				AML	AML	05 28 01.8	
	0.4nm,0.5s						
SELS	**Selova**	**1.11**	**57**	*e*Pg	**Pg**	**05 27 43.4**	**-1.2**
SELS				*e*Sg	**Sg**	**05 27 59.0**	**0.0**
TREB	**Trebinje**	**1.11**	**275**	*e*Pg	**Pg**	**05 27 43.9**	**-0.7**
TREB				*e*Sg	**Sb**	**05 28 00.0**	**+0.4**
GOCS	**Kraljevo Serbi**	**1.20**	**38**	*e*Pg	**Pg**	**05 27 45.5**	**-0.9**
GOCS				*e*Sg	**Sg**	**05 28 02.0**	**0.0**
TIR	**Tirane**	**1.28**	**179**	P	**Pg**	**05 27 47.7**	**-0.1**
TIR				S	**Sn**	**05 28 07.4**	**+2.3**
TIR				AML	AML	05 28 12.6	
	0.5nm,0.4s						
BBLS	**Lazi&#263i**	**1.28**	**346**	*e*Pg	**Pg**	**05 27 46.6**	**-1.4**
GRUS	**Gruza**	**1.41**	**26**	*e*Pg	**Pn**	**05 27 49.5**	**-0.1**
GRUS				*e*Sg	**Sb**	**05 28 08.9**	**+0.5**
BARS	**Barje**	**1.46**	**82**	*e*Pg	**Pn**	**05 27 50.1**	**-0.2**
BARS				*e*Sg	**Sn**	**05 28 10.0**	**+0.3**
DIVS	**Divibare**	**1.48**	**4**	*e*Pg	**Pg**	**05 27 51.8**	**+0.1**
STON	**Ston**	**1.60**	**280**	*e*Pg	**Pb**	**05 27 52.9**	**-0.4**
TRUS	**Trudelj**	**1.65**	**14**	*e*Pg	**Pn**	**05 27 53.3**	**+0.5**
OHR	**Ohrid**	**1.67**	**155**	*e*Pn	**Pb**	**05 27 54.7**	**+0.2**
OHR				*e*Sg	**Sg**	**05 28 18.8**	**+1.8**
BOVS	**Bovan**	**1.69**	**53**	*e*Pn	**Pb**	**05 27 55.2**	**+0.3**
BOVS				*e*Sn	**Sn**	**05 28 15.4**	**0.0**
TEKS	**Tekeris**	**1.94**	**353**	*e*Pn	**Pn**	**05 27 57.2**	**+0.4**
TEKS				*e*Sg	**Sb**	**05 28 24.8**	**+1.3**
BOSS	**Bosilegrad**	**1.95**	**93**	*e*Pn	**Pn**	**05 27 56.5**	**-0.4**
ZAGS	**Zajecar**	**2.11**	**55**	*e*Pn	**Pn**	**05 27 59.9**	**+0.8**
ZAGS				*e*Sn	**Sn**	**05 28 26.0**	**+0.4**
ZAPS	**Zavoj**	**2.15**	**71**	*e*Pn	**Pn**	**05 27 59.7**	**0.0**
ZAPS				*e*Sn	**Sn**	**05 28 25.3**	**-1.3**

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*IDC **12** 05:33:46.7±1.5, 6°.10S×105°.25E, h0^{km}, mb3.9/9, mbtmp3.9/9, Error ellipse: s-maj=90.0km s-min=16.8km az=48.0*

*DJA **12** 05:33:50.0±0.5, 7°S±5°×10°5E±°, h10^{km}, M4.0/23, MLv4.0/23*

ISC 12 05:33:47.0±0.9, **6°.73S**±0°.09×**104°.48E**±0°.08, **h10**^{km}, **n32**, σ1^{s}.**71**/20, **mb4.0**/9, **Sunda Strait**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KASI	**Kota Agung**	**1.20**	**1**	P	**Pb**	**05 34 08.3**	**-1.6**
KASI				AML	AML		
CGJI	**Cibinong**	**1.22**	**84**	P	**Pb**	**05 34 08.5**	**-1.6**
BLSI	**Bandar Lampung**	**1.56**	**29**	P	**Pn**	**05 34 13.4**	**-1.4**
BLSI				AML	AML		
LWLI	**Liwa**	**1.75**	**346**	P	**Pn**	**05 34 18.2**	**+0.6**
SBJI	**Serang**	**1.75**	**70**	P	Pg	05 34 27.3	+6.6
SKJI	**Sukabumi**	**2.08**	**98**	P	**Pn**	**05 34 24.6**	**+2.6**
SKJI				AML	AML		
TNG	**Tangerang**	**2.23**	**76**	P	**Pg**	**05 34 31.5**	**+1.7**
TNG				P	**Pg**	**05 34 31.4**	**+1.7**
MDSI	**Maura Dua**	**2.25**	**352**	P	**Pn**	**05 34 25.1**	**+0.8**
CBJI	**Citeko**	**2.38**	**83**	P	**Pn**	**05 34 28.4**	**+2.3**
CBJI				AML	AML		
CNJI	**Cibinong**	**2.70**	**102**	P	**Pn**	**05 34 29.8**	**-0.6**
CNJI				AML	AML		
MNAI	**Manna**	**2.80**	**327**	P	**Pn**	**05 34 32.1**	**+0.2**
LHSI	**Lahat**	**3.04**	**342**	P	**Pn**	**05 34 36.5**	**+1.3**
LHSI				AML	AML		
BBJI	**Bungbulang**	**3.23**	**103**	P	**Pn**	**05 34 37.8**	**-0.1**
BBJI				AML	AML		
FITZ	**Fitzroy Crossi**	**23.52**	**121**	P	**P**	**05 38 54.6**	**-2.8**
	3.1nm,0.8s,baz=269,slow=5.0,SNR=6.4						
	3.1nm,0.8s						
H08S2	**Diego Garcia H**	**31.74**	**266**	T	T	06 13 56.2	
	baz=89,slow=75,SNR=19						
H08S3	**Diego Garcia H**	**31.75**	**266**	T	T	06 13 56.3	
	baz=89,slow=75,SNR=23						
H08S1	**Diego Carcia H**	**31.76**	**266**	T	T	06 13 54.6	
	baz=89,slow=75,SNR=13						
WRA	**Warramunga Arr**	**31.81**	**117**	P	P	05 40 10.5	-1.6
	1.6nm,0.6s,baz=287,slow=12,SNR=9.8						
	1.6nm,0.6s						
ASAR	**Alice Springs**	**32.90**	**124**	P	**P**	**05 40 20.4**	**-1.2**
	0.3nm,0.3s,baz=298,slow=8.6,SNR=3.0						
	0.3nm,0.3s						
STKA	**Stephens Creek**	**42.70**	**131**	P	**P**	**05 41 44.0**	**-0.3**
	2.1nm,0.6s,baz=308,slow=8.7,SNR=4.4						
	2.1nm,0.6s						
MKAR	**Makanchi Array**	**56.82**	**342**	P	P	05 43 29.9	-1.7
	0.7nm,0.7s,baz=152,slow=9.1,SNR=4.4						
	0.7nm,0.7s						
H04N2	**CROZET ISLANDS**	**59.85**	**220**	T	T	06 48 42.9	
	baz=66,slow=75,SNR=26						
H04N1	**CROZET ISLANDS**	**59.86**	**220**	T	T	06 48 42.5	
	baz=66,slow=75,SNR=27						
H04N3	**CROZET ISLANDS**	**59.86**	**220**	T	T	06 48 41.2	
	baz=66,slow=75,SNR=29						
H04S1	**CROZET ISLANDS**	**60.05**	**219**	T	T	06 48 54.8	
	baz=72,slow=75,SNR=4.6						
H04S3	**CROZET ISLANDS**	**60.07**	**219**	T	T	06 48 51.5	
	baz=72,slow=75,SNR=1.1						
H04S2	**CROZET ISLANDS**	**60.07**	**219**	T	T	06 48 51.4	
	baz=72						
KURBB	**Kurchatov Arra**	**61.38**	**341**	P	**P**	**05 44 01.8**	**-1.2**
	0.3nm,0.3s,baz=156,slow=6.7,SNR=2.2						
	0.3nm,0.3s						
ZALV	**Zalesovo Beam**	**62.68**	**347**	P	P	05 44 09.9	-1.8
	0.9nm,0.3s,baz=154,slow=4.8,SNR=5.5						
	0.9nm,0.3s						
BVAR	**Borovoye Array**	**66.17**	**338**	P	**P**	**05 44 34.0**	**-0.6**
	0.4nm,0.3s,baz=148,slow=8.5,SNR=4.8						
	0.4nm,0.3s						
BRTR	**Keskin Array B**	**79.79**	**312**	P	**P**	**05 45 59.0**	**+3.1**
	0.5nm,0.8s,baz=124,slow=11,SNR=3.7						
	0.5nm,0.8s						
TXAR	**Lajitas Array**	**145.23**	**46**	PKP	**PKPbc**	**05 53 26.3**	**+0.8**
	0.3nm,0.6s,baz=254,slow=1.4,SNR=7.7						

NNC 12 05:35:42.6±11.0, **37°.17N**×**70°.53E, h0**^{km}, **mb4.1, mpv3.7, 1C-3D, Error ellipse: s-maj=88.8km s-min=81.2km az=12.0, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IUG	**Iuzhnay**	**4.99**	**356**	Pg	Pn	05 37 00.4	+1.6
	12nm,0.3s						
IUG				Lg	Lg	05 37 59.9	
	30nm,0.3s						
BRLS	**Borolday**	**5.88**	**355**	Pg	Pn	05 37 09.2	-1.7
	2.7nm,0.2s						
BRLS				Lg	Lg	05 38 15.9	
	0.4nm,0.2s						
KK31	**Karatay Array**	**5.93**	**360**	⇓Pn	Pn	05 37 12.7	+1.0
	1.4nm,0.3s,baz=173,slow=13,SNR=31						
KK31				⇑Sn	Sn	05 38 22.0	+1.7
	10nm,0.6s,baz=185,slow=22						
MRKS	**Merke**	**5.94**	**20**	Pg	Pn	05 37 12.3	+0.3
	6.6nm,0.4s						
MRKS				Lg	Lg	05 38 21.5	
	13nm,0.8s						
AAK	**Ala-Archa**	**6.26**	**28**	⇓Pn	Pn	05 37 15.8	-0.5
	0.8nm,0.4s						
AAK				⇓Sn	Sn	05 38 28.7	+0.2
	11nm,1.1s						
KRBS	**Karabastau**	**7.61**	**29**	P	Pn	05 37 34.4	-0.4
	1.4nm,0.4s						

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*IDC **12** 05:47:15.4±4.2, 42°.59N×146°.02E, h0^{km}, mb3.3/3, mbtmp3.4/4, ML3.8/1, Error ellipse: s-maj=109.8km s-min=19.2km az=15.0*

*MOS **12** 05:47:22.0±1.4, 43°.01N×145°.81E, h39^{km}, mb4.2/1, Error ellipse: s-maj=35.1km s-min=16.0km az=91.3*

*JMA **12** 05:47:22.6±0.1, 43°.0N±0°.3×145°.8E±0°.5, h44^{km}±1^{km}, MV3.8/39, OFF NEMURO PENINSULA*

JMA Felt I J1 at OFF NEMURO PENINSULA .

*SKHL **12** 05:47:23.1±0.1, 43°.00N×145°.90E, h48^{km}±6^{km}, mb4.8/5*

ISC 12 05:47:22.8±1.4, **43°.03N**±0°.06×**145°.80E**±0°.04, **h36**^{km}±1^{km}, **n29**, σ1^{s}.**37**/35, **mb3.3**/3, **3D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NEM2	**Nemuro 2**	**0.33**	**352**	*i* P	**Pn**	**05 47 31.3**	**+0.2**
NEM2				S	**Sn**	**05 47 37.4**	**-0.4**
NMR	**Nemuro--Hokkai**	**0.34**	**351**	⇓ *i*PN	**Pn**	**05 47 31.3**	**+0.1**
NMR				*e*S	**Sn**	**05 47 37.3**	**-0.5**
NMR	**Nemuro--Hokkai**	**0.34**	**351**	*i* P	**Pn**	**05 47 31.3**	**+0.1**
NMR				AMB	AMB	05 47 31.8	
	900nm,0.4s						
NMR				*e*S	**Sn**	**05 47 37.3**	**-0.5**
NMR				A	A	05 47 38.8	
	8µm,0.4s						
NMR				A	A	05 47 38.8	
	4µm,0.4s						
JKHN	**Kushirohamanak**	**0.47**	**276**	*i* P	**Pn**	**05 47 33.3**	**+0.3**
JKHN				S	**Sn**	**05 47 40.3**	**+0.1**
AKK	**Akkeshi**	**0.70**	**269**	*e*P	**Pn**	**05 47 36.1**	**-0.2**
AKK				AMB	AMB	05 47 36.6	
	350nm,0.4s						
AKK				*e*S	**Sn**	**05 47 45.8**	**-0.1**
AKK				A	A	05 47 46.8	
	900nm,0.3s						
AKK				A	A	05 47 46.8	
	2µm,0.3s						
JAK	**Akkeshi**	**0.81**	**268**	*i* P	**Pn**	**05 47 37.5**	**-0.3**
JAK				S	**Sn**	**05 47 48.4**	**-0.1**
JNSB	**Nemuroshibetsu**	**0.94**	**322**	*i* P	**Pn**	**05 47 39.0**	**-0.5**
JNSB				*e*S	**Sn**	**05 47 51.5**	**-0.3**
JNK	**Nakash**	**0.96**	**305**	*i* P	**Pn**	**05 47 39.2**	**-0.6**
JNK				S	**Sn**	**05 47 51.2**	**-1.1**
YUK	**Yuzh-Kuril'sk**	**1.00**	**2**	*d i*PN	**Pn**	**05 47 39.4**	**-0.9**
YUK				*e*S	**Sn**	**05 47 51.8**	**-1.3**
YUK				pmax	pmax		
	comp=Z,2µm,0.2s						
YUK				pmax	pmax		
	comp=N,260nm,0.1s						
YUK				pmax	pmax		
	comp=E,197nm,0.1s						
YUK				smax	smax		
	comp=N,3µm,0.5s						
YUK				smax	smax		
	comp=E,5µm,0.5s						
YUK	**Yuzh-Kuril'sk**	**1.00**	**2**	*i* P	**Pn**	**05 47 39.5**	**-0.9**
YUK				AMB	AMB	05 47 40.6	
	comp=E,2µm,0.4s						
YUK				*e*S	**Sn**	**05 47 52.2**	**-0.9**
YUK				A	A	05 47 53.7	
	comp=E,2µm,0.4s						
YUK				A	A	05 47 53.7	
	comp=E,5µm,0.4s						
JRA	**Rausu**	**1.03**	**331**	*i* P	**Pn**	**05 47 40.4**	**-0.3**
SHO	**Shikotan**	**1.12**	**41**	*e*S	Sn	05 48 09.8	+14
SHO				A	A	05 48 12.8	
	comp=E,540nm,0.2s						
SHO				A	A	05 48 12.8	
	comp=E,500nm,0.2s						

RUSJ	Misakicho	1.14	339⇓	iPN	Pn	05 47 42.3	0.0
RUSJ				eS	Sn	05 47 57.0	+0.3
JKA	Kamikawa-asahi	2.57	296	eP	Pn	05 48 03.3	+1.5
ASAJ	Asahikawa	2.57	296	Pn	Pn	05 48 03.3	+1.5
	comp=E,8.4nm,0.3s,baz=125,slow=12,SNR=25						
ASAJ				Sn	Sn	05 48 37.1	+5.3
	comp=E,6.1nm,0.3s,baz=144,slow=23,SNR=9.6						
	comp=E,22nm,0.3s						
ASAJ				AML	AML		
KUR	Kuril'sk	2.65	33	PN	Pn	05 48 05.7	+2.7
KUR				eS	Sn	05 48 34.5	+0.6
KUR				smax	smax		
	comp=N,125nm,0.2s						
KUR				smax	smax		
	comp=E,27nm,0.1s						
KUR	Kuril'sk	2.65	33	eP	Pn	05 48 05.7	+2.7
KUR				eS	Sn	05 48 34.5	+0.6
KUR				A	A	05 48 41.8	
	comp=E,130nm,0.2s						
KUR				A	A	05 48 41.8	
	comp=E,30nm,0.2s						
REI	Reidovoe	2.74	35	eP	Pn	05 48 05.4	+1.2
REI				AMB	AMB	05 48 09.0	
	comp=E,60nm,0.5s						
REI				eS	Sn	05 48 36.0	-0.1
H11N2	WAKE ISLAND Hy	29.23	136	T	T	06 24 16.8	
	baz=328,slow=76,SNR=364						
H11N1	WAKE ISLAND Hy	29.25	136	T	T	06 24 18.5	
	baz=328,slow=76,SNR=330						
H11N3	WAKE ISLAND Hy	29.25	136	T	T	06 24 11.8	
	baz=328,slow=76,SNR=428						
H11S1	WAKE ISLAND Hy	30.17	138	T	T	06 25 20.1	
	baz=329,slow=76,SNR=386						
H11S3	WAKE ISLAND Hy	30.17	138	T	T	06 25 20.3	
	baz=329,slow=76,SNR=352						
H11S2	WAKE ISLAND Hy	30.18	138	T	T	06 25 21.2	
	baz=329,slow=76,SNR=309						
ILAR	Eielson Array	42.64	36	P	P	05 55 15.3	0.0
	comp=E,0.3nm,0.6s,baz=274,slow=10.0,SNR=5.0						
	comp=E,0.3nm,0.6s						
PDAR	Pinedale Array	71.12	49	P	P	05 58 36.3	-1.4
	comp=E,0.2nm,0.7s,baz=331,slow=2.7,SNR=3.6						
	comp=E,0.2nm,0.7s						
TXAR	Lajitas Array	83.86	55	P	P	05 59 48.6	-0.4
	comp=E,0.2nm,0.7s,baz=290,slow=5.0,SNR=3.8						
	comp=E,0.2nm,0.7s						
H03N2	Juan Fernandez	143.95	90	T	T	08 47 45.1	
	baz=313,slow=76,SNR=5.2						
H03N1	Juan Fernandez	143.96	90	T	T	08 47 45.9	
	baz=309,slow=76,SNR=4.0						

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*IDC **12** 05:49:33.2±1.0, 20°.79N×122°.39E, h0^{km}, mb3.7/7, mbtmp3.8/8, ML3.6/1, Error ellipse: s-maj=25.4km s-min=18.1km az=81.0*

*JMA **12** 05:49:34.9±0.5, 21°N±2°×12°2E±°, h0^{km}, MV4.2/13, TAIWAN REGION*

*MAN **12** 05:49:39.0, 20°.46N×122°.06E, h9^{km}, MS3.6*

ISC 12 05:49:34.6±0.7**, 20°.81N**±0°.03×**122°.16E**±0°.06**, h10^{km}, n38,** σ**1^{s}.55**/40**, mb3.7**/7**, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TWGBT	Beinan	2.24	334	P	Pn	05 50 11.8	0.0
TWGBT	Beinan	2.24	334	S	Sn	05 50 37.4	-2.1
PACPP	Pamplona Cagay	2.46	198	i P	Pn	05 50 15.2	+0.5
PACPP				i S	Sn	05 50 41.3	-3.5
YULB	Yu-li	2.70	343	P	Pn	05 50 16.7	-1.3
YULB	Yu-li	2.70	343	S	Sn	05 50 48.8	-2.0
TPUB	Ta-pu	2.86	330	P	Pn	05 50 19.4	-0.9
SSLB	Suanglung	3.17	340	P	Pn	05 50 25.5	+0.9
SIPP	Brgy, Tapao	3.29	210	eP	Pn	05 50 28.0	+1.8
SIPP				eS	Sn	05 51 06.4	+1.0
NACB	Ninganchiao	3.39	351	P	Pn	05 50 27.2	-0.4
NACB	Ninganchiao	3.39	351	S	Sn	05 51 06.3	-1.6
HATJ	Hateruma jima	3.58	25	eP	Pn	05 50 31.1	+1.0
HATJ				S	Sn	05 51 12.3	0.0
JYNG	Yonagunijimaku	3.70	11	eP	Pn	05 50 32.9	+1.1
JYNG				eS	Sn	05 51 15.8	+0.4
YOJ	Yonaguni jima	3.72	12	P	Pn	05 50 33.2	+1.1
YOJ	Yonaguni jima	3.72	12	S	Sn	05 51 16.0	0.0
YOJ	Yonaguni jima	3.72	12	eS	Sn	05 51 15.5	-0.6
PALP	Palanan	3.73	176	i P	Pb	05 50 38.7	-1.9
PALP				eS	Sn	05 51 15.8	-0.5
JKRS	Kuro-shima	3.82	26	P	Pn	05 50 34.8	+1.4
JKRS				eS	Sn	05 51 19.0	+0.6
YHNB	Yeheng	3.91	349	P	Pn	05 50 35.5	+0.7
JIJ	Ishigaki jima	3.99	27	eP	Pn	05 50 36.7	+0.9
JIJ				eS	Sn	05 51 20.9	-1.6
JISG	Ishigakijimahi	4.25	27	P	Pn	05 50 40.4	+1.0
JISG				eS	Sn	05 51 27.5	-1.7
JTJ	Tarama	4.48	31	eS	Sn	05 51 34.1	-0.6
CAAP	Casiguran, Aur	4.57	181	eP	Pn	05 50 44.2	+0.3
GQP	Guinayangan	6.87	178	eP	Pn	05 51 14.5	-0.9
JOW	Kunigami	8.20	42	Pn	Pn	05 51 29.1	-4.7
KSRS	Korea Array	17.33	16	P	P	05 53 37.5	-0.4
	0.2nm,0.3s,baz=191,slow=12,SNR=5.7						
	2.1nm,0.7s						
KSRS				AML	AML		
CMAR	Chiang Mai Arr	21.99	268	P	P	05 54 29.8	+0.8
	1.1nm,0.3s,baz=79,slow=10,SNR=4.4						
	1.1nm,0.3s						
SONM	Songino Array	29.82	338	P	P	05 55 44.7	+2.8
	0.3nm,0.5s,baz=140,slow=9.2,SNR=1.8						
	0.3nm,0.5s						
H11N1	WAKE ISLAND Hy	41.88	83	T	T	06 42 24.1	
	baz=282,slow=76,SNR=90						
H11N2	WAKE ISLAND Hy	41.88	83	T	T	06 42 23.3	
	baz=282,slow=76,SNR=84						
H11N3	WAKE ISLAND Hy	41.89	83	T	T	06 42 25.5	
	baz=282,slow=76,SNR=84						
H11S3	WAKE ISLAND Hy	41.90	85	T	T	06 42 23.4	
	baz=281,slow=75,SNR=114						
H11S1	WAKE ISLAND Hy	41.91	85	T	T	06 42 22.4	
	baz=281,slow=75,SNR=144						
H11S2	WAKE ISLAND Hy	41.92	85	T	T	06 42 22.5	
	baz=281,slow=75,SNR=125						
WRA	Warramunga Arr	42.22	163	P	P	05 57 26.8	-1.2
	0.4nm,0.5s,baz=345,slow=8.9,SNR=7.8						
	0.4nm,0.5s						
ZALV	Zalesovo Beam	43.57	329	P	P	05 57 38.2	-0.4
	0.5nm,0.4s,baz=118,slow=8.1,SNR=3.7						
	0.5nm,0.4s						
KURBB	Kurchatov Arra	45.29	322	P	P	05 57 54.0	+1.6
	0.7nm,0.2s,baz=118,slow=7.6,SNR=4.7						
	0.7nm,0.2s						
ASAR	Alice Springs	45.66	165	P	P	05 57 56.2	+0.6
	0.6nm,0.7s,baz=352,slow=10,SNR=10						
	0.6nm,0.7s						
BVAR	Borovoye Array	50.87	322	P	P	05 58 37.6	+2.1
	0.6nm,0.4s,baz=95,slow=12,SNR=2.6						
	0.6nm,0.4s						

DJA 12 05:57:16.8±0.9**, 10°S**±9°×**11°8E**±°**, h54^{km}**±37^{km}**, M3.6**/8**, mb3.7**/2**, MLv3.6**/8**, Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLAI	Plampang	1.31	332	P	Pn	05 57 38.3	-0.5
PLAI				AML	AML		
DBNI	Kabupaten Domp	1.48	357	P	Pn	05 57 41.4	+0.2
TWSI	Taliwang, Sumb	1.95	310	P	Pn	05 57 47.5	0.0
TWSI				AML	AML		
KHKI	Kahang-Kahang	3.19	300	P	Pn	05 58 05.9	+1.3
KHKI				AML	AML		
IGBI	Denpasar	3.42	290	P	Pn	05 58 06.5	-1.1
JAGI	Jajag, Banyuwa	4.46	289	P	Pn	05 58 21.6	-0.3
JAGI				AML	AML		
KAPI	Kappang	5.12	15	P	Pn	05 58 32.0	+1.0
	0.1nm12nm,2.2s						
KAPI				AML	AML		

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*IDC **12** 05:58:59.4±0.8, 34°.65S×179°.72W, h0^{km}, mb4.6/6, mbtmp4.5/8, ML4.1/2, MS3.6/7, Error ellipse: s-maj=28.8km s-min=19.8km az=67.0*

*NEIC **12** 05:59:05.7±1.7, 34°.9S±0°.1×179°.9W±0°.2, h35^{km}±2^{km}, mb4.6/13, Error ellipse: s-maj=28.8km s-min=18.9km az=109.0*

*WEL **12** 05:59:08.5±1.0, 35°S±11°×18°0E±1°0, h100^{km}±76^{km}, M4.7/21, ML4.7/13, MLv4.7/21, Error ellipse: s-maj=14.4km s-min=12.6km az=29.8, confirmed*

*NOU **12** 05:59:22.1, 36°.33S×179°.82E, h64^{km}, MLv4.6/11, Off E. Coast of N. Island, N.Z.*

ISC 12 05:59:05.6±0.5**, 34°.98S**±0°.06×**179°.87W**±0°.07**, h35^{km}, n118,** σ**1^{s}.42**/121**, mb4.6**/18**, MS3.8**/6**, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	2.96	209	P	Pn	05 59 50.6	+0.5
MXZ	Matakaoa Point	2.96	209		Pn	05 59 50.5	+0.3
MXZ	Matakaoa Point	2.96	209	P	Pn	05 59 49.8	-0.3
MXZ				AML	AML		
WMGZ	Waiomatatini S	3.15	206	P	Pn	05 59 54.1	+1.4
WMGZ				AML	AML		
WMGZ				AML	AML		
PKGZ	Pakihiroa	3.32	209	P	Pn	05 59 56.1	+1.1
PKGZ				S	Sn	06 00 34.3	+1.1
PKGZ				AML	AML		
PKGZ				AML	AML		
HAZ	Te Kaha	3.35	214	P	Pn	05 59 56.9	+1.4
HAZ				S	Sn	06 00 36.2	+2.2
HAZ				AML	AML		
PUZ	Puketiti	3.43	206	P	Pn	05 59 57.0	+0.5
PUZ				AML	AML		
PUZ				AML	AML		
WIZ	White Island	3.48	222	P	Pn	05 59 57.0	-0.1
WIZ				S	Sn	06 00 34.3	-2.8
WIZ				AML	AML		
WIZ				AML	AML		
WSRZ	White Island S	3.48	222	P	Pn	05 59 58.0	+0.9
WSRZ				S	Sn	06 00 33.2	-4.0
WSRZ				AML	AML		
WSRZ				AML	AML		
RUGZ	Raukumara Rang	3.57	213	P	Pn	05 59 59.3	+0.7
RUGZ				AML	AML		
RUGZ				AML	AML		
TWGZ	Tauwhareparae	3.63	208	P	Pn	06 00 00.0	+0.7
TWGZ				S	Sn	06 00 41.7	+0.8
TWGZ				AML	AML		
TWGZ				AML	AML		
CNGZ	Carnagh Statio	3.82	203	P	Pn	06 00 03.1	+1.2
CNGZ				AML	AML		
CNGZ				AML	AML		
WHRZ	Whale Island	3.83	221	P	Pn	06 00 03.9	+1.8
WHRZ				AML	AML		
WHRZ				AML	AML		
MYRZ	Mayor Island	3.89	233	P	Pn	06 00 04.7	+1.8
MYRZ				AML	AML		
TKGZ	Te Karaka	3.91	207	P	Pn	06 00 04.0	+0.9
TKGZ				S	Sn	06 00 49.4	+1.8
TKGZ				AML	AML		
MWZ	Matawai	3.94	211	P	Pn	06 00 03.7	+0.1
MWZ				S	Sn	06 00 48.0	-0.7
MWZ				AML	AML		
MWZ				AML	AML		
GRZ	Great Barrier	4.01	250	P	Pn	06 00 05.2	+0.7
GRZ				AML	AML		
URZ	Urewera	4.07	216	Pn	Pn	06 00 05.5	+0.1
	15nm,0.3s,baz=56,slow=1.9,SNR=73						
URZ				Sn	Sn	06 00 50.0	-1.7
	29nm,0.3s,baz=150,slow=23,SNR=8.0						
URZ				LR	LR	06 01 46.6	
	comp=Z,311nm,21.7s,baz=54,slow=38						
	114nm,0.6s						
URZ				AML	AML		
URZ	Urewera	4.07	216	P	Pn	06 00 05.4	+0.1
URZ	Urewera	4.07	216	P	Pn	06 00 05.5	+0.1
URZ				S	Sn	06 00 49.2	-2.5
URZ				AML	AML		
URZ				AML	AML		
MARZ	Manawahe	4.09	222	P	Pn	06 00 05.0	-0.6
MARZ				S	Sn	06 00 51.2	-1.1
MARZ				AML	AML		
RAGZ	Rawiri	4.13	211	P	Pn	06 00 06.1	-0.1
RAGZ				S	Sn	06 00 53.4	+0.1
RAGZ				AML	AML		
RAGZ				AML	AML		
EDRZ	Edgecumbe	4.14	220	P	Pn	06 00 07.0	+0.6
EDRZ				AML	AML		
EDRZ				AML	AML		
TGRZ	Tauranga	4.15	228	P	Pn	06 00 07.0	+0.6
TGRZ				AML	AML		
TGRZ				AML	AML		
RIGZ	Rimuhau	4.17	206	P	Pn	06 00 06.5	-0.2
RIGZ				AML	AML		
RIGZ				AML	AML		
MKRZ	Makatiti	4.31	222	P	Pn	06 00 11.8	+3.1
PRGZ	Paritu Road	4.32	204	P	Pn	06 00 08.3	-0.5
PRGZ				AML	AML		
PRGZ				AML	AML		
KARZ	Kaharoa	4.36	225	P	Pn	06 00 10.2	+0.9
TARZ	Mount Tarawera	4.36	221	P	Pn	06 00 10.5	+1.1
TARZ				AML	AML		
TARZ				AML	AML		
MUGZ	Murupara	4.41	217	P	Pn	06 00 09.7	-0.3
MUGZ				S	Sn	06 00 58.4	-1.7
RTZ	Ruatahuna	4.42	214		Pn	06 00 10.2	0.0
RTZ	Ruatahuna	4.42	214	P	Pn	06 00 10.3	0.0
KMRZ	Kaimai	4.42	229	P	Pn	06 00 11.3	+1.1
KMRZ				AML	AML		
WIAZ	Waiheke Island	4.44	245	P	Pn	06 00 11.7	+1.4
WIAZ				AML	AML		
KNZ	Kokohu	4.48	205	P	Pn	06 00 09.9	-1.1
MHGZ	Mahia Peninsul	4.53	202	P	Pn	06 00 10.7	-0.8
MKAZ	Moumakai	4.55	241	P	Pn	06 00 13.3	+1.5
MBAZ	Motutapu North	4.61	246	P	Pn	06 00 15.2	+2.5
PRRZ	Plateau Road	4.62	219	P	Pn	06 00 14.0	+1.1
RAHZ	Arahi	4.62	211	P	Pn	06 00 13.7	+0.8
TOZ	Tahuroa Road	4.63	232		Pn	06 00 14.3	+1.2
TOZ	Tahuroa Road	4.63	232	P	Pn	06 00 14.4	+1.4
MTHZ	Maungataniwha	4.67	213	P	Pn	06 00 14.4	+0.7
ALRZ	Allen Road	4.69	219	P	Pn	06 00 14.4	+0.5
WHHZ	Waihua	4.70	209	P	Pn	06 00 15.0	+1.1
WCZ	Waipu Caves	4.82	257	P	Pn	06 00 16.9	+1.3
WCZ				AML	AML		
NMHZ	Naumai	4.89	212	P	Pn	06 00 16.9	+0.2
AWAZ	Awhitu Peninsu	4.91	243	P	Pn	06 00 19.4	+2.6
ARHZ	Aropaoanui	4.95	209	P	Pn	06 00 17.3	-0.1
BKZ	Black Stump Fm	5.09	214	P	Pn	06 00 18.8	-0.5
BKZ	Black Stump Fm	5.09	214	P	Pn	06 00 18.3	-1.0
MCHZ	McNeill Hill	5.23	211	P	Pn	06 00 21.3	+0.1
KWHZ	Kaweka Forest	5.33	213	P	Pn	06 00 22.4	-0.3
OUZ	Omahuta	5.36	266	P	Pn	06 00 24.0	+1.0
OUZ				AML	AML		
HIZ	Hauiti	5.51	229	P	Pn	06 00 26.5	+1.4
HIZ	Hauiti	5.51	229		Pn	06 00 26.3	+1.2
BFZ	Birch Farm	6.46	207	P	Pn	06 00 35.9	-2.3
BFZ	Birch Farm	6.46	207	Pn	Pn	06 00 35.8	-2.4
KHEZ	Kahui Hut	6.51	227	P	Pn	06 00 41.7	+2.8
MRZ	Mangatainoka R	6.71	211		Pn	06 00 39.0	-2.7
MSWZ	Moikau Station	7.48	209	Pn	Pn	06 00 49.2	-3.0
PLWZ	Palliser	7.61	209	Pn	Pn	06 00 50.9	-3.1
SNZO	South Karori	7.62	212	P	Pn	06 00 53.1	-1.0
QRZ	Quartz Range	8.37	224	P	Pn	06 01 06.5	+2.2
CTZ	Chatham Island	9.10	165	P	Pn	06 01 14.1	-0.1
ODZ	Otahua Downs	12.39	213	P	Pn	06 01 59.0	-0.4
JCZ	Jackson Bay	12.60	221	P	Pn	06 02 02.4	+0.1
MARNC	Mare, Loyalty	17.14	319		Pn	06 03 01.5	-0.9
DZM	Mont Dzumac	17.59	313	P	Pn	06 03 06.0	-2.0
	0.4nm,0.3s,baz=154,slow=10,SNR=5.1						
	4.2nm,1.0s						
DZM				AML	AML		
RAR	Rarotonga	22.36	57	LR	LR	06 10 44.3	
	comp=Z,46nm,20.4s,baz=274,slow=32						
TOO	Toolangi	27.95	254	P	P	06 04 52.0	-0.7
PPT2	Papeete2	32.04	65	eS	S	06 10 40.5	+1.7
	98nm,30.2s						
PPT2				eLR	LR	06 13 45.8	
	227nm,26.5s						
PPT2				eLR	LR	06 13 53.3	
	206nm,27.8s						
STKA	Stephens Creek	32.18	264	P	P	06 05 32.1	+2.0
	2.2nm,0.6s,baz=66,slow=9.8,SNR=4.2						
STKA				LR	LR	06 18 03.1	
	comp=Z,116nm,18.4s,baz=40,slow=35						
	2.2nm,0.6s						
CTAO	Charters Tower	33.32	287	P	P	06 05 39.1	-1.1
CTAO				IAmb	IAmb	06 06 21.8	
	comp=Z,11nm,1.1s						
INKA	Innaminka	34.23	271		P	06 05 47.5	-0.6
INKA				IAmb	IAmb	06 05 51.9	
	comp=Z,5.1nm,0.8s						
PMG	Port Moresby	39.43	302	LR	LR	06 21 41.9	
	comp=Z,97nm,18.4s,baz=261,slow=35						
AS31	Alice Springs	41.52	273		P	06 06 49.5	-0.2
AS31				IAmb	IAmb	06 06 52.3	
	comp=Z,8.1nm,0.5s						
ASAR	Alice Springs	41.52	273	P	P	06 06 49.0	-0.8
	comp=Z,16nm,0.5s,baz=115,slow=7.6,SNR=109						
ASAR				LR	LR	06 23 09.5	
	comp=Z,146nm,18.5s,baz=90,slow=35						
	comp=Z,16nm,0.5s						
WRAB	Tennant Creek	42.93	278	P	P	06 07 00.8	-0.4
WRA	Warramunga Arr	42.93	278	P	P	06 07 00.8	-0.4
	comp=Z,11nm,0.6s,baz=120,slow=7.6,SNR=100						
	comp=Z,11nm,0.6s						
WRA	Warramunga Arr	42.93	278	P	P	06 07 00.4	-0.8
VNDA	Vanda	43.39	186	P	P	06 07 06.7	+2.5
	comp=Z,0.6nm,0.8s,baz=63,slow=6.0,SNR=4.3						
CASY	Casey	50.37	209	P	P	06 07 57.8	-1.0
FITZ	Fitzroy Crossi	50.96	275	P	P	06 08 03.8	0.0
FITZ				IAmb	IAmb	06 08 04.3	
	comp=Z,1.6nm,0.8s						
MBWA	Marble Bar	54.31	268	P	P	06 08 26.8	-1.8
MBWA				IAmb	IAmb	06 08 28.4	
	comp=Z,6.3nm,0.8s						
QSPA	South Pole Qui	55.14	180	P	P	06 08 36.8	+2.6
	comp=Z,3.5nm,0.6s,baz=356,slow=0.1,SNR=20						
	comp=Z,3.5nm,0.6s						
QSPA	South Pole Qui	55.14	180	P	P	06 08 36.5	+2.3
QSPA				IAmb	IAmb	06 08 52.4	
	comp=Z,7.2nm,0.9s						
MAW	Mawson	67.48	202	P	P	06 09 58.4	+1.0
	comp=Z,3.8nm,0.9s,baz=114,slow=6.9,SNR=7.7						
	comp=Z,3.8nm,0.9s						
MAW	Mawson	67.48	202	P	P	06 09 57.8	+0.4
TROLL	Troll, Antarti	73.29	181	P	P	06 10 34.1	+1.1
	comp=Z,274nm,1.1s						
SNAA	Sanae	73.62	179	P	P	06 10 36.6	+1.7
	comp=Z,27nm,0.5s						
SNAA	Sanae	73.62	179	P	P	06 10 36.1	+1.2
	comp=Z,1.3nm,0.5s,baz=150,slow=11,SNR=3.6						
SNAA				LR	LR	06 40 13.1	
	comp=Z,70nm,18.8s,baz=84,slow=34						
	comp=Z,1.3nm,0.5s						
VNA3	Neumayer Olymp	73.84	177	P	P	06 10 37.0	+0.9
	comp=Z,3.2nm,0.6s						
VNA2	Neumayer--Watz	74.25	177	P	P	06 10 39.8	+1.2
	comp=Z,4.3nm,0.6s,baz=168,slow=5.8						
VNA1	Neumayer--Stat	74.49	177	P	P	06 10 41.7	+1.8
	comp=Z,4.4nm,1.0s						
H03S2	Juan Fernandez	79.25	124	T	T	07 39 21.6	
	baz=233,slow=74,SNR=32						
H03S1	Juan Fernandez	79.26	124	T	T	07 39 23.5	
	baz=233,slow=74,SNR=29						
H03S3	Juan Fernandez	79.26	124	T	T	07 39 20.3	
	baz=233,slow=74,SNR=26						
H03N2	Juan Fernandez	79.47	123	T	T	07 39 35.6	
	baz=25,slow=74,SNR=34						
H03N1	Juan Fernandez	79.48	123	T	T	07 39 29.9	
	baz=237,slow=74,SNR=40						
NJ2	Nanjing	88.07	312	eP	P	06 11 54.1	+1.8
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
PZH	PanZhiHua	96.04	298	P	P	06 12 30.5	+0.9
N15K	Kwethluk River	96.20	10	P	P	06 12 29.3	0.0
N15K				IAmb	IAmb	06 12 32.6	
	comp=Z,3.9nm,1.1s						
HHC	Hu-ho-hao-te	98.29	314	eP	Pdif	06 12 41.7	+2.3
HHC				pmax	pmax		
	comp=Z,20nm,0.6s						
NEW	Newport	99.99	37	LR	LR	06 53 05.7	
	comp=Z,31nm,18.6s,baz=278,slow=33						
MKAR	Makanchi Array	119.45	309	PKP	PKPdf	06 17 49.2	-1.8
	comp=Z,0.7nm,0.8s,baz=304,slow=2.2,SNR=3.6						
KURBB	Kurchatov Arra	123.03	312	PKP	PKPdf	06 17 56.6	-1.1
	comp=Z,2.3nm,0.3s,baz=113,slow=2.0,SNR=5.5						
BVAR	Borovoye Array	128.49	313	PKP	PKPdf	06 18 06.7	-1.4
	comp=Z,1.1nm,0.6s,baz=122,slow=1.9,SNR=4.4						
ARCES	ARCESS Array B	142.68	346	PKP	PKPdf	06 18 31.5	-2.4
	comp=Z,0.9nm,0.6s,baz=33,slow=2.9,SNR=6.1						
KBZ	Khabaz	146.11	298	PKPbc	PKPdf	06 18 41.3	+0.7
	comp=Z,1.2nm,0.4s,baz=67,slow=4.3,SNR=4.8						
FINES	FINESS Array B	148.80	336	PKPbc	PKPbc	06 18 47.8	-0.7
	comp=Z,3.8nm,0.8s,baz=41,slow=3.4,SNR=26						
MMAI	Mount Meron Ar	150.78	276	PKPbc	PKPbc	06 18 53.2	-1.1
	comp=Z,1.9nm,0.5s,baz=54,slow=8.5,SNR=6.3						
DBIC	Dimbokro	151.45	170	PKPbc	PKiKP	06 18 57.3	+0.5
	comp=Z,6.3nm,1.0s,baz=224,slow=3.1,SNR=5.0						
NB2	NORSAR Subarra	152.97	348	PKP	PKPbc	06 18 58.1	-0.3
	comp=Z,1.1nm,0.7s,baz=36,slow=2.6						
NOA	NORSAR Array B	152.97	348	PKPbc	PKPbc	06 18 57.6	-0.8
	comp=Z,1.0nm,0.7s,baz=36,slow=4.5,SNR=4.0						
BRTR	Keskin Array B	153.04	290	PKPbc	PKPbc	06 18 57.9	-1.5
	comp=Z,2.7nm,0.7s,baz=158,slow=4.2,SNR=10						
AKASG	Malin Array Be	153.74	316	PKPbc	PKPbc	06 18 58.6	-1.6
	comp=Z,2.3nm,0.7s,baz=69,slow=2.5,SNR=7.3						
TORD	Torodi Ar. Bea	158.21	184	PKPab	PKPab	06 19 32.5	-0.7
	comp=Z,3.6nm,1.0s,baz=177,slow=3.5,SNR=9.5						

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*IDC **12** 06:20:57.0±1.4, 28°.08S×26°.82E, h0^{km}, mb3.6/2, mbtmp3.8/7, ML3.4/3, Error ellipse: s-maj=18.8km s-min=8.3km az=114.0*

*PRE **12** 06:20:57.3±0.9, 28°.00S×26°.64E, h2^{km}, ML3.0, Presumed earthquake*

*BGSI **12** 06:21:00.5±1.3, 28°.13S×26°.66E, h37^{km}±16^{km}, ML3.3, Presumed earthquake*

ISC 12 06:20:57.6±0.9**, 27°.96S**±0°.05×**26°.58E**±0°.06**, h4^{km}, n32,** σ**1^{s}.69**/55**, South Africa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOSA	Boshof	1.34	241	Pg	Pn	06 21 24.4	+1.2
	22nm,0.3s,baz=69,slow=14,SNR=324						
BOSA				Lg	Lg	06 21 43.9	
	64nm,0.3s,baz=135,slow=8.6,SNR=30						
BOSA	Boshof	1.34	241	eP	Pn	06 21 24.1	+0.9
BOSA				eS	Sg	06 21 42.9	+2.3
BOSA				IAML		06 21 47.4	
	comp=Z,170nm,0.3s						
HRAO	HartRAO	2.29	26	eP	Pn	06 21 37.0	+0.7
HRAO				eS	Sn	06 22 05.8	+0.8
MAKGR	Makgori	2.67	323	i P	Pn	06 21 43.2	+1.7
MAKGR				i S	Sn	06 22 13.6	-0.8
LBTB	Lobatse	3.07	343	Pn	Pn	06 21 49.4	+2.4
	comp=Z,1.7nm,0.3s,baz=162,slow=14,SNR=42						
LBTB				Pg	Pb	06 21 54.5	+1.7
	comp=Z,6.0nm,0.3s,baz=161,slow=15,SNR=16						
LBTB				Sn	Sn	06 22 25.7	+1.5
	comp=Z,13nm,0.3s,baz=63,slow=22,SNR=7.9						
LBTB				Lg	Lg	06 22 34.5	
	comp=Z,11nm,0.3s,baz=63,slow=22,SNR=4.9						
	comp=Z,5.5nm,0.3s						
LBTB				AML	AML		
LBTB	Lobatse	3.07	343	eP	Pn	06 21 48.4	+1.5
LBTB				eS	Sn	06 22 25.3	+1.1
LBTB				IAML		06 22 50.2	
	comp=Z,41nm,0.4s						
RUST	Rust De Winter	3.22	33	eP	Pn	06 21 49.3	+0.2
RUST				eS	Sn	06 22 28.1	+0.1
RUST				IAML		06 22 47.1	
	comp=Z,49nm,0.3s						
PHPEN	Phepeng	4.15	306	i P	Pn	06 22 01.4	-0.5
SKOMA	Sekoma	4.18	325	i P	Pn	06 22 02.4	+0.2
ALKP	Alkanpan, Nort	4.28	242	eP	Pn	06 22 05.8	+2.1
ALKP				eS	Sn	06 22 53.6	-0.6
ALKP				IAML		06 23 20.0	
	comp=Z,22nm,0.3s						
BFON	Badsfontein, M	4.58	213	eP	Pn	06 22 09.2	+1.5
BFON				eS	Sn	06 23 00.9	-0.5
BFON				IAML		06 23 21.7	
	comp=Z,55nm,0.4s						
LPHEP	Lephephe	4.63	352	i P	Pn	06 22 09.3	+0.9
LPHEP				i S	Sn	06 23 00.2	-2.5
LPHEP				IAML		06 23 34.4	
	comp=N,29nm,0.4s						
KDWAN	Kaudwane	4.88	339	i P	Pn	06 22 12.8	+0.8
KDWAN				i S	Sn	06 23 05.6	-3.4
KDWAN				IAML		06 23 43.4	
	comp=N,140nm,0.5s						
BRAK	Brakfontein	4.97	219	eP	Pn	06 22 13.3	+0.2
BRAK				eS	Sn	06 23 10.3	-0.9
BRAK				IAML		06 23 39.7	
	comp=Z,42nm,0.4s						
HOED	Hoedspruit, Li	5.27	49	eP	Pn	06 22 17.8	+0.6
HOED				eS	Sn	06 23 17.5	-1.0

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
HOED				IAML		06 23 50.5	
	comp=Z,23nm,0.5s						
CRAIL	Swartwater, Li	5.35	17	eP	Pn	06 22 19.5	+1.0
CRAIL				eS	Sn	06 23 20.3	-0.3
CRAIL				IAML		06 23 50.2	
	comp=Z,842nm,0.2s						
MREMI	Moremi	5.43	8	i P	Pn	06 22 19.5	+0.1
GRAN	Grantham	5.77	220	eP	Pn	06 22 25.2	+1.1
GRAN				eS	Sn	06 23 28.9	-1.9
GRAN				IAML		06 24 00.5	
	comp=Z,40nm,0.4s						
FRAZ	Fraserburg	5.98	227	eP	Pn	06 22 28.2	+1.2
FRAZ				eS	Sn	06 23 33.7	-2.4
FRAZ				IAML		06 24 09.3	
	comp=Z,15nm,0.4s						
ARMS	Ukamas	6.05	268	eP	Pn	06 22 29.9	+1.9
ARMS				eS	Sn	06 23 37.2	-0.5
KHWEE	KHWEE	6.08	350	i P	Pn	06 22 28.8	+0.4
KHWEE				i S	Sn	06 23 33.5	-5.0
KHWEE				IAML		06 24 20.4	
	comp=N,175nm,0.3s						
SUR	Sutherland	6.66	227	Pn	Pn	06 22 36.5	+0.1
	comp=N,0.9nm,0.3s,baz=65,slow=13,SNR=18						
SUR				Sn	Sn	06 23 50.0	-2.9
	comp=N,2.3nm,0.3s,baz=232,slow=8.9,SNR=6.0						
SUR				Lg	Lg	06 24 25.1	
	comp=N,5.1nm,0.3s,baz=141,slow=21,SNR=7.3						
	comp=N,12nm,1.1s						
SUR				AML	AML		
SUR	Sutherland	6.66	227	eP	Pn	06 22 37.7	+1.3
SUR				eS	Sn	06 23 50.9	-2.0
SUR				IAML		06 24 38.5	
	comp=Z,16nm,0.5s						
BROLN	Tlhalogang	6.87	6	i P	Pn	06 22 38.3	-1.0
BROLN				i S	Sn	06 23 50.7	-7.3
BROLN				i S	Sb	06 23 52.3	-28
BROLN				IAML		06 24 40.1	
	comp=E,36nm,0.6s						
SOOWA	Sowa	7.38	357	i P	Pn	06 22 46.1	-0.1
KOOLE	Kule	7.60	309	i P	Pn	06 22 48.0	-1.3
KOOLE				i S	Sn	06 24 08.5	-7.6
KOOLE				IAML		06 25 08.9	
	comp=E,27nm,0.8s						
MATP	Matopo	7.70	14	Pn	Pn	06 22 50.9	+0.2
	comp=E,1.0nm,0.3s,baz=192,slow=13,SNR=16						
MATP				Sn	Sn	06 24 16.0	-2.6
	comp=E,1.2nm,0.3s,baz=225,slow=5.7,SNR=5.6						
MATP				Lg	Lg	06 24 55.2	
	comp=E,1.8nm,0.3s,baz=131,slow=8.6,SNR=6.9						
	comp=E,2.3nm,0.3s						
MATP				AML	AML		
TSUM	Tsumeb	12.00	315	Pn	Pn	06 23 51.4	+1.8
	comp=E,2.8nm,0.6s,baz=122,slow=15,SNR=14						
TSUM				Sn	Sn	06 26 02.5	-1.6
	comp=E,0.2nm,0.3s,baz=75,slow=24,SNR=2.5						
TSUM				Lg	Lg	06 27 21.0	
	comp=E,0.2nm,0.3s,baz=233,slow=20,SNR=4.2						
LSZ	Lusaka	12.71	7	Pn	Pn	06 23 58.3	-1.1
	comp=E,2.9nm,0.5s,baz=173,slow=8.1,SNR=3.6						
LSZ				Sn	Sn	06 26 17.4	-4.2
	comp=E,0.4nm,0.3s,baz=184,slow=13,SNR=4.4						
LSZ				Lg	Lg	06 27 30.7	
	comp=E,0.8nm,0.3s,baz=270,slow=20,SNR=5.6						
TORD	Torodi Ar. Bea	47.45	326	P	P	06 29 34.9	+1.2
	comp=E,0.8nm,0.7s,baz=135,slow=6.6,SNR=4.4						
	comp=E,0.8nm,0.7s						
ESDC	Sonseca Array	73.06	336	P	P	06 32 29.6	+0.8
	comp=E,0.4nm,0.8s,baz=168,slow=6.6,SNR=2.9						
	comp=E,0.4nm,0.8s						
NVAR	Mina Array Bea	148.98	299	PKPbc	PKPbc	06 40 47.6	+0.3
	comp=E,0.1nm,0.5s,baz=47,slow=2.4,SNR=3.7						

NNC 12 06:43:26.2±5.5**, 36°.40N×68°.95E, h0^{km}, mb4.0, mpv3.7, 2C-2D, Error ellipse: s-maj=46.5km s-min=40.5km az=151.0, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KK31	Karatay Array	6.81	10	⇑P	Pn	06 45 07.5	+0.2
	3.4nm,0.5s,baz=197,slow=17,SNR=45						
KK31				⇓S	Sn	06 46 27.0	+1.5
	4.9nm,0.5s,baz=191,slow=23						
AAK	Ala-Archa	7.56	33	⇑P	Pn	06 45 17.9	0.0
	2.1nm,0.6s						
AAK				⇓S	Sn	06 46 44.9	+0.5
	2.5nm,0.6s						
MK31	Makanchi Array	14.39	40	P	Pn	06 46 51.4	+0.3
	1.6nm,0.7s,baz=222,slow=9.8,SNR=7.3						
AB31	Akbulak array	14.44	336	P	Pn	06 46 51.5	-0.2
	0.8nm,0.4s,baz=169,slow=38,SNR=12						

SJA ***12*** *06:45:03.8±0.7, 21°.39S×69°.88W, h55^{km}±5^{km}, ML4.1, MW4.1*

NEIC ***12*** *06:45:04.8±1.1, 21°.42S±0°.04×69°.83W±0°.09, h51^{km}±3^{km}, mb4.4/7, ML4.2(GUC), Error ellipse: s-maj=11.4km s-min=5.8km az=84.0*

GUC ***12*** *06:45:05.8±0.7, 21°.39S×69°.78W, h47^{km}±2^{km}, ML4.2*

ISC 12 06:45:04.3±0.7**, 21°.39S**±0°.02×**69°.90W**±0°.05**, h48**^{km}±5^{km}**, n78, σ2^{s}05**/100**, mb4.5**/4**, 3C-9D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PB02	IPOC Station P	0.07	1	eP	Pn	06 45 13.1	+1.1
PB02				IAML		06 45 21.7	
	comp=Z,26µm,0.3s						
PB02	IPOC Station P	0.07	1	⇓eP	Pn	06 45 13.2	+1.1
PB02				eS	Sn	06 45 18.9	+1.4
PB02				IAML		06 45 19.1	
	comp=N,61µm,0.3s						
PB02	IPOC Station P	0.07	1		Pn	06 45 13.0	+0.9
PB07	IPOC Station P	0.33	178	eP	Pn	06 45 14.7	+0.8
PB07				IAML		06 45 23.8	
	comp=Z,8µm,0.2s						
PB07	IPOC Station P	0.33	178	eP	Pn	06 45 14.7	+0.8
PB07				eS	Sn	06 45 22.0	+1.4
PB07				IAML		06 45 22.6	
	comp=N,14µm,0.5s						
PB07	IPOC Station P	0.33	178		Pn	06 45 14.7	+0.8
PB03	IPOC Station P	0.67	168	eP	Pn	06 45 18.6	+0.8
PB03				eS	Sn	06 45 28.6	+1.1
PB03	IPOC Station P	0.67	168	⇓eP	Pn	06 45 18.6	+0.8
PB03				eS	Sn	06 45 28.5	+1.1
PB03				IAML		06 45 29.2	
	comp=E,42µm,0.3s						
PB03	IPOC Station P	0.67	168		Pn	06 45 18.4	+0.6
PB09	IPOC Station P	0.73	124	eP	Pn	06 45 19.1	+0.4
PB09				IAML		06 45 34.5	
	comp=Z,4µm,0.2s						
PB09	IPOC Station P	0.73	124	⇑eP	Pn	06 45 19.0	+0.4
PB09				eS	Sn	06 45 28.7	-0.3
PB09				IAML		06 45 29.7	
	comp=E,15µm,0.3s						
PB09	IPOC Station P	0.73	124		Pn	06 45 18.7	+0.1
TA01	Diego Aracena	0.86	342	eP	Pn	06 45 20.9	+0.7
TA01				eS	Sn	06 45 33.5	+1.7
TA01				IAML		06 45 36.7	
	comp=Z,2µm,0.6s						
TA01	Diego Aracena	0.86	342	⇓eP	Pn	06 45 20.8	+0.5
TA01				eS	Sn	06 45 33.3	+1.5
TA01	Diego Aracena	0.86	342		Pn	06 45 20.7	+0.5
TA02	Huaiquique	1.14	349	eP	Pn	06 45 24.8	+0.9
TA02				IAML		06 45 42.7	
	comp=Z,3µm,0.1s						
TA02	Huaiquique	1.14	349	eP	Pn	06 45 24.7	+0.9
TA02				eS	Sn	06 45 39.9	+1.5
PB06	IPOC Station P	1.34	167	eP	Pn	06 45 27.5	+0.7
PB06				eS	Sn	06 45 46.6	+3.0
PB06	IPOC Station P	1.34	167		Pn	06 45 27.2	+0.3
PB08	IPOC Station P	1.43	29	eP	Pn	06 45 29.0	+0.8
PB08				eS	Sn	06 45 47.0	+1.1
PB08				IAML		06 45 47.7	
	comp=Z,4µm,0.2s						
PB08	IPOC Station P	1.43	29	⇓eP	Pn	06 45 28.9	+0.8
PB08				eS	Sn	06 45 46.7	+0.8
PB08				IAML		06 45 47.4	
	comp=N,7µm,0.1s						
PB08	IPOC Station P	1.43	29		Pn	06 45 28.5	+0.4
PB05	IPOC Station P	1.48	191	eP	Pn	06 45 30.2	+1.5
PB05				eS	Sn	06 45 50.2	+3.2
PB05				IAML		06 45 56.0	
	comp=Z,1µm,0.7s						
PB05	IPOC Station P	1.48	191	⇓eP	Pn	06 45 29.9	+1.2
PB05				eS	Sn	06 45 49.6	+2.6
PB05				IAML		06 45 51.0	
	comp=N,3µm,0.5s						
PB05	IPOC Station P	1.48	191		Pn	06 45 29.7	+1.0
PB11	IPOC Station P	1.64	8	eP	Pn	06 45 31.7	+0.8
PB11				eS	Sn	06 45 52.9	+2.0
PB11				IAML		06 45 53.6	
	comp=Z,2µm,0.2s						
PB11	IPOC Station P	1.64	8	⇓eP	Pn	06 45 31.6	+0.8
PB11				eS	Sn	06 45 52.1	+1.2
PB11				IAML		06 45 57.1	
	comp=N,4µm,0.1s						
PB11	IPOC Station P	1.64	8		Pn	06 45 31.4	+0.5
PSGCX	Pisagua	1.80	353	eP	Pn	06 45 34.0	+0.9
PSGCX				eS	Sn	06 45 58.3	+3.6
PSGCX				IAML		06 45 58.7	
	comp=Z,916nm,0.2s						
PSGCX	Pisagua	1.80	353	⇑eP	Pn	06 45 33.9	+0.9
PSGCX				eS	Sn	06 45 56.2	+1.5
PSGCX	Pisagua	1.80	353		Pn	06 45 33.6	+0.6
GO01	Chusmiza	1.84	21	eP	Pn	06 45 34.8	+0.9
GO01				eS	Sn	06 45 58.5	+2.3
GO01				IAML		06 45 59.7	
	comp=Z,2µm,0.2s						
GO01	Chusmiza	1.84	21	⇓eP	Pn	06 45 35.0	+1.1
GO01				eS	Sn	06 45 57.4	+1.2
GO01				IAML		06 46 01.3	
	comp=N,7µm,0.2s						
GO01	Chusmiza	1.84	21		Pn	06 45 34.8	+0.9
AF01	San Pedro de A	2.23	135	eP	Pn	06 45 42.1	+3.0
AF01				eS	Sn	06 46 10.2	+4.7
AF01				IAML		06 46 24.4	
	comp=Z,3µm,0.7s						
AF01	San Pedro de A	2.23	135	⇓eP	Pn	06 45 42.0	+3.0
AF01	San Pedro de A	2.23	135		Pn	06 45 41.2	+2.2
PX02	IPOC Station P	2.43	353	eP	Pn	06 45 42.8	+1.1
PX02				eS	Sn	06 46 13.3	+3.0
PB12	IPOC Station P	2.79	352	eP	Pn	06 45 47.6	+0.9
PB12				eS	Sn	06 46 27.3	+8.1
PB12				IAML		06 46 38.9	
	comp=Z,562nm,0.4s						
PB12	IPOC Station P	2.79	352	⇑eP	Pn	06 45 47.5	+0.9
PB12				eS	Sn	06 46 20.0	+0.8
PB12				IAML		06 46 34.5	
	comp=E,1µm,0.3s						
PB12	IPOC Station P	2.79	352		Pn	06 45 47.8	+1.1
AP01	Chacalluta	3.03	352	eP	Pn	06 45 53.6	+3.8
AP01				IAML		06 46 44.9	
	comp=Z,790nm,0.2s						
AP01	Chacalluta	3.03	352	eP	Pn	06 45 45.1	-4.8
AP01	Chacalluta	3.03	352		Pn	06 45 50.4	+0.5
PB16	IPOC Station P	3.06	7	eP	Pn	06 45 53.1	+2.3
PB16				eS	Sn	06 46 41.2	+15
PB16				IAML		06 46 49.6	
	comp=Z,378nm,0.6s						
PB16	IPOC Station P	3.06	7	eP	Pn	06 45 53.1	+2.3
PB16	IPOC Station P	3.06	7		Pn	06 45 52.8	+2.0
PB14	IPOC Station P	3.25	188	eP	Pn	06 45 53.2	0.0
PB14				eS	Sn	06 46 38.7	+7.9
PB14				IAML		06 46 56.0	
	comp=Z,315nm,0.3s						
PB14	IPOC Station P	3.25	188	⇓eP	Pn	06 45 53.2	0.0
PB14	IPOC Station P	3.25	188		Pn	06 45 53.2	0.0
PB18	Visviri	3.80	6	eP	Pn	06 46 07.1	+6.2
AC01	Pan de Azucar	4.78	188	eP	Pn	06 46 12.9	-0.9
AC01				IAML		06 47 48.3	
	comp=Z,115nm,0.5s						
AC01	Pan de Azucar	4.78	188	eP	Pn	06 46 12.8	-1.0
AC01	Pan de Azucar	4.78	188		Pn	06 46 13.0	-0.9
SLA	San Lorenzo	5.23	130	eP	Pn	06 46 24.8	+4.7
LPAZ	La Paz	5.34	19	Pn	Pn	06 46 26.0	+3.9
AC02	Maricunga	5.46	173		Pn	06 46 24.8	+1.1
GO03	Copiapo	6.18	183		Pn	06 46 31.4	-1.7
AC04	Llanos de Chal	6.87	189	Pn	Pn	06 46 39.6	-2.9
AC05	El Transito	7.42	183	Pn	Pn	06 46 48.5	-1.6
LCO	Las Campanas	7.62	185	Pn	Pn	06 46 51.0	-2.1
GO04	Tololo Observa	8.78	185	Pn	Pn	06 47 06.9	-2.1
MT01	Popeta	12.48	185	Pn	Pn	06 48 01.7	+2.4
VILB	Vilhena	12.50	49		Pn	06 48 00.0	+0.4
ML02	Panimavida	14.38	185	Pn	Pn	06 48 24.9	-0.1
BI02	San Fabin de	15.27	184	Pn	Pn	06 48 35.8	-1.0
CPSB	Cacapava Do Su	17.30	125	Pn	Pn	06 48 59.8	-2.6
CPSB				IAmb	IAmb	06 49 15.7	
	comp=Z,9.8nm,0.9s						
BOAV	Boa Vista	25.36	22	P	P	06 50 27.6	+0.5
SJG	San Juan	39.43	6	P	P	06 52 27.5	-2.3
SJG				IAmb	IAmb	06 52 37.1	
	comp=Z,9.5nm,0.9s						
TEIG	Tepich	45.10	335	P	P	06 53 16.4	+0.5
TEIG				IAmb	IAmb	06 53 26.6	
	comp=Z,7.0nm,1.1s						
JSC	Jenkinsville	56.41	349	P	P	06 54 40.4	-0.5
JSC				IAmb	IAmb	06 55 11.5	
	comp=Z,8.8nm,1.1s						
MIAR	Mount Ida	60.01	337	P	P	06 55 05.8	-0.3
MIAR				IAmb	IAmb	06 55 26.9	
	comp=Z,1.6nm,0.6s						
TXAR	Lajitas Array	60.02	326	P	P	06 55 06.5	+0.1
KSH2	Kashi	145.59	51	PKPbc	PKPdf	07 04 35.5	-2.2
WMQ	Urumqi	150.91	35	ePKPbc	PKPdf	07 04 45.8	-0.3
WMQ				pPKP	pPKPdf	07 05 00.9	-0.3
HHC	Hu-ho-hao-te	160.56	357	eP	PKPdf	07 05 00.4	+1.3
HHC				pmax	pmax		
	comp=Z,21nm,0.6s						
NJ2	Nanjing	166.82	325	eP	PKPdf	07 05 04.6	-0.3
NJ2				pmax	pmax		
	comp=Z,17nm,0.6s						
PZH	PanZhiHua	170.82	55	PKP	PKPdf	07 05 05.6	-2.3

BJI ***12*** *06:47:20.9, 14°.65S×167°.57E, h136^{km}, mB5.0/10, mb4.9/49*

IDC ***12*** *06:47:23.0±1.6, 14°.85S×167°.36E, h145^{km}±13^{km}, mb4.5/24, mbtmp4.9/26, MS3.7/24, Error ellipse: s-maj=10.9km s-min=10.1km az=55.0*

NEIC ***12*** *06:47:22.6±1.4, 14°.84S±0°.08×167°.39E±0°.07, h134^{km}±4^{km}, mb4.9/87, Mww5.1/19, Error ellipse: s-maj=11.8km s-min=9.3km az=168.0*

NEIC ***12*** *06:47:22.7, 14°.85S×167°.38E, h135^{km}*

NOU ***12*** *06:47:23.5, 14°.84S×167°.31E, h134^{km}, mb5.2/114, Vanuatu Islands*

GFZ ***12*** *06:47:23.6±0.2, 15°S±4°×16°7E±°, h142^{km}, M4.9/39, mb5.2/39, confirmed*

GCMT ***12*** *06:47:24.8±0.1, 14°.85S±0°.01×167°.21E±0°.01, h145^{km}±1^{km}, MW5.2/125, Moment Tensor Solution. s81,c101; s125,c205; Duration: 1^{s}0 Moment tensor: Scale 10^{16} Nm; M_{rr}-0.63±.14; $M_{\theta\theta}$-1.04±.17; $M_{\phi\phi}$1.68±.17; $M_{r\theta}$2.43±.11; $M_{\theta\phi}$2.56±.17; $M_{\phi r}$-6.51±.11; Best double couple: $M_0$7.52200×10^{16} NP1:ϕ_s249.00000°, δ23.00000°, λ-5.00000°. NP2:ϕ_s344.00000°, δ88.00000°, λ-113.00000°. Principal axes: T 7.1570, Plg39.0000°, Azm94.0000°; N 0.7360, Plg23.0000°, Azm344.0000°; P -7.8880, Plg42.0000°, Azm232.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

NEIC ***12*** *06:47:27.6, 14°.75S×167°.38E, h130^{km}, Moment Tensor Solution. Duration: 1^{s}8 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.35; $M_{\theta\theta}$0.55; $M_{\phi\phi}$0.80; $M_{r\theta}$2.31; $M_{\theta\phi}$0.99; $M_{\phi r}$-4.71; Fault plane solution: $M_0$5.46000×10^{16} NP1: ϕ_s223.84000°, δ9.69000°, λ-24.29000°. NP2:ϕ_s337.82000°, δ86.03000°, λ-98.84000°. Principal axes: T 4.6771, Plg40.0000°, Azm76.0000°; N 1.3264, Plg9.0000°, Azm338.0000°; P -6.0035, Plg48.0000°, Azm238.0000°;*

ISC 12 06:47:23.3±0.5**, 14°.86S**±0°.04×**167°.36E**±0°.04**, h145**^{km}±4^{km}**, n506, σ1^{s}38**/532**, mb5.1**/141**, 2C-4D, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SANVU	Saraoutou	0.60	195	P	Pn	06 47 43.3	-1.3
SANVU	Saraoutou	0.60	195	S	Sn	06 47 59.9	-1.0
SANVU	Saraoutou	0.60	195		Pn	06 47 42.6	-2.0
SANVU				Sn	Sn	06 47 58.8	-2.2
SANVU	Saraoutou	0.60	195	P	Pn	06 47 41.6	-3.0
SANVU				S	Sn	06 47 59.3	-1.6
SANVU				AML	AML		
SANVU				AML	AML		
SANVU	Saraoutou	0.60	195	P	Pn	06 47 43.0	-1.6
KOUNC	Koumac, New Ca	6.37	207	P	Pn	06 48 55.4	+0.5
KOUNC	Koumac, New Ca	6.37	207	S	Sn	06 50 07.1	+0.4
KOUNC	Koumac, New Ca	6.37	207		Pn	06 48 55.2	+0.2
MARNC	Mare, Loyalty	6.62	175		Pn	06 48 55.9	-2.3
HURO	Huro Makira	6.89	309	P	Pn	06 49 01.6	-0.3
HURO	Huro Makira	6.89	309	S	Sn	06 50 18.7	-0.4
YATNC	Mamie plateau,	7.17	183	P	Pn	06 49 05.0	-0.7
YATNC	Mamie plateau,	7.17	183	S	Sn	06 50 26.7	+0.7
DZM	Mont Dzumac	7.23	187	P	Pn	06 49 07.1	+0.7
	32nm,0.3s,baz=69,slow=8.6,SNR=79						
DZM				S	Sn	06 50 26.3	-1.0
	baz=345,slow=19						
DZM				LR	LR	06 50 46.5	
	comp=Z,198nm,20.7s,baz=34,slow=28						
NOUC	Port Laguerre	7.27	188	P	Pn	06 49 08.5	+1.5
NOUC	Port Laguerre	7.27	188	S	Sn	06 50 28.8	+0.5
NOUC	Port Laguerre	7.27	188	P	Pn	06 49 08.1	+1.1
NOUC				AML	AML		
ONTNC	Ouen Toro	7.46	186	P	Pn	06 49 11.8	+2.4
ONTNC	Ouen Toro	7.46	186	S	Sn	06 50 33.4	+0.6
ONTNC	Ouen Toro	7.46	186		Pn	06 49 08.9	-0.6
OUENC	Ouen Island, N	7.54	184	P	Pn	06 49 11.4	+0.9
OUENC	Ouen Island, N	7.54	184	S	Sn	06 50 35.3	+0.7
OUENC	Ouen Island, N	7.54	184		Pn	06 49 10.1	-0.3
NGOA	Tingoa Renbel	7.83	294	P	Pn	06 49 15.7	+1.2
NGOA	Tingoa Renbel	7.83	294	S	Sn	06 50 41.0	-0.8
HNR	Honiara	9.04	306	P	Pn	06 49 33.7	+3.1
	461nm,0.6s,baz=235,slow=5.2,SNR=15						
HNR				S	Sn	06 51 11.2	+0.3
	206nm,0.4s,baz=96,slow=23,SNR=8.7						
HNR				LR	LR	06 52 49.4	
	comp=Z,666nm,21.9s,baz=260,slow=36						
HNR	Honiara	9.04	306	P	Pn	06 49 33.1	+2.5
HNR	Honiara	9.04	306	S	Sn	06 51 10.4	-0.5
HNR	Honiara	9.04	306		Pn	06 49 30.3	-0.3
HNR	Honiara	9.04	306	P	Pn	06 49 32.6	+2.0
HNR				S	Sn	06 51 13.2	+2.4
HNR	Honiara	9.04	306	P	Pn	06 49 31.0	+0.4
	comp=Z,741nm,0.7s						
SAVO	Savo Central	9.31	307	P	Pn	06 49 35.8	+1.5
TATA	Tatamba Isabel	9.80	310	P	Pn	06 49 43.6	+2.7
MSVF	Nonsavu	10.65	107	P	Pn	06 49 55.0	+2.9
	comp=Z,22nm,0.9s,baz=268,slow=9.5,SNR=7.6						
MSVF	Nonsavu	10.65	107	P	Pn	06 49 55.7	+3.5
MSVF	Nonsavu	10.65	107		Pn	06 49 52.2	+0.1
MSVF	Nonsavu	10.65	107	P	Pn	06 49 55.5	+3.3
	comp=Z,54nm,0.8s						
DGTI	Dogotuki	12.01	98	P	Pn	06 50 12.3	+2.4
TAVE	Taveuni	12.39	100	P	Pn	06 50 17.4	+2.5
LKBA	Tubou, Lakemba	13.67	106	P	P	06 50 36.3	+1.1
GD1S	Gladstone Soft	17.69	237	P	Pn	06 51 22.5	+1.8
AUBSH	Beerwah State	17.98	226	P	Pn	06 51 25.3	+1.2
AUNRC	North Rockhamp	18.00	239	P	Pn	06 51 25.2	+0.8
KRVT	Keravat (AS076	18.38	303	P	P	06 51 27.8	+0.5
	comp=Z,82nm,0.4s,baz=12,slow=20,SNR=1.2						
KRVT				S	S	06 54 48.8	-1.1
	comp=Z,150nm,0.3s,baz=209,slow=21,SNR=1.8						
KRVT				LR	LR	06 58 54.3	
	comp=Z,385nm,20.2s,baz=136,slow=38						
GC1S	Gold Coast 1 S	18.45	222	P	Pn	06 51 30.7	+1.0
EIDS	Eidsvold	18.50	233	P	Pn	06 51 30.7	+0.3
	comp=Z,231nm,0.9s,comp=Z,0.0nm						
EIDS	Eidsvold	18.50	233	P	Pn	06 51 30.6	+0.3
EIDS	Eidsvold	18.50	233		P	06 51 29.1	+0.7
EIDS	Eidsvold	18.50	233	P	Pn	06 51 31.0	+0.6
	comp=Z,231nm,0.9s						
TW1H	Toowoomba 1 Ha	19.08	226	P	Pn	06 51 37.6	+0.4
AUTOO	Toowoomba Stat	19.09	226	P	Pn	06 51 37.5	+0.2
AUAYR	Ayr State High	19.62	253	P	Pn	06 51 43.0	-0.5
TV1H	Townsville Har	20.14	255	P	P	06 51 47.6	+1.4
AFI	Afiamalu	20.23	90	P	P	06 51 47.6	+0.3
	comp=Z,51nm,0.8s,baz=8.1,slow=3.4,SNR=6.6						
	comp=Z,51nm,0.8s						
AFI	Afiamalu	20.23	90	P	Pn	06 51 51.3	+0.5
AFI	Afiamalu	20.23	90		P	06 51 46.2	-1.1
AFI	Afiamalu	20.23	90	P	Pn	06 51 49.3	-1.5
AFI	Afiamalu	20.23	90	P	P	06 51 48.8	+1.5
	comp=Z,62nm,1.0s						
PMG	Port Moresby	20.48	283	P	P	06 51 50.4	+0.5
	comp=Z,45nm,0.7s,baz=84,slow=8.1,SNR=8.6						
PMG				LR	LR	06 58 06.4	
	comp=Z,366nm,20.3s,baz=65,slow=31						
	comp=Z,45nm,0.7s						
PMG	Port Moresby	20.48	283	P	P	06 51 50.9	+1.0
PMG	Port Moresby	20.48	283	P	P	06 51 51.2	+1.4
PMG	Port Moresby	20.48	283		P	06 51 49.9	0.0
PMG	Port Moresby	20.48	283	P	Pn	06 51 52.3	-1.3
PMG	Port Moresby	20.48	283	P	P	06 51 51.3	+1.4
	comp=Z,67nm,1.4s						
CTA	Charters Tower	20.79	253	P	P	06 51 54.6	+1.4
	comp=Z,49nm,1.0s,comp=Z,0.0nm						
CTA	Charters Tower	20.79	253	P	P	06 51 54.3	+1.2
	comp=Z,49nm,1.0s,comp=Z,0.0nm						
CTA	Charters Tower	20.79	253	P	P	06 51 54.5	+1.3
	comp=Z,79nm,0.8s,baz=76,slow=11,SNR=67						
CTA				LR	LR	06 59 36.6	
	comp=Z,251nm,18.5s,baz=58,slow=35						
	comp=Z,79nm,0.8s						
CTA	Charters Tower	20.79	253	P	P	06 51 53.9	+0.7
CTAO	Charters Tower	20.79	253	P	P	06 51 53.9	+0.7
CTAO	Charters Tower	20.79	253		P	06 51 53.7	+0.5
CTAO	Charters Tower	20.79	253	P	P	06 51 54.6	+1.4
	comp=Z,124nm,1.0s						
RMQ	Roma	20.87	233	P	P	06 51 53.5	-0.5
	comp=Z,80nm,1.5s						
RMQ	Roma	20.87	233	P	P	06 51 56.3	+2.3
RMQ	Roma	20.87	233	P	P	06 51 53.9	-0.1
	comp=Z,80nm,1.5s						
OUZ	Omahuta	21.04	166	P	P	06 51 57.1	+1.4
OUZ	Omahuta	21.04	166	P	P	06 51 58.1	+2.4
	comp=Z,59nm,0.9s						
ARMA	Armidale	21.19	220	P	P	06 51 59.1	+1.6
	comp=Z,161nm,1.0s						
ARMA	Armidale	21.19	220	P	P	06 51 58.4	+0.8
	comp=Z,162nm,1.0s						
ARMA	Armidale	21.19	220	P	P	06 51 58.3	+0.8
ARMA	Armidale	21.19	220		P	06 51 58.0	+0.5
ARMA	Armidale	21.19	220	P	P	06 51 59.2	+1.6
	comp=Z,162nm,1.0s						
WCZ	Waipu Caves	21.90	165	P	P	06 52 07.6	+2.7
AUPHS	Peel High Scho	22.12	220	P	P	06 52 08.3	+1.2
MTSU	Mount Surprise	22.33	258	P	P	06 52 10.2	+0.7
	comp=Z,76nm,0.7s						
MTSU	Mount Surprise	22.33	258	P	P	06 52 10.1	+0.7
MTSU	Mount Surprise	22.33	258	P	P	06 52 10.2	+0.7
	comp=Z,76nm,0.7s						
AULRC	Lightning Ridg	23.02	228	P	P	06 52 16.3	+0.5
PATS	Pohnpei	23.35	337	P	P	06 52 19.6	+0.7
MGCD	Mangrove Creek	23.48	216	P	P	06 52 21.6	+1.7
	comp=Z,209nm,0.8s						
MGCD	Mangrove Creek	23.48	216	P	P	06 52 21.3	+1.3
	comp=Z,209nm,0.8s						
MGCD	Mangrove Creek	23.48	216	P	P	06 52 21.2	+1.3
MGCD	Mangrove Creek	23.48	216	P	P	06 52 21.6	+1.7
	comp=Z,208nm,0.8s						
MANU	Manus Island	23.49	301	P	P	06 52 20.6	+0.5
MANU				IAmb	IAmb	06 52 23.0	
	comp=Z,34nm,1.2s						
AUKHS	Kincumber High	23.51	215	P	P	06 52 21.8	+1.6
TOZ	Tahuroa Road	23.90	164		P	06 52 24.5	+0.9
TOZ				IAmb	IAmb	06 52 27.5	
	comp=Z,25nm,1.0s						
TOZ	Tahuroa Road	23.90	164	P	P	06 52 24.9	+1.3
SYDH	Sydney Hard Ro	24.09	216	P	P	06 52 26.6	+1.1
AUDCS	Dubbo College	24.30	221	P	P	06 52 28.5	+1.1
HIZ	Hauiti	24.47	166	P	P	06 52 29.6	+0.7
HIZ				IAmb	IAmb	06 52 31.4	
	comp=Z,40nm,0.9s						
HIZ	Hauiti	24.47	166	P	P	06 52 30.7	+1.8
WOLH	Wollongong Har	24.50	214	P	P	06 52 30.5	+1.4
QLP	Quilpie	24.53	238	P	P	06 52 30.6	+1.0
	comp=Z,354nm,1.0s,comp=Z,0.0nm						
QLP	Quilpie	24.53	238	P	P	06 52 30.1	+0.6
QLP	Quilpie	24.53	238	P	P	06 52 30.5	+1.0
	comp=Z,354nm,1.0s						
HAZ	Te Kaha	24.61	160	P	P	06 52 30.6	+0.5
RUGZ	Raukumara Rang	24.76	160	P	P	06 52 31.3	-0.4
PKGZ	Pakihiroa	24.81	159	P	P	06 52 32.3	+0.3
URZ	Urewera	24.85	162	LR	LR	07 00 38.8	
	comp=Z,132nm,20.1s,baz=42,slow=32						
URZ	Urewera	24.85	162	P	P	06 52 32.8	+0.5
MUGZ	Murupara	24.95	162	P	P	06 52 34.4	+1.2
MWZ	Matawai	25.05	161	P	P	06 52 34.1	-0.1
PUZ	Puketiti	25.05	159	P	P	06 52 33.3	-0.9
TWGZ	Tauwhareparae	25.05	160	P	P	06 52 33.8	-0.5

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RTZ    Ruatahuna        25.14 162  P      P      06 52 35.4 +0.4
NGZ    Ngauruhoe        25.29 165  P      P      06 52 39.6 +3.2
CNGZ   Carnagh Statio   25.41 160  P      P      06 52 36.1  -1.2
AUUHS  Ulladulla High   25.43 214  P      P      06 52 38.4 +0.8
BKZ    Black Stump Fm   25.51 163  P      P      06 52 39.3 +0.9
BKZ    Black Stump Fm   25.51 163  P      P      06 52 39.3 +0.9
KNZ    Kokohu           25.73 161  P      P      06 52 39.8  -0.3
ARHZ   Aropaoanui       25.74 163  P      P      06 52 40.7 +0.4
CMSA   Cobar Meteorol   25.85 226  P      P      06 52 42.1 +0.7
       comp=Z,85nm,0.9s
CMSA   Cobar Meteorol   25.85 226  P      P      06 52 42.0 +0.5
       comp=Z,85nm,0.9s
CMSA   Cobar Meteorol   25.85 226  P      P      06 52 41.9 +0.5
CMSA   Cobar Meteorol   25.85 226  P      P      06 52 42.1 +0.7
       comp=Z,85nm,0.9s
CNB    Canberra Magne   26.00 215  P      P      06 52 43.6 +0.8
       comp=Z,0.9nm,1.4s
TSZ    Takapari Road    26.21 165  P      P      06 52 44.7 +0.1
CAN    Canberra         26.21 216  P      P      06 52 44.8 +0.1
CAN                                IAmb   IAmb   06 52 47.9
       comp=Z,25nm,1.1s
QRZ    Quartz Range     26.26 171  P      P      06 52 45.8 +0.8
QRZ                                IAmb   IAmb   06 53 28.6
       comp=Z,44nm,1.3s
PXZ    Pawanui          26.42 163  P      P      06 52 45.9  -0.5
MRZ    Mangatainoka R   26.69 166  P      P      06 52 48.2  -0.6
NNZ    Nelson           26.78 170  P      P      06 52 51.5 +1.9
BFZ    Birch Farm       26.87 165  P      P      06 52 49.7  -0.7
QIS    Mount Isa        27.02 254  P      P      06 52 52.2   0.0
       comp=Z,32nm,0.7s
QIS    Mount Isa        27.02 254  P      P      06 52 52.0  -0.1
QIS    Mount Isa        27.02 254  P      P      06 52 52.1   0.0
       comp=Z,32nm,0.7s
INKA   Innaminka        27.84 238         P      06 52 59.8 +0.5
INKA                               IAmb   IAmb   06 53 01.8
       comp=Z,36nm,0.8s
LTZ    Lake Taylor      28.14 172         P      06 53 01.9 +0.1
LTZ                                IAmb   IAmb   06 53 04.3
       comp=Z,22nm,0.8s
STKA   Stephens Creek   28.98 230  P      P      06 53 10.6 +1.3
       comp=Z,551nm,0.8s
STKA   Stephens Creek   28.98 230  P      P      06 53 10.4 +1.1
       comp=Z,551nm,0.8s
STKA   Stephens Creek   28.98 230  P      P      06 53 10.0 +0.7
       comp=Z,71nm,0.5s,baz=50,slow=8.4,SNR=174
STKA                               PcP    PcP    06 56 14.2  -0.3
       comp=Z,6.5nm,0.7s,baz=52,slow=4.2,SNR=3.4
STKA                               ScP    ScP    06 59 42.8 +0.1
       comp=Z,3.3nm,0.6s,baz=46,slow=3.8,SNR=6.3
STKA                               LR     LR     07 03 12.8
       comp=Z,185nm,20.0s,baz=52,slow=33
       comp=Z,71nm,0.5s
STKA   Stephens Creek   28.98 230  P      P      06 53 10.0 +0.7
STKA   Stephens Creek   28.98 230  P      P      06 53 10.6 +1.3
       comp=Z,551nm,0.8s
JCZ    Jackson Bay      29.14 178  P      P      06 53 11.5 +0.7
AUMAG  Moama Anglican   29.26 220  P      P      06 53 13.0 +1.3
TOO    Toolangi         29.80 217  P      P      06 53 17.5 +1.0
       comp=Z,10nm,0.8s
TOO    Toolangi         29.80 217  P      P      06 53 16.9 +0.3
       comp=Z,10nm,0.8s
TOO    Toolangi         29.80 217         P      06 53 16.8 +0.2
DCZ    Deep Cove        30.51 180  P      P      06 53 22.8 +0.1
DCZ                                IAmb   IAmb   06 53 25.3
       comp=Z,52nm,0.9s
BRAT   Ballarat         30.70 218  P      P      06 53 25.5 +1.1
AUMTC  Mt Clear Colle   30.77 218  P      P      06 53 26.1 +1.0
WHZ    Wether Hill Ro   30.94 179  P      P      06 53 26.0  -0.4
TUZ    Tuapeka          31.06 177  P      P      06 53 27.8 +0.3
ARPS   Mount Arapiles   31.51 221  P      P      06 53 32.5 +0.9
       comp=Z,14nm,1.0s
HTT    Hallett          31.70 229  P      P      06 53 34.6 +1.2
       comp=Z,46nm,0.9s
HTT    Hallett          31.70 229  P      P      06 53 34.3 +0.9
       comp=Z,46nm,0.9s
HTT    Hallett          31.70 229  P      P      06 53 34.3 +0.9
WR8    Warramunga Arr   31.73 256  P      P      06 53 32.3  -1.5
WR8                                IAmb   IAmb   06 53 34.7
       comp=Z,24nm,0.9s
RAR    Rarotonga        31.84 106  P      P      06 53 36.4 +1.7
RAR    Rarotonga        31.84 106  P      P      06 53 35.0 +0.3
RAR                                IAmb   IAmb   06 53 36.9
       comp=Z,38nm,0.8s
WRAB   Tennant Creek    31.87 256  P      P      06 53 33.7  -1.3
WRAB   Tennant Creek    31.87 256  P      P      06 53 33.7  -1.3
       comp=Z,49nm,0.9s
WRAB   Tennant Creek    31.87 256  P      P      06 53 33.5  -1.4
WRA    Warramunga Arr   31.88 256  P      P      06 53 33.7  -1.4
       comp=Z,31nm,0.8s,baz=85,slow=8.9,SNR=187
WRA                                PcP    PcP    06 56 21.0  -1.5
       comp=Z,2.4nm,0.7s,baz=78,slow=3.0,SNR=1.9
WRA                                S      S      06 58 31.1  -4.4
       comp=Z,1.7nm,1.1s,baz=82,slow=14,SNR=5.7
WRA                                ScP    ScP    06 59 53.5 +1.0
       comp=Z,3.6nm,1.1s,baz=80,slow=3.2,SNR=8.7
WRA                                PKiKP  PKiKP  07 03 49.5  -1.4
       comp=Z,0.6nm,0.7s,baz=16,slow=0.6,SNR=6.9
       comp=Z,31nm,0.8s
WRA    Warramunga Arr   31.88 256         P      06 53 32.8  -2.3
AUMBR  Murray Bridge    32.30 226  P      P      06 53 39.0 +0.5
AS17   Alice Springs    32.63 249  P      P      06 53 40.8  -0.8
       comp=Z,93nm,0.8s
AS17   Alice Springs    32.63 249  P      P      06 53 40.7  -1.0
       comp=Z,93nm,0.8s
AS01   Alice Springs    32.67 249  P      P      06 53 40.8  -1.1
AS09   Alice Springs    32.68 249  P      P      06 53 41.4  -0.7
       comp=Z,103nm,0.8s
AS15   Alice Springs    32.70 249  P      P      06 53 41.5  -0.8
       comp=Z,78nm,0.8s
AS31   Alice Springs    32.71 249  P      P      06 53 41.5  -0.8
       comp=Z,25nm,0.7s,comp=Z,0.0nm
AS31   Alice Springs    32.71 249  P      P      06 53 41.4  -0.9
       comp=Z,25nm,0.7s,comp=Z,0.0nm
AS31   Alice Springs    32.71 249  P      P      06 53 41.4  -0.9
AS31                               IAmb   IAmb   06 53 43.5
       comp=Z,21nm,0.9s
ASAR   Alice Springs    32.71 249  P      P      06 53 41.4  -0.9
       comp=Z,54nm,0.7s,baz=74,slow=9.1,SNR=428
ASAR                               PcP    PcP    06 56 23.7  -1.0
       comp=Z,2.7nm,0.6s,baz=53,slow=3.2,SNR=1.5
ASAR                               S      S      06 58 45.4  -3.0
       comp=Z,5.2nm,1.2s,baz=73,slow=18,SNR=7.3
ASAR                               ScP    ScP    06 59 55.3   0.0
       comp=Z,1.4nm,0.6s,baz=83,slow=3.4,SNR=7.0
ASAR                               PKiKP  PKiKP  07 03 49.1  -2.3
       comp=Z,0.3nm,0.6s,baz=112,slow=2.1,SNR=4.7
ASAR                               LR     LR     07 06 12.4
       comp=Z,244nm,19.1s,baz=91,slow=34
       comp=Z,54nm,0.7s
ASAR   Alice Springs    32.71 249  P      P      06 53 41.1  -1.2
AUALC  St Philip's Co   32.73 249  P      P      06 53 41.6  -0.9
BBOO   Buckleboo        33.57 232  P      P      06 53 50.6 +0.9
       comp=Z,168nm,1.0s
BBOO   Buckleboo        33.57 232  P      P      06 53 50.3 +0.6
       comp=Z,168nm,1.0s
BBOO   Buckleboo        33.57 232  P      P      06 53 50.2 +0.6
BBOO   Buckleboo        33.57 232  P      P      06 53 50.0 +0.4
BBOO   Buckleboo        33.57 232  P      P      06 53 50.5 +0.9
       comp=Z,168nm,1.0s
BAKI   Biak             33.72 291  P      P      06 53 54.1 +3.0
       comp=Z,1µmcomp=Z,104nm,1.4s
KDU    Kakadu           33.94 269  P      P      06 53 52.7  -0.2
       comp=Z,20nm,0.7s
KDU    Kakadu           33.94 269  P      P      06 53 52.4  -0.5
       comp=Z,20nm,0.7s
AUCAS  Cummins Area S   34.45 230  P      P      06 53 58.0 +0.9
MTN    Manton Dam       35.21 269  P      P      06 54 04.0   0.0
       comp=Z,17nm,0.7s
MTN    Manton Dam       35.21 269  P      P      06 54 04.1 +0.2
MTN                                IAmb   IAmb   06 54 05.0
       comp=Z,11nm,0.7s
GUMO   Guam             35.98 321  LR     LR     07 08 29.5
       comp=Z,69nm,19.4s,baz=150,slow=35
FAKI   Fak Fak          36.59 285  P      P      06 54 15.5  -0.2
DPSS   Saipan           36.73 324  P      P      06 54 15.8  -0.9
KNRA   Kununurra        37.21 264  P      P      06 54 20.4  -0.6
       comp=Z,92nm,0.7s,comp=Z,0.0nm
KNRA   Kununurra        37.21 264  P      P      06 54 20.3  -0.6
WRKA   Warakurna        37.97 248  P      P      06 54 26.9  -0.4
       comp=Z,54nm,0.7s
SWI    Sorong           38.28 288  P      P      06 54 31.6 +1.7
       comp=Z,1µmcomp=Z,129nm,1.1s
FORT   Forrest          39.31 239  P      P      06 54 38.6 +0.3
       comp=Z,87nm,0.7s
FORT   Forrest          39.31 239  P      P      06 54 37.8  -0.5
FITZ   Fitzroy Crossi   40.08 259  P      P      06 54 44.6  -0.2
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       comp=Z,24nm,0.8s,comp=Z,0.0nm
FITZ   Fitzroy Crossi   40.08 259  P      P      06 54 44.3  -0.5
FITZ   Fitzroy Crossi   40.08 259         P      06 54 44.4  -0.4
FITZ                               IAmb   IAmb   06 54 46.1
       comp=Z,17nm,0.7s
FITZ   Fitzroy Crossi   40.08 259  P      P      06 54 44.6  -0.2
       comp=Z,24nm,0.8s
NLAI   Namlea           41.32 282  P      P      06 54 56.9 +1.8
       comp=Z,3µmcomp=Z,235nm,1.0s
PAE    Paea             41.37 100  eP     P      06 54 55.8 +0.4
       comp=Z,41nm,0.8s
PAE                                eLR    LR     07 06 30.3
       comp=Z,1µm,27.3s
PPT2   Papeete2         41.37 100  eP     P      06 54 56.3 +0.7
       comp=Z,44nm,0.8s
PPT2                               eS     S      07 00 50.5  -9.2
       comp=Z,62nm,23.2s
PPT2                               eLQ    LQ     07 04 39.3
       comp=Z,464nm,28.0s
PPT2                               eLR    LR     07 06 29.2
       comp=Z,374nm,30.0s
PPT2                               eLR    LR     07 06 30.0
       comp=Z,303nm,32.5s
PPT    Papeete          41.38 100  P      P      06 54 55.7 +0.2
       comp=Z,53nm,0.7s,baz=272,slow=4.9,SNR=12
       comp=Z,53nm,0.7s
PPTF   Pamatai, Papee   41.38 100  P      P      06 54 57.0 +1.3
PPTF   Pamatai, Papee   41.38 100  P      P      06 54 56.5 +0.8
PPTF   Pamatai, Papee   41.38 100  P      P      06 54 57.0 +1.3
       comp=Z,118nm,0.8s
PPTF   Pamatai, Papee   41.38 100  P      P      06 54 56.4 +0.8
TIAR   Tiarei           41.59 100  eP     P      06 54 57.9 +0.6
       comp=Z,326nm,0.7s
TVO    Taravao          41.67 100  eP     P      06 54 58.6 +0.6
       comp=Z,98nm,0.7s
SOEI   Soe              42.36 272  P      P      06 55 04.7 +1.0
SOEI   Soe              42.36 272         P      06 55 03.4  -0.2
SOEI   Soe              42.36 272  P      P      06 55 04.4 +0.7
       comp=Z,101nm,0.7s
SOEI   Soe              42.36 272  P      P      06 55 04.7 +1.0
       comp=Z,102nm,0.7s
SANI   Sanana           42.76 283  P      P      06 55 07.4 +0.7
SANI   Sanana           42.76 283  P      P      06 55 06.8 +0.1
       comp=Z,993nmcomp=Z,83nm,1.2s
SANI   Sanana           42.76 283  P      P      06 55 07.3 +0.5
       comp=Z,82nm,1.3s
PMOR   Pomariorio Ree   43.18  96  eP     P      06 55 11.0 +0.9
       comp=Z,81nm,0.7s
VAH    Vaihoa           43.41  97  eP     P      06 55 12.4 +0.5
       comp=Z,83nm,0.8s
VAH                                eLR    LR     07 07 22.8
       comp=Z,2µm,26.0s
MMRI   Maumere          44.55 273  P      P      06 55 21.5 +0.4
MMRI   Maumere          44.55 273  P      P      06 55 20.4  -0.7
       comp=Z,3µmcomp=Z,90nm,0.6s
MMRI   Maumere          44.55 273  P      P      06 55 21.2 +0.1
       comp=Z,128nm,0.9s
KMBL   Kambalda         44.60 240  P      P      06 55 21.1  -0.2
       comp=Z,21nm,0.9s
EDFI   Ende, Flores     45.05 272  P      P      06 55 25.1  -0.1
       comp=Z,1µmcomp=Z,117nm,0.7s
MBWA   Marble Bar       45.60 255  P      P      06 55 29.4 +0.2
       comp=Z,87nm,0.8s
MBWA   Marble Bar       45.60 255  P      P      06 55 28.9  -0.4
       comp=Z,50nm,0.8s
MBWA   Marble Bar       45.60 255  P      P      06 55 29.1  -0.1
MBWA   Marble Bar       45.60 255         P      06 55 28.8  -0.5
MBWA   Marble Bar       45.60 255  P      P      06 55 29.5 +0.2
       comp=Z,87nm,0.8s
MBWA   Marble Bar       45.60 255  P      P      06 55 29.2  -0.1
WSI    Waingapu         46.21 271  P      P      06 55 35.0 +0.8
GTOI   Gorontalo        46.48 285  P      P      06 55 37.7 +1.4
       comp=Z,834nmcomp=Z,77nm,0.7s
MEEK   Meekatharra      46.82 247  P      P      06 55 38.8  -0.1
       comp=Z,115nm,0.8s
MEEK   Meekatharra      46.82 247  P      P      06 55 38.4  -0.4
MEEK   Meekatharra      46.82 247  P      P      06 55 38.7  -0.1
       comp=Z,115nm,0.8s
LBFI   Labuhan Bajo,    46.85 272  P      P      06 55 39.3 +0.1
APSI   Ampana           47.22 283  P      P      06 55 42.9 +0.9
       comp=Z,1µmcomp=Z,68nm,1.6s
KAPI   Kappang          47.81 277  P      P      06 55 47.5 +0.9
KAPI   Kappang          47.81 277  P      P      06 55 46.6 +0.1
KAPI   Kappang          47.81 277  P      P      06 55 48.2 +1.6
       comp=Z,533nmcomp=Z,51nm,0.9s
KAPI   Kappang          47.81 277  P      P      06 55 47.4 +0.9
       comp=Z,98nm,0.9s
KAPI   Kappang          47.81 277  P      P      06 55 47.0 +0.4
AUKUL  Kulin High Sch   47.96 239  P      P      06 55 46.8  -0.7
SPSI   Sidrap Palu      48.08 278  P      P      06 55 49.0 +0.3
       comp=Z,3µmcomp=Z,29nm,0.6s
KLBR   Kellerberrin     48.12 241  P      P      06 55 47.8  -0.9
       comp=Z,116nm,0.7s
KLBR   Kellerberrin     48.12 241  P      P      06 55 47.7  -1.1
KLBR   Kellerberrin     48.12 241  P      P      06 55 47.3  -1.5
       comp=Z,116nm,0.7s
DBNI   Kabupaten Domp   48.37 272  P      P      06 55 50.6  -0.3
TOLI2  Tolitoli         48.73 285  P      P      06 55 53.4  -0.2
TOLI2  Tolitoli         48.73 285  P      P      06 55 52.6  -1.1
TOLI2                              IAmb   IAmb   06 55 55.2
       comp=Z,20nm,0.6s
TOLI2  Tolitoli         48.73 285  P      P      06 55 52.5  -1.1
       comp=Z,42nm,0.9s
NWAO   Narrogin (SRO)   48.76 239  P      P      06 55 53.5  -0.1
       comp=Z,51nm,1.0s
NWAO   Narrogin (SRO)   48.76 239  P      P      06 55 53.4  -0.2
NWAO   Narrogin (SRO)   48.76 239         P      06 55 52.5  -1.1
NWAO   Narrogin (SRO)   48.76 239  P      P      06 55 52.6  -1.1
       comp=Z,49nm,1.0s
PLAI   Plampang         48.82 271  P      P      06 55 54.7 +0.4
PLAI   Plampang         48.82 271  P      P      06 55 55.5 +1.2
       comp=Z,115nm,0.8s
PLAI   Plampang         48.82 271  P      P      06 55 53.5  -0.9
       comp=Z,115nm,0.8s
MPSI   Mapaga           49.29 284  P      P      06 55 57.7  -0.2
MORW   Morawa           49.29 244  P      P      06 55 57.4  -0.3
       comp=Z,71nm,0.7s
MORW   Morawa           49.29 244  P      P      06 55 57.1  -0.6
MORW   Morawa           49.29 244  P      P      06 55 57.4  -0.3
MORW   Morawa           49.29 244  P      P      06 55 57.4  -0.3
       comp=Z,71nm,0.7s
MUN    Mundaring        49.48 241  P      P      06 55 58.7  -0.4
       comp=Z,63nm,0.9s
MUN    Mundaring        49.48 241  P      P      06 55 59.0  -0.1
TWSI   Taliwang, Sumb   49.70 271  P      P      06 56 01.5 +0.5
       comp=Z,2µmcomp=Z,138nm,0.6s
TAOE   Nuku Hiva Isla   51.62  90  eLR    LR     07 11 14.6
       comp=Z,318nm,26.4s
MYLDM  Lahad Datu       52.36 289  P      P      06 56 22.9 +2.1
BBKI   Banjar Baru      52.94 277  P      P      06 56 27.5 +2.3
       comp=Z,99nm,1.5s
KKM    Kota Kinabalu    54.79 289  P      P      06 56 39.5 +0.8
KKM    Kota Kinabalu    54.79 289  P      P      06 56 38.5  -0.1
KKM    Kota Kinabalu    54.79 289  P      P      06 56 39.9 +1.2
       comp=Z,1µmcomp=Z,79nm,1.6s
KKM    Kota Kinabalu    54.79 289  P      P      06 56 39.4 +0.8
       comp=Z,78nm,1.6s
DRV    Dumont d'Urvil   54.84 193  P      P      06 56 37.8  -0.3
DRV                                PcP    PcP    06 57 39.8 +1.4
SNJI   Sawahan-Nganju   54.86 271  P      P      06 56 40.1 +0.8
       comp=Z,102nm,1.1s
SJI    Sawahan          54.86 271  P      P      06 56 39.8 +0.6
PCJI   Pacitan          55.33 270  P      P      06 56 45.3 +2.8
JOW    Kunigami         56.20 317  P      P      06 56 48.8 +0.4
JOW                                IAmb   IAmb   06 56 50.0
       comp=Z,21nm,0.6s
STKI   Sintang          57.18 280  P      P      06 56 58.0 +2.4
SBUM   Sibu             57.22 283  P      P      06 56 56.8 +0.9
SBUM   Sibu             57.22 283  P      P      06 56 56.3 +0.4
SBUM                               IAmb   IAmb   06 56 57.4
       comp=Z,15nm,0.9s
SBUM   Sibu             57.22 283  P      P      06 56 57.0 +1.0
       comp=Z,22nm,1.5s
SBUM   Sibu             57.22 283  P      P      06 56 56.9 +1.0
       comp=Z,22nm,1.5s
JGF    Kuroka           57.67 331  P      P      06 56 57.5  -1.2
KPJI   Karang Pucung    57.69 271  P      P      06 56 59.8 +0.6
       comp=Z,116nm,0.7s
JMN    Monobe           57.91 327  P      P      06 57 00.8 +0.5
MJAR   Matsushiro Arr   58.06 332  P      P      06 57 00.5  -0.8
       comp=Z,7.3nm,0.7s,baz=172,slow=7.9,SNR=24
       comp=Z,7.3nm,0.7s
MJAR   Matsushiro Arr   58.06 332  P      P      06 57 00.4  -1.0
MAJO   Matsushiro       58.06 332  P      P      06 57 01.0  -0.3
MAJO   Matsushiro       58.06 332  P      P      06 57 00.4  -0.9
MAJO                               IAmb   IAmb   06 57 02.1
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       comp=Z,9.4nm,0.7s
MAJO   Matsushiro       58.06 332  P      P      06 57 00.5  -0.9
       comp=Z,22nm,1.2s
MAJO   Matsushiro       58.06 332  P      P      06 57 01.0  -0.3
MJB9   Matsu-Tunnel     58.07 332  P      P      06 57 00.9  -0.5
MJB9                               IAmb   IAmb   06 57 03.2
       comp=Z,12nm,0.7s
BBJI   Bungbulang       58.90 270  P      P      06 57 07.2  -0.5
BBJI                               IAmb   IAmb   06 57 08.2
       comp=Z,23nm,0.7s
NACB   Ninganchiao      59.18 310  P      P      06 57 08.6  -0.7
TPUB   Ta-pu            59.39 309  P      P      06 57 10.2  -0.6
TPUB   Ta-pu            59.39 309  P      P      06 57 10.0  -0.8
TPUB   Ta-pu            59.39 309  P      P      06 57 10.1  -0.8
       comp=Z,39nm,0.9s
CGJI   Cibinong         60.98 271  P      P      06 57 21.4  -0.4
VNDA   Vanda            62.73 181  P      P      06 57 31.4  -1.0
       comp=Z,3.7nm,0.7s,baz=15,slow=5.4,SNR=19
       comp=Z,3.7nm,0.7s
VNDA   Vanda            62.73 181  P      P      06 57 32.2  -0.2
VNDA   Vanda            62.73 181  P      P      06 57 32.4  -0.1
       comp=Z,12nm,2.3s
VNDA   Vanda            62.73 181  P      P      06 57 31.9  -0.6
JKA    Kamikawa-asahi   62.89 340  P      P      06 57 34.6 +0.7
JKA                                IAmb   IAmb   06 57 36.9
       comp=Z,46nm,1.2s
MDSI   Maura Dua        62.95 273  P      P      06 57 33.9  -1.1
SBA    Scott Base       63.01 180  P      P      06 57 34.9 +0.6
SBA                                IAmb   IAmb   06 57 36.9
       comp=Z,19nm,0.8s
SBA    Scott Base       63.01 180  P      P      06 57 35.3 +1.1
       comp=Z,24nm,0.8s
SBA    Scott Base       63.01 180  P      P      06 57 34.9 +0.6
CASY   Casey            63.44 202  P      P      06 57 37.1  -0.2
CASY                               IAmb   IAmb   06 57 38.1
       comp=Z,20nm,0.8s
CASY   Casey            63.44 202  P      P      06 57 37.0  -0.2
KSRS   Korea Array      63.90 326  P      P      06 57 39.9  -0.8
       comp=Z,2.4nm,0.7s,baz=143,slow=7.4,SNR=6.2
       comp=Z,2.4nm,0.7s
CCD    Concordia, Ant   64.79 191  P      P      06 57 46.1  -0.4
YSS    Yuzhno-Sakhali   65.38 342  P      P      06 57 51.5 +1.5
YSS    Yuzhno-Sakhali   65.38 342  P      P      06 57 50.7 +0.7
YSS                                IAmb   IAmb   06 57 52.4
       comp=Z,21nm,0.9s
YSS    Yuzhno-Sakhali   65.38 342  P      P      06 57 51.6 +1.5
       comp=Z,29nm,1.0s
NJ2    Nanjing          65.83 316  eP     P      06 57 55.7 +2.4
NJ2                                pmax   pmax
       comp=Z,14nm,0.7s
QIZ    Qiongzhong       65.88 299  P      P      06 57 54.9 +1.0
QIZ                                sP     sP     06 58 42.3  -1.4
QIZ                                S      S      07 06 32.6 +2.8
QIZ                                L      L
       comp=Z,170nm,17.3s
QIZ                                L      L
       comp=Z,160nm,23.1s
QIZ                                L      L
       comp=Z,190nm,23.2s
USA0B  Ussuriysk Arra   67.04 333  P      P      06 58 02.0 +1.2
USA0B                              IAmb   IAmb   06 58 02.6
       comp=Z,16nm,0.9s
USRK   Ussuriysk Ar.    67.04 333  P      P      06 58 01.2 +0.5
       comp=Z,11nm,0.7s,baz=131,slow=6.9,SNR=14
       comp=Z,11nm,0.7s
USRK   Ussuriysk Ar.    67.04 333         P      06 58 01.5 +0.8
WHN    Wuhan            68.09 312  P      P      06 58 07.6   0.0
PEA0B  Petropavlovsk-   68.20 354  P      P      06 58 08.5 +0.7
PETK   Petropavlovsk-   68.20 354  P      P      06 58 08.0 +0.2
       comp=Z,14nm,0.8s,baz=145,slow=6.9,SNR=14
PETK                               LR     LR     07 23 05.7
       comp=Z,44nm,21.0s,baz=161,slow=31
       comp=Z,14nm,0.8s
PETK   Petropavlovsk-   68.20 354  P      P      06 58 08.4 +0.6
MDJ    Mudanjiang       68.44 332  P      P      06 58 10.5 +1.0
MDJ                                S      S      07 07 01.0 +1.5
MDJ                                pmax   pmax
       comp=Z,29nm,1.1s
MDJ    Mudanjiang       68.44 332  P      P      06 58 11.3 +1.8
IPM    Ipoh             68.46 281  P      P      06 58 10.7 +0.4
IPM    Ipoh             68.46 281  P      P      06 58 10.1  -0.3
IPM                                IAmb   IAmb   06 58 11.0
       comp=Z,34nm,0.8s
IPM    Ipoh             68.46 281  P      P      06 58 10.6 +0.3
       comp=Z,62nm,0.9s
IPM    Ipoh             68.46 281  P      P      06 58 10.3  -0.1
       comp=Z,62nm,0.9s
MNSI   Mandailing Nat   68.77 277  P      P      06 58 12.0  -0.2
       comp=Z,94nm,0.6s
KULM   Kulim            69.06 282  P      P      06 58 13.7  -0.4
KULM                               IAmb   IAmb   06 58 14.7
       comp=Z,18nm,0.7s
CN2    Changchun        69.80 329  eP     P      06 58 18.0 +0.1
CN2                                pmax   pmax
       comp=Z,10.0nm,0.6s
RPSI   Rantau Prapat    69.94 278  P      P      06 58 18.7  -0.7
RPSI                               IAmb   IAmb   06 58 19.3
       comp=Z,21nm,0.8s
RPSI   Rantau Prapat    69.94 278  P      P      06 58 18.9  -0.5
       comp=Z,36nm,0.8s
PSI    Prapat           69.97 279  P      P      06 58 19.0  -0.7
PSI    Prapat           69.97 279  P      P      06 58 19.0  -0.7
       comp=Z,36nm,0.8s
BNX    BinXian          70.30 331  ⇑P     P      06 58 20.9   0.0
BNX                                pmax   pmax
       comp=Z,53nm,0.6s
GSI    Gunungsitoli     70.84 277  P      P      06 58 25.7 +0.8
GSI    Gunungsitoli     70.84 277  P      P      06 58 24.8  -0.1
KCSI   Kotacane, Aceh   71.27 279  P      P      06 58 27.4  -0.1
       comp=Z,21nm,0.7s
HNS    HongShan         71.76 318  ⇑P     P      06 58 30.8 +0.9
SLVN   Son La           71.90 299  P      P      06 58 32.5 +1.3
SLVN   Son La           71.90 299  P      P      06 58 32.1 +0.9
       comp=Z,6.4nm,1.2s
LVA    Lava Point       72.40  16  P      P      06 58 34.0 +0.6
LVA                                IAmb   IAmb   07 00 15.8
       comp=Z,82nm,1.6s
BJI2   Beijing          72.41 321  P      P      06 58 37.4 +3.7
BJI2                               pmax   pmax
       comp=Z,6.0nm,0.7s
MLSI   Meulaboh, Aceh   72.80 279  P      P      06 58 37.3 +0.7
HEH    HeiHe            73.71 335  eP     P      06 58 40.8  -0.3
HEH                                pmax   pmax
       comp=Z,7.0nm,0.8s
KMI2   Kunming          74.45 302  ⇓P     P      06 58 47.4 +1.1
KMI2                               pmax   pmax
       comp=Z,28nm,1.4s
CMAR   Chiang Mai Arr   75.08 294  P      P      06 58 50.0 +0.2
       comp=Z,5.7nm,0.6s,baz=130,slow=5.0,SNR=26
       comp=Z,5.7nm,0.6s
QSPA   South Pole Qui   75.17 180  P      P      06 58 48.8  -0.8
CHTO   Chiang Mai       75.21 294  P      P      06 58 51.3 +0.7
CHTO   Chiang Mai       75.21 294  P      P      06 58 50.5  -0.1
CHTO                               IAmb   IAmb   06 58 51.8
       comp=Z,9.2nm,0.6s
CHTO   Chiang Mai       75.21 294  P      P      06 58 51.2 +0.7
CHTO   Chiang Mai       75.21 294  P      P      06 58 51.5 +0.9
       comp=Z,15nm,1.2s
CHTO   Chiang Mai       75.21 294  P      P      06 58 51.3 +0.7
CHTO                               PcP    PcP    06 59 03.5 +0.1
MA2    Magadan          75.39 351  LR     LR     07 28 11.2
       comp=Z,24nm,19.1s,baz=162,slow=32
HHC    Hu-ho-hao-te     75.74 320  eP     P      06 58 55.1 +1.9
HHC                                pmax   pmax
       comp=Z,14nm,0.6s
PZH    PanZhiHua        75.84 303  P      P      06 58 55.7 +1.6
CD2    Chengdu          76.16 308  P      P      06 58 56.1 +0.4
CD2                                pmax   pmax
       comp=Z,20nm,0.6s
CHGN   Chignik          76.46  19  P      P      06 58 55.7  -1.1
CHGN                               IAmb   IAmb   06 58 58.8
       comp=Z,7.5nm,0.6s
HILR   Hailar Array B   76.64 330  P      P      06 58 57.5  -0.4
       comp=Z,2.2nm,0.4s,baz=134,slow=6.4,SNR=3.8
       comp=Z,2.2nm,0.4s
BTO2   Baotou           76.75 319  eP     P      06 59 00.7 +1.8
BTO2                               S      S      07 08 36.1 +1.8
BTO2                               pmax   pmax
       comp=Z,20nm,0.8s
BTO2                               pmax   pmax
       comp=Z,130nm,4.0s
BTO2                               L      L
       comp=Z,280nm,9.8s
BTO2                               L      L
       comp=Z,180nm,8.9s
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BTO2				L	L		
	comp=Z,270nm,11.6s						
NPW	Naypyitaw	78.03	294	P	P	06 59 07.9	+1.6
	comp=Z,41nm,1.3s						
LZH	Lanzhou	78.47	312	*e*P	P	06 59 10.0	+1.3
LZH				pmax	pmax		
	comp=Z,32nm,1.5s						
LZDM	Lanzhou Array	78.52	312	P	P	06 59 08.8	-0.3
	comp=Z,1.6nm,0.3s,baz=202,slow=3.1,SNR=1.8						
	comp=Z,1.6nm,0.3s						
N14K	Kuskokwak Cree	78.61	15	P	P	06 59 08.7	+0.2
N14K				IAmb	IAmb	06 59 09.8	
	comp=Z,12nm,0.8s						
OHAK	Old Harbor	78.88	21	P	P	06 59 10.0	-0.1
OHAK	Old Harbor	78.88	21	P	P	06 59 09.3	-0.8
ACHA	Angle Creek He	78.99	19	P	P	06 59 10.8	0.0
N15K	Kwethluk River	79.23	16	P	P	06 59 11.8	-0.2
N15K				IAmb	IAmb	06 59 51.4	
	comp=Z,14nm,1.2s						
KDAK	Kodiak Island	79.55	21	LR	LR	07 27 37.0	
	comp=Z,74nm,20.6s,baz=217,slow=30						
M16K	Timber Creek	80.25	16	P	P	06 59 17.8	+0.3
K15K	Wolf Creek Mou	80.70	14	P	P	06 59 19.9	+0.1
K15K				IAmb	IAmb	06 59 21.0	
	comp=Z,18nm,1.0s						
ILSW	Iliamna Southw	81.09	19	P	P	06 59 22.4	+0.2
BRLK	Bradley Lake	81.65	20	P	P	06 59 25.2	+0.3
BRLK				IAmb	IAmb	06 59 25.6	
	comp=Z,8.6nm,0.7s						
MAW	Mawson	81.80	202	P	P	06 59 25.6	0.0
	comp=Z,6.3nm,0.8s,baz=132,slow=4.3,SNR=20						
	comp=Z,6.3nm,0.8s						
MAW	Mawson	81.80	202	P	P	06 59 25.8	+0.1
MAW	Mawson	81.80	202	P	P	06 59 25.8	+0.1
	comp=Z,1.8nm,1.1s						
YAK	Yakutsk	82.18	343	P	P	06 59 28.0	+0.4
	comp=Z,97nm,0.7s						
J17K	VABM Dome	82.23	15	P	P	06 59 28.8	+0.9
ULN	Ulaanbaatar	82.29	324	P	P	06 59 28.9	+0.1
ULN				IAmb	IAmb	06 59 31.0	
	comp=Z,18nm,0.9s						
ULN	Ulaanbaatar	82.29	324	P	P	06 59 29.1	+0.3
	comp=Z,83nm,0.9s						
ULN	Ulaanbaatar	82.29	324	P	P	06 59 29.4	+0.6
	comp=Z,21nm,0.9s						
ULN	Ulaanbaatar	82.29	324	P	P	06 59 29.1	+0.3
ULN				PcP	PcP	06 59 35.5	+1.8
ULN				x	x	07 00 02.7	
SEW	Seward	82.38	20	P	P	06 59 28.6	0.0
O22K	Cooper Landing	82.57	20	P	P	06 59 29.8	+0.1
M20K	Styx River	82.59	18	P	P	06 59 29.9	+0.1
SONM	Songino Array	82.65	324	P	P	06 59 30.6	0.0
	comp=Z,7.4nm,0.6s,baz=151,slow=6.5,SNR=32						
	comp=Z,7.4nm,0.6s						
SONM	Songino Array	82.65	324	P	P	06 59 31.4	+0.8
SONM				IAmb	IAmb	06 59 32.7	
	comp=Z,9.9nm,0.8s						
STLK	Strandline Lak	82.68	18	P	P	06 59 29.6	-0.7
J18K	Innoko River	82.88	15	P	P	06 59 31.6	+0.3
GTA2	Gaotai	82.89	314	P	P	06 59 32.8	+0.7
GTA2				SKS	S	07 09 35.8	-3.1
GTA2				pmax	pmax		
	comp=Z,20nm,1.3s						
PWL	Port Wells	83.31	20	P	P	06 59 33.0	-0.6
PWL				IAmb	IAmb	06 59 33.8	
	comp=Z,13nm,0.8s						
PMR	Palmer	83.59	19	P	P	06 59 34.7	-0.2
PMR	Palmer	83.59	19	P	P	06 59 35.2	+0.3
KNK	Knik Glacier	83.68	20	P	P	06 59 35.5	+0.1
KNK				IAmb	IAmb	07 00 17.4	
	comp=Z,12nm,1.0s						
SHL	Shillong	83.71	298		P	06 59 36.2	-0.4
GHO	Glory Hole Cre	83.79	19	P	P	06 59 36.3	+0.2
GHO				IAmb	IAmb	07 00 15.8	
	comp=Z,19nm,1.3s						
GOMU	GeErMu	85.14	309	P	P	06 59 43.1	-0.7
GOMU				pmax	pmax		
	comp=Z,4.0nm,0.4s						
M02C	Callahan	85.21	45	P	P	06 59 43.7	0.0
YBH	Yreka Blue Hor	85.45	45	LR	LR	07 27 56.3	
	comp=Z,42nm,21.6s,baz=246,slow=28						
HDA	Harding Lake	86.34	18	P	P	06 59 48.3	-0.3
HDA				IAmb	IAmb	06 59 49.2	
	comp=Z,12nm,0.8s						
COLA	College	86.41	18	P	P	06 59 48.6	-0.3
COLA	College	86.41	18	P	P	06 59 48.4	-0.5
	comp=Z,11nm,0.8s						
COLA	College	86.41	18	P	P	06 59 48.1	-0.8
MDPB	Devils Postpil	86.43	50	P	P	06 59 50.0	0.0
ILAR	Eielson Array	86.62	18	P	P	06 59 48.2	-1.8
	comp=Z,5.7nm,0.8s,baz=241,slow=4.8,SNR=58						
ILAR				LR	LR	07 32 17.4	
	comp=Z,63nm,21.6s,baz=248,slow=31						
	comp=Z,5.7nm,0.8s						
F21K	Alatna River	86.72	14		P	06 59 50.7	+0.3
F21K				IAmb	IAmb	06 59 51.7	
	comp=Z,5.3nm,0.7s						
BBB	Bella Bella	86.83	34	LR	LR	07 32 19.4	
	comp=Z,33nm,18.7s,baz=232,slow=31						
CLC	China Lake	86.88	52	P	P	06 59 51.8	-0.2
PFO	Pinyon Flats O	87.00	54	LR	LR	07 36 01.1	
	comp=Z,53nm,18.1s,baz=255,slow=34						
D20K	Etivluk River	87.23	12		P	06 59 52.8	0.0
D20K				IAmb	IAmb	06 59 54.6	
	comp=Z,14nm,0.8s						
NVAR	Mina Array Bea	87.29	49	P	P	06 59 53.9	-0.2
	comp=Z,1.1nm,0.7s,baz=237,slow=7.7,SNR=10						
NVAR				LR	LR	07 30 58.7	
	comp=Z,80nm,21.9s,baz=248,slow=30						
	comp=Z,1.1nm,0.7s						
PINE	Pine Mountain	87.47	43	P	P	06 59 55.2	+0.4
EVN	Everest	88.76	299		P	07 00 01.0	-0.8
EVN	Everest	88.76	299	P	P	07 00 01.7	-0.1
	comp=Z,32nm,0.7s						
DLBC	Dease Lake	89.01	28	LR	LR	07 30 54.7	
	comp=Z,37nm,20.8s,baz=230,slow=29						
LPIG	La Paz	89.17	65	LR	LR	07 33 37.7	
	comp=Z,42nm,18.1s,baz=252,slow=31						
G08A	Pilot Rock	89.35	43	P	P	07 00 03.6	0.0
ELIB	Princess Elisa	90.10	191	*d*P	P	07 00 05.7	-1.0
	comp=Z,6.1nm,0.8s						
TIXI	Tiksi	90.11	349	P	P	07 00 05.6	-0.7
TIXI				IAmb	IAmb	07 01 29.7	
	comp=Z,5.2nm,0.6s						
LCMT	Little Creek M	90.59	52	P	P	07 00 09.2	-0.3
NEW	Newport	91.60	40	LR	LR	07 40 47.3	
	comp=Z,28nm,18.4s,baz=263,slow=35						
TROLL	Troll, Antarti	92.74	185	⇓P	P	07 00 17.7	-1.2
	comp=Z,885nm,0.6s						
WMQ	Urumqi	92.88	315	*e*P	P	07 00 21.7	+1.8
INK	Inuvik	92.98	19	LR	LR	07 37 40.0	
	comp=Z,45nm,20.1s,baz=252,slow=32						
HYB	Hyderabad	93.25	287	*e*PKiKP	PKiKP	07 05 07.6	-0.6
HYB				*e*SKSac	SKSac	07 10 42.9	-0.4
HYB				*e*SKKSac	SKKSac	07 11 01.6	-1.3
HYB				*e*SKKSac	SKKSac	07 11 01.6	-1.3
HYB				*e*SKKSac	SKKSac	07 11 01.6	-1.3
SNAA	Sanae	93.42	183	P	P	07 00 20.9	-1.1
	comp=Z,114nm,0.5s						
SNAA	Sanae	93.42	183	P	P	07 00 21.2	-0.7
	comp=Z,4.6nm,0.6s,baz=235,slow=4.0,SNR=16						
	comp=Z,4.6nm,0.6s						
SNAA	Sanae	93.42	183	P	P	07 00 21.6	-0.4
SNAA				IAmb	IAmb	07 00 22.7	
	comp=Z,5.0nm,0.6s						
VNA3	Neumayer Olymp	94.09	181	⇓P	P	07 00 22.9	-2.0
	comp=Z,19nm,0.7s						
VNA3	Neumayer Olymp	94.09	181	P	P	07 00 23.6	-1.3
	comp=Z,26nm,0.7s						
PV23	Carpenter Ridg	94.22	51	P	P	07 00 26.4	0.0
PV23				IAmb	IAmb	07 00 29.8	
	comp=Z,5.2nm,0.7s						
VNA2	Neumayer--Watz	94.35	182	P	P	07 00 24.5	-1.7
	comp=Z,13nm,0.5s,baz=170,slow=4.3						
VNA2	Neumayer--Watz	94.35	182	P	P	07 00 25.0	-1.1
	comp=Z,21nm,0.6s						
VNA1	Neumayer--Stat	94.65	181	P	P	07 00 26.5	-0.9
	comp=Z,3.0nm,0.7s						
PDAR	Pinedale Array	94.97	47	P	P	07 00 28.5	-1.2
	comp=Z,0.2nm,0.4s,baz=279,slow=3.9,SNR=2.1						
PDAR				PKKPbc	PKKPdf	07 17 24.8	-1.3
	comp=Z,0.4nm,0.8s,baz=43,slow=4.5,SNR=4.0						
PDAR				LR	LR	07 34 32.2	
	comp=Z,12nm,21.8s,baz=262,slow=30						
	comp=Z,0.2nm,0.4s						
ANMO	Albuquerque	95.30	55	LR	LR	07 39 14.2	
	comp=Z,37nm,18.5s,baz=260,slow=33						
TXAR	Lajitas Array	96.26	61	P	P	07 00 34.5	-1.2
	comp=Z,0.4nm,0.7s,baz=210,slow=5.1,SNR=6.7						
TXAR				PP	PP	07 04 30.3	-0.9
	comp=Z,0.5nm,0.9s,baz=248,slow=3.6,SNR=4.4						
	comp=Z,0.4nm,0.7s						
MKAR	Makanchi Array	97.36	316	P	P	07 00 39.1	-1.0
	comp=Z,5.9nm,0.6s,baz=93,slow=6.2,SNR=37						
MKAR				PP	PP	07 04 39.3	+0.2
	comp=Z,0.5nm,0.6s,baz=336,slow=3.2,SNR=3.4						
	comp=Z,5.9nm,0.6s						
ZALV	Zalesovo Beam	97.55	324	P	P	07 00 39.8	-1.0
	comp=Z,7.7nm,0.6s,baz=115,slow=4.3,SNR=4.3						
	comp=Z,7.7nm,0.6s						
YKA	Yellowknife Ar	97.62	27	LR	LR	07 41 34.6	
	comp=Z,29nm,18.6s,baz=280,slow=33						
KSH2	Kashi	100.59	308	P	Pdif	07 00 51.2	-3.8
KSH2				pmax	pmax		
	comp=Z,4.0nm,1.6s						
KURBB	Kurchatov Arra	100.60	320	P	Pdif	07 00 53.6	-0.9
	comp=Z,0.6nm,0.4s,baz=100,slow=4.5,SNR=4.6						
CPUP	Villa Florida	120.30	133	PKKPbc	PKKPbc	07 16 04.2	-1.4
	comp=Z,1.6nm,0.8s,baz=344,slow=7.4,SNR=3.8						
ARCES	ARCESS Array B	120.40	345	PKP	PKPdf	07 05 56.0	-0.9
	comp=Z,6.3nm,0.6s,baz=77,slow=1.3,SNR=50						
ARCES				PKKPab	PKKPab	07 16 02.8	-1.8
	comp=Z,2.1nm,0.9s,baz=219,slow=3.1,SNR=5.5						
SCHQ	Schefferville	122.35	34	PKKPbc	PKKPbc	07 15 57.6	-1.0
	comp=Z,3.3nm,0.6s,baz=108,slow=6.4,SNR=7.4						
BOSA	Boshof	123.33	220	PKP	PKPdf	07 06 03.7	-0.3
	comp=Z,2.7nm,0.9s,baz=158,slow=1.3,SNR=3.8						
FINES	FINESS Array B	125.88	338	PKP	PKPdf	07 06 06.4	-1.2
	comp=Z,3.3nm,0.8s,baz=96,slow=3.6,SNR=9.1						
NB2	NORSAR Subarra	130.77	345	PKPdf	PKPdf	07 06 16.9	-0.1
	comp=Z,5.4nm,1.0s,baz=31,slow=1.9						
NB2				SKP	SKPab	07 09 29.8	+1.9
	comp=Z,5.3nm,0.8s,baz=37,slow=4.6						
NOA	NORSAR Array B	130.77	345	PKP	PKPdf	07 06 16.2	-0.7
	comp=Z,1.1nm,0.6s,baz=34,slow=2.0,SNR=5.2						
NOA				SKPbc	SKPbc	07 09 28.5	+0.7
	comp=Z,16nm,1.0s,baz=30,slow=3.1,SNR=19						
HFS	Hagfors	130.87	343	SKPbc	SKPbc	07 09 28.3	+0.2
	comp=Z,4.9nm,0.7s,baz=276,slow=1.3,SNR=6.5						
AKASG	Malin Array Be	130.89	326	PKP	PKPdf	07 06 16.5	-0.9
	comp=Z,0.9nm,0.5s,baz=46,slow=2.5,SNR=4.4						
AKASG				SKPbc	SKPbc	07 09 28.9	+0.5
	comp=Z,4.1nm,0.6s,baz=49,slow=4.4,SNR=20						
AK17	Malin Array Si	130.99	326	PKP	PKPdf	07 06 18.1	+0.5
AK14	Malin Array Si	130.99	326	PKP	PKPdf	07 06 17.1	-0.5
AK13	Malin Array Si	131.03	326	PKP	PKPdf	07 06 18.2	+0.5
LUBAR	Lubar, Ukraine	132.10	326	PKP	PKPdf	07 06 19.5	-0.3
BRTR	Keskin Array B	132.66	311	PKP	PKPdf	07 06 20.3	-1.1
	comp=Z,0.5nm,0.5s,baz=172,slow=4.1,SNR=2.4						
BRTR				SKPbc	SKPbc	07 09 37.0	+1.7
	comp=Z,0.8nm,0.4s,baz=119,slow=0.8,SNR=6.9						
EKA	Eskdalemuir Ar	138.95	352	PKP	PKPdf	07 06 32.8	+0.4
	comp=Z,0.8nm,0.5s,baz=31,slow=3.4,SNR=4.8						
ZVC	Zvikov	139.14	333	*e*PKP	PKPdf	07 06 27.9	-5.0
RONA	Rosalia, Austr	139.43	330	*e*PKP	PKPdf	07 06 29.8	-3.7
	comp=Z,1.4nm,0.5s						
RONA				*e*SKP	SKPdf	07 09 56.1	+1.1
	comp=Z,2.6nm,1.0s						
CONA	Conrad Observa	139.47	330	*e*PKP	PKPdf	07 06 30.2	-3.5
	comp=Z,0.8nm,0.7s						
CONA				*e*SKP	SKPbc	07 09 58.1	+2.3
	comp=Z,1.4nm,0.6s						
CKRC	Cesky Krumlov	139.55	333	*e*PKP	PKPdf	07 06 28.9	-4.8
KHC	Kasperske Hory	139.64	333	*e*PKP	PKPdf	07 06 26.9	-7.0
GERES	GERESS Array B	139.80	333	PKhKP	PKPpre	07 06 28.7	
	comp=Z,1.1nm,0.5s,baz=45,slow=2.1,SNR=9.7						
GERES				PKP	PKPdf	07 06 34.6	+0.3
	comp=Z,1.6nm,0.6s,baz=42,slow=2.2,SNR=7.7						
GERES				SKPbc	SKPbc	07 09 54.1	-2.6
	comp=Z,2.8nm,0.8s,baz=27,slow=1.5,SNR=8.7						
MOA	Molln	140.28	332	*e*PKP	PKPdf	07 06 31.4	-3.6
	comp=Z,0.3nm,0.4s						
SESA	Seetaler Alpe,	140.67	330	*e*PKP	PKPdf	07 06 29.4	-6.6
	comp=Z,0.2nm,0.3s						
BIOA	Bad Ischl, Aus	140.69	332	*e*PKP	PKPdf	07 06 32.1	-3.7
	comp=Z,1.9nm,0.8s						
SOKA	Soboth	140.76	330	*e*PKP	PKPdf	07 06 32.3	-3.8
	comp=Z,0.2nm,0.4s						
KBA	Koelnbreinsper	141.27	331	*e*PKP	PKPdf	07 06 33.3	-3.8
	comp=Z,0.9nm,0.6s						
LESA	Schwarzleotal	141.32	332	*e*PKP	PKPdf	07 06 33.0	-4.0
	comp=Z,1.2nm,0.5s						
MYKA	Terra Mystica	141.46	331	*e*PKP	PKPdf	07 06 32.8	-4.5
	comp=Z,0.2nm,0.3s						
WATA	Walderalm	141.87	333	*e*PKP	PKPdf	07 06 35.0	-3.1
	comp=Z,3.8nm,1.0s						
ABTA	Abfaltersbach	141.90	332	*e*PKP	PKPdf	07 06 34.2	-3.9
	comp=Z,5.4nm,1.0s						
WTTA	Wattenberg	141.90	333	*e*PKP	PKPdf	07 06 35.4	-2.8
	comp=Z,0.1nm,0.3s						
MOTA	Moosalm	142.07	334	*e*PKP	PKPdf	07 06 34.4	-4.1
	comp=Z,0.6nm,0.3s						
RETA	Reutte	142.11	334	*e*PKP	PKPdf	07 06 35.1	-3.3
	comp=Z,0.5nm,0.8s						
SQTA	Sankt Quirin	142.12	333	*e*PKP	PKPdf	07 06 34.7	-3.8
	comp=Z,0.2nm,0.2s						
FETA	Feichten	142.48	334	*i* PKP	PKPdf	07 06 36.2	-3.1
	comp=Z,2.5nm,1.2s,SNR=6.9						
FETA				*e*SKP	SKPdf	07 10 00.9	+0.5
	comp=Z,3.0nm,1.2s						
DAVA	Damuels	142.63	335	*e*PKP	PKPdf	07 06 36.0	-3.5
	comp=Z,0.2nm,0.3s						
DAVOX	Davos/Dischmat	143.03	334	PKP	PKPbc	07 06 37.8	+0.3
	comp=Z,20nm,0.6s,baz=214,slow=3.6,SNR=39						
TIP	Timpagrande	144.60	319	PKP	PKPab	07 06 42.3	+0.3
KEST	Kesra	151.37	321	PKPbc	PKPbc	07 07 00.4	0.0
	comp=Z,9.0nm,0.6s,baz=151,slow=0.9,SNR=14						
PBRG	Braganca	152.67	350	*e*PKPab	PKPab	07 07 14.9	+0.7
POLO	Lamas de Olo	153.25	352	*e*PKPbc	PKPbc	07 07 04.7	+0.2
POLO				*e*PKPab	PKPab	07 07 17.6	+0.8
PVRL	Vila Real	153.33	352	*e*PKPab	PKPab	07 07 17.9	+1.0
PVIS	Viseu	153.91	352	*e*PKPab	PKPab	07 07 20.1	+0.7
ESDC	Sonseca Array	154.13	345	PKPbc	PKPbc	07 07 06.9	+0.5
	comp=Z,0.9nm,0.7s,baz=8.6,slow=3.6,SNR=6.5						
ESDC				PKPab	PKPab	07 07 21.3	+0.8
	comp=Z,3.4nm,0.8s,baz=17,slow=3.5,SNR=16						
ESDC				PP	PP	07 10 50.3	-4.5
	comp=Z,0.7nm,0.9s,baz=36,slow=5.7,SNR=4.1						
MTE	Manteigas	154.17	351	*e*PKPab	PKPab	07 07 20.9	+0.3
PCBR	Castelo Branco	154.71	351	*e*PKPbc	PKiKP	07 07 08.2	+0.7
PCBR				*e*PKPab	PKPab	07 07 23.3	+0.5
PMRV	Marv??o	155.09	350	*e*PKPab	PKPab	07 07 26.4	+1.9
PMTG	Montargil	155.57	352	*e*PKPab	PKPab	07 07 27.6	+1.1
PARRA	Arraiolos	155.79	351	*e*PKPab	PKPab	07 07 26.9	-0.6
MOE	Montemor	156.13	352	*e*PKPab	PKPab	07 07 30.4	+1.5
PBAR	Barrancos	156.25	349	*e*PKPab	PKPab	07 07 28.9	-0.6
PBEJ	Beja	156.54	351	*e*PKPab	PKPab	07 07 32.3	+1.6
MESJ	Messejana	156.78	351	*e*PKPab	PKPab	07 07 32.7	+0.9
PCVE	Castro Verde	156.95	351	*e*PKPab	PKPab	07 07 33.9	+1.4
PVAQ	Vaqueiros	157.12	350	*e*PKPab	PKPab	07 07 34.5	+1.3
PTEO	Sao Teotonio	157.14	352	*e*PKPab	PKPab	07 07 34.2	+1.0
MORF	Marmelete	157.37	352	*e*PKPab	PKPab	07 07 34.9	+0.6
MDT	Midelt	160.69	339	PKPab	PKPab	07 07 47.2	-1.8
	comp=Z,1.5nm,0.6s,baz=28,slow=4.3,SNR=4.7						
TORD	Torodi Ar. Bea	165.99	265	PKP	PKPdf	07 07 10.6	-1.3
	comp=Z,0.9nm,0.6s,baz=93,slow=3.0,SNR=5.3						
TORD				PKPab	PKPab	07 08 11.9	-1.0
	comp=Z,2.1nm,0.7s,baz=95,slow=4.4,SNR=9.2						
DBIC	Dimbokro	168.84	224	PKP	PKPdf	07 07 12.8	-1.2
	comp=Z,1.9nm,0.7s,baz=137,slow=1.9,SNR=3.8						
DBIC				PKPab	PKPab	07 08 24.8	-0.5
	comp=Z,2.0nm,0.6s,baz=153,slow=6.0,SNR=5.0						

SOME ***12*** *06:52:24.0, 44°.67N×82°.28E, h25^{km}*
NNC ***12*** *06:52:26.6±1.0, 44°.71N×82°.01E, h0^{km}, mb3.7, mpv3.5, Error ellipse: s-maj=11.2km s-min=3.7km az=122.0, Suspected Mining explosion.*
ISC 12 06:52:21.7±1.6**, 44°.66N**±0°.05×**82°.36E**±0°.10**, h0**^{km}**, n20, σ0**^{s}**.74**/33**, 3C-3D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DJR	Jarkent	1.87	261	P	Pb	06 52 56.2	-0.6
	15nm,0.1s						
DJR				S	Sn	06 53 19.4	+0.1
	13nm,0.3s						
DJR	Jarkent	1.87	261	*e*P	Pb	06 52 56.2	-0.6
	15nm,0.1s						
DJR				*e*S	Sn	06 53 19.4	+0.1
	13nm,0.3s						
KTMS	Ketmen	1.89	231	P	Pb	06 52 56.9	-0.3
	4.5nm,0.2s						
KTMS				S	Sn	06 53 20.8	+0.8
	21nm,0.2s						
KTMS	Ketmen	1.89	231	*e*P	Pb	06 52 56.9	-0.3
	4.5nm,0.2s						
KTMS				*e*S	Sn	06 53 20.8	+0.8
	21nm,0.2s						
MK31	Makanchi Array	2.13	359	⇑Pn	Pg	06 53 02.7	+0.2
	6.4nm,0.3s,baz=188,slow=14,SNR=253						
MK31				⇓Sn	Sg	06 53 31.0	+0.9
	4.5nm,0.3s,baz=188,slow=26						
MAKZ	Makanchi	2.16	353	⇑Pn	Pg	06 53 02.5	-0.6
	5.1nm,0.3s						
MAKZ				⇑Sn	Sg	06 53 31.0	-0.1
	17nm,0.5s						
KAPS	Kapalarasan	2.22	287	Pg	Pb	06 53 02.7	-0.1
	7.8nm,0.2s						
KAPS				Lg	Lg	06 53 30.5	
	59nm,0.2s						
KAPS	Kapalarasan	2.22	287	*e*P	Pb	06 53 02.7	-0.1
	7.8nm,0.2s						
KAPS				*e*S	Sb	06 53 30.5	-0.3
	59nm,0.2s						
KNOS	Konyrlen	2.30	263	Pg	Pb	06 53 03.5	-0.6
	21nm,0.2s						
KNOS				Lg	Lg	06 53 32.1	
	59nm,0.3s						
PDGK	Podgornoye	2.46	238	⇓Pn	Pb	06 53 06.5	-0.4
	4.7nm,0.6s						
PDGK				⇓Sn	Sb	06 53 37.6	-0.3
	33nm,0.6s						
SHLS	Shalkode	2.58	235	Pg	Pn	06 53 04.7	-0.1
	15nm,0.2s						
SHLS				Lg	Lg	06 53 34.0	
	44nm,0.3s						
SHLS	Shalkode	2.58	235	*e*P	Pn	06 53 04.7	-0.1
	15nm,0.2s						
SHLS				*e*S	Sn	06 53 34.0	-2.9
	44nm,0.3s						
BLB	Baldybastay	2.84	260	Pg	Pb	06 53 13.6	+0.3
	33nm,0.3s						
BLB				Lg	Lg	06 53 49.1	
	22nm,0.2s						
UZB	Uzynbulak	2.85	239	Pg	Pb	06 53 13.6	+0.1
	4.5nm,0.2s						
UZB				Lg	Lg	06 53 49.0	
	19nm,0.1s						
UZB	Uzynbulak	2.85	239	*e*P	Pb	06 53 13.6	+0.1
	4.5nm,0.2s						
UZB				*e*S	Sb	06 53 49.0	+0.1
	19nm,0.1s						
KPKS	Kokpek	2.91	247	*e*P	Pb	06 53 14.7	+0.2
	6.3nm,0.2s						
KPKS				*e*S	Sb	06 53 50.8	+0.2
	29nm,0.3s						
ARXS	Arharly	3.28	264	Pg	Pb	06 53 21.1	+0.3
	4.2nm,0.2s						
ARXS				Lg	Lg	06 54 01.9	
	21nm,0.2s						
ARXS	Arharly	3.28	264	*e*P	Pb	06 53 21.1	+0.3
	4.2nm,0.2s						
ARXS				*e*S	Sb	06 54 01.9	+0.7
	21nm,0.2s						
SATY	Saty	3.28	242	Pg	Pb	06 53 21.5	+0.7
	3.9nm,0.2s						
SATY				Lg	Lg	06 54 02.9	
	22nm,0.2s						
SATY	Saty	3.28	242	*e*P	Pb	06 53 21.5	+0.7
	3.9nm,0.2s						
SATY				*e*S	Sb	06 54 02.9	+1.5
	22nm,0.2s						

SDD ***12*** *07:10:10.3±1.6, 18°.75N×69°.40W, h104^{km}±8^{km}, MD3.5, ML2.6, MW3.0, Presumed earthquake*
OSPL ***12*** *07:10:12.8±1.5, 18°.71N×69°.37W, h102^{km}±8^{km}, ML2.3, Presumed earthquake*
ISC 12 07:10:12.5±1.9**, 18°.70N**±0°.06×**69°.40W**±0°.05**, h96**^{km}±12^{km}**, n19, σ1**^{s}**.60**/30**, 16C, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HATOM	Hato Mayor del	0.09	8	⇑*i*P	Pn	07 10 25.6	-0.4
HATOM				⇑*i*S	Sn	07 10 36.4	+0.4
HATOM				IAML		07 10 37.7	
	comp=N,152nm,0.3s						
SDD	Santo Domingo	0.55	244	*i* P	Pn	07 10 27.5	-0.6
SDD				*e*S	Sn	07 10 39.7	-0.1
SDD				IAML		07 10 43.0	
	comp=Z,128nm,0.7s						
SDD	Santo Domingo	0.55	244	⇑*i*S	Sn	07 10 40.5	+0.6
SMDR	Samana, DR	0.62	18	⇑*i*P	Pn	07 10 27.5	-1.3
SMDR				⇑*i*S	Sn	07 10 41.2	+0.3
SMDR				IAML		07 10 48.0	
	comp=N,85nm,0.6s						
HIDR	Higuey Centro	0.65	99	⇑*i*P	Pn	07 10 29.2	+0.2
HIDR				⇑*i*S	Sn	07 10 42.5	+1.1
HIDR				IAML		07 10 45.0	
	comp=N,169nm,0.2s						
NADR	Nagua	0.78	326	⇑*i*P	Pn	07 10 29.2	-1.1
NADR				⇑*i*S	Sn	07 10 43.8	+0.2
NADR				IAML		07 10 45.8	
	comp=N,638nm,0.4s						
BANI	BANI	0.96	252	⇑*i*P	Pn	07 10 32.3	0.0
BANI				*i* S	Sn	07 10 49.4	+2.2
BANI				IAML		07 10 52.5	
	comp=N,187nm,0.3s						
PCDR	Punta Cana, DR	0.98	101	*i* P	Pn	07 10 32.6	+0.3
PCDR				IAML		07 10 48.9	
	comp=Z,34nm,1.3s						
PCDR	Punta Cana, DR	0.98	101	⇑*i*P	Pn	07 10 31.7	-0.6
PCDR				IAML		07 10 48.8	
	comp=N,75nm,2.0s						
ABDR	Alto Bandera	1.17	276	⇑*i*P	Pn	07 10 33.6	-1.3
ABDR				⇑*i*S	Sn	07 10 51.4	-0.4
ABDR				IAML		07 10 57.0	
	comp=N,40nm,0.8s						
SC01	Santiago de lo	1.45	300	*i* P	Pn	07 10 37.6	-0.3
SC01				IAML		07 10 59.1	
	comp=Z,19nm,0.9s						
SC01	Santiago de lo	1.45	300	⇑*i*S	Sn	07 10 57.8	+0.5
SC01				IAML		07 11 15.4	
	comp=N,23nm,2.0s						
SDDR	Presa de Saban	1.81	279	*i* P	Pn	07 10 42.8	+0.3
REDR	Restauracion	1.95	284	⇑*i*P	Pn	07 10 46.5	+2.3
REDR				⇑*i*S	Sn	07 11 14.3	+5.9
REDR				IAML		07 11 18.4	
	comp=N,19nm,0.7s						
LONE3	El Aguacate, B	1.96	268	*i* P	Pn	07 10 44.4	-0.1
LONE3				IAML		07 11 11.9	
	comp=Z,6.7nm,1.4s						
LODU1	El Espartillar	2.00	260	*i* P	Pn	07 10 44.5	-0.4
LODU1				IAML		07 11 15.7	
	comp=Z,22nm,3.7s						
LOPP1	Punta Rusia, P	2.06	304	*i* P	Pn	07 10 44.9	-0.7
LOPP1				*e*S	Sn	07 11 08.6	-2.3
LOPP1				IAML		07 11 12.9	
	comp=Z,28nm,1.0s						
LOVI	El Cajuil, Ovi	2.08	245	*i* P	Pn	07 10 44.7	-1.2
LOVI				*e*S	Sn	07 11 09.3	-2.2
LOVI				IAML		07 11 11.5	
	comp=Z,40nm,1.7s						
LOBH	Bahia de las A	2.29	249	*i* P	Pn	07 10 48.5	-0.2
LOBH				*e*S	Sn	07 11 15.0	-1.3
LOBH				IAML		07 11 17.6	
	comp=Z,20nm,1.2s						

IDC ***12*** *07:10:29.9±0.5, 9°.72S×118°.98E, h0^{km}, mb4.2/18, mbtmp4.3/22, ML4.3/4, MS3.5/25, Error ellipse: s-maj=21.6km s-min=9.2km az=83.0*
GFZ ***12*** *07:10:32.6±0.3, 10°S±4°×11°9E±°, h10^{km}, M4.7/9, mb4.7/9, Mw4.4/18, Error ellipse: s-maj=8.5km s-min=4.8km az=18.0, confirmed*
DJA ***12*** *07:10:34.0±0.1, 10°S±2°×11°9E±°, h10^{km}, M5.1/48, mB5.7/21, mb5.0/48, MLv5.0/45, Mw(mB)5.2/21, MwMwp6.5/1, Mwp6.4/1*
NEIC ***12*** *07:10:36.1±1.6, 9°.72S±0°.08×119°.07E±0°.04, h35^{km}±2^{km}, mb4.5/21, Error ellipse: s-maj=14.3km s-min=3.9km az=20.0*
ISC 12 07:10:35.5±0.3**, 9°.81S**±0°.04×**119°.09E**±0°.04**, h35**^{km}**, n174, σ1**^{s}**.42**/152**, mb4.5**/37**, MS3.7**/24**, Sumba region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC

WSI	Waingapu	1.20	83	P	Pn	07 10 54.7	-1.1
WSI				S	Sn	07 11 11.9	+1.1
WSI				AML	AML		
DBNI	Kabupaten Domp	1.51	329	P	Pn	07 10 58.3	-1.8
DBNI	Kabupaten Domp	1.51	329	P	Pn	07 10 58.7	-1.4
BASI	Baing, Sumba	1.52	106	P	Pn	07 11 00.3	+0.1
BASI				AML	AML		
BASI	Baing, Sumba	1.52	106	P	Pn	07 10 59.6	-0.6
LBFI	Labuhan Bajo,	1.54	31	P	Pn	07 10 59.5	-1.0
LBFI	Labuhan Bajo,	1.54	31	P	Pn	07 10 59.9	-0.6
PLAI	Plampang	1.62	307	P	Pn	07 11 00.2	-1.5
PLAI	Plampang	1.62	307	S	Sn	07 11 20.3	-1.1
PLAI	Plampang	1.62	307	P	Pn	07 10 59.9	-1.8
PLAI				AML	AML		
PLAI	Plampang	1.62	307	P	Pn	07 11 00.2	-1.5
TWSI	Taliwang, Sumb	2.43	296	P	Pn	07 11 13.3	+0.5
TWSI				AML	AML		
TWSI	Taliwang, Sumb	2.43	296	P	Pn	07 11 13.8	+1.0
EDFI	Ende, Flores	2.77	68	P	Pn	07 11 17.1	-0.5
EDFI	Ende, Flores	2.77	68	P	Pn	07 11 17.4	-0.2
MMRI	Maumere	3.32	70	P	Pn	07 11 25.0	0.0
MMRI	Maumere	3.32	70		Pn	07 11 24.1	-0.9
MMRI	Maumere	3.32	70	P	Pn	07 11 27.0	+2.0
MMRI				AML	AML		
MMRI	Maumere	3.32	70	P	Pn	07 11 24.6	-0.4
KHKI	Kahang-Kahang	3.73	292	P	Pn	07 11 34.0	+3.3
KHKI				AML	AML		
BSSI	Bau Bau, Buton	3.90	21	P	Pn	07 11 33.7	+0.7
BSSI	Bau Bau, Buton	3.90	21	P	Pn	07 11 33.7	+0.7
DNP	Denpasar	4.00	286	P	Pn	07 11 36.3	+2.0
IGBI	Denpasar	4.02	284	P	Pn	07 11 35.8	+1.2
IGBI				AML	AML		
SRBI	Singaraja	4.20	294	P	Pn	07 11 38.9	+1.8
SRBI				AML	AML		
RTBI	Rangdo, Negare	4.31	288	P	Pn	07 11 40.1	+1.4
RTBI				AML	AML		
RTBI	Rangdo, Negare	4.31	288	P	Pn	07 11 37.3	-1.4
BKSI	Bulukumba	4.57	13	P	Pn	07 11 46.7	+4.4
MKS	Makassar	4.58	5	P	Pn	07 11 42.9	+0.6
MKS				AML	AML		
KAPI	Kappang	4.81	8	Pn	Pn	07 11 44.5	-1.0
	23nm,0.3s,baz=183,slow=10,SNR=48						
KAPI				Sn	Sn	07 12 38.4	-1.6
	35nm,0.3s,baz=45,slow=23,SNR=6.8						
	168nm,0.6s						
KAPI				AML	AML		
KAPI	Kappang	4.81	8	P	Pn	07 11 45.4	-0.1
KAPI	Kappang	4.81	8	S	Sn	07 12 40.7	+0.7
KAPI	Kappang	4.81	8		Pn	07 11 45.4	-0.1
KAPI	Kappang	4.81	8	P	Pn	07 11 45.3	-0.2
KAPI				AML	AML		
KAPI	Kappang	4.81	8	P	Pn	07 11 46.1	+0.6
BYJI	Banyuwangi	4.94	288	P	Pn	07 11 48.2	+0.9
BYJI				AML	AML		
JAGI	Jajag, Banyuwa	5.06	285	P	Pn	07 11 48.4	-0.5
JAGI	Jajag, Banyuwa	5.06	285	S	Sn	07 12 46.4	+0.2
JAGI	Jajag, Banyuwa	5.06	285		Pn	07 11 48.3	-0.7
JAGI	Jajag, Banyuwa	5.06	285	P	Pn	07 11 48.7	-0.2
	1.2nm305nm,0.7s						
JAGI				AML	AML		
JAGI	Jajag, Banyuwa	5.06	285	P	Pn	07 11 49.5	+0.6
	comp=Z,303nm,0.7s						
SOEI	Soe	5.10	90	P	Pn	07 11 51.8	+2.2
SOEI	Soe	5.10	90		Pn	07 11 51.3	+1.7
SOEI	Soe	5.10	90	P	Pn	07 11 51.4	+1.7
	comp=Z,1.1nmcomp=Z,3µmcomp=Z,209nm,0.9s						
SOEI				AML	AML		
SOEI	Soe	5.10	90	P	Pn	07 11 52.2	+2.5
	comp=Z,210nm,0.9s						
ABJI	Asem Bagus	5.20	292	P	Pn	07 11 52.7	+1.8
	comp=Z,0.8nmcomp=Z,188nm,0.7s						
ABJI				AML	AML		
BBSI	Bau Bau	5.51	39	P	Pn	07 11 56.5	+1.4
	comp=Z,0.9nmcomp=Z,3µmcomp=Z,325nm,1.0s						
BBSI				AML	AML		
KMMI	Kalianget	5.76	298	P	Pn	07 12 01.0	+2.3
	comp=Z,0.5nmcomp=Z,64nm,0.8s						
KMMI				AML	AML		
BLJI	Banyuglugur	5.81	290	P	Pn	07 12 01.7	+2.4
	comp=Z,0.7nmcomp=Z,172nm,0.6s						
BLJI				AML	AML		
SPSI	Sidrap Palu	5.85	7	P	Pn	07 12 01.8	+2.0
	comp=Z,0.8nmcomp=Z,2µmcomp=Z,230nm,0.7s						
SPSI				AML	AML		
KKSI	Kolaka, Sulawe	6.15	25	P	Pn	07 12 05.5	+1.5
KKSI				AML	AML		
PMSI	Majene	6.27	358	P	Pn	07 12 07.1	+1.5
PMSI				AML	AML		
KDI	Kendari	6.79	31	P	Pn	07 12 14.5	+1.8
	comp=Z,0.9nmcomp=Z,14µmcomp=Z,46nm,0.9s						
KDI				AML	AML		
MMSI	Mamuju	7.08	359	P	Pn	07 12 16.8	+0.1
	comp=Z,0.3nmcomp=Z,84nm,0.7s						
MMSI				AML	AML		
SNJI	Sawahan-Nganju	7.52	285	P	Pn	07 12 24.9	+1.9
	comp=Z,0.5nmcomp=Z,52nm,0.6s						
SNJI				AML	AML		
SJI	Sawahan	7.53	285	P	Pn	07 12 24.1	+1.1
	comp=Z,100nm,0.7s						
BBKI	Banjar Baru	7.59	326	P	Pn	07 12 24.9	+1.2
	comp=Z,0.7nmcomp=Z,11µmcomp=Z,110nm,1.1s						
BBKI				AML	AML		
PCJI	Pacitan	7.98	281	P	Pn	07 12 29.9	+0.8
	comp=Z,208nm,1.0s						
UGM	Wanagama	8.68	282	Pn	Pn	07 12 37.9	-0.7
MPSI	Mapaga	10.11	5	P	Pn	07 13 05.0	+6.6
KPJI	Karang Pucung	10.35	283	P	Pn	07 13 03.5	+1.9
	comp=Z,39nm,1.5s						
FITZ	Fitzroy Crossi	10.40	143	Pn	Pn	07 13 01.9	-0.4
	comp=Z,1.1nm,0.3s,baz=338,slow=9.1,SNR=31						
FITZ				Sn	Sn	07 14 54.5	-3.2
	comp=Z,3.4nm,0.3s,baz=202,slow=5.7,SNR=6.6						
	comp=Z,10nm,0.7s						
FITZ				AML	AML		
FITZ	Fitzroy Crossi	10.40	143		Pn	07 13 02.6	+0.3
FITZ	Fitzroy Crossi	10.40	143	P	Pn	07 13 03.5	+1.2
	comp=Z,4.1nm,0.8s						
KNRA	Kununurra	11.09	123		Pn	07 13 11.2	-0.5
MBWA	Marble Bar	11.30	177	P	Pn	07 13 15.2	+0.6
MBWA	Marble Bar	11.30	177		Pn	07 13 13.7	-1.0
MTN	Manton Dam	12.19	105		Pn	07 13 24.9	-1.9
SKJI	Sukabumi	12.71	282	P	Pn	07 13 19.8	-14
GIRL	Giralia	13.58	199	Pn	Pn	07 13 45.3	-0.5
FAKI	Fak Fak	14.75	63	P	Pn	07 14 01.6	-0.2
FAKI	Fak Fak	14.75	63		Pn	07 14 01.0	-0.8
FAKI	Fak Fak	14.75	63	P	Pn	07 14 02.1	+0.3
	comp=Z,82nm,0.8s						
FAKI	Fak Fak	14.75	63	P	Pn	07 14 03.8	+2.0
SWI	Sorong	15.02	54	P	P	07 14 09.1	-1.2
	comp=Z,1µmcomp=Z,156nm,0.8s						
SWI	Sorong	15.02	54	P	Pn	07 14 05.0	-0.3
MEEK	Meekatharra	16.75	181	P	Pn	07 14 29.1	+1.6
WB0	Warramunga Arr	17.79	126	P	Pn	07 14 40.7	+0.2
WB0				IAmb	IAmb	07 14 47.1	
	comp=Z,19nm,0.7s						
WRA	Warramunga Arr	17.83	126	P	Pn	07 14 40.7	-0.5
	comp=Z,1.1nm,0.3s,baz=302,slow=13,SNR=83						
WRA				S	Sn	07 17 49.4	-10
	comp=Z,5.3nm,0.9s,baz=295,slow=23,SNR=5.2						
	comp=Z,15nm,0.8s						
WRA				AML	AML		
WRA	Warramunga Arr	17.83	126	P	Pn	07 14 40.6	-0.5
WRAB	Tennant Creek	17.84	126	P	Pn	07 14 41.2	+0.1
	comp=Z,28nm,0.8s						
DAV	Davao City (W)	17.97	21	LR	LR	07 23 00.8	
	comp=Z,44nm,19.2s,baz=209,slow=42						
BAKI	Biak	18.96	64	P	Pn	07 14 56.0	+1.1
	comp=Z,97nm,1.1s						
MORW	Morawa	19.37	188	P	P	07 14 59.2	+0.8
SDSI	Sungai Dareh	19.66	296	P	Pn	07 15 03.7	+0.5
AS31	Alice Springs	19.75	136	P	P	07 15 03.6	+1.1
ASAR	Alice Springs	19.75	136	P	P	07 15 02.8	+0.2
	comp=Z,0.8nm,0.3s,baz=314,slow=10,SNR=46						
ASAR				S	S	07 18 40.4	-3.1
	comp=Z,4.6nm,0.9s,baz=310,slow=23,SNR=6.1						
ASAR				LR	LR	07 22 40.4	
	comp=Z,151nm,18.2s,baz=308,slow=37						
	comp=Z,8.5nm,0.6s						
ASAR				AML	AML		
ASAR	Alice Springs	19.75	136	P	P	07 15 03.7	+1.2
QIS	Mount Isa	22.47	121	P	P	07 15 33.5	+1.6
	comp=Z,84nm,1.1s						
FORT	Forrest	22.47	159	P	P	07 15 31.9	0.0
FORT				IAmb	IAmb	07 16 12.4	
	comp=Z,17nm,1.1s						
NWAO	Narrogin (SRO)	23.07	184	P	P	07 15 38.7	+0.6
	comp=Z,8.6nm,0.7s,baz=7.1,slow=12,SNR=5.8						
NWAO				S	S	07 19 47.8	+1.1
	comp=Z,6.0nm,0.8s,baz=130,slow=20,SNR=1.8						
	comp=Z,8.6nm,0.7s						
RPSI	Rantau Prapat	23.62	301	P	P	07 15 43.5	-0.1
RPSI				IAmb	IAmb	07 15 50.0	
	comp=Z,25nm,1.2s						
RPSI	Rantau Prapat	23.62	301	P	P	07 15 44.1	+0.5
	comp=Z,20nm,1.1s						
PSI	Prapat	23.68	301	P	P	07 15 40.5	-3.8
MTSU	Mount Surprise	25.81	111	P	P	07 16 06.0	+2.3
	comp=Z,16nm,0.9s						
PMG	Port Moresby	27.67	92	LR	LR	07 29 19.3	
	comp=Z,141nm,19.0s,baz=163,slow=41						
BBOO	Buckleboo	27.73	148	P	P	07 16 22.4	+1.5
CTA	Charters Tower	28.12	114	LR	LR	07 29 56.9	
	comp=Z,185nm,19.1s,baz=256,slow=41						
STKA	Stephens Creek	30.28	140	P	P	07 16 43.4	0.0
	comp=Z,1.4nm,0.5s,baz=321,slow=7.7,SNR=5.4						
STKA				LR	LR	07 30 38.8	
	comp=Z,119nm,21.0s,baz=359,slow=40						
	comp=Z,1.4nm,0.5s						
CMAR	Chiang Mai Arr	34.41	325	P	P	07 17 17.3	-2.5
	comp=Z,0.9nm,0.3s,baz=130,slow=8.8,SNR=1.7						
CMAR				LR	LR	07 32 19.7	
	comp=Z,146nm,20.7s,baz=155,slow=38						
	comp=Z,0.9nm,0.3s						
PZH	PanZhiHua	39.84	335	P	P	07 18 08.8	+2.9
NJ2	Nanjing	41.62	360	*e*P	P	07 18 23.3	+2.9
NJ2				pmax	pmax		
	comp=Z,19nm,0.5s						
LHI	Lord Howe Isla	42.85	126	P	P	07 18 31.0	+0.4
CD2	Chengdu	43.08	341	P	P	07 18 32.4	0.0
CD2				pmax	pmax		
	comp=Z,20nm,0.4s						
JNU	Nakatsue	44.14	14	LR	LR	07 37 33.9	
	comp=Z,31nm,21.4s,baz=200,slow=37						
KOUNC	Koumac, New Ca	44.77	109	P	P	07 18 46.7	+0.6
TIA	Tai'an	45.81	358	P	P	07 18 55.9	+1.8
TIA				pmax	pmax		
	comp=Z,5.0nm,0.3s						
H08S2	Diego Garcia H	46.08	269	T	T	08 08 02.2	
	baz=96,slow=75,SNR=368						
H08S3	Diego Garcia H	46.09	269	T	T	08 08 03.0	
	baz=96,slow=75,SNR=418						
H08S1	Diego Carcia H	46.10	269	T	T	08 08 03.6	
	baz=96,slow=75,SNR=230						
JHJ	Hachijo jima 2	47.02	24	LR	LR	07 37 38.9	
	comp=Z,34nm,21.9s,baz=154,slow=35						
KSRS	Korea Array	47.74	10	P	P	07 19 08.4	-0.6
	comp=Z,1.6nm,0.5s,baz=188,slow=8.6,SNR=6.4						
KSRS				LR	LR	07 39 39.9	
	comp=Z,46nm,20.3s,baz=190,slow=37						
	comp=Z,1.6nm,0.5s						
LZDM	Lanzhou Array	47.78	343	LR	LR	07 40 05.1	
	comp=Z,114nm,20.8s,baz=60,slow=37						
EVN	Everest	48.84	321	P	P	07 19 18.2	-0.3
EVN				IAmb	IAmb	07 19 41.4	
	comp=Z,7.5nm,1.0s						
EVN	Everest	48.84	321	P	P	07 19 15.7	-2.8
	comp=Z,8.6nm,1.0s						
MJAR	Matsushiro Arr	49.49	20	LR	LR	07 39 36.4	
	comp=Z,17nm,20.5s,baz=214,slow=35						
HHC	Hu-ho-hao-te	50.88	353	*e*P	P	07 19 38.2	+5.0
HHC				pmax	pmax		
	comp=Z,21nm,0.7s						
GTA2	Gaotai	52.23	341	*e*P	P	07 19 43.3	-0.1
GTA2				pP	pP	07 19 51.1	-2.7
GTA2				pmax	pmax		
	comp=Z,4.0nm,1.2s						
MDJ	Mudanjiang	55.00	9	P	P	07 20 06.7	+3.3
MDJ				pmax	pmax		
	comp=Z,19nm,1.9s						
USRK	Ussuriysk Ar.	55.01	11	P	P	07 20 02.4	-1.1
	comp=Z,2.7nm,0.5s,baz=185,slow=6.8,SNR=5.6						
USRK				LR	LR	07 45 01.1	
	comp=Z,30nm,18.8s,baz=169,slow=38						
	comp=Z,2.7nm,0.5s						
USRK	Ussuriysk Ar.	55.01	11	P	P	07 20 02.6	-0.9
SONM	Songino Array	58.49	350	P	P	07 20 28.0	-0.2
	comp=Z,3.2nm,0.6s,baz=169,slow=8.0,SNR=6.6						
SONM				LR	LR	07 47 01.0	
	comp=Z,45nm,21.2s,baz=160,slow=38						
	comp=Z,3.2nm,0.6s						
SONM	Songino Array	58.49	350	P	P	07 20 27.8	-0.5
SONM				IAmb	IAmb	07 20 38.8	
	comp=Z,3.5nm,0.8s						
KLR	Kul'dur	59.83	10	P	P	07 20 36.4	-1.0
	comp=Z,0.7nm,0.4s,baz=181,slow=11,SNR=2.4						
	comp=Z,0.7nm,0.4s						
HEH	HeiHe	60.25	6	*e*P	P	07 20 42.0	+1.8
HEH				pmax	pmax		
	comp=Z,11nm,0.7s						
WMQ	Urumqi	60.52	334	*e*P	P	07 20 44.9	+2.6
WMQ				LR	LR		
	comp=Z,83nm,24.1s						
KSH2	Kashi	63.30	323	P	P	07 21 03.7	+2.5
KSH2				pmax	pmax		
	comp=Z,5.0nm,0.9s						
KBL	Kabul	64.73	316	P	P	07 21 07.9	-2.9
	comp=Z,12nm,0.9s						
MKAR	Makanchi Array	65.22	333	P	P	07 21 12.6	-0.9
	comp=Z,2.2nm,0.6s,baz=149,slow=6.9,SNR=12						
	comp=Z,2.2nm,0.6s						
MKAR	Makanchi Array	65.22	333	P	P	07 21 12.8	-0.7
MAKZ	Makanchi	65.37	333	P	P	07 21 14.1	-0.3
AAK	Ala-Archa	66.20	326	LR	LR	07 53 49.6	
	comp=Z,52nm,18.9s,baz=143,slow=39						
AAK	Ala-Archa	66.20	326	P	P	07 21 19.6	-0.4
AAK				IAmb	IAmb	07 21 23.8	
	comp=Z,4.2nm,0.7s						
AAK	Ala-Archa	66.20	326	P	P	07 21 21.3	+1.3
	comp=Z,6.6nm,0.8s						
H04N2	CROZET ISLANDS	67.28	224	T	T	08 34 58.6	
	baz=83,slow=75,SNR=143						
H04N1	CROZET ISLANDS	67.30	224	T	T	08 34 58.7	
	baz=83,slow=75,SNR=122						
H04N3	CROZET ISLANDS	67.30	224	T	T	08 34 57.4	
	baz=83,slow=75,SNR=170						
MAW	Mawson	68.51	200	P	P	07 21 34.4	+0.3
	comp=Z,2.0nm,1.0s,baz=87,slow=7.4,SNR=11						
	comp=Z,2.0nm,1.0s						
MAW	Mawson	68.51	200	P	P	07 21 34.6	+0.6
KK31	Karatay Array	68.76	324	P	P	07 21 35.2	-0.8
KKAR	Karatay Array	68.76	324	P	P	07 21 35.0	-1.0
KURBB	Kurchatov Arra	69.73	334	P	P	07 21 40.6	-1.3
	comp=Z,2.0nm,0.8s,baz=143,slow=5.6,SNR=8.2						
KURBB				LR	LR	07 55 17.1	
	comp=Z,44nm,18.0s,baz=180,slow=39						
	comp=Z,2.0nm,0.8s						
KURK	Kurchatov	69.76	334	P	P	07 21 41.5	-0.5
KURK				IAmb	IAmb	07 21 44.5	
	comp=Z,4.3nm,1.0s						
KURK	Kurchatov	69.76	334	P	P	07 21 41.1	-0.9
	comp=Z,4.1nm,1.0s						
ZAA0	Zalesovo Array	69.83	339	P	P	07 21 41.5	-0.9
ZAA0				IAmb	IAmb	07 21 59.8	
	comp=Z,3.2nm,0.8s						
ZALV	Zalesovo Beam	69.83	339	P	P	07 21 40.9	-1.4
	comp=Z,1.4nm,0.4s,baz=117,slow=5.0,SNR=7.9						
	comp=Z,1.4nm,0.4s						
ZALV	Zalesovo Beam	69.83	339		P	07 21 41.0	-1.3
PETK	Petropavlovsk-	70.78	23	P	P	07 21 46.5	-1.7
	comp=Z,4.3nm,0.9s,baz=211,slow=2.2,SNR=5.8						
	comp=Z,4.3nm,0.9s						
VNDA	Vanda	71.18	171	P	P	07 21 50.6	+0.2
	comp=Z,0.5nm,0.8s,baz=324,slow=3.3,SNR=3.6						
	comp=Z,0.5nm,0.8s						
MA2	Magadan	73.67	16	LR	LR	07 56 35.1	
	comp=Z,14nm,18.1s,baz=206,slow=38						
BVAR	Borovoye Array	75.05	332	P	P	07 22 12.4	-1.1
	comp=Z,2.0nm,0.8s,baz=140,slow=5.8,SNR=5.3						
	comp=Z,2.0nm,0.8s						
AB31	Akbulak array	78.27	325		P	07 22 31.9	+0.1
AB31				IAmb	IAmb	07 22 35.1	
	comp=Z,3.2nm,0.7s						
ABKAR	Akbulak array	78.27	325	P	P	07 22 31.1	-0.7
RAYN	Ar Rayn	79.14	296	P	P	07 22 37.2	-0.1
RAYN				IAmb	IAmb	07 22 44.2	
	comp=Z,4.2nm,0.9s						
RAYN	Ar Rayn	79.14	296	P	P	07 22 34.3	-3.0
	comp=Z,5.0nm,0.9s						
QSPA	South Pole Qui	80.19	180	P	P	07 22 43.5	+1.2
	comp=Z,1.1nm,0.5s,baz=315,slow=1.4,SNR=17						
	comp=Z,1.1nm,0.5s						
QSPA	South Pole Qui	80.19	180	P	P	07 22 44.6	+2.4
QSPA				IAmb	IAmb	07 23 06.0	
	comp=Z,6.2nm,1.4s						
TIXI	Tiksi	81.54	3	LR	LR	08 03 29.7	
	comp=Z,33nm,18.6s,baz=198,slow=39						
KMBO	Kilima Mbogo	81.77	270	LR	LR	07 54 20.7	
	comp=Z,62nm,19.4s,baz=100,slow=32						
ARTI	Arti	82.67	331	LR	LR	08 03 31.9	
	comp=Z,43nm,19.5s,baz=138,slow=38						
GNI	Garni	84.55	312	LR	LR	08 05 17.3	
	comp=Z,20nm,20.1s,baz=149,slow=39						
KBZ	Khabaz	86.91	315	P	P	07 23 17.2	+0.3
	comp=Z,1.9nm,0.8s,baz=175,slow=2.0,SNR=4.6						
	comp=Z,1.9nm,0.8s						
MBAR	Mbarara	88.28	270	LR	LR	07 58 34.7	
	comp=Z,61nm,20.5s,baz=104,slow=33						
ASF	Jabal al Asfar	88.64	303	LR	LR	08 06 18.7	
	comp=Z,28nm,21.5s,baz=199,slow=38						
BOSA	Boshof	88.70	241	P	P	07 23 26.1	0.0
	comp=Z,2.4nm,0.9s,baz=54,slow=4.3,SNR=3.8						
	comp=Z,2.4nm,0.9s						
EIL	Elat	89.76	300	LR	LR	08 03 30.8	
	comp=Z,30nm,21.7s,baz=92,slow=36						
MMAI	Mount Meron Ar	90.05	303	LR	LR	08 08 45.7	
	comp=Z,29nm,20.0s,baz=116,slow=39						
BRTR	Keskin Array B	92.72	310	P	P	07 23 43.2	-1.3
	comp=Z,0.8nm,0.8s,baz=356,slow=11,SNR=2.1						
BRTR				LR	LR	08 10 40.8	
	comp=Z,21nm,18.1s,baz=2.0,slow=39						
	comp=Z,0.8nm,0.8s						
TORD	Torodi Ar. Bea	118.69	280	PKP	PKiKP	07 29 21.6	+0.5
	comp=Z,0.9nm,0.5s,baz=56,slow=1.2,SNR=8.8						
NVAR	Mina Array Bea	121.46	51	PKP	PKiKP	07 29 27.7	+1.6
	comp=Z,0.1nm,0.3s,baz=45,slow=2.6,SNR=1.8						
ESDC	Sonseca Array	121.50	311	PKP	PKPdf	07 29 25.8	0.0
	comp=Z,0.3nm,0.5s,baz=37,slow=0.8,SNR=1.9						
TXAR	Lajitas Array	135.59	58	PKP	PKPdf	07 29 50.6	-2.4
	comp=Z,0.1nm,0.6s,baz=300,slow=3.9,SNR=1.8						
BDFB	Brasilia	151.67	207	PKPab	PKPab	07 30 35.4	-0.7
	comp=Z,0.9nm,0.4s,baz=44,slow=9.0,SNR=3.3						
LPAZ	La Paz	153.10	165	PKPbc	PKPbc	07 30 32.0	+0.7
	comp=Z,0.8nm,0.8s,baz=214,slow=3.6,SNR=4.7						

SOME ***12*** *07:14:04.6, 43°.30N×82°.73E, h25^{km}*
NNC ***12*** *07:14:09.9±1.2, 43°.46N×82°.32E, h0^{km}, mb3.6, mpv3.4,*
Error ellipse: s-maj=10.7km s-min=5.0km az=143.0,
Suspected Mining explosion.
ISC 12 07:14:08.2±1.6, **43°.35N**±0°.07×**82°.35E**±0°.06, **h0^{km}, n39,**
σ**1^s.48**/59, **4C-4D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KTMS	Ketmen	1.46	275	*e*P	Pn	07 14 35.2	-0.7
	23nm,0.2s						
KTMS				*e*S	Sn	07 14 57.4	+1.6
	164nm,0.4s						
PDGK	Podgornoye	2.08	270	⇓Pn	Pg	07 14 48.3	+0.1
	9.4nm,0.3s						
PDGK				⇓Sn	Sg	07 15 14.5	-0.7
	71nm,0.5s						
DJR	Jarkent	2.10	299	Pg	Pb	07 14 46.1	-1.1
	14nm,0.2s						
DJR				Lg	Lg	07 15 15.7	
	60nm,0.2s						
DJR	Jarkent	2.10	299	*e*P	Pb	07 14 46.1	-1.1
	14nm,0.2s						
DJR				*e*S	Sg	07 15 15.7	+0.2
	60nm,0.2s						
SHLS	Shalkode	2.12	266	Pg	Pn	07 14 42.0	-3.0
	26nm,0.2s						
SHLS				Lg	Lg	07 15 09.2	
	314nm,0.4s						
SHLS	Shalkode	2.12	266	*e*P	Pn	07 14 42.0	-3.0
	26nm,0.2s						
SHLS				*e*S	Sn	07 15 09.2	-2.9
	314nm,0.4s						
UZB	Uzynbulak	2.44	266	Pg	Pb	07 14 52.9	-0.1
	6.0nm,0.3s						
UZB				Lg	Lg	07 15 27.6	
	41nm,0.4s						
UZB	Uzynbulak	2.44	266	*e*P	Pb	07 14 52.9	-0.1
	6.0nm,0.3s						
UZB				*e*S	Sg	07 15 27.6	+1.1
	41nm,0.4s						
KNOS	Konyrlen	2.50	295	Pg	Pb	07 14 53.8	-0.3
	6.2nm,0.2s						
KNOS				Lg	Lg	07 15 29.0	
	52nm,0.3s						
KPKS	Kokpek	2.67	274	Pg	Pb	07 14 56.5	-0.5
	0.4nm,0.2s						
KPKS				Lg	Lg	07 15 33.9	
	67nm,0.5s						
KPKS	Kokpek	2.67	274	*e*P	Pb	07 14 56.5	-0.5
	0.4nm,0.2s						
KPKS				*e*S	Sg	07 15 33.9	-0.2
	67nm,0.5s						
KAPS	Kapalarasan	2.89	313	Pg	Pb	07 15 00.3	-0.4
	5.8nm,0.2s						
KAPS				Lg	Lg	07 15 39.6	
	72nm,0.1s						
KAPS	Kapalarasan	2.89	313	*e*P	Pb	07 15 00.3	-0.4
	5.8nm,0.2s						
KAPS				*e*S	Sg	07 15 39.6	-1.5
	72nm,0.1s						
SATY	Saty	2.90	266	Pg	Pb	07 15 01.5	+0.7
	4.0nm,0.1s						
SATY				Lg	Lg	07 15 42.6	
	36nm,0.2s						
SATY	Saty	2.90	266	*e*P	Pb	07 15 01.5	+0.7
	4.0nm,0.1s						
SATY				*e*S	Sg	07 15 42.5	+1.3
	36nm,0.2s						
KURS	Kuram	3.05	274	Pg	Pb	07 15 03.4	0.0
	4.4nm,0.7s						
KURS				Lg	Lg	07 15 45.4	
	18nm,0.7s						
KURS	Kuram	3.05	274	*e*P	Pb	07 15 03.4	0.0
	4.4nm,0.7s						
KURS				*e*S	Sg	07 15 45.4	-0.7
	18nm,0.7s						
TDK	Taldyqorghan	3.28	302	Pg	Pb	07 15 08.0	+0.6
	33nm,0.2s						
TDK				Lg	Lg	07 15 53.2	
	78nm,0.2s						
TDK	Taldyqorghan	3.28	302	*e*P	Pb	07 15 08.0	+0.6
	33nm,0.2s						
TDK				*e*S	Sg	07 15 53.2	-0.4
	78nm,0.2s						
ARXS	Arharly	3.39	286	Pg	Pb	07 15 09.6	+0.4
	4.6nm,0.3s						
ARXS				Lg	Lg	07 15 56.0	
	32nm,0.4s						
ARXS	Arharly	3.39	286	*e*P	Pb	07 15 09.6	+0.4
	4.6nm,0.3s						
ARXS				*e*S	Sg	07 15 56.0	-1.0
	32nm,0.4s						
MK31	Makanchi Array	3.45	359	Pn	Pn	07 15 05.1	+2.0
	1.8nm,0.3s,baz=176,slow=17,SNR=36						
MK31				⇓Lg	Lg	07 15 55.0	
	34nm,0.6s,baz=178,slow=28						
MAKZ	Makanchi	3.47	356	⇑Pn	Pn	07 15 05.7	+2.2
	3.8nm,0.7s						
MAKZ				⇓Lg	Lg	07 15 55.9	
	8.9nm,0.5s						
KOTS	Kotyrbulak	3.82	270	Pg	Pb	07 15 18.7	+2.1
	6.1nm,0.3s						
KOTS				Lg	Lg	07 16 11.4	
	45nm,0.6s						
KOTS	Kotyrbulak	3.82	270	*e*P	Pb	07 15 18.7	+2.1
	6.1nm,0.3s						
KOTS				*e*S	Sg	07 16 11.4	+0.4
	45nm,0.6s						
MDOK	Medeo	3.88	269	Pg	Pb	07 15 19.4	+1.8
	4.3nm,0.4s						
MDOK				Lg	Lg	07 16 12.5	
	13nm,0.3s						
MDOK	Medeo	3.88	269	*e*P	Pb	07 15 19.4	+1.8
	4.3nm,0.4s						
MDOK				*e*S	Sg	07 16 12.5	-0.2
	13nm,0.3s						
TNSS	Tian-Shan	3.96	267	Pg	Pb	07 15 20.4	+1.3
	0.6nm,0.3s						
TNSS				Lg	Lg	07 16 14.3	
	1.6nm,0.3s						
TNSS	Tian-Shan	3.96	267	*e*P	Pb	07 15 20.4	+1.3
	0.6nm,0.3s						
TNSS				*e*S	Sg	07 16 14.3	-1.1

	1.6nm,0.3s						
KTBS	**Karatobe**	**4.14**	**277**	Pg	**Pb**	**07 15 23.1**	**+1.2**
	0.2nm,0.1s						
KTBS				Lg	Lg	07 16 19.2	
	20nm,0.4s						
KTBS	**Karatobe**	**4.14**	**277**	*e*P	**Pb**	**07 15 23.1**	**+1.2**
	0.2nm,0.1s						
KTBS				*e*S	**Sg**	**07 16 19.2**	**-1.8**
	20nm,0.4s						
ZSN	**Zaisan**	**4.47**	**23**	Pg	**Pb**	**07 15 25.6**	**-1.9**
	5.2nm,0.2s						
ZSN				Lg	Lg	07 16 23.6	
	34nm,0.5s						
ZSN	**Zaisan**	**4.47**	**23**	*e*P	**Pb**	**07 15 25.6**	**-1.9**
	5.2nm,0.2s						
ZSN				*e*S	**Sb**	**07 16 23.6**	**+1.7**
	34nm,0.5s						
KST	**Kastek**	**4.68**	**268**	Pg	**Pb**	**07 15 33.6**	**+2.4**
	0.8nm,0.2s						
KST				Lg	Lg	07 16 37.3	
	8.1nm,0.4s						
KST	**Kastek**	**4.68**	**268**	*e*P	**Pb**	**07 15 33.6**	**+2.4**
	0.8nm,0.2s						
KST				*e*S	**Sg**	**07 16 37.3**	**-1.2**
	8.1nm,0.4s						
KRBS	**Karabastau**	**4.87**	**276**	Pg	**Pb**	**07 15 37.1**	**+2.8**
	0.8nm,0.4s						
KRBS				Lg	Lg	07 16 43.2	
	7.6nm,0.3s						
KRBS	**Karabastau**	**4.87**	**276**	*e*P	**Pb**	**07 15 37.1**	**+2.8**
	0.8nm,0.4s						
KRBS				*e*S	**Sg**	**07 16 43.2**	**-1.2**
	7.6nm,0.3s						
KURBB	**Kurchatov Arra**	**7.73**	**342**	Pn	**Pn**	**07 16 03.4**	**+1.4**
	baz=172,slow=12						
KURBB				Sn	**Sn**	**07 17 29.2**	**-1.0**
KURBB				Lg	Lg	07 18 10.6	
KURK	**Kurchatov**	**7.80**	**342**	⇑Pn	**Pn**	**07 16 04.0**	**+1.1**
	0.3nm,0.4s						
KURK				⇑Sn	**Sn**	**07 17 31.0**	**-0.8**
	1.6nm,0.6s						
KURK				⇑Lg	Lg	07 18 12.9	
	5.0nm,1.0s						

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*ISK **12** 07:20:24.2, 34°.50N×32°.09E, h7^{km}, ML3.0/18*
*NIC **12** 07:20:24.7, 34°.44N×32°.02E, h29^{km}±1^{km}, Ml3.1/8*
*GII **12** 07:20:24.9±0.0, 34°.454N±0°.001×32°.242E±0°.001, h0^{km}, Mws3.1, confirmed*
ISC 12 07:20:25.4±1.5, **34°.40N**±0°.03×**32°.15E**±0°.04, **h20**^{km}±4^{km}, **n61**, σ**0^{s}.72**/95, **Cyprus region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NATA	**Nata**	**0.52**	**42**	P	**Pb**	**07 20 36.5**	**+0.6**
NATA				S	**Sn**	**07 20 46.4**	**+0.4**
NATA				AML	AML	07 20 49.8	
	6.6nm,0.4s						
NATA				AML	AML	07 20 51.5	
	3.7nm,0.3s						
AKMS	**Akamas**	**0.64**	**14**	P	**Pb**	**07 20 37.7**	**-0.2**
AKMS				S	**Sb**	**07 20 47.3**	**+0.9**
AKMS				AML	AML	07 20 48.3	
	4.2nm,0.6s						
AKMS				AML	AML	07 20 52.1	
	3.7nm,0.5s						
APOL	**The Sanctuary**	**0.65**	**65**	P	**Pb**	**07 20 38.5**	**+0.4**
APOL				S	**Sn**	**07 20 49.7**	**+0.4**
APOL				AML	AML	07 20 50.7	
	2.1nm,0.2s						
APOL				AML	AML	07 20 54.1	
	1.7nm,0.6s						
TROD	**Troodos**	**0.81**	**47**	P	**Pg**	**07 20 40.3**	**-1.0**
TROD				S	**Sn**	**07 20 53.2**	**-0.3**
TROD				AML	AML	07 20 56.1	
	1.5nm,0.3s						
TROD				AML	AML	07 20 57.0	
	1.4nm,0.5s						
ALFC	**Alefka**	**0.84**	**26**	P	**Pb**	**07 20 40.8**	**-0.6**
ALFC				S	**Sg**	**07 20 52.8**	**-0.3**
ALFC				AML	AML	07 20 54.5	
	2.2nm,0.4s						
ALFC				AML	AML	07 20 56.8	
	3.2nm,0.4s						
ASGA	**Asgata**	**0.99**	**67**	P	**Pb**	**07 20 43.6**	**-0.3**
ASGA				S	**Sn**	**07 20 58.4**	**+0.8**
ASGA				AML	AML	07 21 00.4	
	1.4nm,0.3s						
ASGA				AML	AML	07 21 00.8	
	1.6nm,0.3s						
CSS	**Mathiatis**	**1.13**	**60**	Pn	**Pb**	**07 20 45.2**	**-1.1**
CSS				Sn	**Sg**	**07 21 02.2**	**+0.1**
CSS				AML	AML		
CSS	**Mathiatis**	**1.13**	**60**	P	**Pb**	**07 20 45.6**	**-0.7**
CSS				AML	AML		
CSS	**Mathiatis**	**1.13**	**60**	P	**Pb**	**07 20 44.7**	**-1.5**
CSS				S	**Sb**	**07 20 58.1**	**-2.4**
MVOU	**Mavrovouni**	**1.37**	**63**	P	**Pn**	**07 20 49.5**	**+0.1**
MVOU				S	**Sb**	**07 21 07.9**	**+0.4**
MVOU				AML	AML	07 21 11.4	
	0.5nm,0.3s						
MVOU				AML	AML	07 21 13.7	
	0.3nm,0.5s						
LFK	**Lefkose**	**1.44**	**52**	Pn	**Pb**	**07 20 51.4**	**-0.2**
LFK				Sn	**Sb**	**07 21 10.4**	**+0.8**
LFK				AML	AML		
PARAL	**Paralimni**	**1.67**	**69**	P	**Pb**	**07 20 55.5**	**0.0**
PARAL				S	**Sg**	**07 21 22.1**	**+2.8**
PARAL				AML	AML	07 21 29.5	
	0.3nm,0.7s						
PARAL				AML	AML	07 21 32.2	
	0.3nm,0.8s						
GAZI	**Gazipasa**	**1.84**	**4**	Pn	**Pn**	**07 20 55.3**	**-0.6**
GAZI				AML	AML		
TEKE	**Tekeli-Mersin**	**1.91**	**24**	Pn	**Pn**	**07 20 57.1**	**+0.2**
TEKE				Sn	**Sn**	**07 21 21.2**	**+0.8**
TEKE				AML	AML		
EREN	**Erenkoy**	**2.01**	**55**	Pn	**Pb**	**07 20 59.7**	**-1.6**
EREN				AML	AML		
BECE	**Buyukeceli-Mer**	**2.10**	**33**	Pn	**Pn**	**07 20 59.9**	**+0.4**
BECE				Sn	**Sn**	**07 21 26.1**	**+1.0**
BECE				AML	AML		
BERE	**Bereket-Mersin**	**2.14**	**24**	Pn	**Pn**	**07 21 00.1**	**0.0**
BERE				AML	AML		
TISA	**Tisan-Mersin**	**2.16**	**35**	Pn	**Pn**	**07 21 01.2**	**+0.9**
TISA				AML	AML		
IKL	**Isikli**	**2.23**	**34**	Pn	**Pn**	**07 21 01.6**	**+0.4**
IKL				AML	AML		
TEVE	**Tevekalti-Mers**	**2.29**	**27**	Pn	**Pn**	**07 21 02.4**	**+0.2**
TEVE				AML	AML		
KEBE	**Keben-Mersin**	**2.41**	**32**	Pn	**Pn**	**07 21 04.4**	**+0.5**
KEBE				AML	AML		
HDMB	**Hadim**	**2.58**	**6**	Pn	**Pn**	**07 21 06.1**	**-0.1**
HDMB				AML	AML		
KIZK	**Mersin**	**2.64**	**38**	Pn	**Pn**	**07 21 07.8**	**+0.9**
KIZK				AML	AML		
AKAS	**Kas**	**2.77**	**312**	Pn	**Pn**	**07 21 08.5**	**-0.3**
AKAS				AML	AML		
OFRI	**`Ofer**	**2.96**	**126**	P	**Pn**	**07 21 11.1**	**-0.2**
OFRI				S	**Sn**	**07 21 46.1**	**-0.2**
ELL	**Elmali**	**2.97**	**323**	Pn	**Pn**	**07 21 11.7**	**+0.1**
MMA0B	**Mount Meron ar**	**3.04**	**116**	P	**Pn**	**07 21 12.0**	**-0.5**
MMA0B				S	**Sn**	**07 21 48.1**	**-0.3**
ZEFT	**Zefat**	**3.13**	**116**	P	**Pn**	**07 21 13.8**	**0.0**
ZEFT				S	**Sn**	**07 21 50.5**	**-0.2**
GEM	**Giv'at Ha'Em**	**3.16**	**111**	P	**Pn**	**07 21 14.2**	**+0.2**
GEM				AML	AML		
GEM	**Giv'at Ha'Em**	**3.16**	**111**	P	**Pn**	**07 21 13.4**	**-0.6**
GEM				S	**Sn**	**07 21 50.5**	**-0.7**
NATI	**Neve Ativ**	**3.20**	**110**	P	**Pn**	**07 21 14.4**	**-0.1**
NATI				S	**Sn**	**07 21 51.8**	**-0.2**
KNHM	**Kefar Nahum**	**3.24**	**117**	P	**Pn**	**07 21 14.6**	**-0.6**
KNHM				S	**Sn**	**07 21 52.1**	**-1.0**
SLTI	**Sal'it**	**3.24**	**131**	P	**Pn**	**07 21 15.1**	**-0.1**
SLTI				S	**Sn**	**07 21 53.1**	**-0.1**
FETY	**Fethiye**	**3.35**	**313**	Pn	**Pn**	**07 21 16.9**	**+0.2**
FETY				AML	AML		
KSHT	**Keshet**	**3.37**	**114**	P	**Pn**	**07 21 16.4**	**-0.6**
KSHT				S	**Sn**	**07 21 56.1**	**-0.2**
MMLI	**Mount Malkishu**	**3.37**	**125**	P	**Pn**	**07 21 16.6**	**-0.3**
MMLI				S	**Sn**	**07 21 55.8**	**-0.5**
CAME	**Cameli-Denizli**	**3.44**	**318**	Pn	**Pn**	**07 21 18.4**	**+0.4**
CAME				AML	AML		
SALP	**Salfit**	**3.45**	**131**	P	**Pn**	**07 21 18.2**	**+0.1**
SALP				S	**Sn**	**07 21 58.5**	**+0.1**
SALP				AML	AML		
ROII	**Roi**	**3.52**	**127**	P	**Pn**	**07 21 18.4**	**-0.6**
ROII				S	**Sn**	**07 21 59.8**	**-0.4**
QRNJ	**Al-Qirein**	**3.53**	**125**	P	**Pn**	**07 21 19.8**	**+0.7**
QRNJ				AML	AML		
JER	**Jerusalem**	**3.66**	**135**	P	**Pn**	**07 21 21.0**	**-0.1**
JER				S	**Sn**	**07 22 04.1**	**+0.4**
AMAZ	**Amatzia**	**3.69**	**140**	P	**Pn**	**07 21 21.0**	**-0.3**
AMAZ				AML	AML		
AMAZ	**Amatzia**	**3.69**	**140**	P	**Pn**	**07 21 21.6**	**+0.3**
AMAZ				S	**Sn**	**07 22 04.8**	**+0.6**
ALMO	**Almog**	**3.81**	**132**	P	**Pn**	**07 21 22.8**	**-0.2**
ALMO				S	**Sn**	**07 22 07.1**	**0.0**
MZS	**Mizpe Shalem**	**3.93**	**135**	P	**Pn**	**07 21 24.8**	**+0.2**
MZS				S	**Sn**	**07 22 10.1**	**0.0**
KZIT	**Kziot**	**3.96**	**151**	P	**Pn**	**07 21 25.0**	**-0.1**
KZIT				AML	AML		
KZIT	**Kziot**	**3.96**	**151**	P	**Pn**	**07 21 25.8**	**+0.6**
KZIT				S	**Sn**	**07 22 12.8**	**+1.7**
CMRD	**Camardi-Nigde**	**3.99**	**34**	Pn	**Pn**	**07 21 26.9**	**+1.3**
MSBI	**Mazada**	**4.09**	**138**	P	**Pn**	**07 21 27.2**	**+0.3**
MSBI				AML	AML		
MSBI	**Mazada**	**4.09**	**138**	P	**Pn**	**07 21 27.0**	**+0.1**
MSBI				S	**Sn**	**07 22 14.5**	**+0.3**
LISJ	**El Lisan**	**4.22**	**137**	P	**Pn**	**07 21 29.4**	**+0.9**
LISJ				AML	AML		
KARP	**Karpathos**	**4.25**	**287**	P	**Pn**	**07 21 28.6**	**-0.5**
KARP				AML	AML		
RMNI	**Mount Ramon**	**4.39**	**149**	P	**Pn**	**07 21 30.8**	**-0.2**
RMNI				S	**Sn**	**07 22 22.8**	**+1.2**
ZFRI	**Zfri**	**4.61**	**145**	P	**Pn**	**07 21 34.1**	**+0.2**
ZFRI				S	**Sn**	**07 22 27.2**	**+0.2**
PRNI	**Paran**	**4.70**	**148**	P	**Pn**	**07 21 35.5**	**+0.2**
PRNI				AML	AML		
HRFI	**Mount Harif**	**4.99**	**150**	P	**Pn**	**07 21 39.5**	**+0.2**
	0.1nm11nm,0.9s						
HRFI				AML	AML		
HRFI	**Mount Harif**	**4.99**	**150**	P	**Pn**	**07 21 39.8**	**+0.5**
HRFI				S	**Sn**	**07 22 37.2**	**+0.8**
YTVT	**Yotvata**	**5.13**	**150**	P	**Pn**	**07 21 41.8**	**+0.7**
YTVT				S	**Sn**	**07 22 40.5**	**+0.8**
AQBJ	**Aqaba**	**5.27**	**151**	P	**Pn**	**07 21 44.3**	**+1.3**
	0.3nm2µm37nm,0.5s						
AQBJ				AML	AML		
EIL	**Elat**	**5.28**	**152**	P	**Pn**	**07 21 43.9**	**+0.7**
EIL				AML	AML		
EIL	**Elat**	**5.28**	**152**	P	**Pn**	**07 21 43.7**	**+0.5**

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*SJA **12** 07:21:07.5±0.7, 21°.35S×69°.84W, h55^{km}±5^{km}, ML3.6, MW3.7*
*GUC **12** 07:21:08.2±0.8, 21°.34S×69°.84W, h53^{km}±3^{km}, ML3.7*
ISC 12 07:21:09.9±1.3, **21°.36S**±0°.03×**69°.82W**±0°.06, **h44**^{km}±9^{km}, **n29**, σ**0^{s}.86**/37, **Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB02	**IPOC Station P**	**0.08**	**297**	*e*P	**Pn**	**07 21 16.9**	**-0.2**
PB02				IAML		07 21 24.0	
	comp=Z,6µm,0.1s						
PB02	**IPOC Station P**	**0.08**	**297**	*e*P	**Pn**	**07 21 16.9**	**-0.2**
PB02				*i* S	**Sn**	**07 21 22.8**	**+0.7**
PB07	**IPOC Station P**	**0.37**	**190**	*e*P	**Pn**	**07 21 18.9**	**-0.6**
PB07				IAML		07 21 28.4	
	comp=Z,4µm,0.3s						
PB07	**IPOC Station P**	**0.37**	**190**	*e*P	**Pn**	**07 21 18.9**	**-0.6**
PB07				*i* S	**Sn**	**07 21 26.5**	**+0.2**
PB07				IAML		07 21 26.9	
	comp=E,9µm,0.3s						
PB03	**IPOC Station P**	**0.69**	**175**	*e*P	Pn	07 21 22.6	-0.9
PB03				*e*S	**Sn**	**07 21 33.1**	**-0.2**
PB03				IAML		07 21 34.4	
	comp=Z,2µm,0.1s						
PB03	**IPOC Station P**	**0.69**	**175**	*e*P	**Pn**	**07 21 22.8**	**-0.8**
PB03				*i* S	**Sn**	**07 21 32.9**	**-0.4**
PB03				IAML		07 21 33.5	
	comp=E,3µm,0.3s						
PB09	**IPOC Station P**	**0.69**	**129**	*e*P	**Pn**	**07 21 23.1**	**-0.4**
PB09				*e*S	**Sn**	**07 21 33.6**	**+0.2**
PB09				IAML		07 21 34.0	
	comp=Z,2µm,0.5s						
PB09	**IPOC Station P**	**0.69**	**129**	*e*P	**Pn**	**07 21 23.2**	**-0.4**
PB09				*i* S	**Sn**	**07 21 33.7**	**+0.4**
TA01	**Diego Aracena**	**0.86**	**337**	*e*P	Pn	07 21 24.1	-1.5
TA01				*e*S	**Sn**	**07 21 36.7**	**-0.3**
TA01				IAML		07 21 38.8	
	comp=Z,859nm,0.6s						
TA01	**Diego Aracena**	**0.86**	**337**	*e*P	Pn	07 21 24.1	-1.5
TA01				*i* S	**Sn**	**07 21 35.9**	**-1.1**
TA02	**Huaiquique**	**1.12**	**345**	*e*P	**Pn**	**07 21 28.3**	**-0.9**
TA02				*e*S	**Sn**	**07 21 44.9**	**+1.5**
TA02				IAML		07 21 46.1	
	comp=Z,2µm,0.1s						
TA02	**Huaiquique**	**1.12**	**345**	*e*P	Pn	07 21 27.8	-1.4
TA02				*i* S	**Sn**	**07 21 42.5**	**-0.9**
PB08	**IPOC Station P**	**1.36**	**27**	*e*P	**Pn**	**07 21 32.3**	**-0.6**
PB08				*e*S	**Sn**	**07 21 49.9**	**0.0**
PB08				IAML		07 21 51.1	
	comp=Z,1µm,0.1s						
PB08	**IPOC Station P**	**1.36**	**27**	*e*P	**Pn**	**07 21 32.3**	**-0.6**
PB08				*i* S	**Sn**	**07 21 49.9**	**0.0**
PB08				IAML		07 21 51.3	
	comp=E,2µm,0.1s						
PB06	**IPOC Station P**	**1.36**	**170**	*e*P	Pn	07 21 31.7	-1.0
PB06				*e*S	**Sn**	**07 21 51.5**	**+1.8**
PB06				IAML		07 21 54.0	
	comp=Z,520nm,0.3s						
PB05	**IPOC Station P**	**1.53**	**193**	*e*P	Pn	07 21 34.1	-0.8
PB05				*e*S	Sn	07 21 45.1	-8.7
PB05				IAML		07 21 57.0	
	comp=Z,444nm,0.9s						
PB05	**IPOC Station P**	**1.53**	**193**	*e*P	Pn	07 21 34.1	-0.8
PB05				*i* S	**Sn**	**07 21 53.8**	**+0.1**
PB05				IAML		07 21 58.0	
	comp=E,781nm,0.4s						
PB11	**IPOC Station P**	**1.59**	**6**	*e*P	**Pn**	**07 21 35.0**	**-0.9**
PB11				*e*S	**Sn**	**07 21 55.2**	**-0.2**
PB11				IAML		07 21 59.0	
	comp=Z,593nm,0.3s						
PB11	**IPOC Station P**	**1.59**	**6**	*e*P	Pn	07 21 34.8	-1.1
PB11				*i* S	**Sn**	**07 21 54.9**	**-0.4**
PB11				IAML		07 21 57.6	
	comp=E,1µm,0.3s						
PSGCX	**Pisagua**	**1.77**	**351**	*e*P	Pn	07 21 37.1	-1.2
PSGCX				*e*S	**Sn**	**07 22 01.4**	**+1.8**
PSGCX				IAML		07 22 05.7	
	comp=Z,284nm,0.2s						
PSGCX	**Pisagua**	**1.77**	**351**	*e*P	Pn	07 21 37.0	-1.2
PSGCX				*i* S	**Sn**	**07 21 59.4**	**-0.3**
GO01	**Chusmiza**	**1.78**	**19**	*e*P	**Pn**	**07 21 38.4**	**-0.3**
GO01				*e*S	**Sn**	**07 22 00.9**	**+0.6**
GO01				IAML		07 22 03.0	
	comp=Z,910nm,0.3s						
GO01	**Chusmiza**	**1.78**	**19**	*e*P	**Pn**	**07 21 38.3**	**-0.4**
GO01				*i* S	**Sn**	**07 22 00.4**	**+0.1**
GO01				IAML		07 22 03.0	
	comp=N,3µm,0.1s						
AF01	**San Pedro de A**	**2.20**	**137**	*e*P	Pn	07 21 42.5	-1.7
AF01				*e*S	**Sn**	**07 22 11.0**	**+0.6**
AF01				IAML		07 22 36.3	
	comp=Z,762nm,0.5s						
PB12	**IPOC Station P**	**2.77**	**350**	*e*P	Pn	07 21 50.5	-1.4
PB12				*e*S	Sn	07 22 09.0	-15
PB12				IAML		07 22 37.9	
	comp=Z,187nm,0.8s						
PB12	**IPOC Station P**	**2.77**	**350**	*e*P	Pn	07 21 50.5	-1.4
PB12				*i* S	**Sn**	**07 22 23.2**	**-1.0**
PB12				IAML		07 22 38.2	
	comp=E,244nm,0.4s						
AP01	**Chacalluta**	**3.01**	**350**	*e*P	**Pn**	**07 21 57.6**	**+2.4**
AP01				IAML		07 22 49.5	
	comp=Z,255nm,0.2s						
PB16	**IPOC Station P**	**3.02**	**6**	*e*P	**Pn**	**07 21 55.9**	**+0.1**
PB16				*e*S	Sn	07 22 41.4	+10
PB16				IAML		07 22 50.2	
	comp=Z,99nm,0.5s						
PB14	**IPOC Station P**	**3.30**	**189**	*e*P	Pn	07 21 56.0	-3.4
PB14				*e*S	Sn	07 22 27.1	-10
PB14				IAML		07 22 54.0	
	comp=Z,64nm,0.8s						

IDC 12 07:32:32.0±1.9, **18°.49S**×**172°.60W**, **h0**^{km}, **mb3.6**/3, **mbtmp3.7**/4, **ML4.0**/1, **Error ellipse: s-maj=51.5km s-min=17.8km az=121.0**, **Tonga Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	**Afiamalu**	**4.62**	**10**	Pn	Pn	07 33 39.0	-4.3
	6.3nm,0.3s,baz=220,slow=7.9,SNR=11						
AFI				Sn	Sn	07 34 25.3	-12
	20nm,0.3s,baz=162,slow=20,SNR=10						
	12nm,0.3s						
AFI				AML	AML		
ASAR	**Alice Springs**	**49.95**	**254**	P	P	07 41 28.2	+0.1
	0.6nm,0.5s,baz=89,slow=8.4,SNR=15						
	0.6nm,0.5s						
WRA	**Warramunga Arr**	**49.95**	**259**	P	P	07 41 27.7	-0.5
	0.7nm,0.5s,baz=98,slow=6.6,SNR=15						
	0.7nm,0.5s						
TXAR	**Lajitas Array**	**81.71**	**55**	P	P	07 44 52.5	-0.4
	0.1nm,0.7s,baz=230,slow=4.7,SNR=1.5						
	0.1nm,0.7s						

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*IDC **12** 07:37:53.5±3.6, 13°.99S×167°.22E, h200^{km}±31^{km}, mb3.6/10, mbtmp4.1/11, Error ellipse: s-maj=22.6km s-min=19.1km az=81.0*
ISC 12 07:37:53.4±0.7, **13°.99S**±0°.09×**167°.2E**±0°.2, **h200**^{km}, **n19**, σ**0^{s}.68**/23, **mb3.9**/10, **Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	**8.08**	**185**	P	**Pn**	**07 39 48.6**	**+0.8**
	4.8nm,0.9s,baz=99,slow=15,SNR=7.6						
DZM				S	**Sn**	**07 41 18.0**	**-0.8**
	3.2nm,0.8s,baz=228,slow=21,SNR=0.9						
STKA	**Stephens Creek**	**29.46**	**228**	P	**P**	**07 43 39.6**	**+0.9**
	11nm,0.6s,baz=47,slow=8.1,SNR=28						
STKA				PcP	**PcP**	**07 46 39.2**	**-0.1**
	0.8nm,0.3s,baz=0.4,slow=3.2,SNR=3.1						
	11nm,0.6s						
WRA	**Warramunga Arr**	**31.99**	**255**	P	**P**	**07 44 00.3**	**-0.8**
	0.4nm,0.4s,baz=85,slow=9.3,SNR=11						
WRA				PcP	**PcP**	**07 46 46.2**	**0.0**
	0.6nm,0.9s,baz=88,slow=3.1,SNR=3.1						
	0.4nm,0.4s						
ASAR	**Alice Springs**	**32.92**	**248**	P	**P**	**07 44 08.0**	**-1.2**
	2.2nm,0.6s,baz=75,slow=9.5,SNR=44						
ASAR				PcP	**PcP**	**07 46 47.5**	**-1.3**
	0.3nm,0.5s,baz=66,slow=3.2,SNR=4.3						
	2.2nm,0.6s						
VNDA	**Vanda**	**63.60**	**181**	P	**P**	**07 48 02.6**	**+0.1**
	0.4nm,0.4s,baz=352,slow=5.5,SNR=2.5						
	0.4nm,0.4s						
PETK	**Petropavlovsk-**	**67.32**	**354**	P	**P**	**07 48 26.8**	**+0.3**
	2.7nm,0.8s,baz=156,slow=5.9,SNR=1.9						
	2.7nm,0.8s						
CMAR	**Chiang Mai Arr**	**74.63**	**294**	P	**P**	**07 49 12.2**	**+1.0**
	0.9nm,0.3s,baz=130,slow=5.0,SNR=6.8						
	0.9nm,0.3s						
QSPA	**South Pole Qui**	**76.04**	**180**	P	**P**	**07 49 18.5**	**0.0**
	1.1nm,0.5s,baz=11,slow=2.7,SNR=12						
	1.1nm,0.5s						
MAW	**Mawson**	**82.56**	**202**	P	**P**	**07 49 54.0**	**+0.4**
	0.9nm,0.5s,baz=131,slow=3.0,SNR=6.5						
	0.9nm,0.5s						
ILAR	**Eielson Array**	**85.83**	**18**	P	**P**	**07 50 09.4**	**-0.6**
	0.4nm,0.7s,baz=238,slow=5.2,SNR=8.8						
	0.4nm,0.7s						
TROLL	**Troll, Antarti**	**93.60**	**185**	P	**P**	**07 50 46.2**	**-0.4**
	comp=Z,157nm,0.8s						
VNA2	**Neumayer--Watz**	**95.22**	**182**	P	**P**	**07 50 53.7**	**-0.2**
	baz=196,slow=3.2						
MKAR	**Makanchi Array**	**96.65**	**316**	P	**P**	**07 51 00.8**	**0.0**
	comp=Z,0.7nm,0.6s,baz=91,slow=6.8,SNR=5.9						
	comp=Z,0.7nm,0.6s						
SPITS	**Spitsbergen Ar**	**114.20**	**354**	PKP	**PKiKP**	**07 56 09.1**	**+0.8**
	comp=Z,3.0nm,0.8s,baz=92,slow=3.5,SNR=5.4						
ARCES	**ARCESS Array B**	**119.53**	**346**	PKP	**PKPdf**	**07 56 18.2**	**-0.5**
	comp=Z,1.3nm,0.6s,baz=94,slow=1.3,SNR=11						
FINES	**FINESS Array B**	**125.03**	**338**	PKP	**PKPdf**	**07 56 28.6**	**-0.8**
	comp=Z,4.3nm,1.0s,baz=64,slow=3.2,SNR=4.6						
GERES	**GERESS Array B**	**138.97**	**333**	PKP	**PKPdf**	**07 56 56.5**	**+0.3**
	comp=Z,0.5nm,0.2s,baz=318,slow=1.3,SNR=3.7						
KEST	**Kesra**	**150.62**	**321**	PKPbc	**PKiKP**	**07 57 22.9**	**0.0**
	comp=Z,5.5nm,0.7s,baz=316,slow=4.0,SNR=5.5						
ESDC	**Sonseca Array**	**153.27**	**345**	PKPbc	**PKPbc**	**07 57 27.8**	**-0.2**
	comp=Z,0.6nm,0.8s,baz=15,slow=6.2,SNR=4.8						

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*WEL **12** 07:53:04.5, 36°.67S×177°.16E, ML4.7, Mw4.7, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M$_{rr}$-0.62; M$_{\theta\theta}$0.79; M$_{\phi\phi}$0.76; M$_{r\theta}$-0.87; M$_{\theta\phi}$0.46; M$_{\phi r}$-0.01; Fault plane solution: M$_{0}$1.33000×10^{16} NP1:φ$_{s}$71.00000°, δ67.00000°, λ-70.00000°. NP2:φ$_{s}$208.00000°, δ30.00000°, λ-129.00000°. Principal axes: T 1.1471, Plg19.0000°, Azm146.0000°; N 0.2174, Plg19.0000°, Azm243.0000°; P -1.3645, Plg63.0000°, Azm14.0000°; Stations used: BKZ GRZ HAZ HIZ KNZ MKAZ MWZ MXZ OPRZ OTVZ PUZ RATZ NORMAL FAULTING*
*NOU **12** 07:53:04.3, 36°.68S×177°.20E, h3^{km}, MLv4.8/15, Off E. Coast of N. Island, N.Z.*
*WEL **12** 07:53:04.5±0.6, 37°S±5°×17°7E±°, h5^{km}, M4.8/25, ML4.7/25, MLv4.8/25, Error ellipse: s-maj=7.2km s-min=2.6km az=26.2, confirmed*
*IDC **12** 07:53:06.7±0.5, 36°.76S×176°.79E, h0^{km}, mb4.7/16, mbtmp4.6/18, ML5.7/1, MS3.9/11, Error ellipse: s-maj=17.5km s-min=13.8km az=68.0*
*NEIC **12** 07:53:06.7±1.3, 36°.84S±0°.09×177°.19E±0°.07, h10^{km}±1^{km}, mb4.8/23, Mwr4.7/21, Error ellipse: s-maj=15.0km s-min=8.8km az=5.0, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M$_{rr}$-0.97; M$_{\theta\theta}$0.53; M$_{\phi\phi}$0.43; M$_{r\theta}$-0.82; M$_{\theta\phi}$0.42; M$_{\phi r}$-0.53; Fault plane solution: M$_{0}$1.36000×10^{16} NP1:φ$_{s}$54.62000°, δ68.22000°, λ-85.78000°. NP2:φ$_{s}$223.39000°, δ22.17000°, λ-100.42000°. Principal axes: T 1.3188, Plg23.0000°, Azm141.0000°; N 0.0702, Plg4.0000°, Azm233.0000°; P -1.3891, Plg67.0000°, Azm332.0000°;*
*NEIC **12** 07:53:07, 36°.86S×177°.12E, h10^{km}*
*GCMT **12** 07:53:09.7±0.4, 36°.65S±0°.03×177°.28E±0°.05, h13^{km}±1^{km}, MW4.8/83, Moment Tensor Solution. s19,c21; s83,c105; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-2.29±.18; M$_{\theta\theta}$1.36±.12; M$_{\phi\phi}$0.92±.12; M$_{r\theta}$0.27±.29; M$_{\theta\phi}$1.06±.06; M$_{\phi r}$-0.33±.32; Best double couple: M$_{0}$2.29500×10^{16} NP1:φ$_{s}$41.00000°, δ46.00000°, λ-104.00000°. NP2: φ$_{s}$241.00000°, δ46.00000°, λ-76.00000°. Principal axes: T 2.2250, Plg0.0000°, Azm321.0000°; N 0.1360, Plg10.0000°, Azm51.0000°; P -2.3640, Plg80.0000°, Azm231.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
ISC 12 07:53:06.4±0.9, **36°.75S**±0°.04×**177°.17E**±0°.03, **h8**^{km}±5^{km}, **n295**, σ**1^{s}.52**/301, **mb4.8**/52, **MS4.0**/10, **4D**, **Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WSRZ	**White Island S**	**0.77**	**180**	P	**Pb**	**07 53 21.3**	**-0.7**
WSRZ				AML	AML		
WSRZ				AML	AML		
WIZ	**White Island**	**0.78**	**179**	P	**Pb**	**07 53 21.2**	**-1.0**
WIZ				AML	AML		
WIZ				AML	AML		
MYRZ	**Mayor Island**	**0.92**	**234**	P	**Pg**	**07 53 23.1**	**-1.0**
MYRZ				S	**Sb**	**07 53 35.6**	**-1.3**
MYRZ				AML	AML		
MYRZ				AML	AML		
HAZ	**Te Kaha**	**1.12**	**154**	P	**Pg**	**07 53 26.2**	**-1.7**
HAZ				S	**Sn**	**07 53 42.1**	**-1.9**
HAZ				AML	AML		
HAZ				AML	AML		
WHRZ	**Whale Island**	**1.12**	**188**	P	**Pn**	**07 53 27.2**	**-1.2**
WHRZ				AML	AML		
WHRZ				AML	AML		
MXZ	**Matakaoa Point**	**1.22**	**132**	P	**Pb**	**07 53 27.5**	**-2.2**
MXZ	**Matakaoa Point**	**1.22**	**132**	S	**Sn**	**07 53 44.6**	**-1.8**
MXZ	**Matakaoa Point**	**1.22**	**132**		**Pb**	**07 53 27.8**	**-1.9**
MXZ	**Matakaoa Point**	**1.22**	**132**	P	**Pb**	**07 53 27.7**	**-2.0**
MXZ				S	**Sg**	**07 53 43.7**	**-1.9**
MXZ				AML	AML		

MXZ				AML	AML		
TGRZ	**Tauranga**	**1.22**	**216**	P	**Pb**	**07 53 27.9**	**-1.8**
TGRZ				AML	AML		
TGRZ				AML	AML		
RUGZ	**Raukumara Rang**	**1.28**	**162**	P	**Pb**	**07 53 29.2**	**-1.6**
RUGZ				AML	AML		
RUGZ				AML	AML		
MARZ	**Manawahe**	**1.30**	**198**	P	**Pn**	**07 53 29.5**	**-1.4**
MARZ				AML	AML		
MARZ				AML	AML		
PKGZ	**Pakihiroa**	**1.33**	**147**	P	**Pn**	**07 53 29.7**	**-1.7**
PKGZ				AML	AML		
PKGZ				AML	AML		
EDRZ	**Edgecumbe**	**1.40**	**194**	P	**Pn**	**07 53 30.8**	**-1.5**
EDRZ				AML	AML		
EDRZ				AML	AML		
WMGZ	**Waiomatatini S**	**1.46**	**138**	P	**Pg**	**07 53 32.9**	**-1.4**
WMGZ				S	**Sg**	**07 53 52.8**	**-0.4**
WMGZ				AML	AML		
WMGZ				AML	AML		
GRZ	**Great Barrier**	**1.47**	**289**	P	**Pn**	**07 53 30.2**	**-3.0**
GRZ				S	**Sn**	**07 53 48.4**	**-4.2**
GRZ				AML	AML		
GRZ				AML	AML		
KARZ	**Kaharoa**	**1.47**	**210**	P	**Pn**	**07 53 32.1**	**-1.2**
KARZ				AML	AML		
KARZ				AML	AML		
KMRZ	**Kaimai**	**1.47**	**221**	P	**Pn**	**07 53 31.8**	**-1.5**
KMRZ				AML	AML		
KMRZ				AML	AML		
MKRZ	**Makatiti**	**1.50**	**202**	P	**Pg**	**07 53 34.9**	**-0.3**
URZ	**Urewera**	**1.51**	**182**	Pn	**Pn**	**07 53 31.9**	**-1.9**
	303nm,0.3s,baz=2.2,slow=19,SNR=188						
URZ				Sn	**Sg**	**07 54 00.9**	**+5.9**
	208nm,0.3s,baz=178,slow=3.4,SNR=7.3						
URZ				LR	LR	07 54 20.8	
	comp=Z,6µm,19.9s,baz=344,slow=49						
URZ	**Urewera**	**1.51**	**182**	P	**Pn**	**07 53 31.9**	**-1.9**
URZ	**Urewera**	**1.51**	**182**	P	**Pn**	**07 53 32.3**	**-1.5**
URZ				AML	AML		
URZ				AML	AML		
NGRZ	**Ngongotaha**	**1.56**	**210**	P	**Pn**	**07 53 34.0**	**-0.6**
NGRZ				AML	AML		
NGRZ				AML	AML		
TWGZ	**Tauwhareparae**	**1.57**	**156**	P	**Pb**	**07 53 34.4**	**-1.3**
TWGZ				AML	AML		
TWGZ				AML	AML		
PUZ	**Puketiti**	**1.58**	**147**	P	**Pg**	**07 53 35.0**	**-1.7**
PUZ				AML	AML		
PUZ				AML	AML		
TARZ	**Mount Tarawera**	**1.58**	**199**	P	**Pb**	**07 53 34.2**	**-1.7**
TARZ				AML	AML		
TARZ				AML	AML		
MWZ	**Matawai**	**1.61**	**170**	P	**Pn**	**07 53 33.6**	**-1.6**
MWZ				AML	AML		
MWZ				AML	AML		
UTU	**Utuhina**	**1.63**	**208**	P	**Pg**	**07 53 40.0**	**+2.4**
WIAZ	**Waiheke Island**	**1.64**	**268**	P	**Pn**	**07 53 33.1**	**-2.5**
WIAZ				S	**Sn**	**07 53 55.4**	**-1.4**
WIAZ				AML	AML		
WIAZ				AML	AML		
HLRZ	**Highlands Stat**	**1.64**	**203**	P	**Pg**	**07 53 39.1**	**+1.3**
MKAZ	**Moumakai**	**1.65**	**257**	P	**Pn**	**07 53 33.4**	**-2.3**
MKAZ				S	**Sn**	**07 53 56.3**	**-0.8**
MKAZ				AML	AML		
MKAZ				AML	AML		
TOZ	**Tahuroa Road**	**1.66**	**233**	Pn	**Pn**	**07 53 34.1**	**-1.6**
TOZ	**Tahuroa Road**	**1.66**	**233**	P	**Pn**	**07 53 33.9**	**-1.9**
TOZ				AML	AML		
TOZ				AML	AML		
RRRZ	**Republican Roa**	**1.67**	**198**	P	**Pg**	**07 53 39.0**	**+0.5**
HSRZ	**Hossack Road**	**1.73**	**205**	P	**Pn**	**07 53 36.3**	**-0.5**
MUGZ	**Murupara**	**1.76**	**190**	P	**Pn**	**07 53 35.8**	**-1.4**
RAGZ	**Rawiri**	**1.76**	**174**	P	**Pn**	**07 53 36.4**	**-0.9**
RAGZ				AML	AML		
RAGZ				AML	AML		
TKGZ	**Te Karaka**	**1.77**	**163**	P	**Pb**	**07 53 37.6**	**-1.5**
TKGZ				AML	AML		
TKGZ				AML	AML		
HRRZ	**Handcock Road**	**1.79**	**203**	P	**Pn**	**07 53 37.0**	**-0.6**
GRRZ	**Galatos Road**	**1.81**	**208**	P	**Pn**	**07 53 37.2**	**-0.7**
ETAZ	**East Tamaki Re**	**1.81**	**263**	P	**Pn**	**07 53 35.9**	**-2.0**
ETAZ				S	**Sn**	**07 54 01.2**	**+0.1**
MBAZ	**Motutapu North**	**1.83**	**269**	P	**Pn**	**07 53 35.9**	**-2.2**
MBAZ				S	**Sn**	**07 54 01.3**	**-0.1**
PRRZ	**Plateau Road**	**1.86**	**199**	P	**Pn**	**07 53 37.5**	**-1.0**
KBAZ	**Karaka Road Bo**	**1.86**	**259**	P	**Pn**	**07 53 37.9**	**-0.7**
RTZ	**Ruatahuna**	**1.87**	**185**		**Pn**	**07 53 37.4**	**-1.4**
RTZ	**Ruatahuna**	**1.87**	**185**	P	**Pn**	**07 53 37.8**	**-1.1**
ABAZ	**Army Bay**	**1.89**	**274**	P	**Pn**	**07 53 36.9**	**-2.0**
ABAZ				S	**Sn**	**07 54 03.4**	**+0.5**
ABAZ				AML	AML		
ABAZ				AML	AML		
CNGZ	**Carnagh Statio**	**1.92**	**155**	P	**Pb**	**07 53 40.6**	**-1.1**
CNGZ				AML	AML		
CNGZ				AML	AML		
ALRZ	**Allen Road**	**1.93**	**200**	P	**Pg**	**07 53 43.7**	**+0.4**
WPRZ	**Whakapapatarin**	**1.94**	**204**	P	**Pg**	**07 53 44.3**	**+0.6**
EPAZ	**Eden Park BICE**	**1.95**	**265**	P	**Pn**	**07 53 38.5**	**-1.3**
HBAZ	**Herne Bay Bore**	**1.96**	**266**	P	**Pn**	**07 53 38.7**	**-1.3**
RIGZ	**Rimuhau**	**2.01**	**167**	P	**Pb**	**07 53 41.2**	**-2.0**
KUTZ	**Kaahu Road**	**2.04**	**211**	P	**Pn**	**07 53 40.4**	**-0.8**
TLZ	**Tolley Road**	**2.05**	**219**	P	**Pn**	**07 53 40.1**	**-1.1**
TLZ				AML	AML		
TLZ				AML	AML		
AWAZ	**Awhitu Peninsu**	**2.05**	**260**	P	**Pn**	**07 53 39.6**	**-1.7**
RVAZ	**Riverhead Bore**	**2.08**	**269**	P	**Pn**	**07 53 39.9**	**-1.7**
WTAZ	**Waiatarua**	**2.09**	**264**	P	**Pn**	**07 53 40.2**	**-1.6**
MTHZ	**Maungataniwha**	**2.12**	**187**	P	**Pn**	**07 53 41.6**	**-0.5**
RAHZ	**Arahi**	**2.17**	**182**	P	**Pn**	**07 53 42.4**	**-0.5**
PRGZ	**Paritu Road**	**2.24**	**166**	P	**Pb**	**07 53 45.0**	**-2.3**
WATZ	**Wairara**	**2.27**	**210**	P	**Pg**	**07 53 48.1**	**-1.7**
KNZ	**Kokohu**	**2.31**	**170**	P	**Pb**	**07 53 45.2**	**-3.0**
WHHZ	**Waihua**	**2.33**	**179**	P	**Pb**	**07 53 46.2**	**-2.4**
NMHZ	**Naumai**	**2.37**	**187**	P	**Pn**	**07 53 45.7**	**+0.1**
RATZ	**Rangitukua**	**2.39**	**207**	P	**Pb**	**07 53 49.6**	**-0.2**
WCZ	**Waipu Caves**	**2.42**	**289**	P	**Pn**	**07 53 44.1**	**-2.2**
WCZ				AML	AML		
WCZ				AML	AML		
RITZ	**Rihia Road**	**2.46**	**205**	P	**Pg**	**07 53 52.4**	**-1.1**
MHGZ	**Mahia Peninsul**	**2.47**	**167**	P	**Pn**	**07 53 47.3**	**+0.3**
BKZ	**Black Stump Fm**	**2.48**	**192**	P	**Pn**	**07 53 46.2**	**-0.9**
BKZ	**Black Stump Fm**	**2.48**	**192**	P	**Pn**	**07 53 46.2**	**-0.9**
ARHZ	**Aropaoanui**	**2.52**	**183**	P	**Pb**	**07 53 49.0**	**-2.8**
HIZ	**Hauiti**	**2.55**	**226**	P	**Pn**	**07 53 47.0**	**-1.1**
HIZ	**Hauiti**	**2.55**	**226**		**Pn**	**07 53 46.7**	**-1.3**
HIZ	**Hauiti**	**2.55**	**226**	P	**Pn**	**07 53 47.2**	**-0.8**
HIZ				AML	AML		
HIZ				AML	AML		
NTVZ	**North Tongarir**	**2.63**	**206**	P	**Pb**	**07 53 50.5**	**-3.3**
TMVZ	**Te Maari**	**2.63**	**206**	P	**Pb**	**07 53 51.9**	**-2.0**
KRVZ	**Karewarewa**	**2.64**	**207**	P	**Pb**	**07 53 52.7**	**-1.3**
ETVZ	**East Tongariro**	**2.65**	**205**	P	**Pn**	**07 53 50.0**	**+0.5**
WTVZ	**West Tongariro**	**2.68**	**207**	P	**Pn**	**07 53 50.3**	**+0.3**
OTVZ	**Oturere**	**2.69**	**206**	P	**Pb**	**07 53 52.5**	**-2.5**
TWVZ	**Taurewa**	**2.70**	**210**	P	**Pn**	**07 53 50.0**	**-0.2**
MCHZ	**McNeill Hill**	**2.72**	**188**	P	**Pb**	**07 53 51.8**	**-3.5**
SNVZ	**South Ngauruho**	**2.72**	**206**	P	**Pn**	**07 53 51.6**	**+1.0**
NGZ	**Ngauruhoe**	**2.73**	**207**	P	**Pb**	**07 53 52.2**	**-3.3**
KWHZ	**Kaweka Forest**	**2.74**	**192**	P	**Pb**	**07 53 52.5**	**-3.2**
COVZ	**Chateau Observ**	**2.77**	**207**	P	**Pb**	**07 53 54.4**	**-1.8**
TUVZ	**Tukino**	**2.79**	**205**	P	**Pb**	**07 53 54.4**	**-2.1**
FWVZ	**Far West T-bar**	**2.81**	**207**	P	**Pb**	**07 53 55.0**	**-2.0**
MAVZ	**Matarangi**	**2.82**	**206**	P	**Pb**	**07 53 55.6**	**-1.6**
WHVZ	**Whangaehu Hut**	**2.82**	**206**	P	**Pb**	**07 53 54.8**	**-2.5**
TRVZ	**Turoa**	**2.85**	**206**	P	**Pb**	**07 53 54.8**	**-2.9**
WNVZ	**Wahianoa**	**2.86**	**205**	P	**Pn**	**07 53 53.2**	**+0.6**
BHHZ	**Black Hill Sta**	**2.88**	**197**	P	**Pn**	**07 53 52.9**	**+0.2**
MOVZ	**Moawhango**	**2.88**	**202**	P	**Pn**	**07 53 54.2**	**+1.5**
CKHZ	**Cape Kidnapper**	**2.91**	**181**	P	**Pb**	**07 53 54.6**	**-3.9**
PKVZ	**Pokaka**	**2.92**	**209**	P	**Pn**	**07 53 53.5**	**+0.3**
MTVZ	**Mangateitei**	**2.96**	**207**	P	**Pb**	**07 53 57.9**	**-1.5**
KRHZ	**Kereru**	**2.96**	**192**	P	**Pn**	**07 53 54.8**	**+1.1**
VRZ	**Vera Road**	**3.05**	**218**	P	**Pn**	**07 53 55.2**	**+0.3**
KAHZ	**Kahuranaki**	**3.05**	**184**	P	**Pn**	**07 53 55.6**	**+0.5**
PNHZ	**Pukenui**	**3.25**	**193**	P	**Pn**	**07 53 58.2**	**+0.4**
OUZ	**Omahuta**	**3.28**	**297**	P	**Pn**	**07 53 55.9**	**-2.1**
OUZ	**Omahuta**	**3.28**	**297**	P	**Pn**	**07 53 56.1**	**-1.9**
OUZ				AML	AML		
OUZ				AML	AML		
PXZ	**Pawanui**	**3.29**	**184**	P	**Pn**	**07 53 58.0**	**-0.2**
PXZ				AML	AML		
PXZ				AML	AML		
WPHZ	**Waipukurau**	**3.36**	**190**	P	**Pn**	**07 53 58.9**	**-0.3**
DREZ	**Durham Road**	**3.39**	**223**	P	**Pn**	**07 54 00.1**	**+0.6**
TSZ	**Takapari Road**	**3.44**	**196**	P	**Pn**	**07 54 00.2**	**-0.2**
WAZ	**Wanganui**	**3.46**	**209**	P	**Pb**	**07 54 03.7**	**-4.3**
PKE	**Pukeiti**	**3.51**	**225**	P	**Pn**	**07 54 02.5**	**+1.2**
PREZ	**Palmer Road**	**3.52**	**222**	P	**Pn**	**07 54 03.1**	**+1.7**
PRHZ	**Porangahau**	**3.54**	**187**	P	**Pn**	**07 54 01.8**	**+0.1**
KHEZ	**Kahui Hut**	**3.56**	**223**	P	**Pn**	**07 54 01.9**	**-0.2**
KHEZ	**Kahui Hut**	**3.56**	**223**	P	**Pn**	**07 54 02.7**	**+0.6**
NBEZ	**Newall Road No**	**3.63**	**225**	P	**Pn**	**07 54 03.3**	**+0.4**
DVHZ	**Dannevirke**	**3.63**	**192**	P	**Pn**	**07 54 02.1**	**-0.9**
ANWZ	**Angora Road**	**3.75**	**188**	P	**Pn**	**07 54 05.1**	**+0.6**
OHWZ	**Ohakea**	**3.75**	**202**	P	**Pb**	**07 54 09.6**	**-3.3**
POWZ	**Post Office Ro**	**3.80**	**196**	P	**Pn**	**07 54 06.6**	**+1.3**
PRWZ	**Pori Road**	**3.92**	**194**	P	**Pn**	**07 54 07.8**	**+0.9**
BFZ	**Birch Farm**	**4.00**	**190**	P	**Pn**	**07 54 06.6**	**-1.4**
BFZ	**Birch Farm**	**4.00**	**190**		**Pn**	**07 54 06.8**	**-1.2**
BFZ	**Birch Farm**	**4.00**	**190**	P	**Pn**	**07 54 06.5**	**-1.4**
MRZ	**Mangatainoka R**	**4.10**	**197**		**Pn**	**07 54 07.7**	**-1.7**
MRZ	**Mangatainoka R**	**4.10**	**197**	P	**Pn**	**07 54 08.6**	**-0.8**
CPWZ	**Castlepoint**	**4.23**	**190**	P	**Pn**	**07 54 11.5**	**+0.5**
HOWZ	**Holdsworth Sta**	**4.34**	**197**	P	**Pn**	**07 54 11.5**	**-1.3**
OGWZ	**Otaki Gorge**	**4.36**	**200**	P	**Pn**	**07 54 12.4**	**-0.5**
TMWZ	**Te Maipa**	**4.47**	**193**	P	**Pn**	**07 54 12.7**	**-1.7**
KIW	**Kapiti Island**	**4.47**	**203**	P	**Pn**	**07 54 14.4**	**-0.1**
MTW	**Mount Morrison**	**4.59**	**196**	P	**Pn**	**07 54 15.1**	**-1.1**
CAW	**Cannon Point**	**4.65**	**200**	P	**Pn**	**07 54 16.2**	**-0.8**
DUWZ	**D'Urville Isla**	**4.78**	**211**	P	**Pn**	**07 54 19.5**	**+0.8**
TRWZ	**Traveller**	**4.79**	**194**	P	**Pn**	**07 54 17.4**	**-1.4**
PAWZ	**Paruwai Farm**	**4.82**	**196**	P	**Pn**	**07 54 17.8**	**-1.5**
MSWZ	**Moikau Station**	**4.90**	**197**		**Pn**	**07 54 18.3**	**-2.0**
MSWZ	**Moikau Station**	**4.90**	**197**	P	**Pn**	**07 54 18.7**	**-1.7**
SNZO	**South Karori**	**4.95**	**202**	P	**Pn**	**07 54 20.1**	**-0.9**
SNZO	**South Karori**	**4.95**	**202**		**Pn**	**07 54 19.3**	**-1.6**
BHW	**Baring Head**	**4.99**	**200**		**Pn**	**07 54 20.0**	**-1.5**
BHW	**Baring Head**	**4.99**	**200**	P	**Pn**	**07 54 20.3**	**-1.3**
TCW	**Tory Channel**	**5.00**	**206**		**Pn**	**07 54 20.7**	**-1.0**
TCW	**Tory Channel**	**5.00**	**206**	P	**Pn**	**07 54 21.4**	**-0.3**
PLWZ	**Palliser**	**5.04**	**197**		**Pn**	**07 54 19.8**	**-2.6**
PLWZ	**Palliser**	**5.04**	**197**	P	**Pn**	**07 54 20.4**	**-2.0**
TUWZ	**Tuamarina**	**5.31**	**207**		**Pn**	**07 54 24.8**	**-1.2**
TUWZ	**Tuamarina**	**5.31**	**207**	P	**Pn**	**07 54 25.4**	**-0.6**
NNZ	**Nelson**	**5.35**	**212**		**Pn**	**07 54 26.2**	**-0.4**
NNZ	**Nelson**	**5.35**	**212**	P	**Pn**	**07 54 27.7**	**+1.1**
TKNZ	**Takaka Hill**	**5.40**	**216**		**Pn**	**07 54 26.2**	**-1.0**
TKNZ	**Takaka Hill**	**5.40**	**216**	P	Pn	07 54 31.4	+4.2
QRZ	**Quartz Range**	**5.45**	**220**	P	**Pn**	**07 54 28.3**	**+0.3**
QRZ	**Quartz Range**	**5.45**	**220**		**Pn**	**07 54 27.1**	**-0.9**
QRZ	**Quartz Range**	**5.45**	**220**	P	**Pn**	**07 54 28.0**	**0.0**
BSWZ	**Blackbirch Sta**	**5.58**	**206**		**Pn**	**07 54 28.6**	**-1.1**
BSWZ	**Blackbirch Sta**	**5.58**	**206**	P	**Pn**	**07 54 32.1**	**+2.4**
MRNZ	**Matariki Terra**	**5.78**	**215**		**Pn**	**07 54 32.3**	**-0.1**
MRNZ	**Matariki Terra**	**5.78**	**215**	P	**Pn**	**07 54 32.7**	**+0.3**
THZ	**Tophouse**	**6.00**	**212**		**Pn**	**07 54 34.0**	**-1.6**
THZ	**Tophouse**	**6.00**	**212**	P	**Pn**	**07 54 35.3**	**-0.3**
KHZ	**Kahutara**	**6.32**	**205**	P	**Pn**	**07 54 38.4**	**-1.4**
KHZ	**Kahutara**	**6.32**	**205**		**Pn**	**07 54 37.2**	**-2.6**
KHZ	**Kahutara**	**6.32**	**205**	P	**Pn**	**07 54 37.9**	**-1.9**
DSZ	**Denniston Nort**	**6.50**	**218**		**Pn**	**07 54 41.6**	**-0.8**
DSZ	**Denniston Nort**	**6.50**	**218**	P	**Pn**	**07 54 44.3**	**+1.9**
GVZ	**Greta Valley S**	**6.98**	**206**		**Pn**	**07 54 45.5**	**-3.5**
LTZ	**Lake Taylor**	**7.11**	**211**		**Pn**	**07 54 49.4**	**-1.4**
LTZ	**Lake Taylor**	**7.11**	**211**	P	**Pn**	**07 54 51.0**	**+0.2**
INZ	**Inchbonnie**	**7.42**	**215**		**Pn**	**07 54 54.8**	**-0.2**
INZ	**Inchbonnie**	**7.42**	**215**	P	**Pn**	**07 54 55.9**	**+0.9**
OXZ	**Oxford**	**7.66**	**209**		**Pn**	**07 54 56.9**	**-1.4**
OXZ	**Oxford**	**7.66**	**209**	P	**Pn**	**07 55 00.1**	**+1.8**
AKCZ	**Akaroa Harbour**	**7.83**	**203**	P	**Pn**	**07 54 58.1**	**-2.5**
WVZ	**Waitaha Valley**	**8.02**	**216**	P	**Pn**	**07 55 04.0**	**+0.8**
WACZ	**Wakanui South**	**8.26**	**208**	P	**Pn**	**07 55 07.6**	**+1.2**
RPZ	**Rata Peaks**	**8.38**	**212**	LR	LR	07 59 03.9	
	comp=Z,122nm,19.3s,baz=330,slow=44						
RPZ	**Rata Peaks**	**8.38**	**212**	P	**Pn**	**07 55 08.8**	**+0.6**
RPZ	**Rata Peaks**	**8.38**	**212**		**Pn**	**07 55 06.4**	**-1.8**
RPZ	**Rata Peaks**	**8.38**	**212**	P	**Pn**	**07 55 09.7**	**+1.5**
CTZ	**Chatham Island**	**8.44**	**148**	P	**Pn**	**07 55 08.6**	**-0.3**
CTZ	**Chatham Island**	**8.44**	**148**		**Pn**	**07 55 08.2**	**-0.8**
CTZ	**Chatham Island**	**8.44**	**148**	P	**Pn**	**07 55 08.7**	**-0.2**
ARCZ	**Arundel**	**8.52**	**211**	P	**Pn**	**07 55 10.8**	**+0.7**
FOZ	**Fox Glacier**	**8.81**	**217**	P	**Pn**	**07 55 17.6**	**+3.6**
TMZ	**Timaru**	**8.95**	**210**	P	**Pn**	**07 55 14.2**	**-1.8**
LBZ	**Lake Benmore**	**9.30**	**213**	P	**Pn**	**07 55 22.8**	**+2.1**
ODZ	**Otahua Downs**	**9.65**	**209**	P	**Pn**	**07 55 24.2**	**-1.3**
ODZ	**Otahua Downs**	**9.65**	**209**		**Pn**	**07 55 24.4**	**-1.1**
ODZ	**Otahua Downs**	**9.65**	**209**	P	**Pn**	**07 55 25.1**	**-0.4**
JCZ	**Jackson Bay**	**9.71**	**219**	P	**Pn**	**07 55 26.1**	**-0.4**
JCZ	**Jackson Bay**	**9.71**	**219**	P	**Pn**	**07 55 26.1**	**-0.4**
HHSZ	**Highcliff Hill**	**10.38**	**206**	P	**Pn**	**07 55 37.4**	**+1.9**
ONTNC	**Ouen Toro**	**17.13**	**324**		**Pn**	**07 57 07.6**	**+1.4**
ONTNC				IAmb	IAmb	07 57 11.0	
	comp=Z,96nm,1.2s						
DZM	**Mont Dzumac**	**17.34**	**325**	P	**Pn**	**07 57 07.4**	**-1.5**
	comp=Z,5.9nm,0.8s,baz=127,slow=14,SNR=3.3						
MSVF	**Nonsavu**	**18.96**	**3**	P	**P**	**07 57 29.0**	**+0.8**
	comp=Z,1.2nm,0.3s,baz=162,slow=13,SNR=10						
MSVF				LR	LR	08 03 03.7	
	comp=Z,554nm,18.5s,baz=179,slow=32						
	comp=Z,34nm,0.8s						
MSVF				AML	AML		
MSVF	**Nonsavu**	**18.96**	**3**	P	**Pn**	**07 57 30.2**	**+1.4**
MSVF				IAmb	IAmb	07 57 43.0	
	comp=Z,46nm,0.9s						
CNB	**Canberra Magne**	**22.51**	**265**	P	**P**	**07 58 08.2**	**+1.6**
	comp=Z,0.9nm,1.2s						
AFI	**Afiamalu**	**24.80**	**26**	P	**P**	**07 58 31.5**	**+2.5**
	comp=Z,23nm,0.9s,baz=71,slow=20,SNR=4.6						
	comp=Z,23nm,0.9s						
EIDS	**Eidsvold**	**24.98**	**290**	P	**P**	**07 58 31.2**	**+0.6**
EIDS				IAmb	IAmb	07 58 32.0	
	comp=Z,17nm,1.1s						
TOO	**Toolangi**	**25.21**	**258**	P	**P**	**07 58 31.3**	**-1.3**
	comp=Z,9.5nm,1.6s						
TOO	**Toolangi**	**25.21**	**258**	P	**P**	**07 58 33.3**	**+0.7**
RAR	**Rarotonga**	**25.33**	**59**	LR	LR	08 08 13.4	
	comp=Z,73nm,18.4s,baz=275,slow=35						
CMSA	**Cobar Meteorol**	**26.50**	**272**	P	**P**	**07 58 45.5**	**+1.2**
	comp=Z,16nm,1.8s						
STKA	**Stephens Creek**	**29.68**	**269**	P	**P**	**07 59 14.2**	**+1.5**
	comp=Z,63nm,0.9s						
STKA	**Stephens Creek**	**29.68**	**269**	P	**P**	**07 59 12.8**	**0.0**
	comp=Z,7.1nm,0.9s,baz=103,slow=9.6,SNR=7.1						
STKA				LR	LR	08 10 43.2	
	comp=Z,247nm,18.5s,baz=92,slow=36						
	comp=Z,7.1nm,0.9s						
HTT	**Hallett**	**31.34**	**265**	P	**P**	**07 59 28.4**	**+1.0**
	comp=Z,5.6nm,0.9s						
HNR	**Honiara**	**31.36**	**326**	LR	LR	08 10 18.6	
	comp=Z,167nm,19.0s,baz=243,slow=33						
CTA	**Charters Tower**	**31.67**	**293**	P	**P**	**07 59 28.7**	**-1.8**
	comp=Z,6.7nm,0.8s,baz=110,slow=12,SNR=4.5						
CTA				LR	LR	08 11 43.2	
	comp=Z,414nm,18.5s,baz=110,slow=36						
	comp=Z,6.7nm,0.8s						
BBOO	**Buckleboo**	**33.81**	**264**	P	**P**	**07 59 49.5**	**+0.5**
BBOO				IAmb	IAmb	07 59 49.8	
	comp=Z,12nm,1.0s						
PPT	**Papeete**	**34.97**	**66**	P	**P**	**08 00 03.5**	**+4.3**
	comp=Z,7.7nm,0.6s,baz=86,slow=8.0,SNR=3.6						
PPT				LR	LR	08 10 46.3	
	comp=Z,98nm,19.7s,baz=228,slow=30						
	comp=Z,7.7nm,0.6s						
QIS	**Mount Isa**	**36.43**	**286**	P	**P**	**08 00 12.1**	**+0.4**
	comp=Z,13nm,1.1s						
PMG	**Port Moresby**	**38.47**	**307**	LR	LR	08 15 53.8	
	comp=Z,277nm,18.8s,baz=162,slow=36						
AS17	**Alice Springs**	**39.22**	**277**	P	**P**	**08 00 34.6**	**-0.7**
	comp=Z,13nm,0.8s						
AS09	**Alice Springs**	**39.24**	**277**	P	**P**	**08 00 35.7**	**+0.2**
	comp=Z,11nm,0.9s						
AS31	**Alice Springs**	**39.28**	**277**	P	**P**	**08 00 35.7**	**-0.2**
	comp=Z,4.0nm,0.9s						
AS31	**Alice Springs**	**39.28**	**277**	P	**P**	**08 00 35.9**	**0.0**
ASAR	**Alice Springs**	**39.28**	**277**	P	**P**	**08 00 35.5**	**-0.3**
	comp=Z,11nm,0.9s,baz=121,slow=8.0,SNR=87						
ASAR				LR	LR	08 16 11.0	
	comp=Z,165nm,18.2s,baz=120,slow=36						
	comp=Z,11nm,0.9s						
ASAR	**Alice Springs**	**39.28**	**277**	P	**P**	**08 00 34.8**	**-1.1**
AS15	**Alice Springs**	**39.29**	**277**	P	**P**	**08 00 35.8**	**-0.2**
	comp=Z,14nm,0.8s						
WRAB	**Tennant Creek**	**40.88**	**282**	P	**P**	**08 00 48.4**	**-0.7**
WRAB				IAmb	IAmb	08 00 49.4	
	comp=Z,11nm,0.8s						
WRA	**Warramunga Arr**	**40.88**	**282**	P	**P**	**08 00 48.3**	**-0.8**
	comp=Z,9.0nm,0.8s,baz=122,slow=7.6,SNR=55						
	comp=Z,9.0nm,0.8s						
WRA	**Warramunga Arr**	**40.88**	**282**	P	**P**	**08 00 47.8**	**-1.4**
FORT	**Forrest**	**40.90**	**264**	P	**P**	**08 00 49.4**	**+0.2**
	comp=Z,31nm,0.9s						
FORT	**Forrest**	**40.90**	**264**	P	**P**	**08 00 49.2**	**0.0**
FORT				IAmb	IAmb	08 00 50.2	
	comp=Z,21nm,0.8s						
VNDA	**Vanda**	**41.41**	**185**	P	**P**	**08 00 54.0**	**+1.2**
	comp=Z,2.7nm,0.8s,baz=359,slow=6.5,SNR=9.9						
SBA	**Scott Base**	**41.45**	**183**	P	**P**	**08 00 53.3**	**+0.2**
SBA				IAmb	IAmb	08 01 04.1	
	comp=Z,29nm,1.4s						
WRKA	**Warakurna**	**43.12**	**271**	P	**P**	**08 01 06.5**	**-0.9**
KMBL	**Kambalda**	**45.59**	**260**	P	**P**	**08 01 26.7**	**-0.5**
	comp=Z,7.6nm,1.1s						
MTN	**Manton Dam**	**47.52**	**288**	P	**P**	**08 01 41.4**	**-0.9**
MTN				IAmb	IAmb	08 01 52.5	
	comp=Z,14nm,1.4s						
CASY	**Casey**	**47.65**	**210**	P	**P**	**08 01 41.4**	**-1.3**
KNRA	**Kununurra**	**47.66**	**283**	P	**P**	**08 01 43.0**	**-0.4**
	comp=Z,5.2nm,1.0s						
NWAO	**Narrogin (SRO)**	**48.65**	**256**	P	**P**	**08 01 50.6**	**-0.4**
KLBR	**Kellerberrin**	**48.76**	**258**	P	**P**	**08 01 51.8**	**0.0**
	comp=Z,57nm,1.1s						
FITZ	**Fitzroy Crossi**	**48.76**	**278**	P	**P**	**08 01 51.5**	**-0.5**
	comp=Z,12nm,0.9s,baz=160,slow=7.7,SNR=14						
FITZ				LR	LR	08 21 56.5	
	comp=Z,258nm,18.5s,baz=134,slow=36						
	comp=Z,12nm,0.9s						
MUN	**Mundaring**	**49.82**	**257**	P	**P**	**08 02 00.1**	**+0.2**
	comp=Z,30nm,1.1s						
BLDU	**Ballidu**	**49.97**	**258**	P	**P**	**08 02 00.5**	**-0.5**
	comp=Z,33nm,1.4s						
MEEK	**Meekatharra**	**50.16**	**264**	P	**P**	**08 02 01.6**	**-1.1**
	comp=Z,42nm,2.1s						
MORW	**Morawa**	**51.14**	**260**	P	**P**	**08 02 09.6**	**-0.3**
	comp=Z,19nm,0.7s						
MORW	**Morawa**	**51.14**	**260**		**P**	**08 02 09.3**	**-0.7**
MORW				IAmb	IAmb	08 02 17.5	
	comp=Z,24nm,1.1s						
BAKI	**Biak**	**51.85**	**303**	P	**P**	**08 02 14.6**	**-0.7**
	comp=Z,27nm,0.8s						
MBWA	**Marble Bar**	**51.89**	**271**	P	**P**	**08 02 13.8**	**-1.8**
	comp=Z,27nm,1.0s						
MBWA	**Marble Bar**	**51.89**	**271**		**P**	**08 02 14.2**	**-1.5**
MBWA				IAmb	IAmb	08 02 15.7	
	comp=Z,25nm,1.1s						
QSPA	**South Pole Qui**	**53.38**	**180**	P	**P**	**08 02 28.0**	**+1.8**
	comp=Z,8.5nm,0.7s,baz=21,slow=1.1,SNR=26						
QSPA				LR	LR	08 24 10.0	
	comp=Z,149nm,18.2s,baz=24,slow=35						
	comp=Z,8.5nm,0.7s						
GIRL	**Giralia**	**55.56**	**266**	P	**P**	**08 02 42.1**	**-0.4**
EDFI	**Ende, Flores**	**57.32**	**285**	P	**P**	**08 02 55.6**	**+0.3**
	comp=Z,16nm,1.0s						
BELA	**Belgrano 2**	**64.03**	**173**	P	**P**	**08 03 39.4**	**-0.6**
MAW	**Mawson**	**64.94**	**203**	P	**P**	**08 03 45.7**	**-0.3**
	comp=Z,2.8nm,1.1s						
MAW	**Mawson**	**64.94**	**203**	P	**P**	**08 03 45.4**	**-0.7**
	comp=Z,3.3nm,1.0s,baz=106,slow=9.5,SNR=5.3						
	comp=Z,3.3nm,1.0s						
MAW	**Mawson**	**64.94**	**203**	P	**P**	**08 03 45.4**	**-0.7**
SMAI	**San Martin Ant**	**65.06**	**158**	P	**P**	**08 03 46.2**	**-0.5**
MYLDM	**Lahad Datu**	**68.75**	**294**	P	**P**	**08 04 10.9**	**-0.2**
MYLDM				IAmb	IAmb	08 04 29.8	
	comp=Z,8.7nm,0.9s						
ESPZ	**Base Esperanza**	**71.32**	**157**	P	**P**	**08 04 25.8**	**-0.3**
TROLL	**Troll, Antarti**	**71.48**	**182**	⇓P	**P**	**08 04 26.3**	**-0.9**
	comp=Z,446nm,1.0s						
SBUM	**Sibu**	**71.67**	**288**	P	**P**	**08 04 29.1**	**0.0**
SBUM				IAmb	IAmb	08 04 30.1	
	comp=Z,11nm,1.1s						
SNAA	**Sanae**	**71.88**	**180**	P	**P**	**08 04 28.5**	**-1.0**
	comp=Z,4.3nm,0.9s,baz=193,slow=10,SNR=5.4						
SNAA	**Sanae**	**71.88**	**180**		**P**	**08 04 28.8**	**-0.8**
SNAA				IAmb	IAmb	08 04 36.7	
	comp=Z,14nm,1.2s						
VNA3	**Neumayer Olymp**	**72.20**	**178**	⇓P	**P**	**08 04 30.3**	**-1.1**
	comp=Z,17nm,0.7s						
VNA2	**Neumayer--Watz**	**72.58**	**178**	⇓P	**P**	**08 04 33.0**	**-0.7**
	comp=Z,17nm,0.7s,baz=167,slow=5.1						
VNA1	**Neumayer--Stat**	**72.84**	**178**	P	**P**	**08 04 34.4**	**-0.7**
	comp=Z,10nm,0.6s						
MDSI	**Maura Dua**	**73.71**	**277**	P	**P**	**08 04 40.5**	**-0.7**
	comp=Z,39nm,1.1s						
MASI	**Maura Aman, Be**	**76.06**	**277**	P	**P**	**08 04 54.1**	**-0.8**
PLCA	**Paso Flores**	**81.03**	**135**	P	**P**	**08 05 25.6**	**+3.6**
	comp=Z,4.4nm,0.8s,baz=211,slow=3.6,SNR=7.7						
	comp=Z,4.4nm,0.8s						
MJAR	**Matsushiro Arr**	**81.38**	**329**	P	**P**	**08 05 22.7**	**-0.8**
	comp=Z,5.4nm,1.0s,baz=170,slow=5.8,SNR=8.2						
	comp=Z,5.4nm,1.0s						
PSI	**Prapat**	**82.27**	**279**	P	**P**	**08 05 27.8**	**-1.1**
	comp=Z,23nm,1.1s						
GSI	**Gunungsitoli**	**82.44**	**277**	P	**P**	**08 05 30.6**	**+0.9**
KSRS	**Korea Array**	**86.76**	**323**	P	**P**	**08 05 52.1**	**+1.2**
	comp=Z,9.6nm,0.9s,baz=138,slow=5.4,SNR=15						
	comp=Z,9.6nm,0.9s						
NJ2	**Nanjing**	**87.50**	**314**	*e*P	**P**	**08 05 55.4**	**+0.8**
NJ2				pmax	pmax		
	comp=Z,14nm,0.6s						
USRK	**Ussuriysk Ar.**	**90.38**	**329**	P	**P**	**08 06 08.5**	**+0.6**
	comp=Z,4.9nm,0.9s,baz=132,slow=2.1,SNR=3.1						
	comp=Z,4.9nm,0.9s						
PETK	**Petropavlovsk-**	**91.07**	**348**	P	**P**	**08 06 11.1**	**+0.2**
	comp=Z,2.1nm,0.8s,baz=161,slow=5.5,SNR=4.4						
	comp=Z,2.1nm,0.8s						
CMAR	**Chiang Mai Arr**	**91.83**	**292**	P	**P**	**08 06 15.8**	**+0.5**
	comp=Z,7.9nm,0.9s,baz=149,slow=3.4,SNR=37						
	comp=Z,7.9nm,0.9s						
CHTO	**Chiang Mai**	**92.05**	**292**	P	**P**	**08 06 16.9**	**+0.6**
PZH	**PanZhiHua**	**94.78**	**300**	P	**P**	**08 06 30.2**	**+1.3**
XLT	**XiLinHaoTe**	**97.52**	**320**	*e*P	Pdif	08 06 46.4	+5.5
XLT				pmax	pmax		
	comp=Z,12nm,0.8s						
XLT				pmax	pmax		
	comp=Z,110nm,4.5s						
HHC	**Hu-ho-hao-te**	**97.85**	**316**	*e*P	Pdif	08 06 43.7	+1.2
HHC				pmax	pmax		
	comp=Z,7.0nm,0.6s						
TXAR	**Lajitas Array**	**99.12**	**60**	P	**Pdif**	**08 06 51.0**	**+2.6**
	comp=Z,0.2nm,0.8s,baz=167,slow=5.9,SNR=3.9						
	comp=Z,0.2nm,0.8s						
WMQ	**Urumqi**	**113.94**	**308**	PKP	**PKiKP**	**08 11 47.6**	**+1.9**
WMQ				PP	PP	08 12 48.5	+8.4
WMQ				AMB	AMB		
	comp=Z,91nm,3.9s						
WMQ				LR	LR		
	comp=E,1µm,17.5s						
ARCES	**ARCESS Array B**	**143.74**	**344**	PKP	**PKPdf**	**08 12 42.5**	**+1.5**
	comp=E,1.4nm,0.7s,baz=58,slow=3.0,SNR=5.0						
KBZ	**Khabaz**	**144.77**	**296**	PKhKP	PKPpre	08 12 40.8	
	comp=E,8.2nm,0.8s,baz=122,slow=1.5,SNR=16						
MMAI	**Mount Meron Ar**	**148.56**	**275**	PKPbc	**PKPbc**	**08 12 53.5**	**-0.5**
	comp=E,0.3nm,0.3s,baz=122,slow=1.9,SNR=4.1						
FINES	**FINESS Array B**	**149.35**	**333**	PKP	**PKPbc**	**08 12 53.0**	**-1.9**
	comp=E,3.2nm,0.5s,baz=64,slow=3.0,SNR=18						
FINES				PKPbc	**pPKPbc**	**08 12 58.1**	**+1.2**
	comp=E,2.1nm,0.6s,baz=42,slow=1.7,SNR=4.5						
DBIC	**Dimbokro**	**150.01**	**176**	PKP	**PKPbc**	**08 12 55.4**	**-2.7**
	comp=E,3.1nm,0.7s,baz=216,slow=3.9,SNR=3.5						
DBIC				PKPbc	**pPKPbc**	**08 13 00.7**	**+0.7**
	comp=E,11nm,0.9s,baz=184,slow=4.9,SNR=10						
BRTR	**Keskin Array B**	**151.33**	**287**	PKP	**PKPdf**	**08 12 56.9**	**+2.2**
	comp=E,1.6nm,0.7s,baz=120,slow=4.4,SNR=7.1						
BRTR				PKPab	**PKPab**	**08 13 08.0**	**-0.8**
	comp=E,3.4nm,0.8s,baz=127,slow=3.3,SNR=9.4						
AKASG	**Malin Array Be**	**153.21**	**312**	PKhKP	PKPpre	08 13 00.6	
	comp=E,0.2nm,0.3s,baz=71,slow=1.2,SNR=4.5						
AKASG				PKPab	**PKPab**	**08 13 15.1**	**-1.0**
	comp=E,2.9nm,0.7s,baz=62,slow=3.9,SNR=9.3						
NOA	**NORSAR Array B**	**154.11**	**344**	PKPbc	**PKiKP**	**08 13 07.6**	**+1.5**
	comp=E,0.3nm,0.6s,baz=30,slow=2.1,SNR=1.9						
TORD	**Torodi Ar. Bea**	**156.15**	**191**	PKPab	**PKPab**	**08 13 27.9**	**-1.5**
	comp=E,3.0nm,1.0s,baz=172,slow=3.5,SNR=6.2						
BRG	**Berggiesshubel**	**161.47**	**325**	*e*PKPab	**PKPab**	**08 13 51.5**	**-0.2**
BRG				Amp		08 13 51.6	
	comp=Z,5.6nm,1.1s						
BRG				⇓*e*PKPf		08 53 52.2	
BRG				Amp		08 53 54.1	
	comp=Z,2.7nm,0.8s						

RONA	**Rosalia, Austr**	**162.15**	**314**	*e*PKP	**PKPab**	**08 13 55.4**	**+0.5**
	comp=Z,0.2nm,0.6s						
CONA	**Conrad Observa**	**162.28**	**315**	*e*PKP	**PKPab**	**08 13 55.2**	**-0.4**
	comp=Z,0.1nm,0.3s						
ARSA	**Arzberg**	**162.83**	**313**	*e*PKP	**PKPab**	**08 13 58.3**	**+0.4**
	comp=Z,5.7nm,1.4s						
GERES	**GERESS Array B**	**162.92**	**320**	PKPab	**PKPab**	**08 13 57.1**	**-1.2**
	comp=Z,0.4nm,0.3s,baz=51,slow=3.9,SNR=7.1						
MOA	**Molln**	**163.22**	**317**	*e*PKP	**PKPab**	**08 13 59.9**	**+0.3**
	comp=Z,4.0nm,1.2s						
SOKA	**Soboth**	**163.41**	**312**	*e*PKP	**PKPab**	**08 13 58.3**	**-2.2**
	comp=Z,3.4nm,1.3s						
SESA	**Seetaler Alpe,**	**163.46**	**314**	*e*PKP	**PKPab**	**08 14 01.3**	**+0.4**
	comp=Z,17nm,1.0s						
LESA	**Schwarzleotal**	**164.34**	**318**	*e*PKP	**PKPab**	**08 14 02.9**	**-1.7**
	comp=Z,5.7nm,1.6s						
WTTA	**Wattenberg**	**164.99**	**319**	*e*PKP	**PKPab**	**08 14 07.3**	**-0.3**
	comp=Z,0.2nm,0.3s						

*NNC **12** 07:55:41.8±1.0, 50°.19N×79°.39E, h0^{km}, mpv2.3, Error ellipse: s-maj=11.7km s-min=5.1km az=41.0, Suspected Mining explosion.*
*IDC **12** 07:55:43.7±1.7, 50°.05N×78°.75E, h0^{km}, mbtmp3.0/1, ML2.0/1, Error ellipse: s-maj=13.5km s-min=10.9km az=40.0*
ISC 12 07:55:44.3±1.6**, 50°.03N**±0°.10×**78°.8E**±0°.2**, h0^{km}, n17, σ0^s.96**/25**, 14C-10D, Eastern Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KUR07	**Kurchatov Arra**	**0.59**	**340**	⇓P	**Pg**	**07 55 54.9**	**-0.8**
KUR07				⇑S	**Sg**	**07 56 03.8**	**+0.4**
KUR14	**Kurchatov Arra**	**0.61**	**345**	⇓P	**Pg**	**07 55 55.1**	**-0.8**
KUR14				⇓S	**Sg**	**07 56 03.8**	**0.0**
KUR06	**Kurchatov Arra**	**0.61**	**341**	⇑P	**Pg**	**07 55 55.0**	**-1.0**
KUR06				⇑S	**Sg**	**07 56 04.7**	**+0.7**
KUR15	**Kurchatov Arra**	**0.62**	**343**	⇓P	**Pg**	**07 55 55.3**	**-0.9**
KUR15				⇑S	**Sg**	**07 56 05.5**	**+1.3**
KURBB	**Kurchatov Arra**	**0.63**	**342**	Pg	**Pg**	**07 55 55.1**	**-1.2**
	0.8nm,0.3s,baz=167,slow=19,SNR=29						
KURBB				Lg	Lg	07 56 02.9	
	1.7nm,0.3s,baz=166,slow=32,SNR=10						
KURBB	**Kurchatov Arra**	**0.63**	**342**	⇑P	**Pg**	**07 55 55.2**	**-1.2**
	15nm,0.8s,baz=117,slow=12						
KURBB				⇓S	**Sg**	**07 56 05.1**	**+0.6**
	128nm,0.8s						
KUR16	**Kurchatov Arra**	**0.64**	**340**	⇓P	**Pg**	**07 55 55.5**	**-1.0**
KUR16				⇑S	**Sg**	**07 56 05.6**	**+0.8**
KUR05	**Kurchatov Arra**	**0.65**	**343**	⇑P	**Pg**	**07 55 55.6**	**-1.1**
KUR05				⇑S	**Sg**	**07 56 05.0**	**0.0**
KUR17	**Kurchatov Arra**	**0.65**	**339**	⇓P	**Pg**	**07 55 56.0**	**-0.8**
KUR17				⇑S	**Sg**	**07 56 05.9**	**+0.8**
KUR04	**Kurchatov Arra**	**0.66**	**344**	⇑P	**Pg**	**07 55 56.0**	**-1.0**
KUR04				⇑S	**Sg**	**07 56 05.5**	**-0.1**
KURK	**Kurchatov**	**0.70**	**349**	⇑P	**Pg**	**07 55 56.3**	**-1.5**
	1.5nm,0.5s						
KURK				⇓S	**Sg**	**07 56 06.5**	**-0.4**
	46nm,1.1s						
MAKZ	**Makanchi**	**3.84**	**146**	⇑Pn	**Pg**	**07 56 57.8**	**-0.1**
	5.2nm,0.5s						
MAKZ				⇓Lg	Lg	07 57 45.5	
	14nm,0.9s						
MK31	**Makanchi Array**	**3.97**	**143**	⇑Pn	**Pg**	**07 56 58.5**	**-1.8**
	0.7nm,0.5s,baz=325,slow=14,SNR=7.4						
MK31				⇓Lg	Lg	07 57 49.4	
	9.1nm,0.9s,baz=329,slow=27						
MKAR	**Makanchi Array**	**3.97**	**143**	Pg	**Pb**	**07 56 55.5**	**+0.4**
	0.3nm,0.3s,baz=324,slow=13,SNR=6.7						
MKAR				Lg	Lg	07 57 49.2	
	0.8nm,0.3s,baz=329,slow=27,SNR=10						
ZALV	**Zalesovo Beam**	**5.39**	**41**	Pn	**Pn**	**07 57 06.7**	**+0.8**
	0.2nm,0.3s,baz=225,slow=15,SNR=4.9 0.7nm,0.3s						
ZALV				AML	AML		
I46RU	**ZALESOVO INFRA**	**5.39**	**41**	I	I	08 29 35.0	
	baz=226,slow=328,SNR=13						
BVAR	**Borovoye Array**	**6.07**	**303**	Lg	Lg	07 58 51.1	
	0.1nm,0.3s,baz=112,slow=27,SNR=7.2						

*RSPR **12** 08:03:45.2, 19°.21N×64°.71W, h34^{km}±24^{km}, MD3.7/9*
*NEIC **12** 08:03:45.9±1.0, 19°.13N±0°.06×64°.83W±0°.04, h35^{km}±2^{km}, ML3.3/37, Md3.7/9(RSPR), Error ellipse: s-maj=12.3km s-min=3.1km az=327.0*
ISC 12 08:03:44.7±3.8**, 19°.0N**±0°.1×**64°.83W**±0°.06**, h16**^{km}±27^{km}**, n40, σ0^s.61**/38**, 10C-4D, Virgin Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HUMP	**Col San Antoni**	**1.30**	**228**		**Pn**	**08 04 08.3**	**+0.1**
HUMP				IAML		08 04 28.8	
	536nm,0.2s						
HUMP				IAML		08 04 32.5	
	326nm,0.3s						
HUMP	**Col San Antoni**	**1.30**	**228**	⇑*e*P	**Pn**	**08 04 08.4**	**+0.2**
PDPR	**Patillas Dam,**	**1.51**	**229**		**Pn**	**08 04 11.2**	**+0.2**
PDPR	**Patillas Dam,**	**1.51**	**229**	⇑*e*P	**Pn**	**08 04 11.4**	**+0.4**
SJG	**San Juan**	**1.55**	**235**		**Pn**	**08 04 11.4**	**-0.1**
SJG	**San Juan**	**1.55**	**235**	IAML		08 04 33.7	
	253nm,0.3s						
SJG	**San Juan**	**1.55**	**235**	⇑*e*P	**Pn**	**08 04 11.7**	**+0.1**
IGPR	**InterUniversit**	**1.60**	**229**		**Pn**	**08 04 12.8**	**+0.4**
IGPR	**InterUniversit**	**1.60**	**229**	⇑*e*P	**Pn**	**08 04 12.8**	**+0.4**
ECPR	**Experimental S**	**1.61**	**245**		Pn	08 04 11.9	-0.5
ECPR					**Sn**	**08 04 31.4**	**-1.6**
ECPR				IAML		08 04 36.5	
	514nm,0.3s						
ECPR	**Experimental S**	**1.61**	**245**	⇓*e*P	**Pn**	**08 04 12.2**	**-0.3**
EMPR	**Esperanza - Ma**	**1.70**	**252**		**Pn**	**08 04 13.4**	**-0.3**
EMPR					**Sn**	**08 04 35.2**	**+0.1**
EMPR	**Esperanza - Ma**	**1.70**	**252**	⇑*e*P	**Pn**	**08 04 13.4**	**-0.3**
EMPR				*e*S	**Sn**	**08 04 35.2**	**+0.1**
CELP	**Cerrillos**	**1.91**	**241**		Pn	08 04 16.2	-0.4
CELP	**Cerrillos**	**1.91**	**241**		**Sn**	**08 04 40.4**	**+0.2**
CELP	**Cerrillos**	**1.91**	**241**	IAML		08 04 45.8	
	195nm,0.4s						
CELP				IAML		08 04 46.7	
	157nm,0.5s						
CELP	**Cerrillos**	**1.91**	**241**	⇓*e*P	**Pn**	**08 04 16.7**	**+0.2**
SMRT	**St. Maarten**	**1.92**	**120**		**Pn**	**08 04 17.1**	**+0.4**
SMRT				IAML		08 04 55.0	
	comp=N,197nm,0.3s						
SMRT				IAML		08 04 56.9	
	comp=E,250nm,0.5s						
AOPR	**Arecibo Observ**	**1.95**	**250**		Pn	08 04 16.2	-0.8
AOPR	**Arecibo Observ**	**1.95**	**250**	⇑*e*P	**Pn**	**08 04 16.9**	**-0.2**
OBIP	**Obispado Ponce**	**1.95**	**240**		**Pn**	**08 04 17.0**	**-0.1**
OBIP	**Obispado Ponce**	**1.95**	**240**	⇑*i*P	**Pn**	**08 04 17.4**	**+0.3**
OBIP				*e*S	**Sn**	**08 04 41.2**	**0.0**
SABA	**Saba**	**2.05**	**132**	Pn	Pn	08 04 18.2	-0.3
SABA				IAML		08 05 21.0	
	comp=N,178nm,0.6s						
GBPR	**Guanica, Bosqu**	**2.21**	**242**		**Pn**	**08 04 21.6**	**+0.9**
GBPR	**Guanica, Bosqu**	**2.21**	**242**	⇓*e*P	**Pn**	**08 04 21.6**	**+0.9**
AGPR	**Aguadilla, PR**	**2.23**	**256**		Pn	08 04 19.2	-1.8
AGPR				IAML		08 05 01.6	
	comp=N,132nm,0.4s						
AGPR	**Aguadilla, PR**	**2.23**	**256**	⇑*e*P	**Pn**	**08 04 20.5**	**-0.5**
LSP	**Las Mesas**	**2.30**	**249**		**Pn**	**08 04 22.0**	**0.0**
LSP	**Las Mesas**	**2.30**	**249**	⇓*e*P	**Pn**	**08 04 22.0**	**0.0**
LSP				*e*S	**Sn**	**08 04 50.8**	**+0.8**
PRSN	**Puerto Rico Se**	**2.34**	**250**		Pn	08 04 21.2	-1.3
MLPR	**Magueyes Islan**	**2.35**	**244**		**Pn**	**08 04 22.5**	**-0.1**
MLPR	**Magueyes Islan**	**2.35**	**244**	⇑*e*P	**Pn**	**08 04 23.0**	**+0.4**
CRPR	**Cabo Rojo, PR**	**2.39**	**245**		**Pn**	**08 04 23.0**	**-0.1**
CRPR	**Cabo Rojo, PR**	**2.39**	**245**	⇑*e*P	**Pn**	**08 04 23.4**	**+0.2**
IDE	**Isla Desecheo**	**2.59**	**256**		**Pn**	**08 04 26.4**	**+0.5**
IDE	**Isla Desecheo**	**2.59**	**256**	⇑*e*P	**Pn**	**08 04 26.4**	**+0.5**
IDE				*e*S	**Sn**	**08 04 58.0**	**+1.0**
CBE	**Ff, Capester**	**4.25**	**133**	Pn	**Pn**	**08 04 49.5**	**+0.8**
DR12	**Loma Pena Alta**	**4.32**	**268**	Pn	**Pn**	**08 04 48.6**	**-1.1**
BANI	**BANI**	**5.28**	**264**	Pn	**Pn**	**08 05 04.5**	**+1.4**
SDDR	**Presa de Saban**	**6.11**	**271**	Pn	**Pn**	**08 05 13.8**	**-0.7**

*NEIC **12** 08:10:26.2±1.0, 19°.18N±0°.08×64°.84W±0°.06, h35^{km}±2^{km}, ML3.0/35, Md3.6/10(RSPR), Error ellipse: s-maj=14.1km s-min=9.4km az=10.0*
*RSPR **12** 08:10:27.1, 19°.20N×64°.83W, h21^{km}±25^{km}, MD3.6/10*
ISC 12 08:10:22.9±3.3**, 19°.2N**±0°.1×**64°.86W**±0°.06**, h10**^{km}±25^{km}**, n49, σ0^s.75**/49**, 11C-3D, Virgin Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HUMP	**Col San Antoni**	**1.39**	**223**		**Pn**	**08 10 48.7**	**+0.2**
HUMP	**Col San Antoni**	**1.39**	**223**		**Sn**	**08 11 06.2**	**-0.8**
HUMP	**Col San Antoni**	**1.39**	**223**	IAML		08 11 08.8	
	189nm,0.2s						
HUMP				IAML		08 11 09.3	
	259nm,0.2s						
HUMP	**Col San Antoni**	**1.39**	**223**	⇑*e*P	**Pb**	**08 10 49.0**	**-0.1**
PDPR	**Patillas Dam,**	**1.59**	**224**		**Pn**	**08 10 51.7**	**+0.5**
PDPR	**Patillas Dam,**	**1.59**	**224**		**Sn**	**08 11 11.4**	**-0.5**
PDPR	**Patillas Dam,**	**1.59**	**224**	IAML		08 11 15.5	
	127nm,0.3s						
PDPR				IAML		08 11 16.7	
	108nm,0.5s						
PDPR	**Patillas Dam,**	**1.59**	**224**	⇑*e*P	**Pn**	**08 10 51.9**	**+0.7**
SJG	**San Juan**	**1.62**	**229**		**Pn**	**08 10 52.2**	**+0.6**
SJG	**San Juan**	**1.62**	**229**	IAML		08 11 17.9	
	129nm,0.5s						
SJG	**San Juan**	**1.62**	**229**	⇑*e*P	**Pb**	**08 10 52.5**	**-0.4**
ECPR	**Experimental S**	**1.66**	**239**		**Pn**	**08 10 52.2**	**+0.1**
ECPR	**Experimental S**	**1.66**	**239**		**Sn**	**08 11 13.7**	**+0.1**
ECPR	**Experimental S**	**1.66**	**239**	IAML		08 11 17.0	
	313nm,0.3s						
ECPR				IAML		08 11 19.4	
	277nm,0.3s						
ECPR	**Experimental S**	**1.66**	**239**	⇓*e*P	**Pn**	**08 10 52.3**	**+0.2**
IGPR	**InterUniversit**	**1.69**	**225**		**Pn**	**08 10 53.2**	**+0.7**
IGPR					**Sn**	**08 11 14.0**	**-0.2**
IGPR	**InterUniversit**	**1.69**	**225**	⇑*e*P	**Pn**	**08 10 53.2**	**+0.7**
EMPR	**Esperanza - Ma**	**1.73**	**247**		**Pb**	**08 10 54.1**	**-0.7**
EMPR					**Sn**	**08 11 14.4**	**-0.9**
EMPR	**Esperanza - Ma**	**1.73**	**247**	⇑*e*P	**Pb**	**08 10 54.1**	**-0.7**
EMPR				*e*S	**Sn**	**08 11 14.4**	**-0.9**
CELP	**Cerrillos**	**1.97**	**236**		**Pn**	**08 10 57.1**	**+0.8**
CELP	**Cerrillos**	**1.97**	**236**		**Sn**	**08 11 21.0**	**-0.1**
CELP	**Cerrillos**	**1.97**	**236**	IAML		08 11 26.1	
	87nm,0.5s						
CELP				IAML		08 11 27.3	
	95nm,0.4s						
CELP	**Cerrillos**	**1.97**	**236**	⇑*e*P	**Pn**	**08 10 57.2**	**+0.9**
AOPR	**Arecibo Observ**	**1.98**	**246**		**Pn**	**08 10 56.8**	**+0.2**
AOPR	**Arecibo Observ**	**1.98**	**246**		**Sn**	**08 11 20.8**	**-0.6**
AOPR	**Arecibo Observ**	**1.98**	**246**	⇑*e*P	**Pn**	**08 10 57.1**	**+0.6**
OBIP	**Obispado Ponce**	**2.00**	**236**		**Pn**	**08 10 57.2**	**+0.3**
OBIP	**Obispado Ponce**	**2.00**	**236**		**Sn**	**08 11 21.9**	**-0.2**
OBIP	**Obispado Ponce**	**2.00**	**236**	IAML		08 11 27.2	
	comp=N,22nm,0.4s						
OBIP	**Obispado Ponce**	**2.00**	**236**	⇓*e*P	**Pn**	**08 10 57.7**	**+0.9**
OBIP				*e*S	**Sn**	**08 11 21.9**	**-0.2**
SMRT	**St. Maarten**	**2.03**	**123**	Pn	**Pn**	**08 10 58.0**	**+0.8**
SMRT				IAML		08 11 24.5	
	comp=N,129nm,0.5s						
SMRT				IAML		08 11 25.9	
	comp=E,179nm,0.3s						
AGPR	**Aguadilla, PR**	**2.25**	**252**	Pn	**Pn**	**08 11 00.2**	**0.0**
AGPR				IAML		08 11 40.2	
	comp=E,73nm,1.3s						
AGPR				IAML		08 12 19.8	
	comp=E,66nm,0.6s						
AGPR	**Aguadilla, PR**	**2.25**	**252**		**Sn**	**08 11 27.9**	**-0.2**
AGPR	**Aguadilla, PR**	**2.25**	**252**	⇑*e*P	**Pn**	**08 11 01.0**	**+0.8**
GBPR	**Guanica, Bosqu**	**2.26**	**238**		**Pn**	**08 11 01.8**	**+1.5**
GBPR					**Sn**	**08 11 28.8**	**+0.4**
GBPR	**Guanica, Bosqu**	**2.26**	**238**	⇑*e*P	**Pn**	**08 11 01.8**	**+1.5**
GBPR				*e*S	**Sn**	**08 11 28.8**	**+0.4**
LSP	**Las Mesas**	**2.33**	**245**		**Pn**	**08 11 02.8**	**+1.4**
LSP					**Sn**	**08 11 29.7**	**-0.5**
LSP	**Las Mesas**	**2.33**	**245**	⇑*e*P	**Pn**	**08 11 02.8**	**+1.4**
LSP				*e*S	**Sn**	**08 11 29.7**	**-0.5**
PRSN	**Puerto Rico Se**	**2.37**	**247**		**Pn**	**08 11 02.1**	**+0.3**
MLPR	**Magueyes Islan**	**2.40**	**240**		**Pn**	**08 11 03.1**	**+0.9**
MLPR	**Magueyes Islan**	**2.40**	**240**		**Sn**	**08 11 32.0**	**+0.3**
MLPR	**Magueyes Islan**	**2.40**	**240**	IAML		08 11 39.9	
	comp=E,32nm,0.6s						
MLPR				IAML		08 11 40.0	
	comp=E,38nm,0.4s						
MLPR	**Magueyes Islan**	**2.40**	**240**	⇓*e*P	**Pn**	**08 11 03.4**	**+1.1**
CRPR	**Cabo Rojo, PR**	**2.43**	**242**		**Pn**	**08 11 04.0**	**+1.2**
CRPR	**Cabo Rojo, PR**	**2.43**	**242**		**Sn**	**08 11 32.4**	**-0.2**
CRPR	**Cabo Rojo, PR**	**2.43**	**242**	IAML		08 11 39.3	
	comp=E,33nm,0.7s						
CRPR				IAML		08 11 41.5	
	comp=E,47nm,0.8s						
CRPR	**Cabo Rojo, PR**	**2.43**	**242**	⇑*e*P	**Pn**	**08 11 04.1**	**+1.3**
DR12	**Loma Pena Alta**	**4.30**	**266**	Pn	**Pn**	**08 11 29.3**	**+0.8**
CBE	**Ff, Capester**	**4.37**	**134**	Pn	**Pn**	**08 11 29.5**	**0.0**

*IDC **12** 08:12:10.3±1.1, 85°.06N×7°.10E, h0^{km}, mb3.5/5, mbtmp3.7/7, ML4.1/2, MS3.1/10, Error ellipse: s-maj=39.6km s-min=15.9km az=68.0*
*FCIAR **12** 08:12:18.0, 84°.54N×17°.02E, h10^{km}, station OMEGA has station magnitude of 3.80*
ISC 12 08:12:17.4±2.0**, 84°.6N**±0°.1×**16°.5E**±0°.1**, h10^{km}, n19, σ0^s.73**/13**, mb3.4**/5**, MS3.0**/8**, North of Svalbard**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OMEGA	**Omega**	**5.39**	**117**	*e*P	**Pn**	**08 13 37.1**	**-0.6**
OMEGA				*e*S	**Sn**	**08 14 40.0**	**+0.2**
	56nm,1.2s						
OMEGA				AML	AML		
SPA0	**Spitsbergen Ar**	**6.42**	**180**	*e*P	**Pn**	**08 13 50.5**	**-1.4**
SPA0				*e*S	**Sn**	**08 15 06.2**	**+1.1**
SPITS	**Spitsbergen Ar**	**6.42**	**180**	Pn	**Pn**	**08 13 52.4**	**+0.6**
	baz=14,slow=13						
SPITS				Sn	**Sn**	**08 15 04.5**	**-0.5**
	baz=56,slow=16 16nm,0.4s						
HOPEN	**Hopen**	**8.20**	**166**	*e*P	**Pn**	**08 14 16.2**	**0.0**
HOPEN				*e*S	**Sn**	**08 15 49.0**	**+0.4**
NEEM	**North Greenlan**	**11.68**	**273**	*i* P	Pn	08 14 50.7	-13
NEEM				*i* S	Sn	08 16 50.5	-24
ARCES	**ARCESS Array B**	**15.20**	**168**	Pn	**Pn**	**08 15 51.2**	**-0.6**
	0.2nm,0.3s,baz=357,slow=11,SNR=13						
ARCES				Sn	**Sn**	**08 18 40.3**	**+0.4**
	0.1nm,0.3s,baz=3.8,slow=19,SNR=1.5						
ARCES				LR	LR	08 21 40.0	
	comp=Z,46nm,18.0s,baz=22,slow=36 2.8nm,0.9s						
ARCES				AML	AML		
RES	**Resolute Bay**	**18.12**	**307**	LR	LR	08 23 05.0	
	comp=Z,67nm,20.2s,baz=26,slow=38						
FINES	**FINESS Array B**	**23.33**	**168**	P	**P**	**08 17 25.3**	**+0.1**
	2.1nm,0.8s,baz=17,slow=10,SNR=1.7 2.1nm,0.8s						
NOA	**NORSAR Array B**	**23.67**	**186**	LR	LR	08 26 23.7	
	comp=Z,18nm,21.0s,baz=70,slow=35						
INK	**Inuvik**	**26.70**	**336**	LR	LR	08 30 39.4	
	comp=Z,37nm,19.1s,baz=35,slow=43						
KIRV	**Kirov**	**27.14**	**141**	LR	LR	08 30 35.5	
	comp=Z,52nm,19.2s,baz=296,slow=39						
ARTI	**Arti**	**29.91**	**132**	LR	LR	08 34 56.6	
	comp=Z,24nm,18.7s,baz=33,slow=44						
ILAR	**Eielson Array**	**30.66**	**346**	P	P	08 18 19.2	-12
	0.4nm,0.7s,baz=7.0,slow=8.2,SNR=4.6						
ILAR				LR	LR	08 28 47.6	
	comp=Z,24nm,21.4s,baz=264,slow=33 0.4nm,0.7s						
ZALV	**Zalesovo Beam**	**34.54**	**104**	LR	LR	08 34 14.3	
	comp=Z,38nm,18.5s,baz=54,slow=37						
VRAC	**Vranov**	**35.40**	**180**	LR	LR	08 34 18.7	
	comp=Z,38nm,18.0s,baz=346,slow=37						
AKTO	**Aktyubinsk**	**35.81**	**134**	LR	LR	08 35 23.4	
	comp=Z,38nm,20.1s,baz=172,slow=38						
SONM	**Songino Array**	**42.63**	**84**	P	**P**	**08 20 14.2**	**+0.7**
	0.4nm,0.5s,baz=12,slow=2.1,SNR=3.6 0.4nm,0.5s						
BRTR	**Keskin Array B**	**45.25**	**161**	P	**P**	**08 20 34.6**	**0.0**
	0.6nm,0.6s,baz=347,slow=8.9,SNR=3.5 0.6nm,0.6s						
TXAR	**Lajitas Array**	**63.69**	**303**	P	P	08 22 36.6	-12
	0.2nm,0.8s,baz=23,slow=6.8,SNR=3.5 0.2nm,0.8s						

*IDC **12** 08:13:55.5±2.0, 23°.83S×179°.76W, h507^{km}±24^{km}, mb3.2/5, mbtmp4.2/8, Error ellipse: s-maj=26.6km s-min=20.9km az=146.0*
ISC 12 08:13:54.8±0.8**, 23°.78S**±0°.09×**179°.6W**±0°.1**, h512^{km}, n9, σ2^s.20**/11**, mb3.8**/5**, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**6.42**	**339**	P	**P**	**08 15 36.7**	**+0.8**
	4.3nm,0.5s,baz=196,slow=18,SNR=9.2						
AFI	**Afiamalu**	**12.26**	**38**	P	**P**	**08 16 37.2**	**+0.9**
	19nm,0.8s,baz=233,slow=15,SNR=2.5						
AFI				S	**S**	**08 18 44.5**	**-4.8**
	8.6nm,0.5s,baz=270,slow=20,SNR=1.6						
URZ	**Urewera**	**14.71**	**190**	P	**P**	**08 17 01.1**	**-0.5**
	4.0nm,0.5s,baz=16,slow=7.4,SNR=8.3						
URZ				S	**S**	**08 19 33.9**	**-1.7**
	7.7nm,0.9s,baz=19,slow=18,SNR=10						
STKA	**Stephens Creek**	**35.15**	**248**	P	**P**	**08 20 04.6**	**-0.6**
	1.5nm,0.5s,baz=85,slow=9.2,SNR=5.8 1.5nm,0.5s						
ASAR	**Alice Springs**	**42.46**	**260**	P	**P**	**08 21 04.3**	**-0.4**
	3.7nm,0.6s,baz=96,slow=7.7,SNR=70 3.7nm,0.6s						
WRA	**Warramunga Arr**	**42.83**	**266**	P	**P**	**08 21 06.7**	**-0.9**
	5.0nm,0.5s,baz=103,slow=8.1,SNR=239 5.0nm,0.5s						
QSPA	**South Pole Qui**	**66.30**	**180**	P	**P**	**08 23 53.1**	**+1.2**
	0.7nm,0.6s,baz=45,slow=1.4,SNR=2.3 0.7nm,0.6s						
TXAR	**Lajitas Array**	**90.02**	**58**	P	**P**	**08 26 02.7**	**+2.9**
	0.2nm,0.7s,baz=232,slow=6.2,SNR=2.0 0.2nm,0.7s						
BRTR	**Keskin Array B**	**147.84**	**308**	PKPbc	**PKPbc**	**08 32 41.8**	**-0.5**
	0.3nm,0.4s,baz=94,slow=4.3,SNR=2.0						

*NNC **12** 08:16:15.5±2.1, 42°.71N×79°.30E, h0^{km}, mpv3.0, Error ellipse: s-maj=15.3km s-min=6.2km az=158.0*
*KRNET **12** 08:16:15.6±0.1, 42°.61N×79°.26E, h11^{km}, mb2.6*
*SOME **12** 08:16:15.1, 42°.67N×79°.27E, h10^{km}*
ISC 12 08:16:15.0±1.8**, 42°.69N**±0°.05×**79°.28E**±0°.07**, h5**^{km}±12^{km}**, n14, σ0^s.54**/27**, 4C-6D, Lake Issyk-Kul region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PRZ	**Przheval'sk**	**0.68**	**253**	⇑*e*P	**Pg**	**08 16 28.1**	**0.0**
PRZ				⇑*e*S	**Sg**	**08 16 37.4**	**+0.5**
SATY	**Saty**	**0.74**	**300**	P	**Pg**	**08 16 30.0**	**+0.8**
	1.6nm,0.1s						
SATY				S	**Sb**	**08 16 40.9**	**0.0**
	28nm,0.1s						
SATY	**Saty**	**0.74**	**300**	*e*P	**Pg**	**08 16 30.0**	**+0.8**
	1.6nm,0.1s						
SATY				*e*S	**Sb**	**08 16 40.9**	**0.0**
	28nm,0.1s						
KPKS	**Kokpek**	**0.89**	**331**	*e*P	**Pg**	**08 16 31.3**	**-0.7**
	0.3nm,0.1s						
KPKS				*e*S	**Sg**	**08 16 43.0**	**-0.6**
	8.8nm,0.2s						
ANVS	**Anan'yevo**	**1.19**	**275**	⇑*i*P	**Pn**	**08 16 38.4**	**-0.1**
ANVS				⇑*i*S	**Sn**	**08 16 55.0**	**-0.2**
TARG	**Taragay, Kyrgy**	**1.46**	**229**	⇓*i*P	**Pn**	**08 16 42.2**	**-0.2**
TARG				⇓*i*S	**Sg**	**08 17 01.7**	**-0.1**
KDJ	**Kajisay**	**1.65**	**251**	⇓*i*P	**Pb**	**08 16 45.9**	**-0.1**
KDJ				⇓*i*S	**Sg**	**08 17 08.0**	**-0.1**
KNOS	**Konyrlen**	**1.67**	**358**	P	**Pn**	**08 16 45.7**	**+0.6**
	2.5nm,0.1s						
KNOS				S	**Sb**	**08 17 07.8**	**+0.1**
	4.4nm,0.2s						
DJR	**Jarkent**	**1.68**	**13**	P	**Pn**	**08 16 45.9**	**+0.7**
	2.4nm,0.1s						
DJR				S	**Sb**	**08 17 08.1**	**0.0**
	2.5nm,0.2s						
DJR	**Jarkent**	**1.68**	**13**	*e*P	**Pn**	**08 16 45.9**	**+0.7**
	2.4nm,0.1s						
DJR				*e*S	**Sb**	**08 17 08.1**	**0.0**
	2.5nm,0.2s						
KTBS	**Karatobe**	**2.15**	**299**	Pg	**Pb**	**08 16 54.0**	**-0.5**
	1.0nm,0.1s						
KTBS				Lg	Lg	08 17 22.3	
	9.8nm,0.5s						
KTBS	**Karatobe**	**2.15**	**299**	*e*P	**Pb**	**08 16 54.0**	**-0.5**
	1.0nm,0.1s						
KTBS				*e*S	**Sb**	**08 17 22.3**	**+0.7**
	9.8nm,0.5s						
ULHL	**Ulahol**	**2.29**	**260**	*i* P	**Pb**	**08 16 56.7**	**-0.3**
ULHL				*i* S	**Sb**	**08 17 26.4**	**+0.8**
BOOM	**Boomskoye usch**	**2.47**	**266**	⇓*e*P	**Pb**	**08 16 59.0**	**-1.0**
BOOM				⇓*e*S	**Sb**	**08 17 30.9**	**0.0**

*SDD **12** 08:23:17.9±4.2, 20°.09N×70°.76W, h20^{km}±24^{km}, MD3.6, ML2.1, MW2.2, Presumed earthquake*
*OSPL **12** 08:23:21.6±1.9, 20°.26N×70°.81W, h12^{km}±262^{km}, ML2.0, Presumed earthquake*
ISC 12 08:23:20.1±1.5**, 20°.17N**±0°.05×**70°.73W**±0°.05**, h18**^{km}±5^{km}**, n13, σ0^s.61**/20**, 12C, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SODR	**Sosua Marina B**	**0.44**	**160**	⇑*i*S	**Sg**	**08 23 35.2**	**+0.2**
SODR				IAML		08 23 41.4	
	comp=N,100nm,1.2s						
LOPP1	**Punta Rusia, P**	**0.54**	**235**	*i* P	**Pb**	**08 23 31.2**	**+0.2**
LOPP1				*e*S	**Sb**	**08 23 38.9**	**+0.5**
LOPP1				IAML		08 23 41.4	
	comp=Z,33nm,1.0s						
REDR	**Restauracion**	**1.17**	**212**	⇑*i*P	**Pg**	**08 23 42.7**	**-0.2**
REDR				⇑*i*S	**Sg**	**08 23 59.1**	**+0.9**
REDR				IAML		08 24 01.2	
	comp=N,51nm,0.1s						
SDDR	**Presa de Saban**	**1.29**	**204**	*e*S	**Sn**	**08 24 00.2**	**+0.1**
SDDR	**Presa de Saban**	**1.29**	**204**	⇑*i*P	**Pn**	**08 23 42.3**	**-1.0**
SDDR				⇑*i*S	**Sn**	**08 23 59.9**	**-0.2**
SDDR				IAML		08 24 00.5	
	comp=N,18nm,0.6s						
ABDR	**Alto Bandera**	**1.35**	**176**	⇑*i*P	**Pn**	**08 23 43.3**	**-1.0**
ABDR				IAML		08 24 02.2	
	comp=N,33nm,1.7s						
ABDR				*i* S	**Sb**	**08 24 02.4**	**+0.3**
GRTK	**Grand Turk**	**1.39**	**344**	⇑*i*S	**Sg**	**08 24 05.2**	**0.0**
GRTK				IAML		08 24 34.1	
	comp=N,32nm,1.4s						
LONE3	**El Aguacate, B**	**1.70**	**204**	*i* P	**Pn**	**08 23 49.5**	**+0.6**
LONE3				*e*S	**Sb**	**08 24 12.2**	**+0.3**
LONE3				IAML		08 24 14.6	
	comp=Z,15nm,4.1s						
BANI	**BANI**	**1.80**	**169**	⇑*i*P	**Pb**	**08 23 52.5**	**-0.1**
BANI				IAML		08 24 19.8	
	comp=N,20nm,1.2s						
HATOM	**Hato Mayor del**	**1.87**	**137**	⇑*i*P	**Pn**	**08 23 51.8**	**+0.5**
HATOM				⇑*i*S	**Sb**	**08 24 17.5**	**+0.7**
HATOM				IAML		08 24 43.8	
	comp=N,10nm,1.9s						
LODU1	**El Espartillar**	**1.94**	**201**	*i* P	**Pb**	**08 23 54.2**	**-0.6**
LODU1				IAML		08 24 23.7	
	comp=Z,27nm,1.5s						
JIDR	**Jimani**	**1.97**	**213**	*i* P	**Pn**	**08 23 53.2**	**+0.6**
JIDR				⇑*i*S	**Sn**	**08 24 16.1**	**-0.8**
JIDR				IAML		08 24 21.8	
	comp=N,23nm,0.5s						
PODR	**Polo**	**2.06**	**195**	⇑*i*P	**Pb**	**08 23 56.7**	**-0.3**

*NOU **12** 08:32:35.7, 41°.51S×174°.53E, h21^{km}, MLv4.0/18, Cook Strait, New Zealand*
*NEIC **12** 08:32:36.7±1.3, 41°.39S±0°.04×174°.44E±0°.04, h33^{km}±3^{km}, ML3.6/17, Error ellipse: s-maj=6.3km s-min=4.2km az=158.0*
*WEL **12** 08:32:36.3±0.3, 41°S±4°×17°4E±°, h20^{km}±2^{km}, M3.7/20, ML3.7/20, MLv3.7/20, Error ellipse: s-maj=5.6km s-min=2.6km az=177.6, confirmed*
ISC 12 08:32:36.7±0.9**, 41°.45S**±0°.02×**174°.44E**±0°.02**, h32**^{km}±5^{km}**, n166, σ1^s.15**/188**, Cook Strait**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SNZO	**South Karori**	**0.24**	**55**	P	**Pb**	**08 32 42.2**	**-1.3**
SNZO	**South Karori**	**0.24**	**55**	S	**Sb**	**08 32 48.4**	**+0.3**
SNZO	**South Karori**	**0.24**	**55**		**Pb**	**08 32 43.3**	**-0.2**
SNZO					**Sb**	**08 32 48.4**	**+0.3**
SNZO				IAML		08 32 49.4	
	12µm,0.2s						
MKVS	**Makara Village**	**0.27**	**47**	P	**Pb**	**08 32 43.7**	**-0.2**
MKVS				S	**Sb**	**08 32 48.6**	**-0.1**
TCW	**Tory Channel**	**0.27**	**332**		**Pb**	**08 32 43.2**	**-0.6**
TCW					**Sb**	**08 32 47.5**	**-1.2**
TCW	**Tory Channel**	**0.27**	**332**	P	**Pb**	**08 32 42.8**	**-1.1**
TCW				S	**Sb**	**08 32 47.5**	**-1.2**

TCW				AML	AML		
TCW				AML	AML		
WNKS	Wellington Kar	0.28	54	P	Pb	08 32 43.7	-0.2
WNKS				S	Sb	08 32 49.0	+0.1
WNHS	Wellington Hig	0.29	59	P	Pb	08 32 44.1	0.0
WNHS				S	Sb	08 32 49.5	+0.3
MKBS	Makara Bunker	0.29	41	P	Pb	08 32 43.9	-0.3
MKBS				S	Sb	08 32 48.9	-0.4
WEL	Wellington	0.29	56	P	Pb	08 32 44.2	0.0
WEL				S	Sb	08 32 49.6	+0.4
WEL				AML	AML		
WEL				AML	AML		
WTYS	Wellington Ten	0.30	59	P	Pb	08 32 44.1	-0.1
WTYS				S	Sb	08 32 49.8	+0.5
TEPS	Wellington Te	0.30	58	P	Pb	08 32 44.2	0.0
TEPS				S	Sb	08 32 49.8	+0.4
WNAS	Wellington Int	0.30	66	P	Pb	08 32 44.3	+0.1
WNAS				S	Sb	08 32 49.7	+0.3
BOWS	Bowen St Turnb	0.30	56	P	Pb	08 32 43.9	-0.3
BOWS				S	Sb	08 32 49.8	+0.4
VUWS	Victoria Unive	0.30	56	P	Pb	08 32 44.1	-0.1
VUWS				S	Sb	08 32 49.6	+0.2
POTA	Wellington Pot	0.30	55	P	Pb	08 32 44.1	-0.2
POTA				S	Sb	08 32 49.2	-0.3
WEMS	Wellington Eme	0.31	55	P	Pb	08 32 44.2	-0.2
WEMS				S	Sb	08 32 49.7	+0.1
TFSS	Wellington Tho	0.31	56	P	Pb	08 32 44.3	-0.1
TFSS				S	Sb	08 32 49.8	+0.2
BHW	Baring Head	0.32	83		Pb	08 32 44.6	+0.1
BHW					Sb	08 32 50.5	+0.5
BHW	Baring Head	0.32	83	P	Pb	08 32 44.8	+0.3
BHW				AML	AML		
BHW				AML	AML		
CMWZ	Cape Campbell	0.35	210		Pn	08 32 46.5	+0.9
CMWZ					Sn	08 32 53.9	+2.5
CMWZ				IAML		08 32 55.2	
	comp=N,5µm,0.7s						
CMWZ				IAML		08 32 56.7	
	comp=E,6µm,0.4s						
CMWZ	Cape Campbell	0.35	210	P	Pn	08 32 46.4	+0.9
CMWZ				AML	AML		
CMWZ				AML	AML		
QCCS	Picton Queen C	0.36	298	P	Pb	08 32 44.1	-0.9
QCCS				S	Sb	08 32 50.1	-0.6
TUWZ	Tuamarina	0.38	273	Pg	Pb	08 32 44.7	-0.6
TUWZ				IAML		08 32 51.5	
	comp=E,8µm,0.2s						
BSWZ	Blackbirch Sta	0.50	238		Pb	08 32 47.1	-0.1
BSWZ				Sn	Sn	08 32 55.4	+0.1
BSWZ	Blackbirch Sta	0.50	238	P	Pb	08 32 47.5	+0.3
BSWZ				AML	AML		
BSWZ				AML	AML		
CAW	Cannon Point	0.58	54	P	Pb	08 32 48.3	-0.2
CAW				AML	AML		
CAW				AML	AML		
MSWZ	Moikau Station	0.61	87		Pb	08 32 49.2	+0.3
MSWZ				Sn	Sn	08 32 58.5	+0.7
MSWZ	Moikau Station	0.61	87	P	Pb	08 32 49.3	+0.4
MSWZ				AML	AML		
MSWZ				AML	AML		
PLWZ	Palliser	0.62	101		Pb	08 32 49.4	+0.2
PLWZ				IAML		08 33 00.3	
	comp=N,4µm,0.6s						
PLWZ	Palliser	0.62	101	P	Pb	08 32 49.5	+0.3
PLWZ				AML	AML		
PLWZ				AML	AML		
KIW	Kapiti Island	0.69	31	P	Pb	08 32 49.5	-0.7
KIW				AML	AML		
KIW				AML	AML		
PAWZ	Paruwai Farm	0.74	85	P	Pn	08 32 51.0	0.0
PAWZ				AML	AML		
PAWZ				AML	AML		
DUWZ	D'Urville Isla	0.76	328	P	Pn	08 32 50.6	-0.6
DUWZ				AML	AML		
DUWZ				AML	AML		
NNZ	Nelson	0.83	286		Pn	08 32 51.5	-0.7
NNZ	Nelson	0.83	286	P	Pn	08 32 51.9	-0.3
NNZ				AML	AML		
NNZ				AML	AML		
OGWZ	Otaki Gorge	0.84	41	P	Pn	08 32 52.1	-0.2
OGWZ				AML	AML		
OGWZ				AML	AML		
MTW	Mount Morrison	0.85	70	P	Pn	08 32 52.3	-0.1
MTW				AML	AML		
MTW				AML	AML		
TRWZ	Traveller	0.94	87	P	Pn	08 32 53.5	-0.2
TRWZ				AML	AML		
TRWZ				AML	AML		
HOWZ	Holdsworth Sta	0.98	56	P	Pn	08 32 54.0	-0.3
HOWZ				AML	AML		
HOWZ				AML	AML		
TMWZ	Te Maipa	1.14	73	P	Pn	08 32 56.1	-0.4
TMWZ				AML	AML		
TMWZ				AML	AML		
MRZ	Mangatainoka R	1.17	48		Pn	08 32 56.1	-0.7
MRZ	Mangatainoka R	1.17	48	P	Pn	08 32 56.6	-0.1
MRZ				AML	AML		
MRZ				AML	AML		
KHZ	Kahutara	1.18	215	P	Pn	08 32 57.3	+0.3
KHZ	Kahutara	1.18	215	S	Sb	08 33 13.0	-0.4
KHZ	Kahutara	1.18	215		Pn	08 32 57.2	+0.3
KHZ				IAML		08 33 17.4	
	comp=N,256nm,0.4s						
KHZ	Kahutara	1.18	215	P	Pn	08 32 57.5	+0.6
KHZ				AML	AML		
KHZ				AML	AML		
TKNZ	Takaka Hill	1.19	290		Pn	08 32 56.9	-0.3
TKNZ	Takaka Hill	1.19	290	P	Pn	08 32 57.4	+0.2
TKNZ				AML	AML		
TKNZ				AML	AML		
THZ	Tophouse	1.20	254		Pn	08 32 57.4	+0.1
THZ	Tophouse	1.20	254	P	Pn	08 32 57.7	+0.4
THZ				AML	AML		
THZ				AML	AML		
MRNZ	Matariki Terra	1.27	272		Pn	08 32 58.6	+0.4
MRNZ	Matariki Terra	1.27	272	P	Pn	08 32 58.8	+0.6
MRNZ				AML	AML		
MRNZ				AML	AML		
TIWZ	Tintock	1.28	59	P	Pn	08 32 58.1	-0.3
TIWZ				AML	AML		
TIWZ				AML	AML		
OHWZ	Ohakea	1.41	28	P	Pn	08 33 01.4	+1.3
CPWZ	Castlepoint	1.43	68	P	Pb	08 33 04.4	+1.7
POWZ	Post Office Ro	1.46	44	P	Pn	08 33 00.4	-0.4
POWZ				AML	AML		
POWZ				AML	AML		
PRWZ	Pori Road	1.46	53	P	Pn	08 33 00.4	-0.4
PRWZ				AML	AML		
PRWZ				AML	AML		
BFZ	Birch Farm	1.56	61	P	Pn	08 33 01.0	-1.3
BFZ	Birch Farm	1.56	61	S	Sn	08 33 21.6	+0.2
BFZ	Birch Farm	1.56	61		Pn	08 33 00.9	-1.3
BFZ				IAML		08 33 32.4	
	comp=N,246nm,0.5s						
BFZ	Birch Farm	1.56	61	P	Pn	08 33 01.1	-1.1
QRZ	Quartz Range	1.57	293	P	Pn	08 33 03.2	+0.8
QRZ	Quartz Range	1.57	293	S	Sn	08 33 23.1	+1.4
QRZ	Quartz Range	1.57	293		Pn	08 33 03.2	+0.8
QRZ	Quartz Range	1.57	293	P	Pn	08 33 03.5	+1.0
QRZ				S	Sb	08 33 24.7	0.0
QRZ				AML	AML		
QRZ				AML	AML		
DVHZ	Dannevirke	1.74	49	P	Pn	08 33 03.6	-1.1
WAZ	Wanganui	1.74	14	P	Pn	08 33 06.7	+1.9
TSZ	Takapari Road	1.81	40	P	Pn	08 33 05.0	-0.6
ANWZ	Angora Road	1.83	58	P	Pn	08 33 04.6	-1.3
GVZ	Greta Valley S	1.84	214		Pn	08 33 05.7	-0.4
GVZ	Greta Valley S	1.84	214	P	Pn	08 33 06.2	0.0
LREZ	Lake Rotokare	1.99	359	P	Pb	08 33 11.4	-0.8
DSZ	Denniston Nort	2.00	261		Pn	08 33 08.8	+0.5
DSZ	Denniston Nort	2.00	261	P	Pn	08 33 09.2	+0.8
PNHZ	Pukenui	2.03	42	P	Pn	08 33 07.8	-1.0
PRHZ	Porangahau	2.04	55	P	Pn	08 33 06.3	-2.5
WPHZ	Waipukurau	2.05	48	P	Pn	08 33 08.0	-1.0
NMEZ	Namu Road	2.08	348	P	Pn	08 33 11.1	+1.8
LTZ	Lake Taylor	2.09	230		Pn	08 33 09.6	0.0
LTZ	Lake Taylor	2.09	230	P	Pn	08 33 09.8	+0.2
PREZ	Palmer Road	2.12	354	P	Pb	08 33 12.5	-1.9
KHEZ	Kahui Hut	2.18	351	P	Pn	08 33 12.8	+2.0
KHEZ	Kahui Hut	2.18	351	S	Sb	08 33 40.0	-2.0
KHEZ	Kahui Hut	2.18	351	P	Pn	08 33 12.6	+1.9
AMCZ	Amberley	2.18	217	Pn	Pn	08 33 09.8	-0.9
AMCZ	Amberley	2.18	217	P	Pn	08 33 10.4	-0.3
NEZ	North Egmont	2.19	353	P	Pn	08 33 13.6	+2.6
MTVZ	Mangateitei	2.21	21	P	Pn	08 33 13.7	+2.5
NBEZ	Newall Road No	2.22	348	P	Pn	08 33 13.1	+1.8
PKVZ	Pokaka	2.27	18	P	Pn	08 33 13.2	+1.2
DREZ	Durham Road	2.27	355	P	Pn	08 33 13.9	+2.0
MOVZ	Moawhango	2.27	27	P	Pn	08 33 12.0	-0.1
PKE	Pukeiti	2.28	351	P	Pn	08 33 14.3	+2.2
WNVZ	Wahianoa	2.30	23	P	Pn	08 33 13.3	+0.8
TRVZ	Turoa	2.31	22	P	Pn	08 33 13.7	+1.0
BHHZ	Black Hill Sta	2.31	33	P	Pn	08 33 12.4	-0.3
PXZ	Pawanui	2.32	53	P	Pn	08 33 11.2	-1.5
WHVZ	Whangaehu Hut	2.33	22	P	Pn	08 33 14.0	+1.0
VRZ	Vera Road	2.33	6	P	Pn	08 33 14.5	+1.7
MAVZ	Matarangi	2.34	22	P	Pb	08 33 16.3	-2.0
FWVZ	Far West T-bar	2.35	21	P	Pn	08 33 14.4	+1.1
TUVZ	Tukino	2.37	23	P	Pn	08 33 14.1	+0.6
COVZ	Chateau Observ	2.40	21	P	Pb	08 33 17.2	-2.0
NGZ	Ngauruhoe	2.44	22	P	Pn	08 33 15.4	+0.9
SNVZ	South Ngauruho	2.44	22	P	Pn	08 33 15.1	+0.6
OTVZ	Oturere	2.47	23	P	Pn	08 33 15.5	+0.6
KAHZ	Kahuranaki	2.48	49	P	Pn	08 33 13.4	-1.5
WTVZ	West Tongariro	2.49	21	P	Pn	08 33 16.5	+1.4
OKCZ	Okains Bay	2.49	204	P	Pn	08 33 14.2	-0.8
TWVZ	Taurewa	2.50	18	P	Pn	08 33 17.9	+2.8
ETVZ	East Tongariro	2.51	23	P	Pn	08 33 16.2	+0.9
TMVZ	Te Maari	2.52	23	P	Pn	08 33 16.0	+0.5
KRVZ	Karewarewa	2.52	22	P	Pn	08 33 16.9	+1.3
KWHZ	Kaweka Forest	2.52	37	P	Pb	08 33 21.7	+0.4
NTVZ	North Tongarir	2.53	22	P	Pn	08 33 16.4	+0.7
INZ	Inchbonnie	2.57	239	Pn	Pn	08 33 15.8	-0.2
INZ	Inchbonnie	2.57	239	P	Pn	08 33 16.4	+0.3
OXZ	Oxford	2.59	223		Pn	08 33 15.1	-1.2
OXZ	Oxford	2.59	223	P	Pn	08 33 15.2	-1.2
MQZ	McQueen's Vall	2.61	210	P	Pn	08 33 15.1	-1.6
AKCZ	Akaroa Harbour	2.67	205	P	Pn	08 33 16.6	-0.9
RITZ	Rihia Road	2.70	24	P	Pb	08 33 22.8	-1.4
BKZ	Black Stump Fm	2.77	35	P	Pn	08 33 17.5	-1.4
BKZ	Black Stump Fm	2.77	35	P	Pn	08 33 17.5	-1.4
RATZ	Rangitukua	2.77	22	P	Pb	08 33 24.8	-0.8
WATZ	Wairara	2.91	20	P	Pb	08 33 25.2	-2.7
HIZ	Hauiti	2.95	6	P	Pn	08 33 23.5	+2.2
HIZ	Hauiti	2.95	6	S	Sn	08 33 58.5	+2.9
HIZ	Hauiti	2.95	6		Pn	08 33 22.9	+1.5
HIZ				IAML		08 34 10.6	
	comp=N,301nm,0.7s						
HIZ				IAML		08 34 16.8	
	comp=E,188nm,1.0s						
HIZ	Hauiti	2.95	6	P	Pn	08 33 23.4	+2.1
NMHZ	Naumai	2.96	38	P	Pn	08 33 20.9	-0.7
MHCZ	Mount Hutt	2.98	225	P	Pn	08 33 20.6	-1.1
WACZ	Wakanui South	3.15	217	P	Pn	08 33 22.7	-1.2
MTHZ	Maungataniwha	3.18	36	P	Pn	08 33 23.7	-0.8
WVZ	Waitaha Valley	3.19	238	P	Pn	08 33 24.7	0.0
TLZ	Tolley Road	3.23	15	P	Pn	08 33 26.5	+1.3
PRRZ	Plateau Road	3.31	28	P	Pb	08 33 32.5	-2.1
RPZ	Rata Peaks	3.38	227	P	Pn	08 33 28.4	+1.2
RPZ	Rata Peaks	3.38	227	Pn	Pn	08 33 26.9	-0.3
RPZ	Rata Peaks	3.38	227	P	Pn	08 33 28.1	+0.9
RTZ	Ruatahuna	3.44	35		Pn	08 33 26.0	-2.1
RTZ	Ruatahuna	3.44	35	P	Pn	08 33 28.8	+0.7
ARCZ	Arundel	3.47	223	P	Pn	08 33 28.1	-0.4
GCSZ	Gaunt Creek Bo	3.58	237	P	Pn	08 33 30.8	+0.9
TOZ	Tahuroa Road	3.80	13		Pn	08 33 30.8	-2.2
TOZ	Tahuroa Road	3.80	13	P	Pn	08 33 34.0	+1.0
TMZ	Timaru	3.87	220	P	Pn	08 33 33.0	-0.9
FOZ	Fox Glacier	4.01	237	Pn	Pn	08 33 35.2	-0.6
FOZ	Fox Glacier	4.01	237	P	Pn	08 33 35.4	-0.4
LBZ	Lake Benmore	4.29	225	P	Pn	08 33 39.5	-0.2
MKAZ	Moumakai	4.38	8	P	Pn	08 33 43.2	+2.3
AWAZ	Awhitu Peninsu	4.38	2	P	Pn	08 33 42.4	+1.4
ETAZ	East Tamaki Re	4.50	5	P	Pn	08 33 44.7	+2.0
ODZ	Otahua Downs	4.54	216	P	Pn	08 33 42.3	-0.9
ODZ	Otahua Downs	4.54	216	Pn	Pn	08 33 41.3	-1.9
ODZ	Otahua Downs	4.54	216	P	Pn	08 33 41.9	-1.2
RVAZ	Riverhead Bore	4.67	1	P	Pn	08 33 46.9	+1.9
MBAZ	Motutapu North	4.69	4	P	Pn	08 33 48.4	+3.2
JCZ	Jackson Bay	4.92	236	P	Pn	08 33 48.4	-0.1
JCZ	Jackson Bay	4.92	236	P	Pn	08 33 47.7	-0.8
OUZ	Omahuta	6.25	354	P	Pn	08 34 08.3	+1.6
OUZ	Omahuta	6.25	354	P	Pn	08 34 07.8	+1.1
CTZ	Chatham Island	6.98	112	P	Pn	08 34 15.8	-0.9
CTZ	Chatham Island	6.98	112	Pn	Pn	08 34 13.8	-2.8
CTZ	Chatham Island	6.98	112	P	Pn	08 34 16.1	-0.6

WEL 12 08:32:57.7±0.7,37°S±6°×17°7E±°,h5^{km},M2.5/7,ML2.5/12, MLv2.5/7,Error ellipse: s-maj=8.8km s-min=3.4km az=28.1,confirmed,Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MYRZ	Mayor Island	0.87	234	S	Sb	08 33 26.7	-0.6
HAZ	Te Kaha	1.12	152	P	Pg	08 33 18.2	-1.0
HAZ				S	Sg	08 33 33.3	-0.5
HAZ				AML	AML		
MXZ	Matakaoa Point	1.24	130	P	Pg	08 33 19.8	-1.6
MXZ				S	Sg	08 33 36.2	-1.3
MXZ				AML	AML		
RUGZ	Raukumara Rang	1.28	160	P	Pg	08 33 21.5	-0.7
RUGZ				S	Sg	08 33 38.6	-0.2
RUGZ				AML	AML		
RUGZ				AML	AML		
PKGZ	Pakihiroa	1.34	145	P	Pn	08 33 22.4	-0.7
PKGZ				AML	AML		
PKGZ				AML	AML		
GRZ	Great Barrier	1.44	291	P	Pn	08 33 23.3	-1.1
GRZ				S	Sb	08 33 41.7	-1.9
GRZ				AML	AML		
WMGZ	Waiomatatini S	1.47	136	P	Pb	08 33 25.3	-0.3
WMGZ				AML	AML		
URZ	Urewera	1.49	180	P	Pn	08 33 24.6	-0.5
URZ				AML	AML		
TWGZ	Tauwhareparae	1.56	154	P	Pg	08 33 28.3	+0.6
TWGZ				AML	AML		
TWGZ				AML	AML		
PUZ	Puketiti	1.59	146	P	Pb	08 33 27.6	0.0
PUZ				AML	AML		
WIAZ	Waiheke Island	1.59	268	P	Sb	08 33 48.2	0.0
WIAZ	Waiheke Island	1.59	268	P	Pn	08 33 26.4	-0.2
WIAZ				S	Sb	08 33 47.9	-0.2
WIAZ				AML	AML		
WIAZ				AML	AML		
MWZ	Matawai	1.60	168	P	Pn	08 33 25.9	-0.8
MWZ				AML	AML		
MBAZ	Motutapu North	1.79	269	P	Pb	08 33 30.1	-0.8
MBAZ				AML	AML		
MBAZ				AML	AML		
KUTZ	Kaahu Road	2.00	211	P	Pn	08 33 32.2	0.0
KUTZ				AML	AML		
KUTZ				AML	AML		
RAHZ	Arahi	2.15	181	P	Pn	08 33 33.1	-1.1
RAHZ				AML	AML		
RAHZ				AML	AML		

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*IDC **12** 08:34:24.9±0.3, 17°.15S×167°.68E, h0^{km}, mb4.8/30, mbtmp4.8/34, ML5.4/4, MS5.5/57, Error ellipse: s-maj=10.5km s-min=10.2km az=35.0*

*PTWC **12** 08:34:25, 17°.10S×167°.90E, h10^{km}, Mwp6.2/9*

*MOS **12** 08:34:25.9±1.1, 17°.19S×167°.66E, h12^{km}, mb5.6/49, MS5.7/23, Error ellipse: s-maj=7.5km s-min=6.3km az=38.8*

*NEIC **12** 08:34:27.3±1.4, 17°.26S±0°.04×167°.68E±0°.09, h10^{km}±1^{km}, mb5.6/115, Ms_20 5.7/670, Mwb5.8/73, Mww5.9/51, Error ellipse: s-maj=14.7km s-min=7.3km az=82.0, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M$_{rr}$5.49; M$_{\theta\theta}$0.64; M$_{\phi\phi}$-6.13; M$_{r\theta}$0.41; M$_{\theta\phi}$0.26; M$_{\phi r}$-2.89; Fault plane solution: M$_0$6.54000×10^{17} NP1:φ$_s$1.15000°, δ31.80000°, λ95.32000°. NP2:φ$_s$174.90000°, δ58.35000°, λ86.71000°. Principal axes: T 6.1956, Plg76.0000°, Azm75.0000°; N 0.6332, Plg3.0000°, Azm177.0000°; P -6.8289, Plg13.0000°, Azm267.0000°;*

*NOU **12** 08:34:27.0, 17°.14S×167°.90E, h0^{km}, ML5.9/149, Vanuatu Islands*

*IPGP **12** 08:34:27.0, 17°.26S×167°.69E, h9^{km}, Mw5.9, Fault plane solution: NP1:φ$_s$187.00000°, δ41.00000°, λ114.00000°. NP2:φ$_s$336.00000°, δ53.00000°, λ70.00000°.*

*NEIC **12** 08:34:27.3, 17°.25S×167°.70E, h10^{km}*

*NEIC **12** 08:34:27.3, 17°.25S×167°.70E, h10^{km}*

*GFZ **12** 08:34:28.1, 17°.08S×167°.74E, h11^{km}, Mw5.8/109, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M$_{rr}$6.11; M$_{\theta\theta}$-1.23; M$_{\phi\phi}$-4.88; M$_{r\theta}$0.75; M$_{\theta\phi}$0.71; M$_{\phi r}$-2.74; Fault plane solution: M$_0$6.31626×10^{17} NP1: φ$_s$167.47804°, δ58.52571°, λ88.36281°. NP2: φ$_s$350.61144°, δ31.51248°, λ92.67204°. Principal axes: T 6.7948, Plg76.4141°, Azm72.5443°; N -1.1022, Plg1.3963°, Azm168.3330°; P -5.6926, Plg13.5112°, Azm258.6686°;*

*GFZ **12** 08:34:28.4±0.2, 17°S±3°×16°8E±°, h10^{km}, M5.9/40, mb5.5/40*

*BJI **12** 08:34:28.4, 16°.72S×167°.43E, h10^{km}, mB5.9/73, mb5.2/79, Ms5.8/88, Ms7 5.5/86*

*GCMT **12** 08:34:31.3±0.1, 17°.11S×167°.63E, h12^{km}, MW5.9/176, Moment Tensor Solution. s158,c343; s176,c587; Duration: 2^s.1 Moment tensor: Scale 10^{18}Nm; M$_{rr}$0.77±.00; M$_{\theta\theta}$-0.04±.00; M$_{\phi\phi}$-0.73±.00; M$_{r\theta}$0.16±.01; M$_{\theta\phi}$0.06±.00; M$_{\phi r}$-0.20±.01; Best double couple: M$_0$0.79200×10^{18} NP1:φ$_s$4.00000°, δ38.00000°, λ105.00000°. NP2:φ$_s$165.00000°, δ54.00000°, λ79.00000°. Principal axes: T 0.8180, Plg78.0000°, Azm34.0000°; N -0.0530, Plg9.0000°, Azm172.0000°; P -0.7650, Plg8.0000°, Azm264.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s. Triangular moment-rate function*

*NEIC **12** 08:34:34.8, 17°.15S×167°.81E, h12^{km}, Moment Tensor Solution. Duration: 4^s.4 Moment tensor: Scale 10^{17}Nm; M$_{rr}$7.98; M$_{\theta\theta}$-0.75; M$_{\phi\phi}$-7.23; M$_{r\theta}$0.02; M$_{\theta\phi}$1.26; M$_{\phi r}$1.73; Fault plane solution: M$_0$7.93000×10^{17} NP1: φ$_s$167.19000°, δ38.85000°, λ86.54000°. NP2: φ$_s$351.64000°, δ51.23000°, λ92.79000°. Principal axes: T 8.1780, Plg83.0000°, Azm279.0000°; N -0.5265, Plg2.0000°, Azm170.0000°; P -7.6514, Plg6.0000°, Azm80.0000°;*

ISC 12 08:34:27.3±0.2,17°.16S±0°.03×167°.77E±0°.03,h10^{km}, n1240,σ2^s.01/986,mb5.5/225,MS5.7/415,30C-49D, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTV	Rentapao	0.89	135	P	Pg	08 34 43.8	-0.6
RTV	Rentapao	0.89	135	S	Sg	08 34 54.7	-1.3
RTV	Rentapao	0.89	135	P	Pg	08 34 41.9	-2.5
SANVU	Saraoutou	1.79	342	P	Pn	08 34 57.9	-0.3
SANVU	Saraoutou	1.79	342	S	Sb	08 35 24.1	+1.5
SANVU	Saraoutou	1.79	342	Pn	Pn	08 34 58.1	-0.1
SANVU				Sn	Sb	08 35 23.2	+0.6
SANVU	Saraoutou	1.79	342	P	Pn	08 34 54.0	-4.2
SANVU	Saraoutou	1.79	342	P	Pn	08 34 56.3	-1.9
SANVU				S	Sb	08 35 23.5	+1.0
SANVU				AML	AML		
SANVU				AML	AML		
SANVU	Saraoutou	1.79	342	P	Pn	08 34 55.4	-2.8
MARNC	Mare, Loyalty	4.31	177	P	Pn	08 35 31.7	-1.2
MARNC	Mare, Loyalty	4.31	177		Pn	08 35 30.4	-2.4
MARNC				Sn	Sn	08 36 20.6	-2.6
MARNC	Mare, Loyalty	4.31	177	P	Pn	08 35 30.6	-2.3
KOUNC	Koumac, New Ca	4.72	224	P	Pn	08 35 38.9	+0.3
KOUNC	Koumac, New Ca	4.72	224	S	Sn	08 36 35.1	+1.7
KOUNC	Koumac, New Ca	4.72	224		Pn	08 35 35.7	-2.8
KOUNC	Koumac, New Ca	4.72	224	P	Pn	08 35 37.1	-1.5
YATNC	Mamie plateau,	4.95	190	P	Pn	08 35 40.9	-0.8
YATNC	Mamie plateau,	4.95	190	S	Sn	08 36 42.1	+3.1
DZM	Mont Dzumac	5.04	194	Pn	Pn	08 35 41.9	-1.2
	14nm,0.3s,baz=92,slow=16,SNR=78						
DZM				Sn	Sn	08 36 40.2	-1.4
	67nm,0.3s,baz=308,slow=20,SNR=6.5						
DZM				LR	LR	08 36 46.0	
	comp=Z,16µm,18.9s,baz=30,slow=28						
	126nm,0.5s						
DZM				AML	AML		
NOUC	Port Laguerre	5.11	195	P	Pn	08 35 45.4	+1.5
NOUC	Port Laguerre	5.11	195	S	Sn	08 36 43.8	+0.8
NOUC	Port Laguerre	5.11	195	P	Pn	08 35 42.9	-1.0
NOUC	Port Laguerre	5.11	195	P	Pn	08 35 44.1	+0.2
NOUC				AML	AML		
NOUC				AML	AML		
ONTNC	Ouen Toro	5.27	193	P	Pn	08 35 46.1	0.0
ONTNC	Ouen Toro	5.27	193	S	Sn	08 36 48.3	+1.3
ONTNC	Ouen Toro	5.27	193		Pn	08 35 45.0	-1.2
ONTNC	Ouen Toro	5.27	193	P	Pn	08 35 45.7	-0.4
ONTNC	Ouen Toro	5.27	193	⇑P	Pn	08 35 45.9	-0.2
OUENC	Ouen Island, N	5.31	189	P	Pn	08 35 46.9	+0.3
OUENC	Ouen Island, N	5.31	189		Pn	08 35 46.1	-0.5
OUENC	Ouen Island, N	5.31	189	P	Pn	08 35 46.8	+0.2
HURO	Huro Makira	8.76	319	P	Pn	08 36 35.9	+1.8
NGOA	Tingoa Renbel	9.32	306	P	Pn	08 36 41.2	-0.5
NGOA	Tingoa Renbel	9.32	306	P	Pn	08 36 41.1	-0.6
MSVF	Nonsavu	9.83	95	Pn	Pn	08 36 51.1	+2.3
	3.6nm,0.3s,baz=272,slow=15,SNR=14						
MSVF				LR	LR	08 39 58.1	
	comp=Z,160µm,18.7s,baz=312,slow=34						
	27nm,1.1s						
MSVF				AML	AML		
MSVF	Nonsavu	9.83	95	P	Pn	08 36 45.5	-3.3
MSVF	Nonsavu	9.83	95	P	Pn	08 36 51.3	+2.5
MSVF	Nonsavu	9.83	95		Pn	08 36 51.3	+2.5
MSVF	Nonsavu	9.83	95	P	Pn	08 36 56.0	+7.2
MSVF	Nonsavu	9.83	95	⇓P	Pn	08 36 56.0	+7.2
MSVF	Nonsavu	9.83	95	P	Pn	08 36 54.4	+5.6
	comp=Z,508nm,2.4s						
HNR	Honiara	10.81	314	Pn	Pn	08 37 01.0	-1.2
	comp=Z,10nm,0.3s,baz=135,slow=4.3,SNR=5.5						
HNR				Sn	Sn	08 38 58.6	-4.7
	comp=Z,3.0nm,0.3s,baz=181,slow=23,SNR=0.8						
HNR				LR	LR	08 40 39.5	
	comp=Z,24µm,21.0s,baz=228,slow=35						
	comp=Z,215nm,0.7s						
HNR				AML	AML		
HNR	Honiara	10.81	314	P	Pn	08 37 05.8	+3.6
HNR	Honiara	10.81	314	P	Pn	08 37 02.4	+0.2
HNR	Honiara	10.81	314		Pn	08 37 02.4	+0.2
HNR	Honiara	10.81	314	P	Pn	08 37 01.5	-0.8
HNR	Honiara	10.81	314	⇑P	Pn	08 37 02.6	+0.4
HNR	Honiara	10.81	314	P	Pn	08 37 05.5	+3.3
	comp=Z,848nm,1.0s						
SAVO	Savo Central	11.11	315	P	Pn	08 37 06.0	-0.3
DGTI	Dogotuki	11.49	87	P	Pn	08 37 09.9	-1.7
TATA	Tatamba Isabel	11.67	317	P	Pn	08 37 15.9	+1.9
FUTU	Fugatoga	13.87	80	Pn	Pn	08 37 46.9	+2.8
FUNA	Funafuti	14.05	54	P	Pn	08 37 45.4	-1.2
FUNA	Funafuti	14.05	54		Pn	08 37 48.2	+1.6
FUNA	Funafuti	14.05	54	⇓P	Pn	08 37 50.5	+3.9
FUNA	Funafuti	14.05	54	P	Pn	08 37 49.3	+2.8
	comp=Z,172nm,0.7s						
LHI	Lord Howe Isla	16.34	207	P	Pn	08 38 17.7	+0.9
	comp=Z,86nm,2.5s,comp=Z,0.0nmcomp=Z,0.0nm						
AUBSH	Beerwah State	16.78	232	P	P	08 38 25.2	+0.5
GD1S	Gladstone Soft	16.91	244	P	P	08 38 26.5	+0.4
GC1S	Gold Coast 1 S	17.10	228	P	P	08 38 31.5	+3.3
AUNRC	North Rockhamp	17.30	246	P	P	08 38 31.7	+1.2
EIDS	Eidsvold	17.56	239	P	Pn	08 38 33.3	+1.1
	comp=Z,130nm,1.5s,comp=Z,0.0nmcomp=Z,0.0nm						
EIDS	Eidsvold	17.56	239	P	P	08 38 35.8	+2.5
EIDS	Eidsvold	17.56	239		Pn	08 38 30.2	-2.0
EIDS				IAmb	IAmb	08 38 39.1	
	comp=Z,766nm,1.9s						
EIDS	Eidsvold	17.56	239	⇓P	P	08 38 34.0	+0.6
EIDS	Eidsvold	17.56	239	P	P	08 38 37.2	+3.9
	comp=Z,174nm,1.8s						
RAO	Raoul Island	17.81	135	LR	LR	08 43 58.0	
	comp=Z,29µm,20.8s,baz=308,slow=32						
GLKZ	Green Lake	17.81	135	P	P	08 38 42.4	+6.3
TW1H	Toowoomba 1 Ha	17.88	232	P	P	08 38 39.3	+2.4
AUTOO	Toowoomba Stat	17.89	232	P	P	08 38 39.5	+2.5
OUZ	Omahuta	18.72	165	P	Pn	08 38 49.1	+2.6
OUZ	Omahuta	18.72	165	⇑P	Pn	08 38 47.3	+0.9
OUZ	Omahuta	18.72	165	P	Pn	08 38 48.3	+1.8
	comp=Z,355nm,2.3s						
AUAYR	Ayr State High	19.47	260	P	Pn	08 38 57.7	+2.1
WCZ	Waipu Caves	19.60	164	P	Pn	08 38 56.9	-0.1
ARMA	Armidale	19.78	225	P	P	08 38 58.6	+0.8
	comp=Z,198nm,1.7s,comp=Z,0.0nmcomp=Z,0.0nm						

ARMA	Armidale	19.78	225	P	Pn	08 39 00.3	+1.0
ARMA	Armidale	19.78	225		P	08 38 55.8	-2.0
ARMA				IAmb	IAmb	08 39 06.3	
	comp=Z,464nm,1.5s						
ARMA	Armidale	19.78	225	⇓P	Pn	08 39 01.9	+2.6
ARMA	Armidale	19.78	225	P	Pn	08 39 02.2	+2.9
	comp=Z,198nm,1.7s						
RMQ	Roma	19.92	239	P	Pn	08 39 02.0	+1.0
	comp=Z,145nm,1.4s						
RMQ	Roma	19.92	239	P	Pn	08 39 01.6	+0.6
	comp=Z,98nm,1.8s						
RMQ	Roma	19.92	239	P	Pn	08 39 04.0	+3.0
RMQ	Roma	19.92	239	P	Pn	08 39 04.6	+3.6
	comp=Z,145nm,1.5s						
AFI	Afiamalu	19.97	84	P	P	08 38 59.9	-0.1
	comp=Z,68nm,1.0s,baz=224,slow=5.8,SNR=7.4						
	comp=Z,68nm,1.0s						
AFI	Afiamalu	19.97	84	P	P	08 38 59.2	-0.7
AFI	Afiamalu	19.97	84	P	Pn	08 39 01.4	-0.2
AFI				pmax	pmax		
	comp=Z,904nm,2.0s						
AFI	Afiamalu	19.97	84	P	Pn	08 39 01.4	-0.2
AFI				IAmb	IAmb	08 39 13.2	
	comp=Z,904nm,2.0s						
AFI	Afiamalu	19.97	84	IAMs_20	IAMs_20	08 44 43.6	
	comp=Z,28µm,20.0s						
AFI	Afiamalu	19.97	84	P	Pn	08 39 01.0	-0.7
AFI	Afiamalu	19.97	84	P	Pn	08 39 01.5	-0.1
	comp=Z,137nm,1.1s						
KRVT	Keravat (AS076	20.04	308	P	P	08 39 00.4	-0.2
	comp=Z,25nm,0.3s,baz=100,slow=17,SNR=8.2						
KRVT				LR	LR	08 45 35.7	
	comp=Z,16µm,21.5s,baz=131,slow=34						
	comp=Z,98nm,0.3s						
KRVT				AML	AML		
TV1H	Townsville Har	20.04	261	P	Pn	08 39 03.0	+0.7
ABAZ	Army Bay	20.35	163	P	P	08 39 04.9	+1.1
MBAZ	Motutapu North	20.53	163	P	P	08 39 06.9	+1.1
WTAZ	Waiatarua	20.59	164	P	P	08 39 07.7	+1.1
CTA	Charters Tower	20.60	259	P	P	08 39 03.0	-3.7
	comp=Z,64nm,1.3s						
CTA	Charters Tower	20.60	259	P	P	08 39 07.5	+0.7
	comp=Z,64nm,1.3s						
CTA	Charters Tower	20.60	259	P	P	08 39 05.7	-1.0
	comp=Z,34nm,0.9s,baz=87,slow=12,SNR=25						
CTA				LR	LR	08 45 58.5	
	comp=Z,31µm,20.2s,baz=74,slow=34						
	comp=Z,34nm,0.9s						
CTA	Charters Tower	20.60	259	P	Pn	08 39 09.6	+0.6
CTAO	Charters Tower	20.60	259	P	Pn	08 39 10.0	+1.0
CTAO	Charters Tower	20.60	259	P	P	08 39 05.2	-1.5
CTAO				pmax	pmax		
	comp=Z,460nm,1.6s						
CTAO				MLR	MLR		
	comp=Z,34µm,22.0s						
CTAO	Charters Tower	20.60	259	P	P	08 39 05.2	-1.5
CTAO				IAmb	IAmb	08 39 16.9	
	comp=Z,460nm,1.6s						
CTAO	Charters Tower	20.60	259	IAMs_20	IAMs_20	08 45 26.4	
	comp=Z,34µm,22.0s						
CTAO	Charters Tower	20.60	259	⇑P	P	08 39 07.4	+0.7
CTAO	Charters Tower	20.60	259	P	Pn	08 39 10.3	+1.3
	comp=Z,161nm,1.3s						
WIAZ	Waiheke Island	20.61	163	P	P	08 39 05.1	-1.7
AUPHS	Peel High Scho	20.70	225	P	Pn	08 39 12.1	+2.0
AWAZ	Awhitu Peninsu	20.74	164	P	Pn	08 39 14.1	+3.7
MKAZ	Moumakai	20.91	163	P	Pn	08 39 12.6	+0.1
NIUE	Niue	21.28	99	P	P	08 39 21.1	+7.0
PMG	Port Moresby	21.47	288	P	P	08 39 16.0	-0.2
	comp=Z,18nm,0.8s,baz=83,slow=14,SNR=5.7						
PMG				LR	LR	08 46 46.2	
	comp=Z,31µm,18.2s,baz=114,slow=35						
	comp=Z,18nm,0.8s						
PMG	Port Moresby	21.47	288	P	P	08 39 19.5	+3.3
PMG	Port Moresby	21.47	288	P	P	08 39 18.6	+2.4
PMG	Port Moresby	21.47	288	*d i*P	P	08 39 17.3	+1.1
PMG				pmax	pmax		
	comp=Z,283nm,1.5s						
PMG	Port Moresby	21.47	288		P	08 39 14.8	-1.4
PMG				IAmb	IAmb	08 39 27.1	
	comp=Z,272nm,1.6s						
PMG	Port Moresby	21.47	288	IAMs_20	IAMs_20	08 47 02.1	
	comp=Z,35µm,18.0s						
PMG	Port Moresby	21.47	288	P	P	08 39 21.3	+5.1
	comp=Z,179nm,1.9s						
TOZ	Tahuroa Road	21.59	163	P	P	08 39 18.5	+1.2
TGRZ	Tauranga	21.81	162	P	P	08 39 16.5	-3.1
KMRZ	Kaimai	21.83	162	P	P	08 39 20.4	+0.6
AULRC	Lightning Ridg	21.86	232	P	P	08 39 23.3	+3.1
MGCD	Mangrove Creek	21.92	220	P	P	08 39 19.2	-1.7
	comp=Z,85nm,0.9s						
MGCD	Mangrove Creek	21.92	220	P	P	08 39 23.4	+2.5
MGCD	Mangrove Creek	21.92	220	P	P	08 39 23.6	+2.7
	comp=Z,85nm,0.9s						
AUKHS	Kincumber High	21.93	219	P	P	08 39 23.4	+2.5
WHRZ	Whale Island	22.15	160	P	P	08 39 30.7	+7.4
HIZ	Hauiti	22.16	165	P	P	08 39 25.3	+1.9
HIZ	Hauiti	22.16	165	P	P	08 39 25.4	+1.9
	comp=Z,495nm,1.3s						
TLZ	Tolley Road	22.16	164	P	P	08 39 24.0	+0.5
HAZ	Te Kaha	22.33	159	P	P	08 39 28.0	+2.8
MXZ	Matakaoa Point	22.34	158	P	P	08 39 25.4	+0.1
MXZ	Matakaoa Point	22.34	158	P	P	08 39 30.8	+5.5
MTSU	Mount Surprise	22.37	264	P	P	08 39 26.7	+0.9
	comp=Z,103nm,1.1s						
MTSU	Mount Surprise	22.37	264	P	P	08 39 28.8	+2.9
MTSU	Mount Surprise	22.37	264	P	P	08 39 27.3	+1.5
	comp=Z,103nm,1.1s						
HRRZ	Handcock Road	22.43	162	P	P	08 39 33.0	+6.7
RRRZ	Republican Roa	22.45	162	P	P	08 39 31.2	+4.7
RUGZ	Raukumara Rang	22.48	159	P	P	08 39 29.2	+2.2
SYDH	Sydney Hard Ro	22.52	220	P	P	08 39 29.5	+2.2
PKGZ	Pakihiroa	22.53	158	P	P	08 39 32.6	+5.2
PRRZ	Plateau Road	22.56	162	P	P	08 39 32.8	+5.1
URZ	Urewera	22.56	161	LR	LR	08 47 23.0	
	comp=Z,14µm,18.4s,baz=352,slow=34						
URZ	Urewera	22.56	161	P	P	08 39 28.5	+0.8
URZ	Urewera	22.56	161	⇑P	P	08 39 28.1	+0.5
URZ	Urewera	22.56	161	P	P	08 39 28.4	+0.7
	comp=Z,254nm,1.4s						
WMGZ	Waiomatatini S	22.61	158	P	P	08 39 28.8	+0.6
MUGZ	Murupara	22.66	161	P	P	08 39 30.8	+2.1
KHEZ	Kahui Hut	22.72	167	P	P	08 39 32.8	+3.4
VRZ	Vera Road	22.72	166	P	P	08 39 38.2	+8.9
MWZ	Matawai	22.77	160	P	P	08 39 32.0	+2.2
TWGZ	Tauwhareparae	22.78	159	P	P	08 39 31.7	+1.7
PUZ	Puketiti	22.78	158	P	P	08 39 29.9	-0.1
RTZ	Ruatahuna	22.85	161		P	08 39 30.6	-0.2
RTZ	Ruatahuna	22.85	161	P	P	08 39 31.3	+0.5
RAGZ	Rawiri	22.88	160	P	P	08 39 32.4	+1.3
MRHZ	Matea Rd	22.88	162	P	P	08 39 28.5	-2.6
WOLH	Wollongong Har	22.89	218	P	P	08 39 33.1	+2.0
AUDCS	Dubbo College	22.91	226	P	P	08 39 33.6	+2.1
WTVZ	West Tongariro	22.92	164	P	P	08 39 36.3	+4.8
NTVZ	North Tongarir	22.92	164	P	P	08 39 28.0	-3.7
TMVZ	Te Maari	22.95	164	P	P	08 39 36.3	+4.4
ETVZ	East Tongariro	22.97	164	P	P	08 39 35.4	+3.4
TKGZ	Te Karaka	22.97	159	P	P	08 39 35.7	+3.7
NGZ	Ngauruhoe	22.98	164	P	P	08 39 35.0	+2.8
SNVZ	South Ngauruho	23.00	164	P	P	08 39 36.1	+3.7
PKVZ	Pokaka	23.02	165	P	P	08 39 36.7	+4.1
MTHZ	Maungataniwha	23.02	162	P	P	08 39 35.4	+2.8
FWVZ	Far West T-bar	23.04	164	P	P	08 39 37.4	+4.4
TRVZ	Turoa	23.08	164	P	P	08 39 36.0	+2.6
CNGZ	Carnagh Statio	23.13	159	P	P	08 39 36.8	+3.2
RAHZ	Arahi	23.16	161	P	P	08 39 34.5	+0.6
RIGZ	Rimuhau	23.18	160	P	P	08 39 34.4	+0.3
BKZ	Black Stump Fm	23.21	163	P	P	08 39 34.7	+0.2
BKZ	Black Stump Fm	23.21	163	P	P	08 39 34.6	+0.2
MOVZ	Moawhango	23.23	164	P	P	08 39 35.9	+1.2
NMHZ	Naumai	23.24	162	P	P	08 39 36.8	+2.0
WHHZ	Waihua	23.35	161	P	P	08 39 39.3	+3.5
BHHZ	Black Hill Sta	23.39	164	P	P	08 39 37.8	+1.5
KWHZ	Kaweka Forest	23.43	163	P	P	08 39 40.3	+3.6
KNZ	Kokohu	23.44	160	P	P	08 39 38.6	+2.0
MCHZ	McNeill Hill	23.53	162	P	P	08 39 42.6	+5.0
KRHZ	Kereru	23.62	163	P	P	08 39 41.1	+2.6
QLP	Quilpie	23.74	243	P	P	08 39 39.9	+0.1
	comp=Z,420nm,2.3s,comp=Z,0.0nmcomp=Z,0.0nm						
QLP	Quilpie	23.74	243	P	P	08 39 42.2	+2.4
QLP	Quilpie	23.74	243	⇓P	P	08 39 41.4	+1.6
QLP	Quilpie	23.74	243	P	P	08 39 39.6	-0.2
	comp=Z,420nm,2.3s						
AUUHS	Ulladulla High	23.79	217	P	P	08 39 41.1	+0.9
PNHZ	Pukenui	23.83	164	P	P	08 39 40.3	-0.3
KAHZ	Kahuranaki	23.90	162	P	P	08 39 41.6	+0.3
QRZ	Quartz Range	23.94	171	P	P	08 39 44.2	+2.6
WPHZ	Waipukurau	24.03	163	P	P	08 39 42.1	-0.4
DVHZ	Dannevirke	24.18	164	P	P	08 39 43.4	-0.4
MRZ	Mangatainoka R	24.37	165	IAMs_20	IAMs_20	08 48 39.0	
	comp=Z,25µm,20.0s						
CNB	Canberra Magne	24.41	219	P	P	08 39 46.9	+0.8
	comp=Z,4.8nm,1.0s,comp=Z,0.0nmcomp=Z,0.0nm						
CNB	Canberra Magne	24.41	219	P	P	08 39 45.1	-1.0
	comp=Z,4.8nm,1.0s,comp=Z,0.0nmcomp=Z,0.0nm						
MRNZ	Matariki Terra	24.54	171	P	P	08 39 47.9	+0.8
BFZ	Birch Farm	24.56	164	P	P	08 39 47.6	+0.3
BFZ	Birch Farm	24.56	164	IAMs_20	IAMs_20	08 49 06.2	
	comp=Z,22µm,18.0s						
BFZ	Birch Farm	24.56	164	P	P	08 39 48.4	+1.0
	comp=Z,261nm,0.9s						
AUMHS	Melrose High S	24.61	219	P	P	08 39 48.8	+0.9
CMSA	Cobar Meteorol	24.62	230	P	P	08 39 48.0	0.0
	comp=Z,142nm,1.1s,comp=Z,0.0nmcomp=Z,0.0nm						
CMSA	Cobar Meteorol	24.62	230	P	P	08 39 48.6	+0.6
	comp=Z,142nm,1.1s,comp=Z,0.0nmcomp=Z,0.0nm						
CMSA	Cobar Meteorol	24.62	230	P	P	08 39 50.6	+2.6
CMSA	Cobar Meteorol	24.62	230	P	P	08 39 49.3	+1.4
	comp=Z,142nm,1.1s						
AUMTS	Mt Stromlo	24.63	219	P	P	08 39 49.6	+1.5
CAN	Canberra	24.64	219	P	P	08 39 49.1	+1.0
	comp=Z,125nm,2.3s,comp=Z,0.0nmcomp=Z,0.0nm						
CAN	Canberra	24.64	219	P	P	08 39 49.5	+1.4
CAN	Canberra	24.64	219	P	P	08 39 47.2	-0.9
CAN				pmax	pmax		
	comp=Z,138nm,1.1s						
CAN	Canberra	24.64	219	P	P	08 39 47.2	-0.9
CAN				IAmb	IAmb	08 40 11.9	
	comp=Z,138nm,1.1s						
CAN				IAMs_20	IAMs_20	08 47 11.6	
	comp=Z,23µm,22.0s						
CAN	Canberra	24.64	219	⇑P	P	08 39 49.1	+1.0
CAN	Canberra	24.64	219	P	P	08 39 49.1	+1.0
	comp=Z,125nm,2.3s						
SNZO	South Karori	24.80	167	P	P	08 39 50.7	+1.3
SNZO	South Karori	24.80	167	IAMs_20	IAMs_20	08 48 49.0	
	comp=Z,19µm,18.0s						
MANU	Manus Island	25.06	305	P	P	08 39 53.8	+1.7
MANU				IAmb	IAmb	08 40 20.3	
	comp=Z,136nm,1.5s						
AUSMG	Snowy Mountain	25.61	218	P	P	08 39 58.4	+1.4
KHZ	Kahutara	25.65	170	⇓P	P	08 39 56.7	-0.4
KHZ	Kahutara	25.65	170	P	P	08 39 57.0	-0.1
	comp=Z,250nm,1.1s						
MILA	Mila	25.74	216	P	P	08 40 02.0	+3.8
	comp=Z,37nm,2.8s,comp=Z,0.0nm						
MILA	Mila	25.74	216	P	P	08 39 59.8	+1.6
	comp=Z,37nm,2.8s,comp=Z,0.0nm						
RPZ	Rata Peaks	26.62	175	LR	LR	08 50 09.6	
	comp=Z,4µm,18.8s,baz=342,slow=36						
JCZ	Jackson Bay	26.84	178	P	P	08 40 10.0	+1.9
QIS	Mount Isa	26.85	258	P	P	08 40 10.9	+2.5
	comp=Z,99nm,1.5s,comp=Z,0.0nmcomp=Z,0.0nm						
QIS	Mount Isa	26.85	258	P	P	08 40 09.6	+1.3
	comp=Z,99nm,1.5s,comp=Z,0.0nmcomp=Z,0.0nm						
QIS	Mount Isa	26.85	258	P	P	08 40 10.1	+1.8
QIS	Mount Isa	26.85	258	P	P	08 40 08.1	-0.2
	comp=Z,99nm,1.5s						
INKA	Innaminka	27.05	242	P	P	08 40 09.2	-0.7
AUMAG	Moama Anglican	27.80	223	P	P	08 40 19.1	+2.5
STKA	Stephens Creek	27.86	233	P	P	08 40 17.1	-0.2
	comp=Z,390nm,2.1s,comp=Z,0.0nmcomp=Z,0.0nm						
STKA	Stephens Creek	27.86	233	P	P	08 40 15.6	-1.6
	comp=Z,390nm,2.1s,comp=Z,0.0nmcomp=Z,0.0nm						
STKA	Stephens Creek	27.86	233	P	P	08 40 16.2	-1.0
	comp=Z,10nm,0.6s,baz=61,slow=8.2,SNR=24						
STKA				PcP	PcP	08 43 33.2	0.0
	comp=Z,8.1nm,0.8s,baz=57,slow=5.2,SNR=2.8						
STKA				LR	LR	08 51 26.8	
	comp=Z,22µm,18.7s,baz=62,slow=37						
	comp=Z,10nm,0.6s						
STKA	Stephens Creek	27.86	233	P	P	08 40 18.6	+1.3
STKA	Stephens Creek	27.86	233	*ce*P	P	08 40 16.4	-0.9
STKA	Stephens Creek	27.86	233	P	P	08 40 17.0	-0.2
	comp=Z,390nm,2.1s						
ODZ	Otahua Downs	27.91	176	P	P	08 40 19.9	+2.4
	comp=Z,45nm,2.1s						
DCZ	Deep Cove	28.23	181	P	P	08 40 19.9	-0.4
DCZ				IAmb	IAmb	08 40 41.8	
	comp=Z,97nm,1.1s						
TOO	Toolangi	28.24	220	P	P	08 40 22.6	+2.0
	comp=Z,18nm,1.4s,comp=Z,0.0nm						
TOO	Toolangi	28.24	220	P	P	08 40 21.1	+0.5
	comp=Z,18nm,1.4s,comp=Z,0.0nm						
TOO	Toolangi	28.24	220	P	P	08 40 20.0	-0.6
TOO				pmax	pmax		
	comp=Z,24nm,1.3s						
TOO	Toolangi	28.24	220	P	P	08 40 20.0	-0.6
TOO	Toolangi	28.24	220	⇓P	P	08 40 22.3	+1.7
BRAT	Ballarat	29.20	221	P	P	08 40 31.5	+2.5
ARPS	Mount Arapiles	30.10	224	P	P	08 40 38.8	+1.7
	comp=Z,19nm,1.4s,comp=Z,0.0nm						
ARPS	Mount Arapiles	30.10	224	P	P	08 40 37.8	+0.7
	comp=Z,19nm,1.4s,comp=Z,0.0nm						
HTT	Hallett	30.57	233	P	P	08 40 44.7	+3.4
	comp=Z,17nm,1.5s						
HTT	Hallett	30.57	233	P	P	08 40 42.5	+1.1
	comp=Z,17nm,1.5s						
HTT	Hallett	30.57	233	P	P	08 40 43.7	+2.4
HTT	Hallett	30.57	233	P	P	08 40 42.4	+1.1
MOO	Moorlands	30.72	211	P	P	08 40 43.2	+0.7
	comp=Z,112nm,1.3s						
MOO	Moorlands	30.72	211	P	P	08 40 42.6	+0.1
	comp=Z,111nm,1.3s						
MOO	Moorlands	30.72	211	P	P	08 40 44.8	+2.3
MOO	Moorlands	30.72	211	P	P	08 40 44.9	+2.4
	comp=Z,112nm,1.3s						
GENI	Genyem	30.73	295	P	P	08 40 45.1	+2.2
GENI	Genyem	30.73	295	P	P	08 40 43.2	+0.3
	comp=Z,8µmcomp=Z,126nm,1.5s						
GENI	Genyem	30.73	295	P	P	08 40 43.5	+0.6
	comp=Z,136nm,1.8s						
RAR	Rarotonga	30.89	103	P	P	08 40 44.1	-0.1
	comp=Z,11nm,0.9s,baz=290,slow=9.1,SNR=2.4						
RAR				LR	LR	08 53 33.8	
	comp=Z,1µm,18.5s,baz=264,slow=37						
	comp=Z,11nm,0.9s						
AUMBR	Murray Bridge	31.05	229	P	P	08 40 47.5	+2.0
WR8	Warramunga Arr	31.64	260	P	P	08 40 51.1	+0.2
WR8	Warramunga Arr	31.64	260	P	P	08 40 48.9	-2.0
WR8				IAmb	IAmb	08 41 27.5	
	comp=Z,191nm,1.8s						
WRAB	Tennant Creek	31.78	260	P	P	08 40 52.9	+0.8
WRAB	Tennant Creek	31.78	260	*de*P	P	08 40 49.8	-2.3
WRAB				pmax	pmax		
	comp=Z,113nm,1.5s						
WRAB	Tennant Creek	31.78	260	P	P	08 40 50.0	-2.0
WRAB				IAmb	IAmb	08 41 12.7	
	comp=Z,55nm,1.1s						
WRAB	Tennant Creek	31.78	260	IAMs_20	IAMs_20	08 52 17.2	
	comp=Z,20µm,21.0s						
WRAB	Tennant Creek	31.78	260	P	P	08 40 50.1	-2.0
	comp=Z,59nm,1.9s						
WRA	Warramunga Arr	31.79	260	P	P	08 40 50.0	-2.2
	comp=Z,17nm,1.0s,baz=90,slow=9.4,SNR=35						
WRA				PcP	PcP	08 43 43.4	-0.1
	comp=Z,6.9nm,1.2s,baz=88,slow=3.5,SNR=1.8						
WRA				LR	LR	08 52 39.2	
	comp=Z,21µm,21.2s,baz=90,slow=34						
	comp=Z,17nm,1.0s						
WRA	Warramunga Arr	31.79	260	*i* P	P	08 40 50.0	-2.2
WRA				pmax	pmax		
	comp=Z,18nm,1.0s						
AS17	Alice Springs	32.26	253	P	P	08 40 55.0	-1.3
	comp=Z,75nm,0.9s						
AS17	Alice Springs	32.26	253	P	P	08 40 54.7	-1.6
	comp=Z,75nm,0.9s						
AS01	Alice Springs	32.30	253	P	P	08 40 57.9	+1.2
AS09	Alice Springs	32.31	253	P	P	08 40 55.2	-1.6
	comp=Z,102nm,0.6s						
AS15	Alice Springs	32.33	253	P	P	08 40 55.3	-1.7
	comp=Z,72nm,0.6s						
AS31	Alice Springs	32.34	253	P	P	08 40 55.4	-1.7
	comp=Z,36nm,0.6s,comp=Z,0.0nm						
AS31	Alice Springs	32.34	253	P	P	08 40 55.1	-2.0
	comp=Z,36nm,0.6s,comp=Z,0.0nm						
AS31	Alice Springs	32.34	253	P	P	08 40 55.0	-2.0
AS31				IAmb	IAmb	08 41 07.8	
	comp=Z,27nm,0.5s						
ASAR	Alice Springs	32.34	253	P	P	08 40 55.1	-1.9
	comp=Z,23nm,0.5s,baz=80,slow=8.4,SNR=233						
ASAR				PcP	PcP	08 43 45.0	0.0
	comp=Z,5.9nm,1.0s,baz=85,slow=3.8,SNR=4.4						
ASAR				S	S	08 46 05.7	-5.5
	comp=Z,1.1nm,0.8s,baz=83,slow=18,SNR=1.6						
ASAR				ScP	ScP	08 47 31.4	+2.4
	comp=Z,1.1nm,1.0s,baz=110,slow=5.1,SNR=4.0						
ASAR				LR	LR	08 53 22.9	
	comp=Z,38µm,19.9s,baz=89,slow=35						
	comp=Z,23nm,0.5s						
ASAR	Alice Springs	32.34	253	P	P	08 40 54.8	-2.3
AUALC	St Philip’s Co	32.36	253	P	P	08 40 59.3	+2.1
BBOO	Buckleboo	32.54	235	P	P	08 40 59.9	+1.3
	comp=Z,90nm,1.8s,comp=Z,0.0nm						
BBOO	Buckleboo	32.54	235	P	P	08 41 00.6	+2.0
BBOO	Buckleboo	32.54	235	P	P	08 40 57.1	-1.5
BBOO				IAmb	IAmb	08 41 15.4	
	comp=Z,115nm,1.3s						
BBOO	Buckleboo	32.54	235	P	P	08 41 01.1	+2.5
	comp=Z,90nm,1.8s						
AUCAS	Cummins Area S	33.34	233	P	P	08 41 09.5	+3.9
KDU	Kakadu	34.37	273	P	P	08 41 15.8	+1.0
	comp=Z,22nm,1.5s,comp=Z,0.0nmcomp=Z,0.0nm						
KDU	Kakadu	34.37	273	P	P	08 41 13.4	-1.3
	comp=Z,23nm,1.5s,comp=Z,0.0nmcomp=Z,0.0nm						
BAKI	Biak	34.95	294	P	P	08 41 23.7	+3.9
	comp=Z,8µmcomp=Z,5µmcomp=Z,144nm,1.4s						
MTN	Manton Dam	35.61	272	P	P	08 41 26.6	+1.0
	comp=Z,26nm,1.2s,comp=Z,0.0nmcomp=Z,0.0nm						
MTN	Manton Dam	35.61	272	P	P	08 41 24.6	-0.9
	comp=Z,26nm,1.2s,comp=Z,0.0nmcomp=Z,0.0nm						
MTN	Manton Dam	35.61	272	P	P	08 41 23.8	-1.7
SAUI	Saumlaki	36.69	280	IAMs_20	IAMs_20	08 54 53.6	
	comp=Z,20µm,22.0s						
MWPI	Manokwari, Pap	36.90	292	P	P	08 41 39.4	+2.9
	comp=Z,7µmcomp=Z,199nm,1.6s						
KNRA	Kununurra	37.41	266	P	P	08 41 39.1	-1.6
	comp=Z,49nm,1.6s,comp=Z,0.0nmcomp=Z,0.0nm						
KNRA	Kununurra	37.41	266	P	P	08 41 40.4	-0.4
	comp=Z,49nm,1.6s,comp=Z,0.0nmcomp=Z,0.0nm						
KNRA	Kununurra	37.41	266	P	P	08 41 38.9	-1.9
WRKA	Warakurna	37.55	251	P	P	08 41 43.5	+1.5
	comp=Z,16nm,1.5s,comp=Z,0.0nmcomp=Z,0.0nm						
WRKA	Warakurna	37.55	251	P	P	08 41 40.5	-1.5
	comp=Z,16nm,1.5s,comp=Z,0.0nmcomp=Z,0.0nm						
FAKI	Fak Fak	37.63	288	P	P	08 41 42.6	-0.1
FAKI	Fak Fak	37.63	288	P	P	08 41 41.2	-1.5
FAKI				IAmb	IAmb	08 42 03.2	
	comp=Z,103nm,1.1s						
FAKI				IAMs_20	IAMs_20	08 56 50.1	
	comp=Z,17µm,22.0s						
FAKI	Fak Fak	37.63	288	⇓P	P	08 41 42.8	+0.1
FAKI	Fak Fak	37.63	288	P	P	08 41 44.6	+1.9
	comp=Z,6µmcomp=Z,4µmcomp=Z,92nm,2.4s						
FAKI	Fak Fak	37.63	288	P	P	08 41 41.9	-0.9
	comp=Z,91nm,2.4s						
GUMO	Guam	38.01	322	LR	LR	08 55 48.3	
	comp=Z,11µm,21.5s,baz=137,slow=34						
GUMO	Guam	38.01	322	IAMs_20	IAMs_20	08 55 14.8	
	comp=Z,14µm,21.0s						
FORT	Forrest	38.53	242	P	P	08 41 49.4	-0.8
	comp=Z,41nm,1.5s,comp=Z,0.0nm						
FORT	Forrest	38.53	242	P	P	08 41 48.8	-1.3
FORT				IAmb	IAmb	08 42 11.6	
	comp=Z,172nm,1.9s						
SWI	Sorong	39.40	290	P	P	08 42 00.7	+3.1
	comp=Z,7µmcomp=Z,4µmcomp=Z,87nm,0.9s						
FITZ	Fitzroy Crossi	40.10	262	P	P	08 42 02.4	-1.0
	comp=Z,21nm,1.7s,comp=Z,0.0nmcomp=Z,0.0nm						
FITZ	Fitzroy Crossi	40.10	262	P	P	08 42 02.3	-1.0
	comp=Z,21nm,1.7s,comp=Z,0.0nmcomp=Z,0.0nm						
FITZ	Fitzroy Crossi	40.10	262	P	P	08 42 02.3	-1.1
	comp=Z,46nm,1.0s,baz=95,slow=9.3,SNR=28						
FITZ				LR	LR	08 57 45.0	
	comp=Z,29µm,21.2s,baz=101,slow=35						
	comp=Z,46nm,1.0s						
FITZ	Fitzroy Crossi	40.10	262	P	P	08 42 04.8	+1.4
FITZ	Fitzroy Crossi	40.10	262		P	08 42 01.7	-1.7
FITZ	Fitzroy Crossi	40.10	262	⇓P	P	08 42 02.1	-1.3
FITZ	Fitzroy Crossi	40.10	262	P	P	08 42 02.5	-1.0
	comp=Z,21nm,1.7s						
PAE	Paea	40.63	97	*e*P	P	08 42 08.2	+0.4
	comp=Z,171nm,1.5s						
PAE				*e*S	S	08 48 17.6	-0.3
	comp=Z,2µm,22.3s						
PAE				*e*SS	SS	08 51 16.8	-1.3
	comp=Z,3µm,24.2s						
PAE				*e*LR	LR	08 53 18.6	
	comp=Z,21µm,24.4s						
PPT2	Papeete2	40.65	97	*e*P	P	08 42 08.8	+0.8
	comp=Z,47nm,1.2s						
PPT2				*e*PP	PP	08 43 37.2	-4.5
	comp=Z,405nm,25.2s						
PPT2				*e*S	S	08 48 14.2	-4.0
	comp=Z,5µm,25.8s						
PPT2				*e*SS	SS	08 51 15.0	-3.5
	comp=Z,4µm,24.5s						
PPT2				*e*LQ	LQ	08 51 32.5	
	comp=Z,7µm,26.0s						
PPT2				*e*LR	LR	08 53 16.0	
	comp=Z,25µm,28.2s						
PPT2				*e*LR	LR	08 53 25.2	
	comp=Z,33µm,26.0s						
PPT	Papeete	40.65	97	P	P	08 42 07.1	-0.9
	comp=Z,12nm,0.8s,baz=87,slow=22,SNR=1.7						
PPT				LR	LR	08 55 15.9	
	comp=Z,9µm,21.6s,baz=266,slow=31						
	comp=Z,12nm,0.8s						
PPTF	Pamatai, Papee	40.66	97	P	P	08 42 09.8	+1.7
PPTF				IAmb	IAmb	08 42 28.9	
	comp=Z,135nm,1.4s						
PPTF				IAMs_20	IAMs_20	08 54 43.5	
	comp=Z,9µm,21.0s						
TIAR	Tiarei	40.87	97	*e*P	P	08 42 13.3	+3.5
	comp=Z,719nm,1.3s						
TIAR				*e*S	S	08 48 20.7	-0.7
	comp=Z,13µm,23.0s						
TIAR				*e*SS	SS	08 51 23.0	+0.2
	comp=Z,15µm,23.4s						
TIAR				*e*LR	LR	08 53 28.1	
	comp=Z,85µm,24.2s						
TVO	Taravao	40.93	98	*e*P	P	08 42 13.5	+3.1
	comp=Z,91nm,1.3s						
TVO				*e*S	S	08 48 21.5	-1.0
	comp=Z,4µm,24.5s						
TVO				*e*SS	SS	08 51 24.2	0.0
	comp=Z,2µm,23.7s						
TVO				*e*LR	LR	08 53 30.3	
	comp=Z,14µm,23.0s						
NLAI	Namlea	42.23	285	P	P	08 42 21.8	+0.8
	comp=Z,6µmcomp=Z,4µmcomp=Z,178nm,1.5s						
PMOR	Pomariorio Ree	42.59	94	*e*P	P	08 42 24.8	+0.9
	comp=Z,122nm,1.2s						
PMOR				*e*S	S	08 48 46.4	-0.5
	comp=Z,4µm,24.4s						
PMOR				*e*LR	LR	08 54 18.4	
	comp=Z,21µm,22.9s						
VAH	Vaihoa	42.81	94	*e*P	P	08 42 25.7	+0.1
	comp=Z,86nm,1.1s						
VAH				*e*S	S	08 48 49.7	-0.4
	comp=Z,3µm,22.1s						
VAH				*e*SS	SS	08 51 59.7	-1.5
	comp=Z,4µm,30.4s						
VAH				*e*LR	LR	08 54 22.5	
	comp=Z,27µm,24.2s						
SOEI	Soe	42.87	274	P	P	08 42 27.2	+0.8
SOEI	Soe	42.87	274	P	P	08 42 30.5	+4.2
SOEI	Soe	42.87	274	P	P	08 42 33.5	+7.2
SOEI	Soe	42.87	274	P	P	08 42 28.7	+2.3
	comp=Z,121nm,1.1s						
TNTI	Ternate	43.61	290	P	P	08 42 31.5	-0.6
TNTI				IAmb	IAmb	08 42 53.4	
	comp=Z,251nm,1.8s						
SANI	Sanana	43.71	285	P	P	08 42 33.4	+0.4
SANI	Sanana	43.71	285	P	P	08 42 34.7	+1.7
SANI	Sanana	43.71	285	P	P	08 42 35.5	+2.5
	comp=Z,9µmcomp=Z,6µmcomp=Z,102nm,2.1s						
SANI	Sanana	43.71	285	P	P	08 42 34.7	+1.7
	comp=Z,100nm,1.7s						
KMBL	Kambalda	43.85	242	P	P	08 42 35.8	+1.8
	comp=Z,40nm,1.5s,comp=Z,0.0nm						
KMBL	Kambalda	43.85	242	P	P	08 42 34.2	+0.2
	comp=Z,40nm,1.5s,comp=Z,0.0nm						
MMRI	Maumere	45.09	275	P	P	08 42 42.4	-1.7
MBWA	Marble Bar	45.42	257	P	P	08 42 46.0	-0.6
	comp=Z,106nm,1.1s,comp=Z,0.0nmcomp=Z,0.0nm						
MBWA	Marble Bar	45.42	257	P	P	08 42 47.4	+0.8

MBWA	**Marble Bar**	**45.42**	**257**	P	**P**	**08 42 45.1**	**-1.5**
MBWA	**Marble Bar**	**45.42**	**257**	IAMs_20	IAMs_20	09 01 19.8	
	comp=Z,12µm,19.0s						
MBWA	**Marble Bar**	**45.42**	**257**	⇓P	**P**	**08 42 45.8**	**-0.8**
MBWA	**Marble Bar**	**45.42**	**257**	P	**P**	**08 42 46.0**	**-0.6**
	comp=Z,106nm,1.1s						
EDFI	**Ende, Flores**	**45.59**	**275**	P	**P**	**08 42 49.5**	**+1.4**
	comp=Z,5µmcomp=Z,73nm,1.6s						
MEEK	**Meekatharra**	**46.34**	**249**	P	**P**	**08 42 53.1**	**-0.7**
	comp=Z,165nm,0.9s,comp=Z,0.0nmcomp=Z,0.0nm						
MEEK	**Meekatharra**	**46.34**	**249**	P	**P**	**08 42 55.2**	**+1.3**
MEEK	**Meekatharra**	**46.34**	**249**	P	**P**	**08 42 53.1**	**-0.7**
	comp=Z,165nm,0.9s						
LUWI	**Luwuk**	**47.06**	**285**	P	**P**	**08 42 58.2**	**-1.3**
LUWI	**Luwuk**	**47.06**	**285**	P	**P**	**08 42 57.7**	**-1.9**
	comp=Z,101nm,1.2s						
LUWI	**Luwuk**	**47.06**	**285**	P	**P**	**08 42 58.4**	**-1.2**
	comp=Z,101nm,1.3s						
AUKUL	**Kulin High Sch**	**47.16**	**241**	P	**P**	**08 43 02.0**	**+1.8**
LBFI	**Labuhan Bajo,**	**47.37**	**274**	P	P	08 43 08.6	+6.6
KLBR	**Kellerberrin**	**47.38**	**243**	P	**P**	**08 43 00.4**	**-1.5**
	comp=Z,106nm,0.8s						
KLBR	**Kellerberrin**	**47.38**	**243**	P	**P**	**08 43 03.3**	**+1.4**
KLBR	**Kellerberrin**	**47.38**	**243**	P	**P**	**08 43 00.4**	**-1.5**
	comp=Z,106nm,0.8s						
NWAO	**Narrogin (SRO)**	**47.96**	**241**	P	**P**	**08 43 05.4**	**-1.0**
	comp=Z,70nm,0.8s,comp=Z,0.0nm						
NWAO	**Narrogin (SRO)**	**47.96**	**241**	P	**P**	**08 43 05.4**	**-1.0**
	comp=Z,114nm,0.8s						
NWAO	**Narrogin (SRO)**	**47.96**	**241**	P	**P**	**08 43 03.9**	**-2.5**
	comp=Z,113nm,0.8s						
NWAO	**Narrogin (SRO)**	**47.96**	**241**	P	**P**	**08 43 04.6**	**-1.8**
	comp=Z,112nm,0.8s						
NWAO	**Narrogin (SRO)**	**47.96**	**241**	P	**P**	**08 43 04.5**	**-1.8**
	comp=Z,28nm,0.8s,baz=88,slow=7.0,SNR=8.9						
NWAO				LR	LR	09 02 56.6	
	comp=Z,15µm,20.9s,baz=92,slow=36						
	comp=Z,28nm,0.8s						
NWAO	**Narrogin (SRO)**	**47.96**	**241**	P	**P**	**08 43 06.5**	**+0.1**
NWAO	**Narrogin (SRO)**	**47.96**	**241**	P	**P**	**08 43 08.5**	**+2.1**
NWAO	**Narrogin (SRO)**	**47.96**	**241**	P	**P**	**08 43 05.0**	**-1.3**
NWAO				pmax	pmax		
	comp=Z,108nm,1.2s						
NWAO				MLR	MLR		
	comp=Z,14µm,20.0s						
NWAO	**Narrogin (SRO)**	**47.96**	**241**	P	**P**	**08 43 05.0**	**-1.3**
NWAO				IAmb	IAmb	08 43 27.6	
	comp=Z,108nm,1.2s						
NWAO	**Narrogin (SRO)**	**47.96**	**241**	P	**P**	**08 43 05.4**	**-1.0**
	comp=Z,67nm,0.8s						
APSI	**Ampana**	**48.15**	**285**	P	**P**	**08 43 11.1**	**+3.1**
	comp=Z,4µmcomp=Z,160nm,1.4s						
DAV	**Davao City (W)**	**48.15**	**297**	LR	LR	09 04 19.5	
	comp=Z,2µm,18.4s,baz=130,slow=37						
DAV	**Davao City (W)**	**48.15**	**297**	P	P	08 43 02.0	-6.0
BLDU	**Ballidu**	**48.20**	**244**	P	**P**	**08 43 09.8**	**+1.6**
	comp=Z,34nm,0.9s						
BLDU	**Ballidu**	**48.20**	**244**	P	**P**	**08 43 07.0**	**-1.2**
	comp=Z,34nm,0.9s						
BLDU	**Ballidu**	**48.20**	**244**	P	**P**	**08 43 10.5**	**+2.3**
KAPI	**Kappang**	**48.51**	**279**	LR	LR	09 02 43.0	
	comp=Z,5µm,21.5s,baz=99,slow=35						
KAPI	**Kappang**	**48.51**	**279**	P	**P**	**08 43 15.2**	**+4.4**
KAPI	**Kappang**	**48.51**	**279**	P	**P**	**08 43 10.3**	**-0.5**
KAPI				pmax	pmax		
	comp=Z,131nm,1.3s						
KAPI	**Kappang**	**48.51**	**279**	P	**P**	**08 43 10.3**	**-0.5**
KAPI				IAmb	IAmb	08 43 47.0	
	comp=Z,131nm,1.2s						
KAPI	**Kappang**	**48.51**	**279**	P	**P**	**08 43 14.6**	**+3.8**
	comp=Z,5µmcomp=Z,4µmcomp=Z,44nm,1.3s						
KAPI	**Kappang**	**48.51**	**279**	P	**P**	**08 43 13.2**	**+2.3**
	comp=Z,85nm,1.3s						
MORW	**Morawa**	**48.69**	**246**	P	**P**	**08 43 10.9**	**-1.2**
	comp=Z,71nm,0.9s						
MORW	**Morawa**	**48.69**	**246**	P	**P**	**08 43 13.7**	**+1.6**
MORW	**Morawa**	**48.69**	**246**	P	**P**	**08 43 10.2**	**-1.9**
MORW	**Morawa**	**48.69**	**246**	⇓P	**P**	**08 43 13.5**	**+1.4**
MORW	**Morawa**	**48.69**	**246**	P	**P**	**08 43 10.1**	**-2.0**
	comp=Z,71nm,0.8s						
MUN	**Mundaring**	**48.73**	**242**	P	**P**	**08 43 10.8**	**-1.6**
	comp=Z,69nm,1.8s,comp=Z,0.0nm						
MUN	**Mundaring**	**48.73**	**242**	P	**P**	**08 43 14.7**	**+2.4**
MUN	**Mundaring**	**48.73**	**242**	P	**P**	**08 43 10.7**	**-1.6**
SPSI	**Sidrap Palu**	**48.83**	**280**	P	**P**	**08 43 14.5**	**+1.2**
	comp=Z,3µmcomp=Z,57nm,1.2s						
DBNI	**Kabupaten Domp**	**48.87**	**274**	P	**P**	**08 43 14.8**	**+1.2**
	comp=Z,4µmcomp=Z,88nm,0.8s						
PLAI	**Plampang**	**49.30**	**273**	P	**P**	**08 43 19.5**	**+2.6**
TOLI2	**Tolitoli**	**49.73**	**287**	P	**P**	**08 43 21.9**	**+1.7**
TOLI2	**Tolitoli**	**49.73**	**287**	P	**P**	**08 43 18.8**	**-1.3**
TOLI2	**Tolitoli**	**49.73**	**287**	P	**P**	**08 43 21.4**	**+1.2**
	comp=Z,58nm,1.4s						
PCI	**Palu**	**49.83**	**284**	P	**P**	**08 43 25.4**	**+4.4**
MMSI	**Mamuju**	**50.06**	**281**	P	**P**	**08 43 23.8**	**+1.1**
	comp=Z,3µmcomp=Z,49nm,1.0s						
TWSI	**Taliwang, Sumb**	**50.17**	**273**	P	**P**	**08 43 25.9**	**+2.3**
	comp=Z,8µmcomp=Z,5µmcomp=Z,141nm,1.2s						
KIP	**Kipapa**	**50.94**	**42**	IAMs_20	IAMs_20	08 59 58.0	
	comp=Z,8µm,19.0s						
TAOE	**Nuku Hiva Isla**	**51.28**	**88**	*e*PKIKP	P	08 43 27.2	-4.9
	comp=Z,378nm,29.9s						
TAOE				*e*PP	**PP**	**08 45 29.4**	**+0.3**
	comp=Z,301nm,29.7s						
TAOE				*e*S	**S**	**08 50 52.2**	**+0.8**
	comp=Z,6µm,25.1s						
TAOE				*e*SS	**SS**	**08 54 31.2**	**+4.0**
	comp=Z,2µm,25.9s						
TAOE				*e*LR	LR	08 58 16.6	
	comp=Z,31µm,26.0s						
DRV	**Dumont d'Urvil**	**52.70**	**193**	P	**P**	**08 43 41.0**	**-0.7**
JAGI	**Jajag, Banyuwa**	**52.85**	**272**	IAMs_20	IAMs_20	09 05 31.6	
	comp=Z,6µm,22.0s						
MYLDM	**Lahad Datu**	**53.49**	**290**	P	**P**	**08 43 52.3**	**+4.0**
MYLDM	**Lahad Datu**	**53.49**	**290**	P	**P**	**08 43 47.5**	**-0.8**
MYLDM	**Lahad Datu**	**53.49**	**290**	⇓P	**P**	**08 43 50.9**	**+2.6**
MYLDM	**Lahad Datu**	**53.49**	**290**	P	**P**	**08 43 52.0**	**+3.7**
	comp=Z,4µmcomp=Z,115nm,2.3s						
MYLDM	**Lahad Datu**	**53.49**	**290**	P	**P**	**08 43 52.0**	**+3.7**
	comp=Z,115nm,2.3s						
BBKI	**Banjar Baru**	**53.64**	**279**	P	**P**	**08 43 53.7**	**+4.2**
	comp=Z,8µmcomp=Z,7µmcomp=Z,96nm,1.6s						
JMZ	**Minamidaito 2**	**55.58**	**319**	P	**P**	**08 44 05.3**	**+2.1**
JMZ	**Minamidaito 2**	**55.58**	**319**	P	**P**	**08 44 03.4**	**+0.2**
JMZ	**Minamidaito 2**	**55.58**	**319**	P	**P**	**08 44 04.7**	**+1.4**
	comp=Z,142nm,1.9s						
KKM	**Kota Kinabalu**	**55.91**	**290**	P	**P**	**08 44 07.8**	**+1.8**
KKM	**Kota Kinabalu**	**55.91**	**290**	P	**P**	**08 44 08.2**	**+2.2**
	comp=Z,3µmcomp=Z,95nm,1.4s						
KKM	**Kota Kinabalu**	**55.91**	**290**	P	**P**	**08 44 07.5**	**+1.5**
	comp=Z,95nm,1.4s						
JHJ2	**Mitsune**	**56.68**	**332**	P	**P**	**08 44 11.6**	**+0.7**
JHJ	**Hachijo jima 2**	**56.70**	**332**	LR	LR	09 10 34.7	
	comp=Z,1µm,18.4s,baz=134,slow=38						
STKI	**Sintang**	**57.98**	**281**	P	**P**	**08 44 23.7**	**+3.1**
	comp=Z,6µmcomp=Z,106nm,1.7s						
SBUM	**Sibu**	**58.14**	**284**	P	**P**	**08 44 24.1**	**+2.4**
SBUM	**Sibu**	**58.14**	**284**	P	**P**	**08 44 23.8**	**+2.1**
SBUM	**Sibu**	**58.14**	**284**	P	**P**	**08 44 21.5**	**-0.2**
	comp=Z,43nm,3.0s						
JOW	**Kunigami**	**58.16**	**318**	P	**P**	**08 44 22.1**	**+0.5**
JOW	**Kunigami**	**58.16**	**318**	P	**P**	**08 44 21.1**	**-0.5**
JOW	**Kunigami**	**58.16**	**318**	⇑P	**P**	**08 44 23.6**	**+2.0**
JOW	**Kunigami**	**58.16**	**318**	P	**P**	**08 44 23.2**	**+1.7**
	comp=Z,91nm,1.9s						
JGF	**Kuroka**	**59.87**	**332**	P	**P**	**08 44 33.1**	**-0.2**
JMN	**Monobe**	**60.04**	**328**	P	**P**	**08 44 35.1**	**+0.6**
JMN	**Monobe**	**60.04**	**328**	P	**P**	**08 44 34.1**	**-0.5**
JMN	**Monobe**	**60.04**	**328**	⇓P	**P**	**08 44 34.4**	**-0.2**
JMN	**Monobe**	**60.04**	**328**	P	**P**	**08 44 34.2**	**-0.3**
	comp=Z,156nm,1.4s						
YOJ	**Yonaguni jima**	**60.14**	**312**	P	**P**	**08 44 39.1**	**+3.8**
YOJ	**Yonaguni jima**	**60.14**	**312**	P	**P**	**08 44 34.1**	**-1.2**
YOJ				pmax	pmax		
	comp=Z,138nm,1.1s						
YOJ	**Yonaguni jima**	**60.14**	**312**	P	**P**	**08 44 34.1**	**-1.2**
JSU	**Suzuyama**	**60.20**	**323**	P	**P**	**08 44 38.1**	**+2.5**
JSU	**Suzuyama**	**60.20**	**323**	P	**P**	**08 44 35.0**	**-0.6**
MJAR	**Matsushiro Arr**	**60.27**	**333**	P	**P**	**08 44 34.1**	**-2.0**
	comp=Z,27nm,1.2s,baz=160,slow=6.6,SNR=17						
MJAR				LR	LR	09 08 04.3	
	comp=Z,1µm,21.6s,baz=144,slow=34						
	comp=Z,27nm,1.2s						
MJAR	**Matsushiro Arr**	**60.27**	**333**	P	**P**	**08 44 35.4**	**-0.7**
MJAR				pmax	pmax		
	comp=Z,21nm,1.2s						
MJAR	**Matsushiro Arr**	**60.27**	**333**	P	**P**	**08 44 35.4**	**-0.7**
MAJO	**Matsushiro**	**60.27**	**333**	P	**P**	**08 44 37.0**	**+1.0**
MAJO	**Matsushiro**	**60.27**	**333**	⇓*e*P	**P**	**08 44 34.9**	**-1.1**
MAJO				pmax	pmax		
	comp=Z,54nm,1.2s						
MAJO	**Matsushiro**	**60.27**	**333**	P	**P**	**08 44 34.7**	**-1.3**
MAJO	**Matsushiro**	**60.27**	**333**	⇑P	**P**	**08 44 35.3**	**-0.8**
MAJO	**Matsushiro**	**60.27**	**333**	P	**P**	**08 44 34.7**	**-1.3**
	comp=Z,37nm,1.2s						
MJB9	**Matsu-Tunnel**	**60.28**	**333**	P	**P**	**08 44 35.3**	**-0.8**
MJB9				IAmb	IAmb	08 44 46.6	
	comp=Z,46nm,1.1s						
VNDA	**Vanda**	**60.46**	**181**	P	**P**	**08 44 36.3**	**-0.5**
	comp=Z,4.3nm,1.1s,baz=4.6,slow=5.5,SNR=16						
VNDA				LR	LR	09 07 39.2	
	comp=Z,3µm,20.5s,baz=14,slow=33						
	comp=Z,4.3nm,1.1s						
TWGBT	**Beinan**	**60.53**	**310**	P	**P**	**08 44 40.5**	**+2.5**
TWG	**Pinlang**	**60.53**	**310**	P	**P**	**08 44 36.7**	**-1.4**
TWG	**Pinlang**	**60.53**	**310**	P	**P**	**08 44 38.3**	**+0.2**
	comp=Z,30nm,1.1s						
YULB	**Yu-li**	**60.71**	**310**	P	**P**	**08 44 42.4**	**+3.1**
YULB	**Yu-li**	**60.71**	**310**	P	**P**	**08 44 38.6**	**-0.6**
YULB	**Yu-li**	**60.71**	**310**	P	**P**	**08 44 39.6**	**+0.3**
	comp=Z,54nm,2.0s						
SBA	**Scott Base**	**60.72**	**180**	P	**P**	**08 44 38.6**	**+0.1**
SBA				pmax	pmax		
	comp=Z,133nm,1.4s						
SBA	**Scott Base**	**60.72**	**180**	P	**P**	**08 44 38.6**	**+0.1**
SBA	**Scott Base**	**60.72**	**180**	P	**P**	**08 44 39.3**	**+0.7**
	comp=Z,74nm,1.8s						
NACB	**Ninganchiao**	**60.97**	**311**	P	**P**	**08 44 41.0**	**0.0**
NACB	**Ninganchiao**	**60.97**	**311**	P	**P**	**08 44 39.4**	**-1.6**
	comp=Z,84nm,1.4s						
TPUB	**Ta-pu**	**61.15**	**310**	P	**P**	**08 44 42.8**	**+0.5**
TPUB	**Ta-pu**	**61.15**	**310**	P	**P**	**08 44 40.9**	**-1.4**
TPUB	**Ta-pu**	**61.15**	**310**	P	**P**	**08 44 40.9**	**-1.4**
	comp=Z,108nm,1.1s						
JNU	**Nakatsue**	**61.17**	**325**	P	**P**	**08 44 41.2**	**-1.0**
	comp=Z,53nm,1.2s,baz=190,slow=4.3,SNR=6.6						
JNU				LR	LR	09 07 18.9	
	comp=Z,2µm,22.0s,baz=106,slow=32						
	comp=Z,53nm,1.2s						
SSLB	**Suanglung**	**61.20**	**310**	P	**P**	**08 44 41.8**	**-0.8**
SSLB	**Suanglung**	**61.20**	**310**	P	**P**	**08 44 40.8**	**-1.8**
SSLB				IAmb	IAmb	08 44 57.8	
	comp=Z,83nm,1.1s						
SSLB				IAMs_20	IAMs_20	09 09 12.8	
	comp=Z,5µm,21.0s						
SSLB	**Suanglung**	**61.20**	**310**	P	**P**	**08 44 41.4**	**-1.3**
	comp=Z,89nm,1.1s						
CGJI	**Cibinong**	**61.43**	**272**	P	**P**	**08 44 46.3**	**+1.9**
YHNB	**Yeheng**	**61.43**	**311**	P	**P**	**08 44 44.2**	**0.0**
YHNB	**Yeheng**	**61.43**	**311**	P	**P**	**08 44 43.6**	**-0.6**
	comp=Z,128nm,1.2s						
CASY	**Casey**	**61.48**	**203**	P	**P**	**08 44 43.0**	**-0.8**
CASY				IAmb	IAmb	08 45 11.3	
	comp=Z,53nm,1.2s						
CASY	**Casey**	**61.48**	**203**	⇑P	P	08 44 51.5	+7.7
CASY	**Casey**	**61.48**	**203**	P	**P**	**08 44 44.1**	**+0.2**
	comp=Z,47nm,2.4s						
ERM	**Erimo**	**63.12**	**340**	IAMs_20	IAMs_20	09 07 48.3	
	comp=Z,5µm,20.0s						
MDSI	**Maura Dua**	**63.47**	**274**	P	**P**	**08 44 58.9**	**+0.9**
	comp=Z,3µmcomp=Z,50nm,0.9s						
QZH2	**Quanzhou**	**63.61**	**310**	⇓*i*P	**P**	**08 45 00.3**	**+1.6**
QZH2				S	**S**	**08 53 35.0**	**+2.1**
QZH2				pmax	pmax		
	comp=Z,3µm,9.9s						
QZH2				L	L		
	comp=Z,2µm,19.2s						
QZH2				L	L		
	comp=Z,2µm,17.5s						
QZH2				L	L		
	comp=Z,2µm,19.9s						
YUK	**Yuzh-Kuril'sk**	**64.11**	**343**	*d i*P	P	08 44 56.2	-5.3
YUK				*e*PPP	PPP	08 49 02.1	
YUK				*i* S	**S**	**08 53 37.8**	**-0.5**
YUK				*i* SS	**SS**	**08 57 49.2**	**+1.3**
YUK				pmax	pmax		
	comp=Z,228nm,0.9s						
DSRI	**Dabo**	**64.31**	**278**	P	**P**	**08 45 05.0**	**+1.4**
	comp=Z,5µmcomp=Z,2µmcomp=Z,38nm,1.2s						
KUR	**Kuril'sk**	**64.68**	**345**	*e*P	**P**	**08 45 05.2**	**0.0**
KUR				*e*		08 47 27.0	
KUR				*e*PPP	PPP	08 48 59.5	
KUR				*e*S	**S**	**08 53 47.0**	**+1.7**
KUR				*e*		08 55 00.4	
KUR				pmax	pmax		
	comp=Z,2µm,8.3s						
KUR				pmax	pmax		
	comp=Z,230nm,1.1s						
KUR				MLR	MLR		
	comp=Z,3µm,19.0s						
KUR				MLR	MLR		
	comp=N,2µm,15.0s						
KUR				MLR	MLR		
	comp=E,1µm,13.0s						
JKA	**Kamikawa-asahi**	**65.18**	**340**	P	**P**	**08 45 09.0**	**+0.4**
ASAJ	**Asahikawa**	**65.18**	**340**	P	**P**	**08 45 08.2**	**-0.4**
	comp=E,9.9nm,0.5s,baz=245,slow=18,SNR=6.4						
ASAJ				LR	LR	09 09 46.7	
	comp=E,6µm,21.1s,baz=170,slow=33						
	comp=E,9.9nm,0.5s						
ASAJ	**Asahikawa**	**65.18**	**340**	P	**P**	**08 45 09.0**	**+0.4**
ASAJ				pmax	pmax		
	comp=Z,352nm,1.8s						
HKC	**Hong Kong Obse**	**65.49**	**305**	⇑P	**P**	**08 45 12.0**	**+1.0**
TJN	**Taejon**	**65.52**	**325**	P	**P**	**08 45 14.8**	**+3.9**
TJN	**Taejon**	**65.52**	**325**	P	**P**	**08 45 11.4**	**+0.5**
TJN				pmax	pmax		
	comp=Z,744nm,1.6s						
TJN	**Taejon**	**65.52**	**325**	P	**P**	**08 45 11.4**	**+0.5**
SSE	**Sheshan**	**65.61**	**317**	P	**P**	**08 45 10.4**	**-1.2**
SSE				S	**S**	**08 53 58.3**	**+1.0**
SSE				pmax	pmax		
	comp=Z,17nm,0.7s						
SSE				pmax	pmax		
	comp=Z,770nm,9.7s						
SSE				L	L		
	comp=Z,920nm,19.6s						
SSE				L	L		
	comp=Z,690nm,18.7s						
BTDF	**Bukit Timah Da**	**65.66**	**280**	P	**P**	**08 45 14.8**	**+2.4**
MYKOM	**Kota Tinggi**	**65.73**	**280**	P	**P**	**08 45 15.1**	**+2.3**
KSRS	**Korea Array**	**66.01**	**326**	P	**P**	**08 45 13.4**	**-0.7**
	comp=Z,3.0nm,1.0s,baz=150,slow=5.5,SNR=6.4						
KSRS				LR	LR	09 11 19.6	
	comp=Z,2µm,21.4s,baz=145,slow=34						
	comp=Z,3.0nm,1.0s						
GZH2	**Guangzhou**	**66.62**	**306**	P	**P**	**08 45 19.9**	**+1.6**
GZH2				S	**S**	**08 54 12.2**	**+2.3**
GZH2				pmax	pmax		
	comp=Z,1µm,7.5s						
GZH2				L	L		
	comp=Z,2µm,16.8s						
GZH2				L	L		
	comp=Z,3µm,23.5s						
GZH2				L	L		
	comp=Z,6µm,24.4s						
INCN	**Inchon**	**66.73**	**325**	P	**P**	**08 45 20.5**	**+1.8**
SDSI	**Sungai Dareh**	**67.15**	**276**	P	**P**	**08 45 23.4**	**+1.5**
QIZ	**Qiongzhong**	**67.34**	**300**	P	**P**	**08 45 24.2**	**+1.2**
QIZ				S	**S**	**08 54 17.2**	**-1.7**
QIZ				pmax	pmax		
	comp=Z,14nm,1.4s						
QIZ				pmax	pmax		
	comp=Z,2µm,9.6s						
QIZ				L	L		
	comp=Z,810nm,24.0s						
QIZ				L	L		
	comp=Z,2µm,23.0s						
QIZ				L	L		
	comp=Z,4µm,25.0s						
QIZ	**Qiongzhong**	**67.34**	**300**	P	**P**	**08 45 26.0**	**+3.0**
YSS	**Yuzhno-Sakhali**	**67.67**	**342**	P	**P**	**08 45 26.1**	**+1.6**
YSS	**Yuzhno-Sakhali**	**67.67**	**342**	*e*P	**P**	**08 45 24.6**	**+0.1**
YSS				*e*		08 45 48.4	
YSS				*e*S	**S**	**08 54 18.1**	**-3.6**
YSS				*e*PS	**PnS**	**08 54 45.2**	**+1.0**
YSS				*e*PPS	PPS	08 55 00.8	
YSS				pmax	pmax		
	comp=Z,600nm,5.2s						
YSS				pmax	pmax		
	comp=N,200nm,3.0s						
YSS				pmax	pmax		
	comp=E,100nm,3.0s						
YSS				pmax	pmax		
	comp=Z,40nm,1.2s						
YSS				pmax	pmax		
	comp=E,20nm,1.3s						
YSS				smax	smax		
	comp=E,1.0nm,7.7s						
YSS	**Yuzhno-Sakhali**	**67.67**	**342**	P	**P**	**08 45 25.1**	**+0.6**
YSS				IAMs_20	IAMs_20	09 10 57.1	
	comp=Z,5µm,20.0s						
NJ2	**Nanjing**	**67.75**	**316**	*e*P	**P**	**08 45 26.2**	**+0.9**
NJ2				S	**S**	**08 54 25.5**	**+2.3**
NJ2				pmax	pmax		
	comp=Z,21nm,1.1s						
NJ2				pmax	pmax		
	comp=Z,2µm,8.9s						
NJ2				L	L		
	comp=Z,2µm,18.3s						
NJ2				L	L		
	comp=Z,2µm,18.3s						
NJ2				L	L		
	comp=Z,4µm,23.9s						
BKNI	**Bangkinang**	**67.91**	**278**	P	**P**	**08 45 27.9**	**+1.1**
BKNI	**Bangkinang**	**67.91**	**278**	P	**P**	**08 45 30.5**	**+3.7**
BKNI	**Bangkinang**	**67.91**	**278**	IAMs_20	IAMs_20	09 16 13.1	
	comp=Z,6µm,20.0s						
TEY	**Ternei**	**68.08**	**337**	*e*P	**P**	**08 45 30.5**	**+3.4**
USA0B	**Ussuriysk Arra**	**69.26**	**333**	*c i*P	**P**	**08 45 35.1**	**+0.6**
USRK	**Ussuriysk Ar.**	**69.26**	**333**	P	**P**	**08 45 33.8**	**-0.7**
	comp=Z,12nm,1.0s,baz=141,slow=7.3,SNR=12						
USRK				LR	LR	09 14 12.0	
	comp=Z,1µm,20.0s,baz=148,slow=34						
	comp=Z,12nm,1.0s						
USRK	**Ussuriysk Ar.**	**69.26**	**333**	P	**P**	**08 45 34.6**	**+0.1**
USRK	**Ussuriysk Ar.**	**69.26**	**333**		**P**	**08 45 34.6**	**+0.1**
IPM	**Ipoh**	**69.29**	**282**	P	**P**	**08 45 38.5**	**+3.1**
IPM	**Ipoh**	**69.29**	**282**	P	**P**	**08 45 34.2**	**-1.2**
IPM				IAmb	IAmb	08 45 46.1	
	comp=Z,126nm,1.5s						
IPM	**Ipoh**	**69.29**	**282**	P	**P**	**08 45 36.3**	**+0.9**
	comp=Z,2µmcomp=Z,41nm,1.5s						
MNSI	**Mandailing Nat**	**69.44**	**277**	P	**P**	**08 45 35.6**	**-0.7**
	comp=Z,79nm,1.1s						
CNSH	**ChangSha**	**69.62**	**310**	P	**P**	**08 45 36.7**	**-0.3**
CNSH				S	**S**	**08 54 46.6**	**+1.0**
CNSH				pmax	pmax		
	comp=Z,31nm,1.4s						
CNSH				L	L		
	comp=Z,940nm,12.8s						
CNSH				L	L		
	comp=Z,1µm,16.2s						
CNSH				L	L		
	comp=Z,3µm,25.6s						
SHEM	**Shemya Is, Ala**	**69.81**	**4**	LR	LR	09 11 01.2	
	comp=Z,6µm,20.7s,baz=157,slow=32						
KULM	**Kulim**	**69.92**	**282**	P	**P**	**08 45 39.7**	**+0.4**
KULM	**Kulim**	**69.92**	**282**	P	**P**	**08 45 38.1**	**-1.2**
KULM	**Kulim**	**69.92**	**282**	P	**P**	**08 45 41.8**	**+2.5**
	comp=Z,2µmcomp=Z,38nm,1.7s						
WHN	**Wuhan**	**69.92**	**312**	P	**P**	**08 45 39.6**	**+0.7**
WHN				S	**S**	**08 54 49.8**	**+0.7**
WHN				pmax	pmax		
	comp=Z,5µm,10.1s						
WHN				L	L		
	comp=Z,3µm,12.0s						
WHN				L	L		
	comp=Z,2µm,13.4s						
WHN				L	L		
	comp=Z,12µm,32.6s						
GULI	**GuiLin**	**70.02**	**306**	⇓P	**P**	**08 45 37.6**	**-2.0**
GULI				pP	**pwP**	**08 45 48.0**	**+1.3**
GULI				S	**S**	**08 54 50.0**	**-0.5**
GULI				pmax	pmax		
	comp=Z,48nm,1.3s						
GULI				L	L		
	comp=Z,2µm,21.7s						
GULI				L	L		
	comp=Z,2µm,20.9s						
GULI				L	L		
	comp=Z,3µm,20.6s						
PET	**Petropavlovsk**	**70.33**	**354**	*e*P	**P**	**08 45 40.6**	**-0.2**
PET				*e*S	**S**	**08 54 53.7**	**+0.7**
PET				*e*PS	**PnS**	**08 55 25.6**	**+5.6**
PET				pmax	pmax		
	comp=Z,1µm,11.2s						
PET				pmax	pmax		
	comp=Z,2µm,7.3s						
PET				pmax	pmax		
	comp=Z,600nm,9.5s						
PEA0B	**Petropavlovsk-**	**70.51**	**354**	⇑*e*P	**P**	**08 45 39.1**	**-2.9**
PETK	**Petropavlovsk-**	**70.51**	**354**	P	**P**	**08 45 40.5**	**-1.5**
	comp=Z,3.2nm,0.8s,baz=182,slow=7.5,SNR=11						
PETK				LR	LR	09 12 03.4	
	comp=Z,2µm,19.8s,baz=176,slow=32						
	comp=Z,3.2nm,0.8s						
PETK	**Petropavlovsk-**	**70.51**	**354**	P	**P**	**08 45 41.2**	**-0.8**
PETK	**Petropavlovsk-**	**70.51**	**354**	P	**P**	**08 45 41.2**	**-0.8**
DL2	**Dalian**	**70.52**	**323**	P	**P**	**08 45 46.7**	**+4.4**
DL2				pmax	pmax		
	comp=Z,82nm,1.6s						
DL2				pmax	pmax		
	comp=Z,2µm,8.0s						
DL2				L	L		
	comp=Z,2µm,24.6s						
DL2				L	L		
	comp=Z,3µm,22.7s						
DL2				L	L		
	comp=Z,5µm,23.7s						
MDJ	**Mudanjiang**	**70.64**	**332**	P	**P**	**08 45 43.4**	**+0.4**
MDJ				S	**S**	**08 55 00.6**	**+3.6**
MDJ				pmax	pmax		
	comp=Z,26nm,1.3s						
MDJ				L	L		
	comp=Z,2µm,22.0s						
MDJ				L	L		
	comp=Z,2µm,17.2s						
MDJ				L	L		
	comp=Z,3µm,23.8s						
MDJ	**Mudanjiang**	**70.64**	**332**	P	**P**	**08 45 46.4**	**+3.4**
MDJ	**Mudanjiang**	**70.64**	**332**	P	**P**	**08 45 42.4**	**-0.5**
MDJ				IAmb	IAmb	08 45 59.3	
	comp=Z,84nm,1.4s						
RPSI	**Rantau Prapat**	**70.67**	**279**	P	**P**	**08 45 42.1**	**-1.7**
RPSI				IAMs_20	IAMs_20	09 19 30.4	
	comp=Z,5µm,20.0s						
PSI	**Prapat**	**70.71**	**279**	P	**P**	**08 45 44.0**	**-0.2**
PSI	**Prapat**	**70.71**	**279**	P	**P**	**08 45 42.2**	**-2.0**
PSI				pmax	pmax		
	comp=Z,139nm,1.4s						
PSI				MLR	MLR		
	comp=Z,5µm,20.0s						
PSI	**Prapat**	**70.71**	**279**	P	**P**	**08 45 42.8**	**-1.4**
	comp=Z,3µmcomp=Z,2µmcomp=Z,73nm,1.3s						
TYV	**Tymovskoe**	**71.23**	**343**	*e*P	**P**	**08 45 47.1**	**+0.7**
TYV				*e*S	**S**	**08 55 04.6**	**+1.1**
TYV				pmax	pmax		
	comp=Z,20nm,1.4s						
TYV				pmax	pmax		
	comp=Z,500nm,5.1s						
TYV				smax	smax		
	comp=N,500nm,7.8s						
TYV				smax	smax		
	comp=E,700nm,7.8s						
TYV				smax	smax		
	comp=N,11nm,1.8s						
TYV				smax	smax		
	comp=E,15nm,1.8s						
TIA	**Tai'an**	**71.47**	**319**	P	**P**	**08 45 49.3**	**+1.1**
TIA				S	**S**	**08 55 07.4**	**+0.4**
TIA				pmax	pmax		
	comp=E,13nm,1.0s						
TIA				pmax	pmax		
	comp=E,2µm,10.3s						
TIA				L	L		
	comp=E,2µm,17.2s						
TIA				L	L		
	comp=E,650nm,17.9s						
TIA				L	L		
	comp=E,3µm,24.7s						
SNY	**Shenyang**	**71.49**	**327**	P	P	08 45 55.6	+7.5
SNY				PP	PP	08 48 17.9	-9.2
SNY				S	**S**	**08 55 05.9**	**-1.0**
SNY	**Shenyang**	**71.49**	**327**	SS	SS	08 59 40.5	-1.8
SNY				pmax	pmax		
	comp=Z,1µm,9.7s						

SNY				LR	LR		
	comp=N,1µm,15.9s						
SNY				LR	LR		
	comp=E,1µm,16.1s						
SNY				LR	LR		
	comp=Z,3µm,22.3s						
GSI	**Gunungsitoli**	**71.51**	**277**	P	**P**	**08 45 50.5**	**+1.6**
GSI	**Gunungsitoli**	**71.51**	**277**	P	**P**	**08 45 46.7**	**-2.2**
GSI	**Gunungsitoli**	**71.51**	**277**	P	**P**	**08 45 51.9**	**+3.0**
CN2	**Changchun**	**71.97**	**329**	*e*P	P	08 45 45.6	-5.4
CN2				PP	PP	08 48 11.5	-20
CN2				*e*S	**S**	**08 55 07.9**	**-4.4**
CN2	**Changchun**	**71.97**	**329**	SS	SS	08 59 50.9	+1.3
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
CN2				pmax	pmax		
	comp=Z,300nm,6.0s						
CN2				LR	LR		
	comp=N,900nm,20.0s						
CN2				LR	LR		
	comp=E,700nm,20.0s						
CN2				LR	LR		
	comp=Z,1µm,21.0s						
KCSI	**Kotacane, Aceh**	**72.03**	**280**	P	**P**	**08 45 52.9**	**+0.8**
	comp=Z,27nm,1.1s						
BNX	**BinXian**	**72.49**	**332**	⇑P	**P**	**08 45 52.7**	**-1.4**
BNX				pP	**pP**	**08 45 56.0**	**-0.1**
BNX				S	**S**	**08 55 22.4**	**+4.1**
BNX				sS	**SKiKP**	**08 55 26.8**	**-2.8**
BNX				pmax	pmax		
	comp=Z,17nm,1.3s						
BNX				pmax	pmax		
	comp=Z,2µm,8.9s						
BNX				L	L		
	comp=Z,1µm,15.2s						
BNX				L	L		
	comp=Z,1µm,17.9s						
BNX				L	L		
	comp=Z,3µm,21.8s						
QSPA	**South Pole Qui**	**72.88**	**180**	P	**P**	**08 45 55.5**	**-0.9**
	comp=Z,146nm,1.0s,baz=18,slow=2.2,SNR=93						
QSPA				LR	LR	09 16 51.5	
	comp=Z,2µm,18.1s,baz=28,slow=35						
QSPA	**South Pole Qui**	**72.88**	**180**	P	**P**	**08 45 55.8**	**-0.6**
GRNR	**Gornyy**	**73.03**	**340**	⇓*i*P	**P**	**08 45 56.7**	**-0.5**
GRNR				pmax	pmax		
	comp=Z,10.0nm,1.3s						
ENH	**Enshi**	**73.28**	**310**	P	**P**	**08 45 59.1**	**-0.1**
ENH	**Enshi**	**73.28**	**310**	P	**P**	**08 45 57.5**	**-1.7**
SLVN	**Son La**	**73.35**	**299**	P	**P**	**08 46 01.6**	**+1.8**
SLVN	**Son La**	**73.35**	**299**	P	**P**	**08 46 00.2**	**+0.4**
SLVN				IAmb	IAmb	08 46 32.8	
	comp=Z,76nm,1.9s						
KLR	**Kul'dur**	**73.41**	**336**	LR	LR	09 15 16.4	
	comp=Z,3µm,21.2s,baz=158,slow=33						
KLR	**Kul'dur**	**73.41**	**336**	*d i*P	**P**	**08 45 58.3**	**-1.2**
KLR				pmax	pmax		
	comp=Z,104nm,1.7s						
GYA	**Guiyang**	**73.49**	**305**	⇑P	**P**	**08 46 02.3**	**+1.7**
GYA				pmax	pmax		
	comp=Z,25nm,1.6s						
LYN	**LuoYang**	**73.52**	**315**	P	**P**	**08 45 59.9**	**-0.6**
LYN				pP	sP	08 46 05.3	+2.1
LYN				S	**S**	**08 55 30.6**	**+0.1**
LYN				sS	pS	08 55 33.7	+0.7
LYN				pmax	pmax		
	comp=Z,90nm,1.2s						
LYN				pmax	pmax		
	comp=Z,3µm,7.2s						
LYN				L	L		
	comp=Z,3µm,16.5s						
LYN				L	L		
	comp=Z,3µm,19.9s						
LYN				L	L		
	comp=Z,4µm,24.0s						
MLSI	**Meulaboh, Aceh**	**73.56**	**280**	P	P	08 46 11.2	+10
HNS	**HongShan**	**73.73**	**318**	⇓P	**P**	**08 46 01.1**	**-0.5**
HNS				pmax	pmax		
	comp=Z,36nm,1.3s						
HNS				pmax	pmax		
	comp=Z,2µm,10.0s						
HNS				L	L		
	comp=Z,2µm,22.3s						
HNS				L	L		
	comp=Z,2µm,21.0s						
HNS				L	L		
	comp=Z,3µm,21.1s						
NKL	**Nikolayevsk**	**73.82**	**343**	*e*P	**P**	**08 46 00.8**	**-1.0**
NKL				*e*S	**S**	**08 55 32.9**	**-0.1**
NKL				pmax	pmax		
	comp=N,52nm,0.8s						
NKL				pmax	pmax		
	comp=Z,143nm,1.3s						
NKL				pmax	pmax		
	comp=E,79nm,1.5s						
NKL				smax	smax		
	comp=E,416nm,4.0s						
NKL				smax	smax		
	comp=N,264nm,6.6s						
UNV	**Unalaska Valle**	**74.09**	**16**	IAMs_20	IAMs_20	09 11 42.4	
	comp=Z,5µm,21.0s						
BJI2	**Beijing**	**74.44**	**321**	P	**P**	**08 46 06.6**	**+0.9**
BJI2				PcP	**PcP**	**08 46 21.4**	**+1.1**
BJI2				S	**S**	**08 55 43.0**	**+2.4**
BJI2				pmax	pmax		
	comp=Z,10.0nm,1.7s						
BJI2				pmax	pmax		
	comp=Z,430nm,5.8s						
BJI2				L	L		
	comp=Z,2µm,25.0s						
BJI2				L	L		
	comp=Z,2µm,23.3s						
BJI2				L	L		
	comp=Z,3µm,25.0s						
BJT	**Baijiatuau**	**74.44**	**321**	P	**P**	**08 46 07.3**	**+1.6**
BJT	**Baijiatuau**	**74.44**	**321**	P	**P**	**08 46 05.1**	**-0.6**
BJT				pmax	pmax		
	comp=Z,37nm,1.1s						
BJT	**Baijiatuau**	**74.44**	**321**	P	**P**	**08 46 05.1**	**-0.6**
BSI	**Banda Aceh**	**75.01**	**281**	P	**P**	**08 46 11.3**	**+1.7**
	comp=Z,4µmcomp=Z,4µmcomp=Z,159nm,1.4s						
TIY	**Taiyuan**	**75.37**	**318**	*e*P	**P**	**08 46 12.1**	**+0.9**
TIY				pmax	pmax		
	comp=Z,600nm,4.4s						
TIY				L	L		
	comp=Z,780nm,17.9s						
TIY				L	L		
	comp=Z,1µm,20.6s						
TIY				L	L		
	comp=Z,2µm,19.9s						
XAN	**Xi'an**	**75.68**	**313**	⇑P	**P**	**08 46 12.6**	**-0.5**
XAN				pP	pP	08 46 15.0	-0.1
XAN				S	**S**	**08 55 53.5**	**-1.3**
XAN				pmax	pmax		
	comp=Z,21nm,0.7s						
XAN				pmax	pmax		
	comp=Z,3µm,9.4s						
XAN				L	L		
	comp=Z,2µm,16.5s						
XAN				L	L		
	comp=Z,2µm,20.1s						
XAN				L	L		
	comp=Z,4µm,24.8s						
HEH	**HeiHe**	**75.95**	**335**	*e*P	**P**	**08 46 14.0**	**-0.1**
HEH				pP	**sP**	**08 46 17.3**	**+0.5**
HEH				S	**S**	**08 55 57.5**	**+0.6**
HEH				pmax	pmax		
	comp=Z,13nm,1.0s						
HEH				pmax	pmax		
	comp=Z,2µm,8.2s						
HEH				L	L		
	comp=Z,1µm,18.0s						
HEH				L	L		
	comp=Z,2µm,17.2s						
HEH				L	L		
	comp=Z,3µm,20.1s						
KMI2	**Kunming**	**76.00**	**302**	P	**P**	**08 46 14.3**	**-1.0**
KMI2				pP	PcP	08 46 26.0	-1.7
KMI2				S	**S**	**08 56 01.8**	**+2.8**
KMI2				SS	**SS**	**09 00 45.3**	**-6.9**
KMI2				pmax	pmax		
	comp=Z,30nm,1.5s						
KMI2				pmax	pmax		
	comp=Z,2µm,11.6s						
KMI2				L	L		
	comp=Z,2µm,25.3s						
KMI2				L	L		
	comp=Z,1µm,23.4s						
KMI2				L	L		
	comp=Z,3µm,24.3s						
RPN	**Rapa Nui**	**76.21**	**114**	LR	LR	09 12 24.8	
	comp=Z,2µm,21.8s,baz=270,slow=30						
CMAR	**Chiang Mai Arr**	**76.38**	**294**	P	**P**	**08 46 16.8**	**-0.6**
	comp=Z,2.8nm,0.5s,baz=123,slow=3.9,SNR=18						
CMAR				LR	LR	09 18 46.7	
	comp=Z,814nm,21.6s,baz=120,slow=35						
	comp=Z,2.8nm,0.5s						
CMAR	**Chiang Mai Arr**	**76.38**	**294**	P	**P**	**08 46 16.1**	**-1.2**
CHTO	**Chiang Mai**	**76.52**	**295**	P	**P**	**08 46 19.0**	**+0.9**
CHTO	**Chiang Mai**	**76.52**	**295**	P	**P**	**08 46 17.4**	**-0.7**
CHTO				pmax	pmax		
	comp=Z,105nm,1.6s						
CHTO	**Chiang Mai**	**76.52**	**295**	P	**P**	**08 46 17.4**	**-0.7**
CHTO				IAmb	IAmb	08 46 41.7	
	comp=Z,105nm,1.6s						
CHTO	**Chiang Mai**	**76.52**	**295**	P	**P**	**08 46 18.3**	**+0.2**
	comp=Z,4µmcomp=Z,2µmcomp=Z,28nm,1.8s						
CNBA	**Chernabura Isl**	**76.89**	**19**	IAMs_20	IAMs_20	09 14 58.9	
	comp=Z,4µm,20.0s						
XLT	**XiLinHaoTe**	**76.95**	**324**	*e*P	**P**	**08 46 21.2**	**+1.1**
XLT				PcP	**PcP**	**08 46 35.5**	**+4.3**
XLT				ScS	S	08 56 33.3	+25
XLT				pmax	pmax		
	comp=Z,15nm,1.4s						
XLT				pmax	pmax		
	comp=Z,1µm,7.3s						
XLT				L	L		
	comp=Z,160nm,15.3s						
XLT				L	L		
	comp=Z,1µm,13.6s						
XLT				L	L		
	comp=Z,2µm,19.1s						
PZH	**PanZhiHua**	**77.41**	**303**	P	**P**	**08 46 24.9**	**+1.7**
PZH				S	**S**	**08 56 11.9**	**-2.3**
PZH				pmax	pmax		
	comp=Z,30nm,1.3s						
PZH				pmax	pmax		
	comp=Z,400nm,6.7s						
PZH				L	L		
	comp=Z,1µm,23.3s						
PZH				L	L		
	comp=Z,2µm,22.8s						
PZH				L	L		
	comp=Z,2µm,23.1s						
MA2	**Magadan**	**77.71**	**351**	P	**P**	**08 46 23.5**	**-0.4**
	comp=Z,6.8nm,0.9s,baz=144,slow=5.4,SNR=4.3						
MA2				LR	LR	09 17 04.4	
	comp=Z,2µm,21.0s,baz=178,slow=33						
	comp=Z,6.8nm,0.9s						
MA2	**Magadan**	**77.71**	**351**	*de*P	**P**	**08 46 23.9**	**0.0**
MA2				pmax	pmax		
	comp=Z,34nm,1.8s						
MA2	**Magadan**	**77.71**	**351**	IAMs_20	IAMs_20	09 15 00.6	
	comp=Z,4µm,22.0s						
HHC	**Hu-ho-hao-te**	**77.74**	**320**	⇓*i*P	**P**	**08 46 25.9**	**+1.2**
HHC				sP	PcP	08 46 34.7	0.0
HHC				S	**S**	**08 56 20.3**	**+3.1**
HHC				SS	**SS**	**09 01 15.5**	**-2.3**
HHC				pmax	pmax		
	comp=Z,27nm,1.5s						
HHC				pmax	pmax		
	comp=Z,1µm,8.9s						
HHC				L	L		
	comp=Z,1µm,16.8s						
HHC				L	L		
	comp=Z,1µm,19.3s						
HHC				L	L		
	comp=Z,2µm,18.5s						
CD2	**Chengdu**	**77.87**	**308**	P	**P**	**08 46 25.1**	**-0.4**
CD2				pP	sP	08 46 29.4	+1.2
CD2				sP	pP	08 46 30.1	+2.6
CD2				PP	**PP**	**08 49 25.3**	**+3.8**
CD2				S	**S**	**08 56 18.5**	**-0.3**
CD2				sS	sS	08 56 27.3	+5.1
CD2				SKS	**SKSac**	**08 56 38.1**	**-1.7**
CD2				pmax	pmax		
	comp=Z,20nm,0.4s						
CD2				pmax	pmax		
	comp=Z,2µm,9.0s						
CD2				L	L		
	comp=Z,3µm,19.8s						
CD2				L	L		
	comp=Z,5µm,22.0s						
CD2				L	L		
	comp=Z,5µm,22.5s						
VNFG	**Fog Glacier, M**	**78.15**	**18**	IAMs_20	IAMs_20	09 16 01.9	
	comp=Z,4µm,20.0s						
HIA	**Hailar**	**78.62**	**330**	P	**P**	**08 46 30.5**	**+1.2**
ZEA	**Zeya**	**78.70**	**337**	*e*P	**P**	**08 46 29.1**	**-0.4**
ZEA				*e*S	**S**	**08 56 27.6**	**+0.9**
ZEA				pmax	pmax		
	comp=Z,10.0nm,0.9s						
ZEA				pmax	pmax		
	comp=N,300nm,11.6s						
ZEA				pmax	pmax		
	comp=Z,1µm,11.5s						
ZEA				smax	smax		
	comp=N,300nm,9.4s						
BTO2	**Baotou**	**78.73**	**319**	*e*P	**P**	**08 46 30.7**	**+0.5**
BTO2				PP	**PP**	**08 49 30.0**	**+1.3**
BTO2				S	**S**	**08 56 29.8**	**+1.9**
BTO2				pmax	pmax		
	comp=N,29nm,1.0s						
BTO2				pmax	pmax		
	comp=N,1µm,5.6s						
BTO2				L	L		
	comp=N,4µm,19.0s						
BTO2				L	L		
	comp=N,4µm,19.3s						
BTO2				L	L		
	comp=N,3µm,18.2s						
TNCH	**TengChong**	**79.40**	**300**	P	**P**	**08 46 36.4**	**+2.1**
TNCH				S	**S**	**08 56 36.6**	**+0.8**
TNCH				pmax	pmax		
	comp=N,43nm,0.6s						
TNCH				pmax	pmax		
	comp=N,2µm,9.3s						
TNCH				L	L		
	comp=N,1µm,22.9s						
TNCH				L	L		
	comp=N,1µm,24.1s						
TNCH				L	L		
	comp=N,2µm,22.1s						
MAW	**Mawson**	**79.83**	**202**	P	**P**	**08 46 34.8**	**-0.8**
	comp=N,12nm,1.1s,baz=108,slow=6.5,SNR=14						
MAW				LR	LR	09 17 30.1	
	comp=N,3µm,20.3s,baz=92,slow=32						
	comp=N,12nm,1.1s						
MAW	**Mawson**	**79.83**	**202**	P	**P**	**08 46 34.7**	**-0.9**
M11K	**Mekoryuk**	**80.08**	**13**	IAMs_20	IAMs_20	09 17 14.9	
	comp=Z,3µm,20.0s						
O14K	**Tigyukauivet M**	**80.23**	**16**	IAMs_20	IAMs_20	09 15 13.1	
	comp=Z,4µm,21.0s						
LZH	**Lanzhou**	**80.30**	**312**	*e*P	**P**	**08 46 39.7**	**+0.8**
LZH				sP	pwP	08 46 49.4	+3.2
LZH				S	**S**	**08 56 42.0**	**-2.9**
LZH				pmax	pmax		
	comp=Z,83nm,1.7s						
LZH				pmax	pmax		
	comp=Z,580nm,4.3s						
LZH				L	L		
	comp=Z,2µm,15.2s						
LZH				L	L		
	comp=Z,2µm,16.5s						
LZH				L	L		
	comp=Z,3µm,18.1s						
LZDM	**Lanzhou Array**	**80.34**	**312**	P	**P**	**08 46 38.7**	**-0.6**
	comp=Z,3.6nm,0.3s,baz=48,slow=2.2,SNR=7.4						
LZDM				LR	LR	09 18 15.2	
	comp=Z,1µm,21.8s,baz=110,slow=33						
	comp=Z,3.6nm,0.3s						
O15K	**Ungalikthiuk R**	**80.54**	**16**	IAMs_20	IAMs_20	09 15 32.2	
	comp=Z,5µm,21.0s						
N14K	**Kuskokwak Cree**	**80.71**	**15**	IAMs_20	IAMs_20	09 16 01.6	
	comp=Z,4µm,21.0s						
SEY	**Seymchan**	**80.74**	**353**	P	**P**	**08 46 39.2**	**-1.2**
	comp=Z,4.5nm,0.9s,baz=157,slow=7.3,SNR=8.1						
SEY				LR	LR	09 19 39.0	
	comp=Z,2µm,20.2s,baz=160,slow=34						
	comp=Z,4.5nm,0.9s						
SEY	**Seymchan**	**80.74**	**353**	*e*P	**P**	**08 46 38.1**	**-2.3**
SEY				pmax	pmax		
	comp=Z,39nm,1.6s						
M13K	**Dall Lake**	**80.74**	**14**	IAMs_20	IAMs_20	09 15 55.4	
	comp=Z,4µm,21.0s						
OHAK	**Old Harbor**	**80.88**	**20**	P	**P**	**08 46 42.0**	**+0.8**
P16K	**Nushagak River**	**80.92**	**17**	IAMs_20	IAMs_20	09 19 09.3	
	comp=Z,4µm,20.0s						
ACHA	**Angle Creek He**	**81.03**	**19**	P	**P**	**08 46 42.1**	**0.0**
N15K	**Kwethluk River**	**81.33**	**16**	IAMs_20	IAMs_20	09 15 35.8	
	comp=Z,4µm,22.0s						
M14K	**Bethel**	**81.37**	**14**	IAMs_20	IAMs_20	09 16 22.9	
	comp=Z,4µm,21.0s						
O16K	**Kokwok River B**	**81.37**	**17**	IAMs_20	IAMs_20	09 15 46.0	
	comp=Z,5µm,22.0s						
P17K	**Kvichak River**	**81.50**	**18**	IAMs_20	IAMs_20	09 17 57.6	
	comp=Z,3µm,20.0s						
KDAK	**Kodiak Island**	**81.56**	**20**	LR	LR	09 16 15.2	
	comp=Z,3µm,21.1s,baz=217,slow=31						
KDAK	**Kodiak Island**	**81.56**	**20**	*d i*P	**P**	**08 46 44.2**	**-0.6**
KDAK				pmax	pmax		
	comp=Z,18nm,1.1s						
KDAK	**Kodiak Island**	**81.56**	**20**	IAMs_20	IAMs_20	09 15 42.2	
	comp=Z,3µm,20.0s						
L14K	**Kuka Creek**	**81.72**	**14**	IAMs_20	IAMs_20	09 16 36.1	
	comp=Z,5µm,21.0s						
Q19K	**Cape Douglas,**	**82.13**	**19**	IAMs_20	IAMs_20	09 15 07.2	
	comp=Z,3µm,22.0s						
M16K	**Timber Creek**	**82.35**	**16**	IAMs_20	IAMs_20	09 16 39.9	
	comp=Z,4µm,21.0s						
N17K	**Nushagak Hills**	**82.40**	**17**	IAMs_20	IAMs_20	09 16 28.3	
	comp=Z,5µm,22.0s						
MORE	**Moreh**	**82.61**	**298**	P	**P**	**08 46 48.9**	**-2.3**
L16K	**Owhat River**	**82.81**	**15**	IAMs_20	IAMs_20	09 17 16.9	
	comp=Z,4µm,21.0s						
N18K	**Kilae Creek**	**82.89**	**17**	IAMs_20	IAMs_20	09 18 24.2	
	comp=Z,4µm,20.0s						
M17K	**Holitna River**	**83.06**	**16**	IAMs_20	IAMs_20	09 17 10.8	
	comp=Z,4µm,21.0s						
SAIH	**SAIHA**	**83.08**	**296**	*e*P	**P**	**08 46 54.5**	**+0.7**
SAIH				IAmb	IAmb	08 47 03.7	
	comp=Z,109nm,1.6s						
ILSW	**Iliamna Southw**	**83.13**	**19**	P	**P**	**08 46 52.6**	**-0.5**
ILSW				IAmb	IAmb	08 47 29.2	
	comp=Z,40nm,1.3s						
IMP	**Imphal**	**83.13**	**298**	*e*P	**P**	**08 46 54.5**	**+0.5**
IMP				IAmb	IAmb	08 47 03.4	
	comp=Z,48nm,0.5s						
MOKO	**MOKOCHONG**	**83.23**	**300**	*e*P	**P**	**08 46 55.4**	**+0.8**
MOKO				IAmb	IAmb	08 47 06.1	
	comp=Z,47nm,0.6s						
CNPM	**China Poot**	**83.36**	**20**	IAMs_20	IAMs_20	09 19 35.9	
	comp=Z,3µm,20.0s						
N19K	**Bonanza Creek**	**83.40**	**18**	IAMs_20	IAMs_20	09 17 57.7	
	comp=Z,4µm,21.0s						
CIT	**Chita**	**83.40**	**330**	*e*P	**P**	**08 46 54.8**	**+0.1**
CIT				*e*		08 47 03.4	
CIT				*e*		08 50 12.2	
CIT				pmax	pmax		
	comp=Z,109nm,2.3s						
JORH	**JORHAT**	**83.61**	**300**	*e*P	**P**	**08 46 57.1**	**+0.8**
JORH				IAmb	IAmb	08 47 06.0	
	comp=Z,38nm,0.5s						
BRLK	**Bradley Lake**	**83.66**	**20**	P	**P**	**08 46 56.1**	**+0.3**
BRLK				IAmb	IAmb	08 47 32.6	
	comp=Z,49nm,1.3s						
BRLK				IAMs_20	IAMs_20	09 19 44.3	
	comp=Z,3µm,20.0s						
AZL	**Aizawl**	**83.79**	**297**	*e*P	**P**	**08 46 58.2**	**+0.8**
AZL				IAmb	IAmb	08 47 08.5	
	comp=Z,86nm,1.7s						
L18K	**Granite Mounta**	**83.95**	**16**	P	**P**	**08 46 58.0**	**+0.8**
L18K				IAmb	IAmb	08 48 14.3	
	comp=Z,41nm,1.5s						
L18K				IAMs_20	IAMs_20	09 17 18.1	
	comp=Z,5µm,21.0s						
K17K	**Iditarod**	**83.95**	**15**	IAMs_20	IAMs_20	09 17 20.4	
	comp=Z,4µm,21.0s						
ANM	**Nome**	**84.04**	**11**	IAMs_20	IAMs_20	09 21 40.4	
	comp=Z,3µm,20.0s						
SILR	**SILCHAR**	**84.08**	**298**	*e*P	**P**	**08 46 59.4**	**+0.7**
SILR				IAmb	IAmb	08 47 12.8	
	comp=Z,73nm,0.9s						
ITAN	**ITANAGAR**	**84.20**	**301**	*e*P	**P**	**08 47 00.3**	**+1.0**
ITAN				IAmb	IAmb	08 47 03.1	
	comp=Z,70nm,0.8s						
ZIRO	**ZIRO**	**84.24**	**301**	*e*P	**P**	**08 46 59.4**	**-0.4**
ZIRO				IAmb	IAmb	08 47 18.2	
	comp=Z,76nm,2.2s						
BELA	**Belgrano 2**	**84.28**	**175**	P	**P**	**08 46 57.6**	**-1.3**
M19K	**Big River Lodg**	**84.31**	**17**	IAMs_20	IAMs_20	09 17 35.9	
	comp=Z,4µm,22.0s						
J17K	**VABM Dome**	**84.34**	**14**	IAMs_20	IAMs_20	09 18 16.6	
	comp=Z,4µm,21.0s						
CAPN	**Captain Cook N**	**84.36**	**19**	IAMs_20	IAMs_20	09 16 51.5	
	comp=Z,3µm,20.0s						
ULN	**Ulaanbaatar**	**84.37**	**324**	*c i*P	**P**	**08 46 58.0**	**-1.9**
ULN				pmax	pmax		
	comp=Z,79nm,1.3s						
ULN	**Ulaanbaatar**	**84.37**	**324**	P	**P**	**08 46 58.9**	**-1.0**
ULN				IAmb	IAmb	08 47 16.4	
	comp=Z,80nm,1.2s						
ULN	**Ulaanbaatar**	**84.37**	**324**	⇓P	**P**	**08 46 59.0**	**-0.8**
ULN	**Ulaanbaatar**	**84.37**	**324**	P	**P**	**08 46 59.1**	**-0.8**
I17K	**Unalakleet**	**84.39**	**13**	IAMs_20	IAMs_20	09 19 21.9	
	comp=Z,4µm,20.0s						
L19K	**White Mountain**	**84.41**	**17**	P	**P**	**08 46 59.4**	**-0.2**
L19K				IAmb	IAmb	08 47 37.3	
	comp=Z,30nm,1.2s						
L19K				IAMs_20	IAMs_20	09 19 32.3	
	comp=Z,4µm,20.0s						
SLKM	**Skilak Lake**	**84.45**	**19**	IAMs_20	IAMs_20	09 20 10.6	
	comp=Z,3µm,20.0s						
YAK	**Yakutsk**	**84.48**	**343**	*e*P	**P**	**08 46 58.6**	**-1.3**
YAK				*e*		08 50 13.6	
YAK				*e*S	**SKSac**	**08 57 21.8**	**-1.6**
YAK				*e*SS	**SS**	**09 03 03.0**	**+5.8**
YAK				*e*SSS	SSS	09 06 29.8	
YAK				pmax	pmax		
	comp=Z,36nm,1.9s						
YAK				pmax	pmax		
	comp=E,7.0nm,1.5s						
YAK				pmax	pmax		
	comp=N,10.0nm,1.7s						
YAK				pmax	pmax		
	comp=Z,2µm,15.0s						
YAK				pmax	pmax		
	comp=N,250nm,6.4s						
YAK				pmax	pmax		
	comp=E,179nm,4.2s						
YAK				smax	smax		
	comp=N,173nm,4.4s						
YAK				smax	smax		
	comp=E,168nm,4.7s						
YAK				MLR	MLR		
	comp=N,1µm,19.0s						
YAK				MLR	MLR		
	comp=Z,2µm,21.0s						
YAK				MLR	MLR		
	comp=E,952nm,18.0s						
YAK	**Yakutsk**	**84.48**	**343**	IAMs_20	IAMs_20	09 19 19.5	
	comp=Z,4µm,22.0s						
TNA	**Tin City**	**84.50**	**10**	IAMs_20	IAMs_20	09 20 51.5	
	comp=Z,3µm,20.0s						
O22K	**Cooper Landing**	**84.59**	**20**	IAMs_20	IAMs_20	09 18 44.2	
	comp=Z,3µm,21.0s						
M20K	**Styx River**	**84.65**	**17**	IAMs_20	IAMs_20	09 20 44.7	
	comp=Z,3µm,20.0s						
SONM	**Songino Array**	**84.73**	**324**	P	**P**	**08 47 00.1**	**-1.6**
	comp=Z,11nm,1.0s,baz=140,slow=5.4,SNR=30						
SONM				LR	LR	09 22 15.2	
	comp=Z,2µm,21.9s,baz=126,slow=34						
	comp=Z,11nm,1.0s						
SONM	**Songino Array**	**84.73**	**324**	P	**P**	**08 47 00.5**	**-1.2**
SONM				pmax	pmax		
	comp=Z,92nm,1.4s						
SONM	**Songino Array**	**84.73**	**324**	P	**P**	**08 47 00.5**	**-1.2**
SONM				IAmb	IAmb	08 47 17.9	
	comp=Z,92nm,1.4s						
GTA2	**Gaotai**	**84.76**	**314**	P	**P**	**08 47 01.4**	**-0.7**
GTA2				PP	**PP**	**08 50 17.6**	**-0.9**
GTA2				S	**SKSac**	**08 57 26.6**	**0.0**
GTA2				SS	**SS**	**09 02 59.8**	**-2.8**
GTA2				pmax	pmax		
	comp=Z,15nm,1.1s						
GTA2				pmax	pmax		
	comp=Z,1µm,9.8s						
GTA2				L	L		
	comp=Z,2µm,20.9s						

GTA2				L	L		
	comp=Z,2µm,23.2s						
GTA2				L	L		
	comp=Z,3µm,22.8s						
FARB	Farallon Islan	84.81	48	IAMs_20	IAMs_20	09 17 59.0	
	comp=Z,4µm,20.0s						
L20K	Farewell, AK	84.91	17	IAMs_20	IAMs_20	09 19 46.8	
	comp=Z,3µm,20.0s						
BILL	Bilibino	84.96	359	deP	P	08 47 00.3	-1.9
BILL				pmax	pmax		
	comp=Z,62nm,1.5s						
J18K	Innoko River	84.98	15	IAMs_20	IAMs_20	09 18 02.3	
	comp=Z,3µm,21.0s						
P23K	Montague Islan	84.99	21	IAMs_20	IAMs_20	09 19 13.2	
	comp=Z,3µm,20.0s						
SUA	Susitna One	85.02	19	IAMs_20	IAMs_20	09 16 51.9	
	comp=Z,3µm,22.0s						
RC01	Rabbit Creek A	85.05	19	IAMs_20	IAMs_20	09 20 31.4	
	comp=Z,3µm,20.0s						
MCCM	Marconi Confer	85.09	48	IAMs_20	IAMs_20	09 18 17.5	
	comp=Z,5µm,20.0s						
SHL	Shillong	85.14	298	P	P	08 47 02.7	-1.6
SHL	Shillong	85.14	298	P	P	08 47 02.7	-1.6
SHL	Shillong	85.14	298	eP	P	08 47 04.2	-0.1
SHL				IAmb	IAmb	08 47 19.3	
	comp=Z,50nm,1.1s						
F15K	North Star Dit	85.20	11	IAMs_20	IAMs_20	09 17 59.2	
	comp=Z,3µm,22.0s						
JRSC	Jasper Ridge	85.23	49	IAMs_20	IAMs_20	09 17 42.1	
	comp=Z,3µm,20.0s						
KMPM	Mount Pierce	85.25	45	P	P	08 47 05.3	+0.8
KMPM				IAmb	IAmb	08 47 25.4	
	comp=Z,75nm,1.5s						
FORD	Fort Ord Natur	85.25	49	IAMs_20	IAMs_20	09 25 22.7	
	comp=Z,4µm,18.0s						
KMRM	Mail Ridge	85.44	46	P	P	08 47 04.8	-0.6
KMRM				IAmb	IAmb	08 47 22.0	
	comp=Z,28nm,1.0s						
GDXM	Geysers	85.45	47	P	P	08 47 06.2	+0.8
GDXM				IAmb	IAmb	08 47 26.3	
	comp=Z,37nm,1.3s						
H17K	Granite Mounta	85.47	13	P	P	08 47 05.0	+0.2
H17K				IAMs_20	IAMs_20	09 20 24.6	
	comp=Z,3µm,20.0s						
JCC	Jacoby Creek,	85.49	45	IAMs_20	IAMs_20	09 18 26.0	
	comp=Z,3µm,19.0s						
SAO	San Andreas Ge	85.53	50	P	P	08 47 06.2	+0.4
SAO				pmax	pmax		
	comp=Z,22nm,1.1s						
SAO	San Andreas Ge	85.53	50	P	P	08 47 06.2	+0.4
SAO				IAMs_20	IAMs_20	09 21 58.0	
	comp=Z,3µm,18.0s						
K20K	Telida	85.57	16	P	P	08 47 05.1	-0.3
K20K				IAMs_20	IAMs_20	09 18 37.3	
	comp=Z,4µm,21.0s						
HIN	Hinchinbrook I	85.59	21	IAMs_20	IAMs_20	09 19 19.8	
	comp=Z,3µm,20.0s						
PMR	Palmer	85.62	19	P	P	08 47 07.2	+1.6
MHC	Mount Hamilton	85.63	49	P	P	08 47 06.2	-0.2
MHC				pmax	pmax		
	comp=Z,80nm,1.8s						
MHC	Mount Hamilton	85.63	49	P	P	08 47 06.2	-0.2
MHC				IAmb	IAmb	08 47 18.0	
	comp=Z,80nm,1.8s						
MHC				IAMs_20	IAMs_20	09 18 14.7	
	comp=Z,3µm,20.0s						
J19K	Poorman	85.69	15	IAMs_20	IAMs_20	09 18 13.2	
	comp=Z,4µm,21.0s						
PPLA	Purkeypile	85.72	17	IAMs_20	IAMs_20	09 20 03.1	
	comp=Z,3µm,20.0s						
KHMM	Horse Mountain	85.72	45	P	P	08 47 06.0	-0.9
KHMM				IAMs_20	IAMs_20	09 18 54.0	
	comp=Z,4µm,20.0s						
BBGB	Big Mountain B	85.75	50	P	P	08 47 07.3	+0.3
BBGB				IAmb	IAmb	08 47 19.1	
	comp=Z,124nm,1.5s						
PMPB	Monarch Peak	85.77	50	P	P	08 47 08.1	+1.0
PMPB				IAmb	IAmb	08 47 18.9	
	comp=Z,160nm,1.8s						
PKD	Bear Valley Ra	85.85	51	P	P	08 47 07.5	+0.1
PKD				IAmb	IAmb	08 47 18.2	
	comp=Z,37nm,1.2s						
FID	Port Fidalgo	85.86	21	IAMs_20	IAMs_20	09 19 28.3	
	comp=Z,3µm,21.0s						
KRMB	Red Mountain	85.90	44	P	P	08 47 08.3	+0.7
KRMB				IAMs_20	IAMs_20	09 18 59.6	
	comp=Z,2µm,20.0s						
TAWA	Tawang	85.90	300	eP	P	08 47 08.3	0.0
TAWA				IAmb	IAmb	08 47 25.9	
	comp=Z,40nm,0.4s						
EYAK	Cordova Ski Ar	85.96	21	IAMs_20	IAMs_20	09 21 39.5	
	comp=Z,3µm,20.0s						
KHBM	Hayfork Bally	85.97	45	P	P	08 47 07.9	-0.3
KAIM	Kayak Island	85.98	22	IAMs_20	IAMs_20	09 24 31.2	
	comp=Z,2µm,18.0s						
KSXB	Camp Six Broad	86.06	44	P	P	08 47 09.0	+0.6
KSXB				IAMs_20	IAMs_20	09 19 04.9	
	comp=Z,3µm,20.0s						
CAST	Castle Rocks	86.16	17	IAMs_20	IAMs_20	09 18 32.8	
	comp=Z,3µm,21.0s						
J20K	Nowinta River	86.22	16	IAMs_20	IAMs_20	09 18 48.1	
	comp=Z,4µm,21.0s						
RAGM	Ragged Mountai	86.22	22	IAMs_20	IAMs_20	09 24 58.3	
	comp=Z,3µm,18.0s						
SUTB	Sutter Butte	86.34	47	IAMs_20	IAMs_20	09 16 55.4	
	comp=Z,5µm,21.0s						
DIV	Divide	86.37	21	IAMs_20	IAMs_20	09 19 56.4	
	comp=Z,3µm,21.0s						
L02F	Cave Junction	86.39	44	P	P	08 47 10.2	+0.3
AONC	Vina, CA USA	86.45	46	IAMs_20	IAMs_20	09 16 16.2	
	comp=Z,4µm,22.0s						
SYO	Syowa Base	86.53	196	⇑eP	P	08 47 09.0	-1.2
SYO	Syowa Base	86.53	196	⇑eP	P	08 47 16.9	+6.7
M02C	Callahan	86.55	45	IAMs_20	IAMs_20	09 19 11.8	
	comp=Z,4µm,20.0s						
BERG	Berg Lake	86.57	22	IAMs_20	IAMs_20	09 24 30.6	
	comp=Z,3µm,19.0s						
G18K	Tagagawik	86.57	13	IAMs_20	IAMs_20	09 21 39.4	
	comp=Z,3µm,20.0s						
KLU	Klutina	86.58	20	IAMs_20	IAMs_20	09 17 52.0	
	comp=Z,3µm,22.0s						
K02D	Willamette Mer	86.59	43	P	P	08 47 11.0	0.0
KTH	Kantishna Hill	86.59	17	IAMs_20	IAMs_20	09 20 10.2	
	comp=Z,4µm,20.0s						
J01E	Myrtle Point	86.63	43	P	P	08 47 11.6	+0.5
J01E				IAmb	IAmb	08 47 34.0	
	comp=Z,45nm,1.5s						
I20K	Naaghedeneel	86.63	15	IAMs_20	IAMs_20	09 19 03.2	
	comp=Z,4µm,21.0s						
TRF	Thorofare Moun	86.69	18	IAMs_20	IAMs_20	09 22 09.8	
	comp=Z,3µm,20.0s						
WELL	Weller Preserv	86.75	48	IAMs_20	IAMs_20	09 19 00.4	
	comp=Z,4µm,20.0s						
O03E	Paynes Creek	86.78	46	IAMs_20	IAMs_20	09 16 49.2	
	comp=Z,4µm,22.0s						
YBH	Yreka Blue Hor	86.79	45	LR	LR	09 19 31.2	
	comp=Z,3µm,20.1s,baz=276,slow=31						
CMB	Columbia Colle	86.83	49	IAMs_20	IAMs_20	09 19 12.4	
	comp=Z,3µm,20.0s						
VES	Vestal, Richgr	86.89	51	IAMs_20	IAMs_20	09 18 02.0	
	comp=Z,4µm,20.0s						
GOMU	GeErMu	86.89	309	P	P	08 47 13.2	+0.2
GOMU				pP	sP	08 47 17.1	+1.4
GOMU				sP	pwP	08 47 21.3	+1.0
GOMU				SS	SS	09 03 33.6	-1.0
GOMU				pmax	pmax		
	comp=Z,6.0nm,0.9s						
GOMU				L	L		
	comp=Z,2µm,19.3s						
GOMU				L	L		
	comp=Z,2µm,19.9s						
GOMU				L	L		
	comp=Z,5µm,19.0s						
DHUB	DHUBRI	86.89	298	eP	P	08 47 13.3	+0.6
DHUB				IAmb	IAmb	08 47 19.4	
	comp=Z,9.9nm,0.7s						
BPAW	Bear Paw Mtn.	87.00	17	IAMs_20	IAMs_20	09 21 01.9	
	comp=Z,3µm,20.0s						
RND	Reindeer	87.08	18	IAMs_20	IAMs_20	09 19 26.0	
	comp=Z,3µm,21.0s						
I02E	Swisshome, OR	87.11	42	P	P	08 47 14.1	+0.7
I02E				IAmb	IAmb	08 47 49.9	
	comp=Z,64nm,1.7s						
HATC	Hat Creek Radi	87.24	46	IAMs_20	IAMs_20	09 19 56.3	
	comp=Z,3µm,20.0s						
ELS	Elsinore Mount	87.28	54	P	P	08 47 15.3	+0.7
ELS				IAmb	IAmb	08 47 38.8	
	comp=Z,53nm,1.9s						
MCK	McKinley	87.30	18	IAMs_20	IAMs_20	09 19 43.9	
	comp=Z,4µm,21.0s						
COBR	COOCHBEHAR	87.44	298	eP	P	08 47 16.1	+0.8
COBR				IAmb	IAmb	08 47 17.8	
	comp=Z,50nm,0.3s						
BWN	Browne	87.48	17	IAMs_20	IAMs_20	09 23 05.0	
	comp=Z,2µm,20.0s						
F19K	Shaleruckik Mo	87.56	13	IAMs_20	IAMs_20	09 19 16.5	
	comp=Z,3µm,22.0s						
RDOG	Red Dog Mine	87.61	11	IAMs_20	IAMs_20	09 19 35.9	
	comp=Z,3µm,22.0s						
COR	Corvallis	87.68	42	P	P	08 47 16.5	+0.4
H21K	Melozitna Rive	87.75	15	IAMs_20	IAMs_20	09 19 25.6	
	comp=Z,4µm,22.0s						
MLY	Manley	87.79	16	IAMs_20	IAMs_20	09 19 56.8	
	comp=Z,3µm,21.0s						
LRMC	Laurel Mtn Rad	87.79	52	P	P	08 47 17.0	-0.1
LRMC				IAmb	IAmb	08 47 42.5	
	comp=Z,82nm,1.8s						
ZAK	Zakamensk	87.80	325	eP	P	08 47 14.8	-1.9
ZAK				pmax	pmax		
	comp=Z,42nm,2.0s						
J04A	Umpqua Nationa	87.85	43	P	P	08 47 17.4	+0.2
CWC	Cottonwood Cre	87.87	51	P	P	08 47 17.6	+0.2
S31K	Pelican	87.88	26	IAMs_20	IAMs_20	09 21 12.6	
	comp=Z,2µm,20.0s						
BORC	Borrego Spring	87.92	54	P	P	08 47 17.6	0.0
BORC				IAmb	IAmb	08 47 33.9	
	comp=Z,60nm,1.7s						
ELIB	Princess Elisa	87.93	190	dP	P	08 47 15.6	-1.5
	comp=Z,34nm,1.2s						
PFO	Pinyon Flats O	88.02	54	LR	LR	09 18 43.2	
	comp=Z,8µm,20.4s,baz=245,slow=30						
WRH	Wood River Hil	88.11	18	IAMs_20	IAMs_20	09 20 29.1	
	comp=Z,3µm,20.0s						
JPG	JALPAIGURI	88.15	298	eP	P	08 47 19.6	+0.8
JPG				IAmb	IAmb	08 47 30.1	
	comp=Z,33nm,0.5s						
U33K	Whale Pass	88.16	29	IAMs_20	IAMs_20	09 20 25.1	
	comp=Z,3µm,19.0s						
E19K	Redstone River	88.20	13	IAMs_20	IAMs_20	09 19 58.6	
	comp=Z,3µm,22.0s						
PAHR	Pah Rah Range	88.22	48	P	P	08 47 18.1	-0.9
PAHR				IAmb	IAmb	08 47 36.2	
	comp=Z,59nm,1.5s						
I23K	Minto, Yukon-K	88.26	17	IAMs_20	IAMs_20	09 22 01.1	
	comp=Z,3µm,20.0s						
G21K	Allakaket	88.26	15	IAMs_20	IAMs_20	09 20 49.4	
	comp=Z,4µm,21.0s						
H22K	Ishtalitna Cre	88.30	16	IAMs_20	IAMs_20	09 20 03.2	
	comp=Z,4µm,21.0s						
CCB	Clear Creek Bu	88.32	18	IAMs_20	IAMs_20	09 20 34.7	
	comp=Z,3µm,20.0s						
HDA	Harding Lake	88.39	18	IAMs_20	IAMs_20	09 21 27.7	
	comp=Z,4µm,20.0s						
E03A	Lebam	88.40	40	P	P	08 47 19.9	+0.4
E03A				IAmb	IAmb	08 47 44.6	
	comp=Z,34nm,1.2s						
WIFE	Three Sisters-	88.40	43	P	P	08 47 20.5	+0.6
WIFE				IAmb	IAmb	08 47 50.0	
	comp=Z,60nm,1.6s						
V35K	Ketchikan	88.42	30	IAMs_20	IAMs_20	09 19 26.1	
	comp=Z,3µm,19.0s						
COLA	College	88.47	17	IAMs_20	IAMs_20	09 19 55.8	
	comp=Z,3µm,22.0s						
G04A	Mulino	88.48	42	P	P	08 47 20.4	+0.5
G04A				IAmb	IAmb	08 47 34.7	
	comp=Z,31nm,1.0s						
NVAR	Mina Array Bea	88.49	49	P	P	08 47 19.3	-1.1
	comp=Z,3.5nm,1.0s,baz=228,slow=7.6,SNR=20						
NVAR				PKKP	PKKPdf	09 04 57.6	-1.5
	comp=Z,0.7nm,0.8s,baz=256,slow=4.7,SNR=5.5						
NVAR				PKPPKP	P'P'df	09 13 09.2	+0.3
	comp=Z,0.6nm,0.9s,baz=60,slow=4.5,SNR=4.1						
NVAR				LR	LR	09 20 31.8	
	comp=Z,3µm,19.5s,baz=262,slow=31						
	comp=Z,3.5nm,1.0s						
MOD	Modoc Plateau	88.49	45	IAMs_20	IAMs_20	09 20 37.3	
	comp=Z,4µm,20.0s						
BBB	Bella Bella	88.51	34	LR	LR	09 19 20.1	
	comp=Z,2µm,20.8s,baz=249,slow=30						
BWNR	Bhubaneshwar	88.58	292	eP	P	08 47 21.9	+0.9
BWNR				IAmb	IAmb	08 47 23.9	
	comp=Z,51nm,1.6s						
GRAC	Grapevine Rang	88.61	51	P	P	08 47 21.5	+0.7
GRAC				IAmb	IAmb	08 47 31.6	
	comp=Z,36nm,1.1s						
SHBG	Sahibganj	88.62	297	eP	P	08 47 21.6	+0.6
SHBG				IAmb	IAmb	08 47 39.0	
	comp=Z,39nm,1.3s						
ILAR	Eielson Array	88.68	18	P	P	08 47 18.6	-1.8
	comp=Z,0.6nm,0.8s,baz=247,slow=4.4,SNR=7.5						
	comp=Z,0.6nm,0.8s						
H23K	Yukon River	88.73	16	IAMs_20	IAMs_20	09 20 35.6	
	comp=Z,4µm,21.0s						
R32K	Eaglecrest	88.80	27	IAMs_20	IAMs_20	09 21 20.8	
	comp=Z,3µm,19.0s						
GMN	Gold Mountain	88.81	50	P	P	08 47 21.0	-1.0
CBB	Campbell River	88.96	36	P	P	08 47 22.4	+0.3
CBB				IAmb	IAmb	08 47 53.4	
	comp=Z,30nm,1.4s						
J25K	Salcha River,	89.01	18	IAMs_20	IAMs_20	09 25 33.1	
	comp=Z,3µm,19.0s						
C19K	Lookout Ridge	89.13	11	IAMs_20	IAMs_20	09 23 23.1	
	comp=Z,4µm,20.0s						
H24K	Noodor Dome	89.19	17	IAMs_20	IAMs_20	09 22 38.7	
	comp=Z,3µm,20.0s						
G23K	Bananza Creek	89.28	15	IAMs_20	IAMs_20	09 24 22.1	
	comp=Z,4µm,20.0s						
PMSA	Palmer Station	89.33	160	LR	LR	09 21 46.9	
	comp=Z,2µm,21.2s,baz=228,slow=32						
PMSA	Palmer Station	89.33	160	IAMs_20	IAMs_20	09 25 00.1	
	comp=Z,2µm,18.0s						
PALK	Pallekele	89.33	278	LR	LR	09 28 05.5	
	comp=Z,3µm,20.0s,baz=122,slow=36						
PALK	Pallekele	89.33	278	IAMs_20	IAMs_20	09 28 02.8	
	comp=Z,3µm,20.0s						
PRP	Porcupine Dome	89.62	18	IAMs_20	IAMs_20	09 21 03.1	
	comp=Z,4µm,20.0s						
BOK	Bokaro	89.66	295	eP	P	08 47 26.5	+0.5
BOK				IAmb	IAmb	08 47 36.8	
	comp=Z,23nm,1.0s						
MOY	Mondy	89.69	325	eP	P	08 47 25.3	-0.3
MOY				pmax	pmax		
	comp=Z,101nm,2.9s						
E21K	Killik River	89.71	13	IAMs_20	IAMs_20	09 22 28.6	
	comp=Z,3µm,20.0s						
JMUI	Jamui	89.73	296	eP	P	08 47 29.1	+2.8
JMUI				IAmb	IAmb	08 47 36.1	
	comp=Z,39nm,0.3s						
LPIG	La Paz	89.79	65	LR	LR	09 20 57.1	
	comp=Z,6µm,18.2s,baz=244,slow=31						
MALK	Mahakanadarawa	89.82	279	P	P	08 47 25.8	-1.1
WVOR	Wild Horse Val	89.84	45	IAMs_20	IAMs_20	09 21 30.0	
	comp=Z,3µm,20.0s						
WVOR	Wild Horse Val	89.84	45	⇑P	P	08 47 25.7	-0.9
G24K	Hadweenzic Riv	89.94	16	IAMs_20	IAMs_20	09 21 22.5	
	comp=Z,3µm,20.0s						
KNTI	KHUNTI	89.94	294	eP	P	08 47 28.6	+1.2
KNTI				IAmb	IAmb	08 47 39.7	
	comp=Z,41nm,1.3s						
E22K	Anaktuvuk Pass	89.95	14	IAMs_20	IAMs_20	09 22 15.0	
	comp=Z,4µm,20.0s						
T35M	Bob Quinn	89.97	29	IAMs_20	IAMs_20	09 18 40.8	
	comp=Z,3µm,22.0s						
S34M	Telegraph Cree	90.07	28	IAMs_20	IAMs_20	09 21 33.6	
	comp=Z,3µm,20.0s						
I26K	Coal Creek Min	90.17	19	IAMs_20	IAMs_20	09 20 25.9	
	comp=Z,3µm,21.0s						
EVN	Everest	90.22	299	P	P	08 47 27.0	-2.3
EVN				IAmb	IAmb	08 47 46.4	
	comp=Z,25nm,1.1s						
J08A	Circle Bar Ran	90.31	44	P	P	08 47 27.7	-1.0
J08A				IAmb	IAmb	08 47 40.0	
	comp=Z,82nm,1.8s						
D22K	Ayikyak River	90.35	13	IAMs_20	IAMs_20	09 22 19.2	
	comp=Z,3µm,20.0s						
B20K	Meade River	90.36	11	IAMs_20	IAMs_20	09 23 11.4	
	comp=Z,3µm,20.0s						
RAGD	RAYAGADA	90.38	290	eP	P	08 47 29.9	+0.5
RAGD				IAmb	IAmb	08 47 39.5	
	comp=Z,36nm,0.1s						
F24K	Squaw Lake	90.44	16	IAMs_20	IAMs_20	09 21 08.8	
	comp=Z,4µm,22.0s						
MXC	Moxie City	90.45	41	P	P	08 47 28.4	-0.7
TROLL	Troll, Antarti	90.49	185	⇑P	P	08 47 27.7	-1.5
	comp=Z,2µm,0.7s						
GAYA	Gaya	90.54	296	eP	P	08 47 30.5	+0.4
GAYA				IAmb	IAmb	08 47 33.5	
	comp=Z,17nm,0.3s						
E24K	Your Creek	90.71	15	IAMs_20	IAMs_20	09 21 41.8	
	comp=Z,4µm,21.0s						
E07A	Sunnyside	90.71	41	P	P	08 47 30.6	+0.2
NVL	N'lazarevskaya	90.73	188	eP	P	08 47 27.2	-2.9
NVL				ePPP	PPP	08 53 01.6	
NVL				eS	SKSac	08 57 56.0	-5.6
NVL				eSSS	SSS	09 08 00.2	
NVL				pmax	pmax		
	comp=Z,30nm,0.9s						
NVL				MLR	MLR		
	comp=Z,1µm,16.0s						
Y14A	Wickenburg	90.82	55	P	P	08 47 31.0	-0.3
Y14A				IAmb	IAmb	08 47 51.7	
	comp=Z,41nm,2.0s						
DLBC	Dease Lake	90.85	28	LR	LR	09 22 10.7	
	comp=Z,3µm,19.8s,baz=230,slow=32						
N32M	Quiet Lake	91.07	25	IAMs_20	IAMs_20	09 27 13.0	
	comp=Z,2µm,18.0s						
F25K	Christian Rive	91.08	16	IAMs_20	IAMs_20	09 24 57.8	
	comp=Z,3µm,20.0s						
G26K	Porcupine Rive	91.13	17	IAMs_20	IAMs_20	09 22 22.2	
	comp=Z,3µm,20.0s						
KNGR	Kungurtug, Tuv	91.15	323	⇑iP	P	08 47 31.9	-0.6
KNGR				pmax	pmax		
	comp=Z,24nm,1.1s						
SNAA	Sanae	91.16	183	⇑P	P	08 47 30.3	-1.9
	comp=Z,529nm,0.8s						
SNAA	Sanae	91.16	183	P	P	08 47 31.2	-1.0
	comp=Z,29nm,1.0s,baz=181,slow=6.0,SNR=29						
SNAA				LR	LR	09 28 00.4	
	comp=Z,2µm,18.0s,baz=138,slow=35						
	comp=Z,29nm,1.0s						
SNAA	Sanae	91.16	183	c iP	P	08 47 30.5	-1.7
SNAA				pmax	pmax		
	comp=Z,99nm,1.2s						
SNAA	Sanae	91.16	183	P	P	08 47 31.0	-1.3
SNAA				IAMs_20	IAMs_20	09 27 40.4	
	comp=Z,3µm,19.0s						
SNAA	Sanae	91.16	183	⇓P	P	08 47 30.8	-1.4
M31M	Drury Creek, Y	91.17	23	IAMs_20	IAMs_20	09 24 21.3	
	comp=Z,2µm,20.0s						
J29N	Klondike Camp	91.18	21	IAMs_20	IAMs_20	09 27 33.5	
	comp=Z,2µm,21.0s						
LLLB	Lillooet	91.21	37	P	P	08 47 32.4	-0.2
H27K	Steamboat Moun	91.30	18	IAMs_20	IAMs_20	09 20 49.5	
	comp=Z,3µm,22.0s						
B22K	Teshekpuk Lake	91.36	12	IAMs_20	IAMs_20	09 22 57.1	
	comp=Z,3µm,21.0s						
ELK	Elko	91.55	48	LR	LR	09 23 00.9	
	comp=Z,3µm,19.2s,baz=260,slow=32						
ELK	Elko	91.55	48	⇓P	P	08 47 35.3	+0.6
ELK	Elko	91.55	48	IAMs_20	IAMs_20	09 20 01.5	
	comp=Z,3µm,20.0s						
C23K	Itkillik River	91.56	13	IAMs_20	IAMs_20	09 23 50.2	
	comp=Z,3µm,20.0s						
G27K	Doyon Strip	91.65	18	IAMs_20	IAMs_20	09 23 36.8	
	comp=Z,3µm,21.0s						
BMO	Blue Mountains	91.67	43	P	P	08 47 36.1	+1.1
BMO	Blue Mountains	91.67	43	⇓P	P	08 47 35.2	+0.2
VNA3	Neumayer Olymp	91.81	181	⇑P	P	08 47 33.1	-2.0
	comp=Z,31nm,0.7s						
SZCU	Shurtz Canyon	92.01	51	P	P	08 47 36.3	-0.6
SZCU				IAmb	IAmb	08 47 48.7	
	comp=Z,43nm,1.7s						
TUC	Tucson	92.03	57	P	P	08 47 35.2	-1.7
TUC				pmax	pmax		
	comp=Z,31nm,1.6s						
TUC	Tucson	92.03	57	P	P	08 47 35.2	-1.7
TUC				IAmb	IAmb	08 47 57.8	
	comp=Z,31nm,1.6s						
TUC	Tucson	92.03	57	IAMs_20	IAMs_20	09 26 53.3	
	comp=Z,2µm,18.0s						
VNA2	Neumayer--Watz	92.08	182	⇑P	P	08 47 34.5	-1.9
	comp=Z,28nm,0.7s,baz=163,slow=3.9						
MFID	Camas Ranch	92.12	45	IAMs_20	IAMs_20	09 19 29.4	
	comp=Z,3µm,22.0s						
F10A	Beach Ranch, E	92.15	42	P	P	08 47 36.4	-0.8
F10A				IAmb	IAmb	08 48 01.7	
	comp=Z,50nm,1.6s						
H29M	Whitestone	92.26	19	IAMs_20	IAMs_20	09 21 21.9	
	comp=Z,3µm,22.0s						
VNA1	Neumayer--Stat	92.38	181	P	P	08 47 35.9	-1.8
	comp=Z,40nm,1.2s						
TIXI	Tiksi	92.43	349	LR	LR	09 27 41.1	
	comp=Z,2µm,19.7s,baz=144,slow=35						
TIXI	Tiksi	92.43	349	⇑eP	P	08 47 38.1	+0.4
TIXI				pmax	pmax		
	comp=Z,17nm,1.5s						
TIXI	Tiksi	92.43	349	IAMs_20	IAMs_20	09 27 50.4	
	comp=Z,3µm,20.0s						
E27K	Coleen River	92.60	17	IAMs_20	IAMs_20	09 23 28.8	
	comp=Z,3µm,21.0s						
WUAZ	Wupatki	92.61	54	P	P	08 47 39.8	+0.1
PLID	Pearl Lake	92.62	44	IAMs_20	IAMs_20	09 20 25.6	
	comp=Z,3µm,21.0s						
F28M	Old Crow	92.70	18	IAMs_20	IAMs_20	09 24 29.7	
	comp=Z,4µm,20.0s						
G29M	Pine Creek	92.80	19	IAMs_20	IAMs_20	09 24 18.4	
	comp=Z,2µm,20.0s						
EPYK	Eagle Plains	92.87	19	IAMs_20	IAMs_20	09 21 52.2	
	comp=Z,3µm,22.0s						
NEW	Newport	93.09	40	LR	LR	09 22 30.2	
	comp=Z,2µm,21.3s,baz=242,slow=31						
BGU	Big Grassy Mou	93.19	48	P	P	08 47 42.0	-0.1
KOD	Kodaikanal	93.25	280	eP	P	08 47 43.1	-0.1
KOD				IAmb	IAmb	08 47 55.2	
	comp=Z,22nm,2.3s						
E28M	Babbage River	93.45	17	IAMs_20	IAMs_20	09 23 33.3	
	comp=Z,3µm,20.0s						
D27M	Malcolm River	93.48	16	IAMs_20	IAMs_20	09 27 52.1	
	comp=Z,2µm,19.0s						
HVU	Hansel Valley	93.66	47	P	P	08 47 43.7	-0.6
HVU				pmax	pmax		
	comp=Z,18nm,1.5s						
HVU	Hansel Valley	93.66	47	P	P	08 47 43.7	-0.6
E29M	Blow River	93.77	18	IAMs_20	IAMs_20	09 23 11.0	
	comp=Z,3µm,21.0s						
F30M	Barrier River	93.92	19	IAMs_20	IAMs_20	09 23 30.9	
	comp=Z,3µm,22.0s						
G31M	Satah River	93.99	20	IAMs_20	IAMs_20	09 22 12.6	
	comp=Z,2µm,22.0s						
HYB	Hyderabad	94.29	287	ePKiKP	PKiKP	08 52 30.2	-1.3
HYB				eSKSac	SKSac	08 58 21.3	-2.1
HYB				eSKKSac	SKKSac	08 58 41.2	-3.2
HYB				IAMs_20	IAMs_20	08 59 58.0	
	comp=Z,9µm,76.7s						
F31M	Tsiigehtchic	94.45	19	IAMs_20	IAMs_20	09 23 01.0	
	comp=Z,2µm,22.0s						
MSO	Missoula	94.58	42	IAMs_20	IAMs_20	09 31 45.5	
	comp=Z,2µm,18.0s						
WMQ	Urumqi	94.76	314	eP	P	08 47 50.9	+1.7
WMQ				SKS	SKSac	08 58 27.4	+2.5
WMQ				SS	SS	09 05 18.1	-9.3
WMQ				pmax	pmax		
	comp=Z,41nm,1.7s						
WMQ				pmax	pmax		
	comp=Z,280nm,11.8s						
WMQ				L	L		
	comp=Z,2µm,24.3s						
WMQ				L	L		
	comp=Z,2µm,23.9s						
WMQ				L	L		
	comp=Z,3µm,20.7s						
DLMT	Dillon	94.97	44	IAMs_20	IAMs_20	09 24 23.8	
	comp=Z,2µm,20.0s						
INK	Inuvik	95.02	19	LR	LR	09 24 25.3	
	comp=Z,3µm,21.6s,baz=232,slow=32						
AHID	Auburn Hatcher	95.15	47	IAMs_20	IAMs_20	09 22 06.7	
	comp=Z,3µm,22.0s						
EPT	El Paso	95.33	59	IAMs_20	IAMs_20	09 29 07.7	
	comp=Z,2µm,18.0s						
MNTX	Cornudas Mount	96.23	59	IAMs_20	IAMs_20	09 28 54.5	
	comp=Z,2µm,18.0s						
PDAR	Pinedale Array	96.23	47	P	P	08 47 56.0	-0.2
	comp=Z,0.1nm,0.6s,baz=238,slow=5.9,SNR=1.9						
PDAR				PP	PP	08 51 49.0	-0.6
	comp=Z,0.2nm,0.5s,baz=300,slow=4.8,SNR=2.2						
PDAR				PKKPbc	PKKPbc	09 04 40.7	-3.2
	comp=Z,0.3nm,0.7s,baz=76,slow=6.3,SNR=3.7						
PDAR				LR	LR	09 23 56.2	
	comp=Z,1µm,20.7s,baz=238,slow=31						
	comp=Z,0.1nm,0.6s						

PDAR	Pinedale Array	96.23	47	P	P	08 47 56.1	-0.1
PTH	Pithoragarh	96.24	299	*e*P	P	08 47 56.8	+0.4
PTH				IAmb	IAmb	08 48 09.2	
	comp=Z,6.3nm,1.1s						
TASM	ASL Pad, Albuq	96.27	56	IAMs_20	IAMs_20	09 22 17.6	
	comp=Z,3µm,21.0s						
TASM	ASL Pad, Albuq	96.27	56	IAMs_20	IAMs_20	09 22 17.6	
	comp=Z,3µm,21.0s						
TASM	ASL Pad, Albuq	96.27	56	IAMs_20	IAMs_20	09 22 17.6	
	comp=Z,3µm,21.0s						
TASM	ASL Pad, Albuq	96.27	56	IAMs_20	IAMs_20	09 22 17.5	
	comp=Z,3µm,21.0s						
ALQ	Albuquerque	96.27	56	IAMs_20	IAMs_20	09 22 17.6	
	comp=Z,3µm,21.0s						
ALQ	Albuquerque	96.27	56	IAMs_20	IAMs_20	09 22 17.6	
	comp=Z,3µm,21.0s						
ABQ	Albuquerque	96.27	56	IAMs_20	IAMs_20	09 22 17.7	
	comp=Z,3µm,21.0s						
ANMO	Albuquerque	96.27	56	LR	LR	09 22 51.3	
	comp=Z,3µm,21.4s,baz=248,slow=30						
ANMO	Albuquerque	96.27	56⇓	*e*P	P	08 47 56.9	+0.4
ANMO				pmax	pmax		
	comp=Z,8.0nm,1.6s						
ANMO	Albuquerque	96.27	56	IAMs_20	IAMs_20	09 22 17.6	
	comp=Z,3µm,21.0s						
DGZ	Jazzator, Alta	96.82	320⇓	*i*P	P	08 47 57.2	-1.4
DGZ				pmax	pmax		
	comp=Z,19nm,1.1s						
TXAR	Lajitas Array	97.00	62	P	P	08 48 00.4	+0.5
	comp=Z,0.2nm,0.9s,baz=232,slow=4.2,SNR=6.4						
TXAR				PP	PP	08 51 53.4	-2.4
	comp=Z,2.8nm,1.3s,baz=241,slow=5.2,SNR=5.7						
TXAR				LR	LR	09 26 23.7	
	comp=Z,3µm,18.1s,baz=256,slow=32						
	comp=Z,0.2nm,0.9s						
ZSN	Zaisan	97.77	317	*e*P	Pdif	08 48 04.1	+1.3
ZSN				pmax	pmax		
	comp=Z,20nm,1.7s						
ZSN	Zaisan	97.77	317	*e*P	Pdif	08 48 04.2	+1.4
	comp=Z,20nm,1.7s						
UNM	Universidad Na	98.31	72	IAMs_20	IAMs_20	09 22 11.7	
	comp=Z,3µm,21.0s						
T25A	Trinidad	98.46	54	IAMs_20	IAMs_20	09 25 35.5	
	comp=Z,3µm,20.0s						
BHGR	Bahadurgarh	98.76	297	*e*P	P	08 48 07.8	+0.2
BHGR				IAmb	IAmb	08 48 24.0	
MSTX	Muleshoe	98.95	57	IAMs_20	IAMs_20	09 30 28.5	
	comp=Z,2µm,18.0s						
MK31	Makanchi Array	99.28	316*d*	*i*P	Pdif	08 48 10.0	+0.4
MKAR	Makanchi Array	99.28	316	P	Pdif	08 48 08.4	-1.2
	comp=Z,1.3nm,0.6s,baz=95,slow=6.1,SNR=12						
MKAR				PP	PP	08 52 10.7	-2.1
	comp=Z,0.8nm,0.5s,baz=119,slow=9.8,SNR=4.4						
MKAR				LR	LR	09 31 56.3	
	comp=Z,2µm,22.0s,baz=98,slow=35						
	comp=Z,1.3nm,0.6s						
MKAR	Makanchi Array	99.28	316	*i* P	Pdif	08 48 10.6	+1.0
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
MKAR	Makanchi Array	99.28	316	P	Pdif	08 48 07.9	-1.7
YKA	Yellowknife Ar	99.47	27	LR	LR	09 26 13.7	
	comp=Z,1µm,19.9s,baz=250,slow=31						
LAO	LASA Array	99.60	44	IAMs_20	IAMs_20	09 35 17.3	
	comp=Z,2µm,18.0s						
ZALV	Zalesovo Beam	99.62	323	P	Pdif	08 48 07.8	-3.0
	comp=Z,3.7nm,0.8s,baz=108,slow=4.8,SNR=14						
ZALV				LR	LR	09 32 30.6	
	comp=Z,1µm,21.4s,baz=108,slow=35						
	comp=Z,3.7nm,0.8s						
ZALV	Zalesovo Beam	99.62	323	*i* P	Pdif	08 48 09.0	-1.8
ZALV				pmax	pmax		
	comp=Z,4.0nm,0.8s						
ALCI	Alchi Leh	99.92	303	*e*P	Pdif	08 48 13.2	+0.1
ALCI				IAmb	IAmb	08 48 16.9	
	comp=Z,20nm,0.6s						
AMTX	Amarillo	100.05	57	IAMs_20	IAMs_20	09 25 20.5	
	comp=Z,2µm,20.0s						
SHLS	Shalkode	100.32	312	*e*P	Pdif	08 48 14.2	-0.2
SHLS	Shalkode	100.32	312	*e*P	Pdif	08 48 14.2	-0.2
RSSD	Black Hills	100.47	47	IAMs_20	IAMs_20	09 29 15.4	
	comp=Z,2µm,19.0s						
JCT	Junction City	100.54	61	IAMs_20	IAMs_20	09 28 35.7	
	comp=Z,2µm,19.0s						
UZB	Uzynbulak	100.63	312	*e*P	Pdif	08 48 16.9	+1.1
UZB	Uzynbulak	100.63	312	*e*P	Pdif	08 48 16.9	+1.1
KPKS	Kokpek	100.95	312	*e*P	Pdif	08 48 18.2	+1.1
KPKS	Kokpek	100.95	312	*e*P	Pdif	08 48 18.3	+1.1
SATY	Saty	101.05	312	*e*P	Pdif	08 48 18.4	+0.8
SATY	Saty	101.05	312	*e*P	Pdif	08 48 18.5	+0.8
OGNE	Ogallala	101.18	51	IAMs_20	IAMs_20	09 25 25.4	
	comp=Z,3µm,22.0s						
PAYG	Puerto Ayora	101.21	94	IAMs_20	IAMs_20	09 23 21.5	
	comp=Z,3µm,22.0s						
KVTX	Kingsville	101.48	65	IAMs_20	IAMs_20	09 24 25.7	
	comp=Z,2µm,22.0s						
TDK	Taldyqorghan	101.48	314	*e*P	Pdif	08 48 20.4	+1.0
TDK	Taldyqorghan	101.48	314	*e*P	Pdif	08 48 20.4	+1.0
MDOK	Medeo	102.05	312	*e*P	Pdif	08 48 23.1	+1.0
MDOK	Medeo	102.05	312	*e*P	Pdif	08 48 23.2	+1.0
MDOK				*e*PKiKP	PKiKP	08 52 45.5	+0.8
TNSS	Tian-Shan	102.09	311	*e*P	Pdif	08 48 23.2	+0.6
TNSS	Tian-Shan	102.09	311	*e*P	Pdif	08 48 23.2	+0.6
TNSS				*e*PKiKP	PKiKP	08 52 45.5	+0.3
AAA	Alma-Ata	102.15	312	*e*P	Pdif	08 48 23.4	+1.0
AAA	Alma-Ata	102.15	312	*e*P	Pdif	08 48 23.5	+1.0
KSH2	Kashi	102.30	307	P	Pdif	08 48 30.8	+7.5
KSH2				PP	PP	08 52 37.8	+1.9
WMOK	Wichita Mounta	102.34	57	IAMs_20	IAMs_20	09 34 31.3	
	comp=Z,2µm,18.0s						
KURK	Kurchatov	102.55	319*d*	*e*P	Pdif	08 48 24.3	+0.4
KURK				pmax	pmax		
	comp=Z,11nm,1.8s						
KURBB	Kurchatov Arra	102.59	319	P	Pdif	08 48 22.9	-1.2
	comp=Z,0.2nm,0.4s,baz=97,slow=3.9,SNR=7.8						
KURBB				PP	PP	08 52 35.4	-2.2
	comp=Z,3.0nm,0.2s,baz=115,slow=6.2,SNR=7.3						
KUU	Kurty	102.70	312	*e*P	Pdif	08 48 25.9	+1.1
KUU	Kurty	102.70	312	*e*P	Pdif	08 48 25.9	+1.1
OK038	West end E0370	102.73	56	IAMs_20	IAMs_20	09 26 26.7	
	comp=Z,2µm,22.0s						
WHTX	Lake Whitney,	102.84	60	IAMs_20	IAMs_20	09 29 08.6	
	comp=Z,3µm,20.0s						
R32A	Long Quarter,	103.15	54	IAMs_20	IAMs_20	09 27 04.7	
	comp=Z,3µm,21.0s						
Z35A	Perchaven, San	103.28	59	IAMs_20	IAMs_20	09 35 02.4	
	comp=Z,2µm,18.0s						
SGDS	Sogindy	103.83	312	*e*Pdif	Pdif	08 48 30.9	+1.0
SGDS				*e*PKiKP	PKiKP	08 52 48.5	+0.7
FFC	Flin Flon	103.96	37	IAMs_20	IAMs_20	09 27 31.2	
	comp=Z,2µm,22.0s						
SUSD	Miller	104.11	48	IAMs_20	IAMs_20	09 29 27.6	
	comp=Z,3µm,20.0s						
OK048	Pawnee Station	104.14	56	IAMs_20	IAMs_20	09 28 60.0	
	comp=Z,2µm,20.0s						
OK051	E0350 and S346	104.24	56	IAMs_20	IAMs_20	09 29 14.7	
	comp=Z,2µm,20.0s						
T35A	Sooner Cattle	104.58	55	IAMs_20	IAMs_20	09 35 38.5	
	comp=Z,2µm,18.0s						
TUL3	Leonard	104.96	57	IAMs_20	IAMs_20	09 34 29.8	
	comp=Z,3µm,18.0s						
NATX	Nacogdoches	105.12	61	IAMs_20	IAMs_20	09 36 24.0	
	comp=Z,3µm,18.0s						
Z38A	Mt. Pleasant	105.13	59	IAMs_20	IAMs_20	09 30 43.3	
	comp=Z,3µm,20.0s						
DZA	Taraz	106.12	311	*i* P	Pdif	08 48 41.0	+0.9
DZA	Taraz	106.12	311	*e*Pdif	Pdif	08 48 41.0	+0.9
U38A	Gravette	106.18	56	IAMs_20	IAMs_20	09 35 42.9	
	comp=Z,3µm,18.0s						
F33A	5 Mile Ranch,	106.19	46	IAMs_20	IAMs_20	09 28 48.7	
	comp=Z,3µm,22.0s						
MIAR	Mount Ida	106.51	58	IAMs_20	IAMs_20	09 31 58.8	
	comp=Z,2µm,20.0s						
AGMN	Agassiz Nation	106.80	44	IAMs_20	IAMs_20	09 39 39.8	
	comp=Z,2µm,18.0s						
IUG	Iuzhnay	106.96	310	*i* P	Pdif	08 48 44.8	+0.9
IUG	Iuzhnay	106.96	310	*e*Pdif	Pdif	08 48 44.9	+0.9
IUG				*e*PKiKP	PKiKP	08 52 54.4	+0.7
S39A	Bolivar	107.21	55	IAMs_20	IAMs_20	09 37 53.3	
	comp=Z,2µm,18.0s						
BRLS	Borolday	107.23	311	*i* P	Pdif	08 48 46.5	+1.5
BRLS	Borolday	107.23	311	*e*Pdif	Pdif	08 48 46.5	+1.5
BRLS				*e*PKiKP	PKiKP	08 52 55.2	+1.2
CHM	Chimkent	107.30	310	*i* P	Pdif	08 48 46.7	+1.4
CHM	Chimkent	107.30	310	*e*Pdif	Pdif	08 48 46.8	+1.4
AC04	Llanos de Chal	107.38	128	IAMs_20	IAMs_20	09 27 17.8	
	comp=Z,3µm,21.0s						
BVAR	Borovoye Array	107.93	321	Pdiff	Pdif	08 48 46.9	-0.9
	comp=Z,0.9nm,0.4s,baz=50,slow=12,SNR=1.7						
BVAR				PKiKP	PKiKP	08 52 55.8	+0.8
	comp=Z,1.5nm,0.8s,baz=62,slow=3.5,SNR=4.2						
BORK	Borovoye	107.97	321	IAMs_20	IAMs_20	09 35 30.8	
	comp=Z,3µm,22.0s						
I37A	Lemond, Waseca	107.99	49	IAMs_20	IAMs_20	09 38 27.6	
	comp=Z,3µm,18.0s						
143A	Socs Landing,	108.00	61	IAMs_20	IAMs_20	09 37 09.3	
	comp=Z,2µm,18.0s						
TGUH	Tegucigalpa,Un	108.07	80	IAMs_20	IAMs_20	09 27 29.2	
	comp=Z,2µm,21.0s						
R40A	Maddies Statio	108.12	55	IAMs_20	IAMs_20	09 29 35.3	
	comp=Z,3µm,22.0s						
TEIG	Tepich	108.50	74	IAMs_20	IAMs_20	09 29 51.6	
	comp=Z,2µm,20.0s						
VBMS	Vicksburg	108.67	61	IAMs_20	IAMs_20	09 34 12.9	
	comp=Z,2µm,20.0s						
FOMA	Nahampoana Res	108.73	235	IAMs_20	IAMs_20	09 33 58.7	
	comp=Z,3µm,19.0s						
T42A	Van Buren	108.88	56	IAMs_20	IAMs_20	09 30 15.4	
	comp=Z,3µm,22.0s						
CCM	Cathedral Cave	108.89	55	IAMs_20	IAMs_20	09 35 19.7	
	comp=Z,2µm,19.0s						
BOAB	BOACO BROADBAN	109.21	83	IAMs_20	IAMs_20	09 27 17.2	
	comp=Z,3µm,20.0s						
346A	Big Creek Wild	109.43	62	IAMs_20	IAMs_20	09 32 23.1	
	comp=Z,3µm,22.0s						
E38A	The Farm, Brul	109.54	46	IAMs_20	IAMs_20	09 30 52.4	
	comp=Z,3µm,22.0s						
EYMN	Ely	109.68	45	IAMs_20	IAMs_20	09 33 46.0	
	comp=Z,3µm,20.0s						
NNA	Nana	109.91	110	IAMs_20	IAMs_20	09 27 32.4	
	comp=Z,2µm,18.0s						
146A	Union	109.95	61	IAMs_20	IAMs_20	09 32 36.9	
	comp=Z,2µm,22.0s						
HDC	Heredia	110.08	85	IAMs_20	IAMs_20	09 28 51.4	
	comp=Z,2µm,19.0s						
G40A	Rib Lake	110.38	47	IAMs_20	IAMs_20	09 36 11.8	
	comp=Z,2µm,19.0s						
S44A	Carbondale	110.41	56	IAMs_20	IAMs_20	09 37 27.0	
	comp=Z,3µm,18.0s						
T45A	Paducah	110.82	56	IAMs_20	IAMs_20	09 33 16.9	
	comp=Z,2µm,21.0s						
Z47A	Carrollton	110.85	60	IAMs_20	IAMs_20	09 35 18.7	
	comp=Z,2µm,20.0s						
WVT	Waverly	111.38	57	IAMs_20	IAMs_20	09 34 10.7	
	comp=Z,2µm,20.0s						
BRAL	Brewton	111.44	63	IAMs_20	IAMs_20	09 34 35.5	
	comp=Z,2µm,19.0s						
LRAL	Lakeview Retre	111.72	61	IAMs_20	IAMs_20	09 36 41.8	
	comp=Z,2µm,21.0s						
L44A	Lake County Fo	111.83	51	IAMs_20	IAMs_20	09 33 37.3	
	comp=Z,2µm,20.0s						
X48A	Hartselle	111.84	59	IAMs_20	IAMs_20	09 37 30.9	
	comp=Z,2µm,18.0s						
F42A	Maple Grove Fa	111.86	47	IAMs_20	IAMs_20	09 31 38.8	
	comp=Z,3µm,22.0s						
V48A	Smith Brothers	112.16	58	IAMs_20	IAMs_20	09 38 53.2	
	comp=Z,2µm,18.0s						
Y49A	Blount Mountai	112.30	60	IAMs_20	IAMs_20	09 36 11.1	
	comp=Z,2µm,19.0s						
451A	Vernon	112.48	63	IAMs_20	IAMs_20	09 36 49.1	
	comp=Z,2µm,20.0s						
PB11	IPOC Station P	112.72	121	IAMs_20	IAMs_20	09 28 51.4	
	comp=Z,2µm,20.0s						
AP01	Chacalluta	112.81	119	IAMs_20	IAMs_20	09 29 20.1	
	comp=Z,2µm,21.0s						
U49A	Red Boiling Sp	113.07	57	IAMs_20	IAMs_20	09 35 10.3	
	comp=Z,2µm,21.0s						
W50A	Signal Mountai	113.33	59	IAMs_20	IAMs_20	09 34 52.4	
	comp=Z,3µm,21.0s						
553A	Crawfordville	113.56	64	IAMs_20	IAMs_20	09 38 13.6	
	comp=Z,2µm,20.0s						
152A	Waverly Hall	113.59	61	IAMs_20	IAMs_20	09 41 02.2	
	comp=Z,2µm,18.0s						
X51A	Calhoun	113.65	59	IAMs_20	IAMs_20	09 38 18.8	
	comp=Z,2µm,19.0s						
R49A	Shelbyville	113.68	55	IAMs_20	IAMs_20	09 40 41.4	
	comp=Z,2µm,18.0s						
TULEG	Thule	114.10	12	IAMs_20	IAMs_20	09 37 00.8	
	comp=Z,2µm,22.0s						
Y52A	Lilburn	114.25	60	IAMs_20	IAMs_20	09 37 19.6	
	comp=Z,2µm,19.0s						
R50A	Paris	114.34	55	IAMs_20	IAMs_20	09 39 44.9	
	comp=Z,2µm,19.0s						
TIGA	Tifton	114.42	63	IAMs_20	IAMs_20	09 38 25.2	
	comp=Z,2µm,20.0s						
O49A	Covington	114.42	53	IAMs_20	IAMs_20	09 41 54.0	
	comp=Z,2µm,18.0s						
W52A	Murphy	114.45	59	IAMs_20	IAMs_20	09 41 24.1	
	comp=Z,2µm,18.0s						
GOGA	Godfrey	114.70	61	IAMs_20	IAMs_20	09 36 40.7	
	comp=Z,2µm,20.0s						
ARTI	Arti	114.84	325	*i* PKIKP	PKiKP	08 53 07.0	-1.0
ARTI						09 00 19.2	
ARTI				MLR	MLR		
	comp=Z,2µm,23.0s						
TZTN	Tazewell	114.86	57	IAMs_20	IAMs_20	09 37 10.8	
	comp=Z,3µm,20.0s						
Q51A	Peebles	115.14	55	IAMs_20	IAMs_20	09 35 05.1	
	comp=Z,3µm,21.0s						
M50A	Fremont	115.44	52	IAMs_20	IAMs_20	09 34 37.8	
	comp=Z,3µm,21.0s						
ACSO	Alum Creek Sta	115.46	53	IAMs_20	IAMs_20	09 35 48.5	
	comp=Z,2µm,20.0s						
456A	Hilliard	115.69	64	IAMs_20	IAMs_20	09 37 11.9	
	comp=Z,2µm,20.0s						
N51A	Ashland	115.94	52	IAMs_20	IAMs_20	09 34 43.0	
	comp=Z,3µm,22.0s						
Q52A	Bidwell	115.98	55	IAMs_20	IAMs_20	09 39 27.3	
	comp=Z,2µm,19.0s						
U54A	Nelsons Funny	116.25	57	IAMs_20	IAMs_20	09 40 08.6	
	comp=Z,2µm,20.0s						
257A	Skidaway Islan	116.64	62	IAMs_20	IAMs_20	09 39 18.1	
	comp=Z,1µm,19.0s						
M52A	Chesterland	116.70	52	IAMs_20	IAMs_20	09 41 33.3	
	comp=Z,2µm,19.0s						
060A	Indiantown	116.75	68	IAMs_20	IAMs_20	09 39 31.3	
	comp=Z,2µm,19.0s						
Y57A	Sumter	117.30	60	IAMs_20	IAMs_20	09 37 08.5	
	comp=Z,2µm,21.0s						
SPITS	Spitsbergen Ar	117.39	354	PKP	PKPdf	08 53 12.3	-0.1
	comp=Z,7.3nm,0.8s,baz=172,slow=4.4,SNR=5.1						
BLA	Blacksburg	117.39	57	IAMs_20	IAMs_20	09 36 29.8	
	comp=Z,2µm,21.0s						
U56A	King	117.40	58	IAMs_20	IAMs_20	09 41 47.1	
	comp=Z,2µm,18.0s						
NHSC	New Hope	117.43	61	IAMs_20	IAMs_20	09 37 26.0	
	comp=Z,2µm,20.0s						
O54A	Avella	117.45	53	IAMs_20	IAMs_20	09 35 19.3	
	comp=Z,3µm,22.0s						
R55A	Marlinton	117.65	55	IAMs_20	IAMs_20	09 35 51.6	
	comp=Z,3µm,21.0s						
MCWV	Mont Chateau	117.87	54	IAMs_20	IAMs_20	09 37 11.2	
	comp=Z,3µm,20.0s						
Y58A	Scranton	117.90	60	IAMs_20	IAMs_20	09 39 40.3	
	comp=Z,2µm,20.0s						
X58A	Rowland	118.19	60	IAMs_20	IAMs_20	09 38 03.2	
	comp=Z,2µm,20.0s						
S57A	Dark Hollow, R	118.57	56	IAMs_20	IAMs_20	09 40 09.9	
	comp=Z,2µm,20.0s						
Y60A	Bolivia	119.11	60	IAMs_20	IAMs_20	09 42 30.3	
	comp=Z,2µm,18.0s						
KIRV	Kirov	119.18	328⇓	*i*PKIKP	PKiKP	08 53 16.8	+0.5
P57A	Homestead Farm	119.29	54	IAMs_20	IAMs_20	09 42 02.8	
	comp=Z,2µm,19.0s						
R58B	Mineral	119.42	56	IAMs_20	IAMs_20	09 40 15.4	
	comp=Z,2µm,19.0s						
L56A	Greenwood	119.52	51	IAMs_20	IAMs_20	09 36 28.9	
	comp=Z,2µm,21.0s						
T59A	Double "B" Far	119.68	57	IAMs_20	IAMs_20	09 41 09.5	
	comp=Z,2µm,19.0s						
CBN	Corbin Frederi	119.81	55	IAMs_20	IAMs_20	09 43 17.8	
	comp=Z,2µm,19.0s						
V61A	Roper	120.48	58	IAMs_20	IAMs_20	09 42 03.5	
	comp=Z,2µm,19.0s						
GTBY	Guantanamo Bay	120.62	77	IAMs_20	IAMs_20	09 38 23.8	
	comp=Z,1µm,20.0s						
BINY	Binghamton	120.69	51	IAMs_20	IAMs_20	09 36 54.6	
	comp=Z,2µm,21.0s						
LVZ	Lovozero	121.25	341	IAMs_20	IAMs_20	09 45 20.1	
	comp=Z,2µm,20.0s						
L59A	Walton	121.39	51	IAMs_20	IAMs_20	09 37 16.1	
	comp=Z,2µm,22.0s						
SUR	Sutherland	121.46	213	IAMs_20	IAMs_20	09 33 33.1	
	comp=Z,2µm,19.0s						
SIV	San Ignacio	121.66	122	PKP	PKPdf	08 53 20.6	-1.8
	comp=Z,0.7nm,0.7s,baz=257,slow=2.3,SNR=4.3						
BELG	Belogornoye	121.73	321*d*	*i*PKIKP	PKPdf	08 53 19.4	-1.9
APA	Apatity	121.82	341	*i* PKIKP	PKPdf	08 53 20.3	-0.8
APA				*e*		09 00 16.6	
APA				*e*PS	PS	09 04 50.1	+2.0
APA				pmax	pmax		
	comp=Z,6.0nm,1.1s						
BOSA	Boshof	121.83	219	PKP	PKPdf	08 53 21.0	-1.5
	comp=Z,9.5nm,1.0s,baz=155,slow=2.5,SNR=6.0						
KEV	Kevo	122.18	345	IAMs_20	IAMs_20	09 49 15.8	
	comp=Z,2µm,20.0s						
SDV	Santo Domingo	122.68	90	IAMs_20	IAMs_20	09 37 39.8	
	comp=Z,1µm,20.0s						
ARCES	ARCESS Array B	122.71	345	PKP	PKPdf	08 53 21.0	-1.8
	comp=Z,2.1nm,0.5s,baz=26,slow=3.1,SNR=15						
ARCES	ARCESS Array B	122.71	345	PKIKP	PKPdf	08 53 21.0	-1.8
LKRN	Lenkeran, Azer	123.03	305	PKIKP	PKPdf	08 53 23.9	-0.4
KLMR	Klimovskoe	123.05	333	*e*PKIKP	PKPdf	08 53 21.4	-2.2
KLMR				pmax	pmax		
	comp=Z,40nm,1.2s						
MAK	Makhachkala	123.56	310	*e*P	Pdif	08 50 02.3	+4.8
MAK				*i*		08 53 21.4	
MAK				*e*		09 00 23.1	
MAK				*e*PS	PS	09 04 59.2	-5.3
MAK				*e*SS	SS	09 11 57.3	+2.6
MAK				*e*SSS	SSS	09 16 26.7	
MAK				pmax	pmax		
	comp=Z,193nm,1.1s						
AKT	Akhty	123.58	309	*i* PKIKP	PKPdf	08 53 24.2	-1.2
AKT				*e*		08 55 08.3	
AKT				*e*PPP	PPP	08 57 46.1	
AKT				*e*PS	PS	09 05 03.6	-1.5
AKT				*e*SS	SS	09 11 57.8	+2.4
AKT				pmax	pmax		
	comp=Z,36nm,2.1s						
AKT				MLR	MLR		
	comp=Z,2µm,26.0s						
M63A	Gales Ferry	123.69	51	IAMs_20	IAMs_20	09 51 31.2	
	comp=Z,2µm,18.0s						
SCHQ	Schefferville	124.02	35	PKP	PKPdf	08 53 26.1	+0.4
	comp=Z,3.9nm,0.7s,baz=121,slow=3.7,SNR=4.0						
GRTK	Grand Turk	124.52	75	IAMs_20	IAMs_20	09 40 09.0	
	comp=Z,2µm,21.0s						
L64A	Middleborough	124.52	51	IAMs_20	IAMs_20	09 39 02.2	
	comp=Z,3µm,22.0s						
GANJ	Ganja	124.74	308	PKIKP	PKPdf	08 53 27.1	-0.5
D62A	Allapoint, All	124.86	44	IAMs_20	IAMs_20	09 46 30.6	
	comp=Z,2µm,19.0s						
VRH	Novokhopyorsk	125.58	321	*e*PKIKP	PKPdf	08 53 27.5	-1.3
VRH				pmax	pmax		
	comp=Z,9.0nm,0.9s						
RAYN	Ar Rayn	125.79	287	IAMs_20	IAMs_20	09 52 56.2	
	comp=Z,2µm,21.0s						
MOS	Moscow	126.19	328	*i* PKIKP	PKPdf	08 53 28.2	-1.6
MOS				*e*		08 55 26.9	
MOS				*e*PS	PS	09 05 31.6	+4.5
MOS				MLR	MLR		
	comp=Z,1µm,21.0s						
NCK	Nalchik	126.29	312⇓	*e*PKIKP	PKPdf	08 53 27.8	-2.6
GOF	Gofitskoye	126.36	314*c*	*e*PKIKP	PKiKP	08 53 33.4	+2.5
LPSR	Galich'ya Gora	126.73	324	*e*PKIKP	PKPdf	08 53 30.7	-0.2
LPSR				pmax	pmax		
	comp=Z,34nm,1.4s						
KBZ	Khabaz	126.74	312	PKP	PKPdf	08 53 30.8	-0.5
	comp=Z,2.8nm,0.8s,baz=103,slow=3.9,SNR=6.3						
KBZ	Khabaz	126.74	312*d*	*i*PKIKP	PKiKP	08 53 32.2	+0.5
KIV	Kislovodsk	126.85	312	*i* PKIKP	PKPdf	08 53 31.0	-0.6
KIV				*e*		08 55 28.0	
KIV				*e*PS	PS	09 05 32.7	-1.0
KIV				*e*SS	SS	09 12 36.5	+0.3
KIV				pmax	pmax		
	comp=Z,11nm,1.1s						
SPB	Sao Paulo	126.87	139	IAMs_20	IAMs_20	09 42 01.3	
	comp=Z,2µm,21.0s						
VORR	Voronezh	126.91	322	*e*PKIKP	PKPdf	08 53 30.2	-1.1
VORR				pmax	pmax		
	comp=Z,32nm,1.2s						
NEUR	Neytrino	126.98	312⇑	*e*PKIKP	PKPdf	08 53 31.3	-0.7
OBN	Obninsk	127.00	327	*e*PKIKP	PKPdf	08 53 29.9	-1.4
OBN				*e*		08 55 32.9	
OBN				*e*SS	SS	09 12 39.0	+2.2
OBN				*e*SSS	SSS	09 17 17.7	
OBN				pmax	pmax		
	comp=Z,17nm,1.4s						
OBN				MLR	MLR		
	comp=Z,1µm,21.0s						
OBN	Obninsk	127.00	327	IAMs_20	IAMs_20	09 51 08.7	
	comp=Z,2µm,22.0s						
VSR	Storozhevoye	127.09	322	*e*PKIKP	PKPdf	08 53 30.2	-1.5
VSR				pmax	pmax		
	comp=Z,18nm,1.4s						
VORD	Divnogorie	127.11	322	*e*PKIKP	PKPdf	08 53 28.1	-3.6
VORD				pmax	pmax		
	comp=Z,10.0nm,0.8s						
ERBR	Yeremizino-Bor	127.95	315	*i* PKIKP	PKiKP	08 53 36.9	+2.8
ERBR				pmax	pmax		
	comp=Z,19nm,0.5s						
ERBR				MLR	MLR		
	comp=Z,3µm,22.0s						
LABN	Labinsk	128.06	314	*i* PKIKP	PKiKP	08 53 40.5	+6.2
LABN				pmax	pmax		
	comp=Z,18nm,0.5s						
FINES	FINESS Array B	128.14	338	PKP	PKPdf	08 53 32.5	-0.8
	comp=Z,4.7nm,0.9s,baz=8.1,slow=2.7,SNR=5.7						
VSLR	Vesyoloye	128.83	312⇓	*e*PKIKP	PKPdf	08 53 33.9	-1.4
SOC	Sochi	129.03	313	*i* PKIKP	PKiKP	08 53 38.3	+2.0
SOC				*e*SS	SS	09 12 53.7	-9.3
VSU	Vasula	129.80	335⇓	*i*PKIKP	PKiKP	08 53 38.7	+1.4
ANN	Anapa	130.28	315	*i* PKHKP	PKPpre	08 53 26.0	
ANN				*e*		08 55 50.9	
ANN				*e*		09 00 42.2	
ANN				pmax	pmax		
	comp=Z,39nm,1.1s						
ANN				MLR	MLR		
	comp=Z,3µm,27.0s						
WIN	Windhoek	131.19	217	IAMs_20	IAMs_20	09 49 31.5	
	comp=Z,2µm,20.0s						
SMRT	St. Maarten	131.65	81	IAMs_20	IAMs_20	09 41 27.0	
	comp=Z,1µm,21.0s						
MNK	Minsk	131.65	330	*i* PKIKP	PKPdf	08 53 40.4	+0.2
MNK				*i*		08 56 00.0	
MNK				*i* PPP	PPP	08 58 50.3	
MNK				*i*		09 00 50.5	
MNK				*i* SS	SS	09 13 37.5	+3.4
MNK				pmax	pmax		
	comp=N,8.0nm,0.7s						
MNK				pmax	pmax		
	comp=E,6.0nm,0.6s						
MNK				pmax	pmax		
	comp=Z,11nm,1.1s						
MNK				MLR	MLR		
	comp=N,618nm,20.0s						
MNK				MLR	MLR		
	comp=Z,3µm,20.0s						
MNK				MLR	MLR		
	comp=E,2µm,20.0s						
MNK	Minsk	131.65	330	*i* PKiKP	PKPdf	08 53 40.4	+0.2
	comp=E,6.0nm,0.6s						
MNK				*i* PKiKP	PKPdf	08 53 40.4	+0.2
	comp=N,8.0nm,0.7s						
MNK				*i* PKiKP	PKPdf	08 53 40.4	+0.2
	comp=Z,11nm,1.1s,baz=56						
MNK				*i* PP	PP	08 56 00.1	+0.4
MNK				*i* PPP	PPP	08 58 50.4	
MNK				*i* SKS	SKSac	09 00 50.5	-0.3
MNK				*i* SKKS	SKKSdf	09 10 37.4	-14
MNK				*i* SS	SS	09 13 37.5	+3.4
MNK				*i* SSS	SSS	09 18 19.5	
MNK				*i* LQ	LQ	09 44 02.5	
MNK				*i* LRM	MLR	09 49 48.6	
	comp=N,618nm,20.1s						
MNK				*i* LRM	MLR	09 50 19.5	
	comp=Z,3µm,20.2s						
MNK				*i* LRM	MLR	09 50 25.3	
	comp=E,2µm,19.6s						
SEUS	St. Eustatius	131.67	82	IAMs_20	IAMs_20	09 44 05.4	
	comp=Z,2µm,22.0s						
BDFB	Brasilia	131.96	131	PKP	PKPdf	08 53 41.9	-0.3
	comp=Z,1.7nm,0.5s,baz=124,slow=3.6,SNR=3.9						
SIM	Simferopol'	132.46	316	*i* PKIKP	PKiKP	08 53 55.4	+12
SIM				*e*		08 56 12.0	
SIM				pmax	pmax		
	comp=Z,11nm,0.6s						
AKASG	Malin Array Be	133.00	325	PKP	PKPdf	08 53 41.7	-1.2
	comp=Z,0.8nm,0.6s,baz=67,slow=1.9,SNR=8.6						

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AKBB  Malin Array Si    133.00 325⇓ePKIKP  PKPdf    08 53 41.8 -1.1
KIEV  Kiev              133.01 325  IAMs_20 IAMs_20  09 56 07.4
      comp=Z,2μm,20.0s
NB2   NORSAR Subarra133.08 345  PKPdf   PKPdf    08 53 43.1 +0.3
      comp=Z,2.0nm,0.9s,baz=31,slow=1.9
NOA   NORSAR Array B 133.08 345  PKP     PKPdf    08 53 41.9 -0.9
      comp=Z,1.5nm,0.8s,baz=35,slow=2.1,SNR=3.6
NOA                               SKP     SKPdf    08 57 19.5 +1.3
      comp=Z,1.3nm,0.8s,baz=31,slow=4.4,SNR=3.3
BR131 Keskin Array S    134.43 309⇑ePKIKP  PKPdf    08 53 45.3 -0.9
BRTR  Keskin Array B    134.43 309  PKP     PKPdf    08 53 44.9 -1.3
      comp=Z,1.8nm,0.8s,baz=174,slow=1.2,SNR=7.8
BRTR                              PP      PP       08 56 16.4 -2.0
      comp=Z,1.7nm,0.9s,baz=86,slow=5.1,SNR=5.4
BR106 Keskin Array S    134.44 309  PKP     PKPdf    08 53 46.1 -0.1
MMAI  Mount Meron Ar    134.45 300  PKP     PKPdf    08 53 45.6 -0.7
      comp=Z,1.1nm,0.6s,baz=16,slow=6.8,SNR=4.2
GHAJ  Ghor Haditha      134.53 297  IAMs_20 IAMs_20  09 55 20.6
      comp=Z,1μm,20.0s
CSS   Mathiatis         135.81 303  IAMs_20 IAMs_20  09 57 56.2
      comp=Z,2μm,22.0s
TIRR  Tirgusor          136.40 317  IAMs_20 IAMs_20  09 57 10.9
      comp=Z,1μm,21.0s
ISP   Isparta           137.31 308  IAMs_20 IAMs_20  10 00 43.6
      comp=Z,2μm,22.0s
MLR   Muntele Rosu      137.48 320  IAMs_20 IAMs_20  10 01 00.4
      comp=Z,2μm,20.0s
KOLS  Kolonicke sedl    137.73 326 ePKIKP   PKPdf    08 53 52.2 +0.4
KOLS  Kolonicke sedl    137.73 326 ePKP     PKPdf    08 53 52.2 +0.4
STHS  Stebnicka Huta    137.97 327 ePKIKP   PKiKP    08 53 54.1 -0.2
STHS  Stebnicka Huta    137.97 327 ePKP     PKiKP    08 53 54.1 -0.2
OKC   Ostrava-Krasne    139.24 330  AMS     AMS      09 53 40.0
      comp=Z,3μm,23.0s
MORC  Moravsky Berou    139.57 330 ePKP     PKPdf    08 53 48.1 -7.1
MORC                               e                 08 56 49.5
PSZ   Piszkesteto       139.60 326  IAMs_20 IAMs_20  09 53 16.2
      comp=Z,2μm,21.0s
OSTC  Ostas             139.64 332  AMS     AMS      09 55 20.0
      comp=Z,4μm,20.9s
MAUC  Maruska           139.72 330 ePKP     PKPdf    08 53 52.3 -3.2
MAUC                               ex       x        08 57 00.1
MAUC                                AMS     AMS      09 54 00.0
      comp=Z,4μm,19.6s
KRLC  Kraliky           139.72 331 ePKIKP   PKiKP    08 54 00.4 +2.5
KRLC                                MLR     MLR
      comp=Z,3μm,21.9s
KRLC  Kraliky           139.72 331 ePKP     PKiKP    08 54 00.4 +2.5
KRLC                                AMS     AMS      09 55 10.0
      comp=Z,3μm,21.9s
DPC   Dobruska-Polom    139.74 332 ePKIKP   PKiKP    08 53 59.6 +1.7
DPC                                 MLR     MLR
      comp=Z,3μm,20.8s
DPC   Dobruska-Polom    139.74 332 ePKP     PKiKP    08 53 59.6 +1.7
DPC                                 AMS     AMS      09 56 00.0
      comp=Z,3μm,20.8s
UPC   Upice             139.77 332 ePKIKP   PKPdf    08 53 50.8 -4.7
UPC                                 MLR     MLR
      comp=Z,3μm,21.2s
UPC   Upice             139.77 332 ePKP     PKPdf    08 53 50.8 -4.7
UPC                                 AMS     AMS      09 55 30.0
      comp=Z,3μm,21.2s
VYHS  Vyhne             139.79 328 ePKIKP   PKiKP    08 53 58.2 +0.2
VYHS                               e                 08 56 54.7
VYHS  Vyhne             139.79 328 ePKP     PKiKP    08 53 58.2 +0.2
VYHS                               ePP      PP       08 56 54.7 +3.7
JAVC  Velka Javorina    140.13 329 ePKP     PKPdf    08 53 49.4 -6.9
VRAC  Vranov            140.34 330 ePKP     PKPdf    08 53 56.3 -0.3
VRAC                               e                 08 56 56.6
BRG   Berggiesshubel    140.40 334  P       PKiKP    08 53 59.2  0.0
BRG                                 Amp              08 54 00.6
      comp=Z,25nm,1.6s
BRG   Berggiesshubel    140.40 334  Amp              08 57 37.5
      comp=Z,11nm,1.2s
BRG   Berggiesshubel    140.40 334  PP      PP       08 57 08.0  +13
BRG   Berggiesshubel    140.40 334  SKP              08 57 36.7
CLL   Collm             140.45 335 ePKIKP   PKPdf    08 53 51.0 -5.7
CLL                                e                 08 53 57.0
CLL   Collm             140.45 335  IAMs_20 IAMs_20  09 59 35.1
      comp=Z,1μm,20.0s
CLL   Collm             140.45 335 ePKPpre  PKPpre   08 53 51.0
CLL                                ePKPdf   PKPdf    08 53 57.0 +0.3
CLL                                i PKiKP  pPKPdf   08 53 58.5 -0.2
      comp=Z,11nm,1.2s
CLL                                i pPKiKP pPKiKP   08 54 02.3 +1.0
CLL                                i x      x        08 54 06.6
CLL                                ePP      PP       08 56 58.0 +3.2
CLL                                ePKSbc   PKSbc    08 57 36.0 +2.0
CLL                                e(SKPab)          08 57 52.0
CLL                                eSKSSKSac         09 17 18.0
CLL                                eSSS     SSS      09 20 24.0
CLL                                eSSSS             09 24 24.0
CLL                                 LH               09 39 00.0
CLL                                 LV               09 43 00.0
CLL                                 AMS     AMS      09 54 00.0
      comp=N,1μm,24.3s
CLL                                 AMS     AMS      09 54 00.0
      comp=E,1μm,23.3s
CLL                                 AMS     AMS      09 55 00.0
      comp=Z,1μm,25.3s
KARP  Karpathos         140.56 305  IAMs_20 IAMs_20  10 05 45.6
      comp=Z,1μm,20.0s
RICC  Richard           140.58 334 ePKP     PKPdf    08 53 56.5 -0.4
KRUC  Moravsky          140.61 330 ePKP     PKPdf    08 53 53.2 -3.9
MODS  Modra-Piesok      140.65 329 ePKIKP   PKPdf    08 53 57.7 +0.5
MODS  Modra-Piesok      140.65 329 ePKP     PKPdf    08 53 57.7 +0.5
PRU   Pruhonice         140.80 333 ePKIKP   PKPdf    08 53 58.0 +0.6
PRU                                 MLR     MLR
      comp=Z,3μm,21.6s
PRU   Pruhonice         140.80 333 ePKP     PKPdf    08 53 58.0 +0.6
PRU                                 AMS     AMS      09 55 20.0
      comp=Z,3μm,21.6s
HSKC  Hora Svate Kat    140.81 334 ePKP     PKPdf    08 53 58.0 +0.6
HSKC                                AMS     AMS      09 57 00.0
      comp=Z,2μm,20.0s
TREC  Trest             140.87 331  AMS     AMS      09 56 20.0
      comp=Z,4μm,20.6s
EKA   Eskdalemuir Ar    141.27 352  PKP     PKPdf    08 53 56.5 -1.6
      comp=Z,0.8nm,0.5s,baz=45,slow=2.5,SNR=4.0
ZVC   Zvikov            141.35 332 ePKP     PKPdf    08 53 57.3 -1.1
ZVC                                 AMS     AMS      09 55 50.0
      comp=Z,3μm,22.1s
NKC   Novy Kostel       141.50 334 ePKHKP   PKPpre   08 53 49.9
NKC                                 MLR     MLR
      comp=Z,2μm,19.5s
NKC   Novy Kostel       141.50 334 ePKP     PKPdf    08 53 49.9 -8.8
NKC                                 AMS     AMS      09 57 30.0
      comp=Z,2μm,19.5s
RONA  Rosalia, Austr    141.59 329 ePKP     PKPdf    08 53 53.1 -5.8
      comp=Z,185nm,6.4s
RONA                               ePP      PP       08 57 00.3 -1.7
      comp=Z,244nm,6.8s
CONA  Conrad Observa    141.65 329 ePKP     PKPdf    08 53 53.5 -5.6
      comp=Z,247nm,4.5s
CONA                               ePP      PP       08 57 01.2 -1.3
      comp=Z,386nm,6.3s
CONA                               eSKS     SKSac    09 01 16.5 +0.9
      comp=Z,7.1nm,2.5s
CKRC  Cesky Krumlov     141.75 332  AMS     AMS      09 56 40.0
      comp=Z,2μm,20.8s
KHC   Kasperske Hory    141.85 332 ePKIKP   PKPdf    08 53 54.0 -5.4
KHC                                e                 08 53 58.6
KHC                                 MLR     MLR
      comp=Z,4μm,20.0s
KHC   Kasperske Hory    141.85 332 ePKP     PKPdf    08 53 54.0 -5.4
KHC                                ex       x        08 53 58.6
KHC                                ex       x        08 56 50.0
KHC                                 AMS     AMS      09 56 20.0
      comp=Z,4μm,20.0s
GERES GERESS Array B    142.01 332  PKP     PKPdf    08 53 56.7 -3.0
      comp=Z,1.8nm,0.8s,baz=79,slow=2.9,SNR=11
ARSA  Arzberg           142.28 329 i PKP    PKPdf    08 53 55.2 -5.0
      comp=Z,168nm,5.6s,SNR=5.8
ARSA                               ePP      PP       08 57 03.7 -2.5
      comp=Z,124nm,3.5s
IDI   Anoyia            142.40 306  PKP     PKPdf    08 54 00.8  0.0
GRA1  Grafenberg Arr    142.43 335  IAMs_20 IAMs_20  10 11 39.3
      comp=Z,1μm,21.0s
GRFO  Grafenberg        142.43 335  IAMs_20 IAMs_20  10 11 39.3
      comp=Z,1μm,20.0s
MOA   Molln             142.47 330 ePKP     PKPdf    08 53 55.9 -4.6
      comp=Z,280nm,5.5s
MOA                                ePP      PP       08 57 04.8 -2.6
      comp=Z,346nm,5.7s
BIOA  Bad Ischl, Aus    142.88 331 ePKP     PKPdf    08 53 57.8 -3.4
      comp=Z,1.3nm,1.3s
BIOA                               ePP      PP       08 57 09.6 -0.2
      comp=Z,363nm,6.3s
SOKA  Soboth            142.92 328 i PKP    PKPdf    08 53 57.3 -4.1
      comp=Z,139nm,4.7s,SNR=6.7
SOKA                               ePP      PP       08 57 12.2 +2.0
      comp=Z,120nm,4.4s
BLY   Banja Luka        143.05 324  IAMs_20 IAMs_20  10 00 51.4
      comp=Z,2μm,22.0s
PDG   Podgorica         143.20 320  IAMs_20 IAMs_20  10 02 21.6
      comp=Z,2μm,21.0s
OBKA  Obir              143.28 329 ePKP     PKPab    08 53 58.4 +0.6
      comp=Z,177nm,4.9s
OBKA                               ePP      PP       08 57 12.3 -0.1
      comp=Z,379nm,4.8s
KBA   Koelnbreinsper    143.46 330 i PKP    PKPab    08 53 58.3 -0.4
      comp=Z,231nm,6.5s,SNR=7.4
LESA  Schwarzleotal     143.52 331 i PKP    PKPab    08 53 58.1 -0.6
      comp=Z,44nm,3.2s,SNR=7.7
LESA                               ePP      PP       08 57 13.6 -0.1
      comp=Z,484nm,6.8s
BTNL  Ternell           143.55 340 dPKP     PKPdf    08 54 02.9 +0.6
MEM   Membach           143.56 340 dPKP     PKiKP    08 54 06.0 +0.4
MYKA  Terra Mystica     143.64 330 ePKP     PKPab    08 53 58.6 -0.6
      comp=Z,170nm,3.6s
MYKA                               ePP      PP       08 57 13.1 -1.3
      comp=Z,73nm,3.4s
BCLA  Clavier           143.95 341 dPKP     PKiKP    08 54 05.3 -1.1
STU   Stuttgart         143.96 336  IAMs_20 IAMs_20  10 00 59.0
      comp=Z,1μm,20.0s
WATA  Walderalm         144.08 332 ePKP     PKPab    08 54 00.9 -0.1
      comp=Z,31nm,1.6s
ABTA  Abfaltersbach     144.09 331 i PKP    PKPab    08 53 59.3 -1.7
      comp=Z,39nm,3.2s,SNR=12
ABTA                               ePP      PP       08 57 13.4 -3.8
      comp=Z,582nm,6.5s
WTTA  Wattenberg        144.11 332 i PKP    PKPab    08 54 00.9 -0.2
      comp=Z,14nm,1.1s,SNR=9.0
RCHB  Rochefort         144.21 341 dPKPdf   PKPab    08 54 00.4 -0.7
BMRD  Maredsous         144.22 341 dPKPdf   PKPdf    08 54 03.5 +0.1
MOTA  Moosalm           144.29 333 ePKP     PKPab    08 54 00.0 -1.7
      comp=Z,26nm,1.2s
MOTA                               i PP     PP       08 57 16.2 -2.2
      comp=Z,9.2nm,1.3s
RETA  Reutte            144.33 333 i PKP    PKPab    08 54 01.2 -0.6
      comp=Z,628nm,5.7s,SNR=8.3
WLF   Walferdange       144.33 339  PKP     PKPbc    08 54 02.9 +0.9
WLF   Walferdange       144.33 339 dPKPdf   PKPbc    08 54 03.0 +1.0
SQTA  Sankt Quirin      144.34 332 i PKP    PKPab    08 54 00.5 -1.4
      comp=Z,219nm,5.3s,SNR=11
SQTA                               i PP     PP       08 57 16.0 -2.6
      comp=Z,5.8nm,1.1s
DOU   Dourbes           144.46 341 dPKPdf   PKPbc    08 54 02.6 +0.3
BFO   Black Forest      144.66 336  IAMs_20 IAMs_20  09 55 13.4
      comp=Z,2μm,22.0s
FETA  Feichten          144.70 332 i PKP    PKPab    08 54 01.8 -1.5
      comp=Z,0.5nm,0.8s,SNR=12
DAVA  Damuels           144.86 334 i PKP    PKPab    08 54 02.8 -1.1
      comp=Z,57nm,1.4s,SNR=22
ECH   Echery            145.20 337  IAMs_20 IAMs_20  10 11 09.6
      comp=Z,2μm,19.0s
FUORN Ofenpass-Fuorn    145.21 332  IAMs_20 IAMs_20  10 00 56.1
      comp=Z,1μm,22.0s
VAL   Valentia          145.26 358  PKP     PKPbc    08 54 03.0 -1.8
TUE   Stuetta           145.73 333  IAMs_20 IAMs_20  09 59 49.7
      comp=Z,2μm,22.0s
SENIN Lac Senin/Sane    146.67 335  IAMs_20 IAMs_20  10 00 03.5
      comp=Z,2μm,20.0s
AQU   L'Aquila          146.69 324  PKP     PKPbc    08 54 10.1 +0.5
VLC   Villacollemand    147.01 329  PKP     PKPbc    08 54 10.3 -0.2
CEL   Celeste           147.63 316  IAMs_20 IAMs_20  10 03 52.1
      comp=Z,1μm,22.0s
VSL   Villasalto        150.87 324  IAMs_20 IAMs_20  10 02 22.4
      comp=Z,2μm,22.0s
EJON  La Jonquera       151.68 336  PKP     PKPdf    08 54 13.2 -2.7
MAHO  Mahon             153.20 331  PKP     PKPdf    08 54 17.4 -0.9
MAHO  Mahon             153.20 331  IAMs_20 IAMs_20  10 13 30.5
      comp=Z,998nm,20.0s
KEST  Kesra             153.36 318  PKPbc   PKPbc    08 54 25.6 -0.7
      comp=Z,6.8nm,0.8s,baz=161,slow=4.0,SNR=7.1
KEST                                PKPab   PKPab    08 54 37.4 -0.9
      comp=Z,21nm,1.0s,baz=357,slow=2.9,SNR=8.7
ETOS  Mallorca          153.95 333  PKP     PKPdf    08 54 18.5 -0.9
SRBC  Serra Branca      154.20  29 ePKP     PKPbc    08 54 25.7 -2.2
SRBC                               eLR      LR       09 51 51.6
SRBC                               i IAMs_20 IAMs_20 09 59 50.3
      comp=Z,1μm,20.0s
PCED  Cedros            154.21  31 ePKP     PKPdf    08 54 20.2 +0.5
PGRA  Graciosa          154.23  29 ePKP     PKPdf    08 54 23.9 +4.2
PGRA                               eLR      LR       09 51 33.7
PGRA                               i IAMs_20 IAMs_20 10 01 19.4
      comp=Z,1μm,18.0s
CALA  Caldeira          154.24  31 ePKP     PKPbc    08 54 24.6 -3.5
PFCBR Castelo Branco    154.28  31 ePKP     PKPdf    08 54 23.9 +4.1
HOR   Horta             154.32  31 ePKP     PKPdf    08 54 22.2 +2.4
HOR                                eLR      LR       09 52 23.5
HOR                                i IAMs_20 IAMs_20 09 58 25.3
      comp=Z,2μm,20.0s
ROSA  Rosais            154.36  30 ePKP     PKPbc    08 54 28.1 -0.2
ROSA                               eLR      LR       09 52 01.6
ROSA                               i IAMs_20 IAMs_20 09 59 41.7
      comp=Z,2μm,20.0s
PCAN  Candelaria        154.44  31 ePKP     PKPbc    08 54 25.1 -3.4
PICO  Pico              154.44  30 ePKP     PKPbc    08 54 25.2 -3.3
PPNO  Prainha do Nor    154.54  30 ePKP     PKPab    08 54 37.1 -6.0
PID   Ribeirinha        154.64  30 ePKP     PKiKP    08 54 35.1 +6.2
PSBA  Serra de Santa    154.75  29 ePKP     PKPdf    08 54 20.1 -0.5
PAGU  Agualva, Azore    154.81  28 ePKP     PKPdf    08 54 20.1 -0.4
PAGU                               eLR      LR       09 51 53.6
PAGU                               i IAMs_20 IAMs_20 09 59 30.6
      comp=Z,1μm,20.0s
ECAL  Calabor           154.85 350  PKP     PKPdf    08 54 18.9 -1.7
ADH   Angra Heroismo    154.88  29 ePKP     PKPdf    08 54 20.1 -0.6
ADH                                eLR      LR       09 51 37.7
ADH                                i IAMs_20 IAMs_20 10 02 17.3
      comp=Z,1μm,20.0s
PSCM  Serra do Cume     154.90  28 ePKP     PKPdf    08 54 20.6 -0.1
PBRG  Braganca          154.99 350 ePKP     PKPdf    08 54 22.1 +1.3
PGAV  Gavieira, Arco    155.04 353 ePKP     PKPdf    08 54 22.1 +1.2
PGAV                               ePP      PP       08 58 31.3  +11
PGAV                               i IAMs_20 IAMs_20 10 07 01.0
      comp=Z,2μm,20.0s
EIBI  Ibiza             155.20 334  PKP     PKPdf    08 54 21.8 +0.7
PCAB  Cabril            155.27 352 ePKP     PKPdf    08 54 29.5 +8.3
POLO  Lamas de Olo      155.57 352 ePKP     PKPdf    08 54 22.9 +1.3
ECHE  Chera             155.59 339  PKP     PKPdf    08 54 22.3 +0.6
PVRL  Vila Real         155.65 352 ePKP     PKPdf    08 54 31.1 +9.4
UCM   Universidad Co    155.65 343  PKP     PKPdf    08 54 22.3 +0.6
PTO   Porto             155.90 353 ePKP     PKPdf    08 54 30.9 +8.9
PVIS  Viseu             156.23 352 ePKP     PKPdf    08 54 25.6 +3.1
PSET  Sete Cidades      156.24  27 ePKP     PKPdf    08 54 35.1  +13
PSET                               eLR      LR       09 52 07.6
PSET                               i IAMs_20 IAMs_20 10 01 13.7
      comp=Z,2μm,20.0s
PDA   Ponta Delgada     156.33  27 ePKP     PKPdf    08 54 30.8 +8.2
CMLA  Cha da Macela     156.38  27 ePKP     PKPdf    08 54 36.1  +13
ESDC  Sonseca Array     156.44 344  PKP     PKPdf    08 54 21.0 -1.8
      comp=Z,0.1nm,0.3s,baz=10,slow=2.6,SNR=2.6
ESDC                                PKPab   PKPab    08 54 49.1 -2.0
      comp=Z,2.4nm,0.9s,baz=20,slow=3.5,SNR=6.5
ESDC                                PP      PP       08 58 28.1 +0.2
      comp=Z,1.4nm,1.1s,baz=10,slow=9.2,SNR=4.4
MTE   Manteigas         156.49 351 ePKP     PKPdf    08 54 25.4 +2.5
MTE                                i IAMs_20 IAMs_20 10 07 29.4
      comp=Z,1μm,22.0s
MTE   Manteigas         156.49 351  IAMs_20 IAMs_20  10 04 06.9
      comp=Z,2μm,21.0s
BART  Pico Bartolome    156.52  26 ePKP     PKPdf    08 54 26.9 +3.9
ETOB  Tobarra           156.64 339  PKP     PKPdf    08 54 23.9 +0.8
PAB   San Pablo         156.66 344  IAMs_20 IAMs_20  10 07 23.7
      comp=Z,1μm,20.0s
PCAS  Casmilo, Conde    156.96 353 ePKP     PKPdf    08 54 24.7 +1.3
PCBR  Castelo Branco    157.02 351 ePKP     PKPdf    08 54 31.7 +8.2
PSMN  Pico do Norte,    157.21  27 ePKP     PKPdf    08 54 26.5 +2.7
PSMN                               eLR      LR       09 52 46.3
PSMN                               i IAMs_20 IAMs_20 10 00 06.3
      comp=Z,1μm,20.0s
EMUR  La Murta          157.24 337  PKP     PKPdf    08 54 23.3 -0.6
PSARD Sardoal           157.36 352 ePKP     PKPdf    08 54 23.6 -0.4
CART  Cartagena         157.38 336  PKP     PKPdf    08 54 17.8 -6.2
CART  Cartagena         157.38 336  IAMs_20 IAMs_20  10 13 33.8
      comp=Z,2μm,21.0s
PMRV  Marv??o           157.41 350 ePKP     PKPdf    08 54 24.6 +0.5
PMRV                               ePP      PP       08 58 41.4 +8.3
PMRV                               i IAMs_20 IAMs_20 10 10 37.8
      comp=Z,1μm,20.0s
PSBE  So Bento          157.52 353 ePKP     PKPdf    08 54 24.6 +0.4
PMTG  Montargil         157.89 352 ePKP     PKPdf    08 54 25.6 +1.0
PESTR Estremoz          157.99 350 ePKP     PKPdf    08 54 26.4 +1.6
PARRA Arraiolos         158.11 351 ePKP     PKPdf    08 54 26.2 +1.3
PMAFR Mafra             158.13 354 ePKP     PKPdf    08 54 24.9 -0.1
LIS   Lisbon            158.35 353 ePKPdf   PKPdf    08 54 24.7 -0.4
LIS                                ePP      PP       08 58 40.2 +2.0
LIS                                 IAMs_20 IAMs_20  10 07 37.6
      comp=Z,3μm,11.9s
LIS   Lisbon            158.35 353 ePKP     PKPdf    08 54 31.4 +6.2
LIS   Lisbon            158.35 353 ePKIKP   PKPdf    08 54 24.7 -0.4
LIS                                e                 08 58 40.2
EVO   Evora             158.39 351  PKP     PKPdf    08 54 23.4 -1.9
EVO   Evora             158.39 351 ePKP     PKPdf    08 54 25.6 +0.4
MOE   Montemor          158.44 352 ePKP     PKPdf    08 54 26.9 +1.6
PBAR  Barrancos         158.57 349 ePKP     PKPdf    08 54 26.7 +1.3
PBEJ  Beja              158.86 350 ePKP     PKPdf    08 54 41.4  +16
PLOUS Minas do Lousa    158.94 352 ePKP     PKPdf    08 54 27.5 +1.6
MESJ  Messejana         159.10 351 ePKPdf   PKPdf    08 54 25.7 -0.4
MESJ                                IAMs_20 IAMs_20  10 10 56.7
      comp=Z,3μm,32.9s
MESJ  Messejana         159.10 351 ePKP     PKPdf    08 54 27.2 +1.1
MESJ  Messejana         159.10 351 ePKIKP   PKPdf    08 54 25.7 -0.4
PCVE  Castro Verde      159.27 351 ePKP     PKPdf    08 54 27.7 +1.4
EMAL  Malaga-Limoner    159.29 342  PKP     PKPdf    08 54 21.8 -4.5
PVAQ  Vaqueiros         159.44 350 ePKP     PKPdf    08 54 27.4 +0.9
PVAQ                               ePP      PP       08 58 58.4  +14
PVAQ                               i IAMs_20 IAMs_20 10 07 52.7
      comp=Z,2μm,20.0s
PTEO  Sao Teotonio      159.46 352 ePKP     PKPdf    08 54 27.7 +1.3
PBDV  Barranco-do-Ve    159.64 350 ePKP     PKPdf    08 54 27.6 +0.9
MORF  Marmelete         159.68 352 ePKPdf   PKPdf    08 54 26.3 -0.5
MORF                                IAMs_20 IAMs_20  10 07 14.5
      comp=Z,2μm,30.6s
MORF  Marmelete         159.68 352 ePKP     PKPdf    08 54 26.9  0.0
MORF  Marmelete         159.68 352 ePKIKP   PKPdf    08 54 26.3 -0.5
PFVI  Vila Bisbo        159.88 352 ePKP     PKPdf    08 54 27.9 +0.9
IFR   Ifrane            162.50 340  PKP     PKPdf    08 54 23.8 -6.4
AVE   Averroes          163.35 346  PKP     PKPdf    08 54 26.8 -4.0
PMOZ  Porto Moniz, M    163.77  15 ePKP     PKPdf    08 54 32.7 +1.4
PMOZ                               ePP      PP       08 59 20.6  +13
PMOZ                               i IAMs_20 IAMs_20 10 26 10.6
      comp=Z,2μm,18.0s
PMAR  Madeira           163.93  14 ePKP     PKPdf    08 54 32.1 +0.6
TIO   Tiouine           165.56 343  PKP     PKPdf    08 54 30.2 -2.8
TORD  Torodi Ar. Bea    165.98 255  PKP     PKPdf    08 54 31.6 -1.9
      comp=Z,4.2nm,0.9s,baz=55,slow=0.4,SNR=17
TORD                                PKPab   PKPab    08 55 31.9 -1.7
      comp=Z,6.7nm,1.0s,baz=97,slow=3.2,SNR=5.6
TORD                                PP      PP       08 59 30.1 +9.0
      comp=Z,0.8nm,0.8s,baz=103,slow=3.2,SNR=4.7
DBIC  Dimbokro          167.33 216  PKP     PKPdf    08 54 32.3 -2.3
      comp=Z,5.7nm,0.9s,baz=86,slow=1.8,SNR=4.8
DBIC                                PKPab   PKPab    08 55 39.1 -0.2
      comp=Z,6.3nm,0.9s,baz=113,slow=5.1,SNR=3.6
```

SDD ***12*** *08:37:17.0±2.4, 18.°39N×71.°70W, h24^{km}±9^{km}, MD3.0, ML1.6, MW2.3, Presumed earthquake*

OSPL ***12*** *08:37:18.5±0.3, 18.°25N×71.°22W, h11^{km}±8^{km}, ML1.7, Presumed earthquake*

ISC 12 08:37:19.7±1.4, **18.°35N**±0.°04×**71.°68W**±0.°04, **h9**^{km}±12^{km}, **n8,** σ1^{s}**02**/14, **9C, Dominican Republic region**

```
Code  Station Name        Δ°   AZ°    Phase ID            Time      Res
                                   Op        ISC        h  m  s    ISC
LODU1 El Espartillar     0.20  88  i P       Pg        08 37 23.7 -0.1
LODU1                              eS        Sg        08 37 27.3 +0.8
LODU1                               IAML               08 37 29.4
      comp=Z,211nm,0.5s
JIDR  Jimani             0.22 311⇑iP         Pg        08 37 24.2 +0.1
JIDR                            ⇑iS          Sg        08 37 26.9 -0.3
JIDR                                IAML               08 37 29.9
      comp=N,66nm,0.1s
NEDR  Neiba UASD         0.28  61⇑iP         Pg        08 37 23.2 -2.2
NEDR                            ⇑iS          Sb        08 37 31.4 -0.5
NEDR                                IAML               08 37 32.2
      comp=N,95nm,0.2s
LONE3 El Aguacate, B     0.33  39  i P       Pg        08 37 26.2 -0.2
LONE3                              eS        Sg        08 37 32.1 +1.3
LONE3                               IAML               08 37 33.1
      comp=Z,72nm,0.3s
PODR  Polo               0.42 115⇑iP         Pg        08 37 28.9 +0.9
PODR                            ⇑iS          Sb        08 37 35.2 -0.7
LOBH  Bahia de las A     0.48 175  i P       Pg        08 37 28.6 -0.6
LOBH                                IAML               08 37 42.3
      comp=Z,23nm,1.0s
SDDR  Presa de Saban     0.73  30⇑iS         Sg        08 37 44.0 +0.5
SDDR                                IAML               08 37 49.6
      comp=N,14nm,0.3s
REDR  Restauracion       0.86  18⇑iP         Pg        08 37 36.0 -0.3
REDR                            ⇑iS          Sb        08 37 49.3 +0.9
REDR                                IAML               08 37 49.6
      comp=N,35nm,0.1s
```

SOME ***12*** *08:53:20.4, 41.°88N×81.°37E, h15^{km}*

NNC ***12*** *08:53:22.1±1.4, 41.°87N×81.°24E, h0^{km}, mb3.6, mpv3.2, Error ellipse: s-maj=9.3km s-min=8.0km az=166.0*

ISC 12 08:53:22.0±2.9, **41.°7N**±0.°1×**81.°01E**±0.°09, **h13**^{km}±14^{km}, **n19,** σ1^{s}**14**/30, **Southern Xinjiang**

```
Code  Station Name        Δ°   AZ°    Phase ID            Time      Res
                                   Op        ISC        h  m  s    ISC
KTMS  Ketmen             1.78 344   P        Pn        08 53 52.9 +0.3
      7.8nm,0.2s
KTMS                                S        Sb        08 54 16.5 -0.4
      18nm,0.4s
KTMS  Ketmen             1.78 344  eP        Pn        08 53 52.9 +0.3
      7.8nm,0.2s
KTMS                               eS        Sb        08 54 16.5 -0.4
      18nm,0.4s
SHLS  Shalkode           1.83 322   P        Pn        08 53 52.2 -1.0
      15nm,0.2s
SHLS                                S        Sn        08 54 15.3 -1.0
      64nm,0.3s
SHLS  Shalkode           1.83 322  eP        Pn        08 53 52.2 -1.0
      15nm,0.2s
SHLS                               eS        Sn        08 54 15.3 -1.0
      64nm,0.3s
UZB   Uzynbulak          2.04 315   Pg       Pg        08 54 00.5 -0.6
      6.0nm,0.2s
UZB                                 Lg       Lg        08 54 29.5
      17nm,0.3s
UZB   Uzynbulak          2.04 315  eP        Pb        08 53 59.4 +0.4
      6.2nm,0.2s
UZB                                eS        Sg        08 54 27.3 -0.3
      22nm,0.3s
SATY  Saty               2.34 305   Pg       Pg        08 54 06.3 -0.6
      7.5nm,0.4s
SATY                                Lg       Lg        08 54 39.4
      32nm,0.4s
SATY  Saty               2.34 305  eP        Pg        08 54 06.3 -0.6
      7.5nm,0.4s
SATY                               eS        Sg        08 54 39.4 +2.2
      32nm,0.4s
KPKS  Kokpek             2.44 316   Pg       Pb        08 54 07.1 +1.4
      0.4nm,0.2s
KPKS                                Lg       Lg        08 54 40.7
      25nm,0.3s
KPKS  Kokpek             2.44 316  eP        Pb        08 54 07.1 +1.4
      0.4nm,0.2s
KPKS                               eS        Sg        08 54 40.7 +0.3
      25nm,0.3s
KURS  Kuram              2.73 311   Pg       Pb        08 54 12.3 +1.5
      5.4nm,0.5s
KURS                                Lg       Lg        08 54 49.6
      3.9nm,0.4s
KURS  Kuram              2.73 311  eP        Pb        08 54 12.3 +1.5
      5.4nm,0.5s
KURS                               eS        Sg        08 54 49.6 -0.1
      3.9nm,0.4s
DJR   Jarkent            2.75 341   Pg       Pb        08 54 10.7 -0.4
      3.2nm,0.4s
DJR                                 Lg       Lg        08 54 46.8
      7.8nm,0.4s
DJR   Jarkent            2.75 341  eP        Pb        08 54 10.7 -0.4
      3.2nm,0.4s
DJR                                eS        Sb        08 54 46.8 +2.1
      7.8nm,0.4s
KNOS  Konyrlen           2.95 334   Pg       Pb        08 54 13.6 -0.9
      1.9nm,0.2s
KNOS                                Lg       Lg        08 54 51.8
      14nm,0.3s
BLB   Baldybastay        3.01 323   Pg       Pb        08 54 16.2 +0.8
```

	6.9nm,0.3s						
BLB				Lg	Lg	08 54 56.3	
	12nm,0.3s						
TNSS	**Tian-Shan**	3.28	295	Pg	Pg	08 54 23.2	-1.6
	0.4nm,0.1s						
TNSS				Lg	Lg	08 55 08.3	
	1.2nm,0.3s						
TNSS	**Tian-Shan**	3.28	295	*e*P	Pg	08 54 23.2	-1.6
	0.4nm,0.1s						
TNSS				*e*S	Sg	08 55 08.3	+1.0
	1.2nm,0.3s						
MAKZ	**Makanchi**	5.12	7	Pn	Pn	08 54 39.7	+1.3
MAKZ				Sn	Sn	08 55 37.1	-0.3
MAKZ				Lg	Lg	08 56 00.4	

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*NOU **12** 08:55:28.3, 17°.13S×167°.89E, h4^{km}, MLv4.9/15, Vanuatu Islands*

*NEIC **12** 08:55:29.2±0.9, 17°.11S±0°.06×167°.8E±0°.1, h10^{km}±1^{km}, mb4.2/11, Error ellipse: s-maj=17.0km s-min=9.6km az=77.0*

*IDC **12** 08:55:31.0±1.9, 17°.49S×167°.38E, h0^{km}, mb4.0/6, mbtmp4.0/7, ML3.4/1, Error ellipse: s-maj=42.7km s-min=26.2km az=68.0*

ISC 12 08:55:30.2±0.6, **17°.14S**±0°.05×**167°.76E**±0°.09, **h21**^{km}, **n35**, σ**1^{s}53**/35, **mb4.2**/15, **Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTV	**Rentapao**	0.91	135	P	Pb	08 55 45.5	-1.7
SANVU	**Saraoutou**	1.77	342	P	Pn	08 55 59.0	-0.6
SANVU	**Saraoutou**	1.77	342		Pb	08 55 59.6	-2.3
MARNC	**Mare, Loyalty**	4.32	177	P	Pn	08 56 33.6	-1.1
MARNC	**Mare, Loyalty**	4.32	177	Pn	Pn	08 56 33.2	-1.5
KOUNC	**Koumac, New Ca**	4.72	224	P	Pn	08 56 41.3	+1.1
KOUNC	**Koumac, New Ca**	4.72	224	Pn	Pn	08 56 39.9	-0.3
YATNC	**Mamie plateau,**	4.96	189	P	Pn	08 56 42.9	-0.6
DZM	**Mont Dzumac**	5.05	194	Pn	Pn	08 56 41.2	-3.7
	1.9nm,0.3s,baz=24,slow=12,SNR=14						
DZM				Sn	Sn	08 57 39.0	-3.7
	3.3nm,0.3s,baz=15,slow=18,SNR=10						
	4.4nm,0.5s						
DZM				AML	AML		
NOUC	**Port Laguerre**	5.12	195	P	Pn	08 56 47.1	+1.4
ONTNC	**Ouen Toro**	5.28	193	P	Pn	08 56 50.2	+2.3
ONTNC	**Ouen Toro**	5.28	193	Pn	Pn	08 56 48.4	+0.5
OUENC	**Ouen Island, N**	5.32	189	P	Pn	08 56 49.4	+1.0
OUENC	**Ouen Island, N**	5.32	189	Pn	Pn	08 56 49.1	+0.7
TOZ	**Tahuroa Road**	21.61	163	P	P	09 00 19.4	+0.6
TOZ				IAmb	IAmb	09 00 31.9	
	comp=Z,7.4nm,0.8s						
HIZ	**Hauiti**	22.18	165	P	P	09 00 24.1	-0.9
STKA	**Stephens Creek**	27.86	233	P	P	09 01 17.2	-1.3
	comp=Z,1.4nm,0.9s,baz=57,slow=10,SNR=4.2						
	comp=Z,1.4nm,0.9s						
WB0	**Warramunga Arr**	31.73	260	P	P	09 01 52.3	-0.6
WB0				IAmb	IAmb	09 02 00.3	
	comp=Z,1.9nm,0.8s						
WRA	**Warramunga Arr**	31.78	260	P	P	09 01 53.4	+0.1
	comp=Z,0.8nm,0.8s,baz=89,slow=9.0,SNR=9.2						
	comp=Z,0.8nm,0.8s						
WRA	**Warramunga Arr**	31.78	260	P	P	09 01 52.5	-0.8
AS31	**Alice Springs**	32.33	253	P	P	09 01 57.6	-0.6
AS31				IAmb	IAmb	09 02 01.2	
	comp=Z,1.2nm,0.5s						
ASAR	**Alice Springs**	32.33	253	P	P	09 01 58.5	+0.3
	comp=Z,2.4nm,0.5s,baz=80,slow=8.5,SNR=42						
	comp=Z,2.4nm,0.5s						
ASAR	**Alice Springs**	32.33	253	P	P	09 01 57.8	-0.5
MTN	**Manton Dam**	35.60	272	P	P	09 02 26.9	+0.2
MTN				IAmb	IAmb	09 02 50.4	
	comp=Z,3.2nm,1.1s						
JYT	**Yasato**	59.14	334	P	P	09 05 29.3	-0.1
QSPA	**South Pole Qui**	72.90	180	P	P	09 06 58.9	+1.3
	comp=Z,3.9nm,0.9s,baz=332,slow=1.9,SNR=11						
	comp=Z,3.9nm,0.9s						
QSPA	**South Pole Qui**	72.90	180	P	P	09 06 59.3	+1.7
MAW	**Mawson**	79.84	202	P	P	09 07 39.8	+3.1
	comp=Z,1.0nm,0.8s,baz=69,slow=10,SNR=2.0						
	comp=Z,1.0nm,0.8s						
M17K	**Holitna River**	83.06	16	P	P	09 07 53.5	-0.2
M17K				IAmb	IAmb	09 08 19.4	
	comp=Z,2.4nm,1.1s						
L18K	**Granite Mounta**	83.94	16	P	P	09 08 00.6	+2.3
L18K				IAmb	IAmb	09 08 24.5	
	comp=Z,1.1nm,1.1s						
SONM	**Songino Array**	84.71	324	P	P	09 08 08.2	+5.5
	comp=Z,0.6nm,0.5s,baz=134,slow=6.2,SNR=2.5						
	comp=Z,0.6nm,0.5s						
SAO	**San Andreas Ge**	85.53	50	P	P	09 08 07.0	+0.1
SAO				IAmb	IAmb	09 08 19.7	
	comp=Z,3.0nm,0.9s						
TROLL	**Troll, Antarti**	90.51	185	P	P	09 08 29.8	-0.6
	comp=Z,107nm,0.7s						
VNA3	**Neumayer Olymp**	91.82	181	P	P	09 08 36.9	+0.6
	comp=Z,1.4nm,0.5s						
VNA2	**Neumayer--Watz**	92.09	182	P	P	09 08 38.0	+0.5
	comp=Z,2.3nm,0.9s,baz=199,slow=3.8						

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*NOU **12** 08:55:45.6, 36°.63S×177°.30E, h11^{km}, ML4.3/9, Off E. Coast of N. Island, N.Z.*

*WEL **12** 08:55:46.1±0.5, 37°S±4°×17°7E±°, h5^{km}, M3.8/32, ML3.7/32, MLv3.8/32, Error ellipse: s-maj=5.5km s-min=2.6km az=37.2, confirmed*

ISC 12 08:55:43.4±1.5, **36°.46S**±0°.05×**177°.27E**±0°.04, **h23**^{km}±15^{km}, **n106**, σ**1^{s}89**/116, **Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WSRZ	**White Island S**	1.06	184	P	Pn	08 56 02.1	-0.7
WSRZ				S	Sb	08 56 14.6	-1.9
WSRZ				AML	AML		
WSRZ				AML	AML		
WIZ	**White Island**	1.07	183	P	Pn	08 56 02.7	-0.3
WIZ				S	Sb	08 56 13.5	-3.3
WIZ				AML	AML		
WIZ				AML	AML		
MYRZ	**Mayor Island**	1.16	225	P	Pb	08 56 04.9	0.0
MYRZ				S	Sn	08 56 17.7	-1.8
MYRZ				AML	AML		
MYRZ				AML	AML		
HAZ	**Te Kaha**	1.36	163	P	Pn	08 56 07.3	+0.3
HAZ				S	Sn	08 56 22.0	-2.2
HAZ				AML	AML		
HAZ				AML	AML		
MXZ	**Matakaoa Point**	1.38	143	P	Pb	08 56 08.5	0.0
MXZ	**Matakaoa Point**	1.38	143	S	Sn	08 56 24.9	+0.1
MXZ	**Matakaoa Point**	1.38	143	P	Pb	08 56 09.0	+0.5
MXZ				S	Sn	08 56 24.3	-0.5
MXZ				AML	AML		
MXZ				AML	AML		
WHRZ	**Whale Island**	1.42	189	P	Pb	08 56 08.6	-0.5
WHRZ				S	Sn	08 56 14.9	-11
WHRZ				AML	AML		
WHRZ				AML	AML		
GRZ	**Great Barrier**	1.48	278	P	Pb	08 56 12.3	+2.2
GRZ				S	Sb	08 56 29.5	+1.0
GRZ				AML	AML		
GRZ				AML	AML		
TGRZ	**Tauranga**	1.50	212	P	Pn	08 56 08.9	0.0
TGRZ				AML	AML		
TGRZ				AML	AML		
RUGZ	**Raukumara Rang**	1.54	168	P	Pn	08 56 10.3	+0.8
RUGZ				S	Sn	08 56 27.5	-1.4
RUGZ				AML	AML		
RUGZ				AML	AML		
MARZ	**Manawahe**	1.60	197	P	Pn	08 56 10.5	+0.3
MARZ				AML	AML		
MARZ				AML	AML		
WMGZ	**Waiomatatini S**	1.64	146	P	Pb	08 56 14.1	+1.2
WMGZ				S	Sb	08 56 35.6	+2.4
WMGZ				AML	AML		
WMGZ				AML	AML		
EDRZ	**Edgecumbe**	1.70	194	P	Pn	08 56 12.0	+0.3
EDRZ				AML	AML		
EDRZ				AML	AML		
KMRZ	**Kaimai**	1.74	217	P	Pn	08 56 13.2	+0.9
KMRZ				S	Sn	08 56 34.0	+0.1
KMRZ				AML	AML		
KMRZ				AML	AML		
WIAZ	**Waiheke Island**	1.75	258	P	Pb	08 56 14.6	-0.2
WIAZ				S	Sb	08 56 36.2	-0.1
WIAZ				AML	AML		
WIAZ				AML	AML		
KARZ	**Kaharoa**	1.76	207	P	Pn	08 56 13.2	+0.7
KARZ				AML	AML		
KARZ				AML	AML		
PUZ	**Puketiti**	1.79	154	P	Pb	08 56 16.4	+0.9
PUZ				AML	AML		
PUZ				AML	AML		
MKRZ	**Makatiti**	1.79	201	P	Pb	08 56 19.1	+3.5
URZ	**Urewera**	1.80	184	P	Pn	08 56 13.4	+0.4
URZ	**Urewera**	1.80	184	P	Pn	08 56 13.4	+0.4
URZ				S	Sn	08 56 33.2	-1.9
URZ				AML	AML		
URZ				AML	AML		
TWGZ	**Tauwhareparae**	1.81	162	P	Pb	08 56 16.6	+0.7
TWGZ				AML	AML		
TWGZ				AML	AML		
MKAZ	**Moumakai**	1.81	249	P	Pn	08 56 14.8	+1.6
MKAZ				AML	AML		
MKAZ				AML	AML		
NGRZ	**Ngongotaha**	1.85	207	P	Pb	08 56 15.9	-0.7
NGRZ				AML	AML		
NGRZ				AML	AML		
TARZ	**Mount Tarawera**	1.88	199	P	Pn	08 56 15.6	+1.4
TARZ				AML	AML		
TARZ				AML	AML		
MWZ	**Matawai**	1.88	174	P	Pn	08 56 14.8	+0.5
MWZ				AML	AML		
MWZ				AML	AML		
TOZ	**Tahuroa Road**	1.90	227	P	Pn	08 56 15.2	+0.8
TOZ				AML	AML		
TOZ				AML	AML		
UTU	**Utuhina**	1.92	206	P	Pb	08 56 20.3	+2.6
MBAZ	**Motutapu North**	1.93	260	P	Pb	08 56 17.4	-0.5
MBAZ				AML	AML		
MBAZ				AML	AML		
HLRZ	**Highlands Stat**	1.93	202	P	Pb	08 56 20.1	+2.1
ETAZ	**East Tamaki Re**	1.94	255	P	Pb	08 56 17.8	-0.3
ETAZ				AML	AML		
ETAZ				AML	AML		
ABAZ	**Army Bay**	1.97	265	P	Pb	08 56 18.9	+0.4
ABAZ				AML	AML		
ABAZ				AML	AML		
RRRZ	**Republican Roa**	1.97	197	P	Pb	08 56 22.0	+3.4
HSRZ	**Hossack Road**	2.02	203	P	Pb	08 56 24.2	+4.7
TKGZ	**Te Karaka**	2.03	167	P	Pb	08 56 18.8	-0.7
TKGZ				AML	AML		
TKGZ				AML	AML		
RAGZ	**Rawiri**	2.04	177	P	Pn	08 56 17.6	+1.3
RAGZ				AML	AML		
RAGZ				AML	AML		
MUGZ	**Murupara**	2.05	191	P	Pn	08 56 17.1	+0.6
MUGZ				AML	AML		
MUGZ				AML	AML		
EPAZ	**Eden Park BICE**	2.07	258	P	Pb	08 56 20.3	0.0
EPAZ				AML	AML		
EPAZ				AML	AML		
HBAZ	**Herne Bay Bore**	2.08	258	P	Pb	08 56 20.9	+0.6
HRRZ	**Handcock Road**	2.08	202	P	Pn	08 56 18.1	+1.2
HRRZ				AML	AML		
HRRZ				AML	AML		
GRRZ	**Galatos Road**	2.10	206	P	Pb	08 56 22.7	+1.9
PRRZ	**Plateau Road**	2.15	199	P	Pn	08 56 10.3	-7.6
CNGZ	**Carnagh Statio**	2.16	160	P	Pb	08 56 22.0	+0.2
CNGZ				AML	AML		
CNGZ				AML	AML		
RTZ	**Ruatahuna**	2.17	186	P	Pn	08 56 18.9	+0.8
RTZ				AML	AML		
RTZ				AML	AML		
RVAZ	**Riverhead Bore**	2.19	261	P	Pb	08 56 21.6	-0.6
RVAZ				AML	AML		
RVAZ				AML	AML		
AWAZ	**Awhitu Peninsu**	2.19	253	P	Pb	08 56 21.3	-1.0
AWAZ				AML	AML		
AWAZ				AML	AML		
WTAZ	**Waiatarua**	2.22	257	P	Pb	08 56 21.8	-1.0
WTAZ				AML	AML		
RIGZ	**Rimuhau**	2.28	170	P	Pb	08 56 22.8	-1.1
RIGZ				AML	AML		
RIGZ				AML	AML		
TLZ	**Tolley Road**	2.32	216	P	Pn	08 56 21.2	+1.0
TLZ				AML	AML		
TLZ				AML	AML		
KUTZ	**Kaahu Road**	2.33	209	P	Pn	08 56 21.5	+1.1
KUTZ				AML	AML		
KUTZ				AML	AML		
MTHZ	**Maungataniwha**	2.41	188	P	Pn	08 56 23.1	+1.6
MTHZ				AML	AML		
MTHZ				AML	AML		
WCZ	**Waipu Caves**	2.42	282	P	Pb	08 56 25.3	-0.9
WCZ				AML	AML		
WCZ				AML	AML		
RAHZ	**Arahi**	2.46	183	P	Pn	08 56 23.9	+1.8
PRGZ	**Paritu Road**	2.51	169	P	Pb	08 56 27.3	-0.5
WATZ	**Wairara**	2.56	208	P	Pb	08 56 33.1	+4.5
NMHZ	**Naumai**	2.66	188	P	Pb	08 56 29.0	-1.3
BKZ	**Black Stump Fm**	2.77	193	P	Pn	08 56 28.7	+2.3
BKZ				AML	AML		
HIZ	**Hauiti**	2.81	222	P	Pn	08 56 28.4	+1.5
HIZ	**Hauiti**	2.81	222	P	Pn	08 56 28.3	+1.5
NTVZ	**North Tongarir**	2.92	205	P	Pb	08 56 33.4	-1.5
TMVZ	**Te Maari**	2.93	205	P	Pb	08 56 33.5	-1.4
KRVZ	**Karewarewa**	2.93	206	P	Pb	08 56 35.7	+0.7
ETVZ	**East Tongariro**	2.94	204	P	Pb	08 56 33.6	-1.7
WTVZ	**West Tongariro**	2.97	206	P	Pb	08 56 36.0	+0.4
OTVZ	**Oturere**	2.98	205	P	Pb	08 56 36.4	+0.5
SNVZ	**South Ngauruho**	3.01	205	P	Pb	08 56 35.7	-0.7
NGZ	**Ngauruhoe**	3.02	205	P	Pb	08 56 36.9	+0.4
KWHZ	**Kaweka Forest**	3.04	192	P	Pb	08 56 34.4	-2.4
TUVZ	**Tukino**	3.08	204	P	Pb	08 56 36.9	-0.7
FWVZ	**Far West T-bar**	3.10	205	P	Pb	08 56 37.5	-0.5
MAVZ	**Matarangi**	3.11	205	P	Pb	08 56 37.9	-0.3
WHVZ	**Whangaehu Hut**	3.12	205	P	Pb	08 56 37.4	-0.8
TRVZ	**Turoa**	3.15	205	P	Pb	08 56 36.4	-2.4
WNVZ	**Wahianoa**	3.15	204	P	Pb	08 56 37.3	-1.5
BHHZ	**Black Hill Sta**	3.17	197	P	Pn	08 56 35.2	+3.3
MOVZ	**Moawhango**	3.18	202	P	Pb	08 56 36.7	-2.5
PKVZ	**Pokaka**	3.21	208	P	Pb	08 56 37.8	-1.9
OUZ	**Omahuta**	3.23	291	P	Pb	08 56 37.2	-2.8
OUZ	**Omahuta**	3.23	291	P	Pb	08 56 37.4	-2.6
OUZ				AML	AML		
OUZ				AML	AML		
MTVZ	**Mangateitei**	3.25	205	P	Pb	08 56 39.0	-1.4
KRHZ	**Kereru**	3.26	192	P	Pn	08 56 36.2	+3.1
VRZ	**Vera Road**	3.32	216	P	Pn	08 56 35.6	+1.7
KAHZ	**Kahuranaki**	3.34	185	P	Pn	08 56 36.9	+2.6
PNHZ	**Pukenui**	3.55	193	P	Pn	08 56 39.5	+2.4
WPHZ	**Waipukurau**	3.66	190	P	Pn	08 56 42.7	+4.1
TSZ	**Takapari Road**	3.74	196	P	Pn	08 56 41.9	+2.2
WAZ	**Wanganui**	3.75	208	P	Pb	08 56 45.5	-3.4
NEZ	**North Egmont**	3.77	221	P	Pb	08 56 47.0	-2.2
KHEZ	**Kahui Hut**	3.83	221	P	Pn	08 56 43.7	+2.8
KHEZ	**Kahui Hut**	3.83	221	P	Pn	08 56 44.9	+3.9
BFZ	**Birch Farm**	4.29	190	P	Pn	08 56 49.2	+1.9
BFZ	**Birch Farm**	4.29	190	P	Pn	08 56 48.7	+1.4
MRZ	**Mangatainoka R**	4.40	197	P	Pn	08 56 49.9	+1.2
OGWZ	**Otaki Gorge**	4.65	200	P	Pn	08 56 51.2	-1.0
KIW	**Kapiti Island**	4.77	202	P	Pn	08 56 57.0	+3.2
DUWZ	**D'Urville Isla**	5.07	210	P	Pn	08 57 00.9	+2.9
TRWZ	**Traveller**	5.08	194	P	Pn	08 56 58.3	+0.1
MSWZ	**Moikau Station**	5.20	197	P	Pn	08 56 59.7	0.0
NNZ	**Nelson**	5.64	211	P	Pn	08 57 09.4	+3.7
QRZ	**Quartz Range**	5.72	219	P	Pn	08 57 09.4	+2.5
QRZ	**Quartz Range**	5.72	219	P	Pn	08 57 11.6	+4.7
MRNZ	**Matariki Terra**	6.06	214	P	Pn	08 57 14.2	+2.7
THZ	**Tophouse**	6.29	211	P	Pn	08 57 17.6	+2.8
KHZ	**Kahutara**	6.61	205	P	Pn	08 57 19.9	+0.8
KHZ	**Kahutara**	6.61	205	P	Pn	08 57 19.3	+0.2
DSZ	**Denniston Nort**	6.78	217	P	Pn	08 57 23.5	+2.1

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*IDC **12** 09:04:28.3±1.2, 17°.05S×167°.65E, h0^{km}, mb4.2/9, mbtmp4.2/10, Error ellipse: s-maj=28.7km s-min=17.9km az=93.0*

*NEIC **12** 09:04:30.0±1.7, 17°.11S±0°.06×167°.8E±0°.1, h15^{km}±5^{km}, mb4.6/21, Error ellipse: s-maj=18.7km s-min=8.2km az=84.0*

*NOU **12** 09:04:30.1, 17°.07S×167°.95E, h26^{km}, MLv4.7/14, Vanuatu Islands*

ISC 12 09:04:30.7±0.5, **17°.13S**±0°.05×**167°.81E**±0°.08, **h21**^{km}, **n55**, σ**0^{s}95**/56, **mb4.5**/18, **1C, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTV	**Rentapao**	0.88	138	P	Pb	09 04 45.9	-1.4
RTV	**Rentapao**	0.88	138	S	Sb	09 04 58.7	+0.1
SANVU	**Saraoutou**	1.77	341	P	Pn	09 04 59.5	-0.6
SANVU	**Saraoutou**	1.77	341		Pn	09 04 59.1	-1.0
MARNC	**Mare, Loyalty**	4.33	177	P	Pn	09 05 34.4	-0.9
MARNC	**Mare, Loyalty**	4.33	177	Pn	Pn	09 05 34.1	-1.2
KOUNC	**Koumac, New Ca**	4.77	224	P	Pn	09 05 41.5	+0.2
KOUNC	**Koumac, New Ca**	4.77	224	Pn	Pn	09 05 40.6	-0.7
YATNC	**Mamie plateau,**	4.98	190	P	Pn	09 05 43.3	-1.0
DZM	**Mont Dzumac**	5.08	194	Pn	Pn	09 05 44.9	-0.8
	20nm,0.5s,baz=18,slow=19						
DZM				Sn	Sn	09 06 42.4	-1.4
	10nm,0.3s,baz=110,slow=22,SNR=7.6						
NOUC	**Port Laguerre**	5.14	196	P	Pn	09 05 47.1	+0.6
ONTNC	**Ouen Toro**	5.31	194	P	Pn	09 05 50.0	+1.3
ONTNC	**Ouen Toro**	5.31	194	Pn	Pn	09 05 48.8	+0.1
OUENC	**Ouen Island, N**	5.34	190	P	Pn	09 05 50.1	+0.9
OUENC	**Ouen Island, N**	5.34	190	Pn	Pn	09 05 47.2	-2.0
ARMA	**Armidale**	19.82	225	P	Pn	09 09 02.1	+0.2
CTA	**Charters Tower**	20.64	258	P	P	09 09 09.4	+0.4
	2.1nm,0.6s,baz=90,slow=12,SNR=1.6						
	2.1nm,0.6s						
CTAO	**Charters Tower**	20.64	258	P	P	09 09 09.6	+0.6
CTAO				IAmb	IAmb	09 09 45.1	
	comp=Z,19nm,1.2s						
TOZ	**Tahuroa Road**	21.61	163	P	P	09 09 21.0	+1.7
TOZ				IAmb	IAmb	09 09 43.5	
	comp=Z,20nm,1.2s						
HIZ	**Hauiti**	22.18	165	P	P	09 09 24.5	-0.9
RTZ	**Ruatahuna**	22.86	161	P	P	09 09 33.6	+0.8
MRZ	**Mangatainoka R**	24.39	166	P	P	09 09 47.7	+0.2
MRZ				IAmb	IAmb	09 09 58.5	
	comp=Z,22nm,1.0s						
BFZ	**Birch Farm**	24.58	164	P	P	09 09 49.5	+0.3
BFZ				IAmb	IAmb	09 10 21.5	
	comp=Z,34nm,1.1s						
TCW	**Tory Channel**	24.64	168	P	P	09 09 50.8	+1.0
THZ	**Tophouse**	24.93	171	P	P	09 09 53.4	+0.9
BHW	**Baring Head**	24.95	167	P	P	09 09 52.8	+0.3
BSWZ	**Blackbirch Sta**	25.05	169	P	P	09 09 55.2	+1.8
STKA	**Stephens Creek**	27.91	233	P	P	09 10 19.9	+0.4
	comp=Z,1.5nm,0.6s,baz=83,slow=9.7,SNR=6.3						
	comp=Z,1.5nm,0.6s						
WR8	**Warramunga Arr**	31.68	260	P	P	09 10 51.7	-1.3
WR8				IAmb	IAmb	09 11 14.5	
	comp=Z,11nm,1.4s						
WB0	**Warramunga Arr**	31.78	260	P	P	09 10 53.1	-0.8
WB0				IAmb	IAmb	09 11 20.1	
	comp=Z,7.5nm,1.2s						
WRAB	**Tennant Creek**	31.82	260	P	P	09 10 52.9	-1.4
WRA	**Warramunga Arr**	31.83	260	P	P	09 10 53.3	-1.0
	comp=Z,1.4nm,0.7s,baz=88,slow=8.6,SNR=17						
	comp=Z,1.4nm,0.7s						
WRA	**Warramunga Arr**	31.83	260	P	P	09 10 52.7	-1.6
AS31	**Alice Springs**	32.38	253	P	P	09 10 58.6	-0.6
AS31				IAmb	IAmb	09 10 59.5	
	comp=Z,3.1nm,0.4s						
ASAR	**Alice Springs**	32.38	253	P	P	09 10 58.6	-0.6
	comp=Z,4.0nm,0.4s,baz=81,slow=8.5,SNR=78						
	comp=Z,4.0nm,0.4s						
ASAR	**Alice Springs**	32.38	253	P	P	09 10 58.1	-1.1
KNRA	**Kununurra**	37.45	266	P	P	09 11 41.6	-1.3
FITZ	**Fitzroy Crossi**	40.14	262	P	P	09 12 05.2	-0.3
VNDA	**Vanda**	60.49	181	P	P	09 14 38.5	-0.1
VNDA				IAmb	IAmb	09 14 57.8	
	comp=Z,5.0nm,1.4s						
SBA	**Scott Base**	60.75	180	P	P	09 14 41.3	+0.9
SBA				IAmb	IAmb	09 14 53.5	
	comp=Z,14nm,1.4s						
NACB	**Ninganchiao**	60.98	311	P	P	09 14 42.3	-0.5
TPUB	**Ta-pu**	61.16	310	P	P	09 14 43.0	-1.0
QSPA	**South Pole Qui**	72.91	180	P	P	09 15 59.3	+1.1
	comp=Z,7.4nm,0.9s,baz=55,slow=16,SNR=31						
	comp=Z,7.4nm,0.9s						
QSPA	**South Pole Qui**	72.91	180	P	P	09 15 58.6	+0.4
QSPA				IAmb	IAmb	09 16 00.0	
	comp=Z,8.2nm,0.9s						
CMAR	**Chiang Mai Arr**	76.40	294	P	P	09 16 19.4	+0.3
	comp=Z,1.1nm,0.3s,baz=115,slow=5.4,SNR=4.4						
	comp=Z,1.1nm,0.3s						
N17K	**Nushagak Hills**	82.36	17	P	P	09 16 50.0	-0.7
N17K				IAmb	IAmb	09 16 54.7	
	comp=Z,4.5nm,1.1s						
SONM	**Songino Array**	84.73	324	P	P	09 17 03.6	+0.3
	comp=Z,1.3nm,0.8s,baz=134,slow=4.2,SNR=5.9						
	comp=Z,1.3nm,0.8s						
NVAR	**Mina Array Bea**	88.44	49	P	P	09 17 23.8	+2.0
	comp=Z,0.2nm,0.4s,baz=258,slow=5.6,SNR=2.4						
	comp=Z,0.2nm,0.4s						
TROLL	**Troll, Antarti**	90.52	185	⇑P	P	09 17 31.4	+0.5
	comp=Z,184nm,0.7s						
VNA3	**Neumayer Olymp**	91.83	181	P	P	09 17 36.6	-0.2
	comp=Z,3.6nm,0.7s						
VNA2	**Neumayer--Watz**	92.11	182	P	P	09 17 38.3	+0.1
	comp=Z,3.5nm,0.7s,baz=160,slow=4.3						
MKAR	**Makanchi Array**	99.29	316	P	Pdif	09 18 11.7	+0.5
	comp=Z,0.2nm,0.5s,baz=102,slow=6.1,SNR=2.2						
	comp=Z,0.2nm,0.5s						
FUORN	**Ofenpass-Fuorn**	145.21	333	PKPdf	PKPdf	09 24 07.8	+0.6
TUE	**Stuetta**	145.72	333	PKPdf	PKPab	09 24 08.7	0.0
TIP	**Timpagrande**	146.57	317	PKPbc	PKPab	09 24 11.9	-0.1

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*IDC **12** 09:07:12.8±1.3, 16°.87S×167°.77E, h0^{km}, mb3.9/8, mbtmp3.9/9, ML4.0/1, Error ellipse: s-maj=32.0km s-min=17.6km az=101.0*

*NEIC **12** 09:07:17.1±1.9, 17°.10S±0°.05×167°.7E±0°.1, h14^{km}±5^{km}, mb4.6/14, Error ellipse: s-maj=18.7km s-min=6.9km az=92.0*

ISC 12 09:07:17.1±0.7, **17°.04S**±0°.06×**167°.7E**±0°.1, **h25**^{km}, **n35**, σ**1^{s}16**/36, **mb4.4**/17, **2C, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SANVU	**Saraoutou**	1.66	342		Pn	09 07 45.0	+0.4
MARNC	**Mare, Loyalty**	4.43	176	Pn	Pn	09 08 20.9	-1.8
KOUNC	**Koumac, New Ca**	4.77	222	Pn	Pn	09 08 27.9	+0.4
DZM	**Mont Dzumac**	5.15	193	Pn	Pn	09 08 32.8	+0.1
	4.7nm,0.3s,baz=14,slow=17,SNR=5.3						
DZM				Sn	Sn	09 09 28.8	-2.6
	7.9nm,0.3s,baz=113,slow=21,SNR=6.8						
	8.6nm,0.3s						
DZM				AML	AML		
ONTNC	**Ouen Toro**	5.37	193	Pn	Pn	09 08 36.4	+0.7
OUENC	**Ouen Island, N**	5.41	189	Pn	Pn	09 08 36.7	+0.4
CTA	**Charters Tower**	20.57	258	P	P	09 11 54.5	+0.2
	2.4nm,0.6s,baz=87,slow=10,SNR=1.5						
	2.4nm,0.6s						
CTAO	**Charters Tower**	20.57	258	P	P	09 11 53.9	-0.4
TOZ	**Tahuroa Road**	21.72	163	P	P	09 12 08.2	+1.8
TOZ				IAmb	IAmb	09 12 19.6	
	comp=Z,27nm,1.1s						
RTZ	**Ruatahuna**	22.97	161	P	P	09 12 21.5	+1.6
RTZ				IAmb	IAmb	09 12 30.7	
	comp=Z,30nm,0.9s						
MRZ	**Mangatainoka R**	24.50	165	P	P	09 12 34.7	+0.3
BFZ	**Birch Farm**	24.69	164	P	P	09 12 37.3	+1.2
THZ	**Tophouse**	25.04	171	P	P	09 12 40.3	+1.0
THZ				IAmb	IAmb	09 12 51.1	
	comp=Z,17nm,0.9s						
MSWZ	**Moikau Station**	25.14	167		P	09 12 40.2	0.0
STKA	**Stephens Creek**	27.90	233	P	P	09 13 06.4	+1.2
	comp=Z,2.2nm,0.8s,baz=86,slow=13,SNR=2.9						
	comp=Z,2.2nm,0.8s						
WR8	**Warramunga Arr**	31.61	260	P	P	09 13 38.3	0.0
WR8				IAmb	IAmb	09 13 41.0	
	comp=Z,4.3nm,1.1s						
WB0	**Warramunga Arr**	31.71	260	P	P	09 13 39.2	0.0
WB0				IAmb	IAmb	09 13 48.0	
	comp=Z,5.5nm,0.9s						
WRAB	**Tennant Creek**	31.75	260	P	P	09 13 38.1	-1.4
WRAB				IAmb	IAmb	09 13 56.0	
	comp=Z,8.1nm,1.4s						
WRA	**Warramunga Arr**	31.76	260	P	P	09 13 39.5	-0.1
	comp=Z,0.6nm,0.6s,baz=93,slow=9.3,SNR=10						
	comp=Z,0.6nm,0.6s						
WRA	**Warramunga Arr**	31.76	260	P	P	09 13 38.7	-0.9
AS31	**Alice Springs**	32.33	253	P	P	09 13 44.4	-0.1

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AS31				IAmb	IAmb	09 13 53.2	
	comp=Z,2.9nm,0.6s						
ASAR	Alice Springs	32.33	253	P	P	09 13 45.0	+0.4
	comp=Z,1.8nm,0.4s,baz=85,slow=8.0,SNR=21						
	comp=Z,1.8nm,0.4s						
ASAR	Alice Springs	32.33	253	P	P	09 13 43.6	-1.0
FITZ	Fitzroy Crossi	40.07	262	P	P	09 14 50.0	-0.7
MJAR	Matsushiro Arr	60.15	333	P	P	09 17 21.8	-0.9
	comp=Z,0.8nm,0.6s,baz=100,slow=9.4,SNR=6.2						
	comp=Z,0.8nm,0.6s						
QSPA	South Pole Qui	73.00	180	P	P	09 18 45.8	+1.2
QSPA				IAmb	IAmb	09 18 54.4	
	comp=Z,8.2nm,0.8s						
BELA	Belgrano 2	84.40	175	P	P	09 19 47.6	+0.7
SONM	Songino Array	84.60	324	P	P	09 19 45.7	-2.8
	comp=Z,0.6nm,0.7s,baz=116,slow=6.6,SNR=3.8						
	comp=Z,0.6nm,0.7s						
NVAR	Mina Array Bea	88.44	49	P	P	09 20 06.7	-0.9
	comp=Z,0.1nm,0.4s,baz=336,slow=3.6,SNR=3.6						
	comp=Z,0.1nm,0.4s						
TROLL	Troll, Antarti	90.61	185	⇑P	P	09 20 19.1	+2.0
	comp=Z,328nm,1.1s						
SNAA	Sanae	91.28	183	P	P	09 20 21.3	+1.1
	comp=Z,1.9nm,0.8s,baz=206,slow=8.0,SNR=3.1						
	comp=Z,1.9nm,0.8s						
VNA3	Neumayer Olymp	91.92	181	P	P	09 20 23.2	+0.1
	comp=Z,3.1nm,0.7s						
VNA2	Neumayer--Watz	92.20	182	⇑P	P	09 20 25.4	+1.1
	comp=Z,4.0nm,1.0s,baz=167,slow=4.2						
FUORN	Ofenpass-Fuorn	145.09	333	PKPbc	PKPbc	09 26 53.2	+1.0
TUE	Stuetta	145.60	333		PKPdf	09 26 53.6	+0.1

*CATAC **12** 09:11:06.9±0.4, 12°N±2°×8°8W±°, h29km±3km, M3.6/46, MLv3.6/46, Error ellipse: s-maj=4.2km s-min=1.6km az=27.3, confirmed*

*SNET **12** 09:11:06.6±0.6, 12°.13N×87°.75W, h35km, ML3.4, Presumed earthquake*

*UCR **12** 09:11:20.8±0.9, 11°.50N×86°.81W, h15km±25km, MW3.8, Presumed earthquake*

ISC 12 09:11:06.0±1.2, 12°.14N±0°.04×87°.73W±0°.03, h22km±7km, n70, σ0ˢ78/102, 12C-5D, Near coast of Nicaragua

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CSGN	Cosiguina Volc	0.85	11	⇑P	Pn	09 11 22.4	-0.3
CSGN				S	Sb	09 11 34.2	+1.2
CRIN	San Cristobal	0.86	50	⇑P	Pn	09 11 23.0	+0.1
CRIN				S	Sn	09 11 35.8	+1.0
TEL3	Telica 3	0.96	63	⇑P	Pn	09 11 23.9	-0.3
QUEN	Al S del Volca	0.96	62	⇑P	Pn	09 11 23.7	-0.6
QUEN				S	Sb	09 11 37.2	+0.8
PACN	Al O del Volca	0.98	69	⇓P	Pn	09 11 24.3	-0.1
TELN	Telica	0.99	62	⇓P	Pn	09 11 23.5	-1.1
PLRN	Geotermica Pol	1.03	65	⇑P	Pn	09 11 24.4	-0.8
PLRN				S	Sn	09 11 37.9	-1.1
CNGA	Al SSO del Vol	1.06	71	P	Pn	09 11 24.9	-0.6
CNGN	Cerro Negro	1.07	70	P	Pn	09 11 25.0	-0.6
CNGN				S	Sb	09 11 40.5	+1.2
ILCN	San Idelfonso	1.09	67	⇑P	Pn	09 11 24.8	-1.1
ILCN				S	Sn	09 11 39.4	-1.0
INTP	Intipuca	1.10	343	eP	Pn	09 11 25.5	-0.6
COPN	Copaltepe	1.11	88	⇓P	Pn	09 11 25.8	-0.4
LEVN	Ruinas Leon Vi	1.11	76	P	Pn	09 11 26.1	-0.2
LEVN				S	Sn	09 11 40.8	-0.2
CNCH	Conchagua	1.13	355	eP	Pn	09 11 26.8	+0.1
CNCH				eS	Sn	09 11 41.7	+0.1
CNCH	Conchagua	1.13	355	P	Pn	09 11 26.5	-0.2
CNCH				S	Sn	09 11 41.3	-0.3
LCND	La Caada	1.17	352	P	Pn	09 11 27.0	-0.1
MOMN	Momotombo	1.19	77	P	Pn	09 11 26.9	-0.5
MOMN				S	Sn	09 11 42.1	-0.8
APQ2	Apoyeque	1.37	88	P	Pn	09 11 30.4	+0.6
APQ2				S	Sn	09 11 46.9	-0.4
APQ2	Apoyeque	1.37	88	⇑P	Pn	09 11 29.7	-0.1
AESN	El Sauce Leon	1.38	57	P	Pn	09 11 29.5	-0.4
AESN				S	Sn	09 11 47.4	0.0
ABCN	Banco Central	1.39	91	S	Sn	09 11 47.3	-0.4
RANC	El Ranchito	1.40	337	⇑P	Pn	09 11 30.4	0.0
RANC				S	Sn	09 11 48.6	+0.4
UNAN	Cigeo UNAN	1.42	91	P	Pn	09 11 30.6	0.0
UNAN				S	Sn	09 11 48.3	-0.3
TISN	Laguna Tiscapa	1.43	90	⇓P	Pn	09 11 30.6	0.0
ALJI	Alcalda de J	1.44	325	eP	Pn	09 11 30.4	-0.3
ALJI				eS	Sn	09 11 47.9	-1.0
ALJI	Alcalda de J	1.44	325	⇑P	Pn	09 11 30.5	-0.2
ALJI				S	Sn	09 11 48.3	-0.7
PACA	Pacayal	1.44	336	P	Pn	09 11 30.8	-0.1
PACA				S	Sn	09 11 49.4	+0.1
MGAN	Managua	1.45	90	P	Pn	09 11 31.2	+0.3
MGAN				S	Sn	09 11 48.7	-0.4
WILN	Americas 2	1.50	89	P	Pn	09 11 31.4	-0.2
WILN				S	Sn	09 11 50.1	-0.5
MAS3	Al N del Volca	1.52	94	⇓P	Pn	09 11 31.6	-0.3
MAS3				S	Sn	09 11 50.8	-0.3
AERN	Aeropuerto Man	1.52	90	S	Sn	09 11 51.2	+0.1
SABN	Sabanita	1.54	97	P	Pn	09 11 32.4	+0.2
MASN	Masaya	1.55	96	S	Sn	09 11 51.2	-0.6
NANN	Nandasmo	1.58	97	P	Pn	09 11 33.6	+0.8
NANN				S	Sn	09 11 52.8	+0.2
NADN	Granada	1.70	103	P	Pn	09 11 34.1	-0.3
NADN				S	Sn	09 11 55.0	-0.5
TECO	Alcaldia de Te	1.73	324	⇑P	Pn	09 11 34.4	-0.3
TECO				S	Sn	09 11 55.0	-1.2
SCLA	Alcaldia de Sa	1.83	328	P	Pn	09 11 36.6	+0.4
SCLA				S	Sn	09 11 58.9	+0.1
COEG	Centro de Oper	1.85	323	eP	Pn	09 11 36.0	-0.5
COEG	Centro de Oper	1.85	323	P	Pn	09 11 36.4	-0.1
COEG				S	Sn	09 11 58.3	-1.0
OCON	Estacion meteo	1.92	39	P	Pn	09 11 37.7	+0.3
MATN	Matagalpa	1.93	66	⇑P	Pn	09 11 37.3	-0.2
TGUH	Tegucigalpa,Un	1.96	13	P	Pn	09 11 38.0	0.0
TGUH				S	Sn	09 12 02.6	+0.7
PAVA	Las Pavas	1.96	323	P	Pn	09 11 38.6	+0.6
PAVA				S	Sn	09 12 02.8	+0.8
RCFN	Al S de San Ju	2.02	47	P	Pn	09 11 39.4	+0.5
RCFN				S	Sn	09 12 04.1	+0.5
BOAB	BOACO BROADBAN	2.04	81	P	Pn	09 11 40.4	+1.4
LOMA	Loma Larga	2.05	317	P	Pn	09 11 39.2	-0.1
LOMA				S	Sn	09 12 03.8	-0.5
RCVN	Varillal2	2.07	46	P	Pn	09 11 39.9	+0.3
RCVN				S	Sn	09 12 05.2	+0.4
JAPN	Al SSO del Vol	2.10	107	P	Pn	09 11 40.7	+0.9
JAPN	Al SSO del Vol	2.10	107	eP	Pn	09 11 40.5	+0.7
RCPN	Sur Rio San Ju	2.10	49	P	Pn	09 11 40.4	+0.4
MORN	Al O del Volca	2.12	106	P	Pn	09 11 40.5	+0.3
PMON	Piamonte	2.20	315	P	Pn	09 11 41.6	+0.3
PMON				S	Sn	09 12 07.9	0.0
JAYA	Jayaque - finc	2.25	312	P	Pn	09 11 42.2	0.0
JAYA				S	Sn	09 12 09.5	+0.1
LCRUZ	La Cruz	2.31	117	eP	Pn	09 11 42.5	-0.3
CARN	Rivas	2.36	113	P	Pn	09 11 44.6	+1.2
LAPC	Finca la Perla	2.63	121	eP	Pn	09 11 47.2	0.0
ALIBA	Liberia Airpor	2.63	126	eP	Pb	09 11 50.7	-1.8
NUBE	Las Nubes	2.66	311	P	Pn	09 11 47.9	+0.2
VRLE	La Escondida,	2.68	120	eP	Pn	09 11 48.3	+0.4
FAME	Alcaldia de Sa	2.80	307	P	Pn	09 11 50.1	+0.6
SARH	Santa Rosa de	2.81	339	P	Pn	09 11 51.3	+1.7
MESS	Mesas	2.85	119	eP	Pn	09 11 51.7	+1.5
ESQI	Esquipulas	2.87	327	⇑P	Pn	09 11 51.7	+1.1
JUD3	Juan Diaz 3	2.91	132	eP	Pn	09 11 51.3	+0.2
CUI	Cuipilapa	2.91	120	eP	Pn	09 11 51.8	+0.7
TENO	El Achiote	3.05	118	eP	Pn	09 11 52.5	-0.6
JTS	Las Juntas de	3.29	124	eP	Pn	09 11 55.9	-0.3
VPL2	V. Platanar	3.75	119	eP	Pn	09 12 02.9	+0.2
ABE2	San Pablo	4.34	124	eP	Pn	09 12 13.6	+2.6
LCR2	La Lucha 2	4.36	123	eP	Pn	09 12 14.7	+3.5

IDC 12 09:23:28.4±3.0, 15°.86S×173°.93W, h69km±34km, mb3.4/4, mbtmp3.7/5, ML3.8/1, Error ellipse: s-maj=56.3km s-min=22.2km az=139.0, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	2.85	47	P	Pn	09 24 13.6	+1.9
	16nm,0.3s,baz=221,slow=11,SNR=76						
AFI				S	Sn	09 24 44.8	-0.1
	201nm,0.5s,baz=123,slow=15,SNR=4.3						
	47nm,0.4s						
AFI				AML	AML		
URZ	Urewera	23.67	198	P	P	09 28 33.8	+0.1
	2.4nm,0.4s,baz=17,slow=14,SNR=2.1						
	2.4nm,0.4s						
WRA	Warramunga Arr	49.24	257	P	P	09 32 10.0	-0.5
	0.2nm,0.5s,baz=97,slow=6.5,SNR=12						
WRA				PcP	PcP	09 33 32.8	+0.1
	0.8nm,1.3s,baz=96,slow=3.5,SNR=1.8						
	0.2nm,0.5s						
ASAR	Alice Springs	49.48	252	P	P	09 32 11.9	-0.3
	0.5nm,0.4s,baz=90,slow=8.0,SNR=21						
	0.5nm,0.4s						
PDAR	Pinedale Array	82.95	42	P	P	09 35 46.5	+0.3
	0.3nm,0.5s,baz=226,slow=3.8,SNR=4.8						
	0.3nm,0.5s						

*SJA **12** 09:45:28.8±0.6, 28°.11S×71°.62W, h14km±2km, ML4.2, MW4.1*

*NEIC **12** 09:45:30.9±2.3, 28°.11S±0°.04×71°.42W±0°.07, h20km±5km, mb4.5/8, ML4.0(GUC), Error ellipse: s-maj=9.6km s-min=5.6km az=81.0*

*IDC **12** 09:45:31.0±0.9, 27°.77S×71°.15W, h0km, mb3.7/4, mbtmp3.8/8, ML3.9/4, Error ellipse: s-maj=25.6km s-min=14.3km az=69.0*

*GUC **12** 09:45:32.3±0.8, 28°.16S×71°.36W, h35km±2km, ML4.0*

ISC 12 09:45:31.6±1.0, 28°.12S±0°.03×71°.45W±0°.04, h19km±3km, n93, σ2ˢ09/114, mb4.2/6, 1C-6D, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.35	105	eP	Pg	09 45 38.9	-0.1
AC04				IAML		09 45 49.1	
	comp=Z,6µm,0.6s						
AC04	Llanos de Chal	0.35	105	⇓iP	Pb	09 45 39.2	-0.1
AC04				eS	Sg	09 45 43.6	-0.5
AC04				IAML		09 45 44.0	
	comp=N,54µm,0.2s						
AC04	Llanos de Chal	0.35	105	Pg	Pg	09 45 39.0	-0.1
AC04				Sg	Sg	09 45 43.6	-0.5
LCO	Las Campanas	1.11	144	eP	Pb	09 45 51.7	-0.7
LCO				IAML		09 46 11.5	
	comp=Z,5µm,0.3s						
LCO	Las Campanas	1.11	144	⇓eP	Pb	09 45 51.0	-1.4
LCO				eS	Sb	09 46 05.1	-1.4
LCO				IAML		09 46 09.2	
	comp=Z,22µm,0.5s						
LCO	Las Campanas	1.11	144	Pn	Pb	09 45 51.2	-1.2
LCO					Sb	09 46 05.2	-1.4
GO03	Copiapo	1.20	65	eP	Pn	09 45 52.8	-0.6
GO03				IAML		09 46 13.7	
	comp=Z,3µm,0.5s						
GO03	Copiapo	1.20	65	eP	Pn	09 45 52.7	-0.7
GO03				⇓eS	Sb	09 46 08.5	-0.4
GO03				IAML		09 46 12.9	
	comp=N,4µm,0.3s						
GO03	Copiapo	1.20	65	Pn	Pn	09 45 52.0	-1.4
AC05	El Transito	1.26	125	eP	Pn	09 45 54.1	-0.3
AC05				eS	Sb	09 46 09.8	-1.0
AC05	El Transito	1.26	125	⇓eP	Pn	09 45 54.0	-0.3
AC05				eS	Sb	09 46 09.3	-1.5
AC05				IAML		09 46 10.8	
	comp=N,3µm,0.5s						
AC05	El Transito	1.26	125	Pn	Pn	09 45 53.8	-0.6
AC05				Sn	Sb	09 46 08.9	-1.9
AC01	Pan de Azucar	2.10	21	eP	Pn	09 46 05.2	-0.6
AC01				eS	Sb	09 46 34.5	-0.3
AC01	Pan de Azucar	2.10	21	⇑iP	Pn	09 46 05.2	-0.6
AC01	Pan de Azucar	2.10	21	Pn	Pn	09 46 05.0	-0.8
GO04	Tololo Observa	2.13	165	eP	Pn	09 46 07.6	+1.2
GO04				eS	Sn	09 46 33.2	+0.9
GO04				IAML		09 46 44.1	
	comp=Z,2µm,0.7s						
GO04	Tololo Observa	2.13	165	eP	Pn	09 46 07.6	+1.2
GO04				eS	Sb	09 46 35.2	-0.6
GO04	Tololo Observa	2.13	165	Pn	Pn	09 46 05.8	-0.6
CO01	Juntas del Tor	2.20	148	eP	Pb	09 46 09.7	-1.3
CO01				eP	Pb	09 46 09.8	-1.3
CO01				eS	Sb	09 46 38.1	+0.1
CO01				IAML		09 46 39.3	
	comp=Z,879nm,0.3s						
CO01	Juntas del Tor	2.20	148	eP	Pb	09 46 09.7	-1.3
CO01				eS	Sb	09 46 37.3	-0.7
CO01				IAML		09 46 41.3	
	comp=N,1µm,0.3s						
AC02	Maricunga	2.43	59	eP	Pn	09 46 12.8	+2.2
AC02				IAML		09 47 01.3	
	comp=Z,818nm,0.8s						
AC02	Maricunga	2.43	59	eP	Pb	09 46 13.1	-1.8
AC02				eS	Sb	09 46 43.9	-0.8
AC02				IAML		09 46 49.8	
	comp=E,2µm,0.5s						
CO06	Fray Jorge	2.55	184	⇓eP	Pn	09 46 11.6	-0.4
CO06	Fray Jorge	2.55	184	Pn	Pn	09 46 11.1	-0.9
CO03	El Pedregal	2.79	166	eP	Pn	09 46 16.5	+1.1
CO03				eS	Sn	09 46 50.9	+2.3
CO03				IAML		09 47 02.9	
	comp=Z,685nm,0.6s						
CO03	El Pedregal	2.79	166	eP	Pn	09 46 16.4	+1.1
CO03	El Pedregal	2.79	166	Pn	Pn	09 46 15.6	+0.2
CO02	Combarbal	3.10	173	eP	Pn	09 46 20.1	+0.5
CO02				eS	Sn	09 46 59.1	+2.9
CO02				IAML		09 47 09.7	
	comp=Z,1µm,0.6s						
CO02	Combarbal	3.10	173	eP	Pn	09 46 19.9	+0.3
CO02	Combarbal	3.10	173	Pn	Pn	09 46 20.3	+0.6
ACCO	Cerro Coronel	3.23	140	eP	Pb	09 46 26.4	-2.1
ACCO				eS	Sb	09 47 07.5	-0.1
ACCO				IAML		09 47 18.1	
	comp=Z,478nm,0.7s						
TINO	Tinogasta	3.43	90	eP	Pn	09 46 22.5	-1.7
TINO				eS	Sb	09 47 12.0	-1.3
TINO				IAML		09 47 25.9	
	comp=Z,278nm,0.8s						
PB14	IPOC Station P	3.60	15	eP	Pn	09 46 19.8	-6.9
PB14				eS	Sb	09 47 21.3	+3.0
PB14				IAML		09 47 28.7	
	comp=Z,305nm,0.8s						
PB14	IPOC Station P	3.60	15	⇓eP	Pn	09 46 25.4	-1.3
PB14				eS	Sb	09 47 14.8	-3.4
PB14				IAML		09 47 34.3	
	comp=N,154nm,0.7s						
PB14	IPOC Station P	3.60	15		Pn	09 46 25.0	-1.6
CO04	Los Peladeros	3.94	174	eP	Pn	09 46 32.1	+0.9
CO04	Los Peladeros	3.94	174	Pn	Pn	09 46 30.4	-0.8
RTLL	Cerro Villicun	4.12	142	eP	Pn	09 46 34.5	+0.9
RTLL				eS	Sn	09 47 25.4	+4.2
RTLL				IAML		09 47 41.9	
	comp=Z,284nm,0.5s						
RTLS	Leoncito	4.12	154	eP	Pn	09 46 38.5	+4.7
RTLS				eS	Sb	09 47 30.5	-2.7
RTLS				IAML		09 47 44.9	
	comp=Z,1µm,1.4s						
CFA	Coronel Fontan	4.46	142	Pn	Pn	09 46 42.0	+3.7
	comp=Z,3.1nm,0.3s,baz=312,slow=11,SNR=107						
CFA				Sn	Sn	09 47 35.0	+5.4
	comp=Z,2.6nm,0.3s,baz=334,slow=11,SNR=4.1						
CFA				Lg	Lg	09 47 46.5	
	comp=Z,20nm,0.3s,baz=52,slow=20,SNR=6.9						
	comp=Z,15nm,0.4s						
CFA				AML	AML		
CFA	Coronel Fontan	4.46	142	eP	Pn	09 46 41.9	+3.7
CFA				eS	Sn	09 47 22.9	-6.7
CFA				IAML		09 47 28.2	
	comp=Z,238nm,0.8s						
VA03	San Esteban	4.70	171	eP	Pn	09 46 43.1	+1.5
VA03				eS	Sb	09 47 45.2	-4.4
VA03				IAML		09 47 58.3	
	comp=Z,304nm,0.7s						
VA03	San Esteban	4.70	171	Pn	Pn	09 46 40.6	-1.0
ROCH	El Roble	4.86	176	eP	Pn	09 46 43.8	0.0
ROCH				eP	Pn	09 46 43.8	0.0
MT02	Curacav	5.13	177	eP	Pn	09 46 47.2	-0.2
MT02				IAML		09 48 22.7	
	comp=Z,126nm,1.3s						
MT02	Curacav	5.13	177	Pn	Pn	09 46 45.8	-1.7
PB05	IPOC Station P	5.36	12	eP	Pn	09 46 48.2	-2.5
PB05				IAML		09 48 29.9	
	comp=Z,113nm,1.2s						
PB05	IPOC Station P	5.36	12		Pn	09 46 48.2	-2.5
MT03	Universidad Ad	5.42	172	Pn	Pn	09 46 50.1	-1.4
PB06	IPOC Station P	5.65	18	Pn	Pn	09 46 52.6	-2.1
MT09	Talagante	5.66	176	Pn	Pn	09 46 55.0	+0.3
MT01	Popeta	5.73	178	Pn	Pn	09 46 55.4	-0.3
AF01	San Pedro de A	5.93	31	Pn	Pn	09 46 57.7	-1.0
PB03	IPOC Station P	6.23	15	Pn	Pn	09 47 00.1	-2.7
SLA	San Lorenzo	6.31	59	eP	Pn	09 47 10.8	+7.0
PB07	IPOC Station P	6.52	13	Pn	Pn	09 47 04.0	-2.7
TCA	Tanti	6.77	120	eP	Pn	09 47 13.7	+3.6
GO05	Hualane	6.88	183	Pn	Pn	09 47 09.8	-1.8
PB02	IPOC Station P	6.91	12	Pn	Pn	09 47 09.2	-2.9
PB08	IPOC Station P	8.21	15	Pn	Pn	09 47 28.4	-1.7
H03N1	Juan Fernandez	8.33	229	Pn	Pn	09 47 28.8	-2.2
H03N1				T	T	09 56 10.8	
	baz=56,slow=74,SNR=1921						
H03N2	Juan Fernandez	8.34	229	Pn	Pn	09 47 28.8	-2.4
H03N2				T	T	09 56 10.5	
	baz=206,slow=74,SNR=1609						
H03S3	Juan Fernandez	8.56	227	Pn	Pn	09 47 31.4	-2.9
	baz=50,slow=16						
PSGCX	Pisagua	8.57	8	Pn	Pn	09 47 30.7	-4.1
H03S1	Juan Fernandez	8.57	226	Pn	Pn	09 47 31.6	-2.9
	baz=50,slow=16						
H03S2	Juan Fernandez	8.58	227	Pn	Pn	09 47 31.4	-3.1
	baz=50,slow=16						
PB12	IPOC Station P	9.51	6	Pn	Pn	09 47 44.4	-3.4
PB16	IPOC Station P	9.90	11	Pn	Pn	09 47 50.8	-2.6
PB18	Visviri	10.63	10	Pn	Pn	09 48 01.8	-1.7
LPAZ	La Paz	12.16	15	Pn	Pn	09 48 21.5	-3.0
	comp=Z,0.3nm,0.3s,baz=183,slow=9.6,SNR=8.9						
	comp=Z,0.8nm,0.4s						
LPAZ				AML	AML		
LPAZ	La Paz	12.16	15	Pn	Pn	09 48 22.9	-1.6
CPUP	Villa Florida	12.69	85	Pn	Pn	09 48 30.2	-0.9
	comp=Z,0.2nm,0.3s,baz=256,slow=13,SNR=3.8						
CPUP				Lg	Lg	09 51 59.2	
	comp=Z,0.1nm,0.3s,baz=160,slow=20,SNR=3.2						
	comp=Z,0.9nm,0.5s						
CPUP				AML	AML		
SIV	San Ignacio	15.42	41	Pn	Pn	09 49 01.8	-6.5
	comp=Z,0.1nm,0.3s,baz=231,slow=9.7,SNR=11						
	comp=Z,1.4nm,0.4s						
SIV				AML	AML		
CZSB	Cruzeiro do Su	20.31	356	Pn	P	09 50 07.7	+1.1
CZSB				IAmb	IAmb	09 50 11.0	
	comp=Z,16nm,1.1s						
BOAV	Boa Vista	32.10	21	P	P	09 51 57.9	+0.2
PMSA	Palmer Station	36.97	175	P	P	09 52 41.3	+2.0
CRPR	Cabo Rojo, PR	46.04	6	P	P	09 53 53.9	-0.2
PDPR	Patillas Dam,	46.16	7	P	P	09 53 54.4	-0.7
PDPR				IAmb	IAmb	09 54 16.0	
	comp=Z,8.4nm,1.0s						
BANI	BANI	46.24	1	P	P	09 53 57.1	+1.3
TEIG	Tepich	50.74	339	P	P	09 54 31.6	+1.3
TEIG				IAmb	IAmb	09 54 32.5	
	comp=Z,17nm,1.4s						
SNAA	Sanae	56.87	159	P	P	09 55 20.5	+5.8
	comp=Z,0.8nm,0.4s,baz=344,slow=7.4,SNR=2.7						
	comp=Z,0.8nm,0.4s						
QSPA	South Pole Qui	62.10	180	P	P	09 55 51.9	+0.9
QSPA				IAmb	IAmb	09 56 12.6	
	comp=Z,4.0nm,1.3s						
TXAR	Lajitas Array	64.91	329	P	P	09 56 11.1	+1.2
	comp=Z,0.7nm,1.0s,baz=154,slow=8.4,SNR=5.2						
	comp=Z,0.7nm,1.0s						
TXAR	Lajitas Array	64.91	329	P	P	09 56 10.4	+0.5
PDAR	Pinedale Array	78.77	332	P	P	09 57 35.2	+2.1
	comp=Z,0.3nm,0.7s,baz=143,slow=8.7,SNR=4.4						
	comp=Z,0.3nm,0.7s						
TORD	Torodi Ar. Bea	81.75	70	P	P	09 57 50.0	+0.6
	comp=Z,0.6nm,0.7s,baz=246,slow=5.1,SNR=3.3						
	comp=Z,0.6nm,0.7s						
WRA	Warramunga Arr	126.10	210	PKP	PKiKP	10 04 36.4	+2.7
	comp=Z,0.4nm,0.6s,baz=156,slow=2.0,SNR=2.1						
H11S2	WAKE ISLAND Hy	126.16	273	T	T	12 23 35.8	
	baz=113,slow=75,SNR=8.3						
H11S1	WAKE ISLAND Hy	126.17	273	T	T	12 23 42.4	
	baz=113,slow=75,SNR=11						
H11S3	WAKE ISLAND Hy	126.18	273	T	T	12 23 39.4	
	baz=113,slow=75,SNR=10.0						
ZALV	Zalesovo Beam	148.88	27	PKPbc	PKiKP	10 05 18.9	-0.1
	comp=Z,1.4nm,0.6s,baz=304,slow=3.2,SNR=6.9						
ZALV	Zalesovo Beam	148.88	27		PKiKP	10 05 18.5	-0.5
MKAR	Makanchi Array	152.24	41	PKPbc	PKiKP	10 05 26.8	+0.6
	comp=Z,0.8nm,0.7s,baz=298,slow=2.6,SNR=4.5						

NOU 12 09:54:07.2, 17°.12S×167°.87E, h11km, MLv4.3/24, Vanuatu Islands, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTV	Rentapao	0.85	142	P	Pb	09 54 24.3	+0.3
RTV	Rentapao	0.85	142	S	Sb	09 54 36.5	+1.0
SANVU	Saraoutou	1.78	339	P	Pn	09 54 36.7	-1.3
SANVU	Saraoutou	1.78	339	S	Sb	09 55 01.5	-0.8
MARNC	Mare, Loyalty	4.34	178	P	Pn	09 55 12.4	-0.8
KOUNC	Koumac, New Ca	4.81	224	P	Pn	09 55 20.2	+0.6
YATNC	Mamie plateau,	5.00	190	P	Pn	09 55 22.5	+0.3
YATNC	Mamie plateau,	5.00	190	S	Sn	09 56 19.5	-0.6
NOUC	Port Laguerre	5.17	196	P	Pn	09 55 25.7	+1.1
NOUC	Port Laguerre	5.17	196	S	Sn	09 56 23.9	-0.4
ONTNC	Ouen Toro	5.33	194	P	Pn	09 55 28.5	+1.7
ONTNC	Ouen Toro	5.33	194	S	Sn	09 56 29.7	+1.5
OUENC	Ouen Island, N	5.36	190	P	Pn	09 55 29.2	+2.0
OUENC	Ouen Island, N	5.36	190	S	Sn	09 56 30.1	+1.2

*GCG **12** 10:11:06.6±2.5, 15°.72N×91°.00W, h0km±11km, MD4.7, Presumed earthquake*

*SNET **12** 10:11:08.2±2.0, 15°.73N×91°.24W, h9km, ML4.1, Presumed earthquake*

*CATAC **12** 10:11:08.5±0.4, 16°N±3°×9°1W±°, h5km±3km, M3.6/12, MLv3.6/12, Error ellipse: s-maj=6.9km s-min=4.4km az=51.5, confirmed*

ISC 12 10:11:04.8±1.2, 15°.88N±0°.03×91°.11W±0°.03, h8km±11km, n30, σ1ˢ69/44, Mexico-Guatemala border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HUEH	Huehuetenango	0.68	215	i P	Pg	10 11 18.3	+0.4
HUEH				i S	Sg	10 11 25.5	-1.3
HUEH	Huehuetenango	0.68	215	eP	Pg	10 11 18.3	+0.4
HUEH				eS	Sg	10 11 26.9	+0.1
HUEH	Huehuetenango	0.68	215	P	Pg	10 11 18.4	+0.5
HUEH				S	Sg	10 11 27.0	+0.3
APG	El Apazote	1.07	144	i P	Pg	10 11 23.0	-2.4
SMCA	Catarina	1.38	223	i P	Pg	10 11 32.0	+0.6
STG8	El Palmar, Qui	1.44	190	i P	Pn	10 11 27.2	-4.3
RTAL	Retalhuleu	1.46	203	P	Pb	10 11 33.0	+0.7
RTAL				S	Sg	10 11 53.7	+1.8
THIG		1.48	229	i P	Pg	10 11 35.4	+2.2
FG8	Yepocapa, Chim	1.69	162	i P	Pn	10 11 30.7	-4.1
JUAM	Asuncion Mita	2.04	138	i P	Pn	10 11 39.8	+0.2
JUAM				i S	Sn	10 12 04.5	-0.9
ZAFR2	Estanzuela, Za	2.13	127	i P	Pn	10 11 35.8	-5.0
ZAFR2				i S	Sn	10 11 57.6	-10
TGIG		2.13	295	i P	Pg	10 11 46.8	+1.0
ESQI	Esquipulas	2.15	127	eP	Pb	10 11 43.4	-0.7
ESQI				eS	Sb	10 12 12.8	+1.9
ESQI	Esquipulas	2.15	127	P	Pb	10 11 43.0	-1.1
ESQI				S	Sb	10 12 09.7	-1.2
FAME	Alcaldia de Sa	2.28	152	P	Pb	10 11 45.4	-0.9
FAME				S	Sb	10 12 13.4	-1.3
NUBE	Las Nubes	2.34	147	P	Pb	10 11 46.3	-1.1
NUBE				S	Sb	10 12 15.7	-1.0
UNIC	Universidad Ca	2.41	141	P	Pb	10 11 47.0	-1.6
UNIC				S	Sb	10 12 17.5	-1.0
IZABA	Izabal, Puerto	2.43	93	P	Pg	10 11 50.7	-0.8
IZABA				S	Sg	10 12 24.1	+1.1
SARH	Santa Rosa de	2.51	116	i P	Pn	10 11 46.8	+0.7
SARH				i S	Sn	10 12 18.7	+1.8
SARH	Santa Rosa de	2.51	116	P	Pn	10 11 47.0	+0.9
SARH				S	Sb	10 12 23.5	+2.1
CEDA	San Andres	2.64	141	P	Pn	10 11 50.4	+2.5
LLGN	La Laguna	2.69	129	P	Pn	10 11 50.7	+2.1
JAYA	Jayaque - finc	2.73	144	P	Pn	10 11 50.9	+1.7
PMON	Piamonte	2.76	141	P	Pb	10 11 56.2	+1.6
P5NO	Presa 5 de nov	2.95	129	P	Pn	10 11 54.3	+2.3
P5NO				S	Sb	10 12 33.9	+0.1
PAVA	Las Pavas	3.00	135	P	Pb	10 11 58.8	+0.1
SCIG	Sabancuy	3.07	359	i P	Pb	10 11 56.9	-2.9
SCIG	Sabancuy	3.07	359	P	Pb	10 11 58.7	-1.2
SCIG				S	Sb	10 12 37.7	+0.2
COEG	Centro de Oper	3.11	136	eP	Pn	10 11 56.4	+2.1
COEG	Centro de Oper	3.11	136	P	Pb	10 12 00.7	+0.2

IDC **12** *10:11:09.4±0.9, 10.°10S×161.°12E, h0^{km}, mb4.0/12, mbtmp4.0/13, ML3.8/1, MS3.9/2, Error ellipse: s-maj=22.4km s-min=19.5km az=145.0*

NEIC **12** *10:11:15.9±1.9, 10.°07S±0.°06×161.°1E±0.°1, h40^{km}±7^{km}, mb4.3/13, Error ellipse: s-maj=15.6km s-min=8.1km az=69.0*

ISC 12 10:11:14.8±0.8**, 10.°1S**±0.°1×**161.°06E**±0.°10**, h35^{km}, n40,** σ**0.^{s}91**/35**, mb4.0**/17**, Bougainville-Solomon Islands region**

```
Code  Station Name       Δ°    AZ°   Phase ID            Time      Res
                                     Op       ISC        h  m  s   ISC
HNR   Honiara            1.27 300    Pn       Pn         10 11 35.6 -0.5
      232nm,0.3s,baz=334,slow=1.2,SNR=95
HNR                                  Sn       Sn         10 11 52.5 +0.5
      463nm,0.3s,baz=284,slow=20,SNR=9.7
HNR   Honiara            1.27 300             Pn         10 11 36.0 -0.2
HNR                                  Sn       Sn         10 11 52.6 +0.7
CTA   Charters Tower    17.40 233    P        Pn         10 15 15.9 +0.9
      0.2nm,0.3s,baz=52,slow=15,SNR=2.8
      5.5nm,1.1s
CTA                                  AML      AML
WR0   Warramunga Arr    27.39 246    P        P          10 16 57.0 -0.2
WR8   Warramunga Arr    27.43 246    P        P          10 16 56.7 -0.8
WR8                                  IAmb     IAmb       10 17 03.2
      comp=Z,12nm,1.5s
WB2   Warramunga Arr    27.55 246    P        P          10 16 56.8 -2.0
WB2                                  IAmb     IAmb       10 17 20.1
      comp=Z,8.3nm,1.3s
WRA   Warramunga Arr    27.57 246    P        P          10 16 59.3 +0.5
      comp=Z,0.7nm,0.4s,baz=74,slow=9.2,SNR=29
      comp=Z,0.7nm,0.4s
WRA   Warramunga Arr    27.57 246    P        P          10 16 57.2 -1.6
H11S2 WAKE ISLAND Hy    28.93  11    T        T          10 46 08.5
      baz=194,slow=76,SNR=6.7
H11S3 WAKE ISLAND Hy    28.93  11    T        T          10 46 13.6
      baz=194,slow=76,SNR=5.1
H11S1 WAKE ISLAND Hy    28.95  11    T        T          10 46 04.9
      baz=194,slow=76,SNR=3.3
ASAR  Alice Springs     29.21 239    P        P          10 17 13.1 -0.4
      comp=Z,0.2nm,0.3s,baz=64,slow=10,SNR=5.4
      comp=Z,0.2nm,0.3s
H11N1 WAKE ISLAND Hy    30.16  11    T        T          10 47 49.0
      baz=192,slow=76,SNR=14
H11N3 WAKE ISLAND Hy    30.17  11    T        T          10 48 08.8
      baz=192,slow=76,SNR=14
H11N2 WAKE ISLAND Hy    30.18  11    T        T          10 47 50.6
      baz=192,slow=76,SNR=16
URZ   Urewera           31.54 155    LR       LR         10 27 44.4
      comp=Z,202nm,18.8s,baz=245,slow=32
KNRA  Kununurra         31.95 257    P        P          10 17 37.9 +0.3
KNRA                                 IAmb     IAmb       10 18 01.5
      comp=Z,5.5nm,1.4s
FITZ  Fitzroy Crossi    35.21 253    P        P          10 18 05.7 -0.4
      comp=Z,0.7nm,0.3s,baz=69,slow=8.9,SNR=6.2
FITZ                                 LR       LR         10 32 06.4
      comp=Z,184nm,18.2s,baz=246,slow=36
      comp=Z,0.7nm,0.3s
FITZ  Fitzroy Crossi    35.21 253    P        P          10 18 05.5 -0.5
MJAR  Matsushiro Arr    51.12 336    P        P          10 20 13.7 -0.6
      comp=Z,1.4nm,0.9s,baz=166,slow=7.1,SNR=4.0
      comp=Z,1.4nm,0.9s
PETK  Petropavlovsk-    63.01 358    P        P          10 21 38.5 +0.5
      comp=Z,3.0nm,0.9s,baz=178,slow=7.1,SNR=1.8
      comp=Z,3.0nm,0.9s
PETK  Petropavlovsk-    63.01 358    P        P          10 21 38.2 +0.1
SONM  Songino Array     75.21 325    P        P          10 22 55.2 +1.2
      comp=Z,2.2nm,0.6s,baz=138,slow=6.6,SNR=7.1
      comp=Z,2.2nm,0.6s
SONM  Songino Array     75.21 325    P        P          10 22 54.8 +0.7
SONM                                 IAmb     IAmb       10 22 56.1
      comp=Z,2.0nm,0.8s
O14K  Tigyukauivet M    75.45  19    P        P          10 22 54.3 -0.6
SII   Sitkinak Islan    75.98  24    P        P          10 22 58.8 +0.7
ACHA  Angle Creek He    76.71  22    P        P          10 23 03.2 +1.0
ACHA                                 IAmb     IAmb       10 23 38.7
      comp=Z,3.2nm,1.3s
KDAK  Kodiak Island     77.45  23    P        P          10 23 07.0 +0.7
QSPA  South Pole Qui    79.91 180    P        P          10 23 20.3 +0.3
      comp=Z,0.8nm,0.8s,baz=25,slow=1.6,SNR=2.0
      comp=Z,0.8nm,0.8s
QSPA  South Pole Qui    79.91 180    P        P          10 23 21.0 +0.9
QSPA                                 IAmb     IAmb       10 23 53.6
      comp=Z,4.0nm,1.4s
IMAR  Indian Mountai    82.80  17    P        P          10 23 36.1 +1.1
ILAR  Eielson Array     84.12  20    P        P          10 23 42.4 +0.5
      comp=Z,0.6nm,0.6s,baz=236,slow=5.2,SNR=12
      comp=Z,0.6nm,0.6s
ILAR  Eielson Array     84.12  20    P        P          10 23 42.1 +0.2
NVAR  Mina Array Bea    88.96  51    P        P          10 24 07.0 +0.6
      comp=Z,0.4nm,0.8s,baz=264,slow=4.3,SNR=3.6
      comp=Z,0.4nm,0.8s
NVAR  Mina Array Bea    88.96  51    P        P          10 24 05.0 -1.4
MK31  Makanchi Array    89.69 318    P        P          10 24 07.5 -1.9
MK31                                 IAmb     IAmb       10 24 40.6
      comp=Z,3.5nm,1.4s
MKAR  Makanchi Array    89.69 318    P        P          10 24 08.9 -0.5
      comp=Z,0.5nm,0.5s,baz=111,slow=6.8,SNR=5.7
      comp=Z,0.5nm,0.5s
MKAR  Makanchi Array    89.69 318    P        P          10 24 08.4 -1.0
ZALV  Zalesovo Beam     90.11 325    P        P          10 24 10.0 -1.1
      comp=Z,0.4nm,0.4s,baz=120,slow=5.2,SNR=2.2
      comp=Z,0.4nm,0.4s
KURBB Kurchatov Arra    93.01 321    P        P          10 24 23.7 -0.9
      comp=Z,1.0nm,0.2s,baz=93,slow=4.9,SNR=4.8
      comp=Z,1.0nm,0.2s
```

IDC **12** *10:16:12.5±1.1, 3.°32S×136.°03E, h0^{km}, mb4.0/7, mbtmp4.0/9, ML3.8/2, MS4.3/1, Error ellipse: s-maj=50.5km s-min=20.9km az=88.0*

NEIC **12** *10:16:16.5±1.2, 3.°4S±0.°1×136.°0E±0.°1, h31^{km}±6^{km}, mb4.2/9, Error ellipse: s-maj=17.1km s-min=14.9km az=167.0*

DJA **12** *10:16:19.6±2.5, 3°S±3°×13°6E±°, h17^{km}±24^{km}, M4.2/13, mB5.3/1, mb4.3/5, MLv4.1/13, Mw(mB)4.7/1*

ISC 12 10:16:17.8±0.8**, 3.°54S**±0.°08×**135.°89E**±0.°09**, h37^{km}, n29,** σ**1.^{s}38**/28**, mb4.1**/10**, Irian Jaya region**

```
Code  Station Name       Δ°    AZ°   Phase ID            Time      Res
                                     Op       ISC        h  m  s   ISC
BAKI  Biak               2.34   5    P        Pn         10 16 55.8 +2.1
FAKI  Fak Fak            3.68 279    Pn       Pn         10 17 10.6 -1.6
FAKI                                 Sn       Sn         10 17 55.7 +1.3
FAKI  Fak Fak            3.68 279    P        Pn         10 17 14.1 +1.9
FAKI                                 AML      AML
GENI  Genyem             4.38  78    P        Pn         10 17 26.5 +4.8
GENI                                 AML      AML
SWI   Sorong             5.33 300    P        Pn         10 17 37.1 +2.2
      0.2nm35nm,0.9s
SWI                                  AML      AML
SOEI  Soe               13.09 241    Pn       Pn         10 19 21.1 -0.3
WR0   Warramunga Arr    16.38 184    Pn       Pn         10 20 05.9 +0.9
WR0                                  IAmb     IAmb       10 20 48.2
      comp=Z,8.3nm,1.4s
WRA   Warramunga Arr    16.38 185    Pn       Pn         10 20 04.4 -0.6
      comp=Z,0.3nm,0.3s,baz=7.0,slow=12,SNR=15
WRA                                  Sn       Sn         10 22 54.2  -12
      comp=Z,0.2nm,0.3s,baz=6.5,slow=22,SNR=4.9
      comp=Z,0.6nm,0.5s
WRA                                  AML      AML
FITZ  Fitzroy Crossi    17.61 214    P        P          10 20 22.5 +1.4
      comp=Z,0.3nm,0.3s,baz=44,slow=13,SNR=5.1
      comp=Z,1.5nm,0.5s
FITZ                                 AML      AML
FITZ  Fitzroy Crossi    17.61 214    P        Pn         10 20 21.5 +1.1
AS31  Alice Springs     20.10 185    P        P          10 20 49.0 +0.5
ASAR  Alice Springs     20.11 185    P        P          10 20 50.4 +1.9
      comp=Z,5.9nm,0.9s,baz=12,slow=11,SNR=26
      comp=Z,5.9nm,0.9s
ASAR  Alice Springs     20.11 185    P        P          10 20 48.2 -0.3
PALK  Pallekele         56.11 281    LR       LR         10 52 35.2
      comp=Z,294nm,19.7s,baz=294,slow=39
HMDM  Hanimaadhoo       63.42 279    P        P          10 26 42.9 -1.5
MK31  Makanchi Array    68.75 324    P        P          10 27 16.7 -1.3
MK31                                 IAmb     IAmb       10 27 40.6
      comp=Z,4.0nm,1.4s
MKAR  Makanchi Array    68.75 324    P        P          10 27 18.0  0.0
      comp=Z,0.7nm,0.5s,baz=111,slow=7.2,SNR=6.2
      comp=Z,0.7nm,0.5s
MKAR  Makanchi Array    68.75 324    P        P          10 27 16.8 -1.2
ZALV  Zalesovo Beam     71.26 331    P        P          10 27 32.8 -0.4
      comp=Z,0.4nm,0.4s,baz=119,slow=8.4,SNR=1.9
      comp=Z,0.4nm,0.4s
KURK  Kurchatov         72.79 326    P        P          10 27 40.6 -1.8
KURK                                 IAmb     IAmb       10 27 44.0
      comp=Z,1.9nm,1.0s
KURBB Kurchatov Arra    72.80 326    P        P          10 27 42.6 +0.2
      comp=Z,0.7nm,0.2s,baz=120,slow=5.7,SNR=1.9
      comp=Z,0.7nm,0.2s
BVAR  Borovoye Array    78.39 326    P        P          10 28 14.7 +0.2
      comp=Z,1.3nm,0.7s,baz=99,slow=8.9,SNR=2.1
      comp=Z,1.3nm,0.7s
AB31  Akbulak array     83.54 320    P        P          10 28 41.2 -0.8
AB31                                 IAmb     IAmb       10 29 12.6
      comp=Z,2.9nm,1.5s
ABKAR Akbulak array     83.54 320    P        P          10 28 41.2 -0.8
QSPA  South Pole Qui    86.42 180    P        P          10 28 58.1 +1.8
      comp=Z,1.4nm,0.9s,baz=336,slow=7.5,SNR=2.9
      comp=Z,1.4nm,0.9s
QSPA  South Pole Qui    86.42 180    P        P          10 28 56.3  0.0
IL31                    87.75  25    P        P          10 29 01.0 -1.5
IL31                                 IAmb     IAmb       10 29 31.1
      comp=Z,4.2nm,1.4s
ILAR  Eielson Array     87.75  25    P        P          10 29 01.5 -1.1
      comp=Z,0.3nm,0.5s,baz=259,slow=5.3,SNR=9.0
      comp=Z,0.3nm,0.5s
ILAR  Eielson Array     87.75  25    P        P          10 29 00.3 -2.3
```

IDC **12** *10:49:04.7±1.1, 6.°79S×143.°90E, h0^{km}, mb3.7/4, mbtmp3.7/7, ML3.3/2, Error ellipse: s-maj=22.0km s-min=16.8km az=41.0*

ISC 12 10:49:08.9±0.9**, 6.°9S**±0.°1×**143.°9E**±0.°1**, h30^{km}, n7,** σ**1.^{s}60**/8**, mb3.8**/3**, New Guinea**

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Code  Station Name       Δ°    AZ°   Phase ID            Time      Res
                                     Op       ISC        h  m  s   ISC
PMG   Port Moresby       4.09 127    Pn       Pn         10 50 10.1 +0.7
      23nm,0.6s,baz=281,slow=16,SNR=11
PMG                                  Sn       Sn         10 50 55.9 -0.4
      1.2nm,0.3s,baz=254,slow=9.2,SNR=3.4
WRA   Warramunga Arr    15.89 215    Pn       Pn         10 52 48.1 -2.3
      0.1nm,0.3s,baz=38,slow=12,SNR=7.5
WRA                                  Lg       Lg         10 57 32.3
      0.1nm,0.3s,baz=26,slow=26,SNR=4.7
      0.9nm,1.0s
WRA                                  AML      AML
ASAR  Alice Springs     19.18 209    P        P          10 53 31.6 +1.3
      0.3nm,0.3s,baz=33,slow=11,SNR=27
ASAR                                 Lg       Lg         10 59 17.8
      baz=34,slow=30,SNR=4.1
      4.3nm,0.9s
ASAR                                 AML      AML
FITZ  Fitzroy Crossi    20.93 236    P        P          10 53 49.9 +0.6
      2.0nm,0.9s,baz=45,slow=7.1,SNR=3.7
      2.0nm,0.9s
CMAR  Chiang Mai Arr    50.98 300    P        P          10 58 09.9 +1.7
      0.4nm,0.3s,baz=111,slow=8.5,SNR=4.6
      0.4nm,0.3s
SONM  Songino Array     63.75 333    P        P          10 59 36.6 -1.4
      0.2nm,0.3s,baz=142,slow=7.2,SNR=2.4
      0.2nm,0.3s
ILAR  Eielson Array     87.58  24    P        P          11 01 53.4 -0.4
      0.8nm,1.0s,baz=250,slow=4.7,SNR=5.2
      0.8nm,1.0s
```

IDC **12** *11:14:45.1±1.3, 51.°82N×75.°57E, h0^{km}, mbtmp2.9/3, ML2.1/3, Error ellipse: s-maj=22.1km s-min=9.7km az=32.0*

NNC **12** *11:14:47.7±3.0, 52.°29N×76.°24E, h0^{km}, mb3.0, mpv2.6, Error ellipse: s-maj=58.2km s-min=13.9km az=31.0, Suspected Mining explosion.*

ISC 12 11:14:45.7±1.1**, 51.°8N**±0.°1×**75.°62E**±0.°06**, h0^{km}, n10,** σ**1.^{s}07**/11**, 3C-4D, Eastern Kazakhstan**

```
Code  Station Name       Δ°    AZ°   Phase ID            Time      Res
                                     Op       ISC        h  m  s   ISC
KURK  Kurchatov          2.19 120   ⇑Pn       Pn         11 15 24.5 +1.2
      2.7nm,1.1s
KURK                                ⇓Sn       Sb         11 15 53.0 -0.9
      8.7nm,0.7s
KURBB Kurchatov Arra     2.20 123    Pg       Pb         11 15 25.9 -0.4
      0.3nm,0.3s,baz=305,slow=19,SNR=28
KURBB                                Lg       Lg         11 15 55.6
      0.3nm,0.3s,baz=306,slow=31,SNR=9.4
KURBB Kurchatov Arra     2.20 123   ⇓Pn       Pb         11 15 25.7 -0.5
      4.6nm,0.6s,baz=335,slow=16
KURBB                               ⇑Sn       Sb         11 15 55.0 +1.0
      56nm,0.6s
BVA0  Borovoye Array     3.42 292    Pn       Pb         11 15 45.8 -1.3
      baz=112,slow=14,SNR=7.3
BVA0                                ⇓Sn       Sb         11 16 29.4 +0.3
      7.0nm,0.7s,baz=103,slow=25
BVAR  Borovoye Array     3.42 292    Pn       Pn         11 15 41.8 +1.6
      0.1nm,0.3s,baz=112,slow=22,SNR=7.5
BVAR                                 Lg       Lg         11 16 32.2
      0.1nm,0.3s,baz=109,slow=23,SNR=6.1
      1.6nm,0.5s
BVAR                                 AML      AML
I46RU ZALESOVO INFRA     5.95  66    I        I          11 52 00.0
      baz=252,slow=326,SNR=1.3
ZALV  Zalesovo Beam      5.95  66    Pn       Pn         11 16 15.5 +0.5
      0.3nm,0.3s,baz=260,slow=15,SNR=4.3
      0.9nm,0.4s
ZALV                                 AML      AML
MAKZ  Makanchi           6.53 138   ⇑Lg       Lg         11 18 17.4
      11nm,1.4s
MK31  Makanchi Array     6.67 137   ⇓Lg       Lg         11 18 21.9
      2.9nm,0.6s
MKAR  Makanchi Array     6.67 137    Pn       Pn         11 16 24.8 -0.1
      0.1nm,0.3s,baz=314,slow=15,SNR=2.9
MKAR                                 Sn       Sn         11 17 40.6 -1.0
      0.2nm,0.3s,baz=324,slow=16,SNR=2.8
MKAR                                 Lg       Lg         11 18 13.2
      0.4nm,0.3s,baz=324,slow=24,SNR=7.4
      0.8nm,0.8s
MKAR                                 AML      AML
```

IDC **12** *11:31:56.6±1.6, 18.°03S×178.°13W, h572^{km}±15^{km}, mb2.9/6, mbtmp3.9/8, Error ellipse: s-maj=79.7km s-min=14.3km az=152.0*

ISC 12 11:31:57.4±1.3**, 18.°0S**±0.°5×**178.°1W**±0.°3**, h590^{km}, n8,** σ**1.^{s}82**/9**, mb3.3**/6**, Fiji Islands region**

```
Code  Station Name       Δ°    AZ°   Phase ID            Time      Res
                                     Op       ISC        h  m  s   ISC
MSVF  Nonsavu            3.70 273    P        P          11 33 19.7 -0.5
      18nm,0.7s,baz=108,slow=14,SNR=14
AFI   Afiamalu           7.27  57    P        P          11 33 47.8 -1.9
      22nm,0.7s,baz=245,slow=17,SNR=6.8
AFI                                  S        S          11 35 19.4 -2.1
      19nm,0.9s,baz=252,slow=20,SNR=2.1
STKA  Stephens Creek    38.88 241    P        P          11 38 33.0 -0.6
      2.1nm,0.6s,baz=64,slow=5.0,SNR=6.0
      2.1nm,0.6s
WRA   Warramunga Arr    44.94 260    P        P          11 39 20.5 -0.7
      0.7nm,0.5s,baz=98,slow=6.9,SNR=22
      0.7nm,0.5s
ASAR  Alice Springs     45.08 254    P        P          11 39 21.8 -0.6
      2.4nm,0.6s,baz=90,slow=8.4,SNR=36
      2.4nm,0.6s
TXAR  Lajitas Array     85.75  57    P        P          11 43 38.0 +2.4
      0.3nm,0.7s,baz=223,slow=5.0,SNR=3.5
      0.3nm,0.7s
ILAR  Eielson Array     85.86  13    P        P          11 43 36.0 +0.8
      0.2nm,0.4s,baz=218,slow=5.1,SNR=9.5
      0.2nm,0.4s
PDAR  Pinedale Array    87.17  43    P        P          11 43 44.0 +1.9
      0.3nm,0.8s,baz=268,slow=7.7,SNR=2.1
      0.3nm,0.8s
```

MDD **12** *11:59:23.8±0.5, 36.°56N×4.°56W, h63^{km}±4^{km}, Mb3.6/28, Error ellipse: s-maj=4.6km s-min=2.4km az=175.0*

IGIL **12** *11:59:23.9, 36.°56N×4.°56W, h28^{km}, ML2.0*

SFS **12** *11:59:23.8, 36.°57N×4.°53W, h66^{km}, ML2.9/22, ML3.1/22, MLv2.8/17*

CNRM **12** *11:59:24.2, 36.°49N×4.°78W, h52^{km}, ML2.2*

INMG **12** *11:59:25.3±1.4, 36.°67N×4.°63W, h55^{km}±4^{km}, ML2.5, Error ellipse: s-maj=2.9km s-min=2.5km az=123.0, #DIST_RANGE: REGIONAL #IPMA_REGION: SW Malaga (ESP)*

ISC 12 11:59:21.9±1.2**, 36.°58N**±0.°03×**4.°54W**±0.°02**, h75^{km}**±6^{km}**, n88,** σ**1.^{s}61**/164**, 20C-3D, Strait of Gibraltar**

```
Code  Station Name       Δ°    AZ°   Phase ID            Time      Res
                                     Op       ISC        h  m  s   ISC
EMIJ  Mijas              0.19 267    Pn       Pn         11 59 33.4 +0.4
EMIJ                                 Sn       Sn         11 59 40.2 -1.0
EMIJ  Mijas              0.19 267   ⇑P        Pn         11 59 33.4 +0.4
EMIJ                                 S        Sn         11 59 40.0 -1.2
EMAL  Malaga-Limoner     0.20  25    Pn       Pn         11 59 33.8 +0.7
EMAL                                 Sn       Sn         11 59 41.1 -0.2
EGOR  Sierra Gorda,      0.63  33    Pn       Pn         11 59 38.0 +1.5
EGOR                                 Sn       Sn         11 59 46.9 -0.6
EGOR  Sierra Gorda,      0.63  33    P        Pn         11 59 38.1 +1.5
EGOR                                 S        Sn         11 59 47.7 +0.2
ELGU  Los Guajares,      0.79  68    Pn       Pn         11 59 38.5 +0.3
ELGU                                 Sn       Sn         11 59 50.4 +0.1
ELGU  Los Guajares,      0.79  68    P        Pn         11 59 38.4 +0.2
ELGU                                ⇑IVmb_VC             11 59 41.3
      1µm,SNR=11
ELGU                                 S        Sn         11 59 49.7 -0.6
ECEU  Ceuta              0.96 225    Pn       Pn         11 59 42.0 +1.8
EQTA  Presa de Quent     1.08  54    Pn       Pn         11 59 43.6 +1.8
ESPR  Espera             1.10 286    Pn       Pn         11 59 43.8 +1.9
ESPR  Espera             1.10 286    P        Pn         11 59 42.9 +1.1
ESPR                                ⇑IVmb_VC             11 59 46.0
      240nm,SNR=3.1
ESPR                                 S        Sn         11 59 57.2 +0.4
SMIR  Smir Dam           1.12 218    P        Pn         11 59 42.5 +0.3
SMIR                                 S        Sn         11 59 55.0 -2.3
EBER  Berja              1.36  76    Pn       Pn         11 59 45.6 +0.2
EBER                                 Sn       Sn         12 00 01.4 -1.7
EBER  Berja              1.36  76    P        Pn         11 59 45.6 +0.2
EBER                                ⇑IVmb_VC             11 59 47.9
      211nm,SNR=1.6
EBER                                 S        Sn         12 00 03.4 +0.4
PALE  Palemas            1.44 160    P        Pn         11 59 47.1 +0.8
PALE                                 S        Sn         12 00 04.9 +0.3
EADA  Adamuz             1.59 359    Pn       Pn         11 59 49.6 +1.3
EADA                                 Sn       Sn         12 00 08.8 +0.6
EADA  Adamuz             1.59 359    P        Pn         11 59 49.4 +1.2
EADA                                ⇑IVmb_VC             11 59 50.5
      640nm,SNR=13
EADA                                 S        Sn         12 00 07.9 -0.3
ECAB  El Cabril          1.65 335    Pn       Pn         11 59 50.0 +0.9
ECAB                                 Sn       Sn         12 00 08.9 -0.8
ECAB  El Cabril          1.65 335    P        Pn         11 59 50.0 +0.9
ECAB                                ⇑IVmb_VC             11 59 50.9
      589nm,SNR=14
ECAB                                 S        Sn         12 00 08.8 -0.8
EQES  Quesada            1.69  43   ⇓P        Pn         11 59 51.0 +1.3
EQES                                ⇑IVmb_VC             11 59 51.3
      558nm,SNR=12
EQES                                 S        Sn         12 00 10.4 -0.4
WMELI Melilla            1.80 134    Pn       Pn         11 59 52.8 +1.9
ENIJ  Nijar              1.91  77    Pn       Pn         11 59 53.2 +0.7
ENIJ                                 Sn       Sn         12 00 13.4 -2.4
RSA   Sarsar             1.98 212    P        Pn         11 59 52.4 -1.1
RSA                                  S        Sn         12 00 14.8 -2.8
EMIN  Mina Concepcio     2.08 306    Pn       Pn         11 59 55.7 +1.0
EMIN                                 Sn       Sn         12 00 18.5 -1.2
EMIN  Mina Concepcio     2.08 306    P        Pn         11 59 55.7 +1.0
EMIN                                ⇑IVmb_VC             11 59 56.2
      618nm,SNR=6.2
EMIN                                 S        Sn         12 00 18.2 -1.6
AKLM  AKL                2.13 165    P        Pn         11 59 57.8 +2.2
AKLM                                 S        Sn         12 00 21.1  0.0
EGRO  El Granado         2.54 293    Pn       Pn         12 00 02.1 +1.1
EGRO                                 Sn       Sn         12 00 30.1 -0.9
EGRO  El Granado         2.54 293    P        Pn         12 00 02.0 +1.1
EGRO                                ⇑IVmb_VC             12 00 04.2
      354nm,SNR=4.6
EGRO                                 S        Sn         12 00 29.5 -1.5
PBAR  Barrancos          2.55 309    Pn       Pn         12 00 02.2 +1.1
PBAR                                 Sn       Sn         12 00 29.7 -1.5
PBAR  Barrancos          2.55 309   eP        Pn         12 00 02.2 +1.1
PBAR                                eS        Sn         12 00 29.7 -1.5
PBAR                                i IAML               12 00 31.6
PBAR                                i IAML               12 00 32.1
PBAR                                i IAML               12 00 32.8
PVAQ  Vaqueiros          2.68 289   eP        Pn         12 00 03.8 +1.0
PVAQ                                eS        Sn         12 00 32.7 -1.4
PVAQ                                i IAML               12 00 33.9
PVAQ                                i IAML               12 00 34.4
PVAQ                                i IAML               12 00 36.8
PVAQ  Vaqueiros          2.68 289    P        Pn         12 00 03.7 +1.0
PVAQ                                 S        Sn         12 00 32.2 -1.9
JBK   JBK                2.75 144    P        Pn         12 00 04.9 +0.9
PBDV  Barranco-do-Ve     2.80 285    Pn       Pn         12 00 06.2 +1.7
PBDV                                 Sn       Sn         12 00 36.3 -1.0
PBDV  Barranco-do-Ve     2.80 285   eP        Pn         12 00 06.3 +1.8
PBDV                                eS        Sn         12 00 37.2  0.0
PBDV                                i IAML               12 00 39.7
PBDV                                i IAML               12 00 40.0
PBDV                                i IAML               12 00 41.3
EBAD  Badajoz            2.93 319    Pn       Pn         12 00 07.5 +1.3
EBAD                                 Sn       Sn         12 00 39.3 -1.0
EBAD  Badajoz            2.93 319   ⇓P        Pn         12 00 07.5 +1.3
EBAD                                ⇑IVmb_VC             12 00 08.3
      1µm,SNR=26
EBAD                                 S        Sn         12 00 39.1 -1.3
PCVE  Castro Verde       2.99 292    Pn       Pn         12 00 08.0 +1.0
PCVE                                 Sn       Sn         12 00 40.2 -1.6
PCVE  Castro Verde       2.99 292   eP        Pn         12 00 08.1 +1.0
PCVE                                eS        Sn         12 00 40.8 -1.0
PCVE                                i IAML               12 00 42.6
PCVE                                i IAML               12 00 42.7
PCVE                                i IAML               12 00 44.7
PBEJ  Beja               3.02 300   eP        Pn         12 00 09.3 +1.8
PBEJ                                eS        Sn         12 00 41.8 -0.8
PBEJ                                i IAML               12 00 43.1
PBEJ                                i IAML               12 00 43.6
PBEJ                                i IAML               12 00 43.7
IFR   Ifrane             3.09 189    Pn       Pn         12 00 08.9 +0.4
IFR                                  Sn       Sn         12 00 42.3 -2.2
ETOB  Tobarra            3.15  48    Pn       Pn         12 00 10.3 +1.1
ETOB                                 Sn       Sn         12 00 43.5 -2.2
MESJ  Messejana          3.20 294   eP        Pn         12 00 11.0 +1.1
MESJ                                eS        Sn         12 00 45.3 -1.6
MESJ                                 IAML                12 00 48.0
      comp=N,5.2nm,0.1s
MESJ  Messejana          3.20 294   eP        Pn         12 00 11.2 +1.3
MESJ                                eS        Sn         12 00 45.7 -1.2
MESJ                                i IAML               12 00 47.8
MESJ                                i IAML               12 00 48.0
MESJ                                i IAML               12 00 54.3
PESTR Estremoz           3.33 314    Pn       Pn         12 00 13.5 +1.9
PESTR                                Sn       Sn         12 00 48.2 -1.9
PESTR Estremoz           3.33 314   eP        Pn         12 00 13.2 +1.6
PESTR                               eS        Sn         12 00 48.7 -1.4
PESTR                               i IAML               12 00 49.4
PESTR                               i IAML               12 00 50.5
PESTR                               i IAML               12 00 51.1
PESTR Estremoz           3.33 314    P        Pn         12 00 13.8 +2.1
PESTR                                S        Sn         12 00 49.4 -0.7
MORF  Marmelete          3.38 284   eP        Pn         12 00 14.1 +1.8
MORF                                eS        Sn         12 00 51.0 -0.3
MORF                                i IAML               12 00 54.3
MORF                                i IAML               12 00 54.4
MORF                                i IAML               12 00 55.0
EVO   Evora              3.38 306   eP        Pn         12 00 13.3 +0.9
EVO                                 eS        Sn         12 00 50.1 -1.2
EVO                                 i IAML               12 00 51.7
EVO                                 i IAML               12 00 52.1
EVO                                 i IAML               12 00 52.5
PLOUS Minas do Lousa     3.42 296   eP        Pn         12 00 14.2 +1.3
PLOUS                               eS        Sn         12 00 50.7 -1.6
PLOUS                               i IAML               12 00 52.5
PLOUS                               i IAML               12 00 52.6
PFVI  Vila Bisbo         3.48 280   eP        Pn         12 00 15.4 +1.7
PFVI                                eS        Sn         12 00 53.1 -0.7
PFVI                                i IAML               12 00 55.3
PFVI                                i IAML               12 00 56.9
PFVI  Vila Bisbo         3.48 280    P        Pn         12 00 14.7 +1.0
PFVI                                 S        Sn         12 00 52.1 -1.8
PTEO  Sao Teotonio       3.49 287   eS        Sn         12 00 54.3 +0.5
PTEO                                i IAML               12 00 57.2
PTEO                                i IAML               12 00 58.0
PTEO                                i IAML               12 00 60.0
PARRA Arraiolos          3.57 310   eP        Pn         12 00 16.3 +1.4
PARRA                               eS        Sn         12 00 54.0 -1.8
PARRA                               i IAML               12 00 55.6
PARRA                               i IAML               12 00 56.5
PARRA                               i IAML               12 00 56.6
ZHG   ZHG                3.57 210    P        Pn         12 00 15.8 +0.8
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MOE	Montemor	3.60	304	*e*P	Pn	12 00 17.2	+1.9
MOE				*e*S	Sn	12 00 55.3	-1.3
MOE				*i* IAML		12 00 57.3	
MOE				*i* IAML		12 00 57.3	
MOE				*i* IAML		12 00 57.7	
PMRV	Marv??o	3.63	322	*e*P	Pn	12 00 17.1	+1.4
PMRV				*e*S	Sn	12 00 55.8	-1.7
PMRV				*i* IAML		12 00 57.1	
PMRV				*i* IAML		12 00 57.3	
PMRV				*i* IAML		12 00 58.8	
EPLA	Plasencia	3.69	341	P	Pn	12 00 18.0	+1.4
EPLA				⇑IVmb_VC		12 00 19.4	
	comp=N,425nm,SNR=7.6						
EPLA				S	Sn	12 00 56.7	-2.1
MD31	MD31	3.70	183	P	Pn	12 00 18.4	+1.5
MDT	Midelt	3.75	181	P	Pn	12 00 19.2	+1.6
EVIV	Cofrentes, Val	3.81	44	P	Pn	12 00 19.0	+0.7
EVIV				⇑IVmb_VC		12 00 22.3	
	comp=N,160nm,SNR=2.9						
EVIV				S	Sn	12 00 58.8	-3.1
PMTG	Montargil	3.84	312	*e*P	Pn	12 00 20.1	+1.5
PMTG				*e*S	Sn	12 01 00.2	-2.2
PMTG				*i* IAML		12 01 02.4	
PMTG				*i* IAML		12 01 02.6	
PMTG				*i* IAML		12 01 03.2	
UCM	Universidad Co	3.86	15	Pn	Pn	12 00 20.5	+1.6
UCM				Sn	Sn	12 01 02.5	-0.5
PCBR	Castelo Branco	4.00	325	*e*P	Pn	12 00 22.3	+1.5
PCBR				*e*S	Sn	12 01 04.2	-2.2
PCBR				*i* IAML		12 01 06.3	
PCBR				*i* IAML		12 01 06.3	
PCBR				*i* IAML		12 01 06.5	
GUD	Guadarrama	4.07	4	P	Pn	12 00 23.0	+1.1
GUD				⇑IVmb_VC		12 00 24.5	
	comp=N,210nm,SNR=5.7						
GUD				S	Sn	12 01 07.7	-0.6
YEBES	Yebes (Guadala	4.10	16	P	Pn	12 00 24.1	+1.9
YEBES				S	Sn	12 01 08.4	-0.6
PSARD	Sardoal	4.16	318	*e*P	Pn	12 00 24.4	+1.5
PSARD				*e*S	Sn	12 01 08.1	-2.2
PSARD				*i* IAML		12 01 10.1	
PSARD				*i* IAML		12 01 10.7	
PSARD				*i* IAML		12 01 11.6	
PMAFR	Mafra	4.45	304	*e*P	Pn	12 00 29.1	+2.3
PMAFR				*e*S	Sn	12 01 16.6	-0.8
PSBE	So Bento	4.46	312	*e*P	Pn	12 00 29.3	+2.2
PSBE				*e*S	Sn	12 01 15.6	-2.1
PSBE				*i* IAML		12 01 17.5	
PSBE				*i* IAML		12 01 17.6	
ETOR	Torete	4.66	24	⇓P	Pn	12 00 31.1	+1.3
ETOR				⇑IVmb_VC		12 00 31.6	
	comp=N,317nm,SNR=6.6						
ETOR				S	Sn	12 01 20.8	-1.9
PCAS	Casmilo, Conde	4.66	319	*e*P	Pn	12 00 31.8	+2.0
PCAS				*e*S	Sn	12 01 20.1	-2.6
PCAS				*i* IAML		12 01 23.1	
PCAS				*i* IAML		12 01 23.8	
PCAS				*i* IAML		12 01 23.9	
PVIS	Viseu	4.90	329	*e*P	Pn	12 00 35.1	+2.1
PVIS				*e*S	Sn	12 01 26.6	-1.8
PVRL	Vila Real	5.31	333	*e*P	Pn	12 00 40.6	+2.0
PVRL				*e*S	Sn	12 01 37.1	-1.3
PVRL				*i* IAML		12 01 39.6	
PVRL				*i* IAML		12 01 40.0	
POLO	Lamas de Olo	5.42	333	*e*P	Pn	12 00 42.0	+1.7
POLO				*e*S	Sn	12 01 39.2	-2.1
PBRG	Braganca	5.50	343	*e*P	Pn	12 00 43.0	+1.8
PBRG				*e*S	Sn	12 01 40.6	-2.5
PBRG				*i* IAML		12 01 43.2	
PBRG				*i* IAML		12 01 44.0	
PBRG				*i* IAML		12 01 44.2	
ECAL	Calabor	5.62	343	Pn	Pn	12 00 44.8	+1.8
ECAL				Sn	Sn	12 01 45.0	-1.2
ECAL	Calabor	5.62	343	P	Pn	12 00 44.6	+1.6
ECAL				S	Sn	12 01 44.5	-1.7
OUZM	OUZ	5.95	199	P	Pn	12 00 48.9	+1.4
ELOB	Lobios	5.95	334	P	Pn	12 00 49.0	+1.6
ELOB				⇑IVmb_VC		12 00 50.5	
	comp=N,188nm,SNR=2.0						
ELOB				S	Sn	12 01 51.1	-3.1
OUK	Oukaimeden	6.03	208	P	Pn	12 00 49.5	+0.7
TIO	Tiouine	6.07	203	Pn	Pn	12 00 50.4	+1.2
TIO				Sn	Sn	12 01 54.2	-3.2
PGAV	Gavieira, Arco	6.11	333	*e*P	Pn	12 00 51.6	+1.9
PGAV				*e*S	Sn	12 01 55.4	-2.7
ELAN	Lanestosa	6.70	7	P	Pn	12 00 59.7	+2.0
ELAN				⇑IVmb_VC		12 01 00.5	
	comp=N,162nm,SNR=1.4						
EARI	Arriondas	6.74	356	P	Pn	12 01 00.4	+2.2
EARI				S	Sn	12 02 10.3	-3.1
EAGO	Agolada(Pontev	6.79	337	P	Pn	12 01 00.7	+1.8
EAGO				⇑IVmb_VC		12 01 02.1	
	comp=N,173nm,SNR=1.2						
EAGO				S	Sn	12 02 12.1	-2.7
EALK	Alkurruntz	7.03	18	P	Pn	12 01 03.9	+1.7
EALK				⇑IVmb_VC		12 01 06.1	
	comp=N,194nm,SNR=1.8						
EALK				S	Sn	12 02 17.3	-3.4
EPON	Pontenova	7.04	344	P	Pn	12 01 04.2	+2.0
EPON				⇑IVmb_VC		12 01 06.3	
	comp=N,127nm,SNR=0.7						
EPON				S	Sn	12 02 16.8	-3.8
ECHI	Chisagues Biel	7.09	30	P	Pn	12 01 04.7	+1.6
ECHI				⇑IVmb_VC		12 01 05.7	
	comp=N,82nm,SNR=2.0						
ECHI				S	Sn	12 02 18.8	-3.4

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*BJI **12** 12:14:36.1, 25°.78S×176°.47W, h94^{km}, mB5.4/5, mb5.0/20*

*NEIC **12** 12:14:40.3±1.4, 26°.1S±0°.1×177°.2W±0°.1, h110^{km}±6^{km}, mb4.8/248, Error ellipse: s-maj=17.5km s-min=9.9km az=142.0*

*IDC **12** 12:14:41.9±1.4, 26°.07S×177°.45W, h120^{km}±12^{km}, mb4.4/19, mbtmp4.8/21, MS3.7/28, Error ellipse: s-maj=13.3km s-min=9.8km az=131.0*

*GFZ **12** 12:14:41.5±0.7, 26°S±4°×17°7W±°, h117^{km}±6^{km}, M5.2/24, mb5.1/24*

*GCMT **12** 12:14:42.3±0.2, 26°.07S±0°.01×176°.96W±0°.01, h117^{km}±2^{km}, MW5.2/111, Moment Tensor Solution. s57,c69; s111,c174; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}0.42±.14; $M_{\theta\theta}$-3.37±.16; $M_{\phi\phi}$2.95±.15; $M_{r\theta}$-2.72±.10; $M_{\theta\phi}$-5.42±.14; $M_{\phi r}$0.79±.10; Best double couple: $M_0$6.88900×10^{16} NP1:ϕ_s15.00000°, δ66.00000°, λ2.00000°. NP2:ϕ_s284.00000°, δ88.00000°, λ156.00000°. Principal axes: T 6.7510, Plg19.0000°, Azm237.0000°; N 0.2770, Plg65.0000°, Azm100.0000°; P -7.0260, Plg15.0000°, Azm333.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 12 12:14:40.4±0.4**, 26°.14S**±0°.04×**177°.18W**±0°.06**, h113**^{km}±3^{km}**, h113**^{km}**:pP-P, n411,** σ1^s.**84**/275**, mb4.8**/177**, 12C-5D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RIZ	Raoul Island	3.17	192	P	Pn	12 15 29.3	+0.6
RIZ				S	Sn	12 16 07.3	+1.3
RIZ				AML	AML		
RAO	Raoul Island	3.17	192	P	Pn	12 15 29.8	+1.0
	1μm,0.2s,baz=59,slow=8.2,SNR=16						
RAO				S	Sn	12 16 07.7	+1.6
	14μm,0.7s,baz=81,slow=23,SNR=4.5						
RAO	Raoul Island	3.17	192	Pn	Pn	12 15 29.3	+0.5
GLKZ	Green Lake	3.18	192	P	Pn	12 15 29.2	+0.2
GLKZ				S	Sn	12 16 08.5	+2.2
GLKZ				AML	AML		
GLKZ				AML	AML		
MSVF	Nonsavu	9.46	331	P	Pn	12 16 55.0	+1.2
	172nm,1.0s,baz=145,slow=12,SNR=38						
MSVF				LR	LR	12 20 06.8	
	comp=Z,678nm,20.9s,baz=97,slow=35						
MSVF	Nonsavu	9.46	331		Pn	12 16 55.6	+1.8
MSVF	Nonsavu	9.46	331	P	Pn	12 16 56.4	+2.6
MSVF	Nonsavu	9.46	331	P	Pn	12 16 56.0	+2.2
	comp=Z,330nm,1.4s						
NIUE	Niue	9.71	45	Pn	Pn	12 16 51.0	-6.0
NIUE	Niue	9.71	45	P	Pn	12 16 51.0	-6.1
NIUE				S	Sn	12 18 28.2	-16
MXZ	Matakaoa Point	12.02	197	P	Pn	12 17 19.9	-8.0
OUZ	Omahuta	12.03	219	P	P	12 17 32.5	-3.7
OUZ	Omahuta	12.03	219	P	P	12 17 32.9	-3.3
	comp=Z,54nm,1.3s						
WCZ	Waipu Caves	12.17	215	P	Pn	12 17 30.8	+0.9
HAZ	Te Kaha	12.35	199	P	Pn	12 17 23.0	-9.3
PUZ	Puketiti	12.51	197	P	Pn	12 17 24.7	-10
RUGZ	Raukumara Rang	12.57	199	P	Pn	12 17 27.3	-8.0
TWGZ	Tauwhareparae	12.68	198	P	Pn	12 17 28.6	-8.1
MWZ	Matawai	12.96	199	P	Pn	12 17 31.0	-9.3
TKGZ	Te Karaka	12.96	198	P	Pn	12 17 39.7	-0.6
URZ	Urewera	13.01	200	P	Pn	12 17 43.2	+2.2
	comp=Z,10nm,0.5s,baz=5.8,slow=2.1,SNR=34						
URZ				S	Sn	12 19 47.0	-17
	comp=Z,132nm,0.6s,baz=19,slow=12,SNR=12						
URZ	Urewera	13.01	200	P	Pn	12 17 36.5	-4.5
URZ	Urewera	13.01	200	P	P	12 17 47.5	+0.4
	comp=Z,103nm,0.6s						
TOZ	Tahuroa Road	13.12	206	P	Pn	12 17 41.3	-1.0
RAGZ	Rawiri	13.14	199	P	P	12 17 47.8	-0.8
AFI	Afiamalu	13.18	24	P	Pn	12 17 35.4	-8.0
	comp=Z,161nm,0.3s,baz=207,slow=3.1,SNR=56						
AFI				S	Sn	12 19 49.5	-19
	comp=Z,164nm,0.5s,baz=156,slow=19,SNR=8.1						
AFI	Afiamalu	13.18	24	Pn	Pn	12 17 35.0	-8.4
AFI	Afiamalu	13.18	24	P	Pn	12 17 34.8	-8.6
AFI	Afiamalu	13.18	24	P	Pn	12 17 35.5	-7.8
	comp=Z,323nm,0.5s						
RIGZ	Rimuhau	13.24	198	P	Pn	12 17 36.9	-7.0
MUGZ	Murupara	13.32	201	P	Pn	12 17 36.5	-8.5
MHGZ	Mahia Peninsul	13.62	196	P	P	12 17 54.1	+0.3
RAHZ	Arahi	13.62	199	P	Pn	12 17 46.4	-2.5
MTHZ	Maungataniwha	13.64	200	P	Pn	12 17 43.3	-5.9
NMHZ	Naumai	13.88	200	P	Pn	12 17 49.7	-2.6
BKZ	Black Stump Fm	14.04	201	P	Pn	12 17 50.3	-3.9
TMVZ	Te Maari	14.25	203	P	Pn	12 17 57.3	+0.2
ETVZ	East Tongariro	14.27	203	P	Pn	12 17 58.7	+1.3
SNVZ	South Ngauruho	14.34	203	P	Pn	12 17 58.6	+0.3
TUVZ	Tukino	14.41	203	P	Pn	12 17 54.2	-5.0
BHHZ	Black Hill Sta	14.47	201	P	Pn	12 17 53.8	-6.0
WNVZ	Wahianoa	14.48	203	P	Pn	12 18 00.7	+0.6
KAHZ	Kahuranaki	14.50	199	P	Pn	12 17 57.1	-3.0
KRHZ	Kereru	14.51	200	P	Pn	12 17 54.3	-6.0
PKVZ	Pokaka	14.54	204	P	Pn	12 17 58.7	-2.0
VRZ	Vera Road	14.61	206	P	Pn	12 18 02.8	+1.2
PXZ	Pawanui	14.72	198	P	Pn	12 17 57.2	-5.8
PRHZ	Porangahau	15.00	199	P	Pn	12 18 01.9	-4.6
DVHZ	Dannevirke	15.17	200	P	Pn	12 18 02.2	-6.4
ANWZ	Angora Road	15.23	199	P	Pn	12 18 02.4	-7.0
POWZ	Post Office Ro	15.38	201	P	Pn	12 18 06.5	-4.8
PRWZ	Pori Road	15.47	200	P	Pn	12 18 05.2	-7.1
DZM	Mont Dzumac	15.49	282	P	P	12 18 15.2	+0.4
	comp=Z,13nm,0.8s,baz=106,slow=19,SNR=11						
BFZ	Birch Farm	15.50	199	P	Pn	12 18 04.4	-8.3
MRZ	Mangatainoka R	15.69	201	P	Pn	12 18 06.0	-9.1
HOWZ	Holdsworth Sta	15.92	201	P	Pn	12 18 11.5	-6.5
OGWZ	Otaki Gorge	15.96	202	P	Pn	12 18 09.2	-9.2
TMWZ	Te Maipa	16.00	199	P	Pn	12 18 11.3	-7.6
KIW	Kapiti Island	16.09	202	P	Pn	12 18 14.9	-5.2
MTW	Mount Morrison	16.16	200	P	Pn	12 18 12.9	-8.1
CAW	Cannon Point	16.25	201	P	Pn	12 18 13.6	-8.5
TRWZ	Traveller	16.32	199	P	Pn	12 18 20.4	-2.6
DUWZ	D’Urville Isla	16.39	205	P	Pn	12 18 17.5	-6.2
PAWZ	Paruwai Farm	16.39	200	P	Pn	12 18 21.8	-2.0
MSWZ	Moikau Station	16.48	200	P	Pn	12 18 16.6	-8.2
BHW	Baring Head	16.59	201	P	Pn	12 18 24.2	-2.0
PLWZ	Palliser	16.61	200	P	Pn	12 18 19.5	-7.1
TCW	Tory Channel	16.61	203	P	Pn	12 18 18.1	-8.4
RAR	Rarotonga	16.68	77	P	Pn	12 18 25.7	-1.7
	comp=Z,16nm,0.6s,baz=256,slow=12,SNR=11						
RAR				S	Sn	12 21 14.5	-18
	comp=Z,9.4nm,0.4s,baz=188,slow=11,SNR=2.3						
RAR				LR	LR	12 23 54.4	
	comp=Z,115nm,21.2s,baz=273,slow=33						
RAR	Rarotonga	16.68	77		Pn	12 18 25.4	-2.0
TUWZ	Tuamarina	16.93	203	P	Pn	12 18 22.8	-7.5
NNZ	Nelson	16.95	205	P	Pn	12 18 23.3	-7.3
BSWZ	Blackbirch Sta	17.20	203	P	P	12 18 29.8	-3.6
MRNZ	Matariki Terra	17.35	206	P	P	12 18 28.8	-6.3
CTZ	Chatham Island	17.57	179	P	P	12 18 37.5	+0.1
THZ	Tophouse	17.60	205	P	P	12 18 30.9	-7.0
KHZ	Kahutara	17.94	203	P	P	12 18 32.6	-8.9
KHZ	Kahutara	17.94	203	P	P	12 18 38.9	-2.6
	comp=Z,70nm,0.9s						
SANVU	Saraoutou	18.04	303	P	Pn	12 18 44.3	+0.3
	comp=Z,211nm,1.0s						
GVZ	Greta Valley S	18.60	203	P	P	12 18 42.9	-5.9
LTZ	Lake Taylor	18.72	205	P	P	12 18 44.8	-5.3
RPZ	Rata Peaks	19.98	206	P	P	12 18 59.0	-4.8
	comp=Z,3.1nm,0.6s,baz=349,slow=2.7,SNR=17						
RPZ				S	S	12 22 24.7	-18
	comp=Z,4.1nm,0.8s,baz=43,slow=18,SNR=13						
PPT	Papeete	26.96	77	LR	LR	12 28 08.7	
	comp=Z,108nm,19.6s,baz=260,slow=30						
HNR	Honiara	27.31	303	P	P	12 20 09.3	-5.4
	comp=Z,44nm,0.6s,baz=239,slow=5.9,SNR=2.2						
HNR				LR	LR	12 28 36.3	
	comp=Z,141nm,21.6s,baz=218,slow=31						
ARMA	Armidale	27.75	254	P	P	12 20 21.5	+2.9
	comp=Z,21nm,1.4s						
ARMA	Armidale	27.75	254	P	P	12 20 21.4	+2.7
EIDS	Eidsvold	28.56	264	P	P	12 20 27.1	+1.4
	comp=Z,27nm,2.0s						
EIDS	Eidsvold	28.56	264	P	P	12 20 27.1	+1.4
MILA	Mila	30.52	241	P	P	12 20 45.0	+1.9
	comp=Z,16nm,1.2s						
CMSA	Cobar Meteorol	32.86	252	P	P	12 21 04.4	+0.9
	comp=Z,30nm,1.2s						
CMSA	Cobar Meteorol	32.86	252	P	P	12 21 04.8	+1.3
	comp=Z,30nm,1.2s						
TOO	Toolangi	33.49	241	P	P	12 21 09.9	+0.9
	comp=Z,12nm,1.1s						
TOO	Toolangi	33.49	241	P	P	12 21 09.4	+0.4
CTA	Charters Tower	34.08	272	P	P	12 21 15.3	+1.0
	comp=Z,7.5nm,0.7s						
CTAO	Charters Tower	34.08	272	P	P	12 21 16.5	+2.1
CTAO				IAmb	IAmb	12 21 49.0	
	comp=Z,23nm,1.1s						
CTAO	Charters Tower	34.08	272	P	P	12 21 16.2	+1.8
CTAO				x	x	12 21 40.6	
CTAO				x	x	12 21 48.6	
QLP	Quilpie	34.49	261	P	P	12 21 18.6	+0.9
	comp=Z,29nm,0.6s						
QLP	Quilpie	34.49	261	P	P	12 21 18.9	+1.2
	comp=Z,29nm,0.6s						
ARPS	Mount Arapiles	36.29	243	P	P	12 21 34.0	+0.9
	comp=Z,9.8nm,1.3s						
STKA	Stephens Creek	36.34	251	P	P	12 21 34.2	+0.6
	comp=Z,81nm,1.0s						
STKA	Stephens Creek	36.34	251	P	P	12 21 32.5	-1.1
	comp=Z,8.0nm,0.6s,baz=93,slow=9.8,SNR=14						
STKA				LR	LR	12 34 39.5	
	comp=Z,206nm,19.8s,baz=60,slow=33						
	comp=Z,8.0nm,0.6s						
STKA	Stephens Creek	36.34	251	P	P	12 21 34.2	+0.6
	comp=Z,80nm,1.0s						
MTSU	Mount Surprise	36.44	275	P	P	12 21 34.7	+0.2
	comp=Z,7.7nm,0.8s						
INKA	Innaminka	37.41	258	P	P	12 21 42.1	-0.5
INKA				IAmb	IAmb	12 21 45.0	
	comp=Z,22nm,1.0s						
PMG	Port Moresby	37.64	290	LR	LR	12 34 57.3	
	comp=Z,208nm,18.4s,baz=118,slow=32						
PMG	Port Moresby	37.64	290	P	P	12 21 46.2	+1.5
	comp=Z,34nm,1.0s						
HTT	Hallett	38.56	248	P	P	12 21 52.5	+0.1
	comp=Z,19nm,0.9s						
QIS	Mount Isa	39.92	269	P	P	12 22 04.8	+1.0
	comp=Z,7.9nm,1.0s						
BBOO	Buckleboo	40.98	249	P	P	12 22 11.6	-0.7
	comp=Z,51nm,0.9s						
BBOO	Buckleboo	40.98	249	P	P	12 22 11.0	-1.3
BBOO	Buckleboo	40.98	249	P	P	12 22 11.7	-0.7
	comp=Z,52nm,0.9s						
AS17	Alice Springs	44.15	262	P	P	12 22 38.1	0.0
	comp=Z,36nm,1.0s						
AS09	Alice Springs	44.19	262	P	P	12 22 38.0	-0.4
	comp=Z,36nm,1.0s						
AS31	Alice Springs	44.23	262	P	P	12 22 38.6	-0.1
	comp=Z,9.8nm,1.0s						
AS31	Alice Springs	44.23	262	P	P	12 22 38.9	+0.2
AS15	Alice Springs	44.23	262	P	P	12 22 38.5	-0.2
	comp=Z,37nm,1.1s						
ASAR	Alice Springs	44.23	262	P	P	12 22 38.1	-0.6
	comp=Z,26nm,0.9s,baz=109,slow=8.0,SNR=140						
ASAR				ScP	ScP	12 28 02.2	-0.8
	comp=Z,1.7nm,0.9s,baz=134,slow=4.6,SNR=5.4						
ASAR				S	S	12 28 58.3	-5.7
	comp=Z,1.9nm,1.0s,baz=100,slow=16,SNR=9.2						
ASAR				LR	LR	12 41 04.2	
	comp=Z,122nm,18.2s,baz=88,slow=36						
	comp=Z,26nm,0.9s						
ASAR	Alice Springs	44.23	262	P	P	12 22 37.8	-0.9
WR8	Warramunga Arr	44.69	267	P	P	12 22 40.9	-1.5
WR8				IAmb	IAmb	12 22 44.3	
	comp=Z,11nm,0.8s						
WRAB	Tennant Creek	44.83	267	P	P	12 22 42.5	-1.0
WRAB				IAmb	IAmb	12 22 43.9	
	comp=Z,15nm,0.9s						
WRAB	Tennant Creek	44.83	267	P	P	12 22 43.3	-0.2
	comp=Z,15nm,0.8s						
WRAB	Tennant Creek	44.83	267	P	P	12 22 43.2	-0.2
WRA	Warramunga Arr	44.83	267	P	P	12 22 43.2	-0.4
	comp=Z,14nm,0.8s,baz=101,slow=6.7,SNR=76						
WRA				ScP	ScP	12 28 05.8	+0.2
	comp=Z,1.4nm,1.1s,baz=97,slow=4.1,SNR=4.6						
WRA				S	S	12 29 10.0	-2.7
	comp=Z,3.2nm,0.9s,baz=97,slow=15,SNR=11						
	comp=Z,14nm,0.8s						
WRA	Warramunga Arr	44.83	267	P	P	12 22 42.9	-0.7
WB0	Warramunga Arr	44.84	268	P	P	12 22 43.0	-0.6
WB0				IAmb	IAmb	12 22 45.4	
	comp=Z,14nm,0.7s						
FORT	Forrest	47.97	251	P	P	12 23 06.7	-1.2
	comp=Z,81nm,0.7s						
FORT	Forrest	47.97	251		P	12 23 06.7	-1.2
DRV	Dumont d’Urvil	48.35	201	P	P	12 23 09.6	-0.6
DRV				pP	pP	12 23 38.8	+2.5
WRKA	Warakurna	48.88	259	P	P	12 23 14.2	-0.8
	comp=Z,22nm,1.3s						
KNRA	Kununurra	51.25	270	P	P	12 23 33.0	+0.1
	comp=Z,15nm,0.7s						
KNRA	Kununurra	51.25	270	P	P	12 23 32.6	-0.3
KNRA				IAmb	IAmb	12 23 36.2	
	comp=Z,11nm,0.7s						
SBA	Scott Base	52.33	184	P	P	12 23 43.3	+3.3
SBA	Scott Base	52.33	184	P	P	12 23 43.7	+3.7
	comp=Z,102nm,1.0s						
SBA	Scott Base	52.33	184	P	P	12 23 43.7	+3.7
SBA				x	x	12 24 15.4	
VNDA	Vanda	52.39	186	P	P	12 23 43.1	+2.6
	comp=Z,28nm,1.0s,baz=353,slow=8.4,SNR=86						
	comp=Z,28nm,1.0s						
KMBL	Kambalda	53.09	249	P	P	12 23 45.2	-1.3
	comp=Z,18nm,1.6s						
FITZ	Fitzroy Crossi	53.22	266	P	P	12 23 47.5	0.0
	comp=Z,6.0nm,1.1s						
FITZ	Fitzroy Crossi	53.22	266	LR	LR	12 43 47.1	
	comp=Z,130nm,18.5s,baz=162,slow=33						
FITZ	Fitzroy Crossi	53.22	266	P	P	12 23 46.8	-0.7
FITZ	Fitzroy Crossi	53.22	266	P	P	12 23 47.8	+0.3
	comp=Z,6.0nm,1.1s						
GUMO	Guam	54.06	312	LR	LR	12 46 09.6	
	comp=Z,36nm,18.0s,baz=140,slow=35						
SWI	Sorong	55.57	288	P	P	12 24 06.2	+1.7
	comp=Z,1μmcomp=Z,31nm,0.8s						
KLBR	Kellerberrin	56.51	248	P	P	12 24 09.8	-1.3
	comp=Z,87nm,0.9s						
KLBR	Kellerberrin	56.51	248	P	P	12 24 09.8	-1.3
	comp=Z,87nm,0.9s						
NWAO	Narrogin (SRO)	56.66	246	P	P	12 24 10.6	-1.5
CCD	Concordia, Ant	57.24	195	P	P	12 24 16.9	+0.9
CCD				pP	pP	12 24 44.6	+1.8
MBWA	Marble Bar	57.52	261	P	P	12 24 17.6	-0.7
	comp=Z,20nm,1.1s						
MBWA	Marble Bar	57.52	261	P	P	12 24 17.7	-0.6
MBWA				IAmb	IAmb	12 24 18.2	
	comp=Z,11nm,0.8s						
BLDU	Ballidu	57.60	249	P	P	12 24 17.5	-1.2
	comp=Z,46nm,1.5s						
MUN	Mundaring	57.71	247	P	P	12 24 18.6	-0.9
	comp=Z,43nm,1.0s						
MORW	Morawa	58.53	251	P	P	12 24 24.0	-1.2
	comp=Z,37nm,1.1s						
MORW	Morawa	58.53	251	P	P	12 24 24.3	-1.0
CASY	Casey	59.25	207		P	12 24 29.1	-0.4
CASY	Casey	59.25	207	P	P	12 24 29.3	-0.3
	comp=Z,60nm,0.9s						
CASY	Casey	59.25	207	P	P	12 24 29.1	-0.4
CASY				x	x	12 24 55.3	
CASY				x	x	12 25 02.4	
EDFI	Ende, Flores	60.31	275	P	P	12 24 36.7	-1.1
	comp=Z,17nm,1.1s						
QSPA	South Pole Qui	63.96	180	P	P	12 25 02.9	+1.6
	comp=Z,42nm,0.9s,baz=40,slow=1.3,SNR=177						
	comp=Z,42nm,0.9s						
QSPA	South Pole Qui	63.96	180		P	12 25 03.0	+1.6
QSPA	South Pole Qui	63.96	180	P	P	12 25 03.2	+1.8
	comp=Z,62nm,1.0s						
QSPA	South Pole Qui	63.96	180	P	P	12 25 02.9	+1.6
QSPA				x	x	12 25 24.1	
QSPA				x	x	12 25 28.4	
MMSI	Mamuju	65.46	280	P	P	12 25 06.4	-5.4
TOLI2	Tolitoli	65.61	284	P	P	12 25 11.7	-1.0
TOLI2				IAmb	IAmb	12 25 14.5	
	comp=Z,9.3nm,0.8s						
TOLI2	Tolitoli	65.61	284	P	P	12 25 11.8	-0.9
	comp=Z,12nm,0.8s						
SMAI	San Martin Ant	73.11	158	P	P	12 25 59.2	+1.2
BELA	Belgrano 2	73.90	172		P	12 26 02.8	+0.2
BELA				IAmb	IAmb	12 26 03.9	
	comp=Z,12nm,0.9s						
JGF	Kuroka	74.94	323	P	P	12 26 08.9	-0.2
MJAR	Matsushiro Arr	75.19	324	P	P	12 26 09.5	-1.0
	comp=Z,5.5nm,0.8s,baz=158,slow=6.1,SNR=15						
MJAR				LR	LR	12 54 58.1	
	comp=Z,27nm,20.4s,baz=153,slow=32						
	comp=Z,5.5nm,0.8s						
MJAR	Matsushiro Arr	75.19	324	P	P	12 26 10.1	-0.4
MAJO	Matsushiro	75.19	324	P	P	12 26 09.9	-0.6
MAJO	Matsushiro	75.19	324	P	P	12 26 08.8	-1.7
MAJO				pP	pP	12 26 34.0	-4.7
MJB9	Matsu-Tunnel	75.19	324	IAmb	IAmb	12 26 11.8	
	comp=Z,12nm,0.9s						
PMSA	Palmer Station	75.85	156	LR	LR	12 57 45.4	
	comp=Z,55nm,18.4s,baz=228,slow=34						
MAW	Mawson	76.54	200	P	P	12 26 18.9	+1.2
	comp=Z,7.1nm,0.8s						
MAW	Mawson	76.54	200	P	P	12 26 18.8	+1.0
	comp=Z,24nm,0.7s,baz=126,slow=6.9,SNR=120						
MAW				LR	LR	12 59 16.1	
	comp=Z,91nm,18.1s,baz=108,slow=35						
	comp=Z,24nm,0.7s						
MAW	Mawson	76.54	200		P	12 26 19.0	+1.2
MAW	Mawson	76.54	200	P	P	12 26 19.1	+1.3
	comp=Z,7.1nm,0.8s						
NACB	Ninganchiao	77.48	305	P	P	12 26 22.5	-1.2
NACB				IAmb	IAmb	12 26 26.2	
	comp=Z,15nm,0.9s						
KIWB	Kanaga Island	77.65	0	P	P	12 26 24.2	+0.2
ADK	Adak	77.68	0	P	P	12 26 23.7	-0.5
MDSI	Maura Dua	77.84	271	P	P	12 26 25.4	-0.6
	comp=Z,2μmcomp=Z,26nm,0.8s						
JKA	Kamikawa-asahi	79.02	332	P	P	12 26 31.3	-0.5
ASAJ	Asahikawa	79.02	332	LR	LR	12 54 25.6	
	comp=Z,38nm,21.0s,baz=108,slow=30						
UNV	Unalaska Valle	80.18	6	P	P	12 26 37.3	-0.4
UNV				IAmb	IAmb	12 26 38.5	
	comp=Z,15nm,0.9s						
ELIB	Princess Elisa	81.15	186	*d*P	P	12 26 43.9	+0.8
	comp=Z,30nm,0.7s						
YSS	Yuzhno-Sakhali	81.25	334	P	P	12 26 43.8	+0.2
YSS	Yuzhno-Sakhali	81.25	334	P	P	12 26 45.2	+1.6
	comp=Z,62nm,1.0s						
YSS	Yuzhno-Sakhali	81.25	334	P	P	12 26 44.6	+1.0
YSS				x	x	12 27 23.6	
RGRI	Rengat	81.30	274	P	P	12 26 39.5	-5.2
PET	Petropavlovsk	81.59	346	P	P	12 26 46.0	+0.7
KSRS	Korea Array	81.60	319	P	P	12 26 46.5	+0.8
	comp=Z,3.4nm,0.7s,baz=125,slow=7.6,SNR=8.3						
KSRS				LR	LR	13 00 41.7	
	comp=Z,19nm,19.3s,baz=135,slow=34						
	comp=Z,3.4nm,0.7s						
PKD	Bear Valley Ra	81.66	43	IAmb	IAmb	12 26 48.9	
	comp=Z,15nm,1.1s						
LPIG	La Paz	81.68	58	LR	LR	12 56 54.2	
	comp=Z,54nm,18.1s,baz=224,slow=31						
PETK	Petropavlovsk-	81.89	345	P	P	12 26 47.2	+0.3
	comp=Z,12nm,0.7s,baz=118,slow=5.2,SNR=29						
PETK				LR	LR	12 56 16.4	
	comp=Z,30nm,21.7s,baz=170,slow=30						

	comp=Z,12nm,0.7s						
TROLL	**Troll, Antarti**	**82.12**	**180**	⇑P	**P**	**12 26 47.4**	**-0.9**
	comp=Z,3μm,0.7s						
TROLL				⇑sP	**pP**	**12 27 18.7**	**+1.9**
	comp=Z,1μm,0.9s						
LL06	**Loncomilla**	**82.14**	**133**	P	**P**	**12 26 48.2**	**-0.5**
	comp=Z,932nm,0.9s						
H03S2	**Juan Fernandez**	**82.22**	**124**	T	T	13 57 50.6	
	baz=243,slow=74,SNR=35						
H03S1	**Juan Fernandez**	**82.23**	**124**	T	T	13 57 45.1	
	baz=243,slow=74,SNR=31						
H03S3	**Juan Fernandez**	**82.24**	**124**	T	T	13 57 42.3	
	baz=243,slow=74,SNR=33						
PPSI	**Pulau Pagai**	**82.33**	**271**	P	P	12 26 59.4	+9.2
SNAA	**Sanae**	**82.38**	**178**	⇑P	**P**	**12 26 49.8**	**+0.3**
	comp=Z,571nm,0.8s						
SNAA				⇑sP	**pP**	**12 27 19.3**	**+1.3**
	comp=Z,294nm,0.9s						
SNAA	**Sanae**	**82.38**	**178**	P	**P**	**12 26 49.5**	**0.0**
	comp=Z,28nm,0.9s,baz=213,slow=4.5,SNR=34						
SNAA				LR	LR	13 06 38.7	
	comp=Z,31nm,18.0s,baz=318,slow=38						
	comp=Z,28nm,0.9s						
SNAA	**Sanae**	**82.38**	**178**		**P**	**12 26 49.8**	**+0.3**
SNAA	**Sanae**	**82.38**	**178**	P	**P**	**12 26 50.1**	**+0.6**
	comp=Z,43nm,1.0s						
H03N2	**Juan Fernandez**	**82.39**	**123**	T	T	13 57 56.2	
	baz=12,slow=74,SNR=17						
BFSC	**Mount Baldy Ra**	**82.40**	**46**	IAmb	IAmb	12 26 52.5	
	comp=Z,23nm,1.6s						
H03N1	**Juan Fernandez**	**82.40**	**123**	T	T	13 57 55.5	
	baz=249,slow=74,SNR=14						
TPO	**Tropico Hills**	**82.43**	**45**	IAmb	IAmb	12 26 53.0	
	comp=Z,25nm,1.1s						
VNA3	**Neumayer Olymp**	**82.49**	**176**	⇑P	**P**	**12 26 50.1**	**+0.1**
	comp=Z,27nm,0.8s						
DNR	**Dunn Ranch,Anz**	**82.65**	**47**	IAmb	IAmb	12 26 54.3	
	comp=Z,16nm,1.0s						
KMRM	**Mail Ridge**	**82.66**	**38**	IAmb	IAmb	12 26 55.0	
	comp=Z,21nm,1.0s						
ISA	**Isabella, Lake**	**82.77**	**45**	IAmb	IAmb	12 26 54.8	
	comp=Z,14nm,1.1s						
PFO	**Pinyon Flats O**	**82.79**	**47**	P	**P**	**12 26 53.3**	**+1.1**
	comp=Z,3.8nm,0.9s,baz=229,slow=5.3,SNR=5.3						
PFO				LR	LR	12 54 44.9	
	comp=Z,47nm,21.9s,baz=244,slow=29						
	comp=Z,3.8nm,0.9s						
PMD	**Palm Desert**	**82.87**	**47**	IAmb	IAmb	12 26 55.1	
	comp=Z,19nm,1.6s						
VNA2	**Neumayer--Watz**	**82.94**	**177**	⇑P	**P**	**12 26 52.8**	**+0.5**
	comp=Z,49nm,0.8s,baz=171,slow=4.0						
VNA2				⇑sP	**pP**	**12 27 22.6**	**+1.7**
	comp=Z,22nm,0.8s,baz=162,slow=3.6						
O02D	**Mt. Diablo Mer**	**83.14**	**39**	IAmb	IAmb	12 26 57.1	
	comp=Z,18nm,1.1s						
LRMC	**Laurel Mtn Rad**	**83.16**	**45**	IAmb	IAmb	12 26 56.7	
	comp=Z,11nm,1.1s						
VNA1	**Neumayer--Stat**	**83.16**	**176**	⇑P	**P**	**12 26 54.0**	**+0.6**
	comp=Z,55nm,0.9s						
VNA1				⇓sP	**pP**	**12 27 24.1**	**+2.0**
	comp=Z,31nm,0.9s						
BELC	**Belle Mtn. Jos**	**83.33**	**47**	IAmb	IAmb	12 26 57.8	
	comp=Z,13nm,0.9s						
CCCA	**Chr Cany lake**	**83.39**	**45**	IAmb	IAmb	12 26 58.0	
	comp=Z,22nm,1.3s						
CLC	**China Lake**	**83.42**	**45**	IAmb	IAmb	12 26 58.0	
	comp=Z,14nm,1.1s						
BC3	**Big Chuckawall**	**83.49**	**48**	IAmb	IAmb	12 26 58.9	
	comp=Z,23nm,1.4s						
GSC	**Goldstone, Bar**	**83.61**	**46**	IAmb	IAmb	12 26 58.9	
	comp=Z,16nm,1.1s						
O03E	**Paynes Creek**	**83.78**	**39**	IAmb	IAmb	12 26 59.4	
	comp=Z,24nm,1.2s						
M02C	**Callahan**	**83.93**	**38**	IAmb	IAmb	12 27 01.0	
	comp=Z,20nm,1.4s						
QSM	**Queen of Sheba**	**83.97**	**45**	IAmb	IAmb	12 27 00.6	
	comp=Z,16nm,1.2s						
WAKR	**Walker**	**83.99**	**42**	IAmb	IAmb	12 27 01.1	
	comp=Z,16nm,1.2s						
IRM	**Iron Mountain**	**83.99**	**47**	IAmb	IAmb	12 27 01.4	
	comp=Z,23nm,1.2s						
USRK	**Ussuriysk Ar.**	**84.03**	**326**	P	**P**	**12 26 58.3**	**+0.2**
	comp=Z,14nm,1.0s,baz=144,slow=1.6,SNR=7.7						
USRK				LR	LR	12 57 52.4	
	comp=Z,36nm,20.7s,baz=137,slow=31						
	comp=Z,14nm,1.0s						
NJ2	**Nanjing**	**84.05**	**310**	*e*P	**P**	**12 27 01.0**	**+2.5**
NJ2				pmax	pmax		
	comp=Z,7.0nm,0.6s						
MPK	**Martis Peak**	**84.15**	**41**	IAmb	IAmb	12 27 01.7	
	comp=Z,19nm,1.1s						
BLYC	**Blythe**	**84.16**	**48**	IAmb	IAmb	12 27 02.1	
	comp=Z,15nm,1.2s						
YBH	**Yreka Blue Hor**	**84.24**	**38**	LR	LR	12 57 13.5	
	comp=Z,29nm,19.0s,baz=232,slow=30						
M03C	**McCloud**	**84.25**	**38**	IAmb	IAmb	12 27 01.9	
	comp=Z,18nm,1.0s						
PNTR	**Pine Nut**	**84.27**	**41**	IAmb	IAmb	12 27 02.2	
	comp=Z,18nm,1.0s						
FURC	**Furnace Creek,**	**84.29**	**45**	IAmb	IAmb	12 27 02.2	
	comp=Z,22nm,1.7s						
SHOC	**Shoshone, Teco**	**84.31**	**45**	IAmb	IAmb	12 27 02.4	
	comp=Z,23nm,1.2s						
LHV	**Little Huntoon**	**84.39**	**43**	IAmb	IAmb	12 27 02.9	
	comp=Z,11nm,1.0s						
YERR	**Yerington**	**84.41**	**42**	IAmb	IAmb	12 27 02.8	
	comp=Z,11nm,1.1s						
MTPC	**Mountain Pass**	**84.53**	**46**	IAmb	IAmb	12 27 04.0	
	comp=Z,22nm,1.4s						
NVAR	**Mina Array Bea**	**84.62**	**42**	P	**P**	**12 27 02.6**	**+1.1**
	comp=Z,7.3nm,1.0s,baz=223,slow=8.2,SNR=39						
	comp=Z,7.3nm,1.0s						
NVAR	**Mina Array Bea**	**84.62**	**42**	P	**P**	**12 26 59.5**	**-2.1**
NV11	**Mina Array Sit**	**84.72**	**43**	IAmb	IAmb	12 27 04.4	
	comp=Z,12nm,1.1s						
PLCA	**Paso Flores**	**84.88**	**133**	P	**P**	**12 27 05.3**	**+2.5**
	comp=Z,0.9nm,0.6s,baz=247,slow=7.7,SNR=2.9						
	comp=Z,0.9nm,0.6s						
TPNV	**Topopah Spring**	**84.97**	**45**	IAmb	IAmb	12 27 06.0	
	comp=Z,13nm,1.2s						
TPH	**Tonopah**	**85.06**	**43**	IAmb	IAmb	12 27 06.2	
	comp=Z,15nm,1.1s						
Y14A	**Wickenburg**	**85.29**	**49**	IAmb	IAmb	12 27 07.6	
	comp=Z,9.1nm,0.9s						
SHPR	**Sheep Range**	**85.40**	**46**	IAmb	IAmb	12 27 08.5	
	comp=Z,16nm,1.5s						
BUCK	**Buck Mountain**	**85.76**	**36**	IAmb	IAmb	12 27 09.7	
	comp=Z,24nm,1.5s						
TUC	**Tucson**	**85.89**	**51**	P	**P**	**12 27 10.1**	**+2.3**
	comp=Z,15nm,1.1s						
TUC	**Tucson**	**85.89**	**51**	P	**P**	**12 27 09.8**	**+2.0**
PRN	**Pahroc Range**	**86.01**	**45**	IAmb	IAmb	12 27 11.4	
	comp=Z,14nm,1.1s						
WIFE	**Three Sisters-**	**86.29**	**36**	IAmb	IAmb	12 27 12.2	
	comp=Z,17nm,1.7s						
PINE	**Pine Mountain**	**86.58**	**37**	IAmb	IAmb	12 27 44.8	
	comp=Z,15nm,1.4s						
X16A	**Lo Mia Camp, P**	**86.63**	**49**	IAmb	IAmb	12 27 14.7	
	comp=Z,10nm,0.9s						
O16K	**Kokwok River B**	**86.85**	**10**	IAmb	IAmb	12 27 12.4	
	comp=Z,10nm,1.1s						
CN2	**Changchun**	**87.20**	**322**	*e*P	**P**	**12 27 13.5**	**-0.3**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.8s						
U15A	**North Rim**	**87.21**	**47**	IAmb	IAmb	12 27 17.5	
	comp=Z,7.5nm,0.9s						
WUAZ	**Wupatki**	**87.30**	**48**	IAmb	IAmb	12 27 17.6	
	comp=Z,8.8nm,1.1s						
BNX	**BinXian**	**87.44**	**325**	⇓P	**P**	**12 27 14.8**	**-0.1**
BNX				pmax	pmax		
	comp=Z,21nm,0.8s						
STD	**Studebaker Rid**	**87.55**	**35**	IAmb	IAmb	12 27 18.3	
	comp=Z,19nm,1.2s						
TIA	**Tai'an**	**87.62**	**312**	P	**P**	**12 27 17.1**	**+1.1**
TIA				pmax	pmax		
	comp=Z,8.0nm,0.6s						
KLR	**Kul'dur**	**87.74**	**329**	LR	LR	13 03 30.7	
	comp=Z,45nm,19.4s,baz=159,slow=33						
ELK	**Elko**	**87.92**	**42**	LR	LR	12 57 09.6	
	comp=Z,68nm,21.1s,baz=265,slow=29						
ELK	**Elko**	**87.92**	**42**	P	**P**	**12 27 17.8**	**+0.1**
121A	**Cookes Peak, D**	**88.13**	**52**	IAmb	IAmb	12 27 52.2	
	comp=Z,20nm,1.6s						
GNW	**Green Mountain**	**88.14**	**33**	IAmb	IAmb	12 27 20.7	
	comp=Z,10nm,1.2s						
BRLK	**Bradley Lake**	**88.28**	**13**	IAmb	IAmb	12 27 20.2	
	comp=Z,14nm,1.0s						
N19K	**Bonanza Creek**	**88.59**	**11**	P	**P**	**12 27 19.5**	**-0.6**
N19K				IAmb	IAmb	12 27 20.9	
	comp=Z,9.4nm,1.0s						
G08A	**Pilot Rock**	**88.64**	**37**	IAmb	IAmb	12 27 23.1	
	comp=Z,10nm,1.3s						
L16K	**Owhat River**	**88.70**	**8**	IAmb	IAmb	12 27 22.6	
	comp=Z,9.8nm,1.1s						
MXC	**Moxie City**	**88.77**	**35**	IAmb	IAmb	12 27 23.6	
	comp=Z,9.1nm,1.2s						
E07A	**Sunnyside**	**88.98**	**36**	IAmb	IAmb	12 27 24.8	
	comp=Z,9.2nm,0.9s						
LTY	**Liberty**	**89.02**	**35**	IAmb	IAmb	12 27 24.4	
	comp=Z,7.5nm,1.1s						
HAWA	**Hanford**	**89.04**	**36**	IAmb	IAmb	12 27 25.1	
	comp=Z,18nm,1.4s						
VHRN	**Van Horn**	**89.23**	**55**	IAmb	IAmb	12 27 59.5	
	comp=Z,10nm,1.5s						
WAH2	**Wahluke Slope**	**89.26**	**35**	IAmb	IAmb	12 27 26.0	
	comp=Z,14nm,1.2s						
E08A	**Dider Farm, El**	**89.36**	**36**	IAmb	IAmb	12 27 26.3	
	comp=Z,8.9nm,1.2s						
MA2	**Magadan**	**89.39**	**344**	LR	LR	13 01 15.9	
	comp=Z,30nm,21.7s,baz=148,slow=31						
MA2	**Magadan**	**89.39**	**344**		**P**	**12 27 23.9**	**+0.1**
MA2	**Magadan**	**89.39**	**344**	P	**P**	**12 27 24.4**	**+0.6**
	comp=Z,24nm,1.3s						
MA2	**Magadan**	**89.39**	**344**	P	**P**	**12 27 23.6**	**-0.2**
MNTX	**Cornudas Mount**	**89.42**	**54**	P	**P**	**12 27 26.1**	**+1.5**
	comp=Z,5.7nm,1.3s						
Y22A	**Socorro**	**89.46**	**51**	IAmb	IAmb	12 27 27.9	
	comp=Z,9.5nm,0.9s						
TXAR	**Lajitas Array**	**89.47**	**57**	P	**P**	**12 27 26.2**	**+1.1**
	comp=Z,1.9nm,0.9s,baz=213,slow=8.6,SNR=20						
	comp=Z,1.9nm,0.9s						
TXAR	**Lajitas Array**	**89.47**	**57**	P	**P**	**12 27 25.4**	**+0.3**
TMUT	**Trail Mountain**	**89.56**	**45**	IAmb	IAmb	12 27 28.3	
	comp=Z,7.6nm,1.1s						
L18K	**Granite Mounta**	**89.57**	**9**	IAmb	IAmb	12 27 26.8	
	comp=Z,8.2nm,1.0s						
EPH	**Ephrata**	**89.64**	**35**	IAmb	IAmb	12 27 27.4	
	comp=Z,9.2nm,1.2s						
STLK	**Strandline Lak**	**89.70**	**12**	IAmb	IAmb	12 27 35.1	
	comp=Z,6.8nm,0.8s						
D08A	**Wollman Farm,**	**89.80**	**36**	IAmb	IAmb	12 27 28.4	
	comp=Z,9.3nm,1.0s						
ENH	**Enshi**	**89.81**	**304**	P	**P**	**12 27 27.8**	**+1.3**
	comp=Z,12nm,1.2s						
M20K	**Styx River**	**89.83**	**11**	P	**P**	**12 27 25.4**	**-0.5**
E09A	**Wood Farm, Sta**	**89.86**	**36**	IAmb	IAmb	12 27 28.3	
	comp=Z,13nm,1.2s						
HNS	**HongShan**	**89.89**	**312**	*e*P	**P**	**12 27 28.4**	**+1.8**
SRU	**San Rafael Swe**	**89.90**	**46**	IAmb	IAmb	12 27 29.2	
	comp=Z,7.8nm,1.2s						
P17A	**Butcher Ranch,**	**89.96**	**45**	IAmb	IAmb	12 27 29.7	
	comp=Z,9.4nm,1.4s						
F10A	**Beach Ranch, E**	**90.01**	**37**	IAmb	IAmb	12 27 28.7	
	comp=Z,8.0nm,0.9s						
J16K	**Anvik River**	**90.08**	**7**	IAmb	IAmb	12 27 29.0	
	comp=Z,9.2nm,0.8s						
EYAK	**Cordova Ski Ar**	**90.11**	**15**	IAmb	IAmb	12 27 28.7	
	comp=Z,9.0nm,0.9s						
HLID	**Hailey**	**90.11**	**40**	IAmb	IAmb	12 27 30.3	
	comp=Z,8.1nm,1.3s						
HLID	**Hailey**	**90.11**	**40**	P	**P**	**12 27 28.2**	**+0.5**
	comp=Z,6.1nm,1.8s						
PLID	**Pearl Lake**	**90.13**	**38**	IAmb	IAmb	12 27 29.8	
	comp=Z,12nm,1.2s						
PMR	**Palmer**	**90.31**	**13**	IAmb	IAmb	12 27 39.1	
	comp=Z,9.7nm,0.8s						
ALQ	**Albuquerque**	**90.35**	**51**	IAmb	IAmb	12 27 32.2	
	comp=Z,7.8nm,1.2s						
ALQ	**Albuquerque**	**90.35**	**51**	IAmb	IAmb	12 27 32.2	
	comp=Z,7.5nm,1.2s						
TASM	**ASL Pad, Albuq**	**90.35**	**51**	IAmb	IAmb	12 27 32.3	
	comp=Z,7.8nm,1.2s						
TASM	**ASL Pad, Albuq**	**90.35**	**51**	IAmb	IAmb	12 27 32.3	
	comp=Z,8.0nm,1.3s						
ANMO	**Albuquerque**	**90.35**	**51**	P	**P**	**12 27 30.4**	**+1.2**
	comp=Z,5.5nm,1.1s,baz=213,slow=5.6,SNR=11						
ANMO				LR	LR	12 59 15.4	
	comp=Z,40nm,21.5s,baz=244,slow=30						
	comp=Z,5.5nm,1.1s						
ANMO	**Albuquerque**	**90.35**	**51**	P	**P**	**12 27 29.3**	**+0.2**
ANMO	**Albuquerque**	**90.35**	**51**	P	**P**	**12 27 30.5**	**+1.3**
	comp=Z,6.0nm,1.2s						
J17K	**VABM Dome**	**90.38**	**8**	IAmb	IAmb	12 27 30.4	
	comp=Z,7.2nm,1.0s						
HEH	**HeiHe**	**90.48**	**328**	*e*P	**P**	**12 27 29.4**	**+0.3**
HEH				pmax	pmax		
	comp=Z,10.0nm,1.1s						
TPB05	**Hovey Rd**	**90.53**	**56**	IAmb	IAmb	12 27 32.5	
	comp=Z,5.5nm,0.9s						
BSUT	**Blindstream Ca**	**90.55**	**44**	IAmb	IAmb	12 27 32.7	
	comp=Z,7.8nm,1.2s						
C09A	**Chrisman Ranch**	**90.61**	**35**	IAmb	IAmb	12 27 31.7	
	comp=Z,11nm,1.4s						
DIV	**Divide**	**90.62**	**15**	IAmb	IAmb	12 27 41.8	
	comp=Z,12nm,1.1s						
CMIG	**Matias Romero**	**90.73**	**71**	LR	LR	13 00 34.4	
	comp=Z,26nm,18.6s,baz=238,slow=30						
J18K	**Innoko River**	**90.76**	**9**	IAmb	IAmb	12 27 31.9	
	comp=Z,9.2nm,0.9s						
KLU	**Klutina**	**90.90**	**14**	IAmb	IAmb	12 28 01.8	
	comp=Z,8.8nm,1.4s						
VRDI	**Verde Repeater**	**91.25**	**16**	IAmb	IAmb	12 27 34.5	
	comp=Z,8.0nm,1.1s						
GLB	**Gilahina Butte**	**91.35**	**15**	IAmb	IAmb	12 27 45.0	
	comp=Z,5.8nm,0.8s						
J19K	**Poorman**	**91.42**	**9**	IAmb	IAmb	12 27 43.9	
	comp=Z,6.1nm,0.9s						
NEW	**Newport**	**91.50**	**35**	LR	LR	12 59 07.3	
	comp=Z,21nm,21.7s,baz=243,slow=29						
AHID	**Auburn Hatcher**	**91.61**	**42**	IAmb	IAmb	12 27 37.1	
	comp=Z,6.3nm,0.9s						
AHID	**Auburn Hatcher**	**91.61**	**42**	P	**P**	**12 27 36.4**	**+1.5**
	comp=Z,8.1nm,1.6s						
DLMT	**Dillon**	**92.22**	**40**	IAmb	IAmb	12 28 20.6	
	comp=Z,5.3nm,1.1s						
M26K	**Nabesna, AK**	**92.37**	**15**	IAmb	IAmb	12 27 49.9	
	comp=Z,6.0nm,1.1s						
LOHW	**Long Hollow**	**92.39**	**42**	IAmb	IAmb	12 28 09.8	
	comp=Z,11nm,1.7s						
PDAR	**Pinedale Array**	**92.55**	**43**	P	**P**	**12 27 39.6**	**+0.4**
	comp=Z,1.8nm,0.9s,baz=219,slow=3.8,SNR=15						
PDAR				LR	LR	13 05 34.2	
	comp=Z,9.1nm,18.6s,baz=30,slow=33						
	comp=Z,1.8nm,0.9s						
PDAR	**Pinedale Array**	**92.55**	**43**	P	**P**	**12 27 39.4**	**+0.2**
M27K	**Edge Creek, AK**	**92.60**	**16**	IAmb	IAmb	12 27 41.0	
	comp=Z,6.0nm,1.0s						
CMAR	**Chiang Mai Arr**	**92.68**	**289**	P	**P**	**12 27 39.7**	**-0.4**
	comp=Z,2.8nm,1.0s,baz=147,slow=3.3,SNR=14						
	comp=Z,2.8nm,1.0s						
CMAR	**Chiang Mai Arr**	**92.68**	**289**	P	**P**	**12 27 39.5**	**-0.6**
YHL	**Hebgen Lake**	**92.75**	**41**	IAmb	IAmb	12 27 43.0	
	comp=Z,8.7nm,1.2s						
CHTO	**Chiang Mai**	**92.84**	**289**	P	**P**	**12 27 41.8**	**+1.0**
CHTO	**Chiang Mai**	**92.84**	**289**	P	**P**	**12 27 39.9**	**-0.9**
	comp=Z,5.2nm,1.0s						
BOZ	**Bozeman (W)**	**92.91**	**40**	IAmb	IAmb	12 28 15.2	
	comp=Z,13nm,1.6s						
I21K	**Tanana**	**93.09**	**10**	IAmb	IAmb	12 27 51.7	
	comp=Z,6.2nm,1.0s						
WRH	**Wood River Hil**	**93.12**	**12**	IAmb	IAmb	12 27 42.5	
	comp=Z,6.5nm,1.0s						
RIDG	**Independent Ri**	**93.13**	**14**	IAmb	IAmb	12 27 47.3	
	comp=Z,8.1nm,1.2s						
HDA	**Harding Lake**	**93.29**	**13**	IAmb	IAmb	12 27 42.6	
	comp=Z,4.3nm,0.9s						
CCB	**Clear Creek Bu**	**93.33**	**12**	IAmb	IAmb	12 27 52.2	
	comp=Z,4.9nm,1.0s						
COLA	**College**	**93.53**	**12**	P	**P**	**12 27 42.9**	**+0.1**
COLA				IAmb	IAmb	12 27 53.1	
	comp=Z,3.8nm,0.7s						
COLA	**College**	**93.53**	**12**	P	**P**	**12 27 42.9**	**+0.1**
	comp=Z,6.6nm,1.1s						
IL31		**93.62**	**13**	P	**P**	**12 27 42.8**	**-0.4**
ILAR	**Eielson Array**	**93.62**	**13**	P	**P**	**12 27 43.0**	**-0.3**
	comp=Z,1.5nm,0.8s,baz=221,slow=5.8,SNR=16						
ILAR				PP	**PP**	**12 31 26.6**	**-3.5**
	comp=Z,2.5nm,1.1s,baz=205,slow=6.4,SNR=7.1						
	comp=Z,1.5nm,0.8s						
ILAR	**Eielson Array**	**93.62**	**13**	P	**P**	**12 27 42.7**	**-0.6**
J25K	**Salcha River,**	**93.79**	**13**	IAmb	IAmb	12 27 55.1	
	comp=Z,4.0nm,1.0s						
HHC	**Hu-ho-hao-te**	**93.80**	**314**	*e*P	**P**	**12 27 45.2**	**+0.3**
HHC				pmax	pmax		
	comp=Z,21nm,0.7s						
PZH	**PanZhiHua**	**93.98**	**297**	P	**P**	**12 27 46.8**	**+0.7**
APMT	**Aspermont**	**94.08**	**55**	IAmb	IAmb	12 27 47.1	
	comp=Z,6.8nm,1.1s						
ABTX	**Abilene, Hawle**	**94.09**	**56**	P	**P**	**12 27 46.9**	**+0.6**
CD2	**Chengdu**	**94.43**	**302**	P	**P**	**12 27 47.4**	**-0.5**
CD2				pmax	pmax		
	comp=Z,110nm,5.3s						
PRP	**Porcupine Dome**	**94.56**	**13**	IAmb	IAmb	12 27 48.9	
	comp=Z,5.3nm,1.2s						
DAWY	**Dawson**	**94.65**	**16**	IAmb	IAmb	12 27 50.5	
	comp=Z,6.2nm,1.3s						
JTS	**Las Juntas de**	**96.44**	**82**	LR	LR	13 03 45.6	
	comp=Z,30nm,19.0s,baz=145,slow=30						
SONM	**Songino Array**	**100.46**	**318**	P	**Pdif**	**12 28 13.7**	**-1.1**
	comp=Z,0.5nm,0.5s,baz=131,slow=4.0,SNR=2.4						
MKAR	**Makanchi Array**	**115.54**	**312**	PKP	**PKPdf**	**12 33 08.1**	**-0.9**
	comp=Z,0.3nm,0.4s,baz=193,slow=0.8,SNR=2.4						
KURBB	**Kurchatov Arra**	**118.62**	**315**	PKP	**PKPdf**	**12 33 13.7**	**-1.0**
	comp=Z,0.3nm,0.6s,baz=94,slow=2.5,SNR=4.9						
BOSA	**Boshof**	**121.45**	**203**	PKP	**PKiKP**	**12 33 21.7**	**+0.4**
	comp=Z,1.0nm,0.5s,baz=194,slow=3.7,SNR=4.4						
BVAR	**Borovoye Array**	**123.80**	**318**	PKP	**PKPdf**	**12 33 24.5**	**-0.1**
	comp=Z,0.4nm,0.3s,baz=77,slow=6.4,SNR=4.0						
ARCES	**ARCESS Array B**	**134.57**	**349**	PKP	**PKPdf**	**12 33 44.2**	**-0.4**
	comp=Z,1.3nm,0.8s,baz=25,slow=1.5,SNR=1.7						
FINES	**FINESS Array B**	**141.36**	**342**	PKhKP	PKPpre	12 33 52.1	
	comp=Z,4.5nm,0.9s,baz=122,slow=1.8,SNR=7.2						
H10N3	**ASCENSION HYDR**	**142.27**	**151**	T	T	15 13 49.1	
	baz=206						
H10N1	**ASCENSION HYDR**	**142.27**	**151**	T	T	15 12 56.9	
	baz=206						
H10N2	**ASCENSION HYDR**	**142.28**	**151**	T	T	15 13 03.9	
	baz=206						
NB2	**NORSAR Subarra**	**144.64**	**353**	PKP	**PKPab**	**12 34 01.6**	**-0.5**
	comp=Z,6.5nm,0.7s,baz=12,slow=3.8						
NOA	**NORSAR Array B**	**144.64**	**353**	PKP	**PKPab**	**12 34 01.9**	**-0.2**
	comp=Z,18nm,0.9s,baz=14,slow=2.4,SNR=32						
NAO01	**NORSAR Array S**	**144.87**	**353**	PKPbc	**PKPab**	**12 34 02.6**	**-0.3**
NC602	**NORSAR Array S**	**144.90**	**353**	PKPbc	PKPbc	12 34 01.7	-1.3
HFS	**Hagfors**	**145.20**	**350**	PKPbc	**PKPbc**	**12 34 03.6**	**-0.3**
	comp=Z,19nm,0.9s,baz=343,slow=1.5,SNR=26						
AKASG	**Malin Array Be**	**148.22**	**328**	PKPbc	**PKPbc**	**12 34 12.5**	**-0.4**
	comp=Z,1.8nm,0.4s,baz=45,slow=4.1,SNR=16						
EKA	**Eskdalemuir Ar**	**150.50**	**7**	PKPbc	**PKPbc**	**12 34 16.7**	**-1.7**
	comp=Z,3.9nm,0.8s,baz=318,slow=3.4,SNR=5.3						
EKA				PKPab	**PKPab**	**12 34 24.1**	**-1.2**
	comp=Z,3.9nm,0.8s,baz=343,slow=2.6,SNR=5.2						
BRTR	**Keskin Array B**	**150.96**	**306**	PKPbc	**PKiKP**	**12 34 20.5**	**-0.3**
	comp=Z,2.8nm,1.0s,baz=129,slow=1.8,SNR=6.0						
BRTR				PKPab	**PKPab**	**12 34 28.5**	**+0.5**
	comp=Z,6.6nm,0.8s,baz=108,slow=4.0,SNR=16						
KOLS	**Kolonicke sedl**	**152.66**	**331**	*e*PKP	**PKiKP**	**12 34 26.0**	**+2.2**
OSTC	**Ostas**	**153.53**	**341**	⇑*e*PKP	**PKiKP**	**12 34 26.9**	**+1.3**
OSTC				*e*PKPAB	**PKPab**	**12 34 39.7**	**+1.4**
UPC	**Upice**	**153.64**	**341**	*e*PKPAB	**PKPab**	**12 34 39.3**	**+0.6**
DPC	**Dobruska-Polom**	**153.68**	**340**	⇑*e*PKP	**PKiKP**	**12 34 26.5**	**+0.6**
DPC				*e*PKPAB	**PKPab**	**12 34 38.8**	**-0.1**
CLL	**Collm**	**153.69**	**345**	*i* PKPbc	**PKiKP**	**12 34 26.2**	**+0.4**
	comp=Z,6.0nm,1.0s						
CLL				*i* x	x	12 34 34.0	
	comp=Z,8.0nm,1.0s						
CLL				*i* PKPab	**PKPab**	**12 34 38.7**	**-0.1**
	comp=Z,15nm,1.0s						
CLL				*i* pPKPbc	**pPKPbc**	**12 34 55.9**	**-0.1**
CLL				*i* pPKPab	**pPKPab**	**12 35 09.1**	**+1.1**
CLL				*i* PP	**PP**	**12 38 11.3**	**-1.6**
MORC	**Moravsky Berou**	**153.79**	**338**	*e*PKP	**PKPab**	**12 34 38.6**	**-0.8**
BRG	**Berggiesshubel**	**153.87**	**344**	⇑*e*PKPb		12 34 26.6	
BRG				Amp		12 34 27.4	
	comp=Z,2.0nm,0.6s						
BRG				PKPab	**PKPab**	**12 34 39.9**	**+0.3**
BRG				Amp		12 34 40.9	
	comp=Z,9.5nm,0.9s						
VYHS	**Vyhne**	**154.41**	**335**	*e*PKP	**PKPab**	**12 34 42.6**	**+0.6**
VRAC	**Vranov**	**154.51**	**339**	PKPab	**PKPab**	**12 34 43.0**	**+0.6**
	comp=Z,1.0nm,0.3s,baz=356,slow=3.6,SNR=7.2						
VRAC	**Vranov**	**154.51**	**339**	*e*PKP	**PKPab**	**12 34 42.0**	**-0.4**
JAVC	**Velka Javorina**	**154.53**	**337**	*e*PKP	**PKPab**	**12 34 44.1**	**+1.5**
KRUC	**Moravsky**	**154.79**	**339**	*e*PKP	**PKPab**	**12 34 43.5**	**-0.1**
MODS	**Modra-Piesok**	**155.08**	**337**	*e*PKP	**PKPab**	**12 34 45.9**	**+1.0**
KHC	**Kasperske Hory**	**155.56**	**343**	⇑*e*PKP	PKPab	12 34 37.0	-10
KHC				*e*PKPAB	pPKPdf	12 34 47.8	-3.1
CKRC	**Cesky Krumlov**	**155.64**	**341**	*e*PKPAB	**PKPab**	**12 34 47.6**	**+0.3**
GERES	**GERESS Array B**	**155.79**	**342**	PKPab	**PKPab**	**12 34 48.5**	**+0.5**
	comp=Z,0.5nm,0.3s,baz=20,slow=4.3,SNR=4.7						
BMRD	**Maredsous**	**155.82**	**357**	*d*PKP	**PKPab**	**12 34 48.6**	**+0.6**
CONA	**Conrad Observa**	**155.95**	**338**	*e*PKP	**PKPab**	**12 34 49.1**	**+0.4**
	comp=Z,5.7nm,1.0s						
CONA				*i* pPKP	sPKPbc	12 35 10.9	-1.6
	comp=Z,1.8nm,1.2s						
RONA	**Rosalia, Austr**	**156.00**	**337**	*e*PKP	**PKPab**	**12 34 49.5**	**+0.6**
	comp=Z,5.7nm,0.9s						
WLF	**Walferdange**	**156.37**	**355**	*d*PKP	**PKPab**	**12 34 50.2**	**-0.1**
MOA	**Molln**	**156.53**	**340**	*e*PKP	**PKPab**	**12 34 51.4**	**+0.3**
	comp=Z,4.9nm,1.1s						
MOA				*i* pPKP	**pPKPab**	**12 35 14.3**	**-6.0**
	comp=Z,3.6nm,1.2s						
ARSA	**Arzberg**	**156.65**	**338**	*e*PKP	**PKPab**	**12 34 51.8**	**+0.1**
	comp=Z,3.4nm,1.2s						
ARSA				*i* pPKP	**pPKPab**	**12 35 15.4**	**-5.4**
	comp=Z,0.1nm,0.3s						
BIOA	**Bad Ischl, Aus**	**156.86**	**341**	*i* PKP	**PKPab**	**12 34 52.7**	**+0.2**
	comp=Z,10nm,1.0s,SNR=6.9						
SESA	**Seetaler Alpe,**	**157.09**	**339**	*i* PKP	**PKPab**	**12 34 54.7**	**+0.9**
	comp=Z,19nm,1.0s,SNR=8.5						
SOKA	**Soboth**	**157.32**	**338**	*e*PKP	**PKPab**	**12 34 55.1**	**+0.5**
	comp=Z,12nm,1.6s						
LESA	**Schwarzleotal**	**157.37**	**342**	*i* PKP	**PKPab**	**12 34 55.3**	**+0.5**
	comp=Z,11nm,1.0s,SNR=5.5						
KBA	**Koelnbreinsper**	**157.50**	**341**	*e*PKP	**PKPab**	**12 34 55.4**	**-0.1**
	comp=Z,1.5nm,0.8s						
RETA	**Reutte**	**157.78**	**346**	*e*PKP	**PKPab**	**12 34 56.4**	**-0.3**
	comp=Z,5.9nm,0.9s						
WTTA	**Wattenberg**	**157.79**	**344**	*e*PKP	**PKPab**	**12 34 56.7**	**0.0**
	comp=Z,10.0nm,0.9s						
MYKA	**Terra Mystica**	**157.81**	**340**	*e*PKP	**PKPab**	**12 34 55.8**	**-0.9**
	comp=Z,0.1nm,0.2s						
MOTA	**Moosalm**	**157.84**	**345**	*e*PKP	**PKPab**	**12 34 56.9**	**0.0**
	comp=Z,8.2nm,1.1s						
SQTA	**Sankt Quirin**	**157.93**	**345**	*e*PKP	**PKPab**	**12 34 57.4**	**+0.1**
	comp=Z,7.8nm,1.1s						
ABTA	**Abfaltersbach**	**158.03**	**342**	*e*PKP	**PKPab**	**12 34 57.6**	**-0.1**
	comp=Z,9.8nm,1.0s						
DAVA	**Damuels**	**158.16**	**347**	*e*PKP	**PKPab**	**12 34 58.2**	**-0.1**
	comp=Z,6.1nm,1.2s						
FETA	**Feichten**	**158.23**	**345**	*e*PKP	**PKPab**	**12 34 58.2**	**-0.5**
	comp=Z,4.2nm,1.0s						
ESDC	**Sonseca Array**	**165.36**	**21**	PKPab	**PKPab**	**12 35 30.3**	**+0.4**
	comp=Z,1.8nm,1.2s,baz=343,slow=4.7,SNR=4.4						
TORD	**Torodi Ar. Bea**	**167.03**	**175**	PKP	**PKPdf**	**12 34 33.6**	**0.0**
	comp=Z,1.3nm,1.0s,baz=207,slow=0.6,SNR=4.5						
TORD				PKPab	**PKPab**	**12 35 38.3**	**+0.6**
	comp=Z,4.4nm,0.9s,baz=174,slow=3.1,SNR=16						
TORD				PP	**PP**	**12 39 24.2**	**-0.3**
	comp=Z,0.8nm,0.7s,baz=153,slow=3.5,SNR=4.6						

NOU 12 12:59:17.6, 17°.13S×167°.87E, h22^{km}, MLv4.1/15, Vanuatu Islands, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTV	**Rentapao**	**0.84**	**141**	P	Pb	12 59 33.7	+0.1
RTV	**Rentapao**	**0.84**	**141**	S	Sn	12 59 45.8	-0.1
SANVU	**Saraoutou**	**1.79**	**339**	P	Pn	12 59 46.9	-0.3
SANVU	**Saraoutou**	**1.79**	**339**	S	Sn	13 00 10.0	+0.7
MARNC	**Mare, Loyalty**	**4.33**	**178**	P	Pn	13 00 22.8	+0.7
YATNC	**Mamie plateau,**	**4.99**	**190**	P	Pn	13 00 31.0	-0.2
NOUC	**Port Laguerre**	**5.16**	**196**	P	Pn	13 00 33.9	+0.3

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*IDC **12** 13:07:29.9±0.5, 6°.49S×104°.63E, h0^{km}, mb4.3/26, mbtmp4.3/26, MS3.9/36, Error ellipse: s-maj=21.7km s-min=11.5km az=60.0*

*NEIC **12** 13:07:31.6±1.1, 6°.56S±0°.09×104°.52E±0°.05, h10^{km}±1^{km}, mb4.7/24, Error ellipse: s-maj=16.1km s-min=7.0km az=200.0*

*DJA **12** 13:07:32.7±0.2, 7°S±2°×10°4E±°, h10^{km}, M5.0/60, mB5.5/14, mb4.9/55, MLv5.0/60, Mw(mB)5.0/14*

*GCMT **12** 13:07:35.6±0.5, 6°.67S±0°.02×104°.53E±0°.02, h16^{km}±2^{km}, MW4.8/74, Moment Tensor Solution. s14,c17; s74,c100; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}0.60±.11; $M_{\theta\theta}$0.13±.09; $M_{\phi\phi}$-0.73±.10; $M_{r\theta}$0.44±.28; $M_{\theta\phi}$1.68±.07; $M_{\phi r}$-0.12±.30; Best double couple: $M_0$1.80000×10^{16} NP1:ϕ_s7.00000°, δ72.00000°, λ173.00000°. NP2:*

ϕs99.00000°,δ84.00000°,λ18.00000°. Principal axes: T 1.5160, Plg17.0000°, Azm324.0000°; N 0.5680, Plg71.0000°, Azm118.0000°; P -2.0850, Plg8.0000°, Azm232.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function

ISC 12 13:07:31.1±0.4,**6°.70S**±0°.05×**104°.44E**±0°.04,**h10**^{km},**n189**, σ**1^s.78**/149,**mb4.6**/46,**MS3.9**/39,**1D**,**Sunda Strait**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KASI	**Kota Agung**	**1.17**	**3**	P	**Pn**	**13 07 53.4**	**-0.1**
KASI				S	**Sn**	**13 08 09.2**	**-0.3**
CGJI	**Cibinong**	**1.25**	**86**	P	**Pb**	**13 07 53.1**	**-1.7**
BLSI	**Bandar Lampung**	**1.55**	**31**	P	**Pg**	**13 07 59.7**	**-1.1**
BLSI				AML	AML		
SBJI	**Serang**	**1.78**	**71**	P	**Pb**	**13 08 02.2**	**-1.6**
KLI	**Kotabumi**	**1.87**	**13**	P	**Pg**	**13 08 07.8**	**+0.8**
KLI				AML	AML		
SKJI	**Sukabumi**	**2.13**	**98**	P	**Pg**	**13 08 10.5**	**-1.5**
MDSI	**Maura Dua**	**2.21**	**353**	P	**Pb**	**13 08 10.4**	**-0.8**
TNG	**Tangerang**	**2.26**	**77**	P	**Pb**	**13 08 11.5**	**-0.5**
TNG				P	**Pg**	**13 08 12.5**	**-1.9**
TNG				AML	AML		
CBJI	**Citeko**	**2.42**	**84**	P	**Pb**	**13 08 13.5**	**-1.2**
CBJI				AML	AML		
CNJI	**Cibinong**	**2.74**	**103**	P	**Pn**	**13 08 15.8**	**+0.6**
CNJI				AML	AML		
MNAI	**Manna**	**2.75**	**328**		**Pn**	**13 08 15.7**	**+0.4**
MNAI	**Manna**	**2.75**	**328**	P	**Pn**	**13 08 17.2**	**+1.9**
MNAI				AML	AML		
LHSI	**Lahat**	**2.99**	**342**	P	**Pb**	**13 08 21.4**	**-3.1**
LHSI				AML	AML		
BBJI	**Bungbulang**	**3.28**	**104**		**Pn**	**13 08 22.3**	**-0.3**
BBJI				Sn	**Sn**	**13 09 01.2**	**-0.6**
BBJI	**Bungbulang**	**3.28**	**104**	P	**Pn**	**13 08 23.2**	**+0.5**
KSI	**Kapahiang**	**3.54**	**329**	P	**Pb**	**13 08 30.1**	**-3.8**
KSI				AML	AML		
UBSI	**University, Be**	**3.63**	**323**	P	**Pn**	**13 08 30.5**	**+3.1**
UBSI				AML	AML		
CMJI	**Cimerak**	**4.13**	**105**	P	**Pn**	**13 08 37.0**	**+2.8**
CMJI				AML	AML		
MASI	**Maura Aman, Be**	**4.15**	**328**	P	**Pn**	**13 08 36.7**	**+2.0**
KPJI	**Karang Pucung**	**4.51**	**98**	P	**Pn**	**13 08 43.8**	**+4.3**
CTJI	**Waduk Cacaban**	**4.72**	**94**	P	Pb	13 08 48.7	-5.4
CTJI				AML	AML		
TPI	**Tanjungpandan**	**5.06**	**39**	P	**Pn**	**13 08 49.0**	**+1.9**
TPI				AML	AML		
JMBI	**JAMBI**	**5.09**	**351**	P	**Pn**	**13 08 50.6**	**+3.1**
	2.6nm252nm,0.9s						
JMBI				AML	AML		
KRJI	**Kerinci**	**5.45**	**327**	P	**Pn**	**13 08 55.3**	**+2.7**
UGM	**Wanagama**	**6.16**	**102**	Pn	**Pn**	**13 09 03.7**	**+1.4**
UGM	**Wanagama**	**6.16**	**102**	P	**Pn**	**13 09 04.4**	**+2.2**
	216nm,1.7s						
DSRI	**Dabo**	**6.18**	**1**	P	Pn	13 09 06.1	+3.6
	0.7nm49nm,0.8s						
DSRI				AML	AML		
SDSI	**Sungai Dareh**	**6.46**	**332**	P	**Pn**	**13 09 06.3**	**-0.1**
	0.3nm39nm,0.9s						
SDSI				AML	AML		
WOJI	**Wonogiri, Jawa**	**6.54**	**100**	P	**Pn**	**13 09 09.9**	**+2.5**
	0.6nm112nm,0.9s						
WOJI				AML	AML		
PCJI	**Pacitan**	**6.85**	**103**	P	**Pn**	**13 09 14.1**	**+2.4**
PDSI	**Padang**	**6.98**	**325**	P	**Pn**	**13 09 13.2**	**-0.3**
	0.4nm1µm53nm,0.6s						
PDSI				AML	AML		
NGJI	**Ngawi**	**7.01**	**96**	P	Pn	13 09 19.4	+5.6
	187nm,1.3s						
SNJI	**Sawahan-Nganju**	**7.35**	**99**	P	**Pn**	**13 09 22.8**	**+4.1**
	0.5nm52nm,0.8s						
SNJI				AML	AML		
SJI	**Sawahan**	**7.35**	**99**	P	**Pn**	**13 09 21.3**	**+2.7**
	121nm,0.9s						
PPI	**Padang Panjang**	**7.39**	**327**	P	**Pn**	**13 09 22.7**	**+3.5**
	0.3nm66nm,1.0s						
PPI				AML	AML		
TPRI	**Tanjung Pinang**	**7.56**	**1**	P	**Pn**	**13 09 24.4**	**+2.9**
	0.4nm30nm,0.5s						
TPRI				AML	AML		
BKNI	**Bangkinang**	**7.76**	**334**	Pn	**Pn**	**13 09 23.9**	**-0.2**
BTDF	**Bukit Timah Da**	**8.03**	**355**	P	**Pn**	**13 09 31.0**	**+3.1**
	27nm,1.2s						
MYKOM	**Kota Tinggi**	**8.45**	**356**	P	Pn	13 09 38.6	+4.9
	24nm,0.8s						
COCO	**West Island**	**9.27**	**233**	P	**Pn**	**13 09 44.7**	**-0.2**
	136nm,0.9s						
KMMI	**Kalianget**	**9.47**	**93**	P	**Pn**	**13 09 51.0**	**+3.3**
	107nm,1.5s						
STKI	**Sintang**	**9.72**	**47**	P	Pn	13 09 54.6	+3.5
	27nm,0.8s						
ABJI	**Asem Bagus**	**9.78**	**97**	P	**Pn**	**13 09 56.1**	**+4.1**
JAGI	**Jajag, Banyuwa**	**9.79**	**101**		**Pn**	**13 09 52.0**	**-0.2**
JAGI	**Jajag, Banyuwa**	**9.79**	**101**	P	**Pn**	**13 09 54.4**	**+2.3**
	196nm,1.2s						
GSI	**Gunungsitoli**	**10.49**	**319**		**Pn**	**13 09 59.5**	**-2.2**
GSI	**Gunungsitoli**	**10.49**	**319**	P	**Pn**	**13 10 00.1**	**-1.6**
	41nm,1.1s						
RTBI	**Rangdo, Negare**	**10.56**	**100**	P	**Pn**	**13 10 04.9**	**+2.2**
SRBI	**Singaraja**	**10.78**	**98**	P	**Pn**	**13 10 07.8**	**+2.2**
KHKI	**Kahang-Kahang**	**11.20**	**99**	P	**Pn**	**13 10 12.7**	**+1.3**
	79nm,0.7s						
SBUM	**Sibu**	**11.96**	**41**		**Pn**	**13 10 19.0**	**-2.8**
SBUM	**Sibu**	**11.96**	**41**	P	Pn	13 10 25.6	+3.8
DBNI	**Kabupaten Domp**	**13.87**	**98**	P	**Pn**	**13 10 45.5**	**-2.5**
	44nm,0.7s						
MMSI	**Mamuju**	**14.96**	**75**	P	**P**	**13 11 06.2**	**-2.3**
	16nm,0.9s						
BSI	**Banda Aceh**	**15.16**	**323**	P	**P**	**13 11 10.6**	**-0.1**
	75nm,0.9s						
KAPI	**Kappang**	**15.33**	**85**	LR	LR	13 18 13.7	
	comp=Z,667nm,18.6s,baz=272,slow=43						
LBFI	**Labuhan Bajo,**	**15.42**	**98**	P	**Pn**	**13 11 09.6**	**+0.6**
WSI	**Waingapu**	**15.98**	**102**	P	**P**	**13 11 18.0**	**-1.7**
	113nm,1.4s						
PCI	**Palu**	**16.40**	**70**	P	**P**	**13 11 25.7**	**+1.2**
	2µm65nm,1.5s						
KKM	**Kota Kinabalu**	**17.27**	**43**	P	**P**	**13 11 35.2**	**+1.0**
	23nm,1.1s						
MMRI	**Maumere**	**17.75**	**97**		**P**	**13 11 39.1**	**-0.3**
MMRI	**Maumere**	**17.75**	**97**	P	**Pn**	**13 11 37.7**	**-0.8**
	84nm,0.8s						
TOLI2	**Tolitoli**	**18.07**	**65**		**Pn**	**13 11 38.8**	**-3.7**
MYLDM	**Lahad Datu**	**18.34**	**50**		**Pn**	**13 11 43.9**	**-1.9**
MYLDM				IAmb	IAmb	13 12 02.9	
	comp=Z,26nm,0.9s						
MYLDM	**Lahad Datu**	**18.34**	**50**	P	**P**	**13 11 48.5**	**+2.7**
	comp=Z,31nm,0.8s						
SOEI	**Soe**	**19.86**	**100**		**P**	**13 12 01.6**	**-1.1**
SOEI	**Soe**	**19.86**	**100**	P	**P**	**13 12 02.2**	**-0.5**
	comp=Z,146nm,1.1s						
GTOI	**Gorontalo**	**19.92**	**69**	P	**Pn**	**13 12 03.2**	**-1.6**
	comp=Z,571nmcomp=Z,35nm,0.9s						
FITZ	**Fitzroy Crossi**	**23.57**	**121**	P	**P**	**13 12 41.7**	**-0.4**
	comp=Z,14nm,0.8s,baz=283,slow=6.2,SNR=18						
	comp=Z,14nm,0.8s						
FITZ	**Fitzroy Crossi**	**23.57**	**121**	P	**P**	**13 12 41.9**	**-0.2**
DAV	**Davao City (W)**	**25.14**	**57**	LR	LR	13 23 13.6	
	comp=Z,291nm,19.6s,baz=301,slow=38						
KNRA	**Kununurra**	**25.45**	**113**	P	**P**	**13 12 58.3**	**-1.2**
KNRA				IAmb	IAmb	13 13 14.4	
	comp=Z,10.0nm,0.8s						
CMAR	**Chiang Mai Arr**	**25.57**	**348**	P	**P**	**13 12 58.5**	**-2.0**
	comp=Z,2.1nm,0.8s,baz=182,slow=9.0,SNR=12						
	comp=Z,2.1nm,0.8s						
CMAR	**Chiang Mai Arr**	**25.57**	**348**	P	**P**	**13 12 58.0**	**-2.5**
CHTO	**Chiang Mai**	**25.92**	**348**	P	**P**	**13 13 01.3**	**-2.4**
QIZ	**Qiongzhong**	**26.11**	**12**	P	**P**	**13 13 06.9**	**+1.5**
QIZ				S	**S**	**13 17 41.4**	**+4.4**
QIZ				L	L		
	comp=Z,180nm,18.4s						
QIZ				L	L		
	comp=Z,700nm,17.8s						
QIZ				L	L		
	comp=Z,480nm,17.8s						
MTN	**Manton Dam**	**27.00**	**105**	P	**P**	**13 13 12.6**	**-0.9**
MTN				IAmb	IAmb	13 13 49.6	
	comp=Z,8.8nm,0.5s						
NWAO	**Narrogin (SRO)**	**28.68**	**157**	LR	LR	13 26 48.6	
	comp=Z,195nm,18.1s,baz=285,slow=40						
H01W3	**Cape Leeuwin H**	**29.44**	**164**	T	T	13 44 21.0	
	baz=341,slow=76,SNR=33						
H01W2	**Cape Leeuwin H**	**29.45**	**164**	T	T	13 44 19.2	
	baz=341,slow=76,SNR=44						
H01W1	**Cape Leeuwin H**	**29.46**	**164**	T	T	13 44 39.0	
	baz=341,slow=76,SNR=26						
H08S2	**Diego Garcia H**	**31.70**	**266**	T	T	13 47 42.2	
	baz=89,slow=75,SNR=29						
H08S3	**Diego Garcia H**	**31.71**	**266**	T	T	13 47 39.9	
	baz=89,slow=75,SNR=30						
H08S1	**Diego Carcia H**	**31.72**	**266**	T	T	13 47 41.8	
	baz=89,slow=75,SNR=28						
BRDH	**Bariadhala**	**31.77**	**337**	LR	LR	13 29 17.5	
	comp=Z,713nm,20.9s,baz=153,slow=41						
WB0	**Warramunga Arr**	**31.85**	**117**	P	**P**	**13 13 55.9**	**-0.7**
WB0				IAmb	IAmb	13 13 57.1	
	comp=Z,8.4nm,0.8s						
WRA	**Warramunga Arr**	**31.86**	**117**	P	**P**	**13 13 56.3**	**-0.4**
	comp=Z,9.6nm,0.8s,baz=288,slow=12,SNR=68						
WRA				PcP	**PcP**	**13 16 46.6**	**-1.0**
	comp=Z,0.4nm,0.5s,baz=302,slow=2.9,SNR=1.5						
	comp=Z,9.6nm,0.8s						
WRA	**Warramunga Arr**	**31.86**	**117**	P	**P**	**13 13 56.5**	**-0.2**
WRAB	**Tennant Creek**	**31.87**	**117**	P	**P**	**13 13 56.0**	**-0.7**
WRAB				IAmb	IAmb	13 14 06.4	
	comp=Z,11nm,0.7s						
WR8	**Warramunga Arr**	**32.01**	**117**	P	**P**	**13 13 57.3**	**-0.7**
WR8				IAmb	IAmb	13 13 58.7	
	comp=Z,14nm,0.9s						
ASAR	**Alice Springs**	**32.95**	**124**	P	**P**	**13 14 06.0**	**-0.3**
	comp=Z,2.4nm,0.7s,baz=296,slow=8.6,SNR=22						
ASAR				PcP	**PcP**	**13 16 53.5**	**+2.9**
	comp=Z,0.3nm,0.5s,baz=291,slow=2.3,SNR=2.0						
ASAR				LR	LR	13 28 13.5	
	comp=Z,220nm,21.7s,baz=298,slow=38						
	comp=Z,2.4nm,0.7s						
ASAR	**Alice Springs**	**32.95**	**124**	P	**P**	**13 14 06.5**	**+0.2**
AS31	**Alice Springs**	**32.95**	**124**	P	**P**	**13 14 06.2**	**-0.1**
PZH	**PanZhiHua**	**33.10**	**356**	P	**P**	**13 14 11.3**	**+3.7**
EVN	**Everest**	**38.43**	**334**	P	**P**	**13 14 53.0**	**-0.8**
EVN				IAmb	IAmb	13 15 16.1	
	comp=Z,12nm,0.9s						
NJ2	**Nanjing**	**40.91**	**19**	*e*P	**P**	**13 15 16.0**	**+2.3**
NJ2				pmax	pmax		
	comp=Z,8.0nm,0.8s						
PMG	**Port Moresby**	**42.37**	**97**	P	**P**	**13 15 24.5**	**-1.5**
	comp=Z,13nm,0.7s,baz=276,slow=14,SNR=2.9						
PMG				LR	LR	13 36 00.6	
	comp=Z,122nm,19.5s,baz=248,slow=40						
	comp=Z,13nm,0.7s						
PMG	**Port Moresby**	**42.37**	**97**	P	**P**	**13 15 24.3**	**-1.7**
LZH	**Lanzhou**	**42.56**	**359**	*e*P	P	13 15 33.0	+5.6
LZH				pP	pwP	13 15 37.4	+5.0
LZH				pmax	pmax		
	comp=Z,22nm,1.5s						
LZH				L	L		
	comp=Z,350nm,13.3s						
LZH				L	L		
	comp=Z,470nm,15.6s						
LZH				L	L		
	comp=Z,420nm,13.7s						
CTA	**Charters Tower**	**42.67**	**112**	LR	LR	13 35 42.5	
	comp=Z,84nm,19.0s,baz=277,slow=40						
STKA	**Stephens Creek**	**42.75**	**131**	P	**P**	**13 15 29.3**	**+0.4**
	comp=Z,9.1nm,0.6s,baz=303,slow=8.4,SNR=18						
STKA				LR	LR	13 34 07.3	
	comp=Z,157nm,21.2s,baz=302,slow=37						
	comp=Z,9.1nm,0.6s						
GUMO	**Guam**	**44.92**	**63**	LR	LR	13 36 10.3	
	comp=Z,35nm,18.7s,baz=241,slow=38						
GTA2	**Gaotai**	**46.15**	**355**	*e*P	**P**	**13 15 56.4**	**+0.3**
GTA2				pmax	pmax		
	comp=Z,5.0nm,0.8s						
GTA2				L	L		
	comp=Z,280nm,16.2s						
GTA2				L	L		
	comp=Z,360nm,18.7s						
GTA2				L	L		
	comp=Z,330nm,15.9s						
JNU	**Nakatsue**	**46.90**	**31**	LR	LR	13 37 08.4	
	comp=Z,75nm,18.1s,baz=222,slow=38						
KRVT	**Keravat (AS076**	**47.42**	**90**	LR	LR	13 40 10.0	
	comp=Z,67nm,19.1s,baz=266,slow=42						
HHC	**Hu-ho-hao-te**	**47.76**	**7**	*e*P	**P**	**13 16 11.9**	**+3.3**
HHC				pmax	pmax		
	comp=Z,9.0nm,0.6s						
KSRS	**Korea Array**	**49.09**	**25**	P	**P**	**13 16 17.4**	**-1.4**
	comp=Z,1.3nm,0.8s,baz=231,slow=7.3,SNR=4.1						
KSRS				LR	LR	13 38 05.1	
	comp=Z,68nm,18.1s,baz=215,slow=38						
	comp=Z,1.3nm,0.8s						
NIL	**Nilore**	**49.84**	**326**	P	**P**	**13 16 23.8**	**-0.8**
JHJ	**Hachijo jima 2**	**51.91**	**38**	LR	LR	13 38 22.0	
	comp=Z,52nm,21.7s,baz=234,slow=36						
WMQ	**Urumqi**	**52.52**	**345**	*e*P	**P**	**13 16 47.2**	**+2.6**
WMQ				L	L		
	comp=Z,130nm,24.2s						
KSH2	**Kashi**	**52.88**	**332**	P	**P**	**13 16 47.8**	**+0.4**
KSH2				pP	sP	13 16 53.7	+2.7
KSH2				pmax	pmax		
	comp=Z,7.0nm,0.7s						
MJAR	**Matsushiro Arr**	**53.40**	**34**	P	**P**	**13 16 49.1**	**-2.1**
	comp=Z,1.1nm,0.4s,baz=197,slow=8.4,SNR=5.6						
MJAR				LR	LR	13 42 06.4	
	comp=Z,49nm,18.1s,baz=236,slow=39						
	comp=Z,1.1nm,0.4s						
SONM	**Songino Array**	**54.32**	**2**	P	**P**	**13 16 56.2**	**-1.7**
	comp=Z,1.7nm,0.7s,baz=177,slow=9.7,SNR=7.8						
SONM				PcP	**PcP**	**13 18 03.7**	**+1.8**
	comp=Z,1.2nm,0.6s,baz=193,slow=5.9,SNR=1.5						
	comp=Z,1.7nm,0.7s						
SHLS	**Shalkode**	**54.55**	**338**	*e*P	**P**	**13 17 00.1**	**+0.5**
PDGK	**Podgornoye**	**54.69**	**338**	P	**P**	**13 16 59.9**	**-0.7**
UZB	**Uzynbulak**	**54.71**	**337**	*e*P	**P**	**13 17 02.4**	**+1.5**
SATY	**Saty**	**54.88**	**337**	*e*P	**P**	**13 17 03.6**	**+1.6**
KPKS	**Kokpek**	**55.11**	**337**	*e*P	**P**	**13 17 05.2**	**+1.6**
TNSS	**Tian-Shan**	**55.44**	**336**	*e*P	**P**	**13 17 07.6**	**+1.2**
MDOK	**Medeo**	**55.50**	**336**	*e*P	**P**	**13 17 08.2**	**+1.6**
AAA	**Alma-Ata**	**55.60**	**336**	*e*P	**P**	**13 17 08.8**	**+1.6**
BNX	**BinXian**	**56.10**	**19**	⇓P	**P**	**13 17 11.6**	**+1.1**
BNX				pmax	pmax		
	comp=Z,21nm,0.9s						
AAK	**Ala-Archa**	**56.16**	**334**	LR	LR	13 45 46.3	
	comp=Z,177nm,19.7s,baz=141,slow=41						
USRK	**Ussuriysk Ar.**	**56.43**	**24**	P	**P**	**13 17 11.3**	**-1.6**
	comp=Z,4.2nm,0.5s,baz=213,slow=4.0,SNR=12						
	comp=Z,4.2nm,0.5s						
USRK	**Ussuriysk Ar.**	**56.43**	**24**	P	**P**	**13 17 11.6**	**-1.4**
TDK	**Taldyqorghan**	**56.53**	**338**	*e*P	**P**	**13 17 15.3**	**+1.6**
	comp=Z,4.1nm,0.4s						
ZSN	**Zaisan**	**56.62**	**344**	*e*P	**P**	**13 17 16.0**	**+1.7**
SGDS	**Sogindy**	**56.75**	**334**	*e*P	**P**	**13 17 17.1**	**+1.7**
MKAR	**Makanchi Array**	**56.77**	**342**	P	**P**	**13 17 14.7**	**-0.7**
	comp=Z,3.2nm,0.6s,baz=144,slow=8.0,SNR=22						
MKAR				LR	LR	13 46 56.6	
	comp=Z,110nm,18.0s,baz=140,slow=42						
	comp=Z,3.2nm,0.6s						
MKAR	**Makanchi Array**	**56.77**	**342**	P	**P**	**13 17 14.2**	**-1.2**
HILR	**Hailar Array B**	**57.59**	**12**	P	**P**	**13 17 19.5**	**-1.7**
	comp=Z,1.9nm,0.5s,baz=202,slow=11,SNR=2.3						
	comp=Z,1.9nm,0.5s						
DZA	**Taraz**	**57.80**	**332**	*e*P	**P**	**13 17 24.4**	**+1.7**
	comp=Z,4.8nm,0.6s						
IUG	**Iuzhnay**	**57.86**	**330**	*e*P	**P**	**13 17 25.0**	**+1.7**
	comp=Z,8.6nm,1.3s						
CHM	**Chimkent**	**58.20**	**330**	*e*P	**P**	**13 17 27.4**	**+1.9**
	comp=Z,6.8nm,0.6s						
BRLS	**Borolday**	**58.62**	**331**	*e*P	**P**	**13 17 29.4**	**+1.0**
H04N2	**CROZET ISLANDS**	**59.85**	**220**	T	T	14 22 23.7	
	baz=66,slow=75,SNR=472						
H04N1	**CROZET ISLANDS**	**59.86**	**220**	T	T	14 22 24.0	
	baz=66,slow=75,SNR=469						
H04N3	**CROZET ISLANDS**	**59.87**	**220**	T	T	14 22 22.7	
	baz=66,slow=75,SNR=403						
H04S1	**CROZET ISLANDS**	**60.06**	**219**	T	T	14 22 40.5	
	baz=66,slow=76,SNR=55						
H04S3	**CROZET ISLANDS**	**60.07**	**219**	T	T	14 22 39.0	
	baz=66,slow=76,SNR=22						
H04S2	**CROZET ISLANDS**	**60.08**	**219**	T	T	14 22 39.9	
	baz=66,slow=76,SNR=23						
HEH	**HeiHe**	**60.12**	**17**	*e*P	**P**	**13 17 37.4**	**-1.2**
HEH				pmax	pmax		
	comp=Z,5.0nm,0.8s						
KLR	**Kul'dur**	**60.59**	**20**	P	**P**	**13 17 40.1**	**-1.7**
	comp=Z,2.3nm,0.6s,baz=218,slow=5.3,SNR=7.4						
	comp=Z,2.3nm,0.6s						
ASAJ	**Asahikawa**	**61.17**	**31**	LR	LR	13 45 25.9	
	comp=Z,40nm,18.8s,baz=241,slow=37						
KURBB	**Kurchatov Arra**	**61.33**	**342**	P	**P**	**13 17 46.3**	**-0.6**
	comp=Z,2.3nm,0.7s,baz=158,slow=5.9,SNR=20						
KURBB				LR	LR	13 49 51.2	
	comp=Z,161nm,19.9s,baz=166,slow=42						
	comp=Z,2.3nm,0.7s						
KURK	**Kurchatov**	**61.38**	**342**	P	**P**	**13 17 46.6**	**-0.6**
KURK				IAmb	IAmb	13 18 17.4	
	comp=Z,5.1nm,0.9s						
ZAA0	**Zalesovo Array**	**62.64**	**347**	P	**P**	**13 17 54.6**	**-0.9**
ZAA0				IAmb	IAmb	13 17 56.9	
	comp=Z,6.5nm,0.8s						
ZALV	**Zalesovo Beam**	**62.64**	**347**	P	**P**	**13 17 54.7**	**-0.9**
	comp=Z,5.2nm,0.4s,baz=143,slow=4.0,SNR=30						
	comp=Z,5.2nm,0.4s						
ZALV	**Zalesovo Beam**	**62.64**	**347**	P	**P**	**13 17 54.5**	**-1.1**
BVAR	**Borovoye Array**	**66.12**	**338**	P	**P**	**13 18 18.5**	**+0.1**
	comp=Z,2.7nm,0.4s,baz=144,slow=8.8,SNR=10						
	comp=Z,2.7nm,0.4s						
BORK	**Borovoye**	**66.16**	**338**	P	**P**	**13 18 18.5**	**-0.2**
BORK				IAmb	IAmb	13 18 31.2	
	comp=Z,3.6nm,0.6s						
MAW	**Mawson**	**66.93**	**196**	LR	LR	13 42 05.2	
	comp=Z,146nm,21.6s,baz=73,slow=31						
KMBO	**Kilima Mbogo**	**67.21**	**272**	LR	LR	13 41 58.8	
	comp=Z,61nm,20.5s,baz=98,slow=31						
AB31	**Akbulak array**	**67.87**	**330**	P	**P**	**13 18 29.5**	**-0.1**
ABKAR	**Akbulak array**	**67.87**	**330**	P	**P**	**13 18 29.4**	**-0.2**
AKTO	**Aktyubinsk**	**69.58**	**330**	LR	LR	13 53 28.5	
	comp=Z,120nm,20.4s,baz=46,slow=40						
URZ	**Urewera**	**72.28**	**128**	LR	LR	13 54 49.4	
	comp=Z,112nm,18.1s,baz=270,slow=39						
ARTI	**Arti**	**73.31**	**335**	LR	LR	13 55 31.9	
	comp=Z,87nm,19.5s,baz=128,slow=39						
ARTI	**Arti**	**73.31**	**335**	P	**P**	**13 19 02.4**	**-0.4**
MATP	**Matopo**	**74.54**	**251**	LR	LR	13 49 25.8	
	comp=Z,91nm,18.2s,baz=88,slow=34						
PETK	**Petropavlovsk-**	**74.59**	**30**	P	**P**	**13 19 08.7**	**-1.6**
	comp=Z,1.8nm,0.6s,baz=242,slow=3.1,SNR=1.6						
	comp=Z,1.8nm,0.6s						
PETK	**Petropavlovsk-**	**74.59**	**30**	P	**P**	**13 19 07.9**	**-2.4**
KBZ	**Khabaz**	**74.73**	**319**	P	**P**	**13 19 11.3**	**0.0**
	comp=Z,3.1nm,0.9s,baz=139,slow=7.6,SNR=4.6						
KBZ				LR	LR	13 54 33.8	
	comp=Z,40nm,21.6s,baz=102,slow=38						
	comp=Z,3.1nm,0.9s						
ASF	**Jabal al Asfar**	**74.90**	**306**	LR	LR	13 54 41.5	
	comp=Z,69nm,18.8s,baz=26,slow=38						
LSZ	**Lusaka**	**75.03**	**256**	LR	LR	13 48 11.4	
	comp=Z,108nm,19.3s,baz=142,slow=32						
MA2	**Magadan**	**75.56**	**22**	LR	LR	13 55 46.3	
	comp=Z,40nm,19.0s,baz=258,slow=38						
EIL	**Elat**	**75.76**	**303**	LR	LR	13 50 40.2	
	comp=Z,34nm,21.9s,baz=96,slow=34						
MMAI	**Mount Meron Ar**	**76.36**	**306**	LR	LR	13 55 31.0	
	comp=Z,53nm,19.7s,baz=100,slow=38						
VNDA	**Vanda**	**76.74**	**169**	P	**P**	**13 19 23.4**	**+1.1**
	comp=Z,0.8nm,0.8s,baz=308,slow=6.7,SNR=5.4						
	comp=Z,0.8nm,0.8s						
VNDA	**Vanda**	**76.74**	**169**	P	**P**	**13 19 23.1**	**+0.9**
NRIK	**Noril'sk**	**76.76**	**354**	P	**P**	**13 19 23.1**	**+0.7**
	comp=Z,1.8nm,0.4s,baz=117,slow=5.4,SNR=5.2						
	comp=Z,1.8nm,0.4s						
BRTR	**Keskin Array B**	**79.73**	**312**	P	**P**	**13 19 40.8**	**+1.1**
	comp=Z,2.0nm,0.9s,baz=132,slow=6.8,SNR=17						
	comp=Z,2.0nm,0.9s						
BRTR	**Keskin Array B**	**79.73**	**312**	P	**P**	**13 19 38.9**	**-0.8**
TIXI	**Tiksi**	**79.83**	**8**	LR	LR	14 00 49.0	
	comp=Z,125nm,18.3s,baz=234,slow=40						
SUR	**Sutherland**	**81.08**	**238**	LR	LR	13 50 36.9	
	comp=Z,46nm,21.5s,baz=145,slow=32						
QSPA	**South Pole Qui**	**83.29**	**180**	P	**P**	**13 19 58.8**	**+0.8**
	comp=Z,1.4nm,0.9s,baz=292,slow=2.5,SNR=7.4						
	comp=Z,1.4nm,0.9s						
QSPA	**South Pole Qui**	**83.29**	**180**	P	**P**	**13 19 58.3**	**+0.2**
QSPA				IAmb	IAmb	13 20 38.0	
	comp=Z,7.5nm,1.4s						
TSUM	**Tsumeb**	**84.87**	**251**	LR	LR	13 52 04.8	
	comp=Z,73nm,20.9s,baz=154,slow=31						
AKASG	**Malin Array Be**	**85.88**	**322**	P	**P**	**13 20 10.2**	**-1.0**
	comp=Z,0.2nm,0.3s,baz=85,slow=4.7,SNR=5.2						
	comp=Z,0.2nm,0.3s						
SNAA	**Sanae**	**89.05**	**198**	P	**P**	**13 20 26.9**	**+0.7**
	comp=Z,1.3nm,0.6s,baz=63,slow=7.3,SNR=3.7						
SNAA				LR	LR	13 56 01.0	
	comp=Z,53nm,21.9s,baz=95,slow=33						
	comp=Z,1.3nm,0.6s						
SNAA	**Sanae**	**89.05**	**198**	P	**P**	**13 20 28.3**	**+2.0**
SNAA				IAmb	IAmb	13 20 40.2	
	comp=Z,4.8nm,1.0s						
FINES	**FINESS Array B**	**90.30**	**332**	P	**P**	**13 20 31.3**	**-0.8**
	comp=Z,2.3nm,0.9s,baz=143,slow=4.8,SNR=4.9						
	comp=Z,2.3nm,0.9s						
ARCES	**ARCESS Array B**	**92.37**	**340**	P	**P**	**13 20 41.0**	**-0.5**
	comp=Z,3.0nm,1.1s,baz=82,slow=4.2,SNR=5.4						
	comp=Z,3.0nm,1.1s						
SPITS	**Spitsbergen Ar**	**96.11**	**348**	LR	LR	14 12 32.8	
	comp=Z,73nm,18.1s,baz=98,slow=41						
HFS	**Hagfors**	**96.13**	**330**	LR	LR	14 09 04.7	
	comp=Z,64nm,20.8s,baz=62,slow=38						
PPT2	**Papeete2**	**103.07**	**110**	*e*LR	LR	13 55 09.5	
	comp=Z,92nm,24.2s						
PPT2				*e*LR	LR	13 55 15.0	
	comp=Z,116nm,31.0s						
NVAR	**Mina Array Bea**	**130.14**	**44**	PKP	**PKiKP**	**13 26 43.3**	**+0.3**
	comp=Z,0.2nm,0.6s,baz=265,slow=2.7,SNR=1.5						
BDFB	**Brasilia**	**144.82**	**231**	PKPbc	**PKPdf**	**13 27 10.3**	**+0.6**
	comp=Z,2.6nm,0.4s,baz=207,slow=2.3,SNR=3.3						
TXAR	**Lajitas Array**	**145.24**	**46**	PKP	**PKPdf**	**13 27 10.3**	**+0.3**
	comp=Z,2.2nm,0.6s,baz=273,slow=1.2,SNR=36						

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*DJA **12** 13:12:16.2±0.5,2°N±4°×12°8E±°,h15^{km}±4^{km},M4.4/16, mB4.8/4,mb4.7/12,MLv4.3/16,Mw(mB)4.1/4*

*IDC **12** 13:12:18.1±4.8,1°.82N×128°.55E,h70^{km}±47^{km},mb3.5/11, mbtmp3.9/13,ML3.8/2,Error ellipse: s-maj=36.2km s-min=15.1km az=71.0*

ISC 12 13:12:17.1±0.7,**1°.74N**±0°.07×**128°.47E**±0°.09,**h50**^{km},**n30**, σ**1^s.96**/26,**mb3.8**/11,**Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TNTI	**Ternate**	**1.46**	**229**	P	**Pn**	**13 12 41.0**	**-0.1**
MNI	**Manado**	**3.64**	**265**	P	**Pn**	**13 13 13.9**	**+3.0**
MNI				AML	AML		
SWI	**Sorong**	**3.81**	**133**	P	**Pn**	**13 13 13.4**	**+0.1**
SWI				AML	AML		
DDMP	**Don Marcelino,**	**5.13**	**328**	*e*P	**Pn**	**13 13 32.9**	**+1.4**
DDMP				*e*S	**Sn**	**13 14 29.0**	**-0.4**
GTOI	**Gorontalo**	**5.56**	**259**	P	**Pn**	**13 13 40.3**	**+2.9**
	0.2nm555nm40nm,0.6s						
GTOI				AML	AML		
FAKI	**Fak Fak**	**5.98**	**141**	P	**Pn**	**13 13 43.0**	**-0.1**
	0.2nm44nm,1.1s						
FAKI				AML	AML		
MWPI	**Manokwari, Pap**	**6.17**	**115**	P	**Pn**	**13 13 48.2**	**+2.4**
	0.4nm31nm,0.5s						
MWPI				AML	AML		
BIPH	**Bislig**	**6.73**	**342**	*i* P	**Pn**	**13 13 58.2**	**+4.7**
BIPH				*i* S	Sn	13 14 59.5	-9.4
APSI	**Ampana**	**7.31**	**249**	P	**Pn**	**13 14 02.3**	**+1.0**
	52nm,0.7s						
BAKI	**Biak**	**8.18**	**111**	P	**Pn**	**13 14 16.2**	**+2.9**
	41nm,0.9s						
SPSI	**Sidrap Palu**	**10.38**	**237**	P	**Pn**	**13 14 44.9**	**+1.5**
KAPI	**Kappang**	**10.99**	**232**	P	**Pn**	**13 14 53.9**	**+2.1**
	2.2nm,0.3s,baz=80,slow=16,SNR=4.5						
	6.6nm,0.4s						
KAPI				AML	AML		
FITZ	**Fitzroy Crossi**	**19.91**	**188**	P	**P**	**13 16 44.3**	**-0.4**
	0.1nm,0.3s,baz=13,slow=14,SNR=1.5						
	1.5nm,0.7s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**22.31**	**165**	P	**P**	**13 17 11.6**	**+1.0**
	1.3nm,0.6s,baz=346,slow=9.9,SNR=5.7						
	1.3nm,0.6s						
ASAR	**Alice Springs**	**25.80**	**168**	P	**P**	**13 17 42.6**	**-1.1**
	0.6nm,0.7s,baz=360,slow=8.6,SNR=6.4						
ASAR				PcP	**PcP**	**13 21 11.8**	**-0.7**
	0.3nm,0.8s,baz=12,slow=2.9,SNR=2.0						
	0.6nm,0.7s						
CMAR	**Chiang Mai Arr**	**33.38**	**302**	P	**P**	**13 18 51.1**	**+0.1**
	0.5nm,0.4s,baz=115,slow=9.1,SNR=4.7						
	0.5nm,0.4s						
KSRS	**Korea Array**	**35.54**	**359**	P	**P**	**13 19 09.2**	**-0.2**
	1.0nm,0.7s,baz=170,slow=9.3,SNR=4.2						
	1.0nm,0.7s						
STKA	**Stephens Creek**	**35.68**	**161**	P	**P**	**13 19 10.0**	**-0.8**
	1.2nm,0.5s,baz=326,slow=11,SNR=2.1						
	1.2nm,0.5s						

MJAR	Matsushiro Arr	35.78	13	P	P	13 19 08.8	-2.8
	1.4nm,0.7s,baz=182,slow=9.0,SNR=5.3						
	1.4nm,0.7s						
H11S3	WAKE ISLAND Hy	41.00	64	T	T	14 04 27.5	
	baz=250,slow=75,SNR=5.7						
H11S2	WAKE ISLAND Hy	41.01	64	T	T	14 04 14.3	
	baz=250,slow=75,SNR=8.0						
H11S1	WAKE ISLAND Hy	41.02	63	T	T	14 04 13.4	
	baz=250,slow=75,SNR=5.6						
H11N1	WAKE ISLAND Hy	41.60	62	T	T	14 04 22.8	
	baz=243,slow=75						
H11N2	WAKE ISLAND Hy	41.61	62	T	T	14 04 28.0	
	baz=243						
H11N3	WAKE ISLAND Hy	41.61	62	T	T	14 04 27.8	
	baz=243,slow=75						
SONM	Songino Array	49.73	341	P	P	13 21 03.1	-1.4
	0.5nm,0.5s,baz=155,slow=7.9,SNR=1.9						
	0.5nm,0.5s						
MKAR	Makanchi Array	60.17	325	P	P	13 22 18.4	-1.5
	1.0nm,0.4s,baz=114,slow=7.8,SNR=16						
	1.0nm,0.4s						
ZALV	Zalesovo Beam	63.13	333	P	P	13 22 37.9	-1.7
	0.3nm,0.3s,baz=116,slow=8.8,SNR=1.9						
	0.3nm,0.3s						
KURBB	Kurchatov Arra	64.34	327	P	P	13 22 45.5	-2.0
	1.2nm,0.6s,baz=126,slow=6.1,SNR=9.9						
	1.2nm,0.6s						
BVAR	Borovoye Array	69.92	327	P	P	13 23 21.7	-1.3
	0.3nm,0.3s,baz=134,slow=6.2,SNR=1.6						
	0.3nm,0.3s						

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*MAN **12** 13:33:24.0, 11°.76N×125°.98E, h5km, MS3.2*
*IDC **12** 13:33:26.4±3.2, 11°.02N×124°.47E, h0km, mb3.4/4, mbtmp3.4/4, Error ellipse: s-maj=308.0km s-min=24.7km az=65.0*
ISC 12 13:33:26.7±1.7**, 11°.58N**±0°.05×**125°.83E**±0°.05**, h13**km±10km**, n18, σ2s.15**/30**, mb3.5**/4**, Samar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLP	Palo	0.93	244	eP	Pg	13 33 44.5	-0.3
PLP				eS	Sg	13 33 55.8	-1.2
GLSP	General Luna,	1.81	171	eP	Pn	13 33 57.8	+0.2
GLSP				eS	Sg	13 34 30.4	+5.3
MECP	Medelin, Cebu	1.87	257	eP	Pb	13 34 00.7	-0.1
MECP				eS	Sg	13 34 26.7	-0.3
LLP	Lapu-Lapu	2.22	236	eP	Pb	13 34 05.7	-1.0
LLP				i S	Sg	13 34 38.8	+0.6
MMPH	Masbate	2.29	290	eP	Pb	13 34 05.8	-2.2
MMPH				eS	Sn	13 34 22.4	-10
TBP	Tagbilaran	2.70	226	eP	Pb	13 34 13.0	-1.9
TBP				eS	Sg	13 34 53.8	+0.3
LSIP	Lazi, Siquijor	3.26	222	eP	Pn	13 34 20.3	+2.8
LSIP				eS	Sn	13 34 53.3	-2.9
CGP	Cagayan de Oro	3.30	200	eP	Pn	13 34 19.8	+1.6
CGP				eS	Sb	13 35 03.5	-1.9
GUIM	Jordan	3.32	254	eP	Pn	13 34 19.9	+1.5
GUIM				i S	Sn	13 34 59.4	+1.6
BIPH	Bislig	3.42	171	eP	Pg	13 34 31.0	-1.3
BIPH				eS	Sn	13 34 59.8	-0.4
BUKP	Musuan	3.76	192	i P	Pb	13 34 34.9	+1.9
BUKP				i S	Sb	13 35 16.8	-1.7
CDOP	Cateel, Davao	3.82	171	i P	Pb	13 34 32.1	-2.0
CDOP				eS	Sn	13 35 08.9	-1.3
DCPH	Dipolog City	3.85	220	i P	Pn	13 34 28.6	+2.9
DCPH				i S	Sn	13 35 14.6	+3.7
LQP	Lukban	4.88	301	eP	Pn	13 34 43.9	+3.9
WRA	Warramunga Arr	32.43	165	P	P	13 39 56.5	-0.2
	0.5nm,1.0s,baz=342,slow=8.1,SNR=2.0						
	0.5nm,1.0s						
ASAR	Alice Springs	35.91	167	P	P	13 40 26.9	0.0
	0.1nm,0.5s,baz=348,slow=8.4,SNR=5.7						
	0.1nm,0.5s						
MKAR	Makanchi Array	50.73	322	P	P	13 42 25.0	-1.3
	0.4nm,0.7s,baz=106,slow=9.2,SNR=2.6						
	0.4nm,0.7s						
KURBB	Kurchatov Arra	54.75	325	P	P	13 42 55.8	-0.2
	0.4nm,0.3s,baz=122,slow=7.1,SNR=3.0						
	0.4nm,0.3s						

NOU 12 13:36:34.5, 17°.09S×167°.76E, h3km, ML4.2/16**, Vanuatu Islands, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTV	Rentapao	0.94	138	P	Pb	13 36 53.1	-0.4
RTV	Rentapao	0.94	138	S	Sb	13 37 06.2	-0.2
SANVU	Saraoutou	1.72	342	P	Pn	13 37 05.1	-0.2
YATNC	Mamie plateau,	5.01	189	P	Pn	13 37 49.5	-1.1
NOUC	Port Laguerre	5.17	195	P	Pn	13 37 52.9	+0.1
ONTNC	Ouen Toro	5.33	193	P	Pn	13 37 56.4	+1.3
OUENC	Ouen Island, N	5.37	189	P	Pn	13 37 56.5	+0.9

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*IDC **12** 13:38:09.8±1.9, 0°.62N×124°.23E, h151km±17km, mb4.1/9, mbtmp4.6/11, Error ellipse: s-maj=24.4km s-min=11.4km az=91.0*
*NEIC **12** 13:38:09.8±1.6, 0°.55N±0°.05×124°.29E±0°.08, h140km±7km, mb4.5/22, Error ellipse: s-maj=12.4km s-min=4.6km az=116.0*
*DJA **12** 13:38:09.3±0.2, 1°N±3°×12°4E±°, h153km±2km, M4.6/41, mb4.7/28, mB5.1/14, MLv4.8/41, Mw(mB)4.4/14*
ISC 12 13:38:10.6±0.4**, 0°.48N**±0°.04×**124°.37E**±0°.04**, h150**km**, n119, σ1s.31**/127**, mb4.4**/22**, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MNI	Manado	1.07	26	P	Pn	13 38 35.1	-0.9
MNI				S	Sn	13 38 54.8	-0.7
GTOI	Gorontalo	1.37	277	P	Pn	13 38 38.6	-0.2
GTOI				S	Sn	13 38 59.1	-1.2
LUWI	Luwuk	2.20	227	P	Pn	13 38 46.9	-1.2
LUWI	Luwuk	2.20	227		Pn	13 38 46.6	-1.5
LUWI	Luwuk	2.20	227	P	Pn	13 38 46.6	-1.5
LUWI				AML	AML		
SANI	Sanana	2.99	147	P	Pn	13 38 56.8	-1.1
SANI	Sanana	2.99	147	S	Sn	13 39 31.1	-3.3
SANI	Sanana	2.99	147	P	Pn	13 38 56.7	-1.1
SANI				AML	AML		
TNTI	Ternate	3.01	84	P	Pn	13 38 57.6	-0.5
TNTI	Ternate	3.01	84	S	Sn	13 39 34.5	-0.4
TNTI	Ternate	3.01	84		Pn	13 38 57.7	-0.4
TNTI	Ternate	3.01	84	P	Pn	13 38 57.7	-0.4
TNTI				S	Sn	13 39 34.1	-0.8
TNTI				AML	AML		
APSI	Ampana	3.05	243	P	Pn	13 38 57.2	-1.4
APSI				AML	AML		
TOLI2	Tolitoli	3.64	280	P	Pn	13 39 04.5	-1.7
TOLI2	Tolitoli	3.64	280	S	Sn	13 39 49.0	-0.4
TOLI2	Tolitoli	3.64	280		Pn	13 39 03.9	-2.3
NLAI	Namlea	4.59	144	P	Pn	13 39 19.5	+0.8
PCI	Palu	4.74	253	P	Pn	13 39 19.2	-1.4
PCI				AML	AML		
KDI	Kendari	4.74	202	P	Pn	13 39 21.6	+1.0
KDI				AML	AML		
KKSI	Kolaka, Sulawe	5.36	210	P	Pn	13 39 28.9	+0.1
	0.6nm157nm,0.8s						
KKSI				AML	AML		
DDMP	Don Marcelino,	5.75	13	eP	Pn	13 39 33.3	-0.7
DDMP				eS	Sn	13 40 39.6	+0.3
BBSI	Bau Bau	6.19	197	P	Pn	13 39 41.5	+1.6
	0.5nm48nm,1.1s						
BBSI				AML	AML		
MMSI	Mamuju	6.30	240	P	Pn	13 39 40.9	-0.5
	0.3nm746nm78nm,0.7s						
MMSI				AML	AML		
SPSI	Sidrap Palu	6.37	226	P	Pn	13 39 41.7	-0.6
	0.3nm5µm78nm,0.7s						
SPSI				AML	AML		
SWI	Sorong	7.02	101	P	Pn	13 39 52.1	+1.1
SWI				AML	AML		
KAPI	Kappang	7.14	220	P	Pn	13 39 52.7	+0.1
	29nm,0.4s,baz=328,slow=2.3,SNR=12						
KAPI				S	Sn	13 41 11.6	-1.1
	8.5nm,0.5s,baz=108,slow=19,SNR=1.3						
KAPI	Kappang	7.14	220	P	Pn	13 39 53.4	+0.8
KAPI	Kappang	7.14	220	S	Sn	13 41 10.1	-2.6
KAPI	Kappang	7.14	220		Pn	13 39 50.5	-2.2
KAPI	Kappang	7.14	220	P	Pn	13 39 53.5	+0.8
	0.1nm20nm,0.5s						
KAPI				AML	AML		
MKS	Makassar	7.48	221	P	Pn	13 39 55.5	-1.6
	0.4nm83nm,0.9s						
MKS				AML	AML		
MYLDM	Lahad Datu	7.49	309	P	Pn	13 39 59.5	+2.2
MYLDM	Lahad Datu	7.49	309		Pn	13 39 56.3	-1.0
MYLDM	Lahad Datu	7.49	309	P	Pn	13 39 56.8	-0.5
	0.2nm753nm42nm,0.8s						
MYLDM				AML	AML		
BSSI	Bau Bau, Buton	7.63	210	P	Pn	13 39 59.0	-0.2
	2µm174nm,0.6s						
BIPH	Bislig	7.91	14	eP	Pn	13 40 01.5	-1.3
BIPH				eS		13 40 20.6	
FAKI	Fak Fak	8.57	113	P	Pn	13 40 10.9	-0.8
FAKI	Fak Fak	8.57	113	S	Sn	13 41 46.1	-0.9
FAKI	Fak Fak	8.57	113	Pn	Pn	13 40 11.8	+0.1
FAKI	Fak Fak	8.57	113	P	Pn	13 40 12.7	+1.0
	43nm,1.3s						
GLSP	General Luna,	9.41	11	eP	Pn	13 40 22.0	-0.8
EDFI	Ende, Flores	9.55	196	P	Pn	13 40 24.5	-0.3
	10nm,0.6s						
KKM	Kota Kinabalu	9.84	304	P	Pn	13 40 30.9	+2.2
KKM	Kota Kinabalu	9.84	304		Pn	13 40 25.6	-3.1
KKM	Kota Kinabalu	9.84	304	P	Pn	13 40 28.8	+0.1
	22nm,0.7s						
SOEI	Soe	10.17	181		Pn	13 40 32.1	-0.9
SOEI	Soe	10.17	181	P	Pn	13 40 36.9	+3.9
	30nm,0.7s						
PBKI	Pangkalan Bun	13.08	256	P	Pn	13 41 03.2	-7.8
LQP	Lukban	13.83	348	eP	Pn	13 41 20.4	-0.4
DRS	Darwin Rock St	14.37	153	P	Pn	13 41 27.2	-0.1
MTN	Manton Dam	14.84	153		Pn	13 41 33.5	+0.4
CAAP	Casiguran, Aur	15.80	352	eP	Pn	13 41 43.4	-1.6
KNRA	Kununurra	16.63	165		P	13 41 54.8	-0.1
KNRA				IAmb	IAmb	13 41 58.4	
	comp=Z,40nm,0.6s						
FITZ	Fitzroy Crossi	18.50	176	P	P	13 42 15.8	+0.3
	comp=Z,37nm,0.7s,baz=12,slow=9.3,SNR=83						
FITZ	Fitzroy Crossi	18.50	176	P	P	13 42 15.5	+0.1
FITZ	Fitzroy Crossi	18.50	176	P	P	13 42 16.2	+0.7
MBWA	Marble Bar	21.98	192	P	P	13 42 52.2	-0.5
MBWA	Marble Bar	21.98	192	P	P	13 42 52.1	-0.6
MBWA				IAmb	IAmb	13 42 52.9	
	comp=Z,16nm,1.1s						
WB0	Warramunga Arr	22.39	155	P	P	13 42 56.9	+0.1
WRAB	Tennant Creek	22.52	155	P	P	13 42 58.0	-0.1
WRAB	Tennant Creek	22.52	155	P	P	13 42 58.4	+0.3
WRA	Warramunga Arr	22.52	155	P	P	13 42 57.5	-0.6
	comp=Z,48nm,0.5s,baz=334,slow=10,SNR=364						
WRA				ScP	ScP	13 50 08.2	-2.3
	comp=Z,0.2nm,0.5s,baz=337,slow=2.9,SNR=1.9						
	comp=Z,48nm,0.5s						
WRA	Warramunga Arr	22.52	155	P	P	13 42 56.9	-1.2
WR8	Warramunga Arr	22.60	155	P	P	13 42 59.0	+0.1
NACB	Ninganchiao	23.71	354	S	SKiKP	13 57 51.1	+1.1
GUMO	Guam	24.12	56	P	P	13 43 13.5	+0.8
PSI	Prapat	25.54	275	P	P	13 43 27.2	+1.4
QIS	Mount Isa	25.68	145	P	P	13 43 28.3	+1.4
AS31	Alice Springs	25.73	160	P	P	13 43 28.3	+1.0
AS31				IAmb	IAmb	13 43 36.2	
	comp=Z,4.6nm,0.5s						
ASAR	Alice Springs	25.73	160	P	P	13 43 27.9	+0.7
	comp=Z,5.6nm,0.3s,baz=342,slow=7.9,SNR=82						
ASAR				PcP	PcP	13 46 53.4	-0.3
	comp=Z,1.3nm,0.3s,baz=351,slow=2.1,SNR=6.3						
ASAR				ScP	ScP	13 50 17.5	-1.8
	comp=Z,0.3nm,0.8s,baz=340,slow=2.8,SNR=4.3						
	comp=Z,5.6nm,0.3s						
ASAR	Alice Springs	25.73	160	P	P	13 43 28.4	+1.1
ASAR				PcP	PcP	13 46 53.5	-0.1
ASAR				ScP	ScP	13 50 17.7	-1.6
AS01	Alice Springs	25.74	159	P	P	13 43 27.8	+0.4
MEEK	Meekatharra	27.52	191	P	P	13 43 42.9	-0.4
LHMI	Lhok Sumawe	27.78	280	P	P	13 43 47.9	+2.1
MORW	Morawa	30.44	194	P	P	13 44 08.7	-0.4
MORW	Morawa	30.44	194	P	P	13 44 09.0	-0.1
MORW				IAmb	IAmb	13 44 09.4	
	comp=Z,16nm,1.1s						
FORT	Forrest	31.28	174	P	P	13 44 17.0	+0.5
BLDU	Ballidu	31.77	193	P	P	13 44 20.1	-0.6
NJ2	Nanjing	31.83	351	eP	P	13 44 23.2	+1.9
NJ2				pmax	pmax		
	comp=Z,8.0nm,0.6s						
INKA	Innaminka	32.16	152		P	13 44 25.4	+1.2
INKA				IAmb	IAmb	13 44 26.6	
	comp=Z,6.4nm,0.6s						
KLBR	Kellerberrin	32.51	191	P	P	13 44 27.1	-0.1
QLP	Quilpie	33.02	146	P	P	13 44 32.5	+0.8
PZH	PanZhiHua	33.82	322	P	P	13 44 40.3	+1.5
NWAO	Narrogin (SRO)	33.90	191	P	P	13 44 40.2	+0.9
NWAO	Narrogin (SRO)	33.90	191	P	P	13 44 39.6	+0.3
NWAO				IAmb	IAmb	13 45 19.0	
	comp=Z,18nm,1.2s						
BBOO	Buckleboo	34.90	163	P	P	13 44 48.5	+0.6
BBOO	Buckleboo	34.90	163	P	P	13 44 48.3	+0.4
BBOO				IAmb	IAmb	13 44 49.7	
	comp=Z,15nm,1.0s						
STKA	Stephens Creek	36.08	155	P	P	13 44 59.0	+1.0
	comp=Z,8.7nm,0.4s,baz=326,slow=8.7,SNR=46						
	comp=Z,8.7nm,0.4s						
STKA	Stephens Creek	36.08	155	P	P	13 44 59.3	+1.3
HTT	Hallett	36.40	159	P	P	13 45 01.6	+0.8
CMSA	Cobar Meteorol	37.71	149	P	P	13 45 13.6	+1.8
MJAR	Matsushiro Arr	38.11	18	P	P	13 45 12.5	-2.6
	comp=Z,4.2nm,0.9s,baz=188,slow=8.6,SNR=9.7						
	comp=Z,4.2nm,0.9s						
MJAR	Matsushiro Arr	38.11	18	P	P	13 45 11.8	-3.2
MJAR				IAmb	IAmb	13 45 22.3	
	comp=Z,4.7nm,1.4s						
ARMA	Armidale	40.21	142	P	P	13 45 34.9	+2.2
HHC	Hu-ho-hao-te	41.83	345	eP	P	13 45 47.8	+2.0
HHC				pmax	pmax		
	comp=Z,14nm,0.6s						
MGCD	Mangrove Creek	41.91	146	P	P	13 45 48.9	+2.4
USRK	Ussuriysk Ar.	44.06	8	P	P	13 46 01.6	-1.9
	comp=Z,1.4nm,0.5s,baz=185,slow=7.0,SNR=4.9						
	comp=Z,1.4nm,0.5s						
USRK	Ussuriysk Ar.	44.06	8	P	P	13 46 01.2	-2.3
WMQ	Urumqi	54.11	328	eP	P	13 47 21.9	+1.8
KSH2	Kashi	58.84	317	P	P	13 47 57.5	+3.7
KSH2				pmax	pmax		
	comp=Z,3.0nm,1.8s						
MKAR	Makanchi Array	58.94	327	P	P	13 47 51.7	-2.5
	comp=Z,0.4nm,0.3s,baz=117,slow=8.8,SNR=5.9						
PETK	Petropavlovsk-	59.32	23	P	P	13 47 55.5	-1.1
	comp=Z,4.6nm,0.9s,baz=221,slow=2.5,SNR=6.7						
	comp=Z,4.6nm,0.9s						
PETK	Petropavlovsk-	59.32	23	P	P	13 47 56.2	-0.4
JCZ	Jackson Bay	59.40	144	P	P	13 47 58.1	+0.7
KHZ	Kahutara	61.41	140	P	P	13 48 11.8	+0.8
BKZ	Black Stump Fm	61.83	136	P	P	13 48 14.7	+0.7
MAW	Mawson	79.91	200	P	P	13 50 02.3	-0.1
	comp=Z,1.7nm,0.6s,baz=84,slow=6.2,SNR=8.3						
	comp=Z,1.7nm,0.6s						
MAW	Mawson	79.91	200	P	P	13 50 01.4	-1.0
VNDA	Vanda	80.53	172	P	P	13 50 05.6	0.0
	comp=Z,1.7nm,0.6s,baz=316,slow=6.7,SNR=18						
	comp=Z,1.7nm,0.6s						
VNDA	Vanda	80.53	172	P	P	13 50 06.0	+0.4
SDPT	Sand Point	81.19	34	P	P	13 50 08.8	-0.7
SDPT				IAmb	IAmb	13 50 15.3	
	comp=Z,29nm,1.3s						
SBA	Scott Base	81.47	172	P	P	13 50 12.0	+1.5
M14K	Bethel	81.65	28	P	P	13 50 12.2	+0.5
M14K				IAmb	IAmb	13 50 35.1	
	comp=Z,7.0nm,1.2s						
J16K	Anvik River	82.87	26	P	P	13 50 19.2	+1.1
J16K				IAmb	IAmb	13 50 40.2	
	comp=Z,8.7nm,1.4s						
IMAR	Indian Mountai	86.25	24	P	P	13 50 34.7	-0.4
BMAR	Burnt Mountain	89.97	23	P	P	13 50 52.5	-0.2
QSPA	South Pole Qui	90.41	180	P	P	13 50 55.0	+0.1
	comp=Z,1.8nm,0.5s,baz=291,slow=1.3,SNR=34						
	comp=Z,1.8nm,0.5s						
QSPA	South Pole Qui	90.41	180	P	P	13 50 54.9	+0.1
QSPA				IAmb	IAmb	13 51 17.8	
	comp=Z,6.4nm,1.4s						
TORD	Torodi Ar. Bea	121.60	286	PKP	PKPdf	13 56 45.0	-2.5
	comp=Z,0.5nm,0.6s,baz=82,slow=2.4,SNR=3.0						

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*IDC **12** 13:48:40.5±1.9, 14°.32S×170°.20E, h621km±18km, mb3.2/5, mbtmp4.2/7, Error ellipse: s-maj=31.7km s-min=21.0km az=7.0*
*NOU **12** 13:49:57.9, 19°.33S×167°.65E, h0km, MLv3.5/6, Vanuatu Islands Region*
ISC 12 13:48:38.7±1.1**, 14°.0S**±0°.2×**170°.1E**±0°.1**, h600**km**, n14, σ1s.25**/17**, mb4.1**/5**, Vanuatu Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MARNC	Mare, Loyalty	7.72	195	P	P	13 50 35.3	0.0
MSVF	Nonsavu	8.48	117	P	P	13 50 43.8	+1.1
	8.3nm,0.5s,baz=273,slow=16,SNR=10						
YATNC	Mamie plateau,	8.60	201	P	P	13 50 44.2	+0.5
DZM	Mont Dzumac	8.78	203	P	P	13 50 46.1	+0.6
	5.4nm,0.4s,baz=36,slow=19,SNR=16						
NOUC	Port Laguerre	8.86	204	P	P	13 50 47.5	+1.3
OUENC	Ouen Island, N	8.95	200	P	P	13 50 48.4	+1.3
ONTNC	Ouen Toro	8.99	202	P	P	13 50 48.7	+1.3
STKA	Stephens Creek	31.60	231	P	P	13 54 14.3	+0.2
	2.2nm,0.5s,baz=60,slow=8.8,SNR=5.9						
	2.2nm,0.5s						
WRA	Warramunga Arr	34.70	255	P	P	13 54 40.0	-0.3
	3.5nm,0.6s,baz=80,slow=7.2,SNR=80						
WRA				PcP	PcP	13 56 56.0	-0.7
	0.2nm,0.5s,baz=86,slow=3.9,SNR=2.3						
WRA				ScP	ScP	13 59 44.3	-1.6
	0.4nm,1.0s,baz=88,slow=3.6,SNR=2.5						
	3.5nm,0.6s						
ASAR	Alice Springs	35.53	249	P	P	13 54 47.1	-0.1
	5.4nm,0.6s,baz=73,slow=9.9,SNR=173						
ASAR				PcP	PcP	13 56 58.5	-0.7
	0.5nm,0.6s,baz=77,slow=2.5,SNR=4.5						
ASAR				ScP	ScP	13 59 47.5	-1.5
	0.5nm,0.7s,baz=102,slow=4.0,SNR=8.3						
	5.4nm,0.6s						
SSLB	Suanglung	60.99	308	P	P	13 57 43.7	-12
QSPA	South Pole Qui	76.04	180	P	P	13 59 23.3	-2.1
	0.6nm,0.6s,baz=90,slow=1.0,SNR=7.5						
	0.6nm,0.6s						
CMAR	Chiang Mai Arr	77.21	293	P	P	13 59 34.5	+2.0
	1.0nm,0.7s,baz=130,slow=4.3,SNR=8.8						
	1.0nm,0.7s						
ARCES	ARCESS Array B	120.21	346	PKP	PKPdf	14 06 21.0	-0.9
	0.4nm,0.4s,baz=64,slow=2.8,SNR=5.6						

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*IDC **12** 13:49:45.2±0.9, 45°.66N×27°.94W, h0km, mb3.7/11, mbtmp3.7/12, ML3.8/1, MS3.5/24, Error ellipse: s-maj=28.9km s-min=20.1km az=8.0*
ISC 12 13:49:47.0±0.9**, 45°.6N**±0°.2×**28°.0W**±0°.1**, h14**km**, n34, σ0s.59**/15**, mb3.8**/10**, MS3.5**/23**, Northern Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ESDC	Sonseca Array	18.59	100	P	Pn	13 54 04.7	+0.8
	0.1nm,0.3s,baz=294,slow=12,SNR=2.0						
ESDC				LR	LR	14 00 18.5	
	comp=Z,92nm,18.1s,baz=276,slow=34						
	0.4nm,0.6s						
ESDC				AML	AML		
MDT	Midelt	22.04	117	LR	LR	14 01 20.6	
	comp=Z,56nm,19.5s,baz=20,slow=32						
DAVOX	Davos/Dischmat	26.07	74	LR	LR	14 04 42.4	
	comp=Z,114nm,18.6s,baz=80,slow=34						
SCHQ	Schefferville	26.24	305	LR	LR	14 03 39.5	
	comp=Z,92nm,20.6s,baz=106,slow=32						
VAE	Valguarnera	32.42	89	LR	LR	14 08 37.2	
	comp=Z,75nm,19.3s,baz=322,slow=35						
SADO	Sadowa	35.59	288	LR	LR	14 10 38.0	
	comp=Z,79nm,19.9s,baz=68,slow=35						
MLR	Muntele Rosu	37.15	70	LR	LR	14 12 19.7	
	comp=Z,93nm,19.8s,baz=360,slow=36						
AKASG	Malin Array Be	37.68	61	P	P	13 57 00.8	-0.7
	1.2nm,0.8s,baz=284,slow=9.1,SNR=2.1						
AKASG				LR	LR	14 11 37.5	
	comp=Z,72nm,19.6s,baz=350,slow=35						
	1.2nm,0.8s						
TORD	Torodi Ar. Bea	40.94	133	P	P	13 57 29.0	-0.1
	1.0nm,0.6s,baz=330,slow=7.7,SNR=6.9						
	1.0nm,0.6s						
SJG	San Juan	41.85	242	LR	LR	14 13 56.5	
	comp=Z,31nm,18.3s,baz=68,slow=35						
TKL	Tuckaleechee C	42.74	277	LR	LR	14 13 39.1	
	comp=Z,18nm,19.2s,baz=8.0,slow=34						
DBIC	Dimbokro	43.63	146	LR	LR	14 13 23.0	
	comp=Z,76nm,20.2s,baz=128,slow=32						
ULM	Lac du Bonnet	44.33	302	LR	LR	14 14 48.4	
	comp=Z,78nm,18.8s,baz=16,slow=34						
BRTR	Keskin Array B	44.70	75	P	P	13 58 00.1	+0.4
	1.8nm,0.8s,baz=275,slow=6.1,SNR=6.9						
	1.8nm,0.8s						
MDP	Montagnes des	45.69	216	LR	LR	14 11 51.0	
	comp=Z,63nm,20.8s,baz=24,slow=29						
GNI	Garni	51.88	68	LR	LR	14 21 54.2	
	comp=Z,23nm,20.5s,baz=333,slow=37						
AKTO	Aktyubinsk	54.63	51	LR	LR	14 22 11.4	
	comp=Z,49nm,18.4s,baz=162,slow=36						
PDAR	Pinedale Array	56.14	299	P	P	13 59 26.9	+0.6
	0.3nm,0.3s,baz=47,slow=12,SNR=1.9						
PDAR				LR	LR	14 22 19.4	
	comp=Z,52nm,18.1s,baz=348,slow=35						
	0.3nm,0.3s						
ROSC	El Rosal	57.14	239	LR	LR	14 21 05.7	
	comp=Z,36nm,20.6s,baz=278,slow=33						
NEW	Newport	57.56	308	LR	LR	14 21 37.9	
	comp=Z,68nm,19.5s,baz=350,slow=33						
BVAR	Borovoye Array	59.62	44	P	P	13 59 50.2	0.0
	0.8nm,0.5s,baz=336,slow=3.3,SNR=4.1						
	0.8nm,0.5s						
TXAR	Lajitas Array	60.11	283	P	P	13 59 54.5	+0.5
	0.7nm,1.0s,baz=61,slow=7.8,SNR=5.9						
	0.7nm,1.0s						
ILAR	Eielson Array	60.16	334	P	P	13 59 53.0	-0.7
	0.1nm,0.3s,baz=20,slow=5.4,SNR=4.2						
	0.1nm,0.3s						
CMIG	Matias Romero	61.89	266	LR	LR	14 25 28.5	
	comp=Z,30nm,19.5s,baz=4.0,slow=35						
KURBB	Kurchatov Arra	65.05	42	P	P	14 00 26.8	+0.2
	1.0nm,0.8s,baz=315,slow=6.5,SNR=7.2						
	1.0nm,0.8s						
ZALV	Zalesovo Beam	65.58	37	P	P	14 00 30.0	+0.1
	0.4nm,0.6s,baz=328,slow=10,SNR=1.8						
ZALV				LR	LR	14 28 33.2	
	comp=Z,24nm,19.7s,baz=13,slow=36						
	0.4nm,0.6s						
LPIG	La Paz	68.00	282	LR	LR	14 30 33.8	
	comp=Z,49nm,18.3s,baz=24,slow=36						
AAK	Ala-Archa	68.37	51	LR	LR	14 30 45.8	
	comp=Z,49nm,19.2s,baz=253,slow=36						
MKAR	Makanchi Array	69.50	43	P	P	14 00 55.0	+0.1
	0.3nm,0.4s,baz=338,slow=6.0,SNR=1.7						
MKAR				LR	LR	14 29 44.5	
	comp=Z,24nm,18.6s,baz=321,slow=35						
	0.3nm,0.4s						
KMBO	Kilima Mbogo	73.71	109	LR	LR	14 36 05.0	
	comp=Z,28nm,18.1s,baz=101,slow=38						
SONM	Songino Array	78.74	29	P	P	14 01 49.4	+0.4
	0.3nm,0.4s,baz=335,slow=6.4,SNR=2.1						
	0.3nm,0.4s						
VNDA	Vanda	147.71	184	PKPbc	PKiKP	14 09 30.5	-1.1
	1.6nm,1.0s,baz=247,slow=5.5,SNR=6.7						
WRA	Warramunga Arr	150.55	36	PKPbc	PKPbc	14 09 38.2	-0.3
	0.5nm,0.6s,baz=317,slow=2.5,SNR=2.9						
ASAR	Alice Springs	153.65	40	PKPbc	PKiKP	14 09 45.1	-0.5
	0.5nm,0.7s,baz=335,slow=3.0,SNR=3.5						

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*NOU **12** 13:53:18.4, 36°.33S×177°.87E, h234km, MLv4.1/20, Off E. Coast of N. Island, N.Z.*
*WEL **12** 13:53:19.7±1.0, 36°S±10°×17°8E±°, h214km±9km, M3.8/30, ML3.7/24, MLv3.8/30, Error ellipse: s-maj=15.1km s-min=8.3km az=40.4, confirmed*
*IDC **12** 13:53:21.2±2.4, 36°.34S×177°.45E, h228km±12km, mb3.5/5, mbtmp4.0/6, Error ellipse: s-maj=37.9km s-min=16.5km az=46.0*
ISC 12 13:53:21.3±0.8**, 36°.44S**±0°.05×**177°.77E**±0°.05**, h236**km±4km**, n133, σ1s.36**/130**, mb4.1**/7**, 2C, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WIZ	White Island	1.18	203	P	Pn	13 53 55.1	-0.7
WIZ				AML	AML		
MXZ	Matakaoa Point	1.21	159	P	Pn	13 53 53.7	-2.3
MXZ	Matakaoa Point	1.21	159	S	Sn	13 54 20.2	-3.1
MXZ	Matakaoa Point	1.21	159	P	Pn	13 53 53.8	-2.2
MXZ				S	Sn	13 54 20.8	-2.5
MXZ				AML	AML		
MXZ				AML	AML		

HAZ	**Te Kaha**	**1.32**	**180**	P	**Pn**	**13 53 55.1**	**-1.6**
HAZ				S	**Sn**	**13 54 23.1**	**-1.6**
HAZ				AML	AML		
HAZ				AML	AML		
PKGZ	**Pakihiroa**	**1.45**	**170**	P	**Pn**	**13 53 56.6**	**-1.2**
PKGZ				S	**Sn**	**13 54 25.7**	**-0.9**
PKGZ				AML	AML		
PKGZ				AML	AML		
WMGZ	**Waiomatatini S**	**1.48**	**160**	P	**Pn**	**13 53 56.5**	**-1.5**
WMGZ				S	**Sn**	**13 54 24.8**	**-2.1**
WMGZ				AML	AML		
WMGZ				AML	AML		
WHRZ	**Whale Island**	**1.55**	**204**	P	**Pn**	**13 53 58.8**	**+0.2**
WHRZ				S		13 54 31.0	
WHRZ				AML	AML		
WHRZ				AML	AML		
PUZ	**Puketiti**	**1.68**	**167**	P	**Pn**	**13 53 58.2**	**-1.5**
PUZ				S	**Sn**	**13 54 28.6**	**-1.4**
PUZ				AML	AML		
PUZ				AML	AML		
TWGZ	**Tauwhareparae**	**1.75**	**175**	P	**Pn**	**13 53 59.9**	**-0.4**
TWGZ				S	**Sn**	**13 54 31.1**	**+0.1**
TWGZ				AML	AML		
TWGZ				AML	AML		
TGRZ	**Tauranga**	**1.77**	**223**	P	**Pn**	**13 54 00.5**	**+0.1**
TGRZ				AML	AML		
TGRZ				AML	AML		
MARZ	**Manawahe**	**1.78**	**209**	P	**Pn**	**13 54 00.7**	**+0.2**
MARZ				AML	AML		
MARZ				AML	AML		
EDRZ	**Edgecumbe**	**1.86**	**206**	P	**Pn**	**13 54 01.5**	**+0.2**
EDRZ				AML	AML		
EDRZ				AML	AML		
GRZ	**Great Barrier**	**1.87**	**275**	P	**Pn**	**13 53 59.3**	**-2.1**
URZ	**Urewera**	**1.90**	**196**	P	**Pn**	**13 54 01.0**	**-0.5**
	164nm,0.5s,baz=357,slow=14,SNR=291						
URZ				S	**Sn**	**13 54 33.1**	**-0.1**
	113nm,0.3s,baz=73,slow=22,SNR=30						
URZ	**Urewera**	**1.90**	**196**	P	**Pn**	**13 54 00.4**	**-1.1**
URZ	**Urewera**	**1.90**	**196**	S	**Sn**	**13 54 32.4**	**-0.8**
URZ	**Urewera**	**1.90**	**196**	P	**Pn**	**13 54 00.9**	**-0.6**
URZ				S	**Sn**	**13 54 33.5**	**+0.3**
URZ				AML	AML		
URZ				AML	AML		
MWZ	**Matawai**	**1.91**	**186**	P	**Pn**	**13 54 00.9**	**-0.7**
MWZ				S	**Sn**	**13 54 33.6**	**+0.1**
MWZ				AML	AML		
MWZ				AML	AML		
KARZ	**Kaharoa**	**2.00**	**217**	P	**Pn**	**13 54 03.0**	**+0.5**
KARZ				AML	AML		
KARZ				AML	AML		
TKGZ	**Te Karaka**	**2.00**	**178**	P	**Pn**	**13 54 01.7**	**-0.8**
TKGZ				S	**Sn**	**13 54 35.1**	**+0.1**
TKGZ				AML	AML		
TKGZ				AML	AML		
CNGZ	**Carnagh Statio**	**2.08**	**170**	P	**Pn**	**13 54 02.6**	**-0.6**
CNGZ				AML	AML		
CNGZ				AML	AML		
RAGZ	**Rawiri**	**2.08**	**188**	P	**Pn**	**13 54 03.3**	**0.0**
RAGZ				AML	AML		
RAGZ				AML	AML		
UTU	**Utuhina**	**2.14**	**215**	P	Pn	13 54 05.5	+1.7
UTU				AML	AML		
UTU				AML	AML		
RRRZ	**Republican Roa**	**2.15**	**207**	P	**Pn**	**13 54 04.3**	**+0.3**
RRRZ				AML	AML		
RRRZ				AML	AML		
WIAZ	**Waiheke Island**	**2.15**	**260**	P	**Pn**	**13 54 03.6**	**-0.3**
WIAZ				AML	AML		
MUGZ	**Murupara**	**2.19**	**201**	P	**Pn**	**13 54 04.1**	**-0.2**
MUGZ				AML	AML		
MUGZ				AML	AML		
MKAZ	**Moumakai**	**2.20**	**252**	P	**Pn**	**13 54 04.2**	**-0.2**
TOZ	**Tahuroa Road**	**2.23**	**234**	P	Pn	13 54 05.9	+1.2
TOZ				AML	AML		
HSRZ	**Hossack Road**	**2.23**	**212**	P	Pn	13 54 06.0	+1.3
HSRZ				AML	AML		
HSRZ				AML	AML		
RTZ	**Ruatahuna**	**2.27**	**196**	P	**Pn**	**13 54 04.3**	**-0.8**
RTZ				AML	AML		
RTZ				AML	AML		
RIGZ	**Rimuhau**	**2.27**	**180**	P	**Pn**	**13 54 04.4**	**-0.7**
RIGZ				AML	AML		
RIGZ				AML	AML		
HRRZ	**Handcock Road**	**2.28**	**211**	P	**Pn**	**13 54 06.1**	**+0.8**
HRRZ				AML	AML		
HRRZ				AML	AML		
GRRZ	**Galatos Road**	**2.32**	**214**	P	Pn	13 54 06.9	+1.2
GRRZ				AML	AML		
GRRZ				AML	AML		
PRRZ	**Plateau Road**	**2.33**	**208**	P	**Pn**	**13 54 06.0**	**+0.3**
PRRZ				AML	AML		
PRRZ				AML	AML		
MBAZ	**Motutapu North**	**2.33**	**261**	P	Pn	13 54 06.3	+0.5
MBAZ				AML	AML		
ALRZ	**Allen Road**	**2.41**	**208**	P	**Pn**	**13 54 06.8**	**+0.3**
ALRZ				AML	AML		
ALRZ				AML	AML		
WPRZ	**Whakapapatarin**	**2.44**	**211**	P	**Pn**	**13 54 08.0**	**+1.1**
WPRZ				AML	AML		
WPRZ				AML	AML		
PRGZ	**Paritu Road**	**2.48**	**178**	P	**Pn**	**13 54 06.8**	**-0.5**
PRGZ				AML	AML		
PRGZ				AML	AML		
MTHZ	**Maungataniwha**	**2.52**	**197**	P	**Pn**	**13 54 07.4**	**-0.3**
MTHZ				AML	AML		
MTHZ				AML	AML		
RAHZ	**Arahi**	**2.54**	**192**	P	**Pn**	**13 54 07.6**	**-0.2**
RAHZ				AML	AML		
RAHZ				AML	AML		
KUTZ	**Kaahu Road**	**2.57**	**216**	P	Pn	13 54 09.6	+1.4
KUTZ				AML	AML		
KNZ	**Kokohu**	**2.58**	**182**	P	**Pn**	**13 54 07.5**	**-0.8**
KNZ				AML	AML		
RVAZ	**Riverhead Bore**	**2.59**	**262**	P	Pn	13 54 09.1	+0.8
RVAZ				AML	AML		
TLZ	**Tolley Road**	**2.59**	**223**	P	Pn	13 54 10.1	+1.7
TLZ				AML	AML		
MRHZ	**Matea Rd**	**2.62**	**204**	P	**Pn**	**13 54 09.3**	**+0.5**
MRHZ				AML	AML		
WHHZ	**Waihua**	**2.67**	**189**	P	**Pn**	**13 54 09.1**	**-0.1**
WHHZ				AML	AML		
MHGZ	**Mahia Peninsul**	**2.71**	**178**	P	**Pn**	**13 54 09.2**	**-0.5**
MHGZ				AML	AML		
MHGZ				AML	AML		
NMHZ	**Naumai**	**2.77**	**196**	P	**Pn**	**13 54 10.6**	**+0.2**
WATZ	**Wairara**	**2.79**	**215**	P	**Pn**	**13 54 11.8**	**+1.3**
WCZ	**Waipu Caves**	**2.81**	**279**	P	**Pn**	**13 54 09.0**	**-1.9**
ARHZ	**Aropaoanui**	**2.89**	**192**	P	**Pn**	**13 54 11.5**	**-0.1**
BKZ	**Black Stump Fm**	**2.91**	**200**	P	**Pn**	**13 54 10.8**	**-1.1**
BKZ	**Black Stump Fm**	**2.91**	**200**	P	S	13 54 53.6	+1.9
BKZ	**Black Stump Fm**	**2.91**	**200**	P	**Pn**	**13 54 11.2**	**-0.6**
RITZ	**Rihia Road**	**2.96**	**210**	P	**Pn**	**13 54 13.2**	**+0.8**
HIZ	**Hauiti**	**3.11**	**227**	P	**Pn**	**13 54 14.2**	**+0.2**
HIZ	**Hauiti**	**3.11**	**227**	P	Pn	13 54 16.1	+2.0
MCHZ	**McNeill Hill**	**3.12**	**195**	P	**Pn**	**13 54 14.5**	**+0.3**
NTVZ	**North Tongarir**	**3.13**	**211**	P	**Pn**	**13 54 15.0**	**+0.5**
TMVZ	**Te Maari**	**3.14**	**211**	P	**Pn**	**13 54 14.9**	**+0.4**
ETVZ	**East Tongariro**	**3.15**	**211**	P	**Pn**	**13 54 15.1**	**+0.5**
KWHZ	**Kaweka Forest**	**3.17**	**199**	P	**Pn**	**13 54 14.7**	**0.0**
SNVZ	**South Ngauruho**	**3.22**	**211**	P	**Pn**	**13 54 15.9**	**+0.4**
NGZ	**Ngauruhoe**	**3.23**	**211**	P	**Pn**	**13 54 16.1**	**+0.5**
CKHZ	**Cape Kidnapper**	**3.26**	**189**	P	**Pn**	**13 54 15.5**	**-0.2**
TUVZ	**Tukino**	**3.29**	**210**	P	**Pn**	**13 54 16.4**	**+0.2**
FWVZ	**Far West T-bar**	**3.32**	**211**	P	**Pn**	**13 54 16.7**	**+0.1**
MAVZ	**Matarangi**	**3.32**	**211**	P	**Pn**	**13 54 17.0**	**+0.3**
WHVZ	**Whangaehu Hut**	**3.33**	**211**	P	**Pn**	**13 54 16.7**	**-0.1**
BHHZ	**Black Hill Sta**	**3.33**	**203**	P	**Pn**	**13 54 15.9**	**-0.7**
WNVZ	**Wahianoa**	**3.36**	**210**	P	**Pn**	**13 54 16.9**	**-0.2**
MOVZ	**Moawhango**	**3.37**	**208**	P	**Pn**	**13 54 16.5**	**-0.6**
KRHZ	**Kereru**	**3.39**	**199**	P	**Pn**	**13 54 16.3**	**-0.9**
KAHZ	**Kahuranaki**	**3.43**	**192**	P	**Pn**	**13 54 17.3**	**-0.4**
PKVZ	**Pokaka**	**3.43**	**213**	P	**Pn**	**13 54 17.9**	**+0.1**
MTVZ	**Mangateitei**	**3.46**	**211**	P	**Pn**	**13 54 18.2**	**+0.1**
VRZ	**Vera Road**	**3.59**	**221**	P	**Pn**	**13 54 20.5**	**+1.0**
OUZ	**Omahuta**	**3.60**	**288**	P	**Pn**	**13 54 16.7**	**-3.0**
OUZ	**Omahuta**	**3.60**	**288**	P	**Pn**	**13 54 16.8**	**-2.9**
PXZ	**Pawanui**	**3.66**	**191**	P	**Pn**	**13 54 19.3**	**-1.0**
PNHZ	**Pukenui**	**3.69**	**199**	P	**Pn**	**13 54 19.6**	**-1.1**
WPHZ	**Waipukurau**	**3.77**	**196**	P	**Pn**	**13 54 20.7**	**-0.9**
TSZ	**Takapari Road**	**3.89**	**201**	P	**Pn**	**13 54 21.9**	**-1.2**
PRHZ	**Porangahau**	**3.93**	**193**	P	**Pn**	**13 54 22.5**	**-1.0**
DREZ	**Durham Road**	**3.94**	**225**	P	Pn	13 54 25.7	+2.0
WAZ	**Wanganui**	**3.98**	**213**	P	**Pn**	**13 54 24.0**	**-0.1**
NEZ	**North Egmont**	**4.06**	**225**	P	Pn	13 54 27.0	+1.9
DVHZ	**Dannevirke**	**4.06**	**198**	P	**Pn**	**13 54 23.9**	**-1.2**
KHEZ	**Kahui Hut**	**4.12**	**225**	P	**Pn**	**13 54 24.9**	**-1.0**
KHEZ	**Kahui Hut**	**4.12**	**225**	P	Pn	13 54 27.8	+2.0
ANWZ	**Angora Road**	**4.14**	**194**	P	**Pn**	**13 54 25.4**	**-0.7**
POWZ	**Post Office Ro**	**4.25**	**201**	P	**Pn**	**13 54 26.3**	**-1.1**
PRWZ	**Pori Road**	**4.35**	**198**	P	**Pn**	**13 54 27.6**	**-1.0**
BFZ	**Birch Farm**	**4.41**	**195**	P	**Pn**	**13 54 28.3**	**-0.9**
BFZ	**Birch Farm**	**4.41**	**195**	S	**Sn**	**13 55 24.4**	**+1.2**
BFZ	**Birch Farm**	**4.41**	**195**	P	**Pn**	**13 54 28.2**	**-1.0**
MRZ	**Mangatainoka R**	**4.55**	**201**	P	**Pn**	**13 54 29.4**	**-1.6**
TIWZ	**Tintock**	**4.58**	**198**	P	**Pn**	**13 54 30.3**	**-1.1**
CPWZ	**Castlepoint**	**4.63**	**195**	P	**Pn**	**13 54 31.7**	**-0.3**
HOWZ	**Holdsworth Sta**	**4.79**	**201**	P	**Pn**	**13 54 32.2**	**-1.8**
OGWZ	**Otaki Gorge**	**4.83**	**204**	P	**Pn**	**13 54 32.6**	**-1.7**
TMWZ	**Te Maipa**	**4.89**	**197**	P	**Pn**	**13 54 33.7**	**-1.5**
KIW	**Kapiti Island**	**4.95**	**206**	P	**Pn**	**13 54 34.1**	**-1.8**
MTW	**Mount Morrison**	**5.04**	**200**	P	**Pn**	**13 54 35.2**	**-1.8**
CAW	**Cannon Point**	**5.12**	**204**	P	**Pn**	**13 54 36.0**	**-2.0**
TRWZ	**Traveller**	**5.21**	**197**	P	**Pn**	**13 54 37.6**	**-1.6**
PAWZ	**Paruwai Farm**	**5.27**	**200**	P	**Pn**	**13 54 37.9**	**-2.0**
DUWZ	**D'Urville Isla**	**5.30**	**213**	P	**Pn**	**13 54 38.3**	**-2.0**
MSWZ	**Moikau Station**	**5.35**	**201**	P	**Pn**	**13 54 38.5**	**-2.4**
WEL	**Wellington**	**5.38**	**205**	P	**Pn**	**13 54 39.1**	**-2.1**
SNZO	**South Karori**	**5.42**	**205**	P	**Pn**	**13 54 40.0**	**-1.7**
SNZO	**South Karori**	**5.42**	**205**	S	**Sn**	**13 55 45.8**	**-0.1**
BHW	**Baring Head**	**5.46**	**204**	P	**Pn**	**13 54 39.7**	**-2.5**
PLWZ	**Palliser**	**5.49**	**200**	P	**Pn**	**13 54 40.4**	**-2.2**
TCW	**Tory Channel**	**5.49**	**209**	P	**Pn**	**13 54 40.3**	**-2.4**
QRZ	**Quartz Range**	**6.00**	**222**	P	**Pn**	**13 54 47.7**	**-1.4**
QRZ	**Quartz Range**	**6.00**	**222**	S	**Sn**	**13 55 59.3**	**+0.2**
KHZ	**Kahutara**	**6.81**	**207**	P	**Pn**	**13 54 57.8**	**-1.4**
KHZ	**Kahutara**	**6.81**	**207**	S	**Sn**	**13 56 16.4**	**-1.2**
RPZ	**Rata Peaks**	**8.90**	**213**	P	**Pn**	**13 55 23.8**	**-2.1**
	0.7nm,0.3s,baz=77,slow=11,SNR=7.9						
RPZ				S	**Sn**	**13 57 01.3**	**-5.2**
	1.5nm,0.3s,baz=346,slow=23,SNR=8.9						
RPZ	**Rata Peaks**	**8.90**	**213**	P	**Pn**	**13 55 24.3**	**-1.7**
ODZ	**Otahua Downs**	**10.15**	**210**	P	**Pn**	**13 55 40.8**	**-1.0**
JCZ	**Jackson Bay**	**10.26**	**219**	P	**Pn**	**13 55 42.3**	**-1.0**
STKA	**Stephens Creek**	**30.16**	**268**	P	**P**	**13 59 09.7**	**+0.2**
	0.6nm,0.4s,baz=121,slow=18,SNR=1.9 0.6nm,0.4s						
ASAR	**Alice Springs**	**39.72**	**276**	P	**P**	**14 00 29.8**	**-1.4**
	3.8nm,0.6s,baz=118,slow=8.0,SNR=81 3.8nm,0.6s						
WRA	**Warramunga Arr**	**41.28**	**281**	P	P	14 00 41.8	-2.1
	3.3nm,0.5s,baz=120,slow=7.8,SNR=59 3.3nm,0.5s						
VNDA	**Vanda**	**41.77**	**185**	P	**P**	**14 00 48.8**	**+1.7**
	0.4nm,0.7s,baz=339,slow=9.0,SNR=2.1 0.4nm,0.7s						
QSPA	**South Pole Qui**	**53.69**	**180**	P	**P**	**14 02 21.3**	**+2.7**
	2.9nm,0.6s,baz=305,slow=0.4,SNR=29 2.9nm,0.6s						
VNA3	**Neumayer Olymp**	**72.49**	**177**	⇑P	**P**	**14 04 21.7**	**-0.1**
	comp=Z,3.3nm,0.8s						
VNA2	**Neumayer--Watz**	**72.88**	**178**	⇑P	**P**	**14 04 24.3**	**+0.3**
	comp=Z,3.0nm,0.5s,baz=173,slow=5.4						
DBIC	**Dimbokro**	**150.28**	**175**	PKPbc	**PKPdf**	**14 12 43.5**	**+3.8**
	comp=Z,2.6nm,0.6s,baz=199,slow=1.9,SNR=4.5						
TORD	**Torodi Ar. Bea**	**156.54**	**190**	PKPab	**PKPab**	**14 13 17.3**	**-1.1**
	comp=Z,0.9nm,0.5s,baz=162,slow=3.7,SNR=7.5						

IDC 12 14:01:29.5±1.4**,7°.85S**×**126°.08E,h0**^{km}**,mb3.6**/2**,**
mbtmp3.3/4**,ML3.3**/2**,Error ellipse: s-maj=149.1km**
s-min=22.4km az=59.0,Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**14.45**	**147**	Pn	Pn	14 04 49.7	-5.7
	0.2nm,0.3s,baz=325,slow=34,SNR=12						
WRA				Sn	Sn	14 07 13.2	-23
	0.3nm,0.3s,baz=334,slow=23,SNR=7.5 0.3nm,0.6s						
WRA				AML	AML		
ASAR	**Alice Springs**	**17.43**	**155**	P	Pn	14 05 33.1	-1.2
	0.1nm,0.3s,baz=345,slow=12,SNR=6.7						
ASAR				S	Sn	14 08 33.6	-15
	0.1nm,0.5s,baz=344,slow=25,SNR=4.8 0.3nm,0.8s						
ASAR				AML	AML		
MKAR	**Makanchi Array**	**66.87**	**329**	P	P	14 12 24.4	+0.9
	0.3nm,0.4s,baz=117,slow=7.4,SNR=2.8 0.3nm,0.4s						
KURBB	**Kurchatov Arra**	**71.25**	**330**	P	P	14 12 49.8	-0.7
	0.3nm,0.5s,baz=126,slow=5.0,SNR=4.1 0.3nm,0.5s						

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*IDC **12** 14:25:20.4±5.7,16°.97N×147°.24E,h56^{km}±43^{km},mb3.3/8,*
mbtmp3.6/9,ML3.8/1,Error ellipse: s-maj=57.4km
s-min=18.1km az=87.0

ISC 12 14:25:19.6±1.7**,17°.0N**±0°.1×**147°.3E**±0°.3**,h50**^{km}**,n9,**
σ**0^{s}62**/11**,mb3.5**/8**,Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	**Guam**	**4.12**	**215**	P	**Pn**	**14 26 20.2**	**+0.1**
	5.5nm,0.3s,baz=166,slow=15,SNR=6.5						
GUMO				S	**Sn**	**14 27 07.4**	**+0.3**
	33nm,0.4s,baz=357,slow=22,SNR=5.2 28nm,0.4s						
GUMO				AML	AML		
MJAR	**Matsushiro Arr**	**21.09**	**339**	P	**P**	**14 29 59.9**	**0.0**
	0.7nm,0.6s,baz=168,slow=9.4,SNR=6.1 0.7nm,0.6s						
WRA	**Warramunga Arr**	**38.85**	**200**	P	**P**	**14 32 39.5**	**-0.6**
	0.4nm,0.5s,baz=24,slow=9.2,SNR=7.0						
WRA				PcP	**PcP**	**14 34 51.4**	**+0.9**
	0.4nm,1.0s,baz=331,slow=3.1,SNR=2.2 0.4nm,0.5s						
ASAR	**Alice Springs**	**42.48**	**198**	P	**P**	**14 33 09.7**	**-0.3**
	0.1nm,0.2s,baz=17,slow=9.7,SNR=1.7 0.1nm,0.2s						
SONM	**Songino Array**	**45.44**	**322**	P	**P**	**14 33 34.2**	**+0.5**
	0.2nm,0.4s,baz=92,slow=7.2,SNR=1.7 0.2nm,0.4s						
CMAR	**Chiang Mai Arr**	**45.99**	**279**	P	**P**	**14 33 38.1**	**-0.2**
	0.4nm,0.3s,baz=63,slow=7.3,SNR=5.5 0.4nm,0.3s						
ZALV	**Zalesovo Beam**	**60.30**	**323**	P	**P**	**14 35 23.5**	**+0.4**
	0.3nm,0.3s,baz=134,slow=8.5,SNR=2.1 0.3nm,0.3s						
MKAR	**Makanchi Array**	**60.75**	**314**	P	**P**	**14 35 25.5**	**-0.9**
	0.2nm,0.4s,baz=91,slow=8.5,SNR=2.2 0.2nm,0.4s						
KURBB	**Kurchatov Arra**	**63.62**	**318**	P	**P**	**14 35 44.7**	**-0.7**
	0.9nm,0.8s,baz=100,slow=6.8,SNR=6.1 0.9nm,0.8s						

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*IDC **12** 14:33:37.0±0.8,5°.71N×124°.95E,h0^{km},mb3.8/10,*
mbtmp3.8/10,Error ellipse: s-maj=26.9km s-min=13.9km
az=82.0
*MAN **12** 14:33:42.0,6°.34N×126°.57E,h56^{km},MS4.0*
*DJA **12** 14:33:44.0±0.6,6°N±5°×12°7E±°,h10^{km},M4.8/20,*
mb4.9/20,mB5.3/7,MLv4.9/12,Mw(mB)4.7/7

ISC 12 14:33:45.6±0.8**,6°.35N**±0°.05×**126°.48E**±0°.06**,h71**^{km}±9^{km}**,**
n45,σ**1^{s}98**/57**,mb3.6**/10**,Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	**Don Marcelino,**	**0.80**	**252**	*i* P	**Pn**	**14 33 60.0**	**-1.8**
DDMP				*e*S	**Sn**	**14 34 12.3**	**-1.4**
DAV	**Davao City (W)**	**1.14**	**309**	Pn	**Pn**	**14 34 05.2**	**-0.8**
	590nm,0.3s,baz=240,slow=14,SNR=33						
DAV				Sn	**Sn**	**14 34 22.3**	**+1.1**
	158nm,0.3s,baz=123,slow=18,SNR=20						
DAV	**Davao City (W)**	**1.14**	**309**	P	**Pn**	**14 34 04.7**	**-1.3**
DAV	**Davao City (W)**	**1.14**	**309**	P	Pn	14 34 00.0	-6.0
DMPH	**Davao City--Mi**	**1.21**	**307**	*i* P	**Pn**	**14 34 05.6**	**-1.2**
DMPH				*i* S	**Sn**	**14 34 22.3**	**-0.4**
CDOP	**Cateel, Davao**	**1.42**	**358**	*e*P	**Pn**	**14 34 06.4**	**-3.3**
CDOP				*i* S	**Sn**	**14 34 24.3**	**-3.4**
KCP	**Kidapawan**	**1.52**	**295**	*i* P	**Pn**	**14 34 09.0**	**-2.0**
KCP				*i* S	**Sn**	**14 34 28.8**	**-1.4**
GSPH	**General Santos**	**1.54**	**260**	*i* P	**Pn**	**14 34 08.0**	**-3.3**
GSPH				*i* S	**Sn**	**14 34 26.6**	**-4.1**
BIPH	**Bislig**	**1.82**	**356**	*e*P	**Pn**	**14 34 13.6**	**-1.4**
BIPH				*e*S	**Sn**	**14 34 35.2**	**-2.0**
BUKP	**Musuan**	**2.07**	**317**	*e*P	**Pn**	**14 34 16.7**	**-1.6**
BUKP				*e*S	**Sn**	**14 34 42.6**	**-0.6**
CGP	**Cagayan de Oro**	**2.74**	**320**	*i* P	**Pn**	**14 34 25.4**	**-2.0**
CGP				*i* S	**Sn**	**14 34 57.3**	**-2.0**
PAGZ	**Pagadian**	**3.41**	**296**	*i* P	**Pn**	**14 34 35.7**	**-0.8**
PAGZ				*i* S	Sn	14 34 54.4	-21
GLSP	**General Luna,**	**3.43**	**354**	*i* P	**Pn**	**14 34 37.0**	**+0.2**
GLSP				*i* S	**Sn**	**14 35 19.7**	**+3.5**
DCPH	**Dipolog City**	**3.81**	**306**	*i* P	**Pn**	**14 34 43.1**	**+1.2**
LSIP	**Lazi, Siquijor**	**3.95**	**315**	*i* P	**Pn**	**14 34 43.6**	**-0.2**
LSIP				*i* S	**Sn**	**14 35 33.1**	**+4.2**
TBP	**Tagbilaran**	**4.21**	**322**	*e*P	**Pn**	**14 34 45.6**	**-1.7**
TBP				*e*S	**Sn**	**14 35 32.6**	**-2.8**
LLP	**Lapu-Lapu**	**4.66**	**328**	*e*P	**Pn**	**14 34 54.0**	**+0.5**
LLP				*i* S	**Sn**	**14 35 45.6**	**-0.8**
PLP	**Palo**	**5.01**	**343**	*e*P	**Pn**	**14 34 57.6**	**-0.7**
PLP				*e*S	**Sn**	**14 35 55.0**	**+0.2**
MNI	**Manado**	**5.14**	**199**	P	**Pn**	**14 35 01.8**	**+1.6**
	1.0nm6µm127nm,0.6s						
MNI				AML	AML		
TNTI	**Ternate**	**5.61**	**171**	P	**Pn**	**14 35 08.4**	**+1.8**
	0.5nm133nm,1.0s						
TNTI				AML	AML		
GUIM	**Jordan**	**5.73**	**318**	*e*P	**Pn**	**14 35 08.7**	**+0.5**
GUIM				*e*S	Sn	14 35 31.7	-41
GTOI	**Gorontalo**	**6.65**	**211**	P	**Pn**	**14 35 20.7**	**-0.1**
GTOI				AML	AML		
SANI	**Sanana**	**8.36**	**183**	P	**Pn**	**14 35 42.7**	**-1.5**
GQP	**Guinayangan**	**8.49**	**332**	*e*P	**Pn**	**14 35 48.2**	**+2.3**
SWI	**Sorong**	**8.61**	**146**	P	**Pn**	**14 35 48.4**	**+0.8**
	42nm,0.7s						
APSI	**Ampana**	**8.68**	**214**	P	**Pn**	**14 35 52.3**	**+3.8**
LQP	**Lukban**	**9.11**	**328**	*e*P	**Pn**	**14 35 57.7**	**+3.0**
NLAI	**Namlea**	**9.55**	**176**	P	**Pn**	**14 36 00.0**	**-0.4**
	1µm83nm,0.6s						
KDI	**Kendari**	**10.94**	**201**	P	**Pn**	**14 36 20.5**	**+1.1**
	37nm,0.6s						
MMSI	**Mamuju**	**11.74**	**220**	P	**Pn**	**14 36 34.2**	**+3.9**
BAKI	**Biak**	**12.19**	**128**	P	**Pn**	**14 36 38.7**	**+2.2**
	69nm,1.2s						
KAPI	**Kappang**	**13.13**	**211**	P	**Pn**	**14 36 49.7**	**+0.4**
	25nm,1.2s						
SBUM	**Sibu**	**14.73**	**255**	P	**P**	**14 37 14.6**	**0.0**
BBKI	**Banjar Baru**	**15.17**	**230**	P	**P**	**14 37 19.2**	**-0.2**
EDFI	**Ende, Flores**	**15.74**	**198**	P	**P**	**14 37 26.8**	**+0.9**
WRA	**Warramunga Arr**	**27.25**	**164**	P	**P**	**14 39 21.6**	**-1.7**
	0.8nm,0.7s,baz=339,slow=10,SNR=17 0.8nm,0.7s						
CMAR	**Chiang Mai Arr**	**29.40**	**297**	P	P	14 39 34.3	-8.2
	0.3nm,0.4s,baz=100,slow=12,SNR=1.4 0.3nm,0.4s						
ASAR	**Alice Springs**	**30.70**	**167**	P	**P**	**14 39 53.0**	**-1.0**
	0.4nm,0.5s,baz=348,slow=7.5,SNR=9.4						
ASAR				PcP	**PcP**	**14 42 49.6**	**-0.9**
	0.6nm,0.5s,baz=355,slow=2.6,SNR=6.1 0.4nm,0.5s						
MJAR	**Matsushiro Arr**	**31.91**	**18**	P	P	14 40 14.4	+10
	1.1nm,0.9s,baz=192,slow=10,SNR=1.9 1.1nm,0.9s						
STKA	**Stephens Creek**	**40.66**	**160**	P	**P**	**14 41 18.5**	**-0.5**
	3.0nm,0.7s,baz=332,slow=9.7,SNR=5.5 3.0nm,0.7s						
SONM	**Songino Array**	**44.75**	**341**	P	**P**	**14 41 52.6**	**+0.4**
	0.4nm,0.7s,baz=179,slow=6.6,SNR=3.6 0.4nm,0.7s						
MKAR	**Makanchi Array**	**55.28**	**324**	P	**P**	**14 43 09.6**	**-2.2**
	0.4nm,0.6s,baz=113,slow=7.2,SNR=5.7 0.4nm,0.6s						
ZALV	**Zalesovo Beam**	**58.16**	**332**	P	**P**	**14 43 32.5**	**+0.5**
	0.3nm,0.4s,baz=149,slow=5.9,SNR=1.7 0.3nm,0.4s						
KURBB	**Kurchatov Arra**	**59.42**	**327**	P	**P**	**14 43 38.5**	**-2.3**
	0.9nm,0.2s,baz=123,slow=6.8,SNR=3.1 0.9nm,0.2s						
BVAR	**Borovoye Array**	**65.00**	**326**	P	**P**	**14 44 16.3**	**-1.9**
	0.9nm,0.6s,baz=121,slow=6.9,SNR=2.7 0.9nm,0.6s						

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*KRSC **12** 14:37:01.4±1.1,51°.00N×158°.23E,h40^{km}±16^{km},Ml4.3*
*MOS **12** 14:37:01.9±0.7,50°.93N×158°.11E,h48^{km},mb4.3/4,Error*
ellipse: s-maj=21.2km s-min=4.2km az=85.9

ISC 12 14:37:02.7±1.7**,50°.97N**±0°.08×**158°.17E**±0°.06**,h41**^{km}±14^{km}**,**
n62,σ**1^{s}30**/83**,mb4.0**/3**,3C-2D,East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KDTR	**Khodutka, Kamc**	**0.85**	**356**	PN	**Pn**	**14 37 17.7**	**-0.5**
KDTR				S	**Sn**	**14 37 28.6**	**-0.8**
KDTR	**Khodutka, Kamc**	**0.85**	**356**	*i* P	**Pn**	**14 37 17.7**	**-0.5**
KDTR				*e*S	**Sn**	**14 37 28.6**	**-0.8**
PAU	**Pauzhetka**	**0.99**	**301**	PN	**Pn**	**14 37 20.4**	**+0.4**
PAU				S	**Sn**	**14 37 33.6**	**+0.8**
PAU	**Pauzhetka**	**0.99**	**301**	*e*P	**Pn**	**14 37 20.5**	**+0.4**
PAU				*e*S	**Sn**	**14 37 33.6**	**+0.8**
SKR	**Severo-Kuril's**	**1.33**	**258**	*e*PN	**Pn**	**14 37 25.2**	**+0.4**
SKR				*e*S	**Sn**	**14 37 41.6**	**+0.4**
SKR				pmax	pmax		
	comp=Z,97nm,0.3s						
SKR				smax	smax		
	comp=E,887nm,0.5s						
SKR				smax	smax		
	comp=N,832nm,0.5s						
SKR	**Severo-Kuril's**	**1.33**	**258**	*e*P	**Pn**	**14 37 25.4**	**+0.6**
SKR				*e*S	**Sn**	**14 37 42.2**	**+1.0**
ASAK	**Asacha**	**1.43**	**353**	PN	**Pn**	**14 37 26.3**	**+0.1**
ASAK	**Asacha**	**1.43**	**353**	*e*P	**Pn**	**14 37 26.3**	**+0.1**
RUS	**Russkaya**	**1.48**	**8**	PN	**Pn**	**14 37 26.3**	**-0.6**
RUS				S	**Sn**	**14 37 43.8**	**-1.2**
RUS	**Russkaya**	**1.48**	**8**	*e*P	**Pn**	**14 37 26.3**	**-0.6**
RUS				*e*S	**Sn**	**14 37 43.8**	**-1.2**
MTVR	**Mutnovka**	**1.52**	**0**	PN	**Pn**	**14 37 27.4**	**-0.1**
MTVR				S	**Sn**	**14 37 45.8**	**-0.3**
MTVR	**Mutnovka**	**1.52**	**0**	*e*P	**Pn**	**14 37 27.4**	**-0.1**
MTVR				*e*S	**Sn**	**14 37 45.8**	**-0.3**
GRL	**Gorelyy**	**1.59**	**358**	PN	**Pn**	**14 37 28.9**	**+0.4**
GRL				S	**Sn**	**14 37 48.1**	**+0.3**
GRL	**Gorelyy**	**1.59**	**358**	*e*P	**Pn**	**14 37 28.9**	**+0.4**
GRL				*e*S	**Sn**	**14 37 48.2**	**+0.3**
KRMR	**Karymshinskiy**	**1.87**	**359**	PN	**Pn**	**14 37 32.9**	**+0.8**
KRMR	**Karymshinskiy**	**1.87**	**359**	*e*P	**Pn**	**14 37 32.9**	**+0.8**
APC	**Apacha**	**2.06**	**343**	PN	**Pn**	**14 37 35.7**	**+1.0**
APC				S	**Sn**	**14 38 00.8**	**+1.6**
APC	**Apacha**	**2.06**	**343**	*e*P	**Pn**	**14 37 35.8**	**+1.0**
APC				*e*S	**Sn**	**14 38 00.9**	**+1.6**
PET	**Petropavlovsk**	**2.08**	**8**	*ce*PN	**Pn**	**14 37 35.2**	**+0.1**
PET				*e*S	**Sn**	**14 38 00.7**	**+0.9**
PET	**Petropavlovsk**	**2.08**	**8**	*e*P	**Pn**	**14 37 35.1**	**0.0**
PET				*e*S	**Sn**	**14 37 59.2**	**-0.5**
DALK	**Dalny**	**2.10**	**10**	PN	**Pn**	**14 37 35.4**	**+0.1**
DALK				S	**Sn**	**14 37 59.9**	**-0.3**
DALK	**Dalny**	**2.10**	**10**	*e*P	**Pn**	**14 37 35.5**	**+0.1**
DALK				*e*S	**Sn**	**14 37 59.9**	**-0.3**
INSR	**Institute**	**2.12**	**7**	PN	**Pn**	**14 37 36.1**	**+0.5**
INSR				S	**Sn**	**14 38 01.5**	**+0.8**
INSR	**Institute**	**2.12**	**7**	*e*P	**Pn**	**14 37 36.2**	**+0.5**
INSR				*e*S	**Sn**	**14 38 01.5**	**+0.8**
PEA0B	**Petropavlovsk-**	**2.17**	**353**	*de*PN	**Pn**	**14 37 37.1**	**+0.8**
PEA0B				*e*S	**Sn**	**14 38 05.1**	**+3.2**
UGLR	**Uglovaya**	**2.28**	**10**	PN	**Pn**	**14 37 38.6**	**+0.7**
UGLR	**Uglovaya**	**2.28**	**10**	*e*P	**Pn**	**14 37 38.7**	**+0.7**
NLC	**Nalytchevo**	**2.33**	**18**	PN	**Pn**	**14 37 37.8**	**-0.6**
NLC	**Nalytchevo**	**2.33**	**18**	*e*P	**Pn**	**14 37 37.9**	**-0.6**
AVH	**Avacha**	**2.33**	**8**	PN	**Pn**	**14 37 39.9**	**+1.4**
AVH	**Avacha**	**2.33**	**8**	*e*P	**Pn**	**14 37 40.0**	**+1.4**
SMAR	**Somma**	**2.33**	**9**	PN	**Pn**	**14 37 39.8**	**+1.1**
SMAR	**Somma**	**2.33**	**9**	*e*P	**Pn**	**14 37 39.9**	**+1.1**
KOK	**Koryaka**	**2.35**	**7**	PN	**Pn**	**14 37 39.8**	**+1.0**
KOK	**Koryaka**	**2.35**	**7**	*e*P	**Pn**	**14 37 39.9**	**+1.0**
SDLR	**Sedlovina**	**2.36**	**11**	PN	**Pn**	**14 37 39.8**	**+0.8**
SDLR	**Sedlovina**	**2.36**	**11**	*e*P	**Pn**	**14 37 39.9**	**+0.8**
KRER	**Koryakskii**	**2.37**	**9**	PN	**Pn**	**14 37 40.5**	**+1.3**
KRER	**Koryakskii**	**2.37**	**9**	*e*P	**Pn**	**14 37 40.6**	**+1.3**
KRX	**Arik**	**2.42**	**7**	PN	**Pn**	**14 37 40.9**	**+1.1**
KRX	**Arik**	**2.42**	**7**	*e*P	**Pn**	**14 37 41.0**	**+1.1**
SPN	**Mys Shipunski**	**2.42**	**28**	PN	**Pn**	**14 37 41.0**	**+1.2**
SPN				S	**Sn**	**14 38 09.3**	**+1.1**
SPN	**Mys Shipunski**	**2.42**	**28**	*e*P	**Pn**	**14 37 41.1**	**+1.2**
SPN				*e*S	**Sn**	**14 38 09.4**	**+1.1**
GNL	**Ganaly**	**2.74**	**357**	PN	**Pn**	**14 37 45.0**	**+0.8**
GNL	**Ganaly**	**2.74**	**357**	*e*P	**Pn**	**14 37 45.0**	**+0.8**

KII	Karymskiy	3.17	14	PN	Pn	14 37 51.8	+1.6
KII	Karymskiy	3.17	14	*e*P	Pn	14 37 51.8	+1.6
MKZ	Mys Kozlova	4.20	30	PN	Pn	14 38 04.2	+0.1
MKZ	Mys Kozlova	4.20	30	*e*P	Pn	14 38 04.2	+0.1
KMNR	Kamenistaya	4.96	14	PN	Pn	14 38 18.3	+3.7
KMNR	Kamenistaya	4.96	14	*e*P	Pn	14 38 18.4	+3.7
ESO	Esso	4.98	3	PN	Pn	14 38 17.3	+2.4
ESO	Esso	4.98	3	*e*P	Pn	14 38 17.3	+2.4
KPT	Kopyto	5.16	13	PN	Pn	14 38 20.7	+3.3
KPT	Kopyto	5.16	13	*e*P	Pn	14 38 20.8	+3.3
SRDR	Sredinnyy	5.44	9	PN	Pn	14 38 26.0	+4.8
SRDR	Sredinnyy	5.44	9	*e*P	Pn	14 38 26.0	+4.8
TIXI	Tiksi	24.57	338	⇑*e*P	P	14 42 17.4	-0.8
TIXI				pmax	pmax		
	comp=Z,5.0nm,1.7s						
KURK	Kurchatov	47.86	303	⇑*e*P	P	14 45 34.7	-1.4
KURK				pmax	pmax		
	comp=Z,4.0nm,3.7s						
AAK	Ala-Archa	54.95	296	⇓*e*P	P	14 46 26.9	-2.6
AAK				pmax	pmax		
	comp=Z,2.0nm,1.3s						
OBN	Obninsk	63.66	327	*e*P	P	14 47 29.9	+0.7
OBN				*e*		14 48 05.0	
OBN				*e*		14 49 50.0	
OBN				pmax	pmax		
	comp=Z,4.0nm,0.6s						
TXAR	Lajitas Array	72.59	65	*e*P	P	14 48 26.9	+1.1

IDC ***12*** *15:11:03.2±0.9, 8.°20S×116.°36E, h0^{km}, mb3.9/9, mbtmp4.0/11, ML3.8/2, MS3.2/4, Error ellipse: s-maj=18.3km s-min=13.0km az=80.0*

DJA ***12*** *15:11:05.4±0.4, 8°S±4°×11°6E±°, h11^{km}±4^{km}, M4.5/24, mb4.6/3, MLv4.4/24*

NEIC ***12*** *15:11:06.8±1.9, 8.°30S±0.°10×116.°25E±0.°06, h37^{km}±8^{km}, mb4.3/13, Error ellipse: s-maj=14.3km s-min=8.3km az=199.0*

ISC 12 15:11:04.1±0.5**, 8.°30S**±0.°05×**116.°32E**±0.°04**, h10^{km}, n61, σ1^{s}48**/55**, mb4.1**/12**, MS3.6**/3**, Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TWSI	Taliwang, Sumb	0.71	129	P	Pb	15 11 20.4	+1.8
KHKI	Kahang-Kahang	0.71	264	P	Pg	15 11 19.2	+1.3
KHKI				AML	AML		
SRBI	Singaraja	1.12	281	P	Pb	15 11 24.1	-1.5
DNP	Denpasar	1.16	251	P	Pb	15 11 26.9	+0.6
IGBI	Denpasar	1.27	246	P	Pn	15 11 28.1	+0.1
IGBI				AML	AML		
RTBI	Rangdo, Negare	1.38	263	P	Pn	15 11 29.4	0.0
RTBI				AML	AML		
PLAI	Plampang	1.53	110	P	Pn	15 11 33.4	+1.8
PLAI				AML	AML		
DBNI	Kabupaten Domp	1.98	96	P	Pn	15 11 39.2	+1.5
DBNI				AML	AML		
ABJI	Asem Bagus	2.13	283	P	Pn	15 11 40.1	+0.4
ABJI				AML	AML		
JAGI	Jajag, Banyuwa	2.15	265		Pn	15 11 38.7	-1.5
JAGI	Jajag, Banyuwa	2.15	265	P	Pn	15 11 39.2	-0.9
JAGI				AML	AML		
KMMI	Kalianget	2.64	298	P	Pn	15 11 47.2	+0.4
BLJI	Banyuglugur	2.75	281	P	Pn	15 11 49.7	+1.3
BLJI				AML	AML		
LBFI	Labuhan Bajo,	3.54	93	P	Pn	15 11 59.5	+0.4
WSI	Waingapu	4.16	109	P	Pn	15 12 09.7	+2.0
MKS	Makassar	4.37	46	P	Pn	15 12 13.5	+2.8
MKS				AML	AML		
SNJI	Sawahan-Nganju	4.55	276	P	Pn	15 12 13.6	+0.4
SNJI				AML	AML		
BSSI	Bau Bau, Buton	4.66	63	P	Pn	15 12 15.4	+0.8
BSSI				AML	AML		
KAPI	Kappang	4.71	46	Pn	Pn	15 12 15.6	+0.2
	4.5nm,0.3s,baz=240,slow=4.2,SNR=6.3						
KAPI				Sn	Sn	15 13 02.8	-7.3
	7.2nm,0.3s,baz=186,slow=17,SNR=4.9						
KAPI				Lg	Lg	15 13 30.1	
	8.1nm,0.3s,baz=233,slow=22,SNR=4.6						
KAPI				LR	LR	15 14 19.9	
	comp=Z,249nm,21.3s,baz=257,slow=43						
	18nm,0.5s						
KAPI				AML	AML		
KAPI	Kappang	4.71	46		Pn	15 12 14.1	-1.2
KAPI				Sn	Sn	15 13 09.3	-0.8
KAPI	Kappang	4.71	46	P	Pn	15 12 16.9	+1.5
KAPI				AML	AML		
EDFI	Ende, Flores	5.33	95	P	Pn	15 12 25.0	+1.1
	0.2nm58nm,0.5s						
EDFI				AML	AML		
UGM	Wanagama	5.75	273	Pn	Pn	15 12 28.5	-1.2
MMRI	Maumere	5.86	94		Pn	15 12 32.5	+1.3
MMRI	Maumere	5.86	94	P	Pb	15 12 45.0	-1.5
SOEI	Soe	7.98	101		Pn	15 13 01.4	+1.0
SOEI	Soe	7.98	101	P	Pn	15 13 13.3	+13
MBWA	Marble Bar	13.21	166		Pn	15 14 10.4	-1.4
FITZ	Fitzroy Crossi	13.31	138	Pn	Pn	15 14 12.6	-0.6
	0.4nm,0.3s,baz=334,slow=9.2,SNR=14						
FITZ				Sn	Sn	15 16 32.4	-9.0
	0.3nm,0.3s,baz=186,slow=17,SNR=4.0						
	4.0nm,0.6s						
FITZ				AML	AML		
FITZ	Fitzroy Crossi	13.31	138		Pn	15 14 11.6	-1.7
KNRA	Kununurra	14.21	122	Pn	Pn	15 14 24.6	-0.9
GIRL	Giralia	14.41	188	Pn	Pn	15 14 26.4	-1.8
MTN	Manton Dam	15.24	109		Pn	15 14 37.2	-2.5
RGRI	Rengat	16.02	299	P	P	15 14 58.5	+5.3
FAKI	Fak Fak	16.72	72	Pn	Pn	15 14 58.2	-0.5
DAV	Davao City (W)	17.84	31	LR	LR	15 23 30.7	
	comp=Z,51nm,18.5s,baz=182,slow=42						
WB0	Warramunga Arr	20.89	125		P	15 15 45.3	-1.5
WB0				IAmb	IAmb	15 15 48.3	
	comp=Z,13nm,0.7s						
WRA	Warramunga Arr	20.93	125	P	P	15 15 48.0	+0.7
	comp=Z,9.5nm,0.6s,baz=301,slow=12,SNR=158						
	comp=Z,9.5nm,0.6s						
WRA	Warramunga Arr	20.93	125		P	15 15 44.7	-2.6
WRAB	Tennant Creek	20.94	125	P	P	15 15 47.5	+0.2
WRAB				IAmb	IAmb	15 15 48.9	
	comp=Z,12nm,0.7s						
WR8	Warramunga Arr	21.07	125		P	15 15 48.7	0.0
AS31	Alice Springs	22.75	134		P	15 16 05.9	-0.8
AS31				IAmb	IAmb	15 16 09.8	
	comp=Z,2.5nm,0.5s						
ASAR	Alice Springs	22.75	134	P	P	15 16 07.5	+0.8
	comp=Z,4.3nm,0.6s,baz=310,slow=8.9,SNR=100						
	comp=Z,4.3nm,0.6s						
ASAR	Alice Springs	22.75	134	P	P	15 16 05.9	-0.8
FORT	Forrest	24.91	155	P	P	15 16 26.2	-1.3
FORT				IAmb	IAmb	15 16 35.4	
	comp=Z,8.5nm,1.0s						
INKA	Innaminka	30.11	133	P	P	15 17 13.4	-0.7
CMAR	Chiang Mai Arr	31.63	327	P	P	15 17 28.6	+1.0
	comp=Z,0.4nm,0.4s,baz=158,slow=5.9,SNR=5.9						
	comp=Z,0.4nm,0.4s						
STKA	Stephens Creek	33.21	138	P	P	15 17 41.8	+0.4
	comp=Z,1.6nm,0.6s,baz=315,slow=9.6,SNR=4.7						
	comp=Z,1.6nm,0.6s						
TOO	Toolangi	39.32	142	P	P	15 18 30.5	-3.1
TOO				IAmb	IAmb	15 18 57.6	
	comp=Z,10nm,1.5s						
ARMA	Armidale	39.66	129	P	P	15 18 34.2	-2.5
MJAR	Matsushiro Arr	49.11	23	P	P	15 19 51.3	-0.7
	comp=Z,1.7nm,0.8s,baz=205,slow=7.2,SNR=6.1						
MJAR				LR	LR	15 40 50.8	
	comp=Z,20nm,19.9s,baz=224,slow=36						
	comp=Z,1.7nm,0.8s						
SONM	Songino Array	56.57	352	P	P	15 20 47.3	+0.2
	comp=Z,1.5nm,0.8s,baz=168,slow=7.6,SNR=7.0						
	comp=Z,1.5nm,0.8s						
SONM	Songino Array	56.57	352	P	P	15 20 46.9	-0.2
SONM				IAmb	IAmb	15 20 55.6	
	comp=Z,1.8nm,1.0s						
HEH	HeiHe	59.10	8	*e*P	P	15 21 10.0	+5.4
HEH				pmax	pmax		
	comp=Z,5.0nm,1.4s						
MKAR	Makanchi Array	62.65	334	P	P	15 21 29.3	+0.3
	comp=Z,0.3nm,0.6s,baz=156,slow=6.1,SNR=2.2						
	comp=Z,0.3nm,0.6s						
MKAR	Makanchi Array	62.65	334	P	P	15 21 27.2	-1.7
VNDA	Vanda	73.10	171	P	P	15 22 35.0	+0.8
	comp=Z,0.7nm,0.8s,baz=307,slow=8.6,SNR=5.7						
	comp=Z,0.7nm,0.8s						
QSPA	South Pole Qui	81.70	180	P	P	15 23 23.8	+1.1
	comp=Z,1.0nm,0.8s,baz=296,slow=3.7,SNR=5.9						
	comp=Z,1.0nm,0.8s						
QSPA	South Pole Qui	81.70	180	P	P	15 23 18.0	-4.7
QSPA				IAmb	IAmb	15 23 31.9	
	comp=Z,7.8nm,1.4s						
BELG	Belogornoye	83.85	325	LR	LR	16 01 46.1	
	comp=Z,589nm,21.4s,baz=270,slow=36						
MBAR	Mbarara	85.54	270	LR	LR	15 55 35.6	
	comp=Z,26nm,19.0s,baz=246,slow=31						

IDC ***12*** *15:12:42.4±2.5, 17.°72S×178.°48W, h590^{km}±22^{km}, mb2.7/5, mbtmp3.6/6, Error ellipse: s-maj=109.0km s-min=22.9km az=153.0*

ISC 12 15:12:43.0±2.0**, 17.°6S**±0.°8×**178.°6W**±0.°4**, h600^{km}, n7, σ0^{s}56**/7**, mb3.2**/5**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	3.19	267	P	P	15 14 02.9	-0.5
	4.8nm,0.4s,baz=139,slow=18,SNR=7.7						
WRA	Warramunga Arr	44.51	259	P	P	15 20 03.7	+0.7
	0.4nm,0.8s,baz=99,slow=7.3,SNR=1.9						
	0.4nm,0.8s						
ASAR	Alice Springs	44.70	254	P	P	15 20 04.6	+0.2
	0.3nm,0.4s,baz=96,slow=7.7,SNR=6.2						
	0.3nm,0.4s						
NVAR	Mina Array Bea	79.32	44	P	P	15 23 48.3	+0.3
	0.4nm,0.6s,baz=225,slow=9.8,SNR=3.9						
	0.4nm,0.6s						
ILAR	Eielson Array	85.62	13	P	P	15 24 18.7	0.0
	0.3nm,0.4s,baz=213,slow=4.8,SNR=6.1						
	0.3nm,0.4s						
TXAR	Lajitas Array	85.98	58	P	P	15 24 21.4	0.0
	0.7nm,0.7s,baz=222,slow=5.5,SNR=11						
	0.7nm,0.7s						
GERES	GERESS Array B	147.26	345	PKPbc	PKiKP	15 31 21.2	-0.6
	0.5nm,0.5s,baz=325,slow=4.8,SNR=3.6						

IDC ***12*** *15:31:38.5±0.9, 38.°38N×20.°95E, h0^{km}, mb4.0/6, mbtmp3.7/13, ML3.3/5, MS2.3/1, Error ellipse: s-maj=16.0km s-min=10.9km az=30.0*

ATH ***12*** *15:31:39.5, 38.°14N×20.°54E, h7^{km}±1^{km}, ML3.5/44, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*

PDG ***12*** *15:31:39.6±0.5, 38.°15N×20.°52E, h12^{km}, ML3.6/12, Error ellipse: s-maj=0.8km s-min=0.9km az=0.0*

THE ***12*** *15:31:40.2, 38.°2N±0.°8×2°1E±°, h3^{km}±2^{km}, M3.4/22, MLh3.4/22*

BEO ***12*** *15:31:43.3±0.7, 38.°30N×20.°59E, h30^{km}±4^{km}, ML3.4/9*

ISC 12 15:31:39.1±0.6**, 38.°18N**±0.°02×**20.°59E**±0.°02**, h14^{km}**±3^{km}**, n170, σ1^{s}64**/248**, mb4.0**/6**, 12C-9D, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VLS	Valsamata	0.01	163	P	Pg	15 31 42.9	+1.2
VLS				S	Sg	15 31 45.3	+1.9
VLS				AML	AML		
VLS	Valsamata	0.01	163	P	Pg	15 31 43.1	+1.5
ARG2	Argostoli	0.08	267	P	Pb	15 31 41.1	-1.0
ARG2				S	Sb	15 31 43.7	-0.3
ARG2				AML	AML		
ARG2	Argostoli	0.08	267	P	Pb	15 31 41.3	-0.8
ARG2				S	Sb	15 31 43.8	-0.3
ARG2				AML	AML		
LXR1	Lixouri, Cepha	0.12	279	P	Pb	15 31 44.2	+1.0
LXR1				S	Sg	15 31 47.5	+2.7
DMLN	Damoulianata-K	0.18	288	P	Pb	15 31 44.9	+0.6
DMLN				AML	AML		
FSK	Fiskardo	0.28	356	P	Pb	15 31 46.4	+0.5
FSK				S	Sg	15 31 50.8	+1.8
FSK				AML	AML		
ORTH	Orthonies,Zaky	0.34	165	P	Pg	15 31 46.6	+0.4
ORTH				S	Sg	15 31 51.2	+0.3
ORTH				AML	AML		
EVGI	Lefkada island	0.44	7	P	Pb	15 31 49.1	+0.5
EVGI				S	Sb	15 31 55.0	-0.2
EVGI				AML	AML		
EVGI	Lefkada island	0.44	7	P	Pb	15 31 49.2	+0.5
EVGI				S	Sb	15 31 55.7	+0.5
EVGI				AML	AML		
DRAG	Dragano-Lefkad	0.50	359	P	Pb	15 31 50.0	+0.3
DRAG				S	Sb	15 31 57.9	+1.0
DRAG	Dragano-Lefkad	0.50	359	P	Pb	15 31 50.0	+0.3
DRAG				S	Sb	15 31 57.4	+0.5
LTHK	Lithakia	0.51	157	P	Pg	15 31 49.2	-0.1
LTHK				S	Sg	15 31 56.5	+0.4
LTHK				AML	AML		
LTHK	Lithakia	0.51	157	P	Pg	15 31 49.2	-0.1
LTHK				S	Sg	15 31 55.8	-0.3
LTHK				AML	AML		
CLEM	Kyllini,Ilia,G	0.52	124	P	Pg	15 31 49.7	+0.3
AST1	Astakos	0.53	48	P	Pb	15 31 50.5	+0.3
AST1				S	Sb	15 31 58.4	+0.6
NYDR	Nydri-Lefkada	0.54	9	P	Pb	15 31 50.7	+0.4
NYDR				S	Sb	15 31 58.8	+0.8
NYDR				AML	AML		
NYDR	Nydri-Lefkada	0.54	9	P	Pb	15 31 50.7	+0.4
NYDR				S	Sn	15 31 59.4	-1.8
LCHA	Lechaina	0.59	114	P	Pb	15 31 51.6	+0.4
LCHA				AML	AML		
LKD2	Lefkada island	0.61	5	P	Pb	15 31 51.9	+0.3
LKD2				S	Sn	15 32 01.6	-1.4
LKD2				AML	AML		
LKD2	Lefkada island	0.61	5	P	Pg	15 31 51.8	+0.7
LKD2				S	Sn	15 32 01.0	-2.0
LKD2				AML	AML		
AXS	Araxos	0.62	89	P	Pb	15 31 51.6	-0.2
AXS				S	Sb	15 32 01.5	+1.2
PDO	Prodromos	0.63	48	P	Pb	15 31 52.2	+0.3
PDO				S	Sb	15 32 01.1	+0.6
PDO				AML	AML		
PDO	Prodromos	0.63	48	P	Pb	15 31 52.4	+0.5
PDO				S	Sn	15 32 01.8	-1.6
PDO				AML	AML		
TSLK	Tsoukalades, L	0.64	5	P	Pg	15 31 53.2	+1.5
TSLK				S	Sn	15 32 02.2	-1.6
TSLK				AML	AML		
TSLK	Tsoukalades, L	0.64	5	P	Pg	15 31 52.7	+0.9
TSLK				S	Sn	15 32 02.2	-1.6
TSLK				AML	AML		
MSL1	Messolongi	0.69	74	P	Pg	15 31 53.5	+0.9
PLEV	Plevrona-Mesol	0.69	70	P	Pb	15 31 53.1	+0.3
PLEV				S	Sn	15 32 03.0	-1.8
PLEV				AML	AML		
PLEV	Plevrona-Mesol	0.69	70	P	Pg	15 31 53.3	+0.8
PLEV				S	Sn	15 32 04.1	-0.7
PLEV				AML	AML		
RLS	Riolos of Patr	0.70	100	P	Pb	15 31 53.0	-0.2
RLS				S	Sb	15 32 02.9	+0.2
RLS				AML	AML		
RLS	Riolos of Patr	0.70	100	P	Pb	15 31 53.0	-0.2
RLS				S	Sg	15 32 03.5	+1.3
RLS				AML	AML		
PVO	Paravola	0.85	59	P	Pn	15 31 56.7	0.0
PVO				S	Sn	15 32 08.7	-0.3
PVO				AML	AML		
PVO	Paravola	0.85	59	P	Pn	15 31 56.8	0.0
PVO				S	Sn	15 32 08.8	-0.3
AMPL	Ampelaki	0.89	33	P	Pg	15 31 56.8	+0.5
AMPL				S	Sn	15 32 09.9	0.0
AMPL				AML	AML		
PATG	Patra B	0.90	86	P	Pg	15 31 57.4	+0.9
PATG				S	Sn	15 32 10.1	0.0
DRO	Drossia	0.92	104	P	Pb	15 31 56.7	-0.1
DRO				S	Sn	15 32 10.5	0.0
DRO				AML	AML		
DRO	Drossia	0.92	104	P	Pb	15 31 56.9	+0.1
DRO				S	Sn	15 32 10.4	-0.2
DRO				AML	AML		
AGRP	Agrapidokambos	0.92	76	P	Pb	15 31 56.9	+0.1
AGRP				S	Sn	15 32 11.0	+0.4
AGRP				AML	AML		
PATC	Patra C	0.93	84	P	Pg	15 31 58.0	+0.9
PATC				S	Sn	15 32 10.7	-0.1
PATC				AML	AML		
RIOA	Rio	0.95	83	P	Pg	15 31 58.2	+0.6
RIOA				AML	AML		
VVK	Vomvokou	0.99	76	P	Pb	15 31 58.3	+0.2
VVK				S	Sn	15 32 13.4	+0.9
VVK				AML	AML		
ART2	Arta	1.01	18	P	Pg	15 32 00.1	+1.3
ART2				S	Sn	15 32 13.8	+0.8
ART2				AML	AML		
ARTB	Arta	1.02	17	P	Pg	15 32 00.3	+1.4
ARTB				AML	AML		
EFP	Efpalio	1.06	76	P	Pb	15 31 59.4	+0.1
EFP				S	Sg	15 32 16.2	+2.6
EFP				AML	AML		
ZARO	Zacharo	1.09	129	P	Pb	15 32 00.8	+1.0
ZARO				S	Sb	15 32 14.7	+0.8
ZARO				AML	AML		
LAKA	Lakka	1.10	87	P	Pb	15 32 00.1	+0.2
LAKA				S	Sg	15 32 16.4	+1.8
LAKA				AML	AML		
AMT	Artemida-Makis	1.10	126	P	Pb	15 32 00.5	+0.6
AMT				S	Sg	15 32 16.7	+2.0
AMT				AML	AML		
AMT	Artemida-Makis	1.10	126	P	Pb	15 32 00.3	+0.3
AMT				S	Sb	15 32 15.0	+0.8
AMT				AML	AML		
PRGA	Parga	1.11	353	P	Pg	15 32 01.9	+1.4
PRGA				S	Sg	15 32 16.7	+1.6
ANX	Ano Chora	1.12	68	P	Pb	15 32 00.7	+0.2
ANX				S	Sg	15 32 19.3	+3.7
ANX				AML	AML		
SERG	Sergoula	1.18	78	P	Pn	15 32 01.2	-0.1
SERG				AML	AML		
EVR	Evrytania	1.21	52	P	Pb	15 32 02.4	+0.6
EVR				AML	AML		
TEME	Temeni, Aigial	1.21	87	P	Pb	15 32 02.2	+0.5
TEME				S	Sg	15 32 18.9	+0.8
KALE	Kalithea	1.24	80	P	Pn	15 32 02.4	+0.3
KALE				AML	AML		
KLV	Kalavryta, Ach	1.24	96	P	Pn	15 32 02.5	+0.4
KLV				S	Sg	15 32 20.1	+0.8
KLV				AML	AML		
TETR	Tetrakomo, Epi	1.28	25	P	Pg	15 32 04.2	+0.5
TETR				S	Sg	15 32 23.2	+2.8
TETR	Tetrakomo, Epi	1.28	25	P	Pg	15 32 04.1	+0.3
TETR				S	Sg	15 32 22.0	+1.6
IGT	Igoumenitsa	1.36	352	P	Pg	15 32 05.6	+0.2
IGT				S	Sg	15 32 25.0	+1.9
IGT				AML	AML		
IGT	Igoumenitsa	1.36	352	*e*Pg	Pg	15 32 05.6	+0.2
IGT				*e*Sg	Sg	15 32 23.4	+0.3
IGT	Igoumenitsa	1.36	352	P	Pg	15 32 05.5	+0.2
IGT				AML	AML		
PRMD	Pramanda	1.40	16	P	Pg	15 32 06.6	+0.5
PRMD				S	Sg	15 32 26.5	+2.1
PRMD	Pramanda	1.40	16	P	Pg	15 32 06.1	0.0
PRMD				AML	AML		
ITM	Ithomi	1.46	133	P	Pn	15 32 06.1	+1.0
ITM				S	Sb	15 32 26.1	+1.6
ITM				AML	AML		
JAN	Janina	1.49	8	P	Pg	15 32 07.6	-0.2
JAN				AML	AML		
VALY	Valyra	1.50	132	P	Pn	15 32 07.2	+1.5
VALY				AML	AML		
DLFA	Delphi	1.53	78	P	Pb	15 32 07.4	+0.1
PYL1	Pylos	1.54	145	P	Pn	15 32 06.2	0.0
PYL	PYLOS	1.58	144	P	Pn	15 32 07.4	+0.7
AAMF	Ano Amfeia	1.59	132	P	Pn	15 32 08.5	+1.7
AGG	Agios Georgios	1.60	58	P	Pb	15 32 09.4	+0.8
AGG				AML	AML		
THAL	Thalero	1.64	94	P	Pb	15 32 09.7	+0.5
KEK	Kerkira	1.65	338	P	Pn	15 32 08.2	+0.5
KEK				AML	AML		
AXAR	Agios Charalam	1.73	70	P	Pb	15 32 10.9	+0.2
AXAR				AML	AML		
THL	Klokotos Trika	1.77	38	P	Pb	15 32 11.9	+0.5
THL				AML	AML		
KPRO	Kipourio	1.87	19	P	Pb	15 32 13.2	+0.1
KPRO				AML	AML		
LTK	Loutraki	1.88	94	P	Pb	15 32 13.0	-0.3
LTK				AML	AML		
LOUT	Loutraki	1.89	95	P	Pb	15 32 13.3	-0.2
LOUT				AML	AML		
LKR	Lokris	1.95	75	P	Pb	15 32 14.2	-0.2
LKR				AML	AML		
ATAL	Atalanti	1.98	74	P	Pb	15 32 14.6	-0.3
VIL2	Platees	2.11	88	P	Pb	15 32 16.6	-0.6
VIL2				AML	AML		
MET2	Kameni Chora,	2.24	104	P	Pn	15 32 18.1	+2.3
MET2				AML	AML		
MET6	Megalochori,Me	2.27	104	P	Pn	15 32 18.3	+2.1
MET6				AML	AML		
MET4	Agioi Theodoro	2.29	103	P	Pn	15 32 18.7	+2.1
STFN	Stefani	2.33	89	P	Pn	15 32 19.1	+2.1
STFN				AML	AML		
NEO	Neokhori	2.35	61	P	Pb	15 32 19.7	-1.5
NEO				AML	AML		
LIT	Litokhoron	2.42	37	P	Pb	15 32 20.8	-1.7
LIT				AML	AML		
ATH	Athens Observa	2.48	94	P	Pn	15 32 19.8	+0.7
ATH				AML	AML		
ATHU	Athens Univers	2.53	94	P	Pn	15 32 21.3	+1.5
VLY	Voula,Athens	2.55	96	P	Pn	15 32 21.8	+1.7
VLY				AML	AML		
PTL	Penteli	2.59	92	P	Pn	15 32 21.9	+1.3
PTL				AML	AML		
AOS2	Alonissos-2	2.73	68	P	Pn	15 32 24.8	+2.4
KYMI	Kymi, Euboea I	2.80	80	P	Pn	15 32 25.6	+2.2
OHR	Ohrid	2.93	3	*i* Pn	Pb	15 32 28.9	-2.3
OHR				*e*Sn	Sn	15 33 01.6	+1.2
KARY	Karystos	3.04	92	P	Pn	15 32 28.2	+1.4
THE	Thessaloniki	3.06	36	P	Pn	15 32 28.9	+1.8
HORT	Hortiatis	3.10	38	P	Pn	15 32 29.4	+1.8
GRG	Griva	3.10	26	P	Pn	15 32 29.7	+2.0
PLG	Polygyros	3.12	44	P	Pn	15 32 29.3	+1.4
TIP	Timpagrande	3.16	290	⇓P	Pn	15 32 28.9	+0.4
TIP	Timpagrande	3.16	290	P	Pn	15 32 29.1	+0.6
MESG	Mesagne	3.21	319	P	Pn	15 32 29.4	+0.4
VAY	Valandovo	3.49	25	*i* Pn	Pn	15 32 35.2	+2.3
SRS	Serrai	3.74	37	*e*Pn	Pn	15 32 37.9	+1.5
MATE	Matera	3.89	311	⇓P	Pg	15 32 54.2	+0.6
ULC	Ulcinj	3.91	345	⇓*i*Pn	Pn	15 32 39.8	+1.0
ULC				*i* Sn	Sn	15 33 23.6	-1.0
ULC				AML	AML		
DRME	Dracevica, Mon	4.14	345	⇓*i*Pn	Pn	15 32 43.5	+1.6
DRME				*i* Sn	Sn	15 33 30.0	-0.1
DRME				AML	AML		
BUM	Brajici-Budva	4.31	343	⇑*i*Pn	Pn	15 32 45.2	+0.9
BUM				*i* Sn	Sn	15 33 32.9	-1.5
BUM				AML	AML		
PDG	Podgorica	4.36	347	*e*Pn	Pn	15 32 45.2	+0.2
PDG	Podgorica	4.36	347	⇑P	Pn	15 32 45.9	+1.0
PDG	Podgorica	4.36	347	⇓*i*Pn	Pn	15 32 46.5	+1.5
PDG				*i* Sn	Sn	15 33 35.0	-0.6
PDG				AML	AML		
PVY	Plav	4.43	354	⇑*i*Pn	Pn	15 32 48.4	+2.3
PVY				*i* Sn	Sn	15 33 37.0	-0.5
PVY				AML	AML		
IDI	Anoyia	4.50	129	Pn	Pn	15 32 48.6	+1.6
	7.8nm,1.1s,baz=304,slow=10,SNR=6.3						
IDI				Sn	Sn	15 33 36.0	-3.2
	4.7nm,0.3s,baz=165,slow=22,SNR=5.8						
CEME	Cevo	4.54	344	⇑*i*Pn	Pn	15 32 48.1	+0.6
CEME				*i* Sn	Sn	15 33 38.9	-1.2
CEME				AML	AML		
HCY	Herceg Novi	4.55	340	⇑*i*Pn	Pn	15 32 47.7	+0.2
HCY				*i* Sn	Sn	15 33 39.2	-1.0
HCY				AML	AML		
IVA	Berane	4.71	354	⇓*i*Pn	Pn	15 32 52.0	+2.1
IVA				*i* Sn	Sn	15 33 43.5	-0.9
IVA				AML	AML		
BARS	Barje	4.72	11	*e*Pn	Pn	15 32 51.4	+1.5
KOME	Kolasin	4.73	350	⇑*i*Pn	Pn	15 32 52.0	+1.8
KOME				*i* Sn	Sn	15 33 44.8	-0.1
KOME				AML	AML		
NKME	Niksic	4.75	345	⇓*i*Pn	Pn	15 32 51.0	+0.7
NKME				*i* Sn	Sn	15 33 40.7	-4.4
NKME				AML	AML		
TREB	Trebinje	4.84	340	*e*Pn	Pn	15 32 51.6	+0.1
TREB				*e*Sn	Sn	15 33 45.1	-2.2
VAE	Valguarnera	4.94	264	Pn	Pn	15 32 58.3	+5.4
	5.3nm,0.3s,baz=74,slow=18,SNR=1.7						
VAE				Sn	Sn	15 33 56.2	+6.3
	2.1nm,0.3s,baz=58,slow=12,SNR=2.0						
BRY	Bratogost	4.96	342	⇑*i*Pn	Pn	15 32 54.4	+1.0
BRY				*i* Sn	Sn	15 33 49.4	-1.2
BRY				AML	AML		

SELS	Selova	5.05	4	ePn	Pn	15 32 55.6	+1.2
SJES	Sjenica	5.09	355	ePn	Pn	15 32 55.6	+0.5
STON	Ston	5.17	336	ePn	Pn	15 32 56.2	+0.1
UPM	Unac-Piva	5.17	346	⇑iPn	Pn	15 32 57.9	+1.6
UPM				i Sn	Sn	15 33 54.4	-1.5
UPM				AML	AML		
ZAPS	Zavoj	5.32	16	ePn	Pn	15 32 59.2	+1.1
GOCS	Kraljevo Serbi	5.38	2	ePn	Pn	15 32 59.2	+0.2
IVAS	Ivanjica	5.40	357	ePn	Pn	15 32 59.6	+0.3
IVAS				eSn	Sn	15 33 57.0	-4.2
BOVS	Bovan	5.51	8	ePn	Pn	15 33 01.4	+0.7
BOVS	Bovan	5.51	8	⇑P	Pn	15 33 01.9	+1.1
GRUS	Gruza	5.70	1	ePn	Pn	15 33 03.9	+0.6
GRUS				eSn	Sn	15 34 04.6	-4.0
ZAGS	Zajecar	5.76	12	ePn	Pn	15 33 05.2	+1.0
DIVS	Divibare	5.93	356	ePn	Pn	15 33 07.2	+0.7
DIVS				eSn	Sn	15 34 10.2	-4.0
TEKS	Tekeris	6.41	353	ePn	Pn	15 33 12.7	-0.4
FRGS	Fruska Gora	6.99	355	ePn	Pn	15 33 20.8	-0.3
GZR	Gura Zlata	7.39	12	⇑P	Pn	15 33 27.9	+1.4
VOIR		7.98	23	⇓P	Pn	15 33 36.8	+2.1
MLR	Muntele Rosu	8.32	27	Pn	Pn	15 33 36.1	-3.4
	0.3nm,0.3s,baz=157,slow=11,SNR=5.5						
	1.0nm,0.4s						
MLR				AML	AML		
MLR	Muntele Rosu	8.32	27	⇑P	Pn	15 33 44.7	+5.2
BOJS	Bojanci	8.33	333	ePn	Pn	15 33 40.1	+0.7
CEY	Cerknica	8.83	331	ePn	Pn	15 33 47.2	+0.9
SKDS	Skadanscina	8.84	328	ePn	Pn	15 33 46.4	0.0
PLOR	Plostina	8.89	29	⇑P	Pn	15 33 51.2	+4.1
VRI	Vrincioaia	8.93	29	⇓P	Pn	15 33 50.3	+2.6
SOKA	Soboth	9.43	336	i Pn	Pn	15 33 54.4	-0.2
	4.7nm,0.4s,SNR=12						
SOKA				eSn	Sn	15 35 34.5	-5.8
	2.5nm,0.6s						
OBKA	Obir	9.44	334	Pn	Pn	15 33 55.5	+0.7
	0.1nm,0.1s,SNR=10						
OBKA				i Sn	Sn	15 35 39.2	-1.5
	11nm,0.6s						
ARSA	Arzberg	9.80	339	ePn	Pn	15 34 00.8	+1.3
	0.9nm,0.4s						
MYKA	Terra Mystica	9.88	331	ePn	Pn	15 34 00.5	-0.2
	0.8nm,0.1s						
MYKA				eSn	Sn	15 35 45.8	-5.6
	3.3nm,0.6s						
SESA	Seetaler Alpe,	9.96	336	i Pn	Pn	15 34 03.1	+1.1
	0.1nm,0.1s,SNR=4.7						
SESA				eSn	Sn	15 35 50.5	-3.2
	0.3nm,0.2s						
BRTR	Keskin Array B	10.28	77	Pn	Pn	15 34 04.0	-2.3
	0.1nm,0.3s,baz=241,slow=8.1,SNR=1.4						
	0.3nm,0.5s						
BRTR				AML	AML		
CONA	Conrad Observa	10.33	342	eSn	Sn	15 36 04.2	+1.7
	0.7nm,0.3s						
KBA	Koelnbreinsper	10.36	331	ePn	Pn	15 34 07.8	+0.4
	0.5nm,0.3s						
KBA				eSn	Sn	15 35 58.1	-5.3
	0.1nm,0.1s						
ABTA	Abfaltersbach	10.43	328	ePn	Pn	15 34 08.8	+0.5
	0.4nm,0.3s						
ABTA				eSn	Sn	15 35 59.5	-5.4
	2.3nm,0.5s						
MOA	Molln	10.71	336	ePn	Pn	15 34 12.5	+0.5
MOA	Molln	10.71	336	ePn	Pn	15 34 12.7	+0.7
	0.1nm,0.1s						
MOA				eSn	Sn	15 36 07.5	-4.1
	0.4nm,0.3s						
BIOA	Bad Ischl, Aus	10.78	334	ePn	Pn	15 34 14.0	+1.1
	1.1nm,0.2s						
BIOA				i Sn	Sn	15 36 10.1	-3.2
	1.6nm,0.4s						
LESA	Schwarzleotal	10.90	330	i Pn	Pn	15 34 15.5	+0.7
	0.3nm,0.1s,SNR=11						
LESA				i Sn	Sn	15 36 11.0	-5.5
	0.1nm,0.2s						
WTTA	Wattenberg	11.20	327	ePn	Pn	15 34 19.1	+0.2
	0.5nm,0.2s						
WATA	Walderalm	11.29	327	ePn	Pn	15 34 21.8	+1.7
	0.1nm,0.1s						
FETA	Feichten	11.43	324	i Pn	Pn	15 34 23.2	+1.2
	0.1nm,0.2s						
DAVOX	Davos/Dischmat	11.66	321	Pn	Pn	15 34 28.0	+2.7
	0.3nm,0.3s,baz=108,slow=20,SNR=2.6						
DAVOX				Sn	Sn	15 36 33.8	-1.5
	0.4nm,0.3s,baz=302,slow=22,SNR=4.7						
	0.9nm,0.3s						
DAVOX				AML	AML		
GERES	GERESS Array B	11.77	337	Pn	Pn	15 34 27.6	+1.1
	baz=154,slow=13,SNR=5.4						
GERES				Sn	Sn	15 36 34.1	-3.5
	baz=151,slow=25						
	0.4nm,0.3s						
ESDC	Sonseca Array	19.15	282	P	Pn	15 36 04.1	+1.3
	baz=84,slow=11,SNR=4.7						
	0.8nm,1.0s						
HFS	Hagfors	22.40	351	P	P	15 36 37.3	+0.4
	2.3nm,0.7s,baz=178,slow=13,SNR=7.7						
	2.3nm,0.7s						
FINES	FINESS Array B	23.54	7	P	P	15 36 47.3	-1.3
	3.6nm,0.8s,baz=180,slow=9.5,SNR=7.6						
	3.6nm,0.8s						
NOA	NORSAR Array B	23.62	349	LR	LR	15 47 04.6	
	comp=Z,7.5nm,18.7s,baz=275,slow=39						
ARCES	ARCESS Array B	31.52	3	P	P	15 37 59.6	-0.7
	2.8nm,1.1s,baz=190,slow=4.9,SNR=3.7						
	2.8nm,1.1s						
KURBB	Kurchatov Arra	42.18	54	P	P	15 39 29.7	-1.5
	0.5nm,0.3s,baz=275,slow=8.3,SNR=4.8						
	0.5nm,0.3s						
MKAR	Makanchi Array	45.25	58	P	P	15 39 54.6	-1.4
	0.9nm,0.3s,baz=280,slow=7.9,SNR=19						
	0.9nm,0.3s						
ZALV	Zalesovo Beam	45.65	48	P	P	15 39 57.8	-1.2
	1.6nm,0.5s,baz=273,slow=8.8,SNR=9.2						
	1.6nm,0.5s						

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*JMA **12** 15:36:49.0±0.2, 25°N±3°×122°.8E±0°.8, h94km, MV1.3/9, NW OFF ISHIGAKIJIMA IS*

*TAP **12** 15:36:50.1, 24°.67N×122°.81E, h88km, ML2.8, C*

ISC 12 15:36:50.2±1.3**, 24°.63N**±0°.04×**122°.83E**±0°.03**, h90**km±7km**,**
n99, σ1ˢ.03/189**, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JYNG	Yonagunijimaku	0.21	149	P	Pn	15 37 02.9	-0.3
JYNG				eS	Sn	15 37 13.0	+0.2
YOJ	Yonaguni jima	0.23	135	i P	Pn	15 37 03.4	+0.1
YOJ				i S	Sn	15 37 13.3	+0.3
EOS3	EOS3	0.58	234	eP	Pn	15 37 06.9	+1.5
EOS3				eS	Sn	15 37 17.8	+1.1
EOS2	EOS2	0.58	249	eP	Pn	15 37 04.9	-0.6
EOS2				S	Sn	15 37 18.4	+1.5
EOS4	EOS4	0.69	223	i P	Pn	15 37 06.3	+0.1
EOS4				eS	Sn	15 37 19.7	+1.6
TWB1	Santiao Chiao	0.85	296	eP	Pn	15 37 06.9	-1.3
TWB1				S	Sn	15 37 21.2	-0.5
IRIF	Iriomote-Funau	0.87	109	P	Pn	15 37 07.7	-0.7
NTC	Toucheng	0.94	284	i P	Pn	15 37 08.9	-0.2
NTC				eS	Sn	15 37 24.7	+1.4
EWUT	Wuta	0.97	259	P	Pn	15 37 09.6	0.0
EWUT				S	Sn	15 37 23.9	-0.2
SXI1	Grass Mountain	0.98	298	P	Pn	15 37 09.9	+0.1
SXI1				eS	Sn	15 37 23.7	-0.7
ENA	Nanau	1.01	259	P	Pn	15 37 09.6	-0.4
ENA				eS	Sn	15 37 23.1	-1.7
NDS	Dongshan	1.01	270	P	Pn	15 37 10.0	-0.1
NDS				S	Sn	15 37 24.1	-0.9
TWE	Neicheng	1.06	275	P	Pn	15 37 10.6	0.0
TWE				S	Sn	15 37 25.4	-0.4
FUSB	Fushanzhiwuyua	1.14	277	eP	Pn	15 37 11.8	+0.2
FUSB				S	Sn	15 37 27.3	-0.3
JKRS	Kuro-shima	1.14	110	P	Pn	15 37 11.4	-0.1
JKRS				eS	Sn	15 37 28.1	+0.5
ENTT	Nioudou	1.15	271	P	Pn	15 37 12.3	+0.6
ENTT				S	Sn	15 37 28.0	+0.2
TWA	Mucha	1.19	287	eP	Pn	15 37 11.9	-0.2
TWA				eS	Sn	15 37 28.1	-0.4
LATG	Datong	1.19	266	eP	Pn	15 37 13.2	+1.0
LATG				i S	Sn	15 37 29.1	+0.3
ETL	Fush Village	1.20	247	eP	Pn	15 37 13.3	+1.1
ETL				eS	Sn	15 37 28.7	-0.1
NDT	Datong Townshi	1.20	269	eP	Pn	15 37 12.6	+0.4
NDT				eS	Sn	15 37 29.3	+0.5
NACB	Ninganchiao	1.21	248	P	Pn	15 37 11.3	-1.1
NACB				S	Sn	15 37 27.6	-1.5
NWLT	Wulai	1.22	277	eS	Sn	15 37 29.2	0.0
JIJ	Ishigaki jima	1.23	102	P	Pn	15 37 11.8	-0.7
TWD	Chiawan	1.25	244	eP	Pn	15 37 13.7	+0.8
TWD				S	Sn	15 37 28.9	-1.0
YM01	YM01	1.25	294	P	Pn	15 37 13.1	+0.2
YM01				eS	Sn	15 37 28.5	-1.6
TATO	Taipei	1.27	286	P	Pn	15 37 13.3	+0.3
TATO				S	Sn	15 37 30.1	-0.2
TAP	Taipei	1.27	289	P	Pn	15 37 12.6	-0.4
TAP				S	Sn	15 37 30.0	-0.3
ZUZH	Zhuzihu	1.28	295	P	Pn	15 37 13.3	0.0
ZUZH				S	Sn	15 37 30.6	-0.1
ETLH	Xiulin Townshi	1.30	251	P	Pn	15 37 13.1	-0.4
ETLH				eS	Sn	15 37 30.0	-1.1
YHNB	Yeheng	1.32	272	eP	Pn	15 37 14.8	+1.0
YHNB				S	Sn	15 37 31.7	+0.1
NNSB	Datong	1.33	262	eP	Pn	15 37 14.8	+0.8
NNSB				eS	Sn	15 37 32.1	+0.2
NNS	Nan Shan	1.34	262	P	Pn	15 37 14.4	+0.3
NNS				S	Sn	15 37 31.5	-0.5
NSK	Sanguang	1.34	272	P	Pn	15 37 14.0	0.0
NSK				S	Sn	15 37 31.9	-0.1
JISG	Ishigakijimahi	1.35	91	P	Pn	15 37 13.4	-0.6
TEYL	Yanliau Villag	1.36	236	P	Pn	15 37 14.4	+0.3
TEYL				S	Sn	15 37 32.1	-0.1
TWS1	Kuangyinshan	1.37	290	P	Pn	15 37 14.3	+0.1
TWS1				S	Sn	15 37 32.5	+0.1
ETM	Tongmen	1.39	242	P	Pn	15 37 14.3	-0.2
ETM				S	Sn	15 37 31.9	-1.0
LXIB	Xiulin Townshi	1.43	245	P	Pn	15 37 15.3	+0.1
LXIB				eS	Sn	15 37 33.0	-1.0
SHUL	Shoufeng	1.43	234	P	Pn	15 37 14.3	-0.7
SHUL				eS	Sn	15 37 34.4	+0.6
FUSS	Fushou	1.49	256	P	Pn	15 37 15.4	-0.7
FUSS				S	Sn	15 37 35.8	+0.1
WHF	Hehuan Shan	1.51	252	P	Pn	15 37 16.6	+0.2
WHF				S	Sn	15 37 35.2	-1.0
ESL	Shilin	1.51	238	P	Pn	15 37 16.6	+0.5
ESL				S	Sn	15 37 35.0	-0.7
KSHI	Guanxi Townshi	1.51	276	P	Pn	15 37 16.2	+0.2
KSHI				S	Sn	15 37 36.1	+0.5
TWT	Tachien	1.55	256	P	Pn	15 37 17.3	+0.6
TWT				S	Sn	15 37 36.3	-0.6
NFF	Wufeng Townshi	1.56	270	P	Pn	15 37 16.7	0.0
NFF				S	Sn	15 37 36.2	-0.6
TDCB	Techi	1.57	257	P	Pn	15 37 17.9	+0.9
TDCB				S	Sn	15 37 36.4	-0.8
EGFH	Guangfu	1.60	234	P	Pn	15 37 17.6	+0.4
EGFH				S	Sn	15 37 37.4	-0.2
WARBT	Fenglin Townsh	1.60	236	eP	Pn	15 37 16.3	-1.0
WARBT				S	Sn	15 37 35.7	-2.0
LIOB	Emei	1.65	271	P	Pn	15 37 19.1	+1.2
LIOB				S	Sn	15 37 38.5	-0.4
OWD	Renai	1.65	246	P	Pn	15 37 17.4	-0.6
OWD				S	Sn	15 37 37.9	-1.2
NSTT	Nanjuang	1.66	270	P	Pn	15 37 18.8	+0.8
NSTT				S	Sn	15 37 38.5	-0.7
WUSB	Renai	1.69	248	eP	Pn	15 37 18.5	+0.1
WUSB				S	Sn	15 37 39.1	-0.8
JTJ	Tarama	1.70	89	P	Pn	15 37 18.0	-0.6
JTJ				S	Sn	15 37 41.4	+1.3
HGSD	Ruisui	1.71	229	P	Pn	15 37 18.1	-0.6
HGSD				S	Sn	15 37 40.1	-0.2
WHP	Taichung City	1.75	259	P	Pn	15 37 19.9	+0.7
WHP				S	Sn	15 37 41.1	-0.2
EHYH	Wanrong	1.77	231	eP	Pn	15 37 19.2	-0.2
EHYH				eS	Sn	15 37 41.0	-0.5
VWDT	VWDT	1.77	241	eP	Pn	15 37 19.4	0.0
VWDT				i S	Sn	15 37 41.1	-0.5
EHY	Hungye	1.77	231	P	Pn	15 37 19.8	+0.3
EHY				eS	Sn	15 37 39.5	-2.2
DPDB	Guoxing	1.83	252	P	Pn	15 37 21.0	+0.7
DPDB				S	Sn	15 37 43.5	+0.3
WCS	Beigang Elemen	1.84	252	P	Pn	15 37 21.4	+1.1
WCS				S	Sn	15 37 43.1	-0.1
YULB	Yu-li	1.86	229	P	Pn	15 37 19.9	-0.8
YULB				eS	Sn	15 37 40.7	-3.1
EYUL	Yuli	1.88	228	P	Pn	15 37 20.6	-0.3
EYUL				S	Sn	15 37 44.5	+0.3
TWQ1	Liyutan	1.90	262	P	Pn	15 37 21.7	+0.7
TWQ1				eS	Sn	15 37 44.6	+0.1
SSLB	Suanglung	1.91	244	eP	Pn	15 37 22.2	+1.0
SSLB				eS	Sn	15 37 44.7	-0.1
SMLT	Sun Moon Lake	1.91	248	P	Pn	15 37 22.5	+1.2
SMLT				eS	Sn	15 37 47.4	+2.3
TYC	Yuchr	1.94	249	eP	Pn	15 37 22.4	+0.8
TYC				eS	Sn	15 37 46.5	+0.9
CHKH	Chenggong	1.94	223	eP	Pn	15 37 21.9	+0.2
CHKH				eS	Sn	15 37 42.0	-3.6
FULB	Fuli	2.00	225	eP	Pn	15 37 23.0	+0.6
FULB				S	Sn	15 37 46.0	-1.0
CHKT	Chengkung	2.03	222	P	Pn	15 37 21.9	-0.8
CHKT				eS	Sn	15 37 43.2	-4.4
WHYT	Xinyi Township	2.03	243	eP	Pn	15 37 23.8	+0.9
WHYT				S	Sn	15 37 48.1	+0.4
WWF	Wufeng	2.03	254	eP	Pn	15 37 24.0	+1.2
WWF				eS	Sn	15 37 47.6	-0.1
YUS	Yu-Shan	2.06	237	P	Pn	15 37 24.0	+0.4
YUS				eS	Sn	15 37 49.7	+0.7
WJS	Zhushan	2.08	248	S	Sn	15 37 50.5	+1.7
WNT	Mingjian	2.10	250	eP	Pn	15 37 23.4	-0.2
WNT				eS	Sn	15 37 50.0	+0.7
WWCA	Taichung City	2.13	260	P	Pn	15 37 25.1	+0.9
WWCA				eS	Sn	15 37 50.1	0.0
ALS	Alishan	2.16	239	S	Sn	15 37 51.7	+0.6
EDH	Donghe	2.16	221	eP	Pn	15 37 22.8	-1.8
EDH				eS	Sn	15 37 48.3	-2.4
ELDTW	Lidau	2.19	230	eP	Pn	15 37 24.5	-0.5
ELDTW				eS	Sn	15 37 49.2	-2.5
JMJ	Miyako jima 2	2.25	85	eP	Pn	15 37 26.8	+1.2
JMJ2	Miyako jima3	2.27	87	eP	Pn	15 37 25.8	-0.2
WDLH	Douliu	2.29	246	P	Pn	15 37 27.4	+1.1
WDLH				eS	Sn	15 37 56.3	+2.5
LONT	Longtian	2.32	223	P	Pn	15 37 26.4	-0.2
LONT				eS	Sn	15 37 55.4	+1.0
WRL	Guolierlin Hig	2.35	253	P	Pn	15 37 27.9	+0.9
WRL				S	Sn	15 37 54.7	-0.6
WCKO	Fanlu	2.35	240	P	Pn	15 37 28.3	+1.2
WCKO				S	Sn	15 37 57.4	+2.1
RLNB	Erlin	2.37	252	P	Pn	15 37 28.1	+0.8
RLNB				S	Sn	15 37 55.5	-0.2
STYH	Taoyuan	2.38	233	P	Pn	15 37 28.5	+1.1
STYH				eS	Sn	15 37 57.2	+1.4
STYT	Tauyuan	2.39	233	P	Pn	15 37 28.9	+1.2
STYT				eS	Sn	15 37 57.4	+1.0
TPUB	Ta-pu	2.41	237	P	Pn	15 37 28.3	+0.5
TPUB				S	Sn	15 37 57.9	+1.2
CHN4	Tsaushan	2.41	239	P	Pn	15 37 30.0	+2.2
TWGBT	Beinan	2.41	222	eP	Pn	15 37 27.4	-0.5
TWGBT				eS	Sn	15 37 55.6	-1.2
TWG	Pinlang	2.42	222	P	Pn	15 37 27.7	-0.3
TWG				S	Sn	15 37 56.5	-0.3
WTP	Ta-pu	2.45	236	eP	Pn	15 37 28.5	+0.1
WTP				S	Sn	15 37 59.8	+2.1
TWK	Hsinying	2.54	238	eP	Pn	15 37 29.7	+0.1
TWK				eS	Sn	15 37 59.3	-0.5
CHN1	Nanshi	2.55	236	P	Pn	15 37 30.2	+0.5
CHN1				S	Sn	15 38 01.1	+1.1
SSD	Sandimen	2.75	228	P	Pn	15 37 32.8	+0.4
SSD				S	Sn	15 38 06.9	+2.1
MASBT	Mashibuluo	2.84	226	eP	Pn	15 37 34.4	+0.7
MASBT				eS	Sn	15 38 09.3	+2.3
VWUC	VWUC	3.09	277	eP	Pn	15 37 37.1	+0.1
VWUC				eS	Sn	15 38 11.2	-1.8
PNG	Penghu	3.17	251	eP	Pn	15 37 38.5	+0.5
PNG				eS	Sn	15 38 13.6	-1.4
PTMZ	Houxiangcun	3.40	278	eP	Pn	15 37 41.0	0.0
PTMZ				eS	Sn	15 38 18.5	-1.9

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*IDC **12** 15:36:47.6±2.3, 2°.49S×139°.77E, h0km, mb3.9/6, mbtmp4.0/7, ML4.1/1, Error ellipse: s-maj=73.9km s-min=21.9km az=90.0*

ISC 12 15:36:51.4±2.5**, 2°.5S**±0°.1×**139°.8E**±0°.5**, h25**km**, n11,**
σ0ˢ.47/8**, mb4.1**/5**, Near north coast of Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	Warramunga Arr	18.11	197	P	Pn	15 41 01.1	-0.3
	0.7nm,0.3s,baz=12,slow=13,SNR=40						
	5.0nm,0.7s						
WRA				AML	AML		
FITZ	Fitzroy Crossi	20.77	221	P	P	15 41 31.1	+0.4
	3.9nm,0.8s,baz=38,slow=12,SNR=8.9						
	3.9nm,0.8s						
ASAR	Alice Springs	21.77	195	P	P	15 41 41.5	0.0
	2.4nm,0.7s,baz=23,slow=9.6,SNR=32						
	2.4nm,0.7s						
H11N1	WAKE ISLAND Hy	34.61	49	T	T	16 20 02.4	
	baz=233,slow=75,SNR=4.1						
H11N2	WAKE ISLAND Hy	34.63	49	T	T	16 20 06.7	
	baz=233,slow=75,SNR=4.3						
H11N3	WAKE ISLAND Hy	34.63	49	T	T	16 20 08.5	
	baz=233,slow=75,SNR=4.7						
CMAR	Chiang Mai Arr	45.27	299	P	P	15 45 07.0	-0.4
	0.9nm,0.3s,baz=118,slow=6.8,SNR=9.0						
	0.9nm,0.3s						
MKAR	Makanchi Array	70.29	322	P	P	15 48 03.6	+0.8
	1.2nm,0.6s,baz=108,slow=7.9,SNR=9.5						
	1.2nm,0.6s						
KURBB	Kurchatov Arra	74.19	325	P	P	15 48 25.9	0.0
	0.4nm,0.6s,baz=116,slow=4.7,SNR=5.0						
	0.4nm,0.6s						
BVAR	Borovoye Array	79.77	325	P	P	15 48 57.2	-0.1
	1.1nm,0.6s,baz=97,slow=8.5,SNR=6.4						
	1.1nm,0.6s						
DBIC	Dimbokro	144.51	278	PKP	PKPab	15 56 25.1	-0.2
	5.5nm,0.6s,baz=74,slow=1.0,SNR=7.0						

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*SJA **12** 15:37:34.1±0.7, 28°.01S×71°.54W, h10km±2km, ML3.6, MW3.4*

*GUC **12** 15:37:37.6±0.8, 28°.04S×71°.41W, h27km±3km, ML3.7*

ISC 12 15:37:34.5±1.2**, 27°.97S**±0°.03×**71°.55W**±0°.06**, h10**km**, n30,**
σ2ˢ.01/55**, 2C-4D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.48	120	eP	Pb	15 37 44.6	-0.5
AC04				IAML		15 37 52.9	
	comp=Z,3µm,0.3s						
AC04	Llanos de Chal	0.48	120	⇓iP	Pb	15 37 44.8	-0.3
AC04				i S	Sg	15 37 49.4	-0.9
AC04				IAML		15 37 49.8	
	comp=E,17µm,0.3s						
GO03	Copiapo	1.22	73	eP	Pg	15 37 57.3	-0.7
GO03				eS	Sn	15 38 14.8	+0.5
GO03				IAML		15 38 18.5	
	comp=Z,1µm,0.4s						
GO03	Copiapo	1.22	73	⇓iP	Pg	15 37 57.2	-0.7
GO03				i S	Sn	15 38 13.2	-1.1
GO03				IAML		15 38 17.1	
	comp=E,2µm,0.2s						
LCO	Las Campanas	1.28	145	eP	Pn	15 37 58.2	-0.5
LCO				eS	Sb	15 38 15.2	-0.3
LCO				IAML		15 38 16.0	
	comp=Z,2µm,0.6s						
LCO	Las Campanas	1.28	145	⇓iP	Pn	15 37 58.0	-0.7
LCO				i S	Sb	15 38 12.8	-2.7
AC05	El Transito	1.42	128	eP	Pn	15 38 00.3	-0.2
AC05				eS	Sb	15 38 18.6	-0.7
AC05				IAML		15 38 21.9	
	comp=Z,431nm,0.4s						
AC05	El Transito	1.42	128	⇓iP	Pn	15 38 00.2	-0.2
AC05				i S	Sb	15 38 16.2	-3.1
AC01	Pan de Azucar	2.00	25	eP	Pn	15 38 09.1	+0.7
AC01				eS	Sg	15 38 37.4	-1.3
AC01				IAML		15 38 45.0	
	comp=Z,245nm,0.3s						
AC01	Pan de Azucar	2.00	25	i P	Pn	15 38 08.9	+0.6
GO04	Tololo Observa	2.29	164	eP	Pn	15 38 13.8	+1.2
GO04				eS	Sb	15 38 45.3	+0.6
GO04				IAML		15 38 47.5	
	comp=Z,443nm,0.2s						
GO04	Tololo Observa	2.29	164	i P	Pn	15 38 13.6	+1.0
GO04				i S	Sn	15 38 41.9	+0.9
GO04				IAML		15 38 52.9	
	comp=E,3µm,0.5s						
CO01	Juntas del Tor	2.38	148	eP	Pn	15 38 15.8	+2.1
CO01				eS	Sn	15 38 44.6	+1.6
CO01				IAML		15 38 47.1	
	comp=Z,357nm,0.4s						
CO01	Juntas del Tor	2.38	148	⇑iP	Pn	15 38 15.5	+1.8
CO01				i S	Sn	15 38 43.7	+0.6
CO01				IAML		15 38 48.4	
	comp=E,279nm,0.2s						
AC02	Maricunga	2.43	63	eP	Pb	15 38 17.1	-1.5
AC02				eS	Sb	15 38 48.6	-0.1
AC02				IAML		15 38 54.3	
	comp=Z,536nm,0.8s						
AC02	Maricunga	2.43	63	⇑iP	Pb	15 38 17.0	-1.5
AC02				i S	Sb	15 38 46.8	-1.9
AC02				IAML		15 38 53.0	
	comp=E,883nm,0.2s						
CO06	Fray Jorge	2.70	182	eP	Pn	15 38 17.9	-0.1
CO06				eS	Sn	15 38 50.5	-0.2
CO06				IAML		15 39 09.5	
	comp=E,114nm,0.3s						
AROD	Rodeo	2.85	141	eP	Pb	15 38 24.4	-1.2
VCA	Vinchina	3.04	105	eP	Pn	15 38 23.0	+0.2
VCA				eS	Sb	15 39 04.2	-1.9
VCA				IAML		15 39 14.2	
	comp=Z,224nm,0.4s						
ACDV	Cuesta del Vie	3.06	137	eP	Pb	15 38 27.1	-2.0
ACDV				eS	Sb	15 39 04.3	-2.2
ACDV				IAML		15 39 10.1	
	comp=Z,99nm,0.5s						
CO02	Combarbal	3.26	172	eP	Pn	15 38 26.5	+0.7
CO02				IAML		15 39 24.4	
	comp=Z,252nm,0.5s						
CO02	Combarbal	3.26	172	i P	Pn	15 38 26.3	+0.5
CO02				i S	Sn	15 39 07.0	+2.2
ACCO	Cerro Coronel	3.40	141	eP	Pb	15 38 32.0	-3.0
ACCO				eS	Sb	15 39 14.3	-2.2
ACCO				IAML		15 39 28.1	
	comp=Z,112nm,0.5s						
PB14	IPOC Station P	3.48	17	eP	Pn	15 38 29.4	+0.4
PB14				eS	Sb	15 39 21.3	+2.4
PB14				IAML		15 39 33.8	
	comp=Z,87nm,0.9s						
TINO	Tinogasta	3.52	93	eP	Pn	15 38 31.9	+2.6
TINO				eS	Sb	15 39 19.8	0.0
TINO				IAML		15 39 28.6	
	comp=Z,98nm,0.6s						
RTLL	Cerro Villicun	4.29	142	eP	Pn	15 38 44.4	+4.6
RTLL				IAML		15 39 45.5	
	comp=Z,51nm,0.4s						
ACLC	CERRO LA CRUZ	4.29	111	eP	Pn	15 38 43.1	+3.1
ACLC				eS	Sn	15 39 32.2	+2.0
ACLC				IAML		15 39 40.9	
	comp=Z,45nm,1.3s						
RTLS	Leoncito	4.29	153	eP	Pn	15 38 44.6	+4.5
RTLS				eS	Sn	15 39 33.5	+3.1
CFA	Coronel Fontan	4.63	142	eP	Pn	15 38 47.8	+3.3
CFA				eS	Sn	15 39 43.3	+4.9
CFA				IAML		15 39 56.8	
	comp=Z,46nm,0.4s						
CYA	Choya	5.09	97	eP	Pn	15 38 53.5	+2.6
CYA				eS	Sn	15 39 53.5	+3.7
CYA				IAML		15 40 01.0	
	comp=Z,33nm,0.4s						

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*SJA **12** 15:42:10.4±0.7, 31°.26S×71°.24W, h69km±3km, ML3.4, MW3.5*

*GUC **12** 15:42:11.9±0.5, 31°.32S×71°.16W, h68km±2km, ML3.7*

ISC 12 15:42:12.7±1.2**, 31°.27S**±0°.02×**71°.22W**±0°.04**, h57**km±8km**,**
n59, σ1ˢ.47/86**, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CO02	Combarbal	0.20	70	eP	Pn	15 42 21.6	-0.3
CO02				IAML		15 42 29.8	
	comp=Z,7µm,0.1s						
CO02	Combarbal	0.20	70	eP	Pn	15 42 21.6	-0.3
CO02				eS	Sn	15 42 29.1	+0.6
CO06	Fray Jorge	0.70	329	eP	Pn	15 42 27.1	+0.4
CO06				IAML		15 42 42.1	
	comp=E,3µm,0.2s						
CO04	Los Peladeros	0.80	165	eP	Pn	15 42 26.6	-1.7

CO04				IAML		15 42 39.7	
	comp=N,5µm,0.1s						
GO04	**Tololo Observa**	**1.15**	**18**	*e*P	**Pn**	**15 42 32.1**	**-0.8**
GO04				*e*S	**Sn**	**15 42 46.2**	**-1.6**
GO04				IAML		15 42 51.9	
	comp=Z,2µm,0.2s						
GO04	**Tololo Observa**	**1.15**	**18**	*e*P	**Pn**	**15 42 32.2**	**-0.6**
VA03	**San Esteban**	**1.59**	**159**	*e*P	**Pn**	**15 42 37.5**	**-1.2**
VA03				*e*S	**Sn**	**15 42 57.5**	**-0.7**
VA03				IAML		15 43 02.5	
	comp=Z,370nm,0.5s						
VA03	**San Esteban**	**1.59**	**159**	*e*P	**Pn**	**15 42 37.3**	**-1.3**
VA03				IAML		15 42 59.7	
	comp=N,890nm,0.1s						
CO01	**Juntas del Tor**	**1.61**	**37**	*e*P	**Pn**	**15 42 38.7**	**-0.3**
CO01				*e*S	**Sn**	**15 42 59.1**	**+0.3**
CO01				IAML		15 43 01.2	
	comp=Z,339nm,0.1s						
CO01	**Juntas del Tor**	**1.61**	**37**	*e*P	**Pn**	**15 42 38.8**	**-0.3**
ROCH	**El Roble**	**1.71**	**174**	*e*P	**Pn**	**15 42 39.3**	**-1.0**
ROCH				*e*P		15 42 39.6	
ROCH				IAML		15 43 04.8	
	comp=N,1µm,0.2s						
RTLS	**Leoncito**	**1.72**	**108**	*e*P	**Pn**	**15 42 40.6**	**+0.1**
RTLS				*e*S	**Sn**	**15 43 01.7**	**+0.1**
RTLS				IAML		15 43 03.3	
	comp=Z,526nm,0.4s						
VA01	**Torpederas**	**1.79**	**192**	*e*P	**Pn**	**15 42 42.5**	**+1.4**
VA01				*e*S	**Sn**	**15 43 05.2**	**+2.5**
VA01				IAML		15 43 08.0	
	comp=Z,215nm,0.3s						
AROD	**Rodeo**	**1.86**	**54**	*e*P	**Pn**	**15 42 43.6**	**+1.1**
PEL	**Peldehue**	**1.92**	**167**	*e*P	**Pn**	**15 42 42.1**	**-0.9**
PEL				*e*S	**Sn**	**15 43 09.6**	**+3.4**
PEL				IAML		15 43 12.6	
	comp=Z,180nm,0.2s						
PEL	**Peldehue**	**1.92**	**167**	*e*P	**Pn**	**15 42 42.2**	**-0.9**
ACCO	**Cerro Coronel**	**1.97**	**70**	*e*P	**Pn**	**15 42 44.6**	**+0.6**
ACCO				*e*S	**Sn**	**15 43 10.4**	**+2.7**
MT02	**Curacav**	**1.98**	**178**	*e*P	**Pn**	**15 42 42.7**	**-1.1**
MT02				*e*S	**Sn**	**15 43 08.2**	**+0.6**
MT02				IAML		15 43 10.9	
	comp=Z,225nm,0.2s						
MT02	**Curacav**	**1.98**	**178**	*e*P	**Pn**	**15 42 42.9**	**-1.0**
MT10	**Hacienda Santa**	**2.08**	**164**	*e*P	**Pn**	**15 42 44.1**	**-1.1**
MT10				IAML		15 43 14.9	
	comp=N,870nm,0.3s						
ACDV	**Cuesta del Vie**	**2.11**	**59**	*e*P	**Pn**	**15 42 46.8**	**+1.0**
MT05	**Renca**	**2.15**	**169**	*e*P	**Pn**	**15 42 46.0**	**-0.3**
MT05				*e*S	Sn	15 43 01.9	-10
MT05				IAML		15 43 02.0	
	comp=Z,255nm,0.2s						
ZON	**Zonda**	**2.19**	**98**	*e*P	**Pn**	**15 42 47.3**	**+0.7**
ZON				*e*S	**Sn**	**15 43 13.3**	**+0.7**
ZON				IAML		15 43 20.0	
	comp=Z,91nm,0.3s						
SJA	**San Juan**	**2.28**	**97**	*e*P	Pn	15 42 54.2	+6.2
SJA				IAML		15 43 28.4	
	comp=Z,82nm,0.1s						
LCO	**Las Campanas**	**2.29**	**11**	*e*P	**Pn**	**15 42 48.3**	**-0.1**
LCO				*e*S	**Sn**	**15 43 16.1**	**+0.5**
LCO				IAML		15 43 22.1	
	comp=Z,476nm,0.1s						
LCO	**Las Campanas**	**2.29**	**11**	*e*P	**Pn**	**15 42 48.4**	**0.0**
MT03	**Universidad Ad**	**2.30**	**165**	*e*P	**Pn**	**15 42 48.3**	**+0.1**
MT03				*e*S	**Sn**	**15 43 17.9**	**+2.6**
MT03				IAML		15 43 22.6	
	comp=Z,296nm,0.2s						
MT03	**Universidad Ad**	**2.30**	**165**	*e*P	**Pn**	**15 42 47.2**	**-1.0**
MT03				IAML		15 43 22.1	
	comp=N,568nm,0.2s						
MT04	**Ro Olivares**	**2.32**	**157**	*e*P	**Pn**	**15 42 48.6**	**0.0**
MT04				*e*S	**Sn**	**15 43 17.3**	**+1.2**
MT04				IAML		15 43 23.5	
	comp=Z,167nm,0.2s						
RTLL	**Cerro Villicun**	**2.35**	**92**	*e*P	**Pn**	**15 42 49.0**	**+0.1**
RTLL				*e*S	**Sn**	**15 43 17.5**	**+0.9**
RTLL				IAML		15 43 21.4	
	comp=Z,134nm,0.4s						
MT08	**Bocatoma Ro**	**2.39**	**155**	*e*P	**Pn**	**15 42 50.5**	**+0.8**
MT08				*e*S	**Sn**	**15 43 17.8**	**-0.2**
MT08				IAML		15 43 27.8	
	comp=Z,114nm,0.6s						
ARCO	**CERRO ARCO**	**2.49**	**130**	*e*P	**Pn**	**15 42 52.4**	**+1.4**
ARCO				*e*S	**Sn**	**15 43 15.0**	**-5.3**
ARCO				IAML		15 43 31.1	
	comp=Z,72nm,0.5s						
MT09	**Talagante**	**2.51**	**176**	*e*P	**Pn**	**15 42 50.4**	**-0.7**
MT09				IAML		15 43 24.5	
	comp=E,413nm,0.3s						
MT12	**Pirque**	**2.52**	**167**	*e*P	**Pn**	**15 42 51.1**	**-0.1**
AC05	**El Transito**	**2.56**	**19**	*e*P	**Pn**	**15 42 51.7**	**-0.2**
AC05				*e*S	**Sn**	**15 43 22.1**	**+0.2**
AC05				IAML		15 43 24.2	
	comp=Z,260nm,0.2s						
AC05	**El Transito**	**2.56**	**19**	*e*P	**Pn**	**15 42 51.9**	**0.0**
AC05				IAML		15 43 24.2	
	comp=E,396nm,0.1s						
CFA	**Coronel Fontan**	**2.57**	**98**	*e*P	**Pn**	**15 42 51.7**	**-0.1**
CFA				*e*S	**Sn**	**15 43 22.5**	**+0.6**
CFA				IAML		15 44 01.1	
	comp=Z,267nm,1.9s						
MT01	**Popeta**	**2.59**	**181**	*e*P	**Pn**	**15 42 51.4**	**-0.7**
MT01				*e*S	**Sn**	**15 43 24.2**	**+1.9**
MT01				IAML		15 43 30.6	
	comp=Z,195nm,0.2s						
MT01	**Popeta**	**2.59**	**181**	*e*P	**Pn**	**15 42 51.0**	**-1.1**
MT01				IAML		15 43 31.1	
	comp=N,294nm,0.2s						
MT13	**San Alfonso**	**2.59**	**163**	*e*P	**Pn**	**15 42 52.4**	**+0.2**
MT13				*e*S	**Sn**	**15 43 24.4**	**+1.8**
MT13				IAML		15 43 28.1	
	comp=Z,143nm,0.3s						
LMEL	**Las Melosas**	**2.71**	**162**	*e*P	**Pn**	**15 42 53.8**	**-0.1**
LMEL				IAML		15 43 31.3	
	comp=N,292nm,0.1s						
AAGR	**Agrelo**	**2.71**	**132**	*e*P	**Pn**	**15 42 55.0**	**+1.1**
AAGR				*e*S	Sn	15 43 11.1	-15
AC04	**Llanos de Chal**	**3.06**	**2**	*e*P	**Pn**	**15 42 58.6**	**+0.1**
AC04				*e*S	**Sn**	**15 43 31.8**	**-2.1**
AC04				IAML		15 43 45.8	
	comp=Z,183nm,0.8s						
BO01	**Tunca**	**3.12**	**178**	*e*P	**Pn**	**15 42 58.3**	**-1.0**
BO01				*e*S	**Sn**	**15 43 35.8**	**+0.5**
BO01				IAML		15 43 46.4	
	comp=Z,71nm,0.6s						
AVIZ	**Vizcacheras**	**3.17**	**135**	*e*P	**Pn**	**15 42 56.8**	**-3.4**
BO03	**Pichilemu**	**3.28**	**191**	*e*P	**Pn**	**15 42 59.8**	**-1.7**
AVFE	**Valle Fertil**	**3.29**	**80**	*e*P	**Pn**	**15 43 01.1**	**-0.6**
AVFE				*e*S	**Sn**	**15 43 36.3**	**-3.3**
AVFE				IAML		15 43 44.2	
	comp=Z,69nm,0.4s						
BO02	**Sierra Bellavi**	**3.53**	**174**	*e*P	**Pn**	**15 43 04.5**	**-0.5**
BO02				*e*S	**Sn**	**15 43 46.7**	**+1.1**
BO02				IAML		15 43 56.1	
	comp=Z,145nm,0.2s						
BO02	**Sierra Bellavi**	**3.53**	**174**	*e*P	**Pn**	**15 43 04.0**	**-1.1**
ACAN	**Cantantal**	**3.57**	**107**	*e*P	**Pn**	**15 43 04.8**	**-0.8**
ACAN				IAML		15 43 51.1	
	comp=Z,218nm,0.5s						
VCA	**Vinchina**	**3.63**	**47**	*e*P	**Pn**	**15 43 08.0**	**+1.4**
VCA				*e*S	Sn	15 44 00.8	+13
VCA				IAML		15 44 01.3	
	comp=Z,84nm,0.6s						
GO03	**Copiapo**	**3.76**	**13**	*e*P	**Pn**	**15 43 08.5**	**+0.3**
GO03				*e*S	**Sn**	**15 43 50.5**	**-0.8**
GO03				IAML		15 43 58.6	
	comp=Z,88nm,0.7s						
GO03	**Copiapo**	**3.76**	**13**	*e*P	**Pn**	**15 43 08.4**	**+0.2**
GO03				IAML		15 43 59.4	
	comp=N,120nm,0.3s						
GO05	**Hualane**	**3.78**	**189**	*e*P	**Pn**	**15 43 06.9**	**-1.5**
GO05				*e*S	Sn	15 44 04.0	+12
GO05				IAML		15 44 10.4	
	comp=Z,28nm,0.2s						
ACLC	**CERRO LA CRUZ**	**4.12**	**65**	*e*P	**Pn**	**15 43 12.9**	**-0.3**
ACLC				*e*S	**Sn**	**15 43 57.8**	**-2.5**
ACLC				IAML		15 44 06.0	
	comp=Z,41nm,0.7s						
TINO	**Tinogasta**	**4.50**	**46**	*e*P	**Pn**	**15 43 18.9**	**+0.4**
TINO				*e*S	**Sn**	**15 44 15.0**	**+5.4**
TINO				IAML		15 44 26.2	
	comp=Z,23nm,0.5s						
AC02	**Maricunga**	**4.78**	**23**	*e*P	**Pn**	**15 43 22.5**	**-0.1**
AC02				*e*S	**Sn**	**15 44 17.5**	**+0.5**
AC02				IAML		15 44 46.0	
	comp=Z,25nm,0.6s						
AC01	**Pan de Azucar**	**5.13**	**6**	*e*P	**Pn**	**15 43 25.9**	**-1.1**
AC01				*e*S	Sn	15 44 33.4	+8.5
AC01				IAML		15 44 45.3	
	comp=Z,31nm,1.6s						
BI02	**San Fabin de**	**5.38**	**181**	*e*P	**Pn**	**15 43 30.3**	**-0.1**

IDC ***12*** *15:42:06.6±2.8, 33.°50N×142.°70E, h0^{km}, mb3.8/5, mbtmp3.7/6, ML2.5/1, Error ellipse: s-maj=87.4km s-min=17.3km az=61.0*

JMA ***12*** *15:42:12.2±0.4, 33°N±2°×14°2E±°, h35^{km}, MV3.3/17, FAR E OFF IZU ISLANDS*

ISC 12 15:42:14.1±2.6**, 33.°4N**±0.°3×**142.°1E**±0.°5**, h34^{km}, n7, σ1^{s}37**/8**, mb3.7**/5**, Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BSO1	**Boso 1**	**1.54**	**325**	P	**Pn**	**15 42 38.1**	**-0.6**
MJAR	**Matsushiro Arr**	**4.45**	**316**	Pn	**Pn**	**15 43 19.5**	**+0.3**
	0.2nm,0.3s,baz=127,slow=20,SNR=26						
MJAR				Sn	**Sn**	**15 44 08.5**	**-1.4**
	0.3nm,0.3s,baz=269,slow=9.7,SNR=8.2						
	1.5nm,0.5s						
MJAR				AML	AML		
SONM	**Songino Array**	**30.37**	**309**	P	**P**	**15 48 25.1**	**+2.3**
	1.1nm,0.5s,baz=116,slow=8.0,SNR=3.5						
	1.1nm,0.5s						
MKAR	**Makanchi Array**	**46.57**	**305**	P	**P**	**15 50 38.7**	**+0.2**
	0.6nm,0.7s,baz=90,slow=11,SNR=3.7						
	0.6nm,0.7s						
KURBB	**Kurchatov Arra**	**48.71**	**311**	P	**P**	**15 50 54.1**	**-0.9**
	0.5nm,0.6s,baz=86,slow=8.2,SNR=4.9						
	0.5nm,0.6s						
WRA	**Warramunga Arr**	**53.54**	**189**	P	**P**	**15 51 30.5**	**-1.1**
	0.2nm,0.3s,baz=6.2,slow=7.7,SNR=21						
	0.2nm,0.3s						
FITZ	**Fitzroy Crossi**	**53.54**	**200**	P	**P**	**15 51 31.4**	**-0.2**
	1.5nm,0.7s,baz=0.1,slow=9.5,SNR=2.1						
	1.5nm,0.7s						

IDC ***12*** *15:49:42.5±0.9, 33.°19S×177.°71W, h0^{km}, mb4.4/4, mbtmp4.3/5, ML3.5/1, MS3.4/3, Error ellipse: s-maj=32.5km s-min=27.5km az=88.0*

WEL ***12*** *15:49:42.5±1.0, 33°S±9°×17°8W±2°3, h12^{km}, M4.5/12, mB4.8/7, ML4.9/13, MLv4.9/12, Mw(mB)4.1/7, Error ellipse: s-maj=31.9km s-min=4.4km az=109.0, confirmed*

NEIC ***12*** *15:49:44.0±1.4, 33.°37S±0.°09×177.°7W±0.°2, h10^{km}±1^{km}, mb4.5/13, Error ellipse: s-maj=24.4km s-min=12.9km az=113.0*

ISC 12 15:49:42.1±0.9**, 33.°19S**±0.°07×**177.°7W**±0.°1**, h10^{km}, n73, σ1^{s}99**/78**, mb4.5**/10**, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GLKZ	**Green Lake**	**3.92**	**357**	P	**Pn**	**15 50 41.9**	**-0.4**
GLKZ				S	**Sn**	**15 51 25.0**	**-3.4**
RAO	**Raoul Island**	**3.93**	**357**	Pn	**Pb**	**15 50 46.7**	**-4.7**
RIZ	**Raoul Island**	**3.94**	**356**	P	**Pn**	**15 50 42.9**	**+0.4**
RIZ				AML	AML		
RIZ				AML	AML		
MXZ	**Matakaoa Point**	**5.47**	**216**	Pn	**Pn**	**15 51 03.1**	**-0.5**
MXZ				Sn	**Sn**	**15 52 04.3**	**-2.3**
MXZ	**Matakaoa Point**	**5.47**	**216**	P	**Pn**	**15 51 01.5**	**-2.1**
MXZ				S	**Sn**	**15 52 03.4**	**-3.2**
WMGZ	**Waiomatatini S**	**5.62**	**214**	P	**Pn**	**15 51 05.0**	**-0.7**
WMGZ				S	**Sn**	**15 52 09.4**	**-0.9**
WMGZ				AML	AML		
WMGZ				AML	AML		
PKGZ	**Pakihiroa**	**5.82**	**215**	P	**Pn**	**15 51 07.8**	**-0.6**
PKGZ				S	**Sn**	**15 52 15.1**	**-0.1**
PKGZ				AML	AML		
PKGZ				AML	AML		
HAZ	**Te Kaha**	**5.88**	**218**	P	**Pn**	**15 51 09.5**	**+0.2**
HAZ				S	**Sn**	**15 52 17.3**	**+0.5**
HAZ				AML	AML		
HAZ				AML	AML		
PUZ	**Puketiti**	**5.90**	**213**	P	**Pn**	**15 51 07.6**	**-2.0**
PUZ				S	**Sn**	**15 52 14.0**	**-3.3**
PUZ				AML	AML		
PUZ				AML	AML		
RUGZ	**Raukumara Rang**	**6.10**	**217**	P	**Pn**	**15 51 12.3**	**-0.1**
RUGZ				S	**Sn**	**15 52 21.8**	**-0.4**
RUGZ				AML	AML		
RUGZ				AML	AML		
TWGZ	**Tauwhareparae**	**6.12**	**214**	P	**Pn**	**15 51 11.9**	**-0.7**
TWGZ				S	**Sn**	**15 52 22.8**	**+0.2**
TWGZ				AML	AML		
TWGZ				AML	AML		
CNGZ	**Carnagh Statio**	**6.26**	**211**	P	**Pn**	**15 51 12.8**	**-1.7**
CNGZ				S	**Sn**	**15 52 24.6**	**-1.5**
CNGZ				AML	AML		
CNGZ				AML	AML		
TKGZ	**Te Karaka**	**6.39**	**214**	P	**Pn**	**15 51 15.5**	**-0.7**
TKGZ				AML	AML		
TKGZ				AML	AML		
MWZ	**Matawai**	**6.46**	**216**	P	**Pn**	**15 51 16.2**	**-1.0**
MWZ				AML	AML		
MWZ				AML	AML		
URZ	**Urewera**	**6.61**	**219**	Pn	**Pn**	**15 51 19.0**	**-0.3**
	1.0nm,0.3s,baz=248,slow=4.0,SNR=18						
URZ				Sn	**Sn**	**15 52 30.5**	**-4.2**
	18nm,0.3s,baz=148,slow=22,SNR=20						
	2.7nm,0.3s						
URZ				AML	AML		
URZ	**Urewera**	**6.61**	**219**	P	**Pn**	**15 51 19.0**	**-0.3**
URZ				AML	AML		
URZ				AML	AML		
RIGZ	**Rimuhau**	**6.64**	**213**	P	**Pn**	**15 51 17.8**	**-1.9**
RIGZ				AML	AML		
RIGZ				AML	AML		
KNZ	**Kokohu**	**6.94**	**212**	P	**Pn**	**15 51 20.7**	**-3.1**
KNZ				AML	AML		
RTZ	**Ruatahuna**	**6.95**	**217**	Pn	**Pn**	**15 51 24.7**	**+0.7**
MHGZ	**Mahia Peninsul**	**6.95**	**210**	P	**Pn**	**15 51 22.7**	**-1.2**
MHGZ				AML	AML		
MHGZ				AML	AML		
MUGZ	**Murupara**	**6.95**	**219**	P	**Pn**	**15 51 24.1**	**+0.1**
MUGZ				AML	AML		
MUGZ				AML	AML		
RAHZ	**Arahi**	**7.13**	**215**	P	**Pn**	**15 51 25.7**	**-0.7**
RAHZ				AML	AML		
RAHZ				AML	AML		
WCZ	**Waipu Caves**	**7.15**	**245**	P	Pn	15 51 30.9	+4.3
TOZ	**Tahuroa Road**	**7.19**	**229**	Pn	**Pn**	**15 51 29.1**	**+1.8**
TOZ	**Tahuroa Road**	**7.19**	**229**	P	Pn	15 51 31.7	+4.5
MTHZ	**Maungataniwha**	**7.20**	**217**	P	**Pn**	**15 51 26.5**	**-0.9**
MTHZ				AML	AML		
MTHZ				AML	AML		
NMHZ	**Naumai**	**7.41**	**216**	P	**Pn**	**15 51 30.5**	**+0.2**
OUZ	**Omahuta**	**7.53**	**252**	P	Pn	15 51 36.8	+5.0
BKZ	**Black Stump Fm**	**7.61**	**217**	P	**Pn**	**15 51 32.3**	**-0.8**
KAHZ	**Kahuranaki**	**7.93**	**212**	P	**Pn**	**15 51 34.4**	**-3.0**
TMVZ	**Te Maari**	**7.99**	**220**	P	**Pn**	**15 51 39.8**	**+1.5**
KRVZ	**Karewarewa**	**8.01**	**221**	P	**Pn**	**15 51 41.7**	**+3.2**
BHHZ	**Black Hill Sta**	**8.07**	**217**	P	**Pn**	**15 51 36.7**	**-2.8**
BFZ	**Birch Farm**	**8.93**	**211**	Pn	**Pn**	**15 51 50.5**	**-0.6**
MRZ	**Mangatainoka R**	**9.21**	**214**	Pn	**Pn**	**15 51 50.4**	**-4.6**
OGWZ	**Otaki Gorge**	**9.53**	**215**	P	**Pn**	**15 51 57.1**	**-2.3**
OGWZ				S	**Sn**	**15 53 38.3**	**-8.2**
CTZ	**Chatham Island**	**10.56**	**176**		Pn	15 52 09.0	-4.4
MRNZ	**Matariki Terra**	**11.20**	**220**	P	**Pn**	**15 52 22.2**	**+0.1**
THZ	**Tophouse**	**11.37**	**218**	P	**Pn**	**15 52 24.7**	**+0.1**
KHZ	**Kahutara**	**11.54**	**215**	Pn	**Pn**	**15 52 26.2**	**-0.6**
KHZ	**Kahutara**	**11.54**	**215**	P	**Pn**	**15 52 26.2**	**-0.6**
RPZ	**Rata Peaks**	**13.72**	**217**	Pn	**Pn**	**15 52 55.3**	**-1.4**
	0.3nm,0.3s,baz=27,slow=5.1,SNR=5.9						
RPZ				Sn	Sn	15 55 13.4	-16
	0.3nm,0.3s,baz=137,slow=22,SNR=9.3						
MSVF	**Nonsavu**	**15.87**	**345**	LR	LR	15 58 27.1	
	comp=Z,58nm,19.6s,baz=173,slow=33						
CTA	**Charters Tower**	**34.62**	**283**	LR	LR	16 08 52.9	
	comp=Z,82nm,18.3s,baz=165,slow=33						
CTAO	**Charters Tower**	**34.62**	**283**	P	**P**	**15 56 30.9**	**-0.7**
INKA	**Innaminka**	**36.09**	**267**	P	P	15 56 47.1	+3.0
INKA				IAmb	IAmb	15 56 48.4	
	comp=Z,4.1nm,0.9s						
BBOO	**Buckleboo**	**38.58**	**257**	P	**P**	**15 57 04.2**	**-0.9**
AS31	**Alice Springs**	**43.32**	**270**	P	**P**	**15 57 45.0**	**+0.6**
ASAR	**Alice Springs**	**43.32**	**270**	P	**P**	**15 57 46.4**	**+1.9**
	comp=Z,6.8nm,0.7s,baz=112,slow=7.6,SNR=61						
ASAR				PcP	**PcP**	**15 59 35.0**	**+1.7**
	comp=Z,1.1nm,0.9s,baz=141,slow=3.5,SNR=4.5						
	comp=Z,6.8nm,0.7s						
ASAR	**Alice Springs**	**43.32**	**270**	P	**P**	**15 57 45.2**	**+0.7**
WR8	**Warramunga Arr**	**44.42**	**275**	P	**P**	**15 57 54.6**	**+1.3**
WR8				IAmb	IAmb	15 57 55.7	
	comp=Z,6.0nm,1.0s						
WRAB	**Tennant Creek**	**44.56**	**275**	P	**P**	**15 57 55.5**	**+1.1**
WRAB				IAmb	IAmb	15 58 10.7	
	comp=Z,8.8nm,1.4s						
WRA	**Warramunga Arr**	**44.56**	**275**	P	**P**	**15 57 55.3**	**+0.9**
	comp=Z,3.3nm,0.4s,baz=116,slow=7.8,SNR=70						
	comp=Z,3.3nm,0.4s						
WRA	**Warramunga Arr**	**44.56**	**275**	P	**P**	**15 57 54.7**	**+0.3**
WB0	**Warramunga Arr**	**44.60**	**275**	P	**P**	**15 57 55.6**	**+0.9**
WB0				IAmb	IAmb	15 57 56.7	
	comp=Z,5.5nm,0.8s						
FORT	**Forrest**	**45.68**	**258**	P	**P**	**15 58 04.2**	**+1.1**
FORT				IAmb	IAmb	15 58 34.7	
	comp=Z,6.5nm,0.9s						
MTN	**Manton Dam**	**50.76**	**281**	P	**P**	**15 58 43.1**	**+0.6**
KNRA	**Kununurra**	**51.26**	**276**	P	**P**	**15 58 48.6**	**+2.3**
KNRA				IAmb	IAmb	15 59 26.5	
	comp=Z,9.7nm,1.4s						
FITZ	**Fitzroy Crossi**	**52.70**	**272**	P	**P**	**15 58 57.3**	**+0.3**
QSPA	**South Pole Qui**	**56.93**	**180**	P	**P**	**15 59 30.4**	**+3.2**
	comp=Z,2.7nm,1.0s,baz=337,slow=0.3,SNR=8.6						
	comp=Z,2.7nm,1.0s						
QSPA	**South Pole Qui**	**56.93**	**180**	P	**P**	**15 59 27.0**	**-0.2**
QSPA				IAmb	IAmb	15 59 32.3	
	comp=Z,4.4nm,1.1s						
KSRS	**Korea Array**	**86.66**	**320**	P	**P**	**16 02 28.9**	**+3.2**
	comp=Z,1.6nm,0.7s,baz=140,slow=5.6,SNR=6.8						
	comp=Z,1.6nm,0.7s						
LPAZ	**La Paz**	**96.73**	**114**	LR	LR	16 38 31.9	
	comp=Z,33nm,20.7s,baz=113,slow=30						
KURBB	**Kurchatov Arra**	**123.20**	**312**	PKP	**PKiKP**	**16 08 39.9**	**+1.1**
	comp=Z,1.0nm,0.2s,baz=96,slow=1.8,SNR=6.3						
BVAR	**Borovoye Array**	**128.58**	**314**	PKP	**PKiKP**	**16 08 50.8**	**+1.4**
	comp=Z,0.6nm,0.4s,baz=48,slow=2.1,SNR=2.8						
ARCES	**ARCESS Array B**	**141.37**	**347**	PKP	**PKiKP**	**16 09 13.8**	**-1.2**
	comp=Z,2.2nm,0.9s,baz=66,slow=2.2,SNR=4.0						
FINES	**FINESS Array B**	**147.85**	**339**	PKPbc	**PKiKP**	**16 09 28.2**	**-0.2**
	comp=Z,8.1nm,0.7s,baz=46,slow=3.6,SNR=44						
NB2	**NORSAR Subarra**	**151.54**	**351**	PKP	**PKiKP**	**16 09 37.3**	**+1.1**
	comp=Z,1.2nm,0.5s,baz=15,slow=2.5						
NOA	**NORSAR Array B**	**151.54**	**351**	PKPbc	**PKiKP**	**16 09 37.2**	**+1.0**
	comp=Z,1.7nm,0.6s,baz=14,slow=4.1,SNR=5.9						
HFS	**Hagfors**	**152.03**	**348**	PKPbc	**PKiKP**	**16 09 37.2**	**+0.1**
	comp=Z,2.3nm,0.8s,baz=119,slow=1.9,SNR=4.3						
MMAI	**Mount Meron Ar**	**152.37**	**279**	PKPbc	**PKiKP**	**16 09 41.3**	**+2.5**
	comp=Z,1.4nm,0.5s,baz=122,slow=5.2,SNR=3.6						
AKASG	**Malin Array Be**	**153.65**	**320**	PKPab	**PKPab**	**16 09 54.9**	**+1.5**
	comp=Z,0.7nm,0.5s,baz=48,slow=4.8,SNR=5.2						
TORD	**Torodi Ar. Bea**	**160.04**	**178**	PKPab	**PKPab**	**16 10 21.8**	**+0.2**
	comp=Z,0.3nm,0.5s,baz=148,slow=3.6,SNR=5.0						

IDC ***12*** *15:50:23.8±0.9, 51.°60N×15.°97E, h0^{km}, mbtmp3.5/8, ML3.2/8, Error ellipse: s-maj=14.1km s-min=9.0km az=115.0*

MCSM ***12*** *15:50:24.7±1.0, 51°N±5°×1°6E±°, h11^{km}±6^{km}, MLv3.4*

BGR ***12*** *15:50:24.8±0.5, 51.°60N×16.°09E, h1^{km}, ML3.2/11, Error ellipse: s-maj=5.6km s-min=2.2km az=17.0*

IPEC ***12*** *15:50:24.0±0.2, 51.°62N×16.°14E, h1^{km}, ML3.1/9, Error ellipse: s-maj=1.4km s-min=1.1km az=47.0*

DNK ***12*** *15:50:24.8±1.8, 51.°81N×16.°05E, h0^{km}, ML2.9, Suspected explosion*

GFZ ***12*** *15:50:24.2±0.3, 52°N±3°×1°6E±°, h10^{km}, M3.8/15, mb4.1/7*

BNS ***12*** *15:50:27.0±0.6, 51.°53N×16.°15E, h10^{km}, ML3.4*

PRU ***12*** *15:50:27.2, 51.°51N×16.°05E, h0^{km}*

ISC 12 15:50:22.8±0.6**, 51.°67N**±0.°02×**16.°11E**±0.°02**, h0^{km}, n154, σ1^{s}52**/243**, 1C-4D, Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSP	**Ksiaz**	**0.83**	**172**	*e*Pg	**Pg**	**15 50 39.5**	**+0.9**
KSP				*e*Sg	**Sg**	**15 50 50.3**	**+0.9**
KSP	**Ksiaz**	**0.83**	**172**	*e*Pg	**Pg**	**15 50 39.6**	**+0.9**
KSP				*e*Sg	**Sg**	**15 50 49.8**	**+0.4**
KSP	**Ksiaz**	**0.83**	**172**	P	**Pg**	**15 50 39.4**	**+0.7**
KSP				S	**Sg**	**15 50 45.8**	**-3.6**
KSP				AML	AML		
CHVC	**Chvalec**	**1.08**	**182**	*e*PG	**Pg**	**15 50 44.2**	**+0.8**
CHVC				*e*SG	**Sg**	**15 50 58.0**	**+0.6**
	comp=Z,240nm,0.5s						
CHVC				AML	AML		
OSTC	**Ostas**	**1.11**	**176**	*e*PG	**Pg**	**15 50 44.8**	**+0.7**
OSTC				*e*SG	**Sg**	**15 50 58.5**	**+0.1**
	comp=Z,334nm,0.9s						
OSTC				AML	AML		
UPC	**Upice**	**1.16**	**183**	*e*PG	**Pg**	**15 50 45.7**	**+0.7**
UPC				*e*SG	**Sg**	**15 50 59.5**	**-0.5**
	comp=Z,309nm,0.5s						
UPC				AML	AML		
UPC	**Upice**	**1.16**	**183**	P	**Pg**	**15 50 45.5**	**+0.5**
	comp=Z,983nm,0.6s						
DPC	**Dobruska-Polom**	**1.32**	**174**	*e*PG	**Pg**	**15 50 48.3**	**+0.2**
DPC				*e*SG	**Sg**	**15 51 04.1**	**-1.1**
	comp=Z,161nm,0.5s						
DPC				AML	AML		
DPC	**Dobruska-Polom**	**1.32**	**174**	*e*Pg	**Pg**	**15 50 48.4**	**+0.2**
DPC				*e*Sg	**Sg**	**15 51 04.8**	**-0.4**
DPC	**Dobruska-Polom**	**1.32**	**174**	P	**Pg**	**15 50 48.2**	**+0.2**
DPC				S	**Sg**	**15 50 59.7**	**-5.5**
DPC				AML	AML		
DPC	**Dobruska-Polom**	**1.32**	**174**	P	**Pg**	**15 50 48.4**	**+0.2**
	comp=Z,263nm,0.7s						
PIVO	**Bartosovice**	**1.51**	**169**	*e*Pg	**Pn**	**15 50 51.1**	**+0.1**
	baz=350						
PIVO				*e*Sg	**Sg**	**15 51 09.3**	**-1.8**
	comp=Z,241nm,0.4s,baz=350						
PIVO				AML	AML		
BRG	**Berggiesshubel**	**1.57**	**241**	*e*Pn	**Pn**	**15 50 52.9**	**+1.0**
BRG				*e*Sn	**Sn**	**15 51 12.2**	**-0.8**
	comp=Z,410nm,0.3s						
BRG				*e*Sg	**Sb**	**15 51 13.7**	**+0.6**
BRG	**Berggiesshubel**	**1.57**	**241**	P	**Pn**	**15 50 52.1**	**+0.2**
	comp=Z,365nm,0.5s						
BRG	**Berggiesshubel**	**1.57**	**241**	Pn	**Pn**	**15 50 51.7**	**-0.3**
BRG				Pg	**Pb**	**15 50 53.4**	**+0.7**
BRG				Sg	**Sn**	**15 51 13.8**	**+0.8**
BRG				Amp		15 51 14.4	
	comp=Z,163nm,0.5s						
KRLC	**Kraliky**	**1.65**	**165**	*e*PG	**Pn**	**15 50 53.3**	**+0.3**
KRLC				*e*SG	**Sn**	**15 51 15.1**	**+0.2**
	comp=Z,263nm,0.6s						
KRLC				AML	AML		
KRLC	**Kraliky**	**1.65**	**165**	P	**Pn**	**15 50 53.3**	**+0.3**
RUE	**Ruedersdorf**	**1.65**	**301**	*e*Pn	**Pn**	**15 50 53.5**	**+0.5**
RUE				*e*Sg	**Sg**	**15 51 17.4**	**+1.7**
RUE	**Ruedersdorf**	**1.65**	**301**	P	**Pn**	**15 50 53.8**	**+0.8**
	comp=Z,208nm,0.6s						
RICC	**Richard**	**1.69**	**229**	*e*PG	**Pn**	**15 50 54.0**	**+0.5**
ANAC	**Anensky vrch**	**1.79**	**153**	*e*Pn	**Pn**	**15 50 55.1**	**+0.2**
	baz=334						
ANAC				*e*Sg	**Sn**	**15 51 18.5**	**+0.2**
	comp=Z,90nm,0.4s,baz=334						
ANAC				AML	AML		
RYBC	**Ceska Rybna**	**1.86**	**181**	*e*Pn	**Pn**	**15 50 56.2**	**+0.3**
	baz=1.5						
RYBC				*e*Sg	**Sn**	**15 51 20.8**	**+0.7**
	comp=Z,168nm,0.5s,baz=1.5						
RYBC				AML	AML		
FBE	**Freiberg**	**1.88**	**248**	*e*Pn	**Pn**	**15 50 57.0**	**+0.9**
FBE				*e*Pg	**Pb**	**15 50 58.7**	**+0.7**
FBE				*e*Sn	**Sn**	**15 51 20.2**	**-0.4**
FBE				*e*Sg	**Sb**	**15 51 22.8**	**+0.8**
PRU	**Pruhonice**	**1.95**	**211**	*e*PG	**Pn**	**15 50 59.2**	**+2.1**
PRU				*e*SG	**Sn**	**15 51 24.0**	**+1.7**
	comp=Z,105nm,0.4s						
PRU				AML	AML		
PRU	**Pruhonice**	**1.95**	**211**	P	**Pn**	**15 50 57.1**	**+0.1**
	comp=Z,130nm,0.6s						
CLL	**Collm**	**1.97**	**261**	*e*Pn	**Pn**	**15 50 57.3**	**-0.1**
CLL				*e*Pg	**Pb**	**15 51 01.2**	**+1.6**
CLL				*e*Sn	**Sn**	**15 51 23.3**	**+0.5**
CLL				*e*Sg	**Sb**	**15 51 26.7**	**+2.1**
CLL	**Collm**	**1.97**	**261**	P	**Pn**	**15 50 57.3**	**-0.1**
CLL				S	**Sb**	**15 51 25.3**	**+0.7**

CLL				AML	AML		
CLL	Collm	1.97	261	P	Pn	15 50 57.4	0.0
CLL	Collm	1.97	261	*i* Pn	Pn	15 50 57.4	0.0
CLL				*e*Pg	Pb	15 51 01.0	+1.5
CLL				*i* x	x	15 51 04.4	
CLL				*e*x	x	15 51 16.0	
CLL				*e*Sg	Sb	15 51 26.0	+1.4
	comp=Z,124nm,0.8s						
HSKC	Hora Svate Kat	1.99	239	*e*PG	Pb	15 51 00.2	+0.4
HSKC				*e*SG	Sb	15 51 25.9	+0.8
	comp=Z,208nm,0.5s						
HSKC				AML	AML		
HSKC	Hora Svate Kat	1.99	239	P	Pn	15 50 58.8	+1.1
STEB	Steborice	2.03	148	*e*PN	Pn	15 50 58.4	+0.2
STEB				*e*PG	Pb	15 51 01.3	+0.8
STEB				*e*SG	Sb	15 51 27.8	+1.5
	comp=Z,217nm,0.6s						
STEB				AML	AML		
RAC	Raciborz	2.06	139	*e*PG	Pb	15 51 02.5	+1.4
RAC				*e*SG	Sb	15 51 28.4	+1.2
MORC	Moravsky Berou	2.10	154	*e*Pn	Pn	15 50 59.4	+0.2
MORC	Moravsky Berou	2.10	154	*e*Pn	Pn	15 50 59.3	+0.1
	baz=335						
MORC				*e*Sg	Sb	15 51 28.0	-0.3
	comp=Z,123nm,0.6s,baz=335						
MORC				AML	AML		
MORC	Moravsky Berou	2.10	154	⇓P	Pn	15 50 58.9	-0.3
MORC	Moravsky Berou	2.10	154	P	Pn	15 50 59.5	+0.3
LNIZ	Loecknitz	2.17	328	*e*Sg	Sb	15 51 31.2	+1.0
OKC	Ostrava-Krasne	2.24	144	*e*PG	Pg	15 51 05.8	+0.1
OKC				*e*SG	Sb	15 51 33.5	+1.1
OKC	Ostrava-Krasne	2.24	144	*e*Pg	Pg	15 51 06.2	+0.4
OKC				*e*Sg	Sb	15 51 33.4	+1.1
OKC	Ostrava-Krasne	2.24	144	P	Pn	15 51 01.1	0.0
VRAC	Vranov	2.38	172	Pn	Pn	15 51 04.1	+1.1
	comp=Z,8.9nm,0.3s,baz=336,slow=14,SNR=44						
VRAC				Lg	Lg	15 51 33.9	
	comp=Z,11nm,0.3s,baz=245,slow=21,SNR=6.0						
	comp=Z,26nm,0.4s						
VRAC				AML	AML		
VRAC	Vranov	2.38	172	*e*Pn	Pn	15 51 03.5	+0.5
	baz=353						
VRAC				*e*Sg	Sb	15 51 36.9	+0.5
	comp=Z,124nm,0.8s,baz=353						
VRAC				AML	AML		
VRAC	Vranov	2.38	172	⇓P	Pn	15 51 03.3	+0.3
VRAC	Vranov	2.38	172	P	Pn	15 51 03.8	+0.8
TREC	Trest	2.41	190	*e*SG	Sb	15 51 38.6	+1.5
TREC	Trest	2.41	190	P	Pn	15 51 03.8	+0.4
ZVC	Zvikov	2.54	209	*e*PN	Pn	15 51 05.4	+0.2
ZVC				*e*PG	Pb	15 51 10.9	+1.7
ZVC				*e*SG	Sb	15 51 43.7	+2.7
	comp=Z,95nm,0.6s						
ZVC				AML	AML		
MAUC	Maruska	2.55	154	*e*SG	Sg	15 51 44.8	+0.1
KRUC	Moravsky	2.61	176	*e*Pn	Pn	15 51 06.9	+0.7
	baz=356						
KRUC				*e*Sg	Sb	15 51 44.1	+1.0
	comp=Z,96nm,0.9s,baz=356						
KRUC				AML	AML		
KRUC	Moravsky	2.61	176	*e*PN	Pn	15 51 07.0	+0.7
KRUC				*e*SG	Sb	15 51 44.2	+1.1
KRUC	Moravsky	2.61	176	P	Pn	15 51 07.6	+1.4
TANN	Tannenbergstha	2.62	243	*e*Pn	Pn	15 51 06.8	+0.4
TANN				*e*Pg	Pg	15 51 13.9	+1.0
TANN				*e*Sg	Sb	15 51 46.0	+2.7
TANN	Tannenbergstha	2.62	243	P	Pn	15 51 06.9	+0.6
STAC	Stalkov	2.69	191	*e*Sg	Sb	15 51 46.9	+1.6
	comp=Z,104nm,0.5s,baz=12						
STAC				AML	AML		
WERD	Werda	2.69	245	*e*Pn	Pn	15 51 07.6	+0.3
WERD				*e*Sg	Sg	15 51 48.7	-0.4
NKC	Novy Kostel	2.72	240	*e*PN	Pn	15 51 08.8	+1.1
NKC				*e*PG	Pg	15 51 15.2	+0.3
NKC				*e*SG	Sb	15 51 49.5	+3.3
	comp=Z,184nm,0.6s						
NKC				AML	AML		
NKC	Novy Kostel	2.72	240	P	Pn	15 51 08.4	+0.7
OJC	Ojcow	2.75	120	*e*Pn	Pn	15 51 07.1	-1.0
OJC				*e*Pg	Pg	15 51 16.6	+1.1
OJC				*e*Sg	Sg	15 51 51.9	+0.9
OJC	Ojcow	2.75	120	*e*Pg	Pg	15 51 15.2	-0.2
OJC	Ojcow	2.75	120	P	Pn	15 51 07.6	-0.5
OJC				AML	AML		
JAVC	Velka Javorina	2.98	160	*e*Pn	Pn	15 51 11.4	+0.1
	baz=341						
JAVC	Velka Javorina	2.98	160	*e*PN	Pn	15 51 11.5	+0.1
MOX	Moxa	3.00	252	*e*Pn	Pn	15 51 12.7	+1.1
MOX				*e*Pg	Pg	15 51 20.3	0.0
MOX				*e*Sn	Sn	15 51 48.1	-0.2
MOX				*e*Sg	Sg	15 51 59.7	+0.5
KHC	Kasperske Hory	3.01	213	*e*PN	Pn	15 51 11.9	+0.2
KHC				*e*PG	Pb	15 51 18.3	+1.1
KHC				*e*SG	Sg	15 51 58.2	-1.1
	comp=Z,37nm,0.6s						
KHC				AML	AML		
KHC	Kasperske Hory	3.01	213	P	Pn	15 51 11.7	0.0
KHC				AML	AML		
KHC	Kasperske Hory	3.01	213	P	Pn	15 51 12.1	+0.4
CKRC	Cesky Krumlov	3.07	203	*e*PN	Pn	15 51 13.5	+0.9
CKRC				*e*PG	Pb	15 51 19.6	+1.3
CKRC				*e*SG	Sb	15 51 58.9	+2.6
	comp=Z,54nm,0.6s						
CKRC				AML	AML		
ROTZ	Rotzenmuhle	3.12	234	*e*Pn	Pn	15 51 13.7	+0.5
ROTZ				*e*Pg	Pg	15 51 23.4	+0.8
ROTZ				*e*Sg	Sb	15 52 00.9	+3.2
GEC2	GERESS Array S	3.22	210	*e*Pn	Pn	15 51 15.1	+0.5
GEC2	GERESS Array S	3.22	210	P	Pn	15 51 15.1	+0.5
GERES	GERESS Array B	3.22	210	Pn	Pn	15 51 14.9	+0.3
	comp=Z,0.5nm,0.3s,baz=27,slow=12,SNR=75						
GERES				Sn	Sn	15 51 46.9	-6.8
	comp=Z,1.1nm,0.3s,baz=40,slow=23,SNR=5.2						
GERES				Lg	Lg	15 52 00.1	
	comp=Z,2.4nm,0.3s,baz=23,slow=28,SNR=5.7						
	comp=Z,8.6nm,0.4s						
GERES				AML	AML		
WET	Wettzell	3.26	221	P	Pn	15 51 15.8	+0.7
LANS	Liptovska Anna	3.31	138	*e*PN	Pn	15 51 17.0	+1.1
LANS				*e*PG	Pg	15 51 26.5	+0.3
LANS				*e*SG	Sg	15 52 10.6	+1.5
MODS	Modra-Piesok	3.38	167	*e*PN	Pn	15 51 17.8	+1.0
MODS				*e*PG	Pg	15 51 26.5	-1.0
MODS				*e*SG	Sg	15 52 11.4	+0.1
NIE	Niedzica	3.50	128	*e*Pg	Pg	15 51 29.9	+0.2
NIE				*e*Sg	Sg	15 52 17.0	+2.0
NIE	Niedzica	3.50	128	P	Pn	15 51 20.1	+1.7
NIE				AML	AML		
BSD	Bornholm Skovb	3.53	349	*i* P	Pn	15 51 19.6	+0.9
BSD				*i* S	Sn	15 51 56.8	-4.3
BSD				IAML		15 52 14.9	
	comp=Z,17nm,0.8s						
ZST	Bratislava	3.53	169	*e*PG	Pg	15 51 30.7	+0.3
ZST				*e*SG	Sg	15 52 17.8	+1.6
WINA	Alland / Wiene	3.56	180	Pn	Pn	15 51 20.0	+0.7
	SNR=14						
CLZ	Clausthal	3.57	275	*e*Pn	Pn	15 51 21.0	+1.6
CLZ				*e*Sn	Sn	15 52 03.1	+0.9
CLZ	Clausthal	3.57	275	P	Pn	15 51 21.2	+1.8
GRA3	Grafenberg Arr	3.59	240	P	Pn	15 51 20.9	+1.3
GRB3	Grafenberg Arr	3.59	231	P	Pn	15 51 20.8	+1.1
GRA2	Grafenberg Arr	3.63	238	P	Pn	15 51 21.1	+1.0
VYHS	Vyhne	3.63	150	*e*PN	Pn	15 51 20.5	+0.3
VYHS				*e*PG	Pg	15 51 33.0	+0.7
VYHS				*e*SG	Sg	15 52 22.4	+3.1
GRB4	Grafenberg Arr	3.64	235	P	Pn	15 51 21.3	+1.0
GRB1	Grafenberg Arr	3.64	233	P	Pn	15 51 21.3	+1.0
GRA1	Grafenberg Arr	3.68	239	P	Pn	15 51 21.9	+1.0
GRB2	Grafenberg Arr	3.71	232	P	Pn	15 51 22.2	+0.9
CONA	Conrad Observa	3.74	183	Pn	Pn	15 51 22.6	+0.8
	comp=Z,6.6nm,0.4s,SNR=23						
CONA				*i* Sn	Sn	15 52 05.7	-0.9
	comp=Z,17nm,0.6s						
GRB5	Grafenberg Arr	3.81	230	P	Pn	15 51 23.5	+0.8
GRC4	Grafenberg Arr	3.90	230	P	Pn	15 51 24.5	+0.5
GRC1	Grafenberg Arr	3.97	229	P	Pn	15 51 25.6	+0.7
RONA	Rosalia, Austr	3.97	178	Pn	Pn	15 51 25.0	0.0
	comp=Z,1.1nm,0.4s,SNR=5.8						
RONA				*e*Sn	Sn	15 52 09.7	-2.5
	comp=Z,3.0nm,0.3s						
STHS	Stebnicka Huta	3.98	122	*e*PN	Pn	15 51 25.3	+0.3
STHS				*e*PG	Pg	15 51 39.0	+0.1
STHS				*e*SG	Sg	15 52 34.2	+3.8
MOA	Molln	4.00	198	Pn	Pn	15 51 25.9	+0.6
	comp=Z,0.8nm,0.2s,SNR=22						
MOA				*e*Sn	Sn	15 52 10.4	-2.5
	comp=Z,5.8nm,0.4s						
MOA	Molln	4.00	198	P	Pn	15 51 26.2	+0.9
GRC3	Grafenberg Arr	4.01	228	P	Pn	15 51 25.8	+0.3
GRC2	Grafenberg Arr	4.13	229	P	Pn	15 51 27.6	+0.5
KECS	Kecovo	4.25	137	*e*PN	Pn	15 51 29.7	+0.9
KECS				*e*PG	Pg	15 51 45.4	+1.1
LUNU	Lund	4.28	339	*i* P	Pn	15 51 28.6	-0.4
LUNU				*i* S	Sn	15 52 18.0	-1.6
RETH	Rethem/Aller,	4.29	287	P	Pn	15 51 31.4	+2.2
BIOA	Bad Ischl, Aus	4.29	203	Pn	Pn	15 51 29.7	+0.5
	comp=Z,0.1nm,0.1s,SNR=7.1						
BIOA				*e*Sn	Sn	15 52 17.6	-2.4
	comp=Z,9.2nm,0.5s						
ARSA	Arzberg	4.43	185	*e*Pn	Pn	15 51 32.1	+0.8
	comp=Z,8.3nm,0.6s						
ARSA	Arzberg	4.43	185	P	Pn	15 51 33.2	+1.9
RJOB	Jochberg	4.48	210	P	Pn	15 51 33.0	+1.0
PSZ	Piszkesteto	4.48	145	⇑P	Pn	15 51 33.5	+1.5
BLEU	Blekinge	4.65	358	*i* P	Pn	15 51 35.0	+0.8
BLEU				*i* S	Sn	15 52 26.0	-2.8
SESA	Seetaler Alpe,	4.67	193	Pn	Pn	15 51 35.5	+0.8
	SNR=14						
LESA	Schwarzleotal	4.79	209	*e*Pn	Pn	15 51 36.0	-0.2
	comp=Z,0.7nm,0.2s						
LESA				*e*Sn	Sn	15 52 28.6	-3.9
	comp=Z,0.1nm,0.0s						
KOLS	Kolonicke sedl	4.81	122	*e*PN	Pn	15 51 37.1	+0.7
KOLS				*e*PG	Pg	15 51 58.2	+3.4
KOLS				*e*SG	Sg	15 53 00.8	+3.7
KOLS	Kolonicke sedl	4.81	122	P	Pn	15 51 36.1	-0.3
KBA	Koelnbreinsper	4.93	203	Pn	Pn	15 51 39.0	+0.8
	comp=Z,6.5nm,0.4s,SNR=23						
KBA	Koelnbreinsper	4.93	203	P	Pn	15 51 39.4	+1.2
DEL	Delary	4.99	346	*i* P	Pn	15 51 38.9	0.0
DEL				*i* S	Sn	15 52 33.3	-3.9
SOKA	Soboth	5.04	188	*i* Pn	Pn	15 51 40.0	+0.4
	comp=Z,1.9nm,0.6s,SNR=4.1						
TNS	Taunus Mts	5.05	256	P	Pn	15 51 40.5	+0.7
	comp=Z,18nm,0.6s						
GROS	Grobnik	5.22	185	*i* Pn	Pn	15 51 43.1	+0.9
WATA	Walderalm	5.24	216	Pn	Pn	15 51 42.6	+0.1
	comp=Z,0.1nm,0.1s,SNR=6.4						
WATA				*e*Sn	Sn	15 52 41.6	-2.1
	comp=Z,1.7nm,0.3s						
OBKA	Obir	5.26	192	*e*Pn	Pn	15 51 42.4	-0.3
	comp=Z,0.1nm,0.1s						
WTTA	Wattenberg	5.28	215	Pn	Pn	15 51 43.0	0.0
	comp=Z,0.1nm,0.1s,SNR=4.4						
MYKA	Terra Mystica	5.29	199	*e*Pn	Pn	15 51 43.4	+0.3
	comp=Z,0.5nm,0.3s						
MOTA	Moosalm	5.41	219	*e*Pn	Pn	15 51 44.7	-0.2
	comp=Z,0.1nm,0.1s						
MOTA				*e*Sn	Sn	15 52 45.6	-2.3
	comp=Z,4.0nm,0.5s						
KOE	Koeppel	5.43	260	*e*Sn	Sn	15 52 47.1	-0.9
	comp=Z,19nm,0.7s						
ABTA	Abfaltersbach	5.46	207	*e*Pn	Pn	15 51 45.7	+0.4
	comp=Z,4.9nm,0.4s						
ABTA				*e*Sn	Sn	15 52 45.7	-3.1
	comp=Z,2.8nm,0.5s						
SQTA	Sankt Quirin	5.47	218	*e*Pn	Pn	15 51 45.0	-0.6
	comp=Z,0.7nm,0.3s						
SQTA				*e*Sn	Sn	15 52 47.7	-1.7
	comp=Z,0.1nm,0.1s						
HOBG	Hohbusch	5.54	266	*e*Sn	Sn	15 52 50.2	-0.6
	comp=Z,28nm,0.5s						
FUSE	Fusea	5.64	202	P	Pn	15 51 49.7	+1.9
	comp=Z,14nm,0.7s						
VNDS	Vrh nad Dolski	5.64	190	*i* Pn	Pn	15 51 49.0	+1.1
PDKS	Podkum	5.66	188	*e*Pn	Pn	15 51 49.6	+1.5
MORH	Mrgy, Hungar	5.71	162	⇓P	Pn	15 51 50.1	+1.4
MORH	Mrgy, Hungar	5.71	162	P	Pn	15 51 46.3	-2.4
MORH	Mrgy, Hungar	5.71	162	P	Pn	15 51 50.3	+1.6
	comp=Z,4.1nm,1.2s						
BGG	Burgeitz	5.73	259	*e*Pn	Pn	15 51 50.3	+1.3
BGG				*e*Sn	Sn	15 52 54.8	-0.7
	comp=Z,7.0nm,0.8s						
FETA	Feichten	5.83	219	*e*Pn	Pn	15 51 50.5	0.0
	comp=Z,0.2nm,0.2s						
FETA				*e*Sn	Sn	15 52 54.1	-4.0
	comp=Z,1.3nm,0.4s						
STB	Steinbach	5.93	263	*e*Pn	Pn	15 51 53.3	+1.5
STB				*e*Sn	Sn	15 52 59.0	-1.4
	comp=Z,13nm,0.9s						
DAVA	Damuels	5.97	225	P	Pn	15 51 54.4	+1.9
	comp=Z,15nm,0.8s						
DREG	Dreilaegerbach	6.29	265	*e*Pn	Pn	15 51 58.8	+2.1
DREG				*e*Sn	Sn	15 53 08.5	-0.8
	comp=Z,12nm,0.7s						
FUORN	Ofenpass-Fuorn	6.34	219	P	Pn	15 51 59.2	+1.6
	comp=Z,7.7nm,0.7s						
DAVOX	Davos/Dischmat	6.36	222	Pn	Pn	15 51 57.8	-0.1
	comp=Z,0.3nm,0.3s,baz=30,slow=12,SNR=6.4						
DAVOX				Lg	Lg	15 53 45.2	
	comp=Z,0.6nm,0.3s,baz=355,slow=18,SNR=3.1						
	comp=Z,2.1nm,0.6s						
DAVOX				AML	AML		
DRGR		6.52	136	⇓P	Pn	15 52 07.4	+7.5
DRGR		6.52	136	P	Pn	15 52 01.8	+1.8
	comp=Z,6.4nm,0.6s						
NACGM	Naroch	7.18	59	*e*P	Pn	15 52 12.7	+3.9
	comp=Z,10.0nm,0.7s,baz=247						
AK01	Malin Array Si	8.30	92	P	Pn	15 52 22.4	-1.8
AK02	Malin Array Si	8.30	92	P	Pn	15 52 22.2	-2.1
AKASG	Malin Array Be	8.30	92	Pn	Pn	15 52 23.7	-0.6
	comp=Z,1.0nm,0.3s,baz=279,slow=12,SNR=7.7						
AKASG				Sn	Sn	15 53 55.5	-3.2
	comp=Z,1.0nm,0.3s,baz=268,slow=24,SNR=4.1						
AKASG				Lg	Lg	15 54 52.4	
	comp=Z,0.7nm,0.3s,baz=278,slow=27,SNR=2.6						
	comp=Z,1.3nm,0.6s						
AKASG				AML	AML		
AK06	Malin Array Si	8.31	92	P	Pn	15 52 24.0	-0.4
AK10	Malin Array Si	8.34	92	P	Pn	15 52 22.8	-2.0
HFS	Hagfors	8.60	352	Pn	Pn	15 52 29.2	+0.9
	comp=Z,0.2nm,0.3s,baz=157,slow=15,SNR=4.8						
	comp=Z,2.6nm,0.9s						
HFS				AML	AML		
ARBE	Arbavere	9.58	32	P	Pn	15 52 39.6	-2.1
	comp=Z,260nm,1.4s						
FINES	FINESS Array B	11.22	25	Pn	Pn	15 53 03.9	-0.3
	comp=Z,0.2nm,0.3s,baz=210,slow=11,SNR=8.9						
FINES				Sn	Sn	15 55 05.1	-5.2
	comp=Z,0.4nm,0.3s,baz=196,slow=20,SNR=6.3						
	comp=Z,2.4nm,0.6s						
FINES				AML	AML		
EKA	Eskdalemuir Ar	12.04	295	Pn	Pn	15 53 12.3	-3.1
	baz=104,slow=14						
	comp=Z,1.1nm,0.5s						
ARCES	ARCESS Array B	18.47	10	P	P	15 54 40.5	+0.7
	comp=Z,0.1nm,0.3s,baz=198,slow=10,SNR=4.5						
	comp=Z,0.3nm,0.4s						
ARCES				AML	AML		

KRSC 12 16:00:28.2±1.5**, 50°.28N×153°.63E, h558**^{km}±16^{km}**, Ml3.8, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KDTR	Khodutka, Kamc	3.20	60	*e*P	P	16 01 45.5	+0.7
KDTR				*e*S	S	16 02 46.1	-1.6
RUS	Russkaya	3.75	53	*e*P	P	16 01 49.8	+1.2
DALK	Dalny	4.22	47	*e*P	P	16 01 53.9	+1.9
KOK	Koryaka	4.33	44	*e*P	P	16 01 54.2	+1.2
AVH	Avacha	4.36	45	*e*P	P	16 01 55.5	+2.3
UGLR	Uglovaya	4.36	46	*e*P	P	16 01 54.9	+1.7
SPN	Mys Shipunski	4.88	52	*e*P	P	16 01 59.2	+1.9
SPN				*e*S	S	16 03 09.7	-0.6
MKZ	Mys Kozlova	6.55	46	*e*P	P	16 02 13.7	+1.7
KBTR	Krutoberegovo	8.10	39	*e*P	P	16 02 27.6	+0.8

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*NEIC **12** 16:00:46.0±0.7, 44°.00N±0°.07×105°.39W±0°.10, h0^{km}±1^{km}, ML2.9/14, Error ellipse: s-maj=14.7km s-min=7.1km az=46.0*

*IDC **12** 16:00:47.2±1.5, 44°.34N×105°.75W, h0^{km}, mbtmp3.1/3, ML3.1/3, Error ellipse: s-maj=27.5km s-min=12.3km az=142.0*

ISC 12 16:00:46.7±1.0**, 44°.00N**±0°.07×**105°.34W**±0°.06**, h0**^{km}**, n16, σ0**^{s}**88**/16**, Wyoming**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RSSD	Black Hills	0.95	82		Pb	16 01 05.2	-1.0
K22A	Casper	1.60	213		Pb	16 01 15.8	-1.4
K22A				IAML		16 01 41.8	
	152nm,0.3s						
K22A				IAML		16 01 41.9	
	126nm,0.3s						
LAO	LASA Array	2.76	347		Pn	16 01 32.5	+0.2
RLMT	Red Lodge	3.02	293		Pn	16 01 36.6	+0.6
RLMT				IAML		16 02 31.6	
	40nm,1.8s						
RLMT				IAML		16 02 40.5	
	35nm,0.9s						
BW06	Boulder Array	3.31	250		Pn	16 01 40.8	+0.8
BW06				IAML		16 02 28.6	
	32nm,1.0s						
PD31	Pinedale Array	3.31	250		Pn	16 01 40.6	+0.6
PDAR	Pinedale Array	3.31	250	Pn	Pn	16 01 40.5	+0.6
	1.0nm,0.3s,baz=52,slow=15,SNR=7.5						
PDAR				Pg	Pb	16 01 45.2	-1.2
	2.8nm,0.3s,baz=64,slow=18,SNR=21						
PDAR				Lg	Lg	16 02 26.7	
	4.5nm,0.3s,baz=66,slow=34,SNR=11						
	1.8nm,0.4s						
PDAR				AML	AML		
PDAR	Pinedale Array	3.31	250		Pn	16 01 40.0	0.0
YNE	Yellowstone No	3.49	288		Pn	16 01 42.8	+0.4
YNE				IAML		16 02 53.7	
	comp=E,24nm,0.8s						
YNE				IAML		16 02 54.2	
	comp=N,30nm,0.8s						
GCMT	Greycliff	3.56	302		Pn	16 01 43.9	+0.6
ISCO	Idaho Springs	4.20	183		Pn	16 01 53.1	+0.9
ISCO				IAML		16 03 02.5	
	comp=N,19nm,0.8s						
LYMT	Lyon Mountain	5.72	304		Pn	16 02 13.1	+0.1
JTMT	Jette	7.28	304		Pn	16 02 35.4	+1.0
ULM	Lac du Bonnet	8.98	43	Pn	Pn	16 02 57.0	-0.5
	comp=N,0.3nm,0.3s,baz=222,slow=13,SNR=1.5						
ULM				Lg	Lg	16 05 24.8	
	comp=N,0.3nm,0.3s,baz=286,slow=19,SNR=5.7						
	comp=N,1.1nm,0.3s						
ULM				AML	AML		
I56US	NEWPORT INFRAS	9.23	302	I	I	17 01 52.9	
	baz=114,slow=313,SNR=3.4						
TXAR	Lajitas Array	14.70	174	Pn	P	16 04 23.5	+1.2
	comp=N,0.1nm,0.3s,baz=334,slow=13,SNR=3.1						
TXAR				Lg	Lg	16 08 32.4	
	comp=N,0.2nm,0.3s,baz=351,slow=26,SNR=3.6						
	comp=N,0.1nm,0.5s						
TXAR				AML	AML		

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*SOF **12** 16:45:58.7, 41°.7N±0°.1×19°.1E±0°.5, h10^{km}±2^{km}, MD4.5/16*
*NAO **12** 16:46:05.1, 41°.81N×19°.80E, h10^{km}, MB2.9*
*SKO **12** 16:46:05.8, 41°.94N×19°.67E, h11^{km}, ML4.2*
*NEIC **12** 16:46:05.4±2.8, 41°.73N±0°.04×19°.75E±0°.06, h10^{km}±1^{km}, mb4.3/10, Error ellipse: s-maj=9.0km s-min=5.5km az=55.0*
*TIR **12** 16:46:05.9, 41°.88N×19°.81E, h47^{km}±1^{km}, Ml3.9/3*
*PRU **12** 16:46:05.3, 41°.64N×20°.05E, h10^{km}, M4.2*
*RHSSO **12** 16:46:06.6±0.7, 41°.80N×19°.82E, h10^{km}±2^{km}, ML4.0/8*
*PDG **12** 16:46:06.8±0.5, 41°.82N×19°.78E, h24^{km}±1^{km}, MD4.2/12, ML4.1/13, Error ellipse: s-maj=0.8km s-min=1.3km az=0.0*
*BEO **12** 16:46:07.5±0.5, 41°.81N×19°.79E, h18^{km}±3^{km}, ML3.7/16*
*GFZ **12** 16:46:07.3±0.1, 42°N±2°×2°0E±°, h10^{km}, M4.3/22, mb4.5/22*
*THE **12** 16:46:09.6, 42°N±5°×2°0E±°, h20^{km}, M3.4/28, MLh3.4/28*
*IDC **12** 16:46:10.5±1.9, 41°.96N×19°.74E, h60^{km}±19^{km}, mb3.8/7, mbtmp3.9/16, ML3.6/9, MS3.0/8, Error ellipse: s-maj=16.4km s-min=14.0km az=168.0*

ISC 12 16:46:07.3±0.8**, 41°.80N**±0°.02×**19°.75E**±0°.02**, h32**^{km}±6^{km}**, n372, σ1**^{s}**83**/467**, mb4.4**/10**, 54C-31D, Albania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SDA	Shkodra	0.32	324	P	Pb	16 46 14.5	-0.6
SDA				S	Sb	16 46 20.2	-0.2
SDA				AML	AML	16 46 20.8	
	49nm,0.3s						
ULC	Ulcinj	0.41	294	⇑*i*Pg	Pb	16 46 15.6	-0.9
ULC				*i* Sg	Sn	16 46 23.6	-0.1
ULC				AML	AML		
TIR	Tirane	0.46	169	P	Pb	16 46 16.8	-0.4
TIR				S	Sn	16 46 27.0	+2.2
TIR				AML	AML	16 46 27.5	
	16nm,0.3s						
PHP	Peshkopia	0.53	102	P	Pb	16 46 17.2	-1.2
PHP				S	Sb	16 46 25.8	-0.2
PHP				AML	AML	16 46 29.5	
	31nm,0.5s						
PHP	Peshkopia	0.53	102	P	Pb	16 46 17.1	-1.2
DRME	Dracevica, Mon	0.57	313	⇓*i*Pg	Pb	16 46 18.2	-0.8
DRME				*e*Sg	Sb	16 46 26.7	-0.3
DRME	Dracevica, Mon	0.57	313	⇓*i*Pg	Pb	16 46 18.3	-0.8
DRME				*i* Sg	Sn	16 46 27.7	0.0
DRME				AML	AML		
PDG	Podgorica	0.73	330	P	Pb	16 46 20.5	-1.2
PDG	Podgorica	0.73	330		Pb	16 46 20.7	-0.9
PDG				Sg	Sb	16 46 30.8	-0.6
PDG	Podgorica	0.73	330	*e*Pg	Pb	16 46 21.0	-0.7
PDG				*e*Sg	Sn	16 46 32.6	+1.0
PDG	Podgorica	0.73	330	⇑P	Pb	16 46 20.6	-1.0
PDG				⇑S	Sn	16 46 31.5	-0.1
PDG	Podgorica	0.73	330	⇓*i*Pg	Pb	16 46 20.7	-0.9
PDG				*e*Sg	Sb	16 46 31.3	-0.1
PDG	Podgorica	0.73	330	P	Pb	16 46 20.9	-0.7
PDG	Podgorica	0.73	330	⇓*i*Pg	Pb	16 46 20.8	-0.9
PDG				*i* Sg	Sn	16 46 32.5	+1.0
PDG				AML	AML		
BUM	Brajici-Budva	0.81	309	⇑*i*Pg	Pn	16 46 22.8	+0.1
BUM				*i* Sg	Sn	16 46 35.7	+2.0
BUM				AML	AML		
PVY	Plav	0.81	11	⇑*i*Pg	Pb	16 46 21.7	-1.4
PVY				*i* Sg	Sn	16 46 34.5	+0.7
PVY				AML	AML		
CEME	Cevo	0.97	321	⇓*i*Pg	Pb	16 46 24.8	-0.9
CEME				*i* Sg	Sn	16 46 40.8	+3.2
CEME				AML	AML		
OHR	Ohrid	1.04	131	*i* Pg	Pb	16 46 27.3	+0.4
OHR				*i* Sg	Sn	16 46 44.0	+4.6
OHR				*e*Lg	Lg	16 46 45.6	
	comp=E,3µm,0.6s						
OHR				*e*Lg	Lg	16 46 47.0	
	comp=N,1µm,0.3s						
KOME	Kolasin	1.07	351	⇓*i*Pg	Pn	16 46 26.2	0.0
KOME				*i* Sg	Sn	16 46 42.9	+2.9
KOME				AML	AML		
IVA	Berane	1.08	6	⇓*i*Pg	Pn	16 46 26.5	+0.1
IVA				*i* Sg	Sn	16 46 43.3	+3.0
IVA				AML	AML		
NKME	Niksic	1.14	329	⇓*i*Pg	Pn	16 46 27.4	+0.3
NKME				*i* Sg	Sb	16 46 44.9	+2.0
NKME				AML	AML		
HCY	Herceg Novi	1.14	305	*e*Pg	Pb	16 46 28.1	-0.3
HCY				*e*Sg	Sb	16 46 44.0	+1.1
HCY	Herceg Novi	1.14	305	⇑*i*Pg	Pb	16 46 28.5	+0.1
HCY				*i* Sg	Sb	16 46 45.7	+2.8
HCY				AML	AML		
SKO	Skopje	1.27	82	*i* Pg	Pb	16 46 29.9	-0.8
SKO				*i* Sg	Sb	16 46 47.5	+0.7
VLO	Vlora	1.34	188	P	Pb	16 46 32.1	+0.3
VLO				AML	AML		
VLO	Vlora	1.34	188	P	Pb	16 46 32.4	+0.6
TREB	Trebinje	1.39	312	*e*Pg	Pb	16 46 32.3	-0.3
TREB				*e*Sg	Sb	16 46 51.7	+1.7
TREB	Trebinje	1.39	312	⇓*i*Pg	Pb	16 46 32.1	-0.5
TREB				*e*Sg	Sb	16 46 51.4	+1.4
KBN	Korca	1.41	146	P	Pb	16 46 33.9	+0.9
KBN				S	Sb	16 46 50.7	-0.1
KBN				AML	AML		
KBN	Korca	1.41	146	P	Pb	16 46 34.0	+0.9
BRY	Bratogost	1.42	321	⇑*i*Pg	Pb	16 46 32.9	-0.4
BRY				*e*Sg	Sb	16 46 52.7	+1.6
BRY	Bratogost	1.42	321	⇑*i*Pg	Pb	16 46 32.8	-0.5
BRY				*i* Sg	Sb	16 46 51.9	+0.8
BRY				AML	AML		
SJES	Sjenica	1.47	6	*e*Pg	Pb	16 46 33.7	-0.5

SJES				eSg	Sb	16 46 54.7	+2.1
SJES	Sjenica	1.47	6	⇓iPg	Pb	16 46 33.2	-1.0
SJES				eSg	Sb	16 46 52.7	+0.1
DBRK	Dubrovnik	1.47	307	i Pn	Pb	16 46 33.4	-0.8
DBRK				Sg	Sb	16 46 51.9	-0.6
UPM	Unac-Piva	1.54	336	⇑iPn	Pb	16 46 34.6	-0.7
UPM				eSn	Sb	16 46 54.6	+0.1
UPM	Unac-Piva	1.54	336	⇓iPg	Pb	16 46 35.5	+0.2
UPM				i Sg	Sb	16 46 54.6	+0.1
UPM				AML	AML		
PLE	Pljevlja	1.56	350	⇓iPg	Pb	16 46 35.0	-0.6
PLE				i Sg	Sb	16 46 55.4	+0.5
PLE				AML	AML		
KLINJ	Klinje	1.62	328	ePn	Pb	16 46 35.6	-1.0
KLINJ				eSn	Sb	16 46 57.1	+0.4
SELS	Selova	1.75	35	ePn	Pn	16 46 36.7	+1.2
IVAS	Ivanjica	1.80	9	ePn	Pn	16 46 37.7	+1.4
BARS	Barje	1.84	56	ePn	Pn	16 46 37.6	+0.8
STON	Ston	1.86	306	i Pn	Pn	16 46 38.1	+1.2
STON				Sn	Sb	16 47 01.5	-2.0
STON	Ston	1.86	306	ePn	Pn	16 46 38.2	+1.2
SRN	Sarande	1.92	174	P	Pn	16 46 39.5	+1.6
SRN				AML	AML		
SRN	Sarande	1.92	174	P	Pn	16 46 39.6	+1.7
GOCS	Kraljevo Serbi	1.95	25	ePn	Pn	16 46 39.6	+1.3
KEK	Kerkira	2.08	179		Pn	16 46 39.9	-0.1
KEK	Kerkira	2.08	179	P	Pn	16 46 40.2	+0.2
BBLS	Lazi&#263i	2.08	353	ePn	Pb	16 46 42.2	-2.3
BBLS	Lazi&#263i	2.08	353	⇑iPn	Pn	16 46 42.1	+2.0
BBLS				eSn	Sb	16 47 08.0	-2.0
BOSS	Bosilegrad	2.15	70	ePn	Pn	16 46 41.7	+0.7
GRG	Griva	2.17	112	P	Pn	16 46 43.3	+2.1
GRG				AML	AML		
GRG	Griva	2.17	112	P	Pn	16 46 43.3	+2.1
VAY	Valandovo	2.17	102	ePn	Pn	16 46 42.8	+1.5
VAY				eLg	Lg	16 47 11.5	
	comp=N,1µm,0.7s						
VAY				eLg	Lg	16 47 11.5	
	comp=E,1µm,0.7s						
GRUS	Gruza	2.21	18	ePn	Pn	16 46 43.5	+1.7
KPRO	Kipourio	2.21	146	P	Pb	16 46 44.7	-1.9
KPRO				AML	AML		
NOCI	Noci	2.26	244	P	Pn	16 46 43.2	+0.7
JAN	Janina	2.30	158	P	Pb	16 46 45.6	-2.5
JAN				AML	AML		
IGT	Igoumenitsa	2.31	169	P	Pn	16 46 45.1	+2.0
IGT	Igoumenitsa	2.31	169	P	Pn	16 46 44.7	+1.6
IGT				AML	AML		
IGT	Igoumenitsa	2.31	169	ePn	Pn	16 46 44.7	+1.6
DIVS	Divibare	2.31	4	ePn	Pn	16 46 44.7	+1.5
LSTV	Lastovo	2.33	296	i Pn	Pn	16 46 44.5	+1.0
LSTV				Sn	Sn	16 47 12.4	+1.3
BOVS	Bovan	2.34	37	ePn	Pn	16 46 44.6	+1.1
BOVS	Bovan	2.34	37	⇑P	Pn	16 46 44.9	+1.3
BOVS				⇓S	Sb	16 47 14.6	-2.6
TRAN	Tran	2.39	63	P	Pn	16 46 46.2	+1.9
KNT	Kendrikon	2.45	104	P	Pb	16 46 51.2	+0.5
TRUS	Trudelj	2.47	11	ePn	Pn	16 46 47.0	+1.6
PRMD	Pramanda	2.49	155	P	Pb	16 46 48.5	-2.9
PRMD				AML	AML		
MAKA	Makarska	2.51	307	ePn	Pn	16 46 47.3	+1.5
MAKA				Sn	Sn	16 47 17.0	+1.7
KKB	Krupnik	2.53	88	P	Pn	16 46 47.8	+1.6
KKB				S	Sn	16 47 18.1	+2.2
KKB				AML	AML		
KKB	Krupnik	2.53	88	i P	Pn	16 46 47.9	+1.7
MATE	Matera	2.57	244	⇑P	Pn	16 46 47.5	+0.9
MATE	Matera	2.57	244	P	Pn	16 46 47.4	+0.7
RICI	Ricice	2.57	312	ePn	Pn	16 46 48.3	+1.5
RICI				Sn	Sn	16 47 18.2	+1.2
ZAPS	Zavoj	2.59	54	ePn	Pn	16 46 48.4	+1.3
LIT	Litokhoron	2.68	128	P	Pn	16 46 50.7	+2.4
LIT				AML	AML		
LIT	Litokhoron	2.68	128		Pn	16 46 49.0	+0.7
LIT	Litokhoron	2.68	128	P	Pb	16 46 52.8	-1.8
THE	Thessaloniki	2.69	115	P	Pn	16 46 50.9	+2.5
SVIS	Svilajnac	2.69	23	ePn	Pn	16 46 50.4	+2.0
TETR	Tetrakomo, Epi	2.71	154	P	Pn	16 46 51.5	+2.7
TETR				AML	AML		
VTS	Vitosha	2.72	71	P	Pn	16 46 49.9	+1.0
VTS				S	Sn	16 47 22.9	+2.1
VTS				AML	AML		
VTS	Vitosha	2.72	71	i P	Pn	16 46 50.9	+2.0
VTS	Vitosha	2.72	71	ePn	Pn	16 46 50.0	+1.0
ZAGS	Zajecar	2.72	41	ePn	Pn	16 46 50.1	+1.3
TEKS	Tekeris	2.76	357	ePn	Pn	16 46 50.4	+1.1
TEKS	Tekeris	2.76	357	⇑iPn	Pn	16 46 50.4	+1.1
TEKS				eSn	Sn	16 47 24.6	+3.0
HORT	Hortiatis	2.80	114	P	Pn	16 46 51.8	+1.8
HORT				S	Sn	16 47 23.7	+1.0
HORT	Hortiatis	2.80	114	P	Pn	16 46 52.2	+2.2
HVAR	Hvar	2.80	301	i Pn	Pn	16 46 51.0	+1.1
HVAR				Sn	Sn	16 47 23.7	+1.0
TYRN	Tyrnavos	2.81	137	P	Pn	16 46 51.9	+1.8
TYRN				AML	AML		
PLNA	Plana	2.82	75	P	Pn	16 46 53.2	+2.9
THL	Klokotos Trika	2.82	142	P	Pn	16 46 52.3	+2.2
THL				S	Sn	16 47 24.9	+1.9
THL				AML	AML		
BLKB	Belogradchik	2.83	49	ePn	Pn	16 46 52.6	+2.3
BLSH	Balsha	2.83	67	P	Pn	16 46 53.2	+2.9
SOH	Sokhos	2.89	109	P	Pn	16 46 53.5	+2.4
SOH				S	Sn	16 47 26.3	+1.5
SOH				AML	AML		
SOH	Sokhos	2.89	109	P	Pn	16 46 53.7	+2.5
AVAS	Avala Beograd	2.95	11	ePn	Pn	16 46 53.2	+1.2
SRS	Serrai	2.97	102	P	Pn	16 46 54.0	+1.7
SRS				S	Sn	16 47 28.3	+1.6
SRS				AML	AML		
SRS	Serrai	2.97	102	ePn	Pn	16 46 53.9	+1.7
SRS	Serrai	2.97	102	P	Pn	16 46 54.1	+1.8
KUBS	Kucevo	2.97	28	ePn	Pn	16 46 51.9	-0.4
SGRT	San Giovanni R	3.00	271		Pn	16 46 52.8	+0.1
SGRT				Sn	Sn	16 47 25.7	-1.8
MMB	Musomishta	3.01	93	P	Pn	16 46 54.6	+1.8
MMB				S	Sn	16 47 29.3	+1.5
MMB				AML	AML		
MMB	Musomishta	3.01	93	i P	Pn	16 46 55.4	+2.6
TSLK	Tsoukalades, L	3.05	167	P	Pn	16 46 54.2	+0.9
TSLK				AML	AML		
AMPL	Ampelaki	3.08	158	P	Pn	16 46 55.4	+1.6
AMPL				AML	AML		
LKD2	Lefkada island	3.08	167	P	Pn	16 46 55.0	+1.1
LKD2	Lefkada island	3.08	167	P	Pn	16 46 54.6	+0.8
LKD2				AML	AML		
LKD2	Lefkada island	3.08	167	P	Pn	16 46 53.6	-0.3
NVR	Nevrokopi	3.12	97	P	Pn	16 46 56.5	+2.2
NVR				AML	AML		
PLG	Polygyros	3.13	116	P	Pn	16 46 56.9	+2.3
PLG				AML	AML		
NYDR	Nydri-Lefkada	3.16	166	P	Pn	16 46 55.2	+0.3
NYDR				AML	AML		
DRAG	Dragano-Lefkad	3.17	168	P	Pn	16 46 55.6	+0.5
EVGI	Lefkada island	3.25	167	P	Pn	16 46 56.4	+0.3
EVGI				AML	AML		
EVR	Evrytania	3.28	151	P	Pn	16 46 59.3	+2.7
EVR				AML	AML		
KIJV	Kijevo	3.30	313	ePn	Pn	16 46 58.6	+1.8
KIJV				Sn	Sn	16 47 36.6	+1.6
MDVR	Moldovita	3.31	25	ePn	Pn	16 46 58.1	+1.1
MDVR	Moldovita	3.31	25	⇑P	Pn	16 46 58.3	+1.4
VALD	Valchedram	3.31	54	P	Pn	16 46 58.9	+2.0
MPEP	Malo Peshtene	3.33	61	P	Pn	16 46 59.6	+2.3
MARCO	Tramutola	3.34	245	P	Pn	16 46 58.7	+1.3
FRGS	Fruska Gora	3.36	1	ePn	Pn	16 46 58.7	+1.1
FRGS	Fruska Gora	3.36	1	⇑iPn	Pn	16 46 58.6	+1.0
FRGS				eSn	Sn	16 47 38.8	+2.4
PGB	Panagyurishte	3.37	76	i P	Pn	16 47 00.6	+2.9
PDO	Prodromos	3.38	161	P	Pn	16 46 58.8	+1.0
PDO				AML	AML		
AGG	Agios Georgios	3.40	144	P	Pn	16 47 00.4	+2.2
AGG				AML	AML		
AGG	Agios Georgios	3.40	144	P	Pn	16 47 01.1	+2.9
PUNG	Punghina	3.41	42	⇓P	Pn	16 46 60.0	+1.8
TIP	Timpagrande	3.47	222		Pn	16 46 59.2	0.0
TIP	Timpagrande	3.47	222	⇓P	Pn	16 46 59.6	+0.4
TIP	Timpagrande	3.47	222	P	Pn	16 46 59.7	+0.5
BLY	Banja Luka	3.50	328	Pn	Pn	16 47 01.1	+1.7
BLY	Banja Luka	3.50	328	ePn	Pn	16 47 01.9	+2.4
BLY	Banja Luka	3.50	328	⇓P	Pn	16 47 01.4	+1.9
BLY	Banja Luka	3.50	328	⇑iPn	Pn	16 47 01.4	+1.9
BLY				eSn	Sn	16 47 42.6	+2.9
BLY	Banja Luka	3.50	328	P	Pn	16 47 01.7	+2.2
VRSS	Vrsac	3.52	19	ePn	Pn	16 47 00.9	+1.1
PAIG	Paliouri	3.52	121	P	Pn	16 47 01.3	+1.6
PAIG	Paliouri	3.52	121	P	Pn	16 47 01.8	+2.0
ZIRJ	Zirje	3.55	303	ePn	Pn	16 47 01.6	+1.4
ZIRJ				Sn	Sn	16 47 42.2	+1.2
RMGR	Halanga-Turnu	3.58	36	⇑P	Pn	16 47 03.1	+2.5
MORI	Morici	3.62	306	ePn	Pn	16 47 02.8	+1.6
MORI				Sn	Sn	16 47 44.5	+1.7
HERR	Herculane	3.65	31	⇑P	Pn	16 47 03.1	+1.6
BANR	Banloc	3.72	15	⇑P	Pn	16 47 04.9	+2.4
RZN	Rozhen	3.74	90	i P	Pn	16 47 05.6	+2.6
PLD	Plovdiv	3.74	83	P	Pn	16 47 05.4	+2.5
PLD	Plovdiv	3.74	83	ePn	Pn	16 47 04.0	+1.1
SRE	Strehaia	3.82	40	⇓P	Pn	16 47 05.8	+1.9
PLVB	Pleven	3.93	65	⇓P	Pn	16 47 07.9	+2.4
PAOL	Paolisi	3.97	261		Pn	16 47 07.2	+1.2
UDBI	Udbina	3.99	314	ePn	Pn	16 47 08.6	+2.2
UDBI				Sn	Sn	16 47 53.8	+1.7
BZS	Buzias	4.05	19	ePn	Pn	16 47 08.1	+1.0
BZS	Buzias	4.05	19	⇑P	Pn	16 47 08.4	+1.3
BZS	Buzias	4.05	19	P	Pn	16 47 08.3	+1.2
VLAD	Vladila	4.07	56	⇓P	Pn	16 47 09.8	+2.5
DUGI	Dugi Otok	4.08	304	ePn	Pn	16 47 08.9	+1.3
DUGI				Sn	Sn	16 47 55.0	+0.8
KDZ	Kurdzhali	4.19	90	i P	Pn	16 47 10.8	+1.8
GZR	Gura Zlata	4.21	30	ePn	Pn	16 47 10.6	+1.2
GZR	Gura Zlata	4.21	30	⇑P	Pn	16 47 10.9	+1.4
PVL	Pavlikeni	4.23	70	i P	Pn	16 47 11.9	+2.4
VIRC	Vir	4.25	308	ePn	Pn	16 47 10.6	+0.8
VIRC				Sn	Sn	16 47 58.2	-0.1
DIM	Dimitrovgrad	4.36	85	P	Pn	16 47 13.8	+2.5
INTR	Introdacqua	4.37	275		Pn	16 47 12.5	+1.0
MOSL	Moslavina	4.39	331	i Pn	Pn	16 47 13.1	+1.3
MORH	Mrgy, Hungar	4.49	350	⇑P	Pn	16 47 14.4	+1.3
MORH	Mrgy, Hungar	4.49	350	⇑iPn	Pn	16 47 13.6	+0.5
MORH				eSn	Sn	16 48 05.0	+0.8
MORH	Mrgy, Hungar	4.49	350	P	Pn	16 47 13.9	+0.8
NVLJ	Novalja	4.51	309	ePn	Pn	16 47 14.2	+0.8
NVLJ				Sn	Sn	16 48 04.8	0.0
CEL	Celeste	4.61	221		Pn	16 47 14.6	-0.3
CEL	Celeste	4.61	221	P	Pn	16 47 15.0	+0.2
COPA	Copaceanca	4.64	58	⇑P	Pn	16 47 17.9	+2.7
LOT	Lotru	4.67	37	⇑P	Pn	16 47 17.5	+1.7
LOT	Lotru	4.67	37	P	Pn	16 47 17.3	+1.5
RABC	Rab	4.67	311	ePn	Pn	16 47 17.2	+1.6
RABC				Sn	Sn	16 48 10.2	+1.4
DEV	Deva	4.68	28	⇑P	Pn	16 47 17.7	+2.0
DEV	Deva	4.68	28	P	Pn	16 47 17.8	+2.0
HUMR	Humele	4.70	53	⇑P	Pn	16 47 18.2	+2.2
HUMR	Humele	4.70	53	P	Pn	16 47 18.2	+2.2
AQU	L'Aquila	4.76	279		Pn	16 47 17.2	+0.4
AQU	L'Aquila	4.76	279	ePn	Pn	16 47 18.5	+1.6
AQU				eSn	Sn	16 48 12.7	+1.8
AQU	L'Aquila	4.76	279	P	Pn	16 47 18.5	+1.6
ALN	Alexandroupoli	4.83	99		Pn	16 47 18.3	+0.6
SZH	Strazhitsa	4.83	70	i P	Pn	16 47 20.4	+2.6
STFAR	Stefanesti-Arg	4.88	49	⇓P	Pn	16 47 21.5	+2.9
ITM	Ithomi	4.91	159		Pn	16 47 19.0	+0.1
OZLJ	Ozalj	4.92	322	i Pn	Pn	16 47 20.9	+1.9
PTJ	Puntijarka	4.94	328	i Pn	Pn	16 47 20.6	+1.2
BOJS	Bojanci	4.94	320	ePn	Pn	16 47 21.0	+1.8
BOJS	Bojanci	4.94	320	ePn	Pn	16 47 21.2	+1.9
KALN	Kalnik	4.94	332	ePn	Pn	16 47 20.2	+0.8
NRCA	Norcia	5.03	284		Pn	16 47 21.9	+1.3
ARR	Arges	5.03	43	⇑P	Pn	16 47 23.1	+2.5
ARR	Arges	5.03	43	P	Pn	16 47 22.9	+2.3
	comp=Z,26nm,0.5s						
TNR	Turnu Rosu	5.06	39	⇑P	Pn	16 47 23.9	+2.9
FDMO	Fiordimonte	5.08	286		Pn	16 47 22.4	+1.1
JMB	Yambol	5.09	80	P	Pn	16 47 23.9	+2.5
LOBO	Lobor	5.10	330	ePn	Pn	16 47 22.7	+1.2
BEHE	Becsehely	5.14	336		Pn	16 47 22.7	+0.7
BEHE	Becsehely	5.14	336	ePn	Pn	16 47 22.9	+0.9
BEHE				eSn	Sn	16 48 21.3	+1.1
BEHE	Becsehely	5.14	336	P	Pn	16 47 26.6	+4.6
	comp=Z,43nm,0.6s						
MTUR	Matau	5.17	47	⇑P	Pn	16 47 24.9	+2.4
SGRR	Singureni	5.17	60	⇑P	Pn	16 47 24.9	+2.5
GBRS	Gornja Briga	5.17	318	ePn	Pn	16 47 24.6	+2.0
RIY	Rijeka	5.20	314	ePn	Pn	16 47 24.7	+1.8
RIY				Sn	Sn	16 48 22.5	+0.7
RIY	Rijeka	5.20	314	ePn	Pn	16 47 24.7	+1.8
BUC1	Bucharest	5.26	59	⇑P	Pn	16 47 26.3	+2.6
RAZG	Razgrad	5.29	68	⇑P	Pn	16 47 26.3	+2.2
VOIR		5.30	45	⇓P	Pn	16 47 26.5	+2.2
VOIR		5.30	45	P	Pn	16 47 26.9	+2.6
	comp=Z,24nm,0.5s						
CESX	Cesi	5.39	281		Pn	16 47 26.1	+0.7
DRGR		5.43	22	ePn	Pn	16 47 27.4	+1.3
DRGR		5.43	22	⇑P	Pn	16 47 27.6	+1.5
DRGR		5.43	22	P	Pn	16 47 27.1	+1.0
	comp=Z,20nm,0.5s						
MARR	Marisel-Cluj	5.45	25	⇑P	Pn	16 47 27.9	+1.5
BORR	Bors	5.49	15	⇑P	Pn	16 47 29.2	+2.3
CEY	Cerknica	5.51	317	ePn	Pn	16 47 28.9	+1.7
MURB	Monte Urbino	5.54	288		Pn	16 47 28.7	+1.2
SULR		5.56	57	⇑P	Pn	16 47 30.1	+2.3
SKDS	Skadanscina	5.60	314	ePn	Pn	16 47 29.2	+0.8
MPLH	Magyarpolny	5.60	344	P	Pn	16 47 30.5	+2.2
	comp=Z,40nm,0.8s						
CJR	Cluj-Napoca	5.64	28	⇑P	Pn	16 47 30.5	+1.6
LJU	Ljubljana	5.68	320	ePn	Pn	16 47 30.4	+1.0
BUD	Budapest	5.71	355	P	Pn	16 47 30.6	+0.8
	comp=Z,50nm,0.5s						
NEF	NEVSHA	5.75	73	P	Pn	16 47 33.4	+2.9
LTVH	Ltavrtes, Hu	5.79	15	⇑P	Pn	16 47 33.9	+2.8
LTVH	Ltavrtes, Hu	5.79	15	P	Pn	16 47 33.3	+2.3
	comp=Z,219nm,0.7s						
MLR	Muntele Rosu	5.82	49	P	Pn	16 47 33.5	+2.0
	comp=Z,5.0nm,0.3s,baz=141,slow=23,SNR=24						
MLR				S	Sn	16 48 36.2	-0.9
	comp=Z,9.3nm,0.6s,baz=234,slow=9.0,SNR=1.4						
MLR				LR	LR	16 50 30.3	
	comp=Z,98nm,21.4s,baz=180,slow=46						
MLR				AML	AML		
MLR	Muntele Rosu	5.82	49	ePn	Pn	16 47 33.5	+2.0
MLR	Muntele Rosu	5.82	49	⇑P	Pn	16 47 34.1	+2.6
MLR	Muntele Rosu	5.82	49	P	Pn	16 47 34.5	+3.0
	comp=Z,34nm,0.7s						
PRD	Provadia	5.83	74	P	Pn	16 47 33.9	+2.4
DOPR	Dopca	5.83	42	⇑P	Pn	16 47 33.8	+2.3
TRI	Trieste	5.84	314	Pn	Pn	16 47 32.4	+0.8
PERS	Pernice	5.87	327	ePn	Pn	16 47 33.8	+1.6
SOKA	Soboth	5.94	327	Pn	Pn	16 47 34.7	+1.6
	comp=Z,5.9nm,0.3s,SNR=29						
SOKA				eSn	Sn	16 48 42.6	+2.5
	comp=Z,3.7nm,0.5s						
ISR	Istrita	5.96	54	⇑P	Pn	16 47 36.6	+3.3
VAE	Valguarnera	5.96	225	P	Pn	16 47 38.0	+4.6
	comp=Z,2.2nm,0.3s,baz=96,slow=5.6,SNR=3.8						
NEHR	Nehoiu	5.98	50	⇓P	Pn	16 47 36.6	+3.0
VOJS	Vojsko	5.99	317	i Pn	Pn	16 47 35.2	+1.4
OBKA	Obir	6.01	323	Pn	Pn	16 47 35.9	+1.8
	comp=Z,1.4nm,0.2s,SNR=16						
OBKA				eSn	Sn	16 48 44.1	+2.1
	comp=Z,7.8nm,0.3s						
OBKA	Obir	6.01	323	P	Pn	16 47 36.4	+2.3
	comp=Z,23nm,0.7s						
OZUR		6.12	43	⇓P	Pn	16 47 37.8	+2.2
PSZ	Piszkesteto	6.12	1	⇓P	Pn	16 47 36.9	+1.3
PSZ	Piszkesteto	6.12	1	P	Pn	16 47 36.8	+1.3
	comp=Z,25nm,0.8s						
COVR	Voineasa-Covas	6.18	47	⇑P	Pn	16 47 39.2	+2.9
RAFF	Raffo Rosso	6.18	224	Pn	Pn	16 47 35.6	-0.8
DRE	Drenchia	6.21	317	P	Pn	16 47 38.3	+1.6
	comp=Z,28nm,0.4s						
TURR	Turia	6.21	45	⇓P	Pn	16 47 39.0	+2.1
AMRR	Amara	6.22	61	⇑P	Pn	16 47 39.8	+2.9
ARSA	Arzberg	6.23	332		Pn	16 47 38.0	+0.9
ARSA	Arzberg	6.23	332	ePn	Pn	16 47 38.7	+1.6
ARSA	Arzberg	6.23	332	Pn	Pn	16 47 38.6	+1.6
	comp=Z,1.4nm,0.3s,SNR=10						
ARSA				eSn	Sn	16 48 50.1	+2.9
	comp=Z,3.2nm,0.4s						
ARSA	Arzberg	6.23	332	P	Pn	16 47 39.9	+2.8
	comp=Z,36nm,0.8s						
ICOR	Ion Corvin	6.35	66	⇑P	Pn	16 47 41.6	+3.0
RONA	Rosalia, Austr	6.39	339	Pn	Pn	16 47 40.4	+1.1
	comp=Z,1.6nm,0.2s,SNR=6.1						
RONA				eSn	Sn	16 48 52.7	+1.5
	comp=Z,4.5nm,0.5s						
PLOR	Plostina	6.43	49	⇓P	Pn	16 47 42.4	+2.6
PRED	Cave del Predi	6.43	318		Pn	16 47 39.1	-0.7
SESA	Seetaler Alpe,	6.48	327	Pn	Pn	16 47 42.1	+1.5
	SNR=19						
SESA				eSn	Sn	16 48 57.2	+3.6
	comp=Z,1.9nm,0.2s						
VRI	Vrincioaia	6.48	49	⇓P	Pn	16 47 43.1	+2.6
VRI	Vrincioaia	6.48	49	⇓P	Pn	16 47 43.2	+2.7
VRI	Vrincioaia	6.48	49	P	Pn	16 47 43.4	+2.9
	comp=Z,50nm,0.7s						
MYKA	Terra Mystica	6.53	320	ePn	Pn	16 47 42.6	+1.4
	comp=Z,1.2nm,0.2s						
MYKA				eSn	Sn	16 48 54.9	+0.4
	comp=Z,1.7nm,0.3s						
ACOM	Acomizza, Ital	6.53	319	P	Pn	16 47 43.3	+2.0
	comp=Z,30nm,0.6s						
CLTB	Caltabellotta	6.57	232	P	Pn	16 47 44.4	+2.6
	comp=Z,81nm,0.7s						
CVDA	Cernavoda	6.58	65	⇑P	Pn	16 47 44.8	+3.0
ABAH	Abaujker	6.58	9	P	Pn	16 47 43.6	+1.8
	comp=Z,26nm,0.8s						
ONER	Baraj Valea Uz	6.59	44	⇓P	Pn	16 47 44.9	+2.8
TRPA	Tarpa	6.63	16	P	Pn	16 47 44.4	+1.8
	comp=Z,53nm,0.5s						
HARR	Harsova	6.64	61	⇑P	Pn	16 47 45.5	+2.9
TLBR	Topalu	6.66	63	⇑P	Pn	16 47 45.5	+2.6
ZST	Bratislava	6.67	345	eSN	Sn	16 48 57.6	-0.3
FUSE	Fusea	6.70	316	P	Pn	16 47 45.8	+2.3
	comp=Z,28nm,0.6s						
KECS	Kecovo	6.71	4	ePN	Pn	16 47 46.2	+2.6
KECS				eSN	Sn	16 48 58.1	-0.7
CONA	Conrad Observa	6.72	337	ePn	Pn	16 47 44.5	+0.6
	comp=Z,1.2nm,0.2s						
CONA				eSn	Sn	16 49 01.3	+1.9
	comp=Z,3.6nm,0.4s						
VYHS	Vyhne	6.73	355	ePN	Pn	16 47 45.3	+1.4
VYHS				eSN	Sn	16 48 59.4	0.0
MODS	Modra-Piesok	6.80	346	ePN	Pn	16 47 46.8	+1.9
MODS				eSN	Sn	16 49 00.4	-0.9
WINA	Alland / Wiene	6.83	339	i Pn	Pn	16 47 47.9	+2.7
	SNR=6.0						
TEOL	Teolo	6.86	304		Pn	16 47 45.5	-0.2
BIZ	Bicaz	6.87	39	⇑P	Pn	16 47 48.6	+2.9
TIRR	Tirgusor	6.87	64	Pn	Pn	16 47 46.6	+0.8
TIRR	Tirgusor	6.87	64	⇑P	Pn	16 47 48.3	+2.4
CFR	Carcaliu	6.97	58	⇑P	Pn	16 47 49.4	+2.2
GHRR		6.98	50	P	Pn	16 47 50.5	+3.2
	comp=Z,97nm,0.7s						
KBA	Koelnbreinsper	6.99	321	Pn	Pn	16 47 48.9	+1.3
	comp=Z,3.9nm,0.3s,SNR=10						
KBA				eSn	Sn	16 49 05.7	-0.4
	comp=Z,2.5nm,0.5s						
KBA	Koelnbreinsper	6.99	321	P	Pn	16 47 49.6	+2.0
	comp=Z,15nm,1.0s						
BURAR	Bucovina Array	7.00	32		Pn	16 47 47.1	-0.6
BURAR	Bucovina Array	7.00	32	⇑P	Pn	16 47 50.8	+3.1
BUR08	Bucovina Ar. S	7.02	32		Pn	16 47 48.7	+0.8
TPGR	Topolog	7.02	61	⇓P	Pn	16 47 49.7	+1.8
CGRP	Cima Grappa	7.05	308	P	Pn	16 47 53.8	+5.4
	comp=Z,12nm,0.5s						
ABTA	Abfaltersbach	7.17	316	Pn	Pn	16 47 51.0	+1.0
	comp=Z,3.7nm,0.2s,SNR=20						
ABTA				eSn	Sn	16 49 11.1	+0.7
	comp=Z,0.6nm,0.2s						
MOA	Molln	7.20	329	ePn	Pn	16 47 52.5	+2.2
MOA	Molln	7.20	329	Pn	Pn	16 47 52.8	+2.5
	comp=Z,0.3nm,0.2s,SNR=8.8						
MOA				i Sn	Sn	16 49 15.0	+4.1
	comp=Z,5.1nm,0.5s						
MOA	Molln	7.20	329	P	Pn	16 47 52.8	+2.5
	comp=Z,13nm,1.0s						
JAVC	Velka Javorina	7.21	349	ePN	Pn	16 47 51.6	+1.0
BIOA	Bad Ischl, Aus	7.32	326	Pn	Pn	16 47 53.6	+1.5
	comp=Z,5.6nm,0.4s,SNR=6.1						
BIOA				eSn	Sn	16 49 16.3	+2.2
	comp=Z,1.5nm,0.4s						
KOLS	Kolonicke sedl	7.36	13	ePN	Pn	16 47 55.0	+2.6
KOLS				eSN	Sn	16 49 13.4	-1.4
KOLS	Kolonicke sedl	7.36	13	P	Pn	16 47 55.1	+2.6
	comp=Z,59nm,0.5s						
LANS	Liptovska Anna	7.36	359	ePN	Pn	16 47 55.7	+3.2
LANS				eSN	Sn	16 49 14.4	-0.5
TLCR		7.41	60	⇑P	Pn	16 47 55.9	+2.7
LESA	Schwarzleotal	7.55	321	Pn	Pn	16 47 57.0	+1.7
	comp=Z,4.1nm,0.3s,SNR=12						
LESA				eSn	Sn	16 49 20.3	+0.4
	comp=Z,0.3nm,0.2s						
KRUC	Moravsky	7.64	343	ePN	Pn	16 47 55.9	-0.4
KRUC				eSN	Sn	16 49 22.3	+0.6
IDI	Anoyia	7.64	147	P	Pn	16 47 54.7	-1.8
	comp=Z,2.9nm,0.3s,baz=288,slow=16,SNR=10						
IDI				S	Sn	16 49 14.2	-7.9
	comp=Z,3.5nm,0.3s,baz=32,slow=2.1,SNR=3.1						
IDI	Anoyia	7.64	147		Pn	16 47 54.4	-2.1
MAUC	Maruska	7.69	351	eSN	Sn	16 49 23.9	+0.9
STHS	Stebnicka Huta	7.69	7	ePN	Pn	16 47 59.3	+2.2
STHS				eSN	Sn	16 49 23.9	+0.8
SALO	Salr	7.70	303	Pn	Pn	16 47 57.4	+0.2
RJOB	Jochberg	7.73	323	P	Pn	16 48 00.5	+2.8
	comp=Z,18nm,0.6s						
VRAC	Vranov	7.83	345	P	Pn	16 48 00.7	+1.7
	comp=Z,0.3nm,0.3s,baz=170,slow=15,SNR=1.8						
VRAC				S	Sn	16 49 25.2	-1.3
	comp=Z,1.4nm,0.4s,baz=136,slow=21,SNR=1.3						
VRAC				LR	LR	16 51 28.3	
	comp=Z,94nm,18.7s,baz=155,slow=41						
	comp=Z,1.3nm,0.3s						
VRAC				AML	AML		
VRAC	Vranov	7.83	345	ePN	Pn	16 47 59.4	+0.4
WTTA	Wattenberg	7.96	316	i Pn	Pn	16 48 02.0	+1.0
	comp=Z,0.2nm,0.1s,SNR=11						
WTTA				eSn	Sn	16 49 29.3	-0.7
	comp=Z,0.9nm,0.2s						
WTTA	Wattenberg	7.96	316	P	Pn	16 48 04.0	+3.0
	comp=Z,16nm,0.7s						
CKRC	Cesky Krumlov	8.00	333	ePN	Pn	16 48 03.8	+2.5
CKRC				eSN	Sn	16 49 32.9	+2.3
WATA	Walderalm	8.04	316	i Pn	Pn	16 48 04.2	+2.2
	comp=Z,0.3nm,0.1s,SNR=7.1						
WATA				eSn	Sn	16 49 31.6	-0.3
	comp=Z,1.2nm,0.1s						
TREC	Trest	8.07	340	eSN	Sn	16 49 34.6	+2.2
MORC	Moravsky Berou	8.13	350	ePN	Pn	16 48 02.8	-0.3
MORC				eSN	Sn	16 49 32.2	-1.7
MORC	Moravsky Berou	8.13	350	⇑P	Pn	16 48 05.5	+2.4
SQTA	Sankt Quirin	8.16	315	i Pn	Pn	16 48 05.5	+1.9
	comp=Z,2.6nm,0.2s,SNR=7.8						
SQTA				eSn	Sn	16 49 34.9	+0.1
	comp=Z,34nm,0.5s						
GERES	GERESS Array B	8.23	331	P	Pn	16 48 06.4	+1.8
	comp=Z,0.1nm,0.3s,baz=150,slow=14,SNR=20						
GERES				S	Sn	16 49 33.3	-3.2
	comp=Z,2.7nm,0.3s,baz=152,slow=24,SNR=4.7						
	comp=Z,1.7nm,0.3s						
GERES				AML	AML		
MOTA	Moosalm	8.29	315	i Pn	Pn	16 48 07.5	+2.0
	comp=Z,0.8nm,0.1s,SNR=6.7						
MOTA				eSn	Sn	16 49 39.8	+1.7
	comp=Z,3.0nm,0.3s						
FETA	Feichten	8.30	312	ePn	Pn	16 48 07.2	+1.6
	comp=Z,0.2nm,0.1s						
FETA				eSn	Sn	16 49 39.1	+0.8
	comp=Z,0.2nm,0.3s						
FUORN	Ofenpass-Fuorn	8.34	308		Pn	16 48 06.9	+0.7
FUORN	Ofenpass-Fuorn	8.34	308	P	Pn	16 48 10.2	+3.9
	comp=Z,8.4nm,0.8s						
OJC	Ojcow	8.43	0	Pn	Pn	16 48 09.2	+2.1
KHC	Kasperske Hory	8.52	332	ePN	Pn	16 48 10.0	+1.6
KHC				eSN	Sn	16 49 46.6	+3.2
KHC	Kasperske Hory	8.52	332		Pn	16 48 08.4	-0.1
KHC	Kasperske Hory	8.52	332	P	Pn	16 48 10.2	+1.7
	comp=Z,7.5nm,1.0s						
KRLC	Kraliky	8.53	347	ePN	Pn	16 48 11.2	+2.5
RETA	Reutte	8.56	315	i Pn	Pn	16 48 10.8	+1.7
	comp=Z,2.3nm,0.3s,SNR=6.2						
RETA				eSn	Sn	16 49 44.4	-0.3
	comp=Z,0.2nm,0.2s						
ZVC	Zvikov	8.57	335	ePN	Pn	16 48 11.3	+2.1
ZVC				eSN	Sn	16 49 47.2	+2.4
DAVOX	Davos/Dischmat	8.65	308	P	Pn	16 48 12.2	+1.8
	comp=Z,1.3nm,0.3s,baz=108,slow=21,SNR=6.4						
DAVOX				S	Sn	16 49 39.9	-7.1

	comp=Z,9.2nm,0.3s,baz=330,slow=20,SNR=4.2						
	comp=Z,3.2nm,0.3s						
DAVOX				AML	AML		
SORM	Soroca	8.79	41	⇓P	Pn	16 48 14.1	+2.0
TUE	Stuetta	8.82	306		Pn	16 48 13.2	+0.5
DPC	Dobruska-Polom	8.88	346	*e*PN	Pn	16 48 16.5	+3.1
DPC				*e*SN	Sn	16 49 53.4	+1.1
DAVA	Damuels	8.93	311	*e*Pn	Pn	16 48 16.0	+1.8
	comp=Z,0.7nm,0.2s						
DAVA				*e*Sn	Sn	16 49 50.3	-3.4
	comp=Z,0.6nm,0.2s						
SENIN	Lac Senin/Sane	10.05	301		Pn	16 48 30.5	+0.8
KEST	Kesra	10.13	237	LR	LR	16 53 14.2	
	comp=Z,85nm,18.1s,baz=275,slow=42						
BFO	Black Forest	10.38	313	Pn	Pn	16 48 33.4	-0.5
CLL	Collm	10.58	336	*e*x	x	16 50 37.0	
CLL				*e*Sb	Sn	16 51 10.0	+36
CLL				*e*Sg		16 51 45.0	
CLL				L	L	16 52 06.0	
BRTR	Keskin Array B	10.74	97	P	Pn	16 48 41.3	+2.2
	comp=Z,0.1nm,0.3s,baz=278,slow=12,SNR=2.8						
BRTR				LR	LR	16 52 59.5	
	comp=Z,50nm,18.1s,baz=294,slow=38						
	comp=Z,0.5nm,0.4s						
BRTR				AML	AML		
KIEV	Kiev	11.04	33		Pn	16 48 42.2	-0.7
AKASG	Malin Array Be	11.05	33	P	Pn	16 48 45.0	+1.9
	comp=Z,0.3nm,0.3s,baz=222,slow=13,SNR=8.1						
AKASG				LR	LR	16 53 18.8	
	comp=Z,90nm,18.2s,baz=182,slow=39						
	comp=Z,1.0nm,0.6s						
AKASG				AML	AML		
AKBB	Malin Array Si	11.05	33		Pn	16 48 42.3	-0.8
SSB	Saint Sauveur	11.57	293	Pn	Pn	16 48 48.7	-1.6
HFS	Hagfors	18.74	351	P	P	16 50 23.0	-0.2
	comp=Z,0.5nm,0.3s,baz=172,slow=12,SNR=13						
	comp=Z,3.0nm,0.5s						
HFS				AML	AML		
NC405	NORSAR Array S	19.95	349	P	P	16 50 36.0	-0.5
NC405				IAmb	IAmb	16 50 38.6	
	comp=Z,9.6nm,1.1s						
NB201	NORSAR Array S	19.95	348	P	P	16 50 35.7	-0.8
NB201				IAmb	IAmb	16 50 59.9	
	comp=Z,14nm,1.1s						
NB2	NORSAR Subarra	19.96	348	P	P	16 50 35.7	-0.9
	comp=Z,0.2nm,0.3s,baz=161,slow=11						
NOA	NORSAR Array B	19.96	348	P	P	16 50 35.5	-1.1
	comp=Z,0.1nm,0.3s,baz=157,slow=9.4,SNR=6.4						
NOA				LR	LR	16 58 18.9	
	comp=Z,19nm,18.3s,baz=285,slow=37						
	comp=Z,0.5nm,0.5s						
NOA				AML	AML		
FINES	FINESS Array B	20.05	9	P	P	16 50 36.5	-0.9
	comp=Z,1.5nm,0.3s,baz=187,slow=9.9,SNR=57						
	comp=Z,2.9nm,0.3s						
FINES				AML	AML		
FINES	FINESS Array B	20.05	9	P	P	16 50 36.3	-1.2
FIA1	FINESS Array S	20.05	9	P	P	16 50 36.4	-1.1
EKA	Eskdalemuir Ar	20.20	320	P	P	16 50 39.1	-0.2
	comp=Z,1.6nm,0.5s,baz=113,slow=8.8,SNR=8.6						
	comp=Z,1.6nm,0.5s						
ESK	Eskdalemuir	20.21	320	P	P	16 50 39.1	-0.2
BELG	Belogornoye	21.60	51	P	P	16 50 53.2	-1.1
	comp=Z,14nm,1.0s,baz=46,slow=19,SNR=4.9						
	comp=Z,14nm,1.0s						
ARCES	ARCESS Array B	27.97	4	P	P	16 51 52.9	-1.8
	comp=Z,1.0nm,0.8s,baz=190,slow=10,SNR=5.4						
ARCES				LR	LR	17 03 17.1	
	comp=Z,52nm,18.0s,baz=241,slow=37						
	comp=Z,1.0nm,0.8s						
ARTI	Arti	28.76	46	LR	LR	17 04 26.7	
	comp=Z,47nm,19.1s,baz=263,slow=38						
ARTI	Arti	28.76	46	P	P	16 52 00.3	-1.5
AB31	Akbulak array	28.86	61	P	P	16 52 01.8	-1.0
ABKAR	Akbulak array	28.86	61	P	P	16 52 01.9	-0.8
TORD	Torodi Ar. Bea	32.58	214	P	P	16 52 36.6	+0.7
	comp=Z,0.6nm,0.6s,baz=22,slow=9.8,SNR=3.8						
	comp=Z,0.6nm,0.6s						
BORK	Borovoye	35.31	54	P	P	16 52 59.4	+0.1
BORK				IAmb	IAmb	16 53 00.2	
	comp=Z,3.2nm,0.6s						
BVAR	Borovoye Array	35.35	54	P	P	16 52 59.2	-0.4
	comp=Z,1.0nm,0.5s						
	comp=Z,1.0nm,0.5s						
ZAA0	Zalesovo Array	43.79	51	P	P	16 54 09.4	-0.4
ZAA0				IAmb	IAmb	16 54 10.2	
	comp=Z,4.0nm,0.8s						
ZALV	Zalesovo Beam	43.79	51	P	P	16 54 09.5	-0.3
	comp=Z,4.5nm,0.3s,baz=282,slow=8.6,SNR=30						
	comp=Z,4.5nm,0.3s						
MKAR	Makanchi Array	44.00	61	P	P	16 54 11.5	-0.1
	comp=Z,1.1nm,0.4s,baz=278,slow=7.7,SNR=18						
	comp=Z,1.1nm,0.4s						
SCHQ	Schefferville	55.43	315	P	P	16 55 38.2	-0.2
SCHQ				IAmb	IAmb	16 55 42.5	
	comp=Z,4.8nm,1.0s						
HHC	Hu-ho-hao-te	65.50	56	*e*P	P	16 56 48.1	+0.5
HHC				pmax	pmax		
	comp=Z,15nm,0.6s						
BOSA	Boshof	70.24	175	P	P	16 57 17.6	+0.4
BOSA				IAmb	IAmb	16 57 40.5	
	comp=Z,3.9nm,1.0s						

WEL 12 17:04:05.5±1.5**,34°S**±18°×**17°9W**±1°3**,h227**km±53km**,**
M3.5/4**,mB4.0**/4**,ML3.8**/7**,MLv3.7**/3**,Mw(mB)3.0**/4**,Error**
ellipse: s-maj=26.4km s-min=12.6km az=31.5,
confirmed,South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	4.45	205	P	Pn	17 05 14.4	+0.8
MXZ				S	S	17 06 06.6	-0.9
PKGZ	Pakihiroa	4.80	205	P	Pn	17 05 18.3	+0.4
PKGZ				S	S	17 06 16.7	+1.3
PKGZ				AML	AML		
PKGZ				AML	AML		
HAZ	Te Kaha	4.81	208	P	Pn	17 05 18.8	+0.7
HAZ				S	S	17 06 16.9	+1.2
HAZ				AML	AML		
PUZ	Puketiti	4.92	203	P	Pn	17 05 19.3	-0.3
PUZ				S	S	17 06 18.2	0.0
PUZ				AML	AML		
RUGZ	Raukumara Rang	5.04	208	P	Pn	17 05 21.4	+0.4
RUGZ				AML	AML		
RUGZ				AML	AML		
CNGZ	Carnagh Statio	5.32	201	P	Pn	17 05 24.6	+0.2
CNGZ				AML	AML		
TKGZ	Te Karaka	5.39	204	P	Pn	17 05 25.2	-0.2
TKGZ				S	S	17 06 30.0	+1.2
TKGZ				AML	AML		
TKGZ				AML	AML		
MWZ	Matawai	5.41	207	P	Pn	17 05 25.2	-0.5
MWZ				AML	AML		
URZ	Urewera	5.52	210	P	Pn	17 05 26.6	-0.3
URZ				S	S	17 06 31.1	-0.6
URZ				AML	AML		
RIGZ	Rimuhau	5.66	204	P	Pn	17 05 28.2	-0.6
RIGZ				AML	AML		
RTZ	Ruatahuna	5.87	209	P	Pn	17 05 33.8	+2.2
OUZ	Omahuta	6.07	252	P	Pn	17 05 33.3	-0.7
OUZ				S	S	17 06 45.3	+0.9
MTHZ	Maungataniwha	6.13	209	P	Pn	17 05 34.2	-0.6
MTHZ				S	S	17 06 46.7	+0.8

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*IDC **12** 17:19:15.3±0.5, 41°.37N×83°.75E, h0km, mb4.2/23, mbtmp4.3/31, ML3.8/6, MS3.9/73, Error ellipse: s-maj=12.1km s-min=8.7km az=45.0*

*BJI **12** 17:19:15.3, 41°.31N×83°.74E, h10km, mB4.8/12, mb4.7/39, ML4.9/6, Ms4.6/38, Ms7 4.4/35*

*MOS **12** 17:19:15.1±0.9, 41°.32N×83°.76E, h13km, mb4.8/48, MS4.1/9, Error ellipse: s-maj=5.6km s-min=3.3km az=45.0*

*SOME **12** 17:19:16.7, 41°.23N×83°.63E, h15km, MS4.3*

*NEIC **12** 17:19:17.1±1.3, 41°.38N±0°.06×83°.82E±0°.05, h10km±1km, mb4.6/78, Error ellipse: s-maj=11.3km s-min=5.6km az=160.0*

*NNC **12** 17:19:17.2±2.0, 41°.34N×83°.73E, h6km±8km, mb5.2, mpv5.0, Error ellipse: s-maj=15.0km s-min=9.6km az=164.0*

*GCMT **12** 17:19:18.1±0.3, 41°.41N±0°.02×83°.78E±0°.02, h18km±1km, MW4.7/82, Moment Tensor Solution. s6,c8; s82,c116; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}0.01±.07; $M_{\theta\theta}$-0.61±.06; $M_{\phi\phi}$0.60±.05; $M_{r\theta}$-0.47±.17; $M_{\theta\phi}$1.10±.05; $M_{\phi r}$0.57±.15; Best double couple: $M_0$1.44100×10^{16} NP1:ϕ_s73.00000°,δ64.00000°,λ-8.00000°. NP2: ϕ_s167.00000°,δ83.00000°,λ-153.00000°. Principal axes: T 1.3070, Plg13.0000°, Azm297.0000°; N 0.2680, Plg62.0000°, Azm181.0000°; P -1.5750, Plg24.0000°, Azm33.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*GFZ **12** 17:19:18.2±0.2, 41°N±3°×8°4E±°, h10km, M4.7/21, mb5.0/21*

ISC 12 17:19:16.9±0.3**, 41°.32N**±0°.03×**83°.75E**±0°.02**, h10**km**, n457,**
σ**1**^{s}**69**/450**, mb4.5**/130**, MS4.0**/86**, 21C-17D, Southern**
Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KTMS	Ketmen	3.29	311	Pg	Pb	17 20 15.9	+0.3
	297nm,0.6s						
KTMS				Lg	Lg	17 20 59.4	
	2µm,0.8s						
KTMS	Ketmen	3.29	311	*e*P	Pb	17 20 15.9	+0.3
	297nm,0.6s						
KTMS				*e*S	Sb	17 20 59.4	+3.7
	2µm,0.8s						
WUS	Wushi	3.42	269		Pn	17 20 11.5	+1.1
SHLS	Shalkode	3.67	301	Pg	Pn	17 20 17.7	+3.8
	1µm,0.6s						
SHLS				Lg	Lg	17 21 01.9	
	5µm,0.9s						
SHLS	Shalkode	3.67	301	*e*P	Pn	17 20 11.5	-2.4
SHLS				*e*S	Sn	17 20 52.8	-4.5
SHLS	Shalkode	3.67	301	*e*P	Pn	17 20 11.6	-2.4
SHLS				*e*S	Sn	17 20 52.9	-4.5
SHLS	Shalkode	3.67	301	*e*P	Pn	17 20 17.7	+3.8
	1µm,0.6s						
SHLS				*e*S	Sn	17 21 01.9	+4.5
	5µm,0.9s						
PDGK	Podgornoye	3.74	304	⇑Pn	Pn	17 20 15.4	+0.5
	262nm,0.8s						
PDGK				⇓Lg	Lg	17 21 15.9	
	6µm,1.2s						
PDGK	Podgornoye	3.74	304	P	Pn	17 20 16.1	+1.2
PDGK	Podgornoye	3.74	304		Pn	17 20 16.0	+1.2
WMQ	Urumqi	3.84	48	Pn	Pn	17 20 18.1	+2.0
WMQ				Sn	Sn	17 21 02.3	+0.9
WMQ				AML	AML		
	3µm,0.9s						
UZB	Uzynbulak	3.96	299	Pg	Pb	17 20 28.0	+1.2
	512nm,0.8s						
UZB				Lg	Lg	17 21 19.9	
	1µm,0.9s						
UZB	Uzynbulak	3.96	299	*e*P	Pn	17 20 18.9	+1.1
UZB				*e*S	Sn	17 21 06.3	+2.0
UZB	Uzynbulak	3.96	299	*e*P	Pn	17 20 18.9	+1.1
UZB				*e*S	Sn	17 21 06.3	+2.0
UZB	Uzynbulak	3.96	299	*e*P	Pb	17 20 28.0	+1.2
	512nm,0.8s						
UZB				*e*S	Sb	17 21 19.9	+5.1
	1µm,0.9s						
PRZ	Przheval'sk	4.16	288	P	Pn	17 20 22.3	+1.7
PRZ	Przheval'sk	4.16	288		Pn	17 20 22.3	+1.7
PRZ	Przheval'sk	4.16	288	P	Pn	17 20 22.8	+2.1
KPKS	Kokpek	4.32	301	Pg	Pb	17 20 34.9	+1.9
	0.4nm,0.3s						
KPKS				Lg	Lg	17 21 31.5	
	1µm,0.8s						
KPKS	Kokpek	4.32	301	*e*P	Pn	17 20 23.9	+1.1
KPKS	Kokpek	4.32	301	*e*P	Pn	17 20 23.9	+1.1
KPKS	Kokpek	4.32	301	*e*P	Pb	17 20 34.9	+1.9
	0.4nm,0.3s						
KPKS				*e*S	Sg	17 21 31.5	-4.1
	1µm,0.8s						
SATY	Saty	4.33	295	Pg	Pb	17 20 34.1	+0.9
	1µm,0.7s						
SATY				Lg	Lg	17 21 30.1	
	2µm,1.0s						
SATY	Saty	4.33	295	*e*P	Pn	17 20 24.1	+1.2
SATY				*e*S	Sn	17 21 15.7	+2.1
SATY	Saty	4.33	295	*e*P	Pn	17 20 24.2	+1.2
SATY				*e*S	Sn	17 21 15.7	+2.1
SATY	Saty	4.33	295	*e*P	Pb	17 20 34.1	+0.9
	1µm,0.7s						
SATY				*e*S	Sb	17 21 30.1	+4.5
	2µm,1.0s						
TARG	Taragay, Kyrgy	4.48	277	P	Pn	17 20 26.1	+0.8
TARG	Taragay, Kyrgy	4.48	277		Pn	17 20 26.1	+0.8
TARG	Taragay, Kyrgy	4.48	277	P	Pn	17 20 27.0	+1.8
KNOS	Konyrlen	4.53	314	Pg	Pg	17 20 40.5	-3.2
	640nm,0.8s						
KNOS				Lg	Lg	17 21 40.5	
	781nm,0.9s						
KURS	Kuram	4.66	300	Pg	Pb	17 20 41.7	+2.8
	392nm,0.7s						
KURS				Lg	Lg	17 21 43.5	
	933nm,0.8s						
KURS	Kuram	4.66	300	*e*P	Pb	17 20 41.6	+2.8
	392nm,0.7s						
KURS				*e*S	Sg	17 21 43.5	-3.2
	933nm,0.8s						
BLB	Baldybastay	4.77	307	Pg	Pb	17 20 43.0	+2.2
	525nm,0.6s						
BLB				Lg	Lg	17 21 45.5	
	2µm,0.9s						
KDJ	Kajisay	4.98	282	P	Pn	17 20 32.8	+0.9
KDJ	Kajisay	4.98	282		Pn	17 20 32.8	+0.9
KDJ	Kajisay	4.98	282	P	Pn	17 20 33.6	+1.6
KAPS	Kapalarasan	5.10	323	Pg	Pg	17 20 53.9	-0.6
	367nm,0.8s						
KAPS				Lg	Lg	17 22 03.5	
	1µm,1.0s						
KAPS	Kapalarasan	5.10	323	*e*P	Pb	17 20 50.1	+3.9
	484nm,0.6s						
KAPS				*e*S	Sg	17 21 56.7	-3.8
	1µm,1.1s						
ARXS	Arharly	5.23	306	Pg	Pg	17 20 53.2	-3.9
	153nm,0.6s						
ARXS				Lg	Lg	17 22 04.0	
	1µm,0.8s						
ARXS	Arharly	5.23	306	*e*P	Pg	17 20 53.2	-3.9
	153nm,0.6s						
ARXS				*e*S	Sg	17 22 04.0	-0.9
	1µm,0.8s						
KOTS	Kotyrbulak	5.28	293	Pg	Pb	17 20 53.4	+4.0
	413nm,0.9s						
KOTS				Lg	Lg	17 22 02.7	
	1µm,0.7s						
KOTS	Kotyrbulak	5.28	293	*e*P	Pb	17 20 53.4	+4.0
	413nm,0.9s						
KOTS				*e*S	Sg	17 22 02.7	-3.7
	1µm,0.7s						
MDOK	Medeo	5.30	293	Pg	Pb	17 20 53.7	+3.9
	392nm,0.7s						
MDOK				Lg	Lg	17 22 03.0	
	840nm,0.7s						
MDOK	Medeo	5.30	293	*e*P	Pn	17 20 37.6	+1.3
MDOK				*e*S	Sn	17 21 39.7	+2.2
MDOK	Medeo	5.30	293	*e*P	Pn	17 20 37.6	+1.3
MDOK				*e*S	Sn	17 21 39.8	+2.2
MDOK	Medeo	5.30	293	*e*P	Pb	17 20 53.7	+3.9
	392nm,0.7s						
MDOK				*e*S	Sg	17 22 03.0	-4.2
	840nm,0.7s						
TNSS	Tian-Shan	5.34	291	Pg	Pg	17 20 56.6	-2.5
	84nm,0.6s						
TNSS				Lg	Lg	17 22 08.0	
	226nm,1.1s						
TNSS	Tian-Shan	5.34	291	*e*P	Pn	17 20 38.0	+1.0
TNSS	Tian-Shan	5.34	291	*e*P	Pn	17 20 38.0	+1.0
TNSS	Tian-Shan	5.34	291	*e*P	Pg	17 20 56.6	-2.5
	84nm,0.6s						
TNSS				*e*S	Sg	17 22 08.0	-0.3
	226nm,1.1s						
TDK	Taldyqorghan	5.37	315	Pg	Pg	17 20 59.6	0.0
	1µm,0.6s						
TDK				Lg	Lg	17 22 13.1	
	13nm,1.0s						
TDK	Taldyqorghan	5.37	315	*e*P	Pn	17 20 38.0	+0.9
TDK				*e*S	Sn	17 21 40.8	+1.9
TDK	Taldyqorghan	5.37	315	*e*P	Pn	17 20 38.0	+0.9
TDK				*e*S	Sn	17 21 40.8	+1.9
TDK	Taldyqorghan	5.37	315	*e*P	Pg	17 20 57.4	-2.3
	739nm,0.7s						
TDK				*e*S	Sg	17 22 09.1	-0.1
	2µm,0.8s						
KNDC	Almaty	5.38	293	⇑Pn	Pn	17 20 39.3	+2.0
	2µm,0.8s						
KNDC				⇑Sn	Sn	17 21 41.7	+2.5
	2µm,0.9s						
KNDC	Almaty	5.38	293	P	Pn	17 20 39.2	+2.0
KNDC						17 21 42.8	
AAA	Alma-Ata	5.41	293	Pg	Pb	17 20 55.4	+3.9
	309nm,0.6s						
AAA				Lg	Lg	17 22 06.4	
	16nm,0.3s						
AAA	Alma-Ata	5.41	293	*e*P	Pn	17 20 39.0	+1.3
AAA	Alma-Ata	5.41	293	*e*P	Pn	17 20 39.1	+1.3
AAA	Alma-Ata	5.41	293	*e*P	Pb	17 20 55.5	+3.9
	309nm,0.6s						
AAA				*e*S	Sg	17 22 06.4	-4.1
	16nm,0.3s						
ASAI	AK-SAY(Kyrgyzs	5.47	268	P	Pn	17 20 40.8	+2.0
	comp=Z,473nm,0.9s						
MK31	Makanchi Array	5.57	350	⇑Pn	Pn	17 20 39.3	-0.7
	comp=Z,1.6nm,0.3s,baz=160,slow=12						
MK31				⇑Pg	Pb	17 20 58.2	+3.9
	comp=Z,27nm,0.5s,baz=160,slow=17						
MK31				⇓Lg	Lg	17 22 13.8	
	comp=Z,581nm,0.9s,baz=169,slow=29						
MK31	Makanchi Array	5.57	350	*d i*P	Pn	17 20 40.7	+0.8
MKAR	Makanchi Array	5.57	350	Pn	Pn	17 20 40.6	+0.7
	comp=Z,1.6nm,0.3s,baz=175,slow=11,SNR=3.4						
MKAR				Sn	Sn	17 21 43.4	-0.6
	comp=Z,24nm,0.3s,baz=159,slow=17,SNR=6.4						
MKAR				Lg	Lg	17 22 06.5	
	comp=Z,16nm,0.3s,baz=172,slow=28,SNR=7.8						
MKAR				LR	LR	17 23 03.2	
	comp=Z,529nm,18.3s,baz=338,slow=41						
	comp=Z,7.8nm,0.6s						
MKAR				AML	AML		
MKAR	Makanchi Array	5.57	350		Pn	17 20 40.8	+0.9
MKAR					Sn	17 21 42.7	-1.3
MAKZ	Makanchi	5.63	348	⇑Pn	Pn	17 20 40.1	-0.6
	comp=Z,18nm,0.9s						
MAKZ				⇓Pg	Pg	17 21 00.1	-4.7
	comp=Z,59nm,0.7s						
MAKZ				⇓Lg	Lg	17 22 17.5	
	comp=Z,778nm,0.9s						
MAKZ	Makanchi	5.63	348	P	Pn	17 20 40.7	0.0
MAKZ	Makanchi	5.63	348		Pn	17 20 40.7	0.0
MAKZ	Makanchi	5.63	348	P	Pn	17 20 43.9	+3.1
	comp=Z,112nm,0.7s						
ULHL	Ulahol	5.69	282	P	Pn	17 20 43.6	+2.0
	SNR=42						
NRN	Naryn	5.83	274	P	Pn	17 20 44.2	+0.5
NRN	Naryn	5.83	274		Pn	17 20 44.2	+0.5
BOOM	Boomskoye usch	5.94	284	P	Pn	17 20 45.4	+0.3
BOOM	Boomskoye usch	5.94	284		Pn	17 20 45.4	+0.3
BOOM	Boomskoye usch	5.94	284	P	Pn	17 20 45.8	+0.6
	comp=Z,385nm,1.2s						
KST	Kastek	6.04	289	Pg	Pg	17 21 09.7	-2.7
	comp=Z,172nm,0.8s						
KST				Lg	Lg	17 22 30.6	
	comp=Z,843nm,0.8s						
KST	Kastek	6.04	289	*e*P	Pb	17 21 07.9	+5.7
	comp=Z,44nm,0.6s						
KST				*e*S	Sg	17 22 27.2	-3.4
	comp=Z,843nm,0.8s						
KUU	Kurty	6.04	298	*e*P	Pn	17 20 47.4	+1.1
KUU	Kurty	6.04	298	*e*P	Pn	17 20 47.5	+1.1
ZSN	Zaisan	6.18	7	Pg	Pg	17 21 10.6	-4.6
	comp=Z,130nm,0.8s						
ZSN				Lg	Lg	17 22 32.9	
	comp=Z,900nm,1.2s						
ZSN	Zaisan	6.18	7	*e*P	Pn	17 20 49.1	+0.9
ZSN	Zaisan	6.18	7	*e*P	Pn	17 20 49.1	+0.9
ZSN	Zaisan	6.18	7	*e*P	Pg	17 21 13.3	-2.0
	comp=Z,95nm,0.7s						
ZSN				*e*S	Sg	17 22 36.6	+1.3
	comp=Z,833nm,1.0s						
TKM2	Tokmak 2	6.27	287	P	Pn	17 20 50.7	+1.1
	SNR=180						
KRBS	Karabastau	6.42	294	Pg	Pg	17 21 17.4	-2.4
	comp=Z,120nm,0.9s						
KRBS				Lg	Lg	17 22 43.8	
	comp=Z,77nm,1.0s						
KRBS	Karabastau	6.42	294	*e*P	Pg	17 21 15.1	-4.7
	comp=Z,83nm,0.7s						
KRBS				*e*S	Sg	17 22 39.5	-3.4
	comp=Z,130nm,0.9s						
KSH2	Kashi	6.63	254	Pn	Pn	17 20 56.4	+1.9
KSH2				Sn	Sn	17 22 13.5	+3.4
KBK	Karagaybulak	6.69	284	P	Pn	17 20 56.7	+1.2
	SNR=124						
CHMS	Chumysh	6.89	287	P	Pn	17 20 59.5	+1.4
	SNR=5.8						
FRU1	Bishkek	6.95	285	P	Pn	17 20 59.6	+0.8
FRU1	Bishkek	6.95	285		Pn	17 20 59.6	+0.8
AAK	Ala-Archa	7.02	284	Pn	Pn	17 21 00.6	+0.7
	comp=Z,4.0nm,0.3s,baz=118,slow=8.6,SNR=42						
AAK				Lg	Lg	17 22 57.2	
	comp=Z,14nm,0.3s,baz=307,slow=15,SNR=5.1						
AAK				LR	LR	17 23 50.8	
	comp=Z,551nm,19.5s,baz=97,slow=39						
	comp=Z,17nm,0.5s						
AAK				AML	AML		
AAK	Ala-Archa	7.02	284	P	Pn	17 21 01.7	+1.8
	SNR=28						
AAK	Ala-Archa	7.02	284	⇑Pn	Pn	17 20 58.7	-1.2
	comp=Z,16nm,0.7s						
AAK				⇓Lg	Lg	17 23 00.5	
	comp=Z,666nm,1.2s						
AAK	Ala-Archa	7.02	284	P	Pn	17 21 01.2	+1.3
AAK	Ala-Archa	7.02	284	P	Pn	17 21 01.4	+1.5
	comp=Z,125nm,0.7s						
SGDS	Sogindy	7.08	291	Pg	Pb	17 21 25.0	+5.0
	comp=Z,62nm,1.0s						
SGDS				Lg	Lg	17 22 56.5	
	comp=Z,196nm,0.7s						
SGDS	Sogindy	7.08	291	*e*P	Pn	17 21 01.2	+0.6
USP	Ospenovka	7.13	289	P	Pn	17 21 02.4	+1.1
	SNR=19						
EKS2	Erkin-Say	7.55	284	P	Pn	17 21 08.3	+1.2
	SNR=14						
MRKS	Merke	7.96	284	Pg	Pb	17 21 42.2	+7.2
	comp=Z,55nm,0.6s						
MRKS				Lg	Lg	17 23 26.2	
	comp=Z,183nm,0.9s						
MRKS	Merke	7.96	284	*e*P	Pb	17 21 42.2	+7.2
	comp=Z,55nm,0.6s						
MRKS				*e*S	Sg	17 23 26.2	-6.2
	comp=Z,183nm,0.9s						
ARSB	Arslanbob	8.10	274	P	Pn	17 21 15.5	+0.8
ARSB	Arslanbob	8.10	274		Pn	17 21 15.5	+0.8
DGZ	Jazzator, Alta	8.77	16	*d i*P	Pn	17 21 24.7	+0.8
ARK	Arkit	8.85	277	P	Pn	17 21 26.7	+1.7
ARK	Arkit	8.85	277	P	Pn	17 21 26.7	+1.7
	comp=Z,39nm,0.8s						
DRK	Karamyk	9.30	263	P	Pn	17 21 32.0	+0.7
DZA	Taraz	9.36	284	*e*P	Pn	17 21 32.3	+0.4
DZA	Taraz	9.36	284	*e*P	Pn	17 21 32.4	+0.4
SEM	Semipalatinsk	9.41	346	Lg	Lg	17 24 18.0	
	comp=Z,226nm,1.0s						
SEM	Semipalatinsk	9.41	346	*e*P	Pn	17 21 32.5	-0.2
SEM	Semipalatinsk	9.41	346	*e*P	Pn	17 21 32.5	-0.2
BTK	Batken	9.90	267	P	Pn	17 21 39.6	+0.2
BTK	Batken	9.90	267		Pn	17 21 39.6	+0.2
KK31	Karatay Array	9.98	285	Pn	Pn	17 21 41.8	+1.4
	comp=Z,5.2nm,0.8s,baz=92,slow=13,SNR=29						
KK31				⇓Pg		17 22 17.5	
	comp=Z,45nm,0.7s,baz=99,slow=15,SNR=6.5						
KK31				⇓Lg	Lg	17 24 37.5	
	comp=Z,167nm,1.1s,baz=95,slow=29						
KK31	Karatay Array	9.98	285	*i* P	Pn	17 21 40.2	-0.2
KK31	Karatay Array	9.98	285		Pn	17 21 39.8	-0.6
KKAR	Karatay Array	9.98	285	P	Pn	17 21 40.1	-0.3
KKAR	Karatay Array	9.98	285		Pn	17 21 40.1	-0.3
KURBB	Kurchatov Arra	9.99	340	Pn	Pn	17 21 38.5	-1.8
	comp=Z,0.3nm,0.3s,baz=160,slow=12,SNR=22						
KURBB				Lg	Lg	17 24 23.2	
	comp=Z,0.8nm,0.3s,baz=148,slow=28,SNR=5.7						
	comp=Z,3.2nm,0.6s						
KURBB				AML	AML		
KURBB	Kurchatov Arra	9.99	340	⇓Pn	Pn	17 21 40.2	-0.2
	comp=Z,24nm,0.9s,baz=156,slow=13						
KURBB				⇓Lg	Lg	17 24 34.5	
	comp=Z,521nm,0.9s						
KURBB	Kurchatov Arra	9.99	340	P	Pn	17 21 41.2	+0.8
GOMU	GeErMu	10.04	117	P	Pn	17 21 40.3	-1.2

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GOMU                                S      Sn      17 23 31.5 -2.8
KURK  Kurchatov          10.05 341 ⇓Pn     Pn      17 21 40.7 -0.5
      comp=Z,11nm,0.8s
KURK                               ⇑Lg     Lg      17 24 35.5
      comp=Z,242nm,1.0s
KURK  Kurchatov          10.05 341⇑eP      Pn      17 21 40.5 -0.7
KURK  Kurchatov          10.05 341         Pn      17 21 40.0 -1.2
KURK  Kurchatov          10.05 341  P      Pn      17 21 40.7 -0.5
      comp=Z,32nm,0.8s
IUG   Iuzhnay            10.29 279 eP      Pn      17 21 45.3 +0.7
IUG   Iuzhnay            10.29 279 eP      Pn      17 21 45.4 +0.7
BRLS  Borolday           10.47 284 eP      Pn      17 21 48.6 +1.6
BRLS  Borolday           10.47 284 eP      Pn      17 21 48.6 +1.6
CHM   Chimkent           10.61 280 eP      Pn      17 21 49.1 +0.2
CHM   Chimkent           10.61 280 eP      Pn      17 21 49.2 +0.2
NIL   Nilore             11.31 231  P      Pn      17 21 57.8 -0.8
NIL   Nilore             11.31 231         Pn      17 21 57.8 -0.8
NIL   Nilore             11.31 231  P      Pn      17 21 58.3 -0.4
      comp=Z,180nm,0.5s
GTA2  Gaotai             12.35  93  P      Pn      17 22 12.1 -0.7
GTA2                                S      Sn      17 24 29.0 -1.5
GTA2                                pmax   pmax
      comp=Z,14nm,1.0s
GTA2                                L      L
      comp=Z,2μm,9.2s
GTA2                                L      L
      comp=Z,1μm,10.8s
GTA2                                L      L
      comp=Z,960nm,12.4s
ZAA0  Zalesovo Array     12.66   3         Pn      17 22 13.3 -3.5
ZALV  Zalesovo Beam      12.66   3  Pn     Pn      17 22 14.3 -2.6
      comp=Z,2.4nm,0.3s,baz=183,slow=13,SNR=41
ZALV                                Lg     Lg      17 25 49.6
      baz=180,slow=24
      comp=Z,10nm,0.5s
ZALV                                AML    AML
ZALV  Zalesovo Beam      12.66   3 i P     Pn      17 22 14.3 -2.6
ZALV                                pmax   pmax
      comp=Z,11nm,0.5s
ZALV  Zalesovo Beam      12.66   3         Pn      17 22 13.8 -3.1
LSA   Lhasa              13.06 150  P      Pn      17 22 24.1 +1.2
LSA   Lhasa              13.06 150         Pn      17 22 24.1 +1.2
KNGR  Kungurtug, Tuv     13.32  41⇑iP      Pn      17 22 27.7 +1.6
KBL   Kabul              13.43 244  P      Pn      17 22 26.2 -1.5
KBL                                 pmax   pmax
      comp=Z,41nm,0.5s
KBL   Kabul              13.43 244         Pn      17 22 25.2 -2.5
KBL   Kabul              13.43 244  P      Pn      17 22 26.2 -1.5
      comp=Z,41nm,0.5s
EVN   Everest            13.57 168         Pn      17 22 28.3 -1.6
EVN   Everest            13.57 168  P      Pn      17 22 33.1 +3.1
      comp=Z,21nm,0.8s
BVAR  Borovoye Array     14.79 327  Pn     Pn      17 22 44.3 -1.7
      comp=Z,11nm,0.7s
BORK  Borovoye           14.83 327  P      Pn      17 22 45.1 -1.5
BORK  Borovoye           14.83 327         Pn      17 22 45.1 -1.5
ZAK   Zakamensk          16.31  50 eP      Pn      17 23 05.8 -0.2
ZAK                                 pmax   pmax
      comp=Z,15nm,1.3s
LZDM  Lanzhou Array      16.47 102  Pn     Pn      17 23 07.2 -1.2
      comp=Z,6.8nm,0.3s,baz=288,slow=13,SNR=6.4
LZDM                                LR     LR      17 29 52.5
      comp=Z,778nm,18.9s,baz=265,slow=39
LZH   Lanzhou            16.52 102 eP      Pn      17 23 05.6 -3.3
LZH                                 sP     sP      17 23 16.5 +0.5
LZH                                 pmax   pmax
      comp=Z,49nm,1.3s
LZH                                 L      L
      comp=Z,2μm,13.0s
LZH                                 L      L
      comp=Z,2μm,13.6s
LZH                                 L      L
      comp=Z,2μm,15.9s
SHL   Shillong           17.10 154  P      Pn      17 23 14.5 -1.7
SHL   Shillong           17.10 154         Pn      17 23 14.5 -1.7
TLY   Talaya             17.12  46         Pn      17 23 13.5 -2.7
SONM  Songino Array      17.37  60  P      Pn      17 23 17.8 -1.7
      comp=Z,0.4nm,0.3s,baz=254,slow=13,SNR=7.3
SONM                                Lg     Lg      17 28 18.0
      comp=Z,0.4nm,0.3s,baz=267,slow=28,SNR=4.0
SONM                                LR     LR      17 29 47.5
      comp=Z,260nm,18.4s,baz=248,slow=36
      comp=Z,3.1nm,0.6s
SONM                                AML    AML
SONM  Songino Array      17.37  60         Pn      17 23 17.2 -2.2
ULN   Ulaanbaatar        17.81  61  P      Pn      17 23 23.9 -1.0
ULN                                 pmax   pmax
      comp=Z,14nm,1.0s
ULN   Ulaanbaatar        17.81  61         Pn      17 23 23.9 -1.0
ULN   Ulaanbaatar        17.81  61  P      Pn      17 23 24.5 -0.4
      comp=Z,16nm,0.9s
AB31  Akbulak array      18.48 303  P      Pn      17 23 33.7 +0.8
      comp=Z,8.3nm,0.7s,baz=102,slow=10,SNR=56
AB31  Akbulak array      18.48 303 i P     P       17 23 30.4 -2.5
AB31  Akbulak array      18.48 303         P       17 23 30.1 -2.7
ABKAR Akbulak array      18.48 303         P       17 23 29.9 -3.0
CD2   Chengdu            19.17 116  P      Pn      17 23 42.3 +0.8
CD2                                 S      Sn      17 27 15.7 -0.7
CD2                                 pmax   pmax
      comp=Z,20nm,0.4s
CD2                                 L      L
      comp=Z,2μm,17.1s
CD2                                 L      L
      comp=Z,1μm,15.9s
CD2                                 L      L
      comp=Z,2μm,16.5s
MORE  Moreh              19.18 149         P       17 23 40.5 -0.2
MORE                                IAmb   IAmb    17 23 47.9
      comp=Z,26nm,0.5s
BTO2  Baotou             19.70  83 eP      Pn      17 23 46.7 -1.2
BTO2                                PP     PnPn    17 24 05.5 +4.1
BTO2                                S      Sn      17 27 30.2 +1.0
BTO2                                pmax   pmax
      comp=Z,8.0nm,0.6s
BTO2                                pmax   pmax
      comp=Z,170nm,4.5s
BTO2                                L      L
      comp=Z,3μm,9.7s
BTO2                                L      L
      comp=Z,2μm,8.8s
BTO2                                L      L
      comp=Z,3μm,14.3s
BRDH  Bariadhala         19.74 158  LR     LR      17 32 54.7
      comp=Z,216nm,20.2s,baz=356,slow=41
AKTO  Aktyubinsk         20.02 306  P      P       17 23 49.1 -0.5
      comp=Z,0.4nm,0.3s,baz=101,slow=11,SNR=16
AKTO                                Lg     Lg      17 29 50.3
      comp=Z,0.1nm,0.3s,baz=182,slow=23,SNR=1.1
AKTO                                LR     LR      17 32 13.3
      comp=Z,712nm,20.2s,baz=28,slow=39
      comp=Z,5.2nm,0.6s
AKTO                                AML    AML
AKTO  Aktyubinsk         20.02 306 ⇓P      P       17 23 49.8 +0.1
      comp=Z,12nm,0.7s
TNCH  TengChong          20.37 138  P      Pn      17 23 55.2 -0.7
TNCH                                pmax   pmax
      comp=Z,27nm,0.5s
HHC   Hu-ho-hao-te       20.94  82 eP      P       17 23 59.3 -0.6
HHC                                 pmax   pmax
      comp=Z,17nm,0.7s
XAN   Xi'an              21.16 102 ⇑P      P       17 24 02.4 +0.1
XAN                                 pP     sP      17 24 06.1 -0.7
XAN                                 pmax   pmax
      comp=Z,14nm,0.5s
XAN                                 L      L
      comp=Z,460nm,11.2s
XAN                                 L      L
      comp=Z,520nm,14.4s
XAN                                 L      L
      comp=Z,1μm,15.8s
SVE   Sverdlovsk         21.52 324 eP      P       17 24 05.3 -0.6
SVE                                 pmax   pmax
      comp=Z,49nm,0.7s
ARTI  Arti               22.30 321  P      P       17 24 13.6 -0.7
      comp=Z,20nm,0.8s,baz=127,slow=6.2,SNR=25
ARTI                                LR     LR      17 33 35.3
      comp=Z,610nm,18.6s,baz=120,slow=39
      comp=Z,20nm,0.8s
ARTI  Arti               22.30 321c iP     P       17 24 13.3 -1.0
ARTI                                               17 24 36.2
ARTI                                S      S       17 28 21.0 +1.6
ARTI                                SS     SnSn    17 28 48.0 +1.3
ARTI                                pmax   pmax
      comp=Z,24nm,0.9s
ARTI                                MLR    MLR
      comp=Z,503nm,15.0s
ARTI  Arti               22.30 321         P       17 24 12.9 -1.4
KMI2  Kunming            22.56 130  P      P       17 24 18.2 +0.7
KMI2                                sP     sP      17 24 22.5 +0.4
KMI2                                pmax   pmax
      comp=Z,33nm,0.6s
KMI2                                L      L
      comp=Z,680nm,13.7s
KMI2                                L      L
      comp=Z,520nm,11.8s
KMI2                                L      L
      comp=Z,420nm,27.3s
ENH   Enshi              23.52 110         P       17 24 26.4 -0.8
LYN   LuoYang            23.57  97  P      P       17 24 28.7 +1.1
LYN                                 sP     sP      17 24 36.0 +3.8
LYN                                 pmax   pmax
      comp=Z,21nm,0.7s
LYN                                 pmax   pmax
      comp=Z,190nm,4.7s
LYN                                 L      L
      comp=Z,2μm,12.4s
LYN                                 L      L
      comp=Z,680nm,16.7s
LYN                                 L      L
      comp=Z,1μm,13.4s
NPW   Naypyitaw          23.93 150  P      P       17 24 30.2 -0.8
      comp=Z,23nm,0.7s
GYA   Guiyang            24.02 121 ⇓P      P       17 24 36.2 +4.1
GYA                                 pmax   pmax
      comp=Z,22nm,1.0s
HNS   HongShan           24.19  89 ⇑P      P       17 24 37.9 +4.5
HNS                                 L      L
      comp=Z,830nm,14.3s
HNS                                 L      L
      comp=Z,420nm,12.0s
HNS                                 L      L
      comp=Z,650nm,13.5s
HYB   Hyderabad          24.24 192 eP      P       17 24 33.9 -0.2
HYB                                ePcP    PcP     17 28 13.9 -0.4
HYB                                eS      S       17 28 54.6 +2.0
CHTO  Chiang Mai         25.92 145  P      P       17 24 48.6 -0.7
CHTO                                pmax   pmax
      comp=Z,7.0nm,0.8s
CHTO  Chiang Mai         25.92 145         P       17 24 48.6 -0.7
CHTO  Chiang Mai         25.92 145  P      P       17 24 50.0 +0.7
      comp=Z,10.0nm,0.7s
SLVN  Son La             26.22 133  P      P       17 24 52.3 +0.3
SLVN  Son La             26.22 133  P      P       17 24 55.5 +3.5
      comp=Z,5.7nm,0.9s
CM31  Chiang Mai Arr     26.24 146  P      P       17 24 51.7 -0.4
CM31                                IAmb   IAmb    17 24 58.4
      comp=Z,12nm,0.9s
CMAR  Chiang Mai Arr     26.24 146  P      P       17 24 51.9 -0.3
      comp=Z,4.6nm,0.7s,baz=307,slow=8.3,SNR=36
CMAR                                LR     LR      17 35 36.9
      comp=Z,45nm,18.7s,baz=335,slow=37
      comp=Z,4.6nm,0.7s
CMAR  Chiang Mai Arr     26.24 146 i P     P       17 24 53.0 +0.8
CMAR                                pmax   pmax
      comp=Z,4.0nm,0.8s
CMAR  Chiang Mai Arr     26.24 146         P       17 24 51.5 -0.7
TIA   Tai'an             26.42  90  P      P       17 24 57.0 +3.3
TIA                                 pmax   pmax
      comp=Z,6.0nm,0.5s
TIA                                 L      L
      comp=Z,1μm,12.4s
TIA                                 L      L
      comp=Z,350nm,11.7s
TIA                                 L      L
      comp=Z,570nm,11.7s
BELG  Belogornoye        26.80 307  P      P       17 24 56.5 -0.3
      comp=Z,39nm,1.0s,baz=7.7,slow=2.5,SNR=11
BELG                                LR     LR      17 36 18.5
      comp=Z,511nm,20.9s,baz=97,slow=38
      comp=Z,39nm,1.0s
BELG  Belogornoye        26.80 307c iP     P       17 24 56.4 -0.5
BELG                                pmax   pmax
      comp=Z,10.0nm,1.3s
MAK   Makhachkala        26.80 286 eP      P       17 24 52.0 -5.0
MAK                                e               17 25 35.2
MAK                                eS      S       17 29 26.2 -6.8
MAK                                 pmax   pmax
      comp=Z,128nm,1.1s
MAK                                 MLR    MLR
      comp=Z,640nm,15.0s
WHN   Wuhan              26.88 104  P      P       17 25 01.8 +3.9
AKT   Akhty              26.90 282 eP      P       17 24 57.2 -0.9
AKT                                e               17 25 39.8
AKT                                eS      S       17 29 34.7 -0.2
AKT                                 pmax   pmax
      comp=Z,19nm,1.1s
AKT                                 MLR    MLR
      comp=Z,950nm,18.0s
GULI  GuiLin             27.24 118 ⇑P      P       17 25 05.1 +3.9
GULI                                L      L
      comp=Z,550nm,18.4s
GULI                                L      L
      comp=Z,650nm,19.5s
GULI                                L      L
      comp=Z,1μm,19.4s
SEKA  Sheki              27.35 282  P      P       17 25 01.4 -0.7
KIRV  Kirov              27.61 320  P      P       17 25 03.8 -0.3
      comp=Z,8.8nm,0.5s,baz=142,slow=7.0,SNR=3.2
KIRV                                LR     LR      17 36 41.8
      comp=Z,460nm,18.6s,baz=116,slow=38
      comp=Z,8.8nm,0.5s
KIRV  Kirov              27.61 320⇑eP      P       17 25 04.0 -0.2
GANJ  Ganja              28.12 281  P      P       17 25 08.8 -0.2
NRIK  Noril'sk           28.16   3  P      P       17 25 08.4 -0.5
      comp=Z,1.8nm,0.4s,baz=132,slow=6.6,SNR=6.2
NRIK                                LR     LR      17 37 57.9
      comp=Z,194nm,18.1s,baz=190,slow=40
      comp=Z,1.8nm,0.4s
NRIK  Noril'sk           28.16   3ceP      P       17 25 09.9 +1.0
NRIK                                pmax   pmax
      comp=Z,12nm,1.5s
NRIK  Noril'sk           28.16   3  P      P       17 25 08.1 -0.8
NRIK                                IAmb   IAmb    17 25 39.5
      comp=Z,15nm,0.8s
DL2   Dalian             28.92  82  P      P       17 25 17.2 +1.1
DL2                                 S      S       17 30 05.0 -1.5
DL2                                 pmax   pmax
      comp=Z,39nm,1.4s
DL2                                 pmax   pmax
      comp=Z,750nm,4.5s
DL2                                 L      L
      comp=Z,970nm,20.8s
DL2                                 L      L
      comp=Z,800nm,20.8s
DL2                                 L      L
      comp=Z,760nm,16.3s
GNI   Garni              29.41 281  LR     LR      17 39 12.0
      comp=Z,219nm,18.7s,baz=86,slow=41
NJ2   Nanjing            29.47  97 eP      P       17 25 19.9 -1.1
NJ2                                 pmax   pmax
      comp=Z,9.0nm,0.7s
NJ2                                 L      L
      comp=Z,740nm,14.0s
NJ2                                 L      L
      comp=Z,450nm,15.0s
NJ2                                 L      L
      comp=Z,440nm,11.2s
KBZ   Khabaz             29.99 288  P      P       17 25 24.8 -0.6
      comp=Z,1.2nm,0.6s,baz=119,slow=5.6,SNR=3.5
KBZ                                 LR     LR      17 39 05.8
      comp=Z,191nm,18.7s,baz=90,slow=40
      comp=Z,1.2nm,0.6s
KBZ   Khabaz             29.99 288⇑eP      P       17 25 25.7 +0.2
KBZ                                 pmax   pmax
      comp=Z,3.0nm,1.2s
KVAR  Kislovodsk Arr     30.10 289  LR     LR      17 38 51.3
      comp=Z,187nm,20.1s,baz=254,slow=39
KIV   Kislovodsk         30.10 289 eP      P       17 25 25.9 -0.7
KIV                                                17 32 01.3
KIV                                 pmax   pmax
      comp=Z,4.0nm,1.0s
KIV                                 MLR    MLR
      comp=Z,191nm,15.0s
HEH   HeiHe              31.34  58 eP      P       17 25 37.7 +0.4
HEH                                 pmax   pmax
      comp=Z,4.0nm,0.8s
HEH                                 L      L
      comp=Z,390nm,15.9s
HEH                                 L      L
      comp=Z,500nm,13.6s
HEH                                 L      L
      comp=Z,810nm,15.3s
QIZ   Qiongzhong         31.45 127  P      P       17 25 36.8 -1.8
QIZ                                 S      S       17 30 46.7 +0.3
QIZ                                 L      L
      comp=Z,180nm,10.5s
QIZ                                 L      L
      comp=Z,460nm,14.1s
QIZ                                 L      L
      comp=Z,300nm,15.6s
VSR   Storozhevoye       31.92 303 eP      P       17 25 36.7 -5.7
VSR                                 pmax   pmax
      comp=Z,5.0nm,1.0s
LPSR  Galich'ya Gora     32.10 306 eP      P       17 25 38.0 -6.0
LPSR                                pmax   pmax
      comp=Z,10.0nm,0.9s
SOC   Sochi              32.29 289 eP      P       17 25 47.8 +2.1
SOC                                e               17 26 48.7
SOC                                eS      S       17 31 04.4 +5.2
SOC                                 pmax   pmax
      comp=Z,6.0nm,0.7s
SOC                                 MLR    MLR
      comp=Z,185nm,14.0s
KLMR  Klimovskoe         33.09 321 eP      P       17 25 51.2 -1.4
KLMR                                pmax   pmax
      comp=Z,32nm,1.7s
MOS   Moscow             33.10 312 eP      P       17 25 52.0 -0.7
OBN   Obninsk            33.64 310  LR     LR      17 40 09.9
      comp=Z,299nm,18.3s,baz=98,slow=37
OBN   Obninsk            33.64 310⇓eP      P       17 25 55.0 -2.4
OBN                                e               17 27 10.0
OBN                                e               17 28 35.3
OBN                                 pmax   pmax
      comp=Z,39nm,2.3s
OBN                                 MLR    MLR
      comp=Z,312nm,22.0s
PALK  Pallekele          34.01 185  LR     LR      17 41 11.1
      comp=Z,170nm,19.1s,baz=4.0,slow=39
KSRS  Korea Array        34.08  82  P      P       17 26 01.7 +0.2
      comp=Z,2.8nm,0.5s,baz=290,slow=8.6,SNR=11
KSRS                                LR     LR      17 41 58.1
      comp=Z,157nm,19.4s,baz=290,slow=40
      comp=Z,2.8nm,0.5s
KLR   Kul'dur            34.20  60  LR     LR      17 40 12.8
      comp=Z,202nm,18.6s,baz=275,slow=37
KLR   Kul'dur            34.20  60⇑eP      P       17 26 03.2 +0.8
KLR                                 pmax   pmax
      comp=Z,5.0nm,0.9s
YAK   Yakutsk            34.20  37  LR     LR      17 40 47.3
      comp=Z,317nm,19.2s,baz=251,slow=38
YAK   Yakutsk            34.20  37 eP      P       17 26 02.1 -0.1
YAK                                e*PP    pP      17 26 05.2 -0.4
YAK                                ePPP    PPP     17 27 28.6
YAK                                e               17 28 38.2
YAK                                eS      S       17 31 30.4 +1.9
YAK                                e*SS    sS      17 31 35.7 +1.7
YAK                                eSS     SnSn    17 33 40.5 +4.0
YAK                                eSSS    SSS     17 33 56.5
YAK                                e               17 36 25.7
YAK                                 pmax   pmax
      comp=Z,9.0nm,0.6s
YAK                                 pmax   pmax
      comp=E,3.0nm,0.9s
YAK                                 smax   smax
      comp=E,25nm,2.8s
YAK                                 smax   smax
      comp=N,21nm,1.4s
YAK                                 MLR    MLR
      comp=Z,344nm,17.0s
YAK                                 MLR    MLR
      comp=N,70nm,12.0s
YAK                                 MLR    MLR
      comp=E,252nm,17.0s
YAK   Yakutsk            34.20  37         P       17 26 00.9 -1.3
YAK   Yakutsk            34.20  37  P      P       17 26 01.9 -0.4
      comp=Z,25nm,0.6s
ARPR  Arapgir-MALATY     34.45 282  P      P       17 26 04.3 -0.6
ARPR  Arapgir-MALATY     34.45 282  P      P       17 26 07.2 +2.3
      comp=Z,17nm,1.0s
USRK  Ussuriysk Ar.      35.14  69  LR     LR      17 41 41.8
      comp=Z,337nm,18.7s,baz=280,slow=38
ANDN  Andirin            36.44 280  P      P       17 26 24.0 +2.1
      comp=Z,41nm,0.9s
RAYN  Ar Rayn            36.48 253  P      P       17 26 22.1 -0.3
RAYN                                pmax   pmax
      comp=Z,4.0nm,0.8s
RAYN  Ar Rayn            36.48 253  P      P       17 26 22.1 -0.3
RAYN  Ar Rayn            36.48 253  P      P       17 26 24.1 +1.8
      comp=Z,5.8nm,0.8s
PUL   Pulkovo            37.40 318  P      P       17 26 27.2 -2.4
      comp=Z,314nm,0.5s
TIXI  Tiksi              37.61  22  LR     LR      17 43 12.8
      comp=Z,824nm,19.3s,baz=258,slow=38
TIXI  Tiksi              37.61  22⇑iP      P       17 26 31.2 -0.1
TIXI                                pmax   pmax
      comp=Z,3.0nm,0.8s
TIXI  Tiksi              37.61  22         P       17 26 30.8 -0.5
TIXI                                IAmb   IAmb    17 27 11.9
      comp=Z,8.7nm,1.1s
BR131 Keskin Array S     37.70 285⇓eP      P       17 26 32.8 +0.2
BR131 Keskin Array S     37.70 285         P       17 26 32.7  0.0
BR131                               IAmb   IAmb    17 26 34.2
      comp=Z,6.9nm,0.7s
BRTR  Keskin Array B     37.70 285  P      P       17 26 33.5 +0.9
      comp=Z,4.5nm,0.7s,baz=96,slow=9.0,SNR=29
BRTR                                LR     LR      17 45 32.7
      comp=Z,113nm,18.4s,baz=97,slow=42
      comp=Z,4.5nm,0.7s
BRTR  Keskin Array B     37.70 285  P      P       17 26 32.8 +0.2
BR104 Keskin Array S     37.70 285  P      P       17 26 33.3 +0.6
      comp=Z,60nmcomp=Z,7.9nm,0.8s
BR106 Keskin Array S     37.71 285  P      P       17 26 33.2 +0.5
      comp=Z,47nmcomp=Z,6.3nm,0.8s
BR105 Keskin Array S     37.72 285  P      P       17 26 33.3 +0.5
      comp=Z,57nmcomp=Z,7.6nm,0.8s
JNU   Nakatsue           38.02  87  LR     LR      17 43 43.2
      comp=Z,271nm,18.7s,baz=272,slow=39
AK09  Malin Array Si     38.20 303  P      P       17 26 36.2 -0.3
AK10  Malin Array Si     38.22 303  P      P       17 26 37.4 +0.7
AKASG Malin Array Be     38.22 303  P      P       17 26 36.5 -0.3
      comp=Z,0.7nm,0.5s,baz=77,slow=7.3,SNR=3.7
AKASG                               LR     LR      17 45 07.9
      comp=Z,244nm,18.4s,baz=76,slow=41
      comp=Z,0.7nm,0.5s
AKASG Malin Array Be     38.22 303  P      P       17 26 36.1 -0.6
AKBB  Malin Array Si     38.22 303  P      P       17 26 35.6 -1.1
AKBB                                pmax   pmax
      comp=Z,6.0nm,0.9s
AKBB  Malin Array Si     38.22 303  P      P       17 26 35.6 -1.1
AK01  Malin Array Si     38.23 303  P      P       17 26 36.4 -0.4
KIEV  Kiev               38.23 303  P      P       17 26 35.8 -1.0
KIEV                                pmax   pmax
      comp=Z,5.0nm,0.9s
KIEV  Kiev               38.23 303  P      P       17 26 35.8 -1.0
ASF   Jabal al Asfar     38.24 272  LR     LR      17 46 09.3
      comp=Z,96nm,18.4s,baz=26,slow=42
AK06  Malin Array Si     38.25 303  P      P       17 26 36.7 -0.3
AK15  Malin Array Si     38.29 303  P      P       17 26 37.7 +0.4
MNK   Minsk              38.66 309 i P     P       17 26 40.0 -0.4
MNK                                i               17 28 08.8
MNK                                i PPP   PPP     17 28 28.8
MNK                                i S     S       17 32 37.8 +1.1
MNK                                i SSS   SSS     17 35 45.0
MNK                                 pmax   pmax
      comp=N,5.0nm,0.5s
MNK                                 pmax   pmax
      comp=Z,11nm,0.6s
MNK                                 pmax   pmax
      comp=E,5.0nm,0.4s
MNK                                 MLR    MLR
      comp=N,77nm,14.0s
MNK                                 MLR    MLR
      comp=Z,112nm,15.0s
MNK                                 MLR    MLR
      comp=E,61nm,19.0s
MNK   Minsk              38.66 309 i P     P       17 26 40.0 -0.4
      comp=E,5.0nm,0.4s
MNK                                i P     P       17 26 40.0 -0.4
      comp=N,5.0nm,0.5s
MNK                                i P     P       17 26 40.0 -0.4
      comp=Z,11nm,0.6s,baz=86
MNK                                i PP    PP      17 28 08.8 +0.1
MNK                                i PPP   PPP     17 28 28.9
MNK                                i S     S       17 32 37.9 +1.1
MNK                                i SS    SS      17 35 27.8 +1.0
MNK                                i SSS   SSS     17 35 45.0
MNK                                i LQ    LQ      17 39 46.1
MNK                                i LR    LR      17 42 43.0
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MNK                                 i LRM     MLR      17 44 23.3
        comp=E,61nm,18.5s
MNK                                 i LRM     MLR      17 44 23.3
        comp=N,77nm,13.8s
MNK                                 i LRM     MLR      17 44 23.3
        comp=Z,112nm,15.0s
MMAI   Mount Meron Ar    38.98 274    P       P        17 26 44.0 +0.6
        comp=Z,0.3nm,0.3s,baz=74,slow=7.7,SNR=1.8
MMAI                                  LR      LR       17 46 01.2
        comp=Z,95nm,18.8s,baz=60,slow=41
        comp=Z,0.3nm,0.3s
NACGM  Naroch            39.27 310  eP        P        17 26 48.2 +2.7
FINES  FINESS Array B    39.61 320    P       P        17 26 48.2  0.0
        comp=Z,3.2nm,0.8s,baz=118,slow=6.9,SNR=9.3
FINES                                 LR      LR       17 42 11.4
        comp=Z,194nm,18.6s,baz=84,slow=35
        comp=Z,3.2nm,0.8s
IPM    Ipoh              39.81 152    P       P        17 26 49.6 -0.8
RNPP9  Sopachiv          40.20 305    P       P        17 26 53.2 -0.1
KEV    Kevo              40.50 333    P       P        17 26 55.3 -0.2
KEV                                   pmax    pmax
        comp=Z,15nm,1.2s
KEV    Kevo              40.50 333    P       P        17 26 55.3 -0.2
KEV                                   IAmb    IAmb     17 27 06.4
        comp=Z,15nm,1.2s
EIL    Elat              40.91 269    LR      LR       17 47 04.2
        comp=Z,139nm,18.3s,baz=90,slow=41
ARCES  ARCESS Array B    40.96 333    P       P        17 26 59.7 +0.4
        comp=Z,4.8nm,0.6s,baz=90,slow=8.7,SNR=48
ARCES                                 LR      LR       17 43 39.7
        comp=Z,223nm,19.6s,baz=98,slow=36
        comp=Z,4.8nm,0.6s
ARCES  ARCESS Array B    40.96 333    P       P        17 26 59.5 +0.1
BURAR  Bucovina Array    41.38 299    P       P        17 27 03.2  0.0
MLR    Muntele Rosu      41.42 296    LR      LR       17 46 48.1
        comp=Z,260nm,20.5s,baz=36,slow=40
MLR    Muntele Rosu      41.42 296    P       P        17 27 04.6 +1.0
MLR                                   pmax    pmax
        comp=Z,7.0nm,0.9s
MLR    Muntele Rosu      41.42 296            P        17 27 04.6 +1.0
MJAR   Matsushiro Arr    42.05  78    P       P        17 27 08.7 -0.1
        comp=Z,1.1nm,0.8s,baz=292,slow=8.4,SNR=5.5
MJAR                                  LR      LR       17 44 15.9
        comp=Z,86nm,19.2s,baz=298,slow=36
        comp=Z,1.1nm,0.8s
ARR    Arges             42.35 296    P       P        17 27 12.2 +1.1
        comp=Z,5.4nm,0.6s
ASAJ   Asahikawa         42.53  66    LR      LR       17 47 50.7
        comp=Z,205nm,18.8s,baz=272,slow=40
OJC    Ojcow             44.23 304    P       P        17 27 26.3 +0.2
OJC    Ojcow             44.23 304    P       P        17 27 26.3 +0.2
OJC    Ojcow             44.23 304    P       P        17 27 26.5 +0.4
        comp=Z,8.8nm,0.9s
MA2    Magadan           44.29  42    LR      LR       17 46 43.4
        comp=Z,147nm,18.0s,baz=276,slow=37
JHJ    Hachijo jima 2    44.70  82    LR      LR       17 47 08.0
        comp=Z,108nm,20.2s,baz=284,slow=37
SEY    Seymchan          44.73  37⇑eP        P        17 27 29.7 -0.2
SEY                                   pmax    pmax
        comp=Z,11nm,2.3s
SPITS  Spitsbergen Ar    45.30 344    LR      LR       17 49 03.8
        comp=Z,145nm,18.7s,baz=108,slow=40
STEB   Steborice         45.56 304  eP        P        17 27 45.2 +8.4
HFS    Hagfors           45.73 319    P       P        17 27 37.9  0.0
        comp=Z,4.0nm,0.8s,baz=123,slow=5.5,SNR=7.3
HFS                                   LR      LR       17 47 54.9
        comp=Z,219nm,18.6s,baz=76,slow=38
        comp=Z,4.0nm,0.8s
MORC   Moravsky Berou    45.75 304    P       P        17 27 38.2 -0.1
MORC                                  pmax    pmax
        comp=Z,5.0nm,1.0s
MORC   Moravsky Berou    45.75 304            P        17 27 38.2 -0.1
MORC                                  IAmb    IAmb     17 27 47.2
        comp=Z,4.7nm,1.0s
MORC   Moravsky Berou    45.75 304  eP        P        17 27 37.0 -1.3
IDI    Anoyia            45.82 282    P       P        17 27 38.3 -0.7
KRLC   Kraliky           46.14 305  eP        P        17 27 46.5 +5.1
KRLC   Kraliky           46.14 305  eP        P        17 27 46.5 +5.1
DPC    Dobruska-Polom    46.35 305  eP        P        17 27 43.9 +0.9
DPC    Dobruska-Polom    46.35 305  eP        P        17 27 43.9 +0.9
SBUM   Sibu              46.41 139    P       P        17 27 43.9 +0.1
SBUM                                  IAmb    IAmb     17 28 01.7
        comp=Z,5.8nm,1.1s
CHVC   Chvalec           46.45 306  eP        P        17 27 44.1 +0.4
CHVC   Chvalec           46.45 306  eP        P        17 27 44.1 +0.4
VRAC   Vranov            46.47 304    LR      LR       17 48 50.2
        comp=Z,181nm,18.1s,baz=82,slow=38
VRAC   Vranov            46.47 304  eP        P        17 27 44.5 +0.5
ATD    Arta Tunnel       46.48 242    LR      LR       17 48 23.0
        comp=Z,5.6nm,20.4s,baz=29,slow=38
NC405  NORSAR Array S    46.54 320    P       P        17 27 44.1 -0.2
KRUC   Moravsky          46.67 303  eP        P        17 27 45.2 -0.3
NC602  NORSAR Array S    46.69 320    P       P        17 27 44.9 -0.6
NC303  NORSAR Array S    46.69 321    P       P        17 27 44.5 -1.0
NB201  NORSAR Array S    46.75 320    P       P        17 27 45.1 -0.9
NB2    NORSAR Subarra    46.79 320    P       P        17 27 45.8 -0.5
        comp=Z,3.2nm,0.7s,baz=80,slow=7.9
NOA    NORSAR Array B    46.79 320    P       P        17 27 45.9 -0.4
        comp=Z,2.4nm,0.7s,baz=81,slow=7.9,SNR=7.9
NOA                                   LR      LR       17 46 34.8
        comp=Z,200nm,20.4s,baz=80,slow=35
        comp=Z,2.4nm,0.7s
NC204  NORSAR Array S    46.97 321    P       P        17 27 47.2 -0.5
PDG    Podgorica         46.98 294            P        17 27 48.0  0.0
NAO01  NORSAR Array S    46.99 320    P       P        17 27 46.8 -1.0
NBO00  NORSAR Array S    47.01 320    P       P        17 27 47.4 -0.6
RONA   Rosalia, Austr    47.15 302  eP        P        17 27 49.7 +0.4
        comp=Z,1.6nm,0.5s
ITM    Ithomi            47.16 286    P       P        17 27 49.7 +0.1
CONA   Conrad Observa    47.35 302  eP        P        17 27 50.7 -0.3
        comp=Z,4.6nm,1.0s
PRU    Pruhonice         47.55 305  eP        P        17 27 57.5 +5.2
PRU    Pruhonice         47.55 305  eP        P        17 27 57.5 +5.2
CKRC   Cesky Krumlov     48.05 304  eP        P        17 27 57.2 +0.9
CKRC   Cesky Krumlov     48.05 304  eP        P        17 27 57.2 +0.9
CLL    Collm             48.09 307  i P       P        17 27 56.5  0.0
CLL                                   pmax    pmax
        comp=Z,5.0nm,0.9s
CLL    Collm             48.09 307    P       P        17 27 56.2 -0.3
CLL                                   IAmb    IAmb     17 27 57.1
        comp=Z,4.2nm,0.8s
CLL    Collm             48.09 307    P       P        17 27 56.7 +0.2
        comp=Z,6.3nm,0.9s
CLL    Collm             48.09 307  i P       P        17 27 56.5  0.0
        comp=Z,5.0nm,0.9s
CLL                                 eSS       SS       17 38 24.0 +0.6
CLL                                   L       L        17 43 00.0
CLL                                   AMS     AMS      17 49 00.0
        comp=N,300nm,15.7s
CLL                                   AMS     AMS      17 49 00.0
        comp=E,100nm,18.6s
CLL                                   AMS     AMS      17 49 00.0
        comp=Z,200nm,16.6s
SOKA   Soboth            48.30 301  eP        P        17 27 57.9 -0.3
        comp=Z,4.8nm,1.2s
MOA    Molln             48.40 302  eP        P        17 27 58.6 -0.4
        comp=Z,0.8nm,0.6s
KHC    Kasperske Hory    48.41 304  eP        P        17 27 59.8 +0.7
KHC                                   pmax    pmax
        comp=Z,1.0nm,0.6s
KHC                                   MLR     MLR
        comp=Z,400nm,12.5s
KHC    Kasperske Hory    48.41 304  eP        P        17 27 59.8 +0.7
        comp=Z,0.9nm,0.6s
KHC                                   AMS     AMS      17 51 30.0
        comp=Z,400nm,12.5s
KHC    Kasperske Hory    48.41 304    P       P        17 27 59.8 +0.7
GERES  GERESS Array B    48.42 304    P       P        17 27 59.6 +0.4
        comp=Z,1.4nm,0.7s,baz=70,slow=7.7,SNR=9.6
        comp=Z,1.4nm,0.7s
SESA   Seetaler Alpe,    48.45 301  eP        P        17 28 00.0 +0.4
        comp=Z,7.7nm,1.2s
KBA    Koelnbreinsper    49.25 302  eP        P        17 28 05.1 -0.6
        comp=Z,0.1nm,0.2s
PETK   Petropavlovsk-    49.44  50    LR      LR       17 50 16.1
        comp=Z,186nm,18.8s,baz=273,slow=38
LESA   Schwarzleotal     49.55 302  eP        P        17 28 08.1 +0.2
        comp=Z,3.1nm,0.7s
BILL   Bilibino          49.74  29⇓eP        P        17 28 09.3 +0.4
BILL                                  pmax    pmax
        comp=Z,13nm,2.2s
WTTA   Wattenberg        50.27 303  eP        P        17 28 13.5  0.0
        comp=Z,6.8nm,0.6s
WATA   Walderalm         50.28 303  eP        P        17 28 13.7 +0.2
        comp=Z,5.4nm,0.8s
DAV    Davao City (W)    50.40 121    LR      LR       17 52 19.9
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        comp=Z,211nm,20.1s,baz=6.0,slow=39
SQTA   Sankt Quirin      50.56 303  i P       P        17 28 15.4 -0.2
        comp=Z,5.1nm,0.6s,SNR=7.1
MOTA   Moosalm           50.58 303  i P       P        17 28 15.7  0.0
        comp=Z,6.0nm,0.6s,SNR=4.4
RETA   Reutte            50.74 303  i P       P        17 28 16.9  0.0
        comp=Z,5.1nm,0.7s,SNR=5.8
INTR   Introdacqua       50.80 295            P        17 28 16.8 -0.6
INTR                                  IAmb    IAmb     17 28 17.8
        comp=Z,7.2nm,0.7s
FETA   Feichten          50.93 303  eP        P        17 28 18.4 -0.1
        comp=Z,3.5nm,0.9s
FDMO   Fiordimonte       50.94 297    P       P        17 28 18.2 -0.2
FDMO                                  IAmb    IAmb     17 28 59.9
        comp=Z,5.8nm,1.0s
AQU    L'Aquila          51.00 296    P       P        17 28 19.7 +0.8
        comp=Z,14nm,1.0s
DAVA   Damuels           51.37 303  eP        P        17 28 21.2 -0.5
        comp=Z,6.5nm,1.1s
FUORN  Ofenpass-Fuorn    51.38 302    P       P        17 28 22.1 +0.1
DAVOX  Davos/Dischmat    51.56 303    LR      LR       17 53 14.7
        comp=Z,259nm,18.7s,baz=80,slow=40
BFO    Black Forest      51.95 305    P       P        17 28 24.8 -1.1
BFO                                   pmax    pmax
        comp=Z,7.0nm,1.2s
BFO    Black Forest      51.95 305    P       P        17 28 24.8 -1.1
BFO                                   IAmb    IAmb     17 28 26.9
        comp=Z,7.1nm,1.2s
TUE    Stuetta           52.02 302            P        17 28 26.2 -0.5
TUE                                   IAmb    IAmb     17 28 32.4
        comp=Z,4.2nm,0.8s
JMIC   Jan Mayen         52.29 336    LR      LR       17 52 34.1
        comp=Z,97nm,20.2s,baz=312,slow=38
VAE    Valguarnera       52.41 290    LR      LR       17 54 57.5
        comp=Z,52nm,21.3s,baz=88,slow=41
CDF    Champ du Feu      52.56 305  eP        P        17 28 30.0 -0.5
CDF                                   pmax    pmax
        comp=Z,5.0nm,1.0s
HINF   Hinteralfeld      53.06 305  eP        P        17 28 33.6 -0.5
HINF                                  pmax    pmax
        comp=Z,3.0nm,0.7s
HAU    Haudompre         53.29 305  eP        P        17 28 35.2 -0.6
HAU                                   pmax    pmax
        comp=Z,4.0nm,0.8s
GIVF   Givet             53.39 308  eP        P        17 28 36.4 -0.1
GIVF                                  pmax    pmax
        comp=Z,12nm,1.2s
BAIF   Baives            53.77 308  eP        P        17 28 39.2  0.0
BAIF                                  pmax    pmax
        comp=Z,7.0nm,0.9s
PGF    Pioggiola         53.87 298  eP        P        17 28 40.4 +0.1
PGF                                   pmax    pmax
        comp=Z,24nm,1.1s
BNI    Bardonecchia      54.31 302    P       P        17 28 43.3 -0.1
BNI                                   pmax    pmax
        comp=Z,7.0nm,0.8s
BNI    Bardonecchia      54.31 302            P        17 28 43.3 -0.1
BNI                                   IAmb    IAmb     17 28 45.2
        comp=Z,7.0nm,0.8s
ORIF   Oris-en-Rattie    54.88 302  eP        P        17 28 46.7 -0.8
ORIF                                  pmax    pmax
        comp=Z,8.0nm,0.6s
LOR    Lormes            55.13 305  eP        P        17 28 48.0 -1.2
LOR                                   pmax    pmax
        comp=Z,2.0nm,0.6s
SSB    Saint Sauveur     55.57 303    P       P        17 28 52.0 -0.5
SSB                                   pmax    pmax
        comp=Z,10.0nm,1.5s
SSB    Saint Sauveur     55.57 303    P       P        17 28 52.0 -0.5
SSB                                   IAmb    IAmb     17 29 03.1
        comp=Z,10nm,1.5s
AVF    Avril sur Loir    55.65 305  eP        P        17 28 52.2 -0.7
AVF                                   pmax    pmax
        comp=Z,9.0nm,0.8s
VIVF   Saint-Julien-l    55.67 302  eP        P        17 28 52.7 -0.5
VIVF                                  pmax    pmax
        comp=Z,5.0nm,0.6s
EKA    Eskdalemuir Ar    55.73 316    P       P        17 28 52.8 -0.6
        comp=Z,1.9nm,0.7s,baz=106,slow=8.0,SNR=7.7
        comp=Z,1.9nm,0.7s
KAPI   Kappang           56.64 135    LR      LR       17 55 07.9
        comp=Z,91nm,18.2s,baz=296,slow=38
KEST   Kesra             56.82 291    LR      LR       17 57 14.9
        comp=Z,67nm,21.7s,baz=45,slow=40
LDF    La Druitiere      56.96 308  eP        P        17 29 01.2 -1.0
LDF                                   pmax    pmax
        comp=Z,5.0nm,0.5s
FLN    La Foliniere      57.09 308  eP        P        17 29 02.7 -0.5
FLN                                   pmax    pmax
        comp=Z,7.0nm,0.8s
RJF    Les Rejaudoux     57.46 304  eP        P        17 29 05.9  0.0
RJF                                   pmax    pmax
        comp=Z,23nm,0.6s
GRR    Gorron            57.49 308  eP        P        17 29 05.0 -1.0
GRR                                   pmax    pmax
        comp=Z,9.0nm,0.6s
MFF    Saint Martin d    57.88 306  eP        P        17 29 08.2 -0.6
MFF                                   pmax    pmax
        comp=Z,29nm,1.0s
MTLF   Montolieu         57.94 302  eP        P        17 29 08.9 -0.4
MTLF                                  pmax    pmax
        comp=Z,3.0nm,0.6s
SGMF   Saint Gilles      58.55 309  eP        P        17 29 12.9 -0.6
SGMF                                  pmax    pmax
        comp=Z,8.0nm,0.6s
SHEM   Shemya Is, Ala    58.71  45    LR      LR       17 56 22.8
        comp=Z,132nm,19.2s,baz=304,slow=38
ROSF   Rostrenen         58.93 309  eP        P        17 29 15.5 -0.6
ROSF                                  pmax    pmax
        comp=Z,9.0nm,0.7s
QUIF   Quistinic         59.07 308  eP        P        17 29 16.4 -0.7
QUIF                                  pmax    pmax
        comp=Z,5.0nm,0.6s
EPF    Esparros          59.29 302  eP        P        17 29 17.6 -1.2
EPF                                   pmax    pmax
        comp=Z,14nm,0.8s
GUMO   Guam              59.52  99    LR      LR       17 56 26.8
        comp=Z,67nm,19.6s,baz=304,slow=38
ETSF   Etsaut            59.93 302  eP        P        17 29 23.1 -0.1
ETSF                                  pmax    pmax
        comp=Z,17nm,0.7s
SJPF   Ste Jean          60.25 303  eP        P        17 29 27.2 +1.9
SJPF                                  pmax    pmax
        comp=Z,3.0nm,0.9s
MBAR   Mbarara           63.49 243    LR      LR       18 01 12.5
        comp=Z,64nm,18.7s,baz=348,slow=40
ESBB   Sonseca Array     63.80 301    P       P        17 29 48.9 -0.4
ESBB                                  IAmb    IAmb     17 29 50.3
        comp=Z,3.5nm,0.9s
ESDC   Sonseca Array     63.80 301    P       P        17 29 48.9 -0.4
        comp=Z,1.7nm,0.7s,baz=53,slow=6.4,SNR=19
ESDC                                  LR      LR       18 01 38.9
        comp=Z,82nm,20.1s,baz=40,slow=40
        comp=Z,1.7nm,0.7s
ESDC   Sonseca Array     63.80 301    P       P        17 29 49.0 -0.3
ESDC                                  IAmb    IAmb     17 29 54.2
        comp=Z,6.9nm,1.2s
E23K   Chandalar         63.86  20    P       P        17 29 49.2  0.0
E23K                                  IAmb    IAmb     17 30 13.4
        comp=Z,8.8nm,1.4s
E24K   Your Creek        64.13  19    P       P        17 29 51.4 +0.4
E24K                                  IAmb    IAmb     17 29 56.1
        comp=Z,3.0nm,0.6s
RES    Resolute Bay      64.28 360    LR      LR       18 00 26.0
        comp=Z,98nm,18.0s,baz=8.5,slow=38
F25K   Christian Rive    65.19  19    P       P        17 29 58.6 +0.6
F25K                                  IAmb    IAmb     17 30 08.0
        comp=Z,3.8nm,0.8s
SFJD   Kangerlussuaq     66.56 342    LR      LR       18 04 16.2
        comp=Z,62nm,18.9s,baz=46,slow=41
G27K   Doyon Strip       66.77  18    P       P        17 30 08.5 +0.5
G27K                                  IAmb    IAmb     17 30 40.8
        comp=Z,4.7nm,1.3s
O15K   Ungalikthiuk R    66.97  30    P       P        17 30 09.6 +0.2
N17K   Nushagak Hills    67.00  28            P        17 30 10.2 +0.6
N17K                                  IAmb    IAmb     17 30 18.4
        comp=Z,7.2nm,1.2s
IL31                     67.08  21    P       P        17 30 09.7 -0.2
IL31                                  IAmb    IAmb     17 30 39.9
        comp=Z,2.9nm,0.9s
ILAR   Eielson Array     67.08  21    P       P        17 30 09.9 -0.1
        comp=Z,0.9nm,0.7s,baz=315,slow=5.0,SNR=12
ILAR                                  LR      LR       18 03 34.8
        comp=Z,191nm,18.3s,baz=266,slow=40
        comp=Z,0.9nm,0.7s
ILAR   Eielson Array     67.08  21    P       P        17 30 08.7 -1.2
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INK    Inuvik            67.19  14    LR      LR       18 02 41.3
        comp=Z,90nm,19.9s,baz=287,slow=39
INK    Inuvik            67.19  14    P       P        17 30 09.2 -1.4
INK                                   pmax    pmax
        comp=Z,7.0nm,1.1s
INK    Inuvik            67.19  14    P       P        17 30 09.2 -1.4
INK                                   IAmb    IAmb     17 30 27.7
        comp=Z,6.8nm,1.1s
H27K   Steamboat Moun    67.27  18    P       P        17 30 12.0 +0.7
H27K                                  IAmb    IAmb     17 30 35.7
        comp=Z,3.8nm,1.1s
I26K   Coal Creek Min    67.62  19    P       P        17 30 14.4 +1.0
I26K                                  IAmb    IAmb     17 30 29.5
        comp=Z,2.9nm,0.8s
MDT    Midelt            68.10 295    LR      LR       18 01 49.6
        comp=Z,58nm,20.1s,baz=42,slow=38
MD01   Midelt array s    68.17 295    P       P        17 30 18.0 +0.4
DHY    Denali Highway    68.26  22            P        17 30 17.4 -0.2
DHY                                   IAmb    IAmb     17 30 23.1
        comp=Z,4.2nm,0.6s
I28M   Miner Creek       68.29  18            P        17 30 17.6 -0.1
I28M                                  IAmb    IAmb     17 30 57.2
        comp=Z,3.1nm,0.8s
RIDG   Independent Ri    68.44  21    P       P        17 30 17.9 -0.8
RIDG                                  IAmb    IAmb     17 30 47.3
        comp=Z,5.2nm,0.8s
SUA    Susitna One       68.48  25    P       P        17 30 18.4 -0.6
SUA                                   IAmb    IAmb     17 30 47.7
        comp=Z,5.5nm,1.1s
SCRK   Sand Creek        68.48  21            P        17 30 18.8 -0.2
SCRK                                  IAmb    IAmb     17 30 39.5
        comp=Z,2.1nm,0.8s
K27K   Chicken           68.93  20    P       P        17 30 21.8 +0.1
K27K                                  IAmb    IAmb     17 30 33.9
        comp=Z,8.3nm,1.3s
SML    Sawmill           68.96  24    P       P        17 30 22.1 +0.1
H31M   Peel River        69.21  16    P       P        17 30 23.5 +0.1
SCM    Sheep Creek Mo    69.24  23    P       P        17 30 23.8 +0.1
SCM                                   pmax    pmax
        comp=Z,7.0nm,0.8s
SCM    Sheep Creek Mo    69.24  23    P       P        17 30 23.8 +0.1
I30M   Mount Dempster    69.28  17    P       P        17 30 23.8 -0.2
I30M                                  IAmb    IAmb     17 30 57.6
        comp=Z,5.2nm,1.1s
SDPT   Sand Point        69.34  33    P       P        17 30 24.6 +0.3
SLKM   Skilak Lake       69.37  25    P       P        17 30 23.9 -0.6
SLKM                                  IAmb    IAmb     17 30 35.5
        comp=Z,4.0nm,1.0s
Q19K   Cape Douglas,     69.40  28    P       P        17 30 24.5 -0.2
KDAK   Kodiak Island     70.63  28    LR      LR       18 03 33.0
        comp=Z,128nm,21.3s,baz=309,slow=38
FITZ   Fitzroy Crossi    70.72 138    LR      LR       18 08 29.1
        comp=Z,113nm,19.6s,baz=345,slow=42
FRB    Frobisher Bay     72.99 348    LR      LR       18 05 36.3
        comp=Z,86nm,21.4s,baz=12,slow=38
YKA    Yellowknife Ar    75.49   9    P       P        17 31 00.6 -0.3
        comp=Z,0.6nm,0.5s,baz=340,slow=6.0,SNR=4.9
YKA                                   LR      LR       18 09 21.0
        comp=Z,73nm,18.2s,baz=338,slow=40
        comp=Z,0.6nm,0.5s
YKA    Yellowknife Ar    75.49   9  i P       P        17 31 02.0 +1.2
YKA                                   pmax    pmax
        comp=Z,1.0nm,0.5s
YKA    Yellowknife Ar    75.49   9    P       P        17 31 00.2 -0.6
TORD   Torodi Ar. Bea    75.52 275    P       P        17 31 01.2 -0.6
        comp=Z,1.7nm,0.7s,baz=51,slow=5.0,SNR=9.1
        comp=Z,1.7nm,0.7s
R33M   Jennings River    75.62  18            P        17 31 02.9 +1.1
R33M                                  IAmb    IAmb     17 31 10.7
        comp=Z,3.4nm,0.9s
LSZ    Lusaka            76.18 235    LR      LR       18 06 22.0
        comp=Z,70nm,18.5s,baz=25,slow=37
DLBC   Dease Lake        76.70  17    LR      LR       18 10 47.4
        comp=Z,59nm,18.2s,baz=304,slow=40
WRAB   Tennant Creek     76.89 132    P       P        17 31 09.1 -0.3
WRAB                                  pmax    pmax
        comp=Z,9.0nm,1.3s
WRAB   Tennant Creek     76.89 132    P       P        17 31 09.1 -0.3
WRAB                                  IAmb    IAmb     17 31 39.9
        comp=Z,8.6nm,1.3s
WRA    Warramunga Arr    76.89 132    P       P        17 31 09.5 +0.1
        comp=Z,2.1nm,0.8s,baz=320,slow=5.4,SNR=31
        comp=Z,2.1nm,0.8s
WRA    Warramunga Arr    76.89 132    P       P        17 31 08.2 -1.1
WR8    Warramunga Arr    76.99 132    P       P        17 31 10.1 +0.1
WR8                                   IAmb    IAmb     17 31 40.8
        comp=Z,3.6nm,1.0s
AS31   Alice Springs     79.63 134    P       P        17 31 23.4 -1.1
ASAR   Alice Springs     79.63 134    P       P        17 31 24.7 +0.2
        comp=Z,1.5nm,0.7s,baz=323,slow=5.5,SNR=31
ASAR                                  LR      LR       18 11 39.4
        comp=Z,84nm,18.4s,baz=326,slow=40
        comp=Z,1.5nm,0.7s
ASAR   Alice Springs     79.63 134    P       P        17 31 23.1 -1.4
BBB    Bella Bella       82.85  19    LR      LR       18 11 44.1
        comp=Z,128nm,18.9s,baz=324,slow=38
CTA    Charters Tower    84.13 123    LR      LR       18 11 36.4
        comp=Z,38nm,21.4s,baz=288,slow=37
DBIC   Dimbokro          84.60 274    LR      LR       18 14 44.5
        comp=Z,55nm,19.5s,baz=12,slow=39
TSUM   Tsumeb            85.83 240    LR      LR       18 13 46.0
        comp=Z,77nm,18.1s,baz=50,slow=38
BOSA   Boshof            88.12 229    LR      LR       18 11 20.7
        comp=Z,43nm,21.2s,baz=32,slow=36
ULM    Lac du Bonnet     88.81 360    LR      LR       18 15 15.6
        comp=Z,51nm,18.5s,baz=8.0,slow=38
NEW    Newport           88.91  14    LR      LR       18 17 03.9
        comp=Z,46nm,19.0s,baz=350,slow=39
STKA   Stephens Creek    90.27 134    LR      LR       18 19 35.7
        comp=Z,99nm,18.6s,baz=302,slow=40
SADO   Sadowa            92.93 348    LR      LR       18 17 52.3
        comp=Z,54nm,18.0s,baz=6.0,slow=38
YBH    Yreka Blue Hor    93.93  20    LR      LR       18 20 16.1
        comp=Z,51nm,18.5s,baz=342,slow=39
PDAR   Pinedale Array    95.44  10    LR      LR       18 20 16.4
        comp=Z,41nm,18.8s,baz=352,slow=38
NVAR   Mina Array Bea    98.12  17    LR      LR       18 22 05.8
        comp=Z,72nm,18.6s,baz=310,slow=38
PPT2   Papeete2         128.81  79  eLR       LR       18 18 48.4
        comp=Z,64nm,25.5s
PPT2                                eLR       LR       18 18 55.6
        comp=Z,102nm,25.5s
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*MOS **12** 17:45:49.9±1.2, 43°.43N×147°.05E, h55^{km}, mb4.6/13, Error ellipse: s-maj=12.8km s-min=8.8km az=124.1*
MOS Felt (II-III) at Malokuril'skoye.
*SKHL **12** 17:45:50.1±0.6, 43°.30N×147°.10E, h59^{km}±6^{km}, mb5.2/2*
SKHL Felt (II-III) at Malokuril`skoe.
*NEIC **12** 17:45:52.5±1.5, 43°.64N±0°.08×146°.9E±0°.1, h47^{km}±5^{km}, mb4.2/23, Error ellipse: s-maj=16.0km s-min=9.4km az=127.0*
*JMA **12** 17:45:54.1±0.3, 43°.4N±0°.9×14°7E±°, h44^{km}±2^{km}, MV3.8/38, OFF NEMURO PENINSULA*
*IDC **12** 17:45:59.6±2.6, 44°.35N×146°.61E, h75^{km}±20^{km}, mb3.8/11, mbtmp4.1/13, MS3.3/2, Error ellipse: s-maj=30.2km s-min=16.6km az=158.0*
ISC 12 17:45:50.5±0.7**, 43°.42N**±0°.05×**146°.98E**±0°.06**, h37**^{km}±1^{km}**,**
n96, σ1^{s}.34/105**, mb4.2**/27**, 3C-6D, Kuril Islands**

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Code   Station Name        Δ°   AZ°     Phase ID          Time     Res
                                      Op      ISC      h  m  s    ISC
SHO    Shikotan           0.47 347  eP        Pn       17 46 17.1  +17
SHO                                   AMB     AMB      17 46 18.8
        2μm,0.5s
SHO                                 eS        Sn       17 46 23.9  +16
SHO                                   A       A        17 46 25.8
        10μm,0.4s
SHO                                   A       A        17 46 25.8
        10μm,0.4s
NEM2   Nemuro 2           0.90 267    P       Pn       17 46 06.5 -0.1
NEM2                                eS        Sn       17 46 15.6 -2.9
NMR    Nemuro--Hokkai     0.91 268⇓iPN        Pn       17 46 06.5 -0.3
NMR                                 i S       Sn       17 46 18.8 +0.1
NMR    Nemuro--Hokkai     0.91 268  eP        Pn       17 46 06.5 -0.3
NMR                                   AMB     AMB      17 46 07.7
        530nm,0.2s
NMR                                 eS        Sn       17 46 18.8 +0.1
YUK    Yuzh-Kuril'sk      1.02 308 d iPN      Pn       17 46 08.4 +0.2
YUK                                 i S       Sn       17 46 20.6 -0.7
YUK    Yuzh-Kuril'sk      1.02 308  eP        Pn       17 46 08.4 +0.2
YUK                                   AMB     AMB      17 46 09.2
        800nm,0.2s
YUK                                 eS        Sn       17 46 21.5 +0.2
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YUK				A	A	17 46 26.2	
	5µm,0.4s						
YUK				A	A	17 46 26.2	
	7µm,0.4s						
RUSJ	Misakicho	1.43	299	⇓iPN	Pn	17 46 14.7	+0.8
RUSJ				iS	Sn	17 46 33.6	+2.2
JRA	Rausu	1.45	292	P	Pn	17 46 14.6	+0.6
JRA				eS	Sn	17 46 29.9	-1.9
JNSB	Nemuroshibetsu	1.48	285	P	Pn	17 46 15.2	+0.6
AKK	Akkeshi	1.61	256	eP	Pn	17 46 16.0	-0.4
AKK				eS	Sn	17 46 35.3	-0.6
JNK	Nakash	1.65	277	P	Pn	17 46 17.2	+0.2
JAK	Akkeshi	1.72	257	P	Pn	17 46 18.0	+0.1
KUR	Kuril'sk	1.93	19	ePN	Pn	17 46 21.1	+0.4
KUR				eS	Sn	17 46 43.4	-0.2
KUR				pmax	pmax		
	comp=Z,102nm,0.2s						
KUR				smax	smax		
	comp=N,1µm,0.2s						
KUR				smax	smax		
	comp=E,578nm,0.2s						
KUR	Kuril'sk	1.93	19	eP	Pn	17 46 21.1	+0.4
KUR				eS	Sn	17 46 43.4	-0.2
KUR				A	A	17 46 45.6	
	comp=E,1µm,0.2s						
KUR				A	A	17 46 45.6	
	comp=E,580nm,0.2s						
REI	Reidovoe	1.99	22	eP	Pn	17 46 22.3	+0.7
REI				eS	Sn	17 46 45.4	+0.1
JTKR	Abashiri--Toko	2.30	285	P	Pn	17 46 27.4	+1.7
JAR	Ashorobuto	2.34	268	P	Pn	17 46 27.5	+1.1
JOB	Onbets	2.36	259	eP	Pn	17 46 27.4	+0.8
ERM	Erimo	3.15	245	d iPN	Pn	17 46 40.8	+3.4
ERM	Erimo	3.15	245		Pn	17 46 40.6	+3.2
ERM				Sn	Sn	17 47 15.4	+1.7
JKA	Kamikawa-asahi	3.25	284	Pn	Pn	17 46 41.0	+2.2
JKA	Kamikawa-asahi	3.25	284	eP	Pn	17 46 41.9	+3.0
ASAJ	Asahikawa	3.25	284	P	Pn	17 46 41.9	+2.9
	comp=E,9.3nm,0.4s,baz=137,slow=16,SNR=23						
ASAJ				S	Sn	17 47 19.2	+2.9
	comp=E,28nm,0.5s,baz=200,slow=25,SNR=1.9						
YSS	Yuzhno-Sakhali	4.63	321	ePN	Pn	17 47 00.4	+2.6
YSS				eS	Sn	17 47 51.6	+1.3
YSS				pmax	pmax		
	comp=Z,10.0nm,0.5s						
YSS				smax	smax		
	comp=N,20nm,0.5s						
YSS				smax	smax		
	comp=E,20nm,0.5s						
YSS	Yuzhno-Sakhali	4.63	321	Pn	Pn	17 46 55.6	-2.3
YSS	Yuzhno-Sakhali	4.63	321	eP	Pn	17 47 00.4	+2.6
YSS				eS	Sn	17 47 51.6	+1.3
JTM	Tenmabayashi	5.12	241	Pn	Pn	17 47 06.4	+1.8
JTM				Sn	Sn	17 47 59.5	-2.9
TYV	Tymovskoe	8.01	340	eP	Pn	17 47 46.3	+2.1
SKR	Severo-Kuril's	9.57	37	eP	Pn	17 48 07.8	+2.2
SKR				eS	Sn	17 49 50.2	-1.5
JHJ2	Mitsune	11.72	211	Pn	Pn	17 48 43.4	+8.3
PETK	Petropavlovsk-	12.03	33	P	Pn	17 48 38.1	-1.1
	comp=E,1.6nm,0.5s,baz=210,slow=9.9,SNR=5.8						
PETK	Petropavlovsk-	12.03	33	PN	Pn	17 48 38.2	-1.0
PETK	Petropavlovsk-	12.03	33		Pn	17 48 38.2	-1.0
ULN	Ulaanbaatar	28.04	293	⇑eP	P	17 51 38.3	0.0
ULN				pmax	pmax		
	comp=Z,5.0nm,2.5s						
ULN	Ulaanbaatar	28.04	293	eP	P	17 51 38.3	0.0
SONM	Songino Array	28.49	293	P	P	17 51 40.9	-1.3
	comp=Z,1.1nm,0.5s,baz=90,slow=9.0,SNR=5.8						
SONM				LR	LR	18 02 36.4	
	comp=Z,34nm,19.1s,baz=50,slow=36						
	comp=Z,1.1nm,0.5s						
SONM	Songino Array	28.49	293	eP	P	17 51 42.7	+0.5
SONM				pmax	pmax		
	comp=Z,1.0nm,0.5s						
H11N2	WAKE ISLAND Hy	28.93	138	T	T	18 22 32.2	
	baz=330,slow=76,SNR=252						
H11N1	WAKE ISLAND Hy	28.94	138	T	T	18 22 33.2	
	baz=330,slow=76,SNR=241						
H11N3	WAKE ISLAND Hy	28.95	138	T	T	18 22 33.6	
	baz=330,slow=76,SNR=228						
H11S1	WAKE ISLAND Hy	29.89	140	T	T	18 23 39.0	
	baz=331,slow=76,SNR=603						
H11S3	WAKE ISLAND Hy	29.89	140	T	T	18 23 44.6	
	baz=331,slow=76,SNR=269						
H11S2	WAKE ISLAND Hy	29.91	140	T	T	18 23 40.4	
	baz=331,slow=76,SNR=249						
H18K	Honhosa River	36.98	35	P	P	17 52 55.8	-0.1
H18K				IAmb	IAmb	17 52 56.9	
	comp=Z,3.4nm,0.8s						
G18K	Tagagawik	36.99	34	P	P	17 52 55.6	-0.4
F19K	Shaleruckik Mo	37.50	32	P	P	17 52 59.9	-0.4
F19K				IAmb	IAmb	17 53 00.8	
	comp=Z,2.6nm,0.8s						
E19K	Redstone River	37.83	31	P	P	17 53 02.3	-0.8
J20K	Nowinta River	38.68	37	P	P	17 53 10.4	+0.2
J20K				IAmb	IAmb	17 53 36.1	
	comp=Z,2.9nm,1.1s						
IMAR	Indian Mountai	38.99	34	P	P	17 53 12.8	0.0
G21K	Allakaket	39.14	33	P	P	17 53 14.3	+0.3
G23K	Bananza Creek	40.54	33	P	P	17 53 25.8	0.0
E24K	Your Creek	41.20	31	P	P	17 53 31.8	+0.6
E24K				IAmb	IAmb	17 53 32.2	
	comp=Z,4.2nm,0.8s						
G24K	Hadweenzic Riv	41.55	33	P	P	17 53 34.2	+0.2
G24K				IAmb	IAmb	17 53 35.8	
	comp=Z,4.2nm,1.0s						
ILAR	Eielson Array	41.83	36	P	P	17 53 37.1	+0.8
	comp=Z,0.8nm,0.7s,baz=266,slow=7.3,SNR=8.4						
	comp=Z,0.8nm,0.7s						
F25K	Christian Rive	42.27	32	P	P	17 53 40.5	+0.5
G26K	Porcupine Rive	43.01	33	P	P	17 53 45.6	-0.2
G26K				IAmb	IAmb	17 53 48.2	
	comp=Z,3.0nm,0.8s						
MK31	Makanchi Array	44.63	298	⇑eP	P	17 53 58.2	-1.0
MKAR	Makanchi Array	44.63	298	P	P	17 53 58.4	-0.8
	comp=Z,1.0nm,0.6s,baz=84,slow=9.9,SNR=10.0						
	comp=Z,1.0nm,0.6s						
MKAR	Makanchi Array	44.63	298	P	P	17 53 57.5	-1.6
MAKZ	Makanchi	44.83	298	P	P	17 53 59.2	-1.5
MAKZ				pmax	pmax		
	comp=Z,6.0nm,1.0s						
MAKZ	Makanchi	44.83	298	P	P	17 53 59.2	-1.5
MAKZ				IAmb	IAmb	17 54 11.6	
	comp=Z,5.8nm,1.0s						
KURK	Kurchatov	45.62	304	⇑eP	P	17 54 05.9	-1.0
KURK				pmax	pmax		
	comp=Z,6.0nm,3.0s						
KURK	Kurchatov	45.62	304	P	P	17 54 05.0	-1.9
KURK	Kurchatov	45.62	304	eP	P	17 54 05.9	-1.0
KURBB	Kurchatov Arra	45.70	304	P	P	17 54 06.0	-1.5
	comp=Z,0.6nm,0.6s,baz=73,slow=8.5,SNR=4.7						
	comp=Z,0.6nm,0.6s						
Q32M	Nakina River	49.73	42	P	P	17 54 40.5	+1.6
BOOM	Boomskoye usch	50.51	295	P	P	17 54 45.3	+0.3
BOOM				pmax	pmax		
	comp=Z,11nm,1.1s						
BOOM	Boomskoye usch	50.51	295	P	P	17 54 45.3	+0.3
KK31	Karatay Array	53.76	298	P	P	17 55 08.0	-1.0
KK31				pmax	pmax		
	comp=Z,2.0nm,0.7s						
KK31	Karatay Array	53.76	298	P	P	17 55 08.0	-1.0
KK31				IAmb	IAmb	17 55 09.1	
	comp=Z,1.6nm,0.7s						
KKAR	Karatay Array	53.76	298	P	P	17 55 08.2	-0.8
KKAR	Karatay Array	53.76	298	P	P	17 55 08.2	-0.8
ARTI	Arti	54.61	317	d iP	P	17 55 14.2	-0.8
ARTI						17 56 21.2	
ARTI				S	S	18 02 52.0	+0.2
ARTI				SS	SS	18 06 32.9	-1.3
ARTI				pmax	pmax		
	comp=Z,10.0nm,2.6s						
IPM	Ipoh	56.07	240	P	P	17 55 28.3	+2.3
YKA	Yellowknife Ar	56.15	34	P	P	17 55 27.5	+1.6
	comp=Z,1.0nm,0.8s,baz=293,slow=6.2,SNR=3.1						
	comp=Z,1.0nm,0.8s						
YKA	Yellowknife Ar	56.15	34	P	P	17 55 26.8	+0.9
AB31	Akbulak array	57.18	309	P	P	17 55 32.5	-0.9
ABKAR	Akbulak array	57.18	309	P	P	17 55 32.7	-0.7
ILON	Igloolik, Nuna	61.95	18	P	P	17 56 05.6	-0.3
WRA	Warramunga Arr	64.11	193	P	P	17 56 31.3	+10
	comp=Z,0.7nm,0.8s,baz=14,slow=7.7,SNR=2.8						
	comp=Z,0.7nm,0.8s						
WRA	Warramunga Arr	64.11	193	P	P	17 56 19.6	-1.2
WRA	Warramunga Arr	64.11	193	P	P	17 56 19.6	-1.2
FITZ	Fitzroy Crossi	64.27	203	P	P	17 56 22.5	+0.6
FITZ				IAmb	IAmb	17 56 54.1	
	comp=Z,1.7nm,0.9s						
FIA1	FINESS Array S	65.11	333	P	P	17 56 25.8	-1.2
FINES	FINESS Array B	65.12	333	P	P	17 56 26.0	-1.0
	comp=Z,4.1nm,0.6s,baz=35,slow=7.8,SNR=26						
FINES				LR	LR	18 28 17.9	
	comp=Z,37nm,19.3s,baz=82,slow=40						
	comp=Z,4.1nm,0.6s						
OBN	Obninsk	65.51	324	eP	P	17 56 29.5	-0.1
OBN				e		17 57 02.5	
OBN				e		17 58 57.5	
OBN				ePPP	PPP	18 00 27.0	
OBN				pmax	pmax		
	comp=Z,3.0nm,0.9s						
OBN	Obninsk	65.51	324	eP	P	17 56 29.5	-0.1
NB2	NORSAR Subarra	69.87	339	P	P	17 56 56.0	-1.1
	comp=Z,1.9nm,0.6s,baz=33,slow=6.2						
NOA	NORSAR Array B	69.87	339	P	P	17 56 56.3	-0.8
	comp=Z,3.0nm,0.7s,baz=33,slow=6.1,SNR=9.1						
	comp=Z,3.0nm,0.7s						
KIV	Kislovodsk	69.89	312	eP	P	17 56 58.8	+1.2
KIV				pmax	pmax		
	comp=Z,8.0nm,1.1s						
KIV	Kislovodsk	69.89	312	eP	P	17 56 58.8	+1.2
KBZ	Khabaz	69.93	312	P	P	17 56 58.3	+0.6
	comp=Z,3.6nm,0.8s,baz=45,slow=5.1,SNR=10						
	comp=Z,3.6nm,0.8s						
HFS	Hagfors	69.95	337	P	P	17 56 56.9	-0.7
	comp=Z,4.6nm,0.7s,baz=43,slow=8.9,SNR=10.0						
	comp=Z,4.6nm,0.7s						
AKASG	Malin Array Be	71.78	324	P	P	17 57 07.9	-0.8
	comp=Z,2.7nm,0.5s,baz=41,slow=6.0,SNR=14						
	comp=Z,2.7nm,0.5s						
AKASG	Malin Array Be	71.78	324	IAmb	IAmb	17 57 08.9	
	comp=Z,2.5nm,0.9s						
AKBB	Malin Array Si	71.78	324	⇓iP	P	17 57 08.0	-0.8
AKBB				pmax	pmax		
	comp=Z,8.0nm,0.8s						

*IDC **12** 17:51:50.3±5.2, 6°.91S×129°.71E, h215^{km}±53^{km}, mb3.3/3, mbtmp3.9/6, MS3.6/1, Error ellipse: s-maj=50.3km s-min=20.0km az=63.0*

ISC 12 17:51:48.5±1.2**, 6°.88S**±0°.09×**129°.9E**±0°.2**, h200**^{km}**, n7, σ1^{s}67**/9**, mb3.5**/3**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	11.91	200	P	Pn	17 54 33.8	+1.6
	1.1nm,0.5s,baz=37,slow=13,SNR=19						
FITZ				S	Sn	17 56 43.4	-1.7
	2.8nm,0.3s,baz=293,slow=23,SNR=8.4						
WRA	Warramunga Arr	13.67	162	P	Pn	17 54 54.9	+0.5
	1.1nm,0.6s,baz=340,slow=13,SNR=34						
WRA				S	S	17 57 24.6	-2.3
	1.3nm,0.7s,baz=327,slow=25,SNR=8.4						
ASAR	Alice Springs	17.12	168	P	P	17 55 36.9	+2.0
	2.4nm,0.4s,baz=347,slow=10,SNR=97						
ASAR				S	S	17 58 43.9	+0.9
	0.9nm,0.7s,baz=358,slow=26,SNR=5.8						
CMAR	Chiang Mai Arr	39.60	310	P	P	17 59 00.5	-0.3
	0.5nm,0.7s,baz=124,slow=8.9,SNR=6.2						
	0.5nm,0.7s						
MSVF	Nonsavu	48.11	108	LR	LR	18 20 09.7	
	comp=Z,59nm,18.1s,baz=187,slow=35						
MKAR	Makanchi Array	68.09	327	P	P	18 02 26.1	-0.5
	1.1nm,0.4s,baz=113,slow=8.1,SNR=25						
	1.1nm,0.4s						
KURBB	Kurchatov Arra	72.37	329	P	P	18 02 51.7	-0.8
	0.7nm,0.6s,baz=126,slow=4.8,SNR=10.0						
	0.7nm,0.6s						

IDC 12 18:07:20.9±4.9**, 7°.56S×104°.64E, h0**^{km}**, mb3.7**/5**, mbtmp3.7**/5**, Error ellipse: s-maj=212.9km s-min=27.0km az=49.0, Southwest of Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	26.45	348	P	P	18 13 00.8	+1.0
	1.2nm,0.7s,baz=179,slow=8.7,SNR=18						
	1.2nm,0.7s						
WRA	Warramunga Arr	31.30	116	P	P	18 13 42.6	-0.4
	0.3nm,0.7s,baz=290,slow=9.1,SNR=5.5						
	0.3nm,0.7s						
MKAR	Makanchi Array	57.65	342	P	P	18 17 12.4	-0.5
	0.8nm,0.9s,baz=134,slow=8.3,SNR=2.2						
	0.8nm,0.9s						
KURBB	Kurchatov Arra	62.20	342	P	P	18 17 43.8	-0.3
	0.2nm,0.6s,baz=159,slow=6.0,SNR=3.7						
	0.2nm,0.6s						
ZALV	Zalesovo Beam	63.52	347	P	P	18 17 51.8	-1.1
	0.9nm,0.4s,baz=156,slow=5.2,SNR=6.6						
	0.9nm,0.4s						
TXAR	Lajitas Array	145.67	47	PKPbc	PKPab	18 27 03.2	+0.4
	0.4nm,0.6s,baz=276,slow=2.4,SNR=4.5						

*IDC **12** 18:25:30.9±2.0, 6°.24S×154°.12E, h0^{km}, mb3.4/4, mbtmp3.5/6, ML1.7/1, MS3.2/2, Error ellipse: s-maj=29.5km s-min=20.6km az=97.0*

ISC 12 18:25:37.8±2.0**, 6°.15S**±0°.10×**154°.0E**±0°.2**, h48**^{km}**, n7, σ1^{s}92**/8**, mb3.4**/4**, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRVT	Keravat (AS076	2.67	313	Pn	Pn	18 26 17.1	-1.2
	33nm,0.3s,baz=48,slow=0.9,SNR=9.6						
KRVT				Sn	Sn	18 26 49.4	-0.1
	30nm,0.3s,baz=152,slow=20,SNR=6.2						
KRVT				LR	LR	18 27 25.4	
	comp=Z,197nm,19.1s,baz=340,slow=40						
PMG	Port Moresby	7.48	244	Pn	Pn	18 27 22.6	-1.8
	0.7nm,0.3s,baz=35,slow=16,SNR=1.7						
PMG				Sn	Sn	18 28 50.5	+2.5
	0.5nm,0.3s,baz=286,slow=20,SNR=1.8						
	6.2nm,0.8s						
PMG				AML	AML		
WRA	Warramunga Arr	23.49	232	P	P	18 30 43.0	-0.5
	0.3nm,0.9s,baz=58,slow=9.7,SNR=4.7						
	0.3nm,0.9s						
ASAR	Alice Springs	26.00	226	P	P	18 31 04.8	-1.6
	0.7nm,1.1s,baz=46,slow=9.5,SNR=5.3						
	0.7nm,1.1s						
RAR	Rarotonga	47.17	113	LR	LR	18 51 34.5	
	comp=Z,54nm,18.4s,baz=103,slow=33						
MKAR	Makanchi Array	82.10	319	P	P	18 37 54.9	+1.5
	0.7nm,0.8s,baz=88,slow=7.0,SNR=4.0						
	0.7nm,0.8s						
ZALV	Zalesovo Beam	82.92	326	P	P	18 37 59.0	+1.6
	0.5nm,0.6s,baz=103,slow=5.2,SNR=1.6						
	0.5nm,0.6s						

*NNC **12** 18:51:15.7±3.7, 42°.17N×80°.95E, h0^{km}, mb3.1, mpv2.8, Error ellipse: s-maj=29.4km s-min=15.9km az=175.0*

*SOME **12** 18:51:16.3, 42°.28N×80°.83E, h10^{km}*

ISC 12 18:51:17.2±2.8**, 42°.2N**±0°.1×**80°.56E**±0°.08**, h10**^{km}**, n7, σ2^{s}89**/14**, 2C-3D, Kyrgyzstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SHLS	Shalkode	1.26	320	eP	Pn	18 51 37.1	-3.8
	1.9nm,0.2s						
SHLS				eS	Sb	18 51 52.2	-5.2
	5.5nm,0.2s						
PDGK	Podgornoye	1.38	325	⇑Pn	Pg	18 51 44.9	+1.2
	5.5nm,1.1s						
PDGK				⇑Sn	Sg	18 52 07.2	+5.5
	5.0nm,0.8s						
UZB	Uzynbulak	1.48	310	eP	Pb	18 51 46.1	+1.2
	1.9nm,0.3s						
UZB				eS	Sg	18 52 07.5	+2.6
	3.0nm,0.2s						
KPKS	Kokpek	1.88	313	eP	Pb	18 51 52.8	+1.2
	0.4nm,0.1s						
KPKS				eS	Sg	18 52 19.4	+1.8
	3.9nm,0.2s						
DJR	Jarkent	2.21	345	eP	Pb	18 51 57.0	-0.2
	0.7nm,0.2s						
DJR				eS	Sg	18 52 26.4	-1.8
	1.5nm,0.3s						
MAKZ	Makanchi	4.72	12	⇓Pn	Pn	18 52 28.4	0.0
	5.3nm,1.6s						
MAKZ				⇓Sn	Sn	18 53 23.2	0.0
	4.3nm,1.1s						
MK31	Makanchi Array	4.76	14	Pn	Pn	18 52 28.9	-0.1
	1.0nm,0.7s,baz=195,slow=13,SNR=6.7						
MK31				⇓Sn	Sn	18 53 25.4	+1.2
	3.6nm,1.3s,baz=188,slow=23						

*BJI **12** 20:26:16.2, 7°.64S×128°.79E, h167^{km}, mB5.3/36, mb5.4/87*
*MOS **12** 20:26:18.5±0.8, 7°.29S×128°.51E, h156^{km}, mb5.6/83, Error ellipse: s-maj=8.9km s-min=4.8km az=114.2*
*NEIC **12** 20:26:19.3±2.0, 7°.30S±0°.07×128°.43E±0°.06, h139^{km}±4^{km}, mb5.6/169, Mww5.2/23, Error ellipse: s-maj=10.0km s-min=8.4km az=170.0*
*DJA **12** 20:26:19.2±0.1, 7°S±1°×12°8E±°, h154^{km}±2^{km}, M5.3/186, mB5.8/109, mb5.5/186, MLv6.0/24, Mw(mB)5.4/109, MwMwp4.9/28, Mwp5.2/28*
*GFZ **12** 20:26:19.9, 7°.39S×128°.47E, h146^{km}, Mw5.3/114, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}10.00; $M_{\theta\theta}$-8.94; $M_{\phi\phi}$-1.06; $M_{r\theta}$-0.86; $M_{\theta\phi}$-1.52; $M_{\phi r}$1.86; Fault plane solution: $M_0$9.84949×10^{16} NP1: ϕ_s69.62583°, δ44.35410°, λ75.48734°. NP2: ϕ_s269.52689°, δ47.40713°, λ103.76666°. Principal axes: T 10.3650, Plg79.7896°, Azm251.1968°; N -1.1282, Plg10.0896°, Azm80.1120°; P -9.2368, Plg1.5498°, Azm349.8361°;*
*NEIC **12** 20:26:19.7, 7°.60S×128°.53E, h140^{km}, Moment Tensor Solution. Duration: 2^{s}1 Moment tensor: Scale 10^{16}Nm; M_{rr}9.83; $M_{\theta\theta}$-1.96; $M_{\phi\phi}$-7.87; $M_{r\theta}$-2.29; $M_{\theta\phi}$0.57; $M_{\phi r}$0.92; Fault plane solution: $M_0$9.36000×10^{16} NP1: ϕ_s183.77000°, δ42.13000°, λ105.07000°. NP2: ϕ_s343.82000°, δ49.63000°, λ76.77000°. Principal axes: T 10.2884, Plg79.0000°, Azm194.0000°; N -2.2924, Plg10.0000°, Azm352.0000°; P -7.9960, Plg4.0000°, Azm83.0000°;*
*NEIC **12** 20:26:19.2, 7°.30S×128°.43E, h138^{km}*
*GFZ **12** 20:26:20.1±0.3, 7°S±2°×12°8E±°, h159^{km}±3^{km}, M5.3/37, mb5.6/37*
*GCMT **12** 20:26:20.2±0.1, 7°.45S±0°.01×128°.44E±0°.01, h148^{km}, MW5.3/154, Moment Tensor Solution. s135, c207; s154, c294; Duration: 1^{s}2 Moment tensor: Scale 10^{17} Nm; M_{rr}1.27±.01; $M_{\theta\theta}$-1.12±.02; $M_{\phi\phi}$-0.15±.02; $M_{r\theta}$-0.36±.01; $M_{\theta\phi}$-0.39±.02; $M_{\phi r}$0.21±.01; Best double couple: $M_0$1.32800×10^{17} NP1: ϕ_s58.00000°, δ40.00000°, λ70.00000°. NP2: ϕ_s263.00000°, δ52.00000°, λ106.00000°. Principal axes: T 1.3680, Plg76.0000°, Azm226.0000°; N -0.0820, Plg13.0000°, Azm73.0000°; P -1.2880, Plg6.0000°, Azm342.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
*IDC **12** 20:26:20.5±0.7, 7°.30S×128°.45E, h158^{km}±5^{km}, mb5.2/39, mbtmp5.6/43, MS4.2/26 Error ellipse: s-maj=9.8km s-min=5.6km az=63.0*

ISC 12 20:26:19.0±0.3**, 7°.34S**±0°.03×**128°.40E**±0°.03**, h148**^{km}±2^{km}**, h149**^{km}**:pP-P, n1368, σ1^{s}33**/1588**, mb5.5**/263**, 60C-40D, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SAUI	Saumlaki	2.95	103	P	Pn	20 27 05.3	-0.4
SAUI	Saumlaki	2.95	103		Pn	20 27 05.1	-0.6
SAUI				Sn	Sn	20 27 40.1	-1.5
SAUI	Saumlaki	2.95	103	P	Pn	20 27 05.1	-0.6
SAUI				S	Sn	20 27 41.1	-0.6
SAUI				AML	AML		
SAUI	Saumlaki	2.95	103	P	Pn	20 27 05.4	-0.2
BNDI	Bandanaira	3.17	28	P	Pn	20 27 09.9	+1.3
BNDI	Bandanaira	3.17	28	P	Pn	20 27 09.5	+0.9
BNDI				AML	AML		
BNDI	Bandanaira	3.17	28	P	Pn	20 27 10.1	+1.5
	comp=Z,4µm,0.6s						
NLAI	Namlea	4.27	342	P	Pn	20 27 26.0	+3.1
NLAI				AML	AML		
SOEI	Soe	4.74	239	P	Pn	20 27 29.8	+0.7
SOEI	Soe	4.74	239		Pn	20 27 29.6	+0.5
SOEI	Soe	4.74	239	P	Pn	20 27 29.5	+0.4
SOEI	Soe	4.74	239	P	Pn	20 27 29.9	+0.7
	comp=Z,7µm,1.1s						
DRS	Darwin Rock St	5.63	154	P	Pn	20 27 39.1	-1.7
SANI	Sanana	5.78	335	P	Pn	20 27 46.1	+3.3
SANI	Sanana	5.78	335	P	Pn	20 27 45.9	+3.1
SANI				AML	AML		
SANI	Sanana	5.78	335	P	Pn	20 27 46.4	+3.6
	comp=Z,2µm,0.7s						
FAKI	Fak Fak	5.83	41	P	Pn	20 27 42.7	-0.9
FAKI	Fak Fak	5.83	41		Pn	20 27 42.3	-1.2
FAKI	Fak Fak	5.83	41	P	Pn	20 27 41.9	-1.6
	comp=Z,6.7nmcomp=Z,8µmcomp=Z,16µmcomp=Z,785nm,0.8s						
FAKI				AML	AML		
FAKI	Fak Fak	5.83	41	P	Pn	20 27 42.6	-0.9
	comp=Z,792nm,0.8s						
BBSI	Bau Bau	6.08	287	P	Pn	20 27 49.7	+2.9
	comp=Z,7.4nmcomp=Z,7µmcomp=Z,22µmcomp=Z,2µm,1.1s						
BBSI				AML	AML		
MTN	Manton Dam	6.10	154	P	Pn	20 27 45.1	-2.0
	comp=Z,2µm,0.5s,comp=Z,0.0nm						
MTN				S	Sn	20 28 49.4	-6.5
MTN	Manton Dam	6.10	154		Pn	20 27 45.3	-1.8
MMRI	Maumere	6.24	258	P	Pn	20 27 50.1	+1.2
MMRI	Maumere	6.24	258		Pn	20 27 49.8	+0.9
MMRI	Maumere	6.24	258	P	Pn	20 27 49.6	+0.7
	comp=Z,5.1nmcomp=Z,8µmcomp=Z,15µmcomp=Z,1µm,1.1s						
MMRI				AML	AML		
MMRI	Maumere	6.24	258	P	Pn	20 27 50.1	+1.2
	comp=Z,1µm,1.1s						
KDU	Kakadu	6.66	143	P	Pn	20 27 52.1	-2.4
	comp=Z,3µm,0.6s,comp=Z,0.0nm						
KDU				S	Sn	20 29 02.4	-7.0
KDI	Kendari	6.66	300	P	Pn	20 27 56.9	+2.3
KDI				AML	AML		
EDFI	Ende, Flores	6.79	258	P	Pn	20 27 57.0	+0.6
	comp=Z,2.4nmcomp=Z,7µmcomp=Z,6µmcomp=Z,404nm,0.7s						
EDFI				AML	AML		
SWI	Sorong	7.04	24	P	Pn	20 27 59.7	+0.1
	comp=Z,5.6nmcomp=Z,6µmcomp=Z,21µmcomp=Z,1µm,0.6s						
SWI				AML	AML		
KKSI	Kolaka, Sulawe	7.41	295	P	Pn	20 28 06.3	+1.6
	comp=Z,1.4nmcomp=Z,4µmcomp=Z,5µmcomp=Z,471nm,1.0s						
KKSI				AML	AML		
BSSI	Bau Bau, Buton	7.94	278	P	Pn	20 28 13.3	+1.6
	comp=Z,3µmcomp=Z,7µmcomp=Z,896nm,1.3s						
TNTI	Ternate	8.12	353	P	Pn	20 28 17.0	+2.8
TNTI	Ternate	8.12	353		Pn	20 28 15.9	+1.8
TNTI	Ternate	8.12	353	P	Pn	20 28 16.2	+2.1
	comp=Z,3µmcomp=Z,7µmcomp=Z,742nm,1.0s						
TNTI	Ternate	8.12	353	P	Pn	20 28 16.9	+2.8
	comp=Z,736nm,0.8s						
KNRA	Kununurra	8.29	178	P	Pn	20 28 13.9	-2.5
	comp=Z,5µm,0.8s,comp=Z,0.0nm						
KNRA	Kununurra	8.29	178		Pn	20 28 14.2	-2.2
WSI	Waingapu	8.34	253	P	Pn	20 28 16.0	-1.0
LUWI	Luwuk	8.40	318	P	Pn	20 28 22.4	+4.5
LUWI	Luwuk	8.40	318		Pn	20 28 21.8	+3.9
LUWI	Luwuk	8.40	318	P	Pn	20 28 21.3	+3.4
LUWI	Luwuk	8.40	318	P	Pn	20 28 22.3	+4.4
	comp=Z,3µm,1.3s						
MWPI	Manokwari, Pap	8.49	42	P	Pn	20 28 18.4	-0.7
	comp=Z,10µmcomp=Z,691nm,0.6s						
LBFI	Labuhan Bajo,	8.50	262	P	Pn	20 28 19.1	-0.1
KAPI	Kappang	8.90	285	P	Pn	20 28 25.7	+1.1
	comp=Z,193nm,0.9s,baz=126,slow=7.6,SNR=38						
KAPI	Kappang	8.90	285	P	Pn	20 28 25.7	+1.1
KAPI	Kappang	8.90	285	P	Pn	20 28 24.9	+0.4
KAPI				S	Sn	20 30 04.8	+1.4
KAPI	Kappang	8.90	285	d iP	Pn	20 28 26.7	+2.2
KAPI	Kappang	8.90	285		Pn	20 28 26.4	+1.9
KAPI	Kappang	8.90	285	P	Pn	20 28 26.6	+2.1
KAPI	Kappang	8.90	285	P	Pn	20 28 26.9	+2.4
	comp=Z,324nm,1.2s						
MKS	Makassar	9.12	283	P	Pn	20 28 27.9	+0.4
	comp=Z,4µmcomp=Z,425nm,0.8s						
SPSI	Sidrap Palu	9.22	291	P	Pn	20 28 30.3	+1.6
	comp=Z,5µmcomp=Z,487nm,1.1s						
APSI	Ampana	9.28	313	P	Pn	20 28 32.4	+2.9
	comp=Z,10µmcomp=Z,850nm,1.2s						
MNI	Manado	9.42	338	P	Pn	20 28 34.6	+3.1
GTOI	Gorontalo	9.57	326	P	Pn	20 28 39.3	+5.8
	comp=Z,9µmcomp=Z,928nm,1.2s						
BAKI	Biak	9.81	52	P	Pn	20 28 36.7	0.0
DBNI	Kabupaten Domp	10.06	263	P	Pn	20 28 38.5	-1.4
	comp=Z,4µmcomp=Z,345nm,0.8s						
PMSI	Majene	10.18	291	P	Pn	20 28 43.8	+2.2

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      comp=Z,5µmcomp=Z,441nm,1.0s
MMSI  Mamuju           10.52 296   P      Pn     20 28 48.0 +2.0
      comp=Z,3µmcomp=Z,171nm,0.8s
PLAI  Plampang         10.62 261   P      Pn     20 28 46.1  -1.3
PLAI  Plampang         10.62 261   P      Pn     20 28 45.1  -2.3
      comp=Z,6µmcomp=Z,485nm,0.8s
PLAI  Plampang         10.62 261   P      Pn     20 28 47.2  -0.2
      comp=Z,490nm,0.8s
PCI   Palu             10.66 306   P      Pn     20 28 51.1 +3.2
      comp=Z,5µmcomp=Z,515nm,1.0s
WAMI  Wamena           10.82  72   P      Pn     20 28 51.5 +1.5
FITZ  Fitzroy Crossi   11.03 194   P      Pn     20 28 48.3  -4.4
FITZ  Fitzroy Crossi   11.03 194   P      Pn     20 28 48.2  -4.4
      comp=Z,798nm,0.6s,baz=26,slow=10,SNR=1556
FITZ                               S      Sn     20 30 42.3   -12
      comp=Z,3µm,0.9s,baz=272,slow=9.2,SNR=18
FITZ                               LR     LR     20 33 54.8
      comp=Z,2µm,20.3s,baz=10.0,slow=41
FITZ  Fitzroy Crossi   11.03 194          Pn     20 28 48.4  -4.4
TOLI2 Tolitoli         11.32 318   P      P      20 29 00.7  -3.9
TOLI2 Tolitoli         11.32 318          Pn     20 29 00.2 +3.6
TOLI2 Tolitoli         11.32 318   P      P      20 29 00.8  -3.8
      comp=Z,647nm,1.4s
TWSI  Taliwang, Sumb   11.49 262   P      Pn     20 28 56.6  -2.2
      comp=Z,170nm,1.0s
MMPI  Merauke          11.93  96   P      Pn     20 29 02.8  -1.7
GENI  Genyem           12.63  69   P      Pn     20 29 14.4 +0.7
GENI  Genyem           12.63  69   P      Pn     20 29 13.1  -0.6
      comp=Z,7µmcomp=Z,339nm,0.8s
GENI  Genyem           12.63  69   P      Pn     20 29 13.8 +0.1
      comp=Z,344nm,0.8s
KHKI  Kahang-Kahang    12.71 265   P      Pn     20 29 14.9 +0.2
      comp=Z,122nm,1.0s
BKB   Balikpapan       12.96 297   P      P      20 29 20.7  -2.1
BKB   Balikpapan       12.96 297   P      P      20 29 21.1  -1.7
      comp=Z,5µmcomp=Z,509nm,1.1s
BKB   Balikpapan       12.96 297   P      P      20 29 24.2 +1.4
      comp=Z,512nm,1.1s
SRBI  Singaraja        13.09 266   P      Pn     20 29 19.7 +0.2
DNP   Denpasar         13.13 263   P      P      20 29 22.8  -1.9
IGBI  Denpasar         13.20 263   P      P      20 29 23.5  -2.0
      comp=Z,7µmcomp=Z,299nm,0.5s
RTBI  Rangdo, Negare   13.38 264   P      P      20 29 27.4  -0.1
      comp=Z,127nm,0.4s
WB0   Warramunga Arr   13.65 155          Pn     20 29 22.7  -4.0
I07AU WARRAMUNGA INF3.78 156   P      Pn     20 29 26.0  -2.3
      baz=333,slow=13,SNR=2.4
WRAB  Tennant Creek    13.79 156d iP      Pn     20 29 23.1  -5.3
WRAB  Tennant Creek    13.79 156   P      Pn     20 29 23.2  -5.2
      comp=Z,2µm,0.7s
WRA   Warramunga Arr   13.79 156   P      Pn     20 29 22.8  -5.7
      comp=Z,193nm,0.5s,baz=319,slow=14,SNR=451
WRA                                S      Sn     20 31 45.4   -16
      comp=Z,762nm,0.7s,baz=329,slow=23,SNR=10
WRA                                LR     LR     20 35 21.9
      comp=Z,2µm,18.2s,baz=89,slow=39
WRA   Warramunga Arr   13.79 156   P      Pn     20 29 23.3  -5.2
WRA   Warramunga Arr   13.79 156          Pn     20 29 23.3  -5.2
BBKI  Banjar Baru      14.03 285   P      P      20 29 35.0 +0.2
      comp=Z,6µmcomp=Z,674nm,1.0s
ABJI  Asem Bagus       14.05 267   P      P      20 29 35.2 +0.3
      comp=Z,166nm,0.8s
JAGI  Jajag, Banyuwa   14.16 264   P      Pn     20 29 34.1 +1.0
JAGI  Jajag, Banyuwa   14.16 264   Pn     Pn     20 29 34.1 +1.0
JAGI  Jajag, Banyuwa   14.16 264   P      Pn     20 29 34.3 +1.2
JAGI  Jajag, Banyuwa   14.16 264   P      P      20 29 35.1  -1.0
      comp=Z,163nm,0.9s
DAV   Davao City (W)   14.59 349   P      Pn     20 29 39.0 +0.5
      comp=Z,71nm,0.4s,baz=107,slow=2.0,SNR=18
DAV   Davao City (W)   14.59 349   P      P      20 29 40.7  -0.2
DAV   Davao City (W)   14.59 349   P      Pn     20 29 39.3 +0.8
DAV                                S      S      20 32 29.8 +1.2
DAV   Davao City (W)   14.59 349   Pn     Pn     20 29 38.6 +0.1
DAV   Davao City (W)   14.59 349   P      Pn     20 29 39.2 +0.7
DAV   Davao City (W)   14.59 349   P      P      20 29 41.0 +0.1
      comp=Z,1µm,0.9s
DAV   Davao City (W)   14.59 349   P      Pn     20 29 39.0 +0.5
BLJI  Banyuglugur      14.68 267   P      P      20 29 43.2 +1.3
      comp=Z,4µmcomp=Z,403nm,0.8s
TARAI Tarakan          15.13 314   P      P      20 29 47.2 +0.2
      comp=Z,3µmcomp=Z,7µmcomp=Z,683nm,0.8s
PKKI  Palangkaraya     15.24 289   P      P      20 29 51.5 +3.4
BWJI  Bawean           15.71 274   P      P      20 29 53.0  -0.3
      comp=Z,706nm,0.8s
MBWA  Marble Bar       16.09 210   P      Pn     20 29 55.3  -1.8
      comp=Z,235nm,0.9s
MBWA  Marble Bar       16.09 210   P      Pn     20 29 55.2  -1.8
MBWA  Marble Bar       16.09 210   P      Pn     20 29 54.6  -2.5
MBWA  Marble Bar       16.09 210          Pn     20 29 55.0  -2.1
MBWA  Marble Bar       16.09 210   P      Pn     20 29 55.3  -1.8
      comp=Z,235nm,0.9s
SJI   Sawahan          16.49 268   P      P      20 30 02.2 +0.1
      comp=Z,10µmcomp=Z,410nm,0.7s
SNJI  Sawahan-Nganju   16.50 267   P      Pn     20 30 02.5 +0.2
      comp=Z,366nm,0.9s
QIS   Mount Isa        17.04 142   P      P      20 30 06.6  -1.4
      comp=Z,562nm,0.9s,comp=Z,0.0nm
QIS   Mount Isa        17.04 142   P      P      20 30 06.6  -1.4
QIS   Mount Isa        17.04 142   P      P      20 30 06.8  -1.3
      comp=Z,562nm,0.9s
AS15  Alice Springs    17.05 163   P      P      20 30 06.2  -1.8
      comp=Z,1µm,0.7s
AS31  Alice Springs    17.07 163   P      P      20 30 08.2  -0.2
      comp=Z,386nm,0.6s,comp=Z,0.0nm
AS31  Alice Springs    17.07 163   P      P      20 30 06.4  -1.9
ASAR  Alice Springs    17.07 163   P      P      20 30 07.7  -0.7
      comp=Z,730nm,0.7s,baz=334,slow=8.7,SNR=651
ASAR                               S      S      20 33 06.1   -13
      comp=Z,228nm,0.8s,baz=332,slow=17,SNR=5.8
ASAR                               LR     LR     20 37 21.2
      comp=Z,1µm,18.1s,baz=346,slow=39
ASAR                               ScP    ScP    20 38 05.8  -0.7
      comp=Z,47nm,0.5s,baz=355,slow=1.9,SNR=7.4
ASAR  Alice Springs    17.07 163   P      P      20 30 06.6  -1.7
PCJI  Pacitan          17.09 266   P      Pn     20 30 08.9  -0.3
      comp=Z,553nm,0.7s
AS01  Alice Springs    17.09 162   P      P      20 30 06.2  -2.3
      comp=Z,2µm,0.7s
AS01  Alice Springs    17.09 162   P      P      20 30 07.3  -1.2
AUALC St Philip's Co   17.09 163   P      P      20 30 07.6  -0.9
AS17  Alice Springs    17.10 162   P      P      20 30 06.5  -2.1
      comp=Z,1µm,0.7s
AS09  Alice Springs    17.12 162   P      P      20 30 07.0  -1.8
      comp=Z,1µm,0.8s
WOJI  Wonogiri, Jawa   17.33 267   P      P      20 30 11.3 +0.1
      comp=Z,290nm,1.3s
WRKA  Warakurna        17.60 180   P      P      20 30 13.2  -0.9
      comp=Z,882nm,0.7s
UGM   Wanagama         17.73 267   P      P      20 30 15.0  -0.6
UGM   Wanagama         17.73 267   P      P      20 30 15.7 +0.1
      comp=Z,167nm,1.1s
SMRI  Semarang         17.82 270   P      Pn     20 30 18.3 +0.3
SMRI  Semarang         17.82 270   P      Pn     20 30 20.8 +2.8
      comp=Z,153nm,0.8s
KKM   Kota Kinabalu    18.01 317   P      Pn     20 30 23.4 +3.0
KKM   Kota Kinabalu    18.01 317   P      Pn     20 30 20.2  -0.2
KKM   Kota Kinabalu    18.01 317   P      Pn     20 30 21.8 +1.4
      comp=Z,4µmcomp=Z,477nm,1.0s
KKM   Kota Kinabalu    18.01 317   P      Pn     20 30 23.1 +2.8
      comp=Z,477nm,1.0s
STKI  Sintang          18.41 293   P      Pn     20 30 25.4 +0.5
      comp=Z,9µmcomp=Z,985nm,1.0s
PMG   Port Moresby     18.67  98   P      P      20 30 24.9  -1.0
      comp=Z,132nm,0.9s,baz=294,slow=4.4,SNR=22
PMG                                S      S      20 33 46.0  -5.0
      comp=Z,55nm,0.8s,baz=300,slow=13,SNR=2.1
PMG                                LR     LR     20 38 22.4
      comp=Z,825nm,20.7s,baz=262,slow=39
PMG   Port Moresby     18.67  98   P      P      20 30 26.1 +0.2
PMG   Port Moresby     18.67  98d iP      P      20 30 25.5  -0.5
PMG                                pmax   pmax
      comp=Z,818nm,0.8s
PMG   Port Moresby     18.67  98   P      P      20 30 25.8  -0.1
PMG   Port Moresby     18.67  98   P      P      20 30 25.4  -0.5
PMG   Port Moresby     18.67  98   P      P      20 30 25.8  -0.1
      comp=Z,1µm,0.8s
SBUM  Sibu             18.85 300   P      Pn     20 30 31.5 +1.5
SBUM  Sibu             18.85 300   P      Pn     20 30 30.6 +0.6
SBUM  Sibu             18.85 300   P      Pn     20 30 30.7 +0.6
      comp=Z,3µmcomp=Z,305nm,1.4s
SBUM  Sibu             18.85 300   P      Pn     20 30 31.9 +1.9
      comp=Z,305nm,1.4s
MTSU  Mount Surprise   18.85 126   P      P      20 30 28.5 +0.6
      comp=Z,332nm,0.6s
MTSU  Mount Surprise   18.85 126   P      P      20 30 28.0 +0.1
MTSU  Mount Surprise   18.85 126   P      P      20 30 28.5 +0.6

      comp=Z,332nm,0.6s
CTJI  Waduk Cacaban    19.07 270   P      P      20 30 29.9  -0.3
      comp=Z,154nm,1.0s
KPJI  Karang Pucung    19.31 269   P      P      20 30 32.5  -0.3
      comp=Z,185nm,0.7s
MANU  Manus Island     19.62  75   P      Pn     20 30 37.7  -1.4
CMJI  Cimerak          19.78 267   P      P      20 30 37.8  -0.1
      comp=Z,390nm,0.8s
GIRL  Giralia          20.43 220   P      Pn     20 30 47.2  -1.4
      comp=Z,428nm,1.3s
GIRL  Giralia          20.43 220   P      P      20 30 46.4 +1.5
BBJI  Bungbulang       20.58 268   P      P      20 30 45.5  -1.0
BBJI  Bungbulang       20.58 268   P      P      20 30 44.7  -1.9
BBJI  Bungbulang       20.58 268   P      P      20 30 45.0  -1.5
      comp=Z,132nm,0.7s
BBJI  Bungbulang       20.58 268   P      P      20 30 45.1  -1.5
      comp=Z,131nm,0.7s
CNJI  Cibinong         21.10 269   P      P      20 30 49.3  -2.7
      comp=Z,4µmcomp=Z,414nm,1.0s
TPI   Tanjungpandan    21.16 281   P      P      20 30 53.5 +0.8
      comp=Z,4µmcomp=Z,263nm,1.0s
MEEK  Meekatharra      21.33 205   P      P      20 30 54.4   0.0
      comp=Z,261nm,0.8s
MEEK  Meekatharra      21.33 205   P      P      20 30 54.2  -0.3
MEEK  Meekatharra      21.33 205   P      P      20 30 54.5   0.0
      comp=Z,261nm,0.8s
CBJI  Citeko           21.41 271   P      P      20 30 51.2  -4.2
      comp=Z,5µmcomp=Z,432nm,1.0s
TV1H  Townsville Har   21.44 125   P      P      20 30 56.4 +0.7
CTA   Charters Tower   21.45 128   P      P      20 30 56.2 +0.3
      comp=Z,95nm,0.9s,comp=Z,0.0nm
CTA   Charters Tower   21.45 128   P      P      20 30 55.8  -0.1
      comp=Z,149nm,0.8s,baz=301,slow=12,SNR=80
CTA                                S      S      20 34 46.1 +1.2
      comp=Z,46nm,0.9s,baz=304,slow=17,SNR=7.2
CTA                                LR     LR     20 40 06.8
      comp=Z,2µm,20.6s,baz=296,slow=39
      comp=Z,149nm,0.8s
CTA   Charters Tower   21.45 128   P      P      20 30 56.0 +0.2
CTAO  Charters Tower   21.45 128   P      P      20 30 56.0 +0.2
CTAO  Charters Tower   21.45 128   P      P      20 30 56.2 +0.3
CTAO  Charters Tower   21.45 128   P      P      20 30 56.1 +0.3
CTAO  Charters Tower   21.45 128   P      P      20 30 56.4 +0.5
      comp=Z,241nm,0.9s
TNG   Tangerang        21.63 272   P      P      20 30 45.5   -12
TNG                                P      P      20 30 45.5   -12
SKJI  Sukabumi         21.67 269   P      P      20 31 05.4 +7.2
AUAYR Ayr State High   22.10 125   P      P      20 31 03.2 +0.7
SBJI  Serang           22.15 272   P      P      20 31 00.7  -2.4
      comp=Z,158nm,0.9s
CGJI  Cibinong         22.55 270   P      P      20 31 03.9  -3.0
      comp=Z,8µmcomp=Z,995nm,1.2s
FORT  Forrest          23.32 181   P      P      20 31 14.2 +0.3
      comp=Z,252nm,0.8s
FORT  Forrest          23.32 181   P      P      20 31 14.2 +0.3
FORT                               IAmb   IAmb   20 31 45.9
      comp=Z,260nm,0.7s
INKA  Innaminka        23.42 152   P      P      20 31 15.7 +0.8
RABL  Rabaul           23.85  84   P      P      20 31 17.8  -1.1
RABL                               IAmb   IAmb   20 31 28.1
      comp=Z,86nm,0.6s
MDSI  Maura Dua        24.25 275   P      P      20 31 20.7  -1.9
QLP   Quilpie          24.35 144   P      P      20 31 23.9 +0.5
      comp=Z,2µm,0.8s
QLP   Quilpie          24.35 144   P      P      20 31 23.6 +0.2
QLP   Quilpie          24.35 144   P      P      20 31 23.8 +0.4
      comp=Z,2µm,0.8s
MORW  Morawa           24.55 207   P      P      20 31 25.8 +0.7
      comp=Z,476nm,0.9s
MORW  Morawa           24.55 207   P      P      20 31 26.3 +1.1
MORW  Morawa           24.55 207   P      P      20 31 25.2   0.0
MORW  Morawa           24.55 207   P      P      20 31 25.5 +0.3
      comp=Z,476nm,0.9s
KMBL  Kambalda         24.67 193   P      P      20 31 26.7 +0.5
      comp=Z,219nm,0.7s
DSRI  Dabo             24.71 285   P      P      20 31 27.3 +0.6
      comp=Z,2µmcomp=Z,186nm,1.2s
LHSI  Lahat            25.00 277   P      P      20 31 28.7  -0.6
      comp=Z,2µmcomp=Z,132nm,0.9s
TPRI  Tanjung Pinang   25.19 288   P      P      20 31 31.8 +0.7
      comp=Z,2µmcomp=Z,164nm,0.8s
JMBI  JAMBI            25.31 282   P      P      20 31 35.0 +2.8
      comp=Z,439nm,0.9s
BLDU  Ballidu          25.62 204   P      P      20 31 36.1 +1.4
      comp=Z,376nm,0.7s
BLDU  Ballidu          25.62 204   P      P      20 31 35.5 +0.7
BLDU  Ballidu          25.62 204   P      P      20 31 36.4 +1.6
      comp=Z,376nm,0.7s
SZP   Santa            25.95 342   P      P      20 31 39.9 +2.1
SZP   Santa            25.95 342   P      P      20 31 37.6  -0.2
SZP   Santa            25.95 342   P      P      20 31 38.4 +0.6
      comp=Z,74nm,0.7s
BTDF  Bukit Timah Da   26.04 288   P      P      20 31 40.6 +1.8
BTDF  Bukit Timah Da   26.04 288   P      P      20 31 40.0 +1.2
KLBR  Kellerberrin     26.10 201   P      P      20 31 39.7 +0.6
      comp=Z,553nm,0.8s
KLBR  Kellerberrin     26.10 201   P      P      20 31 39.8 +0.7
KLBR  Kellerberrin     26.10 201   P      P      20 31 39.7 +0.7
      comp=Z,553nm,0.8s
MYKOM Kota Tinggi      26.12 289   P      P      20 31 41.3 +1.8
MYKOM Kota Tinggi      26.12 289   P      P      20 31 40.3 +0.8
MYKOM                              IAmb   IAmb   20 31 44.8
      comp=Z,157nm,1.2s
MYKOM Kota Tinggi      26.12 289   P      P      20 31 40.7 +1.2
      comp=Z,1µmcomp=Z,122nm,1.2s
MYKOM Kota Tinggi      26.12 289   P      P      20 31 41.0 +1.5
      comp=Z,122nm,1.2s
BBOO  Buckleboo        26.32 165   P      P      20 31 41.5 +0.4
      comp=Z,497nm,0.7s
BBOO  Buckleboo        26.32 165   P      P      20 31 41.5 +0.4
BBOO  Buckleboo        26.32 165   P      P      20 31 41.2 +0.1
BBOO  Buckleboo        26.32 165   P      P      20 31 41.4 +0.4
      comp=Z,497nm,0.7s
MASI  Maura Aman, Be   26.38 278   P      P      20 31 51.2 +9.4
GUMO  Guam             26.45  38   P      P      20 31 41.9  -0.5
GUMO  Guam             26.45  38   P      P      20 31 41.1  -1.3
GUMO                               pmax   pmax
      comp=Z,241nm,1.2s
GUMO  Guam             26.45  38   P      P      20 31 41.1  -1.3
GUMO                               IAmb   IAmb   20 31 45.6
      comp=Z,241nm,1.1s
AUNRC North Rockhamp   26.56 129   P      P      20 31 43.7 +0.4
AUKUL Kulin High Sch   26.95 199   P      P      20 31 46.6  -0.1
MUN   Mundaring        27.02 203   P      P      20 31 47.6 +0.3
      comp=Z,172nm,0.6s
MUN   Mundaring        27.02 203   P      P      20 31 47.7 +0.3
      comp=Z,172nm,0.6s
MUN   Mundaring        27.02 203   P      P      20 31 47.8 +0.5
MUN   Mundaring        27.02 203   P      P      20 31 47.6 +0.3
GD1S  Gladstone Soft   27.32 129   P      P      20 31 50.9 +0.8
      comp=Z,378nm,0.7s
KRJI  Kerinci          27.34 280   P      P      20 31 49.9  -0.6
      comp=Z,358nm,1.1s
STKA  Stephens Creek   27.34 155   P      P      20 31 50.5 +0.3
      comp=Z,228nm,0.6s,baz=329,slow=8.5,SNR=523
STKA                               LR     LR     20 44 38.1
      comp=Z,796nm,20.2s,baz=283,slow=40
      comp=Z,228nm,0.6s
NWAO  Narrogin (SRO)   27.49 201   P      P      20 31 52.1 +0.6
      comp=Z,140nm,0.5s
NWAO  Narrogin (SRO)   27.49 201   P      P      20 31 52.2 +0.8
      comp=Z,89nm,0.5s
NWAO  Narrogin (SRO)   27.49 201   P      P      20 31 52.1 +0.6
      comp=Z,89nm,0.5s
NWAO  Narrogin (SRO)   27.49 201   P      P      20 31 52.0 +0.6
      comp=Z,140nm,0.5s
NWAO  Narrogin (SRO)   27.49 201   P      P      20 31 51.6 +0.1
      comp=Z,53nm,0.6s,baz=35,slow=8.3,SNR=59
NWAO                               LR     LR     20 44 01.7
      comp=Z,368nm,18.2s,baz=71,slow=38
      comp=Z,53nm,0.6s
NWAO  Narrogin (SRO)   27.49 201   P      P      20 31 52.0 +0.4
NWAO  Narrogin (SRO)   27.49 201   P      P      20 31 51.9 +0.4
NWAO                               pmax   pmax
      comp=Z,175nm,0.8s
NWAO  Narrogin (SRO)   27.49 201   P      P      20 31 51.9 +0.4
NWAO  Narrogin (SRO)   27.49 201   P      P      20 31 52.3 +0.8
      comp=Z,82nm,0.5s
DLV    Lat             27.55 314   P      P      20 31 54.1 +1.6
DLV    Lat             27.55 314   P      P      20 31 53.5 +1.0
DLV    Lat             27.55 314   P      P      20 31 54.7 +2.2
      comp=Z,33nm,0.9s
SDSI  Sungai Dareh     27.63 282   P      P      20 31 52.8  -0.2
      comp=Z,76nm,1.3s
AUCAS Cummins Area S   27.63 167   P      P      20 31 53.8 +1.1
HTT   Hallett          27.73 161   P      P      20 31 54.1 +0.3

      comp=Z,65nm,1.0s
HTT   Hallett          27.73 161   P      P      20 31 54.0 +0.3
      comp=Z,65nm,1.0s
HTT   Hallett          27.73 161   P      P      20 31 54.3 +0.6
HTT   Hallett          27.73 161   P      P      20 31 54.0 +0.2
EIDS  Eidsvold         28.11 132   P      P      20 31 56.8  -0.4
      comp=Z,45nm,0.7s
EIDS  Eidsvold         28.11 132   P      P      20 31 57.3 +0.1
EIDS  Eidsvold         28.11 132   P      P      20 31 56.2  -0.9
EIDS                               IAmb   IAmb   20 32 46.5
      comp=Z,93nm,1.1s
EIDS  Eidsvold         28.11 132   P      P      20 31 54.9  -2.3
      comp=Z,45nm,0.7s
DPSS  Saipan           28.29  37   P      P      20 31 57.7  -1.1
BKNI  Bangkinang       28.33 284   P      P      20 32 00.7 +1.5
      comp=Z,143nm,1.4s
BKNI  Bangkinang       28.33 284   P      P      20 31 59.5 +0.2
BKNI                               IAmb   IAmb   20 32 02.1
      comp=Z,179nm,1.1s
BKNI  Bangkinang       28.33 284   P      P      20 32 00.1 +0.9
      comp=Z,2µmcomp=Z,141nm,1.4s
BKNI  Bangkinang       28.33 284   P      P      20 32 00.2 +0.9
      comp=Z,143nm,1.4s
AULRC Lightning Ridg   28.68 142   P      P      20 32 02.8 +0.7
PPI   Padang Panjang   28.74 283   P      P      20 32 02.2  -0.7
      comp=Z,66nm,1.3s
CMSA  Cobar Meteorol   28.99 148   P      P      20 32 05.4 +0.6
      comp=Z,489nm,0.7s
CMSA  Cobar Meteorol   28.99 148   P      P      20 32 05.4 +0.6
      comp=Z,489nm,0.7s
CMSA  Cobar Meteorol   28.99 148   P      P      20 32 05.6 +0.8
CMSA  Cobar Meteorol   28.99 148   P      P      20 32 05.6 +0.8
      comp=Z,489nm,0.7s
GHSS  Government Hou   29.01 163   P      P      20 32 06.3 +1.3
RKGY  Rocky Gully      29.11 200   P      P      20 32 07.8 +2.0
      comp=Z,56nm,0.8s
RKGY  Rocky Gully      29.11 200   P      P      20 32 07.9 +2.0
      comp=Z,56nm,0.8s
AUALB St Joseph's Co   29.17 198   P      P      20 32 08.1 +1.7
AUMBR Murray Bridge    29.42 162   P      P      20 32 09.2 +0.6
IPM   Ipoh             29.73 292   P      P      20 32 13.6 +1.9
IPM   Ipoh             29.73 292   P      P      20 32 12.0 +0.3
IPM                                IAmb   IAmb   20 32 14.8
      comp=Z,91nm,0.9s
IPM   Ipoh             29.73 292   P      P      20 32 13.2 +1.5
      comp=Z,1µmcomp=Z,118nm,1.3s
IPM   Ipoh             29.73 292   P      P      20 32 12.9 +1.2
      comp=Z,118nm,1.3s
MNSI  Mandailing Nat   29.86 285   P      P      20 32 12.3  -0.5
      comp=Z,138nm,0.8s
TW1H  Toowoomba 1 Ha   30.05 135   P      P      20 32 15.3 +1.0
AUTOO Toowoomba Stat   30.05 135   P      P      20 32 15.2 +0.8
AUBSH Beerwah State    30.34 133   P      P      20 32 16.9 +0.1
TWGBT Beinan           30.82 347   P      P      20 32 20.4  -0.6
TWG   Pinlang          30.82 347   P      P      20 32 19.1  -2.0
TWG   Pinlang          30.82 347   P      P      20 32 20.1  -1.0
      comp=Z,31nm,0.6s
RPSI  Rantau Prapat    31.06 288   P      P      20 32 23.6 +0.2
RPSI                               IAmb   IAmb   20 32 26.3
      comp=Z,187nm,1.1s
RPSI  Rantau Prapat    31.06 288   P      P      20 32 23.5 +0.2
      comp=Z,169nm,1.2s
PSI   Prapat           31.09 288   P      P      20 32 24.8 +1.1
PSI   Prapat           31.09 288   P      P      20 32 23.6  -0.1
PSI                                pmax   pmax
      comp=Z,188nm,1.1s
PSI   Prapat           31.09 288   P      P      20 32 23.6  -0.1
      comp=Z,2µmcomp=Z,169nm,1.2s
AUDCS Dubbo College    31.11 145   P      P      20 32 23.9 +0.3
TATA  Tatamba Isabel   31.12  94   P      P      20 32 23.8  -0.1
SAVO  Savo Central     31.14  96   P      P      20 32 23.5  -0.6
HNR   Honiara          31.27  96   LR     LR     20 45 13.2
      comp=Z,350nm,20.1s,baz=344,slow=36
HNR   Honiara          31.27  96   P      P      20 32 25.9 +0.7
HNR   Honiara          31.27  96   P      P      20 32 23.3  -1.9
HNR                                pmax   pmax
      comp=Z,156nm,0.8s
HNR   Honiara          31.27  96   P      P      20 32 23.3  -1.9
HNR   Honiara          31.27  96   P      P      20 32 25.0  -0.2
HNR   Honiara          31.27  96   P      P      20 32 23.4  -1.9
      comp=Z,158nm,0.7s
YULB  Yu-li            31.32 347   P      P      20 32 24.2  -1.3
YULB  Yu-li            31.32 347   P      P      20 32 22.9  -2.6
YULB  Yu-li            31.32 347   P      P      20 32 24.0  -1.5
      comp=Z,20nm,1.0s
TPUB  Ta-pu            31.39 346   P      P      20 32 25.2  -0.8
TPUB  Ta-pu            31.39 346   P      P      20 32 24.8  -1.3
TPUB  Ta-pu            31.39 346   P      P      20 32 25.2  -0.8
      comp=Z,77nm,0.8s
AUPHS Peel High Scho   31.64 141   P      P      20 32 28.9 +0.6
ARMA  Armidale         31.65 140   P      P      20 32 29.6 +1.1
      comp=Z,71nm,0.7s
ARMA  Armidale         31.65 140   P      P      20 32 28.9 +0.5
ARMA  Armidale         31.65 140   P      P      20 32 28.9 +0.5
ARMA                               IAmb   IAmb   20 32 32.0
      comp=Z,50nm,0.7s
ARMA  Armidale         31.65 140   P      P      20 32 29.7 +1.3
      comp=Z,72nm,0.7s
TSI   Tuntungan        31.66 289   P      P      20 32 28.0  -0.6
      comp=Z,62nm,1.2s
ARPS  Mount Arapiles   31.76 159   P      P      20 32 30.4 +1.2
      comp=Z,144nm,0.9s
SSLB  Suanglung        31.78 347   P      P      20 32 29.3  -0.2
SSLB  Suanglung        31.78 347   P      P      20 32 29.3  -0.2
      comp=Z,59nm,0.8s
GSI   Gunungsitoli     31.93 284   P      P      20 32 32.0 +1.0
GSI   Gunungsitoli     31.93 284   P      P      20 32 29.5  -1.4
GSI                                IAmb   IAmb   20 32 35.0
      comp=Z,75nm,0.8s
GSI   Gunungsitoli     31.93 284   P      P      20 32 30.1  -0.9
      comp=Z,102nm,0.9s
GSI   Gunungsitoli     31.93 284   P      P      20 32 30.4  -0.6
      comp=Z,105nm,0.9s
QIZ   Qiongzhong       31.95 325   P      P      20 32 32.1 +1.0
QIZ                                S      S      20 37 30.2  -1.4
QIZ                                pmax   pmax
      comp=Z,22nm,0.8s
QIZ                                L      L
      comp=Z,280nm,13.7s
QIZ                                L      L
      comp=Z,500nm,17.3s
QIZ                                L      L
      comp=Z,680nm,19.5s
QIZ   Qiongzhong       31.95 325   P      P      20 32 32.7 +1.6
NACB  Ninganchiao      32.02 348   P      P      20 32 31.9 +0.4
NACB  Ninganchiao      32.02 348          P      20 32 30.1  -1.4
NACB  Ninganchiao      32.02 348   P      P      20 32 27.0  -4.6
      comp=Z,37nm,0.8s
YOJ   Yonaguni jima    32.04 351   P      P      20 32 32.1 +0.4
YOJ   Yonaguni jima    32.04 351   P      P      20 32 31.2  -0.6
YOJ                                pmax   pmax
      comp=Z,86nm,0.6s
YOJ   Yonaguni jima    32.04 351   P      P      20 32 31.1  -0.6
YOJ                                IAmb   IAmb   20 32 33.8
      comp=Z,86nm,0.6s
YOJ   Yonaguni jima    32.04 351   P      P      20 32 29.1  -2.6
MGBR  Mount Gambier    32.20 162   P      P      20 32 34.0 +0.9
MGBR                               IAmb   IAmb   20 32 35.9
      comp=Z,71nm,0.8s
AUMAG Moama Anglican   32.30 155   P      P      20 32 35.5 +1.6
KCSI  Kotacane, Aceh   32.41 288   P      P      20 32 33.6  -1.6
      comp=Z,67nm,1.1s
YHNB  Yeheng           32.54 348   P      P      20 32 36.0  -0.2
YHNB  Yeheng           32.54 348   P      P      20 32 35.6  -0.6
YHNB                               IAmb   IAmb   20 32 40.1
      comp=Z,64nm,0.7s
HKPS  Hong Kong Po S   32.58 335   P      P      20 32 38.4 +1.9
HKPS  Hong Kong Po S   32.58 335   P      P      20 32 36.5   0.0
HKPS  Hong Kong Po S   32.58 335   P      P      20 32 36.3  -0.2
      comp=Z,56nm,1.1s
TATO  Taipei           32.82 348   P      P      20 32 37.8  -0.7
TPTI                   32.88 288   P      P      20 32 39.9 +0.6
      comp=Z,109nm,1.2s
PATS  Pohnpei          32.99  65   P      P      20 32 40.0  -0.2
PATS                               IAmb   IAmb   20 32 45.5
      comp=Z,133nm,1.0s
JMZ   Minamidaito 2    33.07   5   P      P      20 32 41.9 +1.2
JMZ   Minamidaito 2    33.07   5   P      P      20 32 40.7   0.0
JMZ                                IAmb   IAmb   20 33 04.0
      comp=Z,93nm,0.9s
KNMB  Chin-men Tao     33.08 343   P      P      20 32 40.7  -0.1
KNMB                               IAmb   IAmb   20 32 45.7
      comp=Z,150nm,1.0s
KNMB  Chin-men Tao     33.08 343   P      P      20 32 41.4 +0.5
      comp=Z,123nm,0.7s
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BRAT	Ballarat	33.22	157	P	P	20 32 43.7	+1.8
HURO	Huro Makira	33.23	98	P	P	20 32 43.3	+0.9
AUMTC	Mt Clear Colle	33.25	157	P	P	20 32 43.9	+1.7
SYDH	Sydney Hard Ro	33.44	145	P	P	20 32 44.7	+0.9
QZH2	Quanzhou	33.48	344	⇑iP	P	20 32 44.3	0.0
QZH2				S	S	20 37 53.0	-2.1
QZH2				pmax	pmax		
	comp=Z,160nm,0.7s						
AUMTS	Mt Stromlo	33.66	149	P	P	20 32 47.1	+1.2
CAN	Canberra	33.66	149	P	P	20 32 47.2	+1.4
	comp=Z,211nm,0.7s						
CAN	Canberra	33.66	149	P	P	20 32 47.0	+1.1
CAN	Canberra	33.66	149	P	P	20 32 47.2	+1.4
CAN				pmax	pmax		
	comp=Z,138nm,0.6s						
CAN	Canberra	33.66	149	P	P	20 32 47.2	+1.4
CAN	Canberra	33.66	149	P	P	20 32 47.8	+1.9
	comp=Z,211nm,0.7s						
CAN	Canberra	33.66	149	P	P	20 32 47.5	+1.6
CAN				pP	pP	20 33 21.3	+3.8
CAN				PcP	PcP	20 35 23.7	+1.2
AUMHS	Melrose High S	33.74	149	P	P	20 32 47.5	+1.0
LHMI	Lhok Sumawe	33.77	291	P	P	20 32 47.2	+0.2
LHMI				IAmb	IAmb	20 34 00.3	
	comp=Z,144nm,0.9s						
MLBS	Spotswood, Mel	33.84	156	P	P	20 32 48.3	+1.1
CNB	Canberra Magne	33.85	148	P	P	20 32 48.6	+1.1
	comp=Z,1.6nm,1.1s						
TOO	Toolangi	33.86	155	P	P	20 32 49.6	+2.1
	comp=Z,81nm,0.7s						
TOO	Toolangi	33.86	155	P	P	20 32 49.0	+1.4
TOO				pmax	pmax		
	comp=Z,59nm,0.6s						
TOO	Toolangi	33.86	155	P	P	20 32 49.0	+1.4
TOO				IAmb	IAmb	20 32 50.4	
	comp=Z,59nm,0.6s						
MLSI	Meulaboh, Aceh	33.95	289	P	P	20 32 47.9	-0.6
JOW	Kunigami	33.97	360	P	P	20 32 49.7	+1.2
JOW	Kunigami	33.97	360	P	P	20 32 49.2	+0.7
JOW				IAmb	IAmb	20 32 53.4	
	comp=Z,127nm,1.0s						
JOW	Kunigami	33.97	360	P	P	20 32 49.5	+1.0
	comp=Z,139nm,0.8s						
WOLH	Wollongong Har	33.98	146	P	P	20 32 49.1	+0.6
GZH2	Guangzhou	34.00	335	P	P	20 32 49.7	+0.9
GZH2				S	S	20 38 02.5	-0.7
GZH2				pmax	pmax		
	comp=Z,94nm,1.0s						
AUSMG	Snowy Mountain	34.33	150	P	P	20 32 53.4	+1.8
AUUHS	Ulladulla High	34.47	147	P	P	20 32 53.7	+1.0
AUSSC	Sale College,	34.98	154	P	P	20 32 58.3	+1.2
MILA	Mila	35.10	150	P	P	20 32 59.8	+1.6
	comp=Z,25nm,0.7s						
MILA	Mila	35.10	150	P	P	20 32 59.9	+1.7
BSI	Banda Aceh	35.41	290	P	P	20 32 59.9	-1.2
	comp=Z,85nm,1.1s						
GULI	GuiLin	36.88	332	⇑P	P	20 33 13.4	0.0
GULI				S	S	20 38 42.9	-4.3
GULI				pmax	pmax		
	comp=Z,68nm,1.3s						
GULI				L	L		
	comp=Z,400nm,17.9s						
GULI				L	L		
	comp=Z,740nm,18.4s						
GULI				L	L		
	comp=Z,710nm,24.0s						
AUBRN	Burnie High Sc	36.99	158	P	P	20 33 15.4	+1.3
KOUNC	Koumac, New Ca	37.12	114	P	P	20 33 15.3	-0.2
KOUNC				IAmb	IAmb	20 34 05.3	
	comp=Z,253nm,1.9s						
SLVN	Son La	37.28	320	P	P	20 33 18.8	+1.8
SLVN	Son La	37.28	320	P	P	20 33 18.4	+1.4
LHI	Lord Howe Isla	37.38	134	P	P	20 33 16.9	-0.7
LHI	Lord Howe Isla	37.38	134	P	P	20 33 18.0	+0.5
GLAD	Gladstone	37.79	156	P	P	20 33 22.3	+1.4
CORO	Coronation Par	37.84	157	P	P	20 33 23.8	+2.6
CNSH	ChangSha	38.34	338	P	P	20 33 26.7	+1.0
CNSH				S	S	20 39 09.0	-0.2
CNSH				pmax	pmax		
	comp=Z,62nm,1.0s						
CNSH				L	L		
	comp=Z,260nm,7.0s						
CNSH				L	L		
	comp=Z,400nm,13.4s						
CNSH				L	L		
	comp=Z,440nm,17.8s						
JSU	Suzuyama	38.67	3	P	P	20 33 29.0	+0.6
JSU	Suzuyama	38.67	3	P	P	20 33 28.3	-0.1
JSU				IAmb	IAmb	20 33 32.8	
	comp=Z,79nm,0.9s						
MOO	Moorlands	38.70	158	P	P	20 33 30.3	+1.8
	comp=Z,81nm,1.9s						
MOO	Moorlands	38.70	158	P	P	20 33 30.3	+1.8
CM31	Chiang Mai Arr	38.75	312	P	P	20 33 30.9	+1.7
	SNR=49						
CM31	Chiang Mai Arr	38.75	312	P	P	20 33 30.7	+1.5
CM31				IAmb	IAmb	20 33 35.0	
	comp=Z,66nm,0.9s						
CMAR	Chiang Mai Arr	38.75	312	P	P	20 33 30.6	+1.3
	comp=Z,49nm,0.9s,baz=142,slow=6.8,SNR=189						
CMAR				PcP	PcP	20 35 39.8	+1.8
	comp=Z,29nm,1.0s,baz=172,slow=2.4,SNR=9.3						
CMAR				ScP	ScP	20 39 13.6	+1.1
	comp=Z,7.5nm,0.7s,baz=155,slow=3.1,SNR=12						
CMAR				PKiKP	PKiKP	20 42 51.0	-0.6
	comp=Z,1.8nm,0.9s,baz=140,slow=0.9,SNR=4.1						
CMAR				P3KPbc		21 03 28.6	
	comp=Z,0.7nm,0.8s,baz=307,slow=4.4,SNR=6.9						
	comp=Z,49nm,0.9s						
CMAR	Chiang Mai Arr	38.75	312	i P	P	20 33 30.6	+1.3
CMAR				pmax	pmax		
	comp=Z,53nm,0.9s						
CMAR	Chiang Mai Arr	38.75	312	P	P	20 33 30.1	+0.9
CMAR					PcP	20 35 39.3	+1.3
SANVU	Saraoutou	38.83	105	P	P	20 33 31.0	+1.1
SANVU	Saraoutou	38.83	105	P	P	20 33 30.5	+0.6
SANVU	Saraoutou	38.83	105	P	P	20 33 30.9	+0.9
SANVU				pP	pwP	20 34 05.2	-0.3
CHTO	Chiang Mai	38.97	312	P	P	20 33 32.8	+1.7
CHTO	Chiang Mai	38.97	312	P	P	20 33 32.5	+1.5
CHTO	Chiang Mai	38.97	312	P	P	20 33 32.1	+1.0
CHTO						20 35 39.4	
CHTO				pmax	pmax		
	comp=Z,92nm,1.1s						
CHTO	Chiang Mai	38.97	312	P	P	20 33 32.1	+1.0
CHTO				IAmb	IAmb	20 33 37.3	
	comp=Z,92nm,1.1s						
CHTO				PcP	PcP	20 35 39.4	+0.8
CHTO	Chiang Mai	38.97	312	P	P	20 33 31.2	+0.1
	comp=Z,950nmcomp=Z,88nm,1.0s						
TAU	Tasmania Unive	39.15	158	P	P	20 33 33.8	+1.6
TAU	Tasmania Unive	39.15	158	P	P	20 33 33.2	+1.0
TAU				pmax	pmax		
	comp=Z,44nm,0.9s						
TAU	Tasmania Unive	39.15	158	P	P	20 33 33.2	+1.0
NOUC	Port Laguerre	39.35	116	P	P	20 33 34.7	+0.5
DZM	Mont Dzumac	39.47	116	LR	LR	20 51 25.3	
	comp=Z,188nm,19.1s,baz=308,slow=38						
ONTNC	Ouen Toro	39.54	116	P	P	20 33 36.4	+0.6
ONTNC	Ouen Toro	39.54	116	P	P	20 33 35.4	-0.3
ONTNC				IAmb	IAmb	20 33 37.0	
	comp=Z,109nm,0.8s						
GYA	Guiyang	39.67	329	⇑P	P	20 33 37.9	+1.0
GYA				pmax	pmax		
	comp=Z,42nm,0.6s						
YATNC	Mamie plateau,	39.86	116	P	P	20 33 40.1	+1.6
OUENC	Ouen Island, N	39.91	116	P	P	20 33 40.1	+1.2
OUENC	Ouen Island, N	39.91	116	P	P	20 33 39.8	+0.9
WHN	Wuhan	40.01	341	P	P	20 33 40.8	+1.4
WHN				PcP	PcP	20 35 42.1	+0.5
WHN				S	S	20 39 32.0	-2.0
WHN				SS	SS	20 42 36.8	-0.7
WHN				pmax	pmax		
	comp=Z,480nm,0.8s						
PBA	Port Blair	40.17	298	P	P	20 33 41.7	+0.6
PBA				IAmb	IAmb	20 34 39.7	
	comp=Z,102nm,1.1s						
NJ2	Nanjing	40.22	347	eP	P	20 33 41.6	+0.5
NJ2				pmax	pmax		
	comp=Z,57nm,0.8s						
NJ2				pmax	pmax		
	comp=Z,280nm,5.2s						
JNU	Nakatsue	40.30	3	P	P	20 33 41.7	-0.2
	comp=Z,34nm,0.8s,baz=187,slow=8.1,SNR=15						
	comp=Z,34nm,0.8s						
MARNC	Mare, Loyalty	40.74	114	P	P	20 33 47.0	+1.4
MARNC	Mare, Loyalty	40.74	114	P	P	20 33 46.4	+0.8
KMI2	Kunming	40.82	323	⇑P	P	20 33 48.5	+2.0
KMI2				pP	pP	20 34 18.9	+1.2
KMI2				PcS	PcS	20 39 37.7	+1.6
KMI2				S	S	20 39 47.6	+0.8
KMI2				pmax	pmax		
	comp=Z,51nm,1.1s						
KMI2				pmax	pmax		
	comp=Z,270nm,4.3s						
KMI2				L	L		
	comp=Z,410nm,16.5s						
KMI2				L	L		
	comp=Z,240nm,15.9s						
KMI2				L	L		
	comp=Z,430nm,17.3s						
JMN	Monobe	41.17	7	P	P	20 33 50.0	+1.0
JMN	Monobe	41.17	7	P	P	20 33 49.2	+0.2
ENH	Enshi	41.57	335	P	P	20 33 52.8	+0.5
ENH	Enshi	41.57	335		P	20 33 52.8	+0.5
ENH				IAmb	IAmb	20 33 57.0	
	comp=Z,75nm,0.7s						
ENH	Enshi	41.57	335	P	P	20 33 52.5	+0.2
ENH				pP	pP	20 34 25.5	+1.9
PZH	PanZhiHua	42.43	323	P	P	20 34 02.7	+3.2
JSG	Sagara	42.80	12	P	P	20 34 02.1	0.0
TNCH	TengChong	43.38	319	P	P	20 34 08.5	+1.3
TNCH				PcP	PcP	20 35 54.6	+1.4
TNCH				S	S	20 40 26.5	+2.2
TNCH				ScS	ScS	20 43 51.1	-0.9
TNCH				pmax	pmax		
	comp=Z,79nm,1.1s						
TNCH				pmax	pmax		
	comp=Z,230nm,4.5s						
TNCH				L	L		
	comp=Z,570nm,19.9s						
TJN	Taejon	43.49	359	P	P	20 34 08.9	+1.2
TJN	Taejon	43.49	359	P	P	20 34 07.8	+0.1
TJN				pmax	pmax		
	comp=Z,165nm,0.8s						
TJN	Taejon	43.49	359	P	P	20 34 07.8	+0.1
TJN				IAmb	IAmb	20 34 11.8	
	comp=Z,165nm,0.8s						
JGF	Kuroka	43.54	11	P	P	20 34 07.8	-0.4
LYN	LuoYang	44.30	341	P	P	20 34 15.4	+1.2
LYN				PcP	PcP	20 35 57.4	+1.5
LYN				S	S	20 40 36.4	-0.7
LYN				pmax	pmax		
	comp=Z,140nm,0.9s						
KSRS	Korea Array	44.56	359	P	P	20 34 17.1	+1.0
	comp=Z,17nm,0.6s,baz=176,slow=8.9,SNR=83						
KSRS				ScP	ScP	20 39 35.0	-0.1
	comp=Z,4.9nm,0.8s,baz=176,slow=3.0,SNR=6.5						
	comp=Z,17nm,0.6s						
TIA	Tai'an	44.60	347	P	P	20 34 16.8	+0.3
TIA				pmax	pmax		
	comp=Z,57nm,0.7s						
MAJO	Matsushiro	44.61	11	P	P	20 34 16.0	-0.6
MAJO	Matsushiro	44.61	11	c iP	P	20 34 15.3	-1.3
MAJO				pmax	pmax		
	comp=Z,60nm,0.7s						
MAJO	Matsushiro	44.61	11	P	P	20 34 15.7	-0.9
MAJO	Matsushiro	44.61	11	P	P	20 34 15.5	-1.1
MAJO				pP	pP	20 34 48.6	+0.4
MAJO				PcP	PcP	20 35 58.6	+1.7
MJAR	Matsushiro Arr	44.61	11	P	P	20 34 15.4	-1.3
	comp=Z,37nm,0.6s,baz=187,slow=9.3,SNR=39						
MJAR				PcP	PcP	20 35 58.3	+1.4
	comp=Z,14nm,1.0s,baz=201,slow=3.6,SNR=4.6						
MJAR				ScP	ScP	20 39 34.9	-0.5
	comp=Z,20nm,1.0s,baz=194,slow=4.7,SNR=15						
	comp=Z,37nm,0.6s						
MJAR	Matsushiro Arr	44.61	11	P	P	20 34 15.7	-0.9
MJAR				ScP	ScP	20 39 34.6	-0.8
MJB9	Matsu-Tunnel	44.61	11	P	P	20 34 16.6	-0.1
MJB9				IAmb	IAmb	20 34 18.0	
	comp=Z,62nm,0.7s						
CD2	Chengdu	44.76	329	⇑P	P	20 34 18.3	+0.3
CD2				S	S	20 40 38.6	-5.3
CD2				pmax	pmax		
	comp=Z,70nm,0.6s						
CD2				pmax	pmax		
	comp=Z,420nm,3.5s						
CD2				L	L		
	comp=Z,580nm,17.1s						
CD2				L	L		
	comp=Z,550nm,14.6s						
CD2				L	L		
	comp=Z,770nm,19.7s						
XAN	Xi'an	45.10	337	⇑P	P	20 34 20.1	-0.5
XAN				S	S	20 40 45.3	-3.4
XAN				pmax	pmax		
	comp=Z,100nm,1.0s						
XAN				pmax	pmax		
	comp=Z,280nm,3.7s						
XAN				L	L		
	comp=Z,380nm,13.1s						
XAN				L	L		
	comp=Z,240nm,12.9s						
XAN				L	L		
	comp=Z,560nm,19.2s						
TARA	Tarawa	45.25	81	P	P	20 34 23.6	+1.5
SAIH	SAIHA	45.62	311	eP	P	20 34 23.0	-2.0
MORE	Moreh	45.73	314	P	P	20 34 25.4	-0.2
MORE				IAmb	IAmb	20 34 27.5	
	comp=Z,149nm,0.8s						
WAKE	Wake Island	46.05	54	P	P	20 34 28.9	+0.7
WAKE	Wake Island	46.05	54	P	P	20 34 28.1	0.0
HNS	HongShan	46.31	345	⇑P	P	20 34 30.3	+0.4
HNS				pP	pwP	20 35 05.2	-3.0
HNS				PcP	PcP	20 36 05.1	+2.3
HNS				S	S	20 41 02.7	-3.1
HNS				pmax	pmax		
	comp=Z,210nm,0.9s						
HNS				L	L		
	comp=Z,310nm,15.9s						
HNS				L	L		
	comp=Z,290nm,17.5s						
IMP	Imphal	46.35	315	eP	P	20 34 30.4	-0.3
IMP				IAmb	IAmb	20 34 32.5	
	comp=Z,57nm,0.8s						
DL2	Dalian	46.44	353	P	P	20 34 31.6	+0.7
DL2				pmax	pmax		
	comp=Z,99nm,1.1s						
AZL	Aizawl	46.58	313	eP	P	20 34 30.6	-1.8
AZL				IAmb	IAmb	20 34 35.0	
	comp=Z,80nm,0.7s						
TIY	Taiyuan	47.23	343	eP	P	20 34 37.7	+0.5
TIY				S	S	20 41 18.2	-0.9
TIY				SS	SS	20 44 48.8	+0.1
TIY				pmax	pmax		
	comp=Z,120nm,0.7s						
TIY				L	L		
	comp=Z,250nm,12.4s						
TIY				L	L		
	comp=Z,200nm,14.4s						
TIY				L	L		
	comp=Z,200nm,12.4s						
ITAN	ITANAGAR	47.99	317	eP	P	20 34 44.1	+0.9
ITAN				IAmb	IAmb	20 34 46.5	
	comp=Z,146nm,0.7s						
ZIRO	ZIRO	48.15	317	eP	P	20 34 41.9	-2.7
ZIRO				IAmb	IAmb	20 34 47.3	
	comp=Z,97nm,0.7s						
SHL	Shillong	48.27	314	P	P	20 34 45.5	-0.1
	SNR=36						
SHL	Shillong	48.27	314	P	P	20 34 45.3	-0.3
SHL	Shillong	48.27	314	P	P	20 34 45.3	-0.3
SHL	Shillong	48.27	314	eP	P	20 34 42.9	-2.7
SHL				IAmb	IAmb	20 34 46.5	
	comp=Z,112nm,0.2s						
BJI2	Beijing	48.46	347	P	P	20 34 46.9	+0.4
BJI2				PcP	PcP	20 36 11.5	+1.1
BJI2				S	S	20 41 38.4	+2.3
BJI2				pmax	pmax		
	comp=Z,83nm,0.9s						
BJT	Baijiatuau	48.46	347	P	P	20 34 48.2	+1.7
BJT	Baijiatuau	48.46	347	P	P	20 34 46.6	+0.1
BJT				pmax	pmax		
	comp=Z,109nm,0.9s						
BJT	Baijiatuau	48.46	347		P	20 34 46.6	+0.1
BJT				IAmb	IAmb	20 34 51.5	
	comp=Z,108nm,0.9s						
BJT	Baijiatuau	48.46	347	P	P	20 34 47.0	+0.5
BJT				PcP	PcP	20 36 11.5	+1.1
LZDM	Lanzhou Array	48.93	333	P	P	20 34 51.1	+0.5
	comp=Z,31nm,0.5s,baz=159,slow=9.5,SNR=12						
LZDM				ScP	ScP	20 39 53.8	-0.2
	comp=Z,6.1nm,0.4s,baz=143,slow=4.3,SNR=7.3						
	comp=Z,31nm,0.5s						
LZH	Lanzhou	48.98	334	P	P	20 34 52.2	+1.4
LZH				ScP	ScP	20 39 54.1	+0.2
LZH				S	S	20 41 39.7	-4.2
LZH				pmax	pmax		
	comp=Z,210nm,1.8s						
LZH				pmax	pmax		
	comp=Z,570nm,4.8s						
LZH				L	L		
	comp=Z,440nm,14.0s						
LZH				L	L		
	comp=Z,460nm,17.8s						
LZH				L	L		
	comp=Z,490nm,15.2s						
SNY	Shenyang	49.13	355	P	P	20 34 51.6	+0.1
SNY				pmax	pmax		
	comp=Z,31nm,1.3s						
JTM	Tenmabayashi	49.29	13	P	P	20 34 52.7	-0.1
MSVF	Nonsavu	49.42	107	P	P	20 34 56.2	+1.8
MSVF	Nonsavu	49.42	107	P	P	20 34 55.2	+0.8
MSVF				pmax	pmax		
	comp=Z,31nm,0.8s						
MSVF	Nonsavu	49.42	107	P	P	20 34 55.2	+0.8
PALK	Pallekele	49.73	286	LR	LR	20 54 56.1	
	comp=Z,117nm,21.3s,baz=106,slow=34						
PALK	Pallekele	49.73	286	P	P	20 34 55.9	-0.8
PALK	Pallekele	49.73	286	i P	P	20 34 57.2	+0.5
PALK	Pallekele	49.73	286	P	P	20 34 56.4	-0.3
PALK				PcP	PcP	20 36 16.6	+0.9
PALK	Pallekele	49.73	286	P	P	20 34 57.0	+0.3
PSTR	Posyet	49.80	2	deP	P	20 34 57.7	+1.1
OUZ	Omahuta	49.82	131	P	P	20 34 59.1	+2.1
DHUB	DHUBRI	49.90	313	eP	P	20 34 57.8	0.0
DHUB				IAmb	IAmb	20 34 59.1	
	comp=Z,128nm,1.1s						
VLA	Vladivostok	50.32	3	⇑eP	P	20 35 00.1	-0.4
VLA				pmax	pmax		
	comp=Z,167nm,1.8s						
HHC	Hu-ho-hao-te	50.39	343	⇑iP	P	20 35 02.3	+1.0
HHC				pP	pP	20 35 35.5	+1.9
HHC				S	S	20 42 03.0	-0.3
HHC				pmax	pmax		
	comp=Z,50nm,1.2s						
HHC				pmax	pmax		
	comp=Z,160nm,6.1s						
MSZ	Milford Sound	50.60	144	P	P	20 35 04.9	+2.3
DCZ	Deep Cove	50.62	145	P	P	20 35 03.3	+0.5
DCZ				IAmb	IAmb	20 36 19.7	
	comp=Z,47nm,0.7s						
WCZ	Waipu Caves	50.66	131	P	P	20 35 05.2	+1.8
JCZ	Jackson Bay	50.76	143	P	P	20 35 05.8	+1.7
JCZ	Jackson Bay	50.76	143	P	P	20 35 05.9	+1.8
BTO2	Baotou	50.79	342	eP	P	20 35 04.7	+0.4
BTO2				pP	pP	20 35 38.0	+1.3
BTO2				PP	PP	20 36 58.3	-3.8
BTO2				S	S	20 42 08.8	-0.1
BTO2				SS	SS	20 45 38.6	-7.1
BTO2				pmax	pmax		
	comp=Z,67nm,0.7s						
BTO2				pmax	pmax		
	comp=Z,360nm,5.2s						
BTO2				L	L		
	comp=Z,330nm,5.8s						
BTO2				L	L		
	comp=Z,250nm,6.5s						
BTO2				L	L		
	comp=Z,580nm,11.6s						
DGTI	Dogotuki	50.91	105	P	P	20 35 06.5	+0.9
ERM	Erimo	50.94	14	P	P	20 35 05.5	+0.3
ERM				pmax	pmax		
	comp=Z,180nm,1.3s						
ERM	Erimo	50.94	14	P	P	20 35 05.5	+0.3
ERM				IAmb	IAmb	20 35 19.4	
	comp=Z,180nm,1.3s						
CN2	Changchun	50.97	357	eP	P	20 35 05.2	-0.2
FOZ	Fox Glacier	51.09	142	P	P	20 35 07.2	+0.8
FOZ				IAmb	IAmb	20 35 08.4	
	comp=Z,82nm,0.7s						
FOZ	Fox Glacier	51.09	142	P	P	20 35 07.5	+1.1
MLZ	Mavora Lakes	51.11	145	P	P	20 35 07.4	+0.8
SHBG	Sahibganj	51.20	311	eP	P	20 35 06.4	-1.1
WHZ	Wether Hill Ro	51.32	145	P	P	20 35 08.9	+0.8
WHZ	Wether Hill Ro	51.32	145	P	P	20 35 08.9	+0.8
WKZ	Wanaka	51.32	144	P	P	20 35 09.4	+1.2
LSA	Lhasa	51.36	318	P	P	20 35 10.4	+1.2
LSA				pmax	pmax		
	comp=Z,72nm,0.7s						
LSA	Lhasa	51.36	318		P	20 35 10.4	+1.2
LSA				IAmb	IAmb	20 35 12.3	
	comp=Z,72nm,0.7s						
LSA	Lhasa	51.36	318	i P	P	20 35 10.8	+1.5
	SNR=41						
LSA	Lhasa	51.36	318	P	P	20 35 10.7	+1.5
LSA				PcP	PcP	20 36 19.0	-2.9
USA0B	Ussuriysk Arra	51.40	3	P	P	20 35 09.0	+0.4
USA0B				pmax	pmax		
	comp=Z,33nm,0.6s						
USA0B	Ussuriysk Arra	51.40	3	P	P	20 35 09.0	+0.4
USRK	Ussuriysk Ar.	51.40	3	P	P	20 35 09.1	+0.4
	comp=Z,30nm,0.6s,baz=184,slow=7.1,SNR=78						
	comp=Z,30nm,0.6s						
WVZ	Waitaha Valley	51.42	141	P	P	20 35 09.6	+0.8
DSZ	Denniston Nort	51.43	139	P	P	20 35 11.0	+1.9
QRZ	Quartz Range	51.47	138	P	P	20 35 11.3	+2.0
RAGD	RAYAGADA	51.55	302	eP	P	20 35 08.8	-1.5
GRZ	Great Barrier	51.62	131	P	P	20 35 12.1	+1.6
INZ	Inchbonnie	51.69	140	P	P	20 35 11.8	+0.9
EAZ	Earnscleugh	51.72	144	P	P	20 35 11.6	+0.5
MDJ	Mudanjiang	51.73	1	P	P	20 35 12.5	+1.5
MDJ	Mudanjiang	51.73	1		P	20 35 11.5	+0.5
MDJ				IAmb	IAmb	20 35 13.1	
	comp=Z,183nm,1.6s						
BOK	Bokaro	51.77	308	eP	P	20 35 10.1	-1.7
LBZ	Lake Benmore	51.77	143	P	P	20 35 12.3	+0.8
KHEZ	Kahui Hut	51.80	135	P	P	20 35 14.5	+2.6
NEZ	North Egmont	51.84	135	P	P	20 35 14.9	+2.7
APZ	The Paps	51.90	146	P	P	20 35 13.7	+1.2
RPZ	Rata Peaks	51.95	141	LR	LR	20 56 58.9	
	comp=Z,220nm,21.8s,baz=275,slow=35						
RPZ	Rata Peaks	51.95	141	P	P	20 35 14.1	+1.3
RPZ	Rata Peaks	51.95	141	P	P	20 35 14.5	+1.6
MDRS	Chennai	51.95	293	eP	P	20 35 11.1	-2.1
HIZ	Hauiti	52.06	134	P	P	20 35 16.0	+2.2
THZ	Tophouse	52.16	138	P	P	20 35 15.9	+1.4
XLT	XiLinHaoTe	52.20	349	eP	P	20 35 15.4	+0.7
XLT				pP	pwP	20 35 50.6	-3.3
XLT				S	S	20 42 29.4	+1.4
XLT				pmax	pmax		
	comp=Z,120nm,1.0s						
TOZ	Tahuroa Road	52.22	133	P	P	20 35 17.1	+2.3
NNZ	Nelson	52.22	138	P	P	20 35 15.8	+0.9
LTZ	Lake Taylor	52.24	140	P	P	20 35 15.9	+0.9
VRZ	Vera Road	52.25	135	P	P	20 35 17.3	+2.2
TMZ	Timaru	52.27	142	P	P	20 35 15.8	+0.6
TUZ	Tuapeka	52.31	144	P	P	20 35 16.1	+0.7
OXZ	Oxford	52.37	141	P	P	20 35 17.0	+1.1
ODZ	Otahua Downs	52.41	143	P	P	20 35 16.9	+0.7
TLZ	Tolley Road	52.48	133	P	P	20 35 18.8	+1.9
WAZ	Wanganui	52.67	135	P	P	20 35 20.3	+2.0
ASAJ	Asahikawa	52.80	13	P	P	20 35 19.1	+0.2
	comp=Z,30nm,0.5s,baz=205,slow=6.6,SNR=22						
	comp=Z,30nm,0.5s						
TCW	Tory Channel	52.82	137	P	P	20 35 19.5	+0.3
GVZ	Greta Valley S	52.82	140	P	P	20 35 20.4	+1.1
HHSZ	Highcliff Hill	52.84	144	P	P	20 35 21.0	+1.7
BNX	BinXian	52.84	359	⇓P	P	20 35 19.2	-0.1
BNX				pmax	pmax		
	comp=Z,21nm,1.2s						
NGZ	Ngauruhoe	52.87	134	P	P	20 35 21.8	+1.9
KHZ	Kahutara	52.89	139	P	P	20 35 20.4	+0.7
NTVZ	North Tongarir	52.89	134	P	P	20 35 22.5	+2.5
WHVZ	Whangaehu Hut	52.90	134	P	P	20 35 22.7	+2.5
TMVZ	Te Maari	52.92	134	P	P	20 35 22.4	+2.2
WNVZ	Wahianoa	52.93	134	P	P	20 35 22.0	+1.6
MQZ	McQueen's Vall	52.94	141	P	P	20 35 20.7	+0.6
MQZ	McQueen's Vall	52.94	141	P	P	20 35 21.1	+1.0
MCQ	Macquarie Isla	53.04	158	P	P	20 35 23.1	+2.6
	comp=Z,139nm,1.2s						

MCQ	Macquarie Isla	53.04	158	P	P	20 35 21.7	+1.1
MCQ				pmax	pmax		
	comp=Z,102nm,0.9s						
MCQ	Macquarie Isla	53.04	158	P	P	20 35 21.7	+1.1
MCQ				IAmb	IAmb	20 35 23.6	
	comp=Z,102nm,0.8s						
MCQ	Macquarie Isla	53.04	158	P	P	20 35 22.6	+2.1
MOVZ	Moawhango	53.07	135	P	P	20 35 22.1	+0.9
SNZO	South Karori	53.16	137	P	P	20 35 21.7	0.0
SNZO				IAmb	IAmb	20 35 23.3	
	comp=Z,95nm,0.8s						
BHHZ	Black Hill Sta	53.32	134	P	P	20 35 23.6	+0.5
EVN	Everest	53.33	313	P	P	20 35 25.0	+1.0
SALM	Salem	53.42	290	eP	P	20 35 22.7	-1.4
MRZ	Mangatainoka R	53.47	136	P	P	20 35 23.9	-0.2
TSZ	Takapari Road	53.48	135	P	P	20 35 24.5	+0.3
BKZ	Black Stump Fm	53.50	134	P	P	20 35 24.6	+0.2
BKZ	Black Stump Fm	53.50	134	P	P	20 35 25.0	+0.6
GOMU	GeErMu	53.57	326	P	P	20 35 26.4	+1.1
GOMU				pmax	pmax		
	comp=Z,12nm,0.6s						
URZ	Urewera	53.59	133	P	P	20 35 24.7	-0.3
	comp=Z,34nm,0.7s,baz=304,slow=3.3,SNR=36						
URZ				LR	LR	21 00 32.9	
	comp=Z,386nm,18.2s,baz=294,slow=38						
	comp=Z,34nm,0.7s						
URZ	Urewera	53.59	133	P	P	20 35 25.2	+0.2
GTA2	Gaotai	53.61	333	P	P	20 35 26.4	+1.2
GTA2				S	S	20 42 44.3	-3.0
GTA2				pmax	pmax		
	comp=Z,140nm,0.6s						
GTA2				pmax	pmax		
	comp=Z,420nm,6.0s						
GTA2				L	L		
	comp=Z,330nm,14.6s						
GTA2				L	L		
	comp=Z,240nm,17.5s						
GTA2				L	L		
	comp=Z,350nm,16.8s						
KOD	Kodaikanal	53.63	288	eP	P	20 35 23.0	-3.0
RTZ	Ruatahuna	53.63	133	P	P	20 35 25.8	+0.5
HAZ	Te Kaha	53.90	132	P	P	20 35 28.6	+1.4
MWZ	Matawai	53.93	133	P	P	20 35 28.0	+0.6
BFZ	Birch Farm	53.94	136	P	P	20 35 27.7	+0.3
PXZ	Pawanui	54.10	135	P	P	20 35 29.0	+0.3
MXZ	Matakaoa Point	54.22	131	P	P	20 35 30.5	+0.9
MXZ	Matakaoa Point	54.22	131	P	P	20 35 30.5	+0.9
KNZ	Kokohu	54.29	133	P	P	20 35 30.3	+0.3
PUZ	Puketiti	54.37	132	P	P	20 35 30.9	+0.3
AIS	Amsterdam Isla	54.99	229	P	P	20 35 36.0	+1.0
HYB	Hyderabad	55.05	297	eP	P	20 35 34.5	-1.3
HYB	Hyderabad	55.05	297	eP	P	20 35 35.0	-0.8
HYB				epP	pP	20 36 08.7	-0.1
HYB				epP	pwP	20 36 08.8	-6.3
HYB				ePcP	PcP	20 36 36.0	+0.3
HYB				ePP	PP	20 37 41.0	+0.3
HYB				eS	S	20 43 08.6	+1.5
HYB				eScS	ScS	20 45 11.4	+0.6
YSS	Yuzhno-Sakhali	55.54	12	P	P	20 35 39.7	+1.0
YSS	Yuzhno-Sakhali	55.54	12	d iP	P	20 35 39.1	+0.4
YSS				pmax	pmax		
	comp=Z,36nm,0.7s						
YSS	Yuzhno-Sakhali	55.54	12	P	P	20 35 38.9	+0.2
YSS				IAmb	IAmb	20 35 40.3	
	comp=Z,35nm,0.6s						
YSS	Yuzhno-Sakhali	55.54	12	P	P	20 35 39.1	+0.4
KAAM	Kaadhehdhoo	55.80	276	P	P	20 35 42.7	+1.4
NGP	Nagpur	56.11	301	eP	P	20 35 37.3	-6.1
KLR	Kul'dur	56.41	3	P	P	20 35 45.3	+0.4
	comp=Z,23nm,1.0s,baz=202,slow=4.4,SNR=21						
KLR				ScP	ScP	20 40 25.8	+0.1
	comp=Z,3.4nm,0.6s,baz=180,slow=2.7,SNR=4.6						
	comp=Z,23nm,1.0s						
KLR	Kul'dur	56.41	3	eP	P	20 35 43.0	-1.9
KLR				pmax	pmax		
	comp=Z,15nm,1.4s						
HIA	Hailar	56.88	353	P	P	20 35 50.0	+1.8
HIA	Hailar	56.88	353	P	P	20 35 48.7	+0.4
HIA				pmax	pmax		
	comp=Z,132nm,1.7s						
HIA	Hailar	56.88	353		P	20 35 48.6	+0.4
HIA				IAmb	IAmb	20 35 50.6	
	comp=Z,132nm,1.7s						
HILR	Hailar Array B	57.16	353	P	P	20 35 51.3	+1.0
	comp=Z,24nm,0.5s,baz=171,slow=10,SNR=29						
	comp=Z,24nm,0.5s						
HEH	HeiHe	57.36	359	eP	P	20 35 51.6	0.0
HEH				pmax	pmax		
	comp=Z,80nm,1.1s						
ULN	Ulaanbaatar	58.11	343	P	P	20 35 58.4	+1.3
ULN	Ulaanbaatar	58.11	343	ceP	P	20 35 58.3	+1.3
ULN				pmax	pmax		
	comp=Z,182nm,1.2s						
ULN	Ulaanbaatar	58.11	343	P	P	20 35 58.1	+1.0
ULN	Ulaanbaatar	58.11	343	P	P	20 35 58.4	+1.3
ULN	Ulaanbaatar	58.11	343	P	P	20 35 58.5	+1.4
ULN				x	x	20 36 31.2	
ULN				pP	pwP	20 36 34.6	-1.9
SONM	Songino Array	58.27	343	P	P	20 35 59.3	+1.1
	comp=Z,92nm,0.8s,baz=166,slow=6.8,SNR=401						
SONM				ScP	ScP	20 40 34.3	+0.1
	comp=Z,7.3nm,0.7s,baz=163,slow=5.3,SNR=6.5						
SONM				S	S	20 43 49.2	+0.5
	comp=Z,1.6nm,1.0s,baz=161,slow=9.2,SNR=2.1						
SONM				PKP2bc	P'P'bc	21 05 46.0	-1.0
	comp=Z,6.1nm,0.9s,baz=286,slow=1.4,SNR=13						
	comp=Z,92nm,0.8s						
SONM	Songino Array	58.27	343	P	P	20 35 59.2	+1.0
SONM					ScP	20 40 34.4	+0.1
GRNR	Gornyy	58.29	6	⇑iP	P	20 35 58.7	+0.6
GRNR				pmax	pmax		
	comp=Z,20nm,0.7s						
KAD	Karad	58.90	295	eP	P	20 36 00.8	-2.2
AFI	Afiamalu	59.04	102	LR	LR	20 59 27.1	
	comp=Z,88nm,20.3s,baz=288,slow=34						
AFI	Afiamalu	59.04	102	P	P	20 36 05.5	+1.5
AFI	Afiamalu	59.04	102	P	P	20 36 04.9	+0.9
AFI				pmax	pmax		
	comp=Z,205nm,1.3s						
AFI	Afiamalu	59.04	102	P	P	20 36 04.9	+0.9
AFI	Afiamalu	59.04	102	P	P	20 36 06.2	+2.1
PTH	Pithoragarh	59.10	311	eP	P	20 36 04.7	+0.4
TYV	Tymovskoe	59.27	10	eP	P	20 36 06.0	+1.2
TYV				eS	S	20 44 02.3	+1.2
TYV				pmax	pmax		
	comp=Z,34nm,1.1s						
TYV				pmax	pmax		
	comp=Z,200nm,3.8s						
TYV				smax	smax		
	comp=N,200nm,6.0s						
TYV				smax	smax		
	comp=E,300nm,6.0s						
DRV	Dumont d’Urvil	59.77	175	P	P	20 36 09.3	+1.3
DRV	Dumont d’Urvil	59.77	175	P	P	20 36 08.9	+0.9
DRV				pP	pP	20 36 44.7	+1.7
CTZ	Chatham Island	60.00	137	P	P	20 36 11.4	+1.3
CTZ	Chatham Island	60.00	137	P	P	20 36 11.0	+1.0
CTZ				IAmb	IAmb	20 36 12.6	
	comp=Z,73nm,0.9s						
CTZ	Chatham Island	60.00	137	P	P	20 36 11.7	+1.7
CASY	Casey	60.13	188	P	P	20 36 11.7	+1.1
CASY				IAmb	IAmb	20 36 12.7	
	comp=Z,93nm,0.9s						
CIT	Chita	60.48	350	eP	P	20 36 14.4	+1.2
CIT				e		20 36 51.4	
CIT				e		20 38 24.6	
CIT				pmax	pmax		
	comp=Z,148nm,1.5s						
ZEA	Zeya	60.85	359	eP	P	20 36 16.9	+1.4
ZEA				e		20 36 51.5	
ZEA				pmax	pmax		
	comp=N,20nm,1.1s						
ZEA				pmax	pmax		
	comp=Z,50nm,1.0s						
NIUE	Niue	60.90	108	P	P	20 36 18.7	+2.1
	comp=Z,255nm,1.5s						
NIUE	Niue	60.90	108		P	20 36 17.1	+0.6
NDI	New Delhi	60.94	308	eP	P	20 36 14.0	-2.7
NPLP	NPLP New Delhi	60.95	308	eP	P	20 36 13.1	-3.7
KUDL	Kundal	61.26	308	eP	P	20 36 16.9	-1.9
ZAK	Zakamensk	61.48	342	eP	P	20 36 20.5	+0.5
ZAK				pmax	pmax		
	comp=Z,57nm,1.3s						
KLP	Kalpa	61.53	312	eP	P	20 36 18.8	-2.2
UDPR	Udaipur	62.00	303	eP	P	20 36 21.4	-2.5
SMLA	Simla	62.14	311	eP	P	20 36 23.0	-1.7
TLY	Talaya	62.52	343	P	P	20 36 28.3	+1.5
TLY				IAmb	IAmb	20 36 29.5	
	comp=Z,50nm,0.7s						
TLY	Talaya	62.52	343	P	P	20 36 28.1	+1.3
WMQ	Urumqi	62.82	328	⇑P	P	20 36 30.2	+1.1
WMQ				S	S	20 44 47.0	+0.3
WMQ				ScS	SKSac	20 46 03.5	-4.0
WMQ				pmax	pmax		
	comp=Z,120nm,1.3s						
WMQ				L	L		
	comp=Z,170nm,24.0s						
IRK	Irkutsk	62.84	344	eP	P	20 36 28.9	0.0
IRK				eS	S	20 44 48.6	+2.2
IRK				pmax	pmax		
	comp=Z,283nm,1.4s						
MOY	Mondy	63.31	341	eP	P	20 36 34.5	+2.3
MOY				pmax	pmax		
	comp=Z,286nm,1.6s						
DHRM	DHARAMSHALA	63.33	312	eP	P	20 36 30.9	-1.9
KNGR	Kungurtug, Tuv	63.60	339	⇑eP	P	20 36 36.4	+2.3
KNGR				pmax	pmax		
	comp=Z,94nm,1.4s						
TSSA	Tissa	63.72	312	eP	P	20 36 32.9	-2.4
THN	Thein Dam	63.82	312	eP	P	20 36 34.4	-1.4
PAF	Port-aux-Franc	64.03	218	P	P	20 36 39.1	+2.3
PAF				pmax	pmax		
	comp=Z,846nm,1.8s						
PAF	Port-aux-Franc	64.03	218	P	P	20 36 39.1	+2.3
PEA0B	Petropavlovsk-	65.15	19	c iP	P	20 36 44.7	+0.7
PEA0B	Petropavlovsk-	65.15	19	P	P	20 36 44.6	+0.6
PETK	Petropavlovsk-	65.15	19	P	P	20 36 44.6	+0.7
	comp=Z,161nm,1.0s,baz=186,slow=3.2,SNR=64						
	comp=Z,161nm,1.0s						
PET	Petropavlovsk	65.39	20	P	P	20 36 46.6	+1.1
PET	Petropavlovsk	65.39	20	eP	P	20 36 45.7	+0.2
PET				e		20 37 16.6	
PET				e		20 39 20.1	
PET				eS	S	20 45 20.5	+2.8
PET				e*SS	sS	20 46 15.1	-1.5
PET				pmax	pmax		
	comp=Z,114nm,1.0s						
PET	Petropavlovsk	65.39	20	P	P	20 36 45.3	-0.2
PET				IAmb	IAmb	20 36 49.6	
	comp=Z,105nm,1.0s						
PET	Petropavlovsk	65.39	20	P	P	20 36 45.5	+0.1
WUS	Wushi	66.05	321	P	P	20 36 50.8	+0.6
WUS				IAmb	IAmb	20 36 53.5	
	comp=Z,120nm,1.4s						
NIL	Nilore	66.24	312	P	P	20 36 51.5	0.0
NIL				pmax	pmax		
	comp=Z,60nm,0.7s						
NIL	Nilore	66.24	312	P	P	20 36 51.5	0.0
NIL				IAmb	IAmb	20 36 54.7	
	comp=Z,60nm,0.7s						
ZSN	Zaisan	66.74	329	c iP	P	20 36 55.3	+1.0
ZSN	Zaisan	66.74	329	⇑iP	P	20 36 55.3	+1.0
SHLS	Shalkode	67.03	323	c iP	P	20 36 55.8	-0.5
SHLS				eS	S	20 45 38.2	0.0
SHLS				pmax	pmax		
	comp=Z,66nm,1.3s						
SHLS	Shalkode	67.03	323	⇑iP	P	20 36 55.9	-0.5
	comp=Z,66nm,1.3s						
SHLS				eS	S	20 45 38.3	0.0
DGZ	Jazzator, Alta	67.06	332	c iP	P	20 36 57.7	+1.3
DGZ				pmax	pmax		
	comp=Z,206nm,1.2s						
PDGK	Podgornoye	67.11	323	P	P	20 36 57.4	+0.5
PDGK	Podgornoye	67.11	323	P	P	20 36 57.4	+0.5
KSH2	Kashi	67.28	318	P	P	20 36 58.8	+0.7
KSH2				PcP	PcP	20 37 23.5	-1.3
KSH2				S	S	20 45 40.8	-0.7
KSH2				pmax	pmax		
	comp=Z,46nm,1.1s						
UZB	Uzynbulak	67.28	323	c iP	P	20 36 58.9	+0.9
UZB	Uzynbulak	67.28	323	⇑iP	P	20 36 59.0	+0.9
SATY	Saty	67.60	323	c iP	P	20 37 01.0	+1.0
SATY	Saty	67.60	323	⇑iP	P	20 37 01.0	+1.0
MK31	Makanchi Array	67.65	328	c iP	P	20 37 00.9	+0.9
MKAR	Makanchi Array	67.65	328	P	P	20 37 01.0	+1.0
	comp=Z,72nm,0.7s,baz=119,slow=8.0,SNR=366						
MKAR				S	S	20 45 44.5	-0.9
	comp=Z,3.0nm,1.0s,baz=127,slow=9.3,SNR=5.4						
MKAR				PKPPKP	P'P'df	21 05 20.9	-0.1
	comp=Z,1.6nm,0.8s,baz=336,slow=2.7,SNR=5.3						
	comp=Z,72nm,0.7s						
MKAR	Makanchi Array	67.65	328	P	P	20 37 00.8	+0.8
KPKS	Kokpek	67.67	323	eP	P	20 37 01.1	+0.8
KPKS	Kokpek	67.67	323	eP	P	20 37 01.2	+0.8
MAKZ	Makanchi	67.82	327	P	P	20 37 01.7	+0.6
MAKZ				pmax	pmax		
	comp=Z,183nm,1.2s						
MAKZ	Makanchi	67.82	327	P	P	20 37 01.7	+0.6
MAKZ	Makanchi	67.82	327	P	P	20 37 02.0	+0.9
MAKZ				PcP	PcP	20 37 26.5	-0.2
NRN	Naryn	68.20	320	P	P	20 37 04.1	+0.1
NRN				pmax	pmax		
	comp=Z,55nm,1.4s						
NRN	Naryn	68.20	320	P	P	20 37 04.1	+0.1
TNSS	Tian-Shan	68.47	322	eP	P	20 37 06.4	+0.7
TNSS	Tian-Shan	68.47	322	eP	P	20 37 06.5	+0.7
MDOK	Medeo	68.48	322	eP	P	20 37 06.3	+0.8
MDOK	Medeo	68.48	322	eP	P	20 37 06.3	+0.8
AAA	Alma-Ata	68.59	322	eP	P	20 37 07.1	+1.1
AAA				pmax	pmax		
	comp=Z,119nm,1.6s						
AAA	Alma-Ata	68.59	322	eP	P	20 37 07.2	+1.1
	comp=Z,118nm,1.6s						
TDK	Taldyqorghan	68.72	324	c iP	P	20 37 07.8	+1.1
TDK				pmax	pmax		
	comp=Z,122nm,1.3s						
TDK	Taldyqorghan	68.72	324	⇑iP	P	20 37 07.8	+1.1
	comp=Z,122nm,1.3s						
BOOM	Boomskoye usch	68.80	321	P	P	20 37 08.2	+0.7
BOOM				pmax	pmax		
	comp=Z,72nm,0.8s						
BOOM	Boomskoye usch	68.80	321	P	P	20 37 08.2	+0.7
BOOM				IAmb	IAmb	20 37 12.9	
	comp=Z,72nm,0.8s						
MA2	Magadan	69.05	12	P	P	20 37 08.8	+0.4
	comp=Z,49nm,0.9s,baz=177,slow=5.5,SNR=15						
MA2				LR	LR	21 05 47.0	
	comp=Z,79nm,21.2s,baz=198,slow=34						
	comp=Z,49nm,0.9s						
MA2	Magadan	69.05	12	P	P	20 37 09.8	+1.4
MA2	Magadan	69.05	12	c iP	P	20 37 09.0	+0.6
MA2				pmax	pmax		
	comp=Z,66nm,1.0s						
MA2	Magadan	69.05	12	P	P	20 37 09.0	+0.6
MA2				IAmb	IAmb	20 37 12.8	
	comp=Z,64nm,1.0s						
YAK	Yakutsk	69.17	1	eP	P	20 37 09.2	+0.1
YAK				e		20 37 32.0	
YAK				e*PP	pP	20 37 43.5	-0.3
YAK				e		20 39 42.7	
YAK				eS	S	20 46 02.5	-0.1
YAK				e		20 46 56.1	
YAK				eSS	SS	20 50 31.4	-0.8
YAK				pmax	pmax		
	comp=Z,215nm,1.1s						
YAK				pmax	pmax		
	comp=N,66nm,1.1s						
YAK				pmax	pmax		
	comp=E,23nm,0.9s						
YAK				pmax	pmax		
	comp=N,112nm,4.1s						
YAK				pmax	pmax		
	comp=Z,158nm,4.8s						
YAK				pmax	pmax		
	comp=E,89nm,3.0s						
YAK				smax	smax		
	comp=N,64nm,1.3s						
YAK				smax	smax		
	comp=E,62nm,1.2s						
YAK	Yakutsk	69.17	1	P	P	20 37 09.2	+0.1
TKM2	Tokmak 2	69.24	321	P	P	20 37 11.5	+1.2
	SNR=29						
KUU	Kurty	69.31	322	eP	P	20 37 11.7	+1.3
KUU				pmax	pmax		
	comp=Z,93nm,1.3s						
KUU	Kurty	69.31	322	eP	P	20 37 11.7	+1.3
	comp=Z,93nm,1.3s						
KBK	Karagaybulak	69.51	321	P	P	20 37 13.4	+1.5
	SNR=22						
KBL	Kabul	69.77	311	P	P	20 37 14.1	+0.4
	SNR=18						
KBL	Kabul	69.77	311	P	P	20 37 13.9	+0.2
KBL				pmax	pmax		
	comp=Z,35nm,0.8s						
KBL	Kabul	69.77	311	P	P	20 37 13.9	+0.2
AAK	Ala-Archa	69.78	321	P	P	20 37 15.0	+1.5
	comp=Z,61nm,1.0s,baz=128,slow=7.7,SNR=44						
	comp=Z,61nm,1.0s						
AAK	Ala-Archa	69.78	321	P	P	20 37 15.1	+1.5
	SNR=46						
AAK	Ala-Archa	69.78	321	P	P	20 37 14.8	+1.3
AAK	Ala-Archa	69.78	321	c iP	P	20 37 14.8	+1.3
AAK				pmax	pmax		
	comp=Z,103nm,1.1s						
AAK	Ala-Archa	69.78	321	P	P	20 37 14.8	+1.3
AAK				IAmb	IAmb	20 37 17.0	
	comp=Z,88nm,1.1s						
AAK	Ala-Archa	69.78	321	i P	P	20 37 15.1	+1.5
	SNR=49						
AAK	Ala-Archa	69.78	321	P	P	20 37 15.0	+1.5
AAK				PcP	PcP	20 37 37.5	+2.3
FRU1	Bishkek	69.79	321	P	P	20 37 14.1	+0.7
FRU1				pmax	pmax		
	comp=Z,65nm,1.3s						
FRU1	Bishkek	69.79	321	P	P	20 37 14.1	+0.7
CHMS	Chumysh	69.81	321	P	P	20 37 14.9	+1.4
	SNR=14						
ARSB	Arslanbob	70.09	319	P	P	20 37 16.0	+0.6
ARSB				pmax	pmax		
	comp=Z,297nm,1.6s						
ARSB	Arslanbob	70.09	319	P	P	20 37 16.0	+0.6
USP	Ospenovka	70.11	321	P	P	20 37 16.6	+1.2
	SNR=58						
SGDS	Sogindy	70.12	321	⇑iP	P	20 37 16.5	+1.0
EKS2	Erkin-Say	70.25	320	P	P	20 37 17.9	+1.6
	SNR=46						
RAR	Rarotonga	70.47	110	P	P	20 37 18.4	+0.5
	comp=Z,52nm,0.9s,baz=253,slow=6.0,SNR=12						
RAR				LR	LR	21 04 24.3	
	comp=Z,47nm,21.8s,baz=290,slow=32						
	comp=Z,52nm,0.9s						
RAR	Rarotonga	70.47	110	P	P	20 37 19.4	+1.4
RAR	Rarotonga	70.47	110	P	P	20 37 18.4	+0.5
RAR	Rarotonga	70.47	110	P	P	20 37 19.3	+1.3
BTK	Batken	70.92	317	P	P	20 37 21.2	+0.8
BTK				pmax	pmax		
	comp=Z,43nm,1.0s						
BTK	Batken	70.92	317	P	P	20 37 21.2	+0.8
ZAA0	Zalesovo Array	71.19	335	P	P	20 37 21.2	-0.4
ZALV	Zalesovo Beam	71.19	335	P	P	20 37 21.2	-0.4
	comp=Z,76nm,0.8s,baz=126,slow=4.2,SNR=337						
ZALV				S	S	20 46 23.1	-3.4
	comp=Z,2.8nm,0.7s,baz=159,slow=13,SNR=8.7						
ZALV				PKP2bc	P'P'bc	21 05 08.7	-2.9
	comp=Z,3.0nm,0.8s,baz=322,slow=4.5,SNR=9.5						
	comp=Z,76nm,0.8s						
ZALV	Zalesovo Beam	71.19	335	i P	P	20 37 20.3	-1.3
ZALV				pmax	pmax		
	comp=Z,77nm,0.8s						
RER	Riviere de l’E	71.24	250	P	P	20 37 23.0	+0.2
SHEM	Shemya Is, Ala	71.30	27	P	P	20 37 22.8	+0.5
DZA	Taraz	71.93	320	eP	P	20 37 27.3	+1.0
DZA	Taraz	71.93	320	eP	P	20 37 27.4	+1.0
KURBB	Kurchatov Arra	71.98	329	P	P	20 37 26.9	+0.6
	comp=Z,117nm,0.8s,baz=133,slow=4.9,SNR=742						
KURBB				S	S	20 46 31.8	-3.9
	comp=Z,2.8nm,1.2s,baz=136,slow=13,SNR=6.3						
KURBB				PKP2bc	P'P'bc	21 05 08.0	-1.6
	comp=Z,1.1nm,0.9s,baz=301,slow=3.4,SNR=6.5						
	comp=Z,117nm,0.8s						
KURBB	Kurchatov Arra	71.98	329	P	P	20 37 27.1	+0.7
KURK	Kurchatov	71.99	329	P	P	20 37 27.0	+0.6
KURK	Kurchatov	71.99	329	c iP	P	20 37 27.3	+0.8
KURK				pmax	pmax		
	comp=Z,414nm,1.3s						
KURK	Kurchatov	71.99	329	P	P	20 37 27.2	+0.8
KURK	Kurchatov	71.99	329	P	P	20 37 27.2	+0.8
KURK				pP	pwP	20 38 04.0	-2.7
KURK				x	x	20 38 17.0	
VNDA	Vanda	72.31	173	P	P	20 37 28.5	+0.5
	comp=Z,52nm,0.6s,baz=320,slow=6.5,SNR=481						
VNDA				LR	LR	21 09 15.3	
	comp=Z,320nm,18.9s,baz=348,slow=36						
	comp=Z,52nm,0.6s						
VNDA	Vanda	72.31	173	P	P	20 37 28.5	+0.5
VNDA				IAmb	IAmb	20 37 29.6	
	comp=Z,55nm,0.7s						
IUG	Iuzhnay	72.42	318	c iP	P	20 37 30.3	+1.0
IUG				pmax	pmax		
	comp=Z,146nm,1.5s						
IUG	Iuzhnay	72.42	318	⇑iP	P	20 37 30.4	+1.0
	comp=Z,146nm,1.5s						
SEY	Seymchan	72.44	11	eP	P	20 37 26.9	-1.9
SEY				pmax	pmax		
	comp=Z,86nm,1.0s						
KK31	Karatay Array	72.56	319	i P	P	20 37 30.9	+0.9
KK31	Karatay Array	72.56	319	P	P	20 37 31.1	+1.0
KK31				IAmb	IAmb	20 37 32.8	
	comp=Z,139nm,1.2s						
KKAR	Karatay Array	72.56	319	P	P	20 37 30.8	+0.8
KKAR	Karatay Array	72.56	319	P	P	20 37 30.8	+0.8
CHM	Chimkent	72.78	318	eP	P	20 37 32.6	+1.2
CHM				pmax	pmax		
	comp=Z,264nm,1.7s						
CHM	Chimkent	72.78	318	eP	P	20 37 32.6	+1.2
	comp=Z,264nm,1.7s						
BRLS	Borolday	72.96	319	eP	P	20 37 33.2	+0.8
BRLS				pmax	pmax		
	comp=Z,48nm,1.0s						
BRLS	Borolday	72.96	319	eP	P	20 37 33.3	+0.8
	comp=Z,48nm,1.0s						
NGCH	Negor - Chabah	72.97	299	P	P	20 37 33.6	+0.8
SBA	Scott Base	73.22	172	P	P	20 37 35.0	+1.8
SBA				pmax	pmax		
	comp=Z,54nm,0.8s						
SBA	Scott Base	73.22	172	P	P	20 37 35.0	+1.8
SBA	Scott Base	73.22	172	P	P	20 37 35.1	+1.8
JLN	Jalan Bani Buh	73.61	296	P	P	20 37 36.4	-0.2
	SNR=5.9						
MAW	Mawson	74.06	201	P	P	20 37 40.0	+1.7
MAW	Mawson	74.06	201	P	P	20 37 39.4	+1.1
	comp=Z,47nm,0.8s,baz=73,slow=6.1,SNR=93						
MAW				LR	LR	21 09 57.1	
	comp=Z,141nm,18.5s,baz=81,slow=35						
	comp=Z,47nm,0.8s						
MAW	Mawson	74.06	201	P	P	20 37 39.9	+1.6
MAW				pmax	pmax		
	comp=Z,31nm,1.4s						
MAW	Mawson	74.06	201	P	P	20 37 39.9	+1.6
WBK	Wadi Bani Khal	74.12	296	P	P	20 37 40.0	+0.4
	SNR=5.8						
WSAR	Wadi Sarin	74.59	296	P	P	20 37 42.5	+0.2
	SNR=11						
MHTO	MHTO	74.62	294	P	P	20 37 42.0	-0.4
	SNR=8.3						
JMDO	Jabal Madar	74.84	295	P	P	20 37 44.8	+1.1
	SNR=7.1						
HRA	Herat	74.91	308	P	P	20 37 44.5	+0.3
HRA				IAmb	IAmb	20 37 46.0	
	comp=Z,81nm,1.1s						
KIWB	Kanaga Island	75.04	31	P	P	20 37 44.6	+0.4
KIWB				IAmb	IAmb	20 37 47.8	
	comp=Z,71nm,0.9s						
SMDO	Samad	75.06	296	P	P	20 37 45.1	0.0
	SNR=9.9						
BIDO	Bidbid	75.11	297	P	P	20 37 46.0	+0.7
	SNR=24						
ADK	Adak	75.30	32	P	P	20 37 45.9	+0.2
ADK				pmax	pmax		
	comp=Z,224nm,1.5s						
ADK	Adak	75.30	32	P	P	20 37 45.9	+0.2
ADK				IAmb	IAmb	20 39 12.7	
	comp=Z,224nm,1.5s						
BSY	Bisya	75.74	296	P	P	20 37 48.9	0.0
	SNR=7.3						
HOQ	Hoqain	75.85	296	P	P	20 37 49.8	+0.3
	SNR=14						
JASK	Jask - Hormozg	75.95	299	P	P	20 37 51.6	+1.5
	SNR=7.7						
SHAO	Shalim	76.08	291	P	P	20 37 51.1	+0.2
SHAO	Shalim	76.08	291	P	P	20 37 51.1	+0.2
ARQ	Araqi	76.49	296	P	P	20 37 53.1	-0.1
	SNR=6.4						
DMTO	DMTO	76.65	290	P	P	20 37 53.8	-0.3

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SOHO  SOHO             76.67 297   P       P       20 37 54.0 -0.2
SOHO  SOHO             76.67 297 i P       P       20 37 53.9 -0.2
      SNR=7.0
ATKA  Atka Island      76.77  32   P       P       20 37 54.0 -0.1
ATKA                               IAmb    IAmb    20 38 04.7
      comp=Z,109nm,1.1s
UOSS  Minazif          77.17 298   P       P       20 37 56.5 -0.4
UOSS  Minazif          77.17 298   P       P       20 37 57.1 +0.3
UOSS  Minazif          77.17 298 i P       P       20 37 57.4 +0.5
      SNR=6.6
UOSS  Minazif          77.17 298   P       P       20 37 56.4 -0.5
MDH   Madha            77.17 298   P       P       20 37 56.2 -0.7
HATD  Hatta, Dubai     77.20 297   P       P       20 37 57.4 +0.3
      SNR=10
HATD  Hatta, Dubai     77.20 297 i P       P       20 37 57.2 +0.1
      SNR=14
ASHO  Ashiyiah         77.23 297   P       P       20 37 57.5 +0.2
      SNR=12
ASHO  Ashiyiah         77.23 297 i P       P       20 37 57.5 +0.2
      SNR=38
RBK   Rabkut           77.30 290   P       P       20 37 57.7 -0.1
MSFE  Esma-Masafi      77.31 298 i P       P       20 37 58.1 +0.4
      SNR=22
MASF  Masafi           77.31 298   P       P       20 37 58.4 +0.7
      SNR=17
BANOM Banah            77.33 299   P       P       20 37 58.6 +0.8
BANOM Banah            77.33 299   P       P       20 37 58.3 +0.5
ALNE  Al Ain           77.35 297   P       P       20 37 58.0 +0.1
      SNR=15
ALNE  Al Ain           77.35 297 i P       P       20 37 58.3 +0.4
      SNR=5.7
SHME  Shamm            77.50 299   P       P       20 37 59.1 +0.4
      SNR=17
SHME  Shamm            77.50 299 i P       P       20 37 59.1 +0.4
      SNR=25
BVAR  Borovoye Array   77.51 328   P       P       20 37 58.8 +0.6
      comp=Z,90nm,0.9s,baz=123,slow=5.5,SNR=190
BVAR                               PKKPbc  PKKPbc  20 57 02.5 -1.6
      comp=Z,1.6nm,0.8s,baz=304,slow=3.4,SNR=6.1
      comp=Z,90nm,0.9s
BORK  Borovoye         77.56 328c iP       P       20 37 59.1 +0.7
BORK                               pmax    pmax
      comp=Z,244nm,1.5s
BORK  Borovoye         77.56 328   P       P       20 37 59.0 +0.5
UMZA  Um Al Zommool    77.56 295   P       P       20 37 58.6 -0.5
NAZ   Nazwa, Dubai     77.65 297   P       P       20 37 59.4 -0.2
      SNR=6.6
NAZ   Nazwa, Dubai     77.65 297 i P       P       20 37 59.4 -0.2
      SNR=8.0
FAQ   Al Faqa, Dubai   77.66 297   P       P       20 37 59.6  0.0
      SNR=11
FAQ   Al Faqa, Dubai   77.66 297 i P       P       20 37 59.5  0.0
      SNR=10
WHFO  Wadi Hawf        77.79 290   P       P       20 37 59.5 -1.0
      SNR=5.9
ASUD  Al Ashush, Dub   77.86 297   P       P       20 38 01.7 +1.0
ASUD  Al Ashush, Dub   77.86 297   P       P       20 37 59.0 -1.7
AJN   Ajban            78.15 297   P       P       20 38 03.5 +1.2
TIXI  Tiksi            78.83   0   LR      LR      21 13 12.1
      comp=Z,134nm,20.3s,baz=198,slow=36
TIXI  Tiksi            78.83   0⇑iP       P       20 38 04.3 -0.7
TIXI                               pmax    pmax
      comp=Z,54nm,0.8s
TIXI  Tiksi            78.83   0   P       P       20 38 04.5 -0.5
MZR   Muzera           79.14 295   P       P       20 38 09.0 +1.2
      SNR=6.4
MZR   Muzera           79.14 295 i P       P       20 38 08.0 +0.2
      SNR=12
FOMA  Nahampoana Res   79.19 246   P       P       20 38 08.6 +0.5
FOMA                               IAmb    IAmb    20 38 10.7
      comp=Z,147nm,1.3s
ABPO  Ambohimpanom     79.33 252 i P       P       20 38 10.8 +1.6
ABPO  Ambohimpanom     79.33 252   P       P       20 38 09.5 +0.4
ABPO  Ambohimpanom     79.33 252   P       P       20 38 10.0 +0.9
HMH   Humu'ula Sheep   79.51  69   P       P       20 38 10.6 +0.3
HMH                                IAmb    IAmb    20 38 12.9
      comp=Z,166nm,1.2s
VOI   Vohitsoka        79.54 249   P       P       20 38 11.4 +1.3
      SNR=7.6
VOI   Vohitsoka        79.54 249   P       P       20 38 10.6 +0.4
VOI                                IAmb    IAmb    20 38 12.3
      comp=Z,104nm,1.0s
VOI   Vohitsoka        79.54 249   P       P       20 38 11.3 +1.1
BILL  Bilibino         79.81  14⇓eP       P       20 38 10.7 +0.3
BILL                               pmax    pmax
      comp=Z,19nm,1.5s
JRN   Qarnain Island   80.13 297   P       P       20 38 12.9 -0.2
PAE   Paea             80.24 107 eP       P       20 38 16.0 +2.2
      comp=Z,122nm,1.1s
PPT2  Papeete2         80.25 107 eP       P       20 38 09.8 -4.2
      comp=Z,60nm,23.0s
PPT2  Papeete2         80.25 107 eP       P       20 38 15.3 +1.3
      comp=Z,90nm,1.0s
PPT2                             eS       S       20 48 01.5 -6.1
      comp=Z,78nm,25.8s
PPT2                             eSS      SS      20 53 27.3 +5.3
      comp=Z,122nm,28.2s
PPT2                             eLR      LR      21 03 19.7
      comp=Z,223nm,29.2s
PPT2                             eLR      LR      21 03 30.2
      comp=Z,211nm,29.2s
PPT   Papeete          80.25 107   P       P       20 38 15.3 +1.3
      comp=Z,107nm,0.9s,baz=267,slow=5.1,SNR=11
PPT                                LR      LR      21 10 18.7
      comp=Z,42nm,19.6s,baz=230,slow=33
      comp=Z,107nm,0.9s
PPTF  Pamatai, Papee   80.26 107   P       P       20 38 15.0 +1.0
PPTF  Pamatai, Papee   80.26 107   P       P       20 38 16.4 +2.4
TIAR  Tiarei           80.47 107 eP       P       20 38 17.5 +2.4
      comp=Z,457nm,0.9s
TVO   Taravao          80.54 107 eP       P       20 38 17.3 +1.8
      comp=Z,122nm,1.2s
SKRH  Sakahara         81.38 248   P       P       20 38 21.2 +1.2
NRIK  Noril'sk         81.51 346   P       P       20 38 20.2 +0.8
      comp=Z,51nm,0.7s,baz=143,slow=5.9,SNR=28
NRIK                               S       S       20 48 17.0 -1.5
      comp=Z,1.9nm,0.4s,baz=6.7,slow=22,SNR=17
      comp=Z,51nm,0.7s
NRIK  Noril'sk         81.51 346c iP       P       20 38 20.2 +0.8
NRIK                               pmax    pmax
      comp=Z,81nm,1.1s
NRIK  Noril'sk         81.51 346   P       P       20 38 20.2 +0.8
NRIK                               IAmb    IAmb    20 38 23.1
      comp=Z,96nm,1.2s
UNV   Unalaska Valle   81.65  33   P       P       20 38 21.2 +0.7
UNV   Unalaska Valle   81.65  33   P       P       20 38 20.5  0.0
AB31  Akbulak array    81.79 322 i P       P       20 38 21.3 -0.1
AB31  Akbulak array    81.79 322   P       P       20 38 21.9 +0.6
ABKAR Akbulak array    81.79 322   P       P       20 38 21.8 +0.4
LVA   Lava Point       82.03  33   P       P       20 38 22.7 +0.1
LVA                                IAmb    IAmb    20 38 23.3
      comp=Z,63nm,0.8s
PMOR  Pomariorio Ree   82.08 104 eP       P       20 38 25.9 +2.3
      comp=Z,138nm,0.9s
AKUT  Akutan           82.16  33   P       P       20 38 23.4 +0.3
AKUT  Akutan           82.16  33   P       P       20 38 22.8 -0.4
AKUT                               IAmb    IAmb    20 38 24.6
      comp=Z,274nm,1.6s
VAH   Vaihoa           82.32 104 eP       P       20 38 26.9 +2.1
      comp=Z,90nm,0.9s
SAKB  Bahrain          82.39 297   P       P       20 38 24.7 -0.3
QSPA  South Pole Qui   82.64 180   P       P       20 38 26.0 +0.3
      comp=Z,165nm,0.8s,baz=316,slow=1.2,SNR=943
QSPA                               S       S       20 48 27.9 -2.7
      comp=Z,5.0nm,1.0s,baz=343,slow=9.7,SNR=9.9
QSPA                               PKKPbc  PKKPbc  20 56 49.9 -3.3
      comp=Z,4.5nm,1.0s,baz=214,slow=0.7,SNR=6.3
QSPA                               LR      LR      21 15 14.4
      comp=Z,129nm,19.7s,baz=351,slow=36
      comp=Z,165nm,0.8s
QSPA  South Pole Qui   82.64 180   P       P       20 38 26.2 +0.6
QSPA  South Pole Qui   82.64 180   P       P       20 38 26.1 +0.5
QSPA                               x       x       20 39 01.1
SYO   Syowa Base       82.77 201⇑iP       P       20 38 27.3 +1.2
AKTO  Aktyubinsk       83.37 323   P       P       20 38 29.4 -0.1
      comp=Z,71nm,0.7s,baz=107,slow=5.1,SNR=159
      comp=Z,71nm,0.7s
AKTO  Aktyubinsk       83.37 323   P       P       20 38 29.7 +0.2
SVE   Sverdlovsk       84.24 329 eP       P       20 38 34.1 +0.3
SVE                              eS       SKSac   20 48 44.1 +0.9
SVE                                pmax    pmax
      comp=Z,313nm,1.6s
ARTI  Arti             85.23 328   P       P       20 38 38.3 -0.4
      comp=Z,101nm,0.8s,baz=118,slow=2.9,SNR=69
      comp=Z,101nm,0.8s
ARTI  Arti             85.23 328c iP       P       20 38 38.8  0.0
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ARTI                                               20 41 59.6
ARTI                               S       SKSac   20 48 50.2 +0.6
ARTI                               SS      SS      20 54 30.1 -4.1
ARTI                               pmax    pmax
      comp=Z,225nm,1.2s
ARTI  Arti             85.23 328   P       P       20 38 38.2 -0.6
ARTI  Arti             85.23 328   P       P       20 38 38.9 +0.1
ARTI                               pP      pwP     20 39 17.5 -1.8
ARTI                               x       x       20 39 27.4
SDPT  Sand Point       85.46  33   P       P       20 38 39.7 -0.2
SDPT  Sand Point       85.46  33   P       P       20 38 39.3 -0.6
CNBA  Chernabura Isl   85.77  34   P       P       20 38 40.9 -0.5
CNBA                               IAmb    IAmb    20 38 42.5
      comp=Z,149nm,1.8s
CHNA  Chernabura Isl   85.77  33   P       P       20 38 42.0 +0.6
TNA   Tin City         86.12  22   P       P       20 38 42.2 -0.7
RAYN  Ar Rayn          86.43 294   P       P       20 38 45.6 +0.1
RAYN  Ar Rayn          86.43 294   P       P       20 38 45.4 -0.1
RAYN                               pmax    pmax
      comp=Z,62nm,1.0s
RAYN  Ar Rayn          86.43 294   P       P       20 38 45.4 -0.1
RAYN                               IAmb    IAmb    20 38 48.2
      comp=Z,61nm,1.0s
RAYN  Ar Rayn          86.43 294 i P       P       20 38 45.6 +0.1
      SNR=65
RAYN                             i P       PcP     20 38 45.9 -1.8
      SNR=8.0
LKRN  Lenkeran, Azer   86.52 310   P       P       20 38 46.6 +1.1
ELIB  Princess Elisa   87.69 198 dP       P       20 38 52.1 +1.4
      comp=Z,124nm,0.8s
AKT   Akhty            87.87 312c iP       P       20 38 52.8 +0.7
AKT                              e*PP     pP      20 39 28.3 +0.1
AKT                              e                20 42 19.7
AKT                              eS       SKSac   20 49 06.4 -0.4
AKT                              e                20 49 29.2
AKT                                pmax    pmax
      comp=Z,145nm,1.2s
MNGR  Mingechevir, A   88.21 311   P       P       20 38 54.7 +1.2
SEKA  Sheki            88.21 312   P       P       20 38 54.3 +0.6
CHIR  Chirikof Islan   88.23  33   P       P       20 38 54.3 +1.0
CHIR  Chirikof Islan   88.23  33   P       P       20 38 53.7 +0.4
CHIR                               IAmb    IAmb    20 38 54.9
      comp=Z,80nm,1.4s
GANJ  Ganja            88.76 311   P       P       20 38 57.2 +1.0
RDOG  Red Dog Mine     88.97  21   P       P       20 38 56.5 -0.1
RDOG                               IAmb    IAmb    20 38 58.4
      comp=Z,78nm,1.4s
NAX   Nakhchivan       89.12 310   P       P       20 38 58.9 +0.9
OHAK  Old Harbor       89.84  32   P       P       20 39 00.4 -0.3
OHAK                               IAmb    IAmb    20 39 02.9
      comp=Z,52nm,1.3s
GNI   Garni            89.86 310   P       P       20 39 00.5 -1.1
      comp=Z,18nm,1.1s,baz=169,slow=3.7,SNR=14
      comp=Z,18nm,1.1s
GNI   Garni            89.86 310   P       P       20 39 01.9 +0.4
GNI   Garni            89.86 310c iP       P       20 39 02.2 +0.7
GNI                                pmax    pmax
      comp=Z,33nm,1.2s
GNI   Garni            89.86 310   P       P       20 39 01.7 +0.2
GNI                                IAmb    IAmb    20 39 33.7
      comp=Z,50nm,1.4s
KIBK  Kibwezi          90.05 268   P       P       20 39 02.3 -0.7
TBLG  Delisi           90.12 312   P       P       20 39 03.0 +0.4
BELG  Belogornoye      90.16 323   P       P       20 39 01.6 -0.8
      comp=Z,89nm,1.1s,baz=103,slow=4.9,SNR=28
BELG                               S       SKSac   20 49 17.6 -1.8
      comp=Z,14nm,1.0s,baz=133,slow=23,SNR=11
      comp=Z,89nm,1.1s
BELG  Belogornoye      90.16 323c iP       P       20 39 01.4 -1.0
BELG                               pmax    pmax
      comp=Z,14nm,0.9s
OZAP  Van, Ozalp-Mer   90.19 309 ⇓P       P       20 39 04.3 +1.1
TAOE  Nuku Hiva Isla   90.31  99 eLR      LR      21 08 12.5
      comp=Z,310nm,28.1s
KDAK  Kodiak Island    90.34  32   LR      LR      21 14 15.8
      comp=Z,91nm,21.8s,baz=254,slow=32
KDAK  Kodiak Island    90.34  32   P       P       20 39 03.0 -0.1
KDAK                               pmax    pmax
      comp=Z,91nm,1.8s
KDAK  Kodiak Island    90.34  32   P       P       20 39 03.0 -0.1
KDAK                               IAmb    IAmb    20 39 04.6
      comp=Z,91nm,1.8s
KIRV  Kirov            90.50 329   P       P       20 39 02.9 -1.0
      comp=Z,27nm,0.7s,baz=105,slow=4.0,SNR=18
KIRV                               LR      LR      21 22 07.9
      comp=Z,77nm,21.8s,baz=113,slow=37
      comp=Z,27nm,0.7s
KIRV  Kirov            90.50 329d iP       P       20 39 03.5 -0.3
GEVA  Gevas            90.86 308   P       P       20 39 06.4 +0.2
GEVA                               IAmb    IAmb    20 39 08.2
      comp=Z,67nm,1.1s
NCK   Nalchik          91.24 314d iP       P       20 39 08.4 +0.7
NCK                                pmax    pmax
      comp=Z,43nm,1.1s
CNPM  China Poot       91.41  30   P       P       20 39 07.9 -0.2
CNPM                               IAmb    IAmb    20 39 08.7
      comp=Z,41nm,1.4s
NVL   N'lazarevskaya   91.56 197 eP       P       20 39 09.7 +1.1
NVL                              eS       SKSac   20 49 27.5 +0.5
NVL                                pmax    pmax
      comp=Z,38nm,0.8s
PPLA  Purkeypile       91.68  27   P       P       20 39 08.7 -0.7
PPLA                               IAmb    IAmb    20 39 10.8
      comp=Z,109nm,1.6s
GURO  Guroymak-BITLI   91.69 308   P       P       20 39 10.0 -0.1
GURO                               IAmb    IAmb    20 39 12.8
      comp=Z,78nm,1.1s
IMAR  Indian Mountai   91.74  24   P       P       20 39 08.9 -0.6
KBZ   Khabaz           91.78 314   P       P       20 39 09.3 -0.8
      comp=Z,13nm,1.0s,baz=108,slow=3.6,SNR=18
KBZ                                PKKPbc  PKKPdf  20 56 26.5 -0.2
      comp=Z,2.4nm,0.9s,baz=120,slow=1.9,SNR=5.1
      comp=Z,13nm,1.0s
KBZ   Khabaz           91.78 314c iP       P       20 39 10.1  0.0
KBZ                                pmax    pmax
      comp=Z,24nm,1.2s
SKT   Skwentna         91.78  28   P       P       20 39 08.3 -1.5
NEUR  Neytrino         91.85 313c iP       P       20 39 11.8 +1.1
NEUR                               pmax    pmax
      comp=Z,19nm,1.4s
GOF   Gofitskoye       91.87 315ceP       P       20 39 10.2 -0.3
SHA1  Shidzhatmaz      91.95 314c iP       P       20 39 11.0 -0.2
KVAR  Kislovodsk Arr   91.95 314   P       P       20 39 09.7 -1.4
      comp=Z,0.9nm,0.5s,baz=90,slow=24,SNR=2.0
KIV   Kislovodsk       91.96 314   P       P       20 39 10.2 -0.9
KIV   Kislovodsk       91.96 314 eP       P       20 39 10.7 -0.4
KIV                              e                20 49 30.1
KIV                                pmax    pmax
      comp=Z,13nm,1.1s
KIV                                MLR     MLR
      comp=Z,43nm,20.0s
KIV   Kislovodsk       91.96 314   P       P       20 39 10.3 -0.9
BPAW  Bear Paw Mtn.    92.46  26   P       P       20 39 12.4 -0.5
BPAW                               IAmb    IAmb    20 39 15.3
      comp=Z,56nm,1.7s
POGA  Pongola          92.57 242   P       P       20 39 13.6 -0.6
POGA                               IAmb    IAmb    20 39 16.2
      comp=Z,46nm,0.9s
POGA  Pongola          92.57 242   P       P       20 39 15.2 +1.0
PMR   Palmer           92.83  28   P       P       20 39 15.7 +1.2
KOPT  Kop Dagi         93.06 310   P       P       20 39 17.2 +0.7
LODK  Lodwar           93.44 273   P       P       20 39 18.2 -0.4
TROLL Troll, Antarti   93.44 195 ⇑P       P       20 39 19.1 +1.7
      comp=Z,5µm,0.7s
TROLL                            ⇑SKSac   SKSac   20 49 36.9 -0.8
      comp=N,289nm,0.8s
TROLL                            ⇑PKKPbc  PKKPdf  20 56 22.9 -0.7
      comp=Z,108nm,0.8s
LABN  Labinsk          93.45 314 eP       P       20 39 18.3 +0.5
LABN                               pmax    pmax
      comp=Z,24nm,0.8s
VRH   Novokhopyorsk    93.58 321 eP       P       20 39 17.3 -0.9
VRH                                pmax    pmax
      comp=Z,58nm,1.1s
SCM   Sheep Creek Mo   93.71  28   P       P       20 39 18.2 -0.5
SCM                                pmax    pmax
      comp=Z,54nm,0.9s
SCM   Sheep Creek Mo   93.71  28   P       P       20 39 18.2 -0.5
ERBR  Yeremizino-Bor   93.74 315 eP       P       20 39 18.6 -0.5
ERBR                               pmax    pmax
      comp=Z,40nm,1.3s
VSLR  Vesyoloye        93.81 313d iP       P       20 39 19.2 -0.3
VSLR                               pmax    pmax
      comp=Z,38nm,1.1s
CCB   Clear Creek Bu   93.92  25   P       P       20 39 17.6 -1.9
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COLA  College          93.94  25   P       P       20 39 20.9 +1.3
COLA  College          93.94  25   P       P       20 39 19.2 -0.4
HDA   Harding Lake     94.25  26   P       P       20 39 19.3 -1.7
HDA                                IAmb    IAmb    20 39 22.6
      comp=Z,23nm,0.9s
EYAK  Cordova Ski Ar   94.29  30   P       P       20 39 23.0 +1.7
KLU   Klutina          94.33  29   P       P       20 39 21.3 -0.3
ILAR  Eielson Array    94.33  25   P       P       20 39 19.8 -1.6
      comp=Z,6.9nm,0.8s,baz=267,slow=4.3,SNR=40
ILAR                               S       SKSac   20 49 37.4 -4.9
      comp=Z,0.4nm,0.7s,baz=266,slow=3.6,SNR=2.2
ILAR                               PKKPbc  PKKPdf  20 56 21.4 -1.4
      comp=Z,5.5nm,0.7s,baz=28,slow=1.8,SNR=32
      comp=Z,6.9nm,0.8s
BELA  Belgrano 2       94.39 184   P       P       20 39 22.1 +0.5
ARPR  Arapgir-MALATY   94.62 309   P       P       20 39 23.7 +0.1
ARPR                               IAmb    IAmb    20 39 26.3
      comp=Z,59nm,1.3s
SNAA  Sanae            94.96 194 ⇑P       P       20 39 25.6 +1.2
      comp=Z,1µm,0.9s
SNAA                             ⇑PKKPbc  PKKPdf  20 56 19.5 -1.4
      comp=Z,16nm,0.3s
SNAA  Sanae            94.96 194   P       P       20 39 24.9 +0.5
      comp=Z,47nm,0.8s,baz=149,slow=4.0,SNR=99
SNAA                               PKKPbc  PKKPdf  20 56 18.8 -2.0
      comp=Z,1.4nm,0.6s,baz=264,slow=3.8,SNR=4.0
SNAA                               LR      LR      21 22 18.9
      comp=Z,169nm,20.4s,baz=101,slow=35
      comp=Z,47nm,0.8s
SNAA  Sanae            94.96 194ceP       P       20 39 25.3 +1.0
SNAA                               pmax    pmax
      comp=Z,65nm,0.9s
SNAA  Sanae            94.96 194   P       P       20 39 24.8 +0.5
VORD  Divnogorie       95.08 321 eP       P       20 39 22.4 -2.7
VORD                               pmax    pmax
      comp=Z,50nm,1.0s
RIDG  Independent Ri   95.09  26   P       P       20 39 24.2 -0.8
RIDG                               IAmb    IAmb    20 39 26.8
      comp=Z,30nm,0.9s
VSR   Storozhevoye     95.18 321 eP       P       20 39 24.8 -0.8
VSR                                pmax    pmax
      comp=Z,47nm,1.1s
VORR  Voronezh         95.20 321 eP       P       20 39 25.1 -0.5
VORR                               pmax    pmax
      comp=Z,76nm,1.1s
GAZ   Gaziantep        95.32 307   P       P       20 39 26.8 +0.1
GAZ                                IAmb    IAmb    20 39 28.0
      comp=Z,35nm,1.2s
LPSR  Galich'ya Gora   95.45 322 eP       P       20 39 26.1 -0.7
LPSR                               pmax    pmax
      comp=Z,72nm,1.1s
MENT  Mentasta         95.51  27   P       P       20 39 27.0 +0.1
BMAR  Burnt Mountain   95.58  23   P       P       20 39 27.3 +0.2
TGL   Tana Glacier     95.75  30   P       P       20 39 28.1  0.0
TGL                                IAmb    IAmb    20 39 30.5
      comp=Z,25nm,0.8s
ANN   Anapa            95.80 314 eP       P       20 39 28.0 -0.5
ANN                                pmax    pmax
      comp=Z,66nm,0.9s
KLMR  Klimovskoe       95.81 331 eP       P       20 39 26.2 -2.0
KLMR                             e*PP     pP      20 40 03.2 -1.8
KLMR                             e                20 43 21.2
KLMR                               pmax    pmax
      comp=Z,45nm,1.1s
GRHM  Grahamstown, E   95.96 235   P       P       20 39 30.6 +0.9
TOKA  Tokat            96.15 310   P       P       20 39 30.3 -0.1
BARN  Barnard Glacie   96.34  29   P       P       20 39 30.9  0.0
BARN                               IAmb    IAmb    20 39 33.2
      comp=Z,30nm,1.0s
BCAR  Beaver Creek A   96.40  27   P       P       20 39 31.2 +0.2
MOS   Moscow           96.44 325 eP       P       20 39 30.1 -1.1
MOS                              e                20 49 51.1
MOS                                pmax    pmax
      comp=Z,64nm,0.7s
MMAI  Mount Meron Ar   96.45 302   P       P       20 39 32.0 +0.1
      comp=Z,6.2nm,1.1s,baz=109,slow=3.5,SNR=7.9
      comp=Z,6.2nm,1.1s
BNN   Bunyan           96.53 308   P       P       20 39 31.8 -0.4
BNN                                IAmb    IAmb    20 39 33.2
      comp=Z,26nm,1.6s
VNA2  Neumayer--Watz   96.54 193 ⇑P       P       20 39 32.5 +1.0
      comp=Z,17nm,0.6s,baz=133,slow=4.9
VNA2                             ⇓SKSac   SKSac   20 49 52.8 -1.2
      comp=N,14nm,1.2s
EIL   Elat             96.57 299   PKKPbc  PKKPbc  20 56 16.9 +0.4
      comp=N,3.3nm,0.6s,baz=25,slow=2.4,SNR=5.4
EIL                                LR      LR      21 31 25.1
      comp=N,64nm,18.3s,baz=92,slow=40
VNA3  Neumayer Olymp   96.81 193 ⇑P       P       20 39 33.4 +0.7
      comp=Z,18nm,0.7s
VNA3                             ⇑PKKPbc  PKKPbc  20 56 14.0 -3.2
      comp=Z,3.1nm,0.8s
VNA1  Neumayer--Stat   96.94 193 ⇑P       P       20 39 34.5 +1.3
      comp=Z,24nm,0.8s
VNA1                             ⇓PKKPbc  PKKPbc  20 56 14.3 -2.4
      comp=Z,11nm,1.0s
PCA   Pinnacle         96.98  30   P       P       20 39 33.4 -0.2
OBN   Obninsk          97.01 325   P       P       20 39 33.3 -0.5
      comp=Z,24nm,0.4s,baz=68,slow=19,SNR=3.2
OBN                                LR      LR      21 26 51.3
      comp=Z,78nm,21.4s,baz=18,slow=37
      comp=Z,24nm,0.4s
OBN   Obninsk          97.01 325d iP       P       20 39 33.5 -0.3
OBN                              e*PP     pP      20 40 11.8 +1.7
OBN                              e*SP     sP      20 40 27.2 +2.0
OBN                              e                20 43 29.6
OBN                              ePPP     PPP     20 45 34.5
OBN                                pmax    pmax
      comp=Z,43nm,0.7s
OBN                                MLR     MLR
      comp=Z,107nm,19.0s
OBN   Obninsk          97.01 325   P       P       20 39 32.8 -0.9
OBN   Obninsk          97.01 325 ⇓P       P       20 39 32.0 -1.8
MBAR  Mbarara          97.52 268   LR      LR      21 20 45.0
      comp=Z,72nm,21.7s,baz=90,slow=34
MBAR  Mbarara          97.52 268ceP       Pdif    20 39 38.4 +1.1
MBAR                               pmax    pmax
      comp=Z,4.0nm,1.7s
LSZ   Lusaka           97.84 253   P       Pdif    20 39 39.1 +0.4
LSZ   Lusaka           97.84 253   P       P       20 39 38.6  0.0
LSZ                                pmax    pmax
      comp=Z,24nm,0.8s
LSZ   Lusaka           97.84 253   P       P       20 39 38.5  0.0
LSZ   Lusaka           97.84 253   P       Pdif    20 39 39.1 +0.4
BOSA  Boshof           97.92 240   P       Pdif    20 39 39.0 +0.3
      comp=Z,20nm,1.0s,baz=115,slow=4.8,SNR=18
      comp=Z,20nm,1.0s
BOSA  Boshof           97.92 240   P       Pdif    20 39 39.1 +0.3
BOSA                               IAmb    IAmb    20 39 40.2
      comp=Z,27nm,1.0s
BOSA  Boshof           97.92 240   P       Pdif    20 39 39.5 +0.7
BR131 Keskin Array S   98.29 309   P       P       20 39 39.6 -0.5
BR131                              pmax    pmax
      comp=Z,5.0nm,1.0s
BR131 Keskin Array S   98.29 309   P       P       20 39 39.6 -0.5
BRTR  Keskin Array B   98.29 309   P       P       20 39 39.7 -0.5
      comp=Z,2.8nm,0.9s,baz=94,slow=3.7,SNR=14
BRTR                               PKiKP   PKiKP   20 44 12.7 +0.7
      comp=Z,0.6nm,0.6s,baz=101,slow=2.9,SNR=4.1
BRTR                               PKKPbc  PKKPbc  20 56 10.8 -1.5
      comp=Z,1.1nm,0.8s,baz=286,slow=1.3,SNR=5.5
      comp=Z,2.8nm,0.9s
BRTR  Keskin Array B   98.29 309 i P       P       20 39 39.2 -1.0
BRTR                               pmax    pmax
      comp=Z,3.0nm,0.9s
BRTR  Keskin Array B   98.29 309   P       P       20 39 38.8 -1.4
LBTB  Lobatse          98.40 243   P       Pdif    20 39 41.0 +0.1
LBTB                               pmax    pmax
      comp=Z,28nm,1.1s
LBTB  Lobatse          98.40 243   P       Pdif    20 39 41.0  0.0
LBTB                               IAmb    IAmb    20 39 42.6
      comp=Z,28nm,1.1s
LBTB  Lobatse          98.40 243   P       Pdif    20 39 41.7 +0.7
APA   Apatity          98.64 337 eP       Pdif    20 39 44.0 +3.1
SKAG  Skagway          99.47  31   P       Pdif    20 39 45.3 +0.6
ARCES ARCESS Array B  101.34 340   P       Pdif    20 39 51.7 -1.1
      comp=Z,6.3nm,0.7s,baz=78,slow=5.9,SNR=36
ARCES                              PKiKP   PKiKP   20 44 18.1 +1.7
      comp=Z,1.1nm,0.5s,baz=97,slow=2.2,SNR=9.1
ARCES                              PKKPbc  PKKPbc  20 56 01.1 -3.5
      comp=Z,2.5nm,0.5s,baz=250,slow=2.5,SNR=7.3
AK09  Malin Array Si  101.42 320   P       Pdif    20 39 52.9 -0.7
AK10  Malin Array Si  101.44 320   P       Pdif    20 39 53.0 -0.7
AKASG Malin Array Be  101.45 320   P       Pdif    20 39 52.7 -1.0
      comp=Z,4.2nm,0.7s,baz=75,slow=4.4,SNR=16
AKASG                              PKiKP   PKiKP   20 44 17.1 +0.1
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      comp=Z,0.4nm,0.3s,baz=72,slow=2.4,SNR=4.5
AKASG Malin Array Be    101.45 320          Pdif    20 39 52.5 -1.2
AKBB  Malin Array Si    101.45 320deP       Pdif    20 39 53.1 -0.6
AKBB                               pmax     pmax
      comp=Z,17nm,1.3s
AKBB  Malin Array Si    101.45 320  P       Pdif    20 39 53.2 -0.5
KIEV  Kiev              101.46 320  P       Pdif    20 39 53.7 -0.1
KIEV                               pmax     pmax
      comp=Z,50nm,1.1s
SPITS Spitsbergen Ar    101.59 349  P       Pdif    20 39 53.3 -0.5
      comp=Z,7.0nm,0.5s,baz=68,slow=8.0,SNR=12
MNK   Minsk             102.04 324 i P      Pdif    20 39 55.7 -0.5
MNK                                i                20 44 09.3
MNK                                i PPP    PPP     20 46 19.5
MNK                                i S      SKSac   20 50 23.1 +1.5
MNK                                i S      Sdif    20 51 27.3 +1.4
MNK                                i SS     SS      20 58 36.9 +3.3
MNK                                i SSS    SSS     21 02 24.4
MNK                                 pmax    pmax
      comp=Z,29nm,1.0s
MNK                                 pmax    pmax
      comp=N,19nm,1.0s
MNK                                 pmax    pmax
      comp=E,9.0nm,0.9s
MNK   Minsk             102.04 324 i P      Pdif    20 39 55.8 -0.5
      comp=E,9.0nm,0.9s
MNK                                i P      Pdif    20 39 55.8 -0.5
      comp=N,19nm,1.0s
MNK                                i P      Pdif    20 39 55.8 -0.5
      comp=Z,29nm,1.0s,baz=86
MNK                                i pP     pPdif   20 40 31.8 -0.9
MNK                                i sP     sPdif   20 40 46.7 -1.0
MNK                                i PP     PP      20 44 09.3 -0.3
MNK                                i PPP    PPP     20 46 19.6
MNK                                i SKS    SKSac   20 50 12.7 -9.0
MNK                                i S      SKSac   20 50 23.1 +1.5
MNK                                i SS     SS      20 58 37.0 +3.3
MNK                                i SSS    SSS     21 02 24.5
MNK                                i LR     LR      21 23 53.2
SORM  Soroca            102.13 318 ⇓P       Pdif    20 39 55.6 -1.1
FINES FINESS Array B    102.30 331  P       Pdif    20 39 55.7 -1.5
      comp=Z,3.2nm,0.7s,baz=88,slow=4.6,SNR=9.9
FINES                               PKiKP   PKiKP   20 44 19.1 +0.8
      comp=Z,4.6nm,0.6s,baz=80,slow=3.2,SNR=8.0
FINES                               SKP             20 47 39.5
      comp=Z,5.6nm,0.7s,baz=64,slow=4.4,SNR=7.9
FINES                               PKKPbc  PKKPbc  20 55 58.1 -3.4
      comp=Z,1.9nm,0.8s,baz=270,slow=2.4,SNR=6.4
FINES FINESS Array B    102.30 331 i P      Pdif    20 39 54.7 -2.5
FINES                               pmax    pmax
      comp=Z,3.0nm,0.7s
FINES FINESS Array B    102.30 331          Pdif    20 39 55.5 -1.7
GHRR                    102.87 315 ⇓P       PP      20 44 18.0 +1.9
VRI   Vrincioaia        103.36 315  P       Pdif    20 40 03.9 +1.5
VRI   Vrincioaia        103.36 315 ⇓P       Pdif    20 40 03.1 +0.7
VRI   Vrincioaia        103.36 315  P       Pdif    20 40 02.9 +0.5
      comp=Z,18nm,1.3s
KMPD  K-Podol'skiy      103.36 318  P       Pdif    20 40 01.7 -0.6
TESR  Tescani           103.37 316 ⇑P       Pdif    20 40 02.1 -0.3
TESR  Tescani           103.37 316  P       Pdif    20 40 01.9 -0.5
SAHR  Sahastru          103.39 315 ⇑P       Pdif    20 40 03.1 +0.5
PLOR  Plostina          103.41 315 ⇑P       PP      20 44 23.0 +2.8
RNPP9 Sopachiv          103.50 321  P       Pdif    20 40 03.3 +0.5
RNPP8 Varash            103.53 321  P       Pdif    20 40 03.2 +0.2
NEHR  Nehoiu            103.68 315 ⇓P       Pdif    20 40 03.6 -0.3
TURR  Turia             103.84 316 ⇓P       Pdif    20 40 04.4 -0.2
MLR   Muntele Rosu      103.93 315  PKKPbc  PKKPbc  20 55 55.0 -1.3
      comp=Z,4.2nm,0.8s,baz=100,slow=22,SNR=6.7
MLR   Muntele Rosu      103.93 315 ⇓P       PP      20 44 24.7 +0.6
MLR   Muntele Rosu      103.93 315 ⇓P       PKKPbc  20 55 55.5 -0.8
ARR   Arges             104.86 315 ⇓P       PKiKP   20 44 24.5 +0.9
IDI   Anoyia            105.22 304  PKKPbc  PKKPbc  20 55 52.1 +0.2
      comp=Z,19nm,0.6s,baz=315,slow=8.1,SNR=13
DEV   Deva              106.02 316  P       Pdif    20 40 15.8 +1.6
DRGR                    106.05 317  P       Pdif    20 40 15.2 +0.8
DRGR                    106.05 317 ⇑P       PKiKP   20 44 25.9 +0.2
BZS   Buzias            106.94 315 ⇓P       PKiKP   20 44 26.5 -0.9
BOVS  Bovan             107.11 313 ⇓P       PKiKP   20 44 28.1 +0.4
HFS   Hagfors           108.50 331  Pdiff   Pdif    20 40 23.4 -1.5
      comp=Z,2.6nm,0.7s,baz=160,slow=4.7,SNR=5.8
HFS                                 PKKPbc  PKKPbc  20 55 39.0 -3.5
      comp=Z,3.0nm,1.0s,baz=126,slow=2.0,SNR=5.1
YKA   Yellowknife Ar    108.75  26  Pdiff   Pdif    20 40 26.4 +0.4
      comp=Z,1.5nm,0.7s,baz=293,slow=4.4,SNR=5.9
YKA                                 PKiKP   PKiKP   20 44 30.3 +0.1
      comp=Z,6.8nm,0.8s,baz=296,slow=1.9,SNR=22
YKA                                 SKP             20 47 54.0
      comp=Z,0.4nm,0.3s,baz=223,slow=18,SNR=6.2
YKA                                 PKKPbc  PKKPbc  20 55 39.3 -2.5
      comp=Z,5.7nm,0.4s,baz=115,slow=3.4,SNR=29
YKA                                 PKKPab  PKKPab  20 55 51.9 -0.6
      comp=Z,4.0nm,0.7s,baz=108,slow=5.2,SNR=8.5
YKA   Yellowknife Ar    108.75  26          PKiKP   20 44 29.9 -0.3
STEB  Steborice         108.82 320 ePKP     PKiKP   20 44 31.6 +0.9
STEB                               eSKP             20 47 52.4
STEB                               ePKKP    PKKPbc  20 55 41.0 -0.2
MAUC  Maruska           108.90 320 ePKP     PKiKP   20 44 31.6 +0.7
MAUC                               eSKP             20 47 54.3
MAUC                               ePKKP    PKKPbc  20 55 41.3 +0.3
MORH  Mrgy, Hungar      108.91 316 ⇓P       PKiKP   20 44 29.7 -1.3
YBH   Yreka Blue Hor    108.94  48  PKKPbc  PKKPbc  20 55 38.6 -2.0
      comp=Z,1.3nm,0.6s,baz=32,slow=3.4,SNR=8.8
MORC  Moravsky Berou    109.00 320 ePKIKP   PKiKP   20 44 31.7 +0.6
MORC                               e                20 47 54.1
MORC                               e                20 55 40.5
MORC  Moravsky Berou    109.00 320 ⇓P       PKiKP   20 44 31.5 +0.4
NB2   NORSAR Subarra109.35 333      PKPdf   PKiKP   20 44 31.8 +0.3
      comp=Z,3.5nm,0.9s,baz=68,slow=1.9
NB2                                 SKPa            20 47 54.3
      comp=Z,2.6nm,0.8s,baz=74,slow=3.4
NB2                                 PKKP    PKKPbc  20 55 38.5 -1.4
      comp=Z,1.0nm,0.7s,baz=238,slow=2.9
NB2   NORSAR Subarra109.35 333      PKPdf   PKiKP   20 44 31.8 +0.3
NOA   NORSAR Array B 109.35 333     Pdiff   Pdif    20 40 27.7 -1.0
      comp=Z,1.7nm,0.8s,baz=66,slow=4.6,SNR=3.7
NOA                                 PKiKP   PKiKP   20 44 30.9 -0.6
      comp=Z,3.9nm,0.8s,baz=270,slow=3.3,SNR=8.7
NOA                                 SKP             20 47 53.0
      comp=Z,5.5nm,0.9s,baz=270,slow=3.2,SNR=8.6
NOA                                 PKKPbc  PKKPbc  20 55 37.6 -2.3
      comp=Z,2.1nm,0.8s,baz=67,slow=3.3,SNR=4.7
NOA                                 PKKPab  PKKPab  20 55 51.0 +1.0
      comp=Z,1.4nm,0.7s,baz=250,slow=4.3,SNR=4.4
KRLC  Kraliky           109.42 321 ePKP     PKiKP   20 44 32.6 +0.7
KRLC                               eSKP             20 47 53.9
KRLC                               ePKKP    PKKPbc  20 55 39.5 +0.1
DPC   Dobruska-Polom    109.65 321 ePKP     PKiKP   20 44 33.5 +1.2
DPC                                eSKP             20 47 55.6
DPC                                ePKKP    PKKPbc  20 55 38.4 -0.2
OSTC  Ostas             109.67 321 ePKP     PKiKP   20 44 33.2 +0.9
OSTC                               eSKP             20 47 55.5
OSTC                               ePKKP    PKKPbc  20 55 38.4 -0.1
VRAC  Vranov            109.70 320 ePKIKP   PKiKP   20 44 32.7 +0.3
VRAC                               e                20 47 55.2
VRAC                               e                20 55 37.8
CHVC  Chvalec           109.76 321 ePKP     PKiKP   20 44 33.4 +0.9
CHVC                               eSKP             20 47 55.6
CHVC                               ePKKP    PKKPbc  20 55 38.1 -0.1
UPC   Upice             109.81 321 ePKP     PKiKP   20 44 33.7 +1.1
KRUC  Moravsky          109.88 320 ePKIKP   PKiKP   20 44 33.0 +0.3
KRUC                               e                20 47 55.2
KRUC                               e                20 55 36.8
NEEM  North Greenlan    109.93 360 i P      PKiKP   20 44 32.7 +0.2
RONA  Rosalia, Austr    110.22 318 ePKiKP   PKiKP   20 44 33.5  0.0
      comp=Z,8.5nm,1.1s
RONA                               eSKP     SKPdf   20 47 54.3 -0.9
      comp=Z,0.1nm,0.3s
RONA                               ePKKP    PKKPbc  20 55 36.2 -0.5
      comp=Z,1.9nm,0.5s
RONA                               i PKKP   PKKPab  20 55 47.8 +1.5
      comp=Z,4.2nm,0.7s,SNR=5.4
TREC  Trest             110.41 320 ePKP     PKiKP   20 44 34.3 +0.5
TREC                               eSKP     SKPdf   20 47 55.8 +0.3
TREC                               ePKKP    PKKPbc  20 55 35.8 -0.3
CONA  Conrad Observa    110.46 318 ePKiKP   PKiKP   20 44 33.4 -0.6
      comp=Z,3.7nm,0.9s
CONA                               eSKP     SKPdf   20 47 55.0 -0.7
      comp=Z,4.2nm,1.3s
CONA                               i PKKP   PKKPbc  20 55 35.6 -0.4
      comp=Z,5.8nm,0.6s,SNR=12
CONA                               ePKKP    PKKPab  20 55 47.7 +2.4
      comp=Z,8.6nm,1.5s
ARSA  Arzberg           110.83 318 ePKiKP   PKiKP   20 44 34.4 -0.2
      comp=Z,3.0nm,0.7s
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ARSA                               eSKP     SKPdf   20 47 55.3 -1.1
      comp=Z,0.5nm,0.5s
ARSA                               i PKKP   PKKPbc  20 55 34.2 -0.4
      comp=Z,5.1nm,0.7s,SNR=8.2
ARSA                               ePKKP    PKKPab  20 55 44.8 +1.2
      comp=Z,3.4nm,0.7s
PRU   Pruhonice         110.85 321 ePKIKP   PKiKP   20 44 35.2 +0.7
PRU   Pruhonice         110.85 321 ePKP     PKiKP   20 44 35.2 +0.7
PRU                                eSKP     SKPdf   20 47 56.2 -0.1
BRG   Berggiesshubel    111.00 322⇓ePif             20 40 37.8
BRG                                 Amp             20 40 38.3
      comp=Z,2.4nm,0.8s
BRG   Berggiesshubel    111.00 322 i P      PKiKP   20 44 35.1 +0.3
BRG                                 Amp             20 44 36.3
      comp=Z,9.5nm,0.9s
ZVC   Zvikov            111.20 320 ePKP     PKiKP   20 44 35.8 +0.6
ZVC                                eSKP     SKPdf   20 47 57.8 +0.8
ZVC                                ePKKP    PKKPbc  20 55 33.8 +0.3
CKRC  Cesky Krumlov     111.27 320 ePKIKP   PKiKP   20 44 35.9 +0.5
CKRC  Cesky Krumlov     111.27 320 ePKP     PKiKP   20 44 35.9 +0.5
CKRC                               eSKP     SKPdf   20 47 57.2  0.0
CKRC                               ePKKP    PKKPbc  20 55 32.9 -0.4
SOKA  Soboth            111.28 317 ePKiKP   PKiKP   20 44 35.4 -0.2
      comp=Z,0.2nm,0.5s
SOKA                               i PKKP   PKKPbc  20 55 32.8 -0.4
      comp=Z,3.2nm,0.6s,SNR=5.8
CLL   Collm             111.46 322 i PKIKP  PKiKP   20 44 35.7 +0.1
CLL                                 pmax    pmax
      comp=Z,10.0nm,0.9s
CLL   Collm             111.46 322 i PKiKP  PKiKP   20 44 35.7 +0.1
      comp=Z,10.0nm,0.9s
CLL                                ePP      PP      20 45 15.0 -3.5
CLL                                ePKKPbc  PKKPbc  20 55 32.0 -0.7
CLL                                i PKKPab PKKPab  20 55 42.3 +1.6
      comp=Z,7.0nm,1.0s
SESA  Seetaler Alpe,    111.50 318 ePKiKP   PKiKP   20 44 35.7 -0.4
      comp=Z,14nm,0.8s
SESA                               eSKP     SKPdf   20 47 57.3 -0.6
      comp=Z,0.2nm,0.3s
SESA                               i PKKP   PKKPbc  20 55 31.9 -0.8
      comp=Z,2.5nm,0.6s,SNR=8.2
MOA   Molln             111.53 319 ePKiKP   PKiKP   20 44 35.6 -0.4
      comp=Z,2.3nm,0.7s
MOA                                eSKP     SKPdf   20 47 57.3 -0.4
      comp=Z,3.1nm,1.2s
MOA                                i PKKP   PKKPbc  20 55 32.0 -0.4
      comp=Z,4.2nm,0.8s,SNR=8.5
MOA                                ePKKP    PKKPab  20 55 41.8 +1.3
      comp=Z,7.8nm,0.7s
OBKA  Obir              111.64 317 eSKP     SKPdf   20 47 56.4 -1.6
      comp=Z,0.8nm,0.5s
OBKA                               i SKS    SKSac   20 51 04.8 +0.5
      comp=Z,6.2nm,1.3s
OBKA                               i PKKP           20 55 31.8
      comp=Z,4.3nm,0.6s,SNR=6.5
OBKA                               ePKKP    PKKPab  20 55 41.8 +1.7
      comp=Z,6.3nm,0.7s
GERES GERESS Array B 111.66 320     PKiKP   PKiKP   20 44 36.2  0.0
      comp=Z,7.8nm,0.6s,baz=90,slow=1.3,SNR=48
GERES                               SKP     SKPdf   20 47 57.9 -0.1
      comp=Z,8.7nm,0.6s,baz=75,slow=1.5,SNR=20
GERES                               PKKPbc  PKKPbc  20 55 30.8 -1.3
      comp=Z,2.0nm,0.6s,baz=227,slow=2.9,SNR=14
GERES                               PKKPab  PKKPab  20 55 41.1 +1.1
      comp=Z,3.0nm,0.8s,baz=243,slow=4.4,SNR=8.3
GERES GERESS Array B 111.66 320             PKiKP   20 44 35.9 -0.4
KHC   Kasperske Hory    111.67 320 ePKIKP   PKiKP   20 44 36.4 +0.2
KHC   Kasperske Hory    111.67 320 ePKP     PKiKP   20 44 36.4 +0.2
KHC                                ex       x       20 44 52.0
KHC                                eSKP     SKPdf   20 47 58.8 +0.9
KHC                                ePKKP    PKKPbc  20 55 31.2 -0.8
BIOA  Bad Ischl, Aus    111.98 319 ePKiKP   PKiKP   20 44 36.2 -0.6
      comp=Z,1.5nm,0.8s
BIOA                               eSKP     SKPdf   20 47 58.0 -0.6
      comp=Z,0.8nm,0.5s
BIOA                               i PKKP   PKKPbc  20 55 30.5 -0.4
      comp=Z,6.0nm,0.6s,SNR=7.3
MYKA  Terra Mystica     112.22 317 ePKiKP   PKiKP   20 44 37.0 -0.4
      comp=Z,1.0nm,0.4s
MYKA                               eSKP     SKPdf   20 47 58.3 -0.8
      comp=Z,0.6nm,0.4s
MYKA                               i PKKP   PKKPbc  20 55 30.1 -0.1
      comp=Z,6.7nm,0.6s,SNR=7.4
MYKA                               ePKKP    PKKPab  20 55 39.1 +1.6
      comp=Z,6.9nm,0.7s
KBA   Koelnbreinsper    112.32 318 ePKiKP   PKiKP   20 44 36.8 -0.9
      comp=Z,2.1nm,0.9s
KBA                                eSKP     SKPdf   20 47 59.1 -0.3
      comp=Z,0.1nm,0.3s
KBA                                i PKKP   PKKPbc  20 55 29.4 -0.6
      comp=Z,2.7nm,0.5s,SNR=4.6
KBA                                ePKKP    PKKPab  20 55 37.9 +0.7
      comp=Z,2.0nm,0.5s
LESA  Schwarzleotal     112.67 318 i PKiKP  PKiKP   20 44 37.8 -0.4
      comp=Z,4.5nm,0.5s,SNR=5.1
LESA                               eSKP     SKPdf   20 47 59.4 -0.6
      comp=Z,8.0nm,1.0s
LESA                               i PKKP   PKKPbc  20 55 28.7  0.0
      comp=Z,7.7nm,0.8s,SNR=9.7
LESA                               ePKKP    PKKPab  20 55 37.1 +1.6
      comp=Z,4.7nm,0.6s
NVAR  Mina Array Bea    112.75  51  Pdiff   Pdif    20 40 48.0 +3.4
      comp=Z,1.2nm,0.9s,baz=262,slow=5.1,SNR=6.3
NVAR                                PKiKP   PKiKP   20 44 39.7 +0.9
      comp=Z,6.8nm,0.9s,baz=259,slow=2.1,SNR=28
NVAR                                SKP     SKPdf   20 48 01.0 +0.4
      comp=Z,0.6nm,0.6s,baz=285,slow=1.9,SNR=3.9
NVAR                                PKKPbc  PKKPbc  20 55 27.9 -0.4
      comp=Z,3.7nm,0.7s,baz=124,slow=3.9,SNR=19
NVAR                                PKKPab  PKKPab  20 55 37.2 +1.7
      comp=Z,5.1nm,0.8s,baz=108,slow=5.4,SNR=15
NVAR  Mina Array Bea    112.75  51          PKiKP   20 44 39.4 +0.6
ABTA  Abfaltersbach     112.95 318 i PKiKP  PKiKP   20 44 38.2 -0.6
      comp=Z,16nm,0.8s,SNR=11
ABTA                               i SKP    SKPdf   20 47 59.9 -0.6
      comp=Z,6.5nm,1.2s,SNR=5.0
ABTA                               i PKKP   PKKPbc  20 55 27.9 +0.2
      comp=Z,4.7nm,0.8s,SNR=5.5
ABTA                               ePKKP    PKKPab  20 55 35.8 +1.5
      comp=Z,5.7nm,0.8s
WTTA  Wattenberg        113.40 318 i PKiKP  PKiKP   20 44 39.7  0.0
      comp=Z,26nm,0.7s,SNR=22
WTTA                               i SKP    SKPdf   20 48 00.7 -0.8
      comp=Z,0.6nm,0.3s,SNR=14
WTTA                               i SKS    SKSac   20 51 11.1 -0.3
      comp=Z,13nm,1.4s
WTTA                               i PKKP   PKKPbc  20 55 26.6 +0.2
      comp=Z,8.7nm,1.1s,SNR=5.7
WTTA                               ePKKP    PKKPab  20 55 34.0 +1.6
      comp=Z,3.4nm,0.7s
WATA  Walderalm         113.42 319 i PKiKP  PKiKP   20 44 39.4 -0.3
      comp=Z,0.1nm,0.2s,SNR=11
WATA                               i SKP    SKPdf   20 48 00.9 -0.6
      comp=Z,3.6nm,0.6s,SNR=10
WATA                               ePKKP    PKKPbc  20 55 26.2 -0.1
      comp=Z,6.1nm,1.0s
WATA                               ePKKP    PKKPab  20 55 33.8 +1.5
      comp=Z,4.7nm,0.7s
SQTA  Sankt Quirin      113.69 319 i PKP    PKiKP   20 44 40.1 -0.1
      comp=Z,4.0nm,0.9s,SNR=7.0
SQTA                               eSKP     SKPdf   20 48 01.3 -0.7
      comp=Z,9.3nm,0.8s
SQTA                               ePKKP    PKKPbc  20 55 23.4 -1.9
      comp=Z,3.2nm,0.8s
SQTA                               i PKKP   PKKPab  20 55 32.8 +1.8
      comp=Z,6.7nm,0.7s,SNR=4.4
MOTA  Moosalm           113.73 319 i PKP    PKiKP   20 44 40.0 -0.4
      comp=Z,3.7nm,0.5s,SNR=11
MOTA                               i SKP    SKPdf   20 48 01.5 -0.7
      comp=Z,3.4nm,0.7s,SNR=6.2
MOTA                               i PKKP   PKKPbc  20 55 25.4 +0.1
      comp=Z,6.4nm,0.9s,SNR=4.4
MOTA                               ePKKP    PKKPab  20 55 32.4 +1.5
      comp=Z,1.3nm,0.5s
RETA  Reutte            113.91 319 ePKP     PKiKP   20 44 39.9 -0.7
      comp=Z,0.1nm,0.3s
RETA                               eSKP     SKPdf   20 48 01.8 -0.6
      comp=Z,4.8nm,1.3s
RETA                               ePKKP    PKKPbc  20 55 23.5 -1.0
      comp=Z,0.1nm,0.3s
RETA                               ePKKP    PKKPab  20 55 31.5 +1.5
      comp=Z,6.1nm,0.8s
FETA  Feichten          114.06 318 i PKP    PKiKP   20 44 41.0 +0.1
      comp=Z,12nm,0.8s,SNR=8.0
FETA                               eSKP     SKPdf   20 48 02.0 -0.8
      comp=Z,2.7nm,0.8s
FETA                               i PKKP   PKKPbc  20 55 23.2 -0.9
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      comp=Z,3.5nm,1.1s,SNR=4.2
SUMG  Summit            114.33 356 i P      PKiKP   20 44 42.1 +1.1
DAVA  Damuels           114.54 319 i PKP    PKPdf   20 44 41.8 -0.1
      comp=Z,9.2nm,0.9s,SNR=15
DAVA                               i SKP    SKPdf   20 48 04.2 +0.5
      comp=Z,16nm,1.1s,SNR=8.0
DAVA                               ePKKP    PKKPbc  20 55 22.7 +0.2
      comp=Z,5.2nm,0.7s
DAVA                               ePKKP    PKKPab  20 55 29.2 +1.8
      comp=Z,6.4nm,0.8s
UPNV  Upernavik         114.56   1 i P      PKPdf   20 44 42.7 +1.7
ELK   Elko              114.66  49  PKKPbc  PKKPbc  20 55 21.5 -0.4
      comp=Z,2.2nm,0.8s,baz=165,slow=3.0,SNR=10
DAVOX Davos/Dischmat    114.69 318  PKKPbc  PKKPbc  20 55 22.1 +0.1
      comp=Z,6.1nm,0.6s,baz=228,slow=6.1,SNR=20
DLMT  Dillon            115.41  43          PKiKP   20 44 43.1 -0.5
BTNL  Ternell           115.81 323 dPKPdf   PKiKP   20 44 44.3 +0.2
CDF   Champ du Feu      115.86 321 ePKIKP   PKPdf   20 44 43.2 -1.1
CDF                                 pmax    pmax
      comp=Z,7.0nm,1.0s
MEM   Membach           115.87 323 dP       PKiKP   20 44 44.4 +0.3
BOPT  Opiter            115.91 324 dPKPdf   PKiKP   20 44 45.6 +1.5
IRM   Iron Mountain     115.94  56          PKiKP   20 44 45.1 +0.3
ECH   Echery            116.00 320  PKIKP   PKPdf   20 44 44.3 -0.2
ECH   Echery            116.00 320  PKPdf   PKPdf   20 44 44.3 -0.2
WLF   Walferdange       116.13 322 dPKPdf   PKPdf   20 44 43.6 -1.0
BMOL  Mol               116.19 324 dPKPdf   PKiKP   20 44 46.3 +1.6
HVU   Hansel Valley     116.23  47  PKIKP   PKiKP   20 44 45.8 +0.5
HVU   Hansel Valley     116.23  47          PKiKP   20 44 45.8 +0.5
HINF  Hinteralfeld      116.33 320 ePKIKP   PKPdf   20 44 44.1 -1.1
HINF                                pmax    pmax
      comp=Z,11nm,0.6s
BCLA  Clavier           116.36 323 dPKPdf   PKiKP   20 44 45.2 +0.1
PGF   Pioggiola         116.44 314 ePKIKP   PKPdf   20 44 45.0 -0.6
PGF                                 pmax    pmax
      comp=Z,22nm,0.9s
USHA  Ushuaia           116.47 169  PKP     PKiKP   20 44 45.7 +0.5
      comp=Z,11nm,0.5s,baz=197,slow=1.9,SNR=10
RCHB  Rochefort         116.50 323 dPKPdf   PKiKP   20 44 45.8 +0.4
DUG   Dugway, Tooele    116.58  49  PKIKP   PKiKP   20 44 46.4 +0.4
DUG   Dugway, Tooele    116.58  49          PKiKP   20 44 46.4 +0.4
HAU   Haudompre         116.58 320 ePKIKP   PKPdf   20 44 44.9 -0.7
HAU                                 pmax    pmax
      comp=Z,19nm,0.9s
SAATT Saattut           116.60   0 i P      PKiKP   20 44 45.4 +0.5
BMRD  Maredsous         116.72 323 dPKPdf   PKiKP   20 44 46.5 +0.7
      comp=Z,6.7nm,0.0s
GIVF  Givet             116.77 323 ePKIKP   PKPdf   20 44 45.7 -0.2
GIVF                                pmax    pmax
      comp=Z,13nm,1.0s
UCC   Uccle             116.77 324 dPKPdf   PKiKP   20 44 46.7 +0.9
DOU   Dourbes           116.90 323 dPKPdf   PKiKP   20 44 46.8 +0.7
VSL   Villasalto        116.92 311          PKPdf   20 44 46.2 -0.3
LCMT  Little Creek M    116.95  52          PKiKP   20 44 47.5 +0.6
MG03  Isla Dawson       117.00 168  PKPdf   PKiKP   20 44 46.6 +0.3
LPG   La Plagne         117.15 318 ePKIKP   PKPdf   20 44 46.7 -0.4
LPG                                 pmax    pmax
      comp=Z,14nm,0.7s
BAIF  Baives            117.15 323 ePKIKP   PKPdf   20 44 46.5 -0.1
BAIF                                pmax    pmax
      comp=Z,13nm,0.9s
LPL   La Plagne         117.15 318 ePKIKP   PKPdf   20 44 46.6 -0.5
LPL                                 pmax    pmax
      comp=Z,13nm,0.6s
AHID  Auburn Hatcher    117.17  45          PKPdf   20 44 46.9 -0.3
CABF  La Chapelle       117.22 319 ePKIKP   PKPdf   20 44 46.7 -0.3
CABF                                pmax    pmax
      comp=Z,23nm,0.5s
GCMT  Greycliff         117.24  42          PKPdf   20 44 47.0 -0.1
113A  Mohawk Valley,    117.30  57          PKPdf   20 44 47.2 -0.2
BNI   Bardonecchia      117.33 317  PKIKP   PKPdf   20 44 46.8 -0.5
BNI   Bardonecchia      117.33 317          PKPdf   20 44 46.8 -0.5
DSPA  Despedida         117.34 169  PKPdf   PKiKP   20 44 47.1 +0.2
MBDF  Montbardon        117.37 317 ePKIKP   PKPdf   20 44 46.9 -0.5
MBDF                                pmax    pmax
      comp=Z,8.0nm,0.7s
KEST  Kesra             117.75 307  PKP     PKiKP   20 44 48.8 +0.4
      comp=Z,15nm,0.8s,baz=70,slow=2.1,SNR=33
KEST                                PKKPbc  PKKPbc  20 55 10.6 -0.1
      comp=Z,7.6nm,0.8s,baz=278,slow=1.5,SNR=12
KEST  Kesra             117.75 307          PKiKP   20 44 48.5 +0.2
ORIF  Oris-en-Rattie    117.91 317 ePKIKP   PKPdf   20 44 47.7 -0.7
ORIF                                pmax    pmax
      comp=Z,9.0nm,0.6s
LMR   La Mourre         117.98 315 ePKIKP   PKPdf   20 44 47.9 -0.5
LMR                                 pmax    pmax
      comp=Z,20nm,1.1s
FFC   Flin Flon         118.06  30  PKIKP   PKiKP   20 44 48.4 +0.2
FFC   Flin Flon         118.06  30          PKiKP   20 44 48.4 +0.2
ILULI Ilulissat         118.21 360  PKIKP   PKPdf   20 44 48.0  0.0
ILULI Ilulissat         118.21 360          PKPdf   20 44 48.0  0.0
ILULI Ilulissat         118.21 360 i P      PKiKP   20 44 48.4 +0.3
PD31  Pinedale Array    118.25  45          PKPdf   20 44 48.8 -0.5
PDAR  Pinedale Array    118.25  45  PKP     PKiKP   20 44 49.7 +0.4
      comp=Z,9.8nm,0.7s,baz=242,slow=1.2,SNR=76
PDAR                                SKP     SKPdf   20 48 11.4 +0.3
      comp=Z,2.4nm,0.8s,baz=200,slow=2.0,SNR=5.9
PDAR                                PKKPbc  PKKPbc  20 55 08.3 -1.1
      comp=Z,5.2nm,0.8s,baz=117,slow=8.5,SNR=5.2
PDAR                                SKKPbc  SKKPbc  20 58 39.9 -3.3
      comp=Z,0.5nm,0.5s,baz=115,slow=4.8,SNR=5.6
PDAR  Pinedale Array    118.25  45          PKiKP   20 44 49.4  0.0
LOR   Lormes            118.42 320 ePKIKP   PKPdf   20 44 48.6 -0.6
LOR                                 pmax    pmax
      comp=Z,29nm,1.2s
SMF   Signal de Mont    118.66 320 ePKIKP   PKPdf   20 44 48.9 -0.7
SMF                                 pmax    pmax
      comp=Z,16nm,1.0s
HMU   Henry Mountain    118.68  51          PKiKP   20 44 50.6 +0.3
SSB   Saint Sauveur     118.69 318  PKIKP   PKPdf   20 44 49.5 -0.3
SSB   Saint Sauveur     118.69 318          PKPdf   20 44 49.5 -0.3
EKA   Eskdalemuir Ar    118.69 331  PKP     PKiKP   20 44 50.1 +0.7
      comp=Z,2.2nm,0.3s,baz=60,slow=1.9,SNR=15
EKA                                 SKP     SKPdf   20 48 11.7 +0.5
      comp=Z,9.9nm,1.0s,baz=339,slow=4.5,SNR=5.4
EKA                                 PKKPbc  PKKPbc  20 55 05.2 -2.7
      comp=Z,3.2nm,0.7s,baz=242,slow=4.1,SNR=6.6
SSF   Saint Saulge      118.72 320 ePKIKP   PKPdf   20 44 49.3 -0.4
SSF                                 pmax    pmax
      comp=Z,28nm,0.8s
ESK   Eskdalemuir       118.72 331  PKIKP   PKPdf   20 44 49.4  0.0
ESK   Eskdalemuir       118.72 331  PKPdf   PKPdf   20 44 49.4  0.0
WUAZ  Wupatki           118.74  54          PKiKP   20 44 50.9 +0.5
VIVF  Saint-Julien-l    118.75 318 ePKIKP   PKPdf   20 44 49.4 -0.5
VIVF                                pmax    pmax
      comp=Z,23nm,1.0s
AVF   Avril sur Loir    118.92 320 ePKIKP   PKPdf   20 44 49.3 -0.8
AVF                                 pmax    pmax
      comp=Z,22nm,0.9s
BGF   Bois d'Agland     119.33 320 ePKIKP   PKPdf   20 44 50.7 -0.2
BGF                                 pmax    pmax
      comp=Z,50nm,0.8s
TUC   Tucson            119.86  57  PKIKP   PKiKP   20 44 52.7 +0.2
TUC   Tucson            119.86  57          PKiKP   20 44 52.7 +0.2
HSIG                    120.28  61          PKPdf   20 44 53.3  0.0
LDF   La Druitiere      120.33 323 ePKIKP   PKPdf   20 44 52.3 -0.5
LDF                                 pmax    pmax
      comp=Z,17nm,1.0s
SFJD  Kangerlussuaq     120.43 360  PKIKP   PKPdf   20 44 52.2 -0.2
SFJD  Kangerlussuaq     120.43 360          PKPdf   20 44 52.2 -0.2
SFJD  Kangerlussuaq     120.43 360 i P      PKPdf   20 44 52.0 -0.4
CAF   Calviac           120.45 318 ePKIKP   PKPdf   20 44 53.2  0.0
CAF                                 pmax    pmax
      comp=Z,26nm,0.9s
FLN   La Foliniere      120.47 323 ePKIKP   PKPdf   20 44 52.6 -0.4
FLN                                 pmax    pmax
      comp=Z,20nm,1.1s
RJF   Les Rejaudoux     120.67 319 ePKIKP   PKPdf   20 44 53.5  0.0
RJF                                 pmax    pmax
      comp=Z,129nm,1.3s
GRR   Gorron            120.86 323 ePKIKP   PKiKP   20 44 54.4 +0.5
GRR                                 pmax    pmax
      comp=Z,24nm,1.3s
MTLF  Montolieu         120.93 317 ePKIKP   PKPdf   20 44 53.7 -0.4
MTLF                                pmax    pmax
      comp=Z,36nm,1.0s
EFI   East Falkland     120.96 175  PKIKP   PKiKP   20 44 54.5 +0.5
EFI   East Falkland     120.96 175  PKPdf   PKiKP   20 44 54.5 +0.5
ANGG  Ammassalik, Gr    121.00 353  PKPdf   PKiKP   20 44 53.6  0.0
ANGG  Ammassalik, Gr    121.00 353 i P      PKPdf   20 44 52.6 -1.0
MFF   Saint Martin d    121.20 321 ePKIKP   PKPdf   20 44 54.0 -0.5
MFF                                 pmax    pmax
      comp=Z,153nm,0.9s
ISOG  Isortoq, Green    121.22 354 i P      PKPdf   20 44 53.9 -0.1
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LFF	La Frestale	121.31	319	ePKIKP	PKPdf	20 44 54.0	-0.8
LFF				pmax	pmax		
	comp=Z,109nm,0.9s						
GO08	Villa O'Higgin	121.45	164	PKPdf	PKiKP	20 44 56.0	+0.9
SGMF	Saint Gilles	121.93	324	ePKIKP	PKPdf	20 44 55.3	-0.6
SGMF				pmax	pmax		
	comp=Z,30nm,1.0s						
ROSF	Rostrenen	122.31	324	ePKIKP	PKPdf	20 44 56.0	-0.6
ROSF				pmax	pmax		
	comp=Z,19nm,1.0s						
EPF	Esparros	122.32	317	ePKIKP	PKPdf	20 44 56.5	-0.4
EPF				pmax	pmax		
	comp=Z,115nm,1.2s						
QUIF	Quistinic	122.45	323	ePKIKP	PKPdf	20 44 56.3	-0.5
QUIF				pmax	pmax		
	comp=Z,23nm,1.0s						
Y22A	Socorro	122.63	54		PKiKP	20 44 58.4	+0.3
SDCO	Great Sand Dun	122.73	50		PKiKP	20 44 58.3	0.0
ANMO	Albuquerque	122.78	53	PKKPbc	PKKPbc	20 54 52.0	-0.2
	comp=Z,2.5nm,0.7s,baz=112,slow=8.2,SNR=7.6						
ANMO	Albuquerque	122.78	53	PKIKP	PKiKP	20 44 58.6	+0.2
ANMO	Albuquerque	122.78	53		PKiKP	20 44 58.5	+0.2
ETSF	Etsaut	122.98	317	ePKIKP	PKiKP	20 44 58.6	+0.2
ETSF				pmax	pmax		
	comp=Z,60nm,0.8s						
EBR	Ebro Roquetas	123.03	314	PKIKP	PKiKP	20 44 58.3	-0.1
EBR	Ebro Roquetas	123.03	314	PKPdf	PKiKP	20 44 58.3	-0.1
TAM	Tamanrasset	123.08	292	PKIKP	PKPdf	20 44 59.1	+0.1
TAM	Tamanrasset	123.08	292		PKPdf	20 44 59.1	+0.1
NUUK	Nuuk	123.26	0	i P	PKiKP	20 44 58.2	+0.1
SJPF	Ste Jean	123.34	318	ePKIKP	PKiKP	20 44 59.0	0.0
SJPF				pmax	pmax		
	comp=Z,8.0nm,0.8s						
ULM	Lac du Bonnet	123.59	33	PKP	PKPdf	20 44 58.3	-0.7
	comp=Z,25nm,0.9s,baz=311,slow=4.6,SNR=19						
ULM				PKKPab	PKKPab	20 54 46.8	-0.7
	comp=Z,5.9nm,0.8s,baz=186,slow=0.8,SNR=5.4						
COYC	Coyhaique	124.22	163		PKiKP	20 45 00.6	-0.1
MNTX	Cornudas Mount	124.47	57		PKiKP	20 45 01.7	+0.1
HPIG		125.23	62		PKPdf	20 45 02.9	-0.2
NRS	Narsarsuaq	126.09	356	i P	PKiKP	20 45 03.8	-0.1
IVI	Ivigtut	126.19	358	i P	PKiKP	20 45 04.1	+0.1
LL02	Futaleuf	126.45	162		PKPdf	20 45 04.9	+0.2
TXAR	Lajitas Array	126.46	59	PKhKP	PKPpre	20 44 59.8	
	comp=Z,0.5nm,0.7s,baz=252,slow=2.4,SNR=7.0						
TXAR				PKP	PKiKP	20 45 06.1	+0.4
	comp=Z,9.2nm,0.7s,baz=316,slow=3.2,SNR=67						
TXAR				SKPbc	SKPbc	20 48 08.0	
	comp=Z,5.1nm,0.9s,baz=277,slow=2.4,SNR=11						
TXAR				PKKPab	PKKPbc	20 54 37.1	-0.6
	comp=Z,1.2nm,0.8s,baz=114,slow=6.0,SNR=6.4						
TXAR				SKKPbc	SKKPbc	20 58 14.1	-1.2
	comp=Z,0.6nm,0.8s,baz=106,slow=4.0,SNR=3.6						
TXAR	Lajitas Array	126.46	59	PKIKP	PKiKP	20 45 05.6	-0.1
TXAR	Lajitas Array	126.46	59		PKiKP	20 45 05.6	-0.1
AMTX	Amarillo	126.55	52		PKiKP	20 45 05.8	+0.1
ECSD	EROS Data Cent	126.56	40		PKPdf	20 45 04.7	-0.2
ESBB	Sonseca Array	126.62	315		PKPdf	20 45 05.0	-0.2
ESDC	Sonseca Array	126.62	315	PKP	PKPdf	20 45 05.3	+0.1
	comp=Z,13nm,1.1s,baz=66,slow=2.9,SNR=47						
ESDC				PP	PP	20 47 03.2	0.0
	comp=Z,6.2nm,1.1s,baz=61,slow=6.7,SNR=8.7						
ESDC				SKPbc	SKPbc	20 48 07.0	
	comp=Z,2.6nm,0.8s,baz=40,slow=3.6,SNR=11						
ESDC				PKKPbc	PKKPbc	20 54 37.4	-0.1
	comp=Z,0.2nm,0.6s,baz=232,slow=6.9,SNR=4.4						
PAB	San Pablo	126.94	315	PKIKP	PKPdf	20 45 05.6	-0.3
PAB	San Pablo	126.94	315		PKPdf	20 45 05.6	-0.3
TORD	Torodi Ar. Bea	127.31	281	PKP	PKiKP	20 45 07.5	-0.2
	comp=Z,24nm,0.7s,baz=79,slow=2.0,SNR=91						
TORD				SKPbc	SKPbc	20 48 10.0	
	comp=Z,6.6nm,1.0s,baz=84,slow=4.2,SNR=5.5						
PBRG	Braganca	127.58	318	ePKPdf	PKiKP	20 45 07.5	0.0
PBRG				etx	tx	20 48 13.1	
PCAB	Cabril	128.47	319	ePKPdf	PKiKP	20 45 10.1	+0.8
PCAB				etx	tx	20 48 16.2	
PVRL	Vila Real	128.48	318	ePKPdf	PKiKP	20 45 10.2	+0.9
PVRL				etx	tx	20 48 15.6	
POLO	Lamas de Olo	128.49	318	ePKPdf	PKiKP	20 45 10.1	+0.7
POLO				etx	tx	20 48 15.8	
PGAV	Gavieira, Arco	128.51	319	ePKPdf	PKiKP	20 45 10.2	+0.7
PGAV				etx	tx	20 48 16.4	
ZAIG	Zacatecas	128.71	67		PKPdf	20 45 10.3	+0.3
MTE	Manteigas	128.78	317	ePKPdf	PKiKP	20 45 10.3	+0.3
MTE				etx	tx	20 48 17.0	
PVIS	Viseu	128.87	318	ePKPdf	PKiKP	20 45 11.0	+0.8
PVIS				etx	tx	20 48 17.4	
ACRG	Accra	128.93	271	PKPdf	PKPdf	20 45 09.7	-0.6
PCBR	Castelo Branco	128.99	316	ePKPdf	PKiKP	20 45 10.7	+0.4
PCBR				etx	tx	20 48 17.2	
PLCA	Paso Flores	129.08	161	PKP	PKiKP	20 45 11.3	+0.6
	comp=Z,31nm,0.8s,baz=211,slow=1.9,SNR=44						
PLCA				SKPbc	SKPab	20 48 17.0	+0.4
	comp=Z,8.3nm,0.6s,baz=211,slow=5.1,SNR=11						
PLCA	Paso Flores	129.08	161	PKIKP	PKiKP	20 45 10.9	+0.2
PLCA	Paso Flores	129.08	161	PKPdf	PKiKP	20 45 10.9	+0.2
PLCA	Paso Flores	129.08	161	eP	PKPdf	20 45 10.1	+0.2
PMRV	Marv??o	129.12	316	ePKPdf	PKiKP	20 45 10.5	-0.1
PMRV				etx	tx	20 48 17.5	
PTO	Porto	129.13	318	ePKPdf	PKiKP	20 45 11.5	+1.0
PTO				etx	tx	20 48 18.3	
PBAR	Barrancos	129.43	314	ePKPdf	PKPdf	20 45 10.3	-0.2
PBAR				etx	tx	20 48 18.9	
LR03	Panguipulli	129.47	159	PKPdf	PKiKP	20 45 11.9	+0.5
PESTR	Estremoz	129.51	315	ePKPdf	PKiKP	20 45 11.2	-0.2
PESTR				eSKPbc	SKPab	20 48 18.4	+0.1
PSARD	Sardoal	129.57	316	ePKPdf	PKPdf	20 45 11.1	+0.3
PSARD				eSKPbc	SKPbc	20 48 19.5	+0.2
PCAS	Casmilo, Conde	129.59	317	ePKPdf	PKiKP	20 45 11.3	-0.2
PCAS				eSKPbc	SKPbc	20 48 19.2	-0.1
MD01	Midelt array s	129.76	307		PKiKP	20 45 12.1	-0.2
MD31	MD31	129.76	307	PKPdf	PKiKP	20 45 12.5	+0.3
GO06	Curarrehue	129.82	160	PKPdf	PKPdf	20 45 11.3	-0.2
PARRA	Arraiolos	129.85	315	ePKPdf	PKiKP	20 45 12.1	0.0
PARRA				eSKPbc	SKPab	20 48 20.0	+0.2
PMTG	Montargil	129.86	316	ePKPdf	PKiKP	20 45 12.8	+0.7
PMTG				eSKPbc	SKPab	20 48 19.7	-0.2
EVO	Evora	129.96	315	ePKPdf	PKiKP	20 45 13.1	+0.8
EVO				etx	tx	20 48 20.6	
EVO				eSKPbc	SKPbc	20 48 20.8	+0.1
PSBE	So Bento	130.04	317	ePKPdf	PKiKP	20 45 12.6	+0.1
PSBE				eSKPbc	SKPbc	20 48 21.1	+0.2
PBEJ	Beja	130.08	314	ePKPdf	PKiKP	20 45 13.7	+1.1
PBEJ				eSKPbc	SKPbc	20 48 21.4	+0.3
MOE	Montemor	130.20	315	ePKPdf	PKiKP	20 45 13.2	+0.4
MOE				eSKPbc	SKPab	20 48 21.4	+0.1
PVAQ	Vaqueiros	130.25	314	ePKPdf	PKiKP	20 45 13.2	+0.3
PVAQ				eSKPbc	SKPbc	20 48 21.7	0.0
PCVE	Castro Verde	130.38	314	ePKPdf	PKiKP	20 45 13.9	+0.7
PCVE				eSKPbc	SKPbc	20 48 22.3	+0.1
MESJ	Messejana	130.41	314	ePKPdf	PKiKP	20 45 13.7	+0.5
MESJ	Messejana	130.41	314	ePKPdf	PKiKP	20 45 13.8	+0.5
MESJ				eSKPbc	SKPbc	20 48 22.4	+0.1
MOIG	Morelia	130.42	70	PKPdf	PKPdf	20 45 13.4	+0.2
PBDV	Barranco-do-Ve	130.47	314	ePKPdf	PKiKP	20 45 14.0	+0.6
PBDV				eSKPbc	SKPab	20 48 22.8	+0.2
PLOUS	Minas do Lousa	130.47	315	ePKPdf	PKiKP	20 45 13.4	0.0
PLOUS				eSKPbc	SKPab	20 48 22.6	+0.2
PMAFR	Mafra	130.64	316	ePKPdf	PKiKP	20 45 14.3	+0.6
PMAFR				eSKPbc	SKPbc	20 48 23.1	0.0
PTEO	Sao Teotonio	130.90	314	ePKPdf	PKPdf	20 45 13.6	+0.3
PTEO				eSKPbc	SKPab	20 48 24.2	-0.1
MORF	Marmelete	130.96	314	ePKPdf	PKiKP	20 45 15.0	+0.6
MORF	Marmelete	130.96	314	ePKPdf	PKiKP	20 45 15.0	+0.6
MORF				eSKPbc	SKPbc	20 48 24.4	+0.1
MORF	Marmelete	130.96	314	ePKIKP	PKiKP	20 45 15.0	+0.6
SCHQ	Schefferville	131.09	12	PKP	PKiKP	20 45 13.8	-0.3
	comp=Z,1.3nm,0.6s,baz=306,slow=2.0,SNR=3.6						
SCHQ				SKPbc	SKPbc	20 48 23.8	-0.4
	comp=Z,24nm,0.6s,baz=358,slow=3.4,SNR=28						
PFVI	Vila Bisbo	131.16	314	ePKPdf	PKiKP	20 45 14.9	+0.1
PFVI				eSKPbc	SKPbc	20 48 25.1	+0.1
BI02	San Fabin de	132.50	158		PKPdf	20 45 16.9	+0.3
MIAR	Mount Ida	132.87	49	PKIKP	PKPdf	20 45 17.6	+0.4
MIAR	Mount Ida	132.87	49		PKPdf	20 45 17.6	+0.4
CCM	Cathedral Cave	132.91	43	PKIKP	PKPdf	20 45 16.1	-1.0
CCM	Cathedral Cave	132.91	43		PKPdf	20 45 16.1	-1.0
DBIC	Dimbokro	133.62	272	PKhKP	PKPpre	20 45 07.4	
	comp=Z,5.3nm,0.6s,baz=119,slow=4.6,SNR=7.5						
DBIC				PKP	PKiKP	20 45 20.1	-0.3
	comp=Z,5.0nm,0.6s,baz=104,slow=2.3,SNR=8.7						
DBIC				SKPbc	SKPbc	20 48 33.6	-0.6
	comp=Z,34nm,0.7s,baz=100,slow=4.0,SNR=22						
DBIC	Dimbokro	133.62	272	PKIKP	PKPdf	20 45 18.8	-0.3
DBIC	Dimbokro	133.62	272		PKPdf	20 45 18.8	-0.3
BO01	Tunca	134.58	157		PKPdf	20 45 20.4	0.0
MT13	San Alfonso	135.46	158	PKPdf	PKPdf	20 45 23.0	+0.7
VA03	San Esteban	136.23	157	PKPdf	PKPdf	20 45 23.4	-0.2
ANCO	Parque Anchore	138.18	172	eP	PKPdf	20 45 26.4	-0.6
BATG	Bathurst New B	138.33	15	PKPdf	PKPdf	20 45 27.0	+0.1
LRAL	Lakeview Retre	138.42	47	PKPdf	PKPdf	20 45 27.2	-0.3
TKL	Tuckaleechee C	139.24	42	PKIKP	PKPdf	20 45 28.8	-0.2
TKL	Tuckaleechee C	139.24	42	PKPdf	PKPdf	20 45 28.8	-0.2
APG	El Apazote	141.17	75	SKPbc	SKiKP	20 48 57.6	-0.8
	comp=Z,1.2nm,0.9s,baz=130,slow=11,SNR=5.1						
BART	Pico Bartolome	141.37	326	eSKP	SKPbc	20 48 57.4	+1.1
CMLA	Cha da Macela	141.58	326	eSKP	SKPbc	20 48 55.5	-1.2
PDA	Ponta Delgada	141.67	326	eSKP	SKPbc	20 48 58.8	+1.9
PSBA	Serra de Santa	141.81	329	eSKP	SKPbc	20 48 59.2	+1.9
ADH	Angra Heroismo	141.85	328	eSKP	SKPbc	20 48 59.4	+2.1
PSMN	Pico do Norte,	141.86	325	eSKP	SKPbc	20 48 58.1	+0.7
PGRA	Graciosa	141.95	330	eSKP	SKPbc	20 48 59.3	+1.7
SRBC	Serra Branca	141.97	330	eSKP	SKPbc	20 48 59.4	+1.8
PMAN	Manadas	142.31	329	eSKP	SKPbc	20 49 00.4	+1.9
ROSA	Rosais	142.31	330	eSKP	SKPbc	20 49 00.0	+1.5
CPSB	Cacapava Do Su	142.43	177	eP	PKPdf	20 45 31.6	-3.3
PCED	Cedros	142.62	330	eSKP	SKPbc	20 49 00.6	+1.4
CALA	Caldeira	142.65	330	eSKP	SKPbc	20 48 57.9	-1.5
PB14	IPOC Station P	143.32	151		PKPbc	20 45 35.4	+1.0
TGUH	Tegucigalpa,Un	144.35	76		PKPbc	20 45 37.7	+0.2
HERN	Volcan Telica	144.93	79	eP	PKPdf	20 45 39.6	-0.1
PB06	IPOC Station P	145.34	150		PKPab	20 45 40.6	-0.1
MGAN	Managua	145.54	79	PKPbc	PKPdf	20 45 40.9	+0.2
PB07	IPOC Station P	146.00	149		PKPbc	20 45 42.4	-0.1
CPUP	Villa Florida	146.07	171	PKPbc	PKPbc	20 45 42.2	-0.2
	comp=Z,116nm,0.9s,baz=188,slow=2.8,SNR=199						
CPUP	Villa Florida	146.07	171	PKPdf	PKPdf	20 45 41.7	+0.4
CPUP	Villa Florida	146.07	171	eP	PKPbc	20 45 42.1	-0.3
PB09	IPOC Station P	146.27	150		PKPbc	20 45 42.9	-0.4
CARN	Rivas	146.32	81	eP	PKPbc	20 45 43.5	+0.1
BUAI	Buenos Aires	146.52	81	eP	PKPbc	20 45 44.1	0.0
VMAR	Armenia, Volca	146.74	82	eP	PKPdf	20 45 43.3	+0.5
TA01	Diego Aracena	146.79	147		PKPdf	20 45 43.3	+0.7
JTS	Las Juntas de	146.92	82	PKPbc	PKPdf	20 45 44.0	+0.9
	comp=Z,126nm,0.9s,baz=276,slow=2.7,SNR=34						
JTS	Las Juntas de	146.92	82	PKP2	PKPdf	20 45 44.0	+0.9
JTS	Las Juntas de	146.92	82	PKPbc	PKPdf	20 45 43.4	+0.4
JTS	Las Juntas de	146.92	82	eP	PKPdf	20 45 43.5	+0.4
ARE1	Arenal 1	147.15	82	eP	PKPbc	20 45 46.7	+0.9
CEDE	Laguna Cedeo	147.16	82	eP	PKPbc	20 45 46.5	+0.6
SJPY	San Joaquin	147.56	172	eP	PKPdf	20 45 44.2	+0.3
HDC	Heredia	147.76	83		PKPdf	20 45 45.7	+1.1
HDC	Heredia	147.76	83	eP	PKPdf	20 45 42.3	-2.3
ABE2	San Pablo	147.83	83	eP	PKiKP	20 45 49.8	0.0
LCR2	La Lucha 2	147.87	83	eP	PKPdf	20 45 46.2	+1.4
VICA	Volcano Irazu	148.02	83	eP	PKPdf	20 45 46.8	+1.4
CVTQ	Turrialba Volc	148.10	83	eP	PKiKP	20 45 50.4	-0.1
CVTR	Volcan Turrial	148.11	83	eP	PKiKP	20 45 50.5	-0.1
PTGB	Pitanga	148.14	179	eP	PKPdf	20 45 43.8	-1.1
VTCV	VTCV, Calle Va	148.14	83	eP	PKPdf	20 45 46.7	+1.4
ABRB	Las Abras (San	148.15	83	eP	PKiKP	20 45 50.4	-0.1
PET01	Itanhaem-SP	148.28	188	eP	PKPdf	20 45 43.6	-1.4
NNA	Nana	148.40	127	PKPbc	PKPdf	20 45 47.0	+1.5
	comp=Z,239nm,0.9s,baz=229,slow=2.8,SNR=20						
PIRO	Carate, Puerto	148.55	86		PKPdf	20 45 46.9	+1.1
SPB	Sao Paulo	148.99	187	eP	PKPdf	20 45 45.8	-0.4
BRU2	Volcan	149.19	85	eP	PKiKP	20 45 53.1	+0.6
CAIB	Caibarien	149.23	58		PKPdf	20 45 46.7	+0.2
CAM01	Campos-RJ	149.42	198	eP	PKPdf	20 45 48.0	+1.1
FRTB	Fartura	149.44	184	eP	PKPdf	20 45 46.4	-0.6
LDASE	Londrina, Braz	149.45	181	eP	PKPdf	20 45 46.2	-0.8
ATAH	Atahualpa	149.66	118	PKP	PKPdf	20 45 49.3	+1.3
	comp=Z,27nm,0.8s,baz=236,slow=1.5,SNR=15						
ATAH				PKPbc	PKiKP	20 45 54.8	+1.0
	comp=Z,213nm,0.9s,baz=250,slow=2.1,SNR=37						
TRCB	Terra Rica	150.03	178		PKPdf	20 45 48.3	+0.3
TRCB	Terra Rica	150.03	178	eP	PKPdf	20 45 48.6	+0.6
PRVC	Isla de Provid	150.13	76	P	PKPdf	20 45 50.1	+1.9
	comp=Z,3µmcomp=Z,303nm,1.1s						
MURT	Porto Murtinho	150.59	169	eP	PKPdf	20 45 47.2	-1.6
CACAO	El Cacao, Vera	150.98	88	P	PKiKP	20 45 56.5	+0.5
BSCB	Bom Sucesso	151.05	193	eP	PKPdf	20 45 50.7	+1.1
RIB01	Linhares ES	151.31	202	eP	PKPdf	20 45 50.9	+1.0
LPAZ	La Paz	151.39	145	PKP	PKPdf	20 45 51.8	+0.9
	comp=Z,21nm,1.0s,baz=204,slow=1.4,SNR=40						
LPAZ				PKPbc	PKiKP	20 45 57.9	+0.4
	comp=Z,89nm,0.6s,baz=213,slow=2.4,SNR=83						
LPAZ	La Paz	151.39	145		PKPdf	20 45 50.4	-0.5
LPAZ					PKPbc	20 45 57.2	+0.2
LPAZ	La Paz	151.39	145	eP	PKPdf	20 45 48.1	-2.8
PNME	Penonome	151.53	86	P	PKPdf	20 45 50.9	+0.5
	comp=Z,7µmcomp=Z,111nm,1.0s						
AZU	Azuero	151.58	87	P	PKPdf	20 45 50.9	+0.4
	comp=Z,1µmcomp=Z,122nm,0.8s						
BB19B	Bebedouro	151.61	186	eP	PKPdf	20 45 51.1	+0.7
BSFB	Barra de Sao F	151.92	202	eP	PKPdf	20 45 51.5	+0.6
BDQN	Bodoquena, MS	151.93	170	eP	PKPdf	20 45 51.6	+0.7
PAC1	Pacto, Paraso	151.99	103	P	PKPdf	20 45 52.7	+1.4
	comp=Z,2µmcomp=Z,153nm,0.9s						
BCIP	Isla Barro Col	152.00	84	eP	PKPdf	20 45 51.3	+0.2
AQDB	Aquidauana	152.07	172	PKPdf	PKPdf	20 45 51.3	+0.3
AQDB	Aquidauana	152.07	172	eP	PKPdf	20 45 51.9	+0.8
CANS	Sao Roque de M	152.07	190	eP	PKPdf	20 45 49.1	-2.1
PIAT	Ana Tenorio	152.15	106	P	PKPdf	20 45 54.0	+2.1
	comp=Z,984nmcomp=Z,70nm,1.1s						
SJMB	Sao Joao De Ma	152.16	202	eP	PKPdf	20 45 50.9	-0.4
COIM	Forte Coimbra	152.25	167	eP	PKPdf	20 45 52.3	+0.9
BBSR	BB Station	152.27	24	PKPbc	PKiKP	20 45 58.2	+0.1
OTAV	Otavalo	152.31	104	PKIKP	PKPdf	20 45 52.2	0.0
OTAV	Otavalo	152.31	104	PKPdf	PKPdf	20 45 52.2	0.0
OTAV	Otavalo	152.31	104	eP	PKPdf	20 45 51.9	-0.3
CUSE	Cuicocha Este	152.38	103	P	PKPdf	20 45 54.2	+1.9
	comp=Z,2µmcomp=Z,49nm,0.7s						
MTDJ	Mount Denham	152.53	64	PKPdf	PKPdf	20 45 51.6	-0.3
CHIV	Chivirico	152.86	60	PKPdf	PKPdf	20 45 52.4	+0.2
DIAM	Diamantina, MG	153.35	197	eP	PKPdf	20 45 51.7	-1.5
GUA01	Guaratinga, BA	153.52	206	eP	PKPdf	20 45 53.3	0.0
PMNB	Patos De Minas	153.79	191	eP	PKPdf	20 45 52.7	-1.1
C2SB	Chapadao do Su	154.03	177	eP	PKPdf	20 45 53.3	-0.7
ARCA	Ara§uai, MG	154.15	202	eP	PKPdf	20 45 52.1	-2.0
CZSB	Cruzeiro do Su	154.18	125	eP	PKPdf	20 45 53.1	-1.2
CMC01	Camacan, BA	154.47	208	eP	PKPdf	20 45 53.1	-1.6
IPMB	Ipameri, GO	154.62	188	eP	PKPdf	20 45 54.0	-0.9
NBIT	Itapeh - BA	154.80	209	eP	PKPdf	20 45 53.1	-2.0
MC01	Montes Claros	154.94	198	eP	PKPdf	20 45 53.5	-1.9
PP1B	Ponte de Pedra	155.01	173	eP	PKPdf	20 45 56.2	+0.9
PTLB	Pontes e Lacer	156.16	162	PKPdf	PKPdf	20 45 56.9	0.0
PTLB	Pontes e Lacer	156.16	162	eP	PKPdf	20 45 57.5	+0.6
SALV	Santo Antonio	156.56	170	eP	PKPdf	20 45 56.7	-0.7
JANB	Januaria	156.60	198	eP	PKPdf	20 45 56.7	-0.9
BDFB	Brasilia	156.89	189	PKP	PKPdf	20 45 58.4	+0.4
	comp=Z,23nm,0.8s,baz=180,slow=1.4,SNR=30						
BDFB				PKPab	PKPab	20 46 29.1	+0.8
	comp=Z,12nm,0.6s,baz=152,slow=5.0,SNR=6.7						
ARAG	Araguaiana, MT	157.10	179	eP	PKPdf	20 45 58.8	+0.7
ROSC	El Rosal	157.28	95	PKP	PKPdf	20 45 59.2	+0.3
	comp=Z,32nm,0.8s,baz=263,slow=1.1,SNR=15						
ROSC				PKPab	PKPab	20 46 32.9	+2.2
	comp=Z,33nm,0.6s,baz=264,slow=4.1,SNR=9.0						
ROSC	El Rosal	157.28	95		PKPdf	20 45 59.0	+0.1
VILB	Vilhena	158.10	157	PKPdf	PKPdf	20 45 58.9	-0.6
VILB	Vilhena	158.10	157	eP	PKPdf	20 46 00.6	+1.2
NBPV	Pedro Velho	158.75	230	eP	PKPdf	20 46 01.0	+0.8
NBTA	Tacaratu-PE	158.80	220	eP	PKPdf	20 45 59.6	-0.7
SDBA	SAO DESIDERIO	159.28	199	eP	PKPdf	20 46 00.6	-0.3
NBMA	Muriti-CE	160.58	222	eP	PKPdf	20 46 02.6	+0.3
SNDB	Serra Nova Dou	160.81	181	eP	PKPdf	20 46 02.8	+0.3
SDV	Santo Domingo	161.10	84	PKP	PKPdf	20 46 02.7	-0.4
	comp=Z,52nm,0.9s,baz=239,slow=1.0,SNR=41						
SDV	Santo Domingo	161.10	84		PKPdf	20 46 02.3	-0.8
CLDB	Colider	161.43	167	eP	PKPdf	20 46 02.6	-0.6
CRPR	Cabo Rojo, PR	161.54	53		PKPdf	20 46 02.1	-1.0
CRPR				PKPab	PKPab	20 46 48.2	-0.3
OBIP	Obispado Ponce	161.92	53		PKPdf	20 46 02.9	-0.7
OBIP				PKPab	PKPab	20 46 50.2	0.0
SJG	San Juan	162.24	52	PKP	PKPdf	20 46 03.3	-0.6
	comp=Z,9.9nm,0.3s,baz=321,slow=0.9,SNR=15						
SJG				PKPab	PKPab	20 46 51.6	0.0
	comp=Z,43nm,0.9s,baz=310,slow=4.4,SNR=7.9						
SJG	San Juan	162.24	52	PKP2	PKPab	20 46 51.4	-0.2
SJG						21 46 02.6	
SJG	San Juan	162.24	52		PKPdf	20 46 02.6	-1.3
SJG					PKPab	20 46 51.4	-0.2
SGC2	Sao Gabriel da	162.96	115	eP	PKPdf	20 46 04.8	0.0
SMTB	Santa Maria do	163.42	194	eP	PKPdf	20 46 05.6	+0.4
NBPS	Pedro II - PI	164.56	221	eP	PKPdf	20 46 06.3	0.0
MACA	Manacapuru-AM	166.18	139	PKPdf	PKPdf	20 46 06.9	-0.6
MACA	Manacapuru-AM	166.18	139	eP	PKPdf	20 46 06.2	-1.4
ITTB	Itaituba	167.66	160	eP	PKPdf	20 46 09.0	+0.3
BOAV	Boa Vista	169.85	118		PKPdf	20 46 09.3	-0.8
BOAV	Boa Vista	169.85	118	eP	PKPdf	20 46 10.3	+0.3
MDP	Montagnes des	177.55	155	PKP	PKPdf	20 46 12.3	-0.6
	comp=Z,47nm,1.0s,baz=218,slow=0.4,SNR=16						
MDP				PKPab	PKPab	20 47 60.0	+0.8
	comp=Z,10nm,0.7s,baz=190,slow=4.6,SNR=7.6						

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*IDC **12** 20:29:32.0±1.9, 38.°40N×142.°39E, h0^{km}, mb3.8/1, mbtmp4.0/7, ML3.6/6, Error ellipse: s-maj=30.1km s-min=11.7km az=107.0*

*NIED **12** 20:29:36.3, 38.°48N×142.°21E, h39^{km}, MW4.0, Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M_{rr}0.07; $M_{\theta\theta}$0.22; $M_{\phi\phi}$-0.29; $M_{r\theta}$-0.04; $M_{\theta\phi}$-0.99; $M_{\phi r}$0.36; Fault plane solution: $M_0$1.08000×10^{15} NP1: ϕ_s263.00000°, δ70.00000°, λ178.00000°. NP2: ϕ_s353.00000°, δ89.00000°, λ20.00000°.*

*NEIC **12** 20:29:36.6±1.2, 38.°44N±0.°05×142.°48E±0.°10, h36^{km}±13^{km}, mb4.2/4 Error ellipse: s-maj=12.5km s-min=4.3km az=64.0*

*JMA **12** 20:29:36.3±0.1, 38.°5N±0.°2×142.°2E±0.°2, h39^{km}, MD4.2/40, MV4.6/40, E OFF MIYAGI PREF*

JMA Felt II J1 at E OFF MIYAGI PREF .

ISC 12 20:29:35.7±2.6, **38.°48N**±0.°06×**142.°30E**±0.°08, **h27**^{km}±19^{km}, **n47**, σ1^{s}**55**/48, **mb4.2**/3, **12D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JIKH	Ishinomakikobu	0.68	256	⇓iP	Pn	20 29 48.3	-1.1
JIKH				A	A	20 29 48.3	
	comp=N,24nm,0.2s,comp=E,13nm,0.2s						
JIKH				⇓S	Sb	20 29 56.4	-1.5
JKMT	Kesennumamotoy	0.72	297	⇓iP	Pn	20 29 49.2	-0.9
JKMT				A	A	20 29 49.2	
	comp=N,14nm,0.5s,comp=E,12nm,0.2s						
JKMT				⇓S	Sn	20 29 58.3	-2.0
JIO	Ouri	0.74	268	⇓iP	Pn	20 29 49.4	-1.1
JIO				⇓S	Sn	20 29 58.4	-2.5
OFUJ	Ofunato	0.78	321	⇓iP	Pn	20 29 50.2	-0.7
OFUJ				A	A	20 29 50.2	
	comp=N,10.0nm,0.2s,comp=E,24nm,0.3s						
OFUJ				⇓S	Sn	20 29 59.6	-2.0
JMK	Ichinoseki	0.97	300	⇓iP	Pn	20 29 52.7	-0.7
JOM	Ohasama	1.27	322	⇓iP	Pn	20 29 57.4	-0.2
JOM				A	A	20 29 57.4	
	comp=N,7.0nm,0.3s,comp=E,10.0nm,0.3s						
JOU	Okura	1.29	265	⇓iP	Pn	20 29 57.4	-0.5
JOU				A	A	20 29 57.4	
	comp=N,14nm,0.7s,comp=E,16nm,0.4s						
JOU				⇓S	Sn	20 30 12.9	-1.4
JMM	Marumori	1.33	243	i P	Pn	20 29 57.4	-1.1
JMST	Minamisoumatoc	1.34	236	A	A	20 29 58.4	
	comp=N,11nm,0.3s,comp=E,9.0nm,0.4s						
JTM	Tenmabayashi	2.49	338	P	Pn	20 30 16.2	+1.7
JTM	Tenmabayashi	2.49	338		Pn	20 30 16.4	+1.9
JTM				Sn	Sn	20 30 45.6	+1.6
ERM	Erimo	3.59	10	P	Pn	20 30 30.6	+1.0
ERM	Erimo	3.59	10	Pn	Pn	20 30 30.0	+0.4
JEM	Erimo	3.59	10	P	Pn	20 30 30.1	+0.5
MAJO	Matsushiro	3.78	241	P	Pn	20 30 34.9	+2.7
MAJO	Matsushiro	3.78	241		Pn	20 30 33.9	+1.6
MJAR	Matsushiro Arr	3.78	241	Pn	Pn	20 30 33.7	+1.5
	comp=E,1.3nm,0.3s,baz=59,slow=10,SNR=78						
MJAR				Sn	Sn	20 31 15.7	-0.2
	comp=E,0.6nm,0.3s,baz=76,slow=15,SNR=5.4 comp=E,9.5nm,0.4s						
MJAR				AML	AML		
MJAR	Matsushiro Arr	3.78	241		Pn	20 30 33.4	+1.1
MJB9	Matsu-Tunnel	3.78	241		Pn	20 30 33.7	+1.5
JGF	Kuroka	4.89	235	P	Pn	20 30 50.1	+2.7
JGF	Kuroka	4.89	235		Pn	20 30 49.7	+2.3
JSG	Sagara	5.04	222	P	Pn	20 30 51.2	+1.8
JSG	Sagara	5.04	222	Pn	Pn	20 30 49.9	+0.5
ASAJ	Asahikawa	5.64	2	Pn	Pn	20 30 58.2	+0.6
	comp=E,1.3nm,0.3s,baz=182,slow=14,SNR=20						
ASAJ				Sn	Sn	20 31 59.9	-1.6
	comp=E,1.7nm,0.3s,baz=36,slow=18,SNR=4.0 comp=E,7.0nm,0.7s						
ASAJ				AML	AML		
JKA	Kamikawa-asahi	5.64	2		Pn	20 30 58.6	+0.9
JHJ2	Mitsune	5.72	201	P	Pn	20 30 58.9	0.0
JHJ2	Mitsune	5.72	201	Pn	Pn	20 30 58.4	-0.5
JHJ	Hachijo jima 2	5.72	202	Pn	Pn	20 30 57.5	-1.4
	comp=E,40nm,0.3s,baz=29,slow=17,SNR=16						
JHJ				Sn	Sn	20 31 55.0	-8.7
	comp=E,28nm,0.3s,baz=53,slow=23,SNR=5.8 comp=E,81nm,0.3s						
JHJ				AML	AML		
JMN	Monobe	8.30	238	P	Pn	20 31 36.4	+2.1
JMN	Monobe	8.30	238	Pn	Pn	20 31 35.6	+1.4
USA0B	Ussuriysk Arra	9.63	310	Pn	Pn	20 31 53.1	+0.7
USRK	Ussuriysk Ar.	9.63	310	Pn	Pn	20 31 52.9	+0.5
	comp=E,0.7nm,0.3s,baz=120,slow=14,SNR=5.2 comp=E,2.3nm,0.4s						
USRK				AML	AML		
USRK	Ussuriysk Ar.	9.63	310		Pn	20 31 54.1	+1.7
JNU	Nakatsue	10.70	243	Pn	Pn	20 32 08.9	+1.8
	comp=E,0.3nm,0.3s,baz=58,slow=14,SNR=6.0 comp=E,7.5nm,1.0s						
JNU				AML	AML		
KSRS	Korea Array	11.40	269	Pn	Pn	20 32 20.2	+3.6
	comp=E,0.2nm,0.3s,baz=74,slow=14,SNR=4.3 comp=E,1.1nm,0.7s						
KSRS				AML	AML		
SONM	Songino Array	27.59	301	P	P	20 35 22.5	+1.8
	comp=E,0.8nm,0.6s,baz=103,slow=8.6,SNR=6.7 comp=E,0.8nm,0.6s						
SONM	Songino Array	27.59	301	P	P	20 35 21.0	+0.3
H11N2	WAKE ISLAND Hy	28.33	124	T	T	21 05 59.0	
	baz=316,slow=75,SNR=836						
H11N1	WAKE ISLAND Hy	28.34	124	T	T	21 05 59.7	
	baz=316,slow=75,SNR=742						
H11N3	WAKE ISLAND Hy	28.35	124	T	T	21 05 43.8	
	baz=316,slow=75,SNR=746						
H11S1	WAKE ISLAND Hy	29.10	126	T	T	21 06 40.7	
	baz=318,slow=76,SNR=223						
H11S3	WAKE ISLAND Hy	29.10	126	T	T	21 06 52.5	
	baz=318,slow=76,SNR=301						
H11S2	WAKE ISLAND Hy	29.12	126	T	T	21 06 49.0	
	baz=318,slow=76,SNR=197						
H18K	Honhosa River	43.05	32	P	P	20 37 31.6	-1.2
H18K				IAmb	IAmb	20 37 56.2	
	comp=Z,6.8nm,1.5s						
D19K	Kuna River	43.74	27	P	P	20 37 38.0	-0.2
D19K				IAmb	IAmb	20 37 51.9	
	comp=Z,4.7nm,0.8s						
D22K	Ayikyak River	45.76	27	P	P	20 37 55.0	+0.7
PDAR	Pinedale Array	76.16	46	P	P	20 41 20.3	-1.2

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*SJA **12** 20:33:47.8±0.8, 18.°50S×71.°26W, h40^{km}±32^{km}, ML3.3, MW3.5*

*GUC **12** 20:33:51.9±0.8, 18.°65S×71.°07W, h22^{km}±8^{km}, ML3.1*

ISC 12 20:33:51.4±2.3, **18.°58S**±0.°06×**71.°1W**±0.°1, **h32**^{km}±15^{km}, **n21**, σ1^{s}**23**/34, **2C-3D, Off coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB12	IPOC Station P	0.68	93	i P	Pn	20 34 03.9	-1.0
PB12				IAML		20 34 28.6	
	comp=Z,321nm,0.3s						
PB12	IPOC Station P	0.68	93	⇓iP	Pn	20 34 03.9	-1.0
PB12				i S	Sb	20 34 12.1	-2.1
PB12				IAML		20 34 15.2	
	comp=N,669nm,0.2s						
AP01	Chacalluta	0.70	73	i P	Pn	20 34 04.4	-0.7
AP01				IAML		20 34 21.8	
	comp=Z,835nm,0.1s						
AP01	Chacalluta	0.70	73	i P	Pn	20 34 04.4	-0.7
AP01				i S	Sn	20 34 13.2	-1.6
AP01				IAML		20 34 18.7	
	comp=E,2µm,0.3s						
AP01				IAML		20 34 21.9	
	comp=N,1µm,0.4s						
PX02	IPOC Station P	0.89	115	i P	Pn	20 34 07.0	-0.8
PX02				eS	Sn	20 34 18.8	-0.9

PX02				IAML		20 34 19.7	
	comp=N,986nm,0.3s						
PSGCX	**Pisagua**	**1.34**	**139**	*i* P	**Pn**	**20 34 14.3**	**+0.4**
PSGCX				*i* S	**Sn**	**20 34 31.8**	**+1.1**
PSGCX				IAML		20 34 32.2	
	comp=Z,313nm,0.4s						
PSGCX	**Pisagua**	**1.34**	**139**	⇑*i*P	**Pn**	**20 34 14.3**	**+0.4**
PSGCX				*e*S	**Sn**	**20 34 29.9**	**-0.8**
PB16	**IPOC Station P**	**1.48**	**81**	*i* P	**Pn**	**20 34 16.9**	**+0.5**
PB16				*i* S	**Sb**	**20 34 38.2**	**+0.8**
PB16				IAML		20 34 39.6	
	comp=Z,403nm,0.7s						
PB16	**IPOC Station P**	**1.48**	**81**	⇓*i*P	**Pn**	**20 34 16.9**	**+0.5**
PB16				*e*S	**Sb**	**20 34 38.2**	**+0.8**
PB16				IAML		20 34 39.8	
	comp=N,278nm,0.5s						
PB11	**IPOC Station P**	**1.76**	**132**	⇑*i*P	**Pn**	**20 34 20.9**	**+1.1**
PB11				*i* S	**Sn**	**20 34 42.6**	**+1.3**
PB11				IAML		20 34 44.6	
	comp=E,803nm,0.2s						
PB18	**Visviri**	**1.79**	**57**	⇓*i*P	**Pb**	**20 34 23.9**	**0.0**
PB18				*i* S	**Sb**	**20 34 48.7**	**+2.6**
PB18				IAML		20 34 56.7	
	comp=E,326nm,0.4s						
TA02	**Huaiquique**	**1.89**	**153**	*e*P	**Pn**	**20 34 22.4**	**+0.9**
TA02				*e*S	**Sn**	**20 34 44.4**	**+0.2**
GO01	**Chusmiza**	**2.06**	**122**	*i* P	**Pn**	**20 34 25.9**	**+1.7**
GO01				*i* S	**Sb**	**20 34 52.9**	**-0.9**
GO01				IAML		20 34 56.4	
	comp=Z,220nm,0.2s						
GO01	**Chusmiza**	**2.06**	**122**	*i* P	**Pn**	**20 34 25.9**	**+1.7**
TA01	**Diego Aracena**	**2.14**	**158**	*i* P	**Pn**	**20 34 24.8**	**-0.1**
TA01				IAML		20 35 00.3	
	comp=Z,126nm,0.6s						
TA01	**Diego Aracena**	**2.14**	**158**	*i* P	**Pn**	**20 34 25.1**	**+0.2**
PB02	**IPOC Station P**	**2.93**	**159**	*i* P	**Pn**	**20 34 36.3**	**+0.4**
PB02				*i* S	**Sn**	**20 35 07.2**	**-2.9**
PB07	**IPOC Station P**	**3.31**	**161**	*i* P	**Pn**	**20 34 41.5**	**+0.3**
PB07				IAML		20 35 43.2	
	comp=Z,73nm,0.6s						
PB07	**IPOC Station P**	**3.31**	**161**	*i* P	**Pn**	**20 34 41.6**	**+0.3**
PB07				IAML		20 35 20.3	
	comp=E,68nm,0.4s						
PB07				*e*S	**Sn**	**20 35 20.4**	**+0.7**
PB09	**IPOC Station P**	**3.62**	**152**	*i* P	**Pn**	**20 34 46.7**	**+1.3**
PB09				IAML		20 35 48.4	
	comp=Z,87nm,0.7s						
PB05	**IPOC Station P**	**4.32**	**170**	*i* P	**Pn**	**20 34 53.6**	**-1.4**
PB05				IAML		20 36 23.5	
	comp=Z,30nm,0.8s						

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*SOME **12** 20:39:01.1, 41°.85N×83°.38E, h5^{km}*

*NNC **12** 20:39:05.9±3.2, 42°.15N×83°.33E, h0^{km}, mb3.7, mpv3.3, Error ellipse: s-maj=26.6km s-min=19.7km az=2.0*

ISC 12 20:39:03.1±3.4**, 42°.0N**±0°.1×**83°.4E**±0°.1**, h15**^{km}**, n16, σ2^{s}13**/23**, 2C-1D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KTMS	**Ketmen**	**2.63**	**303**	Pg	**Pb**	**20 39 51.5**	**+1.5**
	2.2nm,0.3s						
KTMS				Lg	Lg	20 40 28.6	
	23nm,0.3s						
KTMS	**Ketmen**	**2.63**	**303**	*e*P	**Pb**	**20 39 51.5**	**+1.5**
	2.2nm,0.3s						
KTMS				*e*S	**Sg**	**20 40 28.6**	**+1.0**
	23nm,0.3s						
SHLS	**Shalkode**	**3.09**	**293**	Pg	**Pb**	**20 39 55.6**	**-2.2**
	14nm,0.3s						
SHLS				Lg	Lg	20 40 35.6	
	50nm,0.5s						
SHLS	**Shalkode**	**3.09**	**293**	*e*P	**Pb**	**20 39 55.6**	**-2.2**
	14nm,0.3s						
SHLS				*e*S	**Sb**	**20 40 35.6**	**+0.1**
	50nm,0.5s						
PDGK	**Podgornoye**	**3.14**	**296**	⇑Pn	**Pb**	**20 39 59.0**	**+0.3**
	7.7nm,0.8s						
PDGK				⇓Lg	Lg	20 40 43.8	
	24nm,0.7s						
UZB	**Uzynbulak**	**3.40**	**291**	Pg	**Pb**	**20 40 05.4**	**+2.4**
	6.1nm,0.5s						
UZB				Lg	Lg	20 40 53.0	
	13nm,0.3s						
UZB	**Uzynbulak**	**3.40**	**291**	*e*P	**Pb**	**20 40 05.5**	**+2.4**
	6.1nm,0.5s						
UZB				*e*S	**Sg**	**20 40 53.0**	**+0.8**
	13nm,0.3s						
DJR	**Jarkent**	**3.48**	**313**	Pg	**Pb**	**20 40 04.8**	**+0.4**
	6.0nm,0.6s						
DJR				Lg	Lg	20 40 51.5	
	6.7nm,0.5s						
DJR	**Jarkent**	**3.48**	**313**	*e*P	**Pg**	**20 40 07.5**	**-2.2**
	1.8nm,0.2s						
DJR				*e*S	**Sg**	**20 40 55.8**	**+0.9**
	5.0nm,0.4s						
KPKS	**Kokpek**	**3.73**	**294**	Pg	**Pb**	**20 40 11.7**	**+2.9**
	0.6nm,0.3s						
KPKS				Lg	Lg	20 41 03.6	
	9.4nm,0.4s						
KPKS	**Kokpek**	**3.73**	**294**	*e*P	**Pb**	**20 40 11.7**	**+2.9**
	0.6nm,0.3s						
KPKS				*e*S	**Sg**	**20 41 03.6**	**+0.7**
	9.4nm,0.4s						
SATY	**Saty**	**3.81**	**287**	Pg	**Pb**	**20 40 12.9**	**+2.9**
	12nm,0.4s						
SATY				Lg	Lg	20 41 05.5	
	8.3nm,0.2s						
SATY	**Saty**	**3.81**	**287**	*e*P	**Pb**	**20 40 12.9**	**+2.9**
	12nm,0.4s						
SATY				*e*S	**Sg**	**20 41 05.5**	**+0.2**
	8.3nm,0.2s						
KNOS	**Konyrlen**	**3.84**	**309**	Pg	**Pb**	**20 40 13.7**	**+3.1**
	1.6nm,0.2s						
KNOS				Lg	Lg	20 41 06.7	
	6.1nm,0.3s						
ARXS	**Arharly**	**4.60**	**300**	*e*P	**Pg**	**20 40 27.9**	**-3.3**
	4.1nm,1.0s						
ARXS				*e*S	**Sg**	**20 41 30.7**	**-0.1**
	8.8nm,0.3s						
MK31	**Makanchi Array**	**4.82**	**351**	Pg	**Pg**	**20 40 34.0**	**-1.4**
	6.3nm,1.0s,baz=166,slow=16,SNR=5.4						
MK31				⇑Lg	Lg	20 41 34.7	
	4.0nm,0.6s,baz=174,slow=28,SNR=7.0						

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*IDC **12** 20:45:05.7±5.3, 38°.72N×22°.62E, h0^{km}, mb3.6/4, mbtmp3.6/4, Error ellipse: s-maj=202.2km s-min=29.4km az=171.0*

*THE **12** 20:45:05.5, 38°.2N±0°.7×22°.8E±0°.6, h10^{km}±3^{km}, M3.0/17, MLh3.0/17*

*ATH **12** 20:45:05.4, 38°.19N×22°.75E, h12^{km}±1^{km}, ML3.1/42, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*

ISC 12 20:45:05.6±0.8**, 38°.19N**±0°.02×**22°.75E**±0°.01**, h12**^{km}±6^{km}**, n88, σ0^{s}61**/135**, mb3.6**/3**, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THAL	**Thalero**	**0.17**	**204**	P	**Pg**	**20 45 09.2**	**-0.3**
THAL				S	**Sg**	**20 45 12.3**	**+0.1**
KIAA	**Kiato**	**0.18**	**180**	P	**Pg**	**20 45 09.7**	**+0.1**
KIAA				S	**Sg**	**20 45 13.1**	**+0.7**
LTK	**Loutraki**	**0.24**	**134**	P	**Pg**	**20 45 10.1**	**-0.6**
LTK				S	**Sg**	**20 45 14.0**	**-0.2**
LTK				AML	AML		
LTK	**Loutraki**	**0.24**	**134**	P	**Pg**	**20 45 10.2**	**-0.6**
LTK				S	**Sg**	**20 45 14.3**	**+0.2**
LTK				AML	AML		
LOUT	**Loutraki**	**0.27**	**139**	P	**Pg**	**20 45 10.8**	**-0.5**
LOUT				S	**Sg**	**20 45 15.1**	**+0.1**
LOUT				AML	AML		
DLFA	**Delphi**	**0.35**	**325**	P	**Pg**	**20 45 12.6**	**-0.1**
DLFA				S	**Sg**	**20 45 18.1**	**+0.7**
VIL2	**Platees**	**0.41**	**87**	P	**Pb**	**20 45 14.2**	**-0.5**
VIL2				S	**Sb**	**20 45 21.1**	**+0.2**
VIL2				AML	AML		
GUR	**Goura**	**0.41**	**232**	P	**Pg**	**20 45 13.3**	**-0.5**
GUR				S	**Sg**	**20 45 19.1**	**-0.2**
GUR				AML	AML		
VILL	**Villia**	**0.44**	**93**	P	**Pg**	**20 45 14.1**	**-0.3**
VILL				S	**Sg**	**20 45 20.0**	**-0.3**
VILL				AML	AML		
KLV	**Kalavryta, Ach**	**0.49**	**253**	P	**Pg**	**20 45 14.8**	**-0.5**
KLV				S	**Sg**	**20 45 21.6**	**-0.4**
KLV	**Kalavryta, Ach**	**0.49**	**253**	P	**Pg**	**20 45 14.8**	**-0.5**
LKR	**Lokris**	**0.50**	**23**	P	**Pg**	**20 45 15.0**	**-0.4**
LKR				S	**Sb**	**20 45 23.0**	**-0.5**
LKR				AML	AML		
LKR	**Lokris**	**0.50**	**23**	P	**Pg**	**20 45 14.9**	**-0.5**
LKR				S	**Sg**	**20 45 22.7**	**+0.7**
LKR				AML	AML		
TEME	**Temeni, Aigial**	**0.50**	**275**	P	**Pb**	**20 45 15.8**	**-0.4**
TEME				S	**Sb**	**20 45 22.6**	**-0.9**
KALE	**Kalithea**	**0.52**	**293**	P	**Pg**	**20 45 15.7**	**-0.2**
KALE				S	**Sb**	**20 45 23.7**	**-0.4**
KALE				AML	AML		
KALE	**Kalithea**	**0.52**	**293**	P	**Pg**	**20 45 15.6**	**-0.2**
KALE				S	**Sb**	**20 45 23.7**	**-0.4**
KALE				AML	AML		
KLV1	**Kalavrita**	**0.53**	**253**	P	**Pg**	**20 45 16.1**	**+0.1**
KLV1				AML	AML		
ATAL	**Atalanti**	**0.54**	**23**	P	**Pg**	**20 45 15.8**	**-0.4**
ATAL				S	**Sb**	**20 45 24.3**	**-0.5**
ATAL				AML	AML		
ATAL	**Atalanti**	**0.54**	**23**	P	**Pg**	**20 45 15.8**	**-0.4**
ATAL				S	**Sb**	**20 45 24.5**	**-0.3**
ATAL				AML	AML		
AXAR	**Agios Charalam**	**0.58**	**353**	P	**Pg**	**20 45 16.9**	**-0.1**
AXAR				S	**Sb**	**20 45 26.2**	**+0.4**
AXAR	**Agios Charalam**	**0.58**	**353**	P	**Pg**	**20 45 16.7**	**-0.2**
AXAR				S	**Sg**	**20 45 24.8**	**+0.2**
SERG	**Sergoula**	**0.59**	**292**	P	**Pg**	**20 45 17.0**	**-0.1**
SERG				S	**Sb**	**20 45 25.8**	**-0.3**
SERG				AML	AML		
SERG	**Sergoula**	**0.59**	**292**	P	**Pg**	**20 45 17.0**	**-0.1**
SERG				S	**Sb**	**20 45 25.8**	**-0.3**
SERG				AML	AML		
PYRG	**Pyrgos, Dorida**	**0.62**	**291**	P	**Pg**	**20 45 17.4**	**-0.2**
PYRG				S	**Sb**	**20 45 26.7**	**-0.2**
PYRG				AML	AML		
STFN	**Stefani**	**0.63**	**91**	P	**Pg**	**20 45 17.6**	**-0.2**
STFN				S	**Sb**	**20 45 27.1**	**-0.1**
STFN				AML	AML		
MG00	**Magoula, Dorid**	**0.67**	**290**	P	**Pb**	**20 45 18.8**	**-0.4**
MG00				AML	AML		
EFP	**Efpalio**	**0.70**	**290**	P	**Pg**	**20 45 19.0**	**-0.2**
EFP				S	**Sb**	**20 45 30.6**	**+1.2**
EFP				AML	AML		
EFP	**Efpalio**	**0.70**	**290**	P	**Pg**	**20 45 19.2**	**-0.1**
EFP				AML	AML		
MET2	**Kameni Chora,**	**0.74**	**141**	P	**Pg**	**20 45 19.4**	**-0.4**
MET2				S	**Sb**	**20 45 30.2**	**-0.1**
MET2				AML	AML		
ANX	**Ano Chora**	**0.77**	**302**	P	**Pg**	**20 45 20.4**	**-0.1**
ANX				S	**Sb**	**20 45 32.4**	**+1.1**
ANX				AML	AML		
ANX	**Ano Chora**	**0.77**	**302**	P	**Pb**	**20 45 20.6**	**-0.3**
ANX				AML	AML		
MET4	**Agioi Theodoro**	**0.77**	**138**	P	**Pg**	**20 45 19.9**	**-0.5**
MET4				S	**Sb**	**20 45 31.6**	**+0.5**
MET6	**Megalochori,Me**	**0.77**	**141**	P	**Pg**	**20 45 20.1**	**-0.3**
MET6				S	**Sb**	**20 45 31.7**	**+0.5**
MET1	**Methana Town,**	**0.79**	**140**	P	**Pg**	**20 45 20.7**	**-0.2**
ATH	**Athens Observa**	**0.79**	**106**	P	**Pg**	**20 45 21.1**	**+0.1**
ATH				S	**Sg**	**20 45 31.3**	**0.0**
ATH				AML	AML		
ATH	**Athens Observa**	**0.79**	**106**	P	**Pg**	**20 45 21.1**	**+0.1**
ATH				S	**Sg**	**20 45 31.5**	**+0.2**
ATH				AML	AML		
NOAC	**Athens-Thissio**	**0.79**	**106**	P	**Pg**	**20 45 20.9**	**0.0**
NOAC				S	**Sg**	**20 45 31.4**	**+0.1**
NOAC				AML	AML		
AGRP	**Agrapidokambos**	**0.83**	**284**	P	**Pg**	**20 45 21.4**	**-0.3**
AGRP				AML	AML		
ATHU	**Athens Univers**	**0.85**	**105**	P	**Pg**	**20 45 22.0**	**0.0**
ATHU				S	**Sg**	**20 45 32.6**	**-0.4**
ATHU	**Athens Univers**	**0.85**	**105**	P	**Pg**	**20 45 21.5**	**-0.5**
ATHU				S	**Sg**	**20 45 32.9**	**-0.1**
DRO	**Drossia**	**0.85**	**254**	P	**Pb**	**20 45 22.1**	**-0.2**
DRO				S	**Sb**	**20 45 34.2**	**+0.4**
DRO				AML	AML		
PTL	**Penteli**	**0.89**	**99**	P	**Pg**	**20 45 22.8**	**0.0**
PTL				S	**Sg**	**20 45 34.1**	**-0.3**
PTL				AML	AML		
PTL	**Penteli**	**0.89**	**99**	P	**Pg**	**20 45 22.8**	**0.0**
PTL				S	**Sb**	**20 45 35.2**	**+0.4**
PTL				AML	AML		
AGG	**Agios Georgios**	**0.89**	**339**	P	**Pg**	**20 45 22.8**	**0.0**
AGG				S	**Sn**	**20 45 36.6**	**-0.2**
AGG				AML	AML		
AGG	**Agios Georgios**	**0.89**	**339**	P	**Pg**	**20 45 22.5**	**-0.3**
AGG				AML	AML		
VLY	**Voula,Athens**	**0.89**	**112**	P	**Pb**	**20 45 22.9**	**-0.1**
VLY				S	**Sg**	**20 45 34.1**	**-0.4**
VLY				AML	AML		
VLY	**Voula,Athens**	**0.89**	**112**	P	**Pb**	**20 45 22.9**	**-0.1**
VLY				S	**Sb**	**20 45 35.2**	**+0.4**
VLY				AML	AML		
DION	**Dionisos Attik**	**0.94**	**97**	P	**Pg**	**20 45 23.4**	**-0.4**
DION				S	**Sg**	**20 45 36.1**	**+0.1**
DION				AML	AML		
DION	**Dionisos Attik**	**0.94**	**97**	P	**Pg**	**20 45 23.4**	**-0.4**
DION				S	**Sb**	**20 45 36.4**	**+0.2**
DION				AML	AML		
RLS	**Riolos of Patr**	**1.02**	**263**	P	**Pg**	**20 45 24.4**	**-0.9**
RLS				S	**Sn**	**20 45 39.9**	**0.0**
RLS				AML	AML		
RLS	**Riolos of Patr**	**1.02**	**263**	P	**Pg**	**20 45 24.4**	**-0.9**
RLS				AML	AML		
EVR	**Evrytania**	**1.03**	**315**	P	**Pb**	**20 45 25.8**	**+0.3**
EVR				S	**Sn**	**20 45 40.3**	**-0.1**
EVR				AML	AML		
EVR	**Evrytania**	**1.03**	**315**	P	**Pb**	**20 45 25.5**	**0.0**
EVR				AML	AML		
PVO	**Paravola**	**1.05**	**294**	P	**Pn**	**20 45 26.0**	**-0.1**
PVO				AML	AML		
AMT	**Artemida-Makis**	**1.05**	**232**	P	**Pg**	**20 45 25.2**	**-0.7**
AMT				S	**Sn**	**20 45 41.1**	**+0.3**
PLEV	**Plevrona-Mesol**	**1.08**	**282**	P	**Pg**	**20 45 25.5**	**-0.8**
PLEV				AML	AML		
AXS	**Araxos**	**1.08**	**271**	P	**Pb**	**20 45 26.2**	**0.0**
KYMI	**Kymi, Euboea I**	**1.15**	**67**	P	**Pb**	**20 45 26.6**	**-0.8**
KYMI				S	**Sg**	**20 45 42.6**	**0.0**
KYMI				AML	AML		
NEO	**Neokhori**	**1.17**	**18**	P	**Pb**	**20 45 27.4**	**-0.4**
NEO				S	**Sn**	**20 45 44.4**	**+0.7**
NEO				AML	AML		
ITM	**Ithomi**	**1.20**	**213**	P	**Pb**	**20 45 28.1**	**-0.1**
ITM				AML	AML		
XOR	**Xorichti**	**1.22**	**16**	P	**Pn**	**20 45 28.4**	**-0.1**
XOR				S	**Sn**	**20 45 45.9**	**+1.0**
XOR				AML	AML		
AOS2	**Alonissos-2**	**1.28**	**42**	P	**Pn**	**20 45 29.0**	**-0.2**
AOS2				AML	AML		
PDO	**Prodromos**	**1.30**	**289**	P	**Pg**	**20 45 30.4**	**-0.1**
KARY	**Karystos**	**1.34**	**96**	P	**Pn**	**20 45 30.1**	**+0.1**
KARY				AML	AML		
VLI	**Veliai**	**1.48**	**174**	P	**Pn**	**20 45 32.0**	**0.0**
VLI				AML	AML		
THL	**Klokotos Trika**	**1.49**	**338**	P	**Pb**	**20 45 33.2**	**+0.1**
RTZL	**Ratzakli, Kefa**	**1.56**	**266**	P	**Pg**	**20 45 35.0**	**-0.6**
RTZL				AML	AML		
TYRN	**Tyrnavos**	**1.57**	**345**	P	**Pb**	**20 45 34.1**	**-0.4**
TYRN				AML	AML		
TETR	**Tetrakomo, Epi**	**1.63**	**315**	P	**Pb**	**20 45 35.7**	**+0.1**
TETR				AML	AML		
ORTH	**Orthonies,Zaky**	**1.66**	**259**	P	**Pb**	**20 45 36.5**	**+0.5**
ORTH				AML	AML		
VLS	**Valsamata**	**1.70**	**270**	P	**Pb**	**20 45 36.6**	**-0.2**
VLS				AML	AML		
FSK	**Fiskardo**	**1.74**	**280**	P	**Pb**	**20 45 37.4**	**0.0**
FSK				AML	AML		
LIT	**Litokhoron**	**1.92**	**354**	P	**Pb**	**20 45 39.5**	**-1.0**
KTHA	**Kythira Island**	**1.95**	**173**	P	**Pn**	**20 45 39.0**	**+0.6**
KTHA				AML	AML		
KPRO	**Kipourio**	**2.06**	**329**	P	**Pb**	**20 45 41.9**	**-1.1**
KPRO				AML	AML		
PLG	**Polygyros**	**2.25**	**14**	P	**Pn**	**20 45 42.9**	**+0.4**
OUR	**Ouranopolis**	**2.34**	**24**	P	**Pn**	**20 45 43.7**	**-0.1**
ANKY	**Antikythira Is**	**2.36**	**169**	P	**Pn**	**20 45 44.9**	**+0.8**
MMB	**Musomishta**	**3.44**	**13**	P	**Pn**	**20 46 00.1**	**+1.1**
KKB	**Krupnik**	**3.66**	**4**	*e*P	**Pn**	**20 45 58.7**	**-3.2**
RZN	**Rozhen**	**3.82**	**23**	P	**Pn**	**20 46 04.9**	**+0.6**
KDZ	**Kurdzhali**	**3.97**	**29**	P	**Pn**	**20 46 06.4**	**+0.2**
PLNA	**Plana**	**4.31**	**7**	P	**Pn**	**20 46 13.7**	**+2.7**
VTS	**Vitosha**	**4.44**	**5**	P	**Pn**	**20 46 15.4**	**+2.6**
ESDC	**Sonseca Array**	**20.81**	**282**	P	**P**	**20 49 46.3**	**-0.5**
	0.9nm,0.6s,baz=74,slow=11,SNR=8.4						
	0.9nm,0.6s						
KURBB	**Kurchatov Arra**	**40.81**	**54**	P	**P**	**20 52 47.0**	**+0.4**
	0.4nm,0.6s,baz=281,slow=8.7,SNR=5.7						
	0.4nm,0.6s						
MKAR	**Makanchi Array**	**43.80**	**59**	P	**P**	**20 53 10.8**	**-0.2**
	0.5nm,0.5s,baz=263,slow=7.7,SNR=8.7						
	0.5nm,0.5s						
ZALV	**Zalesovo Beam**	**44.37**	**48**	P	**P**	**20 53 15.7**	**+0.1**
	1.3nm,0.6s,baz=268,slow=7.5,SNR=6.1						
	1.3nm,0.6s						

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*IDC **12** 20:50:02.4±5.1, 33°.57S×138°.90E, h0^{km}, mbtmp2.9/3, ML2.7/3, Error ellipse: s-maj=55.3km s-min=20.1km az=16.0*

*AUST **12** 20:50:04.1±0.3, 33°S±2°×13°9E±°, h4^{km}±2^{km}, ML2.6/14, Error ellipse: s-maj=6.8km s-min=3.8km az=68.4, confirmed*

ISC 12 20:50:03.0±0.8**, 33°.51S**±0°.03×**138°.99E**±0°.04**, h16**^{km}±5^{km}**, n27, σ2^{s}13**/43**, Near coast of South Australia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HTT	**Hallett**	**0.10**	**324**	P	**Pg**	**20 50 06.7**	**+0.2**
HTT				S	**Sg**	**20 50 07.9**	**-0.9**
HTT				AML	AML		
HTT	**Hallett**	**0.10**	**324**	P	**Pg**	**20 50 06.5**	**0.0**
HTT				S	**Sg**	**20 50 08.0**	**-0.7**
HTT				AML	AML		
NAPP	**Napperby**	**0.78**	**295**	P	**Pg**	**20 50 18.6**	**+0.4**
NAPP				S	**Sb**	**20 50 29.9**	**+1.4**
NAPP				AML	AML		
PTPS	**Port Pirie**	**0.90**	**292**	P	**Pn**	**20 50 23.3**	**+2.3**
PTPS				AML	AML		
SDAN	**Sedan**	**1.03**	**164**	P	**Pn**	**20 50 24.1**	**+1.2**
SDAN				S	**Sn**	**20 50 38.8**	**+1.7**
SDAN				AML	AML		
GHSS	**Government Hou**	**1.44**	**193**	P	**Pb**	**20 50 30.6**	**+1.1**
GHSS				AML	AML		
AUMBR	**Murray Bridge**	**1.64**	**172**	P	**Pg**	**20 50 34.5**	**-0.1**
AUMBR				AML	AML		
AUMBR	**Murray Bridge**	**1.64**	**172**	P	**Pg**	**20 50 34.4**	**-0.1**
AUMBR				AML	AML		
YAPP	**Yappala Statio**	**1.74**	**341**	P	**Pn**	**20 50 34.5**	**+2.0**
YAPP				AML	AML		
YAPP	**Yappala Statio**	**1.74**	**341**	P	**Pn**	**20 50 34.4**	**+1.8**
YAPP				S	**Sn**	**20 50 57.3**	**+2.9**
YAPP				AML	AML		
BBOO	**Buckleboo**	**2.56**	**285**	P	**Pn**	**20 50 46.3**	**+2.5**
BBOO				S	**Sb**	**20 51 19.0**	**-0.8**
BBOO				AML	AML		
STKA	**Stephens Creek**	**2.73**	**54**	P	**Pn**	**20 50 49.0**	**+2.8**
STKA				S	**Sn**	**20 51 21.7**	**+2.8**
STKA				AML	AML		
STKA	**Stephens Creek**	**2.73**	**54**	Pn	**Pn**	**20 50 48.2**	**+1.9**
	0.6nm,0.3s,baz=232,slow=13,SNR=12						
STKA				Sn	**Sn**	**20 51 22.2**	**+3.2**
	2.0nm,0.3s,baz=312,slow=23,SNR=7.6						
	1.8nm,0.3s						
STKA				AML	AML		
AUCAS	**Cummins Area S**	**2.82**	**254**	P	**Pn**	**20 50 50.7**	**+3.2**
AUCAS				AML	AML		
KELC	**Kelly Hill Cav**	**3.00**	**214**	P	**Pb**	**20 50 56.7**	**+0.6**
KELC				S	**Sb**	**20 51 31.0**	**-1.5**
KELC	**Kelly Hill Cav**	**3.00**	**214**	P	**Pn**	**20 50 53.9**	**+4.0**
KELC				AML	AML		
LCRK	**Leigh Creek**	**3.12**	**348**	P	**Pn**	**20 50 53.8**	**+2.2**
LCRK				S	**Sn**	**20 51 30.9**	**+2.2**
LCRK				AML	AML		
ARPS	**Mount Arapiles**	**4.00**	**145**	P	**Pn**	**20 51 05.6**	**+1.8**
ARPS				S	**Sn**	**20 51 51.0**	**+0.7**
ARPS				AML	AML		
ARPS	**Mount Arapiles**	**4.00**	**145**	P	**Pn**	**20 51 05.5**	**+1.8**
ARPS				S	**Sn**	**20 51 51.2**	**+1.0**
ARPS				AML	AML		
MULG	**Mulgathing**	**5.29**	**306**	P	**Pn**	**20 51 22.6**	**+1.3**
MULG				AML	AML		
MULG	**Mulgathing**	**5.29**	**306**	P	**Pn**	**20 51 22.6**	**+1.3**
MULG				S	**Sn**	**20 52 21.7**	**-0.3**
MULG				AML	AML		
CMSA	**Cobar Meteorol**	**5.99**	**73**	P	**Pn**	**20 51 32.7**	**+1.7**
CMSA				AML	AML		
CMSA	**Cobar Meteorol**	**5.99**	**73**	P	**Pn**	**20 51 32.8**	**+1.7**
CMSA				S	**Sn**	**20 52 38.4**	**-0.9**
CMSA				AML	AML		
FORT	**Forrest**	**9.66**	**283**	P	**Pn**	**20 52 22.2**	**+0.8**
FORT	**Forrest**	**9.66**	**283**	P	**Pn**	**20 52 22.2**	**+0.8**
	comp=Z,5.2nm,0.8s,comp=Z,0.0nm						
FORT				S	**Sn**	**20 54 05.8**	**-3.7**
FORT				AML	AML		
ASAR	**Alice Springs**	**10.78**	**334**	Pn	**Pn**	**20 52 36.0**	**-0.8**
	comp=Z,0.1nm,0.3s,baz=156,slow=13,SNR=1.3						
ASAR				Sn	**Sn**	**20 54 31.4**	**-5.7**
	comp=Z,0.1nm,0.3s,baz=159,slow=22,SNR=4.4						
	comp=Z,0.3nm,1.0s						
ASAR				AML	AML		
WRA	**Warramunga Arr**	**14.13**	**342**	Pn	**Pn**	**20 53 20.1**	**-2.5**
	baz=172,slow=14,SNR=5.8						
WRA				Sn	Sn	20 55 51.3	-7.9
	comp=Z,0.1nm,0.3s,baz=162,slow=33,SNR=5.1						
	comp=Z,0.4nm,0.9s						

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*ISK **12** 21:06:11.9, 38°.16N×38°.65E, h5^{km}, ML3.6/23*

*AFAD **12** 21:06:13.1, 38°.16N×38°.66E, h7^{km}±1^{km}, MW3.5*

ISC 12 21:06:13.8±1.0**, 38°.17N**±0°.02×**38°.66E**±0°.02**, h7**^{km}±10^{km}**, n53, σ0^{s}70**/66**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MAYA	**Malatya/Merkez**	**0.24**	**309**	P	**Pg**	**21 06 18.4**	**-0.2**
MAYA				S	**Sg**	**21 06 22.1**	**+0.2**
MAYA				IAML		21 06 23.0	
	comp=E,8µm,0.2s						
NARI	**Adyaman-Kaht**	**0.30**	**165**	P	**Pg**	**21 06 19.2**	**-0.5**
NARI				S	**Sg**	**21 06 23.5**	**-0.2**
NARI				IAML		21 06 28.0	
	comp=E,4µm,0.9s						
MDYL	**Doganyol-Malat**	**0.33**	**65**	Pg	**Pg**	**21 06 19.9**	**-0.4**
MDYL				Sg	**Sg**	**21 06 25.6**	**+1.0**
MDYL				AML	AML		
ESGZ	**Sivrice-Elazig**	**0.41**	**51**	Pg	**Pg**	**21 06 21.2**	**-0.6**
ESGZ				Sg	**Sg**	**21 06 27.3**	**+0.2**
ESGZ				AML	AML		
ELZG	**Elazig**	**0.41**	**38**	P	**Pg**	**21 06 21.3**	**-0.5**
ELZG				S	**Sg**	**21 06 27.3**	**0.0**
ELZG				IAML		21 06 31.0	
	comp=N,10µm,0.3s						
AZEY	**Adyaman-Merk**	**0.49**	**222**	P	**Pg**	**21 06 23.1**	**-0.2**
CNGT	**ngs**	**0.50**	**85**	P	**Pg**	**21 06 22.7**	**-0.8**
SVRC	**Sivrice-ELAZID**	**0.55**	**68**	Pg	**Pg**	**21 06 23.7**	**-0.7**
SVRC				Sg	**Sg**	**21 06 32.6**	**+1.0**
SVRC				AML	AML		
ESIJ	**Sivrice-Elazig**	**0.58**	**62**	Pg	**Pg**	**21 06 24.6**	**-0.4**
ESIJ				Sg	**Sb**	**21 06 34.3**	**-0.5**
ESIJ				AML	AML		
AKCD	**Akcadag**	**0.59**	**282**	P	**Pg**	**21 06 25.1**	**-0.2**
AKCD				S	**Sg**	**21 06 33.6**	**+0.5**
AKCD				IAML		21 06 36.0	
	comp=N,7µm,0.5s						
HANM	**anlurfa/Hi**	**0.62**	**164**	P	**Pg**	**21 06 25.4**	**-0.3**
HANM				S	**Sg**	**21 06 33.5**	**-0.2**
HANM				IAML		21 06 34.0	
	comp=E,967nm,0.5s						
ELZ	**Elazig**	**0.67**	**40**	P	**Pg**	**21 06 26.1**	**-0.6**
ELZ				S	**Sg**	**21 06 36.0**	**+0.5**
ELZ				IAML		21 06 38.0	
	comp=N,2µm,0.3s						
ELZ				IAML		21 06 38.0	
	comp=E,1µm,0.4s						
ATAB	**Bozova**	**0.76**	**203**	P	**Pg**	**21 06 27.9**	**-0.5**
MDNT	**Maden**	**0.83**	**74**	P	**Pg**	**21 06 29.2**	**-0.6**
AKCA	**Adyaman/G¶l**	**0.86**	**244**	P	**Pg**	**21 06 30.0**	**-0.3**
HEKM	**Malatya_Hekimh**	**0.90**	**322**	P	**Pg**	**21 06 30.7**	**-0.3**
HEKM				S	**Sg**	**21 06 43.5**	**+0.8**
HEKM				IAML		21 06 44.0	
	comp=N,3µm,0.3s						

HEKM				IAML		21 06 44.0	
	comp=E,6µm,0.3s						
ARPR	**Arapgir-MALATY**	**0.95**	**345**	Pg	**Pg**	**21 06 31.3**	**-0.8**
ARPR				AML	AML		
SANL	**SANLIURFA_Merk**	**1.03**	**165**	P	**Pg**	**21 06 33.6**	**0.0**
KOVA	**Elazig, Kovanc**	**1.05**	**59**	P	**Pg**	**21 06 33.4**	**-0.6**
TNCL	**Tunceli-Merkez**	**1.17**	**36**	P	**Pg**	**21 06 34.5**	**-1.7**
DIYA	**Diyarbakir**	**1.18**	**102**	P	**Pg**	**21 06 36.0**	**-0.4**
DYBB	**Diyarbakir**	**1.19**	**100**	Pn	**Pg**	**21 06 36.2**	**-0.4**
DYBB				AML	AML		
GZT	**Gaziantep**	**1.19**	**227**	P	**Pg**	**21 06 36.5**	**-0.2**
GZT				S	**Sn**	**21 06 53.1**	**-0.5**
GZT				IAML		21 06 55.0	
	comp=N,2µm,0.6s						
ELBS	**KAHRAMANMARAS**	**1.21**	**278**	P	**Pg**	**21 06 36.3**	**-0.8**
CUGUR	**Gurin_SVAS**	**1.22**	**297**	P	**Pg**	**21 06 36.3**	**-1.0**
ILIC	**ilic-Erzincan**	**1.28**	**357**	Pn	**Pn**	**21 06 37.7**	**-0.5**
ILIC				AML	AML		
SURC	**SANLIURFA_SURC**	**1.29**	**182**	P	**Pb**	**21 06 38.5**	**0.0**
NZIP	**Nizip/Gaziante**	**1.37**	**215**	P	**Pn**	**21 06 38.9**	**-0.5**
KHMN	**Narli-Kahraman**	**1.43**	**237**	Pn	**Pn**	**21 06 39.5**	**-0.6**
KHMN	**Narli-Kahraman**	**1.43**	**237**	P	**Pn**	**21 06 40.0**	**-0.1**
KHMN				P	**Pb**	**21 06 40.4**	**-0.3**
GAZ	**Gaziantep**	**1.52**	**229**	Pn	**Pn**	**21 06 40.9**	**-0.6**
GAZ				AML	AML		
KMRS	**Kahramanmaras**	**1.55**	**245**	Pn	**Pn**	**21 06 41.3**	**-0.5**
KMRS				AML	AML		
BNGB	**Bingl**	**1.78**	**62**	Pn	**Pn**	**21 06 45.6**	**+0.5**
BNGB				AML	AML		
SARI	**SarD1z-Kayseri**	**1.78**	**278**	Pn	**Pn**	**21 06 45.6**	**+0.5**
SARI				AML	AML		
YEDI	**Yedisu-Bingol**	**1.94**	**49**	Pn	**Pn**	**21 06 47.4**	**+0.1**
YEDI				AML	AML		
SVAN	**Silvan-Diyarba**	**2.00**	**90**	Pn	**Pn**	**21 06 47.8**	**-0.2**
SVAN				AML	AML		
SVSK	**Karacayir**	**2.17**	**324**	Pn	**Pn**	**21 06 51.4**	**+1.1**
SVSK				AML	AML		
KARO	**Karliova-Bingo**	**2.18**	**58**	Pn	**Pn**	**21 06 51.2**	**+0.5**
KARO				AML	AML		
BNN	**Bunyan**	**2.31**	**288**	Pn	**Pn**	**21 06 52.8**	**+0.4**
BNN				AML	AML		
GURO	**Guroymak-BITLI**	**2.68**	**81**	Pn	**Pn**	**21 06 57.9**	**+0.5**
GURO				AML	AML		
TOKT	**Tokat**	**2.70**	**323**	Pn	**Pn**	**21 06 58.7**	**+1.0**
TOKT				AML	AML		
KTUT	**Trabzon**	**2.94**	**17**	Pn	**Pn**	**21 07 02.1**	**+1.3**
KTUT				AML	AML		
KOPR	**Koprukoy-ERZUR**	**3.08**	**53**	Pn	**Pn**	**21 07 03.7**	**+0.8**
KOPR				AML	AML		
MLAZ	**Malazgirt-MUS**	**3.19**	**71**	Pn	**Pn**	**21 07 05.4**	**+0.9**
MLAZ				AML	AML		
AKDM	**Akdamar-Van**	**3.40**	**86**	Pn	**Pn**	**21 07 08.2**	**+0.8**
AKDM				AML	AML		
AGRB	**Hanur-Agry**	**3.66**	**66**	Pn	**Pn**	**21 07 11.9**	**+0.9**
AGRB				AML	AML		
BEIL	**Beino**	**4.14**	**210**	*e*P	**Pn**	**21 07 17.7**	**+0.2**
HWQ	**Hawqa**	**4.46**	**210**	*e*P	**Pn**	**21 07 22.5**	**+0.5**
ZAHL	**Zahle**	**4.86**	**208**	*e*P	**Pn**	**21 07 28.9**	**+1.5**
BHL	**Bhannes**	**4.91**	**211**	*e*P	**Pn**	**21 07 28.9**	**+0.9**
DQRL	**Deir Qamar**	**5.12**	**210**	*e*P	**Pn**	**21 07 32.3**	**+1.4**
RCY	**Rachaya**	**5.20**	**207**	*e*P	**Pn**	**21 07 33.1**	**+1.0**
SHBL	**Chebaa**	**5.37**	**207**	*e*P	**Pn**	**21 07 35.5**	**+1.1**

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*SKO **12** 21:10:00.8, 40°.33N×20°.69E, h0^{km}, ML2.5*
*TIR **12** 21:10:02.7, 40°.51N×20°.73E, h2^{km}, Ml2.4/5*
*THE **12** 21:10:02.2, 41°N±3°×2°1E±°, h0^{km}±9^{km}, M2.4/14, MLh2.4/14*
*ATH **12** 21:10:03.1, 40°.41N×20°.85E, h7^{km}±1^{km}, ML2.4/8, Latitude uncertainty: 4 km; Longitude uncertainty: 4 km*
*BEO **12** 21:10:03.1±0.3, 40°.54N×20°.96E, h0^{km}, ML2.3/9*
ISC 12 21:10:02.7±1.1, **40°.50N**±0°.02×**20°.84E**±0°.02, **h1**^{km}±10^{km}, **n55,** σ**0**^{s}**.99**/85, **Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBN	**Korca**	**0.13**	**343**	P	**Pg**	**21 10 04.8**	**-0.4**
KBN				S	**Sg**	**21 10 07.4**	**+0.5**
KBN				AML	AML	21 10 08.1	
	12nm,0.4s						
PENT	**Pentalofos**	**0.38**	**143**	P	**Pg**	**21 10 09.4**	**-0.6**
OHR	**Ohrid**	**0.61**	**357**	*i* Pg	**Pg**	**21 10 14.9**	**+0.5**
OHR				*e*Sg	**Sb**	**21 10 25.5**	**+0.1**
OHR				*e*Lg	Lg	21 10 27.6	
	comp=N,104nm,0.3s						
OHR				*e*Lg	Lg	21 10 29.3	
	comp=E,241nm,0.5s						
KPRO	**Kipourio**	**0.68**	**143**	P	**Pg**	**21 10 14.7**	**-1.0**
KPRO				S	**Sg**	**21 10 25.7**	**+1.2**
KPRO				AML	AML		
KPRO	**Kipourio**	**0.68**	**143**	P	**Pg**	**21 10 14.7**	**-1.0**
KPRO				S	**Sg**	**21 10 23.2**	**-1.3**
KPRO				AML	AML		
SRN	**Sarande**	**0.89**	**226**	P	**Pg**	**21 10 19.7**	**-0.1**
SRN				S	**Sb**	**21 10 33.3**	**-0.1**
SRN				AML	AML	21 10 35.8	
	comp=E,0.4nm,1.2s						
SRN	**Sarande**	**0.89**	**226**	P	**Pg**	**21 10 19.5**	**-0.3**
SRN				S	**Sb**	**21 10 32.1**	**-1.3**
SRN				AML	AML		
KTI	**Kastanea**	**0.98**	**96**	P	**Pg**	**21 10 21.3**	**-0.3**
PRMD	**Pramanda**	**0.99**	**168**	P	**Pg**	**21 10 20.3**	**-1.4**
PRMD				S	**Sb**	**21 10 37.9**	**+1.6**
PRMD				AML	AML		
PRMD	**Pramanda**	**0.99**	**168**	P	**Pg**	**21 10 20.3**	**-1.4**
PRMD				AML	AML		
IGT	**Igoumenitsa**	**1.04**	**202**	P	**Pg**	**21 10 22.1**	**-0.6**
IGT				S	**Sb**	**21 10 38.1**	**+0.4**
IGT				AML	AML	21 10 41.9	
	comp=E,0.4nm,0.6s						
IGT	**Igoumenitsa**	**1.04**	**202**	P	**Pg**	**21 10 21.9**	**-0.8**
IGT				S	**Sb**	**21 10 38.3**	**+0.6**
IGT				AML	AML		
IGT	**Igoumenitsa**	**1.04**	**202**	*e*Pg	**Pg**	**21 10 22.1**	**-0.6**
IGT				*e*Sg	**Sn**	**21 10 39.1**	**-0.6**
IGT	**Igoumenitsa**	**1.04**	**202**	P	**Pg**	**21 10 21.9**	**-0.8**
KEK	**Kerkira**	**1.12**	**226**	P	**Pg**	**21 10 24.1**	**-0.1**
KEK				S	**Sn**	**21 10 40.7**	**-0.9**
TETR	**Tetrakomo, Epi**	**1.20**	**164**	P	**Pg**	**21 10 25.3**	**-0.5**
TETR				S	**Sn**	**21 10 44.9**	**+1.1**
TETR				AML	AML		
TETR	**Tetrakomo, Epi**	**1.20**	**164**	P	**Pg**	**21 10 24.5**	**-1.2**
TETR				AML	AML		
PHP	**Peshkopia**	**1.22**	**346**	P	**Pg**	**21 10 25.9**	**-0.3**
PHP				S	**Sb**	**21 10 43.2**	**+0.3**
PHP				AML	AML	21 10 47.6	
	comp=E,0.3nm,0.6s						
PHP	**Peshkopia**	**1.22**	**346**	P	**Pg**	**21 10 24.5**	**-1.6**
PHP				S	**Sg**	**21 10 39.6**	**-2.3**
GRG	**Griva**	**1.27**	**69**	P	**Pg**	**21 10 26.5**	**-0.6**
THL	**Klokotos Trika**	**1.30**	**136**	P	**Pg**	**21 10 26.4**	**-1.2**
THL				S	**Sb**	**21 10 45.7**	**+0.6**
THL				AML	AML		
THL	**Klokotos Trika**	**1.30**	**136**	P	**Pg**	**21 10 26.5**	**-1.2**
THL				AML	AML		
LIT	**Litokhoron**	**1.33**	**107**	P	**Pg**	**21 10 27.9**	**-0.3**
LIT				S	**Sn**	**21 10 47.3**	**+0.5**
LIT				AML	AML		
LIT	**Litokhoron**	**1.33**	**107**	P	**Pg**	**21 10 27.5**	**-0.7**
TYRN	**Tyrnavos**	**1.33**	**126**	P	**Pg**	**21 10 27.4**	**-0.9**
TYRN				S	**Sn**	**21 10 47.5**	**+0.7**
TYRN				AML	AML		
TYRN	**Tyrnavos**	**1.33**	**126**	P	**Pg**	**21 10 27.2**	**-1.0**
TYRN				AML	AML		
SKO	**Skopje**	**1.54**	**17**	*e*Pn	**Pn**	**21 10 30.9**	**-0.4**
SKO				*e*Sn	**Sg**	**21 10 55.9**	**+3.8**
VAY	**Valandovo**	**1.55**	**58**	*e*Pn	**Pn**	**21 10 31.2**	**-0.3**
VAY				*e*Sn	**Sg**	**21 10 54.9**	**+2.4**
VAY				*e*Lg	Lg	21 10 58.5	
	comp=N,28nm,0.4s						
VAY				*e*Lg	Lg	21 10 59.4	
	comp=E,59nm,0.9s						
AMPL	**Ampelaki**	**1.60**	**169**	P	**Pn**	**21 10 32.0**	**-0.2**
AMPL				S	**Sg**	**21 10 55.5**	**+1.3**
AMPL				AML	AML		
LKD2	**Lefkada island**	**1.72**	**185**	P	**Pg**	**21 10 35.8**	**+0.2**
LKD2				S	**Sg**	**21 11 00.5**	**+2.7**
LKD2				AML	AML	21 11 08.0	
	comp=E,0.2nm,0.7s						
LKD2	**Lefkada island**	**1.72**	**185**	P	**Pg**	**21 10 35.8**	**+0.2**
LKD2				S	**Sg**	**21 10 59.4**	**+1.6**
LKD2				AML	AML		
LKD2	**Lefkada island**	**1.72**	**185**	P	**Pn**	**21 10 33.7**	**-0.1**
LKD2				AML	AML		
HORT	**Hortiatis**	**1.73**	**86**	P	**Pn**	**21 10 33.1**	**-0.9**
HORT				S	**Sn**	**21 10 55.6**	**-1.1**
EVR	**Evrytania**	**1.75**	**154**	P	**Pb**	**21 10 35.6**	**-0.1**
EVR				S	**Sg**	**21 10 59.9**	**+0.9**
EVR				AML	AML		
NYDR	**Nydri-Lefkada**	**1.79**	**183**	P	**Pb**	**21 10 36.2**	**-0.1**
NYDR				S	**Sg**	**21 11 00.2**	**0.0**
NYDR				AML	AML		
DRAG	**Dragano-Lefkad**	**1.83**	**186**	P	**Pb**	**21 10 36.6**	**-0.3**
DRAG				S	**Sg**	**21 11 01.9**	**+0.5**
DRAG				AML	AML		
AGG	**Agios Georgios**	**1.87**	**142**	P	**Pn**	**21 10 35.4**	**-0.5**
AGG				S	**Sb**	**21 11 02.0**	**+0.4**
AGG	**Agios Georgios**	**1.87**	**142**	P	**Pn**	**21 10 35.4**	**-0.5**
AGG				AML	AML		
EVGI	**Lefkada island**	**1.88**	**184**	P	**Pb**	**21 10 37.7**	**-0.2**
EVGI	**Lefkada island**	**1.88**	**184**	P	**Pn**	**21 10 35.6**	**-0.4**
SOH	**Sokhos**	**1.94**	**80**	P	**Pn**	**21 10 36.7**	**-0.2**
SOH				AML	AML		
FSK	**Fiskardo**	**2.05**	**186**	P	**Pn**	**21 10 38.9**	**+0.5**
SRS	**Serrai**	**2.18**	**73**	*e*Pg	**Pn**	**21 10 40.6**	**+0.4**
SRS				*e*Sg	**Sn**	**21 11 07.6**	**-0.2**
PDG	**Podgorica**	**2.26**	**329**	*e*Pg	**Pn**	**21 10 42.5**	**+1.2**
PDG				*e*Sg	**Sg**	**21 11 15.0**	**-0.5**
BOSS	**Bosilegrad**	**2.34**	**31**	*e*Pn	**Pn**	**21 10 42.3**	**-0.1**
BARS	**Barje**	**2.43**	**17**	*e*Pn	**Pn**	**21 10 43.2**	**-0.4**
BARS				*e*Sn	**Sn**	**21 11 12.6**	**-1.3**
SELS	**Selova**	**2.73**	**4**	*e*Pn	**Pn**	**21 10 47.7**	**0.0**
VTS	**Vitosha**	**2.78**	**40**	*e*Pn	**Pn**	**21 10 47.3**	**-1.2**
SJES	**Sjenica**	**2.83**	**347**	*e*Pn	**Pn**	**21 10 49.5**	**+0.3**
ZAPS	**Zavoj**	**3.08**	**25**	*e*Pn	**Pn**	**21 10 52.9**	**+0.4**
BOVS	**Bovan**	**3.20**	**11**	*e*Pn	**Pn**	**21 10 53.5**	**-0.6**
BLKB	**Belogradchik**	**3.41**	**23**	*e*Pn	**Pn**	**21 10 57.0**	**0.0**
ZAGS	**Zajecar**	**3.47**	**17**	*e*Pn	**Pn**	**21 10 57.8**	**0.0**
DIVS	**Divibare**	**3.65**	**350**	*e*Pn	**Pn**	**21 11 01.0**	**+0.6**
TRUS	**Trudelj**	**3.73**	**355**	*e*Pn	**Pn**	**21 11 02.1**	**+0.6**

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*IDC **12** 21:23:24.8±0.7, 62°.11S×58°.35W, h0^{km}, mb4.1/10, mbtmp4.1/10, MS3.5/4, Error ellipse: s-maj=36.8km s-min=16.0km az=78.0*
*NEIC **12** 21:23:26.9±1.7, 62°.30S±0°.06×58°.29W±0°.09, h14^{km}±3^{km}, mb4.8/27, Error ellipse: s-maj=8.9km s-min=4.9km az=207.0*
ISC 12 21:23:26.4±0.4, **62°.23S**±0°.05×**58°.28W**±0°.07, **h10**^{km}, **n74,** σ**1**^{s}**.16**/70, **mb4.5**/23, **MS3.5**/4, **3D, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ESPZ	**Base Esperanza**	**1.32**	**154**		**Pn**	**21 23 49.5**	**-1.3**
ESPZ				Sn	**Sb**	**21 24 05.8**	**-2.3**
PMSA	**Palmer Station**	**3.64**	**223**	Pn	**Pn**	**21 24 23.4**	**+0.7**
	4.1nm,0.3s,baz=53,slow=11,SNR=12						
PMSA				Sn	**Sn**	**21 25 07.5**	**+1.9**
	6.2nm,0.3s,baz=12,slow=14,SNR=1.8						
PMSA	**Palmer Station**	**3.64**	**223**		**Pn**	**21 24 23.6**	**+0.9**
ORCD	**Orcadas**	**6.65**	**83**	Pn	**Pn**	**21 25 04.9**	**+0.8**
SMAI	**San Martin Ant**	**6.99**	**208**	Pn	**Pn**	**21 25 09.2**	**+0.5**
USHA	**Ushuaia**	**9.11**	**320**	Pn	**Pn**	**21 25 35.2**	**-2.5**
	0.4nm,0.3s,baz=156,slow=10.0,SNR=1.6						
MG03	**Isla Dawson**	**10.58**	**317**	Pn	**Pn**	**21 25 58.9**	**+1.0**
EFI	**East Falkland**	**10.58**	**1**	Pn	**Pn**	**21 26 00.9**	**+3.0**
MG02	**Cerro Sombrero**	**11.13**	**323**	Pn	**Pn**	**21 26 07.3**	**+1.9**
VNA3	**Neumayer Olymp**	**20.58**	**136**	⇓P	Pn	21 28 07.3	+0.1
	comp=Z,22nm,0.7s						
VNA1	**Neumayer--Stat**	**21.04**	**135**	P	**P**	**21 28 13.1**	**+3.1**
	comp=Z,22nm,1.0s						
VNA2	**Neumayer--Watz**	**21.32**	**135**	⇓P	**P**	**21 28 15.5**	**+2.5**
	comp=Z,12nm,0.8s,baz=263,slow=10						
SNAA	**Sanae**	**22.75**	**138**	P	**P**	**21 28 30.5**	**+2.2**
	comp=Z,233nm,0.8s						
SNAA	**Sanae**	**22.75**	**138**	P	**P**	**21 28 29.6**	**+1.2**
	comp=Z,12nm,0.9s,baz=270,slow=7.2,SNR=19						
SNAA				LR	LR	21 36 02.2	
	comp=Z,92nm,18.8s,baz=275,slow=33						
	comp=Z,12nm,0.9s						
SNAA	**Sanae**	**22.75**	**138**	P	**P**	**21 28 28.4**	**0.0**
PLCA	**Paso Flores**	**22.76**	**335**	P	**P**	**21 28 28.7**	**0.0**
	comp=Z,2.1nm,0.7s,baz=163,slow=8.3,SNR=3.2						
	comp=Z,2.1nm,0.7s						
PLCA	**Paso Flores**	**22.76**	**335**	P	**P**	**21 28 30.4**	**+1.7**
GO06	**Curarrehue**	**24.05**	**334**	P	**P**	**21 28 41.4**	**-0.2**
GO06				IAmb	IAmb	21 28 60.0	
	comp=Z,34nm,1.4s						
TROLL	**Troll, Antarti**	**24.39**	**139**	⇓P	**P**	**21 28 47.0**	**+2.5**
	comp=Z,278nm,1.0s						
QSPA	**South Pole Qui**	**28.00**	**180**	P	**P**	**21 29 18.3**	**+1.1**
	comp=Z,3.6nm,0.8s,baz=164,slow=1.8,SNR=16						
QSPA				LR	LR	21 40 21.4	
	comp=Z,86nm,18.6s,baz=128,slow=36						
	comp=Z,3.6nm,0.8s						
QSPA	**South Pole Qui**	**28.00**	**180**	P	**P**	**21 29 17.5**	**+0.4**
QSPA				IAmb	IAmb	21 29 27.5	
	comp=Z,11nm,1.1s						
MT09	**Talagante**	**29.60**	**338**	P	**P**	**21 29 31.7**	**+0.1**
MT09				IAmb	IAmb	21 29 48.0	
	comp=Z,17nm,1.1s						
CO03	**El Pedregal**	**32.42**	**340**	P	**P**	**21 29 55.9**	**-0.4**
CO03				IAmb	IAmb	21 29 59.6	
	comp=Z,21nm,1.0s						
GO04	**Tololo Observa**	**33.09**	**340**	P	**P**	**21 30 02.1**	**-0.3**
CO01	**Juntas del Tor**	**33.17**	**341**	P	**P**	**21 30 04.1**	**+1.0**
CO01				IAmb	IAmb	21 30 15.7	
	comp=Z,8.7nm,0.9s						
LCO	**Las Campanas**	**34.21**	**340**	P	**P**	**21 30 12.7**	**+0.5**
CPUP	**Villa Florida**	**35.89**	**1**	P	**P**	**21 30 25.9**	**-0.5**
	comp=Z,0.6nm,0.5s,baz=162,slow=5.6,SNR=4.5						
	comp=Z,0.6nm,0.5s						
CPUP	**Villa Florida**	**35.89**	**1**	P	**P**	**21 30 26.6**	**+0.2**
MAW	**Mawson**	**43.68**	**152**	P	**P**	**21 31 32.1**	**+1.4**
	comp=Z,4.7nm,0.9s,baz=228,slow=10,SNR=8.5						
MAW				PcP	**PcP**	**21 33 18.4**	**+0.9**
	comp=Z,2.5nm,0.8s,baz=229,slow=4.9,SNR=4.8						
MAW				LR	LR	21 49 29.9	
	comp=Z,103nm,20.1s,baz=232,slow=36						
	comp=Z,4.7nm,0.9s						
MAW	**Mawson**	**43.68**	**152**	P	**P**	**21 31 30.8**	**+0.1**
LPAZ	**La Paz**	**46.41**	**347**	P	**P**	**21 31 52.1**	**-1.5**
	comp=Z,0.8nm,0.8s,baz=171,slow=7.9,SNR=3.6						
	comp=Z,0.8nm,0.8s						
LPAZ	**La Paz**	**46.41**	**347**	P	**P**	**21 31 53.6**	**0.0**
BDFB	**Brasilia**	**47.09**	**14**	P	**P**	**21 31 57.3**	**-1.1**
	comp=Z,2.6nm,0.6s,baz=185,slow=7.5,SNR=4.5						
	comp=Z,2.6nm,0.6s						
BDFB	**Brasilia**	**47.09**	**14**	P	**P**	**21 31 58.4**	**0.0**
BDFB				IAmb	IAmb	21 32 06.9	
	comp=Z,4.0nm,0.7s						
CZSB	**Cruzeiro do Su**	**55.41**	**343**	P	**P**	**21 33 01.6**	**+0.8**
SUR	**Sutherland**	**56.91**	**97**	P	**P**	**21 33 10.6**	**-1.0**
BOSA	**Boshof**	**62.14**	**99**	P	**P**	**21 33 47.8**	**+0.2**
	comp=Z,1.1nm,0.4s,baz=204,slow=7.3,SNR=5.2						
	comp=Z,1.1nm,0.4s						
BOSA	**Boshof**	**62.14**	**99**	P	**P**	**21 33 47.4**	**-0.1**
BOSA				IAmb	IAmb	21 34 04.9	
	comp=Z,15nm,1.5s						
H10N3	**ASCENSION HYDR**	**62.94**	**50**	T	T	22 42 20.6	
	baz=202,slow=75,SNR=35						
H10N1	**ASCENSION HYDR**	**62.95**	**50**	T	T	22 42 25.3	
	baz=202,slow=75,SNR=37						
H10N2	**ASCENSION HYDR**	**62.96**	**50**	T	T	22 42 22.0	
	baz=202,slow=75,SNR=45						
OTAV	**Otavalo**	**64.15**	**337**	P	**P**	**21 34 00.9**	**-0.4**
OTAV				IAmb	IAmb	21 34 11.1	
	comp=Z,11nm,1.5s						
BOAV	**Boa Vista**	**64.47**	**358**	P	**P**	**21 34 02.4**	**-0.5**
LBTB	**Lobatse**	**65.36**	**97**	LR	LR	21 58 07.6	
	comp=Z,34nm,18.6s,baz=178,slow=32						
LBTB	**Lobatse**	**65.36**	**97**	P	**P**	**21 34 08.7**	**-0.1**
LBTB				IAmb	IAmb	21 34 25.0	
	comp=Z,10nm,1.4s						
POGA	**Pongola**	**66.18**	**104**	P	**P**	**21 34 13.6**	**-0.4**
TSUM	**Tsumeb**	**66.61**	**87**	P	**P**	**21 34 16.9**	**0.0**
TSUM				IAmb	IAmb	21 34 17.6	
	comp=Z,12nm,1.5s						
LSZ	**Lusaka**	**74.98**	**94**	P	**P**	**21 35 08.1**	**+0.2**
LSZ				IAmb	IAmb	21 35 17.3	
	comp=Z,15nm,1.6s						
VOI	**Vohitsoka**	**77.61**	**113**	P	**P**	**21 35 22.5**	**-0.3**
FORT	**Forrest**	**87.18**	**185**	P	**P**	**21 36 11.9**	**-0.6**
FORT				IAmb	IAmb	21 36 21.5	
	comp=Z,9.4nm,1.2s						
TORD	**Torodi Ar. Bea**	**88.36**	**58**	P	**P**	**21 36 18.1**	**0.0**
	comp=Z,0.6nm,0.8s,baz=207,slow=5.5,SNR=2.8						
	comp=Z,0.6nm,0.8s						
INKA	**Innaminka**	**89.05**	**197**	P	**P**	**21 36 20.6**	**-0.8**
INKA				IAmb	IAmb	21 36 23.4	
	comp=Z,3.0nm,1.0s						
ASAR	**Alice Springs**	**93.85**	**191**	P	**P**	**21 36 43.7**	**-0.2**
	comp=Z,0.9nm,0.9s,baz=179,slow=4.3,SNR=4.7						
WRA	**Warramunga Arr**	**97.50**	**192**	P	**P**	**21 36 59.9**	**-0.6**
	comp=Z,0.9nm,0.8s,baz=171,slow=4.0,SNR=4.8						
	comp=Z,0.9nm,0.8s						
WB0	**Warramunga Arr**	**97.67**	**192**	P	**P**	**21 36 59.3**	**-2.0**
WB0				IAmb	IAmb	21 37 39.1	
	comp=Z,5.7nm,1.2s						
GERES	**GERESS Array B**	**124.58**	**50**	PKP	**PKPdf**	**21 42 24.1**	**-0.7**
	comp=Z,0.8nm,0.6s,baz=201,slow=2.3,SNR=7.2						
GERES	**GERESS Array B**	**124.58**	**50**		**PKPdf**	**21 42 23.6**	**-1.2**
CMAR	**Chiang Mai Arr**	**133.47**	**150**	PKP	**PKiKP**	**21 42 43.9**	**+0.1**
	comp=Z,0.4nm,0.3s,baz=219,slow=2.6,SNR=5.2						
CMAR	**Chiang Mai Arr**	**133.47**	**150**		**PKPdf**	**21 42 43.0**	**+0.4**
FINES	**FINESS Array B**	**138.82**	**47**	PKP	**PKPdf**	**21 42 51.0**	**-0.1**
	comp=Z,6.2nm,1.0s,baz=216,slow=9.4,SNR=3.9						
ARCES	**ARCESS Array B**	**144.02**	**37**	PKP	**PKPab**	**21 42 57.3**	**-0.5**
	comp=Z,4.2nm,0.7s,baz=223,slow=1.4,SNR=18						
ARCES	**ARCESS Array B**	**144.02**	**37**		**PKPab**	**21 42 57.0**	**-0.8**
M17K	**Holitna River**	**144.13**	**306**	PKPdf	**PKPdf**	**21 42 59.6**	**-1.1**
AB31	**Akbulak array**	**144.35**	**82**	PKPdf	**PKPab**	**21 42 58.8**	**-0.8**
ABKAR	**Akbulak array**	**144.35**	**82**	PKPdf	**PKPab**	**21 42 58.6**	**-1.0**
F24K	**Squaw Lake**	**144.52**	**319**	PKPdf	PKPbc	21 43 00.1	+0.1
KEV	**Kevo**	**144.57**	**37**	PKPdf	**PKPab**	**21 42 58.5**	**-1.3**
KKAR	**Karatay Array**	**144.73**	**99**		PKPbc	21 43 01.4	0.0
LZDM	**Lanzhou Array**	**151.39**	**148**	PKPbc	**PKiKP**	**21 43 20.0**	**-0.4**
	comp=Z,1.2nm,0.3s,baz=199,slow=3.1,SNR=4.2						
BVAR	**Borovoye Array**	**151.75**	**85**	PKPbc	**PKPbc**	**21 43 19.6**	**-0.1**
	comp=Z,6.7nm,0.8s,baz=230,slow=2.2,SNR=21						
MKAR	**Makanchi Array**	**152.94**	**106**	PKPbc	**PKPbc**	**21 43 22.5**	**-0.2**
	comp=Z,1.3nm,0.6s,baz=226,slow=3.1,SNR=12						
MKAR	**Makanchi Array**	**152.94**	**106**		**PKPbc**	**21 43 21.8**	**-0.9**
KURBB	**Kurchatov Arra**	**153.97**	**96**	PKPbc	**PKPbc**	**21 43 24.3**	**-0.5**
	comp=Z,1.0nm,0.7s,baz=232,slow=2.8,SNR=8.3						
SONM	**Songino Array**	**163.19**	**142**	PKPab	**PKPab**	**21 44 18.8**	**+0.3**
	comp=Z,1.4nm,0.8s,baz=208,slow=4.5,SNR=9.5						

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*SJA **12** 21:38:03.8±1.5, 20°.71S×66°.74W, h247^{km}±11^{km}, ML4.1, MW3.9*
*IDC **12** 21:38:03.7±1.1, 20°.53S×66°.47W, h240^{km}±9^{km}, mb3.6/13, mbtmp4.2/17, Error ellipse: s-maj=14.8km s-min=9.8km az=73.0*
*NEIC **12** 21:38:03.7±1.4, 20°.61S±0°.06×66°.68W±0°.09, h242^{km}±5^{km}, mb4.4/40, Error ellipse: s-maj=12.1km s-min=8.4km az=81.0*
*SCB **12** 21:38:03.0±1.5, 20°.72S×66°.70W, h252^{km}±15^{km}, ML4.9/2, Error ellipse: s-maj=6.6km s-min=3.8km az=1.0*
*VAO **12** 21:38:04.6±0.4, 20°.57S×66°.69W, h263^{km}, mb4.0, Presumed earthquake*
ISC 12 21:38:03.2±0.6, **20°.62S**±0°.04×**66°.68W**±0°.04, **h241**^{km}±5^{km}, **n183,** σ**1**^{s}**.23**/204, **mb4.3**/25, **1C-2D, Southern Bolivia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YJA	**Yavi**	**1.89**	**145**	*i* P	**Pn**	**21 38 45.8**	**+1.4**
YJA				*i* S	**S**	**21 39 16.9**	**+0.1**
YJA				IAML		21 39 18.5	
	comp=Z,192nm,0.5s						
YJA	**Yavi**	**1.89**	**145**	P	**Pn**	**21 38 45.7**	**+1.4**
SOEO	**Opoqueri**	**2.34**	**331**	P	**Pn**	**21 38 51.5**	**+2.8**
PB08	**IPOC Station P**	**2.37**	**281**	*i* P	**Pn**	**21 38 50.3**	**+1.5**
PB08				*i* S	**S**	**21 39 25.6**	**+1.0**
PB08				IAML		21 39 26.9	
	comp=Z,273nm,0.7s						
PB08	**IPOC Station P**	**2.37**	**281**		**Pn**	**21 38 50.1**	**+1.3**
PB08				Sn	**S**	**21 39 25.6**	**+1.0**
PB08	**IPOC Station P**	**2.37**	**281**	P	**Pn**	**21 38 50.1**	**+1.3**
GO01	**Chusmiza**	**2.54**	**291**	*i* P	**Pn**	**21 38 51.8**	**+1.1**
GO01				IAML		21 39 36.2	
	comp=Z,246nm,0.1s						
GO01	**Chusmiza**	**2.54**	**291**		**Pn**	**21 38 51.9**	**+1.1**
GO01				Sn	**S**	**21 39 28.7**	**+0.6**
GO01	**Chusmiza**	**2.54**	**291**	P	**Pn**	**21 38 52.0**	**+1.2**
GO01				S	**S**	**21 39 29.5**	**+1.4**
PB09	**IPOC Station P**	**2.66**	**243**	*i* P	**Pn**	**21 38 53.0**	**+1.3**
PB09				IAML		21 39 32.5	
	comp=Z,244nm,0.3s						
PB09	**IPOC Station P**	**2.66**	**243**		**Pn**	**21 38 53.0**	**+1.3**
PB09	**IPOC Station P**	**2.66**	**243**	P	**Pn**	**21 38 52.9**	**+1.3**
AF01	**San Pedro de A**	**2.71**	**211**		**Pn**	**21 38 54.0**	**+1.7**
AOEA	**Aiquile**	**2.79**	**30**	P	**Pn**	**21 38 54.8**	**+1.6**
HJA	**Humahuaca**	**2.83**	**156**	*i* P	**Pn**	**21 38 54.7**	**+1.1**
HJA				*i* S	**S**	**21 39 33.3**	**-0.2**
HJA				IAML		21 39 35.9	
	comp=Z,99nm,0.7s						
PB11	**IPOC Station P**	**2.92**	**286**	*i* P	**Pn**	**21 38 55.0**	**+0.6**
PB11				IAML		21 39 37.9	
	comp=Z,682nm,0.3s						
PB11	**IPOC Station P**	**2.92**	**286**		**Pn**	**21 38 55.1**	**+0.6**
PB11	**IPOC Station P**	**2.92**	**286**	P	**Pn**	**21 38 55.1**	**+0.6**
PB11				S	**S**	**21 39 34.6**	**-0.2**
PB11				IAML		21 39 37.0	
	comp=Z,2µm,0.2s						
PB02	**IPOC Station P**	**3.08**	**256**	*i* P	**Pn**	**21 38 56.8**	**+0.6**
PB02				*i* S	**S**	**21 39 35.8**	**-2.1**
PB02				IAML		21 39 39.6	
	comp=Z,2µm,0.3s						
PB02	**IPOC Station P**	**3.08**	**256**		**Pn**	**21 38 56.7**	**+0.6**
PB02	**IPOC Station P**	**3.08**	**256**	P	**Pn**	**21 38 57.1**	**+1.0**
PB02				S	**S**	**21 39 36.5**	**-1.4**
PB02				IAML		21 39 38.1	
	comp=Z,2µm,0.2s						
PB07	**IPOC Station P**	**3.19**	**249**	*i* P	**Pn**	**21 38 58.0**	**+0.7**
PB07				*i* S	**S**	**21 39 37.9**	**-2.2**
PB07				IAML		21 39 41.1	
	comp=Z,578nm,0.4s						
PB07	**IPOC Station P**	**3.19**	**249**		**Pn**	**21 38 58.0**	**+0.7**
PB03	**IPOC Station P**	**3.20**	**243**	*i* P	**Pn**	**21 38 58.3**	**+0.8**
PB03				*i* S	**S**	**21 39 37.5**	**-2.7**
PB03				IAML		21 39 41.3	
	comp=Z,698nm,0.2s						
PB03	**IPOC Station P**	**3.20**	**243**		**Pn**	**21 38 57.7**	**+0.2**
TA02	**Huaiquique**	**3.25**	**276**	*i* P	**Pn**	**21 38 58.2**	**+0.2**
TA02				*i* S	**S**	**21 39 39.8**	**-1.3**
TA02				IAML		21 39 40.9	
	comp=Z,2µm,0.1s						
TA01	**Diego Aracena**	**3.28**	**270**	*i* P	**Pn**	**21 38 58.0**	**-0.2**
TA01				*i* S	**S**	**21 39 38.7**	**-2.9**
TA01				IAML		21 39 41.4	
	comp=Z,250nm,0.3s						
TA01	**Diego Aracena**	**3.28**	**270**		**Pn**	**21 38 58.4**	**+0.2**
PSGCX	**Pisagua**	**3.39**	**287**	*i* P	**Pn**	**21 38 59.6**	**0.0**
PSGCX				*i* S	**S**	**21 39 42.5**	**-1.6**
PSGCX				IAML		21 39 43.7	
	comp=Z,633nm,0.3s						
PSGCX	**Pisagua**	**3.39**	**287**		**Pn**	**21 38 59.4**	**-0.2**
PB06	**IPOC Station P**	**3.40**	**232**	*i* P	**Pn**	**21 39 00.5**	**+0.8**
PB06				*i* S	**S**	**21 39 42.4**	**-2.0**
PB06				IAML		21 39 47.4	
	comp=Z,418nm,0.1s						
PB06	**IPOC Station P**	**3.40**	**232**		**Pn**	**21 39 00.2**	**+0.5**
PB06	**IPOC Station P**	**3.40**	**232**	P	**Pn**	**21 39 00.4**	**+0.7**
PB16	**IPOC Station P**	**3.50**	**310**	*i* P	**Pn**	**21 39 03.3**	**+1.9**
PB16				*i* S	**S**	**21 39 48.0**	**+0.7**
PB16				IAML		21 39 51.6	
	comp=Z,161nm,0.5s						
PB16	**IPOC Station P**	**3.50**	**310**		**Pn**	**21 39 03.2**	**+1.9**
PB16	**IPOC Station P**	**3.50**	**310**	P	**Pn**	**21 39 03.5**	**+2.1**
SALTA		**3.60**	**175**	*i* P	**Pn**	**21 39 03.6**	**+1.3**
SALTA				IAML		21 40 26.9	
	comp=Z,48nm,0.0s						
BBOJ	**La Paz, Jacaqu**	**3.90**	**338**	P	**Pn**	**21 39 08.6**	**+2.6**
SOEJ	**Jacaque**	**3.90**	**338**	P	**Pn**	**21 39 08.6**	**+2.6**
PB05	**IPOC Station P**	**3.96**	**235**	*i* P	**Pn**	**21 39 06.5**	**+0.3**
PB05				IAML		21 39 55.8	
	comp=Z,187nm,0.4s						
PB05	**IPOC Station P**	**3.96**	**235**		**Pn**	**21 39 06.3**	**+0.2**
PB12	**IPOC Station P**	**3.98**	**300**	*i* P	**Pn**	**21 39 06.0**	**-0.4**
PB12				IAML		21 39 56.8	
	comp=Z,415nm,0.2s						
PB12	**IPOC Station P**	**3.98**	**300**		**Pn**	**21 39 06.0**	**-0.4**
PB18	**Visviri**	**4.01**	**318**		**Pn**	**21 39 09.4**	**+2.1**
AP01	**Chacalluta**	**4.12**	**302**	*i* P	**Pn**	**21 39 08.6**	**+0.6**
AP01				*i* S	**S**	**21 39 57.9**	**-1.4**

AP01				IAML		21 40 03.3	
	comp=Z,797nm,0.3s						
AP01	Chacalluta	4.12	302	Pn	Pn	21 39 08.0	0.0
SLA	San Lorenzo	4.22	165	*i* P	Pn	21 39 10.6	+1.2
SLA				IAML		21 40 17.0	
	comp=Z,10nm,0.7s						
BBOD	La Paz, Gloria	4.36	335	P	Pn	21 39 13.5	+2.0
LPAZ	La Paz	4.52	342	P	Pn	21 39 15.0	+1.5
	comp=Z,42nm,0.4s,baz=172,slow=8.1,SNR=188						
LPAZ				S	S	21 40 09.2	-0.1
	comp=Z,52nm,0.8s,baz=281,slow=16,SNR=8.1						
LPAZ	La Paz	4.52	342	*i* P	Pn	21 39 15.3	+1.8
LPAZ				*i* S	S	21 40 09.7	+0.5
LPAZ				IAML		21 40 12.3	
	comp=Z,31nm,1.2s						
LPAZ	La Paz	4.52	342		Pn	21 39 15.2	+1.8
LPAZ	La Paz	4.52	342	P	Pn	21 39 15.5	+2.0
LPAZ	La Paz	4.52	342	*e*P	Pn	21 39 14.5	+1.0
LPAZ				*e*S	S	21 40 09.7	+0.5
BBOB	La Paz, Bander	4.66	343	P	Pn	21 39 17.0	+1.9
PB14	IPOC Station P	5.26	220	*i* P	Pn	21 39 21.9	-0.4
PB14				IAML		21 40 23.9	
	comp=Z,286nm,0.3s						
PB14	IPOC Station P	5.26	220		Pn	21 39 22.0	-0.3
PB14	IPOC Station P	5.26	220	P	Pn	21 39 21.6	-0.6
AC01	Pan de Azucar	6.57	212	Pn	Pn	21 39 36.9	-1.4
AC02	Maricunga	6.58	199		Pn	21 39 38.3	-0.6
SIV	San Ignacio	7.04	50	P	Pn	21 39 43.8	-0.5
	comp=Z,30nm,0.7s,baz=237,slow=10,SNR=148						
SIV				S	S	21 40 58.0	-7.4
	comp=Z,5.5nm,0.9s,baz=264,slow=10,SNR=3.3						
SIV	San Ignacio	7.04	50	P	Pn	21 39 45.1	+0.7
GO03	Copiapo	7.66	204		Pn	21 39 50.2	-2.0
AC05	El Transito	8.81	201	Pn	Pn	21 40 05.0	-1.8
PTLB	Pontes e Lacer	8.83	56	Pn	Pn	21 40 06.6	-0.4
PTLB	Pontes e Lacer	8.83	56	*e*P	Pn	21 40 07.1	0.0
LCO	Las Campanas	9.12	203	Pn	Pn	21 40 08.4	-2.5
BDQN	Bodoquena, MS	9.31	91	*e*P	Pn	21 40 13.0	-0.1
CO01	Juntas del Tor	9.81	198	Pn	Pn	21 40 19.5	-0.2
VILB	Vilhena	9.83	40		Pn	21 40 20.1	+0.3
VILB	Vilhena	9.83	40	*e*P	Pn	21 40 20.6	+0.8
GO04	Tololo Observa	10.21	201	Pn	Pn	21 40 22.9	-1.8
AQDB	Aquidauana	10.29	91	Pn	Pn	21 40 25.5	-0.1
AQDB	Aquidauana	10.29	91	*e*P	Pn	21 40 26.7	+1.1
CPUP	Villa Florida	10.29	125	P	Pn	21 40 23.7	-1.9
	comp=Z,0.7nm,0.5s,baz=312,slow=13,SNR=3.4						
CPUP	Villa Florida	10.29	125		Pn	21 40 25.5	0.0
CPUP	Villa Florida	10.29	125	*e*P	Pn	21 40 26.7	+1.1
SJPY	San Joaquin	10.68	116	*e*P	Pn	21 40 31.4	+0.9
CO03	El Pedregal	10.80	199		Pn	21 40 30.4	-1.5
CFA	Coronel Fontan	11.03	187	P	Pn	21 40 33.8	-1.1
	comp=Z,1.7nm,0.2s,baz=336,slow=9.5,SNR=68						
CFA				S	S	21 42 27.0	-11
	comp=Z,4.1nm,0.4s,baz=148,slow=19,SNR=9.5						
ZON	Zonda	11.03	189		Pn	21 40 33.9	-1.0
SALV	Santo Antonio	11.44	68	*e*P	Pn	21 40 40.6	+0.5
PP1B	Ponte de Pedra	11.55	77	*e*P	Pn	21 40 41.2	-0.3
VA03	San Esteban	12.58	195	Pn	Pn	21 40 53.4	-0.8
NNA	Nana	12.99	310		Pn	21 40 59.8	+0.4
MT02	Curacav	13.20	197		Pn	21 41 00.9	-0.8
MT16	CCHEN	13.21	194	Pn	Pn	21 41 02.2	+0.3
PSAL	Palomas, Salto	13.23	144	*e*P	Pn	21 41 02.1	0.0
TRCB	Terra Rica	13.23	102	*e*P	Pn	21 41 02.9	+0.5
MT03	Universidad Ad	13.27	194		Pn	21 41 01.3	-1.4
MT09	Talagante	13.65	195		Pn	21 41 06.9	-0.6
PTGB	Pitanga	14.09	110	*e*P	P	21 41 14.1	+0.4
BO01	Tunca	14.26	195	P	Pn	21 41 13.7	-1.0
CLDB	Colider	14.26	49	*e*P	Pn	21 41 15.0	0.0
BO02	Sierra Bellavi	14.57	194	P	Pn	21 41 18.1	-0.6
LDASE	Londrina, Braz	14.70	104	*e*P	Pn	21 41 21.1	+0.9
ARAG	Araguaiana, MT	14.95	73	*e*P	Pn	21 41 23.8	+0.6
CPSB	Cacapava Do Su	15.41	132	P	P	21 41 27.6	-0.5
CPSB				IAmb	IAmb	21 41 30.0	
	comp=Z,13nm,0.5s						
CPSB	Cacapava Do Su	15.41	132	*e*P	Pn	21 41 28.7	+0.1
ANCO	Parque Anchore	15.64	152	*e*P	P	21 41 30.9	+0.5
ML02	Panimavida	15.65	194	P	P	21 41 29.3	-1.4
FRTB	Fartura	16.11	103	*e*P	Pn	21 41 37.1	+0.1
BI02	San Fabin de	16.48	193	P	P	21 41 38.8	-1.0
BI02				IAmb	IAmb	21 41 44.0	
	comp=Z,20nm,1.1s						
BB19B	Bebedouro	16.98	95	*e*P	P	21 41 46.4	+1.0
SNDB	Serra Nova Dou	17.08	62	*e*P	P	21 41 47.2	+0.7
IPMB	Ipameri, GO	17.63	85	*e*P	P	21 41 53.4	+0.8
SPB	Sao Paulo	18.08	103	*e*P	P	21 41 58.6	+1.3
MACA	Manacapuru-AM	18.31	19	P	P	21 41 59.2	-0.7
MACA	Manacapuru-AM	18.31	19	*e*P	P	21 42 00.1	+0.3
BDFB	Brasilia	18.41	77	P	P	21 42 01.0	-0.1
	comp=Z,4.3nm,0.4s,baz=238,slow=7.5,SNR=7.2						
BDFB	Brasilia	18.41	77	P	P	21 42 00.8	-0.3
BDFB				IAmb	IAmb	21 42 05.5	
	comp=Z,5.5nm,0.6s						
CANS	Sao Roque de M	19.02	93	*e*P	P	21 42 06.3	-1.2
GO06	Curarrehue	19.34	191	P	P	21 42 10.6	-0.2
GO06				IAmb	IAmb	21 42 15.3	
	comp=Z,13nm,0.7s						
ITTB	Itaituba	19.35	35	*e*P	P	21 42 10.6	-0.5
PLCA	Paso Flores	20.32	188	P	P	21 42 22.9	+1.6
	comp=Z,18nm,0.6s,baz=3.6,slow=11,SNR=44						
	comp=Z,18nm,0.6s						
PLCA	Paso Flores	20.32	188	P	P	21 42 20.9	-0.4
PLCA	Paso Flores	20.32	188	*e*P	P	21 42 22.3	+1.1
SGC2	Sao Gabriel da	20.34	359	*e*P	P	21 42 21.3	-0.4
BSCB	Bom Sucesso	20.48	95	*e*P	P	21 42 23.3	+0.1
DIAM	Diamantina, MG	21.82	88	*e*P	P	21 42 36.5	-0.1
SMTB	Santa Maria do	21.82	60	*e*P	P	21 42 36.8	+0.3
JANB	Januaria	21.99	79	*e*P	P	21 42 37.5	-0.6
SDBA	SAO DESIDERIO	22.40	72	*e*P	P	21 42 41.6	-0.2
LL02	Futaleuf	22.92	190	P	P	21 42 45.8	-0.4
LL02				IAmb	IAmb	21 42 47.1	
	comp=Z,10nm,0.7s						
BOAV	Boa Vista	23.66	15	P	P	21 42 52.3	-0.9
OTAV	Otavalo	23.71	330	P	P	21 42 54.0	-0.2
GUA01	Guaratinga, BA	25.77	86	*e*P	P	21 43 12.3	0.0
ROSC	El Rosal	26.39	343	P	P	21 43 15.9	-2.3
ROSC				IAmb	IAmb	21 43 17.0	
	comp=Z,7.0nm,0.5s						
EFI	East Falkland	31.72	170	P	P	21 44 03.4	-1.0
MG03	Isla Dawson	33.30	184	P	P	21 44 18.5	+0.5
FDFM	Morne la Roset	35.55	9	P	P	21 44 36.7	-1.1
FDFM				IAmb	IAmb	21 44 48.4	
	comp=Z,20nm,1.1s						
CRPR	Cabo Rojo, PR	38.39	359	P	P	21 45 00.1	-1.4
CRPR				IAmb	IAmb	21 45 03.8	
	comp=Z,14nm,0.8s						
PDPR	Patillas Dam,	38.40	1	P	P	21 45 00.6	-1.1
PDPR				IAmb	IAmb	21 45 19.5	
	comp=Z,9.8nm,1.2s						
CELP	Cerrillos	38.45	0	P	P	21 45 01.4	-0.8
SMRT	St. Maarten	38.59	6	P	P	21 45 00.7	-2.6
ECPR	Experimental S	38.70	0	P	P	21 45 02.5	-1.7
HOPE	Hope Point	40.68	153	P	P	21 45 20.6	+0.6
TEIG	Tepich	45.77	331	P	P	21 46 01.4	+0.4
SMAI	San Martin Ant	47.50	180	P	P	21 46 15.4	+1.6
V55A	Taylorsville	57.83	346	P	P	21 47 29.9	+0.2
V55A				IAmb	IAmb	21 47 31.4	
	comp=Z,16nm,1.4s						
833A	Chaparral WMA,	58.02	326	P	P	21 47 29.6	-1.5
833A				IAmb	IAmb	21 47 32.6	
	comp=Z,5.0nm,0.6s						
X48A	Hartselle	58.09	340	P	P	21 47 31.3	-0.2
TKL	Tuckaleechee C	58.27	344	P	P	21 47 32.6	-0.1
	comp=Z,2.8nm,0.6s,baz=158,slow=6.5,SNR=5.8						
	comp=Z,2.8nm,0.6s						
TKL	Tuckaleechee C	58.27	344	P	P	21 47 32.0	-0.8
TKL				IAmb	IAmb	21 47 32.6	
	comp=Z,19nm,1.4s						
U54A	Nelsons Funny	58.60	346	P	P	21 47 35.0	-0.1
WVT	Waverly	59.88	340	P	P	21 47 42.9	-0.8
WVT				IAmb	IAmb	21 47 43.8	
	comp=Z,5.5nm,0.6s						
Q56A	Snyder Ridge,	60.49	349	P	P	21 47 48.1	+0.3
Q56A				IAmb	IAmb	21 48 14.0	
	comp=Z,16nm,1.2s						
VNA2	Neumayer--Watz	60.80	161	⇑P	P	21 47 50.3	+0.8
	comp=Z,3.4nm,0.6s,baz=283,slow=6.6						
LCAR	Lake Charles	60.95	337	P	P	21 47 50.9	0.0
TXAR	Lajitas Array	61.14	323	P	P	21 47 53.1	+0.6
	comp=Z,0.4nm,0.5s,baz=151,slow=9.7,SNR=5.9						
	comp=Z,0.4nm,0.5s						
SNAA	Sanae	62.43	161	⇓P	P	21 48 01.5	+1.0
	comp=Z,46nm,0.5s						
SNAA	Sanae	62.43	161	P	P	21 48 01.2	+0.7
	comp=Z,2.1nm,0.6s,baz=272,slow=5.6,SNR=6.6						
	comp=Z,2.1nm,0.6s						
SNAA	Sanae	62.43	161	P	P	21 48 01.1	+0.7
S39A	Bolivar	63.19	337	P	P	21 48 05.7	0.0
S39A				IAmb	IAmb	21 48 06.5	
	comp=Z,5.2nm,0.5s						
TROLL	Troll, Antarti	64.15	161	⇓P	P	21 48 13.2	+1.4
	comp=Z,189nm,0.5s						
DBIC	Dimbokro	66.49	73	P	P	21 48 26.9	-0.6
DBIC				IAmb	IAmb	21 48 41.1	
	comp=Z,13nm,1.4s						
SDCO	Great Sand Dun	68.58	328	P	P	21 48 41.0	+0.5
QSPA	South Pole Qui	69.57	180	P	P	21 48 47.0	+1.1
	comp=Z,1.4nm,0.4s,baz=145,slow=6.2,SNR=21						
	comp=Z,1.4nm,0.4s						
QSPA	South Pole Qui	69.57	180	P	P	21 48 47.1	+1.2
ECSD	EROS Data Cent	69.68	337	P	P	21 48 46.3	-0.4
ECSD				IAmb	IAmb	21 48 47.7	
	comp=Z,9.8nm,1.5s						
MTPU	Mount Pierson	72.33	324	P	P	21 49 03.7	+0.5
PDAR	Pinedale Array	74.42	329	P	P	21 49 15.9	+0.8
	comp=Z,0.5nm,0.4s,baz=123,slow=8.9,SNR=11						
	comp=Z,0.5nm,0.4s						
PDAR	Pinedale Array	74.42	329	P	P	21 49 14.9	-0.2
TORD	Torodi Ar. Bea	75.10	70	P	P	21 49 18.4	-0.9
	comp=Z,2.4nm,0.6s,baz=253,slow=5.3,SNR=21						
	comp=Z,2.4nm,0.6s						
ULM	Lac du Bonnet	75.14	341	P	P	21 49 18.6	-0.1
	comp=Z,1.9nm,0.4s,baz=172,slow=8.0,SNR=4.5						
	comp=Z,1.9nm,0.4s						
ULM	Lac du Bonnet	75.14	341	P	P	21 49 18.4	-0.2
ULM				IAmb	IAmb	21 49 35.2	
	comp=Z,4.3nm,1.0s						
ELK	Elko	75.91	324	P	P	21 49 24.9	+1.3
	comp=Z,0.6nm,0.6s,baz=194,slow=4.2,SNR=2.3						
	comp=Z,0.6nm,0.6s						
NVAR	Mina Array Bea	76.11	321	P	P	21 49 26.3	+1.4
	comp=Z,0.5nm,0.7s,baz=136,slow=4.7,SNR=2.3						
	comp=Z,0.5nm,0.7s						
LBTB	Lobatse	83.49	114	P	P	21 50 03.5	-1.1
LBTB				IAmb	IAmb	21 50 11.6	
	comp=Z,9.6nm,1.2s						
ESDC	Sonseca Array	83.76	44	P	P	21 50 05.8	+0.3
	comp=Z,0.8nm,0.9s,baz=250,slow=3.7,SNR=5.0						
	comp=Z,0.8nm,0.9s						
MAW	Mawson	84.56	163	P	P	21 50 10.0	+1.0
	comp=Z,2.5nm,0.6s,baz=216,slow=5.9,SNR=13						
	comp=Z,2.5nm,0.6s						
MAW	Mawson	84.56	163	P	P	21 50 09.6	+0.6
YKA	Yellowknife Ar	91.07	340	P	P	21 50 40.5	+0.6
	comp=Z,1.2nm,0.5s,baz=133,slow=4.7,SNR=9.3						
	comp=Z,1.2nm,0.5s						
ASAR	Alice Springs	131.63	206	PKP	PKPdf	21 56 48.3	+0.2
	comp=Z,0.4nm,0.6s,baz=140,slow=1.8,SNR=5.2						
ASAR				SKPbc	SKPab	21 59 50.8	-0.9
	comp=Z,0.5nm,0.5s,baz=146,slow=3.6,SNR=12						
ASAR	Alice Springs	131.63	206		PKPdf	21 56 47.9	-0.2
WRA	Warramunga Arr	134.74	208	PKP	PKPdf	21 56 54.4	+0.4
	comp=Z,0.9nm,0.7s,baz=150,slow=2.0,SNR=12						
WRA				SKPbc	SKPbc	22 00 01.3	-0.1
	comp=Z,0.3nm,0.8s,baz=155,slow=3.0,SNR=2.3						
WRA	Warramunga Arr	134.74	208		PKPdf	21 56 53.2	-0.8
ZALV	Zalesovo Beam	140.26	26	PKP	PKPdf	21 57 02.2	-0.8
	comp=Z,0.4nm,0.5s,baz=316,slow=2.5,SNR=2.6						
MKAR	Makanchi Array	143.69	37	PKP	PKPbc	21 57 08.0	+0.3
	comp=Z,0.8nm,0.8s,baz=323,slow=1.4,SNR=5.3						
MKAR	Makanchi Array	143.69	37		PKPbc	21 57 08.1	+0.5
SONM	Songino Array	152.28	10	PKPbc	PKiKP	21 57 31.1	+0.4
	comp=Z,0.4nm,0.3s,baz=354,slow=2.9,SNR=7.9						
HHC	Hu-ho-hao-te	159.78	4	*e*P	PKPdf	21 57 35.6	+2.1
NJ2	Nanjing	167.58	338	*e*P	PKPdf	21 57 41.9	+1.1
NJ2				pmax	pmax		
	comp=Z,4.0nm,0.8s						
PZH	PanZhiHua	167.88	59	PKP	PKPdf	21 57 39.7	-1.7

*SJA **12** 22:11:23.9±0.6, 19°.50S×69°.30W, h106^{km}±4^{km}, ML3.3, MW3.5*

*GUC **12** 22:11:24.2±0.7, 19°.47S×69°.18W, h108^{km}±3^{km}, ML3.5*

*IDC **12** 22:11:26.1±7.9, 19°.41S×68°.84W, h140^{km}±49^{km}, mb3.3/2, mbtmp3.7/4, Error ellipse: s-maj=87.5km s-min=41.4km az=49.0*

ISC 12 22:11:22.8±1.0, 19°.49S±0°.03×69°.23W±0°.07, h113^{km}±8^{km}, n32, $\sigma 1^{s}.38$/46, 4C-2D, Northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GO01	Chusmiza	0.19	169	*e*P	Pn	22 11 39.8	+0.5
GO01				IAML		22 11 54.2	
	comp=Z,1μm,0.6s						
GO01	Chusmiza	0.19	169	⇓*i*P	Pn	22 11 39.7	+0.4
GO01				*i* S	Sn	22 11 51.8	+0.3
PB11	IPOC Station P	0.48	235	*e*P	Pn	22 11 40.6	+0.4
PB11				IAML		22 11 54.8	
	comp=Z,2μm,0.3s						
PB11	IPOC Station P	0.48	235	⇑*i*P	Pn	22 11 40.8	+0.6
PB11				*i* S	Sn	22 11 53.7	+0.5
PB11				IAML		22 11 54.2	
	comp=E,4μm,0.2s						
PB08	IPOC Station P	0.66	173	*e*P	Pn	22 11 42.6	+1.0
PB08				IAML		22 11 58.3	
	comp=Z,728nm,0.2s						
PB08	IPOC Station P	0.66	173	⇑*i*P	Pn	22 11 42.4	+0.7
PB08				*i* S	Sn	22 11 56.5	+0.7
PB08				IAML		22 11 58.4	
	comp=E,2μm,0.2s						
PSGCX	Pisagua	0.85	262	*e*P	Pn	22 11 43.5	+0.6
PSGCX				IAML		22 12 05.4	
	comp=Z,265nm,0.2s						
PSGCX	Pisagua	0.85	262	⇑*i*P	Pn	22 11 43.4	+0.6
PSGCX				*i* S	Sn	22 11 58.8	+0.8
TA02	Huaiquique	1.15	227	*e*P	Pn	22 11 46.7	+0.9
TA02				*e*S	Sn	22 12 04.7	+1.4
TA02				IAML		22 12 06.1	
	comp=Z,746nm,0.1s						
TA02	Huaiquique	1.15	227	*i* P	Pn	22 11 46.6	+0.7
TA02				*i* S	Sn	22 12 04.1	+0.8
TA02				IAML		22 12 05.1	
	comp=E,2μm,0.1s						
PB16	IPOC Station P	1.17	347	*e*P	Pn	22 11 48.0	+1.3
PB16				*e*S	Sn	22 12 06.5	+1.7
PB16				IAML		22 12 10.1	
	comp=Z,363nm,0.5s						
PB16	IPOC Station P	1.17	347	⇓*i*P	Pn	22 11 48.1	+1.3
PB16				*i* S	Sn	22 12 06.0	+1.2
PB16				IAML		22 12 07.6	
	comp=N,550nm,0.6s						
PB12	IPOC Station P	1.35	310	*e*P	Pn	22 11 48.8	+0.6
PB12				*e*S	Sn	22 12 08.2	+0.7
PB12				IAML		22 12 08.6	
	comp=Z,470nm,0.1s						
PB12	IPOC Station P	1.35	310	⇑*i*P	Pn	22 11 48.7	+0.5
PB12				*i* S	Sn	22 12 07.3	-0.1
PB12				IAML		22 12 08.6	
	comp=E,906nm,0.5s						
TA01	Diego Aracena	1.40	220	*e*P	Pn	22 11 49.4	+0.8
TA01				IAML		22 12 15.1	
	comp=Z,164nm,0.3s						
TA01	Diego Aracena	1.40	220	*i* P	Pn	22 11 49.1	+0.5
TA01				*i* S	Sn	22 12 08.5	+0.3
AP01	Chacalluta	1.53	316	*e*P	Pn	22 11 51.3	+1.2
AP01				IAML		22 12 13.3	
	comp=Z,631nm,0.2s						
AP01	Chacalluta	1.53	316	*i* P	Pn	22 11 51.0	+0.8
AP01				*i* S	Sn	22 12 11.5	+0.6
PB02	IPOC Station P	1.93	199	*i* P	Pn	22 11 56.0	+0.8
PB02				IAML		22 12 27.7	
	comp=E,430nm,0.4s						
PB09	IPOC Station P	2.30	180	*e*P	Pn	22 12 01.9	+1.9
PB09				IAML		22 12 32.2	
	comp=Z,84nm,0.6s						
PB09	IPOC Station P	2.30	180	*e*P	Pn	22 12 01.9	+1.9
PB09				*i* S	Sn	22 12 29.4	+1.0
PB09				IAML		22 12 32.2	
	comp=N,123nm,0.3s						
PB07	IPOC Station P	2.31	195	*e*P	Pn	22 12 01.6	+1.4
PB07				IAML		22 12 31.9	
	comp=Z,72nm,0.4s						
PB07	IPOC Station P	2.31	195	*i* P	Pn	22 12 01.5	+1.3
PB03	IPOC Station P	2.60	191	*e*P	Pn	22 12 06.5	+2.7
PB03				IAML		22 12 50.5	
	comp=Z,111nm,0.1s						
PB03	IPOC Station P	2.60	191	*i* P	Pn	22 12 05.3	+1.5
PB06	IPOC Station P	3.22	186	*e*P	Pn	22 12 14.2	+2.2
PB06				*e*S	Sn	22 12 38.4	-12
PB06				IAML		22 13 16.5	
	comp=Z,43nm,0.3s						
LPAZ	La Paz	3.35	18	P	Pn	22 12 16.2	+2.1
	comp=Z,3.0nm,0.4s,baz=204,slow=3.9,SNR=21						
LPAZ				S	Sn	22 12 54.9	+1.2
	comp=Z,2.3nm,0.7s,baz=71,slow=11,SNR=1.5						
LPAZ	La Paz	3.35	18	*e*P	Pn	22 12 17.1	+2.9
PB05	IPOC Station P	3.47	195	*e*P	Pn	22 12 16.7	+1.4
PB05				IAML		22 13 26.6	
	comp=Z,29nm,0.8s						
SIV	San Ignacio	8.52	67	P	Pn	22 13 20.5	-2.9
	comp=Z,5.7nm,0.5s,baz=238,slow=13,SNR=29						
BDFB	Brasilia	20.59	83	P	P	22 15 51.3	-1.8
	comp=Z,1.7nm,0.5s,baz=223,slow=12,SNR=4.8						
	comp=Z,1.7nm,0.5s						
TORD	Torodi Ar. Bea	76.98	71	P	P	22 23 01.6	-2.0
	comp=Z,0.6nm,0.8s,baz=246,slow=5.6,SNR=4.2						
	comp=Z,0.6nm,0.8s						

*IDC **12** 22:21:59.6±1.7, 4°.50N×127°.28E, h0^{km}, mb3.7/4, mbtmp3.7/4, Error ellipse: s-maj=148.3km s-min=20.8km az=66.0*

*DJA **12** 22:22:06.4±1.3, 4°N±11°×12°7E±°, h10^{km}, M4.0/7, mB4.7/1, mb4.3/2, MLv3.9/7, Mw(mB)3.9/1*

ISC 12 22:22:03.3±0.9, 4°.14N±0°.05×126°.8E±0°.1, h10^{km}, n13, $\sigma 1^{s}.99$/17, mb3.9/5, Talaud Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	Don Marcelino,	2.23	331	*e*P	Pn	22 22 39.4	-1.0
DDMP				*e*S	Sn	22 23 05.4	-2.6
GSPH	General Santos	2.66	317	*i* P	Pn	22 22 45.4	-1.1
GSPH				*i* S	Sg	22 23 29.3	+0.3
MNI	Manado	3.30	216	P	Pn	22 22 55.8	+0.6
MNI				AML	AML		
TNTI	Ternate	3.39	170	P	Pn	22 22 56.7	+0.3
CDOP	Cateel, Davao	3.64	355	*i* P	Pb	22 23 10.6	+2.8
CDOP				*i* S	Sb	22 23 51.8	-0.3
BUKP	Musuan	4.09	335	*e*P	Pn	22 23 08.7	+2.7
BUKP				*e*S	Sn	22 23 57.3	+3.2
GTOI	Gorontalo	5.13	227	P	Pn	22 23 21.9	+1.6
	17nm,0.6s						
GLSP	General Luna,	5.65	353	*e*P	Pn	22 23 34.5	+7.0
GLSP				*e*S	Sb	22 24 48.6	-1.3
WRA	Warramunga Arr	25.05	163	P	P	22 27 26.8	-1.3
	2.0nm,0.8s,baz=344,slow=10,SNR=25						
	2.0nm,0.8s						
ASAR	Alice Springs	28.49	166	P	P	22 27 58.9	-0.2
	0.4nm,0.6s,baz=348,slow=7.3,SNR=7.4						
	0.4nm,0.6s						
STKA	Stephens Creek	38.49	160	P	P	22 29 26.2	+0.4
	2.1nm,0.8s,baz=347,slow=7.6,SNR=4.0						
	2.1nm,0.8s						
MKAR	Makanchi Array	57.25	325	P	P	22 31 49.9	-1.3
	0.3nm,0.6s,baz=119,slow=7.9,SNR=5.8						
	0.3nm,0.6s						
KURBB	Kurchatov Arra	61.43	327	P	P	22 32 16.3	-3.6
	0.3nm,0.3s,baz=134,slow=6.3,SNR=1.6						

*SJA **12** 22:50:56.9±0.5, 19°.33S×69°.96W, h72^{km}±2^{km}, ML3.6, MW3.7*

*GUC **12** 22:50:58.9±0.6, 19°.28S×69°.88W, h65^{km}±3^{km}, ML3.7*

ISC 12 22:50:59.4±1.3, 19°.33S±0°.03×69°.98W±0°.05, h58^{km}±8^{km}, n33, $\sigma 1^{s}.11$/48, 1C-6D, Northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSGCX	Pisagua	0.30	206	*e*P	Pn	22 51 09.3	-0.1
PSGCX				*e*S	Sn	22 51 17.9	+1.2
PSGCX				IAML		22 51 19.1	
	comp=Z,1μm,0.1s						
PSGCX	Pisagua	0.30	206	⇑*i*P	Pn	22 51 09.4	-0.1
PSGCX				*i* S	Sn	22 51 17.7	+1.0
PB11	IPOC Station P	0.53	144	*e*P	Pn	22 51 11.1	-0.6
PB11				*e*S	Sn	22 51 21.9	+1.3
PB11				IAML		22 51 24.4	
	comp=Z,2μm,0.1s						
PB11	IPOC Station P	0.53	144	⇓*i*P	Pn	22 51 11.0	-0.8
PB11				*i* S	Sn	22 51 20.8	+0.1
PB11				IAML		22 51 23.2	
	comp=N,3μm,0.2s						
PB12	IPOC Station P	0.78	335	*e*P	Pn	22 51 13.9	-0.8
PB12				IAML		22 51 28.3	
	comp=Z,1μm,0.2s						
PB12	IPOC Station P	0.78	335	⇓*i*P	Pn	22 51 13.8	-0.8
PB12				*i* S	Sn	22 51 25.4	-0.5
PB12				IAML		22 51 28.4	
	comp=E,3μm,0.2s						
GO01	Chusmiza	0.82	114	*e*P	Pn	22 51 14.7	-0.9
GO01				*e*S	Sn	22 51 27.6	+0.3
GO01				IAML		22 51 27.7	
	comp=Z,2μm,0.2s						
GO01	Chusmiza	0.82	114	*i* P	Pn	22 51 14.6	-0.9
GO01				*i* S	Sn	22 51 26.7	-0.5
TA02	Huaiquique	0.94	188	*e*P	Pn	22 51 16.1	-0.6
TA02				IAML		22 51 34.5	
	comp=Z,3μm,0.1s						
TA02	Huaiquique	0.94	188	*i* P	Pn	22 51 16.0	-0.6
AP01	Chacalluta	1.01	340	*e*P	Pn	22 51 16.9	-0.8
AP01				*e*S	Sn	22 51 31.6	+0.7
AP01				IAML		22 51 34.0	
	comp=Z,2μm,0.1s						
AP01	Chacalluta	1.01	340	*i* P	Pn	22 51 16.8	-0.8
AP01				*i* S	Sn	22 51 30.8	-0.2
AP01				IAML		22 51 35.4	
	comp=N,4μm,0.2s						
PB16	IPOC Station P	1.09	25	*e*P	Pn	22 51 18.3	-0.8
PB16				IAML		22 51 36.5	
	comp=Z,605nm,0.4s						
PB16	IPOC Station P	1.09	25	⇓*i*P	Pn	22 51 18.2	-0.8
PB16				*i* S	Sn	22 51 32.7	-0.9
PB08	IPOC Station P	1.12	136	*e*P	Pn	22 51 18.5	-0.9
PB08				IAML		22 51 35.8	
	comp=Z,819nm,0.3s						
PB08	IPOC Station P	1.12	136	⇓*i*P	Pn	22 51 18.5	-0.9
PB08				*i* S	Sn	22 51 34.0	-0.1
PB08				IAML		22 51 34.5	
	comp=N,3μm,0.1s						
TA01	Diego Aracena	1.24	189	*e*P	Pn	22 51 19.9	-0.7
TA01				IAML		22 51 40.7	
	comp=Z,520nm,0.1s						
TA01	Diego Aracena	1.24	189	*i* P	Pn	22 51 19.5	-1.1
TA01				IAML		22 51 40.7	
	comp=E,2μm,0.3s						
PB18	Visviri	1.80	16	⇓*i*P	Pn	22 51 30.2	+1.6
PB18				IAML		22 52 03.4	
	comp=E,704nm,0.9s						
PB02	IPOC Station P	1.98	178	*e*P	Pn	22 51 30.2	-0.5
PB02				IAML		22 52 03.6	
	comp=Z,1μm,0.6s						
PB02	IPOC Station P	1.98	178	⇓*i*P	Pn	22 51 30.1	-0.6
PB02				*i* S	Sn	22 51 55.1	+0.7
PB02				IAML		22 51 58.9	
	comp=E,2μm,0.4s						
PB07	IPOC Station P	2.38	178	*e*P	Pn	22 51 35.6	-0.7
PB07				IAML		22 52 10.3	
	comp=Z,531nm,0.3s						
PB07	IPOC Station P	2.38	178	*i* P	Pn	22 51 35.1	-1.2
PB07				*i* S	Sn	22 52 05.4	+0.9
PB07				IAML		22 52 13.1	
	comp=N,741nm,0.1s						
PB09	IPOC Station P	2.55	164	*e*P	Pn	22 51 38.4	-0.2
PB09				IAML		22 52 21.4	
	comp=Z,361nm,0.5s						
PB09	IPOC Station P	2.55	164	*i* P	Pn	22 51 38.3	-0.3
PB09				*i* S	Sn	22 52 09.4	+0.9
PB09				IAML		22 52 16.7	
	comp=N,488nm,0.5s						
PB03	IPOC Station P	2.71	175	*e*P	Pn	22 51 40.6	-0.1
PB03				IAML		22 52 20.4	
	comp=Z,375nm,0.2s						
PB03	IPOC Station P	2.71	175	*i* P	Pn	22 51 39.6	-1.1
PB03				IAML		22 52 21.3	
	comp=E,345nm,0.4s						
PB06	IPOC Station P	3.38	174	*e*P	Pn	22 51 49.6	-0.3
PB06				*e*S	Sn	22 52 32.8	+3.9
PB06				IAML		22 52 48.1	
	comp=Z,135nm,0.7s						
PB06	IPOC Station P	3.38	174	*i* P	Pn	22 51 48.0	-1.9
PB06				IAML		22 52 41.0	
	comp=E,230nm,0.2s						
LPAZ	La Paz	3.50	31	*e*P	Pn	22 51 53.5	+1.4

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
PB05	IPOC Station P	3.51	183	*e*P	Pn	22 51 50.2	-1.5
PB05				IAML		22 52 46.2	
	comp=Z,113nm,0.5s						
PB05	IPOC Station P	3.51	183	*i* P	Pn	22 51 49.9	-1.8
PB14	IPOC Station P	5.28	184	*e*P	Pn	22 52 14.5	-1.6
PB14				IAML		22 53 39.4	
	comp=Z,25nm,0.6s						

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*IDC **12** 22:52:47.6±4.5, 7°.69S×104°.46E, h0^{km}, mb3.7/6, mbtmp3.7/6, MS3.3/1, Error ellipse: s-maj=188.6km s-min=21.7km az=52.0*
*DJA **12** 22:52:47.0±1.3, 8°S±12°×10°4E±°, h10^{km}, M4.0/19, mb3.9/1, MLv4.0/19*
ISC 12 22:52:46.6±1.2**, 8°.1S**±0°.1×**104°.17E**±0°.09**, h10^{km}, n21, σ1^{s}.89**/17**, mb3.8**/6**, Southwest of Sumatera**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
CGJI	Cibinong	2.10	46	P	Pn	22 53 18.9	-2.9
CGJI				AML	AML		
KASI	Kota Agung	2.56	7	P	Pn	22 53 26.2	-2.0
KASI				AML	AML		
SBJI	Serang	2.75	45	P	Sn	22 54 07.9	+3.7
CNJI	Cibinong	3.03	76	P	Pn	22 53 32.7	-2.0
CNJI				AML	AML		
BBJI	Bungbulang	3.50	80	P	Pn	22 53 39.2	-2.0
MDSI	Maura Dua	3.57	0	P	Pn	22 53 40.4	-1.7
MDSI				AML	AML		
MNAI	Manna	3.88	342	P	Pn	22 53 45.4	-1.0
CMJI	Cimerak	4.25	86	P	Pn	22 53 50.1	-1.3
CMJI				AML	AML		
LHSI	Lahat	4.27	351	P	Pn	22 53 50.8	-1.0
LHSI				AML	AML		
KSI	Kapahiang	4.67	340	P	Pn	22 53 56.2	-1.1
CMAR	Chiang Mai Arr	26.87	349	P	P	22 58 27.5	-0.2
	2.0nm,0.7s,baz=182,slow=8.6,SNR=20 2.0nm,0.7s						
NWAO	Narrogin (SRO)	27.53	156	LR	LR	23 10 17.0	
	comp=Z,54nm,18.2s,baz=58,slow=38						
H08S2	Diego Garcia H	31.38	269	T	T	23 33 04.7	
	baz=89,slow=74,SNR=3.6						
H08S3	Diego Garcia H	31.39	269	T	T	23 33 01.7	
	baz=89,slow=74,SNR=3.4						
H08S1	Diego Carcia H	31.40	269	T	T	23 33 04.6	
	baz=89						
WRA	Warramunga Arr	31.49	115	P	P	22 59 09.7	+0.8
	0.9nm,0.9s,baz=289,slow=8.1,SNR=5.6 0.9nm,0.9s						
ASAR	Alice Springs	32.43	122	P	P	22 59 19.6	+2.4
	0.3nm,0.8s,baz=287,slow=8.8,SNR=4.2 0.3nm,0.8s						
SONM	Songino Array	55.70	2	P	P	23 02 23.0	-0.4
	0.6nm,0.6s,baz=198,slow=4.2,SNR=4.3 0.6nm,0.6s						
MKAR	Makanchi Array	58.00	342	P	P	23 02 39.1	-0.4
	0.7nm,0.8s,baz=148,slow=7.0,SNR=3.1 0.7nm,0.8s						
ZALV	Zalesovo Beam	63.92	347	P	P	23 03 20.0	+0.4
	0.8nm,0.4s,baz=151,slow=6.5,SNR=6.3 0.8nm,0.4s						
TXAR	Lajitas Array	146.37	47	PKPbc	PKiKP	23 12 30.7	-1.0
	0.5nm,0.7s,baz=320,slow=3.6,SNR=7.3						

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*SJA **12** 22:55:04.4±0.5, 21°.03S×68°.97W, h124^{km}±2^{km}, ML3.5, MW3.5*
*GUC **12** 22:55:06.5±0.7, 21°.04S×68°.93W, h111^{km}±3^{km}, ML3.3*
ISC 12 22:55:06.4±1.4**, 21°.02S**±0°.03×**69°.06W**±0°.06**, h117^{km}**±10^{km}**, n33, σ0^{s}.98**/55**, 1C, Northern Chile**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
PB09	IPOC Station P	0.79	192	*e*P	Pn	22 55 25.7	-0.7
PB09				*e*S	Sn	22 55 42.2	+0.7
PB09				IAML		22 55 43.0	
	comp=Z,600nm,0.1s						
PB09	IPOC Station P	0.79	192	*e*P	Pn	22 55 25.7	-0.7
PB09				*e*S	Sn	22 55 41.2	-0.3
PB09				IAML		22 55 42.3	
	comp=N,880nm,0.2s						
PB02	IPOC Station P	0.83	249	*e*P	Pn	22 55 26.7	0.0
PB02				*e*S	Sn	22 55 41.8	-0.2
PB02	IPOC Station P	0.83	249	*e*P	Pn	22 55 26.9	+0.3
PB02				*e*S	Sn	22 55 42.1	+0.1
PB08	IPOC Station P	0.88	354	*e*P	Pn	22 55 26.9	-0.5
PB08				*e*S	Sn	22 55 43.5	+0.1
PB08				IAML		22 55 44.7	
	comp=Z,647nm,0.3s						
PB08	IPOC Station P	0.88	354	*e*P	Pn	22 55 27.0	-0.5
PB08				*e*S	Sn	22 55 42.4	-0.9
PB08				IAML		22 55 43.8	
	comp=N,906nm,0.2s						
PB07	IPOC Station P	1.04	228	*e*P	Pn	22 55 28.6	-0.2
PB07				*e*S	Sn	22 55 46.4	+0.7
PB07				IAML		22 55 48.8	
	comp=Z,714nm,0.1s						
PB07	IPOC Station P	1.04	228	*e*P	Pn	22 55 28.6	-0.2
PB07				*e*S	Sn	22 55 45.7	0.0
PB07				IAML		22 55 47.6	
	comp=N,969nm,0.1s						
TA01	Diego Aracena	1.14	293	*e*P	Pn	22 55 29.9	+0.3
TA01				*e*S	Sn	22 55 48.8	+1.6
TA01				IAML		22 55 50.2	
	comp=Z,367nm,0.3s						
TA01	Diego Aracena	1.14	293	*e*P	Pn	22 55 29.8	+0.2
TA01				*e*S	Sn	22 55 48.0	+0.8
PB03	IPOC Station P	1.21	212	*e*P	Pn	22 55 30.2	-0.3
PB03				*e*S	Sn	22 55 49.4	+0.6
PB03				IAML		22 55 51.0	
	comp=Z,555nm,0.2s						
PB03	IPOC Station P	1.21	212	*e*P	Pn	22 55 30.3	-0.2
PB03				*e*S	Sn	22 55 48.4	-0.4
PB03				IAML		22 55 49.6	
	comp=N,540nm,0.1s						
TA02	Huaiquique	1.25	307	*e*P	Pn	22 55 30.9	+0.1
TA02				IAML		22 55 53.2	
	comp=Z,1µm,0.1s						
TA02	Huaiquique	1.25	307	*e*P	Pn	22 55 30.9	+0.1
TA02				*e*S	Sn	22 55 49.9	+0.6
GO01	Chusmiza	1.35	355	*e*P	Pn	22 55 32.0	-0.4
GO01				*e*S	Sn	22 55 52.6	+0.4
GO01				IAML		22 55 54.0	
	comp=Z,600nm,0.2s						
GO01	Chusmiza	1.35	355	*e*P	Pn	22 55 32.1	-0.4
GO01				*e*S	Sn	22 55 51.6	-0.6
PB11	IPOC Station P	1.37	336	*e*P	Pn	22 55 32.1	-0.3
PB11				*e*S	Sn	22 55 52.7	+0.7
PB11				IAML		22 55 53.2	
	comp=Z,746nm,0.2s						
PB11	IPOC Station P	1.37	336	*e*P	Pn	22 55 32.1	-0.3
PB11				*i* S	Sn	22 55 52.1	+0.1
PSGCX	Pisagua	1.73	325	*e*P	Pn	22 55 36.5	-0.1
PSGCX				*e*S	Sn	22 56 00.6	+1.1
PSGCX				IAML		22 56 01.2	
	comp=Z,234nm,0.2s						
PSGCX	Pisagua	1.73	325	*e*P	Pn	22 55 36.1	-0.4
PB06	IPOC Station P	1.74	196	*e*P	Pn	22 55 36.4	-0.3
PB06				*e*S	Sn	22 55 59.9	+0.2
PB06				IAML		22 56 05.5	
	comp=Z,277nm,0.1s						
PB06	IPOC Station P	1.74	196⇑	*e*P	Pn	22 55 36.4	-0.3
PB06				*e*S	Sn	22 55 59.5	-0.2
PB06				IAML		22 56 01.2	
	comp=E,348nm,0.2s						
AF01	San Pedro de A	2.09	157	*e*P	Pn	22 55 43.4	+2.3
AF01				*e*S	Sn	22 56 19.8	+12
AF01				IAML		22 56 28.4	
	comp=Z,168nm,0.7s						
PB05	IPOC Station P	2.11	210	*e*P	Pn	22 55 40.9	-0.3
PB05				*e*S	Sn	22 56 07.0	-0.8
PB05	IPOC Station P	2.11	210	*e*P	Pn	22 55 40.7	-0.4
PB12	IPOC Station P	2.68	333	*e*P	Pn	22 55 48.5	-0.1
PB12				*e*S	Sn	22 56 21.0	+0.2
PB12				IAML		22 56 28.7	
	comp=Z,87nm,0.2s						
PB12	IPOC Station P	2.68	333	IAML		22 56 30.2	
	comp=N,146nm,0.4s						
PB16	IPOC Station P	2.71	351	*e*P	Pn	22 55 51.2	+1.8
PB16				*e*S	Sn	22 56 17.3	-4.9
PB16	IPOC Station P	2.71	351	*e*P	Pn	22 55 50.3	+0.9
PB16				IAML		22 56 27.1	
	comp=E,96nm,0.2s						
AP01	Chacalluta	2.90	335	*e*P	Pn	22 56 08.1	+17
AP01				IAML		22 57 01.2	
	comp=Z,297nm,0.4s						
PB14	IPOC Station P	3.79	199	*e*P	Pn	22 56 03.0	-0.4
PB14				*e*S	Sn	22 56 46.3	-1.3
PB14				IAML		22 56 55.6	
	comp=Z,33nm,0.9s						
HJA	Humahuaca	4.03	123	*e*P	Pn	22 56 06.7	+0.2
LPAZ	La Paz	4.79	11	*e*P	Pn	22 56 18.1	+1.0

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*IDC **12** 22:57:45.9±0.9, 31°.45N×128°.73E, h0^{km}, mb3.8/7, mbtmp3.7/9, ML3.3/2, MS3.5/27, Error ellipse: s-maj=19.2km s-min=13.3km az=101.0*
*NIED **12** 22:57:45.9, 31°.44N×128°.73E, h11^{km}, MW4.2, Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M_{rr}-1.26; $M_{\theta\theta}$1.07; $M_{\phi\phi}$0.20; $M_{r\theta}$-1.47; $M_{\theta\phi}$1.62; $M_{\phi r}$-0.61; Fault plane solution: $M_0$2.43000×10^{15} NP1: ϕ_s204.00000°, δ30.00000°, λ-133.00000°. NP2: ϕ_s71.00000°, δ68.00000°, λ-69.00000°.*
*JMA **12** 22:57:45.9±0.2, 31°.4N±0°.6×128°.7E±0°.6, h11^{km}±1^{km}, MV3.7/31, SW OFF KYUSHU*
ISC 12 22:57:47.1±0.8**, 31°.45N**±0°.05×**128°.78E**±0°.06**, h10^{km}, n43, σ0^{s}.99**/20**, mb3.8**/7**, MS3.6**/24**, Northwest of Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
JSJ	Shimokoshiki	0.83	74	*i* P	Pg	22 58 02.4	-0.8
JSJ				*e*S	Sg	22 58 14.3	+0.3
JFU	Fukue jima 2	1.20	359	*i* P	Pn	22 58 08.3	-1.7
JFU				*e*S	Sn	22 58 25.3	-1.1
JNN	Nakanoshima	1.86	149	*e*P	Pn	22 58 18.4	-0.7
JYAK	Yakushimahirau	1.92	129	*e*P	Pn	22 58 18.8	-1.1
JTZ	Takazaki	2.02	77	P	Pn	22 58 21.3	0.0
JIU3	Izumi3	2.05	57	*e*P	Pn	22 58 21.4	-0.3
JTN	Tanegashima 3	2.05	112	P	Pn	22 58 20.9	-0.8
JMTN	Minamitane	2.10	119	*e*P	Pn	22 58 22.0	-0.5
JTAJ	Takarajima	2.32	171	*e*P	Pn	22 58 25.4	0.0
JNU	Nakatsue	2.44	46	Pn	Pn	22 58 27.9	+0.8
	12nm,0.3s,baz=236,slow=11,SNR=63						
JNU				Lg	Lg	22 59 04.1	
	25nm,0.3s,baz=197,slow=2.6,SNR=5.2 20nm,0.4s						
JNU				AML	AML		
KSRS	Korea Array	6.03	354	Pn	Pn	22 59 16.4	+0.1
	0.5nm,0.3s,baz=177,slow=14,SNR=6.2						
KSRS				Lg	Lg	23 00 53.7	
	0.6nm,0.3s,baz=176,slow=31,SNR=5.0 4.1nm,0.6s						
KSRS				AML	AML		
USRK	Ussuriysk Ar.	12.98	10	LR	LR	23 05 15.0	
	comp=Z,58nm,20.5s,baz=181,slow=35						
ASAJ	Asahikawa	16.68	37	LR	LR	23 07 23.4	
	comp=Z,74nm,19.1s,baz=260,slow=35						
KLR	Kul'dur	17.90	6	LR	LR	23 07 30.2	
	comp=Z,54nm,21.9s,baz=180,slow=33						
HILR	Hailar Array B	19.32	342	LR	LR	23 09 58.0	
	comp=Z,71nm,21.1s,baz=215,slow=38						
LZDM	Lanzhou Array	21.32	289	LR	LR	23 11 49.2	
	comp=Z,226nm,18.2s,baz=255,slow=40						
GUMO	Guam	23.12	137	LR	LR	23 11 24.5	
	comp=Z,60nm,18.2s,baz=14,slow=35						
SONM	Songino Array	23.64	320	P	P	23 02 59.2	+0.7
	0.7nm,0.9s,baz=119,slow=9.0,SNR=4.1						
SONM				LR	LR	23 12 44.2	
	comp=Z,174nm,18.6s,baz=106,slow=38 0.7nm,0.9s						
DAV	Davao City (W)	24.44	188	LR	LR	23 12 55.7	
	comp=Z,52nm,20.1s,baz=14,slow=37						
CMAR	Chiang Mai Arr	29.88	251	LR	LR	23 17 15.0	
	comp=Z,41nm,18.4s,baz=215,slow=39						
YAK	Yakutsk	30.60	1	LR	LR	23 15 17.9	
	comp=Z,47nm,18.9s,baz=174,slow=34						
ZALV	Zalesovo Beam	38.52	319	LR	LR	23 22 11.2	
	comp=Z,110nm,18.5s,baz=136,slow=38						
MKAR	Makanchi Array	38.60	307	P	P	23 05 08.8	-1.5
	0.4nm,0.8s,baz=81,slow=8.9,SNR=1.9						
MKAR				LR	LR	23 22 09.4	
	comp=Z,51nm,19.2s,baz=81,slow=38 0.4nm,0.8s						
TIXI	Tiksi	40.25	0	LR	LR	23 21 14.3	
	comp=Z,62nm,19.1s,baz=197,slow=35						
KURBB	Kurchatov Arra	41.55	312	LR	LR	23 24 26.3	
	comp=Z,225nm,19.2s,baz=194,slow=38						
NRIK	Noril'sk	44.48	340	LR	LR	23 23 58.5	
	comp=Z,59nm,18.2s,baz=139,slow=35						
BVAR	Borovoye Array	46.81	315	P	P	23 06 18.8	+1.9
	0.5nm,0.6s,baz=98,slow=6.0,SNR=1.9 0.5nm,0.6s						
WRA	Warramunga Arr	51.38	173	P	P	23 06 51.6	-0.5
	1.1nm,0.9s,baz=350,slow=8.1,SNR=5.1 1.1nm,0.9s						
ARTI	Arti	53.77	319	LR	LR	23 32 58.2	
	comp=Z,64nm,18.0s,baz=56,slow=39						
CTA	Charters Tower	53.92	160	LR	LR	23 29 19.3	
	comp=Z,45nm,19.0s,baz=221,slow=35						
AKTO	Aktyubinsk	54.60	312	LR	LR	23 32 22.6	
	comp=Z,237nm,18.2s,baz=82,slow=38						
ASAR	Alice Springs	55.02	174	P	P	23 07 19.4	+0.4
	1.2nm,0.9s,baz=351,slow=6.3,SNR=8.3 1.2nm,0.9s						
STKA	Stephens Creek	64.14	168	LR	LR	23 37 56.6	
	comp=Z,19nm,19.5s,baz=287,slow=38						
DZM	Mont Dzumac	64.31	141	LR	LR	23 35 58.6	
	comp=Z,400nm,18.1s,baz=274,slow=36						
GNI	Garni	66.33	304	LR	LR	23 42 45.6	
	comp=Z,24nm,18.0s,baz=70,slow=41						
FINES	FINESS Array B	68.59	330	P	P	23 08 49.7	-0.2
	9.1nm,1.1s,baz=81,slow=8.6,SNR=5.8						
FINES				LR	LR	23 42 21.5	
	comp=Z,59nm,19.2s,baz=3.0,slow=39 9.1nm,1.1s						
AKASG	Malin Array Be	71.91	319	LR	LR	23 44 22.2	
	comp=Z,45nm,21.4s,baz=17,slow=39						
NOA	NORSAR Array B	74.86	333	LR	LR	23 45 19.1	
	comp=Z,33nm,18.8s,baz=255,slow=38						
MLR	Muntele Rosu	76.38	315	LR	LR	23 46 48.1	
	comp=Z,50nm,18.8s,baz=358,slow=38						
VRAC	Vranov	79.55	322	LR	LR	23 48 30.5	
	comp=Z,40nm,19.7s,baz=26,slow=38						
BORG	Borgarnes	81.30	348	LR	LR	23 46 21.0	
	comp=Z,18nm,21.0s,baz=344,slow=36						
PDAR	Pinedale Array	88.80	39	P	P	23 10 43.0	+1.4
	0.8nm,0.9s,baz=324,slow=2.4,SNR=5.2 0.8nm,0.9s						
ESDC	Sonseca Array	96.75	325	LR	LR	23 58 09.9	
	comp=Z,57nm,18.1s,baz=22,slow=38						

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*THE **12** 23:10:03.9, 38°.2N±0°.9×22°.8E±0°.6, h9^{km}±4^{km}, M2.7/10, MLh2.7/10*
*ATH **12** 23:10:04.3, 38°.15N×22°.71E, h14^{km}±1^{km}, ML2.8/22, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
*IDC **12** 23:10:07.2±6.1, 39°.52N×22°.63E, h0^{km}, mb3.4/4, mbtmp3.4/4, Error ellipse: s-maj=245.2km s-min=30.0km az=170.0*
ISC 12 23:10:04.2±0.8**, 38°.18N**±0°.02×**22°.73E**±0°.02**, h13^{km}**±6^{km}**, n47, σ0^{s}.62**/82**, mb3.4**/3**, Greece**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
THAL	Thalero	0.15	202	P	Pg	23 10 07.6	-0.2
THAL				S	Sg	23 10 10.3	0.0
THAL				AML	AML		
KIAA	Kiato	0.16	176	P	Pg	23 10 08.1	0.0
KIAA				S	Sg	23 10 12.0	+1.3
KIAA				AML	AML		
LTK	Loutraki	0.24	130	P	Pg	23 10 08.5	-0.8
LTK				S	Sg	23 10 12.4	-0.3
LTK				AML	AML		
LTK	Loutraki	0.24	130	P	Pg	23 10 08.3	-1.0
LTK				S	Sg	23 10 13.1	+0.3
LTK				AML	AML		
LOUT	Loutraki	0.27	135	P	Pg	23 10 09.2	-0.6
LOUT				S	Sg	23 10 13.9	+0.4
LOUT				AML	AML		
ACOR	Acrocorinthos	0.30	159	P	Pg	23 10 08.5	-2.0
ACOR				S	Sg	23 10 13.8	-0.9
ACOR				AML	AML		
DLFA	Delphi	0.35	328	P	Pg	23 10 11.0	-0.4
DLFA				S	Sg	23 10 16.9	+0.7
DLFA				AML	AML		
GUR	Goura	0.39	232	P	Pg	23 10 11.8	-0.2
GUR				S	Sg	23 10 17.6	+0.3
GUR				AML	AML		
VIL2	Platees	0.42	85	P	Pg	23 10 12.5	-0.1
VIL2				S	Sb	23 10 20.3	+0.5
VIL2				AML	AML		
VILL	Villia	0.46	91	P	Pg	23 10 12.7	-0.5
VILL				S	Sg	23 10 19.1	-0.2
VILL				AML	AML		
KLV	Kalavryta, Ach	0.48	254	P	Pg	23 10 13.2	-0.5
KLV				S	Sg	23 10 19.4	-0.7
KLV	Kalavryta, Ach	0.48	254	P	Pg	23 10 13.6	-0.1
KLV				S	Sg	23 10 19.7	-0.3
TEME	Temeni, Aigial	0.49	277	P	Pb	23 10 15.4	+0.8
TEME				S	Sg	23 10 19.7	-0.6
KLV1	Kalavrita	0.51	254	P	Pb	23 10 15.3	+0.2
KLV1				AML	AML		
KALE	Kalithea	0.52	295	P	Pg	23 10 14.0	-0.3
KALE				S	Sg	23 10 21.3	+0.1
KALE				AML	AML		
KALE	Kalithea	0.52	295	P	Pg	23 10 14.6	+0.3
KALE				S	Sb	23 10 22.8	+0.3
KALE				AML	AML		
LKR	Lokris	0.52	24	P	Pg	23 10 13.2	-1.2
LKR				S	Sg	23 10 21.5	+0.3
LKR				AML	AML		
LKR	Lokris	0.52	24	P	Pg	23 10 13.4	-1.0
LKR				S	Sg	23 10 21.8	+0.5
LKR				AML	AML		
AIOA	Agios Ioannis,	0.53	272	P	Pg	23 10 14.8	+0.2
AIOA				S	Sb	23 10 22.4	-0.5
ATAL	Atalanti	0.56	24	P	Pg	23 10 14.2	-1.0
ATAL				S	Sg	23 10 22.9	+0.2
ATAL				AML	AML		
ATAL	Atalanti	0.56	24	P	Pg	23 10 14.5	-0.7
ATAL				S	Sb	23 10 24.1	+0.3
ATAL				AML	AML		
SERG	Sergoula	0.58	294	P	Pg	23 10 15.3	-0.3
SERG				S	Sb	23 10 24.6	+0.2
SERG				AML	AML		
SERG	Sergoula	0.58	294	P	Pg	23 10 15.8	+0.2
AXAR	Agios Charalam	0.59	354	P	Pg	23 10 15.1	-0.7
AXAR				S	Sb	23 10 24.9	+0.2
AXAR	Agios Charalam	0.59	354	P	Pb	23 10 16.9	+0.5
AXAR				S	Sb	23 10 25.9	+1.1
AXAR				AML	AML		
LAKA	Lakka	0.60	276	P	Pb	23 10 16.2	-0.3
LAKA				S	Sb	23 10 25.1	+0.2
PYRG	Pyrgos, Dorida	0.61	293	P	Pg	23 10 15.6	-0.5
PYRG				S	Sg	23 10 24.3	+0.1
PYRG				AML	AML		
STFN	Stefani	0.64	90	P	Pg	23 10 16.4	-0.2
STFN				S	Sb	23 10 26.6	+0.5
STFN				AML	AML		
MG00	Magoula, Dorid	0.66	291	P	Pb	23 10 17.6	0.0
MG00				AML	AML		
EFP	Efpalio	0.70	291	P	Pg	23 10 17.3	-0.5
EFP				S	Sb	23 10 28.4	+0.7
EFP				AML	AML		
EFP	Efpalio	0.70	291	P	Pg	23 10 17.8	+0.1
EFP				AML	AML		
MET2	Kameni Chora,	0.73	140	P	Pg	23 10 18.4	0.0
MET2				S	Sg	23 10 28.0	0.0
MET2				AML	AML		
ANX	Ano Chora	0.76	303	P	Pg	23 10 18.8	-0.2
ANX				S	Sb	23 10 29.8	+0.1
ANX				AML	AML		
ANX	Ano Chora	0.76	303	P	Pb	23 10 19.5	+0.1
ANX				AML	AML		
MET4	Agioi Theodoro	0.76	136	P	Pb	23 10 19.8	+0.5
MET6	Megalochori,Me	0.76	140	P	Pg	23 10 18.8	-0.1
VVK	Vomvokou	0.77	289	P	Pb	23 10 19.4	0.0
VVK				S	Sb	23 10 29.9	+0.2
ATH	Athens Observa	0.80	104	P	Pg	23 10 19.7	0.0
ATH				S	Sg	23 10 30.3	+0.1
ATH				AML	AML		
ATH	Athens Observa	0.80	104	P	Pg	23 10 20.3	+0.6
ATH				S	Sb	23 10 31.3	+0.7
ATH				AML	AML		
NOAC	Athens-Thissio	0.80	104	P	Pg	23 10 20.2	+0.5
NOAC				S	Sb	23 10 31.4	+0.7
NOAC				AML	AML		
AGRP	Agrapidokambos	0.83	286	P	Pg	23 10 20.2	0.0
AGRP				AML	AML		
ATHU	Athens Univers	0.85	104	P	Pg	23 10 20.5	-0.2
ATHU				S	Sg	23 10 31.6	-0.4
PTL	Penteli	0.90	98	P	Pg	23 10 21.2	-0.4
PTL				S	Sg	23 10 33.2	-0.2
ESDC	Sonseca Array	20.80	282	P	P	23 14 46.5	+1.3
	0.7nm,0.9s,baz=73,slow=10,SNR=7.0 0.7nm,0.9s						
KURBB	Kurchatov Arra	40.83	54	P	P	23 17 45.2	0.0
	0.3nm,0.6s,baz=278,slow=8.7,SNR=3.3 0.3nm,0.6s						
MKAR	Makanchi Array	43.81	59	P	P	23 18 09.5	-0.2
	0.4nm,0.6s,baz=266,slow=7.9,SNR=5.7 0.4nm,0.6s						
ZALV	Zalesovo Beam	44.39	48	P	P	23 18 11.8	-2.4
	0.4nm,0.4s,baz=284,slow=7.5,SNR=3.9 0.4nm,0.4s						

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*IDC **12** 23:21:59.2±0.6, 19°.26N×64°.28W, h0^{km}, mb3.9/14, mbtmp4.0/18, ML3.5/4, MS3.4/22, Error ellipse: s-maj=14.6km s-min=12.2km az=124.0*
*NEIC **12** 23:22:02.9±1.4, 19°.15N±0°.07×64°.38W±0°.04, h18^{km}±4^{km}, mb4.3/28, ML4.3/59, Mwr4.1/77, Md4.4/8(RSPR), Error ellipse: s-maj=10.3km s-min=5.2km az=192.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}0.68; $M_{\theta\theta}$-0.82; $M_{\phi\phi}$0.14; $M_{r\theta}$1.47; $M_{\theta\phi}$-0.08; $M_{\phi r}$-0.01; Fault plane solution: $M_0$1.66000×10^{15} NP1:ϕ_s90.18000°, δ76.51000°, λ92.83000°. NP2:ϕ_s258.20000°, δ13.78000°, λ78.36000°. Principal axes: T 1.5889, Plg58.0000°, Azm4.0000°; N 0.1358, Plg3.0000°, Azm270.0000°; P -1.7247, Plg31.0000°, Azm178.0000°;*
*PTWC **12** 23:22:02, 19°.20N×64°.40W, Ml4.2/15*
*RSPR **12** 23:22:04.5, 19°.31N×64°.39W, h40^{km}±29^{km}, MD4.4/8*
*NEIC **12** 23:22:04.9, 19°.06N×64°.41W, h30^{km}*
ISC 12 23:22:00.8±2.7**, 19°.22N**±0°.05×**64°.36W**±0°.03**, h13^{km}**±17^{km}**, n159, σ1^{s}.49**/168**, mb4.3**/23**, MS3.5**/19**, 14C-2D, Virgin Islands**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
SMRT	St. Maarten	1.68	133		Pn	23 22 30.6	+0.7
SMRT				Sn	Sn	23 22 51.4	0.0
SMRT	St. Maarten	1.68	133	P	Pn	23 22 30.8	+0.8
SMRT	St. Maarten	1.68	133	*e*P	Pb	23 22 31.0	-0.6
SMRT				*e*S	Sn	23 22 50.4	-1.0
HUMP	Col San Antoni	1.77	233		Pn	23 22 31.3	+0.2
HUMP				Sn	Sn	23 22 53.1	-0.5
HUMP	Col San Antoni	1.77	233	P	Pn	23 22 31.8	+0.6
HUMP	Col San Antoni	1.77	233⇑	*e*P	Pn	23 22 31.4	+0.2
SABA	Saba	1.91	146		Pn	23 22 34.0	+0.9
SABA				IAML		23 23 17.3	
	comp=N,3µm,0.6s						
SABA	Saba	1.91	146	P	Pn	23 22 33.9	+0.8
SABA	Saba	1.91	146	*e*P	Pb	23 22 35.9	+0.4
PDPR	Patillas Dam,	1.98	233		Pn	23 22 34.7	+0.7
PDPR				Sn	Sn	23 22 58.3	-0.4
PDPR	Patillas Dam,	1.98	233⇑	*e*P	Pn	23 22 34.3	+0.3
SJG	San Juan	2.02	237	Pn	Pn	23 22 35.5	+0.8
	comp=N,24nm,0.3s,baz=59,slow=11,SNR=70						
SJG				Sn	Sn	23 23 01.0	+1.3
	comp=N,141nm,0.3s,baz=240,slow=23,SNR=10 comp=N,95nm,0.3s						
SJG				AML	AML		
SJG	San Juan	2.02	237		Pn	23 22 35.1	+0.5
SJG				Sn	Sn	23 23 00.3	+0.5
SJG	San Juan	2.02	237	P	Pn	23 22 35.1	+0.5
SJG	San Juan	2.02	237	*e*P	Pn	23 22 35.4	+0.8
IGPR	InterUniversit	2.07	233		Pn	23 22 36.3	+1.0
IGPR					Sn	23 23 01.0	0.0
IGPR	InterUniversit	2.07	233	P	Pn	23 22 36.4	+1.0
IGPR	InterUniversit	2.07	233⇑	*e*P	Pn	23 22 36.3	+1.0
ECPR	Experimental S	2.10	245		Pn	23 22 36.0	+0.3
ECPR					Sn	23 22 59.6	-2.1
ECPR				IAML		23 23 05.8	
	comp=N,2µm,0.3s						
ECPR				IAML		23 23 08.5	
	comp=N,2µm,0.3s						

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ECPR  Experimental S    2.10 245   P     Pn     23 22 36.1 +0.3
ECPR  Experimental S    2.10 245⇑ eP     Pn     23 22 35.9 +0.3
SEUS  St. Eustatius     2.16 142         Pn     23 22 37.9 +1.4
SEUS                               IAML         23 23 22.1
      comp=E,2µm,0.7s
SEUS                               IAML         23 23 26.7
      comp=N,2µm,0.9s
EMPR  Esperanza - Ma    2.18 251         Pn     23 22 37.1 +0.2
EMPR                                     Sn     23 23 03.9 +0.2
EMPR  Esperanza - Ma    2.18 251   P     Pn     23 22 38.2 +1.4
EMPR  Esperanza - Ma    2.18 251⇑ eP     Pn     23 22 37.1 +0.2
EMPR                              eS     Sn     23 23 03.9 +0.2
CELP  Cerrillos         2.39 242         Pn     23 22 40.6 +0.8
CELP                               IAML         23 23 15.8
      comp=N,946nm,0.6s
CELP  Cerrillos         2.39 242   P     Pn     23 22 40.7 +1.0
CELP  Cerrillos         2.39 242⇑ eP     Pn     23 22 40.5 +0.7
SKI   Saint Kitts       2.42 140  eP     Pn     23 22 41.4 +1.2
AOPR  Arecibo Observ    2.43 250         Pn     23 22 40.7 +0.5
AOPR                               IAML         23 23 24.0
      comp=N,2µm,0.5s
AOPR  Arecibo Observ    2.43 250   P     Pn     23 22 41.0 +0.7
AOPR  Arecibo Observ    2.43 250⇑ eP     Pn     23 22 40.9 +0.7
OBIP  Obispado Ponce    2.43 242         Pn     23 22 41.1 +0.9
OBIP  Obispado Ponce    2.43 242   P     Pn     23 22 41.1 +0.9
OBIP  Obispado Ponce    2.43 242⇑ eP     Pn     23 22 41.3 +1.1
OBIP                              eS     Sn     23 23 09.7  -0.1
GBPR  Guanica, Bosqu    2.69 243         Pn     23 22 45.6 +1.8
GBPR                                     Sn     23 23 17.2 +1.0
GBPR  Guanica, Bosqu    2.69 243⇑ eP     Pn     23 22 45.6 +1.8
GBPR                              eS     Sn     23 23 17.2 +1.0
AGPR  Aguadilla, PR     2.71 254         Pn     23 22 44.7 +0.6
AGPR  Aguadilla, PR     2.71 254⇓ eP     Pn     23 22 45.1 +1.0
LSP   Las Mesas         2.78 249         Pn     23 22 46.2 +1.0
LSP                                      Sn     23 23 19.0 +0.4
LSP   Las Mesas         2.78 249⇑ eP     Pn     23 22 46.2 +1.0
LSP                               eS     Sn     23 23 19.0 +0.4
PRSN  Puerto Rico Se    2.82 250         Pn     23 22 46.1 +0.5
PRSN                               IAML         23 23 29.6
      comp=N,1µm,0.5s
PRSN                               IAML         23 23 36.5
      comp=N,1µm,0.3s
MLPR  Magueyes Islan    2.83 244         Pn     23 22 47.0 +1.2
MLPR  Magueyes Islan    2.83 244   P     Pn     23 22 47.2 +1.4
MLPR  Magueyes Islan    2.83 244⇓ eP     Pn     23 22 47.3 +1.6
CRPR  Cabo Rojo, PR     2.87 246         Pn     23 22 47.6 +1.3
CRPR                               IAML         23 23 46.2
      comp=N,856nm,0.9s
CRPR  Cabo Rojo, PR     2.87 246⇑ eP     Pn     23 22 47.5 +1.3
ANWB  Willy Bob         2.89 122  eP     Pn     23 22 45.8  -0.7
ANWB                              eS     Sn     23 23 18.4  -2.7
IDE   Isla Desecheo     3.06 255         Pn     23 22 49.2 +0.2
IDE                                      Sn     23 23 25.3  -0.2
IDE   Isla Desecheo     3.06 255⇑ eP     Pn     23 22 49.2 +0.2
IDE                               eS     Sn     23 23 25.3  -0.2
DHSZ  Broadband at M    3.83 139  eP     Pn     23 23 00.5 +1.0
GDHS  Morne Mazeau,     3.83 139         Pn     23 23 00.3 +0.8
GDHS  Morne Mazeau,     3.83 139   P     Pn     23 23 01.4 +1.8
ABD   La Joyeuse, An    3.86 134   Pn    Pn     23 22 60.0 +0.1
ABD                                IAML         23 24 07.3
      comp=E,542nm,0.9s
ABD                                IAML         23 24 11.7
      comp=N,569nm,0.7s
PCDR  Punta Cana, DR    3.87 260         Pn     23 23 00.6 +0.5
PCDR                               IAML         23 24 20.9
      comp=N,396nm,1.0s
PCDR  Punta Cana, DR    3.87 260⇑ eP     Pn     23 23 01.3 +1.2
PCDR                              eS     Sn     23 23 44.7  -0.8
CBE   Ff, Capester      4.08 140         Pn     23 23 04.2 +1.2
CBE   Ff, Capester      4.08 140⇑ eP     Pn     23 23 05.3 +2.3
CBE                               eS     Sn     23 23 52.9 +2.2
TDBA  Terre de Bas,     4.24 142         Pn     23 23 06.1 +1.0
TDBA                               IAML         23 24 29.9
      comp=N,366nm,0.8s
DSDZ  La Diserade, G    4.26 132  eP     Pn     23 23 04.4  -1.1
DSDZ                              eS     Sn     23 23 54.3  -0.9
GDSD  La Dsirade Is     4.26 132         Pn     23 23 06.3 +0.8
GDSD                               IAML         23 24 04.5
      comp=E,246nm,1.6s
GDSD                               IAML         23 24 16.0
      comp=N,199nm,1.1s
MAGL  Barre de l’ile    4.38 137         Pn     23 23 08.0 +0.9
MAGL                               IAML         23 24 06.1
      comp=N,337nm,1.2s
DWS   Wesley            4.65 141  eP     Pn     23 23 14.6 +3.8
DWS                               eS     Sn     23 24 08.8 +4.1
DSLB  Salisbury         4.69 143   P     Pn     23 23 12.0 +0.7
DSLB  Salisbury         4.69 143  eP     Pn     23 23 12.8 +1.5
DSLB                              eS     Sn     23 24 08.2 +2.6
DR12  Loma Pena Alta    4.77 266         Pn     23 23 12.9 +0.4
SVN   Savane Anatole    5.31 144         Pn     23 23 20.3 +0.3
SVN   Savane Anatole    5.31 144  eP     Pn     23 23 23.3 +3.3
CXM   Morne La Croix    5.34 145         Pn     23 23 21.4 +1.0
FDFM  Morne la Roset    5.41 145         Pn     23 23 22.4 +1.2
FDFM                               IAML         23 24 59.4
      comp=E,123nm,1.1s
FDFM                               IAML         23 25 04.7
      comp=N,120nm,1.0s
BIM   Bigot             5.63 146  eP     Pn     23 23 26.1 +1.7
BIM                               eS     Sn     23 24 28.9  -0.1
BIM   Bigot             5.63 146  eP     Pn     23 23 25.9 +1.6
BANI  BANI              5.74 263         Pn     23 23 27.3 +1.4
MPOM  Morne Pois Mar    5.81 144         Pn     23 23 27.9 +1.2
SC01  Santiago de lo    6.02 273         Pn     23 23 30.6 +1.0
SLBI  Saint Lucia, B    6.10 147  eP     Pn     23 23 32.8 +2.1
SLAC  Saint Lucia, A    6.25 147  eP     Pn     23 23 35.4 +2.7
SDDR  Presa de Saban    6.56 269         Pn     23 23 38.4 +1.3
SDDR  Presa de Saban    6.56 269  eP     Pn     23 23 39.2 +2.2
SDDR                              eS     Sn     23 24 52.9 +1.1
SDDR                               IAML         23 24 57.2
      comp=N,33nm,0.7s
SDDR                               IAML         23 24 57.6
      comp=N,73nm,0.6s
GRTK  Grand Turk        6.75 291   Pn    Pn     23 23 38.6  -1.1
GRGR  Grenville         7.51 159  eP     Pn     23 23 54.4 +4.3
TRN   Trinidad (W)      8.98 161  eP     Pn     23 24 14.1 +3.8
TURV  Turiamo           9.34 202  eP     Pn     23 24 18.7 +3.5
TACV  Tcata             9.39 196  eP     Pn     23 24 10.3  -5.6
TACV                              eS     Sn     23 25 44.5   -17
BENV  Beln              9.72 199  eP     Pn     23 24 17.0  -3.5
BENV                              eS     Sn     23 25 56.5   -13
QMBU  Quimbuelo         9.89 277  eP     Pn     23 24 19.5  -3.3
NMDO  Nuevo Mundo      10.09 279  eP     Pn     23 24 22.9  -2.5
GTBY  Guantanamo Bay   10.16 276   Pn    Pn     23 24 25.5  -1.0
PINC  Pinares de May   10.83 279  eP     Pn     23 24 30.7  -4.9
MARVS Santiago de Cu   10.90 276  eP     Pn     23 24 25.8   -11
SDV   Santo Domingo    11.93 211   Pn    Pn     23 24 53.2 +2.3
      comp=N,2.1nm,0.3s,baz=29,slow=8.7,SNR=7.1
SDV                                Sn    Sn     23 26 59.5  -4.7
      comp=N,0.9nm,0.3s,baz=340,slow=17,SNR=1.3
SDV                                LR    LR     23 29 50.7
      comp=N,158nm,19.3s,baz=70,slow=39
      comp=N,5.1nm,0.3s
SDV                                AML   AML
SDV   Santo Domingo    11.93 211   Pn    Pn     23 24 50.6  -0.3
CAIB  Caibarien        14.50 286   Pn    Pn     23 25 22.8  -3.0
BOAV  Boa Vista        17.13 167         Pn     23 25 58.6  -1.6
ROSC  El Rosal         17.28 215   P     P      23 26 04.6 +0.8
      comp=N,1.9nm,0.3s,baz=34,slow=19,SNR=4.1
ROSC                               LR    LR     23 33 12.0
      comp=N,280nm,20.3s,baz=71,slow=39
      comp=N,7.4nm,0.5s
ROSC                               AML   AML
ROSC  El Rosal         17.28 215   Pn    Pn     23 26 01.5  -0.8
MDP   Montagnes des    18.09 139   P     P      23 26 12.5 +0.1
      comp=N,0.4nm,0.3s,baz=334,slow=9.6,SNR=4.4
MDP                                LR    LR     23 33 24.5
      comp=N,44nm,21.1s,baz=331,slow=38
      comp=N,5.8nm,0.7s
MDP                                AML   AML
Y60A  Bolivia          19.21 323   P     Pn     23 26 26.0 +0.5
656A  Willston         19.38 305   P     Pn     23 26 28.0 +0.4
NHSC  New Hope         19.79 317   P     P      23 26 31.7 +0.8
X58A  Rowland          20.26 322   P     Pn     23 26 38.2 +0.3
LCR2  La Lucha 2       21.20 246   P     P      23 26 46.7 +0.1
LCR2                               IAmb  IAmb   23 26 54.0
      comp=Z,11nm,0.8s
JSC   Jenkinsville     21.23 318   P     P      23 26 47.8 +1.2
JSC                                IAmb  IAmb   23 27 05.9
      comp=Z,16nm,1.0s
BLA   Blacksburg       22.78 325   P     P      23 27 04.6 +1.4
V53A  Saluda           23.10 319   P     P      23 27 08.3 +1.8
V53A                               IAmb  IAmb   23 27 34.4
      comp=Z,12nm,1.2s
OTAV  Otavalo          23.38 218   P     P      23 27 08.9  -1.0
TKL   Tuckaleechee C   23.70 318   LR    LR     23 37 26.3
      comp=Z,36nm,19.1s,baz=116,slow=39
SADO  Sadowa           28.30 337   LR    LR     23 37 56.7
      comp=Z,76nm,21.0s,baz=176,slow=34
ATAH  Atahualpa        29.61 209   LR    LR     23 42 11.6
      comp=Z,99nm,19.0s,baz=345,slow=41
LPAZ  La Paz           35.48 186   P     P      23 29 00.0 +2.1
      comp=Z,1.3nm,0.7s,baz=338,slow=6.1,SNR=2.4
LPAZ                               LR    LR     23 46 10.8
      comp=Z,57nm,18.1s,baz=354,slow=41
      comp=Z,1.3nm,0.7s
LPAZ  La Paz           35.48 186   P     P      23 28 57.2  -0.8
LPAZ                               IAmb  IAmb   23 29 18.6
      comp=Z,2.5nm,0.8s
SCHQ  Schefferville    35.60 358   LR    LR     23 42 35.4
      comp=Z,49nm,19.7s,baz=197,slow=35
TXAR  Lajitas Array    37.07 293   P     P      23 29 12.5 +1.5
      comp=Z,0.9nm,0.8s,baz=110,slow=11,SNR=14
      comp=Z,0.9nm,0.8s
TXAR  Lajitas Array    37.07 293   P     P      23 29 11.0  0.0
TX31  Lajitas Ar. Si   37.07 293         P      23 29 11.5 +0.5
BDFB  Brasilia         38.19 154   P     P      23 29 20.5  0.0
      comp=Z,3.1nm,1.0s,baz=329,slow=12,SNR=3.5
BDFB                               LR    LR     23 47 27.3
      comp=Z,43nm,19.0s,baz=22,slow=40
      comp=Z,3.1nm,1.0s
BDFB  Brasilia         38.19 154   P     P      23 29 19.6  -1.0
BDFB                               IAmb  IAmb   23 29 27.7
      comp=Z,3.4nm,0.8s
ULM   Lac du Bonnet    39.82 328   LR    LR     23 45 26.2
      comp=Z,51nm,20.0s,baz=154,slow=35
SDCO  Great Sand Dun   40.22 306   P     P      23 29 37.6  0.0
PV12  Saucer Basin,    42.89 306   P     P      23 30 00.8 +1.4
PV12                               IAmb  IAmb   23 30 02.2
      comp=Z,7.3nm,0.9s
PD31  Pinedale Array   44.63 312   P     P      23 30 14.2 +0.8
PD31                               IAmb  IAmb   23 30 15.4
      comp=Z,4.7nm,1.2s
PDAR  Pinedale Array   44.63 312   P     P      23 30 14.1 +0.8
      comp=Z,0.9nm,0.6s,baz=113,slow=9.3,SNR=11
PDAR                               PcP   PcP    23 31 56.2 +0.1
      comp=Z,0.4nm,0.7s,baz=33,slow=2.8,SNR=4.5
PDAR                               LR    LR     23 50 43.7
      comp=Z,16nm,18.1s,baz=84,slow=39
      comp=Z,0.9nm,0.6s
CTU   Camp Tracy       45.66 309   P     P      23 30 22.8 +1.3
CTU                                IAmb  IAmb   23 30 24.0
      comp=Z,4.8nm,1.4s
HWUT  Hardware Ranch   45.74 310   P     P      23 30 23.1 +0.9
HWUT                               IAmb  IAmb   23 30 24.2
      comp=Z,4.0nm,0.9s
CPUP  Villa Florida    45.79 171   P     P      23 30 21.1  -1.2
      comp=Z,1.1nm,0.7s,baz=343,slow=11,SNR=4.3
      comp=Z,1.1nm,0.7s
CPUP  Villa Florida    45.79 171   P     P      23 30 21.4  -1.0
CPUP                               IAmb  IAmb   23 30 34.2
      comp=Z,4.0nm,1.1s
PSUT  Pine Spring      46.82 305   P     P      23 30 32.3 +1.6
PSUT                               IAmb  IAmb   23 30 33.9
      comp=Z,3.1nm,0.9s
ELK   Elko             48.26 308   P     P      23 30 42.8 +0.8
      comp=Z,1.0nm,0.7s,baz=101,slow=5.9,SNR=5.3
ELK                                LR    LR     23 52 52.2
      comp=Z,47nm,18.6s,baz=116,slow=38
      comp=Z,1.0nm,0.7s
NVAR  Mina Array Bea   50.26 304   P     P      23 30 58.4 +1.2
      comp=Z,1.0nm,0.9s,baz=93,slow=7.8,SNR=5.2
      comp=Z,1.0nm,0.9s
NVAR  Mina Array Bea   50.26 304   P     P      23 30 58.0 +0.8
YBH   Yreka Blue Hor   53.98 308   P     P      23 31 24.6  -0.1
      comp=Z,2.3nm,0.6s,baz=98,slow=3.6,SNR=12
      comp=Z,2.3nm,0.6s
YBH   Yreka Blue Hor   53.98 308         P      23 31 23.6  -1.1
YBH                                IAmb  IAmb   23 31 25.4
      comp=Z,2.5nm,0.7s
MD01  Midelt array s   54.61  63   P     P      23 31 31.3 +1.7
MD31  MD31             54.61  63   P     P      23 31 31.2 +1.7
YKA   Yellowknife Ar   55.23 334   P     P      23 31 32.8  -0.5
      comp=Z,1.3nm,0.7s,baz=111,slow=7.4,SNR=5.6
YKA                                LR    LR     23 54 37.5
      comp=Z,52nm,19.8s,baz=50,slow=36
      comp=Z,1.3nm,0.7s
YKA   Yellowknife Ar   55.23 334   P     P      23 31 33.3  0.0
ESDC  Sonseca Array    55.37  55   P     P      23 31 35.6 +0.8
      comp=Z,1.9nm,1.0s,baz=264,slow=7.5,SNR=12
      comp=Z,1.9nm,1.0s
ESDC  Sonseca Array    55.37  55   P     P      23 31 35.8 +1.1
RES   Resolute Bay     57.88 351   LR    LR     23 55 21.9
      comp=Z,41nm,20.6s,baz=1.5,slow=35
BBB   Bella Bella      59.00 320   LR    LR     23 59 48.5
      comp=Z,27nm,18.0s,baz=186,slow=38
DBIC  Dimbokro         59.06  94   P     P      23 32 00.8  -0.4
TORD  Torodi Ar. Bea   63.41  85   P     P      23 32 30.4  -0.3
      comp=Z,1.0nm,0.8s,baz=286,slow=7.3,SNR=5.4
      comp=Z,1.0nm,0.8s
INK   Inuvik           64.62 337   LR    LR     23 59 20.2
      comp=Z,28nm,21.6s,baz=315,slow=35
GERES GERESS Array B   67.99  44   P     P      23 33 00.3 +0.5
      comp=Z,0.3nm,0.3s,baz=280,slow=5.9,SNR=2.1
      comp=Z,0.3nm,0.3s
ILAR  Eielson Array    69.62 333   P     P      23 33 09.3  -0.3
      comp=Z,0.6nm,0.6s,baz=100,slow=4.0,SNR=11
ILAR                               LR    LR     00 03 09.9
      comp=Z,26nm,20.4s,baz=94,slow=36
      comp=Z,0.6nm,0.6s
ILAR  Eielson Array    69.62 333   P     P      23 33 09.0  -0.6
H24K  Noodor Dome      70.00 334   P     P      23 33 12.1 +0.1
H24K                               IAmb  IAmb   23 33 27.4
      comp=Z,3.5nm,1.1s
FINES FINESS Array B   73.53  30   LR    LR     00 04 19.2
      comp=Z,24nm,18.3s,baz=343,slow=35
BRTR  Keskin Array B   83.87  50   P     P      23 34 31.7 +1.0
      comp=Z,2.0nm,0.8s,baz=272,slow=3.3,SNR=11
      comp=Z,2.0nm,0.8s
BRTR  Keskin Array B   83.87  50   P     P      23 34 30.9 +0.2
TIXI  Tiksi            88.91 356   LR    LR     00 15 58.6
      comp=Z,21nm,19.4s,baz=19,slow=36
ARTI  Arti             90.71  28   LR    LR     00 10 54.9
      comp=Z,20nm,21.5s,baz=18,slow=32
VNA1  Neumayer--Stat   97.63 164   P     P      23 35 23.2   -11
      comp=Z,3.4nm,0.9s
LBTB  Lobatse          97.87 114   LR    LR     00 15 24.2
      comp=Z,31nm,18.0s,baz=125,slow=33
VNA2  Neumayer--Watz   98.03 164   P     P      23 35 25.3   -11
      comp=Z,1.5nm,0.6s,baz=266,slow=9.8
SNAA  Sanae            99.66 164   LR    LR     00 19 17.4
      comp=Z,19nm,21.9s,baz=279,slow=34
TROLL Troll, Antarti  101.29 163   P     Pdif   23 35 57.0 +6.0
      comp=Z,84nm,0.9s
WRA   Warramunga Arr  162.36 265   PKP   PKPdf  23 42 02.5  -0.6
      comp=Z,1.1nm,1.0s,baz=58,slow=1.8,SNR=6.0
ASAR  Alice Springs   162.43 252   PKP   PKPdf  23 42 02.1  -1.0
      comp=Z,0.4nm,0.8s,baz=70,slow=1.1,SNR=3.2
ASAR                               PKPab PKPab  23 42 50.4  -0.5
      comp=Z,0.9nm,0.8s,baz=113,slow=4.0,SNR=6.4
```

NEIC ***12*** *23:42:29.7±2.0, 33.°0N±0.°1×140.°65E±0.°08, $h62^{km}\pm2^{km}$, mb4.2/9, Error ellipse: s-maj=14.8km s-min=9.4km az=169.0*

NIED ***12*** *23:42:30.1, 33.°05N×140.°65E, $h64^{km}$, MW3.7, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}2.57; $M_{\theta\theta}$-0.08; $M_{\phi\phi}$-2.49; $M_{r\theta}$-0.12; $M_{\theta\phi}$-0.41; $M_{\phi r}$-2.27; Fault plane solution: $M_0$3.43000×10^{14} NP1: ϕ_s14.00000°, δ24.00000°, λ98.00000°. NP2:ϕ_s185.00000°, δ66.00000°, λ87.00000°.*

IDC ***12*** *23:42:30.5±1.8, 32.°87N×140.°41E, $h69^{km}\pm11^{km}$, mb3.6/6, mbtmp3.9/7 Error ellipse: s-maj=41.4km s-min=14.2km az=76.0*

JMA ***12*** *23:42:30.1±0.1, 33.°1N±0.°2×140.°7E±0.°3, $h64^{km}\pm1^{km}$, MV3.8/43, E OFF HACHIJOJIMA ISLAND*

ISC 12 23:42:29.6±1.1**, 32.°99N**±0.°06×**140.°64E**±0.°07**,** **$h64^{km}$**$\pm9^{km}$**, n50, σ1.ˢ09**/62**, mb4.1**/9**, Southeast of Honshu**

```
Code  Station Name       Δ°   AZ°    Phase ID          Time      Res
                                    Op    ISC       h  m  s     ISC
JHJ2  Mitsune           0.70 281         Pn     23 42 44.6 +0.5
JHJ2                               Sn    Sn     23 42 54.9 +0.1
JHJ2  Mitsune           0.70 281  i P    Pn     23 42 44.8 +0.7
JHJ2                               S     Sn     23 42 56.1 +1.3
JHCJ  Hachijojimakas    0.71 277  i P    Pn     23 42 44.8 +0.6
JHCJ                               S     Sn     23 42 55.0  0.0
JHJ   Hachijo jima 2    0.73 281   P     Pn     23 42 44.5 +0.1
      1µm,0.3s,baz=97,slow=24,SNR=414
JHJ                                S     Sn     23 42 55.5 +0.1
      2µm,0.4s,baz=50,slow=19,SNR=6.2
JAOM  Aogashimamukai    0.90 235  i P    Pn     23 42 47.7 +1.1
JMKN  Mikurajimanish    1.26 316  i P    Pn     23 42 51.4 +0.2
JMKN                               S     Sn     23 43 07.0  -0.3
JMYK  Miyake Tsubota    1.41 320   P     Pn     23 42 53.2  0.0
JMYK                               S     Sn     23 43 10.6  -0.2
BSO1  Boso 1            1.69  10  eP     Pn     23 42 56.1  -0.3
BSO1                              eS     Sn     23 43 16.8  0.0
JKO   Kozu shima        1.73 314  i P    Pn     23 42 58.3 +0.8
JKO                                S     Sn     23 43 19.2 +0.5
JSKK  Shikinejimakit    1.80 319   P     Pn     23 42 58.9 +0.5
JSKK                              eS     Sn     23 43 19.9  -0.3
BSO3  Boso 3            1.81 357   P     Pn     23 42 58.5 +0.1
BSO3                               S     Sn     23 43 20.4 +0.2
JTHY  Toshimahigashi    1.90 324   P     Pn     23 43 00.5 +0.7
JTHY                              eS     Sn     23 43 22.8  0.0
JIM2  Oshima 3          2.00 330   P     Pn     23 43 01.3 +0.1
JIM2                               S     Sn     23 43 23.5  -1.6
BSO4  Boso 4            2.02 353   P     Pn     23 43 01.8 +0.5
BSO4                              eS     Sn     23 43 26.3 +1.0
JIZS  Izushimoda        2.27 320   P     Pn     23 43 05.7 +1.0
JIZS                              eS     Sn     23 43 31.4  -0.2
KTJ3  Kamata3           2.34 327  i P    Pn     23 43 06.3 +0.5
KTJ3                               S     Sn     23 43 32.4  -1.0
JSG   Sagara            2.65 310   Pn    Pn     23 43 06.0  -3.9
JGF   Kuroka            3.77 315         Pn     23 43 27.5 +2.3
MJAR  Matsushiro Arr    4.07 331   P     Pn     23 43 30.1 +0.7
      23nm,0.9s,baz=161,slow=12,SNR=37
MJAR                               S     Sn     23 44 18.4 +2.5
      3.2nm,0.4s,baz=151,slow=25,SNR=1.9
MJAR  Matsushiro Arr    4.07 331         Pn     23 43 29.5  0.0
MAJO  Matsushiro        4.07 331         Pn     23 43 30.4 +0.9
MJB9  Matsu-Tunnel      4.08 331         Pn     23 43 30.5 +1.0
JMN   Monobe            5.70 279         Pn     23 43 53.8 +2.0
JNU   Nakatsue          8.19 274   P     Pn     23 44 28.4 +2.6
      12nm,0.8s,baz=78,slow=4.6,SNR=7.0
ERM   Erimo             9.23  12   Pn    Pn     23 44 39.4  -0.5
NACB  Ninganchiao      18.87 247   P     P      23 46 44.2  -0.5
NACB                               IAmb  IAmb   23 47 09.1
      comp=Z,14nm,1.2s
H11N2 WAKE ISLAND Hy   26.89 113   T     T      00 16 56.7
      baz=305,slow=74
H11N1 WAKE ISLAND Hy   26.90 113   T     T      00 17 04.8
      baz=305,slow=74
H11N3 WAKE ISLAND Hy   26.91 113   T     T      00 16 57.6
      baz=305
H11S3 WAKE ISLAND Hy   27.45 115   T     T      00 17 47.1
      baz=307,slow=75,SNR=13
H11S1 WAKE ISLAND Hy   27.45 115   T     T      00 17 39.8
      baz=307,slow=75,SNR=12
H11S2 WAKE ISLAND Hy   27.46 115   T     T      00 17 32.9
      baz=307,slow=75,SNR=9.4
MKAR  Makanchi Array   45.83 305   P     P      23 50 45.0  -0.2
      comp=Z,0.5nm,0.6s,baz=87,slow=10,SNR=6.4
      comp=Z,0.5nm,0.6s
MKAR  Makanchi Array   45.83 305   P     P      23 50 44.7  -0.5
O15K  Ungalikthiuk R   46.85  37   P     P      23 50 53.9 +1.0
O15K                               IAmb  IAmb   23 51 17.6
      comp=Z,7.8nm,1.3s
KURK  Kurchatov        48.01 311   P     P      23 51 01.1  -0.9
KURBB Kurchatov Arra   48.08 311   P     P      23 51 01.4  -1.1
      comp=Z,0.3nm,0.4s,baz=89,slow=7.5,SNR=8.0
      comp=Z,0.3nm,0.4s
PDGK  Podgornoye       48.21 301   P     P      23 51 02.8  -1.1
C19K  Lookout Ridge    48.89  24   P     P      23 51 09.9 +1.3
E19K  Redstone River   49.35  27   P     P      23 51 13.4 +1.3
E19K                               IAmb  IAmb   23 51 35.6
      comp=Z,3.8nm,1.1s
WB0   Warramunga Arr   52.79 187   P     P      23 51 37.7  -0.7
WRA   Warramunga Arr   52.97 187   P     P      23 51 38.9  -0.8
      comp=Z,2.1nm,0.4s,baz=5.2,slow=7.5,SNR=61
WRA                                PcP   PcP    23 52 48.6 +0.9
      comp=Z,0.2nm,0.4s,baz=356,slow=3.7,SNR=1.5
      comp=Z,2.1nm,0.4s
WRA   Warramunga Arr   52.97 187   P     P      23 51 38.7  -1.0
KKAR  Karatay Array    54.68 302   P     P      23 51 51.1  -0.9
AS31  Alice Springs    56.70 187   P     P      23 52 06.1  -0.5
AS31                               IAmb  IAmb   23 52 07.7
      comp=Z,0.8nm,0.6s
ASAR  Alice Springs    56.70 187   P     P      23 52 06.2  -0.5
      comp=Z,1.0nm,0.4s,baz=3.5,slow=6.8,SNR=33
ASAR                               PcP   PcP    23 53 02.1  0.0
      comp=Z,0.4nm,0.6s,baz=5.7,slow=3.7,SNR=2.7
      comp=Z,1.0nm,0.4s
AKASG Malin Array Be   77.11 323   P     P      23 54 14.9  -1.1
      comp=Z,0.2nm,0.3s,baz=65,slow=5.3,SNR=1.8
      comp=Z,0.2nm,0.3s
AKASG Malin Array Be   77.11 323   P     P      23 54 14.6  -1.3
AKASG                              IAmb  IAmb   23 54 37.4
      comp=Z,2.4nm,1.1s
TXAR  Lajitas Array    93.10  52   P     P      23 55 37.7 +0.8
      comp=Z,0.5nm,0.7s,baz=306,slow=3.0,SNR=7.8
      comp=Z,0.5nm,0.7s
TXAR  Lajitas Array    93.10  52   P     P      23 55 37.6 +0.7
```

KRNET ***13*** *00:13:25.4±0.1, 40.°82N×71.°62E, $h15^{km}$, mb3.3*

SOME ***13*** *00:13:25.6, 40.°90N×71.°58E, $h10^{km}$*

NNC ***13*** *00:13:26.0±2.7, 40.°69N×71.°81E, $h20^{km}\pm11^{km}$, mb4.1, mpv3.6, Error ellipse: s-maj=21.9km s-min=12.4km az=178.0*

ISU ***13*** *00:13:26, 40.°85N×71.°83E, $h25^{km}$*

ISC 13 00:13:25.8±0.7**, 40.°80N**±0.°02×**71.°61E**±0.°02**,** **$h10^{km}$, n47, σ2.ˢ13**/83**, 24C-15D, Tajikistan**

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Code  Station Name       Δ°   AZ°    Phase ID          Time      Res
                                    Op    ISC       h  m  s     ISC
KSNS  Kasansay          0.36 350   P     Pb     00 13 34.0  -0.4
KSNS                               S     Sb     00 13 40.3 +0.2
FRG   Fergana           0.45 162   P     Pn     00 13 37.2  -1.2
FRG                                S     Sb     00 13 45.0 +2.4
TSTA  Tashata           0.70 108   P     Pn     00 13 41.0  -0.8
TRKS  Terek-Say         0.81 334⇓ iP     Pg     00 13 39.3  -2.1
TRKS                            ⇓ iS     Sg     00 13 49.3  -2.7
OHH   Osh               0.94 107⇑ iP     Pg     00 13 43.1  -0.8
OHH                             ⇑ iS     Sg     00 13 56.1  0.0
BTK   Batken            0.96 219⇑ iP     Pb     00 13 43.8  -0.7
BTK                             ⇑ iS     Sb     00 13 57.4 +0.1
ARK   Arkit             1.03  15⇑ iP     Pg     00 13 44.5  -1.1
ARK                             ⇑ iS     Sg     00 13 58.7  -0.3
ARSB  Arslanbob         1.16  63⇓ iP     Pb     00 13 47.1  -1.0
ARSB                            ⇓ iS     Sb     00 14 03.0  -0.3
DRK   Karamyk           1.33 174⇓ iP     Pg     00 13 50.8  -0.6
DRK                             ⇓ iS     Sn     00 14 09.1 +0.5
CHMG  Chimgan           1.42 302   P     Pn     00 13 51.7  -0.1
CHMG                               S     Sg     00 14 13.4 +2.0
PSK   Pskem             1.46 321   P     Pb     00 13 53.0  -0.1
PSK                                S     Sg     00 14 15.1 +2.4
CHRV  Charvak           1.50 304   P     Pb     00 13 53.6  -0.2
CHRV                               S     Sg     00 14 15.7 +1.5
SFK   Sufi-Kurgan       1.65 118⇓ iP     Pb     00 13 56.2  -0.2
SFK                             ⇓ iS     Sg     00 14 18.4  -0.5
TVKS  Tavaksay          1.66 298   P     Pb     00 13 56.2  -0.4
SALK  Salom-Alik        1.68  87⇑ eP     Pb     00 13 56.3  -0.7
SALK                            ⇑ eS     Sg     00 14 19.3  -0.6
IUG   Iuzhnay           1.79 319   P     Pb     00 13 58.6  -0.2
      239nm,0.2s
IUG                                S     Sg     00 14 22.4  -1.0
      350nm,0.5s
IUG   Iuzhnay           1.79 319  eP     Pb     00 13 58.6  -0.2
      239nm,0.2s
IUG                               eS     Sg     00 14 22.4  -1.0
      350nm,0.5s
MNAS  Manas             1.81  22⇓ iP     Pb     00 13 58.8  -0.4
MNAS                            ⇓ iS     Sb     00 14 22.9 +0.9
DZA   Taraz             2.10 354   Pg    Pb     00 14 03.9  -0.1
      46nm,0.2s
DZA                                Lg    Lg     00 14 31.3
      272nm,0.2s
DZA   Taraz             2.10 354  eP     Pb     00 14 03.9  -0.1
      46nm,0.2s
DZA                               eS     Sb     00 14 31.3 +1.2
      272nm,0.2s
CHM   Chimkent          2.13 316  eP     Pg     00 14 05.9  -0.8
      110nm,0.2s
CHM                               eS     Sg     00 14 34.9 +0.6
      995nm,0.3s
MRKS  Merke             2.29  31   Pg    Pb     00 14 08.4 +1.2
      28nm,0.6s
MRKS                               Lg    Lg     00 14 39.3
      73nm,0.4s
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MRKS  Merke             2.29  31  eP     Pb      00 14 08.4 +1.2
            28nm,0.6s
MRKS                              eS     Sg      00 14 39.3  0.0
            73nm,0.4s
KK31  Karatay Array     2.44 341   Pn    Pb      00 14 08.0 -1.8
            9.6nm,0.2s,baz=150,slow=12,SNR=242
KK31                             ⇑Sn     Sb      00 14 38.7 -1.2
            17nm,0.3s,baz=152,slow=27,SNR=7.6
EKS2  Erkin-Say         2.47  40⇓iP      Pn      00 14 08.2 +2.0
EKS2                            ⇓iS      Sb      00 14 39.7 -1.1
BRLS  Borolday          2.59 330   Pg    Pb      00 14 10.2 -2.1
            17nm,0.2s
BRLS                               Lg    Lg      00 14 42.5
            95nm,0.4s
BRLS  Borolday          2.59 330  eP     Pb      00 14 10.2 -2.1
            17nm,0.2s
BRLS                              eS     Sb      00 14 42.5 -1.7
            95nm,0.4s
UCH   Uchtor            2.61  56⇑iP      Pn      00 14 10.4 +2.0
UCH                             ⇑iS      Sb      00 14 43.5 -1.6
AAK   Ala-Archa         2.83  49 ⇑Pg     Pb      00 14 15.5 -1.1
            3.2nm,0.5s
AAK                              ⇓Lg     Lg      00 14 54.3
            15nm,0.6s
AAK   Ala-Archa         2.83  49⇑iP      Pn      00 14 13.5 +2.2
AAK                             ⇑iS      Sn      00 14 48.4 +2.8
KBK   Karagaybulak      3.11  52⇑iP      Pn      00 14 17.3 +2.2
KBK                             ⇑iS      Sn      00 14 55.2 +2.8
CHMS  Chumysh           3.21  46⇑iP      Pn      00 14 18.5 +2.1
CHMS                            ⇑iS      Sn      00 14 57.3 +2.6
USP   Ospenovka         3.27  40⇑iP      Pn      00 14 19.2 +2.0
USP                             ⇑iS      Sn      00 14 58.7 +2.5
NRN   Naryn             3.38  78⇑iP      Pn      00 14 20.8 +1.9
NRN                             ⇑iS      Sn      00 15 01.4 +2.2
SGDS  Sogindy           3.47  39   Pg    Pb      00 14 29.3 +1.9
            3.0nm,0.6s
SGDS                               Lg    Lg      00 15 15.1
            36nm,0.7s
TKM2  Tokmak 2          3.65  53⇓iP      Pn      00 14 24.9 +2.3
TKM2                            ⇓iS      Sn      00 15 08.2 +2.3
BOOM  Boomskoye usch    3.66  61⇑iP      Pn      00 14 25.0 +2.4
BOOM                            ⇑iS      Sn      00 15 08.4 +2.5
AGL   Agalyk            3.84 252   S     Sg      00 15 24.7 -4.5
KST   Kastek            3.95  54   Pg    Pg      00 14 38.7 -2.7
            2.3nm,0.7s
KST                                Lg    Lg      00 15 31.2
            26nm,1.7s
KST   Kastek            3.95  54  eP     Pg      00 14 38.7 -2.7
            2.3nm,0.7s
KST                               eS     Sg      00 15 31.2 -1.3
            26nm,1.7s
KRBS  Karabastau        4.18  45   Pg    Pb      00 14 42.4 +2.9
            6.0nm,0.8s
KRBS                               Lg    Lg      00 15 37.4
            3.5nm,0.5s
KRBS  Karabastau        4.18  45  eP     Pb      00 14 42.4 +2.9
            6.0nm,0.8s
KRBS                              eS     Sg      00 15 37.4 -2.6
            3.5nm,0.5s
TNSS  Tian-Shan         4.57  59  eP     Pg      00 14 51.3 -2.0
            4.5nm,0.5s
TNSS                              eS     Sg      00 15 52.4 -0.1
            6.6nm,0.8s
KOTS  Kotyrbulak        4.77  58  eP     Pb      00 14 52.4 +2.9
            2.9nm,0.3s
KOTS                              eS     Sg      00 15 54.2 -4.6
            16nm,0.7s
ARXS  Arharly           5.72  51  eP     Pg      00 15 11.4 -3.9
            3.2nm,0.5s
ARXS                              eS     Sg      00 16 27.0 -2.4
            6.2nm,0.4s
KPKS  Kokpek            5.90  61  eP     Pb      00 15 11.7 +3.0
            0.3nm,0.2s
KPKS                              eS     Sg      00 16 27.4 -7.6
            1.6nm,0.5s
UZB   Uzynbulak         6.00  65  eP     Pb      00 15 15.3 +4.7
            4.5nm,0.5s
UZB                               eS     Sg      00 16 33.5 -5.0
            5.3nm,0.7s
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*IDC **13** 00:14:08.3±0.7, 30°.46N×140°.17E, h0^{km}, mb3.9/15, mbtmp3.9/17, ML2.9/2, MS3.2/9, Error ellipse: s-maj=20.4km s-min=15.7km az=70.0*

*NEIC **13** 00:14:10.4±1.3, 30°.54N±0°.10×140°.13E±0°.07, h10^{km}±1^{km}, mb4.5/22, Error ellipse: s-maj=16.4km s-min=9.7km az=191.0*

ISC 13 00:14:09.8±0.6, **30°.53N**±0°.09×**140°.20E**±0°.10, **h10**^{km}, **n77**, σ**1^{s}18**/58, **mb4.3**/28, **MS3.5**/6, **Southeast of Honshu**

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Code  Station Name       Δ°   AZ°    Phase ID          Time      Res
                                   Op       ISC      h  m  s    ISC
JSG   Sagara            4.47 338   Pn       Pn       00 15 16.8 -0.9
JGF   Kuroka            5.60 336            Pn       00 15 32.5 -0.6
MJAR  Matsushiro Arr    6.23 345   Pn       Pn       00 15 45.8 +3.9
            0.2nm,0.3s,baz=165,slow=12,SNR=17
MJAR                               LR       LR       00 18 03.7
            comp=Z,146nm,18.5s,baz=164,slow=38
            10.0nm,1.0s
MJAR                               AML      AML
MJAR  Matsushiro Arr    6.23 345            Pn       00 15 41.8  0.0
MAJO  Matsushiro        6.23 345            Pn       00 15 42.4 +0.5
MJB9  Matsu-Tunnel      6.23 345            Pn       00 15 42.8 +0.9
JMN   Monobe            6.24 302   Pn       Pn       00 15 42.4 +0.4
JNU   Nakatsue          8.34 290   LR       LR       00 19 07.8
            comp=Z,151nm,19.3s,baz=172,slow=36
KSRS  Korea Array      12.30 307   Pn       Pn       00 17 09.8 +4.7
            0.1nm,0.3s,baz=111,slow=13,SNR=8.9
KSRS                               LR       LR       00 21 41.7
            comp=Z,77nm,18.9s,baz=125,slow=37
            0.8nm,0.6s
KSRS                               AML      AML
JKA   Kamikawa-asahi   13.70   7   Pn       Pn       00 17 23.8 -0.3
GUMO  Guam             17.40 165   LR       LR       00 23 43.0
            comp=Z,46nm,21.7s,baz=97,slow=33
NJ2   Nanjing          18.31 280  eP        Pn       00 18 22.5 -1.5
NJ2                                pmax     pmax
            comp=Z,10.0nm,0.5s
KLR   Kul'dur          19.75 343   LR       LR       00 25 44.7
            comp=Z,46nm,18.8s,baz=137,slow=35
TIA   Tai'an           20.07 293   P        Pn       00 18 47.4 +2.2
TIA                                pmax     pmax
            comp=Z,9.0nm,0.8s
HHC   Hu-ho-hao-te     25.34 302  eP        P        00 19 34.3 -2.7
HHC   Hu-ho-hao-te     25.34 302   LR       LR
            comp=Z,140nm,13.5s
HHC   Hu-ho-hao-te     25.34 302   pmax     pmax
            comp=Z,53nm,4.0s
HHC   Hu-ho-hao-te     25.34 302   pmax     pmax
            comp=Z,11nm,0.8s
H11N2 WAKE ISLAND Hy   26.39 108   T        T        00 47 05.7
            baz=300,slow=75,SNR=1974
H11N1 WAKE ISLAND Hy   26.39 108   T        T        00 47 06.7
            baz=300,slow=75,SNR=844
H11N3 WAKE ISLAND Hy   26.41 108   T        T        00 47 07.8
            baz=300,slow=75,SNR=1053
H11S3 WAKE ISLAND Hy   26.84 110   T        T        00 47 40.3
            baz=302,slow=75,SNR=110
H11S1 WAKE ISLAND Hy   26.84 110   T        T        00 47 44.6
            baz=302,slow=75,SNR=33
H11S2 WAKE ISLAND Hy   26.86 110   T        T        00 47 42.5
            baz=302,slow=75,SNR=118
SONM  Songino Array    31.07 313   P        P        00 20 28.5 +0.4
            comp=Z,0.4nm,0.5s,baz=117,slow=8.7,SNR=3.6
            comp=Z,0.4nm,0.5s
PZH   PanZhiHua        33.92 273   P        P        00 20 54.1 +0.7
CHTO  Chiang Mai       39.06 262            P        00 21 35.4 -1.8
CHTO                               IAmb     IAmb     00 21 44.1
            comp=Z,7.7nm,0.9s
CMAR  Chiang Mai Arr   39.22 262   P        P        00 21 39.0 +0.5
            comp=Z,1.5nm,0.6s,baz=61,slow=7.0,SNR=10
CMAR                               LR       LR       00 37 50.3
            comp=Z,22nm,19.1s,baz=195,slow=36
            comp=Z,1.5nm,0.6s
CMAR  Chiang Mai Arr   39.22 262   P        P        00 21 38.0 -0.5
TIXI  Tiksi            41.64 355            P        00 21 56.8 -1.1
ZALV  Zalesovo Beam    45.78 317   PcP      PcP      00 24 08.9  0.0
            comp=Z,0.5nm,0.5s,baz=106,slow=3.2,SNR=5.6
MKAR  Makanchi Array   46.99 307   P        P        00 22 40.8 -0.3
            comp=Z,0.5nm,0.7s,baz=92,slow=14,SNR=3.7
            comp=Z,0.5nm,0.7s
NRIK  Noril'sk         48.83 338   LR       LR       00 44 44.8
            comp=Z,31nm,18.4s,baz=296,slow=38
KURBB Kurchatov Arra   49.43 312   P        P        00 22 58.6 -1.2
            comp=Z,1.2nm,0.9s,baz=90,slow=7.2,SNR=6.1
            comp=Z,1.2nm,0.9s
GSI   Gunungsitoli     49.75 243            P        00 23 02.0 -0.7
WB0   Warramunga Arr   50.31 187   P        P        00 23 06.1 -0.7
FITZ  Fitzroy Crossi   50.33 198   P        P        00 23 06.6 -0.3
WR8   Warramunga Arr   50.49 187   P        P        00 23 06.8 -1.4
WR8                                IAmb     IAmb     00 23 40.3
            comp=Z,8.1nm,1.3s
WRA   Warramunga Arr   50.49 187   P        P        00 23 06.8 -1.3
            comp=Z,1.6nm,0.8s,baz=3.3,slow=7.5,SNR=10
WRA                                PcP      PcP      00 24 27.1 +0.9
            comp=Z,0.3nm,0.6s,baz=357,slow=3.6,SNR=1.8
            comp=Z,1.6nm,0.8s
WRA   Warramunga Arr   50.49 187   P        P        00 23 06.1 -2.0
G18K  Tagagawik        50.81  28   P        P        00 23 10.1 -0.1
G18K                               IAmb     IAmb     00 23 12.8
            comp=Z,5.1nm,1.1s
O18K  Koktuh Hills     51.45  36   P        P        00 23 16.1 +1.1
O18K                               IAmb     IAmb     00 23 56.5
            comp=Z,6.8nm,1.4s
E19K  Redstone River   51.71  26   P        P        00 23 17.6 +0.7
E19K                               IAmb     IAmb     00 23 19.1
            comp=Z,12nm,1.5s
J20K  Nowinta River    52.40  30   P        P        00 23 22.9 +0.9
J20K                               IAmb     IAmb     00 23 25.3
            comp=Z,4.0nm,1.0s
KDAK  Kodiak Island    52.72  38   P        P        00 23 24.8 +0.4
KDAK                               IAmb     IAmb     00 23 26.9
            comp=Z,9.1nm,1.1s
IMAR  Indian Mountai   52.81  28   P        P        00 23 25.9 +0.9
AAK   Ala-Archa        52.91 303   LR       LR       00 45 27.8
            comp=Z,19nm,20.0s,baz=147,slow=36
AS31  Alice Springs    54.22 187   P        P        00 23 36.5 +0.6
ASAR  Alice Springs    54.22 187   P        P        00 23 34.8 -1.0
            comp=Z,0.7nm,0.9s,baz=13,slow=7.8,SNR=6.2
            comp=Z,0.7nm,0.9s
ASAR  Alice Springs    54.22 187   P        P        00 23 36.1 +0.3
BVAR  Borovoye Array   54.36 316   P        P        00 23 36.3 -0.3
            comp=Z,0.4nm,0.6s,baz=96,slow=8.8,SNR=2.0
BVAR                               PcP      PcP      00 24 40.3 -0.1
            comp=Z,0.6nm,0.6s,baz=64,slow=3.4,SNR=4.3
            comp=Z,0.4nm,0.6s
F24K  Squaw Lake       55.28  26   P        P        00 23 44.2 +1.1
SCM   Sheep Creek Mo   55.38  33   P        P        00 23 44.9 +1.0
SCM                                IAmb     IAmb     00 23 47.3
            comp=Z,8.1nm,1.0s
ILAR  Eielson Array    55.58  30   P        P        00 23 45.2  0.0
            comp=Z,4.6nm,1.1s,baz=261,slow=5.7,SNR=16
            comp=Z,4.6nm,1.1s
BMRM  Bremner River    56.72  34            P        00 23 54.0 +0.5
BMRM                               IAmb     IAmb     00 23 56.4
            comp=Z,8.1nm,1.2s
BCAR  Beaver Creek A   57.89  32   P        P        00 24 02.7 +1.0
DZM   Mont Dzumac      58.05 151   LR       LR       00 45 43.6
            comp=Z,482nm,19.8s,baz=220,slow=33
G29M  Pine Creek       59.13  27            P        00 24 12.2 +1.9
I30M  Mount Dempster   60.00  29   P        P        00 24 17.3 +0.9
I30M                               IAmb     IAmb     00 24 37.9
            comp=Z,4.5nm,1.2s
AB31  Akbulak array    61.48 313   P        P        00 24 26.4 -0.2
AB31                               IAmb     IAmb     00 24 40.6
            comp=Z,2.8nm,1.4s
ABKAR Akbulak array    61.48 313   P        P        00 24 26.2 -0.4
AKTO  Aktyubinsk       62.38 314   LR       LR       00 52 17.9
            comp=Z,45nm,18.1s,baz=36,slow=37
FINES FINESS Array B   74.11 333   P        P        00 25 45.0 -1.0
            comp=Z,3.4nm,0.8s,baz=56,slow=6.1,SNR=2.1
            comp=Z,3.4nm,0.8s
KBZ   Khabaz           74.42 312   P        P        00 25 48.1 +0.1
            comp=Z,2.3nm,0.8s,baz=51,slow=2.6,SNR=6.9
            comp=Z,2.3nm,0.8s
PINE  Pine Mountain    75.39  48            P        00 25 54.4 +0.5
PINE                               IAmb     IAmb     00 25 57.6
            comp=Z,10nm,1.3s
AKASG Malin Array Be   78.84 323   P        P        00 26 12.6 -0.4
            comp=Z,0.2nm,0.3s,baz=52,slow=6.4,SNR=2.5
            comp=Z,0.2nm,0.3s
NVAR  Mina Array Bea   79.76  51   P        P        00 26 19.1 +0.5
            comp=Z,0.8nm,0.7s,baz=287,slow=3.5,SNR=4.8
            comp=Z,0.8nm,0.7s
NVAR  Mina Array Bea   79.76  51   P        P        00 26 18.6  0.0
BRTR  Keskin Array B   82.41 312   P        P        00 26 33.5 +1.0
            comp=Z,0.8nm,0.7s,baz=132,slow=2.6,SNR=4.5
            comp=Z,0.8nm,0.7s
BRTR  Keskin Array B   82.41 312   P        P        00 26 32.5 -0.1
PDAR  Pinedale Array   82.99  44   P        P        00 26 36.5 +0.8
            comp=Z,0.5nm,0.8s,baz=222,slow=2.0,SNR=4.0
            comp=Z,0.5nm,0.8s
PDAR  Pinedale Array   82.99  44   P        P        00 26 35.9 +0.3
FUORN Ofenpass-Fuorn   90.90 328   P        P        00 27 13.1 -1.0
TXAR  Lajitas Array    94.91  52   P        P        00 27 34.6 +1.8
            comp=Z,1.1nm,1.0s,baz=286,slow=1.8,SNR=6.1
            comp=Z,1.1nm,1.0s
TXAR  Lajitas Array    94.91  52   P        P        00 27 32.5 -0.3
QSPA  South Pole Qui  120.28 180   PKP      PKPdf    00 33 00.9 +0.4
            comp=Z,0.9nm,0.9s,baz=205,slow=3.7,SNR=2.0
QSPA  South Pole Qui  120.28 180            PKPdf    00 33 01.0 +0.6
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*NOU **13** 00:29:12.5, 38°.33S×175°.91E, h212^{km}, ML4.4/15, North Island, New Zealand*

*IDC **13** 00:29:13.5±0.6, 38°.18S×175°.80E, h180^{km}±11^{km}, mb3.5/7, mbtmp4.0/7, Error ellipse: s-maj=29.6km s-min=16.1km az=55.0*

*NEIC **13** 00:29:13.3±1.6, 38°.36S±0°.05×176°.03E±0°.06, h200^{km}±5^{km}, mb4.0/14, Error ellipse: s-maj=8.9km s-min=5.5km az=143.0*

*WEL **13** 00:29:15.1±0.6, 38°S±4°×17°6E±°, h184^{km}±4^{km}, M3.6/48, MLv3.6/48, Error ellipse: s-maj=6.1km s-min=4.7km az=83.7, confirmed*

ISC 13 00:29:14.1±0.6, **38°.33S**±0°.04×**175°.93E**±0°.04, **h203**^{km}±5^{km}, **n224**, σ**1^{s}41**/242, **mb4.0**/17, **3C**, **North Island**

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Code  Station Name       Δ°   AZ°    Phase ID          Time      Res
                                   Op       ISC      h  m  s    ISC
GRRZ  Galatos Road      0.14  97   P        Pn       00 29 40.6 -0.1
GRRZ                               AML      AML
KUTZ  Kaahu Road        0.18 208   P        Pn       00 29 40.6 -0.1
KUTZ                               AML      AML
HSRZ  Hossack Road      0.25  86   P        Pn       00 29 40.6 -0.2
HSRZ                               S        Sn       00 30 00.9 -0.6
HSRZ                               AML      AML
WPRZ  Whakapapatarin    0.26 136   P        Pn       00 29 40.7 -0.1
WPRZ                               AML      AML
HRRZ  Handcock Road     0.28 102   P        Pn       00 29 40.6 -0.3
HRRZ                               AML      AML
NGRZ  Ngongotaha        0.31  42   P        Pn       00 29 40.5 -0.5
NGRZ                               AML      AML
TLZ   Tolley Road       0.31 270   P        Pn       00 29 40.9 -0.1
TLZ                                AML      AML
HLRZ  Highlands Stat    0.34  77   P        Pn       00 29 41.2 +0.1
HLRZ                               AML      AML
ALRZ  Allen Road        0.40 125   P        Pn       00 29 40.8 -0.4
ALRZ                               AML      AML
KARZ  Kaharoa           0.40  39   P        Pn       00 29 40.5 -0.8
KARZ                               AML      AML
PRRZ  Plateau Road      0.40 115   P        Pn       00 29 40.8 -0.4
PRRZ                               S        Sn       00 30 00.1 -2.1
PRRZ                               AML      AML
WATZ  Wairara           0.41 202   P        Pn       00 29 41.2  0.0
WATZ                               S        Sn       00 30 01.8 -0.6
WATZ                               AML      AML
RRRZ  Republican Roa    0.46  91   P        Pn       00 29 40.8 -0.6
RRRZ                               AML      AML
TARZ  Mount Tarawera    0.46  78   P        Pn       00 29 41.1 -0.4
TARZ                               AML      AML
KMRZ  Kaimai            0.48   1   P        Pn       00 29 40.7 -0.8
KMRZ                               AML      AML
RATZ  Rangitukua        0.55 193   P        Pn       00 29 41.6 -0.1
RATZ                               AML      AML
MRHZ  Matea Rd          0.63 143   P        Pn       00 29 41.7 -0.4
MRHZ                               S        Sn       00 30 01.4 -2.6
MRHZ                               AML      AML
RITZ  Rihia Road        0.65 185   P        Pn       00 29 42.4 +0.3
RITZ                               AML      AML
TGRZ  Tauranga          0.66  24   P        Pn       00 29 41.2 -1.0
TGRZ                               S        Sn       00 30 02.4 -1.5
TGRZ                               AML      AML
KATZ  Kakaramea         0.67 196   P        Pn       00 29 42.5 +0.1
KATZ                               AML      AML
EDRZ  Edgecumbe         0.68  71   P        Pn       00 29 41.4 -1.0
EDRZ                               AML      AML
MUGZ  Murupara          0.68 103   P        Pn       00 29 41.4 -0.9
MUGZ                               AML      AML
MARZ  Manawahe          0.68  60   P        Pn       00 29 41.6 -0.8
MARZ                               AML      AML
TOZ   Tahuroa Road      0.69 330            Pn       00 29 41.7 -0.6
TOZ                                Sn       Sn       00 30 02.6 -1.5
TOZ   Tahuroa Road      0.69 330   P        Pn       00 29 41.7 -0.6
TOZ                                S        Sn       00 30 02.7 -1.5
TOZ                                AML      AML
NTVZ  North Tongarir    0.79 194   P        Pn       00 29 42.9  0.0
NTVZ                               AML      AML
KRVZ  Karewarewa        0.80 196   P        Pn       00 29 40.9 -2.1
TMVZ  Te Maari          0.80 193   P        Pn       00 29 43.0  0.0
TMVZ                               S        Sn       00 30 04.3 -1.4
TMVZ                               AML      AML
ETVZ  East Tongariro    0.82 192   P        Pn       00 29 43.2 +0.1
ETVZ                               S        Sn       00 30 05.0 -0.9
ETVZ                               AML      AML
WTVZ  West Tongariro    0.83 199   P        Pn       00 29 43.1  0.0
WTVZ                               S        Sn       00 30 04.9 -1.1
WTVZ                               AML      AML
TWVZ  Taurewa           0.83 207   P        Pn       00 29 43.1  0.0
TWVZ                               S        Sn       00 30 04.9 -1.1
TWVZ                               AML      AML
OTVZ  Oturere           0.86 194   P        Pn       00 29 43.5 +0.1
HIZ   Hauiti            0.86 258   P        Pn       00 29 43.1 -0.1
HIZ   Hauiti            0.86 258            Pn       00 29 43.2  0.0
HIZ                                Sn       Sn       00 30 05.7 -0.1
HIZ   Hauiti            0.86 258   P        Pn       00 29 43.2 -0.1
HIZ                                AML      AML
RTZ   Ruatahuna         0.87 109            Pn       00 29 42.8 -0.6
RTZ                                Sn       Sn       00 30 03.8 -2.4
RTZ   Ruatahuna         0.87 109   P        Pn       00 29 42.8 -0.6
RTZ                                S        Sn       00 30 04.1 -2.0
RTZ                                AML      AML
NGZ   Ngauruhoe         0.88 197   P        Pn       00 29 43.4 -0.1
SNVZ  South Ngauruho    0.88 195   P        Pn       00 29 43.4 -0.1
MTHZ  Maungataniwha     0.88 126   P        Pn       00 29 43.2 -0.2
MTHZ                               S        Sn       00 30 04.1 -2.2
MTHZ                               AML      AML
COVZ  Chateau Observ    0.92 199   P        Pn       00 29 43.7  0.0
URZ   Urewera           0.93  86   P        Pn       00 29 42.3 -1.3
            1µm,0.4s,baz=252,slow=4.9,SNR=2562
URZ                                S        Sn       00 30 02.8 -3.7
            666nm,0.3s,baz=216,slow=4.4,SNR=10
URZ   Urewera           0.93  86   P        Pn       00 29 42.3 -1.3
URZ   Urewera           0.93  86   P        Pn       00 29 42.5 -1.2
URZ                                S        Sn       00 30 03.2 -3.3
URZ                                AML      AML
BKZ   Black Stump Fm    0.94 152   P        Pn       00 29 43.6 -0.1
BKZ   Black Stump Fm    0.94 152   P        Pn       00 29 43.7 -0.1
BKZ                                AML      AML
WHRZ  Whale Island      0.95  60   P        Pn       00 29 42.9 -0.9
TUVZ  Tukino            0.96 193   P        Pn       00 29 44.2 +0.2
FWVZ  Far West T-bar    0.97 198   P        Pn       00 29 44.0 -0.2
MAVZ  Matarangi         0.98 197   P        Pn       00 29 44.4 +0.1
WHVZ  Whangaehu Hut     0.99 196   P        Pn       00 29 44.1 -0.2
TRVZ  Turoa             1.01 197   P        Pn       00 29 44.7 +0.2
WNVZ  Wahianoa          1.03 194   P        Pn       00 29 44.6 +0.1
NMHZ  Naumai            1.03 138   P        Pn       00 29 45.1 +0.8
NMHZ                               AML      AML
PKVZ  Pokaka            1.06 205   P        Pn       00 29 44.7 +0.1
PKVZ                               AML      AML
RAHZ  Arahi             1.08 123   P        Pn       00 29 44.9 +0.3
MOVZ  Moawhango         1.08 187   P        Pn       00 29 44.5 -0.2
MOVZ                               AML      AML
MTVZ  Mangateitei       1.11 199   P        Pn       00 29 45.1 +0.2
KWHZ  Kaweka Forest     1.16 161   P        Pn       00 29 45.7 +0.4
KWHZ                               AML      AML
BHHZ  Black Hill Sta    1.16 175   P        Pn       00 29 45.2 -0.1
BHHZ                               AML      AML
RAGZ  Rawiri            1.18  98   P        Pn       00 29 44.9 -0.5
VRZ   Vera Road         1.21 229   P        Pn       00 29 45.8 +0.2
VRZ                                AML      AML
ARHZ  Aropaoanui        1.25 138   P        Pn       00 29 46.5 +0.6
MWZ   Matawai           1.26  91   P        Pn       00 29 45.2 -0.8
MCHZ  McNeill Hill      1.26 152   P        Pn       00 29 47.0 +1.0
WHHZ  Waihua            1.26 126   P        Pn       00 29 46.4 +0.4
KRHZ  Kereru            1.35 165   P        Pn       00 29 47.1 +0.3
MKAZ  Moumakai          1.37 333   P        Pn       00 29 46.1 -0.8
MKAZ                               AML      AML
RUGZ  Raukumara Rang    1.43  76   P        Pn       00 29 45.6 -1.9
MHEZ  Mangahewa         1.46 239   P        Pn       00 29 48.7 +1.1
MHEZ                               AML      AML
RIGZ  Rimuhau           1.49 105   P        Pn       00 29 47.8 -0.1
TKGZ  Te Karaka         1.51  95   P        Pn       00 29 47.7 -0.4
KNZ   Kokohu            1.53 117   P        Pn       00 29 48.3 +0.1
HAZ   Te Kaha           1.57  69   P        Pn       00 29 46.8 -1.8
ETAZ  East Tamaki Re    1.59 330   P        Pn       00 29 47.9 -0.9
PNHZ  Pukenui           1.59 172   P        Pn       00 29 49.0 +0.1
CKHZ  Cape Kidnapper    1.60 146   P        Pn       00 29 49.6 +0.7
DREZ  Durham Road       1.60 237   P        Pn       00 29 49.7 +0.8
DREZ                               AML      AML
WAZ   Wanganui          1.60 207   P        Pn       00 29 49.0 +0.2
WAZ                                AML      AML
TWGZ  Tauwhareparae     1.62  85   P        Pn       00 29 48.7 -0.5
AWAZ  Awhitu Peninsu    1.62 321   P        Pn       00 29 48.4 -0.7
KAHZ  Kahuranaki        1.64 154   P        Pn       00 29 50.0 +0.7
LREZ  Lake Rotokare     1.64 226   P        Pn       00 29 49.9 +0.6
PRGZ  Paritu Road       1.64 112   P        Pn       00 29 49.2 -0.1
WIAZ  Waiheke Island    1.66 337   P        Pn       00 29 48.6 -0.9
WIAZ                               AML      AML
NEZ   North Egmont      1.71 236   P        Pn       00 29 50.7 +0.7
NEZ                                AML      AML
PREZ  Palmer Road       1.71 233   P        Pn       00 29 50.6 +0.7
PREZ                               AML      AML
TSZ   Takapari Road     1.73 179   P        Pn       00 29 50.2 +0.1
TSZ                                AML      AML
PKE   Pukeiti           1.75 240   P        Pn       00 29 50.9 +0.6
PKE                                AML      AML
MHGZ  Mahia Peninsul    1.75 119   P        Pn       00 29 50.6 +0.3
PKGZ  Pakihiroa         1.76  75   P        Pn       00 29 49.3 -1.1
MBAZ  Motutapu North    1.76 332   P        Pn       00 29 49.5 -1.0
MBAZ                               AML      AML
WTAZ  Waiatarua         1.76 322   P        Pn       00 29 50.0 -0.4
WPHZ  Waipukurau        1.78 167   P        Pn       00 29 50.8 +0.3
WPHZ                               AML      AML
KHEZ  Kahui Hut         1.78 237   P        Pn       00 29 51.1 +0.4
KHEZ  Kahui Hut         1.78 237   P        Pn       00 29 51.0 +0.4
KHEZ                               AML      AML
CNGZ  Carnagh Statio    1.80  96   P        Pn       00 29 50.9 +0.2
PXZ   Pawanui           1.85 157   P        Pn       00 29 51.6 +0.4
PUZ   Puketiti          1.85  83   P        Pn       00 29 50.3 -1.0
NBEZ  Newall Road No    1.86 239   P        Pn       00 29 52.0 +0.6
NBEZ                               AML      AML
NMEZ  Namu Road         1.93 235   P        Pn       00 29 52.6 +0.6
NMEZ                               AML      AML
OHWZ  Ohakea            1.93 194   P        Pn       00 29 52.5 +0.5
OHWZ                               AML      AML
DVHZ  Dannevirke        1.97 175   P        Pn       00 29 52.4 -0.1
DVHZ                               AML      AML
PRHZ  Porangahau        2.01 164   P        Pn       00 29 53.0 +0.2
PRHZ                               AML      AML
WMGZ  Waiomatatini S    2.03  76   P        Pn       00 29 52.0 -1.0
WMGZ                               AML      AML
MXZ   Matakaoa Point    2.03  69   P        Pn       00 29 52.1 -1.0
MXZ   Matakaoa Point    2.03  69            Pn       00 29 52.2 -0.9
MXZ                                Sn       Sn       00 30 19.5 -3.9
MXZ   Matakaoa Point    2.03  69   P        Pn       00 29 51.9 -1.1
MXZ                                AML      AML
POWZ  Post Office Ro    2.06 183   P        Pn       00 29 53.1 -0.2
POWZ                               AML      AML
ANWZ  Angora Road       2.17 169   P        Pn       00 29 54.6 +0.2
ANWZ                               AML      AML
PRWZ  Pori Road         2.22 179   P        Pn       00 29 55.0 -0.1
PRWZ                               AML      AML
MRZ   Mangatainoka R    2.34 187            Pn       00 29 55.8 -0.5
MRZ                                Sn       Sn       00 30 26.5 -3.0
MRZ   Mangatainoka R    2.34 187   P        Pn       00 29 55.8 -0.5
BFZ   Birch Farm        2.36 174   P        Pn       00 29 56.1 -0.4
BFZ   Birch Farm        2.36 174            Pn       00 29 55.8 -0.7
BFZ   Birch Farm        2.36 174   P        Pn       00 29 56.1 -0.4
TIWZ  Tintock           2.44 181   P        Pn       00 29 57.3 -0.2
OGWZ  Otaki Gorge       2.55 193   P        Pn       00 29 58.1 -0.5
HOWZ  Holdsworth Sta    2.58 187   P        Pn       00 29 58.2 -0.8
CPWZ  Castlepoint       2.58 175   P        Pn       00 29 59.3 +0.3
KIW   Kapiti Island     2.65 197   P        Pn       00 29 58.8 -0.9
WCZ   Waipu Caves       2.70 332   P        Pn       00 29 59.5 -0.9
WCZ                                S        Sn       00 30 34.9 -1.7
WCZ                                AML      AML
TMWZ  Te Maipa          2.77 181   P        Pn       00 30 00.2 -0.9
MTW   Mount Morrison    2.84 187   P        Pn       00 30 00.8 -1.1
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CAW	Cannon Point	2.85	193	P	Pn	00 30 01.1	-0.9
DUWZ	D'Urville Isla	2.92	212	P	Pn	00 30 01.5	-1.3
TRWZ	Traveller	3.07	183	P	Pn	00 30 03.5	-1.1
PAWZ	Paruwai Farm	3.07	187	P	Pn	00 30 03.4	-1.3
WEL	Wellington	3.08	197	P	Pn	00 30 03.8	-0.9
SNZO	South Karori	3.12	197	P	Pn	00 30 03.7	-1.4
SNZO	South Karori	3.12	197		Pn	00 30 03.8	-1.4
MSWZ	Moikau Station	3.12	189		Pn	00 30 03.9	-1.3
MSWZ	Moikau Station	3.12	189	P	Pn	00 30 03.9	-1.3
TCW	Tory Channel	3.15	203		Pn	00 30 04.5	-1.0
TCW	Tory Channel	3.15	203	P	Pn	00 30 04.4	-1.1
BHW	Baring Head	3.18	195		Pn	00 30 04.5	-1.3
BHW	Baring Head	3.18	195	P	Pn	00 30 04.6	-1.3
PLWZ	Palliser	3.27	189		Pn	00 30 05.5	-1.5
PLWZ	Palliser	3.27	189	P	Pn	00 30 05.5	-1.5
TUWZ	Tuamarina	3.45	206		Pn	00 30 08.1	-1.1
TUWZ	Tuamarina	3.45	206	P	Pn	00 30 08.0	-1.1
NNZ	Nelson	3.49	213		Pn	00 30 08.2	-1.4
NNZ	Nelson	3.49	213	P	Pn	00 30 07.9	-1.6
TKNZ	Takaka Hill	3.54	219		Pn	00 30 08.3	-2.0
TKNZ	Takaka Hill	3.54	219	P	Pn	00 30 08.2	-2.0
QRZ	Quartz Range	3.62	225	P	Pn	00 30 09.1	-2.1
QRZ	Quartz Range	3.62	225		Pn	00 30 08.6	-2.6
QRZ	Quartz Range	3.62	225	P	Pn	00 30 08.9	-2.3
OUZ	Omahuta	3.63	328	P	Pn	00 30 10.4	-1.0
OUZ	Omahuta	3.63	328	P	Pn	00 30 10.7	-0.6
CMWZ	Cape Campbell	3.66	201		Pn	00 30 10.8	-0.9
CMWZ	Cape Campbell	3.66	201	P	Pn	00 30 11.2	-0.4
BSWZ	Blackbirch Sta	3.73	204		Pn	00 30 11.2	-1.3
BSWZ	Blackbirch Sta	3.73	204	P	Pn	00 30 11.2	-1.3
MRNZ	Matariki Terra	3.92	218		Pn	00 30 12.7	-2.2
MRNZ	Matariki Terra	3.92	218	P	Pn	00 30 12.7	-2.2
THZ	Tophouse	4.14	213		Pn	00 30 16.3	-1.4
THZ	Tophouse	4.14	213	P	Pn	00 30 15.7	-2.0
KHZ	Kahutara	4.47	203	P	Pn	00 30 20.3	-1.4
KHZ	Kahutara	4.47	203		Pn	00 30 20.4	-1.2
KHZ	Kahutara	4.47	203	P	Pn	00 30 20.5	-1.2
DSZ	Denniston Nort	4.65	222	P	Pn	00 30 21.2	-2.8
GVZ	Greta Valley S	5.13	205	P	Pn	00 30 28.3	-1.8
LTZ	Lake Taylor	5.25	211	P	Pn	00 30 29.3	-2.3
AMCZ	Amberley	5.44	206	P	Pn	00 30 31.9	-2.1
INZ	Inchbonnie	5.56	216	P	Pn	00 30 32.3	-3.3
OXZ	Oxford	5.80	209	P	Pn	00 30 35.6	-3.0
OKCZ	Okains Bay	5.81	201	P	Pn	00 30 36.6	-2.2
MQZ	McQueen's Vall	5.91	204	P	Pn	00 30 36.9	-3.2
AKCZ	Akaroa Harbour	5.99	201	P	Pn	00 30 38.7	-2.3
RACZ	Rakaia	6.10	207	P	Pn	00 30 39.8	-2.7
MHCZ	Mount Hutt	6.16	211	P	Pn	00 30 40.9	-2.4
WVZ	Waitaha Valley	6.17	218	P	Pn	00 30 41.2	-2.2
WACZ	Wakanui South	6.40	208	P	Pn	00 30 43.5	-2.9
RPZ	Rata Peaks	6.52	213	P	Pn	00 30 45.7	-2.3
RPZ	Rata Peaks	6.52	213		Pn	00 30 45.0	-2.9
RPZ	Rata Peaks	6.52	213	P	Pn	00 30 45.1	-2.9
GCSZ	Gaunt Creek Bo	6.54	219	P	Pn	00 30 45.2	-3.0
ARCZ	Arundel	6.66	211	P	Pn	00 30 47.0	-2.8
FOZ	Fox Glacier	6.96	220	P	Pn	00 30 50.9	-2.7
TMZ	Timaru	7.09	210	P	Pn	00 30 52.4	-3.0
LBZ	Lake Benmore	7.43	214	P	Pn	00 30 56.9	-2.9
ODZ	Otahua Downs	7.78	209	P	Pn	00 31 02.2	-2.2
ODZ	Otahua Downs	7.78	209	P	Pn	00 31 01.8	-2.5
CTZ	Chatham Island	7.80	136	P	Pn	00 31 03.8	-0.8
CTZ	Chatham Island	7.80	136	Pn	Pn	00 31 03.2	-1.4
JCZ	Jackson Bay	7.87	221	P	Pn	00 31 03.4	-2.1
JCZ	Jackson Bay	7.87	221	P	Pn	00 31 03.0	-2.6
WKZ	Wanaka	8.30	216	P	Pn	00 31 08.3	-2.8
EAZ	Earnscleugh	8.48	214	P	Pn	00 31 10.1	-3.4
TUZ	Tuapeka	8.94	210	P	Pn	00 31 17.7	-1.6
MLZ	Mavora Lakes	9.13	217	P	Pn	00 31 19.5	-2.4
SYZ	Scrubby Hill	9.61	209	P	Pn	00 31 26.9	-1.1
SYZ	Scrubby Hill	9.61	209	P	Pn	00 31 28.0	-0.1
OUENC	Ouen Island, N	17.68	331	P	P	00 33 04.6	-1.6
MSVF	Nonsavu	20.61	6	P	P	00 33 37.1	-0.7
	3.2nm,0.4s,baz=209,slow=19,SNR=2.3						
	3.2nm,0.4s						
MSVF	Nonsavu	20.61	6	P	P	00 33 35.9	-1.9
TOO	Toolangi	23.97	262	P	P	00 34 11.5	+1.6
TOO				IAmb	IAmb	00 34 42.9	
	comp=Z,5.5nm,1.2s						
EIDS	Eidsvold	24.66	294	P	P	00 34 17.6	+1.4
EIDS				IAmb	IAmb	00 34 57.5	
	comp=Z,15nm,1.2s						
STKA	Stephens Creek	28.70	272	P	P	00 34 53.9	+1.6
	comp=Z,1.8nm,0.6s,baz=108,slow=12,SNR=4.8						
	comp=Z,1.8nm,0.6s						
BBOO	Buckleboo	32.71	267	P	P	00 35 27.6	+0.1
AS31	Alice Springs	38.54	280	P	P	00 36 17.1	-0.1
AS31				IAmb	IAmb	00 36 18.2	
	comp=Z,1.9nm,0.8s						
ASAR	Alice Springs	38.54	280	P	P	00 36 17.5	+0.4
	comp=Z,4.3nm,0.7s,baz=130,slow=8.6,SNR=11						
	comp=Z,4.3nm,0.7s						
ASAR	Alice Springs	38.54	280	P	P	00 36 16.6	-0.6
VNDA	Vanda	39.75	185	P	P	00 36 29.0	+2.6
	comp=Z,0.2nm,0.5s,baz=11,slow=8.8,SNR=5.9						
	comp=Z,0.2nm,0.5s						
VNDA	Vanda	39.75	185	P	P	00 36 27.0	+0.6
FORT	Forrest	39.78	266	P	P	00 36 26.8	-0.5
FORT				IAmb	IAmb	00 36 50.6	
	comp=Z,12nm,1.3s						
WR8	Warramunga Arr	40.16	285	P	P	00 36 30.1	-0.4
WR8				IAmb	IAmb	00 36 58.8	
	comp=Z,15nm,1.5s						
WRA	Warramunga Arr	40.29	285	P	P	00 36 31.5	-0.1
	comp=Z,0.9nm,0.5s,baz=120,slow=8.9,SNR=19						
	comp=Z,0.9nm,0.5s						
WRA	Warramunga Arr	40.29	285	P	P	00 36 30.3	-1.4
CASY	Casey	45.79	211	P	P	00 37 14.2	-0.7
CASY				IAmb	IAmb	00 37 16.3	
	comp=Z,3.0nm,0.8s						
FITZ	Fitzroy Crossi	48.04	280	P	P	00 37 32.9	-0.1
FITZ				IAmb	IAmb	00 37 34.6	
	comp=Z,2.9nm,1.4s						
QSPA	South Pole Qui	51.79	180	P	P	00 38 04.0	+3.2
	comp=Z,2.5nm,0.7s,baz=12,slow=0.8,SNR=17						
	comp=Z,2.5nm,0.7s						
QSPA	South Pole Qui	51.79	180	P	P	00 38 02.5	+1.7
QSPA				IAmb	IAmb	00 38 10.9	
	comp=Z,6.8nm,1.5s						
MAW	Mawson	63.10	203	P	P	00 39 20.0	+0.6
	comp=Z,1.0nm,0.8s,baz=121,slow=5.9,SNR=2.2						
	comp=Z,1.0nm,0.8s						
MAW	Mawson	63.10	203	P	P	00 39 19.9	+0.4
TROLL	Troll, Antarti	69.86	182	⇑P	P	00 40 03.6	+1.2
	comp=Z,70nm,0.4s						
VNA3	Neumayer Olymp	70.66	178	⇑P	P	00 40 07.5	+0.4
	comp=Z,1.0nm,0.5s						
VNA2	Neumayer--Watz	71.02	179	⇑P	P	00 40 10.6	+1.4
	comp=Z,2.3nm,0.6s,baz=180,slow=6.1						
VNA1	Neumayer--Stat	71.28	179	P	P	00 40 12.0	+1.2
	comp=Z,1.2nm,0.6s						
HHC	Hu-ho-hao-te	98.30	316	*e*P	Pdif	00 42 29.2	+0.9
HHC				pmax	pmax		
	comp=Z,12nm,0.6s						
HHC				pmax	pmax		
	comp=Z,89nm,4.7s						
ARCES	ARCESS Array B	144.96	342	PKP	PKPdf	00 48 25.9	+0.1
	comp=Z,0.3nm,0.6s,baz=33,slow=2.6,SNR=0.9						
ARCES	ARCESS Array B	144.96	342		PKPbc	00 48 24.8	-0.7
DBIC	Dimbokro	148.47	179	PKPbc	PKPab	00 48 40.3	-0.7
	comp=Z,1.6nm,0.6s,baz=217,slow=3.6,SNR=4.2						

SCB 13 00:37:38.1±1.3**, 21°.40S×67°.25W, h189**^{km}±22^{km}**, ML3.7**/2**, Error ellipse: s-maj=9.5km s-min=6.8km az=1.0, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PB09	IPOC Station P	1.89	258	P	Pn	00 38 14.9	+0.1
PB08	IPOC Station P	2.17	305	P	Pn	00 38 19.3	+1.2
PB02	IPOC Station P	2.46	271	P	Pn	00 38 21.6	+0.6
PB02				S	Sn	00 38 54.2	-0.2
PB02				IAML		00 38 55.5	
	287nm,0.4s						
GO01	Chusmiza	2.50	313	P	Pn	00 38 22.4	+0.5
PB06	IPOC Station P	2.51	238	P	Pn	00 38 23.1	+1.5
PB11	IPOC Station P	2.78	306	P	Pn	00 38 25.1	+0.3
PB11				S	Sn	00 39 00.3	-0.8
PB11				IAML		00 39 01.4	
	127nm,0.2s						
PB16	IPOC Station P	3.71	325	P	Pn	00 38 36.8	+0.3
PB14	IPOC Station P	4.33	222	P	Pn	00 38 44.1	+0.2
BBOJ	La Paz, Jacaqu	4.49	348	P	Pn	00 38 46.9	+0.6
SOEJ	Jacaque	4.49	348	P	Pn	00 38 46.9	+0.6
BBOD	La Paz, Gloria	4.91	345	P	Pn	00 38 52.2	+0.6
LPAZ	La Paz	5.15	351	P	Pn	00 38 55.5	+0.6
BBOB	La Paz, Bander	5.30	351	P	Pn	00 38 56.9	+0.2
SIV	San Ignacio	7.95	48	P	Pn	00 39 28.7	-2.2

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*IDC **13** 00:41:41.5±0.6, 4°.08N×126°.61E, h0^{km}, mb4.2/16, mbtmp4.2/17, ML4.3/1, MS3.4/16, Error ellipse: s-maj=44.1km s-min=10.2km az=70.0*

*MAN **13** 00:41:43.0, 3°.96N×126°.55E, h15^{km}, MS4.7*

*NEIC **13** 00:41:43.6±0.7, 4°.12N±0°.05×126°.56E±0°.09, h10^{km}±1^{km}, mb4.6/39, Error ellipse: s-maj=15.7km s-min=8.0km az=69.0*

*DJA **13** 00:41:47.1±1.1, 4°N±4°×12°7E±°, h16^{km}±11^{km}, M4.6/16, mB5.0/6, mb4.7/12, MLv4.7/16, Mw(mB)4.4/6*

ISC 13 00:41:43.1±0.4**, 4°.15N**±0°.04×**126°.60E**±0°.07**, h10**^{km}**, n103, σ1**^{s}**.86**/98**, mb4.5**/35**, MS3.3**/16**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DDMP	Don Marcelino,	2.13	336	*e*P	Pn	00 42 19.2	+0.3
DDMP				*e*S	Sg	00 42 52.8	+1.0
GSPH	General Santos	2.53	320	*i* P	Pn	00 42 25.7	+1.3
GSPH				*i* S	Sn	00 42 47.9	-7.5
DAV	Davao City (W)	3.08	341	Pn	Pn	00 42 35.0	+3.2
	38nm,0.3s,baz=278,slow=11,SNR=7.3						
	119nm,0.4s						
DAV				AML	AML		
DAV	Davao City (W)	3.08	341		Pn	00 42 33.0	+1.2
DAV	Davao City (W)	3.08	341	P	Pb	00 42 38.6	+0.6
DAV				AML	AML		
DMPH	Davao City--Mi	3.11	340	*e*P	Pn	00 42 35.9	+3.6
DMPH				*i* S	Sn	00 43 13.3	+3.8
MNI	Manado	3.21	213	P	Pn	00 42 36.5	+2.9
MNI				AML	AML		
KCP	Kidapawan	3.21	332	*e*P	Pb	00 42 38.0	-2.4
KCP				*e*S	Sb	00 43 21.4	+1.8
TNTI	Ternate	3.44	167		Pn	00 42 36.9	+0.1
TNTI	Ternate	3.44	167	P	Pn	00 42 38.3	+1.5
CDOP	Cateel, Davao	3.62	358	*i* P	Pn	00 42 43.0	+3.8
CDOP				*i* S	Sb	00 43 31.3	+0.1
CTBH	Cotabato--PC H	3.85	323	*i* P	Pn	00 42 44.6	+2.2
BUKP	Musuan	4.01	338	*e*P	Pn	00 42 49.0	+4.3
BUKP				*i* S	Sb	00 43 47.7	+5.2
BIPH	Bislig	4.02	357	*e*P	Pb	00 42 53.6	-0.5
BIPH				*e*S	Sb	00 43 39.7	-3.0
CGP	Cagayan de Oro	4.68	336	*e*P	Pn	00 42 56.6	+2.7
GTOI	Gorontalo	5.00	226	P	Pn	00 43 00.6	+2.4
	0.3nm865nm77nm,1.1s						
GTOI				AML	AML		
DCPH	Dipolog City	5.46	324	*i* P	Pn	00 43 10.1	+5.5
SANI	Sanana	6.18	186	P	Pn	00 43 15.8	+1.2
	0.2nm863nm37nm,0.8s						
SANI				AML	AML		
LUWI	Luwuk	6.42	217	Pn	Pn	00 43 18.6	+0.9
LUWI	Luwuk	6.42	217	P	Pn	00 43 19.0	+1.3
TOLI2	Tolitoli	6.54	243		Pn	00 43 18.6	-0.9
SWI	Sorong	6.82	137	P	Pn	00 43 23.4	+0.1
	0.2nm62nm,1.0s						
SWI				AML	AML		
APSI	Ampana	7.05	225	P	Pn	00 43 27.9	+1.5
	125nm,1.1s						
MYLDM	Lahad Datu	8.13	278	Pn	Pn	00 43 42.4	+1.0
FAKI	Fak Fak	9.01	141	Pn	Pn	00 43 53.5	+0.2
FAKI	Fak Fak	9.01	141	P	Pn	00 43 54.7	+1.3
KKM	Kota Kinabalu	10.51	281	Pn	Pn	00 44 13.8	-0.3
LQP	Lukban	11.09	334	*e*P	Pn	00 44 29.0	+7.0
MTN	Manton Dam	17.47	165		Pn	00 45 44.6	-2.4
TWG	Pinlang	19.32	344	P	P	00 46 07.9	-0.7
KNRA	Kununurra	19.81	174	P	P	00 46 13.4	-0.6
TPUB	Ta-pu	19.90	344	P	P	00 46 14.7	-0.2
TPUB				IAmb	IAmb	00 46 26.1	
	comp=Z,15nm,0.7s						
GUMO	Guam	20.33	61	LR	LR	00 52 33.6	
	comp=Z,62nm,21.7s,baz=270,slow=32						
YHNB	Yeheng	21.02	347	P	P	00 46 27.6	+0.4
YHNB				IAmb	IAmb	00 46 32.9	
	comp=Z,44nm,1.4s						
FITZ	Fitzroy Crossi	22.12	182	P	P	00 46 38.2	-0.7
	comp=Z,2.9nm,0.5s,baz=3.4,slow=9.4,SNR=22						
	comp=Z,2.9nm,0.5s						
FITZ	Fitzroy Crossi	22.12	182	P	P	00 46 38.2	-0.7
JOW	Kunigami	22.62	4	P	P	00 46 45.3	+1.1
JOW				IAmb	IAmb	00 46 54.6	
	comp=Z,22nm,0.9s						
WB0	Warramunga Arr	24.97	162		P	00 47 06.5	-0.5
WRA	Warramunga Arr	25.12	163	P	P	00 47 08.3	-0.1
	comp=Z,13nm,0.8s,baz=344,slow=10,SNR=59						
WRA				S	S	00 51 33.7	+0.3
	comp=Z,1.3nm,1.0s,baz=337,slow=20,SNR=5.3						
	comp=Z,13nm,0.8s						
WRA	Warramunga Arr	25.12	163		P	00 47 06.8	-1.6
MBWA	Marble Bar	26.03	195	P	P	00 47 16.3	-0.3
AS31	Alice Springs	28.55	166		P	00 47 39.0	-0.3
ASAR	Alice Springs	28.55	166	P	P	00 47 38.2	-1.1
	comp=Z,1.1nm,0.5s,baz=345,slow=7.0,SNR=19						
ASAR				S	S	00 52 35.8	+8.3
	comp=Z,1.0nm,0.9s,baz=346,slow=19,SNR=4.3						
	comp=Z,1.1nm,0.5s						
ASAR	Alice Springs	28.55	166	P	P	00 47 38.9	-0.4
JNU	Nakatsue	29.10	7	LR	LR	00 58 25.1	
	comp=Z,39nm,21.6s,baz=185,slow=34						
CMAR	Chiang Mai Arr	30.55	300	P	P	00 47 58.2	+1.1
	comp=Z,1.0nm,0.3s,baz=125,slow=7.0,SNR=8.5						
CMAR				LR	LR	01 01 45.2	
	comp=Z,67nm,18.9s,baz=240,slow=39						
	comp=Z,1.0nm,0.3s						
CMAR	Chiang Mai Arr	30.55	300	P	P	00 47 56.3	-0.8
ENH	Enshi	30.60	330	P	P	00 47 57.7	+0.2
ENH				IAmb	IAmb	00 48 08.3	
	comp=Z,5.3nm,0.6s						
JHJ	Hachijo jima 2	31.35	22	LR	LR	01 00 25.2	
	comp=Z,94nm,20.1s,baz=134,slow=36						
KSRS	Korea Array	33.17	2	LR	LR	01 00 30.5	
	comp=Z,44nm,21.3s,baz=180,slow=34						
MJAR	Matsushiro Arr	33.97	17	LR	LR	01 04 07.3	
	comp=Z,47nm,18.6s,baz=190,slow=40						
FORT	Forrest	34.76	178	P	P	00 48 32.8	-1.0
FORT				IAmb	IAmb	00 48 43.5	
	comp=Z,11nm,1.1s						
HNR	Honiara	35.87	112	LR	LR	01 03 12.7	
	comp=Z,30nm,20.4s,baz=48,slow=36						
BJT	Baijiatuau	36.93	347	P	P	00 48 52.1	-0.3
BJT				IAmb	IAmb	00 49 06.9	
	comp=Z,17nm,1.4s						
EIDS	Eidsvold	37.76	142	P	P	00 48 58.7	-0.9
EIDS				IAmb	IAmb	00 49 01.1	
	comp=Z,9.6nm,0.8s						
BBOO	Buckleboo	37.84	167	P	P	00 48 59.6	-0.5
BBOO				IAmb	IAmb	00 49 04.3	
	comp=Z,9.6nm,0.8s						
STKA	Stephens Creek	38.56	159	P	P	00 49 05.5	-0.7
	comp=Z,11nm,0.7s,baz=337,slow=7.6,SNR=24						
	comp=Z,11nm,0.7s						
SHL	Shillong	39.52	306	P	P	00 49 13.8	-0.8
SHL				IAmb	IAmb	00 49 15.7	
	comp=Z,8.0nm,0.9s						
ARMA	Armidale	41.89	147		P	00 49 34.0	0.0
ARMA				IAmb	IAmb	00 49 35.3	
	comp=Z,18nm,1.1s						
ASAJ	Asahikawa	42.24	17	LR	LR	01 09 04.5	
	comp=Z,21nm,18.9s,baz=240,slow=39						
CAN	Canberra	44.54	154	P	P	00 49 55.4	+0.2
EVN	Everest	44.64	306	P	P	00 49 56.2	-0.7
KLR	Kul'dur	45.13	5	LR	LR	01 11 36.9	
	comp=Z,28nm,18.0s,baz=204,slow=40						
PALK	Pallekele	45.76	276	LR	LR	01 11 06.5	
	comp=Z,57nm,18.8s,baz=107,slow=39						
HEH	HeiHe	45.95	1	*e*P	P	00 50 03.2	-3.0
ULN	Ulaanbaatar	46.68	342	P	P	00 50 12.8	+0.6
ULN				IAmb	IAmb	00 50 33.4	
	comp=Z,4.2nm,0.9s						
SONM	Songino Array	46.86	341	P	P	00 50 14.6	+1.0
	comp=Z,0.4nm,0.5s,baz=157,slow=8.2,SNR=4.4						
	comp=Z,0.4nm,0.5s						
SONM	Songino Array	46.86	341	P	P	00 50 13.8	+0.2
MKAR	Makanchi Array	57.14	325	P	P	00 51 29.3	-0.8
	comp=Z,0.9nm,0.4s,baz=119,slow=8.0,SNR=13						
MKAR				LR	LR	01 17 14.9	
	comp=Z,58nm,18.9s,baz=46,slow=37						
	comp=Z,0.9nm,0.4s						
MAKZ	Makanchi	57.33	325	P	P	00 51 31.4	0.0
MAKZ				IAmb	IAmb	00 51 47.3	
	comp=Z,6.4nm,1.2s						
KSH2	Kashi	57.79	314	P	P	00 51 36.8	+1.8
KSH2				pmax	pmax		
	comp=Z,4.0nm,1.1s						
AAK	Ala-Archa	59.96	318	LR	LR	01 20 02.7	
	comp=Z,49nm,20.0s,baz=100,slow=38						
ZALV	Zalesovo Beam	60.16	333	P	P	00 51 49.7	-1.2
	comp=Z,1.3nm,0.6s,baz=122,slow=6.7,SNR=5.7						
ZALV				LR	LR	01 19 06.1	
	comp=Z,22nm,18.8s,baz=112,slow=37						
	comp=Z,1.3nm,0.6s						
ZALV	Zalesovo Beam	60.16	333	P	P	00 51 50.0	-0.9
KURBB	Kurchatov Arra	61.32	327	P	P	00 51 58.4	-0.5
	comp=Z,4.0nm,0.7s,baz=129,slow=6.4,SNR=19						
	comp=Z,4.0nm,0.7s						
KURK	Kurchatov	61.32	327	P	P	00 51 58.2	-0.7
LBZ	Lake Benmore	62.10	146	P	P	00 52 04.6	+0.3
KHZ	Kahutara	62.87	143	P	P	00 52 09.1	-0.3
BVAR	Borovoye Array	66.90	327	P	P	00 52 35.7	+0.1
	comp=Z,1.8nm,0.7s,baz=141,slow=7.3,SNR=5.3						
	comp=Z,1.8nm,0.7s						
TIXI	Tiksi	67.43	1	P	P	00 52 38.7	+0.1
NRIK	Noril'sk	70.00	346	P	P	00 52 55.7	+1.1
	comp=Z,2.6nm,0.4s,baz=107,slow=6.6,SNR=6.5						
NRIK				LR	LR	01 28 02.7	
	comp=Z,50nm,18.2s,baz=175,slow=40						
	comp=Z,2.6nm,0.4s						
NRIK	Noril'sk	70.00	346	P	P	00 52 54.7	+0.1
NRIK				IAmb	IAmb	00 53 04.9	
	comp=Z,4.8nm,0.8s						
AB31	Akbulak array	71.75	321	P	P	00 53 04.7	-0.9
ABKAR	Akbulak array	71.75	321	P	P	00 53 04.5	-1.2
AKTO	Aktyubinsk	73.25	322	LR	LR	01 28 45.3	
	comp=Z,58nm,18.8s,baz=224,slow=38						
ARTI	Arti	74.60	328	LR	LR	01 27 02.5	
	comp=Z,25nm,18.6s,baz=124,slow=36						
M16K	Timber Creek	78.87	29	P	P	00 53 46.9	+0.4
M16K				IAmb	IAmb	00 53 53.0	
	comp=Z,13nm,1.5s						
J17K	VABM Dome	79.31	26	P	P	00 53 49.4	+0.7
J17K				IAmb	IAmb	00 54 18.6	
	comp=Z,7.8nm,1.3s						
L18K	Granite Mounta	80.16	28	P	P	00 53 53.7	+0.3
L18K				IAmb	IAmb	00 53 56.0	
	comp=Z,9.3nm,1.4s						
J18K	Innoko River	80.37	26	P	P	00 53 54.6	+0.1
E19K	Redstone River	80.90	22	P	P	00 53 58.2	+0.9
E19K				IAmb	IAmb	00 54 07.1	
	comp=Z,6.5nm,0.9s						
J20K	Nowinta River	81.61	26	P	P	00 54 01.8	+0.7
J20K				IAmb	IAmb	00 54 03.9	
	comp=Z,2.9nm,0.9s						
IMAR	Indian Mountai	82.02	24	P	P	00 54 03.6	+0.3
CAST	Castle Rocks	82.42	27	P	P	00 54 06.1	+0.7
CAST				IAmb	IAmb	00 54 21.1	
	comp=Z,3.5nm,1.0s						
MLY	Manley	83.16	25	P	P	00 54 09.6	+0.3
MLY				IAmb	IAmb	00 54 22.9	
	comp=Z,7.5nm,1.3s						
VNDA	Vanda	83.85	173	P	P	00 54 12.9	+0.5
	comp=Z,0.8nm,0.8s,baz=329,slow=7.1,SNR=5.1						
	comp=Z,0.8nm,0.8s						
VNDA	Vanda	83.85	173	P	P	00 54 12.8	+0.3
VNDA				IAmb	IAmb	00 54 28.3	
	comp=Z,6.2nm,1.4s						
ILAR	Eielson Array	84.79	25	P	P	00 54 17.5	0.0
	comp=Z,0.6nm,0.8s,baz=243,slow=7.1,SNR=6.2						
	comp=Z,0.6nm,0.8s						
BRTR	Keskin Array B	89.65	310	P	P	00 54 42.3	+0.5
	comp=Z,0.5nm,0.8s,baz=298,slow=2.7,SNR=3.8						
	comp=Z,0.5nm,0.8s						
ARCES	ARCESS Array B	90.01	340	P	P	00 54 43.5	+0.9
	comp=Z,1.6nm,0.8s,baz=100,slow=5.4,SNR=5.7						
	comp=Z,1.6nm,0.8s						
ARCES	ARCESS Array B	90.01	340	P	P	00 54 43.0	+0.3
FINES	FINESS Array B	91.40	332	P	P	00 54 50.0	+0.7
	comp=Z,3.5nm,0.9s,baz=49,slow=6.1,SNR=5.8						
	comp=Z,3.5nm,0.9s						
FINES	FINESS Array B	91.40	332	P	P	00 54 49.2	-0.1

TEH 13 00:44:11.5, 37°.60N×49°.07E, h16^{km}±25^{km}**, ML3.5, Presumed earthquake, Caspian Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GAS1	Astara - Iran	0.81	347	Pg	Pg	00 44 27.6	+0.3
GAS1				Sg	Sn	00 44 39.4	-0.5
LHJ2	Lahijan - Gila	0.90	118	Pg	Pb	00 44 28.3	-0.4
GIDE	GILAN DEYLAMAN	0.95	135	Pg	Pg	00 44 30.0	0.0
ZNJK	Zanjan	0.98	198	Pg	Pb	00 44 29.8	-0.4
ISRB	Sarab	1.14	282	Pg	Pn	00 44 33.0	+0.1
IHSH	Hashtrud	1.47	259	Pg	Pb	00 44 38.4	-0.2
IGZV	Ghazvin	1.52	142	Pg	Pn	00 44 38.7	+0.5
GRMI	Germi	1.52	323	Pg	Pn	00 44 38.6	+0.4
IHRS	Heris	1.76	295	Pg	Pn	00 44 42.5	+1.0
QABG	Abgarm-Qazvin	1.93	168	Pn	Pb	00 44 45.6	-0.8
HGHA	Hamedan- Ghaye	2.11	185	Pn	Pb	00 44 48.4	-1.1
ITBZ	Tabriz	2.40	286	Pn	Pn	00 44 51.5	+1.3
IAZR	Azarshahr	2.45	273	Pn	Pn	00 44 52.9	+1.8
SNJK	Sanadaj _Korde	2.69	217	Pn	Pb	00 44 57.1	-2.4
SNQR	Sonqor, Kerman	2.97	204	Pn	Pn	00 45 00.4	+2.2
IQOM	Qom	3.19	149	Pn	Pn	00 45 02.7	+1.5
IBZA	Bozab	3.27	198	Pn	Pn	00 45 04.5	+2.1
QAMS	Qamsar	4.29	153	Pn	Pn	00 45 18.1	+1.7
IKLH	Kolahrood	4.74	154	Pn	Pn	00 45 24.5	+2.1

SSNC 13 00:49:08.4±1.0**, 17°.71N×81°.89W, h5**^{km}**, MD3.5, ML2.1, Presumed earthquake, North of Honduras**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FSCY	Frank Sound, G	1.73	23	*e*P	Pn	00 49 35.7	-3.4
FSCY				IAML		00 49 57.4	
	comp=E,19nm,0.1s						
LCCY	Blossom Villag	2.59	41	*e*P	Pn	00 49 48.5	-2.5
CBCY	The Bluff, Cay	2.85	45	*e*P	Pn	00 49 52.0	-2.6
CBCY				*e*S	Sn	00 50 24.5	-4.9
CBCY				IAML		00 50 26.1	
	comp=N,4.5nm,0.1s						
CBCY				IAML		00 50 26.2	
	comp=E,5.3nm,0.2s						
MGV	Manicaragua	4.73	22	*e*P	Pn	00 50 18.0	-2.4
CAIB	Caibarien	5.27	25	*e*P	Pn	00 50 26.6	-1.2

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*SDD **13** 00:49:16.3±2.3, 19°.55N×73°.95W, h52^{km}±965^{km}, MD3.6, ML2.8, MW2.9, Presumed earthquake*

*SSNC **13** 00:49:18.2±1.2, 19°.25N×73°.93W, h25^{km}±11^{km}, ML2.9, Presumed earthquake*

ISC 13 00:49:15.8±1.3**, 19°.39N**±0°.07×**73°.92W**±0°.04**, h27**^{km}±15^{km}**, n20, σ1**^{s}**.93**/38**, 13C-1D, Haiti region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
QMBU	Quimbuelo	1.16	314	⇑*i*P	Pn	00 49 36.7	+0.3
QMBU				⇑*i*S	Sn	00 49 49.1	-2.3
QMBU				IAML		00 49 49.9	
	comp=N,381nm,0.3s						
GTBY	Guantanamo Bay	1.24	295	*e*P	Pb	00 49 39.3	+0.7
GTBY				*e*S	Sn	00 49 54.4	+1.0
GTBY				IAML		00 49 54.9	
	comp=N,326nm,0.2s						
GTBY				IAML		00 49 55.1	
	comp=N,318nm,0.2s						
GTBY	Guantanamo Bay	1.24	295	⇓*i*P	Pb	00 49 39.3	+0.7
GTBY				⇑*i*S	Sn	00 49 52.9	-0.5
GTBY				IAML		00 49 54.8	
	comp=N,307nm,0.3s						
NMDO	Nuevo Mundo	1.53	319	*e*P	Pn	00 49 43.3	+1.9
NMDO				*e*S	Sn	00 49 59.2	-1.3
NMDO				*e*Sg	Sb	00 50 02.3	-0.3
NMDO				IAML		00 50 04.6	
	comp=E,63nm,0.2s						
NMDO				IAML		00 50 04.8	
	comp=N,73nm,0.1s						
NMDO	Nuevo Mundo	1.53	319	⇑*i*P	Pn	00 49 42.0	+0.5
NMDO				⇑*i*S	Sn	00 50 02.1	+1.6
NMDO				IAML		00 50 07.7	
	comp=N,53nm,0.4s						
MOAC	Moa	1.60	322	*e*P	Pb	00 49 44.6	0.0
MOAC				*e*S	Sn	00 50 04.1	+2.1
MOAC				IAML		00 50 05.1	
	comp=E,102nm,0.2s						

MOAC				IAML		00 50 05.4	
	comp=N,174nm,0.3s						
RCC	**Rio Carpintero**	1.78	290	*e*P	**Pn**	**00 49 46.6**	**+1.8**
RCC				*e*S	**Sn**	**00 50 07.1**	**+0.5**
RCC				IAML		00 50 08.2	
	comp=N,175nm,0.2s						
RCC				IAML		00 50 08.3	
	comp=E,52nm,0.1s						
MARVS	**Santiago de Cu**	1.96	288	*e*P	**Pn**	**00 49 49.1**	**+1.7**
MARVS				*e*S	**Sn**	**00 50 12.3**	**+1.2**
MARVS				IAML		00 50 13.3	
	comp=E,102nm,0.1s						
MARVS				IAML		00 50 13.4	
	comp=N,52nm,0.2s						
PINC	**Pinares de May**	2.07	302	*e*P	**Pn**	**00 49 49.8**	**+1.0**
JIDR	**Jimani**	2.15	114	⇑*i*P	**Pn**	**00 49 52.5**	**+2.6**
JIDR				⇑*i*S	**Sb**	**00 50 20.0**	**-0.4**
JIDR				IAML		00 50 21.5	
	comp=N,34nm,0.4s						
MCDR	**Montecristi**	2.19	77	⇑*i*P	**Pn**	**00 49 51.8**	**+1.4**
MCDR				IAML		00 50 19.3	
	comp=N,85nm,2.2s						
MCDR				⇑*i*S	**Sn**	**00 50 19.6**	**+3.0**
REDR	**Restauracion**	2.39	95	⇑*i*P	**Pn**	**00 49 50.9**	**-2.3**
REDR				⇑*i*S	**Sn**	**00 50 18.2**	**-3.5**
REDR				IAML		00 50 20.8	
	comp=N,66nm,0.1s						
CHIV	**Chivirico**	2.42	284	*e*P	**Pn**	**00 49 54.9**	**+1.2**
CHIV				*e*S	**Sn**	**00 50 22.5**	**0.0**
CHIV				IAML		00 50 26.2	
	comp=N,36nm,0.2s						
CHIV				IAML		00 50 26.3	
	comp=E,36nm,0.3s						
YAR	**Yar**	2.50	293	*e*P	**Pn**	**00 49 56.3**	**+1.6**
YAR				*e*S	**Sn**	**00 50 24.6**	**+0.3**
YAR				IAML		00 50 25.3	
	comp=N,12nm,0.4s						
YAR				IAML		00 50 25.8	
	comp=E,22nm,0.7s						
HLGC	**Holguin**	2.50	307	*e*P	**Pb**	**00 49 59.6**	**-0.5**
HLGC				*e*S	**Sb**	**00 50 30.0**	**-0.5**
HLGC				IAML		00 50 33.9	
	comp=E,17nm,0.4s						
HLGC				IAML		00 50 34.0	
	comp=N,19nm,0.3s						
SDDR	**Presa de Saban**	2.52	99	⇑*i*P	**Pn**	**00 49 58.1**	**+3.1**
SDDR				IAML		00 50 42.1	
	comp=N,29nm,0.4s						
NEDR	**Neiba UASD**	2.53	111	⇑*i*P	**Pb**	**00 49 59.5**	**-1.1**
NEDR				IAML		00 50 45.4	
	comp=N,37nm,0.7s						
LMGC	**Las Mercedes**	2.98	283	*e*P	**Pn**	**00 50 02.6**	**+1.2**
LMGC				*e*S	**Sn**	**00 50 35.1**	**-1.2**
LMGC				IAML		00 50 36.0	
	comp=N,19nm,0.1s						
LMGC				IAML		00 50 36.1	
	comp=E,14nm,0.2s						
PILO	**Pilon**	3.33	279	*e*P	**Pn**	**00 50 07.2**	**+1.0**
PILO				*e*S	**Sn**	**00 50 43.3**	**-1.5**
PILO				IAML		00 50 44.6	
	comp=N,407nm,0.2s						
PILO				IAML		00 50 44.7	
	comp=E,290nm,0.2s						
CCCC	**Cccc**	4.04	297	*e*P	**Pn**	**00 50 14.1**	**-1.7**
CCCC				*e*S	**Sn**	**00 50 56.1**	**-6.1**
CCCC				IAML		00 50 59.1	
	comp=E,4.8nm,0.3s						
CCCC				IAML		00 50 59.5	
	comp=N,3.0nm,0.2s						

IDC 13 00:51:36.2±3.1**, 32°.97S×178°.10W, h0^{km}, mb4.1**/2**, mbtmp4.1**/3**, ML3.6**/1**, Error ellipse: s-maj=73.1km s-min=45.2km az=126.0, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	**Urewera**	6.56	215	Pn	Pn	00 53 12.7	-1.2
	1.3nm,0.3s,baz=276,slow=1.8,SNR=8.7						
URZ				Sn	Sn	00 54 24.0	-5.5
	3.9nm,0.3s,baz=252,slow=3.8,SNR=15						
	3.4nm,0.3s						
URZ				AML	AML		
ASAR	**Alice Springs**	42.95	270	P	P	00 59 37.0	-0.1
	1.3nm,0.5s,baz=108,slow=7.7,SNR=22						
	1.3nm,0.5s						
WRA	**Warramunga Arr**	44.17	275	P	P	00 59 47.0	0.0
	2.1nm,0.6s,baz=114,slow=8.0,SNR=42						
	2.1nm,0.6s						
FINES	**FINESS Array B**	147.51	339	PKPbc	PKPbc	01 11 20.8	-0.7
	6.8nm,1.1s,baz=36,slow=5.2,SNR=6.3						

IDC 13 00:56:28.4±1.4**, 30°.44N×139°.93E, h0^{km}, mb3.6**/3**, mbtmp3.5**/4**, ML2.1**/1**, MS3.5**/2**, Error ellipse: s-maj=82.6km s-min=23.7km az=88.0, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MJAR	**Matsushiro Arr**	6.25	347	Pn	Pn	00 58 05.7	+3.8
	baz=170,slow=12,SNR=2.9						
	0.8nm,0.4s						
WRA	**Warramunga Arr**	50.38	187	P	P	01 05 27.2	-0.3
	0.5nm,0.8s,baz=3.5,slow=7.6,SNR=4.6						
WRA				LR	LR	01 25 31.9	
	comp=Z,114nm,21.9s,baz=269,slow=35						
	0.5nm,0.8s						
KDAK	**Kodiak Island**	52.93	38	LR	LR	01 24 51.1	
	comp=Z,29nm,22.0s,baz=238,slow=32						
ASAR	**Alice Springs**	54.11	187	P	P	01 05 55.3	+0.1
	0.3nm,0.7s,baz=14,slow=14,SNR=4.4						
	0.3nm,0.7s						
TXAR	**Lajitas Array**	95.14	52	P	P	01 09 53.9	-0.3
	0.3nm,0.8s,baz=316,slow=3.5,SNR=4.0						
	0.3nm,0.8s						

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*IDC **13** 01:00:53.1±0.5, 58°.45S×25°.10W, h0^{km}, mb4.4/11, mbtmp4.4/13, ML4.4/2, MS3.5/13, Error ellipse: s-maj=20.1km s-min=14.9km az=67.0*

*NEIC **13** 01:00:58.8±2.0, 58°.5S±0°.1×25°.1W±0°.2, h35^{km}±1^{km}, mb4.6/18, Error ellipse: s-maj=23.8km s-min=16.9km az=53.0*

ISC 13 01:00:56.9±0.4**, 58°.52S**±0°.08×**25°.1W**±0°.1**, h28^{km}, n65, σ1^{s}.25**/54**, mb4.4**/15**, MS3.6**/11**, 5C, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNA1	**Neumayer--Stat**	14.06	157	⇑P	**Pn**	**01 04 13.3**	**-0.6**
	comp=Z,35nm,0.8s						
VNA3	**Neumayer Olymp**	14.27	160	⇑P	**Pn**	**01 04 15.1**	**-1.7**
	comp=Z,18nm,0.6s						
VNA3				⇑S	Sn	01 06 40.2	-14
	comp=E,2.4nm,0.4s						
VNA2	**Neumayer--Watz**	14.46	156	⇑P	**Pn**	**01 04 18.2**	**-1.1**
	comp=Z,14nm,0.4s,baz=320,slow=14						
SNAA	**Sanae**	16.01	154	⇑P	**Pn**	**01 04 39.0**	**-0.8**
	comp=Z,320nm,0.5s						
SNAA	**Sanae**	16.01	154	Pn	**Pn**	**01 04 39.0**	**-0.8**
	comp=Z,3.7nm,0.3s,baz=317,slow=14,SNR=37						
SNAA				LR	LR	01 09 35.8	
	comp=Z,141nm,20.1s,baz=277,slow=32						
	comp=Z,8.4nm,0.4s						
SNAA				AML	AML		
SNAA	**Sanae**	16.01	154		**Pn**	**01 04 38.9**	**-0.8**
TROLL	**Troll, Antarti**	17.52	151	P	**P**	**01 04 58.8**	**-1.0**
	comp=Z,346nm,0.4s						
PMSA	**Palmer Station**	19.27	235	P	**P**	**01 05 18.8**	**-0.1**
	comp=Z,0.5nm,0.3s,baz=98,slow=7.0,SNR=4.7						
PMSA				LR	LR	01 11 10.4	
	comp=Z,93nm,21.9s,baz=77,slow=32						
	comp=Z,3.7nm,0.6s						
PMSA				AML	AML		
DSPA	**Despedida**	24.10	262	P	**P**	**01 06 09.3**	**-0.4**
QSPA	**South Pole Qui**	31.72	180	P	**P**	**01 07 18.5**	**+0.6**
	comp=Z,3.1nm,0.8s,baz=202,slow=2.3,SNR=10						
QSPA				LR	LR	01 19 54.5	
	comp=Z,93nm,19.2s,baz=200,slow=36						
	comp=Z,3.1nm,0.8s						
QSPA	**South Pole Qui**	31.72	180	P	**P**	**01 07 19.4**	**+1.4**
QSPA				IAmb	IAmb	01 07 40.0	
	comp=Z,6.0nm,1.1s						
PLCA	**Paso Flores**	33.59	282	P	**P**	**01 07 34.5**	**0.0**
	comp=Z,3.5nm,0.8s,baz=136,slow=8.1,SNR=7.7						
PLCA				LR	LR	01 19 51.2	
	comp=Z,61nm,18.6s,baz=192,slow=34						
	comp=Z,3.5nm,0.8s						
PLCA	**Paso Flores**	33.59	282	P	**P**	**01 07 35.6**	**+1.1**
PLCA				IAmb	IAmb	01 08 05.6	
	comp=Z,9.8nm,1.3s						
GO06	**Curarrehue**	34.92	282	P	**P**	**01 07 46.4**	**+0.4**
GO06				IAmb	IAmb	01 08 27.9	
	comp=Z,18nm,1.4s						
MAW	**Mawson**	37.49	141	P	**P**	**01 08 07.1**	**-0.3**
	comp=Z,4.4nm,1.0s,baz=231,slow=10,SNR=7.2						
MAW				PcP	**PcP**	**01 10 25.7**	**+0.6**
	comp=Z,1.4nm,0.7s,baz=222,slow=3.4,SNR=3.6						
MAW				LR	LR	01 21 29.4	
	comp=Z,64nm,19.4s,baz=258,slow=33						
	comp=Z,4.4nm,1.0s						
MAW	**Mawson**	37.49	141	P	**P**	**01 08 07.1**	**-0.3**
MT09	**Talagante**	39.18	289	P	**P**	**01 08 22.2**	**-0.1**
CPUP	**Villa Florida**	39.30	311	P	**P**	**01 08 21.3**	**-1.8**
	comp=Z,0.7nm,0.6s,baz=156,slow=8.3,SNR=3.6						
	comp=Z,0.7nm,0.6s						
AQDB	**Aquidauana**	44.00	317	P	**P**	**01 09 00.1**	**-1.5**
AC02	**Maricunga**	44.01	297	P	**P**	**01 09 03.0**	**+0.7**
AC02				IAmb	IAmb	01 09 36.4	
	comp=Z,18nm,1.4s						
VNDA	**Vanda**	44.14	182	P	**P**	**01 09 04.2**	**+2.1**
	comp=Z,3.3nm,0.9s,baz=181,slow=7.5,SNR=19						
	comp=Z,3.3nm,0.9s						
VNDA	**Vanda**	44.14	182	P	**P**	**01 09 04.2**	**+2.1**
H04S2	**CROZET ISLANDS**	45.55	110	T	T	01 58 43.9	
	baz=226,slow=74,SNR=65						
H04S3	**CROZET ISLANDS**	45.56	110	T	T	01 58 45.0	
	baz=226,slow=74,SNR=54						
H04S1	**CROZET ISLANDS**	45.57	110	T	T	01 58 45.0	
	baz=226,slow=74,SNR=51						
BOSA	**Boshof**	45.57	71	P	**P**	**01 09 13.6**	**-0.7**
	comp=Z,7.0nm,1.1s,baz=208,slow=7.9,SNR=3.8						
BOSA				LR	LR	01 25 24.8	
	comp=Z,47nm,18.3s,baz=200,slow=32						
	comp=Z,7.0nm,1.1s						
BOSA	**Boshof**	45.57	71	P	**P**	**01 09 14.2**	**-0.1**
BDFB	**Brasilia**	46.08	329	P	**P**	**01 09 18.1**	**-0.2**
	comp=Z,5.1nm,0.7s,baz=166,slow=4.4,SNR=8.9						
BDFB				LR	LR	01 27 30.4	
	comp=Z,70nm,18.2s,baz=142,slow=35						
	comp=Z,5.1nm,0.7s						
BDFB	**Brasilia**	46.08	329	P	**P**	**01 09 19.8**	**+1.5**
BDFB				IAmb	IAmb	01 09 20.9	
	comp=Z,6.9nm,0.8s						
LBTB	**Lobatse**	48.73	69	LR	LR	01 26 27.1	
	comp=Z,82nm,18.9s,baz=188,slow=32						
LBTB	**Lobatse**	48.73	69	P	**P**	**01 09 39.5**	**+0.6**
H10S2	**ASCENSION HYDR**	50.09	13	T	T	02 04 03.3	
	baz=187,slow=74,SNR=19						
H10S3	**ASCENSION HYDR**	50.10	13	T	T	02 04 04.6	
	baz=33,slow=74,SNR=18						
CASY	**Casey**	51.18	159	P	**P**	**01 09 57.3**	**+0.5**
CASY				IAmb	IAmb	01 09 58.3	
	comp=Z,3.1nm,0.8s						
H10N1	**ASCENSION HYDR**	51.21	14	T	T	02 05 28.9	
	baz=190,slow=75,SNR=7.1						
H10N3	**ASCENSION HYDR**	51.22	13	T	T	02 05 29.1	
	baz=190,slow=75,SNR=17						
H10N2	**ASCENSION HYDR**	51.23	14	T	T	02 05 27.6	
	baz=190,slow=75,SNR=15						
LPAZ	**La Paz**	52.73	305	P	**P**	**01 10 10.0**	**+0.3**
	comp=Z,1.0nm,0.4s,baz=98,slow=6.3,SNR=13						
LPAZ				LR	LR	01 34 13.2	
	comp=Z,21nm,19.2s,baz=256,slow=38						
	comp=Z,1.0nm,0.4s						
LPAZ	**La Paz**	52.73	305	P	**P**	**01 10 09.8**	**+0.1**
BOAV	**Boa Vista**	66.94	321	P	**P**	**01 11 46.3**	**-0.3**
BOAV				IAmb	IAmb	01 11 47.6	
	comp=Z,6.5nm,1.1s						
DBIC	**Dimbokro**	66.99	22	P	**P**	**01 11 47.3**	**+0.4**
	comp=Z,6.1nm,0.6s,baz=184,slow=8.3,SNR=10						
	comp=Z,6.1nm,0.6s						
DBIC	**Dimbokro**	66.99	22	P	**P**	**01 11 47.7**	**+0.8**
MBAR	**Mbarara**	72.32	60	LR	LR	01 40 29.9	
	comp=Z,31nm,18.0s,baz=124,slow=33						
ROSC	**El Rosal**	74.33	308	LR	LR	01 45 57.3	
	comp=Z,38nm,20.6s,baz=105,slow=36						
TORD	**Torodi Ar. Bea**	74.70	27	P	**P**	**01 12 35.0**	**+1.3**
	comp=Z,5.1nm,0.5s,baz=201,slow=6.5,SNR=60						
	comp=Z,5.1nm,0.5s						
KMBO	**Kilima Mbogo**	74.92	67	LR	LR	01 41 44.1	
	comp=Z,39nm,19.0s,baz=189,slow=33						
PDPR	**Patillas Dam,**	83.37	321	P	**P**	**01 13 20.5**	**-0.5**
PDPR				IAmb	IAmb	01 13 31.3	
	comp=Z,6.4nm,0.9s						
ASAR	**Alice Springs**	96.27	161	P	**P**	**01 14 22.5**	**-0.1**
	comp=Z,1.1nm,0.7s,baz=183,slow=4.3,SNR=15						
ASAR				LR	LR	01 54 00.4	
	comp=Z,34nm,19.5s,baz=342,slow=33						
	comp=Z,1.1nm,0.7s						
ASAR	**Alice Springs**	96.27	161	P	**P**	**01 14 22.3**	**-0.3**
CMAR	**Chiang Mai Arr**	123.13	110	PKP	**PKiKP**	**01 19 51.1**	**+0.4**
	comp=Z,1.2nm,0.3s,baz=227,slow=3.9,SNR=5.4						
NVAR	**Mina Array Bea**	123.38	290	PKP	**PKiKP**	**01 19 52.6**	**+1.7**
	comp=Z,0.4nm,0.7s,baz=148,slow=3.3,SNR=4.1						
FINES	**FINESS Array B**	126.05	28	PKP	**PKiKP**	**01 19 54.3**	**-0.8**
	comp=Z,7.9nm,1.1s,baz=224,slow=5.3,SNR=7.9						
AKTO	**Aktyubinsk**	127.89	54	PKP	**PKiKP**	**01 19 58.6**	**-0.5**
	comp=Z,0.6nm,0.2s,baz=18,slow=3.7,SNR=5.9						
ARCES	**ARCESS Array B**	132.82	22	PKP	**PKiKP**	**01 20 08.1**	**-0.5**
	comp=Z,1.0nm,0.7s,baz=90,slow=1.2,SNR=4.5						
BVAR	**Borovoye Array**	135.12	58	PKP	**PKiKP**	**01 20 12.9**	**-0.8**
	comp=Z,1.8nm,0.7s,baz=158,slow=1.6,SNR=6.0						
YKA	**Yellowknife Ar**	138.76	315	PKP	**PKiKP**	**01 20 20.6**	**-0.1**
	comp=Z,1.5nm,0.7s,baz=144,slow=2.4,SNR=4.9						
R32K	**Eaglecrest**	144.59	301	PKPdf	**PKiKP**	**01 20 29.7**	**-3.2**
P33M	**Teslin, Yukon**	144.82	304		**PKiKP**	**01 20 30.3**	**-3.1**
P32M	**Atlin**	144.90	303		**PKiKP**	**01 20 30.4**	**-3.1**
MMPY	**Sheldon Lake,**	145.33	309		**PKiKP**	**01 20 31.6**	**-2.8**
H31M	**Peel River**	147.88	313		**PKiKP**	**01 20 38.2**	**-1.3**
I30M	**Mount Dempster**	148.46	311		**PKiKP**	**01 20 39.9**	**-1.0**
SONM	**Songino Array**	149.68	89	PKPbc	**PKiKP**	**01 20 43.5**	**-0.4**
	comp=Z,3.7nm,0.9s,baz=219,slow=2.5,SNR=14						
D27M	**Malcolm River**	151.28	318		**PKiKP**	**01 20 47.3**	**+0.8**
ILAR	**Eielson Array**	152.58	308	PKPbc	**PKiKP**	**01 20 50.0**	**+0.8**
	comp=Z,3.6nm,0.7s,baz=149,slow=3.2,SNR=30						

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*SJA **13** 01:03:05.2±0.8, 20°.42S×68°.94W, h121^{km}±7^{km}, ML3.2, MW3.7*

*GUC **13** 01:03:07.6±0.8, 20°.34S×68°.94W, h110^{km}±4^{km}, ML3.1*

ISC 13 01:03:07.6±2.4**, 20°.32S**±0°.05×**68°.9W**±0°.1**, h116^{km}**±15^{km}**, n16, σ0^{s}.46**/28**, 2C, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB08	**IPOC Station P**	0.27	311	*e*P	**Pn**	**01 03 23.9**	**-0.5**
PB08				*e*S	**Sn**	**01 03 37.0**	**0.0**
PB08				IAML		01 03 37.5	
	comp=Z,678nm,0.3s						
PB08	**IPOC Station P**	0.27	311	⇑*i*P	**Pn**	**01 03 24.2**	**-0.2**
PB08				*e*S	**Sn**	**01 03 36.6**	**-0.4**
PB08				IAML		01 03 37.2	
	comp=E,1µm,0.3s						
GO01	**Chusmiza**	0.69	340	*e*P	**Pn**	**01 03 26.2**	**-0.8**
GO01				*e*S	**Sn**	**01 03 42.8**	**+1.2**
GO01				IAML		01 03 45.5	
	comp=Z,299nm,0.1s						
GO01	**Chusmiza**	0.69	340	*e*P	**Pn**	**01 03 27.1**	**+0.1**
GO01				*e*S	**Sn**	**01 03 41.8**	**+0.2**
GO01				IAML		01 03 43.8	
	comp=E,1µm,0.2s						
PB11	**IPOC Station P**	0.87	309	*e*P	**Pn**	**01 03 28.0**	**-0.2**
PB11				*e*S	**Sn**	**01 03 44.0**	**+0.2**
PB11				IAML		01 03 45.5	
	comp=Z,486nm,0.1s						
PB11	**IPOC Station P**	0.87	309	⇑*i*P	**Pn**	**01 03 28.3**	**0.0**
PB11				*e*S	**Sn**	**01 03 44.3**	**+0.5**
PB11				IAML		01 03 45.8	
	comp=E,748nm,0.3s						
TA02	**Huaiquique**	1.12	272	*e*P	**Pn**	**01 03 30.5**	**+0.1**
TA02				*e*S	**Sn**	**01 03 48.2**	**+0.4**
TA02				IAML		01 03 49.7	
	comp=N,2µm,0.1s						
TA01	**Diego Aracena**	1.19	258	*e*P	**Pn**	**01 03 31.0**	**-0.3**
TA01				*e*S	**Sn**	**01 03 48.7**	**-0.4**
TA01				IAML		01 03 52.2	
	comp=N,144nm,0.3s						
PSGCX	**Pisagua**	1.32	303	*e*P	**Pn**	**01 03 32.1**	**-0.8**
PSGCX				*e*S	**Sn**	**01 03 52.6**	**+0.6**
PSGCX				IAML		01 03 55.6	
	comp=Z,162nm,0.6s						
PSGCX	**Pisagua**	1.32	303	*e*P	**Pn**	**01 03 32.9**	**0.0**
PSGCX				*e*S	**Sn**	**01 03 52.1**	**+0.1**
PB02	**IPOC Station P**	1.34	222	*e*P	**Pn**	**01 03 33.3**	**+0.3**
PB02				*e*S	**Sn**	**01 03 52.3**	**0.0**
PB02				IAML		01 03 53.7	
	comp=E,602nm,0.3s						
PB09	**IPOC Station P**	1.50	191	*e*P	**Pn**	**01 03 35.1**	**+0.2**
PB09				*e*S	**Sn**	**01 03 55.9**	**+0.2**
PB09				IAML		01 03 58.9	
	comp=E,110nm,0.1s						
PB03	**IPOC Station P**	1.88	204	*e*P	**Pn**	**01 03 39.3**	**-0.3**
PB03				IAML		01 04 03.9	
	comp=E,137nm,0.3s						
PB12	**IPOC Station P**	2.14	322	*e*P	**Pn**	**01 03 42.5**	**-0.2**
PB06	**IPOC Station P**	2.45	194	*e*P	**Pn**	**01 03 46.8**	**+0.1**
PB06				IAML		01 04 24.1	
	comp=N,74nm,0.5s						
PB05	**IPOC Station P**	2.78	205	*e*P	**Pn**	**01 03 50.6**	**-0.5**

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*NIED **13** 01:22:16.6, 30°.41N×140°.05E, h42^{km}, MW4.7, Moment Tensor Solution. s3 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.50; $M_{\theta\theta}$0.15; $M_{\phi\phi}$0.34; $M_{r\theta}$0.30; $M_{\theta\phi}$-0.17; $M_{\phi r}$1.39; Fault plane solution: $M_0$1.48000×10^{16} NP1: ϕ_s325.00000°, δ11.00000°, λ-134.00000°. NP2: ϕ_s189.00000°, δ82.00000°, λ-82.00000°.*

*JMA **13** 01:22:16.6±0.3, 30°N±2°×14°0E±°, h42^{km}, MV4.4/24, NEAR TORISHIMA IS*

*IDC **13** 01:22:23.1±2.3, 30°.48N×140°.01E, h53^{km}±19^{km}, mb3.9/24, mbtmp4.2/29, ML3.4/5, MS3.8/44, Error ellipse: s-maj=15.6km s-min=12.2km az=89.0*

*BJI **13** 01:22:23.0, 30°.50N×140°.10E, h60^{km}, mB5.1/9, mb4.6/33, Ms4.4/21, Ms7 4.2/22*

*NEIC **13** 01:22:25.8±1.2, 30°.56N±0°.08×140°.0E±0°.1, h70^{km}±5^{km}, mb4.7/338, Error ellipse: s-maj=14.1km s-min=11.3km az=111.0*

ISC 13 01:22:21.5±2.4**, 30°.47N**±0°.05×**140°.25E**±0°.06**, h36^{km}**±10^{km}**, n415, σ1^{s}.05**/361**, mb4.7**/184**, MS3.9**/50**, 4C-1D, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHJ2	**Mitsune**	2.66	352		**Pn**	**01 23 04.5**	**+2.6**
JHJ	**Hachijo jima 2**	2.68	352	P	**Pn**	**01 23 04.0**	**+1.9**
	54nm,0.3s,baz=251,slow=24,SNR=10.0						
	135nm,0.2s						
JHJ				AML	AML		
JMKN	**Mikurajimanish**	3.46	351	*e*P	**Pn**	**01 23 12.9**	**0.0**
CBIJ	**Chichi jima**	3.76	153	*e*P	**Pn**	**01 23 14.5**	**-2.5**
BSO1	**Boso 1**	4.22	8	*e*P	Pn	01 23 18.3	-4.5
BSO3	**Boso 3**	4.33	3	*e*P	**Pn**	**01 23 21.9**	**-2.6**
BSO3				*e*S	**Sn**	**01 24 08.6**	**-5.1**
BSO4	**Boso 4**	4.51	1	*e*P	**Pn**	**01 23 24.9**	**-2.3**
BSO4				*e*S	**Sn**	**01 24 15.7**	**-2.7**
JNY	**Yasuok**	5.28	338	*e*P	**Pn**	**01 23 39.6**	**+1.7**
JHU2	**Hanno**	5.42	352	*e*P	**Pn**	**01 23 38.8**	**-1.0**
JGF	**Kuroka**	5.67	335		**Pn**	**01 23 45.4**	**+2.1**
MJAR	**Matsushiro Arr**	6.30	345	P	**Pn**	**01 23 53.1**	**+1.2**
	0.6nm,0.3s,baz=165,slow=12,SNR=25						
	12nm,0.7s						
MJAR				AML	AML		
MJAR	**Matsushiro Arr**	6.30	345		**Pn**	**01 23 53.7**	**+1.9**
MAJO	**Matsushiro**	6.30	345		**Pn**	**01 23 54.2**	**+2.4**
MJB9	**Matsu-Tunnel**	6.30	345	Pn	**Pn**	**01 23 54.3**	**+2.4**
JMN	**Monobe**	6.31	303	Pn	**Pn**	**01 23 52.7**	**+0.6**
JNU	**Nakatsue**	8.41	291	P	**Pn**	**01 24 20.7**	**-0.1**
	0.4nm,0.3s,baz=158,slow=5.5,SNR=6.7						
	6.6nm,0.8s						
JNU				AML	AML		
KSRS	**Korea Array**	12.38	308	P	**Pn**	**01 25 15.6**	**+0.5**
	0.2nm,0.3s,baz=113,slow=13,SNR=17						
	0.6nm,0.6s						
KSRS				AML	AML		
ASAJ	**Asahikawa**	13.75	7	LR	LR	01 31 42.8	
	comp=Z,397nm,20.7s,baz=230,slow=41						
YSS	**Yuzhno-Sakhali**	16.58	6	Pn	**Pn**	**01 26 12.1**	**+1.0**
GUMO	**Guam**	17.33	165	LR	LR	01 32 13.0	
	comp=Z,206nm,18.3s,baz=24,slow=34						
DL2	**Dalian**	17.46	304	P	**P**	**01 26 26.9**	**+3.8**
DL2				pmax	pmax		
	comp=Z,72nm,1.1s						
DL2				pmax	pmax		
	comp=Z,600nm,3.7s						
DL2				L	L		
	comp=N,1µm,11.6s						
DL2				L	L		
	comp=E,960nm,15.3s						
DL2				L	L		
	comp=Z,870nm,11.9s						
BNX	**BinXian**	18.26	330	⇓P	**P**	**01 26 30.8**	**-1.1**
BNX				pmax	pmax		
	comp=Z,11nm,0.9s						
YULB	**Yu-li**	18.30	252	P	**P**	**01 26 30.1**	**-2.4**
NJ2	**Nanjing**	18.36	280	⇑P	**Pn**	**01 26 37.3**	**+4.0**
NJ2				pmax	pmax		
	comp=Z,25nm,0.8s						
NJ2				L	L		
	comp=N,510nm,13.1s						
NJ2				L	L		
	comp=E,650nm,17.8s						
NJ2				L	L		
	comp=Z,2µm,17.8s						
SSLB	**Suanglung**	18.41	253	P	**P**	**01 26 32.6**	**-1.1**
TWG	**Pinlang**	18.75	251	P	**P**	**01 26 37.2**	**-0.2**
TPUB	**Ta-pu**	18.89	253	P	**Pn**	**01 26 40.4**	**+0.6**
TPUB				IAmb	IAmb	01 26 51.9	
	comp=Z,37nm,1.1s						
KLR	**Kul'dur**	19.82	343	P	**P**	**01 26 46.7**	**-2.2**
	comp=Z,0.1nm,0.3s,baz=128,slow=13,SNR=4.8						
	comp=Z,1.7nm,0.6s						
KLR				AML	AML		
TIA	**Tai'an**	20.14	293	P	Pn	01 26 54.3	-0.2
TIA				pmax	pmax		
	comp=Z,20nm,0.9s						
BJI2	**Beijing**	21.80	302	P	**P**	**01 27 10.8**	**+0.4**
BJI2				pmax	pmax		
	comp=Z,7.0nm,1.1s						
BJT	**Baijiatuau**	21.80	302	P	**P**	**01 27 09.7**	**-0.7**
HEH	**HeiHe**	22.00	338	*e*P	**P**	**01 27 10.5**	**-1.9**
HEH				pmax	pmax		
	comp=Z,9.0nm,0.8s						
HEH				L	L		
	comp=Z,280nm,14.9s						
HEH				L	L		
	comp=Z,500nm,12.9s						
HEH				L	L		
	comp=Z,510nm,12.8s						
HNS	**HongShan**	22.26	295	*e*P	**P**	**01 27 17.4**	**+2.1**
HNS				L	L		
	comp=Z,350nm,15.9s						
HNS				L	L		
	comp=Z,620nm,15.1s						
HNS				L	L		
	comp=Z,590nm,15.1s						
WHN	**Wuhan**	22.31	277	P	**P**	**01 27 17.2**	**+1.3**
WHN				pmax	pmax		
	comp=Z,56nm,1.0s						
WHN				L	L		
	comp=Z,1µm,13.1s						
WHN				L	L		
	comp=Z,2µm,16.9s						
WHN				L	L		
	comp=Z,2µm,16.4s						
CNSH	**ChangSha**	23.91	271	P	**P**	**01 27 34.5**	**+2.4**
CNSH				S	**S**	**01 31 48.0**	**+1.8**
CNSH				pmax	pmax		
	comp=Z,14nm,0.8s						
CNSH				L	L		
	comp=Z,120nm,5.2s						
CNSH				L	L		
	comp=Z,490nm,5.9s						
CNSH				L	L		
	comp=Z,390nm,19.5s						
HHC	**Hu-ho-hao-te**	25.41	302	*e*P	**P**	**01 27 45.0**	**-0.8**
HHC				pmax	pmax		
	comp=Z,14nm,0.8s						
HHC				pmax	pmax		
	comp=Z,49nm,4.6s						
HHC				L	L		
	comp=Z,410nm,12.6s						
HHC				L	L		
	comp=Z,390nm,12.5s						

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HHC                               L      L
      comp=Z,330nm,14.9s
PETK  Petropavlovsk-    25.96  24 P      P      01 27 50.0 -0.5
      comp=Z,2.2nm,0.4s,baz=237,slow=6.7,SNR=5.8
PETK                              LR     LR     01 40 48.0
      comp=Z,218nm,18.4s,baz=212,slow=42
      comp=Z,2.2nm,0.4s
PET   Petropavlovsk     26.24  26 P      P      01 27 53.6 +0.6
PET                               IAmb   IAmb   01 27 56.5
      comp=Z,38nm,1.1s
H11N2 WAKE ISLAND Hy    26.33 108 T      T      01 55 14.9
      baz=300,slow=75,SNR=1778
H11N1 WAKE ISLAND Hy    26.33 108 T      T      01 55 17.1
      baz=300,slow=75,SNR=59
H11N3 WAKE ISLAND Hy    26.34 108 T      T      01 55 16.2
      baz=300,slow=75,SNR=80
ENH   Enshi             26.51 277        P      01 27 54.6 -1.1
ENH                               IAmb   IAmb   01 27 57.2
      comp=Z,12nm,0.7s
H11S3 WAKE ISLAND Hy    26.78 110 T      T      01 55 53.0
      baz=302,slow=75,SNR=560
H11S1 WAKE ISLAND Hy    26.78 110 T      T      01 55 50.3
      baz=302,slow=75,SNR=128
H11S2 WAKE ISLAND Hy    26.79 110 T      T      01 55 51.8
      baz=302,slow=75,SNR=102
DAV   Davao City (W)    27.04 214 LR     LR     01 37 08.9
      comp=Z,218nm,20.5s,baz=24,slow=33
QIZ   Qiongzhong        29.78 255 P      P      01 28 23.6 -1.4
QIZ                               S      S      01 33 19.0 -0.2
QIZ                               L      L
      comp=Z,180nm,6.2s
QIZ                               L      L
      comp=Z,260nm,11.7s
QIZ                               L      L
      comp=Z,280nm,16.7s
MA2   Magadan           29.97  11 LR     LR     01 41 03.6
      comp=Z,115nm,19.2s,baz=186,slow=37
ULN   Ulaanbaatar       30.74 314 P      P      01 28 32.3 -1.1
LZH   Lanzhou           30.83 290 eP     P      01 28 35.3 +1.0
LZH                               pmax   pmax
      comp=Z,22nm,1.1s
LZH                               L      L
      comp=Z,310nm,14.6s
LZH                               L      L
      comp=Z,370nm,14.4s
LZH                               L      L
      comp=Z,340nm,16.0s
LZDM  Lanzhou Array     30.95 290 LR     LR     01 41 33.5
      comp=Z,180nm,20.4s,baz=90,slow=37
SONM  Songino Array     31.14 313 P      P      01 28 35.6 -1.4
      comp=Z,0.5nm,0.4s,baz=134,slow=8.6,SNR=4.1
      comp=Z,0.5nm,0.4s
SONM  Songino Array     31.14 313 P      P      01 28 35.8 -1.1
CD2   Chengdu           31.30 280 P      P      01 28 36.6 -1.8
CD2                               pmax   pmax
      comp=Z,10.0nm,0.4s
CD2                               L      L
      comp=Z,620nm,14.0s
CD2                               L      L
      comp=Z,630nm,13.3s
CD2                               L      L
      comp=Z,500nm,15.2s
TNTI  Ternate           31.97 205 P      P      01 28 43.4 -0.8
KKM   Kota Kinabalu     33.18 228 P      P      01 28 54.9 -0.1
KKM                               IAmb   IAmb   01 29 02.1
      comp=Z,12nm,0.8s
SHEM  Shemya Is, Ala    33.22  38 LR     LR     01 39 39.3
      comp=Z,129nm,20.7s,baz=323,slow=31
SLVN  Son La            33.82 263 P      P      01 28 59.7 -0.9
SLVN                              IAmb   IAmb   01 29 02.1
      comp=Z,12nm,1.5s
PZH   PanZhiHua         33.97 273 P      P      01 29 02.4 +0.5
TOLI2 Tolitoli          34.55 216        P      01 29 06.7 -0.1
TOLI2                             IAmb   IAmb   01 29 11.2
      comp=Z,11nm,0.9s
CHTO  Chiang Mai        39.10 263        P      01 29 45.0 -0.5
SAUI  Saumlaki          39.18 194 P      P      01 29 46.8 +0.7
CMAR  Chiang Mai Arr    39.25 262 P      P      01 29 44.2 -2.7
      comp=Z,3.2nm,0.4s,baz=56,slow=6.8,SNR=24
CMAR                              LR     LR     01 46 38.6
      comp=Z,224nm,18.9s,baz=65,slow=37
      comp=Z,3.2nm,0.4s
CMAR  Chiang Mai Arr    39.25 262 P      P      01 29 46.3 -0.5
KAPI  Kappang           40.37 213 LR     LR     01 48 01.8
      comp=Z,102nm,18.8s,baz=3.5,slow=38
TIXI  Tiksi             41.70 355 LR     LR     01 48 05.5
      comp=Z,126nm,20.1s,baz=182,slow=37
TIXI  Tiksi             41.70 355        P      01 30 04.6 -1.8
TIXI                              IAmb   IAmb   01 30 05.8
      comp=Z,7.2nm,0.8s
MMRI  Maumere           42.55 207 P      P      01 30 12.9 -1.0
WMQ   Urumqi            43.28 303 eP     P      01 30 21.1 +1.4
BRDH  Bariadhala        43.89 272 LR     LR     01 51 55.8
      comp=Z,180nm,18.0s,baz=128,slow=41
ZALV  Zalesovo Beam     45.85 317 PcP    PcP    01 32 15.2 -1.6
      comp=Z,4.3nm,0.8s,baz=100,slow=4.5,SNR=15
MKAR  Makanchi Array    47.06 307 P      P      01 30 47.8 -1.8
      comp=Z,1.4nm,0.8s,baz=90,slow=9.7,SNR=9.6
      comp=Z,1.4nm,0.8s
MKAR  Makanchi Array    47.06 307 P      P      01 30 47.5 -2.1
ANM   Nome              47.76  28 P      P      01 30 55.3 +0.6
RPSI  Rantau Prapat     47.84 243 P      P      01 30 54.8 -1.2
RPSI                              IAmb   IAmb   01 30 58.2
      comp=Z,7.1nm,0.9s
F15K  North Star Dit    48.42  27 P      P      01 31 00.2 +0.4
F15K                              IAmb   IAmb   01 31 01.9
      comp=Z,11nm,1.1s
CNBA  Chernabura Isl    48.69  42 P      P      01 31 01.9 -0.2
NRIK  Noril'sk          48.90 338 P      P      01 31 01.7 -1.8
      comp=Z,4.3nm,0.8s,baz=104,slow=12,SNR=7.0
NRIK                              LR     LR     01 52 53.8
      comp=Z,184nm,18.6s,baz=119,slow=38
      comp=Z,4.3nm,0.8s
NRIK  Noril'sk          48.90 338 P      P      01 31 01.8 -1.8
NRIK                              IAmb   IAmb   01 31 03.3
      comp=Z,6.3nm,1.0s
KURK  Kurchatov         49.44 313 P      P      01 31 06.2 -1.7
CHGN  Chignik           49.48  40 P      P      01 31 08.6 +0.5
CHGN                              IAmb   IAmb   01 31 27.5
      comp=Z,8.8nm,0.9s
KURBB Kurchatov Arra    49.50 312 P      P      01 31 06.3 -2.0
      comp=Z,1.9nm,0.9s,baz=91,slow=7.2,SNR=17
      comp=Z,1.9nm,0.9s
I17K  Unalakleet        49.54  30 P      P      01 31 08.3 -0.1
I17K                              IAmb   IAmb   01 31 10.9
      comp=Z,12nm,1.1s
GSI   Gunungsitoli      49.76 243 P      P      01 31 09.9 -0.8
J17K  VABM Dome         50.14  31 P      P      01 31 13.6 +0.6
WB0   Warramunga Arr    50.26 187 P      P      01 31 14.0 -0.4
WB0                               IAmb   IAmb   01 31 15.4
      comp=Z,7.2nm,0.9s
FITZ  Fitzroy Crossi    50.29 198 P      P      01 31 15.3 +0.7
K17K  Iditarod          50.36  32 IAmb   IAmb   01 31 17.9
      comp=Z,10nm,0.9s
WRAB  Tennant Creek     50.43 187 P      P      01 31 15.7  0.0
WRAB                              IAmb   IAmb   01 31 24.8
      comp=Z,5.2nm,1.0s
WR8   Warramunga Arr    50.44 187 P      P      01 31 15.5 -0.2
WR8                               IAmb   IAmb   01 31 16.8
      comp=Z,7.2nm,0.9s
WRA   Warramunga Arr    50.44 187 P      P      01 31 14.9 -0.8
      comp=Z,6.0nm,0.9s,baz=8.3,slow=7.9,SNR=30
WRA                               PcP    PcP    01 32 33.4 -0.3
      comp=Z,2.8nm,0.7s,baz=0.3,slow=3.8,SNR=12
      comp=Z,6.0nm,0.9s
WRA   Warramunga Arr    50.44 187 P      P      01 31 15.5 -0.3
E18K  Tukpahlearik C    50.48  25 IAmb   IAmb   01 31 20.5
      comp=Z,13nm,1.5s
M17K  Holitna River     50.56  33 P      P      01 31 17.6 +1.4
N17K  Nushagak Hills    50.56  35 P      P      01 31 17.9 +1.7
N17K                              IAmb   IAmb   01 31 18.4
      comp=Z,7.8nm,1.3s
P17K  Kvichak River     50.79  36 P      P      01 31 18.8 +0.8
H18K  Honhosa River     50.80  29 IAmb   IAmb   01 31 19.4
      comp=Z,6.6nm,1.1s
G18K  Tagagawik         50.85  28 P      P      01 31 18.4  0.0
CHIR  Chirikof Islan    51.01  41 P      P      01 31 19.4 -0.3
L18K  Granite Mounta    51.02  32 P      P      01 31 20.0 +0.3
L18K                              IAmb   IAmb   01 31 22.5
      comp=Z,7.5nm,1.1s
N18K  Kilae Creek       51.22  35 P      P      01 31 21.0 -0.2
N18K                              IAmb   IAmb   01 31 23.2
      comp=Z,13nm,1.4s
ACHA  Angle Creek He    51.29  38 P      P      01 31 22.8 +0.9
C19K  Lookout Ridge     51.31  23 P      P      01 31 22.3 +0.5
F19K  Shaleruckik Mo    51.40  27 P      P      01 31 23.1 +0.7
F19K                              PcP    PcP    01 32 38.2 +1.6
O18K  Koktuh Hills      51.47  36 P      P      01 31 24.5 +1.3
O18K                              IAmb   IAmb   01 31 28.6
      comp=Z,4.8nm,0.8s
G19K  Purcell Mounta    51.52  27 P      P      01 31 24.7 +1.3
G19K                              PcP    PcP    01 32 39.2 +2.1
D19K  Kuna River        51.67  24 PcP    PcP    01 32 39.5 +1.8
E19K  Redstone River    51.75  26 IAmb   IAmb   01 31 27.0
      comp=Z,9.9nm,1.1s
J19K  Poorman           51.76  30        P      01 31 25.3 +0.1
J19K                              IAmb   IAmb   01 31 27.2
      comp=Z,10nm,1.2s
SII   Sitkinak Islan    51.84  40 P      P      01 31 25.7 -0.2
L19K  White Mountain    51.87  33        P      01 31 26.2 +0.1
L19K                              IAmb   IAmb   01 31 29.1
      comp=Z,10.0nm,1.3s
N19K  Bonanza Creek     51.91  34 P      P      01 31 27.3 +0.8
N19K                              IAmb   IAmb   01 31 31.4
      comp=Z,8.9nm,1.3s
Q19K  Cape Douglas,     52.21  37 P      P      01 31 30.1 +1.4
D20K  Etivluk River     52.26  24 IAmb   IAmb   01 31 30.7
      comp=Z,11nm,1.1s
I20K  Naaghedeneel      52.37  29 P      P      01 31 29.7  0.0
J20K  Nowinta River     52.43  30        P      01 31 30.7 +0.5
J20K                              IAmb   IAmb   01 31 32.6
      comp=Z,13nm,1.2s
ILSW  Iliamna Southw    52.52  36 P      P      01 31 31.2 +0.1
ILSW                              IAmb   IAmb   01 31 41.5
      comp=Z,5.2nm,1.1s
KDAK  Kodiak Island     52.73  38 LR     LR     01 53 19.0
      comp=Z,94nm,20.4s,baz=250,slow=35
KDAK  Kodiak Island     52.73  38        P      01 31 32.0 -0.5
IMAR  Indian Mountai    52.84  28 P      P      01 31 33.7 +0.5
IMAR                              PcP    PcP    01 32 43.4 +1.3
AAK   Ala-Archa         52.98 303 LR     LR     01 55 30.4
      comp=Z,80nm,18.2s,baz=80,slow=38
G21K  Allakaket         53.01  27 IAmb   IAmb   01 31 36.5
      comp=Z,9.8nm,1.2s
G21K                              PcP    PcP    01 32 44.8 +2.1
E21K  Killik River      53.15  25 IAmb   IAmb   01 31 37.0
      comp=Z,4.3nm,0.8s
PPLA  Purkeypile        53.17  32 P      P      01 31 36.3 +0.5
H21K  Melozitna Rive    53.18  28 P      P      01 31 35.2 -0.5
H21K                              IAmb   IAmb   01 31 38.1
      comp=Z,12nm,1.2s
STLK  Strandline Lak    53.24  34 P      P      01 31 36.3  0.0
CAST  Castle Rocks      53.26  31 P      P      01 31 36.5 +0.2
CAST                              IAmb   IAmb   01 31 38.7
      comp=Z,11nm,1.2s
SKT   Skwentna          53.41  33 P      P      01 31 38.0 +0.5
CNPM  China Poot        53.47  36 P      P      01 31 37.9  0.0
CNPM                              IAmb   IAmb   01 31 42.9
      comp=Z,7.2nm,0.9s
I21K  Tanana            53.47  29 P      P      01 31 38.7 +0.9
I21K                              IAmb   IAmb   01 31 40.4
      comp=Z,14nm,1.3s
BRLK  Bradley Lake      53.65  36 P      P      01 31 40.6 +1.3
BRLK                              IAmb   IAmb   01 32 19.7
      comp=Z,5.0nm,1.0s
D22K  Ayikyak River     53.69  24 P      P      01 31 40.0 +0.6
D22K                              IAmb   IAmb   01 31 41.6
      comp=Z,6.8nm,1.0s
SUA   Susitna One       53.76  34 IAmb   IAmb   01 31 43.5
      comp=Z,5.2nm,0.8s
KTH   Kantishna Hill    53.79  31 P      P      01 31 40.9 +0.7
KTH                               IAmb   IAmb   01 31 55.1
      comp=Z,13nm,1.4s
H22K  Ishtalitna Cre    53.79  28 P      P      01 31 41.6 +1.5
H22K                              IAmb   IAmb   01 31 42.3
      comp=Z,7.6nm,1.1s
BPAW  Bear Paw Mtn.     53.80  30 P      P      01 31 40.3 +0.1
BPAW                              IAmb   IAmb   01 31 42.5
      comp=Z,6.8nm,1.2s
MLY   Manley            53.98  29        P      01 31 41.9 +0.3
MLY                               IAmb   IAmb   01 31 44.0
      comp=Z,7.7nm,1.1s
SLKM  Skilak Lake       54.00  35 P      P      01 31 42.7 +0.9
SLKM                              IAmb   IAmb   01 31 43.2
      comp=Z,4.8nm,1.0s
M22K  Willow            54.07  33 P      P      01 31 42.1 -0.1
AS31  Alice Springs     54.17 187 P      P      01 31 42.3 -1.0
ASAR  Alice Springs     54.17 187 P      P      01 31 42.9 -0.5
      comp=Z,2.2nm,0.7s,baz=17,slow=13,SNR=32
ASAR                              PcP    PcP    01 32 47.4 -0.3
      comp=Z,1.3nm,0.8s,baz=4.4,slow=3.6,SNR=5.9
      comp=Z,2.2nm,0.7s
RC01  Rabbit Creek A    54.24  34 P      P      01 31 43.2 -0.3
RC01                              IAmb   IAmb   01 31 48.0
      comp=Z,8.8nm,1.0s
SEW   Seward            54.38  35 P      P      01 31 44.4 -0.1
G23K  Bananza Creek     54.42  27 P      P      01 31 45.0 +0.3
G23K                              IAmb   IAmb   01 31 47.0
      comp=Z,5.7nm,1.1s
BVAR  Borovoye Array    54.44 316 P      P      01 31 43.4 -1.7
      comp=Z,1.2nm,0.6s,baz=93,slow=8.9,SNR=6.5
BVAR                              PcP    PcP    01 32 48.1 -0.2
      comp=Z,3.0nm,0.8s,baz=69,slow=4.9,SNR=7.0
      comp=Z,1.2nm,0.6s
BORK  Borovoye          54.48 316 P      P      01 31 44.4 -0.9
H23K  Yukon River       54.54  28 IAmb   IAmb   01 31 55.7
      comp=Z,11nm,1.3s
PMR   Palmer            54.54  34 P      P      01 31 45.2 -0.4
PMR                               IAmb   IAmb   01 31 46.7
      comp=Z,12nm,1.1s
C23K  Itkillik River    54.56  23 P      P      01 31 45.9 +0.2
C23K                              IAmb   IAmb   01 31 48.2
      comp=Z,8.9nm,0.8s
I23K  Minto, Yukon-K    54.57  29 P      P      01 31 46.3 +0.5
I23K                              IAmb   IAmb   01 31 50.7
      comp=Z,13nm,1.3s
GHO   Glory Hole Cre    54.64  33 P      P      01 31 47.0 +0.4
GHO                               IAmb   IAmb   01 31 56.5
      comp=Z,9.0nm,1.0s
NEA2  Nenana            54.66  30 P      P      01 31 46.9 +0.4
MCK   McKinley          54.69  31 P      P      01 31 46.0 -0.7
E23K  Chandalar         54.70  26 P      P      01 31 47.4 +0.5
E23K                              IAmb   IAmb   01 31 49.2
      comp=Z,7.2nm,0.9s
RND   Reindeer          54.71  31 P      P      01 31 46.4 -0.6
RND                               IAmb   IAmb   01 31 48.7
      comp=Z,5.4nm,0.9s
KNK   Knik Glacier      54.86  34 P      P      01 31 48.1 +0.1
SML   Sawmill           54.92  33 P      P      01 31 48.3 -0.2
PWL   Port Wells        54.92  35 P      P      01 31 49.3 +0.8
PWL                               IAmb   IAmb   01 31 50.1
      comp=Z,8.8nm,0.8s
WRH   Wood River Hil    55.08  30 P      P      01 31 50.1 +0.6
WRH                               IAmb   IAmb   01 31 53.8
      comp=Z,4.2nm,0.9s
WRH                               PcP    PcP    01 32 50.9 +0.3
E24K  Your Creek        55.13  26 IAmb   IAmb   01 31 53.1
      comp=Z,8.0nm,1.2s
CCB   Clear Creek Bu    55.21  30 P      P      01 31 51.6 +1.2
CCB                               PcP    PcP    01 32 51.5 +0.4
H24K  Noodor Dome       55.22  28 P      P      01 31 51.0 +0.4
H24K                              IAmb   IAmb   01 31 53.1
      comp=Z,8.4nm,1.2s
F24K  Squaw Lake        55.31  26 P      P      01 31 51.6 +0.3
F24K                              IAmb   IAmb   01 31 53.4
      comp=Z,5.0nm,1.1s
SCM   Sheep Creek Mo    55.40  33 P      P      01 31 52.6 +0.7
P23K  Montague Islan    55.41  36 P      P      01 31 52.2 +0.2
G24K  Hadweenzic Riv    55.43  27 P      P      01 31 53.0 +0.9
G24K                              IAmb   IAmb   01 31 58.4
      comp=Z,6.5nm,1.1s
GLI   Glacier Island    55.53  34 P      P      01 31 53.0 +0.1
HDA   Harding Lake      55.58  30 P      P      01 31 52.0 -1.1
HDA                               IAmb   IAmb   01 31 53.9
      comp=Z,8.8nm,1.1s
IL31                    55.61  30 P      P      01 31 52.5 -0.7
IL31                              IAmb   IAmb   01 31 54.8
      comp=Z,9.5nm,1.1s
ILAR  Eielson Array     55.61  30 P      P      01 31 52.8 -0.6
      comp=Z,5.6nm,1.0s,baz=266,slow=6.0,SNR=29
ILAR                              PcP    PcP    01 32 52.3 -0.3
      comp=Z,1.2nm,0.7s,baz=291,slow=4.2,SNR=5.1
ILAR                              LR     LR     01 59 02.3
      comp=Z,22nm,19.8s,baz=260,slow=40
      comp=Z,5.6nm,1.0s
KK31  Karatay Array     55.77 304 P      P      01 31 53.1 -1.8
KK31                              IAmb   IAmb   01 31 54.7
      comp=Z,6.0nm,1.2s
KKAR  Karatay Array     55.77 304 P      P      01 31 52.9 -2.0
FID   Port Fidalgo      55.84  35 P      P      01 31 54.8 -0.3
HIN   Hinchinbrook I    55.84  35 P      P      01 31 54.9 -0.3
KLU   Klutina           56.08  34 P      P      01 31 57.1 +0.2
KLU                               IAmb   IAmb   01 31 59.3
      comp=Z,6.8nm,0.9s
DIV   Divide            56.17  34 P      P      01 31 58.0 +0.6
DIV                               IAmb   IAmb   01 32 00.0
      comp=Z,6.5nm,0.8s
F25K  Christian Rive    56.18  26 P      P      01 31 58.5 +1.1
F25K                              IAmb   IAmb   01 32 00.3
      comp=Z,9.6nm,1.1s
PRP   Porcupine Dome    56.19  29 P      P      01 31 57.3 -0.3
EYAK  Cordova Ski Ar    56.20  35 P      P      01 31 58.1 +0.4
EYAK                              IAmb   IAmb   01 32 00.2
      comp=Z,5.5nm,0.8s
E25K  Arctic Village    56.22  26 P      P      01 31 57.9 +0.2
E25K                              IAmb   IAmb   01 32 00.5
      comp=Z,7.7nm,1.0s
J25K  Salcha River,     56.26  30 P      P      01 31 58.5 +0.4
FYU   Fort Yukon        56.32  28 P      P      01 31 59.3 +1.0
HARP  HAARP             56.41  33 P      P      01 31 59.6 +0.5
BMAR  Burnt Mountain    56.58  27 P      P      01 32 00.9 +0.5
BMRM  Bremner River     56.74  34 P      P      01 32 01.3 -0.3
RAGM  Ragged Mountai    56.75  35 P      P      01 32 02.4 +0.9
F26K  Sheenjek River    56.75  26 P      P      01 32 02.2 +0.7
F26K                              IAmb   IAmb   01 32 04.4
      comp=Z,8.8nm,1.0s
SCRK  Sand Creek        56.88  31 P      P      01 32 01.9 -0.6
SCRK                              IAmb   IAmb   01 32 03.9
      comp=Z,11nm,1.2s
C27K  Jago River        56.94  24 IAmb   IAmb   01 32 04.5
      comp=Z,7.8nm,1.0s
GLB   Gilahina Butte    57.09  34 P      P      01 32 04.0 -0.1
L26K  Log Cabin Wild    57.21  32 P      P      01 32 05.1 +0.3
VRDI  Verde Repeater    57.28  34 P      P      01 32 05.8 +0.3
VRDI                              IAmb   IAmb   01 32 07.6
      comp=Z,9.8nm,1.2s
M26K  Nabesna, AK       57.41  33 P      P      01 32 06.7 +0.4
M26K                              IAmb   IAmb   01 32 13.6
      comp=Z,5.2nm,1.0s
CRQM  Cirque            57.47  35 P      P      01 32 06.9  0.0
MCARA McCarthy VSAT     57.48  34 P      P      01 32 06.9 +0.2
TGL   Tana Glacier      57.62  34 P      P      01 32 08.5 +0.6
E27K  Coleen River      57.71  26 P      P      01 32 08.4 +0.1
E27K                              IAmb   IAmb   01 32 10.7
      comp=Z,5.8nm,1.1s
K27K  Chicken           57.72  31 P      P      01 32 08.1 -0.2
K27K                              IAmb   IAmb   01 32 10.0
      comp=Z,6.8nm,1.0s
I27K  Kandik River      57.81  29 P      P      01 32 09.3 +0.3
I27K                              IAmb   IAmb   01 32 11.3
      comp=Z,4.8nm,1.0s
H27K  Steamboat Moun    57.82  28 P      P      01 32 09.7 +0.7
H27K                              IAmb   IAmb   01 32 16.1
      comp=Z,10nm,1.2s
L27K  Beaver Creek,     57.90  32 P      P      01 32 10.2 +0.5
L27K                              IAmb   IAmb   01 32 12.5
      comp=Z,7.9nm,1.1s
D27M  Malcolm River     57.91  24 IAmb   IAmb   01 32 15.9
      comp=Z,5.4nm,1.1s
BCAR  Beaver Creek A    57.92  32 P      P      01 32 10.4 +0.6
M27K  Edge Creek, AK    57.93  33 P      P      01 32 10.3 +0.3
GRNC  Granite Creek     58.15  34 IAmb   IAmb   01 32 16.8
      comp=Z,5.5nm,0.7s
F28M  Old Crow          58.39  26 P      P      01 32 13.3 +0.3
F28M                              IAmb   IAmb   01 32 15.5
      comp=Z,5.3nm,0.9s
E28M  Babbage River     58.45  25 IAmb   IAmb   01 32 16.0
      comp=Z,6.2nm,0.9s
I28M  Miner Creek       58.52  29 IAmb   IAmb   01 32 19.0
      comp=Z,5.5nm,1.0s
E29M  Blow River        59.07  25 P      P      01 32 18.0 +0.3
E29M                              IAmb   IAmb   01 32 25.6
      comp=Z,3.5nm,0.8s
G29M  Pine Creek        59.16  27 P      P      01 32 19.4 +1.0
M29M  Somme Creek       59.51  32 IAmb   IAmb   01 32 23.7
      comp=Z,7.2nm,1.0s
L29M  L29M              59.56  31 P      P      01 32 21.9 +0.6
K29M  Barlow Dome       59.73  31 P      P      01 32 22.8 +0.3
K29M                              IAmb   IAmb   01 32 24.5
      comp=Z,7.4nm,1.2s
O29M  Mount Kennedy     59.77  35 P      P      01 32 23.5 +0.7
I30M  Mount Dempster    60.03  29 IAmb   IAmb   01 32 39.8
      comp=Z,12nm,1.4s
PALK  Pallekele         60.16 260 LR     LR     02 01 31.9
      comp=Z,117nm,18.2s,baz=60,slow=39
HYT   Haines Junctio    60.21  34 P      P      01 32 27.2 +1.4
HYT                               IAmb   IAmb   01 32 30.9
      comp=Z,6.2nm,1.2s
INK   Inuvik            60.69  25 LR     LR     02 01 49.5
      comp=Z,29nm,20.1s,baz=304,slow=39
ARTI  Arti              60.84 321 P      P      01 32 28.1 -2.0
      comp=Z,1.2nm,0.5s,baz=74,slow=15,SNR=2.7
ARTI                              LR     LR     01 59 15.0
      comp=Z,29nm,18.0s,baz=61,slow=36
      comp=Z,1.2nm,0.5s
ARTI  Arti              60.84 321 IAmb   IAmb   01 32 40.7
      comp=Z,3.6nm,0.7s
N31M  Braeburn, Yuko    60.91  33 P      P      01 32 31.3 +0.8
N31M                              IAmb   IAmb   01 32 33.3
      comp=Z,6.8nm,1.1s
S31K  Pelican           61.39  37 P      P      01 32 35.1 +1.5
M31M  Drury Creek, Y    61.42  32 P      P      01 32 33.7 -0.2
M31M                              IAmb   IAmb   01 32 35.5
      comp=Z,6.7nm,1.2s
WHY   Whitehorse        61.50  34 P      P      01 32 35.6 +1.0
SKAG  Skagway           61.53  35 P      P      01 32 35.3 +0.6
SKAG                              IAmb   IAmb   01 33 16.2
      comp=Z,4.2nm,0.8s
AB31  Akbulak array     61.55 313        P      01 32 33.2 -1.7
AB31                              IAmb   IAmb   01 32 40.3
      comp=Z,7.1nm,1.4s
ABKAR Akbulak array     61.55 313 P      P      01 32 33.0 -2.0
FORT  Forrest           62.00 192 P      P      01 32 37.5 -0.5
FORT                              IAmb   IAmb   01 32 38.5
      comp=Z,6.4nm,0.9s
STKA  Stephens Creek    62.02 179 P      P      01 32 37.1 -1.0
      comp=Z,2.7nm,0.7s,baz=329,slow=8.5,SNR=6.9
      comp=Z,2.7nm,0.7s
R32K  Eaglecrest        62.21  37 P      P      01 32 40.0 +0.7
R32K                              IAmb   IAmb   01 33 03.0
      comp=Z,5.8nm,0.7s
AKTO  Aktyubinsk        62.46 314 P      P      01 32 39.3 -1.8
      comp=Z,0.7nm,0.3s,baz=69,slow=5.4,SNR=6.1
AKTO                              LR     LR     02 01 11.5
      comp=Z,110nm,18.8s,baz=0.5,slow=37
      comp=Z,0.7nm,0.3s
P33M  Teslin, Yukon     62.60  34 IAmb   IAmb   01 32 44.5
      comp=Z,4.7nm,1.0s
MMPY  Sheldon Lake,     62.75  31 IAmb   IAmb   01 32 56.5
      comp=Z,5.7nm,1.2s
S34M  Telegraph Cree    64.04  36 P      P      01 32 51.9 +0.5
S34M                              IAmb   IAmb   01 32 54.3
      comp=Z,8.6nm,1.1s
DLBC  Dease Lake        64.45  36 LR     LR     02 01 04.1
      comp=Z,33nm,19.3s,baz=272,slow=36
SPITS Spitsbergen Ar    66.77 349 P      P      01 33 08.7 -0.1
      comp=Z,5.7nm,0.9s,baz=120,slow=10,SNR=1.8
      comp=Z,5.7nm,0.9s
BBB   Bella Bella       67.52  42 LR     LR     01 57 42.6
      comp=Z,25nm,21.2s,baz=235,slow=31
RES   Resolute Bay      69.19  13 LR     LR     02 07 10.7
      comp=Z,24nm,18.8s,baz=358,slow=39
ARCES ARCESS Array B    69.81 340 P      P      01 33 27.6 -0.3
      comp=Z,2.1nm,0.7s,baz=72,slow=7.8,SNR=7.0
ARCES                             LR     LR     02 07 24.6
      comp=Z,99nm,21.0s,baz=78,slow=39
      comp=Z,2.1nm,0.7s
YKA   Yellowknife Ar    69.99  28 P      P      01 33 29.2 +0.1
      comp=Z,1.5nm,0.9s,baz=299,slow=7.3,SNR=3.2
YKA                               LR     LR     02 10 25.4
      comp=Z,17nm,18.6s,baz=318,slow=41
      comp=Z,1.5nm,0.9s
NLWA  Neilton Lookou    71.94  45 IAmb   IAmb   01 33 48.7
      comp=Z,7.5nm,1.2s
GNW   Green Mountain    72.50  45 P      P      01 33 46.0 +1.5
STD   Studebaker Rid    73.46  46 P      P      01 33 51.6 +1.2
STD                               IAmb   IAmb   01 33 57.5
      comp=Z,6.0nm,0.8s
LON   Longmire          73.48  45 P      P      01 33 50.4 -0.1
BUCK  Buck Mountain     73.90  48 P      P      01 33 54.1 +1.2
BUCK                              IAmb   IAmb   01 33 59.1
      comp=Z,9.3nm,1.0s
FINES FINESS Array B    74.19 333 P      P      01 33 53.6 -0.6
      comp=Z,1.8nm,0.5s,baz=80,slow=5.6,SNR=9.1
      comp=Z,1.8nm,0.5s
HOOD  Mount Hood Mea    74.23  47 P      P      01 33 55.4 +0.4
HOOD                              IAmb   IAmb   01 33 59.9
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	comp=Z,14nm,1.3s						
I04A	Tendick Farm,	74.45	48	P	P	01 33 57.5	+1.4
I04A				IAmb	IAmb	01 34 01.0	
	comp=Z,13nm,1.4s						
MXC	Moxie City	74.49	45	P	P	01 33 56.9	+0.6
KBZ	Khabaz	74.49	312	P	P	01 33 56.2	-0.1
	comp=Z,5.6nm,0.8s,baz=65,slow=3.9,SNR=16						
KBZ				LR	LR	02 07 25.4	
	comp=Z,84nm,20.4s,baz=46,slow=36						
	comp=Z,5.6nm,0.8s						
WIFE	Three Sisters-	74.71	48	P	P	01 33 58.2	+0.3
WIFE				IAmb	IAmb	01 34 03.4	
	comp=Z,8.2nm,1.0s						
E07A	Sunnyside	74.76	45	P	P	01 33 59.0	+1.1
HAWA	Hanford	75.04	45	P	P	01 34 00.5	+1.0
D08A	Wollman Farm,	75.09	44	P	P	01 34 00.2	+0.5
C09A	Chrisman Ranch	75.12	43	P	P	01 34 00.1	+0.2
EDM	Edmonton	75.14	37	P	P	01 34 00.4	+0.5
EDM				IAmb	IAmb	01 34 05.8	
	comp=Z,7.8nm,1.1s						
YBH	Yreka Blue Hor	75.20	50	LR	LR	02 00 46.4	
	comp=Z,94nm,21.8s,baz=292,slow=31						
YBH	Yreka Blue Hor	75.20	50	P	P	01 34 01.6	+1.0
L04D	Klamath Falls	75.25	50	P	P	01 34 00.4	-0.5
L04D				IAmb	IAmb	01 34 05.1	
	comp=Z,9.8nm,1.1s						
M02C	Callahan	75.27	51	P	P	01 34 02.2	+1.3
NEW	Newport	75.57	42	LR	LR	02 07 03.9	
	comp=Z,22nm,19.5s,baz=306,slow=35						
M03C	McCloud	75.81	50	P	P	01 34 04.0	-0.1
M03C				IAmb	IAmb	01 34 12.2	
	comp=Z,10nm,0.9s						
O02D	Mt. Diablo Mer	75.87	52	P	P	01 34 05.7	+1.3
K05A	Summer Lake	75.93	49	P	P	01 34 06.0	+1.1
K05A				IAmb	IAmb	01 34 14.1	
	comp=Z,12nm,1.1s						
O03E	Paynes Creek	76.48	51	P	P	01 34 08.8	+0.8
O03E				IAmb	IAmb	01 34 14.1	
	comp=Z,6.0nm,0.9s						
MOD	Modoc Plateau	76.71	49	P	P	01 34 10.2	+0.9
ORV	Oroville	77.04	52	P	P	01 34 10.9	-0.1
RAR	Rarotonga	77.19	124	LR	LR	02 06 25.5	
	comp=Z,71nm,19.6s,baz=294,slow=34						
SUMG	Summit	77.23	360	P	P	01 34 11.3	-0.6
SUMG				IAmb	IAmb	01 34 35.8	
	comp=Z,19nm,1.5s						
BEKR	Beckworth	77.66	51	P	P	01 34 15.5	+0.8
BEKR				IAmb	IAmb	01 34 22.4	
	comp=Z,8.1nm,0.8s						
AFDM	Forest Hills D	77.69	52	P	P	01 34 15.2	+0.5
TCW	Tory Channel	77.95	154	P	P	01 34 16.2	+0.5
MHC	Mount Hamilton	78.01	54	P	P	01 34 17.6	+1.0
BSWZ	Blackbirch Sta	78.24	155	P	P	01 34 16.9	-0.4
PAHR	Pah Rah Range	78.39	51	P	P	01 34 19.3	+0.6
CMB	Columbia Colle	78.54	53	P	P	01 34 20.0	+0.6
PNTR	Pine Nut	78.56	51	P	P	01 34 19.5	-0.2
PNTR				IAmb	IAmb	01 34 23.7	
	comp=Z,5.7nm,0.7s						
MFID	Camas Ranch	78.81	46	P	P	01 34 21.4	+0.5
YERR	Yerington	78.85	51	P	P	01 34 21.9	+0.6
YERR				IAmb	IAmb	01 34 29.3	
	comp=Z,14nm,1.5s						
AKASG	Malin Array Be	78.91	323	P	P	01 34 19.9	-1.2
	comp=Z,1.2nm,0.5s,baz=53,slow=5.5,SNR=7.4						
AKASG				LR	LR	02 13 31.2	
	comp=Z,206nm,18.2s,baz=27,slow=39						
	comp=Z,1.2nm,0.5s						
AKBB	Malin Array Si	78.91	323	P	P	01 34 20.2	-0.9
KIEV	Kiev	78.92	323	P	P	01 34 20.0	-1.2
WAKR	Walker	78.96	52	P	P	01 34 22.7	+0.8
LYMT	Lyon Mountain	79.03	42	P	P	01 34 21.8	-0.4
BUT	Butte	79.39	43	P	P	01 34 25.2	+1.1
BUT				IAmb	IAmb	01 34 30.7	
	comp=Z,10nm,0.8s						
BMN	Battle Mountai	79.46	49	P	P	01 34 25.8	+1.3
BMN				IAmb	IAmb	01 34 32.7	
	comp=Z,8.2nm,1.4s						
KVN	Kaiserville	79.58	51	P	P	01 34 26.0	+0.7
HLID	Hailey	79.60	45	P	P	01 34 26.3	+1.0
MDPB	Devils Postpil	79.64	52	P	P	01 34 25.4	-0.4
LHV	Little Huntoon	79.72	52	P	P	01 34 26.3	+0.5
DLMT	Dillon	79.73	43	P	P	01 34 26.0	0.0
NVAR	Mina Array Bea	79.76	51	P	P	01 34 27.1	+0.7
	comp=Z,3.6nm,0.7s,baz=286,slow=5.6,SNR=15						
NVAR				LR	LR	02 02 21.6	
	comp=Z,85nm,21.7s,baz=275,slow=30						
	comp=Z,3.6nm,0.7s						
NVAR	Mina Array Bea	79.76	51	P	P	01 34 28.1	+1.8
NOA	NORSAR Array B	79.86	337	P	P	01 34 24.8	-1.4
	comp=Z,0.9nm,0.7s,baz=44,slow=5.4,SNR=3.8						
NOA				LR	LR	02 11 56.9	
	comp=Z,73nm,19.2s,baz=0.0,slow=37						
	comp=Z,0.9nm,0.7s						
BOZ	Bozeman (W)	80.17	43	P	P	01 34 29.0	+0.7
TPH	Tonopah	80.67	51	P	P	01 34 32.0	+0.7
TPH				IAmb	IAmb	01 34 35.0	
	comp=Z,6.8nm,1.1s						
GMN	Gold Mountain	81.05	52	P	P	01 34 33.6	+0.3
YHH	Holmes Hill	81.08	43	P	P	01 34 33.3	-0.1
YNE	Yellowstone No	81.45	42	P	P	01 34 35.8	+0.5
MPMC	Manual Prospec	81.54	53	P	P	01 34 35.5	-0.4
HVU	Hansel Valley	81.58	46	P	P	01 34 36.5	+0.5
CLC	China Lake	81.59	53	P	P	01 34 36.6	+0.6
FXWY	Fox Creek	81.62	44	P	P	01 34 37.0	+0.9
TPO	Tropico Hills	81.64	55	P	P	01 34 38.0	+1.8
WCT	Wildcat Mounta	81.75	52	P	P	01 34 38.3	+1.5
FURC	Furnace Creek,	81.76	53	P	P	01 34 37.3	+0.6
FURC				IAmb	IAmb	01 34 44.8	
	comp=Z,9.6nm,1.1s						
CCCA	Chr Cany lake	81.91	54	IAmb	IAmb	01 35 09.3	
	comp=Z,8.5nm,1.2s						
TPNV	Topopah Spring	81.92	52	IAmb	IAmb	01 34 45.6	
	comp=Z,7.6nm,0.9s						
QSM	Queen of Sheba	82.02	53	P	P	01 34 38.6	+0.5
QSM				IAmb	IAmb	01 34 45.5	
	comp=Z,7.7nm,0.9s						
GWY	Greenwater Val	82.04	53	P	P	01 34 38.6	+0.2
GWY				IAmb	IAmb	01 34 44.8	
	comp=Z,8.4nm,1.0s						
RAYN	Ar Rayn	82.27	293	P	P	01 34 38.5	-1.1
GSC	Goldstone, Bar	82.41	54	IAmb	IAmb	01 34 44.1	
	comp=Z,5.2nm,0.8s						
HWUT	Hardware Ranch	82.43	46	P	P	01 34 40.8	+0.4
DUG	Dugway, Tooele	82.43	48	P	P	01 34 39.7	-0.7
BR131	Keskin Array S	82.49	312	P	P	01 34 38.8	-1.9
PRN	Pahroc Range	82.49	51	P	P	01 34 41.8	+1.0
BRTR	Keskin Array B	82.49	312	P	P	01 34 39.8	-0.9
	comp=Z,2.6nm,0.8s,baz=86,slow=3.4,SNR=10						
BRTR				LR	LR	02 13 42.2	
	comp=Z,42nm,20.5s,baz=24,slow=37						
	comp=Z,2.6nm,0.8s						
BRTR	Keskin Array B	82.49	312		P	01 34 39.3	-1.4
SFJD	Kangerlussuaq	82.49	4	LR	LR	02 13 42.7	
	comp=Z,50nm,19.9s,baz=348,slow=37						
PPT	Papeete	82.64	115	LR	LR	02 05 09.5	
	comp=Z,29nm,19.2s,baz=344,slow=31						
BUR08	Bucovina Ar. S	82.85	322		P	01 34 40.7	-1.7
BURAR	Bucovina Array	82.86	322	P	P	01 34 41.4	-1.0
PDAR	Pinedale Array	83.00	44	P	P	01 34 44.0	+0.6
	comp=Z,0.6nm,0.7s,baz=270,slow=1.5,SNR=5.2						
PDAR				LR	LR	02 08 40.1	
	comp=Z,18nm,20.5s,baz=302,slow=33						
	comp=Z,0.6nm,0.7s						
PDAR	Pinedale Array	83.00	44	P	P	01 34 43.4	0.0
NLU	North Lily Min	83.04	48	P	P	01 34 43.9	+0.2
MTPC	Mountain Pass	83.18	53	P	P	01 34 44.0	-0.3
FRB	Frobisher Bay	83.38	12	LR	LR	02 15 31.8	
	comp=Z,31nm,20.7s,baz=271,slow=38						
PFO	Pinyon Flats O	83.55	55	LR	LR	02 13 09.9	
	comp=Z,81nm,18.1s,baz=276,slow=36						
PFO	Pinyon Flats O	83.55	55	P	P	01 34 46.6	+0.4
PFO				IAmb	IAmb	01 34 48.4	
	comp=Z,8.2nm,1.1s						
KOLS	Kolonicke sedl	83.56	324	*e*P	P	01 34 46.2	+0.3
PMD	Palm Desert	83.59	55	P	P	01 34 46.0	-0.3
PMD				IAmb	IAmb	01 34 52.6	
	comp=Z,5.2nm,0.9s						
BELC	Belle Mtn. Jos	83.67	54	P	P	01 34 47.0	+0.1
P17A	Butcher Ranch,	84.16	47	P	P	01 34 50.3	+1.0
P17A				IAmb	IAmb	01 34 52.2	
	comp=Z,6.7nm,0.9s						
IRM	Iron Mountain	84.18	54	P	P	01 34 49.4	0.0
KNB	Kanab	84.19	50	P	P	01 34 51.0	+1.5
KNB				IAmb	IAmb	01 34 53.2	
	comp=Z,7.5nm,0.8s						
Q16A	Castle Valley	84.20	48	P	P	01 34 50.1	+0.5
Q16A				IAmb	IAmb	01 34 56.5	
	comp=Z,6.0nm,1.0s						
BC3	Big Chuckawall	84.23	54	P	P	01 34 49.3	-0.5
BC3				IAmb	IAmb	01 34 52.0	
	comp=Z,5.7nm,1.0s						
RDMU	Red Mountain	84.26	46	P	P	01 34 50.5	+0.6
RDMU				IAmb	IAmb	01 34 52.6	
	comp=Z,7.2nm,0.8s						
P18A	Preston Nutter	84.38	47	P	P	01 34 51.0	+0.4
P18A				IAmb	IAmb	01 34 58.1	
	comp=Z,4.8nm,0.9s						
SRU	San Rafael Swe	84.50	48	P	P	01 34 51.5	+0.4
W13A	Hualapai Mount	84.53	52	P	P	01 34 51.3	-0.1
ESJX	Sierra Juarez	84.77	56	P	P	01 34 53.1	+0.5
ESJX				IAmb	IAmb	01 34 59.4	
	comp=Z,7.2nm,1.0s						
BLYC	Blythe	84.83	54	P	P	01 34 53.1	+0.5
BLYC				IAmb	IAmb	01 34 55.4	
	comp=Z,5.9nm,0.9s						
K22A	Casper	84.87	43	P	P	01 34 52.9	+0.1
K22A				IAmb	IAmb	01 34 55.8	
	comp=Z,3.9nm,0.7s						
U15A	North Rim	84.87	51	P	P	01 34 53.4	+0.3
U15A				IAmb	IAmb	01 34 56.7	
	comp=Z,6.4nm,0.8s						
HMU	Henry Mountain	85.03	49	P	P	01 34 53.4	-0.5
HMU				IAmb	IAmb	01 35 00.6	
	comp=Z,8.7nm,0.9s						
O20A	White River Ci	85.34	46	IAmb	IAmb	01 34 57.6	
	comp=Z,5.5nm,0.8s						
ULM	Lac du Bonnet	85.53	32	LR	LR	02 15 28.0	
	comp=Z,17nm,19.4s,baz=318,slow=37						
VYHS	Vyhne	85.57	325	*e*P	P	01 34 57.0	+1.0
HAYD	Hayden	85.71	45	P	P	01 34 57.5	+0.3
HAYD				IAmb	IAmb	01 35 00.8	
	comp=Z,4.2nm,0.8s						
Y14A	Wickenburg	85.78	53	IAmb	IAmb	01 34 59.9	
	comp=Z,5.4nm,0.7s						
PV21	Cone Mtn., Par	85.81	47	P	P	01 34 58.2	+0.4
PV23	Carpenter Ridg	85.85	47	P	P	01 34 58.4	+0.4
PV10	Paradox Valley	85.87	47	P	P	01 34 58.5	+0.4
113A	Mohawk Valley,	85.90	54	P	P	01 34 58.3	+0.3
113A				IAmb	IAmb	01 35 00.4	
	comp=Z,5.0nm,0.7s						
PV20	West Nyswonger	85.94	47	P	P	01 34 58.7	+0.4
PV22	Blue Mesa, Par	85.94	47	P	P	01 34 59.9	+1.5
PV22				IAmb	IAmb	01 35 04.9	
	comp=Z,5.2nm,1.1s						
PV04	Paradox Valley	85.95	47	P	P	01 34 59.5	+1.2
PV04				IAmb	IAmb	01 35 04.2	
	comp=Z,11nm,1.1s						
PV19	Morning Glory	85.95	48	P	P	01 34 58.7	+0.3
PV17	East Wray Mesa	85.98	48	P	P	01 34 58.5	-0.1
PV16	Nyswonger Mesa	85.99	47	IAmb	IAmb	01 35 00.7	
	comp=Z,8.2nm,1.0s						
WUAZ	Wupatki	86.00	51	P	P	01 34 59.4	+0.8
WUAZ				IAmb	IAmb	01 35 01.0	
	comp=Z,5.8nm,0.9s						
PV05	Paradox Valley	86.01	48	P	P	01 34 59.0	+0.2
PV11	David Mesa, Pa	86.03	47	P	P	01 34 58.6	-0.2
PV12	Saucer Basin,	86.06	47	P	P	01 34 59.1	+0.2
PV03	Paradox Valley	86.07	47	P	P	01 34 59.1	+0.1
PV03				IAmb	IAmb	01 35 01.5	
	comp=Z,6.0nm,0.9s						
VRAC	Vranov	86.09	327	LR	LR	02 17 17.4	
	comp=Z,103nm,19.1s,baz=33,slow=38						
PV13	Radium Mtn., P	86.14	48	P	P	01 34 59.8	+0.4
PV13				IAmb	IAmb	01 35 01.7	
	comp=Z,5.0nm,0.8s						
PV02	Paradox Valley	86.17	47	P	P	01 34 59.6	+0.1
PV02				IAmb	IAmb	01 35 01.9	
	comp=Z,5.9nm,0.7s						
CLL	Collm	86.29	330	P	P	01 34 58.8	-0.7
PV01	Paradox Valley	86.31	47	P	P	01 35 00.3	0.0
PV01				IAmb	IAmb	01 35 02.2	
	comp=Z,4.5nm,0.9s						
X16A	Lo Mia Camp, P	86.58	52	P	P	01 35 02.3	+0.8
PIX	Pinacate	86.79	55	P	P	01 35 02.3	-0.1
PIX				IAmb	IAmb	01 35 04.3	
	comp=Z,5.6nm,0.9s						
GERES	GERESS Array B	87.76	328	P	P	01 35 05.0	-1.9
	comp=Z,0.3nm,0.2s,baz=64,slow=3.1,SNR=4.4						
	comp=Z,0.3nm,0.2s						
SUSD	Miller	87.97	38	P	P	01 35 07.8	-0.1
F33A	5 Mile Ranch,	88.39	36	P	P	01 35 08.7	-1.1
SDCO	Great Sand Dun	88.48	46	P	P	01 35 10.3	-0.5
DUN6	Lazy B Ranch	89.26	52	P	P	01 35 15.6	+1.3
T25A	Trinidad	89.54	46	P	P	01 35 16.8	+1.1
T25A				IAmb	IAmb	01 35 20.8	
	comp=Z,3.1nm,0.8s						
TASM	ASL Pad, Albuq	89.58	49	P	P	01 35 16.4	+0.5
TASM				IAmb	IAmb	01 35 18.9	
	comp=Z,2.3nm,0.8s						
TASM	ASL Pad, Albuq	89.58	49	P	P	01 35 16.1	+0.3
TASM				IAmb	IAmb	01 35 18.9	
	comp=Z,2.5nm,0.8s						
ANMO	Albuquerque	89.58	49	LR	LR	02 08 36.8	
	comp=Z,128nm,22.0s,baz=312,slow=31						
ANMO	Albuquerque	89.58	49	P	P	01 35 15.8	-0.1
ALQ	Albuquerque	89.59	49	P	P	01 35 16.6	+0.7
ALQ				IAmb	IAmb	01 35 18.9	
	comp=Z,2.5nm,0.8s						
ALQ	Albuquerque	89.59	49	P	P	01 35 16.3	+0.4
ALQ				IAmb	IAmb	01 35 18.9	
	comp=Z,2.5nm,0.8s						
ECSD	EROS Data Cent	89.69	37	P	P	01 35 15.5	-0.4
ECSD				IAmb	IAmb	01 35 18.1	
	comp=Z,5.7nm,1.1s						
SBM	South Baldy	89.70	50	P	P	01 35 17.4	+0.7
E38A	The Farm, Brul	90.15	33	P	P	01 35 18.1	+0.1
FUORN	Ofenpass-Fuorn	90.97	328	P	P	01 35 20.1	-2.1
DAVOX	Davos/Dischmat	91.03	328	LR	LR	02 20 47.8	
	comp=Z,65nm,18.3s,baz=56,slow=39						
TUE	Stuetta	91.50	328	P	P	01 35 24.1	-0.4
TUE				IAmb	IAmb	01 35 26.8	
	comp=Z,3.6nm,1.0s						
SCHQ	Schefferville	91.91	15	LR	LR	02 19 09.1	
	comp=Z,33nm,20.9s,baz=346,slow=37						
AMTX	Amarillo	92.68	47	P	P	01 35 30.1	0.0
TPB28		92.89	51	P	P	01 35 32.3	+1.1
TPB28				IAmb	IAmb	01 35 34.3	
	comp=Z,6.8nm,0.8s						
CLNB	Carlsbad	92.93	50	P	P	01 35 31.5	+0.2
VHRN	Van Horn	93.11	52	P	P	01 35 31.8	-0.4
LPIG	La Paz	93.31	60	LR	LR	02 08 22.3	
	comp=Z,52nm,21.6s,baz=260,slow=30						
128A	Castleberry Fa	93.62	49	IAmb	IAmb	01 35 37.2	
	comp=Z,2.2nm,0.7s						
ALPN	Alpine	94.28	51	IAmb	IAmb	01 35 44.1	
	comp=Z,4.0nm,1.1s						
229A	Bryant Ranch,	94.47	49	P	P	01 35 39.0	+0.6
TMB01	Midkiff	94.49	49	P	P	01 35 38.3	-0.2
TMB01				IAmb	IAmb	01 35 41.1	
	comp=Z,3.1nm,0.7s						
WMOK	Wichita Mounta	94.57	45	IAmb	IAmb	01 35 40.6	
	comp=Z,2.6nm,0.8s						
TXAR	Lajitas Array	94.91	52	P	P	01 35 41.5	+1.1
	comp=Z,6.6nm,0.8s,baz=297,slow=2.9,SNR=74						
TXAR	Lajitas Array	94.91	52		P	01 35 41.4	+0.9
SGCY	Sterling City	94.95	49	P	P	01 35 40.1	-0.4
P40A	Paris	95.08	38	P	P	01 35 41.1	+0.2
SADO	Sadowa	96.96	27	LR	LR	02 27 46.2	
	comp=Z,18nm,18.0s,baz=346,slow=40						
QSPA	South Pole Qui	120.22	180	PKP	PKPdf	01 41 07.4	-0.6
	comp=Z,2.7nm,0.6s,baz=291,slow=1.0,SNR=30						
QSPA	South Pole Qui	120.22	180		PKPdf	01 41 07.7	-0.2
TROLL	Troll, Antarti	132.69	197	⇑PKPdf	PKPdf	01 41 32.1	+0.4
	comp=Z,172nm,0.7s						
VNA2	Neumayer--Watz	135.75	195	⇑PKPdf	PKPdf	01 41 37.6	+0.3
	comp=Z,8.7nm,0.7s,baz=108,slow=1.9						
VNA3	Neumayer Olymp	135.98	193	⇑PKPdf	PKiKP	01 41 39.1	-0.3
	comp=Z,4.7nm,0.7s						
LPAZ	La Paz	150.47	68	PKPbc	PKPbc	01 42 11.0	+0.3
	comp=Z,5.8nm,0.7s,baz=341,slow=3.6,SNR=25						
LPAZ	La Paz	150.47	68		PKiKP	01 42 11.5	+0.1
PLCA	Paso Flores	153.06	121	PKPbc	PKiKP	01 42 15.5	+0.1
	comp=Z,6.4nm,0.6s,baz=208,slow=3.4,SNR=15						

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*IDC **13** 01:47:43.0±2.0, 6°.23S×104°.03E, h0^{km}, mb3.8/10, mbtmp3.8/10, Error ellipse: s-maj=84.2km s-min=17.1km az=55.0*

*DJA **13** 01:47:50.7±0.4, 6°S±4°×10°4E±°, h10^{km}, M4.0/24, MLv4.0/24*

ISC 13 01:47:50.1±0.9**, 6°.3S**±0°.1×**104°.1E**±0°.1**, h48**^{km}**, n34, σ2**^{s}**03**/22**, mb3.8**/10**, Sunda Strait**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KASI	Kota Agung	0.81	27	P	Pn	01 48 05.5	+0.2
LWLI	Liwa	1.23	357	P	Pn	01 48 11.9	+0.9
BLSI	Bandar Lampung	1.42	52	P	Pn	01 48 15.9	+2.4
BLSI				AML	AML		
CGJI	Cibinong	1.60	103	P	Pn	01 48 17.1	+1.2
CGJI				AML	AML		
MDSI	Maura Dua	1.76	2	P	Pn	01 48 19.4	+1.3
SBJI	Serang	2.00	86	P	Pn	01 48 24.8	+3.4
LHSI	Lahat	2.48	346	P	Pn	01 48 30.9	+2.8
CBJI	Citeko	2.71	94	P	Pn	01 48 35.8	+4.6
CBJI				AML	AML		
KSI	Kapahiang	3.00	329	P	Pn	01 48 38.7	+3.4
KSI				AML	AML		
MASI	Maura Aman, Be	3.62	329	P	Pn	01 48 46.5	+2.8
BBJI	Bungbulang	3.70	109	P	Pn	01 48 44.7	-0.2
BBJI				AML	AML		
CMAR	Chiang Mai Arr	25.08	348	P	P	01 53 09.1	-1.2
	0.6nm,0.3s,baz=173,slow=11,SNR=1.3						
	0.6nm,0.3s						
H01W3	Cape Leeuwin H	29.95	163	T	T	02 24 58.6	
	baz=340,slow=76,SNR=3.7						
H01W2	Cape Leeuwin H	29.97	163	T	T	02 24 59.4	
	baz=340,slow=76,SNR=6.1						
H01W1	Cape Leeuwin H	29.97	163	T	T	02 25 01.3	
	baz=340,slow=76,SNR=4.5						
H08S2	Diego Garcia H	31.43	266	T	T	02 26 50.9	
	baz=90,slow=74,SNR=10						
H08S3	Diego Garcia H	31.44	266	T	T	02 27 04.7	
	baz=90,slow=74,SNR=12						
H08S1	Diego Carcia H	31.45	266	T	T	02 26 55.0	
	baz=90,slow=74,SNR=9.7						
WRA	Warramunga Arr	32.34	118	P	P	01 54 14.1	-1.0
	1.2nm,0.6s,baz=286,slow=12,SNR=9.4						
	1.2nm,0.6s						
ASAR	Alice Springs	33.45	124	P	P	01 54 25.4	+0.5
	0.4nm,0.3s,baz=307,slow=8.5,SNR=12						
	0.4nm,0.3s						
STKA	Stephens Creek	43.27	131	P	P	01 55 47.2	0.0
	1.2nm,0.4s,baz=329,slow=7.4,SNR=6.0						
	1.2nm,0.4s						
SONM	Songino Array	53.89	2	P	P	01 57 08.7	0.0
	0.9nm,0.8s,baz=161,slow=9.4,SNR=5.3						
	0.9nm,0.8s						
USRK	Ussuriysk Ar.	56.15	24	P	P	01 57 24.0	-0.9
	1.4nm,0.5s,baz=208,slow=3.2,SNR=4.1						
	1.4nm,0.5s						
MKAR	Makanchi Array	56.26	342	P	P	01 57 25.1	-0.6
	0.5nm,0.6s,baz=140,slow=8.9,SNR=4.0						
	0.5nm,0.6s						
H04N2	CROZET ISLANDS	59.99	219	T	T	03 02 20.0	
	baz=65,slow=75,SNR=139						
H04N1	CROZET ISLANDS	60.01	219	T	T	03 02 22.4	
	baz=65,slow=75,SNR=86						
H04N3	CROZET ISLANDS	60.01	219	T	T	03 02 18.9	
	baz=65,slow=75,SNR=92						
H04S1	CROZET ISLANDS	60.21	219	T	T	03 02 32.5	
	baz=65,slow=75,SNR=23						
H04S3	CROZET ISLANDS	60.22	219	T	T	03 02 31.6	
	baz=65,slow=75,SNR=18						
H04S2	CROZET ISLANDS	60.23	219	T	T	03 02 36.4	
	baz=65,slow=75,SNR=19						
KURBB	Kurchatov Arra	60.81	342	P	P	01 57 55.9	-1.3
	0.2nm,0.7s,baz=159,slow=5.5,SNR=2.4						
	0.2nm,0.7s						
ZALV	Zalesovo Beam	62.14	347	P	P	01 58 04.8	-1.3
	0.7nm,0.4s,baz=149,slow=4.6,SNR=3.5						
	0.7nm,0.4s						
BVAR	Borovoye Array	65.60	338	P	P	01 58 27.8	-1.2
	0.3nm,0.5s,baz=138,slow=11,SNR=2.1						
	0.3nm,0.5s						
TXAR	Lajitas Array	145.15	45	PKPbc	PKPdf	02 07 23.8	+0.6
	1.0nm,0.8s,baz=275,slow=1.6,SNR=12						

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*JMA **13** 01:51:43.9±0.6, 32°N±4°×13°8E±°, h353^{km}, MV3.1/21, FAR S OFF TOKAI DISTRICT*

*IDC **13** 01:51:46.4±3.1, 32°.43N×137°.50E, h319^{km}±68^{km}, mb2.9/7, mbtmp3.6/9, Error ellipse: s-maj=143.7km s-min=13.2km az=65.0*

ISC 13 01:51:47.2±0.9**, 32°.74N**±0°.08×**138°.19E**±0°.08**, h350**^{km}**, n21, σ1**^{s}**27**/27**, mb3.0**/7**, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TTO2	TONANKAI O.B.S	1.39	316	P	Pn	01 52 34.6	+0.3
JHJ	Hachijo jima 2	1.40	74	P	Pn	01 52 34.2	-0.4
	54nm,0.3s,baz=308,slow=17,SNR=11						
JHJ				S	S	01 53 16.6	+3.8
	36nm,0.3s,baz=56,slow=23,SNR=1.6						
TTO1	TONANKAI O.B.S	1.47	307	*e*P	Pn	01 52 34.7	0.0
JIE	Ise	2.06	324	P	Pn	01 52 38.7	-0.1
JTNC	Tanabenakahech	2.41	297	*e*P	Pn	01 52 40.4	-1.1
JWY	Kouya	2.62	305	P	Pn	01 52 42.8	-0.5
JOD2	Odawara 2	2.63	16	*e*P	Pn	01 52 43.4	+0.2
JOD2				*e*S	S	01 53 29.9	+1.5
JYN	Shimob	2.77	6	*e*P	Pn	01 52 45.6	+1.1
BSO1	Boso 1	3.01	50	*e*P	Pn	01 52 44.8	-1.1
BSO1				*e*S	S	01 53 31.7	-1.6
JRY	Ryogami san	3.33	10	P	Pn	01 52 49.7	+0.2
JRY				*e*S	S	01 53 39.2	-0.5
JWT	Wachi	3.44	318	*e*P	Pn	01 52 50.8	+0.3
JMN	Monobe	3.74	286	P	Pn	01 52 52.5	-1.0
MJAR	Matsushiro Arr	3.80	0	P	Pn	01 52 54.3	+0.3
	1.2nm,0.5s,baz=178,slow=11,SNR=5.5						
MJAR				S	S	01 53 47.9	0.0
	0.8nm,0.3s,baz=197,slow=29,SNR=4.6						
JAG	Ashikaga	3.83	15	P	Pn	01 52 53.4	-0.9
JAG				*e*S	S	01 53 46.2	-2.2
ZALV	Zalesovo Beam	43.00	316	P	P	01 59 14.8	+1.8
	0.4nm,0.4s,baz=97,slow=12,SNR=4.5						
	0.4nm,0.4s						
MKAR	Makanchi Array	44.30	305	P	P	01 59 23.7	+0.3
	0.7nm,0.6s,baz=84,slow=11,SNR=3.2						
	0.7nm,0.6s						
KURBB	Kurchatov Arra	46.68	311	P	P	01 59 41.8	+0.1
	0.6nm,0.5s,baz=92,slow=6.9,SNR=10						
	0.6nm,0.5s						
BVAR	Borovoye Array	51.59	314	P	P	02 00 19.1	+0.5
	0.8nm,0.7s,baz=67,slow=5.3,SNR=3.6						
	0.8nm,0.7s						
WRA	Warramunga Arr	52.51	185	P	P	02 00 23.9	-1.7
	0.2nm,0.5s,baz=1.4,slow=7.6,SNR=4.7						
	0.2nm,0.5s						
ASAR	Alice Springs	56.24	185	P	P	02 00 51.5	-0.7
	0.2nm,0.6s,baz=11,slow=14,SNR=4.7						
	0.2nm,0.6s						
STKA	Stephens Creek	64.35	177	P	P	02 01 47.0	+0.6
	0.7nm,0.3s,baz=315,slow=8.6,SNR=2.1						
	0.7nm,0.3s						

NNC 13 01:52:03.3±3.7**, 36°.72N**×**69°.95E, h0**^{km}**, mb3.9, mpv3.4, 5C-1D, Error ellipse: s-maj=29.9km s-min=27.6km az=159.0, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KK31	Karatay Array	6.39	4	⇑P	Pn	01 53 39.5	+0.7
	1.9nm,0.5s,baz=190,slow=16,SNR=18						
KK31				⇑S	Sn	01 54 54.2	+1.7
	5.3nm,0.7s,baz=191,slow=23,SNR=8.5						
AAK	Ala-Archa	6.88	29	⇑P	Pn	01 53 45.4	-0.1
	2.2nm,0.9s						
AAK				⇓S	Sn	01 55 04.1	-0.4
	5.5nm,1.0s						
AB31	Akbulak array	14.50	333	⇑P	Pn	01 55 28.5	-1.1
	1.2nm,0.3s,baz=142,slow=10,SNR=71						
AB31				⇑S	Sn	01 58 11.2	+0.3
	0.4nm,0.5s,baz=166,slow=22,SNR=3.9						

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*RSNC **13** 02:02:57.1±0.0, 10°N±1°×7°4W±°, h85^{km}±2^{km}, M2.5, mb3.5, ML2.4, MLv3.2*

*FUNV **13** 02:02:57.0, 10°.37N×73°.68W, h16^{km}, MW3.5, Presumed earthquake*

ISC 13 02:02:57.2±1.2**, 10°.33N**±0°.04×**73°.68W**±0°.04**, h81**^{km}**, n22, σ1**^{s}**10**/42**, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SJCC	San Jacinto, C	1.54	254	P	Pn	02 03 23.3	+0.2

SJCC				S	Sn	02 03 43.4	+0.6
SJCC				AML	AML		
SJCC				AML	AML		
SJCC	San Jacinto, C	1.54	254	*e*P	Pn	02 03 23.3	+0.2
SJCC				*e*S	Sn	02 03 43.3	+0.6
OCAC	Ocana	2.11	170	P	Pn	02 03 30.7	-0.1
OCAC				S	Sn	02 03 56.5	+0.1
OCAC				AML	AML		
OCAC				AML	AML		
URIC	Uribia, Colomb	2.15	50	P	Pn	02 03 31.4	+0.3
URIC				S	Sn	02 03 56.9	-0.1
URIC				AML	AML		
URIC				AML	AML		
URIC	Uribia, Colomb	2.15	50	*e*P	Pn	02 03 31.9	+0.8
URIC				*e*S	Sn	02 03 56.7	-0.3
LCBC	Los crdobas,	3.03	241	P	Pn	02 03 42.5	-0.5
LCBC				S	Sn	02 04 17.9	-0.4
LCBC				AML	AML		
LCBC				AML	AML		
PAMC	Pamplona, Colo	3.13	162	P	Pn	02 03 44.9	+0.1
PAMC				S	Sn	02 04 21.4	0.0
PAMC				AML	AML		
PAMC				AML	AML		
UREC	San Jos de Ur	3.15	216	P	Pn	02 03 42.9	-1.8
UREC				S	Sn	02 04 19.1	-2.2
UREC				AML	AML		
UREC				AML	AML		
SDV	Santo Domingo	3.33	115	P	Pn	02 03 46.4	-0.9
SDV				S	Sn	02 04 24.9	-1.1
SDV				AML	AML		
SDV				AML	AML		
SDV	Santo Domingo	3.33	115	*e*P	Pn	02 03 48.2	+0.9
SDV				*e*S	Sn	02 04 25.3	-0.7
BARC	Barichara	3.75	172	P	Pn	02 03 53.3	+0.3
BARC				S	Sn	02 04 35.7	-0.5
BARC				AML	AML		
BARC				AML	AML		
PTBC	PUERTO BERRIO,	3.85	192	P	Pn	02 03 55.2	+1.0
PTBC				S	Sn	02 04 39.1	+0.9
PTBC				AML	AML		
PTBC				AML	AML		
RUSC	La Rusia	4.45	172	P	Pn	02 04 03.3	+0.5
RUSC				S	Sn	02 04 53.9	+0.2
RUSC				AML	AML		
RUSC				AML	AML		
RUSC	La Rusia	4.45	172	*e*P	Pn	02 04 03.6	+0.8
RUSC				*e*S	Sn	02 04 52.0	-1.7
HELC	Santa Helena	4.50	204	P	Pn	02 04 05.3	+1.9
HELC				S	Sn	02 04 54.8	0.0
HELC				AML	AML		
HELC				AML	AML		
HELC	Santa Helena	4.50	204	*e*P	Pn	02 04 03.2	-0.2
HELC				*e*S	Sn	02 04 52.6	-2.1
SPBC	San Pablo de B	4.67	185	P	Pn	02 04 07.1	+1.7
SPBC				S	Sn	02 04 58.1	-0.3
SPBC				AML	AML		
SPBC				AML	AML		
CBOC	Ciudad Bolivar	5.00	208	P	Pn	02 04 11.7	+1.6
	0.0nm3.3nm,0.8s						
CBOC				S	Sn	02 05 04.4	-2.3
	0.0nm3.3nm,0.8s						
CBOC				AML	AML		
CBOC				AML	AML		
GUY2C	Guyana, Caldas	5.34	198	P	Pn	02 04 17.0	+2.0
	0.0nm8.7nm,0.6s						
GUY2C				S	Sn	02 05 15.9	+0.5
	0.0nm8.7nm,0.6s						
GUY2C				AML	AML		
GUY2C				AML	AML		
CHIC	Chingaza	5.67	181	P	Pn	02 04 20.9	+1.6
CHIC				S	Sn	02 05 24.2	+0.9
TURV	Turiamo	5.75	88	*e*P	Pn	02 04 19.0	-1.0
BENV	Beln	6.00	93	*e*P	Pn	02 04 23.1	-0.5

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*NIED **13** 02:19:26.5, 31°.45N×128°.75E, h8^{km}, MW3.5, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M$_{rr}$-0.51; M$_{\theta\theta}$0.91; M$_{\phi\phi}$-0.40; M$_{r\theta}$1.50; M$_{\theta\phi}$1.43; M$_{\phi r}$0.21; Fault plane solution: M$_0$2.16000×10^{14} NP1:ϕ_s12.00000°, δ43.00000°, λ-169.00000°. NP2:ϕ_s274.00000°, δ83.00000°, λ-48.00000°.*

JMA 13 02:19:26.5±0.3, **31°.5N**±0°.9×**128°.8E**±0°.8, **h8**^{km}±2^{km}, **MV3.6**/21, **SW OFF KYUSHU, Northwest of Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JSJ	Shimokoshiki	0.86	75	*i* P	Pg	02 19 42.8	-0.2
JSJ				*e*S	Sg	02 19 53.9	-0.2
JFU	Fukue jima 2	1.20	0	P	Pb	02 19 48.7	-0.7
JSU	Suzuyama	1.46	87	*e*P	Pn	02 19 53.1	0.0

RSNC 13 02:38:34.8±0.0, **8°N**±1°×**7°4W**±°, **h10**^{km}±2^{km}, **M3.1, mb4.0, ML2.8, MLv3.6, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OCAC	Ocana	1.14	98	P	Pb	02 38 55.2	-1.5
OCAC				S	Sg	02 39 09.2	-2.5
OCAC				AML	AML		
OCAC				AML	AML		
UREC	San Jos de Ur	1.25	238	P	Pn	02 38 56.1	-2.2
UREC				S	Sb	02 39 12.8	-1.8
UREC				AML	AML		
UREC				AML	AML		
BRJC	Barrancabermej	1.59	154	P	Pn	02 39 00.9	-2.2
BRJC				S	Sn	02 39 20.9	-2.9
BRJC				AML	AML		
BRJC				AML	AML		
SJCC	San Jacinto, C	1.64	334	P	Pn	02 39 02.3	-1.5
SJCC				S	Sn	02 39 22.8	-2.2
SJCC				AML	AML		
SJCC				AML	AML		
PTBC	PUERTO BERRIO,	1.86	180	P	Pn	02 39 05.2	-1.6
PTBC				S	Sn	02 39 29.2	-1.1
PTBC				AML	AML		
PTBC				AML	AML		
LCBC	Los crdobas,	1.94	283	P	Pn	02 39 06.5	-1.3
LCBC				S	Sn	02 39 31.9	-0.4
LCBC				AML	AML		
LCBC				AML	AML		
PAMC	Pamplona, Colo	2.04	121	P	Pn	02 39 08.6	-1.1
PAMC				S	Sn	02 39 33.8	-1.7
PAMC				AML	AML		
PAMC				AML	AML		
APAC	Apartado, Choc	2.16	257	P	Pn	02 39 09.0	-1.9
APAC				S	Sn	02 39 36.2	-1.5
APAC				AML	AML		
APAC				AML	AML		
BARC	Barichara	2.21	145	P	Pn	02 39 10.5	-1.2
BARC				S	Sn	02 39 36.6	-2.6
BARC				AML	AML		
BARC				AML	AML		
SPBC	San Pablo de B	2.77	172	P	Pn	02 39 18.0	-1.3
SPBC				S	Sn	02 39 51.2	-1.7
SPBC				AML	AML		
SPBC				AML	AML		
RUSC	La Rusia	2.85	151	P	Pn	02 39 19.8	-1.0
RUSC				S	Sn	02 39 54.1	-1.4
RUSC				AML	AML		
RUSC				AML	AML		
NORC	Norcasia	2.86	188	P	Pn	02 39 20.2	-0.3
NORC				S	Sn	02 39 55.2	+0.2
NORC				AML	AML		
NORC				AML	AML		
CBOC	Ciudad Bolivar	2.96	211	P	Pn	02 39 21.5	-0.6
CBOC				S	Sn	02 39 57.9	+0.1
CBOC				AML	AML		
CBOC				AML	AML		
GUY2C	Guyana, Caldas	3.29	196	P	Pn	02 39 27.8	+0.9
GUY2C				AML	AML		
GUY2C				AML	AML		
UPD2	Meteti	3.52	272	P	Pn	02 39 24.7	-4.9
UPD2				S	Sn	02 40 06.0	-5.3
PTAC	Punta Ardita,	3.55	250	P	Pn	02 39 27.8	-2.2
PTAC				AML	AML		
PTAC				AML	AML		
ROSC	El Rosal	3.55	178	P	Pn	02 39 30.6	+0.2
ROSC				S	Sn	02 40 16.3	+3.7
ROSC				AML	AML		
ROSC				AML	AML		
SDV	Santo Domingo	3.81	83	P	Pn	02 39 33.8	0.0
SDV				S	Sn	02 40 15.8	-3.1
SDV				AML	AML		
SDV				AML	AML		
CHIC	Chingaza	3.83	169	P	Pn	02 39 33.9	-0.3
CHIC				S	Sn	02 40 19.8	+0.4
CHIC				AML	AML		
CHIC				AML	AML		
CVER	Cruz Verde, Cu	3.88	174	P	Pn	02 39 34.0	-1.0
CVER				S	Sn	02 40 20.2	-0.7
CVER				AML	AML		
CVER				AML	AML		
URIC	Uribia, Colomb	4.08	36	P	Pn	02 39 34.9	-2.3
URIC				S	Sn	02 40 21.4	-3.6
URIC				AML	AML		
URIC				AML	AML		
VILC	Villavicencio,	4.34	170	P	Pn	02 39 41.5	+0.5
VILC				S	Sn	02 40 34.2	+2.5
VILC				AML	AML		
VILC				AML	AML		
ORTC	Ortega, Tolima	4.54	190	P	Pn	02 39 45.2	+1.5
ORTC				S	Sn	02 40 41.2	+4.6
ORTC				AML	AML		
ORTC				AML	AML		
PRAC	Prado	4.69	185	P	Pn	02 39 46.7	+1.0
PRAC				S	Sn	02 40 44.6	+4.4
PRAC				AML	AML		
PRAC				AML	AML		
BCIP	Isla Barro Col	5.37	278	P	Pn	02 39 50.3	-4.7
BCIP				S	Sn	02 40 49.0	-7.9
MACC	Macarena, Meta	6.25	174	P	Pn	02 40 06.8	-0.4
MACC				S	Sn	02 41 17.9	-0.9

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*NOU **13** 02:41:54.6, 21°.16S×170°.50E, h0^{km}, MLv4.1/9, Southeast of Loyalty Islands*

*IDC **13** 02:41:57.5±5.7, 21°.60S×170°.53E, h189^{km}±33^{km}, mb3.4/3, mbtmp3.9/4, Error ellipse: s-maj=84.8km s-min=43.7km az=145.0*

ISC 13 02:41:53.2±2.0, **21°.2S**±0°.5×**170°.7E**±0°.2, **h150**^{km}, **n11**, σ**1^{s}72**/12, **mb3.8**/3, **Southeast of Loyalty Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MARNC	Mare, Loyalty	2.51	262	P	Pn	02 42 35.7	+1.3
MARNC	Mare, Loyalty	2.51	262	S	Sn	02 43 04.7	-1.6
YATNC	Mamie plateau,	3.66	255	P	Pn	02 42 49.1	+0.1
OUENC	Ouen Island, N	3.81	250	P	Pn	02 42 52.1	+1.2
DZM	Mont Dzumac	4.07	256	P	Pn	02 42 55.8	+1.4
	21nm,0.5s,baz=94,slow=18,SNR=34						
DZM				S	Sn	02 43 44.3	+2.3
	11nm,0.5s,baz=160,slow=22,SNR=1.6						
ONTNC	Ouen Toro	4.12	253	P	Pn	02 42 55.5	+0.6
NOUC	Port Laguerre	4.20	256	P	Pn	02 42 56.9	+0.8
STKA	Stephens Creek	28.07	242	P	P	02 47 29.4	-1.3
	1.5nm,0.7s,baz=81,slow=9.7,SNR=2.9						
	1.5nm,0.7s						
WRA	Warramunga Arr	34.03	265	P	P	02 48 21.3	-1.8
	1.1nm,0.5s,baz=98,slow=8.3,SNR=28						
	1.1nm,0.5s						
ASAR	Alice Springs	34.05	259	P	P	02 48 21.8	-1.6
	1.1nm,0.7s,baz=88,slow=9.0,SNR=22						
	1.1nm,0.7s						
GERES	GERESS Array B	146.82	332	PKPbc	PKPdf	03 01 18.0	+2.3
	0.7nm,0.5s,baz=38,slow=2.4,SNR=7.4						

MAN 13 02:59:43.0, 14°.85N×123°.92E, h27^{km}**, MS3.7, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GQP	Guinayangan	1.71	237	*e*P	Pb	03 00 12.8	-1.0
GQP				*e*S	Sb	03 00 36.0	+1.1
CAAP	Casiguran, Aur	2.26	307	*e*P	Pn	03 00 18.4	-0.2
CAAP				*e*S	Sn	03 00 43.8	-1.9
LQP	Lukban	2.42	253	*e*P	Pn	03 00 23.2	+2.2
LQP				*e*S	Sb	03 00 52.8	-2.7
KCP	Kidapawan	7.88	171	*e*P	Pn	03 01 27.1	-8.9

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*TEH **13** 03:04:38.8, 36°.08N×53°.44E, h5^{km}±14^{km}, ML4.5, Presumed earthquake*

*THR **13** 03:04:40.2±0.0, 36°.07N×53°.48E, h10^{km}±3^{km}, ML4.6, Presumed earthquake*

*MOS **13** 03:04:40.9±1.3, 36°.26N×53°.51E, h14^{km}, mb4.7/31, Error ellipse: s-maj=5.7km s-min=3.7km az=128.6*

*IDC **13** 03:04:40.2±0.7, 36°.10N×53°.43E, h0^{km}, mb4.1/20, mbtmp4.1/29, ML3.7/10, MS3.8/53, Error ellipse: s-maj=15.1km s-min=10.5km az=178.0*

*NEIC **13** 03:04:42.1±1.8, 36°.21N±0°.08×53°.53E±0°.08, h10^{km}±1^{km}, mb4.5/46, Error ellipse: s-maj=13.3km s-min=10.1km az=194.0*

*NNC **13** 03:04:43.5±3.3, 36°.61N×53°.60E, h0^{km}, mb4.5, Error ellipse: s-maj=27.3km s-min=18.1km az=37.0*

ISC 13 03:04:41.0±0.3, **36°.13N**±0°.03×**53°.45E**±0°.03, **h10**^{km}, **n403**, σ**1^{s}99**/411, **mb4.4**/70, **MS3.9**/57, **43C-17D, Northern and central Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ISHM	Shahmirzad	0.35	201	Pg	Pg	03 04 45.0	-3.0
ISHM				Sg	Sg	03 04 51.0	-1.7
IGLO	Ghaloghah	0.48	40	Pg	Pg	03 04 49.3	-1.1
IALA	Alasht	0.52	265	Pg	Pg	03 04 48.9	-2.2
IFIR	Firoozkooh	0.75	229	Pg	Pg	03 04 52.7	-2.8
IFIR				Sg	Sg	03 05 03.4	-1.9
IANJ	Anjilo	0.76	150	Pg	Pg	03 04 53.4	-2.3
ILAS	Lasjerd	0.85	208	Pg	Pg	03 04 54.7	-2.7
IPRN	Peran	0.91	277	Pg	Pg	03 04 56.6	-1.9
IPRN				Sg	Sg	03 05 11.2	+0.9
DAMV	Damavand	1.30	248	*e*Pg	Pn	03 05 03.0	-2.5
DAMV				IAML		03 05 29.2	
	comp=Z,4µm,1.0s						
TEHA	Amirabad Tehra	1.72	258	Pg	Pn	03 05 10.4	-0.7
IVRN	Varamin	1.80	232	Pg	Pn	03 05 11.8	-0.5
CHTH	Charan	1.90	264	*e*Pn	Pn	03 05 13.9	+0.3
CHTH				IAML		03 05 51.5	
	comp=Z,2µm,1.0s						
IHSB	Hasanabad	1.90	249	Pn	Pn	03 05 13.2	-0.3
IMND	Minoodasht	1.93	54	Pn	Pn	03 05 14.6	+0.7
ISFB	Sefidab	2.03	209	Pn	Pn	03 05 15.1	-0.3
SHRO	Shahrood	2.08	93	*e*Pn	Pn	03 05 17.1	+1.0
SHRO				IAML		03 06 07.2	
	comp=Z,2.6nm,1.0s						
SHRO	Shahrood	2.08	93	Pn	Pn	03 05 16.9	+0.8
THKV	Tehran--Karaj	2.09	265	*e*Pn	Pn	03 05 18.2	+1.9
THKV				IAML		03 05 55.7	
	comp=Z,4µm,1.0s						
MRVT	Maraveh tapeh	2.61	53	*e*Pn	Pn	03 05 24.1	+0.8
MRVT				IAML		03 06 13.4	
	comp=Z,1µm,1.0s						
MRVT	Maraveh tapeh	2.61	53	Pn	Pn	03 05 24.4	+1.1
LHJ2	Lahijan - Gila	2.91	292	Pn	Pn	03 05 27.6	+0.2
ANAR	Anarak	2.94	175	Pn	Pn	03 05 27.7	-0.2
GIDE	GILAN DEYLAMAN	2.96	287	*e*Pn	Pn	03 05 29.1	+0.9
GIDE				IAML		03 06 33.8	
	comp=Z,4µm,1.0s						
GIDE	GILAN DEYLAMAN	2.96	287	Pn	Pn	03 05 28.9	+0.8
ASAO	Ashtian	3.21	242	*e*Pn	Pn	03 05 32.6	+0.8
ASAO				IAML		03 06 27.1	
	comp=Z,880nm,1.0s						
TAPT	Tabas- Tapeh t	3.27	111	Pn	Pn	03 05 33.2	+0.7
NASN	Na'in	3.37	189	*e*Pn	Pn	03 05 33.6	-0.3
NASN				IAML		03 06 39.8	
	comp=Z,620nm,1.0s						
SBZV	Sabzevar	3.37	84	*e*Pn	Pn	03 05 35.4	+1.5
SBZV				IAML		03 06 56.9	
	comp=Z,750nm,1.0s						
SBZV	Sabzevar	3.37	84	Pn	Pn	03 05 35.0	+1.1
TNSJ	Nastanj	3.38	129	Pn	Pn	03 05 34.1	+0.2
BJRD	Bojnurd	3.54	63	*e*Pn	Pn	03 05 37.6	+1.5
BJRD				IAML		03 06 51.9	
	comp=Z,520nm,1.0s						
KHMZ	Khomeyn	3.73	231	*e*Pn	Pn	03 05 40.9	+2.1
KHMZ				IAML		03 06 54.8	
	comp=Z,560nm,1.0s						
ISFR	Sfrayin	3.78	75	Pn	Pn	03 05 40.6	+1.1
YZKH	Yazd	3.85	165	*e*Pn	Pn	03 05 40.5	+0.1
YZKH				IAML		03 07 00.6	
	comp=Z,540nm,1.0s						
ZNJK	Zanjan	3.88	279	*e*Pn	Pn	03 05 43.5	+2.6
ZNJK				IAML		03 06 47.9	
	comp=Z,300nm,1.0s						
TABS	Tabas	3.90	128	*e*Pn	Pn	03 05 41.7	+0.6
TABS				IAML		03 07 06.2	
	comp=Z,1µm,1.0s						
TKDS	Koohdasht(Taba	3.93	129	Pn	Pn	03 05 42.1	+0.7
ICHK	Chekchek	3.96	168	Pn	Pn	03 05 42.2	+0.2
IPAY	Payeh	4.49	84	Pn	Pn	03 05 50.3	+1.0
LKRN	Lenkeran, Azer	4.52	306	P	Pn	03 05 49.0	-0.5
IMOG	Moghan	4.77	89	Pn	Pn	03 05 54.4	+1.2
IBAF	Bafgh	4.86	158	Pn	Pn	03 05 55.1	+0.7
IKRD	Kardeh	4.93	81	Pn	Pn	03 05 56.5	+1.1
SNGE	Sanandaj	5.08	260	*e*Pn	Pn	03 05 59.5	+2.1
SNGE				IAML		03 07 03.6	
	comp=Z,210nm,1.0s						
GTMR	Gotvand	5.12	226	*e*Pn	Pn	03 05 59.4	+1.6
GTMR				IAML		03 07 42.8	
	comp=Z,390nm,1.0s						
TBJM	Torbat-e-JAM	5.67	97	Pn	Pn	03 06 06.6	+1.2
SHRT	Shahrakht	6.14	112	*e*Pn	Pn	03 06 12.7	+0.8
SHRT				IAML		03 08 14.9	
	comp=Z,210nm,1.0s						
SHRT	Shahrakht	6.14	112	Pn	Pn	03 06 12.9	+1.0
BSRN	Basiran	6.28	130	*e*Pn	Pn	03 06 15.0	+1.2
BSRN				IAML		03 08 36.2	
	comp=Z,180nm,1.0s						
ILBA	Ilam Banvizeh	6.46	249	*e*Pn	Pn	03 06 17.0	+0.9
ILBA				IAML		03 08 36.5	
	comp=Z,87nm,1.0s						
MNGR	Mingechevir, A	6.81	315	P	Pn	03 06 21.1	+0.2
AKT	Akhty	6.96	322	⇓*i*P	Pn	03 06 22.9	-0.2
AKT				*e*S	Sn	03 07 39.0	-3.3
AKT				pmax	pmax		
	comp=Z,53nm,1.6s						
AKT				smax	smax		
	comp=N,178nm,0.5s						
AKT				smax	smax		
	comp=N,157nm,0.5s						
AKT				smax	smax		
	comp=E,132nm,0.4s						
AKT				MLR	MLR		
	comp=Z,1µm,16.0s						
NAX	Nakhchivan	7.00	298	P	Pn	03 06 26.6	+3.0
SEKA	Sheki	7.04	318	P	Pn	03 06 23.9	-0.3
GANJ	Ganja	7.18	311	P	Pn	03 06 26.0	-0.1
HRA	Herat	7.40	101		Pn	03 06 29.7	+0.4
VSHL	Vashlovani	7.50	315	P	Pn	03 06 30.9	+0.5
VSHL				S	Sn	03 07 52.5	-3.1
DDFL	Dedoflistskaro	7.80	315	P	Pn	03 06 36.2	+1.6
DDFL				S	Sn	03 08 09.1	+6.1
DDFL	Dedoflistskaro	7.80	315	P	Pn	03 06 36.2	+1.6
DDFL				S	Sn	03 08 09.1	+6.1
GNI	Garni	7.95	303	Pn	Pn	03 06 38.8	+2.2
	comp=Z,1.5nm,0.3s,baz=224,slow=1.7,SNR=15						
GNI				Sn	Sn	03 08 10.6	+3.9
	comp=Z,0.5nm,0.3s,baz=232,slow=18,SNR=1.4						
	comp=Z,5.5nm,0.5s						
GNI				AML	AML		
GNI	Garni	7.95	303	P	Pn	03 06 39.2	+2.5
GNI				S	Sn	03 08 08.8	+2.1
GNI	Garni	7.95	303	*ce*P	Pn	03 06 38.4	+1.7
GNI	Garni	7.95	303		Pn	03 06 37.3	+0.7
LGD	Lagodekhi	7.99	318	P	Pn	03 06 38.3	+1.1
LGD				S	Sn	03 08 04.4	-3.2
LGD	Lagodekhi	7.99	318	P	Pn	03 06 38.3	+1.1
LGD				S	Sn	03 08 04.4	-3.2
MAK	Makhachkala	8.22	328	*c i*P	Pn	03 06 39.7	-0.5
MAK				*e*S	Sn	03 08 12.3	-0.8
MAK				pmax	pmax		
	comp=Z,361nm,1.3s						
MAK				MLR	MLR		
	comp=Z,276nm,10.0s						
DGRG	David-gareji	8.24	313	P	Pn	03 06 41.1	+0.5
DGRG				S	Sn	03 08 08.8	-5.0
DGRG	David-gareji	8.24	313	P	Pn	03 06 41.1	+0.5
DGRG				S	Sn	03 08 08.8	-5.0
GEVA	Gevas	8.57	288		Pn	03 06 47.8	+2.5
ZHSF	Zahedan	8.96	134	*e*Pn	Pn	03 06 50.1	-0.5
BNDS	Bandar-Abbas	9.01	164	*e*Pn	Pn	03 06 52.5	+1.2
CHRG	Chargali	9.05	316	P	Pn	03 06 51.6	-0.2
CHRG				S	Sn	03 08 32.1	-1.7
SHTL	Shatili	9.14	318	P	Pn	03 06 54.1	+1.0
SHTL				S	Sn	03 08 35.4	-0.7
SHTL	Shatili	9.14	318	P	Pn	03 06 54.1	+1.0
SHTL				S	Sn	03 08 35.4	-0.7
AKH	Akhalkalaki	9.39	307	P	Pn	03 07 00.6	+4.1
AKH	Akhalkalaki	9.39	307	P	Pn	03 07 00.6	+4.1
GURO	Guroymak-BITLI	9.41	288		Pn	03 07 00.2	+3.5
SHME	Shamm	10.31	166	P	Pn	03 07 08.4	-0.6
BANOM	Banah	10.46	166	P	Pn	03 07 13.0	+1.9
NCK	Nalchik	10.55	317	⇓*e*P	Pn	03 07 12.7	+0.4
NEUR	Neytrino	10.91	314	⇑*e*P	Pn	03 07 19.7	+2.3
KOPT	Kop Dagi	10.92	295		Pn	03 07 20.2	+2.6
MASF	Masafi	10.98	167	P	Pn	03 07 18.4	+0.2
	SNR=13						
MDH	Madha	11.07	166	P	Pn	03 07 19.3	-0.1
	SNR=5.5						
KBZ	Khabaz	11.09	316	Pn	Pn	03 07 21.6	+2.1
	comp=Z,0.4nm,0.3s,baz=168,slow=2.1,SNR=6.4						
KBZ				Sn	Sn	03 09 27.4	+3.8
	comp=Z,0.5nm,0.3s,baz=274,slow=20,SNR=4.2						
	comp=Z,2.7nm,0.6s						
KBZ				AML	AML		
KBZ	Khabaz	11.09	316	⇑*e*P	Pn	03 07 20.1	+0.5
NAZ	Nazwa, Dubai	11.27	170	P	Pn	03 07 21.7	-0.4
KVAR	Kislovodsk Arr	11.35	317	Pn	Pn	03 07 24.5	+1.2
	baz=127,slow=20						
	comp=Z,4.0nm,0.8s						
KIV	Kislovodsk	11.35	317	P	Pn	03 07 24.4	+1.1
KIV				S	Sn	03 09 28.7	-1.6
KIV	Kislovodsk	11.35	317	*e*P	Pn	03 07 22.5	-0.8
KIV				*e*S	Sn	03 09 29.1	-1.1
KIV				pmax	pmax		
	comp=Z,10.0nm,1.0s						
KIV				MLR	MLR		
	comp=Z,75nm,13.0s						
KIV	Kislovodsk	11.35	317	Pn	Pn	03 07 22.2	-1.0
KIV	Kislovodsk	11.35	317	P	Pn	03 07 23.1	-0.2
	comp=Z,15nm,0.9s						
UOSS	Minazif	11.40	167	P	Pn	03 07 24.7	+0.8
UOSS				S	Sn	03 09 28.5	-2.9
HATD	Hatta, Dubai	11.50	168	P	Pn	03 07 26.4	+1.0
	SNR=11						
SRVN	Saravan	11.56	136	*e*Pn	Pn	03 07 28.9	+2.7
ASHO	Ashiyiah	11.63	168	P	Pn	03 07 27.1	0.0
	SNR=7.2						
GOF	Gofitskoye	11.91	322	*ce*P	Pn	03 07 28.9	-1.9
GOF				*e*S	Sn	03 09 37.7	-5.9
ARPR	Arapgir-MALATY	12.34	288		Pn	03 07 40.0	+3.1
KBL	Kabul	12.83	93	P	Pn	03 07 45.9	+2.2
KBL	Kabul	12.83	93	Pn	Pn	03 07 45.9	+2.2
LABN	Labinsk	12.88	315	*e*P	Pn	03 07 45.1	+1.0
LABN				*e*S	Sn	03 10 06.0	-1.5
LABN				pmax	pmax		
	comp=Z,26nm,0.8s						
SOC	Sochi	12.90	309	*e*P	Pn	03 07 44.3	0.0
SOC				*e*S	Sn	03 10 10.1	+2.2
SOC				pmax	pmax		
	comp=Z,11nm,1.0s						
SOC				MLR	MLR		
	comp=Z,70nm,12.0s						
HOQ	Hoqain	12.95	164	P	Pn	03 07 44.4	-0.7
ARQ	Araqi	13.03	167	P	Pn	03 07 46.7	+0.6
GAZ	Gaziantep	13.08	279		Pn	03 07 49.5	+2.6
BIDO	Bidbid	13.20	161	P	Pn	03 07 47.4	-1.2
UMZA	Um Al Zommool	13.45	173	P	Pn	03 07 50.6	-1.4
WSAR	Wadi Sarin	13.61	159	P	Pn	03 07 52.8	-1.3
	SNR=7.9						
SMDO	Samad	13.63	162	P	Pn	03 07 54.1	-0.4
ERBR	Yeremizino-Bor	13.68	318	*e*P	Pn	03 07 57.2	+2.2
ERBR				*e*S	Sn	03 10 33.0	+6.0
ERBR				pmax	pmax		
	comp=Z,23nm,0.6s						
BSY	Bisya	13.73	165	P	Pn	03 07 56.4	+0.6
AB31	Akbulak array	13.95	18	P	Pn	03 07 56.0	-2.6
	comp=Z,8.1nm,0.9s,baz=206,slow=14,SNR=37						
AB31				⇓S	Sn	03 10 26.0	-7.5
	comp=Z,25nm,1.2s,baz=199,slow=22,SNR=5.6						
AB31	Akbulak array	13.95	18	*e*P	Pn	03 07 56.0	-2.6
AB31	Akbulak array	13.95	18		Pn	03 07 55.6	-3.0
ABKAR	Akbulak array	13.95	18		Pn	03 07 55.2	-3.4

TOKA	Tokat	13.98	293		P	03 08 04.3	-2.9
BTK	Batken	14.23	69	P	Pn	03 08 02.4	-0.2
BTK	Batken	14.23	69		Pn	03 08 02.4	-0.2
BNN	Bunyan	14.24	286		Pn	03 08 03.5	+0.8
ASF	Jabal al Asfar	14.26	259	Pn	Pn	03 08 05.1	+2.0
	comp=Z,0.1nm,0.3s,baz=44,slow=4.3,SNR=12						
ASF				LR	LR	03 14 32.0	
	comp=Z,520nm,18.2s,baz=26,slow=42						
	comp=Z,0.7nm,0.4s						
ASF				AML	AML		
JMDO	Jabal Madar	14.30	162	P	Pn	03 08 02.5	-1.1
	SNR=8.5						
WBK	Wadi Bani Khal	14.30	159	P	Pn	03 08 03.2	-0.5
RAYN	Ar Rayn	14.32	211	P	Pn	03 08 00.0	-3.9
RAYN	Ar Rayn	14.32	211	P	Pn	03 07 59.8	-4.1
RAYN	Ar Rayn	14.32	211	Pn	Pn	03 07 59.8	-4.1
AKTO	Aktyubinsk	14.67	12	Pn	Pn	03 08 07.2	-1.3
	comp=Z,0.8nm,0.3s,baz=188,slow=12,SNR=13						
AKTO				Sn	Sn	03 10 45.5	-5.6
	comp=Z,0.5nm,0.3s,baz=118,slow=11,SNR=7.5						
AKTO				LR	LR	03 15 15.3	
	comp=Z,306nm,18.9s,baz=202,slow=43						
	comp=Z,6.7nm,0.7s						
AKTO				AML	AML		
AKTO	Aktyubinsk	14.67	12	⇓P	Pn	03 08 06.9	-1.6
	comp=Z,13nm,1.1s						
AKTO				⇓S	Sn	03 10 45.4	-5.6
	comp=Z,15nm,0.9s						
KK31	Karatay Array	14.87	57	P	Pn	03 08 08.4	-2.9
	comp=Z,3.6nm,0.6s,baz=247,slow=16,SNR=15						
KK31				⇓S	Sn	03 10 52.4	-3.5
	comp=Z,4.7nm,0.7s,baz=251,slow=28,SNR=4.2						
KK31	Karatay Array	14.87	57	*i* P	Pn	03 08 08.3	-2.9
KK31	Karatay Array	14.87	57		Pn	03 08 08.9	-2.3
KKAR	Karatay Array	14.87	57	P	Pn	03 08 09.2	-2.0
KKAR	Karatay Array	14.87	57		Pn	03 08 09.2	-2.0
JLN	Jalan Bani Buh	14.87	158	P	Pn	03 08 09.3	-2.0
	SNR=5.2						
DRK	Karamyk	14.89	72	P	Pn	03 08 11.2	-0.6
DRK	Karamyk	14.89	72		Pn	03 08 11.2	-0.6
ANN	Anapa	14.93	310	*e*P	Pn	03 08 15.4	+3.4
ANN				pmax	pmax		
	comp=Z,53nm,1.1s						
MMAI	Mount Meron Ar	15.19	263	Pn	Pn	03 08 16.0	+0.4
	comp=Z,0.5nm,0.3s,baz=137,slow=14,SNR=5.7						
MMAI				LR	LR	03 14 48.3	
	comp=Z,175nm,18.5s,baz=66,slow=40						
	comp=Z,0.2nm,0.3s						
MMAI				AML	AML		
SNOP	Sinop	15.33	298	Pn	Pn	03 08 18.7	+1.3
MHTO	MHTO	15.60	164	P	Pn	03 08 22.3	+1.3
GHAJ	Ghor Haditha	15.64	257		Pn	03 08 23.5	+2.1
GHAJ				IAmb	IAmb	03 08 28.8	
	comp=Z,74nm,1.5s						
BR131	Keskin Array S	16.04	289	P	P	03 08 30.4	+0.3
	SNR=12						
BR131	Keskin Array S	16.04	289	⇑*e*P	Pn	03 08 27.6	+0.9
BR131	Keskin Array S	16.04	289		Pn	03 08 28.2	+1.5
BR131				IAmb	IAmb	03 08 32.9	
	comp=Z,46nm,1.4s						
BRTR	Keskin Array B	16.04	289	Pn	Pn	03 08 28.6	+1.9
	comp=Z,0.1nm,0.3s,baz=113,slow=9.5,SNR=32						
BRTR				LR	LR	03 15 13.2	
	comp=Z,108nm,21.2s,baz=84,slow=40						
	comp=Z,9.4nm,1.1s						
BRTR				AML	AML		
BRTR	Keskin Array B	16.04	289	P	Pn	03 08 28.7	+2.0
ARSB	Arslanbob	16.09	65	P	Pn	03 08 26.9	-0.5
ARSB				pmax	pmax		
	comp=Z,25nm,1.1s						
ARSB	Arslanbob	16.09	65		Pn	03 08 26.9	-0.5
BZK	Bozkurt	16.18	297		Pn	03 08 28.9	+0.6
BZK				IAmb	IAmb	03 08 31.7	
	comp=Z,71nm,1.2s						
ILGA	Ilgaz	16.18	294		Pn	03 08 29.5	+0.8
ILGA				IAmb	IAmb	03 08 35.2	
	comp=Z,35nm,1.3s						
CSS	Mathiatis	16.42	272		Pn	03 08 31.3	-0.2
NIL	Nilore	16.44	93	P	P	03 08 35.7	+1.2
NIL	Nilore	16.44	93	P	Pn	03 08 32.4	+0.6
NIL				pmax	pmax		
	comp=Z,24nm,0.8s						
NIL	Nilore	16.44	93		Pn	03 08 32.4	+0.6
NIL				IAmb	IAmb	03 08 36.8	
	comp=Z,24nm,0.8s						
BELG	Belogornoye	16.77	348	Pn	Pn	03 08 32.8	-3.0
	comp=Z,1.2nm,0.3s,baz=346,slow=12,SNR=8.4						
BELG				Sn	Sn	03 11 32.8	-9.3
	comp=Z,1.6nm,0.3s,baz=283,slow=22,SNR=5.7						
BELG				AML	AML		
BELG	Belogornoye	16.77	348	⇓*e*P	Pn	03 08 35.3	-0.5
BELG				pmax	pmax		
	comp=Z,13nm,0.9s						
EIL	Elat	16.81	253	Pn	Pn	03 08 37.6	+1.2
	comp=Z,0.2nm,0.3s,baz=4.6,slow=3.3,SNR=7.2						
EIL				LR	LR	03 16 16.7	
	comp=Z,706nm,18.9s,baz=74,slow=42						
	comp=Z,12nm,1.0s						
EIL				AML	AML		
VRH	Novokhopyorsk	17.25	334	*e*P	Pn	03 08 38.7	-3.2
VRH				pmax	pmax		
	comp=Z,10.0nm,0.8s						
AAK	Ala-Archa	17.50	62	P	Pn	03 08 45.0	-0.2
	comp=Z,0.5nm,0.3s,baz=236,slow=9.9,SNR=9.7						
AAK				LR	LR	03 16 49.7	
	comp=Z,253nm,20.6s,baz=265,slow=42						
	comp=Z,9.0nm,0.9s						
AAK				AML	AML		
AAK	Ala-Archa	17.50	62	⇓P	Pn	03 08 45.0	-0.2
	comp=Z,12nm,1.1s						
AAK				⇑S	Sn	03 11 58.8	-1.3
	comp=Z,7.0nm,1.3s						
AAK	Ala-Archa	17.50	62	P	Pn	03 08 44.5	-0.6
AAK	Ala-Archa	17.50	62	⇑*e*P	Pn	03 08 45.7	+0.5
AAK				pmax	pmax		
	comp=Z,20nm,1.3s						
AAK	Ala-Archa	17.50	62		Pn	03 08 43.4	-1.8
KEPZ	Antalya-Kepez	17.58	279	⇑P	P	03 08 50.8	+3.6
KSH2	Kashi	17.77	74	P	Pn	03 08 49.3	+0.7
KSH2				pP	pP	03 08 52.8	+0.1
KSH2				S	S	03 12 11.4	-2.4
KSH2				pmax	pmax		
	comp=Z,8.0nm,0.7s						
KSH2				LR	LR		
	comp=N,1µm,15.8s						
KSH2				LR	LR		
	comp=E,850nm,16.7s						
KSH2				LR	LR		
	comp=Z,720nm,17.6s						
MDUB	Mudurnu	17.98	291		P	03 08 52.1	+0.5
MDUB				IAmb	IAmb	03 09 01.7	
	comp=Z,44nm,1.4s						
VORD	Divnogorie	17.98	330	*e*P	Pn	03 08 47.8	-3.1
VORD				pmax	pmax		
	comp=Z,10.0nm,0.9s						
WHFO	Wadi Hawf	18.14	179	P	Pn	03 08 49.9	-3.2
VSR	Storozhevoye	18.23	330	*e*P	Pn	03 08 49.3	-4.6
VSR				pmax	pmax		
	comp=Z,10.0nm,0.9s						
NRN	Naryn	18.34	66	P	Pn	03 08 53.8	-2.0
NRN				pmax	pmax		
	comp=Z,17nm,1.0s						
NRN	Naryn	18.34	66	P	Pn	03 08 53.8	-2.0
VORR	Voronezh	18.56	331	*e*P	P	03 08 55.4	-2.4
VORR				pmax	pmax		
	comp=Z,20nm,0.8s						
RBK	Rabkut	18.57	178	P	P	03 08 56.7	-1.5
ELL	Elmali	18.95	279	P	Pn	03 09 04.3	+1.4
ELL				pmax	pmax		
	comp=Z,12nm,0.9s						
ELL	Elmali	18.95	279	P	Pn	03 09 04.3	+1.4
LPSR	Galich'ya Gora	19.40	333	*e*P	P	03 09 04.0	-3.0
LPSR				pmax	pmax		
	comp=Z,50nm,1.1s						
MANT	Manisa	19.92	284	P	P	03 09 14.1	+1.0
MANT				IAmb	IAmb	03 09 17.5	
	comp=Z,39nm,1.4s						
PURM	Purcari	20.45	308	P	P	03 09 19.9	+1.4
	comp=Z,51nm,1.5s						
PURM				pP	pP	03 09 22.3	+0.7
	comp=Z,51nm,1.5s						
BALB	Balikesir	20.46	288	P	P	03 09 19.9	+1.3
BALB				IAmb	IAmb	03 09 30.8	
	comp=Z,17nm,1.0s						
ARTI	Arti	20.54	8	P	P	03 09 20.0	+0.6
	comp=Z,35nm,0.9s,baz=203,slow=7.0,SNR=15						
ARTI				LR	LR	03 19 20.9	
	comp=Z,458nm,18.5s,baz=191,slow=43						
	comp=Z,35nm,0.9s						
ARTI	Arti	20.54	8*c*	*i*P	P	03 09 21.3	+2.0
ARTI						03 09 38.1	
ARTI				SS	SnSn	03 13 33.0	+5.4
ARTI				pmax	pmax		
	comp=Z,35nm,0.8s						
ARTI	Arti	20.54	8	P	P	03 09 19.1	-0.2
BORK	Borovoye	20.66	30	⇓*e*P	P	03 09 21.9	+1.2
BORK				pmax	pmax		
	comp=Z,58nm,1.4s						
BORK	Borovoye	20.66	30	P	P	03 09 20.6	-0.1
BVAR	Borovoye Array	20.67	30	P	P	03 09 22.0	+1.2
	comp=Z,32nm,0.7s,baz=221,slow=9.5,SNR=43						
BVAR				S	S	03 13 05.7	-5.9
	comp=Z,5.5nm,0.9s,baz=216,slow=23,SNR=5.5						
	comp=Z,32nm,0.7s						
TLCR		20.70	303	⇑P	P	03 09 22.9	+1.7
WUS	Wushi	20.71	68	IAmb	IAmb	03 09 32.2	
	comp=Z,49nm,1.5s						
TIRR	Tirgusor	20.77	301	P	P	03 09 22.3	+0.3
TIRR				pmax	pmax		
	comp=Z,39nm,1.3s						
TIRR	Tirgusor	20.77	301	P	P	03 09 22.3	+0.3
TIRR				IAmb	IAmb	03 09 37.3	
	comp=Z,39nm,1.3s						
TPGR	Topolog	20.87	302	⇑P	P	03 09 24.2	+1.1
TLBR	Topalu	21.05	301	⇑P	P	03 09 26.3	+1.3
CFR	Carcaliu	21.15	303	⇑P	P	03 09 26.7	+0.6
BAL3X	Bal3x, Balta	21.19	311	P	P	03 09 27.2	+0.8
PDGK	Podgornoye	21.23	62	P	P	03 09 26.6	-0.5
PDGK	Podgornoye	21.23	62	P	P	03 09 26.6	-0.5
SVE	Sverdlovsk	21.26	11	*e*P	P	03 09 32.2	+5.0
SVE				*e*S	S	03 13 24.8	+1.6
SVE				pmax	pmax		
	comp=Z,26nm,1.3s						
SVE				MLR	MLR		
	comp=Z,485nm,15.0s						
KIS	Kishinev	21.30	308	P	P	03 09 28.5	+0.8
	comp=Z,48nm,0.6s						
VLDR	Vladesti	21.39	305	⇑P	P	03 09 30.5	+1.9
SCTR	Scanteiesti	21.39	304	⇑P	P	03 09 30.3	+1.6
GHRR		21.90	305	⇑P	P	03 09 35.0	+0.9
ALN	Alexandroupoli	21.92	291	P	P	03 09 34.7	+0.3
ALN				pmax	pmax		
	comp=Z,7.0nm,1.0s						
ALN	Alexandroupoli	21.92	291	P	P	03 09 34.7	+0.3
SORM	Soroca	22.03	311	⇑P	P	03 09 36.0	+0.4
SORM	Soroca	22.03	311	P	P	03 09 35.8	+0.3
OBN	Obninsk	22.25	334*c*	*e*P	P	03 09 39.5	+1.8
OBN				*i* *PP	sP	03 09 58.0	+16
OBN				*e*S	S	03 13 37.9	-4.4
OBN				pmax	pmax		
	comp=Z,58nm,1.3s						
OBN				MLR	MLR		
	comp=Z,140nm,16.0s						
OBN	Obninsk	22.25	334	P	P	03 09 36.9	-0.8
OBN	Obninsk	22.25	334	P	P	03 09 38.8	+1.1
	comp=Z,35nm,1.1s						
SAHR	Sahastru	22.29	304	⇑P	P	03 09 44.5	+6.1
VRI	Vrincioaia	22.30	304	⇑P	P	03 09 42.3	+3.9
VRI	Vrincioaia	22.30	304	P	P	03 09 39.8	+1.4
	comp=Z,24nm,1.9s						
PLOR	Plostina	22.35	304	⇑P	P	03 09 41.6	+2.6
MOS	Moscow	22.38	336	*e*P	P	03 09 40.0	+0.8
MOS				*e*		03 10 02.6	
MOS				*e*S	S	03 13 41.8	-3.2
MOS				*e*SSS	SSS	03 14 22.9	
MOS				pmax	pmax		
	comp=Z,104nm,1.6s						
TESR	Tescani	22.54	306	⇑P	P	03 09 42.3	+1.3
TESR	Tescani	22.54	306	P	P	03 09 41.7	+0.7
	comp=Z,41nm,1.5s						
KIRV	Kirov	22.62	355	LR	LR	03 20 29.5	
	comp=Z,283nm,20.2s,baz=176,slow=42						
KIRV	Kirov	22.62	355	⇓*e*P	P	03 09 43.1	+1.4
AK09	Malin Array Si	22.62	317	P	P	03 09 43.4	+1.6
AK10	Malin Array Si	22.63	317	P	P	03 09 42.6	+0.7
AK07	Malin Array Si	22.63	317	P	P	03 09 42.6	+0.7
AK08	Malin Array Si	22.65	317	P	P	03 09 42.9	+0.8
AK06	Malin Array Si	22.66	317	P	P	03 09 43.1	+0.9
AK05	Malin Array Si	22.67	317	P	P	03 09 43.6	+1.3
AK02	Malin Array Si	22.69	317	P	P	03 09 42.8	+0.3
AKASG	Malin Array Be	22.70	317	P	P	03 09 42.6	0.0
	comp=Z,2.4nm,0.7s,baz=130,slow=9.3,SNR=16						
	comp=Z,2.4nm,0.7s						
AKASG	Malin Array Be	22.70	317	*i* P	P	03 09 44.5	+1.9
AKASG				pmax	pmax		
	comp=Z,4.0nm,0.6s						
AKBB	Malin Array Si	22.70	317	⇑*e*P	P	03 09 42.6	0.0
AKBB				pmax	pmax		
	comp=Z,80nm,1.9s						
AKBB	Malin Array Si	22.70	317	P	P	03 09 43.0	+0.4
AKBB				IAmb	IAmb	03 09 56.5	
	comp=Z,28nm,1.2s						
AKBB	Malin Array Si	22.70	317	P	P	03 09 43.8	+1.2
AK01	Malin Array Si	22.70	317	P	P	03 09 43.0	+0.4
KIEV	Kiev	22.70	317	P	P	03 09 42.5	-0.2
KIEV				pmax	pmax		
	comp=Z,28nm,1.3s						
KIEV	Kiev	22.70	317	P	P	03 09 42.5	-0.2
KIEV				IAmb	IAmb	03 09 56.6	
	comp=Z,28nm,1.2s						
KIEV	Kiev	22.70	317	⇑P	P	03 09 44.4	+1.7
AK03	Malin Array Si	22.71	318	P	P	03 09 43.7	+0.9
AK11	Malin Array Si	22.72	317	P	P	03 09 43.8	+1.0
MLR	Muntele Rosu	22.73	303	P	P	03 09 44.1	+1.0
MLR				pmax	pmax		
	comp=Z,13nm,1.0s						
MLR	Muntele Rosu	22.73	303	P	P	03 09 44.1	+1.0
MLR				IAmb	IAmb	03 09 60.0	
	comp=Z,13nm,1.0s						
MLR	Muntele Rosu	22.73	303	⇓P	P	03 09 45.4	+2.2
AK14	Malin Array Si	22.73	317	P	P	03 09 44.2	+1.3
GIRR	Girov	22.78	307	⇑P	P	03 09 44.7	+1.2
TURR	Turia	22.83	304	⇑P	P	03 09 46.3	+2.2
BIZ	Bicaz	23.03	306	⇓P	P	03 09 49.2	+3.1
PRAR	RASCA	23.08	308	⇑P	P	03 09 52.5	+5.8
KURBB	Kurchatov Arra	23.13	43	P	P	03 09 49.0	+1.8
	comp=Z,1.3nm,0.2s,baz=245,slow=10,SNR=15						
	comp=Z,1.3nm,0.2s						
LUBAR	Lubar, Ukraine	23.15	315	P	P	03 09 48.4	+1.1
IDI	Anoyia	23.17	276	LR	LR	03 21 26.6	
	comp=Z,110nm,19.6s,baz=124,slow=43						
KURK	Kurchatov	23.23	43	P	P	03 09 48.8	+0.7
KURK	Kurchatov	23.23	43	⇓*e*P	P	03 09 49.8	+1.7
KURK				pmax	pmax		
	comp=Z,39nm,1.2s						
KURK	Kurchatov	23.23	43	P	P	03 09 47.4	-0.8
KURK				IAmb	IAmb	03 10 02.1	
	comp=Z,23nm,1.1s						
MI30	MI30,Zelenitsa	23.29	317	P	P	03 09 50.6	+1.8
	comp=Z,31nm,2.7s						
VOIR		23.32	302	⇑P	P	03 09 52.2	+3.0
MI29	MI29, Kamyanyy	23.33	316	P	P	03 09 50.5	+1.4
	comp=Z,154nm,1.7s						
KMPD	K-Podol'skiy	23.36	311	P	P	03 09 51.1	+1.6
ARR	Arges	23.59	302	⇑P	P	03 09 54.0	+2.0
MAKZ	Makanchi	23.77	54	P	P	03 09 54.0	+0.5
MAKZ				pmax	pmax		
	comp=Z,28nm,1.4s						
MAKZ	Makanchi	23.77	54	P	P	03 09 54.0	+0.5
MAKZ				IAmb	IAmb	03 10 01.1	
	comp=Z,28nm,1.4s						
BURAR	Bucovina Array	23.81	308	P	P	03 09 54.3	+0.2
BURAR				pmax	pmax		
	comp=Z,6.0nm,0.8s						
BURAR	Bucovina Array	23.81	308	P	P	03 09 54.3	+0.2
BURAR	Bucovina Array	23.81	308	⇑P	P	03 09 54.0	-0.1
BUR08	Bucovina Ar. S	23.83	308	P	P	03 09 54.5	+0.2
BUR08				IAmb	IAmb	03 10 09.5	
	comp=Z,8.9nm,0.9s						
MK31	Makanchi Array	23.97	55	*i* P	P	03 09 56.8	+1.3
MKAR	Makanchi Array	23.97	55	P	P	03 09 56.8	+1.4
	comp=Z,2.6nm,0.7s,baz=251,slow=8.7,SNR=13						
MKAR				LR	LR	03 21 10.8	
	comp=Z,120nm,21.3s,baz=248,slow=41						
	comp=Z,2.6nm,0.7s						
MKAR	Makanchi Array	23.97	55	P	P	03 09 56.0	+0.6
MKAR	Makanchi Array	23.97	55	P	P	03 09 56.0	+0.6
LOT	Lotru	24.21	302	⇑P	P	03 09 57.9	+0.1
CJR	Cluj-Napoca	24.62	305	P	P	03 10 06.3	+4.9
RNPP5	Staryi Chortor	24.81	316	P	P	03 10 04.4	+1.4
RNPP8	Varash	24.87	316	P	P	03 10 04.5	+0.9
GZR	Gura Zlata	24.88	301	⇑P	P	03 10 05.2	+1.3
RNPP9	Sopachiv	24.89	316	P	P	03 10 04.9	+1.2
DEV	Deva	24.89	302	P	P	03 10 07.0	+3.1
MARR	Marisel-Cluj	24.93	304	⇑P	P	03 10 06.3	+2.0
DRGR		25.23	305	P	P	03 10 09.3	+2.3
DRGR				pmax	pmax		
	comp=Z,25nm,1.8s						
DRGR		25.23	305	⇑P	P	03 10 07.6	+0.6
ITM	Ithomi	25.25	282	P	P	03 10 08.8	+1.6
ITM				IAmb	IAmb	03 10 19.0	
	comp=Z,9.1nm,0.9s						
LVV	L'vov	25.31	312	P	P	03 10 10.4	+2.8
BOVS	Bovan	25.37	297	⇑P	P	03 10 10.1	+1.8
MNK	Minsk	25.47	324	*i* P	P	03 10 09.7	+0.7
MNK				*i*		03 10 44.4	
MNK				*i* PPP	PPP	03 10 53.2	
MNK				*i* S	S	03 14 37.9	+2.0
MNK				*i* SS	SnSn	03 15 30.5	+2.2
MNK				*i* SSS	SSS	03 15 44.7	
MNK				pmax	pmax		
	comp=Z,34nm,0.9s						
MNK				pmax	pmax		
	comp=E,25nm,1.4s						
MNK				pmax	pmax		
	comp=N,39nm,1.1s						
MNK				MLR	MLR		
	comp=N,164nm,19.0s						
MNK				MLR	MLR		
	comp=Z,92nm,15.0s						
MNK				MLR	MLR		
	comp=E,190nm,18.0s						
MNK	Minsk	25.47	324	*i* P	P	03 10 09.7	+0.7
	comp=E,25nm,1.4s						
MNK				*i* P	P	03 10 09.7	+0.7
	comp=N,39nm,1.1s						
MNK				*i* P	P	03 10 09.7	+0.7
	comp=Z,34nm,0.9s,baz=305						
MNK				*i* PP	PnPn	03 10 44.4	+0.2
MNK				*i* PPP	PPP	03 10 53.2	
MNK				*i* S	S	03 14 37.9	+2.0
MNK				*i* SS	SnSn	03 15 30.5	+2.2
MNK				*i* SSS	SSS	03 15 44.8	
MNK				*i* LQ	LQ	03 18 10.0	
MNK				*i* LR	LR	03 20 06.2	
MNK				*i* LRM	MLR	03 22 19.0	
	comp=N,164nm,19.0s						
MNK				*i* LRM	MLR	03 22 31.1	
	comp=Z,92nm,14.9s						
MDVR	Moldovita	25.52	300	⇑P	P	03 10 13.5	+3.9
KOLS	Kolonicke sedl	26.09	309	*e*P	P	03 10 18.2	+3.4
KOLS	Kolonicke sedl	26.09	309	*e*P	P	03 10 18.2	+3.4
NACGM	Naroch	26.22	324	*e*P	P	03 10 17.2	+1.4
	comp=Z,21nm,0.9s,baz=124						
KLMR	Klimovskoe	26.29	345	*e*P	P	03 10 17.6	+1.2
KLMR				pmax	pmax		
	comp=Z,34nm,1.1s						
ATD	Arta Tunnel	26.30	204	P	P	03 10 18.4	+1.5
KEK	Kerkira	26.69	288	P	P	03 10 21.2	+1.0
KEK				IAmb	IAmb	03 10 33.4	
	comp=Z,19nm,1.0s						
WMQ	Urumqi	27.20	63	*e*P	P	03 10 26.9	+2.1
WMQ				LR	LR		
	comp=N,410nm,10.5s						
WMQ				LR	LR		
	comp=E,240nm,10.9s						
WMQ				LR	LR		
	comp=Z,92nm,16.1s						
PSZ	Piszkesteto	27.35	306	P	P	03 10 26.6	+0.4
PSZ				pmax	pmax		
	comp=Z,4.0nm,1.1s						
PSZ	Piszkesteto	27.35	306	P	P	03 10 26.6	+0.4
SUW	Suwalki	27.55	320	P	P	03 10 28.7	+0.9
SUW	Suwalki	27.55	320	P	P	03 10 28.7	+0.9
PABE	Paberze	27.91	323	P	P	03 10 29.9	-1.0
LANS	Liptovska Anna	27.93	308	*e*P	P	03 10 31.7	+0.4
LANS	Liptovska Anna	27.93	308	*e*P	P	03 10 31.7	+0.4
OJC	Ojcow	28.02	311	P	P	03 10 32.0	0.0
OJC	Ojcow	28.02	311	P	P	03 10 32.0	0.0
DGZ	Jazzator, Alta	28.07	50	⇓*e*P	P	03 10 34.8	+2.1
DGZ				pmax	pmax		
	comp=Z,9.0nm,2.1s						
ZAA0	Zalesovo Array	28.10	41	P	P	03 10 32.5	-0.2
ZALV	Zalesovo Beam	28.10	41	P	P	03 10 33.2	+0.5
	comp=Z,1.6nm,0.5s,baz=266,slow=7.8,SNR=9.2						
ZALV				LR	LR	03 22 34.5	
	comp=Z,109nm,18.5s,baz=224,slow=38						
	comp=Z,1.6nm,0.5s						
ZALV	Zalesovo Beam	28.10	41	*i* P	P	03 10 33.5	+0.8
ZALV				pmax	pmax		
	comp=Z,2.0nm,0.5s						
ZALV	Zalesovo Beam	28.10	41	P	P	03 10 32.1	-0.6
VYHS	Vyhne	28.17	307	*e*P	P	03 10 37.1	+3.7
VYHS	Vyhne	28.17	307	*e*P	P	03 10 37.1	+3.7
HYB	Hyderabad	29.01	123	*e*P	P	03 10 41.8	+0.7
HYB				*e*S	S	03 15 33.9	+1.5
MODS	Modra-Piesok	29.16	306	*e*P	P	03 10 44.3	+2.1
MODS	Modra-Piesok	29.16	306	*e*P	P	03 10 44.3	+2.1
EVN	Everest	29.33	97	P	P	03 10 45.2	+0.6
EVN				IAmb	IAmb	03 10 47.7	
	comp=Z,21nm,1.5s						
VRAC	Vranov	29.79	308	LR	LR	03 27 05.8	
	comp=Z,54nm,18.3s,baz=94,slow=45						
FINES	FINESS Array B	30.65	334	P	P	03 10 55.6	+0.4
	comp=Z,4.8nm,0.9s,baz=142,slow=9.6,SNR=7.3						
FINES				LR	LR	03 24 49.2	
	comp=Z,97nm,20.8s,baz=74,slow=39						
	comp=Z,4.8nm,0.9s						
FINES	FINESS Array B	30.65	334	*i* P	P	03 10 56.5	+1.3
FINES				pmax	pmax		
	comp=Z,3.0nm,0.7s						
PRED	Cave del Predi	31.39	302	P	P	03 11 02.5	+0.5
PRED				IAmb	IAmb	03 11 17.1	
	comp=Z,4.2nm,0.9s						
GEC2	GERESS Array S	31.58	306	P	P	03 11 03.7	0.0
GERES	GERESS Array B	31.58	306	P	P	03 11 04.6	+0.9
	comp=Z,0.9nm,0.7s,baz=108,slow=8.6,SNR=12						
GERES				PcP	PcP	03 13 56.8	+0.8
	comp=Z,0.6nm,0.7s,baz=151,slow=2.2,SNR=3.6						
	comp=Z,0.9nm,0.7s						
CLL	Collm	32.47	311	*e*P	P	03 11 12.0	+0.7
CLL	Collm	32.47	311	*e*P	P	03 11 12.0	+0.7
CLL				*i* x	x	03 11 22.7	
	comp=Z,6.0nm,1.0s						
CLL				AMS	AMS	03 28 00.0	
	comp=N,100nm,20.9s						
CLL				AMS	AMS	03 33 00.0	
	comp=Z,100nm,14.8s						
WTTA	Wattenberg	32.77	303	*e*P	P	03 11 14.1	-0.2
	comp=Z,5.4nm,0.8s						
WATA	Walderalm	32.82	303	*e*P	P	03 11 13.8	-0.9
	comp=Z,3.4nm,1.2s						
SQTA	Sankt Quirin	33.06	303	*e*P	P	03 11 16.4	-0.4
	comp=Z,4.1nm,0.8s						
MOTA	Moosalm	33.14	303	*e*P	P	03 11 16.8	-0.7
	comp=Z,6.6nm,1.4s						
GOMU	GeErMu	33.21	77	P	P	03 11 19.1	+0.6
GOMU				pP	pP	03 11 22.1	-0.1
GOMU				sP	sP	03 11 26.3	+2.6
GOMU				S	S	03 16 44.6	+6.0
GOMU				pmax	pmax		
	comp=Z,2.0nm,0.4s						
GOMU				LR	LR		
	comp=N,130nm,13.1s						
GOMU				LR	LR		
	comp=E,170nm,13.5s						
GOMU				LR	LR		
	comp=Z,210nm,13.8s						
FETA	Feichten	33.38	302	*e*P	P	03 11 19.2	-0.3
	comp=Z,5.3nm,1.4s						
RETA	Reutte	33.38	303	*e*P	P	03 11 19.7	+0.2
	comp=Z,1.0nm,0.7s						
DAVOX	Davos/Dischmat	33.95	302	LR	LR	03 28 47.9	
	comp=Z,45nm,18.8s,baz=76,slow=43						
DAVA	Damuels	33.97	303	*e*P	P	03 11 24.2	-0.5
	comp=Z,3.9nm,0.8s						
SHL	Shillong	34.44	97	P	P	03 11 28.5	-0.5
SHL	Shillong	34.44	97	P	P	03 11 28.5	-0.5
STU	Stuttgart	34.53	305	P	P	03 11 28.5	-0.8
STU				pmax	pmax		
	comp=Z,6.0nm,1.1s						
STU	Stuttgart	34.53	305	P	P	03 11 28.5	-0.8
STU				IAmb	IAmb	03 11 30.7	
	comp=Z,5.5nm,1.1s						

KNGR	**Kungurtug, Tuv**	**34.60**	**51**	⇓*e*P	**P**	**03 11 31.3**	**+1.2**
KNGR				pmax	pmax		
	comp=Z,18nm,1.4s						
HFS	**Hagfors**	**34.94**	**326**	P	**P**	**03 11 34.2**	**+1.5**
	comp=Z,4.1nm,0.8s,baz=170,slow=9.0,SNR=3.6						
HFS				LR	LR	03 28 55.1	
	comp=Z,175nm,18.5s,baz=84,slow=42						
	comp=Z,4.1nm,0.8s						
NOA	**NORSAR Array B**	**36.43**	**327**	P	**P**	**03 11 47.1**	**+1.6**
	comp=Z,1.4nm,1.0s,baz=120,slow=8.3,SNR=4.3						
NOA				LR	LR	03 29 59.7	
	comp=Z,123nm,18.1s,baz=100,slow=42						
	comp=Z,1.4nm,1.0s						
GTA2	**Gaotai**	**36.43**	**70**	*e*P	**P**	**03 11 49.9**	**+3.9**
GTA2				pmax	pmax		
	comp=Z,6.0nm,1.4s						
GTA2				LR	LR		
	comp=N,170nm,15.2s						
GTA2				LR	LR		
	comp=E,160nm,13.7s						
GTA2				LR	LR		
	comp=Z,250nm,15.9s						
ARCES	**ARCESS Array B**	**36.77**	**344**	P	**P**	**03 11 49.4**	**+1.0**
	comp=Z,1.2nm,0.7s,baz=174,slow=2.4,SNR=4.4						
ARCES				LR	LR	03 28 56.3	
	comp=Z,130nm,19.1s,baz=98,slow=40						
	comp=Z,1.2nm,0.7s						
NRIK	**Noril'sk**	**38.12**	**19**	LR	LR	03 31 09.3	
	comp=Z,359nm,19.3s,baz=218,slow=42						
KMBO	**Kilima Mbogo**	**40.02**	**206**	LR	LR	03 29 22.9	
	comp=Z,106nm,19.7s,baz=122,slow=37						
LZDM	**Lanzhou Array**	**40.25**	**75**	P	**P**	**03 12 19.4**	**+0.9**
	comp=Z,0.8nm,0.3s,baz=279,slow=3.9,SNR=3.6						
LZDM				LR	LR	03 31 12.6	
	comp=Z,176nm,21.1s,baz=285,slow=40						
	comp=Z,0.8nm,0.3s						
SONM	**Songino Array**	**40.32**	**56**	LR	LR	03 31 45.9	
	comp=Z,120nm,18.8s,baz=263,slow=40						
LZH	**Lanzhou**	**40.33**	**75**	*e*P	**P**	**03 12 17.2**	**-1.7**
LZH				pP	pP	03 12 21.3	-1.2
LZH				pmax	pmax		
	comp=Z,19nm,1.0s						
LZH				LR	LR		
	comp=N,490nm,16.1s						
LZH				LR	LR		
	comp=E,190nm,16.0s						
LZH				LR	LR		
	comp=Z,400nm,17.7s						
ULN	**Ulaanbaatar**	**40.76**	**56**	⇓*e*P	**P**	**03 12 21.8**	**-0.4**
ULN				pmax	pmax		
	comp=Z,6.0nm,1.3s						
PZH	**PanZhiHua**	**41.99**	**89**	P	**P**	**03 12 33.6**	**+1.0**
MBAR	**Mbarara**	**42.22**	**215**	LR	LR	03 29 55.1	
	comp=Z,95nm,18.7s,baz=20,slow=36						
MBAR	**Mbarara**	**42.22**	**215**	*ce*P	**P**	**03 12 35.6**	**+1.1**
MBAR				pmax	pmax		
	comp=Z,8.0nm,1.7s						
EKA	**Eskdalemuir Ar**	**42.58**	**315**	P	**P**	**03 12 37.0**	**+0.2**
	comp=Z,1.0nm,0.5s,baz=99,slow=9.4,SNR=3.5						
	comp=Z,1.0nm,0.5s						
EKA	**Eskdalemuir Ar**	**42.58**	**315**	P	**P**	**03 12 37.0**	**+0.2**
KMI2	**Kunming**	**43.40**	**90**	P	**P**	**03 12 44.8**	**+0.6**
KMI2				pmax	pmax		
	comp=Z,10.0nm,1.1s						
KMI2				LR	LR		
	comp=N,160nm,16.6s						
KMI2				LR	LR		
	comp=E,140nm,14.9s						
CHTO	**Chiang Mai**	**43.47**	**101**	P	**P**	**03 12 44.0**	**-0.5**
CHTO				pmax	pmax		
	comp=Z,7.0nm,0.9s						
CHTO	**Chiang Mai**	**43.47**	**101**	P	**P**	**03 12 44.0**	**-0.5**
CHTO				IAmb	IAmb	03 12 46.2	
	comp=Z,6.5nm,0.9s						
CMAR	**Chiang Mai Arr**	**43.66**	**101**	P	**P**	**03 12 46.6**	**+0.6**
	comp=Z,5.4nm,0.9s,baz=301,slow=8.6,SNR=26						
	comp=Z,5.4nm,0.9s						
CMAR	**Chiang Mai Arr**	**43.66**	**101**	*i* P	**P**	**03 12 46.7**	**+0.6**
CMAR				pmax	pmax		
	comp=Z,6.0nm,0.9s						
CMAR	**Chiang Mai Arr**	**43.66**	**101**	P	**P**	**03 12 46.0**	**-0.1**
ESDC	**Sonseca Array**	**44.78**	**293**	P	**P**	**03 12 55.0**	**+0.1**
	comp=Z,0.3nm,0.7s,baz=71,slow=8.4,SNR=5.4						
	comp=Z,0.3nm,0.7s						
XAN	**Xi'an**	**44.92**	**76**	⇑P	**P**	**03 12 58.0**	**+2.0**
XAN				pP	sP	03 13 05.3	+4.1
XAN				pmax	pmax		
	comp=Z,21nm,1.3s						
SPITS	**Spitsbergen Ar**	**44.96**	**350**	P	**P**	**03 12 56.7**	**+1.0**
	comp=Z,3.4nm,0.8s,baz=124,slow=12,SNR=1.8						
SPITS				LR	LR	03 34 43.8	
	comp=Z,41nm,18.6s,baz=132,slow=40						
	comp=Z,3.4nm,0.8s						
HHC	**Hu-ho-hao-te**	**45.02**	**66**	*e*P	**P**	**03 12 56.8**	**0.0**
HHC				pmax	pmax		
	comp=Z,8.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,100nm,4.4s						
HNS	**HongShan**	**48.31**	**69**	*e*P	**P**	**03 13 25.2**	**+2.7**
HILR	**Hailar Array B**	**48.90**	**52**	LR	LR	03 35 26.0	
	comp=Z,131nm,19.8s,baz=175,slow=38						
TIXI	**Tiksi**	**51.58**	**23**	LR	LR	03 39 36.0	
	comp=Z,394nm,18.7s,baz=282,slow=41						
TIXI	**Tiksi**	**51.58**	**23**	⇑*e*P	**P**	**03 13 46.3**	**-0.5**
TIXI				pmax	pmax		
	comp=Z,8.0nm,1.1s						
TIXI	**Tiksi**	**51.58**	**23**	P	**P**	**03 13 46.0**	**-0.9**
TIXI				IAmb	IAmb	03 14 01.1	
	comp=Z,7.8nm,1.1s						
TORD	**Torodi Ar. Bea**	**51.62**	**257**	P	**P**	**03 13 47.6**	**-0.3**
	comp=Z,1.0nm,1.0s,baz=40,slow=7.6,SNR=3.9						
	comp=Z,1.0nm,1.0s						
TORD	**Torodi Ar. Bea**	**51.62**	**257**	IAmb	IAmb	03 13 50.0	
	comp=Z,23nm,0.6s						
QIZ	**Qiongzhong**	**52.11**	**93**	P	**P**	**03 13 51.5**	**0.0**
QIZ				S	**S**	**03 21 15.4**	**-0.4**
QIZ				LR	LR		
	comp=N,170nm,15.9s						
QIZ				LR	LR		
	comp=E,160nm,17.7s						
QIZ				LR	LR		
	comp=Z,130nm,14.3s						
YAK	**Yakutsk**	**52.52**	**35**	LR	LR	03 40 03.1	
	comp=Z,149nm,18.4s,slow=40						
ZEA	**Zeya**	**52.67**	**46**	*e*P	P	03 14 01.9	+6.7
ZEA				pmax	pmax		
	comp=Z,10.0nm,1.2s						
NJ2	**Nanjing**	**53.41**	**74**	*e*P	**P**	**03 14 00.5**	**-0.5**
NJ2				pmax	pmax		
	comp=Z,11nm,0.5s						
PSI	**Prapat**	**53.45**	**118**	P	**P**	**03 14 00.3**	**-1.3**
PSI				pmax	pmax		
	comp=Z,14nm,1.3s						
RPSI	**Rantau Prapat**	**53.53**	**118**	P	**P**	**03 14 00.3**	**-1.7**
HEH	**HeiHe**	**53.58**	**50**	*e*P	**P**	**03 14 03.6**	**+1.6**
HEH				pmax	pmax		
	comp=Z,9.0nm,1.2s						
ABPO	**Ambohimpanom**	**55.16**	**187**	P	**P**	**03 14 16.2**	**+2.3**
ABPO				pmax	pmax		
	comp=Z,8.0nm,1.2s						
ABPO	**Ambohimpanom**	**55.16**	**187**	P	**P**	**03 14 16.2**	**+2.3**
ABPO				IAmb	IAmb	03 14 17.3	
	comp=Z,8.0nm,1.1s						
LSZ	**Lusaka**	**56.44**	**210**	LR	LR	03 38 58.4	
	comp=Z,123nm,18.7s,baz=26,slow=36						
KLR	**Kul'dur**	**56.57**	**50**	LR	LR	03 41 31.0	
	comp=Z,82nm,18.4s,baz=290,slow=39						
KLR	**Kul'dur**	**56.57**	**50**	⇓*e*P	**P**	**03 14 24.6**	**+1.0**
KLR				pmax	pmax		
	comp=Z,24nm,3.8s						
KSRS	**Korea Array**	**58.13**	**65**	P	**P**	**03 14 35.8**	**+1.0**
	comp=Z,1.0nm,0.6s,baz=274,slow=6.1,SNR=4.6						
KSRS				LR	LR	03 40 12.1	
	comp=Z,69nm,19.4s,baz=10.0,slow=37						
	comp=Z,1.0nm,0.6s						
USRK	**Ussuriysk Ar.**	**58.43**	**56**	LR	LR	03 43 21.3	
	comp=Z,94nm,18.3s,baz=281,slow=40						
TPUB	**Ta-pu**	**58.70**	**83**	P	**P**	**03 14 40.3**	**+1.3**
SSLB	**Suanglung**	**58.72**	**82**	P	**P**	**03 14 39.6**	**+0.5**
VLA	**Vladivostok**	**58.76**	**57**	⇑*e*P	**P**	**03 14 38.4**	**-0.7**
VLA				pmax	pmax		
	comp=Z,139nm,2.1s						
YULB	**Yu-li**	**59.19**	**82**	P	**P**	**03 14 43.8**	**+1.4**
DBIC	**Dimbokro**	**60.64**	**256**	LR	LR	03 44 06.9	
	comp=Z,90nm,18.3s,baz=48,slow=39						
SEY	**Seymchan**	**62.32**	**31**	⇑*e*P	**P**	**03 15 05.2**	**+2.1**
SEY				pmax	pmax		
	comp=Z,10.0nm,1.4s						
SFJD	**Kangerlussuaq**	**62.45**	**335**	LR	LR	03 44 13.6	
	comp=Z,117nm,18.6s,baz=68,slow=38						
MA2	**Magadan**	**63.07**	**34**	LR	LR	03 47 09.2	
	comp=Z,117nm,18.4s,baz=316,slow=40						
TSUM	**Tsumeb**	**64.66**	**218**	LR	LR	03 44 33.1	
	comp=Z,103nm,20.1s,baz=76,slow=37						
BILL	**Bilibino**	**64.80**	**23**	⇑*e*P	**P**	**03 15 23.4**	**+4.0**
BILL				pmax	pmax		
	comp=Z,15nm,1.9s						
ASAJ	**Asahikawa**	**65.42**	**52**	LR	LR	03 46 03.3	
	comp=Z,74nm,18.3s,baz=259,slow=38						
MJAR	**Matsushiro Arr**	**65.95**	**61**	LR	LR	03 46 43.9	
	comp=Z,39nm,18.6s,baz=297,slow=38						
LBTB	**Lobatse**	**66.26**	**208**	LR	LR	03 45 12.7	
	comp=Z,147nm,18.3s,baz=26,slow=37						
RES	**Resolute Bay**	**67.49**	**351**	LR	LR	03 51 58.6	
	comp=Z,44nm,18.8s,baz=26,slow=42						
PETK	**Petropavlovsk-**	**69.62**	**39**	LR	LR	03 49 31.3	
	comp=Z,79nm,18.1s,baz=286,slow=39						
BOSA	**Boshof**	**69.66**	**206**	P	**P**	**03 15 51.8**	**+1.1**
	comp=Z,4.1nm,0.8s,baz=30,slow=4.4,SNR=5.5						
BOSA				LR	LR	03 49 04.1	
	comp=Z,146nm,18.5s,baz=26,slow=38						
	comp=Z,4.1nm,0.8s						
BOSA	**Boshof**	**69.66**	**206**	IAmb	IAmb	03 15 54.0	
	comp=Z,17nm,1.2s						
SUR	**Sutherland**	**74.70**	**208**	LR	LR	03 51 07.7	
	comp=Z,196nm,19.2s,baz=351,slow=37						
INK	**Inuvik**	**75.75**	**3**	LR	LR	03 53 58.8	
	comp=Z,36nm,21.9s,baz=322,slow=39						
SHEM	**Shemya Is, Ala**	**77.58**	**32**	LR	LR	03 54 18.9	
	comp=Z,86nm,18.4s,baz=289,slow=38						
ILAR	**Eielson Array**	**78.17**	**9**	LR	LR	03 56 23.0	
	comp=Z,41nm,19.8s,baz=280,slow=40						
YKA	**Yellowknife Ar**	**81.24**	**354**	LR	LR	03 59 35.9	
	comp=Z,45nm,18.1s,baz=355,slow=40						
KDAK	**Kodiak Island**	**83.91**	**14**	LR	LR	03 59 36.2	
	comp=Z,63nm,18.6s,baz=333,slow=39						
DLBC	**Dease Lake**	**85.74**	**2**	LR	LR	04 01 34.9	
	comp=Z,22nm,18.7s,baz=354,slow=40						
SADO	**Sadowa**	**88.75**	**328**	LR	LR	03 58 12.7	
	comp=Z,26nm,20.4s,baz=106,slow=36						
ULM	**Lac du Bonnet**	**89.82**	**341**	LR	LR	04 00 18.0	
	comp=Z,69nm,18.7s,baz=350,slow=37						
BBB	**Bella Bella**	**92.04**	**1**	LR	LR	04 06 46.5	
	comp=Z,21nm,18.1s,baz=143,slow=40						
NEW	**Newport**	**95.56**	**354**	LR	LR	04 07 47.0	
	comp=Z,47nm,18.1s,baz=4.5,slow=40						
ASAR	**Alice Springs**	**96.39**	**115**	P	**P**	**03 18 10.2**	**-0.2**
	comp=Z,0.7nm,0.8s,baz=316,slow=5.2,SNR=4.9						
	comp=Z,0.7nm,0.8s						
TKL	**Tuckaleechee C**	**98.23**	**326**	LR	LR	04 03 10.8	
	comp=Z,25nm,20.7s,baz=30,slow=36						
PDAR	**Pinedale Array**	**99.96**	**347**	LR	LR	04 06 17.1	
	comp=Z,21nm,21.3s,baz=350,slow=37						

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*IDC **13** 03:27:41.7±2.9, 21°.60S×179°.79W, h0^{km}, mb4.0/3, mbtmp4.0/3, Error ellipse: s-maj=286.0km s-min=33.9km az=162.0*

*NEIC **13** 03:28:36.0±0.6, 24°.2S±0°.2×180°.0W±0°.2, h551^{km}±13^{km}, mb4.3/14, Error ellipse: s-maj=30.5km s-min=20.1km az=196.0*

ISC 13 03:28:32.6±1.2, 24°.0S±0°.2×179°.9W±0°.2, h518^{km}, n20, σ0^{s}.55/20, mb4.2/10, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BHW	**Baring Head**	**17.87**	**193**	P	**P**	**03 32 11.2**	**+0.5**
LTZ	**Lake Taylor**	**19.79**	**197**	P	**P**	**03 32 28.5**	**+0.3**
ARMA	**Armidale**	**26.04**	**250**	P	**P**	**03 33 24.4**	**0.0**
ARMA				IAmb	IAmb	03 33 40.8	
	comp=Z,14nm,1.4s						
EIDS	**Eidsvold**	**26.35**	**261**	P	**P**	**03 33 27.8**	**+0.7**
EIDS				IAmb	IAmb	03 33 29.9	
	comp=Z,12nm,1.1s						
CTAO	**Charters Tower**	**31.54**	**270**	P	**P**	**03 34 13.0**	**+0.7**
CTAO				IAmb	IAmb	03 34 13.4	
	comp=Z,9.6nm,1.1s						
BBOO	**Buckleboo**	**39.45**	**247**	P	**P**	**03 35 18.4**	**+0.5**
BBOO				IAmb	IAmb	03 35 33.8	
	comp=Z,14nm,1.4s						
AS31	**Alice Springs**	**42.07**	**261**	P	**P**	**03 35 39.0**	**-0.1**
ASAR	**Alice Springs**	**42.08**	**261**	P	**P**	**03 35 39.6**	**+0.6**
	comp=Z,1.7nm,0.7s,baz=101,slow=7.6,SNR=16						
	comp=Z,1.7nm,0.7s						
ASAR	**Alice Springs**	**42.08**	**261**	P	**P**	**03 35 39.2**	**+0.2**
WR8	**Warramunga Arr**	**42.31**	**266**	P	**P**	**03 35 41.0**	**+0.1**
WR8				IAmb	IAmb	03 35 52.7	
	comp=Z,6.0nm,1.2s						
WB0	**Warramunga Arr**	**42.45**	**267**	P	**P**	**03 35 42.0**	**0.0**
WRA	**Warramunga Arr**	**42.46**	**266**	P	**P**	**03 35 42.0**	**-0.1**
	comp=Z,2.2nm,0.4s,baz=96,slow=8.2,SNR=88						
	comp=Z,2.2nm,0.4s						
FORT	**Forrest**	**46.33**	**250**	P	**P**	**03 36 11.1**	**-0.7**
FORT				IAmb	IAmb	03 36 27.1	
	comp=Z,6.3nm,1.1s						
KNRA	**Kununurra**	**48.75**	**270**	P	**P**	**03 36 30.3**	**+0.2**
FITZ	**Fitzroy Crossi**	**50.88**	**266**	P	**P**	**03 36 46.2**	**+0.4**
SOEI	**Soe**	**54.92**	**275**	P	**P**	**03 37 15.3**	**+0.5**
MORW	**Morawa**	**56.89**	**250**	P	**P**	**03 37 26.9**	**-1.3**
MORW				IAmb	IAmb	03 37 35.3	
	comp=Z,25nm,1.5s						
UGM	**Wanagama**	**68.17**	**271**	P	**P**	**03 38 40.6**	**-0.8**
TXAR	**Lajitas Array**	**90.44**	**58**	P	**P**	**03 40 39.2**	**+0.1**
	comp=Z,0.3nm,0.8s,baz=213,slow=6.0,SNR=4.6						
	comp=Z,0.3nm,0.8s						
TXAR	**Lajitas Array**	**90.44**	**58**	P	**P**	**03 40 39.3**	**+0.2**

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*IDC **13** 03:36:05.0±3.5, 5°.19S×152°.79E, h44^{km}±28^{km}, mb3.7/8, mbtmp3.9/9, ML2.2/1, MS3.2/4, Error ellipse: s-maj=34.6km s-min=12.6km az=95.0*

*NEIC **13** 03:36:06.5±1.8, 5°.20S±0°.06×152°.67E±0°.04, h46^{km}±7^{km}, mb4.4/21, Error ellipse: s-maj=9.8km s-min=4.4km az=209.0*

ISC 13 03:36:06.9±0.8, 5°.14S±0°.07×152°.6E±0°.1, h55^{km}, n39, σ1^{s}.02/35, mb4.2/18, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRVT	**Keravat (AS076**	**1.02**	**324**	P	**Pn**	**03 36 24.2**	**-0.8**
	5µm,0.3s,baz=92,slow=0.5,SNR=220						
KRVT				S	**Sn**	**03 36 39.8**	**+1.4**
	9µm,0.6s,baz=285,slow=22,SNR=18						
KRVT				LR	LR	03 36 49.3	
	comp=Z,449nm,18.0s,baz=184,slow=38						
RABL	**Rabaul**	**1.05**	**334**		**Pn**	**03 36 24.6**	**-0.9**
PMG	**Port Moresby**	**6.88**	**232**	P	**Pn**	**03 37 46.6**	**+1.4**
	2.5nm,0.3s,baz=66,slow=6.0,SNR=3.8						
PMG				S	**Sn**	**03 39 00.9**	**-1.2**
	27nm,0.6s,baz=122,slow=20,SNR=4.5						
	13nm,0.7s						
PMG				AML	AML		
HNR	**Honiara**	**8.43**	**121**	LR	LR	03 41 16.3	
	comp=Z,81nm,20.8s,baz=42,slow=38						
CTA	**Charters Tower**	**16.10**	**202**	LR	LR	03 45 00.9	
	comp=Z,79nm,18.9s,baz=29,slow=33						
MTN	**Manton Dam**	**22.54**	**249**	P	**P**	**03 41 02.7**	**+0.1**
WR8	**Warramunga Arr**	**22.97**	**229**	P	**P**	**03 41 05.5**	**-1.6**
WR8				IAmb	IAmb	03 41 12.9	
	comp=Z,14nm,1.5s						
WRA	**Warramunga Arr**	**23.09**	**229**	P	**P**	**03 41 08.2**	**0.0**
	comp=Z,1.4nm,0.8s,baz=52,slow=9.8,SNR=11						
	comp=Z,1.4nm,0.8s						
WRA	**Warramunga Arr**	**23.09**	**229**	P	**P**	**03 41 06.2**	**-2.0**
KNRA	**Kununurra**	**25.66**	**244**	P	**P**	**03 41 31.4**	**-0.4**
ASAR	**Alice Springs**	**25.78**	**223**	P	**P**	**03 41 32.7**	**-0.2**
	comp=Z,0.7nm,0.6s,baz=54,slow=8.7,SNR=11						
	comp=Z,0.7nm,0.6s						
FITZ	**Fitzroy Crossi**	**29.34**	**242**	P	**P**	**03 42 03.7**	**-1.1**
CMAR	**Chiang Mai Arr**	**57.86**	**295**	P	**P**	**03 45 54.1**	**+0.6**
	comp=Z,1.2nm,0.3s,baz=100,slow=5.9,SNR=5.4						
	comp=Z,1.2nm,0.3s						
CMAR	**Chiang Mai Arr**	**57.86**	**295**	P	**P**	**03 45 53.7**	**+0.2**
ACHA	**Angle Creek He**	**75.60**	**26**	P	**P**	**03 47 45.6**	**-0.2**
ACHA				IAmb	IAmb	03 47 46.5	
	comp=Z,2.2nm,0.9s						
K15K	**Wolf Creek Mou**	**75.78**	**20**	P	**P**	**03 47 47.9**	**+1.2**
M16K	**Timber Creek**	**75.87**	**22**	P	**P**	**03 47 48.5**	**+1.3**
M16K				IAmb	IAmb	03 47 49.1	
	comp=Z,5.0nm,0.8s						
J16K	**Anvik River**	**76.77**	**20**	P	**P**	**03 47 53.9**	**+1.6**
L19K	**White Mountain**	**78.13**	**22**	P	**P**	**03 48 01.0**	**+1.0**
L19K				IAmb	IAmb	03 48 02.2	
	comp=Z,3.8nm,0.8s						
J20K	**Nowinta River**	**79.57**	**21**	P	**P**	**03 48 08.3**	**+0.6**
J20K				IAmb	IAmb	03 48 09.8	
	comp=Z,3.2nm,0.7s						
G19K	**Purcell Mounta**	**79.78**	**19**		**P**	**03 48 09.6**	**+0.8**
CAST	**Castle Rocks**	**79.89**	**22**	P	**P**	**03 48 08.9**	**-0.7**
CAST				IAmb	IAmb	03 48 10.3	
	comp=Z,2.9nm,0.8s						
F19K	**Shaleruckik Mo**	**80.00**	**18**		**P**	**03 48 10.9**	**+0.9**
F19K				IAmb	IAmb	03 48 12.0	
	comp=Z,3.8nm,0.8s						
PWL	**Port Wells**	**80.03**	**25**	P	**P**	**03 48 10.8**	**+0.4**
MKAR	**Makanchi Array**	**80.46**	**319**	P	**P**	**03 48 13.4**	**+0.4**
	comp=Z,0.2nm,0.5s,baz=93,slow=8.0,SNR=1.4						
	comp=Z,0.2nm,0.5s						
E19K	**Redstone River**	**80.56**	**17**		**P**	**03 48 14.6**	**+1.5**
I21K	**Tanana**	**80.91**	**21**	P	**P**	**03 48 16.5**	**+1.6**
I21K				IAmb	IAmb	03 48 17.8	
	comp=Z,4.6nm,0.9s						
MLY	**Manley**	**81.26**	**21**	IAmb	IAmb	03 48 18.1	
	comp=Z,4.7nm,0.6s						
ZALV	**Zalesovo Beam**	**81.33**	**326**	P	**P**	**03 48 16.5**	**-0.9**
	comp=Z,0.8nm,0.5s,baz=116,slow=5.5,SNR=2.8						
	comp=Z,0.8nm,0.5s						
ILAR	**Eielson Array**	**82.54**	**22**	P	**P**	**03 48 21.9**	**-1.7**
	comp=Z,1.9nm,0.8s,baz=250,slow=5.5,SNR=14						
	comp=Z,1.9nm,0.8s						
J25K	**Salcha River,**	**83.04**	**23**	IAmb	IAmb	03 48 27.1	
	comp=Z,4.2nm,0.7s						
QSPA	**South Pole Qui**	**84.82**	**180**	P	**P**	**03 48 35.2**	**-0.3**
	comp=Z,1.3nm,0.9s,baz=96,slow=0.2,SNR=7.1						
	comp=Z,1.3nm,0.9s						
QSPA	**South Pole Qui**	**84.82**	**180**	P	**P**	**03 48 35.2**	**-0.3**
QSPA				IAmb	IAmb	03 48 39.4	
	comp=Z,2.5nm,1.1s						
MAW	**Mawson**	**85.19**	**203**	P	**P**	**03 48 37.0**	**-0.1**
	comp=Z,0.7nm,0.6s,baz=202,slow=5.4,SNR=2.0						
	comp=Z,0.7nm,0.6s						
INK	**Inuvik**	**88.83**	**21**	LR	LR	04 25 07.2	
	comp=Z,15nm,19.3s,baz=338,slow=33						
YKA	**Yellowknife Ar**	**95.81**	**28**	LR	LR	04 26 20.5	
	comp=Z,12nm,20.1s,baz=340,slow=32						
GERES	**GERESS Array B**	**124.25**	**328**	PKP	**PKPdf**	**03 55 00.1**	**+0.3**
	comp=Z,0.2nm,0.3s,baz=162,slow=0.4,SNR=4.5						
MD01	**Midelt array s**	**145.27**	**325**		**PKPdf**	**03 55 40.0**	**+0.6**
TORD	**Torodi Ar. Bea**	**150.24**	**288**	PKPbc	**PKPbc**	**03 55 52.3**	**-0.7**
	comp=Z,0.5nm,0.6s,baz=89,slow=3.3,SNR=5.5						

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*SJA **13** 03:37:04.6±0.7, 21°.36S×69°.85W, h53^{km}±5^{km}, ML3.6, MW3.6*

*GUC **13** 03:37:05.2±0.8, 21°.36S×69°.88W, h51^{km}±3^{km}, ML3.7*

ISC 13 03:37:06.2±1.2, 21°.37S±0°.02×69°.88W±0°.05, h47^{km}±7^{km}, n29, σ1^{s}.63/50, 7D, Northern Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PB02	**IPOC Station P**	**0.06**	**345**	*e*P	**Pn**	**03 37 13.5**	**-0.2**
PB02				IAML		03 37 20.8	
	comp=Z,10µm,0.1s						
PB02	**IPOC Station P**	**0.06**	**345**	⇓*i*P	**Pn**	**03 37 13.8**	**0.0**
PB02				*e*S	**Sn**	**03 37 19.2**	**+0.2**
PB02				IAML		03 37 19.7	
	comp=E,23µm,0.2s						
PB07	**IPOC Station P**	**0.35**	**181**	*e*P	**Pn**	**03 37 15.6**	**-0.2**
PB07				IAML		03 37 25.0	
	comp=Z,3µm,0.1s						
PB07	**IPOC Station P**	**0.35**	**181**	⇓*i*P	**Pn**	**03 37 15.8**	**0.0**
PB07				*e*S	**Sn**	**03 37 22.9**	**+0.3**
PB07				IAML		03 37 23.4	
	comp=N,6µm,0.1s						
PB03	**IPOC Station P**	**0.68**	**170**	*e*P	**Pn**	**03 37 19.7**	**-0.1**
PB03				IAML		03 37 32.1	
	comp=Z,4µm,0.3s						
PB03	**IPOC Station P**	**0.68**	**170**	⇓*i*P	**Pn**	**03 37 19.7**	**-0.1**
PB03				*e*S	**Sn**	**03 37 29.6**	**+0.1**
PB03				IAML		03 37 30.9	
	comp=E,5µm,0.2s						
PB09	**IPOC Station P**	**0.73**	**125**	*e*P	**Pn**	**03 37 20.1**	**-0.3**
PB09				*e*S	**Sn**	**03 37 30.4**	**-0.3**
PB09				IAML		03 37 31.0	
	comp=Z,3µm,0.3s						
PB09	**IPOC Station P**	**0.73**	**125**	⇓*i*P	**Pn**	**03 37 20.2**	**-0.2**
PB09				*e*S	**Sn**	**03 37 30.1**	**-0.5**
PB09				IAML		03 37 31.4	
	comp=E,5µm,0.2s						
TA01	**Diego Aracena**	**0.85**	**341**	*e*P	**Pn**	**03 37 21.1**	**-0.7**
TA01				*e*S	**Sn**	**03 37 33.9**	**+0.6**
TA01				IAML		03 37 37.8	
	comp=Z,760nm,0.2s						
TA01	**Diego Aracena**	**0.85**	**341**	⇓*i*P	**Pn**	**03 37 20.9**	**-0.9**
TA01				*e*S	**Sn**	**03 37 32.5**	**-0.7**
TA01				IAML		03 37 35.9	
	comp=E,1µm,0.2s						
TA02	**Huaiquique**	**1.12**	**348**	*e*P	**Pn**	**03 37 25.3**	**-0.2**
TA02				*e*S	**Sn**	**03 37 41.0**	**+1.2**
TA02				IAML		03 37 41.6	
	comp=Z,2µm,0.1s						
TA02	**Huaiquique**	**1.12**	**348**	*e*P	**Pn**	**03 37 25.1**	**-0.4**
TA02				*e*S	**Sn**	**03 37 40.0**	**+0.2**
TA02				IAML		03 37 41.5	
	comp=E,5µm,0.1s						
PB06	**IPOC Station P**	**1.36**	**168**	*e*P	**Pn**	**03 37 28.7**	**-0.1**
PB06				*e*S	Sn	03 37 35.8	-10
PB06				IAML		03 37 50.3	
	comp=Z,780nm,0.3s						
PB06	**IPOC Station P**	**1.36**	**168**	*e*P	**Pn**	**03 37 28.5**	**-0.4**
PB06				*e*S	**Sn**	**03 37 46.4**	**+0.6**
PB06				IAML		03 37 49.6	
	comp=E,868nm,0.2s						
PB08	**IPOC Station P**	**1.40**	**29**	*e*P	**Pn**	**03 37 29.4**	**-0.3**
PB08				*e*S	**Sn**	**03 37 47.7**	**+0.5**
PB08				IAML		03 37 49.7	
	comp=Z,827nm,0.4s						
PB08	**IPOC Station P**	**1.40**	**29**	⇓*i*P	**Pn**	**03 37 29.6**	**-0.1**
PB08				*e*S	**Sn**	**03 37 46.9**	**-0.4**
PB08				IAML		03 37 48.3	
	comp=N,1µm,0.4s						
PB05	**IPOC Station P**	**1.50**	**191**	*e*P	**Pn**	**03 37 31.3**	**+0.5**
PB05				*e*S	**Sn**	**03 37 50.7**	**+1.4**
PB05				IAML		03 37 54.9	
	comp=Z,463nm,0.3s						
PB05	**IPOC Station P**	**1.50**	**191**	*e*P	**Pn**	**03 37 31.2**	**+0.4**
PB05				*e*S	**Sn**	**03 37 50.5**	**+1.1**
PB05				IAML		03 37 53.6	
	comp=N,732nm,0.3s						
PB11	**IPOC Station P**	**1.62**	**8**	*e*P	**Pn**	**03 37 32.1**	**-0.4**
PB11				*e*S	**Sn**	**03 37 52.2**	**0.0**
PB11				IAML		03 37 56.0	
	comp=Z,900nm,0.2s						
PB11	**IPOC Station P**	**1.62**	**8**	⇓*i*P	**Pn**	**03 37 32.1**	**-0.4**
PB11				*e*S	**Sn**	**03 37 52.1**	**-0.1**
PB11				IAML		03 37 54.2	
	comp=E,1µm,0.3s						
PSGCX	**Pisagua**	**1.78**	**353**	*e*P	**Pn**	**03 37 34.3**	**-0.3**
PSGCX				*e*S	**Sn**	**03 37 48.7**	**-7.4**
PSGCX				IAML		03 38 11.4	
	comp=Z,256nm,0.3s						
PSGCX	**Pisagua**	**1.78**	**353**	*e*P	**Pn**	**03 37 34.1**	**-0.5**
PSGCX				*e*S	**Sn**	**03 37 56.7**	**+0.5**
GO01	**Chusmiza**	**1.81**	**21**	*e*P	**Pn**	**03 37 35.6**	**+0.1**
GO01				*e*S	**Sn**	**03 37 58.4**	**+0.9**
GO01				IAML		03 38 00.9	
	comp=Z,712nm,0.3s						
GO01	**Chusmiza**	**1.81**	**21**	*e*P	**Pn**	**03 37 35.5**	**+0.1**
GO01				*e*S	**Sn**	**03 37 58.2**	**+0.7**
GO01				IAML		03 38 00.8	
	comp=E,2µm,0.1s						
AF01	**San Pedro de A**	**2.23**	**135**	*e*P	Pn	03 37 21.9	-19
AF01				*e*S	**Sn**	**03 38 07.9**	**+0.5**
AF01				IAML		03 38 26.1	
	comp=Z,758nm,0.6s						
PB12	**IPOC Station P**	**2.78**	**351**	*e*P	**Pn**	**03 37 47.9**	**-0.4**
PB12				*e*S	**Sn**	**03 38 27.7**	**+7.0**
PB12				IAML		03 38 35.2	
	comp=Z,210nm,0.4s						
PB16	**IPOC Station P**	**3.04**	**7**	*e*P	**Pn**	**03 37 53.3**	**+0.9**
PB16				*e*S	Sn	03 38 09.9	-18
PB16				IAML		03 38 48.8	
	comp=Z,64nm,0.7s						
PB14	**IPOC Station P**	**3.27**	**188**	*e*P	**Pn**	**03 37 54.2**	**-1.1**
PB14				IAML		03 38 52.5	
	comp=Z,71nm,0.6s						
AC01	**Pan de Azucar**	**4.80**	**188**	*e*P	**Pn**	**03 38 13.9**	**-2.0**

AC01				IAML		03 39 45.0	
	comp=Z,30nm,1.2s						

IDC 13 03:44:35.1±1.6, 16.°30N×145.°56E, h240^{km}±18^{km}, mb3.3/6, mbtmp3.9/7, Error ellipse: s-maj=31.4km s-min=23.0km az=78.0

NEIC 13 03:44:35.5±1.3, 16.°3N±0.°1×145.°4E±0.°2, h235^{km}±7^{km}, mb4.0/8, Error ellipse: s-maj=23.6km s-min=14.0km az=78.0

ISC 13 03:44:35.6±0.7, 16.°21N±0.°09×145.°5E±0.°2, h250^{km}, n22, σ0.^{s}83/24, mb3.9/10, Mariana Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DPSS	**Saipan**	**1.00**	**165**	Pn	**Pn**	**03 45 10.7**	**0.0**
DPSS				Sn	**S**	**03 45 36.6**	**-1.7**
GUMO	**Guam**	**2.69**	**194**	P	**Pn**	**03 45 24.9**	**+0.1**
	36nm,0.6s,baz=75,slow=19,SNR=2.2						
GUMO				S	**S**	**03 46 04.1**	**+0.4**
	33nm,0.3s,baz=154,slow=23,SNR=8.1						
GUMO	**Guam**	**2.69**	**194**		**Pn**	**03 45 24.3**	**-0.5**
WR8	**Warramunga Arr**	**37.54**	**197**	P	**P**	**03 51 26.4**	**+0.2**
WRA	**Warramunga Arr**	**37.58**	**197**	P	**P**	**03 51 26.9**	**+0.5**
	0.5nm,1.0s,baz=20,slow=8.8,SNR=5.3						
	0.5nm,1.0s						
CHTO	**Chiang Mai**	**44.41**	**280**	P	**P**	**03 52 21.3**	**-0.8**
CHTO				IAmb	IAmb	03 52 22.1	
	comp=Z,5.7nm,0.8s						
BBOO	**Buckleboo**	**49.58**	**190**	P	**P**	**03 53 02.7**	**+1.1**
MKAR	**Makanchi Array**	**60.08**	**315**	P	**P**	**03 54 17.3**	**+0.7**
	comp=Z,0.3nm,0.3s,baz=92,slow=9.3,SNR=6.2						
	comp=Z,0.3nm,0.3s						
MKAR	**Makanchi Array**	**60.08**	**315**	P	**P**	**03 54 16.9**	**+0.2**
G19K	**Purcell Mounta**	**62.35**	**23**	P	**P**	**03 54 32.1**	**+0.6**
G19K				IAmb	IAmb	03 54 36.2	
	comp=Z,5.7nm,1.4s						
J20K	**Nowinta River**	**62.76**	**25**	P	**P**	**03 54 35.4**	**+1.3**
J20K				IAmb	IAmb	03 54 57.3	
	comp=Z,4.2nm,1.4s						
KURBB	**Kurchatov Arra**	**63.06**	**319**	P	**P**	**03 54 36.7**	**+0.3**
	comp=Z,2.5nm,0.6s,baz=99,slow=6.9,SNR=11						
	comp=Z,2.5nm,0.6s						
D20K	**Etivluk River**	**63.58**	**20**	P	**P**	**03 54 39.7**	**+0.2**
D20K				IAmb	IAmb	03 55 02.0	
	comp=Z,4.2nm,1.2s						
ILAR	**Eielson Array**	**65.94**	**26**	P	**P**	**03 54 53.7**	**-1.0**
	comp=Z,0.3nm,0.4s,baz=252,slow=5.8,SNR=4.4						
	comp=Z,0.3nm,0.4s						
BMAR	**Burnt Mountain**	**67.45**	**23**	P	**P**	**03 55 05.0**	**+0.7**
BVAR	**Borovoye Array**	**68.29**	**321**	P	**P**	**03 55 09.8**	**+0.1**
	comp=Z,1.6nm,0.4s,baz=103,slow=7.8,SNR=6.0						
	comp=Z,1.6nm,0.4s						
AB31	**Akbulak array**	**75.04**	**317**	P	**P**	**03 55 49.5**	**-0.4**
ABKAR	**Akbulak array**	**75.04**	**317**	P	**P**	**03 55 49.1**	**-0.8**
YKA	**Yellowknife Ar**	**80.25**	**28**	P	**P**	**03 56 19.0**	**+0.7**
	comp=Z,0.9nm,0.7s,baz=289,slow=5.1,SNR=1.6						
	comp=Z,0.9nm,0.7s						
AC05	**El Transito**	**144.76**	**117**	PKPdf	**PKiKP**	**04 03 45.4**	**-1.8**
LPAZ	**La Paz**	**147.71**	**95**	PKPbc	**PKiKP**	**04 03 53.8**	**-0.4**
	comp=Z,0.5nm,0.5s,baz=252,slow=3.2,SNR=2.0						
LPAZ	**La Paz**	**147.71**	**95**		**PKiKP**	**04 03 54.0**	**-0.2**

IDC 13 03:48:52.1±4.4, 5.°19S×149.°79E, h0^{km}, mb2.9/2, mbtmp3.0/2, Error ellipse: s-maj=182.3km s-min=51.8km az=115.0, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**21.00**	**224**	P	P	03 53 37.9	+0.5
	0.2nm,0.5s,baz=50,slow=11,SNR=5.1						
	0.2nm,0.5s						
ASAR	**Alice Springs**	**23.91**	**218**	P	P	03 54 07.6	-0.3
	0.2nm,0.3s,baz=46,slow=8.4,SNR=2.9						
	0.2nm,0.3s						
TORD	**Torodi Ar. Bea**	**147.55**	**286**	PKPbc	PKPbc	04 08 38.6	-0.9
	0.6nm,0.9s,baz=54,slow=3.1,SNR=4.9						

NEIC 13 03:50:49.2±1.5, 21.°8S±0.°1×179.°4W±0.°1, h595^{km}±8^{km}, mb4.1/21, Error ellipse: s-maj=19.9km s-min=14.3km az=150.0

IDC 13 03:50:50.5±1.7, 21.°63S×179.°57W, h612^{km}±18^{km}, mb3.5/9, mbtmp4.5/10, Error ellipse: s-maj=26.0km s-min=14.7km az=147.0

ISC 13 03:50:48.5±0.6, 21.°80S±0.°10×179.°48W±0.°10, h592^{km}, n59, σ0.^{s}77/58, mb4.2/20, 3D, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**4.67**	**330**	P	**P**	**03 52 20.0**	**+1.5**
	57nm,0.5s,baz=171,slow=4.5,SNR=83						
MSVF	**Nonsavu**	**4.67**	**330**	P	**P**	**03 52 20.0**	**+1.5**
RAO	**Raoul Island**	**7.55**	**170**	P	**P**	**03 52 42.5**	**-0.7**
MARNC	**Mare, Loyalty**	**11.62**	**269**	P	**P**	**03 53 24.1**	**+0.7**
EIDS	**Eidsvold**	**27.19**	**257**	P	**P**	**03 55 47.2**	**+0.8**
ARMA	**Armidale**	**27.27**	**246**	P	**P**	**03 55 48.5**	**+1.3**
ARMA				IAmb	IAmb	03 55 49.8	
	comp=Z,6.6nm,0.8s						
CTAO	**Charters Tower**	**32.02**	**267**	P	**P**	**03 56 28.7**	**+0.7**
TOO	**Toolangi**	**34.02**	**235**	P	**P**	**03 56 45.6**	**+0.9**
TOO				IAmb	IAmb	03 56 46.4	
	comp=Z,4.8nm,1.0s						
STKA	**Stephens Creek**	**35.99**	**245**	P	**P**	**03 57 02.0**	**+1.0**
	comp=Z,5.1nm,0.5s,baz=91,slow=10,SNR=15						
	comp=Z,5.1nm,0.5s						
BBOO	**Buckleboo**	**40.74**	**245**	P	**P**	**03 57 39.5**	**+0.1**
AS31	**Alice Springs**	**42.89**	**258**		**P**	**03 57 57.0**	**+0.5**
AS31				IAmb	IAmb	03 57 57.3	
	comp=Z,2.7nm,0.6s						
ASAR	**Alice Springs**	**42.89**	**258**	P	**P**	**03 57 56.6**	**+0.2**
	comp=Z,12nm,0.8s,baz=92,slow=8.2,SNR=87						
ASAR				PcP	**PcP**	**03 59 33.4**	**-0.2**
	comp=Z,1.7nm,0.8s,baz=110,slow=4.0,SNR=6.8						
ASAR				S	**S**	**04 03 37.9**	**-1.7**
	comp=Z,1.3nm,1.0s,baz=90,slow=15,SNR=7.6						
	comp=Z,12nm,0.8s						
ASAR	**Alice Springs**	**42.89**	**258**	P	**P**	**03 57 56.4**	**0.0**
WR8	**Warramunga Arr**	**42.92**	**264**		**P**	**03 57 56.2**	**-0.5**
WRA	**Warramunga Arr**	**43.07**	**264**	P	**P**	**03 57 57.4**	**-0.5**
	comp=Z,6.1nm,0.5s,baz=98,slow=7.8,SNR=91						
	comp=Z,6.1nm,0.5s						
WRA	**Warramunga Arr**	**43.07**	**264**		**P**	**03 57 57.3**	**-0.5**
FORT	**Forrest**	**47.52**	**248**	P	**P**	**03 58 31.3**	**-0.2**
FORT				IAmb	IAmb	03 58 40.3	
	comp=Z,7.6nm,1.1s						
MTN	**Manton Dam**	**47.82**	**272**	P	**P**	**03 58 33.6**	**-0.3**
MTN				IAmb	IAmb	03 58 34.0	
	comp=Z,5.5nm,0.6s						
KNRA	**Kununurra**	**49.22**	**268**	P	**P**	**03 58 44.3**	**+0.1**
KNRA				IAmb	IAmb	03 58 45.0	
	comp=Z,6.4nm,0.8s						
FITZ	**Fitzroy Crossi**	**51.50**	**264**	P	**P**	**03 59 01.3**	**+0.4**
	comp=Z,3.0nm,0.3s,baz=72,slow=5.9,SNR=34						
	comp=Z,3.0nm,0.3s						
FITZ	**Fitzroy Crossi**	**51.50**	**264**	P	**P**	**03 59 01.2**	**+0.4**
MBWA	**Marble Bar**	**56.24**	**259**	P	**P**	**03 59 33.2**	**-0.9**
MBWA				IAmb	IAmb	03 59 34.5	
	comp=Z,12nm,0.8s						
MORW	**Morawa**	**58.07**	**249**	P	**P**	**03 59 46.0**	**-0.5**
MORW				IAmb	IAmb	03 59 58.8	
	comp=Z,9.1nm,1.0s						
CASY	**Casey**	**62.21**	**205**	P	**P**	**04 00 13.2**	**+0.2**
QSPA	**South Pole Qui**	**68.28**	**180**	P	**P**	**04 00 51.9**	**+0.8**
	comp=Z,2.4nm,1.1s,baz=108,slow=2.1,SNR=3.6						
	comp=Z,2.4nm,1.1s						
QSPA	**South Pole Qui**	**68.28**	**180**	P	**P**	**04 00 51.6**	**+0.4**
KKM	**Kota Kinabalu**	**68.77**	**286**	P	**P**	**04 00 54.8**	**-0.2**
KKM				IAmb	IAmb	04 00 55.8	
	comp=Z,6.7nm,0.6s						
MJAR	**Matsushiro Arr**	**70.45**	**325**	P	**P**	**04 01 02.6**	**-1.8**
	comp=Z,2.0nm,0.6s,baz=161,slow=5.8,SNR=6.5						
	comp=Z,2.0nm,0.6s						
MJAR	**Matsushiro Arr**	**70.45**	**325**	P	**P**	**04 01 03.8**	**-0.6**
TPUB	**Ta-pu**	**73.54**	**304**	P	**P**	**04 01 21.4**	**-1.1**
PETK	**Petropavlovsk-**	**77.18**	**346**	P	**P**	**04 01 41.4**	**-0.6**
	comp=Z,5.3nm,0.8s,baz=122,slow=7.7,SNR=3.6						
	comp=Z,5.3nm,0.8s						
PETK	**Petropavlovsk-**	**77.18**	**346**	P	**P**	**04 01 40.5**	**-1.5**
M02C	**Callahan**	**81.86**	**39**	P	**P**	**04 02 07.6**	**+0.6**
M02C				IAmb	IAmb	04 02 15.9	
	comp=Z,5.5nm,1.4s						
N15K	**Kwethluk River**	**83.19**	**10**	P	**P**	**04 02 13.7**	**+0.7**
N15K				IAmb	IAmb	04 02 55.0	
	comp=Z,6.3nm,1.1s						
ELIB	**Princess Elisa**	**85.20**	**187**	*d*P	**P**	**04 02 22.6**	**-0.4**
ELIB				*d*pP	**pwP**	**04 04 32.3**	**+0.4**
ELIB				*d*sP	**sP**	**04 05 27.9**	**-0.3**
TXAR	**Lajitas Array**	**88.91**	**58**	P	**P**	**04 02 41.3**	**+0.1**
	comp=Z,0.7nm,0.9s,baz=215,slow=4.1,SNR=8.1						
	comp=Z,0.7nm,0.9s						
TXAR	**Lajitas Array**	**88.91**	**58**	P	**P**	**04 02 41.8**	**+0.6**
CMAR	**Chiang Mai Arr**	**89.26**	**290**	P	**P**	**04 02 44.1**	**+1.2**
	comp=Z,1.9nm,0.5s,baz=126,slow=2.4,SNR=16						
	comp=Z,1.9nm,0.5s						
HFS	**Hagfors**	**140.58**	**350**	PKhKP	PKPpre	04 09 03.5	
	comp=Z,3.2nm,1.0s,baz=69,slow=8.1,SNR=5.2						
ARPR	**Arapgir-MALATY**	**143.44**	**307**		PKPbc	04 09 15.8	+0.1
AKASG	**Malin Array Be**	**143.45**	**329**	PKP	PKPab	04 09 13.7	-1.2
	comp=Z,1.7nm,0.3s,baz=43,slow=4.4,SNR=22						
AKBB	**Malin Array Si**	**143.45**	**329**		PKPab	04 09 13.6	-1.3
KIEV	**Kiev**	**143.46**	**329**		PKPab	04 09 13.8	-1.1
BR131	**Keskin Array S**	**146.65**	**310**		**PKPbc**	**04 09 24.3**	**-0.7**
BRTR	**Keskin Array B**	**146.65**	**310**	PKPbc	**PKPbc**	**04 09 24.4**	**-0.7**
	comp=Z,1.6nm,0.6s,baz=142,slow=4.6,SNR=11						
BRTR	**Keskin Array B**	**146.65**	**310**		**PKPbc**	**04 09 24.1**	**-0.9**
BURAR	**Bucovina Array**	**147.47**	**328**	PKPbc	**PKPbc**	**04 09 27.1**	**+0.2**
OSTC	**Ostas**	**148.76**	**341**	*e*PKP	**PKiKP**	**04 09 30.3**	**-0.6**
STEB	**Steborice**	**148.79**	**338**	*e*PKP	**PKPbc**	**04 09 29.9**	**-0.1**
DPC	**Dobruska-Polom**	**148.91**	**340**	*e*PKP	**PKPbc**	**04 09 30.1**	**-0.2**
CLL	**Collm**	**148.98**	**345**	*i* PKPbc	**PKPbc**	**04 09 30.0**	**-0.3**
KRLC	**Kraliky**	**149.00**	**339**	*e*PKP	**PKPbc**	**04 09 29.7**	**-0.8**
MAUC	**Maruska**	**149.25**	**338**	*e*PKP	**PKPbc**	**04 09 30.7**	**-0.4**
PRU	**Pruhonice**	**149.77**	**342**	*e*PKP	**PKPbc**	**04 09 31.9**	**-0.4**
ZVC	**Zvikov**	**150.36**	**342**	*e*PKP	**PKiKP**	**04 09 34.1**	**-0.1**
KHC	**Kasperske Hory**	**150.81**	**342**	*e*PKP	**PKPbc**	**04 09 34.3**	**-0.5**
CKRC	**Cesky Krumlov**	**150.88**	**341**	*e*PKP	**PKPbc**	**04 09 34.7**	**-0.2**
GERES	**GERESS Array B**	**151.04**	**342**	PKPbc	**PKPbc**	**04 09 34.9**	**-0.5**
	comp=Z,0.8nm,0.4s,baz=355,slow=1.5,SNR=9.2						
GERES	**GERESS Array B**	**151.04**	**342**		**PKPbc**	**04 09 34.4**	**-1.0**

IDC 13 04:04:41.2±14.0, 6.°29N×123.°62E, h145^{km}±132^{km}, mb3.6/5, mbtmp4.0/5, MS3.5/1, Error ellipse: s-maj=278.3km s-min=18.3km az=62.0

NEIC 13 04:05:14.6±1.3, 6.°1N±0.°1×123.°8E±0.°2, h540^{km}±14^{km}, mb4.1/7, Error ellipse: s-maj=25.4km s-min=16.6km az=67.0

ISC 13 04:05:15.0±0.7, 5.°97N±0.°09×123.°79E±0.°10, h550^{km}, n25, σ1.^{s}15/25, mb3.6/9, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KCP	**Kidapawan**	**1.65**	**51**	*e*P	**P**	**04 06 24.4**	**+1.0**
DDMP	**Don Marcelino,**	**1.92**	**86**	*e*P	**P**	**04 06 23.8**	**-0.6**
DDMP				*e*S	**S**	**04 07 18.4**	**-2.2**
DAV	**Davao City (W)**	**2.09**	**58**	P	**P**	**04 06 21.9**	**-3.2**
CDOP	**Cateel, Davao**	**3.19**	**55**	*i* P	**P**	**04 06 31.3**	**+0.1**
BIPH	**Bislig**	**3.37**	**49**	*e*P	**P**	**04 06 31.9**	**-0.5**
BIPH				*e*S	S	04 06 51.8	-44
MYLDM	**Lahad Datu**	**5.32**	**262**	P	**P**	**04 06 49.0**	**+1.4**
TOLI2	**Tolitoli**	**5.69**	**212**	P	**P**	**04 06 49.5**	**-1.3**
KKM	**Kota Kinabalu**	**7.53**	**271**	P	**P**	**04 07 08.0**	**-0.3**
FAKI	**Fak Fak**	**12.22**	**136**	P	**P**	**04 07 57.4**	**+1.4**
JAGI	**Jajag, Banyuwa**	**17.27**	**214**	P	**P**	**04 08 46.2**	**-0.1**
TPUB	**Ta-pu**	**17.50**	**350**	P	**P**	**04 08 46.8**	**-1.5**
TPUB				IAmb	IAmb	04 08 59.6	
	comp=Z,18nm,1.2s						
WRA	**Warramunga Arr**	**27.76**	**158**	P	**P**	**04 10 20.1**	**-0.1**
	comp=Z,2.6nm,0.6s,baz=332,slow=10.0,SNR=40						
WRA				PcP	PcP	04 13 30.4	+12
	comp=Z,0.2nm,0.4s,baz=334,slow=4.6,SNR=1.7						
	comp=Z,2.6nm,0.6s						
WRA	**Warramunga Arr**	**27.76**	**158**	P	**P**	**04 10 18.9**	**-1.3**
WR8	**Warramunga Arr**	**27.84**	**158**	P	**P**	**04 10 20.6**	**-0.2**
WR8				IAmb	IAmb	04 11 00.4	
	comp=Z,11nm,1.5s						
AS31	**Alice Springs**	**31.07**	**162**	P	**P**	**04 10 49.7**	**+0.9**
AS31				IAmb	IAmb	04 10 50.6	
	comp=Z,0.6nm,0.7s						
ASAR	**Alice Springs**	**31.07**	**162**	P	**P**	**04 10 49.6**	**+0.9**
	comp=Z,1.0nm,0.4s,baz=339,slow=7.3,SNR=20						
	comp=Z,1.0nm,0.4s						
ASAR	**Alice Springs**	**31.07**	**162**	P	**P**	**04 10 49.2**	**+0.4**
MORW	**Morawa**	**35.63**	**192**	P	**P**	**04 11 27.0**	**0.0**
MORW				IAmb	IAmb	04 11 55.1	
	comp=Z,27nm,1.4s						
STKA	**Stephens Creek**	**41.29**	**157**	P	**P**	**04 12 13.5**	**+0.6**
	comp=Z,0.8nm,0.5s,baz=337,slow=7.4,SNR=4.2						
	comp=Z,0.8nm,0.5s						
HILR	**Hailar Array B**	**43.57**	**356**	LR	LR	04 31 46.0	
	comp=Z,54nm,18.4s,baz=300,slow=38						
MKAR	**Makanchi Array**	**54.06**	**326**	P	**P**	**04 13 48.8**	**+0.5**
	comp=Z,0.7nm,0.4s,baz=119,slow=7.6,SNR=8.4						
	comp=Z,0.7nm,0.4s						
MKAR	**Makanchi Array**	**54.06**	**326**	P	**P**	**04 13 48.3**	**0.0**
KURBB	**Kurchatov Arra**	**58.29**	**328**	P	**P**	**04 14 17.6**	**+0.3**
	comp=Z,0.6nm,0.5s,baz=130,slow=6.0,SNR=8.5						
	comp=Z,0.6nm,0.5s						
AB31	**Akbulak array**	**68.57**	**321**	P	**P**	**04 15 23.0**	**0.0**
AB31				IAmb	IAmb	04 15 57.2	
	comp=Z,2.9nm,1.4s						
ABKAR	**Akbulak array**	**68.57**	**321**	P	**P**	**04 15 22.8**	**-0.2**

NNC 13 04:17:18.2±4.9, 37.°48N×71.°01E, h0^{km}, mb3.7, mpv3.4, 3C-3D, Error ellipse: s-maj=38.1km s-min=33.8km az=0.0, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KK31	**Karatay Array**	**5.63**	**356**	⇑P	Pn	04 18 45.1	+1.9
	3.4nm,0.4s,baz=177,slow=12,SNR=44						
KK31				⇓S	Sn	04 19 50.1	+1.6
	0.7nm,0.3s,baz=182,slow=23,SNR=4.9						
AAK	**Ala-Archa**	**5.80**	**26**	⇑P	Pn	04 18 45.1	-0.6
	1.2nm,0.6s						
AAK				⇑S	Sn	04 19 53.2	+0.2
	2.2nm,0.7s						
AB31	**Akbulak array**	**14.24**	**329**	⇓P	Pn	04 20 38.4	-2.7
	0.5nm,0.5s,baz=146,slow=13,SNR=11						
AB31				⇓S	Sn	04 23 19.0	-0.7
	1.0nm,0.8s						

IDC 13 04:21:17.9±1.8, 41.°79S×84.°94E, h0^{km}, mb3.9/5, mbtmp3.9/5, MS3.7/14, Error ellipse: s-maj=54.2km s-min=25.7km az=109.0, Southeast Indian Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
H01W2	**Cape Leeuwin H**	**23.84**	**83**	T	T	04 51 24.5	
	baz=244,slow=74,SNR=89						
H01W3	**Cape Leeuwin H**	**23.84**	**83**	T	T	04 51 25.1	
	baz=244,slow=74,SNR=43						
H01W1	**Cape Leeuwin H**	**23.85**	**83**	T	T	04 51 25.7	
	baz=244,slow=74,SNR=65						
H04S1	**CROZET ISLANDS**	**24.05**	**247**	T	T	04 51 33.1	
	baz=89,slow=75,SNR=100						
H04S2	**CROZET ISLANDS**	**24.07**	**247**	T	T	04 51 35.2	
	baz=89,slow=75,SNR=257						
H04S3	**CROZET ISLANDS**	**24.07**	**247**	T	T	04 51 30.5	
	baz=89,slow=75,SNR=224						
H04N2	**CROZET ISLANDS**	**24.14**	**248**	T	T	04 51 47.3	
	baz=91,slow=75,SNR=352						
H04N3	**CROZET ISLANDS**	**24.15**	**248**	T	T	04 51 46.0	
	baz=91,slow=75,SNR=325						
H04N1	**CROZET ISLANDS**	**24.16**	**248**	T	T	04 51 39.1	
	baz=91,slow=75,SNR=321						
MAW	**Mawson**	**28.51**	**198**	LR	LR	04 36 06.4	
	comp=Z,89nm,18.9s,baz=44,slow=31						
H08S2	**Diego Garcia H**	**35.74**	**339**	T	T	05 05 44.2	
	baz=164,slow=76,SNR=237						
H08S1	**Diego Carcia H**	**35.75**	**339**	T	T	05 05 46.3	
	baz=164,slow=76,SNR=217						
H08S3	**Diego Garcia H**	**35.76**	**339**	T	T	05 05 47.9	
	baz=164,slow=76,SNR=319						
ASAR	**Alice Springs**	**44.34**	**82**	P	P	04 29 29.7	-0.3
	1.5nm,1.0s,baz=234,slow=8.2,SNR=7.9						
ASAR				PcP	PcP	04 31 14.4	+0.2
	0.2nm,0.6s,baz=227,slow=2.4,SNR=4.8						
ASAR				LR	LR	04 45 28.7	
	comp=Z,139nm,20.6s,baz=202,slow=33						
	1.5nm,1.0s						
STKA	**Stephens Creek**	**45.69**	**97**	LR	LR	04 46 32.6	
	comp=Z,78nm,18.0s,baz=206,slow=33						
VNDA	**Vanda**	**46.78**	**163**	P	P	04 29 48.5	0.0
	0.5nm,0.6s,baz=275,slow=7.6,SNR=5.7						
VNDA				LR	LR	04 47 08.7	
	comp=Z,64nm,20.3s,baz=277,slow=33						
	0.5nm,0.6s						
WRA	**Warramunga Arr**	**46.93**	**78**	P	P	04 29 50.3	-0.2
	1.1nm,0.8s,baz=231,slow=7.2,SNR=5.3						
	1.1nm,0.8s						
QSPA	**South Pole Qui**	**48.37**	**180**	P	P	04 30 01.0	-0.2
	2.9nm,0.8s,baz=284,slow=1.9,SNR=15						
QSPA				LR	LR	04 47 59.4	
	comp=Z,65nm,21.8s,baz=334,slow=33						
	2.9nm,0.8s						
PALK	**Pallekele**	**48.97**	**354**	LR	LR	04 45 42.5	
	comp=Z,118nm,21.2s,baz=176,slow=30						
BOSA	**Boshof**	**49.59**	**265**	LR	LR	04 47 27.7	
	comp=Z,77nm,18.2s,baz=138,slow=32						
LBTB	**Lobatse**	**51.31**	**269**	LR	LR	04 48 24.2	
	comp=Z,44nm,18.5s,baz=142,slow=32						
TSUM	**Tsumeb**	**60.71**	**270**	LR	LR	04 53 11.2	
	comp=Z,66nm,21.0s,baz=154,slow=32						
CMAR	**Chiang Mai Arr**	**61.32**	**15**	P	P	04 31 35.2	-0.1
	1.0nm,0.3s,baz=209,slow=7.5,SNR=4.3						
	1.0nm,0.3s						
MBAR	**Mbarara**	**63.62**	**295**	LR	LR	04 56 56.3	
	comp=Z,30nm,18.1s,baz=101,slow=34						
BRDH	**Bariadhala**	**64.44**	**7**	LR	LR	04 54 40.3	
	comp=Z,102nm,20.8s,baz=169,slow=31						
AAK	**Ala-Archa**	**84.57**	**352**	LR	LR	05 06 48.5	
	comp=Z,43nm,22.0s,baz=201,slow=32						
MKAR	**Makanchi Array**	**88.23**	**358**	LR	LR	05 10 40.4	
	comp=Z,32nm,19.1s,baz=118,slow=34						
DBIC	**Dimbokro**	**94.24**	**275**	LR	LR	05 13 02.7	
	comp=Z,31nm,18.4s,baz=140,slow=33						

MOS 13 04:55:07.7±0.8, 54.°59N×112.°00E, h14^{km}, mb4.5/18, MS3.7/7, Error ellipse: s-maj=7.1km s-min=4.5km az=74.8

BYKL 13 04:55:08.9±0.1, 54.°62N×111.°97E

IDC 13 04:55:09.5±0.6, 54.°57N×111.°97E, h16^{km}±3^{km}, mb3.9/21, mbtmp4.0/28, ML4.2/6, MS3.3/11, Error ellipse: s-maj=10.9km s-min=9.9km az=50.0

NEIC 13 04:55:09.7±1.6, 54.°80N±0.°07×111.°9E±0.°1, h10^{km}±1^{km}, mb4.4/43, Error ellipse: s-maj=13.3km s-min=12.0km az=47.0

ISC 13 04:55:09.4±0.5, 54.°64N±0.°02×111.°97E±0.°02, h11^{km}±3^{km}, h11^{km}:pP-P, n242, σ2.^{s}09/354, mb4.4/62, MS3.2/9, 20C-9D, Lake Baykal region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
YLYR	**Ulyunkhan**	**0.52**	**297**	⇑*i*Pg	**Pg**	**04 55 18.5**	**-1.0**
YLYR				Pmax		04 55 19.2	
	5µm,0.3s						
YLYR				*e*Sg	**Sg**	**04 55 25.8**	**-0.7**
YLYR				Smax		04 55 27.6	
	6µm,0.1s						
YLYR	**Ulyunkhan**	**0.52**	**297**	⇑*i*PG	**Pg**	**04 55 18.6**	**-1.0**
YLYR				*e*		04 55 24.2	
YLYR				pmax	pmax		
	comp=Z,6µm,0.4s						
YLYR				smax	smax		
	comp=N,13µm,0.8s						
UKT	**Uakit**	**1.28**	**48**	⇓*i*Pg	**Pn**	**04 55 32.1**	**-1.2**
	comp=N,35nm,0.4s						
UKT				⇓*i*Pg	**Pn**	**04 55 32.1**	**-1.2**
	comp=N,77nm,0.4s						
UKT				⇓*i*Pg	**Pn**	**04 55 32.1**	**-1.2**
	comp=N,42nm,0.4s						
UKT				*e*Pb	**Pb**	**04 55 33.7**	**+0.2**
UKT				*e*		04 55 39.1	
UKT				max		04 55 39.3	
	comp=N,841nm,0.3s						
UKT				*e*Sg	**Sb**	**04 55 49.7**	**-0.3**
UKT				*e*Sb	**Sg**	**04 55 51.0**	**+0.5**
UKT				max		04 55 53.7	
	comp=N,2µm,0.2s						
UKT	**Uakit**	**1.28**	**48**	*e*PG	**Pn**	**04 55 32.1**	**-1.2**
UKT				*e*S	**Sb**	**04 55 49.7**	**-0.3**
KMO	**Kumora**	**1.32**	**341**	⇑*i*Pg	**Pn**	**04 55 33.0**	**-0.9**
	comp=N,2µm,1.1s						
KMO				⇓*i*Pg	**Pn**	**04 55 33.0**	**-0.9**
	comp=N,640nm,1.1s						
KMO				⇑*i*Pg	**Pn**	**04 55 33.0**	**-0.9**
	comp=N,2µm,1.1s						
KMO				Pmax		04 55 33.6	
	comp=N,4µm,0.4s						
KMO				*e*		04 55 38.1	
KMO				*e*Sg	**Sn**	**04 55 51.2**	**-0.3**
KMO				*e*		04 55 54.5	
KMO				max		04 55 55.4	
	comp=N,26µm,1.0s						
KMO	**Kumora**	**1.32**	**341**	*i* PG	**Pn**	**04 55 33.0**	**-0.9**
KMO				*e*S	**Sn**	**04 55 51.2**	**-0.3**
YOAB	**Uoyan, Buryati**	**1.51**	**355**	⇑*i*Pg	**Pn**	**04 55 36.7**	**+0.3**
YOAB				Pmax		04 55 44.3	
	comp=N,3µm,0.4s						
YOAB				*e*Sg	**Sb**	**04 55 57.6**	**+1.0**
YOAB				Smax		04 56 06.1	
	comp=N,17µm,1.2s						
YOAB	**Uoyan, Buryati**	**1.51**	**355**	*i* PN	**Pn**	**04 55 36.7**	**+0.3**
YOAB				*e*S	**Sb**	**04 55 57.6**	**+1.0**
SYVR	**Suvo**	**1.52**	**230**	*e*Pn	**Pn**	**04 55 35.9**	**-0.7**
SYVR				*e*Pg	**Pb**	**04 55 36.1**	**-1.5**
SYVR				*e*		04 55 39.4	
SYVR				max		04 55 42.0	
	comp=N,1µm,0.6s						
SYVR				*e*Sg	**Sb**	**04 55 56.5**	**-0.4**
SYVR				Smax		04 56 03.6	
	comp=N,4µm,0.7s						
SYVR	**Suvo**	**1.52**	**230**	*e*PN	**Pn**	**04 55 35.9**	**-0.7**
SYVR				*e*S	**Sb**	**04 55 56.5**	**-0.4**
SVKR	**Severomuysk**	**1.73**	**31**	*e*Pg	**Pb**	**04 55 41.1**	**-0.2**
SVKR				*e*		04 55 45.5	
SVKR				max		04 55 48.7	
	comp=N,3µm,0.4s						
SVKR				*e*Sg	**Sg**	**04 56 05.4**	**+0.3**
SVKR				*e*		04 56 11.2	
SVKR				max		04 56 12.5	
	comp=N,18µm,0.9s						
SVKR	**Severomuysk**	**1.73**	**31**	*e*PN	**Pb**	**04 55 41.1**	**-0.2**
SVKR				*e*S	**Sg**	**04 56 05.4**	**+0.3**
NIZB	**Nizh Angarsk**	**1.79**	**310**	⇑*i*Pg	**Pn**	**04 55 41.0**	**+0.7**
NIZB				Pmax		04 55 41.8	
	comp=N,1µm,0.6s						
NIZB				*e*Sg	**Sb**	**04 56 05.2**	**+0.5**
NIZB				Smax		04 56 07.4	
	comp=N,6µm,0.8s						
NIZB	**Nizh Angarsk**	**1.79**	**310**	*i* PN	**Pn**	**04 55 41.0**	**+0.7**
NIZB				*e*S	**Sb**	**04 56 05.2**	**+0.5**
MXMB	**Maximikha**	**2.35**	**235**	*e*Pn	**Pn**	**04 55 47.9**	**-0.1**
MXMB				*e*Pg	**Pb**	**04 55 50.5**	**-1.3**
MXMB				*e*		04 55 54.4	
MXMB				*e*Sn	**Sn**	**04 56 16.6**	**-0.3**
MXMB				*e*Sg	**Sb**	**04 56 21.7**	**+0.9**
GORB	**Goryachinsk**	**2.74**	**234**	*e*Pn	**Pn**	**04 55 52.8**	**-0.5**
GORB				*e*		04 55 55.9	
GORB				*e*Pg	**Pb**	**04 55 57.9**	**-0.5**
GORB				*e*		04 56 00.8	
GORB				*e*Sg	**Sb**	**04 56 33.8**	**+1.8**
GORB				*e*SgSg	**Sg**	**04 56 37.1**	**-0.3**
OGRR	**Ongureny**	**2.76**	**251**	*e*Pn	**Pn**	**04 55 53.1**	**-0.5**
OGRR				*e*		04 55 56.6	
OGRR				*e*Pg	**Pb**	**04 55 58.1**	**-0.6**
OGRR				*e*PgPg	**Pg**	**04 56 02.5**	**+0.3**
OGRR				max		04 56 05.1	
	comp=N,309nm,0.8s						
OGRR				*e*Sn	**Sn**	**04 56 25.8**	**-1.1**
OGRR				*e*Sg	**Sb**	**04 56 33.4**	**+0.8**
OGRR				Smax		04 56 40.1	
	comp=N,2µm,1.3s						
OGRR	**Ongureny**	**2.76**	**251**	*e*PN	**Pn**	**04 55 53.0**	**-0.5**
OGRR				*e*		04 55 57.8	
OGRR				*e*		04 56 33.1	
OGRR				pmax	pmax		
	comp=Z,308nm,1.1s						
OGRR				smax	smax		
	comp=N,2µm,1.6s						
CIT	**Chita**	**2.79**	**159**	*e*Pg	**Pb**	**04 55 59.0**	**-0.3**
CIT				*e*		04 56 01.8	
CIT				max		04 56 02.2	
	comp=N,462nm,0.2s						
CIT				*e*Sn	**Sn**	**04 56 25.1**	**-2.6**
CIT				*e*Sg	**Sb**	**04 56 34.5**	**+1.0**
CIT				Smax		04 56 39.2	
	comp=N,3µm,0.2s						
CIT	**Chita**	**2.79**	**159**	*e*PN	**Pn**	**04 55 53.0**	**-1.1**
CIT				*e*		04 55 58.5	

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CIT                                 eS       Sn      04 56 28.0 +0.3
CIT                                 e                04 56 34.1
CIT                                  pmax    pmax
       comp=Z,797nm,0.9s
CIT                                  smax    smax
       comp=E,5µm,1.2s
NLYR   Nelyaty             2.82  47 ePn      Pn      04 55 54.7 +0.3
NLYR                                ePg      Pb      04 55 59.2 -0.5
NLYR                                ePgPg    Pg      04 56 03.5 +0.2
NLYR                                 max             04 56 03.8
       comp=E,732nm,0.6s
NLYR                                eSg      Sb      04 56 36.6 +2.4
NLYR                                 Smax            04 56 55.9
       comp=E,9µm,1.7s
NLYR   Nelyaty             2.82  47 ePN      Pn      04 55 54.7 +0.3
NLYR                                eS       Sb      04 56 36.6 +2.4
KELR   Kotokel             2.98 232 ePn      Pn      04 55 56.4 -0.2
KELR                                ePg      Pb      04 56 01.6 -0.9
KELR                                eSn      Sn      04 56 31.6 -0.8
KELR                                eSg      Sb      04 56 41.3 +2.4
BOD    Bodaibo             3.38  19 ePn      Pn      04 56 01.7 -0.4
BOD                                 e                04 56 06.6
BOD                                 ePg      Pb      04 56 09.6 +0.3
BOD                                  Pmax            04 56 17.2
       comp=E,432nm,1.0s
BOD                                 eSg      Sb      04 56 53.6 +3.2
BOD                                  Smax            04 56 55.9
       comp=E,2µm,1.1s
BOD    Bodaibo             3.38  19 ePN      Pn      04 56 01.7 -0.4
BOD                                 eS       Sb      04 56 53.6 +3.2
ZRHB   Zarechye            3.55 236 ePn      Pn      04 56 05.1 +0.7
ZRHB                                ePg      Pb      04 56 12.2  0.0
ZRHB                                 Pmax            04 56 26.7
       comp=E,466nm,0.8s
ZRHB                                eSg      Sb      04 56 58.0 +2.7
ZRHB                                 Smax            04 57 23.9
       comp=E,3µm,1.1s
ZRH    Zaryechye, Bai      3.55 236 ePN      Pn      04 56 05.1 +0.6
ZRH                                 eS       Sb      04 56 58.0 +2.7
UUDB   Ulan-Yde            3.80 225 ePn      Pn      04 56 07.6 -0.2
UUDB                                e                04 56 12.4
UUDB                                ePg      Pb      04 56 16.6 +0.2
UUDB                                e                04 56 20.5
UUDB                                 max             04 56 24.4
       comp=E,260nm,0.7s
UUDB                                eSn      Sn      04 56 50.9 -1.6
UUDB                                eSg      Sb      04 57 06.2 +3.8
UUDB                                 Smax            04 57 08.7
       comp=E,2µm,1.4s
TRG    Tyrgan              3.83 243 ePn      Pn      04 56 07.5 -0.9
TRG                                 e                04 56 10.9
TRG                                 ePg      Pb      04 56 18.1 +1.0
TRG                                  Pmax            04 56 24.0
       comp=E,158nm,0.8s
TRG                                 eSn      Sn      04 56 50.7 -2.8
TRG                                 eSg      Sb      04 57 07.3 +3.8
TRG                                  Smax            04 57 17.5
       comp=E,1µm,1.1s
TRG    Tyrgan              3.83 243 ePN      Pn      04 56 08.1 -0.3
TRG                                 e                04 56 17.4
TRG                                 eS       Sn      04 56 50.6 -2.9
TRG                                 e                04 57 06.6
TRG                                  pmax    pmax
       comp=Z,157nm,0.8s
TRG                                  smax    smax
       comp=E,1µm,1.0s
FFNB   Fofonovo            4.06 232 ePn      Pn      04 56 11.2 -0.2
FFNB                                ePg      Pb      04 56 22.0 +1.1
FFNB                                eSn      Sn      04 56 57.2 -1.8
FFNB                                eSg      Sg      04 57 14.5 -5.1
KAB    Kabansk             4.11 233 ePg      Pb      04 56 22.5 +0.8
KAB                                  Pmax            04 56 38.1
       comp=E,623nm,1.0s
KAB                                 eSg      Sg      04 57 16.3 -4.9
KAB                                  Smax            04 57 44.0
       comp=E,4µm,1.6s
KAB    Kabansk             4.11 233 ePN      Pb      04 56 22.5 +0.8
KAB                                 eS       Sg      04 57 16.3 -4.9
STDB   Stepnoy Dvoret      4.17 236 ePn      Pn      04 56 13.1 +0.2
STDB                                eSg      Sg      04 57 18.3 -4.8
STDB   Stepnoy Dvoret      4.17 236 ePN      Pn      04 56 13.1 +0.2
STDB                                eS       Sg      04 57 18.3 -4.8
CRS    Chara               4.22  55 ePn      Pn      04 56 13.8 +0.2
CRS                                 e                04 56 18.8
CRS                                 ePg      Pb      04 56 24.2 +0.7
CRS                                  Pmax            04 56 32.3
       comp=E,254nm,1.0s
CRS                                 e                04 56 57.0
CRS                                 eSg      Sg      04 57 19.9 -4.7
CRS                                  Smax            04 57 27.4
       comp=E,1µm,1.5s
CRS    Chara               4.22  55 ePN      Pn      04 56 14.3 +0.7
CRS                                 e                04 56 24.2
CRS                                 e                04 57 19.7
CRS                                  pmax    pmax
       comp=Z,316nm,1.1s
CRS                                  smax    smax
       comp=E,864nm,1.3s
HRMR   Khuramsha           4.27 227 ePn      Pn      04 56 14.2 -0.1
HRMR                                e                04 56 19.3
HRMR                                ePg      Pb      04 56 25.7 +1.3
HRMR                                 Pmax            04 56 30.7
       comp=E,265nm,0.6s
HRMR                                eSn      Sn      04 57 03.1 -1.0
HRMR                                eSg      Sg      04 57 20.8 -5.5
HRMR                                 Smax            04 57 33.2
       comp=E,2µm,0.7s
TUP    Tupik               4.66  89 ePn      Pn      04 56 19.4 -0.3
TUP                                 e                04 56 24.3
TUP                                 ePg      Pb      04 56 32.6 +1.6
TUP                                  Pmax            04 56 40.9
       comp=E,204nm,0.8s
TUP                                 eSn      Sn      04 57 10.9 -2.8
TUP                                 eSg      Sg      04 57 33.3 -5.4
TUP                                  Smax            04 57 36.3
       comp=E,3µm,1.4s
TUP    Tupik               4.66  89 ePN      Pn      04 56 19.4 -0.3
TUP                                 eS       Sg      04 57 33.3 -5.4
BGT    Bolshoye Golou      4.71 239 ePn      Pn      04 56 19.8 -0.6
BGT                                 e                04 56 36.1
BGT                                  max             04 56 44.9
       comp=E,53nm,0.6s
BGT                                 eSn      Sn      04 57 12.5 -2.6
BGT                                 eSg      Sb      04 57 33.7 +5.0
BGT                                  Smax            04 57 45.7
       comp=E,339nm,0.8s
BGT    Bolshoye Golou      4.71 239 ePN      Pn      04 56 19.8 -0.6
BGT                                 eS       Sn      04 57 12.5 -2.6
VTMR   Vitim               4.82   4 ePn      Pn      04 56 22.4 +0.5
VTMR                                ePg      Pb      04 56 35.8 +2.0
VTMR                                e                04 56 44.8
VTMR                                eSn      Sn      04 57 17.5 -0.2
VTMR                                eSg      Sg      04 57 39.5 -4.5
VTMR   Vitim               4.82   4 ePN      Pn      04 56 22.4 +0.5
VTMR                                eS       Sn      04 57 17.5 -0.2
KPC    Khapcheranga        4.95 177 ePn      Pn      04 56 22.6 -1.2
KPC                                 ePg      Pb      04 56 38.0 +1.9
KPC                                 e                04 56 45.6
KPC                                  max             04 56 48.3
       comp=E,152nm,0.7s
KPC                                 eSn      Sn      04 57 19.8 -1.2
KPC                                 eSg      Sg      04 57 41.7 -6.5
KPC                                  Smax            04 57 44.0
       comp=E,2µm,1.1s
KPC                                 e                04 57 51.5
KPC    Khapcheranga        4.95 177 ePN      Pn      04 56 22.6 -1.2
KPC                                 eS       Sn      04 57 19.8 -1.2
KHNR   Khani               5.07  60 eSg      Sg      04 57 46.4 -5.4
LSTR   Listvyanka          5.11 240 ePn      Pn      04 56 25.3 -0.5
LSTR                                e                04 56 28.3
LSTR                                e                04 56 42.7
LSTR                                 max             04 56 51.9
       comp=E,35nm,0.8s
LSTR                                e                04 57 24.5
LSTR                                eSg      Sg      04 57 46.8 -6.4
LSTR                                 Smax            04 57 59.8
       comp=E,427nm,1.3s
LSTR   Listvyanka          5.11 240 ePN      Pn      04 56 25.3 -0.5
LSTR                                eS       Sg      04 57 46.8 -6.4
IRK    Irkutsk             5.19 246 ePg      Pb      04 56 42.4 +2.3
IRK                                  Pmax            04 56 49.8
       comp=E,155nm,0.1s
IRK                                 eSn      Sn      04 57 25.3 -1.5
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IRK                                 eSg      Sg      04 57 49.4 -6.5
IRK                                  Smax            04 58 02.7
       comp=E,1µm,1.1s
IRK    Irkutsk             5.19 246 ePN      Pb      04 56 42.4 +2.3
IRK                                 eS       Sn      04 57 25.3 -1.5
IVK    Ivanovka            5.36 241 ePn      Pn      04 56 28.9 -0.3
IVK                                 ePg      Pb      04 56 45.5 +2.6
IVK                                  Pmax            04 57 16.6
       comp=E,121nm,0.8s
IVK                                 eSn      Sn      04 57 27.5 -3.4
IVK                                 e                04 57 50.6
IVK                                 eSg      Sg      04 57 54.7 -6.5
IVK                                  Smax            04 58 18.6
       comp=E,755nm,1.6s
IVK    Ivanovka            5.36 241 ePN      Pn      04 56 28.9 -0.3
IVK                                 eS       Sg      04 57 54.7 -6.5
TLY    Talaya              5.82 243 ePn      Pn      04 56 34.6 -1.0
TLY                                 ePg      Pb      04 56 53.1 +2.3
TLY                                  Pmax            04 57 03.9
       comp=E,37nm,1.1s
TLY                                 eSg      Sb      04 58 07.5 +7.0
TLY                                  Smax            04 58 11.9
       comp=E,349nm,1.1s
TLY    Talaya              5.82 243 ePN      Pn      04 56 34.6 -1.0
TLY                                 eS       Sb      04 58 07.5 +7.0
TLY    Talaya              5.82 243          Pn      04 56 34.3 -1.3
YKLR   Yuktali             5.83  66 ePn      Pn      04 56 35.5 -0.2
YKLR                                e                04 56 41.0
YKLR                                e                04 57 43.3
YKLR                                eSg      Sg      04 58 09.5 -6.7
YKLR   Yuktali             5.83  66 ePN      Pn      04 56 35.5 -0.2
YKLR                                eS       Sg      04 58 09.5 -6.7
ZAK    Zakamensk           6.80 235 ePN      Pn      04 56 50.6 +1.4
ZAK                                 e                04 57 13.4
ZAK                                 e                04 58 42.1
ZAK                                  pmax    pmax
       comp=Z,23nm,0.5s
ZAK                                  smax    smax
       comp=N,224nm,1.1s
HILR   Hailar Array B      6.99 134  Pn      Pn      04 56 49.8 -1.9
       baz=328,slow=12
HILR                                 Pg      Pb      04 57 16.4 +5.6
       baz=325,slow=13
HILR                                 Lg      Lg      04 58 46.6
       baz=327,slow=29
       comp=N,12nm,0.3s
HIA    Hailar              7.21 135 ePn      Pn      04 56 55.5 +0.8
HIA                                 ePg      Pb      04 57 18.7 +4.2
HIA                                  Pmax            04 57 25.7
       comp=N,48nm,0.6s
HIA                                 eSn      Sn      04 58 13.1 -3.5
HIA                                 eSg      Sg      04 58 51.2 -9.4
HIA                                  Smax            04 59 08.7
       comp=N,673nm,1.9s
HIA                                 e                04 59 12.1
HIA    Hailar              7.21 135 ePN      Pn      04 56 55.5 +0.8
HIA                                 eS       Sn      04 58 13.1 -3.5
HIA    Hailar              7.21 135          Pn      04 56 56.5 +1.8
MOY    Mondy               7.24 250 ePn      Pn      04 56 56.0 +0.8
MOY                                 e                04 57 15.2
MOY                                  max             04 57 50.1
       comp=N,56nm,0.8s
MOY                                 e                04 58 25.4
MOY                                 eSg      Sg      04 58 52.7 -8.9
MOY                                  Smax            04 58 59.4
       comp=N,608nm,1.4s
MOY    Mondy               7.24 250 ePN      Pn      04 56 59.4 +4.2
MOY                                 e                04 57 21.9
MOY                                 e                04 58 17.5
MOY                                 e                04 58 51.4
ULN    Ulaanbaatar         7.45 206 ePn      Pn      04 56 59.9 +1.8
ULN                                 ePg      Pb      04 57 23.6 +4.9
ULN                                  Pmax            04 57 29.9
       comp=N,53nm,1.0s
ULN                                 e                04 58 39.0
ULN                                 eSg      Sg      04 59 00.1 -8.2
ULN                                  Smax            04 59 16.1
       comp=N,780nm,2.0s
ULN    Ulaanbaatar         7.45 206⇓ePN      Pn      04 56 57.9 -0.2
ULN    Ulaanbaatar         7.45 206          Pn      04 57 01.3 +3.1
ORL    Orlik               7.54 259 ePn      Pn      04 56 59.2 -0.1
ORL                                 ePg      Pb      04 57 24.7 +4.6
ORL                                  Pmax            04 57 32.3
       comp=N,43nm,1.0s
ORL                                 eSn      Sn      04 58 21.9 -2.8
ORL                                 eSg      Sg      04 59 01.7 -9.4
ORL                                  Smax            04 59 13.2
       comp=N,462nm,1.4s
ORL    Orlik               7.54 259 ePN      Pn      04 57 00.0 +0.7
ORL                                 e                04 57 24.6
ORL                                 eS       Sn      04 58 21.8 -2.9
ORL                                 e                04 59 00.3
ORL                                  pmax    pmax
       comp=Z,68nm,0.8s
ORL                                  smax    smax
       comp=N,465nm,1.4s
CLNS   Chul'man            7.62  68 ePg      Pb      04 57 26.2 +4.7
CLNS                                eSn      Sn      04 58 22.6 -4.0
CLNS                                eSg      Sg      04 59 04.3 -9.4
SONM   Songino Array       7.66 209  Pn      Pn      04 57 00.4 -0.6
       comp=N,1.5nm,0.3s,baz=19,slow=14,SNR=13
SONM                                 Pg      Pb      04 57 26.4 +4.2
       comp=N,2.4nm,0.3s,baz=24,slow=14,SNR=6.8
SONM                                 Lg      Lg      04 59 07.6
       comp=N,15nm,0.3s,baz=23,slow=28,SNR=16
SONM                                 LR      LR      05 00 17.4
       comp=N,170nm,19.8s,baz=50,slow=40
       comp=N,2.4nm,0.3s
SONM                                 AML     AML
SONM   Songino Array       7.66 209  PN      Pn      04 57 01.1 +0.1
SONM   Songino Array       7.66 209          Pn      04 57 01.1 +0.1
ZEA    Zeya                9.01  90 eP       Pn      04 57 34.5  +15
ZEA                                 e                04 59 12.2
ZEA                                  pmax    pmax
       comp=Z,10.0nm,0.5s
ZEA                                  MLR     MLR
       comp=E,400nm,5.0s
ZEA                                  MLR     MLR
       comp=Z,400nm,5.0s
KNGR   Kungurtug, Tuv      9.67 251 e                04 59 42.3
KNGR                                eSg      Sn      05 00 08.1  +51
TDJR   Todzha              9.71 263 eSg      Sn      05 00 08.0  +50
HEH    HeiHe              10.39 109 eP       Pn      04 57 39.3 +1.0
HEH                                  S       Sn      04 59 36.3 +1.6
HEH                                  smax    smax
       comp=N,540nm,1.1s
HEH                                  smax    smax
       comp=E,250nm,0.9s
KZLR   Kyzyl              10.91 262 eSg      Sn      05 00 46.6  +59
YAK    Yakutsk            11.86  44  Lg      Lg      05 01 13.0
       comp=E,2.3nm,0.3s,baz=155,slow=12,SNR=6.1
YAK                                  LR      LR      05 02 32.2
       comp=E,111nm,18.7s,baz=237,slow=37
YAK    Yakutsk            11.86  44⇓eP       Pn      04 57 58.8 +0.6
YAK                                  MLR     MLR
       comp=Z,125nm,11.0s
KLR    Kul'dur            13.33 106  Pn      Pn      04 58 18.3 -0.1
       comp=Z,0.3nm,0.3s,baz=327,slow=9.5,SNR=6.1
KLR                                  Lg      Lg      05 02 04.9
       comp=Z,0.3nm,0.3s,baz=17,slow=17,SNR=6.1
KLR                                  LR      LR      05 04 09.8
       comp=Z,85nm,18.8s,baz=312,slow=41
       comp=Z,0.7nm,0.4s
KLR                                  AML     AML
KLR    Kul'dur            13.33 106⇑eP       Pn      04 58 21.9 +3.5
KLR                                  MLR     MLR
       comp=Z,201nm,10.0s
HHC    Hu-ho-hao-te       13.80 181 eP       P       04 58 30.9 -2.6
HHC                                  pmax    pmax
       comp=Z,9.0nm,0.5s
HHC                                  pmax    pmax
       comp=Z,120nm,4.5s
HHC                                  LR      LR
       comp=N,440nm,10.2s
HHC                                  LR      LR
       comp=E,640nm,10.8s
HHC                                  LR      LR
       comp=Z,480nm,10.4s
BTO2   Baotou             13.98 187 eP       Pn      04 58 29.3 +1.9
BTO2                                 sP      P       04 58 36.1 +0.6
BTO2                                 S       Sn      05 01 07.1 +4.6
BTO2                                 pmax    pmax
       comp=Z,12nm,0.7s
BTO2                                 pmax    pmax
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       comp=Z,270nm,6.3s
BTO2                                 LR      LR
       comp=N,980nm,7.8s
BTO2                                 LR      LR
       comp=E,760nm,5.5s
BTO2                                 LR      LR
       comp=Z,1µm,7.5s
ZAA0   Zalesovo Array     15.83 279          Pn      04 58 48.4 -3.6
ZALV   Zalesovo Beam      15.83 279  Pn      Pn      04 58 50.7 -1.3
       comp=Z,1.8nm,0.6s,baz=87,slow=9.1,SNR=7.1
ZALV                                 Lg      Lg      05 03 23.7
       comp=Z,0.1nm,0.3s,baz=89,slow=27,SNR=6.3
ZALV   Zalesovo Beam      15.83 279 i P      Pn      04 58 53.4 +1.4
ZALV                                 pmax    pmax
       comp=Z,2.0nm,0.6s
ZALV   Zalesovo Beam      15.83 279          Pn      04 58 48.5 -3.5
USRK   Ussuriysk Ar.      16.64 121  Lg      Lg      05 03 48.8
       comp=Z,0.2nm,0.3s,baz=316,slow=29,SNR=6.6
USRK                                 LR      LR      05 06 10.7
       comp=Z,66nm,18.1s,baz=342,slow=40
GTA2   Gaotai             17.25 213 eP       P       04 59 14.9 +3.1
GTA2                                 pmax    pmax
       comp=Z,2.0nm,0.9s
GTA2                                 LR      LR
       comp=N,280nm,9.5s
GTA2                                 LR      LR
       comp=E,210nm,9.2s
GTA2                                 LR      LR
       comp=Z,290nm,11.1s
NRIK   Noril'sk           18.45 332  P       P       04 59 24.2 -0.5
       comp=Z,0.5nm,0.3s,baz=135,slow=9.0,SNR=4.5
NRIK                                 Lg      Lg      05 04 47.5
       comp=Z,0.7nm,0.3s,baz=218,slow=21,SNR=3.8
NRIK                                 LR      LR      05 07 08.0
       comp=Z,132nm,19.9s,baz=150,slow=39
       comp=Z,2.4nm,0.3s
NRIK                                 AML     AML
NRIK   Noril'sk           18.45 332⇑eP       P       04 59 24.2 -0.5
NRIK                                 pmax    pmax
       comp=Z,8.0nm,0.6s
NRIK                                 MLR     MLR
       comp=Z,422nm,11.0s
NRIK   Noril'sk           18.45 332          P       04 59 20.9 -3.8
TIXI   Tiksi              18.56  17  P       P       04 59 24.6 -1.2
       comp=Z,0.8nm,0.3s,baz=240,slow=7.5,SNR=12
TIXI                                 LR      LR      05 06 46.5
       comp=Z,142nm,18.2s,baz=228,slow=37
       comp=Z,5.3nm,0.6s
TIXI                                 AML     AML
TIXI   Tiksi              18.56  17⇓eP       P       04 59 23.6 -2.3
TIXI                                 pmax    pmax
       comp=Z,7.0nm,0.8s
TIXI                                 MLR     MLR
       comp=Z,173nm,11.0s
TIXI   Tiksi              18.56  17          P       04 59 21.1 -4.7
WMQ    Urumqi             19.09 245 eP       Pn      04 59 35.3 +2.5
LZH    Lanzhou            19.39 200 eP       Pn      04 59 42.5 +6.0
LZH                                  pP      sP      04 59 49.4 +9.1
LZH                                  pmax    pmax
       comp=Z,18nm,1.3s
LZH                                  LR      LR
       comp=N,230nm,11.0s
LZH                                  LR      LR
       comp=E,590nm,10.3s
LZH                                  LR      LR
       comp=Z,420nm,12.7s
LZDM   Lanzhou Array      19.54 200  P       P       04 59 37.0 -0.3
       baz=12,slow=7.6
       comp=Z,1.1nm,0.3s
MK31   Makanchi Array     20.25 259⇑iP       P       04 59 44.9 +0.4
MKAR   Makanchi Array     20.25 259  P       P       04 59 43.9 -0.6
       comp=Z,3.2nm,0.8s,baz=48,slow=9.0,SNR=15
       comp=Z,3.2nm,0.8s
MKAR   Makanchi Array     20.25 259 i P      P       04 59 45.0 +0.5
MKAR                                 pmax    pmax
       comp=Z,4.0nm,0.9s
KSRS   Korea Array        20.36 141  P       P       04 59 44.5 -1.2
       comp=Z,0.5nm,0.4s,baz=339,slow=9.5,SNR=1.4
KSRS                                 LR      LR      05 08 33.4
       comp=Z,95nm,18.3s,baz=310,slow=40
       comp=Z,0.5nm,0.4s
MAKZ   Makanchi           20.42 260  P       P       04 59 45.4 -0.9
MAKZ                                 pmax    pmax
       comp=Z,5.0nm,0.8s
MAKZ   Makanchi           20.42 260          P       04 59 45.4 -0.9
KURK   Kurchatov          20.48 273⇑eP       P       04 59 46.6 -0.3
KURK                                 pmax    pmax
       comp=Z,7.0nm,0.9s
KURK                                 MLR     MLR
       comp=Z,22nm,10.0s
KURK   Kurchatov          20.48 273  P       P       04 59 46.2 -0.8
KURBB  Kurchatov Arra     20.57 273  P       P       04 59 47.6 -0.4
       comp=Z,2.1nm,0.8s,baz=72,slow=10,SNR=11
       comp=Z,2.1nm,0.8s
MA2    Magadan            21.41  61⇓eP       P       04 59 55.0 -1.9
MA2                                  pmax    pmax
       comp=Z,22nm,1.6s
SEY    Seymchan           22.18  52  P       P       05 00 05.8 +0.7
       comp=Z,5.8nm,0.6s,baz=262,slow=11,SNR=15
       comp=Z,5.8nm,0.6s
SEY    Seymchan           22.18  52 eP       P       05 00 06.3 +1.2
SEY                                  pmax    pmax
       comp=Z,14nm,1.2s
WHN    Wuhan              24.14 175  P       P       05 00 31.0 +5.7
BVAR   Borovoye Array     24.34 283  P       P       05 00 26.7 -0.2
       comp=Z,3.1nm,0.6s,baz=76,slow=10,SNR=13
       comp=Z,3.1nm,0.6s
BORK   Borovoye           24.37 283⇑eP       P       05 00 27.0 -0.2
BORK                                 pmax    pmax
       comp=Z,9.0nm,1.7s
BORK   Borovoye           24.37 283  P       P       05 00 25.9 -1.3
BORK                                 IAmb    IAmb    05 00 39.4
       comp=Z,5.7nm,0.6s
MJAR   Matsushiro Arr     25.54 124  LR      LR      05 10 06.5
       comp=Z,26nm,19.6s,baz=59,slow=35
BILL   Bilibino           28.17  40⇑eP       P       05 01 02.6 +1.2
BILL                                 pmax    pmax
       comp=Z,6.0nm,1.4s
BILL                                 MLR     MLR
       comp=Z,32nm,14.0s
PZH    PanZhiHua          29.10 199  P       P       05 01 15.3 +5.2
ARCES  ARCESS Array B     39.26 326  P       P       05 02 36.7 -0.7
       comp=Z,1.6nm,0.7s,baz=64,slow=8.6,SNR=5.3
ARCES                                pP      pP      05 02 42.0 +0.9
       comp=Z,0.4nm,0.5s,baz=59,slow=11,SNR=1.3
       comp=Z,1.6nm,0.7s
ARCES  ARCESS Array B     39.26 326  P       P       05 02 36.0 -1.4
ARCES                                IAmb    IAmb    05 02 37.0
       comp=Z,13nm,1.5s
OBN    Obninsk            41.39 303⇑eP       P       05 02 54.1 -1.1
OBN                                  pmax    pmax
       comp=Z,5.0nm,1.0s
OBN                                  MLR     MLR
       comp=Z,102nm,14.0s
OBN    Obninsk            41.39 303  P       P       05 02 54.3 -0.9
       comp=Z,17nm,0.5s
OBN                                  pP      pP      05 02 57.9 -1.0
       comp=Z,17nm,0.5s
E21K   Killik River       42.19  33  P       P       05 03 02.0 +0.3
FINES  FINESS Array B     42.81 315  P       P       05 03 06.3 -0.4
       comp=Z,5.1nm,0.8s,baz=82,slow=10,SNR=7.8
FINES                                pP      pP      05 03 11.1 +0.5
       comp=Z,4.0nm,0.7s,baz=61,slow=8.6,SNR=2.7
       comp=Z,5.1nm,0.8s
FINES  FINESS Array B     42.81 315 i P      P       05 03 06.9 +0.2
FINES                                pmax    pmax
       comp=Z,5.0nm,0.8s
FINES  FINESS Array B     42.81 315  P       P       05 03 06.2 -0.5
AKT    Akhty              43.38 280 eP       P       05 03 11.9 +0.1
AKT                                 e                05 04 59.5
AKT                                 ePPP     PPP     05 05 25.3
AKT                                 eS       S       05 09 39.7 +0.2
AKT                                  pmax    pmax
       comp=Z,6.0nm,0.8s
AKT                                  MLR     MLR
       comp=Z,110nm,9.0s
F24K   Squaw Lake         44.62  33  P       P       05 03 21.0 -0.3
F24K                                 IAmb    IAmb    05 03 29.1
       comp=Z,5.7nm,1.1s
KIV    Kislovodsk         44.66 286 eP       P       05 03 21.7 -0.2
KIV                                  pmax    pmax
       comp=Z,10.0nm,1.0s
KIV    Kislovodsk         44.66 286  P       P       05 03 21.2 -0.7
NEUR   Neytrino           45.09 285⇑eP       P       05 03 26.7 +1.2
NEUR                                 pmax    pmax
       comp=Z,6.0nm,1.2s
NEUR                                 MLR     MLR
```

	comp=Z,48nm,16.0s						
BMAR	Burnt Mountain	45.70	32	P	P	05 03 30.4	+0.6
G26K	Porcupine Rive	46.24	32		P	05 03 34.2	+0.2
G26K				IAmb	IAmb	05 03 36.0	
	comp=Z,4.7nm,0.8s						
CCB	Clear Creek Bu	46.37	36	P	P	05 03 35.1	0.0
WRH	Wood River Hil	46.38	36	P	P	05 03 34.4	-0.8
WRH				IAmb	IAmb	05 03 36.5	
	comp=Z,4.4nm,1.0s						
E28M	Babbage River	46.43	29	P	P	05 03 36.0	+0.4
E28M				IAmb	IAmb	05 04 03.7	
	comp=Z,5.2nm,1.3s						
PRP	Porcupine Dome	46.59	34	P	P	05 03 37.0	+0.1
IL31		46.60	35	P	P	05 03 36.0	-0.9
ILAR	Eielson Array	46.60	35	P	P	05 03 37.4	+0.4
	comp=Z,3.2nm,0.9s,baz=300,slow=6.8,SNR=30						
	comp=Z,3.2nm,0.9s						
ILAR	Eielson Array	46.60	35	P	P	05 03 35.9	-1.1
SKT	Skwentna	46.67	40	P	P	05 03 37.2	-0.3
HDA	Harding Lake	46.81	36	P	P	05 03 37.9	-0.7
HDA				IAmb	IAmb	05 03 43.3	
	comp=Z,3.1nm,0.8s						
CUT	Chulitna	46.88	39	P	P	05 03 39.5	+0.4
F28M	Old Crow	46.98	30	P	P	05 03 39.6	-0.3
F28M				IAmb	IAmb	05 03 41.2	
	comp=Z,3.9nm,1.1s						
E29M	Blow River	47.02	28		P	05 03 40.1	-0.1
AK03	Malin Array Si	47.56	301	P	P	05 03 43.7	-0.8
AKASG	Malin Array Be	47.57	301	P	P	05 03 44.0	-0.6
	comp=Z,2.6nm,0.8s,baz=49,slow=8.6,SNR=13						
	comp=Z,2.6nm,0.8s						
AKASG	Malin Array Be	47.57	301	ceP	P	05 03 44.2	-0.4
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.8s						
AKASG	Malin Array Be	47.57	301	IAmb	IAmb	05 03 49.7	
	comp=Z,3.9nm,1.4s						
AKBB	Malin Array Si	47.57	301	⇓eP	P	05 03 43.8	-0.8
AKBB	Malin Array Si	47.57	301	P	P	05 03 43.5	-1.1
AK01	Malin Array Si	47.58	301	P	P	05 03 44.1	-0.6
KIEV	Kiev	47.58	301	P	P	05 03 43.7	-1.0
	comp=Z,25nm,1.0s						
AK04	Malin Array Si	47.59	301	P	P	05 03 44.1	-0.7
AK09	Malin Array Si	47.59	301	P	P	05 03 44.2	-0.6
GHO	Glory Hole Cre	47.77	39	P	P	05 03 45.5	-0.7
GHO				IAmb	IAmb	05 03 53.3	
	comp=Z,3.0nm,0.9s						
I27K	Kandik River	47.78	33	P	P	05 03 47.1	+0.9
PMR	Palmer	47.81	40	P	P	05 03 45.3	-1.0
PMR				pmax	pmax		
	comp=Z,4.0nm,1.2s						
PMR	Palmer	47.81	40	P	P	05 03 45.3	-1.0
PMR				IAmb	IAmb	05 03 51.6	
	comp=Z,3.8nm,1.2s						
I28M	Miner Creek	48.41	32	P	P	05 03 51.1	0.0
I28M				IAmb	IAmb	05 03 56.7	
	comp=Z,3.8nm,1.0s						
G30M	tAoh Zraii Nji	48.45	29	P	P	05 03 50.7	-0.6
KOPT	Kop Dagi	48.47	283		P	05 03 52.1	0.0
HFS	Hagfors	48.50	319	P	P	05 03 51.2	-0.5
	comp=Z,4.4nm,0.6s,baz=221,slow=3.2,SNR=6.5						
HFS				pP	pP	05 03 55.7	+0.2
	comp=Z,4.1nm,0.5s,baz=56,slow=7.8,SNR=5.6						
	comp=Z,4.4nm,0.6s						
RNPP9	Sopachiv	48.76	304	P	P	05 03 53.1	-0.7
LUBAR	Lubar, Ukraine	48.79	301	P	P	05 03 53.7	-0.4
RNPP8	Varash	48.82	304	P	P	05 03 54.2	-0.1
NB2	NORSAR Subarra	48.85	321	P	P	05 03 53.8	-0.7
	comp=Z,3.2nm,0.8s,baz=52,slow=7.9						
NOA	NORSAR Array B	48.85	321	P	P	05 03 54.1	-0.3
	comp=Z,2.3nm,0.7s,baz=51,slow=7.7,SNR=5.9						
NOA				pP	pP	05 03 58.6	+0.4
	comp=Z,3.4nm,0.9s,baz=50,slow=7.8,SNR=4.0						
	comp=Z,2.3nm,0.7s						
RNPP5	Staryi Chortor	48.88	304	P	P	05 03 54.1	-0.6
KDAK	Kodiak Island	48.89	45	LR	LR	05 26 52.6	
	comp=Z,70nm,18.5s,baz=317,slow=39						
KLU	Klutina	49.05	38	P	P	05 03 55.6	-0.4
KLU				IAmb	IAmb	05 04 03.3	
	comp=Z,3.8nm,0.9s						
L27K	Beaver Creek,	49.42	35	P	P	05 03 58.7	-0.1
L27K				IAmb	IAmb	05 04 00.1	
	comp=Z,2.7nm,0.8s						
BCAR	Beaver Creek A	49.43	35	P	P	05 03 58.3	-0.6
MYLDM	Lahad Datu	49.60	171	P	P	05 04 02.6	+2.0
SORM	Soroca	49.65	299	P	P	05 03 59.3	-1.4
	comp=Z,10nm,2.8s						
BMRM	Bremner River	49.87	38	P	P	05 04 01.7	-0.6
BMRM				IAmb	IAmb	05 04 03.8	
	comp=Z,5.5nm,1.2s						
M27K	Edge Creek, AK	49.88	36	P	P	05 04 01.9	-0.5
M27K				IAmb	IAmb	05 04 04.9	
	comp=Z,5.7nm,1.2s						
MCARA	McCarthy VSAT	50.15	37	P	P	05 04 04.2	-0.2
MCARA				IAmb	IAmb	05 04 05.0	
	comp=Z,3.0nm,0.8s						
RAGM	Ragged Mountai	50.24	39	P	P	05 04 03.8	-1.2
RAGM				IAmb	IAmb	05 04 13.4	
	comp=Z,5.3nm,1.1s						
K29M	Barlow Dome	50.27	33	P	P	05 04 05.2	-0.1
KMPD	K-Podol'skiy	50.32	301	P	P	05 04 04.8	-1.0
KWP	Kalwaria Pacla	51.46	304	P	P	05 04 15.2	+0.9
	comp=Z,17nm,2.1s						
BUR08	Bucovina Ar. S	51.56	300		P	05 04 15.2	-0.1
BUR08				IAmb	IAmb	05 04 16.4	
	comp=Z,5.8nm,0.9s						
BURAR	Bucovina Array	51.58	300	P	P	05 04 14.5	-0.9
BURAR				pmax	pmax		
	comp=Z,5.0nm,0.9s						
BURAR	Bucovina Array	51.58	300	P	P	05 04 14.5	-0.9
BURAR				IAmb	IAmb	05 04 16.7	
	comp=Z,4.5nm,0.8s						
BRTR	Keskin Array B	52.51	288	P	P	05 04 22.8	+0.3
	comp=Z,0.8nm,0.7s,baz=55,slow=6.5,SNR=5.0						
BRTR				pP	pP	05 04 27.4	+1.2
	comp=Z,1.9nm,0.8s,baz=55,slow=3.5,SNR=7.9						
BRTR				LR	LR	05 32 19.9	
	comp=Z,9.3nm,20.9s,baz=99,slow=42						
	comp=Z,0.8nm,0.7s						
BRTR	Keskin Array B	52.51	288	ceP	P	05 04 23.2	+0.7
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
BRTR	Keskin Array B	52.51	288	P	P	05 04 22.2	-0.3
BR106	Keskin Array S	52.51	288	P	P	05 04 22.0	-0.5
	comp=Z,2.5nm,0.8s						
N31M	Braeburn, Yuko	52.53	34	P	P	05 04 22.1	-0.1
N31M				IAmb	IAmb	05 04 28.6	
	comp=Z,5.3nm,0.9s						
ISR	Istrita	52.59	297	P	P	05 04 21.5	-1.4
MLR	Muntele Rosu	52.65	298	P	P	05 04 23.2	-0.2
MLR				pmax	pmax		
	comp=Z,8.0nm,1.3s						
MLR	Muntele Rosu	52.65	298	P	P	05 04 23.2	-0.2
MLR				IAmb	IAmb	05 04 41.1	
	comp=Z,7.9nm,1.3s						
CHVC	Chvalec	53.93	308	eP	P	05 04 33.4	+0.8
CHVC				e*PP	pP	05 04 37.7	+1.3
CHVC	Chvalec	53.93	308	eP	P	05 04 33.4	+0.8
CHVC				epP	pP	05 04 37.7	+1.3
KRLC	Kraliky	53.95	307	eP	P	05 04 33.8	+1.0
KRLC				e*PP	pP	05 04 37.8	+1.1
KRLC	Kraliky	53.95	307	eP	P	05 04 33.8	+1.0
KRLC				epP	pP	05 04 37.8	+1.1
DPC	Dobruska-Polom	53.97	308	eP	P	05 04 33.9	+0.9
DPC	Dobruska-Polom	53.97	308	eP	P	05 04 33.9	+0.9
PSZ	Piszkesteto	53.99	304	P	P	05 04 32.6	-0.6
PSZ				pmax	pmax		
	comp=Z,5.0nm,1.3s						
PSZ	Piszkesteto	53.99	304	P	P	05 04 32.6	-0.6
PSZ				IAmb	IAmb	05 04 38.7	
	comp=Z,5.3nm,1.3s						
VRAC	Vranov	54.58	307	LR	LR	05 30 28.0	
	comp=Z,74nm,18.1s,baz=351,slow=39						
CLL	Collm	54.79	311	i P	P	05 04 38.5	-0.3
CLL	Collm	54.79	311	i P	P	05 04 38.5	-0.3
CLL				i x	x	05 04 43.0	
ZVC	Zvikov	55.59	308	eP	P	05 04 45.3	+0.6
ZVC				epP	pP	05 04 49.7	+1.2
RONA	Rosalia, Austr	55.86	306	epP	P	05 04 47.2	+0.6
	comp=Z,2.1nm,0.9s						
CKRC	Cesky Krumlov	55.98	308	eP	P	05 04 47.9	+0.4
CKRC				e*PP	pP	05 04 52.4	+1.1
CKRC	Cesky Krumlov	55.98	308	eP	P	05 04 47.9	+0.4
CKRC				epP	pP	05 04 52.4	+1.1
KHC	Kasperske Hory	56.09	308	eP	P	05 04 49.0	+0.7
KHC				e*PP	pP	05 04 53.3	+1.2
KHC	Kasperske Hory	56.09	308	eP	P	05 04 49.0	+0.7
KHC				epP	pP	05 04 53.3	+1.2
GERES	GERESS Array B	56.24	308	P	P	05 04 49.5	+0.1
	comp=Z,1.3nm,0.6s,baz=28,slow=3.2,SNR=7.0						
GERES				pP	pP	05 04 54.3	+1.0
	comp=Z,0.9nm,0.7s,baz=46,slow=8.4,SNR=8.4						
	comp=Z,1.3nm,0.6s						
GERES	GERESS Array B	56.24	308	P	P	05 04 48.7	-0.7
ARSA	Arzberg	56.55	306	epP	P	05 04 52.2	+0.6
	comp=Z,1.8nm,0.9s						
MOA	Molln	56.70	307	eP	P	05 04 51.4	-1.3
	comp=Z,4.4nm,1.6s						
SOKA	Soboth	57.20	306	epP	P	05 04 56.1	-0.2
	comp=Z,2.4nm,1.2s						
OBKA	Obir	57.55	306	epP	P	05 04 59.7	+1.0
	comp=Z,3.0nm,0.7s						
KBA	Koelnbreinsper	57.70	307	epP	P	05 05 01.1	+1.2
	comp=Z,4.7nm,0.8s						
LESA	Schwarzleotal	57.75	308	i pP	P	05 05 01.1	+1.0
	comp=Z,2.6nm,0.9s						
MYKA	Terra Mystica	57.88	306	epP	P	05 05 01.6	+0.6
	comp=Z,2.0nm,0.5s						
EKA	Eskdalemuir Ar	58.21	323	P	P	05 05 02.8	-0.3
	comp=Z,2.6nm,0.7s,baz=51,slow=5.6,SNR=4.5						
	comp=Z,2.6nm,0.7s						
WATA	Walderalm	58.32	308	epP	P	05 05 05.2	+1.0
	comp=Z,2.2nm,0.7s						
WTTA	Wattenberg	58.35	308	epP	P	05 05 05.5	+1.0
	comp=Z,3.2nm,0.8s						
SQTA	Sankt Quirin	58.57	308	epP	P	05 05 06.6	+0.7
	comp=Z,2.2nm,0.9s						
RETA	Reutte	58.58	309	epP	P	05 05 06.5	+0.6
	comp=Z,3.7nm,1.2s						
FETA	Feichten	58.94	308	epP	P	05 05 09.3	+0.8
	comp=Z,3.4nm,0.9s						
DAVA	Damuels	59.13	309	epP	P	05 05 11.7	+1.8
	comp=Z,3.8nm,1.1s						
FUORN	Ofenpass-Fuorn	59.45	308	P	P	05 05 11.9	-0.3
ESDC	Sonseca Array	71.26	313	P	P	05 06 28.2	-0.4
	comp=Z,1.1nm,1.0s,baz=27,slow=5.9,SNR=6.6						
	comp=Z,1.1nm,1.0s						
ESDC	Sonseca Array	71.26	313	P	P	05 06 28.6	+0.1
ULM	Lac du Bonnet	72.91	18	P	P	05 06 37.9	-0.2
	comp=Z,1.8nm,0.7s,baz=295,slow=3.2,SNR=3.1						
	comp=Z,1.8nm,0.7s						
PDAR	Pinedale Array	76.70	30	P	P	05 06 58.6	-1.9
	comp=Z,0.4nm,0.7s,baz=356,slow=2.1,SNR=4.4						
	comp=Z,0.4nm,0.7s						
WRA	Warramunga Arr	76.71	158	P	P	05 06 59.5	-0.9
	comp=Z,0.8nm,0.8s,baz=344,slow=5.7,SNR=4.9						
	comp=Z,0.8nm,0.8s						
NVAR	Mina Array Bea	77.77	38	P	P	05 07 06.5	0.0
	comp=Z,0.3nm,0.7s,baz=331,slow=3.6,SNR=4.0						
	comp=Z,0.3nm,0.7s						
ASAR	Alice Springs	80.24	160	P	P	05 07 18.9	-0.9
	comp=Z,0.3nm,0.7s,baz=345,slow=8.4,SNR=3.0						
	comp=Z,0.3nm,0.7s						
TORD	Torodi Ar. Bea	90.70	294	P	P	05 08 11.2	-1.1
	comp=Z,1.4nm,1.0s,baz=48,slow=3.6,SNR=5.2						
	comp=Z,1.4nm,1.0s						
QSPA	South Pole Qui	144.40	180	PKP	PKPab	05 14 40.7	-1.7
	comp=Z,3.1nm,0.8s,baz=263,slow=0.7,SNR=9.6						
QSPA	South Pole Qui	144.40	180		PKPab	05 14 41.3	-1.1
TROLL	Troll, Antarti	146.46	212	⇑PKPdf	PKPbc	05 14 48.6	-0.5
	comp=Z,121nm,1.0s						
VNA2	Neumayer--Watz	149.56	214	⇑PKPdf	PKPbc	05 14 56.5	-0.7
	comp=Z,1.8nm,0.4s,baz=87,slow=3.0						
VNA1	Neumayer--Stat	149.85	215	⇑PKPdf	PKPbc	05 14 57.4	-0.4
	comp=Z,3.4nm,0.9s						
VNA3	Neumayer Olymp	150.29	214	⇑PKPdf	PKPbc	05 14 58.0	-1.0
	comp=Z,4.0nm,0.8s						

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*IDC **13** 05:03:34.0±0.9, 62°.17S×57°.82W, h0^{km}, mb4.0/6, mbtmp3.9/7, ML3.2/1, MS3.2/3, Error ellipse: s-maj=24.8km s-min=18.8km az=99.0*

*NEIC **13** 05:03:35.1±1.9, 62°.30S±0°.05×58°.35W±0°.10, h10^{km}±1^{km}, mb4.6/12, Error ellipse: s-maj=10.1km s-min=4.0km az=223.0*

ISC 13 05:03:35.2±0.6**, 62°.29S**±0°.07×**58°.30W**±0°.08**, h10**^{km}**, n39, σ1^{s}.19**/33**, mb4.1**/13**, 3C, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ESPZ	Base Esperanza	1.27	152	Pn	Pn	05 03 57.1	-1.7
PMSA	Palmer Station	3.59	223	Pn	Pn	05 04 31.4	+0.7
	1.6nm,0.3s,baz=35,slow=11,SNR=13						
PMSA				Sn	Sb	05 05 21.4	-0.7
	10nm,0.3s,baz=160,slow=23,SNR=9.6						
PMSA				LR	LR	05 06 05.2	
	comp=Z,182nm,20.5s,baz=147,slow=40						
	4.7nm,0.4s						
PMSA				AML	AML		
PMSA	Palmer Station	3.59	223		Pn	05 04 30.2	-0.5
ORCD	Orcadas	6.67	83	Pn	Pn	05 05 12.7	-0.3
SMAI	San Martin Ant	6.93	208	Pn	Pn	05 05 16.1	-0.5
EFI	East Falkland	10.64	1	Pn	Pn	05 06 08.7	+1.3
VNA3	Neumayer Olymp	20.54	136	⇑P	Pn	05 08 16.4	+0.8
	comp=Z,8.0nm,0.6s						
VNA1	Neumayer--Stat	21.01	135	⇑P	P	05 08 21.0	+2.7
	comp=Z,5.9nm,0.8s						
VNA2	Neumayer--Watz	21.29	135	⇑P	P	05 08 23.5	+2.2
	comp=Z,3.8nm,0.7s,baz=272,slow=11						
SNAA	Sanae	22.71	138	P	P	05 08 37.3	+0.6
	comp=Z,4.6nm,0.8s,baz=280,slow=8.7,SNR=7.8						
SNAA				LR	LR	05 15 59.8	
	comp=Z,48nm,21.4s,baz=277,slow=33						
	comp=Z,4.6nm,0.8s						
SNAA	Sanae	22.71	138	P	P	05 08 36.2	-0.5
PLCA	Paso Flores	22.81	335	P	P	05 08 38.6	+0.7
	comp=Z,2.0nm,0.8s,baz=164,slow=7.3,SNR=3.1						
PLCA				LR	LR	05 16 44.8	
	comp=Z,100nm,18.4s,baz=200,slow=35						
	comp=Z,2.0nm,0.8s						
TROLL	Troll, Antarti	24.35	139	P	P	05 08 54.5	+1.7
	comp=Z,80nm,0.7s						
QSPA	South Pole Qui	27.94	180	P	P	05 09 26.7	+1.4
	comp=Z,1.4nm,0.7s,baz=184,slow=2.6,SNR=12						
	comp=Z,1.4nm,0.7s						
QSPA	South Pole Qui	27.94	180	P	P	05 09 26.0	+0.6
QSPA				IAmb	IAmb	05 09 35.1	
	comp=Z,6.5nm,1.2s						
CPUP	Villa Florida	35.95	1	P	P	05 10 36.7	+1.1
	comp=Z,1.1nm,0.8s,baz=174,slow=12,SNR=3.8						
	comp=Z,1.1nm,0.8s						
CPUP	Villa Florida	35.95	1	P	P	05 10 35.6	0.0
MAW	Mawson	43.63	152	P	P	05 11 40.2	+1.2
	comp=Z,2.5nm,0.9s,baz=215,slow=7.3,SNR=5.2						
	comp=Z,2.5nm,0.9s						
MAW	Mawson	43.63	152	P	P	05 11 39.9	+0.9
H10S2	ASCENSION HYDR	61.90	51	T	T	06 21 10.4	
	baz=18,slow=74,SNR=12						
H10S3	ASCENSION HYDR	61.90	51	T	T	06 21 09.5	
	baz=202,slow=74,SNR=9.8						
BOSA	Boshof	62.14	99	P	P	05 13 56.0	-0.3
	comp=Z,3.5nm,1.0s,baz=216,slow=10,SNR=3.8						
	comp=Z,3.5nm,1.0s						
BOSA	Boshof	62.14	99	P	P	05 13 55.7	-0.6
H10N3	ASCENSION HYDR	62.99	50	T	T	06 22 28.0	
	baz=202,slow=75,SNR=18						
H10N1	ASCENSION HYDR	62.99	50	T	T	06 22 28.5	
	baz=202,slow=75,SNR=19						
H10N2	ASCENSION HYDR	63.01	50	T	T	06 22 29.3	
	baz=202,slow=75,SNR=19						
BOAV	Boa Vista	64.53	358	P	P	05 14 11.0	-1.0
BOAV				IAmb	IAmb	05 14 52.2	
	comp=Z,5.7nm,1.4s						
LBTB	Lobatse	65.36	97	P	P	05 14 16.9	-0.7
LBTB				IAmb	IAmb	05 14 56.9	
	comp=Z,7.3nm,1.2s						
TSUM	Tsumeb	66.62	87	P	P	05 14 25.6	-0.1
TSUM				IAmb	IAmb	05 14 59.8	
	comp=Z,8.3nm,1.4s						
VOI	Vohitsoka	77.59	113	P	P	05 15 32.2	+0.8
TOO	Toolangi	78.65	199	P	P	05 15 36.9	-0.1
TOO				IAmb	IAmb	05 16 05.0	
	comp=Z,8.1nm,1.4s						
DBIC	Dimbokro	79.94	54	P	P	05 15 42.5	-1.7
DBIC				IAmb	IAmb	05 16 13.3	
	comp=Z,16nm,1.4s						
TOA0	Torodi Ar. Sit	88.40	58	P	P	05 16 27.7	+0.7
GERES	GERESS Array B	124.62	50	PKP	PKPdf	05 22 32.0	-1.7
	comp=Z,0.3nm,0.3s,baz=141,slow=0.9,SNR=3.8						
GERES	GERESS Array B	124.62	50		PKPdf	05 22 32.1	-1.6
ARCES	ARCESS Array B	144.07	37	PKhKP	PKPpre	05 23 05.2	
	comp=Z,2.2nm,0.6s,baz=261,slow=1.6,SNR=12						
BVAR	Borovoye Array	151.76	85	PKPbc	PKPbc	05 23 27.5	-1.1
	comp=Z,3.0nm,0.6s,baz=228,slow=1.8,SNR=11						
MKAR	Makanchi Array	152.93	107	PKPbc	PKPbc	05 23 30.1	-1.4
	comp=Z,0.7nm,0.6s,baz=230,slow=1.8,SNR=7.2						
MKAR	Makanchi Array	152.93	107	PKPdf	PKPdf	05 23 25.0	+0.8

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*NEIC **13** 05:18:26.9±1.2, 62°.16S±0°.03×58°.11W±0°.08, h10^{km}±1^{km}, mb4.5/10, Error ellipse: s-maj=7.1km s-min=4.8km az=305.0*

*IDC **13** 05:18:27.2±0.8, 62°.13S×58°.67W, h0^{km}, mb4.0/7, mbtmp4.0/8, ML3.1/1, MS3.4/9, Error ellipse: s-maj=32.8km s-min=18.1km az=103.0*

ISC 13 05:18:27.5±0.5**, 62°.20S**±0°.06×**58°.90W**±0°.08**, h10**^{km}**, n45, σ1^{s}.66**/39**, mb4.2**/12**, MS3.4**/9**, 5C-1D, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ESPZ	Base Esperanza	1.49	145	Pn	Pn	05 18 51.7	-2.5
ESPZ				Sn	Sn	05 19 07.7	-6.0
PMSA	Palmer Station	3.46	220	Pn	Pn	05 19 21.6	+0.2
	1.7nm,0.3s,baz=139,slow=22,SNR=5.0						
PMSA				Sn	Sg	05 20 14.2	-4.4
	9.2nm,0.3s,baz=317,slow=23,SNR=6.0						
	7.6nm,0.5s						
PMSA				AML	AML		
PMSA	Palmer Station	3.46	220		Pn	05 19 19.8	-1.6
SMAI	San Martin Ant	6.88	207	Pn	Pn	05 20 10.5	+2.3
ORCD	Orcadas	6.94	84		Pn	05 20 03.4	-5.7
EFI	East Falkland	10.56	3	Pn	Pn	05 20 57.9	-0.8
MG02	Cerro Sombrero	10.94	325	Pn	Pn	05 21 05.7	+1.8
VNA3	Neumayer Olymp	20.80	136	⇑P	P	05 23 10.3	+1.8
	comp=Z,3.8nm,0.9s						
VNA3	Neumayer Olymp	20.80	136	⇓pP	pP	05 23 13.8	+2.6
VNA1	Neumayer--Stat	21.27	135	⇑P	P	05 23 15.8	+2.3
	comp=Z,10nm,1.0s						
VNA2	Neumayer--Watz	21.55	136	⇑P	P	05 23 18.2	+1.8
	comp=Z,5.9nm,0.7s,baz=267,slow=11						
PLCA	Paso Flores	22.62	336	LR	LR	05 31 19.0	
	comp=Z,108nm,18.4s,baz=202,slow=34						
SNAA	Sanae	22.97	138	⇑P	P	05 23 33.5	+1.9
	comp=Z,120nm,0.9s						
SNAA	Sanae	22.97	138	P	P	05 23 32.9	+1.2
	comp=Z,6.8nm,1.0s,baz=263,slow=9.0,SNR=7.9						
SNAA				LR	LR	05 31 04.1	
	comp=Z,106nm,18.6s,baz=276,slow=33						
	comp=Z,6.8nm,1.0s						
SNAA	Sanae	22.97	138	P	P	05 23 31.7	0.0
SNAA				IAmb	IAmb	05 23 35.5	
	comp=Z,8.1nm,1.0s						
TROLL	Troll, Antarti	24.60	139	⇑P	P	05 23 49.7	+2.3
	comp=Z,118nm,0.9s						
QSPA	South Pole Qui	28.02	180	P	P	05 24 20.8	+2.3
	comp=Z,2.5nm,0.9s,baz=150,slow=4.1,SNR=5.2						
	comp=Z,2.5nm,0.9s						
QSPA	South Pole Qui	28.02	180	P	P	05 24 18.0	-0.5
QSPA				IAmb	IAmb	05 24 30.9	
	comp=Z,7.2nm,1.1s						
CO01	Juntas del Tor	33.05	342	P	P	05 25 02.5	-0.7
CO01				IAmb	IAmb	05 25 15.6	
	comp=Z,10nm,1.1s						
AC05	El Transito	34.20	342	P	P	05 25 11.9	-1.1
AC05				IAmb	IAmb	05 25 21.8	
	comp=Z,6.5nm,1.0s						
CPUP	Villa Florida	35.88	2	P	P	05 25 27.8	+0.4
	comp=Z,0.7nm,0.7s,baz=173,slow=6.5,SNR=5.6						
	comp=Z,0.7nm,0.7s						
CPUP	Villa Florida	35.88	2	P	P	05 25 26.3	-1.1
MAW	Mawson	43.84	152	P	P	05 26 34.5	+1.4
	comp=Z,3.0nm,0.9s,baz=218,slow=5.5,SNR=5.1						
MAW				LR	LR	05 43 58.5	
	comp=Z,97nm,20.4s,baz=218,slow=35						
	comp=Z,3.0nm,0.9s						
MAW	Mawson	43.84	152	P	P	05 26 33.3	+0.2
SIV	San Ignacio	46.18	357	LR	LR	05 48 16.8	
	comp=Z,44nm,18.9s,baz=120,slow=39						
BDFB	Brasilia	47.14	14	P	P	05 27 01.1	+1.3
	comp=Z,1.1nm,0.3s,baz=129,slow=5.6,SNR=3.8						
	comp=Z,1.1nm,0.3s						
BDFB	Brasilia	47.14	14	P	P	05 26 58.8	-1.0
VILB	Vilhena	49.18	358	P	P	05 27 13.9	-1.6
VILB				IAmb	IAmb	05 27 25.5	
	comp=Z,6.2nm,1.0s						
CZSB	Cruzeiro do Su	55.30	343	P	P	05 27 59.8	-1.2
BOSA	Boshof	62.43	99	LR	LR	05 52 40.9	
	comp=Z,27nm,18.3s,baz=208,slow=33						
BOSA	Boshof	62.43	99	P	P	05 28 48.8	-1.8
LBTB	Lobatse	65.65	98	LR	LR	05 52 20.1	
	comp=Z,26nm,19.8s,baz=174,slow=31						
LBTB	Lobatse	65.65	98	P	P	05 29 09.8	-2.0
LBTB				IAmb	IAmb	05 29 25.2	
	comp=Z,2.9nm,1.0s						
MDP	Montagnes des	67.28	7	LR	LR	05 58 50.3	
	comp=Z,9.6nm,18.1s,baz=102,slow=36						
SDV	Santo Domingo	71.45	348	LR	LR	06 04 46.0	
	comp=Z,29nm,18.8s,baz=267,slow=39						
SJG	San Juan	80.25	353	LR	LR	06 07 28.1	
	comp=Z,18nm,18.8s,baz=207,slow=37						
TORD	Torodi Ar. Bea	88.59	58	P	P	05 31 21.8	+1.5
	comp=Z,0.2nm,0.5s,baz=221,slow=4.9,SNR=1.1						
	comp=Z,0.2nm,0.5s						
ASAR	Alice Springs	93.82	192	P	P	05 31 45.0	+0.2
	comp=Z,0.9nm,1.0s,baz=155,slow=3.4,SNR=4.9						
	comp=Z,0.9nm,1.0s						
ASAR	Alice Springs	93.82	192	P	P	05 31 44.2	-0.6
ARCES	ARCESS Array B	144.17	37	PKP	PKPab	05 38 00.1	+0.7
	comp=Z,2.8nm,0.7s,baz=246,slow=2.4,SNR=7.1						
ARCES	ARCESS Array B	144.17	37		PKPab	05 38 00.2	+0.8
LZDM	Lanzhou Array	151.56	149	PKPbc	PKiKP	05 38 23.3	+1.4
	comp=Z,0.7nm,0.3s,baz=205,slow=3.0,SNR=3.7						
BVAR	Borovoye Array	152.04	86	PKPbc	PKPbc	05 38 22.2	+0.6
	comp=Z,3.0nm,0.7s,baz=246,slow=2.6,SNR=13						
MKAR	Makanchi Array	153.23	107	PKPbc	PKPbc	05 38 24.8	+0.4
	comp=Z,0.7nm,0.6s,baz=222,slow=2.0,SNR=6.6						
MKAR	Makanchi Array	153.23	107		PKPdf	05 38 15.2	-1.7
MKAR				PKPbc	PKiKP	05 38 25.5	+0.9
MKAR				PKPab	PKPab	05 38 38.5	+2.1

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*NEIC **13** 05:34:37.6±1.0, 4°.2S±0°.1×153°.75E±0°.04, h101^{km}±9^{km}, mb4.2/12, Error ellipse: s-maj=20.3km s-min=5.6km az=174.0*

*IDC **13** 05:34:38.8±5.8, 4°.31S×153°.68E, h105^{km}±38^{km}, mb3.6/3, mbtmp4.0/4, MS4.1/1, Error ellipse: s-maj=59.4km s-min=38.3km az=84.0*

ISC 13 05:34:36.9±0.8**, 4°.3S**±0°.1×**153°.79E**±0°.09**, h100**^{km}**, n23, σ0^{s}.67**/24**, mb4.1**/9**, New Ireland region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RABL	Rabaul	1.62	272		Pn	05 35 04.6	-0.1
RABL				Sn	Sn	05 35 25.4	-0.4
KRVT	Keravat (AS076	1.76	268	P	Pn	05 35 06.7	+0.3
	134nm,0.4s,baz=251,slow=22,SNR=4.1						
KRVT				S	Sn	05 35 28.9	0.0
	285nm,0.4s,baz=280,slow=21,SNR=5.3						
PMG	Port Moresby	8.34	232	P	Pn	05 36 36.3	+1.2
	12nm,0.4s,baz=59,slow=6.7,SNR=8.5						
PMG	Port Moresby	8.34	232		Pn	05 36 35.5	+0.4
WB0	Warramunga Arr	24.40	229	P	P	05 39 46.3	+0.1
WB0				IAmb	IAmb	05 40 06.4	
	comp=Z,7.8nm,1.4s						
WR8	Warramunga Arr	24.43	229	P	P	05 39 46.9	+0.4
WR8				IAmb	IAmb	05 40 23.0	
	comp=Z,10nm,1.4s						
WRAB	Tennant Creek	24.53	229	P	P	05 39 47.2	-0.2
WRA	Warramunga Arr	24.55	229	P	P	05 39 47.9	+0.4
	comp=Z,2.3nm,0.5s,baz=54,slow=10.0,SNR=29						
	comp=Z,2.3nm,0.5s						
WRA	Warramunga Arr	24.55	229	P	P	05 39 46.6	-1.0
ASAR	Alice Springs	27.22	223	P	P	05 40 11.5	-0.2
	comp=Z,0.4nm,0.6s,baz=53,slow=9.3,SNR=5.8						
	comp=Z,0.4nm,0.6s						
ASAR	Alice Springs	27.22	223	P	P	05 40 10.1	-1.6
STKA	Stephens Creek	29.77	201	P	P	05 40 34.4	+0.1
	comp=Z,2.4nm,0.8s,baz=4.3,slow=8.7,SNR=4.4						
	comp=Z,2.4nm,0.8s						
TOO	Toolangi	34.03	192	P	P	05 41 10.5	-0.9
TOO				IAmb	IAmb	05 41 42.9	
	comp=Z,11nm,1.4s						
FORT	Forrest	35.84	220	P	P	05 41 26.7	-0.4
RAO	Raoul Island	36.57	136	LR	LR	05 55 42.1	
	comp=Z,309nm,20.0s,baz=150,slow=34						
NIUE	Niue	38.36	116	P	P	05 41 48.4	-0.2
VNDA	Vanda	73.35	178	P	P	05 45 56.8	-0.6

L16K	**Owhat River**	**74.88**	**21**	P	**P**	**05 46 06.9**	**+0.5**
L16K				IAmb	IAmb	05 46 31.7	
	comp=Z,9.9nm,1.4s						
PPLA	**Purkeypile**	**78.29**	**22**	P	**P**	**05 46 26.0**	**+0.1**
PPLA				IAmb	IAmb	05 46 35.3	
	comp=Z,4.3nm,1.2s						
BPAW	**Bear Paw Mtn.**	**79.41**	**22**	P	**P**	**05 46 33.0**	**+1.1**
QSPA	**South Pole Qui**	**85.71**	**180**	P	**P**	**05 47 05.1**	**+0.5**
QSPA				IAmb	IAmb	05 47 08.0	
	comp=Z,2.9nm,1.2s						
ABKAR	**Akbulak array**	**95.70**	**319**	P	**P**	**05 47 51.1**	**-0.5**
TORD	**Torodi Ar. Bea**	**151.06**	**290**	PKPbc	**PKiKP**	**05 54 20.5**	**+0.6**
	comp=Z,0.6nm,0.8s,baz=62,slow=1.1,SNR=4.5						

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*BYKL **13** 05:37:24.0±0.2, 55°.19N×112°.48E*
*IDC **13** 05:37:25.8±2.3, 55°.07N×112°.90E, h0^{km}, mb3.6/2, mbtmp3.6/5, ML3.4/3, Error ellipse: s-maj=28.4km s-min=20.2km az=59.0*
ISC 13 05:37:24.1±0.7, **55°.16N**±0°.02×**112°.41E**±0°.02, **h10^{km}, n28,** σ**2^{s}.42**/68, **2C-1D, Lake Baykal region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
UKT	**Uakit**	**0.77**	**64**	⇓*i*Pg	**Pg**	**05 37 37.0**	**-1.9**
UKT				*e*Sg	**Sg**	**05 37 47.0**	**-2.0**
UKT				Pmax			
	96nm,0.1s						
UKT				Smax			
	1μm,0.2s						
YLYR	**Ulyunkhan**	**0.77**	**249**	⇑*i*Pg	**Pb**	**05 37 39.2**	**-0.4**
YLYR				*e*Sg	**Sn**	**05 37 50.7**	**-2.0**
YLYR				Pmax			
	117nm,0.1s						
YLYR				Smax			
	2μm,0.1s						
KMO	**Kumora**	**1.00**	**317**	⇑*i*Pg	**Pg**	**05 37 42.0**	**-1.3**
KMO				*e*Pb	**Pn**	**05 37 44.9**	**+0.7**
KMO				*e*Sg	**Sb**	**05 37 55.7**	**-1.0**
KMO				max			
	754nm,0.3s						
KMO				Smax			
	1μm,0.3s						
YOAB	**Uoyan, Buryati**	**1.05**	**339**	*e*Pg	**Pg**	**05 37 42.9**	**-1.4**
YOAB				*e*Sg	**Sg**	**05 37 56.6**	**-1.4**
YOAB				Pmax			
	343nm,0.4s						
YOAB				Smax			
	2μm,0.6s						
SVKR	**Severomuysk**	**1.16**	**34**	*e*Pg	**Pb**	**05 37 44.7**	**-1.5**
SVKR				*e*Sg	**Sb**	**05 38 00.2**	**-1.1**
SVKR				*e*Sb	**Sn**	**05 38 03.5**	**+1.2**
SVKR				Pmax			
	266nm,0.1s						
SVKR				max			
	6μm,0.5s						
NIZB	**Nizh Angarsk**	**1.74**	**292**	*e*Pg	**Pb**	**05 37 55.1**	**-1.0**
NIZB				*e*		05 37 57.2	
NIZB				*e*		05 38 04.4	
NIZB				*e*Sg	**Sg**	**05 38 18.8**	**-1.2**
NIZB				*e*		05 38 20.4	
NIZB				max			
	124nm,0.2s						
NIZB				max			
	486nm,0.2s						
SYVR	**Suvo**	**2.06**	**224**	*e*Pn	**Pn**	**05 37 59.0**	**+0.2**
SYVR				*e*Pg	**Pg**	**05 38 01.9**	**-1.7**
SYVR				*e*		05 38 07.8	
SYVR				*e*Sg	**Sg**	**05 38 30.2**	**-0.1**
SYVR				max			
	76nm,0.3s						
SYVR				Smax			
	742nm,0.4s						
NLYR	**Nelyaty**	**2.29**	**53**	*e*Pn	**Pn**	**05 38 00.7**	**-1.2**
NLYR				*e*Pg	**Pb**	**05 38 03.9**	**-1.5**
NLYR				*e*		05 38 09.9	
NLYR				*e*Sg	**Sb**	**05 38 33.5**	**-0.2**
NLYR				max			
	114nm,0.6s						
NLYR				Smax			
	227nm,0.6s						
BOD	**Bodaibo**	**2.81**	**18**	*e*Pn	**Pn**	**05 38 08.3**	**-0.7**
BOD				*e*Pg	**Pb**	**05 38 13.6**	**-0.6**
BOD				*e*PgPg	**Pg**	**05 38 19.6**	**+1.8**
BOD				*e*Sn	**Sn**	**05 38 40.0**	**-2.8**
BOD				*e*		05 38 47.3	
BOD				*e*Sg	**Sb**	**05 38 49.2**	**+0.6**
BOD				max			
	55nm,0.4s						
BOD				Smax			
	359nm,0.7s						
MXMB	**Maximikha**	**2.87**	**230**	*e*Pn	**Pn**	**05 38 10.4**	**+0.5**
MXMB				*e*Pg	**Pg**	**05 38 16.7**	**-2.4**
MXMB				*e*		05 38 18.6	
MXMB				*e*Sg	**Sg**	**05 38 55.6**	**-0.7**
OGRR	**Ongureny**	**3.20**	**244**	*e*Pn	**Pn**	**05 38 14.6**	**+0.2**
OGRR				*e*Pg	**Pb**	**05 38 21.2**	**+0.2**
OGRR				*e*Sg	**Sg**	**05 39 03.1**	**-3.6**
OGRR				Pmax			
	29nm,0.5s						
OGRR				Smax			
	108nm,0.3s						
CIT	**Chita**	**3.22**	**167**	*e*Pn	**Pn**	**05 38 16.5**	**+1.8**
CIT				*e*Pg	**Pb**	**05 38 21.8**	**+0.4**
CIT				*e*Sn	**Sn**	**05 38 53.0**	**-0.2**
CIT				*e*Sg	**Sg**	**05 39 04.1**	**-3.4**
CIT				Pmax			
	103nm,0.1s						
CIT				Smax			
	475nm,0.2s						
GORB	**Goryachinsk**	**3.26**	**230**	*e*Pn	**Pn**	**05 38 15.6**	**+0.3**
GORB				*e*Pg	**Pb**	**05 38 23.2**	**+1.1**
GORB				*e*Sg	**Sg**	**05 39 07.4**	**-1.4**
KELR	**Kotokel**	**3.51**	**228**	*e*Pn	**Pn**	**05 38 18.4**	**-0.3**
KELR				*e*Pg	**Pb**	**05 38 27.9**	**+1.6**
KELR				*e*Sg	**Sg**	**05 39 14.7**	**-2.1**
CRS	**Chara**	**3.72**	**60**	*e*Pn	**Pn**	**05 38 21.1**	**-0.5**
CRS				*e*Pg	**Pb**	**05 38 30.1**	**+0.2**
CRS				*e*Sg	**Sb**	**05 39 18.1**	**+3.1**
CRS				*e*SgSg	**SbSb**	**05 39 20.3**	**+0.2**
CRS				Pmax			
	61nm,1.0s						
CRS				max			
	162nm,1.1s						
ZRHB	**Zarechye**	**4.06**	**232**	*e*Sg	**Sg**	**05 39 31.0**	**-3.5**
ZRHB				Smax			
	137nm,0.4s						
TRG	**Tyrgan**	**4.31**	**239**	*e*Pn	**Pn**	**05 38 30.3**	**+0.6**
TRG				*e*Pg	**Pb**	**05 38 42.3**	**+2.4**
TRG				*e*Sg	**Sg**	**05 39 39.2**	**-3.3**
TRG				Pmax			
	19nm,0.3s						
TRG				Smax			
	62nm,0.2s						
UUDB	**Ulan-Yde**	**4.35**	**223**	*e*Pn	**Pn**	**05 38 30.8**	**+0.6**
UUDB				*e*Pg	**Pb**	**05 38 42.4**	**+1.8**
UUDB				*e*Sg	**Sg**	**05 39 40.5**	**-3.1**
UUDB				*e*SgSg	**SbSb**	**05 39 44.2**	**+6.0**
UUDB				Pmax			
	46nm,0.5s						
UUDB				max			
	162nm,0.9s						
TUP	**Tupik**	**4.43**	**97**	*e*Pn	**Pn**	**05 38 30.0**	**-1.3**
TUP				*e*Pg	**Pb**	**05 38 42.2**	**+0.3**
TUP				*e*Sg	**Sg**	**05 39 40.9**	**-5.3**
TUP				Pmax			
	29nm,0.3s						
TUP				Smax			
	242nm,0.9s						
HRMR	**Khuramsha**	**4.81**	**225**	*e*Pn	**Pn**	**05 38 37.4**	**+0.8**
HRMR				*e*Pg	**Pb**	**05 38 50.8**	**+2.3**
HRMR				*e*Sg	**Sg**	**05 39 54.5**	**-4.0**
HRMR				Pmax			
	38nm,0.5s						
HRMR				Smax			
	218nm,0.7s						
BGT	**Bolshoye Golou**	**5.21**	**236**	*e*Sg	**Sg**	**05 40 06.9**	**-4.2**
YKLR	**Yuktali**	**5.40**	**71**	*e*Pg	**Pb**	**05 39 00.2**	**+1.8**
YKLR				*e*Sg	**Sb**	**05 40 09.2**	**+6.0**
KPC	**Khapcheranga**	**5.47**	**180**	*e*Sg	**Sg**	**05 40 14.6**	**-4.9**
KPC				Smax			
	108nm,0.5s						
HILR	**Hailar Array B**	**7.19**	**138**	Pn	**Pn**	**05 39 06.5**	**-2.7**
	baz=332,slow=13						
HILR				Lg	Lg	05 41 09.2	
	baz=342,slow=28						
	2.9nm,0.3s						
SONM	**Songino Array**	**8.24**	**210**	Pn	**Pn**	**05 39 27.5**	**+3.8**
	0.3nm,0.3s,baz=16,slow=14,SNR=2.6						
SONM				Pg	**Pg**	**05 39 58.6**	**-3.1**
	0.3nm,0.3s,baz=23,slow=16,SNR=2.8						
SONM				Lg	Lg	05 41 43.9	
	1.7nm,0.3s,baz=20,slow=28,SNR=10						
	0.3nm,0.3s						
SONM				AML	AML		
ZALV	**Zalesovo Beam**	**16.01**	**277**	Pn	**P**	**05 41 14.4**	**+1.8**
	0.2nm,0.3s,baz=79,slow=7.5,SNR=5.2						
	1.4nm,0.8s						
ZALV				AML	AML		
KURBB	**Kurchatov Arra**	**20.80**	**271**	P	Pn	05 42 12.7	+5.0
	1.8nm,0.9s,baz=64,slow=11,SNR=6.7						
	1.8nm,0.9s						
BVAR	**Borovoye Array**	**24.47**	**283**	P	**P**	**05 42 48.8**	**+5.9**
	1.0nm,0.5s,baz=61,slow=11,SNR=4.8						
	1.0nm,0.5s						

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*IDC **13** 05:53:11.2±1.5, 38°.20N×22°.82E, h0^{km}, mb3.7/4, mbtmp3.6/5, ML1.1/1, Error ellipse: s-maj=29.4km s-min=19.4km az=69.0*
*THE **13** 05:53:12.3, 38°.2N±0°.8×22°.8E±0°.6, h12^{km}±3^{km}, M2.9/18, MLh2.9/18*
*ATH **13** 05:53:12.2, 38°.18N×22°.75E, h10^{km}±2^{km}, ML2.9/24, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
ISC 13 05:53:12.5±0.8, **38°.18N**±0°.02×**22°.77E**±0°.01, **h13^{km}**±6^{km}, **n67,** σ**0^{s}.61**/104, **mb3.9**/3, **Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THAL	**Thalero**	**0.17**	**210**	P	**Pg**	**05 53 15.7**	**-0.7**
THAL				S	**Sg**	**05 53 18.9**	**-0.2**
KIAA	**Kiato**	**0.17**	**185**	P	**Pg**	**05 53 16.3**	**-0.1**
KIAA				S	**Sg**	**05 53 19.9**	**+0.8**
LTK	**Loutraki**	**0.22**	**135**	P	**Pg**	**05 53 16.9**	**-0.4**
LTK				S	**Sg**	**05 53 21.0**	**+0.4**
LTK				AML	AML		
LTK	**Loutraki**	**0.22**	**135**	P	**Pg**	**05 53 17.1**	**-0.3**
LTK				S	**Sg**	**05 53 22.0**	**+1.4**
LOUT	**Loutraki**	**0.25**	**140**	P	**Pg**	**05 53 17.6**	**-0.3**
LOUT				S	**Sg**	**05 53 21.9**	**+0.4**
ACOR	**Acrocorinthos**	**0.30**	**165**	P	**Pg**	**05 53 16.6**	**-2.2**
ACOR				S	**Sg**	**05 53 21.7**	**-1.2**
ACOR				AML	AML		
DLFA	**Delphi**	**0.37**	**324**	P	**Pg**	**05 53 19.6**	**-0.4**
DLFA				S	**Sb**	**05 53 25.8**	**-0.9**
VIL2	**Platees**	**0.40**	**85**	P	**Pb**	**05 53 20.7**	**-0.8**
VIL2				S	**Sb**	**05 53 28.2**	**+0.7**
VIL2				AML	AML		
GUR	**Goura**	**0.41**	**234**	P	**Pg**	**05 53 20.4**	**-0.4**
GUR				S	**Sg**	**05 53 25.9**	**-0.5**
GUR				AML	AML		
VILL	**Villia**	**0.43**	**92**	P	**Pg**	**05 53 21.0**	**-0.1**
VILL				S	**Sb**	**05 53 27.7**	**-0.7**
VILL				AML	AML		
LKR	**Lokris**	**0.50**	**21**	P	**Pg**	**05 53 21.8**	**-0.6**
LKR				S	**Sg**	**05 53 29.4**	**+0.3**
LKR				AML	AML		
LKR	**Lokris**	**0.50**	**21**	P	**Pg**	**05 53 21.9**	**-0.5**
LKR				S	**Sb**	**05 53 30.7**	**+0.1**
KLV	**Kalavryta, Ach**	**0.51**	**254**	P	**Pg**	**05 53 21.6**	**-0.9**
KLV				S	**Sb**	**05 53 31.8**	**+1.1**
KLV	**Kalavryta, Ach**	**0.51**	**254**	P	**Pg**	**05 53 21.3**	**-1.2**
KLV				S	**Sg**	**05 53 29.0**	**-0.2**
TEME	**Temeni, Aigial**	**0.51**	**276**	P	**Pb**	**05 53 23.2**	**-0.3**
TEME				S	**Sg**	**05 53 29.7**	**+0.2**
KALE	**Kalithea**	**0.54**	**293**	P	**Pg**	**05 53 22.7**	**-0.4**
KALE				S	**Sb**	**05 53 31.5**	**-0.1**
KALE				AML	AML		
KALE	**Kalithea**	**0.54**	**293**	P	**Pg**	**05 53 22.8**	**-0.3**
KALE				AML	AML		
KLV1	**Kalavrita**	**0.54**	**254**	P	**Pg**	**05 53 22.8**	**-0.4**
ATAL	**Atalanti**	**0.55**	**21**	P	**Pg**	**05 53 22.7**	**-0.6**
ATAL				S	**Sb**	**05 53 31.1**	**-0.8**
ATAL				AML	AML		
ATAL	**Atalanti**	**0.55**	**21**	P	**Pg**	**05 53 22.4**	**-0.9**
ATAL				S	**Sb**	**05 53 32.6**	**+0.8**
ATAL				AML	AML		
AXAR	**Agios Charalam**	**0.59**	**352**	P	**Pg**	**05 53 23.7**	**-0.4**
AXAR				S	**Sb**	**05 53 33.6**	**+0.5**
AXAR	**Agios Charalam**	**0.59**	**352**	P	**Pg**	**05 53 23.7**	**-0.4**
AXAR				S	**Sg**	**05 53 32.1**	**+0.1**
SERG	**Sergoula**	**0.61**	**293**	P	**Pg**	**05 53 23.8**	**-0.5**
SERG				S	**Sg**	**05 53 32.6**	**+0.2**
SERG				AML	AML		
SERG	**Sergoula**	**0.61**	**293**	P	**Pg**	**05 53 23.9**	**-0.5**
SERG				AML	AML		
STFN	**Stefani**	**0.61**	**90**	P	**Pb**	**05 53 25.2**	**0.0**
STFN				S	**Sb**	**05 53 33.1**	**-0.6**
STFN				AML	AML		
LAKA	**Lakka**	**0.62**	**276**	P	**Pg**	**05 53 24.2**	**-0.6**
LAKA				S	**Sb**	**05 53 34.1**	**+0.1**
PYRG	**Pyrgos, Dorida**	**0.63**	**291**	P	**Pg**	**05 53 23.8**	**-1.1**
PYRG				AML	AML		
MG00	**Magoula, Dorid**	**0.69**	**290**	P	**Pg**	**05 53 25.7**	**-0.2**
MG00				AML	AML		
EFP	**Efpalio**	**0.72**	**290**	P	**Pg**	**05 53 26.4**	**-0.1**
EFP				S	**Sb**	**05 53 37.5**	**+0.7**
EFP				AML	AML		
MET2	**Kameni Chora,**	**0.72**	**142**	P	**Pg**	**05 53 26.4**	**-0.1**
MET4	**Agioi Theodoro**	**0.75**	**138**	P	**Pb**	**05 53 27.3**	**-0.2**
MET6	**Megalochori,Me**	**0.75**	**141**	P	**Pg**	**05 53 27.0**	**-0.1**
MET1	**Methana Town,**	**0.78**	**141**	P	**Pg**	**05 53 26.7**	**-0.9**
MET1				AML	AML		
ATH	**Athens Observa**	**0.78**	**105**	P	**Pb**	**05 53 28.0**	**+0.1**
ATH				S	**Sb**	**05 53 38.2**	**-0.2**
ATH				AML	AML		
ATH	**Athens Observa**	**0.78**	**105**	P	**Pb**	**05 53 28.3**	**+0.3**
ATH				AML	AML		
NOAC	**Athens-Thissio**	**0.78**	**105**	P	**Pb**	**05 53 27.7**	**-0.2**
NOAC				AML	AML		
ANX	**Ano Chora**	**0.78**	**302**	P	**Pg**	**05 53 27.1**	**-0.6**
ANX				S	**Sb**	**05 53 39.2**	**+0.5**
ANX				AML	AML		
ANX	**Ano Chora**	**0.78**	**302**	P	**Pg**	**05 53 27.2**	**-0.6**
ANX				AML	AML		
VVK	**Vomvokou**	**0.79**	**288**	P	**Pb**	**05 53 28.0**	**-0.2**
VVK				AML	AML		
ATHU	**Athens Univers**	**0.83**	**105**	P	**Pb**	**05 53 28.7**	**-0.2**
ATHU				S	**Sb**	**05 53 39.7**	**-0.3**
ATHU	**Athens Univers**	**0.83**	**105**	P	**Pn**	**05 53 29.4**	**-0.6**
AGRP	**Agrapidokambos**	**0.85**	**285**	P	**Pg**	**05 53 27.7**	**-1.3**
AGRP				AML	AML		
DRO	**Drossia**	**0.86**	**255**	P	**Pg**	**05 53 28.8**	**-0.5**
DRO				S	**Sb**	**05 53 41.7**	**+0.7**
DRO				AML	AML		
DRO	**Drossia**	**0.86**	**255**	P	**Pb**	**05 53 29.2**	**-0.3**
DRO				AML	AML		
VLY	**Voula,Athens**	**0.87**	**112**	P	**Pb**	**05 53 30.0**	**+0.4**
VLY				S	**Sb**	**05 53 41.0**	**-0.2**
VLY				AML	AML		
VLY	**Voula,Athens**	**0.87**	**112**	P	**Pb**	**05 53 30.0**	**+0.4**
VLY				AML	AML		
PTL	**Penteli**	**0.88**	**98**	P	**Pb**	**05 53 29.5**	**-0.2**
PTL				S	**Sb**	**05 53 41.4**	**+0.1**
PTL				AML	AML		
PTL	**Penteli**	**0.88**	**98**	P	**Pn**	**05 53 30.2**	**-0.5**
PTL				AML	AML		
AGG	**Agios Georgios**	**0.91**	**338**	P	**Pg**	**05 53 29.6**	**-0.5**
AGG				S	**Sn**	**05 53 43.4**	**-0.7**
AGG				AML	AML		
AGG	**Agios Georgios**	**0.91**	**338**	P	**Pb**	**05 53 30.5**	**+0.3**
AGG				AML	AML		
DION	**Dionisos Attik**	**0.93**	**96**	P	**Pb**	**05 53 30.3**	**-0.1**
DION				S	**Sb**	**05 53 43.1**	**+0.4**
DION				AML	AML		
DION	**Dionisos Attik**	**0.93**	**96**	P	**Pn**	**05 53 31.0**	**-0.3**
DION				AML	AML		
RLS	**Riolos of Patr**	**1.03**	**264**	P	**Pg**	**05 53 31.3**	**-1.1**
RLS				S	**Sn**	**05 53 46.7**	**-0.5**
RLS				AML	AML		
RLS	**Riolos of Patr**	**1.03**	**264**	P	**Pg**	**05 53 31.6**	**-0.8**
RLS				AML	AML		
EVR	**Evrytania**	**1.05**	**315**	P	**Pn**	**05 53 33.4**	**+0.2**
EVR				S	**Sn**	**05 53 47.7**	**-0.1**
EVR				AML	AML		
EVR	**Evrytania**	**1.05**	**315**	P	**Pn**	**05 53 33.5**	**+0.4**
EVR				AML	AML		
PVO	**Paravola**	**1.07**	**294**	P	**Pn**	**05 53 33.8**	**+0.6**
PVO				S	**Sn**	**05 53 47.7**	**-0.3**
PVO				AML	AML		
PVO	**Paravola**	**1.07**	**294**	P	**Pg**	**05 53 32.6**	**-0.6**
PVO				AML	AML		
PLEV	**Plevrona-Mesol**	**1.09**	**283**	P	**Pn**	**05 53 33.9**	**+0.3**
AXS	**Araxos**	**1.10**	**271**	P	**Pn**	**05 53 33.6**	**0.0**
KYMI	**Kymi, Euboea I**	**1.14**	**66**	P	**Pb**	**05 53 33.4**	**-0.7**
KYMI				S	**Sg**	**05 53 49.3**	**-0.1**
KYMI	**Kymi, Euboea I**	**1.14**	**66**	P	**Pg**	**05 53 34.1**	**-0.3**
KYMI				AML	AML		
IDI	**Anoyia**	**3.35**	**149**	Pn	**Pn**	**05 54 06.3**	**+1.5**
	1.0nm,0.3s,baz=334,slow=15,SNR=6.3						
IDI				Sn	**Sn**	**05 54 44.7**	**+0.2**
	1.1nm,0.3s,baz=76,slow=0.0,SNR=1.8						
	12nm,1.1s						
IDI				AML	AML		
ESDC	**Sonseca Array**	**20.83**	**282**	P	**P**	**05 57 54.5**	**+0.6**
	0.7nm,0.7s,baz=75,slow=11,SNR=9.8						
	0.7nm,0.7s						
KURBB	**Kurchatov Arra**	**40.80**	**54**	P	**P**	**06 00 54.0**	**+0.5**
	1.1nm,0.3s,baz=278,slow=8.3,SNR=1.1						
	1.1nm,0.3s						
MKAR	**Makanchi Array**	**43.79**	**59**	P	**P**	**06 01 18.1**	**+0.2**
	0.3nm,0.5s,baz=264,slow=8.0,SNR=4.2						
	0.3nm,0.5s						
ZALV	**Zalesovo Beam**	**44.37**	**48**	P	**P**	**06 01 22.4**	**0.0**
	1.1nm,0.6s,baz=262,slow=10,SNR=6.2						
	1.1nm,0.6s						

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*CATAC **13** 06:02:15.1±0.6, 7°N±3°×7°3W±°, h153^{km}±7^{km}, M4.0/9, mb3.4/2, mB3.8/1, MLv4.2/9, Mw(mB)2.8/1, Error ellipse: s-maj=9.4km s-min=5.9km az=95.7, confirmed*
*NEIC **13** 06:02:15.9±1.2, 6°.81N±0°.07×73°.01W±0°.06, h153^{km}±8^{km}, mb4.4/37, Error ellipse: s-maj=10.4km s-min=8.7km az=152.0*
*IDC **13** 06:02:15.2±0.7, 6°.82N×73°.03W, h156^{km}±7^{km}, mb3.5/7, mbtmp4.1/11, Error ellipse: s-maj=16.5km s-min=7.3km az=128.0*
*RSNC **13** 06:02:16.5±0.0, 7°N±1°×7°3W±°, h145^{km}±1^{km}, M4.0, mB5.0, mb4.2, ML3.6, Mw(mB)4.3*
*FUNV **13** 06:02:17.3, 7°.18N×73°.03W, h5^{km}, MW3.8, Presumed earthquake*
ISC 13 06:02:15.1±0.6, **6°.88N**±0°.03×**73°.08W**±0°.04, **h151^{km}**±5^{km}, **n108,** σ**1^{s}.28**/131, **mb4.3**/22, **1D, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BARC	**Barichara**	**0.30**	**199**	P	**Pn**	**06 02 36.2**	**+0.1**
BARC				S	**Sn**	**06 02 51.2**	**-0.9**
PAMC	**Pamplona, Colo**	**0.60**	**40**	P	**Pn**	**06 02 39.0**	**+1.3**
PAMC				S	**Sn**	**06 02 56.0**	**+1.0**
RUSC	**La Rusia**	**0.98**	**180**	P	**Pn**	**06 02 39.9**	**-0.5**
RUSC				S	**Sn**	**06 02 58.6**	**-1.1**
RUSC	**La Rusia**	**0.98**	**180**	*e*P	**Pn**	**06 02 40.3**	**-0.1**
RUSC				*e*S	**Sn**	**06 02 58.3**	**-1.3**
RUSC	**La Rusia**	**0.98**	**180**	P	**Pn**	**06 02 40.2**	**-0.1**
RUSC				S	**Sn**	**06 02 59.7**	**+0.1**
OCAC	**Ocana**	**1.38**	**350**	P	**Pn**	**06 02 44.1**	**+0.4**
OCAC				S	**Sn**	**06 03 06.3**	**+0.7**
PTBC	**PUERTO BERRIO,**	**1.40**	**256**	P	**Pn**	**06 02 42.7**	**-1.1**
PTBC				S	**Sn**	**06 03 03.8**	**-1.9**
SPBC	**San Pablo de B**	**1.56**	**219**	P	**Pn**	**06 02 45.1**	**-0.5**
SPBC				S	**Sn**	**06 03 07.7**	**-1.2**
NORC	**Norcasia**	**2.20**	**234**	P	**Pn**	**06 02 51.9**	**-0.9**
CHIC	**Chingaza**	**2.32**	**196**	P	**Pn**	**06 02 54.2**	**-0.4**
CHIC				S	**Sn**	**06 03 23.6**	**-1.3**
ROSC	**El Rosal**	**2.37**	**211**	P	**Pn**	**06 02 56.1**	**+1.0**
	519nm,0.3s,baz=297,slow=9.6,SNR=542						
ROSC				S	**Sn**	**06 03 26.2**	**+0.4**
	915nm,0.3s,baz=37,slow=19,SNR=13						
ROSC	**El Rosal**	**2.37**	**211**		**Pn**	**06 02 55.8**	**+0.7**
ROSC				Sn	**Sn**	**06 03 25.9**	**+0.1**
ROSC	**El Rosal**	**2.37**	**211**	P	**Pn**	**06 02 55.6**	**+0.5**
ROSC				S	**Sn**	**06 03 26.1**	**+0.3**
BOG	**Bogota**	**2.44**	**204**	P	**Pn**	**06 02 56.5**	**+0.6**
CVER	**Cruz Verde, Cu**	**2.54**	**203**	P	**Pn**	**06 02 57.3**	**+0.1**
MEDEC	**Medelln, Ant**	**2.56**	**257**	P	**Pn**	**06 02 57.5**	**+0.3**
UREC	**San Jos de Ur**	**2.58**	**290**	P	**Pn**	**06 02 55.7**	**-1.6**
GUY2C	**Guyana, Caldas**	**2.80**	**234**	P	**Pn**	**06 03 00.4**	**-0.1**
GUY2C				S	**Sn**	**06 03 35.6**	**+0.2**
VILC	**Villavicencio,**	**2.81**	**192**	P	**Pn**	**06 02 59.4**	**-0.9**
VILC				S	**Sn**	**06 03 34.1**	**-1.2**
CBOC	**Ciudad Bolivar**	**3.08**	**251**	P	**Pn**	**06 03 03.5**	**-0.2**
CBOC				S	**Sn**	**06 03 40.1**	**-1.2**
SDV	**Santo Domingo**	**3.14**	**50**	P	**Pn**	**06 03 06.0**	**+1.4**
	106nm,0.3s,baz=176,slow=2.5,SNR=49						
SDV				S	**Sn**	**06 03 43.0**	**+0.2**
	120nm,0.5s,baz=71,slow=20,SNR=24						
SDV	**Santo Domingo**	**3.14**	**50**		**Pn**	**06 03 05.8**	**+1.2**
SDV				Sn	**Sn**	**06 03 42.6**	**-0.2**
SDV	**Santo Domingo**	**3.14**	**50**	*e*P	**Pn**	**06 03 04.8**	**+0.3**
ARMEC	**Armenia, Quind**	**3.45**	**228**	P	**Pn**	**06 03 08.9**	**+0.5**
APAC	**Apartado, Choc**	**3.61**	**287**	P	**Pn**	**06 03 09.6**	**-0.8**
APAC				S	**Sn**	**06 03 54.0**	**+0.7**
PRAC	**Prado**	**3.62**	**210**	P	**Pn**	**06 03 08.8**	**-1.7**
PRAC				S	**Sn**	**06 03 52.0**	**-1.5**
PRAC	**Prado**	**3.62**	**210**	P	**Pn**	**06 03 10.3**	**-0.2**
PRAC				S	**Sn**	**06 03 51.6**	**-1.9**
SJCC	**San Jacinto, C**	**3.65**	**326**	*e*P	**Pn**	**06 03 10.1**	**-0.8**
SJCC				*e*S	**Sn**	**06 03 49.7**	**-4.6**
SJCC	**San Jacinto, C**	**3.65**	**326**	P	**Pn**	**06 03 10.5**	**-0.4**
SJCC				S	**Sn**	**06 03 51.0**	**-3.3**
ORTC	**Ortega, Tolima**	**3.65**	**216**	P	**Pn**	**06 03 10.3**	**-0.6**
ORTC				S	**Sn**	**06 03 54.4**	**+0.2**
LCBC	**Los crdobas,**	**3.80**	**301**	P	**Pn**	**06 03 11.7**	**-1.1**
BETC	**Betania**	**4.78**	**210**	P	**Pn**	**06 03 24.2**	**-1.6**
URI	**Uribia**	**4.91**	**13**	P	**Pn**	**06 03 26.7**	**-0.7**
URIC	**Uribia, Colomb**	**4.92**	**13**	P	**Pn**	**06 03 26.3**	**-1.1**
URIC	**Uribia, Colomb**	**4.92**	**13**	*e*P	**Pn**	**06 03 26.3**	**-1.1**
URIC				*e*S	**Sn**	**06 04 17.6**	**-6.4**
GARC	**Garzon, Huila**	**5.24**	**207**	P	**Pn**	**06 03 30.3**	**-1.7**
GARC				AML	AML		
POPC	**Popayan, Colom**	**5.60**	**220**	P	**Pn**	**06 03 36.3**	**-0.5**
	10nm,0.5s						
POPC				AML	AML		
BENV	**Beln**	**6.23**	**60**	*e*P	**Pn**	**06 03 45.0**	**0.0**
TURV	**Turiamo**	**6.28**	**55**	*e*P	**Pn**	**06 03 45.3**	**-0.4**
BBAC	**Balboa, Cauca**	**6.36**	**221**	P	**Pn**	**06 03 46.4**	**-0.5**
TACV	**Tcata**	**6.81**	**61**	*e*P	**Pn**	**06 03 52.5**	**-0.2**
BCIP	**Isla Barro Col**	**7.06**	**289**		**Pn**	**06 03 53.8**	**-2.2**
OTAV	**Otavalo**	**8.49**	**219**		Pn	06 04 08.1	-7.5
LCR2	**La Lucha 2**	**11.18**	**286**	Pn	**Pn**	**06 04 51.5**	**+0.6**
BANI	**BANI**	**11.75**	**13**	Pn	**Pn**	**06 04 58.7**	**+0.5**
MTDJ	**Mount Denham**	**12.09**	**339**	Pn	**Pn**	**06 05 06.4**	**+3.8**
JTS	**Las Juntas de**	**12.22**	**287**	P	**Pn**	**06 05 05.4**	**+1.2**
	2.0nm,0.3s,baz=56,slow=17,SNR=3.8						
SJG	**San Juan**	**13.05**	**31**	P	**Pn**	**06 05 14.9**	**-0.1**
	4.1nm,0.4s,baz=34,slow=23,SNR=6.0						
SJG	**San Juan**	**13.05**	**31**		**Pn**	**06 05 14.8**	**-0.2**
GTBY	**Guantanamo Bay**	**13.12**	**352**	*e*P	**P**	**06 05 20.0**	**-0.4**
RCC	**Rio Carpintero**	**13.29**	**349**	*e*P	**P**	**06 05 21.9**	**-0.3**
BOAV	**Boa Vista**	**13.29**	**109**	Pn	**Pn**	**06 05 16.1**	**-1.9**
MARVS	**Santiago de Cu**	**13.33**	**348**	*e*P	**P**	**06 05 22.3**	**-0.4**
QMBU	**Quimbuelo**	**13.35**	**353**	⇓*e*P	**P**	**06 05 22.2**	**-0.7**
CHIV	**Chivirico**	**13.42**	**346**	*e*P	**P**	**06 05 22.7**	**-1.0**
PILO	**Pilon**	**13.62**	**342**	*e*P	**P**	**06 05 25.2**	**-0.7**
LMGC	**Las Mercedes**	**13.65**	**344**	*e*P	**P**	**06 05 25.9**	**-0.4**
PINC	**Pinares de May**	**13.78**	**349**	*e*P	**P**	**06 05 28.2**	**+0.4**
YAR	**Yar**	**13.79**	**347**	*e*P	**P**	**06 05 28.5**	**+0.7**
HLGC	**Holguin**	**14.23**	**349**	*e*P	P	06 05 37.7	+5.0
CBCY	**The Bluff, Cay**	**14.34**	**334**	*e*P	**P**	**06 05 35.9**	**+2.0**
LCCY	**Blossom Villag**	**14.42**	**333**	*e*P	**P**	**06 05 37.3**	**+2.5**
TEIG	**Tepich**	**19.83**	**313**	P	**Pn**	**06 06 36.8**	**-0.5**
TEIG				IAmb	IAmb	06 07 14.9	
	comp=Z,20nm,1.4s						
VILB	**Vilhena**	**23.49**	**147**	P	**P**	**06 07 10.8**	**-0.6**
VILB				IAmb	IAmb	06 07 12.5	
	comp=Z,6.8nm,0.6s						
LPAZ	**La Paz**	**23.53**	**168**	P	**P**	**06 07 12.3**	**-0.1**
	comp=Z,0.3nm,0.4s,baz=343,slow=11,SNR=2.3						
	comp=Z,0.3nm,0.4s						
LPAZ	**La Paz**	**23.53**	**168**	P	**P**	**06 07 11.7**	**-0.7**
HODGE	**Hodges**	**28.51**	**344**	P	**P**	**06 07 58.2**	**+1.9**
HODGE				IAmb	IAmb	06 08 13.1	
	comp=Z,10nm,1.3s						
Y49A	**Blount Mountai**	**29.55**	**337**	P	**P**	**06 08 07.4**	**+1.8**

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Y49A                                   IAmb    IAmb    06 08 08.1
         comp=Z,9.8nm,1.1s
Z47A   Carrollton        29.66 334     P       P       06 08 04.7  -1.8
TZTN   Tazewell          31.04 344     P       P       06 08 20.6 +1.9
WVT    Waverly           32.10 337     P       P       06 08 28.9 +1.0
WVT                                    IAmb    IAmb    06 08 44.0
         comp=Z,7.5nm,1.4s
WHAR   Wooly Hollow      33.34 331     P       P       06 08 39.3 +0.6
WHAR                                   IAmb    IAmb    06 08 40.7
         comp=Z,10nm,1.4s
BDFB   Brasilia          33.42 132     P       P       06 08 38.5  -1.4
         comp=Z,1.1nm,0.4s,baz=286,slow=12,SNR=4.5
         comp=Z,1.1nm,0.4s
BDFB   Brasilia          33.42 132     P       P       06 08 38.8  -1.0
LCAR   Lake Charles      33.44 333     P       P       06 08 40.3 +0.7
P52A   Corning           33.62 347     P       P       06 08 43.0 +1.9
FCAR   Ozark Folk Cen    33.74 332     P       P       06 08 42.7 +0.5
S44A   Carbondale        34.02 337     P       P       06 08 45.2 +0.7
S44A                                   IAmb    IAmb    06 09 17.3
         comp=Z,8.9nm,1.0s
T42A   Van Buren         34.21 334     P       P       06 08 47.1 +0.8
T42A                                   IAmb    IAmb    06 09 03.8
         comp=Z,7.7nm,1.3s
KSPA   Keystone Colle    34.62 356     P       P       06 08 51.3 +1.6
KSPA                                   IAmb    IAmb    06 08 52.0
         comp=Z,6.7nm,0.9s
P46A   Rosedale          34.99 341     P       P       06 08 53.8 +0.9
CCM    Cathedral Cave    35.14 335     P       P       06 08 54.8 +0.6
SFIN   Lafayette         35.64 341     P       P       06 08 59.5 +1.1
R40A   Maddies Statio    35.78 334     P       P       06 09 00.2 +0.5
R40A                                   IAmb    IAmb    06 09 00.6
         comp=Z,11nm,1.3s
TXAR   Lajitas Array     36.45 312     P       P       06 09 05.8 +0.1
         comp=Z,0.4nm,0.6s,baz=130,slow=9.8,SNR=8.2
TXAR                                   PcP     PcP     06 11 27.3 +0.8
         comp=Z,0.2nm,0.6s,baz=98,slow=4.1,SNR=3.1
         comp=Z,0.4nm,0.6s
TXAR   Lajitas Array     36.45 312     P       P       06 09 06.2 +0.6
TX31   Lajitas Ar. Si    36.45 312     P       P       06 09 06.4 +0.7
P40A   Paris             36.72 335     P       P       06 09 08.1 +0.5
P40A                                   IAmb    IAmb    06 09 08.4
         comp=Z,4.3nm,0.8s
128A   Castleberry Fa    37.46 317     P       P       06 09 14.8 +0.7
EMMW   East Machias      38.00   7     P       P       06 09 19.8 +1.5
EMMW                                   IAmb    IAmb    06 09 46.6
         comp=Z,8.1nm,1.1s
GGN    Saint George      38.48   7     P       P       06 09 24.2 +1.8
GGN                                    IAmb    IAmb    06 09 24.5
         comp=Z,5.7nm,0.9s
JFWS   Jewell Farm       38.96 340     P       P       06 09 26.7 +0.4
JFWS                                   IAmb    IAmb    06 10 06.3
         comp=Z,8.8nm,1.0s
MNTX   Cornudas Mount    38.96 314     P       P       06 09 27.6 +1.0
LMN    Caledonia Moun    39.49   9     P       P       06 09 31.6 +0.9
BATG   Bathurst New B    40.70   7     P       P       06 09 41.8 +1.1
BATG                                   IAmb    IAmb    06 09 42.1
         comp=Z,5.8nm,0.6s
K30B   Basset            42.65 331     P       P       06 09 56.9 +0.1
SUSD   Miller            43.70 333     P       P       06 10 05.2 +0.1
EYMN   Ely               43.83 342     P       P       06 10 06.3 +0.3
EYMN                                   IAmb    IAmb    06 10 06.6
         comp=Z,5.3nm,0.6s
ULM    Lac du Bonnet     47.25 340     P       P       06 10 32.4  -0.4
         comp=Z,3.4nm,0.5s,baz=147,slow=7.4,SNR=9.6
         comp=Z,3.4nm,0.5s
ULM    Lac du Bonnet     47.25 340     P       P       06 10 32.6  -0.2
ULM                                    IAmb    IAmb    06 10 33.9
         comp=Z,9.3nm,1.3s
PDAR   Pinedale Array    48.06 324     P       P       06 10 39.8 +0.2
         comp=Z,0.4nm,0.5s,baz=127,slow=8.6,SNR=9.1
         comp=Z,0.4nm,0.5s
SCHQ   Schefferville     48.08   5     P       P       06 10 40.0 +0.7
         comp=Z,5.1nm,0.8s,baz=208,slow=4.7,SNR=5.1
         comp=Z,5.1nm,0.8s
SCHQ   Schefferville     48.08   5     P       P       06 10 39.8 +0.6
SCHQ                                   IAmb    IAmb    06 10 41.0
         comp=Z,5.2nm,0.8s
MCMT   McKenzie Canyo    51.20 324     P       P       06 11 04.4 +1.1
PINE   Pine Mountain     55.63 319     P       P       06 11 36.5 +0.9
YKA    Yellowknife Ar    63.23 340     P       P       06 12 26.9  -0.1
         comp=Z,2.1nm,0.5s,baz=134,slow=6.6,SNR=11
         comp=Z,2.1nm,0.5s
ASAR   Alice Springs    149.17 234     PKPbc   PKPbc   06 21 45.3  -1.3
         comp=Z,0.4nm,0.4s,baz=132,slow=3.5,SNR=3.5
WRA    Warramunga Arr   150.39 241     PKPbc   PKPbc   06 21 48.3  -1.3
         comp=Z,0.4nm,0.5s,baz=108,slow=2.8,SNR=12
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*NEIC **13** 06:31:15.7±0.7, 8.°25S±0.°08×151.°16E±0.°02, h14^{km}±4^{km}, mb4.4/24, Error ellipse: s-maj=11.5km s-min=2.9km az=185.0*

*IDC **13** 06:31:24.5±2.5, 8.°38S×150.°89E, h81^{km}±23^{km}, mb3.8/15, mbtmp4.1/18, MS3.7/31, Error ellipse: s-maj=18.0km s-min=15.2km az=97.0*

*DJA **13** 06:31:34.1±3.3, 9°S±9°×15°0E±3°0, h115^{km}±13^{km}, M4.6/8, mb4.5/8, mB5.2/5, MLv4.6/1, Mw(mB)4.6/5*

ISC 13 06:31:19.4±0.4**, 8.°09S**±0.°06×**151.°05E**±0.°05**, h35**^{km}**, n95,** σ**1**^{s}.**98**/64**, mb4.3**/20**, MS3.7**/28**, D'Entrecasteaux Islands region**

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Code   Station Name       Δ°   AZ°     Phase ID          Time      Res
                                      Op      ISC      h  m  s     ISC
KRVT   Keravat (AS076     3.88  15     S       Sn      06 33 01.4 +0.4
         638nm,0.4s,baz=121,slow=23,SNR=25
RABL   Rabaul             4.03  16     Pn      Pn      06 32 17.5  -1.2
PMG    Port Moresby       4.06 251     P       Pn      06 32 20.9 +1.8
         112nm,0.5s,baz=53,slow=11,SNR=37
PMG                                    S       Sn      06 33 13.3 +7.8
         403nm,1.1s,baz=21,slow=18,SNR=8.1
PMG                                    LR      LR      06 34 04.6
         comp=Z,4μm,18.5s,baz=48,slow=42
PMG    Port Moresby       4.06 251     P       Pn      06 32 20.8 +1.7
PMG    Port Moresby       4.06 251     S       Sn      06 33 09.6 +4.1
PMG    Port Moresby       4.06 251     P       Pn      06 32 21.2 +2.1
PMG    Port Moresby       4.06 251     S       Sn      06 33 09.7 +4.2
PMG    Port Moresby       4.06 251             Pn      06 32 17.8  -1.3
PMG    Port Moresby       4.06 251     P       Pn      06 32 22.3 +3.2
PMG                                    AML     AML
TATA   Tatamba Isabel     8.67  93     P       Pn      06 33 24.7 +2.3
TATA   Tatamba Isabel     8.67  93     S       Sn      06 35 03.0 +4.0
SAVO   Savo Central       8.73  98     P       Pn      06 33 24.3 +1.1
HNR    Honiara            8.89  99     P       Pn      06 33 32.8 +7.3
         90nm,0.6s,baz=228,slow=13,SNR=3.6
HNR                                    LR      LR      06 36 17.0
         comp=Z,886nm,22.0s,baz=354,slow=32
HNR    Honiara            8.89  99             Pn      06 33 21.3  -4.2
MTSU   Mount Surprise    11.94 213     P       Pn      06 34 09.9 +2.6
CTA    Charters Tower    12.80 201     LR      LR      06 38 48.6
         comp=Z,366nm,18.3s,baz=12,slow=36
CTAO   Charters Tower    12.80 201     Pn      Pn      06 34 14.7  -4.3
BAKI   Biak              16.39 294     P       P       06 35 10.0 +0.6
         79nm,1.4s
QIS    Mount Isa         16.62 221     P       P       06 35 12.6 +0.7
FAKI   Fak Fak           19.40 284     P       P       06 35 42.0  -0.7
FAKI                                   IAmb    IAmb    06 36 00.3
         comp=Z,38nm,1.1s
WR0    Warramunga Arr    19.87 232     P       P       06 35 45.9  -1.9
WR0                                    IAmb    IAmb    06 35 56.5
         comp=Z,38nm,1.4s
WB0    Warramunga Arr    19.88 233     P       P       06 35 46.0  -1.9
WR8    Warramunga Arr    19.90 232             P       06 35 46.3  -1.8
WR8                                    IAmb    IAmb    06 35 56.2
         comp=Z,14nm,1.0s
WRAB   Tennant Creek     20.00 232     P       P       06 35 47.1  -2.1
WRAB                                   IAmb    IAmb    06 36 00.5
         comp=Z,9.1nm,0.8s
WB2    Warramunga Arr    20.01 232     P       P       06 35 47.3  -2.0
WB2                                    IAmb    IAmb    06 35 56.6
         comp=Z,28nm,1.3s
WRA    Warramunga Arr    20.02 232     P       P       06 35 47.2  -2.1
         comp=Z,2.4nm,0.7s,baz=57,slow=11,SNR=20
WRA    Warramunga Arr    20.02 232             P       06 35 47.2  -2.1
MTN    Manton Dam        20.14 255             P       06 35 50.1  -0.7
DRS    Darwin Rock St    20.29 256     P       Pn      06 35 53.2  -1.3
DZM    Mont Dzumac       20.32 135     P       P       06 35 53.0 +0.3
         comp=Z,19nm,1.1s,baz=273,slow=11,SNR=7.1
DZM                                    LR      LR      06 42 45.7
         comp=Z,783nm,20.3s,baz=297,slow=34
         comp=Z,19nm,1.1s
SWI    Sorong            20.98 289     P       P       06 36 00.3 +0.4
         comp=Z,1μmcomp=Z,100nm,1.0s
AULRC  Lightning Ridg    21.42 187     P       P       06 36 09.2 +4.8
GUMO   Guam              22.40 344     LR      LR      06 45 37.1
         comp=Z,79nm,18.7s,baz=157,slow=38
AS01   Alice Springs     22.55 225     P       P       06 36 18.6 +1.9
AS31   Alice Springs     22.58 225             P       06 36 13.9  -3.1
ASAR   Alice Springs     22.58 225     P       P       06 36 15.1  -2.0
         comp=Z,1.0nm,0.8s,baz=57,slow=8.8,SNR=16
ASAR                                   LR      LR      06 45 08.0
         comp=Z,383nm,19.3s,baz=40,slow=37
         comp=Z,1.0nm,0.8s
ASAR   Alice Springs     22.58 225     P       P       06 36 14.8  -2.2
KNRA   Kununurra         23.06 249             P       06 36 20.2  -1.8
KNRA                                   IAmb    IAmb    06 36 30.3
         comp=Z,7.5nm,0.7s
CMSA   Cobar Meteorol    23.86 191     P       P       06 36 32.1 +2.5
STKA   Stephens Creek    25.25 199     P       P       06 36 40.1  -2.2
         comp=Z,2.4nm,0.9s,baz=347,slow=4.8,SNR=3.6
STKA                                   LR      LR      06 46 52.3
         comp=Z,207nm,18.4s,baz=14,slow=37
         comp=Z,2.4nm,0.9s
STKA   Stephens Creek    25.25 199     P       P       06 36 45.1 +2.8
FITZ   Fitzroy Crossi    26.64 246     P       P       06 36 53.4  -1.7
         comp=Z,3.9nm,0.5s,baz=80,slow=7.0,SNR=26
FITZ                                   LR      LR      06 48 09.8
         comp=Z,564nm,18.8s,baz=46,slow=38
         comp=Z,3.9nm,0.5s
FITZ   Fitzroy Crossi    26.64 246             P       06 36 53.3  -1.7
MSVF   Nonsavu           27.97 113     LR      LR      06 46 52.8
         comp=Z,356nm,18.1s,baz=184,slow=33
H11S3  WAKE ISLAND Hy    30.59  30     T       T       07 10 06.5
         baz=209,slow=76,SNR=26
H11S2  WAKE ISLAND Hy    30.60  30     T       T       07 10 03.8
         baz=209,slow=76,SNR=34
H11S1  WAKE ISLAND Hy    30.61  30     T       T       07 10 08.1
         baz=209,slow=76,SNR=22
FORT   Forrest           31.16 221     P       P       06 37 33.0  -2.1
FORT                                   IAmb    IAmb    06 37 48.2
         comp=Z,7.0nm,1.1s
KAPI   Kappang           31.24 274     LR      LR      06 53 43.7
         comp=Z,75nm,19.5s,baz=102,slow=43
TOLI2  Tolitoli          31.53 286     P       P       06 37 37.8  -0.8
TOLI2                                  IAmb    IAmb    06 37 39.2
         comp=Z,7.5nm,0.8s
AFI    Afiamalu          36.91 102     LR      LR      06 50 36.4
         comp=Z,270nm,20.9s,baz=262,slow=31
KKM    Kota Kinabalu     37.47 291     P       P       06 38 29.5  -0.7
URZ    Urewera           38.14 146     LR      LR      06 52 28.2
         comp=Z,237nm,18.9s,baz=299,slow=33
RPZ    Rata Peaks        39.56 157     LR      LR      06 52 53.0
         comp=Z,26nm,21.3s,baz=8.0,slow=33
NWAO   Narrogin (SRO)    39.87 227     LR      LR      06 55 46.7
         comp=Z,531nm,18.0s,baz=34,slow=37
NACB   Ninganchiao       43.07 319     P       P       06 39 16.3 +0.1
TPUB   Ta-pu             43.11 317     P       P       06 39 16.6 +0.1
MJAR   Matsushiro Arr    46.01 346     P       P       06 39 39.8 +0.3
         comp=Z,1.5nm,0.7s,baz=159,slow=6.8,SNR=4.6
MJAR                                   LR      LR      06 58 18.5
         comp=Z,40nm,19.2s,baz=174,slow=35
         comp=Z,1.5nm,0.7s
RAR    Rarotonga         49.13 111     LR      LR      06 56 52.6
         comp=Z,50nm,21.4s,baz=255,slow=31
KSRS   Korea Array       50.21 336     LR      LR      06 59 54.9
         comp=Z,40nm,19.2s,baz=135,slow=34
CMAR   Chiang Mai Arr    57.78 298     LR      LR      07 07 49.5
         comp=Z,18nm,18.1s,baz=115,slow=38
PPT    Papeete           58.45 106     LR      LR      07 01 57.4
         comp=Z,59nm,19.5s,baz=288,slow=31
PPT2   Papeete2          58.46 106    eS       S       06 49 33.3  +19
         comp=Z,50nm,24.0s
PPT2                                  eLQ      LQ      06 56 03.4
         comp=Z,186nm,27.2s
PPT2                                  eLR      LR      06 58 38.4
         comp=Z,172nm,24.8s
PPT2                                  eLR      LR      06 58 51.8
         comp=Z,106nm,26.0s
PEA0B  Petropavlovsk-    61.22   5     P       P       06 41 31.9 +1.2
PETK   Petropavlovsk-    61.22   5     P       P       06 41 34.2 +3.5
         comp=Z,2.4nm,0.8s,baz=186,slow=7.0,SNR=1.9
         comp=Z,2.4nm,0.8s
PETK   Petropavlovsk-    61.22   5     P       P       06 41 31.2 +0.5
LZDM   Lanzhou Array     62.45 318     P       P       06 41 41.1 +1.4
         comp=Z,0.9nm,0.3s,baz=93,slow=10,SNR=4.0
         comp=Z,0.9nm,0.3s
HIA    Hailar            63.35 338     P       P       06 41 45.8 +0.8
GTA2   Gaotai            67.01 319    eP       P       06 42 10.5 +1.4
GTA2                                   pmax    pmax
         comp=Z,3.0nm,0.9s
MA2    Magadan           67.44 360     LR      LR      07 09 15.7
         comp=Z,16nm,21.9s,baz=62,slow=34
TAOE   Nuku Hiva Isla    67.96  96    eLR      LR      07 02 29.9
         comp=Z,90nm,22.5s
SONM   Songino Array     68.21 329     P       P       06 42 18.0 +1.4
         comp=Z,2.4nm,0.9s,baz=130,slow=4.6,SNR=7.0
SONM                                   LR      LR      07 10 59.8
         comp=Z,44nm,21.7s,baz=114,slow=35
         comp=Z,2.4nm,0.9s
SONM   Songino Array     68.21 329     P       P       06 42 17.3 +0.8
SONM                                   IAmb    IAmb    06 42 28.4
         comp=Z,4.3nm,1.1s
VNDA   Vanda             69.63 178     P       P       06 42 23.1  -1.6
         comp=Z,0.6nm,0.7s,baz=26,slow=4.4,SNR=6.9
         comp=Z,0.6nm,0.7s
VNDA   Vanda             69.63 178     P       P       06 42 23.3  -1.4
VNDA                                   IAmb    IAmb    06 42 24.2
         comp=Z,1.8nm,1.1s
EVN    Everest           71.61 303     P       P       06 42 37.9  -0.6
PALK   Pallekele         71.78 280     LR      LR      07 18 57.5
         comp=Z,29nm,18.7s,baz=116,slow=40
YAK    Yakutsk           71.86 350     LR      LR      07 15 28.1
         comp=Z,11nm,20.2s,baz=137,slow=37
KDAK   Kodiak Island     79.88  27     LR      LR      07 14 39.4
         comp=Z,38nm,19.9s,baz=226,slow=32
MKAR   Makanchi Array    81.67 320     P       P       06 43 34.6 +0.4
         comp=Z,1.3nm,0.9s,baz=98,slow=9.2,SNR=5.5
MKAR                                   LR      LR      07 19 58.4
         comp=Z,28nm,18.4s,baz=284,slow=36
         comp=Z,1.3nm,0.9s
MAKZ   Makanchi          81.88 320     P       P       06 43 35.3   0.0
MAKZ                                   IAmb    IAmb    06 43 44.9
         comp=Z,5.0nm,1.3s
MAW    Mawson            81.88 203     P       P       06 43 32.9  -2.0
         comp=Z,1.5nm,1.0s,baz=100,slow=14,SNR=2.7
MAW                                    LR      LR      07 16 40.8
         comp=Z,79nm,20.0s,baz=113,slow=33
         comp=Z,1.5nm,1.0s
MAW    Mawson            81.88 203     P       P       06 43 33.8  -1.1
QSPA   South Pole Qui    81.89 180     P       P       06 43 33.2  -2.0
         comp=Z,1.2nm,0.7s,baz=203,slow=0.1,SNR=8.1
         comp=Z,1.2nm,0.7s
QSPA   South Pole Qui    81.89 180     P       P       06 43 33.4  -1.7
QSPA                                   IAmb    IAmb    06 43 37.4
         comp=Z,4.3nm,1.1s
ZALV   Zalesovo Beam     82.93 327     LR      LR      07 19 53.8
         comp=Z,57nm,20.8s,baz=150,slow=35
KSH2   Kashi             83.97 311     P       P       06 43 47.3 +0.8
KSH2                                   pmax    pmax
         comp=Z,4.0nm,0.5s
ILAR   Eielson Array     85.84  22     P       P       06 43 54.4  -0.7
         comp=Z,0.2nm,0.6s,baz=267,slow=10.0,SNR=2.2
         comp=Z,0.2nm,0.6s
YBH    Yreka Blue Hor    92.53  48     LR      LR      07 18 43.7
         comp=Z,92nm,21.0s,baz=286,slow=31
NVAR   Mina Array Bea    95.47  52     P       P       06 44 42.1 +1.0
         comp=Z,0.4nm,0.8s,baz=253,slow=9.1,SNR=3.7
         comp=Z,0.4nm,0.8s
PFO    Pinyon Flats O    96.48  57     LR      LR      07 20 05.0
         comp=Z,43nm,20.6s,baz=241,slow=30
AKTO   Aktyubinsk        98.11 320     LR      LR      07 29 14.8
         comp=Z,50nm,20.7s,baz=54,slow=35
ARTI   Arti              98.15 326     LR      LR      07 28 29.3
         comp=Z,70nm,22.0s,baz=85,slow=35
SNAA   Sanae             98.55 188     P       P       06 44 53.0  -1.2
         comp=Z,0.7nm,0.3s,baz=117,slow=4.5,SNR=2.2
         comp=Z,0.7nm,0.3s
TORD   Torodi Ar. Bea   149.48 282     PKPbc   PKPbc   06 51 04.8  -1.3
         comp=Z,1.0nm,0.9s,baz=90,slow=4.7,SNR=3.7
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*IDC **13** 06:32:54.5±1.1, 2.°33N×126.°85E, h0^{km}, mb4.1/7, mbtmp4.2/7, Error ellipse: s-maj=81.1km s-min=16.2km az=65.0*

*MAN **13** 06:33:04.0, 2.°74N×127.°16E, h33^{km}, MS4.1*

*DJA **13** 06:33:04.1±1.7, 3°N±5°×12°7E±°, h27^{km}±20^{km}, M4.1/12, mb4.4/2, MLv4.0/12*

*NEIC **13** 06:33:05.2±0.9, 2.°5N±0.°1×127.°2E±0.°2, h89^{km}±9^{km}, mb4.1/9, Error ellipse: s-maj=24.7km s-min=12.7km az=56.0*

ISC 13 06:33:05.4±0.7**, 2.°51N**±0.°05×**127.°19E**±0.°09**, h100**^{km}**, n32,** σ**1**^{s}.**63**/35**, mb4.0**/11**, Northern Molucca Sea**

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Code   Station Name       Δ°   AZ°     Phase ID          Time      Res
                                      Op      ISC      h  m  s     ISC
GAMI   Galela, Maluku     0.90 138     P       Pn      06 33 22.4  -2.3
GAMI                                   AML     AML
TNTI   Ternate            1.73 174             Pn      06 33 33.5  -1.1
TNTI   Ternate            1.73 174     P       Pn      06 33 34.0  -0.6
DDMP   Don Marcelino,     3.86 338    eP       Pn      06 34 00.0  -2.7
DDMP                                  eS       Sn      06 34 41.3  -5.8
GTOI   Gorontalo          4.57 246     P       Pn      06 34 12.0  -0.3
GTOI                                   AML     AML
KCP    Kidapawan          4.94 335    eP       Pn      06 34 17.1  -0.2
KCP                                   eS       Sn      06 35 11.8  -1.5
CDOP   Cateel, Davao      5.29 352    i P      Pn      06 34 12.6   -10
LUWI   Luwuk              5.65 231     Pn      Pn      06 34 26.4  -0.6
BIPH   Bislig             5.70 352    eP       Pn      06 34 31.1 +3.5
BIPH                                  eS       Sn      06 35 30.0  -1.7
BUKP   Musuan             5.74 338    i P      Pn      06 34 27.4  -0.8
BUKP                                  i S      Sn      06 35 33.5 +0.7
TOLI2  Tolitoli           6.55 258     Pn      Pn      06 34 37.8  -1.4
WB0    Warramunga Arr    23.24 163     P       P       06 38 03.2  -0.9
WB0                                    IAmb    IAmb    06 38 03.8
         comp=Z,11nm,0.7s
WRAB   Tennant Creek     23.39 163     P       P       06 38 04.6  -0.8
WRAB                                   IAmb    IAmb    06 38 13.0
         comp=Z,7.4nm,0.9s
WRA    Warramunga Arr    23.39 163     P       P       06 38 04.5  -1.0
         comp=Z,6.3nm,0.7s,baz=336,slow=11,SNR=31
         comp=Z,6.3nm,0.7s
WRA    Warramunga Arr    23.39 163     P       P       06 38 03.6  -1.9
WR8    Warramunga Arr    23.45 162     P       P       06 38 05.3  -0.7
WR8                                    IAmb    IAmb    06 38 06.3
         comp=Z,13nm,1.1s
AS31   Alice Springs     26.83 166     P       P       06 38 36.0  -0.5
ASAR   Alice Springs     26.83 166     P       P       06 38 36.0  -0.5
         comp=Z,0.4nm,0.3s,baz=344,slow=7.5,SNR=9.1
         comp=Z,0.4nm,0.3s
ASAR   Alice Springs     26.83 166     P       P       06 38 36.4  -0.2
CMAR   Chiang Mai Arr    31.89 302     P       P       06 39 21.9 +0.5
         comp=Z,0.8nm,0.3s,baz=116,slow=7.1,SNR=4.5
         comp=Z,0.8nm,0.3s
CMAR   Chiang Mai Arr    31.89 302     P       P       06 39 21.6 +0.1
BBOO   Buckleboo         36.12 167     P       P       06 39 57.8   0.0
STKA   Stephens Creek    36.83 159     P       P       06 40 04.0 +0.1
         comp=Z,4.4nm,0.5s,baz=343,slow=7.0,SNR=12
         comp=Z,4.4nm,0.5s
SONM   Songino Array     48.59 341     P       P       06 41 40.0 +1.1
         comp=Z,0.9nm,0.6s,baz=161,slow=9.0,SNR=3.6
         comp=Z,0.9nm,0.6s
SONM   Songino Array     48.59 341     P       P       06 41 40.8 +1.9
SONM                                   IAmb    IAmb    06 42 19.6
         comp=Z,2.0nm,0.9s
MKAR   Makanchi Array    58.81 325     P       P       06 42 53.2  -0.2
KURBB  Kurchatov Arra    63.01 328     P       P       06 43 22.4 +0.8
         comp=Z,3.4nm,0.7s,baz=128,slow=6.2,SNR=30
         comp=Z,3.4nm,0.7s
KURK   Kurchatov         63.01 328     P       P       06 43 22.4 +0.8
KKAR   Karatay Array     64.43 317     P       P       06 43 31.9 +0.7
BVAR   Borovoye Array    68.59 327     P       P       06 43 58.5 +1.1
         comp=Z,0.9nm,0.4s,baz=133,slow=8.3,SNR=5.9
         comp=Z,0.9nm,0.4s
ABKAR  Akbulak array     73.38 321     P       P       06 44 26.8 +0.3
VNDA   Vanda             82.17 173     P       P       06 45 15.7 +1.0
VNDA                                   IAmb    IAmb    06 45 54.5
         comp=Z,3.0nm,1.4s
```

IDC 13 07:01:56.5±1.7**, 8.°92S**×**123.°51E, h0**^{km}**, mb3.7**/2**, mbtmp3.6**/5**, ML3.6**/3**, Error ellipse: s-maj=72.4km s-min=21.7km az=60.0, Flores region**

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Code   Station Name       Δ°   AZ°     Phase ID          Time      Res
                                      Op      ISC      h  m  s     ISC
FITZ   Fitzroy Crossi     9.36 167     Pn      Pn      07 04 11.1  -1.7
         0.6nm,0.3s,baz=352,slow=12,SNR=11
FITZ                                   Sn      Sn      07 05 44.1   -15
         3.7nm,0.3s,baz=137,slow=14,SNR=19
         1.4nm,0.3s
FITZ                                   AML     AML
WRA    Warramunga Arr    15.16 137     Pn      Pn      07 05 27.0  -5.1
         0.2nm,0.3s,baz=313,slow=14,SNR=12
WRA                                    Sn      Sn      07 08 02.3   -19
         0.5nm,0.3s,baz=217,slow=34,SNR=10
         0.6nm,0.7s
WRA                                    AML     AML
ASAR   Alice Springs     17.72 147     Pn      Pn      07 06 00.1  -4.8
         0.2nm,0.3s,baz=320,slow=12,SNR=15
ASAR                                   Sn      Sn      07 09 03.2   -20
         0.2nm,0.3s,baz=317,slow=23,SNR=6.1
         1.0nm,0.6s
ASAR                                   AML     AML
STKA   Stephens Creek    28.36 146     P       P       07 07 51.5  -0.9
         0.7nm,0.5s,baz=325,slow=16,SNR=1.7
         0.7nm,0.5s
MKAR   Makanchi Array    66.50 330     P       P       07 12 48.0   0.0
         0.3nm,0.5s,baz=127,slow=4.8,SNR=2.3
         0.3nm,0.5s
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*IDC **13** 07:12:54.8±0.5, 19.°14N×64.°33W, h0^{km}, mb4.0/15, mbtmp4.0/19, ML3.5/4, MS3.4/16, Error ellipse: s-maj=14.3km s-min=11.7km az=127.0*

*PTWC **13** 07:12:57, 19.°20N×64.°40W, Ml4.4/17*

*RSPR **13** 07:12:59.0, 19.°40N×64.°28W, h35^{km}±21^{km}, MD4.3/16*

*NEIC **13** 07:12:59.8±1.6, 19.°11N±0.°06×64.°42W±0.°03, h21^{km}±4^{km}, mb4.4/110, ML4.5/57, Mwr4.2/41, Md4.3/16(RSPR), Error ellipse: s-maj=8.5km s-min=4.3km az=164.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}-0.25; $M_{\theta\theta}$-0.22; $M_{\phi\phi}$0.47; $M_{r\theta}$1.80; $M_{\theta\phi}$1.79; $M_{\phi r}$0.33; Fault plane solution: $M_0$2.59000×10^{15} NP1: ϕ_s354.77000°, δ44.43000°, λ-175.54000°. NP2: ϕ_s261.58000°, δ86.88000°, λ-45.66000°. Principal axes: T 2.6966, Plg28.0000°, Azm318.0000°; N -0.2202, Plg44.0000°, Azm79.0000°; P -2.4763, Plg33.0000°, Azm208.0000°;*

*NEIC **13** 07:13:00.4, 19.°12N×64.°45W, h24^{km}*

ISC 13 07:12:56.7±2.5**, 19.°20N**±0.°06×**64.°35W**±0.°03**, h11**^{km}±15^{km}**, n204,** σ**1**^{s}.**44**/163**, mb4.4**/60**, MS3.5**/13**, 14C-4D, Virgin Islands**

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Code   Station Name       Δ°   AZ°     Phase ID          Time      Res
                                      Op      ISC      h  m  s     ISC
SMRT   St. Maarten        1.67 133             Pn      07 13 26.2 +0.4
SMRT   St. Maarten        1.67 133     P       Pn      07 13 26.3 +0.4
SMRT   St. Maarten        1.67 133    eP       Pn      07 13 27.0 +1.2
SMRT                                  eS       Sn      07 13 48.0 +0.8
HUMP   Col San Antoni     1.77 234             Pn      07 13 27.0  -0.2
HUMP                                           Sn      07 13 47.1  -2.6
HUMP   Col San Antoni     1.77 234     P       Pn      07 13 27.2   0.0
HUMP   Col San Antoni     1.77 234⇑  i P       Pn      07 13 28.1 +1.0
SABA   Saba               1.89 146             Pn      07 13 29.8 +0.9
SABA   Saba               1.89 146     P       Pn      07 13 29.8 +0.9
SABA   Saba               1.89 146    eP       Pn      07 13 29.9 +1.0
SABA                                  eS       Sg      07 13 57.4  -0.2
PDPR   Patillas Dam,      1.97 234             Pn      07 13 30.9 +0.9
PDPR   Patillas Dam,      1.97 234     Sn      Sn      07 13 53.2  -1.5
PDPR   Patillas Dam,      1.97 234     P       Pn      07 13 30.9 +0.9
PDPR   Patillas Dam,      1.97 234⇑   eP       Pn      07 13 30.9 +0.9
SJG    San Juan           2.02 238     Pn      Pn      07 13 31.2 +0.6
         26nm,0.3s,baz=27,slow=20,SNR=101
SJG                                    Sn      Sn      07 13 54.6  -1.3
         106nm,0.3s,baz=316,slow=20,SNR=5.7
SJG                                    LR      LR      07 14 01.4
         comp=Z,184nm,18.5s,baz=46,slow=33
         119nm,0.4s
SJG                                    AML     AML
SJG    San Juan           2.02 238             Pn      07 13 31.5 +0.8
SJG    San Juan           2.02 238     P       Pn      07 13 31.1 +0.5
SJG    San Juan           2.02 238    eP       Pn      07 13 31.3 +0.6
SJG    San Juan           2.02 238⇑   eP       Pn      07 13 31.5 +0.8
IGPR   InterUniversit     2.07 234             Pn      07 13 32.3 +0.9
IGPR                                           Sn      07 13 58.5 +1.4
IGPR   InterUniversit     2.07 234     P       Pn      07 13 32.1 +0.8
IGPR   InterUniversit     2.07 234⇑   eP       Pn      07 13 32.3 +0.9
ECPR   Experimental S     2.10 246             Pn      07 13 32.2 +0.4
ECPR   Experimental S     2.10 246             Sn      07 13 59.5 +1.7
ECPR   Experimental S     2.10 246     IAML            07 14 04.8
         2μm,0.8s
ECPR                                   IAML            07 14 05.8
         3μm,0.7s
ECPR   Experimental S     2.10 246     P       Pn      07 13 32.1 +0.4
ECPR   Experimental S     2.10 246⇑   eP       Pn      07 13 32.1 +0.4
SEUS   St. Eustatius      2.14 142             Pn      07 13 34.0 +1.7
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SEUS				IAML		07 14 18.2	
	comp=E,3µm,0.6s						
SEUS	St. Eustatius	2.14	142	P	Pn	07 13 34.0	+1.7
SEUS	St. Eustatius	2.14	142	eP	Pn	07 13 33.3	+1.0
SEUS				eS	Sn	07 14 00.5	+1.7
EMPR	Esperanza - Ma	2.19	251		Pn	07 13 34.1	+1.2
EMPR					Sn	07 14 01.4	+1.5
EMPR	Esperanza - Ma	2.19	251	P	Pn	07 13 33.8	+0.9
EMPR	Esperanza - Ma	2.19	251	⇑eP	Pn	07 13 34.1	+1.2
EMPR				eS	Sn	07 14 01.4	+1.5
CELP	Cerrillos	2.39	242		Pn	07 13 36.8	+1.0
CELP					Sn	07 14 05.4	+0.3
CELP	Cerrillos	2.39	242	IAML		07 14 24.7	
	comp=E,1µm,0.8s						
CELP	Cerrillos	2.39	242	P	Pn	07 13 36.5	+0.7
CELP	Cerrillos	2.39	242	⇑eP	Pn	07 13 36.8	+1.0
SKI	Saint Kitts	2.41	140	eP	Pn	07 13 37.1	+1.1
OBIP	Obispado Ponce	2.43	242		Pn	07 13 36.9	+0.7
OBIP	Obispado Ponce	2.43	242	P	Pn	07 13 37.1	+0.8
OBIP	Obispado Ponce	2.43	242	⇑iP	Pn	07 13 37.4	+1.1
AOPR	Arecibo Observ	2.43	250		Pn	07 13 37.1	+0.8
AOPR	Arecibo Observ	2.43	250	IAML		07 14 28.7	
	comp=E,2µm,0.6s						
AOPR	Arecibo Observ	2.43	250	P	Pn	07 13 36.8	+0.5
AOPR	Arecibo Observ	2.43	250	⇑eP	Pn	07 13 37.1	+0.8
GBPR	Guanica, Bosqu	2.69	243		Pn	07 13 41.4	+1.6
GBPR					Sn	07 14 14.4	+2.0
GBPR	Guanica, Bosqu	2.69	243	⇑eP	Pn	07 13 41.4	+1.6
GBPR				eS	Sn	07 14 14.4	+2.0
AGPR	Aguadilla, PR	2.71	255		Pn	07 13 40.6	+0.4
AGPR	Aguadilla, PR	2.71	255	IAML		07 14 18.3	
	comp=E,1µm,0.7s						
AGPR	Aguadilla, PR	2.71	255	P	Pn	07 13 40.4	+0.2
AGPR	Aguadilla, PR	2.71	255	⇓eP	Pn	07 13 40.6	+0.4
LSP	Las Mesas	2.79	249		Pn	07 13 42.3	+1.1
LSP					Sn	07 14 16.0	+1.2
LSP	Las Mesas	2.79	249	⇑eP	Pn	07 13 42.3	+1.1
LSP				eS	Sn	07 14 16.0	+1.2
PRSN	Puerto Rico Se	2.82	250		Pn	07 13 43.0	+1.3
PRSN					Sn	07 14 17.1	+1.4
PRSN	Puerto Rico Se	2.82	250	IAML		07 14 27.2	
	comp=E,2µm,0.6s						
PRSN	Puerto Rico Se	2.82	250	P	Pn	07 13 42.4	+0.7
PRSN	Puerto Rico Se	2.82	250	⇑eP	Pn	07 13 43.0	+1.3
MLPR	Magueyes Islan	2.83	245		Pn	07 13 42.9	+1.1
MLPR					Sn	07 14 17.1	+1.2
MLPR	Magueyes Islan	2.83	245	IAML		07 14 25.8	
	comp=E,1µm,0.8s						
MLPR	Magueyes Islan	2.83	245	P	Pn	07 13 42.9	+1.1
MLPR	Magueyes Islan	2.83	245	⇑eP	Pn	07 13 42.9	+1.1
CRPR	Cabo Rojo, PR	2.87	246		Pn	07 13 43.4	+1.0
CRPR					Sn	07 14 19.3	+2.3
CRPR	Cabo Rojo, PR	2.87	246	IAML		07 14 26.8	
	comp=E,2µm,0.8s						
CRPR				IAML		07 14 34.5	
	comp=E,1µm,0.9s						
CRPR	Cabo Rojo, PR	2.87	246	P	Pn	07 13 43.8	+1.4
CRPR	Cabo Rojo, PR	2.87	246	⇑iP	Pn	07 13 43.4	+1.0
ANWB	Willy Bob	2.88	122	Pn	Pn	07 13 44.3	+1.9
ANWB	Willy Bob	2.88	122	P	Pn	07 13 44.5	+2.1
ANWB	Willy Bob	2.88	122	eP	Pn	07 13 41.8	-0.6
ANWB				eS	Sn	07 14 15.1	-1.9
IDE	Isla Desecheo	3.07	255		Pn	07 13 46.0	+0.9
IDE					Sn	07 14 23.2	+1.5
IDE	Isla Desecheo	3.07	255	⇓eP	Pn	07 13 46.0	+0.9
IDE				eS	Sn	07 14 23.2	+1.5
MLYT	Lee's Yard	3.21	140	eP	Pn	07 13 48.4	+1.3
DHSZ	Broadband at M	3.82	139	eP	Pn	07 13 56.6	+1.2
GDHS	Morne Mazeau,	3.82	139	P	Pn	07 13 57.7	+2.3
ABD	La Joyeuse, An	3.85	134	⇑eP	Pn	07 13 56.3	+0.5
ABD				eS	Sn	07 14 39.9	-1.1
PCDR	Punta Cana, DR	3.88	260		Pn	07 13 57.4	+1.3
PCDR	Punta Cana, DR	3.88	260	IAML		07 14 59.6	
	comp=N,763nm,0.9s						
PCDR	Punta Cana, DR	3.88	260	P	Pn	07 13 56.5	+0.3
PCDR	Punta Cana, DR	3.88	260	⇓eP	Pn	07 13 57.4	+1.3
CBE	Ff, Capester	4.07	140		Sn	07 14 48.1	+1.5
CBE	Ff, Capester	4.07	140	Pn	Pn	07 13 60.0	+1.1
CBE	Ff, Capester	4.07	140	⇑eP	Pn	07 14 00.5	+1.6
CBE				eS	Sn	07 14 48.1	+1.5
HIDR	Higuey Centro	4.18	262	⇑eP	Pn	07 14 01.2	+0.9
TDBA	Terre de Bas,	4.22	142	IAML		07 15 13.1	
	comp=E,674nm,1.0s						
TDBA				IAML		07 15 13.2	
	comp=N,545nm,1.0s						
DSDZ	La Diserade, G	4.25	132	eP	Pn	07 14 00.8	-0.5
GDSD	La Dsirade Is	4.25	132	Pn	Pn	07 14 03.0	+1.7
GDSD				IAML		07 15 11.6	
	comp=N,325nm,0.9s						
GDSD				IAML		07 15 15.2	
	comp=E,350nm,1.4s						
MAGL	Barre de l'ile	4.36	137	IAML		07 15 08.4	
	comp=E,599nm,1.1s						
MAGL				IAML		07 15 20.8	
	comp=N,549nm,1.2s						
DWS	Wesley	4.64	141	eP	Pn	07 14 08.7	+2.0
DWS				eS	Sn	07 15 01.6	+1.2
DSLB	Salisbury	4.67	143	eP	Pn	07 14 08.2	+1.0
DSLB				eS	Sn	07 15 00.6	-0.9
SVN	Savane Anatole	5.30	144	eP	Pn	07 14 18.9	+3.0
SVN				eS	Sn	07 15 16.9	0.0
CXM	Morne La Croix	5.33	145	IAML		07 16 04.6	
	comp=E,237nm,0.8s						
FDFM	Morne la Roset	5.39	145		Pn	07 14 17.4	+0.4
FDFM				IAML		07 15 41.6	
	comp=E,218nm,0.8s						
FDFM				IAML		07 15 58.2	
	comp=N,127nm,1.1s						
ILAM	Ilet Lapin Mar	5.52	142	eP	Pn	07 14 21.2	+2.4
BIM	Bigot	5.62	146	eP	Pn	07 14 21.6	+1.3
SLBI	Saint Lucia, B	6.08	147	eP	Pn	07 14 27.7	+1.2
SLBI				eS	Sn	07 15 33.7	-2.4
SDDR	Presa de Saban	6.56	269		Pn	07 14 34.2	+1.0
SDDR	Presa de Saban	6.56	269	eP	Pn	07 14 34.8	+1.6
SDDR				eS	Sn	07 15 49.9	+1.8
BBGH	Gun Hill	7.58	142	eP	Pn	07 14 50.4	+3.2
BBGH				eS	Sn	07 16 15.4	+2.2
TRN	Trinidad (W)	8.97	161	eP	Pn	07 15 09.1	+2.9
QMBU	Quimbuelo	9.90	277	eP	Pn	07 15 15.1	-3.9
MOAC	Moa	10.08	280	eP	Pn	07 15 17.9	-3.5
NMDO	Nuevo Mundo	10.09	279	eP	Pn	07 15 17.9	-3.7
GTBY	Guantanamo Bay	10.17	276	eP	Pn	07 15 19.3	-3.4
RCC	Rio Carpintero	10.72	276	eP	Pn	07 15 26.6	-3.6
PINC	Pinares de May	10.84	279	eP	Pn	07 15 27.5	-4.3
MARVS	Santiago de Cu	10.91	276	eP	Pn	07 15 28.5	-4.3
HLGC	Holguin	11.13	281	eP	Pn	07 15 34.4	-1.4
YAR	Yar	11.36	278	eP	Pn	07 15 35.0	-4.0
SDV	Santo Domingo	11.93	212	Pn	Pn	07 15 47.6	+0.8
	comp=N,1.8nm,0.3s,baz=39,slow=10,SNR=9.0						
SDV				Sn	Sn	07 17 51.5	-8.6
	comp=N,1.6nm,0.3s,baz=264,slow=15,SNR=5.4						
SDV				LR	LR	07 20 47.0	
	comp=N,191nm,19.5s,baz=66,slow=40						
	comp=N,4.4nm,0.4s						
SDV				AML	AML		
CCCC	Cccc	12.75	281	⇓eP	Pn	07 15 49.6	-8.3
BOAV	Boa Vista	17.12	167	P	Pn	07 16 56.3	+0.3
ROSC	El Rosal	17.27	216	Pn	Pn	07 16 59.3	+1.0
	comp=N,1.1nm,0.3s,baz=64,slow=9.9,SNR=14						
ROSC				Sn	Sn	07 20 09.0	-1.8
	comp=N,0.3nm,0.3s,baz=3.3,slow=24,SNR=1.4						
	comp=N,11nm,0.6s						
ROSC				AML	AML		
ROSC	El Rosal	17.27	216	P	Pn	07 17 00.1	+1.8
MDP	Montagnes des	18.08	139	Pn	Pn	07 17 03.2	-4.7
	comp=N,0.7nm,0.3s,baz=330,slow=8.9,SNR=7.5						
MDP				Sn	Sn	07 20 13.3	-16
	comp=N,0.2nm,0.3s,baz=114,slow=2.0,SNR=1.6						
MDP				LR	LR	07 24 07.8	
	comp=N,111nm,22.0s,baz=338,slow=37						
	comp=N,7.2nm,1.1s						
MDP				AML	AML		
LCR2	La Lucha 2	21.21	246	P	P	07 17 42.9	+0.2
LCR2				IAmb	IAmb	07 17 44.0	
	comp=Z,15nm,0.7s						
JTS	Las Juntas de	21.78	249	P	P	07 17 48.3	-0.5
	comp=Z,2.8nm,0.7s,baz=277,slow=13,SNR=1.5						
	comp=Z,2.8nm,0.7s						
JTS	Las Juntas de	21.78	249	IAmb	IAmb	07 17 57.4	
	comp=Z,11nm,1.1s						
MACA	Manacapuru-AM	22.52	170		P	07 17 57.8	+1.3
MACA				IAmb	IAmb	07 18 00.0	
	comp=Z,9.1nm,0.8s						
TEIG	Tepich	22.54	277	P	P	07 17 56.9	+0.1
TEIG				IAmb	IAmb	07 18 00.5	
	comp=Z,24nm,1.2s						
OTAV	Otavalo	23.38	218	P	P	07 18 05.5	-0.4
TKL	Tuckaleechee C	23.71	318	LR	LR	07 26 18.5	
	comp=Z,53nm,21.2s,baz=134,slow=34						
SLOR	San Lorenzo -	24.19	217	P	P	07 18 12.7	-1.1
SLOR				IAmb	IAmb	07 18 41.9	
	comp=Z,7.7nm,0.8s						
SADO	Sadowa	28.32	337	LR	LR	07 28 43.2	
	comp=Z,125nm,21.7s,baz=156,slow=33						
X40A	Basin Creek Fa	29.49	307	IAmb	IAmb	07 19 03.0	
	comp=Z,3.6nm,0.7s						
WMOK	Wichita Mounta	34.16	304	IAmb	IAmb	07 19 43.4	
	comp=Z,8.2nm,1.4s						
ABTX	Abilene, Hawle	34.27	300	IAmb	IAmb	07 19 44.5	
	comp=Z,4.2nm,0.8s						
PTLB	Pontes e Lacer	34.81	171	P	P	07 19 49.0	+1.4
SMWD	Samnorwood	35.42	304	IAmb	IAmb	07 19 54.9	
	comp=Z,5.5nm,0.9s						
LPAZ	La Paz	35.46	186	P	P	07 19 53.5	-0.5
	comp=Z,1.9nm,0.9s,baz=216,slow=1.8,SNR=8.2						
	comp=Z,1.9nm,0.9s						
LPAZ	La Paz	35.46	186	P	P	07 19 54.1	+0.2
LPAZ				IAmb	IAmb	07 20 21.5	
	comp=Z,3.2nm,0.8s						
DKNS	Dickens	35.57	301	IAmb	IAmb	07 19 55.1	
	comp=Z,6.0nm,1.3s						
SCHQ	Schefferville	35.62	358	LR	LR	07 32 52.6	
	comp=Z,44nm,19.7s,baz=240,slow=34						
ZAIG	Zacatecas	35.79	282	IAmb	IAmb	07 19 59.8	
	comp=Z,8.2nm,1.2s						
129A	Stewart Farms,	36.10	299	IAmb	IAmb	07 20 00.0	
	comp=Z,3.0nm,0.8s						
TX31	Lajitas Ar. Si	37.08	293	IAmb	IAmb	07 20 09.5	
	comp=Z,6.2nm,1.2s						
TXAR	Lajitas Array	37.08	293	P	P	07 20 08.2	+1.0
	comp=Z,1.3nm,0.8s,baz=114,slow=11,SNR=20						
TXAR				PcP	PcP	07 22 28.0	+0.2
	comp=Z,0.6nm,0.9s,baz=68,slow=4.5,SNR=2.9						
	comp=Z,1.3nm,0.8s						
TXAR	Lajitas Array	37.08	293	P	P	07 20 08.1	+0.8
MSTX	Muleshoe	37.14	301	IAmb	IAmb	07 20 09.7	
	comp=Z,14nm,1.4s						
BDFB	Brasilia	38.18	154	P	P	07 20 16.2	-0.3
	comp=Z,2.1nm,0.7s,baz=0.0,slow=8.1,SNR=4.1						
	comp=Z,2.1nm,0.7s						
BDFB	Brasilia	38.18	154	IAmb	IAmb	07 20 32.5	
	comp=Z,15nm,1.5s						
VHRN	Van Horn	38.40	296	IAmb	IAmb	07 20 20.8	
	comp=Z,8.0nm,1.2s						
GO01	Chusmiza	38.92	187	IAmb	IAmb	07 20 36.5	
	comp=Z,8.0nm,0.6s						
T25A	Trinidad	39.23	306	IAmb	IAmb	07 20 27.7	
	comp=Z,11nm,1.2s						
ULM	Lac du Bonnet	39.84	328	P	P	07 20 29.4	-0.6
	comp=Z,3.7nm,1.0s,baz=127,slow=10,SNR=3.5						
ULM				LR	LR	07 36 13.1	
	comp=Z,76nm,20.8s,baz=152,slow=35						
	comp=Z,3.7nm,1.0s						
ULM	Lac du Bonnet	39.84	328	IAmb	IAmb	07 20 32.1	
	comp=Z,8.1nm,1.2s						
SDCO	Great Sand Dun	40.23	306	P	P	07 20 34.8	+0.9
ALQ	Albuquerque	40.32	302		P	07 20 35.8	+1.3
ANMO	Albuquerque	40.32	302	P	P	07 20 35.6	+1.2
TASM	ASL Pad, Albuq	40.32	302	IAmb	IAmb	07 20 36.8	
	comp=Z,2.2nm,0.9s						
PV15	Paradox Valley	42.66	306	IAmb	IAmb	07 20 56.2	
	comp=Z,9.7nm,1.1s						
PV13	Radium Mtn., P	42.88	306	IAmb	IAmb	07 20 57.9	
	comp=Z,9.8nm,1.0s						
PV12	Saucer Basin,	42.90	306	IAmb	IAmb	07 20 58.0	
	comp=Z,12nm,0.9s						
PV03	Paradox Valley	42.92	306	IAmb	IAmb	07 20 58.0	
	comp=Z,5.7nm,0.9s						
PV11	David Mesa, Pa	42.95	306	IAmb	IAmb	07 21 01.1	
	comp=Z,5.2nm,0.7s						
PV16	Nyswonger Mesa	42.98	306	IAmb	IAmb	07 20 58.5	
	comp=Z,7.5nm,1.0s						
PV04	Paradox Valley	43.00	306	IAmb	IAmb	07 20 59.4	
	comp=Z,13nm,1.3s						
PV17	East Wray Mesa	43.01	306	IAmb	IAmb	07 20 58.7	
	comp=Z,11nm,0.9s						
PV20	West Nyswonger	43.03	306	IAmb	IAmb	07 20 58.7	
	comp=Z,10nm,1.0s						
PV19	Morning Glory	43.04	306	IAmb	IAmb	07 20 58.8	
	comp=Z,9.7nm,0.9s						
PV10	Paradox Valley	43.09	306	IAmb	IAmb	07 20 59.2	
	comp=Z,7.4nm,1.0s						
TUC	Tucson	43.49	297	P	P	07 21 01.2	+0.9
WUAZ	Wupatki	44.38	301	IAmb	IAmb	07 21 10.3	
	comp=Z,9.4nm,1.4s						
BW06	Boulder Array	44.64	312	IAmb	IAmb	07 21 11.3	
	comp=Z,5.3nm,1.2s						
PD31	Pinedale Array	44.64	312	IAmb	IAmb	07 21 11.3	
	comp=Z,4.9nm,1.1s						
PDAR	Pinedale Array	44.64	312	P	P	07 21 10.6	+1.0
	comp=Z,1.9nm,0.8s,baz=110,slow=9.0,SNR=17						
PDAR				PcP	PcP	07 22 52.2	0.0
	comp=Z,0.7nm,0.8s,baz=132,slow=3.0,SNR=2.7						
	comp=Z,1.9nm,0.8s						
PDAR	Pinedale Array	44.64	312	P	P	07 21 09.8	+0.2
BSUT	Blindstream Ca	44.90	309	IAmb	IAmb	07 21 14.0	
	comp=Z,8.3nm,1.1s						
MPU	Maple Canyon	45.43	308	IAmb	IAmb	07 21 18.0	
	comp=Z,5.6nm,1.2s						
HWUT	Hardware Ranch	45.76	310	IAmb	IAmb	07 21 20.1	
	comp=Z,4.3nm,0.9s						
CPUP	Villa Florida	45.77	171	P	P	07 21 16.0	-2.3
	comp=Z,1.1nm,0.7s,baz=358,slow=8.6,SNR=5.8						
CPUP				LR	LR	07 41 59.6	
	comp=Z,65nm,18.2s,baz=256,slow=38						
	comp=Z,1.1nm,0.7s						
CPUP	Villa Florida	45.77	171	IAmb	IAmb	07 21 25.0	
	comp=Z,6.3nm,1.2s						
113A	Mohawk Valley,	46.04	297	IAmb	IAmb	07 21 22.8	
	comp=Z,5.2nm,1.4s						
SPUT	South Promonto	46.33	309	IAmb	IAmb	07 21 24.7	
	comp=Z,3.4nm,0.9s						
YHL	Hebgen Lake	46.39	314	IAmb	IAmb	07 21 41.6	
	comp=Z,3.4nm,1.0s						
BGU	Big Grassy Mou	46.67	309	IAmb	IAmb	07 21 27.7	
	comp=Z,6.8nm,1.0s						
HVU	Hansel Valley	46.68	310	IAmb	IAmb	07 21 27.4	
	comp=Z,4.0nm,0.9s						
PSUT	Pine Spring	46.83	305	IAmb	IAmb	07 21 29.9	
	comp=Z,4.9nm,1.0s						
IRM	Iron Mountain	47.30	299	IAmb	IAmb	07 21 34.6	
	comp=Z,7.0nm,1.4s						
ELK	Elko	48.27	308	IAmb	IAmb	07 21 40.4	
	comp=Z,9.0nm,1.4s						
TPNV	Topopah Spring	48.48	303	IAmb	IAmb	07 21 42.8	
	comp=Z,3.1nm,1.0s						
WCT	Wildcat Mounta	48.76	302	IAmb	IAmb	07 21 44.7	
	comp=Z,4.5nm,1.2s						
MFID	Camas Ranch	49.24	311	IAmb	IAmb	07 21 47.5	
	comp=Z,2.8nm,0.9s						
BMN	Battle Mountai	49.71	307	IAmb	IAmb	07 21 51.2	
	comp=Z,6.0nm,0.9s						
NVAR	Mina Array Bea	50.27	304	P	P	07 21 52.5	-0.9
	comp=Z,1.7nm,0.9s,baz=102,slow=6.9,SNR=12						
NVAR				PcP	PcP	07 23 13.4	+1.0
	comp=Z,0.4nm,0.8s,baz=80,slow=3.7,SNR=1.1						
NVAR				LR	LR	07 44 41.6	
	comp=Z,52nm,20.6s,baz=86,slow=38						
	comp=Z,1.7nm,0.9s						
J08A	Circle Bar Ran	51.12	311	IAmb	IAmb	07 22 01.3	
	comp=Z,3.1nm,0.8s						
NEW	Newport	51.30	317	LR	LR	07 43 07.0	
	comp=Z,75nm,21.8s,baz=117,slow=35						
VA03	San Esteban	52.01	187	P	P	07 22 06.2	-0.1
MT03	Universidad Ad	52.73	186	P	P	07 22 12.4	+0.8
ORV	Oroville	52.86	305	IAmb	IAmb	07 22 14.6	
	comp=Z,3.3nm,0.9s						
BO02	Sierra Bellavi	54.04	187	P	P	07 22 21.7	+0.6
YKA	Yellowknife Ar	55.24	334	LR	LR	07 45 33.9	
	comp=Z,63nm,19.3s,baz=49,slow=36						
ESDC	Sonseca Array	55.37	55	P	P	07 22 32.2	+1.3
	comp=Z,1.5nm,1.0s,baz=263,slow=5.6,SNR=9.4						
	comp=Z,1.5nm,1.0s						
ESDC	Sonseca Array	55.37	55	P	P	07 22 32.7	+1.8
RES	Resolute Bay	57.89	351	LR	LR	07 46 18.8	
	comp=Z,55nm,21.0s,baz=48,slow=35						
BBB	Bella Bella	59.01	320	LR	LR	07 48 48.9	
	comp=Z,32nm,19.7s,baz=183,slow=36						
DBIC	Dimbokro	59.05	94	P	P	07 22 57.2	0.0
	comp=Z,3.2nm,1.0s,baz=218,slow=3.1,SNR=2.0						
	comp=Z,3.2nm,1.0s						
PLCA	Paso Flores	59.91	185	P	P	07 23 01.4	-1.2
	comp=Z,2.9nm,1.1s,baz=29,slow=10,SNR=3.1						
	comp=Z,2.9nm,1.1s						
TORD	Torodi Ar. Bea	63.41	85	P	P	07 23 26.7	-0.1
	comp=Z,0.6nm,0.6s,baz=284,slow=6.8,SNR=2.5						
	comp=Z,0.6nm,0.6s						
TORD	Torodi Ar. Bea	63.41	85	IAmb	IAmb	07 23 29.3	
	comp=Z,61nm,0.6s						
GERES	GERESS Array B	68.00	44	P	P	07 23 56.7	+0.7
	comp=Z,0.3nm,0.2s,baz=275,slow=5.7,SNR=2.3						
	comp=Z,0.3nm,0.2s						
ILAR	Eielson Array	69.63	333	P	P	07 24 05.0	-0.7
	comp=Z,0.7nm,0.8s,baz=106,slow=4.4,SNR=13						
ILAR				LR	LR	07 54 16.6	
	comp=Z,31nm,20.4s,baz=73,slow=36						
	comp=Z,0.7nm,0.8s						
BRTR	Keskin Array B	83.87	50	P	P	07 25 27.6	+0.7
	comp=Z,1.5nm,0.7s,baz=279,slow=4.5,SNR=7.5						
	comp=Z,1.5nm,0.7s						
TIXI	Tiksi	88.93	356	LR	LR	08 06 35.3	
	comp=Z,28nm,19.2s,baz=26,slow=36						
SNAA	Sanae	99.65	164	LR	LR	08 10 34.5	
	comp=Z,19nm,21.6s,baz=275,slow=35						
WRA	Warramunga Arr	162.37	264	PKP	PKPdf	07 32 58.3	-1.0
	comp=Z,0.9nm,0.8s,baz=105,slow=0.7,SNR=6.0						
ASAR	Alice Springs	162.44	252	PKP	PKPdf	07 32 57.9	-1.4
	comp=Z,0.2nm,0.5s,baz=59,slow=2.1,SNR=4.0						
ASAR				PKPab	PKPab	07 33 45.8	-1.2
	comp=Z,1.2nm,0.8s,baz=123,slow=4.1,SNR=8.1						

NNC 13 07:17:48.3±2.1, 43°.52N×87°.52E, h0^{km}, mb3.7, mpv3.4, 7C-5D, Error ellipse: s-maj=18.9km s-min=12.6km az=142.0, Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MK31	Makanchi Array	4.94	313	⇑Pn	Pn	07 19 04.7	+0.9
	0.2nm,0.2s,baz=132,slow=14,SNR=71						
MK31				⇓Lg	Lg	07 20 24.7	
	5.9nm,0.7s,baz=132,slow=25,SNR=5.1						
MAKZ	Makanchi	5.12	312	⇑Pn	Pn	07 19 07.0	+0.8
	3.8nm,0.7s						
MAKZ				⇓Lg	Lg	07 20 29.5	
	14nm,1.1s						
PDGK	Podgornoye	5.86	271	⇓Pn	Pn	07 19 15.4	-1.1
	9.2nm,0.5s						
PDGK				⇓Sn	Sn	07 20 26.4	+2.1
	12nm,0.9s						
PDGK				⇑Lg	Lg	07 20 52.8	
	22nm,0.8s						
KURBB	Kurchatov Arra	9.38	322	⇑Pn	Pn	07 20 04.0	-0.6
	1.1nm,0.5s						
KURBB				⇓Lg	Lg	07 22 46.6	
	9.7nm,0.8s						
KURK	Kurchatov	9.41	323	⇑Pn	Pn	07 20 03.7	-1.3
	1.3nm,1.1s						
KURK				⇑Lg	Lg	07 22 46.6	
	3.3nm,1.1s						
AAK	Ala-Archa	9.58	269	⇑Lg	Lg	07 22 51.8	
	4.3nm,1.2s						

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*IDC **13** 07:24:19.1±1.1, 7°.85N×83°.13W, h0^{km}, mb3.7/6, mbtmp3.8/10, ML3.3/4, MS3.3/5, Error ellipse: s-maj=36.0km s-min=15.4km az=42.0*

*RSNC **13** 07:24:21.9±0.4, 8°N±4°×8°3W±°, h3^{km}±2^{km}, M4.5, mb4.5, ML3.4*

*UCR **13** 07:24:21.0±0.6, 8°.31N×82°.97W, h4^{km}±6^{km}, MW4.6, Presumed earthquake*

*UPA **13** 07:24:22.1±2.1, 8°.30N×82°.89W, h10^{km}±5^{km}, MW4.1, Fault plane solution: NP1:ϕ_s111.00000°, δ18.00000°, λ-102.00000°., Presumed earthquake*

*NEIC **13** 07:24:24.0±2.7, 8°.34N±0°.06×83°.01W±0°.04, h10^{km}±1^{km}, mb4.5/11, Error ellipse: s-maj=9.9km s-min=7.4km az=170.0*

*CATAC **13** 07:24:26.3±0.5, 9°N±5°×8°3W±°, h12^{km}±1^{km}, M4.7/19, mb5.1/5, mB5.3/3, MLv4.5/19, Mw(mB)4.7/3, Error ellipse: s-maj=11.6km s-min=2.7km az=19.0, confirmed*

ISC 13 07:24:22.3±0.9, **8°.31N**±0°.02×**82°.95W**±0°.02, **h10**^{km}±6^{km}, **n129**, σ**1**^{s}**73**/155, **mb4.4**/9, **16C, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTPM	Petroterminale	0.12	145	⇑iP	Pg	07 24 25.1	-0.1
LMNES	Limones	0.22	156	⇑iP	Pg	07 24 26.9	0.0
LMNES				eS	Sg	07 24 30.0	0.0
CDITO	Canoas	0.28	16	P	Pg	07 24 27.5	-0.3
CDITO				S	Sb	07 24 32.9	-1.2
NELY	Ciudad Neily	0.34	1	eP	Pg	07 24 28.7	-0.4
NELY				eS	Sg	07 24 34.4	+0.7
NELY	Ciudad Neily	0.34	1	⇑iP	Pg	07 24 28.7	-0.4
NELY				eS	Sb	07 24 34.9	-1.0
FITO	Golfito	0.38	328	eP	Pg	07 24 28.4	-1.3
FITO				eS	Sg	07 24 33.9	-0.8
PIRO	Carate, Puerto	0.39	284		Pg	07 24 29.4	-0.6
PIRO	Carate, Puerto	0.39	284	eP	Pg	07 24 29.1	-0.9
PIRO	Carate, Puerto	0.39	284	⇑iP	Pg	07 24 29.2	-0.9
PIRO				eS	Sb	07 24 38.6	+1.1
JIME	Puerto Jimenez	0.44	302	eP	Pg	07 24 29.8	-1.0
VITO	San Vito	0.51	358	eP	Pg	07 24 31.9	-0.3
VITO	San Vito	0.51	358	⇑iP	Pg	07 24 32.0	-0.3
VITO				eS	Sb	07 24 41.5	+0.5
DVD	David	0.51	75	⇑iP	Pg	07 24 31.7	-0.5
DVD				eS	Sg	07 24 38.7	-0.3
BRU2	Volcan	0.55	28	eP	Pg	07 24 32.7	-0.2
BRU2	Volcan	0.55	28	⇑iP	Pg	07 24 32.8	-0.2
BRU2				eS	Sb	07 24 42.8	+0.7
CLLRA	Cordillera,	0.55	37	⇑iP	Pg	07 24 32.8	-0.2
CLLRA				eS	Sg	07 24 39.8	-0.5
SCLRA	Santa Clara, W	0.55	18	⇑iP	Pg	07 24 32.9	-0.1
SCLRA				eS	Sb	07 24 42.1	+0.1
CHIR3	Chiriqui UPA,	0.62	82	⇑iP	Pg	07 24 33.4	-0.9
CHIR3				eS	Sg	07 24 41.9	-0.5
BQTLY	Boquete Panama	0.66	47	⇑iP	Pg	07 24 34.3	-0.8
EDP2	Potrero Grande	0.74	342	eP	Pg	07 24 35.8	-0.8
EDP2				eS	Sb	07 24 47.0	-0.4
PANP	Palmar Norte	0.82	322	eP	Pg	07 24 36.3	-1.9
PANP				eS	Sg	07 24 48.0	-0.9
BURE	Buenos Aires	0.94	336	eP	Pg	07 24 38.7	-1.8
ISECA	Islas Secas	0.96	109	eS	Sg	07 24 52.2	-1.2
RBALA	Bur	0.97	54	⇑iP	Pg	07 24 39.3	-1.7
RBALA				eS	Sg	07 24 52.8	-0.9
EDPE	Pejibaye, P	1.05	324	eP	Pg	07 24 40.0	-2.4
SAJE	San Jernim	1.17	332	eP	Pb	07 24 42.0	-2.7
PDCAN	Manzana , Fuen	1.24	91	⇑iP	Pn	07 24 42.9	-2.8
PDCAN				eS	Sb	07 24 59.0	-2.9
ZEDO	Perez Zeledon	1.27	325	eP	Pn	07 24 45.1	-1.1
CEUA	Cerro Uatsi, L	1.31	0	eP	Pn	07 24 46.0	-0.7
BRIBI	Bribri	1.31	6	eP	Pn	07 24 46.1	-0.5
RGM0	Gandoca	1.32	15	Pn	Pb	07 24 47.0	-0.2
RGM0	Gandoca	1.32	15	P	Pb	07 24 47.2	+0.1
BUS1	Rivas	1.47	328	eP	Pn	07 24 47.0	-2.2
QUEP	Quepos	1.64	313	P	Pn	07 24 50.7	-0.4
QUEP				S	Sg	07 25 14.7	-0.3
PIEC	Cerro El Cedra	1.64	323	eP	Pn	07 24 50.2	-1.2
PITB	Pirrs, San	1.71	322	eP	Pn	07 24 51.6	-0.7
VINA	Juan Vinas	1.76	334	eP	Pn	07 24 52.3	-0.7
ABE2	San Pablo	1.77	322	eP	Pn	07 24 51.8	-1.3
LCR2	La Lucha 2	1.77	324		Pn	07 24 52.1	-1.1
LCR2	La Lucha 2	1.77	324	P	Pn	07 24 51.8	-1.3
LCR2	La Lucha 2	1.77	324	eP	Pn	07 24 51.9	-1.2
LCR2	La Lucha 2	1.77	324	⇑iP	Pn	07 24 52.1	-1.1
LCR2				eS	Sg	07 25 18.5	-0.6
PCAYA	Pacayas	1.81	332	eP	Pn	07 24 52.9	-0.9
VTCV	VTCV, Calle Va	1.83	335	eP	Pn	07 24 53.2	-0.9
RAFA	San Farael, Vo	1.85	333		Pn	07 24 53.8	-0.6
CVTQ	Turrialba Volc	1.87	335	eP	Pn	07 24 54.2	-0.5
VTR0	Volcan Turrial	1.88	335	eP	Pn	07 24 54.0	-0.8
CVTR	Volcan Turrial	1.88	335	eP	Pn	07 24 53.9	-0.9
LUJA	Lujan	1.95	326	eP	Pn	07 24 55.3	-0.4
LUPE	Guadalupe	1.96	326	eP	Pn	07 24 55.3	-0.5
HDC	Heredia	2.04	326		Pn	07 24 57.0	+0.2
HDC	Heredia	2.04	326	eP	Pn	07 24 56.2	-0.6
TCS1	Tacares	2.18	322	P	Pn	07 25 00.1	+1.4
PNME	Penonome	2.60	86	P	Pn	07 25 04.0	-0.4
PNME				S	Sb	07 25 40.1	-1.0
PNME	Penonome	2.60	86	⇑eP	Pn	07 25 04.3	-0.1
AZU	Azuero	2.70	101	P	Pn	07 25 04.5	-1.2
AZU				S	Sn	07 25 41.2	+2.7

AZU	Azuero	2.70	101	⇑eP	Pn	07 25 06.1	+0.4
JTS	Las Juntas de	2.79	315	Pn	Pn	07 25 08.3	+1.2
	28nm,0.3s,baz=159,slow=4.4,SNR=110						
JTS				LR	LR	07 25 35.7	
	comp=Z,123nm,18.6s,baz=68,slow=25						
JTS				Sn	Sn	07 25 41.3	+0.5
	32nm,0.3s,baz=303,slow=22,SNR=4.7						
	252nm,0.5s						
JTS				AML	AML		
JTS	Las Juntas de	2.79	315		Pn	07 25 07.9	+0.8
JTS	Las Juntas de	2.79	315	P	Pn	07 25 07.7	+0.6
JTS				S	Sn	07 25 41.4	+0.5
JTS	Las Juntas de	2.79	315	P	Pn	07 25 09.2	+2.1
JTS				S	Sn	07 25 42.1	+1.2
COVE	Coope Vega, Sa	2.79	329	P	Pb	07 25 10.2	-2.0
COVE				S	Sn	07 25 43.6	+2.8
VTON	El Valle, Cocl	2.82	84	eS	Sb	07 25 47.2	-0.3
JUD3	Juan Diaz 3	3.15	306		Pn	07 25 12.6	+0.5
BCIP	Isla Barro Col	3.19	74	Pn	Pn	07 25 12.4	-0.1
BCIP	Isla Barro Col	3.19	74	P	Pn	07 25 12.0	-0.6
BCIP				S	Sb	07 25 55.7	-2.4
BCIP	Isla Barro Col	3.19	74	P	Pn	07 25 13.3	+0.7
BCIP				S	Sn	07 25 51.0	+0.3
UPAL	Upala	3.28	322	P	Pn	07 25 16.8	+3.0
UPAL				S	Sn	07 25 56.1	+3.2
UPA	Univ. de Panam	3.44	79	P	Pn	07 25 17.6	+1.6
UPA				S	Sb	07 26 01.9	-3.4
BLUN	Bluefields	3.76	348	P	Pn	07 25 20.5	+0.1
CARN	Rivas	3.82	319		Pn	07 25 23.1	+1.8
CARN	Rivas	3.82	319	P	Pn	07 25 23.9	+2.7
CARN				S	Sn	07 26 08.6	+2.3
OMEN	Al SSO del Vol	4.13	321	P	Pn	07 25 27.2	+1.7
JAPN	Al SSO del Vol	4.18	320	P	Pn	07 25 29.0	+2.9
ACON	Acoyapa	4.25	329	S	Sn	07 26 16.8	0.0
NANN	Nandasmo	4.77	319	P	Pn	07 25 38.8	+4.5
NANN				S	Sn	07 26 31.7	+2.0
BOAB	BOACO BROADBAN	4.91	327		Pn	07 25 37.0	+0.9
BOAB	BOACO BROADBAN	4.91	327	P	Pn	07 25 38.6	+2.4
MGAN	Managua	5.01	320		Pn	07 25 39.1	+1.6
MGAN	Managua	5.01	320	P	Pn	07 25 39.8	+2.3
	109nm,0.8s						
MGAN				AML	AML		
PRVC	Isla de Provid	5.27	17	P	Pn	07 25 40.2	-1.0
	59nm,0.9s						
PRVC				S	Sn	07 26 41.9	-0.2
	59nm,0.9s						
PRVC				AML	AML		
MATN	Matagalpa	5.45	328	P	Pn	07 25 46.4	+2.8
CNGN	Cerro Negro	5.56	319	P	Pn	07 25 45.0	-0.2
	824nm,1.0s						
CNGN				AML	AML		
SIUN	Universidad Ur	5.67	342		Pn	07 25 49.3	+2.7
CRIN	San Cristobal	5.94	318		Pn	07 25 49.7	-0.7
APAC	Apartado, Choc	6.32	93	P	Pn	07 25 59.5	+3.9
	31nm,0.9s						
TGUH	Tegucigalpa,Un	7.12	324		Pn	07 26 07.0	+0.4
TGUH	Tegucigalpa,Un	7.12	324	P	Pn	07 26 09.6	+3.0
CBOC	Ciudad Bolivar	7.30	109	P	Pn	07 26 09.4	+0.2
	11nm,0.9s						
SJCC	San Jacinto, C	7.83	78	P	Pn	07 26 17.3	+0.9
	20nm,0.6s						
COEG	Centro de Oper	7.86	313	P	Pn	07 26 22.4	+5.6
LOMA	Loma Larga	8.09	312	P	Pn	07 26 24.0	+4.0
GUY2C	Guyana, Caldas	8.13	112	P	Pn	07 26 21.2	+0.3
	11nm,0.6s						
PMON	Piamonte	8.24	311	P	Pn	07 26 26.2	+4.1
JAYA	Jayaque - finc	8.30	310	P	Pn	07 26 27.1	+4.1
BBAC	Balboa, Cauca	8.44	137	P	Pn	07 26 27.0	+2.1
	16nm,0.9s						
POPC	Popayan, Colom	8.47	132	P	Pn	07 26 27.0	+1.6
	15nm,0.7s						
NUBE	Las Nubes	8.71	310	P	Pn	07 26 32.4	+3.9
MTO3	Montecristo	8.73	315		Pn	07 26 29.2	+0.4
ORTC	Ortega, Tolima	8.82	119	P	Pn	07 26 31.1	+1.2
ESQI	Esquipulas	8.82	315		Pn	07 26 31.2	+1.1
ROSC	El Rosal	9.24	111	Pn	Pn	07 26 36.6	+0.6
	0.9nm,0.3s,baz=300,slow=9.2,SNR=5.9						
ROSC				LR	LR	07 30 15.6	
	comp=Z,210nm,19.1s,baz=329,slow=38						
	1.1nm,0.3s						
ROSC				AML	AML		
ROSC	El Rosal	9.24	111		Pn	07 26 39.3	+3.3
APG	El Apazote	9.92	313	Pn	Pn	07 26 47.6	+2.4
	0.1nm,0.3s,baz=145,slow=9.2,SNR=10						
	1.3nm,0.8s						
APG				AML	AML		
MTDJ	Mount Denham	11.18	28	Pn	Pn	07 27 03.4	+1.0
SDV	Santo Domingo	12.19	86	LR	LR	07 32 21.9	
	comp=Z,126nm,20.5s,baz=240,slow=39						
BANI	BANI	15.82	49	Pn	Pn	07 28 03.8	-1.5
OBIP	Obispado Ponce	18.61	57	P	Pn	07 28 42.4	+2.2
CELP	Cerrillos	18.65	57	P	Pn	07 28 43.3	+2.6
ECPR	Experimental S	18.95	57	P	Pn	07 28 46.0	+1.7
ECPR				IAmb	IAmb	07 29 19.1	
	comp=Z,26nm,1.4s						
SJG	San Juan	19.02	58	P	Pn	07 28 48.4	+3.2
	comp=Z,0.6nm,0.3s,baz=281,slow=9.0,SNR=6.5						
	comp=Z,14nm,1.0s						
SJG				AML	AML		
SJG	San Juan	19.02	58	P	Pn	07 28 47.2	+2.0
BOAV	Boa Vista	23.08	103	P	P	07 29 29.7	+1.4
MACA	Manacapuru-AM	24.96	116	P	P	07 29 47.8	+1.7
MACA				IAmb	IAmb	07 29 48.9	
	comp=Z,8.6nm,0.9s						
LPAZ	La Paz	28.50	149	LR	LR	07 41 15.7	
	comp=Z,60nm,20.7s,baz=4.5,slow=36						
TXAR	Lajitas Array	28.57	320	P	P	07 30 17.8	-0.9
	baz=116,slow=5.5,SNR=1.3						
MDP	Montagnes des	30.26	94	LR	LR	07 43 14.5	
	comp=Z,142nm,18.5s,baz=271,slow=37						
PDAR	Pinedale Array	41.52	330	P	P	07 32 09.8	-0.4
	comp=Z,0.2nm,0.4s,baz=140,slow=8.4,SNR=4.2						
	comp=Z,0.2nm,0.4s						
ULM	Lac du Bonnet	43.17	348	P	P	07 32 24.4	+1.2
	comp=Z,4.5nm,0.8s,baz=140,slow=7.9,SNR=3.8						
	comp=Z,4.5nm,0.8s						
ULM	Lac du Bonnet	43.17	348	IAmb	IAmb	07 32 24.9	
	comp=Z,13nm,1.3s						
NVAR	Mina Array Bea	43.72	319	P	P	07 32 29.1	+1.1
	comp=Z,0.5nm,0.7s,baz=108,slow=3.9,SNR=4.9						
	comp=Z,0.5nm,0.7s						
PLCA	Paso Flores	50.12	168	P	P	07 33 14.1	-3.7
	comp=Z,1.7nm,0.7s,baz=322,slow=7.9,SNR=4.6						
	comp=Z,1.7nm,0.7s						
EDM	Edmonton	51.10	337	P	P	07 33 24.7	-0.4
EDM				IAmb	IAmb	07 33 28.7	
	comp=Z,4.2nm,0.7s						
I30M	Mount Dempster	67.75	339	P	P	07 35 20.9	+0.9
I30M				IAmb	IAmb	07 35 26.6	
	comp=Z,3.9nm,1.0s						
I27K	Kandik River	69.86	338	P	P	07 35 34.2	+1.2
I27K				IAmb	IAmb	07 35 38.3	
	comp=Z,3.7nm,0.8s						
ILAR	Eielson Array	71.58	336	P	P	07 35 43.9	+0.4
	comp=Z,1.4nm,0.8s,baz=112,slow=4.7,SNR=10						
	comp=Z,1.4nm,0.8s						
ASAR	Alice Springs	141.57	242	PKP	PKPdf	07 43 50.2	-4.6
	comp=Z,0.4nm,0.5s,baz=91,slow=2.1,SNR=7.0						
WRA	Warramunga Arr	142.13	248	PKP	PKPdf	07 43 51.0	-4.8
	comp=Z,0.7nm,0.7s,baz=94,slow=1.9,SNR=7.6						
CMAR	Chiang Mai Arr	153.34	356	PKP	PKPdf	07 44 13.1	-1.2
	comp=Z,0.5nm,0.3s,baz=98,slow=0.9,SNR=1.1						

IDC 13 07:31:41.0±3.0, 22°.28S×178°.32W, h0^{km}, mb4.1/5, mbtmp4.1/5, Error ellipse: s-maj=79.4km s-min=38.8km az=36.0, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
STKA	Stephens Creek	36.77	246	P	P	07 38 50.5	0.0
	0.9nm,0.4s,baz=96,slow=9.2,SNR=3.7						
	0.9nm,0.4s						
ASAR	Alice Springs	43.85	259	P	P	07 39 49.1	-0.3
	0.6nm,0.5s,baz=106,slow=8.2,SNR=12						
	0.6nm,0.5s						
WRA	Warramunga Arr	44.09	264	P	P	07 39 51.3	0.0
	0.7nm,0.4s,baz=103,slow=8.1,SNR=22						
	0.7nm,0.4s						
QSPA	South Pole Qui	67.80	180	P	P	07 42 40.9	+0.2
	2.1nm,1.1s,baz=318,slow=0.8,SNR=6.6						
	2.1nm,1.1s						
CMAR	Chiang Mai Arr	90.43	290	P	P	07 44 44.7	-0.3
	1.2nm,0.3s,baz=121,slow=4.3,SNR=5.4						
	1.2nm,0.3s						

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*SJA **13** 07:59:30.1±0.7, 20°.84S×69°.16W, h126^{km}±7^{km}, ML3.9, MW3.9*

*IDC **13** 07:59:30.1±2.9, 21°.05S×68°.85W, h114^{km}±25^{km}, mb3.6/2, mbtmp3.8/6, Error ellipse: s-maj=45.8km s-min=25.1km az=94.0*

*NEIC **13** 07:59:30.9±0.7, 20°.83S±0°.02×69°.12W±0°.06, h120^{km}±7^{km}, mb4.2/4, ML3.9(GUC), Error ellipse: s-maj=8.2km s-min=2.3km az=84.0*

*VAO **13** 07:59:30.7±1.9, 20°.71S×69°.01W, h118^{km}, mb4.3, Presumed earthquake*

*GUC **13** 07:59:31.4±0.7, 20°.84S×69°.07W, h118^{km}±3^{km}, ML3.9*

ISC 13 07:59:29.6±0.7, 20°.85S±0°.03×69°.15W±0°.06, h133^{km}±7^{km}, n93, σ1^{s}.53/109, 11C-1D, Northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PB08	IPOC Station P	0.71	360	eP	Pn	07 59 50.8	-0.1
PB08				IAML		08 00 09.4	
	comp=Z,3µm,0.3s						
PB08	IPOC Station P	0.71	360	⇑eP	Pn	07 59 50.5	-0.3
PB08				eS	Sn	08 00 05.0	-2.0
PB08				IAML		08 00 05.6	
	comp=E,11µm,0.4s						
PB08	IPOC Station P	0.71	360		Pn	07 59 50.6	-0.3
PB08					Sn	08 00 04.8	-2.1
PB02	IPOC Station P	0.84	236	eP	Pn	07 59 52.3	+0.8
PB02				IAML		08 00 09.6	
	comp=Z,6µm,0.2s						
PB02	IPOC Station P	0.84	236	⇑eP	Pn	07 59 51.9	+0.5
PB02				eS	Sn	08 00 07.5	-0.7
PB02	IPOC Station P	0.84	236		Pn	07 59 52.0	+0.5
PB02					Sn	08 00 07.4	-0.7
PB09	IPOC Station P	0.94	185	eP	Pn	07 59 53.8	+1.3
PB09				IAML		08 00 13.4	
	comp=Z,1µm,0.2s						
PB09	IPOC Station P	0.94	185	eP	Pn	07 59 52.8	+0.3
PB09				eS	Sn	08 00 09.4	-0.6
PB09	IPOC Station P	0.94	185		Pn	07 59 52.8	+0.3
PB09				Sn	Sn	08 00 09.2	-0.7
TA01	Diego Aracena	1.01	286	eP	Pn	07 59 53.3	+0.4
TA01				IAML		08 00 13.9	
	comp=Z,520nm,0.2s						
TA01	Diego Aracena	1.01	286	⇑eP	Pn	07 59 53.2	+0.4
TA01				eS	Sn	08 00 09.9	-0.6
TA01				IAML		08 00 13.1	
	comp=E,2µm,0.2s						
TA01	Diego Aracena	1.01	286		Pn	07 59 53.2	+0.4
TA01					Sn	08 00 09.8	-0.8
TA02	Huaiquique	1.09	302	eP	Pn	07 59 54.1	+0.5
TA02				eS	Sn	08 00 14.3	+2.5
TA02				IAML		08 00 16.4	
	comp=Z,2µm,0.1s						
TA02	Huaiquique	1.09	302	⇑eP	Pn	07 59 54.1	+0.5
TA02				eS	Sn	08 00 11.6	-0.3
PB07	IPOC Station P	1.11	218	eP	Pn	07 59 54.6	+0.5
PB07				IAML		08 00 13.8	
	comp=Z,2µm,0.6s						
PB07	IPOC Station P	1.11	218	⇑eP	Pn	07 59 54.6	+0.5
PB07				eS	Sn	08 00 11.7	-0.9
PB07				IAML		08 00 12.2	
	comp=N,4µm,0.3s						
PB07	IPOC Station P	1.11	218		Pn	07 59 54.6	+0.5
PB07					Sn	08 00 11.7	-0.9
GO01	Chusmiza	1.18	358	eP	Pn	07 59 55.6	+0.6
GO01				IAML		08 00 15.7	
	comp=Z,2µm,0.3s						
GO01	Chusmiza	1.18	358	⇑eP	Pn	07 59 55.4	+0.3
GO01				eS	Sn	08 00 13.5	-0.9
GO01	Chusmiza	1.18	358		Pn	07 59 55.5	+0.3
PB11	IPOC Station P	1.19	336	eP	Pn	07 59 55.2	+0.4
PB11				IAML		08 00 14.7	
	comp=Z,3µm,0.2s						
PB11	IPOC Station P	1.19	336	⇑eP	Pn	07 59 55.1	+0.3
PB11				eS	Sn	08 00 13.3	-0.7
PB11	IPOC Station P	1.19	336		Pn	07 59 55.1	+0.3
PB03	IPOC Station P	1.32	205	eP	Pn	07 59 56.9	+0.8
PB03				IAML		08 00 19.8	
	comp=Z,991nm,0.2s						
PB03	IPOC Station P	1.32	205	eP	Pn	07 59 56.9	+0.8
PB03				eS	Sn	08 00 15.5	-0.9
PB03				IAML		08 00 15.9	
	comp=E,2µm,0.3s						
PB03	IPOC Station P	1.32	205		Pn	07 59 56.7	+0.6
PSGCX	Pisagua	1.55	324	eP	Pn	07 59 59.1	+0.5
PSGCX				eS	Sn	08 00 21.2	+0.6
PSGCX				IAML		08 00 23.7	
	comp=Z,718nm,0.2s						
PSGCX	Pisagua	1.55	324	⇑eP	Pn	07 59 58.9	+0.3
PSGCX				eS	Sn	08 00 20.0	-0.7
PSGCX	Pisagua	1.55	324	Pn	Pn	07 59 58.9	+0.3
PB06	IPOC Station P	1.89	192	eP	Pn	08 00 04.3	+1.7
PB06				eS	Sn	08 00 28.6	+0.8
PB06				IAML		08 00 35.6	
	comp=Z,540nm,0.3s						
PB06	IPOC Station P	1.89	192	eP	Pn	08 00 03.5	+1.0
PB06				eS	Sn	08 00 27.5	-0.3
PB06				IAML		08 00 29.1	
	comp=E,1µm,0.5s						
PB06	IPOC Station P	1.89	192		Pn	08 00 03.7	+1.2
PX02	IPOC Station P	2.12	332	eP	Pn	08 00 04.8	-0.6
PX02				eS	Sn	08 00 32.4	-0.4
PX02				IAML		08 00 40.2	
	comp=N,520nm,0.4s						
PB05	IPOC Station P	2.22	206	eP	Pn	08 00 07.5	+1.0
PB05				eS	Sn	08 00 33.8	-1.2
PB05				IAML		08 00 38.4	
	comp=Z,431nm,0.6s						
PB05	IPOC Station P	2.22	206	⇓eP	Pn	08 00 07.5	+1.0
PB05				eS	Sn	08 00 33.7	-1.2
PB05				IAML		08 00 34.5	
	comp=E,384nm,0.3s						
PB05	IPOC Station P	2.22	206		Pn	08 00 07.6	+1.0
AF01	San Pedro de A	2.27	157	eP	Pn	07 59 52.0	-15
AF01				eS	Sn	08 00 25.0	-11
AF01				IAML		08 00 48.8	
	comp=Z,320nm,0.4s						
AF01	San Pedro de A	2.27	157	⇑eP	Pn	08 00 09.1	+1.6
AF01	San Pedro de A	2.27	157		Pn	08 00 09.2	+1.8
PB12	IPOC Station P	2.49	333	eS	Sn	08 00 41.4	+0.4
PB12				IAML		08 00 42.2	
	comp=Z,434nm,0.6s						
PB12	IPOC Station P	2.49	333	⇑eP	Pn	08 00 10.2	+0.3
PB12				eS	Sn	08 00 40.5	-0.4
PB12				IAML		08 00 47.7	
	comp=E,678nm,0.3s						
PB12	IPOC Station P	2.49	333		Pn	08 00 10.3	+0.4
PB16	IPOC Station P	2.53	352	eP	Pn	08 00 12.5	+1.6
PB16				eS	Sn	08 00 34.6	-7.9
PB16				eS		08 00 45.1	
PB16				IAML		08 00 46.9	
	comp=Z,268nm,0.3s						
PB16	IPOC Station P	2.53	352	⇑eP	Pn	08 00 12.4	+1.6
PB16	IPOC Station P	2.53	352		Pn	08 00 12.6	+1.7
AP01	Chacalluta	2.71	335	eP	Pn	08 00 13.4	+0.8
AP01				IAML		08 01 03.3	
	comp=Z,717nm,0.3s						
PB18	Visviri	3.26	354	eP	Pn	08 00 24.5	+4.3
PB18	Visviri	3.26	354		Pn	08 00 22.6	+2.3
YJA	Yavi	3.63	112	eP	Pn	08 00 26.8	+1.8
PB14	IPOC Station P	3.93	197	eP	Pn	08 00 28.9	+0.1
PB14				eS	Sn	08 01 12.7	-2.1
PB14				IAML		08 01 16.5	
	comp=Z,100nm,0.4s						
PB14	IPOC Station P	3.93	197	eP	Pn	08 00 28.8	-0.1
PB14	IPOC Station P	3.93	197		Pn	08 00 28.4	-0.4
HJA	Humahuaca	4.19	125	eP	Pn	08 00 34.6	+2.3
SALTA		4.24	143	eP	Pn	08 00 17.4	-16
SALTA				eP	Pn	08 00 34.9	+1.8
SALTA				eP		08 00 35.1	
LPAZ	La Paz	4.64	12	P	Pn	08 00 41.2	+2.6
	comp=Z,2.8nm,0.3s,baz=194,slow=8.2,SNR=32						
LPAZ	La Paz	4.64	12	eP	Pn	08 00 26.6	-12
AC01	Pan de Azucar	5.44	194	eP	Pn	08 00 47.4	-1.2
AC01				eS	Sn	08 01 46.0	-4.2
AC01				IAML		08 01 52.4	
	comp=Z,35nm,0.8s						
AC01	Pan de Azucar	5.44	194	Pn	Pn	08 00 47.5	-1.2
AC02	Maricunga	5.96	180	Pn	Pn	08 00 56.5	+0.5
GO03	Copiapo	6.78	188	Pn	Pn	08 01 05.8	-0.9
AC04	Llanos de Chal	7.53	193	Pn	Pn	08 01 13.4	-3.2
AC05	El Transito	8.02	187	Pn	Pn	08 01 22.1	-1.3
LCO	Las Campanas	8.24	190	Pn	Pn	08 01 24.2	-2.3
SIV	San Ignacio	9.06	59	P	Pn	08 01 35.1	-2.3
	comp=Z,2.2nm,0.4s,baz=237,slow=12,SNR=14						
CFA	Coronel Fontan	10.74	176	P	Pn	08 01 57.5	-2.3
	comp=Z,0.7nm,0.3s,baz=1.0,slow=16,SNR=18						
CFA				S	Sn	08 03 48.7	-10
	comp=Z,0.9nm,0.3s,baz=151,slow=19,SNR=9.9						
VILB	Vilhena	11.62	49		Pn	08 02 12.4	+0.9
VILB	Vilhena	11.62	49	eP	Pn	08 02 10.6	-0.8
CPUP	Villa Florida	12.13	119	P	Pn	08 02 15.1	-3.0
	comp=Z,1.4nm,0.8s,baz=302,slow=12,SNR=5.5						
AQDB	Aquidauana	12.60	91	Pn	Pn	08 02 25.1	+1.0
SALV	Santo Antonio	13.69	71	eP	Pn	08 02 39.0	+0.7
H03N1	Juan Fernandez	15.24	213	T	T	08 18 24.5	
	baz=35,slow=74,SNR=6.3						
H03N2	Juan Fernandez	15.25	213	T	T	08 18 23.0	
	baz=227,slow=74,SNR=6.9						
TRCB	Terra Rica	15.46	100	P	P	08 03 03.6	+1.4
TRCB	Terra Rica	15.46	100	eP	Pn	08 03 00.7	+0.1
CLDB	Colider	16.22	54	eP	Pn	08 03 07.9	-2.0
LDASE	Londrina, Braz	16.90	102	eP	Pn	08 03 18.5	+0.2
SNDB	Serra Nova Dou	19.25	65	eP	P	08 03 44.1	+0.3
MACA	Manacapuru-AM	19.42	26	P	P	08 03 46.9	+1.2
MACA				IAmb	IAmb	08 03 50.4	
	comp=Z,4.8nm,0.6s						
MACA	Manacapuru-AM	19.42	26	eP	P	08 03 46.5	+0.9
IPMB	Ipameri, GO	19.95	85	eP	P	08 03 52.0	+0.6
VAO	Valinhos	20.69	100	P	P	08 04 00.7	+1.3
VAO				IAmb	IAmb	08 04 04.2	
	comp=Z,23nm,1.3s						
BDFB	Brasilia	20.72	79	P	P	08 03 59.9	+0.1
	comp=Z,2.9nm,0.4s,baz=252,slow=8.5,SNR=9.5						
	comp=Z,2.9nm,0.4s						
ITTB	Itaituba	20.94	40	eP	P	08 04 01.8	-0.2
BSCB	Bom Sucesso	22.77	95	eP	P	08 04 23.0	+2.1
DIAM	Diamantina, MG	24.13	88	eP	P	08 04 34.1	+0.6
GUA01	Guaratinga, BA	28.09	86	eP	P	08 05 10.2	+1.3
TORD	Torodi Ar. Bea	77.35	71	P	P	08 11 11.7	+1.5
	comp=Z,0.3nm,0.3s,baz=248,slow=5.5,SNR=5.9						
	comp=Z,0.3nm,0.3s						
H11S2	WAKE ISLAND Hy	127.57	278	T	T	10 38 24.4	
	baz=102,slow=74,SNR=17						
H11S1	WAKE ISLAND Hy	127.58	278	T	T	10 38 20.7	
	baz=102,slow=74,SNR=10						
H11S3	WAKE ISLAND Hy	127.59	278	T	T	10 38 21.0	
	baz=102,slow=74,SNR=9.0						
H11N3	WAKE ISLAND Hy	127.64	279	T	T	10 38 26.9	
	baz=102,slow=75,SNR=9.3						
H11N2	WAKE ISLAND Hy	127.65	279	T	T	10 38 28.2	
	baz=102,slow=75,SNR=8.0						
H11N1	WAKE ISLAND Hy	127.65	279	T	T	10 38 30.7	
	baz=102,slow=75,SNR=6.8						

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*IDC **13** 08:07:46.0±0.7, 8°.28S×80°.11W, h0^{km}, mb3.8/12, mbtmp3.8/14, ML4.1/3, MS3.6/14, Error ellipse: s-maj=15.4km s-min=12.8km az=57.0*

*NEIC **13** 08:07:52.6±0.5, 8°.32S±0°.05×79°.8W±0°.1, h45^{km}±9^{km}, mb4.5/19, Error ellipse: s-maj=17.9km s-min=3.8km az=69.0*

*VAO **13** 08:08:04.7±0.7, 7°.80S×79°.02W, h129^{km}±3^{km}, mb4.2, Presumed earthquake*

ISC 13 08:07:47.4±0.5, 8°.38S±0°.06×79°.88W±0°.08, h10^{km}, n80, σ1^{s}.69/64, mb4.4/19, MS3.5/10, 2D, Near coast of northern Peru

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ATAH	Atahualpa	1.92	50	Pg	Pg	08 08 25.8	+1.5
	72nm,0.3s,baz=268,slow=2.4,SNR=284						
ATAH				Lg	Lg	08 08 52.5	
	90nm,0.3s,baz=233,slow=4.5,SNR=4.5						
NNA	Nana	4.67	140	Pn	Pn	08 09 01.5	+3.5
	8.1nm,0.3s,baz=309,slow=8.8,SNR=16						
NNA				Sn	Sn	08 09 53.2	+1.0
	12nm,0.3s,baz=4.9,slow=22,SNR=1.2						
NNA				Lg	Lg	08 10 17.5	
	51nm,0.3s,baz=193,slow=11,SNR=6.3						
	22nm,0.4s						
NNA				AML	AML		
NNA	Nana	4.67	140	Pn	Pn	08 09 00.3	+2.4
CZSB	Cruzeiro do Su	7.13	85		Pn	08 09 32.9	+1.0
CZSB	Cruzeiro do Su	7.13	85	eP	Pn	08 09 34.5	+2.6
SLOR	San Lorenzo -	7.73	10	Pn	Pn	08 09 41.3	+0.9
OTAV	Otavalo	8.68	10		Pn	08 09 54.8	+1.2
OTAV	Otavalo	8.68	10	eP	Pn	08 09 57.7	+4.2
LPAZ	La Paz	13.90	126	Pn	P	08 11 11.2	-2.3
	0.4nm,0.3s,baz=305,slow=8.0,SNR=14						
LPAZ				LR	LR	08 16 44.5	
	comp=Z,67nm,18.4s,baz=288,slow=38						
	0.9nm,0.7s						
LPAZ				AML	AML		
LPAZ	La Paz	13.90	126	eP	P	08 11 12.7	-0.8
ROSC	El Rosal	14.26	23	LR	LR	08 17 40.2	
	comp=Z,143nm,19.0s,baz=230,slow=42						
HDC	Heredia	18.74	347	eP	Pn	08 12 09.7	+2.6
JTS	Las Juntas de	19.23	345	LR	LR	08 18 37.8	
	comp=Z,113nm,19.0s,baz=166,slow=34						
SDV	Santo Domingo	19.47	28	P	P	08 12 14.2	-0.5
	11nm,0.3s,baz=58,slow=22,SNR=35						
SDV				LR	LR	08 21 26.4	
	comp=Z,202nm,18.1s,baz=247,slow=42						
SDV				AML	AML		
SDV	Santo Domingo	19.47	28	eP	P	08 12 12.4	-2.4
MACA	Manacapuru-AM	19.78	76		P	08 12 17.7	-0.3
MACA				IAmb	IAmb	08 12 30.9	
	comp=Z,21nm,0.8s						
MACA	Manacapuru-AM	19.78	76	eP	P	08 12 15.8	-2.2
VILB	Vilhena	19.86	105	eP	P	08 12 15.1	-3.8
SIV	San Ignacio	19.86	114	P	Pn	08 12 21.3	+0.8
	comp=Z,2.3nm,0.8s,baz=297,slow=13,SNR=11						
SIV				LR	LR	08 20 34.7	
	comp=Z,163nm,20.4s,baz=304,slow=38						
	comp=Z,2.3nm,0.8s						
PTLB	Pontes e Lacer	21.46	111		P	08 12 36.7	+0.6
PTLB				IAmb	IAmb	08 12 53.9	
	comp=Z,24nm,1.5s						
PTLB	Pontes e Lacer	21.46	111	eP	P	08 12 36.8	+0.6
BOAV	Boa Vista	22.07	62	P	P	08 12 42.1	-0.7
BOAV	Boa Vista	22.07	62	eP	P	08 12 39.4	-3.4
CLDB	Colider	23.87	98	eP	P	08 12 59.6	-1.7
COIM	Forte Coimbra	24.25	121	eP	P	08 13 07.1	+2.2
ITTB	Itaituba	24.32	82	eP	P	08 13 02.7	-2.8
SALV	Santo Antonio	24.78	110	eP	P	08 13 10.2	+0.6
H03N2	Juan Fernandez	24.95	178	T	T	08 39 09.3	
	baz=358,slow=76,SNR=93						
H03N1	Juan Fernandez	24.95	178	T	T	08 39 17.7	
	baz=358,slow=76,SNR=235						
H03N3	Juan Fernandez	24.97	178	T	T	08 38 47.9	
	baz=358,slow=76,SNR=42						
APG	El Apazote	25.50	336	LR	LR	08 20 10.5	
	comp=Z,4.7nm,20.0s,baz=274,slow=29						
CPUP	Villa Florida	27.87	133	P	P	08 13 38.8	+1.2
	comp=Z,0.8nm,0.9s,baz=24,slow=18,SNR=2.1						
CPUP				LR	LR	08 25 50.8	
	comp=Z,87nm,19.8s,baz=306,slow=39						
	comp=Z,0.8nm,0.9s						
CPUP	Villa Florida	27.87	133	P	P	08 13 36.8	-0.7
SNDB	Serra Nova Dou	28.35	100	eP	P	08 13 40.3	-1.6
SNDB				eS	S	08 18 14.0	-15
SJG	San Juan	29.61	27	LR	LR	08 27 19.9	
	comp=Z,58nm,19.0s,baz=202,slow=40						
MDP	Montagnes des	30.29	65	LR	LR	08 27 04.1	
	comp=Z,90nm,19.5s,baz=194,slow=38						
PSAL	Palomas, Salto	30.68	140	eS	S	08 19 00.1	-5.0
PTGB	Pitanga	31.12	125	eS	S	08 19 03.4	-8.9
SOR	Soroa	31.13	354	P	P	08 14 04.9	-1.5
LDASE	Londrina, Braz	31.34	122	eS	S	08 19 05.3	-10
SMTB	Santa Maria do	31.92	93	eS	S	08 19 08.5	-17
BDFB	Brasilia	31.96	106	P	P	08 14 15.5	+1.6
	comp=Z,2.2nm,0.6s,baz=285,slow=10.0,SNR=4.3						
BDFB				LR	LR	08 28 02.7	
	comp=Z,238nm,19.2s,baz=345,slow=38						
	comp=Z,2.2nm,0.6s						
BDFB	Brasilia	31.96	106	P	P	08 14 14.2	+0.2
IPMB	Ipameri, GO	32.23	110	eS	S	08 19 16.6	-13
CANS	Sao Roque de M	34.45	114	eS	S	08 19 51.6	-13
SDBA	SAO DESIDERIO	34.62	100	eS	S	08 19 50.8	-16
NBPS	Pedro II - PI	38.38	87	eP	P	08 15 07.1	-2.3
TXAR	Lajitas Array	43.95	330	P	P	08 15 54.2	-0.7
	comp=Z,0.1nm,0.7s,baz=101,slow=7.8,SNR=1.6						
	comp=Z,0.1nm,0.7s						
TKL	Tuckaleechee C	43.96	355	LR	LR	08 33 43.5	
	comp=Z,32nm,20.0s,baz=166,slow=36						

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MIAR  Mount Ida         44.62 344   P          P        08 15 59.6  -0.5
WHAR  Wooly Hollow      44.99 346   P          P        08 16 03.2  +0.2
WHAR                                IAmb       IAmb     08 16 23.6
      comp=Z,9.6nm,1.3s
LCAR  Lake Charles      45.47 347   P          P        08 16 06.0  -0.8
LCAR                                IAmb       IAmb     08 16 13.8
      comp=Z,4.2nm,0.9s
FCAR  Ozark Folk Cen    45.52 346   P          P        08 16 06.7  -0.5
FCAR                                IAmb       IAmb     08 16 14.8
      comp=Z,6.6nm,0.9s
U38A  Gravette          46.62 344   P          P        08 16 15.7  -0.3
U38A                                IAmb       IAmb     08 16 30.9
      comp=Z,5.9nm,1.3s
S39A  Bolivar           47.53 346   P          P        08 16 22.4  -0.6
S39A                                IAmb       IAmb     08 16 23.8
      comp=Z,5.5nm,0.8s
R40A  Maddies Statio    47.85 347              P        08 16 25.2  -0.2
PDAR  Pinedale Array    57.65 334   P          P        08 17 37.8  -0.4
      comp=Z,0.1nm,0.4s,baz=140,slow=5.1,SNR=2.5
      comp=Z,0.1nm,0.4s
NVAR  Mina Array Bea    58.72 325   P          P        08 17 45.6  -0.2
      comp=Z,0.3nm,0.7s,baz=78,slow=2.7,SNR=2.5
      comp=Z,0.3nm,0.7s
DBIC  Dimbokro          76.27  81   P          P        08 19 37.6  +0.6
      comp=Z,2.9nm,0.7s,baz=244,slow=6.3,SNR=3.8
DBIC                                LR         LR       08 51 06.3
      comp=Z,81nm,20.2s,baz=270,slow=34
      comp=Z,2.9nm,0.7s
VNA2  Neumayer--Watz    76.43 161 ⇓P           P        08 19 38.3  +1.5
      comp=Z,2.3nm,0.6s,baz=290,slow=5.8
SNAA  Sanae             78.02 162   P          P        08 19 46.8  +1.0
      comp=Z,1.6nm,0.7s,baz=196,slow=2.1,SNR=4.1
      comp=Z,1.6nm,0.7s
TROLL Troll, Antarti    79.73 162 ⇓P           P        08 19 57.0  +1.7
      comp=Z,105nm,0.7s
QSPA  South Pole Qui    81.72 180   P          P        08 20 06.7  +0.6
      comp=Z,1.7nm,0.7s,baz=116,slow=1.1,SNR=11
      comp=Z,1.7nm,0.7s
QSPA  South Pole Qui    81.72 180   P          P        08 20 06.4  +0.3
QSPA                                IAmb       IAmb     08 20 13.2
      comp=Z,7.5nm,1.4s
MDT   Midelt            82.32  55   LR         LR       08 55 38.0
      comp=Z,25nm,18.0s,baz=228,slow=35
M29M  Somme Creek       83.59 336   P          P        08 20 15.8   0.0
M29M                                IAmb       IAmb     08 20 16.8
      comp=Z,2.4nm,0.8s
TORD  Torodi Ar. Bea    83.77  76   P          P        08 20 17.7  +0.1
      comp=Z,1.1nm,0.9s,baz=246,slow=3.7,SNR=4.9
      comp=Z,1.1nm,0.9s
ESDC  Sonseca Array     84.62  49   P          P        08 20 21.8  +0.3
      comp=Z,0.6nm,0.8s,baz=289,slow=3.9,SNR=5.1
ESDC                                LR         LR       08 55 59.7
      comp=Z,34nm,18.4s,baz=282,slow=34
      comp=Z,0.6nm,0.8s
L27K  Beaver Creek,     85.24 336   P          P        08 20 23.9  -0.1
L27K                                IAmb       IAmb     08 20 34.7
      comp=Z,3.3nm,1.2s
I28M  Miner Creek       85.71 339   P          P        08 20 26.3  -0.1
ILAR  Eielson Array     88.01 337   P          P        08 20 36.8  -0.7
      comp=Z,0.6nm,0.7s,baz=154,slow=3.3,SNR=8.7
      comp=Z,0.6nm,0.7s
TSUM  Tsumeb            94.25 110   LR         LR       09 01 54.2
      comp=Z,54nm,19.1s,baz=318,slow=34
ASAR  Alice Springs    134.12 225   PKP        PKPdf    08 27 05.9  -0.3
      comp=Z,0.2nm,0.6s,baz=110,slow=2.9,SNR=5.2
ASAR  Alice Springs    134.12 225              PKPdf    08 27 06.6  +0.4
WRA   Warramunga Arr   136.10 230   PKP        PKPdf    08 27 08.6  -1.3
      comp=Z,0.7nm,0.8s,baz=122,slow=2.1,SNR=5.3
WRA   Warramunga Arr   136.10 230              PKPdf    08 27 10.2  +0.3
HHC   Hu-ho-hao-te     146.10 344  eP          PKPdf    08 27 27.3  -0.1
NJ2   Nanjing          150.72 326  eP          PKPdf    08 27 34.3  -0.7
NJ2                                 pmax       pmax
      comp=Z,8.0nm,0.5s
LZH   Lanzhou          152.22 354  eP          PKiKP    08 27 45.8  +1.4
PZH   PanZhiHua        161.91 355   PKP        PKPdf    08 27 47.9  -2.0
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*IDC **13** 08:08:09.8±0.8, 13°.88N×144°.72E, h149km±6km, mb3.3/5, mbtmp3.7/5, Error ellipse: s-maj=46.7km s-min=17.4km az=108.0*

*NEIC **13** 08:08:10.5±0.7, 13°.9N±0°.1×144°.53E±0°.10, h148km±7km, mb4.0/13, Error ellipse: s-maj=16.7km s-min=11.1km az=143.0*

ISC 13 08:08:09.7±0.7, **13°.91N**±0°.10×**144°.4E**±0°.1, **h144**km, **n27**, σ**0ˢ.75**/26, **mb3.9**/12, **Mariana Islands**

```
Code  Station Name         Δ°  AZ°   Phase ID            Time       Res
                                    Op         ISC       h  m  s    ISC
GUMO  Guam               0.54 126   P          Pn       08 08 31.8  +1.1
      736nm,0.3s,baz=351,slow=2.3,SNR=158
GUMO                                S          Sn       08 08 47.1  +0.6
      1µm,0.3s,baz=21,slow=22,SNR=75
GUMO  Guam               0.54 126              Pn       08 08 31.6  +1.0
GUMO                                Sn         Sn       08 08 46.8  +0.4
DPSS  Saipan             1.87  45   Pn         Pn       08 08 43.3  +0.3
FAKI  Fak Fak           20.62 217   P          P        08 12 37.5  -0.5
H11N1 WAKE ISLAND Hy    22.26  72   T          T        08 36 10.7
      baz=257,slow=75
H11N2 WAKE ISLAND Hy    22.27  72   T          T        08 36 08.6
      baz=257
H11N3 WAKE ISLAND Hy    22.28  72   T          T        08 36 09.6
      baz=257,slow=75
JYT   Yasato            22.55 351   P          P        08 12 58.0  +0.3
MTN   Manton Dam        29.66 207   P          P        08 14 01.2  -0.8
MTN                                 IAmb       IAmb     08 14 09.2
      comp=Z,4.3nm,1.1s
WB0   Warramunga Arr    34.89 197   P          P        08 14 47.5  -0.1
WR8   Warramunga Arr    35.04 196   P          P        08 14 48.5  -0.4
WR8                                 IAmb       IAmb     08 15 08.8
      comp=Z,3.5nm,1.1s
DLV    Lat              35.06 271   P          P        08 14 49.8  +0.4
WRA   Warramunga Arr    35.07 197   P          P        08 14 49.1  -0.1
      comp=Z,1.5nm,0.5s,baz=21,slow=9.4,SNR=23
      comp=Z,1.5nm,0.5s
WRA   Warramunga Arr    35.07 197   P          P        08 14 47.6  -1.5
FITZ  Fitzroy Crossi    36.81 211   P          P        08 15 03.0  -1.0
AS31  Alice Springs     38.73 196   P          P        08 15 19.8  -0.3
AS31                                IAmb       IAmb     08 15 21.2
      comp=Z,0.6nm,0.5s
ASAR  Alice Springs     38.74 196   P          P        08 15 19.9  -0.2
      comp=Z,0.5nm,0.3s,baz=17,slow=13,SNR=15
      comp=Z,0.5nm,0.3s
ASAR  Alice Springs     38.74 196   P          P        08 15 19.6  -0.5
FORT  Forrest           47.14 199   P          P        08 16 27.9  +0.3
FORT                                IAmb       IAmb     08 16 54.9
      comp=Z,3.8nm,0.9s
BBOO  Buckleboo         47.14 190   P          P        08 16 27.1  -0.4
BBOO                                IAmb       IAmb     08 16 35.8
      comp=Z,7.6nm,1.1s
MKAR  Makanchi Array    60.96 316   P          P        08 18 08.6  +0.8
      comp=Z,0.2nm,0.5s,baz=90,slow=5.8,SNR=2.0
      comp=Z,0.2nm,0.5s
MLY   Manley            66.95  25   P          P        08 18 46.5  -0.1
KNK   Knik Glacier      66.98  29   P          P        08 18 47.0  +0.2
KNK                                 IAmb       IAmb     08 18 47.4
      comp=Z,1.6nm,0.8s
RND   Reindeer          67.29  27   P          P        08 18 48.3  -0.5
RND                                 IAmb       IAmb     08 18 56.1
      comp=Z,1.7nm,1.2s
ILAR  Eielson Array     68.47  25   P          P        08 18 54.2  -1.8
      comp=Z,0.4nm,0.4s,baz=254,slow=5.8,SNR=12
      comp=Z,0.4nm,0.4s
BCAR  Beaver Creek A    70.36  28   P          P        08 19 07.6  -0.2
NVAR  Mina Array Bea    87.06  51   P          P        08 20 39.1  -0.6
      comp=Z,0.2nm,0.4s,baz=264,slow=4.4,SNR=3.7
      comp=Z,0.2nm,0.4s
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*UPA **13** 08:19:02.6±1.8, 8°.34N×82°.92W, h0km±3km, MW3.8, Presumed earthquake*

*UCR **13** 08:19:03.3±1.0, 8°.37N×82°.95W, h6km±19km, MW3.8, Presumed earthquake*

ISC 13 08:19:03.1±0.9, **8°.34N**±0°.02×**82°.95W**±0°.02, **h10**km±7km, **n50**, σ**0ˢ.97**/75, **10C**, **Panama-Costa Rica border region**

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Code  Station Name         Δ°  AZ°   Phase ID            Time       Res
                                    Op         ISC       h  m  s    ISC
PTPM  Petroterminale     0.15 153⇑iP           Pg       08 19 06.4  -0.1
PTPM                               eS          Sg       08 19 08.6  -0.2
LIMO3 Limones            0.25 161⇑eP           Pg       08 19 08.2   0.0
LIMO3                              eS          Sg       08 19 13.3  +1.7
LMNES Limones            0.25 160⇑iP           Pg       08 19 08.2  -0.1
LMNES                              eS          Sg       08 19 11.5  -0.2
NELY  Ciudad Neily       0.31   0  eP          Pg       08 19 09.8  +0.5
NELY                               eS          Sg       08 19 13.3  -0.1
NELY  Ciudad Neily       0.31   0⇑iP           Pg       08 19 09.9  +0.5
FITO  Golfito            0.35 324  eP          Pg       08 19 09.6  -0.5
FITO                               eS          Sg       08 19 14.9  +0.1
FITO  Golfito            0.35 324  eS          Sg       08 19 15.4  +0.6
PIRO  Carate, Puerto     0.39 280  eP          Pg       08 19 10.3  -0.5
PIRO                               eS          Sb       08 19 18.5  +0.3
JIME  Puerto Jimenez     0.42 298  eP          Pg       08 19 10.9  -0.5
MLIR3 Monte Lirio, C     0.47  15  eP          Pb       08 19 13.3  -0.2
MLIR3                              eS          Sb       08 19 21.6  +1.1
VITO  San Vito           0.48 357  eP          Pg       08 19 13.0  +0.5
VITO  San Vito           0.48 357  eP          Pb       08 19 13.3  -0.3
VITO                               eS          Sb       08 19 22.2  +1.4
DVD   David              0.50  79⇑iP           Pg       08 19 12.9   0.0
DVD                                eS          Sb       08 19 21.2  -0.2
SCLRA Santa Clara, W     0.52  18⇑iP           Pb       08 19 14.1  -0.3
SCLRA                              eS          Sn       08 19 24.3  -1.3
BRU2  Volcan             0.52  29  eP          Pg       08 19 13.6  +0.4
BRU2  Volcan             0.52  29⇑iP           Pb       08 19 13.9  -0.5
BRU2                               eS          Sb       08 19 23.4  +1.4
CLLRA Cordillera,        0.52  39⇑iP           Pb       08 19 14.0  -0.5
LOMA3 Las Lomas, Chi     0.56  80  eP          Pg       08 19 14.0   0.0
PTAR3 Potrerillos Ar     0.57  52  eP          Pb       08 19 14.8  -0.4
PTAR3                              eS          Sb       08 19 24.4  +1.0
CHIR3 Chiriqui UPA,      0.61  85⇑iP           Pg       08 19 14.6  -0.4
CHIR3                              eS          Sb       08 19 24.8  +0.2
BQTLY Boquete Panama     0.64  49  eP          Pg       08 19 15.6  +0.1
BQSF3 Alto Boquete,      0.65  52  eP          Pg       08 19 15.7   0.0
BQSF3                              eS          Sb       08 19 25.9  +0.2
LNBQ3 Los Naranjos,      0.67  48  eP          Pg       08 19 16.0  -0.2
EDP2  Potrero Grande     0.71 341  eP          Pg       08 19 16.9   0.0
BURE  Buenos Aires       0.92 335  eP          Pg       08 19 19.8  -1.0
RBALA Bur                0.95  56  eP          Pg       08 19 20.5  -0.9
RBALA                              eS          Sg       08 19 33.5  -0.3
CHGR2 Aguacate           0.99  53  eP          Pg       08 19 21.1  -1.1
CHGR2                              eS          Sb       08 19 35.4  -0.1
EDPE  Pejibaye, P        1.02 323  eP          Pg       08 19 21.0  -1.8
SAJE  San Jernim         1.15 331  eP          Pg       08 19 23.4  -1.7
CNI2  El Empalme, Bo     1.18  24  eP          Pb       08 19 24.6  -0.9
CNI2                               eS          Sg       08 19 41.1  +0.1
PDCAN Manzana , Fuen     1.24  92  eP          Pn       08 19 24.5  -2.0
CEUA  Cerro Uatsi, L     1.27   0  eP          Pg       08 19 27.7  +0.1
BRIBI Bribri             1.28   6  eP          Pn       08 19 27.0  -0.1
RGM0  Gandoca            1.29  15  eS          Sn       08 19 44.8  +0.4
BUS1  Rivas              1.44 327  eP          Pn       08 19 28.2  -1.5
PIEC  Cerro El Cedra     1.62 322  eP          Pn       08 19 31.5  -0.5
RAZU  San Marcos de      1.69 321  eP          Pn       08 19 32.8   0.0
PITB  Pirrs, San         1.69 321  eP          Pn       08 19 32.5  -0.4
LCR2  La Lucha 2         1.74 323  eP          Pn       08 19 32.8  -0.9
LCR2  La Lucha 2         1.74 323  eP          Pn       08 19 33.6   0.0
LCR2                               eS          Sg       08 19 58.6  -0.6
ABE2  San Pablo          1.74 321  eP          Pn       08 19 33.4  -0.3
GMAL  Guarumal, Vera     1.79 108  eP          Pn       08 19 32.5  -1.6
GMAL                               eS          Sn       08 19 56.5  -0.4
SAFE3 Santa Fe, Vera     1.86  84  eP          Pn       08 19 34.5  -0.5
SAFE3                              eS          Sb       08 19 59.9  -0.6
CACAO El Cacao, Vera     2.29 115  eP          Pn       08 19 41.8  +0.9
CACAO                              eS          Sn       08 20 10.5  +1.3
CHIT3 Chitre             2.53  98  eP          Pn       08 19 44.5  +0.2
CHIT3                              eS          Sn       08 20 16.2  +1.0
PNME  Penonome           2.60  87  eP          Pn       08 19 47.3  +2.1
AZU   Azuero             2.70 101⇑eP           Pn       08 19 48.1  +1.5
AZU                                eS          Sn       08 20 21.1  +1.7
JTS   Las Juntas de      2.77 315  eP          Pn       08 19 49.8  +2.2
JTS                                eS          Sn       08 20 23.5  +2.4
ZANG  Zanguenga, Cho     3.11  78  eP          Pb       08 19 55.9  -2.5
BCIP  Isla Barro Col     3.18  75  eP          Pn       08 19 53.9  +0.7
BCIP                               eS          Sb       08 20 39.2  +0.6
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*NOU **13** 08:48:04.9, 14°.77S×177°.99W, h394km, mb4.3/14, Fiji Islands Region*

*IDC **13** 08:48:06.5±1.5, 15°.13S×178°.22W, h388km±16km, mb3.4/9, mbtmp4.2/12, Error ellipse: s-maj=23.2km s-min=13.2km az=155.0*

ISC 13 08:48:05.8±0.7, **15°.0S**±0°.1×**178°.2W**±0°.1, **h379**km, **n26**, σ**1ˢ.42**/26, **mb3.8**/10, **Fiji Islands region**

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Code  Station Name         Δ°  AZ°   Phase ID            Time       Res
                                    Op         ISC       h  m  s    ISC
FUTU  Fugatoga           0.66   7   P          Pn       08 48 55.2  +1.4
TAVE  Taveuni            2.39 223   P          Pn       08 49 05.0  +2.5
DGTI  Dogotuki           2.39 236   P          Pn       08 49 04.3  +1.7
MSVF  Nonsavu            4.53 232   P          Pn       08 49 24.0  +1.9
      71nm,0.7s,baz=42,slow=14,SNR=37
MSVF  Nonsavu            4.53 232   P          Pn       08 49 24.7  +2.7
AFI   Afiamalu           6.31  81   P          Pn       08 49 41.0  -0.2
      103nm,0.6s,baz=79,slow=0.9,SNR=17
MARNC Mare, Loyalty     14.59 242   P          Pn       08 51 16.1  -1.1
LUES  Luesalemba Tem    16.07 284   P          P        08 51 30.3  -0.6
DZM   Mont Dzumac       16.18 242   P          P        08 51 33.2  +1.1
      7.8nm,0.8s,baz=51,slow=10,SNR=7.0
OUZ   Omahuta           21.47 199   P          P        08 52 25.7  +0.7
URZ   Urewera           23.57 189   P          P        08 52 41.3  -2.7
      3.3nm,0.4s,baz=12,slow=9.3,SNR=8.4
      3.3nm,0.4s
URZ   Urewera           23.57 189   P          P        08 52 44.2  +0.2
BKZ   Black Stump Fm    24.55 190   P          P        08 52 52.2  -0.8
QRZ   Quartz Range      27.00 196   P          P        08 53 14.8  +0.2
CTA   Charters Tower    34.23 256   P          P        08 54 18.1  +0.2
      3.1nm,0.4s,baz=85,slow=8.8,SNR=6.7
      3.1nm,0.4s
CTAO  Charters Tower    34.23 256   P          P        08 54 18.8  +1.0
STKA  Stephens Creek    40.28 238   P          P        08 55 06.9  -1.0
      1.9nm,0.5s,baz=72,slow=10,SNR=6.1
      1.9nm,0.5s
WRAB  Tennant Creek     45.42 257   P          P        08 55 47.5  -1.4
WRA   Warramunga Arr    45.43 257   P          P        08 55 47.0  -1.9
      0.9nm,0.5s,baz=94,slow=8.4,SNR=15
      0.9nm,0.5s
AS01  Alice Springs     45.80 251   P          P        08 55 50.9  -0.9
ASAR  Alice Springs     45.85 251   P          P        08 55 51.0  -1.1
      24nm,0.5s,baz=84,slow=8.4,SNR=471
QSPA  South Pole Qui    75.07 180   P          P        08 59 06.6  -0.3
      6.3nm,0.8s,baz=74,slow=4.8,SNR=33
      6.3nm,0.8s
NVAR  Mina Array Bea    77.18  44   P          P        08 59 20.0  +0.7
      0.3nm,0.6s,baz=216,slow=8.0,SNR=4.2
      0.3nm,0.6s
TXAR  Lajitas Array     84.26  58   P          P        08 59 57.9  +1.5
      0.5nm,0.8s,baz=224,slow=7.0,SNR=7.8
      0.5nm,0.8s
PDAR  Pinedale Array    85.09  43   P          P        09 00 00.2  -0.2
      0.3nm,0.6s,baz=233,slow=3.0,SNR=5.5
      0.3nm,0.6s
MAW   Mawson            86.68 200   P          P        09 00 06.5  -0.8
      1.7nm,0.8s,baz=181,slow=4.5,SNR=9.6
      1.7nm,0.8s
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*IDC **13** 09:05:14.5±1.6, 41°.60S×80°.27E, h0km, mb3.9/6, mbtmp3.9/6, MS3.6/8, Error ellipse: s-maj=53.0km s-min=22.5km az=113.0*

ISC 13 09:05:16.7±1.6, **41°.6S**±0°.2×**80°.2E**±0°.4, **h15**km, **n20**, σ**1ˢ.35**/7, **mb3.9**/6, **MS3.6**/8, **Mid-Indian Ridge**

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Code  Station Name         Δ°  AZ°   Phase ID            Time       Res
                                    Op         ISC       h  m  s    ISC
H04S1 CROZET ISLANDS    20.90 246   T          T        09 31 60.0
      baz=41,slow=75
H04S2 CROZET ISLANDS    20.91 246   T          T        09 31 55.7
      baz=41,slow=75
H04S3 CROZET ISLANDS    20.92 246   T          T        09 31 56.5
      baz=41,slow=75
H04N2 CROZET ISLANDS    20.94 248   T          T        09 32 04.2
      baz=87,slow=74
H04N3 CROZET ISLANDS    20.95 248   T          T        09 32 01.0
      baz=87,slow=74
H04N1 CROZET ISLANDS    20.95 248   T          T        09 32 02.1
      baz=87,slow=74
H01W2 Cape Leeuwin H    27.33  87   T          T        09 39 07.4
      baz=246,slow=74,SNR=54
H01W3 Cape Leeuwin H    27.34  87   T          T        09 39 08.0
      baz=246,slow=74,SNR=47
H01W1 Cape Leeuwin H    27.35  87   T          T        09 39 08.7
      baz=246,slow=74,SNR=50
MAW   Mawson            27.72 194   P          P        09 11 02.5  -1.6
      1.4nm,0.9s,baz=24,slow=10.0,SNR=3.3
MAW                                 LR         LR       09 19 24.6
      comp=Z,48nm,21.2s,baz=64,slow=31
      1.4nm,0.9s
NWAO  Narrogin (SRO)    30.51  86   LR         LR       09 21 17.5
      comp=Z,106nm,21.7s,baz=200,slow=32
ASAR  Alice Springs     47.83  85   P          P        09 13 53.4  -0.5
      0.5nm,0.9s,baz=229,slow=7.6,SNR=4.8
      0.5nm,0.9s
VNDA  Vanda             47.98 163   P          P        09 13 54.8  +0.4
      1.1nm,0.5s,baz=280,slow=8.0,SNR=13
VNDA                                LR         LR       09 32 06.9
      comp=Z,68nm,20.8s,baz=295,slow=34
      1.1nm,0.5s
QSPA  South Pole Qui    48.56 180   P          P        09 13 59.8  +0.7
      5.2nm,0.8s,baz=291,slow=5.1,SNR=15
QSPA                                LR         LR       09 33 04.3
      comp=Z,77nm,18.5s,baz=286,slow=34
      5.2nm,0.8s
STKA  Stephens Creek    49.20  99   LR         LR       09 32 46.2
      comp=Z,74nm,18.2s,baz=207,slow=34
WRA   Warramunga Arr    50.36  82   P          P        09 14 12.4  -0.9
      0.7nm,0.8s,baz=232,slow=7.5,SNR=6.0
WRA                                 PcP        PcP      09 15 33.5  +1.7
      0.4nm,0.8s,baz=232,slow=2.6,SNR=4.8
      0.7nm,0.8s
CMAR  Chiang Mai Arr    62.22  20   P          P        09 15 37.6  -0.1
      0.5nm,0.3s,baz=204,slow=6.4,SNR=5.8
      0.5nm,0.3s
HNR   Honiara           76.13  90   LR         LR       09 47 24.9
      comp=Z,195nm,18.6s,baz=343,slow=33
JNU   Nakatsue          87.74  40   LR         LR       09 56 11.9
      comp=Z,11nm,20.1s,baz=250,slow=35
USRK  Ussuriysk Ar.     97.22  35   LR         LR       10 01 19.2
      comp=Z,16nm,19.1s,baz=338,slow=35
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*IDC **13** 09:11:59.8±1.2, 3°.57S×68°.23E, h0km, mb3.9/9, mbtmp3.9/9, MS3.6/19, Error ellipse: s-maj=37.4km s-min=24.6km az=48.0*

*NEIC **13** 09:12:02.9±1.9, 3°.47S±0°.04×68°.4E±0°.1, h10km±1km, mb4.1/9, Error ellipse: s-maj=22.7km s-min=3.4km az=285.0*

ISC 13 09:12:02.3±1.0, **3°.54S**±0°.09×**68°.4E**±0°.1, **h12**km, **n45**, σ**1ˢ.43**/30, **mb4.1**/12, **MS3.7**/18, **Chagos Archipelago region**

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Code  Station Name         Δ°  AZ°   Phase ID            Time       Res
                                    Op         ISC       h  m  s    ISC
DGAR  Diego Garcia       5.55 134   Pn         Pn       09 13 27.4  +2.7
H08S3 Diego Garcia H     5.72 135   Pn         Pn       09 13 28.5  +1.6
H08S3                               Sn         Sn       09 14 29.5  -2.9
H08S3                               T          T        09 19 20.3
      baz=308
H08S1 Diego Carcia H     5.73 136   Pn         Pn       09 13 28.1  +1.2
H08S1                               Sn         Sn       09 14 30.7  -1.8
H08S1                               T          T        09 19 20.3
      baz=308
H08S2 Diego Garcia H     5.74 136   Pn         Pn       09 13 28.2  +1.1
H08S2                               Sn         Sn       09 14 30.8  -2.1
H08S2                               T          T        09 19 20.3
      baz=308
KAAM  Kaadhehdhoo        6.06  49   Pn         Pn       09 13 32.1  +0.3
PALK  Pallekele         16.28  49   LR         LR       09 20 44.1
      comp=Z,303nm,20.6s,baz=225,slow=32
BRDH  Bariadhala        34.53  40   LR         LR       09 32 59.9
      comp=Z,50nm,20.0s,baz=222,slow=36
CMAR  Chiang Mai Arr    37.15  53   P          P        09 19 15.7  +2.3
      0.6nm,0.3s,baz=244,slow=9.8,SNR=6.2
CMAR                                LR         LR       09 32 43.7
      comp=Z,60nm,20.1s,baz=260,slow=33
      0.6nm,0.3s
CMAR  Chiang Mai Arr    37.15  53   P          P        09 19 14.7  +1.3
CHTO  Chiang Mai        37.35  52   P          P        09 19 15.4  +0.4
CHTO                                IAmb       IAmb     09 19 24.1
      comp=Z,3.0nm,0.8s
MORE  Moreh             37.35  41   P          P        09 19 16.9  +1.9
AAK   Ala-Archa         46.28   6   LR         LR       09 39 21.4
      comp=Z,60nm,19.2s,baz=180,slow=35
AAK   Ala-Archa         46.28   6   P          P        09 20 28.6  +0.7
AAK                                 IAmb       IAmb     09 20 37.1
      comp=Z,2.4nm,0.9s
LBTB  Lobatse           46.39 238   LR         LR       09 36 26.9
      comp=Z,95nm,21.4s,baz=76,slow=32
PDGK  Podgornoye        47.70  11   P          P        09 20 39.5  +0.5
BOSA  Boshof            48.01 234   LR         LR       09 38 18.6
      comp=Z,67nm,18.7s,baz=32,slow=33
KAPI  Kappang           51.18  94   LR         LR       09 40 19.1
      comp=Z,82nm,20.0s,baz=310,slow=33
MKAR  Makanchi Array    51.59  12   P          P        09 21 07.3  -1.1
      comp=Z,0.2nm,0.5s,baz=200,slow=7.7,SNR=2.2
      comp=Z,0.2nm,0.5s
MKAR  Makanchi Array    51.59  12   P          P        09 21 09.3  +0.9
SUR   Sutherland        53.00 232   LR         LR       09 40 01.2
      comp=Z,104nm,21.9s,baz=126,slow=32
AB31  Akbulak array     53.09 353   P          P        09 21 18.6  -1.0
AB31                                IAmb       IAmb     09 21 27.3
      comp=Z,4.8nm,1.4s
ABKAR Akbulak array     53.09 353   P          P        09 21 19.0  -0.5
KURBB Kurchatov Arra    54.64   8   P          P        09 21 30.4  -0.5
      comp=Z,0.7nm,0.2s,baz=204,slow=7.5,SNR=5.9
      comp=Z,0.7nm,0.2s
BVAR  Borovoye Array    56.38   1   P          P        09 21 43.9  +0.6
      comp=Z,0.5nm,0.4s,baz=170,slow=8.8,SNR=1.2
      comp=Z,0.5nm,0.4s
DAV   Davao City (W)    57.99  79   LR         LR       09 49 21.1
      comp=Z,33nm,18.2s,baz=269,slow=38
ZALV  Zalesovo Beam     58.89  11   P          P        09 21 59.7  -1.3
      comp=Z,0.5nm,0.4s,baz=218,slow=7.0,SNR=4.2
ZALV                                LR         LR       09 44 54.0
      comp=Z,42nm,18.5s,baz=193,slow=34
      comp=Z,0.5nm,0.4s
ZALV  Zalesovo Beam     58.89  11   P          P        09 22 00.3  -0.7
SONM  Songino Array     60.99  28   P          P        09 22 15.9  +0.2
      comp=Z,3.4nm,1.1s,baz=215,slow=7.0,SNR=9.3
SONM                                LR         LR       09 48 32.3
      comp=Z,164nm,20.4s,baz=272,slow=36
      comp=Z,3.4nm,1.1s
SONM  Songino Array     60.99  28   P          P        09 22 15.3  -0.4
MAW   Mawson            64.07 182   LR         LR       09 43 21.1
      comp=Z,96nm,19.6s,baz=34,slow=29
ASAR  Alice Springs     66.14 114   P          P        09 22 51.0  +0.8
      comp=Z,1.2nm,1.0s,baz=278,slow=5.3,SNR=6.4
      comp=Z,1.2nm,1.0s
AS31  Alice Springs     66.14 114   P          P        09 22 50.5  +0.4
WRA   Warramunga Arr    66.16 110   P          P        09 22 50.7  +0.4
      comp=Z,1.7nm,1.0s,baz=284,slow=6.1,SNR=5.7
      comp=Z,1.7nm,1.0s
WRA   Warramunga Arr    66.16 110   IAmb       IAmb     09 22 52.1
      comp=Z,0.3nm,1.1s
NRIK  Noril'sk          73.89   7   LR         LR       09 56 16.0
      comp=Z,33nm,18.0s,baz=166,slow=36
KLR   Kul'dur           75.66  37   LR         LR       09 58 41.6
      comp=Z,42nm,18.2s,baz=234,slow=37
CTA   Charters Tower    77.35 110   LR         LR       09 57 51.2
      comp=Z,25nm,18.3s,baz=234,slow=36
GUMO  Guam              77.68  75   LR         LR       09 56 46.2
      comp=Z,21nm,20.7s,baz=117,slow=34
ESDC  Sonseca Array     78.82 311   P          P        09 24 05.4  -0.1
      comp=Z,2.2nm,1.0s,baz=88,slow=4.7,SNR=12
      comp=Z,2.2nm,1.0s
ESDC  Sonseca Array     78.82 311   P          P        09 24 05.5  -0.1
ESDC                                IAmb       IAmb     09 24 47.0
      comp=Z,2.2nm,1.3s
SNAA  Sanae             80.82 198   LR         LR       09 53 04.9
      comp=Z,51nm,18.2s,baz=276,slow=30
TIXI  Tiksi             84.38  16   LR         LR       10 02 58.1
      comp=Z,38nm,19.6s,baz=236,slow=36
MA2   Magadan           89.14  30   LR         LR       10 05 06.3
      comp=Z,30nm,18.6s,baz=18,slow=36
NVAR  Mina Array Bea   144.73   9   PKP        PKPbc    09 31 39.3  +0.6
      comp=Z,0.7nm,0.9s,baz=336,slow=2.9,SNR=7.3
TXAR  Lajitas Array    153.27 345   PKPbc      PKPbc    09 31 58.4  -2.8
      comp=Z,0.5nm,0.9s,baz=48,slow=1.9,SNR=4.0
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*NOU **13** 09:21:37.7, 37°.19S×179°.61W, h0km, MLv4.6/11, East of North Island, N.Z.*

*WEL **13** 09:21:52.8±0.7, 37°S±4°×17°9E±°, h5km, M3.9/22, ML3.8/22, MLv3.9/22, Error ellipse: s-maj=6.5km s-min=5.0km az=83.5, confirmed*

ISC 13 09:21:51.9±2.7, **37°.29S**±0°.08×**179°.1E**±0°.1, **h87**km±9km, **n148**, σ**2ˢ.15**/170, **Off east coast of North Island**

```
Code  Station Name         Δ°  AZ°   Phase ID            Time       Res
                                    Op         ISC       h  m  s    ISC
ECLS  East Cape Ligh     0.61 228   P          Pn       09 22 08.5  +1.3
TDHS  Te Araroa Dist     0.70 240   P          Pn       09 22 07.5  -0.5
MXZ   Matakaoa Point     0.71 247   P          Pn       09 22 06.7  -1.5
MXZ   Matakaoa Point     0.71 247   P          Pn       09 22 06.7  -1.5
MXZ                                 S          Sn       09 22 14.1  -6.3
MXZ                                 AML        AML
MXZ                                 AML        AML
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WMGZ	Waiomatatini S	0.78	226	P	Pn	09 22 10.6	+1.7
WMGZ				S	Sn	09 22 20.9	-0.7
WMGZ				AML	AML		
WMGZ				AML	AML		
PKGZ	Pakihiroa	1.01	235	P	Pn	09 22 13.0	+1.5
PKGZ				S	Sn	09 22 25.8	-0.4
PKGZ				AML	AML		
PKGZ				AML	AML		
PUZ	Puketiti	1.04	221	P	Pn	09 22 14.3	+2.3
PUZ				S	Sn	09 22 27.7	+0.8
PUZ				AML	AML		
PUZ				AML	AML		
HAZ	Te Kaha	1.17	246	P	Pn	09 22 13.3	0.0
HAZ				S	Sn	09 22 28.8	-0.6
HAZ				AML	AML		
HAZ				AML	AML		
TBAS	Tolaga Bay Are	1.27	211	P	Pn	09 22 18.6	+4.0
TWGZ	Tauwhareparae	1.27	225	P	Pn	09 22 17.3	+2.7
TWGZ				S	Sn	09 22 34.0	+2.2
TWGZ				AML	AML		
TWGZ				AML	AML		
RUGZ	Raukumara Rang	1.33	239	P	Pn	09 22 17.4	+1.9
RUGZ				S	Sn	09 22 34.0	+0.7
RUGZ				AML	AML		
RUGZ				AML	AML		
CNGZ	Carnagh Statio	1.40	211	P	Pn	09 22 19.9	+3.7
CNGZ				S	Sn	09 22 39.1	+4.5
CNGZ				AML	AML		
CNGZ				AML	AML		
TKGZ	Te Karaka	1.53	221	P	Pn	09 22 20.3	+2.4
TKGZ				AML	AML		
TKGZ				AML	AML		
WIZ	White Island	1.56	261	P	Pn	09 22 17.0	-1.2
WIZ				S	Sn	09 22 38.1	-0.1
WIZ				AML	AML		
WIZ				AML	AML		
WSRZ	White Island S	1.57	261	P	Pn	09 22 17.3	-1.0
WSRZ				S	Sn	09 22 37.2	-1.2
WSRZ				AML	AML		
WSRZ				AML	AML		
OPCS	Opotiki Colleg	1.63	243	P	Pn	09 22 21.2	+2.1
MWZ	Matawai	1.64	230	P	Pn	09 22 21.7	+2.4
MWZ				AML	AML		
MWZ				AML	AML		
RIGZ	Rimuhau	1.78	217	P	Pn	09 22 23.7	+2.6
RIGZ				AML	AML		
RIGZ				AML	AML		
WHRZ	Whale Island	1.80	251	P	Pn	09 22 23.0	+1.6
WHRZ				AML	AML		
WHRZ				AML	AML		
RAGZ	Rawiri	1.81	228	P	Pn	09 22 24.3	+2.7
RAGZ				AML	AML		
RAGZ				AML	AML		
URZ	Urewera	1.87	238	P	Pn	09 22 24.5	+2.3
URZ	Urewera	1.87	238	P	Pn	09 22 24.7	+2.4
URZ				AML	AML		
URZ				AML	AML		
PRGZ	Paritu Road	1.91	211	P	Pn	09 22 25.8	+3.0
PRGZ				AML	AML		
PRGZ				AML	AML		
EDRZ	Edgecumbe	2.06	246	P	Pn	09 22 26.6	+1.8
EDRZ				AML	AML		
EDRZ				AML	AML		
KNZ	Kokohu	2.08	213	P	Pn	09 22 27.3	+2.3
KNZ				AML	AML		
KNZ				AML	AML		
MHGZ	Mahia Peninsul	2.10	207	P	Pn	09 22 28.3	+3.1
MHGZ				AML	AML		
MHGZ				AML	AML		
RTZ	Ruatahuna	2.15	231	P	Pn	09 22 28.7	+2.6
RTZ				AML	AML		
RTZ				AML	AML		
MUGZ	Murupara	2.21	237	P	Pn	09 22 28.9	+2.1
TARZ	Mount Tarawera	2.28	245	P	Pn	09 22 30.4	+2.6
RAHZ	Arahi	2.29	224	P	Pn	09 22 30.7	+2.8
RRRZ	Republican Roa	2.32	242	P	Pn	09 22 30.6	+2.4
TGRZ	Tauranga	2.32	258	P	Pn	09 22 29.7	+1.5
TGRZ				AML	AML		
TGRZ				AML	AML		
WHHZ	Waihua	2.33	219	P	Pn	09 22 31.0	+2.7
MTHZ	Maungataniwha	2.39	228	P	Pn	09 22 31.9	+2.8
HLRZ	Highlands Stat	2.40	245	P	Pn	09 22 31.7	+2.4
KARZ	Kaharoa	2.40	251	P	Pn	09 22 31.2	+1.9
PRRZ	Plateau Road	2.48	240	P	Pn	09 22 32.5	+2.1
HSRZ	Hossack Road	2.50	245	P	Pn	09 22 33.8	+3.1
HRRZ	Handcock Road	2.50	243	P	Pn	09 22 33.3	+2.5
ALRZ	Allen Road	2.54	239	P	Pn	09 22 33.6	+2.4
NMHZ	Naumai	2.57	225	P	Pn	09 22 34.7	+3.1
ARHZ	Aropaoanui	2.59	220	P	Pn	09 22 34.6	+2.8
GRRZ	Galatos Road	2.61	245	P	Pn	09 22 35.0	+2.8
MRHZ	Matea Rd	2.64	233	P	Pn	09 22 34.8	+2.3
BKZ	Black Stump Fm	2.80	227	P	Pn	09 22 36.9	+2.2
BKZ	Black Stump Fm	2.80	227	P	Pn	09 22 37.0	+2.4
CKHZ	Cape Kidnapper	2.86	213	P	Pn	09 22 37.6	+2.1
KUTZ	Kaahu Road	2.87	244	P	Pn	09 22 38.4	+2.7
MCHZ	McNeill Hill	2.88	221	P	Pn	09 22 38.2	+2.5
TOZ	Tahuroa Road	2.91	260	P	Pn	09 22 37.2	+1.0
TOZ				S	Sn	09 23 07.9	-2.4
TOZ				AML	AML		
TOZ				AML	AML		
KWHZ	Kaweka Forest	3.01	224	P	Pn	09 22 40.0	+2.5
TLZ	Tolley Road	3.02	249	P	Pn	09 22 39.9	+2.2
WATZ	Wairara	3.03	241	P	Pn	09 22 40.8	+3.0
KAHZ	Kahuranaki	3.06	214	P	Pn	09 22 40.2	+2.0
RITZ	Rihia Road	3.08	236	P	Pn	09 22 41.1	+2.7
RATZ	Rangitukua	3.08	238	P	Pn	09 22 41.2	+2.7
MKAZ	Moumakai	3.17	272	P	Pn	09 22 40.2	+0.6
MKAZ				AML	AML		
MKAZ				AML	AML		
KRHZ	Kereru	3.20	222	P	Pn	09 22 41.6	+1.6
WIAZ	Waiheke Island	3.23	278	P	Pn	09 22 41.0	+0.6
WIAZ				AML	AML		
WIAZ				AML	AML		
TMVZ	Te Maari	3.25	235	P	Pn	09 22 43.1	+2.2
BHHZ	Black Hill Sta	3.26	227	P	Pn	09 22 43.1	+2.2
ETVZ	East Tongariro	3.26	234	P	Pn	09 22 43.1	+2.2
NTVZ	North Tongarir	3.26	235	P	Pn	09 22 43.3	+2.2
OTVZ	Oturere	3.31	234	P	Pn	09 22 44.1	+2.5
WTVZ	West Tongariro	3.33	236	P	Pn	09 22 44.5	+2.6
SNVZ	South Ngauruho	3.33	234	P	Pn	09 22 44.3	+2.2
NGZ	Ngauruhoe	3.35	235	P	Pn	09 22 44.5	+2.2
ETAZ	East Tamaki Re	3.37	274	P	Pn	09 22 43.5	+1.2
TUVZ	Tukino	3.37	233	P	Pn	09 22 44.6	+2.1
MOVZ	Moawhango	3.39	230	P	Pn	09 22 44.4	+1.7
COVZ	Chateau Observ	3.41	235	P	Pn	09 22 45.3	+2.4
TWVZ	Taurewa	3.41	237	P	Pn	09 22 45.7	+2.8
MBAZ	Motutapu North	3.42	277	P	Pn	09 22 44.1	+1.1
WHVZ	Whangaehu Hut	3.42	233	P	Pn	09 22 45.3	+2.0
FWVZ	Far West T-bar	3.43	234	P	Pn	09 22 45.4	+2.1
MAVZ	Matarangi	3.43	234	P	Pn	09 22 45.6	+2.1
WNVZ	Wahianoa	3.44	233	P	Pn	09 22 45.4	+2.0
TRVZ	Turoa	3.46	233	P	Pn	09 22 45.9	+2.1
WPHZ	Waipukurau	3.48	216	P	Pn	09 22 45.6	+1.7
PNHZ	Pukenui	3.48	220	P	Pn	09 22 45.0	+1.1
ABAZ	Army Bay	3.50	280	P	Pn	09 22 43.3	-0.8
EPAZ	Eden Park BICE	3.53	275	P	Pn	09 22 45.9	+1.5
HBAZ	Herne Bay Bore	3.54	276	P	Pn	09 22 46.5	+1.9
MTVZ	Mangateitei	3.56	233	P	Pn	09 22 46.9	+2.0
PRHZ	Porangahau	3.56	212	P	Pn	09 22 46.1	+1.3
PKVZ	Pokaka	3.58	235	P	Pn	09 22 47.6	+2.3
AWAZ	Awhitu Peninsu	3.58	272	P	Pn	09 22 46.7	+1.5
HIZ	Hauiti	3.59	249	P	Pn	09 22 48.3	+3.0
HIZ	Hauiti	3.59	249	P	Pn	09 22 48.4	+3.1
WTAZ	Waiatarua	3.65	274	P	Pn	09 22 47.8	+1.6
RVAZ	Riverhead Bore	3.67	277	P	Pn	09 22 47.9	+1.5
TSZ	Takapari Road	3.71	221	P	Pn	09 22 47.8	+0.8
DVHZ	Dannevirke	3.79	217	P	Pn	09 22 49.4	+1.3
VRZ	Vera Road	3.90	241	P	Pn	09 22 52.7	+3.2
POWZ	Post Office Ro	4.06	219	P	Pn	09 22 53.3	+1.6
POWZ				S	Sn	09 23 38.0	-0.1
BFZ	Birch Farm	4.07	213	P	Pn	09 22 52.3	+0.5
BFZ				S	Sn	09 23 37.0	-1.2
WCZ	Waipu Caves	4.07	288	P	Pn	09 22 53.2	+1.4
WCZ				S	Sn	09 23 40.9	+2.5
WCZ				AML	AML		
WCZ				AML	AML		
WAZ	Wanganui	4.08	232	P	Pn	09 22 54.3	+2.4
WAZ				S	Sn	09 23 39.6	+1.1
PRWZ	Pori Road	4.09	216	P	Pn	09 22 53.3	+1.2
PRWZ				S	Sn	09 23 39.2	+0.5
LREZ	Lake Rotokare	4.30	238	P	Pn	09 22 58.2	+3.3
DREZ	Durham Road	4.32	242	P	Pn	09 22 59.5	+4.3
MRZ	Mangatainoka R	4.36	218	P	Pn	09 22 55.9	+0.2
MRZ				S	Sn	09 23 41.8	-3.5
PREZ	Palmer Road	4.41	241	P	Pn	09 23 01.3	+4.8
PREZ				S	Sn	09 23 53.6	+6.9
NEZ	North Egmont	4.42	242	P	Pn	09 23 00.9	+4.2
PKE	Pukeiti	4.47	243	P	Pn	09 23 02.0	+4.8
KHEZ	Kahui Hut	4.49	242	P	Pn	09 23 01.6	+4.0
KHEZ	Kahui Hut	4.49	242	P	Pn	09 23 01.8	+4.2
TMWZ	Te Maipa	4.57	212	P	Pn	09 22 58.7	+0.1
TMWZ				S	Sn	09 23 48.1	-2.4
NBEZ	Newall Road No	4.58	243	P	Pn	09 23 03.6	+4.8
OGWZ	Otaki Gorge	4.68	220	P	Pn	09 23 00.2	+0.2
OGWZ				S	Sn	09 23 51.4	-1.7
MTW	Mount Morrison	4.78	215	P	Pn	09 23 01.2	-0.3
MTW				S	Sn	09 23 53.5	-2.1
KIW	Kapiti Island	4.85	221	P	Pn	09 23 02.7	+0.3
KIW				S	Sn	09 23 56.2	-1.0
TRWZ	Traveller	4.89	212	P	Pn	09 23 02.3	-0.7
TRWZ				S	Sn	09 23 55.9	-2.5
OUZ	Omahuta	4.92	293	P	Pn	09 23 05.1	+1.7
OUZ	Omahuta	4.92	293	P	Pn	09 23 05.5	+2.1
OUZ				AML	AML		
OUZ				AML	AML		
CAW	Cannon Point	4.95	218	P	Pn	09 23 03.4	-0.4
CAW				S	Sn	09 23 58.6	-1.1
PAWZ	Paruwai Farm	5.00	214	P	Pn	09 23 04.4	0.0
PAWZ				S	Sn	09 23 57.9	-2.9
MSWZ	Moikau Station	5.10	215	P	Pn	09 23 05.1	-0.8
MSWZ				S	Sn	09 24 00.3	-3.1
PLWZ	Palliser	5.22	214	P	Pn	09 23 07.3	-0.2
BHW	Baring Head	5.27	217	P	Pn	09 23 07.4	-0.7
SNZO	South Karori	5.28	219	P	Pn	09 23 08.1	-0.1
DUWZ	D'Urville Isla	5.36	227	P	Pn	09 23 09.4	+0.1
TCW	Tory Channel	5.43	222	P	Pn	09 23 07.2	-3.1
TUWZ	Tuamarina	5.76	223	P	Pn	09 23 14.7	-0.1
NNZ	Nelson	5.94	227	P	Pn	09 23 16.5	-0.7
BSWZ	Blackbirch Sta	6.00	221	P	Pn	09 23 18.0	-0.1
TKNZ	Takaka Hill	6.08	230	P	Pn	09 23 18.5	-0.6
QRZ	Quartz Range	6.23	233	P	Pn	09 23 20.8	-0.4
QRZ	Quartz Range	6.23	233	P	Pn	09 23 20.5	-0.7
MRNZ	Matariki Terra	6.42	228	P	Pn	09 23 23.0	-0.8
THZ	Tophouse	6.56	225	P	Pn	09 23 24.6	-1.2
KHZ	Kahutara	6.69	218	P	Pn	09 23 26.8	-0.6
KHZ	Kahutara	6.69	218	P	Pn	09 23 26.5	-0.9
DSZ	Denniston Nort	7.20	230	P	Pn	09 23 33.0	-1.5
CTZ	Chatham Island	7.21	155	P	Pn	09 23 41.6	+7.0
CTZ				AML	AML		
CTZ				AML	AML		
GVZ	Greta Valley S	7.34	218	P	Pn	09 23 35.8	-0.6
LTZ	Lake Taylor	7.60	222	P	Pn	09 23 38.1	-1.8
OKCZ	Okains Bay	7.92	214	P	Pn	09 23 43.5	-0.7
INZ	Inchbonnie	8.01	225	P	Pn	09 23 43.9	-1.6
MQZ	McQueen's Vall	8.09	216	P	Pn	09 23 44.7	-1.7
AKCZ	Akaroa Harbour	8.10	214	P	Pn	09 23 46.7	0.0
OXZ	Oxford	8.10	220	P	Pn	09 23 45.6	-1.1
MHCZ	Mount Hutt	8.49	220	P	Pn	09 23 50.6	-1.4
WACZ	Wakanui South	8.65	218	P	Pn	09 23 52.9	-1.2
RPZ	Rata Peaks	8.89	221	P	Pn	09 23 57.5	+0.1
RPZ	Rata Peaks	8.89	221	P	Pn	09 23 56.9	-0.5
ARCZ	Arundel	8.98	220	P	Pn	09 23 58.3	-0.5
ODZ	Otahua Downs	10.04	217	P	Pn	09 24 12.0	-1.1

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*IDC **13** 09:43:42.2±0.9, 6°.95S×155°.31E, h0^{km}, mb3.8/8, mbtmp3.9/9, ML4.6/1, Error ellipse: s-maj=26.1km s-min=23.0km az=80.0*

ISC 13 09:43:48.4±0.8**, 6°.9S**±0°.2×**155°.2E**±0°.2**, h41**^{km}**, n14, σ0ˢ.71**/11**, mb3.6**/8**, Bougainville-Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KRVT	Keravat (AS076	4.10	309	Pn	Pn	09 44 48.9	+0.3
	34nm,0.3s,baz=107,slow=11,SNR=2.0						
	123nm,0.4s						
KRVT				AML	AML		
WRA	Warramunga Arr	24.04	235	P	P	09 48 59.6	-0.3
	1.7nm,0.8s,baz=60,slow=9.5,SNR=22						
	1.7nm,0.8s						
ASAR	Alice Springs	26.39	229	P	P	09 49 20.6	-0.6
	0.8nm,0.7s,baz=59,slow=9.1,SNR=11						
	0.8nm,0.7s						
H11S3	WAKE ISLAND Hy	27.67	24	T	T	10 18 03.2	
	baz=202,slow=76,SNR=9.8						
H11S2	WAKE ISLAND Hy	27.67	24	T	T	10 18 14.7	
	baz=202,slow=76,SNR=9.1						
H11S1	WAKE ISLAND Hy	27.68	24	T	T	10 18 01.0	
	baz=202,slow=76,SNR=4.4						
CMAR	Chiang Mai Arr	60.95	295	P	P	09 53 58.5	+0.7
	1.3nm,0.8s,baz=104,slow=7.5,SNR=7.9						
	1.3nm,0.8s						
QSPA	South Pole Qui	83.06	180	P	P	09 56 10.1	+0.6
	1.9nm,0.7s,baz=306,slow=0.7,SNR=15						
	1.9nm,0.7s						
ILAR	Eielson Array	83.22	21	P	P	09 56 09.2	-0.9
	0.4nm,0.8s,baz=244,slow=6.8,SNR=4.7						
	0.4nm,0.8s						
MKAR	Makanchi Array	83.49	319	P	P	09 56 11.4	-0.6
	0.4nm,0.7s,baz=113,slow=5.5,SNR=3.2						
	0.4nm,0.7s						
MAW	Mawson	84.56	203	P	P	09 56 17.1	+0.1
	1.5nm,0.8s,baz=98,slow=5.9,SNR=6.1						
	1.5nm,0.8s						
NVAR	Mina Array Bea	91.50	52	P	P	09 56 52.1	+0.9
	0.1nm,0.5s,baz=311,slow=2.4,SNR=2.2						
	0.1nm,0.5s						
BDFB	Brasilia	147.88	134	PKPbc	PKPbc	10 03 30.1	-0.2
	3.0nm,0.8s,baz=243,slow=2.3,SNR=3.9						
TORD	Torodi Ar. Bea	153.22	285	PKPbc	PKPbc	10 03 42.1	-0.9
	0.4nm,0.5s,baz=122,slow=1.9,SNR=3.7						

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*IDC **13** 09:47:43.0±3.6, 5°.63S×152°.24E, h57^{km}±25^{km}, mb3.6/5, mbtmp3.9/6, ML2.3/1, Error ellipse: s-maj=50.9km s-min=10.8km az=113.0*

*NEIC **13** 09:47:42.1±2.2, 5°.62S±0°.08×152°.3E±0°.2, h44^{km}±10^{km}, mb4.1/14, Error ellipse: s-maj=23.2km s-min=9.7km az=107.0*

ISC 13 09:47:40.8±1.1**, 5°.67S**±0°.09×**152°.4E**±0°.2**, h40**^{km}**, n25, σ1ˢ.36**/26**, mb4.0**/12**, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KRVT	Keravat (AS076	1.39	346	P	Pn	09 48 04.3	+0.5
	2μm,0.3s,baz=130,slow=18,SNR=74						
KRVT				S	Sn	09 48 22.1	+1.2
	1μm,0.3s,baz=225,slow=21,SNR=7.5						
KRVT				LR	LR	09 48 31.6	
	comp=Z,313nm,21.5s,baz=167,slow=37						
RABL	Rabaul	1.48	352		Pn	09 48 05.7	+0.7
PMG	Port Moresby	6.36	234	P	Pn	09 49 13.2	+1.1
	4.6nm,0.3s,baz=40,slow=7.9,SNR=9.1						
PMG				S	Sn	09 50 24.7	+1.2
	23nm,0.5s,baz=126,slow=22,SNR=7.9						
	14nm,0.4s						
PMG				AML	AML		
WB0	Warramunga Arr	22.41	230	P	P	09 52 35.6	-0.6
WB0				IAmb	IAmb	09 52 48.4	
	comp=Z,9.9nm,1.4s						
WRA	Warramunga Arr	22.55	229	P	P	09 52 37.8	0.0
	comp=Z,1.1nm,0.5s,baz=54,slow=10,SNR=12						
	comp=Z,1.1nm,0.5s						
WRA	Warramunga Arr	22.55	229	P	P	09 52 35.7	-2.0
AS31	Alice Springs	25.22	223	P	P	09 53 02.9	-0.3
AS31				IAmb	IAmb	09 53 16.0	
	comp=Z,1.0nm,0.7s						
ASAR	Alice Springs	25.22	223	P	P	09 53 03.7	+0.5
	comp=Z,2.7nm,0.8s,baz=55,slow=9.5,SNR=21						
	comp=Z,2.7nm,0.8s						
ASAR	Alice Springs	25.22	223	P	P	09 53 02.9	-0.2
FITZ	Fitzroy Crossi	28.87	242	P	P	09 53 35.4	-0.6
JYT	Yasato	43.21	346	P	P	09 55 37.4	-0.7
MJAR	Matsushiro Arr	44.03	344	P	P	09 55 44.3	-0.4
MJAR				IAmb	IAmb	09 56 26.9	
	comp=Z,2.6nm,1.2s						
SONM	Songino Array	66.83	328	P	P	09 58 27.6	-1.1
	comp=Z,0.4nm,0.6s,baz=142,slow=5.4,SNR=2.0						
	comp=Z,0.4nm,0.6s						
SONM	Songino Array	66.83	328	IAmb	IAmb	09 58 29.6	
	comp=Z,2.1nm,1.5s						
L19K	White Mountain	78.71	22	P	P	09 59 40.2	+1.5
M19K	Big River Lodg	78.72	23	P	P	09 59 40.9	+2.1
M19K				IAmb	IAmb	09 59 49.2	
	comp=Z,4.5nm,1.2s						
SLKM	Skilak Lake	79.63	25	P	P	09 59 45.7	+1.8
G18K	Tagagawik	79.70	18	P	P	09 59 45.6	+1.5
G18K				IAmb	IAmb	09 59 47.1	
	comp=Z,6.5nm,1.4s						
PWL	Port Wells	80.61	25	P	P	09 59 51.2	+2.1
ILAR	Eielson Array	83.12	22	P	P	10 00 03.0	+0.9
	comp=Z,0.8nm,0.6s,baz=247,slow=5.4,SNR=12						
	comp=Z,0.8nm,0.6s						
J25K	Salcha River,	83.62	23	P	P	10 00 06.3	+1.4
J25K				IAmb	IAmb	10 00 07.3	
	comp=Z,2.8nm,0.8s						
KURBB	Kurchatov Arra	84.21	322	P	P	10 00 09.0	+0.9
	comp=Z,0.4nm,0.2s,baz=114,slow=4.5,SNR=1.6						
	comp=Z,0.4nm,0.2s						
AB31	Akbulak array	95.83	319	P	P	10 01 01.3	-1.8
AB31				IAmb	IAmb	10 01 14.6	
	comp=Z,2.3nm,1.4s						
ABKAR	Akbulak array	95.83	319	P	P	10 01 01.2	-1.9
TORD	Torodi Ar. Bea	150.15	287	PKPbc	PKPbc	10 07 26.5	-2.0
	comp=Z,1.7nm,1.0s,baz=84,slow=2.0,SNR=5.1						

IDC 13 09:51:06.4±22.0**, 23°.25S**×**178°.56E, h675**^{km}±225^{km}**, mb2.8**/4**, mbtmp4.0**/4**, Error ellipse: s-maj=188.6km s-min=97.0km az=90.0, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	30.15	270	P	P	09 56 26.7	+0.7
	4.8nm,0.3s,baz=98,slow=10.0,SNR=18						
	4.8nm,0.3s						
STKA	Stephens Creek	33.74	247	P	P	09 56 55.2	-0.8
	1.0nm,0.5s,baz=85,slow=11,SNR=3.1						
	1.0nm,0.5s						
ASAR	Alice Springs	40.83	260	P	P	09 57 53.3	0.0
	0.3nm,0.3s,baz=94,slow=6.9,SNR=17						
	0.3nm,0.3s						
WRA	Warramunga Arr	41.13	266	P	P	09 57 55.5	-0.2
	0.6nm,0.5s,baz=96,slow=8.5,SNR=63						
	0.6nm,0.5s						
HFS	Hagfors	141.65	348	PKP	PKPdf	10 09 20.1	-2.6
	0.8nm,0.4s,baz=40,slow=2.5,SNR=9.0						
AKASG	Malin Array Be	143.71	327	PKP	PKPdf	10 09 26.6	+0.1
	0.2nm,0.3s,baz=53,slow=3.6,SNR=5.0						

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*SNET **13** 09:52:56.7±0.9, 13°.11N×89°.62W, h34^{km}, ML3.8, Presumed earthquake*

*CATAC **13** 09:52:56.6±0.5, 13°N±3°×9°0W±°, h29^{km}±3^{km}, M4.0/24, MLv4.0/24, Error ellipse: s-maj=6.5km s-min=3.2km az=21.3, confirmed*

*GCG **13** 09:52:58.6±1.0, 13°.25N×89°.70W, h32^{km}±4^{km}, MD4.2, ML4.0, Presumed earthquake*

ISC 13 09:52:57.3±1.5**, 13°.10N**±0°.05×**89°.58W**±0°.03**, h32**^{km}±12^{km}**, n57, σ0ˢ.87**/84**, El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LALI	Alcalda de L	0.46	32	*i* P	Pn	09 53 07.7	-0.1
LALI				*i* S	Sn	09 53 14.4	-0.4
LALI	Alcalda de L	0.46	32	P	Pn	09 53 07.6	-0.1
LALI				S	Sn	09 53 15.5	+0.6
JAYA	Jayaque - finc	0.57	13	*i* P	Pn	09 53 08.7	-0.7
JAYA				*i* S	Sn	09 53 17.0	-0.7
JAYA				IAML		09 53 19.0	
	comp=N,10μm,0.2s						
JAYA	Jayaque - finc	0.57	13	*e*P	Pn	09 53 08.7	-0.7
JAYA	Jayaque - finc	0.57	13	P	Pn	09 53 08.9	-0.5
JAYA				S	Sn	09 53 17.5	-0.2
PANCS	Alcalda de	0.64	37	P	Pb	09 53 09.7	-0.5
PANCS				S	Sn	09 53 19.1	-0.3
PMON	Piamonte	0.66	23	*e*P	Pb	09 53 10.1	-0.5
PMON	Piamonte	0.66	23	P	Pb	09 53 10.1	-0.5
PMON				S	Sn	09 53 22.2	+2.2
LOMA	Loma Larga	0.67	36	P	Pb	09 53 10.4	-0.3
LOMA				S	Sn	09 53 20.9	+0.7
SEMO	Seminario San	0.69	30	P	Pn	09 53 10.4	-0.6
SEMO				S	Sn	09 53 20.8	+0.1
BOQS	Boqueron	0.70	24	*i* P	Pn	09 53 10.6	-0.6
UEES	Universidad Ev	0.70	28	*e*P	Pn	09 53 10.6	-0.5
UEES	Universidad Ev	0.70	28	P	Pn	09 53 10.6	-0.5
UEES				S	Sn	09 53 20.6	-0.2
UESS	Universidad de	0.72	30	*e*P	Pn	09 53 11.0	-0.3
CEDA	San Andres	0.72	14	P	Pn	09 53 10.9	-0.5
CEDA				S	Sn	09 53 21.4	0.0
LFRS	El Faro	0.72	44	*e*P	Pn	09 53 11.1	-0.3
CEVE	Cerro Verde	0.73	356	*e*P	Pn	09 53 10.9	-0.7
CEVE	Cerro Verde	0.73	356	P	Pn	09 53 10.9	-0.7
CEVE				S	Sn	09 53 22.9	+1.1
SBLS	San Blas	0.74	356	*e*P	Pn	09 53 11.0	-0.8
SJTE	Alcalda de S	0.76	47	*i* P	Pn	09 53 11.7	-0.1
SJTE				*e*S	Sb	09 53 22.7	+0.5
SNJE	San Jose	0.77	358	*e*P	Pn	09 53 11.3	-0.8
LFU	La Fuente	0.79	35	*i* P	Pb	09 53 12.2	-0.5
NUBE	Las Nubes	0.82	346	*i* P	Pn	09 53 11.9	-1.1
NUBE				*i* S	Sn	09 53 22.2	-1.8
NUBE	Las Nubes	0.82	346	*i* P	Pn	09 53 11.8	-1.1
NUBE				*e*S	Sn	09 53 22.6	-1.4
NUBE	Las Nubes	0.82	346	P	Pn	09 53 11.8	-1.1
NUBE				S	Sn	09 53 22.6	-1.4
COEG	Centro de Oper	0.85	52	*i* P	Pn	09 53 13.0	-0.2
COEG				*e*S	Sb	09 53 24.9	0.0
COEG	Centro de Oper	0.85	52	P	Pn	09 53 13.1	0.0
COEG				S	Sb	09 53 24.9	0.0
FAME	Alcaldia de Sa	0.86	330	P	Pn	09 53 11.9	-1.3
FAME				S	Sn	09 53 22.9	-1.7
PAVA	Las Pavas	0.87	45	*i* P	Pb	09 53 13.6	-0.5
PAVA	Las Pavas	0.87	45	P	Pb	09 53 13.7	-0.5
PAVA				S	Sb	09 53 26.1	+0.6
UNIC	Universidad Ca	0.88	2	P	Pn	09 53 13.1	-0.4
UNIC				S	Sn	09 53 24.6	-0.7
TECO	Alcaldia de Te	0.89	60	P	Pn	09 53 13.2	-0.5
TECO				S	Sn	09 53 25.6	+0.2
SLOZ	Alcaldia de Sa	0.95	348	P	Pn	09 53 13.4	-1.1
ALJI	Alcalda de J	1.00	77	S	Sn	09 53 28.9	+0.6
RBDL	Robledal	1.02	354	*e*P	Pn	09 53 15.0	-0.5
SCLA	Alcaldia de Sa	1.02	54	*e*P	Pb	09 53 16.0	-0.5
TECA	Tecapa	1.12	69	*e*P	Pn	09 53 16.8	-0.2
P5NO	Presa 5 de nov	1.19	42	P	Pn	09 53 17.7	0.0
P5NO				S	Sb	09 53 33.9	-0.5
JUAM	Asuncion Mita	1.24	354	*i* P	Pn	09 53 18.0	-0.5
ESQI	Esquipulas	1.47	9	*i* P	Pn	09 53 21.7	0.0
ESQI	Esquipulas	1.47	9	P	Pn	09 53 21.6	-0.2
FG16	Alotenango, Sa	1.48	322	*i* P	Pb	09 53 26.2	+1.8
INTP	Intipuca	1.48	86	*e*P	Pn	09 53 22.0	+0.2
INTP				*e*S	Sn	09 53 40.0	-0.1
ZAFR2	Estanzuela, Za	1.49	8	*i* P	Pb	09 53 26.9	+2.5
FG8	Yepocapa, Chim	1.50	320	*i* P	Pb	09 53 26.3	+1.7
LCND	La Caada	1.66	82	P	Pn	09 53 24.7	+0.5
CNCH	Conchagua	1.71	84	P	Pn	09 53 25.5	+0.5
SARH	Santa Rosa de	1.85	25	*i* P	Pn	09 53 27.5	+0.6
SARH	Santa Rosa de	1.85	25	P	Pn	09 53 27.4	+0.6
APG	El Apazote	2.08	336	*i* P	Pn	09 53 29.9	-0.3
RTAL	Retalhuleu	2.50	305	P	Pn	09 53 36.3	+0.5
RTAL				S	Sn	09 54 04.3	-0.9
ILCN	San Idelfonso	2.85	100	P	Pn	09 53 40.1	-0.5
ILCN				S	Sn	09 54 11.0	-2.9
CNGA	Al SSO del Vol	2.87	102	P	Pn	09 53 40.7	-0.2
CNGN	Cerro Negro	2.87	102	P	Pn	09 53 41.9	+1.0
CNGN				S	Sn	09 54 13.3	-1.1
OCON	Estacion meteo	3.06	80	P	Pn	09 53 43.7	+0.1
RCFN	Al S de San Ju	3.30	82	P	Pn	09 53 47.3	+0.4
RCVN	Varillal2	3.33	81	P	Pn	09 53 47.6	+0.3
RCVN				S	Sn	09 54 25.8	-0.1

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*MEX **13** 09:54:09.7±1.0, 16°.79N×99°.76W, h3^{km}±4^{km}, MD4.2, Presumed earthquake*

*NEIC **13** 09:54:09.2±1.4, 16°.80N±0°.08×99°.67W±0°.08, h10^{km}±2^{km}, ML3.7/6, Md4.2(MEX), Error ellipse: s-maj=15.1km s-min=12.0km az=222.0*

ISC 13 09:54:07.3±1.2**, 16°.76N**±0°.04×**99°.75W**±0°.02**, h11**^{km}±9^{km}**, n69, σ1ˢ.69**/127**, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DAIG	Los Arroyos	0.28	19	*e*P	Pb	09 54 14.4	0.0
DAIG				*e*S	Sb	09 54 18.0	-1.1
CAIG	El Cayaco	0.58	300	*e*P	Pb	09 54 19.6	+0.1
CAIG				*e*S	Sg	09 54 25.0	-1.2

CRIG	Cruz Grande	0.59	92	eP	Pb	09 54 20.2	+0.5
CRIG				eS	Sg	09 54 25.6	-1.0
ATYC	Atoyac	0.80	305	eP	Pg	09 54 23.2	+0.4
ATYC				eS	Sg	09 54 32.5	-0.8
MGIG	Malinaltepec	1.16	66	eP	Pb	09 54 29.4	-0.3
MGIG				eS	Sb	09 54 43.5	-1.3
MEIG	Mezcala	1.17	6	eP	Pb	09 54 28.9	-0.8
MEIG				eS	Sb	09 54 43.2	-1.6
TLIG	Tlapa	1.38	54	eP	Pn	09 54 32.8	+0.1
TLIG				eS	Sn	09 54 49.6	-1.5
TLIG	Tlapa	1.38	54		Pn	09 54 32.6	-0.1
TLIG					Sb	09 54 50.8	-0.3
TLIG				IAML		09 54 56.8	
	comp=N,533nm,0.8s						
HMTT	Tlapaneco	1.54	47	eP	Pn	09 54 34.8	-0.1
HMTT				eS	Sn	09 54 51.9	-2.9
PLIG	Platanillo	1.64	8	eP	Pn	09 54 36.7	+0.4
PLIG				eS	Sn	09 54 56.4	-1.1
PET2	Petatlan	1.64	298	eS	Sn	09 54 55.4	-2.0
ZIIG	Zihuatanejo	1.85	297	eP	Pb	09 54 40.2	-0.9
ZIIG				eS	Sn	09 55 02.4	-0.1
FTIG	Fresnillo de T	1.92	53	eP	Pn	09 54 40.5	+0.4
FTIG				eS	Sb	09 55 05.5	-1.0
TXIG	Tlaxiaco	1.96	75	eP	Pn	09 54 41.1	+0.3
TXIG				eS	Sn	09 55 04.7	-0.8
YOIG	Yosondua	2.11	87	eP	Pn	09 54 43.4	+0.5
YOIG				eS	Sg	09 55 13.8	-1.5
HLIG	Huajuapan de L	2.14	60	eP	Pn	09 54 43.4	+0.2
HLIG				eS	Sn	09 55 07.2	-2.8
YAIG	Yautepec	2.19	17	eP	Pn	09 54 43.5	-0.4
YAIG				eS	Sn	09 55 11.5	+0.3
MAVM	Malinalco, Edo	2.20	6	eP	Pn	09 54 44.9	+0.8
MAVM				eS	Sn	09 55 10.7	-0.8
PPCL	Tochimilco	2.40	26	eP	Pn	09 54 46.6	-0.2
PPCL				eS	Sn	09 55 15.3	-1.1
PPPT	Popocatepetl	2.45	26	eP	Pn	09 54 47.6	-0.2
PPPT				eS	Sn	09 55 16.5	-1.6
PPCU	Popocatapetl	2.47	25	eP	Pn	09 54 48.4	+0.2
PPCU				eS	Sn	09 55 16.1	-2.5
PBCV	Popocatepetl	2.49	27	eP	Pn	09 54 47.8	-0.4
PBCV				eS	Sn	09 55 18.4	-0.3
PPAX	Atlixo	2.50	30	eP	Pn	09 54 48.0	-0.2
PPAX				eS	Sn	09 55 19.0	+0.2
TLVM	San Miguel Top	2.50	13	eP	Pn	09 54 49.6	+1.2
TLVM				eS	Sb	09 55 22.8	-0.8
TOVM	TOLUCA	2.51	1	eP	Pn	09 54 50.2	+1.7
TOVM				eS	Sn	09 55 20.9	+1.5
AOVM	Tlapan	2.53	9	eP	Pb	09 54 52.0	-1.1
AOVM				eS	Sn	09 55 20.9	+1.0
MPVM	San Francisco	2.53	16	eP	Pn	09 54 50.6	+2.0
MPVM				eS	Sb	09 55 23.5	-0.7
PPM	Popocatepetl	2.53	25	eP	Pn	09 54 48.3	-0.6
PPM				eS	Sb	09 55 22.4	-2.1
XCVM	Xochimilco	2.55	13	eP	Pn	09 54 48.7	-0.3
XCVM				eS	Sn	09 55 21.5	+1.3
PEIG	Puerto Escondi	2.61	106	eP	Pn	09 54 50.0	+0.5
PEIG				eS	Sg	09 55 29.3	-1.8
UNM	Universidad Na	2.61	12	eP	Pn	09 54 50.0	+0.2
UNM				eS	Sn	09 55 22.6	+0.8
UNM	Universidad Na	2.61	12		Pn	09 54 50.5	+0.6
UNM				IAML		09 55 45.6	
	comp=E,412nm,0.8s						
UNM				IAML		09 55 48.6	
	comp=N,362nm,0.8s						
CUP5	Mexico City	2.62	12	eP	Pb	09 54 52.9	-1.6
CUP5				eS	Sb	09 55 25.3	-1.4
THVM	De Xico	2.64	16	eP	Pn	09 54 50.7	+0.4
THVM				eS	Sn	09 55 22.9	+0.4
MHVM	Bosque de Chap	2.69	11	eP	Pn	09 54 53.0	+2.1
MHVM				eS	Sn	09 55 23.0	-0.5
PBVM	Pinon	2.74	13	eP	Pb	09 54 53.8	-2.7
PBVM				eS	Sn	09 55 24.0	-0.5
APVM	Azcapotzalco	2.76	11	eP	Pn	09 54 52.6	+0.7
APVM				eS	Sn	09 55 25.6	+0.2
TPIG	Tehuac#an	2.81	54	eP	Pn	09 54 52.5	0.0
TPIG				eS	Sb	09 55 29.8	-2.4
AZVM	Cuida Lopez Ma	2.85	9	eP	Pb	09 54 56.7	-1.7
AZVM				eS	Sn	09 55 27.4	-0.1
PTVM	Pico Tres Padr	2.88	12	eP	Pn	09 54 55.8	+2.2
PTVM				eS	Sn	09 55 30.5	+2.1
TOIG	Toxpalan	2.88	62	eP	Pn	09 54 52.9	-0.5
TOIG				eS	Sn	09 55 30.2	+1.9
VHO	Vista Hermosa	2.90	83	eP	Pn	09 54 54.6	+0.9
VHO				eS	Sn	09 55 30.0	+1.3
OXBJ	Oaxaca	2.91	83	eP	Pg	09 55 06.3	+3.2
OXBJ				eS	Sn	09 55 29.0	+0.1
OXLC	Oaxaca	2.93	84	eP	Pg	09 55 05.3	+1.8
OXLC				eS	Sn	09 55 29.6	+0.1
ATVM	ATLACOMULCO	2.99	358	eP	Pb	09 55 00.9	0.0
ATVM				eS	Sn	09 55 29.6	-1.5
VTVM	Tizayuca	3.14	17	eP	Pb	09 55 01.9	-1.4
VTVM				eS	Sb	09 55 39.5	-2.2
MOIG	Morelia	3.21	335	eP	Pn	09 55 01.1	+3.0
MOIG				eS	Sn	09 55 39.6	+3.1
MOIG	Morelia	3.21	335	Pn	Pn	09 54 60.0	+1.9
MOIG				IAML		09 55 56.6	
	comp=E,251nm,0.7s						
URUA	Uruapan	3.45	320	eP	Pn	09 55 00.5	-0.8
URUA				eS	Sn	09 55 42.0	-0.4
DEIG	Demacu	3.59	11	eP	Pb	09 55 08.4	-2.6
DEIG				eS	Sn	09 55 49.3	+3.5
HUIG	Huatulco	3.63	105	eP	Pn	09 55 03.4	-0.1
HUIG				eS	Sn	09 55 41.5	-4.9
JAUV	Jalcomulco	3.82	47	eP	Pn	09 55 04.2	-2.0
JAUV				eS	Sn	09 55 53.0	+1.9
NEUV	Arroyo Zacate	3.89	75	eP	Pn	09 55 07.3	+0.2
NEUV				eS	Sn	09 55 52.2	-0.5
CXUV	Coxquihui	3.97	31	eP	Pn	09 55 07.0	-1.3
CXUV				eS	Sn	09 55 57.5	+2.8
LVIG	Laguna Verde	4.32	46	eP	Pn	09 55 16.9	+3.8
LVIG				eS	Sn	09 55 59.0	-4.5
INCO	Volcan de Coli	4.59	307	eP	Pn	09 55 19.5	+2.4
INCO				eS	Sn	09 56 10.3	-0.4
CDAR	Ciudad de Arme	4.61	299	eP	Pn	09 55 18.2	+1.3
CDAR				eS	Sn	09 56 08.2	-2.3
CMIG	Matias Romero	4.67	85	eP	Pn	09 55 16.5	-1.3
CMIG				eS	Sn	09 56 13.9	+1.9
CEGR	Campo Tres	4.71	304	eP	Pn	09 55 20.3	+1.7
CEGR				eS	Sn	09 56 11.0	-2.3
CTUV	Llano Grande	4.87	15	eP	Pn	09 55 22.5	+1.8
CTUV				eS	Sn	09 56 22.4	+5.3
UXUV	UXUV	5.39	83	eP	Pn	09 55 20.9	-6.8
UXUV				eS	Sn	09 56 33.9	+4.1
ESTA	Talpa de Allen	6.04	308	e	Sn	09 56 46.6	+0.5
TOMAT	Tomatlan	6.11	302	e	Sn	09 56 48.0	+0.4
GTIG	Gomez Farias	6.30	5	eP	Pn	09 55 42.1	+1.8
GTIG				eS	Sn	09 56 52.1	-0.3
ZAIG	Zacatecas	6.54	337	Pn	Pn	09 55 46.0	+2.1
HUEH	Huehuetenango	8.05	99	Pn	Pn	09 56 06.8	+2.2
RTAL	Retalhuleu	8.07	105	Pn	Pn	09 56 05.0	+0.4
MTO3	Montecristo	10.28	102	Pn	Pn	09 56 35.1	0.0
TXAR	Lajitas Array	13.03	345	Pn	Pn	09 57 14.1	+1.6

IDC ***13*** *09:59:59.4±1.1, 40°.47N×29°.36W, h0km, mb3.7/5, mbtmp3.6/6, ML3.5/1, MS3.2/5, Error ellipse: s-maj=57.7km s-min=17.2km az=151.0*

SVSA ***13*** *10:00:04.4±1.5, 40°.63N×29°.29W, h10km, ML3.9(INMG), Error ellipse: s-maj=9.0km s-min=5.6km az=85.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Crista Mdia Atlntico N*

ISC 13 10:00:01.8±0.9**, 40°.47N**±0°.07×**29°.26W**±0°.07**, h14km, n33, σ1s.00**/38**, mb3.7**/5**, MS3.0**/4**, 1C-2D, Azores Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
H07N1	FLORES T-PHASE	1.62	242	Pn	Pn	10 00 26.7	-3.3
SRBC	Serra Branca	1.72	146	eP	Pn	10 00 31.3	+0.1
SRBC				eS	Sn	10 00 52.0	-0.9
SRBC				i IAML		10 00 55.2	
SRBC				i IAML		10 00 56.2	
SRBC				i IAML		10 00 56.7	
PGRA	Graciosa	1.75	145	eP	Pn	10 00 31.5	-0.2
H07S1	FLORES T-PHASE	1.85	234	Pn	Pn	10 00 32.7	-0.4
PCED	Cedros	1.89	167	eP	Pn	10 00 34.4	+0.7
PCED				eS	Sn	10 00 56.1	-1.1
PCED				i IAML		10 00 57.5	
PCED				i IAML		10 00 58.6	
PCED				i IAML		10 00 58.6	
ROSA	Rosais	1.92	155	eP	Pn	10 00 34.4	+0.3
ROSA				eS	Sn	10 00 57.2	-0.8
ROSA				i IAML		10 00 59.0	
ROSA				i IAML		10 00 59.5	
ROSA				i IAML		10 01 00.8	
CALA	Caldeira	1.94	167	eP	Pn	10 00 35.2	+0.9
CALA				eS	Sn	10 00 57.6	-0.9
CALA				i IAML		10 00 59.8	
CALA				i IAML		10 00 59.8	
CALA				i IAML		10 01 00.2	
PRIB2	Ribeirinha	1.94	165	eP	Pn	10 00 35.6	+1.3
PRIB2				eS	Sn	10 00 57.9	-0.6
PRIB2				i IAML		10 01 00.3	
PRIB2				i IAML		10 01 00.7	
PRIB2				i IAML		10 01 00.8	
HOR	Horta	2.00	166	eP	Pn	10 00 36.2	+1.1
HOR				eS	Sn	10 00 59.2	-0.8
HOR				i IAML		10 01 01.9	
HOR				i IAML		10 01 02.0	
HOR				i IAML		10 01 02.6	
PMAN	Manadas	2.05	153	eP	Pn	10 00 36.0	+0.2
PMAN				eS	Sn	10 01 00.2	-1.0
PMAN				i IAML		10 01 01.7	
PMAN				i IAML		10 01 03.5	
PMAN				i IAML		10 01 04.1	
PICO	Pico	2.07	162	⇓iP	Pn	10 00 37.0	+0.8
PICO				eS	Sn	10 01 01.5	-0.3
PICO				i IAML		10 01 05.2	
PICO				i IAML		10 01 06.1	
PICO				i IAML		10 01 06.2	
PCAN	Candelaria	2.09	163	⇓eP	Pn	10 00 37.2	+0.8
PCAN				eS	Sn	10 01 01.8	-0.6
PCAN				i IAML		10 01 05.3	
PCAN				i IAML		10 01 05.3	
PCAN				i IAML		10 01 08.4	
PPNO	Prainha do Nor	2.14	159	eP	Pn	10 00 37.8	+0.7
PPNO				eS	Sn	10 01 02.9	-0.7
PPNO				i IAML		10 01 05.5	
PPNO				i IAML		10 01 05.9	
PPNO				i IAML		10 01 06.1	
PID	Ribeirinha	2.21	156	eP	Pn	10 00 38.8	+0.7
PID				eS	Sn	10 01 05.0	-0.3
PID				i IAML		10 01 06.1	
PID				i IAML		10 01 06.7	
PID				i IAML		10 01 09.8	
PSBA	Serra de Santa	2.27	138	eP	Pn	10 00 38.8	-0.1
PSBA				eS	Sn	10 01 05.1	-1.5
PSBA				i IAML		10 01 09.8	
PSBA				i IAML		10 01 10.9	
PSBA				i IAML		10 01 12.0	
PAGU	Agualva, Azore	2.34	136	eP	Pn	10 00 39.9	+0.1
PAGU				eS	Sn	10 01 06.8	-1.5
ADH	Angra Heroismo	2.40	139	⇑eP	Pn	10 00 40.9	+0.3
ADH				i IAML		10 01 14.4	
ADH				i IAML		10 01 14.7	
ADH				i IAML		10 01 15.8	
PSCM	Serra do Cume	2.42	136	eP	Pn	10 00 41.1	+0.1
PSCM				eS	Sn	10 01 09.1	-1.4
PSCM				i IAML		10 01 14.8	
PSCM				i IAML		10 01 16.2	
PSCM				i IAML		10 01 16.9	
PSET	Sete Cidades	3.82	133	eP	Pn	10 00 59.6	-0.6
PSET				i IAML		10 01 49.3	
PSET				i IAML		10 01 49.5	
PSET				i IAML		10 01 49.5	
PDA	Ponta Delgada	3.90	133	eP	Pn	10 01 01.0	-0.3
PDA				i IAML		10 01 50.0	
PDA				i IAML		10 01 50.5	
PDA				i IAML		10 01 52.0	
CMLA	Cha da Macela	3.97	132	eP	Pn	10 01 03.6	+1.4
CMLA				eS	Sn	10 01 46.6	-2.0
CMLA				i IAML		10 01 52.2	
CMLA				i IAML		10 01 52.5	
CMLA				i IAML		10 01 54.2	
BART	Pico Bartolome	4.17	129	eP	Pn	10 01 05.6	+0.6
BART				eS	Sn	10 01 51.7	-1.9
BART				i IAML		10 01 56.2	
BART				i IAML		10 01 56.3	
BART				i IAML		10 01 56.8	
PSMN	Pico do Norte,	4.77	135	eP	Pn	10 01 14.2	+1.0
PSMN				i IAML		10 02 09.9	
PSMN				i IAML		10 02 10.8	
PSMN				i IAML		10 02 11.4	
ESDC	Sonseca Array	19.36	84	P	P	10 04 27.7	+0.7
	baz=288,slow=10,SNR=7.2						
ESDC				LR	LR	10 11 35.7	
	comp=Z,61nm,18.1s,baz=290,slow=36						
	0.5nm,0.8s						
SFJD	Kangerlussuaq	29.10	343	LR	LR	10 13 51.8	
	comp=Z,30nm,18.9s,baz=138,slow=29						
VRAC	Vranov	33.22	59	LR	LR	10 18 03.7	
	comp=Z,28nm,19.8s,baz=322,slow=33						
SADO	Sadowa	36.49	294	LR	LR	10 20 57.1	
	comp=Z,63nm,18.8s,baz=108,slow=34						
DBIC	Dimbokro	40.12	140	LR	LR	10 23 49.2	
	comp=Z,25nm,18.3s,baz=210,slow=36						
AKASG	Malin Array Be	41.19	55	P	P	10 07 45.6	0.0
	0.1nm,0.2s,baz=266,slow=10,SNR=2.3						
	0.1nm,0.2s						
TXAR	Lajitas Array	60.38	285	P	P	10 10 10.9	+0.1
	0.6nm,0.9s,baz=57,slow=5.9,SNR=5.0						
	0.6nm,0.9s						
KURBB	Kurchatov Arra	69.52	40	P	P	10 11 09.4	-0.3
	1.0nm,0.2s,baz=310,slow=7.2,SNR=2.2						
	1.0nm,0.2s						
ZALV	Zalesovo Beam	70.27	35	P	P	10 11 13.0	-1.3
	0.2nm,0.3s,baz=297,slow=6.3,SNR=1.9						
	0.2nm,0.3s						
MKAR	Makanchi Array	73.91	42	P	P	10 11 37.9	+1.6
	0.5nm,0.8s,baz=309,slow=5.8,SNR=4.3						
	0.5nm,0.8s						

IDC ***13*** *10:02:11.7±2.3, 20°.52S×178°.28W, h550km±27km, mb3.0/6, mbtmp4.1/8, Error ellipse: s-maj=38.7km s-min=18.9km az=149.0*

ISC 13 10:02:13.8±1.0**, 20°.3S**±0°.2×**178°.3W**±0°.2**, h587km, n10, σ1s.57**/10**, mb3.5**/6**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	8.94	45	P	P	10 04 19.9	-2.1
	48nm,0.9s,baz=180,slow=7.1,SNR=5.8						
DZM	Mont Dzumac	14.32	260	P	P	10 05 14.2	-1.9
	13nm,1.0s,baz=0.0,slow=20,SNR=1.6						
STKA	Stephens Creek	37.59	244	P	P	10 08 39.6	-0.1
	1.3nm,0.6s,baz=84,slow=10,SNR=6.1						
	1.3nm,0.6s						
ASAR	Alice Springs	44.27	257	P	P	10 09 32.9	+0.2
	2.8nm,0.8s,baz=98,slow=7.7,SNR=37						
	2.8nm,0.8s						
WRA	Warramunga Arr	44.33	262	P	P	10 09 33.3	+0.2
	1.1nm,0.6s,baz=96,slow=7.7,SNR=49						
	1.1nm,0.6s						
FITZ	Fitzroy Crossi	52.75	262	P	P	10 10 36.1	+0.7
	0.9nm,0.5s,baz=117,slow=2.3,SNR=2.1						
	0.9nm,0.5s						
QSPA	South Pole Qui	69.73	180	P	P	10 12 25.5	0.0
	0.9nm,1.0s,baz=33,slow=5.3,SNR=1.9						
	0.9nm,1.0s						
ILAR	Eielson Array	88.22	13	P	P	10 14 04.9	+2.1
	0.2nm,0.4s,baz=222,slow=5.5,SNR=4.2						
	0.2nm,0.4s						
AKASG	Malin Array Be	142.73	331	PKP	PKPdf	10 20 40.5	-0.3
	1.1nm,0.4s,baz=43,slow=3.7,SNR=7.9						
GERES	GERESS Array B	149.97	344	PKPbc	PKiKP	10 21 01.3	+2.0
	0.2nm,0.3s,baz=64,slow=4.8,SNR=3.6						

TAP ***13*** *10:06:52.6, 24°.86N×122°.24E, h113km, ML3.8, C*

JMA ***13*** *10:06:52.7±0.2, 24°.8N±0°.8×122°.2E±0°.3, h112km±1km, MV2.7/14, TAIWAN REGION*

ISC 13 10:06:52.4±1.4**, 24°.86N**±0°.04×**122°.22E**±0°.03**, h117km**±6km**, n129, σ0s.85**/258**, 28C-1D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TWB1	Santiao Chiao	0.26	306	⇑iP	Pn	10 07 08.8	-0.1
TWB1				i S	Sn	10 07 20.4	-0.8
EGS		0.26	268	i P	Pn	10 07 08.9	+0.1
EGS				eS	Sn	10 07 20.5	-0.7
TIPB	Shuangxi	0.38	288	⇑iP	Pn	10 07 09.3	0.0
TIPB				i S	Sn	10 07 21.1	-1.0
SXI1	Grass Mountain	0.40	307	⇑iP	Pn	10 07 09.3	-0.2
SXI1				S	Sn	10 07 21.9	-0.5
EOS2	EOS2	0.43	179	eP	Pn	10 07 10.2	+0.7
EOS2				eS	Sn	10 07 23.2	+0.9
ILA	Ilan	0.44	258	i P	Pn	10 07 09.9	+0.3
ILA				i S	Sn	10 07 22.2	-0.4
ESAO	Su ao	0.44	231	i P	Pn	10 07 09.6	-0.1
ESAO				i S	Sn	10 07 21.5	-1.1
WFSB	Wu-fen Shan	0.46	298	⇑iP	Pn	10 07 09.8	+0.1
WFSB				i S	Sn	10 07 22.5	-0.3
TNOU	National Taiwa	0.50	306	⇑iP	Pn	10 07 10.1	+0.1
TNOU				i S	Sn	10 07 22.9	-0.4
NDS	Dongshan	0.51	245	⇑iP	Pn	10 07 10.2	+0.2
NDS				i S	Sn	10 07 22.4	-0.9
TWE	Neicheng	0.52	255	⇑iP	Pn	10 07 10.1	0.0
TWE				i S	Sn	10 07 23.0	-0.5
EOS3	EOS3	0.57	171	eP	Pn	10 07 11.1	+0.8
EOS3				eS	Sn	10 07 25.2	+1.5
FUSB	Fushanzhiwuyua	0.58	261	⇑iP	Pn	10 07 10.5	-0.1
FUSB				i S	Sn	10 07 23.8	-0.5
TWA	Mucha	0.59	282	⇑iP	Pn	10 07 10.5	-0.2
TWA				S	Sn	10 07 23.5	-0.9
ENTT	Nioudou	0.63	250	⇑iP	Pn	10 07 11.2	+0.3
ENTT				i S	Sn	10 07 24.4	-0.4
NHDH	Xindian Distri	0.64	280	⇑iP	Pn	10 07 10.9	0.0
NHDH				S	Sn	10 07 24.4	-0.5
NWLT	Wulai	0.66	263	i P	Pn	10 07 10.9	-0.2
NWLT				i S	Sn	10 07 25.3	0.0
YM01	YM01	0.66	296	⇑iP	Pn	10 07 11.1	-0.1
YM01				i S	Sn	10 07 24.1	-1.2
YM08	YM08	0.66	300	⇑iP	Pn	10 07 10.9	-0.2
YM08				eS	Sn	10 07 25.5	+0.2
EAHA	Aohua	0.68	220	i P	Pn	10 07 11.3	0.0
EAHA				i S	Sn	10 07 26.1	+0.6
NDT	Datong Townshi	0.69	249	⇑iP	Pn	10 07 12.0	+0.6
NDT				i S	Sn	10 07 26.6	+0.9
TWY	Chenhua	0.70	307	i P	Pn	10 07 11.6	+0.2
TWY				i S	Sn	10 07 25.9	+0.1
LATG	Datong	0.71	243	⇑iP	Pn	10 07 12.2	+0.6
LATG				i S	Sn	10 07 26.8	+0.7
EOS4	EOS4	0.74	173	i P	Pn	10 07 11.4	+0.1
EOS4				i S	Sn	10 07 25.6	+0.1
NTST	Danshui	0.77	294	i P	Pn	10 07 12.1	+0.2
NTST				S	Sn	10 07 26.9	+0.2
TWS1	Kuangyinshan	0.77	289	i P	Pn	10 07 12.1	+0.1
TWS1				eS	Sn	10 07 27.8	+1.0
JYNG	Yonagunijimaku	0.77	121	P	Pn	10 07 12.1	+0.1
JYNG				eS	Sn	10 07 26.6	-0.2
PCYT	Pengchaiyu	0.78	350	i P	Pn	10 07 12.8	+0.6
PCYT				eS	Sn	10 07 26.8	-0.2
YHNB	Yeheng	0.79	257	⇑iP	Pn	10 07 12.5	+0.2
YHNB				i S	Sn	10 07 26.7	-0.6
NSK	Sanguang	0.81	257	i P	Pn	10 07 12.5	+0.1
NSK				i S	Sn	10 07 26.4	-1.1
YOJ	Yonaguni jima	0.82	118	i P	Pn	10 07 12.4	0.0
YOJ				i S	Sn	10 07 27.1	-0.4
YOJ	Yonaguni jima	0.82	118	eP	Pn	10 07 12.5	0.0
YOJ				eS	Sn	10 07 27.4	-0.1
NTY	Taoyuan	0.85	280	i P	Pn	10 07 13.2	+0.5
NTY				eS	Sn	10 07 29.1	+1.0
NNSH	Datong	0.87	241	i P	Pn	10 07 13.7	+0.6
NNSH				i S	Sn	10 07 28.9	+0.2
NNS	Nan Shan	0.88	242	i P	Pn	10 07 13.7	+0.5
NNS				i S	Sn	10 07 28.9	+0.2
ETL	Fush Village	0.88	218	i P	Pn	10 07 12.9	-0.2
ETL				i S	Sn	10 07 28.2	-0.5
NACB	Ninganchiao	0.89	220	⇑iP	Pn	10 07 12.8	-0.3
NACB				i S	Sn	10 07 28.0	-0.6
ETLH	Xiulin Townshi	0.93	226	i P	Pn	10 07 13.7	0.0
ETLH				eS	Sn	10 07 28.8	-0.8
NCU	National Centr	0.95	277	i P	Pn	10 07 14.4	+0.8
NCU				S	Sn	10 07 30.2	+0.6
NCUH	Zhongli	0.95	277	i P	Pn	10 07 14.0	+0.4
NCUH				i S	Sn	10 07 30.1	+0.3
KSHI	Guanxi Townshi	0.95	266	i P	Pn	10 07 14.2	+0.5
KSHI				i S	Sn	10 07 29.9	+0.2
TWD	Chiawan	0.96	217	i P	Pn	10 07 13.6	-0.2
TWD				i S	Sn	10 07 29.0	-0.9
NFF	Wufeng Townshi	1.03	258	⇑iP	Pn	10 07 14.6	+0.1
NFF				i S	Sn	10 07 30.4	-0.8
NJD	Zhudong	1.04	264	i P	Pn	10 07 15.1	+0.6
NJD				i S	Sn	10 07 31.5	+0.2
FUSS	Fushou	1.08	236	i P	Pn	10 07 15.9	+0.6
FUSS				i S	Sn	10 07 32.4	-0.1
NHW	Xinwu Township	1.08	278	i P	Pn	10 07 16.0	+1.1
NHW				eS	Sn	10 07 33.2	+1.3
HSN1	Hsinchu	1.10	266	i P	Pn	10 07 15.8	+0.6
HSN1				i S	Sn	10 07 32.6	+0.2
ETM	Tongmen	1.11	217	i P	Pn	10 07 14.8	-0.5
ETM				i S	Sn	10 07 31.8	-0.8
LXIB	Xiulin Townshi	1.11	222	⇑iP	Pn	10 07 15.0	-0.4
LXIB				i S	Sn	10 07 32.4	-0.5
LIOB	Emei	1.12	260	⇑iP	Pn	10 07 15.7	+0.3
LIOB				i S	Sn	10 07 32.4	-0.4
WHF	Hehuan Shan	1.12	231	i P	Pn	10 07 16.4	+0.5
WHF				i S	Sn	10 07 33.4	-0.2
SBCB	Hsinchu	1.13	267	i P	Pn	10 07 15.8	+0.4
SBCB				i S	Sn	10 07 33.3	+0.4
TWT	Tachien	1.13	238	⇑iP	Pn	10 07 16.7	+1.0
TWT				i S	Sn	10 07 33.6	+0.4
NSTT	Nanjuang	1.13	259	⇑iP	Pn	10 07 15.7	+0.2
NSTT				i S	Sn	10 07 32.2	-0.8
TEYL	Yanliau Villag	1.14	210	i P	Pn	10 07 15.5	0.0
TEYL				i S	Sn	10 07 32.9	-0.2
TDCB	Techi	1.14	238	⇑iP	Pn	10 07 16.6	+0.9
TDCB				i S	Sn	10 07 33.5	+0.1
HSN	Hsinchu	1.14	268	i P	Pn	10 07 15.7	+0.1
HSN				i S	Sn	10 07 33.0	-0.1
SHUL	Shoufeng	1.22	210	i P	Pn	10 07 16.5	0.0
SHUL				i S	Sn	10 07 34.7	0.0
ESL	Shilin	1.26	215	⇑iP	Pn	10 07 16.1	-0.8
ESL				i S	Sn	10 07 34.0	-1.5
WHP	Taichung City	1.30	244	⇑iP	Pn	10 07 18.3	+0.9
WHP				i S	Sn	10 07 36.4	0.0
TEGC	Jichi Village	1.30	209	i P	Pn	10 07 17.7	+0.3
TEGC				S	Sn	10 07 36.6	+0.4
OWD	Renai	1.31	227	⇑iP	Pn	10 07 18.0	+0.4
OWD				i S	Sn	10 07 36.4	-0.3
WUSB	Renai	1.32	230	⇑iP	Pn	10 07 18.5	+0.7
WUSB				i S	Sn	10 07 37.2	+0.2
NMLH	Miaoli	1.34	257	i P	Pn	10 07 18.4	+0.6
NMLH				i S	Sn	10 07 37.1	+0.1
WARBT	Fenglin Townsh	1.36	214	i P	Pn	10 07 17.3	-0.8
WARBT				i S	Sn	10 07 35.8	-1.8
NSY	Sanyi	1.40	252	i P	Pn	10 07 19.2	+0.7
NSY				i S	Sn	10 07 38.5	+0.2
TWQ1	Liyutan	1.41	249	i P	Pn	10 07 19.1	+0.4
TWQ1				i S	Sn	10 07 37.9	-0.7
WPL	Puli Township	1.43	234	P	Pn	10 07 19.7	+0.9
WPL				i S	Sn	10 07 40.2	+1.4
WCS	Beigang Elemen	1.44	237	i P	Pn	10 07 19.7	+0.8
WCS				i S	Sn	10 07 39.3	+0.4
DPDB	Guoxing	1.44	236	i P	Pn	10 07 20.1	+1.1
DPDB				eS	Sn	10 07 41.1	+2.0
IRIF	Iriomote-Funau	1.47	110	eP	Pn	10 07 19.1	-0.1
IRIF				S	Sn	10 07 39.4	-0.2
VWDT	VWDT	1.48	222	i P	Pn	10 07 20.0	+0.7
VWDT				i S	Sn	10 07 39.9	+0.1
WDJ	Dajia District	1.53	251	i P	Pn	10 07 20.7	+0.8
WDJ				S	Sn	10 07 41.0	+0.1
HGSD	Ruisui	1.54	208	⇑iP	Pn	10 07 20.2	+0.1
HGSD				S	Sn	10 07 41.5	+0.3
SMLT	Sun Moon Lake	1.55	232	⇓iP	Pn	10 07 21.4	+1.1
SMLT				i S	Sn	10 07 42.7	+1.2
TYC	Yuchr	1.56	233	i P	Pn	10 07 21.3	+0.9
TYC				i S	Sn	10 07 42.7	+1.0
SSLB	Suanglung	1.57	228	i P	Pn	10 07 21.6	+1.1
SSLB				i S	Sn	10 07 43.0	+1.1
EHYH	Wanrong	1.57	211	i P	Pn	10 07 20.0	-0.6
EHYH				i S	Sn	10 07 40.4	-1.5
EHY	Hungye	1.57	212	i P	Pn	10 07 19.9	-0.6
EHY				S	Sn	10 07 39.7	-2.3
TCU	Taichung	1.57	244	i P	Pn	10 07 21.2	+0.7
TCU				S	Sn	10 07 41.4	-0.5
YULB	Yu-li	1.68	210	i P	Pn	10 07 20.9	-1.0
YULB				eS	Sn	10 07 42.3	-2.0
ECBN	Changbin	1.69	205	i P	Pn	10 07 22.0	+0.2
ECBN				S	Sn	10 07 43.6	-0.6

WHYT	Xinyi Township	1.70	228	*i* P	Pn	10 07 23.2	+1.1
WHYT				*i* S	Sn	10 07 45.8	+1.1
WCHH	Zhanghua	1.70	243	*i* P	Pn	10 07 22.4	+0.4
WCHH				*i* S	Sn	10 07 44.4	-0.2
WNT	Mingjian	1.71	236	*i* P	Pn	10 07 22.9	+0.8
WNT				*i* S	Sn	10 07 45.4	+0.7
EYUL	Yuli	1.71	209	*i* P	Pn	10 07 22.3	+0.1
EYUL				S	Sn	10 07 44.1	-0.8
TWF1	Yuli	1.72	210	*i* P	Pn	10 07 21.6	-0.7
TWF1				*i* S	Sn	10 07 43.6	-1.4
JKRS	Kuro-shima	1.74	110	P	Pn	10 07 23.1	+0.6
JKRS				*e*S	Sn	10 07 45.2	-0.2
YUS	Yu-Shan	1.79	221	*i* P	Pn	10 07 24.5	+0.9
YUS				S	Sn	10 07 47.7	+0.5
JIJ	Ishigaki jima	1.81	105	*e*P	Pn	10 07 23.5	+0.1
JIJ				*e*S	Sn	10 07 46.7	-0.4
CHKH	Chenggong	1.82	205	*i* P	Pn	10 07 23.1	-0.4
CHKH				*i* S	Sn	10 07 45.7	-1.5
FULB	Fuli	1.85	207	*i* P	Pn	10 07 24.4	+0.4
FULB				*i* S	Sn	10 07 48.4	+0.4
ALS	Alishan	1.86	224	*i* P	Pn	10 07 25.5	+1.2
ALS				*i* S	Sn	10 07 50.2	+1.6
CHKT	Chengkung	1.92	204	*i* P	Pn	10 07 24.1	-0.5
CHKT				*i* S	Sn	10 07 47.4	-1.8
JISG	Ishigakijimahi	1.92	98	*e*P	Pn	10 07 25.2	+0.6
JISG				*e*S	Sn	10 07 49.0	-0.3
WDLH	Douliu	1.93	233	*i* P	Pn	10 07 25.6	+0.8
WDLH				S	Sn	10 07 49.4	-0.1
WRL	Guolierlin Hig	1.93	241	*i* P	Pn	10 07 25.1	+0.2
WRL				*i* S	Sn	10 07 49.0	-0.7
EHD	Haiduan	1.94	209	*i* P	Pn	10 07 24.0	-1.0
EHD				S	Sn	10 07 48.9	-0.9
RLNB	Erlin	1.95	241	*i* P	Pn	10 07 25.5	+0.5
RLNB				*i* S	Sn	10 07 50.3	+0.3
ECS	Chishang	1.98	208	*e*P	Pn	10 07 24.9	-0.6
ECS				*i* S	Sn	10 07 50.9	+0.1
ELDTW	Lidau	1.99	214	*i* P	Pn	10 07 25.5	-0.2
ELDTW				*i* S	Sn	10 07 50.7	-0.5
WTK	Tuku	2.04	236	*i* P	Pn	10 07 26.8	+0.6
WTK				*i* S	Sn	10 07 52.2	+0.2
WCKO	Fanlu	2.04	227	*i* P	Pn	10 07 27.6	+1.3
WCKO				*i* S	Sn	10 07 53.1	+0.9
EDH	Donghe	2.05	204	*i* P	Pn	10 07 25.9	-0.5
EDH				*i* S	Sn	10 07 51.1	-1.3
TPUB	Ta-pu	2.12	224	*i* P	Pn	10 07 28.3	+0.9
TPUB				S	Sn	10 07 54.6	+0.6
CHY	Chiayi	2.13	231	*i* P	Pn	10 07 27.4	+0.1
CHY				*i* S	Sn	10 07 54.7	+0.7
STYH	Taoyuan	2.14	219	*i* P	Pn	10 07 28.9	+1.5
STYH				*e*S	Sn	10 07 56.0	+1.8
WTP	Ta-pu	2.17	223	*i* P	Pn	10 07 28.7	+0.7
WTP				*i* S	Sn	10 07 55.7	+0.5
LONT	Longtian	2.18	208	*i* P	Pn	10 07 26.7	-1.4
LONT				*i* S	Sn	10 07 54.1	-1.2
WSF	Szhu	2.19	237	*e*P	Pn	10 07 29.4	+1.3
WSF				*i* S	Sn	10 07 55.7	+0.2
TWK	Hsinying	2.24	225	*i* P	Pn	10 07 29.6	+0.8
TWK				*i* S	Sn	10 07 57.4	+0.8
WSL	Shuilin Townsh	2.25	234	*i* P	Pn	10 07 29.3	+0.4
WSL				*e*S	Sn	10 07 56.4	-0.4
JTJ	Tarama	2.26	95	*e*P	Pn	10 07 29.9	+0.8
JTJ				*e*S	Sn	10 07 57.2	+0.1
CHN1	Nanshi	2.27	223	*i* P	Pn	10 07 29.8	+0.6
CHN1				*i* S	Sn	10 07 57.5	+0.1
TWGBT	Beinan	2.28	208	*i* P	Pn	10 07 28.9	-0.4
TWGBT				*i* S	Sn	10 07 55.9	-1.7
TWG	Pinlang	2.28	208	*i* P	Pn	10 07 28.7	-0.7
TWG				*i* S	Sn	10 07 56.2	-1.3
ICHU	Yijhu	2.32	230	*e*P	Pn	10 07 28.6	-1.1
ICHU				*i* S	Sn	10 07 58.4	0.0
SGST	Jiashian	2.32	221	*i* P	Pn	10 07 31.7	+1.9
SGST				*i* S	Sn	10 07 58.8	+0.5
SCST	Cishan	2.52	219	P	Pn	10 07 33.1	+0.8
SCST				*e*S	Sn	10 08 05.7	+2.7
VWUC	VWUC	2.52	274	*i* P	Pn	10 07 32.1	-0.2
VWUC				*e*S	Sn	10 08 01.0	-2.0
ECL	Taimali	2.53	208	*e*P	Pn	10 07 33.1	+0.6
ECL				S	Sn	10 08 01.8	-1.5
SSD	Sandimen	2.56	215	*i* P	Pn	10 07 34.9	+2.0
SSD				*e*S	Sn	10 08 05.4	+1.5
TSMG	Majia	2.58	214	P	Pn	10 07 35.4	+2.2
TSMG				*i* S	Sn	10 08 05.9	+1.4
TSCK	Chigu Township	2.59	229	*i* P	Pn	10 07 33.4	+0.1
TSCK				*i* S	Sn	10 08 04.4	-0.3
MASBT	Mashibuluo	2.67	213	*i* P	Pn	10 07 35.6	+1.4
MASBT				*e*S	Sn	10 08 08.0	+1.6
PNG	Penghu	2.75	243	*i* P	Pn	10 07 34.9	-0.5
PNG				S	Sn	10 08 06.1	-2.3
PHUB	P'eng-hu	2.77	242	*i* P	Pn	10 07 34.9	-0.6
PHUB				*i* S	Sn	10 08 06.2	-2.5
PTMZ	Houxiangcun	2.82	274	*i* P	Pn	10 07 36.2	-0.1
PTMZ				*e*S	Sn	10 08 08.1	-2.0
WDGT	Dungji	2.83	236	*i* P	Pn	10 07 36.0	-0.4
WDGT				*e*S	Sn	10 08 07.7	-2.5

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*IDC **13** 10:07:48.7±1.4, 7°.74S×120°.75E, h0^{km}, mb3.7/3, mbtmp3.6/6, ML3.3/3, MS2.6/1, Error ellipse: s-maj=112.3km s-min=14.8km az=64.0*

*DJA **13** 10:07:49.7±0.3, 8°S±3°×12°0E±°, h10^{km}, M3.6/9, MLv3.6/9*

ISC 13 10:07:46.7±0.8, **7°.74S**±0°.05×**120°.15E**±0°.09, **h10^{km}, n12,** σ**1^{s}.55**/13, **Flores Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BSSI	Bau Bau, Buton	1.62	12	P	Pg	10 08 18.0	+0.1
BSSI				S	Sg	10 08 38.8	-0.2
BSSI				AML	AML		
EDFI	Ende, Flores	1.83	123	P	Pg	10 08 24.8	+3.0
EDFI				AML	AML		
DBNI	Kabupaten Domp	1.97	247	P	Pn	10 08 20.6	+0.4
MMRI	Maumere	2.25	113	P	Pg	10 08 30.0	+0.1
MMRI				AML	AML		
PLAI	Plampang	2.58	245	P	Pn	10 08 29.2	+0.6
PLAI				AML	AML		
KAPI	Kappang	2.74	352	Pn	Pb	10 08 36.0	+0.2
	8.1nm,0.3s,baz=161,slow=18,SNR=5.5						
KAPI				Sn	Sn	10 09 05.8	+1.9
	3.0nm,0.3s,baz=113,slow=16,SNR=4.4						
KAPI				LR	LR	10 09 47.6	
	comp=Z,111nm,21.1s,baz=53,slow=41 14nm,0.3s						
KAPI				AML	AML		
TWSI	Taliwang, Sumb	3.38	253	P	Pn	10 08 40.4	+0.8
TWSI				AML	AML		
FITZ	Fitzroy Crossi	11.60	153	Pn	Pn	10 10 29.7	-2.8
	0.1nm,0.3s,baz=0.0,slow=15,SNR=2.1						
FITZ				Sn	Sn	10 12 28.2	-14
	0.2nm,0.3s,baz=259,slow=18,SNR=3.7 1.4nm,0.9s						
FITZ				AML	AML		
WRA	Warramunga Arr	18.34	133	P	Pn	10 12 00.2	-1.2
	0.1nm,0.3s,baz=308,slow=12,SNR=6.2 0.4nm,0.5s						
WRA				AML	AML		
ASAR	Alice Springs	20.61	142	P	P	10 12 26.3	0.0
	1.6nm,0.5s,baz=312,slow=9.6,SNR=31 1.6nm,0.5s						
STKA	Stephens Creek	31.23	143	P	P	10 14 05.8	-0.8
	1.5nm,0.5s,baz=308,slow=10.0,SNR=4.2 1.5nm,0.5s						
MKAR	Makanchi Array	63.87	332	P	P	10 18 26.5	+6.9
	0.2nm,0.5s,baz=127,slow=9.3,SNR=2.0 0.2nm,0.5s						

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*NOU **13** 10:16:19.2, 15°.30S×167°.48E, h107^{km}, MLv4.8/21, Vanuatu Islands*

*IDC **13** 10:16:20.3±3.5, 15°.33S×167°.49E, h140^{km}±26^{km}, mb3.7/8, mbtmp4.2/10, Error ellipse: s-maj=34.0km s-min=18.5km az=55.0*

ISC 13 10:16:16.8±1.3, **15°.21S**±0°.09×**167°.8E**±0°.1, **h100^{km}, n26,** σ**1^{s}.87**/20, **mb4.1**/10, **3C, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SANVU	Saraoutou	0.60	247	P	Pn	10 16 34.8	+1.4
SANVU	Saraoutou	0.60	247	S	Sn	10 16 48.9	+3.0
DVP	Devils Point	2.53	171	P	Pn	10 17 00.2	+3.8
DVP	Devils Point	2.53	171	S	Sn	10 17 29.5	+2.7
MARNC	Mare, Loyalty	6.24	178	P	Pn	10 17 46.4	-0.1
YATNC	Mamie plateau,	6.87	187	P	Pn	10 17 55.9	+0.9
YATNC	Mamie plateau,	6.87	187	S	Sn	10 19 11.3	-0.3
DZM	Mont Dzumac	6.94	190	P	Pn	10 17 56.9	+0.9
	14nm,0.5s,baz=49,slow=9.7,SNR=37						
DZM				S	Sn	10 19 13.0	-0.6
	23nm,0.7s,baz=305,slow=23,SNR=8.6						
NOUC	Port Laguerre	7.00	191	P	Pn	10 17 58.9	+2.2
NOUC	Port Laguerre	7.00	191	S	Sn	10 19 14.0	-0.8
ONTNC	Ouen Toro	7.17	190	P	Pn	10 18 00.5	+1.4
ONTNC	Ouen Toro	7.17	190	S	Sn	10 19 19.1	+0.1
NGOA	Tingoa Renbel	8.34	295	P	Pn	10 18 14.5	-0.5
HNR	Honiara	9.56	306	P	Pn	10 18 34.2	+2.5
	27nm,0.6s,baz=104,slow=4.2,SNR=2.0						
URZ	Urewera	24.40	162	P	P	10 21 25.7	-0.1
	3.5nm,0.4s,baz=311,slow=11,SNR=2.3 3.5nm,0.4s						
STKA	Stephens Creek	29.07	231	P	P	10 22 06.3	-1.6
	1.2nm,0.4s,baz=40,slow=8.3,SNR=6.1 1.2nm,0.4s						
WRA	Warramunga Arr	32.19	257	P	P	10 22 31.8	-3.8
	0.5nm,0.7s,baz=83,slow=8.2,SNR=4.8 0.5nm,0.7s						
ASAR	Alice Springs	32.97	250	P	P	10 22 38.6	-3.8
	1.6nm,0.5s,baz=80,slow=8.9,SNR=38 1.6nm,0.5s						
VNDA	Vanda	62.40	181	P	P	10 26 27.4	-1.3
	0.5nm,0.5s,baz=1.4,slow=6.9,SNR=5.9 0.5nm,0.5s						
QSPA	South Pole Qui	74.82	180	P	P	10 27 44.3	-1.9
	3.8nm,0.8s,baz=298,slow=0.7,SNR=15 3.8nm,0.8s						
MAW	Mawson	81.63	202	P	P	10 28 22.3	-1.2
	0.6nm,0.4s,baz=126,slow=8.7,SNR=10 0.6nm,0.4s						
TROLL	Troll, Antarti	92.43	185	⇑P	P	10 29 13.9	-2.3
	comp=Z,189nm,0.6s						
SNAA	Sanae	93.10	183	P	P	10 29 16.1	-3.2
	comp=Z,1.1nm,0.4s,baz=188,slow=3.2,SNR=2.1 comp=Z,1.1nm,0.4s						
VNA3	Neumayer Olymp	93.75	181	⇑P	P	10 29 19.2	-2.9
	comp=Z,3.5nm,0.6s						
VNA2	Neumayer--Watz	94.02	182	⇑P	P	10 29 20.8	-2.6
	comp=Z,3.1nm,0.5s,baz=177,slow=4.5						
ARCES	ARCESS Array B	120.84	345	PKP	PKPdf	10 34 54.5	-2.2
	comp=Z,0.4nm,0.3s,baz=64,slow=2.1,SNR=13						

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*NEIC **13** 10:18:44.1±0.9, 18°.2N±0°.4×64°.63W±0°.06, h127^{km}±17^{km}, ML2.6/25, Md3.6/10(RSPR), Error ellipse: s-maj=55.2km s-min=7.4km az=184.0*

*RSPR **13** 10:18:46.3, 18°.18N×64°.77W, h130^{km}±1^{km}, MD3.6/10*

ISC 13 10:18:44.0±1.5, **18°.1N**±0°.3×**64°.62W**±0°.06, **h128^{km}, n32,** σ**0^{s}.51**/33, **3C-6D, Virgin Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HUMP	Col San Antoni	1.17	273		Sn	10 19 27.5	+0.5
HUMP	Col San Antoni	1.17	273		Pn	10 19 08.7	+0.3
HUMP	Col San Antoni	1.17	273	IAML		10 19 29.7	
	116nm,0.2s						
HUMP				IAML		10 19 30.9	
	68nm,0.2s						
HUMP	Col San Antoni	1.17	273	⇓*e*P	Pn	10 19 09.2	+0.8
PDPR	Patillas Dam,	1.34	268		Sn	10 19 29.8	-0.2
PDPR	Patillas Dam,	1.34	268		Pn	10 19 10.2	+0.1
PDPR	Patillas Dam,	1.34	268	IAML		10 19 35.0	
	38nm,0.1s						
PDPR				IAML		10 19 35.5	
	48nm,0.1s						
PDPR	Patillas Dam,	1.34	268	⇑*e*P	Pn	10 19 11.0	+0.8
SABA	Saba	1.39	109	Pn	Pn	10 19 11.0	+0.2
SABA				IAML		10 19 26.7	
	comp=N,75nm,0.6s						
IGPR	InterUniversit	1.42	266		Pn	10 19 11.8	+0.7
IGPR					Sn	10 19 31.4	-0.2
IGPR	InterUniversit	1.42	266	⇓*e*P	Pn	10 19 11.8	+0.7
SMRT	St. Maarten	1.47	91	Pn	Pn	10 19 11.7	0.0
SMRT				IAML		10 19 32.9	
	comp=E,72nm,0.3s						
SMRT				IAML		10 19 33.5	
	comp=N,68nm,0.1s						
ECPR	Experimental S	1.67	278		Pn	10 19 14.6	+0.6
ECPR					Sn	10 19 36.1	-0.8
ECPR	Experimental S	1.67	278	⇓*e*P	Pn	10 19 14.6	+0.6
CELP	Cerrillos	1.86	270		Sn	10 19 41.0	+0.1
CELP	Cerrillos	1.86	270	Pn	Pn	10 19 15.7	-0.5
OBIP	Obispado Ponce	1.89	269		Pn	10 19 16.0	-0.5
OBIP					Sn	10 19 41.1	-0.3
OBIP	Obispado Ponce	1.89	269	⇓*e*P	Pn	10 19 16.0	-0.5
OBIP				*e*S	Sn	10 19 41.1	-0.3
AOPR	Arecibo Observ	2.05	278		Sn	10 19 44.1	-0.8
AOPR	Arecibo Observ	2.05	278		Pn	10 19 18.4	0.0
AOPR	Arecibo Observ	2.05	278	IAML		10 19 46.7	
	comp=N,88nm,0.2s						
AOPR				IAML		10 19 47.5	
	comp=N,73nm,0.3s						
AOPR	Arecibo Observ	2.05	278	⇑*e*P	Pn	10 19 18.8	+0.3
MLPR	Magueyes Islan	2.31	268		Sn	10 19 50.1	-0.6
MLPR	Magueyes Islan	2.31	268		Pn	10 19 21.7	-0.1
MLPR	Magueyes Islan	2.31	268	IAML		10 19 50.4	
	comp=N,13nm,1.1s						
MLPR				IAML		10 19 50.9	
	comp=N,11nm,1.2s						
MLPR	Magueyes Islan	2.31	268	⇓*e*P	Pn	10 19 22.1	+0.4
LSP	Las Mesas	2.35	273		Pn	10 19 22.8	+0.5
LSP					Sn	10 19 51.0	-0.5
LSP	Las Mesas	2.35	273	⇑*e*P	Pn	10 19 22.8	+0.5
LSP				*e*S	Sn	10 19 51.0	-0.5
CRPR	Cabo Rojo, PR	2.37	269		Sn	10 19 52.1	+0.1
CRPR	Cabo Rojo, PR	2.37	269		Pn	10 19 22.4	-0.1
CRPR	Cabo Rojo, PR	2.37	269	IAML		10 20 07.8	
	comp=N,22nm,3.9s						
CRPR	Cabo Rojo, PR	2.37	269	⇓*e*P	Pn	10 19 23.0	+0.5

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*IDC **13** 10:28:11.3±0.3, 5°.97S×146°.96E, h0^{km}, mb5.2/32, mbtmp5.2/38, ML5.1/5, MS4.7/50, Error ellipse: s-maj=12.8km s-min=7.6km az=76.0*

*GFZ **13** 10:28:14.2, 5°.96S×146°.99E, h42^{km}, Mw5.5/75, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}2.06; $M_{\theta\theta}$-1.55; $M_{\phi\phi}$-0.51; $M_{r\theta}$-0.05; $M_{\theta\phi}$0.62; $M_{\phi r}$0.02; Fault plane solution: $M_0$1.95974×10^{17} NP1: ϕ_s115.09719°, δ44.17720°, λ90.31789°. NP2: ϕ_s294.65395°, δ45.82366°, λ89.69111°. Principal axes: T 2.0614, Plg89.1475°, Azm189.8089°; N -0.2223, Plg0.2215°, Azm294.8692°; P -1.8391, Plg0.8232°, Azm24.8724°;*

*BJI **13** 10:28:15.6, 6°.21S×147°.37E, h67^{km}, mB5.4/35, mb5.3/84, Ms4.9/54, Ms7 4.7/52*

*MOS **13** 10:28:16.3±1.1, 5°.97S×146°.90E, h41^{km}, mb5.5/44, Error ellipse: s-maj=8.3km s-min=4.8km az=105.1*

*GFZ **13** 10:28:17.4±0.2, 6°S±2°×14°7E±°, h38^{km}±1^{km}, M5.4/86, mb5.5/86, Error ellipse: s-maj=4.9km s-min=4.0km az=68.3, confirmed*

*NEIC **13** 10:28:19.8±1.3, 6°.06S±0°.06×147°.02E±0°.07, h58^{km}±6^{km}, mb5.4/119, Mww5.2/11, Error ellipse: s-maj=10.7km s-min=8.6km az=94.0*

*GCMT **13** 10:28:19.8±0.1, 6°.09S±0°.01×147°.07E±0°.01, h42^{km}, MW5.5/152, Moment Tensor Solution. s152,c259; s140,c261; Duration: 1^{s}.3 Moment tensor: Scale 10^{17} Nm; M_{rr}1.76±.02; $M_{\theta\theta}$-1.68±.02; $M_{\phi\phi}$-0.07±.02; $M_{r\theta}$0.12±.02; $M_{\theta\phi}$0.85±.01; $M_{\phi r}$-0.21±.02; Best double couple: $M_0$1.92100×10^{17} NP1:ϕ_s288.00000°, δ42.00000°, λ82.00000°. NP2:ϕ_s119.00000°, δ48.00000°, λ97.00000°. Principal axes: T 1.7830, Plg84.0000°, Azm85.0000°; N 0.2800, Plg5.0000°, Azm294.0000°; P -2.0590, Plg3.0000°, Azm204.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*DJA **13** 10:28:20.3±0.4, 6°S±3°×14°7E±°, h71^{km}±3^{km}, M5.7/141, mB6.1/92, mb5.8/141, MLv6.2/3, Mw5.3/150, Mw(mB)5.8/92, MwMwp5.2/17, Mwp5.4/17*

ISC 13 10:28:18.2±0.4, **6°.05S**±0°.03×**146°.94E**±0°.03, **h46^{km}**±3^{km}, **h46^{km}:pP-P, n840,** σ**1^{s}.38**/883, **mb5.4**/241, **MS4.7**/70, **50C-18D, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	3.34	176	Pn	Pn	10 29 07.8	-0.1
	284nm,0.5s,baz=31,slow=5.0,SNR=158						
PMG				Sn	Sn	10 29 48.3	+1.9
	179nm,0.3s,baz=355,slow=9.1,SNR=4.7						
PMG				LR	LR	10 30 49.4	
	comp=Z,35µm,20.7s,baz=358,slow=46						
PMG	Port Moresby	3.34	176	P	Pn	10 29 09.9	+1.9
PMG	Port Moresby	3.34	176	S	Sn	10 29 48.7	+2.3
PMG	Port Moresby	3.34	176	P	Pn	10 29 09.4	+1.4
PMG	Port Moresby	3.34	176	S	Sn	10 29 48.9	+2.5
PMG	Port Moresby	3.34	176	*i* P	Pn	10 29 08.7	+0.7
PMG	Port Moresby	3.34	176		Pn	10 29 08.1	+0.1
PMG	Port Moresby	3.34	176	P	Pn	10 29 09.2	+1.2
PMG				AML	AML		
PMG	Port Moresby	3.34	176	P	Pn	10 29 08.9	+0.9
MANU	Manus Island	4.00	6		Pn	10 29 17.3	+0.1
KRVT	Keravat (AS076	5.35	71	Pn	Pn	10 29 34.6	-1.0
	180nm,0.3s,baz=136,slow=2.1,SNR=25						
KRVT				Sn	Sn	10 30 41.0	+4.9
	baz=26,slow=22						
KRVT				LR	LR	10 31 33.4	
	comp=Z,14µm,20.3s,baz=238,slow=38 1µm,0.6s						
KRVT				AML	AML		
RABL	Rabaul	5.52	71		Pn	10 29 37.6	-0.3
GENI	Genyem	7.58	297	P	Pn	10 30 08.6	+2.4
GENI	Genyem	7.58	297	S	Sn	10 31 34.2	+3.4
GENI	Genyem	7.58	297	P	Pn	10 30 12.0	+5.8
	6.3nm8µm10µm564nm,1.0s						
GENI				AML	AML		
GENI	Genyem	7.58	297	P	Pn	10 30 09.8	+3.6
	comp=Z,412nm,0.8s						
BAKI	Biak	11.84	294	P	Pn	10 31 06.7	+2.1
	comp=Z,202nm,0.8s						
MTSU	Mount Surprise	12.28	192	P	Pn	10 31 11.3	+0.6
	comp=Z,44nm,0.9s						
MTSU	Mount Surprise	12.28	192	P	Pn	10 31 11.2	+0.6
MTSU	Mount Surprise	12.28	192	P	Pn	10 31 10.9	+0.3
	comp=Z,44nm,0.9s						
TATA	Tatamba Isabel	12.97	101	P	Pn	10 31 21.5	+1.5
TATA	Tatamba Isabel	12.97	101	S	Sn	10 33 45.5	+2.5
SAVO	Savo Central	13.12	104	P	Pn	10 31 23.7	+1.6
SAVO	Savo Central	13.12	104	S	Sn	10 33 48.8	+2.0
TV1H	Townsville Har	13.13	181	P	Pn	10 31 24.6	+2.4
HNR	Honiara	13.32	105	Pn	Pn	10 31 25.3	+0.6
	comp=Z,3.8nm,0.3s,baz=323,slow=4.3,SNR=11						
HNR				Sn	Sn	10 33 54.8	+3.4
	comp=Z,0.3nm,0.3s,baz=124,slow=7.4,SNR=1.6 comp=Z,158nm,0.8s						
HNR				AML	AML		
HNR	Honiara	13.32	105	P	Pn	10 31 27.1	+2.3
HNR	Honiara	13.32	105	S	Sn	10 33 53.3	+1.9
HNR	Honiara	13.32	105		Pn	10 31 25.1	+0.4
HNR	Honiara	13.32	105	P	P	10 31 34.2	+0.9
HNR	Honiara	13.32	105	P	Pn	10 31 22.4	-2.3
	comp=Z,568nm,0.8s						
CTA	Charters Tower	13.97	183	Pn	Pn	10 31 35.2	+1.6
	comp=Z,3.2nm,0.3s,baz=355,slow=14,SNR=21						
CTA				Sn	Sn	10 34 11.8	+4.5
	comp=Z,0.6nm,0.3s,baz=15,slow=7.8,SNR=2.3						
CTA				LR	LR	10 36 38.8	
	comp=Z,11µm,21.3s,baz=2.5,slow=36 comp=Z,9.2nm,0.5s						
CTA				AML	AML		
CTAO	Charters Tower	13.97	183	P	Pn	10 31 35.9	+2.3
CTAO	Charters Tower	13.97	183	P	Pn	10 31 34.8	+1.2
CTAO	Charters Tower	13.97	183		Pn	10 31 34.8	+1.2
CTAO	Charters Tower	13.97	183	P	Pn	10 31 34.2	+0.6
	comp=Z,89nm,1.4s						
NGOA	Tingoa Renbel	14.07	114	P	Pn	10 31 36.9	+1.9
FAKI	Fak Fak	14.97	281	P	P	10 31 49.6	-2.1
FAKI	Fak Fak	14.97	281		Pn	10 31 49.4	+2.4
FAKI				IAmb	IAmb	10 31 56.1	
	comp=Z,433nm,1.0s						
FAKI	Fak Fak	14.97	281	P	P	10 31 52.4	+0.7
	comp=Z,4µmcomp=Z,5µmcomp=Z,485nm,1.2s						
FAKI	Fak Fak	14.97	281	P	Pn	10 31 48.5	+1.5
	comp=Z,483nm,1.2s						
HURO	Huro Makira	15.44	107	P	Pn	10 31 54.4	+1.3
KDU	Kakadu	15.72	244	P	P	10 31 58.9	-1.1
	comp=Z,125nm,1.1s,comp=Z,0.0nm						
QIS	Mount Isa	16.08	206	P	Pn	10 32 01.9	+0.6
	comp=Z,104nm,1.2s,comp=Z,0.0nmcomp=Z,0.0nm						
QIS	Mount Isa	16.08	206	P	P	10 32 03.1	-0.9
QIS	Mount Isa	16.08	206	P	Pn	10 32 02.2	+0.9
	comp=Z,104nm,1.2s						
SWI	Sorong	16.48	288	P	Pn	10 32 06.2	-0.1
SWI	Sorong	16.48	288	P	Pn	10 32 06.9	+0.6
	comp=Z,468nm,0.7s						
MTN	Manton Dam	16.98	245	P	P	10 32 14.4	+0.4
	comp=Z,65nm,0.8s,comp=Z,0.0nmcomp=Z,0.0nm						
MTN	Manton Dam	16.98	245		P	10 32 13.5	-0.5
BNDI	Bandanaira	17.03	274	P	P	10 32 14.7	+0.1
BNDI	Bandanaira	17.03	274	P	P	10 32 16.8	+2.2
	comp=Z,19µmcomp=Z,1µm,1.5s						
DRS	Darwin Rock St	17.05	247	P	Pn	10 32 14.0	+0.5
PATS	Pohnpei	17.11	42	P	Pn	10 32 14.7	+0.5
	comp=Z,560nm,1.7s,comp=Z,0.0nm						
PATS	Pohnpei	17.11	42	P	P	10 32 15.2	-0.2
PATS	Pohnpei	17.11	42		Pn	10 32 14.6	+0.5
PATS	Pohnpei	17.11	42	P	Pn	10 32 13.9	-0.3
	comp=Z,561nm,1.7s						
AUNRC	North Rockhamp	17.54	169	P	P	10 32 20.6	+0.5
WB0	Warramunga Arr	18.30	221	P	P	10 32 28.3	-0.2
WRAB	Tennant Creek	18.44	220	P	P	10 32 29.9	-0.2
WRAB	Tennant Creek	18.44	220	*i* P	Pn	10 32 31.3	+0.7
WRAB				pmax	pmax		
	comp=Z,78nm,0.9s						
WRAB	Tennant Creek	18.44	220	P	Pn	10 32 30.8	+0.2
	comp=Z,147nm,1.1s						
WRA	Warramunga Arr	18.46	220	P	P	10 32 30.4	+0.1
	comp=Z,6.8nm,0.3s,baz=43,slow=12,SNR=164						
WRA				S	Sn	10 35 53.4	-2.9
	comp=Z,18nm,1.1s,baz=42,slow=22,SNR=10						
WRA				PcP	PcP	10 37 00.1	+0.7
	comp=Z,44nm,0.6s,baz=32,slow=1.8,SNR=19						
WRA				LR	LR	10 40 42.8	
	comp=Z,11µm,18.7s,baz=89,slow=41						
WRA				P3KP		11 07 46.2	
	comp=Z,0.6nm,0.8s,baz=135,slow=2.5,SNR=5.5 comp=Z,26nm,0.6s						
WRA				AML	AML		
WRA	Warramunga Arr	18.46	220	*i* P	P	10 32 30.3	+0.1
WRA				pmax	pmax		
	comp=Z,28nm,0.6s						
WRA	Warramunga Arr	18.46	220	P	P	10 32 29.9	-0.4
EIDS	Eidsvold	19.61	169	P	P	10 32 43.4	+0.5
	comp=Z,81nm,1.2s,comp=Z,0.0nm						
EIDS	Eidsvold	19.61	169	P	Pn	10 32 43.8	-0.7
EIDS	Eidsvold	19.61	169	P	P	10 32 43.3	+0.5
EIDS	Eidsvold	19.61	169	P	Pn	10 32 43.8	-0.7
	comp=Z,81nm,1.2s						
GUMO	Guam	19.62	354	Pn	P	10 32 43.1	+0.1
	comp=Z,8.6nm,0.3s,baz=197,slow=9.9,SNR=9.7						
GUMO				LR	LR	10 38 47.4	
	comp=Z,3µm,20.9s,baz=166,slow=32 comp=Z,312nm,1.0s						
GUMO				AML	AML		
GUMO	Guam	19.62	354	P	Pn	10 32 44.5	-0.2
NLAI	Namlea	19.97	277	P	Pn	10 32 50.8	+1.9
	comp=Z,4µmcomp=Z,7µmcomp=Z,608nm,1.6s						
NLAI	Namlea	19.97	277	P	Pn	10 32 49.1	+0.2
	comp=Z,343nm,1.6s						
KNRA	Kununurra	20.23	240	P	P	10 32 50.6	+0.9
	comp=Z,62nm,1.0s,comp=Z,0.0nm						
KNRA	Kununurra	20.23	240		P	10 32 50.4	+0.7
RMQ	Roma	20.39	175	P	Pn	10 32 53.1	-0.7
	comp=Z,64nm,1.1s						
RMQ	Roma	20.39	175	P	P	10 32 52.4	+1.0
QLP	Quilpie	20.58	187	P	P	10 32 53.5	+0.2
	comp=Z,328nm,0.9s,comp=Z,0.0nm						
QLP	Quilpie	20.58	187	P	P	10 32 53.1	-0.2
QLP	Quilpie	20.58	187	P	P	10 32 53.9	+0.6
	comp=Z,423nm,1.1s						
TNTI	Ternate	20.68	288	P	Pn	10 32 56.7	-0.7
TNTI	Ternate	20.68	288	P	Pn	10 33 00.6	+3.2
TNTI	Ternate	20.68	288	P	P	10 32 55.4	+0.8
	comp=Z,134nm,1.2s						
SANI	Sanana	21.27	280	P	P	10 33 01.9	+1.0
SANI	Sanana	21.27	280	P	P	10 33 02.0	+1.0
	comp=Z,3µmcomp=Z,5µmcomp=Z,440nm,1.0s						
SANI	Sanana	21.27	280	P	P	10 33 02.3	+1.3
	comp=Z,442nm,1.1s						
AUBSH	Beerwah State	21.47	165	P	P	10 33 02.6	-0.3
AS17	Alice Springs	21.49	214	P	P	10 33 03.6	+0.3
	comp=Z,136nm,0.9s						
AS15	Alice Springs	21.51	214	P	P	10 33 04.5	+1.1

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      comp=Z,126nm,0.7s
AS01  Alice Springs     21.52 214  P      P      10 33 04.4 +0.9
AS31  Alice Springs     21.54 214  P      P      10 33 04.7 +0.9
      comp=Z,41nm,0.5s,comp=Z,0.0nm
AS31  Alice Springs     21.54 214  P      P      10 33 04.1 +0.4
ASAR  Alice Springs     21.54 214  P      P      10 33 04.5 +0.7
      comp=Z,24nm,0.4s,baz=51,slow=8.9,SNR=335
ASAR                               S      S      10 36 57.9 -2.4
      comp=Z,11nm,1.1s,baz=31,slow=23,SNR=3.1
ASAR                               PcP    PcP    10 37 05.8 +0.7
      comp=Z,7.2nm,0.4s,baz=0.5,slow=1.1,SNR=6.9
ASAR                               ScP    ScP    10 40 41.4 +2.8
      comp=Z,9.3nm,1.1s,baz=46,slow=5.4,SNR=4.5
ASAR                               LR     LR     10 42 14.5
      comp=Z,5µm,20.4s,baz=38,slow=39
ASAR                               P3KP          11 07 42.0
      comp=Z,0.8nm,0.9s,baz=175,slow=3.0,SNR=4.7
      comp=Z,24nm,0.4s
ASAR  Alice Springs     21.54 214  P      P      10 33 03.3 -0.5
AS09  Alice Springs     21.55 214  P      P      10 33 04.8 +0.9
      comp=Z,133nm,1.0s
AUALC St Philip’s Co    21.57 214  P      P      10 33 04.8 +0.7
TW1H  Toowoomba 1 Ha    21.90 168  P      P      10 33 08.7 +1.1
AUTOO Toowoomba Stat    21.91 168  P      P      10 33 09.2 +1.5
SANVU Saraoutou         21.96 117  P      P      10 33 07.4 -0.9
SANVU Saraoutou         21.96 117  P      P      10 33 07.2 -1.1
SANVU                              IAmb   IAmb   10 33 08.6
      comp=Z,133nm,0.7s
SANVU Saraoutou         21.96 117  P      P      10 33 07.8 -0.5
      comp=Z,196nm,0.8s
INKA  Innaminka         22.36 195  P      P      10 33 12.2 -0.3
SOEI  Soe               22.75 259  P      P      10 33 19.0 +2.1
SOEI  Soe               22.75 259  P      P      10 33 19.1 +2.1
SOEI  Soe               22.75 259  P      P      10 33 20.0 +3.0
      comp=Z,5µmcomp=Z,398nm,1.0s
SOEI  Soe               22.75 259  P      P      10 33 18.5 +1.6
      comp=Z,396nm,1.0s
AULRC Lightning Ridg    23.27 178  P      P      10 33 21.3 -0.6
MNI   Manado            23.29 288  P      P      10 33 23.8 +1.5
      comp=Z,12µmcomp=Z,1µm,1.5s
FITZ  Fitzroy Crossi    23.99 238  LR     LR     10 44 16.2
      comp=Z,5µm,19.1s,baz=56,slow=40
FITZ  Fitzroy Crossi    23.99 238  P      P      10 33 29.2 +0.5
      comp=Z,69nm,0.8s
BBSI  Bau Bau           24.25 270  P      P      10 33 35.8 +4.6
      comp=Z,10µmcomp=Z,479nm,2.3s
KDI   Kendari           24.32 274  P      P      10 33 34.3 +2.5
      comp=Z,2µmcomp=Z,155nm,1.2s
LUWI  Luwuk             24.62 281  P      P      10 33 35.9 +1.3
LUWI  Luwuk             24.62 281  P      P      10 33 35.4 +0.8
LUWI  Luwuk             24.62 281  P      P      10 33 36.7 +2.1
LUWI  Luwuk             24.62 281  P      P      10 33 36.9 +2.3
      comp=Z,2µm,1.2s
MMRI  Maumere           24.63 263  P      P      10 33 34.9 +0.2
MMRI  Maumere           24.63 263  P      P      10 33 34.2 -0.4
MMRI  Maumere           24.63 263  P      P      10 33 35.7 +1.0
      comp=Z,5µmcomp=Z,388nm,1.2s
MMRI  Maumere           24.63 263  P      P      10 33 34.3 -0.4
      comp=Z,389nm,0.6s
ARMA  Armidale          24.64 170  P      P      10 33 34.9 +0.3
      comp=Z,87nm,1.3s
ARMA  Armidale          24.64 170  P      P      10 33 34.6 -0.1
ARMA  Armidale          24.64 170  P      P      10 33 34.3 -0.4
ARMA  Armidale          24.64 170  P      P      10 33 34.0 -0.7
      comp=Z,87nm,1.3s
DZM   Mont Dzumac       24.67 132  P      P      10 33 33.8 -1.3
      comp=Z,31nm,0.9s,baz=309,slow=4.7,SNR=18
      comp=Z,31nm,0.9s
GTOI  Gorontalo         24.80 285  P      P      10 33 38.9 +2.7
      comp=Z,7µmcomp=Z,596nm,1.1s
ONTNC Ouen Toro         24.82 133  P      P      10 33 34.3 -2.1
DAV   Davao City (W)    24.99 301  LR     LR     10 44 54.6
      comp=Z,744nm,18.0s,baz=135,slow=40
YATNC Mamie plateau,    25.00 131  P      P      10 33 38.4 +0.5
OUENC Ouen Island, N    25.18 132  P      P      10 33 38.7 -0.8
OUENC                              IAmb   IAmb   10 34 03.0
      comp=Z,187nm,1.7s
EDFI  Ende, Flores      25.18 262  P      P      10 33 39.5 -0.3
      comp=Z,2µmcomp=Z,208nm,1.0s
AUPHS Peel High Scho    25.19 172  P      P      10 33 39.1 -0.5
KKSI  Kolaka, Sulawe    25.26 273  P      P      10 33 42.8 +2.4
      comp=Z,2µmcomp=Z,3µmcomp=Z,146nm,1.0s
KKSI  Kolaka, Sulawe    25.26 273  P      P      10 33 43.1 +2.7
      comp=Z,84nm,1.0s
KKSI                               pP     pP     10 33 54.3 +1.1
      comp=Z,73nm,0.8s
CMSA  Cobar Meteorol    25.38 182  P      P      10 33 41.5 +0.2
      comp=Z,92nm,1.5s
CMSA  Cobar Meteorol    25.38 182  P      P      10 33 40.9 -0.4
CMSA  Cobar Meteorol    25.38 182  P      P      10 33 42.9 +1.6
      comp=Z,92nm,1.5s
APSI  Ampana            25.75 280  P      P      10 33 47.0 +2.2
      comp=Z,7µmcomp=Z,598nm,1.2s
WRKA  Warakurna         25.99 221  P      P      10 33 47.2 +0.2
      comp=Z,51nm,0.7s
AUDCS Dubbo College     26.09 177  P      P      10 33 47.3 -0.4
STKA  Stephens Creek    26.17 190  P      P      10 33 48.3 -0.2
      comp=Z,27nm,0.8s,baz=354,slow=8.0,SNR=24
STKA                               S      S      10 38 15.7 -1.6
      comp=Z,4.6nm,0.8s,baz=356,slow=19,SNR=1.6
STKA                               LR     LR     10 44 49.5
      comp=Z,8µm,19.6s,baz=12,slow=38
      comp=Z,27nm,0.8s
STKA  Stephens Creek    26.17 190  P      P      10 33 48.1 -0.3
      comp=Z,148nm,0.7s
BSSI  Bau Bau, Buton    26.30 268  P      P      10 33 52.1 +2.3
      comp=Z,279nm,1.2s
WSI   Waingapu          26.63 261  P      P      10 33 53.8 +1.0
TOLI2 Tolitoli          27.07 284  P      P      10 33 57.0 +0.2
TOLI2 Tolitoli          27.07 284  P      P      10 33 56.6 -0.1
TOLI2                              IAmb   IAmb   10 33 58.4
      comp=Z,216nm,1.1s
TOLI2 Tolitoli          27.07 284  P      P      10 33 57.2 +0.4
      comp=Z,183nm,1.2s
KAPI  Kappang           27.08 271  LR     LR     10 48 09.5
      comp=Z,342nm,19.6s,baz=88,slow=44
KAPI  Kappang           27.08 271  P      P      10 33 58.2 +1.3
KAPI  Kappang           27.08 271  P      P      10 33 58.8 +1.9
KAPI  Kappang           27.08 271  P      P      10 33 58.5 +1.6
      comp=Z,114nm,1.2s
SPSI  Sidrap Palu       27.15 273  P      P      10 33 58.3 +0.9
      comp=Z,134nm,1.2s
MKS   Makassar          27.35 270  P      P      10 34 14.2  +15
PCI   Palu              27.52 280  P      P      10 34 04.0 +3.2
MMSI  Mamuju            28.14 276  P      P      10 34 08.2 +1.8
      comp=Z,2µmcomp=Z,185nm,1.1s
HTT   Hallett           28.24 194  P      P      10 34 04.3 -2.7
      comp=Z,19nm,1.3s
HTT   Hallett           28.24 194  P      P      10 34 06.9 -0.2
      comp=Z,19nm,1.2s
HTT   Hallett           28.24 194  P      P      10 34 07.3 +0.2
HTT   Hallett           28.24 194  P      P      10 34 06.8 -0.2
BBOO  Buckleboo         28.49 199  P      P      10 34 09.4 +0.2
      comp=Z,62nm,1.6s
BBOO  Buckleboo         28.49 199  P      P      10 34 09.2  0.0
BBOO  Buckleboo         28.49 199  P      P      10 34 08.5 -0.7
BBOO  Buckleboo         28.49 199  P      P      10 34 09.4 +0.2
      comp=Z,62nm,1.6s
PLAI  Plampang          29.05 263  P      P      10 34 13.7 -0.7
PLAI  Plampang          29.05 263  P      P      10 34 18.0 +3.6
      comp=Z,85nm,0.8s
PLAI  Plampang          29.05 263  P      P      10 34 13.8 -0.7
      comp=Z,85nm,0.8s
AUMBR Murray Bridge     29.79 193  P      P      10 34 21.8 +1.1
TWSI  Taliwang, Sumb    29.92 263  P      P      10 34 30.3 +8.1
AUCAS Cummins Area S    29.93 199  P      P      10 34 22.5 +0.6
FORT  Forrest           30.32 213  P      P      10 34 26.1 +0.6
      comp=Z,21nm,1.2s
FORT  Forrest           30.32 213  P      P      10 34 25.8 +0.3
MBWA  Marble Bar        30.33 238  P      P      10 34 26.6 +0.9
      comp=Z,39nm,0.8s
MBWA  Marble Bar        30.33 238  P      P      10 34 26.6 +0.9
MBWA  Marble Bar        30.33 238  P      P      10 34 25.7  0.0
MBWA  Marble Bar        30.33 238  P      P      10 34 26.6 +0.9
      comp=Z,39nm,0.8s
BKB   Balikpapan        30.35 278  P      P      10 34 27.8 +1.9
BKB   Balikpapan        30.35 278  P      P      10 34 29.7 +3.8
BKB   Balikpapan        30.35 278  P      P      10 34 28.6 +2.7
      comp=Z,577nm,1.5s
MYLDM Lahad Datu        30.51 291  P      P      10 34 29.1 +1.8
MYLDM Lahad Datu        30.51 291  P      P      10 34 28.6 +1.2
MYLDM                              IAmb   IAmb   10 34 31.5
      comp=Z,144nm,1.3s
MYLDM Lahad Datu        30.51 291  P      P      10 34 29.8 +2.5
      comp=Z,1µmcomp=Z,85nm,1.4s
MYLDM Lahad Datu        30.51 291  P      P      10 34 29.4 +2.1
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      comp=Z,84nm,1.4s
KHKI  Kahang-Kahang     31.17 264  P      P      10 34 35.1 +2.0
      comp=Z,132nm,1.0s
H11S3 WAKE ISLAND Hy    31.21  38  T      T      11 07 15.0
      baz=221,slow=74
H11S2 WAKE ISLAND Hy    31.22  38  T      T      11 07 11.9
      baz=221,slow=74
H11S1 WAKE ISLAND Hy    31.23  38  T      T      11 07 15.1
      baz=221,slow=74,SNR=53
TOO   Toolangi          31.40 182  P      P      10 34 33.6 -1.3
      comp=Z,11nm,1.3s
TOO   Toolangi          31.40 182  P      P      10 34 35.0  0.0
TOO                                pmax   pmax
      comp=Z,22nm,1.4s
TOO   Toolangi          31.40 182  P      P      10 34 35.0  0.0
BRAT  Ballarat          31.47 185  P      P      10 34 36.1 +0.6
AUMTC Mt Clear Colle    31.54 185  P      P      10 34 37.6 +1.5
BBKI  Banjar Baru       32.09 273  P      P      10 34 43.3 +2.0
      comp=Z,67nm,1.1s
H11N1 WAKE ISLAND Hy    32.27  37  T      T      11 08 37.3
      baz=218,slow=76
H11N3 WAKE ISLAND Hy    32.28  37  T      T      11 08 37.9
      baz=218,slow=76
H11N2 WAKE ISLAND Hy    32.28  37  T      T      11 08 38.1
      baz=218,slow=76,SNR=57
MSVF  Nonsavu           32.52 114  P      P      10 34 45.3 +0.3
      comp=Z,11nm,0.7s,baz=283,slow=14,SNR=8.1
MSVF                               LR     LR     10 46 09.8
      comp=Z,1µm,21.8s,baz=306,slow=33
      comp=Z,11nm,0.7s
MSVF  Nonsavu           32.52 114  P      P      10 34 45.9 +0.8
MSVF  Nonsavu           32.52 114  P      P      10 34 44.2 -0.8
MSVF                               IAmb   IAmb   10 35 32.3
      comp=Z,174nm,1.9s
MSVF  Nonsavu           32.52 114  P      P      10 34 45.0 -0.1
      comp=Z,50nm,1.2s
JAGI  Jajag, Banyuwa    32.61 264  P      P      10 34 44.9 -0.9
JAGI  Jajag, Banyuwa    32.61 264  P      P      10 34 44.5 -1.3
JAGI  Jajag, Banyuwa    32.61 264  P      P      10 34 45.2 -0.6
      comp=Z,132nm,1.2s
JAGI  Jajag, Banyuwa    32.61 264  P      P      10 34 43.9 -2.0
      comp=Z,131nm,1.3s
PKKI  Palangkaraya      33.09 275  P      P      10 34 51.4 +1.3
DGTI  Dogotuki          33.69 110  P      P      10 34 55.0 -0.3
MEEK  Meekatharra       33.88 230  P      P      10 34 57.7 +0.9
      comp=Z,99nm,0.6s
MEEK  Meekatharra       33.88 230  P      P      10 34 57.0 +0.2
MEEK  Meekatharra       33.88 230  P      P      10 34 57.7 +0.9
      comp=Z,99nm,0.6s
KMBL  Kambalda          34.42 220  P      P      10 35 01.6 +0.2
      comp=Z,27nm,0.8s
SNJI  Sawahan-Nganju    34.96 265  P      P      10 35 08.0 +1.5
      comp=Z,115nm,1.0s
JMZ   Minamidaito 2     35.17 335  P      P      10 35 08.6 +0.8
JMZ   Minamidaito 2     35.17 335  P      P      10 35 08.2 +0.4
JMZ   Minamidaito 2     35.17 335  P      P      10 35 08.9 +1.1
      comp=Z,168nm,1.2s
GIRL  Giralia           35.59 239  P      P      10 35 14.7 +3.1
      comp=Z,95nm,1.1s
GIRL  Giralia           35.59 239  P      P      10 35 14.0 +2.4
      comp=Z,95nm,1.1s
GIRL  Giralia           35.59 239  P      P      10 35 12.8 +1.2
WOJI  Wonogiri, Jawa    35.79 265  P      P      10 35 13.9 +0.5
      comp=Z,339nm,1.3s
STKI  Sintang           35.92 278  P      P      10 35 16.4 +1.9
      comp=Z,212nm,1.4s
UGM   Wanagama          36.19 265  P      P      10 35 17.8 +0.9
UGM   Wanagama          36.19 265  P      P      10 35 17.1 +0.2
UGM   Wanagama          36.19 265  P      P      10 35 28.6  +12
UGM   Wanagama          36.19 265  P      P      10 35 16.3 -0.6
      comp=Z,406nm,1.5s
SMRI  Semarang          36.27 266  P      P      10 35 22.3 +4.8
      comp=Z,187nm,1.4s
SMRI  Semarang          36.27 266  P      P      10 35 18.4 +0.8
      comp=Z,189nm,1.4s
MORW  Morawa            37.09 228  P      P      10 35 25.7 +1.3
      comp=Z,47nm,1.2s
MORW  Morawa            37.09 228  P      P      10 35 25.3 +0.9
MORW  Morawa            37.09 228  P      P      10 35 24.9 +0.6
MORW                               IAmb   IAmb   10 35 32.5
      comp=Z,140nm,1.4s
MORW  Morawa            37.09 228  P      P      10 35 25.1 +0.8
      comp=Z,47nm,1.2s
KLBR  Kellerberrin      37.30 223  P      P      10 35 26.2 +0.2
      comp=Z,101nm,0.6s
KLBR  Kellerberrin      37.30 223  P      P      10 35 26.3 +0.2
KLBR  Kellerberrin      37.30 223  P      P      10 35 26.5 +0.4
      comp=Z,101nm,0.6s
JOW   Kunigami          37.36 332  P      P      10 35 27.2 +0.6
JOW   Kunigami          37.36 332  P      P      10 35 26.8 +0.3
JOW   Kunigami          37.36 332  P      P      10 35 27.6 +1.0
      comp=Z,197nm,1.3s
BLDU  Ballidu           37.46 226  P      P      10 35 27.3 -0.1
      comp=Z,55nm,1.6s
BLDU  Ballidu           37.46 226  P      P      10 35 27.7 +0.3
BLDU  Ballidu           37.46 226  P      P      10 35 28.4 +1.0
      comp=Z,54nm,1.6s
CTJI  Waduk Cacaban     37.52 266  P      P      10 35 33.0 +4.8
      comp=Z,113nm,1.2s
AUKUL Kulin High Sch    37.69 222  P      P      10 35 29.5 +0.2
KPJI  Karang Pucung     37.77 266  P      P      10 35 30.7 +0.5
KPJI                               pP     pP     10 35 41.0 -2.1
CMJI  Cimerak           38.24 265  P      P      10 35 33.4 -0.9
TWGBT Beinan            38.25 319  P      P      10 35 32.9 -1.3
TWG   Pinlang           38.26 319  P      P      10 35 32.9 -1.3
TWG                                IAmb   IAmb   10 35 45.3
      comp=Z,32nm,0.5s
TWG   Pinlang           38.26 319  P      P      10 35 32.7 -1.5
      comp=Z,53nm,1.0s
YOJ   Yonaguni jima     38.26 323  P      P      10 35 35.0 +0.8
YOJ   Yonaguni jima     38.26 323  P      P      10 35 34.8 +0.6
YOJ                                pmax   pmax
      comp=Z,159nm,1.0s
YOJ   Yonaguni jima     38.26 323  P      P      10 35 34.8 +0.6
YOJ   Yonaguni jima     38.26 323  P      P      10 35 35.2 +1.1
      comp=Z,167nm,1.0s
NWAO  Narrogin (SRO)    38.45 222  P      P      10 35 36.7 +0.9
      comp=Z,56nm,0.9s
NWAO  Narrogin (SRO)    38.45 222  LR     LR     10 52 54.8
      comp=Z,8µm,18.2s,baz=59,slow=38
NWAO  Narrogin (SRO)    38.45 222  P      P      10 35 36.8 +1.0
NWAO  Narrogin (SRO)    38.45 222  P      P      10 35 36.2 +0.4
NWAO                               pmax   pmax
      comp=Z,33nm,0.9s
NWAO  Narrogin (SRO)    38.45 222  P      P      10 35 36.2 +0.4
NWAO                               IAmb   IAmb   10 35 42.7
      comp=Z,33nm,0.9s
NWAO  Narrogin (SRO)    38.45 222  P      P      10 35 36.1 +0.3
      comp=Z,52nm,0.9s
YULB  Yu-li             38.52 320  P      P      10 35 36.2 -0.3
YULB  Yu-li             38.52 320  P      P      10 35 36.6 +0.2
      comp=Z,61nm,1.0s
MUN   Mundaring         38.59 224  P      P      10 35 38.2 +1.3
      comp=Z,58nm,1.3s
MUN   Mundaring         38.59 224  P      P      10 35 37.9 +1.0
TPUB  Ta-pu             38.88 320  P      P      10 35 38.8 -0.7
TPUB  Ta-pu             38.88 320  P      P      10 35 38.6 -0.9
TPUB                               IAmb   IAmb   10 35 42.3
      comp=Z,69nm,0.8s
TPUB  Ta-pu             38.88 320  P      P      10 35 38.5 -1.0
      comp=Z,95nm,0.8s
NACB  Ninganchiao       38.90 321  P      P      10 35 40.0 +0.4
NACB  Ninganchiao       38.90 321  P      P      10 35 39.8 +0.1
NACB  Ninganchiao       38.90 321  P      P      10 35 40.2 +0.6
      comp=Z,148nm,1.5s
SSLB  Suanglung         39.02 320  P      P      10 35 40.9 +0.2
SSLB  Suanglung         39.02 320  P      P      10 35 39.5 -1.2
SSLB                               IAmb   IAmb   10 35 45.0
      comp=Z,36nm,0.7s
SSLB  Suanglung         39.02 320  P      P      10 35 39.7 -1.0
      comp=Z,50nm,1.4s
BBJI  Bungbulang        39.04 266  P      P      10 35 41.2 +0.3
BBJI  Bungbulang        39.04 266  P      P      10 35 41.0  0.0
BBJI  Bungbulang        39.04 266  P      P      10 35 41.3 +0.3
      comp=Z,2µmcomp=Z,165nm,0.9s
BBJI  Bungbulang        39.04 266  P      P      10 35 40.7 -0.3
      comp=Z,165nm,0.9s
TPI   Tanjungpandan     39.30 273  P      P      10 35 45.4 +2.3
      comp=Z,3µmcomp=Z,256nm,1.2s
YHNB  Yeheng            39.40 322  P      P      10 35 45.1 +1.2
YHNB  Yeheng            39.40 322  P      P      10 35 43.8 -0.1
YHNB  Yeheng            39.40 322  P      P      10 35 45.0 +1.1
      comp=Z,162nm,1.0s
JHJ   Hachijo jima 2    39.55 351  LR     LR     10 50 50.2
      comp=Z,1µm,18.3s,baz=148,slow=34
CNJI  Cibinong          39.55 266  P      P      10 35 44.7 -0.5
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TATO  Taipei            39.56 322  P      P      10 35 45.7 +0.6
TATO  Taipei            39.56 322  P      P      10 35 45.0  0.0
TATO  Taipei            39.56 322  P      P      10 35 46.0 +0.9
      comp=Z,384nm,0.9s
TATO  Taipei            39.56 322  P      P      10 35 46.0 +0.9
RKGY  Rocky Gully       39.66 220  P      P      10 35 47.7 +1.8
      comp=Z,24nm,1.0s
RKGY  Rocky Gully       39.66 220  P      P      10 35 47.3 +1.4
      comp=Z,24nm,1.0s
SKJI  Sukabumi          40.13 266  P      P      10 35 49.7 -0.3
SKJI                               pP     pP     10 35 59.5 -3.5
RAO   Raoul Island      40.40 129  LR     LR     10 50 10.6
      comp=Z,1µm,20.7s,baz=267,slow=33
JSU   Suzuyama          40.53 338  P      P      10 35 53.6 +0.5
JSU   Suzuyama          40.53 338  P      P      10 35 52.2 -0.9
JSU                                IAmb   IAmb   10 35 55.1
      comp=Z,28nm,0.7s
JSU   Suzuyama          40.53 338  P      P      10 35 53.3 +0.2
      comp=Z,45nm,1.1s
TOZ   Tahuroa Road      40.85 145  P      P      10 35 54.8 -0.9
AFI   Afiamalu          41.35 104  LR     LR     10 51 58.3
      comp=Z,714nm,18.9s,baz=276,slow=34
QZH2  Quanzhou          41.36 319⇑iP      P      10 36 00.6 +0.7
QZH2                               S      S      10 42 14.1 +2.6
QZH2                               pmax   pmax
      comp=Z,110nm,1.0s
QZH2                               L      L
      comp=Z,510nm,25.1s
QZH2                               L      L
      comp=Z,530nm,20.3s
JMN   Monobe            41.45 343  P      P      10 36 01.2 +0.5
JMN   Monobe            41.45 343  P      P      10 36 00.4 -0.3
JMN                                IAmb   IAmb   10 36 03.4
      comp=Z,128nm,1.1s
JMN   Monobe            41.45 343  P      P      10 36 00.6  0.0
      comp=Z,108nm,1.1s
QRZ   Quartz Range      41.51 150  P      P      10 36 01.8 +0.9
JNU   Nakatsue          41.84 340  LR     LR     10 52 38.4
      comp=Z,992nm,18.7s,baz=156,slow=35
TKNZ  Takaka Hill       41.88 150  P      P      10 36 04.4 +0.4
TRVZ  Turoa             41.97 146  P      P      10 36 08.3 +3.2
MRNZ  Matariki Terra    42.05 151  P      P      10 36 05.1 -0.3
URZ   Urewera           42.15 144  P      P      10 36 07.6 +1.4
      comp=Z,3.9nm,0.3s,baz=326,slow=0.5,SNR=7.9
URZ                                LR     LR     10 54 00.1
      comp=Z,1µm,18.2s,baz=320,slow=37
      comp=Z,3.9nm,0.3s
URZ   Urewera           42.15 144  P      P      10 36 07.9 +1.6
HAZ   Te Kaha           42.21 143  P      P      10 36 09.2 +2.4
DLV    Lat              42.22 295  P      P      10 36 07.7 +0.3
NNZ   Nelson            42.22 150  P      P      10 36 06.6 -0.2
RUGZ  Raukumara Rang    42.29 143  P      P      10 36 09.0 +1.4
RTZ   Ruatahuna         42.31 144  P      P      10 36 07.2 -0.5
RTZ                                IAmb   IAmb   10 36 15.0
      comp=Z,34nm,0.8s
BHHZ  Black Hill Sta    42.38 146  P      P      10 36 09.0 +0.7
BKZ   Black Stump Fm    42.40 145  P      P      10 36 09.9 +1.5
JGF   Kuroka            42.40 348  P      P      10 36 08.2 -0.2
JGF   Kuroka            42.40 348  P      P      10 36 08.3  0.0
      comp=Z,62nm,0.9s
THZ   Tophouse          42.40 151  P      P      10 36 08.0 -0.4
THZ                                IAmb   IAmb   10 36 23.5
      comp=Z,289nm,1.9s
WVZ   Waitaha Valley    42.43 154  P      P      10 36 08.5  0.0
MWZ   Matawai           42.44 144  P      P      10 36 10.1 +1.3
JCZ   Jackson Bay       42.44 157  P      P      10 36 09.3 +0.6
KWHZ  Kaweka Forest     42.54 146  P      P      10 36 07.7 -1.8
MDSI  Maura Dua         42.60 270  P      P      10 36 10.2 -0.1
      comp=Z,142nm,1.4s
MDSI                               pP     pP     10 36 20.3 -3.1
WMGZ  Waiomatatini S    42.64 142  P      P      10 36 09.9 -0.4
DSRI  Dabo              42.64 276  P      P      10 36 12.3 +1.7
      comp=Z,3µmcomp=Z,230nm,1.3s
DSRI  Dabo              42.64 276  pP     pP     10 36 21.5 -2.2
      comp=Z,62nm,1.6s
KRHZ  Kereru            42.66 146  P      P      10 36 10.1 -0.3
TUWZ  Tuamarina         42.66 150  P      P      10 36 10.3 -0.1
PUZ   Puketiti          42.70 143  P      P      10 36 10.1 -0.8
TSZ   Takapari Road     42.73 147  P      P      10 36 11.0  0.0
KIW   Kapiti Island     42.74 148  P      P      10 36 12.3 +1.2
PNHZ  Pukenui           42.76 146  P      P      10 36 11.6 +0.3
LTZ   Lake Taylor       42.89 152  P      P      10 36 12.6 +0.3
TPRI  Tanjung Pinang    42.91 278  P      P      10 36 14.7 +1.9
      comp=Z,6µmcomp=Z,396nm,1.1s
CNGZ  Carnagh Statio    42.94 143  P      P      10 36 12.5 -0.2
MRZ   Mangatainoka R    42.95 148  P      P      10 36 12.7  0.0
KNZ   Kokohu            42.98 144  P      P      10 36 14.4 +1.4
RPZ   Rata Peaks        43.09 154  P      P      10 36 14.2 +0.4
      comp=Z,7.5nm,0.7s,baz=327,slow=0.9,SNR=17
RPZ                                LR     LR     10 52 47.8
      comp=Z,402nm,21.7s,baz=30,slow=34
      comp=Z,7.5nm,0.7s
RPZ   Rata Peaks        43.09 154  P      P      10 36 14.0 +0.2
MJAR  Matsushiro Arr    43.15 350  P      P      10 36 14.0 -0.5
      comp=Z,54nm,1.1s,baz=173,slow=7.7,SNR=54
MJAR                               PcP    PcP    10 38 02.2 -1.2
      comp=Z,11nm,1.0s,baz=165,slow=2.6,SNR=4.1
MJAR                               ScP    ScP    10 41 54.4 +3.3
      comp=Z,18nm,1.0s,baz=175,slow=4.4,SNR=18
MJAR                               LR     LR     10 52 33.3
      comp=Z,891nm,21.9s,baz=148,slow=34
      comp=Z,54nm,1.1s
MJAR  Matsushiro Arr    43.15 350  P      P      10 36 14.3 -0.1
MJAR                               pmax   pmax
      comp=Z,93nm,1.3s
MJAR  Matsushiro Arr    43.15 350  P      P      10 36 14.3 -0.1
MJAR                               IAmb   IAmb   10 36 16.5
      comp=Z,93nm,1.2s
MAJO  Matsushiro        43.16 350  P      P      10 36 14.1 -0.3
MAJO  Matsushiro        43.16 350  P      P      10 36 14.9 +0.5
MAJO                               pmax   pmax
      comp=Z,45nm,1.1s
MAJO  Matsushiro        43.16 350  P      P      10 36 14.9 +0.5
MAJO  Matsushiro        43.16 350  P      P      10 36 13.9 -0.5
      comp=Z,84nm,1.3s
KHZ   Kahutara          43.20 151  P      P      10 36 14.8 +0.1
OXZ   Oxford            43.21 153  P      P      10 36 14.1 -0.7
MTW   Mount Morrison    43.26 148  P      P      10 36 15.1 -0.2
LBZ   Lake Benmore      43.27 156  P      P      10 36 15.1 -0.2
LHSI  Lahat             43.30 271  P      P      10 36 28.1  +12
MSWZ  Moikau Station    43.32 149  P      P      10 36 15.5 -0.2
BFZ   Birch Farm        43.32 147  P      P      10 36 15.2 -0.5
GVZ   Greta Valley S    43.39 152  P      P      10 36 16.0 -0.2
JMBI  JAMBI             43.41 274  P      P      10 36 20.6 +3.7
      comp=Z,7µmcomp=Z,443nm,1.2s
TMZ   Timaru            43.60 155  P      P      10 36 16.9 -1.1
BTDF  Bukit Timah Da    43.73 278  P      P      10 36 20.4 +1.0
BTDF  Bukit Timah Da    43.73 278  P      P      10 36 21.0 +1.6
      comp=Z,1µmcomp=Z,100nm,1.2s
MYKOM Kota Tinggi       43.73 279  P      P      10 36 20.5 +1.1
MYKOM Kota Tinggi       43.73 279  P      P      10 36 20.4 +1.1
MYKOM Kota Tinggi       43.73 279  P      P      10 36 21.0 +1.6
      comp=Z,3µmcomp=Z,228nm,1.4s
MYKOM Kota Tinggi       43.73 279  P      P      10 36 20.9 +1.5
      comp=Z,228nm,1.4s
MQZ   McQueen’s Vall    43.79 153  P      P      10 36 18.3 -1.1
ODZ   Otahua Downs      43.99 156  P      P      10 36 21.2 +0.1
QIZ   Qiongzhong        44.24 305  P      P      10 36 23.8 +0.4
QIZ                                S      S      10 42 53.3 -0.8
QIZ                                pmax   pmax
      comp=Z,24nm,1.0s
QIZ                                pmax   pmax
      comp=Z,240nm,4.2s
QIZ                                L      L
      comp=Z,340nm,18.0s
QIZ                                L      L
      comp=Z,260nm,17.9s
QIZ                                L      L
      comp=Z,730nm,24.0s
QIZ   Qiongzhong        44.24 305  P      P      10 36 24.1 +0.7
QIZ   Qiongzhong        44.24 305  P      P      10 36 24.1 +0.7
      comp=Z,24nm,1.3s
SSE   Sheshan           44.40 328  P      P      10 36 25.1 +0.7
SSE                                S      S      10 42 59.4 +3.5
SSE                                pmax   pmax
      comp=Z,43nm,0.9s
SSE                                pmax   pmax
      comp=Z,97nm,3.5s
SSE                                L      L
      comp=Z,340nm,21.8s
SSE                                L      L
      comp=Z,250nm,20.2s
SSE   Sheshan           44.40 328  P      P      10 36 25.4 +1.0
MASI  Maura Aman, Be    44.64 272  P      P      10 36 28.2 +1.4
      comp=Z,141nm,0.7s
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SDSI	**Sungai Dareh**	**45.69**	**275**	P	**P**	**10 36 35.6**	**+0.5**
	comp=Z,3μmcomp=Z,265nm,1.2s						
SDSI	**Sungai Dareh**	**45.69**	**275**	P	**P**	**10 36 36.2**	**+1.1**
	comp=Z,253nm,1.2s						
SDSI				pP	**pP**	**10 36 45.6**	**-2.7**
	comp=Z,92nm,1.2s						
TJN	**Taejon**	**46.03**	**338**	P	**P**	**10 36 38.3**	**+1.0**
TJN	**Taejon**	**46.03**	**338**	P	**P**	**10 36 38.0**	**+0.7**
BKNI	**Bangkinang**	**46.26**	**276**	P	**P**	**10 36 40.3**	**+0.8**
BKNI	**Bangkinang**	**46.26**	**276**	P	**P**	**10 36 40.8**	**+1.3**
	comp=Z,4μmcomp=Z,361nm,1.2s						
BKNI	**Bangkinang**	**46.26**	**276**	P	**P**	**10 36 41.1**	**+1.5**
	comp=Z,362nm,1.1s						
BKNI				pP	**pP**	**10 36 50.3**	**-2.4**
NJ2	**Nanjing**	**46.39**	**326**	⇑*i*P	**P**	**10 36 41.0**	**+0.8**
NJ2				pmax	pmax		
	comp=Z,60nm,1.0s						
PDSI	**Padang**	**46.66**	**274**	pP	pP	10 36 52.5	-3.5
	comp=Z,55nm,0.7s						
PPI	**Padang Panjang**	**46.78**	**275**	P	**P**	**10 36 44.0**	**+0.4**
KSRS	**Korea Array**	**46.78**	**339**	P	**P**	**10 36 43.5**	**+0.4**
	comp=Z,21nm,0.5s,baz=154,slow=8.3,SNR=63						
KSRS				PcP	**PcP**	**10 38 14.6**	**-1.3**
	comp=Z,3.5nm,0.8s,baz=160,slow=6.7,SNR=4.5						
KSRS				LR	LR	10 53 44.2	
	comp=Z,1μm,21.0s,baz=135,slow=33						
	comp=Z,21nm,0.5s						
JTM	**Tenmabayashi**	**46.92**	**354**	P	**P**	**10 36 44.1**	**-0.2**
IPM	**Ipoh**	**47.03**	**282**	P	**P**	**10 36 46.7**	**+1.1**
IPM	**Ipoh**	**47.03**	**282**	P	**P**	**10 36 46.1**	**+0.5**
IPM				IAmb	IAmb	10 36 48.0	
	comp=Z,102nm,1.1s						
IPM	**Ipoh**	**47.03**	**282**	P	**P**	**10 36 46.6**	**+1.0**
	comp=Z,1μmcomp=Z,108nm,1.6s						
IPM	**Ipoh**	**47.03**	**282**	P	**P**	**10 36 46.8**	**+1.1**
	comp=Z,108nm,1.6s						
IPM				pP	**pP**	**10 36 56.8**	**-2.0**
CNSH	**ChangSha**	**47.27**	**318**	P	**P**	**10 36 48.4**	**+1.2**
CNSH				S	**S**	**10 43 36.8**	**-0.7**
CNSH				pmax	pmax		
	comp=Z,25nm,1.0s						
CNSH				L	L		
	comp=Z,270nm,10.6s						
CNSH				L	L		
	comp=Z,230nm,8.0s						
CNSH				L	L		
	comp=Z,690nm,34.5s						
GULI	**GuiLin**	**47.27**	**313**	P	**P**	**10 36 47.0**	**-0.3**
GULI				pmax	pmax		
	comp=Z,17nm,1.8s						
GULI				L	L		
	comp=Z,280nm,16.9s						
GULI				L	L		
	comp=Z,350nm,15.5s						
GULI				L	L		
	comp=Z,490nm,26.5s						
INCN	**Inchon**	**47.27**	**338**	P	**P**	**10 36 47.7**	**+0.6**
INCN	**Inchon**	**47.27**	**338**	P	**P**	**10 36 47.4**	**+0.3**
INCN				pmax	pmax		
	comp=Z,97nm,1.1s						
INCN	**Inchon**	**47.27**	**338**	P	**P**	**10 36 47.4**	**+0.3**
INCN				IAmb	IAmb	10 36 50.0	
	comp=Z,96nm,1.1s						
INCN	**Inchon**	**47.27**	**338**	P	**P**	**10 36 47.7**	**+0.6**
	comp=Z,101nm,0.9s						
KULM	**Kulim**	**47.57**	**283**	P	**P**	**10 36 50.2**	**+0.4**
KULM	**Kulim**	**47.57**	**283**	P	**P**	**10 36 49.9**	**+0.1**
KULM	**Kulim**	**47.57**	**283**	P	**P**	**10 36 50.8**	**+1.0**
	comp=Z,54nm,1.2s						
WHN	**Wuhan**	**47.94**	**321**	⇑P	**P**	**10 36 53.4**	**+1.1**
WHN				pmax	pmax		
	comp=Z,280nm,1.2s						
SISI	**Saibi**	**47.97**	**274**	P	**P**	**10 36 54.5**	**+1.6**
	comp=Z,112nm,1.8s						
RPSI	**Rantau Prapat**	**48.73**	**279**	P	**P**	**10 36 58.8**	**+0.1**
RPSI	**Rantau Prapat**	**48.73**	**279**	P	**P**	**10 36 59.5**	**+0.7**
	comp=Z,148nm,1.5s						
RPSI				pP	**pP**	**10 37 09.7**	**-2.3**
PSI	**Prapat**	**48.75**	**279**	P	**P**	**10 36 59.4**	**+0.3**
PSI	**Prapat**	**48.75**	**279**	P	**P**	**10 36 58.8**	**-0.3**
PSI				pmax	pmax		
	comp=Z,414nm,1.6s						
PSI	**Prapat**	**48.75**	**279**	P	**P**	**10 36 59.3**	**+0.2**
	comp=Z,2μmcomp=Z,148nm,1.5s						
TSI	**Tuntungan**	**49.23**	**280**	P	**P**	**10 37 03.5**	**+0.9**
	comp=Z,4μmcomp=Z,63nm,1.0s						
GSI	**Gunungsitoli**	**49.83**	**277**	P	**P**	**10 37 07.6**	**+0.4**
GSI	**Gunungsitoli**	**49.83**	**277**	P	**P**	**10 37 07.1**	**-0.1**
GSI	**Gunungsitoli**	**49.83**	**277**	P	**P**	**10 37 07.3**	**+0.1**
	comp=Z,4μmcomp=Z,352nm,1.2s						
GSI	**Gunungsitoli**	**49.83**	**277**	P	**P**	**10 37 07.6**	**+0.4**
	comp=Z,348nm,1.2s						
KCSI	**Kotacane, Aceh**	**50.01**	**280**	P	**P**	**10 37 08.0**	**-0.6**
	comp=Z,2μmcomp=Z,164nm,1.2s						
JKA	**Kamikawa-asahi**	**50.09**	**356**	P	**P**	**10 37 08.8**	**+0.2**
JKA	**Kamikawa-asahi**	**50.09**	**356**	P	**P**	**10 37 08.6**	**+0.1**
	comp=Z,108nm,1.2s						
ASAJ	**Asahikawa**	**50.09**	**356**	P	**P**	**10 37 09.3**	**+0.8**
	comp=Z,70nm,1.0s,baz=219,slow=9.1,SNR=18						
ASAJ				ScP	**ScP**	**10 42 23.3**	**+3.5**
	comp=Z,18nm,1.1s,baz=233,slow=5.1,SNR=2.8						
ASAJ				LR	LR	10 57 33.4	
	comp=Z,477nm,20.0s,baz=188,slow=35						
	comp=Z,70nm,1.0s						
SLVN	**Son La**	**50.22**	**304**	P	**P**	**10 37 11.4**	**+1.3**
SLVN	**Son La**	**50.22**	**304**	P	**P**	**10 37 10.9**	**+0.8**
SLVN				IAmb	IAmb	10 37 36.1	
	comp=Z,70nm,1.9s						
SLVN	**Son La**	**50.22**	**304**	P	**P**	**10 37 11.1**	**+1.0**
	comp=Z,16nm,1.4s						
TIA	**Tai'an**	**50.49**	**329**	P	**P**	**10 37 11.3**	**-0.5**
TIA				PcP	**PcP**	**10 38 29.1**	**-0.3**
TIA				pmax	pmax		
	comp=Z,61nm,0.9s						
DL2	**Dalian**	**50.51**	**334**	P	**P**	**10 37 13.4**	**+1.6**
DL2				pmax	pmax		
	comp=Z,65nm,1.0s						
TPTI		**50.55**	**279**	P	**P**	**10 37 12.8**	**+0.2**
	comp=Z,177nm,1.0s						
GYA	**Guiyang**	**50.67**	**311**	⇑P	**P**	**10 37 14.3**	**+0.8**
GYA				pmax	pmax		
	comp=Z,16nm,1.0s						
ENH	**Enshi**	**50.92**	**317**	P	**P**	**10 37 15.6**	**+0.5**
ENH	**Enshi**	**50.92**	**317**	P	**P**	**10 37 15.2**	**0.0**
	comp=Z,42nm,1.6s						
SNSI	**Sinabang, Aceh**	**51.24**	**278**	P	**P**	**10 37 19.0**	**+1.2**
	comp=Z,392nm,1.4s						
MLSI	**Meulaboh, Aceh**	**51.49**	**280**	P	**P**	**10 37 19.7**	**0.0**
USA0B	**Ussuriysk Arra**	**51.81**	**346**	P	**P**	**10 37 21.7**	**+0.2**
USA0B				pmax	pmax		
	comp=Z,62nm,1.4s						
USA0B	**Ussuriysk Arra**	**51.81**	**346**	P	**P**	**10 37 21.7**	**+0.2**
USA0B				IAmb	IAmb	10 37 26.8	
	comp=Z,62nm,1.4s						
USRK	**Ussuriysk Ar.**	**51.81**	**346**	P	**P**	**10 37 21.7**	**+0.2**
	comp=Z,12nm,0.6s,baz=172,slow=6.4,SNR=20						
USRK				ScP	**ScP**	**10 42 31.3**	**+4.1**
	comp=Z,3.6nm,0.8s,baz=195,slow=3.7,SNR=4.3						
USRK				LR	LR	10 57 06.7	
	comp=Z,358nm,21.4s,baz=152,slow=34						
	comp=Z,12nm,0.6s						
USRK	**Ussuriysk Ar.**	**51.81**	**346**	P	**P**	**10 37 21.3**	**-0.2**
LYN	**LuoYang**	**51.86**	**324**	P	**P**	**10 37 22.3**	**+0.2**
LYN				pmax	pmax		
	comp=Z,83nm,1.2s						
LYN				pmax	pmax		
	comp=Z,340nm,11.7s						
LYN				L	L		
	comp=Z,640nm,18.9s						
LYN				L	L		
	comp=Z,490nm,18.5s						
LYN				L	L		
	comp=Z,890nm,16.1s						
SNY	**Shenyang**	**52.21**	**338**	P	**P**	**10 37 24.8**	**+0.3**
SNY				pmax	pmax		
	comp=Z,37nm,0.8s						
SNY				L	L		
	comp=Z,1μm,22.7s						
SNY				L	L		
	comp=Z,830nm,19.4s						
SNY				L	L		
	comp=Z,2μm,18.7s						
HNS	**HongShan**	**52.66**	**328**	⇑P	**P**	**10 37 28.0**	**+0.1**
HNS				S	**S**	**10 44 51.3**	**-0.9**
HNS				pmax	pmax		
	comp=Z,140nm,1.0s						
HNS				L	L		
	comp=Z,330nm,19.1s						
HNS				L	L		
	comp=Z,610nm,20.7s						
HNS				L	L		
	comp=Z,950nm,21.6s						
MDJ	**Mudanjiang**	**52.80**	**344**	P	**P**	**10 37 29.5**	**+0.7**
BSI	**Banda Aceh**	**52.82**	**282**	P	**P**	**10 37 28.7**	**-0.9**
	comp=Z,73nm,1.1s						
YSS	**Yuzhno-Sakhali**	**52.91**	**356**	P	**P**	**10 37 29.8**	**+0.3**
YSS	**Yuzhno-Sakhali**	**52.91**	**356**	*ce*P	**P**	**10 37 29.8**	**+0.3**
YSS				pmax	pmax		
	comp=Z,116nm,1.3s						
YSS	**Yuzhno-Sakhali**	**52.91**	**356**	P	**P**	**10 37 29.4**	**-0.2**
YSS	**Yuzhno-Sakhali**	**52.91**	**356**	P	**P**	**10 37 30.1**	**+0.6**
	comp=Z,86nm,1.1s						
KMI2	**Kunming**	**52.99**	**308**	⇑P	**P**	**10 37 32.0**	**+1.1**
KMI2				pP	sP	10 37 49.8	0.0
KMI2				sP	pP	10 37 58.3	+14
KMI2				S	**S**	**10 45 02.6**	**+4.9**
KMI2				pmax	pmax		
	comp=Z,22nm,1.5s						
KMI2				pmax	pmax		
	comp=Z,170nm,4.4s						
KMI2				L	L		
	comp=Z,330nm,23.1s						
KMI2				L	L		
	comp=Z,310nm,26.4s						
KMI2				L	L		
	comp=Z,620nm,23.3s						
CM31	**Chiang Mai Arr**	**53.22**	**298**	P	**P**	**10 37 32.9**	**+0.4**
CM31				IAmb	IAmb	10 37 48.4	
	comp=Z,36nm,0.9s						
CMAR	**Chiang Mai Arr**	**53.22**	**298**	P	**P**	**10 37 33.5**	**+1.0**
	comp=Z,5.9nm,0.5s,baz=118,slow=5.6,SNR=50						
CMAR				ScP	**ScP**	**10 42 38.0**	**+4.0**
	comp=Z,0.9nm,0.3s,baz=133,slow=3.2,SNR=4.2						
CMAR				LR	LR	10 59 25.8	
	comp=Z,202nm,21.6s,baz=80,slow=35						
CMAR				PKP2bc	**P'P'bc**	**11 08 07.8**	**-4.5**
	comp=Z,2.2nm,0.9s,baz=296,slow=1.7,SNR=8.8						
	comp=Z,5.9nm,0.5s						
CMAR	**Chiang Mai Arr**	**53.22**	**298**	*ce*P	**P**	**10 37 33.5**	**+1.0**
CMAR				pmax	pmax		
	comp=Z,7.0nm,0.4s						
CMAR	**Chiang Mai Arr**	**53.22**	**298**	P	**P**	**10 37 33.2**	**+0.7**
CN2	**Changchun**	**53.29**	**341**	P	**P**	**10 37 32.3**	**-0.2**
CN2				PcP	**PcP**	**10 38 38.3**	**-1.4**
CN2				pmax	pmax		
	comp=Z,10.0nm,1.3s						
CN2				L	L		
	comp=Z,460nm,17.0s						
CN2				L	L		
	comp=Z,270nm,17.0s						
CN2				L	L		
	comp=Z,460nm,18.0s						
CHTO	**Chiang Mai**	**53.36**	**299**	P	**P**	**10 37 34.4**	**+0.9**
CHTO	**Chiang Mai**	**53.36**	**299**	P	**P**	**10 37 34.1**	**+0.7**
CHTO				pmax	pmax		
	comp=Z,30nm,1.1s						
CHTO	**Chiang Mai**	**53.36**	**299**	P	**P**	**10 37 34.1**	**+0.7**
CHTO				IAmb	IAmb	10 37 49.0	
	comp=Z,30nm,1.1s						
CHTO	**Chiang Mai**	**53.36**	**299**	P	**P**	**10 37 34.3**	**+0.8**
CHTO	**Chiang Mai**	**53.36**	**299**	P	**P**	**10 37 34.2**	**+0.7**
	comp=Z,28nm,1.1s						
RAR	**Rarotonga**	**53.67**	**112**	LR	LR	10 57 20.3	
	comp=Z,295nm,21.5s,baz=272,slow=33						
XAN	**Xi'an**	**53.69**	**321**	P	**P**	**10 37 35.3**	**-0.3**
XAN				S	**S**	**10 45 09.5**	**+3.0**
XAN				pmax	pmax		
	comp=Z,87nm,1.1s						
XAN				pmax	pmax		
	comp=Z,500nm,4.0s						
XAN				L	L		
	comp=Z,360nm,16.5s						
XAN				L	L		
	comp=Z,470nm,20.3s						
XAN				L	L		
	comp=Z,810nm,18.9s						
XAN	**Xi'an**	**53.69**	**321**	P	**P**	**10 37 35.6**	**0.0**
BJI2	**Beijing**	**53.91**	**331**	P	**P**	**10 37 36.8**	**-0.3**
BJI2				pP	**sP**	**10 37 53.6**	**-1.8**
BJI2				pmax	pmax		
	comp=Z,39nm,1.6s						
BJI2				pmax	pmax		
	comp=Z,180nm,4.9s						
BJI2				L	L		
	comp=Z,290nm,18.2s						
BJI2				L	L		
	comp=Z,410nm,20.0s						
BJI2				L	L		
	comp=Z,750nm,21.2s						
BJT	**Baijiatuau**	**53.91**	**331**	P	**P**	**10 37 36.8**	**-0.3**
BJT	**Baijiatuau**	**53.91**	**331**	P	**P**	**10 37 37.0**	**-0.1**
	comp=Z,67nm,1.4s						
BNX	**BinXian**	**54.44**	**343**	⇓P	**P**	**10 37 38.8**	**-2.0**
BNX				pmax	pmax		
	comp=Z,58nm,1.4s						
PZH	**PanZhiHua**	**54.45**	**309**	P	**P**	**10 37 44.1**	**+2.7**
UGL	**Uglegorsk**	**55.06**	**356**	*e*P	**P**	**10 37 46.9**	**+1.6**
UGL				*e*S	**S**	**10 45 30.6**	**+6.2**
UGL				pmax	pmax		
	comp=Z,140nm,1.1s						
UGL				MLR	MLR		
	comp=N,700nm,15.0s						
CD2	**Chengdu**	**55.27**	**314**	P	**P**	**10 37 47.3**	**+0.1**
CD2				S	**S**	**10 45 28.1**	**+0.2**
CD2				pmax	pmax		
	comp=N,50nm,0.5s						
CD2				L	L		
	comp=N,640nm,14.6s						
CD2				L	L		
	comp=N,640nm,17.8s						
CD2				L	L		
	comp=N,660nm,15.2s						
NPW	**Naypyitaw**	**56.18**	**299**	P	**P**	**10 37 54.5**	**+0.7**
	comp=Z,30nm,1.1s						
TNCH	**TengChong**	**56.31**	**305**	P	**P**	**10 37 54.9**	**-0.1**
TNCH				pP	pP	10 38 10.0	+1.6
TNCH				S	**S**	**10 45 40.0**	**-2.3**
TNCH				pmax	pmax		
	comp=Z,40nm,0.7s						
TNCH				pmax	pmax		
	comp=Z,300nm,4.7s						
TNCH				L	L		
	comp=Z,490nm,16.4s						
KLR	**Kul'dur**	**56.63**	**348**	P	**P**	**10 37 57.2**	**+0.7**
	comp=Z,27nm,1.1s,baz=162,slow=5.5,SNR=21						
KLR				ScP	**ScP**	**10 42 51.0**	**+2.8**
	comp=Z,12nm,1.1s,baz=120,slow=0.9,SNR=6.9						
KLR				LR	LR	10 59 46.6	
	comp=Z,585nm,21.6s,baz=164,slow=34						
	comp=Z,27nm,1.1s						
KLR	**Kul'dur**	**56.63**	**348**	*ce*P	**P**	**10 37 56.8**	**+0.3**
KLR				pmax	pmax		
	comp=Z,60nm,1.3s						
TYV	**Tymovskoe**	**56.81**	**357**	*e*P	**P**	**10 37 58.6**	**+0.9**
TYV				*e*S	**S**	**10 45 46.8**	**-0.7**
TYV				pmax	pmax		
	comp=Z,33nm,1.0s						
TYV				pmax	pmax		
	comp=Z,100nm,3.4s						
TYV				smax	smax		
	comp=N,100nm,3.5s						
TYV				smax	smax		
	comp=E,200nm,3.5s						
HHC	**Hu-ho-hao-te**	**56.85**	**328**	*e*P	**P**	**10 37 58.6**	**+0.2**
HHC				S	**S**	**10 45 48.3**	**-0.4**
HHC				pmax	pmax		
	comp=E,34nm,0.9s						
HHC				pmax	pmax		
	comp=E,170nm,5.0s						
HHC				L	L		
	comp=E,360nm,20.1s						
HHC				L	L		
	comp=E,620nm,20.4s						
XLT	**XiLinHaoTe**	**56.99**	**334**	*e*P	**P**	**10 37 59.0**	**-0.3**
XLT				pmax	pmax		
	comp=E,30nm,1.5s						
XLT				pmax	pmax		
	comp=E,230nm,4.2s						
XLT				L	L		
	comp=E,790nm,19.2s						
XLT				L	L		
	comp=E,1μm,19.1s						
GRNR	**Gornyy**	**57.32**	**352**	⇑*i*P	**P**	**10 38 01.8**	**+0.4**
GRNR				pmax	pmax		
	comp=Z,20nm,1.2s						
BTO2	**Baotou**	**57.67**	**327**	*e*P	**P**	**10 38 03.9**	**-0.3**
BTO2				pP	**pP**	**10 38 19.4**	**+2.2**
BTO2				PP	**PP**	**10 40 10.4**	**-2.2**
BTO2				S	**S**	**10 45 58.1**	**-1.4**
BTO2				pmax	pmax		
	comp=Z,50nm,1.7s						
BTO2				pmax	pmax		
	comp=Z,290nm,4.3s						
BTO2				L	L		
	comp=Z,1μm,17.1s						
BTO2				L	L		
	comp=Z,1μm,17.1s						
BTO2				L	L		
	comp=Z,1μm,18.3s						
LZH	**Lanzhou**	**58.21**	**319**	P	**P**	**10 38 08.8**	**+0.7**
LZH				pP	pP	10 38 23.6	+2.3
LZH				sP	sP	10 38 35.0	+8.3
LZH				S	**S**	**10 46 07.4**	**+0.5**
LZH				SS	**SS**	**10 50 01.6**	**+2.2**
LZH				pmax	pmax		
	comp=Z,42nm,1.0s						
LZH				pmax	pmax		
	comp=Z,320nm,4.8s						
LZH				L	L		
	comp=Z,320nm,17.7s						
LZH				L	L		
	comp=Z,290nm,17.2s						
LZH				L	L		
	comp=Z,780nm,19.9s						
LZDM	**Lanzhou Array**	**58.23**	**319**	P	**P**	**10 38 09.3**	**+0.9**
	comp=Z,1.8nm,0.3s,baz=138,slow=7.4,SNR=8.9						
	comp=Z,1.8nm,0.3s						
HEH	**HeiHe**	**58.58**	**345**	*e*P	**P**	**10 38 09.5**	**-0.7**
HEH				PcP	**PcP**	**10 38 58.5**	**-1.5**
HEH				S	**S**	**10 46 10.8**	**+0.1**
HEH				pmax	pmax		
	comp=Z,23nm,1.0s						
HEH				L	L		
	comp=Z,430nm,21.3s						
HEH				L	L		
	comp=Z,880nm,20.9s						
HEH				L	L		
	comp=Z,780nm,21.1s						
MORE	**Moreh**	**59.46**	**303**	P	**P**	**10 38 15.4**	**-1.4**
MORE				IAmb	IAmb	10 38 44.0	
	comp=Z,25nm,1.0s						
PEA0B	**Petropavlovsk-**	**59.64**	**7**	*ce*P	**P**	**10 38 18.0**	**+0.5**
PEA0B	**Petropavlovsk-**	**59.64**	**7**	P	**P**	**10 38 17.8**	**+0.3**
PETK	**Petropavlovsk-**	**59.64**	**7**	P	**P**	**10 38 18.0**	**+0.5**
	comp=Z,61nm,0.9s,baz=166,slow=3.3,SNR=30						
PETK				LR	LR	10 59 30.1	
	comp=Z,2μm,21.9s,baz=200,slow=32						
	comp=Z,61nm,0.9s						
PETK	**Petropavlovsk-**	**59.64**	**7**	P	**P**	**10 38 17.5**	**0.0**
PETK	**Petropavlovsk-**	**59.64**	**7**	P	**P**	**10 38 17.5**	**0.0**
PET	**Petropavlovsk**	**59.69**	**8**	*e*P	**P**	**10 38 19.3**	**+1.6**
PET				*e*		10 40 37.7	
PET				*e*S	**S**	**10 46 29.7**	**+4.8**
PET				*e*		10 48 00.1	
PET				*e*SS	**SS**	**10 50 24.8**	**+3.3**
PET				pmax	pmax		
	comp=Z,47nm,0.9s						
PET				pmax	pmax		
	comp=Z,300nm,11.4s						
PET				MLR	MLR		
	comp=Z,400nm,17.0s						
SAIH	**SAIHA**	**59.91**	**300**	*e*P	P	10 38 12.1	-8.0
SAIH				IAmb	IAmb	10 38 22.4	
	comp=Z,202nm,1.9s						
HIA	**Hailar**	**59.98**	**340**	P	**P**	**10 38 20.5**	**+0.5**
HIA	**Hailar**	**59.98**	**340**	P	**P**	**10 38 20.3**	**+0.3**
	comp=Z,99nm,1.1s						
KOHI	**KOHIMA**	**60.22**	**304**	*e*P	P	10 38 12.8	-9.3
KOHI				IAmb	IAmb	10 38 46.9	
	comp=Z,26nm,0.8s						
HILR	**Hailar Array B**	**60.23**	**340**	P	**P**	**10 38 21.8**	**+0.1**
	comp=Z,60nm,0.9s,baz=142,slow=7.5,SNR=23						
HILR				LR	LR	11 04 24.9	
	comp=Z,389nm,18.2s,baz=70,slow=36						
	comp=Z,60nm,0.9s						
AZL	**Aizawl**	**60.63**	**301**	*e*P	P	10 38 17.8	-7.2
AZL				IAML		10 38 19.0	
	comp=Z,113nm,0.0s						
DRV	**Dumont d'Urvil**	**60.70**	**183**	P	**P**	**10 38 25.0**	**+0.4**
DRV	**Dumont d'Urvil**	**60.70**	**183**	P	**P**	**10 38 25.0**	**+0.4**
BRDH	**Bariadhala**	**61.13**	**300**	LR	LR	11 04 31.1	
	comp=Z,206nm,21.6s,baz=148,slow=36						
ZEA	**Zeya**	**61.84**	**347**	*e*P	**P**	**10 38 32.9**	**+0.5**
ZEA				*e*		10 38 42.4	
ZEA				*e*		10 46 58.3	
ZEA				*e*		10 53 41.7	
ZEA				pmax	pmax		
	comp=N,20nm,1.4s						
ZEA				pmax	pmax		
	comp=Z,50nm,1.0s						
SHL	**Shillong**	**62.00**	**303**	P	**P**	**10 38 33.7**	**-0.6**
SHL				pmax	pmax		
	comp=Z,25nm,0.9s						
SHL	**Shillong**	**62.00**	**303**	P	**P**	**10 38 33.7**	**-0.6**
SHL				IAmb	IAmb	10 39 16.2	
	comp=Z,24nm,0.9s						
SHL	**Shillong**	**62.00**	**303**	*e*P	P	10 38 25.4	-8.9
SHL				IAmb	IAmb	10 38 35.1	
	comp=Z,12nm,0.6s						
GTA2	**Gaotai**	**62.82**	**320**	*e*P	**P**	**10 38 40.0**	**+0.5**
GTA2				S	**S**	**10 47 07.4**	**+1.7**
GTA2				pmax	pmax		
	comp=Z,29nm,0.9s						
GTA2				L	L		
	comp=Z,340nm,18.4s						
GTA2				L	L		
	comp=Z,630nm,18.7s						
GTA2				L	L		
	comp=Z,860nm,20.3s						
PPT	**Papeete**	**62.94**	**107**	P	**P**	**10 38 41.4**	**+0.8**
	comp=Z,36nm,0.8s,baz=220,slow=22,SNR=4.8						
PPT				LR	LR	11 02 20.0	
	comp=Z,276nm,20.4s,baz=269,slow=32						
	comp=Z,36nm,0.8s						
SHEM	**Shemya Is, Ala**	**62.94**	**18**	LR	LR	11 03 37.4	
	comp=Z,361nm,19.4s,baz=264,slow=34						
PPTF	**Pamatai, Papee**	**62.95**	**107**	P	**P**	**10 38 40.6**	**-0.1**
ULN	**Ulaanbaatar**	**64.13**	**331**	*ce*P	**P**	**10 38 48.4**	**+0.5**
ULN				pmax	pmax		
	comp=Z,112nm,1.7s						
ULN	**Ulaanbaatar**	**64.13**	**331**	P	**P**	**10 38 48.0**	**0.0**
ULN				IAmb	IAmb	10 38 51.3	
	comp=Z,59nm,1.0s						
ULN	**Ulaanbaatar**	**64.13**	**331**	P	**P**	**10 38 48.2**	**+0.2**
	comp=Z,3μmcomp=Z,261nm,1.4s						
ULN	**Ulaanbaatar**	**64.13**	**331**	P	**P**	**10 38 48.5**	**+0.5**
	comp=Z,66nm,1.4s						
ULN	**Ulaanbaatar**	**64.13**	**331**	P	**P**	**10 38 48.7**	**+0.7**
LSA	**Lhasa**	**64.23**	**307**	P	**P**	**10 38 50.0**	**+0.6**
	comp=Z,30nm,0.6s						
GOMU	**GeErMu**	**64.39**	**315**	P	**P**	**10 38 50.3**	**+0.1**
GOMU				S	**S**	**10 47 29.8**	**+4.0**
GOMU				SS	**SS**	**10 51 33.3**	**-3.3**
GOMU				pmax	pmax		
	comp=Z,9.0nm,1.0s						
GOMU				L	L		
	comp=Z,140nm,16.9s						
GOMU				L	L		
	comp=Z,170nm,16.2s						
GOMU				L	L		
	comp=Z,330nm,17.0s						
SONM	**Songino Array**	**64.42**	**331**	P	**P**	**10 38 50.0**	**+0.1**
	comp=Z,24nm,0.9s,baz=149,slow=7.1,SNR=57						
SONM				PKP2bc	**P'P'bc**	**11 07 43.6**	**+0.4**
	comp=Z,12nm,1.2s,baz=265,slow=3.1,SNR=10						
SONM				LR	LR	11 08 19.8	
	comp=Z,509nm,19.1s,baz=137,slow=37						
	comp=Z,24nm,0.9s						
SONM	**Songino Array**	**64.42**	**331**	P	**P**	**10 38 50.0**	**+0.1**
SONM	**Songino Array**	**64.42**	**331**	P	**P**	**10 38 50.0**	**+0.1**
SONM				IAmb	IAmb	10 38 53.0	
	comp=Z,55nm,1.2s						
CIT	**Chita**	**64.48**	**338**	*e*P	**P**	**10 38 49.6**	**-0.5**
CIT				*e*		10 39 10.8	
CIT				*e*		10 39 25.2	
CIT				*e*		10 41 21.2	
CIT				pmax	pmax		
	comp=Z,282nm,1.4s						

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CASY  Casey             65.19 195   P        P        10 38 54.4 -0.1
CASY                                IAmb     IAmb     10 40 16.4
      comp=Z,47nm,0.7s
CASY  Casey             65.19 195   P        P        10 38 54.5 +0.1
      comp=Z,48nm,1.4s
CASY  Casey             65.19 195   P        P        10 38 54.3 -0.1
KIWB  Kanaga Island     65.33  24   P        P        10 38 55.8 +0.4
KIWB                                IAmb     IAmb     10 39 01.2
      comp=Z,99nm,1.1s
MA2   Magadan           65.49   2   P        P        10 38 56.4  0.0
      comp=Z,49nm,1.0s,baz=172,slow=7.7,SNR=12
MA2                                 LR       LR       11 03 28.1
      comp=Z,982nm,21.9s,baz=174,slow=32
      comp=Z,49nm,1.0s
MA2   Magadan           65.49   2   P        P        10 38 56.7 +0.3
MA2   Magadan           65.49   2ceP        P        10 38 56.4  0.0
MA2                                 pmax     pmax
      comp=Z,111nm,1.3s
MA2   Magadan           65.49   2   P        P        10 38 56.1 -0.2
MA2   Magadan           65.49   2   P        P        10 38 56.4  0.0
      comp=Z,935nmcomp=Z,88nm,1.2s
MA2   Magadan           65.49   2   P        P        10 38 56.8 +0.4
      comp=Z,80nm,1.2s
MA2   Magadan           65.49   2   P        P        10 38 56.8 +0.4
ADK   Adak              65.54  24   P        P        10 38 57.9 +1.1
ADK   Adak              65.54  24   P        P        10 38 57.0 +0.2
ADK                                 pmax     pmax
      comp=Z,357nm,2.0s
ADK   Adak              65.54  24   P        P        10 38 57.0 +0.2
EVN   Everest           67.09 304   P        P        10 39 07.2 -0.9
EVN                                 IAmb     IAmb     10 39 44.4
      comp=Z,26nm,0.8s
EVN   Everest           67.09 304   P        P        10 39 08.3 +0.2
      comp=Z,33nm,1.2s
PALK  Pallekele         67.40 280ceP        P        10 39 09.2 -0.4
PALK  Pallekele         67.40 280   P        P        10 39 09.8 +0.3
PALK                                IAmb     IAmb     10 39 11.3
      comp=Z,136nm,1.7s
PALK  Pallekele         67.40 280   P        P        10 39 11.3 +1.7
PALK  Pallekele         67.40 280   P        P        10 39 09.6  0.0
      comp=Z,48nm,1.3s
ZAK   Zakamensk         67.66 331 eP        P        10 39 09.7 -0.9
ZAK                                 pmax     pmax
      comp=Z,75nm,1.1s
MALK  Mahakanadarawa    67.74 282   P        P        10 39 12.4 +0.7
      comp=Z,50nm,1.5s
SEY   Seymchan          68.92   3   P        P        10 39 18.1 +0.1
      comp=Z,54nm,1.2s,baz=176,slow=6.5,SNR=34
SEY                                 LR       LR       11 06 32.1
      comp=Z,676nm,21.9s,baz=171,slow=33
      comp=Z,54nm,1.2s
SEY   Seymchan          68.92   3ceP        P        10 39 18.5 +0.5
SEY                                 pmax     pmax
      comp=Z,70nm,1.3s
YAK   Yakutsk           69.18 351ceP        P        10 39 19.3 -0.3
YAK                                 pmax     pmax
      comp=Z,170nm,1.3s
YAK   Yakutsk           69.18 351   P        P        10 39 19.4 -0.3
YAK   Yakutsk           69.18 351   P        P        10 39 19.7  0.0
      comp=Z,134nm,0.8s
MOY   Mondy             69.59 331 eP        P        10 39 22.8 +0.2
MOY                                 pmax     pmax
      comp=Z,73nm,1.4s
CCD   Concordia, Ant    70.32 186   P        P        10 39 27.2 +0.2
KNGR  Kungurtug, Tuv    70.64 329 i P        P        10 39 29.4 +0.3
KNGR                                pmax     pmax
      comp=Z,41nm,1.1s
UNV   Unalaska Valle    71.28  27   P        P        10 39 31.8 -0.9
UNV                                 IAmb     IAmb     10 42 08.3
      comp=Z,81nm,1.5s
HYB   Hyderabad         71.43 291 eP        P        10 39 34.1 -0.3
HYB                               epP       pP       10 39 50.3 +2.3
HYB                               ePcP      PcP      10 39 53.2 -0.6
HYB                               ePP       PP       10 42 13.1 -0.3
HYB                               eS        S        10 48 49.1 -0.8
HYB                               eScS      SKSac    10 49 33.9 -0.5
LVA   Lava Point        71.70  27   P        P        10 39 35.1 -0.1
VNDA  Vanda             71.86 177   P        P        10 39 36.4 +0.5
      comp=Z,30nm,0.9s,baz=331,slow=6.6,SNR=112
VNDA                                LR       LR       11 11 49.3
      comp=Z,333nm,18.1s,baz=338,slow=36
      comp=Z,30nm,0.9s
VNDA  Vanda             71.86 177   P        P        10 39 36.2 +0.3
VNDA                                IAmb     IAmb     10 39 37.5
      comp=Z,81nm,1.3s
VNDA  Vanda             71.86 177   P        P        10 39 36.5 +0.6
      comp=Z,63nm,1.7s
VNDA  Vanda             71.86 177   P        P        10 39 36.2 +0.3
SBA   Scott Base        72.51 176   P        P        10 39 41.0 +1.3
SBA                                 pmax     pmax
      comp=Z,64nm,1.4s
SBA   Scott Base        72.51 176   P        P        10 39 41.0 +1.3
SBA                                 IAmb     IAmb     10 39 52.6
      comp=Z,64nm,1.4s
SBA   Scott Base        72.51 176   P        P        10 39 41.3 +1.6
      comp=Z,37nm,1.9s
SBA                                 pP       pP       10 39 51.9 -2.2
WMQ   Urumqi            72.79 319 eP        P        10 39 42.3 +0.2
WMQ                                 sP       sP       10 40 07.9 +6.7
WMQ                                 L        L
      comp=Z,310nm,20.1s
H08S2 Diego Garcia H    73.85 264   P        P        10 39 48.8 +0.3
      baz=151,slow=76,SNR=4.3
H08S3 Diego Garcia H    73.86 264   P        P        10 39 48.9 +0.3
      baz=153,slow=76,SNR=6.6
H08S1 Diego Carcia H    73.87 264   P        P        10 39 49.8 +1.2
DGAR  Diego Garcia      73.91 264ceP        P        10 39 51.2 +2.0
DGAR                                pmax     pmax
      comp=Z,234nm,1.3s
KAAM  Kaadhehdhoo       74.09 272   P        P        10 39 53.0 +2.7
      comp=Z,233nm,1.1s
KAAM  Kaadhehdhoo       74.09 272   P        P        10 39 52.6 +2.3
      comp=Z,234nm,1.1s
UTK   UTTARKASHI        74.89 304 eP        P        10 39 46.3 -8.4
SDPT  Sand Point        74.98  28   P        P        10 39 53.3 -1.2
SDPT                                IAmb     IAmb     10 39 57.1
      comp=Z,29nm,0.9s
CNBA  Chernabura Isl    75.10  29   P        P        10 39 54.8 -0.3
CNBA                                IAmb     IAmb     10 40 27.3
      comp=Z,38nm,1.2s
BILL  Bilibino          75.17   7ceP        P        10 39 55.9 +0.5
BILL                                pmax     pmax
      comp=Z,47nm,1.0s
BILI  Bilibino, Chuk    75.21   7   P        P        10 39 55.3 -0.3
      comp=Z,42nm,1.1s
NDI   New Delhi         75.36 302 eP        P        10 39 49.4 -7.9
DGZ   Jazzator, Alta    75.64 325 i P        P        10 39 58.0 -0.7
DGZ                                 pmax     pmax
      comp=Z,23nm,1.0s
VNFG  Fog Glacier, M    75.94  28   P        P        10 40 00.2 +0.1
VNFG                                IAmb     IAmb     10 40 26.4
      comp=Z,60nm,1.1s
RTK   Rohtak            76.13 302 eP        P        10 39 53.6 -8.1
ZSN   Zaisan            76.16 322 eP        P        10 40 01.2 -0.3
ZSN   Zaisan            76.16 322 eP        P        10 40 01.3 -0.3
CHGN  Chignik           76.48  28   P        P        10 40 02.2 -0.8
CHGN                                IAmb     IAmb     10 40 03.7
      comp=Z,36nm,1.2s
M13K  Dall Lake         76.81  23   P        P        10 40 04.9 +0.1
MK31  Makanchi Array    77.50 321ceP        P        10 40 08.5 -0.6
MKAR  Makanchi Array    77.50 321   P        P        10 40 08.3 -0.8
      comp=Z,4.9nm,0.4s,baz=99,slow=8.5,SNR=47
MKAR                                PKPPKP   P'P'df   11 07 14.9 -0.6
      comp=Z,1.6nm,1.0s,baz=329,slow=2.1,SNR=5.7
      comp=Z,4.9nm,0.4s
MKAR  Makanchi Array    77.50 321   P        P        10 40 08.2 -0.9
WUS   Wushi             77.54 314   P        P        10 40 09.3 -0.2
      comp=Z,14nm,1.4s
CHIR  Chirikof Islan    77.55  29   P        P        10 40 09.5 +0.4
MAKZ  Makanchi          77.70 320   P        P        10 40 09.5 -0.7
MAKZ                                pmax     pmax
      comp=Z,29nm,1.2s
MAKZ  Makanchi          77.70 320   P        P        10 40 09.4 -0.7
MAKZ  Makanchi          77.70 320   P        P        10 40 09.5 -0.7
      comp=Z,23nm,1.1s
MAKZ  Makanchi          77.70 320   P        P        10 40 09.8 -0.4
N15K  Kwethluk River    77.95  24   P        P        10 40 11.8 +0.6
N15K                                IAmb     IAmb     10 40 13.0
      comp=Z,35nm,1.1s
SHLS  Shalkode          78.03 316 eP        P        10 40 10.1 -2.1
SHLS                                pmax     pmax
      comp=Z,17nm,1.3s
SHLS  Shalkode          78.03 316 eP        P        10 40 10.2 -2.1
      comp=Z,17nm,1.3s
UZB   Uzynbulak         78.33 316c iP       P        10 40 13.3 -0.6
UZB   Uzynbulak         78.33 316⇑iP        P        10 40 13.3 -0.6
TIXI  Tiksi             78.46 354   P        P        10 40 12.3 -1.4
      comp=Z,41nm,0.8s,baz=158,slow=5.1,SNR=30
TIXI                                LR       LR       11 13 28.2
      comp=Z,305nm,21.6s,baz=154,slow=35
      comp=Z,41nm,0.8s
TIXI  Tiksi             78.46 354ceP        P        10 40 12.4 -1.4
TIXI                                pmax     pmax
      comp=Z,54nm,1.0s
TIXI  Tiksi             78.46 354   P        P        10 40 13.5 -0.3
TIXI                                IAmb     IAmb     10 40 16.6
      comp=Z,61nm,1.1s
SRGN  SRI GANGA NAGA78.48 302 eP        P        10 40 06.5 -8.4
SII   Sitkinak Islan    78.61  29   P        P        10 40 15.8 +0.8
SII   Sitkinak Islan    78.61  29   P        P        10 40 14.4 -0.6
K15K  Wolf Creek Mou    78.66  22   P        P        10 40 15.1 -0.1
K15K                                IAmb     IAmb     10 40 17.0
      comp=Z,134nm,1.6s
KPKS  Kokpek            78.67 316 eP        P        10 40 15.2 -0.5
KPKS  Kokpek            78.67 316 eP        P        10 40 15.2 -0.5
TARG  Taragay, Kyrgy    78.72 315   P        P        10 40 16.8 +0.3
TARG                                pmax     pmax
      comp=Z,21nm,1.3s
TARG  Taragay, Kyrgy    78.72 315   P        P        10 40 16.8 +0.3
TARG  Taragay, Kyrgy    78.72 315   P        P        10 40 16.3 -0.2
      comp=Z,9.2nm,1.1s
SATY  Saty              78.73 316c iP       P        10 40 15.6 -0.5
SATY  Saty              78.73 316⇑iP        P        10 40 15.6 -0.5
M16K  Timber Creek      78.90  24   P        P        10 40 16.4 -0.1
M16K                                IAmb     IAmb     10 40 18.8
      comp=Z,55nm,1.2s
ACHA  Angle Creek He    78.92  27   P        P        10 40 16.3 -0.4
ACHA                                IAmb     IAmb     10 40 19.3
      comp=Z,48nm,1.4s
ZAA0  Zalesovo Array    79.03 328   P        P        10 40 15.9 -1.4
ZALV  Zalesovo Beam     79.03 328   P        P        10 40 15.5 -1.8
      comp=Z,24nm,0.7s,baz=112,slow=5.5,SNR=32
ZALV                                PKKPbc   PKKPbc   10 59 09.7 -2.6
      comp=Z,2.0nm,0.4s,baz=316,slow=2.8,SNR=8.3
ZALV                                PKPPKP   P'P'df   11 07 12.5 +0.3
      comp=Z,0.9nm,0.6s,baz=316,slow=4.0,SNR=4.6
ZALV                                LR       LR       11 14 27.7
      comp=Z,770nm,21.8s,baz=109,slow=35
      comp=Z,24nm,0.7s
ZALV  Zalesovo Beam     79.03 328   P        P        10 40 16.1 -1.2
L16K  Owhat River       79.10  23   P        P        10 40 17.0 -0.5
L16K                                IAmb     IAmb     10 40 18.9
      comp=Z,41nm,1.2s
KDJ   Kajisay           79.29 315   P        P        10 40 18.7 -0.6
KDJ                                 pmax     pmax
      comp=Z,18nm,1.1s
KDJ   Kajisay           79.29 315   P        P        10 40 18.7 -0.6
KDJ   Kajisay           79.29 315   P        P        10 40 19.0 -0.2
      comp=Z,20nm,1.1s
N17K  Nushagak Hills    79.34  25   P        P        10 40 18.9  0.0
TDK   Taldyqorghan      79.38 318 eP        P        10 40 19.0 -0.5
TDK                                 pmax     pmax
      comp=Z,10.0nm,0.7s
TDK   Taldyqorghan      79.38 318 eP        P        10 40 19.0 -0.5
      comp=Z,9.8nm,0.7s
ASAI  AK-SAY(Kyrgyzs    79.39 313   P        P        10 40 19.6 -0.4
KSH2  Kashi             79.56 311   P        P        10 40 20.4 -0.4
KSH2                                pmax     pmax
      comp=Z,10.0nm,0.9s
J16K  Anvik River       79.60  21   P        P        10 40 20.6 +0.3
J16K                                IAmb     IAmb     10 40 22.3
      comp=Z,53nm,1.2s
MDOK  Medeo             79.70 316 eP        P        10 40 20.9 -0.6
MDOK  Medeo             79.70 316 eP        P        10 40 20.9 -0.6
TNSS  Tian-Shan         79.73 316 eP        P        10 40 21.1 -0.9
TNSS  Tian-Shan         79.73 316 eP        P        10 40 21.1 -0.9
AAA   Alma-Ata          79.81 316 eP        P        10 40 21.4 -0.5
AAA                                 pmax     pmax
      comp=Z,9.0nm,0.5s
AAA   Alma-Ata          79.81 316 eP        P        10 40 21.4 -0.5
      comp=Z,9.1nm,0.5s
NIL   Nilore            79.91 306   P        P        10 40 22.7 +0.1
NIL   Nilore            79.91 306   P        P        10 40 22.3 -0.3
      comp=Z,54nm,0.8s
KDAK  Kodiak Island     79.97  28   P        P        10 40 21.6 -0.8
      comp=Z,26nm,1.4s
SEM   Semipalatinsk     80.14 323 eP        P        10 40 23.0 -0.7
SEM   Semipalatinsk     80.14 323 eP        P        10 40 23.1 -0.7
BOOM  Boomskoye usch    80.27 315   P        P        10 40 24.1 -0.5
BOOM                                pmax     pmax
      comp=Z,28nm,1.4s
BOOM  Boomskoye usch    80.27 315   P        P        10 40 24.1 -0.5
BOOM  Boomskoye usch    80.27 315   P        P        10 40 24.2 -0.5
      comp=Z,13nm,0.7s
KUU   Kurty             80.42 316 eP        P        10 40 24.6 -0.5
KUU   Kurty             80.42 316 eP        P        10 40 24.7 -0.5
L18K  Granite Mounta    80.47  23   P        P        10 40 25.1 +0.1
L18K                                IAmb     IAmb     10 40 26.8
      comp=Z,73nm,1.7s
KURK  Kurchatov         81.22 323ceP        P        10 40 28.0 -1.2
KURK                                pmax     pmax
      comp=Z,30nm,1.3s
KURK  Kurchatov         81.22 323   P        P        10 40 28.1 -1.0
      comp=Z,23nm,1.2s
KURK  Kurchatov         81.22 323   P        P        10 40 27.9 -1.2
KURBB Kurchatov Arra    81.24 323   P        P        10 40 27.9 -1.4
      comp=Z,6.7nm,0.8s,baz=111,slow=4.3,SNR=30
KURBB                               PP       PP       10 43 33.5 -1.8
      comp=Z,3.4nm,1.1s,baz=108,slow=9.2,SNR=5.4
KURBB                               PKKPbc   PKKPbc   10 59 04.7 -2.3
      comp=Z,0.5nm,0.3s,baz=292,slow=2.7,SNR=4.6
KURBB                               PKPPKP   P'P'df   11 07 06.4 -2.1
      comp=Z,0.3nm,0.3s,baz=288,slow=3.1,SNR=5.8
      comp=Z,6.7nm,0.8s
KURBB Kurchatov Arra    81.24 323   P        P        10 40 26.8 -2.5
AAK   Ala-Archa         81.34 315   PKKPbc   PKKPbc   10 59 04.8 -1.9
      comp=Z,2.4nm,0.8s,baz=216,slow=7.3,SNR=4.4
AAK   Ala-Archa         81.34 315ceP        P        10 40 29.6 -0.7
AAK                                 pmax     pmax
      comp=Z,7.0nm,0.8s
AAK   Ala-Archa         81.34 315   P        P        10 40 29.8 -0.4
      comp=Z,9.8nm,0.8s
MAW   Mawson            82.18 203   P        P        10 40 34.3 +0.3
      comp=Z,5.8nm,1.2s
MAW   Mawson            82.18 203   P        P        10 40 34.1 +0.1
      comp=Z,23nm,0.8s,baz=88,slow=6.4,SNR=95
MAW                                 LR       LR       11 16 45.4
      comp=Z,808nm,18.6s,baz=80,slow=35
      comp=Z,23nm,0.8s
MAW   Mawson            82.18 203   P        P        10 40 33.8 -0.1
MAW   Mawson            82.18 203   P        P        10 40 34.2 +0.3
      comp=Z,5.8nm,1.2s
ARK   Arkit             82.92 313   P        P        10 40 38.0 -0.5
      comp=Z,12nm,0.9s
PMR   Palmer            83.28  26   P        P        10 40 38.4 -1.3
BTK   Batken            83.34 311   P        P        10 40 40.3 -0.4
      comp=Z,11nm,1.4s
DZA   Taraz             83.65 314 eP        P        10 40 41.4 -0.7
DZA                                 pmax     pmax
      comp=Z,13nm,0.8s
DZA   Taraz             83.65 314 eP        P        10 40 41.5 -0.7
      comp=Z,13nm,0.8s
QSPA  South Pole Qui    83.92 180   P        P        10 40 42.8 -0.3
      comp=Z,50nm,0.7s,baz=334,slow=1.0,SNR=219
QSPA                                S        SKSac    10 50 57.0 -5.3
      comp=Z,0.4nm,0.6s,baz=208,slow=23,SNR=6.7
QSPA                                PKKPbc   PKKPbc   10 58 57.5 -4.3
      comp=Z,1.1nm,0.6s,baz=247,slow=1.2,SNR=9.5
QSPA                                LR       LR       11 16 35.4
      comp=Z,939nm,20.8s,baz=6.5,slow=35
      comp=Z,50nm,0.7s
QSPA  South Pole Qui    83.92 180   P        P        10 40 42.5 -0.7
QSPA  South Pole Qui    83.92 180   P        P        10 40 43.0 -0.2
      comp=Z,110nm,1.2s
QSPA  South Pole Qui    83.92 180   P        P        10 40 42.9 -0.3
RND   Reindeer          84.19  24   P        P        10 40 42.8 -1.7
RND                                 pmax     pmax
      comp=Z,28nm,0.7s
RND   Reindeer          84.19  24   P        P        10 40 42.8 -1.7
RND                                 IAmb     IAmb     10 40 47.6
      comp=Z,28nm,0.7s
KK31  Karatay Array     84.28 314 i P        P        10 40 44.0 -1.4
KK31  Karatay Array     84.28 314   P        P        10 40 45.0 -0.4
KKAR  Karatay Array     84.28 314   P        P        10 40 44.6 -0.8
KKAR  Karatay Array     84.28 314   P        P        10 40 44.6 -0.8
EYAK  Cordova Ski Ar    84.34  27   P        P        10 40 46.0 +0.8
EYAK  Cordova Ski Ar    84.34  27   P        P        10 40 45.2  0.0
EYAK                                IAmb     IAmb     10 40 46.7
      comp=Z,32nm,1.3s
IUG   Iuzhnay           84.41 313 eP        P        10 40 45.4 -0.7
IUG                                 pmax     pmax
      comp=Z,9.0nm,0.7s
IUG   Iuzhnay           84.41 313 eP        P        10 40 45.5 -0.7
      comp=Z,8.8nm,0.7s
NEA2  Nenana            84.63  23   P        P        10 40 45.1 -1.4
CHM   Chimkent          84.76 313 eP        P        10 40 47.2 -0.6
CHM                                 pmax     pmax
      comp=Z,8.0nm,0.6s
CHM   Chimkent          84.76 313 eP        P        10 40 47.2 -0.6
      comp=Z,8.5nm,0.6s
COLA  College           85.22  23   P        P        10 40 47.9 -1.6
COLA  College           85.22  23c iP       P        10 40 47.6 -1.9
COLA                                pmax     pmax
      comp=Z,31nm,0.9s
COLA  College           85.22  23   P        P        10 40 47.6 -1.9
COLA  College           85.22  23   P        P        10 40 47.6 -1.9
NRIK  Noril'sk          85.31 342   P        P        10 40 48.8 -1.1
      comp=Z,57nm,0.9s,baz=119,slow=5.6,SNR=24
NRIK                                LR       LR       11 17 31.6
      comp=Z,376nm,21.6s,baz=118,slow=35
      comp=Z,57nm,0.9s
NRIK  Noril'sk          85.31 342c iP       P        10 40 48.5 -1.4
NRIK                                pmax     pmax
      comp=Z,71nm,1.0s
ILAR  Eielson Array     85.55  23   P        P        10 40 48.9 -2.4
      comp=Z,17nm,0.6s,baz=253,slow=4.7,SNR=135
ILAR                                PKKP     PKKPdf   10 58 46.9 -3.1
      comp=Z,0.2nm,0.6s,baz=323,slow=1.1,SNR=4.6
ILAR                                PKPPKP   P'P'df   11 07 01.3 +1.5
      comp=Z,0.5nm,0.9s,baz=146,slow=1.8,SNR=4.6
      comp=Z,17nm,0.6s
MENT  Mentasta          86.14  25   P        P        10 40 54.1 -0.1
L26K  Log Cabin Wild    86.33  25   P        P        10 40 54.6 -0.6
L26K                                IAmb     IAmb     10 40 58.1
      comp=Z,19nm,0.6s
BVA0  Borovoye Array    86.78 324 i P        P        10 40 55.5 -2.0
BVAR  Borovoye Array    86.78 324   P        P        10 40 55.6 -1.9
      comp=Z,13nm,0.7s,baz=114,slow=5.7,SNR=23
BVAR                                PP       PP       10 44 22.1 +1.6
      comp=Z,2.9nm,0.8s,baz=116,slow=6.7,SNR=4.1
      comp=Z,13nm,0.7s
BORK  Borovoye          86.82 324 i P        P        10 40 58.0 +0.3
BORK                                pmax     pmax
      comp=Z,15nm,1.0s
PNL   Peninsula         87.03  29   P        P        10 40 59.3 +0.7
E25K  Arctic Village    87.39  20   P        P        10 41 00.1 -0.1
E25K                                IAmb     IAmb     10 41 01.8
      comp=Z,77nm,2.0s
SKAG  Skagway           88.97  30   P        P        10 41 08.4 +0.6
H02S2 DAWSON INLET T 89.18  36   P        P        10 41 06.8 -2.1
      SNR=5.7
H02S1 DAWSON INLET T 89.19  36   P        P        10 41 07.2 -1.7
      SNR=5.7
G29M  Pine Creek        89.71  22   P        P        10 41 10.6 -0.6
G29M                                IAmb     IAmb     10 41 15.1
      comp=Z,29nm,1.2s
G30M  tAoh Zraii Nji    90.42  23   P        P        10 41 13.7 -0.8
G30M                                IAmb     IAmb     10 41 17.2
      comp=Z,25nm,1.1s
F30M  Barrier River     90.73  22   P        P        10 41 15.4 -0.5
F30M                                IAmb     IAmb     10 41 19.4
      comp=Z,47nm,1.4s
H31M  Peel River        90.87  24   P        P        10 41 16.0 -0.6
H31M                                IAmb     IAmb     10 41 31.1
      comp=Z,18nm,1.1s
R33M  Jennings River    91.14  30   P        P        10 41 18.0 -0.1
R33M                                IAmb     IAmb     10 41 19.4
      comp=Z,25nm,1.6s
DLBC  Dease Lake        91.47  31   LR       LR       11 15 59.9
      comp=Z,442nm,20.4s,baz=245,slow=31
BBB   Bella Bella       91.64  38   LR       LR       11 13 51.7
      comp=Z,479nm,21.9s,baz=244,slow=30
BBB   Bella Bella       91.64  38   P        P        10 41 19.9 -0.5
      comp=Z,15nm,1.6s
INK   Inuvik            91.72  21   P        P        10 41 19.3 -1.1
INK                                 pmax     pmax
      comp=Z,15nm,1.1s
INK   Inuvik            91.72  21   P        P        10 41 19.3 -1.1
INK                                 IAmb     IAmb     10 41 26.1
      comp=Z,14nm,1.1s
INK   Inuvik            91.72  21   P        P        10 41 19.5 -0.9
      comp=Z,15nm,1.1s
AB31  Akbulak array     92.58 319 i P        P        10 41 22.2 -2.6
AB31  Akbulak array     92.58 319   P        P        10 41 22.6 -2.2
ABKAR Akbulak array     92.58 319   P        P        10 41 22.6 -2.3
CBB   Campbell River    93.11  40   P        P        10 41 26.2 -1.0
CBB                                 IAmb     IAmb     10 41 28.8
      comp=Z,26nm,1.2s
KSXB  Camp Six Broad    93.38  48   P        P        10 41 27.8 -1.0
KHBM  Hayfork Bally     93.78  50   P        P        10 41 30.3 -0.5
KHBM                                IAmb     IAmb     10 41 32.0
      comp=Z,18nm,1.3s
AKTO  Aktyubinsk        93.93 320   LR       LR       11 25 25.8
      comp=Z,176nm,19.3s,baz=322,slow=37
ELIB  Princess Elisa    94.13 195 dP        P        10 41 31.6 -0.2
      comp=Z,8.3nm,1.2s
ARTI  Arti              94.19 326   P        P        10 41 29.9 -2.2
      comp=Z,1.8nm,0.5s,baz=88,slow=2.1,SNR=3.6
ARTI                                LR       LR       11 23 55.6
      comp=Z,405nm,21.8s,baz=80,slow=36
      comp=Z,1.8nm,0.5s
ARTI  Arti              94.19 326c iP       P        10 41 29.6 -2.5
ARTI                                                  10 45 17.7
ARTI                                S        SKSac    10 51 59.1 -4.1
ARTI                                SS       SS       10 59 00.4 -0.8
ARTI                                pmax     pmax
      comp=Z,9.0nm,1.4s
YBH   Yreka Blue Hor    94.24  49   LR       LR       11 15 39.3
      comp=Z,1µm,21.6s,baz=307,slow=30
BELA  Belgrano 2        96.19 180   P        P        10 41 39.7 -1.2
MXC   Moxie City        96.25  44   P        P        10 41 41.0 -0.8
PNTR  Pine Nut          96.46  51   P        P        10 41 41.9 -1.3
PNTR                                IAmb     IAmb     10 41 43.4
      comp=Z,15nm,1.5s
E07A  Sunnyside         96.56  44   P        P        10 41 41.9 -1.3
E07A                                IAmb     IAmb     10 41 44.1
      comp=Z,12nm,1.2s
WAH2  Wahluke Slope     96.76  44   P        P        10 41 43.1 -0.9
WAH2                                IAmb     IAmb     10 41 45.0
      comp=Z,12nm,1.1s
PNT   Penticton         96.79  41   P        P        10 41 41.9 -2.3
PNT                                 pmax     pmax
      comp=Z,15nm,1.5s
E08A  Dider Farm, El    97.10  44   P        P        10 41 45.1 -0.5
E08A                                IAmb     IAmb     10 41 46.6
      comp=Z,12nm,1.2s
OPO   Ambohidratompo    97.28 250   LR       LR       11 20 00.5
      comp=Z,112nm,20.6s,baz=86,slow=32
WVOR  Wild Horse Val    97.31  48   P        P        10 41 46.2 -0.6
      comp=Z,3.4nm,0.9s
NVAR  Mina Array Bea    97.44  52   P        P        10 41 46.6 -1.0
      comp=Z,2.0nm,1.0s,baz=256,slow=6.7,SNR=11
NVAR                                LR       LR       11 23 01.2
      comp=Z,341nm,18.0s,baz=266,slow=34
      comp=Z,2.0nm,1.0s
BMO   Blue Mountains    98.31  46   P        P        10 41 50.3 -0.9
NEW   Newport           98.43  42   LR       LR       11 19 49.0
      comp=Z,456nm,20.4s,baz=280,slow=32
NEW   Newport           98.43  42   P        P        10 41 50.9 -0.7
      comp=Z,11nm,1.3s
TROLL Troll, Antarti    98.73 191 ⇑Pdiff    P        10 41 51.9 -0.7
      comp=Z,185nm,0.7s
PFO   Pinyon Flats O    98.81  57   LR       LR       11 17 43.5
      comp=Z,530nm,21.9s,baz=280,slow=30
KIRV  Kirov             99.06 328   LR       LR       11 26 51.6
      comp=Z,787nm,21.7s,baz=81,slow=36
YKA   Yellowknife Ar    99.24  28   P        Pdif     10 41 54.2 -0.7
      comp=Z,2.1nm,0.8s,baz=277,slow=4.8,SNR=3.6
YKA                                 LR       LR       11 24 06.0
      comp=Z,226nm,20.5s,baz=302,slow=34
      comp=Z,2.1nm,0.8s
SNAA  Sanae             99.93 189   P        Pdif     10 41 56.6 -1.3
      comp=Z,2.9nm,0.8s,baz=44,slow=0.2,SNR=3.8
HLID  Hailey           100.40  47   P        Pdif     10 42 00.3 -0.4
      comp=Z,2.4nm,1.3s
BELG  Belogornoye      100.45 322 i P        Pdif     10 42 00.4  0.0
BELG                                pmax     pmax
      comp=Z,3.0nm,1.0s
VNA3  Neumayer Olymp101.31 188 ⇑Pdiff    Pdif     10 42 02.8 -1.2
      comp=Z,4.1nm,0.8s
VNA3  Neumayer Olymp101.31 188   P        Pdif     10 42 03.2 -0.8
      comp=Z,7.5nm,2.3s
VNA1  Neumayer--Stat   101.66 188 ⇑Pdiff    Pdif     10 42 05.5 +0.1
      comp=Z,4.1nm,0.8s
BOZ   Bozeman (W)      102.29  45   P        Pdif     10 42 08.6 -0.4
KLMR  Klimovskoe       103.72 331 eP        Pdif     10 42 11.1 -3.6
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KLMR				e		10 46 28.1	
KLMR				pmax	pmax		
	comp=Z,29nm,1.8s						
PDAR	Pinedale Array	103.99	48	Pdiff	Pdif	10 42 15.7	-1.1
	comp=Z,0.7nm,0.5s,baz=220,slow=1.7,SNR=12						
PDAR				PP	PKiKP	10 46 34.2	+0.2
	comp=Z,0.2nm,0.5s,baz=264,slow=3.2,SNR=7.6						
PDAR				PKPPKP	P'P'df	11 06 26.4	-0.8
	comp=Z,1.0nm,1.0s,baz=75,slow=1.7,SNR=4.7						
APA	Apatity	104.43	339	eP	Pdif	10 42 13.8	-4.0
APA				e		10 46 36.5	
APA				pmax	pmax		
	comp=Z,4.0nm,1.1s						
APA				MLR	MLR		
	comp=Z,732nm,5.3s						
ARCES	ARCESS Array B	106.29	342	Pdiff	Pdif	10 42 23.6	-2.5
	comp=Z,3.9nm,0.8s,baz=357,slow=2.4,SNR=8.3						
ARCES				PKiKP	PKiKP	10 46 35.8	-1.4
	comp=Z,1.9nm,0.8s,baz=99,slow=2.1,SNR=7.4						
ARCES				PKKPbc	PKKPbc	10 57 57.9	-3.3
	comp=Z,1.8nm,0.8s,baz=288,slow=1.2,SNR=7.6						
FINES	FINESS Array B	109.69	334	Pdiff	Pdif	10 42 39.1	-2.3
	comp=Z,3.0nm,0.9s,baz=241,slow=2.0,SNR=3.6						
FINES				PKiKP	PKiKP	10 46 42.2	-1.5
	comp=Z,4.1nm,0.9s,baz=99,slow=3.1,SNR=6.9						
TXAR	Lajitas Array	109.84	61	PKiKP	PKiKP	10 46 44.7	-0.4
	comp=Z,0.3nm,0.5s,baz=252,slow=1.5,SNR=7.8						
BRTR	Keskin Array B	111.72	310	PKiKP	PKiKP	10 46 49.5	+1.0
	comp=Z,0.8nm,0.5s,baz=343,slow=1.3,SNR=5.2						
ULM	Lac du Bonnet	111.84	38	PKiKP	PKiKP	10 46 45.6	-2.5
	comp=Z,1.8nm,0.5s,baz=242,slow=3.3,SNR=6.7						
AKASG	Malin Array Be	112.02	323	PKiKP	PKiKP	10 46 47.3	-1.2
	comp=Z,0.3nm,0.3s,baz=66,slow=2.1,SNR=7.8						
AKASG				PP	PP	10 47 31.6	-0.9
	comp=Z,2.9nm,0.9s,baz=63,slow=7.0,SNR=10.0						
AKASG				PKKPbc	PKKPbc	10 57 38.9	-3.3
	comp=Z,0.9nm,0.5s,baz=266,slow=4.0,SNR=5.5						
AKBB	Malin Array Si	112.02	323	PP	PP	10 47 31.8	-0.7
KIEV	Kiev	112.03	323	PP	PP	10 47 31.7	-0.9
AK20	Malin Array Si	112.14	323	PP	PP	10 47 32.2	-1.1
LUBAR	Lubar, Ukraine	113.17	322	PP	PP	10 47 40.4	-0.3
BOSA	Boshof	114.17	235	PKP	PKiKP	10 46 54.0	+0.5
	comp=Z,6.2nm,0.5s,baz=116,slow=1.4,SNR=29						
BOSA	Boshof	114.17	235	PKIKP	PKiKP	10 46 54.0	+0.5
VRI	Vrincioaia	115.13	318	PP	PP	10 47 54.9	+0.1
BISRR	Bisoca	115.24	318	⇑P	PKiKP	10 46 54.8	-0.2
NEHR	Nehoiu	115.55	318	⇑P	PKPdf	10 46 56.5	+1.0
HFS	Hagfors	115.58	336	PKP	PKPdf	10 46 55.6	+0.6
	comp=Z,1.3nm,0.5s,baz=84,slow=4.5,SNR=2.1						
MLR	Muntele Rosu	115.77	318	⇑PKIKP	PKPdf	10 46 56.7	+0.7
MLR	Muntele Rosu	115.77	318	⇑P	PKPdf	10 46 56.7	+0.7
DOPR	Dopca	115.98	319	⇑P	PKiKP	10 46 58.1	+1.8
DOPR	Dopca	115.98	319	⇑P	PKiKP	10 46 58.1	+1.8
NB2	NORSAR Subarra	115.98	338	PKPdf	PKPdf	10 46 56.6	+0.7
	comp=Z,0.7nm,0.7s,baz=44,slow=1.9						
NOA	NORSAR Array B	115.98	338	PKP	PKiKP	10 46 55.7	-0.1
	comp=Z,3.1nm,0.9s,baz=53,slow=2.0,SNR=4.3						
VOIR		116.38	318	⇑P	PKiKP	10 46 58.2	+1.1
VOIR		116.38	318	⇑PKIKP	PKiKP	10 46 58.2	+1.1
VOIR		116.38	318	⇑P	PKiKP	10 46 58.2	+1.1
ARR	Arges	116.68	318	⇑P	PKiKP	10 46 59.6	+1.9
KOLS	Kolonicke sedl	116.86	323	ePKIKP	PKiKP	10 47 00.6	+2.7
KOLS	Kolonicke sedl	116.86	323	ePKP	PKiKP	10 47 00.6	+2.7
STHS	Stebnicka Huta	117.28	323	ePKIKP	PKiKP	10 46 59.9	+1.2
STHS	Stebnicka Huta	117.28	323	ePKP	PKiKP	10 46 59.9	+1.2
DRGR		117.42	320	⇓PKIKP	PKiKP	10 47 00.1	+1.0
DRGR		117.42	320	⇓P	PKiKP	10 47 00.1	+1.0
LANS	Liptovska Anna	118.44	324	ePKIKP	PKiKP	10 47 03.9	+2.9
LANS	Liptovska Anna	118.44	324	ePKP	PKiKP	10 47 03.9	+2.9
BZS	Buzias	118.57	319	⇑PKIKP	PKiKP	10 47 02.1	+0.8
BZS	Buzias	118.57	319	⇑P	PKiKP	10 47 02.1	+0.8
PSZ	Piszkesteto	118.72	322	⇑PKIKP	PKiKP	10 47 02.0	+0.4
PSZ	Piszkesteto	118.72	322	⇑P	PKiKP	10 47 02.0	+0.4
MDVR	Moldovita	118.82	318	⇑P	PKiKP	10 47 03.3	+1.4
STEB	Steborice	119.07	325	ePKPDF	PKiKP	10 47 03.7	+1.6
BOVS	Bovan	119.25	317	⇓P	PKPdf	10 47 02.2	-0.4
BOVS	Bovan	119.25	317	⇓P	PKPdf	10 47 02.2	-0.4
MORC	Moravsky Berou	119.27	325	ePKP	PKPdf	10 47 01.5	-1.0
KRLC	Kraliky	119.56	326	ePKIKP	PKiKP	10 47 04.1	+1.0
KRLC	Kraliky	119.56	326	ePKPDF	PKiKP	10 47 04.1	+1.0
JAVC	Velka Javorina	119.63	324	ePKP	PKPdf	10 47 02.8	-0.5
OSTC	Ostas	119.64	326	ePKIKP	PKiKP	10 47 04.2	+0.9
OSTC	Ostas	119.64	326	ePKPDF	PKiKP	10 47 04.2	+0.9
DPC	Dobruska-Polom	119.68	326	ePKIKP	PKPdf	10 47 00.7	-2.6
DPC	Dobruska-Polom	119.68	326	ePKPDF	PKPdf	10 47 00.7	-2.6
SRO	Srobarova	119.72	323	ePKIKP	PKiKP	10 47 05.3	+1.9
SRO	Srobarova	119.72	323	ePKP	PKiKP	10 47 05.3	+1.9
MODS	Modra-Piesok	120.09	324	ePKIKP	PKPdf	10 47 03.4	-0.7
MODS	Modra-Piesok	120.09	324	ePKP	PKPdf	10 47 03.4	-0.7
MORH	Mrgy, Hungar	120.22	321	⇑P	PKPdf	10 47 03.2	-1.1
KRUC	Moravsky	120.27	325	ePKP	PKPdf	10 47 03.6	-0.8
PRU	Pruhonice	120.85	326	ePKIKP	PKiKP	10 47 06.8	+1.2
PRU	Pruhonice	120.85	326	ePKPDF	PKiKP	10 47 06.8	+1.2
WINA	Alland / Wiene	120.92	324	ePKP	PKPdf	10 47 04.6	-1.1
	comp=Z,5.5nm,1.1s						
CLL	Collm	120.98	328	i PKIKP	PKiKP	10 47 06.4	+0.6
CLL				pmax	pmax		
	comp=Z,10.0nm,0.8s						
CLL				MLR	MLR		
	comp=Z,500nm,22.0s						
CLL	Collm	120.98	328	i PKiKP	PKiKP	10 47 06.4	+0.6
	comp=Z,10.0nm,0.8s						
CLL				e(PP)	PP	10 48 46.0	+11
CLL				ePS	PS	10 58 31.0	+3.5
CLL				ePPS	PPS	10 59 49.0	
CLL				ex	x	11 04 42.0	
CLL				eSS	SS	11 05 36.0	+33
CLL				LH		11 23 00.0	
CLL				LV		11 27 00.0	
CLL				AMS	AMS	11 41 00.0	
	comp=N,300nm,22.7s						
CLL				AMS	AMS	11 41 00.0	
	comp=E,300nm,18.4s						
CLL				AMS	AMS	11 41 00.0	
	comp=Z,500nm,22.0s						
RONA	Rosalia, Austr	120.98	323	i PKP	PKPdf	10 47 04.5	-1.4
	comp=Z,4.5nm,0.8s						
HSKC	Hora Svate Kat	121.13	327	ePKPDF	PKiKP	10 47 06.6	+0.4
CONA	Conrad Observa	121.13	324	ePKP	PKPdf	10 47 04.5	-1.7
	comp=Z,2.5nm,1.0s						
CKRC	Cesky Krumlov	121.59	325	ePKIKP	PKiKP	10 47 08.7	+1.6
CKRC	Cesky Krumlov	121.59	325	ePKPDF	PKiKP	10 47 08.7	+1.6
ARSA	Arzberg	121.66	323	ePKP	PKPdf	10 47 05.5	-1.7
	comp=Z,0.6nm,0.5s						
BLY	Banja Luka	121.78	320	⇓P	PKiKP	10 47 09.5	+2.0
KHC	Kasperske Hory	121.84	326c	i PKIKP	PKPdf	10 47 06.6	-0.9
KHC				pmax	pmax		
	comp=Z,11nm,1.0s						
KHC	Kasperske Hory	121.84	326	ePKPDF	PKPdf	10 47 06.9	-0.6
NKC	Novy Kostel	121.86	327	ePKIKP	PKiKP	10 47 09.0	+1.4
NKC	Novy Kostel	121.86	327	ePKPDF	PKiKP	10 47 09.0	+1.4
GERES	GERESS Array B	121.92	325	PKP	PKPdf	10 47 06.2	-1.5
	comp=Z,4.0nm,0.4s,baz=17,slow=1.4,SNR=27						
GERES				SKP	SKPdf	10 50 44.5	+4.9
	comp=Z,0.4nm,0.3s,baz=336,slow=2.2,SNR=4.5						
MOA	Molln	122.11	324	ePKP	PKPdf	10 47 06.3	-1.7
	comp=Z,2.0nm,0.5s						
PLCA	Paso Flores	122.11	147	PKP	PKiKP	10 47 08.6	+0.1
	comp=Z,6.4nm,0.5s,baz=243,slow=1.6,SNR=70						
SOKA	Soboth	122.23	323	ePKP	PKPdf	10 47 06.4	-2.0
	comp=Z,4.2nm,1.3s						
SESA	Seetaler Alpe,	122.30	323	ePKP	PKPdf	10 47 06.5	-2.1
	comp=Z,4.9nm,0.9s						
BIOA	Bad Ischl, Aus	122.55	324	ePKP	PKPdf	10 47 07.3	-1.6
	comp=Z,2.6nm,0.5s						
GRF	Grafenberg Arr	122.82	327	ePKP	PKPdf	10 47 07.2	-2.2
	baz=56,slow=1.1						
MYKA	Terra Mystica	123.09	323	i PKP	PKPdf	10 47 08.0	-2.0
	comp=Z,1.2nm,0.5s						
LESA	Schwarzleotal	123.25	324	ePKP	PKPdf	10 47 08.5	-1.8
	comp=Z,5.8nm,0.5s,SNR=6.7						
ABTA	Abfaltersbach	123.70	324	ePKP	PKPdf	10 47 09.2	-2.0
	comp=Z,17nm,1.2s						
WATA	Walderalm	123.93	325	ePKP	PKPdf	10 47 10.0	-1.7
	comp=Z,6.3nm,0.6s,SNR=5.3						
WTTA	Wattenberg	123.93	325	ePKP	PKPdf	10 47 10.1	-1.7
	comp=Z,11nm,0.6s,SNR=6.2						
MOTA	Moosalm	124.19	325	ePKP	PKPdf	10 47 10.1	-2.1
	comp=Z,9.9nm,0.6s,SNR=6.2						
SQTA	Sankt Quirin	124.20	325	ePKP	PKPdf	10 47 10.3	-1.9
	comp=Z,11nm,0.9s						
RETA	Reutte	124.31	325	ePKP	PKPdf	10 47 11.1	-1.2
	comp=Z,1.2nm,0.5s						
SCHQ	Schefferville	124.31	23	PKP	PKPdf	10 47 10.5	-1.5
	comp=Z,3.1nm,0.6s,baz=232,slow=5.3,SNR=5.2						
FETA	Feichten	124.58	325	ePKP	PKPdf	10 47 11.6	-1.4
	comp=Z,17nm,1.0s,SNR=6.4						
BTNL	Ternell	124.89	331	dPKP	PKiKP	10 47 14.5	+0.9
DAVA	Damuels	124.92	326	ePKP	PKPdf	10 47 11.8	-1.8
	comp=Z,5.6nm,0.9s						
MEM	Membach	124.94	331	dPKPdf	PKPdf	10 47 12.2	-1.1
MEM				dPKP	PKiKP	10 47 14.2	+0.5
EKA	Eskdalemuir Ar	125.35	340	PKP	PKPdf	10 47 12.6	-1.4
	comp=Z,5.1nm,0.6s,baz=22,slow=3.0,SNR=16						
BCLA	Clavier	125.41	331	dPKP	PKiKP	10 47 15.6	+1.0
WLF	Walferdange	125.47	330	dPcP	PKiKP	10 47 15.6	+0.8
UCC	Uccle	125.61	332	dPKP	PKiKP	10 47 16.2	+1.2
RCHB	Rochefort	125.61	331	dPKPdf	PKPdf	10 47 13.2	-1.4
RCHB				dPKP	PKiKP	10 47 16.1	+1.1
BMRD	Maredsous	125.74	331	dPKP	PKiKP	10 47 16.5	+1.2
DOU	Dourbes	125.96	331	dPKPdf	PKPdf	10 47 14.1	-1.2
DOU				dPKP	PKiKP	10 47 16.6	+0.9
KEST	Kesra	131.18	313	PKP	PKPdf	10 47 25.0	-0.8
	comp=Z,9.4nm,1.0s,baz=289,slow=6.2,SNR=6.5						
NNA	Nana	132.91	112c	i PKIKP	PKPdf	10 47 30.0	+0.4
NNA				pmax	pmax		
	comp=Z,93nm,1.3s						
ESDC	Sonseca Array	137.50	326	PKP	PKPdf	10 47 34.9	-2.6
	comp=Z,1.1nm,0.9s,baz=29,slow=3.4,SNR=5.3						
ESDC				PP	PP	10 50 19.2	-3.7
	comp=Z,0.3nm,0.7s,baz=34,slow=6.1,SNR=4.3						
ESDC				SKPbc	SKiKP	10 51 10.4	-1.6
	comp=Z,2.2nm,1.0s,baz=26,slow=2.6,SNR=4.9						
LPAZ	La Paz	138.81	123	PKhKP	PKPpre	10 47 32.4	
	comp=Z,9.2nm,0.7s,baz=227,slow=0.8,SNR=28						
LPAZ				PKP	PKPdf	10 47 42.1	+0.9
	comp=Z,26nm,0.7s,baz=226,slow=2.8,SNR=24						
LPAZ				SKPbc	SKiKP	10 51 14.7	-1.3
	comp=Z,7.3nm,1.0s,baz=90,slow=3.0,SNR=5.8						
ROSC	El Rosal	138.91	90	PKhKP	PKPpre	10 47 32.0	
	comp=Z,18nm,0.4s,baz=0.8,slow=14,SNR=9.9						
ROSC				SKPbc	SKiKP	10 51 14.9	-1.1
	comp=Z,4.4nm,0.4s,baz=253,slow=18,SNR=3.5						
CPUP	Villa Florida	140.12	145	PKhKP	PKPpre	10 47 33.4	
	comp=Z,3.1nm,0.5s,baz=228,slow=3.8,SNR=9.3						
CPUP				PKP	PKPdf	10 47 43.4	+0.8
	comp=Z,4.2nm,0.7s,baz=214,slow=3.7,SNR=4.4						
TORD	Torodi Ar. Bea	145.05	284	PKPbc	PKPbc	10 47 50.5	-0.6
	comp=Z,72nm,1.1s,baz=71,slow=3.4,SNR=86						
TORD				SKKPbc	SKKPbc	10 59 34.5	+8.1
	comp=Z,1.2nm,0.9s,baz=261,slow=4.8,SNR=4.4						
PGRA	Graciosa	146.85	353	ePKP	PKPbc	10 47 55.4	-0.5
SRBC	Serra Branca	146.85	353	ePKP	PKPbc	10 47 56.0	+0.2
PSBA	Serra de Santa	147.02	352	ePKP	PKPbc	10 47 56.3	-0.1
ADH	Angra Heroismo	147.12	352	ePKP	PKPbc	10 47 56.2	-0.4
ROSA	Rosais	147.19	353	ePKP	PKPbc	10 47 56.2	-0.7
PMAN	Manadas	147.26	353	ePKP	PKPbc	10 47 56.2	-0.8
PCED	Cedros	147.33	354	ePKP	PKPbc	10 47 56.9	-0.3
HOR	Horta	147.42	354	ePKP	PKPbc	10 47 57.5	+0.1
PICO	Pico	147.43	353	ePKP	PKPbc	10 47 57.6	0.0
PID	Ribeirinha	147.45	353	ePKP	PKPdf	10 47 56.0	+1.0
PCAN	Candelaria	147.47	353	ePKP	PKPbc	10 47 57.2	-0.5
BART	Pico Bartolome	147.62	348	ePKP	PKPdf	10 47 55.9	+0.4
PGRON	Lagoa das Cont	147.66	349	ePKP	PKPdf	10 47 56.3	+0.8
PDA	Ponta Delgada	147.74	349	ePKP	PKPdf	10 47 55.6	+0.1
H05N1	Guadeloupe/Mar	150.74	67	PKPbc	PKPdf	10 48 01.6	+0.7
	SNR=29						
H05S1	Guadeloupe/Mar	151.45	71	PKPbc	PKPdf	10 48 04.3	+2.3
	SNR=23						
DBIC	Dimbokro	151.97	273	PKPbc	PKPbc	10 48 09.0	-0.4
	comp=Z,29nm,0.4s,baz=91,slow=2.2,SNR=6.3						
BDFB	Brasilia	153.85	146	PKP	PKPdf	10 48 06.1	+0.4
	comp=Z,24nm,0.6s,baz=220,slow=1.7,SNR=40						
BDFB				PKPbc	PKPbc	10 48 13.4	-0.2
	comp=Z,30nm,0.5s,baz=188,slow=2.0,SNR=40						

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*MEX **13** 10:32:18.4±0.6, 14.°36N×93.°52W, h13km±19km, MD4.2, Presumed earthquake*

*GCG **13** 10:32:18.3±1.1, 14.°17N×93.°34W, h33km±55km, MD4.7, Presumed earthquake*

ISC 13 10:32:12.9±1.9**, 14.°27N**±0.°09×**93.°50W**±0.°03**, h9**km±12km**, n26,** σ1§**39**/45**, Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THIG		1.36	62	eP	Pg	10 32 39.3	+0.4
THIG				eS	Sb	10 32 55.0	-0.9
THIG		1.36	62	i P	Pg	10 32 39.3	+0.4
THIG				i S	Sb	10 32 55.4	-0.6
PATR	El Naranjo	1.49	55	eP	Pn	10 32 40.8	+0.7
PATR				eS	Sn	10 32 58.6	-1.1
SMCA	Catarina	1.50	67	i P	Pb	10 32 41.2	+0.2
PAVE	Pavencul	1.58	54	eP	Pn	10 32 42.4	+1.1
PAVE				eS	Sn	10 33 00.9	-1.1
CHUJ	Union Juarez	1.58	59	eP	Pn	10 32 42.3	+0.9
CHUJ				eS	Sn	10 33 01.1	-0.9
RTAL	Retalhuleu	1.77	82	eP	Pn	10 32 45.3	+1.6
RTAL				eS	Sn	10 33 06.6	+0.2
STG8	El Palmar, Qui	2.09	85	i P	Pn	10 32 46.8	-1.6
HUEH	Huehuetenango	2.20	61	eP	Pn	10 32 51.8	+2.0
HUEH				eS	Sg	10 33 22.6	-1.1
HUEH	Huehuetenango	2.20	61	i P	Pb	10 32 52.4	-0.6
TGIG		2.52	8	eP	Pb	10 32 58.2	-0.2
TGIG				eS	Sn	10 33 26.9	+1.9
TGIG		2.52	8	i P	Pb	10 32 58.4	0.0
HUIG	Huatulco	2.92	301	eP	Pn	10 32 53.2	-6.4
HUIG				eS	Sn	10 33 34.0	-0.9
APG	El Apazote	3.03	76	i P	Pn	10 33 03.7	+2.5
UXUV	UXUV	3.09	349	eP	Pb	10 33 07.2	-0.9
UXUV				eS	Sn	10 33 36.8	-2.2
CMIG	Matias Romero	3.10	335	eP	Pb	10 33 06.2	-2.1
CMIG				eS	Sn	10 33 41.2	+1.9
NUBE	Las Nubes	3.63	95	i P	Pn	10 33 10.9	+1.5
PEIG	Puerto Escondi	3.92	296	eP	Pn	10 33 15.0	+1.8
PEIG				eS	Sn	10 33 58.6	-0.8
NEUV	Arroyo Zacate	4.07	327	eP	Pn	10 33 16.5	+1.1
NEUV				eS	Sn	10 34 02.9	-0.3
VHO	Vista Hermosa	4.17	312	eP	Pn	10 33 18.2	+1.2
VHO				eS	Sn	10 34 04.9	-1.2
YOIG	Yosondua	4.67	304	eP	Pn	10 33 24.6	+0.7
YOIG				eS	Sn	10 34 16.7	-1.6
TXIG	Tlaxiaco	5.06	306	eP	Pn	10 33 31.7	+2.4
TXIG				eS	Sn	10 34 28.6	+0.5
HLIG	Huajuapan de L	5.44	311	eP	Pn	10 33 36.2	+1.8
HLIG				eS	Sn	10 34 37.9	+0.5
TPIG	Tehuac#an	5.54	319	eP	Pn	10 33 38.8	+2.9
TPIG				eS	Sn	10 34 38.5	-1.3
FTIG	Fresnillo de T	5.73	310	eP	Pn	10 33 39.2	+0.8
FTIG				eS	Sn	10 34 44.2	-0.2
TLIG	Tlapa	5.87	305	eP	Pn	10 33 41.4	+1.2
TLIG				eS	Sn	10 34 46.0	-1.7

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*BJI **13** 10:44:39.5, 40.°60N×142.°94E, h47km, mB5.0/17, mb5.0/70, Ms4.4/17, Ms7 4.2/18*

*MOS **13** 10:44:41.5±0.8, 40.°74N×142.°64E, h40km, mb5.2/76, Error ellipse: s-maj=6.1km s-min=3.7km az=107.5*

*JMA **13** 10:44:42.2±0.1, 40.°7N±0.°4×142.°7E±0.°6, h41km±1km, MD4.7/38, MV4.7/38, E OFF AOMORI PREF*

JMA Felt II J1 at E OFF AOMORI PREF .

*NIED **13** 10:44:42.2, 40.°70N×142.°68E, h41km, MW4.7, Moment Tensor Solution. s3 Moment tensor: Scale 10^{16}Nm; M_{rr}0.73; $M_{\theta\theta}$-0.35; $M_{\phi\phi}$-0.38; $M_{r\theta}$0.21; $M_{\theta\phi}$-0.23; $M_{\phi r}$0.88; Fault plane solution: $M_0$1.11000×10^{16} NP1: ϕ_s230.00000°, δ20.00000°, λ119.00000°. NP2: ϕ_s20.00000°, δ72.00000°, λ80.00000°.*

*NEIC **13** 10:44:43.3±1.9, 40.°72N±0.°06×142.°71E±0.°08, h41km±4km, mb4.8/82 Error ellipse: s-maj=9.3km s-min=8.5km az=139.0*

*GFZ **13** 10:44:44.3±0.5, 41°N±4°×14°3E±°, h46km±4km, M5.0/20, mb5.1/20*

*IDC **13** 10:44:44.7±1.5, 40.°69N×142.°63E, h57km±12km, mb4.3/40, mbtmp4.6/49, MS4.1/7, Error ellipse: s-maj=12.3km s-min=8.2km az=117.0*

ISC 13 10:44:42.2±0.4**, 40.°64N**±0.°04×**142.°81E**±0.°04**, h42**km±3km**, h42km:pP-P, n630,** σ1§**17**/635**, mb4.9**/228**, MS4.4**/16**, 42C-29D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JKEN	Kujiedanarisaw	0.94	243	⇓P	Pn	10 44 57.3	-1.6
JKEN				A	A	10 44 57.3	
	comp=N,32nm,0.6s,comp=E,29nm,0.7s						
JKEN				⇓S	Sn	10 45 08.8	-2.4
JTH	Tanohata	1.00	226	⇓P	Pn	10 44 58.6	-1.2
JTH				A	A	10 44 58.6	
	comp=N,14nm,7.0s,comp=E,17nm,0.7s						
JTH				⇓eS	Sn	10 45 11.1	-1.6
JANG	Nango	1.02	256	⇓P	Pn	10 44 58.6	-1.4
JANG				A	A	10 44 58.6	
	comp=N,12nm,0.3s,comp=E,14nm,1.7s						
JARK	Aomorirokkasho	1.16	289	⇓P	Pn	10 45 00.2	-1.6
JARK				A	A	10 45 00.2	
	comp=N,19nm,1.0s,comp=E,28nm,0.4s						
JAHD	Aomorihigashid	1.28	300	A	A	10 45 02.5	
	comp=N,50nm,1.0s,comp=E,48nm,0.5s						
MIYJ	Miyakonagasawa	1.30	216	A	A	10 45 04.5	
	comp=N,15nm,0.6s,comp=E,20nm,0.7s						
JKZ	Kuzumaki	1.30	241	⇓P	Pn	10 45 03.1	-0.9
JKZ				A	A	10 45 03.1	
	comp=N,19nm,0.9s,comp=E,20nm,0.8s						
JTM	Tenmabayashi	1.33	277		Pn	10 45 02.8	-1.5
JTM	Tenmabayashi	1.33	277	P	Pn	10 45 03.5	-0.8
JTM	Tenmabayashi	1.33	277	⇓P	Pn	10 45 03.3	-1.0
JTM				A	A	10 45 03.3	
	comp=N,13nm,1.3s,comp=E,20nm,1.5s						
ERM	Erimo	1.40	11c	eP	Pn	10 45 05.4	+0.1
ERM				pmax	pmax		
	comp=Z,701nm,1.0s						
ERM	Erimo	1.40	11		Pn	10 45 05.2	-0.1
ERM	Erimo	1.40	11	P	Pn	10 45 05.7	+0.5
JOT	Ohata	1.53	300	A	A	10 45 06.2	
	comp=N,17nm,1.4s,comp=E,17nm,2.4s						
JNBK	Urakawa-nobuka	1.64	359	A	A	10 45 08.7	
	comp=N,29nm,0.6s,comp=E,21nm,0.7s						
JOM	Ohasama	1.64	226	A	A	10 45 09.1	
	comp=N,23nm,0.8s,comp=E,38nm,0.9s						
JSZI	Iwateshizukuis	1.68	238	A	A	10 45 09.3	
	comp=N,68nm,0.8s,comp=E,39nm,0.9s						
JTHR	Tokachihiroo	1.69	12	A	A	10 45 09.8	
	comp=N,11nm,0.6s,comp=E,11nm,1.1s						
JAH	Hinai	1.72	256	A	A	10 45 09.4	
	comp=N,20nm,3.3s,comp=E,15nm,1.0s						
OFUJ	Ofunato	1.78	210	A	A	10 45 11.6	
	comp=N,10.0nm,0.9s,comp=E,17nm,1.4s						
JSHD	Hidakashinhida	1.79	352	A	A	10 45 10.6	
	comp=N,23nm,1.3s,comp=E,23nm,1.0s						
JKB	Kayabe	1.83	314	A	A	10 45 10.6	
	comp=N,13nm,2.5s,comp=E,16nm,1.3s						
JHHS	Hirosakihyakuz	1.86	271	A	A	10 45 11.2	
	comp=N,31nm,2.1s,comp=E,33nm,1.1s						
JSI2	Shiura 2	1.87	284	A	A	10 45 11.1	
	comp=N,31nm,1.0s,comp=E,35nm,0.9s						
JSR	Shiriuchi	2.02	297	A	A	10 45 13.2	
	comp=N,8.0nm,1.4s,comp=E,8.0nm,2.3s						
JCH	Churui	2.02	12	A	A	10 45 14.4	
	comp=N,8.0nm,2.1s,comp=E,9.0nm,4.4s						
JNTW	Noshirotokiwa	2.05	261	A	A	10 45 14.1	
	comp=N,54nm,2.7s,comp=E,56nm,2.2s						
JRG	Rokugo	2.08	234	A	A	10 45 15.1	
	comp=N,20nm,1.0s,comp=E,24nm,0.5s						
JMK	Ichinoseki	2.08	217	A	A	10 45 15.6	
	comp=N,11nm,1.6s,comp=E,19nm,1.4s						
JKMT	Kesennumamotoy	2.09	210	A	A	10 45 16.0	
	comp=N,8.0nm,0.8s,comp=E,13nm,0.4s						
JIAM	Iburiatsuma	2.09	342	A	A	10 45 14.7	
	comp=N,35nm,0.4s,comp=E,47nm,1.1s						
JIW	Iwasaki	2.13	270	A	A	10 45 15.2	
	comp=N,12nm,1.5s,comp=E,13nm,1.3s						
JBT2	Biratori 2	2.17	351	A	A	10 45 16.0	
	comp=N,8.0nm,1.5s,comp=E,9.0nm,3.0s						
JYW	Yuwa	2.27	242	A	A	10 45 17.7	
	comp=N,24nm,1.5s,comp=E,27nm,2.6s						
JOMM	Oshimamatsumae	2.30	294	A	A	10 45 17.2	
	comp=N,5.0nm,1.8s,comp=E,4.0nm,1.4s						
JYM2	Yakumo 2	2.36	310	A	A	10 45 18.1	
	comp=N,7.0nm,1.3s,comp=E,4.0nm,1.3s						
JEW	Eniwo	2.43	336	A	A	10 45 19.4	
	comp=N,26nm,1.0s,comp=E,25nm,1.0s						
JOG3	Oga3	2.94	257	A	A	10 45 19.3	
	comp=N,9.0nm,2.5s,comp=E,12nm,3.7s						
ASAJ	Asahikawa	3.48	357	P	Pn	10 45 34.3	+0.5
	comp=E,163nm,0.5s,baz=211,slow=9.4,SNR=145						
ASAJ				S	Sn	10 46 16.1	+2.3
	comp=E,698nm,1.1s,baz=323,slow=31,SNR=6.7						
ASAJ				LR	LR	10 46 39.6	
	comp=E,396nm,19.9s,baz=200,slow=34						
JKA	Kamikawa-asahi	3.48	358		Pn	10 45 34.0	+0.2
JKA	Kamikawa-asahi	3.48	358	P	Pn	10 45 34.5	+0.7
NMR	Nemuro--Hokkai	3.49	38	⇓i P	Pn	10 45 33.2	-0.7
NMR				i S	Sn	10 46 10.5	-3.5
RUSJ	Misakicho	3.91	27	⇑i P	Pn	10 45 40.2	+0.6
RUSJ				i S	Sn	10 46 23.1	-1.2
YUK	Yuzh-Kuril'sk	4.08	33	i P	Pn	10 45 41.9	-0.1
MJB9	Matsu-Tunnel	5.45	223		Pn	10 46 03.5	+2.7
MAJO	Matsushiro	5.45	223	P	Pn	10 46 03.2	+2.4
MAJO	Matsushiro	5.45	223c	i P	Pn	10 46 03.2	+2.4
MAJO				pmax	pmax		
	comp=Z,108nm,0.7s						
MAJO	Matsushiro	5.45	223		Pn	10 46 02.4	+1.5
MAJO	Matsushiro	5.45	223	P	Pn	10 46 03.5	+2.7
	comp=Z,194nm,0.6s						
MJAR	Matsushiro Arr	5.45	223	P	Pn	10 46 03.3	+2.4
	comp=Z,76nm,0.7s,baz=35,slow=13,SNR=308						
MJAR				S	Sn	10 47 04.4	+2.1
	comp=Z,11nm,0.5s,baz=59,slow=19,SNR=0.7						
KUR	Kuril'sk	5.91	37c	i P	Pn	10 46 07.2	+0.1
KUR				eS	Sn	10 47 11.5	-1.9
KUR				pmax	pmax		
	comp=E,139nm,0.6s						
KUR				pmax	pmax		
	comp=Z,385nm,0.6s						
KUR				pmax	pmax		
	comp=N,146nm,0.3s						
KUR				smax	smax		
	comp=E,372nm,0.3s						
KUR				smax	smax		
	comp=N,117nm,0.2s						
YSS	Yuzhno-Sakhali	6.32	360	eP	Pn	10 46 13.3	+0.6
YSS				eS	Sn	10 47 21.5	-2.0
YSS				pmax	pmax		
	comp=Z,200nm,2.6s						
YSS				pmax	pmax		
	comp=N,100nm,0.9s						
YSS				smax	smax		
	comp=N,90nm,0.8s						
YSS				smax	smax		
	comp=E,40nm,0.7s						
YSS				MLR	MLR		
	comp=Z,700nm,16.0s						
YSS				MLR	MLR		
	comp=N,400nm,15.0s						
YSS				MLR	MLR		
	comp=E,700nm,15.0s						
YSS	Yuzhno-Sakhali	6.32	360		Pn	10 46 13.1	+0.4
YSS	Yuzhno-Sakhali	6.32	360	P	Pn	10 46 13.8	+1.2
	comp=Z,113nm,0.9s						
TEY	Ternei	6.33	316	eP	Pn	10 46 05.0	-7.9
JGF	Kuroka	6.61	222	P	Pn	10 46 19.6	+2.8
	comp=Z,70nm,0.5s						
JGF				AML	AML		
JGF	Kuroka	6.61	222		Pn	10 46 18.9	+2.1
JGF	Kuroka	6.61	222	P	Pn	10 46 19.8	+3.0
	comp=Z,70nm,0.5s						
JSG	Sagara	6.99	213	P	Pn	10 46 23.5	+1.5
	comp=Z,166nm,0.6s						
JSG				AML	AML		
JSG	Sagara	6.99	213		Pn	10 46 23.3	+1.3
JHJ2	Mitsune	7.88	199	P	Pn	10 46 34.2	0.0
	comp=Z,262nm,1.1s						
JHJ2				AML	AML		
JHJ2	Mitsune	7.88	199	Pn	Pn	10 46 33.9	-0.3
JHJ	Hachijo jima 2	7.88	199	P	Pn	10 46 34.1	-0.2
	comp=Z,77nm,0.3s,baz=291,slow=22,SNR=12						
JHJ				S	Sn	10 47 58.0	-4.2
	comp=Z,81nm,0.3s,baz=222,slow=21,SNR=2.2						
USA0B	Ussuriysk Arra	8.76	298	i P	Pn	10 46 46.3	+0.1
USA0B	Ussuriysk Arra	8.76	298		Pn	10 46 45.8	-0.4
USRK	Ussuriysk Ar.	8.76	298	P	Pn	10 46 47.1	+0.9
	comp=Z,37nm,0.6s,baz=93,slow=16,SNR=23						
USRK	Ussuriysk Ar.	8.76	298		Pn	10 46 44.7	-1.5
JMN	Monobe	9.91	229	P	Pn	10 47 03.7	+1.7
	comp=Z,34nm,0.7s						
JMN	Monobe	9.91	229		Pn	10 47 02.2	+0.1
TYV	Tymovskoe	10.23	359	eP	Pn	10 47 07.4	+1.1
TYV				eS	Sn	10 49 02.4	+2.9
TYV				pmax	pmax		
	comp=Z,14nm,0.7s						
TYV				pmax	pmax		
	comp=Z,100nm,3.4s						

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TYV                                smax   smax
      comp=N,200nm,5.3s
TYV                                smax   smax
      comp=E,200nm,5.3s
MDJ   Mudanjiang        10.52 297  P      Pn      10 47 12.1 +1.8
MDJ                                pmax   pmax
      comp=E,17nm,0.8s
GRNR  Gornyy            11.07 338 eP      Pn      10 47 18.6 +0.8
KLR   Kul'dur           11.62 321  P      Pn      10 47 26.6 +1.3
      comp=E,6.8nm,0.7s,baz=128,slow=12,SNR=15
KLR   Kul'dur           11.62 321 eP      Pn      10 47 25.3  0.0
KLR                                pmax   pmax
      comp=Z,5.0nm,1.0s
KSRS  Korea Array       12.00 259  P      Pn      10 47 32.9 +2.3
      comp=Z,13nm,0.8s,baz=67,slow=14,SNR=14
KSRS                               S      Sn      10 49 42.1 -0.9
      comp=Z,1.1nm,0.7s,baz=71,slow=24,SNR=1.4
JNU   Nakatsue          12.14 236  P      Pn      10 47 32.8 +0.3
      comp=Z,24nm,0.8s,baz=49,slow=6.9,SNR=15
BNX   BinXian           12.34 300 ⇓P      Pn      10 47 35.0 -0.2
BNX                                pmax   pmax
      comp=Z,18nm,0.7s
TJN   Taejon            12.82 256  P      Pn      10 47 43.1 +1.3
TJN   Taejon            12.82 256         Pn      10 47 43.1 +1.3
INCN  Inchon            12.96 261  P      Pn      10 47 41.0 -2.7
INCN  Inchon            12.96 261  Pn     Pn      10 47 41.0 -2.7
JSU   Suzuyama          13.51 231         Pn      10 47 50.4 -0.8
JSU   Suzuyama          13.51 231  P      Pn      10 47 51.4 +0.2
      comp=Z,49nm,1.5s
HEH   HeiHe             14.44 317 eP      Pn      10 48 03.0 -0.7
HEH                                pmax   pmax
      comp=Z,13nm,0.6s
HEH                                L      L
      comp=Z,320nm,11.4s
HEH                                L      L
      comp=Z,530nm,10.7s
HEH                                L      L
      comp=Z,810nm,14.0s
PEA0B Petropavlovsk-    16.06  34 i P     P       10 48 26.5 -1.2
PETK  Petropavlovsk-    16.06  34  P      P       10 48 26.8 -0.9
      comp=Z,4.2nm,0.9s,baz=195,slow=6.4,SNR=5.2
DL2   Dalian            16.38 271  P      Pn      10 48 29.6 +0.7
DL2                               eS      Sn      10 51 31.3 +1.8
DL2                                pmax   pmax
      comp=Z,95nm,1.3s
DL2                                pmax   pmax
      comp=Z,660nm,3.6s
DL2                                L      L
      comp=Z,2µm,18.2s
DL2                                L      L
      comp=Z,1µm,19.6s
DL2                                L      L
      comp=Z,2µm,20.5s
ZEA   Zeya              16.79 327 eP      Pn      10 48 30.9 -3.1
ZEA                                pmax   pmax
      comp=N,10.0nm,1.2s
ZEA                                pmax   pmax
      comp=E,10.0nm,0.9s
ZEA                                pmax   pmax
      comp=Z,10.0nm,0.9s
JMZ   Minamidaito 2     17.64 217  P      Pn      10 48 42.7 -2.1
      comp=Z,63nm,1.5s
JMZ   Minamidaito 2     17.64 217         P       10 48 45.7 +0.4
JMZ                                IAmb   IAmb    10 48 54.6
      comp=Z,266nm,1.9s
JOW   Kunigami          18.29 226  P      P       10 48 51.0 -1.5
      comp=Z,16nm,0.5s
JOW   Kunigami          18.29 226  P      P       10 48 51.6 -0.9
HILR  Hailar Array B    18.50 307  P      P       10 48 52.9 -1.9
      comp=Z,15nm,0.6s,baz=119,slow=12,SNR=8.9
MA2   Magadan           19.61  12  P      P       10 49 05.8 -0.9
      comp=Z,9.7nm,0.8s,baz=212,slow=8.7,SNR=5.6
MA2   Magadan           19.61  12 i P     Pn      10 49 07.9 -0.4
MA2                                pmax   pmax
      comp=Z,10.0nm,0.8s
MA2   Magadan           19.61  12  P      P       10 49 05.5 -1.3
XLT   XiLinHaoTe        20.02 288 eP      P       10 49 09.1 -2.3
XLT                                pmax   pmax
      comp=Z,12nm,0.7s
XLT                                pmax   pmax
      comp=Z,130nm,6.2s
XLT                                L      L
      comp=Z,670nm,20.3s
XLT                                L      L
      comp=Z,1µm,20.5s
BJI2  Beijing           20.30 277  P      P       10 49 12.3 -2.1
BJI2                               pmax   pmax
      comp=Z,10.0nm,0.9s
BJI2                               pmax   pmax
      comp=Z,210nm,7.9s
BJI2                               L      L
      comp=Z,400nm,16.5s
BJI2                               L      L
      comp=Z,260nm,15.5s
BJI2                               L      L
      comp=Z,630nm,19.4s
TIA   Tai'an            20.57 266  P      P       10 49 15.4 -2.0
TIA                                pmax   pmax
      comp=Z,62nm,0.8s
NJ2   Nanjing           21.06 254 ⇑P      P       10 49 22.8 +0.1
NJ2                                pmax   pmax
      comp=Z,60nm,0.7s
JMJ   Miyako jima 2     21.52 228  P      P       10 49 26.0 -1.6
      comp=Z,392nm,0.6s
HNS   HongShan          22.03 271 ⇓P      P       10 49 30.3 -2.7
HNS                                pmax   pmax
      comp=Z,35nm,1.0s
YAK   Yakutsk           22.85 344 eP      P       10 49 38.5 -3.0
YAK                               e*PP    pP      10 49 51.2 -0.2
YAK                               e               10 53 26.1
YAK                               eS      S       10 53 39.7 -8.1
YAK                                pmax   pmax
      comp=Z,55nm,1.5s
YAK                                pmax   pmax
      comp=N,9.0nm,0.8s
YAK                                pmax   pmax
      comp=E,4.0nm,1.1s
YAK                                smax   smax
      comp=E,101nm,2.8s
YAK                                smax   smax
      comp=N,87nm,2.0s
YAK   Yakutsk           22.85 344  P      P       10 49 39.4 -2.1
YAK   Yakutsk           22.85 344  P      P       10 49 38.1 -3.4
      comp=Z,110nm,0.7s
SEY   Seymchan          23.05  11  P      P       10 49 42.8 -0.8
      comp=Z,17nm,0.8s,baz=196,slow=7.9,SNR=9.3
      comp=Z,17nm,0.8s
SEY   Seymchan          23.05  11 eP      P       10 49 42.0 -1.6
SEY                                pmax   pmax
      comp=Z,22nm,1.0s
YOJ   Yonaguni jima     23.12 232  P      P       10 49 42.5 -2.1
YOJ                                pmax   pmax
      comp=Z,68nm,1.3s
YOJ   Yonaguni jima     23.12 232  P      P       10 49 42.5 -2.1
YOJ                                IAmb   IAmb    10 50 08.6
      comp=Z,68nm,1.3s
HHC   Hu-ho-hao-te      23.61 281 eP      P       10 49 48.1 -1.3
HHC                                pmax   pmax
      comp=Z,7.0nm,0.7s
HHC                                pmax   pmax
      comp=Z,110nm,4.0s
HHC                                L      L
      comp=Z,430nm,15.9s
HHC                                L      L
      comp=Z,620nm,15.7s
HHC                                L      L
      comp=Z,660nm,15.9s
TATO  Taipei            23.68 235  P      P       10 49 50.1 +0.1
      comp=Z,89nm,2.0s
TATO  Taipei            23.68 235  P      P       10 49 50.4 +0.4
YHNB  Yeheng            23.97 235  P      P       10 49 51.0 -1.8
      comp=Z,26nm,0.7s
YHNB  Yeheng            23.97 235  P      P       10 49 50.3 -2.4
NACB  Ninganchiao       24.20 234  P      P       10 49 52.1 -2.7
      comp=Z,21nm,0.6s
LYN   LuoYang           24.72 266  P      P       10 50 00.0 +0.5
LYN                                pmax   pmax
      comp=Z,38nm,0.8s
SSLB  Suanglung         24.88 234  P      P       10 49 59.4 -1.6
      comp=Z,36nm,0.7s
SSLB  Suanglung         24.88 234  P      P       10 49 59.4 -1.6
SSLB                               IAmb   IAmb    10 50 04.0
      comp=Z,22nm,0.6s
BTO2  Baotou            24.89 281 eP      P       10 50 00.0 -1.2
BTO2                               S      S       10 54 19.1 -2.5
BTO2                               pmax   pmax
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      comp=Z,50nm,0.8s
BTO2                               pmax   pmax
      comp=Z,640nm,4.5s
BTO2                               L      L
      comp=Z,1µm,18.0s
BTO2                               L      L
      comp=Z,1µm,17.8s
BTO2                               L      L
      comp=Z,2µm,18.5s
YULB  Yu-li             24.96 233  P      P       10 50 00.3 -1.4
      comp=Z,22nm,1.0s
YULB  Yu-li             24.96 233  P      P       10 49 59.4 -2.3
YULB                               IAmb   IAmb    10 50 07.3
      comp=Z,20nm,0.8s
YULB  Yu-li             24.96 233  P      P       10 49 58.1 -3.6
      comp=Z,31nm,0.8s
WHN   Wuhan             25.14 255  P      P       10 50 02.5 -0.8
WHN                                pmax   pmax
      comp=Z,70nm,0.6s
TPUB  Ta-pu             25.43 234  P      P       10 50 04.4 -1.7
TWGBT Beinan            25.52 232  P      P       10 50 06.5 -0.3
      comp=Z,35nm,0.6s
TWG   Pinlang           25.52 232  P      P       10 50 06.3 -0.6
TWG                                IAmb   IAmb    10 50 18.6
      comp=Z,28nm,0.5s
TWG   Pinlang           25.52 232  P      P       10 50 05.1 -1.7
      comp=Z,35nm,0.6s
ULN   Ulaanbaatar       26.43 298  P      P       10 50 15.6 +0.6
ULN   Ulaanbaatar       26.43 298ceP      P       10 50 15.0 -0.1
ULN                                pmax   pmax
      comp=Z,14nm,1.3s
ULN   Ulaanbaatar       26.43 298  P      P       10 50 14.4 -0.6
ULN   Ulaanbaatar       26.43 298  P      P       10 50 13.3 -1.8
      comp=Z,53nm,0.8s
ULN   Ulaanbaatar       26.43 298  P      P       10 50 14.9 -0.1
      comp=Z,14nm,0.8s
SONM  Songino Array     26.87 298  P      P       10 50 19.0  0.0
      comp=Z,5.1nm,0.5s,baz=91,slow=8.8,SNR=32
      comp=Z,5.1nm,0.5s
SONM  Songino Array     26.87 298  P      P       10 50 19.0  0.0
SONM  Songino Array     26.87 298  P      P       10 50 19.0  0.0
CNSH  ChangSha          27.46 252  P      P       10 50 24.4 +0.1
CNSH                               pmax   pmax
      comp=Z,19nm,1.6s
ZAK   Zakamensk         29.06 303 eP      P       10 50 36.7 -1.7
ZAK                                pmax   pmax
      comp=Z,9.0nm,1.3s
H11N2 WAKE ISLAND Hy    29.29 128  T      T       11 21 47.4
      baz=318,slow=75,SNR=669
H11N1 WAKE ISLAND Hy    29.30 128  T      T       11 21 48.3
      baz=318,slow=75,SNR=738
H11N3 WAKE ISLAND Hy    29.31 128  T      T       11 21 48.5
      baz=318,slow=75,SNR=456
H11S1 WAKE ISLAND Hy    30.12 130  T      T       11 22 56.0
      baz=322,slow=76,SNR=176
H11S3 WAKE ISLAND Hy    30.12 130  T      T       11 22 53.3
      baz=322,slow=76,SNR=145
H11S2 WAKE ISLAND Hy    30.14 130  T      T       11 22 47.3
      baz=322,slow=76,SNR=189
BILL  Bilibino          30.27  17ceP      P       10 50 50.1 +1.3
BILL                               pmax   pmax
      comp=Z,14nm,1.3s
LZH   Lanzhou           30.71 274 eP      P       10 50 53.5 +0.2
LZH                                pmax   pmax
      comp=Z,30nm,1.0s
LZDM  Lanzhou Array     30.87 274  P      P       10 50 54.1 -0.8
      comp=Z,1.9nm,0.3s,baz=86,slow=6.5,SNR=6.5
      comp=Z,1.9nm,0.3s
TIXI  Tiksi             31.87 352  P      P       10 51 01.7 -1.1
      comp=Z,2.2nm,0.4s,baz=170,slow=5.4,SNR=6.4
      comp=Z,2.2nm,0.4s
TIXI  Tiksi             31.87 352  P      P       10 51 01.6 -1.2
GTA2  Gaotai            32.73 282  P      P       10 51 10.3 -0.6
GTA2                               pmax   pmax
      comp=Z,11nm,0.7s
KNGR  Kungurtug, Tuv    32.74 303 i P     P       10 51 11.4 +0.5
KNGR                               pmax   pmax
      comp=Z,11nm,1.0s
CD2   Chengdu           32.91 265  P      P       10 51 11.9 -0.6
CD2                                pmax   pmax
      comp=Z,20nm,0.4s
GYA   Guiyang           33.03 256 ⇓P      P       10 51 13.1 -0.6
GYA                                pmax   pmax
      comp=Z,78nm,0.8s
PZH   PanZhiHua         36.67 260  P      P       10 51 45.8 +0.7
KMI2  Kunming           36.67 258 ⇑P      P       10 51 45.3 +0.1
KMI2                               pmax   pmax
      comp=Z,22nm,1.0s
KMI2                               L      L
      comp=Z,330nm,15.3s
KMI2                               L      L
      comp=Z,280nm,20.0s
KMI2                               L      L
      comp=Z,470nm,18.3s
GOMU  GeErMu            37.50 279  P      P       10 51 50.9 -1.4
GOMU                               pmax   pmax
      comp=Z,6.0nm,0.5s
SLVN  Son La            38.12 252         P       10 51 57.1 -0.2
SLVN                               IAmb   IAmb    10 52 00.8
      comp=Z,13nm,0.9s
SLVN  Son La            38.12 252  P      P       10 51 57.9 +0.6
      comp=Z,15nm,1.1s
F15K  North Star Dit    38.55  32  P      P       10 52 02.9 +2.5
F15K                               IAmb   IAmb    10 52 18.2
      comp=Z,13nm,1.1s
M14K  Bethel            38.90  40  P      P       10 52 05.6 +2.3
M14K                               IAmb   IAmb    10 52 20.4
      comp=Z,20nm,1.0s
DGZ   Jazzator, Alta    39.27 302 i P     P       10 52 07.3 +0.5
DGZ                                pmax   pmax
      comp=Z,27nm,1.0s
N15K  Kwethluk River    39.78  41  P      P       10 52 12.4 +1.7
N15K                               IAmb   IAmb    10 52 31.6
      comp=Z,16nm,1.0s
O15K  Ungalikthiuk R    39.88  43  P      P       10 52 12.5 +1.0
O15K                               IAmb   IAmb    10 52 31.7
      comp=Z,16nm,0.8s
TNCH  TengChong         39.90 261  P      P       10 52 13.5 +1.2
TNCH                               pmax   pmax
      comp=Z,87nm,1.0s
CNBA  Chernabura Isl    40.09  49  P      P       10 52 14.5 +1.2
CNBA                               IAmb   IAmb    10 52 29.4
      comp=Z,15nm,0.8s
L16K  Owhat River       40.18  39  P      P       10 52 15.6 +1.6
L16K                               IAmb   IAmb    10 52 31.4
      comp=Z,18nm,1.4s
WMQ   Urumqi            40.30 293 eP      P       10 52 15.8 +0.5
WMQ                                pP     pP      10 52 28.4 +1.9
WMQ                                pmax   pmax
      comp=Z,23nm,0.9s
WMQ                                L      L
      comp=Z,310nm,20.5s
ZAA0  Zalesovo Array    40.38 309         P       10 52 15.0 -0.7
ZALV  Zalesovo Beam     40.38 309  P      P       10 52 15.5 -0.3
      comp=Z,23nm,0.5s,baz=92,slow=8.2,SNR=87
ZALV                               PcP    PcP     10 54 18.0 -0.2
      comp=Z,2.2nm,0.4s,baz=106,slow=3.1,SNR=3.6
      comp=Z,23nm,0.5s
ZALV  Zalesovo Beam     40.38 309         P       10 52 14.8 -1.0
NRIK  Noril'sk          40.50 333  P      P       10 52 17.6 +1.1
      comp=Z,3.5nm,0.4s,baz=112,slow=9.7,SNR=3.6
      comp=Z,3.5nm,0.4s
NRIK  Noril'sk          40.50 333 i P     P       10 52 17.4 +0.9
NRIK                               pmax   pmax
      comp=Z,6.0nm,0.9s
O16K  Kokwok River B    40.77  42         P       10 52 20.9 +2.1
G18K  Tagagawik         41.01  32         P       10 52 22.4 +1.6
G18K                               IAmb   IAmb    10 52 37.7
      comp=Z,24nm,0.9s
M17K  Holitna River     41.14  39         P       10 52 24.0 +2.1
M17K                               IAmb   IAmb    10 52 39.2
      comp=Z,15nm,0.8s
C19K  Lookout Ridge     41.25  27  P      P       10 52 23.9 +1.1
C19K                               IAmb   IAmb    10 52 44.9
      comp=Z,13nm,0.9s
ZSN   Zaisan            41.36 299 eP      P       10 52 23.8 -0.1
ZSN                                pmax   pmax
      comp=Z,4.0nm,0.3s
ZSN   Zaisan            41.36 299 eP      P       10 52 23.9 -0.1
      comp=Z,4.2nm,0.3s
F19K  Shaleruckik Mo    41.50  31         P       10 52 25.8 +1.0
L18K  Granite Mounta    41.52  38  P      P       10 52 27.5 +2.4
DLV    Lat              41.54 236  P      P       10 52 27.3 +1.4
      comp=Z,33nm,0.7s
J18K  Innoko River      41.58  36  P      P       10 52 27.3 +1.8
G19K  Purcell Mounta    41.68  32         P       10 52 27.5 +1.3
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G19K                               IAmb   IAmb    10 52 42.8
      comp=Z,15nm,0.9s
N18K  Kilae Creek       41.88  40  P      P       10 52 29.2 +1.2
N18K                               IAmb   IAmb    10 52 45.4
      comp=Z,11nm,0.8s
J19K  Poorman           42.10  35  P      P       10 52 31.3 +1.6
N19K  Bonanza Creek     42.57  40  P      P       10 52 35.9 +2.2
J20K  Nowinta River     42.75  35         P       10 52 37.5 +2.5
F21K  Alatna River      43.22  31         P       10 52 40.0 +1.3
MK31  Makanchi Array    43.22 299 i P     P       10 52 38.6 -0.5
MK31                               pmax   pmax
      comp=Z,6.0nm,0.4s
MKAR  Makanchi Array    43.22 299  P      P       10 52 38.7 -0.4
      comp=Z,9.5nm,0.5s,baz=85,slow=10.0,SNR=91
MKAR                               PcP    PcP     10 54 27.7  0.0
      comp=Z,2.2nm,0.8s,baz=80,slow=1.6,SNR=1.5
      comp=Z,9.5nm,0.5s
MKAR  Makanchi Array    43.22 299  P      P       10 52 38.8 -0.3
CHTO  Chiang Mai        43.31 253  P      P       10 52 41.1 +1.0
      comp=Z,12nm,1.1s
CHTO  Chiang Mai        43.31 253  P      P       10 52 40.4 +0.4
CHTO  Chiang Mai        43.31 253  P      P       10 52 40.3 +0.2
CHTO                               pmax   pmax
      comp=Z,14nm,0.7s
CHTO  Chiang Mai        43.31 253         P       10 52 40.3 +0.2
CHTO                               IAmb   IAmb    10 52 44.5
      comp=Z,13nm,0.7s
CHTO  Chiang Mai        43.31 253  P      P       10 52 39.9 -0.2
      comp=Z,20nm,1.1s
CHTO  Chiang Mai        43.31 253  P      P       10 52 40.3 +0.2
      comp=Z,20nm,1.1s
CHTO  Chiang Mai        43.31 253  P      P       10 52 40.5 +0.4
H21K  Melozitna Rive    43.39  33  P      P       10 52 41.8 +1.7
H21K                               IAmb   IAmb    10 52 58.0
      comp=Z,24nm,1.4s
MAKZ  Makanchi          43.43 299  P      P       10 52 40.1 -0.7
MAKZ                               pmax   pmax
      comp=Z,18nm,0.9s
MAKZ  Makanchi          43.43 299         P       10 52 40.0 -0.7
MAKZ                               IAmb   IAmb    10 52 41.4
      comp=Z,18nm,0.9s
MAKZ  Makanchi          43.43 299  P      P       10 52 40.5 -0.3
      comp=Z,24nm,0.9s
MAKZ  Makanchi          43.43 299  P      P       10 52 40.4 -0.4
MAKZ                               pP     pP      10 52 52.9 +0.9
CM31  Chiang Mai Arr    43.53 253  P      P       10 52 41.5 -0.4
CMAR  Chiang Mai Arr    43.53 253  P      P       10 52 42.5 +0.6
      comp=Z,2.9nm,0.6s,baz=47,slow=5.9,SNR=16
      comp=Z,2.9nm,0.6s
CMAR  Chiang Mai Arr    43.53 253         P       10 52 42.0  0.0
CAST  Castle Rocks      43.66  36  P      P       10 52 44.5 +2.1
CAST                               IAmb   IAmb    10 53 02.9
      comp=Z,11nm,0.8s
D22K  Ayikyak River     43.67  28  P      P       10 52 43.2 +0.8
SEM   Semipalatinsk     43.70 305 eP      P       10 52 42.9 -0.2
SEM                                pmax   pmax
      comp=Z,18nm,1.3s
SEM   Semipalatinsk     43.70 305 eP      P       10 52 42.9 -0.2
      comp=Z,18nm,1.3s
KDAK  Kodiak Island     43.73  44  P      P       10 52 44.0 +1.0
KDAK                               pmax   pmax
      comp=Z,23nm,1.0s
KDAK  Kodiak Island     43.73  44         P       10 52 44.0 +1.0
KDAK                               IAmb   IAmb    10 53 02.0
      comp=Z,23nm,0.9s
KDAK  Kodiak Island     43.73  44  P      P       10 52 43.9 +0.9
STLK  Strandline Lak    43.83  39  P      P       10 52 45.8 +1.9
H22K  Ishtalitna Cre    43.98  33         P       10 52 46.9 +1.9
H22K                               IAmb   IAmb    10 53 04.3
      comp=Z,59nm,1.9s
KTH   Kantishna Hill    44.18  36  P      P       10 52 48.3 +1.6
KTH                                IAmb   IAmb    10 53 07.4
      comp=Z,25nm,0.9s
MLY   Manley            44.24  34         P       10 52 47.9 +0.8
CNPM  China Poot        44.26  42         P       10 52 48.7 +1.5
CNPM                               IAmb   IAmb    10 53 03.8
      comp=Z,15nm,0.8s
FAKI  Fak Fak           44.41 195  P      P       10 52 47.8 -1.1
      comp=Z,45nm,1.1s
BRLK  Bradley Lake      44.42  41  P      P       10 52 49.1 +0.6
BRLK                               IAmb   IAmb    10 53 05.8
      comp=Z,14nm,0.8s
G23K  Bananza Creek     44.55  31         P       10 52 50.9 +1.4
G23K                               IAmb   IAmb    10 53 10.6
      comp=Z,12nm,0.8s
KURK  Kurchatov         44.65 305  P      P       10 52 49.9 -0.5
KURK  Kurchatov         44.65 305ceP      P       10 52 49.1 -1.3
KURK                               pmax   pmax
      comp=Z,27nm,0.7s
KURK  Kurchatov         44.65 305         P       10 52 49.7 -0.7
KURK  Kurchatov         44.65 305  P      P       10 52 49.9 -0.5
      comp=Z,44nm,0.7s
KURK  Kurchatov         44.65 305  P      P       10 52 49.9 -0.5
KURK                               pP     pP      10 53 03.2 +1.5
KURBB Kurchatov Arra    44.73 305  P      P       10 52 50.4 -0.7
      comp=Z,24nm,0.6s,baz=79,slow=8.7,SNR=94
KURBB                              PcP    PcP     10 54 33.0 +0.3
      comp=Z,3.1nm,0.6s,baz=87,slow=3.0,SNR=3.7
      comp=Z,24nm,0.6s
KURBB Kurchatov Arra    44.73 305  P      P       10 52 50.2 -0.9
NPW   Naypyitaw         44.77 257  P      P       10 52 52.4 +0.7
      comp=Z,24nm,1.0s
GHO   Glory Hole Cre    45.20  38  P      P       10 52 56.2 +1.4
GHO                                IAmb   IAmb    10 53 12.5
      comp=Z,14nm,0.8s
COLA  College           45.47  34 i P     P       10 52 58.3 +1.5
COLA  College           45.47  34  P      P       10 53 00.1 +3.3
      comp=Z,12nm,0.7s
ILAR  Eielson Array     45.89  34  P      P       10 53 01.4 +1.2
      comp=Z,1.9nm,0.8s,baz=268,slow=6.3,SNR=17
      comp=Z,1.9nm,0.8s
SHLS  Shalkode          46.21 295 eP      P       10 53 00.6 -2.5
SHLS                               pmax   pmax
      comp=Z,12nm,0.8s
SHLS  Shalkode          46.21 295 eP      P       10 53 00.7 -2.5
      comp=Z,12nm,0.8s
TDK   Taldyqorghan      46.33 298 eP      P       10 53 03.8 -0.1
TDK                                pmax   pmax
      comp=Z,14nm,0.9s
TDK   Taldyqorghan      46.33 298 eP      P       10 53 03.9 -0.1
      comp=Z,14nm,0.9s
UZB   Uzynbulak         46.52 295 eP      P       10 53 05.3 -0.2
UZB   Uzynbulak         46.52 295 eP      P       10 53 05.3 -0.2
KPKS  Kokpek            46.65 296 eP      P       10 53 06.7 +0.3
KPKS  Kokpek            46.65 296 eP      P       10 53 06.8 +0.3
BMAR  Burnt Mountain    46.67  30  P      P       10 53 07.9 +1.6
F26K  Sheenjek River    46.82  30  P      P       10 53 09.3 +1.9
F26K                               IAmb   IAmb    10 53 25.4
      comp=Z,18nm,1.0s
SATY  Saty              46.98 295 eP      P       10 53 09.0 -0.1
SATY                               pmax   pmax
      comp=Z,4.0nm,0.5s
SATY  Saty              46.98 295 eP      P       10 53 09.1 -0.1
      comp=Z,4.0nm,0.5s
EVN   Everest           47.23 273  P      P       10 53 12.6 +0.7
      comp=Z,60nm,0.7s
TARG  Taragay, Kyrgy    47.86 294  P      P       10 53 16.5 +0.2
TARG  Taragay, Kyrgy    47.86 294  P      P       10 53 16.5 +0.2
      comp=Z,20nm,0.8s
MDOK  Medeo             47.87 296 eP      P       10 53 15.9 -0.1
MDOK  Medeo             47.87 296 eP      P       10 53 16.0 -0.1
AAA   Alma-Ata          47.95 296 eP      P       10 53 16.5  0.0
AAA                                pmax   pmax
      comp=Z,11nm,0.7s
AAA   Alma-Ata          47.95 296 eP      P       10 53 16.6  0.0
      comp=Z,11nm,0.7s
TNSS  Tian-Shan         47.98 296 eP      P       10 53 17.0 -0.2
TNSS  Tian-Shan         47.98 296 eP      P       10 53 17.1 -0.2
KUU   Kurty             48.10 297 eP      P       10 53 17.8 +0.2
KUU   Kurty             48.10 297 eP      P       10 53 17.9 +0.2
KDJ   Kajisay           48.15 295  P      P       10 53 17.7 -0.6
KDJ                                pmax   pmax
      comp=Z,9.0nm,0.5s
KDJ   Kajisay           48.15 295  P      P       10 53 17.7 -0.6
KDJ                                IAmb   IAmb    10 53 23.3
      comp=Z,9.1nm,0.5s
M27K  Edge Creek, AK    48.41  37  P      P       10 53 21.4 +1.5
M27K                               IAmb   IAmb    10 53 37.2
      comp=Z,13nm,1.0s
F28M  Old Crow          48.45  30  P      P       10 53 21.8 +1.8
BVA0  Borovoye Array    49.02 310 i P     P       10 53 24.7 +0.1
BVAR  Borovoye Array    49.02 310  P      P       10 53 24.4 -0.2
      comp=Z,21nm,0.5s,baz=74,slow=7.8,SNR=61
BVAR                               PcP    PcP     10 54 48.6 +0.7
      comp=Z,3.0nm,0.5s,baz=66,slow=3.2,SNR=1.6
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	comp=Z,21nm,0.5s						
BORK	Borovoye	49.05	310	*i* P	P	10 53 24.4	-0.4
BORK				pmax	pmax		
	comp=Z,18nm,0.7s						
BORK	Borovoye	49.05	310		P	10 53 24.4	-0.4
ASAI	AK-SAY(Kyrgyzs	49.06	293	P	P	10 53 25.7	+0.2
	comp=Z,14nm,1.1s						
AAK	Ala-Archa	49.81	296	P	P	10 53 30.7	-0.3
AAK	Ala-Archa	49.81	296	*ce*P	P	10 53 30.8	-0.2
AAK				pmax	pmax		
	comp=Z,11nm,1.7s						
AAK	Ala-Archa	49.81	296	P	P	10 53 30.7	-0.3
AAK	Ala-Archa	49.81	296	P	P	10 53 30.7	-0.3
	comp=Z,8.6nm,0.6s						
KAPI	Kappang	50.11	211	LR	LR	11 13 45.4	
	comp=Z,72nm,21.7s,baz=94,slow=35						
KSH2	Kashi	50.45	292	P	P	10 53 36.0	+0.2
KSH2				pP	pP	10 53 49.0	+1.7
KSH2				pmax	pmax		
	comp=Z,9.0nm,0.8s						
INK	Inuvik	50.70	29	P	P	10 53 38.9	+1.8
	comp=Z,2.9nm,0.5s,baz=290,slow=8.1,SNR=13						
	comp=Z,2.9nm,0.5s						
ARSB	Arslanbob	51.36	295	P	P	10 53 42.7	0.0
ARSB				pmax	pmax		
	comp=Z,41nm,1.2s						
ARSB	Arslanbob	51.36	295	P	P	10 53 42.7	0.0
DZA	Taraz	51.86	298	*e*P	P	10 53 46.5	+0.3
DZA				pmax	pmax		
	comp=Z,8.0nm,0.6s						
DZA	Taraz	51.86	298	*e*P	P	10 53 46.6	+0.3
	comp=Z,8.4nm,0.6s						
KK31	Karatay Array	52.32	298	*i* P	P	10 53 48.6	-1.1
KK31	Karatay Array	52.32	298		P	10 53 48.7	-0.9
KK31				IAmb	IAmb	10 54 02.9	
	comp=Z,6.8nm,0.8s						
SOEI	Soe	52.98	203	P	P	10 53 54.0	-0.8
	comp=Z,45nm,0.8s						
SOEI	Soe	52.98	203		P	10 53 54.9	+0.1
SOEI	Soe	52.98	203	P	P	10 53 54.2	-0.6
	comp=Z,45nm,0.9s						
SOEI	Soe	52.98	203	P	P	10 53 55.6	+0.8
	comp=Z,46nm,0.8s						
IUG	Iuzhnay	53.04	297	*e*P	P	10 53 55.2	+0.2
IUG				pmax	pmax		
	comp=Z,4.0nm,0.3s						
IUG	Iuzhnay	53.04	297	*e*P	P	10 53 55.3	+0.2
	comp=Z,4.0nm,0.3s						
SVE	Sverdlovsk	53.21	317	*e*P	P	10 54 09.4	+13
SVE				pmax	pmax		
	comp=Z,45nm,0.8s						
CHM	Chimkent	53.26	298	*e*P	P	10 53 56.7	+0.2
CHM	Chimkent	53.26	298	*e*P	P	10 53 56.8	+0.2
MTN	Manton Dam	54.30	194	P	P	10 54 05.0	+0.7
	comp=Z,8.0nm,1.1s						
ARTI	Arti	54.53	317	P	P	10 54 05.5	-0.2
	comp=Z,27nm,0.5s,baz=71,slow=4.1,SNR=42						
	comp=Z,27nm,0.5s						
ARTI	Arti	54.53	317	*c i*P	P	10 54 05.4	-0.2
ARTI				*PP	pP	10 54 18.2	+1.1
ARTI						10 55 06.8	
ARTI				S	S	11 01 41.6	0.0
ARTI				SS	SKiKP	11 05 15.9	+4.9
ARTI				pmax	pmax		
	comp=Z,19nm,0.5s						
ARTI	Arti	54.53	317		P	10 54 05.3	-0.3
ARTI	Arti	54.53	317	P	P	10 54 05.3	-0.3
ARTI				pP	pP	10 54 18.9	+1.8
NIL	Nilore	54.58	286	P	P	10 54 06.8	+0.4
NIL	Nilore	54.58	286	P	P	10 54 06.5	+0.1
NIL				pmax	pmax		
	comp=Z,60nm,0.8s						
NIL	Nilore	54.58	286		P	10 54 06.5	+0.1
NIL	Nilore	54.58	286	P	P	10 54 07.2	+0.8
DLBC	Dease Lake	55.14	40	P	P	10 54 12.3	+2.2
	comp=Z,2.2nm,1.0s,baz=219,slow=6.9,SNR=3.7						
	comp=Z,2.2nm,1.0s						
SDSI	Sungai Dareh	55.91	233	P	P	10 54 15.8	-0.2
	comp=Z,28nm,0.6s						
ALE	Alert	56.45	4	P	P	10 54 20.0	+0.9
ALE				pP	sP	10 54 34.1	-1.1
AB31	Akbulak array	56.49	309	*i* P	P	10 54 19.5	-0.3
ABKAR	Akbulak array	56.49	309		P	10 54 19.5	-0.3
GSI	Gunungsitoli	56.60	238	P	P	10 54 21.5	+0.5
	comp=Z,29nm,1.1s						
AKTO	Aktyubinsk	57.12	311	P	P	10 54 25.0	+0.8
	comp=Z,5.1nm,0.8s,baz=62,slow=8.6,SNR=8.9						
	comp=Z,5.1nm,0.8s						
KBL	Kabul	57.20	289	P	P	10 54 24.6	-0.7
	SNR=9.2						
KBL	Kabul	57.20	289	P	P	10 54 24.7	-0.6
KBL				pmax	pmax		
	comp=Z,22nm,0.8s						
KBL	Kabul	57.20	289	P	P	10 54 24.5	-0.7
	comp=Z,33nm,0.9s						
SPA0	Spitsbergen Ar	57.21	349	*e*P	P	10 54 24.9	+0.4
SPITS	Spitsbergen Ar	57.21	349	P	P	10 54 24.6	+0.2
	comp=Z,1.8nm,0.6s,baz=62,slow=8.9,SNR=5.7						
	comp=Z,1.8nm,0.6s						
KNRA	Kununurra	57.52	196	P	P	10 54 29.0	+1.7
	comp=Z,7.8nm,1.0s						
NOR	Nord	57.53	356	*i* P	P	10 54 26.7	0.0
NOR				IAmb	IAmb	10 54 28.1	
	comp=Z,4.1nm,1.1s						
KIRV	Kirov	58.06	322	P	P	10 54 30.6	0.0
	comp=Z,21nm,0.5s,baz=71,slow=3.6,SNR=9.0						
	comp=Z,21nm,0.5s						
KIRV	Kirov	58.06	322	*ce*P	P	10 54 30.8	+0.1
BBB	Bella Bella	58.75	46	P	P	10 54 36.7	+1.1
	comp=Z,2.6nm,0.9s,baz=272,slow=4.9,SNR=3.6						
	comp=Z,2.6nm,0.9s						
BJO1	Bjornoya	59.27	345	*e*P	P	10 54 39.9	+1.0
LVZ	Lovozero	59.29	335	*ce*P	P	10 54 40.2	+1.1
LVZ				pmax	pmax		
	comp=Z,49nm,2.5s						
VADS	Vadso	59.60	339	*e*P	P	10 54 41.5	+0.3
YKA	Yellowknife Ar	60.16	31	P	P	10 54 45.9	+0.7
	comp=Z,1.6nm,0.8s,baz=307,slow=7.0,SNR=2.1						
	comp=Z,1.6nm,0.8s						
FITZ	Fitzroy Crossi	60.58	199	P	P	10 54 48.7	+0.3
	comp=Z,19nm,2.1s						
WB0	Warramunga Arr	60.60	189	P	P	10 54 48.8	+0.2
WB0				IAmb	IAmb	10 54 49.7	
	comp=Z,7.7nm,0.9s						
WRAB	Tennant Creek	60.77	189	P	P	10 54 49.8	+0.1
	comp=Z,4.5nm,1.2s						
WRA	Warramunga Arr	60.78	189	P	P	10 54 50.1	+0.3
	comp=Z,3.0nm,0.5s,baz=7.7,slow=6.9,SNR=50						
	comp=Z,3.0nm,0.5s						
WRA	Warramunga Arr	60.78	189	P	P	10 54 49.7	-0.1
HAMF	Hammerfest	60.78	341	*e*P	P	10 54 48.9	-0.4
HAMF				IAmb	IAmb	10 54 49.5	
	comp=Z,38nm,1.2s						
QIS	Mount Isa	60.95	183	P	P	10 54 51.5	+0.5
	comp=Z,4.2nm,0.7s						
ARA0	ARCESS Array S	61.02	339	*e*P	P	10 54 51.0	0.0
ARCES	ARCESS Array B	61.02	339	P	P	10 54 51.0	+0.1
	comp=Z,2.6nm,0.5s,baz=50,slow=8.0,SNR=41						
	comp=Z,2.6nm,0.5s						
ARCES	ARCESS Array B	61.02	339	*e*P	P	10 54 50.6	-0.3
KLMR	Klimovskoe	61.31	327	*e*P	P	10 54 51.1	-1.9
KLMR				*e**PP	pP	10 55 02.6	-2.0
KLMR				*e*		10 57 06.1	
KLMR				pmax	pmax		
	comp=Z,48nm,1.6s						
NEEM	North Greenlan	61.88	3	*i* P	P	10 54 57.2	+0.2
NEEM				IAmb	IAmb	10 55 02.1	
	comp=Z,11nm,0.8s						
BELG	Belogornoye	61.93	316	P	P	10 54 57.3	0.0
	comp=Z,17nm,0.9s,baz=315,slow=2.9,SNR=4.9						
BELG				LR	LR	11 24 10.9	
	comp=Z,420nm,19.9s,baz=92,slow=38						
	comp=Z,17nm,0.9s						
BELG	Belogornoye	61.93	316	*i* P	P	10 54 58.5	+1.2
BELG				pmax	pmax		
	comp=Z,4.0nm,1.0s						
KTK1	Kautokeino	61.98	339	*e*P	P	10 54 57.5	+0.1
KTK1				IAmb	IAmb	10 54 58.1	
	comp=Z,12nm,0.7s						
DAG	Danmarks Havn	62.28	355	P	P	10 54 59.3	0.0
DAG	Danmarks Havn	62.28	355	*i* P	P	10 54 59.0	-0.3
DAG				IAmb	IAmb	10 55 00.5	
	comp=Z,11nm,0.8s						
JETT	Jettan, Norway	62.35	340	*e*P	P	10 54 59.8	-0.1
TRO	Tromso	62.67	341	*e*P	P	10 55 01.8	-0.1
TRO				IAmb	IAmb	10 55 02.3	
	comp=Z,52nm,1.3s						
AS15	Alice Springs	64.47	189	P	P	10 55 15.6	+1.1
	comp=Z,4.4nm,0.7s						
AS17	Alice Springs	64.49	189	P	P	10 55 15.6	+1.0
	comp=Z,5.3nm,0.7s						
AS01	Alice Springs	64.50	189	P	P	10 55 14.9	+0.3
	comp=Z,6.8nm,1.1s						
AS31	Alice Springs	64.50	189	P	P	10 55 15.7	+1.0
	comp=Z,1.4nm,0.8s						
AS31	Alice Springs	64.50	189	P	P	10 55 15.4	+0.8
	comp=Z,1.4nm,0.8s						
AS31	Alice Springs	64.50	189		P	10 55 15.0	+0.4
ASAR	Alice Springs	64.51	189	P	P	10 55 15.5	+0.9
	comp=Z,3.6nm,0.7s,baz=360,slow=5.0,SNR=46						
	comp=Z,3.6nm,0.7s						
ASAR	Alice Springs	64.51	189	P	P	10 55 15.2	+0.6
AS09	Alice Springs	64.53	189	P	P	10 55 15.9	+1.1
	comp=Z,7.3nm,0.8s						
STEI	Steigen	64.83	341	*e*P	P	10 55 16.0	-0.2
MBWA	Marble Bar	65.12	204	P	P	10 55 19.3	+0.7
	comp=Z,21nm,1.4s						
MBWA	Marble Bar	65.12	204	P	P	10 55 18.9	+0.3
	comp=Z,12nm,1.5s						
FAUS	Fauske	65.23	340	*e*P	P	10 55 19.1	+0.3
FAUS				IAmb	IAmb	10 55 19.4	
	comp=Z,37nm,1.0s						
COR	Corvallis	65.36	52	P	P	10 55 20.7	+0.7
VRH	Novokhopyorsk	65.66	317	*e*P	P	10 55 21.0	-0.9
VRH				pmax	pmax		
	comp=Z,18nm,0.9s						
OBN	Obninsk	65.88	323	*e*P	P	10 55 23.0	-0.2
OBN				*e**PP	pP	10 55 33.8	-1.1
OBN				*e*		10 57 49.4	
OBN				pmax	pmax		
	comp=Z,12nm,0.6s						
OBN				MLR	MLR		
	comp=Z,368nm,21.0s						
FINES	FINESS Array B	66.14	332	P	P	10 55 24.6	-0.2
	comp=Z,22nm,0.5s,baz=46,slow=7.8,SNR=128						
	comp=Z,22nm,0.5s						
VAGH	Vaagaholmen	66.24	340	*e*P	P	10 55 24.9	-0.4
VAGH				IAmb	IAmb	10 55 26.3	
	comp=Z,84nm,1.4s						
LPSR	Galich'ya Gora	66.25	320	*e*P	P	10 55 25.0	-0.6
LPSR				pmax	pmax		
	comp=Z,19nm,0.8s						
RAUS	Rausandaksla	66.27	340	*e*P	P	10 55 25.6	0.0
MOR8	Moi Rana	66.37	340	*e*P	P	10 55 25.0	-1.2
VORR	Voronezh	66.66	319	*e*P	P	10 55 26.9	-1.4
VORR				pmax	pmax		
	comp=Z,8.0nm,0.8s						
VSR	Storozhevoye	66.95	318	*e*P	P	10 55 29.7	-0.5
VSR				pmax	pmax		
	comp=Z,13nm,0.8s						
VORD	Divnogorie	67.04	318	*e*P	P	10 55 28.5	-2.2
VORD				pmax	pmax		
	comp=Z,10.0nm,0.9s						
SUMG	Summit	67.08	0	P	P	10 55 31.7	+0.5
SUMG				pmax	pmax		
	comp=Z,21nm,0.8s						
SUMG	Summit	67.08	0		P	10 55 31.7	+0.5
SUMG	Summit	67.08	0	*i* P	P	10 55 32.0	+0.8
SUMG				IAmb	IAmb	10 55 33.0	
	comp=Z,22nm,0.8s						
SUMG	Summit	67.08	0	P	P	10 55 32.5	+1.4
	comp=Z,31nm,0.8s						
YBH	Yreka Blue Hor	67.31	54	P	P	10 55 35.3	+2.6
	comp=Z,0.9nm,0.5s,baz=243,slow=2.3,SNR=3.5						
	comp=Z,0.9nm,0.5s						
AKT	Akhty	67.82	306	*e*P	P	10 55 35.7	-0.3
AKT				*e*		10 58 05.9	
AKT				pmax	pmax		
	comp=Z,19nm,0.7s						
KVAR	Kislovodsk Arr	69.38	311	P	P	10 55 45.0	-0.7
	comp=Z,6.6nm,0.6s,baz=0.0,slow=3.1						
	comp=Z,6.6nm,0.6s						
KIV	Kislovodsk	69.38	311	P	P	10 55 46.4	+0.7
KIV	Kislovodsk	69.38	311	*e*P	P	10 55 46.3	+0.7
KIV				pmax	pmax		
	comp=Z,32nm,1.0s						
KIV	Kislovodsk	69.38	311	P	P	10 55 47.3	+1.6
KIV				pP	sP	10 56 01.0	-1.1
KBZ	Khabaz	69.40	310	P	P	10 55 45.7	+0.1
	comp=Z,11nm,0.8s,baz=56,slow=3.9,SNR=26						
	comp=Z,11nm,0.8s						
KBZ	Khabaz	69.40	310	*ce*P	P	10 55 46.6	+1.0
KBZ				pmax	pmax		
	comp=Z,9.0nm,0.7s						
JASK	Jask - Hormozg	70.00	287	P	P	10 55 49.8	+0.2
LABN	Labinsk	70.09	312	*e*P	P	10 55 50.3	+0.4
LABN				pmax	pmax		
	comp=Z,25nm,0.7s						
MNK	Minsk	70.13	326	*i* P	P	10 55 50.7	+0.8
MNK				*i*		10 58 25.9	
MNK				*i* PPP	PPP	11 00 07.9	
MNK				*i* S	S	11 04 59.2	+1.4
MNK				*i* SS	SS	11 09 28.8	+1.7
MNK				pmax	pmax		
	comp=N,15nm,0.8s						
MNK				pmax	pmax		
	comp=Z,28nm,0.8s						
MNK				pmax	pmax		
	comp=E,21nm,0.9s						
MNK				MLR	MLR		
	comp=E,904nm,22.0s						
MNK	Minsk	70.13	326	*i* P	P	10 55 50.7	+0.8
	comp=E,21nm,0.9s						
MNK				*i* P	P	10 55 50.7	+0.8
	comp=N,15nm,0.8s						
MNK				*i* P	P	10 55 50.7	+0.8
	comp=Z,28nm,0.8s,baz=47						
MNK				*i* PP	PP	10 58 25.9	+1.0
MNK				*i* PPP	PPP	11 00 07.9	
MNK				*i* S	S	11 04 59.2	+1.4
MNK				*i* SS	SS	11 09 28.8	+1.7
MNK				*i* SSS	SSS	11 12 48.2	
MNK				*i* LQ	LQ	11 22 14.8	
GNI	Garni	70.44	306	P	P	10 55 52.6	+0.3
	comp=Z,7.3nm,0.4s,baz=129,slow=8.0,SNR=3.6						
	comp=Z,7.3nm,0.4s						
WSAR	Wadi Sarin	71.00	285	P	P	10 55 56.7	+0.9
JLN	Jalan Bani Buh	71.08	283	P	P	10 55 55.4	-0.8
DOMB	Dombas	71.08	339	*e*P	P	10 55 55.6	-0.1
DOMB				IAmb	IAmb	10 55 56.4	
	comp=Z,58nm,1.6s						
NC303	NORSAR Array S	71.09	337	P	P	10 55 55.8	+0.1
BANOM	Banah	71.11	288	P	P	10 55 57.1	+0.7
BANOM	Banah	71.11	288	P	P	10 55 56.8	+0.4
WBK	Wadi Bani Khal	71.13	284	P	P	10 55 57.4	+0.8
SHME	Shamm	71.15	288	P	P	10 55 56.7	+0.2
SHME	Shamm	71.15	288	*i* P	P	10 55 56.8	+0.2
	SNR=9.2						
BIDO	Bidbid	71.20	285	P	P	10 55 58.2	+1.3
HFS	Hagfors	71.26	336	P	P	10 55 56.8	+0.1
	comp=Z,6.5nm,0.5s,baz=35,slow=5.4,SNR=18						
	comp=Z,6.5nm,0.5s						
NB2	NORSAR Subarra	71.29	337	P	P	10 55 57.0	+0.1
	comp=Z,4.6nm,0.6s,baz=36,slow=6.5						
NB2	NORSAR Subarra	71.29	337	P	P	10 55 54.2	-2.7
NB2				pmax	pmax		
	comp=Z,5.0nm,0.7s						
NB2	NORSAR Subarra	71.29	337	P	P	10 55 57.0	+0.1
NOA	NORSAR Array B	71.29	337	P	P	10 55 56.8	-0.2
	comp=Z,11nm,0.8s,baz=37,slow=6.1,SNR=25						
	comp=Z,11nm,0.8s						
NC602	NORSAR Array S	71.44	337	*e*P	P	10 55 57.3	-0.5
NORES	NORESS Array B	71.44	337	P	P	10 55 57.3	-0.5
MDH	Madha	71.48	288	P	P	10 55 58.7	+0.1
MASF	Masafi	71.54	288	P	P	10 55 59.6	+0.6
SMDO	Samad	71.54	285	P	P	10 56 00.5	+1.3
MSFE	Esma-Masafi	71.54	288	*i* P	P	10 55 59.6	+0.5
	SNR=6.5						
UOSS	Minazif	71.76	287	P	P	10 56 00.3	-0.1
UOSS	Minazif	71.76	287	P	P	10 55 60.0	-0.4
UOSS	Minazif	71.76	287	*i* P	P	10 56 00.5	+0.2
	SNR=12						
UOSS	Minazif	71.76	287	P	P	10 56 00.5	+0.2
HOQ	Hoqain	71.77	286	P	P	10 56 00.4	0.0
OZAP	Van, Ozalp-Mer	71.80	305	⇓P	P	10 56 01.8	+1.2
HATD	Hatta, Dubai	71.88	287	P	P	10 56 01.6	+0.6
	SNR=6.8						
HATD	Hatta, Dubai	71.88	287	*i* P	P	10 56 02.0	+0.9
	SNR=8.4						
JMDO	Jabal Madar	71.91	284	P	P	10 56 01.8	+0.5
SOHO	SOHO	72.00	287	P	P	10 56 01.7	-0.1
SOHO	SOHO	72.00	287	*i* P	P	10 56 01.6	-0.1
	SNR=7.6						
ASHO	Ashiyiah	72.02	287	P	P	10 56 02.2	+0.3
	SNR=6.6						
ASHO	Ashiyiah	72.02	287	*i* P	P	10 56 02.1	+0.1
	SNR=11						
AK03	Malin Array Si	72.10	322	P	P	10 56 01.7	-0.2
AKASG	Malin Array Be	72.12	322	P	P	10 56 01.7	-0.3
	comp=Z,5.4nm,0.6s,baz=46,slow=6.2,SNR=28						
	comp=Z,5.4nm,0.6s						
AKBB	Malin Array Si	72.12	322	*ce*P	P	10 56 02.0	0.0
AKBB				pmax	pmax		
	comp=Z,17nm,1.0s						
AKBB	Malin Array Si	72.12	322	P	P	10 56 01.6	-0.5
AKBB	Malin Array Si	72.12	322	P	P	10 56 01.5	-0.5
NAZ	Nazwa, Dubai	72.13	288	P	P	10 56 02.9	+0.4
AK01	Malin Array Si	72.13	322	P	P	10 56 01.8	-0.3
KIEV	Kiev	72.13	322	⇑P	P	10 56 04.0	+1.9
KIEV	Kiev	72.13	322	P	P	10 56 01.7	-0.4
KIEV	Kiev	72.13	322	*i* P	P	10 56 01.8	-0.3
	SNR=8.5						
KIEV	Kiev	72.13	322	⇑P	P	10 56 04.0	+1.9
KIEV	Kiev	72.13	322	P	P	10 56 01.7	-0.4
	comp=Z,123nm,0.9s						
KIEV	Kiev	72.13	322	P	P	10 56 01.7	-0.4
KIEV				pP	pwP	10 56 16.5	+0.5
AK04	Malin Array Si	72.13	322	P	P	10 56 01.6	-0.5
FAQ	Al Faqa, Dubai	72.32	288	P	P	10 56 03.8	+0.2
BSY	Bisya	72.35	285	P	P	10 56 04.2	+0.3
SKAR	Skarslia	72.41	338	*e*P	P	10 56 04.7	+1.0
ARQ	Araqi	72.49	286	P	P	10 56 05.6	+0.8
ASUD	Al Ashush, Dub	72.58	288	P	P	10 56 05.7	+0.4
ASUD	Al Ashush, Dub	72.58	288	P	P	10 56 05.3	0.0
HYA	Hoyanger	72.59	340	*e*P	P	10 56 04.8	+0.2
HYA				IAmb	IAmb	10 56 07.9	
	comp=Z,56nm,1.3s						
ALNE	Al Ain	72.62	287	P	P	10 56 05.7	+0.2
	SNR=5.1						
ALNE	Al Ain	72.62	287	*i* P	P	10 56 05.6	+0.1
	SNR=6.8						
MHTO	MHTO	72.85	283	P	P	10 56 07.2	+0.3
	SNR=8.3						
RNPP9	Sopachiv	73.14	324	P	P	10 56 07.9	-0.2
RNPP8	Varash	73.21	324	P	P	10 56 08.3	-0.2
RNPP5	Staryi Chortor	73.28	324	P	P	10 56 08.8	-0.1
LUBAR	Lubar, Ukraine	73.34	322	P	P	10 56 09.2	-0.1
BER	Bergen	73.47	340	*e*P	P	10 56 10.8	+1.0
ODD1	Odda	73.52	339	*e*P	P	10 56 11.2	+0.9
MORW	Morawa	73.66	204	P	P	10 56 11.9	+0.6
UMZA	Um Al Zommool	73.86	286	P	P	10 56 12.2	-0.6
SORM	Soroca	74.30	321	⇓P	P	10 56 15.0	+0.1
SORM	Soroca	74.30	321	⇓P	P	10 56 15.0	+0.1
SORM	Soroca	74.30	321	P	P	10 56 14.3	-0.6
	comp=Z,7µmcomp=Z,21nm,0.8s						
PDAR	Pinedale Array	74.39	47	P	P	10 56 17.1	+1.3
	comp=Z,1.3nm,0.8s,baz=303,slow=7.6,SNR=3.4						
	comp=Z,1.3nm,0.8s						
KMPD	K-Podol'skiy	74.90	322	P	P	10 56 17.5	-0.9
BLDU	Ballidu	74.90	203	P	P	10 56 19.3	+0.8
	comp=Z,11nm,1.3s						
MZR	Muzera	74.91	287	P	P	10 56 19.1	+0.2
ARPR	Arapgir-MALATY	74.97	309	P	P	10 56 20.1	+0.9
LVV	L'vov	75.11	324	P	P	10 56 19.3	-0.3
SAKB	Bahrain	75.20	292	P	P	10 56 19.9	-0.7
SLWR	Sila	75.55	289	P	P	10 56 22.1	-0.4
MORS	Morshin	75.67	324	P	P	10 56 23.7	+0.9
KWP	Kalwaria Pacla	75.84	325	*e*P	P	10 56 25.2	+1.4
KWP	Kalwaria Pacla	75.84	325	P	P	10 56 24.2	+0.4
	comp=Z,23nm,0.7s						
LCMT	Little Creek M	76.00	53	P	P	10 56 24.8	-0.3
TLCR		76.12	318	⇑P	P	10 56 26.2	+0.7
TLCR		76.12	318	⇑P	P	10 56 26.2	+0.7
BURAR	Bucovina Array	76.16	322	⇓P	P	10 56 26.7	+0.9
BURAR	Bucovina Array	76.16	322	⇓P	P	10 56 26.7	+0.9
BIZ	Bicaz	76.22	321	⇑P	P	10 56 27.0	+0.9
TESR	Tescani	76.26	320	⇑P	P	10 56 26.7	+0.4
TESR	Tescani	76.26	320	P	P	10 56 26.3	0.0
	comp=Z,27nm,0.8s						
ILGA	Ilgaz	76.34	313	P	P	10 56 28.1	+1.0
SHAO	Shalim	76.40	282	P	P	10 56 27.7	+0.1
SHAO	Shalim	76.40	282	P	P	10 56 27.6	+0.1
CFR	Carcaliu	76.47	319	⇑P	P	10 56 27.4	0.0
CFR	Carcaliu	76.47	319	⇑P	P	10 56 27.4	0.0
KOLS	Kolonicke sedl	76.54	324	*e*P	P	10 56 29.6	+1.8
KOLS				*e*		10 56 43.2	
KOLS	Kolonicke sedl	76.54	324	*e*P	P	10 56 29.6	+1.8
KOLS				*e*		10 56 43.2	
TPGR	Topolog	76.56	318	⇑P	P	10 56 28.6	+0.6
STHS	Stebnicka Huta	76.64	325	*e*P	P	10 56 29.0	+0.6
STHS				*e*		10 56 44.1	
STHS	Stebnicka Huta	76.64	325	*e*P	P	10 56 29.0	+0.6
STHS				*e*		10 56 44.1	
OJC	Ojcow	76.65	326	*e*P	P	10 56 29.9	+1.5
OJC	Ojcow	76.65	326	P	P	10 56 29.3	+0.9
OJC	Ojcow	76.65	326	P	P	10 56 29.3	+0.9
OJC	Ojcow	76.65	326	P	P	10 56 28.6	+0.2
	comp=Z,20nm,0.9s						
VRI	Vrincioaia	76.69	320	⇑P	P	10 56 30.1	+1.4
VRI	Vrincioaia	76.69	320	⇑P	P	10 56 30.1	+1.4
PLOR	Plostina	76.73	320	⇓P	P	10 56 30.3	+1.3
PLOR	Plostina	76.73	320	⇓P	P	10 56 30.3	+1.3
SAHR	Sahastru	76.81	320	⇑P	P	10 56 30.4	+1.0
NWAO	Narrogin (SRO)	76.92	202	P	P	10 56 30.1	+0.2
	comp=Z,13nm,1.3s						
COVR	Voineasa-Covas	76.96	320	⇑P	P	10 56 30.5	+0.2
NIE	Niedzica	77.04	326	*e*P	P	10 56 32.1	+1.4
NIE	Niedzica	77.04	326	P	P	10 56 31.0	+0.3
	comp=Z,5.5nm,1.4s						
DMTO	DMTO	77.10	282	P	P	10 56 31.2	-0.2
DOPR	Dopca	77.27	321	⇑P	P	10 56 33.0	+1.0
BR131	Keskin Array S	77.28	312	P	P	10 56 32.2	-0.1
BR131				pmax	pmax		
	comp=Z,5.0nm,0.7s						
BR131	Keskin Array S	77.28	312	P	P	10 56 32.2	-0.1
BR131				IAmb	IAmb	10 56 47.8	
	comp=Z,4.5nm,0.7s						
BRTR	Keskin Array B	77.28	312	P	P	10 56 32.6	+0.3
	comp=Z,2.6nm,0.6s,baz=76,slow=4.0,SNR=13						
	comp=Z,2.6nm,0.6s						
BRTR	Keskin Array B	77.28	312	P	P	10 56 32.2	-0.1
BR106	Keskin Array S	77.28	312	P	P	10 56 32.5	+0.2
	comp=Z,42nmcomp=Z,5.1nm,0.7s						
BR104	Keskin Array S	77.29	312	P	P	10 56 32.5	+0.1
	comp=Z,3.3nm,0.7s						
BR105	Keskin Array S	77.29	312	P	P	10 56 32.6	+0.2
	comp=Z,60nmcomp=Z,5.9nm,0.7s						
ISR	Istrita	77.31	319	⇑P	P	10 56 33.7	+1.4
ISR	Istrita	77.31	319	⇑P	P	10 56 33.7	+1.4
ICOR	Ion Corvin	77.39	318	⇓P	P	10 56 34.0	+1.4
LANS	Liptovska Anna	77.60	326	*e*P	P	10 56 35.7	+1.9
LANS				pmax	pmax		
	comp=Z,4.0nm,1.0s						
LANS	Liptovska Anna	77.60	326	*e*P	P	10 56 35.7	+1.9
KSP	Ksiaz	77.61	329	*e*P	P	10 56 35.2	+1.5
KSP	Ksiaz	77.61	329	P	P	10 56 34.5	+0.7
PV19	Morning Glory	77.68	50	P	P	10 56 35.1	+0.4
PV19				IAmb	IAmb	10 56 37.7	
	comp=Z,11nm,0.9s						
STEB	Steborice	77.72	327	*e*P	P	10 56 35.1	+0.7
VOIR		77.81	320	⇑P	P	10 56 36.2	+1.1
VOIR		77.81	320	⇑P	P	10 56 36.2	+1.1
MARR	Marisel-Cluj	77.83	322	⇓P	P	10 56 35.4	+0.2
WHFO	Wadi Hawf	77.84	283	P	P	10 56 34.9	-0.8
CHVC	Chvalec	77.90	329	*e*P	P	10 56 36.1	+0.7
CHVC	Chvalec	77.90	329	*e*P	P	10 56 36.1	+0.7
DRGR		77.93	323	⇓P	P	10 56 36.5	+0.8
DRGR		77.93	323	⇓P	P	10 56 36.5	+0.8
MORC	Moravsky Berou	77.93	327	⇓P	P	10 56 36.9	+1.3
MORC	Moravsky Berou	77.93	327	P	P	10 56 35.6	0.0
MORC				IAmb	IAmb	10 56 37.4	
	comp=Z,8.9nm,0.8s						
MORC	Moravsky Berou	77.93	327	*e*P	P	10 56 35.9	+0.2
MORC	Moravsky Berou	77.93	327	⇓P	P	10 56 36.9	+1.3
DPC	Dobruska-Polom	77.98	328	*e*P	P	10 56 37.0	+1.1
DPC	Dobruska-Polom	77.98	328	*e*P	P	10 56 37.0	+1.1
ARR	Arges	78.06	321	⇓P	P	10 56 37.8	+1.3
PSZ	Piszkesteto	78.35	325	⇑P	P	10 56 39.5	+1.4
PSZ	Piszkesteto	78.35	325	⇑P	P	10 56 39.5	+1.4
VYHS	Vyhne	78.38	326	*e*P	P	10 56 39.0	+0.9
VYHS				pmax	pmax		
	comp=Z,9.0nm,1.1s						
VYHS	Vyhne	78.38	326	*e*P	P	10 56 39.0	+0.9
BRG	Berggiesshubel	78.50	330	*e*P	P	10 56 39.0	+0.3

BRG				Amp		10 56 39.7	
	comp=Z,4.1nm,0.8s						
BRG				pP	pwP	10 56 52.7	+2.0
BRG				Amp		10 56 54.0	
	comp=Z,5.0nm,1.0s						
CLL	Collm	78.51	331	i P	P	10 56 38.8	+0.1
CLL				i *PP	pwP	10 56 52.1	+1.4
CLL				pmax	pmax		
	comp=Z,12nm,0.9s						
CLL	Collm	78.51	331	i P	P	10 56 38.8	+0.1
	comp=Z,12nm,0.9s						
CLL				i pP	pwP	10 56 52.1	+1.4
CLL				ePP	PP	10 59 39.0	+3.1
JAVC	Velka Javorina	78.59	327	eP	P	10 56 40.7	+1.4
VRAC	Vranov	78.69	327	P	P	10 56 40.1	+0.3
	comp=Z,7.1nm,0.9s,baz=39,slow=4.1,SNR=7.7						
	comp=Z,7.1nm,0.9s						
VRAC	Vranov	78.69	327	eP	P	10 56 40.6	+0.8
VRAC	Vranov	78.69	327	⇑P	P	10 56 40.1	+0.3
HSKC	Hora Svate Kat	78.91	330	eP	P	10 56 41.3	+0.3
GZR	Gura Zlata	78.93	322	⇓P	P	10 56 41.8	+0.5
GZR	Gura Zlata	78.93	322	⇓P	P	10 56 41.8	+0.5
SMOL	Smolenice	78.96	326	eP	P	10 56 42.7	+1.4
SMOL				e		10 56 56.4	
SMOL				pmax	pmax		
	comp=Z,3.0nm,0.8s						
KRUC	Moravsky	78.96	327	eP	P	10 56 41.3	0.0
PRU	Pruhonice	78.97	329	eP	P	10 56 41.9	+0.6
PRU				pmax	pmax		
	comp=Z,3.0nm,0.6s						
PRU				MLR	MLR		
	comp=Z,500nm,18.7s						
PRU	Pruhonice	78.97	329	eP	P	10 56 41.9	+0.6
	comp=Z,3.1nm,0.6s						
PRU				AMS	AMS	11 41 10.0	
	comp=Z,500nm,18.7s						
SRO	Srobarova	79.12	326	eP	P	10 56 43.7	+1.6
SRO				e		10 56 57.5	
SRO				pmax	pmax		
	comp=Z,20nm,1.3s						
SRO	Srobarova	79.12	326	eP	P	10 56 43.6	+1.4
SRO				e		10 56 57.5	
MODS	Modra-Piesok	79.13	326	eP	P	10 56 43.5	+1.3
MODS				pmax	pmax		
	comp=Z,15nm,1.0s						
MODS	Modra-Piesok	79.13	326	eP	P	10 56 43.5	+1.3
ZVC	Zvikov	79.55	329	eP	P	10 56 45.2	+0.7
WINA	Alland / Wiene	79.84	327	eP	P	10 56 47.2	+1.1
	comp=Z,3.8nm,0.6s						
MDVR	Moldovita	79.89	322	⇑P	P	10 56 46.4	-0.1
KHC	Kasperske Hory	80.04	329	ceP	P	10 56 48.2	+1.0
KHC				pmax	pmax		
	comp=Z,13nm,1.0s						
KHC	Kasperske Hory	80.04	329	eP	P	10 56 47.7	+0.5
	comp=Z,8.0nm,0.8s						
KHC				AMS	AMS	11 41 10.0	
	comp=Z,500nm,20.0s						
RONA	Rosalia, Austr	80.07	327	eP	P	10 56 48.5	+1.1
	comp=Z,11nm,1.0s,SNR=6.5						
CONA	Conrad Observa	80.07	327	i P	P	10 56 48.1	+0.7
	comp=Z,8.7nm,0.9s						
EKA	Eskdalemuir Ar	80.09	341	P	P	10 56 47.8	+0.5
	comp=Z,2.4nm,0.5s,baz=29,slow=4.9,SNR=16						
	comp=Z,2.4nm,0.5s						
GERES	GERESS Array B	80.22	329	P	P	10 56 48.4	+0.1
	comp=Z,14nm,0.4s,baz=35,slow=4.9,SNR=5.2						
GERES	GERESS Array B	80.22	329	P	P	10 56 48.6	+0.4
GERES	GERESS Array B	80.22	329	P	P	10 56 48.6	+0.4
RAYN	Ar Rayn	80.29	293	P	P	10 56 49.0	0.0
RAYN	Ar Rayn	80.29	293	P	P	10 56 49.4	+0.4
RAYN				pmax	pmax		
	comp=Z,6.0nm,0.6s						
RAYN	Ar Rayn	80.29	293	P	P	10 56 49.4	+0.4
RAYN				IAmb	IAmb	10 56 49.7	
	comp=Z,6.1nm,0.6s						
RAYN	Ar Rayn	80.29	293	i P	P	10 56 49.0	0.0
	SNR=8.2						
RAYN	Ar Rayn	80.29	293	P	P	10 56 49.1	+0.1
RAYN				pP	pP	10 57 03.1	+2.0
ISP	Isparta	80.35	312	ceP	P	10 56 50.2	+1.0
ISP				pmax	pmax		
	comp=Z,15nm,2.5s						
ASF	Jabal al Asfar	80.40	304	P	P	10 56 49.8	+0.3
	comp=Z,3.8nm,0.8s,baz=28,slow=2.5,SNR=3.8						
ASF				LR	LR	11 36 04.6	
	comp=Z,99nm,21.1s,baz=27,slow=38						
	comp=Z,3.8nm,0.8s						
GRFO	Grafenberg	80.49	330	P	P	10 56 50.9	+1.3
GRFO				pmax	pmax		
	comp=Z,22nm,0.9s						
GRFO	Grafenberg	80.49	330	P	P	10 56 50.7	+1.1
GRFO				pP	pwP	10 57 03.9	+2.3
ARSA	Arzberg	80.75	327	eP	P	10 56 51.5	+0.5
	comp=Z,2.7nm,0.8s						
MMAI	Mount Meron Ar	80.76	306	P	P	10 56 51.1	-0.3
	comp=Z,0.8nm,0.3s,baz=59,slow=5.0,SNR=5.7						
MMAI				LR	LR	11 36 35.4	
	comp=Z,101nm,19.1s,baz=74,slow=39						
	comp=Z,0.8nm,0.3s						
BIOA	Bad Ischl, Aus	81.17	328	eP	P	10 56 53.9	+0.6
	comp=Z,3.4nm,0.6s						
SESA	Seetaler Alpe,	81.25	327	eP	P	10 56 54.6	+0.6
	comp=Z,16nm,0.6s,SNR=7.9						
SOKA	Soboth	81.40	327	eP	P	10 56 55.0	+0.4
	comp=Z,11nm,0.7s,SNR=12						
ELL	Elmali	81.45	312	P	P	10 56 54.9	-0.2
ELL				pmax	pmax		
	comp=Z,11nm,0.8s						
ELL	Elmali	81.45	312	P	P	10 56 54.9	-0.2
ELL				IAmb	IAmb	10 57 10.8	
	comp=Z,11nm,0.8s						
ANMO	Albuquerque	81.46	51	P	P	10 56 56.8	+1.6
	comp=Z,0.3nm,0.4s,baz=326,slow=11,SNR=2.2						
	comp=Z,0.3nm,0.4s						
SCHQ	Schefferville	81.58	17	LR	LR	11 36 31.8	
	comp=Z,246nm,21.3s,baz=323,slow=38						
OBKA	Obir	81.74	327	eP	P	10 56 56.6	+0.2
	comp=Z,6.1nm,0.7s						
LESA	Schwarzleotal	81.77	328	eP	P	10 56 57.1	+0.6
	comp=Z,3.4nm,0.6s,SNR=7.2						
KBA	Koelnbreinsper	81.78	328	eP	P	10 56 56.6	0.0
	comp=Z,10nm,1.0s						
MYKA	Terra Mystica	82.02	327	eP	P	10 56 57.6	-0.2
	comp=Z,3.1nm,0.5s						
BMRD	Maredsous	82.25	334	dP	P	10 56 58.8	0.0
	comp=Z,6.9nm,0.8s						
WATA	Walderalm	82.28	329	eP	P	10 56 59.6	+0.3
	comp=Z,4.1nm,0.6s						
WTTA	Wattenberg	82.31	329	i P	P	10 56 59.1	-0.4
	comp=Z,8.0nm,1.2s,SNR=6.3						
MOTA	Moosalm	82.45	329	eP	P	10 57 00.6	+0.5
	comp=Z,5.4nm,0.7s,SNR=6.9						
RETA	Reutte	82.47	329	i P	P	10 57 00.7	+0.6
	comp=Z,4.7nm,0.8s						
SQTA	Sankt Quirin	82.52	329	i P	P	10 57 00.9	+0.4
	comp=Z,2.7nm,0.5s						
BFO	Black Forest	82.69	331	P	P	10 57 01.4	+0.2
BFO				pmax	pmax		
	comp=Z,11nm,1.1s						
BFO	Black Forest	82.69	331	P	P	10 57 01.4	+0.2
BFO				IAmb	IAmb	10 57 17.6	
	comp=Z,11nm,1.1s						
BFO	Black Forest	82.69	331	P	P	10 57 01.6	+0.4
FETA	Feichten	82.87	329	eP	P	10 57 02.7	+0.4
	comp=Z,2.7nm,0.6s						
DAVA	Damuels	82.97	330	eP	P	10 57 03.3	+0.4
	comp=Z,12nm,0.9s						
CDF	Champ du Feu	83.00	332	eP	P	10 57 02.6	-0.3
CDF				pmax	pmax		
	comp=Z,6.0nm,0.9s						
ECH	Echery	83.20	332	P	P	10 57 04.1	+0.2
ECH	Echery	83.20	332	P	P	10 57 03.9	0.0
CTI	Castel Tesino	83.30	328	P	P	10 57 03.6	-0.9
CTI				pmax	pmax		
	comp=Z,9.0nm,0.8s						
CTI	Castel Tesino	83.30	328	P	P	10 57 03.6	-0.9
CTI				IAmb	IAmb	10 57 20.3	
	comp=Z,9.2nm,0.8s						
EIL	Elat	83.32	303	LR	LR	11 38 38.4	
	comp=Z,203nm,20.3s,baz=92,slow=39						
HINF	Hinteralfeld	83.65	332	eP	P	10 57 05.4	-0.8
HINF				pmax	pmax		
	comp=Z,4.0nm,1.1s						
HAU	Haudompre	83.67	332	eP	P	10 57 05.8	-0.5
HAU				pmax	pmax		
	comp=Z,7.0nm,0.8s						
FDMO	Fiordimonte	85.15	326	P	P	10 57 14.3	+0.4
LOR	Lormes	85.17	333	eP	P	10 57 13.6	-0.3
LOR				pmax	pmax		
	comp=Z,10.0nm,0.7s						
FLN	La Foliniere	85.25	337	eP	P	10 57 15.4	+1.2
FLN				pmax	pmax		
	comp=Z,34nm,1.9s						
NRCA	Norcia	85.30	325	P	P	10 57 15.7	+0.9
LPL	La Plagne	85.65	331	eP	P	10 57 16.6	0.0
LPL				pmax	pmax		
	comp=Z,14nm,0.8s						
LPG	La Plagne	85.66	331	eP	P	10 57 16.7	0.0
LPG				pmax	pmax		
	comp=Z,13nm,0.7s						
GRR	Gorron	85.70	337	eP	P	10 57 16.5	0.0
GRR				pmax	pmax		
	comp=Z,10.0nm,0.9s						
SMF	Signal de Mont	85.72	333	eP	P	10 57 16.5	-0.1
SMF				pmax	pmax		
	comp=Z,15nm,0.9s						
AVF	Avril sur Loir	85.76	333	eP	P	10 57 16.7	-0.1
AVF				pmax	pmax		
	comp=Z,21nm,0.7s						
BNI	Bardonecchia	86.06	331	P	P	10 57 19.1	+0.6
BNI				pmax	pmax		
	comp=Z,8.0nm,1.0s						
BNI	Bardonecchia	86.06	331	P	P	10 57 19.1	+0.6
BNI				IAmb	IAmb	10 57 29.4	
	comp=Z,8.0nm,0.9s						
MBDF	Montbardon	86.30	330	eP	P	10 57 19.0	-0.7
MBDF				pmax	pmax		
	comp=Z,4.0nm,0.6s						
SGMF	Saint Gilles	86.33	338	eP	P	10 57 19.7	+0.1
SGMF				pmax	pmax		
	comp=Z,6.0nm,0.6s						
ROSF	Rostrenen	86.46	338	eP	P	10 57 20.5	+0.3
ROSF				pmax	pmax		
	comp=Z,15nm,0.9s						
ORIF	Oris-en-Rattie	86.47	331	eP	P	10 57 20.4	-0.1
ORIF				pmax	pmax		
	comp=Z,5.0nm,0.6s						
SSB	Saint Sauveur	86.65	332	P	P	10 57 21.7	+0.4
SSB	Saint Sauveur	86.65	332	P	P	10 57 22.0	+0.7
QUIF	Quistinic	86.81	338	eP	P	10 57 21.8	-0.1
QUIF				pmax	pmax		
	comp=Z,108nm,2.4s						
VIVF	Saint-Julien-l	86.97	332	eP	P	10 57 22.9	+0.1
VIVF				pmax	pmax		
	comp=Z,11nm,1.0s						
MFF	Saint Martin d	87.07	335	eP	P	10 57 23.5	+0.2
MFF				pmax	pmax		
	comp=Z,52nm,0.7s						
TXAR	Lajitas Array	87.08	53	P	P	10 57 25.5	+1.7
	comp=Z,0.9nm,0.8s,baz=287,slow=4.1,SNR=7.3						
	comp=Z,0.9nm,0.8s						
CCM	Cathedral Cave	87.39	40	P	P	10 57 20.6	-4.3
RJF	Les Rejaudoux	87.68	334	eP	P	10 57 26.5	+0.3
RJF				pmax	pmax		
	comp=Z,31nm,0.9s						
CAF	Calviac	87.82	333	eP	P	10 57 27.6	+0.6
CAF				pmax	pmax		
	comp=Z,9.0nm,0.8s						
LFF	La Frestale	88.26	334	eP	P	10 57 29.6	+0.6
LFF				pmax	pmax		
	comp=Z,45nm,0.7s						
MTLF	Montolieu	89.16	332	eP	P	10 57 33.4	+0.2
ESDC	Sonseca Array	94.52	335	P	P	10 57 57.6	-0.6
	comp=Z,0.7nm,0.5s,baz=19,slow=3.9,SNR=10						
ESDC				PP	PP	11 01 45.4	+0.2
	comp=Z,1.2nm,1.0s,baz=29,slow=7.6,SNR=4.9						
	comp=Z,0.7nm,0.5s						
TORD	Torodi Ar. Bea	115.49	317	PKP	PKiKP	11 03 18.9	-1.1
	comp=Z,0.4nm,0.7s,baz=2.3,slow=1.8,SNR=3.2						
TORD				PP	PP	11 04 22.0	+0.9
	comp=Z,0.7nm,0.8s,baz=18,slow=5.3,SNR=3.7						
MAW	Mawson	123.25	207	PKP	PKiKP	11 03 33.8	+0.4
	comp=Z,1.7nm,1.0s,baz=41,slow=9.3,SNR=2.6						
QSPA	South Pole Qui	130.37	180	PKP	PKiKP	11 03 47.5	-0.3
	comp=Z,0.9nm,0.7s,baz=351,slow=1.7,SNR=8.6						
TROLL	Troll, Antarti	142.99	199	⇑PKPdf	PKPdf	11 04 08.7	-1.6
	comp=Z,138nm,0.6s						
LPAZ	La Paz	143.87	57	PKP	PKPdf	11 04 13.3	-0.7
	comp=Z,0.9nm,0.5s,baz=225,slow=1.4,SNR=5.5						
SNAA	Sanae	144.51	198	⇑PKPdf	PKPbc	11 04 12.0	+0.5
	comp=Z,119nm,0.5s						
SNAA	Sanae	144.51	198	PKP	PKPbc	11 04 11.8	+0.3
	comp=Z,4.7nm,0.5s,baz=165,slow=4.2,SNR=9.7						
VNA3	Neumayer Olymp	146.32	196	⇑PKPdf	PKPbc	11 04 17.3	+0.2
	comp=Z,3.3nm,0.7s						
BDFB	Brasilia	153.38	24	PKPbc	PKPbc	11 04 34.9	-1.5
	comp=Z,1.4nm,0.4s,baz=56,slow=3.6,SNR=2.2						

VIE 13 10:45:20.1±0.3**, 47°.78N**×**16°.09E, h7**^{km}±3^{km}**, ml0.7**/4**,**
Error ellipse: s-maj=1.6km s-min=1.3km az=14.0 6 km N of Neunkirchen, Austria

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RONA	Rosalia, Austr	0.16	118	i Pg	Pg	10 45 23.5	+0.1
	1.5nm,0.1s						
RONA				i Sg	Sg	10 45 25.8	+0.3
	7.7nm,0.1s						
CONA	Conrad Observa	0.22	315	ePg	Pg	10 45 24.2	-0.2
	0.3nm,0.1s						
CONA				eSg	Sg	10 45 27.6	+0.2
	1.2nm,0.2s						
WINA	Alland / Wiene	0.33	358	ePg	Pg	10 45 26.9	+0.3
	0.3nm,0.1s						
WINA				eSg	Sg	10 45 31.6	+0.5
	0.2nm,0.1s						
ARSA	Arzberg	0.65	216	eSg	Sg	10 45 41.5	+0.4
	0.2nm,0.1s						

*BUT **13** 10:52:26.0±1.1, 44°.37N±0°.01×115°.21W±0°.04, h15*^{km}*±7*^{km}*,*
Error ellipse: s-maj=3.8km s-min=2.0km az=82.0

NEIC 13 10:52:25.4±0.7**, 44°.37N**±0°.01×**115°.22W**±0°.04**, h16**^{km}±8^{km}**,**
ML3.2/108**, ML3.8**/33(BUT)**, Error ellipse: s-maj=4.1km s-min=0.7km az=69.0, Western Idaho**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLID	Pearl Lake	0.91	322		Pb	10 52 42.8	-0.1
PLID				Sg	Sb	10 52 54.9	-0.1
PLID				IAML		10 52 58.8	
	639nm,0.6s						
PLID				IAML		10 52 58.9	
	663nm,0.4s						
HLID	Hailey	0.99	144		Pb	10 52 44.2	-0.2
HLID					Sb	10 52 56.9	-0.4
HLID				IAML		10 53 01.1	
	880nm,0.5s						
HLID				IAML		10 53 01.1	
	877nm,0.3s						
MFID	Camas Ranch	1.05	205		Pb	10 52 45.2	-0.2
MFID					Sg	10 52 59.9	+0.2
BMO	Blue Mountains	1.57	289		Pn	10 52 53.1	+0.4
BMO				IAML		10 53 18.8	
	253nm,0.3s						
MCMT	McKenzie Canyo	1.75	74		Pn	10 52 56.3	+0.9
DLMT	Dillon	2.11	61		Pn	10 53 01.5	+1.3
F10A	Beach Ranch, E	2.14	319		Pn	10 53 02.0	+1.4
BPMT	Black Pine Rid	2.41	30		Pn	10 53 05.2	+0.7
BUT	Butte	2.49	48		Pn	10 53 06.2	+0.7
J08A	Circle Bar Ran	2.57	248		Pn	10 53 07.5	+1.0
MSO	Missoula	2.62	20		Pn	10 53 07.9	+0.8
MSO				IAML		10 53 50.8	
	166nm,0.5s						
MSO				IAML		10 54 00.5	
	134nm,0.8s						
LNOR	Lincton Mounta	2.64	306		Pn	10 53 08.1	+0.7
QLMT	Earthquake Lak	2.74	79	Pn	Pn	10 53 10.5	+1.6
G08A	Pilot Rock	2.82	290		Pn	10 53 10.6	+0.7
BOZ	Bozeman (W)	2.82	63		Pn	10 53 11.4	+1.3
YHB	Horse Butte	2.90	81		Pn	10 53 13.0	+1.9
YHB				IAML		10 53 58.1	
	comp=E,87nm,0.6s						
YHB				IAML		10 53 58.9	
	comp=N,103nm,0.6s						
YHL	Hebgen Lake	2.92	79		Pn	10 53 13.2	+1.7
E09A	Wood Farm, Sta	2.97	317		Pn	10 53 13.7	+1.7
E09A				IAML		10 54 01.2	
	comp=N,86nm,0.7s						
FXWY	Fox Creek	3.11	102		Pn	10 53 15.9	+1.9
SLMT	Seeley Lake	3.11	22		Pn	10 53 14.4	+0.4
YPT	Yellepit	3.13	304		Pn	10 53 15.6	+1.4
YFT	Old Faithful	3.14	87		Pn	10 53 17.1	+2.7
YFT				IAML		10 54 06.6	
	comp=N,93nm,1.1s						
YFT				IAML		10 54 08.3	
	comp=E,60nm,2.2s						
YHH	Holmes Hill	3.15	81		Pn	10 53 16.6	+2.0
HVU	Hansel Valley	3.15	145		Pb	10 53 18.8	-2.3
WVOR	Wild Horse Val	3.16	233		Pn	10 53 15.5	+0.9
WVOR				IAML		10 54 10.4	
	comp=E,74nm,1.4s						
WVOR				IAML		10 54 10.8	
	comp=E,57nm,1.4s						
YPP	Pitchstone Pla	3.17	90		Pn	10 53 17.0	+2.1
YPP				IAML		10 54 07.6	
	comp=E,66nm,0.8s						
YPP				IAML		10 54 12.4	
	comp=N,61nm,0.5s						
SWMT	Swartz Lake	3.25	15		Pn	10 53 16.6	+0.7
SNOW	Snow King Moun	3.35	104		Pn	10 53 20.9	+3.5
SNOW				IAML		10 54 17.4	
	comp=N,54nm,0.6s						
SNOW				IAML		10 54 18.2	
	comp=N,55nm,0.8s						
AHID	Auburn Hatcher	3.39	117		Pn	10 53 20.1	+2.1
AHID				IAML		10 54 18.4	
	comp=N,55nm,0.6s						
AHID				IAML		10 54 21.6	
	comp=N,67nm,0.5s						
LOHW	Long Hollow	3.41	101		Pn	10 53 21.0	+2.8
JTMT	Jette	3.44	11		Pn	10 53 19.2	+0.8
E08A	Dider Farm, El	3.44	309		Pn	10 53 20.6	+2.3
E08A				IAML		10 54 21.1	
	comp=N,38nm,1.1s						
ELK	Elko	3.62	180		Pn	10 53 23.9	+2.7
HAWA	Hanford	3.65	305		Pn	10 53 22.0	+0.7
F07A	Phinny Hill Vi	3.67	296		Pn	10 53 22.6	+1.1
F07A				IAML		10 54 29.4	
	comp=E,52nm,0.8s						
F07A				IAML		10 54 32.7	
	comp=N,44nm,0.7s						
SPUT	South Promonto	3.67	145		Pn	10 53 24.1	+2.3
SPUT				IAML		10 54 20.5	
	comp=E,41nm,0.7s						
SPUT				IAML		10 54 26.0	
	comp=N,48nm,0.6s						
D08A	Wollman Farm,	3.73	317	Pn	Pn	10 53 22.1	-0.3
D08A				IAML		10 54 26.9	
	comp=N,30nm,0.9s						
D08A				IAML		10 54 31.8	
	comp=E,31nm,1.2s						
BGU	Big Grassy Mou	3.80	154		Pn	10 53 26.8	+3.3
BGU				IAML		10 54 33.5	
	comp=N,30nm,1.0s						
BGU				IAML		10 54 33.5	
	comp=E,41nm,0.9s						
HWUT	Hardware Ranch	3.85	135		Pn	10 53 27.7	+3.5
HWUT				IAML		10 54 36.7	
	comp=E,33nm,0.8s						
HWUT				IAML		10 54 41.4	
	comp=E,27nm,1.1s						
WAH2	Wahluke Slope	3.88	309		Pn	10 53 25.5	+1.2
E07A	Sunnyside	3.93	305		Pn	10 53 26.5	+1.4
E07A				IAML		10 54 14.7	
	comp=N,53nm,0.5s						
E07A				IAML		10 54 22.5	
	comp=E,33nm,0.6s						
G06A	Carlson Farm,	3.95	285		Pn	10 53 26.1	+0.7
G06A				IAML		10 54 35.3	
	comp=N,29nm,1.3s						
LDM	Libby Dam	4.08	359		Pn	10 53 29.0	+1.7
PINE	Pine Mountain	4.17	264		Pn	10 53 29.6	+1.1
PINE				IAML		10 54 50.3	
	comp=E,24nm,1.0s						
PINE				IAML		10 54 51.5	
	comp=N,22nm,1.2s						
MXC	Moxie City	4.20	303		Pn	10 53 30.7	+1.9
MXC				IAML		10 54 46.7	
	comp=N,28nm,1.2s						
EPH	Ephrata	4.27	316	Pn	Pn	10 53 32.0	+2.2
EPH				IAML		10 54 49.4	
	comp=E,20nm,0.9s						
EPH				IAML		10 54 53.4	
	comp=N,30nm,0.8s						
RLMT	Red Lodge	4.30	78	Pn	Pn	10 53 33.0	+2.6
I05D	Terrebonne, OR	4.39	272		Pn	10 53 33.1	+1.6
I05D				IAML		10 54 50.2	
	comp=N,39nm,1.0s						
I05D				IAML		10 55 00.4	
	comp=E,30nm,1.0s						
BW06	Boulder Array	4.41	109	Pn	Pn	10 53 33.9	+1.9
G05A	Wamic	4.43	283		Pn	10 53 33.2	+1.2
G05A				IAML		10 54 55.8	
	comp=E,39nm,1.0s						
G05A				IAML		10 54 58.0	
	comp=N,29nm,1.2s						
K05A	Summer Lake	4.44	250		Pn	10 53 33.7	+1.4
K05A				IAML		10 55 03.7	
	comp=N,20nm,2.1s						
MOD	Modoc Plateau	4.47	238		Pn	10 53 34.3	+1.7
MOD				IAML		10 54 48.6	
	comp=E,26nm,0.7s						
MOD				IAML		10 54 55.5	
	comp=N,27nm,0.9s						
DUG	Dugway, Tooele	4.54	156		Pn	10 53 36.6	+3.0
DUG				IAML		10 54 59.5	
	comp=N,34nm,0.8s						
DUG				IAML		10 55 02.5	
	comp=N,25nm,1.2s						
HOOD	Mount Hood Mea	4.67	284		Pn	10 53 36.9	+1.4
HOOD				IAML		10 55 12.6	
	comp=N,29nm,1.0s						
WIFE	Three Sisters-	4.76	269		Pn	10 53 38.5	+1.9
WIFE				IAML		10 55 01.4	
	comp=E,19nm,0.8s						
WIFE				IAML		10 55 03.6	
	comp=N,15nm,1.6s						
LTY	Liberty	4.78	309		Pn	10 53 37.6	+0.7
LTY				IAML		10 55 01.3	
	comp=E,17nm,1.2s						
LTY				IAML		10 55 09.3	
	comp=N,16nm,1.2s						
NLU	North Lily Min	4.99	151	Pn	Pn	10 53 42.6	+2.7
BSUT	Blindstream Ca	5.05	138		Pn	10 53 44.8	+3.9
BSUT				IAML		10 55 10.9	
	comp=E,13nm,2.5s						
LON	Longmire	5.21	299		Pn	10 53 42.9	+0.2
EGMT	Eagleton	5.26	44		Pn	10 53 44.7	+1.2

TRN 13 10:53:17.7, 17°.00N×61°.31W, h18^{km}**, MD3.6, South-east of Antigua., Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DSDZ	La Diserade, G	0.72	161	eP	Pn	10 53 33.9	+0.9
DSDZ				eS	Sn	10 53 45.4	+1.8
ANWB	Willy Bob	0.81	326	eP	Pn	10 53 36.8	+2.6
ANWB				eS	Sn	10 53 47.5	+1.7
DHSZ	Broadband at M	0.84	211	eP	Pn	10 53 36.5	+1.7
DHSZ				eS	Sn	10 53 48.0	+1.4
MLYT	Lee's Yard	0.89	252	eP	Pn	10 53 37.9	+2.5
MLYT				eS	Sn	10 53 50.9	+3.1
SKI	Saint Kitts	1.41	284	eP	Pb	10 53 44.2	+0.7
SKI				eS	Sg	10 54 03.1	-0.2
DWS	Wesley	1.42	180	eP	Pb	10 53 43.9	+0.2
DWS				eS	Sg	10 54 05.0	+1.3
DSLB	Salisbury	1.56	184	eP	Pb	10 53 45.7	-0.3
DSLB				eS	Sg	10 54 07.8	-0.2
SMRT	St. Maarten	1.98	302	eP	Pb	10 53 52.9	-0.5
SMRT				eS	Sb	10 54 18.9	+1.1
BIM	Bigot	2.48	175	eP	Pn	10 53 59.5	+2.2
BIM				eS	Sn	10 54 27.6	+0.5
SLBI	Saint Lucia, B	2.98	174	eP	Pn	10 54 06.5	+2.4
SLBI				eS	Sn	10 54 40.2	+0.8

*NEIC **13** 11:11:49.3±1.7, 56°.02N±0°.07×149°.81W±0°.09, h10*^{km}*±2*^{km}*,*
ML3.5/54, ML3.3(AEIC), Error ellipse: s-maj=11.2km s-min=8.9km az=176.0

*AEIC **13** 11:11:54.4±1.6, 56°.05N±0°.08×149°.82W±0°.10, h12*^{km}*±7*^{km}*,*
Error ellipse: s-maj=12.4km s-min=7.5km az=163.0

ISC 13 11:11:48.1±1.4**, 56°.04N**±0°.08×**149°.80W**±0°.06**, h10**^{km}**,**

n153,$\sigma 1^{s}34$/153,Gulf of Alaska

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OHAK	Old Harbor	2.26	303		Pn	11 12 26.5	+1.0
OHAK					Sn	11 12 51.6	-1.9
KDAK	Kodiak Island	2.32	320		Pn	11 12 27.1	+0.8
KDAK	Kodiak Island	2.32	320		Sn	11 12 53.0	-2.0
KDAK	Kodiak Island	2.32	320	IAML		11 12 54.1	
	79nm,0.4s						
KDAK				IAML		11 12 55.1	
	62nm,0.5s						
SII	Sitkinak Islan	2.50	284	P	Pn	11 12 29.3	+0.4
SII	Sitkinak Islan	2.50	284		Pn	11 12 29.2	+0.4
SII	Sitkinak Islan	2.50	284		Sn	11 12 57.5	-1.9
SII	Sitkinak Islan	2.50	284	IAML		11 13 06.4	
	comp=N,136nm,1.0s						
SII				IAML		11 13 07.4	
	comp=E,167nm,0.7s						
CHIR	Chirikof Islan	3.28	269	P	Pn	11 12 39.8	+0.2
CHIR	Chirikof Islan	3.28	269		Pn	11 12 40.2	+0.6
CHIR					Sn	11 13 15.9	-2.7
CHIR	Chirikof Islan	3.28	269	IAML		11 13 17.5	
	comp=N,91nm,0.5s						
CHIR				IAML		11 13 17.5	
	comp=E,123nm,0.6s						
Q19K	Cape Douglas,	3.57	326		Pn	11 12 44.6	+1.1
Q19K	Cape Douglas,	3.57	326		Sn	11 13 24.3	-1.4
Q19K	Cape Douglas,	3.57	326	IAML		11 13 31.9	
	comp=E,376nm,0.9s						
Q19K				IAML		11 13 32.4	
	comp=N,283nm,0.8s						
CNPM	China Poot	3.58	348		Pn	11 12 44.2	+0.5
CNPM	China Poot	3.58	348		Sn	11 13 24.3	-1.8
CNPM	China Poot	3.58	348	IAML		11 13 26.0	
	comp=E,58nm,0.7s						
CNPM				IAML		11 13 27.4	
	comp=N,63nm,0.4s						
ACHA	Angle Creek He	3.72	308		Pn	11 12 47.3	+1.7
BRSE	Bradley Lake S	3.75	353		Pn	11 12 46.3	+0.2
BRSE					Sn	11 13 28.0	-2.2
HOM	Homer	3.77	346	Pn	Pn	11 12 47.2	+1.0
HOM				IAML		11 13 32.2	
	comp=E,97nm,0.4s						
HOM				IAML		11 13 35.5	
	comp=N,122nm,0.7s						
BRLK	Bradley Lake	3.79	352		Pn	11 12 46.6	+0.1
BRLK				IAML		11 13 30.4	
	comp=N,76nm,0.1s						
BRLK				IAML		11 13 32.7	
	comp=E,82nm,0.2s						
AUI	Augustine Isla	3.84	331		Pn	11 12 48.9	+1.7
AUI					Sn	11 13 31.8	-0.6
AUJK	Augustine Jueg	3.85	331		Pn	11 12 49.2	+1.9
Q18K	Katmai Hardscr	3.85	315		Pn	11 12 49.5	+2.1
MID	Middleton Isla	3.88	27	Pn	Pn	11 12 48.1	+0.4
MID				IAML		11 13 20.7	
	comp=E,58nm,1.2s						
MID				IAML		11 13 30.3	
	comp=N,51nm,1.1s						
R17L	Mt. Peulik Vol	3.94	297		Pn	11 12 50.3	+1.6
R17L					Sn	11 13 34.1	-0.8
Q17K	Contact Creek	4.00	307		Pn	11 12 51.5	+2.1
P19K	Oil Pt	4.06	335		Pn	11 12 51.8	+1.4
SEW	Seward	4.09	2		Pn	11 12 50.5	-0.1
PLK1	Peulik 1	4.13	298		Pn	11 12 53.4	+2.2
PLBL	Peulik Blue Cr	4.20	296		Pn	11 12 54.1	+2.0
ILS	Iliamna Low So	4.30	338		Pn	11 12 54.8	+1.1
O20K	Slope Mountain	4.33	341		Pn	11 12 54.7	+0.7
PLK5	Peulik 5	4.34	300		Pn	11 12 55.8	+1.8
ILSW	Iliamna Southw	4.34	337		Pn	11 12 55.1	+0.9
ILSW				IAML		11 13 45.7	
	comp=N,48nm,0.3s						
ILSW				IAML		11 13 45.8	
	comp=E,39nm,0.7s						
P18K	Big Mountain,	4.45	321		Pn	11 12 56.8	+1.2
O22K	Cooper Landing	4.46	0		Pn	11 12 55.9	+0.2
SLKM	Skilak Lake	4.49	357	Pn	Pn	11 12 56.4	+0.2
Q16K	King Salmon	4.56	308		Pn	11 12 59.1	+2.0
HIN	Hinchinbrook I	4.71	20		Pn	11 12 59.4	+0.2
HIN				IAML		11 14 01.7	
	comp=E,48nm,0.8s						
HIN				IAML		11 14 01.0	
	comp=N,35nm,0.6s						
RDT	Redoubt	4.75	344		Pn	11 13 00.2	+0.4
ANPB	Aniakchak Plen	4.77	283		Pn	11 13 01.8	+1.8
P17K	Kvichak River	4.77	314		Pn	11 13 01.6	+1.7
O18K	Koktuh Hills	4.79	325		Pn	11 13 00.6	+0.3
O18K				IAML		11 13 58.0	
	comp=N,55nm,0.8s						
O18K				IAML		11 13 58.0	
	comp=E,35nm,0.6s						
O19K	Port Alsworth	4.81	332		Pn	11 13 01.9	+1.3
CHGN	Chignik	4.82	277		Pn	11 13 01.9	+1.2
CHGN				IAML		11 13 57.3	
	comp=N,31nm,0.1s						
CHGN				IAML		11 13 60.0	
	comp=E,38nm,0.1s						
KAIM	Kayak Island	4.84	34	Pn	Pn	11 13 01.7	+0.7
KAIM				IAML		11 13 57.5	
	comp=N,47nm,0.7s						
KAIM				IAML		11 13 59.6	
	comp=E,44nm,0.7s						
PWL	Port Wells	4.90	8		Pn	11 13 02.0	+0.2
PWL				IAML		11 14 03.8	
	comp=E,27nm,0.5s						
PWL				IAML		11 14 04.8	
	comp=N,27nm,0.4s						
EYAK	Cordova Ski Ar	5.00	24	P	Pn	11 13 03.8	+0.6
FID	Port Fidalgo	5.04	19		Pn	11 13 03.9	+0.2
FID				IAML		11 14 06.1	
	comp=E,27nm,0.7s						
FID				IAML		11 14 07.7	
	comp=N,24nm,0.5s						
GLI	Glacier Island	5.06	15		Pn	11 13 04.3	+0.3
GLI				IAML		11 14 08.1	
	comp=E,26nm,0.7s						
RC01	Rabbit Creek A	5.07	0	Pn	Pn	11 13 04.0	-0.1
RC01				IAML		11 14 07.1	
	comp=E,25nm,0.3s						
RC01				IAML		11 14 08.7	
	comp=N,21nm,0.5s						
RAGM	Ragged Mountai	5.14	30		Pn	11 13 06.1	+1.0
P16K	Nushagak River	5.34	308		Pn	11 13 09.6	+1.8
P16K				IAML		11 14 12.1	
	comp=E,39nm,1.0s						
N19K	Bonanza Creek	5.39	335		Pn	11 13 09.6	+1.0
O17K	Koliganek Bris	5.40	317		Pn	11 13 10.3	+1.6
BERG	Berg Lake	5.43	34		Pn	11 13 09.7	+0.6
KNK	Knik Glacier	5.44	7		Pn	11 13 09.5	+0.3
VNFG	Fog Glacier, M	5.46	277		Pn	11 13 10.5	+1.0
SUA	Susitna One	5.47	355		Pn	11 13 09.9	+0.2
DIV	Divide	5.53	21		Pn	11 13 11.3	+0.9
SPNN	North Nagishla	5.56	345		Pn	11 13 11.7	+0.7
STLK	Strandline Lak	5.58	350		Pn	11 13 12.0	+0.8
PMR	Palmer	5.58	3	P	Pn	11 13 12.1	+1.0
PMR	Palmer	5.58	3		Pn	11 13 11.6	+0.4
BMRM	Bremner River	5.65	27		Pn	11 13 13.0	+0.9
N18K	Kilae Creek	5.65	328		Pn	11 13 13.5	+1.4
O16K	Kokwok River B	5.69	312		Pn	11 13 14.1	+1.6
CHNA	Chernabura Isl	5.70	262	P	Pn	11 13 13.5	+0.7
CNBA	Chernabura Isl	5.71	262		Pn	11 13 13.5	+0.7
GHO	Glory Hole Cre	5.77	4		Pn	11 13 15.3	+1.4
KLU	Klutina	5.83	19		Pn	11 13 15.8	+1.1
SML	Sawmill	5.84	7		Pn	11 13 15.9	+1.2
M23K	Glacier View	5.88	10		Pn	11 13 16.6	+1.5
CRQM	Cirque	5.89	34		Pn	11 13 16.6	+1.0
N17K	Nushagak Hills	5.95	322		Pn	11 13 17.4	+1.1
SCM	Sheep Creek Mo	5.96	11		Pn	11 13 18.1	+1.7
TGL	Tana Glacier	5.99	35		Pn	11 13 17.6	+0.8
SKT	Skwentna	6.03	352		Pn	11 13 18.2	+0.9
SDPT	Sand Point	6.08	268	P	Pn	11 13 19.2	+1.3
SDPT	Sand Point	6.08	268		Pn	11 13 19.2	+1.3
YAH	Yahtse	6.08	41		Pn	11 13 19.1	+0.9
M20K	Styx River	6.11	345		Pn	11 13 18.7	+0.2
VRDI	Verde Repeater	6.17	30		Pn	11 13 20.1	+0.7
N25K	Chitina, Valde	6.21	24		Pn	11 13 21.1	+1.4
O15K	Ungalikthiuk R	6.24	304		Pn	11 13 22.0	+1.8
GLB	Gilahina Butte	6.25	27		Pn	11 13 21.4	+1.0
KIAG	Kiagna River	6.26	35		Pn	11 13 21.8	+1.1
SAMH	Samovar Hills	6.30	46		Pn	11 13 22.8	+1.7
M18K	Stony River	6.30	333		Pn	11 13 21.8	+0.8
GRNC	Granite Creek	6.33	39		Pn	11 13 22.3	+0.7
BALM	Baldy	6.35	35		Pn	11 13 22.8	+1.0
MCARA	McCarthy VSAT	6.42	31		Pn	11 13 24.4	+1.7
N16K	Nishlik Lake	6.49	317		Pn	11 13 25.3	+1.6
WACK	Wrangell Chich	6.60	23		Pn	11 13 26.7	+1.4
PNL	Peninsula	6.64	52	P	Pn	11 13 26.8	+1.1
PNL	Peninsula	6.64	52		Pn	11 13 27.3	+1.6
WAT6	Susitna Watana	6.65	8		Pn	11 13 27.1	+1.2
LOGN	Logan Glacier	6.66	40		Pn	11 13 26.6	+0.5
M17K	Holitna River	6.69	327		Pn	11 13 28.2	+1.9
L19K	White Mountain	6.69	339		Pn	11 13 26.5	+0.1
WAZA	Wrangell Mount	6.72	23		Pn	11 13 28.7	+1.7
HARP	HAARP	6.81	19		Pn	11 13 29.8	+1.7
WAT7	Susitna Watana	6.84	4		Pn	11 13 29.7	+1.2
N15K	Kwethluk River	6.85	311		Pn	11 13 30.7	+2.2
PS4A	Pavlof South-4	6.85	269		Pn	11 13 30.0	+1.4
DOL	Dolgoi Island	6.90	268		Pn	11 13 30.2	+1.0
PN7A	Pavlof North-7	6.92	270		Pn	11 13 31.0	+1.5
O28M	Mount Upton	6.93	43		Pn	11 13 31.6	+1.7
DTNA	Dutton South F	7.11	268		Pn	11 13 33.5	+1.3
DT1	Dutton Round H	7.14	268		Pn	11 13 33.5	+1.0
DHY	Denali Highway	7.17	9		Pn	11 13 34.4	+1.4
O29M	Mount Kennedy	7.31	50		Pn	11 13 36.8	+1.8
M15K	Kasigluk River	7.38	314		Pn	11 13 37.2	+1.4
N14K	Kuskokwak Cree	7.42	307		Pn	11 13 38.0	+1.7
TRF	Thorofare Moun	7.44	358		Pn	11 13 37.3	+0.5
CAST	Castle Rocks	7.50	352		Pn	11 13 39.5	+2.1
YUK3	Moose Creek	7.51	36		Pn	11 13 40.0	+2.2
M27K	Edge Creek, AK	7.53	29		Pn	11 13 39.5	+1.6
KTH	Kantishna Hill	7.56	356		Pn	11 13 38.9	+0.5
L16K	Owhat River	7.58	323		Pn	11 13 39.9	+1.4
S31K	Pelican	7.66	70		Pn	11 13 39.1	-0.5
BVCY	Beaver Creek	7.87	32		Pn	11 13 44.1	+1.6
M14K	Bethel	7.94	312	Pn	Pn	11 13 45.4	+2.0
HYT	Haines Junctio	8.04	48	Pn	Pn	11 13 46.4	+1.4
SIT	Sitka	8.07	77	P	Pn	11 13 43.9	-1.3
SIT	Sitka	8.07	77		Pn	11 13 44.3	-0.9
RIDG	Independent Ri	8.12	16		Pn	11 13 46.8	+0.9
BC01	Beaver Creek A	8.12	27		Pn	11 13 47.5	+1.5
L27K	Beaver Creek,	8.12	27		Pn	11 13 47.2	+1.2
L15K	Ungalak Mounta	8.28	318		Pn	11 13 49.8	+1.6
M13K	Dall Lake	8.38	307	Pn	Pn	11 13 52.0	+2.5
SKAG	Skagway	8.46	60	P	Pn	11 13 51.5	+0.9
S32K	Killisnoo	8.49	74		Pn	11 13 51.2	+0.2
WRH	Wood River Hil	8.51	5		Pn	11 13 52.9	+1.7
NEA2	Nenana	8.60	2		Pn	11 13 53.8	+1.3
M29M	Somme Creek	8.65	37		Pn	11 13 55.1	+1.8
JIS	Juneau Island	8.68	69	P	Pn	11 13 53.9	+0.4
CCB	Clear Creek Bu	8.70	6		Pn	11 13 55.8	+2.0
IL31		8.88	8		Pn	11 13 57.9	+1.5
ILAR	Eielson Array	8.88	8	Pn	Pn	11 13 58.1	+1.7
COLA	College	8.92	5	P	Pn	11 13 59.2	+2.3
COLA	College	8.92	5		Pn	11 13 58.2	+1.3
MDM	Murphy Dome	8.99	4		Pn	11 13 58.3	+0.5
MLY	Manley	9.04	357	Pn	Pn	11 13 59.6	+1.0
N31M	Braeburn, Yuko	9.10	47	Pn	Pn	11 14 01.1	+1.7
L29M	L29M	9.23	35		Pn	11 14 03.1	+1.9
I21K	Tanana	9.24	354		Pn	11 14 02.7	+1.5
U33K	Whale Pass	9.33	83		Pn	11 14 01.4	-1.1
CRAG	Craig	9.42	87	P	Pn	11 14 02.7	-1.1
CRAG	Craig	9.42	87		Pn	11 14 02.5	-1.3
H21K	Melozitna Rive	9.77	353		Pn	11 14 08.4	-0.1
K29M	Barlow Dome	9.95	33		Pn	11 14 12.9	+1.9

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*IDC **13** 11:13:36.5±1.6, 18°.55S×177°.81W, h624^{km}±22^{km}, mb3.4/4, mbtmp4.3/5, Error ellipse: s-maj=48.3km s-min=19.3km az=178.0*

ISC 13 11:13:35.8±1.4**, 18°.5S**±0°.2×**177°.8W**±0°.2**, h600**^{km}**, n6, $\sigma 1^{s}88$**/7**, mb4.0**/4**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	4.01	280	P	P	11 15 04.1	+2.6
	3.5nm,0.4s,baz=148,slow=23,SNR=5.4						
RAO	Raoul Island	10.72	181	P	P	11 16 02.8	+1.2
	241nm,0.3s,baz=71,slow=23,SNR=4.1						
PPT	Papeete	26.85	93	P	P	11 18 29.7	-0.7
	19nm,0.6s,baz=98,slow=14,SNR=4.1 19nm,0.6s						
STKA	Stephens Creek	38.86	242	P	P	11 20 09.9	-1.3
	1.1nm,0.3s,baz=90,slow=11,SNR=4.6 1.1nm,0.3s						
WRA	Warramunga Arr	45.09	260	P	P	11 20 59.5	-0.7
	1.9nm,0.4s,baz=96,slow=8.0,SNR=77 1.9nm,0.4s						
ASAR	Alice Springs	45.19	255	P	P	11 20 59.3	-1.6
	3.7nm,0.7s,baz=94,slow=8.0,SNR=89						
ASAR				PcP	PcP	11 22 27.3	-0.8
	0.1nm,0.4s,baz=98,slow=3.5,SNR=1.5 3.7nm,0.7s						

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*WEL **13** 11:47:18.3±0.7, 33°S±7°×17°8W±1°4, h12^{km}, M6.0/12, mB6.3/12, ML5.6/10, MLv5.9/12, Mw(mB)6.0/12, Error ellipse: s-maj=20.3km s-min=4.2km az=114.3, confirmed*

*NOU **13** 11:47:19.9, 33°.29S×177°.80W, h40^{km}, mb5.2/41, South of Kermadec Islands*

*BJI **13** 11:47:19.8, 32°.80S×178°.32W, h11^{km}, mb5.3/7, Ms5.3/2, Ms7 5.0/2*

*GFZ **13** 11:47:21.8±0.2, 33°S±3°×17°9W±°, h10^{km}, M5.2/18, mb5.1/18, Error ellipse: s-maj=9.5km s-min=6.8km az=102.8, confirmed*

*NEIC **13** 11:47:24.7±1.4, 32°.84S±0°.07×178°.6W±0°.1, h35^{km}±2^{km}, mb5.2/46, Mww5.0/10, Error ellipse: s-maj=19.8km s-min=11.4km az=106.0*

*IDC **13** 11:47:25.9±1.3, 32°.73S×178°.96W, h44^{km}±11^{km}, mb4.2/18, mbtmp4.4/18, ML5.6/3, MS4.1/33, Error ellipse: s-maj=12.5km s-min=9.2km az=109.0*

*GCMT **13** 11:47:26.7±0.2, 32°.84S±0°.01×178°.65W±0°.02, h28^{km}±1^{km}, MW5.1/115, Moment Tensor Solution. s43,c58; s115,c169; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}1.03±.17; $M_{\theta\theta}$-3.23±.12; $M_{\phi\phi}$2.20±.11; $M_{r\theta}$-2.29±.21; $M_{\theta\phi}$2.18±.09; $M_{\phi r}$-3.16±.26; Best double couple: $M_0$5.13100×10^{16} NP1:ϕ_s145.00000°, δ50.00000°, λ163.00000°. NP2:ϕ_s247.00000°, δ77.00000°, λ42.00000°. Principal axes: T 5.9100, Plg38.0000°, Azm114.0000°; N -1.5570, Plg47.0000°, Azm261.0000°; P -4.3530, Plg18.0000°, Azm10.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 13 11:47:24.0±0.3**, 32°.89S**±0°.04×**178°.58W**±0°.06**, h32**^{km}**, n404, $\sigma 1^{s}91$**/365**, mb5.1**/69**, MS4.2**/32**, 5C-1D, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GLKZ	Green Lake	3.66	9	P	Pn	11 48 16.2	-2.1
GLKZ				S	Sn	11 48 57.4	-3.0
GLKZ				AML	AML		
GLKZ				AML	AML		
RAO	Raoul Island	3.67	9	P	Pn	11 48 17.4	-1.1
	530nm,0.3s,baz=97,slow=11,SNR=28						
RAO				S	Sn	11 48 59.3	-1.4
	2μm,0.3s,baz=92,slow=22,SNR=5.8						
RAO				LR	LR	11 49 42.2	
	comp=Z,2μm,19.7s,baz=148,slow=38						
RAO				AML	AML		
RAO	Raoul Island	3.67	9	P	Pn	11 48 17.4	-1.1
RAO	Raoul Island	3.67	9		Pn	11 48 16.7	-1.8
RAO	Raoul Island	3.67	9	P	Pn	11 48 17.9	-0.6
RIZ	Raoul Island	3.67	9	P	Pn	11 48 17.1	-1.4
RIZ				AML	AML		
MXZ	Matakaoa Point	5.31	208	P	Pn	11 48 39.5	-1.6
MXZ	Matakaoa Point	5.31	208	S	Sn	11 49 36.9	-4.3
MXZ	Matakaoa Point	5.31	208		Pn	11 48 39.6	-1.4
MXZ	Matakaoa Point	5.31	208	P	Pn	11 48 39.3	-1.8
MXZ				S	Sn	11 49 39.9	-1.3
MXZ				AML	AML		
MXZ				AML	AML		
WMGZ	Waiomatatini S	5.50	206	P	Pn	11 48 42.4	-1.2
WMGZ				S	Sn	11 49 45.3	-0.4
WMGZ				AML	AML		
WMGZ				AML	AML		
PKGZ	Pakihiroa	5.67	208	P	Pn	11 48 44.4	-1.5
PKGZ				S	Sn	11 49 49.7	-0.2
PKGZ				AML	AML		
PKGZ				AML	AML		
HAZ	Te Kaha	5.69	210	P	Pn	11 48 45.0	-1.3
HAZ				S	Sn	11 49 52.0	+1.5
HAZ				AML	AML		
HAZ				AML	AML		
WSRZ	White Island S	5.78	216	P	Pn	11 48 50.2	+2.7
PUZ	Puketiti	5.78	206	P	Pn	11 48 46.4	-1.1
PUZ				S	Sn	11 49 50.6	-2.1
PUZ				AML	AML		
WIZ	White Island	5.78	216	P	Pn	11 48 48.6	+1.2
WIZ				S	Sn	11 49 52.7	+0.1
WIZ				AML	AML		
WIZ				AML	AML		
RUGZ	Raukumara Rang	5.91	210	P	Pn	11 48 48.5	-1.0
RUGZ				S	Sn	11 49 55.1	-1.1
RUGZ				AML	AML		
TWGZ	Tauwhareparae	5.97	207	P	Pn	11 48 48.7	-1.6
TWGZ				S	Sn	11 49 58.1	+0.5
TWGZ				AML	AML		
TWGZ				AML	AML		
MYRZ	Mayor Island	6.10	223	P	Pn	11 48 55.0	+3.1
WHRZ	Whale Island	6.14	215	P	Pn	11 48 52.1	-0.4
CNGZ	Carnagh Statio	6.16	204	P	Pn	11 48 51.2	-1.6
CNGZ				AML	AML		
CNGZ				AML	AML		
TKGZ	Te Karaka	6.25	207	P	Pn	11 48 52.8	-1.2
TKGZ				S	Sn	11 50 02.7	-1.6
TKGZ				AML	AML		
MWZ	Matawai	6.29	209	P	Pn	11 48 52.0	-2.6
MARZ	Manawahe	6.39	216	P	Pn	11 48 56.2	+0.3
URZ	Urewera	6.41	212	P	Pn	11 48 56.7	+0.7
	30nm,0.3s,baz=259,slow=3.7,SNR=125						
URZ				S	Sn	11 50 07.2	-0.9
	760nm,0.6s,baz=237,slow=21,SNR=6.3						
URZ				AML	AML		
URZ	Urewera	6.41	212	P	Pn	11 48 54.6	-1.5
URZ	Urewera	6.41	212	S	Sn	11 50 04.7	-3.4
URZ	Urewera	6.41	212	P	Pn	11 48 53.5	-2.6
URZ				S	Sn	11 50 06.8	-1.3
URZ	Urewera	6.41	212	P	Pn	11 48 55.4	-0.7
	comp=Z,1μm,1.0s						
TGRZ	Tauranga	6.41	220	P	Pn	11 48 57.1	+1.0
EDRZ	Edgecumbe	6.45	215	P	Pn	11 48 57.1	+0.3
RAGZ	Rawiri	6.47	209	P	Pn	11 48 55.0	-2.1
RAGZ				S	Sn	11 50 07.1	-2.8
RAGZ				AML	AML		
RAGZ				AML	AML		
RIGZ	Rimuhau	6.52	206	P	Pn	11 48 55.1	-2.6
RIGZ				S	Sn	11 50 10.3	-0.6
WCZ	Waipu Caves	6.59	241	P	Pn	11 49 00.7	+2.1
WCZ				AML	AML		
WCZ				AML	AML		
KARZ	Kaharoa	6.63	218	P	Pn	11 49 00.8	+1.6
KMRZ	Kaimai	6.67	221	P	Pn	11 49 01.3	+1.6
PRGZ	Paritu Road	6.67	204	P	Pn	11 48 56.7	-3.0
PRGZ				S	Sn	11 50 14.0	-0.7
TARZ	Mount Tarawera	6.67	215	P	Pn	11 49 01.0	+1.2
NGRZ	Ngongotaha	6.73	218	P	Pn	11 49 02.9	+2.4
MUGZ	Murupara	6.74	213	P	Pn	11 48 57.7	-3.0
MUGZ				S	Sn	11 50 14.3	-2.0
RRRZ	Republican Roa	6.75	215	P	Pn	11 48 59.8	-1.0
RRRZ				AML	AML		
RRRZ				AML	AML		
HLRZ	Highlands Stat	6.76	216	P	Pn	11 49 01.0	0.0
RTZ	Ruatahuna	6.76	211		Pn	11 48 59.0	-2.0
RTZ	Ruatahuna	6.76	211	P	Pn	11 48 58.1	-2.9
UTU	Utuhina	6.78	217	P	Pn	11 49 05.1	+3.8
KNZ	Kokohu	6.83	205	P	Pn	11 48 58.2	-3.7
HSRZ	Hossack Road	6.86	216	P	Pn	11 49 05.0	+2.7
MHGZ	Mahia Peninsul	6.87	203	P	Pn	11 48 59.2	-3.2
OUZ	Omahuta	6.89	248	P	Pn	11 49 04.7	+1.9
OUZ	Omahuta	6.89	248	P	Pn	11 49 06.3	+3.5
OUZ				AML	AML		
OUZ				AML	AML		
OUZ	Omahuta	6.89	248	P	Pn	11 49 05.6	+2.8
	comp=Z,493nm,0.8s						
HRRZ	Handcock Road	6.90	216	P	Pn	11 49 03.9	+1.0
PRRZ	Plateau Road	6.93	215	P	Pn	11 49 02.2	-1.1
GRRZ	Galatos Road	6.95	217	P	Pn	11 49 04.7	+1.0
RAHZ	Arahi	6.96	209	P	Pn	11 49 01.4	-2.4
ALRZ	Allen Road	7.00	215	P	Pn	11 49 02.7	-1.6
MTHZ	Maungataniwha	7.01	211	P	Pn	11 49 01.6	-2.9
WHHZ	Waihua	7.04	208	P	Pn	11 49 03.3	-1.5
WPRZ	Whakapapatarin	7.06	216	P	Pn	11 49 05.1	+0.1
MRHZ	Matea Rd	7.19	213	P	Pn	11 49 05.9	-1.0
KUTZ	Kaahu Road	7.21	218	P	Pn	11 49 07.0	-0.1
NMHZ	Naumai	7.23	210	P	Pn	11 49 04.7	-2.8
TLZ	Tolley Road	7.24	220	P	Pn	11 49 09.4	+1.8
ARHZ	Aropaoanui	7.30	208	P	Pn	11 49 05.3	-3.0
WATZ	Wairara	7.42	217	P	Pn	11 49 10.0	-0.1
BKZ	Black Stump Fm	7.42	211	P	Pn	11 49 06.2	-3.9
BKZ	Black Stump Fm	7.42	211	S	Sn	11 50 30.0	-3.3
BKZ	Black Stump Fm	7.42	211	P	Pn	11 49 06.4	-3.8
RATZ	Rangitukua	7.52	216	P	Pn	11 49 10.3	-1.1
RITZ	Rihia Road	7.56	215	P	Pn	11 49 11.3	-0.7
MCHZ	McNeill Hill	7.57	209	P	Pn	11 49 09.6	-2.5
CKHZ	Cape Kidnapper	7.61	206	P	Pn	11 49 08.6	-4.0
KWHZ	Kaweka Forest	7.67	210	P	Pn	11 49 11.2	-2.4
HIZ	Hauiti	7.74	222	P	Pn	11 49 15.4	+1.0
HIZ	Hauiti	7.74	222		Pn	11 49 14.4	0.0
HIZ	Hauiti	7.74	222	P	Pn	11 49 15.5	+1.0
HIZ	Hauiti	7.74	222	P	Pn	11 49 16.1	+1.7
	comp=Z,436nm,0.9s						
NTVZ	North Tongarir	7.75	215	P	Pn	11 49 12.5	-2.1
TMVZ	Te Maari	7.75	215	P	Pn	11 49 12.1	-2.5
ETVZ	East Tongariro	7.76	215	P	Pn	11 49 12.3	-2.5
KAHZ	Kahuranaki	7.80	207	P	Pn	11 49 10.9	-4.4
OTVZ	Oturere	7.80	215	P	Pn	11 49 14.4	-1.0
WTVZ	West Tongariro	7.80	216	P	Pn	11 49 14.5	-0.9
SNVZ	South Ngauruho	7.83	215	P	Pn	11 49 14.9	-0.9
TWVZ	Taurewa	7.84	216	P	Pn	11 49 14.6	-1.3
NGZ	Ngauruhoe	7.84	215	P	Pn	11 49 14.8	-1.2
KRHZ	Kereru	7.88	210	P	Pn	11 49 12.8	-3.5
BHHZ	Black Hill Sta	7.88	212	P	Pn	11 49 13.5	-2.9
COVZ	Chateau Observ	7.89	215	P	Pn	11 49 15.9	-0.7
TUVZ	Tukino	7.89	215	P	Pn	11 49 14.9	-1.7
FWVZ	Far West T-bar	7.93	215	P	Pn	11 49 15.6	-1.6
WHVZ	Whangaehu Hut	7.93	215	P	Pn	11 49 15.2	-2.1
MAVZ	Matarangi	7.94	215	P	Pn	11 49 16.0	-1.3
MOVZ	Moawhango	7.95	214	P	Pn	11 49 14.1	-3.3
WNVZ	Wahianoa	7.96	215	P	Pn	11 49 14.7	-3.0
TRVZ	Turoa	7.97	215	P	Pn	11 49 16.9	-0.8
PXZ	Pawanui	8.02	206	P	Pn	11 49 14.3	-3.9
PKVZ	Pokaka	8.06	216	P	Pn	11 49 17.0	-1.9
MTVZ	Mangateitei	8.07	215	P	Pn	11 49 17.3	-1.7
PNHZ	Pukenui	8.17	209	P	Pn	11 49 15.6	-4.8
WPHZ	Waipukurau	8.21	208	P	Pn	11 49 16.8	-4.0
VRZ	Vera Road	8.23	219	P	Pn	11 49 21.3	+0.1
PRHZ	Porangahau	8.31	206	P	Pn	11 49 19.9	-2.3
DVHZ	Dannevirke	8.51	208	P	Pn	11 49 21.1	-4.0
KHEZ	Kahui Hut	8.76	221	P	Pn	11 49 27.5	-0.9
PRWZ	Pori Road	8.81	208	P	Pn	11 49 24.9	-4.1
BFZ	Birch Farm	8.81	207		Pn	11 49 24.3	-4.8
BFZ	Birch Farm	8.81	207	P	Pn	11 49 25.3	-3.8
SNZO	South Karori	9.97	211	P	Pn	11 49 40.2	-4.7
QRZ	Quartz Range	10.65	219	P	Pn	11 49 50.1	-4.1
CTZ	Chatham Island	10.94	172	P	Pn	11 49 47.1	-11
CTZ	Chatham Island	10.94	172	S	Sn	11 51 44.4	-15
CTZ	Chatham Island	10.94	172		Pn	11 49 56.5	-1.7
THZ	Tophouse	11.15	215		Pn	11 49 54.9	-6.2
KHZ	Kahutara	11.37	211	P	Pn	11 49 58.5	-5.6
KHZ	Kahutara	11.37	211		Pn	11 49 59.0	-5.1
NFK	Norfolk Island	12.19	285	P	Pn	11 50 16.8	+1.4
	comp=Z,157nm,1.2s						
RPZ	Rata Peaks	13.52	214	P	Pn	11 50 25.7	-7.8
	comp=Z,3.0nm,0.4s,baz=48,slow=5.2,SNR=11						
RPZ				S	Sn	11 52 46.7	-16
	comp=Z,6.4nm,0.4s,baz=306,slow=21,SNR=7.7						
RPZ	Rata Peaks	13.52	214	P	Pn	11 50 28.2	-5.3
ODZ	Otahua Downs	14.73	211	P	Pn	11 50 44.0	-6.0
JCZ	Jackson Bay	14.90	218	P	Pn	11 50 48.9	-3.4
MSVF	Nonsavu	15.39	348	P	Pn	11 50 57.9	-1.1
	comp=Z,2.5nm,0.3s,baz=156,slow=10.0,SNR=38						
MSVF				LR	LR	11 55 43.4	
	comp=Z,1μm,21.8s,baz=185,slow=33						
MSVF				AML	AML		
MSVF	Nonsavu	15.39	348	P	Pn	11 51 00.1	+1.1
MSVF	Nonsavu	15.39	348	Pn	Pn	11 50 57.5	-1.5
MSVF				IAmb	IAmb	11 51 01.1	
	comp=Z,209nm,0.9s						
MSVF	Nonsavu	15.39	348	P	Pn	11 51 00.2	+1.2
	comp=Z,278nm,1.2s						
NIUE	Niue	15.79	32	P	Pn	11 50 55.2	-8.8

OUENC	Ouen Island, N	16.58	305	Pn	Pn	11 51 13.8	-0.3
OUENC				IAmb	IAmb	11 51 21.0	
	comp=Z,327nm,2.0s						
ONTNC	Ouen Toro	16.92	305		Pn	11 51 18.7	+0.3
ONTNC				IAmb	IAmb	11 51 23.4	
	comp=Z,169nm,1.3s						
DZM	Mont Dzumac	17.09	305	P	P	11 51 23.9	+1.8
	comp=Z,118nm,1.1s,baz=111,slow=15,SNR=13						
AFI	Afiamalu	19.89	20	P	P	11 51 50.9	-2.0
	comp=Z,80nm,0.8s,baz=183,slow=20,SNR=6.3						
AFI				S	S	11 55 15.4	-20
	comp=Z,26nm,1.0s,baz=245,slow=17,SNR=1.5						
AFI	Afiamalu	19.89	20	P	P	11 51 51.4	-1.4
AFI	Afiamalu	19.89	20		P	11 51 50.6	-2.2
AFI				IAmb	IAmb	11 51 58.7	
	comp=Z,104nm,0.9s						
AFI	Afiamalu	19.89	20	P	P	11 51 50.1	-2.8
	comp=Z,138nm,0.9s						
RAR	Rarotonga	20.36	60	P	Pn	11 51 59.8	-0.2
	comp=Z,7.6nm,0.8s,baz=264,slow=7.6,SNR=6.5						
RAR				S	S	11 55 29.5	-15
	comp=Z,12nm,0.8s,baz=246,slow=21,SNR=1.2						
RAR				LR	LR	11 58 54.6	
	comp=Z,247nm,19.9s,baz=226,slow=34						
	comp=Z,7.6nm,0.8s						
SANVU	Saraoutou	21.63	320	P	P	11 52 15.5	+3.9
SANVU	Saraoutou	21.63	320	S	Sn	11 56 18.7	-0.4
ARMA	Armidale	25.44	268	P	P	11 52 52.6	+3.5
CAN	Canberra	26.89	256	P	P	11 53 08.2	+6.1
CAN	Canberra	26.89	256	P	P	11 53 03.4	+1.3
CAN	Canberra	26.89	256	P	P	11 53 01.7	-0.4
CAN				IAmb	IAmb	11 53 27.4	
	comp=Z,73nm,1.7s						
EIDS	Eidsvold	27.47	278	P	P	11 53 08.3	+0.9
	comp=Z,17nm,0.8s						
EIDS	Eidsvold	27.47	278	P	P	11 53 09.0	+1.7
	comp=Z,23nm,1.1s						
EIDS	Eidsvold	27.47	278	P	P	11 53 08.7	+1.4
EIDS	Eidsvold	27.47	278		P	11 53 07.2	-0.1
EIDS	Eidsvold	27.47	278	P	P	11 53 09.3	+2.0
	comp=Z,17nm,0.8s						
TOO	Toolangi	29.60	251	P	P	11 53 29.5	+3.3
TOO	Toolangi	29.60	251	P	P	11 53 25.7	-0.5
CMSA	Cobar Meteorol	30.17	263	P	P	11 53 32.2	+0.9
	comp=Z,23nm,1.1s						
CMSA	Cobar Meteorol	30.17	263	P	P	11 53 33.1	+1.8
	comp=Z,24nm,1.1s						
CMSA	Cobar Meteorol	30.17	263	P	P	11 53 32.1	+0.9
CMSA	Cobar Meteorol	30.17	263	P	P	11 53 33.1	+1.8
	comp=Z,24nm,1.1s						
PPT	Papeete	30.22	67	LR	LR	12 03 50.2	
	comp=Z,217nm,19.1s,baz=242,slow=32						
HNR	Honiara	30.62	315	P	P	11 53 34.3	-1.1
	comp=Z,53nm,0.8s,baz=309,slow=1.6,SNR=3.5						
HNR				LR	LR	12 04 51.5	
	comp=Z,182nm,18.2s,baz=235,slow=34						
TATA	Tatamba Isabel	31.54	316	P	P	11 53 44.8	+1.4
ARPS	Mount Arapiles	32.56	252	P	P	11 53 53.4	+1.2
QLP	Quilpie	32.77	271	P	P	11 53 54.9	+0.7
	comp=Z,61nm,0.9s						
QLP	Quilpie	32.77	271	P	P	11 53 55.3	+1.1
	comp=Z,61nm,0.9s						
QLP	Quilpie	32.77	271	P	P	11 53 55.4	+1.1
QLP	Quilpie	32.77	271	P	P	11 53 55.4	+1.1
	comp=Z,61nm,0.9s						
STKA	Stephens Creek	33.51	261	P	P	11 54 01.0	+0.4
	comp=Z,40nm,1.5s						
STKA	Stephens Creek	33.51	261	P	P	11 54 00.2	-0.4
	comp=Z,1.4nm,0.3s,baz=92,slow=7.1,SNR=9.8						
STKA				LR	LR	12 07 50.5	
	comp=Z,577nm,18.2s,baz=90,slow=37						
	comp=Z,1.4nm,0.3s						
STKA	Stephens Creek	33.51	261	P	P	11 54 01.0	+0.4
CTA	Charters Tower	33.80	283	P	P	11 54 04.5	+1.3
	comp=Z,20nm,1.2s						
CTA	Charters Tower	33.80	283	P	P	11 54 05.3	+2.1
	comp=Z,20nm,1.2s						
CTA	Charters Tower	33.80	283	LR	LR	12 05 55.0	
	comp=Z,279nm,18.2s,baz=74,slow=33						
CTA	Charters Tower	33.80	283	P	P	11 54 03.7	+0.5
CTAO	Charters Tower	33.80	283	P	P	11 54 03.8	+0.5
CTAO	Charters Tower	33.80	283		P	11 54 03.0	-0.2
CTAO				IAmb	IAmb	11 54 21.1	
	comp=Z,36nm,0.9s						
CTAO	Charters Tower	33.80	283	P	P	11 54 05.5	+2.3
	comp=Z,51nm,1.2s						
INKA	Innaminka	35.33	267		P	11 54 15.7	-0.6
HTT	Hallett	35.40	257	P	P	11 54 16.6	-0.4
HTT	Hallett	35.40	257	P	P	11 54 16.3	-0.6
HTT	Hallett	35.40	257	P	P	11 54 16.4	-0.6
MTSU	Mount Surprise	36.36	285	P	P	11 54 23.9	-1.4
	comp=Z,20nm,0.9s						
MTSU	Mount Surprise	36.36	285	P	P	11 54 26.3	+1.0
MTSU	Mount Surprise	36.36	285	P	P	11 54 26.2	+1.0
	comp=Z,20nm,0.9s						
BBOO	Buckleboo	37.88	257	P	P	11 54 38.0	0.0
BBOO	Buckleboo	37.88	257	P	P	11 54 37.9	-0.2
BBOO	Buckleboo	37.88	257	P	P	11 54 37.8	-0.3
QIS	Mount Isa	39.08	278	P	P	11 54 48.6	+0.3
	comp=Z,29nm,0.9s						
QIS	Mount Isa	39.08	278	P	P	11 54 48.1	-0.2
	comp=Z,29nm,0.9s						
QIS	Mount Isa	39.08	278	P	P	11 54 49.2	+0.9
QIS	Mount Isa	39.08	278	P	P	11 54 48.8	+0.5
	comp=Z,29nm,0.9s						
PMG	Port Moresby	39.29	299	P	P	11 54 49.4	-0.7
	comp=Z,22nm,0.9s,baz=292,slow=20,SNR=2.8						
PMG				LR	LR	12 08 16.4	
	comp=Z,317nm,20.6s,baz=104,slow=32						
	comp=Z,22nm,0.9s						
AS17	Alice Springs	42.47	270	P	P	11 55 15.9	-0.4
	comp=Z,25nm,0.7s						
AS17	Alice Springs	42.47	270	P	P	11 55 15.5	-0.8
	comp=Z,25nm,0.7s						
AS19	Alice Springs	42.48	270	P	P	11 55 15.8	-0.6
	comp=Z,32nm,0.7s						
AS08	Alice Springs	42.49	270	P	P	11 55 15.8	-0.7
	comp=Z,36nm,0.8s						
AS09	Alice Springs	42.50	270	P	P	11 55 16.1	-0.4
	comp=Z,38nm,0.8s						
AS01	Alice Springs	42.51	270	P	P	11 55 16.6	0.0
AS02	Alice Springs	42.51	270	P	P	11 55 15.9	-0.7
	comp=Z,40nm,0.8s						
AS31	Alice Springs	42.54	270	P	P	11 55 16.5	-0.4
	comp=Z,9.9nm,0.7s,comp=Z,0.0nm						
AS31	Alice Springs	42.54	270		P	11 55 15.9	-1.0
ASAR	Alice Springs	42.54	270	P	P	11 55 15.6	-1.3
	comp=Z,25nm,0.7s,baz=109,slow=7.3,SNR=160						
ASAR				PcP	PcP	11 57 09.1	0.0
	comp=Z,1.3nm,0.7s,baz=99,slow=4.8,SNR=0.6						
ASAR				ScP	ScP	12 00 55.7	-1.8
	comp=Z,1.1nm,0.8s,baz=120,slow=4.3,SNR=3.8						
ASAR				S	S	12 01 30.6	-6.8
	comp=Z,1.5nm,0.9s,baz=108,slow=15,SNR=8.2						
ASAR				LR	LR	12 11 41.2	
	comp=Z,200nm,19.3s,baz=142,slow=34						
	comp=Z,25nm,0.7s						
ASAR	Alice Springs	42.54	270		P	11 55 15.9	-1.0
AS15	Alice Springs	42.55	270	P	P	11 55 16.6	-0.4
	comp=Z,25nm,0.8s						
AS13	Alice Springs	42.56	270	P	P	11 55 16.2	-0.8
	comp=Z,30nm,0.8s						
WR8	Warramunga Arr	43.62	275	P	P	11 55 24.4	-1.2
WR8				IAmb	IAmb	11 55 44.7	
	comp=Z,30nm,0.8s						
WR6	Warramunga Arr	43.66	275	P	P	11 55 25.1	-0.8
	comp=Z,36nm,1.0s						
WRAB	Tennant Creek	43.75	275	P	P	11 55 26.1	-0.6
WRAB	Tennant Creek	43.75	275	P	P	11 55 25.7	-1.0
	comp=Z,25nm,0.8s						
WRAB	Tennant Creek	43.75	275	P	P	11 55 25.2	-1.4
WRA	Warramunga Arr	43.76	275	P	P	11 55 24.7	-2.0
	comp=Z,9.0nm,0.4s,baz=114,slow=7.7,SNR=104						
WRA				ScP	ScP	12 00 59.7	-2.7
	comp=Z,2.6nm,0.8s,baz=115,slow=4.0,SNR=7.3						
WRA				S	S	12 01 48.9	-6.3
	comp=Z,2.4nm,1.0s,baz=118,slow=13,SNR=6.0						
	comp=Z,9.0nm,0.4s						
WRA	Warramunga Arr	43.76	275	P	P	11 55 24.7	-2.0
WB8	Warramunga Arr	43.78	275	P	P	11 55 26.2	-0.7
	comp=Z,38nm,0.8s						
FORT	Forrest	44.98	258	P	P	11 55 34.8	-1.5
	comp=Z,31nm,0.9s						
FORT	Forrest	44.98	258	P	P	11 55 35.5	-0.9
FORT				IAmb	IAmb	11 55 49.4	
	comp=Z,19nm,0.7s						
SBA	Scott Base	45.52	184	P	P	11 55 40.7	+0.7
SBA				IAmb	IAmb	11 56 24.4	
	comp=Z,37nm,1.4s						
SBA	Scott Base	45.52	184	P	P	11 55 43.9	+3.9
	comp=Z,20nm,1.2s						
SBA	Scott Base	45.52	184	P	P	11 55 44.5	+4.5
VNDA	Vanda	45.58	186	P	P	11 55 42.9	+2.4
	comp=Z,0.4nm,0.6s,baz=23,slow=7.9,SNR=5.5						
VNDA				LR	LR	12 12 22.9	
	comp=Z,75nm,18.6s,baz=46,slow=33						
	comp=Z,0.4nm,0.6s						
VNDA	Vanda	45.58	186	P	P	11 55 40.5	+0.1
VNDA	Vanda	45.58	186	P	P	11 55 42.8	+2.4
	comp=Z,6.7nm,0.9s						
WRKA	Warakurna	46.73	265	P	P	11 55 48.4	-1.9
	comp=Z,19nm,0.9s						
WRKA	Warakurna	46.73	265	P	P	11 55 48.5	-1.7
	comp=Z,19nm,0.9s						
KDU	Kakadu	48.91	282	P	P	11 56 05.6	-1.5
	comp=Z,9.7nm,0.8s						
KDU	Kakadu	48.91	282	P	P	11 56 05.8	-1.3
	comp=Z,9.7nm,0.8s						
MTN	Manton Dam	49.93	281	P	P	11 56 14.0	-1.0
	comp=Z,9.8nm,1.2s						
MTN	Manton Dam	49.93	281	P	P	11 56 14.0	-1.0
MTN				IAmb	IAmb	11 56 37.1	
	comp=Z,38nm,1.9s						
CCD	Concordia, Ant	50.43	197	P	P	11 56 19.4	+1.0
KNRA	Kununurra	50.45	277	P	P	11 56 17.7	-1.2
	comp=Z,17nm,0.9s						
KNRA	Kununurra	50.45	277	P	P	11 56 16.6	-2.3
	comp=Z,17nm,0.9s						
KNRA	Kununurra	50.45	277	P	P	11 56 17.7	-1.2
FITZ	Fitzroy Crossi	51.91	272	P	P	11 56 28.8	-1.0
	comp=Z,8.4nm,1.0s						
FITZ	Fitzroy Crossi	51.91	272	P	P	11 56 28.9	-0.9
	comp=Z,8.4nm,1.0s						
FITZ	Fitzroy Crossi	51.91	272	LR	LR	12 17 51.2	
	comp=Z,385nm,19.6s,baz=146,slow=35						
FITZ	Fitzroy Crossi	51.91	272	P	P	11 56 29.4	-0.4
FITZ	Fitzroy Crossi	51.91	272	P	P	11 56 28.9	-0.9
FITZ	Fitzroy Crossi	51.91	272	P	P	11 56 29.6	-0.3
	comp=Z,8.4nm,1.0s						
CASY	Casey	52.72	209	P	P	11 56 34.7	-0.5
CASY				IAmb	IAmb	11 56 49.6	
	comp=Z,26nm,0.8s						
CASY	Casey	52.72	209	P	P	11 56 35.2	0.0
	comp=Z,40nm,0.8s						
CASY	Casey	52.72	209	P	P	11 56 34.8	-0.3
KLBR	Kellerberrin	53.11	253	P	P	11 56 36.6	-2.0
KLBR	Kellerberrin	53.11	253	P	P	11 56 37.0	-1.6
MEEK	Meekatharra	54.18	259	P	P	11 56 44.9	-1.7
	comp=Z,28nm,1.0s						
MEEK	Meekatharra	54.18	259	P	P	11 56 44.3	-2.3
MUN	Mundaring	54.22	252	P	P	11 56 45.1	-1.6
BLDU	Ballidu	54.29	254	P	P	11 56 46.9	-0.4
MORW	Morawa	55.38	255	P	P	11 57 06.9	+12
MORW	Morawa	55.38	255	P	P	11 56 53.4	-1.8
MORW				IAmb	IAmb	11 57 07.6	
	comp=Z,37nm,1.1s						
MBWA	Marble Bar	55.50	266	P	P	11 56 54.9	-1.2
	comp=Z,26nm,1.1s						
QSPA	South Pole Qui	57.23	180	P	P	11 57 10.2	+2.2
	comp=Z,12nm,0.8s,baz=50,slow=1.1,SNR=50						
QSPA				LR	LR	12 17 25.6	
	comp=Z,256nm,21.9s,baz=48,slow=31						
	comp=Z,12nm,0.8s						
QSPA	South Pole Qui	57.23	180		P	11 57 10.1	+2.2
QSPA	South Pole Qui	57.23	180	P	P	11 57 11.4	+3.4
	comp=Z,71nm,0.8s						
QSPA	South Pole Qui	57.23	180	P	P	11 57 11.0	+3.0
KIP	Kipapa	57.47	23	P	P	11 57 11.3	+1.4
	comp=Z,99nm,1.3s						
GUMO	Guam	57.92	317	LR	LR	12 18 14.1	
	comp=Z,101nm,21.9s,baz=152,slow=32						
GUMO	Guam	57.92	317	P	P	11 57 13.1	-0.2
GIRL	Giralia	59.45	261	P	P	11 57 23.8	-0.2
GIRL	Giralia	59.45	261	P	P	11 57 23.2	-0.8
KAPI	Kappang	63.59	282	LR	LR	12 26 13.6	
	comp=Z,125nm,18.6s,baz=94,slow=37						
DAV	Davao City (W)	66.25	296	LR	LR	12 26 27.9	
	comp=Z,66nm,20.0s,baz=128,slow=36						
TOLI2	Tolitoli	66.29	288	P	P	11 58 07.9	-1.6
TOLI2	Tolitoli	66.29	288	P	P	11 58 07.9	-1.6
	comp=Z,11nm,1.0s						
BELA	Belgrano 2	67.39	172	P	P	11 58 16.3	+0.7
BELA				IAmb	IAmb	11 58 17.9	
	comp=Z,26nm,0.8s						
MAW	Mawson	69.81	201	P	P	11 58 32.4	+1.6
MAW	Mawson	69.81	201	P	P	11 58 31.5	+0.7
	comp=Z,2.9nm,0.5s,baz=141,slow=5.8,SNR=37						
MAW				LR	LR	12 27 00.9	
	comp=Z,226nm,21.6s,baz=132,slow=34						
	comp=Z,2.9nm,0.5s						
MAW	Mawson	69.81	201	P	P	11 58 31.3	+0.5
MAW	Mawson	69.81	201	P	P	11 58 32.5	+1.6
	comp=Z,2.6nm,1.1s						
PMSA	Palmer Station	70.21	156	LR	LR	12 21 00.8	
	comp=Z,237nm,21.2s,baz=226,slow=29						
ELIB	Princess Elisa	74.33	187	*d*P	P	11 58 59.3	+1.3
	comp=Z,28nm,0.9s						
TROLL	Troll, Antarti	75.39	180	⇑P	P	11 59 05.5	+1.4
	comp=Z,778nm,0.8s						
SNAA	Sanae	75.69	179	⇑P	P	11 59 07.0	+1.2
	comp=Z,122nm,0.5s						
SNAA	Sanae	75.69	179	P	P	11 59 06.7	+1.0
	comp=Z,11nm,0.8s,baz=181,slow=4.3,SNR=15						
SNAA				LR	LR	12 28 53.9	
	comp=Z,170nm,21.9s,baz=228,slow=33						
	comp=Z,11nm,0.8s						
SNAA	Sanae	75.69	179	P	P	11 59 06.0	+0.2
SNAA				IAmb	IAmb	11 59 08.1	
	comp=Z,23nm,1.1s						
SNAA	Sanae	75.69	179	P	P	11 59 07.2	+1.4
	comp=Z,21nm,1.1s						
VNA3	Neumayer Olymp	75.86	176	⇑P	P	11 59 07.8	+1.1
	comp=Z,66nm,0.7s						
VNA3	Neumayer Olymp	75.86	176	P	P	11 59 07.9	+1.2
	comp=Z,120nm,0.8s						
VNA2	Neumayer--Watz	76.29	177	⇑P	P	11 59 10.4	+1.3
	comp=Z,47nm,0.7s,baz=178,slow=5.3						
VNA2	Neumayer--Watz	76.29	177	P	P	11 59 10.6	+1.5
	comp=Z,95nm,1.0s						
JHJ	Hachijo jima 2	76.48	325	LR	LR	12 30 39.9	
	comp=Z,59nm,19.1s,baz=345,slow=34						
VNA1	Neumayer--Stat	76.52	177	⇑P	P	11 59 11.9	+1.6
	comp=Z,45nm,0.8s						
LL02	Futaleuf	78.97	134	P	P	11 59 26.2	+1.7
	comp=Z,13nm,1.5s						
H03S2	Juan Fernandez	79.51	123	T	T	13 27 58.7	
	baz=236,slow=74,SNR=114						
H03S1	Juan Fernandez	79.52	123	T	T	13 27 59.9	
	baz=236,slow=74,SNR=104						
H03S3	Juan Fernandez	79.53	123	T	T	13 27 56.2	
	baz=236,slow=74,SNR=111						
H03N2	Juan Fernandez	79.72	123	T	T	13 27 58.7	
	baz=239,SNR=70						
H03N1	Juan Fernandez	79.73	123	T	T	13 27 59.0	
	baz=239,SNR=71						
MJAR	Matsushiro Arr	80.01	326	P	P	11 59 30.3	+0.2
	comp=Z,1.1nm,0.8s,baz=170,slow=5.2,SNR=3.3						
MJAR				LR	LR	12 27 37.9	
	comp=Z,112nm,22.0s,baz=118,slow=30						
	comp=Z,1.1nm,0.8s						
JNU	Nakatsue	81.09	319	LR	LR	12 32 21.7	
	comp=Z,91nm,18.2s,baz=108,slow=33						
PLCA	Paso Flores	81.18	133	P	P	11 59 38.5	+1.8
	comp=Z,3.7nm,0.9s,baz=234,slow=2.7,SNR=6.0						
PLCA				LR	LR	12 33 55.7	
	comp=Z,117nm,18.1s,baz=193,slow=34						
	comp=Z,3.7nm,0.9s						
ASAJ	Asahikawa	84.42	333	LR	LR	12 30 12.2	
	comp=Z,174nm,21.4s,baz=104,slow=30						
ADK	Adak	84.43	1	P	P	11 59 52.6	-0.2
	comp=Z,45nm,1.2s						
BO02	Sierra Bellavi	84.53	128	P	P	11 59 55.7	+1.6
	comp=Z,18nm,1.5s						
SHEM	Shemya Is, Ala	85.50	356	LR	LR	12 35 00.6	
	comp=Z,138nm,18.2s,baz=252,slow=34						
KSRS	Korea Array	85.92	320	P	P	11 59 59.6	-1.0
	comp=Z,0.3nm,0.3s,baz=133,slow=5.3,SNR=6.6						
	comp=Z,0.3nm,0.3s						
LPIG	La Paz	86.26	58	LR	LR	12 31 04.4	
	comp=Z,128nm,20.1s,baz=216,slow=30						
YSS	Yuzhno-Sakhali	86.77	335	P	P	12 00 05.1	+0.5
	comp=Z,40nm,0.9s						
NJ2	Nanjing	87.49	311	*e*P	P	12 00 09.8	+1.4
NJ2				pmax	pmax		
	comp=Z,7.0nm,0.5s						
MHC	Mount Hamilton	87.74	42	P	P	12 00 09.2	-0.5
MHC				IAmb	IAmb	12 00 28.2	
	comp=Z,17nm,1.1s						
PETK	Petropavlovsk-	88.10	346	P	P	12 00 10.8	0.0
	comp=Z,4.9nm,0.8s,baz=119,slow=4.7,SNR=5.8						
PETK				LR	LR	12 34 56.8	
	comp=Z,94nm,19.0s,baz=131,slow=32						
	comp=Z,4.9nm,0.8s						
GDXM	Geysers	88.15	40	P	P	12 00 11.6	0.0
GDXM				IAmb	IAmb	12 00 30.1	
	comp=Z,13nm,1.2s						
BELC	Belle Mtn. Jos	88.80	48	P	P	12 00 15.6	+0.8
CMB	Columbia Colle	88.94	42		P	12 00 16.0	+0.7
CMB				IAmb	IAmb	12 00 33.2	
	comp=Z,9.9nm,1.0s						
USRK	Ussuriysk Ar.	88.96	327	P	P	12 00 15.1	0.0
	comp=Z,2.2nm,0.7s,baz=139,slow=2.5,SNR=2.6						
USRK				LR	LR	12 34 36.2	
	comp=Z,75nm,19.3s,baz=98,slow=32						
	comp=Z,2.2nm,0.7s						
CLC	China Lake	89.03	45	P	P	12 00 17.2	+1.4
CLC				IAmb	IAmb	12 00 35.0	
	comp=Z,24nm,1.4s						
O02D	Mt. Diablo Mer	89.13	39		P	12 00 17.0	+0.8
AFDM	Forest Hills D	89.25	41		P	12 00 17.1	+0.4
AFDM				IAmb	IAmb	12 00 35.1	
	comp=Z,12nm,1.2s						
IRM	Iron Mountain	89.43	48		P	12 00 17.3	-0.3
IRM				IAmb	IAmb	12 00 37.7	
	comp=Z,36nm,1.5s						
O03E	Paynes Creek	89.75	40	P	P	12 00 19.7	+0.7
NVAR	Mina Array Bea	90.39	43	P	P	12 00 23.0	+0.7
	comp=Z,2.3nm,1.1s,baz=251,slow=5.5,SNR=8.7						
NVAR				LR	LR	12 34 57.1	
	comp=Z,108nm,19.2s,baz=131,slow=32						
	comp=Z,2.3nm,1.1s						
CHGN	Chignik	90.48	11	P	P	12 00 22.7	+0.8
CN2	Changchun	91.82	323	P	P	12 00 42.0	+14
WIFE	Three Sisters-	92.41	37	P	P	12 00 31.2	-0.3
WIFE				IAmb	IAmb	12 00 49.2	
	comp=Z,16nm,0.9s						
PINE	Pine Mountain	92.67	38		P	12 00 33.6	+1.0
KLR	Kul'dur	92.93	330	LR	LR	12 38 57.0	
	comp=Z,94nm,18.5s,baz=105,slow=33						
KDAK	Kodiak Island	92.94	14	LR	LR	12 38 05.8	
	comp=Z,92nm,19.2s,baz=126,slow=33						
CMAR	Chiang Mai Arr	93.75	289	P	P	12 00 37.1	-1.0
	comp=Z,0.2nm,0.3s,baz=122,slow=5.5,SNR=1.6						
CMAR				PP	PP	12 04 22.4	-1.5
	comp=Z,0.3nm,0.4s,baz=148,slow=5.8,SNR=5.9						
	comp=Z,0.2nm,0.3s						
N15K	Kwethluk River	93.96	9	P	P	12 00 38.7	+0.8
O18K	Koktuh Hills	94.40	12		P	12 00 39.9	-0.1
ILSW	Iliamna Southw	94.89	13	P	P	12 00 43.1	+0.8
MA2	Magadan	95.56	345	LR	LR	12 38 56.6	
	comp=Z,86nm,21.5s,baz=132,slow=32						
PZH	PanZhiHua	96.01	298	P	P	12 00 49.6	+1.3
LPAZ	La Paz	97.57	115	P	Pdif	12 00 57.2	+0.8
	comp=Z,1.0nm,0.7s,baz=237,slow=4.1,SNR=3.9						
LPAZ				LR	LR	12 36 40.4	
	comp=Z,58nm,21.6s,baz=148,slow=30						
	comp=Z,1.0nm,0.7s						
J18K	Innoko River	97.59	10	P	Pdif	12 00 55.2	+0.7
J18K				IAmb	IAmb	12 01 10.0	
	comp=Z,5.8nm,0.8s						
HHC	Hu-ho-hao-te	97.60	314	*e*P	Pdif	12 00 56.5	+1.3
HHC				pmax	pmax		
	comp=Z,6.0nm,0.6s						
PDAR	Pinedale Array	98.27	44	P	Pdif	12 00 60.0	+1.7
	comp=Z,0.1nm,0.6s,baz=242,slow=4.6,SNR=2.0						
	comp=Z,0.1nm,0.6s						
BTO2	Baotou	98.57	313	*e*P	Pdif	12 01 01.3	+1.7
BTO2				pmax	pmax		
	comp=Z,16nm,0.5s						
CPUP	Villa Florida	98.82	129	LR	LR	12 37 32.6	
	comp=Z,114nm,20.6s,baz=244,slow=30						
LZH	Lanzhou	99.80	307	*e*P	Pdif	12 01 10.8	+5.6
LZH				sP	sP	12 01 16.0	-1.2
LZH				pmax	pmax		
	comp=Z,14nm,1.1s						
LZH				L	L		
	comp=Z,250nm,17.0s						
LZH				L	L		
	comp=Z,210nm,15.1s						
LZH				L	L		
	comp=Z,360nm,15.6s						
ILAR	Eielson Array	100.45	13	P	Pdif	12 01 08.7	+1.5
	comp=Z,0.5nm,0.9s,baz=212,slow=5.5,SNR=5.6						
ILAR				PP	PP	12 05 08.8	-5.8
	comp=Z,1.2nm,1.0s,baz=208,slow=4.9,SNR=6.1						
HYB	Hyderabad	109.85	278	*e*PKiKP	PKiKP	12 05 51.8	-0.6
HYB				*e*SKSac	SKSac	12 12 25.9	-1.8
HYB				*e*SKKSac	SKKSac	12 13 22.6	-3.4
WMQ	Urumqi	114.36	308	*e*PKP	PKiKP	12 06 01.3	+1.0
MKAR	Makanchi Array	118.97	309	PKP	PKPdf	12 06 07.5	-1.5
	comp=Z,1.3nm,0.7s,baz=211,slow=1.8,SNR=11						
ZALV	Zalesovo Beam	119.54	318	PKP	PKPdf	12 06 08.3	-1.5
	comp=Z,1.0nm,0.5s,baz=150,slow=2.8,SNR=5.7						
KURBB	Kurchatov Arra	122.42	313	PKP	PKPdf	12 06 14.4	-1.0
	comp=Z,3.0nm,0.6s,baz=112,slow=1.9,SNR=7.8						
BVAR	Borovoye Array	127.81	314	PKP	PKPdf	12 06 25.2	-0.5
	comp=Z,5.0nm,0.8s,baz=147,slow=3.0,SNR=8.1						
SPITS	Spitsbergen Ar	134.14	356	PKP	PKPdf	12 06 37.0	-0.1
	comp=Z,1.7nm,0.4s,baz=100,slow=3.6,SNR=8.0						
ARTI	Arti	134.77	319	PKP	PKPdf	12 06 38.7	-0.1
	comp=Z,3.0nm,0.5s,baz=64,slow=2.3,SNR=6.3						
AKTO	Aktyubinsk	135.37	311	PKP	PKPdf	12 06 40.7	+0.5
	comp=Z,1.5nm,0.4s,baz=85,slow=5.4,SNR=4.3						
VADS	Vadso	139.65	346	*e*	PKPpre	12 06 24.7	
HAMF	Hammerfest	140.28	349	*e*	PKPpre	12 06 24.4	
ARA0	ARCESS Array S	140.90	347	*e*PKPdf	PKPpre	12 06 45.2	
ARCES	ARCESS Array B	140.90	347	PKhKP	PKPpre	12 06 38.8	
	comp=Z,0.9nm,0.3s,baz=84,slow=3.8,SNR=38						
ARCES				PKP	PKPdf	12 06 50.1	+0.4
	comp=Z,1.4nm,0.4s,baz=80,slow=1.4,SNR=4.3						
ARCES	ARCESS Array B	140.90	347	S	PKPpre	12 06 38.8	
JETT	Jettan, Norway	141.77	349	*e*PKPdf	PKPdf	12 06 48.2	-3.2
KTK1	Kautokeino	141.77	348	*e*PKPdf	PKPdf	12 06 47.0	-4.3
TRO	Tromso	141.92	350	*e*PKPdf	PKPdf	12 06 47.3	-4.2
STEI	Steigen	144.01	351	*e*PKPdf	PKPdf	12 06 55.6	+0.4
FAUS	Fauske	144.52	351	*e*PKPdf	PKPbc	12 06 54.9	+0.1
VAGH	Vaagaholmen	145.40	352	*e*PKPbc	PKPbc	12 06 57.5	-0.2
RAUS	Rausandaksla	145.58	351	*e*PKPbc	PKPdf	12 06 57.9	-0.1
KONS	Konsvik	145.64	352	*e*PKPdf	PKPdf	12 06 57.9	-0.2
MOR8	Moi Rana	145.78	351	*e*PKPdf	PKPdf	12 06 57.2	-1.2
STOK	Stokkvaagen	145.81	352	*e*PKPdf	PKPdf	12 06 58.6	+0.2
LEIR	Leirfjorden	146.01	352	*e*PKPdf	PKPbc	12 06 59.3	-0.2
KBZ	Khabaz	146.02	301	PKPbc	PKPdf	12 06 59.8	+0.4
	comp=Z,4.4nm,0.8s,baz=108,slow=3.2,SNR=8.0						
FINES	FINESS Array B	147.29	338	PKPbc	PKPbc	12 07 02.6	-0.8
	comp=Z,18nm,0.5s,baz=40,slow=3.8,SNR=166						
NSS	Namsos	147.67	351	*e*PKPdf	PKPdf	12 07 02.4	+0.9
MOL	Molde	150.04	354	*e*PKPdf	PKPdf	12 07 06.6	+1.1
DOMB	Dombas	150.42	353	*e*PKPdf	PKPdf	12 07 06.4	+0.2
AKN	Aaknes	150.48	355	*e*PKPdf	PKPdf	12 07 06.5	+0.3
NB2	NORSAR Subarra	151.12	350	PKP	PKPbc	12 07 12.3	-0.8
	comp=Z,2.7nm,0.5s,baz=17,slow=2.6						
NB2	NORSAR Subarra	151.12	350	PKPab	PKPbc	12 07 12.3	-0.8
NOA	NORSAR Array B	151.12	350	PKPbc	PKPbc	12 07 12.4	-0.8
	comp=Z,3.8nm,0.6s,baz=15,slow=4.1,SNR=21						
FOO	Floro	151.18	356	*e*PKPdf	PKPdf	12 07 07.8	+0.5
NC602	NORSAR Array S	151.36	350	*e*PKPbc	PKPbc	12 07 13.1	-0.6
MNK	Minsk	151.44	327	*i* PKiKP	PKiKP	12 07 15.4	+1.0
	comp=E,27nm,0.8s						
MNK				*i* PKiKP	PKiKP	12 07 15.4	+1.0
	comp=N,17nm,0.8s						
MNK				*i* PKiKP	PKiKP	12 07 15.4	+1.0
	comp=Z,30nm,0.9s,baz=232						
MNK				*i* PP	PP	12 10 55.2	+1.8
MNK				*i* PPP	PPP	12 14 18.3	
MNK				*i* SKKS		12 23 02.6	
MNK				*i* SSS	SSS	12 36 07.5	
MNK				*i* LQ	LQ	13 08 02.5	
HYA	Hoyanger	151.54	355	*e*PKPbc	PKPbc	12 07 14.0	0.0
MMAI	Mount Meron Ar	151.55	280	PKPbc	PKPbc	12 07 15.2	+0.2
	comp=Z,3.7nm,0.4s,baz=61,slow=6.8,SNR=7.1						
HFS	Hagfors	151.56	347	PKPbc	PKPbc	12 07 13.1	-1.1
	comp=Z,3.8nm,0.4s,baz=82,slow=2.2,SNR=23						
NACGM	Naroch	151.68	329	*e*PKiKP	PKiKP	12 07 16.9	+1.9
SKAR	Skarslia	151.83	353	*e*PKPbc	PKiKP	12 07 15.3	+0.1
KONO	Kongsberg	152.68	351	*e*PKPbc	PKiKP	12 07 17.4	+0.5
ODD1	Odda	152.75	354	*e*PKPbc	PKiKP	12 07 18.4	+1.3
AKASG	Malin Array Be	152.92	319	PKPbc	PKPbc	12 07 16.6	-0.8

	comp=Z,1.3nm,0.3s,baz=49,slow=2.8,SNR=17						
BRTR	Keskin Array B	153.25	294	PKPbc	PKPbc	12 07 17.9	-0.8
	comp=Z,1.6nm,0.3s,baz=134,slow=4.0,SNR=12						
DBIC	Dimbokro	153.27	166	PKPbc	PKPbc	12 07 18.6	-0.8
	comp=Z,9.4nm,0.9s,baz=161,slow=1.4,SNR=4.7						
LUBAR	Lubar, Ukraine	154.13	319	PKP	PKPdf	12 07 13.8	+1.8
HOMB	Homborsund	154.16	351	ePKPbc	PKiKP	12 07 20.3	+0.4
SNART	Snartemo	154.25	353	ePKPbc	PKiKP	12 07 20.9	+0.8
RNPP9	Sopachiv	154.28	323	PKP	PKPdf	12 07 13.2	+1.1
EKA	Eskdalemuir Ar	157.33	7	PKPab	PKPab	12 07 47.0	-0.4
	comp=Z,2.1nm,0.6s,baz=328,slow=2.8,SNR=4.3						
KOLS	Kolonicke sedl	157.63	322	ePKP	PKPdf	12 07 32.4	+16
OSTC	Ostas	159.25	333	ePKPAB	pPKPab	12 08 08.7	+3.7
MORC	Moravsky Berou	159.31	329	ePKP	PKPab	12 08 08.0	+12
UPC	Upice	159.36	333	ePKPAB	pPKPab	12 08 10.1	+4.6
DPC	Dobruska-Polom	159.37	332	ePKPAB	pPKPab	12 08 10.2	+4.7
CLL	Collm	159.73	339	ePKPdf	PKPdf	12 07 21.0	+1.9
CLL				i PKPab	PKPab	12 07 57.2	-0.7
	comp=Z,6.0nm,0.8s						
CLL				i pPKPab	sPKPab	12 08 11.7	+1.8
	comp=Z,15nm,0.8s						
BRG	Berggiesshubel	159.81	337	P	PKPab	12 08 12.4	+14
BRG				Amp		12 08 13.2	
	comp=Z,9.6nm,0.8s						
JAVC	Velka Javorina	159.93	327	ePKP	PKPab	12 08 12.4	+13
VRAC	Vranov	160.07	330	ePKP	PKPab	12 08 11.9	+12
KRUC	Moravsky	160.34	330	ePKP	PKPab	12 08 12.8	+12
TORD	Torodi Ar. Bea	160.35	181	PKPab	PKPab	12 08 02.2	+0.8
	comp=Z,9.0nm,0.8s,baz=218,slow=1.4,SNR=4.7						
ZVC	Zvikov	160.92	334	ePKPAB	pPKPab	12 08 16.8	+4.5
WINA	Alland / Wiene	161.20	328	ePKP	pPKPab	12 08 18.3	+4.7
	comp=Z,6.2nm,0.9s						
CKRC	Cesky Krumlov	161.38	332	ePKPAB	pPKPab	12 08 17.7	+3.4
KHC	Kasperske Hory	161.40	334	ePKPDF	pPKPdf	12 07 35.0	+4.8
KHC				ePKPAB	sPKPab	12 08 17.6	+0.3
RONA	Rosalia, Austr	161.40	327	ePKP	pPKPab	12 08 18.9	+4.4
	comp=Z,3.9nm,1.1s						
CONA	Conrad Observa	161.43	328	ePKP	pPKPab	12 08 19.3	+4.6
	comp=Z,6.5nm,0.9s						
ARSA	Arzberg	162.09	327	ePKP	pPKPab	12 08 22.1	+4.6
	comp=Z,2.4nm,1.0s						
MOA	Molln	162.17	331	i PKP	pPKPab	12 08 22.3	+4.4
	comp=Z,4.9nm,1.1s						
BIOA	Bad Ischl, Aus	162.56	332	ePKP	pPKPab	12 08 24.3	+4.8
	comp=Z,5.5nm,1.0s						
SESA	Seetaler Alpe,	162.62	329	ePKP	pPKPab	12 08 24.1	+4.0
	comp=Z,10nm,0.9s						
SOKA	Soboth	162.74	327	ePKP	pPKPab	12 08 25.0	+4.5
	comp=Z,4.4nm,0.9s						
LESA	Schwarzleotal	163.15	333	ePKP	pPKPab	12 08 25.7	+3.5
	comp=Z,2.9nm,0.7s						
WATA	Walderalm	163.63	335	ePKP	pPKPab	12 08 28.2	+3.8
	comp=Z,3.8nm,0.9s						
WTTA	Wattenberg	163.67	335	ePKP	pPKPab	12 08 28.1	+3.5
	comp=Z,1.4nm,0.6s						
ABTA	Abfaltersbach	163.77	332	ePKP	pPKPab	12 08 28.1	+3.1
	comp=Z,3.8nm,0.8s						
MOTA	Moosalm	163.79	336	ePKP	pPKPab	12 08 28.7	+3.6
	comp=Z,7.0nm,0.9s						
SQTA	Sankt Quirin	163.86	335	ePKP	pPKPab	12 08 28.7	+3.3
	comp=Z,6.6nm,0.8s						
FETA	Feichten	164.20	336	ePKP	pPKPab	12 08 31.2	+4.3
	comp=Z,6.4nm,0.9s,SNR=5.2						
DAVA	Damuels	164.24	338	ePKP	pPKPab	12 08 31.1	+4.0
	comp=Z,9.3nm,1.0s						
ESDC	Sonseca Array	171.96	31	PKP	PKPdf	12 07 31.1	+1.7
	comp=Z,0.7nm,1.1s,baz=343,slow=6.4,SNR=3.1						
ESDC				PKPab	PKPab	12 08 52.1	-0.1
	comp=Z,0.6nm,0.8s,baz=324,slow=2.1,SNR=4.1						

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*HEL **13** 12:05:05.1±0.2, 67°.95N×33°.34E, h0^{km}, ML1.3, Suspected explosion*

KOLA 13 12:05:01.1, 67°.65N×33°.76E, h0^{km}, ML1.3, Error ellipse: s-maj=2.6km s-min=1.3km az=140.0, Khibiny, mines Kirovsk, Yukspor, Baltic States-Belarus-Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APA	Apatity	0.16	239	P	Pg	12 05 03.9	-0.1
APA				S	Sg	12 05 06.1	+0.1
APA0	Apatity Array	0.30	262	P	Pg	12 05 06.3	-0.4
APA0				S	Sg	12 05 10.3	-0.2
LVZ	Lovozero	0.42	53	P	Pg	12 05 08.7	-0.4
LVZ				S	Sg	12 05 14.7	+0.1
LVZ	Lovozero	0.42	53	PG	Pn	12 05 14.1	-0.3
KVDA	Kovda	1.02	200	P	Pg	12 05 19.1	-1.5
KVDA				S	Sg	12 05 32.8	-1.0
VRF	Varrio	1.59	276	PG	Pn	12 05 30.4	+0.1
VRF				smax	smax	12 05 48.1	
	comp=Z,2.5nm,0.2s						
VRF				SG	Sn	12 05 49.2	-2.4
TERR	Teriberka	1.64	17	P	Pn	12 05 29.6	-1.4
TERR				S	Sn	12 05 51.3	-1.5
OLKF	Oulanka, Finla	2.17	234	SN	Sb	12 06 09.2	+0.6
OLKF				smax	smax	12 06 11.7	
	comp=Z,1.1nm,0.2s						
RAJF	Raja-Jooseppi	2.21	295	PG	Pb	12 05 40.5	-1.3
MSF	Maaselka	2.56	229	SN	Sb	12 06 20.8	+1.1
KU1	Kurvinen	2.68	221	PG	Pg	12 05 57.3	+5.0
KU1				SG	Sg	12 06 34.0	+7.0
VADS	Vadso	2.95	329	S	Sn	12 06 24.1	-1.0
RNF	Rovaniemi	3.20	255	SN	Sn	12 06 31.5	+0.2
RANF	Ranua	3.21	242	PN	Pb	12 05 56.9	-1.9
KEV	Kevo	3.25	314	PB	Pn	12 05 53.6	+0.5
	baz=130						
KEV				SG	Sn	12 06 31.7	-0.7
ARA0	ARCESS Array S	3.57	306	PN	Pn	12 05 57.2	-0.4
	baz=123						
ARA0				SB	Sn	12 06 39.8	-0.6
ARCES	ARCESS Array B	3.57	306	P	Pn	12 05 57.1	-0.5
KLF	Kolari	3.80	268	SB	Sb	12 06 51.3	-4.0
HEF	Hetta	3.87	286	SG	Sb	12 06 56.9	-0.6
TOF	Tornio	4.04	251	SN	Sn	12 06 53.1	+1.1
OUL	Oulu	4.08	235	SN	Sn	12 06 54.5	+1.6

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*KRSC **13** 12:13:04.4±0.9, 55°.29N×163°.14E, h50^{km}±17^{km}, Mc4.5, Ml4.6*

*NEIC **13** 12:13:05.0±1.0, 55°.4N±0°.2×163°.1E±0°.1, h9^{km}±6^{km}, mb4.4/49, Error ellipse: s-maj=22.4km s-min=10.3km az=165.0*

*MOS **13** 12:13:06.5±1.0, 55°.30N×163°.15E, h40^{km}, mb4.4/14, Error ellipse: s-maj=6.6km s-min=4.8km az=74.4*

*IDC **13** 12:13:11.2±2.2, 55°.36N×162°.94E, h66^{km}±20^{km}, mb3.7/28, mbtmp4.0/31, MS3.3/3, Error ellipse: s-maj=14.9km s-min=10.7km az=143.0*

ISC 13 12:13:06.8±2.7**, 55°.29N**±0°.03×**163°.15E**±0°.03**, h26**^{km}±20^{km}**, n199, **σ1^{s}**.38**/233**, mb4.2**/53**, MS4.0**/4**, 1D, Off east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBTR	Krutoberegovo	0.94	349	PN	Pn	12 13 22.8	-1.5
KBTR	Krutoberegovo	0.94	349	eP	Pn	12 13 22.9	-1.5
MKZ	Mys Kozlova	1.10	229	PN	Pn	12 13 23.6	-2.8
MKZ				S	Sn	12 13 38.0	-2.7
MKZ	Mys Kozlova	1.10	229	eP	Pn	12 13 23.7	-2.8
MKZ				eS	Sn	12 13 38.0	-2.7
ZLN	Zelenaya	1.52	300	eS	Sn	12 13 48.8	-2.5
BZGR	Bezymyannyi-Gr	1.54	296	PN	Pn	12 13 30.6	-2.0
BZGR				S	Sn	12 13 48.5	-3.3
BZGR	Bezymyannyi-Gr	1.54	296	eP	Pn	12 13 30.7	-2.0
BZGR				eS	Sn	12 13 48.6	-3.3
TUMD	Tumrok D	1.58	268	PN	Pn	12 13 31.4	-1.7
TUMD				S	Sn	12 13 51.1	-1.5
TUMD	Tumrok D	1.58	268	eP	Pn	12 13 31.4	-1.7
TUMD				eS	Sn	12 13 51.2	-1.5
CIRR	Tsirk	1.59	302	PN	Pn	12 13 31.4	-2.0
CIRR				S	Sn	12 13 51.4	-1.8
CIRR	Tsirk	1.59	302	eP	Pn	12 13 31.5	-2.0
CIRR				eS	Sn	12 13 51.5	-1.8
LGNR	Loginova	1.60	301	eS	Sn	12 13 50.2	-3.5
SMKR	Semkarok	1.61	325	PN	Pn	12 13 33.1	-0.4
SMKR				S	Sn	12 13 53.0	-0.4
SMKR	Semkarok	1.61	325	eP	Pn	12 13 33.1	-0.4
SMKR				eS	Sn	12 13 53.1	-0.4
BZP	Bezymyannyi-Pe	1.61	294	PN	Pn	12 13 31.8	-1.8
BZP				S	Sn	12 13 51.7	-1.9
BZP	Bezymyannyi-Pe	1.61	294	eP	Pn	12 13 31.9	-1.8
BZP				eS	Sn	12 13 51.8	-1.9
BKI	Bering	1.62	92	PN	Pn	12 13 32.3	-1.3
BKI				S	Sn	12 13 51.9	-1.7
BKI	Bering	1.62	92	eP	Pn	12 13 32.3	-1.3
BKI				eS	Sn	12 13 51.9	-1.7
BZMR	Bezymyannaya	1.64	294	PN	Pn	12 13 33.2	-0.9
BZMR				S	Sn	12 13 52.3	-2.1
BZMR	Bezymyannaya	1.64	294	eP	Pn	12 13 33.3	-0.9
BZMR				eS	Sn	12 13 52.4	-2.1
BZWR	Bezymyannyi-We	1.65	295	PN	Pn	12 13 33.3	-0.9
BZWR				S	Sn	12 13 52.7	-1.9
BZWR	Bezymyannyi-We	1.65	295	eP	Pn	12 13 33.3	-0.9
BZWR				eS	Sn	12 13 52.7	-1.9
BDR	Baidarnaya	1.69	320	eS	Sn	12 13 54.1	-1.4
TUMR	Tumrok	1.72	271	PN	Pn	12 13 34.5	-0.6
TUMR				S	Sn	12 13 54.3	-1.9
TUMR	Tumrok	1.72	271	eP	Pn	12 13 34.5	-0.6
TUMR				eS	Sn	12 13 54.4	-1.9
KMNR	Kamenistaya	1.72	287	PN	Pn	12 13 34.9	-0.2
KMNR	Kamenistaya	1.72	287	eP	Pn	12 13 34.9	-0.2
KIRR	Kirishev	1.73	294	PN	Pn	12 13 34.3	-0.9
KIRR				S	Sn	12 13 55.6	-0.9
KIRR	Kirishev	1.73	294	eP	Pn	12 13 34.3	-0.9
KIRR				eS	Sn	12 13 55.7	-0.9
KPT	Kopyto	1.79	293	PN	Pn	12 13 35.4	-0.7
KPT				S	Sn	12 13 57.2	-0.9
KPT	Kopyto	1.79	293	eP	Pn	12 13 35.5	-0.7
KPT				eS	Sn	12 13 57.2	-0.9
KOZ	Kozyrevsk	2.01	294	PN	Pn	12 13 39.0	0.0
KOZ	Kozyrevsk	2.01	294	eP	Pn	12 13 39.0	0.0
SRDR	Sredinnyy	2.20	299	PN	Pn	12 13 41.3	-0.3
SRDR				S	Sn	12 14 06.8	-1.1
SRDR	Sredinnyy	2.20	299	eP	Pn	12 13 41.3	-0.3
SRDR				eS	Sn	12 14 06.8	-1.1
KII	Karymskiy	2.49	241	PN	Pn	12 13 45.8	+0.2
KII	Karymskiy	2.49	241	eP	Pn	12 13 45.8	+0.2
ESO	Esso	2.60	286	PN	Pn	12 13 47.6	+0.5
ESO				S	Sn	12 14 19.0	+1.1
ESO	Esso	2.60	286	eP	Pn	12 13 47.7	+0.5
ESO				eS	Sn	12 14 19.1	+1.1
SPN	Mys Shipunski	2.86	221	PN	Pn	12 13 49.5	-1.2
SPN				S	Sn	12 14 22.3	-1.9
SPN	Mys Shipunski	2.86	221	eP	Pn	12 13 49.5	-1.2
SPN				eS	Sn	12 14 22.3	-1.9
NLC	Nalytchevo	3.08	228	PN	Pn	12 13 53.3	-0.3
NLC				S	Sn	12 14 28.6	-1.0
NLC	Nalytchevo	3.08	228	eP	Pn	12 13 53.4	-0.3
NLC				eS	Sn	12 14 28.6	-1.0
KRX	Arik	3.27	236	PN	Pn	12 13 57.0	+0.6
KRX				S	Sn	12 14 34.8	+0.4
KRX	Arik	3.27	236	eP	Pn	12 13 57.1	+0.6
KRX				eS	Sn	12 14 34.9	+0.4
AVH	Avacha	3.29	234	PN	Pn	12 13 57.0	+0.4
AVH	Avacha	3.29	234	eP	Pn	12 13 57.1	+0.4
KOK	Koryaka	3.31	235	PN	Pn	12 13 57.2	+0.2
KOK	Koryaka	3.31	235	eP	Pn	12 13 57.2	+0.2
GNL	Ganaly	3.43	244	PN	Pn	12 13 58.9	+0.3
GNL	Ganaly	3.43	244	eP	Pn	12 13 58.9	+0.3
DALK	Dalny	3.43	231	PN	Pn	12 13 58.0	-0.5
DALK				S	Sn	12 14 38.3	0.0
DALK	Dalny	3.43	231	eP	Pn	12 13 58.0	-0.5
DALK				eS	Sn	12 14 38.4	0.0
PET	Petropavlovsk	3.48	231	ePN	Pn	12 14 01.8	+2.6
PET				eS	Sn	12 14 44.0	+4.5
PET				pmax	pmax		
	comp=Z,245nm,0.5s						
PET				smax	smax		
	comp=N,559nm,0.7s						
PET				smax	smax		
	comp=E,775nm,0.9s						
PET				MLR	MLR		
	comp=Z,600nm,9.0s						
PET	Petropavlovsk	3.48	231		Pn	12 13 59.1	-0.1
PET	Petropavlovsk	3.48	231	eP	Pn	12 13 59.7	+0.5
PET				eS	Sn	12 14 41.0	+1.4
KRMR	Karymshinskiy	3.85	232	PN	Pn	12 14 05.5	+1.3
KRMR				S	Sn	12 14 49.7	+1.2
KRMR	Karymshinskiy	3.85	232	eP	Pn	12 14 05.5	+1.3
KRMR				eS	Sn	12 14 49.7	+1.2
PEA0B	Petropavlovsk-	3.87	238	d iPN	Pn	12 14 03.6	-1.0
PEA0B	Petropavlovsk-	3.87	238		Pn	12 14 04.3	-0.4
PETK	Petropavlovsk-	3.87	238	P	Pn	12 14 05.6	+1.0
	comp=Z,29nm,0.5s,baz=64,slow=17,SNR=53						
PETK				S	Sn	12 14 52.6	+3.3
	comp=Z,15nm,0.5s,baz=338,slow=15,SNR=0.9						
PETK	Petropavlovsk-	3.87	238	PN	Pn	12 14 04.6	0.0
PETK	Petropavlovsk-	3.87	238		Pn	12 14 04.6	0.0
OSSR	Ossora	3.97	359	PN	Pn	12 14 05.3	-0.6
OSSR				S	Sn	12 14 50.5	-1.1
OSSR	Ossora	3.97	359	eP	Pn	12 14 05.3	-0.6
OSSR				eS	Sn	12 14 50.6	-1.1
GRL	Gorelyy	4.06	230	PN	Pn	12 14 09.5	+2.2
GRL				S	Sn	12 14 54.7	+0.7
GRL	Gorelyy	4.06	230	eP	Pn	12 14 09.5	+2.2
GRL				eS	Sn	12 14 54.8	+0.7
MTVR	Mutnovka	4.07	228	PN	Pn	12 14 07.6	+0.2
MTVR				S	Sn	12 14 53.5	-0.6
MTVR	Mutnovka	4.07	228	eP	Pn	12 14 07.6	+0.2
MTVR				eS	Sn	12 14 53.5	-0.6
APC	Apacha	4.25	239	PN	Pn	12 14 11.1	+1.4
APC	Apacha	4.25	239	eP	Pn	12 14 11.1	+1.4
KDTR	Khodutka, Kamc	4.61	223	PN	Pn	12 14 14.0	-0.7
KDTR	Khodutka, Kamc	4.61	223	eP	Pn	12 14 14.0	-0.7
SHEM	Shemya Is, Ala	6.94	107	LR	LR	12 17 28.9	
	comp=Z,250nm,19.5s,baz=304,slow=36						
SHEM	Shemya Is, Ala	6.94	107	Pn	Pn	12 14 47.5	+0.8
SMY	Shemya	6.94	107	PN	Pn	12 14 47.7	+1.0
SMY	Shemya	6.94	107	Pn	Pn	12 14 47.7	+1.0
KMSK	Kamenskaya	7.37	11	PN	Pn	12 14 53.4	+0.9
KMSK	Kamenskaya	7.37	11	eP	Pn	12 14 53.5	+0.9
MA2	Magadan	7.94	308	P	Pn	12 15 03.4	+3.0
	comp=Z,3.2nm,0.6s,baz=109,slow=17,SNR=1.5						
MA2				LR	LR	12 18 10.1	
	comp=Z,273nm,20.9s,baz=114,slow=38						
KIWB	Kanaga Island	12.20	98	Pn	Pn	12 15 57.6	-1.1
ADK	Adak	12.45	98	PN	Pn	12 16 02.6	+0.5
ADK	Adak	12.45	98	Pn	Pn	12 16 02.6	+0.5
BILL	Bilibino	12.88	5	i PN	Pn	12 16 08.8	+0.9
BILL				pmax	pmax		
	comp=Z,5.0nm,0.7s						
YSS	Yuzhno-Sakhali	15.24	245	eP	Pn	12 16 33.7	-6.3
YSS				pmax	pmax		
	comp=Z,10.0nm,1.2s						
YSS				MLR	MLR		
	comp=N,500nm,13.0s						
YSS				MLR	MLR		
	comp=Z,300nm,13.0s						
JKA	Kamikawa-asahi	17.29	238		P	12 17 07.4	-0.1
ASAJ	Asahikawa	17.29	238	P	Pn	12 17 07.1	+0.9
	comp=Z,6.9nm,0.7s,baz=57,slow=14,SNR=5.8						
UNV	Unalaska Valle	17.59	82		P	12 17 11.4	+0.7
UNV				IAmb	IAmb	12 17 27.4	
	comp=Z,48nm,1.2s						
K13K	Kusilvak Mount	17.89	55	P	P	12 17 14.1	+0.1
K13K				IAmb	IAmb	12 17 16.6	
	comp=Z,27nm,1.3s						
YAK	Yakutsk	18.50	305	i P	Pn	12 17 22.5	+1.6
YAK				pmax	pmax		
	comp=Z,7.0nm,0.8s						
ERM	Erimo	18.64	233	i P	P	12 17 21.1	-1.2
ERM	Erimo	18.64	233	P	P	12 17 21.5	-0.8
M14K	Bethel	19.10	59	P	Pn	12 17 27.9	-0.3
M14K				IAmb	IAmb	12 17 38.8	
	comp=Z,12nm,0.8s						
N14K	Kuskokwak Cree	19.24	62	P	Pn	12 17 30.6	+0.8
N14K				IAmb	IAmb	12 17 36.3	
	comp=Z,23nm,1.1s						
J16K	Anvik River	19.92	52	P	Pn	12 17 37.2	-0.8
J16K				IAmb	IAmb	12 17 49.4	
	comp=Z,21nm,1.2s						
KLR	Kul'dur	20.04	265	P	Pn	12 17 42.2	+2.8
	comp=Z,1.6nm,0.6s,baz=72,slow=13,SNR=4.4						
KLR	Kul'dur	20.04	265	i P	Pn	12 17 40.1	+0.7
KLR				pmax	pmax		
	comp=Z,20nm,2.5s						
N15K	Kwethluk River	20.04	61	P	Pn	12 17 38.7	-0.6
O15K	Ungalikthiuk R	20.23	64	P	Pn	12 17 40.3	-1.3
O15K				IAmb	IAmb	12 17 41.4	
	comp=Z,15nm,0.8s						
F17K	Baldwin Pennin	20.28	42	P	Pn	12 17 41.0	-1.2
M16K	Timber Creek	20.57	58	P	Pn	12 17 43.9	-1.7
M16K				IAmb	IAmb	12 18 13.5	
	comp=Z,12nm,1.1s						
J17K	VABM Dome	20.61	52	P	Pn	12 17 44.1	-1.9
O16K	Kokwok River B	21.08	62	P	P	12 17 48.9	+0.1
G18K	Tagagawik	21.17	45	P	P	12 17 50.1	+0.3
P16K	Nushagak River	21.19	64	P	P	12 17 50.4	+0.5
M17K	Holitna River	21.30	57		P	12 17 51.9	+0.7
M17K				IAmb	IAmb	12 17 55.5	
	comp=Z,11nm,0.7s						
CHGN	Chignik	21.45	71	P	P	12 17 53.0	+0.3
CHGN				IAmb	IAmb	12 18 27.7	
	comp=Z,11nm,1.0s						
N17K	Nushagak Hills	21.46	60	P	P	12 17 53.1	+0.3
L18K	Granite Mounta	21.65	55		P	12 17 55.3	+0.5
J18K	Innoko River	21.68	52	P	P	12 17 55.8	+0.7
TIXI	Tiksi	21.92	331	P	P	12 17 58.3	+0.6
	comp=Z,3.1nm,0.5s,baz=130,slow=7.9,SNR=8.5						
TIXI				LR	LR	12 26 07.6	
	comp=Z,70nm,21.1s,baz=132,slow=36						
	comp=Z,3.1nm,0.5s						
TIXI	Tiksi	21.92	331	P	P	12 17 57.5	-0.1
TIXI				pmax	pmax		
	comp=Z,27nm,0.8s						
TIXI	Tiksi	21.92	331	P	P	12 17 57.5	-0.1
P17K	Kvichak River	21.96	63	P	P	12 17 59.0	+0.8
HEH	HeiHe	22.03	272	eP	P	12 18 02.0	+3.0
HEH				pmax	pmax		
	comp=Z,8.0nm,0.8s						
HEH				LR	LR		
	comp=N,390nm,11.0s						
HEH				LR	LR		
	comp=E,300nm,12.9s						
HEH				LR	LR		
	comp=Z,390nm,12.5s						
F20K	Avaraart Lake	22.56	42	P	P	12 18 04.9	+0.4
USRK	Ussuriysk Ar.	22.79	254	P	P	12 18 07.8	+0.6
	comp=Z,0.8nm,0.6s,baz=54,slow=12,SNR=4.9						
	comp=Z,0.8nm,0.6s						
J20K	Nowinta River	22.86	50		P	12 18 08.0	+0.3
IMAR	Indian Mountai	23.17	45	P	P	12 18 10.7	-0.3
F21K	Alatna River	23.45	42	P	P	12 18 13.8	+0.1
F21K				IAmb	IAmb	12 18 15.7	
	comp=Z,5.9nm,0.8s						
E21K	Killik River	23.50	39	P	P	12 18 13.9	-0.3
E21K				IAmb	IAmb	12 18 16.2	
	comp=Z,9.2nm,1.0s						
CAST	Castle Rocks	23.76	52	P	P	12 18 16.9	+0.2
D22K	Ayikyak River	24.05	38	P	P	12 18 19.5	+0.1
D22K				IAmb	IAmb	12 18 21.8	
	comp=Z,11nm,1.0s						
KDAK	Kodiak Island	24.21	66	i P	P	12 18 20.4	-0.5
KDAK				pmax	pmax		
	comp=Z,11nm,0.6s						
KDAK	Kodiak Island	24.21	66		P	12 18 20.3	-0.6
KDAK				IAmb	IAmb	12 18 22.5	
	comp=Z,9.2nm,0.7s						
MLY	Manley	24.36	48	P	P	12 18 22.3	0.0
BRLK	Bradley Lake	24.68	61	P	P	12 18 24.5	-0.7
BRLK				IAmb	IAmb	12 18 27.0	
	comp=Z,8.9nm,0.8s						
G23K	Bananza Creek	24.74	44	P	P	12 18 25.8	0.0
RND	Reindeer	25.21	52	P	P	12 18 29.3	-0.7
RND				pmax	pmax		
	comp=Z,15nm,1.5s						
RND	Reindeer	25.21	52	P	P	12 18 29.3	-0.7
RND				IAmb	IAmb	12 18 31.5	
	comp=Z,15nm,1.5s						
MJA0	Matsu Arr-Jizo	25.30	233	eP	P	12 18 32.5	+1.5
MJA0				pmax	pmax		
	comp=Z,4.0nm,0.4s						
MJB9	Matsu-Tunnel	25.31	233	P	P	12 18 32.1	+1.0
MAJO	Matsushiro	25.31	233	i P	P	12 18 32.5	+1.4
MAJO				pmax	pmax		
	comp=Z,12nm,0.9s						
MAJO	Matsushiro	25.31	233	P	P	12 18 31.0	-0.2
MJAR	Matsushiro Arr	25.31	233	P	P	12 18 30.8	-0.3
	comp=Z,7.1nm,0.8s,baz=30,slow=8.2,SNR=14						
	comp=Z,7.1nm,0.8s						
MJAR	Matsushiro Arr	25.31	233	eP	P	12 18 32.5	+1.4
MJAR				pmax	pmax		
	comp=Z,4.0nm,0.5s						
E24K	Your Creek	25.46	41	P	P	12 18 32.5	+0.2
COLA	College	25.59	48	i P	P	12 18 33.5	+0.2
COLA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
ILAR	Eielson Array	26.00	48	P	P	12 18 36.5	-0.6
	comp=Z,2.2nm,0.7s,baz=264,slow=8.6,SNR=26						
ILAR				PcP	PcP	12 22 05.1	+0.6
	comp=Z,0.2nm,0.6s,baz=237,slow=3.1,SNR=2.3						
	comp=Z,2.2nm,0.7s						
KSRS	Korea Array	29.71	248	P	P	12 19 10.9	+0.5
	comp=Z,0.9nm,0.9s,baz=54,slow=5.3,SNR=2.8						
	comp=Z,0.9nm,0.9s						
I30M	Mount Dempster	30.39	46	P	P	12 19 16.4	0.0
I30M				IAmb	IAmb	12 19 17.3	
	comp=Z,5.8nm,1.0s						
SONM	Songino Array	35.17	282	P	P	12 19 58.1	-0.3
	comp=Z,0.6nm,0.7s,baz=41,slow=8.2,SNR=2.8						
	comp=Z,0.6nm,0.7s						
H11N2	WAKE ISLAND Hy	35.61	174	T	T	12 57 52.4	
	baz=356						
H11N3	WAKE ISLAND Hy	35.62	174	T	T	12 57 51.1	
	baz=356						
H11N1	WAKE ISLAND Hy	35.63	174	T	T	12 58 09.0	
	baz=356						
HHC	Hu-ho-hao-te	36.48	269	eP	P	12 20 09.1	-0.5
HHC				pmax	pmax		
	comp=Z,7.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,110nm,5.2s						
HHC				LR	LR		
	comp=N,230nm,12.2s						
HHC				LR	LR		
	comp=E,190nm,12.4s						
HHC				LR	LR		
	comp=Z,110nm,13.7s						
H11S1	WAKE ISLAND Hy	36.81	174	T	T	12 59 28.7	
	baz=352						
H11S3	WAKE ISLAND Hy	36.83	174	T	T	12 59 35.0	
	baz=352						
H11S2	WAKE ISLAND Hy	36.83	174	T	T	12 59 47.0	
	baz=352						
YKA	Yellowknife Ar	40.33	45	P	P	12 20 41.9	+0.4
	comp=Z,4.2nm,0.6s,baz=298,slow=8.2,SNR=6.8						
	comp=Z,4.2nm,0.6s						
YKA	Yellowknife Ar	40.33	45	eP	P	12 20 42.1	+0.5
YKA				pmax	pmax		
	comp=Z,5.0nm,0.7s						
CLRS	Cowichan Lake	43.29	67	P	P	12 21 07.5	+1.6
CLRS				IAmb	IAmb	12 21 08.1	
	comp=Z,4.6nm,0.9s						
NLWA	Neilton Lookou	44.31	68	P	P	12 21 14.5	+0.3
NLWA				IAmb	IAmb	12 21 16.9	
	comp=Z,7.2nm,0.9s						
DGZ	Jazzator, Alta	44.32	296	i P	P	12 21 15.3	+0.9
DGZ				pmax	pmax		
	comp=Z,1.0nm,0.8s						
SPITS	Spitsbergen Ar	45.26	351	P	P	12 21 20.6	-0.7
	comp=Z,9.7nm,0.8s,baz=90,slow=5.8,SNR=7.5						
	comp=Z,9.7nm,0.8s						
WMQ	Urumqi	47.94	289	eP	P	12 21 45.0	+2.2
WMQ				LR	LR		
	comp=N,290nm,18.1s						
WMQ				LR	LR		
	comp=E,270nm,17.7s						
WMQ				LR	LR		
	comp=Z,71nm,19.1s						
KURK	Kurchatov	48.10	302	i P	P	12 21 45.8	+1.9
KURK				pmax	pmax		
	comp=Z,6.0nm,1.0s						
KURBB	Kurchatov Arra	48.20	302	P	P	12 21 41.9	-2.8
	comp=Z,0.8nm,0.4s,baz=53,slow=7.7,SNR=8.3						
	comp=Z,0.8nm,0.4s						
F10A	Beach Ranch, E	48.72	66	P	P	12 21 50.2	+1.4
F10A				IAmb	IAmb	12 22 28.2	
	comp=Z,2.7nm,0.9s						
MKAR	Makanchi Array	48.82	296	P	P	12 21 46.6	-2.9
	comp=Z,1.0nm,0.7s,baz=60,slow=7.2,SNR=10.0						
	comp=Z,1.0nm,0.7s						
MKAR	Makanchi Array	48.82	296	P	P	12 21 47.7	-1.8
MKAR	Makanchi Array	48.82	296	P	P	12 21 47.7	-1.8
JTMT	Jette	49.07	62	P	P	12 21 52.7	+1.2
BVAR	Borovoye Array	50.43	308	P	P	12 21 59.0	-2.7
	comp=Z,1.4nm,0.6s,baz=62,slow=8.7,SNR=3.9						
	comp=Z,1.4nm,0.6s						
BVAR	Borovoye Array	50.43	308	P	P	12 21 59.0	-2.7
ARCES	ARCESS Array B	51.75	342	P	P	12 22 11.4	+0.1
	comp=Z,1.7nm,0.9s,baz=19,slow=12,SNR=1.9						

	comp=Z,1.7nm,0.9s						
WAKR	**Walker**	**52.67**	**74**		**P**	**12 22 20.1**	**+1.3**
WAKR				IAmb	IAmb	12 22 32.9	
	comp=Z,5.9nm,1.2s						
ARTI	**Arti**	**53.09**	**318**	*i* P	**P**	**12 22 23.2**	**+1.8**
ARTI				pmax	pmax		
	comp=Z,2.0nm,1.1s						
NVAR	**Mina Array Bea**	**53.35**	**74**	P	**P**	**12 22 24.1**	**+0.2**
	comp=Z,1.7nm,0.8s,baz=299,slow=7.2,SNR=12						
	comp=Z,1.7nm,0.8s						
RLMT	**Red Lodge**	**53.39**	**62**		**P**	**12 22 25.1**	**+1.0**
PD31	**Pinedale Array**	**54.91**	**64**		**P**	**12 22 35.8**	**+0.5**
PD31				IAmb	IAmb	12 22 48.7	
	comp=Z,3.7nm,1.1s						
PDAR	**Pinedale Array**	**54.91**	**64**	P	**P**	**12 22 35.8**	**+0.5**
	comp=Z,1.7nm,0.7s,baz=321,slow=2.6,SNR=21						
	comp=Z,1.7nm,0.7s						
TPNV	**Topopah Spring**	**55.55**	**73**	P	**P**	**12 22 40.9**	**+1.1**
TPNV				pmax	pmax		
	comp=Z,4.0nm,1.1s						
TPNV	**Topopah Spring**	**55.55**	**73**		**P**	**12 22 40.9**	**+1.1**
TPNV				IAmb	IAmb	12 23 24.0	
	comp=Z,3.7nm,1.1s						
PRN	**Pahroc Range**	**55.87**	**72**		**P**	**12 22 43.4**	**+1.4**
PRN				IAmb	IAmb	12 22 44.8	
	comp=Z,4.0nm,0.8s						
ULM	**Lac du Bonnet**	**56.02**	**49**	P	**P**	**12 22 43.4**	**+0.7**
	comp=Z,3.3nm,0.9s,baz=271,slow=1.4,SNR=3.4						
	comp=Z,3.3nm,0.9s						
HMU	**Henry Mountain**	**57.80**	**69**		**P**	**12 22 57.0**	**+1.1**
PV05	**Paradox Valley**	**58.57**	**68**		**P**	**12 23 02.7**	**+1.4**
FINES	**FINESS Array B**	**58.80**	**338**	P	**P**	**12 23 00.9**	**-1.3**
	comp=Z,2.0nm,0.9s,baz=30,slow=6.8,SNR=1.2						
	comp=Z,2.0nm,0.9s						
BELG	**Belogornoye**	**60.19**	**320**	*i* P	**P**	**12 23 12.0**	**+0.1**
BELG				pmax	pmax		
	comp=Z,1.0nm,0.9s						
CMAR	**Chiang Mai Arr**	**60.37**	**259**	P	**P**	**12 23 12.0**	**-1.6**
	comp=Z,0.5nm,0.3s,baz=319,slow=4.5,SNR=4.4						
	comp=Z,0.5nm,0.3s						
CMAR	**Chiang Mai Arr**	**60.37**	**259**	P	**P**	**12 23 12.0**	**-1.6**
OBN	**Obninsk**	**61.61**	**328**	*e*P	**P**	**12 23 23.7**	**+2.2**
OBN				pmax	pmax		
	comp=Z,4.0nm,0.8s						
NB2	**NORSAR Subarra**	**61.91**	**345**	P	P	12 23 33.9	+10
	comp=Z,0.9nm,0.5s,baz=18,slow=6.9						
NOA	**NORSAR Array B**	**61.91**	**345**	P	**P**	**12 23 23.2**	**-0.3**
	comp=Z,1.3nm,0.9s,baz=19,slow=6.9,SNR=5.7						
	comp=Z,1.3nm,0.9s						
HFS	**Hagfors**	**62.39**	**343**	P	**P**	**12 23 25.0**	**-1.6**
	comp=Z,2.5nm,0.9s,baz=61,slow=8.9,SNR=1.8						
	comp=Z,2.5nm,0.9s						
HFS	**Hagfors**	**62.39**	**343**	P	**P**	**12 23 25.0**	**-1.6**
SCHQ	**Schefferville**	**62.86**	**30**	P	**P**	**12 23 28.3**	**-1.6**
	comp=Z,3.0nm,0.7s,baz=347,slow=7.0,SNR=4.0						
	comp=Z,3.0nm,0.7s						
AKASG	**Malin Array Be**	**67.63**	**330**	P	**P**	**12 24 00.8**	**0.0**
	comp=Z,1.2nm,0.5s,baz=28,slow=6.7,SNR=5.0						
	comp=Z,1.2nm,0.5s						
TXAR	**Lajitas Array**	**68.16**	**70**	P	**P**	**12 24 05.8**	**+1.2**
	comp=Z,0.6nm,0.6s,baz=300,slow=4.5,SNR=13						
	comp=Z,0.6nm,0.6s						
KBZ	**Khabaz**	**69.14**	**318**	*i* P	**P**	**12 24 12.8**	**+2.4**
KBZ				pmax	pmax		
	comp=Z,2.0nm,1.0s						
EKA	**Eskdalemuir Ar**	**69.17**	**352**	P	**P**	**12 24 09.8**	**-0.6**
	comp=Z,1.8nm,0.7s,baz=5.6,slow=6.3,SNR=3.4						
	comp=Z,1.8nm,0.7s						
GERES	**GERESS Array B**	**73.12**	**339**	P	**P**	**12 24 34.4**	**-0.2**
	comp=Z,0.3nm,0.2s,baz=359,slow=5.3,SNR=4.2						
	comp=Z,0.3nm,0.2s						
BRTR	**Keskin Array B**	**76.03**	**322**	P	**P**	**12 24 52.1**	**+0.5**
	comp=Z,0.7nm,0.6s,baz=98,slow=1.6,SNR=3.9						
	comp=Z,0.7nm,0.6s						
WRA	**Warramunga Arr**	**78.85**	**208**	P	**P**	**12 25 06.9**	**-0.4**
	comp=Z,0.5nm,0.7s,baz=20,slow=5.6,SNR=4.5						
	comp=Z,0.5nm,0.7s						
ASAR	**Alice Springs**	**82.52**	**207**	P	**P**	**12 25 26.7**	**-0.2**
	comp=Z,0.4nm,0.6s,baz=18,slow=5.6,SNR=8.4						
	comp=Z,0.4nm,0.6s						
ASAR	**Alice Springs**	**82.52**	**207**	*e*P	**P**	**12 25 27.1**	**+0.2**
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ESDC	**Sonseca Array**	**84.77**	**350**	P	**P**	**12 25 38.0**	**-0.4**
	comp=Z,1.1nm,0.8s,baz=12,slow=4.4,SNR=9.7						
	comp=Z,1.1nm,0.8s						
QSPA	**South Pole Qui**	**145.04**	**180**	PKPbc	**PKPbc**	**12 32 38.0**	**-1.7**
	comp=Z,1.0nm,0.7s,baz=128,slow=2.9,SNR=8.5						

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*NNC **13** 12:58:41.0±2.1, 49°.96N×78°.59E, h0^{km}, mb2.8, mpv2.3, Error ellipse: s-maj=49.3km s-min=7.8km az=76.0, Suspected Mining explosion.*

*IDC **13** 12:58:42.4±1.4, 50°.02N×78°.75E, h0^{km}, mbtmp2.4/2, ML1.9/2, Error ellipse: s-maj=11.6km s-min=9.9km az=34.0*

ISC 13 12:58:37.9±4.0**, 49°.97N**±0°.05×**77°.9E**±0°.3**, h0^{km}, n8, σ0^{s}.84**/11**, 8C-1D, Eastern Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KURBB	**Kurchatov Arra**	**0.76**	**30**	Pg	**Pb**	**12 58 53.7**	**-0.4**
	0.7nm,0.3s,baz=165,slow=19,SNR=16						
KURBB				Lg	Lg	12 59 03.5	
	0.7nm,0.3s,baz=167,slow=31,SNR=13						
KURBB	**Kurchatov Arra**	**0.76**	**30**	⇓P	**Pb**	**12 58 53.9**	**-0.2**
	6.5nm,0.5s						
KURBB				⇑S	**Sb**	**12 59 04.8**	**-0.3**
	25nm,0.6s						
KURK	**Kurchatov**	**0.87**	**30**	⇑P	**Pb**	**12 58 55.3**	**-0.7**
	1.0nm,0.4s						
KURK				⇑S	**Sg**	**12 59 06.0**	**+0.1**
	2.0nm,0.6s						
MAKZ	**Makanchi**	**4.16**	**138**	⇑Pn	**Pn**	**12 59 42.0**	**-0.6**
	3.2nm,1.3s						
MAKZ				⇑Lg	Lg	13 00 42.3	
	2.0nm,0.7s						
MK31	**Makanchi Array**	**4.30**	**136**	⇑Pn	**Pn**	**12 59 45.9**	**+1.2**
	0.1nm,0.2s,baz=319,slow=10,SNR=9.4						
MK31				⇑Pg	**Pb**	**12 59 53.2**	**-1.3**
	0.4nm,0.5s						
MK31				⇑Lg	Lg	13 00 47.5	
	1.6nm,0.7s,baz=334,slow=26,SNR=7.5						
MKAR	**Makanchi Array**	**4.30**	**136**	Pn	**Pn**	**12 59 45.5**	**+0.9**
	0.1nm,0.3s,baz=330,slow=14,SNR=7.4						
MKAR				Pg	**Pb**	**12 59 54.8**	**+0.4**
	0.2nm,0.3s,baz=322,slow=14,SNR=9.2						
MKAR				Lg	Lg	13 00 46.1	
	0.8nm,0.3s,baz=330,slow=25,SNR=10						
	0.1nm,0.4s						
MKAR				AML	AML		
I46RU	**ZALESOVO INFRA**	**5.84**	**44**	I	I	13 31 30.0	
	baz=225,slow=328,SNR=6.5						
ZALV	**Zalesovo Beam**	**5.84**	**44**	Pn	**Pn**	**13 00 06.3**	**+0.7**
	0.2nm,0.3s,baz=228,slow=14,SNR=2.6						
	0.4nm,0.3s						
ZALV				AML	AML		

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*NIED **13** 13:26:45.7, 33°.43N×140°.82E, h52^{km}, MW4.1, Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M$_{rr}$1.00; M$_{\theta\theta}$0.95; M$_{\phi\phi}$-1.95; M$_{r\theta}$-0.42; M$_{\theta\phi}$0.14; M$_{\phi r}$-0.18; Fault plane solution: M$_0$1.69000×10^{15} NP1: ϕ_s322.00000°, δ56.00000°, λ35.00000°. NP2: ϕ_s211.00000°, δ62.00000°, λ141.00000°.*

*JMA **13** 13:26:45.7±0.1, 33°.4N±0°.3×140°.8E±0°.3, h52^{km}±1^{km}, MD4.3/38, MV4.6/38, E OFF HACHIJOJIMA ISLAND*

*IDC **13** 13:26:47.3±1.4, 33°.31N×140°.67E, h64^{km}±11^{km}, mb3.7/21, mbtmp4.0/25, MS3.1/4, Error ellipse: s-maj=21.5km s-min=9.7km az=77.0*

*NEIC **13** 13:26:47.8±1.4, 33°.32N±0°.07×140°.68E±0°.10, h64^{km}±7^{km}, mb4.3/12, Error ellipse: s-maj=12.4km s-min=9.9km az=121.0*

ISC 13 13:26:44.7±1.6**, 33°.39N**±0°.06×**140°.90E**±0°.08**, h43**^{km}±13^{km}**, n81, σ1^{s}.41**/79**, mb4.1**/25**, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHJ2	**Mitsune**	**0.95**	**253**	P	**Pn**	**13 27 02.6**	**+1.0**
JHJ2	**Mitsune**	**0.95**	**253**		**Pn**	**13 27 02.1**	**+0.5**
JHJ2	**Mitsune**	**0.95**	**253**	P	**Pn**	**13 27 02.4**	**+0.9**
JHJ2				A	A	13 27 02.4	
	comp=N,29nm,0.3s,comp=E,46nm,0.2s						
JHJ2				*e*S	**Sn**	**13 27 15.1**	**+1.1**
JHJ	**Hachijo jima 2**	**0.97**	**254**	P	**Pn**	**13 27 02.4**	**+0.5**
	comp=E,6µm,0.3s,baz=240,slow=20,SNR=1489						
JHJ				S	**Sn**	**13 27 14.7**	**+0.1**
	comp=E,8µm,0.3s,baz=60,slow=24,SNR=18						
JHCJ	**Hachijojimakas**	**0.98**	**251**	P	**Pn**	**13 27 02.5**	**+0.6**
JHCJ				*e*S	**Sn**	**13 27 14.9**	**+0.3**
JMKN	**Mikurajimanish**	**1.20**	**295**	*e*P	**Pn**	**13 27 05.4**	**+0.4**
BSO1	**Boso 1**	**1.26**	**3**	P	**Pn**	**13 27 06.1**	**+0.7**
JMYK	**Miyake Tsubota**	**1.31**	**301**	P	**Pn**	**13 27 07.2**	**+0.7**
JMYK				A	A	13 27 07.2	
	comp=N,16nm,0.4s,comp=E,10.0nm,0.4s						
JAOM	**Aogashimamukai**	**1.33**	**226**	*e*P	**Pn**	**13 27 07.5**	**+0.7**
JAOM				A	A	13 27 07.5	
	comp=N,7.0nm,0.8s,comp=E,7.0nm,1.8s						
BSO3	**Boso 3**	**1.45**	**347**	*e*P	**Pn**	**13 27 08.7**	**+0.5**
BSO4	**Boso 4**	**1.67**	**344**	*e*P	**Pn**	**13 27 12.0**	**+0.7**
BSO4				*e*S	**Sn**	**13 27 32.6**	**+1.2**
JKO	**Kozu shima**	**1.67**	**299**	P	**Pn**	**13 27 12.3**	**+0.8**
JKO				*e*S	**Sn**	**13 27 31.5**	**-0.2**
JSKK	**Shikinejimakit**	**1.69**	**304**	*e*P	**Pn**	**13 27 12.2**	**+0.4**
JTHY	**Toshimahigashi**	**1.75**	**311**	*e*P	**Pn**	**13 27 13.4**	**+0.7**
JTHY				*e*S	**Sn**	**13 27 33.5**	**-0.2**
JIM2	**Oshima 3**	**1.80**	**318**	P	**Pn**	**13 27 13.6**	**+0.3**
JIM2				A	A	13 27 13.6	
	comp=N,7.0nm,0.3s,comp=E,8.0nm,0.7s						
JIZS	**Izushimoda**	**2.14**	**309**	*e*P	**Pn**	**13 27 19.0**	**+1.1**
JSG	**Sagara**	**2.59**	**300**	P	**Pn**	**13 27 26.3**	**+2.2**
JSG	**Sagara**	**2.59**	**300**		**Pn**	**13 27 26.1**	**+2.0**
JGF	**Kuroka**	**3.67**	**308**	P	**Pn**	**13 27 41.5**	**+2.6**
JGF	**Kuroka**	**3.67**	**308**		**Pn**	**13 27 41.6**	**+2.6**
MJAR	**Matsushiro Arr**	**3.84**	**326**	P	**Pn**	**13 27 43.2**	**+1.9**
	comp=E,25nm,0.3s,baz=152,slow=11,SNR=622						
MJAR				S	**Sn**	**13 28 27.1**	**+1.8**
	comp=E,30nm,0.5s,baz=166,slow=18,SNR=9.7						
MJAR				LR	LR	13 29 13.7	
	comp=E,161nm,20.6s,baz=151,slow=38						
MJAR	**Matsushiro Arr**	**3.84**	**326**		**Pn**	**13 27 43.5**	**+2.2**
MAJO	**Matsushiro**	**3.85**	**326**	P	**Pn**	**13 27 43.9**	**+2.5**
MAJO	**Matsushiro**	**3.85**	**326**		**Pn**	**13 27 43.8**	**+2.4**
MJB9	**Matsu-Tunnel**	**3.85**	**326**		**Pn**	**13 27 44.4**	**+2.9**
JMN	**Monobe**	**5.87**	**275**	P	**Pn**	**13 28 11.5**	**+2.3**
JMN	**Monobe**	**5.87**	**275**	Pn	**Pn**	**13 28 11.1**	**+1.8**
JTM	**Tenmabayashi**	**7.39**	**1**	P	**Pn**	**13 28 30.3**	**+0.4**
JNU	**Nakatsue**	**8.40**	**271**	P	**Pn**	**13 28 44.7**	**+0.8**
	comp=E,6.0nm,0.6s,baz=94,slow=8.1,SNR=9.7						
ERM	**Erimo**	**8.79**	**11**	P	**Pn**	**13 28 48.9**	**-0.3**
JEM	**Erimo**	**8.80**	**11**	P	**Pn**	**13 28 48.5**	**-0.7**
JKA	**Kamikawa-asahi**	**10.79**	**7**		Pn	13 29 14.8	-1.7
JKA					**Sn**	**13 31 12.1**	**-3.9**
ASAJ	**Asahikawa**	**10.79**	**7**	P	Pn	13 29 14.8	-1.7
	comp=E,3.4nm,0.3s,baz=200,slow=14,SNR=22						
ASAJ				S	**Sn**	**13 31 12.1**	**-3.9**
	comp=E,10nm,0.9s,baz=216,slow=19,SNR=1.9						
ASAJ				LR	LR	13 34 01.2	
	comp=E,94nm,21.0s,baz=164,slow=40						
KSRS	**Korea Array**	**11.34**	**295**	P	**Pn**	**13 29 23.4**	**-0.6**
	comp=E,0.7nm,0.7s,baz=106,slow=15,SNR=7.0						
KSRS				LR	LR	13 33 38.9	
	comp=E,41nm,20.8s,baz=45,slow=37						
KLR	**Kul'dur**	**17.23**	**339**	P	**P**	**13 30 44.4**	**+1.3**
	comp=E,1.6nm,0.6s,baz=165,slow=13,SNR=2.2						
NJ2	**Nanjing**	**18.60**	**272**	*e*P	**Pn**	**13 30 57.8**	**-1.1**
NJ2				pmax	pmax		
	comp=Z,16nm,0.5s						
NACB	**Ninganchiao**	**19.23**	**246**		**P**	**13 31 04.4**	**-0.9**
HEH	**HeiHe**	**19.57**	**333**	*e*P	**P**	**13 31 09.8**	**+1.0**
YULB	**Yu-li**	**19.89**	**245**	P	**P**	**13 31 10.5**	**-2.0**
YULB				IAmb	IAmb	13 31 40.6	
	comp=Z,14nm,1.3s						
GUMO	**Guam**	**20.04**	**169**	P	Pn	13 31 15.9	-0.2
	comp=Z,62nm,0.9s,baz=319,slow=20,SNR=4.0						
	comp=Z,62nm,0.9s						
HHC	**Hu-ho-hao-te**	**24.47**	**296**	*e*P	**P**	**13 32 01.9**	**+2.1**
HHC				pmax	pmax		
	comp=Z,10.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,100nm,4.5s						
HKPS	**Hong Kong Po S**	**26.05**	**252**	P	**P**	**13 32 11.3**	**-2.8**
H11N2	**WAKE ISLAND Hy**	**26.85**	**114**	T	T	14 01 24.3	
	baz=306,slow=75,SNR=213						
H11N1	**WAKE ISLAND Hy**	**26.85**	**114**	T	T	14 01 24.7	
	baz=306,slow=75,SNR=205						
H11N3	**WAKE ISLAND Hy**	**26.86**	**114**	T	T	14 01 24.8	
	baz=306,slow=75,SNR=185						
H11S3	**WAKE ISLAND Hy**	**27.43**	**116**	T	T	14 01 57.1	
	baz=307,slow=75,SNR=14						
H11S1	**WAKE ISLAND Hy**	**27.43**	**116**	T	T	14 01 54.5	
	baz=307,slow=75,SNR=12						
H11S2	**WAKE ISLAND Hy**	**27.44**	**116**	T	T	14 02 03.7	
	baz=307,slow=75,SNR=10						
SONM	**Songino Array**	**29.63**	**309**	P	**P**	**13 32 46.4**	**+0.4**
	comp=Z,0.7nm,0.6s,baz=109,slow=8.4,SNR=4.0						
	comp=Z,0.7nm,0.6s						
PZH	**PanZhiHua**	**34.47**	**269**	P	**P**	**13 33 29.1**	**+0.4**
ZALV	**Zalesovo Beam**	**44.13**	**315**	P	**P**	**13 34 48.4**	**-0.4**
	comp=Z,0.7nm,0.3s,baz=101,slow=8.1,SNR=5.9						
ZALV				PcP	**PcP**	**13 36 32.8**	**-0.3**
	comp=Z,0.3nm,0.3s,baz=116,slow=1.9,SNR=2.2						
	comp=Z,0.7nm,0.3s						
MKAR	**Makanchi Array**	**45.78**	**305**	P	**P**	**13 35 01.0**	**-1.0**
	comp=Z,1.8nm,0.6s,baz=88,slow=8.9,SNR=22						
	comp=Z,1.8nm,0.6s						
MKAR	**Makanchi Array**	**45.78**	**305**		**P**	**13 35 01.6**	**-0.4**
MAKZ	**Makanchi**	**46.00**	**305**		**P**	**13 35 03.5**	**-0.2**
MAKZ				IAmb	IAmb	13 35 06.3	
	comp=Z,2.4nm,0.7s						
KURK	**Kurchatov**	**47.92**	**311**		**P**	**13 35 18.3**	**-0.3**
KURK				IAmb	IAmb	13 35 24.9	
	comp=Z,3.8nm,0.8s						
KURBB	**Kurchatov Arra**	**47.98**	**311**	P	**P**	**13 35 18.3**	**-0.8**
	comp=Z,1.7nm,0.6s,baz=89,slow=7.7,SNR=13						
	comp=Z,1.7nm,0.6s						
PDGK	**Podgornoye**	**48.19**	**301**	P	**P**	**13 35 20.2**	**-0.8**
KNRA	**Kununurra**	**50.15**	**195**	P	**P**	**13 35 35.8**	**-0.1**
KNRA				IAmb	IAmb	13 35 36.9	
	comp=Z,2.5nm,0.6s						
BVAR	**Borovoye Array**	**52.76**	**314**	P	**P**	**13 35 55.5**	**+0.3**
	comp=Z,1.0nm,0.6s,baz=88,slow=9.2,SNR=4.7						
	comp=Z,1.0nm,0.6s						
ILAR	**Eielson Array**	**52.81**	**31**	P	**P**	**13 35 56.6**	**+1.2**
	comp=Z,0.3nm,0.6s,baz=268,slow=7.4,SNR=4.2						
	comp=Z,0.3nm,0.6s						
WRA	**Warramunga Arr**	**53.40**	**188**	P	**P**	**13 35 59.8**	**-0.4**
	comp=Z,14nm,0.5s,baz=5.7,slow=7.4,SNR=276						
WRA	**Warramunga Arr**	**53.40**	**188**		**P**	**13 35 58.9**	**-1.3**
KKAR	**Karatay Array**	**54.65**	**302**	P	**P**	**13 36 08.2**	**-1.0**
ASAR	**Alice Springs**	**57.13**	**188**	P	**P**	**13 36 26.4**	**-0.6**
	comp=Z,3.3nm,0.6s,baz=2.4,slow=6.7,SNR=65						
	comp=Z,3.3nm,0.6s						
ARTI	**Arti**	**58.95**	**320**	P	**P**	**13 36 39.4**	**0.0**
	comp=Z,2.1nm,0.5s,baz=101,slow=5.2,SNR=4.3						
	comp=Z,2.1nm,0.5s						
ABKAR	**Akbulak array**	**60.00**	**312**	P	**P**	**13 36 45.8**	**-1.0**
STKA	**Stephens Creek**	**64.92**	**179**	P	**P**	**13 37 19.1**	**-0.6**
	comp=Z,1.6nm,0.6s,baz=348,slow=6.4,SNR=4.0						
	comp=Z,1.6nm,0.6s						
ARCES	**ARCESS Array B**	**67.26**	**340**	P	**P**	**13 37 33.7**	**-0.7**
	comp=Z,1.2nm,0.8s,baz=59,slow=13,SNR=2.1						
	comp=Z,1.2nm,0.8s						
ARCES	**ARCESS Array B**	**67.26**	**340**	IAmb	IAmb	13 37 46.1	
	comp=Z,4.5nm,1.1s						
NWAO	**Narrogin (SRO)**	**69.63**	**201**	LR	LR	14 10 33.5	
	comp=Z,44nm,18.1s,baz=302,slow=38						
FINES	**FINESS Array B**	**71.85**	**333**	P	**P**	**13 38 02.0**	**-0.7**
	comp=Z,4.6nm,1.0s,baz=51,slow=6.5,SNR=4.3						
	comp=Z,4.6nm,1.0s						
KBZ	**Khabaz**	**72.97**	**311**	P	**P**	**13 38 09.8**	**+0.1**
	comp=Z,1.3nm,0.6s,baz=90,slow=2.0,SNR=3.9						
	comp=Z,1.3nm,0.6s						
AKASG	**Malin Array Be**	**76.93**	**323**	P	**P**	**13 38 31.6**	**-0.8**
	comp=Z,0.8nm,0.5s,baz=49,slow=6.5,SNR=6.7						
	comp=Z,0.8nm,0.5s						
AKASG	**Malin Array Be**	**76.93**	**323**	IAmb	IAmb	13 38 37.3	
	comp=Z,3.5nm,1.4s						
HFS	**Hagfors**	**77.23**	**336**	P	**P**	**13 38 32.3**	**-1.7**
	comp=Z,1.9nm,0.9s,baz=61,slow=8.9,SNR=1.8						
	comp=Z,1.9nm,0.9s						
NOA	**NORSAR Array B**	**77.38**	**337**	P	**P**	**13 38 35.7**	**+0.8**
	comp=Z,1.0nm,0.9s,baz=51,slow=7.9,SNR=1.4						
	comp=Z,1.0nm,0.9s						
NVAR	**Mina Array Bea**	**77.53**	**52**	P	**P**	**13 38 37.6**	**+1.2**
	comp=Z,0.1nm,0.3s,baz=309,slow=5.2,SNR=2.3						
	comp=Z,0.1nm,0.3s						
PDAR	**Pinedale Array**	**80.53**	**45**	P	**P**	**13 38 54.2**	**+1.5**
	comp=Z,0.1nm,0.4s,baz=320,slow=7.3,SNR=1.5						
	comp=Z,0.1nm,0.4s						
BRTR	**Keskin Array B**	**80.96**	**312**	P	**P**	**13 38 55.6**	**+0.7**
	comp=Z,0.4nm,0.4s,baz=46,slow=4.2,SNR=4.4						
	comp=Z,0.4nm,0.4s						
GERES	**GERESS Array B**	**85.58**	**328**	P	**P**	**13 39 18.9**	**+0.4**
	comp=Z,0.3nm,0.2s,baz=69,slow=5.7,SNR=1.3						
	comp=Z,0.3nm,0.2s						
TXAR	**Lajitas Array**	**92.68**	**52**	P	**P**	**13 39 54.5**	**+2.0**
	comp=Z,0.4nm,0.9s,baz=324,slow=5.7,SNR=2.4						
	comp=Z,0.4nm,0.9s						

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*IDC **13** 13:42:24.6±0.4, 49°.02N×142°.08E, h0^{km}, mb4.5/27, mbtmp4.4/34, ML3.5/8, MS4.1/68, Error ellipse: s-maj=8.9km s-min=7.5km az=139.0*

*SKHL **13** 13:42:24.1±0.5, 49°.00N×142°.30E, h10^{km}±1^{km}, mb6.3/1, Ms4.9/2, msh4.9/2*

SKHL Felt (V) at Uglegorsk, Krasnopol`e, Porech`e, (IV-V) at Ol`khovka, at (IV) Shakhtyorsk, Medvesh`e.

*MOS **13** 13:42:24.5±0.9, 48°.94N×142°.10E, h9^{km}, mb5.1/62, MS4.3/19, Error ellipse: s-maj=6.2km s-min=3.8km az=104.8*

MOS Felt (V-VI) at Krasnopol'ye, Nikol'skoye, Uglegorsk; (V) at Porech'ye; (IV-V) at Ol'khovka; (IV) at Medvezh'ye, Shakhtersk.

*BJI **13** 13:42:24.8, 49°.00N×142°.10E, h10^{km}, mB5.0/19, mb4.6/59, Ms5.2/59, Ms7 5.0/55*

*NEIC **13** 13:42:26.4±1.1, 48°.93N±0°.04×142°.09E±0°.09, h10^{km}±1^{km}, mb5.0/474, Error ellipse: s-maj=10.5km s-min=6.9km az=292.0*

*GFZ **13** 13:42:26.8±0.1, 49°N±3°×14°2E±°, h10^{km}, M5.1/92, mb4.8/92, confirmed*

*GCMT **13** 13:42:27.4±0.2, 48°.93N±0°.03×142°.08E±0°.03, h14^{km}±1^{km}, MW4.8/79, Moment Tensor Solution. s13,c13; s79,c125; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$1.32±.15; M$_{\theta\theta}$0.21±.09; M$_{\phi\phi}$-1.53±.10; M$_{r\theta}$0.65±.22; M$_{\theta\phi}$0.99±.05; M$_{\phi r}$-0.06±.17; Best double couple: M$_0$1.83800×10^{16} NP1:ϕ_s3.00000°, δ47.00000°, λ132.00000°. NP2: ϕ_s130.00000°, δ57.00000°, λ55.00000°. Principal axes: T 1.6640, Plg60.0000°, Azm345.0000°; N 0.3500, Plg29.0000°, Azm151.0000°; P -2.0110, Plg6.0000°, Azm244.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 13 13:42:26.5±0.6**, 48°.96N**±0°.02×**142°.15E**±0°.03**, h12**^{km}±3^{km}**, n801, σ1^{s}.29**/603**, mb4.9**/414**, MS4.2**/88**, 37C-29D, Sakhalin Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
UGL	**Uglegorsk**	**0.13**	**336**	⇑*e*PN	**Pg**	**13 42 29.0**	**-0.7**
UGL				*e*S	**Sg**	**13 42 31.3**	**-0.8**
UGL				smax	smax		
	comp=N,265µm,0.6s						
UGL				smax	smax		
	comp=E,228µm,0.5s						
UGL	**Uglegorsk**	**0.13**	**336**	*i* Pg	**Pg**	**13 42 28.8**	**-0.9**
UGL				AMB	AMB	13 42 29.9	
	comp=E,274µm,0.7s						
UGL				*i* Sg	**Sg**	**13 42 32.4**	**+0.3**
UGL				A	A	13 42 33.0	
	comp=E,412µm,0.6s						
UGL				A	A	13 42 33.0	
	comp=E,609µm,0.6s						
KHLM	**Kholmsk**	**1.91**	**182**	*e*Pg	**Pb**	**13 43 00.3**	**-0.9**
KHLM				*e*Sg	**Sb**	**13 43 24.9**	**-0.1**
TYV	**Tymovskoe**	**1.93**	**10**	*e*PN	**Pn**	**13 42 59.1**	**-0.1**
TYV				*e*S	**Sn**	**13 43 24.5**	**+1.1**
TYV				pmax	pmax		
	comp=Z,258nm,0.9s						
TYV				smax	smax		
	comp=N,789nm,1.2s						
TYV				smax	smax		
	comp=E,2µm,1.2s						
TYV	**Tymovskoe**	**1.93**	**10**	*e*P	**Pn**	**13 42 58.8**	**-0.4**
TYV				*e*Pg	**Pb**	**13 43 02.2**	**+0.5**
TYV				AMB	AMB	13 43 06.3	
	comp=E,1µm,1.0s						
TYV				*e*Sg	**Sg**	**13 43 28.3**	**-0.4**
TYV				A	A	13 43 32.2	
	comp=E,3µm,1.2s						
TYV				A	A	13 43 32.2	
	comp=E,3µm,1.2s						
YSS	**Yuzhno-Sakhali**	**2.05**	**168**	α*e*PN	**Pn**	**13 42 59.7**	**-1.1**
YSS				*e*		13 43 27.7	
YSS				pmax	pmax		
	comp=Z,1µm,0.9s						
YSS				smax	smax		
	comp=N,2µm,0.8s						
YSS				smax	smax		
	comp=E,1µm,0.6s						
YSS				smax	smax		
	comp=N,7µm,3.1s						
YSS				smax	smax		
	comp=E,9µm,2.9s						
YSS				MLR	MLR		
	comp=Z,8µm,11.0s						
YSS				MLR	MLR		
	comp=N,8µm,8.0s						
YSS				MLR	MLR		
	comp=E,16µm,11.0s						
YSS	**Yuzhno-Sakhali**	**2.05**	**168**		**Pn**	**13 42 59.7**	**-1.1**
YSS	**Yuzhno-Sakhali**	**2.05**	**168**	*e*P	**Pn**	**13 42 59.9**	**-0.9**
YSS				*e*Pg	**Pg**	**13 43 04.9**	**-0.9**
YSS				AMB	AMB	13 43 06.8	
	comp=E,1µm,0.9s						
YSS				*e*S	**Sn**	**13 43 24.5**	**-1.7**
YSS				*e*Sg	**Sg**	**13 43 31.2**	**-1.1**
YSS				A	A	13 43 31.8	
	comp=E,7µm,3.0s						
YSS				A	A	13 43 31.8	
	comp=E,9µm,3.0s						
YSS				A	A	13 43 33.0	
	comp=E,2µm,0.7s						
YSS				A	A	13 43 33.0	
	comp=E,2µm,0.7s						
YSS				AMS	AMS	13 43 53.3	
	comp=E,8µm,10.0s						
YSS				AMS	AMS	13 43 53.3	
	comp=E,16µm,10.0s						
YSS				AMS	AMS	13 43 53.3	
	comp=E,8µm,10.0s						
YSS	**Yuzhno-Sakhali**	**2.05**	**168**	P	**Pn**	**13 42 59.8**	**-1.1**
KRS4	**Mayak Korsakov**	**2.39**	**169**	*e*P	**Pn**	**13 43 07.2**	**+1.7**
KRS4				*e*Pg	**Pg**	**13 43 12.2**	**-0.2**
KRS4				AMB	AMB	13 43 14.5	
	comp=E,2µm,0.7s						
KRS4				*e*Sg	**Sg**	**13 43 45.5**	**+2.1**
KRS4				A	A	13 43 54.1	
	comp=E,5µm,1.0s						
GRNR	**Gornyy**	**4.12**	**298**	⇓*i*PN	**Pn**	**13 43 28.6**	**-0.7**
GRNR				pmax	pmax		
	comp=Z,7.0nm,0.4s						
GRNR	**Gornyy**	**4.12**	**298**	*e*P	**Pn**	**13 43 28.9**	**-0.4**
NKL	**Nikolayevsk**	**4.30**	**348**	*e*PN	**Pn**	**13 43 31.4**	**-0.2**
NKL				pmax	pmax		
	comp=N,1µm,1.2s						
NKL				pmax	pmax		
	comp=E,3µm,1.1s						
NKL				MLR	MLR		
	comp=N,17µm,10.0s						
NKL				MLR	MLR		
	comp=E,9µm,10.0s						
NKL				MLR	MLR		
	comp=Z,18µm,12.0s						
NKL	**Nikolayevsk**	**4.30**	**348**	*e*P	**Pn**	**13 43 31.1**	**-0.5**
NKL				*e*Pg	**Pg**	**13 43 47.6**	**-1.2**
NKL				AMB	AMB	13 43 48.0	
	comp=Z,4µm,3.0s						
NKL				AMB	AMB	13 43 51.1	
	comp=Z,720nm,1.2s						
NKL				*e*Sg	**Sg**	**13 44 47.5**	**+3.1**
NKL				A	A	13 44 52.4	
	comp=Z,10µm,2.0s						
NKL				A	A	13 44 52.4	
	comp=Z,5µm,2.0s						
NKL				A	A	13 44 53.2	
	comp=Z,4µm,1.6s						
NKL				AMS	AMS	13 45 32.6	
	comp=Z,17µm,10.0s						
NKL				AMS	AMS	13 45 32.6	
	comp=Z,9µm,10.0s						
NKL				AMS	AMS	13 45 32.6	
	comp=Z,18µm,10.0s						

KHBR	Khabarovsk	4.72	267	eP	Pn	13 43 37.8	+0.3
KHBR				ePg	Pg	13 43 59.6	+2.8
KHBR				AMB	AMB	13 44 00.2	
	comp=Z,140nm,0.5s						
ASAJ	Asahikawa	4.86	176	Pn	Pn	13 43 38.7	-0.6
	comp=Z,5.6nm,0.3s,baz=359,slow=8.9,SNR=43						
ASAJ				Sn	Sn	13 44 34.7	-0.7
	baz=354,slow=19						
ASAJ				Lg	Lg	13 45 01.7	
	comp=Z,1.3nm,0.3s,baz=338,slow=19,SNR=4.8						
ASAJ				LR	LR	13 45 49.1	
	comp=Z,1µm,18.7s,baz=57,slow=42						
	comp=Z,22nm,0.4s						
ASAJ				AML	AML		
ASAJ	Asahikawa	4.86	176	PN	Pn	13 43 38.9	-0.5
JKA	Kamikawa-asahi	4.86	176		Pn	13 43 38.9	-0.4
JKA	Kamikawa-asahi	4.86	176		Sn	13 44 34.7	-0.7
JKA	Kamikawa-asahi	4.86	176	eP	Pn	13 43 38.9	-0.4
JKA	Kamikawa-asahi	4.86	176	P	Pn	13 43 40.0	+0.6
RUSJ	Misakicho	5.31	155	⇓iPN	Pn	13 43 45.3	-0.3
KUR	Kuril'sk	5.40	132	ePN	Pn	13 43 45.1	-1.7
KUR				pmax	pmax		
	comp=Z,74nm,0.6s						
KUR				pmax	pmax		
	comp=E,37nm,1.1s						
KUR				pmax	pmax		
	comp=N,34nm,0.5s						
KUR				MLR	MLR		
	comp=Z,900nm,9.0s						
KUR	Kuril'sk	5.40	132	eP	Pn	13 43 45.1	-1.7
KUR				AMB	AMB	13 43 56.5	
	comp=Z,70nm,0.6s						
TEY	Ternei	5.46	226	ePN	Pn	13 43 42.5	-5.1
YUK	Yuzh-Kuril'sk	5.55	151	ePN	Pn	13 43 49.6	+0.7
YUK				pmax	pmax		
	comp=Z,25nm,0.4s						
YUK	Yuzh-Kuril'sk	5.55	151	eP	Pn	13 43 48.6	-0.3
YUK				AMB	AMB	13 43 49.3	
	comp=Z,250nm,0.8s						
YUK				eS	Sn	13 44 52.0	-0.7
YUK				A	A	13 44 57.0	
	comp=Z,440nm,1.0s						
NMR	Nemuro--Hokkai	6.12	155	⇓iPN	Pn	13 43 57.1	+0.4
NMR	Nemuro--Hokkai	6.12	155	eP	Pn	13 43 57.1	+0.4
KLR	Kul'dur	6.83	276	Pn	Pn	13 44 05.8	-0.7
	comp=Z,1.4nm,0.3s,baz=96,slow=18,SNR=7.5						
KLR				Sn	Sn	13 45 23.5	-0.7
	comp=Z,2.5nm,0.3s,baz=89,slow=18,SNR=4.3						
KLR				Lg	Lg	13 45 56.9	
	comp=Z,3.0nm,0.3s,baz=72,slow=19,SNR=5.4						
KLR				LR	LR	13 46 57.6	
	comp=Z,4µm,21.4s,baz=94,slow=40						
KLR				AML	AML		
KLR	Kul'dur	6.83	276	ePN	Pn	13 44 05.6	-0.9
KLR				pmax	pmax		
	comp=Z,3.0nm,0.7s						
KLR	Kul'dur	6.83	276	eP	Pn	13 44 08.1	+1.6
ERM	Erimo	6.98	174	i PN	Pn	13 44 12.3	+3.8
EKMR	Ekimchan	7.11	309	eP	Pn	13 44 11.5	+1.2
EKMR				AMB	AMB	13 44 14.5	
	comp=Z,10.0nm,1.0s						
USA0B	Ussuriysk Arra	8.46	240	PN	Pn	13 44 28.1	-0.7
USA0B	Ussuriysk Arra	8.46	240	Pn	Pn	13 44 28.1	-0.7
USRK	Ussuriysk Ar.	8.46	240	Pn	Pn	13 44 28.6	-0.3
	comp=Z,0.5nm,0.3s,baz=54,slow=14,SNR=7.4						
USRK				Lg	Lg	13 46 49.4	
	comp=Z,1.0nm,0.3s,baz=53,slow=27,SNR=5.9						
	comp=Z,3.1nm,0.7s						
USRK				AML	AML		
SKR	Severo-Kuril's	9.20	74	i PN	Pn	13 44 42.3	+3.4
SKR	Severo-Kuril's	9.20	74	eP	Pn	13 44 42.3	+3.4
VLA	Vladivostok	9.22	235	i PN	Pn	13 44 39.1	-0.1
VLA	Vladivostok	9.22	235	eP	Pn	13 44 39.1	-0.1
HEH	HeiHe	9.65	283	eP	Pn	13 44 47.0	+1.8
HEH				S	Sn	13 46 34.8	+1.3
HEH				SMN			
	comp=Z,710nm,1.3s						
HEH				SME			
	comp=Z,240nm,1.7s						
HEH				L	L		
	comp=Z,5µm,10.0s						
HEH				L	L		
	comp=Z,8µm,8.7s						
HEH				L	L		
	comp=Z,11µm,9.2s						
ZEA	Zeya	10.47	303	ePN	Pn	13 44 57.3	+1.0
ZEA				pmax	pmax		
	comp=E,10.0nm,0.4s						
ZEA				pmax	pmax		
	comp=Z,10.0nm,0.8s						
ZEA				MLR	MLR		
	comp=N,2µm,8.0s						
ZEA				MLR	MLR		
	comp=E,2µm,8.0s						
ZEA				MLR	MLR		
	comp=Z,2µm,6.0s						
ZEA	Zeya	10.47	303	eP	Pn	13 44 57.3	+1.0
ZEA				AMB	AMB	13 45 00.0	
	comp=Z,10.0nm,0.8s						
BNX	BinXian	10.51	258	⇓P	Pn	13 45 00.1	+3.2
BNX				L	L		
	comp=Z,560nm,1.2s						
BNX				L	L		
	comp=Z,670nm,1.4s						
PEA0B	Petropavlovsk-	10.63	61	cePN	Pn	13 45 00.4	+1.8
PEA0B	Petropavlovsk-	10.63	61	Pn	Pn	13 45 00.5	+1.9
PETK	Petropavlovsk-	10.63	61	Pn	Pn	13 44 58.9	+0.3
	comp=Z,0.6nm,0.3s,baz=247,slow=9.2,SNR=13						
PETK				Sn	Sn	13 47 03.1	+5.6
	comp=Z,0.1nm,0.3s,baz=231,slow=20,SNR=1.5						
PETK				LR	LR	13 49 18.0	
	comp=Z,2µm,18.8s,baz=219,slow=39						
	comp=Z,6.5nm,0.9s						
PETK				AML	AML		
PET	Petropavlovsk	11.17	62	i PN	Pn	13 45 08.7	+2.9
PET				pmax	pmax		
	comp=Z,4.0nm,0.6s						
PET	Petropavlovsk	11.17	62	eP	Pn	13 45 08.7	+2.9
MA2	Magadan	11.76	22	Pn	Pn	13 45 12.1	-1.7
	comp=Z,13nm,0.8s,baz=209,slow=10.0,SNR=5.7						
MA2				LR	LR	13 50 17.8	
	comp=Z,541nm,19.2s,baz=210,slow=40						
MA2	Magadan	11.76	22	cePN	Pn	13 45 15.9	+2.0
MA2				pmax	pmax		
	comp=Z,49nm,1.7s						
MA2	Magadan	11.76	22		Pn	13 45 15.3	+1.4
MA2	Magadan	11.76	22	eP	Pn	13 45 15.9	+2.0
MA2	Magadan	11.76	22	P	Pn	13 45 14.5	+0.6
	comp=Z,36nm,1.9s						
CN2	Changchun	12.62	252	P	P	13 45 32.3	-5.0
CN2				pmax	pmax		
	comp=Z,10.0nm,1.3s						
CN2				L	L		
	comp=Z,2µm,12.0s						
CN2				L	L		
	comp=Z,2µm,12.0s						
CN2				L	L		
	comp=Z,2µm,12.0s						
MAJO	Matsushiro	12.74	195	i PN	Pn	13 45 28.0	+0.5
MJAR	Matsushiro Arr	12.74	195	Pn	Pn	13 45 27.0	-0.5
	baz=12,slow=13,SNR=4.6						
MJAR				LR	LR	13 50 43.4	
	comp=Z,479nm,18.1s,baz=20,slow=39						
	comp=Z,3.0nm,1.1s						
MJAR	Matsushiro Arr	12.74	195	PN	Pn	13 45 27.0	-0.5
HILR	Hailar Array B	14.63	281	Pn	Pn	13 45 50.8	-2.4
	baz=107,slow=20						
HILR				Lg	Lg	13 50 07.2	
	baz=94,slow=39						
HILR				LR	LR	13 51 50.9	
	comp=Z,1µm,18.8s,baz=80,slow=39						
	comp=Z,0.8nm,0.3s						
HIA	Hailar	14.67	280	P	Pn	13 45 55.2	+1.4
HIA	Hailar	14.67	280	P	Pn	13 45 56.1	+2.3
	comp=Z,37nm,1.5s						
YAK	Yakutsk	14.84	337	deP	Pn	13 45 54.8	-1.2
YAK				pmax	pmax		
	comp=Z,81nm,2.5s						
YAK				MLR	MLR		
	comp=Z,1µm,12.0s						
YAK	Yakutsk	14.84	337		Pn	13 45 54.7	-1.2
YAK	Yakutsk	14.84	337	eP	Pn	13 45 54.8	-1.2
YAK	Yakutsk	14.84	337	P	Pn	13 45 55.0	-1.0
	comp=Z,46nm,1.1s						
SNY	Shenyang	14.85	248	P	P	13 45 59.9	-2.0
SNY				pmax	pmax		
	comp=Z,18nm,2.0s						
SEY	Seymchan	15.10	18	Pn	Pn	13 45 57.2	-2.3
	comp=Z,0.1nm,0.3s,baz=210,slow=12,SNR=12						
SEY				LR	LR	13 52 34.6	
	comp=Z,550nm,18.2s,baz=198,slow=40						
	comp=Z,7.3nm,0.9s						
SEY				AML	AML		
SEY	Seymchan	15.10	18	eP	Pn	13 45 55.7	-3.8
SEY				pmax	pmax		
	comp=Z,53nm,1.7s						
SEY	Seymchan	15.10	18	eP	Pn	13 45 55.7	-3.8
KSRS	Korea Array	15.45	227	Pn	Pn	13 46 04.0	-0.2
	comp=Z,0.2nm,0.3s,baz=39,slow=12,SNR=5.7						
KSRS				LR	LR	13 51 18.5	
	comp=Z,848nm,21.3s,baz=40,slow=34						
KSRS				AML	AML		
JHJ	Hachijo jima 2	15.92	187	LR	LR	13 52 53.8	
	comp=Z,393nm,18.0s,baz=141,slow=39						
DL2	Dalian	17.82	243	P	Pn	13 46 34.0	-0.2
DL2				eS	Sn	13 49 55.5	+2.9
DL2				pmax	pmax		
	comp=Z,31nm,0.9s						
DL2				pmax	pmax		
	comp=Z,830nm,4.1s						
DL2				L	L		
	comp=Z,3µm,17.1s						
DL2				L	L		
	comp=Z,3µm,16.8s						
DL2				L	L		
	comp=Z,3µm,16.0s						
JNU	Nakatsue	17.93	212	LR	LR	13 53 11.8	
	comp=Z,1µm,18.6s,baz=30,slow=36						
CIT	Chita	18.40	290	eP	Pn	13 46 43.1	+1.8
CIT				e		13 49 54.5	
CIT				pmax	pmax		
	comp=Z,228nm,2.6s						
CIT	Chita	18.40	290	eP	Pn	13 46 43.1	+1.8
XLT	XiLinHaoTe	18.62	264	eP	Pn	13 46 46.8	+2.7
XLT				sP	sP	13 46 53.6	+4.8
XLT				sS	sS	13 50 21.8	+0.6
XLT				pmax	pmax		
	comp=Z,50nm,1.5s						
XLT				L	L		
	comp=Z,7µm,11.4s						
XLT				L	L		
	comp=Z,9µm,11.0s						
SHEM	Shemya Is, Ala	20.43	67	LR	LR	13 54 27.3	
	comp=Z,553nm,21.1s,baz=306,slow=35						
BJI2	Beijing	20.49	254	P	P	13 47 04.9	+0.7
BJI2				pmax	pmax		
	comp=Z,7.0nm,1.2s						
BJI2				L	L		
	comp=Z,1µm,12.0s						
BJT	Baijiatuau	20.49	254	P	Pn	13 47 05.4	-1.0
BJT	Baijiatuau	20.49	254	P	P	13 47 04.4	+0.2
	comp=Z,25nm,1.9s						
TIA	Tai'an	22.28	244	P	P	13 47 24.8	+1.3
TIA				S	S	13 51 32.5	+4.2
TIA				pmax	pmax		
	comp=Z,10.0nm,0.8s						
TIA				L	L		
	comp=Z,2µm,14.2s						
TIA				L	L		
	comp=Z,3µm,12.9s						
TIA				L	L		
	comp=Z,4µm,15.1s						
BILL	Bilibino	22.62	24	ceP	P	13 47 28.0	+1.2
BILL				pmax	pmax		
	comp=Z,34nm,1.0s						
BILL				MLR	MLR		
	comp=Z,721nm,19.0s						
BILL	Bilibino	22.62	24	P	P	13 47 28.2	+1.3
BILL	Bilibino	22.62	24	eP	P	13 47 28.0	+1.2
BILI	Bilibino, Chuk	22.68	24	P	P	13 47 27.8	+0.3
	comp=Z,35nm,1.1s						
HNS	HongShan	22.97	250	⇑P	P	13 47 30.8	0.0
HNS				S	S	13 51 42.3	+1.5
HNS				L	L		
	comp=Z,2µm,11.8s						
HNS				L	L		
	comp=Z,2µm,13.5s						
HNS				L	L		
	comp=Z,2µm,13.5s						
HHC	Hu-ho-hao-te	23.01	261	eP	P	13 47 28.5	-2.8
HHC				S	S	13 51 33.4	-8.2
HHC				pmax	pmax		
	comp=Z,15nm,0.6s						
HHC				pmax	pmax		
	comp=Z,130nm,4.9s						
HHC				L	L		
	comp=Z,2µm,11.2s						
HHC				L	L		
	comp=Z,3µm,11.2s						
HHC				L	L		
	comp=Z,3µm,11.7s						
ULN	Ulaanbaatar	23.20	281	deP	P	13 47 33.5	+0.3
ULN				pmax	pmax		
	comp=Z,45nm,1.7s						
ULN	Ulaanbaatar	23.20	281		P	13 47 32.2	-1.0
ULN	Ulaanbaatar	23.20	281	P	P	13 47 32.6	-0.6
	comp=Z,2µmcomp=Z,90nm,1.3s						
ULN	Ulaanbaatar	23.20	281	eP	P	13 47 33.5	+0.3
ULN	Ulaanbaatar	23.20	281	P	P	13 47 33.6	+0.3
	comp=Z,23nm,1.3s						
TIXI	Tiksi	23.58	350	LR	LR	13 56 19.7	
	comp=Z,77nm,19.1s,baz=166,slow=36						
TIXI	Tiksi	23.58	350	ceP	P	13 47 36.3	-0.3
TIXI				pmax	pmax		
	comp=Z,62nm,2.5s						
TIXI				MLR	MLR		
	comp=Z,440nm,13.0s						
TIXI	Tiksi	23.58	350		P	13 47 35.8	-0.7
SONM	Songino Array	23.63	281	P	P	13 47 37.2	-0.4
	comp=Z,12nm,1.1s,baz=66,slow=6.8,SNR=32						
SONM				PcP	PcP	13 51 22.0	+0.1
	comp=Z,1.3nm,0.8s,baz=78,slow=4.1,SNR=4.7						
SONM				LR	LR	13 57 40.5	
	comp=Z,997nm,19.4s,baz=77,slow=39						
	comp=Z,12nm,1.1s						
SONM	Songino Array	23.63	281	P	P	13 47 37.1	-0.4
SONM						13 51 22.0	
SONM				pmax	pmax		
	comp=Z,36nm,1.5s						
SONM	Songino Array	23.63	281		P	13 47 37.1	-0.4
SSE	Sheshan	23.87	229	P	P	13 47 39.1	-0.6
SSE				S	S	13 52 00.8	+5.4
SSE				pmax	pmax		
	comp=Z,4.0nm,0.6s						
SSE				pmax	pmax		
	comp=Z,98nm,3.5s						
SSE				L	L		
	comp=Z,430nm,12.0s						
SSE				L	L		
	comp=Z,320nm,12.0s						
IRK	Irkutsk	24.08	292	eP	P	13 47 38.2	-3.4
IRK				pmax	pmax		
	comp=Z,126nm,1.8s						
IRK	Irkutsk	24.08	292	eP	P	13 47 38.2	-3.4
BTO2	Baotou	24.16	262	eP	P	13 47 41.8	-0.8
BTO2				sP	sP	13 47 49.0	+1.3
BTO2				PP	PnPn	13 48 18.1	+6.4
BTO2				S	S	13 52 00.1	-0.2
BTO2				pmax	pmax		
	comp=Z,21nm,0.7s						
BTO2				pmax	pmax		
	comp=Z,690nm,5.6s						
NJ2	Nanjing	24.32	235	eP	P	13 47 43.6	-0.3
NJ2				S	S	13 52 05.3	+2.6
NJ2				pmax	pmax		
	comp=Z,11nm,0.5s						
NJ2				pmax	pmax		
	comp=Z,200nm,4.9s						
NJ2				L	L		
	comp=Z,900nm,11.7s						
NJ2				L	L		
	comp=Z,820nm,12.6s						
NJ2				L	L		
	comp=Z,2µm,15.9s						
JMZ	Minamidaito 2	24.62	204	P	P	13 47 54.2	+7.5
ZAK	Zakamensk	25.00	288	eP	P	13 47 50.2	+0.1
ZAK				pmax	pmax		
	comp=Z,26nm,2.1s						
ZAK	Zakamensk	25.00	288	eP	P	13 47 50.2	+0.1
KIWB	Kanaga Island	25.86	68	P	P	13 47 57.3	-0.5
LYN	LuoYang	26.20	248	P	P	13 48 01.5	+0.5
LYN				S	S	13 52 35.3	+2.6
LYN				pmax	pmax		
	comp=Z,28nm,1.3s						
LYN				L	L		
	comp=Z,2µm,11.4s						
LYN				L	L		
	comp=Z,3µm,12.3s						
LYN				L	L		
	comp=Z,5µm,12.8s						
KNGR	Kungurtug, Tuv	28.54	290	i P	P	13 48 22.7	+0.7
KNGR				pmax	pmax		
	comp=Z,5.0nm,1.0s						
KNGR				MLR	MLR		
	comp=Z,912nm,16.0s						
LZH	Lanzhou	30.68	260	eP	P	13 48 41.9	+0.7
LZH				sP	sP	13 48 48.3	+2.0
LZH				pmax	pmax		
	comp=Z,13nm,1.0s						
LZH				L	L		
	comp=Z,2µm,15.1s						
LZH				L	L		
	comp=Z,3µm,13.2s						
LZH				L	L		
	comp=Z,3µm,16.7s						
LZDM	Lanzhou Array	30.86	260	P	P	13 48 42.5	-0.4
	comp=Z,1.2nm,0.4s,baz=49,slow=15,SNR=4.4						
LZDM				LR	LR	14 00 55.2	
	comp=Z,758nm,21.2s,baz=60,slow=36						
	comp=Z,1.2nm,0.4s						
GTA2	Gaotai	31.45	269	eP	P	13 48 48.3	+0.4
GTA2				pmax	pmax		
	comp=Z,5.0nm,1.3s						
GTA2				L	L		
	comp=Z,1µm,13.3s						
GTA2				L	L		
	comp=Z,3µm,13.7s						
GTA2				L	L		
	comp=Z,5µm,13.6s						
K13K	Kusilvak Mount	31.86	46	P	P	13 48 52.5	+1.5
G16K	Koyuk River	32.94	39	P	P	13 49 01.4	+1.0
G16K				IAmb	IAmb	13 49 02.1	
	comp=Z,28nm,1.2s						
NRIK	Noril'sk	33.00	328	LR	LR	14 02 11.0	
	comp=Z,156nm,19.8s,baz=102,slow=36						
NRIK	Noril'sk	33.00	328	i P	P	13 49 01.2	+0.2
NRIK				pmax	pmax		
	comp=Z,6.0nm,1.5s						
NRIK				MLR	MLR		
	comp=Z,191nm,15.0s						
M14K	Bethel	33.22	48	P	P	13 49 04.3	+1.4
F17K	Baldwin Pennin	33.44	38	P	P	13 49 06.1	+1.3
F17K				IAmb	IAmb	13 49 06.6	
	comp=Z,19nm,1.1s						
CD2	Chengdu	34.06	252	P	P	13 49 10.3	-0.3
CD2				pmax	pmax		
	comp=Z,20nm,0.8s						
CD2				L	L		
	comp=Z,1µm,12.1s						
CD2				L	L		
	comp=Z,1µm,12.1s						
CD2				L	L		
	comp=Z,2µm,12.7s						
L16K	Owhat River	34.33	46	P	P	13 49 13.7	+1.2
O15K	Ungalikthiuk R	34.47	51	P	P	13 49 14.9	+1.0
O15K				IAmb	IAmb	13 49 16.1	
	comp=Z,34nm,1.2s						
F19K	Shaleruckik Mo	34.84	37		P	13 49 16.9	0.0
DGZ	Jazzator, Alta	35.00	292	i P	P	13 49 18.9	+0.2
DGZ				pmax	pmax		
	comp=Z,3.0nm,0.9s						
DGZ				MLR	MLR		
	comp=Z,207nm,12.0s						
G19K	Purcell Mounta	35.12	38	IAmb	IAmb	13 49 20.5	
	comp=Z,13nm,0.9s						
B20K	Meade River	35.20	31		P	13 49 20.2	+0.2
ZAA0	Zalesovo Array	35.22	300	P	P	13 49 19.3	-1.0
ZALV	Zalesovo Beam	35.22	300	P	P	13 49 19.0	-1.3
	comp=Z,5.0nm,0.8s,baz=69,slow=7.9,SNR=22						
ZALV				PcP	PcP	13 51 50.1	-0.9
	comp=Z,4.1nm,1.1s,baz=73,slow=2.0,SNR=6.1						
ZALV				LR	LR	14 03 04.3	
	comp=Z,193nm,19.0s,baz=68,slow=35						
	comp=Z,5.0nm,0.8s						
ZALV	Zalesovo Beam	35.22	300	i P	P	13 49 20.7	+0.3
ZALV				pmax	pmax		
	comp=Z,5.0nm,0.8s						
ZALV	Zalesovo Beam	35.22	300	P	P	13 49 20.1	-0.2
ZALV					PcP	13 51 50.9	-0.1
O16K	Kokwok River B	35.28	50	IAmb	IAmb	13 49 34.0	
	comp=Z,27nm,1.3s						
M17K	Holitna River	35.33	46	IAmb	IAmb	13 49 23.8	
	comp=Z,22nm,1.1s						
J18K	Innoko River	35.43	43		P	13 49 22.6	+0.5
GYA	Guiyang	35.47	244	⇓P	P	13 49 22.8	-0.1
GYA				pmax	pmax		
	comp=Z,17nm,0.9s						
CNBA	Chernabura Isl	35.52	58	P	P	13 49 22.8	-0.1
CHGN	Chignik	35.79	55	P	P	13 49 25.3	+0.2
CHGN				IAmb	IAmb	13 49 53.4	
	comp=Z,54nm,1.8s						
J19K	Poorman	35.87	42	P	P	13 49 25.8	0.0
N18K	Kilae Creek	36.18	47	IAmb	IAmb	13 49 47.2	
	comp=Z,35nm,1.7s						
I20K	Naaghedeneel	36.28	40	IAmb	IAmb	13 49 31.3	
	comp=Z,26nm,1.1s						
E21K	Killik River	36.29	34	IAmb	IAmb	13 49 30.7	
	comp=Z,34nm,1.1s						
IMAR	Indian Mountai	36.49	38	P	P	13 49 30.9	-0.2
J20K	Nowinta River	36.49	41	IAmb	IAmb	13 49 33.0	
	comp=Z,26nm,1.2s						
F21K	Alatna River	36.51	36	P	P	13 49 31.2	-0.1
F21K				IAmb	IAmb	13 49 33.7	
	comp=Z,58nm,1.8s						
GOMU	GeErMu	36.53	268	P	P	13 49 30.5	-1.7
GOMU				pP	pP	13 49 33.9	-2.0
GOMU				sP	sP	13 49 37.8	+0.4
GOMU				S	S	13 55 11.9	-2.6
GOMU				pmax	pmax		
	comp=Z,4.0nm,0.5s						
GOMU				L	L		
	comp=Z,2µm,12.2s						
GOMU				L	L		
	comp=Z,2µm,12.3s						
GOMU				L	L		
	comp=Z,3µm,12.4s						
WMQ	Urumqi	37.22	283	eP	P	13 49 38.9	+1.2
WMQ				L	L		
	comp=Z,2µm,17.3s						
WMQ				L	L		
	comp=Z,870nm,15.5s						
I21K	Tanana	37.30	39	IAmb	IAmb	13 49 39.8	
	comp=Z,23nm,1.2s						
CHIR	Chirikof Islan	37.43	55	P	P	13 49 41.1	+1.9
ZSN	Zaisan	37.43	290	eP	P	13 49 39.5	+0.2
ZSN	Zaisan	37.43	290	eP	P	13 49 39.5	+0.2
C23K	Itkillik River	37.46	32	IAmb	IAmb	13 49 40.9	
	comp=Z,38nm,1.1s						
H22K	Ishtalitna Cre	37.46	38	IAmb	IAmb	13 49 41.2	
	comp=Z,44nm,1.6s						
D23K	Nanushuk River	37.47	33	IAmb	IAmb	13 49 41.3	
	comp=Z,29nm,1.2s						
G23K	Bananza Creek	37.91	37	IAmb	IAmb	13 49 44.5	
	comp=Z,25nm,1.1s						
E23K	Chandalar	37.93	35	P	P	13 49 43.9	+0.4
E23K				IAmb	IAmb	13 49 45.0	
	comp=Z,18nm,0.8s						
SII	Sitkinak Islan	37.99	54	P	P	13 49 45.7	+1.7
KTH	Kantishna Hill	37.99	42	IAmb	IAmb	13 49 46.8	
	comp=Z,57nm,1.5s						
E24K	Your Creek	38.35	35	IAmb	IAmb	13 49 48.5	
	comp=Z,21nm,0.8s						
KDAK	Kodiak Island	38.49	51	LR	LR	14 07 15.0	
	comp=Z,457nm,19.3s,baz=263,slow=39						
KDAK	Kodiak Island	38.49	51	i P	P	13 49 47.7	-0.4
KDAK				pmax	pmax		
	comp=Z,25nm,1.7s						
KDAK	Kodiak Island	38.49	51	P	P	13 49 48.4	+0.3
KDAK	Kodiak Island	38.49	51	P	P	13 49 47.5	-0.6
	comp=Z,11nm,1.5s						
CUT	Chulitna	38.50	44	IAmb	IAmb	13 49 49.3	
	comp=Z,24nm,0.9s						
KMI2	Kunming	38.79	247	⇑P	P	13 49 51.3	0.0
KMI2				sP	sP	13 49 56.5	0.0
KMI2				pmax	pmax		
	comp=Z,15nm,2.1s						
KMI2				L	L		
	comp=Z,1µm,12.6s						

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KMI2                             L       L
      comp=Z,870nm,17.9s
KMI2                             L       L
      comp=Z,1µm,17.5s
G24K  Hadweenzic Riv   38.92  37 IAmb    IAmb    13 49 53.4
      comp=Z,24nm,0.9s
RND   Reindeer         38.93  42 IAmb    IAmb    13 49 53.4
      comp=Z,42nm,1.7s
SEM   Semipalatinsk    39.05 296 eP      P       13 49 53.3 +0.2
SEM   Semipalatinsk    39.05 296 eP      P       13 49 53.4 +0.2
WRH   Wood River Hil   39.05  40 IAmb    IAmb    13 49 54.2
      comp=Z,32nm,1.0s
COLA  College          39.08  40 P       P       13 49 53.2 +0.3
COLA  College          39.08  40 i P     P       13 49 53.4 +0.5
COLA                             pmax    pmax
      comp=Z,23nm,0.9s
COLA  College          39.08  40 P       P       13 49 53.4 +0.5
COLA                             IAmb    IAmb    13 49 54.5
      comp=Z,20nm,0.7s
COLA  College          39.08  40 P       P       13 49 53.5 +0.6
      comp=Z,33nm,0.9s
CCB   Clear Creek Bu   39.14  40 IAmb    IAmb    13 49 54.8
      comp=Z,30nm,1.2s
O22K  Cooper Landing   39.20  47 IAmb    IAmb    13 49 54.9
      comp=Z,15nm,0.7s
PMR   Palmer           39.21  45 P       P       13 49 54.0 -0.1
GHO   Glory Hole Cre   39.26  45 IAmb    IAmb    13 49 55.9
      comp=Z,23nm,1.0s
MK31  Makanchi Array   39.30 290 i P     P       13 49 54.9 -0.2
MK31                             pmax    pmax
      comp=Z,17nm,1.5s
MKAR  Makanchi Array   39.30 290 P       P       13 49 54.9 -0.2
      comp=Z,6.9nm,0.9s,baz=64,slow=10.0,SNR=42
MKAR                             PcP     PcP     13 52 03.4 -0.2
      comp=Z,2.2nm,1.0s,baz=70,slow=1.7,SNR=4.3
MKAR                             LR      LR      14 06 57.6
      comp=Z,1µm,18.2s,baz=57,slow=38
      comp=Z,6.9nm,0.9s
MKAR  Makanchi Array   39.30 290c iP     P       13 49 55.0 -0.1
MKAR                             pmax    pmax
      comp=Z,7.0nm,0.9s
MKAR  Makanchi Array   39.30 290 P       P       13 49 54.7 -0.4
MKAR  Makanchi Array   39.30 290 eP      P       13 49 55.0 -0.1
MAKZ  Makanchi         39.49 290 P       P       13 49 56.2 -0.4
MAKZ                             pmax    pmax
      comp=Z,12nm,1.1s
MAKZ  Makanchi         39.49 290 P       P       13 49 56.2 -0.4
MAKZ  Makanchi         39.49 290 P       P       13 49 56.7  0.0
      comp=Z,11nm,2.4s
ILAR  Eielson Array    39.50  40 P       P       13 49 56.1 -0.4
      comp=Z,9.6nm,0.7s,baz=280,slow=7.5,SNR=94
ILAR                             PcP     PcP     13 52 02.6 -1.2
      comp=Z,0.5nm,0.7s,baz=306,slow=3.1,SNR=2.3
ILAR                             LR      LR      14 07 23.9
      comp=Z,208nm,18.5s,baz=264,slow=38
      comp=Z,9.6nm,0.7s
ILAR  Eielson Array    39.50  40 P       P       13 49 55.9 -0.6
SML   Sawmill          39.53  44 IAmb    IAmb    13 49 58.2
      comp=Z,38nm,1.1s
HDA   Harding Lake     39.55  40 IAmb    IAmb    13 49 59.2
      comp=Z,33nm,1.2s
KNK   Knik Glacier     39.56  45 IAmb    IAmb    13 49 58.5
      comp=Z,24nm,0.9s
QIZ   Qiongzhong       39.58 233 P       P       13 49 56.6 -1.0
QIZ                              S       S       13 56 04.3 +4.2
QIZ                              L       L
      comp=Z,390nm,14.4s
QIZ                              L       L
      comp=Z,480nm,12.4s
QIZ                              L       L
      comp=Z,700nm,10.3s
PWL   Port Wells       39.76  46 IAmb    IAmb    13 50 00.7
      comp=Z,42nm,1.8s
FYU   Fort Yukon       39.82  37 IAmb    IAmb    13 50 01.2
      comp=Z,41nm,1.0s
C27K  Jago River       39.87  32 IAmb    IAmb    13 50 01.4
      comp=Z,29nm,1.1s
KURK  Kurchatov        39.89 297ceP      P       13 50 00.1 +0.2
KURK                             pmax    pmax
      comp=Z,8.0nm,1.1s
KURK  Kurchatov        39.89 297 P       P       13 49 59.3 -0.6
KURK  Kurchatov        39.89 297         PcP     13 52 05.2 -0.1
KURK  Kurchatov        39.89 297 eP      P       13 50 00.1 +0.2
KURK  Kurchatov        39.89 297 P       P       13 49 59.9  0.0
      comp=Z,12nm,1.8s
PRP   Porcupine Dome   39.91  38 IAmb    IAmb    13 50 02.0
      comp=Z,42nm,0.9s
BMAR  Burnt Mountain   39.92  35 P       P       13 50 00.5 +0.5
KURBB Kurchatov Arra   39.98 297 P       P       13 50 00.1 -0.5
      comp=Z,5.4nm,1.0s,baz=68,slow=8.6,SNR=20
KURBB                            PcP     PcP     13 52 05.2 -0.4
      comp=Z,4.1nm,1.2s,baz=72,slow=3.2,SNR=6.1
      comp=Z,5.4nm,1.0s
F26K  Sheenjek River   40.03  35 P       P       13 50 01.3 +0.3
K24K  Donnelly Dome    40.19  41 IAmb    IAmb    13 50 03.3
      comp=Z,21nm,0.8s
G26K  Porcupine Rive   40.31  36 IAmb    IAmb    13 50 05.2
      comp=Z,22nm,1.0s
RIDG  Independent Ri   40.60  41 IAmb    IAmb    13 50 06.1
      comp=Z,26nm,1.1s
HARP  HAARP            40.82  43 IAmb    IAmb    13 50 09.3
      comp=Z,49nm,1.4s
D27M  Malcolm River    40.89  32 IAmb    IAmb    13 50 09.6
      comp=Z,41nm,1.8s
SLVN  Son La           41.01 242 P       P       13 50 10.7 +1.2
SLVN  Son La           41.01 242 P       P       13 50 10.1 +0.5
      comp=Z,13nm,1.4s
MENT  Mentasta         41.31  42 P       P       13 50 12.2 +0.7
TNCH  TengChong        41.48 251 P       P       13 50 14.0 +0.5
TNCH                             S       S       13 56 28.3 -0.5
TNCH                             pmax    pmax
      comp=Z,24nm,0.5s
TNCH                             pmax    pmax
      comp=Z,160nm,3.6s
TNCH                             L       L
      comp=Z,770nm,11.7s
TNCH                             L       L
      comp=Z,810nm,13.4s
TNCH                             L       L
      comp=Z,2µm,14.0s
F28M  Old Crow         41.65  34 IAmb    IAmb    13 50 16.1
      comp=Z,44nm,1.9s
GLB   Gilahina Butte   41.70  44 IAmb    IAmb    13 50 17.6
      comp=Z,37nm,1.4s
M26K  Nabesna, AK      41.78  42 IAmb    IAmb    13 50 17.8
      comp=Z,33nm,1.2s
MCARA McCarthy VSAT    42.08  44 P       P       13 50 18.5 +0.6
BERG  Berg Lake        42.08  45 P       P       13 50 18.7 +0.8
BERG                             IAmb    IAmb    13 50 19.9
      comp=Z,31nm,1.2s
L27K  Beaver Creek,    42.10  41 IAmb    IAmb    13 50 19.9
      comp=Z,27nm,1.1s
BCAR  Beaver Creek A   42.11  41 P       P       13 50 18.5 +0.3
I28M  Miner Creek      42.19  37 IAmb    IAmb    13 50 20.8
      comp=Z,22nm,0.9s
CRQM  Cirque           42.23  45 IAmb    IAmb    13 50 22.0
      comp=Z,47nm,1.3s
M27K  Edge Creek, AK   42.29  42 IAmb    IAmb    13 50 21.9
      comp=Z,26nm,1.1s
TGL   Tana Glacier     42.37  45 IAmb    IAmb    13 50 22.2
      comp=Z,33nm,1.2s
G29M  Pine Creek       42.52  35 IAmb    IAmb    13 50 23.6
      comp=Z,56nm,1.6s
TDK   Taldyqorghan     42.53 290 eP      P       13 50 22.0 +0.3
TDK                              pmax    pmax
      comp=Z,20nm,1.2s
TDK   Taldyqorghan     42.53 290 eP      P       13 50 22.0 +0.3
      comp=Z,20nm,1.2s
H29M  Whitestone       42.59  36 IAmb    IAmb    13 50 24.5
      comp=Z,44nm,1.8s
BARN  Barnard Glacie   42.81  44 IAmb    IAmb    13 50 26.9
      comp=Z,40nm,1.5s
GRNC  Granite Creek    42.88  45 IAmb    IAmb    13 50 26.4
      comp=Z,25nm,1.1s
LSA   Lhasa            42.98 263 P       P       13 50 27.5 +1.4
      comp=Z,11nm,1.3s
UZB   Uzynbulak        43.07 287 eP      P       13 50 26.2 -0.1
UZB   Uzynbulak        43.07 287 eP      P       13 50 26.2 -0.1
KPKS  Kokpek           43.12 288 eP      P       13 50 26.8 +0.2
KPKS  Kokpek           43.12 288 eP      P       13 50 26.8 +0.2
F30M  Barrier River    43.15  34 IAmb    IAmb    13 50 28.7
      comp=Z,40nm,1.1s
EPYK  Eagle Plains     43.18  36 IAmb    IAmb    13 50 28.3
      comp=Z,24nm,1.1s
G30M  tAoh Zraii Nji   43.18  35 IAmb    IAmb    13 50 28.9
      comp=Z,55nm,1.5s
SATY  Saty             43.50 287 eP      P       13 50 29.9 +0.2
SATY  Saty             43.50 287 eP      P       13 50 29.9 +0.2
BVAR  Borovoye Array   43.62 304 P       P       13 50 30.1 -0.3
      comp=Z,4.7nm,0.8s,baz=69,slow=8.0,SNR=20
BVAR                             PcP     PcP     13 52 17.4 -0.2
      comp=Z,3.2nm,0.8s,baz=54,slow=4.3,SNR=5.3
      comp=Z,4.7nm,0.8s
BORK  Borovoye         43.65 304 i P     P       13 50 31.1 +0.5
BORK                             pmax    pmax
      comp=Z,12nm,1.0s
BORK  Borovoye         43.65 304 P       P       13 50 30.3 -0.3
L29M  L29M             43.67  40 IAmb    IAmb    13 50 33.2
      comp=Z,24nm,1.1s
INK   Inuvik           43.75  32 LR      LR      14 11 01.7
      comp=Z,523nm,18.9s,baz=267,slow=39
INK   Inuvik           43.75  32 P       P       13 50 31.1 -0.1
INK                              pmax    pmax
      comp=Z,12nm,0.9s
INK   Inuvik           43.75  32 P       P       13 50 31.1 -0.1
F31M  Tsiigehtchic     43.95  34 IAmb    IAmb    13 50 34.0
      comp=Z,23nm,1.1s
WUS   Wushi            43.96 285 P       P       13 50 34.0 +0.6
      comp=Z,9.8nm,0.8s
DAV   Davao City (W)   44.03 204 LR      LR      14 09 13.6
      comp=Z,145nm,19.5s,baz=28,slow=36
H31M  Peel River       44.28  36 IAmb    IAmb    13 50 36.9
      comp=Z,23nm,0.9s
MDOK  Medeo            44.30 288 eP      P       13 50 36.4 +0.2
MDOK  Medeo            44.30 288 eP      P       13 50 36.5 +0.2
AAA   Alma-Ata         44.36 288 eP      P       13 50 36.4 -0.2
AAA                              pmax    pmax
      comp=Z,10.0nm,0.6s
AAA   Alma-Ata         44.36 288 eP      P       13 50 36.4 -0.2
      comp=Z,10nm,0.6s
KUU   Kurty            44.37 289 eP      P       13 50 36.6 +0.1
KUU   Kurty            44.37 289 eP      P       13 50 36.7 +0.1
TNSS  Tian-Shan        44.43 288 eP      P       13 50 37.2 -0.3
TNSS                             pmax    pmax
      comp=Z,30nm,1.3s
TNSS  Tian-Shan        44.43 288 eP      P       13 50 37.2 -0.3
      comp=Z,30nm,1.3s
O29M  Mount Kennedy    44.50  44 IAmb    IAmb    13 50 39.9
      comp=Z,21nm,1.4s
TARG  Taragay, Kyrgy   44.58 286 P       P       13 50 39.8 +1.1
TARG  Taragay, Kyrgy   44.58 286 P       P       13 50 39.8 +1.1
      comp=Z,6.3nm,1.0s
HYT   Haines Junctio   44.79  43 IAmb    IAmb    13 50 43.1
      comp=Z,37nm,1.3s
N31M  Braeburn, Yuko   45.30  42 IAmb    IAmb    13 50 47.2
      comp=Z,29nm,1.2s
BOOM  Boomskoye usch   45.35 288 IAmb    IAmb    13 50 46.5
      comp=Z,13nm,1.0s
BOOM  Boomskoye usch   45.35 288 P       P       13 50 45.1 +0.5
      comp=Z,16nm,1.2s
M31M  Drury Creek, Y   45.62  41 IAmb    IAmb    13 50 48.4
      comp=Z,23nm,1.7s
SGDS  Sogindy          45.66 290 eP      P       13 50 47.0 +0.1
ASAI  AK-SAY(Kyrgyzs   45.83 286 P       P       13 50 49.4 +0.8
      comp=Z,9.8nm,1.9s
CHTO  Chiang Mai       45.88 245 P       P       13 50 49.3 +0.5
CHTO  Chiang Mai       45.88 245 P       P       13 50 48.6 -0.2
CHTO                             pmax    pmax
      comp=Z,14nm,1.2s
CHTO  Chiang Mai       45.88 245 P       P       13 50 48.6 -0.2
CHTO                             IAmb    IAmb    13 50 50.1
      comp=Z,14nm,1.1s
CHTO  Chiang Mai       45.88 245 P       P       13 50 47.8 -1.0
      comp=Z,13nm,1.3s
CHTO  Chiang Mai       45.88 245 P       P       13 50 48.7 -0.1
      comp=Z,13nm,1.3s
CMAR  Chiang Mai Arr   46.16 244 P       P       13 50 51.2 +0.2
      comp=Z,1.3nm,0.4s,baz=41,slow=7.2,SNR=24
CMAR                             PcP     PcP     13 52 27.9 +1.1
      comp=Z,1.4nm,1.0s,baz=34,slow=5.5,SNR=4.6
CMAR                             LR      LR      14 12 32.1
      comp=Z,575nm,18.3s,baz=50,slow=39
      comp=Z,1.3nm,0.4s
CMAR  Chiang Mai Arr   46.16 244c iP     P       13 50 51.5 +0.5
CMAR                             pmax    pmax
      comp=Z,4.0nm,1.0s
CMAR  Chiang Mai Arr   46.16 244 P       P       13 50 50.7 -0.3
AAK   Ala-Archa        46.17 289 LR      LR      14 11 08.5
      comp=Z,564nm,18.4s,baz=46,slow=37
AAK   Ala-Archa        46.17 289ceP      P       13 50 49.6 -1.5
AAK                              pmax    pmax
      comp=Z,3.0nm,1.1s
AAK                              MLR     MLR
      comp=Z,470nm,18.0s
AAK   Ala-Archa        46.17 289 P       P       13 50 50.8 -0.3
AAK                              IAmb    IAmb    13 50 52.6
      comp=Z,22nm,1.8s
AAK   Ala-Archa        46.17 289 eP      P       13 50 49.6 -1.5
AAK   Ala-Archa        46.17 289 P       P       13 50 52.0 +0.9
      comp=Z,6.8nm,1.6s
MMPY  Sheldon Lake,    46.77  39 IAmb    IAmb    13 50 57.7
      comp=Z,15nm,1.3s
NPW   Naypyitaw        46.84 248 P       P       13 50 57.2 +0.9
      comp=Z,18nm,1.3s
EVN   Everest          46.97 264 P       P       13 50 58.1 +0.1
      comp=Z,7.9nm,1.9s
SVE   Sverdlovsk       47.02 312 eP      P       13 50 58.3 +1.0
SVE                              pmax    pmax
      comp=Z,31nm,1.5s
P33M  Teslin, Yukon    47.15  43 IAmb    IAmb    13 51 00.6
      comp=Z,20nm,1.2s
KSH2  Kashi            47.42 284 P       P       13 51 02.0 +1.1
KSH2                             pmax    pmax
      comp=Z,10.0nm,1.9s
KSH2                             L       L
      comp=Z,840nm,15.3s
KSH2                             L       L
      comp=Z,830nm,15.0s
KSH2                             L       L
      comp=Z,1µm,13.9s
BRDH  Bariadhala       47.51 255 LR      LR      14 12 41.6
      comp=Z,348nm,18.3s,baz=94,slow=38
ARSB  Arslanbob        47.83 288 IAmb    IAmb    13 51 07.0
      comp=Z,19nm,1.4s
Q32M  Nakina River     47.97  44 IAmb    IAmb    13 51 35.0
      comp=Z,30nm,1.6s
DZA   Taraz            47.99 291 eP      P       13 51 05.4 +0.3
DZA                              pmax    pmax
      comp=Z,4.0nm,0.7s
DZA   Taraz            47.99 291 eP      P       13 51 05.4 +0.3
      comp=Z,4.0nm,0.7s
ARTI  Arti             48.33 312 LR      LR      14 12 39.7
      comp=Z,116nm,18.4s,baz=66,slow=38
ARTI  Arti             48.33 312c iP     P       13 51 07.1 -0.4
ARTI                                             13 52 30.0
ARTI                                             13 52 56.0
ARTI                             S       S       13 58 06.1 -0.9
ARTI                             SS      SS      14 01 31.0 -4.9
ARTI                             pmax    pmax
      comp=Z,46nm,1.8s
ARTI  Arti             48.33 312 P       P       13 51 07.1 -0.4
R33M  Jennings River   48.36  43 IAmb    IAmb    13 51 11.5
      comp=Z,24nm,1.4s
KK31  Karatay Array    48.38 292 P       P       13 51 05.2 -2.9
KKAR  Karatay Array    48.38 292 P       P       13 51 07.6 -0.5
KKAR  Karatay Array    48.38 292 P       P       13 51 07.6 -0.5
BRLS  Borolday         48.84 292 eP      P       13 51 13.3 +1.7
BRLS  Borolday         48.84 292 eP      P       13 51 13.3 +1.7
TRKS  Terek-Say        48.87 290 P       P       13 51 12.4 +0.4
SPITS Spitsbergen Ar   48.97 347 LR      LR      14 14 47.6
      comp=Z,192nm,18.2s,baz=38,slow=40
WTLY  Watson Lake, Y   48.98  42 IAmb    IAmb    13 51 14.3
      comp=Z,9.1nm,0.9s
S34M  Telegraph Cree   49.00  45 IAmb    IAmb    13 51 32.1
      comp=Z,23nm,1.6s
IUG   Iuzhnay          49.21 291 eP      P       13 51 14.8 +0.3
IUG                              pmax    pmax
      comp=Z,9.0nm,1.2s
IUG   Iuzhnay          49.21 291 eP      P       13 51 14.8 +0.3
      comp=Z,9.2nm,1.2s
DLBC  Dease Lake       49.25  44 LR      LR      14 12 14.8
      comp=Z,344nm,20.1s,baz=286,slow=36
CHM   Chimkent         49.37 291 eP      P       13 51 16.0 +0.3
CHM                              pmax    pmax
      comp=Z,5.0nm,0.5s
CHM   Chimkent         49.37 291 eP      P       13 51 16.0 +0.3
      comp=Z,4.9nm,0.5s
T35M  Bob Quinn        49.88  46 IAmb    IAmb    13 51 22.8
      comp=Z,22nm,1.4s
DIB   Dawson Inlet,    50.75  51 IAmb    IAmb    13 51 29.5
      comp=Z,24nm,1.4s
RES   Resolute Bay     50.97  17 LR      LR      14 14 28.4
      comp=Z,110nm,19.9s,baz=23,slow=38
TOLI2 Tolitoli         51.08 208 P       P       13 51 28.1 -0.8
      comp=Z,17nm,1.6s
AB31  Akbulak array    51.19 304 i P     P       13 51 29.4 +0.1
AB31  Akbulak array    51.19 304 IAmb    IAmb    13 51 30.8
      comp=Z,17nm,1.1s
ABKAR Akbulak array    51.19 304 P       P       13 51 29.0 -0.3
KIRV  Kirov            51.38 318ceP      P       13 51 31.3 +0.7
AKTO  Aktyubinsk       51.59 306 LR      LR      14 16 00.8
      comp=Z,154nm,18.9s,baz=72,slow=39
APA   Apatity          52.18 333 eP      P       13 51 32.0 -4.4
APA                              e               13 52 44.7
APA                              e               13 53 30.8
APA                              eS      S       13 58 50.9 -9.4
APA                              e               14 01 20.7
APA                              eSS     SS      14 02 32.9 -3.9
APA                              pmax    pmax
      comp=Z,4.0nm,1.0s
APA                              MLR     MLR
      comp=Z,1µm,5.7s
NIL   Nilore           52.21 280 P       P       13 51 37.2  0.0
NIL                              pmax    pmax
      comp=Z,23nm,1.2s
NIL   Nilore           52.21 280 P       P       13 51 37.2  0.0
NIL                              IAmb    IAmb    13 51 38.9
      comp=Z,23nm,1.2s
NIL   Nilore           52.21 280 P       P       13 51 37.8 +0.6
      comp=Z,18nm,1.5s
ARCES ARCESS Array B   53.12 337 P       P       13 51 43.4  0.0
      comp=Z,2.5nm,1.0s,baz=60,slow=5.3,SNR=4.0
ARCES                            LR      LR      14 17 15.4
      comp=Z,157nm,19.3s,baz=20,slow=39
      comp=Z,2.5nm,1.0s
ARCES ARCESS Array B   53.12 337 IAmb    IAmb    13 52 57.4
      comp=Z,35nm,1.6s
YKA   Yellowknife Ar   53.42  34 P       P       13 51 44.9 -0.8
      comp=Z,4.1nm,0.7s,baz=307,slow=7.9,SNR=5.7
YKA                              LR      LR      14 15 36.3
      comp=Z,163nm,20.0s,baz=308,slow=37
      comp=Z,4.1nm,0.7s
YKA   Yellowknife Ar   53.42  34 i P     P       13 51 45.0 -0.7
YKA                              pmax    pmax
      comp=Z,5.0nm,0.9s
BBB   Bella Bella      53.53  50 LR      LR      14 12 49.0
      comp=Z,348nm,21.7s,baz=288,slow=34
BBB   Bella Bella      53.53  50 P       P       13 51 48.4 +1.8
      comp=Z,19nm,1.7s
KLMR  Klimovskoe       54.18 324 eP      P       13 51 49.5 -1.8
KLMR                             pmax    pmax
      comp=Z,117nm,1.3s
KBL   Kabul            54.37 284 P       P       13 51 51.6 -1.6
      comp=Z,11nm,1.8s
BELG  Belogornoye      55.77 312 LR      LR      14 18 15.0
      comp=Z,254nm,18.4s,baz=84,slow=39
BELG  Belogornoye      55.77 312d iP     P       13 52 03.5 +0.6
BELG                             pmax    pmax
      comp=Z,5.0nm,1.0s
BELG                             MLR     MLR
      comp=Z,44nm,15.0s
IPM   Ipoh             56.40 232 P       P       13 52 09.8 +1.9
IPM   Ipoh             56.40 232 P       P       13 52 07.6 -0.3
IPM                              IAmb    IAmb    13 52 09.7
      comp=Z,27nm,1.5s
KAPI  Kappang          57.19 207 LR      LR      14 18 16.9
      comp=Z,57nm,19.0s,baz=66,slow=38
CLRS  Cowichan Lake    57.58  51 IAmb    IAmb    13 52 18.4
      comp=Z,23nm,1.6s
LLLB  Lillooet         57.59  49 IAmb    IAmb    13 52 17.8
      comp=Z,17nm,1.5s
MOS   Moscow           58.21 320 eP      P       13 52 20.6 +0.5
MOS                              pmax    pmax
      comp=Z,46nm,1.2s
JMIC  Jan Mayen        58.52 349 LR      LR      14 17 30.7
      comp=Z,151nm,21.3s,baz=306,slow=36
NLWA  Neilton Lookou   58.62  53 IAmb    IAmb    13 52 25.6
      comp=Z,17nm,1.1s
FINES FINESS Array B   58.64 330 P       P       13 52 22.9 -0.2
      comp=Z,20nm,0.6s,baz=45,slow=7.2,SNR=109
      comp=Z,20nm,0.6s
FINES FINESS Array B   58.64 330 i P     P       13 52 23.2 +0.2
FINES                            pmax    pmax
      comp=Z,20nm,0.6s
SUMG  Summit           58.76   0 P       P       13 52 24.3 +0.1
SUMG                             pmax    pmax
      comp=Z,58nm,1.9s
SUMG  Summit           58.76   0 P       P       13 52 24.3 +0.1
SUMG  Summit           58.76   0 P       P       13 52 24.8 +0.5
      comp=Z,12nm,1.1s
GNW   Green Mountain   59.05  52 IAmb    IAmb    13 52 28.4
      comp=Z,12nm,1.5s
OBN   Obninsk          59.08 320deP      P       13 52 26.2 +0.1
OBN                              e               13 53 12.4
OBN                              e               13 54 36.4
OBN                              pmax    pmax
      comp=Z,26nm,1.2s
OBN                              MLR     MLR
      comp=Z,140nm,14.0s
OBN   Obninsk          59.08 320 eP      P       13 52 26.2 +0.1
VRH   Novokhopyorsk    59.37 314 eP      P       13 52 28.0 -0.2
VRH                              pmax    pmax
      comp=Z,33nm,1.1s
LPSR  Galich'ya Gora   59.73 317 eP      P       13 52 29.4 -1.3
LPSR                             pmax    pmax
      comp=Z,22nm,1.0s
HYB   Hyderabad        59.76 262 eP      P       13 52 31.0 -0.5
HYB                              ePcP    PcP     13 53 17.3 -0.9
HYB                              ePP     PP      13 54 42.9 -0.3
HYB                              eS      S       14 00 42.7 +0.3
HYB                              eScS    ScS     14 02 21.1 -0.8
HNR   Honiara          60.22 160 LR      LR      14 16 24.6
      comp=Z,88nm,22.0s,baz=57,slow=34
VORR  Voronezh         60.23 316 eP      P       13 52 33.9 -0.2
VORR                             pmax    pmax
      comp=Z,13nm,0.6s
LTY   Liberty          60.37  51 IAmb    IAmb    13 52 36.9
      comp=Z,18nm,1.6s
VSR   Storozhevoye     60.55 315 eP      P       13 52 35.8 -0.6
VSR                              pmax    pmax
      comp=Z,22nm,1.0s
VSU   Vasula           60.59 327ceP      P       13 52 36.3 -0.2
VSU                              pmax    pmax
      comp=Z,40nm,1.0s
COR   Corvallis        60.74  55 P       P       13 52 38.7 +0.9
COR                              pmax    pmax
      comp=Z,20nm,1.1s
COR   Corvallis        60.74  55 P       P       13 52 38.7 +0.9
COR   Corvallis        60.74  55 P       P       13 52 40.3 +2.6
      comp=Z,19nm,1.8s
SDSI  Sungai Dareh     60.84 228 P       P       13 52 37.3 -1.4
      comp=Z,9.7nm,0.9s
EPH   Ephrata          60.85  50 IAmb    IAmb    13 52 39.8
      comp=Z,16nm,1.4s
MXC   Moxie City       61.01  51 IAmb    IAmb    13 52 41.7
      comp=Z,18nm,1.5s
WAH2  Wahluke Slope    61.27  51 IAmb    IAmb    13 52 42.9
      comp=Z,12nm,1.2s
D08A  Wollman Farm,    61.39  50 IAmb    IAmb    13 52 43.6
      comp=Z,22nm,1.7s
NEW   Newport          61.48  48 LR      LR      14 17 41.7
      comp=Z,210nm,21.4s,baz=317,slow=34
NEW   Newport          61.48  48 P       P       13 52 43.1 +0.3
NEW   Newport          61.48  48 P       P       13 52 43.1 +0.3
      comp=Z,4.2nm,1.4s
HAWA  Hanford          61.52  51 IAmb    IAmb    13 52 45.0
      comp=Z,17nm,1.6s
F07A  Phinny Hill Vi   61.65  52 IAmb    IAmb    13 52 46.1
      comp=Z,12nm,1.1s
G06A  Carlson Farm,    61.73  53 IAmb    IAmb    13 52 47.7
      comp=Z,15nm,1.4s
I04A  Tendick Farm,    61.75  55 IAmb    IAmb    13 52 47.0
      comp=Z,9.1nm,0.9s
MAK   Makhachkala      61.87 304c iP     P       13 52 41.4 -4.0
MAK                              e               13 54 59.6
MAK                              eS      S       14 01 03.5 -5.1
MAK                              eSS     SS      14 05 06.7 -3.2
MAK                              eSSS    SSS     14 07 56.2
MAK                              pmax    pmax
      comp=Z,93nm,1.1s
MAK                              MLR     MLR
      comp=Z,217nm,11.0s
WIFE  Three Sisters-   61.89  54 IAmb    IAmb    13 52 48.3
      comp=Z,8.7nm,1.0s
I05D  Terrebonne, OR   61.96  54 IAmb    IAmb    13 52 48.4
      comp=Z,11nm,1.1s
E09A  Wood Farm, Sta   62.15  50 IAmb    IAmb    13 52 49.0
      comp=Z,16nm,1.2s
MTN   Manton Dam       62.30 192 IAmb    IAmb    13 52 50.7
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	comp=Z,5.5nm,0.7s						
LNOR	Lincton Mounta	62.52	51	IAmb	IAmb	13 52 52.0	
	comp=Z,16nm,1.7s						
G08A	Pilot Rock	62.56	52	IAmb	IAmb	13 52 53.1	
	comp=Z,21nm,2.0s						
AKT	Akhty	62.73	303	*e*P	P	13 52 51.2	-0.2
AKT				*e*		13 53 29.9	
AKT				*e*		13 55 08.2	
AKT				pmax	pmax		
	comp=Z,24nm,1.3s						
AKT				MLR	MLR		
	comp=Z,428nm,15.0s						
F10A	Beach Ranch, E	62.98	50	IAmb	IAmb	13 52 54.9	
	comp=Z,11nm,1.2s						
MNK	Minsk	63.07	323	*i* P	P	13 52 53.4	+0.2
MNK				*i*		13 55 10.0	
MNK				*i* PPP	PPP	13 56 39.0	
MNK				*i* S	S	14 01 25.2	+1.8
MNK				*i* SS	SS	14 05 32.8	+4.6
MNK				pmax	pmax		
	comp=Z,39nm,0.8s						
MNK				pmax	pmax		
	comp=N,32nm,0.9s						
MNK				pmax	pmax		
	comp=E,33nm,0.9s						
MNK				MLR	MLR		
	comp=Z,134nm,17.0s						
MNK				MLR	MLR		
	comp=N,272nm,17.0s						
MNK				MLR	MLR		
	comp=E,336nm,21.0s						
MNK	Minsk	63.07	323	*i* P	P	13 52 53.4	+0.2
	comp=E,33nm,0.9s						
MNK				*i* P	P	13 52 53.4	+0.2
	comp=N,32nm,0.9s						
MNK				*i* P	P	13 52 53.4	+0.2
	comp=Z,39nm,0.8s,baz=42						
MNK				*i* PP	PP	13 55 10.1	-1.3
MNK				*i* PPP	PPP	13 56 39.1	
MNK				*i* S	S	14 01 25.2	+1.8
MNK				*i* SS	SS	14 05 32.9	+4.6
MNK				*i* SSS	SSS	14 08 28.1	
MNK				*i* LR	LR	14 20 24.3	
MNK				*i* LRM	MLR	14 22 25.9	
	comp=Z,134nm,17.3s						
MNK				*i* LRM	MLR	14 22 37.3	
	comp=N,272nm,17.0s						
MNK				*i* LRM	MLR	14 22 46.3	
	comp=E,336nm,20.7s						
NB2	NORSAR Subarra	63.46	336	P	P	13 52 55.3	-0.5
	comp=Z,4.7nm,0.8s,baz=32,slow=6.9						
NB2	NORSAR Subarra	63.46	336	P	P	13 52 56.0	+0.2
NB2				pmax	pmax		
	comp=Z,1.0nm,0.6s						
NOA	NORSAR Array B	63.46	336	P	P	13 52 55.6	-0.2
	comp=Z,6.5nm,1.1s,baz=34,slow=6.4,SNR=6.7						
NOA				LR	LR	14 24 00.4	
	comp=Z,154nm,18.4s,baz=20,slow=39						
	comp=Z,6.5nm,1.1s						
HFS	Hagfors	63.52	334	P	P	13 52 55.5	-0.7
	comp=Z,3.5nm,0.6s,baz=29,slow=3.3,SNR=12						
HFS				LR	LR	14 23 38.5	
	comp=Z,185nm,18.4s,baz=24,slow=39						
	comp=Z,3.5nm,0.6s						
FFC	Flin Flon	63.53	36	P	P	13 52 56.5	+0.2
FFC				pmax	pmax		
	comp=Z,13nm,0.9s						
FFC	Flin Flon	63.53	36	P	P	13 52 56.5	+0.2
FFC	Flin Flon	63.53	36	P	P	13 52 56.5	+0.2
	comp=Z,20nm,1.8s						
M03C	McCloud	63.60	57	IAmb	IAmb	13 53 28.0	
	comp=Z,13nm,1.0s						
NORES	NORESS Array B	63.62	335	P	P	13 52 57.4	+0.6
ERBR	Yeremizino-Bor	63.69	310	*e*P	P	13 52 57.2	-0.3
ERBR				*e*		13 55 16.0	
ERBR				*e*S	S	14 01 29.7	-1.7
ERBR				pmax	pmax		
	comp=Z,59nm,1.3s						
ERBR				MLR	MLR		
	comp=Z,174nm,12.0s						
BMO	Blue Mountains	63.72	51	IAmb	IAmb	13 52 60.0	
	comp=Z,13nm,1.4s						
KIV	Kislovodsk	63.77	307	*e*P	P	13 52 57.6	-0.6
KIV				pmax	pmax		
	comp=Z,38nm,1.1s						
KIV				MLR	MLR		
	comp=Z,196nm,17.0s						
KIV	Kislovodsk	63.77	307	*e*P	P	13 52 57.6	-0.6
KIV	Kislovodsk	63.77	307	P	P	13 52 59.3	+1.0
	comp=Z,48nm,1.5s						
KBZ	Khabaz	63.82	307	P	P	13 52 57.8	-0.6
	comp=Z,4.1nm,0.9s,baz=47,slow=11,SNR=10						
KBZ				LR	LR	14 23 34.5	
	comp=Z,245nm,18.1s,baz=40,slow=39						
	comp=Z,4.1nm,0.9s						
KBZ	Khabaz	63.82	307	*de*P	P	13 52 59.7	+1.3
KBZ				pmax	pmax		
	comp=Z,9.0nm,1.3s						
KBZ				MLR	MLR		
	comp=Z,199nm,17.0s						
SFJD	Kangerlussuaq	63.97	6	LR	LR	14 22 54.9	
	comp=Z,86nm,18.4s,baz=346,slow=38						
O02D	Mt. Diablo Mer	63.98	58	IAmb	IAmb	13 53 02.5	
	comp=Z,14nm,1.1s						
MSO	Missoula	64.03	48	IAmb	IAmb	13 53 01.6	
	comp=Z,20nm,1.4s						
J08A	Circle Bar Ran	64.14	53	IAmb	IAmb	13 53 03.2	
	comp=Z,9.4nm,1.1s						
LABN	Labinsk	64.31	309	*e*P	P	13 53 01.5	-0.1
LABN				MLR	MLR		
	comp=Z,244nm,12.0s						
WVOR	Wild Horse Val	64.70	54	P	P	13 53 05.8	+1.4
WVOR	Wild Horse Val	64.70	54	IAmb	IAmb	13 53 06.6	
	comp=Z,12nm,1.1s						
WVOR	Wild Horse Val	64.70	54	P	P	13 53 05.9	+1.6
	comp=Z,9.5nm,2.0s						
GDXM	Geysers	64.91	59	IAmb	IAmb	13 53 08.5	
	comp=Z,14nm,1.1s						
FRB	Frobisher Bay	65.07	14	LR	LR	14 24 46.8	
	comp=Z,129nm,18.8s,baz=343,slow=39						
ORV	Oroville	65.13	58	IAmb	IAmb	13 53 08.5	
	comp=Z,7.6nm,1.1s						
GNI	Garni	65.30	303	LR	LR	14 22 52.9	
	comp=Z,145nm,18.1s,baz=62,slow=37						
GNI	Garni	65.30	303	*ce*P	P	13 53 10.2	+1.8
GNI				pmax	pmax		
	comp=Z,39nm,1.7s						
GNI	Garni	65.30	303	P	P	13 53 08.8	+0.5
GNI	Garni	65.30	303	P	P	13 53 10.2	+1.8
	comp=Z,22nm,1.8s						
AKASG	Malin Array Be	65.34	320	P	P	13 53 07.6	-0.7
	comp=Z,9.5nm,0.8s,baz=40,slow=7.3,SNR=45						
	comp=Z,9.5nm,0.8s						
AKASG	Malin Array Be	65.34	320	*i* P	P	13 53 07.8	-0.4
AKASG				pmax	pmax		
	comp=Z,10.0nm,0.8s						
AKASG	Malin Array Be	65.34	320	P	P	13 53 07.4	-0.9
AKBB	Malin Array Si	65.34	320	*de*P	P	13 53 08.3	+0.1
AKBB				pmax	pmax		
	comp=Z,22nm,1.1s						
AKBB				MLR	MLR		
	comp=Z,191nm,14.0s						
KIEV	Kiev	65.36	320	⇓P	P	13 53 08.3	0.0
KIEV	Kiev	65.36	320	P	P	13 53 07.6	-0.7
KIEV	Kiev	65.36	320	⇓P	P	13 53 08.3	0.0
KIEV	Kiev	65.36	320	P	P	13 53 08.5	+0.2
	comp=Z,26nm,1.5s						
EPOS	Posof	65.45	305	P	P	13 53 10.2	+0.9
	comp=Z,18nm,1.4s						
MFID	Camas Ranch	65.48	52	IAmb	IAmb	13 53 11.5	
	comp=Z,7.2nm,1.0s						
BEKR	Beckworth	65.54	57	IAmb	IAmb	13 53 11.8	
	comp=Z,9.2nm,1.1s						
SOC	Sochi	65.57	309	*e*P	P	13 53 10.4	+0.6
SOC				*e*S	S	14 01 57.9	+3.2
SOC				*e*SS	SS	14 06 10.9	+3.2
SOC				pmax	pmax		
	comp=Z,30nm,1.4s						
SOC				MLR	MLR		
	comp=Z,171nm,15.0s						
AFDM	Forest Hills D	65.84	58	IAmb	IAmb	13 53 13.6	
	comp=Z,10nm,1.3s						
PALK	Pallekele	65.97	253	LR	LR	14 23 57.2	
	comp=Z,167nm,21.4s,baz=31,slow=38						
HLID	Hailey	66.10	51	IAmb	IAmb	13 53 15.8	
	comp=Z,16nm,1.9s						
HLID	Hailey	66.10	51	P	P	13 53 15.1	+1.6
	comp=Z,3.2nm,1.7s						
PAHR	Pah Rah Range	66.19	57	IAmb	IAmb	13 53 16.1	
	comp=Z,7.2nm,1.0s						
PNTR	Pine Nut	66.51	57	IAmb	IAmb	13 53 18.5	
	comp=Z,9.7nm,1.0s						
OZAP	Van, Ozalp-Mer	66.75	302	⇓P	P	13 53 20.0	+2.2
YERR	Yerington	66.78	57	IAmb	IAmb	13 53 20.1	
	comp=Z,13nm,1.0s						
YHL	Hebgen Lake	66.79	48	IAmb	IAmb	13 53 20.1	
	comp=Z,9.8nm,1.3s						
CMB	Columbia Colle	66.81	58	IAmb	IAmb	13 53 20.1	
	comp=Z,13nm,1.2s						
WAKR	Walker	67.01	57	IAmb	IAmb	13 53 21.8	
	comp=Z,8.2nm,1.0s						
YPP	Pitchstone Pla	67.40	48	IAmb	IAmb	13 53 25.1	
	comp=Z,20nm,1.8s						
H17A	Grant Village	67.42	48	IAmb	IAmb	13 53 25.5	
	comp=Z,8.9nm,1.0s						
GEVA	Gevas	67.52	303	IAmb	IAmb	13 53 25.7	
	comp=Z,10.0nm,1.2s						
SORM	Soroca	67.65	318	⇓P	P	13 53 22.8	-0.2
SORM	Soroca	67.65	318	⇓P	P	13 53 22.8	-0.2
NVAR	Mina Array Bea	67.69	57	P	P	13 53 24.4	+0.7
	comp=Z,2.9nm,0.7s,baz=317,slow=6.6,SNR=23						
NVAR				LR	LR	14 21 43.2	
	comp=Z,108nm,19.1s,baz=311,slow=35						
	comp=Z,2.9nm,0.7s						
NVAR	Mina Array Bea	67.69	57	P	P	13 53 24.3	+0.6
ELK	Elko	67.69	53	P	P	13 53 24.7	+0.9
FXWY	Fox Creek	67.75	49	IAmb	IAmb	13 53 26.6	
	comp=Z,14nm,1.6s						
BEL	Belsk	67.85	325	*e*P	P	13 53 26.1	+1.8
LOHW	Long Hollow	67.98	48	IAmb	IAmb	13 53 28.0	
	comp=Z,18nm,1.5s						
HVU	Hansel Valley	68.23	51	IAmb	IAmb	13 53 29.2	
	comp=Z,9.8nm,1.3s						
KELT	Kelkit	68.27	306	P	P	13 53 27.8	+0.5
	comp=Z,47nm,1.6s						
FITZ	Fitzroy Crossi	68.36	197	P	P	13 53 28.4	+0.8
	comp=Z,5.8nm,2.0s						
TPH	Tonopah	68.54	56	IAmb	IAmb	13 53 31.0	
	comp=Z,9.9nm,1.1s						
BGU	Big Grassy Mou	68.72	52	IAmb	IAmb	13 53 33.4	
	comp=Z,10nm,1.4s						
CTA	Charters Tower	68.83	176	LR	LR	14 27 48.7	
	comp=Z,26nm,18.0s,baz=244,slow=40						
WRAB	Tennant Creek	68.93	188	*ce*P	P	13 53 31.5	+0.3
WRAB				pmax	pmax		
	comp=Z,28nm,1.7s						
WRAB	Tennant Creek	68.93	188	P	P	13 53 30.1	-1.2
WRAB	Tennant Creek	68.93	188	P	P	13 53 31.2	0.0
	comp=Z,16nm,1.6s						
WRA	Warramunga Arr	68.94	188	P	P	13 53 30.6	-0.8
	comp=Z,4.7nm,0.9s,baz=6.4,slow=6.6,SNR=45						
	comp=Z,4.7nm,0.9s						
WRA	Warramunga Arr	68.94	188	*i* P	P	13 53 31.0	-0.3
WRA				pmax	pmax		
	comp=Z,5.0nm,0.9s						
WRA	Warramunga Arr	68.94	188	P	P	13 53 30.8	-0.5
HWUT	Hardware Ranch	68.97	50	IAmb	IAmb	13 53 33.8	
	comp=Z,12nm,1.1s						
HWUT	Hardware Ranch	68.97	50	P	P	13 53 32.6	+0.9
	comp=Z,12nm,1.3s						
UOSS	Minazif	69.04	284	P	P	13 53 31.0	-1.1
UOSS	Minazif	69.04	284	P	P	13 53 31.4	-0.7
	comp=Z,11nm,1.5s						
GMN	Gold Mountain	69.07	57	IAmb	IAmb	13 53 34.7	
	comp=Z,12nm,1.7s						
BW06	Boulder Array	69.12	48	IAmb	IAmb	13 53 34.1	
	comp=Z,9.7nm,1.1s						
PD31	Pinedale Array	69.12	48	IAmb	IAmb	13 53 34.2	
	comp=Z,8.8nm,1.0s						
PDAR	Pinedale Array	69.12	48	P	P	13 53 32.7	+0.1
	comp=Z,2.7nm,0.7s,baz=316,slow=4.6,SNR=31						
PDAR				LR	LR	14 27 00.7	
	comp=Z,65nm,18.4s,baz=320,slow=39						
	comp=Z,2.7nm,0.7s						
PDAR	Pinedale Array	69.12	48	P	P	13 53 32.5	-0.1
CWC	Cottonwood Cre	69.23	58	IAmb	IAmb	13 53 36.2	
	comp=Z,14nm,1.7s						
QIS	Mount Isa	69.24	183	P	P	13 53 33.0	-0.2
ULM	Lac du Bonnet	69.36	36	P	P	13 53 32.9	-0.8
	comp=Z,5.2nm,0.8s,baz=324,slow=8.7,SNR=6.6						
ULM				LR	LR	14 27 52.7	
	comp=Z,143nm,18.7s,baz=344,slow=39						
	comp=Z,5.2nm,0.8s						
ULM	Lac du Bonnet	69.36	36	IAmb	IAmb	13 53 34.1	
	comp=Z,8.7nm,0.9s						
GIRR	Girov	69.36	319	⇓P	P	13 53 33.8	0.0
DUG	Dugway, Tooele	69.36	52	IAmb	IAmb	13 53 36.3	
	comp=Z,15nm,1.2s						
DUG	Dugway, Tooele	69.36	52	P	P	13 53 35.6	+1.5
	comp=Z,12nm,1.6s						
BUR08	Bucovina Ar. S	69.39	320	IAmb	IAmb	13 53 35.5	
	comp=Z,10nm,1.1s						
BURAR	Bucovina Array	69.40	320	⇓P	P	13 53 34.8	+0.7
BURAR	Bucovina Array	69.40	320	P	P	13 53 33.6	-0.6
BURAR				IAmb	IAmb	13 53 35.9	
	comp=Z,17nm,1.5s						
BURAR	Bucovina Array	69.40	320	⇓P	P	13 53 34.8	+0.7
TCUT	Toone Canyon	69.41	51	IAmb	IAmb	13 53 36.5	
	comp=Z,7.3nm,0.9s						
ARPR	Arapgir-MALATY	69.52	306	P	P	13 53 36.1	+1.0
	comp=Z,19nm,1.7s						
OJC	Ojcow	69.52	325	*e*P	P	13 53 35.5	+0.8
OJC	Ojcow	69.52	325	P	P	13 53 35.6	+0.9
	comp=Z,23nm,1.7s						
KOLS	Kolonicke sedl	69.58	322	*e*P	P	13 53 36.1	+1.0
KOLS				pmax	pmax		
	comp=Z,6.0nm,0.8s						
KOLS	Kolonicke sedl	69.58	322	*e*P	P	13 53 36.1	+1.0
STHS	Stebnicka Huta	69.61	323	*e*P	P	13 53 35.8	+0.5
STHS				pmax	pmax		
	comp=Z,10.0nm,1.0s						
STHS	Stebnicka Huta	69.61	323	*e*P	P	13 53 35.8	+0.5
TESR	Tescani	69.64	318	⇓P	P	13 53 36.0	+0.5
TESR	Tescani	69.64	318	P	P	13 53 35.6	+0.1
	comp=Z,19nm,1.6s						
TPNV	Topopah Spring	69.89	57	IAmb	IAmb	13 53 39.4	
	comp=Z,11nm,1.0s						
ONER	Baraj Valea Uz	69.89	318	⇓P	P	13 53 38.0	+0.9
CLC	China Lake	69.95	58	IAmb	IAmb	13 53 39.5	
	comp=Z,8.7nm,1.0s						
NIE	Niedzica	69.97	324	*e*P	P	13 53 38.9	+1.3
MPU	Maple Canyon	70.11	52	IAmb	IAmb	13 53 40.7	
	comp=Z,8.2nm,1.0s						
TRPA	Tarpa	70.11	322	P	P	13 53 39.1	+0.8
	comp=Z,27nm,1.7s						
LRMC	Laurel Mtn Rad	70.15	59	IAmb	IAmb	13 53 40.7	
	comp=Z,30nm,1.9s						
GWY	Greenwater Val	70.21	58	IAmb	IAmb	13 53 41.2	
	comp=Z,9.1nm,0.9s						
SAHR	Sahastru	70.23	318	⇑P	P	13 53 40.0	+0.8
QSM	Queen of Sheba	70.25	58	IAmb	IAmb	13 53 41.5	
	comp=Z,13nm,1.0s						
TPO	Tropico Hills	70.28	59	IAmb	IAmb	13 53 41.8	
	comp=Z,17nm,1.1s						
CCCA	Chr Cany lake	70.30	58	IAmb	IAmb	13 53 41.8	
	comp=Z,12nm,0.8s						
KSP	Ksiaz	70.31	327	*e*P	P	13 53 40.2	+0.6
OZUR		70.34	319	⇓P	P	13 53 40.8	+1.0
ABAH	Abaujker	70.50	323	P	P	13 53 42.2	+1.4
	comp=Z,9.5nm,1.8s						
LANS	Liptovska Anna	70.51	324	*e*P	P	13 53 42.2	+1.3
LANS				pmax	pmax		
	comp=Z,7.0nm,1.0s						
LANS	Liptovska Anna	70.51	324	*e*P	P	13 53 42.2	+1.3
SHOC	Shoshone, Teco	70.63	57	IAmb	IAmb	13 53 43.7	
	comp=Z,7.7nm,1.0s						
UPC	Upice	70.69	327	*e*P	P	13 53 42.3	+0.4
UPC	Upice	70.69	327	*e*P	P	13 53 42.3	+0.4
UPC	Upice	70.69	327	P	P	13 53 42.3	+0.4
	comp=Z,13nm,2.6s						
DPC	Dobruska-Polom	70.71	327	*e*P	P	13 53 42.9	+0.8
DPC	Dobruska-Polom	70.71	327	*e*P	P	13 53 42.9	+0.8
DPC	Dobruska-Polom	70.71	327	P	P	13 53 43.6	+1.6
	comp=Z,14nm,2.6s						
MESR	Meseseni	70.72	321	⇑P	P	13 53 42.5	+0.4
RSSD	Black Hills	70.73	44	P	P	13 53 42.3	-0.2
RSSD	Black Hills	70.73	44	P	P	13 53 42.5	0.0
	comp=Z,15nm,1.5s						
MORC	Moravsky Berou	70.73	326	⇑P	P	13 53 43.0	+0.7
MORC	Moravsky Berou	70.73	326	IAmb	IAmb	13 53 44.1	
	comp=Z,14nm,0.9s						
MORC	Moravsky Berou	70.73	326	*e*P	P	13 53 42.5	+0.3
MORC	Moravsky Berou	70.73	326	⇑P	P	13 53 43.0	+0.7
MORC	Moravsky Berou	70.73	326	P	P	13 53 42.9	+0.7
	comp=Z,19nm,1.3s						
MLR	Muntele Rosu	70.74	318	LR	LR	14 26 30.1	
	comp=Z,97nm,19.4s,baz=18,slow=37						
MLR	Muntele Rosu	70.74	318	IAmb	IAmb	13 53 44.3	
	comp=Z,21nm,1.4s						
MLR	Muntele Rosu	70.74	318	P	P	13 53 42.8	+0.4
	comp=Z,10nm,1.5s						
RDMU	Red Mountain	70.75	50	IAmb	IAmb	13 53 44.6	
	comp=Z,12nm,1.0s						
ISR	Istrita	70.77	317	⇓P	P	13 53 43.8	+1.3
ISR	Istrita	70.77	317	⇓P	P	13 53 43.8	+1.3
KRLC	Kraliky	70.77	326	P	P	13 53 43.2	+0.8
	comp=Z,16nm,1.4s						
FLTG	Flechtingen	70.80	331	P	P	13 53 42.0	-0.5
	comp=Z,9.0nm,1.4s						
MWC	Mount Wilson	70.85	60	IAmb	IAmb	13 53 45.0	
	comp=Z,20nm,1.3s						
BNN	Bunyan	71.01	308	IAmb	IAmb	13 53 45.9	
	comp=Z,16nm,1.2s						
MARR	Marisel-Cluj	71.02	320	⇓P	P	13 53 45.0	+0.9
BFSC	Mount Baldy Ra	71.06	60	IAmb	IAmb	13 53 46.1	
	comp=Z,9.7nm,1.1s						
CLL	Collm	71.08	329	*i* P	P	13 53 43.5	-0.7
CLL				pmax	pmax		
	comp=Z,17nm,1.1s						
CLL	Collm	71.08	329	IAmb	IAmb	13 53 45.3	
	comp=Z,14nm,1.0s						
CLL	Collm	71.08	329	P	P	13 53 44.0	-0.2
	comp=Z,16nm,1.3s						
CLL	Collm	71.08	329	*i* P	P	13 53 43.5	-0.7
	comp=Z,17nm,1.1s						
CLL				*e*(PcP)	PcP	13 54 01.0	-3.4
CLL				*e*PP	PP	13 56 22.0	+0.9
CLL				AMS	AMS	14 25 00.0	
	comp=N,200nm,17.0s						
CLL				AMS	AMS	14 25 00.0	
	comp=E,300nm,19.1s						
CLL				AMS	AMS	14 28 00.0	
	comp=Z,200nm,21.1s						
DRGR		71.10	321	⇓P	P	13 53 45.0	+0.4
DRGR		71.10	321	P	P	13 53 45.1	+0.6
	comp=Z,9.3nm,2.0s						
BRG	Berggiesshubel	71.12	328	*e*P	P	13 53 44.9	+0.5
BRG				Amp		13 53 46.9	
	comp=Z,8.8nm,1.2s						
Q16A	Castle Valley	71.16	52	IAmb	IAmb	13 53 48.1	
	comp=Z,21nm,1.7s						
VOIR		71.17	319	⇑P	P	13 53 45.6	+0.6
VOIR		71.17	319	⇑P	P	13 53 45.6	+0.6
VOIR		71.17	319	P	P	13 53 46.2	+1.2
	comp=Z,12nm,1.2s						
VYHS	Vyhne	71.29	324	*e*P	P	13 53 46.4	+0.8
VYHS				pmax	pmax		
	comp=Z,44nm,1.9s						
VYHS	Vyhne	71.29	324	*e*P	P	13 53 46.4	+0.8
VYHS	Vyhne	71.29	324	P	P	13 53 46.6	+1.0
	comp=Z,4.9nm,1.6s						
PSZ	Piszkesteto	71.34	323	P	P	13 53 47.2	+1.2
PSZ				pmax	pmax		
	comp=Z,15nm,1.4s						
PSZ	Piszkesteto	71.34	323	IAmb	IAmb	13 53 48.1	
	comp=Z,18nm,1.2s						
PSZ	Piszkesteto	71.34	323	P	P	13 53 46.7	+0.7
	comp=Z,15nm,1.4s						
ARR	Arges	71.41	319	⇑P	P	13 53 47.4	+1.0
ARR	Arges	71.41	319	P	P	13 53 48.3	+1.9
	comp=Z,21nm,1.6s						
JAVC	Velka Javorina	71.44	325	*e*P	P	13 53 48.0	+1.5
JAVC	Velka Javorina	71.44	325	P	P	13 53 48.3	+1.8
	comp=Z,19nm,1.3s						
VRAC	Vranov	71.47	326	LR	LR	14 29 57.5	
	comp=Z,157nm,18.6s,baz=28,slow=40						
VRAC	Vranov	71.47	326	*e*P	P	13 53 47.2	+0.6
VRAC	Vranov	71.47	326	P	P	13 53 47.6	+1.0
	comp=Z,4.7nm,1.9s						
CLZ	Clausthal	71.49	331	P	P	13 53 47.9	+1.2
	comp=Z,14nm,1.6s						
BRTR	Keskin Array B	71.50	310	P	P	13 53 47.0	-0.1
	comp=Z,3.3nm,1.0s,baz=60,slow=2.7,SNR=13						
BRTR				LR	LR	14 27 54.0	
	comp=Z,66nm,19.5s,baz=53,slow=38						
	comp=Z,3.3nm,1.0s						
BRTR	Keskin Array B	71.50	310	*i* P	P	13 53 47.5	+0.4
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
BRTR	Keskin Array B	71.50	310	P	P	13 53 46.8	-0.3
HSKC	Hora Svate Kat	71.52	328	P	P	13 53 47.4	+0.5
	comp=Z,9.6nm,1.4s						
PRU	Pruhonice	71.65	327	P	P	13 53 49.0	+1.3
	comp=Z,9.5nm,1.5s						
PKCU	Pink Cliffs	71.66	54	IAmb	IAmb	13 53 51.0	
	comp=Z,13nm,1.1s						
ANDN	Andirin	71.69	306	P	P	13 53 49.0	+0.7
	comp=Z,51nm,1.6s						
LOT	Lotru	71.72	319	P	P	13 53 49.0	+0.6
	comp=Z,4.2nm,1.8s						
O20A	White River Ci	71.75	50	IAmb	IAmb	13 53 50.2	
	comp=Z,18nm,1.1s						
KRUC	Moravsky	71.75	326	*e*P	P	13 53 49.0	+0.7
KRUC	Moravsky	71.75	326	P	P	13 53 48.9	+0.7
	comp=Z,19nm,1.8s						
SMOL	Smolenice	71.81	325	*e*P	P	13 53 50.7	+2.0
SMOL				pmax	pmax		
	comp=Z,4.0nm,0.8s						
TREC	Trest	71.89	326	P	P	13 53 49.9	+0.7
	comp=Z,11nm,1.5s						
HAYD	Hayden	71.94	49	IAmb	IAmb	13 53 52.9	
	comp=Z,17nm,1.5s						
MODS	Modra-Piesok	71.99	325	*e*P	P	13 53 50.3	+0.5
MODS	Modra-Piesok	71.99	325	*e*P	P	13 53 50.3	+0.5
MODS	Modra-Piesok	71.99	325	P	P	13 53 51.6	+1.8
	comp=Z,20nm,1.5s						
SRO	Srobarova	72.05	324	*e*P	P	13 53 51.8	+1.7
SRO				pmax	pmax		
	comp=Z,13nm,0.8s						
SRO	Srobarova	72.05	324	*e*P	P	13 53 51.8	+1.7
EKA	Eskdalemuir Ar	72.09	340	P	P	13 53 50.1	-0.1
	comp=Z,2.8nm,0.8s,baz=38,slow=8.1,SNR=3.0						
	comp=Z,2.8nm,0.8s						
MOX	Moxa	72.11	329	P	P	13 53 51.3	+0.8
	comp=Z,12nm,1.9s						
HMU	Henry Mountain	72.12	53	IAmb	IAmb	13 53 52.8	
	comp=Z,15nm,1.0s						
GZR	Gura Zlata	72.19	320	⇑P	P	13 53 51.0	-0.1
GZR	Gura Zlata	72.19	320	⇑P	P	13 53 51.0	-0.1
PFO	Pinyon Flats O	72.20	59	LR	LR	14 21 26.0	
	comp=Z,104nm,21.6s,baz=316,slow=32						
PFO	Pinyon Flats O	72.20	59	P	P	13 53 51.4	0.0
PFO				pmax	pmax		
	comp=Z,10.0nm,1.3s						
PFO	Pinyon Flats O	72.20	59	P	P	13 53 51.4	0.0
U15A	North Rim	72.42	55	IAmb	IAmb	13 53 55.2	
	comp=Z,12nm,1.1s						
BORC	Borrego Spring	72.47	59	IAmb	IAmb	13 53 55.3	
	comp=Z,20nm,1.6s						
BZS	Buzias	72.50	321	P	P	13 53 53.5	+0.7
	comp=Z,10nm,1.4s						
PV21	Cone Mtn., Par	72.56	51	IAmb	IAmb	13 53 55.4	
	comp=Z,9.2nm,0.9s						
WINA	Alland / Wiene	72.66	325	*e*pP	P	13 53 54.9	+1.1
	comp=Z,9.9nm,1.0s,SNR=7.0						
ASAR	Alice Springs	72.67	188	P	P	13 53 54.3	+0.3
	comp=Z,3.6nm,0.6s,baz=2.3,slow=5.6,SNR=80						
ASAR				LR	LR	14 25 53.5	
	comp=Z,38nm,21.6s,baz=360,slow=36						
	comp=Z,3.6nm,0.6s						
ASAR	Alice Springs	72.67	188	P	P	13 53 53.9	-0.1
ASAR	Alice Springs	72.67	188	P	P	13 53 53.9	-0.1
PV22	Blue Mesa, Par	72.68	51	IAmb	IAmb	13 53 56.0	
	comp=Z,8.8nm,0.9s						
CKRC	Cesky Krumlov	72.71	327	*e*P	P	13 53 55.2	+1.1
CKRC	Cesky Krumlov	72.71	327	*e*P	P	13 53 55.2	+1.1
KHC	Kasperske Hory	72.71	327	*ce*P	P	13 53 55.3	+1.2
KHC				pmax	pmax		
	comp=Z,18nm,1.3s						
KHC	Kasperske Hory	72.71	327	*e*P	P	13 53 55.1	+0.9
KHC	Kasperske Hory	72.71	327	IAmb	IAmb	13 53 56.1	
	comp=Z,17nm,1.2s						
KHC	Kasperske Hory	72.71	327	P	P	13 53 55.0	+0.9
	comp=Z,13nm,2.5s						
PV04	Paradox Valley	72.72	51	IAmb	IAmb	13 53 56.4	
	comp=Z,21nm,1.2s						
BC3	Big Chuckawall	72.73	59	IAmb	IAmb	13 53 56.3	
	comp=Z,12nm,1.4s						
F33A	5 Mile Ranch,	72.75	39	IAmb	IAmb	13 53 55.0	
	comp=Z,9.7nm,1.0s						

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HERR  Herculane        72.75 320 ⇑P      P       13 53 55.2 +0.9
PV16  Nyswonger Mesa   72.78  51  IAmb   IAmb    13 53 56.8
      comp=Z,19nm,1.3s
SOP   Sopron           72.83 325  P      P       13 53 56.3 +1.5
      comp=Z,22nm,1.3s
PV03  Paradox Valley   72.86  51  IAmb   IAmb    13 53 57.2
      comp=Z,17nm,1.4s
PV05  Paradox Valley   72.86  51  IAmb   IAmb    13 53 57.3
      comp=Z,16nm,1.0s
MPLH  Magyarpolny      72.88 324  P      P       13 53 56.1 +1.1
      comp=Z,21nm,1.4s
CONA  Conrad Observa   72.89 325 epP     P       13 53 56.3 +1.1
      comp=Z,10.0nm,1.0s,SNR=7.9
GEC2  GERESS Array S   72.91 327  P      P       13 53 56.1 +0.7
GERES GERESS Array B   72.91 327  P      P       13 53 55.3  0.0
      comp=Z,2.1nm,0.7s,baz=29,slow=6.4,SNR=17
      comp=Z,2.1nm,0.7s
RONA  Rosalia, Austr   72.91 325 epP     P       13 53 56.6 +1.3
      comp=Z,14nm,1.1s,SNR=9.3
PV13  Radium Mtn., P   72.95  51  IAmb   IAmb    13 53 57.7
      comp=Z,22nm,1.3s
WET   Wettzell         72.95 328  P      P       13 53 56.4 +0.9
      comp=Z,14nm,1.4s
GRA2  Grafenberg Arr   73.04 329  P      P       13 53 57.0 +1.0
      comp=Z,21nm,1.3s
GRA1  Grafenberg Arr   73.05 329  IAmb   IAmb    13 53 58.0
      comp=Z,16nm,1.0s
GRA1  Grafenberg Arr   73.05 329  P      P       13 53 57.4 +1.3
      comp=Z,17nm,1.2s
GRF   Grafenberg Arr   73.05 329 eP      P       13 53 57.3 +1.2
      comp=Z,14nm,1.1s,baz=31,slow=5.2
PV01  Paradox Valley   73.09  51  IAmb   IAmb    13 53 58.5
      comp=Z,30nm,1.9s
GRB3  Grafenberg Arr   73.15 329  P      P       13 53 57.3 +0.6
      comp=Z,19nm,1.4s
GRB1  Grafenberg Arr   73.16 329  P      P       13 53 57.3 +0.6
      comp=Z,16nm,1.4s
YUH   Yuha Desert      73.21  60  IAmb   IAmb    13 53 59.0
      comp=Z,12nm,1.1s
MORH  Mrgy, Hungar     73.23 323 ⇓P      P       13 53 56.9 -0.2
MORH  Mrgy, Hungar     73.23 323  P      P       13 53 57.5 +0.4
      comp=Z,8.0nm,2.4s
GRB2  Grafenberg Arr   73.26 329  P      P       13 53 58.0 +0.7
      comp=Z,11nm,1.9s
ISCO  Idaho Springs    73.30  48  P      P       13 53 59.3 +1.2
ISCO  Idaho Springs    73.30  48  IAmb   IAmb    13 54 00.1
      comp=Z,17nm,1.5s
ISCO  Idaho Springs    73.30  48  P      P       13 53 58.9 +0.8
      comp=Z,7.6nm,1.4s
MOA   Molln            73.54 326 epP     P       13 53 59.8 +0.7
      comp=Z,3.7nm,0.8s
ARSA  Arzberg          73.58 325  IAmb   IAmb    13 54 01.5
      comp=Z,18nm,1.5s
ARSA  Arzberg          73.58 325 epP     P       13 54 00.2 +1.0
      comp=Z,8.8nm,1.2s,SNR=6.3
ARSA  Arzberg          73.58 325  P      P       13 54 00.0 +0.8
      comp=Z,9.8nm,1.5s
WUAZ  Wupatki          73.59  55  IAmb   IAmb    13 54 02.2
      comp=Z,14nm,1.2s
GRC3  Grafenberg Arr   73.61 328  P      P       13 54 00.4 +1.0
      comp=Z,13nm,1.9s
ESJX  Sierra Juarez    73.67  60  IAmb   IAmb    13 54 02.1
      comp=Z,13nm,1.1s
SCHQ  Schefferville    73.75  17  LR     LR      14 27 41.2
      comp=Z,140nm,21.7s,baz=334,slow=37
MVCO  Mesa Verde       73.83  52  IAmb   IAmb    13 54 02.9
      comp=Z,13nm,1.2s
MVCO  Mesa Verde       73.83  52  P      P       13 54 02.4 +1.2
      comp=Z,9.9nm,1.4s
BIOA  Bad Ischl, Aus   73.91 327 i pP    P       13 54 02.1 +0.9
      comp=Z,7.3nm,1.2s
SESA  Seetaler Alpe,   74.05 326 epP     P       13 54 03.0 +0.7
      comp=Z,15nm,0.7s,SNR=6.8
RJOB  Jochberg         74.17 327  P      P       13 54 03.8 +1.0
      comp=Z,5.6nm,1.4s
SOKA  Soboth           74.24 325 epP     P       13 54 03.7 +0.5
      comp=Z,7.0nm,1.1s,SNR=5.9
PERS  Pernice          74.25 325 i P     P       13 54 03.5 +0.2
ECSD  EROS Data Cent   74.32  40  IAmb   IAmb    13 54 04.3
      comp=Z,28nm,1.6s
ECSD  EROS Data Cent   74.32  40  P      P       13 54 03.2 -0.5
      comp=Z,12nm,1.6s
113A  Mohawk Valley,   74.34  58  IAmb   IAmb    13 54 06.7
      comp=Z,22nm,1.8s
LESA  Schwarzleotal    74.48 327 i pP    P       13 54 05.4 +0.8
      comp=Z,10nm,1.0s,SNR=7.7
KBA   Koelnbreinsper   74.53 326 i pP    P       13 54 05.6 +0.6
      comp=Z,12nm,0.7s,SNR=9.5
KBA   Koelnbreinsper   74.53 326  P      P       13 54 06.0 +1.0
      comp=Z,27nm,1.4s
OBKA  Obir             74.56 325 i P     P       13 54 04.4 -0.7
      comp=Z,12nm,1.3s
OBKA  Obir             74.56 325  P      P       13 54 05.7 +0.6
      comp=Z,12nm,1.5s
KEPZ  Antalya-Kepez    74.68 309 ⇑P      P       13 54 05.9 +0.1
CRES  Cresnjevec Ost   74.80 324 i P     P       13 54 05.9 -0.5
MYKA  Terra Mystica    74.80 326 eP      P       13 54 06.2 -0.2
      comp=Z,10nm,1.0s,SNR=5.2
DOU   Dourbes          74.81 333 dP      P       13 54 05.9 -0.4
      comp=Z,4.7nm,1.4s
DOU                              dPP     PP      13 56 50.3 -2.5
WATA  Walderalm        74.94 328 i pP    P       13 54 08.0 +0.7
      comp=Z,11nm,1.0s,SNR=9.4
WTTA  Wattenberg       74.98 328 i pP    P       13 54 08.2 +0.5
      comp=Z,14nm,0.9s,SNR=10
WTTA  Wattenberg       74.98 328  P      P       13 54 08.6 +1.0
      comp=Z,25nm,1.6s
PRED  Cave del Predi   74.99 326  P      P       13 54 07.0 -0.5
      comp=Z,11nm,1.5s
RETA  Reutte           75.10 328 i pP    P       13 54 08.7 +0.5
      comp=Z,11nm,1.6s
MOTA  Moosalm          75.10 328 epP     P       13 54 08.8 +0.5
      comp=Z,13nm,1.0s,SNR=9.8
X18A  Snowflake        75.11  54  IAmb   IAmb    13 54 10.8
      comp=Z,17nm,1.6s
ABTA  Abfaltersbach    75.11 327 i pP    P       13 54 08.5 +0.2
      comp=Z,9.6nm,1.2s
SQTA  Sankt Quirin     75.17 328 epP     P       13 54 09.1 +0.4
      comp=Z,11nm,1.0s,SNR=7.7
QLP   Quilpie          75.22 178  P      P       13 54 09.9 +1.2
      comp=Z,35nm,1.7s
SRS   Serrai           75.25 317  P      P       13 54 08.9 -0.1
      comp=Z,34nm,1.2s
ASF   Jabal al Asfar   75.43 302  P      P       13 54 10.5 +0.1
      comp=Z,3.2nm,0.5s,baz=38,slow=1.6,SNR=5.6
ASF                               LR     LR      14 33 32.7
      comp=Z,83nm,18.7s,baz=26,slow=41
      comp=Z,3.2nm,0.5s
FETA  Feichten         75.51 328 epP     P       13 54 11.2 +0.6
      comp=Z,9.0nm,1.1s,SNR=8.9
DAVA  Damuels          75.58 329 epP     P       13 54 11.3 +0.3
      comp=Z,7.6nm,1.0s
DAVA  Damuels          75.58 329  P      P       13 54 11.7 +0.6
      comp=Z,12nm,1.2s
MMAI  Mount Meron Ar   75.62 304  LR     LR      14 31 19.9
      comp=Z,74nm,18.2s,baz=30,slow=39
G40A  Rib Lake         75.63  35  IAmb   IAmb    13 54 11.8
      comp=Z,13nm,0.9s
AYDN  Tasoluk          75.96 312  P      P       13 54 13.7 +0.4
      comp=Z,69nm,1.5s
T25A  Trinidad         75.96  49  IAmb   IAmb    13 54 14.8
      comp=Z,15nm,1.2s
DAVOX Davos/Dischmat   76.02 328  LR     LR      14 31 01.2
      comp=Z,144nm,19.2s,baz=77,slow=38
FUORN Ofenpass-Fuorn   76.02 328  IAmb   IAmb    13 54 15.7
      comp=Z,21nm,1.1s
FUORN Ofenpass-Fuorn   76.02 328  P      P       13 54 14.5 +0.8
      comp=Z,17nm,1.4s
CTI   Castel Tesino    76.02 327  IAmb   IAmb    13 54 13.9
      comp=Z,11nm,1.1s
PDG   Podgorica        76.08 320  IAmb   IAmb    13 54 14.8
      comp=Z,16nm,1.0s
PDG   Podgorica        76.08 320  P      P       13 54 13.3 -0.4
      comp=Z,18nm,1.2s
CGRP  Cima Grappa      76.11 327  P      P       13 54 13.2 -1.0
      comp=Z,12nm,2.0s
TUC   Tucson           76.34  56  P      P       13 54 16.4 +0.9
      comp=Z,4.0nm,1.4s
INKA  Innaminka        76.36 181  P      P       13 54 15.6 +0.3
TUE   Stuetta          76.47 329  IAmb   IAmb    13 54 17.9
      comp=Z,12nm,1.1s
TUE   Stuetta          76.47 329  P      P       13 54 16.7 +0.5
      comp=Z,13nm,1.4s
TASM  ASL Pad, Albuq   76.62  52  IAmb   IAmb    13 54 19.4
      comp=Z,9.5nm,1.3s
ANMO  Albuquerque      76.63  52  LR     LR      14 28 34.0
      comp=Z,81nm,18.5s,baz=333,slow=36
ANMO  Albuquerque      76.63  52ceP      P       13 54 18.4 +1.1
ANMO                              pmax   pmax
      comp=Z,18nm,2.5s
ANMO  Albuquerque      76.63  52  P      P       13 54 17.6 +0.4
ANMO  Albuquerque      76.63  52  P      P       13 54 18.2 +0.9
      comp=Z,6.3nm,1.5s
ALQ   Albuquerque      76.63  52  IAmb   IAmb    13 54 19.4
      comp=Z,6.8nm,1.2s
RAYN  Ar Rayn          76.79 291  P      P       13 54 17.4 -0.8
RAYN                              pmax   pmax
      comp=Z,13nm,1.3s
RAYN  Ar Rayn          76.79 291  P      P       13 54 17.4 -0.8
RAYN                              IAmb   IAmb    13 54 19.8
      comp=Z,13nm,1.2s
RAYN  Ar Rayn          76.79 291  P      P       13 54 17.8 -0.4
      comp=Z,13nm,1.7s
KBN   Korca            76.90 318  P      P       13 54 18.5  0.0
      comp=Z,19nm,1.2s
MSBI  Mazada           76.94 303  P      P       13 54 17.8 -0.9
      comp=Z,29nm,0.5s
SENIN Lac Senin/Sane   77.25 330  IAmb   IAmb    13 54 22.1
      comp=Z,15nm,1.4s
LOR   Lormes           77.55 332  P      P       13 54 22.3 +0.3
      comp=Z,12nm,1.9s
121A  Cookes Peak, D   77.79  54  IAmb   IAmb    13 54 26.2
      comp=Z,13nm,1.1s
FDMO  Fiordimonte      78.06 324  IAmb   IAmb    13 54 27.4
      comp=Z,19nm,1.1s
EIL   Elat             78.42 302  P      P       13 54 27.3 +0.2
      comp=Z,16nm,1.7s
AQU   L'Aquila         78.52 324  P      P       13 54 30.3 +2.8
AQU                               pmax   pmax
      comp=Z,18nm,1.6s
AQU   L'Aquila         78.52 324  P      P       13 54 27.9 +0.4
      comp=Z,22nm,1.6s
BNI   Bardonecchia     78.61 330  P      P       13 54 28.3 +0.2
BNI                               pmax   pmax
      comp=Z,12nm,1.3s
BNI   Bardonecchia     78.61 330  P      P       13 54 28.3 +0.2
BNI                               IAmb   IAmb    13 54 29.7
      comp=Z,12nm,1.2s
BNI   Bardonecchia     78.61 330  P      P       13 54 29.2 +1.1
CESX  Cesi             78.62 325  IAmb   IAmb    13 54 29.1
      comp=Z,20nm,1.4s
ORIF  Oris-en-Rattie   79.00 330  P      P       13 54 30.6 +0.4
      comp=Z,9.0nm,1.4s
P38A  Dawn             79.01  41  IAmb   IAmb    13 54 30.9
      comp=Z,14nm,0.9s
SSB   Saint Sauveur    79.11 331  P      P       13 54 30.6 -0.1
SSB                               pmax   pmax
      comp=Z,14nm,1.2s
SSB   Saint Sauveur    79.11 331  P      P       13 54 30.6 -0.1
SSB                               IAmb   IAmb    13 54 32.2
      comp=Z,14nm,1.2s
SSB   Saint Sauveur    79.11 331  P      P       13 54 30.6 -0.1
      comp=Z,11nm,2.0s
ISO   Isola            79.25 329  P      P       13 54 31.1 -0.4
      comp=Z,8.6nm,1.7s
IDI   Anoyia           79.31 312  LR     LR      14 34 04.6
      comp=Z,77nm,21.7s,baz=38,slow=39
SMWD  Samnorwood       79.63  48  IAmb   IAmb    13 54 35.3
      comp=Z,21nm,1.1s
P40A  Paris            79.72  40  IAmb   IAmb    13 54 34.8
      comp=Z,17nm,1.0s
MNTX  Cornudas Mount   79.72  53  P      P       13 54 34.9 +0.7
      comp=Z,8.3nm,1.5s
SADO  Sadowa           79.92  29  LR     LR      14 34 43.0
      comp=Z,94nm,20.4s,baz=352,slow=39
T35A  Sooner Cattle    79.92  44  IAmb   IAmb    13 54 36.3
      comp=Z,22nm,1.0s
OK048 Pawnee Station   80.13  45  IAmb   IAmb    13 54 37.6
      comp=Z,21nm,1.1s
TPB28                  80.20  53  IAmb   IAmb    13 54 40.2
      comp=Z,58nm,1.8s
TPB11 China Draw       80.24  52  IAmb   IAmb    13 54 39.0
      comp=Z,13nm,1.1s
DKNS  Dickens          80.44  49  IAmb   IAmb    13 54 39.5
      comp=Z,27nm,1.7s
STKA  Stephens Creek   80.47 180  LR     LR      14 32 31.3
      comp=Z,56nm,18.1s,baz=209,slow=37
OK052 Battle Ridge R   80.54  45  IAmb   IAmb    13 54 39.9
      comp=Z,21nm,1.0s
WMOK  Wichita Mounta   80.63  47  P      P       13 54 39.3 +0.2
      comp=Z,7.8nm,1.4s
POST  Post             80.64  50  IAmb   IAmb    13 54 40.5
      comp=Z,11nm,0.9s
VHRN  Van Horn         80.64  53  IAmb   IAmb    13 54 42.3
      comp=Z,25nm,1.8s
R40A  Maddies Statio   80.66  40  IAmb   IAmb    13 54 39.7
      comp=Z,12nm,0.9s
S39A  Bolivar          80.71  41  IAmb   IAmb    13 54 39.5
      comp=Z,12nm,1.0s
SN07  Snyder 07        80.92  49  IAmb   IAmb    13 54 42.8
      comp=Z,23nm,1.5s
BATG  Bathurst New B   81.07  19  IAmb   IAmb    13 54 42.4
      comp=Z,12nm,0.9s
TUL3  Leonard          81.08  44  IAmb   IAmb    13 54 42.6
      comp=Z,17nm,0.9s
TPB01 Permian Basin    81.15  53  IAmb   IAmb    13 54 43.7
      comp=Z,18nm,1.6s
U38A  Gravette         81.28  43  IAmb   IAmb    13 54 43.2
      comp=Z,9.4nm,1.0s
CCM   Cathedral Cave   81.29  40  P      P       13 54 42.5  0.0
CCM                               pmax   pmax
      comp=Z,14nm,0.9s
CCM   Cathedral Cave   81.29  40  P      P       13 54 42.1 -0.4
      comp=Z,14nm,0.9s
MNHN  Monahans         81.37  52  IAmb   IAmb    13 54 44.8
      comp=Z,12nm,1.3s
TPB05 Hovey Rd         81.41  52  IAmb   IAmb    13 54 45.4
      comp=Z,15nm,1.0s
MTLF  Montolieu        81.58 332  P      P       13 54 44.3 +0.3
      comp=Z,12nm,1.7s
HHAR  Hobbs            81.61  43  IAmb   IAmb    13 54 44.8
      comp=Z,14nm,1.1s
SGCY  Sterling City    81.75  50  IAmb   IAmb    13 54 46.3
      comp=Z,16nm,1.3s
FLET  Fletcher         81.78  24  IAmb   IAmb    13 54 45.7
      comp=Z,14nm,1.0s
ABTX  Abilene, Hawle   81.92  49  IAmb   IAmb    13 54 47.3
      comp=Z,26nm,1.4s
T42A  Van Buren        82.22  40  IAmb   IAmb    13 54 48.2
      comp=Z,17nm,1.2s
H62A  Milan            82.40  23  IAmb   IAmb    13 54 49.3
      comp=Z,16nm,0.9s
TX31  Lajitas Ar. Si   82.49  53  IAmb   IAmb    13 54 51.1
      comp=Z,13nm,1.2s
TXAR  Lajitas Array    82.49  53  P      P       13 54 49.5 +0.4
      comp=Z,3.3nm,0.9s,baz=314,slow=5.8,SNR=29
      comp=Z,3.3nm,0.9s
TXAR  Lajitas Array    82.49  53  P      P       13 54 49.2 +0.1
TXAR  Lajitas Array    82.49  53  P      P       13 54 49.1 +0.1
CEST  Esterri de Car   82.56 332  IAmb   IAmb    13 54 51.3
      comp=Z,17nm,1.2s
FCAR  Ozark Folk Cen   82.74  42  IAmb   IAmb    13 54 50.6
      comp=Z,14nm,1.1s
SAND  Sanderson        82.80  52  IAmb   IAmb    13 54 53.3
      comp=Z,10nm,1.4s
LPIG  La Paz           82.89  61  LR     LR      14 24 11.7
      comp=Z,69nm,21.9s,baz=302,slow=30
LCAR  Lake Charles     83.01  41  IAmb   IAmb    13 54 52.4
      comp=Z,16nm,1.3s
I63A  Otisfield        83.03  23  P      P       13 54 51.2 -0.4
MIAR  Mount Ida        83.22  43  P      P       13 54 52.5 -0.2
      comp=Z,11nm,2.5s
HPIG                   83.30  56  P      P       13 54 53.8 +0.3
      comp=Z,8.7nm,1.5s
BRDY  Brady            83.32  49  IAmb   IAmb    13 54 54.6
      comp=Z,8.9nm,0.9s
WVT   Waverly          84.36  39  P      P       13 54 57.9 -0.6
WVT                               pmax   pmax
      comp=Z,16nm,1.1s
WVT   Waverly          84.36  39  P      P       13 54 57.9 -0.6
WVT   Waverly          84.36  39  P      P       13 54 58.1 -0.4
      comp=Z,14nm,1.5s
CLTN  Cedars of Leba   85.00  37  IAmb   IAmb    13 55 02.5
      comp=Z,11nm,1.2s
PBRG  Braganca         85.55 337 eP      P       13 55 05.2 +0.7
PBRG                             i IAmb  IAmb    13 55 07.5
      comp=Z,48nm,1.9s
PGAV  Gavieira, Arco   85.78 338 eP      P       13 55 07.0 +1.3
KEST  Kesra            85.82 323  P      P       13 55 05.6 -0.3
      comp=Z,7.1nm,0.9s,baz=16,slow=7.4,SNR=7.7
KEST                              LR     LR      14 37 42.9
      comp=Z,121nm,19.5s,baz=338,slow=39
      comp=Z,7.1nm,0.9s
KEST  Kesra            85.82 323  IAmb   IAmb    13 55 07.1
      comp=Z,13nm,1.1s
SWET  Sewanee          85.92  38  IAmb   IAmb    13 55 06.7
      comp=Z,14nm,0.9s
UCM   Universidad Co   86.00 334  P      P       13 55 07.4 +0.7
      comp=Z,23nm,1.7s
POLO  Lamas de Olo     86.22 338 eP      P       13 55 09.4 +1.6
POLO                             i IAmb  IAmb    13 55 09.9
      comp=Z,18nm,1.6s
PVRL  Vila Real        86.30 338 eP      P       13 55 09.9 +1.8
PVRL                             i IAmb  IAmb    13 55 11.2
      comp=Z,44nm,1.7s
TKL   Tuckaleechee C   86.38  36  LR     LR      14 37 09.3
      comp=Z,224nm,18.6s,baz=342,slow=38
ESDC  Sonseca Array    86.79 334  P      P       13 55 10.8 +0.2
      comp=Z,5.3nm,0.9s,baz=22,slow=4.2,SNR=31
ESDC                              LR     LR      14 39 19.5
      comp=Z,89nm,19.4s,baz=0.5,slow=39
      comp=Z,5.3nm,0.9s
ESDC  Sonseca Array    86.79 334  P      P       13 55 10.6  0.0
RAR   Rarotonga        86.87 128  LR     LR      14 25 59.6
      comp=Z,60nm,20.5s,baz=248,slow=30
PAB   San Pablo        87.02 335  P      P       13 55 11.9 +0.1
PAB                               pmax   pmax
      comp=Z,10.0nm,1.1s
PAB   San Pablo        87.02 335  P      P       13 55 11.9 +0.1
PAB                               IAmb   IAmb    13 55 13.4
      comp=Z,10nm,1.1s
PAB   San Pablo        87.02 335  P      P       13 55 12.3 +0.5
      comp=Z,9.2nm,1.5s
ATD   Arta Tunnel      87.42 284  LR     LR      14 38 43.1
      comp=Z,5.4nm,19.1s,baz=40,slow=39
PSBE  So Bento         88.23 338 eP      P       13 55 18.5 +1.0
PMTG  Montargil        88.51 337 eP      P       13 55 19.9 +1.2
PMTG                             i IAmb  IAmb    13 55 24.5
      comp=Z,21nm,2.0s
TAOE  Nuku Hiva Isla   88.64 105 eLR     LR      14 23 30.7
      comp=Z,190nm,25.7s
PARRA Arraiolos        88.70 337 eP      P       13 55 20.3 +0.6
PPT   Papeete          89.59 118  LR     LR      14 36 40.3
      comp=Z,60nm,18.2s,baz=276,slow=36
PPT2  Papeete2         89.61 118 eLR     LR      14 23 57.5
      comp=Z,86nm,24.8s
MDT   Midelt           93.36 332  LR     LR      14 44 26.5
      comp=Z,54nm,18.1s,baz=40,slow=40
VNDA  Vanda           126.80 175  PKP    PKiKP   14 01 29.6 +0.7
      comp=Z,1.1nm,1.0s,baz=342,slow=6.9,SNR=3.8
QSPA  South Pole Qui  138.70 180  PKP    PKPdf   14 01 50.8 -0.2
      comp=Z,2.5nm,1.0s,baz=0.0,slow=1.0,SNR=9.3
BDFB  Brasilia        145.75  18  PKPbc  PKPab   14 02 06.0 +0.1
      comp=Z,9.1nm,0.7s,baz=339,slow=2.5,SNR=11
BDFB  Brasilia        145.75  18  PKP2   PKPab   14 02 06.0 +0.1
NVL   N'lazarevskaya  148.31 209 ePKP2   PKPbc   14 02 09.5 -1.6
NVL                               pmax   pmax
      comp=Z,16nm,0.9s
TROLL Troll, Antarti  150.56 204 ⇑PKPdf  PKPbc   14 02 16.8  0.0
      comp=Z,473nm,0.8s
SNAA  Sanae           152.15 203 ⇑PKPbc  PKPbc   14 02 20.0 -0.5
      comp=Z,81nm,0.7s
SNAA  Sanae           152.15 203  PKPbc  PKPbc   14 02 19.9 -0.6
      comp=Z,4.3nm,0.8s,baz=112,slow=5.4,SNR=7.7
SNAA  Sanae           152.15 203         PKPbc   14 02 20.3 -0.2
CPUP  Villa Florida   152.80  41  PKP    PKPdf   14 02 15.8 -0.3
      comp=Z,1.6nm,1.1s,baz=297,slow=2.3,SNR=3.0
CPUP                              PKPbc  PKiKP   14 02 23.4  0.0
      comp=Z,1.5nm,0.9s,baz=333,slow=6.8,SNR=2.2
CPUP                              PKPab  PKPab   14 02 34.0 -0.1
      comp=Z,2.8nm,0.8s,baz=345,slow=9.7,SNR=6.3
VNA2  Neumayer--Watz  153.77 202 ⇑PKPbc  PKiKP   14 02 24.8 +0.8
      comp=Z,5.8nm,0.6s,baz=113,slow=1.5
VNA3  Neumayer Olymp  154.10 200 ⇑PKPbc  PKiKP   14 02 24.9 +0.2
      comp=Z,3.4nm,0.9s
VNA1  Neumayer--Stat  154.17 202 ⇑PKPbc  PKiKP   14 02 25.9 +1.0
      comp=Z,9.2nm,1.2s
PLCA  Paso Flores     155.55  83  PKPab  PKPab   14 02 45.3 -0.3
      comp=Z,4.9nm,1.0s,baz=309,slow=6.5,SNR=4.5
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BJI ***13*** *14:08:59.4, 48°.91N×142°.25E, h8^{km}, mB4.9/10, mb4.4/35, Ms4.8/33, Ms7 4.6/32*

SKHL ***13*** *14:09:00.6±0.2, 48°.90N×142°.20E, h10^{km}±2^{km}, mb5.1/13, Ms4.7/1, msh4.7/1*

SKHL Felt (IV) at Uglegorsk.

MOS ***13*** *14:09:00.2±0.8, 48°.90N×142°.13E, h8^{km}, mb4.6/32, MS3.8/20, Error ellipse: s-maj=7.8km s-min=4.4km az=101.8*

MOS Felt (IV) at Uglegorsk.

IDC ***13*** *14:09:00.3±0.5, 48°.95N×142°.13E, h0^{km}, mb4.0/21, mbtmp3.9/29, ML3.4/7, MS3.8/47, Error ellipse: s-maj=10.4km s-min=9.1km az=149.0*

NEIC ***13*** *14:09:02.2±0.9, 48°.90N±0°.06×142°.1E±0°.1, h10^{km}±1^{km}, mb4.6/137, Error ellipse: s-maj=11.5km s-min=10.3km az=61.0*

GFZ ***13*** *14:09:02.0±0.2, 49°N±4°×14°2E±°, h10^{km}, M4.5/22, mb4.5/22*

ISC 13 14:09:01.7±0.9**, 48°.93N**±0°.02×**142°.18E**±0°.03**, h5**^{km}±5^{km}**, n357,** σ1§**13**/315**, mb4.5**/136**, MS3.9**/58**, 20C-4D, Sakhalin Island**

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Code  Station Name      Δ°   AZ°    Phase ID        Time      Res
                                  Op     ISC      h  m  s    ISC
UGL   Uglegorsk         0.17 334⇓iPN     Pg      14 09 04.7 -0.4
UGL   Uglegorsk         0.17 334 i Pg    Pg      14 09 04.7 -0.4
UGL                               AMB    AMB     14 09 05.2
      14µm,0.4s
UGL                              i Sg    Sg      14 09 07.7 +0.3
UGL                               A      A       14 09 08.1
      205µm,0.5s
UGL                               A      A       14 09 08.1
      186µm,0.5s
KHLM  Kholmsk           1.87 183 eP      Pn      14 09 34.6 +0.3
KHLM                             ePg     Pb      14 09 37.0 +0.7
KHLM                              AMB    AMB     14 09 37.9
      280nm,0.6s
KHLM                             eSg     Sg      14 10 02.7 +0.9
KHLM                              A      A       14 10 03.2
      1µm,0.7s
KHLM                              A      A       14 10 03.2
      1µm,0.7s
TYV   Tymovskoe         1.96   9 ePN     Pn      14 09 34.8 -0.8
TYV                              eS      Sn      14 10 00.6  0.0
TYV                               pmax   pmax
      comp=Z,111nm,0.6s
TYV                               smax   smax
      comp=N,320nm,1.1s
TYV                               smax   smax
      comp=E,333nm,1.1s
TYV   Tymovskoe         1.96   9 eP      Pn      14 09 34.5 -1.1
TYV                              ePg     Pg      14 09 40.1 +0.7
TYV                               AMB    AMB     14 09 41.3
      comp=E,240nm,0.6s
TYV                              eSg     Sg      14 10 06.0 +1.2
TYV                               A      A       14 10 11.9
      comp=E,760nm,0.9s
TYV                               A      A       14 10 11.9
      comp=E,1µm,0.9s
YSS   Yuzhno-Sakhali    2.01 169αePN     Pn      14 09 35.8 -0.4
YSS                              e               14 10 05.0
YSS                               pmax   pmax
      comp=Z,680nm,1.0s
YSS                               smax   smax
      comp=E,6µm,2.9s
YSS                               smax   smax
      comp=N,1µm,1.2s
YSS                               smax   smax
      comp=E,1µm,1.0s
YSS   Yuzhno-Sakhali    2.01 169         Pn      14 09 35.2 -1.0
YSS   Yuzhno-Sakhali    2.01 169 eP      Pn      14 09 35.4 -0.8
YSS                              eP      Pb      14 09 38.5 -0.2
YSS                              ePg     Pg      14 09 40.6 +0.4
YSS                               AMB    AMB     14 09 40.9
      comp=E,260nm,0.4s
YSS                              eSg     Sg      14 10 08.8 +2.6
YSS                               A      A       14 10 12.2
      comp=E,950nm,0.8s
YSS                               A      A       14 10 12.2
      comp=E,810nm,0.8s
YSS                               A      A       14 10 13.6
      comp=E,6µm,2.9s
YSS                               AMS    AMS     14 10 31.6
      comp=E,3µm,11.0s
YSS   Yuzhno-Sakhali    2.01 169  P      Pn      14 09 35.6 -0.6
KRS4  Mayak Korsakov    2.35 169 eP      Pb      14 09 43.2 -1.4
KRS4                             ePg     Pg      14 09 47.1 +0.3
KRS4                              AMB    AMB     14 09 47.8
      comp=E,340nm,0.4s
KRS4                             eSg     Sg      14 10 19.9 +2.6
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KRS4                                  A       A       14 10 26.0
        comp=E,1µm,1.0s
KRS4                                  A       A       14 10 26.0
        comp=E,1µm,1.0s
GRNR  Gornyy              4.16 299⇑iPN    Pn      14 10 04.2  -1.6
GRNR                                  pmax    pmax
        comp=Z,5.0nm,0.4s
GRNR                                  MLR     MLR
        comp=E,3µm,12.0s
GRNR                                  MLR     MLR
        comp=N,2µm,16.0s
GRNR                                  MLR     MLR
        comp=Z,2µm,12.0s
GRNR  Gornyy              4.16 299  eP    Pn      14 10 03.4  -2.4
GRNR                                ePg   Pg      14 10 19.0  -2.3
GRNR                                  AMB     AMB     14 10 20.0
        comp=Z,70nm,0.5s
GRNR                                eS    Sn      14 10 51.7  -3.0
NKL   Nikolayevsk         4.33 348  ePN   Pn      14 10 08.1  -0.1
NKL                                   pmax    pmax
        comp=E,595nm,1.1s
NKL                                   pmax    pmax
        comp=N,436nm,1.3s
NKL                                   pmax    pmax
        comp=Z,1µm,1.3s
NKL                                   MLR     MLR
        comp=N,4µm,9.0s
NKL                                   MLR     MLR
        comp=E,4µm,11.0s
NKL                                   MLR     MLR
        comp=Z,4µm,11.0s
NKL   Nikolayevsk         4.33 348  eP    Pn      14 10 07.0  -1.2
NKL                                 ePg   Pg      14 10 26.1  +1.4
NKL                                   AMB     AMB     14 10 27.4
        comp=Z,220nm,1.0s
NKL                                 eS    Sn      14 10 58.8  -0.2
NKL                                   AMS     AMS     14 12 08.2
        comp=Z,4µm,10.0s
NKL                                   AMS     AMS     14 12 08.2
        comp=Z,4µm,10.0s
NKL                                   AMS     AMS     14 12 08.2
        comp=Z,4µm,10.0s
OKH   Okha                4.66   6dePN    Pn      14 10 03.9  -8.7
OKH                                   MLR     MLR
        comp=E,900nm,6.0s
OKH                                   MLR     MLR
        comp=Z,400nm,4.0s
OKH                                   MLR     MLR
        comp=N,1µm,9.0s
KHBR  Khabarovsk          4.74 267  eP    Pn      14 10 13.7   0.0
KHBR                                ePg   Pg      14 10 33.2  +0.8
ASAJ  Asahikawa           4.82 176    Pn      Pn      14 10 13.6  -1.2
        comp=N,2.4nm,0.3s,baz=354,slow=6.7,SNR=31
ASAJ                                  Sn      Sn      14 11 08.8  -2.2
        baz=18,slow=20
        comp=N,9.5nm,0.5s
ASAJ                                  AML     AML
ASAJ  Asahikawa           4.82 176    PN      Pn      14 10 14.9  +0.1
JKA   Kamikawa-asahi      4.82 176            Pn      14 10 14.8   0.0
JKA   Kamikawa-asahi      4.82 176            Sn      14 11 08.8  -2.2
JKA   Kamikawa-asahi      4.82 176  eP    Pn      14 10 14.9   0.0
RUSJ  Misakicho           5.27 155⇑iPN    Pn      14 10 21.0   0.0
RUSJ                                eS    Sn      14 11 23.8  +1.8
KUR   Kuril'sk            5.36 131  ePN   Pn      14 10 21.7  -0.5
KUR                                   pmax    pmax
        comp=Z,41nm,0.5s
KUR                                   pmax    pmax
        comp=E,29nm,0.8s
KUR                                   pmax    pmax
        comp=N,22nm,0.7s
KUR   Kuril'sk            5.36 131  eP    Pn      14 10 21.7  -0.5
YUK   Yuzh-Kuril'sk       5.51 151  ePN   Pn      14 10 24.6  +0.2
YUK                                   pmax    pmax
        comp=Z,59nm,0.3s
YUK                                   pmax    pmax
        comp=E,4.0nm,0.2s
YUK   Yuzh-Kuril'sk       5.51 151  eP    Pn      14 10 25.1  +0.7
YUK                                   AMB     AMB     14 10 26.1
        comp=E,60nm,0.3s
NMR   Nemuro--Hokkai      6.08 155  ePN   Pn      14 10 32.3  +0.2
NMR   Nemuro--Hokkai      6.08 155  eP    Pn      14 10 33.2  +1.1
KLR   Kul'dur             6.86 276    Pn      Pn      14 10 41.0  -1.9
        comp=E,0.5nm,0.3s,baz=82,slow=14,SNR=5.4
KLR                                   Sn      Sn      14 12 00.1  -1.1
        comp=E,1.1nm,0.3s,baz=91,slow=18,SNR=3.6
KLR                                   Lg      Lg      14 12 35.9
        comp=E,4.5nm,0.3s,baz=54,slow=14,SNR=7.3
KLR                                   LR      LR      14 13 33.3
        comp=E,2µm,21.7s,baz=92,slow=40
        comp=E,0.7nm,0.4s
KLR                                   AML     AML
KLR   Kul'dur             6.86 276  i PN  Pn      14 10 40.2  -2.6
KLR                                   pmax    pmax
        comp=Z,26nm,3.8s
KLR                                   MLR     MLR
        comp=Z,3µm,12.0s
ERM   Erimo               6.94 174  i PN  Pn      14 10 44.9  +0.9
EKMR  Ekimchan            7.15 309  eP    Pn      14 10 48.8  +2.0
EKMR                                ePg   Pg      14 11 23.1  +4.6
USA0B Ussuriysk Arra      8.46 240  i PN  Pn      14 11 04.5  -0.3
USRK  Ussuriysk Ar.       8.46 240    Pn      Pn      14 11 04.7  -0.1
        comp=Z,0.2nm,0.3s,baz=51,slow=14,SNR=3.1
USRK                                  Lg      Lg      14 13 24.9
        comp=Z,0.7nm,0.3s,baz=52,slow=28,SNR=6.6
        comp=Z,1.9nm,0.7s
USRK                                  AML     AML
HEH   HeiHe               9.69 283  eP    Pn      14 11 23.5  +1.9
HEH                                   S       Sn      14 13 11.8  +1.2
HEH                                   SMN
        comp=Z,200nm,1.4s
HEH                                   SME
        comp=Z,86nm,1.7s
HEH                                   L       L
        comp=Z,950nm,9.7s
HEH                                   L       L
        comp=Z,3µm,9.6s
HEH                                   L       L
        comp=Z,5µm,9.8s
ZEA   Zeya               10.51 303  ePN   Pn      14 11 33.0  +0.2
ZEA                                   MLR     MLR
        comp=E,1µm,9.0s
ZEA                                   MLR     MLR
        comp=Z,1µm,10.0s
ZEA   Zeya               10.51 303  eP    Pn      14 11 33.0  +0.2
BNX   BinXian            10.52 258  ⇓P    Pn      14 11 30.3  -2.8
PEA0B Petropavlovsk-     10.63  61  i PN  Pn      14 11 34.6   0.0
PETK  Petropavlovsk-     10.63  61    Pn      Pn      14 11 36.3  +1.8
        comp=Z,0.2nm,0.3s,baz=260,slow=6.6,SNR=6.3
PETK                                  LR      LR      14 15 53.4
        comp=Z,680nm,18.7s,baz=237,slow=39
        comp=Z,2.5nm,0.9s
PETK                                  AML     AML
PET   Petropavlovsk      11.16  62  i PN  Pn      14 11 44.0  +2.2
PET                                   MLR     MLR
        comp=Z,895nm,12.0s
PET   Petropavlovsk      11.16  62  eP    Pn      14 11 44.0  +2.2
MA2   Magadan            11.78  22    LR      LR      14 17 02.2
        comp=Z,268nm,18.9s,baz=208,slow=41
MA2   Magadan            11.78  22  i PN  Pn      14 11 51.6  +1.4
MA2                                   pmax    pmax
        comp=Z,11nm,2.2s
MA2                                   MLR     MLR
        comp=Z,321nm,15.0s
MA2   Magadan            11.78  22    P       Pn      14 11 50.2   0.0
        comp=Z,14nm,1.4s
MA2   Magadan            11.78  22  eP    Pn      14 11 51.6  +1.4
MJAR  Matsushiro Arr     12.71 195    Pn      Pn      14 12 04.0  +1.0
        comp=Z,1.6nm,0.9s,baz=24,slow=27,SNR=2.9
MJAR                                  LR      LR      14 17 11.1
        comp=Z,187nm,18.7s,baz=18,slow=39
HILR  Hailar Array B     14.66 281    Pn      Pn      14 12 29.8  +0.2
        baz=104,slow=16
HILR                                  Lg      Lg      14 16 43.9
        baz=98,slow=20
        comp=Z,0.6nm,0.3s
HIA   Hailar             14.70 280  i P   Pn      14 12 30.6  +0.5
SNY   Shenyang           14.85 248    P       P       14 12 40.9  +2.8
SNY                                   pmax    pmax
        comp=Z,22nm,1.3s
YAK   Yakutsk            14.88 337  eP    Pn      14 12 33.2  +0.7
YAK                                 eS    Sn      14 15 18.9  +1.4
YAK                                   pmax    pmax
        comp=Z,13nm,1.9s
YAK                                   pmax    pmax
        comp=N,9.0nm,1.9s
YAK                                   pmax    pmax
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        comp=E,4.0nm,1.5s
YAK                                   smax    smax
        comp=E,150nm,6.7s
YAK                                   smax    smax
        comp=N,68nm,3.8s
YAK                                   MLR     MLR
        comp=Z,95nm,14.0s
YAK                                   MLR     MLR
        comp=N,48nm,14.0s
YAK                                   MLR     MLR
        comp=E,167nm,22.0s
YAK   Yakutsk            14.88 337    Pn      Pn      14 12 33.7  +1.2
YAK   Yakutsk            14.88 337  eP    Pn      14 12 33.2  +0.7
YAK   Yakutsk            14.88 337    P       Pn      14 12 32.0  -0.5
        comp=Z,23nm,1.5s
SEY   Seymchan           15.13  18    Pn      Pn      14 12 36.3  +0.5
        comp=Z,0.4nm,0.3s,baz=212,slow=19,SNR=12
        comp=Z,1.4nm,0.9s
SEY                                   AML     AML
SEY   Seymchan           15.13  18  i P   Pn      14 12 37.5  +1.7
SEY                                   pmax    pmax
        comp=Z,4.0nm,1.1s
SEY                                   MLR     MLR
        comp=Z,275nm,13.0s
SEY   Seymchan           15.13  18  eP    Pn      14 12 37.5  +1.7
KSRS  Korea Array        15.45 227    Pn      Pn      14 12 39.9  -0.2
        baz=41,slow=14,SNR=2.4
KSRS                                  LR      LR      14 18 05.5
        comp=Z,232nm,20.6s,baz=40,slow=35
        comp=Z,0.5nm,0.4s
JHJ   Hachijo jima 2     15.89 187    LR      LR      14 19 13.3
        comp=Z,150nm,19.0s,baz=135,slow=38
DL2   Dalian             17.82 243  eP    P       14 13 12.1  +1.0
DL2                                 eS    Sn      14 16 32.8  +3.7
DL2                                   pmax    pmax
        comp=Z,21nm,0.9s
DL2                                   pmax    pmax
        comp=Z,630nm,6.7s
DL2                                   L       L
        comp=Z,1µm,10.8s
DL2                                   L       L
        comp=Z,1µm,11.1s
DL2                                   L       L
        comp=Z,2µm,11.6s
JNU   Nakatsue           17.91 212    LR      LR      14 19 47.7
        comp=Z,413nm,18.2s,baz=28,slow=36
CIT   Chita              18.43 291  eP    Pn      14 13 19.4  +1.6
CIT                                   pmax    pmax
        comp=Z,90nm,2.7s
CIT   Chita              18.43 291  eP    Pn      14 13 19.4  +1.6
XLT   XiLinHaoTe         18.64 264  eP    Pn      14 13 22.8  +2.4
XLT                                   sP      sP      14 13 30.4  +8.0
XLT                                   pmax    pmax
        comp=Z,29nm,1.6s
XLT                                   pmax    pmax
        comp=Z,290nm,4.7s
XLT                                   L       L
        comp=Z,3µm,11.7s
XLT                                   L       L
        comp=Z,4µm,11.3s
BJI2  Beijing            20.50 254    P       P       14 13 40.8  +0.4
BJI2                                  pmax    pmax
        comp=Z,6.0nm,1.2s
BJI2                                  L       L
        comp=Z,510nm,9.5s
BJI2                                  L       L
        comp=Z,630nm,9.8s
BJI2                                  L       L
        comp=Z,780nm,11.6s
BILL  Bilibino           22.64  24ceP     P       14 14 04.4  +1.2
BILL                                  pmax    pmax
        comp=Z,22nm,1.7s
BILL                                  MLR     MLR
        comp=Z,217nm,18.0s
BILL  Bilibino           22.64  24  eP    P       14 14 04.4  +1.2
HNS   HongShan           22.98 250  ⇓P    P       14 14 08.8  +1.8
HNS                                   S       S       14 18 18.8  +1.0
HNS                                   L       L
        comp=Z,770nm,13.5s
HNS                                   L       L
        comp=Z,510nm,12.7s
HNS                                   L       L
        comp=Z,990nm,12.7s
HHC   Hu-ho-hao-te       23.02 261  eP    P       14 14 07.3  -0.3
HHC                                   pmax    pmax
        comp=Z,15nm,0.7s
HHC                                   pmax    pmax
        comp=Z,270nm,4.9s
HHC                                   L       L
        comp=Z,680nm,10.3s
HHC                                   L       L
        comp=Z,1µm,10.9s
HHC                                   L       L
        comp=Z,1µm,11.1s
ULN   Ulaanbaatar        23.23 281ceP     P       14 14 08.3  -1.4
ULN                                   pmax    pmax
        comp=Z,22nm,1.7s
ULN   Ulaanbaatar        23.23 281            P       14 14 09.3  -0.3
ULN                                   IAmb    IAmb    14 14 11.2
        comp=Z,16nm,1.2s
ULN   Ulaanbaatar        23.23 281  eP    P       14 14 08.3  -1.4
ULN   Ulaanbaatar        23.23 281    P       P       14 14 09.4  -0.3
        comp=Z,11nm,1.6s
TIXI  Tiksi              23.62 350    LR      LR      14 24 47.4
        comp=Z,69nm,19.0s,baz=180,slow=40
TIXI  Tiksi              23.62 350ceP     P       14 14 12.6  -0.5
TIXI                                  pmax    pmax
        comp=Z,21nm,2.5s
TIXI                                  MLR     MLR
        comp=Z,84nm,16.0s
TIXI  Tiksi              23.62 350            P       14 14 12.1  -1.1
SONM  Songino Array      23.66 281    P       P       14 14 13.3  -0.6
        comp=Z,3.6nm,1.1s,baz=79,slow=7.5,SNR=14
SONM                                  LR      LR      14 24 15.5
        comp=Z,619nm,18.6s,baz=76,slow=39
        comp=Z,3.6nm,1.1s
SONM  Songino Array      23.66 281    P       P       14 14 12.7  -1.3
SONM                                  pmax    pmax
        comp=Z,11nm,1.4s
SONM  Songino Array      23.66 281            P       14 14 12.7  -1.3
NJ2   Nanjing            24.32 235  eP    P       14 14 19.5  -0.6
NJ2                                   pmax    pmax
        comp=Z,9.0nm,0.5s
ZAK   Zakamensk          25.04 288  eP    P       14 14 24.7  -1.9
ZAK                                   pmax    pmax
        comp=Z,10.0nm,1.5s
ZAK   Zakamensk          25.04 288  eP    P       14 14 24.7  -1.9
LYN   LuoYang            26.21 248  eP    P       14 14 38.5  +1.3
LYN                                   pmax    pmax
        comp=Z,22nm,0.6s
LYN                                   L       L
        comp=Z,830nm,12.3s
LYN                                   L       L
        comp=Z,940nm,11.8s
LYN                                   L       L
        comp=Z,2µm,12.9s
LZH   Lanzhou            30.70 260  eP    P       14 15 09.3  -8.2
LZH                                   sP      pP      14 15 16.1  -3.0
LZH                                   pmax    pmax
        comp=Z,6.0nm,1.1s
LZH                                   LR      LR
        comp=N,610nm,14.6s
LZH                                   LR      LR
        comp=E,1µm,13.2s
LZH                                   LR      LR
        comp=Z,910nm,16.0s
LZDM  Lanzhou Array      30.87 260    P       P       14 15 17.9  -1.3
        comp=Z,0.8nm,0.3s,baz=83,slow=12,SNR=1.4
LZDM                                  LR      LR      14 29 01.0
        comp=Z,417nm,18.4s,baz=305,slow=39
        comp=Z,0.8nm,0.3s
C16K  Lisburne Hills     32.09  34    P       P       14 15 29.3  +0.1
NRIK  Noril'sk           33.05 328    LR      LR      14 28 36.3
        comp=Z,39nm,19.5s,baz=64,slow=36
NRIK  Noril'sk           33.05 328  i P   P       14 15 37.4  -0.1
NRIK                                  pmax    pmax
        comp=Z,4.0nm,1.6s
NRIK                                  MLR     MLR
        comp=Z,70nm,14.0s
CD2   Chengdu            34.07 252    P       P       14 15 46.3  -0.6
CD2                                   pmax    pmax
        comp=Z,20nm,0.8s
CD2                                   L       L
        comp=Z,470nm,12.1s
CD2                                   L       L
        comp=Z,680nm,14.6s
CD2                                   L       L
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        comp=Z,620nm,11.4s
C19K  Lookout Ridge      34.29  33    P       P       14 15 48.5   0.0
F19K  Shaleruckik Mo     34.85  37            P       14 15 52.9  -0.4
F19K                                  IAmb    IAmb    14 15 53.9
        comp=Z,15nm,1.3s
DGZ   Jazzator, Alta     35.03 293  i P   P       14 15 55.6  +0.4
DGZ                                   pmax    pmax
        comp=Z,2.0nm,1.0s
G19K  Purcell Mounta     35.13  38    P       P       14 15 55.1  -0.6
G19K                                  IAmb    IAmb    14 16 36.9
        comp=Z,8.8nm,1.4s
ZAA0  Zalesovo Array     35.26 300            P       14 15 55.7  -1.2
ZALV  Zalesovo Beam      35.26 300    P       P       14 15 55.2  -1.6
        comp=Z,1.1nm,0.7s,baz=70,slow=6.3,SNR=6.9
ZALV                                  PcP     PcP     14 18 26.8  -0.6
        comp=Z,0.4nm,0.4s,baz=116,slow=3.4,SNR=3.9
ZALV                                  LR      LR      14 31 15.5
        comp=Z,256nm,21.6s,baz=69,slow=38
        comp=Z,1.1nm,0.7s
ZALV  Zalesovo Beam      35.26 300  i P   P       14 15 56.4  -0.5
ZALV                                  pmax    pmax
        comp=Z,1.0nm,0.4s
ZALV  Zalesovo Beam      35.26 300    P       P       14 15 55.6  -1.3
ZALV                                          PcP     14 18 27.7  +0.3
GUMO  Guam               35.30 175    LR      LR      14 29 43.6
        comp=Z,58nm,20.9s,baz=42,slow=35
CNBA  Chernabura Isl     35.52  58    P       P       14 15 58.4  -0.7
CNBA                                  IAmb    IAmb    14 16 11.6
        comp=Z,14nm,1.3s
L18K  Granite Mounta     35.59  45    P       P       14 15 59.8  +0.1
L18K                                  IAmb    IAmb    14 16 17.2
        comp=Z,8.2nm,1.3s
J19K  Poorman            35.88  42    P       P       14 16 02.1   0.0
J19K                                  IAmb    IAmb    14 16 02.7
        comp=Z,10.0nm,1.4s
IMAR  Indian Mountai     36.50  38    P       P       14 16 06.9  -0.5
J20K  Nowinta River      36.50  41    P       P       14 16 07.4  -0.1
J20K                                  IAmb    IAmb    14 16 08.5
        comp=Z,8.6nm,1.2s
H21K  Melozitna Rive     36.92  39    P       P       14 16 10.6  -0.4
ACHA  Angle Creek He     36.97  51    P       P       14 16 11.1  -0.5
WMQ   Urumqi             37.25 283  eP    P       14 16 16.0  +1.8
WMQ                                   L       L
        comp=Z,570nm,13.3s
WMQ                                   L       L
        comp=Z,430nm,11.1s
WMQ                                   L       L
        comp=Z,270nm,18.5s
H22K  Ishtalitna Cre     37.48  38    IAmb    IAmb    14 16 17.6
        comp=Z,16nm,1.4s
PPLA  Purkeypile         37.55  43    IAmb    IAmb    14 16 21.9
        comp=Z,19nm,1.5s
G23K  Bananza Creek      37.93  37    IAmb    IAmb    14 16 20.6
        comp=Z,16nm,1.4s
E23K  Chandalar          37.95  35    P       P       14 16 19.1  -0.7
E23K                                  IAmb    IAmb    14 16 22.9
        comp=Z,16nm,1.5s
KTH   Kantishna Hill     38.01  42    IAmb    IAmb    14 16 22.4
        comp=Z,20nm,1.4s
TRF   Thorofare Moun     38.30  42    P       P       14 16 22.8  -0.2
I23K  Minto, Yukon-K     38.41  39    P       P       14 16 23.4  -0.2
I23K                                  IAmb    IAmb    14 16 24.6
        comp=Z,11nm,1.3s
PZH   PanZhiHua          38.42 249    P       P       14 16 25.1  +0.8
KDAK  Kodiak Island      38.49  51    LR      LR      14 33 50.1
        comp=Z,191nm,19.2s,baz=264,slow=39
KDAK  Kodiak Island      38.49  51    P       P       14 16 24.3   0.0
KDAK                                  pmax    pmax
        comp=Z,6.0nm,1.1s
KDAK  Kodiak Island      38.49  51    P       P       14 16 24.3   0.0
KMI2  Kunming            38.80 247    P       P       14 16 28.8  +1.3
KMI2                                  pmax    pmax
        comp=Z,7.0nm,1.5s
KMI2                                  L       L
        comp=Z,510nm,13.1s
KMI2                                  L       L
        comp=Z,300nm,19.2s
KMI2                                  L       L
        comp=Z,600nm,21.2s
G24K  Hadweenzic Riv     38.93  37    P       P       14 16 27.7  -0.3
WRH   Wood River Hil     39.06  40    P       P       14 16 28.7  -0.4
WRH                                   IAmb    IAmb    14 16 29.8
        comp=Z,15nm,1.2s
COLA  College            39.09  40  i P   P       14 16 29.3   0.0
COLA                                  pmax    pmax
        comp=Z,6.0nm,1.1s
COLA  College            39.09  40    P       P       14 16 29.1  -0.2
COLA                                  IAmb    IAmb    14 16 31.4
        comp=Z,4.4nm,0.3s
COLA  College            39.09  40    P       P       14 16 29.1  -0.2
        comp=Z,8.1nm,1.6s
CCB   Clear Creek Bu     39.15  40    IAmb    IAmb    14 16 30.4
        comp=Z,14nm,1.3s
PMR   Palmer             39.22  45    P       P       14 16 30.1  -0.3
PMR                                   pmax    pmax
        comp=Z,9.0nm,1.4s
PMR   Palmer             39.22  45    P       P       14 16 30.1  -0.3
GHO   Glory Hole Cre     39.27  44    IAmb    IAmb    14 16 31.4
        comp=Z,13nm,1.3s
MK31  Makanchi Array     39.33 290ceP     P       14 16 30.9  -0.7
MKAR  Makanchi Array     39.33 290    P       P       14 16 30.5  -1.1
        comp=Z,1.4nm,0.8s,baz=69,slow=7.6,SNR=18
MKAR                                  PcP     PcP     14 18 39.5  -0.5
        comp=Z,0.9nm,1.0s,baz=54,slow=3.7,SNR=3.7
MKAR                                  LR      LR      14 33 50.8
        comp=Z,561nm,18.8s,baz=55,slow=38
        comp=Z,1.4nm,0.8s
MKAR  Makanchi Array     39.33 290  i P   P       14 16 31.0  -0.6
MKAR                                  pmax    pmax
        comp=Z,2.0nm,0.9s
MKAR  Makanchi Array     39.33 290    P       P       14 16 30.3  -1.3
MKAR  Makanchi Array     39.33 290  eP    P       14 16 31.0  -0.6
IL31                     39.52  40    IAmb    IAmb    14 16 34.1
        comp=Z,12nm,1.2s
ILAR  Eielson Array      39.52  40    P       P       14 16 32.2  -0.7
        comp=Z,2.1nm,0.7s,baz=277,slow=7.5,SNR=21
ILAR                                  LR      LR      14 34 56.7
        comp=Z,68nm,19.7s,baz=268,slow=39
        comp=Z,2.1nm,0.7s
MAKZ  Makanchi           39.52 290    P       P       14 16 32.8  -0.3
MAKZ                                  pmax    pmax
        comp=Z,11nm,1.5s
MAKZ  Makanchi           39.52 290    P       P       14 16 32.8  -0.3
MAKZ  Makanchi           39.52 290    P       P       14 16 32.8  -0.3
        comp=Z,5.1nm,1.4s
SML   Sawmill            39.54  44    IAmb    IAmb    14 16 33.8
        comp=Z,17nm,1.3s
HDA   Harding Lake       39.56  40    IAmb    IAmb    14 16 34.1
        comp=Z,14nm,1.2s
QIZ   Qiongzhong         39.57 233    P       P       14 16 33.8   0.0
QIZ                                   S       S       14 22 38.3  +1.3
QIZ                                   L       L
        comp=Z,220nm,11.1s
QIZ                                   L       L
        comp=Z,160nm,12.1s
QIZ                                   L       L
        comp=Z,280nm,13.9s
KNK   Knik Glacier       39.57  45    IAmb    IAmb    14 16 34.0
        comp=Z,22nm,1.4s
DHY   Denali Highway     39.67  42    P       P       14 16 33.5  -0.8
FYU   Fort Yukon         39.84  37    IAmb    IAmb    14 16 36.8
        comp=Z,17nm,1.1s
KURK  Kurchatov          39.92 298ceP     P       14 16 36.4   0.0
KURK                                  pmax    pmax
        comp=Z,14nm,2.5s
KURK                                  MLR     MLR
        comp=Z,91nm,15.0s
KURK  Kurchatov          39.92 298            PcP     14 18 40.9  -0.8
KURK  Kurchatov          39.92 298    P       P       14 16 36.0  -0.4
KURK  Kurchatov          39.92 298  eP    P       14 16 36.4   0.0
KURK  Kurchatov          39.92 298    P       P       14 16 33.6  -2.8
        comp=Z,5.1nm,1.1s
PRP   Porcupine Dome     39.93  38    P       P       14 16 36.4   0.0
PRP                                   IAmb    IAmb    14 16 37.5
        comp=Z,27nm,1.4s
BMAR  Burnt Mountain     39.93  35    P       P       14 16 36.4  +0.1
KURBB Kurchatov Arra     40.01 297    P       P       14 16 36.0  -1.1
        comp=Z,0.9nm,0.6s,baz=69,slow=8.7,SNR=11
KURBB                                 PcP     PcP     14 18 40.9  -1.1
        comp=Z,0.4nm,0.3s,baz=53,slow=3.7,SNR=4.3
KURBB                                 LR      LR      14 32 21.7
        comp=Z,73nm,18.8s,baz=183,slow=35
        comp=Z,0.9nm,0.6s
G26K  Porcupine Rive     40.33  36    P       P       14 16 39.6   0.0
G26K                                  IAmb    IAmb    14 16 41.6
        comp=Z,18nm,1.4s
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RIDG	**Independent Ri**	**40.62**	**41**	IAmb	IAmb	14 16 41.7	
	comp=Z,11nm,1.2s						
SCRK	**Sand Creek**	**40.92**	**40**	P	**P**	**14 16 43.0**	**-1.8**
SLVN	**Son La**	**41.01**	**242**	P	**P**	**14 16 46.2**	**+0.4**
	comp=Z,8.1nm,1.5s						
G27K	**Doyon Strip**	**41.18**	**36**	P	**P**	**14 16 46.6**	**0.0**
GLB	**Gilahina Butte**	**41.71**	**44**	IAmb	IAmb	14 16 53.1	
	comp=Z,16nm,1.5s						
M26K	**Nabesna, AK**	**41.79**	**42**	IAmb	IAmb	14 16 53.4	
	comp=Z,16nm,1.4s						
MCARA	**McCarthy VSAT**	**42.09**	**44**	IAmb	IAmb	14 17 01.4	
	comp=Z,19nm,1.4s						
L27K	**Beaver Creek,**	**42.11**	**41**	P	**P**	**14 16 54.4**	**0.0**
L27K				IAmb	IAmb	14 16 55.5	
	comp=Z,12nm,1.2s						
BCAR	**Beaver Creek A**	**42.13**	**41**	P	**P**	**14 16 54.4**	**-0.1**
M27K	**Edge Creek, AK**	**42.30**	**42**	IAmb	IAmb	14 16 57.4	
	comp=Z,11nm,1.2s						
BARN	**Barnard Glacie**	**42.82**	**44**	IAmb	IAmb	14 17 03.2	
	comp=Z,12nm,1.4s						
GRNC	**Granite Creek**	**42.89**	**44**	IAmb	IAmb	14 17 02.0	
	comp=Z,12nm,1.2s						
F30M	**Barrier River**	**43.17**	**34**	P	**P**	**14 17 02.8**	**0.0**
EPYK	**Eagle Plains**	**43.20**	**36**	IAmb	IAmb	14 17 03.8	
	comp=Z,11nm,1.2s						
BVAR	**Borovoye Array**	**43.65**	**304**	P	**P**	**14 17 06.3**	**-0.6**
	comp=Z,0.9nm,0.5s,baz=66,slow=8.6,SNR=2.9						
BVAR				PcP	**PcP**	**14 18 53.7**	**-0.3**
	comp=Z,0.4nm,0.4s,baz=64,slow=3.4,SNR=3.6						
	comp=Z,0.9nm,0.5s						
BORK	**Borovoye**	**43.68**	**304**	*i* P	**P**	**14 17 07.5**	**+0.4**
BORK				pmax	pmax		
	comp=Z,5.0nm,1.1s						
BORK				MLR	MLR		
	comp=Z,255nm,16.0s						
L29M	**L29M**	**43.69**	**40**	P	**P**	**14 17 07.4**	**+0.3**
L29M				IAmb	IAmb	14 17 08.8	
	comp=Z,12nm,1.2s						
INK	**Inuvik**	**43.77**	**32**	LR	LR	14 37 38.1	
	comp=Z,145nm,19.8s,baz=288,slow=39						
J30M	**Hart River**	**43.93**	**38**	IAmb	IAmb	14 17 11.0	
	comp=Z,11nm,1.5s						
DAV	**Davao City (W)**	**44.01**	**204**	LR	LR	14 33 13.2	
	comp=Z,56nm,20.3s,baz=24,slow=33						
H31M	**Peel River**	**44.30**	**36**	IAmb	IAmb	14 17 16.4	
	comp=Z,8.4nm,1.1s						
HYT	**Haines Junctio**	**44.80**	**43**	P	**P**	**14 17 16.5**	**+0.3**
HYT				IAmb	IAmb	14 17 18.0	
	comp=Z,17nm,1.4s						
N31M	**Braeburn, Yuko**	**45.31**	**42**	IAmb	IAmb	14 17 22.1	
	comp=Z,13nm,1.2s						
BOOM	**Boomskoye usch**	**45.38**	**288**	IAmb	IAmb	14 17 24.6	
	comp=Z,11nm,1.2s						
ASAI	**AK-SAY(Kyrgyzs**	**45.86**	**286**	P	**P**	**14 17 25.8**	**+0.8**
	comp=Z,5.2nm,1.6s						
CHTO	**Chiang Mai**	**45.88**	**245**	P	**P**	**14 17 25.3**	**+0.3**
	comp=Z,6.7nm,1.2s						
CMAR	**Chiang Mai Arr**	**46.16**	**244**	P	**P**	**14 17 27.4**	**+0.2**
	comp=Z,1.8nm,0.9s,baz=39,slow=7.3,SNR=14						
CMAR				PcP	**PcP**	**14 19 01.9**	**-1.2**
	comp=Z,0.3nm,0.4s,baz=22,slow=2.9,SNR=1.5						
CMAR				LR	LR	14 39 08.1	
	comp=Z,201nm,18.6s,baz=20,slow=39						
	comp=Z,1.8nm,0.9s						
CMAR	**Chiang Mai Arr**	**46.16**	**244**	*c i*P	**P**	**14 17 27.7**	**+0.5**
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
CMAR	**Chiang Mai Arr**	**46.16**	**244**	P	**P**	**14 17 26.4**	**-0.9**
AAK	**Ala-Archa**	**46.20**	**289**	LR	LR	14 37 53.7	
	comp=Z,345nm,19.7s,baz=44,slow=38						
AAK	**Ala-Archa**	**46.20**	**289**	*ce*P	**P**	**14 17 27.5**	**-0.1**
AAK				pmax	pmax		
	comp=Z,6.0nm,1.7s						
AAK				MLR	MLR		
	comp=Z,312nm,17.0s						
AAK	**Ala-Archa**	**46.20**	**289**	*e*P	**P**	**14 17 27.5**	**-0.1**
NPW	**Naypyitaw**	**46.84**	**248**	P	**P**	**14 17 32.9**	**+0.3**
	comp=Z,5.9nm,1.2s						
SVE	**Sverdlovsk**	**47.06**	**312**	*e*P	**P**	**14 17 34.1**	**+0.2**
SVE				pmax	pmax		
	comp=Z,20nm,1.7s						
P33M	**Teslin, Yukon**	**47.16**	**43**	IAmb	IAmb	14 17 36.2	
	comp=Z,7.4nm,1.2s						
KSH2	**Kashi**	**47.45**	**284**	P	**P**	**14 17 37.8**	**+0.4**
KSH2				pmax	pmax		
	comp=Z,5.0nm,1.9s						
BRDH	**Bariadhala**	**47.52**	**255**	LR	LR	14 39 16.4	
	comp=Z,165nm,18.0s,baz=320,slow=38						
ARSB	**Arslanbob**	**47.87**	**288**	IAmb	IAmb	14 17 41.7	
	comp=Z,4.4nm,1.0s						
ARTI	**Arti**	**48.37**	**312**	LR	LR	14 40 14.8	
	comp=Z,206nm,19.4s,baz=68,slow=39						
ARTI	**Arti**	**48.37**	**312**	*c i*P	**P**	**14 17 44.3**	**+0.3**
ARTI						14 19 05.4	
ARTI						14 19 29.3	
ARTI				S	**S**	**14 24 46.4**	**+1.9**
ARTI				SS	**SS**	**14 28 14.1**	**+0.7**
ARTI				pmax	pmax		
	comp=Z,15nm,1.3s						
ARTI	**Arti**	**48.37**	**312**	P	**P**	**14 17 43.5**	**-0.5**
R33M	**Jennings River**	**48.37**	**43**	IAmb	IAmb	14 17 47.1	
	comp=Z,12nm,1.4s						
DLBC	**Dease Lake**	**49.26**	**44**	LR	LR	14 39 00.5	
	comp=Z,131nm,20.0s,baz=301,slow=36						
RES	**Resolute Bay**	**51.00**	**17**	LR	LR	14 40 53.4	
	comp=Z,55nm,19.6s,baz=46,slow=38						
AB31	**Akbulak array**	**51.23**	**304**	P	**P**	**14 18 05.8**	**0.0**
AB31				IAmb	IAmb	14 18 08.8	
	comp=Z,13nm,1.5s						
ABKAR	**Akbulak array**	**51.23**	**304**	P	**P**	**14 18 05.5**	**-0.3**
KIRV	**Kirov**	**51.42**	**318**	*ce*P	**P**	**14 18 07.6**	**+0.5**
AKTO	**Aktyubinsk**	**51.63**	**306**	LR	LR	14 41 41.3	
	comp=Z,191nm,18.4s,baz=94,slow=38						
NIL	**Nilore**	**52.24**	**280**	P	**P**	**14 18 14.0**	**+0.3**
NIL	**Nilore**	**52.24**	**280**	P	**P**	**14 18 14.0**	**+0.3**
	comp=Z,5.3nm,0.7s						
YKA	**Yellowknife Ar**	**53.44**	**34**	LR	LR	14 42 12.2	
	comp=Z,55nm,19.8s,baz=301,slow=37						
BBB	**Bella Bella**	**53.53**	**50**	LR	LR	14 39 13.2	
	comp=Z,120nm,21.8s,baz=260,slow=34						
KLMR	**Klimovskoe**	**54.22**	**324**	*e*P	**P**	**14 18 25.2**	**-2.6**
KLMR				pmax	pmax		
	comp=Z,51nm,1.4s						
BELG	**Belogornoye**	**55.81**	**312**	*i* P	**P**	**14 18 40.0**	**+0.6**
BELG				pmax	pmax		
	comp=Z,2.0nm,1.3s						
BELG				MLR	MLR		
	comp=Z,26nm,16.0s						
FIA1	**FINESS Array S**	**58.68**	**330**	P	**P**	**14 18 59.1**	**-0.5**
FINES	**FINESS Array B**	**58.68**	**330**	P	**P**	**14 18 58.9**	**-0.6**
	comp=Z,6.0nm,0.5s,baz=45,slow=7.2,SNR=44						
	comp=Z,6.0nm,0.5s						
FINES	**FINESS Array B**	**58.68**	**330**	*i* P	**P**	**14 18 59.0**	**-0.6**
FINES				pmax	pmax		
	comp=Z,6.0nm,0.5s						
OBN	**Obninsk**	**59.12**	**320**	*ce*P	**P**	**14 19 03.2**	**+0.5**
OBN				pmax	pmax		
	comp=Z,14nm,1.6s						
OBN				MLR	MLR		
	comp=Z,52nm,11.0s						
HNR	**Honiara**	**60.18**	**160**	LR	LR	14 44 36.9	
	comp=Z,40nm,19.2s,baz=28,slow=36						
NEW	**Newport**	**61.48**	**48**	LR	LR	14 44 06.4	
	comp=Z,80nm,21.9s,baz=313,slow=34						
MTN	**Manton Dam**	**62.27**	**192**	P	**P**	**14 19 23.2**	**-1.3**
AKT	**Akhty**	**62.77**	**303**	*e*P	**P**	**14 19 27.1**	**-0.8**
AKT				*e*		14 20 06.6	
AKT				*e*PPP	PPP	14 23 15.5	
AKT				pmax	pmax		
	comp=Z,12nm,1.0s						
AKT				MLR	MLR		
	comp=Z,176nm,11.0s						
JCC	**Jacoby Creek,**	**62.85**	**58**	P	**P**	**14 19 27.7**	**-0.6**
YBH	**Yreka Blue Hor**	**62.97**	**57**	LR	LR	14 45 12.8	
	comp=Z,61nm,18.2s,baz=300,slow=34						
MNK	**Minsk**	**63.11**	**323**	*i* P	**P**	**14 19 29.6**	**-0.1**
MNK				*i*		14 21 47.4	
MNK				*i* PPP	PPP	14 23 18.1	
MNK				*i* S	**S**	**14 28 01.7**	**+0.8**
MNK				*i* SS	**SS**	**14 32 09.5**	**+3.8**
MNK				pmax	pmax		
	comp=N,17nm,1.1s						
MNK				pmax	pmax		
	comp=E,12nm,0.9s						
MNK				pmax	pmax		
	comp=Z,10.0nm,1.1s						
MNK				MLR	MLR		
	comp=N,173nm,17.0s						
MNK				MLR	MLR		
	comp=Z,96nm,17.0s						
MNK				MLR	MLR		
	comp=E,308nm,20.0s						
MNK	**Minsk**	**63.11**	**323**	*i* P	**P**	**14 19 29.7**	**-0.1**
	comp=E,12nm,0.9s						
MNK				*i* P	**P**	**14 19 29.7**	**-0.1**
	comp=N,17nm,1.1s						
MNK				*i* P	**P**	**14 19 29.7**	**-0.1**
	comp=Z,10.0nm,1.1s,baz=42						
MNK				*i* PP	**PP**	**14 21 47.4**	**-0.5**
MNK				*i* PPP	PPP	14 23 18.1	
MNK				*i* S	**S**	**14 28 01.8**	**+0.8**
MNK				*i* SS	**SS**	**14 32 09.6**	**+3.8**
MNK				*i* SSS	SSS	14 35 05.4	
MNK				*i* LQ	LQ	14 42 47.3	
MNK				*i* LR	LR	14 46 56.5	
MNK				*i* LRM	MLR	14 49 05.2	
	comp=N,173nm,17.5s						
MNK				*i* LRM	MLR	14 49 18.4	
	comp=Z,96nm,17.2s						
MNK				*i* LRM	MLR	14 49 47.7	
	comp=E,308nm,20.4s						
NOA	**NORSAR Array B**	**63.50**	**336**	P	**P**	**14 19 31.5**	**-0.9**
	comp=E,1.7nm,0.9s,baz=33,slow=6.5,SNR=3.9						
	comp=E,1.7nm,0.9s						
HFS	**Hagfors**	**63.56**	**334**	P	**P**	**14 19 31.6**	**-1.1**
	comp=E,1.1nm,0.5s,baz=31,slow=6.7,SNR=6.2						
	comp=E,1.1nm,0.5s						
KIV	**Kislovodsk**	**63.81**	**307**	*e*P	**P**	**14 19 35.7**	**+1.0**
KIV				pmax	pmax		
	comp=Z,21nm,1.0s						
KIV				MLR	MLR		
	comp=Z,122nm,17.0s						
KIV	**Kislovodsk**	**63.81**	**307**	P	**P**	**14 19 34.1**	**-0.6**
	comp=Z,22nm,1.6s						
KIV	**Kislovodsk**	**63.81**	**307**	P	**P**	**14 19 34.7**	**-0.1**
	comp=Z,28nm,1.6s						
KBZ	**Khabaz**	**63.85**	**307**	P	**P**	**14 19 34.2**	**-0.7**
	comp=Z,1.5nm,0.8s,baz=63,slow=4.5,SNR=4.8						
KBZ				LR	LR	14 51 58.1	
	comp=Z,186nm,18.1s,baz=36,slow=40						
	comp=Z,1.5nm,0.8s						
KBZ	**Khabaz**	**63.85**	**307**	*ce*P	**P**	**14 19 36.1**	**+1.2**
KBZ				pmax	pmax		
	comp=Z,4.0nm,1.1s						
KBZ				MLR	MLR		
	comp=Z,117nm,17.0s						
PLID	**Pearl Lake**	**64.23**	**50**	P	**P**	**14 19 37.0**	**-0.6**
NEUR	**Neytrino**	**64.28**	**307**	*i* P	**P**	**14 19 38.1**	**+0.1**
NEUR				pmax	pmax		
	comp=Z,3.0nm,1.3s						
NEUR				MLR	MLR		
	comp=Z,158nm,20.0s						
FRB	**Frobisher Bay**	**65.10**	**15**	LR	LR	14 52 46.7	
	comp=Z,63nm,18.0s,baz=345,slow=40						
ORV	**Oroville**	**65.13**	**58**	IAmb	IAmb	14 20 13.6	
	comp=Z,4.2nm,1.4s						
GNI	**Garni**	**65.33**	**303**	LR	LR	14 52 37.1	
	comp=Z,35nm,19.7s,baz=50,slow=40						
GNI	**Garni**	**65.33**	**303**	*i* P	**P**	**14 19 45.8**	**+0.9**
GNI				pmax	pmax		
	comp=Z,8.0nm,1.1s						
GNI				MLR	MLR		
	comp=Z,80nm,14.0s						
AK03	**Malin Array Si**	**65.37**	**320**	P	**P**	**14 19 43.4**	**-1.2**
AKASG	**Malin Array Be**	**65.38**	**320**	P	**P**	**14 19 43.3**	**-1.4**
	comp=Z,0.9nm,0.6s,baz=39,slow=7.3,SNR=17						
	comp=Z,0.9nm,0.6s						
AKASG	**Malin Array Be**	**65.38**	**320**	*ce*P	**P**	**14 19 44.5**	**-0.3**
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.7s						
AKASG	**Malin Array Be**	**65.38**	**320**	IAmb	IAmb	14 19 58.3	
	comp=Z,6.0nm,1.4s						
AKBB	**Malin Array Si**	**65.38**	**320**	*ce*P	**P**	**14 19 43.9**	**-0.9**
AKBB				pmax	pmax		
	comp=Z,8.0nm,1.1s						
AKBB	**Malin Array Si**	**65.38**	**320**	P	**P**	**14 19 44.1**	**-0.7**
AKBB	**Malin Array Si**	**65.38**	**320**	P	**P**	**14 19 43.5**	**-1.3**
AK04	**Malin Array Si**	**65.39**	**320**	P	**P**	**14 19 43.6**	**-1.2**
KIEV	**Kiev**	**65.40**	**320**	P	**P**	**14 19 44.1**	**-0.7**
KIEV				pmax	pmax		
	comp=Z,12nm,1.3s						
KIEV	**Kiev**	**65.40**	**320**	P	**P**	**14 19 44.1**	**-0.7**
KIEV	**Kiev**	**65.40**	**320**	P	**P**	**14 19 43.5**	**-1.3**
	comp=Z,31nm,1.4s						
KIEV	**Kiev**	**65.40**	**320**	P	**P**	**14 19 44.3**	**-0.6**
	comp=Z,7.9nm,1.4s						
AK01	**Malin Array Si**	**65.40**	**320**	P	**P**	**14 19 43.6**	**-1.2**
AK22	**Malin Array Si**	**65.41**	**320**	P	**P**	**14 19 43.7**	**-1.2**
AK21	**Malin Array Si**	**65.41**	**320**	P	**P**	**14 19 43.7**	**-1.2**
KNRA	**Kununurra**	**65.41**	**194**	P	**P**	**14 19 44.6**	**-0.5**
BEKR	**Beckworth**	**65.55**	**57**	IAmb	IAmb	14 19 47.4	
	comp=Z,7.0nm,1.4s						
PALK	**Pallekele**	**65.98**	**253**	LR	LR	14 50 55.0	
	comp=Z,68nm,20.1s,baz=31,slow=38						
BOZ	**Bozeman (W)**	**66.04**	**48**	IAmb	IAmb	14 20 03.7	
	comp=Z,5.3nm,1.5s						
RNPP9	**Sopachiv**	**66.23**	**322**	P	**P**	**14 19 49.6**	**-0.6**
RNPP8	**Varash**	**66.30**	**322**	P	**P**	**14 19 50.1**	**-0.6**
LUBAR	**Lubar, Ukraine**	**66.59**	**320**	P	**P**	**14 19 52.0**	**-0.6**
CMB	**Columbia Colle**	**66.81**	**58**	IAmb	IAmb	14 19 55.6	
	comp=Z,7.6nm,1.3s						
RLMT	**Red Lodge**	**67.53**	**47**	P	**P**	**14 19 58.4**	**-0.5**
NVAR	**Mina Array Bea**	**67.69**	**57**	P	**P**	**14 19 59.2**	**-0.9**
	comp=Z,0.9nm,0.7s,baz=327,slow=8.3,SNR=6.9						
NVAR				LR	LR	14 47 27.8	
	comp=Z,53nm,19.6s,baz=309,slow=34						
	comp=Z,0.9nm,0.7s						
KMPD	**K-Podol'skiy**	**68.18**	**320**	P	**P**	**14 20 01.4**	**-1.2**
FITZ	**Fitzroy Crossi**	**68.33**	**197**	P	**P**	**14 20 03.4**	**-0.4**
FITZ				IAmb	IAmb	14 20 04.8	
	comp=Z,5.7nm,1.4s						
KWP	**Kalwaria Pacla**	**68.89**	**323**	P	**P**	**14 20 06.7**	**-0.4**
	comp=Z,16nm,2.7s						
WR8	**Warramunga Arr**	**68.91**	**188**	P	**P**	**14 20 06.6**	**-0.8**
WRA	**Warramunga Arr**	**68.91**	**188**	P	**P**	**14 20 05.9**	**-1.5**
	comp=Z,4.7nm,1.2s,baz=5.1,slow=6.6,SNR=16						
	comp=Z,4.7nm,1.2s						
WRA	**Warramunga Arr**	**68.91**	**188**	*i* P	**P**	**14 20 06.8**	**-0.6**
WRA				pmax	pmax		
	comp=Z,4.0nm,1.1s						
WRA	**Warramunga Arr**	**68.91**	**188**	P	**P**	**14 20 06.6**	**-0.8**
HWUT	**Hardware Ranch**	**68.97**	**50**	P	**P**	**14 20 07.4**	**-0.5**
BW06	**Boulder Array**	**69.12**	**48**	P	**P**	**14 20 08.2**	**-0.8**
PD31	**Pinedale Array**	**69.13**	**48**	IAmb	IAmb	14 20 10.7	
	comp=Z,9.1nm,1.4s						
PDAR	**Pinedale Array**	**69.13**	**48**	P	**P**	**14 20 08.3**	**-0.7**
	comp=Z,0.7nm,0.6s,baz=319,slow=4.4,SNR=9.0						
PDAR				LR	LR	14 52 15.4	
	comp=Z,22nm,18.6s,baz=323,slow=38						
	comp=Z,0.7nm,0.6s						
PDAR	**Pinedale Array**	**69.13**	**48**	P	**P**	**14 20 08.1**	**-0.9**
ULM	**Lac du Bonnet**	**69.37**	**36**	LR	LR	14 54 02.8	
	comp=Z,71nm,18.3s,baz=322,slow=39						
BURAR	**Bucovina Array**	**69.44**	**320**	P	**P**	**14 20 10.2**	**-0.5**
ARPR	**Arapgir-MALATY**	**69.56**	**306**	P	**P**	**14 20 12.6**	**+1.0**
	comp=Z,8.1nm,1.5s						
KOLS	**Kolonicke sedl**	**69.62**	**322**	*e*P	**P**	**14 20 11.9**	**+0.3**
KOLS	**Kolonicke sedl**	**69.62**	**322**	*e*P	**P**	**14 20 11.9**	**+0.3**
MPMC	**Manual Prospec**	**69.84**	**58**	IAmb	IAmb	14 20 14.7	
	comp=Z,4.5nm,1.3s						
TPNV	**Topopah Spring**	**69.89**	**57**	IAmb	IAmb	14 20 29.5	
	comp=Z,6.7nm,1.1s						
CLC	**China Lake**	**69.95**	**58**	IAmb	IAmb	14 20 15.1	
	comp=Z,4.5nm,1.2s						
NIE	**Niedzica**	**70.02**	**324**	P	**P**	**14 20 13.5**	**-0.6**
	comp=Z,5.1nm,1.4s						
TRPA	**Tarpa**	**70.15**	**322**	P	**P**	**14 20 15.3**	**+0.5**
	comp=Z,11nm,1.7s						
GWY	**Greenwater Val**	**70.21**	**58**	IAmb	IAmb	14 20 16.8	
	comp=Z,8.1nm,1.4s						
CCCA	**Chr Cany lake**	**70.30**	**58**	P	**P**	**14 20 15.8**	**-0.2**
CCCA				IAmb	IAmb	14 20 31.4	
	comp=Z,7.5nm,1.1s						
KSP	**Ksiaz**	**70.36**	**327**	P	**P**	**14 20 15.4**	**-0.7**
RSSD	**Black Hills**	**70.74**	**44**	P	**P**	**14 20 18.7**	**-0.1**
RSSD	**Black Hills**	**70.74**	**44**	P	**P**	**14 20 18.7**	**-0.1**
	comp=Z,5.5nm,1.7s						
MORC	**Moravsky Berou**	**70.78**	**326**	P	**P**	**14 20 18.4**	**-0.3**
MORC				pmax	pmax		
	comp=Z,3.0nm,0.8s						
MORC	**Moravsky Berou**	**70.78**	**326**	P	**P**	**14 20 18.4**	**-0.3**
MORC				IAmb	IAmb	14 20 19.7	
	comp=Z,3.4nm,0.8s						
MORC	**Moravsky Berou**	**70.78**	**326**	*e*P	**P**	**14 20 18.2**	**-0.5**
P18A	**Preston Nutter**	**71.11**	**51**	IAmb	IAmb	14 20 22.6	
	comp=Z,4.7nm,1.1s						
CLL	**Collm**	**71.12**	**329**	*e*P	**P**	**14 20 20.0**	**-0.7**
CLL	**Collm**	**71.12**	**329**	*e*P	**P**	**14 20 20.0**	**-0.7**
DRGR		**71.14**	**321**	P	**P**	**14 20 17.0**	**-4.1**
	comp=Z,5.5nm,1.5s						
BRG	**Berggiesshubel**	**71.16**	**328**	*e*P	**P**	**14 20 21.0**	**0.0**
BRG				Amp		14 20 22.3	
	comp=Z,4.4nm,1.3s						
Q16A	**Castle Valley**	**71.17**	**52**	IAmb	IAmb	14 20 33.2	
	comp=Z,3.6nm,0.8s						
VOIR		**71.22**	**319**	P	**P**	**14 20 21.9**	**+0.4**
VOIR		**71.22**	**319**	P	**P**	**14 20 21.9**	**+0.4**
	comp=Z,3.4nm,1.4s						
VYHS	**Vyhne**	**71.33**	**324**	*e*P	**P**	**14 20 23.4**	**+1.3**
VYHS	**Vyhne**	**71.33**	**324**	*e*P	**P**	**14 20 23.4**	**+1.3**
JAVC	**Velka Javorina**	**71.48**	**325**	*e*P	**P**	**14 20 23.7**	**+0.7**
VRAC	**Vranov**	**71.51**	**326**	LR	LR	14 54 11.1	
	comp=Z,67nm,18.1s,baz=41,slow=38						
VRAC	**Vranov**	**71.51**	**326**	P	**P**	**14 20 24.4**	**+1.2**
VRAC	**Vranov**	**71.51**	**326**	*e*P	**P**	**14 20 23.4**	**+0.2**
BRTR	**Keskin Array B**	**71.53**	**310**	P	**P**	**14 20 23.2**	**-0.4**
	comp=Z,0.6nm,0.6s,baz=45,slow=6.5,SNR=5.7						
BRTR				LR	LR	14 56 20.2	
	comp=Z,39nm,20.9s,baz=12,slow=40						
	comp=Z,0.6nm,0.6s						
BRTR	**Keskin Array B**	**71.53**	**310**	*ce*P	**P**	**14 20 23.5**	**-0.1**
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
BRTR	**Keskin Array B**	**71.53**	**310**	P	**P**	**14 20 23.3**	**-0.3**
KRUC	**Moravsky**	**71.79**	**326**	P	**P**	**14 20 25.4**	**+0.6**
KRUC	**Moravsky**	**71.79**	**326**	*e*P	**P**	**14 20 24.5**	**-0.3**
TREC	**Trest**	**71.93**	**326**	P	**P**	**14 20 25.0**	**-0.7**
MODS	**Modra-Piesok**	**72.03**	**325**	*e*P	**P**	**14 20 27.4**	**+1.1**
MODS	**Modra-Piesok**	**72.03**	**325**	*e*P	**P**	**14 20 27.4**	**+1.1**
HMU	**Henry Mountain**	**72.12**	**53**	IAmb	IAmb	14 20 43.2	
	comp=Z,8.5nm,1.3s						
PFO	**Pinyon Flats O**	**72.20**	**59**	LR	LR	14 47 50.2	
	comp=Z,44nm,22.0s,baz=308,slow=32						
IRM	**Iron Mountain**	**72.54**	**58**	IAmb	IAmb	14 20 31.0	
	comp=Z,8.1nm,1.4s						
ASAR	**Alice Springs**	**72.64**	**188**	P	**P**	**14 20 29.8**	**-0.3**
	comp=Z,2.2nm,0.9s,baz=5.2,slow=6.0,SNR=30						
	comp=Z,2.2nm,0.9s						
KHC	**Kasperske Hory**	**72.75**	**327**	*ce*P	**P**	**14 20 31.6**	**+1.0**
KHC				pmax	pmax		
	comp=Z,3.0nm,1.3s						
KHC	**Kasperske Hory**	**72.75**	**327**	*e*P	P	14 20 47.0	+16
PV16	**Nyswonger Mesa**	**72.79**	**51**	IAmb	IAmb	14 20 46.8	
	comp=Z,5.7nm,1.2s						
PV18	**Skein Mesa, Pa**	**72.84**	**51**	IAmb	IAmb	14 20 34.2	
	comp=Z,7.1nm,1.2s						
PV03	**Paradox Valley**	**72.86**	**51**	IAmb	IAmb	14 20 43.1	
	comp=Z,6.7nm,1.4s						
EYMN	**Ely**	**72.92**	**35**	P	**P**	**14 20 31.4**	**-0.2**
MPLH	**Magyarpolny**	**72.92**	**324**	P	**P**	**14 20 28.1**	**-3.5**
	comp=Z,11nm,1.5s						
GERES	**GERESS Array B**	**72.95**	**327**	P	**P**	**14 20 31.3**	**-0.6**
	comp=Z,0.3nm,0.3s,baz=41,slow=3.3,SNR=4.8						
	comp=Z,0.3nm,0.3s						
WET	**Wettzell**	**72.99**	**328**	P	**P**	**14 20 31.6**	**-0.4**
WET	**Wettzell**	**72.99**	**328**	P	**P**	**14 20 31.6**	**-0.4**
	comp=Z,5.5nm,1.7s						
YUH	**Yuha Desert**	**73.21**	**60**	P	**P**	**14 20 32.9**	**-0.7**
YUH				IAmb	IAmb	14 20 34.5	
	comp=Z,3.5nm,0.9s						
SCHQ	**Schefferville**	**73.78**	**17**	LR	LR	14 54 15.0	
	comp=Z,48nm,21.6s,baz=314,slow=37						
MVCO	**Mesa Verde**	**73.84**	**52**	IAmb	IAmb	14 20 38.4	
	comp=Z,11nm,1.5s						
MVCO	**Mesa Verde**	**73.84**	**52**	P	**P**	**14 20 35.0**	**-2.5**
	comp=Z,8.5nm,1.9s						
DZM	**Mont Dzumac**	**73.92**	**157**	LR	LR	14 52 15.6	
	comp=Z,386nm,18.9s,baz=177,slow=35						
ECSD	**EROS Data Cent**	**74.33**	**40**	P	**P**	**14 20 38.9**	**-1.1**
	comp=Z,8.2nm,1.8s						
KBA	**Koelnbreinsper**	**74.57**	**326**	P	**P**	**14 20 42.1**	**+0.6**
KBA	**Koelnbreinsper**	**74.57**	**326**	P	**P**	**14 20 42.1**	**+0.6**
	comp=Z,12nm,1.6s						
WTTA	**Wattenberg**	**75.03**	**328**	P	**P**	**14 20 44.7**	**+0.5**
WTTA	**Wattenberg**	**75.03**	**328**	P	**P**	**14 20 44.7**	**+0.5**
	comp=Z,8.4nm,1.5s						
QLP	**Quilpie**	**75.19**	**178**	P	**P**	**14 20 45.6**	**+0.7**
	comp=Z,18nm,1.9s						
BFO	**Black Forest**	**75.23**	**330**	*i* P	**P**	**14 20 46.0**	**+0.9**
GRG	**Griva**	**75.95**	**317**	P	**P**	**14 20 46.7**	**-2.7**
FUORN	**Ofenpass-Fuorn**	**76.06**	**328**	P	**P**	**14 20 49.7**	**-0.5**
FUORN				IAmb	IAmb	14 20 51.4	
	comp=Z,8.7nm,1.3s						
FUORN	**Ofenpass-Fuorn**	**76.06**	**328**	P	P	14 20 43.6	-6.6
	comp=Z,5.3nm,1.5s						
ANMO	**Albuquerque**	**76.63**	**52**	LR	LR	14 55 10.4	
	comp=Z,35nm,18.5s,baz=337,slow=36						
ANMO	**Albuquerque**	**76.63**	**52**	*ce*P	**P**	**14 20 53.2**	**-0.4**
ANMO				pmax	pmax		
	comp=Z,2.0nm,1.2s						
RAYN	**Ar Rayn**	**76.83**	**291**	P	**P**	**14 20 53.8**	**-0.8**
RAYN				pmax	pmax		
	comp=Z,11nm,1.4s						
RAYN	**Ar Rayn**	**76.83**	**291**	P	**P**	**14 20 53.8**	**-0.8**
RAYN	**Ar Rayn**	**76.83**	**291**	P	**P**	**14 20 53.9**	**-0.8**
	comp=Z,7.8nm,2.5s						
VLDQ	**Val d'Or**	**77.44**	**26**	P	**P**	**14 20 55.4**	**-2.1**
SADO	**Sadowa**	**79.94**	**29**	LR	LR	15 00 42.1	
	comp=Z,60nm,18.1s,baz=0.5,slow=39						
TXAR	**Lajitas Array**	**82.49**	**53**	P	**P**	**14 21 25.3**	**-0.1**
	comp=Z,0.8nm,0.8s,baz=319,slow=6.9,SNR=7.1						
	comp=Z,0.8nm,0.8s						
TXAR	**Lajitas Array**	**82.49**	**53**	P	**P**	**14 21 24.9**	**-0.5**
TXAR	**Lajitas Array**	**82.49**	**53**	P	**P**	**14 21 24.9**	**-0.5**
FCAR	**Ozark Folk Cen**	**82.75**	**42**	IAmb	IAmb	14 21 36.0	
	comp=Z,4.5nm,1.1s						
SAND	**Sanderson**	**82.81**	**52**	IAmb	IAmb	14 21 28.9	
	comp=Z,7.1nm,1.4s						
TKL	**Tuckaleechee C**	**86.40**	**36**	LR	LR	15 03 35.8	
	comp=Z,91nm,20.3s,baz=352,slow=38						
ESDC	**Sonseca Array**	**86.83**	**334**	P	**P**	**14 21 47.2**	**+0.1**
	comp=Z,1.5nm,0.8s,baz=22,slow=3.3,SNR=12						
	comp=Z,1.5nm,0.8s						
ESDC	**Sonseca Array**	**86.83**	**334**	P	**P**	**14 21 46.6**	**-0.5**
PPT	**Papeete**	**89.56**	**118**	LR	LR	14 55 55.6	
	comp=Z,31nm,20.9s,baz=118,slow=31						
QSPA	**South Pole Qui**	**138.66**	**180**	PKP	**PKPdf**	**14 28 26.5**	**-0.8**
	comp=Z,2.0nm,1.1s,baz=355,slow=1.7,SNR=5.4						
BDFB	**Brasilia**	**145.77**	**18**	PKPbc	**PKPdf**	**14 28 40.7**	**-0.9**
	comp=Z,3.9nm,0.9s,baz=321,slow=6.5,SNR=4.4						
BDFB	**Brasilia**	**145.77**	**18**		**PKPab**	**14 28 42.2**	**-0.1**
SNAA	**Sanae**	**152.13**	**203**	PKPbc	**PKPbc**	**14 28 55.6**	**-1.2**
	comp=Z,1.1nm,0.5s,baz=68,slow=8.0,SNR=4.9						

RSNC 13 14:16:12.0±0.0, 1°N±1°×7°7W±°, h0^{km}±2^{km}, M3.3, ML3.0, MLv3.8, Colombia-Ecuador border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CRUC	**La Cruz**	**0.69**	**355**	P	Pg	14 16 23.6	-1.6
CRUC				S	Sg	14 16 33.7	-0.4
CRUC				AML	AML		
CRUC				AML	AML		
CASC	**Dorado de Casc**	**0.86**	**211**	P	Pg	14 16 26.3	-2.3
CASC				S	Sg	14 16 38.4	-1.4
CASC				AML	AML		
CASC				AML	AML		
TULM	**Tulcn-Chalpat**	**0.91**	**260**	P	Pg	14 16 28.3	-1.2
TULM				S	Sg	14 16 42.0	+0.7
TULM				AML	AML		
TULM				AML	AML		
BBAC	**Balboa, Cauca**	**1.19**	**343**	P	Pg	14 16 32.3	-2.5
BBAC				S	Sg	14 16 49.8	-0.5
BBAC				AML	AML		
BBAC				AML	AML		
CUSE	**Cuicocha Este**	**1.61**	**249**	P	Pn	14 16 41.0	-1.2
CUSE				S	Sb	14 17 04.8	+0.8
CUSE				AML	AML		
CUSE				AML	AML		
POPC	**Popayan, Colom**	**1.66**	**7**	P	Pn	14 16 40.1	-2.6
POPC				S	Sn	14 17 02.1	-2.7
POPC				AML	AML		
POPC				AML	AML		
OTAV	**Otavalo**	**1.69**	**248**	P	Pn	14 16 42.2	-1.0
OTAV				S	Sn	14 17 05.9	+0.2
OTAV				AML	AML		

OTAV				AML	AML		
GARC	**Garzon, Huila**	1.91	47	P	Pn	14 16 41.9	-4.1
GARC				S	Sn	14 17 07.4	-3.5
PAC1	**Pacto, Paraso**	2.00	252	P	Pn	14 16 46.4	-0.8
PAC1				S	Sn	14 17 13.7	+0.7
PAC1				AML	AML		
PAC1				AML	AML		
PTLC	**Puerto Leguiza**	2.21	109	P	Pn	14 16 49.0	-1.0
PTLC				S	Sn	14 17 17.8	-0.2
PTLC				AML	AML		
PTLC				AML	AML		
BETC	**Betania**	2.30	39	P	Pn	14 16 50.6	-0.7
BETC				S	Sn	14 17 20.9	+0.5
BETC				AML	AML		
BETC				AML	AML		
MACC	**Macarena, Meta**	3.29	68	P	Pn	14 17 04.1	-0.8
MACC				S	Sn	14 17 43.9	-0.9
MACC				AML	AML		
MACC				AML	AML		
ORTC	**Ortega, Tolima**	3.43	29	P	Pn	14 17 05.6	-1.2
ORTC				S	Sn	14 17 47.7	-0.5
ORTC				AML	AML		
ORTC				AML	AML		
PRAC	**Prado**	3.45	35	P	Pn	14 17 06.2	-0.9
PRAC				S	Sn	14 17 49.0	+0.2
PRAC				AML	AML		
PRAC				AML	AML		
PIZC	**Pizarro, Choco**	4.08	353	P	Pn	14 17 15.1	-0.7
PIZC				AML	AML		
PIZC				AML	AML		
VILC	**Villavicencio,**	4.53	45	P	Pn	14 17 22.8	+0.8
VILC				S	Sn	14 18 15.0	-0.5
VILC				AML	AML		
VILC				AML	AML		
GUY2C	**Guyana, Caldas**	4.58	19	P	Pn	14 17 25.3	+2.3
GUY2C				S	Sn	14 18 15.1	-2.0
CHIC	**Chingaza**	4.88	40	P	Pn	14 17 26.3	-0.8
CHIC				S	Sn	14 18 24.4	-0.2
CHIC				AML	AML		
CHIC				AML	AML		
RUSC	**La Rusia**	6.26	37	P	Pn	14 17 46.2	0.0

IDC 13 14:16:38.5±2.1, 21°.87S×177°.10W, h0^{km}, mb3.9/4, mbtmp3.9/4, Error ellipse: s-maj=59.0km s-min=37.5km az=22.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	37.97	246	P	P	14 23 58.4	+0.2
	1.4nm,0.6s,baz=60,slow=8.1,SNR=2.9						
	1.4nm,0.6s						
ASAR	**Alice Springs**	45.04	258	P	P	14 24 56.3	0.0
	1.5nm,0.6s,baz=94,slow=7.6,SNR=33						
	1.5nm,0.6s						
WRA	**Warramunga Arr**	45.26	263	P	P	14 24 57.8	-0.3
	0.9nm,0.5s,baz=97,slow=8.0,SNR=45						
	0.9nm,0.5s						
QSPA	**South Pole Qui**	68.21	180	P	P	14 27 40.4	-0.3
	0.7nm,0.6s,baz=18,slow=9.6,SNR=8.7						
	0.7nm,0.6s						
ARCES	**ARCESS Array B**	130.41	350	PKP	PKPdf	14 35 50.5	+0.1
	0.5nm,0.5s,baz=39,slow=1.8,SNR=6.3						

NAO ***13*** *14:24:48.9±0.5, 77°.11N×20°.46E, h10^{km}, ML2.8*

KOLA ***13*** *14:24:48.8, 77°.48N×21°.46E, h0^{km}, ML2.5, Error ellipse: s-maj=25.5km s-min=8.5km az=30.0, Storfjorden zone*

BER 13 14:24:51.0±2.9, 77°.12N×20°.60E, h23^{km}±9^{km}, ML2.3, ML2.8(NAO), Confirmed Earthquake, Svalbard region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HOPEN	**Hopen**	1.18	119	Pb	Pn	14 25 10.4	-1.6
HOPEN				Sb	Sn	14 25 25.6	-1.7
HOPEN	**Hopen**	1.18	119	*e*P	Pn	14 25 10.4	-1.7
HOPEN				*e*Pg	Pb	14 25 11.6	-1.0
HOPEN				*e*S	Sn	14 25 25.6	-1.8
HOPEN				*e*Sg	Sb	14 25 27.6	+0.1
HOPEN				IAML		14 25 28.1	
	comp=Z,121nm,0.4s						
HOPEN	**Hopen**	1.18	119	*e*P	Pn	14 25 10.4	-1.7
HOPEN				*e*Pg	Pb	14 25 11.6	-1.0
HOPEN				*e*S	Sn	14 25 25.6	-1.7
HOPEN				*e*Sg	Sb	14 25 27.5	+0.1
HOPEN				IAML		14 25 28.1	
	comp=Z,121nm,0.4s						
SPA0	**Spitsbergen Ar**	1.40	322	Pn	Pn	14 25 12.7	-2.4
	baz=141,slow=18						
SPA0				Pg	Pb	14 25 14.3	-2.1
	baz=141,slow=18						
SPA0				Sb	Sn	14 25 29.4	-3.5
	baz=135,slow=37						
SPA0	**Spitsbergen Ar**	1.40	322	*e*P	Pn	14 25 12.7	-2.5
SPA0				*e*Pg	Pb	14 25 14.4	-2.1
SPA0				*e*S	Sn	14 25 29.7	-3.2
SPA0				*e*Sg	Sb	14 25 32.5	-1.4
SPA0				IAML		14 25 33.0	
	comp=Z,52nm,0.3s						
SPA0	**Spitsbergen Ar**	1.40	322	Pn	Pn	14 25 12.7	-2.4
SPA0				Pg	Pb	14 25 14.3	-2.1
SPA0				Sb	Sn	14 25 29.4	-3.5
SPITS	**Spitsbergen Ar**	1.40	322	P	Pn	14 25 12.6	-2.5
SPITS				S	Sn	14 25 30.8	-2.1
BRBA	**Barentsburg A**	1.67	308	Pb	Pn	14 25 19.4	+0.6
BRBA				Sg	Sb	14 25 40.7	-1.0
BRBA	**Barentsburg A**	1.67	308	*e*Pg	Pn	14 25 19.3	+0.5
BRBA				*e*Sg	Sn	14 25 40.6	+1.1
BRBA				IAML		14 25 41.3	
	comp=Z,98nm,0.2s						
BRBA	**Barentsburg A**	1.67	308	Pb	Pn	14 25 19.4	+0.6
BRBA				Sg	Sb	14 25 40.7	-1.0
BRBB	**Barentsburg B**	1.69	309	Pb	Pn	14 25 18.9	-0.2
BRBB				Sg	Sb	14 25 41.1	-1.1
BRBB	**Barentsburg B**	1.69	309	*e*Pg	Pn	14 25 19.6	+0.6
BRBB	**Barentsburg B**	1.69	309	Pb	Pn	14 25 18.9	-0.2
BRBB				Sg	Sb	14 25 41.1	-1.1
BRBB	**Barentsburg B**	1.69	309	P	Pn	14 25 19.4	+0.3
BRBB				S	Sn	14 25 41.0	+1.0
BJO1	**Bjornoya**	2.66	189	Pg	Pb	14 25 37.9	+0.2
BJO1				Sn	Sn	14 26 00.8	-2.9
BJO1	**Bjornoya**	2.66	189	*e*P	Pb	14 25 38.1	+0.4
BJO1				*e*S	Sb	14 26 12.6	+2.7
BJO1				IAML		14 26 19.3	
	comp=Z,18nm,0.5s						
BJO1	**Bjornoya**	2.66	189	*e*Pg	Pb	14 25 38.1	+0.3
BJO1				IAML		14 26 19.3	
	comp=Z,18nm,0.5s						
BEAR	**Bear Island, N**	2.66	189	Pg	Pb	14 25 37.9	+0.1
	baz=6.8,slow=18						
BEAR				Sn	Sn	14 26 00.3	-3.6
	baz=4.8,slow=37						
BEAR				Sg	Sb	14 26 11.6	+1.6
	baz=6.8,slow=37						
HAMF	**Hammerfest**	6.56	171	Sn	Sn	14 27 31.6	-8.3
HAMF	**Hammerfest**	6.56	171	Sn	Sn	14 27 31.6	-8.3
VADS	**Vadso**	7.44	156	Pn	Pn	14 26 36.2	-1.7
VADS				Sn	Sn	14 27 55.2	-6.2
VADS	**Vadso**	7.44	156	Pn	Pn	14 26 36.2	-1.7
VADS				Sn	Sn	14 27 55.2	-6.2
VADS	**Vadso**	7.44	156	P	Pn	14 26 36.9	-1.0
VADS				S	Sn	14 27 56.0	-5.5
JETT	**Jettan, Norway**	7.60	181	Pn	Pn	14 26 37.5	-2.7
JETT				Sn	Sn	14 27 58.0	-7.5
JETT	**Jettan, Norway**	7.60	181	Pn	Pn	14 26 37.5	-2.7
JETT				Sn	Sn	14 27 58.0	-7.5
KEV	**Kevo**	7.62	163	Pn	Pn	14 26 40.0	-0.3
KEV				Sn	Sn	14 27 58.3	-7.4
KEV	**Kevo**	7.62	163	Pn	Pn	14 26 40.0	-0.3
KEV				Sn	Sn	14 27 58.3	-7.4
ARA0	**ARCESS Array S**	7.75	167	Pn	Pn	14 26 41.2	-0.9
	baz=355,slow=12						
ARA0				Sn	Sn	14 28 01.1	-7.9
	baz=359,slow=22						
ARA0	**ARCESS Array S**	7.75	167	Pn	Pn	14 26 41.2	-0.9
ARA0				Sn	Sn	14 28 01.1	-7.9
ARCES	**ARCESS Array B**	7.75	167	P	Pn	14 26 41.9	-0.3
ARCES				S	Sn	14 28 00.4	-8.6
TERR	**Teriberka**	8.95	145	S	Sn	14 28 26.1	-12
APA0	**Apatity Array**	10.23	152	S	Sn	14 29 01.2	-8.6

MCSM ***13*** *14:28:04.6±1.1, 46°N±7°×2°7E±°, h151^{km}±12^{km}, MLv2.5*

BUC ***13*** *14:28:06.3±0.4, 45°.57N×26°.55E, h140^{km}±2^{km}, ml3.1/23, Error ellipse: s-maj=2.3km s-min=1.4km az=171.0*

ISC 13 14:28:03.8±1.6, 45°.66N±0°.05×26°.54E±0°.04, h157^{km}±9^{km}, n37, σ0^{s}.76/45, 20C-16D, Romania

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SAHR	**Sahastru**	0.13	56	⇑P	Pn	14 28 25.6	+0.6
SAHR				⇑S	Sn	14 28 40.6	-0.5
SAHR				AML	AML		
SAHR				AML	AML		
BISRR	**Bisoca**	0.16	131	P	Pn	14 28 25.6	+0.6
BISRR				AML	AML		
PLOR	**Plostina**	0.21	22	⇑P	Pn	14 28 26.4	+1.4
PLOR				⇓S	Sn	14 28 40.7	-0.7
PLOR				AML	AML		
PLOR				AML	AML		
VRI	**Vrincioaia**	0.25	33	⇓P	Pn	14 28 26.1	+1.0
VRI				⇑S	Sn	14 28 40.9	-0.5
VRI				AML	AML		
VRI				AML	AML		
VRI	**Vrincioaia**	0.25	33	P	Pn	14 28 25.8	+0.7
VRI				AML	AML		
NEHR	**Nehoiu**	0.28	216	⇑P	Pn	14 28 25.6	+0.3
COVR	**Voineasa-Covas**	0.30	309	⇑P	Pn	14 28 25.7	+0.4
COVR				⇓S	Sn	14 28 40.7	-1.0
MLR	**Muntele Rosu**	0.45	248	⇓P	Pn	14 28 26.7	+0.7
MLR				⇑S	Sn	14 28 42.0	-0.8
MLR				AML	AML		
MLR				AML	AML		
PANC	**Panciu**	0.48	63	⇓S	Sn	14 28 42.7	-0.1
ISR	**Istrita**	0.54	179	⇑S	Sn	14 28 41.8	-1.6
ISR				AML	AML		
ISR	**Istrita**	0.54	179	P	Pn	14 28 27.2	+0.9
ISR				AML	AML		
TUDR		0.80	94	⇓S	Sn	14 28 45.8	-0.1
TESR	**Tescani**	0.86	5	P	Pn	14 28 28.3	+0.1
TESR				AML	AML		
IZVR	**Izvoarele**	0.87	97	⇓S	Sn	14 28 46.0	-0.9
IZVR				AML	AML		
NEGRR	**Negrea**	0.95	97	⇑S	Sn	14 28 47.8	-0.2
NEGRR				AML	AML		
BIR	**Birlad**	0.97	51	⇑S	Sn	14 28 48.3	-0.2
SCTR	**Scanteiesti**	1.02	89	⇑S	Sn	14 28 48.9	-0.2
SCTR				AML	AML		
TATR	**Tatarca**	1.06	93	⇑S	Sn	14 28 49.4	-0.2
TATR				AML	AML		
VOIR		1.07	259	⇓P	Pn	14 28 29.9	0.0
VOIR		1.07	259	P	Pn	14 28 30.2	+0.3
VOIR				AML	AML		
VLDR	**Vladesti**	1.10	80	⇓S	Sn	14 28 49.9	-0.3
VLDR				AML	AML		
CFR	**Carcaliu**	1.23	112	⇓P	Pn	14 28 32.1	+0.9
CFR				⇑S	Sn	14 28 51.8	-0.4
CFR				AML	AML		
CFR				AML	AML		
BUC1	**Bucharest**	1.36	196	⇑S	Sn	14 28 54.0	-0.5
BUC1				AML	AML		
STFAR	**Stefanesti-Arg**	1.37	235	⇓S	Sn	14 28 53.4	-1.3
STFAR				AML	AML		
ARR	**Arges**	1.37	258	⇑P	Pn	14 28 33.9	+1.2
HARR	**Harsova**	1.38	134	⇓P	Pn	14 28 33.4	+0.7
HARR				⇓S	Sn	14 28 54.2	-0.7
HARR				AML	AML		
HARR				AML	AML		
SGRR	**Singureni**	1.49	196	⇓S	Sn	14 28 55.9	-0.9
SGRR				AML	AML		
TPGR	**Topolog**	1.55	120	⇑S	Sn	14 28 57.1	-0.9
HUMR	**Humele**	1.58	225	⇑S	Sn	14 28 57.9	-0.6
HUMR				AML	AML		
TLCR		1.67	106	⇓S	Sn	14 29 00.1	-0.1
COPA	**Copaceanca**	1.79	212	⇑S	Sn	14 29 01.5	-1.0
COPA				AML	AML		
TIRR	**Tirgusor**	1.79	131	⇑P	Pn	14 28 37.5	+0.5
TIRR				⇓S	Sn	14 29 01.8	-0.7
TIRR	**Tirgusor**	1.79	131	P	Pn	14 28 37.7	+0.7
LOT	**Lotru**	1.95	265	⇑S	Sn	14 29 07.6	+1.6
AK14	**Malin Array Si**	5.27	18	P	Pn	14 29 20.8	+0.1
AK05	**Malin Array Si**	5.28	19	P	Pn	14 29 20.9	0.0
RNPP8	**Varash**	5.70	356	P	Pn	14 29 26.5	0.0

UCR ***13*** *14:28:31.0±0.7, 8°.27N×82°.99W, h2^{km}±7^{km}, MW4.3, Presumed earthquake*

UPA ***13*** *14:28:33.0±0.9, 8°.32N×82°.90W, h10^{km}±1^{km}, MW3.8, Presumed earthquake*

ISC 13 14:28:32.6±0.9, 8°.31N±0°.03×82°.93W±0°.02, h16^{km}±7^{km}, n52, σ0^{s}.72/86, 5C-5D, Panama-Costa Rica border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LIMO3	**Limones**	0.22	162	*i* P	Pb	14 28 38.3	0.0
LIMO3				*e*S	Sg	14 28 41.7	+0.7
LMNES	**Limones**	0.22	161	*i* P	Pb	14 28 38.3	0.0
LMNES				*e*S	Sg	14 28 41.9	+0.8
NELY	**Ciudad Neily**	0.34	358	*e*P	Pg	14 28 39.4	-0.1
NELY				*e*S	Sb	14 28 45.7	+0.3
NELY	**Ciudad Neily**	0.34	358	⇑*i*P	Pg	14 28 39.5	-0.1
NELY				*e*S	Sb	14 28 45.2	-0.2
FITO	**Golfito**	0.38	325	*e*P	Pg	14 28 39.1	-1.2
FITO				*e*S	Sg	14 28 45.1	-0.6
PIRO	**Carate, Puerto**	0.41	283	*e*P	Pg	14 28 40.5	-0.3
PIRO				*e*S	Sb	14 28 48.7	+1.2
MLIR3	**Monte Lirio, C**	0.49	13	⇑*i*P	Pb	14 28 42.9	0.0
MLIR3				*e*S	Sb	14 28 50.1	+0.2
DVD	**David**	0.49	76	⇓*i*P	Pb	14 28 42.9	0.0
DVD				*e*S	Sg	14 28 48.0	-1.1
VITO	**San Vito**	0.50	356	*e*P	Pg	14 28 42.9	+0.2
VITO	**San Vito**	0.50	356	⇓*i*P	Pb	14 28 43.1	-0.1
VITO				*e*S	Sb	14 28 51.9	+1.5
CLLRA	**Cordillera,**	0.53	36	⇑*i*P	Pb	14 28 43.7	0.0
CLLRA				*e*S	Sb	14 28 51.8	+0.6
BRU2	**Volcan**	0.54	27	*e*P	Pg	14 28 43.3	+0.1
BRU2	**Volcan**	0.54	27	⇑*i*P	Pb	14 28 43.7	-0.1
BRU2				*e*S	Sb	14 28 52.4	+1.1
SCLRA	**Santa Clara, W**	0.54	16	⇑*i*P	Pb	14 28 43.9	0.0
SCLRA				*e*S	Sn	14 28 53.3	-1.3
LOMA3	**Las Lomas, Chi**	0.55	78	*e*P	Pg	14 28 43.7	+0.2
LOMA3				*e*S	Sg	14 28 50.9	+0.1
PTAR3	**Potrerillos Ar**	0.57	49	*e*P	Pb	14 28 44.5	+0.1
PTAR3				*e*S	Sb	14 28 52.9	+0.5
CHIR3	**Chiriqui UPA,**	0.60	82	*e*P	Pg	14 28 44.5	0.0
CHIR3				*e*S	Sb	14 28 52.9	-0.2
BQTLY	**Boquete Panama**	0.64	47	*e*P	Pg	14 28 45.4	+0.1
BQTLY				*e*S	Sn	14 28 57.4	+0.2
BQSF3	**Alto Boquete,**	0.65	49	*i* P	Pg	14 28 45.5	0.0
BQSF3				*e*S	Sb	14 28 54.6	-0.1
LNBQ3	**Los Naranjos,**	0.68	46	*e*P	Pg	14 28 45.8	-0.2
LNBQ3				*e*S	Sb	14 28 55.5	0.0
EDP2	**Potrero Grande**	0.74	341	*e*P	Pb	14 28 46.5	-0.7
EDP2				*e*S	Sg	14 28 58.0	+1.2
PANP	**Palmar Norte**	0.83	321	*e*P	Pb	14 28 47.0	-1.7
PANP				*e*S	Sb	14 28 58.8	-0.7
RBALA	**Bur**	0.95	54	⇓*i*P	Pb	14 28 50.5	-0.4
RBALA				*e*S	Sn	14 29 04.2	-0.6
CHGR2	**Aguacate**	1.00	51	*e*P	Pb	14 28 50.2	-1.4
CHGR2				*e*S	Sb	14 29 04.6	+0.1
EDPE	**Pejibaye, P**	1.05	323	*e*P	Pb	14 28 50.9	-1.5
SAJE	**San Jernim**	1.17	331	*e*P	Pn	14 28 53.1	-1.5
PDCAN	**Manzana , Fuen**	1.22	91	⇓*i*P	Pn	14 28 54.4	-0.7
PDCAN				*e*S	Sn	14 29 11.1	-0.3
KKNTU	**Kakintº**	1.23	65	⇓*i*P	Pn	14 28 54.6	-0.7
KKNTU				*e*S	Sn	14 29 11.2	-0.4
BRIBI	**Bribri**	1.30	5	*e*P	Pb	14 28 57.1	+0.3
BRIBI				*e*S	Sg	14 29 17.1	+2.4
BUS1	**Rivas**	1.47	327	*e*P	Pn	14 28 57.7	-1.2
ABE2	**San Pablo**	1.77	321	*e*P	Pn	14 29 03.2	+0.4
GMAL	**Guarumal, Vera**	1.77	108	*e*P	Pn	14 29 02.1	-0.5
GMAL				*e*S	Sn	14 29 24.5	-0.4
LCR2	**La Lucha 2**	1.77	323	*e*P	Pn	14 29 02.0	-0.9
LCR2	**La Lucha 2**	1.77	323	*e*P	Pn	14 29 03.0	+0.2
RSUS3	**Rio de Jesus,**	1.79	100	*e*P	Pn	14 29 02.3	-0.5
RSUS3				*e*S	Sn	14 29 24.9	-0.3
PICV	**PH. Pirrs**	1.81	316	*e*P	Pn	14 29 03.9	+0.8
VTCV	**VTCV, Calle Va**	1.83	335	*e*P	Pn	14 29 03.8	+0.1
SAFE3	**Santa Fe, Vera**	1.85	84	*e*P	Pn	14 29 03.4	-0.3
SAFE3				*e*S	Sn	14 29 26.8	0.0
CVTQ	**Turrialba Volc**	1.87	334	*e*P	Pn	14 29 04.6	+0.2
VTR0	**Volcan Turrial**	1.88	334	*e*P	Pn	14 29 04.9	+0.3
CVTR	**Volcan Turrial**	1.88	334	*e*P	Pn	14 29 04.6	0.0
RVLA	**Villa Bonita**	1.90	340	*e*P	Pn	14 29 05.2	+0.8
STIA3	**Santiago, Vera**	1.95	96	*e*P	Pn	14 29 04.7	-0.5
CACAO	**El Cacao, Vera**	2.27	115	*e*P	Pn	14 29 09.6	+0.1
CACAO				*e*S	Sn	14 29 36.8	-0.3
CHIT3	**Chitre**	2.52	98	*e*P	Pn	14 29 12.4	-0.5
CHIT3				*e*S	Sn	14 29 43.5	+0.2
PNME	**Penonome**	2.58	86	*e*P	Pn	14 29 14.1	+0.3
PNME				*e*S	Sn	14 29 44.5	-0.5
AZU	**Azuero**	2.68	101	*e*P	Pn	14 29 15.4	+0.2
AZU				*e*S	Sn	14 29 48.4	+1.0
JTS	**Las Juntas de**	2.80	315	*e*P	Pn	14 29 18.0	+1.1
JTS				*e*S	Sn	14 29 52.0	+1.7
ZANG	**Zanguenga, Cho**	3.10	78	*e*P	Pn	14 29 20.3	-0.7
BCIP	**Isla Barro Col**	3.18	74	*e*P	Pn	14 29 21.8	-0.1
BCIP				*e*S	Sn	14 29 59.3	-0.3
GAMB1	**Gamboa**	3.29	76	*e*P	Pn	14 29 23.5	0.0
FRIJ	**El Hiral**	3.30	74	*e*P	Pn	14 29 23.6	-0.1

IDC 13 14:37:53.1±2.6, 3°.57N×128°.92E, h0^{km}, mb3.2/3, mbtmp3.2/3, Error ellipse: s-maj=181.4km s-min=26.2km az=70.0, North of Halmahera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	23.96	167	P	P	14 43 08.6	-0.8
	0.6nm,0.8s,baz=344,slow=9.4,SNR=12						
	0.6nm,0.8s						
ASAR	**Alice Springs**	27.50	170	P	P	14 43 40.4	-1.1
	0.1nm,0.7s,baz=347,slow=8.4,SNR=5.4						
	0.1nm,0.7s						
MKAR	**Makanchi Array**	58.95	324	P	P	14 47 56.2	+1.8
	0.2nm,0.5s,baz=120,slow=8.5,SNR=1.2						
	0.2nm,0.5s						

IDC ***13*** *14:52:45.1±0.6, 28°.93S×71°.44W, h0^{km}, mb4.1/9, mbtmp4.0/14, ML3.7/5, Error ellipse: s-maj=19.0km s-min=13.0km az=73.0*

SJA ***13*** *14:52:48.8±0.7, 29°.05S×71°.45W, h28^{km}±2^{km}, ML4.3, MW4.4*

GUC ***13*** *14:52:49.8±0.8, 29°.04S×71°.31W, h44^{km}±3^{km}, ML4.5*

NEIC ***13*** *14:52:50.5±1.8, 29°.03S±0°.04×71°.47W±0°.09, h29^{km}±2^{km}, mb4.7/14, Mwr4.2/14, Mwr4.4(GUC), Error ellipse: s-maj=10.9km s-min=6.0km az=92.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}0.72; $M_{\theta\theta}$-0.67; $M_{\phi\phi}$-0.05; $M_{r\theta}$0.02; $M_{\theta\phi}$1.12; $M_{\phi r}$2.47; Fault plane solution: $M_0$2.80000×10^{15} NP1:ϕ_s95.69000°, δ26.68000°, λ16.30000°. NP2:ϕ_s351.06000°, δ82.76000°, λ115.75000°. Principal axes: T 2.9979, Plg46.0000°, Azm287.0000°; N -0.4392, Plg26.0000°, Azm168.0000°; P -2.5586, Plg33.0000°, Azm60.0000°;*

NEIC ***13*** *14:52:50.2, 29°.03S×71°.49W, h26^{km}*

ISC 13 14:52:46.1±1.3, 29°.00S±0°.02×71°.45W±0°.04, h5^{km}±8^{km}, n114, σ1^{s}.60/131, mb4.4/13, 4C-4D, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LCO	**Las Campanas**	0.66	91	*e*P	Pg	14 52 58.5	-0.3
LCO	**Las Campanas**	0.66	91	*e*P	Pn	14 53 02.8	+0.4
LCO				*e*S	Sn	14 53 11.7	-1.5
LCO				IAML		14 53 14.4	
	313µm,0.3s						
LCO	**Las Campanas**	0.66	91		Pn	14 53 03.5	+1.1
AC04	**Llanos de Chal**	0.86	23	*e*P	Pn	14 53 07.0	+2.1
AC04				*e*S	Sn	14 53 19.9	+2.0
AC04				IAML		14 53 21.7	
	comp=Z,7µm,0.3s						
AC04	**Llanos de Chal**	0.86	23	⇑*i*P	Pn	14 53 06.7	+1.8
AC04				*i* S	Sn	14 53 19.1	+1.3
AC04				IAML		14 53 22.7	
	comp=E,19µm,0.3s						
AC04	**Llanos de Chal**	0.86	23		Pn	14 53 07.0	+2.1
AC05	**El Transito**	1.05	81	*e*P	Pn	14 53 09.5	+1.9
AC05				*e*S	Sn	14 53 24.2	+1.6
AC05				IAML		14 53 28.0	
	comp=Z,4µm,0.6s						
AC05	**El Transito**	1.05	81	⇓*i*P	Pn	14 53 09.5	+1.9
AC05				*i* S	Sn	14 53 22.0	-0.7
AC05				IAML		14 53 29.3	
	comp=N,9µm,0.3s						
AC05	**El Transito**	1.05	81		Pn	14 53 09.4	+1.9
GO04	**Tololo Observa**	1.30	154	*e*P	Pb	14 53 12.6	+1.5
GO04				*e*S	Sn	14 53 33.0	+4.0
GO04				IAML		14 53 34.4	
	comp=Z,4µm,0.2s						
GO04	**Tololo Observa**	1.30	154	⇓*i*P	Pb	14 53 12.5	+1.3
GO04				*i* S	Sg	14 53 28.1	+0.2
GO04				IAML		14 53 34.2	
	comp=E,13µm,0.4s						
GO04	**Tololo Observa**	1.30	154		Pb	14 53 12.4	+1.2
CO01	**Juntas del Tor**	1.53	130	*e*P	Pg	14 53 16.6	+1.0
CO01				*e*S	Sg	14 53 36.4	+1.0
CO01				IAML		14 53 40.6	
	comp=Z,2µm,0.4s						
CO01	**Juntas del Tor**	1.53	130	⇓*i*P	Pg	14 53 16.6	+1.0
CO01				*i* S	Sg	14 53 35.5	+0.1
CO01	**Juntas del Tor**	1.53	130		Pg	14 53 16.3	+0.8
CO06	**Fray Jorge**	1.67	185	*e*P	Pn	14 53 16.8	+0.7
CO06				*e*S	Sn	14 53 35.9	-2.1
CO06	**Fray Jorge**	1.67	185		Pn	14 53 16.7	+0.7
GO03	**Copiapo**	1.77	38	*e*P	Pg	14 53 20.1	+0.1
GO03				*e*S	Sg	14 53 43.9	+1.0
GO03				IAML		14 53 48.4	
	comp=Z,3µm,0.6s						
GO03	**Copiapo**	1.77	38	*e*P	Pb	14 53 19.7	+0.7
GO03				*e*S	Sb	14 53 41.9	+0.3
GO03				IAML		14 53 49.3	
	comp=N,6µm,0.5s						
GO03	**Copiapo**	1.77	38		Pb	14 53 19.8	+0.7
CO03	**El Pedregal**	1.95	160	*e*P	Pb	14 53 21.7	-0.5
CO03				*e*S	Sn	14 53 45.6	+0.8
CO03	**El Pedregal**	1.95	160	⇑*i*P	Pn	14 53 21.4	+1.5
CO03				*i* S	Sn	14 53 44.8	-0.1
CO03				IAML		14 53 47.1	
	comp=N,2µm,0.2s						
CO03	**El Pedregal**	1.95	160		Pn	14 53 21.6	+1.6
AROD	**Rodeo**	2.08	124	*e*P	Pg	14 53 26.1	+0.1
CO02	**Combarbal**	2.23	170	*e*P	Pn	14 53 25.4	+1.5
CO02				IAML		14 54 04.2	
	comp=Z,3µm,0.6s						
CO02	**Combarbal**	2.23	170	*e*P	Pn	14 53 25.1	+1.2
CO02				*e*S	Sn	14 53 52.0	+0.1
CO02				IAML		14 54 04.3	
	comp=E,6µm,0.3s						
CO02	**Combarbal**	2.23	170		Pn	14 53 25.2	+1.4
ACDV	**Cuesta del Vie**	2.34	120	*e*P	Pg	14 53 30.5	-0.5
ACDV				IAML		14 54 03.3	
	comp=Z,982nm,0.5s						
ACCO	**Cerro Coronel**	2.61	128	*e*P	Pn	14 53 28.9	-0.4
ACCO				*e*S	Sb	14 54 04.4	-1.7
ACCO				IAML		14 54 19.3	
	comp=Z,848nm,0.4s						
VCA	**Vinchina**	2.86	85	*e*P	Pb	14 53 39.2	+1.4
VCA				*e*S	Sb	14 54 10.5	-2.7
VCA				IAML		14 54 32.7	
	comp=Z,2µm,0.6s						
VCA	**Vinchina**	2.86	85	⇓*e*P	Pb	14 53 38.9	+1.1
AC01	**Pan de Azucar**	2.94	15	*e*P	Pn	14 53 34.4	+0.9
AC01				*e*S	Sb	14 54 15.0	-0.3
AC01				IAML		14 54 26.9	
	comp=Z,1µm,0.7s						
AC01	**Pan de Azucar**	2.94	15	*e*P	Pn	14 53 34.2	+0.7
AC01				*e*S	Sn	14 54 07.8	-1.5
AC01				IAML		14 54 26.5	
	comp=E,2µm,0.6s						
AC01	**Pan de Azucar**	2.94	15		Pn	14 53 34.3	+0.7
AC02	**Maricunga**	2.98	44	*e*P	Pb	14 53 38.1	-1.9
AC02				*e*S	Sb	14 54 14.3	-2.6
AC02				IAML		14 54 25.9	
	comp=Z,1µm,0.7s						
AC02	**Maricunga**	2.98	44	*e*P	Pb	14 53 37.8	-2.2
AC02				*e*S	Sn	14 54 13.8	+2.9
AC02				IAML		14 54 30.2	
	comp=E,2µm,0.3s						
CO04	**Los Peladeros**	3.06	172	*e*P	Pn	14 53 37.1	+1.7
CO04				*e*S	Sn	14 54 12.4	-0.1
CO04				IAML		14 54 28.4	
	comp=N,2µm,0.5s						

CO04	Los Peladeros	3.06	172		Pn	14 53 36.9	+1.5
RTLL	Cerro Villicun	3.47	133	*e*P	Pb	14 53 45.2	-2.9
RTLL				*e*S	Sn	14 54 23.9	+1.6
RTLL				IAML		14 54 45.4	
	comp=Z,645nm,0.5s						
ZON	Zonda	3.49	137		Pn	14 53 43.7	+2.6
TINO	Tinogasta	3.54	76	*e*P	Pb	14 53 46.3	-3.1
TINO				IAML		14 54 47.9	
	comp=Z,354nm,1.2s						
CFA	Coronel Fontan	3.80	134	Pn	Pn	14 53 49.4	+3.9
	comp=Z,11nm,0.3s,baz=297,slow=14,SNR=143						
CFA				Sn	Sn	14 54 33.2	+2.7
	comp=Z,23nm,0.3s,baz=292,slow=19,SNR=8.5						
	comp=Z,44nm,0.3s						
CFA				AML	AML		
CFA	Coronel Fontan	3.80	134	*e*P	Pn	14 53 49.3	+3.9
CFA				*e*S	Sn	14 54 32.8	+2.2
CFA				IAML		14 54 52.8	
	comp=Z,290nm,1.5s						
VA03	San Esteban	3.83	169	*e*S	Sn	14 54 35.5	+4.2
VA03				IAML		14 55 03.3	
	comp=Z,470nm,0.7s						
VA03	San Esteban	3.83	169	*e*P	Pn	14 53 48.1	+2.3
VA03	San Esteban	3.83	169		Pn	14 53 47.2	+1.4
ROCH	El Roble	3.98	175	*e*P	Pn	14 53 49.2	+1.2
ROCH				*e*P	Pb	14 53 49.2	-7.6
VA01	Torpederas	4.01	182	*e*P	Pn	14 53 47.9	-0.4
VA01	Torpederas	4.01	182	Pn	Pn	14 53 48.6	+0.4
PEL	Peldehue	4.18	171		Pn	14 53 51.3	+0.6
MT02	Curacav	4.25	176	*e*P	Pn	14 53 49.6	-1.9
MT02				*e*S	Sn	14 54 46.5	+4.9
MT02				IAML		14 55 06.5	
	comp=Z,339nm,0.5s						
MT02	Curacav	4.25	176		Pn	14 53 52.1	+0.5
ARCO	CERRO ARCO	4.40	151	*e*P	Pn	14 53 54.9	+1.1
ARCO				*e*S	Sg	14 55 06.8	-0.6
ARCO				IAML		14 55 11.7	
	comp=Z,404nm,1.0s						
MT05	Renca	4.42	172	*e*S	Sb	14 54 59.0	+1.1
MT05				IAML		14 55 14.5	
	comp=Z,403nm,1.5s						
PB14	IPOC Station P	4.46	12	*e*P	Pn	14 53 50.5	-4.2
PB14				*e*S	Sb	14 55 02.5	+3.2
PB14				IAML		14 55 16.5	
	comp=Z,463nm,0.6s						
MT16	CCHEN	4.48	170		Pn	14 53 56.2	+1.4
MT04	Ro Olivares	4.53	166	*e*S	Sn	14 54 50.5	+1.6
MT04				IAML		14 55 10.5	
	comp=Z,248nm,1.2s						
MT03	Universidad Ad	4.55	170	*e*P	Pn	14 53 58.7	+3.0
MT03				*e*S	Sn	14 54 50.8	+1.7
MT03				IAML		14 55 22.7	
	comp=Z,366nm,1.2s						
MT08	Bocatoma Ro	4.60	165	*e*P	Pn	14 53 56.7	+0.2
MT08				*e*S	Sg	14 55 11.7	-2.1
MT08				IAML		14 55 25.5	
	comp=Z,171nm,0.5s						
MT09	Talagante	4.78	175		Pn	14 54 00.1	+1.2
MT01	Popeta	4.85	178	*e*S	Sn	14 54 59.2	+2.8
MT01				IAML		14 55 11.9	
	comp=Z,179nm,0.7s						
MT01	Popeta	4.85	178		Pn	14 54 00.4	+0.6
PB05	IPOC Station P	6.23	11		Pn	14 54 17.6	-1.2
TCA	Tanti	6.38	113	*e*P	Pn	14 54 22.6	+1.8
ML02	Panimavida	6.74	180	Pn	Pn	14 54 25.8	0.0
PB07	IPOC Station P	7.38	11		Pn	14 54 36.8	+2.0
H03N1	Juan Fernandez	7.77	233	T	T	15 02 36.8	
	baz=59,slow=74,SNR=3624						
H03N2	Juan Fernandez	7.78	233	T	T	15 02 35.5	
	baz=203,slow=74,SNR=2778						
PLCA	Paso Flores	11.73	177	Pn	Pn	14 55 34.9	+0.7
	baz=353,slow=8.1,SNR=3.3						
	comp=Z,0.9nm,0.7s						
CPUP	Villa Florida	12.80	81	Pn	Pn	14 55 48.0	-0.7
	comp=Z,0.1nm,0.3s,baz=259,slow=15,SNR=5.1						
	comp=Z,1.8nm,0.9s						
CPUP				AML	AML		
CPUP	Villa Florida	12.80	81		Pn	14 55 49.3	+0.5
LPAZ	La Paz	13.02	14	Pn	Pn	14 55 51.9	-0.5
	comp=Z,0.3nm,0.3s,baz=189,slow=5.5,SNR=7.9						
	comp=Z,0.4nm,0.4s						
LPAZ				AML	AML		
LPAZ	La Paz	13.02	14		Pn	14 55 52.8	+0.4
CPSB	Cacapava Do Su	15.72	100		Pn	14 56 28.8	+0.5
SIV	San Ignacio	16.10	39	Pn	Pn	14 56 32.3	-1.0
	baz=223,slow=13,SNR=12						
	comp=Z,0.3nm,0.3s						
TRCB	Terra Rica	18.02	74	P	P	14 56 59.4	+1.4
TRCB				IAmb	IAmb	14 57 15.1	
	comp=Z,19nm,0.6s						
VAO	Valinhos	22.78	80	P	P	14 57 50.4	+0.6
VAO				IAmb	IAmb	14 57 53.3	
	comp=Z,47nm,1.2s						
BDFB	Brasilia	25.37	63	P	P	14 58 12.8	-1.7
	comp=Z,2.3nm,0.6s,baz=236,slow=7.3,SNR=2.4						
	comp=Z,2.3nm,0.6s						
BDFB	Brasilia	25.37	63	P	P	14 58 15.2	+0.7
ORCD	Orcadas	36.43	158	P	P	14 59 51.3	-0.2
VNA3	Neumayer Olymp	53.82	159	⇑P	P	15 02 19.3	+10
	comp=Z,5.1nm,0.7s						
SNAA	Sanae	56.04	159	P	P	15 02 24.9	-0.7
	comp=Z,1.0nm,0.4s,baz=292,slow=11,SNR=2.0						
	comp=Z,1.0nm,0.4s						
SNAA	Sanae	56.04	159	IAmb	IAmb	15 02 38.4	
	comp=Z,4.8nm,1.0s						
TROLL	Troll, Antarti	57.75	159	⇑P	P	15 02 37.4	-0.5
	comp=Z,48nm,0.6s						
QSPA	South Pole Qui	61.22	180	P	P	15 03 01.6	-0.3
	comp=Z,1.9nm,0.8s,baz=148,slow=2.9,SNR=6.9						
	comp=Z,1.9nm,0.8s						
QSPA	South Pole Qui	61.22	180	IAmb	IAmb	15 03 02.4	
	comp=Z,5.7nm,1.4s						
SAND	Sanderson	65.53	331	P	P	15 03 31.8	+1.1
SAND				IAmb	IAmb	15 03 33.1	
	comp=Z,5.9nm,1.2s						
TXAR	Lajitas Array	65.67	329	P	P	15 03 32.2	+0.5
	comp=Z,0.7nm,0.8s,baz=149,slow=4.9,SNR=8.3						
	comp=Z,0.7nm,0.8s						
DEOK	Depew	68.68	338	P	P	15 03 51.2	+0.7
DEOK				IAmb	IAmb	15 03 51.9	
	comp=Z,14nm,0.9s						
CCM	Cathedral Cave	69.23	343	P	P	15 03 53.9	+0.1
CCM				IAmb	IAmb	15 03 55.5	
	comp=Z,6.2nm,0.8s						
DBIC	Dimbokro	73.14	72	P	P	15 04 18.4	+0.3
	comp=Z,2.3nm,0.7s,baz=225,slow=6.3,SNR=3.7						
	comp=Z,2.3nm,0.7s						
DBIC	Dimbokro	73.14	72	IAmb	IAmb	15 04 26.6	
	comp=Z,19nm,1.3s						
MAW	Mawson	77.82	164	P	P	15 04 43.7	-0.4
	comp=Z,1.4nm,0.5s,baz=214,slow=7.3,SNR=6.7						
	comp=Z,1.4nm,0.5s						
MAW	Mawson	77.82	164	IAmb	IAmb	15 04 45.2	
	comp=Z,1.9nm,1.5s						
PDAR	Pinedale Array	79.56	332	P	P	15 04 53.6	-0.6
	comp=Z,0.4nm,0.6s,baz=147,slow=8.1,SNR=3.9						
	comp=Z,0.4nm,0.6s						
BOSA	Boshof	81.96	118	P	P	15 05 07.9	+0.4
	comp=Z,1.6nm,0.5s,baz=213,slow=3.4,SNR=5.5						
	comp=Z,1.6nm,0.5s						
TORD	Torodi Ar. Bea	82.05	70	P	P	15 05 08.8	+0.9
	comp=Z,1.1nm,0.6s,baz=270,slow=4.7,SNR=7.9						
	comp=Z,1.1nm,0.6s						
ASAR	Alice Springs	122.23	208	PKP	PKPdf	15 11 41.4	-1.4
	comp=Z,0.3nm,0.5s,baz=123,slow=1.6,SNR=13						
WRA	Warramunga Arr	125.34	210	PKP	PKPdf	15 11 47.8	-1.0
	comp=Z,1.5nm,0.6s,baz=146,slow=1.8,SNR=32						
H11S2	WAKE ISLAND Hy	126.20	272	T	T	17 30 42.1	
	baz=115,slow=75,SNR=19						
H11S1	WAKE ISLAND Hy	126.21	272	T	T	17 30 43.1	
	baz=115,slow=75,SNR=23						
H11S3	WAKE ISLAND Hy	126.22	272	T	T	17 30 43.5	
	baz=115,slow=75,SNR=29						
H11N3	WAKE ISLAND Hy	126.49	274	T	T	17 31 05.6	
	baz=113,slow=76,SNR=15						
H11N1	WAKE ISLAND Hy	126.50	274	T	T	17 31 06.3	
	baz=113,slow=76,SNR=7.3						
H11N2	WAKE ISLAND Hy	126.50	274	T	T	17 31 06.5	
	baz=113,slow=76,SNR=37						
KKAR	Karatay Array	146.48	55	PKPbc	PKPdf	15 12 27.6	+0.6
KURK	Kurchatov	148.75	38		PKPbc	15 12 33.5	-0.8
KURBB	Kurchatov Arra	148.76	38	PKPbc	PKPbc	15 12 33.5	-0.8
	comp=Z,1.2nm,0.5s,baz=302,slow=2.9,SNR=11						
ZALV	Zalesovo Beam	149.66	28	PKPbc	PKPbc	15 12 36.6	+0.1
	comp=Z,4.1nm,0.6s,baz=306,slow=2.9,SNR=18						
ZALV	Zalesovo Beam	149.66	28		PKPbc	15 12 36.3	-0.1
KSH2	Kashi	151.01	61	PKPbc	PKPbc	15 12 38.4	-2.0
MKAR	Makanchi Array	152.90	42	PKP	PKPdf	15 12 36.6	-0.4
	comp=Z,0.2nm,0.6s,baz=99,slow=4.5,SNR=2.3						
MKAR				PKPbc	PKPbc	15 12 43.9	-0.4
	comp=Z,0.9nm,0.6s,baz=323,slow=2.1,SNR=11						
HHC	Hu-ho-hao-te	167.92	349	*e*P	PKPdf	15 12 53.6	-0.2
PZH	PanZhiHua	173.48	111	PKP	PKPdf	15 12 56.6	-0.6

IDC ***13*** *15:10:08.6±0.6, 61°.46N×146°.70W, h48^{km}±5^{km}, mb3.7/23, mbtmp3.9/28, MS3.1/16, Error ellipse: s-maj=11.3km s-min=9.4km az=86.0*

NEIC ***13*** *15:10:08.9±1.5, 61°.49N±0°.02×146°.39W±0°.03, h42^{km}±4^{km}, mb4.4/43, ML4.2/214, Mwr4.1/121, ML4.1(AEIC), Error ellipse: s-maj=3.6km s-min=2.2km az=161.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M$_{rr}$-1.74; M$_{\theta\theta}$0.61; M$_{\phi\phi}$1.13; M$_{r\theta}$-0.04; M$_{\theta\phi}$0.82; M$_{\phi r}$0.28; Fault plane solution: M$_0$1.76000×10^{15} NP1: ϕ_s209.73000°, δ48.65000°, λ-98.54000°. NP2: ϕ_s42.54000°, δ42.06000°, λ-80.42000°. Principal axes: T 1.7396, Plg3.0000°, Azm306.0000°; N 0.0340, Plg6.0000°, Azm215.0000°; P -1.7736, Plg83.0000°, Azm63.0000°;*

NEIC ***13*** *15:10:08.9, 61°.49N×146°.38W, h38^{km}*

AEIC ***13*** *15:10:09.7±1.9, 61°.50N±0°.03×146°.39W±0°.06, h30^{km}±4^{km}, Error ellipse: s-maj=4.2km s-min=3.7km az=49.0*

ISC 13 15:10:08.5±0.5**, 61°.47N**±0°.03×**146°.41W**±0°.02**, h41**^{km}±4^{km}**, n366,** σ0^{s}**88**/314**, mb4.3**/52**, MS3.0**/10**, Southern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KLU	Klutina	0.23	84		Sn	15 10 22.1	+0.4
KLU	Klutina	0.23	84		Pn	15 10 16.2	-0.1
KLU	Klutina	0.23	84	IAML		15 10 22.4	
	comp=E,107µm,0.5s						
KLU				IAML		15 10 22.6	
	comp=N,78µm,0.4s						
VMT	TAPS TI Valdez	0.39	177		Pn	15 10 17.7	-0.1
VMT					Sn	15 10 24.6	+0.3
DIV	Divide	0.46	138		Pn	15 10 18.5	-0.3
DIV	Divide	0.46	138		Sn	15 10 26.1	0.0
SCM	Sheep Creek Mo	0.57	310		Pn	15 10 20.1	-0.1
SCM	Sheep Creek Mo	0.57	310		Sn	15 10 29.0	+0.4
PS12	TAPS Pump St12	0.61	89		Pn	15 10 20.4	-0.3
PS12					Sn	15 10 29.5	+0.1
GLI	Glacier Island	0.68	210	Pn	Pn	15 10 21.8	+0.1
GLI				IAML		15 10 33.6	
	comp=N,15µm,0.5s						
GLI	Glacier Island	0.68	210		Sn	15 10 32.5	+1.4
M23K	Glacier View	0.71	298		Pn	15 10 21.9	-0.1
M23K					Sn	15 10 32.1	+0.3
FID	Port Fidalgo	0.72	183		Pn	15 10 22.9	+0.6
FID	Port Fidalgo	0.72	183		Sn	15 10 34.3	+2.1
FID	Port Fidalgo	0.72	183	IAML		15 10 36.7	
	comp=N,22µm,0.5s						
FID				IAML		15 10 36.7	
	comp=E,22µm,0.4s						
PS11	TAPS Pump St11	0.76	36		Pn	15 10 23.2	+0.5
PS11					Sn	15 10 33.0	+0.1
N25K	Chitina, Valde	0.88	80		Pn	15 10 24.3	-0.1
N25K					Sn	15 10 36.3	+0.2
SML	Sawmill	0.98	291		Pn	15 10 25.6	-0.2
SML	Sawmill	0.98	291		Sn	15 10 38.8	+0.3
SML	Sawmill	0.98	291	IAML		15 10 39.6	
	comp=N,10µm,0.7s						
SML				IAML		15 10 41.2	
	comp=E,11µm,0.3s						
EYAK	Cordova Ski Ar	0.98	161	P	Pn	15 10 26.3	+0.6
EYAK	Cordova Ski Ar	0.98	161	S	Sn	15 10 40.4	+2.0
EYAK	Cordova Ski Ar	0.98	161		Pn	15 10 26.6	+0.9
EYAK	Cordova Ski Ar	0.98	161		Sn	15 10 39.6	+1.2
EYAK	Cordova Ski Ar	0.98	161	IAML		15 10 43.4	
	comp=N,6µm,0.5s						
EYAK				IAML		15 10 44.0	
	comp=E,3µm,0.4s						
KNK	Knik Glacier	0.99	268		Pn	15 10 26.3	+0.5
KNK	Knik Glacier	0.99	268		Sn	15 10 39.6	+1.0
KNK	Knik Glacier	0.99	268	IAML		15 10 41.0	
	comp=N,27µm,0.4s						
KNK				IAML		15 10 41.6	
	comp=E,19µm,0.4s						
BMRM	Bremner River	1.01	119		Pn	15 10 26.0	-0.2
BMRM	Bremner River	1.01	119		Sn	15 10 40.1	+0.9
BMRM	Bremner River	1.01	119	IAML		15 10 42.8	
	comp=E,7µm,0.7s						
BMRM				IAML		15 10 44.0	
	comp=N,8µm,0.5s						
HIN	Hinchinbrook I	1.08	182		Pn	15 10 28.1	+0.9
HIN	Hinchinbrook I	1.08	182		Sn	15 10 42.8	+1.9
HIN	Hinchinbrook I	1.08	182	IAML		15 10 45.1	
	comp=E,26µm,0.8s						
HIN				IAML		15 10 45.3	
	comp=N,16µm,0.4s						
HARP	HAARP	1.10	32		Pn	15 10 27.8	+0.3
HARP	HAARP	1.10	32		Sn	15 10 42.3	+0.8
HARP	HAARP	1.10	32	IAML		15 10 44.5	
	comp=E,6µm,0.7s						
HARP				IAML		15 10 46.9	
	comp=N,5µm,0.7s						
PWL	Port Wells	1.12	238		Pn	15 10 28.2	+0.5
PWL	Port Wells	1.12	238		Sn	15 10 43.7	+1.9
PWL	Port Wells	1.12	238	IAML		15 10 45.0	
	comp=E,9µm,0.7s						
PWL				IAML		15 10 46.8	
	comp=N,9µm,0.6s						
WACK	Wrangell Chich	1.12	62		Sn	15 10 43.1	+0.9
WASW	Wrangell South	1.16	66		Pn	15 10 28.6	+0.2
GOAT	Goat Mountain	1.21	137		Pn	15 10 29.8	+0.8
GOAT					Sn	15 10 44.8	+0.6
WAZA	Wrangell Mount	1.23	60		Pn	15 10 29.8	+0.3
WAZA					Sn	15 10 46.2	+1.2
GHO	Glory Hole Cre	1.24	285		Pn	15 10 29.6	+0.2
GHO	Glory Hole Cre	1.24	285		Sn	15 10 46.7	+1.8
GLB	Gilahina Butte	1.25	90		Pn	15 10 29.6	+0.1
GLB				IAML		15 10 48.2	
	comp=E,8µm,0.5s						
WAT6	Susitna Watana	1.28	331		Pn	15 10 29.6	-0.4
PMR	Palmer	1.31	277	P	Pn	15 10 30.9	+0.7
PMR	Palmer	1.31	277	S	Sn	15 10 47.9	+1.4
PMR	Palmer	1.31	277		Sn	15 10 48.4	+1.9
PMR	Palmer	1.31	277		Pn	15 10 31.0	+0.8
PMR	Palmer	1.31	277	IAML		15 10 48.9	
	comp=E,9µm,0.6s						
PMR				IAML		15 10 49.9	
	comp=N,8µm,0.4s						
RAGM	Ragged Mountai	1.38	141		Pn	15 10 32.2	+1.0
VRDI	Verde Repeater	1.45	98		Pn	15 10 32.4	+0.1
VRDI				IAML		15 10 53.1	
	comp=N,3µm,0.7s						
MCARA	McCarthy VSAT	1.63	92		Pn	15 10 35.3	+0.6
RC01	Rabbit Creek A	1.65	258		Pn	15 10 36.2	+1.2
DHY	Denali Highway	1.67	345		Pn	15 10 36.0	+0.6
DHY	Denali Highway	1.67	345	IAML		15 10 59.6	
	comp=E,2µm,0.4s						
DHY				IAML		15 10 60.0	
	comp=N,3µm,0.4s						
WAT1	Susitna Watana	1.69	325		Pn	15 10 36.6	+1.0
BERG	Berg Lake	1.71	128		Pn	15 10 36.2	+0.5
CRQM	Cirque	1.74	113		Pn	15 10 36.8	+0.5
CRQM	Cirque	1.74	113	IAML		15 11 08.8	
	comp=E,4µm,0.6s						
M22K	Willow	1.80	281		Pn	15 10 37.3	+0.4
KAIM	Kayak Island	1.83	147		Pn	15 10 37.6	+0.2
M26K	Nabesna, AK	1.86	58		Pn	15 10 38.9	+0.9
M26K				IAML		15 11 03.6	
	comp=E,2µm,0.7s						
M26K				IAML		15 11 06.2	
	comp=N,2µm,0.6s						
TGL	Tana Glacier	1.88	111	IAML		15 11 11.1	
	comp=N,4µm,0.6s						
O22K	Cooper Landing	1.90	240		Pn	15 10 38.6	+0.4
MENT	Mentasta	1.94	39	P	Pn	15 10 39.6	+0.7
MENT	Mentasta	1.94	39	S	Sn	15 11 03.7	+1.6
MENT	Mentasta	1.94	39		Pn	15 10 39.4	+0.4
MENT				IAML		15 11 15.2	
	comp=N,2µm,0.6s						
MENT				IAML		15 11 19.1	
	comp=E,2µm,0.5s						
PS10	TAPS Pump St10	1.98	8		Pn	15 10 40.1	+0.6
SEW	Seward	2.03	229		Pn	15 10 40.8	+0.8
SEW				IAML		15 11 14.4	
	comp=N,1µm,0.5s						
CUT	Chulitna	2.05	299		Sn	15 11 07.5	+2.8
CUT	Chulitna	2.05	299	IAML		15 11 08.5	
	comp=N,9µm,0.2s						
CUT				IAML		15 11 10.8	
	comp=E,13µm,0.4s						
SUA	Susitna One	2.08	272		Pn	15 10 41.5	+0.5
SUA	Susitna One	2.08	272	IAML		15 11 11.6	
	comp=E,3µm,0.7s						
SLKM	Skilak Lake	2.09	244		Pn	15 10 41.7	+0.6
SLKM				IAML		15 11 16.1	
	comp=N,2µm,0.3s						
L26K	Log Cabin Wild	2.12	41		Pn	15 10 42.5	+1.1
L26K	Log Cabin Wild	2.12	41	IAML		15 11 28.3	
	comp=E,1µm,0.4s						
RND	Reindeer	2.25	331		Pn	15 10 44.2	+0.9
RND	Reindeer	2.25	331	IAML		15 11 17.9	
	comp=E,1µm,0.6s						
RND				IAML		15 11 27.4	
	comp=N,1µm,0.5s						
M27K	Edge Creek, AK	2.32	65		Pn	15 10 45.5	+1.2
BARN	Barnard Glacie	2.33	98		Pn	15 10 45.1	+0.6
BARN				IAML		15 11 21.3	
	comp=E,2µm,0.4s						
BARN				IAML		15 11 24.7	
	comp=N,1µm,0.7s						
K24K	Donnelly Dome	2.36	7		Pn	15 10 45.2	+0.5
K24K				IAML		15 11 22.4	
	comp=E,2µm,0.6s						
K24K				IAML		15 11 23.9	
	comp=N,2µm,0.8s						
CYK	Cape Yakataga	2.38	124		Pn	15 10 45.2	+0.3
GRNC	Granite Creek	2.38	106		Pn	15 10 45.2	+0.1
GRNC				IAML		15 11 24.2	
	comp=N,2µm,0.7s						
GRNC				IAML		15 11 33.2	
	comp=E,1µm,0.7s						
RIDG	Independent Ri	2.39	17		Pn	15 10 46.3	+1.1
SKT	Skwentna	2.49	284		Pn	15 10 47.0	+0.5
SKT				IAML		15 11 22.6	
	comp=N,1µm,0.6s						
SKT				IAML		15 11 25.1	
	comp=E,1µm,0.3s						
YAH	Yahtse	2.54	114		Pn	15 10 47.2	-0.1
YAH				IAML		15 11 30.1	
	comp=N,2µm,0.7s						
YAH				IAML		15 11 30.2	
	comp=E,1µm,0.7s						
MCK	McKinley	2.55	334		Pn	15 10 48.2	+0.9
MCK				IAML		15 11 25.5	
	comp=E,938nm,0.4s						
MCK				IAML		15 11 26.0	
	comp=N,1µm,1.0s						
STLK	Strandline Lak	2.60	273		Pn	15 10 48.8	+0.8
STLK	Strandline Lak	2.60	273	IAML		15 11 28.9	
	comp=N,2µm,0.4s						
STLK				IAML		15 11 29.6	
	comp=E,834nm,0.3s						
BC01	Beaver Creek A	2.67	51		Pn	15 10 50.2	+1.2
L27K	Beaver Creek,	2.67	51		Pn	15 10 50.0	+0.9
TRF	Thorofare Moun	2.68	319		Pn	15 10 49.8	+0.5
TRF				IAML		15 11 35.3	
	comp=N,1µm,0.6s						
TRF				IAML		15 11 37.4	
	comp=E,1µm,0.6s						
BCAR	Beaver Creek A	2.69	51		Pn	15 10 50.2	+1.0
LOGN	Logan Glacier	2.70	102	IAML		15 11 30.6	
	comp=E,889nm,0.6s						
LOGN				IAML		15 11 38.6	
	comp=N,1µm,0.7s						
BRSE	Bradley Lake S	2.75	233		Pn	15 10 51.0	+0.9
SCRK	Sand Creek	2.75	23		Pn	15 10 50.5	+0.3
BVCY	Beaver Creek	2.79	68		Pn	15 10 51.7	+1.2
BRLK	Bradley Lake	2.79	234		Pn	15 10 51.5	+0.8
BRLK				IAML		15 11 40.5	
	comp=N,774nm,1.2s						
BRLK				IAML		15 11 40.9	
	comp=E,971nm,0.6s						
CKL	Chakachamna La	2.87	267		Pn	15 10 52.0	+0.2
CHX	Chaix Hills	2.96	116		Pn	15 10 53.2	+0.3
KTH	Kantishna Hill	2.96	317		Pn	15 10 54.0	+1.1
KTH				IAML		15 11 30.9	
	comp=E,793nm,0.9s						
KTH				IAML		15 11 44.4	
	comp=N,1µm,0.7s						
HDA	Harding Lake	2.96	355		Pn	15 10 53.7	+0.8
HDA				IAML		15 11 36.0	
	comp=N,1µm,0.5s						
HDA				IAML		15 11 36.6	
	comp=E,1µm,0.5s						
SPWE	Spurr West	2.97	269		Pn	15 10 53.6	+0.5
BWN	Browne	3.05	334		Pn	15 10 54.2	+0.1
PPLA	Purkeypile	3.06	300	IAML		15 11 46.7	
	comp=N,1µm,0.7s						
PPLA				IAML		15 11 49.3	
	comp=E,614nm,0.7s						
SAMH	Samovar Hills	3.07	114		Pn	15 10 55.0	+0.5
CNPM	China Poot	3.08	233		Pn	15 10 55.0	+0.4
CNPM				IAML		15 11 46.9	
	comp=N,632nm,0.6s						
CNPM				IAML		15 11 47.6	
	comp=E,612nm,0.9s						
PS08	TAPS Pump Stn8	3.09	357		Pn	15 10 55.0	+0.3
O28M	Mount Upton	3.10	100	IAML		15 11 44.2	
	comp=E,614nm,0.8s						
O28M				IAML		15 11 44.3	
	comp=N,570nm,0.8s						
WRH	Wood River Hil	3.11	346	IAML		15 11 40.2	
	comp=N,660nm,0.6s						
WRH				IAML		15 11 40.2	
	comp=E,720nm,1.0s						
DFR	Drift River	3.18	257		Pn	15 10 56.1	+0.1
M20K	Styx River	3.23	280		Pn	15 10 57.0	+0.3
M20K	Styx River	3.23	280	IAML		15 11 47.0	
	comp=N,492nm,0.6s						
M20K				IAML		15 11 51.5	
	comp=E,502nm,0.4s						
RDJH	Redoubt Jeurge	3.23	257		Pn	15 10 56.9	+0.1
CCB	Clear Creek Bu	3.25	349	IAML		15 11 42.0	
	comp=E,1µm,0.6s						
CCB				IAML		15 11 42.7	
	comp=N,618nm,0.4s						
K27K	Chicken	3.25	36		Pn	15 10 57.8	+0.9
CAST	Castle Rocks	3.28	309	IAML		15 11 44.1	
	comp=E,527nm,0.3s						
CAST				IAML		15 11 51.1	
	comp=N,593nm,0.9s						
PCA	Pinnacle	3.32	112		Pn	15 10 57.8	-0.1
ILAR	Eielson Array	3.32	356	P	Pn	15 10 57.9	0.0
	comp=N,88nm,0.3s,baz=179,slow=13,SNR=140						
ILAR				S	Sn	15 11 41.3	+5.3
	comp=N,118nm,0.6s,baz=182,slow=20,SNR=2.9						
ILAR				LR	LR	15 12 26.1	
	comp=N,236nm,22.0s,baz=70,slow=41						
O20K	Slope Mountain	3.35	248		Pn	15 10 59.0	+0.6
NEA2	Nenana	3.36	340		Pn	15 10 58.3	-0.1
NEA2	Nenana	3.36	340	IAML		15 11 53.7	
	comp=E,399nm,0.9s						
BPAW	Bear Paw Mtn.	3.37	323	IAML		15 11 54.7	
	comp=N,515nm,1.0s						
BPAW				IAML		15 11 56.5	
	comp=E,484nm,0.8s						
COLA	College	3.48	350	P	Pn	15 11 00.2	+0.2
COLA	College	3.48	350	S	Sn	15 11 41.8	+2.0
I53US	FAIRBANKS INFR	3.48	350	I	I	15 32 10.0	
	baz=175,slow=330,SNR=2.2						
ILIM	Iliamna	3.50	249		Pn	15 11 00.9	+0.5
ILSW	Iliamna Southw	3.63	249		Pn	15 11 02.3	+0.1
ILSW	Iliamna Southw	3.63	249	IAML		15 12 10.6	
	comp=E,349nm,0.8s						
CHUM	Lake Minchumin	3.64	314		Pn	15 11 02.9	+0.6
L20K	Farewell, AK	3.67	289	IAML		15 11 55.8	
	comp=N,531nm,0.7s						
L20K				IAML		15 11 58.3	
	comp=E,519nm,0.7s						
POKR	Poker Plat Res	3.69	353		Pn	15 11 03.0	+0.1
M19K	Big River Lodg	3.83	280		Pn	15 11 04.7	-0.1
M19K	Big River Lodg	3.83	280	IAML		15 12 07.5	
	comp=N,311nm,0.6s						
M19K				IAML		15 12 08.0	
	comp=E,412nm,0.5s						
P19K	Oil Pt	3.83	245		Pn	15 11 05.3	+0.5
PNL	Peninsula	3.90	114	P	Pn	15 11 06.8	+0.9
PNL	Peninsula	3.90	114		Pn	15 11 06.4	+0.5
I23K	Minto, Yukon-K	3.92	341	IAML		15 12 16.4	
	comp=E,346nm,0.9s						
I23K				IAML		15 12 23.3	
	comp=N,340nm,0.8s						

YUK6	Outpost Mounta	3.93	94		Pn	15 11 06.8	+0.3
PS07	TAPS Pump Stn7	3.95	349		Pn	15 11 06.6	+0.2
N19K	Bonanza Creek	3.97	264		Pn	15 11 06.6	-0.3
O29M	Mount Kennedy	4.00	104		Pn	15 11 07.3	0.0
O29M	Mount Kennedy	4.00	104	IAML		15 12 16.8	
	comp=N,424nm,0.9s						
O29M				IAML		15 12 16.9	
	comp=E,308nm,0.6s						
K20K	Telida	4.03	301	IAML		15 12 16.6	
	comp=E,532nm,0.7s						
K20K				IAML		15 12 19.1	
	comp=N,412nm,0.5s						
AU22	Augustine Moun	4.04	242		Pn	15 11 08.2	+0.6
L19K	White Mountain	4.07	284		Pn	15 11 08.1	0.0
L19K	White Mountain	4.07	284	IAML		15 12 24.9	
	comp=E,265nm,0.8s						
AUF	Augustine Flow	4.07	242		Pn	15 11 08.8	+0.7
AUJK	Augustine Jueg	4.07	242		Pn	15 11 09.0	+0.8
AGU	Augustine-Summ	4.07	242		Pn	15 11 09.1	+0.8
PRP	Porcupine Dome	4.08	5	IAML		15 12 15.9	
	comp=E,283nm,0.7s						
PRP				IAML		15 12 20.8	
	comp=N,265nm,0.8s						
AUI	Augustine Isla	4.09	241		Pn	15 11 09.1	+0.8
I26K	Coal Creek Min	4.12	19		Pn	15 11 09.9	+1.1
I26K	Coal Creek Min	4.12	19	IAML		15 12 27.6	
	comp=N,255nm,1.1s						
I26K				IAML		15 12 32.2	
	comp=E,268nm,0.8s						
DAWY	Dawson	4.14	48		Pn	15 11 10.5	+1.3
L29M	L29M	4.20	63	IAML		15 12 30.0	
	comp=E,216nm,1.2s						
HYT	Haines Junctio	4.37	95		Pn	15 11 12.5	+0.2
Q19K	Cape Douglas,	4.42	238		Pn	15 11 13.6	+0.6
H24K	Noodor Dome	4.43	352		Pn	15 11 13.4	+0.3
H24K	Noodor Dome	4.43	352	IAML		15 12 22.8	
	comp=E,191nm,0.8s						
J20K	Nowinta River	4.47	311	IAML		15 12 28.1	
	comp=E,363nm,0.6s						
J20K				IAML		15 12 34.8	
	comp=N,318nm,0.8s						
N30M	Aishikik Lake	4.47	86		Pn	15 11 13.4	-0.3
I21K	Tanana	4.49	328	IAML		15 12 31.0	
	comp=E,184nm,1.2s						
I21K				IAML		15 12 35.0	
	comp=N,169nm,1.1s						
O18K	Koktuh Hills	4.62	253		Pn	15 11 15.0	-0.8
O18K	Koktuh Hills	4.62	253	IAML		15 12 39.0	
	comp=N,165nm,1.0s						
I27K	Kandik River	4.67	25		Pn	15 11 17.6	+1.2
I27K	Kandik River	4.67	25	IAML		15 12 48.1	
	comp=N,158nm,0.8s						
I27K				IAML		15 12 49.4	
	comp=E,197nm,0.8s						
H25L	Birch Creek	4.82	3		Pn	15 11 19.2	+0.8
P18K	Big Mountain,	4.84	248		Pn	15 11 18.1	-0.6
KDAK	Kodiak Island	4.85	223	P	Pn	15 11 18.9	+0.1
	comp=E,9.6nm,0.3s,baz=14,slow=4.9,SNR=214						
KDAK				S	Sn	15 12 12.5	-1.0
	comp=E,27nm,0.3s,baz=262,slow=8.8,SNR=6.6						
KDAK				LR	LR	15 13 27.8	
	comp=E,95nm,20.0s,baz=50,slow=42						
L18K	Granite Mounta	4.93	283	IAML		15 13 04.1	
	comp=N,129nm,1.2s						
J19K	Poorman	4.94	305	IAML		15 12 45.0	
	comp=N,239nm,1.0s						
J19K				IAML		15 12 48.5	
	comp=E,228nm,1.0s						
H22K	Ishtalitna Cre	4.96	336		Pn	15 11 20.8	+0.4
H22K	Ishtalitna Cre	4.96	336	IAML		15 12 24.4	
	comp=N,126nm,0.7s						
KAHG	Katmai Hook Gl	5.06	237		Pn	15 11 22.6	+0.8
H21K	Melozitna Rive	5.08	329	IAML		15 12 57.0	
	comp=E,122nm,0.7s						
H21K				IAML		15 12 58.7	
	comp=N,119nm,1.0s						
N31M	Braeburn, Yuko	5.10	85		Pn	15 11 22.7	+0.5
N31M	Braeburn, Yuko	5.10	85	IAML		15 12 53.1	
	comp=N,117nm,1.1s						
N31M				IAML		15 12 57.8	
	comp=E,171nm,1.1s						
KARR	Katmai Rainbow	5.12	238		Pn	15 11 23.1	+0.5
FYU	Fort Yukon	5.14	5	IAML		15 13 03.0	
	comp=E,198nm,1.0s						
FYU				IAML		15 13 07.6	
	comp=N,180nm,0.9s						
Q18K	Katmai Hardscr	5.15	240		Pn	15 11 23.3	+0.2
J18K	Innoko River	5.18	297		Pn	15 11 23.4	-0.1
J18K	Innoko River	5.18	297	IAML		15 12 53.1	
	comp=N,111nm,0.8s						
J18K				IAML		15 12 59.3	
	comp=E,102nm,0.8s						
KAWH	Katmai	5.23	237		Pn	15 11 24.1	-0.1
G24K	Hadweenzic Riv	5.27	355	IAML		15 12 43.0	
	comp=N,184nm,1.0s						
G24K				IAML		15 12 57.2	
	comp=E,122nm,0.9s						
M17K	Holitna River	5.29	274	IAML		15 13 10.7	
	comp=N,180nm,0.6s						
G25K	Bearman Lake	5.32	1		Pn	15 11 25.4	+0.2
N17K	Nushagak Hills	5.33	265	IAML		15 13 03.4	
	comp=E,102nm,0.6s						
G23K	Bananza Creek	5.49	345		Pn	15 11 28.3	+0.6
KABU	Katmai Buttres	5.50	238		Pn	15 11 27.4	-0.5
OHAK	Old Harbor	5.52	223		Pn	15 11 27.6	-0.5
O17K	Koliganek Bris	5.53	257		Pn	15 11 27.5	-0.6
MGLS	Mageik Landsli	5.54	237		Pn	15 11 29.0	+0.7
J30M	Hart River	5.54	51		Pn	15 11 30.3	+1.9
ANCK	Angle Creek	5.63	238		Pn	15 11 30.3	+0.7
WHY	Whitehorse	5.66	93		Pn	15 11 30.0	-0.1
PS05	TAPS Pump Stn5	5.67	343		Pn	15 11 32.3	+2.1
K17K	Iditarod	5.72	288		Pn	15 11 30.6	-0.2
G27K	Doyon Strip	5.75	19		Pn	15 11 32.4	+1.2
Q17K	Contact Creek	5.75	240		Pn	15 11 31.8	+0.4
KJL	Kejulik	5.76	238		Pn	15 11 32.3	+0.9
SKAG	Skagway	5.84	105	P	Pn	15 11 34.0	+1.6
H29M	Whitestone	5.94	33		Pn	15 11 34.2	+0.4
G21K	Allakaket	5.95	331		Pn	15 11 34.1	+0.3
COLD	Coldfoot	6.01	346		Pn	15 11 35.2	+0.5
BM03	Burnt Mountain	6.02	7		Pn	15 11 35.4	+0.4
BM01	Burnt Mountain	6.06	7		Pn	15 11 35.7	+0.3
O16K	Kokwok River B	6.07	257		Pn	15 11 34.9	-0.6
N16K	Nishlik Lake	6.10	266		Pn	15 11 35.5	-0.5
F24K	Squaw Lake	6.11	355		Pn	15 11 36.1	0.0
J17K	VABM Dome	6.19	294		Pn	15 11 36.4	-0.8
S31K	Pelican	6.24	120		Pn	15 11 37.4	-0.4
L16K	Owhat River	6.24	278		Pn	15 11 37.6	-0.3
P16K	Nushagak River	6.26	252		Pn	15 11 38.2	0.0
F26K	Sheenjek River	6.33	8		Pn	15 11 39.0	-0.1
PLK1	Peulik 1	6.34	239		Pn	15 11 39.9	+0.6
SII	Sitkinak Islan	6.35	223	P	Pn	15 11 40.5	+1.0
BESE	Bessie Mountai	6.47	111		Pn	15 11 40.5	-0.7
PLBL	Peulik Blue Cr	6.50	239		Pn	15 11 42.6	+1.1
H18K	Honhosa River	6.53	310		Pn	15 11 42.1	+0.3
P32M	Atlin	6.54	101		Pn	15 11 41.3	-0.8
F22K	John River	6.55	340		Pn	15 11 42.7	+0.6
G29M	Pine Creek	6.57	30		Pn	15 11 42.9	+0.5
G19K	Purcell Mounta	6.65	319		Pn	15 11 43.3	-0.3
E25K	Arctic Village	6.69	3		Pn	15 11 44.4	+0.4
E23K	Chandalar	6.75	350		Pn	15 11 45.9	+0.9
N15K	Kwethluk River	6.82	265		Pn	15 11 45.6	-0.2
J16K	Anvik River	6.84	292		Pn	15 11 45.5	-0.7
JIS	Juneau Island	6.85	113	P	Pn	15 11 46.8	+0.6
H31M	Peel River	6.91	46		Pn	15 11 47.5	+0.5
I17K	Unalakleet	7.00	296		Pn	15 11 48.4	0.0
G18K	Tagagawik	7.02	315		Pn	15 11 48.8	+0.2
O15K	Ungalikthiuk R	7.05	257		Pn	15 11 48.8	-0.1
G30M	tAoh Zraii Nji	7.08	34		Pn	15 11 49.6	+0.1
SIT	Sitka	7.20	123	P	Pn	15 11 51.0	0.0
SIT	Sitka	7.20	123		Pn	15 11 50.8	-0.2
F19K	Shaleruckik Mo	7.31	322		Pn	15 11 52.0	-0.5
CHIR	Chirikof Islan	7.42	224	P	Pn	15 11 54.7	+0.6
CHIR	Chirikof Islan	7.42	224		Pn	15 11 53.8	-0.3
Q32M	Nakina River	7.48	103		Pn	15 11 54.4	-0.7
G31M	Satah River	7.60	39		Pn	15 11 56.9	+0.3
F30M	Barrier River	7.67	32		Pn	15 11 58.7	+1.3
E28M	Babbage River	7.72	19		Pn	15 11 59.3	+1.1
D23K	Nanushuk River	7.74	348		Pn	15 12 00.7	+2.3
F18K	Selawik	7.75	317		Pn	15 11 59.1	+0.6
R33M	Jennings River	7.92	98		Pn	15 12 01.0	0.0
E20K	Nigu River	7.97	333		Pn	15 12 03.2	+1.5
D27M	Malcolm River	8.13	14		Pn	15 12 04.9	+1.1
G16K	Koyuk River	8.15	306		Pn	15 12 04.4	+0.4
F17K	Baldwin Pennin	8.20	314		Pn	15 12 05.0	+0.3
C27K	Jago River	8.27	7		Pn	15 12 06.6	+1.0
C21K	Knifeblade Rid	8.46	339		Pn	15 12 08.3	-0.1
E18K	Tukpahlearik C	8.54	320		Pn	15 12 10.5	+1.1
D19K	Kuna River	8.60	330		Pn	15 12 11.3	+1.1
U33K	Whale Pass	8.73	122		Pn	15 12 12.4	+0.3
E17K	Hotham Inlet	8.73	317		Pn	15 12 12.9	+0.8
DLBC	Dease Lake	8.76	103	P	Pn	15 12 13.2	+0.7
	comp=E,2.2nm,0.4s,baz=242,slow=16,SNR=5.6						
DLBC				LR	LR	15 15 51.9	
	comp=E,152nm,20.1s,baz=310,slow=39						
INK	Inuvik	8.76	33	P	Pn	15 12 12.7	+0.3
	comp=E,2.8nm,0.5s,baz=211,slow=16,SNR=9.5						
INK				LR	LR	15 16 07.7	
	comp=E,60nm,20.0s,baz=276,slow=41						
INK	Inuvik	8.76	33		Pn	15 12 13.2	+0.8
CRAG	Craig	9.19	125	P	Pn	15 12 18.7	+0.4
CRAG	Craig	9.19	125		Pn	15 12 18.9	+0.6
T35M	Bob Quinn	9.42	111		Pn	15 12 22.1	+0.7
SDPT	Sand Point	9.58	236	P	Pn	15 12 23.9	+0.2
CHNA	Chernabura Isl	9.62	232	P	Pn	15 12 24.8	+0.6
CNBA	Chernabura Isl	9.63	232		Pn	15 12 24.9	+0.6
F14K	Arctic Creek	9.75	303		Pn	15 12 26.2	+0.2
V35K	Ketchikan	9.89	122		Pn	15 12 29.1	+1.2
UNV	Unalaska Valle	13.15	244	P	Pn	15 13 12.9	+0.6
BBB	Bella Bella	13.62	125	P	Pn	15 13 20.0	+1.2
	comp=E,1.9nm,0.9s,baz=344,slow=9.5,SNR=4.6						
BBB				LR	LR	15 18 06.2	
	comp=E,56nm,21.3s,baz=233,slow=35						
YKA	Yellowknife Ar	14.90	72	P	Pn	15 13 37.1	+1.1
	comp=E,2.3nm,0.7s,baz=279,slow=13,SNR=4.0						
YKA				LR	LR	15 19 08.5	
	comp=E,61nm,19.8s,baz=295,slow=36						
PGC	Sidney	18.24	124	P	Pn	15 14 19.0	+0.9
ADK	Adak	19.02	253	Pn	Pn	15 14 28.9	+1.3
ADK				IAmb	IAmb	15 14 44.1	
	comp=Z,69nm,1.4s						
NEW	Newport	21.18	115	P	P	15 14 51.5	+1.4
	comp=Z,1.3nm,0.9s,baz=200,slow=1.0,SNR=3.0						
NEW				LR	LR	15 23 32.9	
	comp=Z,52nm,18.4s,baz=332,slow=38						
	comp=Z,1.3nm,0.9s						
BLKN	Baker Lake	22.65	61	P	P	15 15 06.1	+0.5
BLKN				IAmb	IAmb	15 15 32.6	
	comp=Z,19nm,1.3s						
SHEM	Shemya Is, Ala	22.83	265	LR	LR	15 23 36.5	
	comp=Z,62nm,20.5s,baz=288,slow=36						
MSO	Missoula	23.67	113	P	P	15 15 17.0	+0.9
PLID	Pearl Lake	24.15	119	P	P	15 15 21.9	+1.2
YBH	Yreka Blue Hor	24.39	133	LR	LR	15 22 28.2	
	comp=Z,29nm,21.4s,baz=358,slow=30						
YBH	Yreka Blue Hor	24.39	133	P	P	15 15 23.4	+0.7
ELK	Elko	28.06	123	P	P	15 15 57.4	+1.4
	comp=Z,0.6nm,0.6s,baz=302,slow=9.5,SNR=2.7						
	comp=Z,0.6nm,0.6s						
ELK	Elko	28.06	123	IAmb	IAmb	15 16 00.2	
	comp=Z,1.2nm,0.8s						
PDAR	Pinedale Array	28.79	114	P	P	15 16 04.3	+1.8
	comp=Z,0.4nm,0.6s,baz=306,slow=3.5,SNR=4.9						
PDAR				LR	LR	15 28 13.2	
	comp=Z,34nm,19.9s,baz=344,slow=38						
	comp=Z,0.4nm,0.6s						
NVAR	Mina Array Bea	28.89	130	P	P	15 16 05.3	+2.0
	comp=Z,0.2nm,0.5s,baz=318,slow=11,SNR=2.8						
	comp=Z,0.2nm,0.5s						
ULM	Lac du Bonnet	29.72	89	P	P	15 16 09.9	-0.4
	comp=Z,4.4nm,0.8s,baz=326,slow=12,SNR=3.1						
ULM				LR	LR	15 27 54.6	
	comp=Z,33nm,18.0s,baz=135,slow=36						
	comp=Z,4.4nm,0.8s						
ULM	Lac du Bonnet	29.72	89	IAmb	IAmb	15 16 12.3	
	comp=Z,6.5nm,1.0s						
TPNV	Topopah Spring	30.95	129	P	P	15 16 23.1	+1.5
TIXI	Tiksi	32.22	324	LR	LR	15 32 39.3	
	comp=Z,32nm,19.0s,baz=34,slow=42						
PV19	Morning Glory	32.70	118	P	P	15 16 38.5	+1.5
PV19				IAmb	IAmb	15 17 21.0	
	comp=Z,2.8nm,1.0s						
SUMG	Summit	37.64	28	P	P	15 17 19.0	-0.2
SUMG				IAmb	IAmb	15 17 19.4	
	comp=Z,4.0nm,0.7s						
SCHQ	Schefferville	40.03	62	P	P	15 17 38.4	-0.5
	comp=Z,3.0nm,0.7s,baz=302,slow=9.7,SNR=2.0						
SCHQ				LR	LR	15 33 23.7	
	comp=Z,57nm,19.1s,baz=224,slow=35						
	comp=Z,3.0nm,0.7s						
SCHQ	Schefferville	40.03	62	IAmb	IAmb	15 18 10.1	
	comp=Z,18nm,1.4s						
WMOK	Wichita Mounta	40.18	109	P	P	15 17 41.6	+1.2
WMOK				IAmb	IAmb	15 17 42.3	
	comp=Z,2.4nm,0.8s						
SADO	Sadowa	41.60	82	LR	LR	15 35 35.9	
	comp=Z,58nm,19.4s,baz=326,slow=37						
TX31	Lajitas Ar. Si	42.66	119	P	P	15 18 02.4	+1.5
TX31				IAmb	IAmb	15 18 34.2	
	comp=Z,3.2nm,1.3s						
TXAR	Lajitas Array	42.66	119	P	P	15 18 01.6	+0.7
	comp=Z,0.7nm,0.7s,baz=329,slow=6.6,SNR=10						
	comp=Z,0.7nm,0.7s						
TXAR	Lajitas Array	42.66	119	P	P	15 18 02.4	+1.5
TRQ	Mont Tremblant	42.68	77	P	P	15 18 00.6	-0.2
TRQ				IAmb	IAmb	15 18 20.3	
	comp=Z,21nm,1.5s						
LDAQ	Lac Daran	42.93	73	P	P	15 18 04.2	+1.3
LDAQ				IAmb	IAmb	15 18 23.1	
	comp=Z,10nm,1.0s						
D62A	Allapoint, All	44.59	72	P	P	15 18 16.4	+0.3
D62A				IAmb	IAmb	15 18 17.2	
	comp=Z,9.3nm,0.9s						
BATG	Bathurst New B	45.79	69	P	P	15 18 25.9	+0.2
P57A	Homestead Farm	46.18	86	P	P	15 18 29.4	+0.6
TKL	Tuckaleechee C	46.46	94	LR	LR	15 38 53.6	
	comp=Z,62nm,19.1s,baz=350,slow=37						
LMN	Caledonia Moun	47.44	70	P	P	15 18 38.7	+0.1
KEV	Kevo	48.98	3	P	P	15 18 49.4	-0.7
KEV				IAmb	IAmb	15 19 09.4	
	comp=Z,4.7nm,1.0s						
ARCES	ARCESS Array B	49.16	4	P	P	15 18 50.6	-0.8
	comp=Z,1.8nm,0.6s,baz=359,slow=6.3,SNR=9.6						
	comp=Z,1.8nm,0.6s						
ARCES	ARCESS Array B	49.16	4	P	P	15 18 50.7	-0.8
KSRS	Korea Array	55.94	287	P	P	15 19 40.3	-1.8
	comp=Z,0.6nm,0.6s,baz=29,slow=6.9,SNR=2.4						
KSRS				pP	pP	15 19 54.2	-0.2
	comp=Z,0.9nm,0.6s,baz=30,slow=6.3,SNR=2.7						
	comp=Z,0.6nm,0.6s						
SONM	Songino Array	56.45	309	P	P	15 19 44.4	-1.3
	comp=Z,1.3nm,0.9s,baz=27,slow=6.8,SNR=5.0						
SONM				pP	pP	15 19 57.6	-0.6
	comp=Z,1.6nm,0.8s,baz=16,slow=11,SNR=5.5						
	comp=Z,1.3nm,0.9s						
SONM	Songino Array	56.45	309	IAmb	IAmb	15 20 01.7	
	comp=Z,2.8nm,1.0s						
FINES	FINESS Array B	57.27	4	P	P	15 19 49.9	-1.3
	comp=Z,3.9nm,1.0s,baz=9.8,slow=7.4,SNR=8.3						
FINES				pP	pP	15 20 03.7	+0.2
	comp=Z,2.1nm,0.8s,baz=4.2,slow=7.8,SNR=1.5						
	comp=Z,3.9nm,1.0s						
TEIG	Tepich	57.35	109	P	P	15 19 51.9	-0.3
HFS	Hagfors	57.76	12	P	P	15 19 54.1	-0.6
	comp=Z,3.9nm,1.0s,baz=338,slow=6.2,SNR=1.8						
	comp=Z,3.9nm,1.0s						
KONO	Kongsberg	57.80	14	P	P	15 19 56.8	+1.9
ZALV	Zalesovo Beam	58.00	327	P	P	15 19 55.0	-1.4
	comp=Z,1.0nm,0.7s,baz=106,slow=3.2,SNR=3.7						
	comp=Z,1.0nm,0.7s						
EKA	Eskdalemuir Ar	59.99	23	P	P	15 20 09.2	-1.0
	comp=Z,1.1nm,0.6s,baz=345,slow=6.8,SNR=3.9						
	comp=Z,1.1nm,0.6s						
HHC	Hu-ho-hao-te	60.29	301	*e*P	P	15 20 12.4	-0.2
HHC				pmax	pmax		
	comp=Z,16nm,0.6s						
HHC				pmax	pmax		
	comp=Z,160nm,5.7s						
ARTI	Arti	60.88	345	P	P	15 20 15.7	-0.5
BVAR	Borovoye Array	62.17	336	P	P	15 20 22.9	-2.1
	comp=Z,1.7nm,0.6s,baz=35,slow=11,SNR=9.8						
	comp=Z,1.7nm,0.6s						
KURK	Kurchatov	62.52	330	P	P	15 20 26.6	-0.7
KURK	Kurchatov	62.52	330	IAmb	IAmb	15 21 03.5	
	comp=Z,1.6nm,1.0s						
KURBB	Kurchatov Arra	62.63	330	P	P	15 20 26.6	-1.4
	comp=Z,0.6nm,0.8s,baz=28,slow=6.5,SNR=2.2						
	comp=Z,0.6nm,0.8s						
MKAR	Makanchi Array	65.19	325	P	P	15 20 43.4	-1.6
	comp=Z,0.4nm,0.6s,baz=30,slow=5.3,SNR=6.1						
MKAR				pP	pP	15 20 55.9	-1.6
	comp=Z,0.3nm,0.3s,baz=48,slow=6.8,SNR=3.4						
	comp=Z,0.4nm,0.6s						
GTA2	Gaotai	66.08	309	P	P	15 20 50.9	-0.1
GTA2				pmax	pmax		
	comp=Z,9.0nm,0.7s						
LZH	Lanzhou	67.48	304	*e*P	P	15 20 59.9	-0.1
LZH				pP	pP	15 21 05.9	-6.6
LZH				pmax	pmax		
	comp=Z,21nm,1.5s						
AB31	Akbulak array	67.61	342	P	P	15 20 59.4	-1.0
AB31				IAmb	IAmb	15 21 00.7	
	comp=Z,4.3nm,0.7s						
ABKAR	Akbulak array	67.61	342	P	P	15 20 59.4	-1.0
AKASG	Malin Array Be	68.12	3	P	P	15 21 02.6	-0.9
	comp=Z,3.7nm,0.5s,baz=359,slow=6.2,SNR=22						
	comp=Z,3.7nm,0.5s						
AKASG	Malin Array Be	68.12	3	IAmb	IAmb	15 21 06.8	
	comp=Z,1.7nm,0.8s						
AKBB	Malin Array Si	68.12	3	P	P	15 21 02.5	-1.0
KIEV	Kiev	68.13	3	P	P	15 21 02.4	-1.2
MORC	Moravsky Berou	68.36	11	P	P	15 21 04.9	-0.2
MORC				IAmb	IAmb	15 21 05.6	
	comp=Z,3.5nm,0.7s						
MORC	Moravsky Berou	68.36	11	*e*P	P	15 21 04.7	-0.4
KHC	Kasperske Hory	68.58	14	P	P	15 21 06.8	+0.2
KHC				IAmb	IAmb	15 21 07.7	
	comp=Z,3.8nm,0.9s						
GERES	GERESS Array B	68.88	14	P	P	15 21 07.8	-0.6
	comp=Z,1.0nm,0.6s,baz=350,slow=4.6,SNR=7.9						
	comp=Z,1.0nm,0.6s						
GERES	GERESS Array B	68.88	14	P	P	15 21 08.8	+0.3
KRUC	Moravsky	68.96	12	*e*P	P	15 21 08.7	-0.1
JAVC	Velka Javorina	69.28	11	*e*P	P	15 21 11.5	+0.6
CONA	Conrad Observa	70.02	13	*e*P	P	15 21 15.7	+0.2
	comp=Z,1.4nm,0.6s						
MOTA	Moosalm	70.03	16	*e*P	P	15 21 15.8	+0.1
	comp=Z,2.5nm,1.0s						
WATA	Walderalm	70.10	16	*i* P	P	15 21 16.3	+0.2
	comp=Z,3.1nm,0.6s						
SQTA	Sankt Quirin	70.17	16	*e*P	P	15 21 16.9	+0.4
	comp=Z,2.6nm,0.6s						
WTTA	Wattenberg	70.18	16	*i* P	P	15 21 17.0	+0.3
	comp=Z,5.0nm,1.1s						
PSZ	Piszkesteto	70.41	10	IAmb	IAmb	15 21 18.9	
	comp=Z,6.0nm,1.0s						
DAVOX	Davos/Dischmat	70.42	17	LR	LR	15 56 44.2	
	comp=Z,37nm,18.0s,baz=259,slow=40						
KBA	Koelnbreinsper	70.58	15	*e*P	P	15 21 19.5	+0.4
	comp=Z,2.5nm,0.5s						
FUORN	Ofenpass-Fuorn	70.63	17	P	P	15 21 19.8	+0.4
FUORN				IAmb	IAmb	15 21 20.7	
	comp=Z,3.2nm,0.9s						
TUE	Stuetta	70.64	18	P	P	15 21 19.9	+0.5
TUE				IAmb	IAmb	15 21 20.6	
	comp=Z,2.5nm,0.7s						
SESA	Seetaler Alpe,	70.69	14	*e*P	P	15 21 20.1	+0.4
	comp=Z,3.6nm,0.6s						
GOMU	GeErMu	70.80	311	P	P	15 21 20.5	-0.3
GOMU				pP	pP	15 21 24.0	-9.5
GOMU				sP	sP	15 21 28.1	-10
GOMU				pmax	pmax		
	comp=Z,7.0nm,0.5s						
BURAR	Bucovina Array	71.06	6	P	P	15 21 21.9	0.0
OBKA	Obir	71.28	14	*i* P	P	15 21 23.1	-0.1
	comp=Z,4.0nm,0.6s						
KKAR	Karatay Array	71.57	332	P	P	15 21 24.3	-0.6
ESDC	Sonseca Array	74.69	29	P	P	15 21 43.0	-0.4
	comp=Z,1.2nm,1.0s,baz=339,slow=5.0,SNR=7.2						
ESDC				pP	pP	15 21 55.9	-0.2
	comp=Z,0.7nm,0.9s,baz=338,slow=5.7,SNR=3.3						
	comp=Z,1.2nm,1.0s						
ESDC	Sonseca Array	74.69	29	P	P	15 21 43.6	+0.2
BRTR	Keskin Array B	79.16	360	P	P	15 22 08.6	-0.1
	comp=Z,1.0nm,0.9s,baz=22,slow=5.1,SNR=3.9						
	comp=Z,1.0nm,0.9s						
BNN	Bunyan	80.01	358	P	P	15 22 13.7	+0.4
BNN				IAmb	IAmb	15 22 14.8	
	comp=Z,6.0nm,0.8s						
KEST	Kesra	81.15	20	P	P	15 22 19.0	-0.4
	comp=Z,2.3nm,0.9s,baz=303,slow=12,SNR=2.4						
	comp=Z,2.3nm,0.9s						
KEST	Kesra	81.15	20	IAmb	IAmb	15 22 19.7	
	comp=Z,5.8nm,1.1s						
CMAR	Chiang Mai Arr	85.06	300	P	P	15 22 38.8	-1.0
	comp=Z,0.8nm,0.6s,baz=3.8,slow=6.7,SNR=11						
	comp=Z,0.8nm,0.6s						
MYLDM	Lahad Datu	87.92	277	P	P	15 22 54.2	+0.4
BOSA	Boshof	146.68	13	PKPbc	PKPdf	15 29 43.9	+0.3
	comp=Z,2.0nm,0.5s,baz=342,slow=1.5,SNR=6.4						
BOSA				pPKPbc	pPKPbc	15 29 58.5	-0.1
	comp=Z,7.3nm,1.0s,baz=42,slow=4.7,SNR=3.6						
QSPA	South Pole Qui	151.28	180	PKPbc	PKPbc	15 29 54.9	-0.9
	comp=Z,1.1nm,0.7s,baz=36,slow=1.9,SNR=4.2						
QSPA				PKPab	pPKPdf	15 30 03.3	+0.2
	comp=Z,1.1nm,0.7s,baz=171,slow=2.2,SNR=5.5						

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*IDC **13** 15:10:43.5±1.2, 15°.78N×96°.36E, h0^{km}, mb3.6/6, mbtmp3.6/7, ML4.0/1, MS3.3/8, Error ellipse: s-maj=22.3km s-min=16.6km az=112.0*

*BKK **13** 15:10:45.3±1.0, 16°N±5°×9°6E±°, h14^{km}±5^{km}, M4.4/13, Mjma4.1/13, ML4.6/8, MLv4.5/13*

ISC 13 15:10:45.6±1.2**, 15°.83N**±0°.08×**96°.42E**±0°.09**, h10^{km}, n23,** σ**0^s.91**/21**, mb3.6**/6**, MS3.5**/7**, Near south coast of Myanmar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KHLT	Khaolaem Dam	2.33	116	Pg	Pg	15 11 30.6	+0.4
KHLT				Sg	Sg	15 12 00.0	-0.5
KHLT				AML	AML		
KHLT				AML	AML		
UMPA	Umpang Tak	2.37	81	P	Pn	15 11 23.2	-1.4
UMPA				Pg	Pg	15 11 31.0	-0.1
UMPA				Sg	Sg	15 12 03.5	+1.6
MHMT	Maesarieng	2.74	32	P	Pn	15 11 30.6	+1.0
MHMT				AML	AML		
CM13	Chiang Mai Arr	3.50	42	P	Pn	15 11 40.1	0.0
CM13				AML	AML		
CM05	Chiang Mai Arr	3.51	43	P	Pn	15 11 40.1	-0.2
CM05				AML	AML		
CM04	Chiang Mai Arr	3.53	43	P	Pn	15 11 40.7	+0.1
CM04				AML	AML		
CM01	Chiang Mai Arr	3.54	43	P	Pn	15 11 40.6	0.0
CM01				AML	AML		
CMAR	Chiang Mai Arr	3.55	42	Pn	Pn	15 11 40.8	0.0
	3.5nm,0.3s,baz=232,slow=15,SNR=116						
CMAR				Pg	Pg	15 11 52.0	-1.7
	12nm,0.3s,baz=225,slow=18,SNR=22						
CMAR				Lg	Lg	15 12 39.2	
	13nm,0.3s,baz=225,slow=32,SNR=8.6						
CMAR				LR	LR	15 13 38.6	
	comp=Z,194nm,18.4s,baz=210,slow=48						
	13nm,0.7s						
CMAR				AML	AML		
CM09	Chiang Mai Arr	3.57	43	P	Pn	15 11 41.2	+0.1
CM09				AML	AML		
CHTO	Chiang Mai	3.82	39	P	Pn	15 11 44.3	-0.2
CHTO				AML	AML		
CHTO				AML	AML		
LAMP	Lampang	4.07	48	P	Pn	15 11 48.0	+0.1
LAMP				AML	AML		
LAMP				AML	AML		
AAK	Ala-Archa	32.66	329	LR	LR	15 34 11.6	
	comp=Z,51nm,20.4s,baz=136,slow=43						
SONM	Songino Array	32.96	12	P	P	15 17 22.4	+1.9
	0.6nm,0.7s,baz=190,slow=7.3,SNR=2.6						
	0.6nm,0.7s						
MKAR	Makanchi Array	33.04	342	P	P	15 17 21.2	+0.1
	0.6nm,0.7s,baz=156,slow=11,SNR=6.9						
MKAR				LR	LR	15 34 30.8	
	comp=Z,24nm,19.8s,baz=172,slow=43						
	0.6nm,0.7s						
KSRS	Korea Array	35.18	46	LR	LR	15 33 29.4	
	comp=Z,73nm,18.4s,baz=225,slow=39						
KURBB	Kurchatov Arra	37.58	341	P	P	15 17 59.9	-0.3
	0.7nm,0.6s,baz=152,slow=8.2,SNR=6.8						
	0.7nm,0.6s						
ZALV	Zalesovo Beam	39.10	349	P	P	15 18 11.4	-1.5
	0.5nm,0.4s,baz=168,slow=7.5,SNR=4.7						
	0.5nm,0.4s						
MJAR	Matsushiro Arr	42.38	53	LR	LR	15 35 50.0	
	comp=Z,30nm,21.1s,baz=239,slow=36						
WRA	Warramunga Arr	51.50	132	P	P	15 19 51.2	-0.6
	0.8nm,0.8s,baz=314,slow=7.7,SNR=7.2						
	0.8nm,0.8s						

ASAR	**Alice Springs**	53.69	136	P	P	15 20 07.7	-0.3
	0.3nm,0.6s,baz=323,slow=7.4,SNR=5.6						
	0.3nm,0.6s						
NOA	**NORSAR Array B**	73.98	330	LR	LR	15 59 57.9	
	comp=Z,26nm,18.8s,baz=350,slow=40						
ILAR	**Eielson Array**	86.58	23	LR	LR	16 07 08.8	
	comp=Z,23nm,18.4s,baz=9.5,slow=39						
MDT	**Midelt**	90.51	304	LR	LR	16 10 33.9	
	comp=Z,30nm,19.3s,baz=223,slow=40						

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*IDC **13** 15:17:37.2±0.9, 59°.52S×26°.23W, h0^{km}, mb4.0/5, mbtmp4.1/6, ML4.8/1, MS3.5/2, Error ellipse: s-maj=41.5km s-min=19.3km az=74.0*

*NEIC **13** 15:17:38.6±1.6, 59°.66S±0°.08×25°.8W±0°.2, h10^{km}±1^{km}, mb4.4/13, Error ellipse: s-maj=21.8km s-min=8.5km az=56.0*

ISC 13 15:17:41.7±0.7**, 59°.7S**±0°.1×**25°.53W**±0°.10**, h32**^{km}**, n34, σ1^{s}.72**/27**, mb4.0**/5**, 4C-1D, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ORCD	**Orcadas**	9.61	255		Pn	15 19 59.1	+1.6
VNA1	**Neumayer--Stat**	13.11	154	⇓P	Pn	15 20 46.0	+0.8
	comp=Z,70nm,0.3s						
VNA3	**Neumayer Olymp**	13.27	157	⇑P	Pn	15 20 47.8	+0.3
	comp=Z,46nm,0.3s						
VNA2	**Neumayer--Watz**	13.50	154	⇑P	Pn	15 20 51.9	+1.3
	comp=Z,16nm,0.4s,baz=312,slow=13						
SNAA	**Sanae**	15.08	152	⇑P	Pn	15 21 12.9	+0.8
	comp=Z,280nm,0.3s						
SNAA	**Sanae**	15.08	152	Pn	Pn	15 21 12.6	+0.6
	comp=Z,4.3nm,0.3s,baz=315,slow=13,SNR=42						
SNAA				Sn	Sn	15 23 51.1	-6.6
	comp=Z,0.5nm,0.3s,baz=27,slow=23,SNR=3.6						
	comp=Z,17nm,0.5s						
SNAA				AML	AML		
SNAA	**Sanae**	15.08	152		Pn	15 21 12.4	+0.4
SNAA				IAmb	IAmb	15 21 14.2	
	comp=Z,18nm,0.5s						
ESPZ	**Base Esperanza**	15.36	243	P	P	15 21 20.3	+0.3
ESPZ				IAmb	IAmb	15 21 48.9	
	comp=Z,50nm,1.5s						
TROLL	**Troll, Antarti**	16.62	149	⇑P	Pn	15 21 32.8	+0.8
	comp=Z,262nm,0.3s						
BELA	**Belgrano 2**	18.52	186	P	P	15 21 55.8	+0.8
BELA				IAmb	IAmb	15 22 03.5	
	comp=Z,7.7nm,0.6s						
EFI	**East Falkland**	19.84	279	Pn	P	15 22 09.2	-0.3
DSPA	**Despedida**	23.74	265	P	P	15 22 48.9	-1.7
QSPA	**South Pole Qui**	30.56	180	P	P	15 23 53.4	+1.4
	comp=Z,2.2nm,0.6s,baz=209,slow=2.1,SNR=28						
QSPA				LR	LR	15 36 29.3	
	comp=Z,53nm,18.5s,baz=172,slow=37						
	comp=Z,2.2nm,0.6s						
QSPA	**South Pole Qui**	30.56	180	P	P	15 23 53.2	+1.2
QSPA				IAmb	IAmb	15 23 54.2	
	comp=Z,2.9nm,0.8s						
MAW	**Mawson**	36.73	140	P	P	15 24 45.4	+0.1
MT09	**Talagante**	39.35	291	P	P	15 25 06.1	-1.8
MT09				IAmb	IAmb	15 25 07.6	
	comp=Z,31nm,1.5s						
VNDA	**Vanda**	42.97	182	P	P	15 25 38.5	+1.5
	comp=Z,1.0nm,0.8s,baz=191,slow=5.5,SNR=5.9						
VNDA				LR	LR	15 41 09.4	
	comp=Z,79nm,21.5s,baz=148,slow=33						
	comp=Z,1.0nm,0.8s						
VNDA	**Vanda**	42.97	182	P	P	15 25 37.5	+0.5
H04S2	**CROZET ISLANDS**	45.37	110	T	T	16 16 29.2	
	baz=224,slow=75,SNR=47						
H04S3	**CROZET ISLANDS**	45.38	110	T	T	16 16 30.1	
	baz=224,slow=75,SNR=10.0						
H04S1	**CROZET ISLANDS**	45.38	110	T	T	16 16 31.7	
	baz=224,slow=75,SNR=36						
PB07	**IPOC Station P**	49.12	301	P	P	15 26 25.1	-1.1
H10S2	**ASCENSION HYDR**	51.28	14	T	T	16 22 23.6	
	baz=188,slow=74,SNR=28						
H10S3	**ASCENSION HYDR**	51.28	14	T	T	16 22 24.0	
	baz=32,slow=74,SNR=4.6						
H10N1	**ASCENSION HYDR**	52.40	14	T	T	16 23 53.9	
	baz=196,slow=75,SNR=4.1						
H10N3	**ASCENSION HYDR**	52.40	14	T	T	16 23 48.3	
	baz=196,slow=75						
H10N2	**ASCENSION HYDR**	52.41	14	T	T	16 23 50.6	
	baz=196,slow=75						
LPAZ	**La Paz**	53.21	306	P	P	15 26 56.0	-1.5
	comp=Z,0.6nm,0.3s,baz=95,slow=6.4,SNR=3.0						
	comp=Z,0.6nm,0.3s						
LPAZ	**La Paz**	53.21	306	IAmb	IAmb	15 27 18.1	
	comp=Z,1.4nm,0.7s						
ROCAM	**Rodrigues Isla**	72.62	99	P	P	15 29 06.6	+0.8
TORD	**Torodi Ar. Bea**	75.84	27	P	P	15 29 25.6	+1.2
	comp=Z,0.8nm,0.4s,baz=200,slow=6.1,SNR=8.5						
	comp=Z,0.8nm,0.4s						
ASAR	**Alice Springs**	95.25	161	P	P	15 31 01.9	-0.2
	comp=Z,0.2nm,0.6s,baz=193,slow=4.4,SNR=8.4						
	comp=Z,0.2nm,0.6s						
SONM	**Songino Array**	149.90	91	PKPbc	PKPbc	15 37 27.8	+0.2
	comp=Z,0.5nm,0.5s,baz=182,slow=1.0,SNR=4.5						
ILAR	**Eielson Array**	153.09	306	PKPbc	PKPbc	15 37 34.0	-0.2
	comp=Z,0.2nm,0.6s,baz=90,slow=1.3,SNR=4.1						
ILAR				PKPab	PKPab	15 37 44.7	-1.3
	comp=Z,0.3nm,0.6s,baz=114,slow=6.3,SNR=4.8						

ROM 13 15:19:17.6±0.0**, 42°.947N**±0°.002×**13°.097E**±0°.003**, h11**^{km}**, ML1.1**/24**, 1C-2D, Error ellipse: s-maj=0.2km s-min=0.2km az=347.0, Central Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MC2	**Monte Cornacci**	0.08	116	P	Pg	15 19 20.4	+0.2
MC2				S	Sg	15 19 22.5	+0.3
MTCL	**Monte Cavallo**	0.09	303	P	Pg	15 19 20.6	+0.4
MTCL				S	Sg	15 19 22.7	+0.6
FDMO	**Fiordimonte**	0.09	356	P	Pg	15 19 20.2	0.0
FDMO				S	Sg	15 19 22.4	+0.3
FDMO				AML	AML		
	comp=E,64µm,0.2s						
FDMO				AML	AML		
	comp=N,124µm,0.2s						
FDMO				AML	AML		
	comp=N,124µm,0.2s						
FDMO				AML	AML		
	comp=E,64µm,0.2s						
FDMO				AML	AML		
	comp=N,124µm,0.2s						
NRCA	**Norcia**	0.11	173	⇓P	Pg	15 19 20.9	+0.4
NRCA				S	Sg	15 19 23.4	+0.7
NRCA				AML	AML		
	comp=N,144µm,0.1s						
NRCA				AML	AML		
	comp=E,136µm,1.5s						
NRCA				AML	AML		
	comp=E,134µm,0.1s						
NRCA				AML	AML		
	comp=N,143µm,0.1s						
NRCA				AML	AML		
	comp=E,108µm,0.1s						
NRCA				AML	AML		
	comp=N,99µm,0.3s						
CESI	**CESI - Serrava**	0.15	292	⇓P	Pg	15 19 21.7	+0.6
CESI				AML	AML		
	comp=E,38µm,0.1s						
CESI				AML	AML		
	comp=N,47µm,0.3s						
CESI				AML	AML		
	comp=E,128µm,1.2s						
CESI				AML	AML		
	comp=N,132µm,0.6s						
CESI				AML	AML		
	comp=E,38µm,0.1s						
CESI				AML	AML		
	comp=N,38µm,0.1s						
MML1	**Montelago di S**	0.19	331	P	Pg	15 19 22.1	+0.3
GUMA	**Gualdo di Mace**	0.21	56	P	Pg	15 19 22.4	+0.4
GUMA				S	Sg	15 19 26.0	+0.9
GUMA				AML	AML		
	comp=E,126µm,0.2s						
GUMA				AML	AML		
	comp=N,89µm,0.5s						
GUMA				AML	AML		
	comp=N,87µm,0.1s						
GUMA				AML	AML		
	comp=E,126µm,0.2s						
GUMA				AML	AML		
	comp=N,89µm,0.5s						
GUMA				AML	AML		
	comp=E,458µm,0.2s						
GUMA				AML	AML		
	comp=N,1210µm,0.2s						
PF6	**Pievefavera**	0.21	19	P	Pg	15 19 22.2	+0.1
SAP2	**Sant'Angelo in**	0.27	56	P	Pg	15 19 23.5	+0.4
SAP2				S	Sb	15 19 28.1	-0.9
MF5	**Montefalcone A**	0.27	81	P	Pg	15 19 23.5	+0.4
MF5				AML	AML		
	comp=E,46µm,0.8s						
MF5				AML	AML		
	comp=N,45µm,1.2s						
GAVE	**Gavelli**	0.29	210	P	Pg	15 19 24.1	+0.5
GAVE				AML	AML		
	comp=N,29µm,1.5s						
GAVE				AML	AML		
	comp=E,35µm,0.2s						
GAVE				AML	AML		
	comp=N,28µm,1.5s						
GAVE				AML	AML		
	comp=E,35µm,1.6s						
GAVE				AML	AML		
	comp=N,28µm,1.5s						
GAVE				AML	AML		
	comp=E,126µm,0.5s						
GAVE				AML	AML		
	comp=N,178µm,0.7s						
GAVE				AML	AML		
	comp=E,35µm,0.1s						
GAVE				AML	AML		
	comp=N,25µm,0.1s						
ASSB	**Assisi San Ben**	0.34	287	⇑P	Pg	15 19 24.6	+0.3
ASSB				AML	AML		
	comp=E,9µm,0.5s						
ASSB				AML	AML		
	comp=N,9µm,0.2s						
RM33	**Pellescritta (**	0.45	169	AML	AML		
	comp=E,34µm,1.6s						
RM33				AML	AML		
	comp=E,34µm,1.6s						
RM33				AML	AML		
	comp=N,24µm,1.3s						

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*CATAC **13** 15:37:36.3±0.9, 13°N±6°×8°9W±°, h33^{km}±8^{km}, M3.4/7, MLv3.4/7, Error ellipse: s-maj=15.6km s-min=5.0km az=29.3, confirmed*

*SNET **13** 15:37:37.1±1.2, 13°.03N×88°.86W, h66^{km}, ML3.2, Presumed earthquake*

*GCG **13** 15:37:38.5±0.3, 12°.85N×89°.32W, h35^{km}±999^{km}, MD3.6, Presumed earthquake*

ISC 13 15:37:37.3±2.3**, 13°.0N**±0°.1×**88°.86W**±0°.06**, h68**^{km}±16^{km}**, n24, σ0^{s}.69**/43**, 2D, El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ALJI	**Alcalda de J**	0.41	44	*i* P	Pn	15 37 49.0	-0.1
ALJI				*e*S	Sn	15 37 58.9	+1.1
TECO	**Alcaldia de Te**	0.51	9	P	Pn	15 37 49.5	-0.6
TECO				S	Sn	15 37 59.4	-0.1
TECA	**Tecapa**	0.58	37	*i* P	Pn	15 37 50.1	-0.9
COEG	**Centro de Oper**	0.59	358	⇓*i*P	Pn	15 37 50.6	-0.4
COEG				*e*S	Sn	15 38 01.7	+0.7
COEG	**Centro de Oper**	0.59	358	P	Pn	15 37 50.3	-0.7
COEG				S	Sn	15 38 01.3	+0.3
SJTE	**Alcalda de S**	0.60	347	*i* P	Pn	15 37 50.6	-0.5
SJTE				*e*S	Sn	15 38 01.4	+0.3
LALI	**Alcalda de L**	0.64	316	*i* P	Pn	15 37 50.9	-0.5
LOMA	**Loma Larga**	0.68	334	P	Pn	15 37 51.5	-0.5
LOMA				S	Sn	15 38 03.1	+0.3
PAVA	**Las Pavas**	0.69	354	⇓*i*P	Pn	15 37 51.5	-0.5
PAVA				*e*S	Sn	15 38 03.1	+0.3
PAVA	**Las Pavas**	0.69	354	P	Pn	15 37 51.4	-0.7
PAVA				S	Sn	15 38 03.2	+0.3
INTP	**Intipuca**	0.81	78	*i* P	Pn	15 37 53.2	-0.1
INTP				*e*S	Sn	15 38 05.4	+0.2
PIC2	**El Picacho**	0.81	332	*i* P	Pn	15 37 53.6	0.0
PIC2				*e*S	Sn	15 38 06.9	+1.3
PMON	**Piamonte**	0.81	327	*i* P	Pn	15 37 53.3	-0.2
PMON				*e*S	Sn	15 38 06.8	+1.4
PMON	**Piamonte**	0.81	327	P	Pn	15 37 53.0	-0.4
PMON				S	Sn	15 38 06.2	+0.8
JAYA	**Jayaque - finc**	0.84	318	*i* P	Pn	15 37 53.4	-0.5
JAYA				*i* S	Sn	15 38 04.9	-1.3
JAYA	**Jayaque - finc**	0.84	318	*i* P	Pn	15 37 53.5	-0.4
JAYA				*e*S	Sn	15 38 06.1	-0.2
JAYA	**Jayaque - finc**	0.84	318	P	Pn	15 37 53.4	-0.5
JAYA				S	Sn	15 38 05.4	-0.8
CEVE	**Cerro Verde**	1.09	317	P	Pn	15 37 57.0	-0.1
CEVE				S	Sn	15 38 13.1	+1.4
SBLS	**San Blas**	1.09	318	*i* P	Pn	15 37 57.2	0.0
SNJE	**San Jose**	1.10	319	*i* P	Pn	15 37 56.6	-0.6
SNJE				*e*S	Sn	15 38 13.0	+1.0
NUBE	**Las Nubes**	1.25	314	*i* P	Pn	15 37 58.5	-0.5
NUBE	**Las Nubes**	1.25	314	*i* P	Pn	15 37 58.5	-0.5
NUBE				*e*S	Sn	15 38 16.2	+1.0
NUBE	**Las Nubes**	1.25	314	P	Pn	15 37 58.5	-0.5
NUBE				S	Sn	15 38 15.7	+0.5
SARH	**Santa Rosa de**	1.74	3	P	Pn	15 38 05.0	-0.5

IDC 13 15:45:42.7±4.2**, 2°.40S**×**139°.99E, h0**^{km}**, mb3.3**/2**, mbtmp3.4**/3**, ML3.3**/1**, Error ellipse: s-maj=158.6km s-min=29.4km az=88.0, Near north coast of Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	18.29	197	P	P	15 49 58.5	+0.1
	0.1nm,0.3s,baz=17,slow=11,SNR=8.3						
	0.7nm,0.7s						
WRA				AML	AML		
ASAR	**Alice Springs**	21.95	195	P	P	15 50 38.0	-0.1
	0.6nm,0.7s,baz=25,slow=10.0,SNR=13						
	0.6nm,0.7s						
H11S3	**WAKE ISLAND Hy**	33.49	51	T	T	16 27 30.6	
	baz=231,slow=75,SNR=13						
H11S2	**WAKE ISLAND Hy**	33.50	51	T	T	16 27 30.2	
	baz=231,slow=75,SNR=7.2						
H11S1	**WAKE ISLAND Hy**	33.51	51	T	T	16 27 31.1	
	baz=231,slow=75,SNR=4.5						
H11N1	**WAKE ISLAND Hy**	34.36	49	T	T	16 28 36.9	
	baz=233,slow=75,SNR=4.7						
H11N2	**WAKE ISLAND Hy**	34.38	49	T	T	16 28 34.5	
	baz=233,slow=75,SNR=4.8						
H11N3	**WAKE ISLAND Hy**	34.38	49	T	T	16 28 34.9	
	baz=233,slow=75,SNR=4.9						
MKAR	**Makanchi Array**	70.32	322	P	P	15 56 58.2	0.0
	0.4nm,0.7s,baz=119,slow=7.2,SNR=5.1						
	0.4nm,0.7s						

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*IDC **13** 15:55:27.6±1.1, 56°.92S×27°.13W, h0^{km}, mb4.0/4, mbtmp3.9/5, ML3.7/1, Error ellipse: s-maj=72.9km s-min=24.0km az=95.0*

ISC 13 15:55:33.3±1.7**, 57°.5S**±0°.3×**27°.3W**±0°.5**, h10**^{km}**, n15, σ0^{s}.96**/9**, mb3.8**/3**, 3C, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNA1	**Neumayer--Stat**	15.53	156	⇑P	Pn	15 59 11.5	-0.5
	comp=Z,0.6nm,0.2s						
VNA3	**Neumayer Olymp**	15.70	159	⇑P	Pn	15 59 12.9	-1.3
	comp=Z,0.9nm,0.3s						
SNAA	**Sanae**	17.50	154	P	Pn	15 59 37.9	+0.8
	comp=Z,0.3nm,0.3s,baz=318,slow=15,SNR=2.0						
	comp=Z,0.9nm,0.4s						
SNAA				AML	AML		
TROLL	**Troll, Antarti**	19.03	152	⇑P	Pn	15 59 57.3	+1.3
	comp=Z,15nm,0.2s						
QSPA	**South Pole Qui**	32.79	180	P	P	16 02 06.8	+0.4
	comp=Z,2.2nm,0.5s,baz=194,slow=2.2,SNR=35						
	comp=Z,2.2nm,0.5s						
VNDA	**Vanda**	45.16	183	P	P	16 03 49.5	+0.1
	comp=Z,0.6nm,0.6s,baz=195,slow=6.3,SNR=7.5						
	comp=Z,0.6nm,0.6s						
H10S2	**ASCENSION HYDR**	49.37	17	T	T	16 57 06.4	
	baz=31,slow=74,SNR=11						
H10S3	**ASCENSION HYDR**	49.38	17	T	T	16 57 05.5	
	baz=189,slow=74,SNR=8.3						
H10N1	**ASCENSION HYDR**	50.49	17	T	T	16 58 39.6	
	baz=188						
H10N3	**ASCENSION HYDR**	50.49	17	T	T	16 58 34.3	
	baz=188,slow=74						
H10N2	**ASCENSION HYDR**	50.51	17	T	T	16 58 56.2	
	baz=188,slow=74						
TORD	**Torodi Ar. Bea**	74.32	29	P	P	16 07 04.1	-6.7
	comp=Z,1.8nm,0.7s,baz=199,slow=6.3,SNR=11						
	comp=Z,1.8nm,0.7s						
ASAR	**Alice Springs**	97.67	163	P	P	16 09 07.6	-0.6
	comp=Z,0.2nm,0.8s,baz=174,slow=3.4,SNR=4.4						
	comp=Z,0.2nm,0.8s						
SONM	**Songino Array**	150.86	89	PKPbc	PKPdf	16 15 18.9	-0.6
	comp=Z,0.6nm,0.6s,baz=238,slow=2.8,SNR=2.1						
ILAR	**Eielson Array**	150.97	310	PKPbc	PKPdf	16 15 19.5	+0.5
	comp=Z,0.6nm,0.6s,baz=99,slow=1.2,SNR=6.7						

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*IDC **13** 15:57:41.5±0.8, 26°.10N×129°.05E, h0^{km}, mb3.9/15, mbtmp3.8/17, ML3.6/2, MS3.0/4, Error ellipse: s-maj=24.1km s-min=12.8km az=72.0*

*NIED **13** 15:57:43.9, 26°.08N×129°.04E, h40^{km}, MW3.8, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M$_{rr}$-5.94; M$_{θθ}$1.85; M$_{φφ}$4.10; M$_{rθ}$1.25; M$_{θφ}$2.73; M$_{φr}$1.57; Fault plane solution: M$_{0}$6.27000×10^{14} NP1:φ$_{s}$32.00000°, δ36.00000°, λ-92.00000°. NP2:φ$_{s}$215.00000°, δ54.00000°, λ-88.00000°.*

*NEIC **13** 15:57:43.3±1.0, 26°.12N±0°.06×129°.02E±0°.07, h9^{km}±5^{km}, mb4.3/12 Error ellipse: s-maj=11.9km s-min=3.5km az=224.0*

*JMA **13** 15:57:43.9±0.2, 26°.1N±0°.8×129°.0E±0°.8, h40^{km}, MV4.1/25, NEAR OKINAWAJIMA ISLAND*

ISC 13 15:57:42.2±1.5**, 26°.10N**±0°.04×**129°.02E**±0°.04**, h6**^{km}±9^{km}**, n83, σ1^{s}.45**/95**, mb4.0**/21**, Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JNTH	**Nagotoyohara**	0.99	295	*i* P	Pb	15 58 01.7	-0.2
JOW	**Kunigami**	0.99	318	Pn	Pb	15 58 02.0	+0.2
	baz=128,slow=20						
JOW				Sn	Sg	15 58 13.9	-0.3
	baz=107,slow=19						
JOW	**Kunigami**	0.99	318	P	Pb	15 58 02.1	+0.2
JOW	**Kunigami**	0.99	318	S	Sg	15 58 14.5	+0.3
JOW	**Kunigami**	0.99	318		Pb	15 58 02.0	+0.2
JOW				Sg	Sb	15 58 14.6	-0.6
JOW	**Kunigami**	0.99	318	*i* P	Pb	15 58 02.1	+0.2
JOW				S	Sg	15 58 14.1	-0.1
JYRO	**Yoronjima**	1.06	331	*i* P	Pn	15 58 03.1	-0.4
JYRO				*e*S	Sg	15 58 15.9	-0.3
JJT3	**Tamagusuku3**	1.12	273	*i* P	Pg	15 58 03.9	+0.3
JJT3				S	Sg	15 58 17.9	-0.3
JOKE	**Okinoerabujima**	1.32	342	*i* P	Pg	15 58 07.3	-0.3
JOKE				*e*S	Sb	15 58 24.0	-0.7
JIH	**Iheya**	1.33	315	*i* P	Pn	15 58 07.2	-0.1
JIH				*e*S	Sb	15 58 23.5	-1.4
JAGN	**Aguni-jima**	1.67	287	*i* P	Pn	15 58 12.0	0.0
JAGN				*e*S	Sn	15 58 31.0	-2.8
JTK	**Tokunoshima**	1.68	358	*i* P	Pn	15 58 12.0	-0.2
JTK				*e*S	Sn	15 58 30.7	-3.4
JMZ	**Minamidaito 2**	2.00	97	P	Pn	15 58 17.0	+0.5
JMZ	**Minamidaito 2**	2.00	97		Pn	15 58 15.9	-0.7
JMZ	**Minamidaito 2**	2.00	97	*i* P	Pn	15 58 15.5	-1.1
JMZ				S	Sn	15 58 37.7	-4.2
JKE	**Kume jima 2**	2.02	277	*i* P	Pn	15 58 16.0	-0.9
JKDJ	**Kitadaitoujima**	2.05	94	*i* P	Pn	15 58 16.4	-0.8
JKDJ				S	Sn	15 58 39.7	-3.4
JAMN	**Amaminishikomi**	2.14	4	*i* P	Pn	15 58 18.4	0.0
JAMN				*e*S	Sn	15 58 43.7	-1.6
JAM	**Amami Oshima**	2.36	13	P	Pn	15 58 21.5	0.0
JAM				*e*S	Sn	15 58 48.6	-2.2
JZK	**Kikaishima**	2.36	21	S	Sn	15 58 50.5	-0.4
JTAJ	**Takarajima**	3.05	3	P	Pn	15 58 30.5	-0.5
JTAJ				*e*S	Sn	15 59 05.3	-2.5
JMJ	**Miyako jima 2**	3.61	250	P	Pn	15 58 37.9	-0.8
JNN	**Nakanoshima**	3.80	11	P	Pn	15 58 41.8	+0.4
JNN				S	Sn	15 59 24.5	-2.0
JYAK	**Yakushimahirau**	4.33	17	P	Pn	15 58 48.2	-0.3
JYAK				S	Sn	15 59 36.4	-3.0
JKC	**Kuchinoerabu**	4.47	13	*e*S	Sn	15 59 39.8	-3.0
JMTN	**Minamitane**	4.59	21	P	Pn	15 58 52.3	+0.1
JMTN				*e*S	Sn	15 59 42.9	-3.0
JTN	**Tanegashima 3**	4.86	20	S	Sn	15 59 49.7	-2.7
JSU	**Suzuyama**	5.53	13	P	Pn	15 59 06.0	+0.8
JSU	**Suzuyama**	5.53	13	Pn	Pn	15 59 05.4	+0.2
YOJ	**Yonaguni jima**	5.68	255	P	Pn	15 59 05.3	-1.9
NACB	**Ninganchiao**	7.00	256	P	Pn	15 59 22.7	-2.6
YHNB	**Yeheng**	7.06	260	P	Pn	15 59 24.8	-1.4
YHNB	**Yeheng**	7.06	260	Pn	Pn	15 59 26.1	-0.2
JNU	**Nakatsue**	7.18	13	Pn	Pn	15 59 29.0	+1.2
	1.7nm,0.3s,baz=174,slow=20,SNR=42						
	4.5nm,0.4s						
JNU				AML	AML		
YULB	**Yu-li**	7.52	251		Pn	15 59 28.2	-4.3
SSLB	**Suanglung**	7.68	254	P	Pn	15 59 31.6	-3.1
SSLB	**Suanglung**	7.68	254		Pn	15 59 31.4	-3.3
TPUB	**Ta-pu**	8.13	252	P	Pn	15 59 38.8	-2.0
JMN	**Monobe**	8.69	28	P	Pn	15 59 49.5	+0.9
KSRS	**Korea Array**	11.36	356	Pn	Pn	16 00 26.6	+1.6
	0.1nm,0.3s,baz=174,slow=12,SNR=3.5						
KSRS				LR	LR	16 05 30.9	
	comp=Z,63nm,18.6s,baz=230,slow=41						
	1.0nm,0.7s						
KSRS				AML	AML		
GUMO	**Guam**	19.39	127	LR	LR	16 07 46.5	
	comp=Z,23nm,21.6s,baz=276,slow=31						
GUMO	**Guam**	19.39	127	P	Pn	16 02 10.0	-0.1
LZDM	**Lanzhou Array**	23.77	301	P	P	16 02 55.4	-0.5
	1.6nm,0.4s,baz=115,slow=9.7,SNR=1.8						
	1.6nm,0.4s						
TOLI2	**Tolitoli**	26.08	199	P	P	16 03 16.9	+0.1
TOLI2				IAmb	IAmb	16 03 42.5	
	comp=Z,8.6nm,1.3s						
GTA2	**Gaotai**	27.85	306	*e*P	P	16 03 31.6	-1.2
GTA2				pP	sP	16 03 35.8	+2.7
GTA2				pmax	pmax		
	comp=Z,8.0nm,0.7s						
SONM	**Songino Array**	28.05	327	P	P	16 03 35.9	+1.5
	comp=Z,1.4nm,0.6s,baz=142,slow=10,SNR=7.4						
SONM				LR	LR	16 15 00.1	
	comp=Z,40nm,19.6s,baz=122,slow=37						
	comp=Z,1.4nm,0.6s						
CMAR	**Chiang Mai Arr**	28.81	261	P	P	16 03 43.1	+1.8
	comp=Z,0.2nm,0.4s,baz=70,slow=10,SNR=2.6						
	comp=Z,0.2nm,0.4s						
GENI	**Genyem**	30.49	158	P	P	16 03 57.5	+1.3
YAK	**Yakutsk**	35.93	1	P	P	16 04 44.0	+0.8
KNRA	**Kununurra**	41.52	180	P	P	16 05 30.7	+0.2
KNRA				IAmb	IAmb	16 06 03.0	
	comp=Z,6.2nm,1.2s						
MKAR	**Makanchi Array**	42.15	312	P	P	16 05 35.4	-0.2
	comp=Z,0.5nm,0.6s,baz=94,slow=10,SNR=7.6						
	comp=Z,0.5nm,0.6s						
MKAR	**Makanchi Array**	42.15	312	P	P	16 05 35.3	-0.3
ZALV	**Zalesovo Beam**	42.78	323	P	P	16 05 39.3	-1.2
	comp=Z,0.6nm,0.5s,baz=108,slow=7.7,SNR=3.9						
	comp=Z,0.6nm,0.5s						
PDGK	**Podgornoye**	43.53	306	P	P	16 05 46.9	0.0
FITZ	**Fitzroy Crossi**	44.05	185	P	P	16 05 50.9	-0.1
FITZ	**Fitzroy Crossi**	44.05	185	P	P	16 05 51.5	+0.5
KURK	**Kurchatov**	45.41	317	P	P	16 06 01.8	+0.2
KURK	**Kurchatov**	45.41	317	IAmb	IAmb	16 06 06.8	
	comp=Z,1.1nm,0.7s						
KURBB	**Kurchatov Arra**	45.44	316	P	P	16 06 01.8	-0.1
	comp=Z,0.4nm,0.3s,baz=103,slow=8.7,SNR=2.0						
	comp=Z,0.4nm,0.3s						
WB0	**Warramunga Arr**	45.89	173	P	P	16 06 05.7	0.0
WB0				IAmb	IAmb	16 06 08.0	
	comp=Z,6.6nm,1.2s						
WRAB	**Tennant Creek**	46.05	173	P	P	16 06 06.6	-0.3
WRAB	**Tennant Creek**	46.05	173	P	P	16 06 07.0	+0.1
WRA	**Warramunga Arr**	46.06	173	P	P	16 06 06.6	-0.4
	comp=Z,2.2nm,0.7s,baz=355,slow=8.4,SNR=26						
	comp=Z,2.2nm,0.7s						
WRA	**Warramunga Arr**	46.06	173	IAmb	IAmb	16 06 08.0	
	comp=Z,0.2nm,0.8s						
WR8	**Warramunga Arr**	46.09	173	P	P	16 06 07.1	-0.1
WR8				IAmb	IAmb	16 06 08.1	
	comp=Z,4.0nm,0.8s						
AS31	**Alice Springs**	49.70	174	P	P	16 06 34.7	-0.5
ASAR	**Alice Springs**	49.70	174	P	P	16 06 35.6	+0.5
	comp=Z,1.4nm,0.8s,baz=4.9,slow=13,SNR=20						
	comp=Z,1.4nm,0.8s						
ASAR	**Alice Springs**	49.70	174	P	P	16 06 34.7	-0.5
AS01	**Alice Springs**	49.70	174	P	P	16 06 35.5	+0.3
BVAR	**Borovoye Array**	50.85	318	P	P	16 06 43.8	+0.2

	comp=Z,1.0nm,0.6s,baz=70,slow=9.7,SNR=6.9						
	comp=Z,1.0nm,0.6s						
ABKAR	Akbulak array	57.26	313	P	P	16 07 30.0	-0.4
STKA	Stephens Creek	58.89	168	P	P	16 07 42.1	+0.1
	comp=Z,0.9nm,0.5s,baz=322,slow=12,SNR=2.9						
	comp=Z,0.9nm,0.5s						
CHIR	Chirikof Islan	60.69	39	P	P	16 07 55.7	+1.5
SII	Sitkinak Islan	61.44	38	P	P	16 08 01.2	+1.9
ILAR	Eielson Array	64.22	28	P	P	16 08 18.3	+0.6
	comp=Z,0.2nm,0.6s,baz=274,slow=7.2,SNR=2.7						
	comp=Z,0.2nm,0.6s						
BERG	Berg Lake	66.36	33	P	P	16 08 30.7	-0.9
POHA	Pohakuloa	68.91	78	P	P	16 08 49.6	+0.9
KBZ	Khabaz	69.79	310	P	P	16 08 54.8	+1.3
	comp=Z,3.1nm,0.9s,baz=155,slow=4.1,SNR=7.0						
	comp=Z,3.1nm,0.9s						
FINES	FINESS Array B	73.33	331	P	P	16 09 14.8	+0.3
	comp=Z,1.3nm,0.8s,baz=113,slow=4.4,SNR=6.2						
	comp=Z,1.3nm,0.8s						
AKASG	Malin Array Be	76.09	320	P	P	16 09 31.1	+0.3
	comp=Z,0.3nm,0.3s,baz=64,slow=6.1,SNR=2.9						
	comp=Z,0.3nm,0.3s						
AKASG	Malin Array Be	76.09	320	IAmb	IAmb	16 09 41.8	
	comp=Z,3.3nm,1.2s						
BRTR	Keskin Array B	77.68	308	P	P	16 09 39.4	-0.7
	comp=Z,0.8nm,0.8s,baz=114,slow=3.2,SNR=3.7						
	comp=Z,0.8nm,0.8s						
RPZ	Rata Peaks	79.45	150	LR	LR	16 44 07.6	
	comp=Z,18nm,18.9s,baz=13,slow=35						

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*ATH **13** 16:09:34.0, 36.°54N×22.°68E, h6^{km}±1^{km}, ML3.5/53, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*

*THE **13** 16:09:35.6, 37°N±1°×2°3E±°, h12^{km}±2^{km}, M3.4/15, MLh3.4/15*

*IDC **13** 16:09:37.3±1.5, 36.°47N×22.°81E, h40^{km}±15^{km}, mb3.5/9, mbtmp3.6/16, ML2.1/4, MS3.5/2, Error ellipse: s-maj=19.4km s-min=11.4km az=22.0*

ISC 13 16:09:34.2±0.9**, 36.°57N**±0.°02×**22.°68E**±0.°02**, h15**^{km}±6^{km}**, n130, σ1°.07**/170**, mb3.8**/9**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VLI	Veliai	0.26	53	P	Pg	16 09 39.9	+0.2
VLI				S	Sb	16 09 43.8	-1.0
VLI	Veliai	0.26	53	P	Pb	16 09 40.1	-0.4
VLI				S	Sb	16 09 44.1	-0.7
VLI				AML	AML		
MNVA	Monemvasia	0.31	67	P	Pg	16 09 40.9	+0.3
MNVA				S	Sg	16 09 44.6	-0.4
NPS1	Neapolis Lacon	0.31	100	P	Pg	16 09 41.0	+0.3
NPS1				S	Sg	16 09 44.6	-0.4
NPS1				AML	AML		
KTHA	Kythira Island	0.43	135	P	Pg	16 09 42.5	-0.4
KTHA				S	Sg	16 09 47.6	-1.2
KTHA				AML	AML		
KTHA	Kythira Island	0.43	135	P	Pg	16 09 42.7	-0.2
KTHA				S	Sg	16 09 48.6	-0.2
KTHA				AML	AML		
AAMF	Ano Amfeia	0.73	318	P	Pb	16 09 47.6	-1.0
VALY	Valyra	0.82	317	P	Pb	16 09 48.9	-1.2
VALY				S	Sb	16 09 59.0	-2.0
VALY				AML	AML		
VALY	Valyra	0.82	317	P	Pb	16 09 49.2	-1.0
VALY				S	Sb	16 10 00.6	-0.5
MTHA	Methoni	0.82	288	P	Pb	16 09 50.1	-0.2
MTHA				S	Sg	16 10 01.4	+0.3
MTHA				AML	AML		
PYL	PYLOS	0.82	294	P	Pb	16 09 48.8	-1.4
PYL				AML	AML		
ANKY	Antikythira Is	0.86	144	P	Pb	16 09 49.9	-0.9
ANKY				S	Sb	16 10 01.4	-0.7
ANKY				AML	AML		
ANKY	Antikythira Is	0.86	144	P	Pb	16 09 50.1	-0.7
ANKY				S	Sb	16 10 01.3	-0.9
ANKY				AML	AML		
ITM	Ithomi	0.86	316	P	Pb	16 09 49.6	-1.3
ITM				S	Sb	16 10 00.1	-2.1
ITM				AML	AML		
ITM	Ithomi	0.86	316	P	Pb	16 09 49.8	-1.2
ITM				S	Sb	16 10 00.5	-1.8
ITM				AML	AML		
PYL1	Pylos	0.87	294	P	Pb	16 09 49.5	-1.4
PYL1				S	Sg	16 10 02.4	0.0
PYL1				AML	AML		
YDRA	Hydra	1.00	38	P	Pg	16 09 53.9	+0.3
YDRA				S	Sn	16 10 07.4	-0.2
YDRA				AML	AML		
ARS1	Argos	1.07	2	P	Pg	16 09 56.1	+1.3
ARS1				AML	AML		
MET1	Methana Town,	1.16	29	P	Pg	16 09 56.4	-0.2
MET1				S	Sg	16 10 12.5	+0.8
MET6	Megalochori,Me	1.16	28	P	Pg	16 09 56.3	-0.2
MET6				S	Sg	16 10 11.8	+0.1
MET2	Kameni Chora,	1.17	26	P	Pg	16 09 56.0	-0.7
MET2				S	Sg	16 10 12.0	+0.1
MET4	Agioi Theodoro	1.20	28	P	Pg	16 09 57.0	-0.3
MET4				S	Sg	16 10 13.4	+0.3
ZARO	Zacharo	1.24	318	P	Pb	16 09 56.9	-0.3
ZARO				AML	AML		
AMT	Artemida-Makis	1.24	321	P	Pn	16 09 56.5	-0.5
AMT				S	Sg	16 10 14.4	+0.1
AMT				AML	AML		
AMT	Artemida-Makis	1.24	321	P	Pn	16 09 56.7	-0.4
MHLO	Agia Marina, M	1.39	84	P	Pn	16 09 59.0	-0.1
MHLO				S	Sn	16 10 16.2	-0.9
GUR	Goura	1.40	349	P	Pb	16 09 59.4	-0.7
GUR				AML	AML		
MILOS	Milos	1.42	82	P	Pn	16 09 59.1	-0.3
LOUT	Loutraki	1.44	9	P	Pg	16 10 01.1	-0.8
LOUT				S	Sg	16 10 20.6	0.0
LOUT				AML	AML		
KIAA	Kiato	1.45	2	P	Pb	16 10 00.7	-0.2
THAL	Thalero	1.47	359	P	Pg	16 10 01.8	-0.6
THAL				S	Sg	16 10 21.7	+0.1
LTK	Loutraki	1.47	9	P	Pb	16 10 01.4	+0.1
LTK				S	Sg	16 10 20.9	-0.8
LTK				AML	AML		
LTK	Loutraki	1.47	9	P	Pb	16 10 01.5	+0.1
LTK				S	Sg	16 10 21.3	-0.4
LTK				AML	AML		
CH01	Chania	1.51	134	P	Pn	16 10 01.0	+0.3
CH01				AML	AML		
CHAN	Chania	1.52	133	P	Pn	16 10 01.2	+0.3
IMMV	Iera Moni Meta	1.52	136	P	Pn	16 10 01.2	+0.2
IMMV				S	Sn	16 10 20.5	0.0
IMMV				AML	AML		
IMMV	Iera Moni Meta	1.52	136	P	Pn	16 10 01.3	+0.3
IMMV				AML	AML		
KNDR	Palaiochora Ch	1.53	150	P	Pn	16 10 01.6	+0.6
KNDR				S	Sb	16 10 21.3	-0.2
KNDR				AML	AML		
KNDR	Palaiochora Ch	1.53	150	P	Pb	16 10 02.1	-0.2
KNDR				S	Sb	16 10 22.4	+0.9
KNDR				AML	AML		
KLV	Kalavryta, Ach	1.54	344	P	Pb	16 10 02.5	+0.1
KLV				S	Sg	16 10 23.7	0.0
KLV				AML	AML		
KLV	Kalavryta, Ach	1.54	344	P	Pb	16 10 02.5	+0.1
KLV				AML	AML		
CHNB	Souda	1.56	133	P	Pn	16 10 01.9	+0.6
CHNB				S	Sb	16 10 22.7	+0.5
VLY	Voula,Athens	1.56	34	P	Pb	16 10 01.7	-1.1
VLY				S	Sn	16 10 20.6	-0.9
VLY				AML	AML		
VLY	Voula,Athens	1.56	34	P	Pb	16 10 01.9	-1.0
VLY				AML	AML		
LVRA	Laurium	1.59	43	P	Pb	16 10 02.3	-0.9
DRO	Drossia	1.59	331	P	Pb	16 10 03.6	+0.3
DRO				S	Sg	16 10 28.0	+2.6
DRO				AML	AML		
DRO	Drossia	1.59	331	P	Pb	16 10 02.2	-1.0
DRO				AML	AML		
NOAC	Athens-Thissio	1.63	30	P	Pb	16 10 03.8	-0.2
NOAC				AML	AML		
ATHU	Athens Univers	1.65	32	P	Pb	16 10 03.0	-1.4
ATHU				S	Sb	16 10 24.0	-1.0
ATHU	Athens Univers	1.65	32	P	Pb	16 10 03.4	-0.9
VILL	Villia	1.67	17	P	Pb	16 10 04.1	-0.7
VILL				S	Sb	16 10 25.6	-0.1
VILL				AML	AML		
ATHP	Athens-Neo Psi	1.68	31	P	Pb	16 10 04.1	-0.7
ATHP				AML	AML		
VAM	Vamos	1.69	133	P	Pb	16 10 05.8	+0.9
VIL2	Platees	1.71	16	P	Pb	16 10 04.4	-1.0
VIL2				S	Sb	16 10 26.5	-0.2
VIL2				AML	AML		
TEME	Temeni, Aigial	1.72	345	P	Pb	16 10 05.7	+0.1
ACHAR	Athens-Acharne	1.73	29	P	Pb	16 10 04.4	-1.2
ACHAR				AML	AML		
STFN	Stefani	1.75	23	P	Pb	16 10 05.5	-0.5
STFN				AML	AML		
PTL	Penteli	1.76	32	P	Pn	16 10 04.5	+0.4
PTL				S	Sn	16 10 25.5	-0.8
PTL				AML	AML		
PTL	Penteli	1.76	32	P	Pn	16 10 04.6	+0.4
PTL				AML	AML		
LAKA	Lakka	1.76	342	P	Pb	16 10 06.0	-0.3
RLS	Riolos of Patr	1.78	327	P	Pb	16 10 06.7	+0.2
RLS				S	Sg	16 10 32.2	+0.8
RLS	Riolos of Patr	1.78	327	P	Pn	16 10 04.4	0.0
RLS				AML	AML		
DION	Dionisos Attik	1.81	33	P	Pb	16 10 05.4	-1.6
DION				S	Sn	16 10 26.9	-0.7
DION				AML	AML		
DION	Dionisos Attik	1.81	33	P	Pb	16 10 05.7	-1.4
DION				AML	AML		
CLEM	Kyllini,Ilia,G	1.81	317	P	Pb	16 10 06.3	-0.8
LTHK	Lithakia	1.86	308	P	Pb	16 10 06.9	-1.0
LTHK				AML	AML		
KALE	Kalithea	1.87	347	P	Pb	16 10 07.8	-0.4
KALE				S	Sg	16 10 32.5	-2.0
KALE				AML	AML		
SERG	Sergoula	1.91	345	P	Pb	16 10 08.9	+0.1
SERG				AML	AML		
MG00	Magoula, Dorid	1.94	343	P	Pb	16 10 08.5	-0.7
MG00				AML	AML		
EFP	Efpalio	1.96	342	P	Pb	16 10 08.8	-0.7
EFP				AML	AML		
VVK	Vomvokou	1.98	340	P	Pb	16 10 08.8	-1.1
AGRP	Agrapidokambos	1.98	338	P	Pn	16 10 07.9	+0.7
AGRP				AML	AML		
KARY	Karystos	2.02	43	P	Pn	16 10 08.6	+0.8
KARY				AML	AML		
ORTH	Orthonies,Zaky	2.04	310	P	Pn	16 10 09.0	+1.0
ORTH				AML	AML		
GVD	Gavdhos	2.07	146	P	Pb	16 10 11.2	-0.3
GVD				AML	AML		
LKR	Lokris	2.10	7	P	Pb	16 10 10.4	-1.5
LKR				AML	AML		
PLEV	Plevrona-Mesol	2.10	332	P	Pb	16 10 10.9	-1.1
PLEV				AML	AML		
ANX	Ano Chora	2.11	344	P	Pn	16 10 10.2	+1.0
ANX				AML	AML		
ATAL	Atalanti	2.14	7	P	Pb	16 10 10.7	-2.0
ATAL				AML	AML		
RTZL	Ratzakli, Kefa	2.14	315	P	Pb	16 10 11.2	-1.5
SAP3	Santorini-Thir	2.15	93	P	Pn	16 10 10.0	+0.4
THR5	Thira Island,	2.15	93	P	Pn	16 10 10.1	+0.5
SNT5	Nea Kammeni, S	2.19	93	P	Pb	16 10 11.8	-1.8
CMBO	Columbo, Santo	2.20	92	P	Pn	16 10 10.8	+0.6
AXAR	Agios Charalam	2.20	360	P	Pb	16 10 12.1	-1.5
THR3	Thira Island,	2.20	93	P	Pn	16 10 10.4	+0.3
IDI	Anoyia	2.20	125	Pn	Pn	16 10 09.4	-0.9
	8.4nm,0.3s,baz=281,slow=13,SNR=61						
IDI				Sn	Sn	16 10 35.2	-2.1
	14nm,0.3s,baz=228,slow=22,SNR=5.1						
	18nm,0.3s						
IDI				AML	AML		
IDI	Anoyia	2.20	125	P	Pn	16 10 09.8	-0.5
IDI				AML	AML		
THR6	Thira Island,	2.20	95	P	Pn	16 10 10.8	+0.6
THR2	Thira island,	2.22	92	P	Pn	16 10 11.5	+1.0
THR8	Santorini-Mono	2.26	93	P	Pn	16 10 11.8	+0.8
THERA	Ancient Thera,	2.26	94	P	Pn	16 10 11.6	+0.6
VLS	Valsamata	2.32	315	P	Pn	16 10 13.0	+1.1
SIVA	Sivas	2.32	131	P	Pn	16 10 13.5	+1.7
SIVA				AML	AML		
KYMI	Kymi, Euboea I	2.35	28	P	Pn	16 10 13.3	+1.0
KYMI				AML	AML		
PDO	Prodromos	2.35	330	P	Pn	16 10 13.3	+1.0
PDO				AML	AML		
EVR	Evrytania	2.45	344	P	Pb	16 10 15.9	-2.1
EVR				AML	AML		
AGG	Agios Georgios	2.47	354	P	Pb	16 10 16.2	-2.1
EVGI	Lefkada island	2.61	323	P	Pb	16 10 18.2	-2.5
AMPL	Ampelaki	2.62	334	P	Pn	16 10 18.0	+1.9
AMPL				AML	AML		
NYDR	Nydri-Lefkada	2.66	324	P	Pn	16 10 18.1	+1.5
DRAG	Dragano-Lefkad	2.70	322	P	Pb	16 10 19.3	-2.8
NPS	Neapolis	2.71	118	P	Pn	16 10 17.7	+0.4
NPS				AML	AML		
AOS2	Alonissos-2	2.74	19	P	Pn	16 10 18.1	+0.5
LKD2	Lefkada island	2.74	325	P	Pn	16 10 19.1	+1.5
NEO	Neokhori	2.77	9	P	Pn	16 10 19.5	+1.4
NEO				AML	AML		
TSLK	Tsoukalades, L	2.77	325	P	Pn	16 10 19.9	+1.8
XOR	Xorichti	2.83	8	P	Pn	16 10 19.8	+1.0
THL	Klokotos Trika	3.04	350	P	Pn	16 10 22.4	+0.6
TYRN	Tyrnavos	3.16	354	P	Pn	16 10 24.6	+1.2
PRMD	Pramanda	3.21	338	P	Pn	16 10 26.0	+1.8
PRMD				AML	AML		
ZKR	Zakros	3.22	116	P	Pn	16 10 24.6	+0.4
ZKR				AML	AML		
CHOS	Chios island	3.24	55	P	Pn	16 10 24.9	+0.3
VAE	Valguarnera	6.68	280	Pn	Pn	16 11 14.6	+2.7
	0.3nm,0.3s,baz=322,slow=20,SNR=2.1						
VAE				Sn	Sn	16 12 26.6	-1.1
	3.3nm,0.3s,baz=176,slow=12,SNR=3.5						
	9.5nm,0.8s						
VAE				AML	AML		
BRTR	Keskin Array B	9.19	67	Pn	Pn	16 11 48.1	+1.8
	0.1nm,0.3s,baz=253,slow=13,SNR=6.6						
	1.0nm,0.7s						
BRTR				AML	AML		
MLR	Muntele Rosu	9.25	14	Pn	Pn	16 11 51.2	+4.0
	0.9nm,0.5s,baz=271,slow=24,SNR=6.8						
GERES	GERESS Array B	13.92	335	Pn	Pn	16 12 51.6	+0.6
	baz=146,slow=12,SNR=2.0						
	0.2nm,0.3s						
AKASG	Malin Array Be	14.89	16	Pn	Pn	16 13 04.8	+0.7
	0.1nm,0.3s,baz=210,slow=9.4,SNR=2.6						
KBZ	Khabaz	17.01	59	Pn	P	16 13 33.4	+0.1
	1.7nm,0.6s,baz=275,slow=9.4,SNR=4.2						
ESDC	Sonseca Array	21.16	287	P	P	16 14 19.4	+0.4
	0.3nm,0.5s,baz=79,slow=9.5,SNR=4.9						
	0.3nm,0.5s						
HFS	Hagfors	24.28	349	P	P	16 14 51.8	+1.1
	0.9nm,0.6s,baz=164,slow=11,SNR=4.1						
	0.9nm,0.6s						
FINES	FINESS Array B	24.99	4	P	P	16 14 56.7	-0.4
	3.3nm,1.0s,baz=144,slow=13,SNR=1.3						
	3.3nm,1.0s						
NOA	NORSAR Array B	25.55	347	P	P	16 15 03.9	+1.6
	0.3nm,0.6s,baz=150,slow=11,SNR=1.5						
NOA				LR	LR	16 26 57.7	
	comp=Z,35nm,18.7s,baz=330,slow=40						
	0.3nm,0.6s						
EKA	Eskdalemuir Ar	25.73	325	P	P	16 15 05.7	+1.8
	1.9nm,0.8s,baz=121,slow=9.0,SNR=4.6						
	1.9nm,0.8s						
KURBB	Kurchatov Arra	41.83	52	P	P	16 17 22.6	-0.7
	0.4nm,0.4s,baz=278,slow=8.7,SNR=2.5						
	0.4nm,0.4s						
MKAR	Makanchi Array	44.70	57	P	P	16 17 45.9	-0.7
	0.6nm,0.5s,baz=270,slow=8.1,SNR=14						
	0.6nm,0.5s						
ZALV	Zalesovo Beam	45.51	47	P	P	16 17 52.1	-0.7
	0.6nm,0.4s,baz=265,slow=10,SNR=4.1						
	0.6nm,0.4s						
CMAR	Chiang Mai Arr	68.40	83	P	P	16 20 35.4	-0.2
	0.4nm,0.3s,baz=311,slow=8.4,SNR=5.0						
	0.4nm,0.3s						
KSRS	Korea Array	79.00	51	LR	LR	16 59 44.2	
	comp=Z,64nm,19.5s,baz=180,slow=38						
ASAR	Alice Springs	120.26	98	PKP	PKPdf	16 28 23.6	-1.5
	0.1nm,0.3s,baz=301,slow=2.1,SNR=8.0						

SKHL 13 16:12:41.4±0.3**, 48.°90N×142.°30E, h7**^{km}±2^{km}**, mb4.3**/5**, Sakhalin Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
UGL	Uglegorsk	0.24	319	*e*Pg	Pg	16 12 45.8	-0.3
UGL				AMB	AMB	16 12 46.3	
	2μm,0.6s						
UGL				*e*Sg	Sg	16 12 49.1	-0.1
UGL				A	A	16 12 51.2	
	10μm,0.5s						
UGL				A	A	16 12 51.2	
	11μm,0.5s						
YSS	Yuzhno-Sakhali	1.97	171	*e*P	Pb	16 13 17.7	+0.1
YSS				*e*Pg	Pg	16 13 20.8	+1.6
YSS				AMB	AMB	16 13 22.1	
	40nm,0.5s						
YSS				*e*Sg	Sg	16 13 48.1	+3.4
YSS				A	A	16 13 52.6	
	70nm,0.8s						
YSS				A	A	16 13 52.6	
	50nm,0.8s						
TYV	Tymovskoe	1.98	7	*e*P	Pb	16 13 17.9	+0.2
TYV				*e*Pg	Pg	16 13 20.7	+1.4
TYV				AMB	AMB	16 13 22.1	
	10.0nm,0.7s						
TYV				*e*Sg	Sg	16 13 47.5	+2.6
TYV				A	A	16 13 54.0	
	40nm,0.7s						
TYV				A	A	16 13 54.0	
	40nm,0.7s						
NKL	Nikolayevsk	4.38	347	*e*P	Pn	16 13 48.3	+0.1
NKL				*e*Pg	Pg	16 14 05.3	+0.1
NKL				*e*Sg	Sg	16 15 07.9	+6.1
NKL				A	A	16 15 13.0	
	50nm,1.0s						
NKL				A	A	16 15 13.0	
	40nm,1.0s						
SEY	Seymchan	15.13	18	*e*P	Pn	16 16 15.7	+0.4
AAK	Ala-Archa	46.29	289	*e*P	P	16 21 07.6	0.0

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*IDC **13** 16:16:38.6±0.6, 6.°49N×60.°41E, h0^{km}, mb4.0/18, mbtmp3.9/19, ML2.3/1, MS4.0/32, Error ellipse: s-maj=18.5km s-min=14.9km az=19.0*

*NEIC **13** 16:16:41.1±1.4, 6.°41N±0.°10×60.°29E±0.°09, h10^{km}±1^{km}, mb4.6/39, Error ellipse: s-maj=16.8km s-min=14.1km az=328.0*

*GFZ **13** 16:16:41.2, 6.°33N×60.°34E, h16^{km}, Mw4.8/18, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}-1.93; $M_{\theta\theta}$0.80; $M_{\phi\phi}$1.14; $M_{r\theta}$0.19; $M_{\theta\phi}$-1.09; $M_{\phi r}$0.36; Fault plane solution: $M_0$2.04567×10^{16} NP1: ϕ_s150.73377°, δ48.29350°, λ-74.46073°. NP2: ϕ_s308.05170°, δ44.00545°, λ-106.73153°. Principal axes: T 2.0757, Plg2.1866°, Azm229.8060°; N -0.0614, Plg11.5371°, Azm320.2526°; P -2.0143, Plg78.2519°, Azm129.2266°;*

*GFZ **13** 16:16:41.2±0.3, 6°N±5°×6°0E±°, h10^{km}, M4.5/23, mb4.6/23 Error ellipse: s-maj=10.8km s-min=7.1km az=155.9, confirmed*

*GCMT **13** 16:16:43.1±0.3, 6.°47N±0.°02×60.°34E±0.°02, h12^{km}, MW4.8/82, Moment Tensor Solution. s22,c23; s82,c112; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.39±.07; $M_{\theta\theta}$0.33±.06; $M_{\phi\phi}$1.06±.06; $M_{r\theta}$0.55±.26; $M_{\theta\phi}$-1.41±.05; $M_{\phi r}$-0.28±.23; Best double couple: $M_0$1.89800×10^{16} NP1: ϕ_s162.00000°, δ39.00000°, λ-61.00000°. NP2: ϕ_s306.00000°, δ56.00000°, λ-112.00000°. Principal axes: T 2.2360, Plg9.0000°, Azm51.0000°; N -0.6770, Plg18.0000°, Azm319.0000°; P -1.5600, Plg70.0000°, Azm167.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 13 16:16:40.1±0.4**, 6.°41N**±0.°05×**60.°28E**±0.°06**, h10**^{km}**, n165, σ1°.77**/152**, mb4.5**/53**, MS3.9**/37**, 1C, Carlsberg Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSEY	Mahe Island	12.00	204	Pn	Pn	16 19 28.3	-3.2
MSEY				Sn	Sn	16 21 39.5	-6.1
MSEY	Mahe Island	12.00	204	P	Pn	16 19 29.7	-1.8
	comp=Z,29nm,2.3s						
MHTO	MHTO	14.67	351	P	Pn	16 20 10.4	+2.5
	SNR=10						
MHTO				S	S	16 23 02.2	-7.4
JLN	Jalan Bani Buh	15.68	357	P	P	16 20 28.2	+2.9
JLN				S	S	16 23 22.7	-7.6
JMDO	Jabal Madar	16.01	353	P	P	16 20 28.4	-0.7
	SNR=9.0						
BSY	Bisya	16.51	350	P	Pn	16 20 31.5	-0.5
	SNR=14						
SMDO	Samad	16.70	353	P	P	16 20 37.0	+0.2
	SNR=7.9						
SMDO				S	S	16 23 50.6	-0.7
WSAR	Wadi Sarin	16.81	355	P	P	16 20 40.2	+2.2
UMZA	Um Al Zommool	16.95	344	P	Pn	16 20 34.2	-3.2
UMZA				S	S	16 23 51.3	-5.0
BIDO	Bidbid	17.14	353	P	P	16 20 43.7	+2.1
	SNR=12						
ARQ	Araqi	17.22	348	P	Pn	16 20 41.0	0.0
	SNR=25						
ARQ				S	S	16 24 00.7	-1.1
HOQ	Hoqain	17.32	351	P	P	16 20 44.7	+1.2
	SNR=8.7						
MZR	Muzera	17.75	339	P	P	16 20 48.4	+0.1
MZR	Muzera	17.75	339	*i* P	P	16 20 48.4	+0.1
	SNR=6.2						
ATD	Arta Tunnel	17.95	288	P	Pn	16 20 50.9	+0.8
	baz=89,slow=13,SNR=4.4						
	comp=Z,0.9nm,1.1s						
ATD	Arta Tunnel	17.95	288	P	Pn	16 20 50.9	+0.8
ATD				IAmb	IAmb	16 21 03.5	
	comp=Z,55nm,1.5s						
ATD	Arta Tunnel	17.95	288	P	P	16 20 51.8	+1.1
	comp=Z,24nm,1.4s						
SOHO	SOHO	17.99	349	P	P	16 20 51.2	+0.2
SOHO				S	S	16 24 18.5	+1.0
SOHO	SOHO	17.99	349	*i* P	Pn	16 20 50.7	+0.2
	SNR=6.0						
ALNE	Al Ain	18.08	347	P	P	16 20 53.0	+1.0
ALNE				S	S	16 24 19.2	-0.2
MZWR	Madinat Zayed	18.32	341	P	Pn	16 20 53.6	-0.9
ASHO	Ashiyiah	18.62	348	P	P	16 20 56.9	-1.1
	SNR=10						
ASHO	Ashiyiah	18.62	348	*i* P	P	16 20 56.9	-1.1
	SNR=12						
ASUD	Al Ashush, Dub	18.73	346	P	P	16 20 56.7	-2.4
ASUD	Al Ashush, Dub	18.73	346	P	P	16 20 57.1	-2.0
HATD	Hatta, Dubai	18.74	348	P	P	16 20 58.4	-0.9
	SNR=10						
HATD	Hatta, Dubai	18.74	348	*i* P	P	16 20 58.6	-0.6
	SNR=11						
AJN	Ajban	18.75	345	P	P	16 20 58.8	-0.6
AJN	Ajban	18.75	345	*i* P	P	16 20 59.7	+0.3
	SNR=10						
FAQ	Al Faqa, Dubai	18.78	347	P	P	16 20 58.9	-0.8
FAQ	Al Faqa, Dubai	18.78	347	*i* P	P	16 20 59.1	-0.6
	SNR=8.3						
UOSS	Minazif	18.84	348	P	P	16 21 00.0	-0.4
UOSS	Minazif	18.84	348		P	16 20 59.3	-1.1
UOSS				IAmb	IAmb	16 21 11.6	
	comp=Z,57nm,1.2s						
UOSS	Minazif	18.84	348	*i* P	P	16 20 59.9	-0.4
	SNR=13						
UOSS	Minazif	18.84	348	P	P	16 20 59.7	-0.7
	comp=Z,40nm,1.4s						
NAZ	Nazwa, Dubai	19.00	347	P	P	16 21 02.2	+0.1
NAZ	Nazwa, Dubai	19.00	347	P	P	16 21 00.6	-1.4
MSFE	Esma-Masafi	19.26	349	*i* P	P	16 21 05.6	+0.6
	SNR=5.5						
MASF	Masafi	19.27	349	P	Pn	16 21 06.0	-0.1
	SNR=7.4						
SHME	Shamm	19.93	349	P	P	16 21 12.5	+0.3
SHME	Shamm	19.93	349	*i* P	P	16 21 12.3	0.0
	SNR=7.0						
PALK	Pallekele	20.30	86	LR	LR	16 27 38.8	
	comp=Z,604nm,18.2s,baz=266,slow=33						
PALK	Pallekele	20.30	86	P	P	16 21 16.0	-0.4
PALK				IAmb	IAmb	16 21 52.8	
	comp=Z,41nm,1.4s						
HYB	Hyderabad	20.94	57	*e*P	P	16 21 23.6	+0.3
HYB				*e*S	S	16 25 17.9	+1.0
FURI	Furi	21.55	278	P	P	16 21 30.5	+0.2
FURI	Furi	21.55	278	P	P	16 21 34.4	+4.1
	comp=Z,98nm,1.3s						
RAYN	Ar Rayn	22.18	322		P	16 21 35.3	-1.3
RAYN	Ar Rayn	22.18	322	*i* P	P	16 21 35.0	-1.5

	SNR=15						
RAYN	Ar Rayn	22.18	322	P	P	16 21 35.4	-1.2
	comp=Z,20nm,1.1s						
KIBK	Kibwezi	23.84	249	P	P	16 21 54.2	+0.4
KIBK				IAmb	IAmb	16 22 03.0	
	comp=Z,27nm,1.3s						
KIBK	Kibwezi	23.84	249	P	P	16 21 55.3	+1.5
	comp=Z,18nm,2.0s						
KMBO	Kilima Mbogo	24.17	253	P	P	16 21 58.7	+1.5
	baz=60,slow=12						
KMBO				LR	LR	16 30 41.9	
	comp=Z,416nm,20.5s,baz=98,slow=35						
LODK	Lodwar	25.00	264		P	16 22 06.0	+1.5
LODK	Lodwar	25.00	264	P	P	16 22 07.8	+3.2
	comp=Z,34nm,1.7s						
OPO	Ambohidratompo	27.98	207	LR	LR	16 30 57.8	
	comp=Z,190nm,19.9s,baz=70,slow=31						
KBL	Kabul	29.15	15	P	P	16 22 41.5	-0.2
KBL				IAmb	IAmb	16 22 50.9	
	comp=Z,10nm,1.1s						
KBL	Kabul	29.15	15	P	P	16 22 45.0	+3.3
	comp=Z,9.9nm,1.4s						
NIL	Nilore	29.66	22	P	P	16 22 47.2	+1.1
NIL				IAmb	IAmb	16 22 55.1	
	comp=Z,10.0nm,1.1s						
MBAR	Mbarara	30.30	258	LR	LR	16 35 22.3	
	comp=Z,247nm,18.7s,baz=78,slow=37						
EVN	Everest	33.05	46		P	16 23 16.1	-0.6
EVN	Everest	33.05	46	P	P	16 23 18.8	+2.1
	comp=Z,13nm,1.4s						
EIL	Elat	33.24	317	LR	LR	16 36 03.7	
	comp=Z,209nm,18.5s,baz=100,slow=35						
GHAJ	Ghor Haditha	33.89	320	P	P	16 23 24.1	+0.8
GHAJ				IAmb	IAmb	16 23 32.2	
	comp=Z,7.5nm,0.8s						
BRDH	Bariadhala	34.28	59	LR	LR	16 37 09.1	
	comp=Z,556nm,18.6s,baz=238,slow=36						
HAKT	HAKKARI	34.48	336	P	P	16 23 31.1	+2.4
	comp=Z,22nm,0.7s						
DRK	Karamyk	34.53	16	P	P	16 23 29.7	+0.6
	comp=Z,19nm,0.9s						
BTK	Batken	34.82	14	P	P	16 23 31.8	+0.4
BTK	Batken	34.82	14	P	P	16 23 32.6	+1.3
	comp=Z,14nm,0.9s						
MMAI	Mount Meron Ar	35.15	322	P	P	16 23 36.2	+1.9
	comp=Z,0.8nm,0.6s,baz=106,slow=11,SNR=4.6						
MMAI				LR	LR	16 37 40.1	
	comp=Z,162nm,18.5s,baz=135,slow=36						
	comp=Z,0.8nm,0.6s						
KSH2	Kashi	35.40	21	P	P	16 23 41.8	+5.4
KSH2				pmax	pmax		
	comp=Z,3.0nm,1.2s						
KSH2				L	L		
	comp=Z,210nm,17.5s						
KSH2				L	L		
	comp=Z,250nm,19.7s						
KSH2				L	L		
	comp=Z,360nm,13.5s						
SHL	Shillong	35.70	54	P	P	16 23 39.0	-0.2
GNI	Garni	36.38	340	P	P	16 23 46.0	+1.1
	comp=Z,2.4nm,0.4s,baz=165,slow=23,SNR=1.3						
	comp=Z,2.4nm,0.4s						
ARK	Arkit	36.74	15	P	P	16 23 48.8	+0.9
	comp=Z,7.9nm,1.8s						
MORE	Moreh	37.13	58		P	16 23 51.7	+0.4
MORE				IAmb	IAmb	16 23 54.9	
	comp=Z,12nm,1.2s						
LSA	Lhasa	37.17	48	P	P	16 23 52.6	+0.5
LSA	Lhasa	37.17	48	P	P	16 23 53.1	+1.0
	comp=Z,12nm,0.9s						
NPW	Naypyitaw	37.27	66	P	P	16 23 53.1	+0.6
	comp=Z,4.6nm,0.7s						
ASAI	AK-SAY(Kyrgyzs	37.31	20	P	P	16 23 53.8	+0.9
	comp=Z,6.5nm,2.0s						
KK31	Karatay Array	37.65	12	P	P	16 23 55.6	+0.2
KK31				IAmb	IAmb	16 24 03.4	
	comp=Z,19nm,1.4s						
KKAR	Karatay Array	37.65	12	P	P	16 23 55.6	+0.2
ARPR	Arapgir-MALATY	38.10	332	P	P	16 23 59.9	+0.5
ARPR				IAmb	IAmb	16 24 23.3	
	comp=Z,21nm,1.3s						
ARPR	Arapgir-MALATY	38.10	332	P	P	16 24 01.1	+1.7
	comp=Z,12nm,1.4s						
AAK	Ala-Archa	38.21	17	LR	LR	16 41 22.0	
	comp=Z,207nm,18.3s,baz=207,slow=39						
AAK	Ala-Archa	38.21	17	P	P	16 24 00.4	+0.1
AAK				IAmb	IAmb	16 24 08.9	
	comp=Z,15nm,1.3s						
AAK	Ala-Archa	38.21	17	P	P	16 24 01.2	+0.9
AAK	Ala-Archa	38.21	17	P	P	16 24 01.1	+0.8
	comp=Z,11nm,1.5s						
EPOS	Posof	38.29	339	P	P	16 24 03.6	+2.6
	comp=Z,13nm,1.0s						
LSZ	Lusaka	38.41	236	LR	LR	16 38 18.4	
	comp=Z,343nm,19.3s,baz=50,slow=34						
CMAR	Chiang Mai Arr	39.51	69	P	P	16 24 11.7	+0.3
	comp=Z,0.4nm,0.3s,baz=259,slow=8.3,SNR=8.9						
CMAR				PcP	PcP	16 26 18.9	-0.3
	comp=Z,0.8nm,0.6s,baz=222,slow=3.9,SNR=5.5						
CMAR				LR	LR	16 39 34.7	
	comp=Z,113nm,19.7s,baz=255,slow=35						
	comp=Z,0.4nm,0.3s						
CMAR	Chiang Mai Arr	39.51	69	P	P	16 24 12.1	+0.6
CHTO	Chiang Mai	39.59	68	P	P	16 24 12.6	+0.5
CHTO	Chiang Mai	39.59	68	P	P	16 24 12.6	+0.5
	comp=Z,6.0nm,1.5s						
KBZ	Khabaz	40.19	340	P	P	16 24 17.0	+0.4
	comp=Z,2.5nm,0.9s,baz=142,slow=3.0,SNR=4.3						
	comp=Z,2.5nm,0.9s						
PDGK	Podgornoye	40.48	22	P	P	16 24 19.1	-0.2
KKUL	Konya-Kulu	40.90	327	P	P	16 24 25.0	+2.2
	comp=Z,8.2nm,1.2s						
BR131	Keskin Array S	40.92	328	P	P	16 24 23.8	+0.9
BRTR	Keskin Array B	40.92	328	P	P	16 24 22.9	-0.1
	comp=Z,1.2nm,0.9s,baz=156,slow=6.5,SNR=6.2						
BRTR				LR	LR	16 41 43.7	
	comp=Z,97nm,18.1s,baz=132,slow=37						
	comp=Z,1.2nm,0.9s						
BRTR	Keskin Array B	40.92	328	P	P	16 24 21.9	-1.0
AB31	Akbulak array	42.70	360	P	P	16 24 37.5	+0.3
ABKAR	Akbulak array	42.70	360	P	P	16 24 37.1	-0.1
GOMU	GeErMu	43.33	42	P	P	16 24 45.0	+2.0
GOMU				pP	pwP	16 24 48.3	-0.5
GOMU				sP	sP	16 24 52.4	+6.2
GOMU				S	S	16 31 06.8	-4.2
GOMU				SS	SS	16 34 19.1	-5.6
GOMU				pmax	pmax		
	comp=Z,4.0nm,0.5s						
GOMU				L	L		
	comp=Z,170nm,11.8s						
GOMU				L	L		
	comp=Z,150nm,11.7s						
GOMU				L	L		
	comp=Z,250nm,11.1s						
AKTO	Aktyubinsk	43.92	358	LR	LR	16 44 48.6	
	comp=Z,100nm,18.9s,baz=156,slow=38						
PZH	PanZhiHua	44.23	58	P	P	16 24 52.4	+2.4
WMQ	Urumqi	44.35	28	eP	P	16 24 52.8	+2.1
WMQ				L	L		
	comp=Z,150nm,23.3s						
MAKZ	Makanchi	44.37	21	P	P	16 24 49.8	-0.9
MAKZ				IAmb	IAmb	16 24 57.0	
	comp=Z,12nm,1.4s						
MAKZ	Makanchi	44.37	21	P	P	16 24 51.0	+0.2
	comp=Z,7.2nm,1.6s						
MKAR	Makanchi Array	44.47	22	P	P	16 24 50.5	-1.1
	comp=Z,0.3nm,0.5s,baz=179,slow=7.3,SNR=4.9						
MKAR				LR	LR	16 44 43.2	
	comp=Z,129nm,19.4s,baz=179,slow=38						
	comp=Z,0.3nm,0.5s						
MKAR	Makanchi Array	44.47	22	P	P	16 24 50.1	-1.5
SLVN	Son La	44.70	66	P	P	16 24 53.6	-0.2
LBTB	Lobatse	45.98	226	LR	LR	16 41 38.3	
	comp=Z,303nm,20.7s,baz=58,slow=32						
KURBB	Kurchatov Arra	46.64	16	P	P	16 25 08.0	-0.6
	comp=Z,0.7nm,0.9s,baz=219,slow=8.1,SNR=6.2						
KURBB				LR	LR	16 44 44.5	
	comp=Z,89nm,19.4s,baz=168,slow=36						
	comp=Z,0.7nm,0.9s						
KURK	Kurchatov	46.74	16	P	P	16 25 09.6	+0.2
KURK				IAmb	IAmb	16 25 16.3	
	comp=Z,8.2nm,1.2s						
KURK	Kurchatov	46.74	16	P	P	16 25 09.6	+0.2
	comp=Z,5.7nm,0.9s						
GTA2	Gaotai	48.41	41	eP	P	16 25 22.4	-0.4
GTA2				pP	pwP	16 25 29.3	+0.7
GTA2				pmax	pmax		
	comp=Z,3.0nm,1.5s						
GTA2				L	L		
	comp=Z,340nm,17.8s						
GTA2				L	L		
	comp=Z,220nm,19.7s						
GTA2				L	L		
	comp=Z,280nm,19.4s						
BOSA	Boshof	48.49	222	P	P	16 25 24.6	+1.1
	comp=Z,7.3nm,1.1s,baz=86,slow=4.2,SNR=3.0						
BOSA				LR	LR	16 44 16.7	
	comp=Z,237nm,18.9s,baz=42,slow=34						
	comp=Z,7.3nm,1.1s						
BOSA	Boshof	48.49	222	P	P	16 25 24.0	+0.5
LZDM	Lanzhou Array	49.42	47	LR	LR	16 46 11.9	
	comp=Z,242nm,20.2s,baz=110,slow=36						
ARTI	Arti	49.87	359	LR	LR	16 47 55.4	
	comp=Z,75nm,18.5s,baz=165,slow=38						
AKASG	Malin Array Be	51.17	335	P	P	16 25 41.5	-1.9
	comp=Z,0.4nm,0.3s,baz=139,slow=6.2,SNR=4.5						
	comp=Z,0.4nm,0.3s						
ZAA0	Zalesovo Array	51.41	18	P	P	16 25 43.9	-1.2
ZAA0				IAmb	IAmb	16 25 51.3	
	comp=Z,11nm,1.2s						
ZALV	Zalesovo Beam	51.41	18	P	P	16 25 42.9	-2.2
	comp=Z,0.7nm,0.6s,baz=270,slow=7.4,SNR=6.4						
ZALV				LR	LR	16 48 18.6	
	comp=Z,114nm,18.2s,baz=202,slow=37						
	comp=Z,0.7nm,0.6s						
ZALV	Zalesovo Beam	51.41	18	P	P	16 25 43.0	-2.1
KIRV	Kirov	52.73	353	LR	LR	16 50 18.4	
	comp=Z,78nm,19.4s,baz=167,slow=38						
H04N1	CROZET ISLANDS	52.88	187	T	T	17 23 04.2	
	baz=11,slow=75,SNR=792						
H04N2	CROZET ISLANDS	52.88	187	T	T	17 23 03.0	
	baz=11,slow=75,SNR=967						
H04N3	CROZET ISLANDS	52.89	187	T	T	17 23 11.0	
	baz=11,slow=75,SNR=834						
KOLS	Kolonicke sedl	53.15	330	eP	P	16 26 06.1	+7.9
MORH	Mrgy, Hungar	53.45	325	P	P	16 26 01.6	+1.2
	comp=Z,4.7nm,1.2s						
SUR	Sutherland	53.84	222	LR	LR	16 47 37.0	
	comp=Z,294nm,18.5s,baz=13,slow=34						
BTO2	Baotou	55.84	44	eP	P	16 26 18.1	0.0
BTO2				pP	pwP	16 26 23.3	-0.7
BTO2				PP	PP	16 28 25.3	+2.6
BTO2				S	S	16 34 06.8	+1.2
BTO2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
BTO2				L	L		
	comp=Z,350nm,7.6s						
BTO2				L	L		
	comp=Z,340nm,6.2s						
BTO2				L	L		
	comp=Z,280nm,8.6s						
SONM	Songino Array	56.90	35	P	P	16 26 23.9	-1.6
	comp=Z,0.8nm,0.6s,baz=262,slow=4.9,SNR=6.7						
SONM				LR	LR	16 52 18.1	
	comp=Z,82nm,18.3s,baz=239,slow=38						
	comp=Z,0.8nm,0.6s						
SONM	Songino Array	56.90	35	P	P	16 26 25.0	-0.5
SONM				IAmb	IAmb	16 26 32.3	
	comp=Z,5.8nm,1.2s						
HHC	Hu-ho-hao-te	57.06	45	eP	P	16 26 28.3	+1.6
HHC				pmax	pmax		
	comp=Z,20nm,0.6s						
HHC				L	L		
	comp=Z,140nm,14.7s						
HHC				L	L		
	comp=Z,230nm,14.0s						
HHC				L	L		
	comp=Z,210nm,16.3s						
TORD	Torodi Ar. Bea	58.02	281	P	P	16 26 34.8	+1.0
	comp=Z,2.9nm,1.2s,baz=80,slow=7.1,SNR=8.3						
	comp=Z,2.9nm,1.2s						
NJ2	Nanjing	60.10	57	eP	P	16 26 47.8	-0.1
NJ2				pmax	pmax		
	comp=Z,6.0nm,0.5s						
ACRG	Accra	60.13	273	P	P	16 26 49.2	+0.7
SENIN	Lac Senin/Sane	60.37	321	P	P	16 26 49.3	-0.6
SENIN				IAmb	IAmb	16 27 07.3	
	comp=Z,3.2nm,0.8s						
FINES	FINESS Array B	60.52	342	P	P	16 26 49.7	-0.5
	comp=Z,2.6nm,0.9s,baz=203,slow=9.1,SNR=1.3						
	comp=Z,2.6nm,0.9s						
DBIC	Dimbokro	64.67	274	LR	LR	16 56 41.2	
	comp=Z,145nm,18.3s,baz=106,slow=37						
NRIK	Noril'sk	65.35	10	LR	LR	16 57 29.7	
	comp=Z,146nm,21.8s,baz=209,slow=38						
SOEI	Soe	65.73	104	P	P	16 27 26.5	+0.6
ESDC	Sonseca Array	66.19	311	P	P	16 27 27.6	-0.7
	comp=Z,0.8nm,0.8s,baz=90,slow=5.7,SNR=5.3						
	comp=Z,0.8nm,0.8s						
ARCES	ARCESS Array B	66.99	347	LR	LR	17 00 29.8	
	comp=Z,58nm,18.1s,baz=134,slow=39						
KSRS	Korea Array	68.41	52	P	P	16 27 41.1	-1.2
	comp=Z,0.9nm,0.9s,baz=264,slow=9.0,SNR=4.8						
	comp=Z,0.9nm,0.9s						
KLR	Kul'dur	73.10	41	LR	LR	17 01 26.9	
	comp=Z,326nm,19.1s,baz=230,slow=37						
MAW	Mawson	73.85	179	LR	LR	16 54 08.4	
	comp=Z,69nm,20.1s,baz=222,slow=30						
SPITS	Spitsbergen Ar	75.16	351	LR	LR	17 06 24.0	
	comp=Z,62nm,18.4s,baz=131,slow=40						
TIXI	Tiksi	77.29	18	LR	LR	17 03 25.9	
	comp=Z,85nm,20.2s,baz=260,slow=36						
TIXI	Tiksi	77.29	18	P	P	16 28 34.8	+0.4
TIXI				IAmb	IAmb	16 28 39.7	
	comp=Z,9.5nm,1.4s						
WRA	Warramunga Arr	77.34	112	P	P	16 28 35.1	-0.6
	comp=Z,4.9nm,1.1s,baz=286,slow=4.4,SNR=15						
	comp=Z,4.9nm,1.1s						
WRA	Warramunga Arr	77.34	112	P	P	16 28 35.5	-0.2
WRAB	Tennant Creek	77.35	112	P	P	16 28 35.4	-0.4
WRAB				IAmb	IAmb	16 28 36.5	
	comp=Z,11nm,1.1s						
WB0	Warramunga Arr	77.35	112	P	P	16 28 34.8	-1.0
WB0				IAmb	IAmb	16 28 37.0	
	comp=Z,8.2nm,1.2s						
ASAR	Alice Springs	77.72	116	P	P	16 28 37.5	-0.4
	comp=Z,4.5nm,0.9s,baz=285,slow=5.4,SNR=36						
	comp=Z,4.5nm,0.9s						
AS31	Alice Springs	77.72	116	P	P	16 28 37.3	-0.6
SCO	Scoresbysund	81.40	340	P	P	16 28 57.6	+0.8
STKA	Stephens Creek	86.02	123	P	P	16 29 21.5	+0.2
	comp=Z,2.2nm,0.9s,baz=149,slow=8.3,SNR=3.4						
	comp=Z,2.2nm,0.9s						
TROLL	Troll, Antarti	86.59	195	⇑P	P	16 29 26.7	+3.3
	comp=Z,95nm,0.8s						
SNAA	Sanae	87.88	196	LR	LR	17 01 43.6	
	comp=Z,67nm,20.0s,baz=253,slow=31						
PETK	Petropavlovsk-	89.37	37	LR	LR	17 11 44.2	
	comp=Z,120nm,19.6s,baz=225,slow=37						
VNA3	Neumayer Olymp	89.69	198	P	P	16 29 40.4	+2.3
RES	Resolute Bay	97.64	354	LR	LR	17 19 11.4	
	comp=Z,33nm,20.3s,baz=23,slow=38						
PDAR	Pinedale Array	130.19	350	PKP	PKPdf	16 35 51.2	0.0
	comp=Z,0.1nm,0.4s,baz=348,slow=7.1,SNR=1.9						
PDAR	Pinedale Array	130.19	350		PKPdf	16 35 50.6	-0.7
TXAR	Lajitas Array	141.26	337	PKP	PKPdf	16 36 13.1	+1.1
	comp=Z,0.4nm,0.9s,baz=37,slow=5.2,SNR=2.7						

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*IDC **13** 16:24:18.8±1.0,32°.30N×105°.79E,h0^{km},mb3.6/6,mbtmp3.6/8,ML4.2/1,Error ellipse: s-maj=47.3km s-min=13.8km az=64.0*

*NEIC **13** 16:24:22.0±0.9,32°.09N±0°.09×105°.3E±0°.1,h16^{km}±5^{km},mb4.5/18,Error ellipse: s-maj=15.7km s-min=9.5km az=50.0*

ISC 13 16:24:20.9±0.5,**32°.00N**±0°.04×**105°.31E**±0°.05,**h10**^{km},**n35**, σ**1^s.53**/44,**mb4.2**/15,**Sichuan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CD2	Chengdu	1.72	231	Pg	Pn	16 24 51.9	+1.0
CD2				Sg	Sn	16 25 14.6	+1.7
CD2				smax	smax		
	comp=N,930nm,0.7s						
CD2				smax	smax		
	comp=E,660nm,0.8s						
XAN	Xi'an	3.65	55	Pg	Pb	16 25 27.8	+2.3
XAN				Sg	Sb	16 26 13.8	+4.0
XAN				smax	smax		
	comp=N,190nm,0.7s						
XAN				smax	smax		
	comp=E,270nm,0.7s						
ENH	Enshi	3.97	115	Pn	Pn	16 25 22.4	+0.4
LZDM	Lanzhou Array	4.17	342	Pn	Pn	16 25 24.2	-0.5
	baz=166,slow=13						
LZDM				Sn	Sn	16 26 12.6	-1.1
	baz=163,slow=15						
LZDM				Lg	Lg	16 26 29.5	
	baz=162,slow=25						
	comp=E,7.8nm,0.3s						
LZH	Lanzhou	4.25	344	Pn	Pn	16 25 26.8	+1.0
LZH				Pg	Pb	16 25 37.8	+2.0
LZH				Sn	Sn	16 26 16.5	+0.9
LZH				Sg	Sb	16 26 31.0	+3.7
LZH				smax	smax		
	comp=N,180nm,0.7s						
LZH				smax	smax		
	comp=E,310nm,0.8s						
LZH				LR	LR		
	comp=N,410nm,4.0s						
LZH				LR	LR		
	comp=E,540nm,4.0s						
LZH				LR	LR		
	comp=Z,170nm,5.2s						
CMAR	Chiang Mai Arr	14.66	205	Pn	P	16 27 55.4	+0.6
	comp=Z,0.3nm,0.5s,baz=18,slow=11,SNR=4.1						
CMAR	Chiang Mai Arr	14.66	205	P	P	16 27 55.2	+0.5
SSLB	Suanglung	16.06	117	Pn	Pn	16 28 06.7	-0.1
SSLB				IAmb	IAmb	16 28 50.0	
	comp=Z,38nm,1.5s						
EVN	Everest	16.52	261	Pn	Pn	16 28 12.0	-1.4
TLY	Talaya	19.70	357	P	P	16 28 48.6	-1.7
MKAR	Makanchi Array	23.01	317	P	P	16 29 25.2	-0.6
	comp=Z,0.7nm,0.6s,baz=115,slow=11,SNR=7.9						
	comp=Z,0.7nm,0.6s						
MKAR	Makanchi Array	23.01	317	P	P	16 29 25.0	-0.9
ZALV	Zalesovo Beam	26.38	332	P	P	16 29 56.4	-0.8
	comp=Z,0.4nm,0.4s,baz=165,slow=7.3,SNR=1.5						
	comp=Z,0.4nm,0.4s						
KURBB	Kurchatov Arra	27.16	321	P	P	16 30 03.1	-1.2
	comp=Z,0.3nm,0.5s,baz=128,slow=8.4,SNR=2.5						
	comp=Z,0.3nm,0.5s						
KURK	Kurchatov	27.17	321	P	P	16 30 02.7	-1.6
MJB9	Matsu-Tunnel	27.48	71	P	P	16 30 03.8	-3.5
MJB9				IAmb	IAmb	16 30 09.9	
	comp=Z,17nm,1.4s						
MAJO	Matsushiro	27.48	71	P	P	16 30 03.7	-3.6
MAJO				IAmb	IAmb	16 30 26.0	
	comp=Z,4.8nm,0.9s						
HYB	Hyderabad	28.21	245	eP	P	16 30 14.2	+0.1
HYB				epP	pP	16 30 19.3	+2.0
HYB				ePP	PP	16 31 17.8	0.0
HYB				eS	S	16 35 00.6	+0.6
BORK	Borovoye	32.79	320	P	P	16 30 53.0	-1.1
BORK				IAmb	IAmb	16 31 12.8	
	comp=Z,2.1nm,0.8s						
PALK	Pallekele	33.63	228	P	P	16 31 02.1	+0.2
GUMO	Guam	40.53	108	P	P	16 31 59.9	-0.5
FINES	FINESS Array B	57.40	326	P	P	16 34 07.2	-2.0
	comp=Z,1.2nm,0.8s,baz=79,slow=10,SNR=3.3						
	comp=Z,1.2nm,0.8s						
FINES	FINESS Array B	57.40	326	P	P	16 34 08.3	-0.9
WB0	Warramunga Arr	58.53	148	P	P	16 34 17.8	+0.2
WB0				IAmb	IAmb	16 34 47.7	
	comp=Z,5.2nm,1.2s						
WRAB	Tennant Creek	58.66	148	P	P	16 34 18.1	-0.4
WRAB				IAmb	IAmb	16 34 57.2	
	comp=Z,9.3nm,1.4s						
WRA	Warramunga Arr	58.66	148	P	P	16 34 17.9	-0.7
	comp=Z,1.0nm,0.7s,baz=342,slow=7.5,SNR=18						
	comp=Z,1.0nm,0.7s						
WRA	Warramunga Arr	58.66	148	P	P	16 34 18.8	+0.2
WR8	Warramunga Arr	58.75	148	P	P	16 34 19.6	+0.5
WR8				IAmb	IAmb	16 34 22.5	
	comp=Z,6.8nm,1.2s						
ASAR	Alice Springs	61.74	150	P	P	16 34 40.2	+0.6
	comp=Z,0.6nm,0.7s,baz=331,slow=6.5,SNR=11						
	comp=Z,0.6nm,0.7s						
D20K	Etivluk River	63.42	24	P	P	16 34 49.9	-0.4
D20K				IAmb	IAmb	16 35 23.9	
	comp=Z,12nm,1.4s						
NC602	NORSAR Array S	64.41	327	P	P	16 34 56.1	-0.8
J20K	Nowinta River	66.04	28	P	P	16 35 07.3	-0.2
J20K				IAmb	IAmb	16 35 31.4	
	comp=Z,6.2nm,1.4s						
BMAR	Burnt Mountain	68.05	23	P	P	16 35 19.9	-0.3
H27K	Steamboat Moun	69.71	23	P	P	16 35 30.2	-0.4
H27K				IAmb	IAmb	16 35 57.7	
	comp=Z,2.8nm,1.2s						
G31M	Satah River	71.63	21	P	P	16 35 41.3	-0.9

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*MAN **13** 16:50:18.0,3°.45N×127°.03E,h5^{km},MS4.8*

*BJI **13** 16:50:25.2,3°.65N×126°.72E,h30^{km},mB5.0/12,mb4.6/41,Ms4.5/29,Ms7 4.3/29*

*GFZ **13** 16:50:27.4±0.2,4°N±3°×12°7E±°,h10^{km},M4.9/28,mb4.7/28,Error ellipse: s-maj=10.4km s-min=4.7km az=66.8,confirmed*

*NEIC **13** 16:50:27.0±1.7,4°.22N±0°.06×126°.99E±0°.06,h10^{km}±1^{km},mb4.9/99,Error ellipse: s-maj=10.2km s-min=9.4km az=100.0*

*DJA **13** 16:50:31.4±0.3,4°N±3°×12°7E±°,h10^{km},M4.6/28,mB5.1/13,mb4.7/28,MLv4.8/18,Mw(mB)4.5/13,MwMwp4.6/3,Mwp5.0/3*

*GCMT **13** 16:50:31.0±0.3,4°.25N±0°.03×126°.87E±0°.02,h24^{km},MW4.9/79,Moment Tensor Solution. s39,c50; s79,c105; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}2.66±.19; $M_{\theta\theta}$-0.32±.10; $M_{\phi\phi}$-2.35±.12; $M_{r\theta}$0.58±.18; $M_{\theta\phi}$-0.69±.08; $M_{\phi r}$0.27±.13; Best double couple: $M_0$2.68600×10^{16} NP1:ϕ_s188.00000°,δ41.00000°,λ76.00000°. NP2: ϕ_s27.00000°,δ50.00000°,λ102.00000°. Principal axes: T 2.7730, Plg80.0000°, Azm351.0000°; N -0.1830, Plg9.0000°, Azm199.0000°; P -2.5990, Plg5.0000°, Azm108.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*IDC **13** 16:50:32.3±2.9,4°.10N×126°.80E,h54^{km}±26^{km},mb4.0/24,mbtmp4.2/25,ML4.4/1,MS4.0/23 Error ellipse: s-maj=24.2km s-min=10.3km az=74.0*

ISC 13 16:50:26.8±0.3,**4°.15N**±0°.03×**126°.91E**±0°.05,**h10**^{km},**n232**, σ**1^s.67**/208,**mb4.8**/102,**MS4.2**/35,**1D,Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	Don Marcelino,	2.27	329	eP	Pn	16 51 05.0	+0.5
DDMP				eS	Sg	16 51 40.8	+0.8
DAV	Davao City (W)	3.19	336	P	Pb	16 51 21.4	-2.1
	41nm,0.3s,baz=292,slow=5.9,SNR=8.3						
DAV				S	Sb	16 52 01.1	-1.4
	199nm,0.5s,baz=59,slow=16,SNR=4.9						
	51nm,0.3s						
DAV				AML	AML		
DAV	Davao City (W)	3.19	336	Pn	Pn	16 51 18.4	+1.4
DAV	Davao City (W)	3.19	336	P	Pb	16 51 24.3	+0.7
DAV				AML	AML		
DAV	Davao City (W)	3.19	336	P	Pb	16 51 24.0	+0.4
DAV	Davao City (W)	3.19	336	P	Pn	16 51 20.0	+3.0
DMPH	Davao City--Mi	3.23	335	eP	Pn	16 51 20.5	+2.9
DMPH				i S	Sg	16 52 18.2	+7.7
KCP	Kidapawan	3.36	328	eP	Pb	16 51 24.1	-2.5
KCP				i S	Sg	16 52 16.4	+1.4
TNTI	Ternate	3.39	172		Pn	16 51 21.2	+1.4
TNTI	Ternate	3.39	172	P	Pn	16 51 22.0	+2.2
TNTI				S	Sn	16 52 02.1	+1.9
TNTI	Ternate	3.39	172	P	Pn	16 51 22.9	+3.0
MNI	Manado	3.39	218	P	Pn	16 51 22.4	+2.5
MNI				AML	AML		
CDOP	Cateel, Davao	3.64	353	i P	Pn	16 51 26.1	+2.9
CDOP				i S	Sb	16 52 17.1	+1.6
CTBH	Cotabato--PC H	4.04	319	eP	Pn	16 51 31.8	+3.1
BIPH	Bislig	4.04	352	eP	Pb	16 51 39.8	+1.7
BIPH				eS	Sg	16 52 34.6	-2.1
BUKP	Musuan	4.13	334	eP	Pb	16 51 36.4	-3.4
BUKP				i S	Sb	16 52 31.3	+1.5
CGP	Cagayan de Oro	4.81	333	eP	Pn	16 51 43.8	+4.5
CGP				eS	Sb	16 52 49.8	+0.7
PAGZ	Pagadian	5.08	316	i P	Pn	16 51 46.4	+3.4
GTOI	Gorontalo	5.23	228	P	Pn	16 51 47.2	+2.0
	74nm,1.0s						
ZCP	Zamboanga City	5.54	300	eP	Pn	16 51 50.4	+1.0
ZCP				eS	Sn	16 52 53.2	-0.1
DCPH	Dipolog City	5.64	321	eP	Pn	16 51 55.0	+4.2
DCPH				i S	Sg	16 53 28.8	+0.6
GLSP	General Luna,	5.65	352	eP	Pb	16 51 57.9	-7.7
GLSP				eS	Sb	16 53 15.7	+2.3

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LSIP  Lazi, Siquijor     5.92 327 i P     Pn     16 52 02.2 +7.6
SANI  Sanana             6.23 188   P     Pn     16 52 00.3 +1.4
      0.2nm1µm48nm,0.7s
SANI                                AML   AML
LUWI  Luwuk              6.61 219         Pn     16 52 06.0 +1.8
LUWI  Luwuk              6.61 219   P     Pn     16 52 08.1 +4.0
      169nm,0.8s
SWI   Sorong             6.61 139   P     Pn     16 52 06.9 +2.7
      0.2nm3µm58nm,0.8s
SWI                                 AML   AML
SWI   Sorong             6.61 139   P     Pn     16 52 06.7 +2.5
      comp=Z,54nm,0.9s
TOLI2 Tolitoli           6.82 244         Pn     16 52 07.6 +0.6
TOLI2 Tolitoli           6.82 244   P     Pn     16 52 07.7 +0.6
      comp=Z,51nm,0.8s
APSI  Ampana             7.27 226   P     Pn     16 52 17.3 +4.1
NLAI  Namlea             7.34 178   P     Pn     16 52 15.7 +1.5
      comp=Z,0.6nmcomp=Z,69nm,0.9s
NLAI                                AML   AML
NLAI  Namlea             7.34 178   P     Pn     16 52 16.6 +2.3
      comp=Z,39nm,0.8s
MWPI  Manokwari, Pap     8.74 125   P     Pn     16 52 36.4 +3.1
      comp=Z,45nm,0.9s
FAKI  Fak Fak            8.82 143   P     Pn     16 52 37.4 +2.8
      comp=Z,44nm,1.3s
BNDI  Bandanaira         9.12 161   P     Pn     16 52 40.9 +2.2
KDI   Kendari            9.12 208   P     Pn     16 52 41.7 +3.0
      comp=Z,35nm,0.9s
MMSI  Mamuju            10.49 230   P     Pn     16 53 00.9 +3.5
      comp=Z,32nm,1.3s
BBSI  Bau Bau           10.51 204   P     Pn     16 53 00.5 +2.8
      comp=Z,32nm,1.0s
BAKI  Biak              10.62 120   P     Pn     16 53 02.7 +3.5
      comp=Z,1µmcomp=Z,51nm,1.8s
GQP   Guinayangan       10.64 336 i P     Pn     16 53 08.9 +9.4
KKM   Kota Kinabalu     10.81 280   P     Pn     16 53 07.2 +5.3
LQP   Lukban            11.22 332 eP      Pn     16 53 16.2 +8.5
SOEI  Soe               14.06 191   Pn    Pn     16 53 47.9 +1.4
MTN   Manton Dam        17.40 166         Pn     16 54 27.3 -2.6
JAGI  Jajag, Banyuwa    17.86 225         P      16 54 37.6 +1.3
TWG   Pinlang           19.40 344   P     P      16 54 52.0 -1.2
KNRA  Kununurra         19.79 175         P      16 54 57.1 -0.4
DLV    Lat              19.80 294   P     P      16 54 58.6 +0.7
DLV    Lat              19.80 294   P     P      16 54 58.6 +0.7
      comp=Z,23nm,1.1s
YULB  Yu-li             19.88 345   P     P      16 54 57.2 -1.2
YULB  Yu-li             19.88 345   P     Pn     16 54 59.2 -0.8
      comp=Z,19nm,2.3s
TPUB  Ta-pu             19.98 343   P     P      16 54 58.7 -0.8
TPUB                                IAmb  IAmb   16 55 01.1
      comp=Z,79nm,1.2s
TPUB  Ta-pu             19.98 343   P     P      16 54 58.4 -1.1
      comp=Z,56nm,1.4s
UGM   Wanagama          20.27 234   P     P      16 55 04.6 +1.8
SSLB  Suanglung         20.35 344   P     P      16 55 03.5 -0.1
YOJ   Yonaguni jima     20.54 350   P     P      16 55 04.8 -0.8
YOJ                                 IAmb  IAmb   16 55 11.2
      comp=Z,97nm,1.4s
HKPS  Hong Kong Po S    21.86 327   P     P      16 55 19.9 +0.1
HKPS                                IAmb  IAmb   16 55 39.8
      comp=Z,59nm,1.4s
FITZ  Fitzroy Crossi    22.14 183   P     P      16 55 22.2 -0.7
      comp=Z,4.3nm,0.5s,baz=14,slow=8.2,SNR=18
      comp=Z,4.3nm,0.5s
FITZ  Fitzroy Crossi    22.14 183   P     P      16 55 22.0 -0.9
FITZ  Fitzroy Crossi    22.14 183   P     P      16 55 22.4 -0.6
      comp=Z,3.2nm,1.3s
QZH2  Quanzhou          22.16 340   P     P      16 55 23.6 +0.5
QZH2                                S     S      16 59 24.8 -2.6
QZH2                                L     L
      comp=Z,310nm,13.1s
QZH2                                L     L
      comp=Z,610nm,16.5s
QZH2                                L     L
      comp=Z,590nm,16.1s
QIZ   Qiongzhong        22.28 313   P     P      16 55 24.8 +0.4
QIZ                                 pmax  pmax
      comp=Z,120nm,6.9s
QIZ                                 L     L
      comp=Z,220nm,14.4s
QIZ                                 L     L
      comp=Z,390nm,13.1s
QIZ                                 L     L
      comp=Z,380nm,17.2s
JOW   Kunigami          22.59   3   P     P      16 55 26.9 -0.8
PMG   Port Moresby      24.27 124   P     P      16 55 43.5 -1.0
PMG                                 IAmb  IAmb   16 55 50.3
      comp=Z,24nm,1.1s
WB0   Warramunga Arr    24.88 163   P     P      16 55 49.2 -0.8
WB0                                 IAmb  IAmb   16 56 06.3
      comp=Z,50nm,1.1s
WRAB  Tennant Creek     25.03 163   P     P      16 55 50.7 -0.6
WRAB                                IAmb  IAmb   16 56 07.9
      comp=Z,37nm,1.1s
WRAB  Tennant Creek     25.03 163   P     P      16 55 51.6 +0.3
      comp=Z,22nm,0.6s
WRA   Warramunga Arr    25.03 163   P     P      16 55 50.7 -0.7
      comp=Z,5.1nm,0.4s,baz=346,slow=10,SNR=57
      comp=Z,5.1nm,0.4s
WR8   Warramunga Arr    25.09 163   P     P      16 55 51.2 -0.7
WR8                                 IAmb  IAmb   16 56 24.4
      comp=Z,55nm,1.4s
MBWA  Marble Bar        26.12 195   P     P      16 56 01.6 +0.4
MBWA                                IAmb  IAmb   16 56 11.9
      comp=Z,61nm,1.9s
MBWA  Marble Bar        26.12 195   P     P      16 56 01.9 +0.8
      comp=Z,15nm,1.9s
KRVT  Keravat (AS076    26.47 108   LR    LR     17 04 58.1
      comp=Z,359nm,18.2s,baz=298,slow=33
QIS   Mount Isa         27.54 154   P     P      16 56 16.2 +2.2
      comp=Z,12nm,1.0s
AS31  Alice Springs     28.48 166         P      16 56 21.9 -0.6
ASAR  Alice Springs     28.48 166   P     P      16 56 22.1 -0.3
      comp=Z,1.7nm,0.5s,baz=348,slow=7.7,SNR=23
ASAR                                PcP   PcP    16 59 34.8 +0.4
      comp=Z,0.5nm,0.7s,baz=344,slow=2.4,SNR=2.4
      comp=Z,1.7nm,0.5s
NJ2   Nanjing           28.76 346 eP      P      16 56 28.3 +3.5
NJ2                                 pmax  pmax
      comp=Z,11nm,0.5s
NJ2                                 L     L
      comp=Z,260nm,12.2s
NJ2                                 L     L
      comp=Z,330nm,17.8s
NJ2                                 L     L
      comp=Z,290nm,19.7s
JNU   Nakatsue          29.06   7   LR    LR     17 07 54.9
      comp=Z,148nm,21.7s,baz=191,slow=36
GSI   Gunungsitoli      29.43 265   P     P      16 56 31.6 +0.6
GSI                                 IAmb  IAmb   16 56 32.3
      comp=Z,28nm,1.0s
ENH   Enshi             30.75 330   P     P      16 56 41.9 -0.7
      comp=Z,13nm,1.4s
CMAR  Chiang Mai Arr    30.81 300   P     P      16 56 42.9 -0.3
      comp=Z,1.4nm,0.8s,baz=119,slow=7.5,SNR=11
CMAR                                PcP   PcP    16 59 40.2 -0.3
      comp=Z,1.2nm,1.1s,baz=150,slow=1.9,SNR=4.4
      comp=Z,1.4nm,0.8s
CMAR  Chiang Mai Arr    30.81 300   P     P      16 56 42.7 -0.5
CHTO  Chiang Mai        30.96 300         P      16 56 44.4  0.0
CHTO  Chiang Mai        30.96 300   P     P      16 56 44.1 -0.4
      comp=Z,5.3nm,0.9s
KMI2  Kunming           31.22 314   P     P      16 56 45.6 -1.3
KMI2                                pP    sP     16 56 57.5 +6.3
KMI2                                pmax  pmax
      comp=Z,10.0nm,1.2s
KMI2                                L     L
      comp=Z,220nm,19.2s
KMI2                                L     L
      comp=Z,370nm,23.8s
KMI2                                L     L
      comp=Z,400nm,20.9s
PZH   PanZhiHua         32.77 315   P     P      16 57 02.6 +2.2
TIA   Tai'an            33.15 345   P     P      16 57 04.9 +1.4
TIA                                 pmax  pmax
      comp=Z,9.0nm,0.9s
KSRS  Korea Array       33.16   1   P     P      16 57 04.1 +0.7
      comp=Z,1.0nm,0.6s,baz=65,slow=33,SNR=4.2
      comp=Z,1.0nm,0.6s
NPW   Naypyitaw         33.77 300   P     P      16 57 08.9 -0.2
      comp=Z,11nm,0.9s
MJAR  Matsushiro Arr    33.87  16   P     P      16 57 10.6 +0.8
      comp=Z,0.8nm,0.7s,baz=191,slow=8.1,SNR=2.9
      comp=Z,0.8nm,0.7s
XAN   Xi'an             34.12 333   P     P      16 57 14.5 +2.5
XAN                                 pmax  pmax
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      comp=Z,22nm,0.9s
XAN                                 L     L
      comp=Z,530nm,17.5s
XAN                                 L     L
      comp=Z,530nm,17.7s
XAN                                 L     L
      comp=Z,750nm,15.1s
INKA  Innaminka         34.40 158   P     P      16 57 14.6 +0.2
INKA                                IAmb  IAmb   16 57 24.5
      comp=Z,23nm,2.0s
CD2   Chengdu           34.41 323   P     P      16 57 14.3 -0.3
CD2                                 pmax  pmax
      comp=Z,20nm,0.9s
CD2                                 L     L
      comp=Z,550nm,15.9s
CD2                                 L     L
      comp=Z,610nm,16.5s
CD2                                 L     L
      comp=Z,610nm,16.5s
MORW  Morawa            34.64 197   P     P      16 57 17.6 +1.1
FORT  Forrest           34.75 178   P     P      16 57 17.5  0.0
HNS   HongShan          34.93 343 ⇓P      P      16 57 19.0 +0.1
HNS                               eS      S      17 02 49.5 -0.9
HNS                                 L     L
      comp=Z,340nm,20.7s
HNS                                 L     L
      comp=Z,470nm,19.4s
BJI2  Beijing           37.00 346   P     P      16 57 37.5 +0.9
BJI2                                pP    sP     16 57 46.3 +5.4
BJI2                                pmax  pmax
      comp=Z,20nm,1.3s
BJI2                                pmax  pmax
      comp=Z,87nm,4.3s
BJT   Baijiatuau        37.00 346   P     P      16 57 37.7 +1.0
      comp=Z,38nm,1.3s
EIDS  Eidsvold          37.58 143   P     P      16 57 41.4 -0.3
EIDS                                IAmb  IAmb   16 58 11.1
      comp=Z,59nm,1.9s
SNY   Shenyang          37.63 356   P     P      16 57 51.1 +9.2
SNY                                 pmax  pmax
      comp=Z,12nm,0.6s
BBOO  Buckleboo         37.77 167   P     P      16 57 43.1 -0.2
NWAO  Narrogin (SRO)    38.00 193   P     P      16 57 45.9 +0.8
NWAO                                IAmb  IAmb   16 58 55.5
      comp=Z,46nm,1.4s
LZDM  Lanzhou Array     38.21 329   P     P      16 57 47.1 -0.2
      comp=Z,1.2nm,0.3s,baz=98,slow=8.0,SNR=1.2
LZDM                                LR    LR     17 14 41.5
      comp=Z,376nm,19.9s,baz=245,slow=38
      comp=Z,1.2nm,0.3s
LZH   Lanzhou           38.23 329 eP      P      16 57 46.8 -0.5
LZH                                 sP    sP     16 57 59.5 +7.9
LZH                                 pmax  pmax
      comp=Z,19nm,1.1s
LZH                                 pmax  pmax
      comp=Z,140nm,4.6s
LZH                                 L     L
      comp=Z,260nm,17.9s
LZH                                 L     L
      comp=Z,460nm,16.7s
LZH                                 L     L
      comp=Z,580nm,18.9s
STKA  Stephens Creek    38.46 160   P     P      16 57 49.1 +0.1
      comp=Z,4.1nm,0.5s,baz=333,slow=8.9,SNR=10
      comp=Z,4.1nm,0.5s
STKA  Stephens Creek    38.46 160   P     P      16 57 50.1 +1.1
      comp=Z,82nm,1.0s
HHC   Hu-ho-hao-te      39.05 341 eP      P      16 57 56.5 +2.4
HHC                                 pmax  pmax
      comp=Z,10.0nm,0.7s
HHC                                 pmax  pmax
      comp=Z,140nm,4.3s
HHC                                 L     L
      comp=Z,210nm,15.9s
HHC                                 L     L
      comp=Z,180nm,15.7s
HHC                                 L     L
      comp=Z,250nm,16.1s
XLT   XiLinHaoTe        40.72 348 eP      P      16 58 08.5 +0.6
XLT                                 pmax  pmax
      comp=Z,22nm,1.6s
XLT                                 pmax  pmax
      comp=Z,97nm,4.9s
ARMA  Armidale          41.72 147   P     P      16 58 16.9 +0.5
ARMA                                IAmb  IAmb   16 58 25.1
      comp=Z,21nm,1.2s
ARMA  Armidale          41.72 147   P     P      16 58 17.5 +1.2
      comp=Z,13nm,0.7s
ASAJ  Asahikawa         42.14  17   LR    LR     17 16 25.7
      comp=Z,134nm,20.2s,baz=230,slow=37
LSA   Lhasa             42.30 311   P     P      16 58 21.4 -0.1
      comp=Z,6.2nm,1.2s
GTA2  Gaotai            42.91 329 eP      P      16 58 25.4 -0.6
GTA2                                pmax  pmax
      comp=Z,4.0nm,0.9s
GTA2                                L     L
      comp=Z,440nm,16.8s
GTA2                                L     L
      comp=Z,350nm,17.5s
GTA2                                L     L
      comp=Z,650nm,18.1s
GOMU  GeErMu            43.47 321   P     P      16 58 30.4 -0.4
GOMU                                S     S      17 04 50.1  -10
GOMU                                pmax  pmax
      comp=Z,6.0nm,0.5s
GOMU                                L     L
      comp=Z,260nm,12.9s
GOMU                                L     L
      comp=Z,150nm,12.5s
GOMU                                L     L
      comp=Z,260nm,12.3s
EVN   Everest           44.88 306   P     P      16 58 41.5 -1.1
EVN                                 IAmb  IAmb   16 58 54.1
      comp=Z,9.6nm,0.7s
EVN   Everest           44.88 306   P     P      16 58 40.0 -2.6
      comp=Z,16nm,0.8s
HILR  Hailar Array B    45.65 353   P     P      16 58 48.5 +0.9
      comp=Z,2.3nm,0.5s,baz=165,slow=12,SNR=2.0
      comp=Z,2.3nm,0.5s
HEH   HeiHe             45.94   0 eP      P      16 58 57.4 +7.6
HEH                                 pmax  pmax
      comp=Z,7.0nm,1.0s
PALK  Pallekele         46.06 276   P     P      16 58 50.7 -0.7
      comp=Z,3.3nm,0.7s,baz=152,slow=23,SNR=1.1
      comp=Z,3.3nm,0.7s
ULN   Ulaanbaatar       46.77 342   P     P      16 58 56.2 -0.5
ULN                                 IAmb  IAmb   16 59 14.8
      comp=Z,8.7nm,1.1s
ULN   Ulaanbaatar       46.77 342   P     P      16 58 57.3 +0.7
      comp=Z,7.3nm,0.9s
SONM  Songino Array     46.96 341   P     P      16 58 58.8 +0.7
      comp=Z,1.3nm,0.7s,baz=160,slow=6.3,SNR=12
SONM                                PcP   PcP    17 00 31.0 +0.6
      comp=Z,0.2nm,0.4s,baz=145,slow=3.5,SNR=2.7
SONM                                LR    LR     17 20 02.8
      comp=Z,254nm,20.5s,baz=160,slow=38
      comp=Z,1.3nm,0.7s
SONM  Songino Array     46.96 341   P     P      16 58 58.0 -0.1
SONM                                IAmb  IAmb   16 59 11.9
      comp=Z,11nm,1.5s
WMQ   Urumqi            52.48 325 eP      P      16 59 41.3 +1.2
WMQ                                 L     L
      comp=Z,470nm,15.3s
WMQ                                 L     L
      comp=Z,250nm,19.1s
WMQ                                 L     L
      comp=Z,330nm,21.1s
PETK  Petropavlovsk-    54.97  22   P     P      16 59 58.8 +0.6
      comp=Z,3.0nm,0.9s,baz=187,slow=2.4,SNR=4.1
      comp=Z,3.0nm,0.9s
PETK  Petropavlovsk-    54.97  22   P     P      16 59 58.1 -0.1
WUS   Wushi             56.37 318   P     P      17 00 08.3 -0.3
      comp=Z,5.0nm,1.0s
PDGK  Podgornoye        57.20 320   P     P      17 00 13.7 -0.8
MKAR  Makanchi Array    57.31 325   P     P      17 00 13.8 -1.2
      comp=Z,2.0nm,0.5s,baz=120,slow=7.7,SNR=26
MKAR                                LR    LR     17 25 58.4
      comp=Z,369nm,19.7s,baz=102,slow=37
      comp=Z,2.0nm,0.5s
MAKZ  Makanchi          57.50 325   P     P      17 00 15.0 -1.4
MAKZ  Makanchi          57.50 325   P     P      17 00 15.2 -1.1
      comp=Z,9.1nm,1.0s
TARG  Taragay, Kyrgy    57.55 318   P     P      17 00 17.5 +0.2
YAK   Yakutsk           57.78   2   P     P      17 00 17.9 -0.1
YAK   Yakutsk           57.78   2   P     P      17 00 18.2 +0.2
      comp=Z,32nm,0.9s
KSH2  Kashi             58.01 314   P     P      17 00 19.6 -0.7
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KSH2                                pmax  pmax
      comp=Z,5.0nm,1.6s
ASAI  AK-SAY(Kyrgyzs    58.07 317   P     P      17 00 20.8 -0.1
      comp=Z,4.0nm,1.3s
KDJ   Kajisay           58.15 318   P     P      17 00 20.1 -1.1
KDJ                                 IAmb  IAmb   17 00 31.4
      comp=Z,8.5nm,1.1s
MA2   Magadan           58.25  14   LR    LR     17 25 53.6
      comp=Z,49nm,20.4s,baz=219,slow=36
AAK   Ala-Archa         60.16 318   LR    LR     17 28 36.2
      comp=Z,280nm,21.6s,baz=107,slow=38
AAK   Ala-Archa         60.16 318   P     P      17 00 34.8 -0.3
AAK                                 IAmb  IAmb   17 00 39.1
      comp=Z,12nm,1.6s
AAK   Ala-Archa         60.16 318   P     P      17 00 35.0 -0.1
      comp=Z,5.3nm,1.6s
ZAA0  Zalesovo Array    60.29 333   P     P      17 00 34.1 -1.5
ZAA0                                IAmb  IAmb   17 00 46.3
      comp=Z,10nm,1.4s
ZALV  Zalesovo Beam     60.29 333   P     P      17 00 33.8 -1.7
      comp=Z,3.1nm,0.8s,baz=103,slow=6.4,SNR=8.4
ZALV                                LR    LR     17 28 19.4
      comp=Z,162nm,18.2s,baz=137,slow=38
      comp=Z,3.1nm,0.8s
ZALV  Zalesovo Beam     60.29 333   P     P      17 00 34.0 -1.5
ARSB  Arslanbob         60.68 316   P     P      17 00 38.1 -0.5
ARSB                                IAmb  IAmb   17 00 46.8
      comp=Z,6.7nm,0.8s
KURBB Kurchatov Arra    61.48 327   P     P      17 00 42.7 -1.0
      comp=Z,3.7nm,0.7s,baz=126,slow=5.9,SNR=35
KURBB                               LR    LR     17 28 07.6
      comp=Z,115nm,18.1s,baz=184,slow=37
      comp=Z,3.7nm,0.7s
KURK  Kurchatov         61.48 327   P     P      17 00 42.5 -1.2
KURK                                IAmb  IAmb   17 00 51.9
      comp=Z,8.6nm,0.9s
KURK  Kurchatov         61.48 327   P     P      17 00 42.6 -1.1
      comp=Z,11nm,1.0s
ARK   Arkit             61.57 316   P     P      17 00 44.4 -0.2
      comp=Z,7.9nm,1.4s
BTK   Batken            61.76 314   P     P      17 00 45.2 -0.7
BTK                                 IAmb  IAmb   17 00 50.1
      comp=Z,6.2nm,0.9s
BTK   Batken            61.76 314   P     P      17 00 44.9 -1.0
      comp=Z,7.9nm,1.3s
KK31  Karatay Array     63.05 317   P     P      17 00 53.2 -1.2
KK31                                IAmb  IAmb   17 00 54.2
      comp=Z,12nm,1.4s
KKAR  Karatay Array     63.05 317   P     P      17 00 53.1 -1.3
BVAR  Borovoye Array    67.06 327   P     P      17 01 19.6 -0.7
      comp=Z,9.2nm,0.9s,baz=122,slow=7.2,SNR=22
      comp=Z,9.2nm,0.9s
BORK  Borovoye          67.11 327   P     P      17 01 19.8 -0.8
BORK                                IAmb  IAmb   17 01 23.1
      comp=Z,12nm,0.9s
TIXI  Tiksi             67.42   1   LR    LR     17 32 46.1
      comp=Z,56nm,20.7s,baz=204,slow=38
TIXI  Tiksi             67.42   1   P     P      17 01 21.6 -0.6
NRIK  Noril'sk          70.06 346   P     P      17 01 38.7  0.0
      comp=Z,3.6nm,0.5s,baz=125,slow=5.5,SNR=5.6
NRIK                                LR    LR     17 36 32.2
      comp=Z,119nm,18.2s,baz=158,slow=39
      comp=Z,3.6nm,0.5s
NRIK  Noril'sk          70.06 346   P     P      17 01 38.4 -0.3
NRIK                                IAmb  IAmb   17 02 00.9
      comp=Z,10nm,1.1s
AB31  Akbulak array     71.94 321   P     P      17 01 49.3 -1.2
ABKAR Akbulak array     71.94 321   P     P      17 01 49.3 -1.2
AKTO  Aktyubinsk        73.44 322   LR    LR     17 37 12.6
      comp=Z,245nm,19.3s,baz=240,slow=38
ARTI  Arti              74.76 328   LR    LR     17 36 18.6
      comp=Z,118nm,19.5s,baz=114,slow=37
ARTI  Arti              74.76 328   P     P      17 02 04.9 -2.1
ARTI                                IAmb  IAmb   17 02 14.9
      comp=Z,8.9nm,0.9s
PUH   Pauahi            77.20  71   P     P      17 02 18.6 -3.3
F15K  North Star Dit    77.46  23   P     P      17 02 20.8 -1.5
KIRV  Kirov             79.95 329   LR    LR     17 41 28.7
      comp=Z,149nm,18.3s,baz=108,slow=38
J18K  Innoko River      80.22  26   P     P      17 02 36.1 -1.4
J18K                                IAmb  IAmb   17 03 24.1
      comp=Z,25nm,1.9s
RAYN  Ar Rayn           80.48 293   P     P      17 02 37.9 -1.8
RAYN  Ar Rayn           80.48 293   P     P      17 02 38.4 -1.4
      comp=Z,5.0nm,1.2s
E19K  Redstone River    80.78  22   IAmb  IAmb   17 02 42.4
      comp=Z,15nm,1.1s
J19K  Poorman           80.80  26   IAmb  IAmb   17 02 43.2
      comp=Z,24nm,1.6s
N19K  Bonanza Creek     80.84  29   IAmb  IAmb   17 02 44.5
      comp=Z,21nm,1.6s
F20K  Avaraart Lake     81.27  23   IAmb  IAmb   17 02 45.0
      comp=Z,12nm,1.2s
GNI   Garni             81.35 310   P     P      17 02 44.7 +0.5
      comp=Z,7.6nm,1.0s
J20K  Nowinta River     81.47  26   IAmb  IAmb   17 02 46.3
      comp=Z,14nm,1.3s
IMAR  Indian Mountai    81.89  24   P     P      17 02 46.5 +0.2
E21K  Killik River      82.16  21   P     P      17 02 47.5 -0.2
E21K                                IAmb  IAmb   17 04 11.9
      comp=Z,15nm,1.4s
VOI   Vohitsoka         82.39 247   P     P      17 02 50.2 +0.3
BRLK  Bradley Lake      82.50  30   P     P      17 02 49.2 -0.5
BRLK                                IAmb  IAmb   17 04 59.7
      comp=Z,8.5nm,1.1s
KBZ   Khabaz            82.82 313   LR    LR     17 45 32.0
      comp=Z,64nm,18.1s,baz=94,slow=40
MLY   Manley            83.02  25   IAmb  IAmb   17 02 54.0
      comp=Z,9.8nm,1.0s
RND   Reindeer          83.73  27   P     P      17 02 55.5 -0.4
RND                                 IAmb  IAmb   17 02 56.6
      comp=Z,15nm,1.2s
E23K  Chandalar         83.73  22   IAmb  IAmb   17 02 58.5
      comp=Z,14nm,1.1s
VNDA  Vanda             83.82 173   P     P      17 02 55.4 -0.7
      comp=Z,1.1nm,0.8s,baz=288,slow=6.2,SNR=5.9
      comp=Z,1.1nm,0.8s
VNDA  Vanda             83.82 173   P     P      17 02 57.4 +1.3
WRH   Wood River Hil    84.12  26   IAmb  IAmb   17 02 58.7
      comp=Z,10nm,1.3s
MAW   Mawson            84.21 200   LR    LR     17 38 20.4
      comp=Z,51nm,18.3s,baz=54,slow=34
CCB   Clear Creek Bu    84.25  26   IAmb  IAmb   17 03 00.5
      comp=Z,15nm,1.4s
H24K  Noodor Dome       84.27  24   IAmb  IAmb   17 03 01.6
      comp=Z,10nm,1.2s
G24K  Hadweenzic Riv    84.47  23   IAmb  IAmb   17 03 01.9
      comp=Z,9.2nm,1.0s
ILAR  Eielson Array     84.65  25   P     P      17 02 59.2 -1.3
      comp=Z,0.8nm,0.8s,baz=252,slow=5.5,SNR=8.6
      comp=Z,0.8nm,0.8s
KLU   Klutina           85.02  29   IAmb  IAmb   17 03 04.2
      comp=Z,4.7nm,0.7s
E25K  Arctic Village    85.25  22   IAmb  IAmb   17 03 06.6
      comp=Z,19nm,1.5s
BMAR  Burnt Mountain    85.62  23   P     P      17 03 06.6 +1.2
BMRM  Bremner River     85.66  29   IAmb  IAmb   17 05 54.5
      comp=Z,12nm,0.8s
G26K  Porcupine Rive    85.94  23   IAmb  IAmb   17 03 10.3
      comp=Z,11nm,1.4s
GLB   Gilahina Butte    86.04  29   IAmb  IAmb   17 03 10.0
      comp=Z,16nm,1.4s
VRDI  Verde Repeater    86.22  29   IAmb  IAmb   17 05 51.4
      comp=Z,6.4nm,0.8s
I27K  Kandik River      86.86  25   IAmb  IAmb   17 03 16.4
      comp=Z,22nm,1.8s
M29M  Somme Creek       88.50  28   P     P      17 03 19.4 -0.2
M29M                                IAmb  IAmb   17 06 09.8
      comp=Z,6.8nm,1.5s
G31M  Satah River       89.67  23   P     P      17 03 24.4 -0.3
G31M                                IAmb  IAmb   17 04 14.3
      comp=Z,14nm,1.3s
KMBO  Kilima Mbogo      89.73 269   P     P      17 03 25.7 -0.8
      baz=63,slow=6.8
KMBO                                LR    LR     17 38 58.9
      comp=Z,60nm,21.9s,baz=100,slow=32
BRTR  Keskin Array B    89.89 310   P     P      17 03 26.0 -0.7
      comp=Z,0.4nm,0.4s,baz=114,slow=3.1,SNR=4.0
      comp=Z,0.4nm,0.4s
SPB2  Spitsbergen Ar    90.10 349   P     P      17 03 26.7  0.0
SPITS Spitsbergen Ar    90.10 349   LR    LR     17 49 13.6
      comp=Z,158nm,19.9s,baz=60,slow=39
ARCES ARCESS Array B    90.11 340   P     P      17 03 25.3 -1.6
      comp=Z,1.2nm,0.7s,baz=70,slow=7.9,SNR=6.4
      comp=Z,1.2nm,0.7s
FINES FINESS Array B    91.55 332   P     P      17 03 32.6 -1.0
      comp=Z,4.5nm,0.9s,baz=163,slow=16,SNR=6.2
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FINES				LR	LR	17 46 58.2	
	comp=Z,59nm,18.5s,baz=59,slow=37						
	comp=Z,4.5nm,0.9s						
AKASG	Malin Array Be	91.68	321	P	P	17 03 33.2	-1.3
	comp=Z,1.1nm,0.7s,baz=65,slow=4.5,SNR=5.9						
	comp=Z,1.1nm,0.7s						
AKASG	Malin Array Be	91.68	321	IAmb	IAmb	17 03 37.8	
	comp=Z,2.5nm,0.9s						
AKBB	Malin Array Si	91.68	321	P	P	17 03 33.5	-1.0
AK07	Malin Array Si	91.71	321	P	P	17 03 33.7	-1.0
AK19	Malin Array Si	91.81	321	P	P	17 03 33.9	-1.2
LUBAR	Lubar, Ukraine	92.73	320	P	P	17 03 38.5	-0.9
DLBC	Dease Lake	93.29	31	LR	LR	17 39 51.6	
	comp=Z,56nm,21.5s,baz=232,slow=32						
RNPP9	Sopachiv	93.63	322	P	P	17 03 42.4	-1.1
KMPD	K-Podol'skiy	93.81	319	P	P	17 03 42.6	-1.8
TESR	Tescani	94.05	317	P	P	17 03 44.7	-0.9
	comp=Z,10nm,1.6s						
TESR	Tescani	94.05	317	P	P	17 03 44.7	-0.9
	comp=Z,10nm,1.5s						
QSPA	South Pole Qui	94.06	180	P	P	17 03 44.8	-0.5
	comp=Z,1.3nm,1.1s,baz=208,slow=2.7,SNR=3.7						
	comp=Z,1.3nm,1.1s						
MLR	Muntele Rosu	94.72	316	LR	LR	17 51 33.8	
	comp=Z,134nm,21.6s,baz=12,slow=39						
MLR	Muntele Rosu	94.72	316	P	P	17 03 47.5	-1.3
	comp=Z,6.8nm,1.2s						
BURAR	Bucovina Array	94.80	318	P	P	17 03 48.9	-0.2
BURAR				IAmb	IAmb	17 03 50.9	
	comp=Z,3.6nm,1.1s						
EZN	Ezine	95.46	310	P	P	17 03 50.3	-1.9
ARR	Arges	95.65	316	P	P	17 03 52.2	-0.8
	comp=Z,5.2nm,1.9s						
BBB	Bella Bella	95.86	37	LR	LR	17 50 23.6	
	comp=Z,26nm,18.3s,baz=226,slow=37						
DRGR		96.65	318	P	P	17 03 57.0	-0.6
	comp=Z,4.0nm,1.9s						
NC303	NORSAR Array S	98.34	334	P	P	17 04 03.8	-0.9
VYHS	Vyhne	98.75	320	*e*PDIFF	P	17 04 03.1	-3.8
CLL	Collm	101.40	324	LH		17 40 00.0	
CLL				LV		17 52 00.0	
GERES	GERESS Array B	101.86	322	P	Pdif	17 04 19.8	-1.1
	comp=Z,0.3nm,0.3s,baz=46,slow=2.8,SNR=5.3						
TORD	Torodi Ar. Bea	122.95	288	PKP	PKPdf	17 09 23.3	-1.2
	comp=Z,0.5nm,0.6s,baz=83,slow=0.7,SNR=4.4						

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*IDC **13** 16:57:16.8±3.1, 3°.21S×67°.82E, h0^{km}, mb3.6/6, mbtmp3.6/6, Error ellipse: s-maj=86.1km s-min=38.4km az=165.0*

ISC 13 16:57:18.9±3.2**, 3°.1S**±0°.6×**67°.8E**±0°.3**, h11**^{km}**, n13,** σ1^s**04**/7**, mb3.6**/6**, Carlsberg Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H08S3	Diego Garcia H	6.44	134	T	T	17 04 42.3	
	baz=317						
H08S1	Diego Carcia H	6.45	134	T	T	17 04 37.9	
	baz=317						
H08S2	Diego Garcia H	6.46	134	T	T	17 04 38.4	
	baz=317						
CMAR	Chiang Mai Arr	37.40	54	P	P	17 04 32.6	+0.4
	0.1nm,0.3s,baz=241,slow=11,SNR=6.2						
	0.1nm,0.3s						
H04N2	CROZET ISLANDS	45.09	196	T	T	17 54 05.9	
	baz=18						
H04N1	CROZET ISLANDS	45.10	196	T	T	17 54 13.1	
	baz=18						
H04N3	CROZET ISLANDS	45.11	196	T	T	17 54 13.6	
	baz=18						
MKAR	Makanchi Array	51.32	13	P	P	17 06 22.4	-0.7
	0.5nm,0.8s,baz=197,slow=4.5,SNR=2.0						
	0.5nm,0.8s						
KURBB	Kurchatov Arra	54.32	8	P	P	17 06 46.8	+1.5
	0.4nm,0.8s,baz=202,slow=7.0,SNR=6.0						
	0.4nm,0.8s						
ZALV	Zalesovo Beam	58.61	12	P	P	17 07 16.3	+0.5
	0.4nm,0.5s,baz=208,slow=5.9,SNR=5.4						
	0.4nm,0.5s						
SONM	Songino Array	60.92	29	P	P	17 07 31.0	-1.0
	1.0nm,0.8s,baz=203,slow=6.5,SNR=6.5						
	1.0nm,0.8s						
ESDC	Sonseca Array	78.09	311	P	P	17 09 18.0	-0.2
	1.3nm,1.0s,baz=98,slow=4.3,SNR=6.9						
	1.3nm,1.0s						
TXAR	Lajitas Array	152.71	344	PKPbc	PKiKP	17 17 17.1	+0.2
	0.2nm,0.8s,baz=6.7,slow=3.9,SNR=2.7						

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*IDC **13** 16:59:48.5±1.8, 2°.90S×67°.94E, h0^{km}, mb3.8/8, mbtmp3.8/8, MS3.8/7, Error ellipse: s-maj=49.7km s-min=32.1km az=35.0*

*NEIC **13** 16:59:50.6±2.2, 2°.8S±0°.2×67°.8E±0°.2, h10^{km}±1^{km}, mb4.6/5, Error ellipse: s-maj=34.5km s-min=26.5km az=232.0*

ISC 13 16:59:50.1±1.2**, 2°.9S**±0°.2×**67°.9E**±0°.2**, h11**^{km}**, n30,** σ1^s**12**/17**, mb4.0**/10**, MS3.8**/6**, Carlsberg Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H08S3	Diego Garcia H	6.59	136	T	T	17 07 14.3	
	baz=312						
H08S1	Diego Carcia H	6.60	136	T	T	17 07 10.3	
	baz=312						
H08S2	Diego Garcia H	6.61	136	T	T	17 07 15.9	
	baz=312						
PALK	Pallekele	16.29	52	LR	LR	17 08 31.2	
	comp=Z,279nm,20.6s,baz=224,slow=32						
HYB	Hyderabad	22.74	27	*e*P	P	17 04 51.9	-0.6
HYB				*e*PcP	PcP	17 08 43.9	-0.7
HYB				*e*S	S	17 09 02.7	+1.3
LSZ	Lusaka	40.99	250	LR	LR	17 22 01.6	
	comp=Z,110nm,18.6s,baz=128,slow=32						
H04N2	CROZET ISLANDS	45.35	196	T	T	17 56 42.4	
	baz=18						
H04N1	CROZET ISLANDS	45.36	196	T	T	17 56 35.9	
	baz=18						
H04N3	CROZET ISLANDS	45.37	196	T	T	17 56 34.9	
	baz=18						
LBTB	Lobatse	46.26	238	LR	LR	17 26 48.2	
	comp=Z,114nm,18.2s,baz=70,slow=35						
GOMU	GeErMu	46.29	30	P	P	17 08 17.0	+0.6
GOMU				pP	sP	17 08 20.8	+0.9
GOMU				sP	pwP	17 08 24.1	+0.8
GOMU				pmax	pmax		
	comp=Z,2.0nm,0.5s						
BOSA	Boshof	47.94	233	LR	LR	17 26 22.2	
	comp=Z,61nm,18.7s,baz=70,slow=33						
MKAR	Makanchi Array	51.06	13	P	P	17 08 52.5	0.0
	comp=Z,0.1nm,0.6s,baz=191,slow=6.6,SNR=3.6						
	comp=Z,0.1nm,0.6s						
KBZ	Khabaz	51.53	337	P	P	17 08 55.6	-0.3
	comp=Z,1.7nm,0.8s,baz=163,slow=6.2,SNR=4.0						
	comp=Z,1.7nm,0.8s						
ABKAR	Akbulak array	52.37	353	P	P	17 09 01.2	-0.9
BRTR	Keskin Array B	52.76	327	P	P	17 09 05.0	-0.4
	comp=Z,1.0nm,1.0s,baz=116,slow=9.8,SNR=1.5						
	comp=Z,1.0nm,1.0s						
SUR	Sutherland	52.98	231	LR	LR	17 27 23.2	
	comp=Z,129nm,21.8s,baz=108,slow=31						
ILGA	Ilgaz	53.66	328	P	P	17 09 10.1	-2.1
ILGA				IAmb	IAmb	17 09 45.3	
	comp=Z,6.7nm,0.5s						
KURBB	Kurchatov Arra	54.06	8	P	P	17 09 14.4	-0.2
	comp=Z,0.4nm,0.6s,baz=204,slow=7.7,SNR=5.4						
	comp=Z,0.4nm,0.6s						
KURK	Kurchatov	54.16	8	P	P	17 09 14.4	-0.9
ZALV	Zalesovo Beam	58.35	12	P	P	17 09 46.5	+1.2
	comp=Z,0.7nm,0.5s,baz=212,slow=7.0,SNR=4.0						
	comp=Z,0.7nm,0.5s						
SONM	Songino Array	60.67	29	P	P	17 10 01.6	0.0
	comp=Z,3.1nm,1.1s,baz=203,slow=7.0,SNR=3.9						
SONM				LR	LR	17 35 13.2	
	comp=Z,122nm,19.4s,baz=174,slow=35						
	comp=Z,3.1nm,1.1s						
SONM	Songino Array	60.67	29	IAmb	IAmb	17 10 10.7	
	comp=Z,8.6nm,1.2s						
WRA	Warramunga Arr	66.92	110	P	P	17 10 42.5	-0.7
	comp=Z,0.7nm,0.9s,baz=287,slow=6.5,SNR=3.5						
	comp=Z,0.7nm,0.9s						
WRA	Warramunga Arr	66.92	110	IAmb	IAmb	17 10 45.0	
	comp=Z,0.6nm,1.5s						
KSRS	Korea Array	68.49	48	LR	LR	17 40 58.6	
	comp=Z,38nm,20.0s,baz=160,slow=36						
ESDC	Sonseca Array	77.95	311	P	P	17 11 50.0	+1.3
	comp=Z,1.6nm,1.0s,baz=94,slow=4.7,SNR=7.7						
	comp=Z,1.6nm,1.0s						
ESDC	Sonseca Array	77.95	311	IAmb	IAmb	17 11 54.3	
	comp=Z,12nm,1.5s						
PV22	Blue Mesa, Par	144.37	356	PKPdf	PKPab	17 19 25.2	-0.1
TEIG	Tepich	151.03	308		PKPdf	17 19 40.6	+2.2

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*GFZ **13** 16:59:57.9±0.2, 2°S±3°×11°9E±°, h10^{km}, M4.9/19, mb4.9/19*

*NEIC **13** 16:59:58.7±1.5, 2°.08S±0°.05×119°.23E±0°.05, h26^{km}±4^{km}, mb5.0/79, Mww4.8/11, Error ellipse: s-maj=8.2km s-min=6.4km az=53.0*

*DJA **13** 16:59:58.6±0.1, 2°S±1°×11°9E±°, h10^{km}, M5.0/54, mB5.5/17, mb5.0/54, MLv5.2/42, Mw4.7/40, Mw(mB)4.9/17*

*GCMT **13** 17:00:00.6±0.3, 1°.92S±0°.03×119°.27E±0°.02, h31^{km}, MW4.9/72, Moment Tensor Solution. s36,c36; s72,c95; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$3.15±.20; M$_{θθ}$-0.42±.11; M$_{ϕϕ}$-2.73±.12; M$_{rθ}$-0.42±.14; M$_{θϕ}$-0.43±.06; M$_{ϕr}$-0.93±.13; Best double couple: M$_0$3.14800×10^{16} NP1:ϕ$_s$7.00000°, δ36.00000°, λ84.00000°. NP2: ϕ$_s$194.00000°, δ54.00000°, λ95.00000°. Principal axes: T 3.3270, Plg80.0000°, Azm123.0000°; N -0.3600, Plg4.0000°, Azm12.0000°; P -2.9690, Plg9.0000°, Azm281.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*IDC **13** 17:00:01.2±1.8, 2°.10S×119°.33E, h45^{km}±17^{km}, mb4.3/22, mbtmp4.6/24, ML4.1/2, MS3.9/21 Error ellipse: s-maj=23.5km s-min=9.6km az=75.0*

ISC 13 17:00:00.8±0.3**, 2°.09S**±0°.04×**119°.28E**±0°.05**, h45**^{km}**, n246,** σ1^s**24**/223**, mb4.9**/86**, MS4.0**/21**, 1C-1D, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MMSI	Mamuju	0.70	212	P	Pn	17 00 12.0	-2.4
MMSI				S	Sn	17 00 22.4	-1.8
PCI	Palu	1.30	25	P	Pn	17 00 21.5	-1.0
PCI				AML	AML		
PMSI	Majene	1.45	195	P	Pn	17 00 24.5	-0.1
PMSI				AML	AML		
SPSI	Sidrap Palu	1.93	165	P	Pn	17 00 31.4	+0.3
SPSI				AML	AML		
BKB	Balikpapan	2.52	289	P	Pn	17 00 40.0	+0.8
BKB	Balikpapan	2.52	289		Pn	17 00 37.5	-1.8
BKB				Sn	Sn	17 01 07.0	-1.8
BKB	Balikpapan	2.52	289	P	Pn	17 00 39.5	+0.3
BKB				AML	AML		
BKB	Balikpapan	2.52	289	P	Pn	17 00 37.5	-1.8
APSI	Ampana	2.64	64	P	Pn	17 00 42.0	+1.1
APSI				AML	AML		
KAPI	Kappang	2.94	171	P	Pn	17 00 45.5	+0.4
	53nm,0.3s,baz=339,slow=12,SNR=161						
KAPI				S	Sn	17 01 19.9	+0.7
	998nm,0.5s,baz=180,slow=18,SNR=7.7						
KAPI				LR	LR	17 02 09.2	
	comp=Z,2μm,18.1s,baz=13,slow=44						
	481nm,0.8s						
KAPI				AML	AML		
KAPI	Kappang	2.94	171	P	Pn	17 00 46.1	+1.0
KAPI	Kappang	2.94	171		Pn	17 00 43.6	-1.5
KAPI	Kappang	2.94	171	P	Pn	17 00 45.9	+0.8
KAPI	Kappang	2.94	171	P	Pn	17 00 46.1	+1.0
MKS	Makassar	3.11	176	P	Pn	17 00 48.5	+1.1
MKS				AML	AML		
KKSI	Kolaka, Sulawe	3.15	131	P	Pn	17 00 48.8	+0.9
KKSI				AML	AML		
TOLI2	Tolitoli	3.52	25	P	Pn	17 00 53.0	+0.1
TOLI2	Tolitoli	3.52	25		Pn	17 00 51.8	-1.1
TOLI2	Tolitoli	3.52	25	P	Pn	17 00 53.3	+0.3
LUWI	Luwuk	3.64	73	P	Pn	17 00 54.9	+0.2
LUWI	Luwuk	3.64	73		Pn	17 00 53.8	-0.9
LUWI	Luwuk	3.64	73	P	Pn	17 00 54.7	0.0
LUWI	Luwuk	3.64	73	P	Pn	17 00 55.1	+0.4
KDI	Kendari	3.82	119	P	Pn	17 00 56.9	-0.2
BSSI	Bau Bau, Buton	4.21	163	P	Pn	17 01 03.8	+1.4
BSSI				AML	AML		
GTOI	Gorontalo	4.61	54	P	Pn	17 01 08.0	0.0
GTOI				AML	AML		
BBKI	Banjar Baru	4.64	253	P	Pn	17 01 08.0	-0.4
BBKI				AML	AML		
BBSI	Bau Bau	4.71	136	P	Pn	17 01 10.5	+1.1
BBSI				AML	AML		
PKKI	Palangkaraya	5.30	268	P	Pn	17 01 16.6	-0.9
LBFI	Labuhan Bajo,	6.38	175	P	Pn	17 01 32.6	+0.3
DBNI	Kabupaten Domp	6.44	189	P	Pn	17 01 33.8	+0.6
	0.4nm90nm,0.6s						
DBNI				AML	AML		
MNI	Manado	6.58	58	P	Pn	17 01 35.5	+0.5
MNI				AML	AML		
SANI	Sanana	6.71	90	P	Pn	17 01 35.8	-1.0
SANI	Sanana	6.71	90	P	Pn	17 01 35.4	-1.4
SANI				AML	AML		
SANI	Sanana	6.71	90	P	Pn	17 01 35.4	-1.4
	comp=Z,294nm,0.8s						
PLAI	Plampang	6.86	193	P	Pn	17 01 39.4	+0.5
PLAI	Plampang	6.86	193	P	Pn	17 01 39.0	+0.1
	comp=Z,0.6nmcomp=Z,92nm,0.8s						
PLAI				AML	AML		
TWSI	Taliwang, Sumb	7.02	200	P	Pn	17 01 39.3	-1.8
	comp=Z,0.4nmcomp=Z,62nm,1.0s						
TWSI				AML	AML		
EDFI	Ende, Flores	7.04	160	P	Pn	17 01 43.3	+1.9
SRBI	Singaraja	7.20	214	P	Pn	17 01 43.3	-0.3
	comp=Z,0.4nmcomp=Z,73nm,0.6s						
SRBI				AML	AML		
KHKI	Kahang-Kahang	7.23	210	P	Pn	17 01 44.1	+0.2
	comp=Z,0.3nmcomp=Z,38nm,0.6s						
KHKI				AML	AML		
WSI	Waingapu	7.60	172	P	Pn	17 01 50.1	+1.1
	comp=Z,0.9nmcomp=Z,235nm,1.2s						
WSI				AML	AML		
NLAI	Namlea	7.90	98	P	Pn	17 01 54.5	+1.4
	comp=Z,0.3nmcomp=Z,62nm,0.5s						
NLAI				AML	AML		
STKI	Sintang	8.09	285	P	Pn	17 01 54.7	-1.0
	comp=Z,82nm,0.8s						
JAGI	Jajag, Banyuwa	8.14	219	Pn	Pn	17 01 54.5	-2.0
TNTI	Ternate	8.57	71		Pn	17 02 00.7	-1.7
TNTI	Ternate	8.57	71	P	Pn	17 02 03.0	+0.6
TNTI	Ternate	8.57	71	P	Pn	17 02 07.8	+5.4
	comp=Z,47nm,1.2s						
KKM	Kota Kinabalu	8.64	339	P	Pn	17 02 05.7	+2.3
SOEI	Soe	9.09	147	Pn	Pn	17 02 07.6	-1.9
SOEI	Soe	9.09	147	P	Pn	17 02 10.7	+1.1
	comp=Z,1μmcomp=Z,136nm,1.0s						
DAV	Davao City (W)	11.06	35	LR	LR	17 07 09.7	
	comp=Z,963nm,19.8s,baz=198,slow=39						
TPI	Tanjungpandan	11.63	266	P	Pn	17 02 44.6	+0.3
	comp=Z,50nm,1.4s						
SWI	Sorong	12.04	84	P	Pn	17 02 51.7	+1.9
	comp=Z,46nm,0.8s						
BBJI	Bungbulang	12.76	245	Pn	Pn	17 02 56.0	-3.7
BBJI	Bungbulang	12.76	245	P	Pn	17 03 00.8	+1.1
BBJI	Bungbulang	12.76	245	P	Pn	17 03 00.6	+0.9
	comp=Z,39nm,1.2s						
FAKI	Fak Fak	12.98	94	P	Pn	17 03 04.3	+1.5
CBJI	Citeko	13.12	250	P	Pn	17 03 06.8	+2.2
	comp=Z,103nm,1.7s						
DSRI	Dabo	14.78	276	P	Pn	17 03 28.1	+1.0
	comp=Z,57nm,1.3s						
MWPI	Manokwari, Pap	14.80	86	P	Pn	17 03 29.0	+1.7
	comp=Z,108nm,1.3s						
TPRI	Tanjung Pinang	15.05	281	P	Pn	17 03 32.0	+1.4
	comp=Z,41nm,1.1s						
KASI	Kota Agung	15.14	257	P	Pn	17 03 32.3	+0.6
	comp=Z,123nm,1.7s						
MDSI	Maura Dua	15.26	261	P	Pn	17 03 34.9	+1.5
LHSI	Lahat	15.83	263	P	Pn	17 03 41.5	+0.8
MTN	Manton Dam	15.87	133		Pn	17 03 39.7	-1.6
BTDF	Bukit Timah Da	15.88	282	P	Pn	17 03 41.1	-0.2
	comp=Z,55nm,1.4s						
MYKOM	Kota Tinggi	15.90	284	P	P	17 03 44.7	+0.1
MYKOM	Kota Tinggi	15.90	284	P	Pn	17 03 42.6	+1.0
	comp=Z,52nm,1.2s						
KNRA	Kununurra	16.42	146		Pn	17 03 46.6	-1.6
KSI	Kapahiang	16.74	264	P	P	17 03 54.5	+0.5
	comp=Z,127nm,0.9s						
BAKI	Biak	16.84	87	P	P	17 03 54.6	-0.5
	comp=Z,1μmcomp=Z,76nm,1.5s						
MASI	Maura Aman, Be	17.05	266	P	Pn	17 03 57.6	+1.4
	comp=Z,204nm,1.2s						
FITZ	Fitzroy Crossi	17.09	159	P	Pn	17 03 56.1	-0.5
	comp=Z,0.3nm,0.3s,baz=0.7,slow=6.9,SNR=18						
FITZ				LR	LR	17 10 34.8	
	comp=Z,283nm,19.1s,baz=337,slow=37						
	comp=Z,8.1nm,0.7s						
FITZ				AML	AML		
FITZ	Fitzroy Crossi	17.09	159	Pn	Pn	17 03 54.5	-2.1
FITZ	Fitzroy Crossi	17.09	159	P	Pn	17 03 56.7	+0.2
	comp=Z,3.3nm,1.3s						
KRJI	Kerinci	17.80	270	P	P	17 04 07.4	+1.5
	comp=Z,289nm,1.3s						
SDSI	Sungai Dareh	17.88	273	P	P	17 04 07.9	+1.3
PPI	Padang Panjang	18.95	275	P	Pn	17 04 20.7	+1.4
	comp=Z,2μmcomp=Z,66nm,1.0s						
MBWA	Marble Bar	18.96	179	P	P	17 04 17.0	-1.3
MBWA	Marble Bar	18.96	179	P	Pn	17 04 20.4	+1.0
	comp=Z,36nm,1.4s						
IPM	Ipoh	19.37	290	P	P	17 04 23.7	+0.7
	comp=Z,35nm,1.8s						
GENI	Genyem	20.88	92	P	Pn	17 04 44.8	+2.5
	comp=Z,84nm,1.2s						
RPSI	Rantau Prapat	20.90	283	P	P	17 04 41.3	+1.8
	comp=Z,132nm,1.1s						
GSI	Gunungsitoli	21.96	279	P	P	17 04 49.8	-1.1
GSI				IAmb	IAmb	17 04 56.8	
	comp=Z,100nm,1.3s						
GSI	Gunungsitoli	21.96	279	P	P	17 04 50.6	-0.4
	comp=Z,57nm,2.2s						
WB0	Warramunga Arr	22.96	141	P	P	17 05 00.2	-1.3
WB0				IAmb	IAmb	17 05 02.3	
	comp=Z,43nm,0.9s						
WRA	Warramunga Arr	23.05	141	P	P	17 05 01.5	-1.0
	comp=Z,40nm,0.8s,baz=320,slow=10,SNR=150						
WRA				PcP	PcP	17 08 51.3	+0.5
	comp=Z,2.0nm,1.0s,baz=322,slow=2.6,SNR=3.9						
	comp=Z,40nm,0.8s						
WRAB	Tennant Creek	23.05	141	P	P	17 05 01.4	-1.1
WRAB				IAmb	IAmb	17 05 03.4	
	comp=Z,47nm,0.9s						
WRAB	Tennant Creek	23.05	141	P	P	17 05 01.8	-0.7
	comp=Z,66nm,0.9s						
WR8	Warramunga Arr	23.16	141	P	P	17 05 02.5	-1.1
WR8				IAmb	IAmb	17 05 04.4	
	comp=Z,72nm,0.9s						
MEEK	Meekatharra	24.42	181	P	P	17 05 15.2	-0.1
	comp=Z,84nm,0.8s						
TWG	Pinlang	24.82	4	P	P	17 05 19.7	+0.8
	comp=Z,30nm,1.2s						
YULB	Yu-li	25.40	4	P	P	17 05 23.8	-0.4
YULB				IAmb	IAmb	17 05 32.7	
	comp=Z,24nm,0.8s						
YULB	Yu-li	25.40	4	P	P	17 05 25.7	+1.5
	comp=Z,31nm,1.4s						
AS31	Alice Springs	25.70	148	P	P	17 05 26.2	-0.8
ASAR	Alice Springs	25.70	148	P	P	17 05 26.8	-0.3
	comp=Z,15nm,0.8s,baz=326,slow=7.9,SNR=60						
ASAR				PcP	PcP	17 08 57.2	+0.7
	comp=Z,1.4nm,0.5s,baz=334,slow=2.0,SNR=11						
ASAR				LR	LR	17 16 26.4	
	comp=Z,485nm,20.7s,baz=334,slow=38						
	comp=Z,15nm,0.8s						
ASAR	Alice Springs	25.70	148	P	P	17 05 26.4	-0.6
SSLB	Suanglung	25.77	4	P	P	17 05 26.8	-0.8
SSLB				IAmb	IAmb	17 05 36.7	
	comp=Z,26nm,0.9s						
SSLB	Suanglung	25.77	4	P	P	17 05 29.0	+1.4
	comp=Z,34nm,1.4s						
MORW	Morawa	27.01	186	P	P	17 05 38.1	-0.5
QIS	Mount Isa	27.03	134	P	P	17 05 35.8	-3.2
	comp=Z,13nm,1.6s						
CMAR	Chiang Mai Arr	28.59	316	P	P	17 05 54.0	+1.0
	comp=Z,2.4nm,0.8s,baz=129,slow=8.6,SNR=15						
	comp=Z,2.4nm,0.8s						
PMG	Port Moresby	28.66	106	LR	LR	17 19 13.1	
	comp=Z,99nm,21.8s,baz=262,slow=40						
PMG	Port Moresby	28.66	106	P	P	17 05 51.5	-2.0
PMG				IAmb	IAmb	17 06 02.1	
	comp=Z,43nm,1.2s						
FORT	Forrest	29.72	165	P	P	17 06 02.2	-0.6
GUMO	Guam	29.78	58	LR	LR	17 19 12.4	
	comp=Z,83nm,18.2s,baz=245,slow=39						
NWAO	Narrogin (SRO)	30.74	183	P	P	17 06 11.6	-0.2
NWAO				IAmb	IAmb	17 06 12.1	
	comp=Z,24nm,0.9s						
DPSS	Saipan	31.38	56	P	P	17 06 17.0	-0.6
NPW	Naypyitaw	31.44	315	P	P	17 06 19.0	+0.9
	comp=Z,7.3nm,0.7s						
KMI2	Kunming	31.46	330	P	P	17 06 19.1	+0.6
KMI2				sP	pP	17 06 29.1	-1.1
KMI2				pmax	pmax		
	comp=Z,11nm,0.8s						
CTA	Charters Tower	31.85	126	LR	LR	17 20 34.9	
	comp=Z,310nm,18.2s,baz=290,slow=39						
INKA	Innaminka	32.75	143	P	P	17 06 29.2	-0.3
KRVT	Keravat (AS076	32.77	95	LR	LR	17 19 30.7	
	comp=Z,103nm,21.9s,baz=317,slow=36						
WHN	Wuhan	32.79	352	P	P	17 06 32.3	+2.5
PZH	PanZhiHua	33.09	330	P	P	17 06 25.6	-7.1
ENH	Enshi	33.51	345	P	P	17 06 34.0	-2.2
TNCH	TengChong	33.64	325	*e*P	P	17 06 39.6	+2.0
TNCH				pmax	pmax		
	comp=Z,18nm,0.8s						
NJ2	Nanjing	33.96	359	⇓P	P	17 06 42.8	+2.9
NJ2				pP	pP	17 06 48.3	-3.7
NJ2				sP	sP	17 06 50.8	-6.5
NJ2				pmax	pmax		
	comp=Z,37nm,1.1s						
QLP	Quilpie	34.16	138	P	P	17 06 42.9	+1.0
	comp=Z,46nm,1.1s						
BBOO	Buckleboo	34.38	155	P	P	17 06 42.8	-0.9
MORE	Moreh	35.69	319	P	P	17 06 54.1	-1.0
CD2	Chengdu	35.99	337	P	P	17 06 58.9	+1.3
CD2				pmax	pmax		
	comp=Z,40nm,0.8s						
STKA	Stephens Creek	36.34	147	P	P	17 07 01.0	+0.5
	comp=Z,11nm,1.0s,baz=317,slow=7.8,SNR=12						
	comp=Z,11nm,1.0s						
STKA	Stephens Creek	36.34	147	P	P	17 07 01.0	+0.5
	comp=Z,71nm,0.9s						
BRDH	Bariadhala	36.50	314	LR	LR	17 26 49.7	
	comp=Z,257nm,19.2s,baz=159,slow=44						
JNU	Nakatsue	36.70	16	LR	LR	17 22 03.6	
	comp=Z,92nm,20.8s,baz=180,slow=36						
TIA	Tai'an	38.16	357	P	P	17 07 16.8	+1.0
TIA				pmax	pmax		
	comp=Z,13nm,0.8s						
CMSA	Cobar Meteorol	38.46	142	P	P	17 07 19.6	+1.2
	comp=Z,26nm,1.0s						
PALK	Pallekele	39.60	284	LR	LR	17 24 44.7	
	comp=Z,96nm,19.3s,baz=106,slow=37						
PALK	Pallekele	39.60	284	P	P	17 07 27.6	-0.8
KSRS	Korea Array	40.15	11	P	P	17 07 33.0	+0.6
	comp=Z,3.9nm,0.9s,baz=178,slow=11,SNR=12						
KSRS				PcP	PcP	17 09 35.5	-0.7
	comp=Z,0.6nm,0.7s,baz=198,slow=1.9,SNR=4.2						
	comp=Z,3.9nm,0.9s						
LZDM	Lanzhou Array	40.55	340	P	P	17 07 37.8	+1.6
	comp=Z,1.0nm,0.3s,baz=173,slow=12,SNR=1.7						
	comp=Z,1.0nm,0.3s						
LZH	Lanzhou	40.62	341	*e*P	P	17 07 38.4	+1.8
LZH				pmax	pmax		
	comp=Z,18nm,1.0s						
LZH				L	L		
	comp=Z,230nm,15.8s						
LZH				L	L		
	comp=Z,230nm,15.3s						
HNR	Honiara	41.08	102	LR	LR	17 25 19.0	
	comp=Z,102nm,21.8s,baz=341,slow=37						
LSA	Lhasa	41.50	322	P	P	17 07 43.4	-0.9
BJT	Baijiatuau	42.00	356	P	P	17 07 47.6	-0.1
BJT				IAmb	IAmb	17 07 50.6	
	comp=Z,25nm,0.9s						
BJI2	Beijing	42.00	356	P	P	17 07 49.3	+1.6
BJI2				pP	pP	17 07 56.1	-3.9
BJI2				pmax	pmax		
	comp=Z,19nm,1.0s						
BJI2				pmax	pmax		
	comp=Z,80nm,4.3s						
MJAR	Matsushiro Arr	42.28	23	P	P	17 07 48.4	-1.7
	comp=Z,2.5nm,1.0s,baz=183,slow=7.9,SNR=4.9						
	comp=Z,2.5nm,1.0s						
EVN	Everest	43.20	316	P	P	17 07 57.2	-1.1
EVN				IAmb	IAmb	17 08 00.8	
	comp=Z,16nm,0.6s						
EVN	Everest	43.20	316	P	P	17 08 00.1	+1.8
	comp=Z,24nm,0.8s						
HHC	Hu-ho-hao-te	43.31	351	*e*P	P	17 08 01.3	+2.9
HHC				pmax	pmax		

	comp=Z,14nm,0.8s						
HHC				pmax	pmax		
	comp=Z,47nm,3.8s						
SNY	Shenyang	43.88	5	P	P	17 08 03.0	+0.1
SNY				pmax	pmax		
	comp=Z,19nm,0.9s						
GTA2	Gaotai	45.09	339	P	P	17 08 14.8	+2.1
GTA2				pmax	pmax		
	comp=Z,25nm,0.8s						
XLT	XiLinHaoTe	45.87	357	eP	P	17 08 19.8	+1.0
XLT				pmax	pmax		
	comp=Z,17nm,1.1s						
XLT				pmax	pmax		
	comp=Z,170nm,5.4s						
USA0B	Ussuriysk Arra	47.47	12	P	P	17 08 31.1	0.0
USRK	Ussuriysk Ar.	47.47	12	P	P	17 08 30.5	-0.7
	comp=Z,4.3nm,0.6s,baz=200,slow=6.9,SNR=8.8						
	comp=Z,4.3nm,0.6s						
USRK	Ussuriysk Ar.	47.47	12	P	P	17 08 31.4	+0.2
BNX	BinXian	48.16	8	⇑P	P	17 08 36.8	+0.3
BNX				pmax	pmax		
	comp=Z,10.0nm,1.0s						
ULN	Ulaanbaatar	50.88	349	P	P	17 08 58.0	+0.5
ULN				IAmb	IAmb	17 09 03.3	
	comp=Z,12nm,0.7s						
ULN	Ulaanbaatar	50.88	349	P	P	17 08 58.9	+1.4
	comp=Z,21nm,1.0s						
SONM	Songino Array	50.98	349	P	P	17 08 59.2	+1.1
	comp=Z,4.5nm,0.6s,baz=167,slow=8.5,SNR=21						
	comp=Z,4.5nm,0.6s						
SONM	Songino Array	50.98	349	P	P	17 08 58.7	+0.6
HILR	Hailar Array B	51.44	0	P	P	17 09 02.5	+1.0
	comp=Z,9.1nm,0.4s,baz=168,slow=9.1,SNR=11						
	comp=Z,9.1nm,0.4s						
HEH	HeiHe	52.60	7	eP	P	17 09 10.3	+0.3
HEH				pmax	pmax		
	comp=Z,69nm,0.8s						
WMQ	Urumqi	53.76	332	eP	P	17 09 20.3	+1.6
WMQ				L	L		
	comp=Z,360nm,17.5s						
WMQ				L	L		
	comp=Z,280nm,14.7s						
WMQ				L	L		
	comp=Z,330nm,21.9s						
NIL	Nilore	56.03	314	P	P	17 09 35.6	+0.3
NIL				IAmb	IAmb	17 09 55.4	
	comp=Z,8.1nm,0.6s						
KSH2	Kashi	57.39	320	P	P	17 09 46.4	+1.4
KSH2				sP	pP	17 09 59.0	+1.6
KSH2				pmax	pmax		
	comp=Z,17nm,0.8s						
KSH2				L	L		
	comp=Z,180nm,16.5s						
KSH2				L	L		
	comp=Z,250nm,15.9s						
KSH2				L	L		
	comp=Z,280nm,16.9s						
PDGK	Podgornoye	57.62	326	P	P	17 09 47.7	+1.2
MKAR	Makanchi Array	58.52	331	P	P	17 09 54.0	+1.3
	comp=Z,4.5nm,0.7s,baz=137,slow=7.5,SNR=46						
	comp=Z,4.5nm,0.7s						
MKAR	Makanchi Array	58.52	331	P	P	17 09 53.4	+0.8
MAKZ	Makanchi	58.69	331	P	P	17 09 54.2	+0.4
BOOM	Boomskoye usch	59.12	324	P	P	17 09 57.7	+0.6
BOOM				IAmb	IAmb	17 09 59.5	
	comp=Z,10nm,1.0s						
KBL	Kabul	59.52	313	P	P	17 09 59.7	-0.3
KBL				IAmb	IAmb	17 10 01.6	
	comp=Z,23nm,1.1s						
AAK	Ala-Archa	60.07	323	P	P	17 10 04.2	+0.6
AAK				IAmb	IAmb	17 10 06.2	
	comp=Z,12nm,0.8s						
ARSB	Arslanbob	60.25	321	P	P	17 10 04.9	+0.1
BTK	Batken	60.96	319	P	P	17 10 09.4	-0.2
BTK				IAmb	IAmb	17 10 11.3	
	comp=Z,8.1nm,0.9s						
RPZ	Rata Peaks	61.75	140	P	P	17 10 15.0	+0.2
ZAA0	Zalesovo Array	62.75	338		P	17 10 21.1	-0.1
ZALV	Zalesovo Beam	62.75	338	P	P	17 10 21.7	+0.5
	comp=Z,25nm,0.8s,baz=135,slow=5.2,SNR=74						
	comp=Z,25nm,0.8s						
ZALV	Zalesovo Beam	62.75	338	P	P	17 10 21.3	0.0
KK31	Karatay Array	62.76	322	P	P	17 10 21.4	-0.2
KK31				IAmb	IAmb	17 10 23.5	
	comp=Z,5.8nm,0.8s						
KKAR	Karatay Array	62.76	322	P	P	17 10 21.4	-0.2
KURBB	Kurchatov Arra	62.98	332	P	P	17 10 23.8	+1.0
	comp=Z,11nm,0.7s,baz=141,slow=6.0,SNR=107						
	comp=Z,11nm,0.7s						
KURK	Kurchatov	63.00	332	P	P	17 10 23.5	+0.6
PETK	Petropavlovsk-	63.70	25	P	P	17 10 28.7	+1.1
	comp=Z,4.5nm,0.8s,baz=205,slow=5.9,SNR=4.7						
	comp=Z,4.5nm,0.8s						
PETK	Petropavlovsk-	63.70	25	P	P	17 10 28.2	+0.7
URZ	Urewera	63.82	132	LR	LR	17 40 09.0	
	comp=Z,101nm,18.2s,baz=288,slow=38						
CASY	Casey	64.36	184	P	P	17 10 30.6	-1.1
CASY				IAmb	IAmb	17 10 33.4	
	comp=Z,24nm,1.8s						
YAK	Yakutsk	64.44	5	P	P	17 10 31.2	-1.0
MA2	Magadan	66.26	17	LR	LR	17 38 23.5	
	comp=Z,33nm,21.7s,baz=202,slow=35						
MA2	Magadan	66.26	17	P	P	17 10 43.9	-0.2
	comp=Z,892nmcomp=Z,12nm,1.1s						
BVAR	Borovoye Array	68.40	331	P	P	17 10 58.3	+0.5
	comp=Z,9.5nm,0.7s,baz=133,slow=8.3,SNR=45						
	comp=Z,9.5nm,0.7s						
BORK	Borovoye	68.45	331	P	P	17 10 58.2	+0.2
AB31	Akbulak array	72.15	324	P	P	17 11 21.1	+0.4
AB31				IAmb	IAmb	17 11 22.2	
	comp=Z,13nm,0.9s						
ABKAR	Akbulak array	72.15	324	P	P	17 11 21.0	+0.3
TIXI	Tiksi	73.87	3	P	P	17 11 28.8	-1.7
TIXI				IAmb	IAmb	17 11 30.6	
	comp=Z,12nm,0.7s						
MAW	Mawson	75.80	199	P	P	17 11 41.4	-0.3
	comp=Z,5.1nm,1.0s,baz=33,slow=9.2,SNR=5.1						
	comp=Z,5.1nm,1.0s						
ARTI	Arti	76.10	330	P	P	17 11 42.7	-0.9
ARTI				IAmb	IAmb	17 11 44.1	
	comp=Z,12nm,0.8s						
VNDA	Vanda	78.73	171	P	P	17 11 59.1	+1.1
	comp=Z,3.1nm,0.7s,baz=309,slow=6.7,SNR=20						
	comp=Z,3.1nm,0.7s						
VNDA	Vanda	78.73	171	P	P	17 11 58.4	+0.4
SBA	Scott Base	79.72	171	P	P	17 12 03.6	+0.2
KBZ	Khabaz	81.62	315	P	P	17 12 14.2	0.0
	comp=Z,3.0nm,0.9s,baz=45,slow=3.0,SNR=6.3						
	comp=Z,3.0nm,0.9s						
LVA	Lava Point	82.77	35	P	P	17 12 19.8	-0.2
ASF	Jabal al Asfar	84.65	302	LR	LR	17 56 12.1	
	comp=Z,54nm,18.2s,baz=100,slow=40						
K13K	Kusilvak Mount	85.30	27	P	P	17 12 32.9	+0.2
MMAI	Mount Meron Ar	85.99	303	LR	LR	17 57 00.7	
	comp=Z,67nm,18.1s,baz=76,slow=40						
SDPT	Sand Point	86.16	34	P	P	17 12 35.9	-1.2
K15K	Wolf Creek Mou	86.81	27	P	P	17 12 41.0	+0.8
G16K	Koyuk River	87.05	24	P	P	17 12 41.6	+0.3
G16K				IAmb	IAmb	17 13 24.9	
	comp=Z,20nm,1.3s						
J16K	Anvik River	87.41	26	P	P	17 12 43.6	+0.6
QSPA	South Pole Qui	87.86	180	P	P	17 12 45.8	+0.4
	comp=Z,5.5nm,0.7s,baz=313,slow=1.8,SNR=26						
	comp=Z,5.5nm,0.7s						
QSPA	South Pole Qui	87.86	180		P	17 12 45.4	+0.1
QSPA				IAmb	IAmb	17 12 48.0	
	comp=Z,6.3nm,0.8s						
BR104	Keskin Array S	87.96	310	P	P	17 12 47.1	+0.7
	comp=Z,3.2nm,1.0s						
BRTR	Keskin Array B	87.96	310	P	P	17 12 45.7	-0.7
	comp=Z,1.6nm,0.9s,baz=106,slow=4.4,SNR=8.9						
	comp=Z,1.6nm,0.9s						
BR105	Keskin Array S	87.98	310	P	P	17 12 47.6	+1.1
	comp=Z,3.2nm,1.0s						
O16K	Kokwok River B	88.05	30	P	P	17 12 45.7	-0.5
O16K				IAmb	IAmb	17 12 46.6	
	comp=Z,8.1nm,1.1s						
L18K	Granite Mounta	89.04	28	P	P	17 12 50.7	-0.1
J18K	Innoko River	89.17	27	IAmb	IAmb	17 12 51.9	
	comp=Z,3.6nm,0.7s						
N18K	Kilae Creek	89.27	29	P	P	17 12 52.5	+0.6
N18K				IAmb	IAmb	17 15 20.9	
	comp=Z,24nm,2.0s						
K20K	Telida	90.34	27	P	P	17 12 57.0	0.0
K20K				IAmb	IAmb	17 13 43.7	
	comp=Z,22nm,2.0s						
L20K	Farewell, AK	90.37	28	P	P	17 12 57.6	+0.5
L20K				IAmb	IAmb	17 13 18.7	
	comp=Z,18nm,1.9s						
IMAR	Indian Mountai	90.66	24	P	P	17 12 58.2	0.0
KDAK	Kodiak Island	90.75	32	LR	LR	17 48 16.7	
	comp=Z,33nm,21.8s,baz=242,slow=32						
CAST	Castle Rocks	91.24	27	P	P	17 13 00.8	-0.2
CAST				IAmb	IAmb	17 13 08.9	
	comp=Z,16nm,1.9s						
AKASG	Malin Array Be	91.64	320	P	P	17 13 01.8	-1.3
	comp=Z,0.2nm,0.3s,baz=85,slow=4.2,SNR=1.7						
	comp=Z,0.2nm,0.3s						
BRLK	Bradley Lake	91.71	30	P	P	17 13 03.0	-0.4
BRLK				IAmb	IAmb	17 13 03.0	
	comp=Z,6.1nm,0.9s						
AK17	Malin Array Si	91.74	320	P	P	17 13 03.0	-0.6
AK21	Malin Array Si	91.75	321	P	P	17 13 04.3	+0.6
G23K	Bananza Creek	92.18	23	P	P	17 13 05.8	+0.4
LBTB	Lobatse	92.46	245	LR	LR	17 50 53.2	
	comp=Z,110nm,20.7s,baz=119,slow=33						
BOSA	Boshof	92.54	241	LR	LR	17 53 42.6	
	comp=Z,138nm,18.4s,baz=110,slow=35						
LUBAR	Lubar, Ukraine	92.57	320	P	P	17 13 07.8	+0.3
RND	Reindeer	92.69	27	IAmb	IAmb	17 13 07.6	
	comp=Z,3.2nm,0.7s						
SML	Sawmill	92.96	28	P	P	17 13 08.9	-0.2
SML				IAmb	IAmb	17 13 09.2	
	comp=Z,5.0nm,0.6s						
ARCES	ARCESS Array B	93.27	339	P	P	17 13 10.3	0.0
	comp=Z,1.7nm,0.9s,baz=104,slow=5.1,SNR=5.0						
	comp=Z,1.7nm,0.9s						
ARCES	ARCESS Array B	93.27	339	IAmb	IAmb	17 13 10.8	
	comp=Z,39nm,2.0s						
HDA	Harding Lake	93.51	26	IAmb	IAmb	17 13 11.9	
	comp=Z,2.9nm,0.8s						
ILAR	Eielson Array	93.52	25	P	P	17 13 09.7	-1.9
	comp=Z,0.3nm,0.5s,baz=266,slow=4.1,SNR=4.4						
I27K	Kandik River	95.66	24	IAmb	IAmb	17 13 23.1	
	comp=Z,7.3nm,0.8s						
K27K	Chicken	95.66	26	IAmb	IAmb	17 13 23.5	
	comp=Z,5.0nm,1.1s						
L27K	Beaver Creek,	95.89	27	IAmb	IAmb	17 13 24.3	
	comp=Z,3.5nm,0.8s						
BCAR	Beaver Creek A	95.91	27	P	P	17 13 22.3	-0.3
SUR	Sutherland	96.04	237	LR	LR	17 51 26.7	
	comp=Z,61nm,19.2s,baz=143,slow=32						
BARN	Barnard Glacie	96.21	29	IAmb	IAmb	17 13 25.6	
	comp=Z,4.7nm,0.6s						
I28M	Miner Creek	96.38	24	IAmb	IAmb	17 13 26.2	
	comp=Z,3.5nm,0.8s						
M29M	Somme Creek	97.51	27	IAmb	IAmb	17 13 31.9	
	comp=Z,3.9nm,0.8s						
L29M	L29M	97.55	27	IAmb	IAmb	17 13 32.1	
	comp=Z,5.3nm,0.8s						
K29M	Barlow Dome	97.68	26	IAmb	IAmb	17 13 31.7	
	comp=Z,2.5nm,0.7s						
SNAA	Sanae	97.69	196	LR	LR	17 53 00.9	
	comp=Z,94nm,19.2s,baz=229,slow=32						
NVAR	Mina Array Bea	116.31	48	PKP	PKiKP	17 18 41.2	+1.0
	comp=Z,0.8nm,0.7s,baz=234,slow=1.3,SNR=5.4						
ESDC	Sonseca Array	116.47	314	PKP	PKiKP	17 18 40.7	+0.5
	comp=Z,0.2nm,0.4s,baz=1.9,slow=1.5,SNR=2.9						
PDAR	Pinedale Array	120.59	40	PKP	PKPdf	17 18 48.1	-0.2
	comp=Z,0.5nm,0.6s,baz=107,slow=1.5,SNR=6.4						
ECSD	EROS Data Cent	127.72	32		PKPdf	17 19 01.4	-0.2
TXAR	Lajitas Array	131.03	52	PKP	PKiKP	17 19 09.4	+0.1
	comp=Z,1.1nm,0.7s,baz=238,slow=1.1,SNR=14						
CPUP	Villa Florida	151.56	186	PKP	PKPdf	17 19 44.9	+0.3
	comp=Z,1.9nm,0.9s,baz=32,slow=15,SNR=3.6						
CPUP				PKPbc	PKPbc	17 19 51.3	+0.4
	comp=Z,4.5nm,0.8s,baz=157,slow=1.0,SNR=4.2						

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*MAN **13** 17:12:49.0, 3°.32N×126°.64E, h29^{km}, MS3.4*
*IDC **13** 17:12:51.2±1.4, 4°.03N×126°.65E, h0^{km}, mb3.4/6, mbtmp3.4/6, Error ellipse: s-maj=104.4km s-min=18.7km az=72.0*
ISC 13 17:12:58.4±1.1, **3°.8N**±0°.1×**126°.5E**±0°.3, **h45**^{km}, **n10**, σ**2^{s}.68**/12, **mb3.3**/6, **Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	Don Marcelino,	2.40	341	eP	Pn	17 13 33.8	-1.4
DDMP				eS	Sn	17 14 08.1	+4.7
GSPH	General Santos	2.72	326	i P	Pn	17 13 39.7	-0.1
GSPH				i S	Sn	17 14 08.1	-3.5
KCP	Kidapawan	3.46	336	eP	Pn	17 13 51.5	+1.6
CTBH	Cotabato--PC H	4.05	327	i P	Pn	17 14 01.7	+3.8
FITZ	Fitzroy Crossi	21.80	182	P	P	17 17 48.4	+1.6
	0.8nm,0.6s,baz=8.1,slow=10,SNR=6.0						
	0.8nm,0.6s						
WRA	Warramunga Arr	24.84	162	P	P	17 18 16.1	-0.7
	0.6nm,0.6s,baz=342,slow=10,SNR=8.8						
	0.6nm,0.6s						
ASAR	Alice Springs	28.26	166	P	P	17 18 47.9	+0.3
	0.1nm,0.6s,baz=348,slow=9.3,SNR=4.1						
	0.1nm,0.6s						
SONM	Songino Array	47.13	342	P	P	17 21 25.7	-0.6
	0.2nm,0.5s,baz=156,slow=11,SNR=1.6						
	0.2nm,0.5s						
MKAR	Makanchi Array	57.34	325	P	P	17 22 40.3	-1.8
	0.4nm,0.6s,baz=119,slow=7.8,SNR=6.5						
	0.4nm,0.6s						
KURBB	Kurchatov Arra	61.53	327	P	P	17 23 08.8	-2.0
	0.3nm,0.5s,baz=131,slow=6.5,SNR=5.4						
	0.3nm,0.5s						

IDC 13 17:37:59.0±2.4, **4°.29N**×**127°.09E, h0**^{km}, **mb3.2**/3, **mbtmp3.2**/3, **Error ellipse: s-maj=175.5km s-min=29.7km az=66.0, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	25.11	164	P	P	17 43 25.5	-0.4
	0.5nm,0.9s,baz=344,slow=11,SNR=5.0						
	0.5nm,0.9s						
ASAR	Alice Springs	28.57	167	P	P	17 43 57.2	+0.3
	0.4nm,0.9s,baz=348,slow=8.7,SNR=5.0						
	0.4nm,0.9s						
MKAR	Makanchi Array	57.30	325	P	P	17 47 48.8	0.0
	0.1nm,0.5s,baz=131,slow=7.3,SNR=1.5						
	0.1nm,0.5s						

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*TAP **13** 17:46:40.5, 24°.92N×122°.41E, h18^{km}, ML2.8, C*
*JMA **13** 17:46:40.4±0.1, 25°N±1°×122°.4E±0°.4, h10^{km}, MV2.2/10, NW OFF ISHIGAKIJIMA IS*
ISC 13 17:46:40.2±1.0, **24°.89N**±0°.03×**122°.43E**±0°.02, **h14**^{km}±8^{km}, **n76**, σ**0^{s}.57**/115, **Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TWB1	Santiao Chiao	0.41	287	P	Pg	17 46 48.9	+0.5
TWB1				S	Sg	17 46 54.5	+0.4
EGS		0.45	264	P	Pb	17 46 50.0	+0.1
EOS2	EOS2	0.50	201	i P	Pb	17 46 51.4	+0.7
EOS2				S	Sb	17 46 59.3	+1.5
SXI1	Grass Mountain	0.54	292	P	Pb	17 46 51.5	0.0
SXI1				S	Sb	17 46 59.3	+0.1
TIPB	Shuangxi	0.55	279	P	Pb	17 46 51.8	+0.1
TIPB				S	Sb	17 46 59.3	-0.1
EOS3	EOS3	0.61	189	i P	Pb	17 46 53.3	+0.8
EOS3				S	Sn	17 47 03.0	-0.9
WFSB	Wu-fen Shan	0.61	287	P	Pb	17 46 53.0	+0.4
WFSB				S	Sb	17 47 01.3	+0.1
ESAO	Su ao	0.61	240	eP	Pg	17 46 52.4	+0.2
ESAO				eS	Sg	17 47 00.1	-0.2
JYNG	Yonagunijimaku	0.64	133	P	Pg	17 46 52.5	-0.2
TNOU	National Taiwa	0.65	294	P	Pb	17 46 53.3	+0.1
TNOU				S	Sb	17 47 01.9	-0.2
YOJ	Yonaguni jima	0.68	129	P	Pg	17 46 53.2	-0.3
YOJ	Yonaguni jima	0.68	129	S	Sg	17 47 02.3	-0.2
YOJ	Yonaguni jima	0.68	129	eP	Pg	17 46 53.5	0.0
YOJ				eS	Sg	17 47 02.6	+0.1
YOJ	Yonaguni jima	0.68	129	P	Pg	17 46 53.0	-0.5
NDS	Dongshan	0.69	249	P	Pg	17 46 53.9	+0.2
NDS				S	Sb	17 47 03.4	-0.1
TWE	Neicheng	0.71	256	eP	Pb	17 46 54.2	-0.1
TWE				S	Sb	17 47 04.2	+0.3
EWUT	Wuta	0.74	233	eP	Pb	17 46 54.8	0.0
EWUT				eS	Sb	17 47 05.2	+0.5
TWA	Mucha	0.77	277	eP	Pb	17 46 55.4	0.0
TWA				eS	Sb	17 47 06.0	+0.2
EOS4	EOS4	0.77	187	eP	Pn	17 46 56.3	0.0
EOS4				S	Sn	17 47 07.2	-0.3
FUSB	Fushanzhiwuyua	0.77	261	P	Pg	17 46 55.1	-0.1
FUSB				S	Sb	17 47 06.1	+0.2
ENA	Nanau	0.77	234	eP	Pg	17 46 53.0	-2.2
ENA				eS	Sg	17 47 03.1	-2.3
PCYT	Pengchaiyu	0.80	337	eP	Pg	17 46 55.4	-0.4
YM08	YM08	0.81	292	eP	Pb	17 46 56.8	+0.6
YM08				eS	Sg	17 47 06.9	+0.2
YM01	YM01	0.82	288	P	Pg	17 46 56.2	+0.1
YM01				S	Sb	17 47 07.2	+0.1
ENTT	Nioudou	0.82	253	P	Pb	17 46 56.4	+0.2
ENTT				eS	Sb	17 47 07.8	+0.6
NHDH	Xindian Distri	0.82	275	eP	Pb	17 46 56.6	+0.4
NHDH				S	Sb	17 47 07.7	+0.5
EAHA	Aohua	0.84	228	eP	Pb	17 46 56.6	+0.1
EAHA				eS	Sb	17 47 08.2	+0.6
TWY	Chenhua	0.84	297	P	Pb	17 46 57.1	+0.5
TWY				S	Sb	17 47 08.2	+0.4
NWLT	Wulai	0.85	263	eP	Pb	17 46 56.9	+0.2
NWLT				S	Sb	17 47 07.9	0.0
TAP	Taipei	0.85	280	eP	Pn	17 46 57.6	-0.1
TAP				eS	Sb	17 47 08.3	+0.4
TATO	Taipei	0.86	276	P	Pg	17 46 55.5	-1.3
TATO	Taipei	0.86	276	S	Sg	17 47 07.7	-0.3
ANP	Anpu	0.87	290	eP	Pb	17 46 57.7	+0.5
ANP				S	Sb	17 47 09.1	+0.4
NDT	Datong Townshi	0.88	251	eP	Pn	17 46 58.0	-0.2
NDT				eS	Sn	17 47 10.9	+0.2
LATG	Datong	0.89	247	i P	Pb	17 46 57.7	+0.2
LATG				eS	Sb	17 47 09.8	+0.6
YHNB	Yeheng	0.98	257	P	Pb	17 46 58.3	-0.7
YHNB	Yeheng	0.98	257	S	Sg	17 47 12.0	0.0
YHNB	Yeheng	0.98	257	eP	Pg	17 46 59.1	0.0
YHNB				eS	Sb	17 47 11.4	-0.4
NSK	Sanguang	0.99	258	eP	Pg	17 46 59.6	+0.2
NSK				S	Sg	17 47 12.6	+0.2
NACB	Ninganchiao	1.04	227	P	Pb	17 46 59.4	-0.6
NACB	Ninganchiao	1.04	227	S	Sn	17 47 14.5	-0.2
NACB	Ninganchiao	1.04	227	eP	Pb	17 46 59.6	-0.4
NACB				eS	Sg	17 47 13.5	-0.3
NNSB	Datong	1.05	244	eP	Pb	17 47 00.0	-0.3
NNSB				eS	Sb	17 47 13.8	-0.2
NNS	Nan Shan	1.06	245	eP	Pb	17 47 00.5	+0.1
NNS				eS	Sn	17 47 14.8	-0.6
ETLH	Xiulin Townshi	1.10	232	eP	Pb	17 47 00.9	0.0
ETLH				eS	Sn	17 47 16.0	-0.2
TWD	Chiawan	1.10	223	eP	Pg	17 47 01.9	+0.4
TWD				eS	Sg	17 47 15.5	-0.4
KSHI	Guanxi Townshi	1.14	265	eP	Pb	17 47 01.5	-0.2
NFF	Wufeng Townshi	1.22	258	eP	Pn	17 47 02.6	-0.3
FUSS	Fushou	1.25	240	eP	Pg	17 47 04.3	0.0
FUSS				eS	Sg	17 47 21.0	+0.3
ETM	Tongmen	1.25	223	eP	Pb	17 47 03.8	+0.1
LXIB	Xiulin Townshi	1.26	227	eP	Pg	17 47 04.5	-0.1
LXIB				eS	Sg	17 47 21.8	+0.8
WHF	Hehuan Shan	1.29	235	eP	Pg	17 47 05.0	-0.1
WHF				S	Sg	17 47 23.2	+1.2
TWT	Tachien	1.30	241	eP	Pb	17 47 04.8	+0.3
TWT				eS	Sg	17 47 22.9	+0.6
LIOB	Emei	1.30	260	eP	Pn	17 47 03.6	-0.4
IRIF	Iriomote-Funau	1.31	115	eP	Pn	17 47 04.5	+0.5
NSTT	Nanjuang	1.32	259	eP	Pn	17 47 03.8	-0.5
SHUL	Shoufeng	1.35	216	eP	Pn	17 47 04.5	-0.1
ESL	Shilin	1.40	220	eP	Pn	17 47 05.1	-0.2
OWD	Renai	1.47	231	eP	Pb	17 47 07.5	+0.1
WUSB	Renai	1.49	233	eP	Pb	17 47 08.2	+0.5
WUSB				eS	Sg	17 47 28.9	+0.6
WARBT	Fenglin Townsh	1.50	219	eP	Pn	17 47 06.1	-0.6
TWQ1	Liyutan	1.60	251	eP	Pb	17 47 09.8	+0.3
WCS	Beigang Elemen	1.61	239	eP	Pb	17 47 10.1	+0.4
VWDT	VWDT	1.63	226	eP	Pb	17 47 09.6	-0.4
HGSD	Ruisui	1.67	214	eP	Pn	17 47 09.2	+0.3
EHYH	Wanrong	1.70	216	eP	Pn	17 47 09.2	-0.3
SMLT	Sun Moon Lake	1.71	235	eP	Pg	17 47 12.4	-0.7
SSLB	Suanglung	1.73	231	P	Pb	17 47 11.4	-0.4
SSLB	Suanglung	1.73	231	eP	Pb	17 47 11.1	-0.7
JISG	Ishigakijimahi	1.74	100	eP	Pb	17 47 11.5	-0.4
YULB	Yu-li	1.81	215	P	Pn	17 47 12.0	+1.0
YULB	Yu-li	1.81	215	eP	Pn	17 47 09.9	-1.1
TWF1	Yuli	1.84	214	eP	Pn	17 47 10.9	-0.6
WHYT	Xinyi Township	1.86	231	eP	Pb	17 47 14.4	+0.3
ELDTW	Lidau	2.13	218	eP	Pn	17 47 15.9	+0.4
TWK	Hsinying	2.40	228	eP	Pn	17 47 21.0	+1.9

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*JMA **13** 17:50:16.4±0.1, 24°.9N±0°.9×122°.5E±0°.4, h33^{km}±2^{km}, MV1.2/9, NW OFF ISHIGAKIJIMA IS*
*TAP **13** 17:50:17.2, 24°.89N×122°.42E, h27^{km}, ML2.6, C*
ISC 13 17:50:16.6±1.1, **24°.91N**±0°.04×**122°.45E**±0°.03, **h24**^{km}±12^{km}, **n54**, σ**0^{s}.70**/80, **Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TWB1	Santiao Chiao	0.43	284	eP	Pb	17 50 25.4	-0.1
TWB1				S	Sb	17 50 30.8	-0.9
EGS		0.47	263	eP	Pb	17 50 26.2	0.0
EGS				eS	Sb	17 50 33.3	+0.5
EOS2	EOS2	0.52	202	i P	Pb	17 50 27.8	+0.7
EOS2				S	Sn	17 50 35.9	-0.6
SXI1	Grass Mountain	0.55	290	P	Pb	17 50 27.9	+0.2
SXI1				S	Sb	17 50 35.9	+0.7
TIPB	Shuangxi	0.57	277	i P	Pb	17 50 28.3	+0.4
TIPB				i S	Sb	17 50 36.0	+0.3
WFSB	Wu-fen Shan	0.62	285	eP	Pb	17 50 29.7	+0.8
WFSB				S	Sb	17 50 37.1	-0.2
EOS3	EOS3	0.63	191	eP	Pn	17 50 30.1	+0.2
EOS3				eS	Sn	17 50 39.6	+0.5
ESAO	Su ao	0.64	239	eP	Pb	17 50 28.9	-0.2
ESAO				S	Sb	17 50 36.9	-0.7
JYNG	Yonagunijimaku	0.64	135	eP	Pb	17 50 28.9	-0.2
JYNG				eS	Sb	17 50 37.8	+0.1
TNOU	National Taiwa	0.66	292	P	Pb	17 50 29.7	+0.3
TNOU				eS	Sb	17 50 36.7	-1.4
YOJ	Yonaguni jima	0.68	131	i P	Pb	17 50 30.2	+0.4
YOJ				eS	Sb	17 50 39.0	+0.3
YOJ	Yonaguni jima	0.68	131	eP	Pb	17 50 29.5	-0.3
YOJ				eS	Sb	17 50 38.8	+0.1
NDS	Dongshan	0.72	248	P	Pb	17 50 30.6	+0.2
NDS				S	Sb	17 50 39.7	-0.2
TWE	Neicheng	0.73	256	P	Pb	17 50 31.1	+0.4
TWE				eS	Sb	17 50 40.1	-0.2
TWA	Mucha	0.79	276	eP	Pb	17 50 31.1	-0.6
EOS4	EOS4	0.79	188	eP	Pn	17 50 32.1	+0.2
FUSB	Fushanzhiwuyua	0.79	260	P	Pb	17 50 31.5	-0.2
FUSB				S	Sn	17 50 42.7	-0.8
PCYT	Pengchaiyu	0.80	335	eP	Pb	17 50 32.2	+0.5
ENA	Nanau	0.80	234	eP	Pb	17 50 29.2	-2.6
ENA				eS	Sb	17 50 40.2	-2.0
YM01	YM01	0.83	287	eP	Pb	17 50 32.6	+0.2
NHDH	Xindian Distri	0.84	274	P	Pb	17 50 32.9	+0.4
NHDH				S	Sn	17 50 44.0	-0.5
ENTT	Nioudou	0.84	252	P	Pn	17 50 33.0	0.0
ENTT				eS	Sn	17 50 44.6	0.0
EAHA	Aohua	0.86	228	eP	Pb	17 50 32.7	-0.2
NWLT	Wulai	0.87	262	P	Pb	17 50 33.1	+0.1
NWLT				S	Sn	17 50 44.6	-0.7
ANP	Anpu	0.89	289	eP	Pb	17 50 33.8	+0.5
NDT	Datong Townshi	0.90	251	eP	Pn	17 50 33.6	-0.1
LATG	Datong	0.91	246	P	Pb	17 50 34.1	+0.2
LATG				eS	Sb	17 50 45.7	+0.1
YHNB	Yeheng	1.00	257	eP	Pn	17 50 35.2	0.0
NSK	Sanguang	1.01	257	eP	Pn	17 50 35.5	+0.1
NSK				eS	Sn	17 50 49.4	+0.4
NACB	Ninganchiao	1.06	227	eP	Pn	17 50 36.0	0.0
NACB				eS	Sb	17 50 49.9	+0.1
NNSB	Datong	1.08	244	eP	Pn	17 50 36.5	+0.2
NNSB				eS	Sb	17 50 50.4	+0.1
NNS	Nan Shan	1.08	245	eP	Pn	17 50 36.4	0.0
NNS				i S	Sn	17 50 49.3	-1.4
ETLH	Xiulin Townshi	1.12	232	eP	Pb	17 50 37.2	-0.1
TWD	Chiawan	1.13	223	eP	Pb	17 50 38.0	+0.6
NFF	Wufeng Townshi	1.24	258	eP	Pn	17 50 38.7	+0.2
FUSS	Fushou	1.28	239	eP	Pb	17 50 40.3	+0.2
LXIB	Xiulin Townshi	1.29	227	eP	Pb	17 50 40.5	+0.2
LXIB				eS	Sb	17 50 58.4	+1.9
IRIF	Iriomote-Funau	1.30	116	eP	Pn	17 50 38.8	-0.4
WHF	Hehuan Shan	1.32	235	eP	Pb	17 50 41.6	+0.7
LIOB	Emei	1.33	259	eP	Pn	17 50 39.6	-0.1
TWT	Tachien	1.33	241	eP	Pb	17 50 41.0	+0.1

NSTT	**Nanjuang**	**1.34**	**258**	*e*P	**Pn**	**17 50 40.0**	**+0.2**
ESL	**Shilin**	**1.43**	**221**	*e*P	**Pn**	**17 50 41.8**	**+0.7**
OWD	**Renai**	**1.50**	**231**	*e*P	**Pb**	**17 50 43.8**	**0.0**
WUSB	**Renai**	**1.52**	**233**	*e*P	**Pb**	**17 50 44.4**	**+0.3**
WUSB				*e*S	**Sb**	**17 51 04.8**	**+1.8**
WARBT	**Fenglin Townsh**	**1.53**	**219**	*e*P	**Pn**	**17 50 42.7**	**+0.2**
WCS	**Beigang Elemen**	**1.63**	**239**	*e*P	**Pb**	**17 50 46.9**	**+0.9**
VWDT	**VWDT**	**1.65**	**226**	*e*P	**Pb**	**17 50 45.8**	**-0.6**
HGSD	**Ruisui**	**1.69**	**214**	*e*P	**Pn**	**17 50 44.1**	**-0.5**
SMLT	**Sun Moon Lake**	**1.74**	**234**	*e*P	**Pb**	**17 50 47.4**	**-0.5**
SSLB	**Suanglung**	**1.76**	**231**	*e*P	**Pb**	**17 50 47.6**	**-0.6**
YULB	**Yu-li**	**1.84**	**215**	*e*P	**Pn**	**17 50 46.3**	**-0.4**
WHYT	**Xinyi Township**	**1.89**	**231**	*e*P	**Pb**	**17 50 50.7**	**+0.3**
ALS	**Alishan**	**2.04**	**227**	*e*P	**Pn**	**17 50 51.5**	**+1.7**

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*SOME **13** 18:14:22.6, 39°.60N×73°.38E, h10km*
*KRNET **13** 18:14:25.8±0.1, 39°.60N×73°.58E, h19km, mb3.4*
*NNC **13** 18:14:27.7±2.4, 39°.70N×73°.67E, h0km, mb3.7, mpv3.4, Error ellipse: s-maj=18.3km s-min=12.0km az=172.0*
ISC 13 18:14:25.6±1.6**, 39°.61N**±0°.05×**73°.52E**±0°.03**, h2**km±11km**, n43, σ1s69**/75**, 26C-21D, Tajikistan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SFK	**Sufi-Kurgan**	**0.41**	**358**	⇑*i*P	**Pg**	**18 14 34.2**	**+0.8**
SFK				⇑*i*S	**Sg**	**18 14 40.3**	**+1.6**
OHH	**Osh**	**1.08**	**328**	⇑*i*P	**Pb**	**18 14 46.0**	**-1.1**
OHH				⇑*i*S	**Sg**	**18 15 01.2**	**+1.0**
SALK	**Salom-Alik**	**1.29**	**10**	⇓*e*P	**Pb**	**18 14 50.1**	**-0.7**
SALK				⇓*e*S	**Sg**	**18 15 07.6**	**+0.4**
DRK	**Karamyk**	**1.34**	**265**	⇓*i*P	**Pb**	**18 14 51.1**	**-0.5**
DRK				⇓*i*S	**Sg**	**18 15 09.6**	**+1.0**
ARSB	**Arslanbob**	**1.76**	**347**	⇑*i*P	**Pb**	**18 14 58.1**	**-0.7**
ARSB				⇑*i*S	**Sb**	**18 15 21.7**	**+0.2**
BTK	**Batken**	**2.13**	**283**	⇑*i*P	**Pb**	**18 15 03.7**	**-1.3**
BTK				⇑*i*S	**Sb**	**18 15 31.2**	**-0.8**
ARK	**Arkit**	**2.49**	**332**	⇑*i*P	**Pn**	**18 15 08.3**	**+1.0**
ARK				⇑*i*S	**Sn**	**18 15 39.3**	**+0.9**
NRN	**Naryn**	**2.62**	**45**	⇑*i*P	**Pn**	**18 15 09.0**	**-0.4**
NRN				⇑*i*S	**Sn**	**18 15 40.7**	**-1.3**
TRKS	**Terek-Say**	**2.64**	**317**	⇑*i*P	**Pn**	**18 15 09.8**	**+0.3**
TRKS				⇑*i*S	**Sn**	**18 15 41.8**	**-0.4**
UCH	**Uchtor**	**2.72**	**16**	⇑*i*P	**Pn**	**18 15 11.2**	**+0.4**
UCH				⇑*i*S	**Sn**	**18 15 44.5**	**-0.1**
MNAS	**Manas**	**2.98**	**345**	⇑*i*P	**Pn**	**18 15 15.0**	**+0.9**
MNAS				⇑*i*S	**Sn**	**18 15 50.9**	**+0.4**
EKS2	**Erkin-Say**	**3.06**	**3**	⇓*i*P	**Pn**	**18 15 15.9**	**+0.8**
EKS2				⇓*i*S	**Sn**	**18 15 52.3**	**-0.1**
AAK	**Ala-Archa**	**3.12**	**13**	⇑Pn	**Pn**	**18 15 16.9**	**+1.0**
	4.6nm,0.6s						
AAK				⇓Lg	Lg	18 16 04.1	
	16nm,0.6s						
AAK	**Ala-Archa**	**3.12**	**13**	⇓*i*P	**Pn**	**18 15 16.5**	**+0.6**
AAK				⇓*i*S	**Sn**	**18 15 53.5**	**-0.3**
MRKS	**Merke**	**3.14**	**356**	Pg	**Pb**	**18 15 19.6**	**-2.7**
	15nm,0.3s						
MRKS				Lg	Lg	18 16 01.0	
	101nm,0.5s						
MRKS	**Merke**	**3.14**	**356**	*e*P	**Pb**	**18 15 19.6**	**-2.7**
	15nm,0.3s						
MRKS				*e*S	**Sb**	**18 16 01.0**	**-0.1**
	101nm,0.5s						
KBK	**Karagaybulak**	**3.23**	**19**	⇑*i*P	**Pn**	**18 15 18.2**	**+0.7**
KBK				⇑*i*S	**Sn**	**18 15 56.3**	**-0.4**
FRU1	**Bishkek**	**3.31**	**14**	⇓*i*P	**Pn**	**18 15 19.5**	**+1.0**
FRU1				⇓*i*S	**Sn**	**18 15 58.7**	**+0.3**
ULHL	**Ulahol**	**3.34**	**37**	⇓*i*P	**Pn**	**18 15 19.5**	**+0.4**
ULHL				⇓*i*S	**Sn**	**18 15 58.9**	**-0.7**
BOOM	**Boomskoye usch**	**3.41**	**32**	⇑*i*P	**Pn**	**18 15 20.5**	**+0.5**
BOOM				⇑*i*S	**Sn**	**18 16 00.5**	**-0.6**
CHMS	**Chumysh**	**3.51**	**15**	⇓*e*P	**Pn**	**18 15 22.1**	**+0.8**
CHMS				⇓*i*S	**Sn**	**18 16 03.1**	**-0.4**
TKM2	**Tokmak 2**	**3.66**	**25**	⇓*i*P	**Pn**	**18 15 24.1**	**+0.6**
TKM2				⇓*i*S	**Sn**	**18 16 06.7**	**-0.7**
IUG	**Iuzhnay**	**3.67**	**315**	Pg	**Pb**	**18 15 27.8**	**-3.4**
	17nm,0.2s						
IUG				Lg	Lg	18 16 14.7	
	41nm,0.6s						
IUG	**Iuzhnay**	**3.67**	**315**	*e*P	**Pb**	**18 15 27.8**	**-3.4**
	17nm,0.2s						
IUG				*e*S	**Sb**	**18 16 14.7**	**-1.5**
	41nm,0.6s						
KDJ	**Kajisay**	**3.75**	**47**	⇓*e*P	**Pn**	**18 15 25.0**	**+0.4**
KDJ				⇓*i*S	**Sn**	**18 16 08.4**	**-1.0**
TARG	**Taragay, Kyrgy**	**3.88**	**56**	⇓*e*P	**Pn**	**18 15 26.8**	**+0.1**
TARG				⇓*i*S	**Sn**	**18 16 11.7**	**-1.5**
KST	**Kastek**	**3.89**	**27**	Pg	**Pb**	**18 15 36.3**	**+1.2**
	1.7nm,0.3s						
KST				Lg	Lg	18 16 29.1	
	31nm,0.8s						
KST	**Kastek**	**3.89**	**27**	*e*P	**Pb**	**18 15 36.3**	**+1.2**
	1.7nm,0.3s						
KST				*e*S	**Sg**	**18 16 29.1**	**-1.5**
	31nm,0.8s						
SGDS	**Sogindy**	**3.93**	**12**	Pg	**Pb**	**18 15 36.8**	**+1.1**
	2.5nm,0.4s						
SGDS				Lg	Lg	18 16 30.6	
	13nm,0.6s						
KK31	**Karatay Array**	**4.16**	**328**	⇑Pn	**Pn**	**18 15 33.7**	**+3.5**
	2.3nm,0.5s,baz=130,slow=12,SNR=88						
KK31				⇑Sn	**Sn**	**18 16 24.1**	**+4.6**
	4.6nm,0.5s,baz=132,slow=28,SNR=5.7						
KK31				⇑Lg	Lg	18 16 42.0	
	7.0nm,0.3s,baz=134,slow=24,SNR=6.0						
TNSS	**Tian-Shan**	**4.29**	**36**	Pg	**Pb**	**18 15 43.4**	**+1.4**
	1.3nm,0.5s						
TNSS				Lg	Lg	18 16 41.8	
	2.4nm,0.4s						
TNSS	**Tian-Shan**	**4.29**	**36**	*e*P	**Pb**	**18 15 43.4**	**+1.4**
	1.3nm,0.5s						
TNSS				*e*S	**Sg**	**18 16 41.8**	**-1.5**
	2.4nm,0.4s						
KRBS	**Karabastau**	**4.39**	**21**	Pg	**Pb**	**18 15 45.7**	**+2.2**
	4.9nm,0.3s						
KRBS				Lg	Lg	18 16 45.2	
	21nm,0.8s						
KRBS	**Karabastau**	**4.39**	**21**	*e*P	**Pb**	**18 15 45.7**	**+2.2**
	4.9nm,0.3s						
KRBS				*e*S	**Sg**	**18 16 45.2**	**-1.4**
	21nm,0.8s						
BRLS	**Borolday**	**4.41**	**322**	*e*P	**Pb**	**18 15 41.4**	**-2.3**
	2.5nm,0.1s						
BRLS				*e*S	**Sb**	**18 16 38.4**	**+1.0**
	20nm,0.6s						
MDOK	**Medeo**	**4.43**	**36**	Pg	**Pb**	**18 15 45.2**	**+0.9**
	5.0nm,0.8s						
MDOK				Lg	Lg	18 16 44.6	
	16nm,0.8s						
MDOK	**Medeo**	**4.43**	**36**	*e*P	**Pb**	**18 15 45.2**	**+0.9**
	5.0nm,0.8s						
MDOK				*e*S	**Sg**	**18 16 44.6**	**-3.3**
	16nm,0.8s						
KUU	**Kurty**	**4.77**	**25**	Pg	**Pb**	**18 15 51.9**	**+2.0**
	2.4nm,0.2s						
KUU				Lg	Lg	18 16 56.0	
	17nm,0.4s						
KUU	**Kurty**	**4.77**	**25**	*e*P	**Pb**	**18 15 51.9**	**+2.0**
	2.4nm,0.2s						
KUU				*e*S	**Sg**	**18 16 56.0**	**-2.8**
	17nm,0.4s						
SATY	**Saty**	**5.04**	**45**	Pg	**Pb**	**18 15 57.0**	**+2.4**
	2.1nm,0.5s						
SATY				Lg	Lg	18 17 04.3	
	8.7nm,0.7s						
SATY	**Saty**	**5.04**	**45**	*e*P	**Pb**	**18 15 57.0**	**+2.4**
	2.1nm,0.5s						
SATY				*e*S	**Sg**	**18 17 04.3**	**-3.2**
	8.7nm,0.7s						
KPKS	**Kokpek**	**5.46**	**43**	Pg	**Pb**	**18 16 04.2**	**+2.4**
	0.3nm,0.2s						
KPKS				Lg	Lg	18 17 17.4	
	8.2nm,0.5s						
KPKS	**Kokpek**	**5.46**	**43**	*e*P	**Pb**	**18 16 04.2**	**+2.4**
	0.3nm,0.2s						
KPKS				*e*S	**Sg**	**18 17 17.4**	**-3.6**
	8.2nm,0.5s						

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*NEIC **13** 18:28:52.2±2.3, 4°.25N±0°.06×96°.68E±0°.08, h122km±4km, mb5.2/175, Mww5.0/19, Error ellipse: s-maj=11.5km s-min=8.0km az=79.0*
*NEIC **13** 18:28:52.3, 4°.25N×96°.67E, h123km*
*GCMT **13** 18:28:53.7±0.2, 4°.28N±0°.01×96°.77E±0°.01, h135km±1km, MW5.1/125, Moment Tensor Solution. s70,c94; s125,c229; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}0.54±.11; $M_{\theta\theta}$2.20±.12; $M_{\phi\phi}$-2.74±.12; $M_{r\theta}$4.31±.08; $M_{\theta\phi}$-2.96±.11; $M_{\phi r}$-0.59±.08; Best double couple: $M_0$5.60000×10^{16} NP1:ϕ_s168.00000°,δ48.00000°, λ11.00000°. NP2:ϕ_s71.00000°,δ82.00000°,λ137.00000°. Principal axes: T 6.5400, Plg35.0000°, Azm20.0000°; N -1.8790, Plg46.0000°, Azm242.0000°; P -4.6610, Plg22.0000°, Azm127.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
*DJA **13** 18:28:53.1±0.1, 4°N±2°×9°7E±°, h125km±1km, M5.1/96, mB5.5/50, mb5.3/96, MLv5.6/37, Mw5.0/100, Mw(mB)5.0/50, MwMwp4.6/3, Mwp5.0/3*
*IDC **13** 18:28:53.7±0.9, 4°.48N×96°.75E, h132km±7km, mb4.7/41, mbtmp5.1/44, MS3.6/36, Error ellipse: s-maj=11.1km s-min=7.3km az=67.0*
*GFZ **13** 18:28:53.3±0.3, 4°N±2°×9°7E±°, h131km±2km, M5.0/159, mb5.1/159, Mw5.0/21, Error ellipse: s-maj=5.7km s-min=3.4km az=50.7, confirmed*
*NEIC **13** 18:28:54.9, 4°.05N×96°.47E, h120km, Moment Tensor Solution. Duration: 1s7 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.05; $M_{\theta\theta}$0.95; $M_{\phi\phi}$-0.89; $M_{r\theta}$3.62; $M_{\theta\phi}$-2.37; $M_{\phi r}$0.08; Fault plane solution: $M_0$4.43000×10^{16} NP1: ϕ_s172.24000°,δ34.93000°,λ-0.81000°. NP2:ϕ_s262.90000°, δ89.54000°,λ-124.93000°. Principal axes: T 4.6805, Plg35.0000°, Azm23.0000°; N -0.5568, Plg35.0000°, Azm263.0000°; P -4.1238, Plg36.0000°, Azm143.0000°;*
ISC 13 18:28:53.1±0.3**, 4°.31N**±0°.03×**96°.71E**±0°.03**, h131**km±2km**, h132km:pP-P, n963, σ1s09**/968**, mb5.1**/375**, 55C-56D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MLSI	**Meulaboh, Aceh**	**0.31**	**261**	P	**Pn**	**18 29 11.3**	**-0.1**
LHMI	**Lhok Sumawe**	**0.94**	**14**	P	**Pn**	**18 29 16.1**	**+0.6**
LHMI	**Lhok Sumawe**	**0.94**	**14**	P	**Sn**	**18 29 34.3**	**+1.7**
LHMI	**Lhok Sumawe**	**0.94**	**14**		**Pn**	**18 29 16.4**	**+0.9**
LHMI				Sn	**Sn**	**18 29 33.4**	**+0.8**
LHMI	**Lhok Sumawe**	**0.94**	**14**	P	**Pn**	**18 29 16.5**	**+0.9**
LHMI				AML	AML		
LHMI	**Lhok Sumawe**	**0.94**	**14**	⇓P	**Pn**	**18 29 16.6**	**+1.1**
TPTI		**1.15**	**156**	P	**Pn**	**18 29 16.6**	**-0.9**
KCSI	**Kotacane, Aceh**	**1.32**	**127**	P	**Pn**	**18 29 18.8**	**-0.5**
BSI	**Banda Aceh**	**1.84**	**310**	P	**Pn**	**18 29 25.8**	**+0.6**
BSI				AML	AML		
SNSI	**Sinabang, Aceh**	**1.93**	**192**	P	**Pn**	**18 29 25.3**	**-1.0**
SNSI				AML	AML		
TSI	**Tuntungan**	**2.02**	**114**	P	**Pn**	**18 29 27.4**	**+0.1**
PSI	**Prapat**	**2.67**	**124**	P	**Pn**	**18 29 36.2**	**+0.6**
PSI	**Prapat**	**2.67**	**124**	S	**Sn**	**18 30 07.0**	**-1.3**
PSI	**Prapat**	**2.67**	**124**	P	**Pn**	**18 29 36.1**	**+0.5**
PSI				AML	AML		
RPSI	**Rantau Prapat**	**2.73**	**126**		**Pn**	**18 29 36.1**	**-0.2**
RPSI	**Rantau Prapat**	**2.73**	**126**	⇑P	**Pn**	**18 29 36.3**	**0.0**
GSI	**Gunungsitoli**	**3.11**	**164**	P	**Pn**	**18 29 39.6**	**-1.6**
GSI	**Gunungsitoli**	**3.11**	**164**	S	**Sn**	**18 30 15.9**	**-2.5**
GSI	**Gunungsitoli**	**3.11**	**164**		**Pn**	**18 29 39.8**	**-1.4**
GSI	**Gunungsitoli**	**3.11**	**164**	P	**Pn**	**18 29 39.8**	**-1.4**
GSI				AML	AML		
GSI	**Gunungsitoli**	**3.11**	**164**	⇑P	**Pn**	**18 29 39.8**	**-1.4**
TRSI	**Tarutung**	**3.19**	**135**	P	**Pn**	**18 29 42.1**	**-0.3**
IPM	**Ipoh**	**4.30**	**88**	P	**Pn**	**18 29 57.0**	**+0.1**
IPM	**Ipoh**	**4.30**	**88**		**Pn**	**18 29 56.8**	**-0.2**
IPM	**Ipoh**	**4.30**	**88**	P	**Pn**	**18 29 56.7**	**-0.2**
IPM				AML	AML		
IPM	**Ipoh**	**4.30**	**88**	⇓P	**Pn**	**18 29 56.8**	**-0.2**
MNSI	**Mandailing Nat**	**4.52**	**141**	P	**Pn**	**18 29 59.2**	**-0.6**
PBSI	**Pulau Batu**	**4.61**	**160**	P	**Pn**	**18 29 59.7**	**-1.4**
BKNI	**Bangkinang**	**5.86**	**132**	P	**Pn**	**18 30 18.0**	**+0.2**
BKNI	**Bangkinang**	**5.86**	**132**	S	**Sn**	**18 31 23.4**	**-0.5**
BKNI	**Bangkinang**	**5.86**	**132**	Pn	**Pn**	**18 30 17.0**	**-0.8**
BKNI	**Bangkinang**	**5.86**	**132**	P	**Pn**	**18 30 17.2**	**-0.6**
	4.3nm2μm10μm704nm,1.4s						
BKNI				AML	AML		
BKNI	**Bangkinang**	**5.86**	**132**	⇓P	**Pn**	**18 30 17.3**	**-0.6**
	comp=Z,686nm,1.4s						
PPI	**Padang Panjang**	**6.00**	**142**	P	**Pn**	**18 30 19.1**	**-0.6**
	comp=Z,2.7nmcomp=Z,6μmcomp=Z,375nm,1.0s						
PPI				AML	AML		
SDSI	**Sungai Dareh**	**7.03**	**138**	P	**Pn**	**18 30 32.4**	**-1.1**
MYKOM	**Kota Tinggi**	**7.55**	**109**	P	**Pn**	**18 30 40.3**	**-0.3**
MYKOM	**Kota Tinggi**	**7.55**	**109**	S	**Sn**	**18 32 04.5**	**-0.3**
MYKOM	**Kota Tinggi**	**7.55**	**109**		**Pn**	**18 30 39.6**	**-1.0**
MYKOM	**Kota Tinggi**	**7.55**	**109**	P	**Pn**	**18 30 39.9**	**-0.7**
	comp=Z,0.7nmcomp=Z,2μmcomp=Z,184nm,0.6s						
MYKOM				AML	AML		
MYKOM	**Kota Tinggi**	**7.55**	**109**	⇓P	**Pn**	**18 30 40.0**	**-0.5**
	comp=Z,184nm,0.6s						
BTDF	**Bukit Timah Da**	**7.63**	**112**	P	**Pn**	**18 30 41.6**	**-0.1**
BTDF	**Bukit Timah Da**	**7.63**	**112**	S	**Sn**	**18 32 06.6**	**-0.2**
BTDF	**Bukit Timah Da**	**7.63**	**112**	P	**Pn**	**18 30 41.6**	**-0.1**
BTDF				AML	AML		
TPRI	**Tanjung Pinang**	**8.50**	**113**	P	**Pn**	**18 30 53.4**	**+0.1**
	comp=Z,104nm,0.7s						
JMBI	**JAMBI**	**9.10**	**130**	P	**Pn**	**18 31 01.2**	**-0.2**
	comp=Z,5μmcomp=Z,379nm,1.1s						
KSI	**Kapahiang**	**9.85**	**143**	P	**Pn**	**18 31 10.4**	**-1.2**
	comp=Z,4μmcomp=Z,214nm,0.6s						
MNAI	**Manna**	**10.64**	**144**	P	**Pn**	**18 31 20.0**	**-2.0**
MNAI	**Manna**	**10.64**	**144**		**Pn**	**18 31 19.1**	**-2.9**
MNAI	**Manna**	**10.64**	**144**	P	**Pn**	**18 31 20.7**	**-1.3**
	comp=Z,314nm,0.6s						
BLSI	**Bandar Lampung**	**12.85**	**138**	P	**Pn**	**18 31 50.0**	**-1.1**
	comp=Z,99nm,0.5s						
TPI	**Tanjungpandan**	**12.99**	**123**	P	**Pn**	**18 31 52.6**	**-0.4**
DLV	**Lat**	**13.90**	**56**	P	**Pn**	**18 32 06.4**	**+1.7**
DLV	**Lat**	**13.90**	**56**	P	**P**	**18 32 07.5**	**-1.2**
DLV	**Lat**	**13.90**	**56**	P	**Pn**	**18 32 06.6**	**+1.9**
	comp=Z,90nm,1.2s						
CM31	**Chiang Mai Arr**	**14.22**	**9**	Pn	**Pn**	**18 32 09.2**	**+0.5**
CMAR	**Chiang Mai Arr**	**14.22**	**9**	P	**Pn**	**18 32 09.1**	**+0.3**
	comp=Z,16nm,0.8s,baz=201,slow=13,SNR=174						
CMAR				ScP	**ScP**	**18 40 39.9**	**+0.7**
	comp=Z,26nm,0.8s,baz=223,slow=3.1,SNR=80						
CMAR	**Chiang Mai Arr**	**14.22**	**9**	Pn	**Pn**	**18 32 09.7**	**+0.9**
CMAR					**ScP**	**18 40 39.9**	**+0.7**
CHTO	**Chiang Mai**	**14.57**	**8**	P	**P**	**18 32 15.2**	**-0.8**
CHTO	**Chiang Mai**	**14.57**	**8**	Pn	**Pn**	**18 32 13.7**	**+0.6**
CHTO	**Chiang Mai**	**14.57**	**8**	P	**P**	**18 32 15.0**	**-1.0**
CHTO	**Chiang Mai**	**14.57**	**8**	P	**P**	**18 32 14.8**	**-1.2**
	comp=Z,134nm,2.0s						
NPW	**Naypyitaw**	**15.38**	**358**	P	**Pn**	**18 32 23.9**	**+0.6**
	comp=Z,244nm,0.6s						
BBJI	**Bungbulang**	**16.00**	**137**	Pn	**Pn**	**18 32 26.8**	**-4.2**
HALK	**Hakmana**	**16.06**	**277**	P	**P**	**18 32 34.5**	**+1.9**
	comp=Z,84nm,0.7s						
PALK	**Pallekele**	**16.20**	**281**	P	**P**	**18 32 35.9**	**+1.8**
	comp=Z,13nm,0.4s,baz=91,slow=9.6,SNR=25						
PALK				S	Sn	18 35 21.0	-13
	comp=Z,30nm,0.6s,baz=185,slow=19,SNR=8.1						
PALK	**Pallekele**	**16.20**	**281**	P	**P**	**18 32 34.3**	**+0.2**
PALK	**Pallekele**	**16.20**	**281**	P	**Pn**	**18 32 33.6**	**+0.2**
PALK	**Pallekele**	**16.20**	**281**	P	**P**	**18 32 34.4**	**+0.3**
PALK	**Pallekele**	**16.20**	**281**	*i* P	**P**	**18 32 35.8**	**+1.7**
	SNR=12						
PALK	**Pallekele**	**16.20**	**281**	P	**Pn**	**18 32 32.6**	**-0.8**
	comp=Z,58nm,0.9s						
COCO	**West Island**	**16.40**	**180**	P	**Pn**	**18 32 35.4**	**-0.4**
MALK	**Mahakanadarawa**	**16.57**	**285**	P	**P**	**18 32 39.2**	**+1.0**
	comp=Z,84nm,1.1s						
SLVN	**Son La**	**18.30**	**22**	P	**Pn**	**18 32 58.7**	**0.0**
SLVN	**Son La**	**18.30**	**22**	P	**Pn**	**18 32 58.4**	**-0.4**
SLVN	**Son La**	**18.30**	**22**	P	**Pn**	**18 32 59.2**	**+0.5**
	comp=Z,175nm,1.0s						
UGM	**Wanagama**	**18.37**	**131**	P	**P**	**18 32 58.6**	**+0.7**
SAIH	**SAIHA**	**18.43**	**349**	*e*P	**P**	**18 32 57.8**	**-0.8**
SAIH				IAmb	IAmb	18 32 59.4	
	comp=Z,105nm,3.0s						
PKKI	**Palangkaraya**	**18.43**	**110**	P	**P**	**18 32 59.4**	**+0.8**
	comp=Z,3μmcomp=Z,317nm,0.8s						
MDRS	**Chennai**	**18.44**	**299**	*e*P	**P**	**18 32 57.4**	**-1.3**
MDRS				IAmb	IAmb	18 33 02.9	
	comp=Z,139nm,0.5s						
VIS	**Vishakhapatnam**	**18.69**	**316**	*e*P	**P**	**18 33 00.2**	**-1.2**
BWJI	**Bawean**	**18.85**	**122**	P	**P**	**18 33 03.3**	**+0.1**
	comp=Z,410nm,1.3s						
BRDH	**Bariadhala**	**18.90**	**345**	P	**P**	**18 33 04.4**	**+0.8**
	comp=Z,404nm,0.7s,baz=117,slow=3.9,SNR=20						
BRDH				LR	LR	18 40 58.3	
	comp=Z,364nm,19.0s,baz=169,slow=39						
SNJI	**Sawahan-Nganju**	**19.23**	**129**	P	**P**	**18 33 07.5**	**+0.1**
	comp=Z,91nm,1.3s						
QIZ	**Qiongzhong**	**19.45**	**40**	P	**Pn**	**18 33 11.0**	**-1.1**
QIZ				S	**S**	**18 36 46.6**	**+4.1**
QIZ				pmax	pmax		
	comp=Z,58nm,0.7s						
QIZ				pmax	pmax		
	comp=Z,370nm,3.5s						
QIZ	**Qiongzhong**	**19.45**	**40**	P	**Pn**	**18 33 11.0**	**-1.1**
KKM	**Kota Kinabalu**	**19.50**	**84**	P	**Pn**	**18 33 12.0**	**-0.9**
KKM	**Kota Kinabalu**	**19.50**	**84**	P	**P**	**18 33 11.2**	**+0.9**
KKM	**Kota Kinabalu**	**19.50**	**84**	P	**Pn**	**18 33 11.7**	**-1.1**
KKM	**Kota Kinabalu**	**19.50**	**84**	P	**Pn**	**18 33 11.8**	**-1.1**
	comp=Z,30nm,0.6s						
RAGD	**RAYAGADA**	**19.69**	**320**	*e*P	**P**	**18 33 11.3**	**-1.0**
RAGD				IAmb	IAmb	18 33 15.1	
	comp=Z,50nm,0.5s						
BBKI	**Banjar Baru**	**19.69**	**113**	P	**P**	**18 33 13.4**	**+1.1**
	comp=Z,262nm,0.7s						
AZL	**Aizawl**	**19.70**	**349**	*e*P	**P**	**18 33 11.5**	**-0.9**
AZL				IAmb	IAmb	18 33 12.9	
	comp=Z,155nm,1.0s						
SALM	**Salem**	**19.76**	**293**	*e*P	**P**	**18 33 11.5**	**-1.5**
SALM				IAmb	IAmb	18 33 20.8	
	comp=Z,102nm,0.7s						
VJD	**Vijayawada**	**19.89**	**309**	*e*P	**P**	**18 33 13.4**	**-1.0**
MORE	**Moreh**	**19.94**	**354**	P	**P**	**18 33 13.5**	**-1.4**
KOD	**Kodaikanal**	**19.97**	**288**	*e*P	**P**	**18 33 13.5**	**-2.1**
KOD				IAmb	IAmb	18 33 23.3	
	comp=Z,32nm,0.7s						
IMP	**Imphal**	**20.57**	**353**	*e*P	**P**	**18 33 19.6**	**-2.1**
IMP				IAmb	IAmb	18 33 20.9	
	comp=Z,121nm,0.8s						
TNCH	**TengChong**	**20.67**	**5**	P	**P**	**18 33 23.9**	**+1.0**
TNCH				PP	**PnPn**	**18 33 52.9**	**+3.8**
TNCH				sP	sP	18 34 04.6	+1.8
TNCH				S	**S**	**18 37 05.0**	**-1.9**
TNCH				pmax	pmax		
	comp=Z,320nm,0.9s						
TNCH				pmax	pmax		
	comp=Z,320nm,4.7s						
TNCH				L	L		
	comp=Z,580nm,17.1s						
BKB	**Balikpapan**	**20.91**	**105**	P	**P**	**18 33 26.1**	**+0.7**
BKB	**Balikpapan**	**20.91**	**105**	P	**P**	**18 33 25.5**	**+0.1**
	comp=Z,287nm,1.1s						
ABJI	**Asem Bagus**	**21.22**	**124**	P	**P**	**18 33 29.5**	**+0.8**
	comp=Z,447nm,0.9s						
KOHI	**KOHIMA**	**21.43**	**354**	*e*P	**P**	**18 33 30.1**	**-0.9**
KOHI				IAmb	IAmb	18 33 37.2	
	comp=Z,164nm,0.1s						
KMI2	**Kunming**	**21.51**	**15**	⇑P	**P**	**18 33 33.6**	**+1.6**
KMI2				pP	pP	18 34 02.8	+7.2
KMI2				sP	sP	18 34 17.1	+5.1
KMI2				pmax	pmax		
	comp=Z,110nm,0.8s						
KMI2				L	L		
	comp=Z,320nm,16.8s						
KMI2				L	L		
	comp=Z,210nm,12.3s						
KMI2				L	L		
	comp=Z,400nm,18.0s						
JAGI	**Jajag, Banyuwa**	**21.53**	**126**	P	**P**	**18 33 31.7**	**-0.4**
JAGI	**Jajag, Banyuwa**	**21.53**	**126**	P	**P**	**18 33 30.2**	**-1.9**
JAGI	**Jajag, Banyuwa**	**21.53**	**126**	P	**P**	**18 33 31.2**	**-0.9**
	comp=Z,78nm,0.8s						
SHL	**Shillong**	**21.64**	**348**	P	**P**	**18 33 31.7**	**-1.5**
	SNR=50						
SHL	**Shillong**	**21.64**	**348**	P	**P**	**18 33 31.4**	**-1.9**
SHL	**Shillong**	**21.64**	**348**	*e*P	**P**	**18 33 31.6**	**-1.7**
SHL				IAmb	IAmb	18 33 32.1	
	comp=Z,193nm,1.8s						
BOK	**Bokaro**	**22.01**	**333**	*e*P	**P**	**18 33 36.1**	**-0.8**
BOK				IAmb	IAmb	18 33 38.1	
	comp=Z,65nm,0.7s						
HYB	**Hyderabad**	**22.05**	**308**	*e*P	**P**	**18 33 36.3**	**-1.2**
HYB	**Hyderabad**	**22.05**	**308**	*e*P	**P**	**18 33 36.9**	**-0.6**
HYB				*e*pP	**pP**	**18 33 59.8**	**-2.3**
HYB				*e*PcP	**PcP**	**18 37 29.7**	**-0.9**
HYB				*e*S	**S**	**18 37 33.1**	**+1.1**
RTBI	**Rangdo, Negare**	**22.17**	**125**	P	**P**	**18 33 39.4**	**+0.7**
	comp=Z,155nm,0.8s						
DHUB	**DHUBRI**	**22.52**	**344**	*e*P	**P**	**18 33 41.5**	**-0.5**
DHUB				IAmb	IAmb	18 33 42.8	
	comp=Z,184nm,2.1s						
PZH	**PanZhiHua**	**22.58**	**12**	P	**P**	**18 33 43.8**	**+1.0**
KHKI	**Kahang-Kahang**	**22.66**	**124**	P	**P**	**18 33 44.3**	**+0.7**
MNGI	**Mangalore**	**23.20**	**293**	*e*P	**P**	**18 33 47.2**	**-1.4**
MNGI				IAmb	IAmb	18 33 53.3	
	comp=Z,34nm,0.7s						
ZIRO	**ZIRO**	**23.25**	**354**	*e*P	**P**	**18 33 43.9**	**-5.2**
ZIRO				IAmb	IAmb	18 33 48.5	
	comp=Z,166nm,1.6s						
MMSI	**Mamuju**	**23.25**	**107**	P	**P**	**18 33 50.0**	**+0.9**
	comp=Z,53nm,0.9s						
PCI	**Palu**	**23.68**	**102**	P	**P**	**18 33 53.6**	**+0.6**
	comp=Z,3μmcomp=Z,108nm,1.4s						
TWSI	**Taliwang, Sumb**	**23.93**	**123**	P	**P**	**18 33 53.1**	**-2.1**
	comp=Z,206nm,0.7s						
GYA	**Guiyang**	**23.99**	**22**	⇑P	**P**	**18 33 56.4**	**+0.6**
GYA				pmax	pmax		
	comp=Z,170nm,1.1s						
TOLI2	**Tolitoli**	**24.25**	**97**	P	**P**	**18 33 58.2**	**0.0**
TOLI2	**Tolitoli**	**24.25**	**97**	P	**P**	**18 33 57.9**	**-0.2**
TOLI2				IAmb	IAmb	18 34 30.2	
	comp=Z,60nm,1.0s						
TOLI2	**Tolitoli**	**24.25**	**97**	P	**P**	**18 33 58.7**	**+0.5**
	comp=Z,44nm,0.7s						
HKPS	**Hong Kong Po S**	**24.57**	**42**	P	**P**	**18 34 01.4**	**+0.4**
HKPS				IAmb	IAmb	18 34 05.1	
	comp=Z,77nm,0.8s						
HKPS	**Hong Kong Po S**	**24.57**	**42**	P	**P**	**18 34 02.1**	**+1.1**
	comp=Z,109nm,1.5s						
GULI	**GuiLin**	**24.64**	**31**	⇑P	**P**	**18 34 00.5**	**-1.1**
GULI				pmax	pmax		
	comp=Z,85nm,0.9s						
PLAI	**Plampang**	**24.73**	**122**	P	**P**	**18 34 01.6**	**-0.9**
PLAI	**Plampang**	**24.73**	**122**	P	**P**	**18 34 00.6**	**-1.9**
	comp=Z,114nm,0.8s						
KAPI	**Kappang**	**24.81**	**112**	LR	LR	18 44 19.1	
	comp=Z,225nm,19.4s,baz=290,slow=37						
KAPI	**Kappang**	**24.81**	**112**	P	**P**	**18 34 02.9**	**-0.3**
KAPI	**Kappang**	**24.81**	**112**	P	**P**	**18 34 03.8**	**+0.6**
KAPI	**Kappang**	**24.81**	**112**	P	**P**	**18 34 03.1**	**-0.1**
KAPI	**Kappang**	**24.81**	**112**	P	**P**	**18 34 03.3**	**+0.1**
	comp=Z,33nm,0.7s						
KAPI	**Kappang**	**24.81**	**112**	P	**P**	**18 34 04.5**	**+1.2**
	comp=Z,64nm,0.7s						
EVN	**Everest**	**25.33**	**339**	P	**P**	**18 34 07.7**	**-0.8**
EVN				IAmb	IAmb	18 34 11.5	
	comp=Z,51nm,0.6s						
EVN	**Everest**	**25.33**	**339**	P	**P**	**18 34 08.4**	**-0.1**
	comp=Z,68nm,0.7s						
KAD	**Karad**	**25.58**	**302**	*e*P	**P**	**18 34 08.7**	**-1.5**
KAD				IAmb	IAmb	18 34 13.7	
	comp=Z,61nm,0.2s						
LSA	**Lhasa**	**25.79**	**349**	P	**P**	**18 34 12.9**	**+0.4**
LSA	**Lhasa**	**25.79**	**349**	IAmb	IAmb	18 34 16.6	
	comp=Z,55nm,0.7s						
LSA	**Lhasa**	**25.79**	**349**	P	**P**	**18 34 12.6**	**+0.1**
GTOI	**Gorontalo**	**26.52**	**97**	P	**P**	**18 34 18.2**	**-0.5**
	comp=Z,595nmcomp=Z,37nm,0.7s						
LUWI	**Luwuk**	**26.58**	**101**	P	**P**	**18 34 20.5**	**+1.3**
LUWI	**Luwuk**	**26.58**	**101**	P	**P**	**18 34 17.8**	**-1.4**
LUWI				IAmb	IAmb	18 34 53.5	
	comp=Z,48nm,0.8s						
H08S2	**Diego Garcia H**	**26.93**	**244**	T	T	19 01 04.2	
	baz=67,slow=76,SNR=415						
H08S3	**Diego Garcia H**	**26.93**	**244**	T	T	19 00 53.6	
	baz=67,slow=76,SNR=452						
H08S1	**Diego Carcia H**	**26.95**	**244**	T	T	19 01 09.1	
	baz=67,slow=76,SNR=362						
CD2	**Chengdu**	**27.28**	**13**	⇑P	**P**	**18 34 24.8**	**-0.5**
CD2				sP	sP	18 35 07.3	-1.3
CD2				S	**S**	**18 38 56.0**	**+0.8**
CD2				sS	sS	18 39 44.3	-1.0
CD2				pmax	pmax		
	comp=Z,90nm,0.6s						
CD2				pmax	pmax		
	comp=Z,320nm,5.3s						
MNI	**Manado**	**28.23**	**95**	P	**P**	**18 34 35.8**	**+1.8**

```
      comp=Z,61nm,0.9s
CNSH  ChangSha          28.31  31   P     P      18 34 34.9 +0.4
CNSH                                pmax  pmax
      comp=Z,38nm,0.8s
ENH   Enshi             28.50  24   P     P      18 34 35.8 -0.4
ENH   Enshi             28.50  24   P     P      18 34 35.6 -0.6
TWG   Pinlang           29.89  50   P     P      18 34 49.5 +1.0
TWG                                 IAmb  IAmb   18 34 51.2
      comp=Z,54nm,1.2s
TWG   Pinlang           29.89  50   P     P      18 34 50.2 +1.6
      comp=Z,37nm,1.1s
UDPR  Udaipur           29.93 315  eP     P      18 34 47.9 -1.1
YULB  Yu-li             30.38  49   P     P      18 34 54.5 +1.5
YULB  Yu-li             30.38  49   P     P      18 34 54.9 +2.0
      comp=Z,33nm,0.8s
AJM   Ajmer             30.50 318  eP     P      18 34 52.8 -1.1
AJM                                 IAmb  IAmb   18 34 55.0
      comp=Z,120nm,2.0s
KUDL  Kundal            30.53 323  eP     P      18 34 52.9 -1.2
SOEI  Soe               30.81 117   P     P      18 34 55.5 -1.4
SOEI  Soe               30.81 117   P     P      18 34 54.0 -2.9
SOEI                                IAmb  IAmb   18 35 07.0
      comp=Z,36nm,0.7s
SOEI  Soe               30.81 117   P     P      18 34 55.1 -1.8
      comp=Z,50nm,0.7s
SOEI  Soe               30.81 117   P     P      18 34 54.3 -2.6
      comp=Z,50nm,0.7s
WHN   Wuhan             30.94  31  ⇑P     P      18 34 58.5 +0.8
WHN                                 sP    sP     18 35 43.3 +2.1
WHN                                 pmax  pmax
      comp=Z,270nm,1.5s
XAN   Xi'an             31.68  20   P     P      18 35 00.1 -4.2
XAN                                 pP    pP     18 35 29.8 -2.8
XAN                                 S     S      18 40 05.1 +0.9
XAN                                 pmax  pmax
      comp=Z,18nm,1.0s
XAN                                 pmax  pmax
      comp=Z,560nm,5.9s
XAN                                 LR    LR
      comp=N,180nm,11.6s
XAN                                 LR    LR
      comp=E,570nm,10.4s
XAN                                 LR    LR
      comp=Z,240nm,16.5s
XAN   Xi'an             31.68  20   P     P      18 35 04.0 -0.3
GOMU  GeErMu            31.78 357   P     P      18 35 04.9 -0.6
GOMU                                pmax  pmax
      comp=Z,17nm,0.8s
LZDM  Lanzhou Array     32.14  11   P     P      18 35 08.3 -0.3
      comp=Z,39nm,0.6s,baz=188,slow=7.5,SNR=61
LZDM                                PcP   PcP    18 37 55.0 +0.2
      comp=Z,9.0nm,0.7s,baz=197,slow=3.1,SNR=8.2
LZDM                                ScP   ScP    18 41 25.8 -0.6
      comp=Z,5.1nm,0.5s,baz=188,slow=3.0,SNR=8.6
      comp=Z,39nm,0.6s
KLP   Kalpa             32.16 329  eP     P      18 35 07.7 -1.2
KLP                                 IAmb  IAmb   18 35 08.9
      comp=Z,38nm,0.5s
BHUJ  Bhuj              32.21 308  eP     P      18 35 07.7 -1.2
BHUJ                                IAmb  IAmb   18 35 13.2
      comp=Z,34nm,0.9s
LZH   Lanzhou           32.30  11   P     P      18 35 09.6 -0.1
LZH                                 pP    pP     18 35 39.3 +1.1
LZH                                 sP    sP     18 35 54.8 +1.5
LZH                                 PcP   PcP    18 37 56.3 +1.4
LZH                                 S     S      18 40 17.3 +3.4
LZH                                 ScP   ScP    18 41 26.3 -0.4
LZH                                 pmax  pmax
      comp=Z,88nm,1.0s
LZH                                 pmax  pmax
      comp=Z,250nm,5.0s
LYN   LuoYang           33.45  24   P     P      18 35 20.5 +0.9
LYN                                 pmax  pmax
      comp=Z,190nm,0.9s
LYN                                 pmax  pmax
      comp=Z,580nm,5.7s
DHRM  DHARAMSHALA       33.74 328  eP     P      18 35 21.3 -1.2
DHRM                                IAmb  IAmb   18 35 23.0
      comp=Z,63nm,0.8s
MBWA  Marble Bar        33.91 139   P     P      18 35 23.1 -0.7
THN   Thein Dam         34.18 327  eP     P      18 35 24.8 -1.2
NJ2   Nanjing           34.53  34  ⇑P     P      18 35 29.8 +0.8
NJ2                                 pmax  pmax
      comp=Z,44nm,1.0s
SWI   Sorong            34.90  98   P     P      18 35 31.8 -0.6
      comp=Z,49nm,0.9s
GTA2  Gaotai            35.12   4   P     P      18 35 33.9 -0.2
GTA2                                pP    pP     18 36 03.8 +1.0
GTA2                                PcP   PcP    18 38 03.4 +0.6
GTA2                                ScP   ScP    18 41 35.3 -1.2
GTA2                                ScS   ScS    18 45 36.9 -3.9
GTA2                                pmax  pmax
      comp=Z,120nm,0.9s
FITZ  Fitzroy Crossi    36.19 129   P     P      18 35 42.5 -0.9
FITZ  Fitzroy Crossi    36.19 129   ScP   ScP    18 41 40.8 +0.1
      comp=Z,18nm,0.7s,baz=302,slow=3.7,SNR=24
FITZ                                LR    LR     18 51 55.1
      comp=Z,108nm,18.3s,baz=330,slow=38
FITZ  Fitzroy Crossi    36.19 129   P     P      18 35 42.4 -0.9
FITZ                                      ScP    18 41 40.8 +0.1
FITZ  Fitzroy Crossi    36.19 129   P     P      18 35 42.7 -0.6
      comp=Z,11nm,0.8s
FAKI  Fak Fak           36.23 101   P     P      18 35 43.9 +0.1
FAKI  Fak Fak           36.23 101   P     P      18 35 43.4 -0.4
FAKI                                IAmb  IAmb   18 36 01.5
      comp=Z,51nm,1.2s
NIL   Nilore            36.46 326   P     P      18 35 44.6 -1.0
NIL   Nilore            36.46 326   P     P      18 35 44.2 -1.3
NIL   Nilore            36.46 326   P     P      18 35 44.5 -1.1
      comp=Z,104nm,0.8s
SAUI  Saumlaki          36.60 109   P     P      18 35 46.8 -0.1
HNS   HongShan          36.82  24  ⇑P     P      18 35 49.8 +1.3
HNS                                 pmax  pmax
      comp=Z,160nm,0.9s
TIA   Tai'an            36.89  28   P     P      18 35 49.3 +0.2
TIA                                 PcP   PcP    18 38 08.4 +0.4
TIA                                 ScP   ScP    18 41 42.9  0.0
TIA                                 pmax  pmax
      comp=Z,40nm,0.9s
MEEK  Meekatharra       37.36 147   P     P      18 35 54.3 +1.0
      comp=Z,39nm,1.0s
MEEK  Meekatharra       37.36 147   P     P      18 35 53.6 +0.4
      comp=Z,39nm,1.0s
MEEK  Meekatharra       37.36 147   P     P      18 35 53.6 +0.4
MEEK  Meekatharra       37.36 147   P     P      18 35 53.9 +0.7
      comp=Z,39nm,1.0s
KNRA  Kununurra         37.43 123   P     P      18 35 52.6 -1.2
      comp=Z,11nm,0.8s
KNRA  Kununurra         37.43 123   P     P      18 35 53.3 -0.6
      comp=Z,11nm,0.8s
JOW   Kunigami          37.55  50   P     P      18 35 55.9 +1.1
JOW   Kunigami          37.55  50   P     P      18 35 55.0 +0.1
JOW                                 IAmb  IAmb   18 35 56.4
      comp=Z,24nm,0.7s
MORW  Morawa            38.03 152   P     P      18 36 00.5 +1.7
      comp=Z,62nm,1.1s
MORW  Morawa            38.03 152   P     P      18 35 59.8 +1.0
      comp=Z,62nm,1.1s
MORW  Morawa            38.03 152   P     P      18 36 00.5 +1.7
MORW  Morawa            38.03 152   P     P      18 35 59.2 +0.4
MORW  Morawa            38.03 152   P     P      18 36 00.4 +1.6
      comp=Z,62nm,1.1s
BTO2  Baotou            38.16  16  eP     P      18 36 00.4 +0.6
BTO2                                sP    sP     18 36 41.9 -2.0
BTO2                                PP    PnPn   18 37 35.0 +2.1
BTO2                                S     S      18 41 45.4 +1.9
BTO2                                pmax  pmax
      comp=Z,170nm,0.8s
BTO2                                pmax  pmax
      comp=Z,420nm,4.5s
BTO2                                L     L
      comp=Z,510nm,5.5s
BTO2                                L     L
      comp=Z,540nm,11.7s
BTO2                                L     L
      comp=Z,300nm,12.3s
MTN   Manton Dam        38.20 117   P     P      18 35 59.4 -1.1
      comp=Z,7.3nm,0.8s
HHC   Hu-ho-hao-te      38.75  18  eP     P      18 36 05.8 +1.0
HHC                                 pmax  pmax
      comp=Z,45nm,0.9s
HHC                                 pmax  pmax
      comp=Z,84nm,5.6s
KDU   Kakadu            39.34 116   P     P      18 36 08.8 -1.1
      comp=Z,7.7nm,1.0s
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KDU   Kakadu            39.34 116   P     P      18 36 09.2 -0.7
      comp=Z,7.7nm,1.0s
KBL   Kabul             39.54 323   P     P      18 36 11.0 -0.5
KBL   Kabul             39.54 323   P     P      18 36 10.7 -0.8
      comp=Z,17nm,0.7s
KSH2  Kashi             39.63 334   P     P      18 36 10.8 -1.4
KSH2                                PcP   PcP    18 38 17.9 +1.2
KSH2                                S     S      18 42 02.1 -3.6
KSH2                                pmax  pmax
      comp=Z,23nm,0.7s
BLDU  Ballidu           39.65 152   P     P      18 36 13.3 +1.1
      comp=Z,57nm,1.0s
BLDU  Ballidu           39.65 152   P     P      18 36 13.2 +1.0
BLDU  Ballidu           39.65 152   P     P      18 36 13.7 +1.5
      comp=Z,57nm,1.0s
BJT   Baijiatuau        39.65  24   P     P      18 36 13.6 +1.5
BJT   Baijiatuau        39.65  24   P     P      18 36 14.0 +1.9
BJI2  Beijing           39.65  24   P     P      18 36 13.6 +1.4
BJI2                                pmax  pmax
      comp=Z,60nm,0.8s
BJI2                                pmax  pmax
      comp=Z,190nm,4.7s
WUS   Wushi             39.94 339   IAmb  IAmb   18 36 15.1
      comp=Z,26nm,0.7s
NGCH  Negor - Chabah    40.04 305   P     P      18 36 19.1 +3.6
WMQ   Urumqi            40.14 350  eP     P      18 36 16.5 +0.2
WMQ                                 PcP   PcP    18 38 19.8 +1.7
WMQ                                 pmax  pmax
      comp=Z,19nm,0.9s
WMQ                                 L     L
      comp=Z,120nm,23.8s
JLN   Jalan Bani Buh    40.24 300   P     P      18 36 19.5 +2.2
MUN   Mundaring         40.58 154   P     P      18 36 21.7 +1.8
      comp=Z,83nm,0.9s
MUN   Mundaring         40.58 154   P     P      18 36 20.8 +0.9
      comp=Z,83nm,0.9s
MUN   Mundaring         40.58 154   P     P      18 36 21.4 +1.5
ASAI  AK-SAY(Kyrgyzs    40.71 336   P     P      18 36 20.9 -0.4
      comp=Z,17nm,0.7s
WBK   Wadi Bani Khal    40.78 300   P     P      18 36 23.8 +2.0
TARG  Taragay, Kyrgy    40.91 338   IAmb  IAmb   18 36 23.9
      comp=Z,28nm,0.7s
TARG  Taragay, Kyrgy    40.91 338   P     P      18 36 23.1 +0.1
      comp=Z,47nm,0.9s
KLBR  Kellerberrin      40.95 152   P     P      18 36 24.0 +1.0
      comp=Z,282nm,0.8s
KLBR  Kellerberrin      40.95 152   P     P      18 36 24.0 +1.0
KLBR  Kellerberrin      40.95 152  ⇓P     P      18 36 23.8 +0.9
      comp=Z,282nm,0.8s
MHTO  MHTO              41.12 297   P     P      18 36 26.1 +1.6
DL2   Dalian            41.20  30   P     P      18 36 25.8 +0.9
DL2                                 pmax  pmax
      comp=Z,180nm,0.7s
WSAR  Wadi Sarin        41.30 301   P     P      18 36 27.9 +2.0
      SNR=5.9
NRN   Naryn             41.36 336   IAmb  IAmb   18 36 26.9
      comp=Z,25nm,0.8s
JMDO  Jabal Madar       41.45 299   P     P      18 36 29.1 +1.8
KDJ   Kajisay           41.49 338   IAmb  IAmb   18 36 28.4
      comp=Z,45nm,0.8s
KDJ   Kajisay           41.49 338   P     P      18 36 27.6 +0.1
      comp=Z,69nm,0.9s
DRK   Karamyk           41.65 331   P     P      18 36 29.0 +0.1
      comp=Z,462nm,0.7s
SMDO  Samad             41.73 300   P     P      18 36 31.5 +1.8
      SNR=5.6
UZB   Uzynbulak         41.73 340⇑iP     P      18 36 28.9 -0.5
      comp=Z,11nm,0.7s
BIDO  Bidbid            41.83 301   P     P      18 36 33.0 +2.7
      SNR=14
NWAO  Narrogin (SRO)    41.84 154   P     P      18 36 31.5 +1.3
      comp=Z,145nm,0.9s
NWAO  Narrogin (SRO)    41.84 154   P     P      18 36 31.1 +1.0
      comp=Z,145nm,0.9s
NWAO  Narrogin (SRO)    41.84 154   P     P      18 36 31.2 +1.1
NWAO  Narrogin (SRO)    41.84 154   LR    LR     18 52 43.0
      comp=Z,89nm,22.0s,baz=7.5,slow=34
NWAO  Narrogin (SRO)    41.84 154   P     P      18 36 31.3 +1.1
NWAO  Narrogin (SRO)    41.84 154  ⇓P     P      18 36 31.3 +1.1
      comp=Z,137nm,0.9s
NWAO  Narrogin (SRO)    41.84 154   P     P      18 36 31.5 +1.3
SATY  Saty              41.87 340⇑iP     P      18 36 30.0 -0.4
      comp=Z,17nm,0.8s
ULHL  Ulahol            41.95 337   P     P      18 36 30.7 -0.5
      SNR=6.4
OHH   Osh               42.00 332   P     P      18 36 30.2 -1.3
      comp=Z,71nm,0.9s
KPKS  Kokpek            42.13 340  eP     P      18 36 32.1 -0.5
BOOM  Boomskoye usch    42.28 337   P     P      18 36 32.9 -0.9
      comp=Z,30nm,0.9s
H01W3 Cape Leeuwin H    42.30 159   T     T      19 20 09.7
      baz=332,slow=75,SNR=61
H01W2 Cape Leeuwin H    42.31 159   T     T      19 20 11.3
      baz=332,slow=75,SNR=48
H01W1 Cape Leeuwin H    42.31 159   T     T      19 20 10.9
      baz=332,slow=75,SNR=49
WRKA  Warakurna         42.34 135   P     P      18 36 34.5 +0.1
      comp=Z,6.9nm,1.3s
BSY   Bisya             42.36 299   P     P      18 36 37.0 +2.3
      SNR=5.8
TNSS  Tian-Shan         42.37 338  eP     P      18 36 34.1 -0.7
SHAO  Shalim            42.43 292   P     P      18 36 37.7 +2.4
MDOK  Medeo             42.44 339  eP     P      18 36 34.8 -0.3
HOQ   Hoqain            42.55 301   P     P      18 36 38.2 +2.0
      SNR=6.5
TJN   Taejon            42.57  37   P     P      18 36 36.4 +0.3
TJN   Taejon            42.57  37   P     P      18 36 35.9 -0.2
TJN   Taejon            42.57  37   P     P      18 36 36.3 +0.2
      comp=Z,321nm,0.8s
BTK   Batken            42.57 330   IAmb  IAmb   18 36 38.4
      comp=Z,56nm,0.9s
BTK   Batken            42.57 330   P     P      18 36 36.5 +0.3
      comp=Z,77nm,0.8s
TKM2  Tokmak 2          42.77 337   P     P      18 36 37.5 -0.4
      SNR=25
KBK   Karagaybulak      42.81 336   P     P      18 36 38.5 +0.3
      SNR=39
KMBL  Kambalda          42.83 148   P     P      18 36 39.4 +1.1
      comp=Z,53nm,0.8s
KMBL  Kambalda          42.83 148   P     P      18 36 39.1 +0.8
      comp=Z,53nm,0.8s
JASK  Jask - Hormozg    42.93 304   P     P      18 36 41.3 +2.1
XLT   XiLinHaoTe        42.97  21  eP     P      18 36 40.3 +1.0
XLT                                 pmax  pmax
      comp=Z,25nm,1.0s
XLT                                 pmax  pmax
      comp=Z,120nm,4.6s
AAK   Ala-Archa         42.98 336   P     P      18 36 39.6 +0.1
      comp=Z,12nm,0.7s,baz=155,slow=9.6,SNR=40
AAK                                 ScP   ScP    18 42 06.4 -0.3
      comp=Z,4.9nm,0.5s,baz=172,slow=2.3,SNR=8.9
AAK                                 LR    LR     18 56 07.7
      comp=Z,44nm,21.6s,baz=152,slow=38
      comp=Z,12nm,0.7s
AAK   Ala-Archa         42.98 336   P     P      18 36 39.5  0.0
      SNR=18
AAK   Ala-Archa         42.98 336   P     P      18 36 39.4  0.0
AAK   Ala-Archa         42.98 336  i P    P      18 36 39.5  0.0
      SNR=5.2
AAK   Ala-Archa         42.98 336   P     P      18 36 39.6 +0.1
      comp=Z,24nm,0.9s
AAK   Ala-Archa         42.98 336   P     P      18 36 40.5 +1.1
AAK                                 ScP   ScP    18 42 07.7 +1.0
DMTO  DMTO              42.98 291   P     P      18 36 41.9 +2.2
ARQ   Araqi             43.15 300   P     P      18 36 43.6 +2.6
RKGY  Rocky Gully       43.17 155   P     P      18 36 38.0 -2.9
      comp=Z,29nm,1.1s
CHMS  Chumysh           43.17 336   P     P      18 36 40.5 -0.5
      SNR=19
EKS2  Erkin-Say         43.29 335   P     P      18 36 42.0 +0.1
      SNR=36
ARK   Arkit             43.39 333   P     P      18 36 42.4 -0.3
      comp=Z,36nm,0.9s
SOHO  SOHO              43.41 301   P     P      18 36 44.5 +1.5
SOHO  SOHO              43.41 301  i P    P      18 36 43.8 +0.7
      SNR=12
USP   Ospenovka         43.50 336   P     P      18 36 43.1 -0.5
      SNR=43
TDK   Taldyqorghan      43.59 341  eP     P      18 36 43.5 -0.7
      comp=Z,18nm,0.7s
SGDS  Sogindy           43.60 337⇑iP     P      18 36 43.8 -0.6
KSRS  Korea Array       43.62  37   P     P      18 36 43.9 -0.6
      comp=Z,12nm,0.7s,baz=226,slow=8.5,SNR=55
KSRS                                PcP   PcP    18 38 29.7 +0.1
      comp=Z,1.9nm,0.6s,baz=234,slow=2.7,SNR=6.9
KSRS                                ScP   ScP    18 42 08.1 -1.1
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      comp=Z,0.9nm,0.8s,baz=240,slow=3.3,SNR=4.2
KSRS                                LR    LR     18 58 38.6
      comp=Z,69nm,18.2s,baz=225,slow=41
      comp=Z,12nm,0.7s
UOSS  Minazif           43.98 302   P     P      18 36 48.7 +1.1
UOSS  Minazif           43.98 302   P     P      18 36 47.2 -0.4
UOSS  Minazif           43.98 302   P     P      18 36 48.4 +0.7
HATD  Hatta, Dubai      44.00 302   P     P      18 36 50.0 +2.2
      SNR=6.5
HATD  Hatta, Dubai      44.00 302  i P    P      18 36 49.5 +1.7
      SNR=5.8
ASHO  Ashiyiah          44.01 301   P     P      18 36 49.7 +1.8
      SNR=5.5
ASHO  Ashiyiah          44.01 301  i P    P      18 36 49.0 +1.1
      SNR=6.5
MDH   Madha             44.03 302   P     P      18 36 49.0 +1.0
ALNE  Al Ain            44.05 300  i P    P      18 36 50.1 +1.9
      SNR=19
WB0   Warramunga Arr    44.10 124   P     P      18 36 48.2 -0.4
WB0                                 IAmb  IAmb   18 36 48.8
      comp=Z,25nm,0.6s
WB8   Warramunga Arr    44.11 124   P     P      18 36 48.4 -0.3
WHFO  Wadi Hawf         44.12 291   P     P      18 36 50.3 +1.4
MKAR  Makanchi Array    44.12 346   P     P      18 36 47.5 -1.0
      comp=Z,34nm,0.6s,baz=163,slow=7.7,SNR=373
MKAR                                ScP   ScP    18 42 11.1  0.0
      comp=Z,1.4nm,0.7s,baz=150,slow=5.1,SNR=4.3
MKAR                                S     S      18 43 10.4 -1.0
      comp=Z,0.9nm,0.8s,baz=153,slow=16,SNR=3.4
MKAR                                ScS   ScS    18 46 31.4 -2.0
      comp=Z,0.6nm,0.8s,baz=152,slow=6.4,SNR=4.5
      comp=Z,34nm,0.6s
MKAR  Makanchi Array    44.12 346   P     P      18 36 47.6 -0.9
WC1   Warramunga Arr    44.13 124   P     P      18 36 48.7 -0.2
WRA   Warramunga Arr    44.14 124   P     P      18 36 48.7 -0.2
      comp=Z,18nm,0.6s,baz=303,slow=9.2,SNR=350
WRA                                 PcP   PcP    18 38 32.2 +0.4
      comp=Z,6.1nm,0.6s,baz=314,slow=3.1,SNR=5.0
WRA                                 ScP   ScP    18 42 11.8 +0.1
      comp=Z,11nm,0.8s,baz=315,slow=3.5,SNR=22
WRA                                 S     S      18 43 07.2 -5.1
      comp=Z,1.8nm,1.1s,baz=288,slow=16,SNR=4.5
      comp=Z,18nm,0.6s
WRA   Warramunga Arr    44.14 124   P     P      18 36 48.3 -0.6
WRA                                 ScP   ScP    18 42 11.5 -0.2
WRAB  Tennant Creek     44.14 124   P     P      18 36 49.0  0.0
WRAB  Tennant Creek     44.14 124   P     P      18 36 48.9  0.0
WRAB                                IAmb  IAmb   18 36 49.4
      comp=Z,38nm,0.6s
WRAB  Tennant Creek     44.14 124   P     P      18 36 49.0  0.0
      comp=Z,67nm,0.9s
WRAB  Tennant Creek     44.14 124   P     P      18 36 49.0  0.0
SONM  Songino Array     44.15   9   P     P      18 36 48.8  0.0
      comp=Z,29nm,0.7s,baz=190,slow=9.0,SNR=153
SONM                                PcP   PcP    18 38 31.7 +0.3
      comp=Z,16nm,0.6s,baz=191,slow=4.0,SNR=15
SONM                                ScP   ScP    18 42 10.3 -1.0
      comp=Z,4.1nm,0.7s,baz=197,slow=4.7,SNR=11
      comp=Z,29nm,0.7s
SONM  Songino Array     44.15   9   P     P      18 36 48.8  0.0
SONM                                IAmb  IAmb   18 36 50.0
      comp=Z,40nm,0.9s
SONM                                PcP   PcP    18 38 31.9 +0.4
SONM                                ScP   ScP    18 42 10.1 -1.2
MSFE  Esma-Masafi       44.17 302   P     P      18 36 50.8 +1.7
MASF  Masafi            44.17 302   P     P      18 36 51.3 +2.1
ZSN   Zaisan            44.17 348  eP     P      18 36 48.6 -0.2
      comp=Z,11nm,0.7s
MAKZ  Makanchi          44.21 345   P     P      18 36 48.4 -0.8
MAKZ                                IAmb  IAmb   18 36 49.0
      comp=Z,43nm,0.7s
MAKZ  Makanchi          44.21 345   P     P      18 36 48.2 -0.9
      comp=Z,73nm,0.7s
MAKZ  Makanchi          44.21 345   P     P      18 36 48.0 -1.2
MAKZ                                ScP   ScP    18 42 11.5  0.0
WR5   Warramunga Arr    44.22 124   P     P      18 36 49.5 -0.1
BANOM Banah             44.26 303   P     P      18 36 51.7 +1.8
BANOM Banah             44.26 303   P     P      18 36 51.9 +2.0
WR8   Warramunga Arr    44.27 124   IAmb  IAmb   18 36 50.5
      comp=Z,40nm,0.7s
ULN   Ulaanbaatar       44.29  10   P     P      18 36 49.6 -0.3
ULN   Ulaanbaatar       44.29  10   P     P      18 36 50.0 +0.1
ULN   Ulaanbaatar       44.29  10   P     P      18 36 49.9 +0.1
      comp=Z,2µmcomp=Z,146nm,1.7s
ULN   Ulaanbaatar       44.29  10   P     P      18 36 50.0 +0.1
      comp=Z,37nm,1.7s
ULN   Ulaanbaatar       44.29  10   P     P      18 36 49.6 -0.3
SNY   Shenyang          44.40  29  ⇑P     P      18 36 50.6  0.0
SNY                                 pmax  pmax
      comp=Z,45nm,0.7s
FAQ   Al Faqa, Dubai    44.43 301   P     P      18 36 53.4 +2.2
SHME  Shamm             44.44 303   P     P      18 36 52.5 +1.3
SHME  Shamm             44.44 303  i P    P      18 36 52.4 +1.1
      SNR=9.0
NAZ   Nazwa, Dubai      44.45 302   P     P      18 36 53.9 +2.5
DZA   Taraz             44.54 333  eP     P      18 36 51.3 -0.5
      comp=Z,11nm,0.7s
IUG   Iuzhnay           44.56 332⇑iP     P      18 36 51.6 -0.5
      comp=Z,29nm,0.9s
ASUD  Al Ashush, Dub    44.61 301   P     P      18 36 54.7 +2.0
      SNR=6.5
ASUD  Al Ashush, Dub    44.61 301  i P    P      18 36 54.6 +2.0
      SNR=7.3
AJN   Ajban             44.88 301   P     P      18 36 56.4 +1.6
CHM   Chimkent          44.89 331  eP     P      18 36 54.2 -0.4
      comp=Z,12nm,0.7s
KK31  Karatay Array     45.08 333   P     P      18 36 54.9 -1.1
KKAR  Karatay Array     45.08 333   P     P      18 36 55.6 -0.5
JMN   Monobe            45.29  45   P     P      18 36 59.1 +1.2
MZWR  Madinat Zayed     45.58 299   P     P      18 37 02.0 +1.8
AS13  Alice Springs     45.67 129   P     P      18 37 01.2 +0.1
      comp=Z,58nm,0.8s
AS15  Alice Springs     45.68 129   P     P      18 37 01.5 +0.4
      comp=Z,63nm,0.9s
AS14  Alice Springs     45.69 129   P     P      18 37 01.3 +0.1
      comp=Z,62nm,0.8s
AS31  Alice Springs     45.69 129   P     P      18 37 01.5 +0.3
      comp=Z,21nm,0.7s
ASAR  Alice Springs     45.69 129   P     P      18 37 01.4 +0.2
      comp=Z,47nm,0.6s,baz=299,slow=7.9,SNR=545
ASAR                                PcP   PcP    18 38 37.8 +0.6
      comp=Z,9.9nm,0.9s,baz=308,slow=3.6,SNR=7.8
ASAR                                ScP   ScP    18 42 18.1  0.0
      comp=Z,9.1nm,0.8s,baz=307,slow=4.2,SNR=28
ASAR                                S     S      18 43 31.8 -2.9
      comp=Z,1.5nm,1.0s,baz=298,slow=15,SNR=6.0
ASAR                                ScS   ScS    18 46 42.6 -1.7
      comp=Z,1.0nm,0.9s,baz=307,slow=6.8,SNR=5.6
ASAR                                LR    LR     18 56 47.6
      comp=Z,57nm,19.2s,baz=302,slow=37
      comp=Z,47nm,0.6s
ASAR  Alice Springs     45.69 129   P     P      18 37 01.3 +0.1
ASAR                                PcP   PcP    18 38 37.2 +0.1
ASAR                                      ScP    18 42 17.5 -0.6
MZR   Muzera            45.70 298   P     P      18 37 03.4 +2.2
      SNR=9.3
MZR   Muzera            45.70 298  i P    P      18 37 03.0 +1.7
      SNR=30
AS03  Alice Springs     45.70 129   P     P      18 37 01.5 +0.2
      comp=Z,74nm,0.8s
AS01  Alice Springs     45.72 129   P     P      18 37 01.7 +0.2
AS09  Alice Springs     45.73 129   P     P      18 37 01.6  0.0
      comp=Z,76nm,0.8s
AS17  Alice Springs     45.76 129   P     P      18 37 02.1 +0.4
      comp=Z,87nm,0.6s
FORT  Forrest           45.98 141   P     P      18 37 04.3 +1.0
      comp=Z,56nm,0.9s
FORT  Forrest           45.98 141   P     P      18 37 04.1 +0.8
      comp=Z,56nm,0.9s
FORT  Forrest           45.98 141   P     P      18 37 03.7 +0.4
FORT                                IAmb  IAmb   18 37 05.1
      comp=Z,32nm,0.7s
CN2   Changchun         46.79  29   P     P      18 37 09.3 -0.1
CN2                                 PcP   PcP    18 38 40.4 -0.2
CN2                                 pmax  pmax
      comp=Z,20nm,0.7s
JRN   Qarnain Island    46.84 300   P     P      18 37 11.6 +1.4
TLY   Talaya            47.56   6   P     P      18 37 15.9 +0.6
TLY   Talaya            47.56   6   P     P      18 37 16.0 +0.6
SEM   Semipalatinsk     47.98 346  eP     P      18 37 18.4 -0.4
      comp=Z,27nm,1.0s
GUMO  Guam              48.37  76   LR    LR     18 56 55.0
      comp=Z,33nm,21.3s,baz=256,slow=35
KURBB Kurchatov Arra    48.62 345   P     P      18 37 22.7 -0.7
      comp=Z,24nm,0.7s,baz=166,slow=6.9,SNR=169
KURBB                               PcP   PcP    18 38 47.5 +0.6
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      comp=Z,12nm,0.7s,baz=154,slow=3.3,SNR=15
KURBB                          ScP    ScP    18 42 29.2 -0.5
      comp=Z,1.5nm,0.3s,baz=158,slow=3.5,SNR=9.9
KURBB                          S      S      18 44 13.1 -2.2
      comp=Z,1.9nm,0.4s,baz=159,slow=13,SNR=16
KURBB                          LR     LR     19 01 02.7
      comp=Z,70nm,20.5s,baz=187,slow=40
      comp=Z,24nm,0.7s
KURK  Kurchatov        48.68 345  P      P      18 37 23.4 -0.4
KURK  Kurchatov        48.68 345  P      P      18 37 23.0 -0.9
KURK                              IAmb   IAmb   18 37 24.1
      comp=Z,28nm,0.8s
KURK  Kurchatov        48.68 345  P      P      18 37 23.3 -0.6
      comp=Z,43nm,1.0s
KURK  Kurchatov        48.68 345  P      P      18 37 23.5 -0.4
KURK                              ScP    ScP    18 42 30.8 +0.8
JGF   Kuroka           48.70  45  P      P      18 37 23.7 -0.7
JGF   Kuroka           48.70  45  P      P      18 37 23.6 -0.8
JGF                               IAmb   IAmb   18 37 24.3
      comp=Z,29nm,0.9s
QIS   Mount Isa        48.81 122  P      P      18 37 25.7 +0.3
      comp=Z,33nm,1.1s
QIS   Mount Isa        48.81 122  P      P      18 37 25.4 +0.1
      comp=Z,33nm,1.1s
QIS   Mount Isa        48.81 122  P      P      18 37 25.5 +0.1
QIS   Mount Isa        48.81 122  P      P      18 37 25.6 +0.2
      comp=Z,33nm,1.1s
HILR  Hailar Array B   49.13  20  P      P      18 37 26.9 -0.5
      comp=Z,1.5nm,0.3s,baz=200,slow=11,SNR=5.3
HILR                              PcP    PcP    18 38 49.0 +0.1
      comp=Z,2.2nm,0.4s,baz=191,slow=7.2,SNR=4.1
HILR                              ScP    ScP    18 42 30.2 -1.8
      comp=Z,4.4nm,0.5s,baz=158,slow=4.3,SNR=4.5
      comp=Z,1.5nm,0.3s
SAKB  Bahrain          49.15 301  P      P      18 37 29.0 +1.1
BNX   BinXian          49.16  28 ⇑P      P      18 37 27.5 -0.2
BNX                               pmax   pmax
      comp=Z,37nm,0.7s
JHJ   Hachijo jima 2   49.31  49  LR     LR     18 58 53.0
      comp=Z,34nm,21.8s,baz=124,slow=37
MDJ   Mudanjiang       49.43  31  P      P      18 37 30.5 +0.8
MDJ                               pmax   pmax
      comp=Z,38nm,1.1s
MDJ   Mudanjiang       49.43  31  IAmb   IAmb   18 37 31.7
      comp=Z,30nm,1.0s
MAJO  Matsushiro       49.77  44  P      P      18 37 32.3 -0.2
MJAR  Matsushiro Arr   49.77  44  P      P      18 37 32.4 -0.1
      comp=Z,3.5nm,0.7s,baz=241,slow=8.1,SNR=17
MJAR                              PcP    PcP    18 38 51.9 +0.3
      comp=Z,4.6nm,0.8s,baz=227,slow=3.3,SNR=7.1
MJAR                              ScP    ScP    18 42 34.2 -0.8
      comp=Z,3.0nm,0.7s,baz=218,slow=2.4,SNR=9.1
MJAR                              LR     LR     19 00 45.2
      comp=Z,41nm,19.8s,baz=232,slow=38
      comp=Z,3.5nm,0.7s
MJAR  Matsushiro Arr   49.77  44  P      P      18 37 31.6 -0.9
MJAR                                     PcP    18 38 52.3 +0.8
MJAR                                     ScP    18 42 34.6 -0.5
USRK  Ussuriysk Ar.    50.40  33  P      P      18 37 36.8 -0.2
      comp=Z,6.4nm,0.6s,baz=238,slow=2.6,SNR=15
USRK                              LR     LR     19 01 43.0
      comp=Z,84nm,18.3s,baz=254,slow=39
      comp=Z,6.4nm,0.6s
ZAA0  Zalesovo Array   50.43 351  IAmb   IAmb   18 37 37.4
      comp=Z,49nm,1.1s
ZALV  Zalesovo Beam    50.43 351  P      P      18 37 36.2 -0.9
      comp=Z,25nm,0.7s,baz=177,slow=6.2,SNR=115
ZALV                              ScP    ScP    18 42 35.3 -2.1
      comp=Z,4.0nm,0.7s,baz=133,slow=2.3,SNR=7.1
ZALV                              S      S      18 44 39.2 -1.2
      comp=Z,2.3nm,0.7s,baz=170,slow=12,SNR=7.2
ZALV                              ScS    ScS    18 47 09.8 -4.8
      comp=Z,6.0nm,0.9s,baz=174,slow=7.2,SNR=14
      comp=Z,25nm,0.7s
ZALV  Zalesovo Beam    50.43 351  P      P      18 37 36.4 -0.7
MTSU  Mount Surprise   51.95 117  P      P      18 37 49.7 +0.5
      comp=Z,23nm,0.8s
MTSU  Mount Surprise   51.95 117  P      P      18 37 49.6 +0.5
      comp=Z,23nm,0.8s
MTSU  Mount Surprise   51.95 117  P      P      18 37 49.3 +0.2
MTSU  Mount Surprise   51.95 117  P      P      18 37 49.6 +0.5
      comp=Z,23nm,0.8s
PMG   Port Moresby     52.09 105  P      P      18 37 50.2 +0.1
PMG   Port Moresby     52.09 105  P      P      18 37 50.1  0.0
PMG   Port Moresby     52.09 105  P      P      18 37 49.7 -0.4
PMG                               IAmb   IAmb   18 37 50.7
      comp=Z,27nm,0.7s
BBOO  Buckleboo        52.47 138  P      P      18 37 52.0 -0.7
      comp=Z,69nm,0.8s
BBOO  Buckleboo        52.47 138  P      P      18 37 52.7  0.0
BBOO  Buckleboo        52.47 138  IAmb   IAmb   18 37 53.6
      comp=Z,37nm,0.8s
BBOO  Buckleboo        52.47 138  P      P      18 37 52.1 -0.6
      comp=Z,69nm,0.8s
HEH   HeiHe            52.58  24 eP      P      18 37 53.0 -0.1
HEH                               pmax   pmax
      comp=Z,29nm,1.5s
RAYN  Ar Rayn          52.91 296  P      P      18 37 57.5 +1.3
RAYN  Ar Rayn          52.91 296  P      P      18 37 56.3 +0.1
RAYN                              IAmb   IAmb   18 37 59.0
      comp=Z,37nm,0.8s
RAYN  Ar Rayn          52.91 296 i P     P      18 37 57.1 +1.0
      SNR=49
RAYN  Ar Rayn          52.91 296  P      P      18 37 57.3 +1.1
      comp=Z,50nm,0.8s
RAYN  Ar Rayn          52.91 296  P      P      18 37 57.1 +1.0
RAYN                              ScP    ScP    18 42 49.7 +0.7
BVAR  Borovoye Array   53.17 340  P      P      18 37 55.7 -1.7
      comp=Z,22nm,0.6s,baz=140,slow=8.9,SNR=81
BVAR                              PcP    PcP    18 39 04.0 +0.2
      comp=Z,11nm,0.7s,baz=151,slow=5.7,SNR=5.0
BVAR                              ScP    ScP    18 42 48.4 -0.9
      comp=Z,5.2nm,0.9s,baz=144,slow=5.2,SNR=6.1
BVAR                              S      S      18 45 15.8 -2.3
      comp=Z,1.5nm,0.6s,baz=156,slow=16,SNR=3.4
      comp=Z,22nm,0.6s
BORK  Borovoye         53.21 340  P      P      18 37 57.1 -0.6
BORK                              IAmb   IAmb   18 37 57.8
      comp=Z,31nm,0.8s
KLR   Kul'dur          53.72  28  LR     LR     19 06 03.5
      comp=Z,47nm,18.2s,baz=228,slow=42
CTA   Charters Tower   54.36 118  P      P      18 38 06.7  0.0
      comp=Z,11nm,0.9s
CTA   Charters Tower   54.36 118  P      P      18 38 06.3 -0.4
      comp=Z,11nm,0.9s
CTA   Charters Tower   54.36 118  P      P      18 38 07.1 +0.4
CTAO  Charters Tower   54.36 118  P      P      18 38 07.2 +0.5
CTAO  Charters Tower   54.36 118  P      P      18 38 05.6 -1.1
CTAO                              IAmb   IAmb   18 38 07.4
      comp=Z,22nm,0.8s
CTAO  Charters Tower   54.36 118  P      P      18 38 07.0 +0.4
CTAO                              pP     pP     18 38 35.7 -2.4
TV1H  Townsville Har   54.55 117  P      P      18 38 08.0  0.0
AB31  Akbulak array    54.56 331  IAmb   IAmb   18 38 08.5
      comp=Z,43nm,1.0s
ABKAR Akbulak array    54.56 331  P      P      18 38 06.9 -0.7
HTT   Hallett          54.78 137  P      P      18 38 10.3 +0.7
      comp=Z,17nm,1.1s
HTT   Hallett          54.78 137  P      P      18 38 09.8 +0.3
      comp=Z,17nm,1.1s
HTT   Hallett          54.78 137  P      P      18 38 10.2 +0.7
QLP   Quilpie          55.26 127  P      P      18 38 14.2 +1.1
      comp=Z,273nm,0.6s
QLP   Quilpie          55.26 127  P      P      18 38 14.0 +1.0
      comp=Z,273nm,0.6s
QLP   Quilpie          55.26 127  P      P      18 38 14.2 +1.1
QLP   Quilpie          55.26 127  P      P      18 38 14.2 +1.1
      comp=Z,274nm,0.6s
STKA  Stephens Creek   55.81 133  P      P      18 38 17.4 +0.5
      comp=Z,269nm,0.7s
STKA  Stephens Creek   55.81 133  P      P      18 38 17.3 +0.4
      comp=Z,269nm,0.7s
STKA  Stephens Creek   55.81 133  P      P      18 38 17.3 +0.4
      comp=Z,40nm,0.7s,baz=308,slow=7.3,SNR=73
      comp=Z,40nm,0.7s
STKA  Stephens Creek   55.81 133  P      P      18 38 17.3 +0.4
STKA  Stephens Creek   55.81 133  P      P      18 38 17.4 +0.5
      comp=Z,269nm,0.7s
AKTO  Aktyubinsk       56.28 331  P      P      18 38 19.2 -0.7
      comp=Z,12nm,0.4s,baz=115,slow=5.9,SNR=41
AKTO                              LR     LR     19 04 23.6
      comp=Z,49nm,18.3s,baz=72,slow=38
      comp=Z,12nm,0.4s
ASAJ  Asahikawa        56.51  38  LR     LR     19 05 20.2
      comp=Z,38nm,18.3s,baz=260,slow=39
YSS   Yuzhno-Sakhali   58.09  36  P      P      18 38 32.3 -0.4
YSS   Yuzhno-Sakhali   58.09  36  P      P      18 38 33.0 +0.4
      comp=Z,65nm,1.1s
YSS   Yuzhno-Sakhali   58.09  36  P      P      18 38 33.2 +0.5
YSS                               ScP    ScP    18 43 11.7 +0.6
HAKT  HAKKARI          58.52 312  P      P      18 38 35.4 -0.8
      comp=Z,71nm,0.9s
CMSA  Cobar Meteorol   58.67 131  P      P      18 38 38.0 +1.1
      comp=Z,186nm,0.7s
CMSA  Cobar Meteorol   58.67 131  P      P      18 38 37.9 +0.9
      comp=Z,186nm,0.7s
CMSA  Cobar Meteorol   58.67 131  P      P      18 38 37.7 +0.7
CMSA  Cobar Meteorol   58.67 131  P      P      18 38 38.1 +1.1
      comp=Z,186nm,0.7s
GNI   Garni            58.74 315  P      P      18 38 37.6  0.0
      comp=Z,52nm,1.2s,baz=188,slow=5.4,SNR=17
GNI                               LR     LR     19 05 42.7
      comp=Z,25nm,19.2s,baz=100,slow=38
      comp=Z,52nm,1.2s
GNI   Garni            58.74 315  P      P      18 38 38.2 +0.6
GNI   Garni            58.74 315  P      P      18 38 36.7 -0.9
GNI   Garni            58.74 315  P      P      18 38 37.6  0.0
GNI   Garni            58.74 315  P      P      18 38 37.5 -0.1
      comp=Z,715nmcomp=Z,56nm,1.3s
GNI   Garni            58.74 315  P      P      18 38 37.5 -0.1
      comp=Z,56nm,1.3s
KIBK  Kibwezi          59.00 265  P      P      18 38 42.5 +2.8
GEVA  Gevas            59.27 313  IAmb   IAmb   18 38 41.8
      comp=Z,17nm,1.0s
ARTI  Arti             60.19 337  P      P      18 38 45.6 -1.4
      comp=Z,19nm,0.5s,baz=141,slow=3.7,SNR=42
ARTI                              PcP    PcP    18 39 31.4 +0.2
      comp=Z,6.1nm,0.3s,baz=68,slow=2.7,SNR=4.9
ARTI                              ScP    ScP    18 43 20.8 +0.6
      comp=Z,3.2nm,0.8s,baz=58,slow=5.1,SNR=3.1
ARTI                              LR     LR     19 06 11.1
      comp=Z,62nm,21.8s,baz=134,slow=37
      comp=Z,19nm,0.5s
ARTI  Arti             60.19 337  P      P      18 38 45.4 -1.6
ARTI  Arti             60.19 337  P      P      18 38 45.6 -1.4
ARTI                              ScP    ScP    18 43 20.6 +0.4
EIDS  Eidsvold         60.41 122  P      P      18 38 49.5 +0.4
EPOS  Posof            60.68 316  P      P      18 38 50.9 +0.1
      comp=Z,45nm,1.1s
LODK  Lodwar           61.20 272  P      P      18 38 57.6 +2.9
KBZ   Khabaz           61.43 318  P      P      18 38 55.3 -0.3
      comp=Z,40nm,0.8s,baz=111,slow=5.7,SNR=95
KBZ                               ScP    ScP    18 43 26.9 +0.9
      comp=Z,4.0nm,0.8s,baz=196,slow=3.9,SNR=5.2
      comp=Z,40nm,0.8s
TOO   Toolangi         61.52 137  P      P      18 38 58.8 +2.4
      comp=Z,19nm,1.3s
TOO   Toolangi         61.52 137  P      P      18 38 57.3 +0.9
      comp=Z,19nm,1.3s
KIV   Kislovodsk       61.66 318  P      P      18 38 57.0 -0.3
KIV   Kislovodsk       61.66 318  P      P      18 38 56.5 -0.8
KIV   Kislovodsk       61.66 318 i P     P      18 38 56.9 -0.4
      SNR=24
KIV   Kislovodsk       61.66 318 ⇓P      P      18 38 56.6 -0.7
KIV   Kislovodsk       61.66 318  P      P      18 38 56.6 -0.7
      comp=Z,724nmcomp=Z,87nm,1.0s
KIV   Kislovodsk       61.66 318  P      P      18 38 57.1 -0.2
      comp=Z,112nm,1.0s
KIV   Kislovodsk       61.66 318  P      P      18 38 57.1 -0.2
KOPT  Kop Dagi         61.73 314  P      P      18 38 57.4 -0.7
KOPT                              IAmb   IAmb   18 39 13.1
      comp=Z,15nm,0.8s
KTUT  Trabzon          62.58 314 ⇓P      P      18 39 03.0 -0.3
YAK   Yakutsk          62.59  17  P      P      18 39 01.8 -1.2
YAK   Yakutsk          62.59  17  P      P      18 39 02.4 -0.6
      comp=Z,101nm,1.0s
YAK   Yakutsk          62.59  17  P      P      18 39 02.3 -0.7
BELG  Belogornoye      62.66 329  P      P      18 39 02.7 -1.0
      comp=Z,97nm,0.9s,baz=3.6,slow=0.4,SNR=61
      comp=Z,97nm,0.9s
KELT  Kelkit           62.67 313  P      P      18 39 04.4 +0.2
      comp=Z,137nm,1.4s
ARMA  Armidale         62.77 127  P      P      18 39 06.9 +1.9
      comp=Z,20nm,1.0s
ARMA  Armidale         62.77 127  P      P      18 39 03.9 -1.1
ARMA  Armidale         62.77 127  P      P      18 39 06.9 +1.9
      comp=Z,20nm,1.0s
CAN   Canberra         62.88 133  P      P      18 39 06.7 +1.1
      comp=Z,82nm,0.8s
CAN   Canberra         62.88 133  P      P      18 39 06.2 +0.7
      comp=Z,82nm,0.8s
CAN   Canberra         62.88 133  P      P      18 39 06.5 +1.0
CAN   Canberra         62.88 133  P      P      18 39 05.6 +0.1
      comp=Z,82nm,0.8s
CAN   Canberra         62.88 133  P      P      18 39 06.5 +1.0
CNB   Canberra Magne   63.14 133  P      P      18 39 08.6 +1.3
      comp=Z,1.3nm,1.0s
CNB   Canberra Magne   63.14 133  P      P      18 39 07.8 +0.6
      comp=Z,1.2nm,1.0s
HRFI  Mount Harif      63.42 301  P      P      18 39 10.3 +1.1
      comp=Z,34nm,0.9s
EIL   Elat             63.42 301  P      P      18 39 10.2 +1.0
      comp=Z,20nm,0.9s
MMAI  Mount Meron Ar   63.72 305  P      P      18 39 12.0 +0.9
      comp=Z,12nm,0.8s,baz=59,slow=9.8,SNR=13
MMAI                              LR     LR     19 09 26.9
      comp=Z,23nm,19.8s,baz=108,slow=38
      comp=Z,12nm,0.8s
H04N2 CROZET ISLANDS   64.08 213  T      T      19 47 11.6
      baz=52,slow=75,SNR=1499
ANDN  Andirin          64.08 310  P      P      18 39 14.1 +0.6
      comp=Z,142nm,1.1s
H04N1 CROZET ISLANDS   64.09 213  T      T      19 47 08.2
      baz=52,slow=75,SNR=1976
H04N3 CROZET ISLANDS   64.10 213  T      T      19 47 06.8
      baz=52,slow=75,SNR=1890
KZIT  Kziot            64.13 302  P      P      18 39 14.9 +1.1
      comp=Z,26nm,0.9s
TATA  Tatamba Isabel   64.17 101  P      P      18 39 14.0 -0.3
H04S1 CROZET ISLANDS   64.44 212  T      T      19 47 33.9
      baz=51,slow=74,SNR=136
H04S3 CROZET ISLANDS   64.45 212  T      T      19 47 32.4
      baz=51,slow=74,SNR=156
H04S2 CROZET ISLANDS   64.46 212  T      T      19 47 33.5
      baz=51,slow=74,SNR=103
TOKA  Tokat            64.75 313  IAmb   IAmb   18 39 18.9
      comp=Z,28nm,0.8s
BNN   Bunyan           64.80 311  IAmb   IAmb   18 39 19.3
      comp=Z,29nm,0.9s
NRIK  Noril'sk         65.21 356  P      P      18 39 19.1 -0.9
      comp=Z,8.4nm,0.7s,baz=160,slow=5.3,SNR=9.6
      comp=Z,8.4nm,0.7s
KIRV  Kirov            65.30 335  P      P      18 39 20.1 -0.7
      comp=Z,33nm,0.5s,baz=121,slow=2.5,SNR=23
KIRV                              LR     LR     19 10 14.3
      comp=Z,50nm,19.2s,baz=12,slow=38
      comp=Z,33nm,0.5s
TAU   Tasmania Unive   65.53 141  P      P      18 39 23.4 +0.9
CSS   Mathiatis        65.82 306  IAmb   IAmb   18 39 26.6
      comp=Z,23nm,0.9s
CSS   Mathiatis        65.82 306  P      P      18 39 24.4 -0.3
      comp=Z,405nmcomp=Z,36nm,1.6s
CSS   Mathiatis        65.82 306  P      P      18 39 25.1 +0.4
      comp=Z,36nm,1.6s
KIRS  Kirsehir-Merke   66.33 311 ⇑P      P      18 39 27.8 -0.1
BR104 Keskin Array S   66.68 311  P      P      18 39 29.2 -1.0
      comp=Z,338nmcomp=Z,36nm,0.8s
BR131 Keskin Array S   66.68 312  P      P      18 39 29.7 -0.5
BRTR  Keskin Array B   66.68 312  P      P      18 39 29.4 -0.9
      comp=Z,25nm,0.6s,baz=130,slow=7.6,SNR=177
BRTR                              LR     LR     19 10 40.9
      comp=Z,22nm,18.5s,baz=100,slow=38
      comp=Z,25nm,0.6s
BR105 Keskin Array S   66.70 312  P      P      18 39 29.4 -0.9
      comp=Z,356nmcomp=Z,43nm,0.7s
BR106 Keskin Array S   66.70 312  P      P      18 39 29.4 -1.0
      comp=Z,313nmcomp=Z,38nm,0.7s
BZK   Bozkurt          67.00 314 ⇓P      P      18 39 32.1 +0.1
BZK   Bozkurt          67.00 314  P      P      18 39 31.2 -0.8
      comp=Z,218nm,1.1s
KKUL  Konya-Kulu       67.09 311  P      P      18 39 32.4 -0.4
      comp=Z,96nm,0.8s
KEPZ  Antalya-Kepez    67.60 308 ⇑P      P      18 39 35.5 -0.5
KHAM  Kharkiv          68.02 323  P      P      18 39 37.1 -1.2
MA2   Magadan          68.76  26  LR     LR     19 13 54.1
      comp=Z,44nm,19.1s,baz=213,slow=39
MA2   Magadan          68.76  26  P      P      18 39 42.5 -0.1
MA2   Magadan          68.76  26  P      P      18 39 42.6 -0.1
MA2                               IAmb   IAmb   18 39 43.2
      comp=Z,30nm,0.8s
MA2   Magadan          68.76  26  P      P      18 39 41.6 -1.1
      comp=Z,54nm,0.8s
MA2   Magadan          68.76  26  P      P      18 39 41.9 -0.8
      comp=Z,49nm,0.8s
ELL   Elmali           68.90 308  IAmb   IAmb   18 39 45.8
      comp=Z,30nm,0.8s
SAHE  Sakarya_HENDEK   69.02 312 ⇓P      P      18 39 44.1 -0.6
BORA  Eskisehir        69.11 311  IAmb   IAmb   18 39 46.0
      comp=Z,19nm,0.8s
PETK  Petropavlovsk-   69.44  34  P      P      18 39 46.1 -0.9
      comp=Z,4.7nm,0.8s,baz=39,slow=1.7,SNR=9.3
PETK                              LR     LR     19 12 13.4
      comp=Z,18nm,18.4s,baz=241,slow=38
      comp=Z,4.7nm,0.8s
PETK  Petropavlovsk-   69.44  34  P      P      18 39 46.4 -0.6
OBN   Obninsk          69.73 328  P      P      18 39 47.7 -1.1
      comp=Z,66nm,0.9s,baz=120,slow=6.3,SNR=21
      comp=Z,66nm,0.9s
OBN   Obninsk          69.73 328  P      P      18 39 47.9 -0.8
OBN   Obninsk          69.73 328 ⇓P      P      18 39 48.3 -0.4
OBN   Obninsk          69.73 328  P      P      18 39 47.6 -1.1
      comp=Z,116nm,1.3s
OBN   Obninsk          69.73 328  P      P      18 39 48.2 -0.6
      comp=Z,117nm,1.3s
TAVA  DENIZLI_Tavas    69.81 308 ⇓P      P      18 39 50.3 +0.5
PET   Petropavlovsk    69.95  35  P      P      18 39 49.8 -0.3
TIXI  Tiksi            70.23  10  LR     LR     19 14 29.7
      comp=Z,67nm,18.2s,baz=230,slow=39
TIXI  Tiksi            70.23  10  P      P      18 39 49.8 -1.7
MANT  Manisa           70.28 309  IAmb   IAmb   18 39 53.9
      comp=Z,25nm,0.8s
LSZ   Lusaka           70.56 252  P      P      18 39 56.8 +2.1
LSZ   Lusaka           70.56 252  P      P      18 39 56.8 +2.1
LSZ                               pP     pP     18 40 26.4 -0.6
KARP  Karpathos        70.89 306  P      P      18 39 55.8 -0.5
      comp=Z,1µmcomp=Z,183nm,0.8s
KARP  Karpathos        70.89 306  P      P      18 39 56.8 +0.5
      comp=Z,183nm,0.8s
BAND  Balkesir-Ban     70.97 311 ⇑P      P      18 39 57.3 +0.7
PURM  Purcari          71.05 318 ⇓P      P      18 39 56.3 -0.5
PURM  Purcari          71.05 318  P      P      18 39 56.6 -0.3
      comp=Z,2µmcomp=Z,117nm,0.8s
CASY  Casey            71.13 174  P      P      18 39 56.7 -0.2
CASY  Casey            71.13 174  P      P      18 39 58.6 +1.7
      comp=Z,19nm,1.1s
CASY  Casey            71.13 174  P      P      18 39 58.4 +1.4
CASY                              pP     pP     18 40 28.3 -1.1
BALY  Balya            71.22 310  P      P      18 39 58.1  0.0
      comp=Z,166nm,0.9s
JURR  Jurilovca        71.31 316 ⇓P      P      18 39 57.7 -0.8
TLCR                   71.45 316 ⇑P      P      18 39 59.1 -0.2
TIRR  Tirgusor         71.57 315 ⇑P      P      18 39 59.7 -0.4
TIRR  Tirgusor         71.57 315  P      P      18 39 59.9 -0.2
      comp=Z,75nm,0.8s
BAL3X Bal3x, Balta     71.57 319  P      P      18 39 58.9 -1.1
TPGR  Topolog          71.65 316 ⇓P      P      18 40 00.7  0.0
TLBR  Topalu           71.84 315 ⇑P      P      18 40 02.0 +0.3
CFR   Carcaliu         71.92 316 ⇑P      P      18 40 01.9 -0.2
ICOR  Ion Corvin       71.93 315 ⇑P      P      18 40 02.2  0.0
HARR  Harsova          71.95 316 ⇑P      P      18 40 02.3 -0.1
VLDR  Vladesti         72.10 317 ⇑P      P      18 40 03.4 +0.2
SCTR  Scanteiesti      72.12 317 ⇓P      P      18 40 03.6 +0.2
VARL  Varlezi          72.27 317 ⇓P      P      18 40 04.0 -0.2
SORM  Soroca           72.44 319 ⇓P      P      18 40 04.8 -0.3
AK09  Malin Array Si   72.46 322  P      P      18 40 03.9 -1.4
AK10  Malin Array Si   72.47 322  P      P      18 40 03.9 -1.4
AK08  Malin Array Si   72.48 322  P      P      18 40 04.0 -1.4
AK07  Malin Array Si   72.49 322  P      P      18 40 04.0 -1.4
AK06  Malin Array Si   72.50 322  P      P      18 40 04.3 -1.2
AK05  Malin Array Si   72.51 322  P      P      18 40 04.4 -1.2
AK02  Malin Array Si   72.52 322  P      P      18 40 04.4 -1.2
AKASG Malin Array Be   72.52 322  P      P      18 40 04.4 -1.2
      comp=Z,20nm,0.6s,baz=91,slow=5.0,SNR=86
AKASG                             S      S      18 49 13.0 -6.3
      comp=Z,0.8nm,0.5s,baz=100,slow=10,SNR=4.8
AKASG                             LR     LR     19 14 23.0
      comp=Z,31nm,19.5s,baz=96,slow=38
      comp=Z,20nm,0.6s
AKASG Malin Array Be   72.52 322  P      P      18 40 04.2 -1.4
AKBB  Malin Array Si   72.52 322  IAmb   IAmb   18 40 05.4
      comp=Z,42nm,0.8s
AKBB  Malin Array Si   72.52 322  P      P      18 40 04.1 -1.5
KIEV  Kiev             72.52 322  P      P      18 40 04.2 -1.5
KIEV                              IAmb   IAmb   18 40 05.4
      comp=Z,37nm,0.8s
KIEV  Kiev             72.52 322 i P     P      18 40 04.5 -1.1
      SNR=25
KIEV  Kiev             72.52 322 ⇓P      P      18 40 04.8 -0.9
KIEV  Kiev             72.52 322  P      P      18 40 04.1 -1.5
      comp=Z,255nm,1.3s
KIEV  Kiev             72.52 322  P      P      18 40 04.6 -1.1
      comp=Z,65nm,0.9s
GHRR                   72.60 317 ⇓P      P      18 40 06.9 +0.7
GHRR                   72.60 317  P      P      18 40 06.7 +0.5
      comp=Z,111nm,0.9s
ALN   Alexandroupoli   72.60 311  P      P      18 40 05.9 -0.5
      comp=Z,26nm,1.0s
LOZB  Loznitsa         72.64 314 ⇑P      P      18 40 06.1 -0.4
RAZG  Razgrad          72.74 314 ⇑P      P      18 40 06.6 -0.5
PANC  Panciu           72.74 317 ⇓P      P      18 40 08.0 +1.0
ODBI  Odobesti         72.78 317 ⇑P      P      18 40 07.6 +0.3
BISRR Bisoca           72.98 316 ⇓P      P      18 40 09.5 +0.9
ISR   Istrita          73.01 316 ⇑P      P      18 40 08.9 +0.2
VRI   Vrincioaia       73.03 317 ⇓P      P      18 40 09.7 +0.9
VRI   Vrincioaia       73.03 317  P      P      18 40 09.4 +0.6
      comp=Z,111nm,1.3s
SAHR  Sahastru         73.03 317 ⇑P      P      18 40 09.3 +0.5
PLOR  Plostina         73.08 317 ⇓P      P      18 40 09.4 +0.3
MI30  MI30,Zelenitsa   73.16 322  P      P      18 40 08.3 -1.1
      comp=Z,98nm,0.9s
TESR  Tescani          73.21 317 ⇑P      P      18 40 09.8  0.0
TESR  Tescani          73.21 317  P      P      18 40 09.8  0.0
      comp=Z,136nm,0.7s
LUBAR Lubar, Ukraine   73.23 321  P      P      18 40 08.8 -1.1
MI29  MI29, Kamyanyy   73.29 321  P      P      18 40 08.8 -1.4
      comp=Z,706nm,0.8s
ONER  Baraj Valea Uz   73.35 317 ⇑P      P      18 40 10.5 -0.1
COVR  Voineasa-Covas   73.38 317 ⇑P      P      18 40 10.5 -0.4
GIRR  Girov            73.40 318 ⇓P      P      18 40 11.0  0.0
MLR   Muntele Rosu     73.49 316  LR     LR     19 18 21.3
      comp=Z,19nm,18.3s,baz=12,slow=40
MLR   Muntele Rosu     73.49 316  IAmb   IAmb   18 40 13.2
      comp=Z,66nm,1.1s
MLR   Muntele Rosu     73.49 316 ⇓P      P      18 40 12.2 +0.6
MLR   Muntele Rosu     73.49 316  P      P      18 40 12.1 +0.4
      comp=Z,66nm,1.5s
TURR  Turia            73.55 317 ⇓P      P      18 40 12.2 +0.3
BIZ   Bicaz            73.66 318 ⇓P      P      18 40 13.2 +0.7
PRAR  RASCA            73.67 318 ⇓P      P      18 40 12.6 +0.1
OZUR                   73.72 317 ⇑P      P      18 40 12.9 +0.1
KMPD  K-Podol'skiy     73.76 319  P      P      18 40 11.5 -1.5
DOPR  Dopca            73.96 317 ⇑P      P      18 40 14.2 -0.1
HUMR  Humele           73.99 315 ⇑P      P      18 40 14.1 -0.3
HUMR  Humele           73.99 315  P      P      18 40 12.7 -1.7
      comp=Z,76nm,1.2s
PLVB  Pleven           74.06 314 ⇓P      P      18 40 15.3 +0.5
VOIR                   74.10 316 ⇑P      P      18 40 14.8 -0.4
VOIR                   74.10 316  P      P      18 40 15.0 -0.2
      comp=Z,16nm,0.6s
PAIG  Paliouri         74.25 310  P      P      18 40 15.5 -0.4
      comp=Z,20nm,0.9s
ARR   Arges            74.38 316 ⇓P      P      18 40 16.0 -0.8
ARR   Arges            74.38 316  P      P      18 40 16.4 -0.4
      comp=Z,32nm,0.7s
BURAR Bucovina Array   74.39 318  P      P      18 40 16.8  0.0
BURAR                             IAmb   IAmb   18 40 18.3
      comp=Z,30nm,0.8s
BUR08 Bucovina Ar. S   74.40 318  IAmb   IAmb   18 40 18.6
      comp=Z,34nm,0.9s
SRS   Serrai           74.47 311  P      P      18 40 16.1 -1.3
      comp=Z,22nm,0.8s
TNR   Turnu Rosu       74.68 316 ⇓P      P      18 40 18.9 +0.5
MDB   Medias           74.69 317 ⇑P      P      18 40 18.5 +0.1
RNPP5 Staryi Chortor   74.69 322  P      P      18 40 17.5 -0.8
RNPP9 Sopachiv         74.73 322  P      P      18 40 17.7 -0.8
RNPP8 Varash           74.73 322  P      P      18 40 17.8 -0.7
HORT  Hortiatis        74.77 311  P      P      18 40 18.1 -1.1
      comp=Z,24nm,0.7s
LBTB  Lobatse          74.85 243  P      P      18 40 17.6 -2.3
      comp=Z,35nm,1.2s
LBTB  Lobatse          74.85 243  P      P      18 40 21.9 +2.1
ARCR  ARCALIA          74.87 318 ⇓P      P      18 40 20.3 +0.9
LOT   Lotru            74.99 316 ⇓P      P      18 40 20.0 -0.3
LOT   Lotru            74.99 316  P      P      18 40 19.5 -0.9
      comp=Z,18nm,1.4s
AGG   Agios Georgios   75.17 309  P      P      18 40 19.5 -1.9
      comp=Z,17nm,0.7s
LIT   Litokhoron       75.17 310  IAmb   IAmb   18 40 21.7
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	comp=Z,37nm,0.8s						
LIT	Litokhoron	75.17	310	P	P	18 40 20.3	-1.1
	comp=Z,55nm,0.8s						
ITM	Ithomi	75.29	307	⇑P	P	18 40 21.2	-0.9
	comp=Z,27nm,0.8s						
CJR	Cluj-Napoca	75.31	317	⇑P	P	18 40 22.9	+0.8
GRG	Griva	75.34	311	P	P	18 40 21.4	-1.0
	comp=Z,54nm,0.7s						
BMR	Baia Mare	75.54	318	⇑P	P	18 40 24.1	+0.8
BMR	Baia Mare	75.54	318	P	P	18 40 24.1	+0.8
	comp=Z,56nm,1.5s						
MAW	Mawson	75.62	193	P	P	18 40 25.7	+2.5
	comp=Z,4.0nm,0.9s						
MAW	Mawson	75.62	193	P	P	18 40 25.0	+1.8
	comp=Z,12nm,0.8s,baz=36,slow=5.2,SNR=36						
	comp=Z,12nm,0.8s						
MAW	Mawson	75.62	193	P	P	18 40 25.7	+2.5
	comp=Z,4.0nm,0.9s						
MARR	Marisel-Cluj	75.64	317	⇑P	P	18 40 25.0	+1.0
DEV	Deva	75.66	316	⇓P	P	18 40 24.7	+0.7
DEV	Deva	75.66	316	P	P	18 40 24.6	+0.7
	comp=Z,48nm,1.2s						
GZR	Gura Zlata	75.67	316	⇓P	P	18 40 24.0	-0.1
LVZ	Lovozero	75.76	340	P	P	18 40 23.6	-0.6
LVZ				IAmb	IAmb	18 40 23.9	
	comp=Z,54nm,1.0s						
LVZ	Lovozero	75.76	340	P	P	18 40 23.8	-0.4
	comp=Z,59nm,1.0s						
LVZ	Lovozero	75.76	340	P	P	18 40 23.6	-0.6
MESR	Meseseni	75.82	317	⇓P	P	18 40 26.0	+1.1
HERR	Herculane	75.85	315	⇓P	P	18 40 25.4	+0.3
BOSA	Boshof	75.92	239	P	P	18 40 27.7	+1.7
	comp=Z,14nm,0.8s,baz=107,slow=3.3,SNR=35						
BOSA				LR	LR	19 09 26.0	
	comp=Z,46nm,21.7s,baz=32,slow=32						
	comp=Z,14nm,0.8s						
BOSA	Boshof	75.92	239	P	P	18 40 28.0	+2.0
BOSA	Boshof	75.92	239	P	P	18 40 27.6	+1.7
DRGR		75.93	317	⇓P	P	18 40 26.3	+0.7
DRGR		75.93	317	P	P	18 40 26.1	+0.4
	comp=Z,43nm,1.1s						
VSU	Vasula	75.94	329	P	P	18 40 23.8	-1.4
	comp=Z,116nm,0.8s						
BOVS	Bovan	76.19	314	⇓P	P	18 40 26.4	-0.6
TRPA	Tarpa	76.25	318	P	P	18 40 27.8	+0.5
	comp=Z,72nm,1.3s						
MDVR	Moldovita	76.33	315	⇓P	P	18 40 27.7	-0.3
KWP	Kalwaria Pacla	76.38	320	*e*P	P	18 40 27.8	-0.2
LKD2	Lefkada island	76.44	309	P	P	18 40 28.2	-0.4
	comp=Z,125nm,0.7s						
UZHM	Uzhgorod	76.49	319	P	P	18 40 28.8	+0.2
BZS	Buzias	76.51	316	⇓P	P	18 40 28.4	-0.5
BZS	Buzias	76.51	316	P	P	18 40 28.8	-0.1
	comp=Z,22nm,1.6s						
KOLS	Kolonicke sedl	76.55	319	*e*P	P	18 40 29.8	+0.8
KOLS	Kolonicke sedl	76.55	319	P	P	18 40 30.2	+1.2
	comp=Z,43nm,0.7s						
LTVH	Ltavrtes, Hu	76.57	318	⇑P	P	18 40 29.0	-0.1
LTVH	Ltavrtes, Hu	76.57	318	P	P	18 40 30.2	+1.1
	comp=Z,80nm,0.9s						
PABE	Paberze	76.72	326	P	P	18 40 29.6	-0.1
	comp=Z,206nm,1.2s						
SUW	Suwalki	76.87	324	*e*P	P	18 40 29.5	-1.1
PHP	Peshkopia	76.89	312	P	P	18 40 30.2	-0.9
	comp=Z,15nm,0.8s						
FINES	FINESS Array B	77.03	332	P	P	18 40 30.8	-0.6
	comp=Z,21nm,0.7s,baz=104,slow=5.6,SNR=51						
FINES				LR	LR	19 18 48.7	
	comp=Z,60nm,18.1s,baz=72,slow=39						
	comp=Z,21nm,0.7s						
MSF	Maaselka	77.08	337	P	P	18 40 31.4	-0.2
	comp=Z,104nm,0.9s						
ABAH	Abaujker	77.14	318	P	P	18 40 32.5	+0.2
	comp=Z,38nm,1.4s						
STHS	Stebnicka Huta	77.29	320	*e*P	P	18 40 33.8	+0.6
SJES	Sjenica	77.40	313	*e*P	P	18 40 33.7	-0.3
FRGS	Fruska Gora	77.72	315	*e*P	P	18 40 33.9	-1.7
PDG	Podgorica	77.85	312	IAmb	IAmb	18 40 37.1	
	comp=Z,28nm,0.7s						
PDG	Podgorica	77.85	312	⇓P	P	18 40 36.0	-0.4
PDG	Podgorica	77.85	312	⇑*i*P	P	18 40 35.1	-1.2
PDG	Podgorica	77.85	312	P	P	18 40 35.4	-0.9
	comp=Z,43nm,0.6s						
TEKS	Tekeris	77.86	315	⇑*i*P	P	18 40 35.9	-0.5
BBLS	Lazi&#263i	77.88	314	⇑*i*P	P	18 40 36.6	0.0
NIE	Niedzica	77.90	320	*e*P	P	18 40 37.7	+1.1
BEL	Belsk	77.93	322	*e*P	P	18 40 37.4	+0.8
BEL	Belsk	77.93	322	P	P	18 40 36.9	+0.3
	comp=Z,10µm,0.9s						
PBUR	Paburge	77.95	326	P	P	18 40 36.6	+0.1
	comp=Z,393nm,0.8s						
PSZ	Piszkesteto	77.98	318	IAmb	IAmb	18 40 38.5	
	comp=Z,38nm,1.0s						
PSZ	Piszkesteto	77.98	318	⇓P	P	18 40 37.1	0.0
PSZ	Piszkesteto	77.98	318	P	P	18 40 37.1	0.0
	comp=Z,43nm,1.3s						
OUL	Oulu	78.08	336	P	P	18 40 36.8	-0.3
	comp=Z,73nm,1.2s						
OJC	Ojcow	78.33	320	*e*P	P	18 40 39.2	+0.3
OJC	Ojcow	78.33	320	P	P	18 40 38.8	-0.1
	comp=Z,47nm,1.6s						
VADS	Vadso	78.37	341	*e*P	P	18 40 38.5	-0.1
LANS	Liptovska Anna	78.41	319	*e*P	P	18 40 39.8	+0.4
BRY	Bratogost	78.41	313	*e*P	P	18 40 37.1	-2.6
SGF	Sodankyl	78.50	338	P	P	18 40 39.4	0.0
	comp=Z,77nm,1.2s						
TREB	Trebinje	78.54	313	⇑*i*P	P	18 40 38.6	-1.6
MORH	Mrgy, Hungar	78.64	316	⇑P	P	18 40 40.8	+0.1
MORH	Mrgy, Hungar	78.64	316	⇑*i*P	P	18 40 40.6	0.0
MORH	Mrgy, Hungar	78.64	316	P	P	18 40 40.7	+0.1
	comp=Z,32nm,1.7s						
VYHS	Vyhne	78.75	318	*e*P	P	18 40 41.2	0.0
VYHS	Vyhne	78.75	318	P	P	18 40 41.5	+0.2
	comp=Z,6.5nm,1.4s						
KEV	Kevo	79.02	341	P	P	18 40 42.1	-0.1
KEV				IAmb	IAmb	18 40 43.1	
	comp=Z,41nm,0.9s						
KEV	Kevo	79.02	341	P	P	18 40 42.5	+0.3
	comp=Z,67nm,1.7s						
SRO	Srobarova	79.03	318	*e*P	P	18 40 43.7	+1.0
SRO	Srobarova	79.03	318	P	P	18 40 43.6	+0.9
	comp=Z,46nm,1.1s						
OKC	Ostrava-Krasne	79.34	320	*e*P	P	18 40 43.4	-1.0
OKC	Ostrava-Krasne	79.34	320	P	P	18 40 44.6	+0.3
	comp=Z,38nm,1.3s						
ARA0	ARCESS Array S	79.46	340	*e*P	P	18 40 44.9	+0.2
ARCES	ARCESS Array B	79.46	340	P	P	18 40 44.6	0.0
	comp=Z,11nm,0.5s,baz=94,slow=5.5,SNR=99						
ARCES				LR	LR	19 19 04.9	
	comp=Z,36nm,20.5s,baz=99,slow=38						
	comp=Z,11nm,0.5s						
ARCES	ARCESS Array B	79.46	340	P	P	18 40 44.6	0.0
ARCES				IAmb	IAmb	18 40 45.8	
	comp=Z,74nm,1.3s						
MPLH	Magyarpolny	79.49	317	P	P	18 40 45.7	+0.5
	comp=Z,73nm,1.2s						
MAUC	Maruska	79.50	319	*e*P	P	18 40 45.6	+0.3
BLY	Banja Luka	79.54	315	⇑P	P	18 40 45.7	+0.1
BLY	Banja Luka	79.54	315	⇑*i*P	P	18 40 45.6	+0.1
BLY	Banja Luka	79.54	315	P	P	18 40 45.2	-0.4
	comp=Z,32nm,1.4s						
JAVC	Velka Javorina	79.56	319	*e*P	P	18 40 46.2	+0.5
JAVC	Velka Javorina	79.56	319	P	P	18 40 46.7	+1.1
	comp=Z,22nm,1.4s						
STEB	Steborice	79.59	320	*e*P	P	18 40 46.3	+0.5
MORC	Moravsky Berou	79.73	320	*e*P	P	18 40 46.8	+0.3
MORC	Moravsky Berou	79.73	320	⇓P	P	18 40 47.3	+0.8
MORC	Moravsky Berou	79.73	320	P	P	18 40 47.0	+0.4
	comp=Z,30nm,1.3s						
MODS	Modra-Piesok	79.77	318	*e*P	P	18 40 47.1	+0.3
MODS	Modra-Piesok	79.77	318	P	P	18 40 47.3	+0.5
	comp=Z,31nm,1.6s						
ZST	Bratislava	79.87	318	*e*P	P	18 40 48.1	+0.8
ZST	Bratislava	79.87	318	P	P	18 40 48.1	+0.8
	comp=Z,468nm,1.9s						
BEHE	Becsehely	79.96	316	IAmb	IAmb	18 40 49.9	
	comp=Z,83nm,1.7s						
BEHE	Becsehely	79.96	316	⇑*i*P	P	18 40 47.8	0.0
BEHE	Becsehely	79.96	316	P	P	18 40 48.4	+0.6
	comp=Z,29nm,1.1s						
KTK1	Kautokeino	80.10	339	*e*P	P	18 40 47.8	-0.4
CEL	Celeste	80.14	308	P	P	18 40 49.5	+0.5
	comp=Z,29nm,0.9s						
SOP	Sopron	80.20	317	P	P	18 40 49.2	+0.1
	comp=Z,15nm,1.2s						
KRLC	Kraliky	80.24	320	*e*P	P	18 40 49.8	+0.4
KRLC	Kraliky	80.24	320	P	P	18 40 49.7	+0.4
	comp=Z,38nm,1.1s						
GKP	Gorka Klasztor	80.26	323	*e*P	P	18 40 48.5	-0.7
MARCO	Tramutola	80.29	310	P	P	18 40 49.6	-0.3
	comp=Z,31nm,1.4s						
VRAC	Vranov	80.30	319	LR	LR	19 21 52.6	
	comp=Z,17nm,19.1s,baz=38,slow=40						
VRAC	Vranov	80.30	319	*e*P	P	18 40 49.5	-0.1
VRAC	Vranov	80.30	319	⇓P	P	18 40 49.7	+0.1
HAMF	Hammerfest	80.36	341	*e*P	P	18 40 48.9	-0.5
RONA	Rosalia, Austr	80.37	318	*e*P	P	18 40 49.9	-0.1
	comp=Z,1.6nm,0.4s,SNR=5.5						
KRUC	Moravsky	80.41	319	*e*P	P	18 40 49.9	-0.3
KRUC	Moravsky	80.41	319	P	P	18 40 50.3	+0.1
	comp=Z,12nm,1.3s						
SUR	Sutherland	80.46	236	P	P	18 40 54.3	+3.3
WINA	Alland / Wiene	80.55	318	*i* P	P	18 40 51.0	0.0
	comp=Z,1.9nm,0.5s,SNR=9.2						
DPC	Dobruska-Polom	80.56	320	*e*P	P	18 40 50.9	-0.1
DPC	Dobruska-Polom	80.56	320	P	P	18 40 51.9	+0.9
	comp=Z,22nm,1.8s						
KSP	Ksiaz	80.62	321	*e*P	P	18 40 51.0	-0.2
OSTC	Ostas	80.64	320	*e*P	P	18 40 52.0	+0.6
CONA	Conrad Observa	80.68	318	*i* P	P	18 40 51.4	-0.3
	comp=Z,0.6nm,0.3s						
CHVC	Chvalec	80.75	320	*e*P	P	18 40 52.4	+0.4
UPC	Upice	80.77	320	*e*P	P	18 40 52.4	+0.3
UPC	Upice	80.77	320	P	P	18 40 52.7	+0.6
	comp=Z,24nm,1.6s						
ARSA	Arzberg	80.87	317	*i* P	P	18 40 52.8	+0.1
	comp=Z,2.8nm,0.5s,SNR=11						
ARSA	Arzberg	80.87	317	P	P	18 40 52.8	+0.1
	comp=Z,22nm,1.2s						
CCD	Concordia, Ant	80.88	173	P	P	18 40 54.4	+1.8
BOJS	Bojanci	80.95	315	*i* P	P	18 40 53.3	+0.1
TREC	Trest	81.02	319	P	P	18 40 53.5	+0.1
	comp=Z,16nm,1.2s						
PERS	Pernice	81.11	316	*i* P	P	18 40 54.2	+0.2
SOKA	Soboth	81.17	316	*e*P	P	18 40 54.6	+0.2
	comp=Z,30nm,1.6s,SNR=17						
JETT	Jettan, Norway	81.20	340	*e*P	P	18 40 54.1	+0.1
BLEU	Blekinge	81.38	326	*i* P	P	18 40 54.5	-0.6
LJU	Ljubljana	81.49	316	*i* P	P	18 40 56.4	+0.5
OBKA	Obir	81.49	316	*e*P	P	18 40 56.3	+0.3
	comp=Z,8.2nm,0.8s						
OBKA	Obir	81.49	316	P	P	18 40 56.4	+0.3
	comp=Z,22nm,0.9s						
SESA	Seetaler Alpe,	81.51	317	*i* P	P	18 40 56.3	0.0
	comp=Z,17nm,0.6s,SNR=13						
PRU	Pruhonice	81.68	320	*e*P	P	18 40 57.2	+0.4
	comp=Z,1.5nm,0.4s						
PRU	Pruhonice	81.68	320	P	P	18 40 57.3	+0.4
	comp=Z,13nm,1.7s						
TRO	Tromso	81.73	340	*e*P	P	18 40 55.8	-0.9
MOA	Molln	81.75	318	*e*P	P	18 40 57.0	-0.3
	comp=Z,2.0nm,0.6s,SNR=7.1						
MOA	Molln	81.75	318	P	P	18 40 57.2	-0.2
	comp=Z,13nm,1.5s						
CKRC	Cesky Krumlov	81.77	319	*e*P	P	18 40 57.8	+0.4
BSD	Bornholm Skovb	81.79	325	*i* P	P	18 40 56.3	-0.9
BSD				IAmb	IAmb	18 40 58.5	
	comp=Z,49nm,1.3s						
ZVC	Zvikov	81.88	319	*e*P	P	18 40 57.9	0.0
LNIZ	Loecknitz	82.09	323	P	P	18 40 59.5	+0.6
	comp=Z,135nm,0.9s						
DRE	Drenchia	82.11	316	P	P	18 40 59.2	-0.1
	comp=Z,30nm,0.7s						
BRG	Berggiesshubel	82.11	321	P	P	18 40 59.5	+0.4
	comp=Z,21nm,1.4s						
BRG	Berggiesshubel	82.11	321	*i* P	P	18 40 59.4	+0.3
BRG				Amp		18 41 00.8	
	comp=Z,22nm,1.1s						
MYKA	Terra Mystica	82.12	316	*e*P	P	18 40 59.1	-0.2
	comp=Z,10nm,0.8s,SNR=5.5						
QRZ	Quartz Range	82.14	132	P	P	18 41 00.0	+0.6
BIOA	Bad Ischl, Aus	82.17	317	*e*P	P	18 40 59.0	-0.5
	comp=Z,5.7nm,0.8s,SNR=6.8						
AQU	L'Aquila	82.17	312	IAmb	IAmb	18 41 02.0	
	comp=Z,25nm,0.9s						
AQU	L'Aquila	82.17	312	*e*P	P	18 40 59.4	-0.3
AQU	L'Aquila	82.17	312	P	P	18 41 00.1	+0.4
	comp=Z,39nm,1.0s						
GEC2	GERESS Array S	82.17	319	P	P	18 40 59.9	+0.3
	comp=Z,26nm,1.9s						
GERES	GERESS Array B	82.17	319	P	P	18 40 59.7	+0.1
	comp=Z,7.9nm,0.6s,baz=94,slow=4.0,SNR=69						
	comp=Z,7.9nm,0.6s						
GERES	GERESS Array B	82.17	319	P	P	18 40 59.4	-0.2
PRED	Cave del Predi	82.17	316	P	P	18 40 58.6	-1.0
	comp=Z,22nm,0.7s						
GUMA	Gualdo di Mace	82.23	313	IAmb	IAmb	18 41 00.8	
	comp=Z,29nm,0.7s						
KHC	Kasperske Hory	82.26	319	*e*P	P	18 40 59.6	-0.4
	comp=Z,1.7nm,0.4s						
KHC	Kasperske Hory	82.26	319	⇑P	P	18 40 60.0	0.0
	comp=Z,9.7nm,1.5s						
RUE	Ruedersdorf	82.29	322	P	P	18 41 00.1	+0.2
	comp=Z,98nm,1.4s						
KBA	Koelnbreinsper	82.34	317	*e*P	P	18 40 59.9	-0.7
	comp=Z,2.8nm,0.6s						
KBA	Koelnbreinsper	82.34	317	P	P	18 41 00.2	-0.5
	comp=Z,12nm,1.8s						
NRCA	Norcia	82.39	312	IAmb	IAmb	18 41 02.1	
	comp=Z,64nm,2.0s						
HSKC	Hora Svate Kat	82.42	320	P	P	18 41 01.2	+0.5
	comp=Z,14nm,1.4s						
DEL	Delary	82.47	326	*i* P	P	18 41 00.7	-0.1
FUSE	Fusea	82.56	316	P	P	18 41 01.5	-0.1
	comp=Z,30nm,1.3s						
LUNU	Lund	82.66	325	*i* P	P	18 41 01.9	+0.1
CLL	Collm	82.72	321	P	P	18 41 02.2	0.0
	comp=Z,18nm,1.9s						
CLL	Collm	82.72	321	*i* P	P	18 41 01.8	-0.4
	comp=Z,27nm,1.3s						
CLL				*i* x	x	18 41 24.4	
WET	Wettzell	82.72	319	P	P	18 41 02.7	+0.4
	comp=Z,14nm,1.1s						
RJOB	Jochberg	82.74	317	P	P	18 41 02.1	-0.4
	comp=Z,8.4nm,0.8s						
FAUS	Fauske	82.74	337	*e*P	P	18 41 01.6	-0.4
HFS	Hagfors	82.80	330	P	P	18 41 02.1	-0.4
	comp=Z,8.2nm,0.5s,baz=192,slow=2.9,SNR=28						
	comp=Z,8.2nm,0.5s						
LESA	Schwarzleotal	82.81	317	*e*P	P	18 41 02.1	-0.8
	comp=Z,5.5nm,0.5s,SNR=9.7						
STEI	Steigen	82.82	338	*e*P	P	18 41 02.1	-0.2
ABTA	Abfaltersbach	82.90	316	*e*P	P	18 41 02.8	-0.6
	comp=Z,11nm,1.7s,SNR=5.1						
MOR8	Moi Rana	82.95	336	*e*P	P	18 41 01.6	-1.6
TANN	Tannenbergstha	83.03	320	P	P	18 41 03.4	-0.6
	comp=Z,20nm,1.6s						
NKC	Novy Kostel	83.03	320	P	P	18 41 03.5	-0.4
	comp=Z,12nm,1.3s						
FABU	Falkenberg	83.13	327	*i* P	P	18 41 04.4	+0.2
KHZ	Kahutara	83.22	133	P	P	18 41 05.2	+0.3
COP	Copenhagen	83.23	325	*i* P	P	18 41 06.4	+1.7
COP				IAmb	IAmb	18 41 09.6	
	comp=Z,115nm,0.9s						
LLD	Lille Linde	83.34	325	*i* P	P	18 41 06.8	+1.5
LLD				IAmb	IAmb	18 41 07.6	
	comp=Z,38nm,0.7s						
CGRP	Cima Grappa	83.38	316	P	P	18 41 06.0	-0.1
	comp=Z,13nm,0.8s						
GRB3	Grafenberg Arr	83.43	319	P	P	18 41 06.5	+0.5
	comp=Z,33nm,1.3s						
TEOL	Teolo	83.47	315	IAmb	IAmb	18 41 07.7	
	comp=Z,89nm,1.9s						
LOF	Lofoten	83.47	338	*e*P	P	18 41 05.3	-0.4
NEUB	Neuenburg	83.49	321	P	P	18 41 06.4	+0.2
	comp=Z,24nm,1.3s						
CTI	Castel Tesino	83.49	316	IAmb	IAmb	18 41 08.7	
	comp=Z,25nm,0.7s						
WTTA	Wattenberg	83.51	317	*e*P	P	18 41 06.0	-0.6
	comp=Z,7.4nm,0.5s,SNR=9.7						
WTTA	Wattenberg	83.51	317	P	P	18 41 06.1	-0.6
	comp=Z,15nm,0.7s						
GRB2	Grafenberg Arr	83.52	319	P	P	18 41 06.8	+0.3
	comp=Z,25nm,1.2s						
GRB1	Grafenberg Arr	83.53	319	P	P	18 41 06.9	+0.4
	comp=Z,35nm,1.2s						
WATA	Walderalm	83.55	317	*i* P	P	18 41 05.9	-1.0
	comp=Z,4.0nm,0.5s,SNR=12						
GRC3	Grafenberg Arr	83.57	319	P	P	18 41 06.7	0.0
	comp=Z,10nm,1.3s						
MOX	Moxa	83.58	320	P	P	18 41 06.9	+0.2
	comp=Z,11nm,1.8s						
ONAU	Onsala	83.58	327	*i* P	P	18 41 06.6	+0.1
GRB4	Grafenberg Arr	83.59	319	P	P	18 41 07.3	+0.5
	comp=Z,31nm,1.2s						
GRC4	Grafenberg Arr	83.61	319	P	P	18 41 07.1	+0.2
	comp=Z,15nm,0.8s						
GRC1	Grafenberg Arr	83.61	319	P	P	18 41 06.9	0.0
	comp=Z,13nm,0.8s						
WIMM	Wimmelburg	83.66	321	P	P	18 41 06.0	-1.0
	comp=Z,56nm,1.4s						
GRC2	Grafenberg Arr	83.71	319	P	P	18 41 07.6	+0.2
	comp=Z,13nm,1.0s						
GRA2	Grafenberg Arr	83.73	319	P	P	18 41 07.6	+0.1
	comp=Z,14nm,1.5s						
GRA3	Grafenberg Arr	83.75	319	P	P	18 41 07.9	+0.3
	comp=Z,20nm,1.5s						
TJOU	Tjoern	83.76	328	*i* P	P	18 41 06.9	-0.5
SQTA	Sankt Quirin	83.80	317	*e*P	P	18 41 07.4	-0.7
	comp=Z,8.2nm,0.5s,SNR=12						
GRA1	Grafenberg Arr	83.82	319	IAmb	IAmb	18 41 09.8	
	comp=Z,49nm,1.6s						
GRA1	Grafenberg Arr	83.82	319	P	P	18 41 08.1	+0.2
	comp=Z,19nm,1.0s						
GRF	Grafenberg Arr	83.82	319	*e*P	P	18 41 08.0	0.0
	comp=Z,40nm,1.5s,baz=91,slow=4.4						
GRFO	Grafenberg	83.82	319	P	P	18 41 08.8	+0.9
SPB2	Spitsbergen Ar	83.82	348	IAmb	IAmb	18 41 07.8	
	comp=Z,31nm,0.7s						
SPA0	Spitsbergen Ar	83.82	348	*e*P	P	18 41 07.0	-0.4
SPITS	Spitsbergen Ar	83.82	348	P	P	18 41 06.6	-0.8
	comp=Z,21nm,0.7s,baz=106,slow=9.1,SNR=35						
SPITS				LR	LR	19 25 07.0	
	comp=Z,38nm,18.5s,baz=113,slow=40						
	comp=Z,21nm,0.7s						
NC405	NORSAR Array S	83.83	331	IAmb	IAmb	18 41 08.5	
	comp=Z,22nm,0.8s						
FLTG	Flechtingen	83.84	322	P	P	18 41 07.3	-0.6
	comp=Z,15nm,1.1s						
NSS	Namsos	83.87	334	*e*P	P	18 41 07.6	-0.2
MOTA	Moosalm	83.88	317	*e*P	P	18 41 07.6	-0.9
	comp=Z,7.3nm,0.8s,SNR=8.5						
NC602	NORSAR Array S	83.90	331	IAmb	IAmb	18 41 08.1	
	comp=Z,24nm,0.9s						
NC303	NORSAR Array S	84.00	331	IAmb	IAmb	18 41 08.8	
	comp=Z,21nm,0.9s						
STRU	Stroemstad	84.02	329	*i* P	P	18 41 08.4	-0.3
NB2	NORSAR Subarra	84.07	331	P	P	18 41 08.2	-0.8
	comp=Z,23nm,0.9s,baz=93,slow=5.1						
NB2	NORSAR Subarra	84.07	331	P	P	18 41 08.2	-0.8
NOA	NORSAR Array B	84.07	331	P	P	18 41 08.3	-0.8
	comp=Z,11nm,0.8s,baz=93,slow=5.2,SNR=34						
NOA				LR	LR	19 22 01.3	
	comp=Z,34nm,18.0s,baz=5.0,slow=38						
	comp=Z,11nm,0.8s						
RETA	Reutte	84.11	317	*i* P	P	18 41 09.2	-0.4
	comp=Z,9.1nm,0.6s,SNR=7.6						
FETA	Feichten	84.13	317	*e*P	P	18 41 09.3	-0.5
	comp=Z,4.1nm,0.6s						
ASSE	Asse, Remlinge	84.19	322	P	P	18 41 10.0	+0.3
	comp=Z,22nm,1.1s						
SALO	Salr	84.28	315	IAmb	IAmb	18 41 12.1	
	comp=Z,33nm,0.8s						
NBO00	NORSAR Array S	84.28	331	IAmb	IAmb	18 41 10.8	
	comp=Z,24nm,0.9s						
CLZ	Clausthal	84.37	322	P	P	18 41 11.2	+0.4
	comp=Z,34nm,1.1s						
BSEG	Bad Segeberg	84.42	324	P	P	18 41 11.2	+0.4
	comp=Z,53nm,1.1s						
FUORN	Ofenpass-Fuorn	84.45	316	P	P	18 41 11.3	-0.2
	comp=Z,21nm,1.6s						
UBR	Ueberruh	84.55	317	P	P	18 41 11.5	-0.3
	comp=Z,12nm,0.7s						
GTTG	Gottingen	84.62	321	P	P	18 41 11.4	-0.6
	comp=Z,40nm,1.4s						
DAVA	Damuels	84.71	317	*e*P	P	18 41 12.5	-0.2
	comp=Z,6.2nm,0.9s,SNR=6.8						
DAVA	Damuels	84.71	317	P	P	18 41 12.7	0.0
	comp=Z,13nm,0.8s						
BKZ	Black Stump Fm	84.80	130	P	P	18 41 13.7	+0.5
SSRD	Sdr. Stenderup	84.82	325	*i* P	P	18 41 15.0	+2.2
SSRD				IAmb	IAmb	18 41 21.0	
	comp=Z,172nm,1.2s						
BFZ	Birch Farm	84.88	131	P	P	18 41 14.0	+0.6
RETH	Rethem/Aller,	84.99	322	P	P	18 41 13.5	-0.1
	comp=Z,31nm,1.2s						
TUE	Stuetta	85.09	316	P	P	18 41 14.4	-0.2
	comp=Z,11nm,0.7s						
RTZ	Ruatahuna	85.09	129	P	P	18 41 13.9	-0.7
RTZ				IAmb	IAmb	18 41 15.3	
	comp=Z,40nm,0.8s						
URZ	Urewera	85.13	129	P	P	18 41 14.5	-0.2
KEST	Kesra	85.37	305	P	P	18 41 17.4	+1.2
	comp=Z,16nm,0.7s,baz=65,slow=2.0,SNR=28						
	comp=Z,16nm,0.7s						
KEST	Kesra	85.37	305	P	P	18 41 17.3	+1.2
KEST	Kesra	85.37	305	IAmb	IAmb	18 41 18.4	
	comp=Z,19nm,0.8s						
SKAR	Skarslia	85.49	330	*e*P	P	18 41 16.8	+0.7
TNS	Taunus Mts	85.61	320	P	P	18 41 17.4	+0.4
	comp=Z,17nm,1.0s						
SLE	Schleitheim	85.64	317	P	P	18 41 18.0	+0.8
	comp=Z,15nm,1.9s						
BNALP	Bannalp	85.71	317	P	P	18 41 17.8	+0.1
	comp=Z,9.9nm,2.0s						
BFO	Black Forest	85.73	318	P	P	18 41 16.9	-0.6
BFO	Black Forest	85.73	318	P	P	18 41 17.4	-0.2
BFO				pP	pP	18 41 48.3	-3.0
MOL	Molde	85.82	332	*e*P	P	18 41 18.0	+0.4
IBBN	Ibbenburen	85.98	322	P	P	18 41 19.3	+0.7
	comp=Z,43nm,1.1s						
AKN	Aaknes	86.08	332	*e*P	P	18 41 19.4	+0.4
BUG	Bochum--Univer	86.31	321	P	P	18 41 20.2	-0.1
	comp=Z,35nm,1.2s						
SENIN	Lac Senin/Sane	86.50	316	IAmb	IAmb	18 41 23.6	
	comp=Z,15nm,0.7s						
ECH	Echery	86.52	318	⇑P	P	18 41 20.8	-0.6
	comp=Z,10nm,2.5s						
WTSB	Winterswijk	86.58	322	P	P	18 41 22.1	+0.6
	comp=Z,26nm,0.9s						
ISO	Isola	86.78	314	P	P	18 41 23.5	+0.6
	comp=Z,11nm,2.2s						
CALF	Calern	86.90	313	P	P	18 41 24.0	+0.5
	comp=Z,29nm,0.7s						
BNI	Bardonecchia	87.00	315	P	P	18 41 24.1	+0.1
	comp=Z,9.9nm,0.8s						
WLF	Walferdange	87.11	319	IAmb	IAmb	18 41 26.4	
	comp=Z,36nm,1.5s						
WLF	Walferdange	87.11	319	*d*P	P	18 41 24.9	+0.6
	comp=Z,6.7nm,1.9s						
WLF	Walferdange	87.11	319	P	P	18 41 25.4	+1.2
	comp=Z,18nm,2.2s						
MEM	Membach	87.15	320	*d*P	P	18 41 23.5	-0.9
	comp=Z,7.1nm,1.0s						
MEM				*d*pP	pP	18 41 55.6	-2.6
GIMEL	St. Georges /	87.21	316	P	P	18 41 25.3	+0.3
	comp=Z,11nm,2.8s						
ORIF	Oris-en-Rattie	87.58	315	P	P	18 41 27.3	+0.6
BCLA	Clavier	87.61	320	*d*P	P	18 41 26.1	-0.5
	comp=Z,5.2nm,1.3s						
BMOL	Mol	87.69	321	*d*P	P	18 41 27.6	+0.7
	comp=Z,28nm,1.3s						
BMOL				*d*pP	pP	18 41 56.4	-4.4
BMRD	Maredsous	87.96	320	*d*P	P	18 41 28.1	-0.1
	comp=Z,4.3nm,1.4s						
DOU	Dourbes	88.08	320	*d*P	P	18 41 29.0	+0.1
SSB	Saint Sauveur	88.50	315	P	P	18 41 31.4	+0.3
	comp=Z,12nm,2.1s						
SSB	Saint Sauveur	88.50	315	P	P	18 41 31.1	+0.1
SSB				pP	pP	18 42 03.1	-1.9
LOR	Lormes	88.80	317	P	P	18 41 32.6	+0.2
	comp=Z,11nm,1.4s						
VNDA	Vanda	88.95	169	P	P	18 41 33.3	+0.9
	comp=Z,2.0nm,0.6s,baz=130,slow=18,SNR=10.0						
	comp=Z,2.0nm,0.6s						
VNDA	Vanda	88.95	169	P	P	18 41 31.5	-0.8
VNDA	Vanda	88.95	169	P	P	18 41 33.2	+0.9
	comp=Z,6.8nm,1.4s						
ELIB	Princess Elisa	88.97	197	*d*P	P	18 41 35.5	+2.7
	comp=Z,17nm,0.8s						
ELIB				*d*pP	pP	18 42 07.1	+0.8
NOR	Nord	89.10	352	*i* P	P	18 41 32.4	-0.7
NOR				IAmb	IAmb	18 41 33.4	
	comp=Z,29nm,0.9s						
NOR	Nord	89.10	352	⇑P	P	18 41 31.8	-1.2
	comp=Z,41nm,1.2s						
TAM	Tamanrasset	89.45	293	P	P	18 41 38.3	+2.3
	comp=Z,9.5nm,1.7s						
SBA	Scott Base	90.05	169	P	P	18 41 39.6	+2.1

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MTLF  Montolieu          90.34 313    P        P        18 41 40.7 +1.1
            comp=Z,19nm,2.8s
DAG   Danmarks Havn      91.47 348  i P        P        18 41 43.2 -0.9
DAG                                   IAmb     IAmb     18 41 43.6
            comp=Z,12nm,0.9s
DAG   Danmarks Havn      91.47 348    P        P        18 41 43.3 -0.9
            comp=Z,18nm,1.6s
MFF   Saint Martin d     91.61 317    P        P        18 41 44.0 -1.3
            comp=Z,3.4nm,0.8s
EKA   Eskdalemuir Ar     92.08 326    P        P        18 41 47.7 +0.3
            comp=Z,1.9nm,0.6s,baz=92,slow=5.3,SNR=8.3
EKA                                   PP       PP       18 45 27.8 -0.9
            comp=Z,3.0nm,0.8s,baz=76,slow=7.3,SNR=3.5
EKA                                   LR       LR       19 27 34.1
            comp=Z,18nm,19.0s,baz=342,slow=38
            comp=Z,1.9nm,0.6s
F19K  Shaleruckik Mo     92.11  22    IAmb     IAmb     18 41 48.4
            comp=Z,18nm,1.3s
J18K  Innoko River       93.50  26    IAmb     IAmb     18 41 55.8
            comp=Z,27nm,1.8s
F21K  Alatna River       93.60  22    IAmb     IAmb     18 41 55.1
            comp=Z,12nm,1.3s
J19K  Poorman            93.80  25    IAmb     IAmb     18 41 56.8
            comp=Z,18nm,1.4s
TORD  Torodi Ar. Bea     93.91 283    P        P        18 41 57.8 +1.1
            comp=Z,2.8nm,0.8s,baz=92,slow=4.6,SNR=11
TORD                                  PP       PP       18 45 45.4 +1.1
            comp=Z,0.5nm,0.8s,baz=83,slow=7.1,SNR=2.0
            comp=Z,2.8nm,0.8s
IMAR  Indian Mountai     93.92  23    P        P        18 41 55.5 -0.1
N17K  Nushagak Hills     94.12  28    IAmb     IAmb     18 41 59.0
            comp=Z,7.2nm,0.9s
QSPA  South Pole Qui     94.24 180    P        P        18 41 58.4 +1.3
            comp=Z,3.3nm,0.5s,baz=279,slow=1.0,SNR=38
QSPA                                  PKKPbc   PKKPdf   18 58 58.1 -1.5
            comp=Z,1.7nm,1.1s,baz=149,slow=1.2,SNR=5.5
            comp=Z,3.3nm,0.5s
QSPA  South Pole Qui     94.24 180    P        P        18 41 58.5 +1.3
QSPA                                  IAmb     IAmb     18 41 59.7
            comp=Z,14nm,1.4s
H21K  Melozitna Rive     94.39  23    IAmb     IAmb     18 41 59.5
            comp=Z,10nm,1.2s
UCM   Universidad Co     94.80 311    P        P        18 42 01.5 +1.2
H22K  Ishtalitna Cre     94.86  22    IAmb     IAmb     18 42 01.7
            comp=Z,14nm,1.2s
I21K  Tanana             94.89  23    IAmb     IAmb     18 42 01.7
            comp=Z,14nm,1.3s
M19K  Big River Lodg     95.00  27    IAmb     IAmb     18 42 02.5
            comp=Z,16nm,1.5s
G23K  Bananza Creek      95.05  22    IAmb     IAmb     18 42 02.4
            comp=Z,17nm,1.6s
N19K  Bonanza Creek      95.30  28    IAmb     IAmb     18 42 07.3
            comp=Z,6.2nm,0.8s
MLY   Manley             95.43  23    IAmb     IAmb     18 42 03.8
            comp=Z,15nm,1.7s
ESDC  Sonseca Array      95.46 310    P        P        18 42 04.0 +0.6
            comp=Z,1.5nm,0.6s,baz=57,slow=4.1,SNR=20
ESDC                                  PP       PP       18 45 54.4 -1.2
            comp=Z,0.8nm,1.0s,baz=79,slow=7.3,SNR=1.9
ESDC                                  LR       LR       19 31 34.0
            comp=Z,21nm,18.1s,baz=82,slow=39
            comp=Z,1.5nm,0.6s
ESDC  Sonseca Array      95.46 310    P        P        18 42 04.0 +0.6
ESDC                                  IAmb     IAmb     18 42 54.6
            comp=Z,20nm,1.6s
CAST  Castle Rocks       95.48  25    IAmb     IAmb     18 42 04.0
            comp=Z,16nm,1.3s
M20K  Styx River         95.56  27    IAmb     IAmb     18 42 04.7
            comp=Z,16nm,1.6s
H23K  Yukon River        95.58  22    IAmb     IAmb     18 42 05.7
            comp=Z,19nm,1.8s
SKT   Skwentna           96.24  26    IAmb     IAmb     18 42 07.0
            comp=Z,15nm,1.5s
NEEM  North Greenlan     96.41 353  i P        P        18 42 07.3 +0.1
NEEM                                  IAmb     IAmb     18 42 07.5
            comp=Z,14nm,1.0s
SUA   Susitna One        96.78  27    IAmb     IAmb     18 42 09.0
            comp=Z,12nm,1.2s
ILAR  Eielson Array      97.04  23    P        P        18 42 09.4 -0.5
            comp=Z,0.5nm,0.5s,baz=301,slow=5.5,SNR=7.7
ILAR                                  PP       PP       18 46 05.8 -1.1
            comp=Z,0.7nm,0.9s,baz=309,slow=8.3,SNR=4.5
ILAR                                  LR       LR       19 30 08.1
            comp=Z,36nm,18.6s,baz=284,slow=38
            comp=Z,0.5nm,0.5s
KDAK  Kodiak Island      97.22  30    LR       LR       19 32 26.3
            comp=Z,42nm,18.2s,baz=243,slow=39
BORG  Borgarnes          97.68 338    LR       LR       19 28 54.1
            comp=Z,21nm,20.2s,baz=39,slow=37
SML   Sawmill            97.70  26    IAmb     IAmb     18 42 13.7
            comp=Z,12nm,1.3s
SCRK  Sand Creek         98.52  23    IAmb     IAmb     18 43 52.8
            comp=Z,13nm,2.0s
SCHQ  Schefferville     119.50 349    PKP      PKPdf    18 47 27.1 -0.2
            comp=Z,1.8nm,0.5s,baz=195,slow=19,SNR=2.0
ULM   Lac du Bonnet     124.58  10    PKP      PKPdf    18 47 36.9 -0.2
            comp=Z,8.8nm,0.7s,baz=38,slow=0.8,SNR=6.6
NVAR  Mina Array Bea    126.53  34    PKP      PKiKP    18 47 42.4 +0.4
            comp=Z,2.9nm,0.7s,baz=274,slow=1.7,SNR=15
NVAR                                  SKP      SKPdf    18 51 04.1 -0.8
            comp=Z,0.9nm,0.8s,baz=265,slow=4.6,SNR=2.5
PDAR  Pinedale Array    127.44  24    PKP      PKPdf    18 47 43.0 -0.1
            comp=Z,1.1nm,0.5s,baz=149,slow=1.4,SNR=17
PDAR                                  SKP      SKPdf    18 51 06.7 +0.1
            comp=Z,0.5nm,0.5s,baz=267,slow=2.4,SNR=2.7
PDAR  Pinedale Array    127.44  24             PKPdf    18 47 42.7 -0.4
WMOK  Wichita Mounta    138.50  19             PKPpre   18 47 54.3
TXAR  Lajitas Array     141.24  29    PKhKP    PKPpre   18 48 02.8
            comp=Z,1.9nm,0.6s,baz=208,slow=1.3,SNR=14
TXAR                                  SKPbc    SKPbc    18 51 33.0 -1.2
            comp=Z,5.1nm,0.7s,baz=327,slow=0.1,SNR=27
BRDY  Brady             141.56  22             PKPpre   18 48 04.0
PLCA  Paso Flores       141.97 196    PKhKP    PKPpre   18 48 05.8
            comp=Z,4.1nm,0.8s,baz=230,slow=2.0,SNR=9.2
PLCA                                  SKPbc    SKPbc    18 51 35.8 +0.2
            comp=Z,4.0nm,0.9s,baz=163,slow=4.1,SNR=5.7
BDFB  Brasilia          143.55 249    PKP      PKPbc    18 48 12.1 +0.9
            comp=Z,5.5nm,0.7s,baz=123,slow=5.5,SNR=7.1
BDFB                                  SKPbc    SKiKP    18 51 40.7 -0.4
            comp=Z,1.9nm,0.5s,baz=180,slow=2.0,SNR=2.5
EF04  Eagle Ford 04     143.87  22             PKPbc    18 48 12.0 +0.4
CPUP  Villa Florida     146.89 226    PKPbc    PKPbc    18 48 21.3 +0.4
            comp=Z,11nm,0.8s,baz=108,slow=2.6,SNR=34
MT13  San Alfonso       148.31 201             PKiKP    18 48 26.0 -0.3
VA03  San Esteban       149.29 201             PKiKP    18 48 28.0 -0.3
LPAZ  La Paz            160.94 230    PKP      PKPdf    18 48 39.8 +0.2
            comp=Z,2.8nm,0.8s,baz=130,slow=1.3,SNR=9.3
LPAZ                                  PKPab    PKPab    18 49 23.1 +0.3
            comp=Z,6.2nm,0.8s,baz=94,slow=3.8,SNR=11
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*SJA **13** 19:03:28.7±0.7, 21°.38S×69°.89W, h54km±5km, ML3.4, MW3.5*

*GUC **13** 19:03:30.6±0.7, 21°.39S×69°.85W, h46km±2km, ML3.5*

ISC 13 19:03:31.3±1.7**, 21°.38S**±0°.03×**69°.96W**±0°.06**, h36**km±1km**, n26,** σ1ˢ68/39**, 2C-4D, Northern Chile**

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Code  Station Name        Δ°   AZ°    Phase ID           Time      Res
                                      Op       ISC      h  m  s    ISC
PB02  IPOC Station P      0.09  45   eP        Pn       19 03 37.7 +0.1
PB02                                  IAML              19 03 44.4
            comp=Z,6µm,0.2s
PB02  IPOC Station P      0.09  45⇑ iP        Pn       19 03 37.5 -0.1
PB02                                 i S       Sn       19 03 42.8 +0.9
PB02                                  IAML              19 03 43.2
            comp=E,17µm,0.1s
PB07  IPOC Station P      0.35 168   eP        Pn       19 03 39.4 -0.7
PB07                                  IAML              19 03 47.6
            comp=Z,2µm,0.1s
PB07  IPOC Station P      0.35 168⇓ iP        Pn       19 03 39.6 -0.5
PB07                                 eS        Sn       19 03 46.4 -0.2
PB07                                  IAML              19 03 47.0
            comp=N,3µm,0.2s
PB03  IPOC Station P      0.69 163   eP        Pn       19 03 43.6 -1.2
PB03                                 eS        Sn       19 03 53.7 -0.7
PB03                                  IAML              19 03 54.8
            comp=Z,3µm,0.3s
PB03  IPOC Station P      0.69 163⇓ iP        Pn       19 03 43.5 -1.3
PB03                                 eS        Sn       19 03 53.3 -1.1
PB03                                  IAML              19 03 54.8
            comp=E,4µm,0.1s
PB09  IPOC Station P      0.79 122   eP        Pn       19 03 44.3 -1.8
PB09                                 eS        Sn       19 03 52.4 -4.4
PB09                                  IAML              19 03 55.1
            comp=Z,2µm,0.2s
PB09  IPOC Station P      0.79 122⇑ iP        Pn       19 03 44.2 -1.8
PB09                                 i S       Sn       19 03 54.2 -2.5
PB09                                  IAML              19 03 55.1
            comp=E,5µm,0.2s
TA01  Diego Aracena       0.84 346   eP        Pn       19 03 45.5 -1.2
TA01                                  IAML              19 04 01.2
            comp=Z,473nm,0.2s
TA01  Diego Aracena       0.84 346⇓ iP        Pn       19 03 45.3 -1.3
TA01                                 i S       Sn       19 03 57.3 -0.5
TA02  Huaiquique          1.12 352   eP        Pn       19 03 49.5 -1.0
TA02                                 eS        Sn       19 04 05.2 +0.6
TA02                                  IAML              19 04 08.2
            comp=Z,1µm,0.1s
TA02  Huaiquique          1.12 352   eP        Pn       19 03 49.5 -1.0
TA02                                 i S       Sn       19 04 04.4 -0.2
TA02                                  IAML              19 04 05.1
            comp=N,4µm,0.1s
PB06  IPOC Station P      1.36 165   eP        Pn       19 03 52.8 -1.3
PB06                                 eS        Sn       19 04 11.8 +0.9
PB06                                  IAML              19 04 13.4
            comp=Z,378nm,0.2s
PB06  IPOC Station P      1.36 165   eP        Pn       19 03 52.6 -1.4
PB06                                 eS        Sn       19 04 10.6 -0.4
PB06                                  IAML              19 04 12.9
            comp=E,612nm,0.2s
PB05  IPOC Station P      1.48 189   eP        Pn       19 03 55.1 -0.5
PB05                                  IAML              19 04 18.5
            comp=Z,244nm,0.3s
PB05  IPOC Station P      1.48 189   eP        Pn       19 03 54.9 -0.7
PB05                                 eS        Sn       19 04 13.6 -0.1
PB05                                  IAML              19 04 18.2
            comp=E,340nm,0.2s
PB11  IPOC Station P      1.64  10   eP        Pn       19 03 56.6 -1.2
PB11                                  IAML              19 04 21.5
            comp=Z,337nm,0.2s
PB11  IPOC Station P      1.64  10⇓ iP        Pn       19 03 56.7 -1.2
PB11                                 eS        Sn       19 04 16.9 -0.9
PB11                                  IAML              19 04 20.6
            comp=N,804nm,0.3s
PSGCX Pisagua             1.78 355   eP        Pn       19 03 58.8 -0.9
PSGCX                                 IAML              19 04 24.3
            comp=Z,146nm,0.2s
GO01  Chusmiza            1.85  23   eP        Pn       19 03 50.1  -11
GO01                                  IAML              19 04 24.9
            comp=Z,547nm,0.6s
GO01  Chusmiza            1.85  23   eP        Pn       19 04 00.1 -0.9
GO01                                 eS        Sn       19 04 22.7 -0.8
GO01                                  IAML              19 04 24.9
            comp=N,2µm,0.1s
AF01  San Pedro de A      2.27 134   eP        Pn       19 04 08.2 +1.6
AF01                                 eS        Sn       19 04 39.2 +5.6
AF01                                  IAML              19 04 53.9
            comp=Z,340nm,0.6s
PB12  IPOC Station P      2.78 353   eP        Pn       19 04 12.6 -0.8
PB12                                  IAML              19 04 58.3
            comp=Z,72nm,0.3s
AP01  Chacalluta          3.02 353   eP        Pn       19 04 20.8 +4.2
PB14  IPOC Station P      3.25 187   eP        Pn       19 04 18.4 -1.7
PB14                                  IAML              19 05 19.3
            comp=Z,34nm,0.8s
AC01  Pan de Azucar       4.78 187   eP        Pn       19 04 38.5 -2.4
AC01                                  IAML              19 05 39.3
            comp=Z,23nm,2.0s
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*NEIC **13** 19:04:40.5±2.2, 17°.9S±0°.2×178°.2W±0°.1, h528km±9km, mb4.3/23, Error ellipse: s-maj=24.0km s-min=17.8km az=151.0*

*IDC **13** 19:04:45.1±1.6, 18°.08S×178°.42W, h578km±16km, mb3.3/12, mbtmp4.2/14, Error ellipse: s-maj=34.9km s-min=12.7km az=149.0*

ISC 13 19:04:44.6±0.7**, 18°.1S**±0°.1×**178°.4W**±0°.1**, h579**km**, n74,** σ**0ˢ82**/73**, mb4.0**/23**, Fiji Islands region**

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Code  Station Name        Δ°   AZ°    Phase ID           Time      Res
                                      Op       ISC      h  m  s    ISC
MSVF  Nonsavu             3.40 275    P        P        19 06 04.4 -0.1
            47nm,0.7s,baz=117,slow=4.1,SNR=26
MSVF  Nonsavu             3.40 275    P        P        19 05 58.3 -6.2
NIUE  Niue                8.09  98    P        P        19 06 36.0 -8.1
DZM   Mont Dzumac        14.78 252    P        P        19 07 50.4 -1.1
            3.8nm,0.5s,baz=51,slow=5.5,SNR=3.3
BFZ   Birch Farm         22.99 190    P        P        19 09 06.4 +0.6
QRZ   Quartz Range       23.97 197    P        P        19 09 13.0 -1.5
ARMA  Armidale           29.86 240    P        P        19 10 07.3 +0.9
ARMA                                  IAmb     IAmb     19 10 50.4
            comp=Z,22nm,1.5s
CTA   Charters Tower     33.43 261    P        P        19 10 35.9 -0.9
            comp=Z,6.5nm,0.9s,baz=80,slow=10.0,SNR=2.6
            comp=Z,6.5nm,0.9s
CTAO  Charters Tower     33.43 261    P        P        19 10 37.6 +0.8
CTAO                                  IAmb     IAmb     19 10 37.8
            comp=Z,19nm,1.2s
CAN   Canberra           33.61 233    P        P        19 10 38.4 +0.3
COEN  Coen               37.12 271    P        P        19 11 06.3 -1.0
COEN                                  IAmb     IAmb     19 11 07.2
            comp=Z,12nm,0.6s
STKA  Stephens Creek     38.55 241    P        P        19 11 20.1 +1.3
            comp=Z,2.5nm,0.5s,baz=83,slow=10,SNR=7.5
            comp=Z,2.5nm,0.5s
INKA  Innaminka          38.69 248    P        P        19 11 21.7 +1.8
BBOO  Buckleboo          43.33 241    P        P        19 11 57.1 +0.5
BBOO                                  IAmb     IAmb     19 12 35.2
            comp=Z,21nm,1.3s
WR8   Warramunga Arr     44.46 260    P        P        19 12 05.5  0.0
WR8                                   IAmb     IAmb     19 12 48.1
            comp=Z,8.2nm,1.3s
WB0   Warramunga Arr     44.58 260    P        P        19 12 06.3 -0.1
WRA   Warramunga Arr     44.61 260    P        P        19 12 07.0 +0.4
            comp=Z,1.3nm,0.4s,baz=97,slow=7.1,SNR=56
WRA                                   PcP      PcP      19 13 36.4 -0.4
            comp=Z,0.9nm,1.0s,baz=93,slow=4.9,SNR=1.9
            comp=Z,1.3nm,0.4s
WRA   Warramunga Arr     44.61 260    P        P        19 12 05.7 -1.0
AS31  Alice Springs      44.75 254    P        P        19 12 08.4 +0.7
AS31                                  IAmb     IAmb     19 12 09.4
            comp=Z,3.3nm,0.5s
ASAR  Alice Springs      44.75 254    P        P        19 12 08.5 +0.8
            comp=Z,8.5nm,0.5s,baz=88,slow=9.2,SNR=236
ASAR                                  PcP      PcP      19 13 37.1 -0.2
            comp=Z,3.3nm,0.6s,baz=90,slow=3.7,SNR=5.1
ASAR                                  S        S        19 18 02.5 -1.0
            comp=Z,0.5nm,0.9s,baz=91,slow=14,SNR=4.4
            comp=Z,8.5nm,0.5s
ASAR  Alice Springs      44.75 254    P        P        19 12 08.0 +0.3
FORT  Forrest            49.94 245    P        P        19 12 46.1 -0.3
KNRA  Kununurra          50.48 264    P        P        19 12 51.5 +1.0
KNRA                                  IAmb     IAmb     19 13 17.1
            comp=Z,6.7nm,1.4s
FITZ  Fitzroy Crossi     53.01 261    P        P        19 13 07.2 -1.5
JGF   Kuroka             67.88 322    P        P        19 14 45.8 -0.5
JGF                                   IAmb     IAmb     19 15 05.2
            comp=Z,30nm,1.5s
MJAR  Matsushiro Arr     68.05 323    P        P        19 14 47.6 +0.4
            comp=Z,1.1nm,0.5s,baz=150,slow=5.4,SNR=8.1
            comp=Z,1.1nm,0.5s
MJAR  Matsushiro Arr     68.05 323    P        P        19 14 46.5 -0.7
MJAR                                  IAmb     IAmb     19 14 59.7
            comp=Z,8.2nm,1.4s
SSLB  Suanglung          72.34 303    P        P        19 15 12.9 +0.1
UNV   Unalaska Valle     72.36   7    P        P        19 15 11.2 -1.0
PETK  Petropavlovsk-     73.85 345    P        P        19 15 21.4 +0.6
            comp=Z,2.3nm,0.6s,baz=160,slow=5.6,SNR=2.4
            comp=Z,2.3nm,0.6s
PETK  Petropavlovsk-     73.85 345    P        P        19 15 20.2 -0.5
KSRS  Korea Array        74.84 318    P        P        19 15 28.8 +2.1
            comp=Z,0.5nm,0.6s,baz=106,slow=6.5,SNR=2.3
            comp=Z,0.5nm,0.6s
NVAR  Mina Array Bea     79.54  44    P        P        19 15 52.9 +0.5
            comp=Z,0.9nm,0.6s,baz=223,slow=8.5,SNR=5.1
            comp=Z,0.9nm,0.6s
O18K  Koktuh Hills       79.92  12    P        P        19 15 53.3 -0.4
O18K                                  IAmb     IAmb     19 15 54.9
            comp=Z,5.7nm,0.8s
ILSW  Iliamna Southw     80.45  13    P        P        19 15 56.1 -0.5
ILSW                                  IAmb     IAmb     19 15 56.9
            comp=Z,5.3nm,0.8s
GHO   Glory Hole Cre     82.97  14    P        P        19 16 08.9 -0.4
GHO                                   IAmb     IAmb     19 16 09.9
            comp=Z,4.5nm,0.6s
CAST  Castle Rocks       83.80  12    P        P        19 16 11.9 -1.3
CAST                                  IAmb     IAmb     19 16 12.8
            comp=Z,4.3nm,0.9s
ILAR  Eielson Array      86.06  13    P        P        19 16 23.4 -0.7
            comp=Z,0.6nm,0.4s,baz=221,slow=5.0,SNR=11
            comp=Z,0.6nm,0.4s
ILAR  Eielson Array      86.06  13    P        P        19 16 22.7 -1.4
TXAR  Lajitas Array      86.08  58    P        P        19 16 26.3 +1.0
            comp=Z,0.8nm,0.7s,baz=219,slow=6.3,SNR=13
            comp=Z,0.8nm,0.7s
TXAR  Lajitas Array      86.08  58    P        P        19 16 25.8 +0.5
PDAR  Pinedale Array     87.47  43    P        P        19 16 31.6  0.0
            comp=Z,0.5nm,0.6s,baz=236,slow=3.0,SNR=6.5
            comp=Z,0.5nm,0.6s
PDAR  Pinedale Array     87.47  43    P        P        19 16 29.9 -1.7
CMAR  Chiang Mai Arr     88.95 290    P        P        19 16 41.1 +2.3
            comp=Z,0.4nm,0.3s,baz=99,slow=4.4,SNR=4.2
            comp=Z,0.4nm,0.3s
ARCES ARCESS Array B    126.49 350    PKP      PKPdf    19 22 41.3 -0.5
            comp=Z,1.2nm,0.7s,baz=316,slow=3.3,SNR=5.3
BRTR  Keskin Array B    144.91 315    PKP      PKPbc    19 23 17.8 +0.3
            comp=Z,0.6nm,0.4s,baz=59,slow=2.0,SNR=7.4
BRTR  Keskin Array B    144.91 315             PKPab    19 23 18.3 -0.2
OSTC  Ostas            145.56 343   ePKP       PKPab    19 23 20.4 -0.1
CLL   Collm            145.64 347  i PKPbc     PKPbc    19 23 19.5 +0.5
            comp=Z,8.0nm,0.7s
STEB  Steborice        145.67 341   ePKP       PKPbc    19 23 20.0 +0.8
DPC   Dobruska-Polom   145.72 343   ePKP       PKPab    19 23 20.6 -0.5
BRG   Berggiesshubel   145.84 346    Amp                19 23 21.3
            comp=Z,3.3nm,0.8s
BRG   Berggiesshubel   145.84 346  i PKP       PKPab    19 23 20.6 -0.9
KRLC  Kraliky          145.84 343   ePKP       PKPab    19 23 20.9 -0.7
MMAI  Mount Meron Ar   146.25 303    PKPbc     PKPbc    19 23 21.6 +0.2
            comp=Z,0.8nm,0.5s,baz=66,slow=2.8,SNR=3.9
PRU   Pruhonice        146.52 345   ePKP       PKPbc    19 23 22.2 +0.7
ZVC   Zvikov           147.11 345   ePKP       PKPab    19 23 27.8 +1.1
KHC   Kasperske Hory   147.55 345   ePKP       PKPbc    19 23 24.9 +0.6
CKRC  Cesky Krumlov    147.65 344   ePKP       PKiKP    19 23 25.3 -0.8
GERES GERESS Array B   147.78 345    PKPbc     PKPbc    19 23 25.3 +0.2
            comp=Z,1.5nm,0.5s,baz=25,slow=3.5,SNR=20
GERES GERESS Array B   147.78 345              PKiKP    19 23 25.8 -0.7
WINA  Alland / Wiene   147.81 342   ePKP       PKiKP    19 23 26.2 -0.2
            comp=Z,1.0nm,0.4s
CONA  Conrad Observa   148.03 342   ePKP       PKiKP    19 23 26.5 -0.4
            comp=Z,1.0nm,0.5s
RONA  Rosalia, Austr   148.10 341   ePKP       PKiKP    19 23 26.9 -0.2
            comp=Z,0.7nm,0.5s
SESA  Seetaler Alpe,   149.15 343  i PKP       PKPbc    19 23 28.6  0.0
            comp=Z,2.1nm,0.4s
LESA  Schwarzleotal    149.36 345   ePKP       PKiKP    19 23 29.4 -0.4
            comp=Z,0.4nm,0.3s
WATA  Walderalm        149.70 346  i PKP       PKiKP    19 23 30.3 -0.2
            comp=Z,1.7nm,0.5s
WTTA  Wattenberg       149.75 346  i PKP       PKiKP    19 23 30.4 -0.2
            comp=Z,2.6nm,0.4s
MOTA  Moosalm          149.79 347  i PKP       PKiKP    19 23 30.5 -0.2
            comp=Z,0.8nm,0.3s
MYKA  Terra Mystica    149.84 343  i PKP       PKPbc    19 23 30.1 +0.1
            comp=Z,1.5nm,0.4s
SQTA  Sankt Quirin     149.89 347  i PKP       PKiKP    19 23 30.8  0.0
            comp=Z,2.3nm,0.5s
ABTA  Abfaltersbach    150.03 345  i PKP       PKPbc    19 23 30.5  0.0
            comp=Z,3.6nm,0.7s
FETA  Feichten         150.18 347  i PKP       PKiKP    19 23 31.6 +0.1
            comp=Z,1.0nm,0.5s
FUORN Ofenpass-Fuorn   150.66 348              PKiKP    19 23 33.1 +0.4
```

IDC 13 19:04:45.0±1.3**, 12°.73S**×**74°.12W, h0**km**, mb3.7**/2**, mbtmp3.7**/4**, ML3.4**/2**, Error ellipse: s-maj=59.1km s-min=15.5km az=20.0, Central Peru**

```
Code  Station Name        Δ°   AZ°    Phase ID           Time      Res
                                      Op       ISC      h  m  s    ISC
NNA   Nana                2.76 285    Pn       Pn       19 05 31.0 +0.3
            2.9nm,0.3s,baz=322,slow=20,SNR=42
NNA                                   Sn       Sb       19 06 09.6 -0.3
            53nm,0.3s,baz=211,slow=22,SNR=10
            40nm,0.3s
NNA                                   AML      AML
LPAZ  La Paz              6.79 122    Pn       Pn       19 06 31.1 +4.6
            0.7nm,0.3s,baz=298,slow=7.2,SNR=6.9
            2.0nm,0.4s
LPAZ                                  AML      AML
TXAR  Lajitas Array      50.62 326    P        P        19 13 46.0 -0.2
            0.3nm,0.5s,baz=153,slow=8.9,SNR=5.4
            0.3nm,0.5s
TORD  Torodi Ar. Bea     79.43  74    P        P        19 16 54.2 +0.3
            0.9nm,0.8s,baz=244,slow=4.6,SNR=3.8
            0.9nm,0.8s
```

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*NOU **13** 19:06:49.1, 17°.08S×167°.80E, h0km, MLv4.9/22, Vanuatu Islands*

*NEIC **13** 19:06:49.2±1.6, 16°.98S±0°.05×167°.8E±0°.1, h10km±1km, mb4.8/13, Error ellipse: s-maj=19.6km s-min=6.3km az=72.0*

*IDC **13** 19:06:53.2±4.2, 17°.04S×167°.68E, h33km±31km, mb4.0/11, mbtmp4.2/13, ML4.3/2, MS3.6/27, Error ellipse: s-maj=24.9km s-min=15.4km az=75.0*

ISC 13 19:06:50.4±0.5**, 17°.08S**±0°.04×**167°.88E**±0°.06**, h21**km**, n76,** σ**1ˢ51**/61**, mb4.5**/20**, MS3.6**/25**, 2C-1D, Vanuatu Islands**

```
Code  Station Name        Δ°   AZ°    Phase ID           Time      Res
                                      Op       ISC      h  m  s    ISC
DVP   Devils Point        0.71 156    P        Pb       19 07 04.1  0.0
DVP   Devils Point        0.71 156    S        Sb       19 07 14.1 +0.7
RTV   Rentapao            0.88 144    P        Pb       19 07 06.5 -0.5
RTV   Rentapao            0.88 144    S        Sn       19 07 19.4 -0.4
SANVU Saraoutou           1.75 338    P        Pn       19 07 19.1 -0.4
SANVU Saraoutou           1.75 338    S        Sb       19 07 44.2 +0.9
SANVU Saraoutou           1.75 338             Pn       19 07 17.8 -1.7
SANVU                                 Sn       Sn       19 07 40.5 -0.7
MARNC Mare, Loyalty       4.38 178    P        Pn       19 07 55.9 +0.1
MARNC Mare, Loyalty       4.38 178    Pn       Pn       19 07 55.1 -0.7
KOUNC Koumac, New Ca      4.85 224    P        Pn       19 08 02.1 -0.1
KOUNC Koumac, New Ca      4.85 224             Pn       19 08 00.9 -1.3
YATNC Mamie plateau,      5.04 191    P        Pn       19 08 05.3 +0.4
DZM   Mont Dzumac         5.15 195    Pn       Pn       19 08 06.2 -0.2
            5.4nm,0.3s,baz=6.7,slow=17,SNR=34
DZM                                   Sn       Sn       19 09 01.7 -3.6
            9.0nm,0.3s,baz=97,slow=23,SNR=5.3
            17nm,0.4s
DZM                                   AML      AML
NOUC  Port Laguerre       5.21 196    P        Pn       19 08 08.4 +1.2
ONTNC Ouen Toro           5.37 194    P        Pn       19 08 10.4 +1.0
ONTNC Ouen Toro           5.37 194             Pn       19 08 11.0 +1.6
OUENC Ouen Island, N      5.40 190    P        Pn       19 08 11.0 +1.2
OUENC Ouen Island, N      5.40 190    Pn       Pn       19 08 10.7 +0.8
NGOA  Tingoa Renbel       9.36 305    P        Pn       19 09 03.7 -0.4
MSVF  Nonsavu             9.73  95    LR       LR       19 12 17.9
            comp=Z,2µm,18.2s,baz=221,slow=33
HNR   Honiara            10.83 314    Pn       Pn       19 09 24.2 -0.1
            4.0nm,0.3s,baz=137,slow=19,SNR=4.2
HNR                                   LR       LR       19 12 59.7
            comp=Z,502nm,20.1s,baz=216,slow=34
            34nm,0.8s
HNR                                   AML      AML
TATA  Tatamba Isabel     11.69 317    P        Pn       19 09 37.0 +0.9
KRVT  Keravat (AS076     20.07 307    LR       LR       19 17 43.7
            comp=Z,189nm,21.9s,baz=116,slow=33
CTA   Charters Tower     20.72 258    P        P        19 11 27.6 -2.0
            4.5nm,0.8s,baz=85,slow=11,SNR=2.1
CTA                                   LR       LR       19 17 58.8
            comp=Z,304nm,21.6s,baz=78,slow=32
            4.5nm,0.8s
PMG   Port Moresby       21.55 288    LR       LR       19 19 23.5
            comp=Z,331nm,18.1s,baz=112,slow=35
URZ   Urewera            22.60 161    P        P        19 11 51.7 +2.0
            11nm,0.8s,baz=18,slow=3.2,SNR=3.9
            11nm,0.8s
MRZ   Mangatainoka R     24.43 166    P        P        19 12 07.5 -0.1
MRZ                                   IAmb     IAmb     19 12 26.8
            comp=Z,37nm,1.0s
STKA  Stephens Creek     28.00 233    P        P        19 12 40.0  0.0
            comp=Z,4.2nm,1.0s,baz=75,slow=16,SNR=3.7
STKA                                  LR       LR       19 24 09.6
            comp=Z,131nm,19.1s,baz=37,slow=37
            comp=Z,4.2nm,1.0s
RAR   Rarotonga          30.80 103    LR       LR       19 22 54.2
            comp=Z,74nm,21.6s,baz=253,slow=31
WB0   Warramunga Arr     31.86 260    P        P        19 13 09.9 -4.4
WB0                                   IAmb     IAmb     19 13 27.5
            comp=Z,4.7nm,0.8s
WRA   Warramunga Arr     31.91 260    P        P        19 13 13.8 -0.9
            comp=Z,1.2nm,0.9s,baz=88,slow=9.1,SNR=5.4
WRA                                   PcP      PcP      19 16 05.4 +0.3
            comp=Z,1.2nm,1.0s,baz=87,slow=3.0,SNR=4.1
            comp=Z,1.2nm,0.9s
WRA   Warramunga Arr     31.91 260    P        P        19 13 13.7 -1.0
AS31  Alice Springs      32.46 253             P        19 13 18.8 -0.8
AS31                                  IAmb     IAmb     19 13 28.0
            comp=Z,2.4nm,0.5s
```

ASAR	**Alice Springs**	**32.47**	**253**	P	**P**	**19 13 19.1**	**-0.6**
	comp=Z,3.9nm,0.8s,baz=79,slow=8.7,SNR=13						
ASAR				PcP	**PcP**	**19 16 06.7**	**0.0**
	comp=Z,0.3nm,0.6s,baz=112,slow=2.5,SNR=4.4						
ASAR				LR	LR	19 25 33.6	
	comp=Z,349nm,19.6s,baz=96,slow=35						
	comp=Z,3.9nm,0.8s						
ASAR	**Alice Springs**	**32.47**	**253**	P	**P**	**19 13 19.2**	**-0.4**
ASAR				PcP	**PcP**	**19 16 03.1**	**-3.5**
BBOO	**Buckleboo**	**32.67**	**235**	P	**P**	**19 13 21.3**	**0.0**
BBOO				IAmb	IAmb	19 13 41.1	
	comp=Z,16nm,1.2s						
KNRA	**Kununurra**	**37.52**	**266**	P	**P**	**19 14 02.4**	**-0.8**
GUMO	**Guam**	**38.01**	**322**	LR	LR	19 30 39.7	
	comp=Z,64nm,18.1s,baz=131,slow=38						
FITZ	**Fitzroy Crossi**	**40.22**	**262**	LR	LR	19 29 32.3	
	comp=Z,342nm,21.7s,baz=92,slow=34						
FITZ	**Fitzroy Crossi**	**40.22**	**262**	P	**P**	**19 14 26.0**	**+0.2**
PPT2	**Papeete2**	**40.55**	**97**	*e*S	**S**	**19 20 31.7**	**-5.5**
	comp=Z,66nm,28.2s						
PPT2				*e*SS	**SS**	**19 23 35.4**	**-1.9**
	comp=Z,64nm,24.5s						
PPT2				*e*LR	LR	19 25 36.8	
	comp=Z,258nm,28.5s						
PPT2				*e*LR	LR	19 25 43.5	
	comp=Z,365nm,26.0s						
PPT	**Papeete**	**40.55**	**97**	LR	LR	19 27 44.2	
	comp=Z,99nm,20.8s,baz=255,slow=31						
PPTF	**Pamatai, Papee**	**40.56**	**97**	P	**P**	**19 14 28.5**	**-0.3**
PPTF				IAmb	IAmb	19 14 38.4	
	comp=Z,20nm,0.8s						
DAV	**Davao City (W)**	**48.21**	**296**	LR	LR	19 35 04.2	
	comp=Z,30nm,19.7s,baz=129,slow=35						
KAPI	**Kappang**	**48.60**	**279**	LR	LR	19 34 51.7	
	comp=Z,85nm,22.0s,baz=100,slow=35						
TAOE	**Nuku Hiva Isla**	**51.17**	**88**	*e*LR	LR	19 30 30.8	
	comp=Z,293nm,27.2s						
JGF	**Kuroka**	**59.85**	**331**	P	**P**	**19 16 52.8**	**-1.8**
MJAR	**Matsushiro Arr**	**60.25**	**333**	LR	LR	19 40 25.3	
	comp=Z,25nm,21.9s,baz=128,slow=34						
SBA	**Scott Base**	**60.80**	**180**		**P**	**19 17 01.6**	**+1.1**
SBA				IAmb	IAmb	19 17 04.1	
	comp=Z,13nm,1.1s						
ASAJ	**Asahikawa**	**65.14**	**340**	LR	LR	19 42 48.3	
	comp=Z,46nm,20.7s,baz=98,slow=33						
KSRS	**Korea Array**	**66.00**	**326**	LR	LR	19 43 40.8	
	comp=Z,25nm,21.4s,baz=120,slow=34						
NJ2	**Nanjing**	**67.77**	**316**	*e*P	**P**	**19 17 47.3**	**+0.5**
NJ2				pmax	pmax		
	comp=Z,7.0nm,0.6s						
PETK	**Petropavlovsk-**	**70.45**	**354**	LR	LR	19 46 09.2	
	comp=Z,36nm,18.3s,baz=154,slow=34						
QSPA	**South Pole Qui**	**72.96**	**180**	P	**P**	**19 18 19.7**	**+1.4**
	comp=Z,14nm,1.0s,baz=17,slow=2.2,SNR=26						
	comp=Z,14nm,1.0s						
QSPA	**South Pole Qui**	**72.96**	**180**		**P**	**19 18 19.8**	**+1.6**
QSPA				IAmb	IAmb	19 18 20.9	
	comp=Z,15nm,1.1s						
KLR	**Kul'dur**	**73.38**	**336**	LR	LR	19 48 29.5	
	comp=Z,26nm,20.6s,baz=182,slow=34						
CMAR	**Chiang Mai Arr**	**76.44**	**294**	P	**P**	**19 18 40.1**	**+1.0**
	comp=Z,0.4nm,0.4s,baz=138,slow=3.0,SNR=6.2						
CMAR				LR	LR	19 53 38.5	
	comp=Z,12nm,18.3s,baz=95,slow=37						
	comp=Z,0.4nm,0.4s						
PZH	**PanZhiHua**	**77.46**	**303**	P	**P**	**19 18 46.4**	**+1.6**
MA2	**Magadan**	**77.64**	**351**	LR	LR	19 48 28.1	
	comp=Z,40nm,20.4s,baz=166,slow=32						
HHC	**Hu-ho-hao-te**	**77.75**	**320**	*e*P	**P**	**19 18 46.8**	**+0.7**
HHC				pmax	pmax		
	comp=Z,14nm,0.8s						
HHC				pmax	pmax		
	comp=Z,160nm,4.8s						
SONM	**Songino Array**	**84.72**	**324**	P	**P**	**19 19 23.3**	**+0.2**
	comp=Z,1.6nm,1.1s,baz=137,slow=4.8,SNR=7.7						
	comp=Z,1.6nm,1.1s						
GTA2	**Gaotai**	**84.78**	**314**	P	**P**	**19 19 24.8**	**+1.3**
GTA2				pmax	pmax		
	comp=Z,6.0nm,1.2s						
PFO	**Pinyon Flats O**	**87.89**	**54**	LR	LR	19 50 51.9	
	comp=Z,56nm,20.4s,baz=170,slow=30						
ELIB	**Princess Elisa**	**88.03**	**190**	*d*P	**P**	**19 19 40.1**	**+1.2**
	comp=Z,4.6nm,1.3s						
NVAR	**Mina Array Bea**	**88.35**	**49**	P	**P**	**19 19 41.9**	**+0.8**
	comp=Z,1.5nm,1.0s,baz=197,slow=4.6,SNR=6.5						
NVAR				LR	LR	19 53 00.2	
	comp=Z,49nm,19.9s,baz=271,slow=31						
	comp=Z,1.5nm,1.0s						
BBB	**Bella Bella**	**88.39**	**34**	LR	LR	19 55 29.2	
	comp=Z,22nm,18.6s,baz=223,slow=33						
ILAR	**Eielson Array**	**88.57**	**18**	P	**P**	**19 19 43.2**	**+1.9**
	comp=Z,0.5nm,0.9s,baz=214,slow=4.4,SNR=2.2						
	comp=Z,0.5nm,0.9s						
LPIG	**La Paz**	**89.66**	**65**	LR	LR	19 52 56.1	
	comp=Z,36nm,18.6s,baz=210,slow=31						
TROLL	**Troll, Antarti**	**90.58**	**185**	⇑P	**P**	**19 19 52.1**	**+1.2**
	comp=Z,390nm,0.8s						
VNA3	**Neumayer Olymp**	**91.89**	**181**	⇑P	**P**	**19 19 57.3**	**+0.4**
	comp=Z,6.2nm,0.8s						
TIXI	**Tiksi**	**92.38**	**348**	LR	LR	19 57 30.5	
	comp=Z,22nm,20.2s,baz=174,slow=33						
ANMO	**Albuquerque**	**96.14**	**55**	LR	LR	19 57 35.7	
	comp=Z,21nm,18.8s,baz=317,slow=32						
MKAR	**Makanchi Array**	**99.30**	**316**	P	**Pdif**	**19 20 29.4**	**-1.6**
	comp=Z,0.2nm,0.5s,baz=101,slow=7.5,SNR=2.6						
MKAR				LR	LR	20 04 05.3	
	comp=Z,25nm,21.7s,baz=124,slow=35						
	comp=Z,0.2nm,0.5s						
ABTA	**Abfaltersbach**	**144.07**	**331**	*e*PKP	**PKPdf**	**19 26 24.4**	**-0.4**
	comp=Z,3.7nm,1.1s						
SQTA	**Sankt Quirin**	**144.31**	**332**	PKP	**PKPdf**	**19 26 25.3**	**+0.2**
	comp=Z,3.9nm,1.1s						
FETA	**Feichten**	**144.68**	**333**	*e*PKP	**PKPdf**	**19 26 26.0**	**+0.1**
	comp=Z,2.8nm,0.9s						

IDC ***13*** *19:09:57.3±0.8, 28°.09N×104°.68E, h0^{km}, mb3.8/10, mbtmp3.7/13, ML3.7/3, Error ellipse: s-maj=22.2km s-min=15.6km az=71.0*

ISC 13 19:10:02.4±0.8, 28°.16N±0°.10×104°.8E±0°.1, h35^{km}, n13, σ0^{s}79/13, mb3.9/10, Sichuan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LZDM	**Lanzhou Array**	**7.82**	**354**	Pn	**Pn**	**19 11 54.1**	**+0.1**
	baz=172,slow=13						
	1.8nm,0.4s						
CMAR	**Chiang Mai Arr**	**11.04**	**210**	Pn	**Pn**	**19 12 37.9**	**0.0**
	0.1nm,0.3s,baz=26,slow=14,SNR=4.3						
	0.4nm,0.7s						
CMAR				AML	AML		
SONM	**Songino Array**	**19.68**	**3**	P	**Pn**	**19 14 30.0**	**-0.1**
	0.2nm,0.3s,baz=188,slow=12,SNR=4.3						
	0.8nm,0.5s						
SONM				AML	AML		
KSRS	**Korea Array**	**21.52**	**59**	P	**P**	**19 14 47.6**	**-0.7**
	1.3nm,0.6s,baz=239,slow=11,SNR=5.7						
	1.3nm,0.6s						
MKAR	**Makanchi Array**	**25.61**	**323**	P	**P**	**19 15 29.2**	**+0.8**
	2.1nm,0.6s,baz=129,slow=11,SNR=22						
	2.1nm,0.6s						
USRK	**Ussuriysk Ar.**	**27.02**	**46**	P	**P**	**19 15 42.8**	**+1.7**
	2.0nm,0.6s,baz=254,slow=8.9,SNR=4.3						
	2.0nm,0.6s						
ZALV	**Zalesovo Beam**	**29.62**	**336**	P	**P**	**19 16 03.2**	**-1.0**
	1.0nm,0.7s,baz=147,slow=8.6,SNR=4.8						
	1.0nm,0.7s						
KURBB	**Kurchatov Arra**	**29.95**	**326**	P	**P**	**19 16 06.7**	**-0.4**
	1.4nm,0.7s,baz=132,slow=9.1,SNR=4.1						
	1.4nm,0.7s						
WRA	**Warramunga Arr**	**55.73**	**146**	P	**P**	**19 19 35.4**	**-0.3**
	1.1nm,0.8s,baz=337,slow=8.3,SNR=8.3						
	1.1nm,0.8s						
ASAR	**Alice Springs**	**58.69**	**148**	P	**P**	**19 19 56.8**	**+0.1**
	0.8nm,0.7s,baz=330,slow=6.7,SNR=12						
	0.8nm,0.7s						
BRTR	**Keskin Array B**	**58.72**	**301**	P	**P**	**19 19 57.1**	**+0.2**
	0.5nm,0.6s,baz=75,slow=7.6,SNR=3.7						
	0.5nm,0.6s						
AKASG	**Malin Array Be**	**59.83**	**315**	P	**P**	**19 20 03.5**	**-0.7**
	0.3nm,0.5s,baz=72,slow=6.7,SNR=2.9						
	0.3nm,0.5s						
GERES	**GERESS Array B**	**70.02**	**315**	P	**P**	**19 21 11.2**	**+0.6**
	0.3nm,0.3s,baz=71,slow=4.9,SNR=4.8						
	0.3nm,0.3s						

TAP 13 19:16:53.6, 24°.45N×121°.91E, h10^{km}, ML2.5, C, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EWUT	**Wuta**	**0.12**	**266**	*i* P	Pg	19 16 56.7	+0.2
EWUT				*i* S	Sg	19 16 58.8	+0.2
ESAO	**Su ao**	**0.14**	**333**	*i* P	Pg	19 16 56.9	+0.1
ESAO				S	Sg	19 16 59.2	+0.2
ENA	**Nanau**	**0.16**	**261**	P	Pg	19 16 54.9	-2.2
ENA				S	Sg	19 16 57.5	-1.9
EAHA	**Aohua**	**0.20**	**232**	*i* P	Pg	19 16 57.9	+0.1
EAHA				S	Sg	19 17 01.1	+0.5
NDS	**Dongshan**	**0.25**	**315**	*i* P	Pg	19 16 59.1	+0.4
NDS				S	Sg	19 17 02.6	+0.4
EOS2	**EOS2**	**0.29**	**97**	P	Pg	19 16 59.7	+0.2
EOS2				S	Sg	19 17 04.4	+1.0
ILA	**Ilan**	**0.34**	**334**	P	Pg	19 17 01.1	+0.6
TWE	**Neicheng**	**0.35**	**320**	*i* P	Pg	19 17 00.9	+0.4
TWE				S	Sg	19 17 05.8	+0.7
LATG	**Datong**	**0.36**	**283**	*e*P	Pg	19 17 01.4	+0.6
LATG				*e*S	Sg	19 17 06.3	+0.7
ENTT	**Nioudou**	**0.36**	**301**	*i* P	Pg	19 17 01.3	+0.5
ENTT				S	Sg	19 17 06.4	+0.7
EGS		**0.39**	**3**	P	Pg	19 17 01.6	+0.3
EGS				*e*S	Sg	19 17 06.8	+0.3
NDT	**Datong Townshi**	**0.39**	**292**	P	Pg	19 17 01.9	+0.6
NDT				*i* S	Sg	19 17 07.4	+0.8
ETL	**Fush Village**	**0.39**	**222**	P	Pg	19 17 01.6	+0.2
ETL				S	Sb	19 17 08.1	-0.7
NACB	**Ninganchiao**	**0.40**	**226**	P	Pg	19 17 01.4	-0.1
NACB				S	Sg	19 17 07.4	+0.6
NACB	**Ninganchiao**	**0.40**	**226**	P	Pg	19 17 01.5	0.0
EOS3	**EOS3**	**0.41**	**114**	P	Pg	19 17 01.8	+0.3
EOS3				S	Sg	19 17 07.8	+0.9
FUSB	**Fushanzhiwuyua**	**0.42**	**316**	P	Pg	19 17 02.5	+0.6
FUSB				S	Sb	19 17 09.1	-0.6
ETLH	**Xiulin Townshi**	**0.46**	**238**	*i* P	Pg	19 17 02.8	+0.1
ETLH				S	Sg	19 17 09.7	+0.9
TWD	**Chiawan**	**0.47**	**218**	P	Pg	19 17 02.8	0.0
TWD				S	Sg	19 17 09.8	+0.8
NNSB	**Datong**	**0.48**	**267**	P	Pg	19 17 03.4	+0.4
NNSB				S	Sg	19 17 09.8	+0.4
NNSH	**Datong**	**0.48**	**267**	*i* P	Pg	19 17 03.3	+0.3
NNSH				S	Sg	19 17 09.9	+0.5
NNS	**Nan Shan**	**0.49**	**268**	P	Pg	19 17 03.6	+0.4
NNS				S	Sg	19 17 10.1	+0.4
NWLT	**Wulai**	**0.49**	**311**	P	Pb	19 17 04.2	-0.2
NWLT				S	Sb	19 17 10.9	-0.7
EOS4	**EOS4**	**0.50**	**132**	P	Pg	19 17 02.8	-0.4
EOS4				S	Sg	19 17 09.7	0.0
TIPB	**Shuangxi**	**0.52**	**351**	P	Pb	19 17 04.6	-0.3
TIPB				*e*S	Sg	19 17 11.4	+0.7
YHNB	**Yeheng**	**0.53**	**294**	P	Pb	19 17 04.7	-0.4
YHNB				S	Sg	19 17 11.2	+0.2
YHNB	**Yeheng**	**0.53**	**294**	P	Pg	19 17 04.5	+0.5
NSK	**Sanguang**	**0.55**	**294**	P	Pb	19 17 04.9	-0.5
NSK				S	Sg	19 17 12.0	+0.4
TWB1	**Santiao Chiao**	**0.56**	**7**	S	Sg	19 17 12.2	+0.4
NHDH	**Xindian Distri**	**0.62**	**325**	P	Pb	19 17 06.8	+0.3
ETM	**Tongmen**	**0.62**	**218**	P	Pg	19 17 05.6	0.0
ETM				S	Sg	19 17 14.2	+0.5
LXIB	**Xiulin Townshi**	**0.63**	**227**	P	Pg	19 17 05.8	0.0
LXIB				S	Sb	19 17 15.6	0.0
WFSB	**Wu-fen Shan**	**0.63**	**349**	P	Pg	19 17 04.3	-1.4
WFSB				*e*S	Sb	19 17 15.1	-0.4
SXI1	**Grass Mountain**	**0.64**	**357**	P	Pg	19 17 06.3	+0.3
SXI1				*e*S	Sb	19 17 15.3	-0.6
FUSS	**Fushou**	**0.64**	**251**	P	Pg	19 17 06.4	+0.3
FUSS				S	Sb	19 17 15.5	-0.7
WHF	**Hehuan Shan**	**0.67**	**243**	P	Pg	19 17 06.8	+0.2
WHF				S	Sb	19 17 16.6	-0.4
TWT	**Tachien**	**0.70**	**254**	*e*P	Pb	19 17 08.1	+0.1
TWT				S	Sb	19 17 17.5	-0.3
TNOU	**National Taiwa**	**0.70**	**350**	*e*P	Pb	19 17 07.9	0.0
TNOU				*e*S	Sg	19 17 16.7	+0.2
TDCB	**Techi**	**0.71**	**254**	P	Pb	19 17 07.9	-0.3
TDCB				S	Sg	19 17 17.3	+0.5
SHUL	**Shoufeng**	**0.74**	**206**	*e*P	Pn	19 17 09.5	-0.5
SHUL				*e*S	Sb	19 17 19.4	+0.8
KSHI	**Guanxi Townshi**	**0.74**	**296**	*e*P	Pb	19 17 09.3	+0.7
KSHI				*e*S	Sn	19 17 20.2	-1.3
NFF	**Wufeng Townshi**	**0.74**	**284**	P	Pb	19 17 08.8	+0.1
NFF				S	Sb	19 17 18.4	-0.6
YM01	**YM01**	**0.76**	**336**	P	Pb	19 17 09.4	+0.5
YM01				*e*S	Sb	19 17 20.1	+0.8
ESL	**Shilin**	**0.77**	**215**	P	Pg	19 17 08.3	-0.2
TWS1	**Kuangyinshan**	**0.79**	**325**	*e*P	Pn	19 17 10.4	-0.3
TWS1				*e*S	Sb	19 17 20.5	+0.4
YM08	**YM08**	**0.79**	**338**	P	Pb	19 17 09.7	+0.3
ANP	**Anpu**	**0.81**	**334**	*e*P	Pb	19 17 10.0	+0.1
NTST	**Danshui**	**0.82**	**329**	*e*P	Pn	19 17 11.3	+0.1
NTST				*e*S	Sb	19 17 22.1	+1.0
OWD	**Renai**	**0.83**	**234**	*e*P	Pg	19 17 09.5	-0.2
OWD				*e*S	Sb	19 17 21.7	+0.1
LIOB	**Emei**	**0.84**	**283**	*e*P	Pn	19 17 11.3	-0.1
LIOB				*e*S	Sb	19 17 22.1	+0.5
NSTT	**Nanjuang**	**0.85**	**282**	S	Sb	19 17 22.0	+0.1
WUSB	**Renai**	**0.86**	**238**	P	Pb	19 17 10.4	-0.2
WUSB				S	Sb	19 17 22.5	+0.2
WARBT	**Fenglin Townsh**	**0.88**	**213**	*e*P	Pg	19 17 10.1	-0.3
WARBT				*e*S	Sg	19 17 22.2	+0.3
WCS	**Beigang Elemen**	**0.99**	**247**	*e*P	Pn	19 17 13.3	-0.3
WCS				*e*S	Sg	19 17 25.8	+0.1
YOJ	**Yonaguni jima**	**1.00**	**89**	P	Pg	19 17 11.8	-1.0
HGSD	**Ruisui**	**1.06**	**205**	*e*P	Pg	19 17 13.4	-0.5
SMLT	**Sun Moon Lake**	**1.08**	**239**	*e*P	Pn	19 17 14.8	-0.1
EHYH	**Wanrong**	**1.09**	**209**	*e*P	Pn	19 17 15.2	+0.3
SSLB	**Suanglung**	**1.10**	**233**	P	Pb	19 17 14.7	0.0
SSLB				S	Sg	19 17 28.9	-0.1
YULB	**Yu-li**	**1.20**	**208**	*e*P	Pg	19 17 16.6	0.0
YULB				*e*S	Sn	19 17 34.1	+1.4
WHYT	**Xinyi Township**	**1.23**	**232**	*e*P	Pg	19 17 17.3	+0.2
WHYT				*e*S	Sg	19 17 33.1	0.0
ALS	**Alishan**	**1.38**	**227**	*e*P	Pg	19 17 20.5	+0.4
CHN5	**Tsauling**	**1.41**	**233**	*e*P	Pg	19 17 21.7	+1.0
CHN5				*e*S	Sg	19 17 43.9	+4.8
ELDTW	**Lidau**	**1.50**	**213**	*e*P	Pg	19 17 22.5	+0.1
WCKO	**Fanlu**	**1.56**	**230**	*e*S	Sg	19 17 46.5	+2.6
WTK	**Tuku**	**1.59**	**242**	*e*S	Sg	19 17 46.9	+2.3
TPUB	**Ta-pu**	**1.64**	**226**	*e*P	Pg	19 17 24.8	-0.3
TPUB				*e*S	Sg	19 17 46.9	+0.5
CHN1	**Nanshi**	**1.79**	**225**	*e*S	Sg	19 17 51.0	-0.1

NOU 13 19:24:07.8, 17°.07S×167°.86E, h10^{km}, MLv4.4/22, Vanuatu Islands, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DVP	**Devils Point**	**0.72**	**154**	P	Pb	19 24 22.8	+0.3
DVP	**Devils Point**	**0.72**	**154**	S	Sb	19 24 32.4	-0.1
RTV	**Rentapao**	**0.90**	**143**	P	Pb	19 24 25.6	+0.1
RTV	**Rentapao**	**0.90**	**143**	S	Sb	19 24 37.9	+0.4
SANVU	**Saraoutou**	**1.73**	**339**	P	Pn	19 24 37.2	-0.8
SANVU	**Saraoutou**	**1.73**	**339**	S	Sn	19 25 00.2	0.0
MARNC	**Mare, Loyalty**	**4.39**	**178**	P	Pn	19 25 14.2	-0.4
KOUNC	**Koumac, New Ca**	**4.84**	**224**	P	Pn	19 25 20.3	-0.5
YATNC	**Mamie plateau,**	**5.05**	**190**	P	Pn	19 25 23.1	-0.5
NOUC	**Port Laguerre**	**5.22**	**196**	P	Pn	19 25 26.0	+0.1
ONTNC	**Ouen Toro**	**5.38**	**194**	P	Pn	19 25 28.8	+0.7
OUENC	**Ouen Island, N**	**5.41**	**190**	P	Pn	19 25 29.2	+0.7
NGOA	**Tingoa Renbel**	**9.34**	**305**	P	Pn	19 26 22.7	+0.2

YARS 13 19:34:53.5, 57°.04N×123°.11E, h10^{km}, mb3.6/2, ML2.2/9, Southeastern Siberia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YKLR	**Yuktali**	**0.92**	**241**	*i* Pg	Pb	19 35 11.6	+0.1
	baz=241						
YKLR				*i* Pg	Pb	19 35 11.6	+0.1
	baz=241						
YKLR				*i* Pg	Pb	19 35 11.6	+0.1
	13nm,0.1s,baz=241						
YKLR				*e*Sg	Sb	19 35 23.4	-0.3
	267nm,0.2s,baz=241						
YKLR				*e*Sg	Sb	19 35 23.4	-0.3
	baz=241						
CLNS	**Chul'man**	**1.00**	**101**	*i* Pg	Pb	19 35 13.1	+0.2
	baz=101						
CLNS				*i* Pg	Pb	19 35 13.1	+0.2
	baz=101						
CLNS				*i* Pg	Pb	19 35 13.1	+0.2
	8.6nm,0.5s,baz=101						
CLNS				*e*Sg	Sb	19 35 26.9	+0.7
	72nm,0.5s,baz=101						
CLNS				*e*Sg	Sb	19 35 26.9	+0.7
	baz=101						
KHN	**Khani**	**1.82**	**268**	*e*Pg	Pn	19 35 25.9	+1.0
	29nm,0.3s,baz=267						
KHN				*e*Sg	Sb	19 35 49.6	-0.2
	baz=267						
KHN				*e*Sg	Sb	19 35 49.6	-0.2
	420nm,0.1s,baz=267						
ALDR	**Aldan**	**2.00**	**37**	*i* Pg	Pg	19 35 31.8	0.0
	baz=37						
ALDR				*i* Pg	Pg	19 35 31.8	0.0
	18nm,0.3s,baz=37						
ALDR				*i* Pg	Pg	19 35 31.8	0.0
	baz=37						
ALDR				*e*Sg	Sg	19 35 59.1	+1.4
	baz=37						
ALDR				*e*Sg	Sg	19 35 59.1	+1.4
	106nm,0.2s,baz=37						
TNDR	**Tynda**	**2.10**	**154**	*i* Pg	Pb	19 35 31.1	-0.6
	9.9nm,0.3s,baz=154						
TNDR				*i* Pg	Pb	19 35 31.1	-0.6
	baz=154						
TNDR				*i* Pg	Pb	19 35 31.1	-0.6
	baz=154						
TNDR				*e*Sn	Sn	19 35 56.2	+1.4
	35nm,0.6s,baz=154						
TNDR				*e*Sn	Sn	19 35 56.2	+1.4
	baz=154						
CRS	**Chara**	**2.65**	**269**	*e*Pg	Pb	19 35 41.3	+0.2
	69nm,0.7s,baz=269						
CRS				*e*Sg	Sg	19 36 20.8	+2.1
	baz=269						
CRS				*e*Sg	Sg	19 36 20.8	+2.1
	173nm,0.7s,baz=269						
CGD	**Chagda**	**4.36**	**64**	*i* Pn	Pn	19 36 00.2	+0.5
	4.0nm,0.5s,baz=64						
CGD				*e*Sn	Sn	19 36 52.4	+1.9
	baz=64						
CGD				*e*Sn	Sn	19 36 52.4	+1.9
	baz=64						
CGD				*e*Lg	Lg	19 37 11.8	
	34nm,0.4s,baz=64						
CGD				*e*Lg	Lg	19 37 11.8	
	baz=64						
TBGR	**Tabaga**	**5.84**	**32**	*i* Pn	Pn	19 36 20.0	0.0
	1.1nm,0.7s,baz=32						
TBGR				*e*Sn	Sn	19 37 29.4	+2.5
	baz=32						
TBGR				*e*Sn	Sn	19 37 29.4	+2.5
	baz=32						
TBGR				*e*Lg	Lg	19 37 58.5	
	21nm,0.6s,baz=32						
TBGR				*e*Lg	Lg	19 37 58.5	
	baz=32						
YAK	**Yakutsk**	**6.02**	**31**	*i* Pn	Pn	19 36 22.4	0.0
	4.9nm,0.6s,baz=31						
YAK				*e*Sn	Sn	19 37 33.7	+2.4
	baz=31						
YAK				*e*Sn	Sn	19 37 33.7	+2.4
	baz=31						
YAK				*e*Lg	Lg	19 38 03.9	
	baz=31						
YAK				*e*Lg	Lg	19 38 03.9	
	106nm,0.7s,baz=31						
VTMR	**Vitim**	**6.07**	**298**	*i* Pn	Pn	19 36 22.2	-1.0
	1.1nm,0.2s,baz=298						
VTMR				*e*Sn	Sn	19 37 33.7	+1.0
	baz=298						
VTMR				*e*Sn	Sn	19 37 33.7	+1.0
	baz=298						
VTMR				*e*Lg	Lg	19 38 06.5	
	baz=298						
VTMR				*e*Lg	Lg	19 38 06.5	
	27nm,0.7s,baz=298						
USMR	**Ust'-Maya**	**6.85**	**56**	*i* Pn	Pn	19 36 34.0	+0.2
	baz=56						
USMR				*i* Pg	Pb	19 36 58.4	+6.0
	0.5nm,0.5s,baz=56						
USMR				*e*Sn	Sn	19 37 54.5	+2.7
	baz=56						
USMR				*e*Sn	Sn	19 37 54.5	+2.7
	baz=56						
USMR				*e*Lg	Lg	19 38 30.3	
	baz=56						
USMR				*e*Lg	Lg	19 38 30.3	
	3.1nm,0.4s,baz=56						
EKMR	**Ekimchan**	**6.91**	**121**	*e*Pg	Pg	19 37 01.4	-4.3
	10.0nm,0.8s,baz=121						
YCRN	**Chernyshevskiy**	**8.01**	**323**	*i* Pn	Pn	19 36 48.7	-1.0
	1.0nm,0.4s,baz=323						
YCRN				*e*Sn	Sn	19 38 20.0	-0.3
	4.2nm,0.6s,baz=323						
YCRN				*e*Sn	Sn	19 38 20.0	-0.3
	baz=323						
UNR	**Ust'-Nera**	**12.34**	**44**	*e*P	Pn	19 37 49.4	+0.4
	0.4nm,0.9s,baz=44						
UNR				*e*S	Sn	19 40 07.5	+1.2
	0.6nm,1.3s,baz=44						
UNR				*e*S	Sn	19 40 07.5	+1.2
	baz=44						
MOMR	**Moma**	**13.34**	**37**	*i* P	Pn	19 38 03.1	+0.4
	0.1nm,1.0s,baz=37						
MOMR				*e*Lg	Lg	19 41 56.1	
	2.3nm,1.2s,baz=37						
MOMR				*e*Lg	Lg	19 41 56.1	
	baz=37						

IDC ***13*** *19:53:55.5±1.4, 55°.28N×161°.33W, h0^{km}, mb3.8/14, mbtmp3.7/17, ML3.2/3, Error ellipse: s-maj=35.5km s-min=14.7km az=167.0*

AEIC ***13*** *19:53:56.2±1.9, 54°.47N±0°.03×160°.79W±0°.05, h30^{km}±7^{km}, Error ellipse: s-maj=5.1km s-min=3.9km az=211.0*

NEIC ***13*** *19:53:57.5±2.2, 54°.51N±0°.03×160°.84W±0°.05, h35^{km}±3^{km}, ML3.5/30, ML3.3(AEIC), Error ellipse: s-maj=5.0km s-min=3.8km az=219.0*

ISC 13 19:53:55.2±1.5, 54°.45N±0°.07×160°.72W±0°.03, h30^{km}±10^{km}, n131, σ1^{s}75/134, mb3.9/14, Alaska Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CNBA	**Chernabura Isl**	**0.75**	**60**		**Pn**	**19 54 10.0**	**+0.3**
CNBA	**Chernabura Isl**	**0.75**	**60**		**Sn**	**19 54 22.8**	**+2.6**
CNBA	**Chernabura Isl**	**0.75**	**60**	IAML		19 54 24.1	
	comp=N,810nm,0.9s						
CNBA				IAML		19 54 31.2	
	comp=E,648nm,0.5s						
CHNA	**Chernabura Isl**	**0.76**	**60**	P	**Pn**	**19 54 10.0**	**+0.2**
CHNA	**Chernabura Isl**	**0.76**	**60**	S	**Sn**	**19 54 22.7**	**+2.5**
SDPT	**Sand Point**	**0.91**	**9**	P	**Pn**	**19 54 12.0**	**+0.1**
SDPT	**Sand Point**	**0.91**	**9**	S	**Sn**	**19 54 24.7**	**+0.7**
SDPT	**Sand Point**	**0.91**	**9**		**Pn**	**19 54 12.2**	**+0.2**
SDPT	**Sand Point**	**0.91**	**9**		**Sn**	**19 54 24.3**	**+0.3**
SDPT	**Sand Point**	**0.91**	**9**	IAML		19 54 25.5	
	comp=N,2µm,0.5s						
SDPT				IAML		19 54 27.7	
	comp=E,1µm,0.5s						
DOL	**Dolgoi Island**	**0.96**	**317**		**Pn**	**19 54 12.5**	**-0.2**
DOL					**Sn**	**19 54 24.3**	**-1.1**
HAG	**Hague Volcano**	**1.10**	**322**		**Pb**	**19 54 15.2**	**-0.5**
PS4A	**Pavlof South-4**	**1.11**	**324**		**Pb**	**19 54 15.2**	**-0.6**
PS4A					**Sb**	**19 54 30.1**	**+0.2**
PVV	**Pavlof Volcano**	**1.11**	**327**		**Pb**	**19 54 15.2**	**-0.6**
DT1	**Dutton Round H**	**1.12**	**306**		**Pn**	**19 54 14.5**	**-0.3**
DT1					**Sb**	**19 54 28.4**	**-1.8**
DTNA	**Dutton South F**	**1.13**	**309**		**Pn**	**19 54 15.0**	**0.0**
DTNA					**Sb**	**19 54 29.7**	**-0.7**
PS1A	**Pavlof South-1**	**1.14**	**329**		**Pb**	**19 54 15.7**	**-0.5**
PS1A					**Sb**	**19 54 31.3**	**+0.6**
PN7A	**Pavlof North-7**	**1.23**	**323**		**Pb**	**19 54 17.3**	**-0.6**
VNSW	**Veniaminof 7**	**1.75**	**22**		**Pn**	**19 54 25.5**	**+1.9**
VNKR	**Veniaminof 5**	**1.76**	**25**		**Pn**	**19 54 25.8**	**+2.1**
VNKR					**Sb**	**19 54 48.5**	**0.0**
VNSS	**Veniaminof 8**	**1.92**	**22**		**Pb**	**19 54 28.6**	**-1.0**
VNSS					**Sb**	**19 54 53.6**	**+0.5**
SSLS	**Shishaldin Sou**	**1.93**	**279**		**Pn**	**19 54 27.4**	**+1.3**
VNFG	**Fog Glacier, M**	**1.95**	**19**		**Pb**	**19 54 29.4**	**-0.7**
VNFG	**Fog Glacier, M**	**1.95**	**19**		**Pb**	**19 54 29.4**	**-0.7**
CHGN	**Chignik**	**2.27**	**34**		**Pn**	**19 54 33.4**	**+2.8**
CHGN	**Chignik**	**2.27**	**34**		**Sb**	**19 55 02.1**	**-1.0**

CHGN	Chignik	2.27	34	IAML		19 55 10.0	
	comp=N,366nm,0.5s						
CHGN				IAML		19 55 10.1	
	comp=E,441nm,0.5s						
ANPB	Aniakchak Plen	2.73	29		Pn	19 54 39.5	+2.5
AKUT	Akutan	2.98	266	P	Pn	19 54 41.9	+1.5
AKUT	Akutan	2.98	266	S	Sn	19 55 17.0	+1.9
AKUT	Akutan	2.98	266		Pn	19 54 41.8	+1.4
AKUT				Sn	Sn	19 55 16.8	+1.7
AKUT				IAML		19 55 33.5	
	comp=N,119nm,0.7s						
AKUT				IAML		19 55 41.3	
	comp=E,107nm,1.6s						
AKBBA	Akutan Broad B	3.08	265		Pn	19 54 42.8	+1.1
AKLV	Akutan Long Va	3.08	267		Pn	19 54 43.2	+1.3
AKGG	Akutan Green G	3.10	267		Pn	19 54 43.4	+1.3
LVA	Lava Point	3.13	267		Pn	19 54 44.3	+1.9
LVA				IAML		19 55 43.2	
	comp=E,147nm,0.8s						
LVA				IAML		19 55 43.2	
	comp=N,275nm,0.8s						
AKRB	Akutan Reef Bi	3.15	266		Pn	19 54 44.1	+1.3
CHIR	Chirikof Islan	3.23	63	P	Pn	19 54 45.6	+1.8
CHIR	Chirikof Islan	3.23	63		Pn	19 54 45.5	+1.6
CHIR	Chirikof Islan	3.23	63		Sn	19 55 20.9	-0.3
CHIR	Chirikof Islan	3.23	63	IAML		19 55 44.9	
	comp=E,137nm,0.7s						
CHIR				IAML		19 55 44.9	
	comp=N,169nm,1.0s						
UNV	Unalaska Valle	3.46	262		Pn	19 54 47.5	+0.6
UNV	Unalaska Valle	3.46	262	IAML		19 55 51.7	
	comp=N,68nm,1.2s						
MNAT	Makushin Natee	3.55	263		Pn	19 54 49.1	+0.8
MREP	Makushin Rep't	3.61	262		Pn	19 54 50.0	+0.9
MGOD	Makushin Gods	3.68	262		Pn	19 54 51.1	+0.9
MGOD					Sn	19 55 32.7	+0.2
PLBL	Peulik Blue Cr	3.92	32		Pn	19 54 55.8	+2.5
PLK1	Peulik 1	4.07	33		Pn	19 54 57.7	+2.4
SII	Sitkinak Islan	4.27	58	P	Pn	19 54 59.9	+1.7
SII	Sitkinak Islan	4.27	58		Pn	19 54 59.8	+1.7
SII				IAML		19 56 30.5	
	comp=N,105nm,0.7s						
OKNC	Okmok New Cone	4.49	260		Pn	19 55 02.2	+1.1
KJL	Kejulik	4.61	36		Pn	19 55 05.1	+2.3
Q17K	Contact Creek	4.67	33		Pn	19 55 05.8	+2.1
CAHL	Cahill	4.70	38		Pn	19 55 06.3	+2.2
O15K	Ungalikthiuk R	4.76	6		Pn	19 55 07.4	+2.6
O15K				IAML		19 56 33.3	
	comp=E,32nm,1.0s						
ACHA	Angle Creek He	4.81	36		Pn	19 55 08.1	+2.5
P16K	Nushagak River	4.83	17		Pn	19 55 08.3	+2.5
KAKN	Katmai Knife C	4.97	37		Pn	19 55 10.1	+2.3
OHAK	Old Harbor	5.02	53		Pn	19 55 09.5	+1.1
OHAK	Old Harbor	5.02	53	IAML		19 56 37.0	
	comp=N,23nm,1.2s						
OHAK				IAML		19 56 39.7	
	comp=E,22nm,0.7s						
KAWH	Katmai	5.13	37		Pn	19 55 11.8	+1.8
KARR	Katmai Rainbow	5.25	37		Pn	19 55 13.7	+2.2
Q18K	Katmai Hardscr	5.26	35		Pn	19 55 14.1	+2.3
P17K	Kvichak River	5.30	25		Pn	19 55 15.3	+3.1
O16K	Kokwok River B	5.35	14		Pn	19 55 14.0	+1.1
O16K				IAML		19 56 57.5	
	comp=N,14nm,2.5s						
N14K	Kuskokwak Cree	5.51	355		Pn	19 55 16.9	+1.8
KDAK	Kodiak Island	5.64	50	Pn	Pn	19 55 17.0	+0.1
	comp=N,0.8nm,0.3s,baz=194,slow=6.7,SNR=10						
KDAK				Sn	Sn	19 56 18.2	-2.4
	comp=N,1.2nm,0.3s,baz=338,slow=22,SNR=6.2						
	comp=N,1.6nm,0.3s						
KDAK				AML	AML		
KDAK	Kodiak Island	5.64	50		Pn	19 55 17.7	+0.8
O17K	Koliganek Bris	5.69	19		Pn	19 55 20.6	+3.1
N15K	Kwethluk River	5.74	3		Pn	19 55 20.8	+2.5
P18K	Big Mountain,	5.79	29		Pn	19 55 21.4	+2.4
Q19K	Cape Douglas,	5.94	38		Pn	19 55 23.0	+2.0
N16K	Nishlik Lake	6.13	9		Pn	19 55 25.8	+2.1
M13K	Dall Lake	6.14	348	Pn	Pn	19 55 26.4	+2.6
O18K	Koktuh Hills	6.19	27		Pn	19 55 27.3	+2.8
M15K	Kasigluk River	6.26	0		Pn	19 55 27.4	+2.0
M14K	Bethel	6.35	354		Pn	19 55 28.3	+1.7
P19K	Oil Pt	6.62	35		Pn	19 55 32.5	+2.2
M16K	Timber Creek	6.65	7	Pn	Pn	19 55 33.0	+2.2
ILSW	Iliamna Southw	6.90	33		Pn	19 55 36.3	+2.0
L14K	Kuka Creek	6.99	352		Pn	19 55 36.7	+1.4
M17K	Holitna River	7.18	13		Pn	19 55 40.2	+2.1
N19K	Bonanza Creek	7.20	25		Pn	19 55 41.0	+2.6
CNPM	China Poot	7.25	42		Pn	19 55 41.6	+2.5
L15K	Ungalak Mounta	7.26	357		Pn	19 55 40.8	+1.7
L16K	Owhat River	7.31	5		Pn	19 55 41.9	+2.1
M18K	Stony River	7.52	18		Pn	19 55 45.4	+2.7
BRSE	Bradley Lake S	7.58	42		Pn	19 55 44.1	+0.5
RDT	Redoubt	7.59	33		Pn	19 55 45.8	+2.1
K13K	Kusilvak Mount	7.78	346		Pn	19 55 48.3	+2.0
L17K	Donlin	7.81	8		Pn	19 55 48.1	+1.5
K15K	Wolf Creek Mou	7.88	357	Pn	Pn	19 55 49.5	+2.0
L18K	Granite Mounta	8.07	14		Pn	19 55 52.3	+2.1
SPNN	North Nagishla	8.13	28		Pn	19 55 55.0	+3.7
M19K	Big River Lodg	8.18	21		Pn	19 55 54.9	+3.2
SLKM	Skilak Lake	8.29	39		Pn	19 55 55.1	+1.9
SEW	Seward	8.32	43	Pn	Pn	19 55 55.2	+1.6
L19K	White Mountain	8.34	19		Pn	19 55 57.2	+3.3
ATKA	Atka Island	8.38	260		Pn	19 55 55.4	+0.9
K17K	Iditarod	8.38	8		Pn	19 55 56.8	+2.3
J14K	Nanvaranak Lak	8.45	351		Pn	19 55 57.0	+1.6
M20K	Styx River	8.45	25		Pn	19 55 59.2	+3.7
SUA	Susitna One	8.79	33		Pn	19 56 01.4	+1.2
J16K	Anvik River	8.86	0	Pn	Pn	19 56 03.4	+2.4
PWL	Port Wells	9.22	41	Pn	Pn	19 56 07.1	+1.1
GSCK	Great Sitkin C	9.58	262		Pn	19 56 11.7	+0.8
HIN	Hinchinbrook I	9.69	46	Pn	Pn	19 56 13.6	+1.1
GLI	Glacier Island	9.72	43	Pn	Pn	19 56 13.3	+0.5
FID	Port Fidalgo	9.89	45	Pn	Pn	19 56 15.3	+0.1
ADK	Adak	9.93	261	P	Pn	19 56 17.7	+2.0
SCM	Sheep Creek Mo	10.22	38	Pn	Pn	19 56 20.6	+0.9
KAIM	Kayak Island	10.39	52	Pn	Pn	19 56 23.9	+1.9
RAGM	Ragged Mountai	10.48	49	Pn	Pn	19 56 24.5	+1.2
KLU	Klutina	10.54	42		Pn	19 56 25.2	+1.1
BMRM	Bremner River	10.79	46	Pn	Pn	19 56 28.5	+1.0
GLB	Gilahina Butte	11.36	45	Pn	Pn	19 56 36.2	+0.9
ILAR	Eielson Array	12.45	28	Pn	Pn	19 56 47.0	-3.2
	baz=243,slow=11,SNR=1.4						
	comp=N,0.2nm,0.5s						
INK	Inuvik	18.79	32	P	P	19 58 11.4	-0.3
	comp=N,0.2nm,0.3s,baz=220,slow=15,SNR=4.9						
	comp=N,1.6nm,0.6s						
INK				AML	AML		
PETK	Petropavlovsk-	24.36	284	P	P	19 59 10.2	-0.1
	comp=N,2.0nm,0.5s,baz=75,slow=14,SNR=4.2						
	comp=N,2.0nm,0.5s						
TXAR	Lajitas Array	47.70	98	P	P	20 02 38.6	+9.5
	comp=N,0.6nm,0.8s,baz=322,slow=6.2,SNR=5.5						
	comp=N,0.6nm,0.8s						
SONM	Songino Array	54.55	304	P	P	20 03 19.6	-0.7
	comp=N,0.4nm,0.6s,baz=12,slow=9.3,SNR=2.4						
	comp=N,0.4nm,0.6s						
ARCES	ARCESS Array B	56.24	357	P	P	20 03 31.1	-0.8
	comp=N,1.7nm,0.8s,baz=10,slow=12,SNR=3.6						
	comp=N,1.7nm,0.8s						
ZALV	Zalesovo Beam	59.21	321	P	P	20 03 50.1	-3.0
	comp=N,0.3nm,0.3s,baz=53,slow=7.4,SNR=1.6						
	comp=N,0.3nm,0.3s						
KURBB	Kurchatov Arra	64.18	323	P	P	20 04 24.6	-1.9
	comp=N,0.2nm,0.5s,baz=53,slow=8.1,SNR=2.5						
	comp=N,0.2nm,0.5s						
FINES	FINESS Array B	64.32	356	P	P	20 04 27.0	-0.3
	comp=N,1.6nm,0.8s,baz=5.7,slow=7.7,SNR=8.7						
	comp=N,1.6nm,0.8s						
NOA	NORSAR Array B	64.67	4	P	P	20 04 29.6	-0.1
	comp=N,0.4nm,0.6s,baz=6.8,slow=7.0,SNR=1.9						
	comp=N,0.4nm,0.6s						
BVAR	Borovoye Array	64.82	329	P	P	20 04 31.2	+0.5
	comp=N,1.0nm,0.6s,baz=35,slow=6.4,SNR=8.3						
	comp=N,1.0nm,0.6s						
HFS	Hagfors	65.67	3	P	P	20 04 35.7	-0.4
	comp=N,1.5nm,0.8s,baz=55,slow=5.5,SNR=4.3						
	comp=N,1.5nm,0.8s						
MKAR	Makanchi Array	65.94	318	P	P	20 04 37.4	-0.7
	comp=N,0.2nm,0.5s,baz=41,slow=7.3,SNR=5.0						
	comp=N,0.2nm,0.5s						
AKASG	Malin Array Be	74.89	353	P	P	20 05 32.4	-0.2
	comp=N,0.8nm,0.4s,baz=9.6,slow=6.0,SNR=6.1						
	comp=N,0.8nm,0.4s						
CMAR	Chiang Mai Arr	81.03	289	P	P	20 06 07.2	0.0
	comp=N,0.3nm,0.3s,baz=15,slow=6.2,SNR=5.3						
	comp=N,0.3nm,0.3s						
BRTR	Keskin Array B	85.39	349	P	P	20 06 30.2	+0.6
	comp=N,0.4nm,0.6s,baz=14,slow=7.4,SNR=2.3						
	comp=N,0.4nm,0.6s						

IDC 13 19:59:27.1±4.3,**17°.86S**×**167°.11E**,**h0**^{km},**mb3.7**/3, **mbtmp3.7**/4,**ML3.5**/1,**MS3.0**/3,**Error ellipse: s-maj=84.5km s-min=21.5km az=76.0,Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	4.24	188	Pn	Pn	20 00 30.4	-2.6
	2.6nm,0.3s,baz=205,slow=1.8,SNR=20						
DZM				Sn	Sn	20 01 19.9	-3.5
	4.4nm,0.3s,baz=288,slow=22,SNR=6.7						
DZM				LR	LR	20 01 29.9	
	comp=Z,70nm,18.6s,baz=148,slow=29						
	5.2nm,0.3s						
DZM				AML	AML		
CTA	Charters Tower	19.85	260	LR	LR	20 10 06.5	
	comp=Z,54nm,18.2s,baz=52,slow=32						
WRA	Warramunga Arr	31.05	261	P	P	20 05 46.8	-0.3
	0.9nm,0.8s,baz=93,slow=9.0,SNR=5.9						
	0.9nm,0.8s						
ASAR	Alice Springs	31.54	254	P	P	20 05 51.2	-0.2
	1.5nm,0.7s,baz=79,slow=8.7,SNR=25						
ASAR				LR	LR	20 18 31.4	
	comp=Z,40nm,18.6s,baz=107,slow=36						
	1.5nm,0.7s						
CMAR	Chiang Mai Arr	76.10	295	P	P	20 11 17.9	+0.7
	0.3nm,0.7s,baz=110,slow=4.1,SNR=1.4						
	0.3nm,0.7s						

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*IDC **13** 20:11:06.8±2.4, 3°.28N×127°.98E, h0^{km}, mb3.3/3, mbtmp3.3/3, Error ellipse: s-maj=160.1km s-min=28.1km az=67.0*

ISC 13 20:11:08.4±3.5,**3°.2N**±0°.9×**12°8E**±°,**h10**^{km},**n4**,σ**1^s.28**/5, **mb3.3**/3,**Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	Don Marcelino,	3.48	326	*e*P	Pb	20 12 08.9	-1.2
DDMP				*e*S	Sn	20 12 45.0	+1.2
WRA	Warramunga Arr	23.92	164	P	P	20 16 22.5	-0.3
	0.8nm,0.7s,baz=345,slow=11,SNR=16						
	0.8nm,0.7s						
ASAR	Alice Springs	27.39	167	P	P	20 16 54.5	+0.2
	0.2nm,0.5s,baz=360,slow=7.8,SNR=4.7						
	0.2nm,0.5s						
MKAR	Makanchi Array	58.52	325	P	P	20 21 05.7	+0.6
	0.1nm,0.4s,baz=120,slow=7.7,SNR=2.4						
	0.1nm,0.4s						

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*IDC **13** 20:18:15.6±0.7, 0°.55N×125°.44E, h0^{km}, mb4.0/13, mbtmp4.0/14, ML3.3/1, MS3.0/1, Error ellipse: s-maj=38.0km s-min=13.4km az=72.0*

*DJA **13** 20:18:22.9±0.2, 1°N±3°×12°6E±°, h10^{km}, M4.5/26, mB5.1/7, mb4.7/12, MLv4.4/26, Mw(mB)4.5/7*

ISC 13 20:18:25.0±0.6,**0°.70N**±0°.05×**125°.74E**±0°.06,**h73**^{km},**n30**, σ**1^s.39**/32,**mb4.1**/15,**Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MNI	Manado	1.17	309	P	Pn	20 18 44.1	-1.6
MNI				AML	AML		
TNTI	Ternate	1.63	87	P	Pn	20 18 52.0	+0.3
GTOI	Gorontalo	2.73	269	P	Pn	20 19 07.5	+0.9
GTOI				AML	AML		
LUWI	Luwuk	3.44	240	P	Pn	20 19 16.3	+0.1
NLAI	Namlea	4.14	161	P	Pn	20 19 26.4	+0.6
NLAI				AML	AML		
APSI	Ampana	4.39	249	P	Pn	20 19 30.0	+0.8
DDMP	Don Marcelino,	5.37	360	*e*P	Pn	20 19 39.1	-3.5
DDMP				*e*S	Sn	20 20 45.2	+2.1
KDI	Kendari	5.58	214	P	Pn	20 19 44.9	-0.6
KDI				AML	AML		
PCI	Palu	6.12	255	P	Pn	20 19 53.0	+0.2
	0.3nm47nm,0.8s						
PCI				AML	AML		
BBSI	Bau Bau	6.91	207	P	Pn	20 20 04.6	+0.9
	0.1nm23nm,1.0s						
BBSI				AML	AML		
BIPH	Bislig	7.46	5	*e*P	Pn	20 20 21.6	+10
BIPH				*e*S	Sn	20 21 33.4	-1.0
SPSI	Sidrap Palu	7.56	232	P	Pn	20 20 12.7	+0.2
SPSI				AML	AML		
KAPI	Kappang	8.25	226	LR	LR	20 24 05.5	
	comp=Z,90nm,18.0s,baz=40,slow=44						
CAAP	Casiguran, Aur	15.84	347	*e*P	P	20 22 05.5	-0.5
FITZ	Fitzroy Crossi	18.68	180	P	P	20 22 34.2	-3.2
	0.1nm,0.3s,baz=5.7,slow=10,SNR=2.1						
	1.9nm,0.9s						
FITZ				AML	AML		
WRA	Warramunga Arr	22.18	158	P	P	20 23 12.3	-2.9
	4.6nm,0.6s,baz=335,slow=11,SNR=54						
	4.6nm,0.6s						
ASAR	Alice Springs	25.49	162	P	P	20 23 45.8	-0.8
	3.5nm,0.5s,baz=342,slow=9.5,SNR=59						
ASAR				PcP	PcP	20 27 17.4	+0.5
	0.3nm,0.7s,baz=335,slow=2.4,SNR=2.7						
	3.5nm,0.5s						
CMAR	Chiang Mai Arr	31.68	305	P	P	20 24 41.5	-0.3
	0.6nm,0.3s,baz=116,slow=9.6,SNR=4.4						
	0.6nm,0.3s						
STKA	Stephens Creek	35.71	157	P	P	20 25 16.1	-0.6
	2.9nm,0.6s,baz=338,slow=7.7,SNR=7.7						
	2.9nm,0.6s						
KSRS	Korea Array	36.63	3	P	P	20 25 26.4	+2.1
	0.9nm,0.5s,baz=177,slow=10,SNR=5.7						
	0.9nm,0.5s						
MJAR	Matsushiro Arr	37.49	17	P	P	20 25 32.6	+0.9
	2.3nm,0.8s,baz=196,slow=8.9,SNR=5.1						
	2.3nm,0.8s						
USRK	Ussuriysk Ar.	43.67	7	P	P	20 26 23.9	+1.4
	1.5nm,0.6s,baz=176,slow=5.7,SNR=5.2						
	1.5nm,0.6s						
GTA2	Gaotai	45.31	332	*e*P	P	20 26 37.3	+1.5
GTA2				pmax	pmax		
	comp=Z,8.0nm,0.6s						
HILR	Hailar Array B	48.94	355	P	P	20 27 04.3	+0.5
	comp=Z,1.7nm,0.6s,baz=198,slow=8.8,SNR=1.7						
	comp=Z,1.7nm,0.6s						
SONM	Songino Array	49.86	343	P	P	20 27 11.1	+0.1
	comp=Z,0.6nm,0.6s,baz=158,slow=9.7,SNR=5.1						
	comp=Z,0.6nm,0.6s						
MKAR	Makanchi Array	59.50	327	P	P	20 28 20.1	-0.4
	comp=Z,2.1nm,0.7s,baz=123,slow=7.5,SNR=22						
MKAR				PcP	PcP	20 29 07.8	+0.3
	comp=Z,0.8nm,0.7s,baz=114,slow=5.4,SNR=4.4						
	comp=Z,2.1nm,0.7s						
KSH2	Kashi	59.63	316	P	P	20 28 22.3	+0.5
KSH2				pmax	pmax		
	comp=Z,3.0nm,0.9s						
ZALV	Zalesovo Beam	62.85	334	P	P	20 28 42.0	-1.0
	comp=Z,0.3nm,0.3s,baz=123,slow=5.3,SNR=2.4						
	comp=Z,0.3nm,0.3s						
KURBB	Kurchatov Arra	63.77	329	P	P	20 28 48.5	-0.7
	comp=Z,2.1nm,0.7s,baz=128,slow=6.3,SNR=22						
	comp=Z,2.1nm,0.7s						
BVAR	Borovoye Array	69.33	328	P	P	20 29 24.1	-0.5
	comp=Z,1.1nm,0.5s,baz=132,slow=9.7,SNR=9.8						
	comp=Z,1.1nm,0.5s						

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*IDC **13** 20:38:52.3±6.0, 18°.76N×146°.26E, h288^{km}±60^{km}, mb3.0/7, mbtmp3.6/8, Error ellipse: s-maj=126.6km s-min=14.8km az=83.0*

ISC 13 20:38:53.3±3.1,**18°.8N**±0°.2×**146°.3E**±0°.9,**h300**^{km},**n8**, σ**0^s.61**/8,**mb3.0**/7,**Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MJAR	Matsushiro Arr	19.06	340	P	P	20 42 54.1	-0.1
	1.1nm,0.7s,baz=164,slow=9.3,SNR=1.9						
WRA	Warramunga Arr	40.21	198	P	P	20 46 01.0	-0.5
	0.2nm,0.4s,baz=10,slow=8.4,SNR=14						
	0.2nm,0.4s						
SONM	Songino Array	43.41	321	P	P	20 46 26.3	-0.8
	0.4nm,0.5s,baz=134,slow=8.2,SNR=2.6						
	0.4nm,0.5s						
ASAR	Alice Springs	43.87	196	P	P	20 46 31.2	+0.3
	0.2nm,0.4s,baz=21,slow=10.0,SNR=4.7						
	0.2nm,0.4s						
MKAR	Makanchi Array	58.79	314	P	P	20 48 21.1	+0.5
	0.2nm,0.5s,baz=90,slow=8.2,SNR=5.5						
	0.2nm,0.5s						
KURBB	Kurchatov Arra	61.61	318	P	P	20 48 39.7	+0.2
	0.3nm,0.4s,baz=96,slow=7.5,SNR=4.4						
	0.3nm,0.4s						
BVAR	Borovoye Array	66.75	320	P	P	20 49 13.5	+0.8
	1.0nm,0.5s,baz=103,slow=8.2,SNR=7.9						
	1.0nm,0.5s						
FINES	FINESS Array B	87.03	335	P	P	20 51 04.8	-0.1
	3.1nm,0.9s,baz=62,slow=4.8,SNR=1.8						
	3.1nm,0.9s						

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*GFZ **13** 20:41:56.0±0.2, 4°N±2°×12°7E±°, h10^{km}, M4.8/38, mb4.9/38, confirmed*

*NEIC **13** 20:41:58.7±2.5, 4°.32N±0°.06×126°.84E±0°.05, h35^{km}±1^{km}, mb4.9/117, Error ellipse: s-maj=12.5km s-min=4.2km az=222.0*

*GCMT **13** 20:41:59.7±0.3, 4°.22N±0°.03×126°.91E±0°.02, h26^{km}±1^{km}, MW4.8/75, Moment Tensor Solution. s27,c32; s75,c103; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$2.05±.17; M$_{\theta\theta}$0.16±.09; M$_{\phi\phi}$-2.21±.11; M$_{r\theta}$0.65±.23; M$_{\theta\phi}$-0.75±.07; M$_{\phi r}$0.55±.19; Best double couple: M$_0$2.40700×10^{16} NP1:ϕ_s182.00000°,δ38.00000°,λ68.00000°. NP2: ϕ_s29.00000°,δ55.00000°,λ106.00000°. Principal axes: T 2.2750, Plg74.0000°, Azm345.0000°; N 0.2690, Plg13.0000°, Azm200.0000°; P -2.5400, Plg9.0000°, Azm108.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*MAN **13** 20:41:59.0, 3°.81N×126°.45E, h36^{km}, MS4.6*

*DJA **13** 20:42:02.4±0.4, 4°N±3°×12°7E±°, h51^{km}±12^{km}, M4.6/39, mB5.2/19, mb4.8/39, MLv4.8/18, Mw(mB)4.5/19, MwMwp4.6/4, Mwp5.0/4*

*IDC **13** 20:42:03.2±1.8, 4°.08N×126°.90E, h83^{km}±15^{km}, mb4.1/27, mbtmp4.4/29, MS3.8/39, Error ellipse: s-maj=22.7km s-min=9.2km az=76.0*

ISC 13 20:41:57.0±0.9,**4°.17N**±0°.03×**126°.91E**±0°.05,**h23**^{km}±6^{km}, **n310**,σ**1^s.71**/272,**mb4.8**/126,**MS4.0**/49,**1C-2D,Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	Don Marcelino,	2.26	328	*e*P	Pn	20 42 34.3	+1.3
DDMP				*e*S	Sb	20 43 08.9	+4.3
GSPH	General Santos	2.72	314	*i* P	Pn	20 42 40.5	+1.0
GSPH				*i* S	Sn	20 43 09.4	-2.3
DAV	Davao City (W)	3.17	335	P	Pb	20 42 52.0	-0.6
	131nm,0.4s,baz=298,slow=3.4,SNR=7.1						
DAV				S	Sb	20 43 31.0	+0.3
	288nm,0.5s,baz=90,slow=16,SNR=4.5						
DAV	Davao City (W)	3.17	335	Pn	Pn	20 42 42.8	-2.7
DAV	Davao City (W)	3.17	335	P	Pb	20 42 53.3	+0.7
DAV				AML	AML		
DAV	Davao City (W)	3.17	335	P	Pn	20 42 48.4	+3.0
DAV	Davao City (W)	3.17	335	P	Pb	20 42 54.0	+1.4
DMPH	Davao City--Mi	3.21	334	*e*P	Pb	20 42 53.6	+0.3
DMPH				*i* S	Sb	20 43 46.8	+15
KCP	Kidapawan	3.35	327	*e*P	Pb	20 42 52.3	-3.4
KCP				*e*S	Sb	20 43 32.3	-3.7
MNI	Manado	3.41	217	P	Pn	20 42 50.5	+1.7
MNI				AML	AML		
TNTI	Ternate	3.41	172	P	Pn	20 42 50.4	+1.6
TNTI	Ternate	3.41	172	S	Sn	20 43 30.5	+1.9
TNTI	Ternate	3.41	172		Pn	20 42 50.5	+1.7
TNTI	Ternate	3.41	172	P	Pn	20 42 50.3	+1.5
TNTI	Ternate	3.41	172	P	Pn	20 42 49.1	+0.3
CDOP	Cateel, Davao	3.62	353	*i* P	Pn	20 42 53.7	+2.1
CDOP				*i* S	Sb	20 43 47.0	+3.3
CTBH	Cotabato--PC H	4.02	319	*e*P	Pn	20 42 59.8	+2.5
BIPH	Bislig	4.02	352	*e*P	Pb	20 43 05.6	-1.6
BIPH				*e*S	Sb	20 43 59.6	+4.3
BUKP	Musuan	4.11	334	*i* P	Pn	20 43 01.7	+3.2
BUKP				*i* S	Sb	20 44 06.6	+8.5
CGP	Cagayan de Oro	4.79	333	*e*P	Pn	20 43 09.5	+1.7
CGP				*e*S	Sb	20 44 13.1	-4.4
PAGZ	Pagadian	5.06	316	*e*P	Pn	20 43 14.8	+3.2
GTOI	Gorontalo	5.24	228	P	Pn	20 43 16.1	+2.1
	139nm,0.9s						
ZCP	Zamboanga City	5.53	300	*e*P	Pn	20 43 16.7	-1.4
ZCP				*e*S	Sn	20 44 24.1	+3.1
DCPH	Dipolog City	5.63	321	*i* P	Pn	20 43 26.5	+7.2
GLSP	General Luna,	5.63	352	*i* P	Pb	20 43 27.6	-7.0
GLSP				*i* S	Sb	20 44 43.8	+2.2
SANI	Sanana	6.25	188	P	Pn	20 43 28.0	+0.1
SANI	Sanana	6.25	188	S	Sn	20 44 39.6	+1.0
SANI	Sanana	6.25	188	P	Pn	20 43 28.6	+0.7
	0.3nm1µm42nm,0.8s						
SANI				AML	AML		
SANI	Sanana	6.25	188	P	Pn	20 43 27.8	-0.1
	comp=Z,42nm,0.8s						
LUWI	Luwuk	6.63	219	P	Pn	20 43 34.3	+1.3
LUWI	Luwuk	6.63	219	P	Pn	20 43 37.1	+4.1
SWI	Sorong	6.63	139	P	Pn	20 43 34.1	+1.0
	comp=Z,0.4nmcomp=Z,3µmcomp=Z,1µmcomp=Z,130nm,0.8s						
SWI				AML	AML		
SWI	Sorong	6.63	139	P	Pn	20 43 34.9	+1.7
	comp=Z,121nm,0.8s						
TOLI2	Tolitoli	6.83	244		Pn	20 43 35.9	+0.1
TOLI2				Sn	Sn	20 44 55.1	+2.2
TOLI2	Tolitoli	6.83	244	P	Pn	20 43 36.2	+0.3
	comp=Z,75nm,0.9s						
APSI	Ampana	7.29	226	P	Pn	20 43 44.4	+2.3
NLAI	Namlea	7.37	178	P	Pn	20 43 44.4	+1.2
	comp=Z,0.6nmcomp=Z,1µmcomp=Z,65nm,0.5s						
NLAI				AML	AML		
MECP	Medelin, Cebu	7.53	337	*e*P	Pn	20 43 33.0	-12
MECP				*e*S		20 44 06.1	
PCI	Palu	8.68	235	P	Pn	20 44 03.1	+1.8
	comp=Z,53nm,1.0s						
MWPI	Manokwari, Pap	8.75	125	P	Pn	20 44 04.2	+2.0
	comp=Z,96nm,1.3s						
FAKI	Fak Fak	8.84	143	P	Pn	20 44 05.0	+1.5
FAKI	Fak Fak	8.84	143	Pn	Pn	20 44 05.5	+2.0
FAKI	Fak Fak	8.84	143	P	Pn	20 44 06.0	+2.5
	comp=Z,2µmcomp=Z,59nm,1.1s						
KDI	Kendari	9.14	208	P	Pn	20 44 07.8	+0.2
	comp=Z,36nm,0.9s						
KKSI	Kolaka, Sulawe	9.81	212	P	Pn	20 44 17.8	+1.0
BBSI	Bau Bau	10.53	204	P	Pn	20 44 27.3	+0.7
	comp=Z,37nm,1.1s						
BAKI	Biak	10.63	120	P	Pn	20 44 31.9	+3.9
	comp=Z,934nmcomp=Z,65nm,1.0s						
SPSI	Sidrap Palu	10.78	222	P	Pn	20 44 31.2	+1.2
	comp=Z,29nm,1.0s						
KKM	Kota Kinabalu	10.81	280	P	Pn	20 44 34.5	+3.9
KAPI	Kappang	11.59	218	P	Pn	20 44 44.5	+3.3
	comp=Z,6.0nm,0.8s,baz=36,slow=18,SNR=1.6						
KAPI				LR	LR	20 49 53.0	
	comp=Z,576nm,18.3s,baz=44,slow=41						
KAPI	Kappang	11.59	218	P	Pn	20 44 42.2	+1.0
CAAP	Casiguran, Aur	12.88	339	*e*P	Pn	20 45 02.9	+4.1
EDFI	Ende, Flores	13.85	202	P	Pn	20 45 12.6	+0.4
	comp=Z,43nm,1.2s						
SOEI	Soe	14.09	191	P	Pn	20 45 15.9	+0.5
	comp=Z,34nm,1.2s						
SOEI	Soe	14.09	191	P	Pn	20 45 16.6	+1.2
	comp=Z,67nm,1.1s						
LBFI	Labuhan Bajo,	14.39	209	P	Pn	20 45 20.6	+1.2
PKKI	Palangkaraya	14.41	244	P	Pn	20 45 21.3	+1.6
	comp=Z,103nm,0.8s						
GENI	Genyem	14.86	117	P	Pn	20 45 28.2	+2.3
PLAI	Plampang	15.80	215	P	P	20 45 41.0	-0.9
DRS	Darwin Rock St	16.97	167	P	P	20 45 54.4	-0.4
MTN	Manton Dam	17.42	166	Pn	Pn	20 45 56.7	-2.0
JAGI	Jajag, Banyuwa	17.88	225	P	P	20 46 07.4	+2.5
DLV	Lat	19.79	294	P	Pn	20 46 28.3	+0.5
	comp=Z,31nm,0.8s						
KNRA	Kununurra	19.81	175		P	20 46 24.3	-1.8
YULB	Yu-li	19.86	345	P	P	20 46 25.6	-1.0
YULB	Yu-li	19.86	345	P	P	20 46 24.1	-2.5
TPUB	Ta-pu	19.96	343	P	P	20 46 27.7	0.0
TPUB	Ta-pu	19.96	343	P	P	20 46 22.7	-5.0
TPUB				IAmb	IAmb	20 46 28.3	
	comp=Z,38nm,0.7s						
TPUB	Ta-pu	19.96	343	P	P	20 46 27.5	-0.3
	comp=Z,69nm,1.3s						
GUMO	Guam	20.05	61	LR	LR	20 53 26.5	
	comp=Z,90nm,20.8s,baz=238,slow=34						
SSLB	Suanglung	20.33	344	P	P	20 46 32.5	+0.8

SSLB	**Suanglung**	**20.33**	**344**		**P**	**20 46 30.2**	**-1.5**
SSLB	**Suanglung**	**20.33**	**344**	P	**P**	**20 46 32.1**	**+0.3**
	comp=Z,34nm,1.0s						
YHNB	**Yeheng**	**21.06**	**346**	P	**P**	**20 46 41.2**	**+1.5**
YHNB	**Yeheng**	**21.06**	**346**	P	**P**	**20 46 36.5**	**-3.2**
YHNB				IAmb	IAmb	20 46 47.0	
	comp=Z,122nm,1.7s						
FITZ	**Fitzroy Crossi**	**22.17**	**183**	P	**P**	**20 46 52.4**	**+0.9**
FITZ	**Fitzroy Crossi**	**22.17**	**183**		**P**	**20 46 49.3**	**-2.2**
FITZ	**Fitzroy Crossi**	**22.17**	**183**	P	**P**	**20 46 52.5**	**+0.9**
	comp=Z,6.8nm,1.3s						
QIZ	**Qiongzhong**	**22.26**	**313**	P	**P**	**20 46 53.6**	**+1.0**
QIZ				S	**S**	**20 50 57.3**	**+0.6**
QIZ				pmax	pmax		
	comp=Z,14nm,1.2s						
QIZ				L	L		
	comp=Z,210nm,10.3s						
QIZ				L	L		
	comp=Z,120nm,9.6s						
QIZ				L	L		
	comp=Z,360nm,15.8s						
JOW	**Kunigami**	**22.57**	**3**	P	**P**	**20 46 56.6**	**+0.8**
MYKOM	**Kota Tinggi**	**23.14**	**265**	P	**P**	**20 47 00.7**	**-1.2**
MYKOM	**Kota Tinggi**	**23.14**	**265**	P	**P**	**20 47 03.7**	**+1.7**
	comp=Z,16nm,0.9s						
WB0	**Warramunga Arr**	**24.90**	**163**	P	**P**	**20 47 18.3**	**-0.1**
WRAB	**Tennant Creek**	**25.05**	**163**	P	**P**	**20 47 20.2**	**+0.4**
WRAB	**Tennant Creek**	**25.05**	**163**	P	**P**	**20 47 19.3**	**-0.5**
WRAB				IAmb	IAmb	20 47 31.0	
	comp=Z,27nm,0.9s						
WRAB	**Tennant Creek**	**25.05**	**163**	P	**P**	**20 47 20.2**	**+0.4**
	comp=Z,34nm,1.3s						
WRA	**Warramunga Arr**	**25.05**	**163**	P	**P**	**20 47 19.0**	**-0.8**
	comp=Z,14nm,0.9s,baz=344,slow=11,SNR=86						
	comp=Z,14nm,0.9s						
WRA	**Warramunga Arr**	**25.05**	**163**	P	**P**	**20 47 18.6**	**-1.2**
WR8	**Warramunga Arr**	**25.11**	**163**	P	**P**	**20 47 20.2**	**-0.2**
WR8				IAmb	IAmb	20 47 31.2	
	comp=Z,21nm,0.8s						
MBWA	**Marble Bar**	**26.14**	**195**		**P**	**20 47 29.2**	**-0.4**
MBWA				IAmb	IAmb	20 47 36.5	
	comp=Z,24nm,1.1s						
MBWA	**Marble Bar**	**26.14**	**195**	P	**P**	**20 47 27.8**	**-1.8**
	comp=Z,25nm,1.1s						
KRVT	**Keravat (AS076**	**26.47**	**108**	LR	LR	20 56 19.0	
	comp=Z,356nm,18.9s,baz=302,slow=32						
QIS	**Mount Isa**	**27.56**	**154**	P	**P**	**20 47 41.4**	**-1.1**
QIS	**Mount Isa**	**27.56**	**154**	P	**P**	**20 47 44.1**	**+1.6**
	comp=Z,18nm,1.0s						
RPSI	**Rantau Prapat**	**27.97**	**268**	P	**P**	**20 47 43.9**	**-2.4**
RPSI	**Rantau Prapat**	**27.97**	**268**	P	**P**	**20 47 45.9**	**-0.3**
	comp=Z,9.0nm,0.9s						
AS31	**Alice Springs**	**28.50**	**166**	P	**P**	**20 47 51.6**	**+0.8**
ASAR	**Alice Springs**	**28.50**	**166**	P	**P**	**20 47 50.6**	**-0.3**
	comp=Z,1.4nm,0.6s,baz=345,slow=6.8,SNR=24						
ASAR				PcP	**PcP**	**20 51 00.1**	**-2.4**
	comp=Z,1.1nm,0.7s,baz=339,slow=3.1,SNR=1.7						
ASAR				LR	LR	20 59 30.8	
	comp=Z,129nm,19.8s,baz=327,slow=37						
	comp=Z,1.4nm,0.6s						
ASAR	**Alice Springs**	**28.50**	**166**	P	**P**	**20 47 50.3**	**-0.5**
ASAR				PcP	**PcP**	**20 50 60.0**	**-2.5**
AS01	**Alice Springs**	**28.51**	**166**	P	**P**	**20 47 52.2**	**+1.3**
NJ2	**Nanjing**	**28.74**	**346**	*e*P	**P**	**20 47 52.4**	**-0.5**
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
WHN	**Wuhan**	**28.78**	**337**	P	**P**	**20 47 53.3**	**+0.1**
JNU	**Nakatsue**	**29.04**	**7**	LR	LR	20 59 23.9	
	comp=Z,111nm,21.9s,baz=192,slow=36						
GSI	**Gunungsitoli**	**29.43**	**265**	P	**P**	**20 47 59.7**	**+0.5**
GSI	**Gunungsitoli**	**29.43**	**265**		**P**	**20 47 57.8**	**-1.5**
GSI				IAmb	IAmb	20 48 00.5	
	comp=Z,24nm,0.7s						
GSI	**Gunungsitoli**	**29.43**	**265**	P	**P**	**20 47 57.8**	**-1.5**
	comp=Z,39nm,1.7s						
ENH	**Enshi**	**30.73**	**330**	P	**P**	**20 48 09.8**	**-0.8**
	comp=Z,8.4nm,1.3s						
CMAR	**Chiang Mai Arr**	**30.80**	**300**	P	**P**	**20 48 11.3**	**0.0**
	comp=Z,2.9nm,0.7s,baz=118,slow=7.2,SNR=30						
CMAR				LR	LR	21 01 16.7	
	comp=Z,90nm,19.3s,baz=110,slow=37						
	comp=Z,2.9nm,0.7s						
CMAR	**Chiang Mai Arr**	**30.80**	**300**	P	**P**	**20 48 08.4**	**-2.9**
CHTO	**Chiang Mai**	**30.95**	**300**	P	**P**	**20 48 13.6**	**+1.0**
CHTO	**Chiang Mai**	**30.95**	**300**	P	**P**	**20 48 10.0**	**-2.6**
CHTO	**Chiang Mai**	**30.95**	**300**	P	**P**	**20 48 12.7**	**+0.1**
	comp=Z,9.7nm,0.6s						
CHTO	**Chiang Mai**	**30.95**	**300**	P	**P**	**20 48 12.7**	**+0.1**
JHJ	**Hachijo jima 2**	**31.21**	**21**	LR	LR	20 59 10.8	
	comp=Z,175nm,21.3s,baz=350,slow=33						
PZH	**PanZhiHua**	**32.75**	**315**	P	**P**	**20 48 29.8**	**+1.3**
TIA	**Tai'an**	**33.13**	**345**	P	**P**	**20 48 32.9**	**+1.3**
TIA				pP	**pP**	**20 48 35.8**	**-2.6**
TIA				pmax	pmax		
	comp=Z,18nm,0.8s						
KSRS	**Korea Array**	**33.14**	**1**	P	**P**	**20 48 31.3**	**-0.2**
	comp=Z,3.1nm,0.8s,baz=175,slow=9.4,SNR=12						
	comp=Z,3.1nm,0.8s						
NPW	**Naypyitaw**	**33.76**	**300**	P	**P**	**20 48 37.6**	**+0.4**
	comp=Z,16nm,1.1s						
MJAR	**Matsushiro Arr**	**33.85**	**16**	P	**P**	**20 48 36.6**	**-1.2**
	comp=Z,1.3nm,0.7s,baz=182,slow=8.6,SNR=4.5						
	comp=Z,1.3nm,0.7s						
XAN	**Xi'an**	**34.10**	**333**	⇑P	**P**	**20 48 39.1**	**-1.0**
XAN				pP	pP	20 48 44.3	-2.6
XAN				S	**S**	**20 54 09.4**	**+4.5**
XAN				pmax	pmax		
	comp=Z,22nm,1.1s						
XAN				pmax	pmax		
	comp=Z,140nm,7.3s						
XAN				L	L		
	comp=Z,450nm,20.4s						
XAN				L	L		
	comp=Z,510nm,14.7s						
XAN				L	L		
	comp=Z,830nm,18.5s						
CD2	**Chengdu**	**34.39**	**323**	P	**P**	**20 48 42.0**	**-0.7**
CD2				pmax	pmax		
	comp=Z,10.0nm,0.8s						
CD2				L	L		
	comp=Z,490nm,14.0s						
CD2				L	L		
	comp=Z,450nm,16.5s						
CD2				L	L		
	comp=Z,460nm,17.8s						
MORW	**Morawa**	**34.66**	**197**	P	**P**	**20 48 46.4**	**+1.5**
MORW	**Morawa**	**34.66**	**197**	P	**P**	**20 48 44.6**	**-0.3**
FORT	**Forrest**	**34.77**	**178**	P	**P**	**20 48 45.0**	**-0.8**
FORT				IAmb	IAmb	20 48 49.8	
	comp=Z,12nm,0.9s						
HNS	**HongShan**	**34.91**	**343**	⇓P	**P**	**20 48 48.8**	**+1.9**
HNS				*e*S	**S**	**20 54 20.6**	**+3.5**
HNS				pmax	pmax		
	comp=Z,19nm,0.8s						
HNS				L	L		
	comp=Z,250nm,18.6s						
HNS				L	L		
	comp=Z,240nm,14.2s						
HNS				L	L		
	comp=Z,360nm,20.7s						
HNR	**Honiara**	**35.59**	**112**	LR	LR	21 03 00.9	
	comp=Z,97nm,19.8s,baz=20,slow=35						
BLDU	**Ballidu**	**35.94**	**195**	P	**P**	**20 48 55.4**	**-0.5**
BJI2	**Beijing**	**36.98**	**346**	P	**P**	**20 49 06.1**	**+1.4**
BJI2				pmax	pmax		
	comp=Z,22nm,0.9s						
BJI2				pmax	pmax		
	comp=Z,130nm,4.6s						
BJT	**Baijiatuau**	**36.98**	**346**	P	**P**	**20 49 03.6**	**-1.1**
BJT	**Baijiatuau**	**36.98**	**346**	P	**P**	**20 49 06.2**	**+1.5**
	comp=Z,41nm,1.1s						
BJT	**Baijiatuau**	**36.98**	**346**	P	**P**	**20 49 06.5**	**+1.8**
MORE	**Moreh**	**37.20**	**306**	P	**P**	**20 49 05.4**	**-1.4**
MUN	**Mundaring**	**37.37**	**195**	P	**P**	**20 49 09.0**	**+1.0**
BBOO	**Buckleboo**	**37.79**	**167**	P	**P**	**20 49 12.5**	**+0.8**
BBOO	**Buckleboo**	**37.79**	**167**	P	**P**	**20 49 11.7**	**0.0**
LZDM	**Lanzhou Array**	**38.19**	**329**	P	**P**	**20 49 15.2**	**-0.2**
	comp=Z,1.0nm,0.3s,baz=144,slow=8.7,SNR=3.6						
LZDM				LR	LR	21 06 10.1	
	comp=Z,309nm,20.8s,baz=290,slow=38						
	comp=Z,1.0nm,0.3s						
LZH	**Lanzhou**	**38.21**	**329**	*e*P	**P**	**20 49 15.6**	**+0.2**
LZH				sP	sP	20 49 24.4	-0.6
LZH				pmax	pmax		
	comp=Z,16nm,1.0s						
LZH				L	L		
	comp=Z,320nm,18.2s						
LZH				L	L		
	comp=Z,380nm,18.5s						
LZH				L	L		
	comp=Z,480nm,18.9s						
STKA	**Stephens Creek**	**38.48**	**160**	P	**P**	**20 49 16.1**	**-1.4**
	comp=Z,16nm,0.9s,baz=347,slow=7.0,SNR=13						
STKA				LR	LR	21 06 02.1	
	comp=Z,83nm,18.7s,baz=232,slow=38						
	comp=Z,16nm,0.9s						
STKA	**Stephens Creek**	**38.48**	**160**	P	**P**	**20 49 18.1**	**+0.6**
STKA	**Stephens Creek**	**38.48**	**160**	P	**P**	**20 49 19.0**	**+1.5**
	comp=Z,101nm,0.7s						
JTM	**Tenmabayashi**	**38.62**	**17**	P	**P**	**20 49 19.1**	**+0.6**
HHC	**Hu-ho-hao-te**	**39.03**	**341**	*e*P	**P**	**20 49 21.8**	**-0.4**
HHC				pmax	pmax		
	comp=Z,12nm,0.7s						
HHC				pmax	pmax		
	comp=Z,81nm,5.6s						
HHC				L	L		
	comp=Z,170nm,12.4s						
HHC				L	L		
	comp=Z,210nm,12.9s						
HHC				L	L		
	comp=Z,210nm,14.5s						
HTT	**Hallett**	**39.09**	**164**	P	**P**	**20 49 23.5**	**+0.9**
USRK	**Ussuriysk Ar.**	**40.11**	**6**	P	**P**	**20 49 31.3**	**+0.3**
	comp=Z,1.9nm,0.6s,baz=200,slow=6.4,SNR=5.7						
	comp=Z,1.9nm,0.6s						
XLT	**XiLinHaoTe**	**40.70**	**348**	*e*P	**P**	**20 49 37.0**	**+1.1**
XLT				pP	sP	20 49 46.3	+0.7
XLT				pmax	pmax		
	comp=Z,27nm,0.9s						
XLT				pmax	pmax		
	comp=Z,220nm,5.6s						
ARMA	**Armidale**	**41.74**	**147**	P	**P**	**20 49 45.5**	**+0.8**
ARMA	**Armidale**	**41.74**	**147**	P	**P**	**20 49 46.3**	**+1.6**
ARMA				IAmb	IAmb	20 49 49.1	
	comp=Z,14nm,0.7s						
ARMA	**Armidale**	**41.74**	**147**	P	**P**	**20 49 46.9**	**+2.2**
	comp=Z,24nm,1.0s						
ASAJ	**Asahikawa**	**42.12**	**17**	LR	LR	21 07 45.3	
	comp=Z,129nm,19.4s,baz=212,slow=36						
LSA	**Lhasa**	**42.28**	**311**	P	**P**	**20 49 50.3**	**+0.7**
	comp=Z,8.9nm,0.8s						
GTA2	**Gaotai**	**42.89**	**329**	*e*P	**P**	**20 49 53.6**	**-0.4**
GTA2				sP	pP	20 50 01.9	+0.9
GTA2				pmax	pmax		
	comp=Z,5.0nm,0.9s						
GTA2				L	L		
	comp=Z,340nm,16.2s						
GTA2				L	L		
	comp=Z,330nm,16.5s						
GTA2				L	L		
	comp=Z,500nm,17.8s						
GOMU	**GeErMu**	**43.45**	**321**	P	**P**	**20 49 58.8**	**0.0**
GOMU				pP	pP	20 50 02.0	-3.6
GOMU				sP	sP	20 50 06.3	-2.2
GOMU				S	**S**	**20 56 29.4**	**+3.0**
GOMU				pmax	pmax		
	comp=Z,5.0nm,0.5s						
GOMU				L	L		
	comp=Z,160nm,13.4s						
GOMU				L	L		
	comp=Z,150nm,13.8s						
YSS	**Yuzhno-Sakhali**	**44.77**	**15**	P	**P**	**20 50 05.9**	**-2.9**
EVN	**Everest**	**44.87**	**306**	P	**P**	**20 50 09.7**	**-1.0**
EVN	**Everest**	**44.87**	**306**	P	**P**	**20 50 10.7**	**0.0**
	comp=Z,31nm,0.7s						
KLR	**Kul'dur**	**45.08**	**4**	LR	LR	21 13 51.8	
	comp=Z,67nm,18.3s,baz=200,slow=42						
HILR	**Hailar Array B**	**45.63**	**353**	P	**P**	**20 50 16.5**	**+0.9**
	comp=Z,3.1nm,0.6s,baz=177,slow=10,SNR=6.9						
	comp=Z,3.1nm,0.6s						
HEH	**HeiHe**	**45.92**	**0**	*e*P	**P**	**20 50 17.0**	**-0.8**
HEH				pmax	pmax		
	comp=Z,9.0nm,1.5s						
ULN	**Ulaanbaatar**	**46.75**	**342**	P	**P**	**20 50 20.8**	**-3.9**
ULN				IAmb	IAmb	20 50 35.9	
	comp=Z,11nm,1.1s						
ULN	**Ulaanbaatar**	**46.75**	**342**	P	**P**	**20 50 24.9**	**+0.2**
	comp=Z,8.7nm,1.1s						
SONM	**Songino Array**	**46.94**	**341**	P	**P**	**20 50 26.6**	**+0.5**
	comp=Z,1.1nm,0.4s,baz=158,slow=8.2,SNR=11						
SONM				PcP	**PcP**	**20 51 58.3**	**-0.1**
	comp=Z,1.9nm,0.8s,baz=155,slow=3.5,SNR=4.8						
SONM				LR	LR	21 11 09.5	
	comp=Z,207nm,21.3s,baz=157,slow=37						
	comp=Z,1.1nm,0.4s						
SONM	**Songino Array**	**46.94**	**341**	P	**P**	**20 50 23.0**	**-3.1**
SONM				PcP	**PcP**	**20 51 59.0**	**+0.6**
WMQ	**Urumqi**	**52.46**	**325**	*e*P	**P**	**20 51 08.6**	**+0.4**
WMQ				pmax	pmax		
	comp=Z,10.0nm,0.7s						
WMQ				L	L		
	comp=Z,400nm,22.1s						
WMQ				L	L		
	comp=Z,220nm,19.9s						
WMQ				L	L		
	comp=Z,230nm,23.1s						
MSVF	**Nonsavu**	**54.94**	**115**	LR	LR	21 13 51.8	
	comp=Z,136nm,19.5s,baz=168,slow=35						
PETK	**Petropavlovsk-**	**54.96**	**22**	P	**P**	**20 51 26.5**	**+0.4**
	comp=Z,1.5nm,0.6s,baz=228,slow=1.0,SNR=4.2						
PETK				LR	LR	21 14 10.4	
	comp=Z,54nm,20.9s,baz=212,slow=35						
	comp=Z,1.5nm,0.6s						
WUS	**Wushi**	**56.35**	**318**	P	**P**	**20 51 36.5**	**-0.1**
	comp=Z,4.6nm,0.6s						
PDGK	**Podgornoye**	**57.19**	**320**	P	**P**	**20 51 41.0**	**-1.5**
MKAR	**Makanchi Array**	**57.29**	**325**	P	**P**	**20 51 42.5**	**-0.6**
	comp=Z,6.8nm,0.6s,baz=126,slow=7.9,SNR=62						
MKAR				PcP	**PcP**	**20 52 37.4**	**+0.3**
	comp=Z,4.1nm,0.7s,baz=118,slow=4.6,SNR=4.7						
MKAR				LR	LR	21 17 36.9	
	comp=Z,258nm,19.1s,baz=62,slow=37						
	comp=Z,6.8nm,0.6s						
MKAR	**Makanchi Array**	**57.29**	**325**	P	**P**	**20 51 42.3**	**-0.8**
MAKZ	**Makanchi**	**57.48**	**325**	P	**P**	**20 51 43.4**	**-1.0**
MAKZ				IAmb	IAmb	20 51 45.6	
	comp=Z,8.2nm,0.8s						
MAKZ	**Makanchi**	**57.48**	**325**	P	**P**	**20 51 43.9**	**-0.5**
PRZ	**Przheval'sk**	**57.49**	**319**	P	**P**	**20 51 45.2**	**+0.5**
	comp=Z,14nm,0.6s						
TARG	**Taragay, Kyrgy**	**57.54**	**318**	P	**P**	**20 51 43.7**	**-1.6**
TARG				IAmb	IAmb	20 51 47.5	
	comp=Z,20nm,1.8s						
TARG	**Taragay, Kyrgy**	**57.54**	**318**	P	**P**	**20 51 45.7**	**+0.4**
	comp=Z,4.3nm,0.6s						
YAK	**Yakutsk**	**57.76**	**2**	P	**P**	**20 51 45.7**	**-0.2**
YAK	**Yakutsk**	**57.76**	**2**	P	**P**	**20 51 46.5**	**+0.5**
	comp=Z,44nm,0.9s						
NIL	**Nilore**	**57.80**	**307**	P	**P**	**20 51 44.3**	**-2.5**
NIL				IAmb	IAmb	20 51 49.5	
	comp=Z,8.1nm,0.7s						
KSH2	**Kashi**	**58.00**	**314**	P	**P**	**20 51 48.0**	**-0.3**
KSH2				sP	sP	20 52 02.0	+3.9
KSH2				pmax	pmax		
	comp=Z,5.0nm,1.0s						
KSH2				L	L		
	comp=Z,200nm,13.6s						
KSH2				L	L		
	comp=Z,150nm,13.9s						
KSH2				L	L		
	comp=Z,220nm,14.2s						
ASAI	**AK-SAY(Kyrgyzs**	**58.05**	**317**	P	**P**	**20 51 49.1**	**+0.2**
	comp=Z,7.6nm,1.3s						
KDJ	**Kajisay**	**58.13**	**318**	IAmb	IAmb	20 51 51.9	
	comp=Z,6.3nm,0.7s						
MA2	**Magadan**	**58.23**	**14**	LR	LR	21 15 22.6	
	comp=Z,40nm,22.0s,baz=238,slow=34						
NRN	**Naryn**	**58.63**	**317**	P	**P**	**20 51 51.0**	**-1.8**
AAK	**Ala-Archa**	**60.15**	**318**	LR	LR	21 20 05.1	
	comp=Z,252nm,21.9s,baz=98,slow=38						
AAK	**Ala-Archa**	**60.15**	**318**	P	**P**	**20 52 00.3**	**-2.9**
AAK				IAmb	IAmb	20 52 12.6	
	comp=Z,17nm,1.8s						
AAK	**Ala-Archa**	**60.15**	**318**	P	**P**	**20 52 01.7**	**-1.5**
	comp=Z,4.5nm,2.0s						
ZAA0	**Zalesovo Array**	**60.27**	**333**	P	**P**	**20 52 01.9**	**-1.6**
ZAA0				IAmb	IAmb	20 52 13.8	
	comp=Z,15nm,1.6s						
ZALV	**Zalesovo Beam**	**60.27**	**333**	P	**P**	**20 52 02.6**	**-0.9**
	comp=Z,3.4nm,0.7s,baz=123,slow=5.5,SNR=11						
ZALV				LR	LR	21 20 07.7	
	comp=Z,110nm,18.7s,baz=124,slow=38						
	comp=Z,3.4nm,0.7s						
ZALV	**Zalesovo Beam**	**60.27**	**333**	P	**P**	**20 52 02.0**	**-1.5**
ARSB	**Arslanbob**	**60.66**	**316**	IAmb	IAmb	20 52 08.0	
	comp=Z,23nm,1.8s						
DRK	**Karamyk**	**60.83**	**313**	P	**P**	**20 52 08.1**	**0.0**
	comp=Z,5.0nm,0.6s						
KBL	**Kabul**	**61.39**	**307**	P	**P**	**20 52 07.9**	**-4.0**
KBL				IAmb	IAmb	20 52 14.6	
	comp=Z,7.3nm,1.0s						
KBL	**Kabul**	**61.39**	**307**	P	**P**	**20 52 11.0**	**-0.9**
	comp=Z,7.9nm,0.9s						
KURBB	**Kurchatov Arra**	**61.46**	**327**	P	**P**	**20 52 11.1**	**-0.6**
	comp=Z,8.7nm,0.6s,baz=126,slow=6.3,SNR=86						
KURBB				LR	LR	21 20 32.7	
	comp=Z,66nm,18.6s,baz=182,slow=38						
	comp=Z,8.7nm,0.6s						
KURK	**Kurchatov**	**61.46**	**327**	P	**P**	**20 52 10.6**	**-1.1**
KURK	**Kurchatov**	**61.46**	**327**	P	**P**	**20 52 11.3**	**-0.4**
	comp=Z,22nm,0.7s						
KURK	**Kurchatov**	**61.46**	**327**	P	**P**	**20 52 11.3**	**-0.4**
ARK	**Arkit**	**61.55**	**316**	P	**P**	**20 52 12.4**	**-0.3**
	comp=Z,11nm,0.9s						
BTK	**Batken**	**61.74**	**314**	P	**P**	**20 52 12.4**	**-1.5**
BTK				IAmb	IAmb	20 52 31.9	
	comp=Z,10nm,1.2s						
BTK	**Batken**	**61.74**	**314**	P	**P**	**20 52 13.6**	**-0.3**
	comp=Z,8.4nm,1.2s						
KK31	**Karatay Array**	**63.03**	**317**	P	**P**	**20 52 21.4**	**-1.1**
KKAR	**Karatay Array**	**63.03**	**317**	P	**P**	**20 52 20.8**	**-1.6**
HRA	**Herat**	**66.82**	**306**	P	**P**	**20 52 45.5**	**-2.0**
HRA				IAmb	IAmb	20 53 00.4	
	comp=Z,11nm,1.5s						
BVAR	**Borovoye Array**	**67.05**	**327**	P	**P**	**20 52 48.0**	**-0.3**
	comp=Z,11nm,0.7s,baz=124,slow=7.9,SNR=38						
	comp=Z,11nm,0.7s						
BORK	**Borovoye**	**67.09**	**327**	P	**P**	**20 52 47.7**	**-0.9**
TIXI	**Tiksi**	**67.40**	**1**	LR	LR	21 24 15.0	
	comp=Z,60nm,20.2s,baz=202,slow=38						
TIXI	**Tiksi**	**67.40**	**1**	P	**P**	**20 52 50.0**	**-0.2**
TIXI				IAmb	IAmb	20 52 51.0	
	comp=Z,6.6nm,0.8s						
NRIK	**Noril'sk**	**70.04**	**346**	P	**P**	**20 53 07.0**	**+0.2**
	comp=Z,9.3nm,0.7s,baz=130,slow=7.9,SNR=13						
NRIK				LR	LR	21 28 48.8	
	comp=Z,98nm,18.0s,baz=121,slow=40						
	comp=Z,9.3nm,0.7s						
NRIK	**Noril'sk**	**70.04**	**346**	P	**P**	**20 53 05.9**	**-0.8**
NRIK				IAmb	IAmb	20 53 08.1	
	comp=Z,9.7nm,0.7s						
CASY	**Casey**	**71.28**	**187**	P	**P**	**20 53 15.7**	**+1.5**
CASY	**Casey**	**71.28**	**187**	P	**P**	**20 53 16.1**	**+1.9**
	comp=Z,9.8nm,1.2s						
AB31	**Akbulak array**	**71.92**	**321**	P	**P**	**20 53 17.6**	**-0.9**
ABKAR	**Akbulak array**	**71.92**	**321**	P	**P**	**20 53 17.9**	**-0.6**
AKTO	**Aktyubinsk**	**73.42**	**322**	LR	LR	21 28 31.6	
	comp=Z,232nm,19.4s,baz=96,slow=38						
ARTI	**Arti**	**74.74**	**328**	LR	LR	21 29 41.1	
	comp=Z,64nm,18.4s,baz=98,slow=38						
ARTI	**Arti**	**74.74**	**328**	P	**P**	**20 53 33.9**	**-1.1**
ARTI				IAmb	IAmb	20 53 35.1	
	comp=Z,10nm,0.9s						
ARTI	**Arti**	**74.74**	**328**	P	**P**	**20 53 34.7**	**-0.2**
K17K	**Iditarod**	**79.36**	**27**	IAmb	IAmb	20 54 04.2	
	comp=Z,12nm,1.0s						
RAYN	**Ar Rayn**	**80.47**	**293**		**P**	**20 54 06.9**	**-0.9**
RAYN	**Ar Rayn**	**80.47**	**293**	P	**P**	**20 54 07.5**	**-0.3**
	comp=Z,7.8nm,0.7s						
G19K	**Purcell Mounta**	**80.55**	**24**	IAmb	IAmb	20 54 09.6	
	comp=Z,7.7nm,0.9s						
E19K	**Redstone River**	**80.76**	**22**	IAmb	IAmb	20 54 10.9	
	comp=Z,15nm,1.0s						
GNI	**Garni**	**81.33**	**310**	LR	LR	21 36 09.2	
	comp=Z,40nm,20.9s,baz=88,slow=40						
K20K	**Telida**	**81.36**	**27**	IAmb	IAmb	20 54 14.5	
	comp=Z,8.2nm,1.0s						
KDAK	**Kodiak Island**	**81.42**	**32**	LR	LR	21 25 20.2	
	comp=Z,34nm,20.9s,baz=262,slow=32						
KDAK	**Kodiak Island**	**81.42**	**32**		**P**	**20 54 13.3**	**+1.3**
KDAK				IAmb	IAmb	20 54 14.0	
	comp=Z,6.8nm,0.8s						
KDAK	**Kodiak Island**	**81.42**	**32**	P	**P**	**20 54 13.1**	**+1.0**
J20K	**Nowinta River**	**81.45**	**26**	IAmb	IAmb	20 54 17.1	
	comp=Z,23nm,1.7s						
M20K	**Styx River**	**81.60**	**28**	IAmb	IAmb	20 54 15.6	
	comp=Z,8.5nm,0.9s						
IMAR	**Indian Mountai**	**81.87**	**24**	P	**P**	**20 54 15.3**	**+1.1**
BRLK	**Bradley Lake**	**82.48**	**30**	IAmb	IAmb	20 54 28.6	
	comp=Z,13nm,1.1s						
GEVA	**Gevas**	**82.60**	**308**	IAmb	IAmb	20 54 22.1	
	comp=Z,6.5nm,0.7s						
SUA	**Susitna One**	**82.69**	**29**	IAmb	IAmb	20 54 28.0	
	comp=Z,13nm,1.0s						
KTH	**Kantishna Hill**	**82.79**	**27**	IAmb	IAmb	20 54 23.8	
	comp=Z,11nm,1.1s						
KBZ	**Khabaz**	**82.80**	**313**	P	**P**	**20 54 19.2**	**-0.3**
	comp=Z,1.1nm,0.8s,baz=121,slow=5.9,SNR=1.7						
KBZ				LR	LR	21 37 11.2	
	comp=Z,65nm,18.4s,baz=81,slow=40						
	comp=Z,1.1nm,0.8s						
BPAW	**Bear Paw Mtn.**	**82.81**	**26**	IAmb	IAmb	20 54 21.4	
	comp=Z,13nm,1.0s						
H22K	**Ishtalitna Cre**	**82.82**	**24**	IAmb	IAmb	20 54 22.3	
	comp=Z,7.8nm,1.0s						
SLKM	**Skilak Lake**	**82.87**	**30**	IAmb	IAmb	20 57 10.0	
	comp=Z,16nm,1.3s						
E22K	**Anaktuvuk Pass**	**82.90**	**22**	IAmb	IAmb	20 54 58.3	
	comp=Z,8.3nm,1.1s						
MLY	**Manley**	**83.00**	**25**	IAmb	IAmb	20 54 22.6	
	comp=Z,8.8nm,0.9s						
TRF	**Thorofare Moun**	**83.07**	**27**	IAmb	IAmb	20 54 24.5	
	comp=Z,11nm,1.1s						
COLD	**Coldfoot**	**83.42**	**23**	IAmb	IAmb	20 54 25.2	
	comp=Z,10nm,1.0s						
PMR	**Palmer**	**83.47**	**29**	IAmb	IAmb	20 54 24.0	
	comp=Z,7.9nm,0.8s						
H23K	**Yukon River**	**83.57**	**24**	IAmb	IAmb	20 54 25.9	
	comp=Z,11nm,0.8s						
I23K	**Minto, Yukon-K**	**83.60**	**25**	IAmb	IAmb	20 54 25.7	
	comp=Z,13nm,1.0s						
RND	**Reindeer**	**83.71**	**27**	IAmb	IAmb	20 54 25.1	
	comp=Z,7.7nm,0.9s						
VNDA	**Vanda**	**83.84**	**173**	P	**P**	**20 54 22.4**	**-1.8**
	comp=Z,3.5nm,1.1s,baz=328,slow=5.0,SNR=6.6						
	comp=Z,3.5nm,1.1s						
VNDA	**Vanda**	**83.84**	**173**		**P**	**20 54 25.4**	**+1.2**
VNDA	**Vanda**	**83.84**	**173**	P	**P**	**20 54 25.9**	**+1.7**
WRH	**Wood River Hil**	**84.10**	**26**	IAmb	IAmb	20 54 28.7	
	comp=Z,7.6nm,1.0s						
MAW	**Mawson**	**84.23**	**200**	P	**P**	**20 54 24.7**	**-1.6**
	comp=Z,2.8nm,1.1s,baz=57,slow=7.3,SNR=4.8						
	comp=Z,2.8nm,1.1s						
MAW	**Mawson**	**84.23**	**200**	P	**P**	**20 54 26.6**	**+0.2**
CCB	**Clear Creek Bu**	**84.23**	**26**	IAmb	IAmb	20 54 27.6	
	comp=Z,8.7nm,1.1s						
H24K	**Noodor Dome**	**84.25**	**24**	IAmb	IAmb	20 54 30.2	
	comp=Z,9.2nm,1.0s						
ILAR	**Eielson Array**	**84.63**	**25**	P	**P**	**20 54 27.9**	**-0.6**
	comp=Z,1.3nm,0.8s,baz=242,slow=6.6,SNR=14						
ILAR				LR	LR	21 30 25.4	
	comp=Z,12nm,22.0s,baz=312,slow=34						
	comp=Z,1.3nm,0.8s						
FID	**Port Fidalgo**	**84.73**	**29**	P	**P**	**20 54 28.6**	**-0.5**
KLU	**Klutina**	**85.01**	**29**	IAmb	IAmb	20 54 32.6	
	comp=Z,6.8nm,0.8s						
E25K	**Arctic Village**	**85.23**	**22**	IAmb	IAmb	20 57 37.9	
	comp=Z,15nm,1.4s						
KELT	**Kelkit**	**85.54**	**310**	P	**P**	**20 54 34.1**	**+0.2**
	comp=Z,23nm,0.7s						
BMAR	**Burnt Mountain**	**85.60**	**23**	P	**P**	**20 54 34.9**	**+1.5**
G26K	**Porcupine Rive**	**85.92**	**23**	IAmb	IAmb	20 55 10.5	
	comp=Z,14nm,1.6s						
ARPR	**Arapgir-MALATY**	**86.29**	**309**	P	**P**	**20 54 39.2**	**+1.7**
	comp=Z,9.6nm,1.4s						
TGL	**Tana Glacier**	**86.52**	**29**	IAmb	IAmb	20 54 40.5	
	comp=Z,6.4nm,0.8s						
OBN	**Obninsk**	**86.80**	**325**	P	**P**	**20 54 39.4**	**0.0**
	comp=Z,32nm,1.4s						
OBN	**Obninsk**	**86.80**	**325**	P	**P**	**20 54 39.7**	**+0.2**
	comp=Z,32nm,1.4s						
I27K	**Kandik River**	**86.84**	**25**	IAmb	IAmb	20 54 47.1	
	comp=Z,4.7nm,1.0s						
L27K	**Beaver Creek,**	**86.89**	**27**	IAmb	IAmb	20 55 33.9	
	comp=Z,11nm,1.9s						
I28M	**Miner Creek**	**87.55**	**25**	IAmb	IAmb	20 54 46.2	
	comp=Z,4.2nm,0.8s						
ASF	**Jabal al Asfar**	**87.81**	**302**	LR	LR	21 41 46.5	
	comp=Z,47nm,18.1s,baz=27,slow=41						
L29M	**L29M**	**88.56**	**27**	IAmb	IAmb	20 55 02.5	

	comp=Z,5.3nm,1.1s						
EIL	Elat	89.66	300	LR	LR	21 40 28.4	
	comp=Z,44nm,21.1s,baz=81,slow=39						
BRTR	Keskin Array B	89.87	310	P	P	20 54 53.4	-1.2
	comp=Z,1.2nm,0.8s,baz=73,slow=4.8,SNR=7.6						
BRTR				LR	LR	21 42 21.6	
	comp=Z,27nm,18.8s,baz=26,slow=40						
	comp=Z,1.2nm,0.8s						
ARCES	ARCESS Array B	90.09	340	P	P	20 54 53.0	-1.9
	comp=Z,1.8nm,0.6s,baz=86,slow=6.1,SNR=11						
ARCES				LR	LR	21 38 35.4	
	comp=Z,72nm,21.8s,baz=94,slow=38						
	comp=Z,1.8nm,0.6s						
ARCES	ARCESS Array B	90.09	340	P	P	20 54 53.9	-1.0
FINES	FINESS Array B	91.53	332	P	P	20 55 00.3	-1.3
	comp=Z,3.1nm,0.7s,baz=72,slow=6.2,SNR=7.1						
FINES				LR	LR	21 39 06.2	
	comp=Z,56nm,18.1s,baz=62,slow=37						
	comp=Z,3.1nm,0.7s						
FINES	FINESS Array B	91.53	332	P	P	20 55 00.4	-1.2
AK09	Malin Array Si	91.64	321	P	P	20 55 01.6	-0.8
AK08	Malin Array Si	91.65	321	P	P	20 55 01.5	-0.9
AK10	Malin Array Si	91.66	321	P	P	20 55 01.6	-0.9
AKASG	Malin Array Be	91.66	321	P	P	20 55 00.7	-1.8
	comp=Z,2.6nm,0.7s,baz=70,slow=4.4,SNR=7.5						
	comp=Z,2.6nm,0.7s						
AKBB	Malin Array Si	91.66	321	P	P	20 55 01.1	-1.4
KIEV	Kiev	91.67	321	P	P	20 55 01.1	-1.4
	comp=Z,31nm,1.1s						
LUBAR	Lubar, Ukraine	92.71	320	P	P	20 55 07.8	+0.4
KLYT	Kilyos	93.17	312	P	P	20 55 09.8	+0.1
	comp=Z,119nm,1.2s						
DLBC	Dease Lake	93.28	31	LR	LR	21 31 19.7	
	comp=Z,72nm,21.7s,baz=208,slow=32						
RNPP9	Sopachiv	93.61	322	P	P	20 55 11.1	-0.4
KMPD	K-Podol'skiy	93.79	319	P	P	20 55 10.9	-1.4
TESR	Tescani	94.03	317	P	P	20 55 13.0	-0.6
	comp=Z,16nm,1.1s						
TESR	Tescani	94.03	317	P	P	20 55 12.9	-0.6
	comp=Z,16nm,1.1s						
QSPA	South Pole Qui	94.08	180	P	P	20 55 11.2	-2.2
	comp=Z,2.5nm,1.0s,baz=340,slow=3.6,SNR=3.5						
	comp=Z,2.5nm,1.0s						
VRI	Vrincioaia	94.10	316	P	P	20 55 13.9	0.0
	comp=Z,7.9nm,1.1s						
MLR	Muntele Rosu	94.70	316	LR	LR	21 43 13.2	
	comp=Z,114nm,20.8s,baz=9.5,slow=39						
MLR	Muntele Rosu	94.70	316	P	P	20 55 16.6	-0.2
	comp=Z,8.2nm,1.0s						
BURAR	Bucovina Array	94.79	318	P	P	20 55 15.2	-1.9
BURAR				IAmb	IAmb	20 55 19.4	
	comp=Z,4.2nm,0.8s						
BUR08	Bucovina Ar. S	94.79	318	IAmb	IAmb	20 55 32.2	
	comp=Z,6.6nm,1.1s						
BBB	Bella Bella	95.84	37	LR	LR	21 33 03.0	
	comp=Z,15nm,20.6s,baz=222,slow=32						
KOLS	Kolonicke sedl	96.42	320	*e*PDIFF	P	20 55 25.9	+1.5
KOLS	Kolonicke sedl	96.42	320	P	P	20 55 26.0	+1.5
	comp=Z,4.7nm,0.7s						
DRGR		96.63	318	P	P	20 55 25.6	0.0
	comp=Z,6.2nm,1.2s						
OJC	Ojcow	97.65	322	P	P	20 55 29.5	-0.4
HFS	Hagfors	97.71	332	P	P	20 55 28.7	-1.3
	comp=Z,3.6nm,1.1s,baz=69,slow=7.9,SNR=1.6						
HFS				LR	LR	21 43 55.9	
	comp=Z,65nm,20.2s,baz=48,slow=38						
	comp=Z,3.6nm,1.1s						
NOA	NORSAR Array B	98.47	334	P	P	20 55 31.7	-1.7
	comp=Z,0.6nm,0.7s,baz=66,slow=4.4,SNR=2.5						
NOA				LR	LR	21 44 54.4	
	comp=Z,83nm,18.8s,baz=60,slow=38						
	comp=Z,0.6nm,0.7s						
VRAC	Vranov	99.90	321	LR	LR	21 43 03.8	
	comp=Z,47nm,20.6s,baz=64,slow=37						
BRG	Berggiesshubel	100.99	324	Amp		20 55 48.0	
	comp=Z,2.4nm,0.8s						
BRG				⇓*e*Pif	Pdif	20 55 45.3	+0.5
CLL	Collm	101.38	324	*e*P	Pdif	20 55 47.0	+0.4
CLL				LH		21 37 00.0	
CLL				LV		21 43 00.0	
CLL				AMS	AMS	21 47 00.0	
	comp=Z,100nm,19.8s						
GERES	GERESS Array B	101.85	322	P	Pdif	20 55 47.5	-1.4
	comp=Z,1.5nm,0.9s,baz=77,slow=4.9,SNR=8.9						
TXAR	Lajitas Array	121.19	52	PKP	PKPdf	21 00 48.2	-0.8
	comp=Z,0.2nm,0.7s,baz=236,slow=2.7,SNR=3.8						
TORD	Torodi Ar. Bea	122.95	288	PKP	PKPdf	21 00 51.7	-0.8
	comp=Z,1.7nm,0.7s,baz=70,slow=1.9,SNR=8.4						
PLCA	Paso Flores	140.36	159	PKP	PKPdf	21 01 23.6	-1.2
	comp=Z,2.5nm,0.9s,baz=207,slow=1.6,SNR=3.8						
LPAZ	La Paz	160.95	130	PKP	PKPdf	21 01 56.5	-0.7
	comp=Z,1.4nm,0.9s,baz=234,slow=1.2,SNR=4.6						
SIV	San Ignacio	165.88	147	PKP	PKPdf	21 02 01.0	-0.2
	comp=Z,0.9nm,0.6s,baz=211,slow=0.8,SNR=4.5						

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*NEIC **13** 20:45:14.6±1.8, 59°.44S±0°.08×25°.1W±0°.2, h10^{km}±2^{km}, mb4.6/23, Error ellipse: s-maj=18.0km s-min=13.1km az=74.0*

*IDC **13** 20:45:21.1±6.6, 59°.33S×25°.79W, h46^{km}±63^{km}, mb3.7/7, mbtmp4.1/8, ML4.7/1, MS3.5/7, Error ellipse: s-maj=32.9km s-min=20.4km az=53.0*

ISC 13 20:45:15.8±0.7**, 59°.43S**±0°.10×**25°.5W**±0°.1**, h10**^{km}**, n52, σ1^{s}93**/39**, mb4.5**/13**, MS3.5**/6**, 7C, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HOPE	Hope Point	7.92	306		Pn	20 47 18.8	+8.0
ORCD	Orcadas	9.69	254		Pn	20 47 40.9	+5.9
VNA1	Neumayer--Stat	13.33	155	⇑P	Pn	20 48 27.8	+3.0
	comp=Z,23nm,0.4s						
VNA3	Neumayer Olymp	13.50	158	⇑P	Pn	20 48 29.4	+2.2
	comp=Z,17nm,0.3s						
VNA3				⇑S	Sn	20 50 44.0	-13
	comp=N,15nm,0.2s						
SNAA	Sanae	15.30	152	⇑P	Pn	20 48 54.0	+2.4
	comp=Z,298nm,0.4s						
SNAA				⇑S	Sn	20 51 35.4	-5.5
	comp=N,218nm,0.4s						
SNAA	Sanae	15.30	152	P	Pn	20 48 53.6	+2.0
	comp=N,3.3nm,0.3s,baz=306,slow=14,SNR=30						
	comp=N,12nm,0.5s						
SNAA				AML	AML		
SNAA	Sanae	15.30	152	P	Pn	20 48 52.6	+1.1
SNAA				IAmb	IAmb	20 48 55.5	
	comp=Z,14nm,0.5s						
SNAA				Sn	Sn	20 51 34.7	-6.1
ESPZ	Base Esperanza	15.48	242	Pn	Pn	20 48 55.0	+1.1
ESPZ				IAmb	IAmb	20 49 26.5	
	comp=Z,32nm,1.2s						
TROLL	Troll, Antarti	16.84	150	⇑P	P	20 49 13.8	+0.2
	comp=Z,252nm,0.3s						
TROLL				⇑S	Sn	20 52 07.6	-11
	comp=E,275nm,0.5s						
PMSA	Palmer Station	18.57	237	LR	LR	20 54 30.6	
	comp=E,157nm,19.5s,baz=174,slow=30						
PMSA	Palmer Station	18.57	237	P	P	20 49 32.0	-0.5
PMSA				IAmb	IAmb	20 50 10.4	
	comp=Z,21nm,1.1s						
BELA	Belgrano 2	18.78	186	P	P	20 49 34.2	-0.5
EFI	East Falkland	19.81	279	P	P	20 49 44.9	-1.2
SMAI	San Martin Ant	19.93	227	P	P	20 49 47.6	+0.3
DSPA	Despedida	23.77	264	P	P	20 50 29.1	+1.0
QSPA	South Pole Qui	30.81	180	P	P	20 51 33.7	+2.2
	comp=Z,1.4nm,0.5s,baz=241,slow=1.4,SNR=16						
	comp=Z,1.4nm,0.5s						
QSPA	South Pole Qui	30.81	180	P	P	20 51 30.5	-1.0
PLCA	Paso Flores	33.57	284	P	P	20 51 55.4	-0.5
	comp=Z,1.9nm,0.8s,baz=135,slow=7.7,SNR=7.8						
	comp=Z,1.9nm,0.8s						
PLCA	Paso Flores	33.57	284	P	P	20 51 54.6	-1.2
PLCA				IAmb	IAmb	20 52 08.7	
	comp=Z,6.4nm,1.2s						
MAW	Mawson	36.93	140	P	P	20 52 27.1	+2.9
	comp=Z,1.4nm,1.0s,baz=256,slow=12,SNR=3.5						
	comp=Z,1.4nm,1.0s						
MAW	Mawson	36.93	140	P	P	20 52 25.4	+1.2
BO02	Sierra Bellavi	38.34	290	P	P	20 52 39.1	+2.3
BO02				IAmb	IAmb	20 52 44.2	
	comp=Z,21nm,1.4s						
GO05	Hualane	38.72	288	P	P	20 52 39.4	-0.5
GO05				IAmb	IAmb	20 53 18.6	
	comp=Z,41nm,1.4s						
BO01	Tunca	38.81	290	P	P	20 52 40.3	-0.2
BO01				IAmb	IAmb	20 52 56.6	
	comp=Z,12nm,1.1s						
MT09	Talagante	39.27	290	P	P	20 52 44.3	-0.3
MT09				IAmb	IAmb	20 52 47.6	
	comp=Z,43nm,1.4s						
MT01	Popeta	39.32	290	P	P	20 52 44.4	-0.5
MT01				IAmb	IAmb	20 53 21.6	
	comp=Z,53nm,1.5s						
MT02	Curacav	39.76	291	P	P	20 52 48.5	0.0
MT02				IAmb	IAmb	20 52 50.9	
	comp=Z,27nm,1.1s						
SUR	Sutherland	40.83	69	LR	LR	21 06 33.6	
	comp=Z,66nm,19.3s,baz=178,slow=31						
CO01	Juntas del Tor	41.99	294	P	P	20 53 08.2	+1.0
CO01				IAmb	IAmb	20 53 10.5	
	comp=Z,28nm,1.4s						
AC05	El Transito	43.04	295	P	P	20 53 15.2	-0.4
VNDA	Vanda	43.23	182	P	P	20 53 16.4	0.0
	comp=Z,0.7nm,0.6s,baz=191,slow=6.7,SNR=4.6						
	comp=Z,0.7nm,0.6s						
VNDA	Vanda	43.23	182	P	P	20 53 16.4	0.0
H04S2	CROZET ISLANDS	45.45	110	T	T	21 44 17.9	
	baz=225,slow=74,SNR=21						
H04S3	CROZET ISLANDS	45.46	110	T	T	21 44 18.3	
	baz=225,slow=74,SNR=23						
H04S1	CROZET ISLANDS	45.46	110	T	T	21 44 12.5	
	baz=225,slow=74,SNR=12						
BOSA	Boshof	46.08	71	LR	LR	21 08 33.3	
	comp=Z,34nm,20.1s,baz=190,slow=30						
PB14	IPOC Station P	46.70	298	P	P	20 53 45.1	0.0
PB03	IPOC Station P	48.66	300	P	P	20 53 58.3	-1.8
LBTB	Lobatse	49.27	69	LR	LR	21 10 37.9	
	comp=Z,53nm,21.3s,baz=190,slow=31						
TSUM	Tsumeb	50.68	57	LR	LR	21 12 44.5	
	comp=Z,43nm,18.2s,baz=160,slow=32						
H10N1	ASCENSION HYDR	52.15	14	T	T	21 50 15.3	
	baz=180,slow=72,SNR=4.1						
H10N3	ASCENSION HYDR	52.15	14	T	T	21 50 18.2	
	baz=180,slow=72,SNR=9.9						
H10N2	ASCENSION HYDR	52.17	14	T	T	21 50 18.2	
	baz=180,slow=72,SNR=8.4						
LPAZ	La Paz	53.07	306	P	P	20 54 32.6	-1.2
	comp=Z,0.7nm,0.4s,baz=152,slow=7.4,SNR=6.2						
	comp=Z,0.7nm,0.4s						
LPAZ	La Paz	53.07	306	P	P	20 54 33.0	-0.8
LPAZ				IAmb	IAmb	20 54 50.5	
	comp=Z,4.0nm,1.2s						
ATAH	Atahualpa	65.66	300	LR	LR	21 25 26.4	
	comp=Z,21nm,19.9s,baz=331,slow=37						
MBAR	Mbarara	72.97	60	LR	LR	21 24 03.0	
	comp=Z,46nm,21.2s,baz=170,slow=32						
TORD	Torodi Ar. Bea	75.61	27	P	P	20 57 00.9	+0.2
	comp=Z,2.2nm,0.7s,baz=199,slow=6.3,SNR=16						
	comp=Z,2.2nm,0.7s						
ASAR	Alice Springs	95.49	161	P	P	20 58 41.5	+0.7
	comp=Z,0.2nm,0.6s,baz=191,slow=4.4,SNR=1.7						
	comp=Z,0.2nm,0.6s						
ARCES	ARCESS Array B	133.75	22	PKP	PKPdf	21 04 28.5	-2.5
	comp=Z,0.3nm,0.4s,baz=209,slow=2.2,SNR=5.4						
SONM	Songino Array	149.90	91	PKPbc	PKPbc	21 05 04.6	-0.7
	comp=Z,0.6nm,0.5s,baz=218,slow=3.5,SNR=5.1						
ILAR	Eielson Array	152.95	306	PKPbc	PKiKP	21 05 11.4	-0.3
	comp=Z,0.3nm,0.6s,baz=98,slow=2.9,SNR=4.2						

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*MOS **13** 20:49:30.0±1.8, 48°.83N×141°.94E, h11^{km}, mb4.1/4, Error ellipse: s-maj=29.7km s-min=12.4km az=92.0*
MOS Felt (II-III) at Uglegorsk.
*SKHL **13** 20:49:32.1±0.4, 48°.90N×142°.20E, h6^{km}±2^{km}, mb4.5/3*
SKHL Felt (II-III) at Uglegorsk.

ISC 13 20:49:32.3±1.1**, 48°.90N**±0°.03×**141°.97E**±0°.10**, h9**^{km}±8^{km}**, n16, σ2^{s}36**/23**, mb3.7**/3**, 1C, Sakhalin Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
UGL	Uglegorsk	0.19	20	⇑*i*PN	Pg	20 49 35.9	-0.3
UGL	Uglegorsk	0.19	20	*i* Pg	Pg	20 49 35.9	-0.3
UGL				AMB	AMB	20 49 36.4	
	4µm,0.3s						
UGL				*e*Sg	Sg	20 49 38.8	-0.1
UGL				A	A	20 49 39.2	
	49µm,0.4s						
UGL				A	A	20 49 39.2	
	38µm,0.4s						
TYV	Tymovskoe	2.01	12	*e*PN	Pn	20 50 06.0	-0.3
TYV				*e*S	Sn	20 50 31.3	-0.3
TYV				pmax	pmax		
	comp=Z,15nm,0.4s						
TYV				smax	smax		
	comp=N,25nm,0.6s						
TYV				smax	smax		
	comp=E,17nm,0.6s						
TYV	Tymovskoe	2.01	12	*e*P	Pn	20 50 06.1	-0.3
TYV				*e*Pg	Pg	20 50 11.2	+0.3
TYV				AMB	AMB	20 50 11.7	
	comp=E,20nm,0.5s						
TYV				*e*S	Sn	20 50 30.4	-1.2
TYV				*e*Sg	Sg	20 50 35.6	-1.3
TYV				A	A	20 50 38.2	
	comp=E,40nm,0.6s						
TYV				A	A	20 50 38.2	
	comp=E,40nm,0.6s						
YSS	Yuzhno-Sakhali	2.02	165	*e*PN	Pn	20 50 02.9	-3.6
YSS				*e*		20 50 28.0	
YSS				pmax	pmax		
	comp=Z,40nm,0.3s						
YSS				smax	smax		
	comp=N,70nm,0.6s						
YSS				smax	smax		
	comp=E,70nm,0.7s						
YSS	Yuzhno-Sakhali	2.02	165	*e*P	Pb	20 50 07.2	-1.9
YSS				*e*Pg	Pg	20 50 11.8	+0.8
YSS				AMB	AMB	20 50 14.7	
	comp=E,50nm,0.3s						
YSS				*e*Sg	Sg	20 50 40.1	+2.9
YSS				A	A	20 50 42.3	
	comp=E,70nm,0.6s						
YSS				A	A	20 50 42.3	
	comp=E,60nm,0.6s						
KRS4	Mayak Korsakov	2.36	166	*e*Sg	Sg	20 50 52.2	+4.1
KRS4				A	A	20 50 53.2	
	comp=E,150nm,0.7s						
GRNR	Gornyy	4.05	300	*e*PN	Pn	20 50 30.8	-3.6
NKL	Nikolayevsk	4.33	350	*e*Sg	Sg	20 51 57.7	+6.4
BILL	Bilibino	22.72	24	*i* P	P	20 54 34.2	+0.2
BILL				pmax	pmax		
	comp=Z,3.0nm,1.2s						
BILL	Bilibino	22.72	24	*e*P	P	20 54 34.2	+0.2
DGZ	Jazzator, Alta	34.91	292	*i* P	P	20 56 24.4	+0.2
DGZ				pmax	pmax		
	comp=Z,1.0nm,0.9s						
FINES	FINESS Array B	58.63	330	*i* P	P	20 59 31.3	+2.1
FINES				pmax	pmax		
	comp=Z,4.0nm,0.9s						
OBN	Obninsk	59.05	320	*i* P	P	20 59 32.6	+0.5
OBN				pmax	pmax		
	comp=Z,3.0nm,1.0s						
OBN	Obninsk	59.05	320	*e*P	P	20 59 32.6	+0.5
CMLA	Cha da Macela	93.00	350	*i* P	P	21 02 46.5	+0.6

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*IDC **13** 20:59:58.9±1.3, 44°.68N×79°.55E, h0^{km}, mb3.6/1, mbtmp3.6/9, ML3.2/7, MS3.4/2, Error ellipse: s-maj=15.3km s-min=9.5km az=135.0*
*SOME **13** 20:59:59.7, 44°.57N×79°.70E, h20^{km}*
*NNC **13** 20:59:59.7±0.5, 44°.57N×79°.70E, h5^{km}±3^{km}, mb4.1, mpv4.1, Error ellipse: s-maj=3.7km s-min=2.9km az=79.0*
*MOS **13** 21:00:00.4±1.5, 44°.69N×79°.62E, h14^{km}, mb4.4/4, Error ellipse: s-maj=8.3km s-min=5.5km az=68.4*

ISC 13 20:59:58.8±1.0**, 44°.64N**±0°.02×**79°.77E**±0°.02**, h6**^{km}±8^{km}**, n115, σ1^{s}79**/157**, mb4.1**/5**, 15C-5D, Eastern Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DJR	Jarkent	0.31	177	P	Pg	21 00 06.3	+1.3
	1µm,0.1s						
DJR				S	Sg	21 00 10.3	+1.3
	8µm,0.3s						
DJR	Jarkent	0.31	177	*e*P	Pg	21 00 06.3	+1.3
	1µm,0.1s						
DJR				*e*S	Sg	21 00 10.3	+1.3
	8µm,0.3s						
KNOS	Konyrlen	0.51	236	P	Pg	21 00 09.3	+0.7
	243nm,0.1s						
KNOS				S	Sg	21 00 15.6	+0.3
	2µm,0.5s						
KAPS	Kapalarasan	0.70	336	P	Pn	21 00 15.1	-0.4
	605nm,0.1s						
KAPS				S	Sn	21 00 25.2	-1.5
	1µm,0.2s						
KAPS	Kapalarasan	0.70	336	*e*P	Pn	21 00 15.1	-0.4
	605nm,0.1s						
KAPS				*e*S	Sn	21 00 25.2	-1.5
	1µm,0.2s						
TDK	Taldyqorghan	1.03	291	P	Pn	21 00 19.3	-0.6
	264nm,0.4s						
TDK				S	Sn	21 00 33.3	-1.4
	2µm,0.3s						
TDK	Taldyqorghan	1.03	291	*e*PG	Pn	21 00 19.2	-0.7
TDK				*e*S	Sn	21 00 33.2	-1.5
TDK	Taldyqorghan	1.03	291	*e*P	Pn	21 00 19.3	-0.6
TDK				*e*S	Sn	21 00 33.2	-1.4
TDK	Taldyqorghan	1.03	291	*e*P	Pn	21 00 19.4	-0.6
	264nm,0.4s						
TDK				*e*S	Sn	21 00 33.3	-1.4
	2µm,0.3s						
BLB	Baldybastay	1.07	240	P	Pb	21 00 19.1	-0.8
	396nm,0.2s						
BLB				S	Sb	21 00 32.3	-2.0
	942nm,0.4s						
KTMS	Ketmen	1.27	160	P	Pn	21 00 21.4	-1.9
	68nm,0.1s						
KTMS				S	Sb	21 00 36.2	-3.7
	969nm,0.2s						
KTMS	Ketmen	1.27	160	*e*P	Pn	21 00 21.4	-1.9
	68nm,0.1s						
KTMS				*e*S	Sb	21 00 36.2	-3.7
	969nm,0.2s						
PDGK	Podgornoye	1.33	189	⇑P	Pn	21 00 23.2	-0.9
	156nm,0.3s						
PDGK				⇑S	Sn	21 00 40.0	-2.2
	1µm,0.4s						
PDGK	Podgornoye	1.33	189	PG	Pn	21 00 23.2	-0.9
KPKS	Kokpek	1.41	214	P	Pn	21 00 24.4	-0.8
KPKS				S	Sn	21 00 41.1	-3.1
KPKS	Kokpek	1.41	214	*e*P	Pn	21 00 24.4	-0.8
KPKS				*e*S	Sn	21 00 41.1	-3.1
ARXS	Arharly	1.46	253	P	Pb	21 00 26.1	-0.3
	292nm,0.4s						
ARXS				S	Sb	21 00 44.6	-0.6
	955nm,0.2s						
ARXS	Arharly	1.46	253	*e*P	Pb	21 00 26.1	-0.3
	292nm,0.4s						
ARXS				*e*S	Sb	21 00 44.6	-0.6
	955nm,0.2s						
UZB	Uzynbulak	1.59	200	P	Pn	21 00 27.6	-0.1
	257nm,0.2s						
UZB				S	Sn	21 00 47.1	-1.6
	1µm,0.2s						
UZB	Uzynbulak	1.59	200	*e*PN	Pn	21 00 27.6	-0.1
UZB				*e*S	Sn	21 00 47.3	-1.3
UZB	Uzynbulak	1.59	200	*e*P	Pn	21 00 27.6	-0.1
UZB				*e*S	Sn	21 00 47.3	-1.3
UZB	Uzynbulak	1.59	200	*e*P	Pn	21 00 27.6	-0.1
	257nm,0.2s						
UZB				*e*S	Sn	21 00 47.1	-1.6
	1µm,0.2s						
KURS	Kuram	1.63	225	P	Pn	21 00 28.4	+0.2
	88nm,0.3s						
KURS				S	Sn	21 00 48.8	-0.7
	328nm,0.2s						
KURS	Kuram	1.63	225	*e*P	Pn	21 00 28.4	+0.2
	88nm,0.3s						
KURS				*e*S	Sn	21 00 48.8	-0.7
	328nm,0.2s						
SATY	Saty	1.86	212	P	Pb	21 00 32.6	-0.8
	137nm,0.1s						
SATY				S	Sb	21 00 56.5	-0.5
	2µm,0.2s						
SATY	Saty	1.86	212	*e*PN	Pn	21 00 32.1	+0.7
SATY				*e*S	Sn	21 00 54.9	-0.5
SATY	Saty	1.86	212	*e*P	Pn	21 00 32.1	+0.7
SATY				*e*S	Sn	21 00 55.0	-0.5
SATY	Saty	1.86	212	*e*P	Pb	21 00 32.6	-0.8
	137nm,0.1s						
SATY				*e*S	Sb	21 00 56.5	-0.5
	2µm,0.2s						
KOTS	Kotyrbulak	2.38	235	Pg	Pb	21 00 42.2	0.0
	56nm,0.3s						
KOTS				Lg	Lg	21 01 12.2	
	2µm,0.6s						
KOTS	Kotyrbulak	2.38	235	*e*P	Pb	21 00 42.2	0.0
	56nm,0.3s						
KOTS				*e*S	Sb	21 01 12.2	+0.3
	2µm,0.6s						
MDOK	Medeo	2.46	234	Pg	Pb	21 00 43.3	-0.3
	80nm,0.2s						
MDOK				Lg	Lg	21 01 13.8	
	833nm,0.5s						
MDOK	Medeo	2.46	234	*e*PN	Pn	21 00 40.3	+0.7
MDOK	Medeo	2.46	234	*e*P	Pn	21 00 40.3	+0.7
MDOK	Medeo	2.46	234	*e*P	Pb	21 00 43.3	-0.3
	80nm,0.2s						
MDOK				*e*S	Sb	21 01 13.8	-0.4
	833nm,0.5s						
KNDC	Almaty	2.48	236	⇓Pn	Pn	21 00 41.5	+1.7
	34nm,0.2s						
KNDC				⇑Sn	Sb	21 01 13.1	-1.5
	998nm,0.7s						
KNDC	Almaty	2.48	236	PN	Pn	21 00 41.5	+1.7
KNDC				S	Sb	21 01 13.6	-0.9
AAA	Alma-Ata	2.51	236	Pg	Pb	21 00 44.7	+0.3
	98nm,0.3s						
AAA				Lg	Lg	21 01 16.3	
	30nm,0.2s						
AAA	Alma-Ata	2.51	236	*e*PN	Pb	21 00 43.6	-0.8
AAA	Alma-Ata	2.51	236	*e*P	Pn	21 00 41.4	+1.1
AAA	Alma-Ata	2.51	236	*e*P	Pb	21 00 44.7	+0.3
	98nm,0.3s						
AAA				*e*S	Sb	21 01 16.3	+0.7
	30nm,0.2s						
KUU	Kurty	2.57	254	Pg	Pb	21 00 44.9	-0.5
	12nm,0.4s						
KUU				Lg	Lg	21 01 17.3	
	362nm,0.8s						
KUU	Kurty	2.57	254	*e*PN	Pn	21 00 42.7	+1.6
KUU	Kurty	2.57	254	*e*P	Pn	21 00 42.8	+1.6
KUU	Kurty	2.57	254	*e*P	Pb	21 00 44.9	-0.5
	12nm,0.4s						
KUU				*e*S	Sb	21 01 17.3	-0.1
	362nm,0.8s						
TNSS	Tian-Shan	2.60	233	Pg	Pb	21 00 46.9	+0.9
	2.3nm,0.5s						
TNSS				Lg	Lg	21 01 21.3	
	43nm,0.3s						
TNSS	Tian-Shan	2.60	233	*e*PN	Pn	21 00 42.9	+1.1
TNSS	Tian-Shan	2.60	233	*e*P	Pn	21 00 42.9	+1.1
TNSS	Tian-Shan	2.60	233	*e*P	Pb	21 00 46.9	+0.9
	2.3nm,0.5s						
TNSS				*e*S	Sg	21 01 21.3	-1.0
	43nm,0.3s						
MAKZ	Makanchi	2.66	35	⇑Pn	Pn	21 00 43.8	+1.5
	13nm,0.8s						
MAKZ				⇑Lg	Lg	21 01 23.8	
	55nm,0.6s						
MK31	Makanchi Array	2.78	39	⇑Pn	Pn	21 00 46.0	+2.0
	10nm,0.5s,baz=216,slow=12,SNR=424						
MK31				⇓Lg	Lg	21 01 28.2	
	59nm,0.6s,baz=216,slow=28,SNR=22						
MK31	Makanchi Array	2.78	39	c*e*PN	Pb	21 00 47.8	-1.2
MKAR	Makanchi Array	2.78	39	Pn	Pb	21 00 47.8	-1.2
	2.1nm,0.3s,baz=223,slow=14,SNR=71						
MKAR				Lg	Lg	21 01 28.3	
	53nm,0.3s,baz=220,slow=30,SNR=28						
	6.7nm,0.3s						
MKAR				AML	AML		
IZV	Izvestkoviy	2.79	236	Pg	Pb	21 00 48.1	-1.1
	28nm,0.1s						
IZV				Lg	Lg	21 01 22.2	
	204nm,0.2s						
IZV	Izvestkoviy	2.79	236	*e*P	Pb	21 00 48.1	-1.1
	28nm,0.1s						
IZV				*e*S	Sb	21 01 22.2	-1.5
	204nm,0.2s						
MTBS	Maitube	2.85	239	Pg	Pb	21 00 49.9	-0.3
	24nm,0.0s						
MTBS				Lg	Lg	21 01 25.0	
	502nm,0.2s						
MTBS	Maitube	2.85	239	*e*P	Pb	21 00 49.9	-0.3
	24nm,0.0s						
MTBS				*e*S	Sb	21 01 25.1	-0.2
	502nm,0.2s						
KRBS	Karabastau	3.09	254	Pg	Pb	21 00 53.8	-0.5

	22nm,0.4s						
KRBS				Lg	Lg	21 01 32.0	
	35nm,0.2s						
KRBS	Karabastau	3.09	254	eP	Pb	21 00 53.8	-0.5
	22nm,0.4s						
KRBS				eS	Sb	21 01 32.0	-0.3
	35nm,0.2s						
KST	Kastek	3.18	241	Pg	Pb	21 00 55.3	-0.6
	4.0nm,0.5s						
KST				Lg	Lg	21 01 34.5	
	162nm,0.6s						
KST	Kastek	3.18	241	eP	Pb	21 00 55.3	-0.6
	4.0nm,0.5s						
KST				eS	Sb	21 01 34.5	-0.5
	162nm,0.6s						
TKM2	Tokmak 2	3.48	242	P	Pn	21 00 54.6	+0.9
	SNR=8.5						
ULHL	Ulahol	3.51	228	P	Pn	21 00 56.0	+1.8
	SNR=21						
SGDS	Sogindy	3.89	254	Pg	Pb	21 01 09.0	+1.1
	12nm,0.5s						
SGDS				Lg	Lg	21 01 58.7	
	74nm,0.6s						
SGDS	Sogindy	3.89	254	eP	Pn	21 01 00.4	+1.2
CHMS	Chumysh	3.98	247	P	Pn	21 01 01.4	+0.9
	SNR=5.3						
KBK	Karagaybulak	4.02	242	P	Pn	21 01 02.8	+1.6
	SNR=24						
USP	Ospenovka	4.04	252	P	Pn	21 01 02.2	+0.9
	SNR=5.9						
AAK	Ala-Archa	4.32	244	Pn	Pn	21 01 05.8	+0.5
	0.9nm,0.3s,baz=67,slow=6.9,SNR=11						
AAK				Lg	Lg	21 02 08.9	
	3.9nm,0.3s,baz=147,slow=21,SNR=7.0						
	4.0nm,0.5s						
AAK				AML	AML		
AAK	Ala-Archa	4.32	244	P	Pb	21 01 16.7	+1.4
	SNR=10						
AAK	Ala-Archa	4.32	244	⇑Pn	Pn	21 01 06.1	+0.8
	3.6nm,0.9s						
AAK				⇑Pg	Pb	21 01 16.3	+1.0
	3.7nm,0.4s						
AAK				⇑Lg	Lg	21 02 16.5	
	39nm,0.7s						
AAK	Ala-Archa	4.32	244	i PN	Pn	21 01 06.5	+1.3
ZSN	Zaisan	4.53	50	Pg	Pg	21 01 23.3	-2.2
	3.4nm,0.4s						
ZSN				Lg	Lg	21 02 22.6	
	49nm,0.7s						
ZSN	Zaisan	4.53	50	ePN	Pn	21 01 11.4	+3.5
ZSN	Zaisan	4.53	50	eP	Pn	21 01 11.4	+3.5
ZSN	Zaisan	4.53	50	eP	Pg	21 01 23.3	-2.2
	3.4nm,0.4s						
ZSN				eS	Sg	21 02 22.6	-1.5
	49nm,0.7s						
EKS2	Erkin-Say	4.78	248	P	Pn	21 01 12.9	+1.5
	SNR=5.3						
MRKS	Merke	5.11	250	Pg	Pb	21 01 31.7	+3.0
	3.9nm,0.3s						
MRKS				Lg	Lg	21 02 36.9	
	42nm,0.5s						
MRKS	Merke	5.11	250	eP	Pb	21 01 31.7	+3.0
	3.9nm,0.3s						
MRKS				eS	Sg	21 02 36.9	-6.0
	42nm,0.5s						
SEM	Semipalatinsk	5.78	3	ePN	Pn	21 01 27.6	+2.4
SEM	Semipalatinsk	5.78	3	eP	Pn	21 01 27.7	+2.4
KURBB	Kurchatov Arra	6.04	352	Pn	Pn	21 01 30.0	+1.3
	0.4nm,0.3s,baz=180,slow=12,SNR=20						
KURBB				Sn	Sn	21 02 37.0	-1.1
	0.6nm,0.3s,baz=144,slow=26,SNR=4.9						
KURBB				Lg	Lg	21 03 05.3	
	0.8nm,0.3s,baz=23,slow=22,SNR=7.2						
	0.7nm,0.3s						
KURBB				AML	AML		
KURBB	Kurchatov Arra	6.04	352	⇓Pn	Pn	21 01 30.8	+2.1
	1.3nm,0.5s						
KURBB				⇓Pg	Pg	21 01 49.4	-5.1
	6.5nm,0.5s						
KURBB				⇑Lg	Lg	21 03 12.7	
	110nm,0.6s						
KURBB	Kurchatov Arra	6.04	352	PN	Pn	21 01 30.8	+2.1
KURBB				PG	Pg	21 01 49.4	-5.1
KURK	Kurchatov	6.12	353	⇓Pn	Pn	21 01 31.1	+1.3
	0.3nm,0.3s						
KURK				⇑Pg	Pg	21 01 51.2	-4.9
	2.0nm,0.7s						
KURK				⇑Lg	Lg	21 03 15.1	
	58nm,1.1s						
KURK	Kurchatov	6.12	353	i PN	Pn	21 01 33.2	+3.4
DZA	Taraz	6.35	257	ePN	Pn	21 01 34.8	+1.8
DZA	Taraz	6.35	257	eP	Pn	21 01 34.8	+1.8
KK31	Karatay Array	6.86	260	⇑Pn	Pn	21 01 41.7	+1.7
	0.7nm,0.3s,baz=79,slow=13,SNR=9.5						
KK31				Lg	Lg	21 03 37.4	
	6.3nm,0.4s,baz=70,slow=28,SNR=12						
KK31	Karatay Array	6.86	260	i PN	Pn	21 01 42.7	+2.7
KK31				pmax	pmax		
	comp=Z,1.0nm,0.3s						
DGZ	Jazzator, Alta	7.27	43	i P	Pn	21 01 49.6	+3.9
BRLS	Borolday	7.36	261	eP	Pn	21 01 51.1	+4.2
BRLS	Borolday	7.36	261	eP	Pn	21 01 51.1	+4.3
IUG	Iuzhnay	7.52	254	Pg	Pg	21 02 18.8	-3.9
	comp=Z,11nm,0.7s						
IUG				Lg	Lg	21 03 59.7	
	comp=Z,43nm,0.8s						
IUG	Iuzhnay	7.52	254	eP	Pn	21 01 50.1	+1.0
IUG	Iuzhnay	7.52	254	eP	Pn	21 01 50.2	+1.1
IUG	Iuzhnay	7.52	254	eP	Pg	21 02 18.9	-3.9
	comp=Z,11nm,0.7s						
IUG				eS	Sg	21 03 59.7	-0.4
	comp=Z,43nm,0.8s						
CHM	Chimkent	7.75	256	eP	Pn	21 01 53.6	+1.5
CHM	Chimkent	7.75	256	eP	Pn	21 01 53.7	+1.5
ZALV	Zalesovo Beam	9.88	18	Pn	Pn	21 02 22.8	+1.6
	comp=Z,0.8nm,0.3s,baz=202,slow=13,SNR=17						
ZALV				Sn	Sn	21 04 08.5	-3.9
	comp=Z,1.0nm,0.3s,baz=206,slow=25,SNR=6.7						
ZALV				Lg	Lg	21 05 06.8	
	baz=207,slow=24						
	comp=Z,2.4nm,0.4s						
ZALV				AML	AML		
BVAR	Borovoye Array	10.41	327	Pn	Pn	21 02 28.6	0.0
	comp=Z,0.1nm,0.3s,baz=137,slow=15,SNR=9.3						
BVAR				Sn	Sn	21 04 19.0	-6.5
	comp=Z,0.1nm,0.3s,baz=135,slow=23,SNR=6.5						
BVAR				Lg	Lg	21 05 21.5	
	comp=Z,0.1nm,0.3s,baz=139,slow=32,SNR=3.7						
	comp=Z,0.7nm,0.3s						
BVAR				AML	AML		
BORK	Borovoye	10.46	327	i P	Pn	21 02 30.0	+0.8
AB31	Akbulak array	14.29	296	Pn	Pn	21 03 17.1	-4.6
	comp=Z,3.6nm,0.6s,baz=98,slow=14,SNR=42						
AB31	Akbulak array	14.29	296	P	Pn	21 03 22.4	+0.7
AKTO	Aktyubinsk	15.76	299	Pn	Pn	21 03 39.1	-2.2
	comp=Z,0.6nm,0.3s,baz=98,slow=12,SNR=11						
AKTO				Lg	Lg	21 08 13.8	
	comp=Z,0.2nm,0.3s,baz=232,slow=0.9,SNR=1.5						
	comp=Z,1.4nm,0.3s						
AKTO				AML	AML		
AKTO	Aktyubinsk	15.76	299	⇑Pn	Pn	21 03 42.2	+0.9
	comp=Z,1.8nm,0.7s						
ARTI	Arti	17.88	319	P	Pn	21 04 06.9	-1.1
	comp=Z,0.2nm,0.3s,baz=122,slow=12,SNR=5.2						
ARTI				Lg	Lg	21 09 22.9	
	comp=Z,0.1nm,0.3s,baz=263,slow=14,SNR=1.7						
	comp=Z,1.5nm,0.5s						
ARTI				AML	AML		
ARTI	Arti	17.88	319	P	P	21 04 10.3	+1.6
ARTI				S	S	21 07 29.8	-4.5
SONM	Songino Array	18.66	71	P	Pn	21 04 19.8	+2.0
	comp=Z,0.3nm,0.6s,baz=270,slow=11,SNR=1.9						
NRIK	Noril'sk	25.08	7	i P	P	21 05 25.4	+1.7
NRIK				pmax	pmax		
	comp=Z,3.0nm,1.0s						
GNI	Garni	26.12	272	LR	LR	21 18 31.2	
	comp=Z,34nm,18.2s,baz=90,slow=43						
OBN	Obninsk	29.29	306	eP	P	21 06 03.8	+2.1
OBN				pmax	pmax		
	comp=Z,3.0nm,0.8s						
YAK	Yakutsk	33.46	41	i P	P	21 06 41.1	+2.8
YAK				pmax	pmax		
	comp=Z,3.0nm,0.9s						
AKBB	Malin Array Si	34.01	299	i P	P	21 06 45.8	+2.6
AKBB				pmax	pmax		
	comp=Z,3.0nm,1.1s						
NOA	NORSAR Array B	42.37	318	P	P	21 07 53.8	+0.2
	comp=Z,0.7nm,0.7s,baz=82,slow=7.7,SNR=1.8						
	comp=Z,0.7nm,0.7s						
SCHQ	Schefferville	76.92	341	LR	LR	21 49 36.2	
	comp=Z,41nm,19.6s,baz=346,slow=39						

*OMAN **13** 21:02:42.1±3.9,33°.09N×58°.23E,h10^{km},mb3.5/12,Error ellipse: s-maj=43.5km s-min=26.6km az=27.0*

*TEH **13** 21:03:51.6,28°.29N×57°.43E,h10^{km}±248^{km},ML2.8, Presumed earthquake*

*DSN **13** 21:03:58.0±3.6,27°.52N×57°.41E,h15^{km},ML2.8/9,Error ellipse: s-maj=51.5km s-min=21.3km az=78.0*

ISC 13 21:03:51.3±1.0,**28°.14N**±0°.05×**57°.42E**±0°.07,**h30**^{km}**,n33,**σ**1^{s}55**/36,**Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KHNJ	Kahnooj	0.32	128	Pg	Pn	21 04 00.3	+0.4
KHNJ				Sg	Sn	21 04 06.8	+1.3
IBND	Bandar-abas	1.04	229	Pg	Pb	21 04 13.0	+2.2
KBAM	BAM	1.34	42	Pg	Pn	21 04 15.2	+1.1
KBAM				Sg	Sb	21 04 32.8	+0.1
NGRK	Negar Kerman	1.61	338	Pg	Pb	21 04 21.1	+0.4
CHMN	Cheshme madani	1.71	3	Pg	Pb	21 04 22.2	-0.2
KRM1	Kerman Provinc	2.36	357	Pn	Pb	21 04 33.3	+0.1
SHME	Shamm	2.38	209	P	Pn	21 04 29.6	+1.4
SHME	Shamm	2.38	209	P	Pn	21 04 29.7	+1.4
BANOM	Banah	2.43	205	P	Pn	21 04 30.3	+1.3
BANOM	Banah	2.43	205	P	Pn	21 04 30.7	+1.7
MASF	Masafi	2.98	203	P	Pn	21 04 37.2	+0.6
MDH	Madha	3.01	200	P	Pn	21 04 36.9	-0.1
	SNR=6.5						
MDH	Madha	3.01	200	P	Pn	21 04 36.8	-0.1
UOSS	Minazif	3.37	199	P	Pn	21 04 42.9	+1.0
UOSS	Minazif	3.37	199	P	Pn	21 04 43.2	+1.3
HATD	Hatta, Dubai	3.50	200	P	Pn	21 04 42.5	-1.2
ASHO	Ashiyiah	3.66	200	P	Pn	21 04 47.3	+1.5
ASHO	Ashiyiah	3.66	200	P	Pn	21 04 48.3	+2.4
FAQ	Al Faqa, Dubai	3.76	206	P	Pn	21 04 49.2	+2.0
ASUD	Al Ashush, Dub	3.98	209	P	Pn	21 04 50.2	0.0
SOHO	SOHO	4.07	192	P	Pn	21 04 50.5	-1.0
SOHO	SOHO	4.07	192	P	Pn	21 04 50.3	-1.2
SOHO				S	Sn	21 05 33.3	-4.9
ALNE	Al Ain	4.34	201	P	Pn	21 04 56.9	+1.7
HOQ	Hoqain	4.54	181	P	Pn	21 04 57.0	-1.1
	SNR=11						
BIDO	Bidbid	4.65	172	P	Pn	21 04 59.7	+0.3
ARQ	Araqi	4.86	190	P	Pn	21 05 03.6	+1.2
	SNR=13						
WSAR	Wadi Sarin	5.00	167	P	Pn	21 05 04.5	+0.2
	SNR=23						
BSY	Bisya	5.38	182	P	Pn	21 05 11.4	+1.8
WBK	Wadi Bani Khal	5.68	165	P	Pn	21 05 13.3	-0.5
	SNR=18						
JLN	Jalan Bani Buh	6.23	163	P	Pn	21 05 20.3	-0.9
MZR	Muzera	6.24	216	P	Pn	21 05 19.0	-2.3
MHTO	MHTO	7.14	176	P	Pn	21 05 34.9	+1.1
WHFO	Wadi Hawf	10.72	199	P	Pn	21 06 21.0	-1.9

*IDC **13** 21:24:57.6±2.6,38°.58N×142°.98E,h41^{km}±20^{km},mb3.4/6, mbtmp3.8/11,ML3.4/5,MS2.7/3,Error ellipse: s-maj=29.4km s-min=11.9km az=106.0*

*NEIC **13** 21:24:58.0±1.2,38°.60N±0°.07×142°.93E±0°.09,h35^{km}±2^{km}, mb4.1/8,Error ellipse: s-maj=13.9km s-min=9.0km az=131.0*

*NIED **13** 21:25:00.7,38°.71N×142°.26E,h41^{km},MW3.8,Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}1.38; $M_{\theta\theta}$0.56; $M_{\phi\phi}$-1.94; $M_{r\theta}$1.04; $M_{\theta\phi}$-1.27; $M_{\phi r}$5.07; Fault plane solution: $M_0$5.54000×10^{14} NP1: ϕ_s227.00000°,δ12.00000°,λ126.00000°. NP2: ϕ_s11.00000°,δ80.00000°,λ83.00000°.*

*JMA **13** 21:25:00.7±0.1,38°.7N±0°.2×142°.3E±0°.3,h41^{km},MD4.1/40, MV4.0/40,E OFF MIYAGI PREF*

JMA Felt I J1 at E OFF MIYAGI PREF .

ISC 13 21:24:59.0±2.5,**38°.68N**±0°.05×**142°.44E**±0°.08,**h28**^{km}±16^{km}, **n42,**σ**2^{s}10**/49,**mb3.9**/10,**10D,Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OFUJ	Ofunato	0.72	304	⇓iP	Pn	21 25 12.7	-0.5
OFUJ				⇓eS	Sb	21 25 21.1	-1.4
JKMT	Kesennumamotoy	0.76	280	⇓iP	Pn	21 25 13.1	-0.8
JKMT				⇓S	Sb	21 25 21.6	-2.1
JIKH	Ishinomakikobu	0.85	244	A	A	21 25 14.7	
	comp=N,23nm,0.2s,comp=E,15nm,0.3s						
JIO	Ouri	0.88	255	⇓iP	Pn	21 25 14.8	-0.7
JIO				⇓S	Sn	21 25 24.5	-2.8
JMK	Ichinoseki	0.99	286	⇓iP	Pn	21 25 16.5	-0.5
JMK				⇓eS	Sn	21 25 27.4	-2.6
JOM	Ohasama	1.19	312	⇓iP	Pn	21 25 19.8	+0.1
JOM				A	A	21 25 19.8	
	comp=N,8.0nm,0.3s,comp=E,9.0nm,0.3s						
JOM				⇓S	Sn	21 25 33.4	-1.6
JTH	Tanohata	1.33	341	P	Pn	21 25 22.1	+0.4
JOU	Okura	1.43	258	i P	Pn	21 25 23.0	0.0
JOU				eS	Sn	21 25 39.3	-1.5
JTM	Tenmabayashi	2.35	334		Pn	21 25 37.5	+1.8
ERM	Erimo	3.37	9	Pn	Pn	21 25 50.3	+0.6
MJAR	Matsushiro Arr	3.98	239	P	Pn	21 26 00.6	+2.4
	comp=E,1.0nm,0.3s,baz=37,slow=13,SNR=43						
MJAR				S	Sn	21 26 50.2	+6.3
	comp=E,2.7nm,0.4s,baz=84,slow=12,SNR=4.1						
MJAR				LR	LR	21 27 43.5	
	comp=E,123nm,19.6s,baz=76,slow=39						
	comp=E,6.3nm,0.4s						
MJAR				AML	AML		
MJAR	Matsushiro Arr	3.98	239		Pn	21 26 00.8	+2.7
MAJO	Matsushiro	3.98	239		Pn	21 26 00.9	+2.8
MJB9	Matsu-Tunnel	3.98	239		Pn	21 26 01.1	+3.0
JGF	Kuroka	5.09	234		Pn	21 26 15.9	+2.5
JKA	Kamikawa-asahi	5.43	1		Pn	21 26 17.4	-0.6
ASAJ	Asahikawa	5.43	1	P	Pn	21 26 18.2	+0.2
	comp=E,1.3nm,0.3s,baz=242,slow=11,SNR=5.3						
ASAJ				S	Sn	21 27 20.5	+0.9
	comp=E,11nm,0.7s,baz=150,slow=24,SNR=3.7						
	comp=E,2.2nm,0.3s						
ASAJ				AML	AML		
JHJ2	Mitsune	5.95	202	Pn	Pn	21 26 24.8	-0.4
JHJ	Hachijo jima 2	5.95	202	P	Pn	21 26 25.1	-0.1
	comp=E,4.2nm,0.3s,baz=22,slow=19,SNR=2.4						
JHJ				S	Sn	21 27 28.8	-3.7
	comp=E,99nm,0.6s,baz=243,slow=22,SNR=2.2						
	comp=E,134nm,0.9s						
JHJ				AML	AML		
USA0B	Ussuriysk Arra	9.58	308	Pn	Pn	21 27 18.1	+3.1
USRK	Ussuriysk Ar.	9.58	308	P	Pn	21 27 18.2	+3.2
	comp=E,0.3nm,0.3s,baz=118,slow=15,SNR=5.1						
	comp=E,3.3nm,0.7s						
USRK				AML	AML		
USRK	Ussuriysk Ar.	9.58	308		Pn	21 27 17.8	+2.9
KSRS	Korea Array	11.51	268	P	Pn	21 27 46.0	+4.7
	comp=E,0.2nm,0.3s,baz=68,slow=18,SNR=4.4						
KSRS				LR	LR	21 31 52.3	
	comp=E,31nm,19.0s,baz=85,slow=35						
	comp=E,1.5nm,0.7s						
KSRS				AML	AML		
KLR	Kul'dur	13.04	327	LR	LR	21 32 22.2	
	comp=E,36nm,19.8s,baz=136,slow=33						
SONM	Songino Array	27.58	301	P	P	21 30 44.1	+0.4
	comp=E,0.2nm,0.4s,baz=103,slow=8.2,SNR=1.9						
	comp=E,0.2nm,0.4s						
SONM	Songino Array	27.58	301	P	P	21 30 43.5	-0.2
ENH	Enshi	28.31	263	P	P	21 30 51.0	+0.7
ENH				IAmb	IAmb	21 30 55.9	
	comp=Z,5.2nm,0.6s						
ZALV	Zalesovo Beam	41.42	311	P	P	21 32 42.3	-0.4
	comp=Z,0.9nm,0.4s,baz=82,slow=8.5,SNR=5.4						
	comp=Z,0.9nm,0.4s						
ZALV	Zalesovo Beam	41.42	311	P	P	21 32 42.0	-0.7
CMAR	Chiang Mai Arr	42.71	254	P	P	21 32 55.1	+1.5
	comp=Z,0.2nm,0.2s,baz=44,slow=7.9,SNR=4.6						
	comp=Z,0.2nm,0.2s						
CMAR	Chiang Mai Arr	42.71	254	P	P	21 32 53.6	-0.1
MKAR	Makanchi Array	43.95	301	P	P	21 33 03.0	-0.3
	comp=Z,0.6nm,0.7s,baz=83,slow=11,SNR=8.2						
	comp=Z,0.6nm,0.7s						
MKAR	Makanchi Array	43.95	301	P	P	21 33 03.2	-0.2
MAKZ	Makanchi	44.16	301	P	P	21 33 04.8	-0.3
MAKZ				IAmb	IAmb	21 33 16.8	
	comp=Z,2.5nm,1.0s						
KURK	Kurchatov	45.57	307	P	P	21 33 15.7	-0.5
KURK				IAmb	IAmb	21 33 16.8	
	comp=Z,2.5nm,0.9s						
KURBB	Kurchatov Arra	45.64	307	P	P	21 33 16.1	-0.7
	comp=Z,1.4nm,0.5s,baz=82,slow=8.4,SNR=14						
	comp=Z,1.4nm,0.5s						
AB31	Akbulak array	57.51	310	P	P	21 34 45.2	-0.2
AB31				IAmb	IAmb	21 34 57.0	
	comp=Z,1.1nm,0.8s						
ABKAR	Akbulak array	57.51	310	P	P	21 34 45.0	-0.4
WB0	Warramunga Arr	58.63	189	P	P	21 34 51.2	-2.3
WR8	Warramunga Arr	58.80	189	P	P	21 34 52.5	-2.2
WRA	Warramunga Arr	58.81	189	P	P	21 34 52.4	-2.4
	comp=Z,0.2nm,0.8s,baz=9.1,slow=6.9,SNR=1.4						
	comp=Z,0.2nm,0.8s						
WRA	Warramunga Arr	58.81	189	P	P	21 34 52.6	-2.2

*BEO **13** 21:32:00.4±0.2,45°.38N×21°.14E,h12^{km}±1^{km},ML2.2/21*

*MCSM **13** 21:32:01.8±2.4,45°N±61°×2°1E±1°7,h5^{km},MLv2.4*

*BUC **13** 21:32:01.4±0.2,45°.37N×21°.20E,h1^{km},ml2.5/19,Error ellipse: s-maj=1.7km s-min=1.2km az=51.0*

ISC 13 21:32:00.1±0.8,**45°.37N**±0°.02×**21°.18E**±0°.02,**h9**^{km}±5^{km}, **n49,**σ**1^{s}06**/80,**20C-13D,Romania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BANR	Banloc	0.03	295	ePg	Pg	21 32 01.6	-0.2
BANR				eSg	Sg	21 32 03.4	+0.5
BANR	Banloc	0.03	295	⇑P	Pg	21 32 01.8	0.0
BANR				⇑S	Sg	21 32 03.2	+0.2
BANR				AML	AML		
BANR				AML	AML		
VRSS	Vrsac	0.27	157	ePg	Pg	21 32 05.9	+0.4
VRSS				eSg	Sg	21 32 09.9	+0.8
TIM	Timisoara	0.37	5	⇑P	Pb	21 32 08.4	-0.5
TIM				⇑S	Sb	21 32 12.9	-1.8
TIM				AML	AML		
TIM				AML	AML		
BZS	Buzias	0.40	51	ePg	Pb	21 32 08.9	-0.5
BZS				eSg	Sb	21 32 15.4	-0.2
BZS	Buzias	0.40	51	⇓P	Pb	21 32 09.0	-0.3
BZS				⇑S	Sb	21 32 15.1	-0.5
MDVR	Moldovita	0.70	147	ePg	Pg	21 32 14.0	+0.4
MDVR				eSg	Sb	21 32 25.2	+0.9
MDVR	Moldovita	0.70	147	⇑P	Pb	21 32 14.1	-0.4
MDVR				⇑S	Sb	21 32 24.5	+0.2
MDVR				AML	AML		
MDVR				AML	AML		
AVAS	Avala Beograd	0.82	215	ePg	Pg	21 32 16.4	+0.5
AVAS				eSg	Sb	21 32 28.5	+0.7
FRGS	Fruska Gora	0.99	258	ePg	Pb	21 32 18.5	-0.9
FRGS				eSg	Sb	21 32 32.1	-0.5
HERR	Herculane	1.00	119	⇓P	Pn	21 32 20.6	+0.2
HERR				⇓S	Sn	21 32 33.6	-1.1
HERR				AML	AML		
HERR				AML	AML		
KUBS	Kucevo	1.02	159	ePg	Pb	21 32 18.1	-1.9
KUBS				eSg	Sn	21 32 34.1	-1.0
AMBH	Ambrzfalva	1.03	342	⇑P	Pn	21 32 20.9	+0.1
AMBH				⇓S	Sn	21 32 36.2	+0.9
AMBH				AML	AML		
AMBH				AML	AML		
SVIS	Svilajnac	1.10	179	ePg	Pg	21 32 21.8	+0.5
SVIS				eSg	Sn	21 32 36.8	-0.3
GZR	Gura Zlata	1.13	88	ePg	Pn	21 32 22.6	+0.4
GZR				eSg	Sn	21 32 38.6	+0.7
GZR	Gura Zlata	1.13	88	⇓P	Pn	21 32 22.9	+0.7
GZR				⇓S	Sn	21 32 38.0	+0.2
GZR				AML	AML		
GZR				AML	AML		
TRUS	Trudelj	1.27	206	ePg	Pn	21 32 23.0	-1.1
TRUS				eSg	Sb	21 32 40.9	+0.2
RMGR	Halanga-Turnu	1.29	123	⇑P	Pg	21 32 25.7	+0.9
RMGR				⇑S	Sg	21 32 44.2	+2.7
RMGR				AML	AML		
RMGR				AML	AML		
DEV	Deva	1.32	66	⇑P	Pg	21 32 25.5	+0.1
DEV				⇑S	Sg	21 32 43.6	+1.1
DEV				AML	AML		
DEV				AML	AML		
TEKS	Tekeris	1.43	236	ePg	Pn	21 32 24.2	-2.1
TEKS				eSg	Sb	21 32 46.6	+1.3
GRUS	Gruza	1.52	193	ePg	Pn	21 32 26.8	-0.7
GRUS				eSg	Sg	21 32 49.7	+0.8
DIVS	Divibare	1.53	214	ePg	Pn	21 32 26.3	-1.4
DIVS				eSg	Sb	21 32 49.2	+1.1
SRE	Strehaia	1.60	115	⇑P	Pg	21 32 30.2	-0.7
SRE				⇓S	Sg	21 32 53.5	+1.8
SRE				AML	AML		
SRE				AML	AML		
PUNG	Punghina	1.66	130	⇑P	Pg	21 32 31.8	-0.1
PUNG				⇑S	Sg	21 32 53.6	+0.2
PUNG				AML	AML		
PUNG				AML	AML		
ZAGS	Zajecar	1.73	154	ePg	Pn	21 32 30.2	-0.2
ZAGS				eSg	Sg	21 32 56.4	+0.7
BOVS	Bovan	1.77	167	ePg	Pb	21 32 33.3	+0.5
BOVS				eSg	Sg	21 32 56.8	-0.3
BOVS	Bovan	1.77	167	⇓P	Pb	21 32 33.5	+0.7
BOVS				⇓S	Sg	21 32 57.5	+0.3
DRGR		1.78	36	ePn	Pn	21 32 31.0	-0.2
GOCS	Kraljevo Serbi	1.82	187	ePg	Pn	21 32 31.4	-0.3
GOCS				eSg	Sg	21 32 58.7	+0.1
LOT	Lotru	1.83	87	⇑P	Pg	21 32 34.3	-0.9
LOT				AML	AML		
MARR	Marisel-Cluj	1.88	45	⇓P	Pg	21 32 35.2	-1.0
MARR				⇑S	Sg	21 33 00.3	-0.3
IVAS	Ivanjica	1.94	203	ePn	Pn	21 32 31.8	-1.5
MORH	Mrgy, Hungar	1.96	296	⇓S	Sb	21 33 02.1	+1.5
MORH	Mrgy, Hungar	1.96	296	P	Pb	21 32 35.6	-0.4
MORH				Sn	Sb	21 33 01.4	+0.8
MORH				AML	AML		
BBLS	Lazi&#263i	1.96	221	ePn	Pn	21 32 33.1	-0.6
BBLS				eSg	Sb	21 33 02.8	+2.1
BLKB	Belogradchik	2.05	148	ePn	Pb	21 32 35.9	-1.6
BLKB	Belogradchik	2.05	148	⇑S	Sb	21 33 03.6	+0.4
BAIL	Bailesti	2.05	130	⇑S	Sg	21 33 04.7	-1.4
BAIL				AML	AML		
SELS	Selova	2.15	181	ePn	Pn	21 32 35.1	-1.1
TNR	Turnu Rosu	2.20	82	⇓P	Pb	21 32 39.6	-0.5
TNR				AML	AML		
SJES	Sjenica	2.28	203	ePn	Pn	21 32 37.2	-0.8
ZAPS	Zavoj	2.34	153	ePn	Pn	21 32 39.2	+0.3
ARR	Arges	2.44	89	⇑P	Pb	21 32 42.9	-1.2
BARS	Barje	2.59	170	ePn	Pn	21 32 41.3	-1.0
VOIR		2.73	87	⇓P	Pb	21 32 45.9	-3.2
VOIR		2.73	87	P	Pn	21 32 45.4	+1.2
VOIR				AML	AML		
MPLH	Magyarpolny	3.10	307	P	Pn	21 32 51.0	+1.8
MPLH				AML	AML		
MLR	Muntele Rosu	3.36	86	P	Pn	21 32 55.5	+2.6
KOLS	Kolonicke sedl	3.64	11	ePG	Pg	21 33 16.8	+6.9
KOLS				eSG	Sg	21 33 57.7	+0.6

*IDC **13** 21:37:35.9±2.1,16°.96S×167°.64E,h0^{km},mb3.9/4, mbtmp3.9/5,ML3.3/1,MS2.8/2,Error ellipse: s-maj=46.4km s-min=21.7km az=82.0*

*NOU **13** 21:37:37.2,17°.05S×167°.89E,h10^{km},MLv4.3/15, Vanuatu Islands*

*NEIC **13** 21:37:37.1±1.1,17°.02S±0°.05×167°.7E±0°.1,h10^{km}±1^{km}, mb4.2/10,Error ellipse: s-maj=21.8km s-min=8.6km az=81.0*

ISC 13 21:37:38.0±0.8,**17°.04S**±0°.05×**167°.81E**±0°.09,**h21**^{km}**,n31,** σ**1^{s}08**/30,**mb4.2**/8,**Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DVP	Devils Point	0.77	152	P	Pb	21 37 52.4	-0.3
RTV	Rentapao	0.95	142	P	Pb	21 37 54.9	-0.8
RTV	Rentapao	0.95	142	S	Sb	21 38 07.8	-0.1
SANVU	Saraoutou	1.69	340	P	Pn	21 38 05.7	-0.6
SANVU	Saraoutou	1.69	340	S	Sb	21 38 29.9	+0.6
SANVU	Saraoutou	1.69	340		Pn	21 38 05.1	-1.2
MARNC	Mare, Loyalty	4.42	177	P	Pn	21 38 43.1	-0.8
MARNC	Mare, Loyalty	4.42	177	Pn	Pn	21 38 43.2	-0.6
KOUNC	Koumac, New Ca	4.83	223	P	Pn	21 38 51.1	+1.6
KOUNC	Koumac, New Ca	4.83	223	Pn	Pn	21 38 48.0	-1.5
YATNC	Mamie plateau,	5.07	190	P	Pn	21 38 52.4	-0.4

DZM	Mont Dzumac	5.17	194	Pn	Pn	21 38 54.2	0.0
	1.0nm,0.3s,baz=15,slow=20,SNR=11						
DZM				Sn	Sn	21 39 50.6	-2.7
	2.9nm,0.3s,baz=141,slow=24,SNR=6.9						
	5.7nm,0.6s						
DZM				AML	AML		
NOUC	Port Laguerre	5.23	196	P	Pn	21 38 56.2	+1.2
OUENC	Ouen Island, N	5.42	190	P	Pn	21 38 59.3	+1.6
OUENC	Ouen Island, N	5.42	190	Pn	Pn	21 38 57.9	+0.2
HNR	Honiara	10.76	314	LR	LR	21 44 02.8	
	comp=Z,47nm,19.8s,baz=304,slow=37						
LTZ	Lake Taylor	25.93	172	P	P	21 43 09.5	+0.6
WR8	Warramunga Arr	31.69	260	P	P	21 43 58.9	-1.5
WR8				IAmb	IAmb	21 44 16.4	
	comp=Z,6.0nm,1.2s						
WB0	Warramunga Arr	31.80	260	P	P	21 44 00.6	-0.7
WB0				IAmb	IAmb	21 44 26.4	
	comp=Z,5.5nm,1.2s						
WRA	Warramunga Arr	31.84	260	P	P	21 44 01.1	-0.7
	comp=Z,0.5nm,0.6s,baz=83,slow=7.3,SNR=9.0						
	comp=Z,0.5nm,0.6s						
WRA	Warramunga Arr	31.84	260	P	P	21 44 00.5	-1.2
AS31	Alice Springs	32.41	253	P	P	21 44 06.1	-0.6
AS31				IAmb	IAmb	21 44 07.3	
	comp=Z,1.1nm,0.5s						
ASAR	Alice Springs	32.41	253	P	P	21 44 06.5	-0.2
	comp=Z,1.6nm,0.4s,baz=81,slow=8.4,SNR=32						
	comp=Z,1.6nm,0.4s						
KNRA	Kununurra	37.45	266	P	P	21 44 49.7	-0.5
KNRA				IAmb	IAmb	21 45 10.7	
	comp=Z,7.7nm,1.5s						
GUMO	Guam	37.95	322	LR	LR	22 00 53.2	
	comp=Z,16nm,18.6s,baz=124,slow=37						
FITZ	Fitzroy Crossi	40.16	262	P	P	21 45 12.9	0.0
CLES	Cleveland East	72.20	14	P	P	21 49 01.9	+0.7
QSPA	South Pole Qui	73.00	180	P	P	21 49 07.3	+1.3
	comp=Z,2.7nm,1.0s,baz=9.0,slow=3.6,SNR=4.5						
	comp=Z,2.7nm,1.0s						
QSPA	South Pole Qui	73.00	180	P	P	21 49 07.4	+1.4
QSPA				IAmb	IAmb	21 49 10.6	
	comp=Z,2.7nm,1.0s						
SONM	Songino Array	84.66	324	P	P	21 50 11.4	+1.1
	comp=Z,0.5nm,0.7s,baz=113,slow=5.5,SNR=2.9						
	comp=Z,0.5nm,0.7s						
SONM	Songino Array	84.66	324	P	P	21 50 10.4	+0.1
SONM				IAmb	IAmb	21 50 14.6	
	comp=Z,2.0nm,1.4s						

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*WEL **13** 21:44:19.9±0.6, 33°S±5°×17°8W±1°2, h12^{km}, M4.8/19, mB5.3/13, ML4.8/24, MLv4.9/19, Mw(mB)4.7/13, Error ellipse: s-maj=16.2km s-min=3.0km az=110.2, confirmed*

*IDC **13** 21:44:20.7±1.0, 32°.78S×179°.00W, h0^{km}, mb3.9/3, mbtmp4.2/5, ML4.6/2, MS2.7/1, Error ellipse: s-maj=34.6km s-min=16.3km az=112.0*

*NEIC **13** 21:44:25.5±1.8, 32°.71S±0°.05×178°.8W±0°.1, h35^{km}±2^{km}, mb4.5/13, Error ellipse: s-maj=21.5km s-min=4.9km az=106.0*

ISC 13 21:44:21.6±0.8**, 32°.93S**±0°.06×**178°.2W**±0°.1**, h34**^{km}**, n66,** σ**1^{s}.68**/77**, mb4.2**/8**, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GLKZ	Green Lake	3.66	4	P	Pn	21 45 16.8	+0.9
GLKZ				S	Sn	21 45 57.6	-0.3
GLKZ				AML	AML		
GLKZ				AML	AML		
RAO	Raoul Island	3.67	4	Pn	Pn	21 45 16.6	+0.6
	173nm,0.3s,baz=278,slow=23,SNR=7.8						
RAO				Sn	Sn	21 45 58.5	+0.4
	98nm,0.3s,baz=118,slow=22,SNR=2.0						
	268nm,0.3s						
RAO				AML	AML		
RAO	Raoul Island	3.67	4		Pn	21 45 16.2	+0.2
RAO					Sn	21 45 57.5	-0.6
RIZ	Raoul Island	3.68	4	P	Pn	21 45 17.4	+1.3
RIZ				S	Sn	21 45 59.1	+0.8
RIZ				AML	AML		
RIZ				AML	AML		
MXZ	Matakaoa Point	5.43	211	Pn	Pn	21 45 42.6	+2.5
MXZ	Matakaoa Point	5.43	211	P	Pn	21 45 40.1	0.0
MXZ				S	Sn	21 46 38.3	-3.0
MXZ				T	T	21 50 54.9	
MXZ				AML	AML		
WMGZ	Waiomatatini S	5.60	208	P	Pn	21 45 43.3	+0.9
WMGZ				S	Sn	21 46 45.7	+0.1
WMGZ				AML	AML		
WMGZ				AML	AML		
PKGZ	Pakihiroa	5.78	210	P	Pn	21 45 46.1	+1.2
PKGZ				S	Sn	21 46 50.9	+0.9
PKGZ				AML	AML		
PKGZ				AML	AML		
HAZ	Te Kaha	5.82	213	P	Pn	21 45 47.1	+1.6
HAZ				S	Sn	21 46 51.5	+0.6
HAZ				AML	AML		
HAZ				AML	AML		
PUZ	Puketiti	5.88	208	P	Pn	21 45 46.9	+0.5
PUZ				S	Sn	21 46 50.3	-2.3
PUZ				AML	AML		
RUGZ	Raukumara Rang	6.04	213	P	Pn	21 45 49.4	+0.8
RUGZ				AML	AML		
RUGZ				AML	AML		
TWGZ	Tauwhareparae	6.08	210	P	Pn	21 45 50.3	+1.1
TWGZ				S	Sn	21 46 56.6	-1.0
TWGZ				AML	AML		
TWGZ				AML	AML		
CNGZ	Carnagh Statio	6.26	207	P	Pn	21 45 52.3	+0.8
CNGZ				AML	AML		
CNGZ				AML	AML		
WHRZ	Whale Island	6.29	217	P	Pn	21 45 55.1	+3.1
WHRZ				S	Sn	21 47 05.5	+2.9
WHRZ				AML	AML		
WHRZ				AML	AML		
TKGZ	Te Karaka	6.36	209	P	Pn	21 45 55.0	+2.1
TKGZ				S	Sn	21 47 02.4	-1.9
TKGZ				AML	AML		
TKGZ				AML	AML		
MWZ	Matawai	6.41	211	P	Pn	21 45 54.1	+0.5
MWZ				S	Sn	21 47 03.9	-1.7
MWZ				AML	AML		
MWZ				AML	AML		
URZ	Urewera	6.54	214	Pn	Pn	21 45 55.8	+0.5
	3.5nm,0.3s,baz=268,slow=5.8,SNR=52						
URZ				Sn	Sn	21 47 05.7	-3.0
	10nm,0.3s,baz=42,slow=23,SNR=8.3						
	17nm,0.3s						
URZ				AML	AML		
URZ	Urewera	6.54	214	P	Pn	21 45 54.6	-0.8
URZ				AML	AML		
URZ				AML	AML		
RAGZ	Rawiri	6.59	211	P	Pn	21 45 57.3	+1.2
RAGZ				AML	AML		
RAGZ				AML	AML		
RIGZ	Rimuhau	6.62	208	P	Pn	21 45 58.1	+1.5
RIGZ				AML	AML		
RIGZ				AML	AML		
PRGZ	Paritu Road	6.76	207	P	Pn	21 45 58.5	0.0
PRGZ				AML	AML		
PRGZ				AML	AML		
WCZ	Waipu Caves	6.84	242	P	Pn	21 46 02.6	+3.1
WCZ				AML	AML		
MKAZ	Moumakai	6.84	231	P	Pn	21 46 04.2	+4.7
MKAZ				AML	AML		
MUGZ	Murupara	6.87	215	P	Pn	21 46 01.1	+1.1
MUGZ				AML	AML		
MUGZ				AML	AML		
RTZ	Ruatahuna	6.88	213	Pn	Pn	21 46 00.9	+0.7
RTZ	Ruatahuna	6.88	213	P	Pn	21 46 00.9	+0.7
RTZ				AML	AML		
RTZ				AML	AML		
KNZ	Kokohu	6.93	208	P	Pn	21 45 58.5	-2.3
KNZ				S	Sn	21 47 15.9	-2.5
KNZ				AML	AML		
KNZ				AML	AML		
MHGZ	Mahia Peninsul	6.96	206	P	Pn	21 46 01.1	-0.1
MHGZ				AML	AML		
MHGZ				AML	AML		
TOZ	Tahuroa Road	7.02	225		Pn	21 46 03.1	+1.2
TOZ	Tahuroa Road	7.02	225	P	Pn	21 46 03.6	+1.7
TOZ				AML	AML		
RAHZ	Arahi	7.08	211	P	Pn	21 46 04.3	+1.5
RAHZ				S	Sn	21 47 22.7	+0.5
RAHZ				AML	AML		
RAHZ				AML	AML		
MTHZ	Maungataniwha	7.14	213	P	Pn	21 46 05.5	+1.9
MTHZ				S	Sn	21 47 20.2	-3.4
MTHZ				AML	AML		
MTHZ				AML	AML		
OUZ	Omahuta	7.16	249	P	Pn	21 46 06.7	+2.7
OUZ				AML	AML		
NMHZ	Naumai	7.36	212	P	Pn	21 46 08.0	+1.3
NMHZ				S	Sn	21 47 27.5	-1.5
NMHZ				AML	AML		
NMHZ				AML	AML		
ARHZ	Aropaoanui	7.41	210	P	Pn	21 46 09.1	+1.8
ARHZ				AML	AML		
BKZ	Black Stump Fm	7.55	213	P	Pn	21 46 09.5	+0.2
BKZ				S	Sn	21 47 30.3	-3.5
BKZ				AML	AML		
BKZ				AML	AML		
HIZ	Hauiti	7.92	223	Pn	Pn	21 46 14.3	0.0
BFZ	Birch Farm	8.92	208	Pn	Pn	21 46 26.2	-1.8
CTZ	Chatham Island	10.86	174	P	Pn	21 46 54.1	-0.5
NIUE	Niue	15.67	30	Pn	P	21 48 03.4	-0.2
NIUE	Niue	15.67	30	P	Pn	21 47 59.2	-0.7
ONTNC	Ouen Toro	17.19	304	Pn	Pn	21 48 14.7	-4.6
ONTNC				IAmb	IAmb	21 48 55.6	
	comp=Z,59nm,1.2s						
RAR	Rarotonga	20.12	59	LR	LR	21 57 50.9	
	comp=Z,17nm,18.0s,baz=194,slow=39						
AS31	Alice Springs	42.85	270	P	P	21 52 16.2	-0.5
ASAR	Alice Springs	42.85	270	P	P	21 52 16.0	-0.7
	comp=Z,1.0nm,0.5s,baz=109,slow=7.6,SNR=12						
	comp=Z,1.0nm,0.5s						
ASAR	Alice Springs	42.85	270	P	P	21 52 16.4	-0.3
WR8	Warramunga Arr	43.92	275	P	P	21 52 24.5	-0.8
WR8				IAmb	IAmb	21 52 39.5	
	comp=Z,5.5nm,1.4s						
WRA	Warramunga Arr	44.06	275	P	P	21 52 25.4	-1.1
	comp=Z,1.0nm,0.3s,baz=113,slow=7.9,SNR=39						
	comp=Z,1.0nm,0.3s						
WRA	Warramunga Arr	44.06	275	P	P	21 52 25.4	-1.1
WB0	Warramunga Arr	44.10	275	P	P	21 52 26.3	-0.5
WB0				IAmb	IAmb	21 52 42.2	
	comp=Z,11nm,1.2s						
FORT	Forrest	45.27	258	P	P	21 52 35.1	-0.9
FORT				IAmb	IAmb	21 53 08.8	
	comp=Z,7.1nm,1.1s						
MTN	Manton Dam	50.24	281	P	P	21 53 13.3	-1.3
MTN				IAmb	IAmb	21 53 20.2	
	comp=Z,8.1nm,1.4s						
FITZ	Fitzroy Crossi	52.21	272	P	P	21 53 29.2	-0.2
CASY	Casey	52.83	209	P	P	21 53 37.2	+3.9
CASY				IAmb	IAmb	21 54 00.1	
	comp=Z,4.5nm,1.3s						
QSPA	South Pole Qui	57.19	180	P	P	21 54 11.5	+6.4
	comp=Z,0.5nm,0.6s,baz=27,slow=2.3,SNR=8.1						
	comp=Z,0.5nm,0.6s						
QSPA	South Pole Qui	57.19	180	P	P	21 54 10.4	+5.3
QSPA				IAmb	IAmb	21 54 53.8	
	comp=Z,9.1nm,1.4s						
KKM	Kota Kinabalu	73.18	289	P	P	21 55 49.2	-0.3
H03S2	Juan Fernandez	79.23	123	T	T	23 25 01.9	
	baz=235,slow=74,SNR=22						
H03S1	Juan Fernandez	79.25	123	T	T	23 24 55.0	
	baz=235,slow=74,SNR=21						
H03S3	Juan Fernandez	79.25	123	T	T	23 24 58.2	
	baz=235,slow=74,SNR=25						
ARCES	ARCESS Array B	141.01	347	PKhKP	PKPpre	22 03 45.4	
	comp=Z,1.1nm,0.6s,baz=39,slow=2.2,SNR=5.1						
FINES	FINESS Array B	147.43	338	PKPbc	PKPab	22 04 02.7	-0.5
	comp=Z,4.1nm,0.4s,baz=38,slow=4.3,SNR=75						
NB2	NORSAR Subarra	151.21	350	PKP	PKiKP	22 04 12.9	+1.7
	comp=Z,0.5nm,0.5s,baz=16,slow=4.1						
NOA	NORSAR Array B	151.21	350	PKPbc	PKiKP	22 04 12.8	+1.7
	comp=Z,0.4nm,0.4s,baz=14,slow=4.1,SNR=3.5						
HFS	Hagfors	151.67	347	PKPbc	PKiKP	22 04 13.9	+1.7
	comp=Z,0.9nm,0.4s,baz=32,slow=2.7,SNR=7.1						
MMAI	Mount Meron Ar	151.86	279	PKPbc	PKiKP	22 04 15.6	+2.2
	comp=Z,0.7nm,0.3s,baz=90,slow=2.8,SNR=1.6						

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*DJA **13** 22:16:31.8±0.8, 7°N±8°×12°6E±°, h154^{km}±7^{km}, M4.6/12, mb4.7/12, mB5.1/12, MLv4.9/9, Mw(mB)4.5/12*

*MAN **13** 22:16:37.0, 6°.65N×126°.47E, h42^{km}, MS3.8*

*IDC **13** 22:16:39.2±3.7, 6°.71N×126°.46E, h62^{km}±31^{km}, mb3.8/11, mbtmp4.1/11, MS2.7/3, Error ellipse: s-maj=70.0km s-min=13.0km az=65.0*

*NEIC **13** 22:16:40.3±1.4, 6°.68N±0°.09×126°.2E±0°.1, h66^{km}±8^{km}, mb4.4/19, Error ellipse: s-maj=18.1km s-min=9.3km az=56.0*

ISC 13 22:16:39.3±0.9**, 6°.66N**±0°.04×**126°.36E**±0°.06**, h62**^{km}±8^{km}**, n65,** σ**1^{s}.37**/76**, mb4.2**/19**, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	Don Marcelino,	0.85	229	*i* P	Pn	22 16 54.8	-0.7
DDMP				*e*S	Sn	22 17 07.0	-0.5
DAV	Davao City (W)	0.87	298	P	Pn	22 16 55.5	-0.3
	3µm,0.4s,baz=117,slow=0.6,SNR=125						
DAV				S	Sn	22 17 10.3	+2.3
	3µm,0.4s,baz=286,slow=21,SNR=6.7						
DAV				LR	LR	22 17 30.5	
	comp=Z,358nm,20.4s,baz=38,slow=54						
DAV	Davao City (W)	0.87	298		Pn	22 16 55.1	-0.7
DAV					Sn	22 17 07.8	-0.2
DAV	Davao City (W)	0.87	298	P	Pn	22 16 55.3	-0.5
DAV	Davao City (W)	0.87	298	P	Pn	22 16 50.0	-5.8
DMPH	Davao City--Mi	0.94	296	*i* P	Pn	22 16 56.6	0.0
DMPH				*i* S	Sn	22 17 10.8	+1.3
CDOP	Cateel, Davao	1.12	4	*i* P	Pn	22 16 57.4	-1.6
CDOP				*e*S	Sn	22 17 11.3	-2.3
KCP	Kidapawan	1.31	285	*e*P	Pn	22 17 00.7	-0.8
KCP				*i* S	Sn	22 17 18.4	+0.2
BIPH	Bislig	1.51	0	*e*P	Pn	22 17 02.8	-1.4
BIPH				*e*S	Sn	22 17 21.1	-1.9
GSPH	General Santos	1.51	248	*i* P	Pn	22 17 02.0	-2.3
GSPH				*i* S	Sn	22 17 19.0	-4.2
BUKP	Musuan	1.77	313	*i* P	Pn	22 17 07.3	-0.4
BUKP				*i* S	Sn	22 17 28.4	-0.8
CTBH	Cotabato--PC H	2.17	285	*i* P	Pn	22 17 12.7	-0.4
CGP	Cagayan de Oro	2.43	317	*e*P	Pn	22 17 14.8	-1.9
CGP				*i* S	Sn	22 17 50.2	+5.0
GLSP	General Luna,	3.11	356	*i* P	Pn	22 17 26.2	+0.3
GLSP				*i* S	Sn	22 18 05.6	+3.7
PAGZ	Pagadian	3.18	292	*i* P	Pn	22 17 27.6	+0.7
PAGZ				*i* S	Sn	22 17 45.1	-19
LSIP	Lazi, Siquijor	3.65	312	*e*P	Pn	22 17 33.1	-0.2
SNPH	Sibulan	4.08	311	*e*P	Pn	22 17 40.7	+1.4
MECP	Medelin, Cebu	5.05	332	*e*P	Pn	22 17 53.1	+0.5
MECP				*e*S	Sn	22 18 01.2	-48
MNI	Manado	5.40	196	P	Pn	22 17 59.6	+2.3
	0.7nm134nm,0.8s						
MNI				AML	AML		
TNTI	Ternate	5.94	170		Pn	22 18 07.2	+2.5
TNTI	Ternate	5.94	170	P	Pn	22 18 06.7	+2.0
	0.3nm1µm78nm,0.7s						
TNTI				AML	AML		
GTOI	Gorontalo	6.86	209	P	Pn	22 18 17.1	-0.1
	0.3nm1µm72nm,0.6s						
GTOI				AML	AML		
TOLI2	Tolitoli	7.83	225		Pn	22 18 28.7	-1.9
SANI	Sanana	8.66	182	P	Pn	22 18 42.8	+0.8
SWI	Sorong	8.93	147	P	Pn	22 18 47.6	+1.9
	1µm30nm,1.2s						
KKM	Kota Kinabalu	10.10	267	P	Pn	22 18 53.1	-8.7
SOEI	Soe	16.44	187		P	22 20 28.0	0.0
SOEI				IAmb	IAmb	22 20 45.3	
	comp=Z,25nm,0.9s						
YOJ	Yonaguni jima	17.99	350	P	Pn	22 20 44.6	-0.5
YOJ				IAmb	IAmb	22 20 54.0	
	comp=Z,35nm,0.9s						
MTN	Manton Dam	19.95	166	P	P	22 21 06.9	+0.5
KNRA	Kununurra	22.32	174	P	P	22 21 32.9	+1.0
KNRA				IAmb	IAmb	22 21 48.5	
	comp=Z,5.2nm,0.7s						
FITZ	Fitzroy Crossi	24.61	182	P	P	22 21 54.6	+0.7
WB0	Warramunga Arr	27.43	163	P	P	22 22 19.6	+0.2
WB0				IAmb	IAmb	22 22 51.1	
	comp=Z,3.8nm,0.8s						
WRA	Warramunga Arr	27.58	164	P	P	22 22 20.3	-0.4
	comp=Z,0.4nm,0.4s,baz=342,slow=10,SNR=16						
WRA				PcP	PcP	22 25 38.6	+1.3
	comp=Z,0.7nm,1.0s,baz=319,slow=3.3,SNR=2.7						
	comp=Z,0.4nm,0.4s						
WRA	Warramunga Arr	27.58	164	P	P	22 22 21.0	+0.2
WRA					PcP	22 25 35.8	-1.5
WR8	Warramunga Arr	27.64	163	P	P	22 22 21.4	+0.1
WR8				IAmb	IAmb	22 22 28.9	
	comp=Z,14nm,1.5s						
MBWA	Marble Bar	28.40	193	P	P	22 22 27.6	-0.5
MBWA				IAmb	IAmb	22 23 02.9	
	comp=Z,22nm,1.4s						
CMAR	Chiang Mai Arr	29.16	296	LR	LR	22 34 02.0	
	comp=Z,25nm,21.7s,baz=215,slow=36						
ASAR	Alice Springs	31.03	166	P	P	22 22 51.6	+0.3
	comp=Z,0.7nm,0.5s,baz=354,slow=8.5,SNR=14						
ASAR				PcP	PcP	22 25 46.4	+0.3
	comp=Z,0.3nm,0.5s,baz=345,slow=3.1,SNR=2.4						
	comp=Z,0.7nm,0.5s						
MJAR	Matsushiro Arr	31.65	18	LR	LR	22 37 10.8	
	comp=Z,6.3nm,18.1s,baz=206,slow=39						
MORW	Morawa	36.89	195	P	P	22 23 42.2	+0.3
FORT	Forrest	37.26	178	P	P	22 23 46.1	+1.0
NWAO	Narrogin (SRO)	40.31	192	P	P	22 24 11.2	+0.6
BBOO	Buckleboo	40.32	167	P	P	22 24 11.2	+0.5
BBOO				IAmb	IAmb	22 24 17.8	
	comp=Z,19nm,1.2s						
STKA	Stephens Creek	40.99	160	P	P	22 24 16.5	+0.2
	comp=Z,2.4nm,0.5s,baz=343,slow=11,SNR=4.8						
	comp=Z,2.4nm,0.5s						
SONM	Songino Array	44.42	341	P	P	22 24 44.7	+0.6
	comp=Z,0.6nm,0.7s,baz=140,slow=9.2,SNR=4.8						
	comp=Z,0.6nm,0.7s						
SONM	Songino Array	44.42	341	P	P	22 24 43.9	-0.2
MKAR	Makanchi Array	54.96	324	P	P	22 26 03.8	-0.2
	comp=Z,1.2nm,0.4s,baz=116,slow=7.0,SNR=22						
	comp=Z,1.2nm,0.4s						
MKAR	Makanchi Array	54.96	324	P	P	22 26 03.6	-0.5
MKAR				PcP	PcP	22 27 05.8	+0.5
MAKZ	Makanchi	55.15	324	P	P	22 26 04.6	-0.8
MAKZ				IAmb	IAmb	22 26 08.7	
	comp=Z,5.0nm,1.4s						
MAKZ				PcP	PcP	22 27 04.2	-1.8
MA2	Magadan	55.98	15	LR	LR	22 53 50.0	
	comp=Z,10nm,18.1s,baz=216,slow=40						
ZALV	Zalesovo Beam	57.83	332	P	P	22 26 24.0	-0.3
	comp=Z,0.6nm,0.4s,baz=120,slow=6.8,SNR=4.0						
	comp=Z,0.6nm,0.4s						
ZALV	Zalesovo Beam	57.83	332	P	P	22 26 24.3	+0.1
KURK	Kurchatov	59.09	327	P	P	22 26 33.3	+0.2
KURK				IAmb	IAmb	22 26 34.5	
	comp=Z,1.9nm,0.7s						
KURBB	Kurchatov Arra	59.09	327	P	P	22 26 32.8	-0.3
	comp=Z,0.7nm,0.4s,baz=123,slow=6.8,SNR=6.3						
	comp=Z,0.7nm,0.4s						
KKAR	Karatay Array	60.86	316	P	P	22 26 45.7	+0.2
BVAR	Borovoye Array	64.68	326	P	P	22 27 10.6	-0.1
	comp=Z,1.4nm,0.6s,baz=136,slow=9.4,SNR=5.3						
	comp=Z,1.4nm,0.6s						
NRIK	Noril'sk	67.51	346	P	P	22 27 29.1	+0.7
	comp=Z,3.7nm,0.6s,baz=141,slow=4.7,SNR=5.7						
	comp=Z,3.7nm,0.6s						
NRIK	Noril'sk	67.51	346	P	P	22 27 29.0	+0.5
NRIK				IAmb	IAmb	22 27 31.0	
	comp=Z,4.0nm,0.7s						
AB31	Akbulak array	69.67	320	P	P	22 27 40.8	-1.5
AB31				IAmb	IAmb	22 27 41.6	
	comp=Z,1.4nm,0.8s						
ABKAR	Akbulak array	69.67	320	P	P	22 27 41.0	-1.3
ARCES	ARCESS Array B	87.59	340	P	P	22 29 20.1	-0.3
	comp=Z,2.0nm,0.8s,baz=77,slow=5.2,SNR=5.7						
	comp=Z,2.0nm,0.8s						
ARCES	ARCESS Array B	87.59	340	P	P	22 29 19.9	-0.4
FINES	FINESS Array B	89.09	332	P	P	22 29 26.9	-0.6
	comp=Z,1.6nm,0.5s,baz=79,slow=4.7,SNR=14						
	comp=Z,1.6nm,0.5s						
FINES	FINESS Array B	89.09	332	P	P	22 29 27.1	-0.4
TORD	Torodi Ar. Bea	121.62	290	PKP	PKPdf	22 35 25.8	-1.2
	comp=Z,0.2nm,0.4s,baz=79,slow=1.3,SNR=5.9						

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*NOU **13** 22:21:16.9, 43°.58S×171°.34E, h9^{km}, MLv3.5/10, South Island, New Zealand*

*WEL **13** 22:21:17.1±0.3, 43°S±2°×17°1E±°, h5^{km}, M3.3/13, ML3.2/13, MLv3.3/13, Error ellipse: s-maj=2.9km s-min=2.4km az=90.1, confirmed*

ISC 13 22:21:17.5±0.9**, 43°.52S**±0°.02×**171°.18E**±0°.02**, h17**^{km}±6^{km}**, n44,** σ**0^{s}.81**/57**, South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RPZ	Rata Peaks	0.22	205	P	Pg	22 21 22.4	-0.3
RPZ	Rata Peaks	0.22	205	P	Pg	22 21 22.6	-0.1
RPZ				S	Sg	22 21 25.9	-0.3
RPZ				AML	AML		
RPZ				AML	AML		
MSMC	Mount Somers S	0.25	140	P	Pg	22 21 23.5	+0.3
MSMC				S	Sg	22 21 27.2	+0.2
MHCZ	Mount Hutt	0.28	93	P	Pg	22 21 23.8	0.0
MHCZ				S	Sg	22 21 28.3	+0.3
MHCZ				AML	AML		
MHCZ				AML	AML		
MAYC	Mayfield Schoo	0.35	150	P	Pb	22 21 25.5	+0.1
MAYC				S	Sb	22 21 31.2	+0.4
MTHS	Methven North	0.36	98	P	Pb	22 21 25.4	-0.1
PEEC	Peel Forest	0.41	175	P	Pb	22 21 26.3	-0.1
PEEC				S	Sb	22 21 32.8	+0.5
ARCZ	Arundel	0.43	180	P	Pb	22 21 26.4	-0.3
ARCZ				S	Sb	22 21 32.4	-0.6
ARCZ				AML	AML		
ARCZ				AML	AML		
WSFC	Westerfield	0.45	136	P	Pb	22 21 27.3	+0.3
WSFC				S	Sb	22 21 34.3	+0.9
WVZ	Waitaha Valley	0.55	324	P	Pg	22 21 27.6	-0.8
WVZ				S	Sg	22 21 34.5	-1.3
WVZ				AML	AML		
WVZ				AML	AML		
WACZ	Wakanui South	0.64	132	P	Pn	22 21 30.8	-1.0
WACZ				AML	AML		
WACZ				AML	AML		
GCSZ	Gaunt Creek Bo	0.65	287	P	Pg	22 21 29.7	-0.7
GCSZ				AML	AML		
GCSZ				AML	AML		
OXZ	Oxford	0.65	73	P	Pb	22 21 30.5	0.0
OXZ				S	Sb	22 21 39.5	+0.2
OXZ				AML	AML		
OXZ				AML	AML		
INZ	Inchbonnie	0.81	14	P	Pg	22 21 32.4	-1.0
INZ				S	Sg	22 21 42.4	-1.7
INZ				AML	AML		
INZ				AML	AML		
TMZ	Timaru	0.88	188	P	Pb	22 21 34.6	+0.3
TMZ				S	Sb	22 21 46.6	+0.8
TMZ				AML	AML		
TMZ				AML	AML		
FOZ	Fox Glacier	0.99	269	P	Pg	22 21 36.2	-0.6
FOZ				AML	AML		
FOZ				AML	AML		
LTZ	Lake Taylor	1.08	48	P	Pb	22 21 38.0	+0.2
LTZ				S	Sn	22 21 52.9	+0.3
LTZ				AML	AML		
LTZ				AML	AML		
MQZ	McQueen’s Vall	1.09	101	P	Pb	22 21 37.4	-0.5
MQZ				AML	AML		
MQZ				AML	AML		
AMCZ	Amberley	1.13	73	P	Pn	22 21 38.6	+0.1
AMCZ				S	Sn	22 21 54.3	+0.7
AMCZ				AML	AML		
AMCZ				AML	AML		
LBZ	Lake Benmore	1.13	219	P	Pg	22 21 38.4	-0.9
LBZ				AML	AML		
LBZ				AML	AML		
AKCZ	Akaroa Harbour	1.30	106	P	Pn	22 21 40.5	-0.5
OKCZ	Okains Bay	1.38	99	P	Pn	22 21 41.9	-0.2
GVZ	Greta Valley S	1.46	69	P	Pn	22 21 43.2	+0.1
ODZ	Otahua Downs	1.58	194	P	Pn	22 21 44.6	-0.1
ODZ	Otahua Downs	1.58	194	P	Pn	22 21 44.6	-0.1
JCZ	Jackson Bay	1.82	251	P	Pn	22 21 50.1	+1.9
JCZ	Jackson Bay	1.82	251	S	Sb	22 22 14.4	+1.4
JCZ	Jackson Bay	1.82	251	P	Pn	22 21 49.7	+1.5
DSZ	Denniston Nort	1.83	15	P	Pn	22 21 48.8	+0.6
WKZ	Wanaka	2.04	229	P	Pn	22 21 50.9	-0.2
KHZ	Kahutara	2.05	58	P	Pn	22 21 51.2	0.0
KHZ	Kahutara	2.05	58	S	Sn	22 22 15.9	-0.5
KHZ	Kahutara	2.05	58	P	Pn	22 21 51.4	+0.2
THZ	Tophouse	2.17	37	P	Pn	22 21 53.8	+0.9

EAZ	**Earnscleugh**	**2.18**	**217**	P	**Pn**	**22 21 52.2**	**-0.8**
MRNZ	**Matariki Terra**	**2.42**	**29**	P	**Pn**	**22 21 57.9**	**+1.6**
TUZ	**Tuapeka**	**2.68**	**204**	P	**Pn**	**22 21 59.9**	**+0.1**
TKNZ	**Takaka Hill**	**2.81**	**29**	P	**Pn**	**22 22 03.4**	**+1.7**
NNZ	**Nelson**	**2.82**	**36**	P	**Pn**	**22 22 03.9**	**+2.2**
QRZ	**Quartz Range**	**2.87**	**21**	P	**Pn**	**22 22 03.2**	**+0.7**
QRZ	**Quartz Range**	**2.87**	**21**	P	**Pn**	**22 22 03.3**	**+0.8**
SYZ	**Scrubby Hill**	**3.35**	**205**	P	**Pn**	**22 22 09.2**	**+0.1**
SNZO	**South Karori**	**3.42**	**51**	P	**Pn**	**22 22 09.5**	**-0.5**
KHEZ	**Kahui Hut**	**4.72**	**28**	P	**Pn**	**22 22 28.4**	**+0.3**

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*IDC **13** 23:25:00.4±1.5, 31°.24N×70°.10E, h0^{km}, mb3.7/8, mbtmp3.8/10, ML3.8/2, MS3.1/6, Error ellipse: s-maj=29.5km s-min=23.3km az=99.0*

ISC 13 23:25:02.8±1.2, 31°.4N±0°.1×70°.1E±0°.2, h10^{km}, n14, σ1^{s}.15/15, mb3.8/7, MS3.0/4, 1C-2D, Pakistan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KK31	**Karatay Array**	**11.70**	**2**	P	**Pn**	**23 27 49.4**	**-0.3**
	4.1nm,0.6s,baz=181,slow=11,SNR=40						
KK31				⇓S	**Sn**	**23 29 59.3**	**-1.1**
	2.4nm,0.7s,baz=178,slow=23,SNR=3.8						
AAK	**Ala-Archa**	**11.76**	**16**	Pn	**Pn**	**23 27 51.7**	**+0.9**
	0.9nm,0.3s,baz=196,slow=8.2,SNR=33						
AAK				Sn	**Sn**	**23 30 01.8**	**-0.4**
	0.2nm,0.3s,baz=340,slow=22,SNR=2.2						
AAK				LR	LR	23 33 11.1	
	comp=Z,124nm,19.0s,baz=208,slow=41						
	9.4nm,0.7s						
AAK				AML	AML		
AAK	**Ala-Archa**	**11.76**	**16**	⇓P	**Pn**	**23 27 51.5**	**+0.8**
	6.7nm,0.8s						
AAK				⇑S	**Sn**	**23 30 00.2**	**-2.0**
	3.5nm,0.8s						
MKAR	**Makanchi Array**	**18.03**	**28**	P	**Pn**	**23 29 14.0**	**+0.6**
	0.2nm,0.3s,baz=213,slow=12,SNR=10						
MKAR				LR	LR	23 37 03.9	
	comp=Z,81nm,18.2s,baz=208,slow=40						
	1.3nm,0.6s						
MKAR				AML	AML		
KURBB	**Kurchatov Arra**	**20.22**	**16**	P	**P**	**23 29 37.7**	**-0.1**
	1.4nm,0.5s,baz=205,slow=10,SNR=16						
KURBB				LR	LR	23 38 13.6	
	comp=Z,91nm,20.9s,baz=165,slow=39						
	1.4nm,0.5s						
AKTO	**Aktyubinsk**	**21.05**	**338**	P	**P**	**23 29 46.2**	**-0.5**
	0.9nm,0.3s,baz=149,slow=14,SNR=8.2						
	0.9nm,0.3s						
BVAR	**Borovoye Array**	**21.62**	**0**	P	**P**	**23 29 53.1**	**+0.2**
	2.5nm,0.6s,baz=160,slow=14,SNR=5.4						
	2.5nm,0.6s						
ZALV	**Zalesovo Beam**	**24.91**	**21**	P	**P**	**23 30 26.2**	**+0.4**
	1.3nm,0.5s,baz=224,slow=10,SNR=6.3						
ZALV				LR	LR	23 41 04.5	
	comp=Z,51nm,19.8s,baz=213,slow=38						
	1.3nm,0.5s						
CMAR	**Chiang Mai Arr**	**29.06**	**109**	LR	LR	23 44 51.9	
	comp=Z,17nm,19.6s,baz=250,slow=41						
BRTR	**Keskin Array B**	**30.63**	**296**	P	**P**	**23 31 17.5**	**+0.2**
	0.4nm,0.7s,baz=107,slow=5.0,SNR=3.0						
	0.4nm,0.7s						
SONM	**Songino Array**	**32.08**	**49**	P	**P**	**23 31 31.7**	**+1.7**
	0.5nm,0.8s,baz=258,slow=7.2,SNR=3.1						
	0.5nm,0.8s						
NRIK	**Noril'sk**	**39.28**	**10**	LR	LR	23 50 00.4	
	comp=Z,23nm,20.8s,baz=101,slow=38						
ARCES	**ARCESS Array B**	**45.62**	**340**	P	**P**	**23 33 23.9**	**+1.0**
	1.1nm,0.6s,baz=124,slow=10,SNR=5.4						
	1.1nm,0.6s						
ASAR	**Alice Springs**	**82.00**	**124**	P	**P**	**23 37 21.2**	**-2.0**
	0.3nm,0.3s,baz=314,slow=5.2,SNR=4.5						
	0.3nm,0.3s						

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*IDC **13** 23:32:09.7±4.2, 12°.08N×143°.12E, h41^{km}±39^{km}, mb3.8/7, mbtmp4.0/8, ML4.0/1, MS2.8/2, Error ellipse: s-maj=46.4km s-min=18.2km az=114.0*

ISC 13 23:32:08.5±0.9, 12°.1N±0°.2×143°.1E±0°.2, h31^{km}, n13, σ0^{s}.45/9, mb4.1/7, South of Mariana Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GUMO	**Guam**	**2.32**	**49**	P	**Pn**	**23 32 44.8**	**+0.3**
	37nm,0.3s,baz=230,slow=14,SNR=4.5						
GUMO				S	**Sn**	**23 33 12.0**	**0.0**
	167nm,0.4s,baz=73,slow=21,SNR=7.4						
	100nm,0.4s						
GUMO				AML	AML		
H11N1	**WAKE ISLAND Hy**	**24.12**	**69**	T	T	00 02 10.1	
	baz=255,slow=75,SNR=9.4						
H11N2	**WAKE ISLAND Hy**	**24.14**	**69**	T	T	00 02 16.1	
	baz=255,slow=75,SNR=6.3						
H11N3	**WAKE ISLAND Hy**	**24.14**	**69**	T	T	00 02 12.2	
	baz=255,slow=75,SNR=8.1						
MJAR	**Matsushiro Arr**	**24.75**	**351**	LR	LR	23 45 41.4	
	comp=Z,28nm,19.4s,baz=12,slow=33						
WRA	**Warramunga Arr**	**32.96**	**195**	P	**P**	**23 38 40.6**	**0.0**
	1.8nm,0.7s,baz=21,slow=9.6,SNR=6.1						
	1.8nm,0.7s						
ASAR	**Alice Springs**	**36.64**	**194**	P	**P**	**23 39 12.4**	**+0.1**
	0.4nm,0.4s,baz=14,slow=9.1,SNR=1.8						
	0.4nm,0.4s						
CMAR	**Chiang Mai Arr**	**42.95**	**284**	LR	LR	23 59 25.6	
	comp=Z,9.8nm,18.2s,baz=255,slow=38						
KURBB	**Kurchatov Arra**	**64.64**	**320**	P	**P**	**23 42 43.8**	**+0.6**
	0.2nm,0.4s,baz=104,slow=7.2,SNR=3.3						
	0.2nm,0.4s						
ILAR	**Eielson Array**	**70.68**	**25**	P	**P**	**23 43 20.3**	**-0.7**
	0.7nm,0.6s,baz=252,slow=6.0,SNR=6.8						
	0.7nm,0.6s						
ARCES	**ARCESS Array B**	**87.96**	**342**	P	**P**	**23 44 54.8**	**-0.3**
	3.0nm,1.0s,baz=53,slow=4.9,SNR=2.5						
	3.0nm,1.0s						
NVAR	**Mina Array Bea**	**89.24**	**51**	P	**P**	**23 45 02.4**	**+0.3**
	0.7nm,0.6s,baz=253,slow=5.0,SNR=5.8						
	0.7nm,0.6s						
FINES	**FINESS Array B**	**91.77**	**335**	P	**P**	**23 45 12.7**	**-0.3**
	2.5nm,0.9s,baz=63,slow=4.9,SNR=4.0						
	2.5nm,0.9s						

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*IDC **13** 23:36:42.7±11.0, 6°.90S×129°.77E, h75^{km}±131^{km}, mb3.6/5, mbtmp3.9/8, ML4.0/3, Error ellipse: s-maj=104.6km s-min=65.6km az=40.0*

*NEIC **13** 23:36:47.3±1.9, 7°.06S±0°.10×129°.80E±0°.06, h118^{km}±13^{km}, mb4.2/4, Error ellipse: s-maj=14.2km s-min=7.6km az=166.0*

ISC 13 23:36:45.6±0.8, 7°.01S±0°.08×129°.70E±0°.10, h100^{km}, n18, σ1^{s}.27/19, mb3.8/6, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SAUI	**Saumlaki**	**1.86**	**122**	Pn	**Pn**	**23 37 19.1**	**+2.8**
SAUI				Sn	**Sn**	**23 37 40.9**	**+1.2**
FAKI	**Fak Fak**	**4.79**	**32**		**Pn**	**23 37 56.0**	**+0.6**
SOEI	**Soe**	**6.03**	**243**		**Pn**	**23 38 14.8**	**+2.3**
KNRA	**Kununurra**	**8.67**	**186**	Pn	**Pn**	**23 38 48.0**	**-0.2**
FITZ	**Fitzroy Crossi**	**11.71**	**199**	P	**Pn**	**23 39 29.1**	**-0.4**
	1.4nm,0.3s,baz=22,slow=14,SNR=1.6						
FITZ				S	Sn	23 41 29.6	-8.8
	5.4nm,0.3s,baz=147,slow=19,SNR=5.8						
	3.4nm,0.2s						
FITZ				AML	AML		
FITZ	**Fitzroy Crossi**	**11.71**	**199**		**Pn**	**23 39 29.8**	**+0.3**
WRA	**Warramunga Arr**	**13.62**	**161**	P	**Pn**	**23 39 53.8**	**-0.9**
	0.6nm,0.3s,baz=345,slow=14,SNR=2.1						
WRA				S	Sn	23 42 09.3	-15
	4.4nm,0.4s,baz=327,slow=23,SNR=8.7						
	0.9nm,0.3s						
WRA				AML	AML		
ASAR	**Alice Springs**	**17.05**	**167**	P	**Pn**	**23 40 37.3**	**-0.6**
	0.5nm,0.3s,baz=334,slow=13,SNR=6.9						
	1.0nm,0.6s						
ASAR				AML	AML		
ASAR	**Alice Springs**	**17.05**	**167**	P	**Pn**	**23 40 36.6**	**-1.3**
MBWA	**Marble Bar**	**17.06**	**213**		**Pn**	**23 40 38.5**	**+0.5**
MBWA				IAmb	IAmb	23 40 43.8	
	comp=Z,29nm,1.4s						
TOO	**Toolangi**	**33.64**	**157**	P	**P**	**23 43 15.4**	**-1.4**
SONM	**Songino Array**	**58.35**	**342**	P	**P**	**23 46 30.8**	**+0.4**
	comp=Z,0.2nm,0.3s,baz=162,slow=5.9,SNR=2.1						
	comp=Z,0.2nm,0.3s						
MKAR	**Makanchi Array**	**68.07**	**327**	P	**P**	**23 47 34.9**	**+0.3**
	comp=Z,1.5nm,0.5s,baz=126,slow=7.3,SNR=27						
	comp=Z,1.5nm,0.5s						
MAKZ	**Makanchi**	**68.25**	**327**	P	**P**	**23 47 35.9**	**+0.3**
MAKZ				IAmb	IAmb	23 47 55.0	
	comp=Z,3.1nm,1.2s						
ZALV	**Zalesovo Beam**	**71.46**	**334**	P	**P**	**23 47 54.0**	**-1.2**
	comp=Z,0.5nm,0.4s,baz=127,slow=6.2,SNR=2.8						
	comp=Z,0.5nm,0.4s						
KURBB	**Kurchatov Arra**	**72.36**	**329**	P	**P**	**23 47 59.6**	**-1.0**
	comp=Z,0.9nm,0.6s,baz=130,slow=4.9,SNR=10						
	comp=Z,0.9nm,0.6s						
KURK	**Kurchatov**	**72.37**	**329**	P	**P**	**23 47 59.6**	**-1.0**
BVAR	**Borovoye Array**	**77.91**	**328**	P	**P**	**23 48 31.0**	**-1.5**
	comp=Z,0.6nm,0.7s,baz=110,slow=5.7,SNR=2.3						
	comp=Z,0.6nm,0.7s						

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*IDC **13** 23:37:33.5±1.2, 43°.25N×127°.14W, h0^{km}, mb3.8/8, mbtmp3.6/15, ML3.5/6, MS3.5/36, Error ellipse: s-maj=28.5km s-min=11.9km az=39.0*

*NEIC **13** 23:37:33.4±1.6, 43°.19N±0°.06×127°.0W±0°.1, h10^{km}±1^{km}, mb3.9/28, ML3.3/106, Error ellipse: s-maj=13.2km s-min=9.9km az=247.0*

ISC 13 23:37:33.7±0.8, 43°.22N±0°.06×126°.97W±0°.08, h10^{km}, n166, σ1^{s}.01/136, mb3.9/9, MS3.5/29, Off coast of Oregon

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
J01E	**Myrtle Point**	**2.22**	**90**		**Pn**	**23 38 08.5**	**-2.0**
J01E				IAML		23 38 40.7	
	comp=N,138nm,0.7s						
J01E				IAML		23 38 41.4	
	comp=E,169nm,0.8s						
I02E	**Swisshome, OR**	**2.43**	**67**		**Pn**	**23 38 12.0**	**-1.4**
I02E				IAML		23 38 50.3	
	comp=N,108nm,0.7s						
I02E				IAML		23 39 03.7	
	comp=E,105nm,0.9s						
K02D	**Willamette Mer**	**2.48**	**101**		**Pn**	**23 38 12.6**	**-1.6**
K02D				IAML		23 38 45.8	
	comp=E,80nm,0.6s						
KSXB	**Camp Six Broad**	**2.67**	**120**		**Pn**	**23 38 15.7**	**-1.1**
L02F	**Cave Junction**	**2.73**	**113**		**Pn**	**23 38 16.8**	**-0.8**
L02F				IAML		23 38 58.7	
	comp=E,67nm,1.7s						
KRMB	**Red Mountain**	**2.83**	**126**		**Pn**	**23 38 18.4**	**-0.6**
COR	**Corvallis**	**2.98**	**61**		**Pn**	**23 38 19.8**	**-1.2**
COR				IAML		23 38 58.1	
	comp=E,130nm,0.7s						
COR				IAML		23 38 59.4	
	comp=E,163nm,0.9s						
BUCK	**Buck Mountain**	**3.05**	**70**		**Pn**	**23 38 21.3**	**-0.7**
BUCK				IAML		23 39 03.8	
	comp=E,115nm,0.8s						
BUCK				IAML		23 39 06.8	
	comp=N,98nm,0.6s						
BBOR	**Butler Butte**	**3.16**	**95**		**Pn**	**23 38 23.6**	**0.0**
BBOR				IAML		23 39 04.2	
	comp=E,59nm,0.9s						
BBOR				IAML		23 39 07.2	
	comp=N,78nm,0.6s						
JCC	**Jacoby Creek,**	**3.25**	**137**	Pn	**Pn**	**23 38 23.7**	**-0.9**
H04D	**Lebanon**	**3.32**	**65**		**Pn**	**23 38 25.8**	**+0.1**
H04D				IAML		23 39 13.7	
	comp=N,110nm,1.0s						
G03D	**McMinnville, O**	**3.32**	**52**		**Pn**	**23 38 25.4**	**-0.3**
KHMM	**Horse Mountain**	**3.36**	**133**		**Pn**	**23 38 27.2**	**+0.8**
I04A	**Tendick Farm,**	**3.36**	**79**		**Pn**	**23 38 26.2**	**-0.1**
I04A				IAML		23 39 09.7	
	comp=E,73nm,0.6s						
I04A				IAML		23 39 09.7	
	comp=N,63nm,0.7s						
YBH	**Yreka Blue Hor**	**3.48**	**114**	Pn	**Pn**	**23 38 28.9**	**+0.9**
	comp=N,2.5nm,0.3s,baz=301,slow=8.6,SNR=14						
YBH				Sn	**Sn**	**23 39 09.9**	**+0.7**
	comp=N,0.5nm,0.3s,baz=118,slow=18,SNR=4.1						
YBH				LR	LR	23 39 44.6	
	comp=N,62nm,20.4s,baz=292,slow=36						
	comp=N,7.8nm,0.4s						
YBH				AML	AML		
YBH	**Yreka Blue Hor**	**3.48**	**114**		**Pn**	**23 38 28.4**	**+0.4**
YBH				IAML		23 39 08.2	
	comp=N,50nm,0.5s						
YBH					**Sn**	**23 39 08.5**	**-0.7**
KMPM	**Mount Pierce**	**3.52**	**142**		**Pn**	**23 38 28.5**	**0.0**
J04A	**Umpqua Nationa**	**3.55**	**88**		**Pn**	**23 38 29.2**	**+0.2**
M02C	**Callahan**	**3.55**	**120**		**Pn**	**23 38 29.0**	**0.0**
L04D	**Klamath Falls**	**3.58**	**105**		**Pn**	**23 38 29.6**	**+0.3**
L04D				IAML		23 39 17.3	
	comp=E,62nm,1.4s						
L04D				IAML		23 39 30.2	
	comp=N,52nm,1.1s						
F03A	**Seaside**	**3.64**	**41**		**Pn**	**23 38 29.7**	**-0.4**
KHBM	**Hayfork Bally**	**3.79**	**131**		**Pn**	**23 38 33.9**	**+1.6**
G04A	**Mulino**	**3.79**	**57**		**Pn**	**23 38 32.5**	**+0.5**
WIFE	**Three Sisters-**	**3.83**	**76**		**Pn**	**23 38 33.0**	**+0.1**
WIFE				IAML		23 39 05.8	
	comp=N,50nm,0.9s						
WIFE				IAML		23 39 29.4	
	comp=E,52nm,1.1s						
KMRM	**Mail Ridge**	**3.86**	**140**		**Pn**	**23 38 33.2**	**0.0**
K04D	**Chiloquin, OR**	**3.87**	**97**		**Pn**	**23 38 33.0**	**-0.4**
RADR	**Rader Ridge**	**3.92**	**34**	Pn	**Pn**	**23 38 33.6**	**-0.3**
RADR				IAML		23 39 35.7	
	comp=E,50nm,0.8s						
RADR				IAML		23 39 39.0	
	comp=N,45nm,1.4s						
M03C	**McCloud**	**4.09**	**117**		**Pn**	**23 38 35.9**	**-0.4**
M03C				IAML		23 39 41.5	
	comp=E,44nm,1.6s						
M03C				IAML		23 39 46.5	
	comp=N,32nm,1.6s						
E03A	**Lebam**	**4.11**	**35**		**Pn**	**23 38 34.6**	**-1.9**
J05D	**Fort Rock, OR**	**4.19**	**87**	Pn	**Pn**	**23 38 36.6**	**-1.1**
J05D				IAML		23 40 10.2	
	comp=E,29nm,2.5s						
J05D				IAML		23 40 42.8	
	comp=N,24nm,3.9s						
I05D	**Terrebonne, OR**	**4.22**	**73**		**Pn**	**23 38 36.9**	**-1.2**
I05D				IAML		23 39 59.8	
	comp=N,40nm,1.6s						
I05D				IAML		23 40 26.6	
	comp=E,34nm,2.9s						
KCPM	**Cahto Peak**	**4.35**	**143**		**Pn**	**23 38 38.6**	**-1.3**
KCPM				IAML		23 40 13.1	
	comp=E,19nm,1.9s						
HOOD	**Mount Hood Mea**	**4.36**	**59**		**Pn**	**23 38 39.1**	**-0.9**
O02D	**Mt. Diablo Mer**	**4.36**	**133**		**Pn**	**23 38 41.0**	**+0.9**
PINE	**Pine Mountain**	**4.42**	**80**		**Pn**	**23 38 40.7**	**-0.3**
PINE				IAML		23 39 10.9	
	comp=N,20nm,1.1s						
PINE				IAML		23 40 02.5	
	comp=E,21nm,2.0s						
K05A	**Summer Lake**	**4.48**	**94**		**Pn**	**23 38 41.3**	**-0.5**
K05A				IAML		23 40 10.4	
	comp=E,20nm,2.3s						
K05A				IAML		23 41 18.1	
	comp=N,24nm,4.8s						
WISH	**Wishkah**	**4.50**	**29**		**Pn**	**23 38 41.3**	**-0.6**
STD	**Studebaker Rid**	**4.53**	**47**	Pn	**Pn**	**23 38 41.7**	**-0.7**
G05A	**Wamic**	**4.54**	**62**		**Pn**	**23 38 41.8**	**-0.5**
G05A				IAML		23 39 14.2	
	comp=N,42nm,0.8s						
DCMP	**DeCamp, Califo**	**4.64**	**143**		**Pn**	**23 38 42.9**	**-0.8**
NLWA	**Neilton Lookou**	**4.71**	**27**		**Pn**	**23 38 43.7**	**-1.1**
HATC	**Hat Creek Radi**	**4.75**	**118**	Pn	**Pn**	**23 38 45.1**	**-0.4**
HATC				IAML		23 40 13.1	
	comp=E,35nm,1.9s						
HATC				IAML		23 41 45.2	
	comp=N,43nm,4.4s						
O03E	**Paynes Creek**	**4.84**	**125**		**Pn**	**23 38 46.2**	**-0.5**
G06A	**Carlson Farm,**	**4.98**	**64**		**Pn**	**23 38 48.0**	**-0.5**
G06A				IAML		23 40 09.6	
	comp=E,14nm,2.4s						
G06A				IAML		23 40 21.5	
	comp=N,15nm,2.1s						
C03A	**Quillayute Air**	**5.02**	**19**	Pn	**Pn**	**23 38 48.8**	**-0.1**
C03A				IAML		23 39 45.1	
	comp=E,33nm,1.9s						
LON	**Longmire**	**5.08**	**44**		**Pn**	**23 38 49.6**	**-0.3**
LON				IAML		23 39 55.8	
	comp=E,22nm,1.3s						
LON				IAML		23 40 00.3	
	comp=N,26nm,1.5s						
MOD	**Modoc Plateau**	**5.09**	**103**		**Pn**	**23 38 49.4**	**-0.8**
GNW	**Green Mountain**	**5.23**	**32**		**Pn**	**23 38 51.5**	**-0.4**
GNW				IAML		23 39 52.7	
	comp=N,26nm,0.6s						
B04A	**Port Angeles**	**5.41**	**25**		**Pn**	**23 38 54.0**	**-0.4**
ORV	**Oroville**	**5.50**	**130**		**Pn**	**23 38 59.2**	**+3.5**
F07A	**Phinny Hill Vi**	**5.70**	**60**		**Pn**	**23 38 57.2**	**-1.1**
MXC	**Moxie City**	**5.81**	**52**		**Pn**	**23 38 59.0**	**-0.9**
CLRS	**Cowichan Lake**	**5.94**	**18**	Pn	**Pn**	**23 39 00.3**	**-1.3**
MCCM	**Marconi Confer**	**5.94**	**147**	Pn	**Pn**	**23 39 01.7**	**0.0**
CVS	**Carmenet Viney**	**5.95**	**143**	Pn	**Pn**	**23 39 02.1**	**+0.3**
PGC	**Sidney**	**5.96**	**23**		**Pn**	**23 39 00.6**	**-1.2**
BEKR	**Beckworth**	**5.98**	**122**		**Pn**	**23 39 04.0**	**+1.6**
LTY	**Liberty**	**6.00**	**46**		**Pn**	**23 39 02.9**	**+0.3**
E07A	**Sunnyside**	**6.05**	**54**		**Pn**	**23 39 04.7**	**+1.5**
G08A	**Pilot Rock**	**6.11**	**67**		**Pn**	**23 39 03.9**	**-0.2**
HAWA	**Hanford**	**6.17**	**56**		**Pn**	**23 39 03.9**	**-0.9**
WVOR	**Wild Horse Val**	**6.17**	**94**	Pn	**Pn**	**23 39 04.1**	**-0.9**
J08A	**Circle Bar Ran**	**6.20**	**86**	Pn	**Pn**	**23 39 05.2**	**-0.2**
AFDM	**Forest Hills D**	**6.22**	**131**		**Pn**	**23 39 05.7**	**+0.2**
A04D	**Lummi Island**	**6.25**	**27**	Pn	**Pn**	**23 39 04.5**	**-1.3**
WAH2	**Wahluke Slope**	**6.33**	**53**		**Pn**	**23 39 05.8**	**-1.2**
YPT	**Yellepit**	**6.37**	**61**		**Pn**	**23 39 06.8**	**-0.8**
E08A	**Dider Farm, El**	**6.50**	**57**		**Pn**	**23 39 08.9**	**-0.4**
EPH	**Ephrata**	**6.64**	**49**		**Pn**	**23 39 11.8**	**+0.5**
PAHR	**Pah Rah Range**	**6.69**	**119**	Pn	**Pn**	**23 39 10.9**	**-1.1**
LNOR	**Lincton Mounta**	**6.75**	**64**		**Pn**	**23 39 12.3**	**-0.5**
JRSC	**Jasper Ridge**	**6.84**	**147**	Pn	**Pn**	**23 39 14.2**	**+0.2**
D08A	**Wollman Farm,**	**6.86**	**53**		**Pn**	**23 39 13.5**	**-0.8**
CBB	**Campbell River**	**6.91**	**9**		**Pn**	**23 39 13.8**	**-1.0**
PNTR	**Pine Nut**	**6.92**	**124**	Pn	**Pn**	**23 39 14.5**	**-0.8**
E09A	**Wood Farm, Sta**	**7.08**	**59**		**Pn**	**23 39 16.2**	**-1.1**
MHC	**Mount Hamilton**	**7.14**	**144**		**Pn**	**23 39 18.6**	**+0.3**
BMO	**Blue Mountains**	**7.15**	**73**		**Pn**	**23 39 16.4**	**-1.9**
CMB	**Columbia Colle**	**7.20**	**134**		**Pn**	**23 39 19.1**	**0.0**
YERR	**Yerington**	**7.20**	**123**		**Pn**	**23 39 18.4**	**-0.8**
WAKR	**Walker**	**7.40**	**127**	Pn	**Pn**	**23 39 22.6**	**+0.7**
F10A	**Beach Ranch, E**	**7.48**	**65**	Pn	**Pn**	**23 39 23.3**	**+0.5**
NVAR	**Mina Array Bea**	**8.12**	**123**	Pn	**Pn**	**23 39 33.2**	**+1.4**
	comp=N,0.3nm,0.3s,baz=289,slow=15,SNR=4.2						
NVAR				LR	LR	23 42 11.5	
	comp=N,54nm,19.1s,baz=279,slow=33						
	comp=N,0.4nm,0.5s						
NVAR				AML	AML		
NVAR	**Mina Array Bea**	**8.12**	**123**		**Pn**	**23 39 31.0**	**-0.8**
LLLB	**Lillooet**	**8.17**	**23**	Pn	**Pn**	**23 39 32.3**	**0.0**
MDPB	**Devils Postpil**	**8.20**	**130**	Pn	**Pn**	**23 39 32.9**	**-0.1**
NEW	**Newport**	**8.53**	**50**	Pn	**Pn**	**23 39 38.6**	**+1.4**
	comp=N,0.4nm,0.3s,baz=232,slow=13,SNR=3.8						
NEW				LR	LR	23 42 55.2	
	comp=N,328nm,20.3s,baz=240,slow=37						
	comp=N,1.9nm,0.6s						
NEW				AML	AML		
NEW	**Newport**	**8.53**	**50**		**Pn**	**23 39 36.3**	**-0.9**
BBB	**Bella Bella**	**9.00**	**355**	Pn	**Pn**	**23 39 43.5**	**-0.1**
	comp=N,1.1nm,0.3s,baz=207,slow=6.8,SNR=18						
BBB				LR	LR	23 42 32.8	
	comp=N,351nm,19.4s,baz=196,slow=33						
ELK	**Elko**	**9.08**	**102**	Pn	**Pn**	**23 39 46.8**	**+1.9**
	comp=N,0.7nm,0.6s,baz=279,slow=14						
PFO	**Pinyon Flats O**	**12.63**	**136**	Pn	**Pn**	**23 40 34.7**	**+1.2**
	baz=312,slow=11,SNR=1.8						
PFO				LR	LR	23 45 30.6	
	comp=N,326nm,18.1s,baz=332,slow=37						
	comp=N,1.3nm,0.8s						
PFO	**Pinyon Flats O**	**12.63**	**136**		**Pn**	**23 40 32.4**	**-1.2**
PMD	**Palm Desert**	**12.65**	**136**	Pn	**Pn**	**23 40 32.6**	**-1.0**
BW06	**Boulder Array**	**12.76**	**86**	Pn	**Pn**	**23 40 34.4**	**-0.9**
PD31	**Pinedale Array**	**12.76**	**86**	Pn	**Pn**	**23 40 33.6**	**-1.7**
PDAR	**Pinedale Array**	**12.76**	**86**	Pn	**Pn**	**23 40 37.4**	**+2.1**
	comp=N,0.1nm,0.3s,baz=272,slow=12,SNR=7.4						
PDAR				LR	LR	23 45 52.9	
	comp=N,190nm,19.3s,baz=268,slow=39						
	comp=N,1.0nm,0.8s						
PDAR				AML	AML		
PDAR	**Pinedale Array**	**12.76**	**86**	Pn	**Pn**	**23 40 34.7**	**-0.6**
DLBC	**Dease Lake**	**15.36**	**354**	Pn	**Pn**	**23 41 11.9**	**+1.6**
	comp=N,0.2nm,0.3s,baz=151,slow=11,SNR=6.4						
DLBC				LR	LR	23 46 24.1	
	comp=N,180nm,18.6s,baz=172,slow=35						
ANMO	**Albuquerque**	**17.91**	**111**	P	**P**	**23 41 45.4**	**+1.9**
	comp=N,0.1nm,0.3s,baz=306,slow=11,SNR=6.0						
ANMO				LR	LR	23 48 22.8	
	comp=N,59nm,21.6s,baz=298,slow=36						
	comp=N,1.5nm,0.9s						
ANMO				AML	AML		
ANMO	**Albuquerque**	**17.91**	**111**		**Pn**	**23 41 40.6**	**-2.4**
ALQ	**Albuquerque**	**17.91**	**111**		**Pn**	**23 41 42.7**	**-0.3**
ALQ	**Albuquerque**	**17.91**	**111**		**Pn**	**23 41 42.6**	**-0.4**
ALQ				IAmb	IAmb	23 41 53.1	
	comp=Z,6.2nm,1.2s						
CRNM	**Carthage**	**18.29**	**114**		**Pn**	**23 41 46.3**	**-1.3**
319A	**Douglas**	**18.33**	**124**		**Pn**	**23 41 47.1**	**-1.1**
319A				IAmb	IAmb	23 42 01.3	
	comp=Z,7.8nm,1.1s						
121A	**Cookes Peak, D**	**18.48**	**119**	P	**P**	**23 41 48.5**	**-1.4**
HYT	**Haines Junctio**	**18.74**	**344**		**Pn**	**23 41 53.1**	**+0.2**
HYT				IAmb	IAmb	23 41 57.5	
	comp=Z,5.2nm,1.0s						
N31M	**Braeburn, Yuko**	**19.04**	**347**	P	**P**	**23 41 55.5**	**-0.2**
N31M				IAmb	IAmb	23 42 04.0	
	comp=Z,9.7nm,1.1s						
N30M	**Aishikik Lake**	**19.25**	**345**	P	**P**	**23 41 57.2**	**-0.7**
O28M	**Mount Upton**	**19.30**	**340**	P	**P**	**23 41 58.6**	**-0.2**
O28M				IAmb	IAmb	23 42 15.3	
	comp=Z,6.5nm,1.1s						
M31M	**Drury Creek, Y**	**19.52**	**350**	P	**P**	**23 42 01.1**	**+0.2**
M31M				IAmb	IAmb	23 42 08.1	
	comp=Z,4.5nm,0.7s						
LOGN	**Logan Glacier**	**19.56**	**339**	P	**P**	**23 42 01.4**	**-0.1**
LOGN				IAmb	IAmb	23 42 11.1	
	comp=Z,7.4nm,1.2s						
MMPY	**Sheldon Lake,**	**19.60**	**354**	P	**Pn**	**23 42 02.8**	**-0.3**
MDND	**Maddock**	**19.67**	**67**	P	**P**	**23 42 02.2**	**-0.5**
GRNC	**Granite Creek**	**19.68**	**338**	P	**Pn**	**23 42 03.5**	**-0.7**
GRNC				IAmb	IAmb	23 42 12.4	
	comp=Z,7.3nm,1.2s						
YKA	**Yellowknife Ar**	**20.63**	**16**	P	Pn	23 42 14.1	-1.1
	comp=Z,4.6nm,1.0s,baz=206,slow=10,SNR=5.5						
YKA				LR	LR	23 49 35.3	
	comp=Z,77nm,18.3s,baz=186,slow=35						
	comp=Z,4.6nm,1.0s						
YKA	**Yellowknife Ar**	**20.63**	**16**	P	**P**	**23 42 13.5**	**+0.5**
YKAW1	**Yellowknife Wh**	**20.64**	**17**	P	**P**	**23 42 13.6**	**+0.6**
YKAW1				IAmb	IAmb	23 42 23.7	
	comp=Z,9.4nm,1.0s						
YKAW3	**Yellowknife Wh**	**20.69**	**16**	P	Pn	23 42 14.3	-1.6
YKAW3				IAmb	IAmb	23 42 17.0	
	comp=Z,6.9nm,1.0s						
BMRM	**Bremner River**	**20.69**	**335**	P	**P**	**23 42 13.8**	**+0.1**
BMRM				IAmb	IAmb	23 42 26.1	
	comp=Z,5.5nm,1.1s						
KDAK	**Kodiak Island**	**21.68**	**321**	LR	LR	23 48 38.5	
	comp=Z,234nm,20.9s,baz=122,slow=31						
ULM	**Lac du Bonnet**	**22.32**	**61**	P	**P**	**23 42 33.7**	**+2.4**
	comp=Z,11nm,1.1s,baz=274,slow=16,SNR=5.7						
ULM				LR	LR	23 51 27.4	
	comp=Z,134nm,18.7s,baz=302,slow=37						
	comp=Z,11nm,1.1s						
TXAR	**Lajitas Array**	**23.24**	**119**	P	**P**	**23 42 43.8**	**+2.6**
	comp=Z,0.7nm,0.8s,baz=297,slow=7.6,SNR=8.8						
	comp=Z,0.7nm,0.8s						
LPIG	**La Paz**	**23.49**	**139**	LR	LR	23 51 12.2	
	comp=Z,135nm,18.3s,baz=320,slow=35						
ILAR	**Eielson Array**	**24.35**	**339**	P	**P**	**23 42 52.2**	**+0.8**
	comp=Z,1.6nm,0.7s,baz=152,slow=8.7,SNR=20						
ILAR				LR	LR	23 50 56.7	
	comp=Z,100nm,19.7s,baz=154,slow=33						
	comp=Z,1.6nm,0.7s						
ILAR	**Eielson Array**	**24.35**	**339**	P	**P**	**23 42 51.0**	**-0.4**
WRH	**Wood River Hil**	**24.43**	**338**		**P**	**23 42 53.4**	**+1.2**
WRH				IAmb	IAmb	23 43 09.1	
	comp=Z,5.3nm,1.2s						
G29M	**Pine Creek**	**24.50**	**349**	P	**P**	**23 42 53.0**	**+0.2**
DEOK	**Depew**	**24.53**	**97**	P	**P**	**23 42 52.7**	**-0.7**
INK	**Inuvik**	**25.39**	**354**	LR	LR	23 52 38.6	
	comp=Z,189nm,18.9s,baz=190,slow=36						
TKL	**Tuckaleechee C**	**33.90**	**88**	LR	LR	23 58 41.8	
	comp=Z,156nm,19.1s,baz=298,slow=37						
SADO	**Sadowa**	**34.05**	**71**	LR	LR	23 58 34.3	
	comp=Z,98nm,19.1s,baz=154,slow=37						
RES	**Resolute Bay**	**34.67**	**14**	LR	LR	23 58 05.0	
	comp=Z,49nm,18.9s,baz=208,slow=36						
CMIG	**Matias Romero**	**37.66**	**124**	LR	LR	00 03 05.3	
	comp=Z,46nm,19.6s,baz=343,slow=40						
SCHQ	**Schefferville**	**39.90**	**51**	LR	LR	00 01 43.5	
	comp=Z,96nm,19.8s,baz=280,slow=36						
SFJD	**Kangerlussuaq**	**45.95**	**32**	LR	LR	00 04 13.2	

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
	comp=Z,38nm,18.4s,baz=182,slow=35						
JTS	Las Juntas de	49.03	119	LR	LR	00 08 06.5	
	comp=Z,31nm,18.1s,baz=319,slow=37						
MA2	Magadan	50.40	319	LR	LR	00 06 33.4	
	comp=Z,40nm,19.6s,baz=77,slow=35						
H11N3	WAKE ISLAND Hy	59.50	269	T	T	00 51 49.9	
	baz=51,slow=75,SNR=209						
H11N2	WAKE ISLAND Hy	59.50	269	T	T	00 51 50.0	
	baz=51,slow=75,SNR=130						
H11N1	WAKE ISLAND Hy	59.51	269	T	T	00 51 51.3	
	baz=51,slow=75,SNR=161						
SDV	Santo Domingo	59.66	108	LR	LR	00 17 21.6	
	comp=Z,27nm,19.0s,baz=258,slow=40						
H11S1	WAKE ISLAND Hy	60.41	268	T	T	00 53 05.0	
	baz=50,slow=75,SNR=1325						
H11S2	WAKE ISLAND Hy	60.42	268	T	T	00 53 05.4	
	baz=50,slow=75,SNR=731						
H11S3	WAKE ISLAND Hy	60.43	268	T	T	00 53 03.8	
	baz=50,slow=75,SNR=758						
NRIK	Noril'sk	64.90	347	LR	LR	00 16 06.1	
	comp=Z,15nm,21.9s,baz=342,slow=36						
KLR	Kul'dur	65.07	315	LR	LR	00 16 25.9	
	comp=Z,20nm,18.9s,baz=58,slow=36						
ARCES	ARCESS Array B	65.75	10	LR	LR	00 17 18.4	
	comp=Z,44nm,18.2s,baz=332,slow=36						
MDP	Montagnes des	75.11	97	LR	LR	00 25 39.1	
	comp=Z,31nm,18.2s,baz=169,slow=38						
SONM	Songino Array	77.86	326	P	P	23 49 32.7	+1.3
	comp=Z,0.7nm,0.7s,baz=15,slow=6.0,SNR=4.8						
SONM				LR	LR	00 23 28.4	
	comp=Z,45nm,18.6s,baz=88,slow=35						
	comp=Z,0.7nm,0.7s						
SONM	Songino Array	77.86	326	P	P	23 49 31.0	-0.4
SONM				IAmb	IAmb	23 49 34.0	
	comp=Z,1.6nm,1.1s						
ZALV	Zalesovo Beam	79.45	342	P	P	23 49 40.6	+0.7
	comp=Z,0.3nm,0.2s,baz=30,slow=5.6,SNR=1.8						
ZALV				LR	LR	00 28 37.2	
	comp=Z,19nm,19.5s,baz=43,slow=39						
	comp=Z,0.3nm,0.2s						
ZALV	Zalesovo Beam	79.45	342	P	P	23 49 39.5	-0.4
ARTI	Arti	80.66	357	LR	LR	00 28 24.3	
	comp=Z,18nm,18.8s,baz=20,slow=38						
DAVOX	Davos/Dischmat	82.58	28	LR	LR	00 26 12.1	
	comp=Z,55nm,19.1s,baz=269,slow=35						
ESDC	Sonseca Array	82.73	41	LR	LR	00 23 45.5	
	comp=Z,29nm,19.2s,baz=298,slow=34						
BVAR	Borovoye Array	82.97	350	P	P	23 50 00.1	+1.5
	comp=Z,0.3nm,0.4s,baz=12,slow=5.2,SNR=2.4						
	comp=Z,0.3nm,0.4s						
KURK	Kurchatov	83.83	344	P	P	23 50 02.9	-0.1
KURK				IAmb	IAmb	23 50 06.1	
	comp=Z,0.8nm,0.8s						
KURBB	Kurchatov Arra	83.93	344	P	P	23 50 04.0	+0.5
	comp=Z,0.5nm,0.8s,baz=16,slow=4.9,SNR=4.3						
	comp=Z,0.5nm,0.8s						
ARSA	Arzberg	84.00	25	P	P	23 50 04.0	-0.1
PRED	Cave del Predi	84.11	26	P	P	23 50 03.2	-1.5
AKASG	Malin Array Be	84.19	15	LR	LR	00 26 36.0	
	comp=Z,39nm,20.9s,baz=2.5,slow=35						
PRMA	PARMA	84.47	29	P	P	23 50 06.2	-0.3
AKTO	Aktyubinsk	86.63	357	LR	LR	00 32 45.3	
	comp=Z,31nm,18.2s,baz=250,slow=38						
MKAR	Makanchi Array	86.70	340	LR	LR	00 31 39.0	
	comp=Z,27nm,18.7s,baz=18,slow=38						
AAK	Ala-Archa	92.38	344	LR	LR	00 40 07.8	
	comp=Z,15nm,18.9s,baz=119,slow=41						
GNI	Garni	96.67	6	LR	LR	00 38 01.7	
	comp=Z,25nm,18.6s,baz=342,slow=38						

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*GII **13** 23:38:24.0±0.0, 27°.424N±0°.002×34°.943E±0°.001, h0^{km}, Mws2.7, confirmed*
*HLW **13** 23:38:26.9, 27°.82N×34°.37E, h4^{km}±3^{km}, Ml2.1*
*SGS **13** 23:38:28.4, 27°.88N×34°.46E, h14^{km}, Ml1.9*
ISC 13 23:38:26.7±1.2, **27°.83N**±0°.04×**34°.44E**±0°.03, **h10**^{km}±10^{km}, **n21**, σ1^{s}.**55**/34, **Red Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TR1	Tor 1	0.46	292	P	Pg	23 38 35.2	-0.6
RSHS		0.56	34	P	Pg	23 38 38.5	+0.8
RSHS				S	Sg	23 38 46.5	+1.4
KRABS	KRABS	0.77	69	P	Pg	23 38 41.9	+0.3
KRABS				S	Sg	23 38 52.0	+0.3
AYUS	\`Aynunah	0.81	64	P	Pg	23 38 42.6	+0.1
AYUS				S	Sg	23 38 53.4	+0.2
BDAS	Al Bad\`	0.83	44	P	Pg	23 38 42.8	-0.1
TR2	Tor 2	0.84	311	P	Pg	23 38 41.9	-1.0
HDHB	Dhahab	0.90	10	P	Pg	23 38 44.1	0.0
MWLHS	Almuwaylih	0.96	95	P	Pg	23 38 44.9	-0.3
HHRG	Al Ghardaqah	0.98	232	P	Pb	23 38 46.5	+0.6
HHRG				S	Sb	23 38 59.5	+0.7
HAQS	Haql	1.28	19	P	Pg	23 38 49.5	-1.9
HAQS				S	Sg	23 39 06.3	-1.9
JLOS		1.29	46	P	Pg	23 38 49.7	-1.9
JLOS				S	Sg	23 39 05.9	-2.5
HRDS	Abu Rudays	1.33	311	P	Pn	23 38 51.1	-0.3
HBST	Basata	1.40	11	P	Pn	23 38 53.3	+1.0
SHQRE	Shigry	1.54	87	P	Pn	23 38 54.3	0.0
SHQRE				S	Sn	23 39 13.4	-0.9
DESA	DESA	1.56	102	P	Pn	23 38 54.5	-0.1
DESA				S	Sn	23 39 13.6	-1.3
EIL	Elat	1.89	14	P	Pb	23 39 02.2	+0.9
EIL				S	Sg	23 39 30.7	+3.4
HRFI	Mount Harif	2.26	13	P	Pb	23 39 07.1	-0.5
HRFI				S	Sg	23 39 40.1	+0.8
URD12	Shuwaq	2.32	91	P	Pn	23 39 06.0	+0.9
RMNI	Mount Ramon	2.77	6	P	Pb	23 39 15.4	-0.9
RMNI				S	Sg	23 39 54.1	-1.6
KZIT	Kziot	3.06	359	P	Pb	23 39 19.6	-1.7
KZIT				S	Sb	23 40 02.5	+3.7
GHAJ	Ghor Haditha	3.60	16	P	Pn	23 39 25.5	+3.0
GHAJ				S	Sb	23 40 12.1	-2.0

RSPR 13 23:40:29.6, 17°.81N×66°.91W, h10^{km}±1^{km}, **MD2.6**/6, **2C-1D, Puerto Rico region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GBPR	Guanica, Bosqu	0.16	9⇑	*i*P	Pg	23 40 33.3	+0.1
GBPR				*e*S	Sg	23 40 36.1	+0.5
MLPR	Magueyes Islan	0.20	319⇑	*i*P	Pg	23 40 34.1	+0.2
CRPR	Cabo Rojo, PR	0.27	314⇑	*i*P	Pg	23 40 35.2	+0.1
OBIP	Obispado Ponce	0.36	51⇑	*i*P	Pg	23 40 36.8	-0.1
OBIP				*e*S	Sg	23 40 42.6	+0.9
LSP	Las Mesas	0.40	334⇑	*e*P	Pg	23 40 37.7	+0.2
LSP				*e*S	Sg	23 40 43.5	+0.7
CELP	Cerrillos	0.40	50⇓	*e*P	Pg	23 40 37.4	-0.2
AOPR	Arecibo Observ	0.55	15⇑	*e*P	Pg	23 40 39.9	-0.4

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*SDD **13** 23:41:09.8±2.5, 18°.16N×67°.84W, h160^{km}±19^{km}, MD3.3, ML2.7, MW2.9, Presumed earthquake*
NEIC 13 23:41:06.4±2.5, **17°.10N**±0°.08×**68°.18W**±0°.05, **h10**^{km}±2^{km}, **ML2.8**/32, **Error ellipse: s-maj=14.1km s-min=7.1km az=186.0, Mona Passage**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CRPR	Cabo Rojo, PR	1.36	48		Pg	23 41 33.6	+0.9
CRPR					Sg	23 41 50.1	-0.3
CRPR				IAML		23 41 52.9	
	105nm,0.4s						
CRPR	Cabo Rojo, PR	1.36	48	*i* P	Pg	23 41 33.8	+1.2
CRPR				*i* S	Sg	23 41 50.4	0.0
CRPR				IAML		23 41 52.9	
	comp=N,110nm,0.3s						
MLPR	Magueyes Islan	1.39	51	Pn	Pg	23 41 34.5	+1.3
MLPR				IAML		23 41 53.6	
	comp=N,111nm,0.3s						
MLPR	Magueyes Islan	1.39	51	*i* P	Pg	23 41 34.5	+1.4
MLPR				*i* S	Sg	23 41 52.1	+1.0
MLPR				IAML		23 41 53.7	
	comp=N,40nm,0.2s						
PCDR	Punta Cana, DR	1.42	352		Pb	23 41 33.0	-0.1
PCDR				Sn	Sn	23 41 51.1	0.0
PCDR	Punta Cana, DR	1.42	352	*i* P	Pg	23 41 33.8	0.0
PCDR				*i* S	Sg	23 41 52.1	-0.1
PCDR				IAML		23 41 58.0	
	comp=N,53nm,1.1s						
PRSN	Puerto Rico Se	1.49	41	Pn	Pn	23 41 32.2	-1.1
PRSN					Sn	23 41 50.7	-2.1
PRSN				IAML		23 41 54.6	
	comp=N,197nm,0.3s						
PRSN				IAML		23 41 56.7	
	comp=N,162nm,0.3s						
AGPR	Aguadilla, PR	1.70	37	Pn	Pn	23 41 35.5	-0.7
AGPR				IAML		23 41 54.8	
	comp=N,114nm,0.4s						
OBIP	Obispado Ponce	1.77	58		Pn	23 41 37.8	+0.6
OBIP				Sn	Sn	23 41 58.5	-1.3
CELP	Cerrillos	1.81	57		Pn	23 41 38.4	+0.7
CELP				Sn	Sn	23 41 59.0	-1.7
CELP				IAML		23 42 00.1	
	comp=N,82nm,0.3s						
CELP				IAML		23 42 00.2	
	comp=N,76nm,0.3s						
CELP	Cerrillos	1.81	57	*i* P	Pn	23 41 38.0	+0.3
CELP				*i* S	Sn	23 41 58.8	-1.9
CELP				IAML		23 42 00.1	
	comp=N,29nm,0.3s						
AOPR	Arecibo Observ	1.84	47		Pn	23 41 36.8	-1.4
AOPR					Sn	23 41 56.8	-4.8
AOPR	Arecibo Observ	1.84	47	*i* P	Pn	23 41 37.3	-0.8
AOPR				*i* S	Sn	23 41 56.4	-5.2
AOPR				IAML		23 41 58.1	
	comp=N,301nm,0.5s						
ECPR	Experimental S	2.12	55		Pn	23 41 40.3	-1.7
SDD	Santo Domingo	2.14	310	Pn	Pn	23 41 41.8	-0.4
SJG	San Juan	2.18	62	Pn	Pn	23 41 42.2	-0.6
PDPR	Patillas Dam,	2.25	66	Pn	Pn	23 41 44.0	+0.2
PDPR				IAML		23 42 12.8	
	comp=N,45nm,0.1s						
PDPR				IAML		23 42 13.6	
	comp=N,41nm,0.1s						
SMDR	Samana, DR	2.38	336	*i* P	Pn	23 41 40.5	-5.0
SMDR				*i* S	Sn	23 42 07.3	-7.6
SMDR				IAML		23 42 28.1	
	comp=N,123nm,0.7s						
BANI	BANI	2.44	302	Pn	Pn	23 41 46.7	+0.2
HUMP	Col San Antoni	2.45	65		Pn	23 41 45.6	-1.0
HUMP				IAML		23 42 15.3	
	comp=N,47nm,0.2s						

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*TAP **13** 23:41:53.7, 24°.57N×122°.96E, h101^{km}, ML3.5, D*
*JMA **13** 23:41:54.2±0.2, 25°N±2°×122°.9E±0°.6, h99^{km}±1^{km}, MV2.4/17, NW OFF ISHIGAKIJIMA IS*
ISC 13 23:41:54.5±1.3, **24°.48N**±0°.04×**122°.94E**±0°.02, **h96**^{km}±7^{km}, **n109**, σ1^{s}.**15**/181, **Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JYNG	Yonagunijimaku	0.03	175	*i* P	Pn	23 42 08.2	+0.3
JYNG				S	Sn	23 42 18.6	+0.7
YOJ	Yonaguni jima	0.07	108	P	Pn	23 42 08.1	+0.2
YOJ	Yonaguni jima	0.07	108	S	Sn	23 42 13.8	-4.2
YOJ	Yonaguni jima	0.07	108	*i* P	Pn	23 42 08.2	+0.3
YOJ				S	Sn	23 42 18.5	+0.5
YOJ	Yonaguni jima	0.07	108	P	Pn	23 42 08.2	+0.3
YOJ				S	Sn	23 42 18.1	+0.2
EOS3	EOS3	0.60	251	*e*P	Pn	23 42 11.4	+0.9
EOS3				*e*S	Sn	23 42 24.1	+1.6
EOS2	EOS2	0.65	265	*e*P	Pn	23 42 12.6	+1.6
EOS2				*e*S	Sn	23 42 24.6	+1.3
EOS4	EOS4	0.67	238	P	Pn	23 42 11.6	+0.7
EOS4				S	Sn	23 42 24.5	+1.3
IRIF	Iriomote-Funau	0.73	101	P	Pn	23 42 12.1	+0.2
IRIF				S	Sn	23 42 25.3	+0.4
HATJ	Hateruma jima	0.89	118	P	Pn	23 42 14.3	+0.8
HATJ				*e*S	Sn	23 42 28.5	+0.7
EGS		0.99	292	*e*P	Pn	23 42 14.9	+0.4
EGS				*e*S	Sn	23 42 29.8	+0.2
JKRS	Kuro-shima	1.00	104	P	Pn	23 42 15.3	+0.6
JKRS				S	Sn	23 42 30.8	+0.9
EWUT	Wuta	1.06	268	P	Pn	23 42 15.4	+0.1
EWUT				S	Sn	23 42 30.1	-0.9
ENA	Nanau	1.10	267	*e*P	Pn	23 42 13.6	-2.1
ENA				*e*S	Sn	23 42 29.1	-2.6
JIJ	Ishigaki jima	1.10	96	*i* P	Pn	23 42 15.9	+0.1
JIJ				S	Sn	23 42 31.1	-0.7
EAHA	Aohua	1.11	262	*e*P	Pn	23 42 16.1	+0.3
EAHA				*e*S	Sn	23 42 32.3	+0.3
TIPB	Shuangxi	1.13	296	*e*P	Pn	23 42 15.9	-0.2
TIPB				S	Sn	23 42 31.1	-1.3
NDS	Dongshan	1.13	278	*e*P	Pn	23 42 16.7	+0.6
NDS				*e*S	Sn	23 42 31.2	-1.1
SXI1	Grass Mountain	1.15	302	*e*P	Pn	23 42 16.3	0.0
SXI1				*e*S	Sn	23 42 32.7	-0.2
TWE	Neicheng	1.19	282	*e*P	Pn	23 42 16.6	-0.2
TWE				*e*S	Sn	23 42 32.2	-1.3
WFSB	Wu-fen Shan	1.21	299	*e*P	Pn	23 42 17.4	+0.4
WFSB				*e*S	Sn	23 42 32.6	-1.4
ETL	Fush Village	1.25	255	P	Pn	23 42 17.2	-0.3
ETL				*e*S	Sn	23 42 34.4	-0.5
JISG	Ishigakijimahi	1.25	85	P	Pn	23 42 17.6	+0.1
JISG				S	Sn	23 42 34.1	-0.8
ENTT	Nioudou	1.26	277	*e*P	Pn	23 42 18.0	+0.3
ENTT				*e*S	Sn	23 42 34.9	-0.4
FUSB	Fushanzhiwuyua	1.26	283	P	Pn	23 42 17.9	+0.2
FUSB				*e*S	Sn	23 42 34.6	-0.7
NACB	Ninganchiao	1.27	256	P	Pn	23 42 17.2	-0.5
NACB	Ninganchiao	1.27	256	S	Sn	23 42 30.0	-5.3
NACB	Ninganchiao	1.27	256	P	Pn	23 42 17.4	-0.4
NACB				S	Sn	23 42 34.4	-0.9
LATG	Datong	1.29	273	P	Pn	23 42 18.3	+0.2
LATG				S	Sn	23 42 35.8	-0.2
TWD	Chiawan	1.29	252	*e*P	Pn	23 42 17.7	-0.3
TWD				S	Sn	23 42 35.0	-0.8
NDT	Datong Townshi	1.31	276	*e*P	Pn	23 42 18.7	+0.5
NDT				*e*S	Sn	23 42 36.1	-0.1
TWA	Mucha	1.33	292	*e*P	Pn	23 42 18.7	+0.2
TWA				*e*S	Sn	23 42 36.1	-0.5
NWLT	Wulai	1.34	283	P	Pn	23 42 18.8	+0.2
NWLT				S	Sn	23 42 36.2	-0.7
ETLH	Xiulin Townshi	1.36	259	*e*P	Pn	23 42 18.6	-0.3
ETLH				*e*S	Sn	23 42 36.7	-0.7
TEYL	Yanliau Villag	1.37	244	P	Pn	23 42 18.7	-0.3
TEYL				S	Sn	23 42 37.2	-0.3
PCYT	Pengchaiyu	1.39	326	*e*P	Pn	23 42 19.1	-0.1
YM01	YM01	1.41	298	*e*P	Pn	23 42 19.9	+0.4
ETM	Tongmen	1.42	249	P	Pn	23 42 19.2	-0.4
ETM				S	Sn	23 42 37.7	-0.9
NNSB	Datong	1.42	268	*e*P	Pn	23 42 19.8	0.0
NNSB				*e*S	Sn	23 42 38.7	-0.1
NNS	Nan Shan	1.43	269	*e*P	Pn	23 42 19.9	0.0
NNS				*e*S	Sn	23 42 38.4	-0.6
SHUL	Shoufeng	1.44	242	P	Pn	23 42 19.6	-0.1
SHUL				S	Sn	23 42 38.8	-0.1
YHNB	Yeheng	1.44	278	P	Pn	23 42 20.1	+0.2
YHNB	Yeheng	1.44	278	S	Sn	23 42 38.4	-0.7
YHNB	Yeheng	1.44	278	P	Pn	23 42 20.2	+0.3
YHNB				S	Sn	23 42 38.9	-0.3
NSK	Sanguang	1.46	278	P	Pn	23 42 20.4	+0.3
NSK				S	Sn	23 42 39.0	-0.5
LXIB	Xiulin Townshi	1.47	252	P	Pn	23 42 19.9	-0.4
LXIB				S	Sn	23 42 39.0	-0.9
TEGC	Jichi Village	1.50	239	P	Pn	23 42 20.5	0.0
TEGC				S	Sn	23 42 40.1	-0.1
ESL	Shilin	1.53	245	*e*P	Pn	23 42 20.5	-0.5
ESL				*e*S	Sn	23 42 39.9	-1.1
FUSS	Fushou	1.57	262	P	Pn	23 42 22.0	+0.3
FUSS				*e*S	Sn	23 42 41.4	-0.8
WHF	Hehuan Shan	1.57	258	*e*P	Pn	23 42 21.9	+0.1
WHF				S	Sn	23 42 41.8	-0.7
JTJ	Tarama	1.61	84	P	Pn	23 42 22.1	+0.1
WARBT	Fenglin Townsh	1.61	242	P	Pn	23 42 21.6	-0.4
WARBT				*e*S	Sn	23 42 41.6	-1.2
TWT	Tachien	1.63	262	P	Pn	23 42 23.3	+1.0
TWT				*e*S	Sn	23 42 43.5	0.0
KSHI	Guanxi Townshi	1.63	281	*e*S	Sn	23 42 43.7	+0.4
TDCB	Techi	1.64	262	P	Pn	23 42 23.2	+0.7
TDCB				S	Sn	23 42 43.3	-0.5
NFF	Wufeng Townshi	1.67	275	P	Pn	23 42 23.3	+0.5
NFF				S	Sn	23 42 44.0	-0.2
OWD	Renai	1.70	252	P	Pn	23 42 23.2	0.0
OWD				S	Sn	23 42 43.9	-1.0
HGSD	Ruisui	1.70	235	P	Pn	23 42 22.8	-0.3
WUSB	Renai	1.74	254	P	Pn	23 42 24.0	+0.3
WUSB				S	Sn	23 42 45.3	-0.5
EHYH	Wanrong	1.76	236	*e*P	Pn	23 42 23.7	-0.2
EHYH				*e*S	Sn	23 42 45.3	-0.9
LIOB	Emei	1.76	276	*e*P	Pn	23 42 24.4	+0.5
LIOB				*e*S	Sn	23 42 46.5	+0.2
EHY	Hungye	1.77	237	*e*P	Pn	23 42 23.6	-0.5
ECBN	Changbin	1.79	230	*e*P	Pn	23 42 24.0	-0.3
ECBN				*e*S	Sn	23 42 45.9	-1.0
VWDT	VWDT	1.80	247	P	Pn	23 42 24.7	+0.4
VWDT				*e*S	Sn	23 42 46.4	-0.6
WHP	Taichung City	1.83	264	*i* P	Pn	23 42 26.2	+1.4
WHP				*e*S	Sn	23 42 48.5	+0.6
YULB	Yu-li	1.85	235	P	Pn	23 42 24.7	-0.4
YULB	Yu-li	1.85	235	S	Sn	23 42 46.3	-2.1
YULB	Yu-li	1.85	235	P	Pn	23 42 24.8	-0.4
YULB				S	Sn	23 42 47.8	-0.6
EYUL	Yuli	1.87	233	*e*P	Pn	23 42 25.4	+0.2
TWF1	Yuli	1.88	234	P	Pn	23 42 25.3	-0.1
WCS	Beigang Elemen	1.90	258	P	Pn	23 42 26.5	+0.9
WCS				S	Sn	23 42 49.8	+0.4
CHKH	Chenggong	1.91	228	P	Pn	23 42 25.0	-0.8
CHKH				S	Sn	23 42 47.6	-2.0
SSLB	Suanglung	1.94	250	P	Pn	23 42 26.6	+0.4
SSLB	Suanglung	1.94	250	S	Sn	23 42 48.1	-2.4
SSLB	Suanglung	1.94	250	P	Pn	23 42 26.5	+0.2
SSLB				*e*S	Sn	23 42 49.8	-0.6
SMLT	Sun Moon Lake	1.96	253	*e*P	Pn	23 42 27.0	+0.5
SMLT				*e*S	Sn	23 42 51.5	+0.6
FULB	Fuli	1.98	230	*e*P	Pn	23 42 26.0	-0.7
FULB				*e*S	Sn	23 42 51.1	-0.1
TYC	Yuchr	1.99	254	*e*P	Pn	23 42 27.9	+1.1
CHKT	Chengkung	2.00	227	*e*P	Pn	23 42 26.1	-0.8
CHKT				*e*S	Sn	23 42 49.9	-1.7
WHYT	Xinyi Township	2.06	248	*e*P	Pn	23 42 28.9	+1.1
WHYT				*e*S	Sn	23 42 55.2	+2.0
EHD	Haiduan	2.07	230	*e*P	Pn	23 42 27.7	-0.2
JIRJ	Irabujima	2.08	80	*e*P	Pn	23 42 27.9	0.0
JIRJ				*e*S	Sn	23 42 52.8	-0.7
EDH	Donghe	2.12	225	P	Pn	23 42 27.9	-0.7
EDH				S	Sn	23 42 53.0	-1.6
WJS	Zhushan	2.13	252	*e*P	Pn	23 42 30.0	+1.4
ALS	Alishan	2.18	244	*e*P	Pn	23 42 30.7	+1.1
ELDTW	Lidau	2.18	234	*e*P	Pn	23 42 29.4	-0.1
JMJ2	Miyako jima3	2.19	83	*e*P	Pn	23 42 29.6	+0.2
JMJ2				*e*S	Sn	23 42 56.3	+0.3
CHN5	Tsauling	2.25	247	*e*P	Pn	23 42 31.7	+1.4
CHN5				*e*S	Sn	23 43 00.0	+2.3
LONT	Longtian	2.29	227	P	Pn	23 42 30.4	-0.3
STYH	Taoyuan	2.38	237	P	Pn	23 42 32.8	+0.9
STYH				*e*S	Sn	23 43 02.1	+1.6
WCKO	Fanlu	2.38	245	*e*P	Pn	23 42 33.2	+1.3
TWGBT	Beinan	2.38	226	P	Pn	23 42 32.2	+0.3
TWGBT	Beinan	2.38	226	*e*P	Pn	23 42 31.5	-0.5
TWG	Pinlang	2.38	226	*e*P	Pn	23 42 31.7	-0.3
TPUB	Ta-pu	2.42	241	P	Pn	23 42 34.5	+2.0
TPUB	Ta-pu	2.42	241	*e*P	Pn	23 42 34.0	+1.5
TPUB				*e*S	Sn	23 43 03.7	+2.1
CHN4	Tsaushan	2.43	243	*e*P	Pn	23 42 34.7	+2.2
CHN4				*e*S	Sn	23 43 03.8	+2.0
RLNB	Erlin	2.43	257	*e*S	Sn	23 43 05.0	+3.3
CHY	Chiayi	2.50	247	*e*P	Pn	23 42 35.8	+2.2
WTCT	Ta-ch'eng	2.51	256	*e*P	Pn	23 42 36.5	+2.9
TWK	Hsinying	2.55	242	*e*P	Pn	23 42 35.6	+1.4
TWK				*e*S	Sn	23 43 07.3	+2.6
CHN1	Nanshi	2.56	240	*e*P	Pn	23 42 35.8	+1.5
SGST	Jiashian	2.57	238	*e*P	Pn	23 42 34.9	+0.5
SGST				*e*S	Sn	23 43 07.7	+2.5
SSD	Sandimen	2.73	231	*e*P	Pn	23 42 38.5	+1.8
LYUB	Lan-yu	2.77	207	*e*P	Pn	23 42 35.9	-1.2
LYUB				*e*S	Sn	23 43 07.4	-2.4
MASBT	Mashibuluo	2.82	229	*e*P	Pn	23 42 38.8	+1.0
SLIU	Shizi	3.00	222	*e*P	Pn	23 42 39.9	-0.2
VWUC	VWUC	3.22	280	*e*P	Pn	23 42 42.4	-0.6
VWUC				*e*S	Sn	23 43 17.2	-3.3
PHUB	P'eng-hu	3.23	253	*e*S	Sn	23 43 19.2	-1.7

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*IDC **14** 00:04:48.7±1.1, 0°.80S×134°.21E, h0^{km}, mb3.9/7, mbtmp3.8/9, ML3.9/2, Error ellipse: s-maj=43.4km s-min=19.3km az=87.0*
*DJA **14** 00:04:51.2±0.8, 1°S±6°×13°4E±°, h11^{km}±5^{km}, M4.1/9, mb4.4/3, MLv3.9/9*
ISC 14 00:04:50.9±0.8, **0°.71S**±0°.08×**134°.07E**±0°.08, **h10**^{km}, **n13**, σ1^{s}.**20**/13, **mb3.9**/7, **Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MWPI	Manokwari, Pap	0.23	187	P	Pg	00 04 57.1	+1.5
MWPI				AML	AML		
BAKI	Biak	2.10	103	P	Pn	00 05 26.7	+0.6
BAKI				AML	AML		
SWI	Sorong	2.81	267	P	Pn	00 05 36.3	+0.4
SWI				AML	AML		
FAKI	Fak Fak	2.85	220	P	Pn	00 05 36.7	+0.2
FAKI				AML	AML		
WRA	Warramunga Arr	19.12	179	P	P	00 09 12.4	-1.9
	0.2nm,0.3s,baz=356,slow=11,SNR=8.3						
WRA				S	Sn	00 12 33.5	-16
	0.2nm,0.5s,baz=352,slow=24,SNR=2.0						
	0.6nm,0.4s						
WRA				AML	AML		
FITZ	Fitzroy Crossi	19.16	205	P	P	00 09 13.0	-1.7
	0.5nm,0.3s,baz=35,slow=11,SNR=18						
FITZ				S	Sn	00 12 35.9	-15
	2.5nm,0.7s,baz=1.2,slow=17,SNR=6.3						
	1.9nm,0.5s						
FITZ				AML	AML		
ASAR	Alice Springs	22.82	180	P	P	00 09 53.0	-1.3
	0.8nm,0.3s,baz=360,slow=12,SNR=10						
	0.8nm,0.3s						
CMAR	Chiang Mai Arr	39.43	301	P	P	00 12 21.9	+0.5
	0.8nm,0.3s,baz=111,slow=7.8,SNR=2.0						
	0.8nm,0.3s						
PETK	Petropavlovsk-	57.14	17	P	P	00 14 37.8	+0.1
	2.2nm,0.7s,baz=198,slow=7.3,SNR=2.4						
	2.2nm,0.7s						
MKAR	Makanchi Array	65.41	324	P	P	00 15 34.4	+0.6
	0.8nm,0.6s,baz=120,slow=7.9,SNR=7.4						
	0.8nm,0.6s						
ZALV	Zalesovo Beam	67.92	331	P	P	00 15 50.7	+1.0
	0.3nm,0.4s,baz=101,slow=2.9,SNR=1.7						
	0.3nm,0.4s						
KURBB	Kurchatov Arra	69.45	326	P	P	00 15 59.5	+0.2
	0.7nm,0.3s,baz=124,slow=5.4,SNR=2.5						
	0.7nm,0.3s						
ILAR	Eielson Array	85.96	25	P	P	00 17 29.9	-1.3
	0.3nm,0.7s,baz=234,slow=3.1,SNR=4.4						
	0.3nm,0.7s						

IDC 14 00:12:18.4±1.5, **4°.03N**×**126°.02E, h0**^{km}, **mb3.6**/6, **mbtmp3.7**/6, **Error ellipse: s-maj=112.5km s-min=19.2km az=68.0, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	Don Marcelino,	2.08	351	*e*P	Pn	00 12 55.4	+0.8
DDMP				*e*S	Sg	00 13 36.7	+11
FITZ	Fitzroy Crossi	21.99	181	P	P	00 17 14.5	+0.2
	1.6nm,0.8s,baz=355,slow=11,SNR=6.4						
	1.6nm,0.8s						
WRA	Warramunga Arr	25.19	161	P	P	00 17 44.0	-1.8
	1.7nm,0.8s,baz=340,slow=11,SNR=8.0						
	1.7nm,0.8s						
ASAR	Alice Springs	28.58	165	P	P	00 18 17.0	+0.6
	0.4nm,0.6s,baz=346,slow=9.0,SNR=4.6						
	0.4nm,0.6s						
STKA	Stephens Creek	38.66	159	P	P	00 19 45.2	+1.3
	1.6nm,0.6s,baz=358,slow=8.9,SNR=3.0						
	1.6nm,0.6s						
MKAR	Makanchi Array	56.91	325	P	P	00 22 05.7	+0.4
	0.2nm,0.4s,baz=113,slow=8.4,SNR=4.9						
	0.2nm,0.4s						
KURBB	Kurchatov Arra	61.11	328	P	P	00 22 34.0	-0.3
	0.4nm,0.6s,baz=125,slow=6.5,SNR=6.9						
	0.4nm,0.6s						

DJA 14 00:14:16.4±0.5, **0°S**±4°×**13°2E**±°, **h19**^{km}±5^{km}, **M3.0**/7, **MLv3.0**/7, **Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SWI	Sorong	0.80	240	P	Pg	00 14 32.0	-0.1
SWI				S	Sn	00 14 43.7	-0.3
SWI				AML	AML		
MWPI	Manokwari, Pap	2.14	103	P	Pn	00 14 50.7	-0.4
MWPI				AML	AML		

FAKI	Fak Fak	2.46	173	P	Pn	00 14 56.2	+0.6

IDC 14 00:14:38.6±1.7, 1°.83N×126°.25E, h0^{km}, mb3.5/4, mbtmp3.5/5, ML3.4/1, Error ellipse: s-maj=129.4km s-min=21.2km az=69.0, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	19.81	182	P	P	00 19 10.4	-0.4
	0.1nm,0.3s,baz=352,slow=14,SNR=1.5						
	1.2nm,0.9s						
FITZ				AML	AML		
WRA	Warramunga Arr	23.05	160	P	P	00 19 45.7	0.0
	0.5nm,0.3s,baz=340,slow=10,SNR=5.8						
	0.5nm,0.3s						
ASAR	Alice Springs	26.41	164	P	P	00 20 17.2	+0.1
	0.4nm,0.5s,baz=345,slow=9.6,SNR=4.1						
	0.4nm,0.5s						
MKAR	Makanchi Array	58.85	326	P	P	00 24 38.9	-0.3
	0.3nm,0.4s,baz=121,slow=8.2,SNR=4.3						
	0.3nm,0.4s						
KURBB	Kurchatov Arra	63.08	328	P	P	00 25 08.1	+0.3
	0.2nm,0.4s,baz=130,slow=6.0,SNR=4.9						
	0.2nm,0.4s						

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*KRSC **14** 00:19:57.7±2.0, 49°.73N×157°.14E, h50^{km}±33^{km}, Ml4.1*

*MOS **14** 00:19:59.2±1.2, 49°.66N×157°.05E, h50^{km}, mb4.0/1, Error ellipse: s-maj=22.7km s-min=5.3km az=75.8*

*IDC **14** 00:20:04.3±3.7, 50°.27N×155°.86E, h122^{km}±27^{km}, mb3.4/14, mbtmp3.8/15, Error ellipse: s-maj=41.7km s-min=20.1km az=165.0*

ISC 14 00:19:59.3±1.9, 49°.8N±0°.2×156°.3E±0°.1, h98^{km}±10^{km}, n54, σ1^{s}.37/71, mb3.7/14, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	0.85	352	*e*PN	Pn	00 20 17.8	-0.2
SKR				*e*S	Sn	00 20 31.3	-0.7
SKR				pmax	pmax		
	comp=Z,218nm,0.6s						
SKR				smax	smax		
	comp=N,627nm,0.2s						
SKR				smax	smax		
	comp=E,1μm,0.2s						
SKR	Severo-Kuril's	0.85	352	*e*P	Pn	00 20 17.7	-0.2
SKR				*e*S	Sn	00 20 31.5	-0.5
PAU	Pauzhetka	1.66	11	PN	Pn	00 20 28.3	+1.0
PAU				S	Sn	00 20 49.8	+1.1
PAU	Pauzhetka	1.66	11	*e*P	Pn	00 20 28.4	+1.0
PAU				*e*S	Sn	00 20 49.8	+1.1
ASAK	Asacha	2.73	21	PN	Pn	00 20 42.4	+0.9
ASAK	Asacha	2.73	21	*e*P	Pn	00 20 42.5	+0.9
MTVR	Mutnovka	2.90	23	PN	Pn	00 20 44.4	+0.7
MTVR				S	Sn	00 21 18.3	+0.5
MTVR	Mutnovka	2.90	23	*e*P	Pn	00 20 44.4	+0.7
MTVR				*e*S	Sn	00 21 18.3	+0.5
GRL	Gorelyy	2.93	22	PN	Pn	00 20 45.3	+1.2
GRL	Gorelyy	2.93	22	*e*P	Pn	00 20 45.4	+1.2
RUS	Russkaya	2.94	27	PN	Pn	00 20 43.9	-0.3
RUS				S	Sn	00 21 17.5	-1.2
RUS	Russkaya	2.94	27	*e*P	Pn	00 20 43.9	-0.3
RUS				*e*S	Sn	00 21 17.6	-1.2
APC	Apacha	3.13	9	PN	Pn	00 20 48.4	+1.7
APC	Apacha	3.13	9	*e*P	Pn	00 20 48.4	+1.7
KRMR	Karymshinskiy	3.20	20	PN	Pn	00 20 48.9	+1.3
KRMR				S	Sn	00 21 26.0	+1.1
KRMR	Karymshinskiy	3.20	20	*e*P	Pn	00 20 48.9	+1.3
KRMR				*e*S	Sn	00 21 26.0	+1.1
PEA0B	Petropavlovsk-	3.38	14	PN	Pn	00 20 51.5	+1.4
PETK	Petropavlovsk-	3.38	14	P	Pn	00 20 51.8	+1.7
	comp=E,6.4nm,0.5s,baz=171,slow=12,SNR=41						
PETK				S	Sn	00 21 23.9	-5.4
	comp=E,3.5nm,0.4s,baz=180,slow=14,SNR=4.7						
PET	Petropavlovsk	3.51	24	*e*PN	Pn	00 20 53.1	+1.4
PET				*e*S	Sn	00 21 33.1	+0.8
PET				smax	smax		
	comp=N,55nm,0.6s						
PET				smax	smax		
	comp=E,75nm,0.6s						
PET	Petropavlovsk	3.51	24	*e*P	Pn	00 20 52.3	+0.5
PET				*e*S	Sn	00 21 31.9	-0.4
DALK	Dalny	3.54	25	PN	Pn	00 20 52.6	+0.5
DALK				S	Sn	00 21 32.9	-0.1
DALK	Dalny	3.54	25	*e*P	Pn	00 20 52.7	+0.5
DALK				*e*S	Sn	00 21 32.9	-0.1
UGLR	Uglovaya	3.72	24	PN	Pn	00 20 55.7	+1.0
UGLR	Uglovaya	3.72	24	*e*P	Pn	00 20 55.8	+1.0
AVH	Avacha	3.75	23	PN	Pn	00 20 56.4	+1.4
AVH	Avacha	3.75	23	*e*P	Pn	00 20 56.4	+1.4
KOK	Koryaka	3.75	22	PN	Pn	00 20 57.2	+2.2
KOK	Koryaka	3.75	22	*e*P	Pn	00 20 57.3	+2.2
KRX	Arik	3.81	22	PN	Pn	00 20 57.4	+1.5
KRX	Arik	3.81	22	*e*P	Pn	00 20 57.5	+1.5
NLC	Nalytchevo	3.83	28	PN	Pn	00 20 55.1	-1.0
NLC				S	Sn	00 21 37.6	-2.5
NLC	Nalytchevo	3.83	28	*e*P	Pn	00 20 55.1	-1.0
NLC				*e*S	Sn	00 21 37.6	-2.5
GNL	Ganaly	3.99	14	PN	Pn	00 20 59.5	+1.2
GNL	Ganaly	3.99	14	*e*P	Pn	00 20 59.5	+1.2
MKZ	Mys Kozlova	5.78	33	PN	Pn	00 21 21.6	-0.8
MKZ	Mys Kozlova	5.78	33	*e*P	Pn	00 21 21.6	-0.8
KBTR	Krutoberegovo	7.49	29	PN	Pn	00 21 45.3	-0.3
KBTR	Krutoberegovo	7.49	29	*e*P	Pn	00 21 45.4	-0.3
ILAR	Eielson Array	32.81	41	P	P	00 26 24.4	+1.5
	comp=E,0.2nm,0.5s,baz=248,slow=11,SNR=7.4						
	comp=E,0.2nm,0.5s						
MKAR	Makanchi Array	47.45	296	P	P	00 28 21.8	-2.1
	comp=E,0.7nm,0.7s,baz=52,slow=7.9,SNR=5.1						
	comp=E,0.7nm,0.7s						
KURK	Kurchatov	47.47	303	P	P	00 28 23.1	-0.7
KURBB	Kurchatov Arra	47.56	302	P	P	00 28 23.1	-1.5
	comp=E,1.4nm,0.6s,baz=65,slow=8.0,SNR=14						
	comp=E,1.4nm,0.6s						
BVAR	Borovoye Array	50.57	309	P	P	00 28 46.2	-1.3
	comp=E,1.2nm,0.5s,baz=58,slow=8.5,SNR=3.1						
	comp=E,1.2nm,0.5s						
CMAR	Chiang Mai Arr	55.16	257	P	P	00 29 23.1	+1.4
	comp=E,0.8nm,0.3s,baz=29,slow=6.9,SNR=5.9						
	comp=E,0.8nm,0.3s						
FINES	FINESS Array B	62.13	335	P	P	00 30 07.5	-1.8
	comp=E,1.4nm,0.8s,baz=42,slow=8.9,SNR=4.6						
	comp=E,1.4nm,0.8s						
NOA	NORSAR Array B	65.96	342	P	P	00 30 34.0	-0.5
	comp=E,0.3nm,0.6s,baz=33,slow=8.6,SNR=1.3						
	comp=E,0.3nm,0.6s						
HFS	Hagfors	66.28	341	P	P	00 30 36.0	-0.5
	comp=E,2.0nm,0.8s,baz=347,slow=5.9,SNR=2.1						
	comp=E,2.0nm,0.8s						
HFS	Hagfors	66.28	341	P	P	00 30 36.0	-0.5
AKASG	Malin Array Be	70.13	327	P	P	00 30 59.3	-1.4
	comp=E,0.2nm,0.3s,baz=35,slow=6.8,SNR=2.8						
	comp=E,0.2nm,0.3s						
EKA	Eskdalemuir Ar	73.80	348	P	P	00 31 22.4	-0.2
	comp=E,0.5nm,0.4s,baz=18,slow=5.0,SNR=6.0						
	comp=E,0.5nm,0.4s						
TXAR	Lajitas Array	74.15	63	P	P	00 31 27.4	+2.2
	comp=E,0.3nm,0.6s,baz=307,slow=4.4,SNR=4.6						
	comp=E,0.3nm,0.6s						
GERES	GERESS Array B	76.56	336	P	P	00 31 38.7	0.0
	comp=E,0.3nm,0.2s,baz=329,slow=3.4,SNR=2.1						
	comp=E,0.3nm,0.2s						
BRTR	Keskin Array B	77.55	318	P	P	00 31 44.3	0.0
	comp=E,0.5nm,0.7s,baz=57,slow=5.3,SNR=2.1						
	comp=E,0.5nm,0.7s						
MMAI	Mount Meron Ar	82.31	313	P	P	00 32 10.7	+0.6
	comp=E,0.9nm,0.5s,baz=12,slow=7.5,SNR=5.1						
	comp=E,0.9nm,0.5s						

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*NEIC **14** 00:20:25.0±1.4, 21°.8S±0°.2×170°.8E±0°.1, h73^{km}±10^{km}, mb4.4/15, Error ellipse: s-maj=22.7km s-min=15.6km az=176.0*

*IDC **14** 00:20:26.4±5.6, 21°.97S×170°.83E, h84^{km}±40^{km}, mb3.9/4, mbtmp4.3/6, MS3.5/20, Error ellipse: s-maj=61.1km s-min=26.4km az=39.0*

*NOU **14** 00:20:30.5, 21°.14S×169°.97E, h0^{km}, MLv3.9/7, Southeast of Loyalty Islands*

ISC 14 00:20:26.6±0.8, 21°.7S±0°.1×170°.67E±0°.09, h100^{km}, n51, σ1^{s}.70/35, mb4.3/11, 1D, Southeast of Loyalty Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MARNC	Mare, Loyalty	2.46	275	P	Pn	00 21 03.0	-2.2
MARNC	Mare, Loyalty	2.46	275		Pn	00 21 03.1	-2.1
YATNC	Mamie plateau,	3.52	264	P	Pn	00 21 19.5	+0.1
YATNC	Mamie plateau,	3.52	264	S	Sn	00 21 56.7	-3.5
OUENC	Ouen Island, N	3.61	258	P	Pn	00 21 21.4	+0.8
OUENC	Ouen Island, N	3.61	258		Pn	00 21 20.9	+0.3
DZM	Mont Dzumac	3.94	264	P	Pn	00 21 25.8	+0.8
	51nm,0.5s,baz=112,slow=19,SNR=50						
DZM				LR	LR	00 22 22.3	
	comp=Z,137nm,20.0s,baz=71,slow=28						
ONTNC	Ouen Toro	3.95	261	P	Pn	00 21 25.8	+0.7
ONTNC	Ouen Toro	3.95	261		Pn	00 21 25.2	+0.1
NOUC	Port Laguerre	4.07	264	P	Pn	00 21 26.7	0.0
KOUNC	Koumac, New Ca	6.07	280	Pn	Pn	00 21 53.8	0.0
RAO	Raoul Island	12.74	128	LR	LR	00 26 57.1	
	comp=Z,147nm,20.2s,baz=140,slow=31						
HNR	Honiara	15.99	318	LR	LR	00 29 21.1	
	comp=Z,163nm,20.9s,baz=208,slow=33						
URZ	Urewera	17.39	163	P	Pn	00 24 21.7	-1.1
	22nm,0.9s,baz=52,slow=15,SNR=6.5						
URZ				LR	LR	00 29 32.3	
	comp=Z,331nm,21.6s,baz=346,slow=32						
MRZ	Mangatainoka R	19.33	169		Pn	00 24 42.9	-3.2
MRZ				IAmb	IAmb	00 24 43.9	
	comp=Z,19nm,0.8s						
THZ	Tophouse	20.07	175	P	Pn	00 24 52.7	-2.0
THZ				IAmb	IAmb	00 25 06.2	
	comp=Z,19nm,1.0s						
CTA	Charters Tower	22.86	270	LR	LR	00 33 59.0	
	comp=Z,144nm,19.1s,baz=50,slow=35						
RAR	Rarotonga	27.50	94	LR	LR	00 36 51.1	
	comp=Z,20nm,18.8s,baz=220,slow=36						
STKA	Stephens Creek	27.77	243	LR	LR	00 35 19.6	
	comp=Z,117nm,20.5s,baz=108,slow=32						
WR0	Warramunga Arr	33.76	266	P	P	00 26 60.0	+1.0
WR0				IAmb	IAmb	00 27 02.2	
	comp=Z,8.3nm,1.1s						
WR8	Warramunga Arr	33.80	266	P	P	00 27 01.2	+1.9
WR8				IAmb	IAmb	00 27 15.5	
	comp=Z,7.0nm,1.1s						
AS31	Alice Springs	33.91	260	P	P	00 27 01.0	+0.7
ASAR	Alice Springs	33.91	260	P	P	00 27 03.1	+2.8
	comp=Z,2.3nm,0.9s,baz=88,slow=8.5,SNR=11						
ASAR				LR	LR	00 40 39.7	
	comp=Z,96nm,18.8s,baz=107,slow=36						
	comp=Z,2.3nm,0.9s						
ASAR	Alice Springs	33.91	260	P	P	00 27 01.2	+0.9
WB0	Warramunga Arr	33.93	267	P	P	00 27 02.5	+2.0
WB2	Warramunga Arr	33.94	266	P	P	00 27 01.6	+1.1
WB2				IAmb	IAmb	00 27 03.8	
	comp=Z,4.5nm,1.0s						
WRA	Warramunga Arr	33.95	266	P	P	00 27 02.1	+1.5
	comp=Z,1.8nm,0.8s,baz=100,slow=8.2,SNR=7.1						
	comp=Z,1.8nm,0.8s						
WRA	Warramunga Arr	33.95	266	P	P	00 27 02.1	+1.5
FORT	Forrest	39.07	248	P	P	00 27 44.8	+0.7
FORT				IAmb	IAmb	00 27 51.5	
	comp=Z,7.4nm,1.1s						
XMAS	Kiritimati	39.11	57	P	P	00 27 44.0	-0.5
KNRA	Kununurra	40.05	271	P	P	00 27 54.2	+1.9
KNRA				IAmb	IAmb	00 28 06.7	
	comp=Z,5.2nm,1.1s						
FITZ	Fitzroy Crossi	42.38	267	P	P	00 28 14.5	+3.1
	comp=Z,4.6nm,0.9s,baz=98,slow=9.1,SNR=6.6						
FITZ				LR	LR	00 45 49.0	
	comp=Z,176nm,18.9s,baz=156,slow=36						
	comp=Z,4.6nm,0.9s						
FITZ	Fitzroy Crossi	42.38	267	P	P	00 28 14.1	+2.7
GUMO	Guam	43.27	322	LR	LR	00 43 29.2	
	comp=Z,78nm,21.4s,baz=106,slow=32						
NWAO	Narrogin (SRO)	48.32	245	P	P	00 29 02.6	+4.5
VNDA	Vanda	56.01	182	LR	LR	00 52 39.2	
	comp=Z,50nm,18.1s,baz=348,slow=35						
CASY	Casey	58.41	204	P	P	00 30 12.4	+1.0
CASY				IAmb	IAmb	00 30 13.6	
	comp=Z,2.6nm,0.9s						
JHJ	Hachijo jima 2	61.99	331	LR	LR	00 52 21.6	
	comp=Z,17nm,21.1s,baz=343,slow=31						
MJAR	Matsushiro Arr	65.56	332	LR	LR	00 55 36.9	
	comp=Z,17nm,21.6s,baz=140,slow=32						
QSPA	South Pole Qui	68.34	180	P	P	00 31 16.6	-0.4
	comp=Z,3.5nm,0.9s,baz=12,slow=6.4,SNR=7.3						
QSPA				LR	LR	00 58 56.5	
	comp=Z,42nm,18.4s,baz=57,slow=34						
	comp=Z,3.5nm,0.9s						
QSPA	South Pole Qui	68.34	180	P	P	00 31 17.3	+0.2
QSPA				IAmb	IAmb	00 31 20.0	
	comp=Z,4.9nm,1.1s						
KSRS	Korea Array	71.30	325	LR	LR	00 59 43.3	
	comp=Z,15nm,21.4s,baz=130,slow=33						
ELIB	Princess Elisa	83.94	190	*d*P	P	00 32 45.5	+0.2
	comp=Z,1.8nm,1.0s						
LPIG	La Paz	89.30	64	LR	LR	01 02 55.8	
	comp=Z,19nm,21.1s,baz=216,slow=29						
NVAR	Mina Array Bea	89.45	48	LR	LR	01 05 12.4	
	comp=Z,28nm,20.3s,baz=272,slow=30						
ILAR	Eielson Array	92.20	17	LR	LR	01 08 30.1	
	comp=Z,34nm,19.9s,baz=257,slow=31						
PALK	Pallekele	92.62	277	LR	LR	01 18 32.4	
	comp=Z,26nm,18.8s,baz=138,slow=38						
DLBC	Dease Lake	93.63	27	LR	LR	01 07 13.7	
	comp=Z,31nm,21.4s,baz=171,slow=30						
BRG	Berggiesshubel	145.68	334	*e*PKP	PKiKP	00 39 58.6	+1.4
BRG				Amp		00 39 59.3	
	comp=Z,12nm,1.6s						
CLL	Collm	145.72	335	*e*PKPbc	PKiKP	00 39 55.0	-2.3
GERES	GERESS Array B	147.30	331	PKPbc	PKPab	00 40 00.5	-0.1
	comp=Z,1.2nm,0.7s,baz=46,slow=3.9,SNR=6.1						

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*IDC **14** 01:15:24.6±0.5, 55°.15N×164°.95E, h0^{km}, mb4.1/32, mbtmp4.2/37, ML4.3/5, MS3.5/23, Error ellipse: s-maj=14.1km s-min=9.5km az=156.0*

*KRSC **14** 01:15:25.9±1.6, 55°.03N×164°.88E, h48^{km}±19^{km}, Mc4.3, Ml5.1, Felt [II-III] at Nikolskoe.*

*NEIC **14** 01:15:26.3±1.7, 55°.12N±0°.06×164°.9E±0°.1, h10^{km}±1^{km}, mb4.4/91, Error ellipse: s-maj=11.2km s-min=9.6km az=243.0*

*GFZ **14** 01:15:26.6±0.3, 55°N±7°×16°5E±°, h10^{km}, M4.5/18, mb4.5/18, confirmed*

*MOS **14** 01:15:27.6±0.7, 55°.06N×165°.01E, h39^{km}, mb4.6/21, Error ellipse: s-maj=4.9km s-min=4.6km az=88.2*

ISC 14 01:15:26.0±0.3, 55°.09N±0°.04×164°.90E±0°.03, h10^{km}, n343, σ1^{s}.46/393, mb4.4/110, MS3.6/25, 9C-1D, Komandorsky Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BKI	Bering	0.63	79	PN	Pb	01 15 39.3	+0.3
BKI				S	Sg	01 15 47.7	+1.4
BKI	Bering	0.63	79	*e*P	Pb	01 15 39.3	+0.3
BKI				*e*S	Sg	01 15 47.8	+1.4
KBTR	Krutoberegovo	1.63	314	PN	Pn	01 15 53.7	-1.0
KBTR				S	Sn	01 16 12.9	-2.8
KBTR	Krutoberegovo	1.63	314	*e*P	Pn	01 15 53.7	-1.0
KBTR				*e*S	Sn	01 16 13.0	-2.8
KBG	Krutoberegovo	1.71	314	PN	Pn	01 15 54.7	-1.0
KBG				S	Sn	01 16 15.2	-2.4
KBG	Krutoberegovo	1.71	314	*e*P	Pn	01 15 54.8	-1.0
KBG				*e*S	Sn	01 16 15.3	-2.4
MKZ	Mys Kozlova	1.91	255	PN	Pn	01 15 58.8	+0.3
MKZ				S	Sn	01 16 21.0	-1.6
MKZ	Mys Kozlova	1.91	255	*e*P	Pn	01 15 58.8	+0.3
MKZ				*e*S	Sn	01 16 21.0	-1.6
SMKR	Semkarok	2.45	309	PN	Pn	01 16 06.8	+0.8
SMKR				S	Sn	01 16 35.7	-0.3
SMKR	Semkarok	2.45	309	*e*P	Pn	01 16 06.8	+0.8
SMKR				*e*S	Sn	01 16 35.7	-0.3
ZLN	Zelenaya	2.51	294	PN	Pn	01 16 08.4	+1.6
ZLN	Zelenaya	2.51	294	*e*P	Pn	01 16 08.5	+1.6
BZGR	Bezymyannyi-Gr	2.54	291	PN	Pn	01 16 08.9	+1.6
BZGR				S	Sn	01 16 39.7	+1.4
BZGR	Bezymyannyi-Gr	2.54	291	*e*P	Pn	01 16 09.0	+1.6
BZGR				*e*S	Sn	01 16 39.7	+1.4
CIRR	Tsirk	2.57	295	PN	Pn	01 16 08.9	+1.2
CIRR	Tsirk	2.57	295	*e*P	Pn	01 16 09.0	+1.2
TUMD	Tumrok D	2.59	274	PN	Pn	01 16 09.3	+1.4
TUMD				S	Sn	01 16 40.4	+1.1
TUMD	Tumrok D	2.59	274	*e*P	Pn	01 16 09.3	+1.4
TUMD				*e*S	Sn	01 16 40.5	+1.1
LGNR	Loginova	2.59	294	PN	Pn	01 16 10.0	+1.9
LGNR				S	Sn	01 16 40.0	+0.2
LGNR	Loginova	2.59	294	*e*P	Pn	01 16 10.1	+1.9
LGNR				*e*S	Sn	01 16 40.1	+0.2
BZP	Bezymyannyi-Pe	2.62	290	PN	Pn	01 16 09.7	+1.3
BZP				S	Sn	01 16 41.4	+1.1
BZP	Bezymyannyi-Pe	2.62	290	*e*P	Pn	01 16 09.8	+1.3
BZP				*e*S	Sn	01 16 41.4	+1.1
BZMR	Bezymyannaya	2.65	291	PN	Pn	01 16 10.5	+1.7
BZMR				S	Sn	01 16 41.8	+0.7
BZMR	Bezymyannaya	2.65	291	*e*P	Pn	01 16 10.6	+1.7
BZMR				*e*S	Sn	01 16 41.8	+0.7
BZWR	Bezymyannyi-We	2.65	291	PN	Pn	01 16 10.7	+1.8
BZWR				S	Sn	01 16 42.7	+1.5
BZWR	Bezymyannyi-We	2.65	291	*e*P	Pn	01 16 10.8	+1.8
BZWR				*e*S	Sn	01 16 42.7	+1.5
KLY	Klyuchi	2.70	299	PN	Pn	01 16 09.3	-0.1
KLY				S	Sn	01 16 39.4	-2.7
KLY	Klyuchi	2.70	299	*e*P	Pn	01 16 09.3	-0.1
KLY				*e*S	Sn	01 16 39.5	-2.7
KIRR	Kirishev	2.73	290	PN	Pn	01 16 11.9	+1.9
KIRR				S	Sn	01 16 44.6	+1.5
KIRR	Kirishev	2.73	290	*e*P	Pn	01 16 11.9	+1.9
KIRR				*e*S	Sn	01 16 44.6	+1.5
TUMR	Tumrok	2.73	276	PN	Pn	01 16 11.7	+1.7
TUMR	Tumrok	2.73	276	*e*P	Pn	01 16 11.8	+1.7
KMNR	Kamenistaya	2.74	286	PN	Pn	01 16 12.0	+2.0
KMNR				S	Sn	01 16 45.0	+1.7
KMNR	Kamenistaya	2.74	286	*e*P	Pn	01 16 12.1	+2.0
KMNR				*e*S	Sn	01 16 45.0	+1.7
KPT	Kopyto	2.80	290	PN	Pn	01 16 12.9	+2.0
KPT				S	Sn	01 16 45.5	+0.8
KPT	Kopyto	2.80	290	*e*P	Pn	01 16 13.0	+2.0
KPT				*e*S	Sn	01 16 45.6	+0.8
KOZ	Kozyrevsk	3.02	291	PN	Pn	01 16 16.2	+2.5
KOZ				S	Sn	01 16 50.6	+0.7
KOZ	Kozyrevsk	3.02	291	*e*P	Pn	01 16 16.3	+2.5
KOZ				*e*S	Sn	01 16 50.6	+0.7
SRDR	Sredinnyy	3.18	295	PN	Pn	01 16 18.1	+2.1
SRDR				S	Sn	01 16 54.2	+0.1
SRDR	Sredinnyy	3.18	295	*e*P	Pn	01 16 18.2	+2.1
SRDR				*e*S	Sn	01 16 54.2	+0.1
KII	Karymskiy	3.34	254	PN	Pn	01 16 19.7	+1.4
KII				S	Sn	01 16 56.9	-1.2
KII	Karymskiy	3.34	254	*e*P	Pn	01 16 19.7	+1.4
KII				*e*S	Sn	01 16 56.9	-1.2
SPN	Mys Shipunski	3.50	237	PN	Pn	01 16 21.1	+0.8
SPN	Mys Shipunski	3.50	237	*e*P	Pn	01 16 21.1	+0.8
SPN				*e*S	Sn	01 16 58.5	-3.2
ESO	Esso	3.62	286	PN	Pn	01 16 23.4	+1.3
ESO	Esso	3.62	286	*e*P	Pn	01 16 23.4	+1.3
ESO				*e*S	Sn	01 17 03.9	-1.1
NLC	Nalytchevo	3.79	242	PN	Pn	01 16 24.7	+0.4
NLC	Nalytchevo	3.79	242	*e*P	Pn	01 16 24.8	+0.4
NLC				*e*S	Sn	01 17 06.0	-2.9
SDLR	Sedlovina	3.97	245	PN	Pn	01 16 28.7	+1.7
SDLR	Sedlovina	3.97	245	*e*P	Pn	01 16 28.7	+1.7
SDLR				*e*S	Sn	01 17 12.0	-1.7
SMAR	Somma	4.02	245	PN	Pn	01 16 29.5	+1.8
SMAR	Somma	4.02	245	*e*P	Pn	01 16 29.6	+1.8
SMAR				*e*S	Sn	01 17 12.2	-2.8
KRER	Koryakskii	4.03	246	PN	Pn	01 16 29.6	+1.8
KRER	Koryakskii	4.03	246	*e*P	Pn	01 16 29.7	+1.8
KRER				*e*S	Sn	01 17 13.9	-1.2
UGLR	Uglovaya	4.04	245	PN	Pn	01 16 30.3	+2.4
UGLR	Uglovaya	4.04	245	*e*P	Pn	01 16 30.4	+2.4
UGLR				*e*S	Sn	01 17 14.4	-0.9
AVH	Avacha	4.05	246	PN	Pn	01 16 30.0	+1.9
AVH	Avacha	4.05	246	*e*P	Pn	01 16 30.0	+1.9
AVH				*e*S	Sn	01 17 14.3	-1.3
KRX	Arik	4.06	247	PN	Pn	01 16 29.7	+1.5
KRX	Arik	4.06	247	*e*P	Pn	01 16 29.7	+1.5
KRX				*e*S	Sn	01 17 14.2	-1.5
KOK	Koryaka	4.09	247	PN	Pn	01 16 30.3	+1.7
KOK	Koryaka	4.09	247	*e*P	Pn	01 16 30.4	+1.7
KOK				*e*S	Sn	01 17 15.7	-0.9
DALK	Dalny	4.17	243	PN	Pn	01 16 30.6	+1.1
DALK	Dalny	4.17	243	*e*P	Pn	01 16 30.7	+1.1
DALK				*e*S	Sn	01 17 15.3	-2.9
PET	Petropavlovsk	4.22	243	*e*PN	Pn	01 16 31.5	+1.2
PET				pmax	pmax		
	comp=Z,130nm,0.5s						
PET				MLR	MLR		
	comp=Z,200nm,8.0s						
PET				MLR	MLR		
	comp=Z,500nm,9.0s						
PET	Petropavlovsk	4.22	243	Pn	Pn	01 16 31.2	+0.9
PET	Petropavlovsk	4.22	243	*e*P	Pn	01 16 31.7	+1.4
PET				*e*S	Sn	01 17 16.9	-2.7
PET	Petropavlovsk	4.22	243	P	Pn	01 16 32.4	+2.1
INSR	Institute	4.22	244	PN	Pn	01 16 31.2	+0.9
INSR	Institute	4.22	244	*e*P	Pn	01 16 31.2	+0.9
INSR				*e*S	Sn	01 17 17.5	-2.2
OSSR	Ossora	4.29	347	PN	Pn	01 16 32.2	+1.0
OSSR	Ossora	4.29	347	*e*P	Pn	01 16 32.2	+1.0
GNL	Ganaly	4.30	254	PN	Pn	01 16 33.5	+2.0
GNL	Ganaly	4.30	254	*e*P	Pn	01 16 33.5	+2.0
GNL				*e*S	Sn	01 17 21.7	0.0
TIGL	Tigil	4.38	310	PN	Pn	01 16 34.8	+2.4
TIGL	Tigil	4.38	310	*e*P	Pn	01 16 34.9	+2.4
KRMR	Karymshinskiy	4.59	243	PN	Pn	01 16 37.3	+1.9
KRMR	Karymshinskiy	4.59	243	*e*P	Pn	01 16 37.4	+1.9
KRMR				*e*S	Sn	01 17 26.7	-2.0
RUS	Russkaya	4.63	238	PN	Pn	01 16 37.1	+1.3
RUS	Russkaya	4.63	238	*e*P	Pn	01 16 37.2	+1.3
PEA0B	Petropavlovsk-	4.68	248	*ce*PN	Pn	01 16 38.4	+1.8
PEA0B	Petropavlovsk-	4.68	248	Pn	Pn	01 16 37.4	+0.8
PETK	Petropavlovsk-	4.68	248	Pn	Pn	01 16 37.5	+0.9
	comp=Z,24nm,0.3s,baz=70,slow=17,SNR=72						
PETK				Sn	Sn	01 17 30.1	-0.8
	comp=Z,17nm,0.3s,baz=79,slow=16,SNR=5.2						
PETK				LR	LR	01 18 46.2	
	comp=Z,240nm,18.4s,baz=54,slow=43						
	comp=Z,56nm,0.5s						
PETK				AML	AML		
PETK	Petropavlovsk-	4.68	248	PN	Pn	01 16 37.8	+1.2
PETK	Petropavlovsk-	4.68	248	Pn	Pn	01 16 37.8	+1.2
MTVR	Mutnovka	4.76	240	PN	Pn	01 16 39.1	+1.3
MTVR	Mutnovka	4.76	240	*e*P	Pn	01 16 39.2	+1.3
GRL	Gorelyy	4.78	241	PN	Pn	01 16 39.6	+1.6
GRL	Gorelyy	4.78	241	*e*P	Pn	01 16 39.7	+1.6
GRL				*e*S	Sn	01 17 31.2	-2.2
PALN	Palana	4.83	328	PN	Pn	01 16 40.6	+2.0
PALN	Palana	4.83	328	*e*P	Pn	01 16 40.6	+2.0
ASAK	Asacha	4.96	240	PN	Pn	01 16 42.5	+2.0
ASAK	Asacha	4.96	240	*e*P	Pn	01 16 42.6	+2.0
APC	Apacha	5.05	248	PN	Pn	01 16 44.1	+2.4
APC	Apacha	5.05	248	*e*P	Pn	01 16 44.1	+2.4
APC				*e*S	Sn	01 17 39.6	-0.5
KDTR	Khodutka, Kamc	5.23	234	PN	Pn	01 16 44.7	+0.5
KDTR	Khodutka, Kamc	5.23	234	*e*P	Pn	01 16 44.7	+0.5
SHEM	Shemya Is, Ala	5.93	110	Pn	Pn	01 16 53.9	+0.2
	comp=Z,3.1nm,0.3s,baz=309,slow=17,SNR=1.8						
SHEM				Sn	Sn	01 17 58.9	-2.7
	comp=Z,3.7nm,0.3s,baz=284,slow=21,SNR=1.5						
	comp=Z,122nm,1.1s						
SHEM				AML	AML		
SHEM	Shemya Is, Ala	5.93	110	Pn	Pn	01 16 55.1	+1.4
SMY	Shemya	5.93	110	PN	Pn	01 16 54.0	+0.3
SMY	Shemya	5.93	110	Pn	Pn	01 16 54.0	+0.3
PAU	Pauzhetka	6.06	237	PN	Pn	01 16 57.0	+1.5
PAU	Pauzhetka	6.06	237	*e*P	Pn	01 16 57.0	+1.5
SKR	Severo-Kuril's	6.90	234	*e*PN	Pn	01 17 08.4	+1.3
SKR				pmax	pmax		
	comp=Z,137nm,0.4s						
SKR				MLR	MLR		
	comp=Z,300nm,12.0s						
SKR	Severo-Kuril's	6.90	234	*e*P	Pn	01 17 08.4	+1.3
KMSK	Kamenskaya	7.43	5	PN	Pn	01 17 16.9	+2.6
KMSK	Kamenskaya	7.43	5	*e*P	Pn	01 17 16.9	+2.6
MA2	Magadan	8.86	306	Pn	Pn	01 17 34.7	+0.7
	comp=Z,0.8nm,0.3s,baz=128,slow=13,SNR=5.2						
MA2				LR	LR	01 21 36.7	
	comp=Z,242nm,18.6s,baz=110,slow=42						
	comp=Z,5.7nm,0.4s						
MA2				AML	AML		
MA2	Magadan	8.86	306	*ce*PN	Pn	01 17 36.6	+2.6
MA2				pmax	pmax		
	comp=Z,28nm,1.7s						
MA2	Magadan	8.86	306	Pn	Pn	01 17 33.3	-0.7
SEY	Seymchan	10.16	326	Pn	Pn	01 17 53.1	+1.4
	comp=Z,0.2nm,0.3s,baz=180,slow=19,SNR=1.5						
	comp=Z,2.6nm,0.2s						
SEY				AML	AML		

SEY	Seymchan	10.16	326	i PN	Pn	01 17 53.4	+1.7
KIWB	Kanaga Island	11.17	99	Pn	Pn	01 18 06.7	+1.1
ADK	Adak	11.43	99	PN	Pn	01 18 09.6	+0.5
ADK	Adak	11.43	99	Pn	Pn	01 18 09.6	+0.5
BILL	Bilibino	13.02	2	i PN	Pn	01 18 32.6	+1.9
BILL				pmax	pmax		
	comp=Z,3.0nm,1.1s						
AKUT	Akutan	16.96	81	P	Pn	01 19 24.6	+1.5
GRNR	Gornyy	17.64	268⇑	iP	P	01 19 33.0	+0.4
GRNR				pmax	pmax		
	comp=Z,70nm,1.1s						
JKA	Kamikawa-asahi	18.06	242	P	Pn	01 19 36.1	-0.7
JKA				IAmb	IAmb	01 19 39.0	
	comp=Z,64nm,1.4s						
JKA	Kamikawa-asahi	18.06	242	P	P	01 19 38.0	+0.7
	comp=Z,25nm,2.0s						
ASAJ	Asahikawa	18.06	242	P	P	01 19 37.3	+0.1
	comp=Z,3.4nm,0.3s,baz=65,slow=7.5,SNR=9.3						
ASAJ				LR	LR	01 27 04.3	
	comp=Z,82nm,21.1s,baz=48,slow=39						
	comp=Z,9.7nm,0.4s						
ASAJ				AML	AML		
ASAJ	Asahikawa	18.06	242	P	Pn	01 19 36.1	-0.8
ASAJ				pmax	pmax		
	comp=Z,64nm,1.4s						
K15K	Wolf Creek Mou	18.70	54	P	Pn	01 19 45.2	+0.8
K15K				IAmb	IAmb	01 19 52.0	
	comp=Z,24nm,1.4s						
N15K	Kwethluk River	19.26	60	P	Pn	01 19 51.5	+0.2
N15K				IAmb	IAmb	01 20 10.7	
	comp=Z,13nm,0.7s						
J16K	Anvik River	19.26	51	P	Pn	01 19 52.0	+0.7
ERM	Erimo	19.34	236	i P	P	01 19 51.3	0.0
ERM				pmax	pmax		
	comp=Z,12nm,0.4s						
ERM	Erimo	19.34	236	P	P	01 19 49.7	-1.5
YAK	Yakutsk	19.44	305	eP	P	01 19 50.9	-1.3
YAK				eS	Sn	01 23 29.1	-2.0
YAK				pmax	pmax		
	comp=Z,51nm,1.0s						
YAK				pmax	pmax		
	comp=N,6.0nm,1.0s						
YAK				pmax	pmax		
	comp=E,18nm,1.4s						
YAK				smax	smax		
	comp=N,71nm,3.0s						
YAK				smax	smax		
	comp=E,34nm,3.0s						
YAK	Yakutsk	19.44	305	P	P	01 19 51.1	-1.1
YAK	Yakutsk	19.44	305	P	P	01 19 51.4	-0.8
	comp=Z,53nm,0.6s						
M16K	Timber Creek	19.82	58	P	P	01 19 56.5	+0.1
M16K				IAmb	IAmb	01 20 08.4	
	comp=Z,14nm,1.0s						
J17K	VABM Dome	19.96	51	P	P	01 19 57.3	-0.6
J17K				IAmb	IAmb	01 20 17.9	
	comp=Z,10nm,0.8s						
O16K	Kokwok River B	20.29	62	P	P	01 20 01.5	0.0
M17K	Holitna River	20.57	57	P	P	01 20 04.7	+0.2
M17K				IAmb	IAmb	01 20 25.1	
	comp=Z,11nm,0.7s						
G18K	Tagagawik	20.62	44	P	P	01 20 05.5	+0.5
L18K	Granite Mounta	20.95	55	P	P	01 20 10.1	+1.5
KLR	Kul'dur	21.02	268	P	P	01 20 10.4	+0.8
	comp=Z,3.6nm,0.7s,baz=49,slow=10,SNR=8.4						
KLR				LR	LR	01 28 20.9	
	comp=Z,74nm,20.0s,baz=66,slow=37						
	comp=Z,3.6nm,0.7s						
KLR	Kul'dur	21.02	268	ceP	P	01 20 10.1	+0.5
KLR				pmax	pmax		
	comp=Z,6.0nm,0.9s						
F19K	Shaleruckik Mo	21.20	42	P	P	01 20 11.5	+0.2
JTM	Tenmabayashi	21.29	238	P	P	01 20 11.6	-0.9
G19K	Purcell Mounta	21.30	44	P	P	01 20 15.2	+2.8
C19K	Lookout Ridge	21.31	35	P	P	01 20 13.3	+0.8
C19K				IAmb	IAmb	01 20 22.9	
	comp=Z,19nm,1.1s						
J19K	Poorman	21.56	50	P	P	01 20 14.7	-0.5
E19K	Redstone River	21.57	40	P	P	01 20 15.9	+0.5
O18K	Koktuh Hills	21.72	61	P	P	01 20 18.1	+1.0
ZEA	Zeya	21.78	282	eP	P	01 20 19.7	+2.0
ZEA				e		01 20 32.3	
I20K	Naaghedeneel	22.14	48	P	P	01 20 22.9	+1.5
I20K				IAmb	IAmb	01 20 41.0	
	comp=Z,14nm,0.8s						
K20K	Telida	22.20	52	P	P	01 20 22.8	+0.7
J20K	Nowinta River	22.22	49	P	P	01 20 22.3	0.0
TIXI	Tiksi	22.58	331	P	P	01 20 26.2	+0.1
	comp=Z,5.3nm,0.5s,baz=118,slow=9.2,SNR=3.9						
TIXI				LR	LR	01 29 51.8	
	comp=Z,90nm,19.4s,baz=198,slow=38						
	comp=Z,5.3nm,0.5s						
TIXI	Tiksi	22.58	331	ceP	P	01 20 26.5	+0.5
TIXI				pmax	pmax		
	comp=Z,6.0nm,0.6s						
IMAR	Indian Mountai	22.61	45	P	P	01 20 25.6	-0.7
ILSW	Iliamna Southw	22.75	60	P	P	01 20 27.7	-0.3
G21K	Allakaket	22.79	43	P	P	01 20 29.0	+0.7
HEH	HeiHe	23.04	274	eP	P	01 20 30.4	-0.7
PPLA	Purkeypile	23.04	53	P	P	01 20 31.1	-0.1
PPLA				IAmb	IAmb	01 20 48.0	
	comp=Z,11nm,1.1s						
CAST	Castle Rocks	23.10	51	P	P	01 20 32.2	+0.7
STLK	Strandline Lak	23.26	56	P	P	01 20 35.1	+1.8
STLK				IAmb	IAmb	01 20 49.2	
	comp=Z,13nm,1.4s						
SKT	Skwentna	23.37	55	P	P	01 20 34.5	+0.1
SKT				IAmb	IAmb	01 20 49.0	
	comp=Z,9.1nm,1.0s						
KDAK	Kodiak Island	23.38	66	i P	P	01 20 33.9	-0.5
KDAK				pmax	pmax		
	comp=Z,14nm,1.5s						
H22K	Ishtalitna Cre	23.56	45	P	P	01 20 36.3	+0.1
D22K	Ayikyak River	23.59	38	P	P	01 20 36.6	+0.1
D22K				IAmb	IAmb	01 21 10.6	
	comp=Z,12nm,1.1s						
BPAW	Bear Paw Mtn.	23.60	50	P	P	01 20 37.3	+0.7
USRK	Ussuriysk Ar.	23.71	256	P	P	01 20 37.9	+0.1
	comp=Z,1.9nm,0.9s,baz=41,slow=11,SNR=4.0						
USRK				LR	LR	01 30 20.0	
	comp=Z,105nm,19.9s,baz=74,slow=38						
	comp=Z,1.9nm,0.9s						
MLY	Manley	23.75	47	P	P	01 20 38.9	+0.8
SUA	Susitna One	23.78	56	P	P	01 20 38.0	-0.5
SUA				IAmb	IAmb	01 20 53.0	
	comp=Z,6.8nm,0.8s						
TRF	Thorofare Moun	23.90	51	P	P	01 20 39.2	-0.6
TRF				IAmb	IAmb	01 20 53.2	
	comp=Z,10nm,0.8s						
SLKM	Skilak Lake	24.13	59	P	P	01 20 41.2	-0.5
G23K	Bananza Creek	24.19	43	P	P	01 20 42.6	+0.4
D23K	Nanushuk River	24.32	38	P	P	01 20 43.8	+0.5
D23K				IAmb	IAmb	01 21 13.4	
	comp=Z,15nm,1.3s						
I23K	Minto, Yukon-K	24.34	47	P	P	01 20 43.7	+0.2
I23K				IAmb	IAmb	01 20 57.2	
	comp=Z,11nm,0.8s						
NEA2	Nenana	24.45	49	P	P	01 20 43.9	-0.6
NEA2				IAmb	IAmb	01 20 57.8	
	comp=Z,9.8nm,1.0s						
COLA	College	24.97	48	i P	P	01 20 49.3	+0.1
COLA				pmax	pmax		
	comp=Z,6.0nm,0.8s						
D24K	Happy Valley	25.01	38	P	P	01 20 50.0	+0.5
D24K				IAmb	IAmb	01 21 14.4	
	comp=Z,7.2nm,0.7s						
G24K	Hadweenzic Riv	25.20	44	P	P	01 20 51.6	+0.3
G24K				IAmb	IAmb	01 21 05.2	
	comp=Z,5.1nm,0.7s						
JYT	Yasato	25.34	232	P	P	01 20 52.2	-0.6
	comp=Z,0.8nm,1.0s						
ILAR	Eielson Array	25.39	48	P	P	01 20 52.6	-0.4
	comp=Z,1.9nm,0.5s,baz=258,slow=9.1,SNR=19						
	comp=Z,1.9nm,0.5s						
ILAR	Eielson Array	25.39	48	P	P	01 20 53.7	+0.7
PRP	Porcupine Dome	25.96	46	P	P	01 20 58.5	+0.1
MJAR	Matsushiro Arr	26.01	236	P	P	01 21 00.3	+1.3
	comp=Z,2.7nm,0.5s,baz=43,slow=7.4,SNR=15						
	comp=Z,2.7nm,0.5s						
MAJO	Matsushiro	26.01	236	i P	P	01 20 59.3	+0.4
MAJO				pmax	pmax		
	comp=Z,7.0nm,0.7s						
J25K	Salcha River,	26.04	49	P	P	01 20 57.3	-1.7
J25K				IAmb	IAmb	01 21 12.2	
	comp=Z,3.5nm,0.6s						
BMAR	Burnt Mountain	26.38	42	P	P	01 21 03.0	+0.9
K27K	Chicken	27.52	50	P	P	01 21 11.8	-0.5
K27K				IAmb	IAmb	01 21 28.6	
	comp=Z,5.4nm,0.9s						
H27K	Steamboat Moun	27.58	45	P	P	01 21 13.5	+0.6
H27K				IAmb	IAmb	01 21 48.9	
	comp=Z,7.7nm,1.2s						
L27K	Beaver Creek,	27.75	52	P	P	01 21 14.7	+0.3
L27K				IAmb	IAmb	01 21 30.1	
	comp=Z,6.1nm,0.9s						
BCAR	Beaver Creek A	27.77	52	P	P	01 21 14.7	+0.2
M27K	Edge Creek, AK	27.83	53	P	P	01 21 15.7	+0.4
M27K				IAmb	IAmb	01 21 33.1	
	comp=Z,6.7nm,1.0s						
H29M	Whitestone	28.86	45	P	P	01 21 24.7	+0.5
H29M				IAmb	IAmb	01 21 33.5	
	comp=Z,15nm,1.4s						
G29M	Pine Creek	28.94	43	P	P	01 21 25.2	+0.3
G29M				IAmb	IAmb	01 22 03.4	
	comp=Z,12nm,1.4s						
M29M	Somme Creek	29.38	52	P	P	01 21 29.1	+0.1
M29M				IAmb	IAmb	01 21 43.5	
	comp=Z,4.7nm,0.7s						
INK	Inuvik	30.54	40	P	P	01 21 39.3	+0.4
	comp=Z,3.9nm,1.1s						
KSRS	Korea Array	30.57	250	P	P	01 21 41.2	+1.6
	comp=Z,2.4nm,0.8s,baz=36,slow=9.1,SNR=7.0						
KSRS				LR	LR	01 33 32.9	
	comp=Z,39nm,19.8s,baz=40,slow=36						
	comp=Z,2.4nm,0.8s						
MMPY	Sheldon Lake,	32.57	50	P	P	01 21 57.8	+0.8
MMPY				IAmb	IAmb	01 22 12.5	
	comp=Z,3.5nm,0.7s						
H11N2	WAKE ISLAND Hy	35.33	177	T	T	02 00 00.2	
	baz=359,slow=76,SNR=455						
H11N3	WAKE ISLAND Hy	35.34	177	T	T	02 00 14.3	
	baz=359,slow=76,SNR=464						
H11N1	WAKE ISLAND Hy	35.35	177	T	T	02 00 14.6	
	baz=359,slow=76,SNR=532						
ULN	Ulaanbaatar	35.81	283	P	P	01 22 27.5	+2.1
	comp=Z,5.2nm,1.2s						
NRIK	Noril'sk	35.94	324	LR	LR	01 37 40.8	
	comp=Z,77nm,20.0s,baz=62,slow=37						
SONM	Songino Array	36.20	283	P	P	01 22 29.7	+1.1
	comp=Z,5.2nm,0.5s,baz=62,slow=8.2,SNR=27						
SONM				LR	LR	01 37 24.1	
	comp=Z,46nm,19.4s,baz=106,slow=36						
	comp=Z,5.2nm,0.5s						
SONM	Songino Array	36.20	283	P	P	01 22 27.0	-1.7
SONM				pmax	pmax		
	comp=Z,4.0nm,0.6s						
SONM	Songino Array	36.20	283	P	P	01 22 27.0	-1.7
SONM				IAmb	IAmb	01 22 31.1	
	comp=Z,4.0nm,0.6s						
H11S1	WAKE ISLAND Hy	36.54	177	T	T	02 01 35.8	
	baz=359,slow=76,SNR=24						
H11S3	WAKE ISLAND Hy	36.55	177	T	T	02 01 47.4	
	baz=359,slow=76,SNR=10						
H11S2	WAKE ISLAND Hy	36.56	177	T	T	02 01 29.4	
	baz=359,slow=76,SNR=29						
HHC	Hu-ho-hao-te	37.48	270	eP	P	01 22 39.1	-0.5
HHC				pmax	pmax		
	comp=Z,9.0nm,0.5s						
HHC				pmax	pmax		
	comp=Z,56nm,4.8s						
KNGR	Kungurtug, Tuv	39.51	292	i P	P	01 22 55.9	-0.7
KNGR				pmax	pmax		
	comp=Z,3.0nm,1.1s						
YKAW3	Yellowknife Wh	39.73	46	P	P	01 22 58.8	+0.7
YKAW3				IAmb	IAmb	01 23 01.4	
	comp=Z,12nm,1.3s						
YKA	Yellowknife Ar	39.76	46	P	P	01 22 58.5	+0.2
	comp=Z,0.6nm,0.3s,baz=297,slow=7.6,SNR=7.4						
	comp=Z,0.6nm,0.3s						
ZALV	Zalesovo Beam	44.07	303	P	P	01 23 33.2	-0.5
	comp=Z,1.0nm,0.5s,baz=50,slow=7.9,SNR=4.3						
ZALV				LR	LR	01 43 36.0	
	comp=Z,31nm,19.6s,baz=50,slow=38						
	comp=Z,1.0nm,0.5s						
ZALV	Zalesovo Beam	44.07	303	i P	P	01 23 34.9	+1.2
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.5s						
ZALV	Zalesovo Beam	44.07	303	P	P	01 23 32.6	-1.1
GTA2	Gaotai	45.15	278	eP	P	01 23 44.3	+1.7
GTA2				pmax	pmax		
	comp=Z,28nm,0.8s						
GTA2				LR	LR		
	comp=N,190nm,15.6s						
GTA2				LR	LR		
	comp=E,150nm,15.2s						
GTA2				LR	LR		
	comp=Z,170nm,14.0s						
LZH	Lanzhou	45.16	271	eP	P	01 23 44.9	+2.1
LZH				pP	pwP	01 23 51.1	-0.3
LZH				pmax	pmax		
	comp=Z,18nm,1.3s						
LZH				LR	LR		
	comp=N,210nm,14.1s						
LZH				LR	LR		
	comp=E,150nm,16.8s						
LZH				LR	LR		
	comp=Z,200nm,18.6s						
DGZ	Jazzator, Alta	45.31	297	i P	P	01 23 42.9	-0.9
DGZ				pmax	pmax		
	comp=Z,9.0nm,0.5s						
LZDM	Lanzhou Array	45.33	271	P	P	01 23 44.8	+0.4
	comp=Z,1.9nm,0.4s,baz=54,slow=6.4,SNR=3.9						
	comp=Z,1.9nm,0.4s						
SPITS	Spitsbergen Ar	45.61	351	P	P	01 23 45.9	+0.2
	comp=Z,2.6nm,0.5s,baz=58,slow=6.2,SNR=10						
	comp=Z,2.6nm,0.5s						
SPITS	Spitsbergen Ar	45.61	351	P	P	01 23 45.3	-0.4
SPITS				pmax	pmax		
	comp=Z,60nm,1.4s						
ENH	Enshi	46.15	261	P	P	01 23 51.3	+0.7
	comp=Z,15nm,1.2s						
YBH	Yreka Blue Hor	47.72	75	LR	LR	01 40 33.1	
	comp=Z,36nm,21.2s,baz=324,slow=32						
JTMT	Jette	48.27	63	P	P	01 24 07.6	+0.7
DAG	Danmarks Havn	48.39	1	P	P	01 24 06.6	-0.8
	comp=Z,5.9nm,1.9s						
WMQ	Urumqi	48.95	291	eP	P	01 24 13.9	+1.7
WMQ				sP	pwP	01 24 21.3	+0.8
WMQ				PcP	PcP	01 25 39.3	+3.1
WMQ				pmax	pmax		
	comp=Z,21nm,0.9s						
WMQ				LR	LR		
	comp=Z,50nm,21.5s						
KURK	Kurchatov	49.06	303	ceP	P	01 24 12.7	-0.1
KURK				pmax	pmax		
	comp=Z,26nm,0.9s						
KURK	Kurchatov	49.06	303	P	P	01 24 13.2	+0.4
KURK	Kurchatov	49.06	303	P	P	01 24 13.0	+0.2
	comp=Z,35nm,1.4s						
PLID	Pearl Lake	49.12	67	P	P	01 24 12.9	-0.7
KURBB	Kurchatov Arra	49.16	303	P	P	01 24 13.7	+0.1
	comp=Z,21nm,0.9s,baz=55,slow=7.9,SNR=153						
KURBB				LR	LR	01 46 30.6	
	comp=Z,98nm,18.0s,baz=184,slow=38						
	comp=Z,21nm,0.9s						
KURBB	Kurchatov Arra	49.16	303	P	P	01 24 13.4	-0.2
LYMT	Lyon Mountain	49.80	63	P	P	01 24 19.1	+0.3
MK31	Makanchi Array	49.81	297	c iP	P	01 24 18.1	-0.6
MK31				pmax	pmax		
	comp=Z,2.0nm,0.6s						
MKAR	Makanchi Array	49.81	297	P	P	01 24 18.4	-0.2
	comp=Z,4.0nm,0.7s,baz=58,slow=7.5,SNR=37						
MKAR				LR	LR	01 46 38.2	
	comp=Z,51nm,18.6s,baz=42,slow=38						
	comp=Z,4.0nm,0.7s						
MKAR	Makanchi Array	49.81	297	P	P	01 24 17.6	-1.1
MAKZ	Makanchi	49.96	297	P	P	01 24 18.4	-1.4
MAKZ				pmax	pmax		
	comp=Z,14nm,1.4s						
MAKZ	Makanchi	49.96	297	P	P	01 24 18.4	-1.4
MAKZ	Makanchi	49.96	297	P	P	01 24 19.7	-0.1
	comp=Z,8.4nm,1.0s						
FCC	Fort Churchill	50.13	42	P	P	01 24 20.3	-0.5
FCC				pmax	pmax		
	comp=Z,52nm,1.5s						
FCC	Fort Churchill	50.13	42	P	P	01 24 20.3	-0.5
GOMU	GeErMu	50.24	278	P	P	01 24 22.9	+0.4
GOMU				pP	sP	01 24 26.8	+2.1
GOMU				sP	pwP	01 24 30.4	-0.4
GOMU				pmax	pmax		
	comp=Z,4.0nm,0.3s						
HLID	Hailey	50.99	67	P	P	01 24 27.9	+0.1
	comp=Z,2.2nm,1.2s						
PNTR	Pine Nut	51.26	75	P	P	01 24 30.8	+0.9
PNTR				IAmb	IAmb	01 24 45.4	
	comp=Z,5.1nm,0.7s						
BVA0	Borovoye Array	51.34	310	i P	P	01 24 30.6	+0.5
BVAR	Borovoye Array	51.34	310	P	P	01 24 30.6	+0.5
	comp=Z,9.7nm,0.7s,baz=54,slow=7.7,SNR=33						
	comp=Z,9.7nm,0.7s						
BORK	Borovoye	51.35	310	i P	P	01 24 29.4	-0.7
BORK				pmax	pmax		
	comp=Z,15nm,0.9s						
BORK	Borovoye	51.35	310	P	P	01 24 29.5	-0.7
WAKR	Walker	51.76	75	P	P	01 24 34.0	+0.3
WAKR				IAmb	IAmb	01 24 48.8	
	comp=Z,2.1nm,0.7s						
ARCES	ARCESS Array B	52.23	343	P	P	01 24 36.2	-0.3
	comp=Z,1.2nm,0.6s,baz=21,slow=10,SNR=9.0						
	comp=Z,1.2nm,0.6s						
ARCES	ARCESS Array B	52.23	343	P	P	01 24 34.3	-2.2
NVAR	Mina Array Bea	52.44	75	P	P	01 24 39.1	+0.3
	comp=Z,0.8nm,0.7s,baz=293,slow=6.9,SNR=6.2						
	comp=Z,0.8nm,0.7s						
RLMT	Red Lodge	52.60	63	P	P	01 24 40.5	+0.6
RLMT				IAmb	IAmb	01 24 55.3	
	comp=Z,7.0nm,0.8s						
SVE	Sverdlovsk	52.73	318	eP	P	01 24 41.1	+0.8
ARTI	Arti	53.91	319	LR	LR	01 49 50.7	
	comp=Z,67nm,18.8s,baz=22,slow=38						
ARTI	Arti	53.91	319	c iP	P	01 24 49.0	0.0
ARTI				*PP	pwP	01 25 02.9	+5.4
ARTI						01 25 53.9	
ARTI						01 26 45.7	
ARTI				S	S	01 32 22.1	-1.8
ARTI				SS	SKiKP	01 35 56.5	-5.1
ARTI				pmax	pmax		
	comp=Z,5.0nm,0.7s						
ARTI	Arti	53.91	319	P	P	01 24 48.6	-0.4
BW06	Boulder Array	54.09	65	P	P	01 24 51.0	+0.1
BW06				IAmb	IAmb	01 25 06.1	
	comp=Z,4.0nm,0.9s						
PDAR	Pinedale Array	54.09	65	P	P	01 24 50.4	-0.5
	comp=Z,0.5nm,0.5s,baz=329,slow=5.5,SNR=7.8						
	comp=Z,0.5nm,0.5s						
FRB	Frobisher Bay	54.51	26	LR	LR	01 53 27.5	
	comp=Z,31nm,18.0s,baz=286,slow=42						
PSUT	Pine Spring	54.81	72	P	P	01 24 56.8	+0.7
PSUT				IAmb	IAmb	01 25 17.8	
	comp=Z,2.2nm,0.6s						
PRN	Pahroc Range	54.97	73	P	P	01 24 58.1	+0.9
PRN				IAmb	IAmb	01 25 24.4	
	comp=Z,4.3nm,0.9s						
WUS	Wushi	55.28	294	P	P	01 25 00.3	+0.9
	comp=Z,9.3nm,0.9s						
ULM	Lac du Bonnet	55.38	50	P	P	01 24 59.6	-0.2
	comp=Z,1.8nm,0.7s,baz=315,slow=4.3,SNR=2.1						
	comp=Z,1.8nm,0.7s						
KIRV	Kirov	55.43	325	LR	LR	01 51 56.4	
	comp=Z,48nm,18.1s,baz=45,slow=40						
TMUT	Trail Mountain	55.70	69	P	P	01 25 03.3	+0.6
TMUT				IAmb	IAmb	01 25 18.4	
	comp=Z,7.2nm,1.1s						
SRU	San Rafael Swe	56.20	69	P	P	01 25 07.1	+1.0
SRU				pmax	pmax		
	comp=Z,6.0nm,0.6s						
SRU	San Rafael Swe	56.20	69	P	P	01 25 07.1	+1.0
SLVN	Son La	56.23	259	P	P	01 25 08.7	+2.4
	comp=Z,5.3nm,0.9s						
AAK	Ala-Archa	56.69	298	LR	LR	01 53 43.1	
	comp=Z,39nm,18.8s,baz=73,slow=40						
AAK	Ala-Archa	56.69	298	ceP	P	01 25 09.8	+0.3
AAK				pmax	pmax		
	comp=Z,3.0nm,0.9s						
AAK	Ala-Archa	56.69	298	P	P	01 25 09.2	-0.3
	comp=Z,3.7nm,1.3s						
ASAI	AK-SAY(Kyrgyzs	56.90	295	P	P	01 25 12.6	+1.4
	comp=Z,8.3nm,1.1s						
HMU	Henry Mountain	56.93	70	P	P	01 25 11.5	0.0
PFO	Pinyon Flats O	56.95	77	LR	LR	01 46 44.7	
	comp=Z,22nm,20.0s,baz=298,slow=33						
PV17	East Wray Mesa	57.64	68	P	P	01 25 17.0	+0.7
PV13	Radium Mtn., P	57.80	68	P	P	01 25 18.1	+0.6
KK31	Karatay Array	58.34	301	P	P	01 25 20.7	-0.3
KK31				pmax	pmax		
	comp=Z,6.0nm,1.2s						
KK31	Karatay Array	58.34	301	P	P	01 25 20.7	-0.3
KK31				IAmb	IAmb	01 25 35.7	
	comp=Z,6.2nm,1.1s						
KKAR	Karatay Array	58.34	301	P	P	01 25 20.6	-0.4
KKAR	Karatay Array	58.34	301	P	P	01 25 20.6	-0.4
AKTO	Aktyubinsk	58.52	314	LR	LR	01 53 56.8	
	comp=Z,60nm,20.1s,baz=123,slow=40						
AB31	Akbulak array	58.61	312	i P	P	01 25 22.8	+0.1
AB31	Akbulak array	58.61	312	P	P	01 25 22.5	-0.1
AB31				IAmb	IAmb	01 25 24.5	
	comp=Z,4.6nm,0.8s						
ABKAR	Akbulak array	58.61	312	P	P	01 25 22.8	+0.1
KSH2	Kashi	58.69	294	P	P	01 25 23.4	-0.2
KSH2				sP	pwP	01 25 36.9	+4.9
KSH2				pmax	pmax		
	comp=Z,6.0nm,1.4s						
FINES	FINESS Array B	59.36	338	P	P	01 25 27.1	-0.6
	comp=Z,2.0nm,0.8s,baz=15,slow=7.9,SNR=5.3						
	comp=Z,2.0nm,0.8s						
FINES	FINESS Array B	59.36	338	i P	P	01 25 27.7	0.0
FINES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
BTK	Batken	60.46	298	P	P	01 25 36.1	+0.4
	comp=Z,9.0nm,1.0s						
EVN	Everest	60.88	278	P	P	01 25 39.5	+0.1
	comp=Z,8.9nm,0.9s						
CHTO	Chiang Mai	61.04	261	P	P	01 25 41.4	+1.6
	comp=Z,4.1nm,1.0s						
CMAR	Chiang Mai Arr	61.33	261	P	P	01 25 42.4	+0.7
	comp=Z,1.2nm,0.5s,baz=25,slow=6.8,SNR=8.0						
	comp=Z,1.2nm,0.5s						
OBN	Obninsk	62.30	329⇓	eP	P	01 25 47.0	-0.8
OBN				e*PP	pwP	01 25 59.3	+3.0
OBN				*SP	sP	01 26 05.0	+15
OBN						01 26 30.0	
OBN				S	S	01 34 06.9	-6.6
OBN				*SS	sS	01 34 28.0	+12
OBN				eSS	SS	01 38 14.1	-1.7
OBN				SSS	SSS	01 40 58.0	
OBN				pmax	pmax		
	comp=Z,5.0nm,0.9s						
NB2	NORSAR Subarra	62.36	346	P	P	01 25 47.2	-1.0
	comp=Z,5.4nm,0.9s,baz=18,slow=6.9						
NOA	NORSAR Array B	62.36	346	P	P	01 25 47.6	-0.6
	comp=Z,0.4nm,0.5s,baz=6.0,slow=3.1,SNR=4.0						
	comp=Z,0.4nm,0.5s						
HFS	Hagfors	62.86	344	P	P	01 25 50.8	-0.7
	comp=Z,1.7nm,0.7s,baz=57,slow=10,SNR=1.8						
	comp=Z,1.7nm,0.7s						
NIL	Nilore	64.06	292	P	P	01 25 59.9	+0.1
NIL				pmax	pmax		
	comp=Z,14nm,1.1s						
NIL	Nilore	64.06	292	P	P	01 25 59.9	+0.1
NIL	Nilore	64.06	292	P	P	01 26 00.3	+0.4
	comp=Z,17nm,1.0s						
HNR	Honiara	64.41	185	LR	LR	01 51 39.8	
	comp=Z,45nm,18.6s,baz=99,slow=34						
MNTX	Cornudas Mount	64.52	71	P	P	01 26 03.2	+0.4
	comp=Z,2.6nm,2.0s						
KBL	Kabul	65.58	296	P	P	01 26 08.9	-1.0
	comp=Z,5.6nm,0.7s						
WMOK	Wichita Mounta	65.67	64	P	P	01 26 10.0	-0.3
WMOK				pmax	pmax		
	comp=Z,4.0nm,0.8s						
WMOK	Wichita Mounta	65.67	64	P	P	01 26 10.0	-0.3
WMOK				IAmb	IAmb	01 26 25.0	
	comp=Z,3.5nm,0.8s						
WMOK	Wichita Mounta	65.67	64	P	P	01 26 09.8	-0.5
	comp=Z,4.9nm,0.8s						
MNHN	Monahans	66.21	69	P	P	01 26 13.7	-0.2
MNHN				IAmb	IAmb	01 26 27.8	
	comp=Z,3.2nm,0.7s						
TX31	Lajitas Ar. Si	67.28	71	P	P	01 26 20.3	-0.5
TX31				IAmb	IAmb	01 26 35.1	
	comp=Z,3.0nm,0.7s						
TXAR	Lajitas Array	67.28	71	P	P	01 26 21.0	+0.2
	comp=Z,1.3nm,0.7s,baz=297,slow=4.5,SNR=16						
	comp=Z,1.3nm,0.7s						
TXAR	Lajitas Array	67.28	71	P	P	01 26 21.0	+0.2
TXAR	Lajitas Array	67.28	71	P	P	01 26 21.2	+0.4
FCAR	Ozark Folk Cen	68.12	59	P	P	01 26 26.1	+0.3
AKASG	Malin Array Be	68.29	331	P	P	01 26 26.6	-0.1

	comp=Z,0.3nm,0.4s,baz=70,slow=17,SNR=1.8						
	comp=Z,0.3nm,0.4s						
MIAR	Mount Ida	68.47	60	P	P	01 26 27.4	-0.6
MIAR				pmax	pmax		
	comp=Z,8.0nm,1.3s						
MIAR	Mount Ida	68.47	60	P	P	01 26 27.4	-0.6
EKA	Eskdalemuir Ar	69.51	353	P	P	01 26 33.8	-0.4
	comp=Z,1.0nm,0.7s,baz=12,slow=8.1,SNR=3.6						
	comp=Z,1.0nm,0.7s						
L56A	Greenwood	69.56	45	P	P	01 26 33.6	-1.2
KVAR	Kislovodsk Arr	69.84	319	LR	LR	02 01 19.4	
	comp=Z,39nm,18.3s,baz=300,slow=40						
KIV	Kislovodsk	69.84	319	*e*P	P	01 26 36.0	-0.6
KIV				pmax	pmax		
	comp=Z,4.0nm,1.1s						
KIV				MLR	MLR		
	comp=Z,34nm,17.0s						
KBZ	Khabaz	69.96	319	P	P	01 26 36.7	-0.5
	comp=Z,1.4nm,0.8s,baz=278,slow=5.8,SNR=3.9						
KBZ				LR	LR	02 01 16.7	
	comp=Z,66nm,18.1s,baz=30,slow=39						
	comp=Z,1.4nm,0.8s						
KBZ	Khabaz	69.96	319	*i* P	P	01 26 36.6	-0.5
KBZ				pmax	pmax		
	comp=Z,2.0nm,0.9s						
AKT	Akhty	69.96	315	*e*P	P	01 26 36.4	-1.0
AKT				*e**PP	pwP	01 26 50.3	+4.4
AKT				*e*		01 26 58.0	
AKT				*e*PPP	PPP	01 30 52.7	
AKT				pmax	pmax		
	comp=Z,2.0nm,0.6s						
Q54A	Coxs Mills	70.82	49	P	P	01 26 41.2	-1.3
ANN	Anapa	71.00	323	*e*P	P	01 26 42.3	-1.1
ANN				*e**PP	pwP	01 26 56.3	+4.3
ANN				*e*S	S	01 35 53.7	-5.3
ANN				pmax	pmax		
	comp=Z,53nm,1.0s						
SOC	Sochi	71.25	321	*e*P	P	01 26 44.8	-0.2
SOC				*e*		01 29 19.0	
SOC				*e*S	S	01 35 54.6	-7.5
SOC				MLR	MLR		
	comp=Z,66nm,21.0s						
Z47A	Carrollton	72.26	57	P	P	01 26 50.6	-0.7
GNI	Garni	72.30	316	LR	LR	02 02 54.2	
	comp=Z,58nm,19.1s,baz=28,slow=39						
FPAL	Fort Paine	72.33	55	P	P	01 26 51.2	-0.5
FPAL				IAmb	IAmb	01 27 05.4	
	comp=Z,4.2nm,0.7s						
MTN	Manton Dam	73.42	214	P	P	01 26 58.1	0.0
MTN				IAmb	IAmb	01 26 58.9	
	comp=Z,3.0nm,0.7s						
GERES	GERESS Array B	73.65	341	P	P	01 26 59.6	+0.2
	comp=Z,0.3nm,0.3s,baz=57,slow=4.9,SNR=4.6						
	comp=Z,0.3nm,0.3s						
BRTR	Keskin Array B	76.80	323	P	P	01 27 17.8	0.0
	comp=Z,0.4nm,0.7s,baz=66,slow=3.1,SNR=4.8						
	comp=Z,0.4nm,0.7s						
BRTR	Keskin Array B	76.80	323	P	P	01 27 17.0	-0.7
BRTR	Keskin Array B	76.80	323	P	P	01 27 17.0	-0.7
WB0	Warramunga Arr	78.96	209	P	P	01 27 29.8	+0.2
WB0				IAmb	IAmb	01 27 30.4	
	comp=Z,3.5nm,0.8s						
WR8	Warramunga Arr	79.11	209	P	P	01 27 30.4	-0.1
WR8				IAmb	IAmb	01 27 31.1	
	comp=Z,5.5nm,0.9s						
WRA	Warramunga Arr	79.15	209	P	P	01 27 30.4	-0.2
	comp=Z,2.9nm,0.7s,baz=23,slow=6.0,SNR=15						
	comp=Z,2.9nm,0.7s						
WRA	Warramunga Arr	79.15	209	*i* P	P	01 27 29.6	-1.0
WRA				pmax	pmax		
	comp=Z,3.0nm,0.7s						
WRA	Warramunga Arr	79.15	209	P	P	01 27 29.4	-1.3
FITZ	Fitzroy Crossi	80.17	218	P	P	01 27 35.8	-0.3
MMAI	Mount Meron Ar	82.16	319	P	P	01 27 47.1	+0.2
	comp=Z,1.8nm,0.8s,baz=119,slow=8.4,SNR=2.3						
	comp=Z,1.8nm,0.8s						
ASAR	Alice Springs	82.80	208	P	P	01 27 50.9	+0.8
	comp=Z,2.9nm,0.8s,baz=16,slow=5.1,SNR=23						
	comp=Z,2.9nm,0.8s						
ASAR	Alice Springs	82.80	208	P	P	01 27 49.7	-0.4
ASAR	Alice Springs	82.80	208	P	P	01 27 49.6	-0.4
ESDC	Sonseca Array	85.13	351	P	P	01 28 02.2	+0.2
	comp=Z,0.5nm,0.8s,baz=0.3,slow=6.2,SNR=5.3						
	comp=Z,0.5nm,0.8s						
ESDC	Sonseca Array	85.13	351	P	P	01 27 59.7	-2.3
QSPA	South Pole Qui	144.84	180	PKP	PKPab	01 34 59.7	-1.1
	comp=Z,4.4nm,0.6s,baz=330,slow=2.4,SNR=35						
QSPA	South Pole Qui	144.84	180		PKPab	01 34 59.4	-1.4

SJA 14 01:16:10.4±0.7**, 31.°27S**×**68.°41W, h102^{km}**±2^{km}**, ML3.4, MW3.5, San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RTLL	Cerro Villicun	0.09	224	*e*P	Pn	01 16 25.2	+0.5
RTLL				*e*S	Sn	01 16 36.5	+1.1
RTLL				IAML		01 16 38.5	
	comp=Z,2µm,0.3s						
SJA	San Juan	0.29	207	*e*P	Pn	01 16 26.4	+1.1
SJA				*e*S	Sn	01 16 37.1	+0.7
SJA				IAML		01 16 38.3	
	comp=Z,643nm,0.3s						
ZON	Zonda	0.36	220	*e*P	Pn	01 16 26.2	+0.5
ZON				*e*S	Sn	01 16 37.5	+0.4
ZON				IAML		01 16 38.5	
	comp=Z,788nm,0.2s						
CFA	Coronel Fontan	0.37	157	*e*P	Pn	01 16 21.0	-4.7
CFA				*e*P		01 16 26.5	
CFA				*e*S	Sn	01 16 38.1	+1.0
CFA				IAML		01 16 38.8	
	comp=Z,2µm,0.3s						
ACCO	Cerro Coronel	0.88	320	*e*P	Pn	01 16 31.2	+1.1
ACCO				*e*S	Sn	01 16 46.9	+1.9
ACCO				IAML		01 16 47.8	
	comp=Z,261nm,0.3s						
AVFE	Valle Fertil	1.02	54	*e*P	Pn	01 16 32.1	+0.8
AVFE				*e*S	Sn	01 16 48.7	+1.7
AVFE				IAML		01 16 49.3	
	comp=Z,489nm,0.3s						
ACDV	Cuesta del Vie	1.25	330	*e*P	Pn	01 16 35.2	+1.2
ACDV				IAML		01 16 54.1	
	comp=Z,403nm,0.3s						
AROD	Rodeo	1.43	320	*e*P	Pn	01 16 37.5	+1.2
ACAN	Cantantal	1.44	134	*e*P	Pn	01 16 37.5	+1.4
ACAN				IAML		01 17 00.2	
	comp=Z,989nm,0.2s						
ARCO	CERRO ARCO	1.63	196	*e*P	Pn	01 16 39.6	+1.1
ARCO				IAML		01 17 02.5	
	comp=Z,675nm,0.3s						
AAGR	Agrelo	1.85	191	*e*P	Pn	01 16 42.4	+1.1
AAGR				*e*S	Sn	01 17 05.4	+0.7
AAGR				IAML		01 17 07.7	
	comp=Z,442nm,0.2s						
CO03	El Pedregal	2.00	282	*e*P	Pn	01 16 44.6	+1.4
CO03				*e*S	Sn	01 17 10.4	+2.1
CO03				IAML		01 17 13.3	
	comp=Z,306nm,0.2s						
AVIZ	Vizcacheras	2.20	182	*e*P	Pn	01 16 46.9	+1.1
AVIZ				*e*S	Sn	01 17 14.4	+1.6
CO02	Combarbal	2.22	271	*e*P	Pn	01 16 47.2	+1.1
CO02				*e*S	Sn	01 17 15.6	+2.2
CO02				IAML		01 17 17.4	
	comp=Z,287nm,0.6s						
ACLC	CERRO LA CRUZ	2.22	35	*e*P	Pn	01 16 46.8	+0.6
ACLC				*e*S	Sn	01 17 14.6	+1.1
ACLC				IAML		01 17 18.8	
	comp=Z,123nm,0.2s						
GO04	Tololo Observa	2.33	297	*e*P	Pn	01 16 48.5	+0.9
GO04				*e*S	Sn	01 17 17.7	+1.6
GO04				IAML		01 17 21.3	
	comp=Z,272nm,0.2s						
VA03	San Esteban	2.35	230	*e*P	Pn	01 16 49.2	+1.4
VA03				*e*S	Sn	01 17 19.4	+3.0
VA03				IAML		01 17 26.8	
	comp=Z,195nm,0.7s						
VCA	Vinchina	2.53	4	*e*P	Pn	01 16 51.6	+1.4
VCA				*e*S	Sn	01 17 23.6	+3.0
VCA				IAML		01 17 24.9	
	comp=Z,305nm,0.5s						
MRA	San Martin	2.56	117	*e*P	Pn	01 16 43.4	-7.1
MRA				*e*S	Sn	01 17 09.1	-12
MRA				IAML		01 17 11.5	
	comp=Z,224nm,0.3s						
MT08	Bocatoma Ro	2.56	212	*e*P	Pn	01 16 52.9	+2.3
MT08				*e*S	Sn	01 17 24.9	+3.3
MT08				IAML		01 17 25.8	
	comp=Z,130nm,0.5s						
MT04	Ro Olivares	2.59	214	*e*P	Pn	01 16 52.9	+2.0
MT04				*e*S	Sn	01 17 21.0	-1.1
MT04				IAML		01 17 27.4	
	comp=Z,54nm,0.9s						
PEL	Peldehue	2.69	225	*e*P	Pn	01 16 53.3	+1.2
PEL				*e*S	Sn	01 17 26.1	+1.9
PEL				IAML		01 17 27.6	
	comp=Z,83nm,0.5s						
MT03	Universidad Ad	2.85	218	*e*P	Pn	01 16 55.6	+1.4
MT03				*e*S	Sn	01 17 30.5	+2.5
MT03				IAML		01 17 36.0	
	comp=Z,100nm,0.6s						
MT05	Renca	2.90	222	*e*P	Pn	01 16 56.1	+1.2
MT05				*e*S	Sn	01 17 31.5	+2.4
MT05				IAML		01 17 33.3	
	comp=Z,117nm,0.3s						
AC05	El Transito	2.91	326	*e*P	Pn	01 16 56.6	+1.4
AC05				*e*S	Sn	01 17 32.2	+2.5
AC05				IAML		01 17 34.0	
	comp=Z,64nm,0.2s						
MT13	San Alfonso	2.94	212	*e*P	Pn	01 16 57.0	+1.6
MT13				*e*S	Sn	01 17 30.9	+0.7
MT13				IAML		01 17 38.8	
	comp=Z,64nm,1.3s						
LCO	Las Campanas	3.00	318	*e*P	Pn	01 16 57.2	+0.7
LCO				*e*S	Sn	01 17 33.1	+1.2
LCO				IAML		01 17 36.9	
	comp=Z,170nm,0.8s						
MT02	Curacav	3.05	229	*e*P	Pn	01 16 56.9	0.0
MT02				*e*S	Sn	01 17 33.7	+1.0
VA01	Torpederas	3.26	237	*e*P	Pn	01 17 16.3	+17
VA01				*e*S	Sn	01 17 30.6	-7.1
VA01				IAML		01 17 49.0	
	comp=Z,60nm,2.5s						
TCA	Tanti	3.26	92	*e*P	Pn	01 17 00.3	+0.5
TCA				*e*S	Sn	01 17 36.4	-1.5
TCA				IAML		01 17 38.3	
	comp=Z,117nm,0.7s						
TINO	Tinogasta	3.27	13	*e*P	Pn	01 17 01.6	+1.6
TINO				*e*S	Sn	01 17 30.2	-8.1
TINO				IAML		01 17 44.9	
	comp=Z,175nm,0.6s						
MT01	Popeta	3.53	222	*e*P	Pn	01 17 02.2	-1.1
MT01				*e*S	Sn	01 17 42.7	-1.5
MT01				IAML		01 17 47.0	
	comp=Z,40nm,0.8s						
CYA	Choya	3.61	39	*e*P	Pn	01 17 04.4	-0.1
CYA				*e*S	Sn	01 17 44.6	-1.6
CYA				IAML		01 17 46.1	
	comp=Z,100nm,0.2s						
AC04	Llanos de Chal	3.83	322	*e*P	Pn	01 17 07.4	0.0
AC04				IAML		01 17 53.2	
	comp=Z,37nm,1.5s						
GO03	Copiapo	3.99	336	*e*P	Pn	01 17 10.6	+0.9
GO03				*e*S	Sn	01 17 56.0	+0.5
GO03				IAML		01 18 00.1	
	comp=Z,55nm,0.3s						
BO02	Sierra Bellavi	4.04	209	*e*P	Pn	01 17 10.8	+0.5
BO02				*e*S	Sn	01 18 01.6	+5.0
BO02				IAML		01 18 04.1	
	comp=Z,33nm,0.2s						
AC02	Maricunga	4.46	352	*e*P	Pn	01 17 17.8	+1.5
AC02				*e*S	Sn	01 18 09.1	+1.7
AC02				IAML		01 18 13.2	
	comp=Z,24nm,0.2s						

IDC 14 01:16:11.8±21.0**, 29.°59N**×**138.°99E, h445^{km}**±222^{km}**, mb2.9**/4**, mbtmp3.8**/4**, Error ellipse: s-maj=189.1km s-min=20.5km az=72.0, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	30.97	315	P	P	01 21 50.9	-0.1
	0.3nm,0.4s,baz=120,slow=8.7,SNR=2.3						
	0.3nm,0.4s						
MKAR	Makanchi Array	46.73	308	P	P	01 23 59.0	-0.2
	0.3nm,0.4s,baz=81,slow=8.9,SNR=6.0						
	0.3nm,0.4s						
WRA	Warramunga Arr	49.45	186	P	P	01 24 19.7	-0.1
	0.5nm,0.3s,baz=4.3,slow=7.6,SNR=7.5						
	0.5nm,0.3s						
FINES	FINESS Array B	74.46	333	P	P	01 27 03.1	0.0
	1.6nm,0.8s,baz=57,slow=7.0,SNR=3.8						
	1.6nm,0.8s						

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*TEH **14** 01:18:20.6, 38.°45N×49.°06E, h16^{km}±30^{km}, ML2.9, Presumed earthquake*

*AZER **14** 01:18:21.3, 38.°42N×48.°91E, h10^{km}, ml2.6*

ISC 14 01:18:22.8±1.0**, 38.°38N**±0.°03×**48.°85E**±0.°04**, h15^{km}**±6^{km}**, n30,** σ**1.^{s}44**/50**, Iran-Armenia-Azerbaijan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GAS1	Astara - Iran	0.01	328	Pg	Pg	01 18 25.5	+0.1
ASTR	Astara	0.19	346	P	Pg	01 18 26.4	-0.8
ASTR				S	Sg	01 18 31.6	+1.4
LKRN	Lenkeran, Azer	0.34	351	P	Pg	01 18 28.0	-1.7
LKRN				S	Sg	01 18 33.7	-0.7
LRK	Lerik	0.48	304	P	Pb	01 18 32.6	-0.4
LRK				S	Sb	01 18 41.7	+1.8
YRD	Yardimli	0.72	319	P	Pg	01 18 35.8	-1.0
YRD				S	Sb	01 18 47.2	+0.4
CSN1	Caspian	0.84	166	Pg	Pb	01 18 37.6	-1.4
GRMI	Germi	0.86	300	Pg	Pb	01 18 38.9	-0.6
GLBA	Clilabad	0.93	338	P	Pg	01 18 38.7	-2.1
GLBA				S	Sn	01 18 54.7	+0.3
ISRB	Sarab	1.08	240	Pg	Pn	01 18 44.4	+0.7
ISRB				Sg	Sn	01 19 02.5	+4.0
IHRS	Heris	1.42	268	Pg	Pg	01 18 49.9	-0.3
IHSH	Hashtrud	1.65	230	Pn	Pg	01 18 53.5	-1.0
BLQ	Beylaqan	1.67	324	Pn	Pb	01 18 52.9	-0.4
BLQ				Sn	Sb	01 19 15.4	+1.2
ZNJK	Zanjan	1.71	184	Pg	Pn	01 18 51.9	-0.4
ZRD	Zardab	2.10	335	Sn	Sb	01 19 26.2	-0.2
GBS	Qobustan	2.15	2	Pg	Pb	01 18 59.8	-1.7
BRDA	Brd	2.28	326	Pn	Pn	01 19 01.4	+1.5
BRDA				Sn	Sb	01 19 34.0	+2.2
ORD	Ordubad	2.30	285	Pn	Pb	01 19 03.0	-1.0
ORD				Sn	Sg	01 19 36.9	+0.1
IAZR	Azarshahr	2.37	254	Pn	Pb	01 19 04.0	-1.4
PQL	Pirkuli	2.42	355	Pg	Pb	01 19 04.1	-1.9
PQL				Sg	Sb	01 19 36.9	+1.2
IML	Ismayilli	2.46	348	Pg	Pn	01 19 04.0	+1.6
IML				Sg	Sb	01 19 37.5	+0.5
ATGJ	Altiaghaj	2.48	2	Pg	Pb	01 19 07.2	+0.1
ATGJ				Sg	Sb	01 19 39.4	+1.9
QBL	Gabala	2.68	343	Pg	Pb	01 19 09.7	-0.8
QBL				Sg	Sb	01 19 44.1	+0.9
SIZA	Siyzn	2.69	1	Pg	Pb	01 19 10.1	-0.7
SIZA				Sn	Sg	01 19 50.0	+0.6
NAX	Nakhchivan	2.74	288	Pg	Pb	01 19 10.9	-0.5
NAX				Sg	Sg	01 19 48.7	-2.0
SBZ	Shahbuz	2.76	293	Pg	Pb	01 19 11.8	-0.2
SBZ				Sg	Sg	01 19 49.7	-1.9
XNQ	Khinaliq	2.84	349	Sg	Sb	01 19 47.8	-0.3
GANJ	Ganja	2.99	320	Pg	Pb	01 19 14.7	-1.0
GANJ				Sg	Sg	01 19 57.0	-1.9
SEKA	Sheki	3.10	336	Pn	Pn	01 19 11.5	+0.3
SEKA				Sn	Sn	01 19 49.5	+1.5
GDB	GEDABAY	3.34	315	Pn	Pn	01 19 16.6	+1.9
GDB				Sg	Sg	01 20 08.2	-2.0
HYR	Heyderabad	3.39	295	Pg	Pg	01 19 24.6	-3.1
HYR				Sg	Sg	01 20 11.1	-0.5

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*TEH **14** 01:36:06.3, 26.°70N×54.°89E, h13^{km}±26^{km}, ML3.2, Presumed earthquake*

*DSN **14** 01:36:08.2±1.6, 26.°80N×54.°92E, h15^{km}, ML2.9/11, Error ellipse: s-maj=20.5km s-min=6.4km az=1.0*

ISC 14 01:36:08.9±1.2**, 26.°67N**±0.°04×**54.°91E**±0.°06**, h17^{km}, n20,** σ**0.^{s}78**/22**, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SHME	Shamm	1.26	119	P	Pb	01 36 32.0	-0.3
SHME				S	Sg	01 36 49.8	0.0
BANOM	Banah	1.45	120	P	Pb	01 36 35.5	0.0
BANOM				S	Sg	01 36 55.4	-0.4
IBND	Bandar-abas	1.65	61	Pg	Pb	01 36 38.2	-0.7
LMD1	Lamerd	1.70	294	Pg	Pn	01 36 38.5	+0.7
MSFE	Esma-Masafi	1.72	139	P	Pb	01 36 39.7	-0.4
NAZ	Nazwa, Dubai	1.80	158	P	Pb	01 36 41.3	-0.2
MDH	Madha	1.85	137	P	Pn	01 36 40.0	+0.2
UOSS	Minazif	2.07	145	P	Pb	01 36 44.8	-1.3
HATD	Hatta, Dubai	2.14	149	P	Pb	01 36 45.9	-1.3
ASHO	Ashiyiah	2.23	152	P	Pn	01 36 46.4	+1.2
KHNJ	Kahnooj	2.80	62	Pn	Pn	01 36 53.0	0.0
SOHO	SOHO	2.92	149	P	Pn	01 36 55.2	+0.7
NGRK	Negar Kerman	3.38	28	Pn	Pn	01 37 01.4	+0.2
DSBU	Dashti - Bushe	3.66	298	Pn	Pn	01 37 05.1	+0.3
CHMN	Cheshme madani	3.94	35	Pn	Pn	01 37 09.5	+0.5
KHGB	Koh Gabri	3.95	20	Pn	Pn	01 37 09.8	+0.9
KBAM	BAM	3.99	51	Pn	Pn	01 37 10.7	+1.3
IMEH	Mehriz	4.72	357	Pn	Pn	01 37 20.0	+0.4
IBAF	Bafgh	4.94	7	Pn	Pn	01 37 22.6	0.0
SRVN	Saravan	6.72	82	Pn	Pn	01 37 48.2	+1.2

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*ISK **14** 01:52:56.4, 34.°78N×24.°87E, h7^{km}, ML3.3/11*

*ATH **14** 01:52:56.6, 34.°76N×24.°86E, h16^{km}±1^{km}, ML3.5/13, Latitude uncertainty: 1 km; Longitude uncertainty: 0 km*

*IDC **14** 01:52:57.2±1.5, 34.°48N×25.°06E, h0^{km}, mb3.5/3, mbtmp3.4/7, ML3.0/4, Error ellipse: s-maj=36.2km s-min=22.2km az=153.0*

*THE **14** 01:52:57.1, 35°N±2°×2°5E±°, h0^{km}±2^{km}, M3.4/9, MLh3.4/9*

*AFAD **14** 01:53:07.7, 34.°94N×25.°85E, h6^{km}±3^{km}, ML2.6*

ISC 14 01:52:57.6±1.0**, 34.°79N**±0.°04×**24.°87E**±0.°02**, h17^{km}**±6^{km}**, n80,** σ**1.^{s}61**/110**, Crete**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SIVA	Sivas	0.23	348	P	Pg	01 53 02.8	0.0
SIVA				S	Sg	01 53 06.6	+0.1
SIVA				AML	AML		
SIVA	Sivas	0.23	348	P	Pg	01 53 02.8	0.0
SIVA				S	Sg	01 53 06.6	+0.1
IDI	Anoyia	0.49	2	Pg	Pg	01 53 06.9	-0.6
IDI				Sg	Sg	01 53 14.3	+0.1
IDI				AML	AML		
IDI	Anoyia	0.49	2	P	Pg	01 53 07.0	-0.5
IDI				S	Sg	01 53 13.9	-0.4
IDI				AML	AML		
IACM	Heraklion	0.54	18	P	Pg	01 53 08.3	0.0
IACM				S	Sg	01 53 16.6	+1.1
IACM				AML	AML		
IACM	Heraklion	0.54	18	P	Pg	01 53 08.0	-0.3
IACM				S	Sg	01 53 15.9	+0.4
IACM				AML	AML		
GVD	Gavdhos	0.65	274	P	Pb	01 53 09.5	-0.9
GVD				S	Sb	01 53 19.9	+0.8
GVD				AML	AML		
GVD	Gavdhos	0.65	274	Pg	Pg	01 53 09.3	-1.0
GVD				Sg	Sb	01 53 18.9	-0.2
GVD				AML	AML		
GVD	Gavdhos	0.65	274	P	Pg	01 53 09.3	-1.0
GVD				S	Sg	01 53 17.3	-1.6
GVD				AML	AML		
RTHF	Rethymno-Limin	0.66	331	P	Pg	01 53 09.5	-1.0
RTHF				S	Sg	01 53 18.8	-0.4
RTHF				AML	AML		
GVDS	Gavdos	0.67	274	P	Pb	01 53 09.9	-0.9
GVDS				S	Sb	01 53 19.9	+0.1
GVDS				AML	AML		
GVDS	Gavdos	0.67	274	P	Pb	01 53 10.0	-0.9
GVDS				AML	AML		
NPS	Neapolis	0.77	52	P	Pg	01 53 11.9	-0.7
NPS				AML	AML		
NPS	Neapolis	0.77	52	P	Pg	01 53 11.9	-0.7
NPS				S	Sg	01 53 22.5	-0.3
AGNA	Agios Nikolaos	0.80	60	P	Pg	01 53 12.1	-1.1
AGNA				S	Sg	01 53 23.1	-0.7
CHNB	Souda	0.96	317	P	Pg	01 53 14.9	-1.2
CHNB				S	Sg	01 53 27.3	-1.4
CHNB				AML	AML		
IMMV	Iera Moni Meta	0.99	313	Pg	Pg	01 53 15.4	-1.3
IMMV				Sg	Sb	01 53 30.2	+1.2
IMMV				AML	AML		
IMMV	Iera Moni Meta	0.99	313	P	Pg	01 53 15.2	-1.5
IMMV				S	Sg	01 53 28.7	-1.0
IMMV				AML	AML		
CHAN	Chania	0.99	317	P	Pg	01 53 15.5	-1.3
CHAN				S	Sg	01 53 29.0	-0.9
CHAN				AML	AML		
CH01	Chania	1.00	316	P	Pg	01 53 15.9	-1.2
CH01				S	Sg	01 53 29.7	-0.5
CH01				AML	AML		
SIT2	Siteia	1.10	68	P	Pg	01 53 17.8	-1.0
SIT2				S	Sg	01 53 32.2	-0.9
KNDR	Palaiochora Ch	1.11	294	P	Pg	01 53 17.6	-1.6
KNDR				S	Sn	01 53 34.9	+1.6
KNDR				AML	AML		
KNDR	Palaiochora Ch	1.11	294	P	Pg	01 53 17.5	-1.6
KNDR				S	Sg	01 53 32.2	-1.5
KNDR				AML	AML		
ZKR	Zakros	1.15	73	Pn	Pg	01 53 18.9	-1.0
ZKR				Sn	Sg	01 53 35.4	+0.5
ZKR				AML	AML		
ZKR	Zakros	1.15	73	P	Pg	01 53 17.9	-1.9
ZKR				S	Sg	01 53 33.9	-1.1
THR9	Santorini-Faro	1.61	14	P	Pn	01 53 25.1	-0.2
THR6	Thira Island,	1.62	15	P	Pn	01 53 25.6	+0.3
THERA	Ancient Thera,	1.65	17	P	Pn	01 53 27.7	+2.0
THERA				S	Sb	01 53 50.0	+2.0
THERA				AML	AML		
THERA	Ancient Thera,	1.65	17	P	Pn	01 53 25.6	-0.2
SNT5	Nea Kammeni, S	1.66	15	P	Pn	01 53 25.6	-0.4
THR5	Thira Island,	1.67	13	P	Pn	01 53 26.0	0.0
THR3	Thira Island,	1.67	15	P	Pn	01 53 26.1	0.0
ANKY	Antikythira Is	1.67	310	P	Pb	01 53 28.0	+0.1
ANKY				AML	AML		
ANKY	Antikythira Is	1.67	310	P	Pn	01 53 25.8	-0.3
SAP3	Santorini-Thir	1.68	13	P	Pn	01 53 26.1	-0.1
THR8	Santorini-Mono	1.69	17	P	Pn	01 53 25.2	-1.0
THR2	Thira island,	1.71	15	P	Pn	01 53 26.2	-0.5
MHLO	Agia Marina, M	1.93	349	P	Pn	01 53 31.4	+1.7
MHLO	Agia Marina, M	1.93	349	P	Pn	01 53 29.6	-0.1
KARP	Karpathos	2.02	67	Pn	Pn	01 53 32.1	+1.2
KARP				AML	AML		
KTHA	Kythira Island	2.08	315	Pn	Pn	01 53 33.3	+1.6
KTHA				AML	AML		
VLI	Veliai	2.48	321	P	Pn	01 53 36.8	-0.4
YAZI	Mula-Dat§a-	2.82	47	P	Pn	01 53 43.6	+1.7
YAZI				S	Sn	01 54 11.8	-3.7
DAT	Datca	2.93	48	Pn	Pn	01 53 44.8	+1.3
ARG	Arkhangelos	3.01	61	Pn	Pn	01 53 45.9	+1.4
ARG				AML	AML		
ARG	Arkhangelos	3.01	61	P	Pn	01 53 44.0	-0.5
BDRM	Kayabasi	3.08	42	P	Pn	01 53 47.7	+2.2
BDRM				S	Sn	01 54 18.9	-3.1
VLY	Voula,Athens	3.17	344	P	Pn	01 53 46.3	-0.5
ITM	Ithomi	3.37	316	Pn	Pn	01 53 51.1	+1.6
TURN	Turunc	3.38	53	Pn	Pn	01 53 51.4	+1.8
TURN	Turunc	3.38	53	P	Pn	01 53 52.7	+3.1
TURN				S	Sn	01 54 27.3	-2.0
GCAM	G?zelcaml?	3.47	33	P	Pb	01 53 57.6	-1.0
GCAM				IAML		01 55 03.0	
	comp=E,26nm,1.5s						
GCAM				IAML		01 55 33.0	
	comp=N,28nm,1.5s						
YER	Yerkesik	3.62	49	Pn	Pn	01 53 54.8	+1.8
DGB	zmir	3.63	26	P	Pb	01 53 58.7	-2.6
DGB				IAML		01 55 10.0	
	comp=N,19nm,1.1s						
DALY	Dalyan (Mula)	3.68	56	Pn	Pn	01 53 55.4	+1.7
DALY	Dalyan (Mula)	3.68	56	P	Pn	01 53 55.7	+2.0
DALY				S	Sn	01 54 35.0	-1.6
CHOS	Chios island	3.71	15	Pn	Pn	01 53 56.2	+2.0
CHOS				AML	AML		
AYDN	Tasoluk	3.76	39	P	Pn	01 53 56.5	+1.7
AYDN				IAML		01 55 51.0	
	comp=N,20nm,3.2s						
FETY	Fethiye	3.89	61	Pn	Pn	01 53 58.5	+1.9
SABU	Mula-Dalaman	3.90	58	P	Pn	01 53 58.4	+1.7
SABU				S	Sn	01 54 35.6	-6.5
SABU				IAML		01 55 08.0	
	comp=N,18nm,1.1s						
IZZE	Mula-Seydike	3.91	64	P	Pn	01 53 57.3	+0.4

IZZE				S	Sn	01 54 33.7	-8.6
IZZE				IAML		01 54 43.0	
	comp=E,18nm,1.2s						
IZZE				IAML		01 55 11.0	
	comp=N,21nm,0.4s						
ESEN	Aydn-Nazilli	4.11	42	P	Pn	01 54 02.9	+3.3
AKAS	Kas	4.12	68	Pn	Pn	01 54 01.9	+2.0
AKAS				AML	AML		
LKR	Lokris	4.13	339	P	Pn	01 54 02.4	+2.4
IZMR	zmir-demi	4.16	36	P	Pn	01 53 57.1	-3.1
CAME	Cameli-Denizli	4.19	58	Pn	Pn	01 54 02.5	+1.6
CAME				AML	AML		
TAVA	DENIZLI_Tavas	4.22	50	P	Pn	01 54 03.2	+2.0
TAVA				S	Sn	01 54 44.6	-5.6
CAEL	Denizli, Camel	4.29	56	P	Pn	01 54 03.4	+1.1
CAEL				S	Sn	01 54 51.1	-0.9
ODEM	Odemis-Izmir	4.33	36	Pn	Pn	01 54 04.9	+2.2
DNIZ	Denizli-Tavas-	4.40	49	P	Pn	01 54 05.0	+1.3
DNIZ				S	Sn	01 54 46.2	-8.4
DNIZ				IAML		01 55 19.0	
	comp=E,12nm,0.3s						
APMY	Acipayam-Deniz	4.47	52	Pn	Pn	01 54 06.7	+2.0
SULTU	Buldan	4.52	43	P	Pn	01 54 08.2	+2.7
SULTU				S	Sn	01 54 53.4	-4.3
SULTU				IAML		01 55 46.0	
	comp=N,11nm,1.8s						
ELL	Elmali	4.54	63	Pn	Pn	01 54 07.7	+2.1
BRTR	Keskin Array B	8.55	52	Pn	Pn	01 55 05.5	+4.9
	baz=232,slow=15,SNR=4.5						
	0.6nm,0.7s						
MMAI	Mount Meron Ar	8.93	98	Pn	Pn	01 55 04.0	-1.9
	0.5nm,0.3s,baz=275,slow=15,SNR=1.9						
	0.5nm,0.5s						
MMAI				AML	AML		
GERES	GERESS Array B	16.30	333	Pn	P	01 56 49.4	+0.9
	baz=142,slow=10.0,SNR=5.2						
	0.4nm,0.4s						
KBZ	Khabaz	16.54	52	Pn	P	01 56 51.8	+0.6
	0.1nm,0.3s,baz=231,slow=13,SNR=4.0						
	1.2nm,0.9s						
KBZ				AML	AML		
TORD	Torodi Ar. Bea	30.07	230	P	P	01 59 08.0	+1.9
	0.6nm,0.8s,baz=41,slow=10,SNR=4.3						
	0.6nm,0.8s						
MKAR	Makanchi Array	44.17	56	P	P	02 01 06.6	+1.1
	0.2nm,0.5s,baz=272,slow=7.4,SNR=2.4						
	0.2nm,0.5s						
ZALV	Zalesovo Beam	45.43	46	P	P	02 01 16.8	+1.5
	0.4nm,0.4s,baz=284,slow=5.8,SNR=2.0						
	0.4nm,0.4s						

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*IDC **14** 01:58:29.1±0.6, 45°.61N×27°.86W, h0^{km}, mb3.9/20, mbtmp3.9/22, ML3.8/2, MS3.7/54, Error ellipse: s-maj=19.6km s-min=14.0km az=1.0*

*NEIC **14** 01:58:30.9±1.5, 45°.6N±0°.1×27°.9W±0°.1, h10^{km}±1^{km}, mb4.5/50, Error ellipse: s-maj=19.3km s-min=9.8km az=153.0*

*GFZ **14** 01:58:31.1±0.4, 46°N±8°×2°8W±°, h10^{km}, M4.3/24, mb4.3/24, confirmed*

ISC 14 01:58:30.7±0.5**, 45°.48N**±0°.09×**27°.95W**±0°.06**, h14^{km}, n227,** σ**0^{s}.99**/180**, mb4.3**/84**, MS3.7**/53**, 6D, Northern Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PGAV	Gavieira, Arco	14.66	97	*e*P	Pn	02 01 55.0	-2.6
PGAV				*i* IAmb	IAmb	02 02 04.5	
	46nm,1.7s						
PGAV				*e*LR	LR	02 05 20.2	
PGAV				*i* IAMs_20	IAMs_20	02 06 29.9	
	608nm,18.0s						
PMOZ	Porto Moniz, M	15.12	143	*e*P	Pn	02 02 04.3	+0.3
PMOZ				*e*LR	LR	02 05 50.0	
PMOZ				*i* IAMs_20	IAMs_20	02 06 35.3	
	182nm,18.0s						
PMOZ	Porto Moniz, M	15.12	143	Pn	Pn	02 02 03.6	-0.4
MTE	Manteigas	15.77	102	*e*LR	LR	02 05 53.8	
MTE				*i* IAMs_20	IAMs_20	02 07 01.8	
	256nm,22.0s						
PBRG	Braganca	15.78	96	*e*P	Pn	02 02 13.3	+0.8
PBRG				*i* IAmb	IAmb	02 02 37.3	
	22nm,1.6s						
PMTG	Montargil	15.93	107	*e*P	Pn	02 02 11.7	-2.6
PMTG				*i* IAmb	IAmb	02 02 13.2	
	26nm,1.6s						
MOE	Montemor	16.12	109	*e*P	Pn	02 02 15.7	-1.2
MOE				*i* IAmb	IAmb	02 03 12.7	
	29nm,1.9s						
PARRA	Arraiolos	16.18	107	*e*P	Pn	02 02 15.4	-2.1
PARRA				*i* IAmb	IAmb	02 02 42.7	
	15nm,1.8s						
PMRV	Marv??o	16.32	104	*e*P	Pn	02 02 18.1	-1.2
PMRV				*i* IAmb	IAmb	02 02 28.8	
	18nm,2.0s						
PMRV				*e*LR	LR	02 06 29.2	
PMRV				*i* IAMs_20	IAMs_20	02 07 29.7	
	290nm,18.0s						
PVAQ	Vaqueiros	17.15	111	*e*LR	LR	02 06 37.1	
PVAQ				*i* IAMs_20	IAMs_20	02 07 53.0	
	370nm,20.0s						
PBAR	Barrancos	17.18	108	*e*P	Pn	02 02 28.7	-1.6
PAB	San Pablo	18.35	100	P	P	02 02 47.0	+2.2
EKA	Eskdalemuir Ar	18.53	49	P	P	02 02 46.2	-0.3
	baz=253,slow=8.6						
EKA				LR	LR	02 08 34.0	
	comp=Z,180nm,18.6s,baz=210,slow=33						
	2.3nm,0.7s						
ESBB	Sonseca Array	18.56	100	P	Pn	02 02 47.2	-0.1
ESDC	Sonseca Array	18.56	100	P	Pn	02 02 47.9	+0.6
	0.1nm,0.3s,baz=295,slow=12,SNR=10						
ESDC				LR	LR	02 08 34.8	
	comp=Z,288nm,19.2s,baz=292,slow=33						
	1.0nm,0.8s						
ESDC				AML	AML		
BORG	Borgarnes	19.66	8	LR	LR	02 08 19.9	
	comp=Z,101nm,21.1s,baz=177,slow=30						
AVE	Averroes	19.93	120	P	Pn	02 03 04.0	+0.2
AVE	Averroes	19.93	120	P	Pn	02 03 03.9	+0.1
	comp=Z,52nm,1.6s						
CEST	Esterri de Car	21.14	87	P	P	02 03 17.1	+1.8
IFR	Ifrane	21.20	116	P	P	02 03 16.7	+0.7
	comp=Z,4.7nm,1.5s						
BOST	Ostende	21.22	63	*d*P	P	02 03 19.2	+3.4
MTLF	Montolieu	21.60	85	P	P	02 03 20.1	+0.1
	comp=Z,13nm,2.2s						
TIO	Tiouine	21.72	125	P	P	02 03 22.7	+1.2
	comp=Z,30nm,1.7s						
MD01	Midelt array s	21.86	117	P	P	02 03 23.8	+0.7
MD31	MD31	21.86	117	P	P	02 03 23.5	+0.5
MD31				IAmb	IAmb	02 03 32.8	
	comp=Z,27nm,1.4s						
CORI	Orista	21.90	88	P	P	02 03 24.3	+1.0
BSKQ	Steenkerk	21.91	65	*d*P	P	02 03 22.9	-0.4
	comp=Z,6.1nm,1.4s						
LOR	Lormes	21.95	74	P	P	02 03 23.9	+0.2
	comp=Z,14nm,1.5s						
MDT	Midelt	21.99	117	P	P	02 03 26.0	+1.6
	comp=Z,0.7nm,0.4s,baz=324,slow=6.3,SNR=4.1						
MDT				LR	LR	02 10 16.3	
	comp=Z,128nm,20.6s,baz=346,slow=32						
	comp=Z,0.7nm,0.4s						
UCC	Uccle	22.10	64	P	P	02 03 24.8	-0.4
UCC	Uccle	22.10	64	P	P	02 03 25.6	+0.3
	comp=Z,2.2nm,2.5s						
DOU	Dourbes	22.24	66	*d*P	P	02 03 27.9	+1.0
	comp=Z,5.1nm,1.5s						
BMRD	Maredsous	22.35	66	*d*P	P	02 03 28.2	+0.2
	comp=Z,5.2nm,1.5s						
SSB	Saint Sauveur	22.75	79	P	P	02 03 32.4	0.0
SSB				IAmb	IAmb	02 03 48.3	
	comp=Z,17nm,1.3s						
SSB	Saint Sauveur	22.75	79	P	P	02 03 33.6	+1.3
	comp=Z,13nm,2.8s						
MEM	Membach	23.14	65	*d*P	P	02 03 38.4	+2.1
WLF	Walferdange	23.26	67	*d*P	P	02 03 37.7	+0.2
GIMEL	St. Georges /	23.69	75	P	P	02 03 41.7	-0.2
ARBF	Arbois	23.74	83	P	P	02 03 43.3	+1.1
	comp=Z,18nm,2.1s						
ORIF	Oris-en-Rattie	23.75	79	P	P	02 03 43.7	+1.2
	comp=Z,9.8nm,1.7s						
ECH	Echery	24.04	71	P	P	02 03 44.0	-1.2
ECH				IAmb	IAmb	02 03 55.5	
	comp=Z,15nm,1.5s						
ECH	Echery	24.04	71	P	P	02 03 44.7	-0.5
	comp=Z,9.2nm,2.1s						
BNI	Bardonecchia	24.27	79	P	P	02 03 47.5	0.0
BNI	Bardonecchia	24.27	79	P	P	02 03 48.5	+1.1
	comp=Z,12nm,2.2s						
SENIN	Lac Senin/Sane	24.42	75	P	P	02 03 49.3	+0.4
SFJD	Kangerlussuaq	24.69	339	LR	LR	02 11 18.4	
	comp=Z,263nm,20.0s,baz=151,slow=31						
ISO	Isola	24.74	80	P	P	02 03 52.9	+1.2
BNALP	Bannalp	25.09	74	P	P	02 03 55.2	+0.4
RETH	Rethem/Aller,	25.25	60	P	P	02 03 56.5	+0.4
	comp=Z,16nm,1.4s						
CLZ	Clausthal	25.87	62	P	P	02 04 02.4	+0.6
	comp=Z,11nm,1.3s						
DAVA	Damuels	26.00	72	*e*P	P	02 04 03.7	+0.6
	comp=Z,10nm,1.2s						
DAVA	Damuels	26.00	72	P	P	02 04 04.3	+1.2
	comp=Z,12nm,1.2s						
DAVOX	Davos/Dischmat	26.09	73	LR	LR	02 13 26.0	
	comp=Z,170nm,18.9s,baz=268,slow=34						
SCHQ	Schefferville	26.30	305	LR	LR	02 12 52.4	
	comp=Z,206nm,18.1s,baz=98,slow=33						
FETA	Feichten	26.61	73	*e*P	P	02 04 09.3	+0.6
	comp=Z,6.7nm,1.7s						
MOTA	Moosalm	26.80	72	*e*P	P	02 04 10.4	0.0
	comp=Z,4.0nm,1.0s						
SQTA	Sankt Quirin	26.90	72	*i* P	P	02 04 11.6	+0.4
	comp=Z,9.4nm,1.4s						
WATA	Walderalm	27.12	72	*e*P	P	02 04 13.1	-0.1
	comp=Z,8.5nm,1.6s						
WTTA	Wattenberg	27.18	72	*e*P	P	02 04 14.2	+0.5
	comp=Z,9.5nm,1.4s						
WTTA	Wattenberg	27.18	72	P	P	02 04 15.2	+1.4
	comp=Z,5.3nm,1.2s						
CLL	Collm	27.54	63	*e*P	P	02 04 16.0	-0.7
CLL				L	L	02 11 00.0	
CLL				AMS	AMS	02 14 00.0	
	comp=N,100nm,16.9s						
CLL				AMS	AMS	02 14 00.0	
	comp=E,200nm,17.4s						
CLL				AMS	AMS	02 14 00.0	
	comp=Z,200nm,19.4s						
NOA	NORSAR Array B	27.59	42	P	P	02 04 16.6	-0.5
	comp=Z,1.4nm,1.0s,baz=146,slow=6.9,SNR=3.1						
NOA				LR	LR	02 14 15.5	
	comp=Z,43nm,19.4s,baz=245,slow=34						
	comp=Z,1.4nm,1.0s						
LESA	Schwarzleotal	27.84	71	*e*P	P	02 04 19.3	-0.3
	comp=Z,6.1nm,2.0s						
STAL	STALIGIAL	28.11	74	P	P	02 04 21.8	-0.2
STAL				IAmb	IAmb	02 04 27.9	
	comp=Z,15nm,1.3s						
KHC	Kasperske Hory	28.14	67	*e*P	P	02 04 21.0	-1.2
BRG	Berggiesshubel	28.16	64	*e*P	P	02 04 22.2	-0.1
BRG				Amp		02 04 23.3	
	comp=Z,3.4nm,1.2s						
BRG	Berggiesshubel	28.16	64	P	P	02 04 27.9	+5.6
BRG				Amp		02 04 29.2	
	comp=Z,3.0nm,1.1s						
GERES	GERESS Array B	28.26	68	P	P	02 04 23.0	-0.4
	comp=Z,0.3nm,0.2s,baz=272,slow=6.1,SNR=7.7						
	comp=Z,0.3nm,0.2s						
GERES	GERESS Array B	28.26	68	P	P	02 04 23.2	-0.2
KBA	Koelnbreinsper	28.35	72	*i* P	P	02 04 22.6	-1.7
	comp=Z,5.5nm,1.3s						
BIOA	Bad Ischl, Aus	28.43	70	*i* P	P	02 04 24.6	-0.2
	comp=Z,6.6nm,1.4s						
HFS	Hagfors	28.55	44	LR	LR	02 14 05.9	
	comp=Z,74nm,19.2s,baz=263,slow=33						
FRB	Frobisher Bay	29.06	323	LR	LR	02 13 02.6	
	comp=Z,153nm,21.6s,baz=93,slow=30						
KEST	Kesra	29.71	96	P	P	02 04 36.0	-0.3
	comp=Z,2.4nm,0.7s,baz=290,slow=3.7,SNR=5.1						
KEST				LR	LR	02 14 51.3	
	comp=Z,243nm,21.7s,baz=270,slow=33						
	comp=Z,2.4nm,0.7s						
KEST	Kesra	29.71	96	P	P	02 04 36.9	+0.6
KEST				IAmb	IAmb	02 05 15.8	
	comp=Z,10nm,1.3s						
ARSA	Arzberg	29.77	71	*i* P	P	02 04 36.1	-0.5
	comp=Z,8.2nm,1.5s						
CONA	Conrad Observa	29.85	69	*e*P	P	02 04 35.9	-1.5
	comp=Z,3.3nm,1.2s						
VRAC	Vranov	30.06	66	LR	LR	02 16 21.6	
	comp=Z,249nm,18.1s,baz=276,slow=36						
RONA	Rosalia, Austr	30.18	70	*e*P	P	02 04 40.2	-0.2
	comp=Z,4.2nm,1.2s						
VYHS	Vyhne	31.67	67	*e*P	P	02 04 55.5	+2.0
OJC	Ojcow	31.95	64	P	P	02 04 55.5	-0.3
OJC	Ojcow	31.95	64	P	P	02 04 56.3	+0.5
	comp=Z,8.8nm,2.1s						
VAE	Valguarnera	32.42	89	LR	LR	02 17 10.6	
	comp=Z,137nm,18.9s,baz=321,slow=35						
PSZ	Piszkesteto	32.49	68	P	P	02 05 01.0	+0.3
PSZ				IAmb	IAmb	02 05 03.2	
	comp=Z,11nm,1.3s						
PSZ	Piszkesteto	32.49	68	P	P	02 05 01.4	+0.7
	comp=Z,6.5nm,1.7s						
STHS	Stebnicka Huta	33.03	65	*e*P	P	02 05 07.4	+2.1
ABAH	Abaujker	33.28	67	P	P	02 05 08.7	+1.2
	comp=Z,6.9nm,2.0s						
KOLS	Kolonicke sedl	33.79	66	*e*P	P	02 05 12.7	+0.7
BZS	Buzias	34.26	72	P	P	02 05 16.6	+0.5
	comp=Z,4.8nm,1.5s						
FINES	FINESS Array B	34.73	43	LR	LR	02 18 17.3	
	comp=Z,73nm,18.2s,baz=231,slow=34						
RNPP8	Varash	35.51	61	P	P	02 05 26.5	-0.2
RNPP9	Sopachiv	35.51	61	P	P	02 05 25.9	-0.9
RNPP5	Staryi Chortor	35.55	61	P	P	02 05 26.1	-1.0
SADO	Sadowa	35.62	288	LR	LR	02 19 10.6	
	comp=Z,147nm,20.7s,baz=25,slow=35						
ARCES	ARCESS Array B	35.65	29	LR	LR	02 17 52.8	
	comp=Z,73nm,18.4s,baz=256,slow=33						
BUR08	Bucovina Ar. S	36.02	67	P	P	02 05 31.7	+0.4
BUR08				IAmb	IAmb	02 05 35.2	
	comp=Z,9.3nm,1.4s						
BURAR	Bucovina Array	36.04	67	P	P	02 05 32.3	+0.8
KMPD	K-Podol'skiy	36.57	65	P	P	02 05 34.5	-1.3
MI29	MI29, Kamyanyy	36.95	62	P	P	02 05 38.5	-0.6
	comp=Z,79nm,1.5s						
LUBAR	Lubar, Ukraine	37.02	62	P	P	02 05 38.4	-1.3
MI30	MI30,Zelenitsa	37.08	61	P	P	02 05 38.6	-1.6
	comp=Z,3µmcomp=Z,8.7nm,1.2s						
MLR	Muntele Rosu	37.18	70	LR	LR	02 20 42.7	
	comp=Z,124nm,19.5s,baz=1.0,slow=36						
TESR	Tescani	37.31	68	P	P	02 05 41.3	-0.9
	comp=Z,6.1nm,1.5s						
AK20	Malin Array Si	37.58	61	P	P	02 05 43.4	-1.0
AK19	Malin Array Si	37.59	61	P	P	02 05 43.7	-0.8
AK22	Malin Array Si	37.62	61	P	P	02 05 44.3	-0.4
AK18	Malin Array Si	37.62	61	P	P	02 05 43.9	-0.9
AK17	Malin Array Si	37.63	61	P	P	02 05 44.0	-0.8
AK14	Malin Array Si	37.67	61	P	P	02 05 43.9	-1.3
AK11	Malin Array Si	37.70	61	P	P	02 05 44.6	-0.8
KIEV	Kiev	37.72	61	P	P	02 05 43.7	-1.8
KIEV	Kiev	37.72	61	P	P	02 05 44.0	-1.6
	comp=Z,20nm,1.4s						
AKASG	Malin Array Be	37.72	61	P	P	02 05 45.0	-0.7
	comp=Z,2.1nm,0.8s,baz=281,slow=8.5,SNR=9.4						
AKASG				LR	LR	02 21 51.9	
	comp=Z,98nm,18.2s,baz=264,slow=37						
	comp=Z,2.1nm,0.8s						
AKBB	Malin Array Si	37.72	61	P	P	02 05 43.7	-1.9
AKBB	Malin Array Si	37.72	61	P	P	02 05 44.0	-1.6
AK06	Malin Array Si	37.74	61	P	P	02 05 44.8	-1.0
SORM	Soroca	37.90	65	P	P	02 05 45.8	-1.3
	comp=Z,6.0nm,1.1s						
RES	Resolute Bay	40.68	338	LR	LR	02 20 15.5	
	comp=Z,82nm,21.2s,baz=144,slow=32						
Y58A	Scranton	40.79	272	P	P	02 06 10.4	-1.0
TORD	Torodi Ar. Bea	40.87	133	P	P	02 06 12.0	-0.2
	comp=Z,2.0nm,0.9s,baz=331,slow=6.5,SNR=7.3						
	comp=Z,2.0nm,0.9s						
SJG	San Juan	41.80	242	LR	LR	02 20 05.5	
	comp=Z,55nm,19.4s,baz=92,slow=31						
EYMN	Ely	42.54	297	P	P	02 06 25.6	0.0
EYMN				IAmb	IAmb	02 06 38.0	
	comp=Z,10nm,1.4s						
TKL	Tuckaleechee C	42.75	277	LR	LR	02 23 24.3	
	comp=Z,45nm,18.7s,baz=76,slow=35						
DBIC	Dimbokro	43.55	146	LR	LR	02 22 52.4	
	comp=Z,162nm,20.9s,baz=338,slow=34						
ULM	Lac du Bonnet	44.39	302	LR	LR	02 23 22.1	
	comp=Z,217nm,19.5s,baz=66,slow=34						
BR131	Keskin Array S	44.72	75	P	P	02 06 43.9	+0.4
BR131				IAmb	IAmb	02 06 45.0	
	comp=Z,7.0nm,1.1s						
BRTR	Keskin Array B	44.72	75	P	P	02 06 42.6	-0.8
	comp=Z,2.6nm,0.9s,baz=296,slow=6.7,SNR=10						
BRTR				LR	LR	02 25 59.6	
	comp=Z,52nm,19.3s,baz=305,slow=37						
	comp=Z,2.6nm,0.9s						
BRTR	Keskin Array B	44.72	75	P	P	02 06 43.7	+0.2
MDP	Montagnes des	45.61	216	LR	LR	02 21 55.8	
	comp=Z,44nm,18.4s,baz=106,slow=31						
BNN	Bunyan	46.64	74	P	P	02 06 59.4	+0.7
ANDN	Andirin	47.62	76	P	P	02 07 05.0	-1.3
	comp=Z,35nm,1.8s						
ARPR	Arapgir-MALATY	48.20	73	P	P	02 07 11.5	+0.7
ARPR	Arapgir-MALATY	48.20	73	P	P	02 07 12.3	+1.5
	comp=Z,18nm,1.3s						
KVAR	Kislovodsk Arr	48.71	65	LR	LR	02 26 25.2	
	comp=Z,48nm,21.9s,baz=350,slow=34						
KBZ	Khabaz	48.94	65	P	P	02 07 16.4	+0.2
	comp=Z,2.0nm,0.8s,baz=279,slow=3.8,SNR=5.4						
KBZ				LR	LR	02 28 13.1	
	comp=Z,82nm,20.7s,baz=308,slow=36						
	comp=Z,2.0nm,0.8s						
YKA	Yellowknife Ar	49.57	322	P	P	02 07 20.5	-0.3
	comp=Z,1.1nm,0.8s,baz=68,slow=7.3,SNR=2.7						
YKA				LR	LR	02 25 10.4	
	comp=Z,72nm,19.3s,baz=35,slow=32						
	comp=Z,1.1nm,0.8s						
EPOS	Posof	49.91	68	P	P	02 07 25.3	+1.4
	comp=Z,12nm,1.2s						
MIAR	Mount Ida	50.15	282	P	P	02 07 25.7	+0.1
MIAR	Mount Ida	50.15	282	P	P	02 07 26.8	+1.2
	comp=Z,10.0nm,1.0s						
SDV	Santo Domingo	51.67	239	LR	LR	02 27 36.9	
	comp=Z,29nm,19.6s,baz=70,slow=34						
GNI	Garni	51.91	68	LR	LR	02 30 44.5	
	comp=Z,27nm,20.0s,baz=308,slow=37						
ARTI	Arti	52.00	45	LR	LR	02 29 58.6	
	comp=Z,44nm,18.1s,baz=131,slow=36						
ARTI	Arti	52.00	45	P	P	02 07 38.8	-0.5
HAKT	HAKKARI	52.61	72	P	P	02 07 44.9	+0.6
	comp=Z,18nm,1.4s						
EDM	Edmonton	53.00	311	P	P	02 07 47.1	+0.4
WMOK	Wichita Mounta	53.60	285	P	P	02 07 51.2	-0.2
	comp=Z,3.2nm,1.6s						
INK	Inuvik	53.88	334	LR	LR	02 28 43.9	
	comp=Z,46nm,18.5s,baz=38,slow=34						
H10N2	ASCENSION HYDR	54.43	164	T	T	03 06 20.5	
	baz=349,slow=75,SNR=5.5						
H10N3	ASCENSION HYDR	54.44	164	T	T	03 06 23.4	
	baz=349,slow=75,SNR=5.8						
H10N1	ASCENSION HYDR	54.45	164	T	T	03 06 26.2	
	baz=349,slow=75,SNR=4.9						
AKTO	Aktyubinsk	54.69	51	LR	LR	02 31 15.1	
	comp=Z,62nm,18.5s,baz=269,slow=36						
H10S3	ASCENSION HYDR	55.49	164	T	T	03 07 46.0	
	baz=232,slow=74,SNR=4.4						
H10S2	ASCENSION HYDR	55.50	164	T	T	03 07 43.8	
	baz=348,slow=74,SNR=5.1						
BRDY	Brady	55.75	282	P	P	02 08 06.3	-0.6
BRDY				IAmb	IAmb	02 08 07.8	
	comp=Z,3.2nm,1.0s						
NRIK	Noril'sk	56.16	23	P	P	02 08 10.0	+0.6
	comp=Z,1.8nm,0.3s,baz=328,slow=4.6,SNR=5.5						
	comp=Z,1.8nm,0.3s						
NRIK	Noril'sk	56.16	23	P	P	02 08 10.1	+0.8
PDAR	Pinedale Array	56.19	299	P	P	02 08 10.7	+0.4
	comp=Z,0.2nm,0.6s,baz=77,slow=6.7,SNR=4.4						
PDAR				LR	LR	02 31 13.3	
	comp=Z,108nm,18.4s,baz=52,slow=35						
	comp=Z,0.2nm,0.6s						
PDAR	Pinedale Array	56.19	299	P	P	02 08 09.8	-0.5
AB31	Akbulak array	56.37	52	P	P	02 08 09.9	-1.2
AB31				IAmb	IAmb	02 08 12.6	
	comp=Z,5.8nm,1.2s						
ABKAR	Akbulak array	56.37	52	P	P	02 08 10.8	-0.4
MSTX	Muleshoe	56.75	286	P	P	02 08 14.9	+0.7
MSTX				IAmb	IAmb	02 08 16.5	
	comp=Z,8.6nm,1.1s						
129A	Stewart Farms,	56.92	285	P	P	02 08 16.1	+0.8
ROSC	El Rosal	57.09	239	LR	LR	02 31 29.3	
	comp=Z,48nm,20.4s,baz=59,slow=35						
NEW	Newport	57.62	308	LR	LR	02 32 46.4	
	comp=Z,90nm,18.1s,baz=54,slow=36						
NEW	Newport	57.62	308	P	P	02 08 20.6	+0.5
	comp=Z,3.9nm,1.2s						
DLBC	Dease Lake	58.20	323	LR	LR	02 29 45.6	
	comp=Z,56nm,20.2s,baz=38,slow=32						
ANMO	Albuquerque	58.64	289	LR	LR	02 33 17.5	
	comp=Z,152nm,18.9s,baz=53,slow=36						
SAND	Sanderson	58.70	282	P	P	02 08 27.9	0.0
SAND				IAmb	IAmb	02 08 34.1	
	comp=Z,3.4nm,0.9s						
GDL2	Guadalupe Moun	58.87	286	P	P	02 08 30.6	+1.5
TPB28		59.28	285	P	P	02 08 33.6	+1.6
TPB28				IAmb	IAmb	02 08 47.9	
	comp=Z,6.2nm,0.4s						
BORK	Borovoye	59.64	44	P	P	02 08 34.1	+0.1
BORK				IAmb	IAmb	02 08 35.3	
	comp=Z,5.4nm,0.9s						
BVAR	Borovoye Array	59.69	44	P	P	02 08 35.0	+0.6
	comp=Z,3.0nm,0.7s,baz=308,slow=5.3,SNR=14						
	comp=Z,3.0nm,0.7s						
JTS	Las Juntas de	59.79	253	LR	LR	02 31 52.0	
	comp=Z,18nm,18.7s,baz=53,slow=33						
TXAR	Lajitas Array	60.13	283	P	P	02 08 39.1	+1.2
	comp=Z,0.5nm,0.6s,baz=66,slow=6.2,SNR=6.0						
TXAR				LR	LR	02 34 28.7	
	comp=Z,267nm,19.2s,baz=47,slow=36						
	comp=Z,0.5nm,0.6s						
TXAR	Lajitas Array	60.13	283	P	P	02 08 37.6	-0.3
TX31	Lajitas Ar. Si	60.14	283	P	P	02 08 37.1	-0.8
TX31				IAmb	IAmb	02 08 40.5	
	comp=Z,4.3nm,1.4s						
VHRN	Van Horn	60.15	285	P	P	02 08 38.0	0.0
LTY	Liberty	60.16	308	P	P	02 08 36.8	-1.0
LTY				IAmb	IAmb	02 08 43.8	
	comp=Z,6.8nm,1.3s						
ILAR	Eielson Array	60.25	334	P	P	02 08 38.3	+0.3
	comp=Z,0.3nm,0.6s,baz=36,slow=6.3,SNR=5.2						
ILAR				LR	LR	02 33 22.4	
	comp=Z,30nm,18.1s,baz=252,slow=35						
	comp=Z,0.3nm,0.6s						
ILAR	Eielson Array	60.25	334	P	P	02 08 37.7	-0.3
121A	Cookes Peak, D	60.97	288	P	P	02 08 45.1	+1.4
121A				IAmb	IAmb	02 08 55.9	
	comp=Z,5.5nm,1.2s						
BBB	Bella Bella	61.08	316	LR	LR	02 33 11.7	
	comp=Z,59nm,18.1s,baz=36,slow=34						
IMAR	Indian Mountai	61.32	338	P	P	02 08 45.5	+0.3
CMIG	Matias Romero	61.89	266	LR	LR	02 32 32.3	
	comp=Z,67nm,21.8s,baz=28,slow=33						
NVAR	Mina Array Bea	64.12	299	P	P	02 09 05.1	+0.5
	comp=Z,0.2nm,0.5s,baz=37,slow=7.5,SNR=2.8						
NVAR				LR	LR	02 35 57.8	
	comp=Z,120nm,18.4s,baz=93,slow=35						
	comp=Z,0.2nm,0.5s						
NVAR	Mina Array Bea	64.12	299	P	P	02 09 03.7	-1.0
YBH	Yreka Blue Hor	64.69	304	LR	LR	02 35 07.9	
	comp=Z,74nm,20.7s,baz=74,slow=34						
KURK	Kurchatov	65.10	42	P	P	02 09 10.0	-0.5
KURK				IAmb	IAmb	02 09 11.3	
	comp=Z,3.8nm,0.9s						
KURK	Kurchatov	65.10	42	P	P	02 09 10.4	-0.2
	comp=Z,6.1nm,1.0s						
KURBB	Kurchatov Arra	65.12	42	P	P	02 09 10.1	-0.6
	comp=Z,3.3nm,0.9s,baz=315,slow=6.9,SNR=18						
	comp=Z,3.3nm,0.9s						
ZALV	Zalesovo Beam	65.65	37	P	P	02 09 13.9	-0.1
	comp=Z,0.6nm,0.5s,baz=309,slow=9.1,SNR=1.9						
ZALV				LR	LR	02 37 06.1	
	comp=Z,53nm,19.8s,baz=325,slow=35						
	comp=Z,0.6nm,0.5s						
ZALV	Zalesovo Beam	65.65	37	P	P	02 09 13.7	-0.4
KK31	Karatay Array	65.92	53	P	P	02 09 15.8	-0.2
KK31				IAmb	IAmb	02 09 17.4	
	comp=Z,2.9nm,1.1s						
KKAR	Karatay Array	65.92	53	P	P	02 09 15.4	-0.7
PFO	Pinyon Flats O	65.99	294	LR	LR	02 38 39.8	
	comp=Z,63nm,20.2s,baz=53,slow=36						
KDAK	Kodiak Island	67.30	331	LR	LR	02 37 37.2	
	comp=Z,79nm,18.1s,baz=41,slow=35						
LPIG	La Paz	68.03	282	LR	LR	02 39 18.0	
	comp=Z,110nm,18.3s,baz=48,slow=36						
BTK	Batken	68.09	55	P	P	02 09 29.3	-0.7
AAK	Ala-Archa	68.42	51	LR	LR	02 39 10.2	
	comp=Z,56nm,19.3s,baz=340,slow=36						
ARSB	Arslanbob	68.47	53	P	P	02 09 32.1	-0.3
ARSB				IAmb	IAmb	02 09 42.5	
	comp=Z,6.3nm,1.2s						

UOSS	Minazif	68.71	76	P	P	02 09 33.0	-1.0
MKAR	Makanchi Array	69.57	43	P	P	02 09 38.2	-0.8
	comp=Z,1.9nm,0.9s,baz=316,slow=5.6,SNR=9.0						
MKAR				LR	LR	02 41 19.7	
	comp=Z,38nm,18.2s,baz=284,slow=37						
	comp=Z,1.9nm,0.9s						
MKAR	Makanchi Array	69.57	43	P	P	02 09 38.5	-0.4
KSH2	Kashi	71.40	53	P	P	02 09 52.3	+1.8
KSH2				sP	pwP	02 10 01.0	+3.0
KSH2				pmax	pmax		
	comp=Z,9.0nm,1.4s						
KSH2				LR	LR		
	comp=N,690nm,19.0s						
KSH2				LR	LR		
	comp=E,460nm,18.0s						
LPAZ	La Paz	71.45	221	P	P	02 09 52.5	+1.2
	comp=E,1.8nm,1.0s,baz=338,slow=8.1,SNR=4.1						
	comp=E,1.8nm,1.0s						
LPAZ	La Paz	71.45	221	P	P	02 09 52.2	+0.8
LPAZ				IAmb	IAmb	02 09 59.5	
	comp=Z,5.4nm,1.5s						
NIL	Nilore	73.86	58	P	P	02 10 04.9	-0.2
NIL				IAmb	IAmb	02 10 06.1	
	comp=Z,9.5nm,1.2s						
MA2	Magadan	75.30	1	LR	LR	02 43 05.9	
	comp=Z,27nm,18.0s,baz=312,slow=36						
SONM	Songino Array	78.83	29	P	P	02 10 32.1	-1.0
	comp=Z,1.4nm,0.8s,baz=332,slow=4.4,SNR=6.7						
	comp=Z,1.4nm,0.8s						
SONM	Songino Array	78.83	29	P	P	02 10 32.7	-0.4
SONM				IAmb	IAmb	02 10 40.0	
	comp=Z,5.1nm,1.4s						
ULN	Ulaanbaatar	79.02	29	P	P	02 10 34.7	+0.5
ULN				IAmb	IAmb	02 10 45.1	
	comp=Z,7.0nm,1.2s						
PETK	Petropavlovsk-	81.67	357	LR	LR	02 47 30.1	
	comp=Z,38nm,18.6s,baz=71,slow=36						
GTA2	Gaotai	83.28	38	*e*P	P	02 10 57.5	+0.5
GTA2				pmax	pmax		
	comp=Z,6.0nm,1.2s						
HHC	Hu-ho-hao-te	86.73	30	*e*P	P	02 11 12.8	-1.4
HHC				pmax	pmax		
	comp=Z,16nm,0.6s						
HHC				pmax	pmax		
	comp=Z,79nm,5.3s						
LZH	Lanzhou	87.88	37	*e*P	P	02 11 22.6	+2.6
LZH				sP	pwP	02 11 27.8	+0.8
LZH				pmax	pmax		
	comp=Z,15nm,1.0s						
OPO	Ambohidratompo	93.08	113	LR	LR	02 53 27.9	
	comp=Z,90nm,18.3s,baz=80,slow=35						
PZH	PanZhiHua	95.00	44	P	P	02 11 53.8	+0.6
NJ2	Nanjing	97.16	28	*e*P	P	02 12 01.5	-1.2
NJ2				pmax	pmax		
	comp=Z,12nm,0.5s						
TAOE	Nuku Hiva Isla	111.80	280	*e*LR	LR	02 50 22.8	
	comp=Z,61nm,24.7s						
PPT2	Papeete2	124.42	280	*e*LR	LR	02 56 15.8	
	comp=Z,55nm,21.8s						
QSPA	South Pole Qui	135.36	180	PKP	PKiKP	02 17 49.6	-0.7
	comp=Z,4.2nm,1.2s,baz=238,slow=2.4,SNR=4.4						
QSPA	South Pole Qui	135.36	180		PKiKP	02 17 50.0	-0.3
VNDA	Vanda	147.61	184	PKPbc	PKPab	02 18 15.3	-0.1
	comp=Z,2.9nm,1.0s,baz=245,slow=2.5,SNR=9.2						
WRA	Warramunga Arr	150.63	36	PKPbc	PKPbc	02 18 22.1	-0.3
	comp=Z,1.1nm,0.8s,baz=336,slow=2.3,SNR=11						
WRA	Warramunga Arr	150.63	36		PKPbc	02 18 22.5	+0.2
ASAR	Alice Springs	153.72	40	PKPbc	PKPbc	02 18 28.5	-0.8
	comp=Z,1.2nm,0.9s,baz=0.7,slow=1.7,SNR=7.9						
ASAR				PKPab	PKPab	02 18 42.2	+0.1
	comp=Z,2.1nm,0.9s,baz=350,slow=4.5,SNR=9.6						
ASAR	Alice Springs	153.72	40		PKPbc	02 18 28.1	-1.2
ASAR					PKPab	02 18 41.6	-0.4

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*NEIC **14** 02:12:13.5±1.7, 20.˚76S±0.˚10×178.˚3W±0.˚1, h547km±2km, mb4.6/94, Error ellipse: s-maj=16.7km s-min=13.1km az=123.0*

*IDC **14** 02:12:14.2±1.0, 20.˚67S×178.˚37W, h558km±9km, mb3.9/15, mbtmp4.8/18, Error ellipse: s-maj=14.3km s-min=10.8km az=103.0*

*NOU **14** 02:12:14.1, 20.˚79S×178.˚25W, h554km, mb4.9/50, Fiji Islands Region*

*GFZ **14** 02:12:15.1±0.5, 21˚S±5˚×17˚8W±˚, h568km±5km, M4.6/29, mb4.6/29, Error ellipse: s-maj=12.0km s-min=6.8km az=142.0, confirmed*

ISC 14 02:12:15.1±0.3**, 20.˚78S**±0.˚05×**178.˚30W**±0.˚06**, h579**km**, n366,** σ1s**29**/399**, mb4.6**/96**, 33C-30D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TAVE	Taveuni	4.33	339	P	P	02 13 39.5	-2.1
TAVE	Taveuni	4.33	339	S	S	02 14 49.1	-2.8
MSVF	Nonsavu	4.59	311	P	P	02 13 40.9	-2.7
	82nm,0.6s,baz=136,slow=4.7,SNR=40						
MSVF				S	S	02 14 53.2	-2.5
	34nm,0.8s,baz=355,slow=23,SNR=1.0						
MSVF	Nonsavu	4.59	311	P	P	02 13 41.5	-2.1
MSVF	Nonsavu	4.59	311	S	S	02 14 53.2	-2.5
MSVF	Nonsavu	4.59	311		P	02 13 41.2	-2.4
MSVF	Nonsavu	4.59	311	P	P	02 13 41.8	-1.8
DGTI	Dogotuki	4.83	337	P	P	02 13 42.7	-2.8
DGTI	Dogotuki	4.83	337	S	S	02 14 56.4	-2.7
FUTU	Fugatoga	6.44	2	P	P	02 13 56.5	-2.7
FUTU	Fugatoga	6.44	2	P	P	02 13 57.5	-1.7
	comp=Z,210nm,1.0s						
NIUE	Niue	8.06	79	P	P	02 14 11.8	-2.5
RAO	Raoul Island	8.44	178	P	P	02 14 16.2	-1.6
	comp=Z,203nm,0.3s,baz=115,slow=22,SNR=4.0						
RAO				S	S	02 15 55.1	-3.4
	comp=Z,272nm,0.4s,baz=90,slow=21,SNR=5.7						
RAO	Raoul Island	8.44	178	P	P	02 14 15.5	-2.3
AFI	Afiamalu	9.25	43	P	P	02 14 21.5	-4.6
	comp=Z,59nm,0.7s,baz=115,slow=5.9,SNR=5.0						
AFI				S	S	02 16 02.0	-12
	comp=Z,25nm,0.2s,baz=111,slow=8.0,SNR=7.6						
AFI	Afiamalu	9.25	43	P	P	02 14 20.9	-5.3
MARNC	Mare, Loyalty	12.78	264	P	P	02 15 00.2	-1.5
RTV	Rentapao	12.88	281	P	P	02 15 02.0	-0.8
YATNC	Mamie plateau,	13.85	262	P	P	02 15 12.3	-0.4
OUENC	Ouen Island, N	13.92	261	P	P	02 15 10.9	-2.4
DZM	Mont Dzumac	14.27	262	P	P	02 15 15.1	-1.9
	comp=Z,35nm,0.7s,baz=83,slow=18,SNR=32						
ONTNC	Ouen Toro	14.27	261	P	P	02 15 14.8	-2.1
NOUC	Port Laguerre	14.40	262	P	P	02 15 17.0	-1.1
NOUC	Port Laguerre	14.40	262	S	S	02 17 49.0	+0.8
SANVU	Saraoutou	14.76	289	P	P	02 15 21.4	-0.3
SANVU	Saraoutou	14.76	289	P	P	02 15 20.5	-1.2
SANVU	Saraoutou	14.76	289	P	P	02 15 19.9	-1.8
	comp=Z,115nm,0.9s						
KOUNC	Koumac, New Ca	16.30	268	P	P	02 15 38.1	+1.9
KOUNC	Koumac, New Ca	16.30	268	P	P	02 15 35.4	-0.8
MXZ	Matakaoa Point	16.98	189	P	P	02 15 42.3	+0.2
TOZ	Tahuroa Road	17.72	196	P	P	02 15 50.8	+1.9
TOZ				IAmb	IAmb	02 15 51.6	
	comp=Z,23nm,0.8s						
URZ	Urewera	17.86	192	P	P	02 15 47.5	-2.6
	comp=Z,21nm,0.8s,baz=241,slow=3.9,SNR=26						
URZ				S	S	02 18 41.5	-3.5
	comp=Z,8.8nm,0.7s,baz=192,slow=18,SNR=3.6						
URZ	Urewera	17.86	192	P	P	02 15 48.4	-1.8
	comp=Z,26nm,0.9s						
QRZ	Quartz Range	21.45	199	P	P	02 16 23.0	+0.4
QRZ	Quartz Range	21.45	199	P	P	02 16 22.3	-0.3
TKNZ	Takaka Hill	21.51	198	P	P	02 16 22.4	-0.7
THZ	Tophouse	22.20	198	P	P	02 16 28.9	-0.4
THZ				IAmb	IAmb	02 16 47.5	
	comp=Z,25nm,1.0s						
WHZ	Wether Hill Ro	27.47	201	P	P	02 17 16.9	+1.1
WHZ				IAmb	IAmb	02 17 18.6	
	comp=Z,20nm,0.6s						
TW1H	Toowoomba 1 Ha	27.90	250	P	P	02 17 21.5	+1.6
AUTOO	Toowoomba Stat	27.90	250	P	P	02 17 21.4	+1.5
EIDS	Eidsvold	28.50	255	P	P	02 17 25.3	+0.2
ARMA	Armidale	28.69	244	P	P	02 17 28.2	+1.4
ARMA	Armidale	28.69	244	P	P	02 17 27.4	+0.7
ARMA				IAmb	IAmb	02 17 28.7	
	comp=Z,13nm,0.8s						
ARMA	Armidale	28.69	244	P	P	02 17 28.1	+1.3
	comp=Z,29nm,0.7s						
XMAS	Kiritimati	30.53	44	P	P	02 17 42.2	-0.5
	comp=Z,66nm,0.9s						
CAN	Canberra	32.12	236	P	P	02 17 56.7	+0.7
	comp=Z,20nm,2.1s						
CTA	Charters Tower	33.18	265	P	P	02 18 05.4	+0.2
CTAO	Charters Tower	33.18	265	P	P	02 18 05.4	+0.2
CTAO	Charters Tower	33.18	265	P	P	02 18 04.9	-0.3
CTAO	Charters Tower	33.18	265	P	P	02 18 05.4	+0.2
	comp=Z,75nm,0.6s						
CMSA	Cobar Meteorol	33.91	244	P	P	02 18 11.8	+0.7
CMSA	Cobar Meteorol	33.91	244	P	P	02 18 11.7	+0.6
	comp=Z,20nm,1.2s						
QLP	Quilpie	34.70	253	P	P	02 18 18.3	+0.5
QLP	Quilpie	34.70	253	P	P	02 18 17.8	0.0
	comp=Z,30nm,0.5s						
PMG	Port Moresby	35.13	284	P	P	02 18 21.1	-0.4
	comp=Z,28nm,1.3s						
MTSU	Mount Surprise	35.30	268	P	P	02 18 22.8	-0.1
MTSU	Mount Surprise	35.30	268	P	P	02 18 23.1	+0.3
	comp=Z,44nm,0.5s						
TOO	Toolangi	35.50	234	P	P	02 18 24.2	-0.1
STKA	Stephens Creek	37.41	244	P	P	02 18 40.8	+0.7
	comp=Z,7.7nm,0.5s,baz=80,slow=12,SNR=19						
	comp=Z,7.7nm,0.5s						
STKA	Stephens Creek	37.41	244	P	P	02 18 40.5	+0.5
STKA	Stephens Creek	37.41	244	P	P	02 18 39.6	-0.4
	comp=Z,82nm,2.5s						
QIS	Mount Isa	39.30	263	P	P	02 18 54.7	-0.8
	comp=Z,8.3nm,0.5s						
HTT	Hallett	39.84	242	P	P	02 19 00.3	+0.6
BBOO	Buckleboo	42.17	244	P	P	02 19 18.0	0.0
BBOO				IAmb	IAmb	02 19 18.6	
	comp=Z,13nm,0.7s						
BBOO	Buckleboo	42.17	244	P	P	02 19 18.0	0.0
	comp=Z,20nm,0.6s						
WR8	Warramunga Arr	44.13	262	P	P	02 19 32.9	-0.6
WR8				IAmb	IAmb	02 19 34.0	
	comp=Z,16nm,0.5s						
AS01	Alice Springs	44.14	257	P	P	02 19 33.2	-0.3
AS31	Alice Springs	44.18	257	P	P	02 19 34.0	+0.2
ASAR	Alice Springs	44.18	257	P	P	02 19 33.8	-0.1
	comp=Z,23nm,0.7s,baz=88,slow=8.4,SNR=194						
ASAR				PcP	PcP	02 21 06.3	+0.5
	comp=Z,2.5nm,0.6s,baz=95,slow=4.2,SNR=6.4						
ASAR				ScP	ScP	02 24 06.5	+3.5
	comp=Z,1.4nm,0.8s,baz=101,slow=4.5,SNR=4.9						
ASAR				S	S	02 25 24.8	-1.1
	comp=Z,2.2nm,0.8s,baz=90,slow=15,SNR=14						
	comp=Z,23nm,0.7s						
WB0	Warramunga Arr	44.26	263	P	P	02 19 33.6	-0.8
WB1	Warramunga Ar.	44.27	262	P	P	02 19 33.6	-1.0
WRAB	Tennant Creek	44.27	262	P	P	02 19 33.7	-0.8
WRAB	Tennant Creek	44.27	262	P	P	02 19 33.8	-0.8
WRAB				IAmb	IAmb	02 19 34.7	
	comp=Z,19nm,0.9s						
WRAB	Tennant Creek	44.27	262	P	P	02 19 34.0	-0.6
	comp=Z,27nm,0.9s						
WRA	Warramunga Arr	44.28	262	P	P	02 19 34.0	-0.6
	comp=Z,16nm,0.5s,baz=97,slow=8.2,SNR=232						
WRA				S	S	02 25 25.4	-2.0
	comp=Z,2.3nm,1.0s,baz=97,slow=13,SNR=5.6						
	comp=Z,16nm,0.5s						
WRA	Warramunga Arr	44.28	262	P	P	02 19 33.0	-1.7
DAH	Dandelion	45.64	31	P	P	02 19 45.3	0.0
KHLU	Kahalu`u	45.73	30	P	P	02 19 44.6	-1.1
KHLU	Kahalu`u	45.73	30	P	P	02 19 45.5	-0.2
	comp=Z,76nm,0.8s						
TRH	Trail	45.74	31	P	P	02 19 46.1	-0.1
MLOA	Mauna Loa Obse	45.84	31	P	P	02 19 46.8	-0.1
HUH	Hualalai	45.84	30	P	P	02 19 46.5	-0.2
BYL	Byron's Ledge	45.88	31	P	P	02 19 46.7	-0.2
MLH	Mauna Loa	45.89	31	P	P	02 19 46.7	-0.3
KNHH	Kane Nui o Ham	45.90	31	P	P	02 19 46.3	-0.6
HMH	Humu‘ula Sheep	45.94	31	P	P	02 19 47.5	+0.1
MTN	Manton Dam	48.88	271	P	P	02 20 08.5	-0.8
FORT	Forrest	48.92	247	P	P	02 20 09.1	-0.3
FORT				IAmb	IAmb	02 20 09.9	
	comp=Z,9.7nm,0.6s						
KNRA	Kununurra	50.36	267	P	P	02 20 19.7	-0.4
FAKI	Fak Fak	51.29	283	P	P	02 20 26.4	-0.5
FAKI				IAmb	IAmb	02 20 58.8	
	comp=Z,52nm,1.2s						
FITZ	Fitzroy Crossi	52.71	263	P	P	02 20 36.9	-0.1
FITZ	Fitzroy Crossi	52.71	263	P	P	02 20 37.2	+0.2
	comp=Z,1.3nm,0.8s						
SWI	Sorong	53.05	285	P	P	02 20 39.2	-0.2
	comp=Z,102nm,0.8s						
SOEI	Soe	56.23	272	P	P	02 21 03.0	+1.2
SOEI	Soe	56.23	272	P	P	02 21 02.5	+0.6
SOEI				IAmb	IAmb	02 21 04.3	
	comp=Z,33nm,0.7s						
MBWA	Marble Bar	57.52	258	P	P	02 21 09.9	-0.5
MBWA				IAmb	IAmb	02 21 10.6	
	comp=Z,18nm,0.5s						
MBWA	Marble Bar	57.52	258	P	P	02 21 09.9	-0.5
MEEK	Meekatharra	57.56	251	P	P	02 21 10.2	-0.5
	comp=Z,10nm,0.5s						
SBA	Scott Base	57.57	184	P	P	02 21 13.4	+3.6
SBA	Scott Base	57.57	184	P	P	02 21 13.6	+3.8
	comp=Z,14nm,2.9s						
VNDA	Vanda	57.60	185	P	P	02 21 12.4	+2.4
	comp=Z,1.6nm,0.7s,baz=355,slow=6.1,SNR=14						
VNDA				ScP	ScP	02 25 02.5	+2.7
	comp=Z,1.6nm,0.8s,baz=341,slow=5.6,SNR=6.9						
	comp=Z,1.6nm,0.7s						
VNDA	Vanda	57.60	185	P	P	02 21 12.3	+2.4
VNDA	Vanda	57.60	185	P	P	02 21 12.9	+2.9
KLBR	Kellerberrin	57.68	245	P	P	02 21 11.7	+0.3
KLBR	Kellerberrin	57.68	245	P	P	02 21 11.4	0.0
	comp=Z,38nm,0.5s						
NWAO	Narrogin (SRO)	57.99	244	P	P	02 21 13.6	+0.1
NWAO				IAmb	IAmb	02 21 29.0	
	comp=Z,33nm,1.4s						
BLDU	Ballidu	58.68	246	P	P	02 21 18.1	0.0
	comp=Z,23nm,1.7s						
EDFI	Ende, Flores	58.96	272	P	P	02 21 20.0	-0.3
	comp=Z,13nm,1.7s						
MORW	Morawa	59.46	248	P	P	02 21 23.0	-0.3
MORW	Morawa	59.46	248	P	P	02 21 23.5	+0.2
	comp=Z,15nm,1.1s						
DBNI	Kabupaten Domp	62.20	271	P	P	02 21 40.9	-0.6
	comp=Z,28nm,0.4s						
GIRL	Giralia	62.20	255	P	P	02 21 41.6	+0.2
GIRL				IAmb	IAmb	02 22 23.2	
	comp=Z,44nm,1.4s						
CASY	Casey	63.59	205	P	P	02 21 50.7	+1.2
QSPA	South Pole Qui	69.28	180	P	P	02 22 26.0	+1.2
	comp=Z,4.9nm,0.7s,baz=349,slow=0.6,SNR=26						
	comp=Z,4.9nm,0.7s						
QSPA	South Pole Qui	69.28	180	P	P	02 22 26.6	+1.8
UGM	Wanagama	69.68	269	P	P	02 22 27.9	-0.1
MJAR	Matsushiro Arr	70.27	324	P	P	02 22 30.3	-0.7
	comp=Z,2.8nm,0.6s,baz=157,slow=5.6,SNR=6.6						
	comp=Z,2.8nm,0.6s						
AMKA	Amchitka	71.88	358	P	P	02 22 38.8	-1.2
AMKA				IAmb	IAmb	02 22 40.4	
	comp=Z,23nm,0.9s						
KIWB	Kanaga Island	72.33	1	P	P	02 22 42.1	-0.5
KIWB				IAmb	IAmb	02 22 43.0	
	comp=Z,33nm,0.8s						
ADK	Adak	72.37	1	P	P	02 22 42.3	-0.4
ADK	Adak	72.37	1	P	P	02 22 42.0	-0.8
	comp=Z,62nm,0.8s						
YOJ	Yonaguni jima	72.67	305	P	P	02 22 48.1	+3.0
ATKA	Atka Island	72.76	3	P	P	02 22 44.0	-1.0
TWGBT	Beinan	73.29	303	P	P	02 22 51.1	+2.4
YULB	Yu-li	73.42	304	P	P	02 22 53.3	+3.8
JKA	Kamikawa-asahi	73.84	332	P	P	02 22 53.0	+1.6
SSLB	Suanglung	73.89	304	P	P	02 22 56.4	+4.2
YHNB	Yeheng	74.03	305	P	P	02 22 53.0	-0.1
	comp=Z,796nm,0.8s						
TATO	Taipei	74.11	305	P	P	02 22 56.9	+3.6
UNV	Unalaska Valle	75.01	7	P	P	02 22 57.0	-0.7
AKUT	Akutan	75.39	8	P	P	02 22 59.1	-0.7
PEA0B	Petropavlovsk-	76.47	345	P	P	02 23 06.3	+0.4
PEA0B				IAmb	IAmb	02 23 06.7	
	comp=Z,18nm,0.8s						
PETK	Petropavlovsk-	76.47	345	P	P	02 23 06.0	+0.1
	comp=Z,13nm,0.7s,baz=130,slow=6.1,SNR=16						
	comp=Z,13nm,0.7s						
KSRS	Korea Array	76.91	319	P	P	02 23 08.4	-0.1
	comp=Z,2.1nm,0.7s,baz=129,slow=6.1,SNR=7.4						
	comp=Z,2.1nm,0.7s						
CNBA	Chernabura Isl	76.98	11	P	P	02 23 06.7	-1.9
CNBA				IAmb	IAmb	02 23 11.8	
	comp=Z,22nm,1.0s						
HULI	Fort Hunter Li	78.12	44	P	P	02 23 17.1	+1.9
HULI				IAmb	IAmb	02 23 18.1	
	comp=Z,20nm,1.1s						
SAO	San Andreas Ge	78.43	43	P	P	02 23 18.5	+1.7
MHC	Mount Hamilton	78.65	43	P	P	02 23 19.9	+1.8
CVS	Carmenet Viney	78.75	42	P	P	02 23 19.2	+0.8
CVS				IAmb	IAmb	02 23 20.8	
	comp=Z,24nm,1.1s						
KCPM	Cahto Peak	78.89	40	P	P	02 23 21.6	+2.2
KCPM				IAmb	IAmb	02 23 22.1	
	comp=Z,22nm,1.1s						
KMPM	Mount Pierce	79.03	39	P	P	02 23 22.5	+2.5
KMPM				IAmb	IAmb	02 23 23.0	
	comp=Z,25nm,0.9s						
USRK	Ussuriysk Ar.	79.04	326	P	P	02 23 20.4	+0.6
	comp=Z,6.9nm,0.8s,baz=146,slow=3.3,SNR=12						
	comp=Z,6.9nm,0.8s						
USRK	Ussuriysk Ar.	79.04	326	P	P	02 23 21.1	+1.3
KMRM	Mail Ridge	79.15	39	P	P	02 23 22.6	+2.0
JCC	Jacoby Creek,	79.34	39	P	P	02 23 23.7	+2.2
VES	Vestal, Richgr	79.43	45	P	P	02 23 22.9	+0.8
VES				IAmb	IAmb	02 23 24.3	
	comp=Z,43nm,1.5s						
O02D	Mt. Diablo Mer	79.67	40	P	P	02 23 25.8	+2.4
O02D				IAmb	IAmb	02 23 26.5	
	comp=Z,20nm,0.8s						
SII	Sitkinak Islan	79.68	13	P	P	02 23 23.0	0.0
AFDM	Forest Hills D	80.04	42	P	P	02 23 26.7	+1.4
M02C	Callahan	80.39	39	P	P	02 23 29.1	+2.0
M02C				IAmb	IAmb	02 23 30.2	
	comp=Z,19nm,0.8s						
M03C	McCloud	80.75	39	P	P	02 23 30.5	+1.5
M03C				IAmb	IAmb	02 23 31.5	
	comp=Z,36nm,0.8s						
BEKR	Beckworth	80.97	41	P	P	02 23 31.5	+1.2
YERR	Yerington	81.15	43	P	P	02 23 32.7	+1.5
YERR				IAmb	IAmb	02 23 33.5	
	comp=Z,13nm,0.8s						
KDAK	Kodiak Island	81.16	14	P	P	02 23 30.7	+0.2
KDAK				IAmb	IAmb	02 23 32.7	
	comp=Z,15nm,1.1s						
KDAK	Kodiak Island	81.16	14	P	P	02 23 31.2	+0.7
	comp=Z,16nm,1.4s						
L04D	Klamath Falls	81.22	39	P	P	02 23 32.9	+1.4
L04D				IAmb	IAmb	02 23 33.9	
	comp=Z,29nm,0.9s						
NVAR	Mina Array Bea	81.42	43	P	P	02 23 34.3	+1.6
	comp=Z,7.3nm,0.8s,baz=224,slow=8.7,SNR=53						
	comp=Z,7.3nm,0.8s						
NVAR	Mina Array Bea	81.42	43	P	P	02 23 34.0	+1.4
PAHR	Pah Rah Range	81.48	42	P	P	02 23 34.1	+1.3
PAHR				IAmb	IAmb	02 23 35.1	
	comp=Z,23nm,1.3s						
N14K	Kuskokwak Cree	81.56	8	P	P	02 23 33.4	+0.9
KVN	Kaiserville	81.91	43	P	P	02 23 36.1	+1.0
KVN				IAmb	IAmb	02 23 37.2	
	comp=Z,10nm,0.8s						
I04A	Tendick Farm,	82.14	37	P	P	02 23 37.4	+1.5
I04A				IAmb	IAmb	02 23 38.0	
	comp=Z,11nm,0.8s						
CN2	Changchun	82.35	323	*e*P	P	02 23 41.4	+4.4
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
BNX	BinXian	82.49	325	⇓P	P	02 23 37.4	-0.2
BNX				pmax	pmax		
	comp=Z,11nm,0.8s						
CNPM	China Poot	83.04	14	P	P	02 23 40.3	+0.2
CNPM				IAmb	IAmb	02 23 41.1	
	comp=Z,15nm,0.7s						
TUC	Tucson	83.38	52	P	P	02 23 44.5	+2.1
TUC				IAmb	IAmb	02 23 45.8	
	comp=Z,9.7nm,0.9s						
M17K	Holitna River	83.60	10	P	P	02 23 43.9	+1.2
M17K				IAmb	IAmb	02 23 45.0	
	comp=Z,18nm,1.0s						
MA2	Magadan	83.98	345	P	P	02 23 44.3	-0.4
	comp=Z,19nm,1.0s						
RPSI	Rantau Prapat	84.20	275	P	P	02 23 46.8	-0.1
	comp=Z,7.2nm,0.9s						
GNW	Green Mountain	84.28	34	P	P	02 23 47.9	+1.5
GNW				IAmb	IAmb	02 23 48.8	
	comp=Z,9.6nm,0.9s						
L18K	Granite Mounta	84.49	10	P	P	02 23 47.9	+0.7
L18K				IAmb	IAmb	02 23 48.9	
	comp=Z,8.3nm,0.8s						
ELK	Elko	84.68	43	P	P	02 23 49.8	+0.9
BBB	Bella Bella	84.78	28	P	P	02 23 49.8	+1.0
	comp=Z,9.1nm,1.1s						
HPIG		84.81	59	P	P	02 23 51.1	+1.3
	comp=Z,5.4nm,1.0s						
GSI	Gunungsitoli	84.96	273	P	P	02 23 51.8	+1.2
	comp=Z,27nm,0.7s						
G08A	Pilot Rock	85.01	38	P	P	02 23 51.8	+1.5
G08A				IAmb	IAmb	02 23 52.5	
	comp=Z,12nm,0.8s						
GLI	Glacier Island	85.19	15	P	P	02 23 50.5	0.0
GLI				IAmb	IAmb	02 23 51.3	
	comp=Z,27nm,0.8s						
PMR	Palmer	85.36	14	P	P	02 23 51.3	0.0
HEH	HeiHe	85.40	328	*e*P	P	02 23 52.6	+0.8
ZAIG	Zacatecas	85.58	64	P	P	02 23 55.7	+2.0
	comp=Z,5.7nm,1.4s						
LYN	LuoYang	85.72	309	P	P	02 23 55.3	+1.6
LYN				pmax	pmax		
	comp=Z,24nm,0.5s						
EPH	Ephrata	85.88	36	P	P	02 23 55.6	+1.3
EPH				IAmb	IAmb	02 23 56.3	
	comp=Z,17nm,1.1s						
KLU	Klutina	86.01	15	P	P	02 23 54.6	0.0
KLU				IAmb	IAmb	02 23 55.7	
	comp=Z,7.5nm,0.9s						
ELIB	Princess Elisa	86.33	187	*d*P	P	02 23 53.8	-2.4
	comp=Z,2.2nm,0.7s						
GYA	Guiyang	86.55	300	⇑P	P	02 23 58.3	+0.3
GYA				pmax	pmax		
	comp=Z,13nm,1.1s						
GYA				pmax	pmax		
	comp=Z,160nm,5.4s						
GYA				LR	LR		
	comp=N,210nm,16.5s						
GYA				LR	LR		
	comp=E,190nm,17.2s						
GYA				LR	LR		
	comp=Z,250nm,18.5s						
PLID	Pearl Lake	86.61	39	P	P	02 23 59.0	+1.0
PLID				IAmb	IAmb	02 23 59.4	
	comp=Z,6.7nm,0.8s						
VHRN	Van Horn	87.05	56	P	P	02 24 02.0	+1.8
VHRN				IAmb	IAmb	02 24 03.2	
	comp=Z,11nm,0.9s						
TXAR	Lajitas Array	87.45	57	P	P	02 24 03.5	+1.4
	comp=Z,5.9nm,0.9s,baz=219,slow=6.7,SNR=39						
	comp=Z,5.9nm,0.9s						
TXAR	Lajitas Array	87.45	57	P	P	02 24 04.1	+2.0
BSUT	Blindstream Ca	87.47	45	P	P	02 24 03.7	+1.3
HWUT	Hardware Ranch	87.49	44	P	P	02 24 03.0	+0.9
	comp=Z,3.0nm,1.3s						
MENT	Mentasta	87.78	15	P	P	02 24 03.3	+0.5
TPB28		87.81	55	P	P	02 24 05.2	+1.5
TPB28				IAmb	IAmb	02 24 06.4	
	comp=Z,4.9nm,1.0s						
MLY	Manley	88.13	11	P	P	02 24 03.5	-0.8
MLY				IAmb	IAmb	02 24 04.4	
	comp=Z,9.2nm,0.6s						
BCAR	Beaver Creek A	88.37	16	P	P	02 24 05.4	-0.2
COLA	College	88.54	12	P	P	02 24 05.5	-0.7
ILAR	Eielson Array	88.65	13	P	P	02 24 06.0	-0.7
	comp=Z,3.9nm,0.4s,baz=217,slow=5.2,SNR=60						
ILAR				PP	PP	02 27 45.5	-1.2
	comp=Z,0.5nm,0.8s,baz=216,slow=7.6,SNR=5.1						
	comp=Z,3.9nm,0.4s						
ILAR	Eielson Array	88.65	13	P	P	02 24 05.7	-1.1
HILR	Hailar Array B	88.92	325	P	P	02 24 09.0	+0.6
	comp=Z,3.4nm,0.6s,baz=118,slow=8.6,SNR=8.7						
	comp=Z,3.4nm,0.6s						
O20A	White River Ci	88.96	46	P	P	02 24 10.4	+1.3
O20A				IAmb	IAmb	02 24 11.2	
	comp=Z,6.7nm,1.0s						
KMI2	Kunming	89.23	297	P	P	02 24 12.8	+2.1
KMI2				pmax	pmax		
	comp=Z,11nm,0.5s						
HHC	Hu-ho-hao-te	89.35	314	*e*P	P	02 24 11.9	+1.2
HHC				pmax	pmax		
	comp=Z,7.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,99nm,5.5s						
PDAR	Pinedale Array	89.36	43	P	P	02 24 11.7	+0.8
	comp=Z,6.2nm,0.7s,baz=211,slow=3.4,SNR=70						
	comp=Z,6.2nm,0.7s						

PDAR	Pinedale Array	89.36	43	P	P	02 24 11.5	+0.6
CMAR	Chiang Mai Arr	89.94	290	P	P	02 24 14.4	+0.6
	comp=Z,2.8nm,0.7s,baz=124,slow=2.9,SNR=21						
	comp=Z,2.8nm,0.7s						
CHTO	Chiang Mai	90.08	290	P	P	02 24 15.7	+1.3
K29M	Barlow Dome	90.13	17	P	P	02 24 14.8	+1.0
K29M				IAmb	IAmb	02 24 15.5	
	comp=Z,9.8nm,0.8s						
PZH	PanZhiHua	90.59	298	P	P	02 24 16.9	+0.1
I28M	Miner Creek	90.80	15	P	P	02 24 16.8	-0.1
I28M				IAmb	IAmb	02 24 17.8	
	comp=Z,4.9nm,0.7s						
LZH	Lanzhou	92.72	308	eP	P	02 24 29.5	+3.1
LZH				sP	sP	02 27 25.8	-3.1
LZH				pmax	pmax		
	comp=Z,17nm,1.0s						
RSSD	Black Hills	93.55	44	P	P	02 24 30.6	+0.5
	comp=Z,4.9nm,1.2s						
ZALV	Zalesovo Beam	110.54	321	PKiKP	PKiKP	02 29 41.0	-1.0
	comp=Z,1.3nm,0.7s,baz=139,slow=1.2,SNR=5.7						
ZALV	Zalesovo Beam	110.54	321	PKiKP	PKiKP	02 29 40.8	-1.3
MKAR	Makanchi Array	111.19	313	PKiKP	PKiKP	02 29 43.0	-0.6
	comp=Z,1.1nm,0.7s,baz=65,slow=1.9,SNR=5.7						
MKAR	Makanchi Array	111.19	313		PKiKP	02 29 42.8	-0.8
KURBB	Kurchatov Arra	114.06	317	PKiKP	PKPdf	02 29 47.7	-1.2
	comp=Z,1.6nm,0.2s,baz=93,slow=1.7,SNR=10						
BVAR	Borovoye Array	119.11	320	PKP	PKPdf	02 29 58.3	-0.3
	comp=Z,3.6nm,0.3s,baz=69,slow=2.0,SNR=14						
BVAR				SKP	SKPdf	02 32 42.8	+3.2
	comp=Z,0.4nm,0.4s,baz=349,slow=3.0,SNR=3.8						
KK31	Karatay Array	119.20	309	PKPdf	PKPdf	02 29 58.2	-0.8
KKAR	Karatay Array	119.20	309	PKPdf	PKPdf	02 29 58.0	-1.1
SPITS	Spitsbergen Ar	122.13	356	PKP	PKiKP	02 30 04.0	0.0
	comp=Z,12nm,1.0s,baz=53,slow=4.7,SNR=2.5						
GBN	Guysborough	123.19	49	PKPdf	PKiKP	02 30 06.8	-0.1
ARTI	Arti	125.38	325		PKPdf	02 30 10.1	-0.4
AB31	Akbulak array	126.10	316	PKPdf	PKPdf	02 30 11.8	-0.2
ARCES	ARCESS Array B	129.15	349	PKP	PKPdf	02 30 17.6	+0.3
	comp=Z,1.7nm,0.4s,baz=57,slow=1.2,SNR=24						
ARCES	ARCESS Array B	129.15	349	PKPdf	PKPdf	02 30 16.6	-0.7
FINES	FINESS Array B	135.96	343	PKhKP	PKPpre	02 30 19.0	
	comp=Z,2.5nm,0.9s,baz=57,slow=5.1,SNR=6.4						
FINES				PKP	PKPdf	02 30 29.2	-1.1
	comp=Z,5.9nm,1.0s,baz=20,slow=2.2,SNR=7.0						
FINES				SKPbc	SKiKP	02 33 11.3	-2.3
	comp=Z,4.1nm,0.8s,baz=72,slow=6.2,SNR=5.8						
NC303	NORSAR Array S	139.03	353	PKPdf	PKiKP	02 30 38.4	0.0
NB2	NORSAR Subarra	139.23	353	PKP	PKPpre	02 30 28.2	
	comp=Z,1.3nm,0.9s,baz=16,slow=3.2						
NB2				SKPa		02 33 21.0	
	comp=Z,0.8nm,0.7s,baz=11,slow=2.9						
NOA	NORSAR Array B	139.23	353	PKhKP	PKPpre	02 30 28.0	
	comp=Z,1.1nm,0.7s,baz=17,slow=2.6,SNR=4.8						
NOA				PKP	PKiKP	02 30 37.8	-1.1
	comp=Z,0.6nm,0.5s,baz=14,slow=4.0,SNR=3.4						
NOA				SKPbc	SKiKP	02 33 20.3	-0.2
	comp=Z,1.9nm,0.9s,baz=17,slow=4.2,SNR=3.7						
HFS	Hagfors	139.77	351	PKhKP	PKPpre	02 30 29.4	
	comp=Z,2.5nm,0.3s,baz=48,slow=2.2,SNR=24						
STRU	Stroemstad	141.18	352	iP	PKPdf	02 30 34.8	-5.1
TJOU	Tjoern	142.10	351	iP	PKPdf	02 30 37.2	-4.3
HOMB	Homborsund	142.23	354	iP	PKPdf	02 30 38.2	-3.5
SNART	Snartemo	142.28	355	iP	PKPdf	02 30 38.9	-3.0
ONAU	Onsala	142.67	351	iP	PKPdf	02 30 39.5	-3.0
FABU	Falkenberg	142.93	350	iP	PKPdf	02 30 40.7	-2.3
SUW	Suwalki	143.00	339	ePKP	PKPbc	02 30 41.7	+0.2
BLEU	Blekinge	143.00	347	iP	PKPab	02 30 40.1	-0.7
AKASG	Malin Array Be	143.12	331	PKhKP	PKPpre	02 30 41.2	
	comp=Z,12nm,0.4s,baz=44,slow=4.3,SNR=101						
AKASG	Malin Array Be	143.12	331	PKPpre	PKPpre	02 30 40.1	
AKBB	Malin Array Si	143.12	331	PKPpre	PKPpre	02 30 41.1	
DEL	Delary	143.23	349	iP	PKPab	02 30 41.5	-0.3
ARPR	Arapgir-MALATY	143.69	308	PKPdf	PKPdf	02 30 45.3	+0.1
MUD	Monsted U'grnd	143.95	353	iP	PKPdf	02 30 44.6	-0.2
LUNU	Lund	144.10	349	iP	PKPbc	02 30 44.4	-0.3
COP	Copenhagen	144.23	350	iP	PKPdf	02 30 45.4	+0.1
BSD	Bornholm Skovb	144.30	347	iP	PKPab	02 30 45.7	-0.1
LLD	Lille Linde	144.61	350	iP	PKPab	02 30 46.9	-0.1
BAL3X	Bal3x, Balta	144.80	327	PKP	PKPbc	02 30 46.9	-0.3
SORM	Soroca	145.30	328	⇓P	PKPbc	02 30 48.2	-0.4
SORM	Soroca	145.30	328	PKP	PKPbc	02 30 48.2	-0.4
EKA	Eskdalemuir Ar	145.31	5	PKPbc	PKPbc	02 30 48.2	-0.3
	comp=Z,7.3nm,0.7s,baz=325,slow=2.8,SNR=15						
GKP	Gorka Klasztor	145.44	344	ePKP	PKPbc	02 30 49.3	+0.4
PURM	Purcari	145.56	325	⇓P	PKPbc	02 30 49.4	0.0
PURM	Purcari	145.56	325	PKP	PKPbc	02 30 49.6	+0.2
BNN	Bunyan	145.59	309	PKPdf	PKPbc	02 30 50.0	0.0
BEL	Belsk	145.62	339	ePKP	PKPab	02 30 50.8	-0.3
KMPD	K-Podol'skiy	145.91	330	PKP	PKPbc	02 30 49.4	-0.9
KWP	Kalwaria Pacla	146.72	335	ePKP	PKPbc	02 30 53.4	+0.8
BR131	Keskin Array S	146.82	312	PKPbc	PKPbc	02 30 52.7	-0.7
BRTR	Keskin Array B	146.82	312	PKPbc	PKPbc	02 30 53.0	-0.3
	comp=Z,4.4nm,0.7s,baz=134,slow=3.6,SNR=27						
KIRS	Kirsehir-Merke	146.87	311	⇑P	PKPbc	02 30 52.6	-0.8
VLDR	Vladesti	146.95	325	⇑P	PKPbc	02 30 53.1	-0.2
TLCR		146.97	324	⇑P	PKPbc	02 30 52.3	-1.0
DSB	Dublin	147.00	9	PKPbc	PKPbc	02 30 53.5	+0.3
GHRR		147.17	326	⇓P	PKiKP	02 30 55.2	-0.3
BURAR	Bucovina Array	147.17	330		PKPbc	02 30 54.7	+0.7
BURAR	Bucovina Array	147.17	330	⇓P	PKiKP	02 30 55.1	-0.6
BIZ	Bicaz	147.23	328	⇓P	PKiKP	02 30 55.1	-0.6
TESR	Tescani	147.25	327	⇓P	PKPbc	02 30 54.4	+0.3
OJC	Ojcow	147.32	338	ePKP	PKiKP	02 30 55.1	-0.6
CFR	Carcaliu	147.35	324	⇑P	PKPbc	02 30 54.8	+0.5
TPGR	Topolog	147.40	324	⇓P	PKPbc	02 30 55.2	+0.7
KOLS	Kolonicke sedl	147.45	334	ePKP	PKiKP	02 30 55.5	-0.6
KOLS				e		02 30 58.8	
STHS	Stebnicka Huta	147.46	336	ePKP	PKPab	02 30 58.9	+0.3
ONER	Baraj Valea Uz	147.50	327	⇓P	PKiKP	02 30 55.7	-0.6
VRI	Vrincioaia	147.65	326	⇑P	PKPbc	02 30 54.4	-0.8
PLOR	Plostina	147.70	327	⇑P	PKPbc	02 30 55.4	+0.1
MMAI	Mount Meron Ar	147.71	299	PKPbc	PKiKP	02 30 56.9	-0.3
	comp=Z,8.6nm,0.7s,baz=34,slow=9.1,SNR=16						
SAHR	Sahastru	147.76	326	⇑P	PKiKP	02 30 56.3	-0.6
HARR	Harsova	147.77	324	⇑P	PKPbc	02 30 56.1	+0.7
TLBR	Topalu	147.80	323	⇑P	PKPbc	02 30 56.1	+0.6
NIE	Niedzica	147.81	337	ePKP	PKiKP	02 30 56.8	-0.1
KSP	Ksiaz	147.88	343	ePKP	PKiKP	02 30 56.8	-0.1
COVR	Voineasa-Covas	147.93	327	⇓P	PKPbc	02 30 56.2	+0.3
MANR	Mangalia	147.94	322	⇑P	PKiKP	02 30 56.7	-0.5
BOSR	Bodos	148.05	328	⇑P	PKiKP	02 30 57.0	-0.4
OSTC	Ostas	148.16	342	⇑ePKP	PKiKP	02 30 56.9	-0.6
UPC	Upice	148.26	343	⇑ePKP	PKiKP	02 30 57.5	-0.2
UPC				ePKPAB	PKPab	02 31 03.0	+1.2
DOPR	Dopca	148.26	328	⇑P	PKiKP	02 30 58.0	+0.2
CLL	Collm	148.27	346	⇓iPKPbc	PKPbc	02 30 56.9	+0.4
	comp=Z,29nm,0.8s						
CLL				⇑iPKPab	PKPab	02 31 01.6	-0.2
	comp=Z,17nm,0.8s						
CLL				epPKPab	pPKPbc	02 33 08.0	-1.0
MLR	Muntele Rosu	148.31	327	PKPbc	PKPbc	02 30 56.9	-0.1
MLR	Muntele Rosu	148.31	327	⇓P	PKPbc	02 30 57.1	+0.2
DPC	Dobruska-Polom	148.31	342	⇑ePKP	PKiKP	02 30 57.6	-0.3
DPC				ePKPAB	PKPab	02 31 03.2	+1.1
LANS	Liptovska Anna	148.34	338	ePKP	PKiKP	02 30 58.3	+0.3
LANS				e		02 31 03.5	
KRLC	Kraliky	148.42	341	⇑ePKP	PKiKP	02 30 57.7	-0.4
KRLC				ePKPAB	PKPab	02 31 03.4	+0.9
MORC	Moravsky Berou	148.45	340	ePKP	PKiKP	02 30 57.9	-0.3
MORC				e		02 31 03.2	
MORC	Moravsky Berou	148.45	340	⇑P	PKPbc	02 30 57.1	+0.1
VOIR		148.80	327	⇓P	PKiKP	02 30 58.8	-0.3
MARR	Marisel-Cluj	148.83	331	⇑P	PKiKP	02 30 58.9	-0.2
DRGR		148.92	331	⇓P	PKPbc	02 30 58.8	+0.4
ARR	Arges	149.06	328	⇓P	PKPdf	02 30 56.1	+2.3
VYHS	Vyhne	149.12	338	ePKP	PKiKP	02 30 59.4	-0.1
VYHS				e		02 31 06.3	
PRU	Pruhonice	149.13	344	⇑ePKP	PKiKP	02 30 59.4	-0.1
PRU				ePKPAB	PKPab	02 31 06.5	+1.1
VRAC	Vranov	149.16	341	ePKP	PKiKP	02 30 59.7	+0.1
VRAC				e		02 31 06.3	
PSZ	Piszkesteto	149.20	336	⇑P	PKiKP	02 30 59.8	0.0
JAVC	Velka Javorina	149.20	339	ePKP	PKiKP	02 31 00.7	+0.9
NKC	Novy Kostel	149.41	346	⇑ePKP	PKiKP	02 31 00.1	0.0
NKC				ePKPAB	PKPab	02 31 07.0	+0.4
LOT	Lotru	149.43	329	⇑P	PKiKP	02 31 00.2	-0.2
KRUC	Moravsky	149.44	341	ePKP	PKiKP	02 31 00.0	-0.2
KRUC				e		02 31 06.9	
KEPZ	Antalya-Kepez	149.44	308	⇑P	PKPbc	02 30 59.0	-0.9
HUMR	Humele	149.47	326	⇑P	PKPbc	02 30 59.6	0.0
TREC	Trest	149.50	342	⇑ePKP	PKPbc	02 30 59.9	+0.3
DEV	Deva	149.52	330	⇑P	PKiKP	02 31 00.4	-0.1
BOPT	Opiter	149.57	355	dPKP	PKiKP	02 31 00.2	-0.1
ZVC	Zvikov	149.72	344	⇑ePKP	PKiKP	02 31 00.8	+0.1
ZVC				ePKPAB	PKPab	02 31 08.6	+0.7
MODS	Modra-Piesok	149.76	339	ePKP	PKiKP	02 31 01.5	+0.6
MODS				e		02 31 09.2	
GZR	Gura Zlata	149.94	330	⇓P	PKPbc	02 31 00.8	0.0
ZST	Bratislava	149.97	339	ePKP	PKPab	02 31 09.5	+0.6
MEM	Membach	150.04	354	dPKPdf	PKPdf	02 30 56.0	+0.9
MEM				dPKP	PKPbc	02 31 01.0	+0.2
BSKQ	Steenkerk	150.14	357	dPKP	PKiKP	02 31 01.7	+0.2
KHC	Kasperske Hory	150.16	344	⇑ePKP	PKiKP	02 31 01.8	+0.1
KHC				ePKPAB	PKPab	02 31 10.7	+0.9
KHC	Kasperske Hory	150.16	344	PKPbc	PKiKP	02 31 01.6	-0.1
BAND	Balkesir-Ban	150.23	317	⇑P	PKPbc	02 30 59.9	-1.7
CKRC	Cesky Krumlov	150.26	343	⇑ePKP	PKiKP	02 31 02.0	+0.1
CKRC				ePKPAB	PKPab	02 31 10.0	-0.2
BZS	Buzias	150.31	331	⇓P	PKPbc	02 30 59.8	-1.8
GERES	GERESS Array B	150.40	344	PKPbc	PKiKP	02 31 02.6	+0.3
	comp=Z,6.6nm,0.6s,baz=245,slow=2.8,SNR=17						
GERES				PKPab	PKPab	02 31 11.3	+0.5
	comp=Z,2.2nm,0.6s,baz=26,slow=3.4,SNR=7.9						
GERES	GERESS Array B	150.40	344		PKPbc	02 31 01.6	-0.2
GERES					PKPab	02 31 10.6	-0.3
BMRD	Maredsous	150.44	356	dPKP	PKiKP	02 31 02.1	-0.1
HERR	Herculane	150.49	329	⇓P	PKPbc	02 31 02.1	+0.1
RCHB	Rochefort	150.56	355	dPKP	PKiKP	02 31 02.4	0.0
CONA	Conrad Observa	150.60	340	iPKP	PKiKP	02 31 02.8	+0.1
	comp=Z,11nm,0.7s,SNR=6.9						
CONA				iPKP	PKPab	02 31 12.8	+1.1
	comp=Z,11nm,1.3s						
DOU	Dourbes	150.66	356	dPKP	PKiKP	02 31 02.9	+0.3
RONA	Rosalia, Austr	150.67	340	iPKP	PKiKP	02 31 02.8	0.0
	comp=Z,11nm,0.5s,SNR=9.1						
RONA				iPKP	PKPab	02 31 12.7	+0.7
	comp=Z,8.8nm,0.9s						
MDVR	Moldovita	150.90	330	⇓P	PKPbc	02 31 02.9	-0.2
WLF	Walferdange	150.97	354	dPKP	PKiKP	02 31 03.9	+0.6
MORH	Mrgy, Hungar	151.09	335	⇑P	PKiKP	02 31 03.7	+0.1
TAVA	DENIZLI_Tavas	151.14	311	⇓P	PKiKP	02 31 04.5	+0.3
MOA	Molln	151.15	342	iPKP	PKPbc	02 31 03.5	+0.1
	comp=Z,3.5nm,0.5s						
MOA				iPKP	PKPab	02 31 14.7	+0.7
	comp=Z,5.3nm,0.9s						
ALN	Alexandroupoli	151.20	320	PKPbc	PKPbc	02 31 03.1	-0.6
ARSA	Arzberg	151.31	340	iPKP	PKPbc	02 31 03.7	-0.1
	comp=Z,3.5nm,0.9s						
BIOA	Bad Ischl, Aus	151.47	343	iPKP	PKPbc	02 31 04.1	-0.1
	comp=Z,2.3nm,0.4s						
BIOA				iPKP	PKPab	02 31 16.0	+0.7
	comp=Z,13nm,1.1s						
SESA	Seetaler Alpe,	151.73	341	iPKP	PKPbc	02 31 04.6	-0.4
	comp=Z,28nm,0.7s,SNR=9.4						
SESA				iPKP	PKPab	02 31 17.3	+0.7
	comp=Z,30nm,1.0s						
BOVS	Bovan	151.76	328	⇓P	PKiKP	02 31 05.0	-0.1
LESA	Schwarzleotal	151.97	344	iPKP	PKPbc	02 31 05.2	-0.1
	comp=Z,3.8nm,0.5s						
LESA				iPKP	PKPab	02 31 18.0	+0.4
	comp=Z,11nm,1.2s						
SOKA	Soboth	151.97	340	iPKP	PKPbc	02 31 05.1	-0.3
	comp=Z,5.1nm,0.9s						
SOKA				iPKP	PKPab	02 31 17.7	+0.1
	comp=Z,5.5nm,1.1s						
PERS	Pernice	151.98	340	iPKPbc	PKPbc	02 31 05.2	-0.2
BFO	Black Forest	152.00	351		PKPbc	02 31 04.3	-1.1
BFO				PKPab	PKPab	02 31 17.0	-0.5
KBA	Koelnbreinsper	152.11	343	iPKP	PKPbc	02 31 05.3	-0.5
	comp=Z,6.5nm,0.9s						
KBA				iPKP	PKPab	02 31 17.1	-1.2
	comp=Z,4.4nm,0.8s						
OBKA	Obir	152.28	341	iPKP	PKPbc	02 31 05.6	-0.5
	comp=Z,6.1nm,1.2s						
OBKA				iPKP	PKPab	02 31 17.7	-1.1
	comp=Z,5.5nm,1.1s						
WATA	Walderalm	152.33	345	iPKP	PKPbc	02 31 06.2	0.0
	comp=Z,5.1nm,0.6s						
WATA				iPKP	PKPab	02 31 19.4	+0.3
	comp=Z,15nm,1.3s						
RETA	Reutte	152.37	347	iPKP	PKPbc	02 31 06.3	0.0
	comp=Z,3.0nm,0.7s						
RETA				iPKP	PKPab	02 31 19.3	+0.1
	comp=Z,7.3nm,0.9s						
WTTA	Wattenberg	152.38	345	iPKP	PKiKP	02 31 06.6	0.0
	comp=Z,5.8nm,0.4s						
WTTA				iPKP	PKPab	02 31 19.8	+0.5
	comp=Z,6.3nm,0.6s						
MOTA	Moosalm	152.43	346	iPKP	PKPbc	02 31 06.4	-0.1
	comp=Z,8.4nm,0.9s						
MOTA				iPKP	PKPab	02 31 19.7	+0.2
	comp=Z,6.3nm,0.9s						
MYKA	Terra Mystica	152.44	342	iPKP	PKPbc	02 31 05.7	-0.7
	comp=Z,3.2nm,0.5s						
MYKA				iPKP	PKPab	02 31 19.1	-0.5
	comp=Z,6.6nm,0.9s						
SQTA	Sankt Quirin	152.52	346	ePKP	PKiKP	02 31 06.8	0.0
	comp=Z,7.5nm,0.7s						
SQTA				iPKP	PKPab	02 31 20.2	+0.3
	comp=Z,5.0nm,0.8s						
ABTA	Abfaltersbach	152.64	344	iPKP	PKPbc	02 31 06.2	-0.6
	comp=Z,10nm,0.7s,SNR=5.1						
ABTA				iPKP	PKPab	02 31 20.2	-0.2
	comp=Z,4.9nm,0.7s						
LJU	Ljubljana	152.70	340	iPKPbc	PKPbc	02 31 06.8	-0.1
DAVA	Damuels	152.74	348	iPKP	PKiKP	02 31 08.2	+1.0
	comp=Z,6.7nm,1.3s						
DAVA				iPKP	PKPab	02 31 20.9	0.0
	comp=Z,7.4nm,0.9s						
CRNS	Crni Vrh	152.75	341	iPKPbc	PKPbc	02 31 06.7	-0.4
FETA	Feichten	152.81	346	iPKP	PKiKP	02 31 07.6	+0.2
	comp=Z,4.2nm,0.6s						
FETA				iPKP	PKPab	02 31 21.5	+0.3
	comp=Z,5.5nm,1.0s						
STAL	STALIGIAL	153.04	343	PKPbc	PKPbc	02 31 06.6	-1.1
ESDC	Sonseca Array	160.56	13	PKPab	PKPab	02 31 55.3	+0.5
	comp=Z,3.0nm,1.0s,baz=348,slow=4.3,SNR=17						
ESDC	Sonseca Array	160.56	13		PKPab	02 31 55.1	+0.3
KEST	Kesra	163.67	337	PKPab	PKPab	02 32 08.8	+0.2
	comp=Z,3.4nm,0.8s,baz=46,slow=5.8,SNR=4.0						
TORD	Torodi Ar. Bea	172.41	180	PKP	PKPdf	02 31 18.6	-0.4
	comp=Z,2.1nm,1.0s,baz=25,slow=1.5,SNR=5.9						
TORD				PKPab	PKPab	02 32 48.4	+0.9
	comp=Z,0.7nm,0.9s,baz=220,slow=5.9,SNR=1.4						

MAN ***14*** *02:18:28.0, 9°.38N×127°.28E, h5^{km}, MS3.9*
IDC ***14*** *02:18:31.4±0.8, 9°.15N×126°.56E, h0^{km}, mb4.0/13, mbtmp4.0/14, ML4.2/1, MS3.0/4, Error ellipse: s-maj=31.4km s-min=13.2km az=89.0*
NEIC ***14*** *02:18:34.2±2.2, 9°.23N±0°.09×126°.5E±0°.2, h13^{km}±5^{km}, mb4.5/23, Error ellipse: s-maj=28.4km s-min=13.1km az=93.0*
ISC 14 02:18:34.6±1.0**, 9°.18N**±0°.03×**126°.71E**±0°.07**, h22**^{km}±8^{km}**,**
n64, σ2^s.01/72**, mb4.3**/26**, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GLSP	General Luna,	0.83	316	iP	Pn	02 18 51.3	+0.2
GLSP				eS	Sn	02 19 05.0	+2.4
CDOP	Cateel, Davao	1.42	191	iP	Pb	02 19 02.1	+1.7
CDOP				iS	Sb	02 19 18.1	0.0
BUKP	Musuan	2.08	232	eP	Pb	02 19 13.1	+1.2
BUKP				iS	Sb	02 19 41.3	+4.0
CGP	Cagayan de Oro	2.12	250	iP	Pb	02 19 13.1	+0.6
CGP				iS	Sb	02 19 43.2	+4.8
DAV	Davao City (W)	2.38	208	Pn	Pn	02 19 11.2	-1.2
	61nm,0.3s,baz=193,slow=3.5,SNR=1.4						
DAV				Sn	Sn	02 19 36.3	-4.6
	19nm,0.3s,baz=75,slow=18,SNR=3.8						
DAV				LR	LR	02 19 38.2	
	comp=Z,87nm,19.4s,baz=75,slow=29						
	88nm,0.3s						
DAV				AML	AML		
DAV	Davao City (W)	2.38	208	Pn	Pn	02 19 12.4	0.0
DAV	Davao City (W)	2.38	208	P	Pb	02 19 18.0	+1.1
PLP	Palo	2.61	319	eP	Pn	02 19 16.4	+1.0
PLP				eS	Sb	02 19 49.9	-2.5
KCP	Kidapawan	2.69	217	eP	Pn	02 19 08.6	-8.1
KCP	Kidapawan	2.69	217	eP	Pn	02 19 10.4	-6.3
KCP				iS	Sb	02 19 55.8	+0.9
TBP	Tagbilaran	2.86	280	eP	Pb	02 19 22.4	-2.6
TBP				eS	Sb	02 20 02.2	+2.6
LLP	Lapu-Lapu	2.93	293	eP	Pb	02 19 23.4	-2.9
LLP				iS	Sb	02 20 08.3	+6.6
LSIP	Lazi, Siquijor	3.04	269	iP	Pb	02 19 25.4	-2.7
LSIP				iS	Sn	02 19 53.1	-4.2
CTBH	Cotabato--PC H	3.12	232	iP	Pb	02 19 27.5	-2.1
DDMP	Don Marcelino,	3.22	198	eP	Pb	02 19 27.7	-3.4
DDMP				eS	Sb	02 20 06.8	-3.1
MECP	Medelin, Cebu	3.34	306	eP	Pb	02 19 28.9	-4.3
MECP				eS	Sb	02 20 18.6	+5.2
SNPH	Sibulan	3.44	273	eP	Pb	02 19 33.1	-1.8
SNPH				eS	Sb	02 20 19.8	+3.5
PAGZ	Pagadian	3.55	248	iP	Pb	02 19 35.0	-1.9
PAGZ				iS	Sn	02 20 07.2	-2.6
TPUB	Ta-pu	15.20	338	P	P	02 22 10.4	-2.5
GUMO	Guam	18.32	74	LR	LR	02 29 20.7	
	comp=Z,46nm,21.0s,baz=98,slow=35						
KNRA	Kununurra	24.78	175	P	P	02 23 55.5	+0.4
KNRA				IAmb	IAmb	02 24 10.6	
	comp=Z,11nm,1.5s						
FITZ	Fitzroy Crossi	27.13	182	P	P	02 24 16.2	-0.1
	comp=Z,2.7nm,0.8s,baz=14,slow=8.3,SNR=2.1						
	comp=Z,2.7nm,0.8s						
MJAR	Matsushiro Arr	29.17	19	LR	LR	02 35 59.4	
	comp=Z,42nm,19.5s,baz=226,slow=36						
WB0	Warramunga Arr	29.75	165	P	P	02 24 39.1	-0.6
WRA	Warramunga Arr	29.90	165	P	P	02 24 40.4	-0.7
	comp=Z,0.5nm,0.5s,baz=350,slow=9.3,SNR=3.8						
	comp=Z,0.5nm,0.5s						
WRA	Warramunga Arr	29.90	165	P	P	02 24 39.3	-1.7
WR8	Warramunga Arr	29.95	165	P	P	02 24 41.1	-0.3
WR8				IAmb	IAmb	02 24 41.7	
	comp=Z,10nm,1.5s						
ASAR	Alice Springs	33.40	168	P	P	02 25 12.4	+0.7
	comp=Z,0.6nm,0.5s,baz=357,slow=6.9,SNR=7.6						
	comp=Z,0.6nm,0.5s						
MORW	Morawa	39.40	195	P	P	02 26 03.7	+0.8
MORW				IAmb	IAmb	02 26 09.8	
	comp=Z,26nm,1.4s						
FORT	Forrest	39.75	178	P	P	02 26 07.2	+1.3
HILR	Hailar Array B	40.66	353	P	P	02 26 14.3	+1.1
	comp=Z,0.4nm,0.3s,baz=158,slow=12,SNR=1.8						
	comp=Z,0.4nm,0.3s						
SONM	Songino Array	42.18	340	P	P	02 26 26.4	+0.6
	comp=Z,0.8nm,0.5s,baz=156,slow=11,SNR=4.2						
	comp=Z,0.8nm,0.5s						
SONM	Songino Array	42.18	340	P	P	02 26 26.4	+0.6
BBOO	Buckleboo	42.70	168	P	P	02 26 30.9	+0.8
BBOO				IAmb	IAmb	02 26 32.5	
	comp=Z,11nm,1.1s						
PETK	Petropavlovsk-	50.45	24	P	P	02 27 31.0	+0.4
	comp=Z,1.5nm,0.7s,baz=232,slow=7.4,SNR=1.8						
	comp=Z,1.5nm,0.7s						
MKAR	Makanchi Array	53.15	323	P	P	02 27 51.1	+0.2
	comp=Z,1.5nm,0.7s,baz=126,slow=8.0,SNR=13						
	comp=Z,1.5nm,0.7s						
MKAR	Makanchi Array	53.15	323	P	P	02 27 51.0	+0.1
PDGK	Podgornoye	53.29	318	P	P	02 27 51.6	-0.5
ZALV	Zalesovo Beam	55.78	331	P	P	02 28 09.3	-0.6
	comp=Z,1.0nm,0.6s,baz=134,slow=6.2,SNR=2.4						
	comp=Z,1.0nm,0.6s						
ARSB	Arslanbob	57.03	314	P	P	02 28 19.0	-0.2
ARSB				IAmb	IAmb	02 28 19.6	
	comp=Z,2.0nm,0.5s						
KURK	Kurchatov	57.21	326	P	P	02 28 19.0	-1.1
KURBB	Kurchatov Arra	57.21	326	P	P	02 28 19.4	-0.7
	comp=Z,1.8nm,0.5s,baz=124,slow=6.8,SNR=13						
	comp=Z,1.8nm,0.5s						
MSVF	Nonsavu	57.32	118	LR	LR	02 49 50.1	
	comp=Z,55nm,21.7s,baz=158,slow=33						
KK31	Karatay Array	59.32	315	P	P	02 28 34.2	-0.8
KK31				IAmb	IAmb	02 28 35.2	
	comp=Z,1.9nm,0.7s						
KKAR	Karatay Array	59.32	315	P	P	02 28 33.9	-1.2
BVAR	Borovoye Array	62.80	326	P	P	02 28 58.1	-0.4
	comp=Z,1.4nm,0.7s,baz=138,slow=7.8,SNR=7.8						
	comp=Z,1.4nm,0.7s						
BORK	Borovoye	62.85	326	P	P	02 28 58.6	-0.1
BORK				IAmb	IAmb	02 28 59.1	
	comp=Z,3.0nm,0.7s						
ABKAR	Akbulak array	67.98	319	P	P	02 29 31.4	-0.6
ARTI	Arti	70.45	327	P	P	02 29 46.3	-0.9
J17K	VABM Dome	74.78	27	P	P	02 30 14.7	+1.9
K17K	Iditarod	75.01	27	P	P	02 30 15.5	+1.3
K17K				IAmb	IAmb	02 30 18.7	
	comp=Z,5.0nm,0.9s						
N19K	Bonanza Creek	76.58	30	P	P	02 30 25.2	+1.9
N19K				IAmb	IAmb	02 30 28.2	
	comp=Z,2.4nm,0.8s						
IMAR	Indian Mountai	77.41	24	P	P	02 30 29.0	+1.2
C23K	Itkillik River	78.91	21	P	P	02 30 36.9	+0.9
PWL	Port Wells	79.58	30	P	P	02 30 40.1	+0.2
PWL				IAmb	IAmb	02 30 42.9	
	comp=Z,4.7nm,0.9s						
ILAR	Eielson Array	80.22	26	P	P	02 30 44.4	+1.1
	comp=Z,0.3nm,0.5s,baz=257,slow=5.8,SNR=5.0						
	comp=Z,0.3nm,0.5s						
RIDG	Independent Ri	81.14	27	P	P	02 30 48.3	0.0
I27K	Kandik River	82.40	25	P	P	02 30 56.7	+1.8
I27K				IAmb	IAmb	02 31 00.1	
	comp=Z,6.8nm,1.3s						
BCAR	Beaver Creek A	82.57	27	P	P	02 30 58.1	+2.3
I28M	Miner Creek	83.11	25	P	P	02 31 00.8	+2.1
I28M				IAmb	IAmb	02 31 41.0	
	comp=Z,5.0nm,1.3s						
L29M	L29M	84.21	27	P	P	02 31 05.6	+1.4
L29M				IAmb	IAmb	02 31 47.3	
	comp=Z,4.2nm,1.1s						
ARCES	ARCESS Array B	85.36	340	P	P	02 31 10.4	+0.6
	comp=Z,1.7nm,0.6s,baz=80,slow=7.5,SNR=7.5						
	comp=Z,1.7nm,0.6s						
FINES	FINESS Array B	87.05	332	P	P	02 31 17.4	-0.9
	comp=Z,1.2nm,0.7s,baz=66,slow=5.0,SNR=4.1						
	comp=Z,1.2nm,0.7s						
TXAR	Lajitas Array	118.20	50	PKP	PKPdf	02 37 21.4	+0.5
	comp=Z,0.2nm,0.6s,baz=336,slow=3.3,SNR=1.9						

NIED ***14*** *02:22:34.4, 23°.98N×122°.37E, h27^{km}, MW3.8, Moment Tensor Solution. s2 Moment tensor: Scale 10^{14}Nm; M_{rr}2.01; $M_{\theta\theta}$0.43; $M_{\phi\phi}$-2.45; $M_{r\theta}$4.34; $M_{\theta\phi}$1.24; $M_{\phi r}$-0.44; Fault plane solution: $M_0$4.89000×10^{14} NP1:ϕ_s1.00000°, δ28.00000°, λ156.00000°. NP2:ϕ_s113.00000°, δ79.00000°, λ64.00000°.*
JMA ***14*** *02:22:34.4±0.1, 24°.0N±0°.9×122°.4E±0°.3, h27^{km}±3^{km}, MV3.7/16, TAIWAN REGION*
TAP ***14*** *02:22:35.1, 24°.08N×122°.36E, h31^{km}, ML3.9, C*
ISC 14 02:22:34.8±0.9**, 24°.00N**±0°.02×**122°.37E**±0°.02**, h33**^{km}±6^{km}**,**
n153, σ0^s.80/237**, 4D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EOS4	EOS4	0.13	338	iP	Pb	02 22 40.1	-0.2
EOS4				S	Sb	02 22 44.1	0.0
EOS3	EOS3	0.29	350	iP	Pb	02 22 41.9	-0.4
EOS3				iS	Sb	02 22 47.3	-0.1
EOS2	EOS2	0.44	343	eP	Pb	02 22 44.3	-0.1
EOS2				eS	Sn	02 22 51.3	-0.1
EHP	Heping Village	0.65	298	eP	Pb	02 22 47.8	-0.1
EAHA	Aohua	0.66	300	iP	Pn	02 22 48.2	+0.3
EAHA				eS	Sn	02 22 58.2	+1.1
JYNG	Yonagunijimaku	0.69	49	P	Pn	02 22 47.8	-0.5
JYNG				S	Sb	02 22 56.8	-1.1
EWUT	Wuta	0.70	309	eP	Pn	02 22 48.0	-0.4
ETL	Fush Village	0.70	283	eP	Pn	02 22 47.9	-0.6
ETL				eS	Sn	02 22 59.0	+0.8
TWD	Chiawan	0.71	277	⇓iP	Pn	02 22 48.0	-0.6
TWD				iS	Sb	02 22 58.1	-0.4
TEYL	Yanliau Villag	0.72	260	P	Pn	02 22 48.6	0.0
TEYL				iS	Sn	02 23 00.1	+1.5
NACB	Ninganchiao	0.73	284	P	Pn	02 22 48.4	-0.4
NACB	Ninganchiao	0.73	284	S	Sn	02 22 59.2	+0.3
NACB	Ninganchiao	0.73	284	⇓P	Pn	02 22 48.3	-0.4
NACB				eS	Sn	02 22 59.1	+0.3
NACB	Ninganchiao	0.73	284	P	Pn	02 22 48.5	-0.4
	comp=Z,635nm,0.7s						
YOJ	Yonaguni jima	0.74	52	P	Pn	02 22 48.8	-0.2
YOJ	Yonaguni jima	0.74	52	S	Sb	02 22 58.9	-0.4
YOJ	Yonaguni jima	0.74	52	iP	Pn	02 22 48.8	-0.2
YOJ				iS	Sb	02 22 59.1	-0.2
YOJ	Yonaguni jima	0.74	52	P	Pn	02 22 48.7	-0.2
YOJ				S	Sb	02 22 58.8	-0.5
ESAO	Su ao	0.75	320	eP	Pn	02 22 48.1	-0.9
ESAO				eS	Sb	02 22 58.4	-1.0
SHUL	Shoufeng	0.77	254	iP	Pn	02 22 49.4	0.0
SHUL				eS	Sn	02 23 01.0	+1.2
ETM	Tongmen	0.80	268	P	Pn	02 22 49.4	-0.5
ETM				S	Sn	02 23 00.5	-0.1

TEGC	Jichi Village	0.81	249	eP	Pn	02 22 50.1	+0.1
TEGC				eS	Sb	02 23 01.2	-0.1
ETLH	Xiulin Townshi	0.84	284	eP	Pn	02 22 50.2	-0.1
ETLH				eS	Sn	02 23 01.6	-0.1
NDS	Dongshan	0.87	317	eP	Pn	02 22 51.0	+0.2
NDS				eS	Sn	02 23 02.3	0.0
LXIB	Xiulin Townshi	0.88	272	P	Pn	02 22 50.5	-0.5
ESL	Shilin	0.88	258	iP	Pn	02 22 50.1	-0.7
ESL				iS	Sn	02 23 02.0	-0.4
EGS		0.93	335	iP	Pn	02 22 51.9	+0.4
EGS				iS	Sn	02 23 03.0	-0.8
LATG	Datong	0.94	305	iP	Pn	02 22 51.9	+0.1
LATG				eS	Sb	02 23 04.9	0.0
WARBT	Fenglin Townsh	0.94	253	⇓P	Pn	02 22 51.2	-0.5
WARBT				eS	Sn	02 23 04.2	0.0
ILA	Ilan	0.95	323	eS	Sb	02 23 05.9	+0.8
TWE	Neicheng	0.96	318	iP	Pn	02 22 52.4	+0.4
TWE				eS	Sn	02 23 04.5	-0.1
ENTT	Nioudou	0.97	311	eP	Pn	02 22 52.4	+0.2
ENTT				S	Sn	02 23 05.0	+0.1
NTC	Toucheng	0.98	330	eS	Sb	02 23 06.6	+0.5
NDT	Datong Townshi	0.99	308	eP	Pn	02 22 51.6	-0.7
NDT				S	Sb	02 23 06.2	0.0
NNSB	Datong	1.00	296	⇓P	Pn	02 22 52.6	0.0
NNSB				iS	Sn	02 23 05.9	+0.3
HGSD	Ruisui	1.00	240	eP	Pn	02 22 52.5	0.0
HGSD				eS	Sb	02 23 06.3	-0.4
NNS	Nan Shan	1.01	296	iP	Pn	02 22 52.9	+0.1
NNS				eS	Sn	02 23 06.2	+0.3
WHF	Hehuan Shan	1.02	278	iP	Pn	02 22 53.1	-0.1
WHF				iS	Sn	02 23 06.7	+0.1
FUSB	Fushanzhiwuyua	1.04	317	iP	Pn	02 22 53.7	+0.5
FUSB				S	Sb	02 23 07.2	-0.6
FUSS	Fushou	1.06	284	P	Pn	02 22 53.7	+0.1
FUSS				eS	Sn	02 23 06.9	-0.4
TWB1	Santiao Chiao	1.06	341	eP	Pn	02 22 53.2	-0.2
TWB1				iS	Sn	02 23 07.3	+0.2
EHYH	Wanrong	1.07	242	eP	Pn	02 22 54.1	+0.7
EHYH				S	Sb	02 23 08.3	-0.2
EHY	Hungye	1.08	243	eP	Pn	02 22 53.8	+0.2
EHY				eS	Sb	02 23 08.6	-0.3
ECBN	Changbin	1.08	231	P	Pn	02 22 54.0	+0.4
ECBN				iS	Sn	02 23 08.1	+0.5
TIPB	Shuangxi	1.09	333	P	Pb	02 22 54.8	-0.4
TIPB				S	Sn	02 23 07.4	-0.3
OWD	Renai	1.09	268	eP	Pn	02 22 54.0	+0.1
OWD				S	Sn	02 23 08.4	+0.4
NWLT	Wulai	1.11	315	P	Pb	02 22 54.8	-0.7
NWLT				S	Sb	02 23 09.0	-0.7
YHNB	Yeheng	1.13	306	P	Pn	02 22 54.6	+0.3
YHNB	Yeheng	1.13	306	S	Sb	02 23 09.5	-0.8
YHNB	Yeheng	1.13	306	P	Pn	02 22 54.1	-0.2
YHNB	Yeheng	1.13	306	eP	Pn	02 22 54.8	+0.4
YHNB				eS	Sb	02 23 10.4	+0.2
NSK	Sanguang	1.14	306	eP	Pn	02 22 55.0	+0.4
NSK				eS	Sb	02 23 10.0	-0.7
WUSB	Renai	1.15	270	iP	Pn	02 22 55.1	+0.4
WUSB				eS	Sb	02 23 10.2	-0.7
VWDT	VWDT	1.15	258	eP	Pn	02 22 55.2	+0.6
YULB	Yu-li	1.16	239	P	Pn	02 22 54.8	+0.2
YULB	Yu-li	1.16	239	S	Sn	02 23 09.6	+0.3
YULB	Yu-li	1.16	239	iP	Pn	02 22 54.9	+0.2
YULB				S	Sn	02 23 09.1	-0.2
EYUL	Yuli	1.16	236	eP	Pn	02 22 55.5	+0.7
EYUL				iS	Sb	02 23 10.7	-0.5
TWF1	Yuli	1.18	237	iP	Pn	02 22 55.3	+0.3
TWF1				eS	Sn	02 23 10.5	+0.6
SXI1	Grass Mountain	1.18	338	eP	Pn	02 22 54.8	-0.3
SXI1				eS	Sn	02 23 10.0	0.0
WFSB	Wu-fen Shan	1.19	333	iP	Pn	02 22 55.3	+0.1
WFSB				iS	Sb	02 23 11.2	-0.9
CHKH	Chenggong	1.20	228	eP	Pn	02 22 55.1	-0.2
CHKH				eS	Sn	02 23 09.6	-0.9
TWA	Mucha	1.21	324	iP	Pb	02 22 56.9	-0.3
TWA				iS	Sb	02 23 12.2	-0.4
NHDH	Xindian Distri	1.23	321	eP	Pb	02 22 57.5	-0.1
TATO	Taipei	1.26	321	P	Pb	02 22 57.6	-0.5
TATO	Taipei	1.26	321	S	Sb	02 23 13.1	-0.9
TNOU	National Taiwa	1.27	335	eP	Pn	02 22 56.5	+0.3
FULB	Fuli	1.27	231	eP	Pn	02 22 56.3	0.0
FULB				eS	Sn	02 23 12.8	+0.6
IRIF	Iriomote-Funau	1.28	75	eP	Pn	02 22 57.1	+0.7
IRIF				eS	Sb	02 23 14.1	-0.6
CHKT	Chengkung	1.29	226	P	Pn	02 22 56.1	-0.3
TAP	Taipei	1.30	323	eS	Sb	02 23 14.7	-0.4
NFF	Wufeng Townshi	1.31	299	eP	Pb	02 22 58.1	-0.8
HATJ	Hateruma jima	1.31	87	eP	Pb	02 22 58.0	-0.9
SSLB	Suanglung	1.31	261	P	Pn	02 22 57.4	+0.5
SSLB	Suanglung	1.31	261	S	Sb	02 23 15.4	-0.1
SSLB	Suanglung	1.31	261	eP	Pn	02 22 57.6	+0.7
WHP	Taichung City	1.33	282	P	Pb	02 22 58.8	-0.5
WCS	Beigang Elemen	1.34	273	eP	Pn	02 22 58.0	+0.9
KSHI	Guanxi Townshi	1.34	306	eP	Pb	02 22 59.1	-0.2
KSHI				S	Sb	02 23 16.4	+0.3
SMLT	Sun Moon Lake	1.35	265	iP	Pn	02 22 58.3	+0.9
SMLT				eS	Sn	02 23 15.2	+0.9
YM01	YM01	1.35	328	eP	Pb	02 22 59.1	-0.6
EHD	Haiduan	1.36	232	P	Pn	02 22 57.7	+0.2
EHD				eS	Sn	02 23 14.8	+0.3
YM08	YM08	1.38	329	eP	Pn	02 22 58.5	+0.7
ECS	Chishang	1.39	230	eP	Pb	02 22 59.2	-1.0
ECS				eS	Sb	02 23 17.0	-0.7
TYC	Yuchr	1.39	266	eP	Pn	02 22 58.8	+0.9
LIOB	Emei	1.39	298	iP	Pb	02 22 59.6	-0.7
LIOB				eS	Sb	02 23 17.1	-0.7
YUS	Yu-Shan	1.40	249	eP	Pn	02 22 59.5	+1.1
NSTT	Nanjuang	1.40	297	eS	Sb	02 23 17.3	-0.6
TWS1	Kuangyinshan	1.40	322	eP	Pb	02 22 59.2	-1.1
TWS1				iS	Sb	02 23 17.5	-0.4
EDH	Donghe	1.42	224	eP	Pn	02 22 58.5	+0.3
EDH				S	Sn	02 23 15.3	-0.5
WHYT	Xinyi Township	1.42	258	eP	Pb	02 22 59.7	-1.1
NCUH	Zhongli	1.45	312	eS	Sb	02 23 19.2	-0.1
ELDTW	Lidau	1.48	237	eP	Pn	02 22 59.6	+0.3
ELDTW				S	Sn	02 23 17.2	-0.3
SBCB	Hsinchu	1.49	302	eS	Sb	02 23 21.3	+0.8
TWQ1	Liyutan	1.50	284	eP	Pb	02 23 01.6	-0.5
TWQ1				S	Sb	02 23 21.5	+0.7
HSN	Hsinchu	1.51	302	eS	Sb	02 23 19.8	-1.2
JKRS	Kuro-shima	1.52	81	eP	Pn	02 23 00.9	+1.3
ALS	Alishan	1.52	252	eP	Pb	02 23 01.9	-0.7
NMLH	Miaoli	1.54	291	eS	Sb	02 23 21.4	-0.5
TCU	Taichung	1.56	276	eS	Sb	02 23 23.5	+1.1
LDUT	Ludao	1.56	212	eS	Sn	02 23 18.7	-0.6
LONT	Longtian	1.58	227	iP	Pn	02 23 00.7	+0.2
LONT				iS	Sn	02 23 20.1	+0.4
CHN5	Tsauling	1.60	256	eP	Pb	02 23 02.7	-1.1
PCYT	Pengchaiyu	1.65	351	eP	Pn	02 23 01.3	-0.1
JIJ	Ishigaki jima	1.66	77	P	Pn	02 23 02.1	+0.5
JIJ				eS	Sn	02 23 23.0	+1.3
WCHH	Zhanghua	1.66	273	eP	Pb	02 23 03.4	-1.4
WCHH				eS	Sb	02 23 26.1	+0.7
WCH1	Changhua City	1.67	273	eS	Sb	02 23 26.4	+0.7
TWGBT	Beinan	1.67	225	P	Pn	02 23 02.2	+0.4
TWGBT	Beinan	1.67	225	S	Sn	02 23 22.3	+0.2
TWGBT	Beinan	1.67	225	eP	Pn	02 23 01.9	+0.1
TWGBT				iS	Sn	02 23 22.0	0.0
TWG	Pinlang	1.67	226	eP	Pn	02 23 01.8	0.0
TWG				S	Sn	02 23 21.9	-0.2
STYH	Taoyuan	1.68	241	eP	Pn	02 23 03.1	+1.3
WDLH	Douliu	1.71	260	eP	Pb	02 23 05.8	+0.2
WDLH				S	Sb	02 23 28.4	+1.7
WCKO	Fanlu	1.71	251	eP	Pb	02 23 05.0	-0.7
WCKO				iS	Sb	02 23 27.3	+0.4
TPUB	Ta-pu	1.74	247	P	Pb	02 23 04.7	-1.5
TPUB	Ta-pu	1.74	247	S	Sb	02 23 26.7	-1.0
TPUB	Ta-pu	1.74	247	iP	Pb	02 23 04.9	-1.3
TPUB				eS	Sb	02 23 28.2	+0.5
WTP	Ta-pu	1.78	245	iP	Pb	02 23 05.3	-1.5
WTP				S	Sb	02 23 29.1	+0.3
WRL	Guolierlin Hig	1.83	267	iP	Pb	02 23 06.3	-1.3
WRL				eS	Sb	02 23 29.6	-0.5
WTK	Tuku	1.84	261	P	Pb	02 23 06.5	-1.3
WTK				eS	Sb	02 23 30.9	+0.4
RLNB	Erlin	1.84	267	eP	Pb	02 23 06.9	-1.0
RLNB				eS	Sb	02 23 30.5	-0.1
CHY	Chiayi	1.85	255	eP	Pb	02 23 07.0	-1.0
CHY				S	Sb	02 23 30.2	-0.6
JISG	Ishigakijimahi	1.86	71	P	Pn	02 23 04.6	+0.2
JISG				eS	Sn	02 23 27.1	+0.4
SLGT	Liugui	1.87	238	eP	Pb	02 23 08.1	-0.4
TWK	Hsinying	1.88	247	iP	Pb	02 23 07.2	-1.3
TWK				eS	Sb	02 23 31.8	+0.2
CHN1	Nanshi	1.88	245	iP	Pb	02 23 07.2	-1.3
CHN1				iS	Sb	02 23 31.6	0.0
SGST	Jiashian	1.88	241	P	Pn	02 23 05.9	+1.3
SGST				S	Sb	02 23 31.1	-0.6
ECL	Taimali	1.91	223	eS	Sn	02 23 27.2	-0.7
WSF	Szhu	2.00	260	eS	Sb	02 23 34.7	-0.4
ICHU	Yijhu	2.02	252	eP	Pb	02 23 08.8	-2.1
WSL	Shuilin Townsh	2.02	257	eP	Pb	02 23 10.6	-0.3
WSL				eS	Sb	02 23 35.3	-0.3
SSD	Sandimen	2.03	232	eP	Pb	02 23 09.0	-2.0
TSMG	Majia	2.04	231	eP	Pb	02 23 09.6	-1.7
SCST	Cishan	2.05	238	P	Pb	02 23 10.4	-1.0
SCST				S	Sb	02 23 37.6	+1.1
LAY	Lan-yu	2.09	201	eP	Pn	02 23 06.6	-1.0
LAY				S	Sn	02 23 33.2	+0.7
MASBT	Mashibuluo	2.11	230	eP	Pn	02 23 09.3	+1.4
LYUB	Lan-yu	2.12	200	eP	Pn	02 23 07.2	-0.7
TAW	Tawu	2.12	220	eP	Pn	02 23 08.8	+0.8
TWM1	Shoushan	2.14	237	eP	Pb	02 23 12.3	-0.6
JTJ	Tarama	2.22	73	eS	Sn	02 23 37.2	+1.6
TSCK	Chigu Township	2.26	248	eP	Pn	02 23 12.1	+2.3
SCZT	Fangliau	2.29	225	eP	Pn	02 23 12.7	+2.5
SCZT				iS	Sb	02 23 41.3	-2.0
SLIU	Shizi	2.29	220	eP	Pn	02 23 11.2	+0.9
SMST	Manzhou Townsh	2.42	216	eP	Pn	02 23 13.1	+0.9
SMST				S	Sn	02 23 41.0	+0.3
TWKBT	Hengchun	2.50	215	eP	Pn	02 23 14.5	+1.3
TWKBT				S	Sn	02 23 44.0	+1.5
PNG	Penghu	2.62	261	eP	Pn	02 23 15.9	+1.1
PNG				eS	Sn	02 23 47.0	+1.7
JMJ2	Miyako jima3	2.79	74	eP	Pn	02 23 19.0	+1.8
VCHM	Qimei	2.81	254	eP	Pn	02 23 19.2	+1.7
VCHM				iS	Sn	02 23 53.7	+3.5
VWUC	VWUC	2.84	291	eP	Pn	02 23 18.0	+0.2
VWUC				S	Sn	02 23 50.9	+0.1
PTMZ	Houxiangcun	3.14	290	eP	Pn	02 23 22.1	+0.2
AXDP	Jialang	4.11	283	eP	Pn	02 23 35.8	+0.5
ZPLA	Ao Xicun	4.23	270	eP	Pn	02 23 37.4	+0.5
JOW	Kunigami	6.04	61	P	Pn	02 24 00.7	-1.1

IDC ***14*** *02:22:35.1±1.3, 45°.52N×28°.39W, h0km, mb3.8/6, mbtmp3.7/7, ML3.5/1, MS3.3/26, Error ellipse: s-maj=39.3km s-min=29.0km az=11.0*

ISC 14 02:22:36.6±1.2**, 45°.5N**±0°.3×**28°.4W**±0°.2**, h10km, n37, σ0s.63**/9**, mb3.8**/5**, MS3.3**/24**, Northern Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ESDC	Sonseca Array	18.87	99	P	Pn	02 26 58.0	+0.4
	baz=306,slow=9.5,SNR=2.6						
ESDC				LR	LR	02 32 22.5	
	comp=Z,110nm,19.6s,baz=308,slow=31						
	0.4nm,0.9s						
BORG	Borgarnes	19.73	9	LR	LR	02 32 18.4	
	comp=Z,36nm,18.7s,baz=227,slow=30						
MDT	Midelt	22.27	116	LR	LR	02 34 13.7	
	comp=Z,54nm,20.0s,baz=212,slow=31						
SFJD	Kangerlussuaq	24.59	339	LR	LR	02 35 26.9	
	comp=Z,67nm,18.9s,baz=178,slow=31						
SCHQ	Schefferville	26.05	305	LR	LR	02 36 42.4	
	comp=Z,77nm,18.4s,baz=90,slow=33						
DAVOX	Davos/Dischmat	26.40	73	LR	LR	02 37 03.4	
	comp=Z,80nm,19.9s,baz=267,slow=33						
NOA	NORSAR Array B	27.82	42	LR	LR	02 38 03.6	
	comp=Z,28nm,18.9s,baz=255,slow=33						
GERES	GERESS Array B	28.57	68	P	P	02 28 33.2	+0.6
	0.3nm,0.3s,baz=297,slow=7.6,SNR=4.0						
	0.3nm,0.3s						
HFS	Hagfors	28.79	44	LR	LR	02 37 52.7	
	comp=Z,30nm,21.0s,baz=298,slow=32						
FRB	Frobisher Bay	28.89	324	LR	LR	02 37 09.6	
	comp=Z,57nm,18.9s,baz=27,slow=30						
KEST	Kesra	30.03	95	LR	LR	02 38 58.6	
	comp=Z,111nm,20.6s,baz=352,slow=33						
VRAC	Vranov	30.36	66	LR	LR	02 40 30.3	
	comp=Z,108nm,18.5s,baz=288,slow=35						
VAE	Valguarnera	32.74	89	LR	LR	02 41 15.5	
	comp=Z,50nm,18.4s,baz=310,slow=34						
SADO	Sadowa	35.33	287	LR	LR	02 43 07.3	
	comp=Z,88nm,18.8s,baz=170,slow=35						
MLR	Muntele Rosu	37.49	70	LR	LR	02 45 19.0	
	comp=Z,38nm,18.8s,baz=359,slow=36						
AKASG	Malin Array Be	38.01	61	LR	LR	02 45 00.6	
	comp=Z,42nm,18.4s,baz=274,slow=35						
TORD	Torodi Ar. Bea	41.09	132	P	P	02 30 20.0	-0.5
	0.8nm,0.9s,baz=320,slow=7.4,SNR=4.3						
	0.8nm,0.9s						
SJG	San Juan	41.51	241	LR	LR	02 43 40.3	
	comp=Z,36nm,20.4s,baz=112,slow=30						
TKL	Tuckaleechee C	42.44	277	LR	LR	02 45 58.9	
	comp=Z,25nm,21.8s,baz=78,slow=33						
ULM	Lac du Bonnet	44.13	302	LR	LR	02 47 39.6	
	comp=Z,71nm,18.6s,baz=76,slow=34						
H10N2	ASCENSION HYDR	54.50	163	T	T	03 30 33.3	
	baz=350						
H10N3	ASCENSION HYDR	54.51	163	T	T	03 30 28.1	
	baz=350						
H10N1	ASCENSION HYDR	54.52	163	T	T	03 30 29.6	
	baz=350						
AKTO	Aktyubinsk	54.95	51	LR	LR	02 54 43.5	
	comp=Z,32nm,18.1s,baz=353,slow=35						
PDAR	Pinedale Array	55.92	299	LR	LR	02 55 03.0	
	comp=Z,46nm,18.2s,baz=40,slow=35						
NEW	Newport	57.38	308	LR	LR	02 54 52.9	
	comp=Z,28nm,18.2s,baz=50,slow=34						
ANMO	Albuquerque	58.35	289	LR	LR	02 57 06.6	
	comp=Z,45nm,19.1s,baz=52,slow=36						
JTS	Las Juntas de	59.48	252	LR	LR	02 56 22.2	
	comp=Z,17nm,18.3s,baz=88,slow=34						
TXAR	Lajitas Array	59.83	282	P	P	02 32 42.7	+0.4
	0.4nm,0.8s,baz=40,slow=3.9,SNR=2.4						
	0.4nm,0.8s						
CMIG	Matias Romero	61.57	266	LR	LR	02 59 46.7	
	comp=Z,27nm,18.0s,baz=0.0,slow=36						
KURBB	Kurchatov Arra	65.35	42	P	P	02 33 18.3	-0.4
	1.7nm,0.2s,baz=320,slow=6.7,SNR=5.0						
	1.7nm,0.2s						
PFO	Pinyon Flats O	65.71	294	LR	LR	03 02 39.4	
	comp=Z,33nm,18.4s,baz=25,slow=37						
ZALV	Zalesovo Beam	65.86	37	P	P	02 33 20.8	-1.1
	0.7nm,0.6s,baz=299,slow=6.5,SNR=1.5						
	0.7nm,0.6s						
LPIG	La Paz	67.72	282	LR	LR	03 02 23.0	
	comp=Z,39nm,20.2s,baz=33,slow=35						
MKAR	Makanchi Array	69.80	43	P	P	02 33 46.8	-0.2
	0.5nm,0.7s,baz=332,slow=6.9,SNR=4.0						
	0.5nm,0.7s						
WRA	Warramunga Arr	150.83	35	PKPbc	PKiKP	02 42 30.2	+0.1
	0.3nm,0.7s,baz=316,slow=3.3,SNR=1.9						
ASAR	Alice Springs	153.94	39	PKPbc	PKiKP	02 42 36.4	0.0
	0.1nm,0.3s,baz=327,slow=2.1,SNR=4.9						

IDC ***14*** *02:36:47.7±0.5, 46°.86S×33°.47E, h0km, mb4.3/17, mbtmp4.4/19, ML4.6/1, MS3.9/32, Error ellipse: s-maj=20.5km s-min=14.3km az=56.0*

NEIC ***14*** *02:36:49.9±1.6, 46°.87S±0°.10×33°.5E±0°.2, h10km±1km, mb4.8/26, Error ellipse: s-maj=19.7km s-min=15.8km az=73.0*

GCMT ***14*** *02:36:50.8±0.3, 46°.81S±0°.02×33°.38E±0°.04, h18km±1km, MW5.0/87, Moment Tensor Solution. s29,c38; s87,c124; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-2.73±.19; $M_{\theta\theta}$3.14±.14; $M_{\phi\phi}$-0.41±.13; $M_{r\theta}$1.36±.27; $M_{\theta\phi}$0.78±.09; $M_{\phi r}$2.13±.40; Best double couple: $M_0$3.96100×10^{16} NP1:ϕ_s102.00000°,δ35.00000°,λ-46.00000°. NP2: ϕ_s232.00000°,δ66.00000°,λ-116.00000°. Principal axes: T 3.8390, Plg17.0000°, Azm341.0000°; N 0.2440, Plg24.0000°, Azm244.0000°; P -4.0830, Plg60.0000°, Azm103.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 14 02:36:49.6±0.4**, 46°.91S**±0°.07×**33°.28E**±0°.09**, h10km, n100, σ1s.87**/75**, mb4.6**/26**, MS4.0**/32**, Prince Edward Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H04S3	CROZET ISLANDS	12.74	96	T	T	02 52 30.3	
	baz=264,slow=76,SNR=37						
H04S2	CROZET ISLANDS	12.74	97	T	T	02 52 28.9	
	baz=264,slow=76,SNR=32						
H04S1	CROZET ISLANDS	12.75	97	T	T	02 52 29.4	
	baz=264,slow=76,SNR=26						
GRHM	Grahamstown, E	14.59	336	Pn	Pn	02 40 11.0	-5.1
ELIM	Elim	15.98	315	eP	Pn	02 40 33.8	-0.7
GRAF	Camdeboo Natio	16.09	332	eP	P	02 40 46.8	+7.6
BFON	Badsfontein, M	16.79	331	eP	P	02 40 52.2	+5.1
GRAN	Grantham	16.88	326	eP	P	02 40 49.2	+1.2
BRAK	Brakfontein	17.08	328	eP	P	02 40 53.0	+2.8
CER	Ceres	17.21	317	eP	Pn	02 40 50.9	+0.8
SUR	Sutherland	17.36	322	P	Pn	02 40 50.1	-2.0
	2.6nm,0.3s,baz=139,slow=10,SNR=28						
SUR				S	Sn	02 43 59.2	-6.2
	14nm,1.0s,baz=134,slow=17,SNR=2.5						
	6.1nm,0.3s						
SUR				AML	AML		
SUR	Sutherland	17.36	322	Pn	Pn	02 40 50.0	-2.1
FRAZ	Fraserburg	17.51	324	eP	Pn	02 40 53.9	-0.1
CVNA	Calvinia	18.59	321	eP	P	02 41 04.8	-2.0
ALKP	Alkanpan, Nort	18.98	329	eP	Pn	02 41 13.8	+1.9
BOSA	Boshof	19.31	338	P	P	02 41 14.0	-0.8
	12nm,0.8s,baz=161,slow=12,SNR=7.4						
BOSA	Boshof	19.31	338	P	P	02 41 13.4	-1.4
BOSA				IAmb	IAmb	02 41 20.7	
	comp=Z,68nm,1.5s						
BOSA	Boshof	19.31	338	eP	Pn	02 41 18.2	+2.3
POGA	Pongola	19.56	356	P	Pn	02 41 21.3	+2.5
POGA				IAmb	IAmb	02 41 23.7	
	comp=Z,84nm,1.1s						
KEIM	Keimoes	20.57	328	eP	P	02 41 26.4	-2.1
HRAO	HartRAO	21.44	346	eP	P	02 41 42.2	+4.2
ARMS	Ukamas	21.62	326	eP	P	02 41 33.8	-6.1
RUST	Rust De Winter	21.95	348	eP	P	02 41 47.6	+4.1
MAKGR	Makgori	22.11	339	P	P	02 41 44.1	-1.0
MAKGR				IAmb	IAmb	02 41 51.1	
	comp=Z,56nm,1.0s						
HOED	Hoedspruit, Li	22.52	354	eP	P	02 41 53.9	+4.3
LBTB	Lobatse	22.69	342	LR	LR	02 49 22.1	
	comp=Z,470nm,20.9s,baz=155,slow=33						
LBTB	Lobatse	22.69	342	P	P	02 41 50.4	-1.0
LBTB				IAmb	IAmb	02 41 52.7	
	comp=Z,28nm,0.8s						
LBTB	Lobatse	22.69	342	eP	P	02 41 52.0	+0.7
CRAIL	Swartwater, Li	24.39	349	eP	P	02 42 09.1	+1.0
LKGWB	Lokgwabe	24.71	333	P	P	02 42 08.4	-2.6
LKGWB				IAmb	IAmb	02 42 21.4	
	comp=Z,41nm,1.1s						
MAW	Mawson	25.73	154	P	P	02 42 19.7	0.0
	comp=Z,5.6nm,0.9s,baz=325,slow=8.7,SNR=12						
MAW				LR	LR	02 49 51.2	
	comp=Z,223nm,20.0s,baz=306,slow=30						
	comp=Z,5.6nm,0.9s						
MAW	Mawson	25.73	154	P	P	02 42 19.7	0.0
VOI	Vohitsoka	27.24	28	P	P	02 42 33.2	-0.7
VOI				IAmb	IAmb	02 43 02.2	
	comp=Z,34nm,1.3s						
TSUM	Tsumeb	30.48	330	LR	LR	02 54 10.5	
	comp=Z,511nm,21.3s,baz=152,slow=34						
TSUM	Tsumeb	30.48	330	P	P	02 43 03.2	+0.5
TSUM				IAmb	IAmb	02 43 04.1	
	comp=Z,14nm,1.1s						
LSZ	Lusaka	31.82	351	LR	LR	02 54 25.7	
	comp=Z,265nm,21.6s,baz=155,slow=33						
LSZ	Lusaka	31.82	351	P	P	02 43 13.8	-0.8
LSZ				IAmb	IAmb	02 43 24.4	
	comp=Z,9.2nm,1.1s						
BELA	Belgrano 2	40.00	198	P	P	02 44 24.1	+0.2
HOPE	Hope Point	43.22	233	P	P	02 44 50.4	-0.1
QSPA	South Pole Qui	43.31	180	P	P	02 44 51.6	+0.3
	comp=Z,3.3nm,0.8s,baz=268,slow=2.6,SNR=11						
QSPA				LR	LR	03 01 57.9	
	comp=Z,139nm,19.8s,baz=246,slow=35						
	comp=Z,3.3nm,0.8s						
QSPA	South Pole Qui	43.31	180	P	P	02 44 51.1	-0.3
QSPA				IAmb	IAmb	02 44 59.6	
	comp=Z,39nm,2.0s						
KMBO	Kilima Mbogo	45.73	6	LR	LR	03 03 16.0	
	comp=Z,151nm,19.2s,baz=200,slow=35						
PMSA	Palmer Station	51.67	213	LR	LR	03 03 45.3	
	comp=Z,173nm,18.4s,baz=56,slow=31						
VNDA	Vanda	51.87	168	P	P	02 45 57.6	+0.2
	comp=Z,2.9nm,0.8s,baz=251,slow=6.3,SNR=20						
	comp=Z,2.9nm,0.8s						
VNDA	Vanda	51.87	168	P	P	02 45 57.2	-0.2
DBIC	Dimbokro	63.15	317	LR	LR	03 09 54.0	
	comp=Z,44nm,20.7s,baz=150,slow=31						
DBIC	Dimbokro	63.15	317	P	P	02 47 17.9	+0.3
MORW	Morawa	64.69	106	P	P	02 47 26.9	-0.9
TORD	Torodi Ar. Bea	66.14	326	P	P	02 47 37.8	+0.6
	comp=Z,3.4nm,1.0s,baz=169,slow=5.3,SNR=11						
	comp=Z,3.4nm,1.0s						
PALK	Pallekele	68.37	52	LR	LR	03 09 57.3	
	comp=Z,103nm,19.4s,baz=209,slow=29						
PLCA	Paso Flores	69.60	232	P	P	02 47 59.1	+0.3
	comp=Z,0.9nm,0.4s,baz=216,slow=6.6,SNR=2.9						
	comp=Z,0.9nm,0.4s						
GO06	Curarrehue	70.91	232	P	P	02 48 07.4	+0.5
CPUP	Villa Florida	71.66	251	P	P	02 48 12.5	+1.0
	comp=Z,2.1nm,0.8s,baz=142,slow=7.9,SNR=5.7						
CPUP				LR	LR	03 12 32.8	
	comp=Z,61nm,21.9s,baz=76,slow=30						
	comp=Z,2.1nm,0.8s						
CPUP	Villa Florida	71.66	251	P	P	02 48 12.9	+1.4
CPUP				IAmb	IAmb	02 48 14.7	
	comp=Z,5.2nm,1.1s						
BDFB	Brasilia	72.84	265	P	P	02 48 19.3	+0.5
	comp=Z,6.5nm,1.0s,baz=124,slow=4.7,SNR=6.0						
	comp=Z,6.5nm,1.0s						
UOSS	Minazif	74.46	22	P	P	02 48 26.6	-1.2
UOSS				IAmb	IAmb	02 48 28.3	
	comp=Z,15nm,1.1s						
RPSI	Rantau Prapat	75.61	70	P	P	02 48 34.4	-0.4
RPSI				IAmb	IAmb	02 48 36.3	
	comp=Z,9.3nm,1.1s						
EIL	Elat	76.23	1	LR	LR	03 19 59.6	
	comp=Z,78nm,20.8s,baz=264,slow=34						
TOO	Toolangi	76.35	131	P	P	02 48 38.6	-0.2
TOO				IAmb	IAmb	02 49 23.1	
	comp=Z,27nm,1.8s						
CO01	Juntas del Tor	77.04	240	P	P	02 48 44.6	+1.5
STKA	Stephens Creek	78.51	124	P	P	02 48 50.5	-0.5
	comp=Z,3.0nm,0.6s,baz=149,slow=6.7,SNR=6.5						
STKA				LR	LR	03 19 35.9	
	comp=Z,78nm,19.6s,baz=206,slow=33						
	comp=Z,3.0nm,0.6s						
FITZ	Fitzroy Crossi	78.58	104	P	P	02 48 51.0	-0.5
	comp=Z,3.5nm,0.6s,baz=210,slow=7.5,SNR=6.3						
FITZ				LR	LR	03 15 19.9	
	comp=Z,87nm,21.1s,baz=196,slow=30						
	comp=Z,3.5nm,0.6s						
FITZ	Fitzroy Crossi	78.58	104	P	P	02 48 51.5	0.0
ASF	Jabal al Asfar	78.78	3	LR	LR	03 21 43.9	
	comp=Z,58nm,21.3s,baz=206,slow=34						
MMAI	Mount Meron Ar	79.58	2	LR	LR	03 24 27.1	
	comp=Z,87nm,18.4s,baz=192,slow=36						
ASAR	Alice Springs	79.94	114	P	P	02 48 57.5	-1.4
	comp=Z,2.2nm,0.8s,baz=223,slow=6.2,SNR=20						
	comp=Z,2.2nm,0.8s						
ASAR	Alice Springs	79.94	114	P	P	02 48 57.4	-1.6
AS31	Alice Springs	79.94	114	P	P	02 48 58.3	-0.7
RPZ	Rata Peaks	82.35	151	LR	LR	03 24 32.7	
	comp=Z,18nm,18.7s,baz=37,slow=35						
WRA	Warramunga Arr	82.93	112	P	P	02 49 12.7	-2.1
	comp=Z,1.9nm,1.1s,baz=231,slow=5.7,SNR=6.7						
	comp=Z,1.9nm,1.1s						
WR8	Warramunga Arr	83.02	112	P	P	02 49 13.9	-1.4
WB0	Warramunga Arr	83.09	111	P	P	02 49 13.9	-1.8
WB0				IAmb	IAmb	02 49 34.3	
	comp=Z,7.5nm,1.1s						
KAPI	Kappang	83.96	91	LR	LR	03 18 04.6	
	comp=Z,34nm,20.1s,baz=314,slow=30						
KEST	Kesra	85.03	341	P	P	02 49 26.3	+1.3
	comp=Z,3.8nm,0.9s,baz=318,slow=4.6,SNR=4.2						
KEST				LR	LR	03 29 35.7	
	comp=Z,140nm,18.3s,baz=185,slow=37						
	comp=Z,3.8nm,0.9s						
VAE	Valguarnera	85.69	345	LR	LR	03 27 35.1	
	comp=Z,137nm,19.3s,baz=152,slow=36						
LPAZ	La Paz	85.84	251	P	P	02 49 31.5	+1.2
	comp=Z,0.9nm,0.8s,baz=21,slow=3.7,SNR=3.6						
LPAZ				LR	LR	03 24 43.0	
	comp=Z,57nm,19.4s,baz=122,slow=33						
	comp=Z,0.9nm,0.8s						
BRTR	Keskin Array B	86.25	0	P	P	02 49 31.1	+0.1
	comp=Z,1.2nm,0.8s,baz=191,slow=7.7,SNR=8.4						

BRTR				LR	LR	03 27 07.4	
	comp=Z,30nm,21.7s,baz=200,slow=35						
	comp=Z,1.2nm,0.8s						
BRTR	Keskin Array B	86.25	0	P	P	02 49 31.4	+0.3
MDT	Midelt	86.38	329	LR	LR	03 28 38.8	
	comp=Z,124nm,20.3s,baz=178,slow=36						
GNI	Garni	87.28	9	LR	LR	03 27 58.8	
	comp=Z,66nm,20.5s,baz=208,slow=35						
CMAR	Chiang Mai Arr	87.76	60	P	P	02 49 38.4	-0.4
	comp=Z,0.9nm,0.3s,baz=233,slow=5.9,SNR=7.4						
CMAR				LR	LR	03 24 18.9	
	comp=Z,38nm,18.1s,baz=285,slow=32						
	comp=Z,0.9nm,0.3s						
CTA	Charters Tower	90.17	120	LR	LR	03 23 11.4	
	comp=Z,78nm,20.2s,baz=217,slow=31						
KBZ	Khabaz	90.65	7	P	P	02 49 51.8	+0.2
	comp=Z,1.7nm,0.8s,baz=209,slow=5.7,SNR=5.1						
KBZ				LR	LR	03 30 41.5	
	comp=Z,42nm,19.5s,baz=172,slow=36						
	comp=Z,1.7nm,0.8s						
MDP	Montagnes des	90.90	276	LR	LR	03 27 33.8	
	comp=Z,50nm,19.5s,baz=130,slow=34						
ESDC	Sonseca Array	92.39	332	P	P	02 50 00.7	+0.8
	comp=Z,3.4nm,1.1s,baz=159,slow=5.0,SNR=15						
	comp=Z,3.4nm,1.1s						
DAVOX	Davos/Dischmat	95.53	344	LR	LR	03 33 48.7	
	comp=Z,88nm,21.4s,baz=152,slow=36						
VRAC	Vranov	96.92	349	LR	LR	03 37 32.5	
	comp=Z,29nm,18.4s,baz=162,slow=38						
AKASG	Malin Array Be	97.29	357	LR	LR	03 38 22.9	
	comp=Z,30nm,18.9s,baz=181,slow=38						
PMG	Port Moresby	98.96	114	LR	LR	03 32 20.2	
	comp=Z,82nm,18.8s,baz=170,slow=34						
ATAH	Atahualpa	99.29	249	LR	LR	03 33 26.3	
	comp=Z,39nm,21.6s,baz=152,slow=34						
CLL	Collm	99.38	347	L	L	03 31 00.0	
TXAR	Lajitas Array	142.40	258	PKhKP	PKPpre	02 56 18.6	
	comp=Z,1.7nm,1.0s,baz=131,slow=7.1,SNR=7.6						
TXAR	Lajitas Array	142.40	258		PKPpre	02 56 19.0	
ULM	Lac du Bonnet	146.73	295	PKPbc	PKPdf	02 56 28.7	-0.4
	comp=Z,6.8nm,1.0s,baz=104,slow=4.2,SNR=4.5						
PDAR	Pinedale Array	153.49	275	PKP	PKPdf	02 56 40.4	+0.1
	comp=Z,0.5nm,0.8s,baz=101,slow=3.0,SNR=6.3						
PDAR				PKPbc	PKPbc	02 56 47.2	-0.8
	comp=Z,0.7nm,0.7s,baz=318,slow=0.8,SNR=5.5						
PDAR				PKPab	PKPab	02 56 59.6	-0.8
	comp=Z,0.8nm,0.8s,baz=120,slow=4.7,SNR=5.3						
PDAR	Pinedale Array	153.49	275		PKPdf	02 56 40.2	-0.2
PDAR					PKPbc	02 56 47.0	-1.0
PDAR					PKPab	02 57 00.1	-0.4
NVAR	Mina Array Bea	157.55	258	PKPab	PKPab	02 57 16.5	-1.4
	comp=Z,0.7nm,0.8s,baz=132,slow=4.7,SNR=5.5						
NVAR	Mina Array Bea	157.55	258	PKPab	PKPab	02 57 18.0	+0.1
ILAR	Eielson Array	162.09	0	PKPab	PKPab	02 57 33.9	-2.7
	comp=Z,0.6nm,0.9s,baz=330,slow=3.8,SNR=6.9						
ILAR	Eielson Array	162.09	0	PKPab	PKPab	02 57 36.3	-0.2

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*JMA **14** 02:42:08.6±0.4, 43°N±1°×13°8E±°, h276^{km}, MV3.2/21, EASTERN SEA OF JAPAN*

*IDC **14** 02:42:10.6±7.3, 43°.46N×137°.49E, h270^{km}±29^{km}, mb3.1/6, mbtmp3.7/7, Error ellipse: s-maj=190.5km s-min=29.3km az=168.0*

ISC 14 02:42:07.8±0.9**, 42°.81N**±0°.09×**138°.19E**±0°.08**, h299^{km}, n21, σ1^s.38**/23**, mb3.3**/6**, Eastern Sea of Japan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHST	Hiyamasetana	1.30	107	*e*P	Pn	02 42 48.5	-1.1
JSH	Shimam	1.38	96	*e*P	Pn	02 42 49.0	-1.0
JSK	Shakotan	1.76	71	*e*P	Pn	02 42 51.8	-0.8
JOMM	Oshimamatsumae	1.86	133	*e*P	Pn	02 42 52.6	-0.8
JOT	Ohata	2.56	123	*e*P	Pn	02 42 59.0	-0.3
JRBN	Rebuntou	3.34	37	*e*P	Pn	02 43 06.2	-0.5
JNBK	Urakawa-nobuka	3.41	97	*e*P	Pn	02 43 08.0	+0.3
JANG	Nango	3.48	133	P	Pn	02 43 09.1	+0.7
JKK2	Kamakawa 2	3.49	71	*e*P	Pn	02 43 09.8	+1.3
JCH	Churui	3.82	91	P	Pn	02 43 11.7	-0.2
JCH				S	S	02 44 01.6	-1.6
JOM	Ohasama	4.07	144	P	Pn	02 43 16.4	+1.6
JMK	Ichinoseki	4.48	148	P	Pn	02 43 18.8	-0.6
USRK	Ussuriysk Ar.	4.72	289	P	Pn	02 43 15.8	-6.1
	3.0nm,0.4s,baz=91,slow=12,SNR=8.4						
JAK	Akkeshi	4.78	86	P	Pn	02 43 22.8	+0.1
JAK				*e*S	S	02 44 21.2	-1.6
NEM2	Nemuro 2	5.56	82	P	Pn	02 43 31.6	-0.1
NEM2				S	S	02 44 36.7	-2.7
MKAR	Makanchi Array	39.16	296	P	P	02 49 05.8	-1.3
	0.4nm,0.5s,baz=77,slow=7.5,SNR=4.5						
	0.4nm,0.5s						
KURBB	Kurchatov Arra	40.65	302	P	P	02 49 17.7	-1.5
	1.6nm,0.2s,baz=82,slow=8.9,SNR=2.2						
	1.6nm,0.2s						
BVAR	Borovoye Array	44.97	308	P	P	02 49 53.1	-0.5
	0.6nm,0.3s,baz=69,slow=7.9,SNR=3.6						
	0.6nm,0.3s						
ILAR	Eielson Array	46.07	35	P	P	02 50 05.3	+3.4
	0.2nm,0.5s,baz=274,slow=5.5,SNR=4.0						
	0.2nm,0.5s						
FINES	FINESS Array B	62.57	330	P	P	02 52 00.4	+0.4
	2.6nm,1.0s,baz=39,slow=7.4,SNR=4.4						
	2.6nm,1.0s						
NOA	NORSAR Array B	67.91	335	P	P	02 52 34.8	+0.6
	0.2nm,0.4s,baz=37,slow=6.6,SNR=1.2						
	0.2nm,0.4s						

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*IDC **14** 02:45:01.7±0.9, 55°.77S×26°.66W, h0^{km}, mb4.1/6, mbtmp4.1/6, Error ellipse: s-maj=38.4km s-min=20.9km az=66.0*

*NEIC **14** 02:45:07.8±1.7, 55°.9S±0°.2×27°.0W±0°.2, h35^{km}±2^{km}, mb4.7/17, Error ellipse: s-maj=28.0km s-min=15.3km az=23.0*

ISC 14 02:45:10.0±0.7**, 55°.9S**±0°.1×**27°.1W**±0°.1**, h63^{km}, n42, σ0^s.91**/37**, mb4.5**/12**, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HOPE	Hope Point	5.62	283	Pn	Pn	02 46 28.9	-2.0
BELA	Belgrano 2	22.24	184	P	P	02 49 59.5	-1.5
GO08	Villa O'Higgin	28.40	266	P	P	02 50 58.5	+0.5
GO08				IAmb	IAmb	02 51 28.2	
	comp=Z,37nm,1.5s						
QSPA	South Pole Qui	34.36	180	P	P	02 51 50.7	+0.2
	comp=Z,2.9nm,0.7s,baz=180,slow=2.6,SNR=17						
	comp=Z,2.9nm,0.7s						
QSPA	South Pole Qui	34.36	180	P	P	02 51 51.3	+0.8
QSPA				IAmb	IAmb	02 51 54.7	
	comp=Z,15nm,1.5s						
CPUP	Villa Florida	36.74	311	P	P	02 52 11.3	+0.3
	comp=Z,0.8nm,0.7s,baz=150,slow=12,SNR=3.2						
	comp=Z,0.8nm,0.7s						
MT09	Talagante	37.30	288	P	P	02 52 15.3	-0.7
MT09				IAmb	IAmb	02 52 57.1	
	comp=Z,36nm,1.4s						
PEL	Peldehue	37.63	289	P	P	02 52 19.3	+0.8
MT02	Curacav	37.78	288	P	P	02 52 19.3	-0.5
CO02	Combarbal	39.30	290	P	P	02 52 33.6	+0.9
CO01	Juntas del Tor	39.80	292	P	P	02 52 38.2	+1.2
CO01				IAmb	IAmb	02 52 42.4	
	comp=Z,9.4nm,1.1s						
MAW	Mawson	40.25	144	P	P	02 52 39.7	-0.3
	comp=Z,0.5nm,0.4s,baz=230,slow=6.2,SNR=2.7						
	comp=Z,0.5nm,0.4s						
MAW	Mawson	40.25	144	P	P	02 52 39.6	-0.3
AC05	El Transito	40.80	293	P	P	02 52 46.3	+1.1
AC05				IAmb	IAmb	02 52 47.5	
	comp=Z,26nm,1.2s						
AC02	Maricunga	41.84	296	P	P	02 52 53.8	-0.4
AC02				IAmb	IAmb	02 53 03.2	
	comp=Z,8.2nm,0.9s						
PB07	IPOC Station P	46.48	299	P	P	02 53 32.5	+1.6
VNDA	Vanda	46.74	183	P	P	02 53 32.6	+0.6
	comp=Z,2.3nm,0.6s,baz=175,slow=5.5,SNR=3.5						
	comp=Z,2.3nm,0.6s						
VNDA	Vanda	46.74	183	P	P	02 53 33.0	+1.0
PB08	IPOC Station P	47.48	301	P	P	02 53 39.5	+0.6
PB08				IAmb	IAmb	02 53 41.8	
	comp=Z,4.0nm,0.7s						
H10S2	ASCENSION HYDR	47.83	17	T	T	03 45 02.2	
	baz=190						
H10S3	ASCENSION HYDR	47.83	17	T	T	03 45 02.6	
	baz=30						
GO01	Chusmiza	47.90	302	P	P	02 53 43.6	+1.3
GO01				IAmb	IAmb	02 53 45.3	
	comp=Z,5.8nm,0.7s						
H10N1	ASCENSION HYDR	48.95	17	T	T	03 46 29.9	
	baz=189,slow=75,SNR=14						
H10N3	ASCENSION HYDR	48.95	17	T	T	03 46 29.7	
	baz=189,slow=75,SNR=31						
H10N2	ASCENSION HYDR	48.97	17	T	T	03 46 30.6	
	baz=189,slow=75,SNR=19						
LPAZ	La Paz	50.32	305	P	P	02 54 01.9	+1.0
	comp=Z,3.5nm,0.7s,baz=156,slow=8.9,SNR=13						
	comp=Z,3.5nm,0.7s						
LPAZ	La Paz	50.32	305	P	P	02 54 02.3	+1.4
LPAZ				IAmb	IAmb	02 54 03.2	
	comp=Z,3.4nm,0.7s						
BOAV	Boa Vista	64.18	322	P	P	02 55 37.5	-0.4
TORD	Torodi Ar. Bea	72.89	29	P	P	02 56 30.9	-1.2
	comp=Z,1.0nm,0.5s,baz=201,slow=6.7,SNR=4.9						
	comp=Z,1.0nm,0.5s						
N31M	Braeburn, Yuko	144.23	309	PKPdf	PKPdf	03 04 38.0	+0.9
N30M	Aishikik Lake	144.80	308	PKPdf	PKPdf	03 04 38.9	+0.7
H31M	Peel River	145.24	316		PKPab	03 04 39.2	+0.4
H29M	Whitestone	146.94	316	PKPdf	PKPbc	03 04 43.9	+0.2
RAGM	Ragged Mountai	147.84	304	PKPdf	PKPbc	03 04 45.6	-0.8
SCRK	Sand Creek	148.63	311	PKPbc	PKiKP	03 04 49.6	-0.3
IL31		150.04	312	PKPbc	PKiKP	03 04 52.5	-0.1
ILAR	Eielson Array	150.04	312	PKPbc	PKiKP	03 04 52.8	+0.2
	comp=Z,2.7nm,0.8s,baz=134,slow=1.6,SNR=28						
ILAR	Eielson Array	150.04	312	PKPbc	PKiKP	03 04 52.5	-0.1
SONM	Songino Array	150.67	86	PKPbc	PKPbc	03 04 53.6	-0.4
	comp=Z,0.7nm,0.6s,baz=242,slow=3.1,SNR=4.0						
SONM	Songino Array	150.67	86	PKPbc	PKiKP	03 04 53.9	-0.7
E24K	Your Creek	151.15	318	PKPbc	PKiKP	03 04 55.6	+0.7
IMAR	Indian Mountai	153.06	314	PKPbc	PKiKP	03 05 00.3	+1.5

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*MAN **14** 02:47:36.0, 3°.18N×126°.71E, h12^{km}, MS4.3*

*IDC **14** 02:47:42.2±0.6, 4°.14N×126°.69E, h0^{km}, mb4.2/20, mbtmp4.2/21, ML5.0/1, MS3.5/10, Error ellipse: s-maj=33.6km s-min=11.7km az=73.0*

*NEIC **14** 02:47:44.6±1.4, 4°.27N±0°.06×126°.78E±0°.10, h10^{km}±1^{km}, mb4.6/31, Error ellipse: s-maj=16.9km s-min=9.4km az=75.0*

*DJA **14** 02:47:48.2±0.5, 4°N±4°×12°7E±°, h10^{km}, M4.7/12, mB5.5/5, mb4.7/7, MLv4.6/12, Mw(mB)4.9/5*

ISC 14 02:47:44.2±0.4**, 4°.27N**±0°.03×**126°.86E**±0°.07**, h10^{km}, n102, σ1^s.91**/100**, mb4.5**/40**, MS3.7**/12**, 1C, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	Don Marcelino,	2.15	328	*e*P	Pb	02 48 21.5	-1.9
DDMP				*e*S	Sg	02 48 59.5	+5.9
GAMI	Galela, Maluku	2.58	159	P	Pb	02 48 30.2	-0.5
GSPH	General Santos	2.63	314	*i* P	Pb	02 48 29.3	-2.2
GSPH				*i* S	Sg	02 49 13.8	+5.0
DAV	Davao City (W)	3.06	335	Pn	Pn	02 48 32.8	+0.1
	164nm,0.3s,baz=23,slow=8.5,SNR=2.4						
DAV				Sn	Sb	02 49 15.3	-1.0
	13nm,0.3s,baz=245,slow=20,SNR=4.0						
	377nm,0.4s						
DAV				AML	AML		
DAV	Davao City (W)	3.06	335		Pn	02 48 32.2	-0.6
DAV	Davao City (W)	3.06	335	P	Pb	02 48 37.2	-1.7
DAV				AML	AML		
DAV	Davao City (W)	3.06	335	P	Pg	02 48 48.0	+5.0
DMPH	Davao City--Mi	3.10	334	*e*P	Pg	02 48 42.8	-1.0
DMPH				*i* S	Sg	02 49 26.1	+2.1
KCP	Kidapawan	3.25	327	*i* P	Pb	02 48 42.1	+0.1
KCP				*e*S	Sg	02 49 28.8	+0.2
MNI	Manado	3.46	216	P	Pn	02 48 40.8	+2.6
MNI				AML	AML		
TNTI	Ternate	3.51	172		Pn	02 48 40.4	+1.5
TNTI	Ternate	3.51	172	P	Pb	02 48 43.6	-2.9
CDOP	Cateel, Davao	3.52	353	*i* P	Pb	02 48 44.1	-2.5
CDOP				*i* S	Sb	02 49 27.2	-2.3
CTBH	Cotabato--PC H	3.92	319	*i* P	Pb	02 48 48.9	-4.6
BUKP	Musuan	4.01	334	*e*P	Pb	02 48 52.3	-2.7
BUKP				*i* S	Sb	02 49 41.3	-2.4
CGP	Cagayan de Oro	4.69	333	*e*P	Pb	02 49 05.1	-1.4
CGP				*e*S	Sg	02 50 08.5	-6.3
GTOI	Gorontalo	5.28	227	P	Pn	02 49 03.0	-0.2
	0.2nm37nm,0.7s						
GTOI				AML	AML		
GLSP	General Luna,	5.53	352	*e*P	Pb	02 49 16.2	-4.8
GLSP				*e*S	Sb	02 50 32.1	+4.7
TBP	Tagbilaran	6.16	331	*e*P	Pb	02 49 23.7	-8.0
LLP	Lapu-Lapu	6.66	335	*e*P	Pn	02 49 31.0	+8.7
LLP				*e*S	Sb	02 51 01.0	+1.0
LUWI	Luwuk	6.67	218	Pn	Pn	02 49 22.3	-0.1
LUWI	Luwuk	6.67	218	P	Pn	02 49 25.8	+3.4
	4μm147nm,0.9s						
TOLI2	Tolitoli	6.83	243	Pn	Pn	02 49 24.0	-0.7
PLP	Palo	7.10	345	*e*P	Pb	02 49 38.5	-9.2
APSI	Ampana	7.32	225	P	Pn	02 49 33.5	+2.2
	0.3nm890nm83nm,1.4s						
APSI				AML	AML		
MYLDM	Lahad Datu	8.38	277	Pn	Pn	02 49 45.8	-0.1
MYLDM	Lahad Datu	8.38	277	P	Pn	02 49 47.6	+1.7
	59nm,1.1s						
KAPI	Kappang	11.64	218	LR	LR	02 55 33.0	
	comp=Z,286nm,18.9s,baz=36,slow=41						
MTN	Manton Dam	17.52	166	Pn	Pn	02 51 48.3	-0.6
YULB	Yu-li	19.76	345	P	P	02 52 14.2	-0.3
YULB				IAmb	IAmb	02 52 28.7	
	comp=Z,30nm,1.4s						
TPUB	Ta-pu	19.86	343	P	P	02 52 16.3	+0.7
TPUB				IAmb	IAmb	02 52 23.5	
	comp=Z,54nm,1.2s						
KNRA	Kununurra	19.91	175	P	P	02 52 15.7	-0.5
GUMO	Guam	20.04	61	LR	LR	02 59 15.6	
	comp=Z,41nm,21.2s,baz=235,slow=34						
SSLB	Suanglung	20.23	344	P	Pn	02 52 21.1	-0.5
SSLB				IAmb	IAmb	02 52 23.5	
	comp=Z,16nm,0.8s						
FITZ	Fitzroy Crossi	22.26	183	P	P	02 52 39.2	-2.3
	comp=Z,4.6nm,0.7s,baz=16,slow=7.6,SNR=13						
	comp=Z,4.6nm,0.7s						
FITZ	Fitzroy Crossi	22.26	183	P	P	02 52 40.3	-1.2
WB0	Warramunga Arr	25.01	163	P	P	02 53 07.1	-1.5
WB0				IAmb	IAmb	02 53 15.0	
	comp=Z,15nm,0.8s						
WRA	Warramunga Arr	25.16	163	P	P	02 53 08.6	-1.3
	comp=Z,5.3nm,0.7s,baz=345,slow=10,SNR=33						
	comp=Z,5.3nm,0.7s						
WRA	Warramunga Arr	25.16	163	P	P	02 53 09.0	-0.9
WR8	Warramunga Arr	25.21	163	P	P	02 53 08.8	-1.6
WR8				IAmb	IAmb	02 53 16.7	
	comp=Z,14nm,0.9s						
ASAR	Alice Springs	28.60	166	P	P	02 53 38.9	-2.0
	comp=Z,0.6nm,0.6s,baz=350,slow=6.7,SNR=11						
	comp=Z,0.6nm,0.6s						
ASAR	Alice Springs	28.60	166	P	P	02 53 40.1	-0.8
NJ2	Nanjing	28.64	346	*e*P	P	02 53 44.1	+3.0
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
JNU	Nakatsue	28.95	7	LR	LR	03 05 10.9	
	comp=Z,59nm,21.7s,baz=155,slow=36						
CMAR	Chiang Mai Arr	30.72	300	P	P	02 53 59.6	-0.2
	comp=Z,1.6nm,0.3s,baz=112,slow=7.2,SNR=8.0						
CMAR				LR	LR	03 06 55.4	
	comp=Z,47nm,19.7s,baz=335,slow=38						
	comp=Z,1.6nm,0.3s						
CMAR	Chiang Mai Arr	30.72	300	P	P	02 53 58.4	-1.4
JHJ	Hachijo jima 2	31.14	21	LR	LR	03 04 37.0	
	comp=Z,70nm,21.1s,baz=332,slow=32						
PZH	PanZhiHua	32.66	315	P	P	02 54 20.6	+3.8
KSRS	Korea Array	33.04	2	P	P	02 54 20.4	+0.5
	comp=Z,1.0nm,0.5s,baz=180,slow=11,SNR=5.9						
	comp=Z,1.0nm,0.5s						
HNS	HongShan	34.80	343	⇑P	P	02 54 37.1	+1.9
HNS				pmax	pmax		
	comp=Z,12nm,0.6s						
FORT	Forrest	34.87	178	P	P	02 54 34.7	-1.1
FORT				IAmb	IAmb	02 54 41.4	
	comp=Z,4.8nm,0.8s						
BJI2	Beijing	36.88	346	P	P	02 54 55.3	+2.3
BJI2				pmax	pmax		
	comp=Z,10.0nm,1.0s						
BJT	Baijiatuau	36.88	346	P	P	02 54 51.9	-1.1
EIDS	Eidsvold	37.69	143	P	P	02 54 59.5	-0.6
EIDS				IAmb	IAmb	02 55 07.9	
	comp=Z,22nm,1.4s						
BBOO	Buckleboo	37.89	167	P	P	02 55 00.7	-1.0
BBOO				IAmb	IAmb	02 55 20.8	
	comp=Z,21nm,1.4s						
LZDM	Lanzhou Array	38.09	329	P	P	02 55 03.9	+0.2
	comp=Z,1.5nm,0.3s,baz=132,slow=12,SNR=1.7						
	comp=Z,1.5nm,0.3s						
LZH	Lanzhou	38.11	329	*e*P	P	02 55 03.3	-0.4
LZH				pP	sP	02 55 14.8	+6.9
LZH				pmax	pmax		
	comp=Z,15nm,1.1s						
LZH				LR	LR		
	comp=N,190nm,15.3s						
LZH				LR	LR		
	comp=E,190nm,15.6s						
LZH				LR	LR		
	comp=Z,200nm,14.4s						
STKA	Stephens Creek	38.58	160	P	P	02 55 07.6	+0.1
	comp=Z,4.3nm,0.7s,baz=338,slow=9.0,SNR=10.0						
	comp=Z,4.3nm,0.7s						
HHC	Hu-ho-hao-te	38.93	341	*e*P	P	02 55 14.6	+4.1
HHC				pmax	pmax		
	comp=Z,20nm,0.6s						
HHC				pmax	pmax		
	comp=Z,64nm,5.2s						
HHC				LR	LR		
	comp=N,90nm,15.3s						
HHC				LR	LR		
	comp=E,190nm,16.0s						
HHC				LR	LR		
	comp=Z,160nm,15.3s						
ARMA	Armidale	41.84	147	P	P	02 55 34.6	-0.1
GOMU	GeErMu	43.35	321	P	P	02 55 47.9	+0.6
GOMU				pP	sP	02 55 51.9	+0.4
GOMU				sP	pP	02 55 55.3	+5.0
GOMU				pmax	pmax		
	comp=Z,2.0nm,0.4s						
EVN	Everest	44.78	306	P	P	02 55 58.5	-0.7
EVN				IAmb	IAmb	02 55 59.6	
	comp=Z,6.0nm,0.6s						
HILR	Hailar Array B	45.53	354	P	P	02 56 05.7	+1.6
	comp=Z,1.8nm,0.5s,baz=192,slow=11,SNR=4.1						
	comp=Z,1.8nm,0.5s						
SONM	Songino Array	46.83	341	P	P	02 56 15.3	+0.8
	comp=Z,1.0nm,0.5s,baz=157,slow=9.0,SNR=5.2						
SONM				LR	LR	03 16 45.6	
	comp=Z,84nm,20.7s,baz=121,slow=37						
	comp=Z,1.0nm,0.5s						
SONM	Songino Array	46.83	341	P	P	02 56 16.0	+1.5
WMQ	Urumqi	52.36	325	*e*P	P	02 56 58.0	+1.3
WMQ				LR	LR		
	comp=Z,97nm,20.9s						
PETK	Petropavlovsk-	54.88	22	P	P	02 57 16.4	+1.5
	comp=Z,2.1nm,0.7s,baz=209,slow=6.4,SNR=2.3						
	comp=Z,2.1nm,0.7s						
PETK	Petropavlovsk-	54.88	22	P	P	02 57 15.5	+0.6
PDGK	Podgornoye	57.09	320	P	P	02 57 28.2	-2.9
MKAR	Makanchi Array	57.19	325	P	P	02 57 31.1	-0.4
	comp=Z,1.7nm,0.6s,baz=129,slow=8.1,SNR=18						
	comp=Z,1.7nm,0.6s						
MKAR	Makanchi Array	57.19	325	P	P	02 57 30.9	-0.7
KSH2	Kashi	57.90	314	P	P	02 57 41.0	+4.1
KSH2				pmax	pmax		
	comp=Z,4.0nm,0.5s						
ZALV	Zalesovo Beam	60.17	333	P	P	02 57 51.0	-1.2
	comp=Z,1.0nm,0.5s,baz=139,slow=9.6,SNR=4.3						
ZALV				LR	LR	03 25 35.7	
	comp=Z,46nm,18.5s,baz=226,slow=38						
	comp=Z,1.0nm,0.5s						
KURBB	Kurchatov Arra	61.36	327	P	P	02 57 59.6	-0.7
	comp=Z,3.1nm,0.6s,baz=126,slow=6.4,SNR=15						
	comp=Z,3.1nm,0.6s						
KURK	Kurchatov	61.36	327	P	P	02 57 59.7	-0.6
KK31	Karatay Array	62.93	317	P	P	02 58 10.0	-1.1
KK31				IAmb	IAmb	02 58 12.3	
	comp=Z,3.3nm,1.1s						
KKAR	Karatay Array	62.93	317	P	P	02 58 10.0	-1.1
BVAR	Borovoye Array	66.94	327	P	P	02 58 36.8	-0.2
	comp=Z,4.9nm,0.9s,baz=126,slow=7.5,SNR=17						
	comp=Z,4.9nm,0.9s						
BORK	Borovoye	66.99	327	P	P	02 58 36.6	-0.7
BORK				IAmb	IAmb	02 58 38.2	
	comp=Z,5.2nm,0.8s						
NRIK	Noril'sk	69.94	346	P	P	02 58 55.6	+0.3
	comp=Z,4.1nm,0.6s,baz=118,slow=6.2,SNR=4.8						
	comp=Z,4.1nm,0.6s						
CASY	Casey	71.36	187	P	P	02 59 03.6	-0.4
CASY				IAmb	IAmb	02 59 45.5	
	comp=Z,6.2nm,1.2s						
AB31	Akbulak array	71.82	321	P	P	02 59 06.4	-0.8
ABKAR	Akbulak array	71.82	321	P	P	02 59 06.7	-0.5
ARTI	Arti	74.64	328	P	P	02 59 23.1	-0.6
L16K	Owhat River	78.54	28	P	P	02 59 46.2	+0.5
O16K	Kokwok River B	78.78	30	P	P	02 59 47.4	+0.3
O16K				IAmb	IAmb	02 59 53.9	
	comp=Z,8.3nm,1.2s						
KIRV	Kirov	79.83	329	LR	LR	03 38 36.7	
	comp=Z,38nm,19.0s,baz=163,slow=38						
G19K	Purcell Mounta	80.48	24	P	P	02 59 56.4	+0.2
G19K				IAmb	IAmb	03 00 07.4	
	comp=Z,6.3nm,1.1s						
IMAR	Indian Mountai	81.80	24	P	P	03 00 04.2	+0.9
PPLA	Purkeypile	82.09	27	P	P	03 00 05.6	+0.6
PPLA				IAmb	IAmb	03 00 18.1	
	comp=Z,4.3nm,1.0s						
I23K	Minto, Yukon-K	83.53	25	P	P	03 00 12.8	+0.6
SML	Sawmill	83.80	28	P	P	03 00 13.7	-0.1
VNDA	Vanda	83.94	173	P	P	03 00 13.7	-0.4
	comp=Z,1.0nm,1.0s,baz=297,slow=3.0,SNR=3.1						
	comp=Z,1.0nm,1.0s						
VNDA	Vanda	83.94	173	P	P	03 00 13.4	-0.6
VNDA				IAmb	IAmb	03 00 15.2	
	comp=Z,3.2nm,1.2s						
H24K	Noodor Dome	84.19	24	P	P	03 00 16.7	+1.1
H24K				IAmb	IAmb	03 00 33.9	
	comp=Z,5.2nm,1.1s						
ILAR	Eielson Array	84.56	25	P	P	03 00 17.6	+0.1
	comp=Z,0.9nm,0.9s,baz=246,slow=6.8,SNR=10						
	comp=Z,0.9nm,0.9s						
FID	Port Fidalgo	84.67	30	P	P	03 00 19.0	+0.9
BRTR	Keskin Array B	89.78	310	P	P	03 00 43.2	-0.4
	comp=Z,0.5nm,0.9s,baz=93,slow=6.2,SNR=2.3						
	comp=Z,0.5nm,0.9s						
ARCES	ARCESS Array B	89.99	340	P	P	03 00 43.1	-0.6
	comp=Z,0.8nm,0.6s,baz=27,slow=4.1,SNR=5.7						
ARCES				LR	LR	03 44 34.9	
	comp=Z,39nm,18.2s,baz=164,slow=38						
	comp=Z,0.8nm,0.6s						
FINES	FINESS Array B	91.42	332	P	P	03 00 49.2	-1.3
	comp=Z,1.2nm,0.7s,baz=33,slow=4.5,SNR=5.0						
	comp=Z,1.2nm,0.7s						
NOA	NORSAR Array B	98.37	334	LR	LR	03 50 52.1	
	comp=Z,28nm,18.3s,baz=60,slow=38						
TORD	Torodi Ar. Bea	122.88	289	PKP	PKPdf	03 06 40.3	-1.5
	comp=Z,0.7nm,0.8s,baz=0.7,slow=3.7,SNR=3.8						

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*DNK **14** 02:52:04.4±1.7, 60°.60N×44°.05W, h9^{km}±7^{km}, ML3.0, Presumed earthquake*

*OTT **14** 02:52:08.2±0.5, 61°.00N×44°.37W, h18^{km}, ML4.1/3, Southern Greenland. 1071km northeast from Nutak, Nl*

ISC 14 02:52:04.4±1.3**, 60°.83N**±0°.07×**44°.32W**±0°.07**, h10^{km}, n14, σ3^s.32**/22**, Western Kalaallit Nunaat**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NRS	Narsarsuaq	0.62	302	*i* P	Pb	02 52 19.4	+2.0
NRS				*i* S	Sn	02 52 32.3	+2.9
NRS				IAML		02 52 38.3	
	comp=Z,622nm,0.2s						
IVI	Ivigtut	1.91	283	*e*P	Pn	02 52 39.3	+2.3
IVI				*i* S	Sb	02 53 06.2	+3.1
IVI				IAML		02 53 11.4	
	comp=Z,599nm,0.2s						
NUUK	Nuuk	4.80	318	*i* P	Pn	02 53 19.4	+2.7
ISOG	Isortoq, Green	5.31	25	*e*P	Pn	02 53 25.7	+2.0
ISOG				*i* S	Sn	02 54 25.3	+0.4
ISOG				IAML		02 54 29.1	
	comp=Z,18nm,0.3s						
ANGG	Ammassalik, Gr	5.67	29	*e*P	Pn	02 53 29.0	+0.4
SFJD	Kangerlussuaq	6.78	339	*e*P	Pn	02 53 45.3	+1.6
SFJD				*i* S	Sn	02 55 00.2	-0.7
SFJD				IAML		02 55 39.0	
	comp=Z,47nm,1.2s						
ILULI	Ilulissat	8.88	344	PN	Pn	02 54 11.9	-0.6
ILULI				SN	Sn	02 55 46.3	-6.2
ILULI				Trac		02 56 11.8	
	comp=Z,11nm,0.2s						
ILULI	Ilulissat	8.88	344	*i* S	Sn	02 55 49.2	-3.3
GDH	Godhavn	9.29	339	*i* P	Pn	02 54 19.4	+1.3
GDH				*i* S	Sn	02 55 58.7	-3.8

GDH				IAML		02 56 16.7	
	comp=Z,23nm,1.6s						
NINL	**Nain**	**10.00**	**252**	PN	**Pn**	**02 54 28.8**	**+0.8**
NINL				SN	**Sn**	**02 56 15.5**	**-4.6**
NINL				Trac		02 56 19.3	
	comp=Z,3.8nm,0.1s						
SUMG	**Summit**	**12.01**	**9**	*i* P	**Pn**	**02 54 55.0**	**-0.8**
SCHQ	**Schefferville**	**13.37**	**253**	PN	**Pn**	**02 55 15.3**	**+1.2**
SCHQ				SN	**Sn**	**02 57 36.1**	**-6.5**
SCHQ				Trac		02 57 41.9	
	comp=Z,5.4nm,0.3s						
DRLN	**Deer Lake**	**13.81**	**219**	PN	**Pn**	**02 55 22.7**	**+2.7**
DRLN				SN	**Sn**	**02 57 47.8**	**-5.4**
DRLN				Trac		02 58 06.7	
	comp=Z,206nm,3.0s						
BJBQ	**Baie Johan-Bee**	**14.80**	**233**	SN	Sn	02 58 10.0	-7.4

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*IDC **14** 03:25:11.5±1.2, 0°.73N×126°.70E, h0^{km}, mb4.0/4, mbtmp4.0/6, ML3.6/2, Error ellipse: s-maj=39.8km s-min=18.7km az=74.0*

*DJA **14** 03:25:13.9±0.3, 1°N±3°×12°7E±°, h10^{km}, M3.8/13, mb3.9/1, MLv3.8/13*

ISC 14 03:25:16.0±1.0**, 0°.79N**±0°.08×**126°.84E**±0°.10**, h35^{km}, n11, σ1^{s}37**/12**, mb4.0**/4**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TNTI	**Ternate**	**0.52**	**92**	P	**Pn**	**03 25 27.5**	**+0.5**
TNTI				AML	AML		
GAMI	**Galela, Maluku**	**1.41**	**42**	P	**Pn**	**03 25 39.7**	**+0.5**
GAMI				AML	AML		
MNI	**Manado**	**2.11**	**288**	P	**Pn**	**03 25 46.9**	**-1.9**
MNI				AML	AML		
SANI	**Sanana**	**2.94**	**197**	P	**Pn**	**03 26 00.7**	**+0.4**
SANI				AML	AML		
GTOI	**Gorontalo**	**3.83**	**268**	P	**Pn**	**03 26 14.2**	**+1.6**
KAPI	**Kappang**	**9.13**	**231**	Pn	**Pn**	**03 27 25.6**	**+0.2**
	0.6nm,0.3s,baz=36,slow=19,SNR=1.5 2.3nm,0.3s						
KAPI				AML	AML		
FITZ	**Fitzroy Crossi**	**18.80**	**184**	P	**P**	**03 29 32.1**	**-0.5**
	0.1nm,0.3s,baz=0.0,slow=4.0,SNR=4.4 3.3nm,0.8s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**21.87**	**161**	P	**P**	**03 30 05.7**	**-0.2**
	2.9nm,0.4s,baz=339,slow=11,SNR=32 2.9nm,0.4s						
ASAR	**Alice Springs**	**25.26**	**165**	P	**P**	**03 30 39.7**	**+0.6**
	3.3nm,0.4s,baz=341,slow=9.1,SNR=48						
ASAR				S	**S**	**03 34 59.8**	**-2.9**
	0.3nm,0.5s,baz=344,slow=19,SNR=4.5 3.3nm,0.4s						
MKAR	**Makanchi Array**	**60.03**	**326**	P	**P**	**03 35 20.0**	**+0.6**
	0.5nm,0.3s,baz=112,slow=7.7,SNR=9.7 0.5nm,0.3s						
KURBB	**Kurchatov Arra**	**64.27**	**328**	P	**P**	**03 35 48.3**	**+0.6**
	0.5nm,0.4s,baz=133,slow=6.5,SNR=14 0.5nm,0.4s						

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*JMA **14** 03:39:30.9±0.3, 43°.7N±0°.8×14°6E±°, h80^{km}±2^{km}, MV3.7/38, NEAR KUNASHIRI ISLAND*

JMA Felt I J1 at NEAR KUNASHIRI ISLAND .

*MOS **14** 03:39:31.9±0.8, 43°.81N×146°.32E, h48^{km}, mb4.2/4, Error ellipse: s-maj=19.3km s-min=15.7km az=70.2*

*SKHL **14** 03:39:32.3±0.1, 43°.80N×146°.40E, h57^{km}±8^{km}, mb4.8/4*

ISC 14 03:39:32.7±0.9**, 43°.74N**±0°.05×**146°.43E**±0°.05**, h48^{km}**±6^{km}**, n30, σ1^{s}34**/46**, mb3.9**/4**, 3C-1D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHO	**Shikotan**	**0.32**	**66**	*e*P	Pn	03 40 00.2	+18
SHO				AMB	AMB	03 40 00.9	
	540nm,0.2s						
SHO				*e*S	Sn	03 40 09.8	+22
SHO				A	A	03 40 10.3	
	3μm,0.3s						
SHO				A	A	03 40 10.3	
	8μm,0.3s						
YUK	**Yuzh-Kuril'sk**	**0.50**	**306**	*c i*PN	**Pn**	**03 39 44.1**	**+0.2**
YUK				*i* S	**Sn**	**03 39 54.0**	**+2.2**
YUK				pmax	pmax		
	comp=N,151nm,0.2s						
YUK				pmax	pmax		
	comp=E,87nm,0.2s						
YUK				pmax	pmax		
	comp=Z,728nm,0.2s						
YUK				smax	smax		
	comp=E,8μm,0.4s						
YUK				smax	smax		
	comp=N,8μm,0.5s						
YUK	**Yuzh-Kuril'sk**	**0.50**	**306**	*i* P	**Pn**	**03 39 44.2**	**+0.3**
YUK				AMB	AMB	03 39 44.4	
	comp=N,530nm,0.2s						
YUK				*i* S	**Sn**	**03 39 53.1**	**+1.3**
YUK				A	A	03 39 54.8	
	comp=N,8μm,0.3s						
YUK				A	A	03 39 54.8	
	comp=N,6μm,0.3s						
NEM2	**Nemuro 2**	**0.63**	**233**	P	**Pn**	**03 39 45.7**	**+0.3**
NEM2				S	**Sn**	**03 39 56.6**	**+2.0**
NMR	**Nemuro--Hokkai**	**0.63**	**234**	⇓*i*PN	**Pn**	**03 39 45.7**	**+0.2**
NMR				*i* S	**Sn**	**03 39 56.4**	**+1.7**
NMR	**Nemuro--Hokkai**	**0.63**	**234**	*i* P	**Pn**	**03 39 45.7**	**+0.2**
NMR				*i* S	**Sn**	**03 39 55.3**	**+0.6**
RUSJ	**Misakicho**	**0.93**	**293**	⇑*i*PN	**Pn**	**03 39 48.7**	**-0.7**
RUSJ				*i* S	**Sn**	**03 40 03.4**	**+1.8**
JRA	**Rausu**	**0.96**	**282**	P	**Pn**	**03 39 49.1**	**-0.8**
JRA				S	**Sn**	**03 40 02.7**	**+0.2**
JNSB	**Nemuroshibetsu**	**1.03**	**272**	P	**Pn**	**03 39 50.2**	**-0.6**
JKHN	**Kushirohamanak**	**1.14**	**235**	P	**Pn**	**03 39 51.5**	**-0.7**
JKHN				S	**Sn**	**03 40 06.6**	**0.0**
JNK	**Nakash**	**1.25**	**263**	P	**Pn**	**03 39 52.5**	**-1.3**
JAK	**Akkeshi**	**1.47**	**240**	P	**Pn**	**03 39 55.3**	**-1.5**
JAK				S	**Sn**	**03 40 13.6**	**-1.1**
KUR	**Kuril'sk**	**1.81**	**34**	*e*PN	**Pn**	**03 40 01.5**	**+0.1**
KUR				*i* S	**Sn**	**03 40 25.0**	**+1.8**
KUR				pmax	pmax		
	comp=N,30nm,0.2s						
KUR				pmax	pmax		
	comp=E,65nm,0.2s						
KUR				pmax	pmax		
	comp=Z,167nm,0.2s						
KUR				smax	smax		
	comp=E,417nm,0.4s						
KUR				smax	smax		
	comp=N,370nm,0.2s						
KUR	**Kuril'sk**	**1.81**	**34**	*e*P	**Pn**	**03 40 01.5**	**+0.1**
KUR				AMB	AMB	03 40 01.8	
	comp=N,170nm,0.2s						
KUR				*i* S	**Sn**	**03 40 24.0**	**+0.8**
KUR				A	A	03 40 27.1	
	comp=N,370nm,0.3s						
KUR				A	A	03 40 27.1	
	comp=N,420nm,0.3s						
JTKR	**Abashiri--Toko**	**1.84**	**278**	P	**Pn**	**03 40 00.2**	**-1.5**
JTKR				*e*S	**Sn**	**03 40 21.9**	**-1.9**
REI	**Reidovoe**	**1.90**	**36**	*e*P	**Pn**	**03 40 01.2**	**-1.4**
REI				*e*S	**Sn**	**03 40 22.1**	**-3.2**
JAR	**Ashorobuto**	**1.98**	**258**	P	**Pn**	**03 40 02.9**	**-0.9**
JAR				S	**Sn**	**03 40 26.7**	**-0.8**
JOB	**Onbets**	**2.07**	**247**	P	**Pn**	**03 40 03.8**	**-1.2**
JOB				S	**Sn**	**03 40 28.3**	**-1.2**
JMP	**Maruseppu**	**2.23**	**278**	P	**Pn**	**03 40 05.8**	**-1.5**
JCH	**Churui**	**2.51**	**244**	P	**Pn**	**03 40 09.1**	**-1.9**
ERM	**Erimo**	**2.96**	**235**	*i* PN	**Pn**	**03 40 17.4**	**+0.2**
VLA	**Vladivostok**	**10.60**	**272**	*i* PN	**Pn**	**03 42 01.6**	**-0.3**
SEY	**Seymchan**	**19.53**	**8**	*i* P	**Pn**	**03 43 55.9**	**-1.6**
SEY				pmax	pmax		
	comp=Z,3.0nm,1.4s						
SEY	**Seymchan**	**19.53**	**8**	*e*P	**Pn**	**03 43 55.9**	**-1.6**
ARTI	**Arti**	**54.10**	**317**	*i* P	**P**	**03 48 53.2**	**+0.9**
ARTI				pmax	pmax		
	comp=Z,2.0nm,1.1s						
OBN	**Obninsk**	**65.01**	**323**	⇑*e*P	**P**	**03 50 09.1**	**+1.7**
OBN				*e**PP	**pP**	**03 50 20.4**	**-0.5**
OBN				*e**SP	**sP**	**03 50 24.6**	**-1.8**
OBN						03 52 32.0	
OBN				*i* S	S	03 58 52.8	+7.2
OBN				*i*		03 59 51.2	
OBN				pmax	pmax		
	comp=Z,3.0nm,0.9s						
OBN				MLR	MLR		
	comp=Z,25nm,13.0s						
OBN	**Obninsk**	**65.01**	**323**	*e*P	**P**	**03 50 09.1**	**+1.7**
KBZ	**Khabaz**	**69.41**	**311**	*i* P	**P**	**03 50 36.3**	**+0.8**
KBZ				pmax	pmax		
	comp=Z,1.0nm,0.9s						
KBZ	**Khabaz**	**69.41**	**311**	*e*P	**P**	**03 50 36.3**	**+0.8**
NEUR	**Neytrino**	**69.82**	**311**	*i* P	**P**	**03 50 38.9**	**+0.6**
NEUR				pmax	pmax		
	comp=Z,1.0nm,1.1s						

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*IDC **14** 03:43:26.0±2.1, 4°.22S×154°.25E, h470^{km}±23^{km}, mb3.2/13, mbtmp4.1/15, Error ellipse: s-maj=19.7km s-min=13.3km az=115.0*

ISC 14 03:43:24.2±0.7**, 4°.2S**±0°.1×**154°.4E**±0°.1**, h450^{km}, n17, σ1^{s}23**/20**, mb3.7**/13**, Bougainville-Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KRVT	**Keravat (AS076**	**2.38**	**268**	S	**S**	**03 45 20.6**	**+2.7**
	259nm,0.5s,baz=23,slow=22,SNR=3.6						
PMG	**Port Moresby**	**8.86**	**234**	P	**P**	**03 45 30.8**	**+1.8**
	12nm,0.4s,baz=166,slow=17,SNR=2.7						
CTA	**Charters Tower**	**17.67**	**206**	P	**P**	**03 47 03.6**	**-0.1**
	5.5nm,0.6s,baz=25,slow=11,SNR=5.6						
DZM	**Mont Dzumac**	**21.25**	**148**	P	**P**	**03 47 37.8**	**+0.7**
	9.5nm,0.5s,baz=316,slow=16 9.5nm,0.5s						
WRA	**Warramunga Arr**	**25.04**	**230**	P	**P**	**03 48 10.9**	**-0.3**
	2.0nm,0.6s,baz=54,slow=9.3,SNR=17						
WRA				PcP	**PcP**	**03 51 31.4**	**-0.2**
	0.4nm,0.5s,baz=62,slow=2.3,SNR=4.7 2.0nm,0.6s						
ASAR	**Alice Springs**	**27.68**	**224**	P	**P**	**03 48 33.7**	**-0.7**
	1.4nm,0.4s,baz=57,slow=8.7,SNR=21						
ASAR				S	**S**	**03 52 41.2**	**-2.6**
	0.3nm,0.5s,baz=41,slow=16,SNR=4.5 1.4nm,0.4s						
STKA	**Stephens Creek**	**30.04**	**202**	P	**P**	**03 48 54.2**	**-0.7**
	1.2nm,0.3s,baz=34,slow=14,SNR=4.9 1.2nm,0.3s						
PETK	**Petropavlovsk-**	**57.17**	**2**	P	**P**	**03 52 27.2**	**+0.5**
	2.1nm,0.6s,baz=161,slow=6.0,SNR=2.4 2.1nm,0.6s						
VNDA	**Vanda**	**73.36**	**178**	P	**P**	**03 54 09.1**	**+0.5**
	1.4nm,0.8s,baz=339,slow=7.4,SNR=6.4 1.4nm,0.8s						
MKAR	**Makanchi Array**	**80.94**	**319**	P	**P**	**03 54 49.7**	**-0.9**
	0.2nm,0.4s,baz=99,slow=9.3,SNR=2.7 0.2nm,0.4s						
ILAR	**Eielson Array**	**81.02**	**22**	P	**P**	**03 54 50.1**	**-0.5**
	0.5nm,0.6s,baz=248,slow=5.6,SNR=6.6 0.5nm,0.6s						
KURBB	**Kurchatov Arra**	**84.33**	**322**	P	**P**	**03 55 06.4**	**-1.3**
	0.2nm,0.5s,baz=110,slow=4.1,SNR=2.1 0.2nm,0.5s						
QSPA	**South Pole Qui**	**85.75**	**180**	P	**P**	**03 55 14.9**	**+0.4**
	2.6nm,0.8s,baz=353,slow=1.2,SNR=12 2.6nm,0.8s						
MAW	**Mawson**	**86.73**	**203**	P	**P**	**03 55 18.4**	**-0.5**
	0.7nm,0.7s,baz=108,slow=7.5,SNR=6.4 0.7nm,0.7s						
BVAR	**Borovoye Array**	**89.73**	**323**	P	**P**	**03 55 32.9**	**-0.5**
	0.5nm,0.4s,baz=236,slow=1.6,SNR=3.6 0.5nm,0.4s						
NVAR	**Mina Array Bea**	**90.46**	**52**	P	**P**	**03 55 38.3**	**+1.0**
	0.2nm,0.7s,baz=248,slow=3.0,SNR=1.6 0.2nm,0.7s						
TORD	**Torodi Ar. Bea**	**151.63**	**290**	PKPbc	**PKPbc**	**04 02 27.2**	**-0.6**
	0.4nm,0.3s,baz=68,slow=1.7,SNR=13						
TORD				PKPab	**PKPab**	**04 02 37.4**	**-1.0**
	0.3nm,0.7s,baz=52,slow=3.9,SNR=1.4						

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*IDC **14** 03:53:33.0±2.0, 4°.29N×126°.87E, h0^{km}, mb3.5/4, mbtmp3.5/4, MS3.4/1, Error ellipse: s-maj=185.1km s-min=23.7km az=67.0*

*MAN **14** 03:53:34.0, 3°.68N×126°.26E, h5^{km}, MS3.4*

ISC 14 03:53:36.0±1.3**, 3°.74N**±0°.10×**125°.7E**±0°.4**, h10^{km}, n6, σ1^{s}15**/6**, mb3.6**/4**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	**Don Marcelino,**	**2.35**	**1**	*e*P	**Pn**	**03 54 13.5**	**-1.2**
DDMP				*e*S	**Sb**	**03 54 48.9**	**+1.3**
WRA	**Warramunga Arr**	**25.03**	**160**	P	**P**	**03 59 00.1**	**-0.3**
	1.4nm,1.0s,baz=343,slow=10,SNR=6.6 1.4nm,1.0s						
ASAR	**Alice Springs**	**28.40**	**164**	P	**P**	**03 59 31.5**	**+0.7**
	0.1nm,0.3s,baz=349,slow=9.8,SNR=1.4 0.1nm,0.3s						
MSVF	**Nonsavu**	**55.88**	**114**	LR	LR	04 25 56.9	
	comp=Z,32nm,19.7s,baz=110,slow=35						
MKAR	**Makanchi Array**	**56.95**	**326**	P	**P**	**04 03 22.0**	**+0.4**
	0.3nm,0.5s,baz=140,slow=7.0,SNR=2.7 0.3nm,0.5s						
KURBB	**Kurchatov Arra**	**61.16**	**328**	P	**P**	**04 03 50.5**	**-0.2**
	0.4nm,0.4s,baz=126,slow=6.3,SNR=5.5 0.4nm,0.4s						

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*FUNV **14** 04:06:50.2, 8°.59N×70°.11W, h28^{km}, MW2.8, Presumed earthquake*

*RSNC **14** 04:07:14.5±0.0, 10°N±2°×7°1W±°, h100^{km}±7^{km}, M2.1, ML2.1*

ISC 14 04:06:47.1±0.9**, 9°.38N**±0°.07×**70°.26W**±0°.04**, h8^{km}, n9, σ1^{s}51**/15**, Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SDV	**Santo Domingo**	**0.61**	**217**	P	**Pn**	**04 07 03.3**	**+1.0**
SDV				S	**Sn**	**04 07 11.2**	**-1.3**
SDV	**Santo Domingo**	**0.61**	**217**	*e*P	**Pn**	**04 07 02.3**	**0.0**
SDV				*e*S	**Sb**	**04 07 10.5**	**+1.5**
TURV	**Turiamo**	**2.61**	**66**	*i* P	**Pb**	**04 07 34.6**	**+0.3**
TURV				*e*S	**Sb**	**04 08 06.2**	**-0.4**
BENV	**Beln**	**2.69**	**77**	*i* P	**Pb**	**04 07 33.8**	**-1.8**
BENV				*e*S	**Sn**	**04 08 03.6**	**-0.1**
URIC	**Uribia, Colomb**	**2.87**	**324**	P	**Pg**	**04 07 43.1**	**+1.0**
OCAC	**Ocana**	**3.23**	**250**	P	**Pb**	**04 07 46.8**	**+2.0**
OCAC				S	**Sg**	**04 08 27.7**	**-3.2**
TACV	**Tcata**	**3.28**	**76**	*e*P	**Pn**	**04 07 39.6**	**+0.7**
FUNV	**FUNVISIS**	**3.57**	**72**	*e*P	**Pn**	**04 07 44.4**	**+1.5**
SJCC	**San Jacinto, C**	**4.88**	**276**	P	**Pb**	**04 08 11.8**	**-1.1**
SJCC				S	**Sb**	**04 09 11.3**	**-0.5**

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*IDC **14** 04:28:02.5±1.1, 34°.31N×25°.02E, h0^{km}, mb3.7/8, mbtmp3.6/12, ML3.6/4, MS2.5/1, Error ellipse: s-maj=18.8km s-min=13.4km az=35.0*

*ISK **14** 04:28:04.2, 34°.23N×25°.16E, h8^{km}, ML3.3/12*

*ATH **14** 04:28:05.0, 34°.26N×25°.15E, h8^{km}±1^{km}, ML3.1/8, Latitude uncertainty: 2 km; Longitude uncertainty: 0 km*

*THE **14** 04:28:08.6, 34°N±32°×2°5E±1°5, h21^{km}±20^{km}, M2.9/6, MLh2.9/6*

*AFAD **14** 04:28:13.8, 34°.92N×25°.77E, h8^{km}±4^{km}, ML2.5*

ISC 14 04:28:04.6±1.3**, 34°.25N**±0°.06×**25°.19E**±0°.03**, h18^{km}**±4^{km}**, n76, σ2^{s}33**/95**, mb3.8**/7**, Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SIVA	**Sivas**	**0.82**	**338**	P	**Pb**	**04 28 21.0**	**+0.7**
SIVA				AML	AML		
SIVA	**Sivas**	**0.82**	**338**	P	**Pb**	**04 28 20.7**	**+0.4**
SIVA				S	**Sb**	**04 28 30.9**	**-0.2**
SIVA				AML	AML		
AGNA	**Agios Nikolaos**	**1.03**	**25**	P	**Pn**	**04 28 25.2**	**+1.1**
AGNA				AML	AML		
IDI	**Anoyia**	**1.06**	**347**	Pn	**Pn**	**04 28 25.0**	**+0.5**
	32nm,0.3s,baz=165,slow=22,SNR=136						
IDI				Sn	**Sn**	**04 28 41.7**	**+2.7**
	54nm,0.3s,baz=233,slow=20,SNR=8.8						
IDI	**Anoyia**	**1.06**	**347**	P	**Pn**	**04 28 25.2**	**+0.6**
IDI				S	**Sb**	**04 28 38.3**	**+0.3**
IDI				AML	AML		
IDI	**Anoyia**	**1.06**	**347**	Pn	**Pn**	**04 28 25.1**	**+0.5**
IDI				Sn	**Sn**	**04 28 40.8**	**+1.9**
IDI				AML	AML		
IDI	**Anoyia**	**1.06**	**347**	P	**Pb**	**04 28 24.8**	**+0.4**
IDI				S	**Sn**	**04 28 39.6**	**+0.7**
IDI				AML	AML		
NPS	**Neapolis**	**1.07**	**19**	P	**Pn**	**04 28 26.2**	**+1.5**
NPS				AML	AML		
NPS	**Neapolis**	**1.07**	**19**	P	**Pn**	**04 28 25.6**	**+1.0**
GVD	**Gavdhos**	**1.08**	**303**	P	**Pn**	**04 28 25.3**	**+0.5**
GVD				AML	AML		
GVD	**Gavdhos**	**1.08**	**303**	Pg	**Pn**	**04 28 25.3**	**+0.5**
GVD				Sg	**Sn**	**04 28 40.7**	**+1.4**
GVD	**Gavdhos**	**1.08**	**303**	P	**Pb**	**04 28 25.1**	**+0.4**
GVD				S	**Sb**	**04 28 39.0**	**+0.5**
GVDS	**Gavdos**	**1.10**	**302**	P	**Pb**	**04 28 25.6**	**+0.5**
ZKR	**Zakros**	**1.21**	**44**	Pn	**Pn**	**04 28 28.4**	**+1.8**
ZKR				Sn	**Sn**	**04 28 45.9**	**+3.5**
ZKR				AML	AML		
ZKR	**Zakros**	**1.21**	**44**	P	**Pn**	**04 28 28.4**	**+1.8**
ZKR				S	**Sn**	**04 28 44.7**	**+2.2**
ZKR				AML	AML		
VAM	**Vamos**	**1.41**	**325**	P	**Pg**	**04 28 30.7**	**-1.1**
VAM				S	**Sg**	**04 28 49.0**	**-1.3**
VAM				AML	AML		
IMMV	**Iera Moni Meta**	**1.56**	**321**	Pn	**Pb**	**04 28 33.1**	**+0.2**
IMMV				AML	AML		
IMMV	**Iera Moni Meta**	**1.56**	**321**	P	**Pb**	**04 28 32.6**	**-0.3**
IMMV				AML	AML		
KNDR	**Palaiochora Ch**	**1.62**	**308**	P	**Pb**	**04 28 33.8**	**-0.1**
KNDR				AML	AML		
KARP	**Karpathos**	**2.07**	**51**	Pn	**Pb**	**04 28 41.9**	**+0.2**
KARP				AML	AML		
KARP	**Karpathos**	**2.07**	**51**	P	**Pn**	**04 28 40.9**	**+2.4**
KARP				AML	AML		
THR6	**Thira Island,**	**2.11**	**5**	P	**Pn**	**04 28 40.8**	**+1.9**
THERA	**Ancient Thera,**	**2.12**	**6**	P	**Pn**	**04 28 40.7**	**+1.6**
THERA				AML	AML		
THERA	**Ancient Thera,**	**2.12**	**6**	P	**Pn**	**04 28 40.6**	**+1.5**
SNT5	**Nea Kammeni, S**	**2.15**	**4**	P	**Pn**	**04 28 41.0**	**+1.5**
THR3	**Thira Island,**	**2.16**	**5**	P	**Pn**	**04 28 41.2**	**+1.6**
THR8	**Santorini-Mono**	**2.16**	**6**	P	**Pn**	**04 28 40.9**	**+1.3**
THR5	**Thira Island,**	**2.16**	**3**	P	**Pn**	**04 28 41.6**	**+1.9**
SAP3	**Santorini-Thir**	**2.18**	**3**	P	**Pn**	**04 28 42.1**	**+2.1**
MHLO	**Agia Marina, M**	**2.52**	**345**	P	**Pn**	**04 28 45.6**	**+1.1**
MHLO	**Agia Marina, M**	**2.52**	**345**	P	**Pn**	**04 28 46.2**	**+1.7**
KTHA	**Kythira Island**	**2.65**	**320**	P	**Pn**	**04 28 47.9**	**+1.5**
YAZI	**Mula-Dat§a-**	**3.05**	**37**	P	**Pn**	**04 28 53.8**	**+2.0**
YAZI				S	**Sn**	**04 29 24.7**	**-3.1**
ARG	**Arkhangelos**	**3.10**	**50**	Pn	**Pn**	**04 28 55.4**	**+2.8**
DAT	**Datca**	**3.15**	**38**	Pn	**Pn**	**04 28 56.0**	**+2.7**
DAT				AML	AML		
DAT	**Datca**	**3.15**	**38**	P	**Pn**	**04 28 55.3**	**+2.0**
DAT				S	**Sn**	**04 29 28.0**	**-2.5**
BDRM	**Kayabasi**	**3.35**	**33**	P	Pn	04 28 49.2	-6.8
BDRM				S	Sn	04 29 26.3	-9.1
TURN	**Turunc**	**3.54**	**44**	Pn	**Pn**	**04 29 01.6**	**+3.0**
TURN	**Turunc**	**3.54**	**44**	P	**Pn**	**04 29 01.4**	**+2.8**
TURN				S	**Sn**	**04 29 36.4**	**-3.6**
MLSB	**Milas**	**3.69**	**34**	Pn	**Pn**	**04 29 03.7**	**+3.0**
DALY	**Dalyan (Mula)**	**3.81**	**47**	Pn	**Pn**	**04 29 05.7**	**+3.4**
DALY				AML	AML		
DALY	**Dalyan (Mula)**	**3.81**	**47**	P	**Pn**	**04 29 05.2**	**+2.9**
DALY				S	**Sn**	**04 29 42.9**	**-3.7**
DALY				IAML		04 29 54.0	
	comp=N,17nm,0.5s						
DALY				IAML		04 29 55.0	
	comp=E,19nm,1.2s						
YER	**Yerkesik**	**3.82**	**40**	P	**Pn**	**04 29 05.9**	**+3.4**
YER	**Yerkesik**	**3.82**	**40**	Pn	**Pn**	**04 29 05.6**	**+3.1**
YER				AML	AML		
MULA	**Mugla, Merkez-**	**3.93**	**39**	P	**Pn**	**04 29 06.3**	**+2.2**
IZZE	**Mula-Seydike**	**3.96**	**55**	P	**Pn**	**04 29 06.3**	**+2.0**
IZZE				S	**Sn**	**04 29 46.5**	**-3.7**
FETY	**Fethiye**	**3.97**	**52**	Pn	**Pn**	**04 29 07.4**	**+2.9**
FETY				AML	AML		
SABU	**Mula-Dalaman**	**4.01**	**49**	P	**Pn**	**04 29 07.1**	**+2.0**
SABU				S	**Sn**	**04 29 47.6**	**-4.0**
SABU				IAML		04 30 00.0	
	comp=E,13nm,0.6s						
SABU				IAML		04 30 07.0	
	comp=N,14nm,0.8s						
AKAS	**Kas**	**4.12**	**60**	Pn	**Pn**	**04 29 09.8**	**+3.1**
AKAS				AML	AML		
AKAS	**Kas**	**4.12**	**60**	P	**Pn**	**04 29 08.8**	**+2.1**
AKAS				S	**Sn**	**04 29 49.0**	**-5.5**
AKAS				IAML		04 30 02.0	
	comp=E,22nm,0.6s						
VILL	**Villia**	**4.19**	**339**	P	**Pn**	**04 29 08.8**	**+1.3**
VILL				S	**Sn**	**04 29 56.4**	**+0.4**
CAME	**Cameli-Denizli**	**4.29**	**50**	Pn	**Pn**	**04 29 12.2**	**+3.1**
CAME				AML	AML		
ESEN	**Aydn-Nazilli**	**4.37**	**35**	P	**Pn**	**04 29 13.2**	**+3.2**
ESEN				S	**Sn**	**04 29 53.3**	**-7.0**
TAVA	**DENIZLI_Tavas**	**4.41**	**42**	P	**Pn**	**04 29 13.5**	**+2.9**
TAVA				IAML		04 30 09.0	
	comp=N,8.7nm,0.3s						
TAVA				IAML		04 30 09.0	
	comp=E,14nm,0.5s						
KNIK	**Mula-Seydike**	**4.41**	**53**	P	**Pn**	**04 29 12.8**	**+2.1**
KNIK				IAML		04 30 15.0	
	comp=E,11nm,1.0s						
KNIK				IAML		04 30 31.0	
	comp=N,7.8nm,0.6s						
CAEL	**Denizli, Camel**	**4.42**	**48**	P	**Pn**	**04 29 14.9**	**+4.2**
IZMR	**zmir-demi**	**4.47**	**29**	P	**Pn**	**04 29 13.0**	**+1.6**
IZMR				IAML		04 30 57.0	
	comp=E,7.1nm,1.7s						
IZMR				IAML		04 31 08.0	
	comp=N,7.0nm,1.3s						
ELL	**Elmali**	**4.59**	**56**	Pn	**Pn**	**04 29 16.4**	**+3.3**
ELL				AML	AML		
DNIZ	**Denizli-Tavas-**	**4.59**	**42**	P	Pn	04 29 08.9	-4.2
DNIZ				S	**Sn**	**04 30 00.5**	**-5.6**
APMY	**Acipayam-Deniz**	**4.63**	**45**	Pn	**Pn**	**04 29 17.2**	**+3.5**
APMY				AML	AML		
GOLH	**Golhisar**	**4.64**	**49**	P	**Pn**	**04 29 14.3**	**+0.5**
SULTU	**Buldan**	**4.77**	**36**	P	**Pn**	**04 29 17.9**	**+2.2**
SULTU				S	Sn	04 30 02.9	-7.6
SULTU				IAML		04 30 24.0	
	comp=E,8.9nm,0.8s						
SULTU				IAML		04 30 40.0	
	comp=N,13nm,1.5s						
BRTR	**Keskin Array B**	**8.69**	**49**	LR	LR	04 33 52.3	
	comp=Z,33nm,19.9s,baz=274,slow=40						
EIL	**Elat**	**9.47**	**116**	Pn	**Pn**	**04 30 20.6**	**+0.6**
	0.8nm,0.3s,baz=38,slow=22,SNR=1.8						
EIL				Sn	**Sn**	**04 32 02.4**	**-3.6**
	0.5nm,0.3s,baz=304,slow=18,SNR=1.5 2.3nm,0.5s						
EIL				AML	AML		
ASF	**Jabal al Asfar**	**10.03**	**99**	Pn	**Pn**	**04 30 28.1**	**+0.4**
	0.2nm,0.3s,baz=222,slow=15,SNR=1.5						
ASF				Sn	**Sn**	**04 32 19.1**	**-0.7**
	0.3nm,0.3s,baz=284,slow=20,SNR=1.7 0.8nm,0.5s						
ASF				AML	AML		
KBZ	**Khabaz**	**16.68**	**50**	Pn	**Pn**	**04 31 59.1**	**+2.0**
	0.1nm,0.3s,baz=279,slow=4.3,SNR=4.7 0.8nm,0.4s						
KBZ				AML	AML		
AKASG	**Malin Array Be**	**16.70**	**9**	Pn	**Pn**	**04 31 57.7**	**+0.2**
	0.8nm,0.3s,baz=202,slow=11,SNR=4.0 0.1nm,0.2s						
AKASG				AML	AML		
GERES	**GERESS Array B**	**16.90**	**333**	Pn	**Pn**	**04 31 59.5**	**-0.6**
	0.1nm,0.3s,baz=140,slow=13,SNR=9.0						
ESDC	**Sonseca Array**	**23.86**	**292**	P	**P**	**04 33 16.1**	**-0.8**
	0.5nm,0.9s,baz=67,slow=4.2,SNR=1.9 0.5nm,0.9s						
HFS	**Hagfors**	**26.96**	**347**	P	**P**	**04 33 44.6**	**-0.2**
	2.1nm,1.0s,baz=185,slow=14,SNR=1.6 2.1nm,1.0s						
FINES	**FINESS Array B**	**27.21**	**1**	P	**P**	**04 33 46.3**	**-0.7**
	3.8nm,1.0s,baz=194,slow=7.3,SNR=3.4 3.8nm,1.0s						
TORD	**Torodi Ar. Bea**	**29.93**	**231**	P	**P**	**04 34 12.2**	**+0.5**
	0.6nm,0.4s,baz=33,slow=8.8,SNR=12 0.6nm,0.4s						
KURBB	**Kurchatov Arra**	**41.68**	**50**	P	**P**	**04 35 52.7**	**+0.9**
	0.1nm,0.3s,baz=269,slow=8.2,SNR=1.9 0.1nm,0.3s						
MKAR	**Makanchi Array**	**44.26**	**56**	P	**P**	**04 36 13.8**	**+0.9**
	0.6nm,0.8s,baz=282,slow=7.2,SNR=3.6 0.6nm,0.8s						
ZALV	**Zalesovo Beam**	**45.62**	**46**	P	**P**	**04 36 24.5**	**+1.0**
	0.8nm,0.5s,baz=270,slow=8.6,SNR=3.1 0.8nm,0.5s						
SONM	**Songino Array**	**60.05**	**50**	P	**P**	**04 38 10.0**	**-0.4**
	0.6nm,0.6s,baz=291,slow=4.0,SNR=2.1 0.6nm,0.6s						

IDC 14 04:42:40.2±2.2**, 2°.64N×127°.79E, h0^{km}, mb3.6**/4**, mbtmp3.6**/4**, Error ellipse: s-maj=190.2km s-min=22.5km az=68.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**23.34**	**164**	P	P	04 47 50.6	+0.3
	0.5nm,0.6s,baz=343,slow=10,SNR=3.9						
	0.5nm,0.6s						
ASAR	**Alice Springs**	**26.81**	**168**	P	P	04 48 21.8	-0.6
	0.4nm,0.5s,baz=354,slow=7.9,SNR=8.6						
	0.4nm,0.5s						
MKAR	**Makanchi Array**	**59.05**	**325**	P	P	04 52 42.8	+0.6
	0.4nm,0.4s,baz=125,slow=7.6,SNR=4.9						
	0.4nm,0.4s						
KURBB	**Kurchatov Arra**	**63.23**	**327**	P	P	04 53 10.0	-0.3
	0.6nm,0.4s,baz=126,slow=5.7,SNR=4.9						
	0.6nm,0.4s						

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*IDC **14** 04:54:09.7±0.5, 17°.71N×146°.81E, h0^{km}, mb4.1/19, mbtmp4.1/20, ML4.9/1, MS3.2/9, Error ellipse: s-maj=20.2km s-min=12.6km az=99.0*

*NEIC **14** 04:54:17.2±1.6, 17°.70N±0°.10×146°.7E±0°.2, h50^{km}±8^{km}, mb4.5/39, Error ellipse: s-maj=25.4km s-min=13.5km az=104.0*

ISC 14 04:54:15.8±0.5**, 17°.63N**±0°.07×**146°.9E**±0°.1**, h48^{km}, n82, σ1^{s}.19**/75**, mb4.4**/38**, MS3.2**/8**, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DPSS	**Saipan**	**2.59**	**204**		**Pn**	**04 54 56.5**	**+1.2**
GUMO	**Guam**	**4.46**	**206**	Pn	**Pn**	**04 55 21.4**	**+0.5**
	55nm,0.3s,baz=21,slow=14,SNR=7.2						
GUMO				Sn	**Sn**	**04 56 11.7**	**+0.2**
	118nm,0.3s,baz=5.2,slow=22,SNR=11						
GUMO				LR	LR	04 56 56.6	
	comp=Z,95nm,21.3s,baz=71,slow=37						
	76nm,0.3s						
GUMO				AML	AML		
GUMO	**Guam**	**4.46**	**206**	Pn	**Pn**	**04 55 21.1**	**+0.2**
PATS	**Pohnpei**	**15.47**	**132**	Pn	**Pn**	**04 57 46.0**	**-5.0**
H11S3	**WAKE ISLAND Hy**	**18.85**	**84**	T	T	05 17 57.0	
	baz=278						
H11S1	**WAKE ISLAND Hy**	**18.86**	**84**	T	T	05 17 55.7	
	baz=278						
H11S2	**WAKE ISLAND Hy**	**18.87**	**84**	T	T	05 17 59.3	
	baz=278						
H11N1	**WAKE ISLAND Hy**	**19.07**	**81**	T	T	05 18 06.4	
	baz=266,slow=74,SNR=3.9						
H11N2	**WAKE ISLAND Hy**	**19.08**	**81**	T	T	05 18 07.8	
	baz=266,slow=74,SNR=6.4						
H11N3	**WAKE ISLAND Hy**	**19.09**	**81**	T	T	05 18 06.8	
	baz=266,slow=74,SNR=3.2						
MJAR	**Matsushiro Arr**	**20.34**	**340**	P	**P**	**04 58 46.9**	**-1.3**
	0.6nm,0.3s,baz=166,slow=10.0,SNR=7.2						
	0.6nm,0.3s						
MAJO	**Matsushiro**	**20.35**	**340**	P	**P**	**04 58 46.7**	**-1.5**
MAJO				IAmb	IAmb	04 59 14.3	
	comp=Z,32nm,1.4s						
DAV	**Davao City (W)**	**23.28**	**246**	LR	LR	05 06 34.3	
	comp=Z,31nm,20.6s,baz=343,slow=32						
COEN	**Coen**	**31.59**	**187**	P	**P**	**05 00 35.5**	**+1.3**
KNRA	**Kununurra**	**37.60**	**209**	P	**P**	**05 01 27.2**	**+1.1**
KNRA				IAmb	IAmb	05 01 46.6	
	comp=Z,6.1nm,1.4s						
WB0	**Warramunga Arr**	**39.13**	**199**	P	**P**	**05 01 37.9**	**-1.1**
WB0				IAmb	IAmb	05 02 03.5	
	comp=Z,8.4nm,1.1s						
WR8	**Warramunga Arr**	**39.28**	**199**	P	**P**	**05 01 39.9**	**-0.3**
WR8				IAmb	IAmb	05 01 58.1	
	comp=Z,5.8nm,1.1s						
WRA	**Warramunga Arr**	**39.31**	**199**	P	**P**	**05 01 40.3**	**-0.2**
	comp=Z,2.3nm,0.6s,baz=26,slow=8.8,SNR=27						
WRA				PcP	**PcP**	**05 03 48.9**	**+0.4**
	comp=Z,0.8nm,0.4s,baz=18,slow=3.5,SNR=6.0						
	comp=Z,2.3nm,0.6s						
WRA	**Warramunga Arr**	**39.31**	**199**	P	**P**	**05 01 40.2**	**-0.3**
FITZ	**Fitzroy Crossi**	**41.19**	**212**	P	**P**	**05 01 55.3**	**-0.7**
MA2	**Magadan**	**41.99**	**3**	LR	LR	05 16 23.5	
	comp=Z,20nm,20.4s,baz=106,slow=32						
ASAR	**Alice Springs**	**42.95**	**198**	P	**P**	**05 02 10.8**	**+0.5**
	comp=Z,0.7nm,0.4s,baz=22,slow=7.3,SNR=15						
ASAR				PcP	**PcP**	**05 04 00.8**	**+0.5**
	comp=Z,0.9nm,0.6s,baz=28,slow=3.2,SNR=5.6						
	comp=Z,0.7nm,0.4s						
ASAR	**Alice Springs**	**42.95**	**198**	P	**P**	**05 02 10.9**	**+0.6**
SONM	**Songino Array**	**44.68**	**322**	P	**P**	**05 02 22.9**	**-1.2**
	comp=Z,0.7nm,0.7s,baz=145,slow=8.4,SNR=3.6						
	comp=Z,0.7nm,0.7s						
SONM	**Songino Array**	**44.68**	**322**	P	**P**	**05 02 21.7**	**-2.4**
CMAR	**Chiang Mai Arr**	**45.48**	**279**	P	**P**	**05 02 31.1**	**+0.3**
	comp=Z,1.0nm,0.3s,baz=78,slow=8.5,SNR=1.7						
CMAR				LR	LR	05 22 23.8	
	comp=Z,12nm,18.0s,baz=250,slow=37						
	comp=Z,1.0nm,0.3s						
MSVF	**Nonsavu**	**46.64**	**137**	LR	LR	05 19 30.6	
	comp=Z,33nm,18.2s,baz=118,slow=32						
STKA	**Stephens Creek**	**49.48**	**186**	P	**P**	**05 03 01.3**	**-0.2**
	comp=Z,1.6nm,0.5s,baz=351,slow=6.0,SNR=4.0						
STKA				LR	LR	05 25 24.0	
	comp=Z,77nm,18.2s,baz=206,slow=38						
	comp=Z,1.6nm,0.5s						
BBOO	**Buckleboo**	**51.21**	**192**	P	**P**	**05 03 14.8**	**+0.3**
O15K	**Ungalikthiuk R**	**56.53**	**30**	P	**P**	**05 03 54.5**	**+1.4**
N17K	**Nushagak Hills**	**58.28**	**29**	P	**P**	**05 04 07.4**	**+1.9**
N17K				IAmb	IAmb	05 04 15.4	
	comp=Z,7.8nm,1.4s						
SII	**Sitkinak Islan**	**58.46**	**34**	P	**P**	**05 04 06.8**	**0.0**
ZALV	**Zalesovo Beam**	**59.55**	**323**	P	**P**	**05 04 14.0**	**-0.3**
	comp=Z,1.7nm,0.5s,baz=107,slow=7.5,SNR=7.9						
	comp=Z,1.7nm,0.5s						
N19K	**Bonanza Creek**	**59.63**	**29**	P	**P**	**05 04 16.7**	**+1.8**
N19K				IAmb	IAmb	05 04 17.2	
	comp=Z,5.3nm,1.1s						
KDAK	**Kodiak Island**	**59.64**	**33**	P	**P**	**05 04 15.5**	**+0.6**
	comp=Z,3.1nm,1.1s,baz=254,slow=7.4,SNR=1.4						
KDAK				LR	LR	05 30 22.9	
	comp=Z,13nm,18.8s,baz=226,slow=36						
	comp=Z,3.1nm,1.1s						
MKAR	**Makanchi Array**	**60.01**	**314**	P	**P**	**05 04 17.6**	**-0.1**
	comp=Z,0.7nm,0.5s,baz=92,slow=8.4,SNR=7.2						
	comp=Z,0.7nm,0.5s						
MKAR	**Makanchi Array**	**60.01**	**314**	P	**P**	**05 04 17.1**	**-0.6**
CNPM	**China Poot**	**60.79**	**31**	P	**P**	**05 04 23.3**	**+0.5**
CAST	**Castle Rocks**	**61.54**	**27**	P	**P**	**05 04 28.0**	**+0.2**
CAST				IAmb	IAmb	05 04 30.3	
	comp=Z,2.8nm,0.9s						
H21K	**Melozitna Rive**	**61.99**	**24**	P	**P**	**05 04 32.5**	**+1.8**
BPAW	**Bear Paw Mtn.**	**62.22**	**26**	P	**P**	**05 04 33.8**	**+1.4**
BPAW				IAmb	IAmb	05 04 35.0	
	comp=Z,3.7nm,1.0s						
TRF	**Thorofare Moun**	**62.32**	**27**	P	**P**	**05 04 33.4**	**+0.2**
TRF				IAmb	IAmb	05 05 03.8	
	comp=Z,8.0nm,1.5s						
PWL	**Port Wells**	**62.53**	**30**	P	**P**	**05 04 34.9**	**+0.5**
PWL				IAmb	IAmb	05 04 36.4	
	comp=Z,3.5nm,0.8s						
MLY	**Manley**	**62.60**	**25**	P	**P**	**05 04 35.0**	**+0.1**
MLY				IAmb	IAmb	05 04 37.0	
	comp=Z,2.8nm,0.9s						
SML	**Sawmill**	**62.76**	**29**	P	**P**	**05 04 37.3**	**+1.3**
SML				IAmb	IAmb	05 04 38.0	
	comp=Z,4.0nm,0.8s						
KURBB	**Kurchatov Arra**	**62.87**	**318**	P	**P**	**05 04 36.9**	**0.0**
	comp=Z,2.5nm,0.7s,baz=96,slow=7.3,SNR=19						
	comp=Z,2.5nm,0.7s						
RND	**Reindeer**	**62.93**	**27**	P	**P**	**05 04 37.5**	**+0.3**
RND				IAmb	IAmb	05 04 57.2	
	comp=Z,5.1nm,1.4s						
NRIK	**Noril'sk**	**63.00**	**340**	P	**P**	**05 04 37.2**	**-0.1**
	comp=Z,3.4nm,0.5s,baz=98,slow=3.7,SNR=6.4						
NRIK				LR	LR	05 31 46.5	
	comp=Z,25nm,21.0s,baz=160,slow=36						
	comp=Z,3.4nm,0.5s						
D22K	**Ayikyak River**	**63.19**	**21**	P	**P**	**05 04 40.4**	**+1.7**
E22K	**Anaktuvuk Pass**	**63.22**	**22**	P	**P**	**05 04 40.4**	**+1.4**
FID	**Port Fidalgo**	**63.39**	**30**	P	**P**	**05 04 41.2**	**+1.0**
FID				IAmb	IAmb	05 04 49.8	
	comp=Z,4.0nm,0.8s						
D23K	**Nanushuk River**	**63.90**	**21**	P	**P**	**05 04 45.5**	**+2.2**
D23K				IAmb	IAmb	05 04 48.6	
	comp=Z,6.0nm,1.1s						
H24K	**Noodor Dome**	**63.98**	**25**	P	**P**	**05 04 45.3**	**+1.3**
ILAR	**Eielson Array**	**64.11**	**26**	P	**P**	**05 04 44.9**	**+0.1**
	comp=Z,1.0nm,0.8s,baz=245,slow=5.7,SNR=11						
	comp=Z,1.0nm,0.8s						
ILAR	**Eielson Array**	**64.11**	**26**	P	**P**	**05 04 44.4**	**-0.5**
VRDI	**Verde Repeater**	**64.93**	**30**	P	**P**	**05 04 51.2**	**+0.7**
SCRK	**Sand Creek**	**65.17**	**27**	P	**P**	**05 04 52.6**	**+0.7**
SCRK				IAmb	IAmb	05 04 53.8	
	comp=Z,4.3nm,1.2s						
BMAR	**Burnt Mountain**	**65.65**	**23**	P	**P**	**05 04 56.3**	**+1.4**
BCAR	**Beaver Creek A**	**65.99**	**28**	P	**P**	**05 04 58.5**	**+1.4**
M29M	**Somme Creek**	**67.43**	**29**	P	**P**	**05 05 08.2**	**+1.8**
M29M				IAmb	IAmb	05 05 09.4	
	comp=Z,3.0nm,0.8s						
H29M	**Whitestone**	**67.86**	**25**	P	**P**	**05 05 10.4**	**+1.5**
H29M				IAmb	IAmb	05 05 52.8	
	comp=Z,8.2nm,1.4s						
BVAR	**Borovoye Array**	**68.01**	**321**	P	**P**	**05 05 10.1**	**0.0**
	comp=Z,2.6nm,0.5s,baz=87,slow=7.5,SNR=8.8						
	comp=Z,2.6nm,0.5s						
Q32M	**Nakina River**	**70.37**	**33**	P	**P**	**05 05 26.4**	**+1.6**
Q32M				IAmb	IAmb	05 05 38.6	
	comp=Z,4.9nm,1.1s						
PPT	**Papeete**	**71.64**	**116**	LR	LR	05 31 34.2	
	comp=Z,26nm,18.8s,baz=195,slow=31						
ABKAR	**Akbulak array**	**74.89**	**317**	P	**P**	**05 05 51.0**	**-0.6**
I02E	**Swisshome, OR**	**77.44**	**48**	P	**P**	**05 06 07.6**	**+1.4**
YKA	**Yellowknife Ar**	**78.41**	**28**	P	**P**	**05 06 12.1**	**+1.0**
	comp=Z,1.3nm,0.8s,baz=284,slow=5.5,SNR=3.2						
	comp=Z,1.3nm,0.8s						
YBH	**Yreka Blue Hor**	**78.78**	**50**	P	**P**	**05 06 15.0**	**+1.2**
	comp=Z,1.4nm,0.8s,baz=240,slow=8.1,SNR=5.5						
	comp=Z,1.4nm,0.8s						
WIFE	**Three Sisters-**	**78.88**	**47**	P	**P**	**05 06 15.4**	**+1.0**
PINE	**Pine Mountain**	**79.55**	**47**	P	**P**	**05 06 20.0**	**+1.9**
PINE				IAmb	IAmb	05 06 20.9	
	comp=Z,6.0nm,0.7s						
PNTR	**Pine Nut**	**81.75**	**52**	P	**P**	**05 06 30.9**	**+0.9**
PNTR				IAmb	IAmb	05 06 32.6	
	comp=Z,3.9nm,0.8s						
KVN	**Kaiserville**	**82.88**	**51**	P	**P**	**05 06 36.4**	**+0.5**
NVAR	**Mina Array Bea**	**82.91**	**52**	P	**P**	**05 06 37.5**	**+1.4**
	comp=Z,1.1nm,0.6s,baz=268,slow=5.6,SNR=16						
	comp=Z,1.1nm,0.6s						
ARCES	**ARCESS Array B**	**83.85**	**342**	P	**P**	**05 06 40.5**	**+0.4**
	comp=Z,2.6nm,0.6s,baz=69,slow=6.8,SNR=13						
	comp=Z,2.6nm,0.6s						
ARCES	**ARCESS Array B**	**83.85**	**342**	P	**P**	**05 06 40.2**	**+0.2**
PDAR	**Pinedale Array**	**87.77**	**46**	P	**P**	**05 07 00.7**	**+0.4**
	comp=Z,0.2nm,0.5s,baz=292,slow=3.6,SNR=6.1						
	comp=Z,0.2nm,0.5s						
PDAR	**Pinedale Array**	**87.77**	**46**	P	**P**	**05 07 00.9**	**+0.6**
FINES	**FINESS Array B**	**88.32**	**336**	P	**P**	**05 07 01.8**	**-0.4**
	comp=Z,1.3nm,0.5s,baz=63,slow=5.2,SNR=10						
	comp=Z,1.3nm,0.5s						
FINES	**FINESS Array B**	**88.32**	**336**	P	**P**	**05 07 01.6**	**-0.5**
TORD	**Torodi Ar. Bea**	**134.00**	**309**	PKP	**PKPdf**	**05 13 29.2**	**+0.4**
	comp=Z,0.7nm,0.7s,baz=60,slow=2.4,SNR=2.8						
DBIC	**Dimbokro**	**143.09**	**308**	PKP	**PKPdf**	**05 13 44.1**	**-1.3**
	comp=Z,4.3nm,1.0s,baz=56,slow=4.1,SNR=1.8						
LPAZ	**La Paz**	**146.51**	**93**	PKPbc	**PKPab**	**05 13 55.2**	**+0.6**
	comp=Z,1.1nm,0.5s,baz=331,slow=2.6,SNR=9.6						

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*IDC **14** 04:59:48.3±3.3, 36°.25N×71°.14E, h223^{km}±29^{km}, mb3.4/15, mbtmp4.0/20, Error ellipse: s-maj=21.5km s-min=14.6km az=13.0*

*NEIC **14** 04:59:50.5±1.9, 36°.46N±0°.08×71°.18E±0°.05, h235^{km}±8^{km}, mb4.0/19, Error ellipse: s-maj=11.6km s-min=5.7km az=185.0*

*NNC **14** 04:59:54.6±2.1, 36°.82N×70°.94E, h222^{km}±21^{km}, mb2.7, mpv3.6, Error ellipse: s-maj=20.5km s-min=15.5km az=53.0*

ISC 14 04:59:50.7±0.6**, 36°.48N**±0°.05×**71°.25E**±0°.06**, h250^{km}, n72, σ1^{s}.94**/78**, mb3.9**/24**, 2C-6D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBL	**Kabul**	**2.64**	**224**		**Pn**	**05 00 38.1**	**-1.5**
DRK	**Karamyk**	**3.03**	**8**	Pn	**Pn**	**05 00 43.0**	**-0.7**
NIL	**Nilore**	**3.26**	**149**	Pn	**Pn**	**05 00 46.0**	**-0.1**
BTK	**Batken**	**3.59**	**355**	Pn	**Pn**	**05 00 50.5**	**+0.7**
KSH2	**Kashi**	**4.33**	**51**	Pn	**Pn**	**05 00 59.4**	**+0.9**
KSH2				Sn	**S**	**05 01 50.4**	**-2.0**
KSH2				smax	smax		
	comp=N,150nm,0.8s						
KSH2				smax	smax		
	comp=E,130nm,1.0s						
JMU	**Jammu**	**4.72**	**140**	*e*P	**Pn**	**05 01 03.2**	**0.0**
JMU				*e*S	**S**	**05 01 56.9**	**-3.9**
JMU				IAML		05 02 01.3	
	comp=E,432nm,0.3s						
JMU				IAML		05 02 01.4	
	comp=N,500nm,0.4s						
TSSA	**Tissa**	**5.43**	**131**	*e*P	**Pn**	**05 01 12.7**	**+0.8**
TSSA				*e*S	**S**	**05 02 13.1**	**-3.7**
TSSA				IAML		05 02 14.6	
	comp=E,290nm,0.4s						
TSSA				IAML		05 02 15.1	
	comp=N,298nm,0.3s						
THN	**Thein Dam**	**5.48**	**136**	*e*P	**Pn**	**05 01 12.7**	**+0.2**
THN				*e*S	**S**	**05 02 14.2**	**-3.5**
THN				IAML		05 02 15.9	
	comp=E,121nm,0.5s						
THN				IAML		05 02 16.7	
	comp=N,183nm,0.6s						
NRN	**Naryn**	**6.18**	**35**	Pn	**Pn**	**05 01 19.7**	**-1.6**
BHK	**Bhakra**	**6.62**	**138**	*e*P	Pn	05 01 31.9	+5.3
BHK				IAML		05 02 41.0	
	comp=N,95nm,0.4s						
BHK				IAML		05 02 41.3	
	comp=E,93nm,0.3s						
AAK	**Ala-Archa**	**6.64**	**21**	P	**Pn**	**05 01 27.4**	**+0.6**
	comp=E,7.7nm,0.3s,baz=164,slow=6.5,SNR=18						
AAK				S	**S**	**05 02 36.9**	**-7.1**
	comp=E,4.7nm,0.3s,baz=242,slow=15,SNR=3.8						
AAK	**Ala-Archa**	**6.64**	**21**	⇓P	**Pn**	**05 01 27.8**	**+1.0**
	comp=E,1.3nm,0.4s						
AAK				⇓S	**S**	**05 02 42.0**	**-2.0**
	comp=E,14nm,0.8s						
AAK	**Ala-Archa**	**6.64**	**21**	Pn	**Pn**	**05 01 27.1**	**+0.2**
KK31	**Karatay Array**	**6.64**	**355**	⇓P	**Pn**	**05 01 26.0**	**-0.7**
	comp=E,5.0nm,0.5s,baz=178,slow=12,SNR=58						
KK31				⇓S	**S**	**05 02 38.6**	**-5.2**
	comp=E,30nm,0.6s,baz=184,slow=20,SNR=13						
KK31	**Karatay Array**	**6.64**	**355**	Pn	**Pn**	**05 01 25.8**	**-0.9**
KKAR	**Karatay Array**	**6.64**	**355**	Pn	**Pn**	**05 01 25.6**	**-1.1**
BOOM	**Boomskoye usch**	**7.01**	**30**	Pn	**Pn**	**05 01 31.5**	**0.0**
SMLA	**Simla**	**7.26**	**136**	*e*S	**S**	**05 02 54.3**	**-3.8**
KDJ	**Kajisay**	**7.28**	**37**	Pn	**Pn**	**05 01 34.7**	**-0.2**
TARG	**Taragay, Kyrgy**	**7.31**	**42**	Pn	**Pn**	**05 01 35.4**	**-0.2**
HNLY	**HANLEY**	**7.36**	**118**	*e*P	**Pn**	**05 01 37.2**	**+0.9**
HNLY				*e*S	**S**	**05 02 57.5**	**-3.7**
HNLY				IAML		05 04 31.1	
	comp=E,50nm,8.5s						
HNLY				IAML		05 04 53.4	
	comp=N,63nm,2.1s						
HRA	**Herat**	**7.64**	**257**	Pn	**Pn**	**05 01 37.0**	**-2.6**
MAKZ	**Makanchi**	**13.06**	**34**	Pn	**P**	**05 02 47.3**	**-1.6**
MKAR	**Makanchi Array**	**13.19**	**35**	P	**P**	**05 02 49.9**	**-0.4**
	comp=N,0.8nm,0.5s,baz=203,slow=11,SNR=9.5						
MKAR	**Makanchi Array**	**13.19**	**35**	Pn	**P**	**05 02 48.2**	**-2.2**
WMQ	**Urumqi**	**14.54**	**55**	*e*P	**P**	**05 03 07.9**	**+2.5**
KURBB	**Kurchatov Arra**	**15.08**	**18**	P	**Pn**	**05 03 12.5**	**+0.9**
	comp=N,1.3nm,0.2s,baz=204,slow=12,SNR=1.7						
AB31	**Akbulak array**	**15.20**	**331**	⇓P	**Pn**	**05 03 13.3**	**+0.2**
	comp=N,1.0nm,0.6s,baz=145,slow=12,SNR=18						
AB31				⇑S	**S**	**05 05 58.6**	**-1.6**
	comp=N,1.8nm,0.8s,baz=149,slow=22,SNR=4.6						
AB31	**Akbulak array**	**15.20**	**331**		**Pn**	**05 03 11.2**	**-1.9**
ABKAR	**Akbulak array**	**15.20**	**331**	P	**Pn**	**05 03 13.8**	**+0.8**
EVN	**Everest**	**15.66**	**118**	P	**Pn**	**05 03 20.4**	**+1.0**
BVAR	**Borovoye Array**	**16.56**	**358**	P	**Pn**	**05 03 29.2**	**+0.2**
	comp=N,2.1nm,0.5s,baz=180,slow=13,SNR=7.8						
AKTO	**Aktyubinsk**	**16.90**	**330**	P	**Pn**	**05 03 32.1**	**-1.0**
	comp=N,7.2nm,0.7s,baz=134,slow=9.6,SNR=17						
AKTO	**Aktyubinsk**	**16.90**	**330**	⇓P	**Pn**	**05 03 30.7**	**-2.4**
	comp=N,2.9nm,0.6s						
AKTO				⇑S	**S**	**05 06 34.0**	**-0.3**
	comp=N,1.4nm,0.8s						
ZALV	**Zalesovo Beam**	**19.85**	**24**	P	**Pn**	**05 04 04.0**	**-3.7**
	comp=N,1.5nm,0.4s,baz=208,slow=10.0,SNR=6.9						
	comp=N,1.5nm,0.4s						
ZALV	**Zalesovo Beam**	**19.85**	**24**	P	**P**	**05 04 03.0**	**+0.2**
ARTI	**Arti**	**21.73**	**340**	P	**P**	**05 04 23.0**	**+1.2**
	comp=N,3.8nm,0.6s,baz=171,slow=3.8,SNR=4.0						
	comp=N,3.8nm,0.6s						
ARTI	**Arti**	**21.73**	**340**	P	**P**	**05 04 23.4**	**+1.6**
SONM	**Songino Array**	**28.18**	**55**	P	**P**	**05 05 22.8**	**+2.6**
	comp=N,0.4nm,0.4s,baz=260,slow=8.6,SNR=2.9						
	comp=N,0.4nm,0.4s						
BRTR	**Keskin Array B**	**29.63**	**288**	P	**P**	**05 05 34.4**	**+1.3**
	comp=N,0.3nm,0.5s,baz=86,slow=10,SNR=1.7						
	comp=N,0.3nm,0.5s						
HHC	**Hu-ho-hao-te**	**31.58**	**70**	*e*P	**P**	**05 05 50.6**	**+0.5**
HHC				pmax	pmax		
	comp=Z,11nm,0.5s						
HHC				pmax	pmax		
	comp=Z,91nm,5.6s						
FIA1	**FINESS Array S**	**37.61**	**326**	P	**P**	**05 06 42.5**	**+1.3**
FINES	**FINESS Array B**	**37.62**	**326**	P	**P**	**05 06 42.6**	**+1.4**
	comp=Z,1.6nm,0.5s,baz=119,slow=9.8,SNR=11						
	comp=Z,1.6nm,0.5s						
FINES	**FINESS Array B**	**37.62**	**326**	P	**P**	**05 06 42.4**	**+1.2**
ARCES	**ARCESS Array B**	**41.24**	**338**	P	**P**	**05 07 12.9**	**+1.9**
	comp=Z,2.0nm,0.5s,baz=113,slow=7.9,SNR=12						
	comp=Z,2.0nm,0.5s						
ARCES	**ARCESS Array B**	**41.24**	**338**	P	**P**	**05 07 12.4**	**+1.4**
ARCES				IAmb	IAmb	05 07 29.6	
	comp=Z,5.0nm,1.1s						
HFS	**Hagfors**	**43.21**	**322**	P	**P**	**05 07 28.1**	**+1.2**
	comp=Z,0.9nm,0.3s,baz=98,slow=9.2,SNR=7.9						
	comp=Z,0.9nm,0.3s						
NC303	**NORSAR Array S**	**44.46**	**323**	P	**P**	**05 07 37.7**	**+0.9**
NC303				IAmb	IAmb	05 08 12.6	
	comp=Z,7.3nm,1.0s						
NB201	**NORSAR Array S**	**44.48**	**323**	P	**P**	**05 07 37.5**	**+0.5**
NB201				IAmb	IAmb	05 08 11.4	
	comp=Z,9.4nm,1.1s						
NB2	**NORSAR Subarra**	**44.52**	**323**	P	**P**	**05 07 37.9**	**+0.6**
	comp=Z,4.3nm,0.8s,baz=99,slow=7.9						
NOA	**NORSAR Array B**	**44.52**	**323**	P	**P**	**05 07 38.2**	**+0.8**
	comp=Z,0.6nm,0.4s,baz=101,slow=7.3,SNR=5.0						
	comp=Z,0.6nm,0.4s						
SPITS	**Spitsbergen Ar**	**47.56**	**347**	P	P	05 08 03.0	+2.3
	comp=Z,8.6nm,0.9s,baz=101,slow=12,SNR=2.9						
	comp=Z,8.6nm,0.9s						
TORD	**Torodi Ar. Bea**	**65.92**	**269**	P	**P**	**05 10 09.0**	**-1.2**
	comp=Z,1.0nm,0.4s,baz=52,slow=5.7,SNR=16						
	comp=Z,1.0nm,0.4s						
C19K	**Lookout Ridge**	**68.29**	**17**	P	**P**	**05 10 26.8**	**+2.4**
C19K				IAmb	IAmb	05 10 36.2	
	comp=Z,3.8nm,1.1s						
D19K	**Kuna River**	**69.10**	**17**	P	**P**	**05 10 30.3**	**+0.9**
D19K				IAmb	IAmb	05 11 04.7	
	comp=Z,6.2nm,1.1s						
G19K	**Purcell Mounta**	**71.17**	**19**	P	**P**	**05 10 43.8**	**+2.0**
G19K				IAmb	IAmb	05 10 56.5	
	comp=Z,3.4nm,1.1s						
IMAR	**Indian Mountai**	**72.13**	**18**	P	**P**	**05 10 48.8**	**+1.3**
G27K	**Doyon Strip**	**74.01**	**13**	P	P	05 11 01.6	+3.0
H27K	**Steamboat Moun**	**74.55**	**13**	P	P	05 11 04.2	+2.6
H27K				IAmb	IAmb	05 11 34.5	
	comp=Z,1.9nm,1.1s						
ILAR	**Eielson Array**	**74.75**	**16**	P	**P**	**05 11 04.1**	**+1.3**
	comp=Z,0.6nm,0.9s,baz=333,slow=6.5,SNR=6.6						
	comp=Z,0.6nm,0.9s						
H29M	**Whitestone**	**75.11**	**12**	P	**P**	**05 11 06.6**	**+1.8**
H29M				IAmb	IAmb	05 11 25.5	
	comp=Z,2.2nm,1.0s						
I28M	**Miner Creek**	**75.54**	**13**	P	**P**	**05 11 09.2**	**+1.8**
H31M	**Peel River**	**76.13**	**11**	P	**P**	**05 11 12.3**	**+1.6**
H31M				IAmb	IAmb	05 11 28.9	
	comp=Z,5.4nm,1.1s						
BCAR	**Beaver Creek A**	**77.33**	**15**	P	**P**	**05 11 19.8**	**+2.4**
K29M	**Barlow Dome**	**77.44**	**13**	P	**P**	**05 11 19.4**	**+1.3**
KDAK	**Kodiak Island**	**79.14**	**22**	P	**P**	**05 11 29.0**	**+1.7**
	comp=Z,2.0nm,0.7s,baz=315,slow=5.7,SNR=1.7						
	comp=Z,2.0nm,0.7s						
YKA	**Yellowknife Ar**	**81.26**	**3**	P	**P**	**05 11 40.2**	**+1.7**
	comp=Z,1.5nm,0.8s,baz=353,slow=5.1,SNR=3.2						
	comp=Z,1.5nm,0.8s						
P33M	**Teslin, Yukon**	**81.64**	**12**	P	**P**	**05 11 41.6**	**+0.9**
P33M				IAmb	IAmb	05 11 42.8	
	comp=Z,1.2nm,0.7s						
WRA	**Warramunga Arr**	**81.81**	**122**	P	**P**	**05 11 42.4**	**+0.4**
	comp=Z,0.9nm,0.8s,baz=318,slow=4.3,SNR=5.8						
	comp=Z,0.9nm,0.8s						
WB2	**Warramunga Arr**	**81.82**	**122**	P	**P**	**05 11 42.6**	**+0.6**
WB2				IAmb	IAmb	05 11 50.9	
	comp=Z,3.6nm,0.9s						
ASAR	**Alice Springs**	**84.08**	**125**	P	**P**	**05 11 54.2**	**+0.6**
	comp=Z,1.2nm,0.8s,baz=318,slow=5.4,SNR=9.6						
	comp=Z,1.2nm,0.8s						
PLCA	**Paso Flores**	**150.01**	**250**	PKPbc	**PKiKP**	**05 19 12.2**	**0.0**
	comp=Z,0.9nm,0.6s,baz=49,slow=5.6,SNR=4.2						

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*CATAC **14** 05:04:07.4±0.2, 12°N±2°×87°.3W±1°.0, h32^{km}±2^{km}, M3.9/48, MLv3.9/48, Error ellipse: s-maj=3.6km s-min=1.3km az=29.5, confirmed*

*SNET **14** 05:04:09.9±2.2, 12°.38N×87°.26W, h31^{km}, ML3.4, Presumed earthquake*

*UCR **14** 05:04:11.2±0.7, 11°.92N×87°.00W, h11^{km}±25^{km}, MW3.7, Presumed earthquake*

ISC 14 05:04:07.5±1.3**, 12°.11N**±0°.03×**87°.30W**±0°.03**, h33^{km}**±4^{km}**, n79, σ0^{s}.69**/136**, 18D, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CRIN	**San Cristobal**	**0.63**	**23**	⇓P	**Pb**	**05 04 20.8**	**+0.5**
CRIN				S	**Sn**	**05 04 30.6**	**+1.3**
TELN	**Telica**	**0.67**	**43**	⇓P	**Pn**	**05 04 19.7**	**-1.1**
TELN				S	**Sb**	**05 04 30.4**	**+0.3**
HERN	**Volcan Telica**	**0.67**	**43**	⇓P	**Pb**	**05 04 20.9**	**-0.1**
HERN				S	**Sb**	**05 04 31.3**	**+1.1**
COPN	**Copaltepe**	**0.69**	**84**	⇓P	**Pn**	**05 04 21.0**	**0.0**
CNGA	**Al SSO del Vol**	**0.70**	**57**	⇓P	**Pb**	**05 04 21.4**	**0.0**
CNGA				S	**Sb**	**05 04 31.9**	**+1.1**
PLRN	**Geotermica Pol**	**0.70**	**48**	⇓P	**Pb**	**05 04 21.2**	**-0.2**
PLRN				S	**Sb**	**05 04 31.6**	**+0.8**
CNGN	**Cerro Negro**	**0.70**	**57**	⇓P	**Pb**	**05 04 21.3**	**-0.1**
CNGN				S	**Sb**	**05 04 32.0**	**+1.1**
LEVN	**Ruinas Leon Vi**	**0.73**	**67**	⇓P	**Pb**	**05 04 22.2**	**+0.4**
LEVN				S	**Sb**	**05 04 32.9**	**+1.4**
ILCN	**San Idelfonso**	**0.74**	**52**	S	**Sb**	**05 04 32.3**	**+0.2**
MOMN	**Momotombo**	**0.80**	**68**	⇓P	**Pn**	**05 04 22.4**	**-0.1**
MOMN				S	**Sb**	**05 04 33.9**	**+0.3**
AMTN	**Mateare**	**0.86**	**82**	P	**Pb**	**05 04 23.5**	**-0.5**
AMTN				S	**Sb**	**05 04 35.7**	**+0.5**
CSGN	**Cosiguina Volc**	**0.90**	**344**	⇓P	**Pn**	**05 04 23.8**	**0.0**
CSGN				S	**Sb**	**05 04 36.1**	**-0.3**
APQ2	**Apoyeque**	**0.95**	**85**	P	**Pn**	**05 04 24.9**	**+0.2**
APQ2				S	**Sb**	**05 04 37.7**	**-0.3**
ABCN	**Banco Central**	**0.97**	**89**	P	**Pn**	**05 04 25.2**	**+0.4**
ABCN				S	**Sb**	**05 04 38.1**	**-0.2**
ALLN	**Telcor Managua**	**1.00**	**88**	P	**Pn**	**05 04 25.8**	**+0.5**
ALLN				S	**Sb**	**05 04 39.2**	**-0.1**
UNAN	**Cigeo UNAN**	**1.00**	**90**	P	**Pn**	**05 04 25.7**	**+0.3**
UNAN				S	**Sb**	**05 04 39.2**	**-0.3**
TISN	**Laguna Tiscapa**	**1.01**	**88**	⇓P	**Pn**	**05 04 24.6**	**-0.8**
MGAN	**Managua**	**1.03**	**88**	P	**Pn**	**05 04 26.0**	**+0.4**
MGAN				S	**Sb**	**05 04 39.7**	**-0.4**
AESN	**El Sauce Leon**	**1.07**	**44**	P	**Pn**	**05 04 26.0**	**-0.3**
AESN				S	**Sb**	**05 04 40.2**	**-1.1**
WILN	**Americas 2**	**1.09**	**87**	⇓P	**Pn**	**05 04 26.6**	**+0.2**
WILN				S	**Sb**	**05 04 41.3**	**-0.5**
MAS3	**Al N del Volca**	**1.10**	**94**	⇓P	**Pn**	**05 04 26.8**	**+0.1**
MAS3				S	**Sb**	**05 04 41.2**	**-1.0**
AERN	**Aeropuerto Man**	**1.11**	**88**	P	**Pn**	**05 04 26.7**	**0.0**
AERN				S	**Sb**	**05 04 41.6**	**-0.7**
SABN	**Sabanita**	**1.12**	**98**	P	**Pn**	**05 04 26.5**	**-0.4**
MASN	**Masaya**	**1.13**	**96**	P	**Pn**	**05 04 27.2**	**+0.1**
MASN				S	**Sb**	**05 04 41.9**	**-1.1**
NANN	**Nandasmo**	**1.17**	**98**	P	**Pb**	**05 04 28.6**	**-0.6**
NANN				S	**Sb**	**05 04 43.4**	**-0.6**
CNCH	**Conchagua**	**1.27**	**336**	*i* P	**Pn**	**05 04 29.1**	**0.0**
CNCH				*e*S	**Sn**	**05 04 45.0**	**0.0**
CNCH	**Conchagua**	**1.27**	**336**	⇓P	**Pn**	**05 04 29.0**	**-0.1**
CNCH				S	**Sn**	**05 04 45.3**	**+0.2**
NADN	**Granada**	**1.29**	**106**	P	**Pn**	**05 04 29.2**	**0.0**
NADN				S	**Sn**	**05 04 45.3**	**-0.1**
INTP	**Intipuca**	**1.31**	**326**	*i* P	**Pn**	**05 04 29.6**	**+0.1**
INTP				*e*S	**Sn**	**05 04 45.2**	**-0.6**
LCND	**La Caada**	**1.32**	**334**	*i* P	**Pn**	**05 04 29.6**	**-0.1**
LCND				*e*S	**Sn**	**05 04 46.3**	**+0.1**
LCND	**La Caada**	**1.32**	**334**	⇓P	**Pn**	**05 04 29.5**	**-0.2**
JUCU	**Jucuar¡n**	**1.46**	**321**	*i* P	**Pn**	**05 04 31.8**	**0.0**
JUCU				*e*S	**Sn**	**05 04 48.8**	**-1.0**
MATN	**Matagalpa**	**1.57**	**59**	⇓P	**Pn**	**05 04 33.1**	**-0.1**

MATN				S	Sn	05 04 52.5	+0.1
BOAB	BOACO BROADBAN	1.63	78	⇓P	Pn	05 04 33.4	-0.5
BOAB				S	Sn	05 04 54.3	+0.5
RANC	El Ranchito	1.63	324	*i* P	Pn	05 04 34.3	+0.2
RANC				*e*S	Sn	05 04 53.2	-0.8
RANC	El Ranchito	1.63	324	P	Pn	05 04 34.4	+0.4
RANC				S	Sn	05 04 53.7	-0.3
PACA	Pacayal	1.68	324	P	Pn	05 04 35.0	+0.2
PACA				S	Sn	05 04 55.2	+0.1
JAPN	Al SSO del Vol	1.69	110	P	Pn	05 04 35.2	+0.4
JAPN				S	Sn	05 04 56.3	+1.1
JAPN	Al SSO del Vol	1.69	110	*e*P	Pn	05 04 35.1	+0.4
MORN	Al O del Volca	1.71	109	P	Pn	05 04 35.3	+0.2
MORN				S	Sn	05 04 56.9	+1.1
ALJI	Alcalda de J	1.73	314	*i* P	Pn	05 04 37.1	+1.7
ALJI				*e*S	Sn	05 04 56.1	-0.1
ALJI	Alcalda de J	1.73	314	P	Pn	05 04 35.3	0.0
ALJI				S	Sn	05 04 56.2	-0.1
TECA	Tecapa	1.81	320	*i* P	Pn	05 04 37.7	+1.1
RCVN	Varillal2	1.82	36	P	Pn	05 04 36.9	+0.2
RCVN				S	Sn	05 04 59.0	+0.4
LCRUZ	La Cruz	1.93	122	*e*P	Pn	05 04 38.8	+0.7
LCRUZ				*e*S	Sn	05 04 60.0	-1.3
TGUH	Tegucigalpa,Un	1.93	1	⇓P	Pn	05 04 38.6	+0.3
TGUH				S	Sn	05 05 01.2	-0.2
CARN	Rivas	1.97	118	P	Pn	05 04 38.8	+0.2
CARN				S	Sn	05 05 02.3	+0.2
CARN	Rivas	1.97	118	*e*P	Pn	05 04 38.5	-0.1
CARN				*e*S	Sn	05 05 01.3	-0.9
TECO	Alcaldia de Te	2.02	315	S	Sn	05 05 03.1	-0.4
ACON	Acoyapa	2.08	94	P	Pn	05 04 40.2	0.0
ACON				S	Sn	05 05 05.1	+0.1
ACON	Acoyapa	2.08	94	*e*P	Pb	05 04 42.8	-1.9
SCLA	Alcaldia de Sa	2.11	319	S	Sn	05 05 05.8	+0.1
COEG	Centro de Oper	2.15	314	*i* P	Pn	05 04 42.0	+0.9
COEG				*e*S	Sn	05 05 06.1	-0.7
SJTE	Alcalda de S	2.24	312	*i* P	Pn	05 04 44.4	+2.0
SJTE				*e*S	Sn	05 05 08.2	-0.7
PAVA	Las Pavas	2.25	315	P	Pn	05 04 42.4	-0.2
PAVA				S	Sn	05 05 09.6	+0.3
P5NO	Presa 5 de nov	2.34	323	S	Sn	05 05 12.0	+0.6
LOMA	Loma Larga	2.38	310	*i* P	Pn	05 04 47.1	+2.8
LOMA				*e*S	Sn	05 05 11.1	-1.3
LOMA	Loma Larga	2.38	310	P	Pn	05 04 44.2	-0.1
LOMA				S	Sn	05 05 12.2	-0.2
SEMO	Seminario San	2.45	310	P	Pn	05 04 45.0	-0.3
SEMO				S	Sn	05 05 14.2	-0.1
UEES	Universidad Ev	2.47	310	S	Sn	05 05 14.9	+0.1
VMAR	Armenia, Volca	2.50	121	*e*P	Pn	05 04 47.7	+1.7
PMON	Piamonte	2.53	309	*i* P	Pn	05 04 47.6	+1.2
PMON				*e*S	Sn	05 05 16.6	+0.5
PMON	Piamonte	2.53	309	P	Pn	05 04 46.4	0.0
PMON				S	Sn	05 05 16.2	0.0
CUI	Cuipilapa	2.54	124	*e*P	Pn	05 04 48.2	+1.6
UPAL	Upala	2.55	118	S	Sn	05 05 16.9	+0.5
LLGN	La Laguna	2.59	322	P	Pn	05 04 46.8	-0.5
LLGN				S	Sn	05 05 17.6	-0.2
JUD3	Juan Diaz 3	2.59	138	*e*P	Pn	05 04 48.2	+1.0
JAYA	Jayaque - finc	2.60	306	*i* P	Pn	05 04 48.1	+0.7
JAYA				*e*S	Sn	05 05 17.4	-0.5
JAYA	Jayaque - finc	2.60	306	P	Pn	05 04 47.3	-0.1
JAYA				S	Sn	05 05 17.3	-0.5
CEDA	San Andres	2.65	310	P	Pn	05 04 47.6	-0.3
CEDA				S	Sn	05 05 19.2	+0.3
TENO	El Achiote	2.67	121	*e*P	Pn	05 04 48.8	+0.5
CMARA	Lajas Hojancha	2.78	138	P	Pn	05 04 50.5	+0.7
CMARA				S	Sn	05 05 22.4	+0.2
CMARA	Lajas Hojancha	2.78	138	*e*P	Pn	05 04 50.9	+1.1
CEVE	Cerro Verde	2.84	307	S	Sn	05 05 23.4	-0.5
JTS	Las Juntas de	2.93	128	P	Pn	05 04 52.1	+0.3
JTS				S	Sn	05 05 26.7	+0.8
SIUN	Universidad Ur	2.93	57	S	Sn	05 05 26.1	+0.1
NUBE	Las Nubes	3.00	307	P	Pn	05 04 52.9	-0.1
NUBE				S	Sn	05 05 27.6	-0.3
SARH	Santa Rosa de	3.00	332	S	Sn	05 05 28.1	+0.3
FAME	Alcaldia de Sa	3.16	303	S	Sn	05 05 31.5	-0.1

IDC 14 05:15:07.7±3.8**, 54°.32N**×**86°.21E, h0km, mbtmp2.8**/2, **ML2.2**/1**, Error ellipse: s-maj=28.1km s-min=14.5km az=62.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	0.90	246	I	I	05 19 30.0	
	baz=66,slow=321,SNR=2.6						
ZALV	Zalesovo Beam	0.90	246	Pg	Pg	05 15 23.4	-1.5
	0.9nm,0.3s,baz=66,slow=18,SNR=9.9						
ZALV				Lg	Lg	05 15 37.1	
	1.4nm,0.3s,baz=65,slow=27,SNR=8.1						
KURBB	Kurchatov Arra	5.97	235	Pn	Pn	05 16 38.6	+1.3
	0.1nm,0.3s,baz=52,slow=14,SNR=4.1						
KURBB				Lg	Lg	05 18 18.5	
	baz=52,slow=32,SNR=1.3						
	0.5nm,0.6s						
KURBB				AML	AML		
MKAR	Makanchi Array	7.93	200	Pn	Pn	05 17 05.4	+1.1
	0.4nm,0.6s,baz=19,slow=14,SNR=1.2						

DJA 14 05:20:56.1±0.4**, 10°S**±5°×**11°6E**±°**, h10km, M4.4**/25**, mB5.8**/1**, mb4.5**/5**, MLv4.3**/25**, Mw(mB)5.3**/1**, South of Bali**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IGBI	Denpasar	1.12	342	P	Pb	05 21 16.2	-1.4
IGBI				AML	AML		
DNP	Denpasar	1.24	347	P	Pn	05 21 18.7	-0.8
DNP				AML	AML		
KHKI	Kahang-Kahang	1.52	4	P	Pn	05 21 23.5	+0.1
RTBI	Rangdo, Negare	1.52	339	P	Pn	05 21 23.1	-0.4
RTBI				AML	AML		
TWSI	Taliwang, Sumb	1.78	50	P	Pn	05 21 26.2	-0.8
TWSI				AML	AML		
SRBI	Singaraja	1.82	351	P	Pn	05 21 27.3	-0.1
JAGI	Jajag, Banyuwa	1.94	317	P	Pn	05 21 27.9	-1.3
JAGI				AML	AML		
BYJI	Banyuwangi	2.01	326	P	Pn	05 21 31.2	+1.1
BYJI				AML	AML		
ABJI	Asem Bagus	2.43	329	P	Pn	05 21 36.0	+0.1
ABJI				AML	AML		
PLAI	Plampang	2.48	65	P	Pn	05 21 36.6	0.0
PLAI				AML	AML		
BLJI	Banyuglugur	2.84	318	P	Pn	05 21 41.7	+0.1
BLJI				AML	AML		
DBNI	Kabupaten Domp	3.10	64	P	Pn	05 21 45.7	+0.6
DBNI				AML	AML		
KMMI	Kalianget	3.20	332	P	Pn	05 21 47.2	+0.7
SNJI	Sawahan-Nganju	4.25	299	P	Pn	05 22 00.9	-0.2
SNJI				AML	AML		
LBFI	Labuhan Bajo,	4.55	72	P	Pn	05 22 05.4	+0.3
PCJI	Pacitan	4.59	291	P	Pn	05 22 05.2	-0.4
PCJI				AML	AML		
WOJI	Wonogiri, Jawa	4.96	294	P	Pn	05 22 10.6	-0.1
WOJI				AML	AML		
BSSI	Bau Bau, Buton	6.19	53	P	Pn	05 22 27.2	-0.4
	0.2nm35nm,0.9s						
BSSI				AML	AML		
EDFI	Ende, Flores	6.21	80	P	Pn	05 22 27.9	-0.2
	0.1nm23nm,0.6s						
EDFI				AML	AML		

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*IDC **14** 05:25:56.2±7.7, 37°.70N×72°.05E, h199km±50km, mb3.6/3, mbtmp4.0/9, Error ellipse: s-maj=74.5km s-min=42.7km az=176.0*

*NNC **14** 05:25:57.6±3.0, 37°.85N×72°.05E, h214km±31km, mb2.6, mpv3.5, Error ellipse: s-maj=29.9km s-min=20.1km az=30.0*

ISC 14 05:25:56.8±1.9**, 37°.8N**±0°.1×**72°.0E**±0°.1**, h200km, n13,** σ**0ˢ.78**/18**, mb3.8**/3**, 4C-4D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AAK	Ala-Archa	5.22	21	P	Pn	05 27 13.9	-0.2
	8.3nm,0.4s,baz=202,slow=6.4,SNR=26						
AAK				S	Sn	05 28 15.9	+0.7
	11nm,0.6s,baz=221,slow=20,SNR=11						
AAK	Ala-Archa	5.22	21	⇓P	Pn	05 27 13.5	-0.6
	3.3nm,0.5s						
AAK				⇓S	Sn	05 28 15.5	+0.2
	5.7nm,0.7s						
KK31	Karatay Array	5.43	349	⇑P	Pn	05 27 17.2	+0.5
	2.5nm,0.3s,baz=160,slow=11,SNR=30						
KK31				⇓S	Sn	05 28 20.5	+0.7
	6.9nm,0.3s,baz=151,slow=17,SNR=17						
MKAR	Makanchi Array	11.81	37	P	Pn	05 28 39.3	+0.2
	0.3nm,0.4s,baz=212,slow=11,SNR=5.5						
KURBB	Kurchatov Arra	13.67	18	P	P	05 29 04.1	-0.6
	1.6nm,0.7s,baz=203,slow=11,SNR=9.3						
AB31	Akbulak array	14.38	327	⇑P	P	05 29 12.6	0.0
	1.0nm,0.6s,baz=142,slow=10,SNR=11						
AB31				⇓S	S	05 31 49.1	-1.9
	0.8nm,0.5s,baz=142,slow=24,SNR=4.3						
BVAR	Borovoye Array	15.28	356	P	P	05 29 23.9	+1.4
	0.8nm,0.5s,baz=178,slow=11,SNR=2.4						
AKTO	Aktyubinsk	16.10	326	P	P	05 29 32.2	+0.7
	2.2nm,0.4s,baz=133,slow=10,SNR=6.5						
AKTO	Aktyubinsk	16.10	326	⇑P	P	05 29 31.7	+0.2
	1.4nm,0.6s						
AKTO				⇑S	S	05 32 30.1	+0.1
	0.9nm,0.8s						
ZALV	Zalesovo Beam	18.43	25	P	P	05 29 56.2	-0.8
	6.1nm,0.6s,baz=227,slow=10,SNR=30						
FINES	FINESS Array B	36.86	325	P	P	05 32 45.8	+0.2
	1.8nm,0.9s,baz=114,slow=7.1,SNR=4.0						
	1.8nm,0.9s						
ARCES	ARCESS Array B	40.26	337	P	P	05 33 14.1	+0.3
	11nm,1.3s,baz=119,slow=8.0,SNR=6.7						
	11nm,1.3s						
HFS	Hagfors	42.54	321	P	P	05 33 32.5	+0.2
	2.8nm,1.0s,baz=98,slow=9.1,SNR=2.1						
	2.8nm,1.0s						

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*IDC **14** 05:40:43.5±1.3, 36°.83N×135°.35E, h371km±22km, mb2.7/1, mbtmp3.6/5, Error ellipse: s-maj=30.6km s-min=27.0km az=37.0*

*JMA **14** 05:40:44.1±0.2, 37°N±2°×13°5E±°, h363km, MV2.7/25, NW OFF HOKURIKU DISTRICT*

ISC 14 05:40:43.6±1.2**, 36°.8N**±0°.1×**135°.37E**±0°.09**, h350km, n11,** σ**1ˢ.64**/12**, Sea of Japan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JNG	Nsakai	2.24	100	*e*P	Pn	05 41 38.6	+1.9
MAT	Matsushiro	2.30	97	*e*P	Pn	05 41 39.0	+1.8
MJAR	Matsushiro Arr	2.30	97	P	Pn	05 41 39.5	+2.3
	5.8nm,0.5s,baz=280,slow=9.2,SNR=17						
JAG	Ashikaga	3.31	96	*e*S	S	05 42 37.0	+1.0
JHO	Hitachi	4.18	92	*e*P	Pn	05 41 55.1	+0.6
JHO				S	S	05 42 50.1	-1.6
JFK	Kawauchi	4.43	82	*e*S	S	05 42 55.4	-1.1
BSO4	Boso 4	4.44	113	S	S	05 42 57.7	+1.3
KSRS	Korea Array	5.98	278	P	Pn	05 42 14.6	+0.5
	2.5nm,0.7s,baz=96,slow=12,SNR=9.7						
USRK	Ussuriysk Ar.	7.79	342	P	Pn	05 42 36.0	+0.9
	2.3nm,0.5s,baz=156,slow=11,SNR=6.3						
ASAJ	Asahikawa	9.12	35	P	Pn	05 42 50.5	-0.3
	14nm,0.4s,baz=211,slow=9.2,SNR=11						
WRA	Warramunga Arr	56.48	181	P	P	05 49 48.3	-2.1
	0.3nm,0.5s,baz=360,slow=7.6,SNR=1.6						
	0.3nm,0.5s						

IDC 14 06:02:47.7±2.9**, 1°.69N**×**67°.29E, h0km, mb3.7**/3**, mbtmp3.7**/3**, MS3.1**/2**, Error ellipse: s-maj=115.8km s-min=37.2km az=58.0, Carlsberg Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	Pallekele	14.47	67	LR	LR	06 10 39.3	
	comp=Z,63nm,21.0s,baz=214,slow=33						
AAK	Ala-Archa	41.28	8	LR	LR	06 27 29.6	
	comp=Z,32nm,18.5s,baz=164,slow=36						
ZALV	Zalesovo Beam	54.06	13	P	P	06 12 13.8	-0.1
	0.5nm,0.3s,baz=190,slow=7.4,SNR=3.8						
	0.5nm,0.3s						
H01W3	Cape Leeuwin H	56.95	134	T	T	07 14 13.8	
	baz=300,slow=75,SNR=9.0						
H01W2	Cape Leeuwin H	56.95	134	T	T	07 14 14.0	
	baz=300,slow=75,SNR=7.8						
H01W1	Cape Leeuwin H	56.97	134	T	T	07 14 16.0	
	baz=300,slow=75,SNR=9.5						
WRA	Warramunga Arr	69.10	112	P	P	06 13 56.3	0.0
	0.6nm,0.8s,baz=285,slow=6.0,SNR=5.1						
	0.6nm,0.8s						
ASAR	Alice Springs	69.39	116	P	P	06 13 58.1	+0.1
	0.3nm,0.6s,baz=290,slow=6.1,SNR=5.7						
	0.3nm,0.6s						
TXAR	Lajitas Array	147.96	345	PKPbc	PKPbc	06 22 35.2	-0.7
	0.3nm,0.5s,baz=11,slow=2.5,SNR=5.6						

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*JMA **14** 06:07:39.6±0.0, 36°.3N±0°.2×137°.6E±0°.1, h3km±1km, MV2.8/20, HIDA MOUNTAINS REGION*

JMA Felt I J1 at HIDA MOUNTAINS REGION .

ISC 14 06:07:39.9±1.1**, 36°.24N**±0°.04×**137°.65E**±0°.03**, h10km, n11,** σ**0ˢ.24**/15**, Eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JGN	Niukaw	0.27	266	*i* P	Pg	06 07 45.1	-0.3
JGN				S	Sg	06 07 48.8	-0.2
JNG	Nsakai	0.40	66	*i* P	Pg	06 07 47.9	+0.1
JNG				S	Sg	06 07 53.2	+0.1
JTT	Ttatey	0.44	325	*i* P	Pg	06 07 48.5	0.0
JTT				S	Sg	06 07 54.8	+0.4
JNT	Takato	0.54	133	*i* P	Pg	06 07 50.4	0.0
MAJO	Matsushiro	0.54	56	P	Pg	06 07 50.0	-0.4
MAJO	Matsushiro	0.54	56	S	Sg	06 07 57.6	0.0
MAT	Matsushiro	0.54	56	*i* P	Pg	06 07 50.2	-0.2
MAT				S	Sg	06 07 57.3	-0.2
JGF	Kuroka	0.68	200	P	Pg	06 07 53.0	-0.1
JGF	Kuroka	0.68	200	S	Sg	06 08 02.0	0.0
INU	Inuyama	1.03	210	P	Pn	06 08 00.4	0.0
INU	Inuyama	1.03	210	S	Sn	06 08 15.1	+0.3

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*IGQ **14** 06:15:12.9±1.2, 1°N±5°×8°0W±°, h7km±4km, M3.6/19, Mjma3.6/18, ML3.8/19, MLv3.4/18, Ms(BB)3.5/16*

*RSNC **14** 06:15:13.4±0.9, 1°N±5°×8°0W±°, h5km±6km, M3.3, mb4.1, ML2.9*

ISC 14 06:15:17.8±1.8**, 0°.62N**±0°.04×**80°.21W**±0°.09**, h15km**±9km**, n53,** σ**1ˢ.68**/63**, 5C-4D, Near coast of Ecuador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AATC	Ecuador-Atacam	0.42	55	⇓P	Pg	06 15 24.9	-1.3
AATC				S	Sg	06 15 33.1	+1.1
ATON	Ecuador-Tonsup	0.48	56	P	Pg	06 15 27.0	-0.3
ATON				S	Sb	06 15 36.4	+1.7
AMA1	Acelerografo,	0.58	57	P	Pg	06 15 29.1	-0.1
AMA1				S	Sn	06 15 40.2	-0.4
AES2	Ecuador-Puerto	0.67	57	P	Pb	06 15 29.6	-1.6
AES2				S	Sn	06 15 43.6	+0.6
RVRD	Rio Verde	0.94	62	⇑P	Pb	06 15 34.6	-1.1
RVRD				S	Sn	06 15 51.0	+1.5
BV15	Puerto Quito-O	1.09	115	P	Pb	06 15 36.6	-1.7
ASDO	Santo Domingo	1.40	129	P	Pn	06 15 41.0	-1.8
PECV	Mancha de Ca P	1.40	173	P	Pg	06 15 47.2	+2.5
PAC1	Pacto, Paraso	1.46	104	P	Pn	06 15 42.4	-1.3
PAC1	Pacto, Paraso	1.46	104	P	Pn	06 15 42.2	-1.5
PAC1				S	Sg	06 16 08.4	+3.4
SNLR	San Lorenzo-Es	1.52	64	P	Pn	06 15 43.9	-0.5
TERV	Terraza Guagua	1.79	116	P	Pn	06 15 47.6	-1.0
YANA	Yana	1.79	114	P	Pn	06 15 48.1	-0.6
GGPT	Toaza - Volcan	1.80	118	P	Pn	06 15 47.4	-1.1
OTAV	Otavalo	1.80	102	P	Pn	06 15 47.6	-1.0
OTAV	Otavalo	1.80	102	P	Pn	06 15 48.0	-0.7
OTAV				S	Sb	06 16 13.3	+0.1
JUA2	San Juan 2	1.81	117	P	Pn	06 15 48.4	-0.4
PULU	Pululahua	1.81	109	P	Pn	06 15 48.3	-0.5
CUSE	Cuicocha Este	1.84	100	⇑P	Pn	06 15 48.7	-0.4
CUSE	Cuicocha Este	1.84	100	P	Pn	06 15 48.5	-0.7
CUSE				S	Sb	06 16 13.8	-0.5
LITE1	Lita	1.86	85	P	Pn	06 15 47.8	-1.4
CUIC	Cuicocha-Domo	1.88	100	⇑P	Pn	06 15 49.3	-0.3
COTA	Cotacachi	1.89	99	P	Pn	06 15 50.2	+0.2
URCU	Urcuqui	1.96	95	P	Pn	06 15 50.5	-0.4
TING	Casa Alexandra	1.98	117	P	Pn	06 15 50.8	-0.1
ILLI	Illinizas Sur	1.99	132	P	Pn	06 15 47.4	-3.9
PUEM	Granja Avicola	1.99	112	P	Pb	06 15 52.2	-1.6
IMBA	Imbabura, San	2.04	100	⇑P	Pb	06 15 52.7	-2.1
SUCR	Mariscal Sucre	2.12	126	⇑P	Pb	06 15 54.0	-2.3
SRAM	San Ramn-Vol	2.13	130	⇓P	Pb	06 15 53.5	-2.8
NAS2	Nasa	2.15	126	P	Pb	06 15 54.1	-2.6
YAHU	Yahuarcocha	2.15	97	P	Pb	06 15 55.1	-1.6
CHMA	Chilma	2.16	84	P	Pn	06 15 51.6	-1.9
SLOR	San Lorenzo -	2.17	128	⇓P	Pb	06 15 54.6	-2.5
BVC2	Cotopaxi Volca	2.20	125	P	Pb	06 15 55.2	-2.4
BTAM	Cotopaxi Volca	2.22	125	⇓P	Pb	06 15 55.5	-2.5
ANTG	Antisana-Guama	2.25	120	P	Pb	06 15 56.0	-2.4
CHL1	Volc¡n Chiles	2.27	86	P	Pn	06 15 56.1	+0.8
ANGU	Angureal	2.27	104	P	Pb	06 15 57.5	-1.4
CHL2	Volc¡n Chiles	2.30	85	P	Pn	06 15 56.2	+0.6
CMBC	Cumbal	2.41	82	P	Pb	06 15 59.6	-1.4
TULM	Tulcn-Chalpat	2.42	88	P	Pb	06 15 58.9	-2.4
CHSH	Refugio Sur-Vo	2.49	147	P	Pn	06 15 58.3	0.0
PORT	Chimborazo Vol	2.52	145	P	Pn	06 15 59.0	+0.3
TAMH	Tambohuasha Ch	2.58	146	P	Pb	06 16 03.2	-0.9
JSCH	Cashca Tororas	2.63	152	P	Pn	06 15 59.4	-0.6
CASC	Dorado de Casc	2.91	99	P	Pn	06 16 05.4	+1.7
CASC				S	Sb	06 16 45.4	+0.5
BBAC	Balboa, Cauca	3.27	65	P	Pn	06 16 07.7	-1.0
BBAC	Balboa, Cauca	3.27	65	P	Pn	06 16 07.4	-1.3
BBAC				S	Sn	06 16 50.5	+3.0
CRUC	La Cruz	3.39	74	P	Pn	06 16 11.6	+1.1
PKYU	Pakayacu	3.45	131	P	Pb	06 16 14.6	-4.0
POPC	Popayan, Colom	4.01	62	P	Pn	06 16 18.2	-0.8
ORTC	Ortega, Tolima	5.94	57	P	Pn	06 16 46.3	+1.0

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*NEIC **14** 06:29:01.4±1.6, 16°.59N±0°.06×94°.85W±0°.04, h96km±7km, mb4.0/23, Md4.4/38(MEX), Error ellipse: s-maj=8.8km s-min=6.1km az=172.0*

*MEX **14** 06:29:01.5±0.6, 16°.59N×94°.88W, h104km±6km, MD4.4, Presumed earthquake*

ISC 14 06:29:01.1±0.8**, 16°.62N**±0°.05×**94°.90W**±0°.03**, h104km**±8km**, n49,** σ**2ˢ.05**/77**, Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMIG	Matias Romero	0.47	2	*e*P	Pn	06 29 16.9	-0.2
CMIG				*i* S	Sn	06 29 27.9	-1.1
CMIG	Matias Romero	0.47	2		Pn	06 29 16.9	-0.2
CMIG					Sn	06 29 27.9	-1.1
UXUV	UXUV	1.00	46	*e*P	Pn	06 29 21.7	-0.1
UXUV				*e*S	Sn	06 29 35.9	-1.4
UXUV	UXUV	1.00	46		Pn	06 29 21.7	-0.1
UXUV					Sn	06 29 35.9	-1.4
NEUV	Arroyo Zacate	1.39	322	*e*P	Pn	06 29 26.0	-0.2
NEUV				*i* S	Sn	06 29 44.9	-0.3
NEUV	Arroyo Zacate	1.39	322		Pn	06 29 26.0	-0.2
NEUV					Sn	06 29 44.9	-0.3
HUIG	Huatulco	1.44	234	*e*P	Pn	06 29 25.9	-0.9
HUIG				*e*S	Sn	06 29 45.4	-0.9
HUIG	Huatulco	1.44	234		Pn	06 29 25.9	-0.9
HUIG					Sn	06 29 45.4	-0.9
TGIG		1.71	85	*e*P	Pn	06 29 29.9	-0.2
TGIG				*i* S	Sn	06 29 50.8	-1.6
TGIG		1.71	85		Pn	06 29 29.9	-0.2
TGIG					Sn	06 29 50.8	-1.6
OXLC	Oaxaca	1.79	285	*e*P	Pn	06 29 32.1	+0.8
OXLC				*e*S	Sn	06 29 54.4	+0.2
OXLC	Oaxaca	1.79	285		Pn	06 29 32.1	+0.8
OXLC					Sn	06 29 54.4	+0.2
OXBJ	Oaxaca	1.81	284	*e*P	Pn	06 29 32.8	+1.3
OXBJ				*e*S	Sn	06 29 54.0	-0.6
OXBJ	Oaxaca	1.81	284		Pn	06 29 32.8	+1.3
OXBJ					Sn	06 29 54.0	-0.6
YOIG	Yosondua	2.55	276	*e*P	Pn	06 29 41.8	+0.5
YOIG				*e*S	Sn	06 30 11.8	-0.2
YOIG	Yosondua	2.55	276		Pn	06 29 41.8	+0.5
YOIG					Sn	06 30 11.8	-0.2
TXIG	Tlaxiaco	2.82	283	*e*P	Pn	06 29 45.6	+0.8
TXIG				*e*S	Sn	06 30 18.2	-0.2
TXIG	Tlaxiaco	2.82	283		Pn	06 29 45.6	+0.8
TXIG					Sn	06 30 18.2	-0.2
PATR	El Naranjo	2.97	120	*e*P	Pn	06 29 47.1	+0.4
PATR				*e*S	Sn	06 30 20.5	-1.4
PATR	El Naranjo	2.97	120		Pn	06 29 47.1	+0.4
PATR					Sn	06 30 20.5	-1.4
PAVE	Pavencul	2.98	118	*e*P	Pn	06 29 47.9	+1.0
PAVE				*e*S	Sn	06 30 21.2	-0.9
PAVE	Pavencul	2.98	118		Pn	06 29 47.9	+1.0
PAVE					Sn	06 30 21.2	-0.9
HLIG	Huajuapan de L	3.03	294	*e*P	Pn	06 29 49.6	+2.2
HLIG				*e*S	Sn	06 30 15.6	-7.6
HLIG	Huajuapan de L	3.03	294		Pn	06 29 49.6	+2.2
HLIG					Sn	06 30 15.6	-7.6
CHUJ	Union Juarez	3.08	119	*e*P	Pn	06 29 48.2	-0.1
CHUJ				*e*S	Sn	06 30 22.9	-1.8
FTIG	Fresnillo de T	3.35	293	*e*P	Pn	06 29 54.0	+2.3
FTIG				*e*S	Sn	06 30 23.7	-7.1
FTIG	Fresnillo de T	3.35	293		Pn	06 29 54.0	+2.3
FTIG					Sn	06 30 23.7	-7.1
HUEH	Huehuetenango	3.51	111	*e*P	Pn	06 29 54.3	+0.3
HUEH				*e*S	Sn	06 30 31.6	-3.3
HUEH	Huehuetenango	3.51	111		Pn	06 29 53.8	-0.2
TLIG	Tlapa	3.63	285	Pn	Pn	06 29 57.4	+1.9
RTAL	Retalhuleu	3.72	124	*e*P	Pn	06 29 57.7	+1.1
RTAL				*e*S	Sn	06 30 37.3	-2.4
RTAL	Retalhuleu	3.72	124	Pn	Pn	06 29 55.1	-1.5
MTO3	Montecristo	5.78	112		Pn	06 30 23.7	-0.9
TEIG	Tepich	7.24	59		Pn	06 30 42.1	-2.1
435B	Jarrell	14.31	351	Pn	Pn	06 32 20.5	+1.6
LCCY	Blossom Villag	14.40	76		Pn	06 32 20.6	+0.5
WHTX	Lake Whitney,	15.48	352	P	P	06 32 36.3	+0.4
WHTX				IAmb	IAmb	06 32 41.4	
	comp=Z,6.5nm,0.6s						
ABTX	Abilene, Hawle	16.50	346	IAmb	IAmb	06 32 55.2	
	comp=Z,5.2nm,0.7s						
MIAR	Mount Ida	17.89	4	P	P	06 33 03.7	+1.3
W35A	Tecumseh	18.54	355	P	Pn	06 33 11.4	+0.3
W35A				IAmb	IAmb	06 33 11.5	
	comp=Z,5.3nm,0.6s						
FNO	Franklin	18.69	354	P	P	06 33 10.5	-0.8
FNO				IAmb	IAmb	06 33 19.8	
	comp=Z,9.8nm,0.7s						
FCAR	Ozark Folk Cen	19.35	7	P	P	06 33 18.9	+0.5
OK052	Battle Ridge R	19.37	355	P	P	06 33 19.6	+0.9
LCAR	Lake Charles	19.66	9	P	P	06 33 21.8	+0.1
LCAR				IAmb	IAmb	06 33 22.1	
	comp=Z,3.1nm,0.5s						
FPAL	Fort Paine	19.69	23	P	P	06 33 21.5	-0.7
FPAL				IAmb	IAmb	06 33 46.8	
	comp=Z,6.8nm,1.2s						
GLAT	Glass	20.20	13	P	P	06 33 27.4	-0.2
T35A	Sooner Cattle	20.27	356	P	P	06 33 29.0	+0.6
T35A				IAmb	IAmb	06 33 41.5	
	comp=Z,4.2nm,0.8s						
T42A	Van Buren	20.61	9	P	P	06 33 33.2	+1.2
T42A				IAmb	IAmb	06 33 35.1	
	comp=Z,3.0nm,0.6s						
N38A	Joes South For	24.13	3	P	P	06 34 07.9	+0.6

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*KRSC **14** 06:33:55.5±2.0, 49°.10N×156°.72E, h7km±31km, Ml4.4*

*SKHL **14** 06:33:55.0±0.7, 48°.90N×155°.70E, h53km±7km, mb4.8/4*

*MOS **14** 06:33:56.4±1.0, 49°.02N×155°.62E, h70km, mb4.4/5, Error ellipse: s-maj=13.7km s-min=4.1km az=75.7*

*NEIC **14** 06:33:58.9±1.5, 49°.08N±0°.07×155°.3E±0°.2, h73km±10km, mb4.3/9, Error ellipse: s-maj=20.9km s-min=6.8km az=114.0*

*IDC **14** 06:34:00.3±2.2, 49°.06N×155°.33E, h88km±20km, mb3.6/13, mbtmp4.0/19, MS3.1/13, Error ellipse: s-maj=20.3km s-min=11.2km az=140.0*

ISC 14 06:33:56.4±1.0**, 48°.96N**±0°.06×**155°.66E**±0°.06**, h56km**±9km**, n143,** σ**1ˢ.51**/141**, mb4.0**/21**, MS3.4**/10**, 4C-2D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	1.75	10	*e*PN	Pn	06 34 24.0	-0.4
SKR				*e*S	Sn	06 34 44.2	-1.4
SKR				pmax	pmax		
	comp=Z,270nm,0.4s						
SKR				smax	smax		
	comp=N,944nm,0.3s						
SKR				smax	smax		
	comp=E,963nm,0.3s						
SKR	Severo-Kuril's	1.75	10	*e*P	Pn	06 34 23.4	-1.0

SKR				eS	Sn	06 34 45.0	-0.7
SKR	Severo-Kuril's	1.75	10	eP	Pn	06 34 22.9	-1.5
SKR				AMB	AMB	06 34 27.0	
	comp=E,270nm,0.4s						
SKR				eS	Sn	06 34 43.3	-2.3
SKR				A	A	06 34 50.4	
	comp=E,940nm,0.3s						
SKR				A	A	06 34 50.4	
	comp=E,960nm,0.3s						
PAU	Pauzhetka	2.62	16	PN	Pn	06 34 36.6	+0.4
PAU				S	Sn	06 35 06.7	-0.1
PAU	Pauzhetka	2.62	16	eP	Pn	06 34 36.7	+0.4
PAU				eS	Sn	06 35 06.7	-0.1
PAU	Pauzhetka	2.62	16	eP	Pn	06 34 35.8	-0.5
PAU				AMB	AMB	06 34 37.3	
	comp=E,80nm,0.3s						
PAU				eS	Sn	06 35 05.8	-1.0
PAU				A	A	06 35 11.3	
	comp=E,780nm,0.3s						
PAU				A	A	06 35 11.3	
	comp=E,790nm,0.3s						
KDTR	Khodutka, Kamc	3.25	28	PN	Pn	06 34 43.8	-1.0
KDTR				S	Sn	06 35 17.9	-4.3
KDTR	Khodutka, Kamc	3.25	28	eP	Pn	06 34 43.8	-1.0
KDTR				eS	Sn	06 35 18.0	-4.3
KDTR	Khodutka, Kamc	3.25	28	eP	Pn	06 34 43.8	-1.0
ASAK	Asacha	3.72	22	PN	Pn	06 34 52.2	+0.9
ASAK	Asacha	3.72	22	eP	Pn	06 34 52.2	+0.9
MTVR	Mutnovka	3.88	23	PN	Pn	06 34 54.4	+0.8
MTVR	Mutnovka	3.88	23	eP	Pn	06 34 54.4	+0.8
GRL	Gorelyy	3.91	22	PN	Pn	06 34 55.5	+1.5
GRL	Gorelyy	3.91	22	eP	Pn	06 34 55.5	+1.5
RUS	Russkaya	3.93	26	PN	Pn	06 34 53.8	-0.3
RUS				S	Sn	06 35 37.0	-1.8
RUS	Russkaya	3.93	26	eP	Pn	06 34 53.9	-0.3
RUS				eS	Sn	06 35 37.1	-1.8
APC	Apacha	4.09	13	PN	Pn	06 34 58.1	+1.8
APC	Apacha	4.09	13	eP	Pn	06 34 58.2	+1.8
KRMR	Karymshinskiy	4.18	21	PN	Pn	06 34 58.7	+1.1
KRMR	Karymshinskiy	4.18	21	eP	Pn	06 34 58.7	+1.1
KRMR	Karymshinskiy	4.18	21	eP	Pn	06 34 58.7	+1.1
PEA0B	Petropavlovsk-	4.35	16	d iPN	Pn	06 35 01.6	+1.6
PEA0B	Petropavlovsk-	4.35	16		Pn	06 35 02.0	+2.0
PETK	Petropavlovsk-	4.35	16	P	Pn	06 35 01.9	+2.0
	comp=E,30nm,0.7s,baz=185,slow=11,SNR=41						
PETK				S	Sn	06 35 54.4	+5.1
	comp=E,5.6nm,0.6s,baz=184,slow=8.7,SNR=1.5						
PETK				LR	LR	06 36 55.1	
	comp=E,144nm,20.3s,baz=189,slow=40						
PETK	Petropavlovsk-	4.35	16	ePN	Pn	06 35 02.0	+2.0
PETK				pmax	pmax		
	comp=Z,5.0nm,0.3s						
PET	Petropavlovsk	4.49	24	ePN	Pn	06 35 01.9	+0.1
PET				eS	Sn	06 35 54.8	+2.1
PET				smax	smax		
	comp=N,109nm,0.8s						
PET				smax	smax		
	comp=E,114nm,0.8s						
PET	Petropavlovsk	4.49	24	Pn	Pn	06 35 03.9	+2.0
PET	Petropavlovsk	4.49	24	eP	Pn	06 35 01.8	-0.1
PET	Petropavlovsk	4.49	24	eP	Pn	06 35 02.4	+0.6
PET				eS	Sn	06 35 53.5	+0.8
DALK	Dalny	4.52	24	eS	Sn	06 35 53.5	0.0
UGLR	Uglovaya	4.70	24	PN	Pn	06 35 06.0	+1.2
UGLR	Uglovaya	4.70	24	eP	Pn	06 35 06.1	+1.2
KOK	Koryaka	4.73	22	PN	Pn	06 35 07.0	+1.8
KOK	Koryaka	4.73	22	eP	Pn	06 35 07.1	+1.8
KOK	Koryaka	4.73	22	eP	Pn	06 35 07.0	+1.8
AVH	Avacha	4.73	23	PN	Pn	06 35 06.3	+1.1
AVH	Avacha	4.73	23	eP	Pn	06 35 06.3	+1.1
SMAR	Somma	4.75	23	PN	Pn	06 35 07.4	+1.9
SMAR	Somma	4.75	23	eP	Pn	06 35 07.5	+1.9
KRER	Koryakskii	4.77	23	PN	Pn	06 35 06.7	+0.9
KRER	Koryakskii	4.77	23	eP	Pn	06 35 06.8	+0.9
SDLR	Sedlovina	4.78	24	PN	Pn	06 35 06.9	+1.0
SDLR	Sedlovina	4.78	24	eP	Pn	06 35 06.9	+1.0
KRX	Arik	4.79	22	PN	Pn	06 35 08.1	+2.0
KRX	Arik	4.79	22	eP	Pn	06 35 08.1	+2.0
GNL	Ganaly	4.96	16	PN	Pn	06 35 10.2	+1.9
GNL	Ganaly	4.96	16	eP	Pn	06 35 10.3	+1.9
SPN	Mys Shipunski	4.98	32	PN	Pn	06 35 08.9	+0.4
SPN				S	Sn	06 36 03.1	-1.6
SPN	Mys Shipunski	4.98	32	eP	Pn	06 35 08.9	+0.4
SPN				eS	Sn	06 36 03.1	-1.6
SPN	Mys Shipunski	4.98	32	eP	Pn	06 35 08.9	+0.4
KII	Karymskiy	5.61	23	PN	Pn	06 35 19.9	+2.7
KII	Karymskiy	5.61	23	eP	Pn	06 35 20.0	+2.7
REI	Reidovoe	6.39	238	eP	Pn	06 35 27.8	0.0
REI				eS	Sn	06 36 37.6	-1.8
KUR	Kuril'sk	6.49	238	ePN	Pn	06 35 28.0	-1.3
KUR				pmax	pmax		
	comp=Z,54nm,0.5s						
KUR	Kuril'sk	6.49	238	eP	Pn	06 35 28.0	-1.3
KUR				AMB	AMB	06 35 33.9	
	comp=Z,50nm,0.5s						
KUR				eS	Sn	06 36 42.6	+0.7
MKZ	Mys Kozlova	6.75	32	PN	Pn	06 35 31.4	-1.4
MKZ	Mys Kozlova	6.75	32	eP	Pn	06 35 31.5	-1.4
MKZ	Mys Kozlova	6.75	32	eP	Pn	06 35 31.4	-1.4
ZLN	Zelenaya	7.74	22	PN	Pn	06 35 48.1	+1.8
ZLN	Zelenaya	7.74	22	eP	Pn	06 35 48.1	+1.8
YUK	Yuzh-Kuril'sk	8.36	238	eP	Pn	06 35 54.8	0.0
YUK				AMB	AMB	06 35 56.8	
	comp=Z,100nm,0.7s						
KBTR	Krutoberegovo	8.47	28	PN	Pn	06 35 57.4	+1.2
KBTR	Krutoberegovo	8.47	28	eP	Pn	06 35 57.4	+1.2
TYV	Tymovskoe	8.61	288	ePN	Pn	06 36 12.4	+14
TYV				pmax	pmax		
	comp=Z,6.0nm,1.1s						
TYV				pmax	pmax		
	comp=Z,200nm,3.5s						
TYV	Tymovskoe	8.61	288	eP	Pn	06 35 55.7	-2.5
YSS	Yuzhno-Sakhali	8.89	262	ePN	Pn	06 35 57.7	-4.4
YSS				pmax	pmax		
	comp=Z,23nm,1.7s						
JKA	Kamikawa-asahi	10.21	247		Pn	06 36 20.7	+0.5
JKA	Kamikawa-asahi	10.21	247	eP	Pn	06 36 21.3	+1.1
ASAJ	Asahikawa	10.22	247	P	Pn	06 36 21.2	+1.0
	comp=Z,36nm,0.7s,baz=61,slow=12,SNR=17						
MA2	Magadan	11.02	347	LR	LR	06 40 45.8	
	comp=Z,47nm,19.7s,baz=226,slow=37						
ERM	Erimo	11.18	236	ePN	Pn	06 36 29.6	-3.8
ERM	Erimo	11.18	236	Pn	Pn	06 36 33.1	-0.3
SHEM	Shemya Is, Ala	12.25	65	LR	LR	06 42 14.7	
	comp=Z,35nm,19.0s,baz=62,slow=40						
SEY	Seymchan	14.13	354	P	Pn	06 37 14.3	+1.0
	comp=Z,1.7nm,0.2s,baz=197,slow=19,SNR=1.6						
KLR	Kul'dur	15.65	280	P	Pn	06 37 34.5	+1.3
	comp=Z,1.6nm,0.6s,baz=76,slow=11,SNR=8.9						
KLR	Kul'dur	15.65	280	eP	P	06 37 34.8	-1.6
KLR				pmax	pmax		
	comp=Z,2.0nm,1.3s						
KLR	Kul'dur	15.65	280	eP	Pn	06 37 31.9	-1.3
USRK	Ussuriysk Ar.	16.93	263	P	P	06 37 50.1	-0.4
	comp=Z,2.8nm,0.7s,baz=64,slow=11,SNR=6.5						
JYT	Yasato	17.03	227	P	P	06 37 51.4	-0.3
MAJO	Matsushiro	17.79	232	⇓iP	P	06 37 55.8	-4.2
MAJO				pmax	pmax		
	comp=Z,15nm,1.8s						
MJAR	Matsushiro Arr	17.79	232	P	Pn	06 38 01.6	+1.7
	comp=Z,0.9nm,0.3s,baz=20,slow=13,SNR=4.1						
HEH	HeiHe	18.31	285	eP	Pn	06 38 07.1	+0.9
HEH				pmax	pmax		
	comp=Z,15nm,0.8s						
YAK	Yakutsk	19.52	322	eP	P	06 38 17.9	-0.9
YAK				eS	S	06 41 56.0	+0.1
YAK				pmax	pmax		
	comp=Z,16nm,0.9s						
YAK				pmax	pmax		
	comp=N,2.0nm,0.9s						
YAK				pmax	pmax		
	comp=E,3.0nm,0.9s						
YAK				smax	smax		
	comp=N,45nm,2.8s						
YAK				smax	smax		
	comp=E,42nm,2.7s						
YAK	Yakutsk	19.52	322	eP	P	06 38 17.9	-0.9
BILL	Bilibino	19.87	12	eP	Pn	06 38 25.7	+1.1
BILL				pmax	pmax		
	comp=Z,4.0nm,0.9s						
BILL	Bilibino	19.87	12	eP	Pn	06 38 25.7	+1.1
KSRS	Korea Array	23.12	251	P	P	06 38 57.5	0.0
	comp=Z,1.5nm,0.5s,baz=41,slow=10,SNR=6.3						
H11N2	WAKE ISLAND Hy	30.53	159	T	T	07 12 29.0	
	baz=345,slow=76,SNR=15						
H11N1	WAKE ISLAND Hy	30.54	159	T	T	07 12 27.2	
	baz=345,slow=76,SNR=17						
H11N3	WAKE ISLAND Hy	30.54	159	T	T	07 12 39.2	
	baz=345,slow=76,SNR=27						
IMAR	Indian Mountai	30.97	38	P	P	06 40 08.0	+0.1
H11S1	WAKE ISLAND Hy	31.66	160	T	T	07 13 58.1	
	baz=346,slow=76,SNR=112						
H11S3	WAKE ISLAND Hy	31.67	160	T	T	07 13 44.9	
	baz=346,slow=76,SNR=391						
H11S2	WAKE ISLAND Hy	31.68	160	T	T	07 13 52.6	
	baz=346,slow=76,SNR=290						
E22K	Anaktuvuk Pass	32.06	34	P	P	06 40 17.9	+0.4
E22K				IAmb	IAmb	06 40 38.3	
	comp=Z,9.9nm,1.5s						
SONM	Songino Array	32.27	287	LR	LR	06 54 31.8	
	comp=Z,68nm,18.2s,baz=88,slow=38						
SML	Sawmill	33.20	46	P	P	06 40 27.6	+0.1
F24K	Squaw Lake	33.46	36	P	P	06 40 31.3	+1.6
F24K				IAmb	IAmb	06 41 03.2	
	comp=Z,9.0nm,1.5s						
ILAR	Eielson Array	33.75	41	P	P	06 40 32.6	+0.4
	comp=Z,0.9nm,1.0s,baz=269,slow=6.9,SNR=5.1						
	comp=Z,0.9nm,1.0s						
BMAR	Burnt Mountain	34.73	36	P	P	06 40 43.1	+2.5
L27K	Beaver Creek,	36.09	43	P	P	06 40 53.7	+1.2
L27K				IAmb	IAmb	06 41 28.0	
	comp=Z,4.0nm,1.2s						
BCAR	Beaver Creek A	36.11	43	P	P	06 40 54.3	+1.7
GUMO	Guam	36.37	198	LR	LR	06 55 35.5	
	comp=Z,11nm,19.3s,baz=138,slow=36						
NRIK	Noril'sk	37.79	327	LR	LR	06 57 17.3	
	comp=Z,20nm,19.5s,baz=82,slow=37						
MK31	Makanchi Array	47.47	297	⇑iP	P	06 42 25.5	+0.1
MKAR	Makanchi Array	47.47	297	P	P	06 42 23.8	-1.6
	comp=Z,0.6nm,0.6s,baz=62,slow=8.5,SNR=6.8						
MKAR				LR	LR	07 03 34.2	
	comp=Z,42nm,18.7s,baz=94,slow=38						
	comp=Z,0.6nm,0.6s						
MKAR	Makanchi Array	47.47	297	eP	P	06 42 25.6	+0.2
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	Makanchi Array	47.47	297	P	P	06 42 24.4	-1.0
MKAR	Makanchi Array	47.47	297	eP	P	06 42 25.6	+0.2
KURK	Kurchatov	47.59	303	ceP	P	06 42 25.2	-1.0
KURK				pmax	pmax		
	comp=Z,2.0nm,0.8s						
KURK	Kurchatov	47.59	303	P	P	06 42 24.1	-2.1
KURK	Kurchatov	47.59	303	eP	P	06 42 25.3	-1.0
KURBB	Kurchatov Arra	47.68	303	P	P	06 42 25.6	-1.3
	comp=Z,0.7nm,0.3s,baz=67,slow=8.3,SNR=5.5						
	comp=Z,0.7nm,0.3s						
YKA	Yellowknife Ar	48.13	39	P	P	06 42 31.6	+1.3
	comp=Z,0.5nm,0.6s,baz=222,slow=12,SNR=1.7						
	comp=Z,0.5nm,0.6s						
RES	Resolute Bay	48.19	20	LR	LR	07 04 59.2	
	comp=Z,14nm,19.3s,baz=7.0,slow=39						
BVAR	Borovoye Array	50.79	309	P	P	06 42 48.9	-1.8
	comp=Z,0.4nm,0.3s,baz=63,slow=13,SNR=1.8						
	comp=Z,0.4nm,0.3s						
BORK	Borovoye	50.82	309	⇑iP	P	06 42 52.1	+1.3
BORK				pmax	pmax		
	comp=Z,1.0nm,0.6s						
AAK	Ala-Archa	54.39	296	LR	LR	07 08 11.4	
	comp=Z,50nm,18.8s,baz=184,slow=38						
ARTI	Arti	54.65	317	c iP	P	06 43 18.6	-0.5
ARTI				S	S	06 50 54.0	-0.5
ARTI				SS	SS	06 54 35.8	-1.4
ARTI				pmax	pmax		
	comp=Z,3.0nm,1.0s						
ARCES	ARCESS Array B	56.33	341	LR	LR	07 10 48.8	
	comp=Z,26nm,19.1s,baz=72,slow=39						
AB31	Akbulak array	58.33	310	P	P	06 43 44.4	-0.9
AB31				IAmb	IAmb	06 44 22.4	
	comp=Z,1.4nm,0.9s						
ABKAR	Akbulak array	58.33	310	P	P	06 43 43.7	-1.6
SUMG	Summit	58.37	5	P	P	06 43 44.8	-0.9
SUMG				pmax	pmax		
	comp=Z,11nm,1.4s						
SUMG	Summit	58.37	5	P	P	06 43 44.8	-0.9
NVAR	Mina Array Bea	59.91	65	P	P	06 43 57.9	+1.2
	comp=Z,0.6nm,0.5s,baz=294,slow=7.1,SNR=7.2						
	comp=Z,0.6nm,0.5s						
NVAR	Mina Array Bea	59.91	65	P	P	06 43 57.3	+0.6
PDAR	Pinedale Array	62.08	56	P	P	06 44 11.8	+0.5
	comp=Z,0.5nm,0.7s,baz=305,slow=8.7,SNR=5.8						
	comp=Z,0.5nm,0.7s						
PDAR	Pinedale Array	62.08	56	P	P	06 44 12.5	+1.2
FINES	FINESS Array B	62.76	335	P	P	06 44 13.2	-2.1
	comp=Z,1.2nm,0.6s,baz=17,slow=8.0,SNR=3.8						
	comp=Z,1.2nm,0.6s						
NOA	NORSAR Array B	66.68	342	LR	LR	07 18 32.9	
	comp=Z,15nm,18.1s,baz=15,slow=40						
AKASG	Malin Array Be	70.64	327	LR	LR	07 17 55.6	
	comp=Z,22nm,19.6s,baz=349,slow=37						
WRA	Warramunga Arr	71.17	201	P	P	06 45 08.8	-0.4
	comp=Z,1.0nm,0.5s,baz=18,slow=6.4,SNR=10						
	comp=Z,1.0nm,0.5s						
ASAR	Alice Springs	74.86	201	P	P	06 45 31.4	+0.5
	comp=Z,0.7nm,0.5s,baz=16,slow=5.8,SNR=17						
	comp=Z,0.7nm,0.5s						
TX31	Lajitas Ar. Si	74.93	63	P	P	06 45 33.2	+1.7
TX31				IAmb	IAmb	06 45 54.5	
	comp=Z,4.5nm,1.5s						
TXAR	Lajitas Array	74.93	63	P	P	06 45 33.3	+1.8
	comp=Z,0.8nm,0.5s,baz=301,slow=4.6,SNR=16						
	comp=Z,0.8nm,0.5s						
TXAR	Lajitas Array	74.93	63	P	P	06 45 33.1	+1.6
TXAR	Lajitas Array	74.93	63	P	P	06 45 33.1	+1.6
GERES	GERESS Array B	77.20	335	P	P	06 45 44.2	+0.1
	comp=Z,1.1nm,0.2s,baz=23,slow=7.2,SNR=2.4						
	comp=Z,1.1nm,0.2s						
TKL	Tuckaleechee C	80.59	45	LR	LR	07 25 04.2	
	comp=Z,19nm,18.3s,baz=56,slow=38						
H03N2	Juan Fernandez	137.04	90	T	T	09 25 17.5	
	baz=313,slow=76,SNR=11						
H03N1	Juan Fernandez	137.05	90	T	T	09 25 19.2	
	baz=309,slow=76,SNR=14						
PLCA	Paso Flores	146.66	93	PKPbc	PKiKP	06 53 32.6	-1.5
	comp=Z,2.0nm,0.8s,baz=243,slow=7.2,SNR=5.2						

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*IDC **14** 06:40:15.9±1.0, 1°.54N×67°.02E, h0^{km}, mb4.0/13, mbtmp4.0/13, MS3.4/17, Error ellipse: s-maj=34.3km s-min=18.5km az=47.0*

*NEIC **14** 06:40:18.6±0.4, 1°.8N±0°.1×67°.2E±0°.1, h10^{km}±2^{km}, mb4.5/10, Error ellipse: s-maj=21.3km s-min=17.1km az=292.0*

ISC 14 06:40:18.2±0.8**, 1°.6N**±0°.1×**67°.1E**±0°.1**, h13**^{km}**, n50, σ0^{s}.72**/36**, mb4.2**/17**, MS3.5**/16**, Carlsberg Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAAM	Kaadhehdhoo	5.96	101	Pn	Pn	06 41 46.1	-0.2
PALK	Pallekele	14.63	67	LR	LR	06 47 57.1	
	comp=Z,165nm,21.3s,baz=248,slow=31						
HYB	Hyderabad	19.28	35	eP	P	06 44 41.8	-1.2
HYB				eS	Sn	06 48 19.7	-0.5
KMBO	Kilima Mbogo	30.01	265	LR	LR	06 56 33.9	
	comp=Z,52nm,18.9s,baz=105,slow=33						
BRDH	Bariadhala	31.68	47	LR	LR	07 00 56.5	
	comp=Z,95nm,18.7s,baz=145,slow=39						
CMAR	Chiang Mai Arr	35.38	60	P	P	06 47 15.2	+1.2
	0.8nm,0.3s,baz=220,slow=8.5,SNR=1.3						
CMAR				PcP	PcP	06 49 45.2	+1.0
	1.0nm,0.3s,baz=250,slow=5.9,SNR=5.1						
CMAR				LR	LR	07 00 10.8	
	comp=Z,26nm,21.2s,baz=245,slow=34						
	0.8nm,0.3s						
MBAR	Mbarara	36.47	267	LR	LR	07 00 36.6	
	comp=Z,48nm,20.2s,baz=88,slow=34						
LSZ	Lusaka	42.03	245	LR	LR	07 03 29.6	
	comp=Z,78nm,19.7s,baz=154,slow=33						
MK31	Makanchi Array	46.88	14	P	P	06 48 47.3	-0.9
MKAR	Makanchi Array	46.88	14	P	P	06 48 48.0	-0.3
	0.8nm,0.8s,baz=202,slow=8.5,SNR=6.6						
MKAR				PcP	PcP	06 50 21.0	0.0
	0.1nm,0.4s,baz=174,slow=1.4,SNR=1.7						
	0.8nm,0.8s						
MKAR	Makanchi Array	46.88	14	P	P	06 48 47.5	-0.8
KBZ	Khabaz	47.13	336	P	P	06 48 50.5	+0.3
	0.8nm,0.3s,baz=151,slow=8.2,SNR=3.6						
	0.8nm,0.3s						
AB31	Akbulak array	47.84	354	P	P	06 48 55.1	-0.5
AB31				IAmb	IAmb	06 49 03.7	
	comp=Z,6.2nm,1.1s						
ABKAR	Akbulak array	47.84	354	P	P	06 48 55.1	-0.5
LBTB	Lobatse	48.17	234	LR	LR	07 06 05.5	
	comp=Z,29nm,20.1s,baz=117,slow=32						
BR131	Keskin Array S	48.63	325		P	06 49 01.2	-0.9
BR131				IAmb	IAmb	06 49 29.8	
	comp=Z,8.5nm,1.4s						
BRTR	Keskin Array B	48.63	325	P	P	06 49 01.5	-0.6
	comp=Z,0.7nm,0.6s,baz=128,slow=11,SNR=4.7						
BRTR				LR	LR	07 09 55.2	
	comp=Z,23nm,18.1s,baz=120,slow=37						
	comp=Z,0.7nm,0.6s						
AKTO	Aktyubinsk	49.23	352	P	P	06 49 06.2	-0.1
	comp=Z,1.8nm,0.5s,baz=187,slow=7.5,SNR=7.6						
	comp=Z,1.8nm,0.5s						
KURBB	Kurchatov Arra	49.76	9	P	P	06 49 10.3	0.0
	comp=Z,0.5nm,0.3s,baz=207,slow=7.8,SNR=4.3						
KURBB				LR	LR	07 11 24.6	
	comp=Z,36nm,18.3s,baz=193,slow=38						
	comp=Z,0.5nm,0.3s						
BOSA	Boshof	50.15	230	LR	LR	07 07 23.7	
	comp=Z,67nm,20.1s,baz=34,slow=33						
BVAR	Borovoye Array	51.29	3	P	P	06 49 22.1	+0.2
	comp=Z,0.5nm,0.3s,baz=186,slow=1.4,SNR=1.7						
	comp=Z,0.5nm,0.3s						
TSUM	Tsumeb	52.88	244	LR	LR	07 09 05.2	
	comp=Z,77nm,18.8s,baz=154,slow=33						
ZAA0	Zalesovo Array	54.14	13	P	P	06 49 42.5	-0.4
ZAA0				IAmb	IAmb	06 49 45.0	
	comp=Z,4.4nm,0.8s						
ZALV	Zalesovo Beam	54.14	13	P	P	06 49 43.0	0.0
	comp=Z,4.6nm,0.8s,baz=213,slow=6.8,SNR=13						
	comp=Z,4.6nm,0.8s						
ZALV	Zalesovo Beam	54.14	13	P	P	06 49 42.5	-0.4
SUR	Sutherland	55.33	228	LR	LR	07 09 44.9	
	comp=Z,63nm,21.6s,baz=58,slow=32						
H01W3	Cape Leeuwin H	57.02	134	T	T	07 51 42.3	
	baz=300,slow=75,SNR=24						
H01W2	Cape Leeuwin H	57.02	134	T	T	07 51 42.8	
	baz=300,slow=75,SNR=25						
H01W1	Cape Leeuwin H	57.04	134	T	T	07 51 40.4	
	baz=300,slow=75,SNR=22						
SONM	Songino Array	57.15	30	P	P	06 50 06.7	+1.8
	comp=Z,1.2nm,0.9s,baz=234,slow=7.3,SNR=5.9						
SONM				LR	LR	07 14 50.6	
	comp=Z,67nm,21.6s,baz=276,slow=36						
	comp=Z,1.2nm,0.9s						
SONM	Songino Array	57.15	30	P	P	06 50 05.6	+0.7
SONM				IAmb	IAmb	06 50 07.8	
	comp=Z,3.4nm,1.2s						
AKASG	Malin Array Be	58.44	333	P	P	06 50 15.4	+1.6
	comp=Z,0.2nm,0.3s,baz=104,slow=6.8,SNR=1.7						
	comp=Z,0.2nm,0.3s						
TNTI	Ternate	60.22	90	P	P	06 50 26.0	-0.7
KSRS	Korea Array	66.08	49	LR	LR	07 23 46.8	
	comp=Z,9.7nm,18.1s,baz=225,slow=39						
CLL	Collm	67.07	326	i P	P	06 51 11.5	+0.2
NRIK	Noril'sk	68.96	8	LR	LR	07 24 20.9	
	comp=Z,24nm,18.4s,baz=232,slow=38						
WRA	Warramunga Arr	69.22	112	P	P	06 51 25.1	-0.3
	comp=Z,3.0nm,0.8s,baz=288,slow=5.6,SNR=14						
	comp=Z,3.0nm,0.8s						
WRA	Warramunga Arr	69.22	112	P	P	06 51 25.1	-0.3
WRAB	Tennant Creek	69.23	112	P	P	06 51 25.2	-0.2
WR8	Warramunga Arr	69.37	112	P	P	06 51 26.4	+0.1
WR8				IAmb	IAmb	06 51 34.8	
	comp=Z,9.2nm,1.1s						
ASAR	Alice Springs	69.50	116	P	P	06 51 27.5	+0.4
	comp=Z,2.2nm,0.8s,baz=285,slow=6.1,SNR=22						
	comp=Z,2.2nm,0.8s						
ASAR	Alice Springs	69.50	116	P	P	06 51 27.0	-0.1
AS31	Alice Springs	69.50	116	P	P	06 51 27.0	-0.1
AS31				IAmb	IAmb	06 51 29.0	
	comp=Z,0.9nm,0.7s						
ESDC	Sonseca Array	74.46	311	P	P	06 51 55.5	-1.1
	comp=Z,0.3nm,0.4s,baz=102,slow=6.0,SNR=7.6						
	comp=Z,0.3nm,0.4s						
TIXI	Tiksi	79.81	16	LR	LR	07 29 10.3	
	comp=Z,39nm,18.0s,baz=208,slow=37						
MA2	Magadan	85.36	30	LR	LR	07 32 15.0	
	comp=Z,40nm,18.7s,baz=281,slow=36						
PDAR	Pinedale Array	135.70	357	PKP	PKPdf	06 59 39.1	-0.2
	comp=Z,0.2nm,0.6s,baz=52,slow=3.9,SNR=2.3						
NVAR	Mina Array Bea	139.82	7	PKP	PKPdf	06 59 46.3	-0.7
	comp=Z,0.1nm,0.3s,baz=326,slow=0.7,SNR=1.8						
ANMO	Albuquerque	143.12	351	PKP	PKPbc	06 59 51.2	+1.5
	comp=Z,1.0nm,0.9s,baz=81,slow=6.6,SNR=3.8						
TXAR	Lajitas Array	147.97	345	PKPbc	PKPbc	07 00 04.4	+0.1
	comp=Z,1.8nm,0.8s,baz=62,slow=2.2,SNR=16						

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*SOME **14** 06:54:50.6, 42°.90N×82°.52E, h25^{km}*

*NNC **14** 06:54:53.8±2.4, 44°.87N×82°.60E, h0^{km}, mb3.3, mpv2.9, Error ellipse: s-maj=30.9km s-min=8.5km az=109.0*

ISC 14 06:54:51.6±2.4**, 44°.82N**±0°.08×**82°.7E**±0°.1**, h10**^{km}**, n8, σ2^{s}.05**/12**, 2C-3D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MK31	Makanchi Array	2.00	351	Pn	Pn	06 55 27.5	+2.0
	6.4nm,0.3s,baz=172,slow=17,SNR=239						
MK31				⇓Sn	Sg	06 55 54.7	-1.2
	2.3nm,0.3s,baz=173,slow=25,SNR=3.9						
MAKZ	Makanchi	2.06	345	⇑Pn	Pb	06 55 28.7	-0.4
	2.8nm,0.3s						
MAKZ				⇑Sn	Sb	06 55 54.6	-0.1
	4.8nm,0.6s						
DJR	Jarkent	2.16	258	eP	Pg	06 55 33.6	+0.6
	4.3nm,0.2s						
DJR				eS	Sg	06 56 01.8	+0.8
	3.5nm,0.3s						
PDGK	Podgornoye	2.77	239	⇓Pg	Pb	06 55 43.6	+2.3
	1.3nm,0.3s						
PDGK				⇓Lg	Lg	06 56 21.0	
	12nm,0.6s						
UZB	Uzynbulak	3.16	239	eP	Pn	06 55 36.5	-5.1
	1.8nm,0.2s						
UZB				eS	Sn	06 56 07.0	-12
	0.5nm,0.1s						
KPKS	Kokpek	3.21	247	eP	Pn	06 55 42.1	-0.1
	0.3nm,0.1s						
KPKS				eS	Sn	06 56 16.8	-3.8
	2.5nm,0.3s						
ARXS	Arharly	3.56	262	eP	Pb	06 55 55.5	+0.8
	1.1nm,0.3s						
ARXS				eS	Sb	06 56 39.6	+1.6
	7.6nm,0.3s						
SATY	Saty	3.58	242	eP	Pn	06 55 44.5	-2.9
	0.7nm,0.1s						
SATY				eS	Sn	06 56 20.8	-9.1
	3.5nm,0.2s						

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*ASRS **14** 06:59:39.0±1.0, 54°.13N×86°.47E, h0^{km}, M2.5(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 14 06:59:41.8±4.1**, 54°.16N×86°.61E, h0**^{km}**, mbtmp3.2**/2**, ML2.4**/2**, Error ellipse: s-maj=35.1km s-min=17.8km az=65.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	1.08	259	I	I	07 06 20.0	
	baz=80,slow=319,SNR=3.1						
ZALV	Zalesovo Beam	1.08	259	Pg	Pg	07 00 00.8	-1.6
	0.5nm,0.3s,baz=76,slow=16,SNR=6.0						
ZALV				Lg	Lg	07 00 19.1	
	1.5nm,0.3s,baz=75,slow=29,SNR=8.0						
KURBB	Kurchatov Arra	6.08	238	Pn	Pn	07 01 14.1	+1.2
	0.1nm,0.3s,baz=53,slow=14,SNR=2.1						
	1.8nm,0.2s						
KURBB				AML	AML		
MKAR	Makanchi Array	7.87	202	Pn	Pn	07 01 38.8	+1.4
	0.1nm,0.3s,baz=24,slow=13,SNR=5.9						
	0.2nm,0.4s						
MKAR				AML	AML		

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*IDC **14** 07:10:03.8±4.2, 54°.26N×87°.16E, h0^{km}, mbtmp3.3/2, ML2.6/2, Error ellipse: s-maj=40.4km s-min=22.1km az=66.0*

ASRS 14 07:10:02.0±0.7**, 54°.22N×87°.19E, h0**^{km}**, M2.3**(MOS)**, The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	1.42	260	I	I	07 19 10.0	

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
	baz=78,slow=321,SNR=3.5						
ZALV	Zalesovo Beam	1.42	260	Pg	Pb	07 10 29.9	+0.6
	3.0nm,0.3s,baz=76,slow=15,SNR=20						
ZALV				Lg	Lg	07 10 50.0	
	2.6nm,0.3s,baz=73,slow=27,SNR=5.7						
KURBB	Kurchatov Arra	6.40	239	Pn	Pn	07 11 40.1	+2.6
	0.1nm,0.3s,baz=53,slow=13,SNR=1.3						
	2.7nm,0.2s						
KURBB				AML	AML		
MKAR	Makanchi Array	8.06	205	Pn	Pn	07 12 03.9	+3.6
	0.1nm,0.3s,baz=27,slow=14,SNR=4.0						
	0.2nm,0.3s						
MKAR				AML	AML		

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*KRSC **14** 07:43:27.9±0.7, 55°.48N×161°.11E, h162km±6km, Mc4.1, Ml4.9, Felt [IV-V] at kordon Kronoki.*

*MOS **14** 07:43:28.8±0.8, 55°.55N×160°.83E, h165km, mb4.3/44, Error ellipse: s-maj=7.5km s-min=3.7km az=79.4*

*IDC **14** 07:43:30.7±0.5, 55°.66N×160°.70E, h161km±4km, mb3.9/28, mbtmp4.4/33, MS3.2/3, Error ellipse: s-maj=10.1km s-min=6.7km az=145.0*

*NEIC **14** 07:43:30.4±1.1, 55°.56N±0°.07×160°.8E±0°.1, h162km±4km, mb4.4/349, Error ellipse: s-maj=10.1km s-min=9.0km az=155.0*

*GFZ **14** 07:43:31.4±0.2, 56°N±4°×16°1E±°, h169km, M4.4/36, mb4.4/36, confirmed*

ISC 14 07:43:30.1±0.4**, 55°.52N**±0°.03×**160°.90E**±0°.03**, h163**km±3km**, n607, σ0ˢ96**/628**, mb4.3**/242**, 5C-5D, Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TUMD	Tumrok D	0.43	222	PN	Pn	07 43 51.5	-1.2
TUMD				S	Sn	07 44 08.2	-1.7
TUMD	Tumrok D	0.43	222	eP	Pn	07 43 51.6	-1.2
TUMD				eS	Sn	07 44 08.3	-1.7
BZGR	Bezymyannyi-Gr	0.43	345	PN	Pn	07 43 51.9	-0.9
BZGR				S	Sn	07 44 09.7	-0.6
BZGR	Bezymyannyi-Gr	0.43	345	eP	Pn	07 43 52.0	-0.9
BZGR				eS	Sn	07 44 09.8	-0.6
KMNR	Kamenistaya	0.44	302	PN	Pn	07 43 52.6	-0.2
KMNR				S	Sn	07 44 10.1	-0.2
KMNR	Kamenistaya	0.44	302	eP	Pn	07 43 52.6	-0.2
KMNR				eS	Sn	07 44 10.2	-0.2
BZMR	Bezymyannaya	0.47	331	PN	Pn	07 43 52.0	-1.0
BZMR	Bezymyannaya	0.47	331	eP	Pn	07 43 52.0	-1.0
TUMR	Tumrok	0.49	241	PN	Pn	07 43 52.8	-0.3
TUMR	Tumrok	0.49	241	eP	Pn	07 43 52.9	-0.3
BZWR	Bezymyannyi-We	0.50	333	PN	Pn	07 43 52.4	-0.7
BZWR	Bezymyannyi-We	0.50	333	eP	Pn	07 43 52.5	-0.7
ZLN	Zelenaya	0.50	354	PN	Pn	07 43 52.5	-0.5
ZLN	Zelenaya	0.50	354	eP	Pn	07 43 52.6	-0.5
KIRR	Kirishev	0.53	324	PN	Pn	07 43 52.5	-0.8
KIRR				S	Sn	07 44 09.9	-1.2
KIRR	Kirishev	0.53	324	i P	Pn	07 43 52.5	-0.8
KIRR				eS	Sn	07 44 10.0	-1.2
KPT	Kopyto	0.59	320	PN	Pn	07 43 52.6	-0.9
KPT				S	Sn	07 44 10.9	-0.6
KPT	Kopyto	0.59	320	i P	Pn	07 43 52.7	-0.9
KPT				eS	Sn	07 44 10.9	-0.6
CIRR	Tsirk	0.60	352	PN	Pn	07 43 53.0	-0.6
CIRR	Tsirk	0.60	352	eP	Pn	07 43 53.1	-0.6
KOZ	Kozyrevsk	0.79	313	PN	Pn	07 43 54.2	-0.4
KOZ				S	Sn	07 44 13.1	-0.3
KOZ	Kozyrevsk	0.79	313	i P	Pn	07 43 54.2	-0.4
KOZ				eS	Sn	07 44 13.2	-0.3
KLY	Klyuchi	0.81	350	PN	Pn	07 43 53.7	-0.9
KLY				S	Sn	07 44 12.0	-1.6
KLY	Klyuchi	0.81	350	i P	Pn	07 43 53.7	-0.9
KLY				eS	Sn	07 44 12.0	-1.6
SRDR	Sredinnyy	1.04	321	PN	Pn	07 43 55.9	-0.6
SRDR	Sredinnyy	1.04	321	eP	Pn	07 43 56.0	-0.6
MKZ	Mys Kozlova	1.08	153	PN	Pn	07 43 54.7	-2.0
MKZ	Mys Kozlova	1.08	153	eP	Pn	07 43 54.8	-2.0
SMKR	Semkarok	1.11	17	PN	Pn	07 43 56.1	-1.0
SMKR	Semkarok	1.11	17	eP	Pn	07 43 56.2	-1.0
KBTR	Krutoberegovo	1.28	57	PN	Pn	07 43 56.7	-1.8
KBTR	Krutoberegovo	1.28	57	eP	Pn	07 43 56.7	-1.8
ESO	Esso	1.31	289	PN	Pn	07 43 58.8	0.0
ESO	Esso	1.31	289	eP	Pn	07 43 58.9	0.0
KII	Karymskiy	1.71	210	PN	Pn	07 44 02.7	-0.2
KII				S	Sn	07 44 28.5	+0.3
KII	Karymskiy	1.71	210	eP	Pn	07 44 02.7	-0.2
KII				eS	Sn	07 44 28.5	+0.3
SPN	Mys Shipunski	2.48	192	PN	Pn	07 44 10.1	-1.5
SPN				S	Sn	07 44 40.1	-3.6
SPN	Mys Shipunski	2.48	192	eP	Pn	07 44 10.1	-1.5
SPN				eS	Sn	07 44 40.2	-3.6
GNL	Ganaly	2.51	224	PN	Pn	07 44 12.6	+0.5
GNL	Ganaly	2.51	224	eP	Pn	07 44 12.6	+0.5
NLC	Nalytchevo	2.52	202	PN	Pn	07 44 10.9	-1.2
NLC				S	Sn	07 44 42.2	-2.4
NLC	Nalytchevo	2.52	202	eP	Pn	07 44 11.0	-1.2
NLC				eS	Sn	07 44 42.3	-2.4
KRX	Arik	2.53	212	PN	Pn	07 44 12.5	+0.1
KRX	Arik	2.53	212	eP	Pn	07 44 12.6	+0.1
SDLR	Sedlovina	2.54	208	PN	Pn	07 44 12.2	-0.2
SDLR				S	Sn	07 44 44.8	-0.3
SDLR	Sedlovina	2.54	208	eP	Pn	07 44 12.2	-0.2
SDLR				eS	Sn	07 44 44.9	-0.3
KRER	Koryakskii	2.55	210	PN	Pn	07 44 12.8	+0.1
KRER	Koryakskii	2.55	210	eP	Pn	07 44 12.9	+0.1
TIGL	Tigil	2.56	332	PN	Pn	07 44 12.0	-0.5
TIGL	Tigil	2.56	332	eP	Pn	07 44 12.1	-0.5
SMAR	Somma	2.57	209	PN	Pn	07 44 12.7	-0.3
SMAR	Somma	2.57	209	eP	Pn	07 44 12.7	-0.3
AVH	Avacha	2.59	210	PN	Pn	07 44 13.2	+0.2
AVH				S	Sn	07 44 47.1	+0.9
AVH	Avacha	2.59	210	eP	Pn	07 44 13.2	+0.2
AVH				eS	Sn	07 44 47.1	+0.9
KOK	Koryaka	2.59	212	PN	Pn	07 44 13.5	+0.4
KOK	Koryaka	2.59	212	eP	Pn	07 44 13.6	+0.4
UGLR	Uglovaya	2.62	208	PN	Pn	07 44 13.2	-0.2
UGLR	Uglovaya	2.62	208	eP	Pn	07 44 13.2	-0.2
DALK	Dalny	2.79	208	PN	Pn	07 44 14.8	-0.6
DALK				S	Sn	07 44 49.4	-1.1
DALK	Dalny	2.79	208	eP	Pn	07 44 14.8	-0.6
DALK				eS	Sn	07 44 49.4	-1.1
INSR	Institute	2.80	210	PN	Pn	07 44 15.3	-0.2
INSR				S	Sn	07 44 50.7	0.0
INSR	Institute	2.80	210	eP	Pn	07 44 15.3	-0.2
INSR				eS	Sn	07 44 50.8	0.0
PET	Petropavlovsk	2.83	209	P	Pn	07 44 15.6	-0.2
PET	Petropavlovsk	2.83	209	S	Sn	07 44 51.0	-0.2
PET	Petropavlovsk	2.83	209⇓	iPN	Pn	07 44 15.4	-0.4
PET				eS	Sn	07 44 50.2	-1.0
PET				pmax	pmax		
	comp=Z,311nm,0.5s						
PET				smax	smax		
	comp=E,2µm,0.5s						
PET				smax	smax		
	comp=N,1µm,0.8s						
PET	Petropavlovsk	2.83	209		Pn	07 44 15.5	-0.4
PET				Sn	Sn	07 44 50.0	-1.2
PET	Petropavlovsk	2.83	209	eP	Pn	07 44 15.1	-0.7
PET				eS	Sn	07 44 49.8	-1.4
PET	Petropavlovsk	2.83	209	P	Pn	07 44 15.7	-0.2
BKI	Bering	2.92	94	PN	Pn	07 44 15.3	-1.5
BKI				S	Sn	07 44 49.0	-4.1
BKI	Bering	2.92	94	i P	Pn	07 44 15.4	-1.5
BKI				eS	Sn	07 44 49.0	-4.1
PEA0B	Petropavlovsk-	3.06	219d	iPN	Pn	07 44 18.8	+0.1
PEA0B	Petropavlovsk-	3.06	219		Pn	07 44 18.9	+0.2
PEA0B				Sn	Sn	07 44 56.2	-0.2
PETK	Petropavlovsk-	3.06	219	P	Pn	07 44 18.9	+0.1
	comp=N,120nm,0.6s,baz=69,slow=16,SNR=221						
PETK				S	Sn	07 44 58.6	+2.2
	comp=N,30nm,0.3s,baz=82,slow=20,SNR=5.3						
PETK				LR	LR	07 45 51.6	
	comp=N,77nm,21.7s,baz=83,slow=46						
KRMR	Karymshinskiy	3.15	212	PN	Pn	07 44 19.6	-0.2
KRMR				S	Sn	07 44 56.5	-1.9
KRMR	Karymshinskiy	3.15	212	eP	Pn	07 44 19.6	-0.2
KRMR				eS	Sn	07 44 56.5	-1.9
RUS	Russkaya	3.40	205	PN	Pn	07 44 21.4	-1.6
RUS	Russkaya	3.40	205	eP	Pn	07 44 21.5	-1.6
APC	Apacha	3.40	222	PN	Pn	07 44 23.7	+0.7
APC	Apacha	3.40	222	eP	Pn	07 44 23.8	+0.7
GRL	Gorelyy	3.41	210	PN	Pn	07 44 23.0	-0.2
GRL	Gorelyy	3.41	210	eP	Pn	07 44 23.0	-0.2
MTVR	Mutnovka	3.44	209	PN	Pn	07 44 23.2	-0.4
MTVR	Mutnovka	3.44	209	eP	Pn	07 44 23.3	-0.4
ASAK	Asacha	3.61	211	PN	Pn	07 44 25.6	-0.1
ASAK	Asacha	3.61	211	eP	Pn	07 44 25.7	-0.1
PALN	Palana	3.61	352	PN	Pn	07 44 25.1	-0.5
PALN	Palana	3.61	352	eP	Pn	07 44 25.1	-0.5
OSSR	Ossora	3.92	16	PN	Pn	07 44 29.4	-0.1
OSSR	Ossora	3.92	16	eP	Pn	07 44 29.5	-0.1
KDTR	Khodutka, Kamc	4.08	205	PN	Pn	07 44 29.8	-1.9
KDTR	Khodutka, Kamc	4.08	205	eP	Pn	07 44 29.8	-1.9
PAU	Pauzhetka	4.74	213	PN	Pn	07 44 40.2	-0.1
PAU	Pauzhetka	4.74	213	eP	Pn	07 44 40.2	-0.1
MA2	Magadan	6.80	311	P	Pn	07 45 07.3	0.0
	comp=N,41nm,0.7s,baz=107,slow=9.2,SNR=21						
MA2	Magadan	6.80	311	P	Pn	07 45 08.2	+0.9
MA2	Magadan	6.80	311	i PN	Pn	07 45 07.6	+0.3
MA2	Magadan	6.80	311		Pn	07 45 07.3	0.0
MA2				Sn	Sn	07 46 22.1	-1.6
MA2	Magadan	6.80	311	P	Pn	07 45 08.4	+1.1
	comp=Z,65nm,0.8s						
SHEM	Shemya Is, Ala	8.24	104	P	Pn	07 45 29.7	+3.1
	comp=Z,75nm,1.0s,baz=55,slow=1.7,SNR=5.3						
SHEM				S	Sn	07 46 54.8	-3.6
	comp=Z,52nm,0.7s,baz=240,slow=18,SNR=1.9						
SHEM				LR	LR	07 48 08.0	
	comp=Z,80nm,20.5s,baz=270,slow=33						
SHEM	Shemya Is, Ala	8.24	104	Pn	Pn	07 45 28.7	+2.1
SMY	Shemya	8.24	104	PN	Pn	07 45 28.7	+2.1
SMY	Shemya	8.24	104	Pn	Pn	07 45 28.7	+2.1
SEY	Seymchan	8.61	333	P	Pn	07 45 31.4	0.0
	comp=Z,1.1nm,0.4s,baz=149,slow=14,SNR=4.3						
SEY	Seymchan	8.61	333	ePN	Pn	07 45 32.2	+0.9
SEY				pmax	pmax		
	comp=Z,2.0nm,0.9s						
AMKA	Amchitka	11.72	103	Pn	Pn	07 46 13.7	+1.4
TYV	Tymovskoe	11.88	254	ePN	P	07 46 17.7	-2.9
TYV				eS	Sn	07 48 31.0	+5.2
TYV				pmax	pmax		
	comp=Z,200nm,3.9s						
TYV				pmax	pmax		
	comp=Z,12nm,1.1s						
TYV				smax	smax		
	comp=E,11nm,1.2s						
TYV				smax	smax		
	comp=N,300nm,5.1s						
TYV				smax	smax		
	comp=E,300nm,5.1s						
BILL	Bilibino	12.81	9	ePN	Pn	07 46 27.3	+1.2
BILL				pmax	pmax		
	comp=Z,4.0nm,1.0s						
KIWB	Kanaga Island	13.50	97	Pn	Pn	07 46 36.4	+1.4
ADK	Adak	13.75	96	P	Pn	07 46 39.4	+1.3
ADK	Adak	13.75	96	Pn	Pn	07 46 39.4	+1.3
GSTR	Great Sitkin T	14.02	95	Pn	Pn	07 46 42.7	+1.2
YSS	Yuzhno-Sakhali	14.20	240	eP	P	07 46 46.0	-0.3
YSS				pmax	pmax		
	comp=Z,20nm,0.5s						
ATKA	Atka Island	15.04	92	P	P	07 46 55.3	-0.2
ATKA	Atka Island	15.04	92	S	Sn	07 49 42.1	+0.8
ATKA	Atka Island	15.04	92		P	07 46 55.5	0.0
JKA	Kamikawa-asahi	16.36	233		P	07 47 10.0	-0.3
ASAJ	Asahikawa	16.36	233	P	Pn	07 47 12.1	+1.7
	comp=Z,31nm,0.6s,baz=50,slow=6.8,SNR=23						
ASAJ	Asahikawa	16.36	233	P	P	07 47 10.0	-0.3
ASAJ				pmax	pmax		
	comp=Z,37nm,0.7s						
YAK	Yakutsk	17.31	305	eP	P	07 47 20.6	+0.1
YAK				eS	Sn	07 50 33.4	-2.1
YAK				pmax	pmax		
	comp=Z,72nm,0.9s						
YAK				pmax	pmax		
	comp=E,33nm,1.3s						
YAK				pmax	pmax		
	comp=N,8.0nm,1.1s						
YAK				smax	smax		
	comp=E,70nm,2.7s						
YAK				smax	smax		
	comp=N,18nm,1.8s						
YAK	Yakutsk	17.31	305		P	07 47 19.8	-0.7
YAK	Yakutsk	17.31	305	P	P	07 47 20.3	-0.2
	comp=Z,140nm,0.8s						
ERM	Erimo	17.80	228	eP	Pn	07 47 26.5	-1.0
ERM				pmax	pmax		
	comp=Z,62nm,0.3s						
ERM	Erimo	17.80	228		P	07 47 25.9	-0.1
TNA	Tin City	18.12	44	P	P	07 47 29.3	0.0
KLR	Kul'dur	18.78	263	P	P	07 47 37.4	+0.7
	comp=Z,7.1nm,0.7s,baz=62,slow=9.8,SNR=17						
KLR	Kul'dur	18.78	263	eP	P	07 47 36.6	-0.1
KLR				pmax	pmax		
	comp=Z,2.0nm,1.0s						
K13K	Kusilvak Mount	18.82	56	P	P	07 47 37.0	0.0
UNV	Unalaska Valle	18.83	82	P	P	07 47 38.3	+1.1
UNV	Unalaska Valle	18.83	82	S	S	07 51 04.2	+1.8
UNV	Unalaska Valle	18.83	82	P	P	07 47 38.2	+1.1
AKUT	Akutan	19.15	80	P	P	07 47 41.3	+0.7
M13K	Dall Lake	19.41	61	P	P	07 47 44.6	+1.3
ZEA	Zeya	19.45	279	eP	Pn	07 47 45.9	-1.0
ZEA				pmax	pmax		
	comp=Z,10.0nm,0.8s						
F15K	North Star Dit	19.46	45	P	P	07 47 44.0	+0.1
JTM	Tenmabayashi	19.70	230	P	P	07 47 47.5	+0.9
C16K	Lisburne Hills	20.04	37	P	P	07 47 50.3	+0.2
C16K				IAmb	IAmb	07 47 54.3	
	comp=Z,12nm,1.0s						
M14K	Bethel	20.09	60		P	07 47 50.8	+0.1
K15K	Wolf Creek Mou	20.31	55		P	07 47 54.3	+1.3
K15K				IAmb	IAmb	07 47 55.2	
	comp=Z,13nm,0.6s						
G16K	Koyuk River	20.32	46	P	P	07 47 54.0	+0.9
G16K				IAmb	IAmb	07 48 25.7	
	comp=Z,24nm,1.4s						
O14K	Tigyukauivet M	20.54	64	P	P	07 47 56.1	+0.6
HEH	HeiHe	20.74	269	eP	P	07 47 55.3	-2.4
HEH				pmax	pmax		
	comp=Z,17nm,0.6s						
J16K	Anvik River	20.79	52	P	P	07 47 58.9	+0.8
J16K				IAmb	IAmb	07 48 23.5	
	comp=Z,12nm,1.1s						
F17K	Baldwin Pennin	20.99	44	P	P	07 48 00.2	+0.1
F17K				IAmb	IAmb	07 48 19.3	
	comp=Z,15nm,1.1s						
N15K	Kwethluk River	21.05	61		P	07 48 01.0	+0.1
TIXI	Tiksi	21.11	332	P	P	07 48 01.3	0.0
	comp=Z,7.5nm,0.6s,baz=141,slow=7.5,SNR=4.6						
	comp=Z,7.5nm,0.6s						
TIXI	Tiksi	21.11	332⇑	iP	P	07 48 01.7	+0.3
TIXI				pmax	pmax		
	comp=Z,21nm,1.1s						
TIXI	Tiksi	21.11	332	P	P	07 48 00.8	-0.6
TIXI				IAmb	IAmb	07 48 03.7	
	comp=Z,29nm,1.3s						
H17K	Granite Mounta	21.26	48	IAmb	IAmb	07 48 05.1	
	comp=Z,9.4nm,0.9s						
L16K	Owhat River	21.27	57		P	07 48 03.9	+0.6
L16K				IAmb	IAmb	07 48 05.8	
	comp=Z,8.3nm,0.8s						
O15K	Ungalikthiuk R	21.28	64	P	P	07 48 04.0	+0.6
O15K				IAmb	IAmb	07 48 39.1	
	comp=Z,18nm,1.1s						
J17K	VABM Dome	21.48	52	IAmb	IAmb	07 48 07.9	
	comp=Z,11nm,0.9s						
M16K	Timber Creek	21.55	59	P	P	07 48 07.0	+0.8
M16K				IAmb	IAmb	07 48 08.8	
	comp=Z,13nm,0.8s						
USA0B	Ussuriysk Arra	21.64	251	P	P	07 48 07.2	-0.1
USA0B				pmax	pmax		
	comp=Z,33nm,1.4s						
USA0B	Ussuriysk Arra	21.64	251	P	P	07 48 07.2	-0.1
USRK	Ussuriysk Ar.	21.64	251	P	P	07 48 07.6	+0.3
	comp=Z,3.2nm,0.6s,baz=43,slow=12,SNR=7.3						
USRK				pP	pP	07 48 37.6	+1.4
	comp=Z,7.3nm,1.0s,baz=47,slow=11,SNR=4.2						
	comp=Z,3.2nm,0.6s						
USRK	Ussuriysk Ar.	21.64	251	P	P	07 48 06.0	-1.3
K17K	Iditarod	21.82	54	IAmb	IAmb	07 48 10.2	
	comp=Z,12nm,0.8s						
G18K	Tagagawik	21.92	46	IAmb	IAmb	07 48 11.8	
	comp=Z,29nm,1.4s						
H18K	Honhosa River	21.94	48		P	07 48 10.6	+0.4
VNFG	Fog Glacier, M	21.98	72	P	P	07 48 11.5	+0.7
O16K	Kokwok River B	22.11	62	P	P	07 48 12.0	+0.1
O16K				IAmb	IAmb	07 48 14.5	
	comp=Z,13nm,1.1s						
M17K	Holitna River	22.26	58		P	07 48 14.3	+1.0
C19K	Lookout Ridge	22.30	37	P	P	07 48 14.4	+0.7
C19K				IAmb	IAmb	07 48 16.6	
	comp=Z,23nm,1.3s						
F19K	Shaleruckik Mo	22.42	43	P	P	07 48 14.9	0.0
F19K				IAmb	IAmb	07 48 16.8	
	comp=Z,21nm,1.0s						
N17K	Nushagak Hills	22.45	60	P	P	07 48 15.9	+0.7
J18K	Innoko River	22.55	52	P	P	07 48 17.1	+1.0
J18K				IAmb	IAmb	07 48 17.9	
	comp=Z,20nm,1.0s						
L18K	Granite Mounta	22.57	55	IAmb	IAmb	07 48 19.3	
	comp=Z,17nm,1.1s						
G19K	Purcell Mounta	22.59	45	P	P	07 48 16.6	+0.2
CHGN	Chignik	22.59	71	P	P	07 48 16.6	+0.2
CHGN				IAmb	IAmb	07 48 55.4	
	comp=Z,17nm,0.9s						
J19K	Poorman	23.04	51	IAmb	IAmb	07 48 22.1	
	comp=Z,15nm,0.8s						
BNX	BinXian	23.18	259	⇑P	P	07 48 20.4	-1.6
BNX				pmax	pmax		
	comp=Z,10.0nm,0.9s						
L19K	White Mountain	23.43	55	IAmb	IAmb	07 48 29.2	
	comp=Z,6.2nm,0.7s						
O18K	Koktuh Hills	23.52	61	P	P	07 48 26.4	+1.4
K20K	Telida	23.74	52	IAmb	IAmb	07 48 29.4	
	comp=Z,12nm,0.9s						
N19K	Bonanza Creek	23.74	59	IAmb	IAmb	07 48 29.9	
	comp=Z,17nm,1.2s						
ACHA	Angle Creek He	23.76	65	P	P	07 48 27.8	+0.5
ACHA				IAmb	IAmb	07 48 29.9	
	comp=Z,8.3nm,0.6s						
L20K	Farewell, AK	23.87	55	IAmb	IAmb	07 48 30.1	
	comp=Z,6.2nm,0.8s						
O19K	Port Alsworth	23.91	60	IAmb	IAmb	07 48 31.3	
	comp=Z,15nm,0.9s						
IMAR	Indian Mountai	23.93	46	P	P	07 48 29.0	+0.4
CHIR	Chirikof Islan	24.23	71	P	P	07 48 31.5	+0.1
CHIR	Chirikof Islan	24.23	71	S	S	07 52 39.8	+2.1
H21K	Melozitna Rive	24.30	47	IAmb	IAmb	07 48 34.6	
	comp=Z,7.6nm,0.9s						
MJB9	Matsu-Tunnel	24.47	229	P	P	07 48 34.0	+0.1
MAJO	Matsushiro	24.47	229	P	P	07 48 34.6	+0.7
MAJO	Matsushiro	24.47	229d	iP	P	07 48 34.8	+0.9
MAJO				pmax	pmax		
	comp=Z,34nm,0.7s						
MAJO	Matsushiro	24.47	229	P	P	07 48 34.6	+0.7
MAJO	Matsushiro	24.47	229	P	P	07 48 35.0	+1.1
	comp=Z,52nm,1.2s						
MJAR	Matsushiro Arr	24.47	229	P	P	07 48 35.0	+1.1
	comp=Z,19nm,0.7s,baz=33,slow=7.9,SNR=42						
	comp=Z,19nm,0.7s						
MJAR	Matsushiro Arr	24.47	229	P	P	07 48 34.2	+0.3
MJAR				pmax	pmax		
	comp=Z,16nm,1.3s						
MJAR	Matsushiro Arr	24.47	229	P	P	07 48 34.2	+0.3
MJAR				IAmb	IAmb	07 48 35.5	
	comp=Z,16nm,1.3s						
ILSW	Iliamna Southw	24.52	61	P	P	07 48 34.9	+0.6
ILSW				IAmb	IAmb	07 48 37.5	
	comp=Z,15nm,1.3s						
PPLA	Purkeypile	24.61	53	P	P	07 48 35.5	+0.4
PPLA				IAmb	IAmb	07 48 38.2	
	comp=Z,13nm,1.2s						
CAST	Castle Rocks	24.63	52	IAmb	IAmb	07 48 38.3	
	comp=Z,7.7nm,0.9s						
I21K	Tanana	24.63	48	IAmb	IAmb	07 48 38.2	
	comp=Z,8.3nm,1.0s						
SII	Sitkinak Islan	24.78	69	P	P	07 48 38.3	+1.8
SII	Sitkinak Islan	24.78	69	S	S	07 52 48.3	+1.8
H22K	Ishtalitna Cre	24.89	46	IAmb	IAmb	07 49 13.0	
	comp=Z,13nm,1.4s						
STLK	Strandline Lak	24.93	57	IAmb	IAmb	07 48 40.0	
	comp=Z,11nm,0.8s						
OHAK	Old Harbor	25.07	67	P	P	07 48 38.6	-0.4
OHAK	Old Harbor	25.07	67	IAmb	IAmb	07 48 41.0	
	comp=Z,8.5nm,0.8s						
KDAK	Kodiak Island	25.29	66	eP	P	07 48 41.0	0.0
KDAK				pmax	pmax		
	comp=Z,8.0nm,0.8s						
KDAK	Kodiak Island	25.29	66		P	07 48 40.9	-0.1
KDAK				IAmb	IAmb	07 48 43.7	
	comp=Z,8.8nm,0.6s						
TRF	Thorofare Moun	25.43	52	IAmb	IAmb	07 49 17.7	
	comp=Z,13nm,1.0s						
SUA	Susitna One	25.45	57	IAmb	IAmb	07 49 19.8	
	comp=Z,8.0nm,0.8s						
CNPM	China Poot	25.56	61	IAmb	IAmb	07 48 44.4	
	comp=Z,13nm,1.0s						
JGF	Kuroka	25.63	229	P	P	07 48 45.0	+0.6
JGF	Kuroka	25.63	229	P	P	07 48 44.7	+0.3
JGF	Kuroka	25.63	229	P	P	07 48 44.4	0.0
	comp=Z,21nm,1.1s						
BRLK	Bradley Lake	25.68	61	IAmb	IAmb	07 48 44.9	
	comp=Z,9.6nm,1.0s						
I23K	Minto, Yukon-K	25.74	48	IAmb	IAmb	07 48 49.8	
	comp=Z,13nm,1.2s						
MCK	McKinley	26.01	51	IAmb	IAmb	07 48 49.3	
	comp=Z,7.2nm,0.9s						
E24K	Your Creek	26.12	41	P	P	07 48 49.0	+0.5
PMR	Palmer	26.19	56	P	P	07 48 50.2	+1.1
WRH	Wood River Hil	26.32	49	IAmb	IAmb	07 48 51.6	
	comp=Z,11nm,1.1s						
SEW	Seward	26.32	59	IAmb	IAmb	07 48 50.8	
	comp=Z,9.8nm,0.9s						
CCB	Clear Creek Bu	26.43	49	IAmb	IAmb	07 48 55.7	
	comp=Z,4.2nm,0.6s						
KNK	Knik Glacier	26.54	56	IAmb	IAmb	07 48 53.9	
	comp=Z,14nm,1.0s						
DHY	Denali Highway	26.78	52	IAmb	IAmb	07 48 56.1	
	comp=Z,7.3nm,1.0s						
JHJ2	Mitsune	26.80	222	P	P	07 48 55.1	+0.3
IL31		26.81	49	P	P	07 48 54.7	+0.2
ILAR	Eielson Array	26.81	49	P	P	07 48 54.5	-0.1
	comp=Z,1.9nm,0.7s,baz=262,slow=8.0,SNR=20						
ILAR				pP	pP	07 49 27.0	-1.3
	comp=Z,1.4nm,0.6s,baz=259,slow=7.0,SNR=4.1						
	comp=Z,1.9nm,0.7s						
D25K	Kavik River	26.97	39	P	P	07 48 56.4	+0.3
SCM	Sheep Creek Mo	27.00	55	P	P	07 48 56.4	0.0
SCM				pmax	pmax		
	comp=Z,11nm,0.8s						
SCM	Sheep Creek Mo	27.00	55	P	P	07 48 56.4	0.0
PRP	Porcupine Dome	27.32	47	IAmb	IAmb	07 49 00.9	
	comp=Z,6.1nm,0.9s						
K24K	Donnelly Dome	27.40	51	IAmb	IAmb	07 49 00.4	
	comp=Z,8.0nm,0.8s						
BMAR	Burnt Mountain	27.60	43	P	P	07 49 02.2	+0.5
KLU	Klutina	27.72	56	IAmb	IAmb	07 49 05.0	
	comp=Z,11nm,1.4s						
F26K	Sheenjek River	27.76	42	P	P	07 49 03.9	+0.8
RIDG	Independent Ri	27.82	51	P	P	07 49 03.2	-0.4
RIDG				IAmb	IAmb	07 49 03.9	
	comp=Z,8.8nm,0.9s						
HARP	HAARP	27.90	54	P	P	07 49 05.2	+0.9
G26K	Porcupine Rive	27.93	44	P	P	07 49 05.5	+0.9
G26K				IAmb	IAmb	07 49 06.3	
	comp=Z,4.8nm,0.8s						
SCRK	Sand Creek	28.16	50	IAmb	IAmb	07 49 06.9	
	comp=Z,7.3nm,0.8s						
MENT	Mentasta	28.45	52	P	P	07 49 09.9	+0.6
BMRM	Bremner River	28.46	56		P	07 49 10.0	+0.6
KSRS	Korea Array	28.63	245	P	P	07 49 10.5	-0.5
	comp=Z,1.3nm,0.5s,baz=44,slow=9.8,SNR=5.7						
KSRS				pP	pP	07 49 46.8	+1.7
	comp=Z,0.6nm,0.3s,baz=47,slow=9.2,SNR=1.6						
KSRS				PcP	PcP	07 52 19.4	+1.8
	comp=Z,2.8nm,0.7s,baz=13,slow=3.3,SNR=9.4						
	comp=Z,1.3nm,0.5s						
JMN	Monobe	28.74	232	P	P	07 49 12.7	+0.6
M26K	Nabesna, AK	28.89	53	IAmb	IAmb	07 49 15.4	
	comp=Z,8.0nm,0.8s						
H27K	Steamboat Moun	28.89	45	IAmb	IAmb	07 49 48.6	
	comp=Z,6.5nm,1.1s						
BERG	Berg Lake	29.04	57	P	P	07 49 15.0	+0.6
BERG				IAmb	IAmb	07 49 15.7	
	comp=Z,6.8nm,0.6s						
L27K	Beaver Creek,	29.27	52	IAmb	IAmb	07 49 18.5	
	comp=Z,9.3nm,0.8s						
BCAR	Beaver Creek A	29.29	52	P	P	07 49 17.1	+0.4
BARN	Barnard Glacie	29.82	56	P	P	07 49 22.3	+0.7
BARN				IAmb	IAmb	07 49 23.6	
	comp=Z,6.7nm,0.7s						
LOGN	Logan Glacier	30.20	56	P	P	07 49 26.1	+1.2
LOGN				IAmb	IAmb	07 49 26.6	

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             comp=Z,7.0nm,0.8s
PCA    Pinnacle          30.77  57   P      P      07 49 30.8 +1.0
I30M   Mount Dempster    31.16  46   P      P      07 49 32.9 -0.3
I30M                                 IAmb   IAmb   07 49 34.5
             comp=Z,5.1nm,0.8s
HYT    Haines Junctio    31.83  55   P      P      07 49 40.3 +1.1
HYT                                  IAmb   IAmb   07 49 41.9
             comp=Z,9.3nm,0.9s
WHY    Whitehorse        33.10  54   P      P      07 49 51.7 +1.5
SONM   Songino Array     33.87 280   P      P      07 49 55.7 -1.3
             comp=Z,0.4nm,0.4s,baz=64,slow=10,SNR=2.3
SONM                                 PcP    PcP    07 52 31.9 +0.2
             comp=Z,2.5nm,0.6s,baz=87,slow=1.6,SNR=11
             comp=Z,0.4nm,0.4s
SONM   Songino Array     33.87 280   P      P      07 49 55.9 -1.1
SONM                                               07 52 32.1
SONM                                 pmax   pmax
             comp=Z,3.0nm,1.4s
SONM   Songino Array     33.87 280   P      P      07 49 55.9 -1.1
SONM                                        PcP    07 52 32.1 +0.4
MMPY   Sheldon Lake,     34.05  50   P      P      07 49 59.8 +1.5
MMPY                                 IAmb   IAmb   07 50 00.8
             comp=Z,4.3nm,0.8s
P33M   Teslin, Yukon     34.22  54   P      P      07 50 00.6 +0.8
P33M                                 IAmb   IAmb   07 50 02.2
             comp=Z,6.1nm,1.1s
HHC    Hu-ho-hao-te      35.21 266  eP      P      07 50 08.0 -0.5
HHC                                  pmax   pmax
             comp=Z,12nm,0.5s
HHC                                  pmax   pmax
             comp=Z,75nm,4.6s
JOW    Kunigami          37.13 233   P      P      07 50 25.4 +0.6
JOW    Kunigami          37.13 233   P      P      07 50 25.1 +0.2
             comp=Z,23nm,1.2s
DIB    Dawson Inlet,     37.55  65   P      P      07 50 29.5 +1.4
DIB                                  IAmb   IAmb   07 50 55.1
             comp=Z,12nm,1.3s
BBB    Bella Bella       40.34  64   P      P      07 50 52.3 +1.1
BBB                                  IAmb   IAmb   07 51 32.6
             comp=Z,9.2nm,1.4s
YKAW3  Yellowknife Wh    41.04  45   P      P      07 50 56.8  0.0
YKA    Yellowknife Ar    41.08  45   P      P      07 50 57.8 +0.6
             comp=Z,4.1nm,0.6s,baz=302,slow=8.0,SNR=8.7
YKA                                  pP     pP     07 51 33.4 +0.7
             comp=Z,3.8nm,0.7s,baz=302,slow=8.1,SNR=6.9
             comp=Z,4.1nm,0.6s
YKA    Yellowknife Ar    41.08  45   P      P      07 50 56.4 -0.8
YKAW1  Yellowknife Wh    41.13  45   P      P      07 50 56.9 -0.7
YKAW1                                IAmb   IAmb   07 51 30.7
             comp=Z,9.2nm,1.0s
HOLB   Holberg           41.21  66   P      P      07 50 59.5 +1.1
YOJ    Yonaguni jima     41.61 237   P      P      07 51 01.5 -0.4
YOJ                                  pmax   pmax
             comp=Z,132nm,1.3s
YOJ    Yonaguni jima     41.61 237   P      P      07 51 01.5 -0.4
ZAA0   Zalesovo Array    41.90 301   P      P      07 51 02.5 -1.4
ZAA0                                 PcP    PcP    07 52 56.1 -0.1
ZALV   Zalesovo Beam     41.90 301   P      P      07 51 02.5 -1.5
             comp=Z,1.5nm,0.6s,baz=51,slow=6.9,SNR=6.9
ZALV                                 PcP    PcP    07 52 56.1 -0.1
             comp=Z,1.6nm,0.5s,baz=29,slow=3.4,SNR=6.0
             comp=Z,1.5nm,0.6s
DGZ    Jazzator, Alta    43.06 294 i P      P      07 51 12.8 -0.7
DGZ                                  pmax   pmax
             comp=Z,3.0nm,1.1s
CLRS   Cowichan Lake     44.38  66   P      P      07 51 23.8  0.0
LLLB   Lillooet          44.43  63   P      P      07 51 25.2 +0.9
LLLB                                 IAmb   IAmb   07 51 27.0
             comp=Z,6.8nm,0.8s
SPITS  Spitsbergen Ar    44.81 350   P      P      07 51 26.8 -0.2
             comp=Z,11nm,0.8s,baz=66,slow=8.3,SNR=6.3
             comp=Z,11nm,0.8s
SPB2   Spitsbergen Ar    44.82 350   P      P      07 51 27.5 +0.5
PGC    Sidney            44.84  66   P      P      07 51 28.8 +1.3
A04D   Lummi Island      45.18  65   P      P      07 51 31.1 +1.0
A04D                                 IAmb   IAmb   07 51 32.8
             comp=Z,8.4nm,0.8s
B04A   Port Angeles      45.18  66   P      P      07 51 31.4 +1.1
NLWA   Neilton Lookou    45.41  67   P      P      07 51 32.0 -0.1
WISH   Wishkah           45.64  68   P      P      07 51 34.6 +0.8
WISH                                 IAmb   IAmb   07 51 36.9
             comp=Z,7.8nm,0.9s
KIP    Kipapa            45.73 121   P      P      07 51 35.8 +1.0
KIP                                  pmax   pmax
             comp=Z,51nm,1.3s
KIP    Kipapa            45.73 121   P      P      07 51 35.8 +1.0
GNW    Green Mountain    45.85  66   P      P      07 51 35.5 +0.1
E03A   Lebam             46.12  68   P      P      07 51 37.8 +0.2
E03A                                 IAmb   IAmb   07 51 40.2
             comp=Z,11nm,1.0s
F03A   Seaside           46.52  69   P      P      07 51 41.3 +0.6
F03A                                 IAmb   IAmb   07 51 42.9
             comp=Z,8.2nm,0.8s
KURK   Kurchatov         46.88 300c iP      P      07 51 42.2 -1.2
KURK                                 pmax   pmax
             comp=Z,14nm,0.8s
KURK   Kurchatov         46.88 300   P      P      07 51 42.5 -1.0
KURK                                 IAmb   IAmb   07 51 43.3
             comp=Z,10nm,0.7s
KURK   Kurchatov         46.88 300   P      P      07 51 42.5 -1.0
             comp=Z,19nm,1.4s
EDM    Edmonton          46.96  55   P      P      07 51 45.2 +1.1
EDM                                  pmax   pmax
             comp=Z,13nm,0.6s
EDM    Edmonton          46.96  55   P      P      07 51 45.1 +1.1
KURBB  Kurchatov Arra    46.98 300   P      P      07 51 43.1 -1.1
             comp=Z,5.9nm,0.5s,baz=56,slow=8.0,SNR=53
KURBB                                ScP    ScP    07 56 53.4 +1.6
             comp=Z,0.3nm,0.3s,baz=48,slow=23,SNR=5.6
             comp=Z,5.9nm,0.5s
B08A   Colville Reser    47.14  64   P      P      07 51 46.8 +1.2
B08A                                 IAmb   IAmb   07 51 47.5
             comp=Z,5.8nm,0.8s
COR    Corvallis         47.54  70   P      P      07 51 50.4 +1.8
COR    Corvallis         47.54  70   P      P      07 51 50.4 +1.8
             comp=Z,8.2nm,0.7s
MK31   Makanchi Array    47.56 294⇑iP      P      07 51 47.2 -1.6
MKAR   Makanchi Array    47.56 294   P      P      07 51 47.4 -1.4
             comp=Z,2.0nm,0.7s,baz=58,slow=7.5,SNR=19
MKAR                                 PcP    PcP    07 53 16.0  0.0
             comp=Z,1.1nm,0.7s,baz=57,slow=5.4,SNR=4.3
             comp=Z,2.0nm,0.7s
MKAR   Makanchi Array    47.56 294   P      P      07 51 47.5 -1.3
MKAR                                 PcP    PcP    07 53 16.2 +0.3
I02E   Swisshome, OR     47.56  71   P      P      07 51 49.7 +0.9
I02E                                 IAmb   IAmb   07 52 19.4
             comp=Z,14nm,1.5s
G04A   Mulino            47.56  69   P      P      07 51 49.0 +0.2
G04A                                 IAmb   IAmb   07 51 52.7
             comp=Z,6.4nm,0.8s
EPH    Ephrata           47.66  65   P      P      07 51 50.3 +0.7
H04D   Lebanon           47.88  70   P      P      07 51 52.3 +1.1
H04D                                 IAmb   IAmb   07 52 18.2
             comp=Z,8.8nm,1.2s
E07A   Sunnyside         48.05  66   P      P      07 51 52.7 +0.2
WAH2   Wahluke Slope     48.06  65   P      P      07 51 51.9 -0.8
WAH2                                 IAmb   IAmb   07 51 54.0
             comp=Z,4.1nm,0.6s
G05A   Wamic             48.15  68   P      P      07 51 54.0 +0.6
G05A                                 IAmb   IAmb   07 52 01.4
             comp=Z,4.7nm,0.7s
D08A   Wollman Farm,     48.20  65   P      P      07 51 53.5 -0.1
D08A                                 IAmb   IAmb   07 51 55.4
             comp=Z,8.1nm,1.4s
NEW    Newport           48.32  62   P      P      07 51 55.1 +0.5
NEW    Newport           48.32  62   P      P      07 51 55.1 +0.5
             comp=Z,5.6nm,2.7s
E08A   Dider Farm, El    48.50  65   P      P      07 51 56.4 +0.4
WIFE   Three Sisters-    48.68  69   P      P      07 51 58.2 +0.5
WIFE                                 IAmb   IAmb   07 52 00.1
             comp=Z,5.3nm,0.8s
I05D   Terrebonne, OR    48.75  69   P      P      07 51 58.7 +0.7
E09A   Wood Farm, Sta    48.96  65   P      P      07 52 00.2 +0.7
E09A                                 IAmb   IAmb   07 52 01.3
             comp=Z,8.3nm,0.8s
BVAR   Borovoye Array    49.27 307   P      P      07 52 01.1 -0.6
             comp=Z,11nm,0.6s,baz=54,slow=8.0,SNR=34
BVAR                                 PcP    PcP    07 53 21.7 -0.3
             comp=Z,1.7nm,0.3s,baz=66,slow=2.8,SNR=5.5
             comp=Z,11nm,0.6s
BORK   Borovoye          49.29 307  eP      P      07 52 01.2 -0.7
BORK                                 pmax   pmax
             comp=Z,10.0nm,0.9s
BORK   Borovoye          49.29 307   P      P      07 52 01.9  0.0
BORK                                 IAmb   IAmb   07 52 02.3
             comp=Z,12nm,1.0s
PINE   Pine Mountain     49.33  69   P      P      07 52 03.0 +0.4
G08A   Pilot Rock        49.36  66   P      P      07 52 02.7  0.0
L04D   Klamath Falls     49.67  72   P      P      07 52 05.1  0.0
L04D                                 IAmb   IAmb   07 52 07.2
             comp=Z,8.4nm,0.8s
JCC    Jacoby Creek,     49.70  74   P      P      07 52 05.6 +0.4
JCC                                  IAmb   IAmb   07 52 08.2
             comp=Z,7.9nm,1.1s
YBH    Yreka Blue Hor    49.79  72   P      P      07 52 06.0  0.0
YBH                                  pmax   pmax
             comp=Z,3.0nm,0.8s
YBH    Yreka Blue Hor    49.79  72   P      P      07 52 06.0  0.0
F10A   Beach Ranch, E    49.79  65   P      P      07 52 06.4 +0.4
KHMM   Horse Mountain    49.83  74   P      P      07 52 05.8 -0.5
KHMM                                 IAmb   IAmb   07 52 09.4
             comp=Z,5.2nm,0.8s
JTMT   Jette             50.09  61   P      P      07 52 09.3 +1.2
KMRM   Mail Ridge        50.29  74   P      P      07 52 11.0 +1.2
KMRM                                 IAmb   IAmb   07 52 13.0
             comp=Z,7.5nm,0.8s
M03C   McCloud           50.42  72   P      P      07 52 11.8 +1.1
M03C                                 IAmb   IAmb   07 52 15.1
             comp=Z,5.8nm,1.0s
BMO    Blue Mountains    50.52  66   P      P      07 52 12.3 +0.9
BMO                                  pmax   pmax
             comp=Z,4.0nm,0.9s
BMO    Blue Mountains    50.52  66   P      P      07 52 12.2 +0.9
O02D   Mt. Diablo Mer    50.83  74   P      P      07 52 15.3 +1.6
J08A   Circle Bar Ran    50.93  68   P      P      07 52 15.3 +0.7
MOD    Modoc Plateau     50.97  71   P      P      07 52 15.7 +0.8
MOD                                  IAmb   IAmb   07 52 17.3
             comp=Z,4.3nm,0.8s
PLID   Pearl Lake        51.03  65          P      07 52 16.1 +0.7
PLID                                 IAmb   IAmb   07 52 17.7
             comp=Z,4.5nm,0.7s
ARCES  ARCESS Array B    51.12 342   P      P      07 52 14.5 -1.0
             comp=Z,2.3nm,0.9s,baz=21,slow=7.5,SNR=1.4
ARCES                                PcP    PcP    07 53 28.8 +0.2
             comp=Z,1.2nm,0.8s,baz=21,slow=4.0,SNR=3.9
             comp=Z,2.3nm,0.9s
ARCES  ARCESS Array B    51.12 342   P      P      07 52 14.4 -1.1
ARCES                                       PcP    07 53 28.0 -0.6
O03E   Paynes Creek      51.28  73   P      P      07 52 18.2 +1.1
O03E                                 IAmb   IAmb   07 52 19.2
             comp=Z,6.3nm,0.9s
WVOR   Wild Horse Val    51.49  69   P      P      07 52 19.0 +0.3
WVOR                                 pmax   pmax
             comp=Z,4.0nm,1.0s
WVOR   Wild Horse Val    51.49  69   P      P      07 52 19.0 +0.3
WVOR   Wild Horse Val    51.49  69   P      P      07 52 20.3 +1.6
             comp=Z,4.0nm,0.8s
LYMT   Lyon Mountain     51.61  61   P      P      07 52 20.4 +0.7
ORV    Oroville          51.97  73   P      P      07 52 22.4 +0.3
ORV                                  pmax   pmax
             comp=Z,4.0nm,1.0s
ORV    Oroville          51.97  73   P      P      07 52 22.4 +0.3
ARTI   Arti              52.04 316c iP      P      07 52 21.0 -1.4
ARTI                                 S      S      07 59 33.3 +0.3
ARTI                                 SS     SS     08 03 08.3 -3.1
ARTI                                 pmax   pmax
             comp=Z,5.0nm,0.5s
ARTI   Arti              52.04 316   P      P      07 52 22.0 -0.4
MFID   Camas Ranch       52.28  66   P      P      07 52 25.2 +0.7
BEKR   Beckworth         52.37  72   P      P      07 52 25.9 +0.6
DLMT   Dillon            52.57  62          P      07 52 27.5 +0.8
DLMT                                 IAmb   IAmb   07 52 28.8
             comp=Z,8.7nm,1.4s
AFDM   Forest Hills D    52.69  74          P      07 52 28.5 +1.0
MCMT   McKenzie Canyo    52.82  63   P      P      07 52 29.5 +0.9
BOZ    Bozeman (W)       52.89  62   P      P      07 52 30.2 +1.1
BOZ                                  pmax   pmax
             comp=Z,2.0nm,0.8s
BOZ    Bozeman (W)       52.89  62   P      P      07 52 30.2 +1.1
HLID   Hailey            52.91  65   P      P      07 52 30.1 +0.9
HLID   Hailey            52.91  65   P      P      07 52 30.3 +1.1
             comp=Z,1.8nm,0.8s
PAHR   Pah Rah Range     53.01  72   P      P      07 52 31.2 +1.2
PAHR                                 IAmb   IAmb   07 52 32.5
             comp=Z,4.5nm,1.0s
PNTR   Pine Nut          53.33  73   P      P      07 52 33.6 +1.1
QLMT   Earthquake Lak    53.53  62   P      P      07 52 34.7 +0.9
YERR   Yerington         53.60  72   P      P      07 52 35.1 +0.7
YERR                                 IAmb   IAmb   07 52 37.2
             comp=Z,5.8nm,0.9s
BMN    Battle Mountai    53.65  70   P      P      07 52 35.0 +0.3
BMN                                  pmax   pmax
             comp=Z,4.0nm,0.9s
BMN    Battle Mountai    53.65  70   P      P      07 52 35.0 +0.3
BMN                                  IAmb   IAmb   07 52 37.4
             comp=Z,4.3nm,0.9s
YHB    Horse Butte       53.71  62   P      P      07 52 35.9 +0.8
GCMT   Greycliff         53.73  60   P      P      07 52 35.2 +0.1
BOOM   Boomskoye usch    53.80 294   P      P      07 52 34.5 -1.3
BOOM                                 pmax   pmax
             comp=Z,5.0nm,1.0s
BOOM   Boomskoye usch    53.80 294   P      P      07 52 34.5 -1.3
BOOM                                 IAmb   IAmb   07 52 37.8
             comp=Z,4.9nm,1.0s
WAKR   Walker            53.84  73   IAmb   IAmb   07 52 39.1
             comp=Z,7.7nm,0.7s
YFT    Old Faithful      54.10  62   IAmb   IAmb   07 52 41.9
             comp=Z,5.2nm,0.7s
YNE    Yellowstone No    54.12  61   P      P      07 52 38.4 +0.3
YNE                                  IAmb   IAmb   07 52 40.3
             comp=Z,3.5nm,0.8s
KVN    Kaiserville       54.17  72   P      P      07 52 39.5 +1.0
KVN                                  pmax   pmax
             comp=Z,6.0nm,0.8s
KVN    Kaiserville       54.17  72   P      P      07 52 39.5 +1.0
KVN                                  IAmb   IAmb   07 52 41.4
             comp=Z,5.5nm,0.8s
H17A   Grant Village     54.27  62   P      P      07 52 39.3 +0.1
H17A                                 IAmb   IAmb   07 52 43.0
             comp=Z,3.9nm,0.8s
RLMT   Red Lodge         54.40  61   P      P      07 52 40.8 +0.7
RLMT                                 IAmb   IAmb   07 52 42.8
             comp=Z,7.2nm,0.9s
AAK    Ala-Archa         54.45 295⇓iP      P      07 52 39.9 -0.5
AAK                                  pmax   pmax
             comp=Z,6.0nm,1.0s
AAK    Ala-Archa         54.45 295          P      07 52 39.9 -0.5
AAK                                  IAmb   IAmb   07 52 42.2
             comp=Z,5.8nm,0.9s
AAK    Ala-Archa         54.45 295   P      P      07 52 40.0 -0.4
             comp=Z,7.0nm,1.0s
NVAR   Mina Array Bea    54.51  72   P      P      07 52 42.9 +1.9
             comp=Z,4.8nm,0.7s,baz=300,slow=7.3,SNR=47
NVAR                                 pP     pP     07 53 19.6 +1.4
             comp=Z,2.2nm,0.7s,baz=300,slow=7.3,SNR=6.5
             comp=Z,4.8nm,0.7s
NVAR   Mina Array Bea    54.51  72   P      P      07 52 42.5 +1.5
LHV    Little Huntoon    54.53  73   P      P      07 52 41.5 +0.7
LHV                                  IAmb   IAmb   07 52 44.3
             comp=Z,7.2nm,0.9s
NV11   Mina Array Sit    54.59  72   P      P      07 52 41.3 -0.1
NV11                                 IAmb   IAmb   07 52 44.3
             comp=Z,4.1nm,0.8s
ASAI   AK-SAY(Kyrgyzs    54.62 292   P      P      07 52 41.5 -0.4
             comp=Z,5.3nm,1.0s
HULI   Fort Hunter Li    54.66  76   P      P      07 52 42.4 +0.6
MDPB   Devils Postpil    54.67  73   P      P      07 52 42.3 +0.2
LAO    LASA Array        54.76  57   P      P      07 52 43.1 +0.6
LAO                                  IAmb   IAmb   07 52 45.0
             comp=Z,7.2nm,0.9s
SNOW   Snow King Moun    54.85  63   P      P      07 52 44.7 +1.3
HVU    Hansel Valley     55.02  66   P      P      07 52 45.1 +0.5
HVU                                  pmax   pmax
             comp=Z,3.0nm,0.9s
HVU    Hansel Valley     55.02  66   P      P      07 52 45.1 +0.5
FRB    Frobisher Bay     55.09  24   LR     LR     08 17 48.4
             comp=Z,17nm,19.4s,baz=133,slow=37
TPH    Tonopah           55.35  72   IAmb   IAmb   07 52 49.7
             comp=Z,6.3nm,0.9s
SPUT   South Promonto    55.53  66   P      P      07 52 48.3 +0.1
SPUT                                 IAmb   IAmb   07 52 50.5
             comp=Z,3.6nm,0.7s
HWUT   Hardware Ranch    55.77  65   P      P      07 52 50.4 +0.5
HWUT   Hardware Ranch    55.77  65   P      P      07 52 52.0 +2.0
             comp=Z,10nm,0.9s
BW06   Boulder Array     55.96  63   P      P      07 52 51.6 +0.3
BW06                                 IAmb   IAmb   07 52 53.6
             comp=Z,4.3nm,0.9s
PD31   Pinedale Array    55.96  63   P      P      07 52 52.2 +0.9
PD31                                 IAmb   IAmb   07 52 53.6
             comp=Z,4.7nm,1.0s
PDAR   Pinedale Array    55.96  63   P      P      07 52 52.6 +1.3
             comp=Z,2.8nm,0.7s,baz=332,slow=3.0,SNR=27
PDAR                                 pP     pP     07 53 28.8 +0.1
             comp=Z,0.9nm,0.7s,baz=326,slow=3.1,SNR=3.7
             comp=Z,2.8nm,0.7s
PDAR   Pinedale Array    55.96  63   P      P      07 52 51.8 +0.5
CWC    Cottonwood Cre    56.08  74   P      P      07 52 53.1 +1.0
KK31   Karatay Array     56.13 298   P      P      07 52 51.4 -0.9
KK31                                 pmax   pmax
             comp=Z,6.0nm,0.6s
KK31   Karatay Array     56.13 298   P      P      07 52 51.4 -0.9
KKAR   Karatay Array     56.13 298   P      P      07 52 51.3 -1.0
KKAR   Karatay Array     56.13 298   P      P      07 52 51.3 -1.0
DUG    Dugway, Tooele    56.15  67   P      P      07 52 53.6 +1.0
DUG                                  pmax   pmax
             comp=Z,5.0nm,0.9s
DUG    Dugway, Tooele    56.15  67   P      P      07 52 53.6 +1.0
DUG                                  IAmb   IAmb   07 52 55.5
             comp=Z,5.0nm,0.8s
DUG    Dugway, Tooele    56.15  67   P      P      07 52 55.0 +2.4
             comp=Z,7.7nm,0.9s
TCUT   Toone Canyon      56.21  65   IAmb   IAmb   07 52 55.9
             comp=Z,4.8nm,0.9s
CTU    Camp Tracy        56.34  66   P      P      07 52 55.2 +1.2
AB31   Akbulak array     56.59 310          P      07 52 54.8 -0.5
ABKAR  Akbulak array     56.59 310   P      P      07 52 54.8 -0.5
MPMC   Manual Prospec    56.69  74   P      P      07 52 57.4 +0.9
TPNV   Topopah Spring    56.70  72   IAmb   IAmb   07 52 59.3
             comp=Z,3.8nm,0.9s
NLU    North Lily Min    56.72  67   P      P      07 52 57.5 +0.8
NLU                                  IAmb   IAmb   07 52 59.4
             comp=Z,4.5nm,0.8s
FURC   Furnace Creek,    56.73  73   P      P      07 52 57.4 +1.0
CLC    China Lake        56.80  74   P      P      07 52 58.3 +1.1
CLC                                  pmax   pmax
             comp=Z,3.0nm,0.9s
CLC    China Lake        56.80  74   P      P      07 52 58.2 +1.1
CLC                                  IAmb   IAmb   07 52 59.7
             comp=Z,3.1nm,0.9s
ULM    Lac du Bonnet     56.83  48   P      P      07 52 57.6 +0.5
             comp=Z,2.1nm,0.4s,baz=309,slow=7.2,SNR=12
             comp=Z,2.1nm,0.4s
ULM    Lac du Bonnet     56.83  48   IAmb   IAmb   07 53 21.2
             comp=Z,9.8nm,1.2s
MPU    Maple Canyon      56.90  66   P      P      07 52 58.9 +0.9
MPU                                  IAmb   IAmb   07 53 00.8
             comp=Z,4.4nm,0.8s
BSUT   Blindstream Ca    56.97  65   P      P      07 52 58.7  0.0
BSUT                                 IAmb   IAmb   07 53 01.7
             comp=Z,4.5nm,0.7s
PRN    Pahroc Range      57.01  71   P      P      07 52 59.2 +0.5
PRN                                  IAmb   IAmb   07 53 04.1
             comp=Z,4.5nm,0.9s
GWY    Greenwater Val    57.04  73   P      P      07 53 00.1 +1.2
GWY                                  IAmb   IAmb   07 53 01.4
             comp=Z,3.8nm,0.9s
CCCA   Chr Cany lake     57.15  74   P      P      07 53 00.4 +0.9
RDMU   Red Mountain      57.56  64   P      P      07 53 03.0 +0.4
RDMU                                 IAmb   IAmb   07 53 05.0
             comp=Z,4.0nm,0.8s
GSC    Goldstone, Bar    57.62  74   P      P      07 53 03.0 +0.1
GSC                                  pmax   pmax
             comp=Z,5.0nm,1.0s
GSC    Goldstone, Bar    57.62  74   P      P      07 53 03.0 +0.1
GSC                                  IAmb   IAmb   07 53 06.0
             comp=Z,4.8nm,0.9s
TMUT   Trail Mountain    57.65  67   P      P      07 53 04.5 +1.1
TMUT                                 IAmb   IAmb   07 53 06.0
             comp=Z,5.9nm,0.9s
RSSD   Black Hills       57.69  58   P      P      07 53 02.7 -0.7
RSSD                                 pmax   pmax
             comp=Z,9.0nm,0.7s
RSSD   Black Hills       57.69  58   P      P      07 53 02.7 -0.7
RSSD   Black Hills       57.69  58   P      P      07 53 04.9 +1.4
             comp=Z,12nm,1.1s
P17A   Butcher Ranch,    57.77  66   P      P      07 53 04.8 +0.8
P17A                                 IAmb   IAmb   07 53 19.8
             comp=Z,6.0nm,1.5s
FINES  FINESS Array B    58.08 336   P      P      07 53 04.7 -0.9
             comp=Z,2.0nm,0.5s,baz=31,slow=8.2,SNR=18
             comp=Z,2.0nm,0.5s
FINES  FINESS Array B    58.08 336   P      P      07 53 05.2 -0.4
SRU    San Rafael Swe    58.15  66   P      P      07 53 06.5 -0.1
SRU                                  pmax   pmax
             comp=Z,5.0nm,0.7s
SRU    San Rafael Swe    58.15  66   P      P      07 53 06.5 -0.1
SRU                                  IAmb   IAmb   07 53 09.2
             comp=Z,4.6nm,0.7s
MTPC   Mountain Pass     58.16  73   P      P      07 53 07.8 +1.0
BTK    Batken            58.22 295   P      P      07 53 06.1 -0.9
BTK                                  pmax   pmax
             comp=Z,6.0nm,0.8s
BTK    Batken            58.22 295   P      P      07 53 06.1 -0.9
BTK                                  IAmb   IAmb   07 53 08.3
             comp=Z,6.4nm,0.8s
BTK    Batken            58.22 295   P      P      07 53 06.2 -0.9
             comp=Z,8.9nm,0.7s
LCMT   Little Creek M    58.27  70   P      P      07 53 08.2 +0.7
LCMT                                 IAmb   IAmb   07 53 10.4
             comp=Z,5.3nm,1.3s
AGMN   Agassiz Nation    58.31  50   P      P      07 53 07.1 -0.3
AGMN                                 IAmb   IAmb   07 53 13.8
             comp=Z,8.2nm,1.2s
KNB    Kanab             58.49  70   P      P      07 53 09.8 +0.7
KNB                                  pmax   pmax
             comp=Z,4.0nm,1.1s
KNB    Kanab             58.49  70   P      P      07 53 09.8 +0.7
KNB                                  IAmb   IAmb   07 53 12.2
             comp=Z,4.3nm,1.1s
ELS    Elsinore Mount    58.51  75   P      P      07 53 09.2 +0.1
EVN    Everest           58.56 274   P      P      07 53 08.8 -1.4
EVN                                  IAmb   IAmb   07 53 10.3
             comp=Z,4.2nm,0.6s
O20A   White River Ci    58.56  64   P      P      07 53 09.5  0.0
CHTO   Chiang Mai        58.87 258   P      P      07 53 11.0 -0.7
CHTO                                 pmax   pmax
             comp=Z,4.0nm,0.8s
CHTO   Chiang Mai        58.87 258   P      P      07 53 10.9 -0.7
CHTO                                 IAmb   IAmb   07 53 12.7
             comp=Z,4.1nm,0.8s
CHTO   Chiang Mai        58.87 258   P      P      07 53 11.4 -0.2
             comp=Z,5.4nm,1.1s
HMU    Henry Mountain    58.91  67   P      P      07 53 12.9 +0.9
CMAR   Chiang Mai Arr    59.16 257   P      P      07 53 13.8 +0.1
             comp=Z,1.6nm,0.3s,baz=21,slow=7.6,SNR=5.8
CMAR                                 PcP    PcP    07 54 01.1 +0.6
             comp=Z,1.9nm,0.4s,baz=16,slow=3.8,SNR=12
             comp=Z,1.6nm,0.3s
CMAR   Chiang Mai Arr    59.16 257 i P      P      07 53 14.1 +0.5
CMAR                                 pmax   pmax
             comp=Z,1.0nm,0.3s
CMAR   Chiang Mai Arr    59.16 257   P      P      07 53 12.8 -0.8
CMAR                                        PcP    07 54 00.7 +0.3
BELG   Belogornoye       59.18 319  eP      P      07 53 13.4 +0.1
BELG                                 pmax   pmax
             comp=Z,3.0nm,0.9s
W13A   Hualapai Mount    59.36  72   P      P      07 53 15.3 +0.2
PV22   Blue Mesa, Par    59.48  66   P      P      07 53 16.6 +0.7
PV22                                 IAmb   IAmb   07 53 18.9
             comp=Z,3.0nm,0.8s
ISCO   Idaho Springs     60.15  62   P      P      07 53 21.3 +0.8
ISCO                                 pmax   pmax
             comp=Z,3.0nm,1.0s
ISCO   Idaho Springs     60.15  62          P      07 53 21.3 +0.8
ISCO   Idaho Springs     60.15  62   P      P      07 53 22.7 +2.1
             comp=Z,3.2nm,1.0s
EYMN   Ely               60.45  47   P      P      07 53 22.0 -0.1
EYMN                                 IAmb   IAmb   07 53 23.2
             comp=Z,5.5nm,0.8s
EYMN   Ely               60.45  47   P      P      07 53 22.1  0.0
             comp=Z,9.0nm,1.5s
MVCO   Mesa Verde        60.62  66   P      P      07 53 25.4 +1.7
             comp=Z,5.6nm,1.5s
NB2    NORSAR Subarra    61.34 344   P      P      07 53 27.1 -0.8
             comp=Z,1.2nm,0.8s,baz=20,slow=6.9
NOA    NORSAR Array B    61.34 344   P      P      07 53 27.1 -0.8
             comp=Z,2.2nm,0.8s,baz=20,slow=6.8,SNR=6.3
             comp=Z,2.2nm,0.8s
ECSD   EROS Data Cent    61.48  54   P      P      07 53 29.6 +0.5
ECSD                                 IAmb   IAmb   07 53 30.4
             comp=Z,4.4nm,0.9s
SDCO   Great Sand Dun    61.77  64   P      P      07 53 32.5 +1.0
TASM   ASL Pad, Albuq    63.42  67   P      P      07 53 42.6 +0.3
ANMO   Albuquerque       63.42  67  eP      P      07 53 41.2 -1.1
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ANMO				pmax	pmax		
	comp=Z,2.0nm,0.9s						
ANMO	Albuquerque	63.42	67	P	P	07 53 42.7	+0.3
ANMO	Albuquerque	63.42	67	P	P	07 53 43.5	+1.1
	comp=Z,2.4nm,0.9s						
ALQ	Albuquerque	63.42	67		P	07 53 42.0	-0.4
I40A	Norwalk	64.03	50	P	P	07 53 45.4	-0.6
I40A				IAmb	IAmb	07 54 08.1	
	comp=Z,5.5nm,1.0s						
CRNM	Carthage	64.04	67	P	P	07 53 45.5	-0.9
RTBA	Rita Blanca	64.18	63	P	P	07 53 47.4	+0.2
RTBA				IAmb	IAmb	07 53 48.7	
	comp=Z,5.6nm,0.9s						
KSU1	Kansas State U	65.11	57	P	P	07 53 53.1	+0.1
KSU1				IAmb	IAmb	07 53 53.5	
	comp=Z,5.0nm,0.7s						
L40A	Anamosa	65.23	51	P	P	07 53 53.6	-0.1
L40A				IAmb	IAmb	07 54 37.7	
	comp=Z,7.2nm,1.0s						
SMWD	Samnorwood	66.48	62	P	P	07 54 02.2	+0.3
SMWD				IAmb	IAmb	07 54 03.6	
	comp=Z,7.0nm,0.9s						
MNTX	Cornudas Mount	66.51	68	P	P	07 54 03.4	+1.3
AKASG	Malin Array Be	66.77	329	P	P	07 54 02.5	-0.9
	comp=Z,0.8nm,0.4s,baz=30,slow=6.4,SNR=5.0						
	comp=Z,0.8nm,0.4s						
AKASG	Malin Array Be	66.77	329	P	P	07 54 02.2	-1.2
AKBB	Malin Array Si	66.77	329	P	P	07 54 02.9	-0.5
AKBB				pmax	pmax		
	comp=Z,2.0nm,0.8s						
AKBB	Malin Array Si	66.77	329	P	P	07 54 02.9	-0.5
KIEV	Kiev	66.78	329	P	P	07 54 02.9	-0.5
KIEV				pmax	pmax		
	comp=Z,2.0nm,0.7s						
KIEV	Kiev	66.78	329	P	P	07 54 02.9	-0.5
TPB28		66.99	67	P	P	07 54 06.2	+0.9
TPB28				IAmb	IAmb	07 54 08.1	
	comp=Z,5.3nm,1.1s						
OK048	Pawnee Station	67.07	59	P	P	07 54 06.5	+1.0
OK048				IAmb	IAmb	07 54 26.6	
	comp=Z,11nm,1.5s						
128A	Castleberry Fa	67.29	65	P	P	07 54 07.5	+0.4
HDIL	Hopedale	67.30	51	P	P	07 54 06.6	-0.3
WMOK	Wichita Mounta	67.50	61	P	P	07 54 08.8	+0.5
WMOK				pmax	pmax		
	comp=Z,4.0nm,0.9s						
WMOK	Wichita Mounta	67.50	61	P	P	07 54 08.8	+0.5
WMOK				IAmb	IAmb	07 54 09.9	
	comp=Z,3.7nm,0.8s						
WMOK	Wichita Mounta	67.50	61	P	P	07 54 08.8	+0.5
	comp=Z,4.8nm,0.9s						
R40A	Maddies Statio	67.79	54	P	P	07 54 10.2	+0.2
R40A				IAmb	IAmb	07 54 10.9	
	comp=Z,4.6nm,0.7s						
AKT	Akhty	68.00	312	*e*P	P	07 54 11.5	+0.1
AKT				pmax	pmax		
	comp=Z,8.0nm,0.6s						
KBZ	Khabaz	68.10	316	P	P	07 54 12.1	+0.3
	comp=Z,4.1nm,0.8s,baz=84,slow=3.0,SNR=8.6						
	comp=Z,4.1nm,0.8s						
KBZ	Khabaz	68.10	316	⇓*i*P	P	07 54 12.6	+0.8
KBZ				pmax	pmax		
	comp=Z,5.0nm,0.9s						
ALPN	Alpine	68.47	68	P	P	07 54 15.4	+0.9
SGCY	Sterling City	68.55	65	P	P	07 54 15.6	+0.6
HHAR	Hobbs	68.63	57	P	P	07 54 15.2	-0.1
HHAR				IAmb	IAmb	07 54 16.0	
	comp=Z,6.5nm,0.7s						
EKA	Eskdalemuir Ar	68.74	350	P	P	07 54 15.7	0.0
	comp=Z,1.1nm,0.6s,baz=31,slow=5.0,SNR=2.7						
	comp=Z,1.1nm,0.6s						
FVM	French Village	68.89	53	P	P	07 54 16.4	-0.4
FVM				pmax	pmax		
	comp=Z,3.0nm,0.7s						
FVM	French Village	68.89	53	P	P	07 54 16.4	-0.4
FVM				IAmb	IAmb	07 54 17.9	
	comp=Z,3.4nm,0.7s						
KULM	Kulim	69.12	248	P	P	07 54 19.3	+0.8
KULM	Kulim	69.12	248	P	P	07 54 18.1	-0.4
KULM	Kulim	69.12	248	P	P	07 54 19.4	+0.8
	comp=Z,30nm,0.8s						
TXAR	Lajitas Array	69.28	68	P	P	07 54 20.9	+1.4
	comp=Z,2.5nm,0.5s,baz=293,slow=5.1,SNR=45						
TXAR				pP	pP	07 54 58.0	-0.5
	comp=Z,1.5nm,0.8s,baz=296,slow=5.4,SNR=5.5						
	comp=Z,2.5nm,0.5s						
TXAR	Lajitas Array	69.28	68	P	P	07 54 20.7	+1.2
TXAR	Lajitas Array	69.28	68	P	P	07 54 20.7	+1.2
T42A	Van Buren	69.36	54	P	P	07 54 19.5	-0.2
SAND	Sanderson	69.59	67	P	P	07 54 22.1	+0.7
IPM	Ipoh	69.61	247	P	P	07 54 22.5	+0.9
IPM	Ipoh	69.61	247	P	P	07 54 21.5	-0.1
IPM	Ipoh	69.61	247	P	P	07 54 21.8	+0.2
	comp=Z,32nm,1.1s						
FCAR	Ozark Folk Cen	69.80	56	P	P	07 54 22.4	-0.1
FCAR				IAmb	IAmb	07 54 23.3	
	comp=Z,5.8nm,1.1s						
PBMO	Poplar Bluff	69.87	54	P	P	07 54 23.4	+0.5
PBMO				IAmb	IAmb	07 54 24.0	
	comp=Z,4.4nm,0.8s						
BRDY	Brady	70.14	64	P	P	07 54 25.2	+0.5
MIAR	Mount Ida	70.20	58	P	P	07 54 25.0	0.0
MIAR				pmax	pmax		
	comp=Z,8.0nm,1.4s						
MIAR	Mount Ida	70.20	58	P	P	07 54 25.0	0.0
MIAR				IAmb	IAmb	07 54 32.6	
	comp=Z,7.5nm,1.4s						
MIAR	Mount Ida	70.20	58	P	P	07 54 25.4	+0.4
	comp=Z,5.0nm,1.6s						
CLL	Collm	70.25	339	*e*P	P	07 54 25.0	+0.1
CLL	Collm	70.25	339	*e*P	P	07 54 25.0	+0.1
PARMO	Parma	70.27	54	P	P	07 54 26.4	+1.1
JCT	Junction City	70.38	65	P	P	07 54 26.3	+0.2
JCT				pmax	pmax		
	comp=Z,5.0nm,0.7s						
JCT	Junction City	70.38	65	P	P	07 54 26.3	+0.2
JCT				IAmb	IAmb	07 54 27.5	
	comp=Z,4.5nm,0.7s						
MYKOM	Kota Tinggi	70.44	243	P	P	07 54 26.8	+0.2
MYKOM				IAmb	IAmb	07 54 53.6	
	comp=Z,9.3nm,1.0s						
BRG	Berggiesshubel	70.47	338	P	P	07 54 26.3	0.0
BRG	Berggiesshubel	70.47	338	P	P	07 54 26.3	0.0
	comp=Z,4.8nm,1.9s						
BUR08	Bucovina Ar. S	70.68	330	P	P	07 54 27.4	-0.4
BUR08				IAmb	IAmb	07 54 47.5	
	comp=Z,6.5nm,1.4s						
MORC	Moravsky Berou	70.70	336	P	P	07 54 27.3	-0.5
MORC				pmax	pmax		
	comp=Z,3.0nm,0.8s						
MORC	Moravsky Berou	70.70	336	P	P	07 54 27.3	-0.5
BURAR	Bucovina Array	70.70	330	P	P	07 54 27.5	-0.4
BURAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
BURAR	Bucovina Array	70.70	330	P	P	07 54 27.5	-0.4
F64A	Sherman	70.79	34	P	P	07 54 28.4	+0.1
H62A	Milan	71.01	37	P	P	07 54 30.3	+0.6
P52A	Corning	71.13	47	P	P	07 54 30.7	+0.2
P52A				IAmb	IAmb	07 55 14.7	
	comp=Z,12nm,1.2s						
MOX	Moxa	71.15	340	P	P	07 54 30.8	+0.3
MOX	Moxa	71.15	340	P	P	07 54 30.8	+0.3
	comp=Z,8.4nm,2.7s						
WVT	Waverly	71.59	53	P	P	07 54 34.0	+0.7
WVT				pmax	pmax		
	comp=Z,6.0nm,1.2s						
WVT	Waverly	71.59	53	P	P	07 54 34.0	+0.7
WVT				IAmb	IAmb	07 55 04.7	
	comp=Z,6.0nm,1.2s						
WVT	Waverly	71.59	53	P	P	07 54 33.8	+0.5
M57A	Sunshine Farm,	71.67	42	P	P	07 54 33.8	0.0
PSI	Prapat	72.13	248	P	P	07 54 38.4	+1.5
PSI	Prapat	72.13	248	P	P	07 54 36.4	-0.5
U49A	Red Boiling Sp	72.19	51	P	P	07 54 37.4	+0.6
U49A				IAmb	IAmb	07 55 01.7	
	comp=Z,7.7nm,1.2s						
MEM	Membach	72.19	343	P	P	07 54 36.5	-0.1
MEM	Membach	72.19	343	P	P	07 54 36.5	-0.1
	comp=Z,14nm,0.9s						
KHC	Kasperske Hory	72.19	338	*e*P	P	07 54 37.0	+0.3
KHC				pmax	pmax		
	comp=Z,4.0nm,0.8s						
RPSI	Rantau Prapat	72.22	248	P	P	07 54 36.4	-0.9
	comp=Z,24nm,0.8s						
GERES	GERESS Array B	72.44	338	P	P	07 54 38.5	+0.2
	comp=Z,1.1nm,0.3s,baz=38,slow=5.0,SNR=8.5						
	comp=Z,1.1nm,0.3s						
GERES	GERESS Array B	72.44	338	P	P	07 54 37.8	-0.4
MTN	Manton Dam	72.56	210	P	P	07 54 40.1	+1.0
MTN				IAmb	IAmb	07 54 40.7	
	comp=Z,6.3nm,0.7s						
KELT	Kelkit	72.56	317	P	P	07 54 40.4	+1.1
	comp=Z,28nm,0.9s						
TZTN	Tazewell	73.14	49	P	P	07 54 43.0	+0.6
TZTN				IAmb	IAmb	07 55 20.8	
	comp=Z,14nm,1.3s						
SWET	Sewanee	73.20	52	P	P	07 54 43.0	0.0
SWET				IAmb	IAmb	07 54 48.4	
	comp=Z,13nm,1.4s						
BZS	Buzias	73.53	331	P	P	07 54 44.9	+0.3
BZS	Buzias	73.53	331	P	P	07 54 44.9	+0.3
	comp=Z,4.5nm,1.8s						
CPCT	Cooper Cave	73.63	51	P	P	07 54 45.7	+0.3
Z47A	Carrollton	73.91	55	P	P	07 54 47.5	+0.5
KBA	Koelnbreinsper	74.19	338	P	P	07 54 49.9	+1.3
KBA	Koelnbreinsper	74.19	338	P	P	07 54 49.9	+1.3
	comp=Z,12nm,1.0s						
ECH	Echery	74.31	342	P	P	07 54 48.9	-0.2
ECH	Echery	74.31	342	P	P	07 54 48.9	-0.2
	comp=Z,6.8nm,1.3s						
OBKA	Obir	74.46	337	P	P	07 54 51.1	+1.0
	comp=Z,11nm,1.7s						
LRAL	Lakeview Retre	74.54	54	P	P	07 54 50.6	0.0
LRAL				IAmb	IAmb	07 55 30.3	
	comp=Z,6.7nm,1.2s						
V55A	Taylorsville	74.72	48	P	P	07 54 52.1	+0.4
V55A				IAmb	IAmb	07 55 03.9	
	comp=Z,14nm,1.3s						
BR131	Keskin Array S	75.04	321	*e*P	P	07 54 53.5	-0.2
BRTR	Keskin Array B	75.04	321	P	P	07 54 53.5	-0.2
	comp=Z,1.6nm,0.7s,baz=52,slow=3.4,SNR=6.4						
	comp=Z,1.6nm,0.7s						
BRTR	Keskin Array B	75.04	321	*i* P	P	07 54 53.9	+0.3
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
BRTR	Keskin Array B	75.04	321	P	P	07 54 53.0	-0.6
TUE	Stuetta	75.59	340	P	P	07 54 57.4	+0.7
TUE				IAmb	IAmb	07 54 57.8	
	comp=Z,4.0nm,0.7s						
TUE	Stuetta	75.59	340	P	P	07 54 57.4	+0.7
	comp=Z,8.2nm,1.2s						
BNI	Bardonecchia	77.45	342	P	P	07 55 06.4	-0.7
BNI				pmax	pmax		
	comp=Z,3.0nm,0.7s						
BNI	Bardonecchia	77.45	342	P	P	07 55 06.4	-0.7
VLC	Villacollemand	77.60	339	P	P	07 55 09.0	+1.2
	comp=Z,9.8nm,1.6s						
UOSS	Minazif	77.64	296	P	P	07 55 06.2	-2.1
	comp=Z,7.6nm,1.1s						
ORIF	Oris-en-Rattie	77.72	342	P	P	07 55 09.5	+0.9
ORIF	Oris-en-Rattie	77.72	342	P	P	07 55 09.5	+0.9
	comp=Z,6.6nm,0.8s						
QIS	Mount Isa	77.91	200	P	P	07 55 09.7	+0.1
	comp=Z,5.5nm,1.8s						
ISO	Isola	78.23	341	P	P	07 55 11.6	+0.3
ISO	Isola	78.23	341	P	P	07 55 11.6	+0.3
	comp=Z,6.9nm,1.0s						
NRCA	Norcia	78.27	336	P	P	07 55 11.9	+0.3
WB0	Warramunga Arr	78.30	205	P	P	07 55 12.3	+0.6
WB0				IAmb	IAmb	07 55 13.2	
	comp=Z,7.3nm,1.2s						
WR8	Warramunga Arr	78.46	205	P	P	07 55 12.6	0.0
WRA	Warramunga Arr	78.48	205	P	P	07 55 13.2	+0.4
	comp=Z,2.0nm,0.7s,baz=9.6,slow=5.7,SNR=14						
	comp=Z,2.0nm,0.7s						
WRA	Warramunga Arr	78.48	205	*i* P	P	07 55 13.6	+0.8
WRA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
WRA	Warramunga Arr	78.48	205	P	P	07 55 12.9	+0.1
PALK	Pallekele	78.49	266	P	P	07 55 12.2	-0.9
PALK				pmax	pmax		
	comp=Z,21nm,1.2s						
PALK	Pallekele	78.49	266	P	P	07 55 12.2	-0.9
CASP	Castiglione de	78.81	338	P	P	07 55 14.0	-0.4
FITZ	Fitzroy Crossi	79.18	214	P	P	07 55 16.6	+0.1
FITZ	Fitzroy Crossi	79.18	214	P	P	07 55 17.1	+0.5
	comp=Z,1.0nm,0.9s						
PGF	Pioggiola	79.43	339	P	P	07 55 18.2	+0.3
PGF	Pioggiola	79.43	339	P	P	07 55 18.2	+0.3
	comp=Z,12nm,1.1s						
HALK	Hakmana	79.47	265	P	P	07 55 17.9	-0.5
	comp=Z,18nm,0.8s						
MTLF	Montolieu	79.86	344	P	P	07 55 21.2	+1.1
MTLF	Montolieu	79.86	344	P	P	07 55 21.2	+1.1
	comp=Z,7.2nm,1.1s						
SJAF	Saint Jean de	80.59	344	P	P	07 55 25.0	+0.9
	comp=Z,7.1nm,0.9s						
EJON	La Jonquera	80.63	344	P	P	07 55 25.4	+1.1
	comp=Z,7.6nm,1.3s						
CEST	Esterri de Car	80.73	345	P	P	07 55 25.0	0.0
CEST				IAmb	IAmb	07 55 29.5	
	comp=Z,4.2nm,0.8s						
EIDS	Eidsvold	81.00	189	P	P	07 55 26.7	+0.5
EIDS				IAmb	IAmb	07 55 55.2	
	comp=Z,9.1nm,1.1s						
AS31	Alice Springs	82.17	205	P	P	07 55 33.5	+1.1
ASAR	Alice Springs	82.17	205	P	P	07 55 33.5	+1.1
	comp=Z,3.8nm,0.8s,baz=14,slow=5.4,SNR=40						
ASAR				pP	pP	07 56 12.7	-0.3
	comp=Z,1.0nm,0.9s,baz=8.5,slow=5.2,SNR=2.4						
	comp=Z,3.8nm,0.8s						
MAHO	Mahon	82.88	342	P	P	07 55 36.1	+0.1
RAYN	Ar Rayn	84.11	304	P	P	07 55 42.0	-0.7
RAYN				pmax	pmax		
	comp=Z,7.0nm,0.7s						
RAYN	Ar Rayn	84.11	304	P	P	07 55 42.0	-0.7
RAYN	Ar Rayn	84.11	304	P	P	07 55 42.0	-0.7
	comp=Z,12nm,0.9s						
ESBB	Sonseca Array	84.30	348	P	P	07 55 43.1	-0.3
ESBB				IAmb	IAmb	07 55 44.9	
	comp=Z,3.4nm,0.8s						
ESDC	Sonseca Array	84.30	348	P	P	07 55 43.2	-0.2
	comp=Z,3.8nm,0.7s,baz=360,slow=4.8,SNR=29						
	comp=Z,3.8nm,0.7s						
ESDC	Sonseca Array	84.30	348	P	P	07 55 43.7	+0.3
ESDC				IAmb	IAmb	07 56 05.6	
	comp=Z,6.5nm,1.4s						
PAB	San Pablo	84.47	349	P	P	07 55 44.7	+0.4
PAB				pmax	pmax		
	comp=Z,6.0nm,1.4s						
PAB	San Pablo	84.47	349	P	P	07 55 44.7	+0.4
PAB				IAmb	IAmb	07 56 09.8	
	comp=Z,6.2nm,1.4s						
KEST	Kesra	85.90	337	LR	LR	08 39 38.7	
	comp=Z,31nm,18.5s,baz=333,slow=39						
FORT	Forrest	90.44	208	P	P	07 56 13.3	+0.8
MD01	Midelt array s	91.11	348	P	P	07 56 16.2	0.0
BOSA	Boshof	138.53	292	PKP	PKiKP	08 02 37.9	-0.3
	comp=Z,2.8nm,0.7s,baz=16,slow=5.8,SNR=3.6						
SUR	Sutherland	143.85	293	PKPdf	PKPdf	08 02 44.7	-0.9
QSPA	South Pole Qui	145.27	180	PKPbc	PKPdf	08 02 46.7	0.0
	comp=Z,5.9nm,0.7s,baz=276,slow=0.3,SNR=28						
QSPA	South Pole Qui	145.27	180		PKPbc	08 02 46.9	0.0

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*IDC **14** 07:59:13.0±1.2, 24˚.51N×127˚.94E, h0^{km}, mb3.4/3, mbtmp3.5/4, ML3.4/1, Error ellipse: s-maj=54.9km s-min=15.8km az=93.0*

*JMA **14** 07:59:15.5±0.3, 25˚N±1˚×12˚8E±˚, h85^{km}, MV3.5/26, FAR S OFF OKINAWAJIMA*

ISC 14 07:59:16.4±2.9**, 24˚.67N**±0˚.04×**127˚.92E**±0˚.05**, h31**^{km}±24^{km}**, n27, σ0^{s}88**/27**, mb3.5**/3**, Southeast of Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
JJT3	Tamagusuku3	1.47	355	*i* P	Pn	07 59 41.3	+0.5
JJT3				S	Sn	07 59 59.4	+0.4
JNTH	Nagotoyohara	1.84	3	P	Pn	07 59 45.7	-0.1
JNTH				*e*S	Sn	08 00 06.6	-1.5
JKE	Kume jima 2	1.94	328	P	Pn	07 59 47.9	+0.7
JAGN	Aguni-jima	2.01	343	*e*P	Pn	07 59 48.5	+0.4
JAGN				S	Sn	08 00 12.3	+0.2
JOW	Kunigami	2.18	8	Pn	Pn	07 59 50.8	+0.3
	baz=128,slow=19						
JOW				Sn	Sn	08 00 15.7	-0.8
	baz=197,slow=19						
JOW	Kunigami	2.18	8	*i* P	Pn	07 59 50.7	+0.3
JOW				*e*S	Sn	08 00 13.8	-2.6
JOGS	Gusukube	2.28	273	*e*S	Sn	08 00 19.2	+0.2
JMJ2	Miyako jima3	2.35	272	P	Pn	07 59 53.0	+0.1
JMJ2				*e*S	Sn	08 00 20.7	0.0
JIH	Iheya	2.36	1	*e*P	Pn	07 59 52.7	-0.2
JIH				*e*S	Sn	08 00 19.7	-1.0
JYRO	Yoronjima	2.40	11	*i* P	Pn	07 59 53.3	-0.1
JYRO				*e*S	Sn	08 00 19.1	-2.6
JIRJ	Irabujima	2.48	274	P	Pn	07 59 54.5	0.0
JOKE	Okinoerabujima	2.75	12	P	Pn	07 59 58.1	-0.1
JOKE				*e*S	Sn	08 00 28.3	-2.1
JTJ	Tarama	2.92	270	P	Pn	08 00 00.5	-0.2
JTJ				*e*S	Sn	08 00 30.9	-3.8
JMZ	Minamidaito 2	3.21	68	P	Pn	08 00 01.0	-3.6
JTK	Tokunoshima	3.24	16	P	Pn	08 00 05.4	+0.3
JISG	Ishigakijimahi	3.28	269	P	Pn	08 00 04.8	-0.8
JISG				S	Sn	08 00 36.8	-6.8
JKDJ	Kitadaitoujima	3.31	67	P	Pn	08 00 03.1	-3.0
JIJ	Ishigaki jima	3.45	266	P	Pn	08 00 07.4	-0.6
JIJ				*e*S	Sn	08 00 44.5	-3.3
JKRS	Kuro-shima	3.59	264	P	Pn	08 00 09.6	-0.2
JAMN	Amaminishikomi	3.73	17	P	Pn	08 00 12.4	+0.6
IRIF	Iriomote-Funau	3.83	266	P	Pn	08 00 12.7	-0.4
JYNG	Yonagunijimaku	4.53	268	P	Pn	08 00 22.5	-0.3
JTAJ	Takarajima	4.61	14	P	Pn	08 00 24.2	+0.3
JNU	Nakatsue	8.81	16	Pn	Pn	08 01 22.7	+1.0
	0.3nm,0.3s,baz=202,slow=19,SNR=1.6						
	1.5nm,0.4s						
JNU				AML	AML		
MKAR	Makanchi Array	42.38	313	P	P	08 07 09.5	+1.8
	0.3nm,0.6s,baz=91,slow=8.9,SNR=2.2						
	0.3nm,0.6s						
WRA	Warramunga Arr	44.78	171	P	P	08 07 26.8	-0.5
	0.7nm,0.7s,baz=356,slow=8.5,SNR=4.6						
	0.7nm,0.7s						
ASAR	Alice Springs	48.40	173	P	P	08 07 56.0	+0.4
	0.5nm,0.9s,baz=360,slow=7.0,SNR=5.3						
	0.5nm,0.9s						

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*IDC **14** 08:07:09.4±0.5, 10˚.49N×145˚.75E, h0^{km}, mb4.8/29, mbtmp4.8/30, ML5.5/1, MS3.9/59, Error ellipse: s-maj=20.6km s-min=11.2km az=82.0*

*BJI **14** 08:07:09.3, 10˚.52N×145˚.91E, h14^{km}, mB5.2/32, mb5.2/77, Ms4.5/31, Ms7 4.2/35*

*NEIC **14** 08:07:10.9±1.0, 10˚.53N±0˚.06×145˚.85E±0˚.09, h10^{km}±1^{km}, mb5.0/178, Error ellipse: s-maj=15.0km s-min=10.4km az=257.0*

*GFZ **14** 08:07:11.0±0.2, 11˚N±3˚×14˚6E±˚, h10^{km}, M5.4/47, mb5.2/47, confirmed*

*GCMT **14** 08:07:11.9±0.2, 10˚.49N±0˚.01×145˚.69E±0˚.01, h12^{km}, MW4.9/105, Moment Tensor Solution. s20,c24; s105,c148; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}0.61±.06; $M_{\theta\theta}$0.83±.06; $M_{\phi\phi}$-1.44±.06; $M_{r\theta}$1.89±.17; $M_{\theta\phi}$1.64±.05; $M_{\phi r}$0.44±.17; Best double couple: $M_0$2.76500×10^{16} NP1:ϕ_s10.00000°, δ54.00000°, λ160.00000°. NP2:ϕ_s111.00000°, δ74.00000°, λ37.00000°. Principal axes: T 3.1220, Plg37.0000°, Azm336.0000°; N -0.7120, Plg50.0000°, Azm131.0000°; P -2.4080, Plg13.0000°, Azm236.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*DJA **14** 08:07:11.1±0.5, 11˚N±4˚×14˚6E±˚, h23^{km}±4^{km}, M5.2/21, mb5.2/21, mB5.6/11, MLv5.4/1, Mw(mB)5.1/11*

ISC 14 08:07:11.4±1.0**, 10˚.54N**±0˚.04×**145˚.93E**±0˚.05**, h17**^{km}±6^{km}**, n435, σ1^{s}42**/365**, mb5.0**/181**, MS4.0**/75**, 7C-1D, South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
GUMO	Guam	3.20	341	Pn	Pn	08 08 00.1	-1.0
	524nm,0.3s,baz=69,slow=4.9,SNR=442						
GUMO				Sn	Sn	08 08 31.2	-7.7
	1μm,0.3s,baz=39,slow=21,SNR=15						
	1μm,0.4s						
GUMO				AML	AML		
GUMO	Guam	3.20	341	P	Pn	08 08 00.0	-1.0
GUMO	Guam	3.20	341		Pn	08 08 00.1	-1.0
GUMO				Sn	Sn	08 08 37.2	-1.6
GUMO	Guam	3.20	341	P	Pn	08 08 00.2	-1.0
DPSS	Saipan	4.67	358		Pn	08 08 22.2	+0.9
DPSS				Sn	Sn	08 09 15.5	+0.3
MANU	Manus Island	12.59	173	Pn	Pn	08 10 08.3	-1.6
PATS	Pohnpei	12.78	106	P	Pn	08 10 11.5	-1.1
	comp=Z,235nm,0.7s						
PATS				S	Sn	08 12 27.5	-7.2
PATS	Pohnpei	12.78	106	P	Pn	08 10 10.8	-1.7
	comp=Z,234nm,0.7s						
GENI	Genyem	14.25	204	P	P	08 10 43.4	+3.5
GENI	Genyem	14.25	204	P	P	08 10 48.2	+8.3
RABL	Rabaul	15.90	157	Pn	Pn	08 10 55.1	+0.5
RABL				IAmb	IAmb	08 10 56.3	
	comp=Z,77nm,0.6s						
KRVT	Keravat (AS076	15.95	157	LR	LR	08 15 44.1	
	comp=Z,585nm,20.6s,baz=102,slow=32						
FAKI	Fak Fak	19.09	226	P	P	08 11 31.5	-2.0
PMG	Port Moresby	19.86	176	P	Pn	08 11 44.8	+1.3
	comp=Z,19nm,0.9s,baz=23,slow=7.6,SNR=3.7						
PMG				LR	LR	08 18 41.6	
	comp=Z,540nm,18.6s,baz=319,slow=35						
PMG	Port Moresby	19.86	176	P	P	08 11 41.3	-0.5
DAV	Davao City (W)	20.40	262	LR	LR	08 20 38.2	
	comp=Z,176nm,18.2s,baz=91,slow=40						
JMZ	Minamidaito 2	20.61	319	P	P	08 11 49.9	-0.1
JMZ	Minamidaito 2	20.61	319		P	08 11 49.9	-0.1
JMZ	Minamidaito 2	20.61	319	P	P	08 11 51.0	+1.0
	comp=Z,351nm,0.9s						
H11S3	WAKE ISLAND Hy	21.58	66	T	T	08 34 43.7	
	baz=253,slow=74,SNR=73						
H11S2	WAKE ISLAND Hy	21.59	66	T	T	08 34 41.7	
	baz=253,SNR=75						
H11S1	WAKE ISLAND Hy	21.59	66	T	T	08 34 40.1	
	baz=253,slow=74,SNR=112						
H11N1	WAKE ISLAND Hy	22.17	63	T	T	08 35 16.7	
	baz=248,slow=74,SNR=110						
H11N2	WAKE ISLAND Hy	22.18	63	T	T	08 35 18.6	
	baz=248,slow=74,SNR=29						
H11N3	WAKE ISLAND Hy	22.19	63	T	T	08 35 22.1	
	baz=248,slow=74,SNR=58						
MNI	Manado	22.82	248	P	P	08 12 16.5	+2.6
JHJ	Hachijo jima 2	23.17	347	LR	LR	08 21 53.5	
	comp=Z,371nm,18.3s,baz=142,slow=38						
JOW	Kunigami	23.24	317	P	P	08 12 16.5	-1.5
JOW	Kunigami	23.24	317		P	08 12 17.4	-0.7
JOW				IAmb	IAmb	08 12 39.8	
	comp=Z,46nm,0.8s						
JOW	Kunigami	23.24	317	P	P	08 12 18.4	+0.4
	comp=Z,55nm,0.7s						
HNR	Honiara	24.25	144	LR	LR	08 21 11.3	
	comp=Z,239nm,19.6s,baz=36,slow=35						
GTOI	Gorontalo	24.82	248	P	P	08 12 33.5	+0.4
	comp=Z,748nmcomp=Z,72nm,0.8s						
JSU	Suzuyama	25.31	328	P	P	08 12 38.9	+1.5
JSU	Suzuyama	25.31	328	P	P	08 12 36.7	-0.7
JSU				IAmb	IAmb	08 12 40.7	
	comp=Z,34nm,0.7s						
JSU	Suzuyama	25.31	328	P	P	08 12 38.4	+1.0
	comp=Z,51nm,0.9s						
JMN	Monobe	25.59	336	P	P	08 12 40.9	+1.0
JMN	Monobe	25.59	336		P	08 12 39.7	-0.2
JMN				IAmb	IAmb	08 12 53.7	
	comp=Z,50nm,1.0s						
JMN	Monobe	25.59	336	P	P	08 12 40.9	+1.0
	comp=Z,60nm,1.2s						
YOJ	Yonaguni jima	25.81	305	P	P	08 12 42.5	+0.5
YOJ	Yonaguni jima	25.81	305	S	S	08 17 02.8	-8.2
YOJ	Yonaguni jima	25.81	305		P	08 12 41.3	-0.7
YOJ	Yonaguni jima	25.81	305	P	P	08 12 41.3	-0.7
	comp=Z,111nm,0.7s						
INU	Inuyama	25.99	343	P	P	08 12 44.8	+1.3
INU	Inuyama	25.99	343	P	P	08 12 43.5	0.0
INU				IAmb	IAmb	08 12 47.3	
	comp=Z,47nm,1.0s						
INU	Inuyama	25.99	343	P	P	08 12 44.5	+1.0
	comp=Z,49nm,1.9s						
JGF	Kuroka	26.14	344	P	P	08 12 44.9	+0.1
JGF	Kuroka	26.14	344	P	P	08 12 44.5	-0.4
JGF				IAmb	IAmb	08 12 49.0	
	comp=Z,42nm,0.9s						
JGF	Kuroka	26.14	344	P	P	08 12 45.0	+0.1
	comp=Z,62nm,1.5s						
KDU	Kakadu	26.67	210	P	P	08 12 54.7	+4.9
TOLI2	Tolitoli	26.69	251	P	P	08 12 49.0	-1.0
TOLI2				IAmb	IAmb	08 13 07.7	

	comp=Z,35nm,1.2s						
TWGBT	**Beinan**	**26.70**	**300**	P	**P**	**08 12 50.4**	**+0.4**
TWG	**Pinlang**	**26.71**	**300**	P	**P**	**08 12 48.9**	**-1.2**
TWG				IAmb	IAmb	08 12 56.4	
	comp=Z,34nm,1.0s						
TWG	**Pinlang**	**26.71**	**300**	P	**P**	**08 12 49.3**	**-0.9**
	comp=Z,38nm,0.9s						
YULB	**Yu-li**	**26.75**	**302**	P	**P**	**08 12 50.1**	**-0.4**
YULB	**Yu-li**	**26.75**	**302**	P	**P**	**08 12 49.9**	**-0.6**
YULB				IAmb	IAmb	08 12 52.5	
	comp=Z,44nm,0.8s						
YULB	**Yu-li**	**26.75**	**302**	P	**P**	**08 12 50.3**	**-0.2**
	comp=Z,75nm,0.9s						
MJAR	**Matsushiro Arr**	**26.81**	**346**	P	**P**	**08 12 50.3**	**-0.6**
	comp=Z,24nm,0.8s,baz=173,slow=10.0,SNR=32						
MJAR				LR	LR	08 23 08.1	
	comp=Z,256nm,18.8s,baz=148,slow=36						
	comp=Z,24nm,0.8s						
MJAR	**Matsushiro Arr**	**26.81**	**346**	P	**P**	**08 12 50.8**	**-0.1**
MJAR				IAmb	IAmb	08 12 53.9	
	comp=Z,40nm,1.0s						
MAJO	**Matsushiro**	**26.81**	**346**	P	**P**	**08 12 50.9**	**0.0**
MAJO	**Matsushiro**	**26.81**	**346**	P	**P**	**08 12 50.7**	**-0.2**
MAJO				IAmb	IAmb	08 12 56.2	
	comp=Z,35nm,0.7s						
MAJO	**Matsushiro**	**26.81**	**346**	P	**P**	**08 12 51.0**	**0.0**
	comp=Z,57nm,0.8s						
MJB9	**Matsu-Tunnel**	**26.82**	**346**	P	**P**	**08 12 51.3**	**+0.3**
NACB	**Ninganchiao**	**26.83**	**304**	P	**P**	**08 12 50.3**	**-1.0**
NACB				IAmb	IAmb	08 13 21.2	
	comp=Z,30nm,0.9s						
NACB	**Ninganchiao**	**26.83**	**304**	P	**P**	**08 12 49.8**	**-1.4**
	comp=Z,40nm,0.7s						
SSLB	**Suanglung**	**27.20**	**302**	P	**P**	**08 12 54.4**	**-0.2**
SSLB	**Suanglung**	**27.20**	**302**	P	**P**	**08 12 53.8**	**-0.8**
SSLB	**Suanglung**	**27.20**	**302**	P	**P**	**08 12 54.2**	**-0.3**
	comp=Z,207nm,0.9s						
YHNB	**Yeheng**	**27.23**	**304**	P	**P**	**08 12 55.2**	**+0.3**
YHNB	**Yeheng**	**27.23**	**304**	P	**P**	**08 12 54.5**	**-0.4**
YHNB	**Yeheng**	**27.23**	**304**	P	**P**	**08 12 54.1**	**-0.8**
	comp=Z,66nm,1.0s						
TPUB	**Ta-pu**	**27.27**	**301**	P	**P**	**08 12 55.7**	**+0.5**
TPUB	**Ta-pu**	**27.27**	**301**	P	**P**	**08 12 54.5**	**-0.7**
TPUB				IAmb	IAmb	08 12 57.0	
	comp=Z,47nm,0.9s						
TPUB	**Ta-pu**	**27.27**	**301**	P	**P**	**08 12 54.3**	**-0.9**
	comp=Z,56nm,1.3s						
MTN	**Manton Dam**	**27.49**	**213**	P	**P**	**08 12 57.8**	**+0.6**
	comp=Z,14nm,0.9s						
MTN	**Manton Dam**	**27.49**	**213**		**P**	**08 12 56.0**	**-1.2**
MYLDM	**Lahad Datu**	**27.68**	**261**	P	**P**	**08 13 02.8**	**+3.9**
MYLDM	**Lahad Datu**	**27.68**	**261**	P	**P**	**08 12 56.7**	**-2.2**
MYLDM	**Lahad Datu**	**27.68**	**261**	P	**P**	**08 12 59.3**	**+0.4**
	comp=Z,52nm,1.2s						
TARA	**Tarawa**	**28.33**	**107**	P	**P**	**08 13 04.3**	**-0.4**
MTSU	**Mount Surprise**	**28.54**	**183**	P	**P**	**08 13 09.1**	**+2.5**
	comp=Z,12nm,1.3s						
MTSU	**Mount Surprise**	**28.54**	**183**	P	**P**	**08 13 08.0**	**+1.5**
	comp=Z,12nm,1.3s						
SOEI	**Soe**	**29.51**	**228**	P	P	08 13 24.1	+8.7
SOEI	**Soe**	**29.51**	**228**	P	**P**	**08 13 14.1**	**-1.3**
SOEI	**Soe**	**29.51**	**228**	P	**P**	**08 13 13.7**	**-1.7**
	comp=Z,76nm,1.0s						
SOEI	**Soe**	**29.51**	**228**	P	**P**	**08 13 14.5**	**-0.9**
	comp=Z,77nm,1.0s						
KAPI	**Kappang**	**30.30**	**241**	LR	LR	08 24 27.9	
	comp=Z,212nm,21.9s,baz=61,slow=34						
CTA	**Charters Tower**	**30.44**	**179**	P	**P**	**08 13 25.9**	**+2.6**
	comp=Z,11nm,0.9s						
TJN	**Taejon**	**30.73**	**330**	P	**P**	**08 13 26.6**	**+0.9**
TJN	**Taejon**	**30.73**	**330**	P	**P**	**08 13 24.4**	**-1.3**
KNRA	**Kununurra**	**31.11**	**213**	P	**P**	**08 13 30.6**	**+1.4**
	comp=Z,11nm,0.9s						
KNRA	**Kununurra**	**31.11**	**213**	P	**P**	**08 13 27.6**	**-1.7**
KSRS	**Korea Array**	**31.32**	**332**	P	**P**	**08 13 31.2**	**+0.3**
	comp=Z,30nm,0.9s,baz=141,slow=9.4,SNR=77						
KSRS				PcP	**PcP**	**08 16 25.6**	**+0.7**
	comp=Z,1.0nm,0.6s,baz=159,slow=3.9,SNR=5.1						
KSRS				LR	LR	08 25 35.6	
	comp=Z,203nm,19.9s,baz=135,slow=35						
	comp=Z,30nm,0.9s						
KS19	**Wonju Array Si**	**31.38**	**332**	P	**P**	**08 13 30.8**	**-0.8**
KS19				IAmb	IAmb	08 13 33.4	
	comp=Z,34nm,1.0s						
QIS	**Mount Isa**	**31.52**	**191**	P	**P**	**08 13 33.3**	**+0.4**
	comp=Z,14nm,1.5s						
QIS	**Mount Isa**	**31.52**	**191**	P	**P**	**08 13 33.5**	**+0.6**
	comp=Z,14nm,1.5s						
WB0	**Warramunga Arr**	**32.19**	**201**	P	**P**	**08 13 38.6**	**-0.2**
WR8	**Warramunga Arr**	**32.33**	**200**	P	**P**	**08 13 39.5**	**-0.5**
WRAB	**Tennant Creek**	**32.36**	**201**	P	**P**	**08 13 40.1**	**-0.2**
WRAB	**Tennant Creek**	**32.36**	**201**	P	**P**	**08 13 38.9**	**-1.4**
WRAB				IAmb	IAmb	08 13 42.8	
	comp=Z,28nm,1.1s						
WRA	**Warramunga Arr**	**32.37**	**201**	P	**P**	**08 13 39.8**	**-0.6**
	comp=Z,12nm,1.1s,baz=28,slow=9.5,SNR=40						
WRA				PcP	**PcP**	**08 16 28.7**	**+0.6**
	comp=Z,3.4nm,0.8s,baz=17,slow=2.8,SNR=6.9						
	comp=Z,12nm,1.1s						
WRA	**Warramunga Arr**	**32.37**	**201**	P	**P**	**08 13 39.5**	**-0.9**
WRA					**PcP**	**08 16 27.1**	**-1.0**
WB1	**Warramunga Ar.**	**32.38**	**201**	P	**P**	**08 13 40.5**	**0.0**
NJ2	**Nanjing**	**32.91**	**315**	*e*P	**P**	**08 13 45.4**	**+0.4**
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
JKA	**Kamikawa-asahi**	**33.57**	**356**	P	**P**	**08 13 50.9**	**+0.3**
JKA				IAmb	IAmb	08 13 56.6	
	comp=Z,30nm,1.1s						
ASAJ	**Asahikawa**	**33.58**	**356**	P	**P**	**08 13 51.1**	**+0.4**
	comp=Z,8.9nm,0.7s,baz=199,slow=11,SNR=5.7						
ASAJ				LR	LR	08 29 35.0	
	comp=Z,164nm,18.6s,baz=204,slow=40						
	comp=Z,8.9nm,0.7s						
AUNRC	**North Rockhamp**	**33.98**	**172**	P	**P**	**08 13 56.3**	**+1.9**
FITZ	**Fitzroy Crossi**	**34.80**	**215**	P	**P**	**08 14 02.6**	**+1.1**
	comp=Z,2.4nm,1.2s						
FITZ	**Fitzroy Crossi**	**34.80**	**215**	P	**P**	**08 14 03.5**	**+1.9**
FITZ	**Fitzroy Crossi**	**34.80**	**215**	P	**P**	**08 14 00.0**	**-1.5**
FITZ	**Fitzroy Crossi**	**34.80**	**215**	P	**P**	**08 14 02.0**	**+0.5**
	comp=Z,2.4nm,1.2s						
WHN	**Wuhan**	**35.45**	**309**	⇑P	**P**	**08 14 07.9**	**+0.8**
WHN				sP	**pwP**	**08 14 18.8**	**+1.5**
WHN				pmax	pmax		
	comp=Z,170nm,1.0s						
CNSH	**ChangSha**	**35.57**	**304**	P	**P**	**08 14 09.6**	**+1.5**
DL2	**Dalian**	**35.62**	**327**	P	**P**	**08 14 09.5**	**+1.1**
DL2				*e*S	**S**	**08 19 48.8**	**+4.9**
DL2				pmax	pmax		
	comp=Z,81nm,0.9s						
DL2				L	L		
	comp=Z,310nm,16.5s						
DL2				L	L		
	comp=Z,350nm,16.2s						
DL2				L	L		
	comp=Z,360nm,17.0s						
USRK	**Ussuriysk Ar.**	**35.64**	**343**	P	**P**	**08 14 09.2**	**+0.8**
	comp=Z,12nm,0.7s,baz=153,slow=7.7,SNR=16						
USRK				LR	LR	08 27 59.3	
	comp=Z,232nm,20.0s,baz=151,slow=35						
	comp=Z,12nm,0.7s						
USRK	**Ussuriysk Ar.**	**35.64**	**343**	P	**P**	**08 14 08.2**	**-0.3**
QIZ	**Qiongzhong**	**35.84**	**288**	P	**P**	**08 14 10.8**	**+0.2**
QIZ				S	**S**	**08 19 49.3**	**+1.4**
QIZ				pmax	pmax		
	comp=Z,15nm,1.0s						
QIZ				pmax	pmax		
	comp=Z,210nm,4.9s						
QIZ				L	L		
	comp=Z,180nm,8.8s						
QIZ				L	L		
	comp=Z,120nm,9.3s						
QIZ				L	L		
	comp=Z,180nm,15.2s						
AS15	**Alice Springs**	**35.95**	**199**	P	**P**	**08 14 12.0**	**+0.6**
	comp=Z,12nm,0.8s						
AS17	**Alice Springs**	**35.95**	**199**	P	**P**	**08 14 11.8**	**+0.4**
	comp=Z,13nm,1.2s						
AS01	**Alice Springs**	**35.96**	**199**	P	**P**	**08 14 11.1**	**-0.4**
AS31	**Alice Springs**	**35.98**	**199**	P	**P**	**08 14 13.0**	**+1.4**
	comp=Z,3.0nm,0.8s						
AS31	**Alice Springs**	**35.98**	**199**	P	**P**	**08 14 10.7**	**-1.0**
ASAR	**Alice Springs**	**35.98**	**199**	P	**P**	**08 14 10.8**	**-0.8**
	comp=Z,9.0nm,1.1s,baz=32,slow=5.8,SNR=30						
ASAR				PcP	**PcP**	**08 16 39.0**	**+0.7**
	comp=Z,2.6nm,0.9s,baz=44,slow=2.9,SNR=4.2						
	comp=Z,9.0nm,1.1s						
ASAR	**Alice Springs**	**35.98**	**199**		**P**	**08 14 10.9**	**-0.8**
ASAR					**PcP**	**08 16 36.3**	**-2.0**
AS09	**Alice Springs**	**35.99**	**199**	P	**P**	**08 14 12.4**	**+0.6**
	comp=Z,10nm,0.7s						
EIDS	**Eidsvold**	**36.05**	**172**	P	**P**	**08 14 13.6**	**+1.4**
	comp=Z,34nm,1.1s						
EIDS	**Eidsvold**	**36.05**	**172**	P	**P**	**08 14 13.6**	**+1.4**
EIDS	**Eidsvold**	**36.05**	**172**	P	**P**	**08 14 11.7**	**-0.4**
EIDS				IAmb	IAmb	08 14 21.2	
	comp=Z,21nm,0.8s						
EIDS	**Eidsvold**	**36.05**	**172**	P	**P**	**08 14 13.5**	**+1.4**
	comp=Z,34nm,0.9s						
YSS	**Yuzhno-Sakhali**	**36.39**	**356**	P	**P**	**08 14 14.5**	**-0.3**
YSS				IAmb	IAmb	08 14 29.4	
	comp=Z,23nm,1.2s						
TIA	**Tai'an**	**36.51**	**319**	P	**P**	**08 14 16.3**	**+0.2**
TIA				pmax	pmax		
	comp=Z,13nm,1.2s						
MDJ	**Mudanjiang**	**36.76**	**340**	P	**P**	**08 14 19.1**	**+1.0**
MDJ				pP	sP	08 14 22.0	-1.1
MDJ				PcP	**PcP**	**08 16 38.8**	**-1.5**
MDJ				S	**S**	**08 20 06.5**	**+5.2**
MDJ				sS	sS	08 20 11.3	+4.2
MDJ				pmax	pmax		
	comp=Z,48nm,1.2s						
MDJ				L	L		
	comp=Z,760nm,4.4s						
MDJ				L	L		
	comp=Z,600nm,5.0s						
MDJ				L	L		
	comp=Z,570nm,5.5s						
MDJ	**Mudanjiang**	**36.76**	**340**	P	**P**	**08 14 19.4**	**+1.3**
	comp=Z,55nm,1.0s						
CN2	**Changchun**	**37.59**	**335**	⇑P	**P**	**08 14 25.6**	**+0.4**
CN2				*e*sP	pwP	08 14 32.0	-3.3
CN2				*e*S	**S**	**08 20 14.3**	**+0.3**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.7s						
CN2				pmax	pmax		
	comp=Z,200nm,5.0s						
CN2				L	L		
	comp=Z,200nm,11.0s						
CN2				L	L		
	comp=Z,100nm,11.0s						
CN2				L	L		
	comp=Z,200nm,12.0s						
AUBSH	**Beerwah State**	**37.80**	**170**	P	**P**	**08 14 28.9**	**+1.8**
DZM	**Mont Dzumac**	**38.15**	**148**	LR	LR	08 29 51.8	
	comp=Z,204nm,18.4s,baz=16,slow=36						
TW1H	**Toowoomba 1 Ha**	**38.31**	**171**	P	**P**	**08 14 33.9**	**+2.4**
ONTNC	**Ouen Toro**	**38.35**	**148**	P	**P**	**08 14 31.9**	**+0.1**
BNX	**BinXian**	**38.49**	**339**	⇑P	**P**	**08 14 33.3**	**+0.6**
BNX				pmax	pmax		
	comp=Z,120nm,1.0s						
LYN	**LuoYang**	**38.76**	**313**	P	**P**	**08 14 35.6**	**+0.4**
LYN				pmax	pmax		
	comp=Z,66nm,0.9s						
LYN				pmax	pmax		
	comp=Z,320nm,3.8s						
LYN				L	L		
	comp=Z,360nm,13.9s						
LYN				L	L		
	comp=Z,340nm,12.4s						
LYN				L	L		
	comp=Z,330nm,20.8s						
HNS	**HongShan**	**38.77**	**319**	⇑P	**P**	**08 14 35.8**	**+0.6**
HNS				pmax	pmax		
	comp=Z,41nm,1.3s						
HNS				L	L		
	comp=Z,250nm,15.9s						
HNS				L	L		
	comp=Z,250nm,17.5s						
HNS				L	L		
	comp=Z,300nm,17.1s						
ENH	**Enshi**	**39.15**	**306**	P	**P**	**08 14 38.6**	**0.0**
ENH	**Enshi**	**39.15**	**306**	P	**P**	**08 14 39.0**	**+0.5**
	comp=Z,137nm,0.9s						
WRKA	**Warakurna**	**39.32**	**206**	P	**P**	**08 14 39.1**	**-0.8**
	comp=Z,8.1nm,1.5s						
BJI2	**Beijing**	**39.47**	**323**	P	**P**	**08 14 41.6**	**+0.6**
BJI2				pmax	pmax		
	comp=Z,13nm,0.7s						
BJI2				pmax	pmax		
	comp=Z,120nm,5.5s						
BJI2				L	L		
	comp=Z,96nm,22.2s						
BJI2				L	L		
	comp=Z,99nm,20.0s						
BJI2				L	L		
	comp=Z,110nm,20.6s						
BJT	**Baijiatuau**	**39.47**	**323**	P	**P**	**08 14 40.4**	**-0.6**
BJT				IAmb	IAmb	08 14 42.8	
	comp=Z,49nm,1.5s						
BJT	**Baijiatuau**	**39.47**	**323**	P	**P**	**08 14 41.7**	**+0.6**
	comp=Z,23nm,0.8s						
GYA	**Guiyang**	**40.27**	**299**	⇑P	**P**	**08 14 49.3**	**+1.3**
GYA				S	**S**	**08 20 55.6**	**+0.5**
GYA				pmax	pmax		
	comp=Z,58nm,1.0s						
GYA				pmax	pmax		
	comp=Z,290nm,3.9s						
GYA				L	L		
	comp=Z,170nm,15.8s						
GYA				L	L		
	comp=Z,190nm,14.2s						
GYA				L	L		
	comp=Z,180nm,17.8s						
KLR	**Kul'dur**	**40.34**	**346**	LR	LR	08 31 44.3	
	comp=Z,140nm,18.4s,baz=154,slow=36						
MBWA	**Marble Bar**	**40.68**	**219**	P	**P**	**08 14 52.0**	**+0.7**
	comp=Z,35nm,1.0s						
MBWA	**Marble Bar**	**40.68**	**219**	P	**P**	**08 14 52.0**	**+0.7**
MBWA	**Marble Bar**	**40.68**	**219**	P	**P**	**08 14 50.1**	**-1.2**
MBWA				IAmb	IAmb	08 14 59.3	
	comp=Z,26nm,0.9s						
KPJI	**Karang Pucung**	**40.89**	**246**	P	**P**	**08 14 52.0**	**-1.1**
	comp=Z,66nm,1.7s						
ARMA	**Armidale**	**41.09**	**172**	P	**P**	**08 14 56.9**	**+2.3**
	comp=Z,21nm,0.7s						
ARMA	**Armidale**	**41.09**	**172**	P	**P**	**08 14 56.5**	**+1.8**
ARMA	**Armidale**	**41.09**	**172**	P	**P**	**08 14 53.9**	**-0.8**
ARMA				IAmb	IAmb	08 14 57.7	
	comp=Z,45nm,1.4s						
ARMA	**Armidale**	**41.09**	**172**	P	**P**	**08 14 57.0**	**+2.3**
	comp=Z,21nm,0.7s						
XAN	**Xi'an**	**41.12**	**311**	⇑P	**P**	**08 14 54.9**	**0.0**
XAN				pP	pwP	08 15 02.6	-2.6
XAN				S	**S**	**08 21 06.8**	**-0.6**
XAN				pmax	pmax		
	comp=Z,46nm,0.8s						
XAN				pmax	pmax		
	comp=Z,210nm,3.9s						
XAN				L	L		
	comp=Z,240nm,14.4s						
XAN				L	L		
	comp=Z,190nm,14.1s						
XAN				L	L		
	comp=Z,560nm,24.9s						
SLVN	**Son La**	**41.69**	**290**	P	**P**	**08 15 00.5**	**+0.8**
SLVN	**Son La**	**41.69**	**290**	P	**P**	**08 14 58.4**	**-1.3**
SLVN				IAmb	IAmb	08 15 01.9	
	comp=Z,34nm,1.4s						
SLVN	**Son La**	**41.69**	**290**	P	**P**	**08 15 00.8**	**+1.0**
	comp=Z,22nm,1.8s						
CMSA	**Cobar Meteorol**	**41.84**	**180**	P	**P**	**08 15 00.2**	**-0.4**
	comp=Z,11nm,0.9s						
CMSA	**Cobar Meteorol**	**41.84**	**180**	P	**P**	**08 15 01.4**	**+0.8**
CMSA	**Cobar Meteorol**	**41.84**	**180**	P	**P**	**08 15 01.2**	**+0.6**
	comp=Z,11nm,0.9s						
XLT	**XiLinHaoTe**	**42.09**	**328**	*e*P	**P**	**08 15 03.3**	**+0.6**
XLT				pmax	pmax		
	comp=Z,55nm,0.6s						
XLT				pmax	pmax		
	comp=Z,220nm,5.2s						
XLT				L	L		
	comp=Z,210nm,17.0s						
XLT				L	L		
	comp=Z,250nm,21.7s						
BBJI	**Bungbulang**	**42.10**	**246**	P	**P**	**08 15 02.1**	**-1.1**
MSVF	**Nonsavu**	**42.38**	**131**	LR	LR	08 30 27.8	
	comp=Z,193nm,20.1s,baz=9.4,slow=33						
MSVF	**Nonsavu**	**42.38**	**131**	P	**P**	**08 15 05.4**	**+0.1**
MSVF				IAmb	IAmb	08 15 16.8	
	comp=Z,36nm,1.1s						
STKA	**Stephens Creek**	**42.38**	**185**	P	**P**	**08 15 04.7**	**-0.4**
	comp=Z,31nm,1.4s						
STKA	**Stephens Creek**	**42.38**	**185**	P	**P**	**08 15 04.3**	**-0.8**
	comp=Z,4.4nm,0.7s,baz=335,slow=8.9,SNR=6.9						
	comp=Z,4.4nm,0.7s						
STKA	**Stephens Creek**	**42.38**	**185**	P	**P**	**08 15 04.7**	**-0.4**
STKA	**Stephens Creek**	**42.38**	**185**	P	**P**	**08 15 03.8**	**-1.3**
	comp=Z,60nm,1.3s						
HEH	**HeiHe**	**42.44**	**342**	*e*P	**P**	**08 15 06.1**	**+0.7**
HEH				pmax	pmax		
	comp=Z,65nm,0.9s						
HEH				L	L		
	comp=Z,250nm,13.3s						
HEH				L	L		
	comp=Z,250nm,11.8s						
HEH				L	L		
	comp=Z,360nm,14.0s						
MYKOM	**Kota Tinggi**	**42.68**	**261**	P	**P**	**08 15 06.1**	**-1.8**
MYKOM				IAmb	IAmb	08 15 16.7	
	comp=Z,23nm,1.1s						
HHC	**Hu-ho-hao-te**	**42.76**	**321**	*e*P	**P**	**08 15 08.9**	**+0.6**
HHC				pP	sP	08 15 13.6	+0.2
HHC				S	**S**	**08 21 32.3**	**+0.7**
HHC				pmax	pmax		
	comp=Z,13nm,0.7s						
HHC				pmax	pmax		
	comp=Z,81nm,5.3s						
HHC				L	L		
	comp=Z,240nm,14.5s						
HHC				L	L		
	comp=Z,190nm,16.1s						
HHC				L	L		
	comp=Z,180nm,16.8s						
KMI2	**Kunming**	**43.39**	**295**	P	**P**	**08 15 14.8**	**+1.1**
KMI2				sP	pwP	08 15 23.3	-0.6
KMI2				pmax	pmax		
	comp=Z,39nm,1.1s						
KMI2				L	L		
	comp=Z,140nm,10.0s						
KMI2				L	L		
	comp=Z,150nm,9.5s						
KMI2				L	L		
	comp=Z,190nm,16.8s						
PETK	**Petropavlovsk-**	**43.50**	**10**	P	**P**	**08 15 15.3**	**+1.5**
	comp=Z,6.0nm,1.0s,baz=184,slow=4.5,SNR=4.7						
PETK				PcP	**PcP**	**08 17 03.1**	**+1.4**
	comp=Z,1.4nm,0.6s,baz=148,slow=2.8,SNR=4.8						
PETK				LR	LR	08 33 28.5	
	comp=Z,97nm,19.3s,baz=202,slow=36						
	comp=Z,6.0nm,1.0s						
PETK	**Petropavlovsk-**	**43.50**	**10**	P	**P**	**08 15 13.8**	**0.0**
PETK				PcP	**PP**	**08 16 59.2**	**+4.0**
PET	**Petropavlovsk**	**43.59**	**11**	P	**P**	**08 15 14.0**	**-0.6**
PET				IAmb	IAmb	08 15 54.1	
	comp=Z,35nm,1.1s						
BTO2	**Baotou**	**43.76**	**320**	*e*P	**P**	**08 15 16.9**	**+0.5**
BTO2				S	**S**	**08 21 48.6**	**+2.2**
BTO2				pmax	pmax		
	comp=Z,83nm,0.7s						
BTO2				pmax	pmax		
	comp=Z,310nm,5.5s						
BTO2				L	L		
	comp=Z,280nm,9.7s						
BTO2				L	L		
	comp=Z,360nm,12.9s						
BTO2				L	L		
	comp=Z,440nm,15.9s						
CD2	**Chengdu**	**44.00**	**304**	⇑P	**P**	**08 15 18.3**	**-0.1**
CD2				pmax	pmax		
	comp=Z,130nm,0.9s						
CD2				pmax	pmax		
	comp=Z,470nm,3.8s						
BBOO	**Buckleboo**	**44.13**	**192**	P	**P**	**08 15 18.6**	**-0.5**
	comp=Z,32nm,0.8s						
BBOO	**Buckleboo**	**44.13**	**192**	P	**P**	**08 15 18.5**	**-0.7**
BBOO	**Buckleboo**	**44.13**	**192**		**P**	**08 15 18.3**	**-0.9**
BBOO				IAmb	IAmb	08 15 20.7	
	comp=Z,27nm,0.8s						
BBOO	**Buckleboo**	**44.13**	**192**	P	**P**	**08 15 18.5**	**-0.7**
	comp=Z,32nm,0.8s						
HTT	**Hallett**	**44.23**	**188**	P	**P**	**08 15 21.5**	**+1.4**
	comp=Z,8.3nm,2.1s						
HTT	**Hallett**	**44.23**	**188**	P	**P**	**08 15 21.3**	**+1.2**
HIA	**Hailar**	**44.33**	**336**	P	**P**	**08 15 21.8**	**+1.1**
	comp=Z,51nm,0.8s						
FORT	**Forrest**	**44.53**	**202**	P	**P**	**08 15 22.1**	**-0.2**
	comp=Z,18nm,1.0s						
FORT	**Forrest**	**44.53**	**202**	P	**P**	**08 15 21.9**	**-0.5**
FORT				IAmb	IAmb	08 15 24.5	
	comp=Z,12nm,0.6s						
HILR	**Hailar Array B**	**44.55**	**336**	P	**P**	**08 15 23.6**	**+1.1**
	comp=Z,15nm,0.6s,baz=140,slow=9.4,SNR=24						
	comp=Z,15nm,0.6s						
PZH	**PanZhiHua**	**44.56**	**297**	P	**P**	**08 15 22.8**	**-0.2**
IPM	**Ipoh**	**44.89**	**266**	P	**P**	**08 15 24.5**	**-1.2**
IPM				IAmb	IAmb	08 15 33.9	
	comp=Z,24nm,0.9s						
KULM	**Kulim**	**45.12**	**267**	P	**P**	**08 15 26.9**	**-0.6**
KULM				IAmb	IAmb	08 15 36.2	
	comp=Z,19nm,0.9s						
KULM	**Kulim**	**45.12**	**267**	P	**P**	**08 15 26.6**	**-0.8**
	comp=Z,24nm,1.0s						
MNAI	**Manna**	**45.28**	**253**	P	**P**	**08 15 27.4**	**-1.3**
CAN	**Canberra**	**45.70**	**176**	P	**P**	**08 15 33.5**	**+1.7**
	comp=Z,23nm,2.5s						
LZH	**Lanzhou**	**45.76**	**311**	*e*P	**P**	**08 15 33.3**	**+0.9**
LZH				sP	pwP	08 15 42.5	-0.2
LZH				S	**S**	**08 22 15.9**	**+0.4**
LZH				SS	**ScS**	**08 25 35.5**	**+7.1**
LZH				pmax	pmax		
	comp=Z,72nm,1.0s						
LZH				pmax	pmax		
	comp=Z,190nm,4.3s						
LZH				L	L		
	comp=Z,320nm,17.2s						
LZH				L	L		
	comp=Z,310nm,15.1s						
LZH				L	L		
	comp=Z,250nm,17.5s						
LZDM	**Lanzhou Array**	**45.81**	**310**	P	**P**	**08 15 31.5**	**-1.6**
	comp=Z,11nm,0.4s,baz=98,slow=11,SNR=5.2						
	comp=Z,11nm,0.4s						
CMAR	**Chiang Mai Arr**	**46.06**	**285**	P	**P**	**08 15 35.5**	**+0.7**
	comp=Z,14nm,0.7s,baz=87,slow=6.0,SNR=70						
CMAR				LR	LR	08 33 54.9	
	comp=Z,67nm,21.4s,baz=90,slow=35						
	comp=Z,14nm,0.7s						
CMAR	**Chiang Mai Arr**	**46.06**	**285**	P	**P**	**08 15 34.9**	**+0.1**
CHTO	**Chiang Mai**	**46.08**	**286**	P	**P**	**08 15 33.8**	**-1.2**
CHTO				IAmb	IAmb	08 15 36.6	
	comp=Z,39nm,1.9s						
CHTO	**Chiang Mai**	**46.08**	**286**	P	**P**	**08 15 35.2**	**+0.2**
	comp=Z,6.7nm,1.3s						
TNCH	**TengChong**	**47.14**	**294**	⇓P	**P**	**08 15 43.5**	**0.0**
TNCH				pP	sP	08 15 47.9	-0.7
TNCH				sP	pwP	08 15 50.0	-3.7
TNCH				pmax	pmax		
	comp=Z,69nm,0.7s						
RPSI	**Rantau Prapat**	**47.29**	**264**		**P**	**08 15 43.1**	**-1.5**
RPSI	**Rantau Prapat**	**47.29**	**264**	P	**P**	**08 15 43.8**	**-0.7**
	comp=Z,26nm,0.9s						
MILA	**Mila**	**47.44**	**176**	P	**P**	**08 15 47.1**	**+1.7**
SHEM	**Shemya Is, Ala**	**47.82**	**23**	LR	LR	08 32 20.1	
	comp=Z,134nm,21.6s,baz=250,slow=32						
TOO	**Toolangi**	**47.86**	**180**	P	**P**	**08 15 51.4**	**+2.8**
	comp=Z,11nm,0.8s						
MORW	**Morawa**	**48.82**	**215**	P	**P**	**08 15 55.6**	**-0.5**
	comp=Z,71nm,1.0s						
MORW	**Morawa**	**48.82**	**215**	P	**P**	**08 15 55.3**	**-0.8**
MORW	**Morawa**	**48.82**	**215**	P	**P**	**08 15 57.3**	**+1.2**
	comp=Z,71nm,1.0s						
GSI	**Gunungsitoli**	**48.90**	**262**	P	P	08 16 02.8	+5.8
GSI	**Gunungsitoli**	**48.90**	**262**	P	**P**	**08 15 55.7**	**-1.3**
GSI	**Gunungsitoli**	**48.90**	**262**	P	**P**	**08 15 55.6**	**-1.5**
	comp=Z,47nm,0.9s						
MA2	**Magadan**	**49.07**	**3**	LR	LR	08 36 03.1	
	comp=Z,83nm,20.8s,baz=202,slow=35						
MA2	**Magadan**	**49.07**	**3**	P	**P**	**08 15 57.6**	**0.0**
MA2				IAmb	IAmb	08 16 00.3	
	comp=Z,21nm,0.9s						
MA2	**Magadan**	**49.07**	**3**	P	**P**	**08 15 57.4**	**-0.2**
	comp=Z,26nm,0.9s						
ULN	**Ulaanbaatar**	**49.47**	**326**		**P**	**08 16 01.4**	**+0.4**
ULN	**Ulaanbaatar**	**49.47**	**326**	P	**P**	**08 16 02.4**	**+1.3**
	comp=Z,61nm,0.9s						
BLDU	**Ballidu**	**49.63**	**214**	P	**P**	**08 16 03.8**	**+1.6**
	comp=Z,42nm,1.1s						
SONM	**Songino Array**	**49.81**	**326**	P	**P**	**08 16 04.8**	**+1.1**
	comp=Z,21nm,0.7s,baz=141,slow=7.6,SNR=84						

SONM				LR	LR	08 37 57.8	
	comp=Z,201nm,18.2s,baz=106,slow=37						
	comp=Z,21nm,0.7s						
SONM	**Songino Array**	**49.81**	**326**		**P**	**08 16 04.4**	**+0.8**
GTA2	**Gaotai**	**50.05**	**313**	*e*P	**P**	**08 16 06.4**	**+0.8**
GTA2				pmax	pmax		
	comp=Z,32nm,1.1s						
GTA2				L	L		
	comp=Z,190nm,15.2s						
GTA2				L	L		
	comp=Z,140nm,16.5s						
GTA2				L	L		
	comp=Z,190nm,18.1s						
MORE	**Moreh**	**50.84**	**293**	P	**P**	**08 16 10.6**	**-1.1**
GOMU	**GeErMu**	**52.69**	**308**	P	**P**	**08 16 26.0**	**+0.3**
GOMU				pP	sP	08 16 29.5	-1.3
GOMU				sP	pwP	08 16 34.3	-1.6
GOMU				pmax	pmax		
	comp=Z,10.0nm,0.7s						
RAO	**Raoul Island**	**52.74**	**140**	LR	LR	08 36 11.1	
	comp=Z,307nm,19.7s,baz=200,slow=33						
YAK	**Yakutsk**	**52.74**	**350**	P	**P**	**08 16 25.8**	**+0.6**
YAK	**Yakutsk**	**52.74**	**350**	P	**P**	**08 16 25.9**	**+0.6**
	comp=Z,142nm,0.8s						
BRDH	**Bariadhala**	**53.14**	**290**	LR	LR	08 39 02.5	
	comp=Z,51nm,21.0s,baz=169,slow=36						
TLY	**Talaya**	**53.48**	**329**	P	**P**	**08 16 31.6**	**+0.8**
LSA	**Lhasa**	**54.34**	**299**	P	**P**	**08 16 37.4**	**-0.7**
LSA				IAmb	IAmb	08 16 48.2	
	comp=Z,34nm,1.3s						
HON	**Honolulu**	**54.73**	**71**	P	**P**	**08 16 39.9**	**-0.5**
VRZ	**Vera Road**	**56.23**	**153**	P	P	08 17 01.2	+10
URZ	**Urewera**	**56.62**	**151**	LR	LR	08 40 00.5	
	comp=Z,156nm,18.2s,baz=300,slow=35						
URZ	**Urewera**	**56.62**	**151**	P	P	08 17 02.4	+8.8
COVZ	**Chateau Observ**	**56.64**	**153**	P	P	08 17 04.1	+10
TMVZ	**Te Maari**	**56.65**	**152**	P	P	08 17 04.6	+11
NGZ	**Ngauruhoe**	**56.65**	**153**	P	P	08 17 04.2	+10
ETVZ	**East Tongariro**	**56.67**	**152**	P	P	08 17 04.5	+10
FWVZ	**Far West T-bar**	**56.69**	**153**	P	P	08 17 04.5	+10
RTZ	**Ruatahuna**	**56.84**	**151**	P	P	08 17 04.5	+9.2
MWZ	**Matawai**	**56.88**	**151**	P	P	08 17 03.6	+8.0
MOVZ	**Moawhango**	**56.91**	**153**	P	P	08 17 04.8	+9.1
BKZ	**Black Stump Fm**	**57.05**	**152**	P	P	08 17 05.3	+8.6
KRHZ	**Kereru**	**57.38**	**152**	P	P	08 17 08.0	+9.0
PNHZ	**Pukenui**	**57.52**	**153**	P	P	08 17 09.1	+9.0
TSZ	**Takapari Road**	**57.53**	**153**	P	P	08 17 09.3	+9.2
THZ	**Tophouse**	**57.66**	**156**	P	P	08 17 11.0	+10
TCW	**Tory Channel**	**57.75**	**155**	P	**P**	**08 17 02.0**	**+0.4**
TCW	**Tory Channel**	**57.75**	**155**	P	P	08 17 10.2	+8.7
OGWZ	**Otaki Gorge**	**57.80**	**154**	P	P	08 17 10.7	+8.8
EVN	**Everest**	**57.91**	**296**		**P**	**08 17 03.0**	**-0.8**
EVN				IAmb	IAmb	08 17 05.1	
	comp=Z,20nm,0.8s						
EVN	**Everest**	**57.91**	**296**	P	**P**	**08 17 04.2**	**+0.4**
	comp=Z,35nm,1.1s						
PXZ	**Pawanui**	**57.91**	**152**	P	P	08 17 11.8	+9.0
LTZ	**Lake Taylor**	**58.28**	**157**	P	P	08 17 14.1	+8.8
RPZ	**Rata Peaks**	**58.64**	**159**	LR	LR	08 38 21.4	
	comp=Z,76nm,21.7s,baz=275,slow=32						
OXZ	**Oxford**	**58.66**	**158**	P	P	08 17 16.6	+8.7
BILL	**Bilibino**	**58.99**	**9**	P	**P**	**08 17 11.5**	**+1.6**
WMQ	**Urumqi**	**59.99**	**315**	*e*P	**P**	**08 17 18.8**	**+1.4**
WMQ				pmax	pmax		
	comp=Z,29nm,1.3s						
WMQ				pmax	pmax		
	comp=Z,130nm,4.5s						
WMQ				L	L		
	comp=Z,130nm,22.1s						
TIXI	**Tiksi**	**61.95**	**354**	LR	LR	08 46 03.7	
	comp=Z,44nm,20.2s,baz=180,slow=38						
TIXI	**Tiksi**	**61.95**	**354**	P	**P**	**08 17 30.5**	**+0.5**
TIXI				IAmb	IAmb	08 17 31.9	
	comp=Z,10nm,0.8s						
ALBI	**Allahabad**	**62.24**	**293**	*e*P	**P**	**08 17 29.9**	**-3.0**
ZSN	**Zaisan**	**62.84**	**318**	*e*P	**P**	**08 17 37.3**	**+0.8**
L14K	**Kuka Creek**	**62.93**	**25**	IAmb	IAmb	08 17 40.0	
	comp=Z,14nm,0.8s						
MKAR	**Makanchi Array**	**64.40**	**317**	P	**P**	**08 17 47.6**	**+0.8**
	comp=Z,11nm,0.7s,baz=94,slow=8.5,SNR=102						
MKAR				LR	LR	08 48 04.5	
	comp=Z,73nm,18.6s,baz=88,slow=38						
	comp=Z,11nm,0.7s						
MKAR	**Makanchi Array**	**64.40**	**317**	P	**P**	**08 17 47.0**	**+0.2**
PALK	**Pallekele**	**64.43**	**273**	LR	LR	08 47 36.7	
	comp=Z,36nm,18.6s,baz=86,slow=38						
MAKZ	**Makanchi**	**64.61**	**317**		**P**	**08 17 48.5**	**+0.2**
MAKZ	**Makanchi**	**64.61**	**317**	P	**P**	**08 17 49.1**	**+0.9**
	comp=Z,34nm,0.8s						
ZAA0	**Zalesovo Array**	**64.69**	**325**		**P**	**08 17 48.6**	**0.0**
ZAA0				IAmb	IAmb	08 19 51.4	
	comp=Z,14nm,1.1s						
ZALV	**Zalesovo Beam**	**64.69**	**325**	P	**P**	**08 17 48.6**	**+0.1**
	comp=Z,8.7nm,0.6s,baz=105,slow=6.8,SNR=38						
ZALV				LR	LR	08 47 34.9	
	comp=Z,75nm,19.1s,baz=93,slow=38						
	comp=Z,8.7nm,0.6s						
SII	**Sitkinak Islan**	**64.88**	**32**	P	**P**	**08 17 50.2**	**+0.4**
K17K	**Iditarod**	**65.40**	**25**	P	**P**	**08 17 53.6**	**+0.6**
HYB	**Hyderabad**	**65.47**	**284**	*e*P	**P**	**08 17 53.4**	**-0.9**
HYB				*e*PcP	**PcP**	**08 18 25.4**	**-0.8**
HYB				*e*PP	**PP**	**08 20 18.4**	**-0.1**
HYB				*e*S	**S**	**08 26 38.6**	**-0.2**
HYB				*e*ScS	**SKSac**	**08 27 49.0**	**-0.7**
WUS	**Wushi**	**65.63**	**310**	P	**P**	**08 17 55.6**	**+0.5**
	comp=Z,7.1nm,1.4s						
UZB	**Uzynbulak**	**66.04**	**313**	*e*P	**P**	**08 17 58.1**	**+0.5**
	comp=Z,15nm,1.4s						
KDAK	**Kodiak Island**	**66.11**	**31**	LR	LR	08 43 39.4	
	comp=Z,100nm,19.5s,baz=238,slow=33						
N19K	**Bonanza Creek**	**66.27**	**28**	IAmb	IAmb	08 18 12.8	
	comp=Z,9.6nm,0.8s						
KPKS	**Kokpek**	**66.33**	**313**	*e*P	**P**	**08 18 00.1**	**+0.6**
NPLP	**NPLP New Delhi**	**66.43**	**297**	*e*P	**P**	**08 17 58.8**	**-1.5**
SATY	**Saty**	**66.47**	**312**	*e*P	**P**	**08 18 01.0**	**+0.5**
	comp=Z,14nm,1.3s						
SMLA	**Simla**	**66.49**	**299**	*e*P	P	08 17 56.6	-3.9
SEM	**Semipalatinsk**	**66.50**	**321**	*e*P	**P**	**08 18 01.1**	**+0.6**
L19K	**White Mountain**	**66.63**	**26**	IAmb	IAmb	08 18 04.3	
	comp=Z,15nm,1.3s						
TDK	**Taldyqorghan**	**66.75**	**314**	*e*P	**P**	**08 18 02.8**	**+0.8**
	comp=Z,6.8nm,0.4s						
TARG	**Taragay, Kyrgy**	**66.75**	**311**	P	**P**	**08 18 01.9**	**-0.7**
	comp=Z,6.9nm,0.9s						
KUDL	**Kundal**	**67.03**	**296**	*e*P	**P**	**08 18 01.8**	**-2.3**
RTK	**Rohtak**	**67.10**	**297**	*e*P	P	08 17 59.3	-5.2
KDJ	**Kajisay**	**67.26**	**311**	IAmb	IAmb	08 18 07.0	
	comp=Z,11nm,0.9s						
KDJ	**Kajisay**	**67.26**	**311**	P	**P**	**08 18 06.5**	**+1.0**
	comp=Z,16nm,1.3s						
M20K	**Styx River**	**67.27**	**27**	IAmb	IAmb	08 18 54.5	
	comp=Z,8.6nm,1.0s						
K20K	**Telida**	**67.42**	**25**	IAmb	IAmb	08 18 53.8	
	comp=Z,10nm,1.2s						
MDOK	**Medeo**	**67.47**	**312**	*e*P	**P**	**08 18 07.4**	**+0.5**
AAA	**Alma-Ata**	**67.57**	**312**	*e*P	**P**	**08 18 07.9**	**+0.5**
KURK	**Kurchatov**	**67.58**	**321**	P	**P**	**08 18 07.2**	**+0.1**
KURK				PcP	**PcP**	**08 18 32.0**	**-2.2**
KURK	**Kurchatov**	**67.58**	**321**	P	**P**	**08 18 07.7**	**+0.6**
	comp=Z,64nm,0.9s						
KURBB	**Kurchatov Arra**	**67.61**	**321**	P	**P**	**08 18 07.7**	**+0.4**
	comp=Z,25nm,0.6s,baz=106,slow=6.2,SNR=91						
KURBB				LR	LR	08 49 18.7	
	comp=Z,173nm,18.3s,baz=164,slow=37						
	comp=Z,25nm,0.6s						
ASAI	**AK-SAY(Kyrgyzs**	**67.62**	**310**	P	**P**	**08 18 09.0**	**+0.9**
	comp=Z,11nm,1.0s						
J20K	**Nowinta River**	**67.71**	**24**	IAmb	IAmb	08 18 23.1	
	comp=Z,7.8nm,0.8s						
STLK	**Strandline Lak**	**67.72**	**27**	P	**P**	**08 18 08.3**	**+0.4**
C19K	**Lookout Ridge**	**68.00**	**18**	IAmb	IAmb	08 18 16.0	
	comp=Z,15nm,0.9s						
PPLA	**Purkeypile**	**68.05**	**26**	P	**P**	**08 18 10.7**	**+0.7**
PPLA				IAmb	IAmb	08 20 37.2	
	comp=Z,13nm,1.0s						
NRN	**Naryn**	**68.06**	**310**	P	**P**	**08 18 10.8**	**0.0**
NRN				IAmb	IAmb	08 18 38.8	
	comp=Z,12nm,1.2s						
KSH2	**Kashi**	**68.21**	**308**	P	**P**	**08 18 12.6**	**+1.1**
KSH2				sP	pwP	08 18 21.1	-0.7
KSH2				pmax	pmax		
	comp=Z,13nm,1.2s						
KSH2				L	L		
	comp=Z,440nm,18.0s						
KSH2				L	L		
	comp=Z,200nm,19.4s						
KSH2				L	L		
	comp=Z,140nm,14.7s						
BOOM	**Boomskoye usch**	**68.21**	**312**	P	**P**	**08 18 11.0**	**-0.5**
BOOM				IAmb	IAmb	08 18 39.4	
	comp=Z,13nm,1.2s						
BOOM	**Boomskoye usch**	**68.21**	**312**	P	**P**	**08 18 12.2**	**+0.7**
	comp=Z,11nm,1.1s						
CAST	**Castle Rocks**	**68.28**	**25**	IAmb	IAmb	08 18 25.5	
	comp=Z,9.3nm,0.9s						
KTH	**Kantishna Hill**	**68.81**	**25**	IAmb	IAmb	08 18 58.6	
	comp=Z,9.7nm,0.9s						
I21K	**Tanana**	**68.95**	**24**	IAmb	IAmb	08 18 51.6	
	comp=Z,6.6nm,0.9s						
SGDS	**Sogindy**	**69.26**	**312**	*e*P	**P**	**08 18 18.2**	**+0.3**
AAK	**Ala-Archa**	**69.29**	**312**	P	**P**	**08 18 18.5**	**+0.3**
	comp=Z,2.7nm,0.7s,baz=121,slow=7.4,SNR=2.5						
AAK				LR	LR	08 50 16.5	
	comp=Z,67nm,20.2s,baz=77,slow=37						
	comp=Z,2.7nm,0.7s						
AAK	**Ala-Archa**	**69.29**	**312**	P	**P**	**08 18 18.2**	**0.0**
AAK				IAmb	IAmb	08 18 42.3	
	comp=Z,9.2nm,1.1s						
AAK	**Ala-Archa**	**69.29**	**312**	P	**P**	**08 18 18.8**	**+0.6**
	comp=Z,9.0nm,1.2s						
NRIK	**Noril'sk**	**69.33**	**341**	P	**P**	**08 18 18.6**	**+0.8**
	comp=Z,15nm,0.9s,baz=114,slow=6.7,SNR=13						
NRIK				LR	LR	08 50 01.8	
	comp=Z,66nm,18.5s,baz=105,slow=37						
	comp=Z,15nm,0.9s						
NRIK	**Noril'sk**	**69.33**	**341**	P	**P**	**08 18 17.8**	**+0.1**
PPT	**Papeete**	**69.55**	**113**	LR	LR	08 43 05.4	
	comp=Z,76nm,19.7s,baz=299,slow=31						
RND	**Reindeer**	**69.64**	**26**	IAmb	IAmb	08 18 51.5	
	comp=Z,7.7nm,0.8s						
NIL	**Nilore**	**69.85**	**302**	P	**P**	**08 18 20.7**	**-1.0**
NIL	**Nilore**	**69.85**	**302**	P	**P**	**08 18 22.5**	**+0.8**
	comp=Z,88nm,1.0s						
SCM	**Sheep Creek Mo**	**69.86**	**28**	P	**P**	**08 18 21.5**	**+0.2**
FID	**Port Fidalgo**	**69.97**	**29**	P	**P**	**08 18 21.7**	**-0.2**
I23K	**Minto, Yukon-K**	**69.98**	**24**	IAmb	IAmb	08 18 24.9	
	comp=Z,22nm,1.6s						
EYAK	**Cordova Ski Ar**	**70.27**	**29**	P	**P**	**08 18 23.5**	**-0.2**
WRH	**Wood River Hil**	**70.29**	**25**	IAmb	IAmb	08 18 37.3	
	comp=Z,9.3nm,1.0s						
DIV	**Divide**	**70.40**	**29**	P	**P**	**08 18 25.6**	**+1.1**
DIV				IAmb	IAmb	08 20 12.0	
	comp=Z,16nm,0.8s						
OHH	**Osh**	**70.43**	**309**	P	**P**	**08 18 24.8**	**-0.4**
CCB	**Clear Creek Bu**	**70.46**	**25**	P	**P**	**08 18 25.5**	**+0.8**
D23K	**Nanushuk River**	**70.82**	**20**	IAmb	IAmb	08 19 05.1	
	comp=Z,24nm,1.2s						
E23K	**Chandalar**	**70.86**	**21**	IAmb	IAmb	08 19 05.8	
	comp=Z,17nm,0.9s						
IL31		**70.87**	**25**	P	**P**	**08 18 26.8**	**-0.5**
IL31				IAmb	IAmb	08 19 20.6	
	comp=Z,34nm,2.0s						
ILAR	**Eielson Array**	**70.87**	**25**	P	**P**	**08 18 27.5**	**+0.2**
	comp=Z,2.6nm,0.6s,baz=251,slow=5.8,SNR=54						
ILAR				LR	LR	08 46 05.5	
	comp=Z,70nm,20.3s,baz=261,slow=33						
	comp=Z,2.6nm,0.6s						
ILAR	**Eielson Array**	**70.87**	**25**	P	**P**	**08 18 27.1**	**-0.2**
K24K	**Donnelly Dome**	**71.08**	**26**	IAmb	IAmb	08 19 05.4	
	comp=Z,13nm,0.8s						
ARK	**Arkit**	**71.11**	**311**	P	**P**	**08 18 30.3**	**+0.9**
	comp=Z,14nm,0.8s						
G24K	**Hadweenzic Riv**	**71.21**	**23**	P	**P**	**08 18 30.7**	**+1.4**
G24K				IAmb	IAmb	08 19 13.7	
	comp=Z,11nm,1.2s						
GLB	**Gilahina Butte**	**71.40**	**29**	P	**P**	**08 18 30.6**	**0.0**
GLB				IAmb	IAmb	08 20 49.1	
	comp=Z,11nm,0.8s						
RIDG	**Independent Ri**	**71.46**	**26**	IAmb	IAmb	08 19 16.2	
	comp=Z,9.4nm,0.9s						
D24K	**Happy Valley**	**71.51**	**20**	IAmb	IAmb	08 19 17.8	
	comp=Z,16nm,0.9s						
VRDI	**Verde Repeater**	**71.52**	**29**	P	**P**	**08 18 32.4**	**+0.9**
DZA	**Taraz**	**71.63**	**312**	*e*P	**P**	**08 18 33.1**	**+0.8**
	comp=Z,7.7nm,0.5s						
TGL	**Tana Glacier**	**71.72**	**29**	P	**P**	**08 18 33.4**	**+0.8**
TGL				IAmb	IAmb	08 21 01.8	
	comp=Z,9.8nm,1.0s						
BTK	**Batken**	**71.91**	**309**	IAmb	IAmb	08 18 45.0	
	comp=Z,29nm,1.4s						
BTK	**Batken**	**71.91**	**309**	P	**P**	**08 18 34.2**	**-0.1**
	comp=Z,10.0nm,0.9s						
FYU	**Fort Yukon**	**72.03**	**23**	P	**P**	**08 18 35.6**	**+1.4**
FYU				IAmb	IAmb	08 19 18.1	
	comp=Z,30nm,1.5s						
GRNC	**Granite Creek**	**72.24**	**29**	P	**P**	**08 18 36.5**	**+0.6**
KK31	**Karatay Array**	**72.24**	**312**	IAmb	IAmb	08 18 46.7	
	comp=Z,14nm,1.1s						
KKAR	**Karatay Array**	**72.24**	**312**		**P**	**08 18 36.1**	**+0.1**
BARN	**Barnard Glacie**	**72.34**	**29**	IAmb	IAmb	08 19 12.2	
	comp=Z,16nm,1.5s						
IUG	**Iuzhnay**	**72.56**	**311**	*e*P	**P**	**08 18 38.7**	**+0.7**
	comp=Z,18nm,1.1s						
LOGN	**Logan Glacier**	**72.61**	**29**	IAmb	IAmb	08 18 50.2	
	comp=Z,7.6nm,0.7s						
BCAR	**Beaver Creek A**	**72.66**	**27**		**P**	**08 18 38.5**	**+0.4**
G26K	**Porcupine Rive**	**72.68**	**23**	P	**P**	**08 18 39.9**	**+1.8**
BRLS	**Borolday**	**72.73**	**312**	*e*P	**P**	**08 18 39.9**	**+1.0**
CHM	**Chimkent**	**72.88**	**311**	*e*P	**P**	**08 18 40.5**	**+0.7**
	comp=Z,9.2nm,0.6s						
BVAR	**Borovoye Array**	**72.95**	**322**	P	**P**	**08 18 40.7**	**+0.7**
	comp=Z,32nm,0.7s,baz=105,slow=7.8,SNR=90						
	comp=Z,32nm,0.7s						
BORK	**Borovoye**	**73.00**	**322**	P	**P**	**08 18 41.0**	**+0.7**
KBL	**Kabul**	**73.34**	**303**	P	**P**	**08 18 42.6**	**-0.3**
KBL				IAmb	IAmb	08 18 59.0	
	comp=Z,18nm,0.9s						
KBL	**Kabul**	**73.34**	**303**	P	**P**	**08 18 42.6**	**-0.3**
	comp=Z,19nm,1.1s						
H27K	**Steamboat Moun**	**73.40**	**24**	P	**P**	**08 18 43.0**	**+0.6**
O29M	**Mount Kennedy**	**73.72**	**30**	IAmb	IAmb	08 19 03.7	
	comp=Z,35nm,1.9s						
DAWY	**Dawson**	**73.89**	**26**	P	**P**	**08 18 45.6**	**+0.2**
I28M	**Miner Creek**	**73.89**	**25**	IAmb	IAmb	08 19 33.5	
	comp=Z,29nm,1.9s						
M29M	**Somme Creek**	**74.06**	**28**	IAmb	IAmb	08 19 47.4	
	comp=Z,30nm,2.0s						
F28M	**Old Crow**	**74.31**	**23**	IAmb	IAmb	08 19 06.4	
	comp=Z,24nm,1.8s						
K29M	**Barlow Dome**	**74.67**	**27**	P	**P**	**08 18 50.4**	**+0.3**
M31M	**Drury Creek, Y**	**75.93**	**28**	P	**P**	**08 18 56.7**	**-0.5**
M31M				IAmb	IAmb	08 19 49.4	
	comp=Z,14nm,1.4s						
P33M	**Teslin, Yukon**	**76.58**	**30**	P	**P**	**08 19 01.7**	**+0.8**
DIB	**Dawson Inlet,**	**76.60**	**38**	P	**P**	**08 19 01.1**	**0.0**
INK	**Inuvik**	**76.77**	**22**	LR	LR	08 49 17.2	
	comp=Z,48nm,20.3s,baz=282,slow=33						
Q32M	**Nakina River**	**76.81**	**32**	P	**P**	**08 19 02.6**	**+0.1**
Q32M				IAmb	IAmb	08 19 46.0	
	comp=Z,12nm,1.3s						
DLBC	**Dease Lake**	**77.98**	**32**	LR	LR	08 48 57.7	
	comp=Z,54nm,19.9s,baz=218,slow=32						
BBB	**Bella Bella**	**79.28**	**39**	LR	LR	08 46 32.1	
	comp=Z,101nm,20.9s,baz=230,slow=30						
AB31	**Akbulak array**	**79.49**	**318**	P	**P**	**08 19 16.8**	**-0.5**
ABKAR	**Akbulak array**	**79.49**	**318**	P	**P**	**08 19 16.4**	**-0.8**
ARTI	**Arti**	**79.95**	**326**	P	**P**	**08 19 19.5**	**-0.1**
	comp=Z,11nm,0.9s,baz=49,slow=2.9,SNR=9.3						
ARTI				LR	LR	08 57 41.8	
	comp=Z,76nm,18.4s,baz=86,slow=38						
	comp=Z,11nm,0.9s						
ARTI	**Arti**	**79.95**	**326**	P	**P**	**08 19 19.4**	**-0.3**
ARTI				IAmb	IAmb	08 19 20.9	
	comp=Z,26nm,1.2s						
AKTO	**Aktyubinsk**	**80.64**	**320**	P	**P**	**08 19 23.4**	**-0.1**
	comp=Z,8.6nm,0.8s,baz=85,slow=8.0,SNR=16						
AKTO				LR	LR	08 58 18.0	
	comp=Z,66nm,18.2s,baz=192,slow=38						
	comp=Z,8.6nm,0.8s						
YBH	**Yreka Blue Hor**	**84.08**	**49**	LR	LR	08 49 03.0	
	comp=Z,110nm,21.7s,baz=298,slow=30						
KIRV	**Kirov**	**84.47**	**328**	P	**P**	**08 19 43.4**	**+0.2**
	comp=Z,7.2nm,0.5s,baz=20,slow=5.0,SNR=4.2						
KIRV				LR	LR	08 59 55.2	
	comp=Z,159nm,18.6s,baz=59,slow=38						
	comp=Z,7.2nm,0.5s						
PINE	**Pine Mountain**	**85.04**	**47**	IAmb	IAmb	08 20 14.0	
	comp=Z,11nm,1.1s						
YKA	**Yellowknife Ar**	**85.07**	**27**	P	**P**	**08 19 47.5**	**+1.3**
	comp=Z,1.5nm,0.7s,baz=290,slow=5.4,SNR=4.6						
YKA				LR	LR	08 56 02.8	
	comp=Z,55nm,18.6s,baz=292,slow=34						
	comp=Z,1.5nm,0.7s						
E07A	**Sunnyside**	**85.31**	**44**	P	**P**	**08 19 47.6**	**-0.2**
ORV	**Oroville**	**85.34**	**51**	P	**P**	**08 19 48.0**	**-0.1**
UOSS	**Minazif**	**85.38**	**294**	P	**P**	**08 19 47.4**	**-1.1**
UOSS				IAmb	IAmb	08 19 49.2	
	comp=Z,13nm,1.1s						
UOSS	**Minazif**	**85.38**	**294**	P	**P**	**08 19 47.9**	**-0.7**
	comp=Z,14nm,1.6s						
BELG	**Belogornoye**	**86.75**	**323**	LR	LR	09 00 37.2	
	comp=Z,112nm,20.7s,baz=93,slow=37						
NEW	**Newport**	**86.80**	**42**	LR	LR	08 51 42.0	
	comp=Z,79nm,20.2s,baz=286,slow=31						
NEW	**Newport**	**86.80**	**42**	P	**P**	**08 19 55.1**	**-0.1**
NEW				IAmb	IAmb	08 20 21.3	
	comp=Z,7.2nm,1.0s						
NEW	**Newport**	**86.80**	**42**	P	**P**	**08 19 56.4**	**+1.2**
	comp=Z,6.4nm,0.8s						
PNTR	**Pine Nut**	**86.88**	**51**	P	**P**	**08 19 55.0**	**-1.0**
PNTR				IAmb	IAmb	08 20 19.5	
	comp=Z,7.3nm,0.7s						
PAHR	**Pah Rah Range**	**86.92**	**50**	P	**P**	**08 19 55.0**	**-1.1**
SPITS	**Spitsbergen Ar**	**87.21**	**351**	P	**P**	**08 19 56.8**	**+0.3**
	comp=Z,8.1nm,0.8s,baz=84,slow=7.6,SNR=5.0						
SPITS				LR	LR	09 00 39.2	
	comp=Z,24nm,19.8s,baz=57,slow=37						
	comp=Z,8.1nm,0.8s						
RES	**Resolute Bay**	**87.26**	**13**	LR	LR	08 59 05.3	
	comp=Z,28nm,19.5s,baz=354,slow=36						
NVAR	**Mina Array Bea**	**88.00**	**51**	P	**P**	**08 20 03.9**	**+2.6**
	comp=Z,2.7nm,0.7s,baz=260,slow=5.6,SNR=24						
NVAR				LR	LR	08 51 44.8	
	comp=Z,103nm,21.1s,baz=274,slow=30						
	comp=Z,2.7nm,0.7s						
KVN	**Kaiserville**	**88.03**	**51**	P	**P**	**08 20 00.9**	**-0.6**
KVN				IAmb	IAmb	08 20 23.1	
	comp=Z,6.0nm,1.0s						
MFID	**Camas Ranch**	**88.75**	**46**	IAmb	IAmb	08 20 31.2	
	comp=Z,10nm,1.0s						
ELK	**Elko**	**89.80**	**49**		**P**	**08 20 10.1**	**+0.3**
ELK				IAmb	IAmb	08 20 27.6	
	comp=Z,7.4nm,1.1s						
TPNV	**Topopah Spring**	**89.91**	**53**		**P**	**08 20 11.5**	**+1.1**
ARCES	**ARCESS Array B**	**90.28**	**342**	P	**P**	**08 20 10.5**	**-0.7**
	comp=Z,3.5nm,0.8s,baz=64,slow=5.5,SNR=8.3						
ARCES				LR	LR	09 05 29.4	
	comp=Z,74nm,18.1s,baz=70,slow=39						
	comp=Z,3.5nm,0.8s						
ARCES	**ARCESS Array B**	**90.28**	**342**	P	**P**	**08 20 11.6**	**+0.5**
PFO	**Pinyon Flats O**	**90.49**	**56**	LR	LR	08 59 33.0	
	comp=Z,79nm,18.1s,baz=270,slow=35						
HVU	**Hansel Valley**	**91.34**	**47**	IAmb	IAmb	08 21 07.2	
	comp=Z,9.4nm,1.4s						
PSUT	**Pine Spring**	**91.38**	**51**	IAmb	IAmb	08 20 42.1	
	comp=Z,14nm,1.4s						
GNI	**Garni**	**91.69**	**311**	LR	LR	09 05 14.2	
	comp=Z,26nm,18.8s,baz=99,slow=38						
KBZ	**Khabaz**	**92.04**	**315**	P	**P**	**08 20 19.0**	**-0.8**
	comp=Z,3.3nm,0.8s,baz=64,slow=3.0,SNR=6.3						
KBZ				LR	LR	09 07 00.6	
	comp=Z,42nm,18.2s,baz=52,slow=39						
	comp=Z,3.3nm,0.8s						
OBN	**Obninsk**	**92.21**	**327**	LR	LR	09 03 34.8	
	comp=Z,85nm,19.7s,baz=240,slow=37						
DAG	**Danmarks Havn**	**92.37**	**356**	*i* S	**S**	**08 31 23.4**	**+0.2**
PDAR	**Pinedale Array**	**93.35**	**46**	P	**P**	**08 20 28.9**	**+2.6**
	comp=Z,0.7nm,0.9s,baz=256,slow=4.4,SNR=3.4						
PDAR				LR	LR	08 55 17.4	
	comp=Z,56nm,21.4s,baz=280,slow=31						
PDAR	**Pinedale Array**	**93.35**	**46**	P	**P**	**08 20 25.3**	**-1.0**
FINES	**FINESS Array B**	**94.35**	**335**	P	**P**	**08 20 29.3**	**-0.7**
	comp=Z,3.9nm,0.7s,baz=72,slow=6.2,SNR=10						
FINES				LR	LR	09 05 54.8	
	comp=Z,74nm,18.8s,baz=52,slow=37						
	comp=Z,3.9nm,0.7s						
FINES	**FINESS Array B**	**94.35**	**335**	P	**P**	**08 20 29.7**	**-0.4**
PV19	**Morning Glory**	**95.11**	**50**	IAmb	IAmb	08 20 38.5	
	comp=Z,10nm,1.2s						
RAYN	**Ar Rayn**	**95.23**	**295**	P	**P**	**08 20 34.0**	**-1.0**
RAYN				IAmb	IAmb	08 20 34.9	
	comp=Z,5.0nm,1.0s						
RAYN	**Ar Rayn**	**95.23**	**295**	P	**P**	**08 20 34.2**	**-0.9**
	comp=Z,3.9nm,1.1s						
MAW	**Mawson**	**97.03**	**203**	LR	LR	09 02 12.0	
	comp=Z,86nm,21.3s,baz=79,slow=34						
LPIG	**La Paz**	**98.05**	**64**	LR	LR	09 01 02.1	
	comp=Z,49nm,18.0s,baz=279,slow=33						
AKASG	**Malin Array Be**	**98.09**	**325**	P	**P**	**08 20 46.0**	**-1.3**
	comp=Z,0.1nm,0.3s,baz=45,slow=6.0,SNR=5.0						
AKASG				PP	**PP**	**08 24 42.7**	**-3.3**
	comp=Z,0.1nm,0.3s,baz=59,slow=7.9,SNR=4.3						
AKASG				LR	LR	09 09 03.9	
	comp=Z,62nm,18.6s,baz=55,slow=38						
	comp=Z,0.1nm,0.3s						
AKASG	**Malin Array Be**	**98.09**	**325**	P	**P**	**08 20 46.4**	**-1.0**
AKASG				IAmb	IAmb	08 24 27.4	
	comp=Z,3.4nm,1.2s						
ANMO	**Albuquerque**	**98.09**	**52**	LR	LR	09 03 21.9	
	comp=Z,77nm,18.6s,baz=284,slow=34						
ULM	**Lac du Bonnet**	**99.14**	**35**	LR	LR	08 58 59.0	
	comp=Z,108nm,20.2s,baz=299,slow=31						
BRTR	**Keskin Array B**	**99.90**	**314**	LR	LR	09 10 15.7	
	comp=Z,22nm,20.1s,baz=42,slow=38						
HFS	**Hagfors**	**99.99**	**338**	LR	LR	09 08 57.2	
	comp=Z,42nm,19.9s,baz=36,slow=37						
CLL	**Collm**	**106.19**	**331**	AMS	AMS	08 12 00.0	
	comp=N,100nm,21.8s						
CLL				AMS	AMS	08 12 00.0	
	comp=E,100nm,17.3s						
CLL				AMS	AMS	08 12 00.0	
	comp=Z,100nm,18.8s						
CLL				L	L	08 58 00.0	
ESDC	**Sonseca Array**	**122.75**	**333**	PP	**PP**	**08 27 42.7**	**-1.1**
	comp=Z,0.9nm,0.9s,baz=25,slow=6.2,SNR=5.1						
TORD	**Torodi Ar. Bea**	**137.41**	**303**	PKhKP	PKPpre	08 26 30.8	
	comp=Z,2.3nm,1.0s,baz=57,slow=1.9,SNR=7.1						
TORD				PP	**PP**	**08 29 16.8**	**-3.5**
	comp=Z,2.4nm,1.1s,baz=38,slow=5.5,SNR=5.5						
PB03	**IPOC Station P**	**143.98**	**113**	PKPdf	PKPbc	08 26 46.3	+1.2
PB09	**IPOC Station P**	**144.50**	**113**	PKPdf	**PKPab**	**08 26 46.5**	**0.0**
PB16	**IPOC Station P**	**144.87**	**107**	PKPdf	**PKPab**	**08 26 48.2**	**-0.2**
PB08	**IPOC Station P**	**144.91**	**110**	PKPbc	**PKPab**	**08 26 46.9**	**-1.4**
GO01	**Chusmiza**	**144.96**	**109**	PKPbc	**PKPab**	**08 26 46.1**	**-2.5**
DBIC	**Dimbokro**	**146.26**	**299**	PKPbc	**PKPdf**	**08 26 52.3**	**+1.1**
	comp=Z,13nm,0.8s,baz=74,slow=4.0,SNR=11						
DBIC	**Dimbokro**	**146.26**	**299**	PKPdf	**PKPdf**	**08 26 49.9**	**-1.2**
LPAZ	**La Paz**	**146.41**	**104**	PKPbc	**PKPbc**	**08 26 54.2**	**+0.8**
	comp=Z,2.5nm,0.6s,baz=346,slow=3.5,SNR=12						
LPAZ	**La Paz**	**146.41**	**104**	PKPdf	**PKPdf**	**08 26 51.2**	**-0.9**
CPUP	**Villa Florida**	**152.99**	**129**	PKPbc	**PKiKP**	**08 27 12.1**	**+3.1**
	comp=Z,5.2nm,1.2s,baz=10,slow=4.2,SNR=2.9						

WEL 14 08:58:05.9±1.8,**34˚S**±33˚×**18˚0E**±3˚5,**h278**^{km}±40^{km}, **M3.5**/5,**ML3.6**/6,**MLv3.5**/5,**Error ellipse: s-maj=55.1km s-min=31.2km az=132.2,confirmed,South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WMGZ	**Waiomatatini S**	**3.57**	**199**	P	Pn	08 59 06.3	+0.2
WMGZ				AML	AML		
WMGZ				AML	AML		
HAZ	**Te Kaha**	**3.72**	**207**	P	Pn	08 59 07.7	-0.1
HAZ				S	S	08 59 57.8	+0.7
HAZ				AML	AML		
HAZ				AML	AML		
PUZ	**Puketiti**	**3.85**	**199**	P	Pn	08 59 09.1	-0.2
PUZ				S	S	08 59 59.7	-0.2
PUZ				AML	AML		
PUZ				AML	AML		
RUGZ	**Raukumara Rang**	**3.94**	**206**	P	Pn	08 59 10.3	0.0
RUGZ				AML	AML		
RUGZ				AML	AML		
MWZ	**Matawai**	**4.32**	**205**	P	Pn	08 59 14.8	+0.2
MWZ				S	S	09 00 10.5	+0.9
MWZ				AML	AML		
URZ	**Urewera**	**4.42**	**210**	P	Pn	08 59 15.6	-0.1
URZ				S	S	09 00 11.5	+0.1
URZ				AML	AML		
RAHZ	**Arahi**	**5.00**	**206**	P	Pn	08 59 23.0	+0.5
RAHZ				AML	AML		
TLZ	**Tolley Road**	**5.22**	**221**	P	Pn	08 59 25.0	-0.3
ARHZ	**Aropaoanui**	**5.34**	**205**	P	Pn	08 59 26.6	+0.1
ARHZ				AML	AML		
ARHZ				AML	AML		
PXZ	**Pawanui**	**6.07**	**202**	P	Pn	08 59 35.2	-0.2

*IDC **14** 09:03:29.1±1.8, 17°.07S×176°.70W, h0^{km}, mb4.5/3, mbtmp4.6/4, ML4.7/1, Error ellipse: s-maj=155.9km s-min=18.3km az=152.0*

*NEIC **14** 09:03:37.1±1.9, 17°.60S±0°.09×175°.35W±0°.08, h146^{km}±9^{km}, mb4.4/24, Error ellipse: s-maj=12.7km s-min=10.6km az=185.0*

ISC 14 09:03:36.2±0.6**, 17°.49S**±0°.08×**175°.33W**±0°.07**, h150^{km}, n34, σ1^{s}.38**/37**, mb4.4**/16**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FUTU	Fugatoga	4.15	319	Pn	Pn	09 04 40.2	+1.7
AFI	Afiamalu	4.93	44	Pn	Pn	09 04 51.5	+2.7
	20nm,0.3s,baz=194,slow=12,SNR=51						
AFI				Sn	Sn	09 05 42.4	-3.0
	44nm,0.3s,baz=114,slow=18,SNR=23						
	60nm,0.5s						
AFI				AML	AML		
AFI	Afiamalu	4.93	44		Pn	09 04 51.0	+2.2
AFI				Sn	Sn	09 05 42.1	-3.3
NIUE	Niue	5.37	108	Pn	Pn	09 04 55.0	+0.5
NIUE				Sn	Sn	09 05 55.5	-0.1
MSVF	Nonsavu	6.32	267	Pn	Pn	09 05 06.0	-1.3
RTZ	Ruatahuna	22.10	196	P	P	09 08 19.5	0.0
RTZ				IAmb	IAmb	09 08 55.5	
	comp=Z,20nm,1.1s						
HIZ	Hauiti	22.64	200	P	P	09 08 23.9	-0.6
MRZ	Mangatainoka R	24.39	197	P	P	09 08 40.2	-0.3
TCW	Tory Channel	25.28	199	P	P	09 08 49.3	+0.7
THZ	Tophouse	26.22	200	P	P	09 08 58.2	+1.1
GVZ	Greta Valley S	27.26	199	P	P	09 09 06.3	-0.1
LTZ	Lake Taylor	27.34	200	P	P	09 09 06.4	-0.7
LTZ				IAmb	IAmb	09 09 46.0	
	comp=Z,46nm,1.4s						
MLZ	Mavora Lakes	31.05	203	P	P	09 09 40.8	+0.9
ARMA	Armidale	32.70	241	P	P	09 09 54.4	-0.3
ARMA				IAmb	IAmb	09 10 28.4	
	comp=Z,4.5nm,1.1s						
CTAO	Charters Tower	36.41	260	P	P	09 10 26.4	-0.2
CTAO				IAmb	IAmb	09 10 57.2	
	comp=Z,22nm,1.3s						
TOO	Toolangi	39.73	232	P	P	09 10 55.1	+0.9
TOO				IAmb	IAmb	09 11 10.0	
	comp=Z,9.3nm,1.3s						
STKA	Stephens Creek	41.41	241	P	P	09 11 09.9	+1.9
	comp=Z,1.5nm,0.3s,baz=88,slow=9.0,SNR=12						
	comp=Z,1.5nm,0.3s						
INKA	Innaminka	41.63	248	P	P	09 11 11.9	+2.1
BBOO	Buckleboo	46.18	241	P	P	09 11 46.8	+0.7
BBOO				IAmb	IAmb	09 12 23.1	
	comp=Z,18nm,1.5s						
WR8	Warramunga Arr	47.45	259	P	P	09 11 56.1	-0.1
WR8				IAmb	IAmb	09 11 59.4	
	comp=Z,7.4nm,1.4s						
WB0	Warramunga Arr	47.57	259	P	P	09 11 57.5	+0.4
WB0				IAmb	IAmb	09 12 21.2	
	comp=Z,12nm,1.5s						
WRA	Warramunga Arr	47.60	259	P	P	09 11 57.3	0.0
	comp=Z,1.8nm,0.4s,baz=96,slow=7.7,SNR=30						
	comp=Z,1.8nm,0.4s						
WRA	Warramunga Arr	47.60	259	P	P	09 11 56.8	-0.5
AS31	Alice Springs	47.73	254	P	P	09 11 59.3	+1.0
AS31				IAmb	IAmb	09 12 00.0	
	comp=Z,3.7nm,0.6s						
ASAR	Alice Springs	47.73	254	P	P	09 11 59.1	+0.8
	comp=Z,10nm,0.6s,baz=88,slow=8.9,SNR=130						
	comp=Z,10nm,0.6s						
ASAR	Alice Springs	47.73	254	P	P	09 11 58.7	+0.4
FORT	Forrest	52.84	244	P	P	09 12 36.4	-0.1
FORT				IAmb	IAmb	09 13 10.0	
	comp=Z,15nm,1.4s						
FAKI	Fak Fak	53.39	280	P	P	09 12 39.8	-1.0
FITZ	Fitzroy Crossi	56.00	260	P	P	09 12 58.5	-1.0
MBWA	Marble Bar	61.02	255	P	P	09 13 33.2	-1.2
MBWA				IAmb	IAmb	09 13 43.5	
	comp=Z,9.7nm,1.1s						
SBA	Scott Base	61.04	184	P	P	09 13 33.9	+0.4
VNDA	Vanda	61.13	186	P	P	09 13 34.8	+0.7
QSPA	South Pole Qui	72.57	180	P	P	09 14 44.6	-2.2
QSPA				IAmb	IAmb	09 15 07.9	
	comp=Z,4.3nm,1.2s						
BMRM	Bremner River	81.98	15	P	P	09 15 41.1	+2.1
BMRM				IAmb	IAmb	09 16 13.2	
	comp=Z,7.8nm,1.4s						

IDC 14 09:05:16.0±853.0**, 31°.57N×133°.77E, h0^{km}, Error ellipse: s-maj=321.6km s-min=135.4km az=42.0, Southeast of Shikoku**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I30JP	ISUMI INFRASON	6.62	54	I	I	09 42 30.0	
	baz=239,slow=317,SNR=1.6						
I45RU	USSURIYSK INFR	12.69	354	I	I	10 24 30.0	
	baz=174,slow=327,SNR=3.2						
I44RU	PETROPAVLOVSK	27.63	32	I	I	11 57 10.0	
	baz=226,slow=326,SNR=1.4						

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*AFAD **14** 09:14:18.9, 37°.18N×26°.39E, h6^{km}±3^{km}, ML2.4*

*ISK **14** 09:14:18.6, 37°.19N×26°.36E, h5^{km}, ML2.4/18*

*THE **14** 09:14:21.8, 37°N±3°×2°6E±°, h27^{km}±16^{km}, M2.7/5, MLh2.7/5*

ISC 14 09:14:19.2±1.2**, 37°.19N**±0°.03×**26°.37E**±0°.03**, h8^{km}**±10^{km}**, n42, σ0^{s}.65**/61**, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DIDI	Didim-Aydin	0.72	74	Pg	Pb	09 14 33.2	-0.7
DIDI				Sg	Sb	09 14 43.7	-0.1
DIDI				AML	AML		
YKAV	Yalikavak-Bodr	0.73	95	Pg	Pg	09 14 33.2	0.0
YKAV				Sg	Sb	09 14 43.8	-0.3
YKAV				AML	AML		
DDIM	Aydin, Didim	0.74	68	P	Pb	09 14 33.8	-0.6
DDIM				S	Sb	09 14 44.0	-0.6
DDIM				IAML		09 14 47.0	
	comp=E,255nm,0.3s						
DDIM				IAML		09 14 51.0	
	comp=N,254nm,0.5s						
GCAM	G?zelcaml?	0.85	53	Pg	Pg	09 14 35.6	0.0
GCAM				Sg	Sb	09 14 48.0	+0.2
GCAM				AML	AML		
GCAM	G?zelcaml?	0.85	53	P	Pg	09 14 35.4	-0.3
GCAM				S	Sb	09 14 48.1	+0.2
GCAM				IAML		09 14 49.0	
	comp=N,211nm,0.3s						
GCAM				IAML		09 14 54.0	
	comp=E,146nm,0.6s						
BDRM	Kayabasi	0.86	98	P	Pg	09 14 35.3	-0.5
BDRM				S	Sg	09 14 47.0	0.0
BDRM				IAML		09 14 47.0	
	comp=N,175nm,0.3s						
BDRM				IAML		09 14 49.0	
	comp=E,113nm,0.2s						
DGB	zmir	0.95	25	P	Pg	09 14 37.4	-0.2
DGB				S	Sb	09 14 50.5	-0.2
DGB				IAML		09 14 51.0	
	comp=E,146nm,0.4s						
DGB				IAML		09 14 52.0	
	comp=N,113nm,0.2s						
GMLD	Gumuldur	0.99	26	Pg	Pg	09 14 37.7	-0.5
GMLD				AML	AML		
KUSD	Kusadasi-Aydin	0.99	47	Pg	Pg	09 14 37.9	-0.3
KUSD				AML	AML		
YAZI	Mula-Dat§a-	1.00	120	P	Pb	09 14 38.3	-0.4
YAZI				S	Sb	09 14 51.7	-0.3
YAZI				IAML		09 14 54.0	
	comp=N,131nm,0.4s						
YAZI				IAML		09 14 55.0	
	comp=E,76nm,0.3s						
CMBO	Columbo, Santo	1.05	228	P	Pn	09 14 40.5	+0.3
CMBO				AML	AML		
ZEYE	Izmir, Urla-Ze	1.06	6	P	Pg	09 14 38.9	-0.6
ZEYE				S	Sg	09 14 53.3	+0.1
ZEYE				IAML		09 14 54.0	
	comp=N,284nm,0.3s						
ZEYE				IAML		09 14 56.0	
	comp=E,162nm,0.2s						
DAT	Datca	1.07	115	P	Pb	09 14 39.9	0.0
DAT				S	Sn	09 14 55.0	-0.5
DAT				AML	AML		
DAT	Datca	1.07	115	Pg	Pb	09 14 39.7	-0.2
DAT				AML	AML		
THERA	Ancient Thera,	1.09	222	P	Pn	09 14 40.6	-0.1
THERA				S	Sb	09 14 55.2	+0.5
THERA				AML	AML		
MLSB	Milas	1.12	84	Pn	Pb	09 14 40.8	-0.1
MLSB				AML	AML		
CHOS	Chios island	1.23	348	S	Sb	09 14 58.6	0.0
CHOS	Chios island	1.23	348	Pn	Pn	09 14 42.7	0.0
CHOS				AML	AML		
AYDN	Tasoluk	1.29	68	P	Pn	09 14 43.4	-0.1
AYDN				S	Sn	09 15 01.4	+0.5
AYDN				IAML		09 15 09.0	
	comp=E,49nm,0.3s						
AYDN				IAML		09 15 31.0	
	comp=N,222nm,2.0s						
BLCB	Balcova	1.31	24	P	Pn	09 14 43.6	-0.1
BLCB				S	Sg	09 15 01.1	-0.2
BLCB				AML	AML		
BLCB	Balcova	1.31	24	Pn	Pg	09 14 44.1	-0.2
BLCB				AML	AML		
DUVT	Torbali	1.34	39	P	Pg	09 14 44.7	-0.2
DUVT				S	Sn	09 15 02.4	+0.3
DUVT				IAML		09 15 05.0	
	comp=E,35nm,0.3s						
KARB	zmir-Karabur	1.48	1	P	Pn	09 14 45.0	-1.0
KARB				IAML		09 15 10.0	
	comp=E,62nm,0.6s						
KARB				IAML		09 15 19.0	
	comp=N,56nm,0.7s						
YER	Yerkesik	1.53	91	Pn	Pb	09 14 47.3	-0.4
YER				AML	AML		
TURN	Turunc	1.55	105	Pn	Pb	09 14 47.6	-0.5
TURN				AML	AML		
TURN	Turunc	1.55	105	P	Pn	09 14 46.2	-0.8
TURN				S	Sg	09 15 09.7	+0.6
TURN				IAML		09 15 14.0	
	comp=E,39nm,0.8s						
TURN				IAML		09 15 15.0	
	comp=N,52nm,0.7s						
MULA	Mugla, Merkez-	1.56	87	P	Pg	09 14 48.4	-0.6
MULA				IAML		09 15 16.0	
	comp=E,41nm,0.7s						
IZMR	zmir-demi	1.57	52	P	Pb	09 14 48.2	-0.2
IZMR				S	Sg	09 15 09.4	-0.3
ESEN	Aydn-Nazilli	1.69	68	P	Pb	09 14 49.6	-0.8
ESEN				S	Sg	09 15 14.0	+0.6
ARG	Arkhangelos	1.71	124	Pn	Pn	09 14 48.8	-0.4
ARG				AML	AML		
CAMT	Merkez	1.73	25	P	Pg	09 14 52.1	-0.2
CAMT				S	Sg	09 15 16.8	+2.1
CAMT				IAML		09 15 18.0	
	comp=N,87nm,0.4s						
CAMT				IAML		09 15 20.0	
	comp=E,95nm,0.3s						
ODEM	Odemis-Izmir	1.73	51	Pn	Pb	09 14 50.3	-1.0
ODEM				AML	AML		
KARP	Karpathos	1.75	159	Pn	Pn	09 14 49.9	0.0
KARP				AML	AML		
KARY	Karystos	1.75	299	P	Pn	09 14 50.0	+0.2
DALY	Dalyan (Mula)	1.86	101	Pn	Pb	09 14 52.3	-1.1
DALY				AML	AML		
KIRA	zmir-Kiraz	1.90	57	P	Pg	09 14 57.1	+1.5
KIRA				IAML		09 15 25.0	
	comp=N,15nm,0.9s						
KIRA				IAML		09 15 25.0	
	comp=E,17nm,1.1s						
KTTT	Salihli	2.02	42	P	Pg	09 14 57.7	-0.3
KTTT				S	Sg	09 15 25.9	+1.7
KTTT				IAML		09 16 15.0	
	comp=N,12nm,2.4s						
DION	Dionisos Attik	2.13	295	P	Pn	09 14 55.6	+0.5
FETY	Fethiye	2.24	103	Pn	Pn	09 14 57.6	+1.1
IDI	Anoyia	2.24	213	P	Pn	09 14 56.7	+0.1
KULA	Kula-Manisa	2.24	53	Pn	Pn	09 14 57.6	+0.9
AKAS	Kas	2.77	109	Pn	Pn	09 15 05.2	+1.3
AKAS				AML	AML		

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*AFAD **14** 09:15:44.0, 38°.92N×23°.93E, h6^{km}±2^{km}, MW3.9*

*IDC **14** 09:15:47.9±1.6, 38°.92N×24°.09E, h0^{km}, mb3.3/2, mbtmp3.5/4, ML3.7/2, Error ellipse: s-maj=27.3km s-min=19.6km az=132.0*

*ISK **14** 09:15:47.6, 39°.03N×23°.98E, h8^{km}, ML3.4/24*

*ATH **14** 09:15:48.8, 38°.97N×24°.10E, h16^{km}, ML3.5/53, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*

*THE **14** 09:15:49.3, 39°.0N±0°.7×2°4E±°, h10^{km}±1^{km}, M3.5/23, MLh3.5/23*

*BEO **14** 09:15:52.5±0.8, 39°.06N×24°.15E, h30^{km}, ML3.4/8*

ISC 14 09:15:49.0±0.9**, 38°.97N**±0°.02×**24°.09E**±0°.02**, h16^{km}**±6^{km}**, n204, σ0^{s}.98**/243**, 18C-3D, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AOS	Alonnisos	0.25	321	P	Pg	09 15 54.6	+0.1
AOS2	Alonissos-2	0.26	313	P	Pg	09 15 54.5	-0.1
AOS2				S	Sg	09 15 58.2	-0.2
KYMI	Kymi, Euboea I	0.34	178	P	Pg	09 15 56.0	0.0
KYMI				S	Sg	09 16 00.9	+0.1
KYMI				AML	AML		
KYMI	Kymi, Euboea I	0.34	178	P	Pg	09 15 55.9	-0.1
KYMI				S	Sg	09 16 00.7	-0.1
KYMI				AML	AML		
NEO	Neokhori	0.75	297	S	Sb	09 16 15.0	+1.3
NEO	Neokhori	0.75	297	P	Pg	09 16 03.7	+0.1
NEO				S	Sg	09 16 13.9	+0.3
XOR	Xorichti	0.80	300	P	Pg	09 16 04.6	0.0
XOR				S	Sb	09 16 16.5	+1.3
XOR				AML	AML		
XOR	Xorichti	0.80	300	P	Pg	09 16 04.5	0.0
XOR				S	Sg	09 16 15.4	+0.3
XOR				AML	AML		
ATAL	Atalanti	0.88	252	P	Pg	09 16 05.2	-0.9
ATAL				S	Sb	09 16 17.6	+0.2
ATAL				AML	AML		
EFSA	Agios Efstrati	0.90	51	P	Pb	09 16 06.4	+0.1
EFSA				S	Sg	09 16 18.2	-0.1
EFSA				AML	AML		
DION	Dionisos Attik	0.90	188	P	Pb	09 16 06.3	0.0
DION				S	Sn	09 16 19.6	-0.2
DION	Dionisos Attik	0.90	188	P	Pg	09 16 06.1	-0.4
DION				S	Sg	09 16 17.8	-0.5
STFN	Stefani	0.90	208	P	Pg	09 16 05.9	-0.6
STFN				S	Sb	09 16 18.6	+0.5
STFN				AML	AML		
LKR	Lokris	0.91	250	P	Pg	09 16 05.4	-1.2
LKR				AML	AML		
ACHAR	Athens-Acharne	0.94	197	P	Pg	09 16 06.6	-0.6
PTL	Penteli	0.94	191	P	Pg	09 16 06.9	-0.3
PTL				AML	AML		
PTL	Penteli	0.94	191	P	Pg	09 16 06.6	-0.6
PTL				AML	AML		
VOL2	Volos	0.96	294	P	Pb	09 16 07.7	+0.3
KARY	Karystos	0.98	164	P	Pb	09 16 07.8	+0.2
KARY				AML	AML		
KARY	Karystos	0.98	164	P	Pg	09 16 07.2	-0.8
KARY				AML	AML		
VIL2	Platees	0.99	220	P	Pg	09 16 07.3	-1.0
VIL2				AML	AML		
ATHP	Athens-Neo Psi	1.00	194	P	Pg	09 16 07.1	-1.3
ATHP				S	Sg	09 16 19.4	-2.1
ATHP				AML	AML		
PAIG	Paliouri	1.00	342	P	Pg	09 16 08.1	-0.3
VILL	Villia	1.01	217	S	Sn	09 16 22.9	+0.4
ELFA	Athens-Elefsin	1.02	205	P	Pg	09 16 07.9	-0.8
ELFA				AML	AML		
ATH5	Athens Parliam	1.03	195	P	Pg	09 16 07.5	-1.5
ATH5				AML	AML		
ATHU	Athens Univers	1.03	193	P	Pg	09 16 08.4	-0.6
ATHU				AML	AML		
ATHU	Athens Univers	1.03	193	P	Pg	09 16 08.1	-0.9
ATHU				AML	AML		
NOAC	Athens-Thissio	1.04	196	P	Pg	09 16 08.3	-0.8
NOAC				AML	AML		
ATH	Athens Observa	1.04	196	P	Pg	09 16 08.5	-0.6
ATH				AML	AML		
ATH	Athens Observa	1.04	196	P	Pg	09 16 08.3	-0.8
ATH				AML	AML		
AXAR	Agios Charalam	1.13	260	P	Pg	09 16 10.6	-0.3
AXAR				AML	AML		
AXAR	Agios Charalam	1.13	260	P	Pb	09 16 10.3	0.0
AXAR				AML	AML		
VLY	Voula,Athens	1.14	192	P	Pb	09 16 10.4	0.0
VLY				S	Sn	09 16 26.7	+0.9
VLY				AML	AML		
VLY	Voula,Athens	1.14	192	P	Pb	09 16 10.0	-0.4
VLY				AML	AML		
LIA	Limnos Island	1.25	42	P	Pn	09 16 11.9	-0.1
LIA				S	Sn	09 16 29.8	+1.3
LIA				AML	AML		
LIA	Limnos Island	1.25	42	P	Pn	09 16 11.6	-0.3
LIA				AML	AML		
LVRA	Laurium	1.26	181	P	Pn	09 16 11.6	-0.3
LTK	Loutraki	1.29	223	P	Pn	09 16 12.4	-0.1
LTK				AML	AML		
LTK	Loutraki	1.29	223	P	Pn	09 16 12.2	-0.3
LTK				AML	AML		
LOUT	Loutraki	1.31	222	P	Pn	09 16 12.6	-0.2
DLFA	Delphi	1.34	249	P	Pn	09 16 13.2	0.0
DLFA				AML	AML		
OUR	Ouranopolis	1.36	357	P	Pn	09 16 13.4	0.0
OUR				AML	AML		
OUR	Ouranopolis	1.36	357	Pn	Pn	09 16 13.2	-0.2
OUR				Sn	Sb	09 16 30.7	-0.6
OUR				AML	AML		
OUR	Ouranopolis	1.36	357	P	Pn	09 16 13.4	0.0
OUR				AML	AML		
AGG	Agios Georgios	1.37	273	P	Pn	09 16 13.8	+0.3
AGG				AML	AML		
AGG	Agios Georgios	1.37	273	P	Pn	09 16 13.2	-0.4
AGG				AML	AML		
ACOR	Acrocorinthos	1.44	222	P	Pn	09 16 12.5	-2.0
ACOR				AML	AML		
MET4	Agioi Theodoro	1.45	202	P	Pn	09 16 14.1	-0.5
THAL	Thalero	1.46	230	P	Pn	09 16 14.6	0.0
THAL	Thalero	1.46	230	P	Pn	09 16 14.5	-0.2
MET2	Kameni Chora,	1.48	204	P	Pn	09 16 14.5	-0.5
MET2				AML	AML		
PLG	Polygyros	1.48	341	P	Pn	09 16 14.6	-0.5
MET6	Megalochori,Me	1.49	203	P	Pn	09 16 15.0	-0.2
MET1	Methana Town,	1.50	202	P	Pn	09 16 15.0	-0.2
MET3	Ano Fanari,Met	1.55	206	P	Pn	09 16 15.4	-0.6
TYRN	Tyrnavos	1.61	298	P	Pn	09 16 16.7	-0.1
TYRN				AML	AML		
KALE	Kalithea	1.63	250	P	Pn	09 16 17.7	+0.6
KALE				AML	AML		
KALE	Kalithea	1.63	250	P	Pn	09 16 17.0	-0.1
KALE				AML	AML		
CHOS	Chios island	1.65	110	P	Pn	09 16 17.8	+0.4
CHOS				AML	AML		
CHOS	Chios island	1.65	110	Pn	Pn	09 16 18.1	+0.7
CHOS				AML	AML		
CHOS	Chios island	1.65	110	P	Pn	09 16 17.3	-0.1
CHOS				AML	AML		
GPNR	Gulpinar-Canak	1.66	72	Pn	Pb	09 16 18.9	-0.4
GPNR				Sn	Sg	09 16 41.5	-1.1
GPNR				AML	AML		
LIT	Litokhoron	1.67	313	P	Pn	09 16 17.5	-0.2
LIT				AML	AML		
KOCA	Canakkale, Ayv	1.68	71	P	Pn	09 16 17.9	+0.1
KOCA				S	Sn	09 16 37.9	-1.1
KOCA				IAML		09 16 47.0	
	comp=E,474nm,0.6s						
KOCA				IAML		09 16 48.0	
	comp=N,537nm,0.8s						
SERG	Sergoula	1.68	251	P	Pn	09 16 17.7	-0.2
SERG				AML	AML		
THAS	Thassos island	1.70	16	P	Pn	09 16 17.3	-0.8
THAS				AML	AML		
TEME	Temeni, Aigial	1.71	245	P	Pn	09 16 18.0	-0.2
THL	Klokotos Trika	1.71	291	P	Pn	09 16 18.7	+0.4
THL	Klokotos Trika	1.71	291	P	Pn	09 16 18.4	+0.2
PYRG	Pyrgos, Dorida	1.71	251	P	Pn	09 16 18.0	-0.3
GUR	Goura	1.72	233	P	Pn	09 16 18.1	-0.3
GUR				AML	AML		
PRK	Paraskevi	1.72	80	P	Pn	09 16 18.7	+0.4
PRK				AML	AML		
PRK	Paraskevi	1.72	80	P	Pn	09 16 18.1	-0.3
PRK				AML	AML		
ANX	Ano Chora	1.73	258	P	Pn	09 16 18.8	+0.1
ANX				AML	AML		
BOZC	Bozcaada	1.75	60	Pn	Pn	09 16 19.7	+0.9
BOZC				AML	AML		
BOZC	Bozcaada	1.75	60	P	Pn	09 16 19.5	+0.7
BOZC				S	Sn	09 16 38.2	-2.6
BOZC				IAML		09 16 50.0	
	comp=N,208nm,0.5s						
BOZC				IAML		09 16 54.0	
	comp=E,284nm,0.8s						
MG00	Magoula, Dorid	1.76	252	P	Pn	09 16 18.9	0.0
MG00				AML	AML		
EVR	Evrytania	1.78	269	P	Pn	09 16 18.6	-0.6
KLV	Kalavryta, Ach	1.78	239	P	Pn	09 16 18.7	-0.6
KLV				AML	AML		
EFP	Efpalio	1.79	253	P	Pn	09 16 19.4	+0.1
EFP				AML	AML		
HORT	Hortiatis	1.79	335	P	Pn	09 16 20.1	+0.7
HORT	Hortiatis	1.79	335	P	Pn	09 16 19.2	-0.2
THS1	Thassos, Thass	1.80	12	P	Pn	09 16 18.7	-0.7
LAKA	Lakka	1.81	247	P	Pn	09 16 19.8	+0.3
GOAD	anakkale-G¶	1.84	49	P	Pn	09 16 20.9	+0.9
GOAD				S	Sg	09 16 48.2	-0.1
GOAD				IAML		09 16 49.0	
	comp=N,428nm,0.4s						
GOAD				IAML		09 16 49.0	
	comp=E,531nm,0.5s						
GADA	Gvkgeada	1.85	48	P	Pn	09 16 20.4	+0.2
GADA				AML	AML		
GADA	Gvkgeada	1.85	48	Pn	Pn	09 16 20.9	+0.7
GADA				AML	AML		
VVK	Vomvokou	1.86	254	P	Pn	09 16 20.6	+0.2
SMTH	Samothraki Isl	1.86	36	P	Pn	09 16 19.2	-1.1
THE	Thessaloniki	1.87	333	P	Pn	09 16 20.4	0.0
THE				AML	AML		
SOH	Sokhos	1.93	343	P	Pn	09 16 21.8	+0.5
SOH				AML	AML		
SOH	Sokhos	1.93	343	P	Pn	09 16 21.5	+0.2
SOH				AML	AML		
EZN	Ezine	1.93	63	Pn	Pb	09 16 22.9	-1.0
EZN				AML	AML		
EZNE	Ezine-Canakkal	1.93	65	Pn	Pn	09 16 22.4	+1.2
AGRP	Agrapidokambos	1.94	253	P	Pn	09 16 21.4	+0.1
AGRP				AML	AML		
KRBN	Karaburun	1.97	100	Pn	Pb	09 16 23.9	-0.5
KRBN				AML	AML		
OREA	Oraiokastro	1.97	333	P	Pn	09 16 21.8	0.0
PVO	Paravola	2.03	261	P	Pn	09 16 21.9	-0.7
ZEYE	Izmir, Urla-Ze	2.03	110	P	Pn	09 16 22.7	+0.1
ZEYE				S	Sg	09 16 58.4	+4.0
KAVA	Kavala	2.05	9	P	Pn	09 16 22.3	-0.6
KAVA				AML	AML		
AYVA	Ayvalik	2.05	80	P	Pn	09 16 23.1	+0.2
AYVA				IAML		09 16 58.0	
	comp=N,492nm,0.9s						
AYVA				IAML		09 17 08.0	
	comp=E,232nm,0.8s						
BAYC	CANAKKALE_Bayr	2.06	67	P	Pn	09 16 22.8	-0.2
BAYC				S	Sn	09 16 46.7	-1.6
BAYC				IAML		09 16 56.0	
	comp=N,228nm,0.5s						
BAYC				IAML		09 16 56.0	
	comp=E,121nm,0.5s						
CNKL	anakkale-Mer	2.09	58	P	Pb	09 16 27.0	+0.5
CNKL				S	Sg	09 16 54.7	-1.5
CNKL				IAML		09 17 06.0	
	comp=E,212nm,0.5s						
CNKL				IAML		09 17 10.0	
	comp=N,215nm,1.1s						
VLX	Vlachokerasia	2.09	221	P	Pn	09 16 24.0	+0.5
DRO	Drossia	2.12	242	P	Pn	09 16 24.0	+0.1
DRO				AML	AML		
COMU	Canakkale	2.16	58	Pn	Pn	09 16 26.2	+1.8
COMU				AML	AML		
SRS	Serrai	2.17	350	P	Pn	09 16 24.8	+0.2
SRS	Serrai	2.17	350	*e*Pn	Pn	09 16 24.6	0.0
SRS				*e*Sn	Sn	09 16 49.9	-1.4
SRS	Serrai	2.17	350	P	Pn	09 16 24.3	-0.3
SRS				AML	AML		
DKL	Dikili	2.20	87	Pn	Pn	09 16 26.6	+1.7
DKL				AML	AML		

DKL	**Dikili**	2.20	87	P	Pn	09 16 24.6	-0.3
TETR	**Tetrakomo, Epi**	2.22	281	P	Pn	09 16 25.8	+0.6
TETR				AML	AML		
AMPL	**Ampelaki**	2.24	270	P	Pn	09 16 26.1	+0.6
AMPL				AML	AML		
RLS	**Riolos of Patr**	2.25	247	P	Pn	09 16 26.4	+0.9
RLS				AML	AML		
AXS	**Araxos**	2.26	251	P	Pn	09 16 26.1	+0.4
MHLO	**Agia Marina, M**	2.29	174	P	Pn	09 16 26.8	+0.5
PDO	**Prodromos**	2.30	262	P	Pn	09 16 26.8	+0.5
PDO				AML	AML		
KPRO	**Kipourio**	2.32	296	P	Pn	09 16 27.4	+0.6
KPRO				AML	AML		
GELI	**Tayfur-Gelibol**	2.33	52	Pn	Pn	09 16 27.5	+0.8
GELI				AML	AML		
ZEDA	**zmir-Bergama**	2.33	89	P	Pn	09 16 27.3	+0.6
ZEDA				S	Sn	09 16 54.2	-0.9
ZEDA				IAML		09 17 09.0	
	comp=E,124nm,0.6s						
ZEDA				IAML		09 17 11.0	
	comp=N,103nm,0.8s						
CAVK	**Edirne/Enez-Ca**	2.35	42	P	Pn	09 16 28.4	+1.4
CAVK				IAML		09 17 10.0	
	comp=E,238nm,0.7s						
CAVK				IAML		09 17 16.0	
	comp=N,193nm,1.2s						
CAVK	**Edirne/Enez-Ca**	2.35	42	⇑P	Pn	09 16 25.4	-1.6
AMT	**Artemida-Makis**	2.36	233	P	Pn	09 16 27.5	+0.3
AMT				AML	AML		
GRG	**Griva**	2.37	327	P	Pn	09 16 28.2	+0.9
GRG				AML	AML		
GRG	**Griva**	2.37	327	P	Pn	09 16 27.8	+0.5
GRG				AML	AML		
ENEZ	**Enez**	2.37	41	P	Pn	09 16 27.4	0.0
ENEZ				AML	AML		
ENEZ	**Enez**	2.37	41	Pn	Pn	09 16 27.3	0.0
ENEZ				AML	AML		
DGB	**zmir**	2.38	112	P	Pn	09 16 28.3	+1.0
DGB				S	Sg	09 17 05.9	+0.4
DGB				IAML		09 17 13.0	
	comp=N,63nm,0.8s						
DGB				IAML		09 17 13.0	
	comp=E,53nm,0.6s						
NVR	**Nevrokopi**	2.38	356	P	Pn	09 16 27.4	0.0
BUHA	**Balikesir, Bur**	2.38	76	P	Pg	09 16 34.5	-0.2
BUHA				S	Sb	09 17 00.7	0.0
BLCB	**Balcova**	2.39	103	Pn	Pn	09 16 29.5	+2.0
BLCB				AML	AML		
VLI	**Veliai**	2.43	202	P	Pn	09 16 28.3	+0.2
VLI				AML	AML		
VLI	**Veliai**	2.43	202	P	Pn	09 16 27.9	-0.2
ALN	**Alexandroupoli**	2.44	37	Pn	Pn	09 16 28.4	+0.1
ALN				AML	AML		
ALN	**Alexandroupoli**	2.44	37	P	Pn	09 16 27.7	-0.5
ITM	**Ithomi**	2.47	224	Pn	Pn	09 16 29.5	+0.8
ITM				AML	AML		
ITM	**Ithomi**	2.47	224	P	Pn	09 16 28.9	+0.2
ITM				AML	AML		
LAPS	**Lapseki, ANA**	2.48	58	P	Pn	09 16 30.5	+1.7
LAPS				S	Sn	09 16 58.3	-0.5
LAPS				IAML		09 17 17.0	
	comp=E,133nm,0.6s						
LAPS				IAML		09 17 21.0	
	comp=N,89nm,0.6s						
CANM	**Can-anakkale**	2.52	65	Pn	Pn	09 16 30.9	+1.6
CANM				AML	AML		
ERIK	**Erikli-Kesan**	2.52	47	Pn	Pn	09 16 29.4	0.0
ERIK				AML	AML		
CAMT	**Merkez**	2.53	94	P	Pn	09 16 29.8	+0.3
CAMT				S	Sg	09 17 09.7	-0.6
CAMT				IAML		09 17 17.0	
	comp=N,125nm,0.5s						
CAMT				IAML		09 17 19.0	
	comp=E,107nm,0.6s						
GOKT	**Kean, EDRN**	2.58	48	P	Pn	09 16 29.9	-0.3
GOKT				S	Sg	09 17 11.2	-0.8
GOKT				IAML		09 17 18.0	
	comp=N,145nm,0.4s						
GOKT				IAML		09 17 23.0	
	comp=E,127nm,0.8s						
MMB	**Musomishta**	2.58	354	P	Pn	09 16 30.7	+0.4
MMB				AML	AML		
MMB	**Musomishta**	2.58	354	*i* P	Pn	09 16 30.9	+0.6
VAY	**Valandovo**	2.62	334	*e*Pn	Pn	09 16 28.7	-2.0
VAY				*e*Sn	Sn	09 17 02.0	-0.1
YENI	**Yenice-Canakka**	2.63	68	Pn	Pn	09 16 32.3	+1.5
BIGA	**Biga-Canakkale**	2.70	60	Pn	Pn	09 16 33.3	+1.5
KESN	**Edirne-Kesan**	2.72	46	P	Pn	09 16 31.5	-0.9
KESN				IAML		09 17 20.0	
	comp=N,145nm,0.6s						
KESN				IAML		09 17 20.0	
	comp=E,110nm,0.5s						
RZN	**Rozhen**	2.76	10	*i* P	Pn	09 16 33.0	+0.1
KDZ	**Kurdzhali**	2.82	19	Pn	Pn	09 16 33.4	-0.1
KDZ				AML	AML		
KDZ	**Kurdzhali**	2.82	19	*i* P	Pn	09 16 33.4	-0.1
BALY	**Balya**	2.84	73	P	Pg	09 16 43.1	-0.4
BALY				S	Sg	09 17 18.7	-1.7
KRBG	**Karabiga-Canak**	2.86	59	Pn	Pn	09 16 35.4	+1.5
UKOP	**Uzunkopru-Edir**	2.91	41	Pn	Pn	09 16 35.3	+0.7
UKOP				AML	AML		
RKY	**Sarkoy-Tekirda**	2.93	53	Pn	Pn	09 16 36.4	+1.3
RKY				AML	AML		
PEHC	**Pehcevo**	2.94	342	*e*Pn	Pn	09 16 35.8	+0.5
KKB	**Krupnik**	2.96	346	P	Pn	09 16 36.5	+1.1
KKB				AML	AML		
KKB	**Krupnik**	2.96	346	*i* P	Pn	09 16 36.3	+0.9
IGT	**Igoumenitsa**	2.97	282	*e*Pn	Pn	09 16 37.9	+2.4
GONE	**Gonen-Balikesi**	2.98	68	Pn	Pn	09 16 37.5	+1.8
GONE				AML	AML		
GAZK	**Gazikoy-TEKIRD**	3.06	54	Pn	Pn	09 16 38.3	+1.6
GAZK				AML	AML		
PLD	**Plovdiv**	3.21	9	P	Pn	09 16 39.4	+0.6
PLD	**Plovdiv**	3.21	9	Pn	Pn	09 16 38.6	-0.2
PLD				AML	AML		
PLD	**Plovdiv**	3.21	9	*e*Pn	Pn	09 16 39.2	+0.4
OHR	**Ohrid**	3.31	311	*e*Pn	Pn	09 16 36.4	-3.8
BAND	**Balkesir-Ban**	3.39	65	⇑P	Pn	09 16 40.3	-1.0
KEK	**Kerkira**	3.41	284	Pn	Pn	09 16 41.3	-0.2
KEK				AML	AML		
EDRB	**Edirne**	3.52	34	Pn	Pn	09 16 44.3	+1.3
EDRB				AML	AML		
PLNA	**Plana**	3.54	352	*i* P	Pn	09 16 44.6	+1.2
VTS	**Vitosha**	3.70	350	*i* P	Pn	09 16 46.8	+1.1
VTS	**Vitosha**	3.70	350	*e*Pn	Pn	09 16 46.4	+0.7
VTS				*e*Sn	Sn	09 17 27.9	-1.1
BOSS	**Bosilegrad**	3.72	341	*e*Pn	Pn	09 16 47.0	+1.1
BOSS				*e*Sn	Sn	09 17 28.9	-0.6
BARS	**Barje**	4.21	337	*e*Pn	Pn	09 16 53.4	+0.9
BARS				*e*Sn	Sn	09 17 40.9	-0.5
MPEP	**Malo Peshtene**	4.39	357	*i* P	Pn	09 16 56.5	+1.5
PLVB	**Pleven**	4.43	5	⇑P	Pn	09 16 55.3	-0.3
ZAPS	**Zavoj**	4.43	346	*e*Pn	Pn	09 16 57.0	+1.3
BLKB	**Belogradchik**	4.76	348	*e*Pn	Pn	09 17 01.0	+0.8
BLKB				*e*Sn	Sn	09 17 52.1	-3.1
SELS	**Selova**	4.80	333	*e*Pn	Pn	09 17 02.9	+2.2
SELS				*e*Sn	Sn	09 17 54.0	-2.0
BOVS	**Bovan**	4.99	340	*e*Pn	Pn	09 17 05.3	+2.0
BOVS				*e*Sn	Sn	09 17 58.4	-2.2
BOVS	**Bovan**	4.99	340	⇑P	Pn	09 17 03.0	-0.3
ZAGS	**Zajecar**	5.03	345	*e*Pn	Pn	09 17 04.6	+0.8
PDG	**Podgorica**	5.04	315	⇑P	Pn	09 17 04.7	+0.8
GOCS	**Kraljevo Serbi**	5.18	333	*e*Pn	Pn	09 17 07.1	+1.1
GOCS				*e*Sn	Sn	09 18 02.7	-2.9
ICOR	**Ion Corvin**	5.85	27	⇑P	Pn	09 17 13.6	-1.4
HERR	**Herculane**	6.03	349	⇑P	Pn	09 17 17.6	0.0
ARR	**Arges**	6.40	3	⇑P	Pn	09 17 22.3	-0.4
LOT	**Lotru**	6.47	358	⇑P	Pn	09 17 23.9	+0.1
GZR	**Gura Zlata**	6.49	352	⇑P	Pn	09 17 23.6	-0.3
VOIR		6.50	6	⇓P	Pn	09 17 23.3	-0.8
MLR	**Muntele Rosu**	6.66	11	Pn	Pn	09 17 27.8	+1.5
	1.3nm,0.3s,baz=178,slow=13,SNR=8.2						
MLR				Sn	Sn	09 18 44.9	+3.0
	0.7nm,0.3s,baz=87,slow=18,SNR=1.4						
	9.7nm,0.7s						
MLR				AML	AML		
MLR	**Muntele Rosu**	6.66	11	⇓P	Pn	09 17 25.5	-0.8
TNR	**Turnu Rosu**	6.68	1	⇑P	Pn	09 17 25.9	-0.5
DOPR	**Dopca**	7.06	7	⇑P	Pn	09 17 31.4	-0.3
PLOR	**Plostina**	7.13	15	⇑P	Pn	09 17 32.0	-0.7
VRI	**Vrincioaia**	7.16	15	⇑P	Pn	09 17 31.7	-1.4
BRTR	**Keskin Array B**	7.44	81	Pn	Pn	09 17 38.9	+1.8
	0.3nm,0.3s,baz=265,slow=12,SNR=7.3						
	0.8nm,0.4s						
BRTR				AML	AML		
ONER	**Baraj Valea Uz**	7.55	12	⇑P	Pn	09 17 37.8	-0.6
MARR	**Marisel-Cluj**	7.73	355	⇑P	Pn	09 17 40.6	-0.4
BIZ	**Bicaz**	8.10	10	⇑P	Pn	09 17 45.3	-0.6
BURAR	**Bucovina Array**	8.68	5	⇓P	Pn	09 17 53.5	-0.4
SORM	**Soroca**	9.66	17	⇑P	Pn	09 18 07.0	-0.4
ESDC	**Sonseca Array**	21.68	281	P	P	09 20 40.4	+1.3
	0.6nm,0.6s,baz=85,slow=11,SNR=4.1						
	0.6nm,0.6s						
TORD	**Torodi Ar. Bea**	32.47	224	P	P	09 22 19.9	+1.0
	0.2nm,0.4s,baz=35,slow=11,SNR=2.2						
	0.2nm,0.4s						

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*IDC **14** 09:23:20.1±0.7, 28°.39S×71°.19W, h0^{km}, mb3.7/4, mbtmp3.6/9, ML3.6/5, MS3.3/3, Error ellipse: s-maj=22.8km s-min=13.8km az=68.0*
*GUC **14** 09:23:22.3±0.8, 28°.62S×71°.42W, h44^{km}±5^{km}, ML4.3*
*NEIC **14** 09:23:23.2, 28°.50S×71°.46W, h40^{km}*
*NEIC **14** 09:23:23.7±1.6, 28°.57S±0°.01×71°.54W±0°.09, h38^{km}±10^{km}, mb4.5/8, Mwr4.1/30, Mwr4.4(GUC), Error ellipse: s-maj=11.9km s-min=1.7km az=89.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}0.76; $M_{\theta\theta}$0.33; $M_{\phi\phi}$-1.09; $M_{r\theta}$0.57; $M_{\theta\phi}$-0.90; $M_{\phi r}$-0.58; Fault plane solution: $M_0$1.55000×10^{15} NP1:ϕ_s61.11000°, δ53.54000°, λ149.28000°. NP2:ϕ_s170.56000°, δ65.74000°, λ40.68000°. Principal axes: T 1.5377, Plg45.0000°, Azm31.0000°; N 0.0249, Plg44.0000°, Azm196.0000°; P -1.5627, Plg7.0000°, Azm293.0000°;*
ISC 14 09:23:21.8±1.5**, 28°.56S**±0°.04×**71°.48W**±0°.06**, h23**^{km}±11^{km}**, n83, **σ1.^{s}**60**/89**, mb4.0**/6**, 3C-3D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
AC04	**Llanos de Chal**	0.51	45	*i* P	Pb	09 23 33.8	+1.6
AC04				*e*S	Sn	09 23 41.2	-0.5
AC04				IAML		09 23 42.0	
	comp=E,19μm,0.1s						
AC04	**Llanos de Chal**	0.51	45		Pn	09 23 33.9	+0.2
AC04					Sb	09 23 40.5	+1.3
LCO	**Las Campanas**	0.82	123	*e*P	Pn	09 23 36.9	-1.3
LCO				IAML		09 23 48.9	
	comp=E,118μm,0.6s						
LCO	**Las Campanas**	0.82	123		Pn	09 23 37.5	-0.7
LCO				Sn	Sb	09 23 47.1	-1.2
AC05	**El Transito**	1.10	105	⇓*i*P	Pn	09 23 42.1	+0.2
AC05				*e*S	Sn	09 23 55.1	-1.3
AC05				IAML		09 23 56.9	
	comp=E,4μm,0.2s						
AC05	**El Transito**	1.10	105		Pn	09 23 42.0	+0.2
AC05				Sn	Sn	09 23 54.7	-1.7
GO03	**Copiapo**	1.47	49	*e*P	Pb	09 23 48.8	+0.3
GO03				*e*S	Sb	09 24 07.6	+0.8
GO03				IAML		09 24 11.3	
	comp=N,3μm,0.2s						
GO03	**Copiapo**	1.47	49		Pb	09 23 48.8	+0.3
GO03				Sn	Sb	09 24 07.5	+0.8
GO04	**Tololo Observa**	1.71	160	⇑*e*P	Pn	09 23 51.4	+1.0
GO04				IAML		09 24 18.3	
	comp=N,20μm,0.2s						
GO04	**Tololo Observa**	1.71	160		Pn	09 23 51.5	+1.0
GO04				Sn	Sn	09 24 11.8	0.0
CO01	**Juntas del Tor**	1.86	140	⇓*i*P	Pn	09 23 54.2	+1.7
CO01				*e*S	Sb	09 24 17.2	-1.1
CO01				IAML		09 24 19.0	
	comp=E,4μm,0.4s						
CO01	**Juntas del Tor**	1.86	140		Pn	09 23 54.2	+1.7
CO01				Sn	Sn	09 24 16.2	+0.8
CO06	**Fray Jorge**	2.11	184	*e*P	Pn	09 23 56.5	+0.8
CO06				IAML		09 24 32.8	
	comp=E,2μm,0.7s						
CO06	**Fray Jorge**	2.11	184		Pn	09 23 55.7	0.0
CO03	**El Pedregal**	2.37	163		Pn	09 24 00.4	+1.0
AC01	**Pan de Azucar**	2.53	18	⇑*e*P	Pn	09 24 02.4	+0.9
AC01	**Pan de Azucar**	2.53	18		Pn	09 24 02.6	+1.1
CO02	**Combarbal**	2.67	171	*e*P	Pn	09 24 04.3	+0.8
CO02				IAML		09 24 47.9	
	comp=E,8μm,0.4s						
CO02	**Combarbal**	2.67	171		Pn	09 24 04.7	+1.3
AC02	**Maricunga**	2.71	51	*e*P	Pn	09 24 07.5	+3.1
AC02	**Maricunga**	2.71	51		Pn	09 24 07.3	+3.0
VCA	**Vinchina**	2.89	94	⇑*e*P	Pb	09 24 11.7	-1.0
CO04	**Los Peladeros**	3.50	173	*e*P	Pn	09 24 15.9	+0.9
CO04				IAML		09 25 12.0	
	comp=N,1μm,0.7s						
CO04	**Los Peladeros**	3.50	173		Pn	09 24 15.9	+0.9
ZON	**Zonda**	3.84	141		Pn	09 24 22.4	+2.8
PB14	**IPOC Station P**	4.04	14	⇓*e*P	Pn	09 24 22.5	0.0
PB14	**IPOC Station P**	4.04	14		Pn	09 24 22.6	0.0
CFA	**Coronel Fontan**	4.14	138	Pn	Pn	09 24 27.1	+3.5
	comp=N,4.0nm,0.3s,baz=330,slow=15,SNR=142						
CFA				Sn	Sn	09 25 14.5	+3.2
	comp=N,20nm,0.3s,baz=5.5,slow=8.8,SNR=5.4						
	comp=N,9.3nm,0.3s						
CFA				AML	AML		
VA03	**San Esteban**	4.26	169	*e*P	Pn	09 24 27.4	+2.0
VA03	**San Esteban**	4.26	169		Pn	09 24 26.7	+1.3
ROCH	**El Roble**	4.41	175	*e*P	Pn	09 24 28.2	+0.6
PEL	**Peldehue**	4.62	172	*e*P	Pn	09 24 29.6	-0.7
PEL	**Peldehue**	4.62	172	Pn	Pn	09 24 29.5	-0.7
MT02	**Curacav**	4.69	176	*e*P	Pn	09 24 31.4	+0.2
MT02	**Curacav**	4.69	176		Pn	09 24 32.0	+0.8
MT10	**Hacienda Santa**	4.77	170	*e*P	Pn	09 24 33.8	+1.4
MT05	**Renca**	4.86	173	*e*P	Pn	09 24 38.6	+5.1
MT14	**Cerro Cal¡n**	4.89	171	*e*P	Pn	09 24 37.3	+3.3
MT04	**Ro Olivares**	4.96	167	*e*P	Pn	09 24 37.8	+2.6
MT03	**Universidad Ad**	4.99	171	Pn	Pn	09 24 35.4	0.0
MT08	**Bocatoma Ro**	5.03	166		Pn	09 24 36.3	+0.3
MT09	**Talagante**	5.21	175		Pn	09 24 38.9	+0.4
MT13	**San Alfonso**	5.27	169		Pn	09 24 38.8	-0.4
MT01	**Popeta**	5.29	178		Pn	09 24 39.7	+0.3
PB05	**IPOC Station P**	5.80	12	Pn	Pn	09 24 46.1	-0.5
PB06	**IPOC Station P**	6.08	17	Pn	Pn	09 24 48.6	-1.9
GO05	**Hualane**	6.44	183	Pn	Pn	09 24 54.1	-1.1
SLA	**San Lorenzo**	6.58	56	*e*P	Pn	09 25 01.4	+4.1
TCA	**Tanti**	6.58	117	*e*P	Pn	09 24 58.3	+1.0
PB02	**IPOC Station P**	7.35	12	Pn	Pn	09 25 06.3	-1.6
BI02	**San Fabin de**	8.08	179	Pn	Pn	09 25 17.5	-0.3
PB11	**IPOC Station P**	8.92	11	Pn	Pn	09 25 28.4	-1.0
PSGCX	**Pisagua**	9.01	8	Pn	Pn	09 25 28.6	-2.0
GO01	**Chusmiza**	9.10	14	Pn	Pn	09 25 29.9	-2.2
GO06	**Curarrehue**	10.99	180	Pn	Pn	09 25 56.2	-1.6
PLCA	**Paso Flores**	12.17	177	Pn	Pn	09 26 16.9	+3.1
	comp=N,0.1nm,0.3s,baz=355,slow=14,SNR=1.8						
	comp=N,1.1nm,1.0s						
PLCA				AML	AML		
PLCA	**Paso Flores**	12.17	177	Pn	Pn	09 26 14.8	+1.0
TRQA	**Tornquist**	12.35	142	Pn	Pn	09 26 15.4	-0.9
LPAZ	**La Paz**	12.60	15	Pn	Pn	09 26 19.7	-0.6
	comp=N,0.1nm,0.3s,baz=185,slow=6.7,SNR=6.7						
LPAZ				LR	LR	09 31 28.6	
	comp=N,115nm,20.3s,baz=160,slow=40						
	comp=N,0.4nm,0.6s						
LPAZ				AML	AML		
LPAZ	**La Paz**	12.60	15	Pn	Pn	09 26 18.2	-2.0
CPUP	**Villa Florida**	12.77	83	Pn	Pn	09 26 20.1	-1.9
	comp=N,0.1nm,0.3s,baz=270,slow=9.1,SNR=2.9						
CPUP				LR	LR	09 31 41.1	
	comp=N,166nm,21.7s,baz=250,slow=40						
	comp=N,2.0nm,0.9s						
CPUP				AML	AML		
CPUP	**Villa Florida**	12.77	83	Pn	Pn	09 26 22.3	+0.3
SIV	**San Ignacio**	15.78	40	Pn	Pn	09 26 58.6	-4.1
	baz=222,slow=12,SNR=8.2						
	comp=N,0.4nm,0.6s						
BOAV	**Boa Vista**	32.53	21	P	P	09 29 52.0	+0.9
BOAV				IAmb	IAmb	09 29 52.9	
	comp=Z,4.4nm,1.0s						
MDP	**Montagnes des**	38.07	31	LR	LR	09 47 00.4	
	comp=Z,54nm,20.2s,baz=82,slow=38						
MLPR	**Magueyes Islan**	46.46	6	P	P	09 31 45.2	-1.8
CRPR	**Cabo Rojo, PR**	46.49	6	P	P	09 31 45.9	-1.3
TEIG	**Tepich**	51.15	340	P	P	09 32 21.0	-2.0
TEIG				IAmb	IAmb	09 32 33.5	
	comp=Z,18nm,1.3s						
QSPA	**South Pole Qui**	61.66	180	P	P	09 33 37.3	-0.3
QSPA				IAmb	IAmb	09 34 00.3	
	comp=Z,4.4nm,1.2s						
Y60A	**Bolivia**	62.55	354	P	P	09 33 43.2	-0.5
SNAG	**San Augustine**	63.54	338	P	P	09 33 50.1	-0.2
TXAR	**Lajitas Array**	65.28	329	P	P	09 34 04.0	+2.1
	comp=Z,0.3nm,0.6s,baz=163,slow=9.1,SNR=4.2						
	comp=Z,0.3nm,0.6s						
PDAR	**Pinedale Array**	79.16	332	P	P	09 35 27.4	+2.7
	comp=Z,0.3nm,0.6s,baz=135,slow=6.1,SNR=4.6						
	comp=Z,0.3nm,0.6s						
NVAR	**Mina Array Bea**	79.73	324	P	P	09 35 31.1	+3.2
	comp=Z,0.1nm,0.3s,baz=128,slow=3.4,SNR=2.6						
	comp=Z,0.1nm,0.3s						
TORD	**Torodi Ar. Bea**	81.92	70	P	P	09 35 39.8	-0.2
	comp=Z,2.9nm,0.8s,baz=259,slow=4.3,SNR=10						
	comp=Z,2.9nm,0.8s						
ASAR	**Alice Springs**	122.60	208	PKP	PKPdf	09 42 16.6	+0.5
	comp=Z,0.3nm,0.5s,baz=144,slow=1.7,SNR=5.7						
WRA	**Warramunga Arr**	125.71	210	PKP	PKiKP	09 42 23.0	+0.4
	comp=Z,1.0nm,0.7s,baz=153,slow=1.8,SNR=14						
H11S2	**WAKE ISLAND Hy**	126.16	273	T	T	12 01 28.8	
	baz=104,slow=74,SNR=5.5						
H11S1	**WAKE ISLAND Hy**	126.17	273	T	T	12 01 25.8	
	baz=104,slow=74,SNR=6.0						
H11S3	**WAKE ISLAND Hy**	126.17	273	T	T	12 01 23.4	
	baz=104,slow=74,SNR=5.1						
KURBB	**Kurchatov Arra**	148.43	37	PKPbc	PKiKP	09 43 07.7	+0.1
	comp=Z,2.3nm,0.7s,baz=302,slow=3.3,SNR=19						
ZALV	**Zalesovo Beam**	149.29	28	PKPbc	PKiKP	09 43 10.0	+0.6
	comp=Z,6.3nm,0.7s,baz=303,slow=3.8,SNR=22						
MKAR	**Makanchi Array**	152.59	41	PKPbc	PKiKP	09 43 17.4	+1.0
	comp=Z,1.6nm,0.7s,baz=324,slow=2.5,SNR=13						

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*IDC **14** 09:26:04.5±1.1, 27°.32N×54°.43E, h0^{km}, mb3.8/12, mbtmp3.8/14, ML3.7/2, MS3.2/16, Error ellipse: s-maj=27.1km s-min=20.3km az=4.0*
*NEIC **14** 09:26:07.7±1.4, 27°.48N±0°.06×54°.32E±0°.10, h10^{km}±1^{km}, mb4.2/11, Error ellipse: s-maj=16.2km s-min=7.9km az=58.0*
*GFZ **14** 09:26:07.9±0.3, 27°N±5°×5°4E±°, h10^{km}, M4.8/12, mb4.3/12, confirmed*
*TEH **14** 09:26:07.2, 27°.39N×54°.43E, h11^{km}±29^{km}, ML4.1, Presumed earthquake*
*OMAN **14** 09:26:08.8±0.0, 27°.37N×54°.38E, h10^{km}, mb3.8/5, ml3.9/19, Error ellipse: s-maj=0.9km s-min=0.5km az=15.0*
*DSN **14** 09:26:08.6±1.6, 27°.43N×54°.41E, h10^{km}, ML3.8/15, Error ellipse: s-maj=20.9km s-min=6.1km az=10.0*
*THR **14** 09:26:08.5±0.0, 27°.48N×54°.42E, h10^{km}±11^{km}, ML4.1, Presumed earthquake*
ISC 14 09:26:06.9±0.4**, 27°.38N**±0°.03×**54°.39E**±0°.03**, h10**^{km}**, n136,** σ1.^{s}**81**/145**, mb4.1**/23**, MS3.1**/12**, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
KHL1	**Khalili_Fars**	1.00	285	Pg	Pg	09 26 26.6	+0.4
LMD1	**Lamerd**	1.09	268	*e*Pg	Pn	09 26 29.5	+1.1
LMD1				*e*Sg	Sn	09 26 46.1	+2.6
LMD1				IAML		09 26 49.3	
	comp=Z,8μm,1.0s						
LMD1	**Lamerd**	1.09	268	Pg	Pn	09 26 29.4	+1.1
JHRM	**Jahrom**	1.33	327	Pg	Pg	09 26 33.0	+0.5
BNDS	**Bandar-Abbas**	1.58	89	*e*Pn	Pg	09 26 36.7	-0.6
BNDS				*e*Sg	Sg	09 26 59.2	+1.4
BNDS				IAML		09 27 08.5	
	comp=Z,1μm,1.0s						
IBND	**Bandar-abas**	1.91	87	Pn	Pb	09 26 41.5	-0.3
SHME	**Shamm**	2.05	130	*e*P	Pb	09 26 43.2	-1.0
	SNR=11						
BANOM	**Banah**	2.24	130	P	Pb	09 26 46.7	-0.8
BANOM	**Banah**	2.24	130	*e*P	Pb	09 26 46.1	-1.4
	SNR=15						
BANOM				S	Sb	09 27 13.6	-1.6
MASF	**Masafi**	2.55	141	P	Pb	09 26 51.5	-1.3
	SNR=18						
MASF				S	Sb	09 27 22.8	-1.5
MSFE	**Esma-Masafi**	2.56	141	*e*P	Pb	09 26 50.9	-2.1
	SNR=18						
NAZ	**Nazwa, Dubai**	2.64	154	P	Pb	09 26 53.7	-0.6
	SNR=10						
NAZ				S	Sb	09 27 26.2	-0.6
NAZ	**Nazwa, Dubai**	2.64	154	*e*P	Pn	09 26 51.4	+1.9
	SNR=10						
MDH	**Madha**	2.69	140	P	Pb	09 26 53.0	-2.1
	SNR=14						
MDH	**Madha**	2.69	140	P	Pb	09 26 52.8	-2.3
JRN	**Qarnain Island**	2.80	210	P	Pn	09 26 54.2	+2.5
JRN				S	Sn	09 27 28.5	+3.0
FAQ	**Al Faqa, Dubai**	2.84	157	P	Pb	09 26 56.0	-1.7
FAQ				S	Sb	09 27 30.0	-2.5
FAQ	**Al Faqa, Dubai**	2.84	157	P	Pb	09 26 55.5	-2.1
ASUD	**Al Ashush, Dub**	2.87	163	P	Pb	09 26 56.8	-1.4
	SNR=36						
ASUD				S	Sb	09 27 30.7	-2.6
ASUD	**Al Ashush, Dub**	2.87	163	*e*P	Pb	09 26 56.5	-1.7
	SNR=36						
UOSS	**Minazif**	2.92	146	P	Pn	09 26 55.9	+2.5
UOSS				S	Sn	09 27 30.5	+2.0
UOSS	**Minazif**	2.92	146		Pn	09 26 55.9	+2.5
UOSS	**Minazif**	2.92	146	*e*P	Pn	09 26 55.7	+2.2
	SNR=12						
UOSS	**Minazif**	2.92	146	P	Pn	09 26 56.0	+2.5
HATD	**Hatta, Dubai**	2.98	148	S	Sb	09 27 33.7	-3.1
HATD	**Hatta, Dubai**	2.98	148	*i* P	Pn	09 26 57.1	+2.7
	SNR=13						
KHNJ	**Kahnooj**	2.99	78	Pn	Pn	09 26 55.6	+1.2
NGRK	**Negar Kerman**	3.05	42	Pn	Pn	09 26 57.2	+1.6
ASHO	**Ashiyiah**	3.07	150	P	Pb	09 26 58.8	-2.9
	SNR=14						
ASHO				S	Sn	09 27 35.7	+3.2
ASHO	**Ashiyiah**	3.07	150	*i* P	Pn	09 26 58.3	+2.7
	SNR=14						
KRBR	**Kerman**	3.32	38	*e*Pn	Pb	09 27 02.7	-3.5
KRBR				IAML		09 28 06.9	
	comp=Z,380nm,1.0s						
JASK	**Jask - Hormozg**	3.45	115	P	Pn	09 27 02.4	+1.6
JASK				S	Sn	09 27 44.5	+2.7
JASK	**Jask - Hormozg**	3.45	115	Pn	Pn	09 27 02.2	+1.4
KHGB	**Koh Gabri**	3.50	31	Pn	Pn	09 27 03.6	+2.0
ALNE	**Al Ain**	3.53	159	S	Sn	09 27 46.2	+2.5
ALNE	**Al Ain**	3.53	159	*i* P	Pn	09 27 04.7	+2.9
	SNR=16						
MZWR	**Madinat Zayed**	3.63	187	P	Pn	09 27 06.3	+3.1
MZWR				S	Sn	09 27 47.4	+1.2
GHWR	**Ruwais**	3.67	202	P	Pn	09 27 05.9	+2.2
GHWR				S	Sn	09 27 49.4	+2.4
CHMN	**Cheshme madani**	3.71	47	Pn	Pn	09 27 06.6	+1.9
SAKB	**Bahrain**	3.72	249	P	Pn	09 27 05.7	+1.3
SAKB				S	Sn	09 27 49.0	+0.6
SOHO	**SOHO**	3.76	149	P	Pn	09 27 07.2	+2.1
SOHO				S	Sn	09 27 52.6	+3.2
SOHO	**SOHO**	3.76	149	P	Pn	09 27 07.0	+2.0
KBAM	**BAM**	3.98	63	Pn	Pn	09 27 10.4	+2.3
IMEH	**Mehriz**	4.00	3	Pn	Pn	09 27 10.9	+2.4
SLWR	**Sila**	4.10	217	P	Pn	09 27 11.4	+1.8
SLWR				S	Sn	09 28 00.3	+2.7
IBAF	**Bafgh**	4.32	13	Pn	Pn	09 27 14.6	+1.8
TAFT	**Taft - Yazd**	4.33	357	Pn	Pn	09 27 14.9	+1.8
ARQ	**Araqi**	4.46	154	P	Pn	09 27 17.1	+2.4
ARQ				S	Sn	09 28 08.6	+1.9
HOQ	**Hoqain**	4.61	144	P	Pn	09 27 20.1	+3.4
HOQ				S	Sn	09 28 12.6	+2.3
UMZA	**Um Al Zommool**	4.70	171	P	Pn	09 27 20.4	+2.6
UMZA				S	Sn	09 28 14.5	+2.1
YZKH	**Yazd**	5.00	2	*e*Pn	Pn	09 27 23.6	+1.5
YZKH				IAML		09 29 05.6	
	comp=Z,44nm,1.0s						
BIDO	**Bidbid**	5.11	138	P	Pn	09 27 26.0	+2.4
BIDO				S	Sn	09 28 24.1	+1.3
BSY	**Bisya**	5.27	151	P	Pn	09 27 28.5	+2.7
	SNR=7.9						
BSY				S	Sn	09 28 28.3	+1.7
SMDO	**Samad**	5.43	142	P	Pn	09 27 30.9	+2.9
SMDO				S	Sn	09 28 31.3	+0.7
NASN	**Na'in**	5.57	346	*e*Pn	Pn	09 27 31.5	+1.3
NASN				IAML		09 27 51.9	
	comp=Z,28nm,0.9s						
WSAR	**Wadi Sarin**	5.63	136	P	Pn	09 27 33.3	+2.6
WSAR				S	Sn	09 28 34.9	-0.5
CHBR	**Chabahar**	5.74	107	Pn	Pn	09 27 34.0	+1.8
JMDO	**Jabal Madar**	6.02	145	P	Pn	09 27 38.7	+2.6
JMDO				S	Sn	09 28 45.1	0.0
BSRN	**Basiran**	6.15	41	*e*Pn	Pn	09 27 39.7	+1.7

BSRN				IAML		09 29 46.9	
	comp=Z,29nm,1.0s						
KBD	Kabd	6.17	288	P	Pn	09 27 38.7	+0.6
KBD				S	Sn	09 28 47.2	-1.6
NGCH	Negor - Chabah	6.37	107	P	Pn	09 27 42.6	+1.7
NGCH				S	Sn	09 28 53.1	-0.6
TABS	Tabas	6.68	20	*e*Pn	Pn	09 27 48.4	+3.2
TABS				IAML		09 30 07.8	
	comp=Z,30nm,1.0s						
GTMR	Gotvand	6.84	319	*e*Pn	Pn	09 27 50.1	+2.8
GTMR				IAML		09 29 15.1	
	comp=Z,61nm,1.0s						
JLN	Jalan Bani Buh	6.92	138	P	Pn	09 27 49.3	+0.8
SRVN	Saravan	7.12	88	*e*Pn	Pn	09 27 53.3	+2.0
SRVN				IAML		09 27 56.7	
	comp=Z,14nm,1.0s						
SRVN	Saravan	7.12	88	Pn	Pn	09 27 53.2	+2.0
MHTO	MHTO	7.15	152	P	Pn	09 27 53.6	+2.0
	SNR=8.3						
KHMZ	Khomeyn	7.40	330	*e*Pn	Pn	09 27 56.9	+1.7
KHMZ				IAML		09 29 21.7	
	comp=Z,27nm,1.0s						
SHRT	Shahrakht	8.05	38	*e*Pn	Pn	09 28 06.7	+2.7
SHRT				IAML		09 30 35.4	
	comp=Z,8.1nm,1.0s						
ASAO	Ashtian	8.07	333	*e*Pn	Pn	09 28 07.7	+3.3
ASAO				IAML		09 29 54.9	
	comp=Z,31nm,1.0s						
SHRO	Shahrood	8.69	9	*e*Pn	Pn	09 28 15.5	+2.6
SHRO				IAML		09 28 26.3	
	comp=Z,2.6nm,1.0s						
RAYN	Ar Rayn	8.90	246	P	Pn	09 28 16.0	+0.3
RAYN	Ar Rayn	8.90	246		Pn	09 28 16.1	+0.4
RAYN	Ar Rayn	8.90	246	*i* P	Pn	09 28 16.3	+0.6
	SNR=8.8						
RAYN	Ar Rayn	8.90	246	P	Pn	09 28 16.5	+0.8
	comp=Z,14nm,0.5s						
SHAO	Shalim	9.38	173	P	Pn	09 28 22.9	+0.7
ILBA	Ilam Banvizeh	9.41	313	*e*Pn	Pn	09 28 24.5	+1.9
ILBA				IAML		09 28 53.3	
	comp=Z,13nm,0.8s						
DMTO	DMTO	9.63	177	P	Pn	09 28 25.9	+0.2
SNGE	Sanandaj	9.77	324	*e*Pn	Pn	09 28 32.8	+5.1
SNGE				IAML		09 28 38.4	
	comp=Z,9.1nm,0.6s						
RBK	Rabkut	9.83	181	P	Pn	09 28 30.4	+2.0
GNI	Garni	15.04	330	LR	LR	09 35 42.5	
	comp=Z,82nm,19.7s,baz=130,slow=38						
ASF	Jabal al Asfar	15.92	292	Pn	Pn	09 29 50.5	-0.7
	comp=Z,0.4nm,0.3s,baz=101,slow=16,SNR=4.4						
ASF				Sn	Sn	09 32 32.8	-15
	comp=Z,0.3nm,0.3s,baz=139,slow=20,SNR=1.9						
ASF				LR	LR	09 37 23.3	
	comp=Z,56nm,18.8s,baz=26,slow=42 comp=Z,0.9nm,0.3s						
ASF				AML	AML		
UJAP	Al Uja	17.07	290	P	Pn	09 30 05.2	-0.4
EIL	Elat	17.24	282	LR	LR	09 38 01.6	
	comp=Z,100nm,20.0s,baz=90,slow=42						
MMAI	Mount Meron Ar	17.34	293	LR	LR	09 38 29.6	
	comp=Z,88nm,18.4s,baz=100,slow=43						
NIL	Nilore	17.40	64	P	P	09 30 10.9	-0.3
	comp=Z,9.2nm,0.4s						
ARPR	Arapgir-MALATY	17.77	315	P	P	09 30 17.6	+2.3
	comp=Z,14nm,1.4s						
KELT	Kelkit	17.87	319	P	Pn	09 30 15.7	-0.2
	comp=Z,31nm,1.4s						
ANDN	Andirin	18.28	308	P	P	09 30 21.8	+0.8
	comp=Z,32nm,0.9s						
BTK	Batken	18.58	43	P	Pn	09 30 27.1	+2.7
	comp=Z,8.0nm,0.8s						
KBZ	Khabaz	18.77	333	P	P	09 30 26.1	0.0
	comp=Z,0.1nm,0.3s,baz=248,slow=11,SNR=1.5 comp=Z,0.6nm,0.4s						
KBZ				AML	AML		
ARK	Arkit	20.34	40	P	Pn	09 30 47.0	+1.5
BRTR	Keskin Array B	21.17	311	P	P	09 30 52.0	-0.6
	comp=Z,1.3nm,0.6s,baz=132,slow=12,SNR=7.8 comp=Z,1.3nm,0.6s						
BR131	Keskin Array S	21.17	311	P	P	09 30 52.5	-0.1
BR131				IAmb	IAmb	09 31 02.9	
	comp=Z,6.2nm,0.8s						
KSH2	Kashi	21.18	51	P	P	09 30 52.5	-0.2
KSH2				pmax	pmax		
	comp=Z,5.0nm,0.5s						
AB31	Akbulak array	22.26	10		P	09 31 03.7	-0.2
AB31				IAmb	IAmb	09 31 13.3	
	comp=Z,11nm,1.2s						
ABKAR	Akbulak array	22.26	10		P	09 31 03.5	-0.4
AAK	Ala-Archa	22.34	42	LR	LR	09 40 12.7	
	comp=Z,57nm,19.2s,baz=245,slow=38						
AAK	Ala-Archa	22.34	42	P	P	09 31 05.9	+0.8
	comp=Z,5.8nm,1.8s						
ASAI	AK-SAY(Kyrgyzs	22.67	48	P	P	09 31 09.0	+0.2
	comp=Z,6.5nm,1.0s						
BOOM	Boomskoye usch	23.13	44	P	P	09 31 13.9	+0.5
	comp=Z,7.7nm,1.2s						
AKTO	Aktyubinsk	23.19	6	LR	LR	09 41 39.3	
	comp=Z,29nm,19.6s,baz=357,slow=40						
PDGK	Podgornoye	25.79	45	P	P	09 31 37.7	-0.5
BVAR	Borovoye Array	28.25	21	P	P	09 31 59.8	-0.2
	comp=Z,1.1nm,0.4s,baz=238,slow=7.9,SNR=4.2 comp=Z,1.1nm,0.4s						
MAKZ	Makanchi	29.09	41	P	P	09 32 08.0	+0.3
MAKZ				IAmb	IAmb	09 32 14.8	
	comp=Z,3.6nm,1.0s						
MAKZ	Makanchi	29.09	41	P	P	09 32 08.1	+0.5
	comp=Z,2.7nm,0.7s						
ARTI	Arti	29.13	5	LR	LR	09 45 34.1	
	comp=Z,34nm,18.7s,baz=170,slow=40						
MK31	Makanchi Array	29.27	41	P	P	09 32 09.0	-0.2
MKAR	Makanchi Array	29.27	41	P	P	09 32 09.0	-0.2
	comp=Z,0.7nm,0.6s,baz=230,slow=8.7,SNR=8.6						
MKAR				LR	LR	09 44 08.5	
	comp=Z,48nm,21.6s,baz=243,slow=37 comp=Z,0.7nm,0.6s						
MARCO	Tramutola	34.28	302	P	P	09 32 51.9	-1.5
	comp=Z,100nm,2.6s						
ZAA0	Zalesovo Array	34.69	32	P	P	09 32 57.9	+1.2
ZAA0				IAmb	IAmb	09 33 09.5	
	comp=Z,2.4nm,0.5s						
ZALV	Zalesovo Beam	34.69	32	P	P	09 32 56.1	-0.5
	comp=Z,1.4nm,0.5s,baz=222,slow=9.2,SNR=5.6						
ZALV				LR	LR	09 48 02.7	
	comp=Z,18nm,21.6s,baz=327,slow=38 comp=Z,1.4nm,0.5s						
MBAR	Mbarara	35.93	223	LR	LR	09 48 16.7	
	comp=Z,67nm,19.8s,baz=33,slow=37						
VRAC	Vranov	36.32	317	LR	LR	09 50 35.4	
	comp=Z,40nm,19.1s,baz=58,slow=40						
FINES	FINESS Array B	38.98	339	P	P	09 33 31.9	-1.1
	comp=Z,1.2nm,0.5s,baz=122,slow=9.4,SNR=5.2 comp=Z,1.2nm,0.5s						
DAVOX	Davos/Dischmat	39.82	311	LR	LR	09 53 12.3	
	comp=Z,39nm,21.6s,baz=69,slow=41						
CLZ	Clausthal	40.93	319	P	P	09 33 48.6	-0.9
	comp=Z,6.2nm,1.1s						
HFS	Hagfors	42.82	331	LR	LR	09 53 43.1	
	comp=Z,46nm,19.0s,baz=110,slow=39						
NOA	NORSAR Array B	44.34	332	LR	LR	09 53 38.5	
	comp=Z,15nm,18.3s,baz=100,slow=37						
SONM	Songino Array	45.02	49	LR	LR	09 56 22.9	
	comp=Z,44nm,18.4s,baz=261,slow=40						
ARCES	ARCESS Array B	45.41	346	P	P	09 34 25.0	-0.4
	comp=Z,1.4nm,0.8s,baz=152,slow=5.5,SNR=4.3 comp=Z,1.4nm,0.8s						
ARCES	ARCESS Array B	45.41	346	IAmb	IAmb	09 34 43.9	
	comp=Z,9.8nm,1.3s						
NRIK	Noril'sk	46.22	16	LR	LR	09 58 07.2	
	comp=Z,25nm,19.7s,baz=204,slow=42						
ESDC	Sonseca Array	49.39	300	P	P	09 34 56.5	-0.3
	comp=Z,0.2nm,0.5s,baz=90,slow=8.2,SNR=6.0 comp=Z,0.2nm,0.5s						
TORD	Torodi Ar. Bea	51.07	265	P	P	09 35 08.9	-0.9
	comp=Z,0.7nm,0.6s,baz=63,slow=7.9,SNR=6.7 comp=Z,0.7nm,0.6s						
TORD	Torodi Ar. Bea	51.07	265	IAmb	IAmb	09 35 41.4	
	comp=Z,2.5nm,0.9s						
SPITS	Spitsbergen Ar	53.70	351	P	P	09 35 27.6	-0.9
	comp=Z,5.9nm,0.9s,baz=207,slow=12,SNR=8.5 comp=Z,5.9nm,0.9s						
NACB	Ninganchiao	59.93	77	P	P	09 36 14.2	+0.6
NACB	Ninganchiao	59.93	77	P	P	09 36 14.6	+1.0
	comp=Z,55nm,0.7s						
BMAR	Burnt Mountain	84.41	7	P	P	09 38 38.4	-1.0
IMAR	Indian Mountai	84.47	11	P	P	09 38 39.2	-0.3
H23K	Yukon River	85.29	10	P	P	09 38 43.4	-0.4
H23K				IAmb	IAmb	09 39 02.3	
	comp=Z,2.5nm,1.2s						
ILAR	Eielson Array	86.66	9	P	P	09 38 49.9	-0.6
	comp=Z,0.2nm,0.6s,baz=289,slow=3.7,SNR=2.3 comp=Z,0.2nm,0.6s						
I30M	Mount Dempster	87.32	5	P	P	09 38 52.9	-1.0
WRA	Warramunga Arr	90.52	112	P	P	09 39 08.3	-1.2
	comp=Z,0.5nm,1.1s,baz=314,slow=4.0,SNR=4.5 comp=Z,0.5nm,1.1s						
ASAR	Alice Springs	91.96	116	P	P	09 39 15.2	-1.0
	comp=Z,0.2nm,0.6s,baz=316,slow=4.1,SNR=5.2 comp=Z,0.2nm,0.6s						

SNET ***14*** *09:41:28.4±2.6, 14°.15N×89°.99W, h234^{km}, ML3.0, Presumed earthquake*

CATAC ***14*** *09:41:31.8±0.3, 14°N±4°×9°0W±°, h200^{km}±2^{km}, M3.4/25, MLv3.4/25, Error ellipse: s-maj=9.8km s-min=2.9km az=26.5, confirmed*

GCG ***14*** *09:41:32.5±1.6, 14°.42N×90°.04W, h192^{km}±15^{km}, MD4.6, Presumed earthquake*

ISC 14 09:41:31.6±1.8**, 14°.34N**±0°.08×**89°.98W**±0°.05**, h207**^{km}±9^{km}**, n50, σ1ˢ.03**/81**, 1C-1D, Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RBDL	Robledal	0.36	128	⇓*i*P	Pn	09 41 59.4	0.0
RBDL				*e*S	S	09 42 22.6	+1.6
SLOZ	Alcaldia de Sa	0.37	149	P	Pn	09 41 59.1	-0.1
NUBE	Las Nubes	0.48	156	*i* P	Pn	09 41 59.1	-0.6
NUBE	Las Nubes	0.48	156	P	Pn	09 41 59.2	-0.6
NUBE				S	S	09 42 21.5	-0.2
FAME	Alcaldia de Sa	0.49	184	P	Pn	09 41 58.9	-0.8
FAME				S	S	09 42 21.0	-0.5
FG16	Alotenango, Sa	0.52	263	*i* P	Pn	09 42 01.2	+1.3
UNIC	Universidad Ca	0.55	130	P	Pn	09 41 59.6	-0.3
UNIC				S	S	09 42 21.2	-0.6
GCG4	OSOP	0.59	295	*i* P	Pn	09 42 00.4	+0.2
SNJE	San Jose	0.59	142	*i* P	Pn	09 42 00.1	-0.1
MTO3	Montecristo	0.60	84	*i* P	Pn	09 42 00.2	-0.1
SBLS	San Blas	0.61	145	*i* P	Pn	09 41 59.9	-0.4
CEVE	Cerro Verde	0.62	146	⇑*i*P	Pn	09 42 00.4	-0.1
CEVE	Cerro Verde	0.62	146	P	Pn	09 42 00.2	-0.2
CEVE				S	S	09 42 22.9	+0.2
ZAFR2	Estanzuela, Za	0.65	69	*i* P	Pn	09 42 00.8	+0.5
ZAFR2				*i* S	S	09 42 19.3	-3.2
ESQI	Esquipulas	0.66	70	*i* P	Pn	09 42 00.6	+0.2
ESQI				*e*S	S	09 42 24.3	+1.7
ESQI	Esquipulas	0.66	70	P	Pn	09 42 00.3	0.0
ESQI				S	S	09 42 23.4	+0.7
CEDA	San Andres	0.78	133	P	Pn	09 42 00.6	-0.3
CEDA				S	S	09 42 23.6	0.0
APG	El Apazote	0.81	325	*i* P	Pn	09 42 01.6	+0.3
APG				*i* S	S	09 42 22.6	-1.7
JAYA	Jayaque - finc	0.85	143	*i* P	Pn	09 42 00.6	-0.9
JAYA				*i* S	S	09 42 24.6	0.0
JAYA	Jayaque - finc	0.85	143	*i* P	Pn	09 42 00.9	-0.6
JAYA				*e*S	S	09 42 27.5	+2.9
JAYA	Jayaque - finc	0.85	143	P	Pn	09 42 00.9	-0.6
JAYA				S	S	09 42 23.8	-0.8
PMON	Piamonte	0.90	134	*i* P	Pn	09 42 01.2	-0.5
PMON	Piamonte	0.90	134	P	Pn	09 42 01.5	-0.2
PMON				S	S	09 42 24.0	-0.9
ESSJ	San Jos, E	0.92	213	*i* P	Pn	09 42 01.2	-0.5
UEES	Universidad Ev	0.95	131	P	Pn	09 42 01.4	-0.6
UEES				S	S	09 42 25.0	-0.4
LLGN	La Laguna	1.02	100	P	Pn	09 42 01.9	-0.6
LLGN				S	S	09 42 25.7	-0.4
LOMA	Loma Larga	1.05	131	*i* P	Pn	09 42 02.6	0.0
LOMA				*e*S	S	09 42 30.9	+4.3
LOMA	Loma Larga	1.05	131	P	Pn	09 42 02.5	-0.1
LOMA				S	S	09 42 25.7	-0.9
LALI	Alcalda de L	1.06	143	*i* P	Pn	09 42 02.3	-0.3
LALI	Alcalda de L	1.06	143	P	Pn	09 42 01.9	-0.7
LALI				S	S	09 42 25.2	-1.2
PAVA	Las Pavas	1.19	122	P	Pn	09 42 03.5	-0.2
PAVA				S	S	09 42 27.6	-0.6
SJTE	Alcalda de S	1.19	127	*i* P	Pn	09 42 03.1	-0.5
SJTE				*e*S	S	09 42 31.5	+3.3
P5NO	Presa 5 de nov	1.24	106	P	Pn	09 42 03.4	-0.5
P5NO				S	S	09 42 28.5	-0.1
SARH	Santa Rosa de	1.26	70	P	Pn	09 42 04.3	+0.2
SARH				S	S	09 42 30.0	+1.0
COEG	Centro de Oper	1.28	124	P	Pn	09 42 04.3	-0.1
COEG				S	S	09 42 28.9	-0.6
STG8	El Palmar, Qui	1.33	275	*i* P	Pn	09 42 06.7	+1.8
TECO	Alcaldia de Te	1.41	124	S	S	09 42 30.6	-0.5
RTAL	Retalhuleu	1.67	277	P	Pn	09 42 06.9	-0.6
RTAL				S	S	09 42 35.4	+0.3
ALJI	Alcalda de J	1.70	126	S	S	09 42 35.6	+0.1
HUEH	Huehuetenango	1.76	304	P	Pn	09 42 08.9	+0.3
HUEH				S	S	09 42 37.0	-0.1
PACA	Pacayal	1.83	118	P	Pn	09 42 09.1	-0.1
SMCA	Catarina	2.09	284	*i* P	Pn	09 42 10.7	-0.9
CNCH	Conchagua	2.34	117	P	Pn	09 42 13.6	-0.8
CNCH				S	S	09 42 47.3	+0.1
TGUH	Tegucigalpa,Un	2.64	96	P	Pn	09 42 16.8	-0.9
CSGN	Cosiguina Volc	2.72	120	P	Pn	09 42 18.0	-0.5
CSGN				S	S	09 42 55.1	+0.5
CRIN	San Cristobal	3.28	119	S	S	09 43 07.4	+0.9
PLRN	Geotermica Pol	3.58	119	P	Pn	09 42 29.7	+1.1
PLRN				S	S	09 43 13.2	+0.4
CNGN	Cerro Negro	3.68	119	P	Pn	09 42 29.5	-0.4
CNGN				S	S	09 43 15.8	+0.8
RCVN	Varillal2	3.75	101	P	Pn	09 42 30.1	-0.7
LEVN	Ruinas Leon Vi	3.80	120	P	Pn	09 42 30.9	-0.3
LEVN				S	S	09 43 17.9	+0.4

IDC ***14*** *09:49:20.8±1.9, 3°.41S×127°.85E, h0^{km}, mb3.9/3, mbtmp3.9/4, ML3.7/1, Error ellipse: s-maj=184.1km s-min=24.1km az=67.0*

DJA ***14*** *09:49:22.9±0.3, 3°S±3°×12°9E±°, h10^{km}, M3.9/12, mb4.3/1, MLv3.7/12*

ISC 14 09:49:21.1±1.0**, 2°.67S**±0°.08×**129°.38E**±0°.06**, h10**^{km}**, n10, σ2ˢ.12**/10**, mb4.1**/3**, Seram**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSAI	Masohi	0.81	214	P	Pg	09 49 37.7	+1.0
MSAI				AML	AML		
BNDI	Bandanaira	1.92	164	P	Pn	09 49 56.4	+2.6
BNDI				AML	AML		
NLAI	Namlea	2.35	256	P	Pn	09 50 01.9	+2.2
NLAI				AML	AML		
SWI	Sorong	2.60	46	P	Pn	09 50 05.6	+2.4
FAKI	Fak Fak	2.88	95	P	Pn	09 50 07.4	+0.4
FAKI				AML	AML		
SANI	Sanana	3.44	280	P	Pn	09 50 14.6	-0.2
SANI				AML	AML		
WRA	Warramunga Arr	17.84	165	P	Pn	09 53 26.9	-2.7
	0.3nm,0.3s,baz=341,slow=12,SNR=16 1.3nm,0.6s						
WRA				AML	AML		
ASAR	Alice Springs	21.33	169	P	P	09 54 06.2	-2.3
	5.6nm,0.7s,baz=351,slow=9.6,SNR=66 5.6nm,0.7s						
MKAR	Makanchi Array	64.30	326	P	P	09 59 56.5	-0.3
	0.5nm,0.6s,baz=125,slow=6.1,SNR=4.6 0.5nm,0.6s						
KURBB	Kurchatov Arra	68.53	328	P	P	10 00 24.2	+0.4
	0.8nm,0.5s,baz=128,slow=5.7,SNR=9.3 0.8nm,0.5s						

IDC ***14*** *10:03:17.7±1.1, 31°.48N×66°.79E, h0^{km}, mb3.9/12, mbtmp4.0/14, ML4.0/2, MS3.4/18, Error ellipse: s-maj=22.3km s-min=17.6km az=150.0*

ISC 14 10:03:20.4±1.1**, 31°.5N**±0°.1×**66°.8E**±0°.1**, h17**^{km}**, n28, σ0ˢ.73**/15**, mb3.9**/10**, MS3.3**/17**, Southeastern Afghanistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AAK	Ala-Archa	12.70	27	Pn	Pn	10 06 19.6	-0.7
	1.5nm,0.3s,baz=207,slow=9.0,SNR=13						
AAK				Sn	Sn	10 08 41.6	+0.3
	0.3nm,0.3s,baz=150,slow=14,SNR=1.8						
AAK				LR	LR	10 11 51.0	
	comp=Z,105nm,21.6s,baz=202,slow=40 5.4nm,0.6s						
AAK				AML	AML		
MKAR	Makanchi Array	19.38	34	Pn	P	10 07 45.0	-0.3
	0.3nm,0.3s,baz=220,slow=12,SNR=14 1.8nm,0.7s						
MKAR				AML	AML		
AKTO	Aktyubinsk	20.02	343	P	P	10 07 52.5	+0.3
	4.5nm,0.9s,baz=173,slow=9.8,SNR=10						
AKTO				LR	LR	10 16 35.4	
	comp=Z,153nm,20.1s,baz=286,slow=40 4.5nm,0.9s						
KURBB	Kurchatov Arra	21.01	21	P	P	10 08 02.1	-0.8
	4.5nm,0.2s,baz=210,slow=12,SNR=4.1 4.5nm,0.2s						
BVAR	Borovoye Array	21.67	6	P	P	10 08 10.2	+0.1
	7.3nm,0.6s,baz=178,slow=10,SNR=21 7.3nm,0.6s						
KBZ	Khabaz	22.44	310	P	P	10 08 18.6	+0.3
	0.5nm,0.3s,baz=142,slow=4.8,SNR=1.7 0.5nm,0.3s						
BRDH	Bariadhala	23.76	106	LR	LR	10 20 02.7	
	comp=Z,174nm,18.7s,baz=327,slow=42						
BELG	Belogornoye	25.14	332	LR	LR	10 21 31.7	
	comp=Z,193nm,18.4s,baz=83,slow=44						
ASF	Jabal al Asfar	25.37	279	LR	LR	10 20 15.0	
	comp=Z,88nm,19.5s,baz=26,slow=40						
ARTI	Arti	25.57	349	LR	LR	10 19 46.1	
	comp=Z,109nm,18.9s,baz=200,slow=39						
ZALV	Zalesovo Beam	25.91	25	P	P	10 08 50.8	-0.6
	2.4nm,0.6s,baz=226,slow=9.6,SNR=9.5						
ZALV				LR	LR	10 19 52.2	
	comp=Z,71nm,19.4s,baz=225,slow=38 2.4nm,0.6s						
MMAI	Mount Meron Ar	26.54	282	LR	LR	10 20 37.0	
	comp=Z,78nm,20.2s,baz=72,slow=39						
PALK	Pallekele	27.38	149	LR	LR	10 20 35.1	
	comp=Z,67nm,18.9s,baz=319,slow=38						
EIL	Elat	27.43	275	LR	LR	10 21 29.0	
	comp=Z,49nm,18.7s,baz=85,slow=40						
BRTR	Keskin Array B	28.05	296	LR	LR	10 21 33.4	
	comp=Z,38nm,18.7s,baz=117,slow=39						
AKASG	Malin Array Be	33.72	316	LR	LR	10 25 01.9	
	comp=Z,35nm,19.9s,baz=72,slow=39						
SONM	Songino Array	34.14	50	P	P	10 10 05.5	+1.0
	1.2nm,0.8s,baz=253,slow=10,SNR=6.9 1.2nm,0.8s						
FINES	FINESS Array B	39.91	331	P	P	10 10 53.0	-0.1
	0.8nm,0.6s,baz=134,slow=11,SNR=3.4						
FINES				LR	LR	10 30 04.3	
	comp=Z,112nm,18.7s,baz=122,slow=40 0.8nm,0.6s						
ARCES	ARCESS Array B	44.56	341	P	P	10 11 31.0	0.0
	1.0nm,0.5s,baz=127,slow=8.1,SNR=11 1.0nm,0.5s						
NOA	NORSAR Array B	46.43	326	LR	LR	10 33 26.4	
	comp=Z,46nm,18.1s,baz=100,slow=39						
MBAR	Mbarara	46.76	234	LR	LR	10 33 39.7	
	comp=Z,72nm,19.8s,baz=54,slow=39						
KSRS	Korea Array	49.98	66	P	P	10 12 13.3	-0.3
	1.6nm,0.8s,baz=278,slow=7.2,SNR=6.6 1.6nm,0.8s						
SPITS	Spitsbergen Ar	51.61	348	LR	LR	10 39 38.0	
	comp=Z,25nm,18.5s,baz=98,slow=42						
ESDC	Sonseca Array	56.78	299	P	P	10 13 04.9	+1.2
	0.4nm,0.5s,baz=75,slow=9.8,SNR=5.0 0.4nm,0.5s						
BORG	Borgarnes	61.20	331	LR	LR	10 42 39.8	
	comp=Z,40nm,19.8s,baz=62,slow=39						
TORD	Torodi Ar. Bea	62.10	269	P	P	10 13 39.4	-1.3
	1.1nm,0.8s,baz=57,slow=6.9,SNR=6.5 1.1nm,0.8s						
KAPI	Kappang	62.13	116	LR	LR	10 42 51.9	
	comp=Z,27nm,21.4s,baz=36,slow=38						
WRA	Warramunga Arr	82.49	119	P	P	10 15 42.7	+0.3
	0.6nm,0.8s,baz=323,slow=4.7,SNR=9.3 0.6nm,0.8s						

GFZ ***14*** *10:04:14.2±1.0, 36°S±11°×10°0W±1°3, h10^{km}, M4.7/19, mb4.7/19, confirmed*

IDC ***14*** *10:04:16.2±1.1, 36°.30S×99°.47W, h0^{km}, mb4.2/9, mbtmp4.2/9, MS4.0/30, Error ellipse: s-maj=31.0km s-min=22.0km az=33.0*

NEIC ***14*** *10:04:18.5±1.3, 36°.21S±0°.10×99°.5W±0°.1, h10^{km}±1^{km}, mb4.8/41, Error ellipse: s-maj=23.5km s-min=4.8km az=224.0*

GCMT ***14*** *10:04:19.5±0.2, 36°.41S±0°.01×99°.44W±0°.01, h15^{km}±1^{km}, MW4.9/111, Moment Tensor Solution. s38,c47; s111,c148; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.01±.10; $M_{\theta\theta}$-0.04±.08; $M_{\phi\phi}$1.05±.09; $M_{r\theta}$0.22±.24; $M_{\theta\phi}$-3.00±.07; $M_{\phi r}$-0.73±.25; Best double couple: $M_0$3.13200×10^{16} NP1:ϕ_s95.00000°,δ76.00000°, λ-178.00000°. NP2:ϕ_s4.00000°,δ88.00000°,λ-14.00000°. Principal axes: T 3.6620, Plg9.0000°, Azm51.0000°; N -1.0580, Plg76.0000°, Azm177.0000°; P -2.6020, Plg11.0000°, Azm319.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 14 10:04:17.6±0.7**, 36°.2S**±0°.1×**99°.5W**±0°.1**, h10**^{km}**, n145, σ1ˢ.24**/110**, mb4.8**/41**, MS4.0**/31**, Southeast of Easter Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VA02	Isla de Pascua	12.37	314	Pn	Pn	10 07 14.3	+0.4
H03S2	Juan Fernandez	17.00	88	T	T	10 25 52.4	
	baz=254,slow=76,SNR=16						
H03S1	Juan Fernandez	17.02	88	T	T	10 25 51.0	
	baz=254,slow=76,SNR=9.7						
H03S3	Juan Fernandez	17.02	88	T	T	10 25 55.4	
	baz=254,slow=76,SNR=9.1						
LL02	Futaleuf	22.31	117		P	10 09 15.7	+0.5
LL02				IAmb	IAmb	10 09 19.6	
	comp=Z,61nm,1.5s						
LL02	Futaleuf	22.31	117	P	P	10 09 16.6	+1.3
	comp=Z,28nm,1.2s						
GO06	Curarrehue	22.32	107		P	10 09 14.7	-0.9
GO06				IAmb	IAmb	10 09 19.0	
	comp=Z,20nm,0.9s						
GO06	Curarrehue	22.32	107	P	P	10 09 16.4	+0.9
	comp=Z,27nm,0.9s						
GO05	Hualane	22.41	95		P	10 09 16.7	+0.3
GO05	Hualane	22.41	95	P	P	10 09 17.4	+0.9
	comp=Z,62nm,1.4s						
BO03	Pichilemu	22.49	94	P	P	10 09 19.4	+2.2
	comp=Z,37nm,1.6s						
COYC	Coyhaique	22.64	123		P	10 09 19.6	+0.9
COYC				IAmb	IAmb	10 09 23.0	
	comp=Z,37nm,1.1s						
COYC	Coyhaique	22.64	123	P	P	10 09 21.6	+2.9
	comp=Z,34nm,1.3s						
BI02	San Fabin de	22.67	100		P	10 09 19.0	-0.3
BI02				IAmb	IAmb	10 09 27.8	
	comp=Z,41nm,1.1s						
BI02	San Fabin de	22.67	100	P	P	10 09 20.7	+1.4
	comp=Z,34nm,1.2s						
ML02	Panimavida	22.69	97	P	P	10 09 19.9	+0.6
ML02	Panimavida	22.69	97	P	P	10 09 20.9	+1.6
	comp=Z,92nm,1.6s						
PLCA	Paso Flores	23.05	110	P	P	10 09 23.1	0.0
	comp=Z,15nm,1.1s,baz=260,slow=10.0,SNR=10						
PLCA				LR	LR	10 16 01.7	
	comp=Z,481nm,20.7s,baz=272,slow=31 comp=Z,15nm,1.1s						
PLCA	Paso Flores	23.05	110		P	10 09 24.4	+1.3
PLCA				IAmb	IAmb	10 09 28.2	
	comp=Z,26nm,1.2s						
PLCA	Paso Flores	23.05	110	*e*P	P	10 09 22.4	-0.7
PLCA	Paso Flores	23.05	110	P	P	10 09 25.1	+2.0
	comp=Z,20nm,1.3s						
BO01	Tunca	23.22	94	P	P	10 09 25.9	+1.1
BO01				IAmb	IAmb	10 09 37.1	
	comp=Z,48nm,1.4s						
BO01	Tunca	23.22	94	P	P	10 09 25.2	+0.4
	comp=Z,23nm,1.6s						
BO02	Sierra Bellavi	23.38	95	P	P	10 09 27.1	+0.6
BO02				IAmb	IAmb	10 09 27.7	
	comp=Z,62nm,1.6s						
BO02	Sierra Bellavi	23.38	95	P	P	10 09 26.6	0.0
	comp=Z,28nm,1.3s						
MT09	Talagante	23.44	92	P	P	10 09 27.3	0.0
MT09				IAmb	IAmb	10 09 29.6	
	comp=Z,74nm,1.4s						
CO06	Fray Jorge	23.84	85	P	P	10 09 31.0	-0.1
CO04	Los Peladeros	23.92	88	P	P	10 09 31.6	-0.6
CO04	Los Peladeros	23.92	88	P	P	10 09 31.9	-0.3
	comp=Z,44nm,2.0s						

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MT13  San Alfonso      24.01  93 P       P       10 09 32.8  0.0
MT13                             IAmb    IAmb    10 09 36.7
      comp=Z,25nm,0.8s
VA03  San Esteban      24.06  90 P       P       10 09 33.8 +0.7
VA03                             IAmb    IAmb    10 09 36.5
      comp=Z,26nm,0.8s
VA03  San Esteban      24.06  90 P       P       10 09 33.0 -0.2
      comp=Z,35nm,0.8s
MT08  Bocatoma Ro      24.30  92 IAmb    IAmb    10 09 42.5
      comp=Z,29nm,0.8s
LCO   Las Campanas     25.23  82 P       P       10 09 44.5 +0.5
LCO                              IAmb    IAmb    10 09 47.0
      comp=Z,33nm,1.0s
CO01  Juntas del Tor   25.34  84 P       P       10 09 45.3 +0.3
CO01                             IAmb    IAmb    10 10 01.9
      comp=Z,21nm,1.1s
AC05  El Transito      25.64  82         P       10 09 47.9 +0.3
AC05                             IAmb    IAmb    10 09 51.1
      comp=Z,27nm,0.8s
AC05  El Transito      25.64  82 P       P       10 09 50.4 +2.8
      comp=Z,44nm,0.8s
AC01  Pan de Azucar    26.59  76 P       P       10 09 56.9 +0.8
AC02  Maricunga        27.42  79 P       P       10 10 03.4 -0.7
AC02                             IAmb    IAmb    10 10 09.6
      comp=Z,12nm,0.9s
PB05  IPOC Station P   28.62  70 P       P       10 10 11.3 -3.1
      comp=Z,21nm,1.0s
SALTA                  30.89  77 P       P       10 10 36.6 +1.7
      comp=Z,7.1nm,2.0s
NNA   Nana             31.60  46 LR      LR      10 20 16.7
      comp=Z,322nm,19.1s,baz=201,slow=30
LPAZ  La Paz           34.19  63 P       P       10 11 05.2 +1.2
      comp=Z,11nm,1.0s,baz=222,slow=6.4,SNR=22
LPAZ                             LR      LR      10 21 40.0
      comp=Z,180nm,21.5s,baz=212,slow=30
      comp=Z,11nm,1.0s
LPAZ  La Paz           34.19  63 P       P       10 11 04.4 +0.3
LPAZ  La Paz           34.19  63 eP      P       10 11 03.4 -0.6
LPAZ  La Paz           34.19  63 P       P       10 11 05.5 +1.5
      comp=Z,22nm,1.4s
ATAH  Atahualpa        34.78  39 LR      LR      10 21 51.0
      comp=Z,473nm,20.4s,baz=214,slow=30
PMSA  Palmer Station   35.53 155 LR      LR      10 21 23.3
      comp=Z,548nm,20.6s,baz=222,slow=29
PMSA  Palmer Station   35.53 155 P       P       10 11 15.6 +1.2
CPUP  Villa Florida    37.11  87 P       P       10 11 27.6 -0.7
      comp=Z,3.9nm,0.6s,baz=261,slow=8.5,SNR=7.9
CPUP                             LR      LR      10 25 16.9
      comp=Z,93nm,21.0s,baz=252,slow=34
      comp=Z,3.9nm,0.6s
CPUP  Villa Florida    37.11  87 eP      P       10 11 27.2 -1.1
CPUP  Villa Florida    37.11  87 P       P       10 11 27.4 -0.9
      comp=Z,11nm,2.6s
CZSB  Cruzeiro do Su   37.43  47 P       P       10 11 31.4 +0.3
CZSB                             IAmb    IAmb    10 11 32.7
      comp=Z,32nm,1.2s
CZSB  Cruzeiro do Su   37.43  47 eP      P       10 11 31.6 +0.4
CPSB  Cacapava Do Su   38.63  95 eP      P       10 11 40.2 -1.0
CPSB  Cacapava Do Su   38.63  95 P       P       10 11 39.5 -1.7
SJPY  San Joaquin      38.69  86 eP      P       10 11 41.4 -0.4
SIV   San Ignacio      39.60  70 LR      LR      10 25 37.3
      comp=Z,198nm,20.5s,baz=255,slow=32
COIM  Forte Coimbra    39.89  77 eP      P       10 11 51.1 -0.6
BDQN  Bodoquena, MS    40.42  79 eP      P       10 11 55.2 -1.0
OTAV  Otavalo          41.20  33 eP      P       10 12 03.5 +0.3
AQDB  Aquidauana       41.24  80 P       P       10 12 02.2 -0.8
AQDB  Aquidauana       41.24  80 eP      P       10 12 02.3 -0.6
AQDB  Aquidauana       41.24  80 P       P       10 12 02.6 -0.4
      comp=Z,51nm,1.0s
PTLB  Pontes e Lacer   41.40  71 P       P       10 12 04.0 -0.3
PTLB                             IAmb    IAmb    10 12 05.1
      comp=Z,22nm,1.3s
PTLB  Pontes e Lacer   41.40  71 eP      P       10 12 03.9 -0.3
PTGB  Pitanga          42.08  88 eP      P       10 12 09.6 -0.3
VILB  Vilhena          42.16  67 P       P       10 12 10.4 -0.2
VILB                             IAmb    IAmb    10 12 11.4
      comp=Z,22nm,0.9s
VILB  Vilhena          42.16  67 eP      P       10 12 10.2 -0.4
TRCB  Terra Rica       42.52  85 P       P       10 12 12.7 -0.9
TRCB  Terra Rica       42.52  85 eP      P       10 12 13.1 -0.5
PP1B  Ponte de Pedra   43.45  77 eP      P       10 12 21.1 +0.1
LDASE Londrina, Braz   43.46  87 eP      P       10 12 19.6 -1.5
SALV  Santo Antonio    43.79  74 eP      P       10 12 23.3 -0.5
C2SB  Chapadao do Su   44.43  80 eP      P       10 12 29.5 +0.7
C2SB  Chapadao do Su   44.43  80 P       P       10 12 29.3 +0.5
      comp=Z,68nm,1.2s
FRTB  Fartura          44.74  88 eP      P       10 12 31.3 -0.1
FRTB  Fartura          44.74  88 P       P       10 12 30.9 -0.5
PET01 Itanhaem-SP      46.15  90 eP      P       10 12 42.5  0.0
SPB   Sao Paulo        46.34  89 eP      P       10 12 42.9 -1.1
SPB   Sao Paulo        46.34  89 P       P       10 12 43.7 -0.4
      comp=Z,28nm,1.9s
BB19B Bebedouro        46.69  86 eP      P       10 12 46.1 -0.7
CLDB  Colider          46.79  69 eP      P       10 12 46.8 -0.9
CLDB  Colider          46.79  69 P       P       10 12 46.9 -0.7
      comp=Z,18nm,1.5s
ARAG  Araguaiana, MT   46.94  77 eP      P       10 12 48.5 -0.3
VAO   Valinhos         47.00  89 eP      P       10 12 47.8 -1.4
ROSC  El Rosal         47.15  35 LR      LR      10 29 17.2
      comp=Z,318nm,19.4s,baz=262,slow=32
PPT   Papeete          47.83 279 LR      LR      10 27 12.0
      comp=Z,104nm,20.1s,baz=130,slow=29
JTS   Las Juntas de    48.24  19 LR      LR      10 28 41.2
      comp=Z,303nm,18.1s,baz=198,slow=30
MACA  Manacapuru-AM    48.58  57 eP      P       10 13 00.9 -0.6
SNDB  Serra Nova Dou   49.55  73 eP      P       10 13 06.5 -2.4
PMNB  Patos De Minas   49.67  84 P       P       10 13 09.6 -0.4
      comp=Z,17nm,1.1s
BSCB  Bom Sucesso      49.75  88 P       P       10 13 10.1 -0.4
      comp=Z,12nm,1.0s
BDFB  Brasilia         49.99  80 P       P       10 13 12.3 -0.1
      comp=Z,9.0nm,0.7s,baz=236,slow=5.3,SNR=10
BDFB                             LR      LR      10 32 33.8
      comp=Z,152nm,18.2s,baz=226,slow=34
      comp=Z,9.0nm,0.7s
BDFB  Brasilia         49.99  80 P       P       10 13 12.2 -0.1
BDFB                             IAmb    IAmb    10 13 12.9
      comp=Z,13nm,0.9s
ITTB  Itaituba         51.17  62 eP      P       10 13 20.2 -1.0
SDV   Santo Domingo    52.43  37 LR      LR      10 34 45.7
      comp=Z,231nm,18.1s,baz=104,slow=35
BOAV  Boa Vista        52.85  52 P       P       10 13 32.6 -1.1
BOAV  Boa Vista        52.85  52 eP      P       10 13 32.9 -0.8
CMIG  Matias Romero    53.19   5 LR      LR      10 30 25.3
      comp=Z,162nm,21.6s,baz=178,slow=29
JANB  Januaria         53.27  82 eP      P       10 13 36.7 -0.2
BSFB  Barra de Sao F   54.03  88 P       P       10 13 41.8 -0.6
      comp=Z,15nm,0.8s
RAR   Rarotonga        54.16 269 LR      LR      10 30 42.3
      comp=Z,61nm,20.4s,baz=157,slow=29
SDBA  SAO DESIDERIO    54.30  79 eP      P       10 13 44.5 +0.1
VNDA  Vanda            56.80 195 P       P       10 14 01.4 -0.1
      comp=Z,2.2nm,1.1s,baz=98,slow=3.0,SNR=3.8
      comp=Z,2.2nm,1.1s
VNA2  Neumayer--Watz   56.92 157 P       P       10 14 01.6 -0.9
      comp=Z,9.6nm,0.6s
SNAA  Sanae            58.10 158 LR      LR      10 35 52.1
      comp=Z,166nm,18.8s,baz=207,slow=33
MDP   Montagnes des    60.06  57 LR      LR      10 37 59.4
      comp=Z,287nm,19.3s,baz=288,slow=34
SJG   San Juan         62.56  36 LR      LR      10 40 06.8
      comp=Z,68nm,19.3s,baz=232,slow=34
URZ   Urewera          64.16 240 LR      LR      10 35 31.7
      comp=Z,118nm,20.7s,baz=117,slow=29
RAO   Raoul Island     64.68 251 LR      LR      10 36 08.0
      comp=Z,68nm,21.9s,baz=98,slow=30
TXAR  Lajitas Array    65.32 356 P       P       10 15 01.3 +1.4
      comp=Z,0.4nm,0.9s,baz=165,slow=5.2,SNR=3.4
      comp=Z,0.4nm,0.9s
HNDO  Hondo            65.39   0 P       P       10 15 00.5 +0.2
HNDO                             IAmb    IAmb    10 15 11.1
      comp=Z,6.5nm,0.7s
AFI   Afiamalu         67.71 269 LR      LR      10 36 37.5
      comp=Z,73nm,18.5s,baz=116,slow=29
TKL   Tuckaleechee C   72.99  13 LR      LR      10 44 03.1
      comp=Z,68nm,18.5s,baz=185,slow=33
MAW   Mawson           75.64 173 LR      LR      10 47 20.5
      comp=Z,84nm,19.5s,baz=208,slow=34
TMUT  Trail Mountain   75.91 351 IAmb    IAmb    10 18 51.4
      comp=Z,3.9nm,0.8s
NVAR  Mina Array Bea   76.28 345 P       P       10 16 07.1 +0.5
      comp=Z,1.2nm,0.8s,baz=182,slow=8.2,SNR=8.2
      comp=Z,1.2nm,0.8s
NVAR  Mina Array Bea   76.28 345 P       P       10 16 06.7 +0.1
BSUT  Blindstream Ca   77.08 351 P       P       10 16 13.3 +2.0
PD31  Pinedale Array   79.14 352 P       P       10 16 22.4 -0.1
PDAR  Pinedale Array   79.14 352 P       P       10 16 23.0 +0.5
      comp=Z,1.1nm,0.6s,baz=162,slow=6.2,SNR=13
      comp=Z,1.1nm,0.6s
PDAR  Pinedale Array   79.14 352         P       10 16 22.4 -0.1
YBH   Yreka Blue Hor   80.43 343 LR      LR      10 44 51.4
      comp=Z,44nm,18.6s,baz=228,slow=30
HLID  Hailey           80.56 349 P       P       10 16 31.2 +1.1
SADO  Sadowa           82.69  14 LR      LR      10 50 53.3
      comp=Z,91nm,18.8s,baz=178,slow=34
NEW   Newport          85.56 348 P       P       10 16 56.6 +0.9
      comp=Z,2.7nm,1.0s,baz=147,slow=6.9,SNR=3.8
      comp=Z,2.7nm,1.0s
NEW   Newport          85.56 348 P       P       10 16 56.4 +0.7
NEW                              IAmb    IAmb    10 17 01.0
      comp=Z,6.3nm,1.2s
NEW   Newport          85.56 348 P       P       10 16 51.0 -4.7
      comp=Z,4.6nm,1.5s
SUR   Sutherland       91.82 133 LR      LR      10 52 30.3
      comp=Z,38nm,20.2s,baz=186,slow=32
HNR   Honiara          92.90 256 LR      LR      10 50 59.8
      comp=Z,62nm,21.0s,baz=248,slow=30
CTA   Charters Tower   96.40 240 LR      LR      10 54 07.3
      comp=Z,92nm,19.9s,baz=82,slow=31
BOSA  Boshof           97.18 133 LR      LR      10 55 28.2
      comp=Z,42nm,19.9s,baz=208,slow=32
DBIC  Dimbokro         97.62  87 LR      LR      10 57 18.1
      comp=Z,54nm,20.8s,baz=202,slow=33
LBTB  Lobatse         100.04 131 LR      LR      10 54 29.8
      comp=Z,44nm,21.7s,baz=182,slow=30
H01W1 Cape Leeuwin H  102.62 208 T       T       12 13 17.2
      baz=151,slow=75,SNR=12
H01W2 Cape Leeuwin H  102.62 208 T       T       12 13 17.0
      baz=151,slow=75,SNR=9.3
H01W3 Cape Leeuwin H  102.64 208 T       T       12 13 20.6
      baz=151,slow=75,SNR=9.1
KHC   Kasperske Hory  130.66  53 eP      Pdif    10 20 22.0 +3.0
KHC   Kasperske Hory  130.66  53 ePDIFF  Pdif    10 20 22.0 +3.0
CLL   Collm           130.70  50 LH              11 01 00.0
CLL                              LV              11 07 00.0
CLL                              AMS     AMS     11 27 00.0
      comp=Z,100nm,19.9s
NJ2   Nanjing         148.13 274 eP      PKPdf   10 24 01.8 +1.3
NJ2                              pmax    pmax
      comp=Z,9.0nm,0.5s
KBZ   Khabaz          150.41  64 PKPbc   PKPbc   10 24 08.5 -0.5
      comp=Z,1.1nm,0.5s,baz=116,slow=1.5,SNR=5.0
HHC   Hu-ho-hao-te    155.35 290 eP      PKPdf   10 24 06.8 -4.4
WMQ   Urumqi          170.62 326 ePKP    PKPdf   10 24 24.6 -1.1
WMQ                              sPKP            10 24 40.0
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KRSC **14** *10:08:36.6±1.4, 50°.84N×157°.60E, h48^{km}±18^{km}, Ml5.0, Felt [III-IV] at kordon Ozernyy, lighthouse Chibuiny, Severo-Kurilsk; [III] at cape Lopatka.*

MOS **14** *10:08:38.2±1.0, 50°.93N×157°.20E, h78^{km}, mb4.7/21, Error ellipse: s-maj=7.9km s-min=3.1km az=77.8*

MOS Felt (IV) at Severo-Kuril'sk.

NEIC **14** *10:08:40.6±1.6, 51°.06N±0°.08×157°.1E±0°.1, h81^{km}±6^{km}, mb4.5/162, Error ellipse: s-maj=14.3km s-min=9.8km az=129.0*

IDC **14** *10:08:41.4±1.5, 51°.08N×157°.13E, h89^{km}±12^{km}, mb4.0/32, mbtmp4.4/39, MS3.3/28, Error ellipse: s-maj=13.2km s-min=8.7km az=148.0*

GFZ **14** *10:08:41.2±0.2, 51°N±4°×15°7E±°, h82^{km}, M4.6/32, mb4.6/32, confirmed*

ISC 14 10:08:38.6±0.6**, 50°.89N**±0°.05×**157°.37E**±0°.04**, h68**^{km}±4^{km}**, n380, σ1°.47**/362**, mb4.5**/149**, 5C-6D, Kuril Islands**

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Code  Station Name       Δ°  AZ°  Phase ID          Time      Res
                                 Op      ISC      h  m  s    ISC
PAU   Pauzhetka         0.68 329 PN      Pn      10 08 53.0  0.0
PAU                              S       Sn      10 09 04.6 +1.0
PAU   Pauzhetka         0.68 329 eP      Pn      10 08 53.1  0.0
PAU                              eS      Sn      10 09 04.6 +1.0
SKR   Severo-Kuril’s    0.82 256 ⇓iPN    Pn      10 08 54.4 -0.3
SKR                              i S     Sn      10 09 06.3 -0.3
SKR                              pmax    pmax
      comp=Z,3μm,0.5s
SKR                              smax    smax
      comp=N,34μm,0.5s
SKR                              smax    smax
      comp=E,19μm,0.2s
SKR   Severo-Kuril’s    0.82 256 i P     Pn      10 08 54.4 -0.3
SKR                              eS      Sn      10 09 06.2 -0.4
KDTR  Khodutka, Kamc    1.02  26 PN      Pn      10 08 56.4 -0.8
KDTR                             S       Sn      10 09 09.3 -1.8
KDTR  Khodutka, Kamc    1.02  26 eP      Pn      10 08 56.4 -0.8
KDTR                             eS      Sn      10 09 09.3 -1.8
MIPR  Malaya Ipel'ka    1.44 345 PN      Pn      10 09 03.4 +0.8
MIPR  Malaya Ipel'ka    1.44 345 eP      Pn      10 09 03.5 +0.8
ASAK  Asacha            1.53  12 PN      Pn      10 09 03.9  0.0
ASAK  Asacha            1.53  12 eP      Pn      10 09 04.0  0.0
MTVR  Mutnovka          1.68  17 PN      Pn      10 09 05.8 -0.1
MTVR  Mutnovka          1.68  17 eP      Pn      10 09 05.8 -0.1
RUS   Russkaya          1.70  24 PN      Pn      10 09 05.3 -0.8
RUS                              S       Sn      10 09 25.4 -1.6
RUS   Russkaya          1.70  24 eP      Pn      10 09 05.4 -0.8
RUS                              eS      Sn      10 09 25.4 -1.6
GRL   Gorelyy           1.72  15 PN      Pn      10 09 06.9 +0.4
GRL                              S       Sn      10 09 27.1 -0.6
GRL   Gorelyy           1.72  15 eP      Pn      10 09 06.9 +0.4
GRL                              eS      Sn      10 09 27.1 -0.6
KRMR  Karymshinskiy     2.00  13 PN      Pn      10 09 10.6 +0.5
KRMR                             S       Sn      10 09 34.5 +0.4
KRMR  Karymshinskiy     2.00  13 eP      Pn      10 09 10.7 +0.5
KRMR                             eS      Sn      10 09 34.6 +0.4
APC   Apacha            2.04 356 PN      Pn      10 09 11.5 +0.8
APC   Apacha            2.04 356 eP      Pn      10 09 11.5 +0.8
PEA0B Petropavlovsk-    2.23   5 d iPN   Pn      10 09 14.2 +0.9
PEA0B Petropavlovsk-    2.23   5         Pn      10 09 14.2 +0.9
PEA0B                            Sn      Sn      10 09 35.3 -4.6
PETK  Petropavlovsk-    2.23   5 P       Pn      10 09 14.2 +1.0
      comp=E,135nm,0.5s,baz=172,slow=15,SNR=242
PETK                             S       Sn      10 09 40.2 +0.4
      comp=E,222nm,0.7s,baz=175,slow=19,SNR=6.8
PETK                             LR      LR      10 10 02.6
      comp=E,372nm,20.8s,baz=174,slow=39
PET   Petropavlovsk     2.28  20 ⇓iPN    Pn      10 09 14.3 +0.3
PET                              eS      Sn      10 09 41.1 +0.1
PET                              pmax    pmax
      comp=Z,243nm,0.9s
PET                              smax    smax
      comp=E,4μm,0.7s
PET                              smax    smax
      comp=N,3μm,0.6s
PET                              MLR     MLR
      comp=Z,500nm,11.0s
PET   Petropavlovsk     2.28  20         Pn      10 09 14.2 +0.3
PET                              Sn      Sn      10 09 39.9 -1.1
PET   Petropavlovsk     2.28  20 eP      Pn      10 09 14.2 +0.3
PET                              eS      Sn      10 09 40.8 -0.1
PET   Petropavlovsk     2.28  20 P       Pn      10 09 14.4 +0.5
DALK  Dalny             2.31  21 PN      Pn      10 09 14.6 +0.3
DALK                             S       Sn      10 09 41.3 -0.3
DALK  Dalny             2.31  21 eP      Pn      10 09 14.6 +0.3
DALK                             eS      Sn      10 09 41.4 -0.3
INSR  Institute         2.31  19 PN      Pn      10 09 14.9 +0.6
INSR                             S       Sn      10 09 42.4 +0.8
INSR  Institute         2.31  19 eP      Pn      10 09 15.0 +0.6
INSR                             eS      Sn      10 09 42.5 +0.8
UGLR  Uglovaya          2.49  21 PN      Pn      10 09 17.9 +1.0
UGLR  Uglovaya          2.49  21 eP      Pn      10 09 17.9 +1.0
AVH   Avacha            2.53  19 PN      Pn      10 09 18.9 +1.6
AVH   Avacha            2.53  19 eP      Pn      10 09 18.9 +1.6
KOK   Koryaka           2.53  18 PN      Pn      10 09 19.2 +1.8
KOK   Koryaka           2.53  18 eP      Pn      10 09 19.2 +1.8
SMAR  Somma             2.54  20 PN      Pn      10 09 19.0 +1.4
SMAR  Somma             2.54  20 eP      Pn      10 09 19.0 +1.4
KRER  Koryakskii        2.56  19 PN      Pn      10 09 19.3 +1.3
KRER  Koryakskii        2.56  19 eP      Pn      10 09 19.3 +1.3
SDLR  Sedlovina         2.57  21 PN      Pn      10 09 18.3 +0.3
SDLR  Sedlovina         2.57  21 eP      Pn      10 09 18.3 +0.3
NLC   Nalytchevo        2.59  27 PN      Pn      10 09 16.8 -1.3
NLC   Nalytchevo        2.59  27 eP      Pn      10 09 16.9 -1.3
KRX   Arik              2.60  17 PN      Pn      10 09 19.8 +1.5
KRX   Arik              2.60  17 eP      Pn      10 09 19.9 +1.5
SPN   Mys Shipunski     2.75  36 PN      Pn      10 09 21.0 +0.7
SPN                              S       Sn      10 09 51.7 -0.8
SPN   Mys Shipunski     2.75  36 eP      Pn      10 09 21.1 +0.7
SPN                              eS      Sn      10 09 51.7 -0.8
GNL   Ganaly            2.83   7 PN      Pn      10 09 22.8 +1.3
GNL   Ganaly            2.83   7 eP      Pn      10 09 22.9 +1.3
KII   Karymskiy         3.40  21 PN      Pn      10 09 31.0 +1.8
KII   Karymskiy         3.40  21 eP      Pn      10 09 31.1 +1.8
MKZ   Mys Kozlova       4.53  34 PN      Pn      10 09 44.7 +0.2
MKZ   Mys Kozlova       4.53  34 eP      Pn      10 09 44.8 +0.2
TUMD  Tumrok D          4.69  22 PN      Pn      10 09 50.4 +3.6
TUMD  Tumrok D          4.69  22 eP      Pn      10 09 50.5 +3.6
TUMR  Tumrok            4.71  20 PN      Pn      10 09 50.8 +3.7
TUMR  Tumrok            4.71  20 eP      Pn      10 09 50.9 +3.7
ESO   Esso              5.11   8 PN      Pn      10 09 54.7 +2.2
ESO   Esso              5.11   8 eP      Pn      10 09 54.8 +2.2
KMNR  Kamenistaya       5.17  18 PN      Pn      10 09 56.2 +2.8
KMNR  Kamenistaya       5.17  18 eP      Pn      10 09 56.2 +2.8
KPT   Kopyto            5.37  17 PN      Pn      10 09 58.0 +2.0
KPT   Kopyto            5.37  17 eP      Pn      10 09 58.0 +2.0
KIRR  Kirishev          5.38  18 PN      Pn      10 09 58.5 +2.3
KIRR  Kirishev          5.38  18 eP      Pn      10 09 58.5 +2.3
ZLN   Zelenaya          5.53  20 PN      Pn      10 10 01.2 +2.9
ZLN   Zelenaya          5.53  20 eP      Pn      10 10 01.2 +2.9
SRDR  Sredinnyy         5.62  14 PN      Pn      10 10 02.7 +3.3
SRDR  Sredinnyy         5.62  14 eP      Pn      10 10 02.7 +3.3
KLY   Klyuchi           5.78  19 PN      Pn      10 10 04.1 +2.6
KLY   Klyuchi           5.78  19 eP      Pn      10 10 04.2 +2.6
SMKR  Semkarok          6.20  22 PN      Pn      10 10 08.4 +1.0
SMKR  Semkarok          6.20  22 eP      Pn      10 10 08.4 +1.0
KBTR  Krutoberegovo     6.24  29 PN      Pn      10 10 08.7 +0.8
KBTR  Krutoberegovo     6.24  29 eP      Pn      10 10 08.8 +0.8
KUR   Kuril'sk          8.51 232 ePN     Pn      10 10 41.3 +2.3
KUR                              S       Sn      10 12 18.8 +5.4
KUR                              pmax    pmax
      comp=Z,37nm,0.5s
KUR                              smax    smax
      comp=N,62nm,0.5s
KUR                              smax    smax
      comp=E,45nm,0.5s
TYV   Tymovskoe         9.30 276 ePN     Pn      10 10 53.0 +3.2
TYV                              eS      Sn      10 12 34.0 +1.3
TYV                              pmax    pmax
      comp=Z,16nm,1.0s
TYV                              pmax    pmax
      comp=Z,200nm,3.9s
TYV                              smax    smax
      comp=E,8.0nm,1.6s
TYV                              smax    smax
      comp=N,200nm,4.3s
TYV                              smax    smax
      comp=E,200nm,4.3s
MA2   Magadan           9.48 339 P       Pn      10 10 52.8 +0.7
      comp=E,23nm,0.6s,baz=160,slow=9.6,SNR=18
MA2                              LR      LR      10 14 50.9
      comp=E,96nm,20.8s,baz=176,slow=40
MA2   Magadan           9.48 339         Pn      10 10 51.9 -0.3
MA2   Magadan           9.48 339 P       Pn      10 10 53.6 +1.4
      comp=Z,37nm,0.8s
YSS   Yuzhno-Sakhali   10.39 253 ePN     Pn      10 11 08.4 +3.8
YSS                              eS      Sn      10 12 59.6 +0.3
YSS                              pmax    pmax
      comp=Z,20nm,1.1s
YSS                              MLR     MLR
      comp=Z,200nm,14.0s
YSS   Yuzhno-Sakhali   10.39 253         Pn      10 11 05.3 +0.7
YSS   Yuzhno-Sakhali   10.39 253 P       Pn      10 11 08.4 +3.8
      comp=Z,27nm,0.9s
SHEM  Shemya Is, Ala   10.53  73 P       Pn      10 11 07.0 +0.5
      comp=Z,23nm,0.4s,baz=163,slow=5.0,SNR=6.8
SHEM                             S       Sn      10 12 55.2 -7.3
      comp=Z,48nm,0.5s,baz=271,slow=20,SNR=12
SHEM                             LR      LR      10 15 01.5
      comp=Z,77nm,21.2s,baz=308,slow=36
SMY   Shemya           10.53  73 PN      Pn      10 11 07.2 +0.7
SMY   Shemya           10.53  73 Pn      Pn      10 11 07.2 +0.7
JKA   Kamikawa-asahi   12.05 242         Pn      10 11 27.7 +0.3
JKA   Kamikawa-asahi   12.05 242 P       Pn      10 11 29.1 +1.8
      comp=Z,46nm,0.8s
ASAJ  Asahikawa        12.06 242 P       Pn      10 11 28.9 +1.5
      comp=Z,27nm,0.6s,baz=64,slow=13,SNR=20
ASAJ                             LR      LR      10 15 35.7
      comp=Z,82nm,19.2s,baz=68,slow=34
SEY   Seymchan         12.37 349 P       Pn      10 11 31.9 +0.3
      comp=Z,1.7nm,0.5s,baz=153,slow=8.2,SNR=7.5
SEY   Seymchan         12.37 349 ePN     Pn      10 11 31.3 -0.3
ERM   Erimo            13.20 233 ePN     Pn      10 11 40.7 -2.2
ERM   Erimo            13.20 233 Pn      Pn      10 11 39.7 -3.2
AMKA  Amchitka         13.78  79 Pn      Pn      10 11 50.7 +0.2
JTM   Tenmabayashi     15.17 235 Pn      Pn      10 12 05.7 -3.0
ADK   Adak             16.21  76 P       Pn      10 12 24.6 +2.9
ADK                              pmax    pmax
      comp=Z,70nm,1.5s
ADK   Adak             16.21  76         Pn      10 12 24.6 +2.9
ADK                              IAmb    IAmb    10 12 28.5
      comp=Z,70nm,1.4s
KLR   Kul'dur          16.51 274 P       P       10 12 27.9 +0.7
      comp=Z,6.9nm,0.6s,baz=66,slow=12,SNR=18
KLR                              LR      LR      10 18 51.0
      comp=Z,97nm,21.4s,baz=80,slow=37
KLR   Kul'dur          16.51 274 eP      Pn      10 12 25.6  0.0
KLR                              pmax    pmax
      comp=Z,9.0nm,0.8s
ATKA  Atka Island      17.69  75         P       10 12 41.1 +0.9
ATKA                             IAmb    IAmb    10 13 06.0
      comp=Z,51nm,1.4s
BILL  Bilibino         17.75  11 ⇑iP     Pn      10 12 40.7  0.0
BILL                             pmax    pmax
      comp=Z,5.0nm,0.7s
USRK  Ussuriysk Ar.    18.34 258 P       Pn      10 12 47.8 -0.2
      comp=Z,4.9nm,0.7s,baz=58,slow=10,SNR=6.4
USRK                             LR      LR      10 19 32.0
      comp=Z,78nm,21.6s,baz=51,slow=36
USRK  Ussuriysk Ar.    18.34 258         P       10 12 45.5 -1.8
ZEA   Zeya             18.56 291 eP      Pn      10 12 50.3 -0.4
ZEA                              pmax    pmax
      comp=Z,10.0nm,0.4s
YAK   Yakutsk          18.76 317 P       P       10 12 50.8 -1.0
      comp=Z,28nm,0.5s,baz=292,slow=5.2,SNR=8.5
YAK                              LR      LR      10 20 24.1
      comp=Z,124nm,20.5s,baz=104,slow=38
YAK   Yakutsk          18.76 317 eP      Pn      10 12 51.0 -1.9
YAK                              eS      Sn      10 16 21.5 -0.5
YAK                              pmax    pmax
      comp=Z,45nm,0.9s
YAK                              pmax    pmax
      comp=E,12nm,1.1s
YAK                              pmax    pmax
      comp=N,6.0nm,1.2s
YAK                              smax    smax
      comp=E,76nm,3.6s
YAK                              smax    smax
      comp=N,72nm,3.3s
YAK   Yakutsk          18.76 317 IAmb    IAmb    10 12 52.1
      comp=Z,60nm,1.1s
YAK   Yakutsk          18.76 317 P       Pn      10 12 51.2 -1.8
      comp=Z,61nm,0.9s
HEH   HeiHe            18.98 280 eP      Pn      10 12 55.4 -0.2
HEH                              pmax    pmax
      comp=Z,44nm,0.9s
MDJ   Mudanjiang       19.63 262 P       P       10 13 01.3 -0.1
MDJ                              pmax    pmax
      comp=Z,10.0nm,0.8s
MJB9  Matsu-Tunnel     19.85 231         P       10 13 04.4 +0.5
MJB9                             IAmb    IAmb    10 13 10.4
      comp=Z,14nm,0.7s
MAJO  Matsushiro       19.85 231 P       P       10 13 04.6 +0.7
MAJO                             pmax    pmax
      comp=Z,14nm,0.6s
MAJO  Matsushiro       19.85 231 P       P       10 13 04.6 +0.7
MAJO                             IAmb    IAmb    10 13 09.7
      comp=Z,13nm,0.6s
MAJO  Matsushiro       19.85 231 P       P       10 13 03.8 -0.2
      comp=Z,23nm,1.6s
MJAR  Matsushiro Arr   19.85 231 P       P       10 13 04.6 +0.7
      comp=Z,4.7nm,0.5s,baz=24,slow=10,SNR=16
MJAR                             LR      LR      10 20 59.9
      comp=Z,74nm,20.0s,baz=36,slow=37
MJAR  Matsushiro Arr   19.85 231         P       10 13 03.9  0.0
BNX   BinXian          20.50 267 ⇑P      P       10 13 10.8  0.0
BNX                              pmax    pmax
      comp=Z,10.0nm,1.1s
JGF   Kuroka           21.02 231         P       10 13 16.9 +0.3
INU   Inuyama          21.38 231 P       P       10 13 20.7 +0.3
INU                              IAmb    IAmb    10 13 21.8
      comp=Z,22nm,0.8s
INU   Inuyama          21.38 231 P       P       10 13 20.7 +0.3
      comp=Z,33nm,0.8s
HILR  Hailar Array B   23.94 282 P       P       10 13 44.4 -1.8
      comp=Z,6.3nm,0.6s,baz=69,slow=9.7,SNR=8.4
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       comp=Z,6.3nm,0.6s
HIA    Hailar            24.03 281   P      P      10 13 46.9 -0.1
HIA    Hailar            24.03 281   P      P      10 13 46.9 -0.1
       comp=Z,17nm,0.7s
JMN    Monobe            24.24 234   P      P      10 13 49.1  0.0
JMN                                  IAmb   IAmb   10 14 03.0
       comp=Z,43nm,1.5s
TIXI   Tiksi             24.45 339   LR     LR     10 24 49.1
       comp=Z,55nm,21.4s,baz=152,slow=40
KSRS   Korea Array       24.83 249   P      P      10 13 54.8 +0.4
       comp=Z,2.0nm,0.6s,baz=42,slow=10,SNR=11
KSRS                                 LR     LR     10 22 39.8
       comp=Z,37nm,21.2s,baz=30,slow=34
       comp=Z,2.0nm,0.6s
K15K   Wolf Creek Mou    24.88  47   P      P      10 13 54.7 +0.1
K15K                                 IAmb   IAmb   10 14 21.6
       comp=Z,22nm,1.4s
J16K   Anvik River       25.45  45   P      P      10 14 00.1 +0.4
J16K                                 IAmb   IAmb   10 14 03.2
       comp=Z,10nm,0.8s
L16K   Owhat River       25.78  49   P      P      10 14 02.2 -0.5
M16K   Timber Creek      25.98  50   P      P      10 14 04.6 +0.1
J17K   VABM Dome         26.15  45   P      P      10 14 06.6 +0.6
J17K                                 IAmb   IAmb   10 14 10.5
       comp=Z,15nm,0.8s
M17K   Holitna River     26.73  49          P      10 14 12.2 +0.9
M17K                                 IAmb   IAmb   10 14 16.0
       comp=Z,12nm,0.9s
G18K   Tagagawik         26.78  39   P      P      10 14 11.2 -0.5
F19K   Shaleruckik Mo    27.34  37          P      10 14 16.5 -0.1
JSU    Suzuyama          27.77 236   P      P      10 14 20.8 -0.1
JSU                                  IAmb   IAmb   10 14 22.9
       comp=Z,18nm,1.0s
JSU    Suzuyama          27.77 236   P      P      10 14 21.6 +0.8
       comp=Z,19nm,0.9s
K20K   Telida            28.39  45          P      10 14 26.3 +0.1
J20K   Nowinta River     28.41  44          P      10 14 26.7 +0.4
KDAK   Kodiak Island     29.39  57   P      P      10 14 34.3 -0.7
       comp=Z,2.9nm,0.8s,baz=308,slow=14,SNR=6.4
       comp=Z,2.9nm,0.8s
KDAK   Kodiak Island     29.39  57   IAmb   IAmb   10 14 36.8
       comp=Z,9.3nm,1.3s
BPAW   Bear Paw Mtn.     29.79  44   P      P      10 14 39.5 +0.9
CNPM   China Poot        29.87  53   P      P      10 14 38.3 -0.9
TRF    Thorofare Moun    30.10  45   P      P      10 14 40.0 -1.3
C23K   Itkillik River    30.57  33   P      P      10 14 45.9 +0.6
C23K                                 IAmb   IAmb   10 15 19.0
       comp=Z,15nm,1.3s
E23K   Chandalar         30.65  36          P      10 14 46.4 +0.2
E23K                                 IAmb   IAmb   10 14 47.2
       comp=Z,8.3nm,1.0s
RND    Reindeer          30.74  45   IAmb   IAmb   10 14 47.5
       comp=Z,4.5nm,0.7s
KNK    Knik Glacier      31.05  49   IAmb   IAmb   10 14 50.4
       comp=Z,7.0nm,0.8s
SML    Sawmill           31.07  48   P      P      10 14 50.1 +0.2
SML                                  pmax   pmax
       comp=Z,9.0nm,0.8s
SML    Sawmill           31.07  48   P      P      10 14 49.9  0.0
SML                                  IAmb   IAmb   10 15 06.8
       comp=Z,9.3nm,0.8s
E24K   Your Creek        31.07  36          P      10 14 49.6 -0.2
E24K                                 IAmb   IAmb   10 14 51.1
       comp=Z,5.7nm,0.8s
COLA   College           31.16  42   P      P      10 14 50.9 +0.4
COLA   College           31.16  42   P      P      10 14 50.9 +0.4
       comp=Z,10nm,0.8s
CCB    Clear Creek Bu    31.18  43          P      10 14 50.8  0.0
G24K   Hadweenzic Riv    31.36  39   IAmb   IAmb   10 14 53.9
       comp=Z,8.7nm,0.8s
HDA    Harding Lake      31.56  43   P      P      10 14 53.8 -0.3
IL31                     31.57  43   P      P      10 14 54.2 +0.1
ILAR   Eielson Array     31.57  43   P      P      10 14 54.0 -0.2
       comp=Z,2.8nm,0.8s,baz=261,slow=8.1,SNR=24
ILAR                                 LR     LR     10 27 22.7
       comp=Z,37nm,19.8s,baz=236,slow=36
       comp=Z,2.8nm,0.8s
ILAR   Eielson Array     31.57  43   P      P      10 14 54.5 +0.3
ILAR   Eielson Array     31.57  43   P      P      10 14 54.5 +0.3
D25K   Kavik River       31.97  34   IAmb   IAmb   10 15 00.1
       comp=Z,7.2nm,0.8s
H11N2  WAKE ISLAND Hy    31.99 163   T      T      10 48 43.5
       baz=348,slow=76,SNR=2521
H11N3  WAKE ISLAND Hy    32.01 163   T      T      10 48 44.7
       baz=348,slow=76,SNR=4427
H11N1  WAKE ISLAND Hy    32.01 163   T      T      10 48 44.8
       baz=348,slow=76,SNR=1574
K24K   Donnelly Dome     32.10  44   P      P      10 14 58.1 -0.8
K24K                                 IAmb   IAmb   10 14 59.5
       comp=Z,6.8nm,0.8s
HIN    Hinchinbrook I    32.12  51   P      P      10 14 58.3 -0.7
HIN                                  IAmb   IAmb   10 15 07.3
       comp=Z,6.4nm,1.0s
PRP    Porcupine Dome    32.14  41   IAmb   IAmb   10 15 00.6
       comp=Z,8.1nm,0.8s
FYU    Fort Yukon        32.25  39   IAmb   IAmb   10 15 01.4
       comp=Z,7.0nm,0.7s
ULN    Ulaanbaatar       32.38 285 ⇑iP      P      10 15 01.7  0.0
ULN                                  pmax   pmax
       comp=Z,3.0nm,0.6s
ULN    Ulaanbaatar       32.38 285   P      P      10 15 01.6  0.0
       comp=Z,5.6nm,0.9s
RIDG   Independent Ri    32.52  44   P      P      10 15 01.8 -0.8
RIDG                                 IAmb   IAmb   10 15 02.7
       comp=Z,5.0nm,1.0s
BMAR   Burnt Mountain    32.52  38   P      P      10 15 02.6 +0.1
JOW    Kunigami          32.65 234   P      P      10 15 04.2 +0.2
SONM   Songino Array     32.80 285   P      P      10 15 03.9 -1.4
       comp=Z,0.7nm,0.4s,baz=79,slow=8.0,SNR=3.9
SONM                                 PcP    PcP    10 17 48.3 -0.4
       comp=Z,1.8nm,0.7s,baz=113,slow=2.5,SNR=6.7
SONM                                 LR     LR     10 29 10.3
       comp=Z,65nm,20.4s,baz=44,slow=38
       comp=Z,0.7nm,0.4s
SONM   Songino Array     32.80 285   IAmb   IAmb   10 15 08.6
       comp=Z,0.9nm,0.8s
G26K   Porcupine Rive    32.82  38   IAmb   IAmb   10 15 06.9
       comp=Z,5.0nm,0.8s
C27K   Jago River        32.93  33   P      P      10 15 06.4 +0.4
C27K                                 IAmb   IAmb   10 15 48.0
       comp=Z,15nm,1.4s
HHC    Hu-ho-hao-te      32.95 270  eP      P      10 15 05.1 -1.5
HHC                                  pmax   pmax
       comp=Z,9.0nm,0.5s
HHC                                  pmax   pmax
       comp=Z,56nm,5.1s
TLY    Talaya            32.98 293   P      P      10 15 06.0 -0.6
TLY                                  IAmb   IAmb   10 15 13.1
       comp=Z,7.9nm,0.7s
H11S1  WAKE ISLAND Hy    33.15 164   T      T      10 50 07.9
       baz=348,slow=76,SNR=4366
H11S3  WAKE ISLAND Hy    33.16 164   T      T      10 50 08.6
       baz=348,slow=76,SNR=4335
H11S2  WAKE ISLAND Hy    33.17 164   T      T      10 50 09.8
       baz=348,slow=76,SNR=3334
K27K   Chicken           33.71  44   IAmb   IAmb   10 15 14.0
       comp=Z,5.0nm,0.9s
L27K   Beaver Creek,     33.94  45   IAmb   IAmb   10 15 16.8
       comp=Z,7.5nm,0.8s
NJ2    Nanjing           33.95 251  eP      P      10 15 15.3 +0.1
NJ2                                  pmax   pmax
       comp=Z,9.0nm,0.5s
BCAR   Beaver Creek A    33.96  45          P      10 15 16.1 +1.0
F28M   Old Crow          34.32  37   IAmb   IAmb   10 15 19.9
       comp=Z,4.0nm,0.8s
HYT    Haines Junctio    36.38  49   IAmb   IAmb   10 15 38.2
       comp=Z,5.5nm,1.1s
INK    Inuvik            36.65  36   LR     LR     10 33 58.7
       comp=Z,25nm,18.4s,baz=345,slow=42
NRIK   Noril'sk          36.77 326 ⇑iP      P      10 15 38.9 -0.1
NRIK                                 pmax   pmax
       comp=Z,9.0nm,2.2s
N31M   Braeburn, Yuko    37.02  47   IAmb   IAmb   10 15 44.8
       comp=Z,6.0nm,0.8s
M31M   Drury Creek, Y    37.48  46   P      P      10 15 46.1 +1.0
M31M                                 IAmb   IAmb   10 15 47.6
       comp=Z,7.0nm,1.0s
P33M   Teslin, Yukon     38.78  48   IAmb   IAmb   10 15 59.1
       comp=Z,3.8nm,0.8s
R33M   Jennings River    39.93  49   IAmb   IAmb   10 16 08.9
       comp=Z,4.8nm,0.9s
LZH    Lanzhou           40.64 270  eP      P      10 16 17.8 +5.8
LZH                                  pP     sP     10 16 37.5 +0.9
LZH                                  sS     sS     10 22 58.1  +13
LZH                                  pmax   pmax
       comp=Z,22nm,1.0s
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WTLY   Watson Lake, Y    40.70  48   P      P      10 16 13.1 +1.0
DLBC   Dease Lake        40.73  50   P      P      10 16 12.8 +0.4
       comp=Z,1.2nm,0.6s,baz=270,slow=9.1,SNR=4.4
DLBC                                 LR     LR     10 33 35.2
       comp=Z,30nm,21.0s,baz=234,slow=37
       comp=Z,1.2nm,0.6s
ENH    Enshi             40.92 258   P      P      10 16 12.7 -1.5
       comp=Z,8.2nm,0.7s
ZALV   Zalesovo Beam     42.57 304   P      P      10 16 25.5 -1.8
       comp=Z,2.8nm,0.7s,baz=53,slow=7.6,SNR=9.5
ZALV                                 PcP    PcP    10 18 17.3 -1.1
       comp=Z,0.9nm,0.5s,baz=46,slow=4.3,SNR=3.7
ZALV                                 LR     LR     10 36 10.2
       comp=Z,27nm,19.1s,baz=20,slow=39
       comp=Z,2.8nm,0.7s
ZALV   Zalesovo Beam     42.57 304   P      P      10 16 25.1 -2.2
BBB    Bella Bella       44.45  58   LR     LR     10 35 28.8
       comp=Z,22nm,18.6s,baz=214,slow=36
YKA    Yellowknife Ar    45.93  40   P      P      10 16 54.5 +0.5
       comp=Z,3.3nm,0.7s,baz=300,slow=7.1,SNR=5.4
       comp=Z,3.3nm,0.7s
WMQ    Urumqi            46.12 290  eP      P      10 16 54.1 -1.8
WMQ                                  pmax   pmax
       comp=Z,22nm,1.1s
WMQ                                  LR     LR
       comp=Z,64nm,18.9s
KURK   Kurchatov         47.47 302 ⇓iP      P      10 17 05.4 -0.9
KURK                                 pmax   pmax
       comp=Z,9.0nm,0.8s
KURK   Kurchatov         47.47 302          PcP    10 18 34.8 -0.7
KURK   Kurchatov         47.47 302          P      10 17 04.6 -1.7
KURK   Kurchatov         47.47 302   P      P      10 17 05.2 -1.1
       comp=Z,12nm,0.9s
KURBB  Kurchatov Arra    47.57 302   P      P      10 17 05.7 -1.3
       comp=Z,4.4nm,0.6s,baz=61,slow=7.6,SNR=23
KURBB                                PcP    PcP    10 18 34.8 -1.1
       comp=Z,1.3nm,0.8s,baz=60,slow=3.1,SNR=4.3
KURBB                                LR     LR     10 39 13.6
       comp=Z,20nm,20.0s,baz=186,slow=39
       comp=Z,4.4nm,0.6s
MK31   Makanchi Array    47.60 296 diP      P      10 17 06.0 -1.3
MKAR   Makanchi Array    47.60 296   P      P      10 17 05.9 -1.5
       comp=Z,1.3nm,0.4s,baz=62,slow=7.0,SNR=15
MKAR                                 LR     LR     10 37 16.7
       comp=Z,78nm,21.4s,baz=38,slow=36
       comp=Z,1.3nm,0.4s
MKAR   Makanchi Array    47.60 296          P      10 17 05.5 -1.8
MAKZ   Makanchi          47.77 296   P      P      10 17 07.1 -1.5
MAKZ                                 pmax   pmax
       comp=Z,2.0nm,0.7s
MAKZ   Makanchi          47.77 296          P      10 17 07.1 -1.5
MAKZ   Makanchi          47.77 296   P      P      10 17 06.5 -2.1
       comp=Z,3.2nm,0.6s
PZH    PanZhiHua         48.40 262   P      P      10 17 15.3 +1.4
PZH                                  PKP           10 24 16.1
SPITS  Spitsbergen Ar    49.02 350   P      P      10 17 17.2 -0.7
       comp=Z,2.7nm,0.4s,baz=63,slow=9.4,SNR=18
       comp=Z,2.7nm,0.4s
SPITS  Spitsbergen Ar    49.02 350   P      P      10 17 17.6 -0.3
SPITS                                pmax   pmax
       comp=Z,42nm,1.5s
BVAR   Borovoye Array    50.44 309   P      P      10 17 27.2 -1.8
       comp=Z,4.6nm,0.5s,baz=56,slow=8.7,SNR=14
       comp=Z,4.6nm,0.5s
NEEM   North Greenlan    50.71   8  iP      P      10 17 30.1 -0.9
NEEM                                 IAmb   IAmb   10 17 31.7
       comp=Z,5.2nm,0.8s
SLVN   Son La            50.84 255          P      10 17 32.9 +0.5
SLVN   Son La            50.84 255   P      P      10 17 33.5 +1.1
       comp=Z,12nm,0.9s
EDM    Edmonton          51.46  50   P      P      10 17 37.6 +1.0
EDM                                  pmax   pmax
       comp=Z,8.0nm,0.8s
EDM    Edmonton          51.46  50          P      10 17 37.6 +1.0
DAG    Danmarks Havn     52.59 359   P      P      10 17 43.5 -1.1
DAG    Danmarks Havn     52.59 359  iP      P      10 17 43.5 -1.1
DAG                                  IAmb   IAmb   10 17 43.9
       comp=Z,5.6nm,0.5s
DAG    Danmarks Havn     52.59 359   P      P      10 17 43.5 -1.1
       comp=Z,8.6nm,0.8s
KDJ    Kajisay           53.31 294   P      P      10 17 50.1 -0.6
KDJ    Kajisay           53.31 294   P      P      10 17 50.1 -0.6
       comp=Z,8.4nm,0.6s
ARTI   Arti              53.97 317   LR     LR     10 42 03.0
       comp=Z,59nm,19.1s,baz=104,slow=37
ARTI   Arti              53.97 317 diP      P      10 17 52.9 -2.2
ARTI                                               10 18 57.8
ARTI                                 S      S      10 25 23.2 -2.1
ARTI                                 SS     SKiKP  10 29 00.7 +0.2
ARTI                                 pmax   pmax
       comp=Z,8.0nm,1.1s
JTMT   Jette             54.31  56   P      P      10 17 59.0 +1.2
O02D   Mt. Diablo Mer    54.35  68   P      P      10 17 59.1 +0.9
ASAI   AK-SAY(Kyrgyzs    54.46 293   P      P      10 17 59.2  0.0
       comp=Z,8.4nm,1.6s
BMO    Blue Mountains    54.51  61   P      P      10 17 59.8 +0.6
BMO                                  pmax   pmax
       comp=Z,1.0nm,0.8s
BMO    Blue Mountains    54.51  61   P      P      10 17 59.8 +0.6
AAK    Ala-Archa         54.53 296   LR     LR     10 40 59.9
       comp=Z,45nm,21.8s,baz=71,slow=36
AAK    Ala-Archa         54.53 296 ⇑iP      P      10 17 58.5 -1.0
AAK                                  pmax   pmax
       comp=Z,3.0nm,0.6s
AAK    Ala-Archa         54.53 296          P      10 17 58.5 -1.0
AAK                                  IAmb   IAmb   10 18 01.1
       comp=Z,3.5nm,0.6s
AAK    Ala-Archa         54.53 296   P      P      10 17 58.7 -0.9
       comp=Z,5.7nm,0.7s
ARCES  ARCESS Array B    54.85 341   LR     LR     10 46 31.8
       comp=Z,30nm,18.2s,baz=82,slow=42
PLID   Pearl Lake        55.07  60   P      P      10 18 04.6 +1.1
PLID                                 IAmb   IAmb   10 18 05.5
       comp=Z,2.6nm,0.8s
DBG    Daneborg          55.08 359  iP      P      10 18 01.6 -1.2
DBG                                  IAmb   IAmb   10 18 07.3
       comp=Z,17nm,1.6s
WVOR   Wild Horse Val    55.30  64   P      P      10 18 05.6 +0.5
WVOR   Wild Horse Val    55.30  64   IAmb   IAmb   10 18 07.8
       comp=Z,5.2nm,0.9s
WVOR   Wild Horse Val    55.30  64   P      P      10 18 05.5 +0.5
       comp=Z,6.7nm,0.9s
ORV    Oroville          55.51  68   IAmb   IAmb   10 18 08.3
       comp=Z,3.5nm,0.8s
FFC    Flin Flon         55.78  44  iP      P      10 18 09.8 +1.7
FFC    Flin Flon         55.78  44   P      P      10 18 09.2 +1.1
       comp=Z,10nm,1.7s
CHTO   Chiang Mai        55.79 257   P      P      10 18 09.7 +1.0
CHTO                                 pmax   pmax
       comp=Z,19nm,0.6s
CHTO   Chiang Mai        55.79 257          P      10 18 09.7 +1.0
CHTO   Chiang Mai        55.79 257   P      P      10 18 09.9 +1.3
       comp=Z,29nm,1.0s
BEKR   Beckworth         55.97  67          P      10 18 10.9 +0.9
BEKR                                 IAmb   IAmb   10 18 12.3
       comp=Z,3.5nm,0.8s
CM31   Chiang Mai Arr    56.06 257   P      P      10 18 11.3 +0.7
CMAR   Chiang Mai Arr    56.06 257   P      P      10 18 11.9 +1.4
       comp=Z,12nm,0.7s,baz=30,slow=6.9,SNR=60
       comp=Z,12nm,0.7s
CMAR   Chiang Mai Arr    56.06 257   P      P      10 18 11.2 +0.6
CMAR   Chiang Mai Arr    56.06 257          P      10 18 10.9 +0.3
KIRV   Kirov             56.15 323   LR     LR     10 43 44.8
       comp=Z,56nm,20.4s,baz=54,slow=38
SUMG   Summit            56.34   6   P      P      10 18 11.9 -0.4
SUMG                                 pmax   pmax
       comp=Z,6.0nm,0.9s
SUMG   Summit            56.34   6   P      P      10 18 11.9 -0.4
SUMG                                 IAmb   IAmb   10 18 35.3
       comp=Z,6.0nm,0.9s
SUMG   Summit            56.34   6  iP      P      10 18 15.4 +3.0
SUMG                                 IAmb   IAmb   10 18 16.1
       comp=Z,4.7nm,0.7s
KK31   Karatay Array     56.47 299   P      P      10 18 11.1 -2.1
KK31                                 pmax   pmax
       comp=Z,4.0nm,1.3s
KK31   Karatay Array     56.47 299   P      P      10 18 11.1 -2.1
KK31                                 IAmb   IAmb   10 18 52.0
       comp=Z,4.0nm,1.3s
KKAR   Karatay Array     56.47 299   P      P      10 18 11.0 -2.2
KKAR   Karatay Array     56.47 299   P      P      10 18 11.0 -2.2
MPK    Martis Peak       56.54  67   P      P      10 18 15.1 +1.0
MPK                                  IAmb   IAmb   10 18 16.7
       comp=Z,6.8nm,1.1s
EVN    Everest           56.81 275   P      P      10 18 15.3 -1.2
EVN    Everest           56.81 275   P      P      10 18 16.7 +0.1
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       comp=Z,6.6nm,0.7s
NPW    Naypyitaw         56.81 261   P      P      10 18 17.2 +1.3
       comp=Z,25nm,0.7s
PNTR   Pine Nut          56.92  67   P      P      10 18 18.7 +1.9
YERR   Yerington         57.20  67   IAmb   IAmb   10 18 21.4
       comp=Z,4.1nm,0.7s
KVN    Kaiserville       57.82  66   P      P      10 18 24.6 +1.6
KVN                                  pmax   pmax
       comp=Z,5.0nm,0.7s
KVN    Kaiserville       57.82  66          P      10 18 24.6 +1.6
AB31   Akbulak array     57.93 310   IAmb   IAmb   10 18 22.2
       comp=Z,2.5nm,0.9s
ABKAR  Akbulak array     57.93 310          P      10 18 21.2 -2.2
YHH    Holmes Hill       58.04  57   P      P      10 18 26.4 +1.7
AKTO   Aktyubinsk        58.05 312   P      P      10 18 23.8 -0.5
       comp=Z,1.4nm,0.6s,baz=52,slow=8.8,SNR=4.6
       comp=Z,1.4nm,0.6s
NVAR   Mina Array Bea    58.12  67   P      P      10 18 27.0 +1.8
       comp=Z,3.1nm,0.6s,baz=298,slow=7.2,SNR=28
NVAR                                 LR     LR     10 42 48.8
       comp=Z,47nm,18.1s,baz=186,slow=35
       comp=Z,3.1nm,0.6s
NVAR   Mina Array Bea    58.12  67   P      P      10 18 26.7 +1.5
MDPB   Devils Postpil    58.20  68   IAmb   IAmb   10 18 28.5
       comp=Z,2.9nm,0.9s
BTK    Batken            58.31 296   P      P      10 18 25.4 -0.9
BTK    Batken            58.31 296   P      P      10 18 25.4 -0.9
       comp=Z,4.4nm,0.6s
LAO    LASA Array        59.16  53   IAmb   IAmb   10 18 34.5
       comp=Z,4.9nm,0.9s
GMN    Gold Mountain     59.49  67   IAmb   IAmb   10 18 37.3
       comp=Z,2.6nm,0.8s
CWC    Cottonwood Cre    59.59  69   IAmb   IAmb   10 18 37.7
       comp=Z,2.4nm,0.8s
HWUT   Hardware Ranch    59.80  60   P      P      10 18 38.6 +1.9
       comp=Z,2.3nm,0.8s
DUG    Dugway, Tooele    60.07  62   P      P      10 18 40.4 +1.9
DUG    Dugway, Tooele    60.07  62   P      P      10 18 40.4 +1.9
       comp=Z,4.1nm,1.5s
PD31   Pinedale Array    60.10  58   IAmb   IAmb   10 18 40.6
       comp=Z,2.1nm,0.8s
PDAR   Pinedale Array    60.10  58   P      P      10 18 39.8 +0.9
       comp=Z,1.5nm,0.7s,baz=317,slow=3.0,SNR=11
       comp=Z,1.5nm,0.7s
MPMC   Manual Prospec    60.20  68   IAmb   IAmb   10 18 41.4
       comp=Z,1.6nm,0.6s
CLC    China Lake        60.31  69   P      P      10 18 41.6 +1.5
CLC                                  pmax   pmax
       comp=Z,4.0nm,0.8s
CLC    China Lake        60.31  69   P      P      10 18 41.6 +1.5
CLC                                  IAmb   IAmb   10 18 42.3
       comp=Z,4.2nm,0.8s
TPNV   Topopah Spring    60.32  67   IAmb   IAmb   10 18 42.8
       comp=Z,4.5nm,0.9s
GWY    Greenwater Val    60.60  68   IAmb   IAmb   10 18 44.4
       comp=Z,4.2nm,0.7s
QSM    Queen of Sheba    60.63  68   IAmb   IAmb   10 18 44.5
       comp=Z,3.1nm,0.7s
PRN    Pahroc Range      60.70  66   IAmb   IAmb   10 18 45.1
       comp=Z,2.7nm,0.6s
GSC    Goldstone, Bar    61.13  69   IAmb   IAmb   10 18 47.9
       comp=Z,2.9nm,0.8s
FINES  FINESS Array B    61.45 336   P      P      10 18 46.3 -1.1
       comp=Z,0.7nm,0.4s,baz=24,slow=7.8,SNR=7.9
       comp=Z,0.7nm,0.4s
MTPC   Mountain Pass     61.74  68   IAmb   IAmb   10 18 52.3
       comp=Z,2.6nm,0.9s
LCMT   Little Creek M    62.02  65   P      P      10 18 53.6 +1.8
LCMT                                 IAmb   IAmb   10 18 54.5
       comp=Z,3.6nm,0.8s
RSSD   Black Hills       62.05  54   P      P      10 18 52.9 +0.9
RSSD                                 pmax   pmax
       comp=Z,4.0nm,0.7s
RSSD   Black Hills       62.05  54   P      P      10 18 52.9 +0.9
SRU    San Rafael Swe    62.09  62   P      P      10 18 53.9 +1.6
SRU                                  pmax   pmax
       comp=Z,6.0nm,0.8s
SRU    San Rafael Swe    62.09  62   P      P      10 18 53.9 +1.6
KNB    Kanab             62.25  65   P      P      10 18 55.0 +1.6
KNB                                  pmax   pmax
       comp=Z,3.0nm,0.9s
KNB    Kanab             62.25  65   P      P      10 18 55.0 +1.6
KNB                                  IAmb   IAmb   10 18 56.2
       comp=Z,2.8nm,0.9s
BELC   Belle Mtn. Jos    62.51  69   IAmb   IAmb   10 18 56.3
       comp=Z,2.9nm,0.8s
HMU    Henry Mountain    62.79  63          P      10 18 58.5 +1.5
IRM    Iron Mountain     62.90  69          P      10 18 58.5 +0.9
IRM                                  IAmb   IAmb   10 18 59.9
       comp=Z,5.0nm,0.9s
W13A   Hualapai Mount    62.98  67   P      P      10 18 59.3 +1.0
BC3    Big Chuckawall    63.07  69          P      10 18 59.6 +0.8
BC3                                  IAmb   IAmb   10 19 00.6
       comp=Z,3.6nm,0.8s
PV21   Cone Mtn., Par    63.34  61   P      P      10 19 02.2 +1.6
PV21                                 IAmb   IAmb   10 19 04.3
       comp=Z,3.0nm,0.7s
PV23   Carpenter Ridg    63.40  61   P      P      10 19 02.0 +0.9
PV23                                 IAmb   IAmb   10 19 05.4
       comp=Z,4.8nm,0.7s
PV16   Nyswonger Mesa    63.55  61   IAmb   IAmb   10 19 03.7
       comp=Z,3.5nm,0.7s
PV12   Saucer Basin,     63.61  61   IAmb   IAmb   10 19 05.6
       comp=Z,7.1nm,1.1s
PV13   Radium Mtn., P    63.71  61   IAmb   IAmb   10 19 05.3
       comp=Z,6.8nm,1.0s
ISCO   Idaho Springs     64.30  58   P      P      10 19 08.6 +1.6
ISCO   Idaho Springs     64.30  58   P      P      10 19 08.6 +1.6
       comp=Z,4.9nm,1.2s
MVCO   Mesa Verde        64.56  62   P      P      10 19 09.0 +0.3
MVCO                                 IAmb   IAmb   10 19 10.9
       comp=Z,3.2nm,0.8s
MVCO   Mesa Verde        64.56  62   P      P      10 19 09.9 +1.2
       comp=Z,4.9nm,1.0s
X16A   Lo Mia Camp, P    64.88  66   P      P      10 19 12.4 +1.7
X16A                                 IAmb   IAmb   10 19 13.6
       comp=Z,3.5nm,0.8s
NB2    NORSAR Subarra    65.17 343   P      P      10 19 10.7 -1.3
       comp=Z,1.1nm,0.5s,baz=23,slow=6.5
NOA    NORSAR Array B    65.17 343   P      P      10 19 10.8 -1.3
       comp=Z,1.0nm,0.6s,baz=25,slow=6.9,SNR=5.9
NOA                                  LR     LR     10 52 40.8
       comp=Z,18nm,18.4s,baz=15,slow=41
       comp=Z,1.0nm,0.6s
KULM   Kulim             65.35 246   P      P      10 19 15.4 +1.7
       comp=Z,14nm,0.8s
IPM    Ipoh              65.79 245   P      P      10 19 17.5 +0.9
       comp=Z,13nm,0.9s
ECSD   EROS Data Cent    66.02  50   P      P      10 19 17.8 +0.1
       comp=Z,4.3nm,0.8s
MNK    Minsk             66.81 331  iP      P      10 19 23.6 +1.1
MNK                                 i*PP    pP     10 19 39.9 -0.6
MNK                                 i              10 19 51.5
MNK                                 i              10 21 51.5
MNK                                 iPPP    PPP    10 23 28.1
MNK                                 iS      S      10 28 12.8 +3.4
MNK                                 i*SS    sS     10 28 40.9 +0.9
MNK                                 i              10 29 15.5
MNK                                 iSS     SS     10 32 33.2 +5.9
MNK                                  pmax   pmax
       comp=E,27nm,1.0s
MNK                                  pmax   pmax
       comp=Z,6.0nm,0.6s
MNK                                  pmax   pmax
       comp=N,32nm,0.9s
MNK                                  MLR    MLR
       comp=Z,40nm,14.0s
MNK                                  MLR    MLR
       comp=N,190nm,24.0s
MNK    Minsk             66.81 331  iP      P      10 19 23.6 +1.1
       comp=E,27nm,1.0s
MNK                                 iP      P      10 19 23.6 +1.1
       comp=N,32nm,0.9s
MNK                                 iP      P      10 19 23.6 +1.1
       comp=Z,6.0nm,0.6s,baz=32
MNK                                 ipP     pP     10 19 40.0 -0.6
MNK                                 iPP     PP     10 21 51.5 +1.7
MNK                                 iPPP    PPP    10 23 28.2
MNK                                 iS      S      10 28 12.8 +3.4
MNK                                 isS     sS     10 28 40.9 +0.9
MNK                                 iSS     SS     10 32 33.2 +5.9
MNK                                 iSSS    SSS    10 35 45.9
MNK                                 iLR     LR     10 49 16.2
MNK                                 iLRM    MLR    10 51 51.4
       comp=Z,40nm,13.8s
SCHQ   Schefferville     68.38  26   P      P      10 19 32.0 -0.4
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	comp=Z,4.9nm,0.6s,baz=336,slow=4.1,SNR=11						
	comp=Z,4.9nm,0.6s						
AKASG	Malin Array Be	69.61	328	P	P	10 19 37.5	-2.6
	comp=Z,1.2nm,0.5s,baz=31,slow=6.2,SNR=4.7						
AKASG				LR	LR	10 52 50.5	
	comp=Z,48nm,18.4s,baz=55,slow=38						
	comp=Z,1.2nm,0.5s						
AKBB	Malin Array Si	69.61	328	i P	P	10 19 41.4	+1.3
AKBB				pmax	pmax		
	comp=Z,2.0nm,0.7s						
KBZ	Khabaz	69.95	315	P	P	10 19 42.1	-0.2
	comp=Z,1.2nm,0.3s,baz=222,slow=11,SNR=4.0						
KBZ				LR	LR	10 53 32.9	
	comp=Z,34nm,18.3s,baz=9.5,slow=39						
	comp=Z,1.2nm,0.3s						
MNTX	Cornudas Mount	70.34	64	P	P	10 19 46.2	+1.2
	comp=Z,3.0nm,1.0s						
GSI	Gunungsitoli	70.36	247	P	P	10 19 46.4	+1.2
	comp=Z,30nm,1.4s						
GNI	Garni	71.93	312	LR	LR	10 54 41.9	
	comp=Z,27nm,20.8s,baz=56,slow=38						
APMT	Aspermont	72.05	59	IAmb	IAmb	10 19 56.5	
	comp=Z,3.9nm,0.7s						
EKA	Eskdalemuir Ar	72.91	349	P	P	10 19 59.0	-1.0
	comp=Z,0.8nm,0.3s,baz=18,slow=5.2,SNR=9.9						
	comp=Z,0.8nm,0.3s						
EKA	Eskdalemuir Ar	72.91	349	P	P	10 19 59.0	-1.0
TXAR	Lajitas Array	73.08	64	P	P	10 20 02.8	+1.2
	comp=Z,5.0nm,0.7s,baz=298,slow=4.5,SNR=67						
	comp=Z,5.0nm,0.7s						
TXAR	Lajitas Array	73.08	64	P	P	10 20 02.9	+1.3
TXAR	Lajitas Array	73.08	64		P	10 20 02.9	+1.3
WRA	Warramunga Arr	73.38	203	P	P	10 20 03.5	+0.5
	comp=Z,3.2nm,0.6s,baz=19,slow=6.1,SNR=35						
	comp=Z,3.2nm,0.6s						
WRA	Warramunga Arr	73.38	203	IAmb	IAmb	10 20 04.4	
	comp=Z,0.2nm,0.8s						
HPIG		73.74	67	P	P	10 20 06.2	+0.7
	comp=Z,4.0nm,2.8s						
CLL	Collm	73.78	338	eP	P	10 20 05.0	-0.1
CLL	Collm	73.78	338	eP	P	10 20 05.0	-0.1
MLR	Muntele Rosu	75.21	327	LR	LR	10 55 18.0	
	comp=Z,57nm,20.6s,baz=7.0,slow=37						
VOIR		75.56	327	P	P	10 20 15.2	-0.5
VOIR		75.56	327	P	P	10 20 15.2	-0.5
	comp=Z,3.6nm,0.8s						
GERES	GERESS Array B	75.88	336	P	P	10 20 16.1	-1.3
	comp=Z,0.8nm,0.4s,baz=1.1,slow=6.7,SNR=4.6						
	comp=Z,0.8nm,0.4s						
H62A	Milan	76.03	33	P	P	10 20 18.3	+0.1
CONA	Conrad Observa	76.15	334	i PcP	PcP	10 20 24.9	-6.0
	comp=Z,2.4nm,0.6s						
RONA	Rosalia, Austr	76.24	334	ePcP	P	10 20 25.4	+5.9
	comp=Z,3.5nm,0.7s						
MOA	Molln	76.65	335	i PcP	P	10 20 28.8	+7.1
	comp=Z,2.1nm,0.7s						
BIOA	Bad Ischl, Aus	76.96	336	i PcP	P	10 20 28.2	+4.7
	comp=Z,3.0nm,0.7s						
ASAR	Alice Springs	77.07	202	P	P	10 20 25.4	+1.2
	comp=Z,2.8nm,0.7s,baz=14,slow=5.4,SNR=40						
	comp=Z,2.8nm,0.7s						
BRTR	Keskin Array B	77.21	319	P	P	10 20 24.5	-0.6
	comp=Z,0.5nm,0.5s,baz=38,slow=6.3,SNR=3.6						
	comp=Z,0.5nm,0.5s						
SOKA	Soboth	77.53	334	i P	P	10 20 27.0	+0.3
	comp=Z,3.2nm,0.7s						
KBA	Koelnbreinsper	77.61	336	P	P	10 20 28.3	+1.0
KBA	Koelnbreinsper	77.61	336	i P	P	10 20 28.3	+1.0
	comp=Z,4.8nm,0.7s						
KBA	Koelnbreinsper	77.61	336	P	P	10 20 28.3	+1.0
	comp=Z,11nm,1.1s						
OBKA	Obir	77.81	335	i P	P	10 20 28.5	+0.2
	comp=Z,2.5nm,0.5s						
SQTA	Sankt Quirin	78.02	337	i P	P	10 20 30.2	+0.7
	comp=Z,5.0nm,0.9s						
DAVOX	Davos/Dischmat	78.75	338	P	P	10 20 33.5	-0.1
	comp=Z,2.2nm,0.5s,baz=346,slow=10,SNR=5.3						
	comp=Z,2.2nm,0.5s						
TUE	Stuetta	79.17	338	P	P	10 20 35.5	-0.5
	comp=Z,6.3nm,0.8s						
ORIF	Oris-en-Rattie	81.42	340	P	P	10 20 49.2	+1.2
ORIF	Oris-en-Rattie	81.42	340	P	P	10 20 49.2	+1.2
	comp=Z,8.8nm,0.8s						
MMAI	Mount Meron Ar	82.07	314	P	P	10 20 51.4	-0.1
	comp=Z,1.4nm,0.4s,baz=49,slow=10,SNR=4.0						
	comp=Z,1.4nm,0.4s						
ASF	Jabal al Asfar	82.08	312	P	P	10 20 51.2	-0.5
	comp=Z,2.9nm,0.8s,baz=150,slow=5.0,SNR=3.8						
	comp=Z,2.9nm,0.8s						
HRFI	Mount Harif	84.74	313	P	P	10 21 05.0	-0.2
	comp=Z,28nm,0.8s						
RAYN	Ar Rayn	84.80	301	P	P	10 21 04.5	-1.1
RAYN	Ar Rayn	84.80	301	P	P	10 21 04.5	-1.1
	comp=Z,25nm,0.8s						
ESDC	Sonseca Array	88.34	346	P	P	10 21 21.6	-1.1
	comp=Z,2.7nm,0.8s,baz=4.3,slow=4.3,SNR=19						
	comp=Z,2.7nm,0.8s						
ESDC	Sonseca Array	88.34	346		P	10 21 21.6	-1.1
KEST	Kesra	89.27	334	P	P	10 21 26.7	-0.4
	comp=Z,5.8nm,0.7s,baz=34,slow=3.6,SNR=6.2						
	comp=Z,5.8nm,0.7s						
H03N2	Juan Fernandez	135.91	89	T	T	12 58 39.7	
	baz=313,slow=76,SNR=222						
H03N1	Juan Fernandez	135.93	89	T	T	12 58 47.3	
	baz=309,slow=76,SNR=215						
QSPA	South Pole Qui	140.63	180	PKhKP	PKPpre	10 27 53.5	
	comp=Z,1.6nm,0.9s,baz=88,slow=0.7,SNR=7.8						
PLCA	Paso Flores	145.65	92	PKPbc	PKPdf	10 28 09.1	+0.5
	comp=Z,4.2nm,0.7s,baz=284,slow=2.8,SNR=18						

*IDC **14** 10:09:38.4±3.2, 16°.06S×167°.97E, h170^{km}±24^{km}, mb3.8/7, mbtmp4.3/7, Error ellipse: s-maj=29.3km s-min=22.1km az=67.0*

*NEIC **14** 10:09:39.4±1.3, 16°.11S±0°.09×168°.2E±0°.1, h180^{km}±6^{km}, mb4.1/14, Error ellipse: s-maj=20.2km s-min=12.1km az=74.0*

*NOU **14** 10:09:43.2, 16°.30S×167°.91E, h144^{km}, MLv4.3/23, Vanuatu Islands*

ISC 14 10:09:38.9±0.8, **16°.14S**±0°.07×**168°.2E**±0°.1, **h177**^{km}, **n39**, σ**1^{s}.31**/40, **mb4.0**/12, **Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SANVU	Saraoutou	1.16	306	P	Pn	10 10 08.6	+1.0
SANVU	Saraoutou	1.16	306	S	Sn	10 10 28.5	-1.2
SANVU	Saraoutou	1.16	306		Pn	10 10 08.4	+0.9
RTV	Rentapao	1.67	172	P	Pn	10 10 14.1	+1.9
RTV	Rentapao	1.67	172	S	Sn	10 10 36.8	-1.4
MARNC	Mare, Loyalty	5.32	181	P	Pn	10 10 56.7	-0.3
MARNC	Mare, Loyalty	5.32	181	Pn	Pn	10 10 57.3	+0.4
KOUNC	Koumac, New Ca	5.74	219	Pn	Pn	10 11 03.2	+0.8
YATNC	Mamie plateau,	6.02	191	P	Pn	10 11 09.0	+2.9
NOUC	Port Laguerre	6.19	196	P	Pn	10 11 09.6	+1.2
NOUC	Port Laguerre	6.19	196	S	Sn	10 12 17.4	-1.5
ONTNC	Ouen Toro	6.35	195	Pn	Pn	10 11 10.3	-0.2
OUENC	Ouen Island, N	6.38	191	P	Pn	10 11 12.7	+1.9
OUENC	Ouen Island, N	6.38	191	Pn	Pn	10 11 12.8	+1.9
HURO	Huro Makira	8.31	312	P	Pn	10 11 38.3	+2.0
HURO	Huro Makira	8.31	312	S	Sn	10 13 11.0	+1.7
NGOA	Tingoa Renbel	9.10	299	P	Pn	10 11 49.5	+2.8
TATA	Tatamba Isabel	11.23	312	P	P	10 12 20.1	-1.4
LTZ	Lake Taylor	26.79	173	P	P	10 15 03.3	+0.8
INKA	Innaminka	27.87	241	P	P	10 15 11.7	-0.6
INKA				IAmb	IAmb	10 15 12.6	
	comp=Z,1.8nm,0.6s						
STKA	Stephens Creek	28.79	232	P	P	10 15 19.9	-0.4
	comp=Z,1.7nm,0.6s,baz=29,slow=8.5,SNR=3.0						
	comp=Z,1.7nm,0.6s						
WR8	Warramunga Arr	32.21	258	P	P	10 15 49.1	-1.5
WR8				IAmb	IAmb	10 16 01.3	
	comp=Z,5.8nm,1.1s						
WB0	Warramunga Arr	32.31	258	P	P	10 15 50.4	-1.1
WB0				IAmb	IAmb	10 15 50.7	
	comp=Z,3.0nm,0.8s						
WRA	Warramunga Arr	32.36	258	P	P	10 15 49.9	-2.0
	comp=Z,1.0nm,0.6s,baz=82,slow=6.9,SNR=17						
WRA				PcP	PcP	10 18 35.1	-0.4
	comp=Z,0.4nm,0.7s,baz=81,slow=2.1,SNR=2.0						
WRA				ScP	ScP	10 22 02.8	+0.1
	comp=Z,0.5nm,0.9s,baz=83,slow=3.5,SNR=2.2						
	comp=Z,1.0nm,0.6s						
ASAR	Alice Springs	33.02	251	P	P	10 15 56.7	-0.9
	comp=Z,7.8nm,0.5s,baz=76,slow=9.1,SNR=44						
ASAR				PcP	PcP	10 18 36.8	-0.5
	comp=Z,0.5nm,0.7s,baz=100,slow=3.0,SNR=5.8						
ASAR				ScP	ScP	10 22 04.8	-0.1
	comp=Z,1.0nm,0.9s,baz=74,slow=3.8,SNR=5.6						
	comp=Z,7.8nm,0.5s						
KNRA	Kununurra	37.87	265	P	P	10 16 38.1	-0.9
KNRA				IAmb	IAmb	10 16 39.2	
	comp=Z,7.8nm,1.2s						
FITZ	Fitzroy Crossi	40.63	261		P	10 17 01.7	-0.2
MBWA	Marble Bar	46.03	256	P	P	10 17 44.9	-0.2
MJAR	Matsushiro Arr	59.55	332	P	P	10 19 22.8	-1.0
	comp=Z,2.7nm,0.9s,baz=160,slow=8.8,SNR=5.2						
	comp=Z,2.7nm,0.9s						
MJAR	Matsushiro Arr	59.55	332	IAmb	IAmb	10 19 24.8	
	comp=Z,1.9nm,0.8s						
VNDA	Vanda	61.49	182	P	P	10 19 37.1	+0.8
	comp=Z,1.0nm,0.6s,baz=11,slow=8.2,SNR=4.2						
	comp=Z,1.0nm,0.6s						
VNDA	Vanda	61.49	182	IAmb	IAmb	10 19 39.0	
	comp=Z,1.9nm,0.9s						
SBA	Scott Base	61.74	180	P	P	10 19 39.9	+1.9
QSPA	South Pole Qui	73.90	180	P	P	10 20 55.0	+0.6
	comp=Z,8.9nm,0.9s,baz=328,slow=0.7,SNR=26						
	comp=Z,8.9nm,0.9s						
QSPA	South Pole Qui	73.90	180	P	P	10 20 55.1	+0.8
MAW	Mawson	80.91	202	P	P	10 21 33.4	+0.4
	comp=Z,3.3nm,0.9s,baz=112,slow=5.9,SNR=4.7						
	comp=Z,3.3nm,0.9s						
MAW	Mawson	80.91	202	IAmb	IAmb	10 21 34.0	
	comp=Z,1.3nm,1.2s						
BRLK	Bradley Lake	82.58	20	P	P	10 21 40.8	-1.0
BRLK				IAmb	IAmb	10 21 43.5	
	comp=Z,2.1nm,0.5s						
ARCES	ARCESS Array B	121.82	345	PKP	PKPdf	10 28 11.2	-0.1
	comp=Z,2.0nm,0.7s,baz=47,slow=2.3,SNR=6.6						

*BJI **14** 10:23:32.1, 11°.72N×142°.85E, h10^{km}, mB5.1/3, mb4.7/18*

*NEIC **14** 10:23:39.3±1.3, 11°.89N±0°.09×142°.6E±0°.1, h35^{km}±1^{km}, mb4.8/140, Error ellipse: s-maj=20.4km s-min=10.9km az=129.0*

*IDC **14** 10:23:40.7±2.3, 11°.90N×142°.69E, h55^{km}±21^{km}, mb4.0/17, mbtmp4.3/18, ML4.5/1, MS3.7/26, Error ellipse: s-maj=16.3km s-min=13.1km az=96.0*

ISC 14 10:23:39.4±0.5, **11°.82N**±0°.08×**142°.64E**±0°.07, **h42**^{km}, **n166**, σ**0^{s}.95**/110, **mb4.7**/87, **MS3.8**/23, **1D**, **South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	2.80	51	P	Pn	10 24 21.5	-0.2
	73nm,0.3s,baz=248,slow=2.4,SNR=34						
GUMO				S	Sn	10 24 54.2	0.0
	435nm,0.6s,baz=225,slow=23,SNR=8.2						
GUMO				LR	LR	10 24 57.5	
	comp=Z,165nm,19.6s,baz=224,slow=28						
	357nm,0.6s						
GUMO				AML	AML		
GUMO	Guam	2.80	51	P	Pn	10 24 21.3	-0.4
GUMO	Guam	2.80	51	S	Sn	10 24 55.3	+1.1
DPSS	Saipan	4.58	42	Pn	Pn	10 24 45.2	-0.9
DAV	Davao City (W)	17.47	256	LR	LR	10 33 07.0	
	comp=Z,144nm,21.9s,baz=114,slow=32						
KRVT	Keravat (AS076	18.54	149	LR	LR	10 34 53.1	
	comp=Z,168nm,19.4s,baz=104,slow=36						
JOW	Kunigami	20.14	320	P	P	10 28 10.6	+0.5
	39nm,1.0s,baz=138,slow=12,SNR=8.7						
JOW				LR	LR	10 34 41.5	
	comp=Z,172nm,20.9s,baz=126,slow=33						
	39nm,1.0s						
JOW	Kunigami	20.14	320	P	Pn	10 28 12.3	+0.2
JOW	Kunigami	20.14	320		P	10 28 09.2	-0.8
JOW				IAmb	IAmb	10 28 16.2	
	comp=Z,30nm,0.8s						
JHJ	Hachijo jima 2	21.36	353	LR	LR	10 35 24.8	
	comp=Z,292nm,19.0s,baz=152,slow=33						
JSU	Suzuyama	22.59	332	P	P	10 28 37.1	+0.7
JSU	Suzuyama	22.59	332		P	10 28 35.0	-1.5
JSU				IAmb	IAmb	10 28 44.2	
	comp=Z,31nm,0.9s						
YULB	Yu-li	23.34	302	P	P	10 28 43.3	-0.8
NACB	Ninganchiao	23.44	304	P	P	10 28 43.5	-1.5
LUWI	Luwuk	23.51	238	P	P	10 28 43.1	-2.7
SSLB	Suanglung	23.79	303	P	P	10 28 49.0	+0.6
SSLB	Suanglung	23.79	303		P	10 28 47.8	-0.6
SSLB				IAmb	IAmb	10 28 49.6	
	comp=Z,25nm,0.7s						
H11N1	WAKE ISLAND Hy	24.60	68	T	T	10 54 29.6	
	baz=255						
H11N2	WAKE ISLAND Hy	24.61	68	T	T	10 54 24.0	
	baz=255						
H11N3	WAKE ISLAND Hy	24.62	68	T	T	10 54 33.3	
	baz=255						
MYLDM	Lahad Datu	24.75	257	P	P	10 28 59.7	+2.4
MYLDM	Lahad Datu	24.75	257	S	S	10 33 18.3	+1.4
MYLDM	Lahad Datu	24.75	257		P	10 28 56.2	-1.1
MYLDM				IAmb	IAmb	10 29 01.2	
	comp=Z,29nm,1.2s						
MJAR	Matsushiro Arr	24.94	352	LR	LR	10 37 55.2	
	comp=Z,118nm,19.0s,baz=141,slow=34						
KSRS	Korea Array	28.74	335	P	P	10 29 33.0	+0.1
	comp=Z,0.6nm,0.6s,baz=158,slow=10.0,SNR=4.5						
	comp=Z,0.6nm,0.6s						
NJ2	Nanjing	29.74	316	eP	P	10 29 42.3	+0.4
NJ2				pmax	pmax		
	comp=Z,9.0nm,0.5s						
WB0	Warramunga Arr	32.42	195	P	P	10 30 05.6	0.0
WR8	Warramunga Arr	32.57	194	P	P	10 30 06.7	-0.2
WR8				IAmb	IAmb	10 30 44.5	
	comp=Z,29nm,1.9s						
WRAB	Tennant Creek	32.59	195	P	P	10 30 07.0	-0.1
WB2	Warramunga Arr	32.60	195	P	P	10 30 07.3	+0.2
WB2				IAmb	IAmb	10 30 17.9	
	comp=Z,16nm,1.5s						
WRA	Warramunga Arr	32.60	195	P	P	10 30 07.1	0.0
	comp=Z,2.9nm,0.7s,baz=16,slow=9.6,SNR=43						
WRA				PcP	PcP	10 32 53.1	+0.2
	comp=Z,0.5nm,0.7s,baz=18,slow=3.6,SNR=2.6						
	comp=Z,2.9nm,0.7s						
WRA	Warramunga Arr	32.60	195	P	P	10 30 06.4	-0.7
USRK	Ussuriysk Ar.	33.55	346	P	P	10 30 14.1	-1.0
	comp=Z,3.2nm,0.9s,baz=153,slow=13,SNR=4.4						
USRK				LR	LR	10 43 09.1	
	comp=Z,104nm,19.8s,baz=146,slow=35						
	comp=Z,3.2nm,0.9s						
LYN	LuoYang	35.56	314	P	P	10 30 39.3	+6.6
LYN				pmax	pmax		
	comp=Z,24nm,1.1s						
HNS	HongShan	35.71	320	⇓P	P	10 30 35.0	+1.0
HNS				pmax	pmax		
	comp=Z,16nm,0.6s						
ENH	Enshi	35.79	306		P	10 30 34.0	-0.8
AS31	Alice Springs	36.28	194		P	10 30 39.4	+0.4
ASAR	Alice Springs	36.29	194	P	P	10 30 39.4	+0.3
	comp=Z,2.4nm,0.5s,baz=24,slow=12,SNR=100						
ASAR				PcP	PcP	10 33 04.0	+0.6
	comp=Z,1.3nm,0.9s,baz=54,slow=2.7,SNR=7.4						
	comp=Z,2.4nm,0.5s						
KLR	Kul'dur	38.38	348	LR	LR	10 45 15.1	
	comp=Z,149nm,21.1s,baz=189,slow=34						
INKA	Innaminka	39.37	183	P	P	10 31 05.1	+0.2
HHC	Hu-ho-hao-te	39.76	322	eP	P	10 31 09.1	+0.8
HHC				pmax	pmax		
	comp=Z,7.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,61nm,4.1s						
PZH	PanZhiHua	41.10	297	P	P	10 31 20.8	+1.2
KULM	Kulim	41.99	265	P	P	10 31 28.4	+1.6
KULM	Kulim	41.99	265	P	P	10 31 26.3	-0.6
LZH	Lanzhou	42.49	311	eP	P	10 31 31.3	+0.5
LZH				sP	pP	10 31 38.3	-3.4
LZH				pmax	pmax		
	comp=Z,13nm,1.0s						
CMAR	Chiang Mai Arr	42.61	284	P	P	10 31 32.9	+1.0
	comp=Z,3.3nm,0.6s,baz=87,slow=6.5,SNR=18						
	comp=Z,3.3nm,0.6s						
CMAR	Chiang Mai Arr	42.61	284	P	P	10 31 31.2	-0.6
STKA	Stephens Creek	43.46	181	P	P	10 31 38.8	+0.4
	comp=Z,1.7nm,0.6s,baz=333,slow=11,SNR=3.1						
	comp=Z,1.7nm,0.6s						
PSI	Prapat	44.22	262	P	P	10 31 45.9	+0.9
RPSI	Rantau Prapat	44.24	262		P	10 31 44.6	-0.5
RPSI				IAmb	IAmb	10 31 46.8	
	comp=Z,16nm,1.0s						
FORT	Forrest	44.61	198	P	P	10 31 46.6	-1.1
GTA2	Gaotai	46.84	314	eP	P	10 32 05.8	+0.4
GTA2				pmax	pmax		
	comp=Z,4.0nm,0.8s						
SONM	Songino Array	46.97	327	P	P	10 32 05.9	-0.4
	comp=Z,0.6nm,0.5s,baz=159,slow=10.0,SNR=3.8						
SONM				LR	LR	10 52 31.7	
	comp=Z,101nm,19.0s,baz=123,slow=37						
	comp=Z,0.6nm,0.5s						
SONM	Songino Array	46.97	327	IAmb	IAmb	10 32 14.0	
	comp=Z,7.3nm,1.8s						
WMQ	Urumqi	56.81	315	eP	P	10 33 22.3	+2.7
MKAR	Makanchi Array	61.27	317	P	P	10 33 50.7	+0.2
	comp=Z,1.5nm,0.7s,baz=89,slow=8.9,SNR=15						
	comp=Z,1.5nm,0.7s						
MKAR	Makanchi Array	61.27	317		P	10 33 50.5	0.0
MAKZ	Makanchi	61.48	317		P	10 33 51.8	-0.1
ZALV	Zalesovo Beam	61.81	325	P	P	10 33 53.1	-0.8
	comp=Z,0.7nm,0.5s,baz=104,slow=6.3,SNR=3.9						
ZALV				LR	LR	11 00 55.6	
	comp=Z,68nm,19.3s,baz=109,slow=36						
	comp=Z,0.7nm,0.5s						
ZALV	Zalesovo Beam	61.81	325	P	P	10 33 51.6	-2.4
O15K	Ungalikthiuk R	63.57	29	P	P	10 34 05.9	+0.3
KDJ	Kajisay	63.99	311	P	P	10 34 09.2	+0.3
KURK	Kurchatov	64.55	321		P	10 34 11.2	-0.9
KURK				IAmb	IAmb	10 34 12.7	
	comp=Z,5.5nm,0.8s						
O16K	Kokwok River B	64.55	29		P	10 34 12.2	+0.2
CHIR	Chirikof Islan	64.56	33	P	P	10 34 11.8	-0.2
KURBB	Kurchatov Arra	64.58	321	P	P	10 34 11.8	-0.5
	comp=Z,4.3nm,0.7s,baz=105,slow=6.5,SNR=39						
KURBB				LR	LR	11 02 45.6	
	comp=Z,79nm,21.4s,baz=181,slow=36						
	comp=Z,4.3nm,0.7s						
M17K	Holitna River	65.51	27	P	P	10 34 19.0	+0.8
SII	Sitkinak Islan	65.54	33		P	10 34 18.8	+0.3
N18K	Kilae Creek	65.97	28	P	P	10 34 21.3	+0.1
N18K				IAmb	IAmb	10 36 33.0	
	comp=Z,19nm,1.7s						
O18K	Koktuh Hills	66.02	29	P	P	10 34 22.0	+0.5
O18K				IAmb	IAmb	10 34 28.6	
	comp=Z,7.5nm,1.0s						
AAK	Ala-Archa	66.03	311	LR	LR	11 05 44.9	
	comp=Z,98nm,18.6s,baz=95,slow=38						
OHAK	Old Harbor	66.20	32		P	10 34 23.0	+0.4
OHAK				IAmb	IAmb	10 34 25.6	
	comp=Z,7.2nm,1.1s						
KDAK	Kodiak Island	66.71	32	P	P	10 34 25.8	-0.2
KDAK				IAmb	IAmb	10 34 28.8	
	comp=Z,7.8nm,0.9s						
M20K	Styx River	67.61	27		P	10 34 32.4	+0.6
M20K				IAmb	IAmb	10 35 37.4	
	comp=Z,10nm,1.4s						
CNPM	China Poot	67.85	30		P	10 34 32.9	-0.2
CNPM				IAmb	IAmb	10 34 33.6	
	comp=Z,11nm,0.9s						
BRLK	Bradley Lake	68.08	30	P	P	10 34 33.9	-0.7
BRLK				IAmb	IAmb	10 34 34.8	
	comp=Z,6.2nm,0.8s						
CAST	Castle Rocks	68.53	26	P	P	10 34 37.5	+0.1
SUA	Susitna One	68.59	28	P	P	10 34 37.8	-0.1
SUA				IAmb	IAmb	10 35 11.8	
	comp=Z,17nm,1.7s						
IMAR	Indian Mountai	68.67	23	P	P	10 34 37.6	-0.6
BPAW	Bear Paw Mtn.	69.20	25	P	P	10 34 41.3	-0.2
BPAW				IAmb	IAmb	10 35 52.1	
	comp=Z,12nm,1.7s						
PWL	Port Wells	69.58	29	IAmb	IAmb	10 34 51.1	
	comp=Z,12nm,1.0s						
BVAR	Borovoye Array	69.97	322	P	P	10 34 46.0	-0.4
	comp=Z,6.5nm,0.7s,baz=104,slow=7.4,SNR=17						
	comp=Z,6.5nm,0.7s						
BORK	Borovoye	70.02	322		P	10 34 46.7	-0.1
BORK				IAmb	IAmb	10 34 47.4	
	comp=Z,7.5nm,0.7s						
I23K	Minto, Yukon-K	70.16	25	P	P	10 34 48.7	+1.4
I23K				IAmb	IAmb	10 34 51.1	
	comp=Z,15nm,1.6s						
G23K	Bananza Creek	70.32	23	P	P	10 34 48.0	-0.4
G23K				IAmb	IAmb	10 35 07.2	
	comp=Z,16nm,1.6s						
DHY	Denali Highway	70.50	27	P	P	10 34 50.9	+1.2
DHY				IAmb	IAmb	10 35 13.8	
	comp=Z,17nm,2.0s						
E23K	Chandalar	70.86	22		P	10 34 52.3	+0.6
E23K				IAmb	IAmb	10 34 53.7	
	comp=Z,7.8nm,1.0s						
C23K	Itkillik River	71.04	20	P	P	10 34 53.8	+1.1
ILAR	Eielson Array	71.09	25	P	P	10 34 51.5	-1.6
	comp=Z,1.6nm,0.8s,baz=247,slow=5.4,SNR=12						
ILAR				LR	LR	11 04 43.1	
	comp=Z,38nm,20.1s,baz=276,slow=35						
	comp=Z,1.6nm,0.8s						
ILAR	Eielson Array	71.09	25	P	P	10 34 52.3	-0.8
E24K	Your Creek	71.27	22	P	P	10 34 54.2	+0.1
E24K				IAmb	IAmb	10 35 34.7	
	comp=Z,23nm,2.0s						
BMRM	Bremner River	71.39	29	P	P	10 34 56.0	+1.0
RIDG	Independent Ri	71.75	27	P	P	10 34 57.4	+0.3
VRDI	Verde Repeater	71.98	29	P	P	10 34 59.0	+0.3
F25K	Christian Rive	72.20	22	IAmb	IAmb	10 35 30.9	
	comp=Z,20nm,1.9s						
BMAR	Burnt Mountain	72.57	23	P	P	10 35 02.4	+0.5
H27K	Steamboat Moun	73.55	24	P	P	10 35 08.3	+0.6
F30M	Barrier River	75.94	23	P	P	10 35 21.6	+0.1
ABKAR	Akbulak array	76.39	318		P	10 35 23.4	-1.0
G31M	Satah River	76.50	24	P	P	10 35 23.8	-0.9
B04A	Port Angeles	83.87	42	IAmb	IAmb	10 36 13.2	
	comp=Z,5.0nm,0.8s						
E03A	Lebam	84.12	44	IAmb	IAmb	10 36 08.3	
	comp=Z,7.5nm,1.0s						
GNW	Green Mountain	84.42	43		P	10 36 08.3	+0.7
GNW				IAmb	IAmb	10 36 09.9	
	comp=Z,5.3nm,0.8s						
J01E	Myrtle Point	84.50	47	IAmb	IAmb	10 36 09.9	
	comp=Z,8.2nm,1.0s						
KMPM	Mount Pierce	84.89	50	IAmb	IAmb	10 36 18.4	
	comp=Z,8.0nm,1.0s						
KHMM	Horse Mountain	85.09	49	IAmb	IAmb	10 36 13.4	
	comp=Z,5.3nm,0.8s						
YKA	Yellowknife Ar	85.42	27	P	P	10 36 11.2	-1.0
	comp=Z,2.9nm,0.6s,baz=286,slow=5.2,SNR=6.3						
YKA				LR	LR	11 13 45.3	
	comp=Z,55nm,20.0s,baz=288,slow=35						
	comp=Z,2.9nm,0.6s						
YBH	Yreka Blue Hor	85.67	48	LR	LR	11 06 04.4	
	comp=Z,27nm,21.6s,baz=302,slow=30						
WIFE	Three Sisters-	85.82	46		P	10 36 15.6	+0.6
WIFE				IAmb	IAmb	10 36 17.1	
	comp=Z,6.1nm,0.9s						
LTY	Liberty	85.91	43	IAmb	IAmb	10 36 22.1	
	comp=Z,7.4nm,0.9s						
M03C	McCloud	86.20	49	IAmb	IAmb	10 36 18.8	
	comp=Z,8.9nm,1.0s						
MXC	Moxie City	86.32	43	IAmb	IAmb	10 36 24.6	
	comp=Z,7.1nm,1.1s						
E07A	Sunnyside	86.62	43	IAmb	IAmb	10 36 26.1	
	comp=Z,7.0nm,1.0s						
O03E	Paynes Creek	86.64	50	IAmb	IAmb	10 36 26.1	
	comp=Z,5.5nm,1.1s						
K05A	Summer Lake	86.77	47	IAmb	IAmb	10 36 27.4	
	comp=Z,5.5nm,1.0s						
HAWA	Hanford	86.87	43	IAmb	IAmb	10 36 27.3	
	comp=Z,5.7nm,0.8s						
ORV	Oroville	87.03	50		P	10 36 20.6	-0.1
D08A	Wollman Farm,	87.12	43	IAmb	IAmb	10 36 28.3	
	comp=Z,4.5nm,0.7s						
C09A	Chrisman Ranch	87.36	42	IAmb	IAmb	10 36 29.8	
	comp=Z,6.2nm,0.9s						
MOD	Modoc Plateau	87.39	48	IAmb	IAmb	10 36 30.8	
	comp=Z,7.8nm,1.4s						
MHC	Mount Hamilton	87.41	53	IAmb	IAmb	10 36 30.4	
	comp=Z,7.5nm,1.1s						
G08A	Pilot Rock	87.53	44	IAmb	IAmb	10 36 30.5	
	comp=Z,5.0nm,1.1s						
E09A	Wood Farm, Sta	87.77	43	IAmb	IAmb	10 36 31.6	
	comp=Z,6.2nm,0.8s						
BEKR	Beckworth	87.82	50	IAmb	IAmb	10 36 32.1	
	comp=Z,5.5nm,0.9s						
NEW	Newport	87.99	41	IAmb	IAmb	10 36 32.9	
	comp=Z,6.8nm,1.1s						
ARCES	ARCESS Array B	88.08	342	P	P	10 36 23.7	-1.4
	comp=Z,0.8nm,0.6s,baz=69,slow=6.8,SNR=6.6						
ARCES				LR	LR	11 19 20.5	
	comp=Z,50nm,19.3s,baz=22,slow=38						
	comp=Z,0.8nm,0.6s						
CMB	Columbia Colle	88.23	52	IAmb	IAmb	10 36 34.0	
	comp=Z,3.5nm,0.9s						
WVOR	Wild Horse Val	88.46	47	IAmb	IAmb	10 36 35.7	

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
	comp=Z,5.5nm,0.9s						
PNTR	Pine Nut	88.58	50	IAmb	IAmb	10 36 36.3	
	comp=Z,6.8nm,1.0s						
WAKR	Walker	88.84	51	IAmb	IAmb	10 36 37.7	
	comp=Z,3.5nm,0.9s						
EDM	Edmonton	88.85	36	IAmb	IAmb	10 36 36.0	
	comp=Z,4.8nm,0.8s						
MDPB	Devils Postpil	89.33	52		P	10 36 33.1	+1.1
PLID	Pearl Lake	89.60	44	P	P	10 36 33.0	-0.1
PLID				IAmb	IAmb	10 36 40.2	
	comp=Z,4.1nm,1.0s						
LHV	Little Huntoon	89.61	51	IAmb	IAmb	10 36 41.8	
	comp=Z,7.8nm,1.2s						
KVN	Kaiserville	89.72	50	IAmb	IAmb	10 36 41.9	
	comp=Z,5.0nm,1.2s						
NVAR	Mina Array Bea	89.72	51	P	P	10 36 34.4	+0.6
	comp=Z,3.7nm,0.9s,baz=262,slow=6.1,SNR=29						
	comp=Z,3.7nm,0.9s						
VNDA	Vanda	89.86	176	LR	LR	11 16 31.3	
	comp=Z,40nm,19.3s,baz=339,slow=35						
TPH	Tonopah	90.63	51	IAmb	IAmb	10 36 46.2	
	comp=Z,5.8nm,0.9s						
CLC	China Lake	90.94	53	P	P	10 36 40.5	+1.2
CLC				IAmb	IAmb	10 36 47.1	
	comp=Z,3.5nm,1.0s						
LRMC	Laurel Mtn Rad	90.96	54	IAmb	IAmb	10 36 47.4	
	comp=Z,5.2nm,0.9s						
MPMC	Manual Prospec	90.96	53	P	P	10 36 39.7	+0.1
MPMC				IAmb	IAmb	10 36 47.5	
	comp=Z,5.0nm,1.0s						
HLID	Hailey	91.13	45	IAmb	IAmb	10 36 47.8	
	comp=Z,3.9nm,1.0s						
WCT	Wildcat Mounta	91.44	52	IAmb	IAmb	10 36 50.0	
	comp=Z,3.5nm,1.0s						
QSM	Queen of Sheba	91.47	53	IAmb	IAmb	10 36 50.0	
	comp=Z,6.0nm,1.1s						
GWY	Greenwater Val	91.57	53	IAmb	IAmb	10 36 50.6	
	comp=Z,8.1nm,1.3s						
TPNV	Topopah Spring	91.68	52	IAmb	IAmb	10 36 45.7	
	comp=Z,3.6nm,1.1s						
FINES	FINESS Array B	91.83	335	P	P	10 36 40.7	-2.1
	comp=Z,1.6nm,0.6s,baz=99,slow=4.8,SNR=6.0						
FINES				LR	LR	11 20 44.5	
	comp=Z,51nm,19.0s,baz=245,slow=37						
	comp=Z,1.6nm,0.6s						
PFO	Pinyon Flats O	92.43	55	LR	LR	11 19 25.9	
	comp=Z,28nm,18.0s,baz=276,slow=36						
PSUT	Pine Spring	93.04	50	P	P	10 36 49.1	-0.1
YMR	Madison River	93.13	43	P	P	10 36 50.6	+1.1
YMR				IAmb	IAmb	10 36 52.2	
	comp=Z,4.4nm,1.2s						
YFT	Old Faithful	93.29	43	P	P	10 36 48.0	-2.3
YNR	Norris Junctio	93.31	43	P	P	10 36 50.0	-0.3
IRM	Iron Mountain	93.33	54		P	10 36 50.4	+0.1
YMP	Mirror Lake Pl	93.65	43	P	P	10 36 52.2	+0.2
KNB	Kanab	94.29	51	IAmb	IAmb	10 37 03.6	
	comp=Z,4.3nm,1.1s						
AKASG	Malin Array Be	95.19	324	LR	LR	11 22 31.3	
	comp=Z,67nm,18.6s,baz=62,slow=37						
LAO	LASA Array	95.48	40	P	P	10 37 00.8	+0.8
BRTR	Keskin Array B	96.68	313	LR	LR	11 23 57.3	
	comp=Z,25nm,22.0s,baz=294,slow=37						
ASF	Jabal al Asfar	96.74	305	LR	LR	11 26 10.7	
	comp=Z,34nm,19.5s,baz=203,slow=39						
MMAI	Mount Meron Ar	97.67	306	LR	LR	11 25 38.5	
	comp=Z,27nm,21.0s,baz=184,slow=38						
NOA	NORSAR Array B	97.90	338	LR	LR	11 24 05.6	
	comp=Z,30nm,20.7s,baz=65,slow=37						
EIL	Elat	99.13	303	LR	LR	11 26 59.0	
	comp=Z,55nm,20.0s,baz=276,slow=38						
MLR	Muntele Rosu	99.48	320	LR	LR	11 25 01.0	
	comp=Z,54nm,20.3s,baz=154,slow=37						
LPAZ	La Paz	149.84	102	PKPbc	PKPbc	10 43 26.7	0.0
	comp=Z,3.0nm,0.5s,baz=314,slow=3.8,SNR=11						
LPAZ	La Paz	149.84	102		PKPbc	10 43 25.8	-0.9
BOAV	Boa Vista	152.99	60		PKPdf	10 43 29.0	+3.0

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*IDC **14** 10:31:45.3±1.0, 11°.87N×142°.75E, h0^{km}, mb3.7/8, mbtmp3.7/8, MS3.7/1, Error ellipse: s-maj=38.7km s-min=21.8km az=85.0*

ISC 14 10:31:51.4±1.0**, 11°.8N**±0°.2×**142°.7E**±0°.3**, h42^{km}, n8, σ0^{s}.69**/8**, mb3.7**/7**, South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JOW	Kunigami	20.16	320	P	P	10 36 22.5	+0.2
	5.3nm,0.9s,baz=151,slow=11,SNR=6.1						
	5.3nm,0.9s						
WRA	Warramunga Arr	32.63	195	P	P	10 38 18.7	-0.6
	0.6nm,1.0s,baz=13,slow=8.7,SNR=2.6						
WRA				LR	LR	10 52 57.8	
	comp=Z,143nm,20.7s,baz=271,slow=39						
	0.6nm,1.0s						
ASAR	Alice Springs	36.31	194	P	P	10 38 51.8	+0.5
	0.3nm,0.6s,baz=25,slow=11,SNR=8.6						
	0.3nm,0.6s						
MKAR	Makanchi Array	61.30	317	P	P	10 42 03.1	+0.4
	0.3nm,0.5s,baz=96,slow=7.4,SNR=2.5						
	0.3nm,0.5s						
KURBB	Kurchatov Arra	64.61	321	P	P	10 42 24.3	-0.2
	0.8nm,0.7s,baz=106,slow=6.3,SNR=8.7						
	0.8nm,0.7s						
BVAR	Borovoye Array	70.00	322	P	P	10 42 58.6	0.0
	1.6nm,0.5s,baz=108,slow=9.3,SNR=5.3						
	1.6nm,0.5s						
ILAR	Eielson Array	71.06	25	P	P	10 43 04.0	-0.9
	0.2nm,0.5s,baz=246,slow=5.8,SNR=4.4						
	0.2nm,0.5s						
NVAR	Mina Array Bea	89.67	51	P	P	10 44 46.4	+0.8
	0.4nm,0.8s,baz=261,slow=6.4,SNR=4.6						
	0.4nm,0.8s						

IDC 14 10:37:59.1±5.8**, 33°.66N**×**86°.25E, h0^{km}, mb3.7**/3**, mbtmp3.7**/4**, ML4.4**/1**, MS3.4**/2**, Error ellipse: s-maj=131.1km s-min=50.3km az=108.0, Xizang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	18.92	140	P	P	10 42 21.4	-0.1
	0.5nm,0.3s,baz=326,slow=9.4,SNR=5.3						
	0.7nm,0.4s						
CMAR				AML	AML		
AKTO	Aktyubinsk	26.62	318	LR	LR	10 55 37.0	
	comp=Z,31nm,22.0s,baz=108,slow=40						
KSRS	Korea Array	33.92	71	P	P	10 44 43.7	-0.1
	0.8nm,0.6s,baz=281,slow=9.1,SNR=4.6						
	0.8nm,0.6s						
KAPI	Kappang	49.83	134	LR	LR	11 09 56.1	
	comp=Z,102nm,18.9s,baz=129,slow=38						
WRA	Warramunga Arr	70.30	132	P	P	10 49 14.3	-0.3
	0.2nm,0.5s,baz=326,slow=6.6,SNR=6.9						
	0.2nm,0.5s						
ASAR	Alice Springs	72.84	135	P	P	10 49 30.2	+0.3
	1.9nm,1.2s,baz=323,slow=6.3,SNR=5.3						
	1.9nm,1.2s						

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*KRNET **14** 10:40:41.1±0.1, 40°.97N×69°.61E, h20^{km}, mb2.7*

*ISU **14** 10:40:43, 40°.99N×69°.57E, h15^{km}*

ISC 14 10:40:43.2±1.7**, 40°.97N**±0°.05×**69°.67E**±0°.08**, h10^{km}, n11, σ1^{s}.75**/22**, 12C-4D, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TVKS	Tavaksay	0.61	359	P	Pn	10 40 56.5	-1.5
TVKS				S	Sb	10 41 05.5	+0.9
CHMG	Chimgan	0.64	24	P	Pb	10 40 56.5	0.0
CHMG				S	Sb	10 41 05.9	+0.3
CHRV	Charvak	0.71	18	S	Sg	10 41 04.0	-2.1
CHRV				S	Sn	10 41 13.9	+3.6
TRKS	Terek-Say	1.25	63	⇑*i*P	Pn	10 41 05.3	-1.5
TRKS				⇑*i*S	Sb	10 41 22.8	-0.3
BTK	Batken	1.26	136	⇑*i*P	Pn	10 41 05.3	-1.7
BTK				⇑*i*S	Sg	10 41 23.3	-0.5
ARK	Arkit	1.92	64	⇑*i*P	Pb	10 41 17.1	-1.2
ARK				⇑*i*S	Sg	10 41 43.5	-1.3
OHH	Osh	2.41	100	⇑*i*P	Pn	10 41 23.8	+1.1
OHH				⇑*i*S	Sb	10 41 55.2	-1.3
ARSB	Arslanbob	2.53	81	⇑*i*P	Pn	10 41 25.8	+1.4
ARSB				⇑*i*S	Sb	10 41 58.2	-1.8
MNAS	Manas	2.61	53	⇓*i*P	Pn	10 41 26.8	+1.2
MNAS				⇓*i*S	Sb	10 42 00.1	-2.2
SFK	Sufi-Kurgan	3.08	107	⇑*i*P	Pn	10 41 33.3	+1.2
SFK				⇑*i*S	Sn	10 42 11.5	+2.5
SALK	Salom-Alik	3.15	90	⇓*i*P	Pn	10 41 34.4	+1.4
SALK				⇓*i*S	Sn	10 42 13.0	+2.3

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*DJA **14** 11:07:19.8±0.2, 7°S±2°×12°9E±°, h199^{km}±6^{km}, M4.5/22, mB5.0/12, mb4.5/22, MLv4.9/22, Mw(mB)4.3/12, MwMwp4.7/1, Mwp5.0/1*

*NEIC **14** 11:07:19.4±1.3, 6°.81S±0°.07×129°.28E±0°.08, h141^{km}±6^{km}, mb4.6/55, Error ellipse: s-maj=11.0km s-min=9.4km az=72.0*

*GFZ **14** 11:07:20.7±0.3, 7°S±4°×12°9E±°, h147^{km}±4^{km}, M4.3/10, mb4.5/10, Error ellipse: s-maj=8.3km s-min=5.9km az=18.9, confirmed*

*IDC **14** 11:07:21.8±2.8, 6°.86S×129°.38E, h161^{km}±25^{km}, mb3.7/14, mbtmp4.2/16, MS3.1/1, Error ellipse: s-maj=26.1km s-min=11.1km az=69.0*

ISC 14 11:07:18.6±0.3**, 6°.90S**±0°.04×**129°.36E**±0°.04**, h139^{km}, n184, σ1^{s}.67**/191**, mb4.5**/49**, 1D, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SAUI	Saumlaki	2.21	119	P	Pn	11 07 59.1	+3.5
SAUI	Saumlaki	2.21	119		Pn	11 07 58.6	+3.0
SAUI				Sn	Sn	11 08 28.1	+4.1
SAUI	Saumlaki	2.21	119	P	Pn	11 07 58.8	+3.2
SAUI				AML	AML		
SAUI	Saumlaki	2.21	119	P	Pn	11 07 59.3	+3.7
SAUI				P	Sn	11 08 23.8	-0.2
BNDI	Bandanaira	2.42	13	P	Pn	11 08 00.9	+2.6
BNDI	Bandanaira	2.42	13	P	Pn	11 08 03.2	+4.9
BNDI				AML	AML		
BNDI	Bandanaira	2.42	13	P	Pn	11 08 03.1	+4.8
NLAI	Namlea	4.28	328	P	Pn	11 08 27.3	+5.0
NLAI				AML	AML		
FAKI	Fak Fak	4.89	36	P	Pn	11 08 31.2	+0.8
FAKI	Fak Fak	4.89	36		Pn	11 08 31.5	+1.0
FAKI				Sn	Sn	11 09 24.7	-1.6
FAKI	Fak Fak	4.89	36	P	Pn	11 08 30.6	+0.2
FAKI				AML	AML		
FAKI	Fak Fak	4.89	36	P	Pn	11 08 31.2	+0.8
DRS	Darwin Rock St	5.70	165	P	Pn	11 08 42.7	+1.4
	131nm,0.5s						
DRS				AML	AML		
SOEI	Soe	5.78	240	P	Pn	11 08 44.4	+1.9
	442nm,0.8s						
SOEI				AML	AML		
SOEI	Soe	5.78	240	S	Sn	11 09 49.8	+1.9
	442nm,0.8s						
SOEI				AML	AML		
SOEI	Soe	5.78	240		Pn	11 08 44.8	+2.4
SOEI				Sn	Sn	11 09 49.3	+1.4
SOEI	Soe	5.78	240	P	Pn	11 08 44.6	+2.1
SOEI				AML	AML		
SOEI	Soe	5.78	240	P	Pn	11 08 45.2	+2.7
	comp=Z,442nm,0.8s						
MTN	Manton Dam	6.16	164		Pn	11 08 48.2	+0.8
SWI	Sorong	6.29	18	P	Pn	11 08 50.2	+1.1
SWI				AML	AML		
BBSI	Bau Bau	6.89	281	P	Pn	11 08 59.0	+1.7
	comp=Z,0.3nmcomp=Z,80nm,1.5s						
BBSI				AML	AML		
MMRI	Maumere	7.26	256		Pn	11 09 02.4	+0.1
MMRI	Maumere	7.26	256	P	Pn	11 09 05.2	+3.0
	comp=Z,0.3nmcomp=Z,86nm,0.7s						
MMRI				AML	AML		
MMRI	Maumere	7.26	256	P	Pn	11 09 04.7	+2.5
	comp=Z,88nm,0.9s						
MWPI	Manokwari, Pap	7.55	38	P	Pn	11 09 07.8	+1.8
	comp=Z,2µmcomp=Z,76nm,0.5s						
EDFI	Ende, Flores	7.82	256	P	Pn	11 09 12.6	+2.8
	comp=Z,0.2nmcomp=Z,908nmcomp=Z,74nm,0.8s						
EDFI				AML	AML		
EDFI	Ende, Flores	7.82	256	P	Pn	11 09 13.0	+3.2
	comp=Z,74nm,0.8s						
KNRA	Kununurra	8.74	184		Pn	11 09 21.3	-0.8
BAKI	Biak	8.80	50	P	Pn	11 09 25.0	+2.2
WSI	Waingapu	9.38	252	P	Pn	11 09 31.5	+0.9
KAPI	Kappang	9.74	281	Pn	Pn	11 09 35.2	-0.2
DBNI	Kabupaten Domp	11.06	261	P	Pn	11 09 54.2	+1.2
	comp=Z,25nm,0.7s						
PLAI	Plampang	11.63	260	P	Pn	11 09 59.8	-0.7
	comp=Z,35nm,0.9s						
PLAI	Plampang	11.63	260	P	Pn	11 09 59.6	-0.9
	comp=Z,1µmcomp=Z,35nm,0.9s						
PLAI	Plampang	11.63	260	P	Pn	11 10 00.2	-0.3
	comp=Z,35nm,0.9s						
TOLI2	Tolitoli	11.69	313	Pn	Pn	11 09 59.1	-2.2
FITZ	Fitzroy Crossi	11.71	198	P	Pn	11 09 59.1	-2.4
	comp=Z,9.8nm,0.3s,baz=18,slow=9.9,SNR=90						
FITZ				S	Sn	11 11 59.8	-11
	comp=Z,47nm,0.4s,baz=73,slow=22,SNR=17						
FITZ	Fitzroy Crossi	11.71	198	Pn	Pn	11 09 59.3	-2.2
FITZ	Fitzroy Crossi	11.71	198	P	Pn	11 09 59.8	-1.7
	comp=Z,2.6nm,0.5s						
TWSI	Taliwang, Sumb	12.50	261	P	Pn	11 10 11.0	-0.8
	comp=Z,33nm,0.9s						
WB0	Warramunga Arr	13.70	160		Pn	11 10 24.6	-2.6
WRAB	Tennant Creek	13.83	160		Pn	11 10 26.6	-2.4
WRA	Warramunga Arr	13.84	160	P	Pn	11 10 26.3	-2.8
	comp=Z,2.6nm,0.8s,baz=322,slow=15,SNR=39						
WRA				S	Sn	11 12 50.2	-12
	comp=Z,8.2nm,0.4s,baz=334,slow=22,SNR=8.0						
WRA				ScP	ScP	11 18 59.5	-2.8
	comp=Z,0.9nm,0.8s,baz=328,slow=1.5,SNR=4.8						
WRA	Warramunga Arr	13.84	160		Pn	11 10 27.2	-1.8
WB2	Warramunga Arr	13.84	160	Pn	Pn	11 10 26.9	-2.1
WR8	Warramunga Arr	13.91	159		Pn	11 10 27.8	-2.1
IGBI	Denpasar	14.21	261	P	Pn	11 10 32.5	-1.2
	comp=Z,89nm,0.7s						
JAGI	Jajag, Banyuwa	15.15	263	P	Pn	11 10 46.0	+0.4
	comp=Z,31nm,1.0s						
JAGI	Jajag, Banyuwa	15.15	263		Pn	11 10 44.2	-1.4
JAGI				IAmb	IAmb	11 10 52.6	
	comp=Z,86nm,1.4s						
JAGI	Jajag, Banyuwa	15.15	263	P	Pn	11 10 44.0	-1.6
	comp=Z,34nm,0.9s						
COEN	Coen	15.29	118	Pn	Pn	11 10 47.1	-0.1
MYLDM	Lahad Datu	16.17	318		Pn	11 10 56.5	-1.6
QIS	Mount Isa	16.82	145	P	Pn	11 11 06.9	+0.8
	comp=Z,22nm,0.7s						
QIS	Mount Isa	16.82	145	P	P	11 11 06.1	+0.2
	comp=Z,22nm,0.7s						
MBWA	Marble Bar	16.96	212	P	Pn	11 11 07.8	+0.1
	comp=Z,11nm,0.9s						
MBWA	Marble Bar	16.96	212		P	11 11 06.7	-0.7
MBWA				IAmb	IAmb	11 11 09.8	
	comp=Z,13nm,0.9s						
MBWA	Marble Bar	16.96	212	P	P	11 11 07.0	-0.4
	comp=Z,20nm,0.9s						
AS31	Alice Springs	17.23	166	P	Pn	11 11 11.5	+0.5
ASAR	Alice Springs	17.23	166	P	Pn	11 11 12.0	+0.9
	comp=Z,18nm,0.5s,baz=347,slow=9.9,SNR=150						
ASAR				S	S	11 14 13.1	-10
	comp=Z,2.9nm,0.6s,baz=334,slow=21,SNR=4.9						
ASAR				LR	LR	11 18 25.3	
	comp=Z,60nm,18.0s,baz=178,slow=38						
ASAR				ScP	ScP	11 19 05.9	-2.7
	comp=Z,1.9nm,0.6s,baz=357,slow=1.9,SNR=6.9						
ASAR	Alice Springs	17.23	166	P	Pn	11 11 12.2	+1.1
AS01	Alice Springs	17.25	166	P	Pn	11 11 12.2	+1.0
	comp=Z,43nm,0.8s						
PMG	Port Moresby	17.80	99	P	Pn	11 11 19.6	+1.8
	comp=Z,16nm,0.9s,baz=284,slow=17,SNR=2.1						
PMG				S	S	11 14 28.3	-6.1
	comp=Z,9.3nm,0.7s,baz=181,slow=22,SNR=5.6						
PMG	Port Moresby	17.80	99	P	Pn	11 11 17.9	+0.2
PMG				IAmb	IAmb	11 11 46.9	
	comp=Z,24nm,1.0s						
PCJI	Pacitan	18.07	265	P	Pn	11 11 20.3	-0.8
	comp=Z,60nm,1.8s						
MTSU	Mount Surprise	18.36	129	P	Pn	11 11 24.9	+0.4
	comp=Z,11nm,0.6s						
MTSU	Mount Surprise	18.36	129	P	Pn	11 11 24.4	-0.2
	comp=Z,11nm,0.6s						
UGM	Wanagama	18.71	266	P	P	11 11 26.0	-0.6
CTA	Charters Tower	20.99	130	P	P	11 11 52.8	+1.6
	comp=Z,11nm,0.8s,baz=291,slow=12,SNR=7.4						
	comp=Z,11nm,0.8s						
CTAO	Charters Tower	20.99	130	P	P	11 11 51.9	+0.8
CTAO				IAmb	IAmb	11 11 55.1	
	comp=Z,37nm,1.4s						
GIRL	Giralia	21.39	221	P	P	11 11 55.9	+0.5
BBJI	Bungbulang	21.55	267	P	P	11 11 56.7	-0.5
	comp=Z,23nm,0.6s						
BBJI	Bungbulang	21.55	267	P	P	11 11 55.9	-1.3
BBJI				IAmb	IAmb	11 12 00.1	
	comp=Z,14nm,0.6s						
BBJI	Bungbulang	21.55	267	P	P	11 11 55.9	-1.3
	comp=Z,23nm,0.6s						
MEEK	Meekatharra	22.14	206	P	P	11 12 03.4	+0.2
	comp=Z,18nm,0.9s						
INKA	Innaminka	23.37	154	P	P	11 12 15.7	+0.9
INKA				IAmb	IAmb	11 12 17.8	
	comp=Z,12nm,0.6s						
FORT	Forrest	23.79	183	P	P	11 12 18.8	+0.2
FORT				IAmb	IAmb	11 12 22.6	
	comp=Z,8.7nm,0.8s						
QLP	Quilpie	24.16	146	P	P	11 12 22.8	+0.8
	comp=Z,30nm,0.5s						
QLP	Quilpie	24.16	146	P	P	11 12 23.9	+1.9
	comp=Z,31nm,0.5s						
MORW	Morawa	25.38	208	P	P	11 12 34.4	+1.3
	comp=Z,14nm,2.0s						
MNAI	Manna	26.39	274	P	P	11 12 41.1	-1.3
BBOO	Buckleboo	26.52	167	P	P	11 12 44.7	+1.4
BBOO	Buckleboo	26.52	167	P	P	11 12 43.5	+0.1
BBOO				IAmb	IAmb	11 13 04.7	
	comp=Z,27nm,1.5s						
STKA	Stephens Creek	27.35	157	P	P	11 12 52.0	+1.3
	comp=Z,4.1nm,0.4s,baz=334,slow=9.3,SNR=16						
	comp=Z,4.1nm,0.4s						
STKA	Stephens Creek	27.35	157	P	P	11 12 51.4	+0.7
DPSS	Saipan	27.37	36	P	P	11 12 50.3	-0.7
EIDS	Eidsvold	27.72	134	P	P	11 12 54.6	+0.5
EIDS				IAmb	IAmb	11 13 04.1	
	comp=Z,10nm,1.3s						
HTT	Hallett	27.85	163	P	P	11 12 56.5	+1.3
	comp=Z,9.0nm,1.8s						
CMSA	Cobar Meteorol	28.88	150	P	P	11 13 04.9	+0.6
CMSA	Cobar Meteorol	28.88	150	P	P	11 13 05.1	+0.8
RPSI	Rantau Prapat	31.84	286	P	P	11 13 30.7	+0.1
RPSI				IAmb	IAmb	11 13 34.4	
	comp=Z,5.8nm,0.6s						
MGBR	Mount Gambier	32.34	163	P	P	11 13 36.0	+1.3
JOW	Kunigami	33.55	358	P	P	11 13 46.5	+1.2
	comp=Z,14nm,2.5s						
JOW	Kunigami	33.55	358	P	P	11 13 45.3	0.0
JOW				IAmb	IAmb	11 13 46.9	
	comp=Z,10nm,0.9s						
CAN	Canberra	33.55	150	P	P	11 13 45.9	+0.5
CAN				IAmb	IAmb	11 13 46.0	
	comp=Z,44nm,1.5s						
SANVU	Saraoutou	38.03	106	P	P	11 14 24.6	+0.9
ONTNC	Ouen Toro	38.88	117	P	P	11 14 31.6	+0.8
CMAR	Chiang Mai Arr	39.18	310	P	P	11 14 34.3	+1.0
	comp=Z,0.6nm,0.3s,baz=139,slow=7.5,SNR=6.2						
	comp=Z,0.6nm,0.3s						
CMAR	Chiang Mai Arr	39.18	310	P	P	11 14 31.9	-1.4
OUENC	Ouen Island, N	39.26	117	P	P	11 14 34.3	+0.4
NJ2	Nanjing	40.01	346	*e*P	P	11 14 41.1	+1.2
NJ2				pmax	pmax		
	comp=Z,7.0nm,0.5s						
JHJ2	Mitsune	41.01	13	P	P	11 14 47.0	-1.1
PZH	PanZhiHua	42.66	322	P	P	11 15 03.3	+1.5
JGF	Kuroka	42.94	10	P	P	11 15 03.1	-0.7
JGF				IAmb	IAmb	11 15 30.0	
	comp=Z,17nm,1.4s						
MJAR	Matsushiro Arr	44.00	10	P	P	11 15 11.1	-1.1
	comp=Z,2.0nm,0.6s,baz=185,slow=8.5,SNR=5.7						
	comp=Z,2.0nm,0.6s						
MJAR	Matsushiro Arr	44.00	10	P	P	11 15 11.0	-1.3
MAJO	Matsushiro	44.00	10	P	P	11 15 11.4	-0.9
MAJO				IAmb	IAmb	11 15 11.8	
	comp=Z,12nm,1.4s						
MJB9	Matsu-Tunnel	44.00	10	P	P	11 15 11.8	-0.5
MJB9				IAmb	IAmb	11 15 26.2	
	comp=Z,15nm,1.4s						
JYT	Yasato	44.09	13	P	P	11 15 12.2	-0.7
KSRS	Korea Array	44.14	358	P	P	11 15 14.2	+0.8
	comp=Z,0.9nm,0.7s,baz=165,slow=8.2,SNR=2.6						
	comp=Z,0.9nm,0.7s						
BJT	Baijiatuau	48.25	346	P	P	11 15 44.6	-0.8
BJT				IAmb	IAmb	11 16 11.5	
	comp=Z,4.0nm,0.4s						
LZH	Lanzhou	49.02	332	*e*P	P	11 15 51.9	+0.3
LZH				sP	sP	11 16 39.8	+2.9
LZH				pmax	pmax		
	comp=Z,23nm,1.0s						
HHC	Hu-ho-hao-te	50.25	342	*e*P	P	11 16 03.8	+3.0
HHC				pmax	pmax		
	comp=Z,9.0nm,0.5s						
HHC				pmax	pmax		
	comp=Z,69nm,4.7s						
USRK	Ussuriysk Ar.	50.91	2	P	P	11 16 06.4	+0.8
	comp=Z,2.9nm,0.7s,baz=183,slow=5.8,SNR=3.3						
	comp=Z,2.9nm,0.7s						
USRK	Ussuriysk Ar.	50.91	2	P	P	11 16 04.3	-1.2
WHZ	Wether Hill Ro	51.14	146	P	P	11 16 08.2	+0.9
QRZ	Quartz Range	51.16	138	P	P	11 16 09.7	+2.2
LBZ	Lake Benmore	51.55	143	P	P	11 16 11.4	+1.0
RPZ	Rata Peaks	51.70	142	P	P	11 16 13.4	+1.8
	comp=Z,44nm,2.3s						
JKA	Kamikawa-asahi	52.17	12	P	P	11 16 15.0	+0.2
JKA				IAmb	IAmb	11 16 34.7	
	comp=Z,38nm,1.4s						
WTVZ	West Tongariro	52.46	135	P	P	11 16 20.3	+2.9
KHZ	Kahutara	52.59	139	P	P	11 16 19.2	+1.1
MOVZ	Moawhango	52.70	135	P	P	11 16 20.2	+1.1
BHHZ	Black Hill Sta	52.95	135	P	P	11 16 20.1	-0.8
BKZ	Black Stump Fm	53.12	135	P	P	11 16 23.2	+1.0
	comp=Z,11nm,0.9s						
BKZ	Black Stump Fm	53.12	135	P	P	11 16 23.1	+1.0
TSZ	Takapari Road	53.13	136	P	P	11 16 23.1	+0.9
URZ	Urewera	53.20	133	P	P	11 16 22.8	+0.2
	comp=Z,19nm,1.9s						
URZ	Urewera	53.20	133	P	P	11 16 23.2	+0.6
KRHZ	Kereru	53.23	135	P	P	11 16 23.5	+0.5
HAZ	Te Kaha	53.49	132	P	P	11 16 26.1	+1.3
RUGZ	Raukumara Rang	53.49	133	P	P	11 16 25.4	+0.5
MWZ	Matawai	53.53	133	P	P	11 16 26.1	+1.0
TKGZ	Te Karaka	53.80	133	P	P	11 16 28.0	+1.0
PUZ	Puketiti	53.96	133	P	P	11 16 29.1	+0.9
WMGZ	Waiomatatini S	53.98	132	P	P	11 16 29.8	+1.5
SONM	Songino Array	58.15	342	P	P	11 16 58.0	+0.1
	comp=Z,0.7nm,0.5s,baz=161,slow=7.5,SNR=4.0						
	comp=Z,0.7nm,0.5s						
SONM	Songino Array	58.15	342	IAmb	IAmb	11 17 00.5	
	comp=Z,0.8nm,0.7s						
WMQ	Urumqi	62.96	327	*e*P	P	11 17 33.3	+2.7
WMQ				LR	LR		
	comp=Z,73nm,23.9s						
PEA0B	Petropavlovsk-	64.43	18	P	P	11 17 40.0	+0.1
PETK	Petropavlovsk-	64.43	18	P	P	11 17 41.0	+1.1
	comp=Z,4.4nm,0.9s,baz=151,slow=3.4,SNR=3.7						
	comp=Z,4.4nm,0.9s						
PETK	Petropavlovsk-	64.43	18	P	P	11 17 40.3	+0.4
PET	Petropavlovsk	64.66	19	P	P	11 17 41.0	-0.4
PET				IAmb	IAmb	11 18 00.7	
	comp=Z,19nm,1.2s						
PET				PcP	pP	11 18 14.2	+0.2
JOHN	Johnston Islan	64.82	68	P	P	11 17 42.4	-0.7
JOHN				PcP	pP	11 18 14.5	-0.9
MK31	Makanchi Array	67.79	327	P	P	11 18 00.8	-0.7
MKAR	Makanchi Array	67.79	327	P	P	11 18 02.7	+1.1
	comp=Z,1.6nm,0.4s,baz=125,slow=7.4,SNR=18						
	comp=Z,1.6nm,0.4s						
MKAR	Makanchi Array	67.79	327	P	P	11 18 01.6	+0.1
MAKZ	Makanchi	67.97	327	P	P	11 18 01.7	-1.0
ZAA0	Zalesovo Array	71.21	334	P	P	11 18 21.8	-0.5
ZALV	Zalesovo Beam	71.21	334	P	P	11 18 22.7	+0.4
	comp=Z,0.8nm,0.4s,baz=158,slow=5.9,SNR=3.8						
	comp=Z,0.8nm,0.4s						
ZALV	Zalesovo Beam	71.21	334	P	P	11 18 21.8	-0.5
KURBB	Kurchatov Arra	72.09	329	P	P	11 18 28.2	+0.6
	comp=Z,0.8nm,0.5s,baz=129,slow=4.8,SNR=8.6						
	comp=Z,0.8nm,0.5s						
KURK	Kurchatov	72.10	329	P	P	11 18 27.9	+0.2
KURK				IAmb	IAmb	11 18 35.6	
	comp=Z,6.0nm,0.2s						
VNDA	Vanda	72.62	173	P	P	11 18 30.7	+0.3
	comp=Z,0.5nm,0.5s,baz=302,slow=10,SNR=2.4						
	comp=Z,0.5nm,0.5s						
VNDA	Vanda	72.62	173	P	P	11 18 31.2	+0.7
KKAR	Karatay Array	72.85	319	P	P	11 18 32.0	-0.3
SBA	Scott Base	73.52	172	P	P	11 18 37.0	+1.3
KIWB	Kanaga Island	74.17	31	P	P	11 18 40.9	+1.0
KIWB				IAmb	IAmb	11 18 46.5	
	comp=Z,30nm,1.2s						
TIXI	Tiksi	78.39	360	P	P	11 19 03.4	+0.2

TIXI				IAmb	IAmb	11 19 31.5	
	comp=Z,9.3nm,0.9s						
UNV	Unalaska Valle	80.76	33	P	P	11 19 17.2	+0.7
AB31	Akbulak array	82.03	322	P	P	11 19 23.4	+0.1
ABKAR	Akbulak array	82.03	322	P	P	11 19 23.5	+0.2
QSPA	South Pole Qui	83.08	180	P	P	11 19 28.6	0.0
	comp=Z,1.1nm,0.5s,baz=284,slow=0.4,SNR=12						
	comp=Z,1.1nm,0.5s						
QSPA	South Pole Qui	83.08	180	P	P	11 19 28.9	+0.3
ARTI	Arti	85.36	328	P	P	11 19 39.6	-0.5
ARTI				IAmb	IAmb	11 19 41.3	
	comp=Z,6.0nm,1.0s						
L14K	Kuka Creek	85.69	27	P	P	11 19 42.1	+0.5
L14K				IAmb	IAmb	11 19 43.5	
	comp=Z,10nm,1.1s						
M14K	Bethel	85.79	27	P	P	11 19 43.1	+1.1
M14K				IAmb	IAmb	11 19 43.5	
	comp=Z,18nm,1.1s						
M16K	Timber Creek	87.26	28	P	P	11 19 49.5	+0.2
M16K				IAmb	IAmb	11 19 59.1	
	comp=Z,17nm,1.4s						
J17K	VABM Dome	88.00	25	P	P	11 19 52.7	0.0
J17K				IAmb	IAmb	11 19 55.1	
	comp=Z,7.0nm,1.2s						
RDOG	Red Dog Mine	88.23	20	P	P	11 19 54.8	+1.1
RDOG				IAmb	IAmb	11 20 01.0	
	comp=Z,7.3nm,0.7s						
C19K	Lookout Ridge	89.75	20	P	P	11 20 01.4	+0.5
C19K				IAmb	IAmb	11 20 11.6	
	comp=Z,12nm,1.3s						
RND	Reindeer	92.45	26	P	P	11 20 12.8	-0.8
RND				IAmb	IAmb	11 20 13.3	
	comp=Z,3.4nm,0.6s						
ILAR	Eielson Array	93.53	25	P	P	11 20 17.3	-1.1
	comp=Z,0.5nm,0.6s,baz=241,slow=4.9,SNR=12						
	comp=Z,0.5nm,0.6s						
ILAR	Eielson Array	93.53	25	P	P	11 20 17.2	-1.2
VNA3	Neumayer Olymp	97.45	192	⇓P	P	11 20 35.8	-0.4
	comp=Z,8.9nm,0.6s						
ARCES	ARCESS Array B	101.26	340	P	Pdif	11 20 52.6	-0.6
	comp=Z,3.9nm,1.1s,baz=103,slow=5.8,SNR=4.5						
TXAR	Lajitas Array	125.42	59	PKP	PKiKP	11 26 04.7	+0.3
	comp=Z,0.2nm,0.6s,baz=224,slow=1.9,SNR=2.6						
TORD	Torodi Ar. Bea	128.17	281	PKP	PKiKP	11 26 10.0	-0.1
	comp=Z,0.3nm,0.5s,baz=61,slow=2.3,SNR=1.7						
CARN	Rivas	145.31	80	PKPdf	PKPdf	11 26 38.2	-2.8
SIUN	Universidad Ur	145.77	76	PKPdf	PKPdf	11 26 40.1	-1.6
PB02	IPOC Station P	146.18	146	PKPdf	PKPdf	11 26 41.6	-0.9
CPUP	Villa Florida	146.34	169	PKPbc	PKPab	11 26 44.5	-0.4
	comp=Z,2.2nm,0.6s,baz=202,slow=2.8,SNR=5.8						
CPUP	Villa Florida	146.34	169	PKPdf	PKPdf	11 26 41.6	-0.9
PB11	IPOC Station P	147.56	145	PKPdf	PKPdf	11 26 43.2	-1.7
LPAZ	La Paz	151.18	143	PKPbc	PKiKP	11 26 58.4	+0.6
	comp=Z,1.6nm,0.4s,baz=40,slow=4.2,SNR=12						

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*SNET **14** 11:09:31.9±1.3, 14°.25N×91°.89W, h61^{km}, ML3.6, Presumed earthquake*

*CATAC **14** 11:09:31.4±0.5, 14°N±3°×9°2W±°, h32^{km}±4^{km}, M3.8/12, MLv3.8/12, Error ellipse: s-maj=8.5km s-min=3.1km az=32.9, confirmed*

*GCG **14** 11:09:32.5±1.0, 14°.32N×91°.84W, h55^{km}±10^{km}, MD4.4, ML4.3, Presumed earthquake*

*MEX **14** 11:09:32.7±1.2, 14°.18N×92°.05W, h54^{km}±15^{km}, MD4.3, Presumed earthquake*

ISC 14 11:09:30.6±1.2**, 14°.17N**±0°.07×**91°.99W**±0°.04**, h60**^{km}±11^{km}**, n46, σ1^{s}50**/73**, 2D, Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RTAL	Retalhuleu	0.45	39	eP	Pn	11 09 42.5	+0.4
RTAL				eS	Sn	11 09 50.3	-0.1
RTAL	Retalhuleu	0.45	39	P	Pn	11 09 42.6	+0.4
RTAL				S	Sn	11 09 50.7	+0.2
STG8	El Palmar, Qui	0.67	66	⇓iP	Pn	11 09 44.5	-0.3
STG8				eS	Sn	11 09 54.3	-0.9
STG8				IAML		11 09 55.8	
	comp=E,15μm,0.2s						
SMCA	Catarina	0.68	353	eP	Pn	11 09 45.1	+0.3
SMCA				eS	Sn	11 09 54.7	-0.4
THIG		0.78	340	eP	Pn	11 09 46.6	+0.7
THIG				eS	Sn	11 09 57.1	+0.1
THIG		0.78	340	eP	Pn	11 09 46.4	+0.5
CHUJ	Union Juarez	0.92	353	eP	Pn	11 09 47.8	-0.1
CHUJ				eS	Sn	11 09 59.5	-1.2
PATR	El Naranjo	0.97	346	eP	Pn	11 09 48.2	-0.3
PATR				eS	Sn	11 10 00.5	-1.2
PAVE	Pavencul	1.03	350	eP	Pn	11 09 49.2	-0.1
PAVE				eS	Sn	11 10 02.0	-1.1
HUEH	Huehuetenango	1.23	22	eP	Pn	11 09 52.6	+0.6
HUEH				eS	Sn	11 10 08.8	+1.1
HUEH	Huehuetenango	1.23	22	eP	Pn	11 09 52.6	+0.6
HUEH	Huehuetenango	1.23	22	i P	Pn	11 09 52.8	+0.8
HUEH				eS	Sn	11 10 08.7	+0.8
HUEH	Huehuetenango	1.23	22	P	Pn	11 09 52.6	+0.6
HUEH				S	Sn	11 10 08.9	+1.1
FG16	Alotenango, Sa	1.43	86	eP	Pn	11 09 50.4	-4.3
PCG5	San Vicente Pa	1.56	88	eP	Pn	11 09 53.2	-3.1
ESSJ	San Jos, E	1.56	113	eP	Pn	11 09 51.3	-4.9
APG	El Apazote	1.69	61	⇓iP	Pn	11 09 58.2	+0.1
FAME	Alcaldia de Sa	1.94	100	P	Pn	11 10 01.2	-0.2
FAME				S	Sn	11 10 23.8	-0.8
NUBE	Las Nubes	2.16	97	i P	Pn	11 10 04.9	+0.5
NUBE	Las Nubes	2.16	97	P	Pn	11 10 04.9	+0.5
NUBE				S	Sn	11 10 29.8	-0.3
CEVE	Cerro Verde	2.32	98	eP	Pn	11 10 08.2	+1.5
CEVE				eS	Sn	11 10 35.6	+1.4
CEVE	Cerro Verde	2.32	98	P	Pn	11 10 08.0	+1.4
CEVE				S	Sn	11 10 34.9	+0.7
UNIC	Universidad Ca	2.37	94	P	Pn	11 10 08.6	+1.3
UNIC				S	Sn	11 10 35.7	+0.4
JAYA	Jayaque - finc	2.52	102	eP	Pn	11 10 09.9	+0.6
JAYA	Jayaque - finc	2.52	102	eP	Pn	11 10 09.9	+0.6
JAYA				eS	Sn	11 10 38.0	-1.0
JAYA	Jayaque - finc	2.52	102	P	Pn	11 10 10.1	+0.8
JAYA				S	Sn	11 10 38.7	-0.3
PMON	Piamonte	2.63	100	P	Pn	11 10 12.0	+1.2
PMON				S	Sn	11 10 41.9	+0.2
LALI	Alcalda de L	2.68	104	S	Sn	11 10 42.6	0.0
UEES	Universidad Ev	2.71	99	P	Pn	11 10 11.0	-0.9
UEES				S	Sn	11 10 43.1	-0.4
LOMA	Loma Larga	2.78	101	S	Sn	11 10 45.7	+0.3
TGIG		2.81	337	eP	Pn	11 10 15.0	+1.7
TGIG				eS	Sn	11 10 44.6	-1.5
LFRS	El Faro	2.89	101	eP	Pn	11 10 15.6	+1.2
LLGN	La Laguna	2.95	90	P	Pn	11 10 15.2	0.0
COEG	Centro de Oper	3.06	100	eP	Pn	11 10 18.4	+1.7
COEG	Centro de Oper	3.06	100	P	Pn	11 10 18.0	+1.3
COEG				S	Sn	11 10 52.5	+0.3
UXUV	UXUV	3.75	327	eP	Pn	11 10 27.2	+1.1
UXUV				eS	Sn	11 11 06.0	-3.0
CMIG	Matias Romero	4.03	316	eP	Pn	11 10 31.4	+1.6
CMIG				eS	Sn	11 11 16.0	+0.2
HUIG	Huatulco	4.29	292	eP	Pn	11 10 33.7	+0.3
HUIG				eS	Sn	11 11 15.7	-6.5
NEUV	Arroyo Zacate	5.08	314	eP	Pn	11 10 45.2	+0.9
NEUV				eS	Sn	11 11 41.4	-0.4
PEIG	Puerto Escondi	5.31	291	eP	Pn	11 10 48.3	+0.9
PEIG				eS	Sn	11 11 40.0	-7.2
YOIG	Yosondua	5.99	297	eP	Pn	11 11 00.2	+3.3
YOIG				eS	Sn	11 12 01.4	-2.9
TOIG	Toxpalan	6.25	309	eP	Pn	11 11 02.1	+1.8
TOIG				eS	Sn	11 12 06.8	-3.7
TXIG	Tlaxiaco	6.35	300	eP	Pn	11 11 04.3	+2.3
TXIG				eS	Sn	11 12 10.7	-2.7
JAUV	Jalcomulco	6.92	319	eP	Pn	11 11 08.4	-1.2
JAUV				eS	Sn	11 12 22.5	-4.5
FTIG	Fresnillo de T	6.98	303	eP	Pn	11 11 12.8	+2.4
FTIG				eS	Sn	11 12 19.1	-9.3
MGIG	Malinaltepec	7.09	296	e		11 12 28.8	

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*SJA **14** 11:11:33.9±0.6, 22°.58S×68°.71W, h115^{km}±3^{km}, ML3.3, MW3.5*

*GUC **14** 11:11:35.5±0.8, 22°.48S×68°.69W, h110^{km}±4^{km}, ML3.3*

ISC 14 11:11:36.6±1.4**, 22°.52S**±0°.03×**68°.74W**±0°.05**, h99**^{km}±9^{km}**, n31, σ1^{s}82**/45**, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AF01	San Pedro de A	0.67	130	eP	Pn	11 11 53.4	-0.8
AF01				eS	Sn	11 12 07.3	+0.2
AF01				IAML		11 12 22.9	
	comp=Z,1μm,0.4s						
AF01	San Pedro de A	0.67	130	eP	Pn	11 11 53.3	-0.8
AF01				IAML		11 12 15.0	
	comp=E,2μm,0.5s						
PB06	IPOC Station P	0.79	256	eP	Pn	11 11 52.2	-2.8
PB06				eS	Sn	11 12 10.2	+1.4
PB06				IAML		11 12 13.1	
	comp=Z,741nm,0.4s						
PB06	IPOC Station P	0.79	256	eP	Pn	11 11 55.0	0.0
PB06				eS	Sn	11 12 09.7	+0.9
PB06				IAML		11 12 10.9	
	comp=E,1μm,0.3s						
PB09	IPOC Station P	0.86	327	i P	Pn	11 11 55.6	-0.1
PB09				eS	Sn	11 12 10.6	+0.5
PB09				IAML		11 12 12.4	
	comp=N,513nm,0.4s						
PB03	IPOC Station P	1.05	296	eP	Pn	11 11 57.6	-0.2
PB03				eS	Sn	11 12 14.3	+0.7
PB03				IAML		11 12 14.7	
	comp=Z,1μm,0.3s						
PB03	IPOC Station P	1.05	296	eP	Pn	11 11 57.4	-0.3
PB03				eS	Sn	11 12 14.1	+0.5
PB03				IAML		11 12 14.6	
	comp=E,1μm,0.5s						
PB07	IPOC Station P	1.32	306	eP	Pn	11 12 00.6	-0.3
PB07				eS	Sn	11 12 20.4	+1.1
PB07				IAML		11 12 23.2	
	comp=Z,374nm,0.3s						
PB07	IPOC Station P	1.32	306	eP	Pn	11 12 00.1	-0.8
PB07				eS	Sn	11 12 19.5	+0.2
PB07				IAML		11 12 23.5	
	comp=E,663nm,0.4s						
PB05	IPOC Station P	1.39	256	eP	Pn	11 12 01.6	0.0
PB05				eS	Sn	11 12 22.2	+1.7
PB05				IAML		11 12 22.6	
	comp=Z,245nm,0.4s						
PB05	IPOC Station P	1.39	256	eP	Pn	11 12 01.4	-0.2
PB05				IAML		11 12 24.0	
	comp=E,268nm,0.5s						
PB02	IPOC Station P	1.61	318	eP	Pn	11 12 04.1	-0.2
PB02				IAML		11 12 27.9	
	comp=Z,435nm,0.4s						
PB02	IPOC Station P	1.61	318	eP	Pn	11 12 04.1	-0.2
PB02				IAML		11 12 26.7	
	comp=N,494nm,0.1s						
TA01	Diego Aracena	2.36	325	eP	Pn	11 12 13.5	-0.5
TA01				eS	Sn	11 12 37.5	-5.0
TA01				IAML		11 12 46.4	
	comp=Z,80nm,0.8s						
TA01	Diego Aracena	2.36	325	eP	Pn	11 12 12.4	-1.5
TA01				IAML		11 12 49.5	
	comp=E,121nm,0.5s						
PB08	IPOC Station P	2.40	351	eP	Pn	11 12 14.7	-0.1
PB08				eS	Sn	11 12 47.3	+3.3
PB08	IPOC Station P	2.40	351	eP	Pn	11 12 14.7	-0.1
TA02	Huaiquique	2.59	330	eP	Pn	11 12 20.5	+3.6
TA02				IAML		11 12 59.7	
	comp=Z,71nm,0.3s						
PB14	IPOC Station P	2.59	216	eP	Pn	11 12 17.4	+0.1
PB14				eS	Sn	11 12 47.1	-1.3
PB14				IAML		11 12 57.6	
	comp=Z,118nm,0.4s						
PB14	IPOC Station P	2.59	216	eP	Pn	11 12 17.1	-0.2
PB14				IAML		11 12 58.0	
	comp=E,74nm,0.3s						
SALTA		2.78	128	eP	Pn	11 12 00.6	-19
SALTA				eP	Pn	11 12 18.1	-1.8
GO01	Chusmiza	2.87	351	eP	Pn	11 12 20.9	-0.2
GO01				eS	Sn	11 12 43.1	-12
GO01	Chusmiza	2.87	351	eP	Pn	11 12 20.2	-0.9
GO01				IAML		11 13 03.6	
	comp=N,181nm,0.1s						
PB11	IPOC Station P	2.88	343	eP	Pn	11 12 19.5	-1.4
PB11				eS	Sn	11 12 42.5	-12
PB11				IAML		11 13 09.1	
	comp=Z,46nm,0.9s						
PB11	IPOC Station P	2.88	343	eP	Pn	11 12 19.2	-1.7
PB11				IAML		11 13 03.7	
	comp=E,87nm,0.6s						
HJA	Humahuaca	3.15	103	eP	Pn	11 12 25.9	+1.1
PSGCX	Pisagua	3.18	336	eP	Pn	11 12 22.8	-2.1
PSGCX				eS	Sn	11 12 46.6	-16
PSGCX				IAML		11 13 18.2	
	comp=Z,28nm,0.5s						
AC01	Pan de Azucar	3.99	205	eP	Pn	11 12 33.6	-2.1
AC01				eS	Sn	11 13 27.8	+6.4
AC01				IAML		11 13 39.8	
	comp=Z,36nm,1.2s						
PB12	IPOC Station P	4.16	339	eP	Pn	11 12 37.9	-0.2
PB12				IAML		11 13 49.5	
	comp=Z,33nm,0.8s						
PB16	IPOC Station P	4.23	350	eP	Pn	11 12 39.5	+0.1
PB16				eS	Sn	11 13 17.1	-11
PB16				IAML		11 13 51.9	
	comp=Z,11nm,2.7s						
GO03	Copiapo	5.23	195	eP	Pn	11 12 50.4	-2.1
GO03				eS	Sn	11 13 50.9	-0.7
GO03				IAML		11 14 14.2	
	comp=Z,21nm,1.5s						

HEL 14 11:13:57.5±0.2**, 62°.08N×27°.39E, h0**^{km}**, ML1.1, Explosion, Finland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAF	Kangasniemi	0.51	274	PG	Pg	11 14 06.6	-0.7
	baz=89						
KAF				SG	Sg	11 14 13.6	-0.3
KAF				smax	smax	11 14 14.1	
	comp=Z,5.1nm,0.2s						
SUF	Sumiainen	0.86	319	PG	Pg	11 14 13.0	-1.1
SUF				smax	smax	11 14 24.2	
	comp=Z,1.2nm,0.2s						
FIA0	FINESS Array S	0.89	225	smax	smax	11 14 25.0	
	comp=Z,1.2nm,0.2s						
FIA0				SB	Sb	11 14 27.9	-0.4
RUF	Ruokolahti	0.99	131	PB	Pg	11 14 15.8	-0.6
RUF				smax	smax	11 14 27.8	
	comp=Z,1.0nm,0.2s						
KEF	Keuruu	1.19	275	PG	Pg	11 14 19.4	-0.9
KEF				smax	smax	11 14 33.5	
	comp=Z,0.7nm,0.2s						
KEF				SB	Sg	11 14 34.6	-1.0
VJF	Virojoki	1.55	177	smax	smax	11 14 43.9	
	comp=Z,1.5nm,0.2s						
VJF				SG	Sn	11 14 45.2	-1.9
PVF	Pernaja	1.71	206	PG	Pn	11 14 28.0	-0.5
PVF				smax	smax	11 14 48.6	
	comp=Z,1.4nm,0.2s						
PVF				SN	Sb	11 14 51.5	-0.2
JOF	Joensuu	2.00	63	SG	Sn	11 14 59.2	+0.9
VAF	Ylistaro	2.39	296	smax	smax	11 15 08.2	
	comp=Z,0.9nm,0.2s						
VAF				SG	Sb	11 15 10.8	-0.5
OUF	Merijarvi	2.59	333	smax	smax	11 15 13.9	
	comp=Z,0.8nm,0.2s						
OUF				SG	Sb	11 15 16.8	-0.3
OLKF	Oulanka, Finla	4.35	11	SG	Sb	11 16 11.1	+3.5

HEL 14 11:15:28.1±0.3**, 63°.31N×18°.88E, h0**^{km}**, ML1.5, Explosion, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HUSU	Husum	0.16	78	PG	Pg	11 15 30.5	-0.6
HEMU	Hemsoen	0.74	211	SN	Sg	11 15 51.9	0.0
HEMU	Hemsoen	0.74	211	PG	Pg	11 15 41.3	-1.0
HEMU				SB	Sg	11 15 51.9	0.0
UMAU	Umeaa	0.99	54	SG	Pg	11 15 45.9	-1.2
UMAU	Umeaa	0.99	54	PG	Pg	11 15 45.9	-1.2
UMAU				SG	Sg	11 15 59.3	-0.5
BURU	Burvik	1.69	40	PG	Pn	11 15 58.4	-0.4
	baz=224						
BURU				SG	Sn	11 16 20.3	-0.9
VAF	Ylistaro	1.74	97	PG	Pn	11 15 59.6	0.0
VAF				smax	smax	11 16 19.9	
	comp=Z,3.4nm,0.2s						
VAF				SN	Sn	11 16 22.4	0.0
KPF	Kankaanpaa	2.09	134	PG	Pn	11 16 05.2	+0.8
KPF				smax	smax	11 16 30.3	
	comp=Z,2.5nm,0.2s						
KPF				SG	Sb	11 16 33.3	-0.1
RAF	Rauma	2.67	148	PB	Pn	11 16 13.7	+1.5
RAF				smax	smax	11 16 46.6	
	comp=Z,1.6nm,0.2s						
RAF				SG	Sb	11 16 47.8	-2.0
KEF	Keuruu	2.99	110	smax	smax	11 16 55.9	
	comp=Z,1.0nm,0.2s						
KEF				SB	Sb	11 16 58.0	-1.1
RNF	Rovaniemi	4.49	39	PN	Pn	11 16 36.3	-0.9

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*IDC **14** 11:29:11.8±8.1, 54°.57N×19°.02E, h0^{km}, mbtmp3.2/4, ML2.3/4, Error ellipse: s-maj=89.9km s-min=32.0km az=164.0*

*DNK **14** 11:30:00.5±2.1, 55°.40N×15°.85E, h13^{km}±68^{km}, Presumed earthquake*

ISC 14 11:29:06.1±2.5**, 54°.3N**±0°.1×**19°.12E**±0°.09**, h10**^{km}**, n17, σ1^{s}94**/18**, Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BSD	Bornholm Skovb	2.57	290	i P	Pn	11 29 49.2	+1.5
BSD				i		11 30 21.7	
BSD	Bornholm Skovb	2.57	290	i P	Pg	11 30 11.0	+16
BSD				i S	Sb	11 30 21.5	-2.4
BLEU	Blekinge	2.75	318	i P	Pn	11 29 51.6	+1.3
BLEU	Blekinge	2.75	318	i S	Sb	11 30 28.8	-0.3
RGN	Rugen	3.40	276	i P	Pb	11 30 06.7	+0.4
LUNU	Lund	3.53	294	i P	Pn	11 30 02.0	+1.1
LUNU	Lund	3.53	294	i S	Sn	11 30 41.5	-1.1
DEL	Delary	3.70	308	i P	Pn	11 30 03.9	+0.6
DEL	Delary	3.70	308	i S	Sn	11 30 47.6	+0.8
FABU	Falkenberg	4.52	309	i P	Pn	11 30 15.4	+0.9
ONAU	Onsala	5.11	310	i P	Pn	11 30 23.4	+0.9
TJOU	Tjoern	5.61	315	i P	Pn	11 30 32.1	+2.6
STRU	Stroemstad	6.45	321	i P	Pn	11 30 42.6	+1.7
HFS	Hagfors	6.54	335	Pn	Pn	11 30 45.1	+2.8
	0.1nm,0.3s,baz=135,slow=13,SNR=1.5						
	1.6nm,0.8s						
HFS				AML	AML		
NOA	NORSAR Array B	7.97	331	Pn	Pn	11 31 03.7	+1.8
	baz=142,slow=12,SNR=1.2						
	0.2nm,0.6s						
FINES	FINESS Array B	8.06	25	Pn	Pn	11 31 05.7	+2.7
	0.1nm,0.3s,baz=218,slow=12,SNR=8.5						
FINES				Sn	Sn	11 32 32.4	-1.7
	0.2nm,0.3s,baz=212,slow=21,SNR=1.8						
	1.6nm,0.8s						
FINES				AML	AML		
ARCES	ARCESS Array B	15.56	8	Pn	Pn	11 32 42.0	-3.2
	0.1nm,0.3s,baz=196,slow=14,SNR=5.1						
	1.6nm,0.8s						
ARCES				AML	AML		

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*BJI **14** 11:30:14.1, 24°.74N×124°.63E, h94^{km}, mB4.8/13, mb4.6/51*

*NEIC **14** 11:30:18.4, 24°.94N×124°.37E, h84^{km}*

*IDC **14** 11:30:19.6±1.4, 25°.12N×124°.34E, h100^{km}±12^{km}, mb4.3/31, mbtmp4.6/34, MS3.3/27, Error ellipse: s-maj=12.1km s-min=10.5km az=46.0*

*JMA **14** 11:30:19.9±0.1, 25°N±1°×124°.3E±0°.6, h92^{km}±1^{km}, MD4.4/14, MV4.3/14, NW OFF ISHIGAKIJIMA IS*

JMA Felt I J1 at NW OFF ISHIGAKIJIMA IS .

*NIED **14** 11:30:19.9, 24°.97N×124°.27E, h92^{km}, MW4.6, Moment Tensor Solution. s2 Moment tensor: Scale 10^{15}Nm; M_{rr}1.35; $M_{\theta\theta}$-0.40; $M_{\phi\phi}$-0.95; $M_{r\theta}$-8.56; $M_{\theta\phi}$1.11; $M_{\phi r}$-0.80; Fault plane solution: $M_0$8.70000×10^{15} NP1: ϕ_s155.00000°, δ8.00000°, λ159.00000°. NP2: ϕ_s266.00000°, δ87.00000°, λ83.00000°.*

*NEIC **14** 11:30:19.0±1.7, 24°.95N±0°.06×124°.40E±0°.04, h92^{km}±5^{km}, mb4.9/312, Mwr4.6/26, Mww4.6/14 Error ellipse: s-maj=9.4km s-min=5.2km az=174.0, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}-0.02; $M_{\theta\theta}$0.20; $M_{\phi\phi}$-0.18; $M_{r\theta}$-0.96; $M_{\theta\phi}$0.47; $M_{\phi r}$-0.17; Fault plane solution: $M_0$1.10000×10^{16} NP1:ϕ_s183.67000°, δ25.41000°, λ-174.40000°. NP2:ϕ_s88.61000°, δ87.60000°, λ-64.69000°. Principal axes: T 1.2096, Plg38.0000°, Azm156.0000°; N -0.2827, Plg25.0000°, Azm267.0000°; P -0.9269, Plg42.0000°, Azm23.0000°;*

*GFZ **14** 11:30:20.1±0.2, 25°N±3°×12°4E±°, h98^{km}, M4.8/24, mb4.8/24, confirmed*

ISC 14 11:30:19.0±0.5**, 24°.97N**±0°.03×**124°.31E**±0°.03**, h96**^{km}±4^{km}**, n503, σ1^{s}22**/441**, mb4.8**/224**, 5C-3D, Southwestern Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JISG	Ishigakijimahi	0.38	181	i P	Pn	11 30 34.2	+0.6
JISG				A	A	11 30 34.2	
	comp=N,68nm,0.4s,comp=E,81nm,0.8s						
JISG				S	Sn	11 30 44.8	+0.4
JTJ	Tarama	0.48	133	i P	Pn	11 30 35.2	+1.0
JTJ				A	A	11 30 35.2	
	comp=N,173nm,0.9s,comp=E,111nm,0.9s						
JTJ				S	Sn	11 30 46.7	+1.1
JIJ	Ishigaki jima	0.62	195	i P	Pn	11 30 35.6	+0.3
JIJ				A	A	11 30 35.6	
	comp=N,12nm,0.7s,comp=E,15nm,0.4s						
JIJ				S	Sn	11 30 47.5	-0.1
JKRS	Kuro-shima	0.78	201	i P	Pn	11 30 37.5	+0.6
JKRS				A	A	11 30 37.5	
	comp=N,18nm,2.4s,comp=E,19nm,2.2s						
JKRS				S	Sn	11 30 50.9	+0.7
JIRJ	Irabujima	0.81	99	i P	Pn	11 30 38.0	+0.9
JIRJ				A	A	11 30 38.0	
	comp=N,35nm,1.9s,comp=E,49nm,1.2s						
JIRJ				S	Sn	11 30 51.6	+0.8
IRIF	Iriomote-Funau	0.82	220	i P	Pn	11 30 37.7	+0.4
IRIF				A	A	11 30 37.7	
	comp=N,24nm,1.0s,comp=E,36nm,0.7s						
IRIF				S	Sn	11 30 51.0	+0.1
JIKM	Ikemajima	0.85	93	i P	Pn	11 30 38.6	+1.1
JIKM				A	A	11 30 38.6	
	comp=N,37nm,2.4s,comp=E,40nm,0.7s						
JIKM				S	Sn	11 30 52.6	+1.2
JMJ	Miyako jima 2	0.90	99	P	Pn	11 30 39.5	+1.4
JMJ	Miyako jima 2	0.90	99	S	Sn	11 30 51.5	-0.9
JMJ2	Miyako jima3	0.95	103	i P	Pn	11 30 39.9	+1.4
JMJ2				A	A	11 30 39.9	
	comp=N,43nm,1.1s,comp=E,32nm,1.2s						
JMJ2				S	Sn	11 30 54.8	+1.6
JOGS	Gusukube	1.01	101	i P	Pn	11 30 40.7	+1.4
JOGS				A	A	11 30 40.7	
	comp=N,33nm,0.9s,comp=E,31nm,1.5s						
JOGS				S	Sn	11 30 56.4	+1.8
HATJ	Hateruma jima	1.02	207	i P	Pn	11 30 39.9	+0.6
HATJ				A	A	11 30 39.9	
	comp=N,33nm,1.9s,comp=E,16nm,3.7s						
HATJ				S	Sn	11 30 55.5	+0.9
YOJ	Yonaguni jima	1.29	247	P	Pn	11 30 43.2	+0.7
YOJ	Yonaguni jima	1.29	247	P	Sn	11 31 00.5	+0.3
YOJ	Yonaguni jima	1.29	247		Pn	11 30 43.0	+0.6
YOJ				Sn	Sn	11 30 59.9	-0.3
YOJ	Yonaguni jima	1.29	247	P	Pn	11 30 43.1	+0.7
YOJ	Yonaguni jima	1.29	247	i P	Pn	11 30 43.0	+0.6
YOJ				A	A	11 30 43.0	
	comp=N,10.0nm,1.7s,comp=E,6.0nm,0.8s						
YOJ				eS	Sn	11 30 59.9	-0.3
JYNG	Yonagunijimaku	1.35	248	i P	Pn	11 30 43.8	+0.6
JYNG				S	Sn	11 31 01.1	-0.3
TATO	Taipei	2.56	271	P	Pn	11 31 00.7	+1.8
TATO	Taipei	2.56	271	S	Sn	11 31 31.5	+2.0
TATO	Taipei	2.56	271		Pn	11 31 00.7	+1.8
TATO				Sn	Sn	11 31 31.5	+2.0
TATO	Taipei	2.56	271	P	Pn	11 31 00.9	+2.1
NACB	Ninganchiao	2.60	253	P	Pn	11 30 59.0	-0.3
NACB	Ninganchiao	2.60	253	S	Sn	11 31 29.3	-1.0
NACB	Ninganchiao	2.60	253	Pn	Pn	11 30 59.1	-0.2
NACB				Sn	Sn	11 31 29.6	-0.6
NACB	Ninganchiao	2.60	253	P	Pn	11 30 59.4	0.0
YHNB	Yeheng	2.69	264	P	Pn	11 31 02.4	+1.8
YHNB	Yeheng	2.69	264	S	Sn	11 31 33.8	+1.3
YHNB	Yeheng	2.69	264		Pn	11 31 02.3	+1.8
YHNB				Sn	Sn	11 31 33.4	+0.9
YHNB	Yeheng	2.69	264	P	Pn	11 31 02.6	+2.1
YULB	Yu-li	3.17	241	P	Pn	11 31 05.7	-1.3
YULB	Yu-li	3.17	241	Pn	Pn	11 31 05.7	-1.3
YULB				Sn	Sn	11 31 41.4	-2.6
YULB	Yu-li	3.17	241	P	Pn	11 31 05.9	-1.1

SSLB	Suanglung	3.28	250	P	Pn	11 31 08.5	0.0
SSLB	Suanglung	3.28	250		Pn	11 31 08.5	0.0
SSLB				Sn	Sn	11 31 45.5	-1.2
SSLB	Suanglung	3.28	250	P	Pn	11 31 08.8	+0.3
TWGBT	Beinan	3.65	235	P	Pn	11 31 11.1	-1.5
TWG	Pinlang	3.66	235	P	Pn	11 31 11.8	-1.7
TWG				Sn	Sn	11 31 52.0	-3.7
TWG	Pinlang	3.66	235	P	Pn	11 31 12.1	-1.5
TPUB	Ta-pu	3.75	245	P	Pn	11 31 15.9	+1.1
TPUB	Ta-pu	3.75	245	S	Sn	11 31 57.4	-0.7
TPUB	Ta-pu	3.75	245		Pn	11 31 15.7	+0.8
TPUB				Sn	Sn	11 31 58.5	+0.4
TPUB	Ta-pu	3.75	245	P	Pn	11 31 15.9	+1.1
JOW	Kunigami	4.02	62	P	Pn	11 31 18.1	-0.3
	comp=E,318nm,0.3s,baz=160,slow=8.2,SNR=1060						
JOW				S	Sn	11 32 03.0	-1.5
	comp=E,86nm,0.3s,baz=329,slow=23,SNR=8.3						
JOW	Kunigami	4.02	62	P	Pn	11 31 17.9	-0.5
JOW	Kunigami	4.02	62		Pn	11 31 17.8	-0.5
JOW				Sn	Sn	11 32 02.2	-2.3
JOW	Kunigami	4.02	62	P	Pn	11 31 17.9	-0.5
KNMB	Chin-men Tao	5.41	266	Pn	Pn	11 31 37.6	+0.3
KNMB				Sn	Sn	11 32 35.0	-3.3
JMZ	Minamidaito 2	6.31	81		Pn	11 31 47.1	-2.4
JMZ				Sn	Sn	11 32 52.3	-7.7
PACPP	Pamplona Cagay	7.04	204	eP	Pn	11 31 58.5	-1.0
PACPP				iS	Sn	11 33 13.5	-4.4
CVP	Callao Caves	7.59	198	eP	Pn	11 32 06.5	-0.5
CVP				eS	Sn	11 33 27.0	-4.5
JSU	Suzuyama	8.47	38	P	Pn	11 32 18.5	-0.4
JSU	Suzuyama	8.47	38		Pn	11 32 18.3	-0.6
NJ2	Nanjing	8.54	327	eP	Pn	11 32 20.3	+0.5
NJ2				pmax	pmax		
	comp=E,14nm,0.6s						
CAAP	Casiguran, Aur	8.97	194	eP	Pn	11 32 26.0	+0.3
CAAP				eS	Sn	11 34 02.7	-2.4
JNU	Nakatsue	9.95	34	P	Pn	11 32 38.8	-0.2
	comp=E,10nm,0.5s,baz=241,slow=6.1,SNR=25						
WHN	Wuhan	10.43	304	P	Pn	11 32 46.5	+1.0
LQP	Lukban	11.11	194	eP	Pn	11 32 56.2	+1.1
TJN	Taejon	11.67	12	P	Pn	11 33 05.1	+2.8
TJN	Taejon	11.67	12	P	Pn	11 33 04.7	+2.4
	comp=Z,163nm,1.9s						
INCN	Inchon	12.63	8	P	Pn	11 33 18.3	+3.2
INCN	Inchon	12.63	8	P	Pn	11 33 18.4	+3.3
	comp=Z,48nm,0.6s						
TIA	Tai'an	12.80	333	P	Pn	11 33 20.1	+2.8
TIA				pmax	pmax		
	comp=Z,17nm,1.4s						
TIA				pmax	pmax		
	comp=Z,180nm,5.9s						
KSRS	Korea Array	12.82	13	P	Pn	11 33 19.2	+1.6
	comp=Z,26nm,1.0s,baz=189,slow=12,SNR=71						
KSRS				LR	LR	11 38 17.9	
	comp=Z,63nm,21.0s,baz=195,slow=38						
KS19	Wonju Array Si	12.86	13	Pn	Pn	11 33 17.7	-0.4
PLP	Palo	13.74	177	eP	P	11 33 33.1	-2.0
LYN	LuoYang	14.03	316	P	Pn	11 33 35.3	+1.9
LYN				pmax	pmax		
	comp=Z,24nm,0.9s						
LYN				L	L		
	comp=Z,390nm,12.6s						
LYN				L	L		
	comp=Z,370nm,11.1s						
LYN				L	L		
	comp=Z,230nm,11.1s						
DL2	Dalian	14.08	351	P	Pn	11 33 35.5	+1.4
DL2				pmax	pmax		
	comp=Z,26nm,1.3s						
ENH	Enshi	14.16	295	P	Pn	11 33 37.4	+2.2
ENH	Enshi	14.16	295	Pn	Pn	11 33 36.0	+0.8
HNS	HongShan	14.86	329	⇑P	P	11 33 46.1	-1.3
HNS				pmax	pmax		
	comp=Z,29nm,1.1s						
HNS				L	L		
	comp=Z,260nm,14.3s						
INU	Inuyama	15.08	44		Pn	11 33 48.1	+1.3
JGF	Kuroka	15.45	44	P	P	11 33 53.8	-0.3
JHJ2	Mitsune	15.79	56	P	P	11 33 56.8	-0.9
XAN	Xi'an	16.15	308	⇓P	P	11 34 03.8	+2.0
XAN				pmax	pmax		
	comp=Z,29nm,1.1s						
BJI2	Beijing	16.49	337	P	P	11 34 06.6	+1.1
BJI2				sP	sP	11 34 33.4	-2.3
BJI2				pmax	pmax		
	comp=Z,9.0nm,0.8s						
BJI2				pmax	pmax		
	comp=Z,82nm,5.4s						
BJT	Baijiatuau	16.49	337	P	P	11 34 05.8	+0.3
BJT	Baijiatuau	16.49	337		P	11 34 06.4	+0.9
MAJO	Matsushiro	16.58	43	P	Pn	11 34 06.1	+0.5
MJAR	Matsushiro Arr	16.58	43	P	Pn	11 34 05.8	+0.1
	comp=Z,8.7nm,0.6s,baz=224,slow=9.1,SNR=36						
MJAR				LR	LR	11 40 38.4	
	comp=Z,47nm,21.2s,baz=214,slow=38						
MJAR	Matsushiro Arr	16.58	43		Pn	11 34 06.1	+0.4
MJB9	Matsu-Tunnel	16.58	43	P	Pn	11 34 04.5	-1.2
DAV	Davao City (W)	17.84	176	LR	LR	11 40 47.2	
	comp=Z,78nm,21.8s,baz=12,slow=35						
CN2	Changchun	18.81	3	⇓P	P	11 34 31.5	+0.6
CN2				epP	pP	11 34 47.0	-2.2
CN2				eS	S	11 37 54.3	-5.4
CN2				pmax	pmax		
	comp=Z,20nm,0.6s						
CN2				pmax	pmax		
	comp=Z,200nm,4.0s						
HHC	Hu-ho-hao-te	19.08	329	eP	Pn	11 34 35.8	-0.1
HHC				S	S	11 38 05.0	-0.5
HHC				pmax	pmax		
	comp=Z,11nm,0.6s						
HHC				pmax	pmax		
	comp=Z,200nm,4.2s						
XLT	XiLinHaoTe	20.05	342	eP	P	11 34 44.3	-0.2
XLT				pP	pP	11 35 03.4	+0.5
XLT				pmax	pmax		
	comp=Z,13nm,0.9s						
XLT				pmax	pmax		
	comp=Z,140nm,4.9s						
MDJ	Mudanjiang	20.07	11	P	P	11 34 43.8	-0.8
MDJ				pmax	pmax		
	comp=Z,10.0nm,0.7s						
MDJ	Mudanjiang	20.07	11	P	P	11 34 43.3	-1.3
USA0B	Ussuriysk Arra	20.18	16	P	P	11 34 45.0	-0.8
USRK	Ussuriysk Ar.	20.18	16	P	P	11 34 44.1	-1.7
	comp=Z,3.7nm,0.6s,baz=195,slow=8.6,SNR=10						
USRK				LR	LR	11 42 21.3	
	comp=Z,44nm,20.8s,baz=188,slow=36						
	comp=Z,3.7nm,0.6s						
USRK	Ussuriysk Ar.	20.18	16	P	P	11 34 44.7	-1.1
KKM	Kota Kinabalu	20.35	204	P	P	11 34 48.7	+0.7
PZH	PanZhiHua	20.39	279	P	Pn	11 34 51.3	0.0
MYLDM	Lahad Datu	20.45	197	P	P	11 34 49.2	+0.3
MYLDM	Lahad Datu	20.45	197		P	11 34 48.1	-0.8
MYLDM				IAmb	IAmb	11 35 12.7	
	comp=Z,72nm,1.2s						
MYLDM	Lahad Datu	20.45	197	P	Pn	11 34 51.6	-0.3
	comp=Z,53nm,1.1s						
MYLDM	Lahad Datu	20.45	197	P	Pn	11 34 51.5	-0.3
	comp=Z,54nm,1.1s						
LZH	Lanzhou	20.79	307	eP	P	11 34 53.3	+0.7
LZH				pP	pP	11 35 12.1	+1.3
LZH				sP	sP	11 35 20.8	-2.0
LZH				SS	Sn	11 39 15.8	+25
LZH				pmax	pmax		
	comp=Z,35nm,1.0s						
LZDM	Lanzhou Array	20.84	307	P	P	11 34 53.5	+0.2
	comp=Z,2.0nm,0.4s,baz=134,slow=8.5,SNR=9.7						
LZDM				LR	LR	11 42 39.4	
	comp=Z,51nm,21.2s,baz=310,slow=36						
	comp=Z,2.0nm,0.4s						
BNX	BinXian	20.88	6	⇓P	P	11 34 52.1	-1.2
BNX				pmax	pmax		
	comp=Z,29nm,0.7s						
JTM	Tenmabayashi	21.08	37	P	P	11 34 54.4	-1.1
GUMO	Guam	22.43	117	LR	LR	11 42 05.3	
	comp=Z,37nm,20.3s,baz=312,slow=31						
ERM	Erimo	23.07	38	P	P	11 35 14.6	-1.6
ERM				IAmb	IAmb	11 35 39.9	
	comp=Z,96nm,1.5s						
TOLI2	Tolitoli	23.96	189	P	P	11 35 23.8	-0.7
TOLI2				IAmb	IAmb	11 35 27.5	
	comp=Z,28nm,0.9s						
GTOI	Gorontalo	24.22	183	P	P	11 35 27.8	+0.9
	comp=Z,438nmcomp=Z,41nm,1.2s						
ASAJ	Asahikawa	24.23	33	LR	LR	11 45 13.9	
	comp=Z,45nm,19.6s,baz=248,slow=37						
JKA	Kamikawa-asahi	24.23	33	P	P	11 35 25.9	-0.8
JKA				IAmb	IAmb	11 35 50.4	
	comp=Z,36nm,1.2s						
TNTI	Ternate	24.23	173	P	P	11 35 27.1	+0.1
TNTI	Ternate	24.23	173		P	11 35 25.6	-1.4
TNTI				IAmb	IAmb	11 35 29.9	
	comp=Z,58nm,1.1s						
TNTI	Ternate	24.23	173	P	P	11 35 29.4	+2.4
	comp=Z,52nm,1.1s						
TNTI	Ternate	24.23	173	P	P	11 35 28.3	+1.3
	comp=Z,51nm,1.1s						
CHTO	Chiang Mai	24.30	260	P	P	11 35 30.0	+2.3
CHTO	Chiang Mai	24.30	260	P	P	11 35 27.5	-0.2
CHTO	Chiang Mai	24.30	260	P	P	11 35 29.2	+1.5
CHTO	Chiang Mai	24.30	260	P	P	11 35 25.6	-2.0
	comp=Z,4.9nm,0.7s						
CM31	Chiang Mai Arr	24.42	260	P	P	11 35 28.3	-0.4
CMAR	Chiang Mai Arr	24.42	260	P	P	11 35 29.7	+0.9
	comp=Z,1.5nm,0.6s,baz=66,slow=8.3,SNR=10						
CMAR				ScP	ScP	11 42 34.8	-0.8
	comp=Z,0.5nm,0.3s,baz=39,slow=2.1,SNR=7.2						
	comp=Z,1.5nm,0.6s						
CMAR	Chiang Mai Arr	24.42	260	P	P	11 35 28.2	-0.5
HIA	Hailar	24.52	353	P	P	11 35 30.0	+0.6
HIA	Hailar	24.52	353	P	P	11 35 28.1	-1.3
HILR	Hailar Array B	24.80	353	P	P	11 35 30.5	-1.5
	comp=Z,4.4nm,0.6s,baz=172,slow=12,SNR=4.8						
	comp=Z,4.4nm,0.6s						
KLR	Kul'dur	24.91	12	LR	LR	11 45 13.6	
	comp=Z,60nm,19.9s,baz=176,slow=36						
GTA2	Gaotai	25.21	311	eP	P	11 35 34.9	-1.0
GTA2				pP	pP	11 35 54.3	-2.5
GTA2				pmax	pmax		
	comp=Z,6.0nm,0.7s						
HEH	HeiHe	25.36	5	eP	P	11 35 37.3	+0.4
HEH				pmax	pmax		
	comp=Z,17nm,0.8s						
APSI	Ampana	25.85	186	P	P	11 35 43.5	+1.8
	comp=Z,48nm,1.2s						
PCI	Palu	26.08	190	P	P	11 35 47.2	+3.4
	comp=Z,104nm,1.0s						
YSS	Yuzhno-Sakhali	26.41	29	P	P	11 35 48.1	+1.7
YSS	Yuzhno-Sakhali	26.41	29		P	11 35 46.1	-0.4
YSS				IAmb	IAmb	11 35 49.0	
	comp=Z,15nm,0.6s						
ULN	Ulaanbaatar	26.62	334	P	P	11 35 48.3	-0.3
ULN	Ulaanbaatar	26.62	334	P	P	11 35 49.0	+0.4
	comp=Z,27nm,0.9s						
ULN	Ulaanbaatar	26.62	334	P	P	11 35 48.3	-0.3
	comp=Z,4.7nm,1.2s						
SONM	Songino Array	26.87	333	P	P	11 35 49.0	-1.8
	comp=Z,3.3nm,0.8s,baz=149,slow=9.7,SNR=16						
SONM				ScP	ScP	11 42 40.4	-1.9
	comp=Z,0.3nm,0.4s,baz=174,slow=4.3,SNR=2.8						
SONM				LR	LR	11 48 17.4	
	comp=Z,50nm,18.1s,baz=147,slow=40						
	comp=Z,3.3nm,0.8s						
SONM	Songino Array	26.87	333	P	P	11 35 50.5	-0.2
MMSI	Mamuju	27.99	192	P	P	11 36 02.9	+2.0
	comp=Z,32nm,0.8s						
IPM	Ipoh	30.26	231	P	P	11 36 21.1	+0.1
MYKOM	Kota Tinggi	30.35	224	P	P	11 36 22.3	+0.5
MYKOM				IAmb	IAmb	11 36 25.6	
	comp=Z,20nm,1.1s						
LBFI	Labuhan Bajo,	33.52	188	P	P	11 36 50.2	+0.6
	comp=Z,13nm,1.2s						
EVN	Everest	33.62	283	P	P	11 36 50.8	-0.4
JAGI	Jajag, Banyuwa	34.68	198	P	P	11 37 00.8	+1.2
SNJI	Sawahan-Nganju	34.77	202	P	P	11 37 02.8	+2.2
	comp=Z,64nm,1.1s						
MDSI	Maura Dua	35.22	217	P	P	11 37 05.3	+1.1
	comp=Z,13nm,1.0s						
WMQ	Urumqi	35.22	312	eP	P	11 37 05.0	+0.9
WMQ				PP	PP	11 38 28.3	+2.5
WMQ				pmax	pmax		
	comp=Z,18nm,0.7s						
KPJI	Karang Pucung	35.43	207	P	P	11 37 08.6	+2.6
	comp=Z,46nm,1.3s						
YAK	Yakutsk	37.23	4	LR	LR	11 52 44.8	
	comp=Z,37nm,19.5s,baz=199,slow=36						
PEA0B	Petropavlovsk-	37.65	33	P	P	11 37 24.4	-0.2
PEA0B				IAmb	IAmb	11 37 26.8	
	comp=Z,12nm,0.9s						
PETK	Petropavlovsk-	37.65	33	P	P	11 37 23.2	-1.3
	comp=Z,4.9nm,0.7s,baz=224,slow=5.7,SNR=21						
PETK				LR	LR	11 53 32.5	
	comp=Z,31nm,18.7s,baz=257,slow=37						
	comp=Z,4.9nm,0.7s						
PETK	Petropavlovsk-	37.65	33	P	P	11 37 23.6	-0.9
PET	Petropavlovsk	38.07	34	P	P	11 37 26.8	-1.3
MTN	Manton Dam	38.16	169		P	11 37 28.9	-0.3
MTN				IAmb	IAmb	11 37 29.8	
	comp=Z,21nm,1.2s						
ZSN	Zaisan	38.38	316	eP	P	11 37 31.2	+0.4
MA2	Magadan	39.20	21	LR	LR	11 54 44.6	
	comp=Z,33nm,18.2s,baz=212,slow=38						
H11N1	WAKE ISLAND Hy	39.61	89	T	T	12 19 51.6	
	baz=283						
H11N2	WAKE ISLAND Hy	39.61	89	T	T	12 19 53.7	
	baz=283						
H11N3	WAKE ISLAND Hy	39.62	89	T	T	12 19 53.1	
	baz=283						
MK31	Makanchi Array	39.80	314	P	P	11 37 41.8	-0.8
MK31				IAmb	IAmb	11 37 43.6	
	comp=Z,13nm,1.1s						
MKAR	Makanchi Array	39.80	314	P	P	11 37 42.0	-0.7
	comp=Z,8.5nm,0.5s,baz=100,slow=10,SNR=79						
MKAR				ScP	ScP	11 43 26.4	-0.8
	comp=Z,0.2nm,0.5s,baz=122,slow=4.4,SNR=3.7						
	comp=Z,8.5nm,0.5s						
MKAR	Makanchi Array	39.80	314		P	11 37 42.0	-0.7
MAKZ	Makanchi	40.01	314		P	11 37 44.6	+0.2
MAKZ				IAmb	IAmb	11 37 45.0	
	comp=Z,15nm,0.8s						
MAKZ	Makanchi	40.01	314	P	P	11 37 44.1	-0.3
	comp=Z,25nm,0.9s						
KNRA	Kununurra	40.63	173		P	11 37 49.4	-0.2
PMG	Port Moresby	40.78	144	P	P	11 37 50.3	-0.7
PMG				IAmb	IAmb	11 37 53.2	
	comp=Z,30nm,1.1s						
PDGK	Podgornoye	40.82	308	P	P	11 37 50.7	-0.5
UZB	Uzynbulak	41.12	308	⇑iP	P	11 37 53.9	+0.2
ZAA0	Zalesovo Array	41.19	325		P	11 37 52.6	-1.3
ZALV	Zalesovo Beam	41.19	325	P	P	11 37 52.5	-1.4
	comp=Z,29nm,0.5s,baz=114,slow=8.6,SNR=118						
ZALV				ScP	ScP	11 43 30.4	-2.1
	comp=Z,1.4nm,0.7s,baz=134,slow=4.3,SNR=5.7						
ZALV				LR	LR	11 56 51.7	
	comp=Z,36nm,18.2s,baz=148,slow=39						
	comp=Z,29nm,0.5s						
KPKS	Kokpek	41.42	308	eP	P	11 37 56.5	+0.4
PRZ	Przheval'sk	41.45	307	P	P	11 37 57.2	+0.8
SATY	Saty	41.55	307	⇑iP	P	11 37 57.5	+0.4
	comp=Z,9.6nm,1.1s						
TARG	Taragay, Kyrgy	41.76	305		P	11 37 59.9	+0.6
TARG	Taragay, Kyrgy	41.76	305	P	P	11 38 00.4	+1.1
	comp=Z,7.5nm,1.0s						
TDK	Taldyqorghan	41.94	310	eP	P	11 38 00.8	+0.6
	comp=Z,15nm,1.0s						
SEM	Semipalatinsk	42.28	319	⇑iP	P	11 38 03.4	+0.2
	comp=Z,8.0nm,0.7s						
KDJ	Kajisay	42.28	306		P	11 38 04.1	+0.8
KDJ				IAmb	IAmb	11 38 05.2	
	comp=Z,11nm,0.7s						
KDJ	Kajisay	42.28	306	P	P	11 38 03.9	+0.6
	comp=Z,18nm,0.9s						
MDOK	Medeo	42.54	307	eP	P	11 38 05.7	+0.4
TNSS	Tian-Shan	42.59	307	eP	P	11 38 06.0	-0.1
ASAI	AK-SAY(Kyrgyzs	42.61	304	P	P	11 38 05.2	-0.9
	comp=Z,5.0nm,0.9s						
AAA	Alma-Ata	42.65	307	eP	P	11 38 06.4	+0.4
	comp=Z,10nm,0.4s						
FITZ	Fitzroy Crossi	42.82	178	LR	LR	11 58 28.7	
	comp=Z,76nm,18.5s,baz=192,slow=39						
FITZ	Fitzroy Crossi	42.82	178	P	P	11 38 07.6	+0.1
FITZ	Fitzroy Crossi	42.82	178	P	P	11 38 07.5	-0.1
	comp=Z,7.9nm,0.9s						
NRN	Naryn	43.06	305		P	11 38 10.5	+0.8
NRN				IAmb	IAmb	11 38 11.2	
	comp=Z,14nm,1.0s						
KSH2	Kashi	43.17	301	P	P	11 38 11.9	+1.4
KSH2				pmax	pmax		
	comp=Z,6.0nm,1.3s						
KUU	Kurty	43.17	308	eP	P	11 38 10.6	+0.4
	comp=Z,6.6nm,0.8s						
BOOM	Boomskoye usch	43.24	306	P	P	11 38 11.6	+0.6
KURK	Kurchatov	43.36	319		P	11 38 10.9	-0.7
KURK				IAmb	IAmb	11 38 11.6	
	comp=Z,10nm,0.7s						
KURK	Kurchatov	43.36	319	P	P	11 38 10.7	-0.9
	comp=Z,20nm,1.2s						
KURBB	Kurchatov Arra	43.38	318	P	P	11 38 11.1	-0.7
	comp=Z,6.7nm,0.6s,baz=110,slow=8.4,SNR=54						
	comp=Z,6.7nm,0.6s						
AAK	Ala-Archa	44.32	306		P	11 38 20.4	+0.7
AAK	Ala-Archa	44.32	306	P	P	11 38 20.0	+0.3
	comp=Z,6.1nm,0.9s						
SGDS	Sogindy	44.33	307	eP	P	11 38 19.7	+0.1
NIL	Nilore	44.98	293	P	P	11 38 25.5	+0.6
NIL				IAmb	IAmb	11 38 25.9	
	comp=Z,9.8nm,0.8s						
ARSB	Arslanbob	45.31	304	P	P	11 38 27.9	+0.4
WB0	Warramunga Arr	45.53	167		P	11 38 29.8	+0.6
WB0				IAmb	IAmb	11 38 31.0	
	comp=Z,26nm,0.9s						
WRAB	Tennant Creek	45.69	167	P	P	11 38 31.0	+0.6
WRAB	Tennant Creek	45.69	167	P	P	11 38 31.3	+1.0
WRAB	Tennant Creek	45.69	167	P	P	11 38 31.4	+1.0
	comp=Z,38nm,0.9s						
WRA	Warramunga Arr	45.69	167	P	P	11 38 31.2	+0.8
	comp=Z,19nm,0.8s,baz=352,slow=8.1,SNR=100						
	comp=Z,19nm,0.8s						
WRA	Warramunga Arr	45.69	167		P	11 38 30.2	-0.2
WR8	Warramunga Arr	45.74	167		P	11 38 31.8	+1.0
MBWA	Marble Bar	46.06	186	P	P	11 38 33.7	+0.4
MBWA	Marble Bar	46.06	186		P	11 38 33.2	-0.1
MBWA				IAmb	IAmb	11 38 33.7	
	comp=Z,18nm,0.8s						
ARK	Arkit	46.11	305	P	P	11 38 34.2	+0.5
	comp=Z,14nm,1.3s						
SHEM	Shemya Is, Ala	46.40	40	P	P	11 38 36.0	+0.3
SMY	Shemya	46.40	40	P	P	11 38 35.8	+0.1
DZA	Taraz	46.67	306	eP	P	11 38 38.4	+0.4
	comp=Z,5.0nm,0.4s						
TIXI	Tiksi	46.79	2	LR	LR	11 58 13.2	
	comp=Z,39nm,20.4s,baz=186,slow=36						
BTK	Batken	46.88	302	P	P	11 38 40.1	+0.4
MTSU	Mount Surprise	47.06	154	P	P	11 38 42.1	+0.9
MTSU	Mount Surprise	47.06	154	P	P	11 38 43.6	+2.3
	comp=Z,21nm,0.9s						
KK31	Karatay Array	47.28	306	P	P	11 38 42.8	0.0
KKAR	Karatay Array	47.28	306		P	11 38 42.1	-0.7
IUG	Iuzhnay	47.57	305	⇑iP	P	11 38 45.6	+0.5
	comp=Z,13nm,1.0s						
QIS	Mount Isa	47.63	160	P	P	11 38 46.5	+0.9
QIS	Mount Isa	47.63	160	P	P	11 38 46.8	+1.3
	comp=Z,20nm,1.1s						
CHM	Chimkent	47.90	305	eP	P	11 38 48.1	+0.6
KBL	Kabul	48.41	295		P	11 38 52.7	+0.8
KBL				IAmb	IAmb	11 38 53.3	
	comp=Z,13nm,0.8s						
KBL	Kabul	48.41	295	P	P	11 38 52.4	+0.6
	comp=Z,20nm,1.0s						
BVAR	Borovoye Array	48.90	320	P	P	11 38 54.6	-0.4
	comp=Z,6.3nm,0.5s,baz=106,slow=8.1,SNR=18						
	comp=Z,6.3nm,0.5s						
BORK	Borovoye	48.95	320		P	11 38 55.2	-0.2
BORK				IAmb	IAmb	11 38 56.9	
	comp=Z,7.1nm,0.5s						
BORK				PcP	PcP	11 40 18.0	-0.1
AMKA	Amchitka	49.20	43	P	P	11 38 57.3	+0.1
AMKA				PcP	PcP	11 40 16.4	-2.7
AS31	Alice Springs	49.23	168		P	11 38 58.8	+1.0
ASAR	Alice Springs	49.23	168	P	P	11 38 59.0	+1.2
	comp=Z,12nm,0.8s,baz=353,slow=7.5,SNR=152						
	comp=Z,12nm,0.8s						
ASAR	Alice Springs	49.23	168		P	11 38 59.0	+1.2
ASAR				PcP	PcP	11 40 20.1	+0.5
AS01	Alice Springs	49.24	168	P	P	11 38 58.8	+0.9
AUALC	St Philip's Co	49.25	168	P	P	11 38 58.5	+0.5
NRIK	Noril'sk	49.42	344	P	P	11 38 57.6	-1.1
	comp=Z,14nm,0.8s,baz=113,slow=9.4,SNR=14						
NRIK				LR	LR	12 01 16.4	
	comp=Z,53nm,21.4s,baz=164,slow=38						
	comp=Z,14nm,0.8s						
NRIK	Noril'sk	49.42	344		P	11 38 57.4	-1.3
NRIK				IAmb	IAmb	11 38 58.6	
	comp=Z,17nm,0.9s						
NRIK				PcP	PcP	11 40 19.1	-0.4
CTA	Charters Tower	49.61	153	LR	LR	12 01 50.2	
	comp=Z,48nm,18.4s,baz=248,slow=38						
ADK	Adak	51.75	43	P	P	11 39 17.0	+0.6
TARA	Tarawa	52.42	109	P	P	11 39 20.7	-1.3
TARA				IAmb	IAmb	11 39 24.6	
	comp=Z,8.0nm,0.6s						
ATKA	Atka Island	53.31	42	P	P	11 39 27.9	0.0
QLP	Quilpie	54.74	158	P	P	11 39 39.1	+0.5
INKA	Innaminka	54.74	162		P	11 39 39.4	+0.8
INKA				IAmb	IAmb	11 39 41.0	
	comp=Z,11nm,0.8s						
AB31	Akbulak array	54.95	314		P	11 39 39.8	-0.2
ABKAR	Akbulak array	54.95	314		P	11 39 39.9	-0.1
KAAM	Kaadhehdhoo	55.19	252	P	P	11 39 42.2	0.0
FORT	Forrest	55.55	176	P	P	11 39 44.5	+0.2
FORT				IAmb	IAmb	11 39 46.3	
	comp=Z,20nm,1.3s						
FORT				PcP	PcP	11 40 43.8	+0.7
ARTI	Arti	56.31	322	P	P	11 39 48.9	-0.7
	comp=Z,27nm,0.7s,baz=98,slow=3.1,SNR=35						
ARTI				LR	LR	12 03 45.2	
	comp=Z,52nm,20.0s,baz=124,slow=36						
	comp=Z,27nm,0.7s						
ARTI	Arti	56.31	322		P	11 39 48.7	-0.9
BBOO	Buckleboo	58.54	168	P	P	11 40 05.7	+0.3
AULRC	Lightning Ridg	58.67	156	P	P	11 40 08.5	+2.1
STKA	Stephens Creek	58.89	163	P	P	11 40 08.8	+0.9
	comp=Z,10nm,0.7s,baz=348,slow=6.7,SNR=12						
	comp=Z,10nm,0.7s						
STKA	Stephens Creek	58.89	163		P	11 40 08.9	+1.1
STKA	Stephens Creek	58.89	163	P	P	11 40 08.6	+0.7
	comp=Z,75nm,1.0s						
K13K	Kusilvak Mount	59.38	31	P	P	11 40 11.6	+0.7
F15K	North Star Dit	59.72	27	P	P	11 40 14.3	+1.1
CMSA	Cobar Meteorol	59.79	159	P	P	11 40 16.8	+2.7
L14K	Kuka Creek	60.29	32		P	11 40 18.0	+0.9
M14K	Bethel	60.62	33	P	P	11 40 20.2	+0.8
RDOG	Red Dog Mine	60.66	24	P	P	11 40 17.9	-1.7
RDOG				IAmb	IAmb	11 40 29.0	
	comp=Z,7.0nm,0.7s						
K15K	Wolf Creek Mou	60.86	31	P	P	11 40 21.6	+0.6
F17K	Baldwin Pennin	61.17	26	P	P	11 40 23.7	+0.7
KIRV	Kirov	61.22	325	P	P	11 40 23.2	-0.3
	comp=Z,52nm,0.6s,baz=91,slow=2.9,SNR=16						
N15K	Kwethluk River	61.55	33		P	11 40 26.6	+0.9
H17K	Granite Mounta	61.66	28	IAmb	IAmb	11 40 28.3	
	comp=Z,15nm,1.1s						
C19K	Lookout Ridge	61.96	23	P	P	11 40 28.4	-0.1
C19K				IAmb	IAmb	11 40 42.3	
	comp=Z,9.9nm,1.4s						
J17K	VABM Dome	62.00	30	P	P	11 40 29.8	+1.0
M16K	Timber Creek	62.09	32	P	P	11 40 30.3	+1.0
G18K	Tagagawik	62.20	27	P	P	11 40 30.1	+0.1
G18K				IAmb	IAmb	11 40 31.4	
	comp=Z,7.5nm,0.7s						
D19K	Kuna River	62.47	24	IAmb	IAmb	11 40 33.7	
	comp=Z,7.8nm,0.7s						
F19K	Shaleruckik Mo	62.57	26	P	P	11 40 32.6	+0.2
BELG	Belogornoye	62.63	318	P	P	11 40 32.5	-0.6
	comp=Z,24nm,0.5s,baz=168,slow=4.3,SNR=4.5						
	comp=Z,24nm,0.5s						
E19K	Redstone River	62.78	25	IAmb	IAmb	11 40 35.7	
	comp=Z,7.4nm,0.7s						
G19K	Purcell Mounta	62.84	27	P	P	11 40 35.5	+1.2
G19K				IAmb	IAmb	11 40 35.9	
	comp=Z,12nm,1.4s						
L18K	Granite Mounta	63.13	31	IAmb	IAmb	11 40 38.4	
	comp=Z,11nm,0.8s						
J19K	Poorman	63.52	29	IAmb	IAmb	11 40 40.7	
	comp=Z,17nm,0.7s						
N18K	Kilae Creek	63.61	33	IAmb	IAmb	11 40 41.4	
	comp=Z,16nm,1.1s						
L19K	White Mountain	63.99	31	IAmb	IAmb	11 40 44.0	
	comp=Z,15nm,0.8s						
E21K	Killik River	64.00	24	IAmb	IAmb	11 40 44.1	
	comp=Z,9.2nm,0.7s						
ACHA	Angle Creek He	64.11	35	P	P	11 40 42.5	-0.4
ACHA				IAmb	IAmb	11 40 43.1	
	comp=Z,10nm,0.8s						
IMAR	Indian Mountai	64.21	27	P	P	11 40 43.9	+0.6

K20K	Telida	64.26	30	IAmb	IAmb	11 40 46.0	
	comp=Z,19nm,0.8s						
N19K	Bonanza Creek	64.28	33	P	P	11 40 45.0	+1.1
N19K				IAmb	IAmb	11 40 46.7	
	comp=Z,8.8nm,0.8s						
L20K	Farewell, AK	64.42	31	IAmb	IAmb	11 40 47.0	
	comp=Z,18nm,1.0s						
O19K	Port Alsworth	64.42	33	IAmb	IAmb	11 40 46.5	
	comp=Z,18nm,0.8s						
D22K	Ayikyak River	64.45	23	IAmb	IAmb	11 40 47.6	
	comp=Z,15nm,0.8s						
H21K	Melozitna Rive	64.62	27	IAmb	IAmb	11 40 48.2	
	comp=Z,12nm,0.8s						
E22K	Anaktuvuk Pass	64.82	24	IAmb	IAmb	11 40 49.5	
	comp=Z,12nm,0.8s						
M20K	Styx River	64.83	31	IAmb	IAmb	11 40 49.6	
	comp=Z,13nm,0.8s						
Q19K	Cape Douglas,	64.91	35	P	P	11 40 47.9	0.0
SII	Sitkinak Islan	64.92	37	P	P	11 40 48.5	+0.4
SII				IAmb	IAmb	11 40 49.6	
	comp=Z,18nm,0.9s						
I21K	Tanana	65.00	28	IAmb	IAmb	11 40 50.8	
	comp=Z,13nm,0.8s						
C23K	Itkillik River	65.12	22	IAmb	IAmb	11 40 51.8	
	comp=Z,10nm,0.9s						
CAST	Castle Rocks	65.14	30	P	P	11 40 50.4	+1.0
CAST				IAmb	IAmb	11 40 51.4	
	comp=Z,20nm,0.8s						
PPLA	Purkeypile	65.15	30	P	P	11 40 50.6	+1.0
PPLA				IAmb	IAmb	11 40 51.5	
	comp=Z,16nm,0.7s						
D23K	Nanushuk River	65.17	23	IAmb	IAmb	11 40 52.5	
	comp=Z,20nm,0.9s						
H22K	Ishtalitna Cre	65.19	27	IAmb	IAmb	11 40 52.2	
	comp=Z,16nm,1.0s						
TOO	Toolangi	65.32	162	P	P	11 40 50.4	-0.4
OHAK	Old Harbor	65.32	36	P	P	11 40 52.0	+1.4
OHAK	Old Harbor	65.32	36		P	11 40 50.9	+0.3
OHAK				IAmb	IAmb	11 40 51.5	
	comp=Z,12nm,1.0s						
STLK	Strandline Lak	65.48	32	IAmb	IAmb	11 40 52.7	
	comp=Z,8.2nm,0.8s						
MLY	Manley	65.54	28	IAmb	IAmb	11 40 54.1	
	comp=Z,14nm,0.7s						
BPAW	Bear Paw Mtn.	65.55	29	P	P	11 40 52.8	+0.7
BPAW				IAmb	IAmb	11 40 53.8	
	comp=Z,14nm,0.6s						
SKT	Skwentna	65.56	31	IAmb	IAmb	11 40 53.0	
	comp=Z,11nm,0.8s						
KDAK	Kodiak Island	65.62	36		P	11 40 52.9	+0.3
KDAK				IAmb	IAmb	11 40 53.5	
	comp=Z,17nm,0.8s						
KDAK	Kodiak Island	65.62	36	P	P	11 40 52.7	+0.2
	comp=Z,26nm,1.0s						
G23K	Bananza Creek	65.64	26	IAmb	IAmb	11 40 54.9	
	comp=Z,10nm,0.9s						
KTH	Kantishna Hill	65.64	29	IAmb	IAmb	11 40 54.3	
	comp=Z,10.0nm,0.8s						
E23K	Chandalar	65.65	24	IAmb	IAmb	11 40 55.6	
	comp=Z,14nm,0.8s						
C24K	Franklin Bluff	65.79	22	IAmb	IAmb	11 40 55.5	
	comp=Z,17nm,0.7s						
H23K	Yukon River	65.94	27	IAmb	IAmb	11 40 57.2	
	comp=Z,21nm,0.9s						
SUA	Susitna One	66.01	32	P	P	11 40 55.2	+0.1
CNPM	China Poot	66.05	34		P	11 40 55.8	+0.4
CNPM				IAmb	IAmb	11 40 58.0	
	comp=Z,12nm,0.9s						
E24K	Your Creek	66.07	24	IAmb	IAmb	11 40 57.6	
	comp=Z,15nm,0.7s						
CUT	Chulitna	66.09	31	P	P	11 40 55.9	+0.4
I23K	Minto, Yukon-K	66.11	27	IAmb	IAmb	11 40 57.7	
	comp=Z,21nm,1.3s						
BRLK	Bradley Lake	66.19	33	P	P	11 40 55.6	-0.6
SLKM	Skilak Lake	66.40	33	IAmb	IAmb	11 40 58.0	
	comp=Z,13nm,1.1s						
MCK	McKinley	66.50	29	P	P	11 40 58.6	+0.5
MCK				IAmb	IAmb	11 40 60.0	
	comp=Z,13nm,0.8s						
H24K	Noodor Dome	66.62	27	IAmb	IAmb	11 41 01.4	
	comp=Z,12nm,0.9s						
G24K	Hadweenzic Riv	66.65	26	IAmb	IAmb	11 41 01.9	
	comp=Z,17nm,0.9s						
D25K	Kavik River	66.66	23	IAmb	IAmb	11 41 01.0	
	comp=Z,12nm,0.8s						
WRH	Wood River Hil	66.75	28	IAmb	IAmb	11 41 02.7	
	comp=Z,27nm,1.4s						
PMR	Palmer	66.75	31	P	P	11 40 59.9	+0.2
PMR	Palmer	66.75	31	IAmb	IAmb	11 41 00.3	
	comp=Z,11nm,0.7s						
COLA	College	66.78	28	P	P	11 41 01.7	+1.9
COLA	College	66.78	28	P	P	11 41 00.8	+1.0
COLA	College	66.78	28	P	P	11 41 01.0	+1.2
	comp=Z,9.3nm,0.7s						
GHO	Glory Hole Cre	66.82	31	IAmb	IAmb	11 41 01.2	
	comp=Z,11nm,0.9s						
CCB	Clear Creek Bu	66.84	28		P	11 41 00.3	+0.1
SML	Sawmill	67.09	31	IAmb	IAmb	11 41 03.0	
	comp=Z,19nm,0.9s						
F25K	Christian Rive	67.21	25	IAmb	IAmb	11 41 05.3	
	comp=Z,16nm,0.8s						
IL31		67.21	28	P	P	11 41 02.2	-0.3
ILAR	Eielson Array	67.21	28	P	P	11 41 01.8	-0.8
	comp=Z,2.4nm,0.6s,baz=250,slow=5.1,SNR=51						
ILAR				LR	LR	12 11 10.0	
	comp=Z,12nm,18.0s,baz=334,slow=36						
	comp=Z,2.4nm,0.6s						
KBZ	Khabaz	67.21	309	P	P	11 41 03.7	+0.8
	comp=Z,3.5nm,0.7s,baz=61,slow=3.7,SNR=9.9						
	comp=Z,3.5nm,0.7s						
HDA	Harding Lake	67.25	28	IAmb	IAmb	11 41 03.8	
	comp=Z,17nm,1.0s						
DHY	Denali Highway	67.30	30	IAmb	IAmb	11 41 06.3	
	comp=Z,7.2nm,0.6s						
C27K	Jago River	67.53	22	IAmb	IAmb	11 41 06.8	
	comp=Z,8.8nm,0.7s						
FYU	Fort Yukon	67.55	26	IAmb	IAmb	11 41 07.1	
	comp=Z,11nm,0.8s						
PRP	Porcupine Dome	67.64	27	P	P	11 41 06.2	+0.8
BMAR	Burnt Mountain	67.64	25	P	P	11 41 06.4	+1.1
F26K	Sheenjek River	67.75	24	IAmb	IAmb	11 41 08.7	
	comp=Z,16nm,0.9s						
G26K	Porcupine Rive	68.04	25	IAmb	IAmb	11 41 10.4	
	comp=Z,15nm,0.8s						
FID	Port Fidalgo	68.17	32	P	P	11 41 08.9	+0.2
HIN	Hinchinbrook I	68.24	32	IAmb	IAmb	11 41 10.5	
	comp=Z,18nm,0.8s						
KLU	Klutina	68.28	31	IAmb	IAmb	11 41 10.8	
	comp=Z,19nm,1.1s						
GEVA	Gevas	68.43	303		P	11 41 11.4	+0.4
HARP	HAARP	68.44	30	IAmb	IAmb	11 41 12.2	
	comp=Z,18nm,0.9s						
D27M	Malcolm River	68.56	22	IAmb	IAmb	11 41 13.2	
	comp=Z,11nm,1.0s						
EYAK	Cordova Ski Ar	68.57	32	P	P	11 41 12.6	+1.5
EYAK	Cordova Ski Ar	68.57	32	IAmb	IAmb	11 41 12.9	
	comp=Z,18nm,1.2s						
SCRK	Sand Creek	68.60	28	IAmb	IAmb	11 41 12.6	
	comp=Z,13nm,0.9s						
I26K	Coal Creek Min	68.65	27	IAmb	IAmb	11 41 14.5	
	comp=Z,10nm,0.8s						
MENT	Mentasta	68.96	29	P	P	11 41 15.4	+1.8
MENT	Mentasta	68.96	29	IAmb	IAmb	11 41 15.5	
	comp=Z,15nm,0.8s						
BMRM	Bremner River	69.02	31	IAmb	IAmb	11 41 15.5	
	comp=Z,18nm,0.9s						
H27K	Steamboat Moun	69.08	26	IAmb	IAmb	11 41 16.8	
	comp=Z,12nm,0.8s						
L26K	Log Cabin Wild	69.10	29	IAmb	IAmb	11 41 16.4	
	comp=Z,19nm,1.1s						
RAGM	Ragged Mountai	69.12	32	P	P	11 41 15.8	+1.1
RAGM				IAmb	IAmb	11 41 16.5	
	comp=Z,26nm,1.0s						
E28M	Babbage River	69.22	23	IAmb	IAmb	11 41 17.1	
	comp=Z,13nm,0.7s						
GLB	Gilahina Butte	69.28	31	IAmb	IAmb	11 41 17.3	
	comp=Z,36nm,1.3s						
SPB2	Spitsbergen Ar	69.32	348	P	P	11 41 15.0	-0.5
SPB2				IAmb	IAmb	11 41 21.6	
	comp=Z,22nm,1.2s						
SPITS	Spitsbergen Ar	69.33	348	P	P	11 41 14.8	-0.8
	comp=Z,3.9nm,0.5s,baz=80,slow=9.4,SNR=8.6						
	comp=Z,3.9nm,0.5s						
F28M	Old Crow	69.36	24	IAmb	IAmb	11 41 18.2	
	comp=Z,16nm,0.9s						
K27K	Chicken	69.41	28	IAmb	IAmb	11 41 18.9	
	comp=Z,21nm,0.8s						
VRDI	Verde Repeater	69.50	31	P	P	11 41 17.7	+0.5
VRDI				IAmb	IAmb	11 41 18.6	
	comp=Z,12nm,0.8s						
MCARA	McCarthy VSAT	69.66	31	IAmb	IAmb	11 41 21.0	
	comp=Z,25nm,0.9s						
CRQM	Cirque	69.77	32	IAmb	IAmb	11 41 20.2	
	comp=Z,19nm,0.8s						
L27K	Beaver Creek,	69.77	29	IAmb	IAmb	11 41 20.9	
	comp=Z,16nm,0.9s						
BCAR	Beaver Creek A	69.78	29	P	P	11 41 19.9	+1.2
ARCES	ARCESS Array B	69.88	338	P	P	11 41 18.7	-0.4
	comp=Z,1.9nm,0.7s,baz=77,slow=6.4,SNR=5.4						
ARCES				LR	LR	12 16 31.9	
	comp=Z,26nm,19.1s,baz=90,slow=40						
	comp=Z,1.9nm,0.7s						
ARCES	ARCESS Array B	69.88	338	P	P	11 41 18.4	-0.7
ARCES				IAmb	IAmb	11 41 18.9	
	comp=Z,18nm,1.4s						
TGL	Tana Glacier	69.91	31	IAmb	IAmb	11 41 20.9	
	comp=Z,20nm,0.9s						
I28M	Miner Creek	69.92	26	IAmb	IAmb	11 41 21.8	
	comp=Z,23nm,0.8s						
M27K	Edge Creek, AK	69.93	30	IAmb	IAmb	11 41 21.9	
	comp=Z,16nm,0.8s						
H29M	Whitestone	70.32	25	IAmb	IAmb	11 41 23.9	
	comp=Z,15nm,0.9s						
BARN	Barnard Glacie	70.38	31	IAmb	IAmb	11 41 24.3	
	comp=Z,16nm,1.0s						
GRNC	Granite Creek	70.43	31	IAmb	IAmb	11 41 25.3	
	comp=Z,18nm,1.4s						
DAWY	Dawson	70.53	28	P	P	11 41 23.9	+0.6
DAWY				IAmb	IAmb	11 41 25.0	
	comp=Z,22nm,0.8s						
I29M	Ogilvie Camp,	70.60	26	IAmb	IAmb	11 41 25.4	
	comp=Z,16nm,1.1s						
LOGN	Logan Glacier	70.75	31	IAmb	IAmb	11 41 26.7	
	comp=Z,21nm,1.2s						
RAYN	Ar Rayn	70.84	288	P	P	11 41 24.9	-1.0
G30M	tAoh Zraii Nji	70.90	24	IAmb	IAmb	11 41 26.5	
	comp=Z,15nm,0.8s						
EPYK	Eagle Plains	70.91	25	P	P	11 41 25.6	+0.2
K29M	Barlow Dome	71.39	28	IAmb	IAmb	11 41 30.7	
	comp=Z,19nm,0.8s						
I30M	Mount Dempster	71.41	26	IAmb	IAmb	11 41 30.3	
	comp=Z,17nm,0.7s						
INK	Inuvik	71.42	23		P	11 41 28.7	+0.3
INK				IAmb	IAmb	11 41 29.6	
	comp=Z,13nm,0.7s						
INK	Inuvik	71.42	23	P	P	11 41 29.0	+0.5
	comp=Z,21nm,1.3s						
G31M	Satah River	71.64	24	IAmb	IAmb	11 41 30.6	
	comp=Z,14nm,0.8s						
F31M	Tsiigehtchic	71.65	23	P	P	11 41 30.1	+0.3
F31M				IAmb	IAmb	11 41 30.8	
	comp=Z,18nm,0.7s						
PNL	Peninsula	71.87	32	P	P	11 41 33.0	+1.7
H31M	Peel River	72.01	25	IAmb	IAmb	11 41 33.3	
	comp=Z,20nm,0.8s						
O29M	Mount Kennedy	72.06	31	IAmb	IAmb	11 41 35.1	
	comp=Z,16nm,1.0s						
FIA1	FINESS Array S	72.20	330	P	P	11 41 34.5	+1.2
FINES	FINESS Array B	72.20	330	P	P	11 41 32.9	-0.3
	comp=Z,3.1nm,0.7s,baz=62,slow=6.7,SNR=18						
FINES				LR	LR	12 16 53.9	
	comp=Z,38nm,18.8s,baz=50,slow=39						
	comp=Z,3.1nm,0.7s						
HYT	Haines Junctio	72.39	31		P	11 41 36.3	+1.8
M31M	Drury Creek, Y	73.30	29	P	P	11 41 40.7	+0.9
WHY	Whitehorse	73.65	30		P	11 41 43.2	+1.2
BNN	Bunyan	73.67	306	P	P	11 41 43.1	+0.5
SKAG	Skagway	73.89	32	P	P	11 41 45.2	+2.0
SKAG	Skagway	73.89	32	P	P	11 41 44.3	+1.1
ROCAM	Rodrigues Isla	74.09	239	P	P	11 41 44.0	-1.0
AKASG	Malin Array Be	74.17	319	P	P	11 41 44.4	-0.7
	comp=Z,3.2nm,0.6s,baz=60,slow=6.4,SNR=6.8						
	comp=Z,3.2nm,0.6s						
AKASG	Malin Array Be	74.17	319	P	P	11 41 44.5	-0.6
AKBB	Malin Array Si	74.17	319	P	P	11 41 44.6	-0.5
KIEV	Kiev	74.18	319	P	P	11 41 44.6	-0.5
MMPY	Sheldon Lake,	74.47	28	P	P	11 41 47.7	+1.0
MMPY				IAmb	IAmb	11 41 48.7	
	comp=Z,12nm,0.7s						
P32M	Atlin	74.60	31	P	P	11 41 48.4	+0.9
P32M				IAmb	IAmb	11 41 49.7	
	comp=Z,17nm,0.8s						
R32K	Eaglecrest	74.72	33	IAmb	IAmb	11 41 53.1	
	comp=Z,24nm,0.9s						
P33M	Teslin, Yukon	74.77	30	IAmb	IAmb	11 41 50.6	
	comp=Z,25nm,0.9s						
JIS	Juneau Island	74.79	32	P	P	11 41 51.0	+2.6
SIT	Sitka	74.79	34	P	P	11 41 51.3	+2.8
SIT	Sitka	74.79	34	P	P	11 41 49.3	+0.9
BR131	Keskin Array S	74.99	307		P	11 41 50.2	0.0
BRTR	Keskin Array B	74.99	307	P	P	11 41 50.2	0.0
	comp=Z,3.6nm,0.9s,baz=86,slow=6.3,SNR=12						
	comp=Z,3.6nm,0.9s						
BRTR	Keskin Array B	74.99	307	P	P	11 41 50.4	+0.1
Q32M	Nakina River	75.53	31	IAmb	IAmb	11 41 55.5	
	comp=Z,14nm,1.1s						
R33M	Jennings River	75.96	31	IAmb	IAmb	11 41 58.0	
	comp=Z,17nm,0.8s						
MMAI	Mount Meron Ar	75.99	300	LR	LR	12 22 40.8	
	comp=Z,24nm,19.7s,baz=74,slow=41						
U33K	Whale Pass	76.28	34	P	P	11 41 58.9	+1.9
U33K				IAmb	IAmb	11 42 00.0	
	comp=Z,23nm,0.8s						
S34M	Telegraph Cree	76.51	32	P	P	11 42 00.1	+1.8
S34M				IAmb	IAmb	11 42 01.1	
	comp=Z,13nm,0.9s						
CRAG	Craig	76.55	35	P	P	11 42 00.8	+2.3
CRAG	Craig	76.55	35	IAmb	IAmb	11 42 01.1	
	comp=Z,32nm,1.2s						
WRAK	Wrangell Islan	76.55	34	IAmb	IAmb	11 42 01.4	
	comp=Z,24nm,0.9s						
WTLY	Watson Lake, Y	76.63	30	P	P	11 42 00.4	+1.4
NIUE	Niue	77.52	118	P	P	11 42 04.2	-0.3
BUR08	Bucovina Ar. S	77.76	317		P	11 42 05.6	-0.1
BURAR	Bucovina Array	77.76	317	P	P	11 42 05.6	0.0
DIB	Dawson Inlet,	77.85	37	P	P	11 42 06.7	+0.9
MLR	Muntele Rosu	78.15	315	P	P	11 42 07.6	-0.2
	comp=Z,3.2nm,0.5s,baz=180,slow=5.1,SNR=4.1						
	comp=Z,3.2nm,0.5s						
MLR	Muntele Rosu	78.15	315	P	P	11 42 08.0	+0.1
HFS	Hagfors	78.26	331	P	P	11 42 07.5	-0.5
	comp=Z,3.7nm,0.7s,baz=74,slow=2.2,SNR=5.9						
	comp=Z,3.7nm,0.7s						
RUBB	Prince Rupert	78.54	35	P	P	11 42 09.7	0.0
RUBB				IAmb	IAmb	11 42 11.6	
	comp=Z,24nm,1.4s						
NC405	NORSAR Array S	78.60	333	P	P	11 42 09.9	0.0
NC405				IAmb	IAmb	11 42 10.5	
	comp=Z,8.8nm,0.8s						
NC303	NORSAR Array S	78.69	333	P	P	11 42 10.5	+0.1
NC303				IAmb	IAmb	11 42 36.3	
	comp=Z,16nm,1.3s						
NB2	NORSAR Subarra	78.85	333	P	P	11 42 10.0	-1.3
	comp=Z,11nm,1.2s,baz=59,slow=5.6						
NOA	NORSAR Array B	78.85	333	P	P	11 42 10.6	-0.7
	comp=Z,1.9nm,0.7s,baz=57,slow=5.5,SNR=8.4						
NOA				LR	LR	12 18 26.6	
	comp=Z,27nm,18.1s,baz=60,slow=37						
	comp=Z,1.9nm,0.7s						
NC204	NORSAR Array S	78.91	333	P	P	11 42 11.6	-0.1
KOLS	Kolonicke sedl	79.01	319	*e*P	P	11 42 12.9	+0.5
MANT	Manisa	79.12	307	P	P	11 42 13.1	-0.3
STHS	Stebnicka Huta	79.41	320	*e*P	P	11 42 14.8	+0.2
OJC	Ojcow	79.89	321	P	P	11 42 17.1	0.0
BBB	Bella Bella	80.67	36	P	P	11 42 21.4	+0.1
YKAW3	Yellowknife Wh	81.08	24	P	P	11 42 23.9	+0.6
YKAW3				IAmb	IAmb	11 42 24.3	
	comp=Z,17nm,0.8s						
YKA	Yellowknife Ar	81.13	24	P	P	11 42 23.4	0.0
	comp=Z,12nm,0.7s,baz=307,slow=5.1,SNR=22						
	comp=Z,12nm,0.7s						
YKA	Yellowknife Ar	81.13	24	P	P	11 42 23.9	+0.5
VYHS	Vyhne	81.24	320	*e*P	P	11 42 24.8	+0.4
MORC	Moravsky Berou	81.38	321	P	P	11 42 25.1	0.0
MORC	Moravsky Berou	81.38	321	*e*P	P	11 42 24.7	-0.5
HOLB	Holberg	81.41	38	P	P	11 42 25.7	+0.5
HOLB				IAmb	IAmb	11 42 29.6	
	comp=Z,25nm,1.4s						
KRLC	Kraliky	81.67	322	P	P	11 42 27.2	+0.5
	comp=Z,4.6nm,0.7s						
JAVC	Velka Javorina	81.75	320	*e*P	P	11 42 27.9	+0.8
JAVC	Velka Javorina	81.75	320	P	P	11 42 28.9	+1.7
	comp=Z,7.3nm,0.9s						
SUMG	Summit	82.00	355	P	P	11 42 27.9	-0.6
SUMG	Summit	82.00	355	P	P	11 42 30.7	+2.2
	comp=Z,12nm,1.3s						
VRAC	Vranov	82.15	321	LR	LR	12 21 16.2	
	comp=Z,36nm,19.0s,baz=48,slow=37						
VRAC	Vranov	82.15	321	*e*P	P	11 42 29.2	0.0
VRAC	Vranov	82.15	321	P	P	11 42 29.5	+0.4
	comp=Z,2.7nm,0.7s						
MODS	Modra-Piesok	82.21	320	*e*P	P	11 42 32.8	+3.3
LIT	Litokhoron	82.72	311	P	P	11 42 30.9	-1.4
LIT				IAmb	IAmb	11 42 31.0	
	comp=Z,13nm,1.2s						
RONA	Rosalia, Austr	83.11	320	*i* P	P	11 42 34.5	+0.3
	comp=Z,1.4nm,0.5s						
IDI	Anoyia	83.12	306	P	P	11 42 34.4	-0.1
CLL	Collm	83.12	324	*e*P	P	11 42 34.0	-0.1
CLL				LV		12 13 00.0	
CONA	Conrad Observa	83.26	320	*i* P	P	11 42 35.6	+0.6
	comp=Z,3.3nm,0.9s						
ARSA	Arzberg	83.79	320	*i* P	P	11 42 38.0	+0.2
	comp=Z,2.6nm,0.8s						
GEC2	GERESS Array S	84.03	322	P	P	11 42 39.0	0.0
GERES	GERESS Array B	84.03	322	P	P	11 42 38.6	-0.3
	comp=Z,1.3nm,0.3s,baz=33,slow=3.2,SNR=14						
	comp=Z,1.3nm,0.3s						
GERES	GERESS Array B	84.03	322	P	P	11 42 39.0	0.0
ILON	Igloolik, Nuna	84.05	9	P	P	11 42 38.0	-0.5
ILON				IAmb	IAmb	11 42 38.6	
	comp=Z,17nm,0.8s						
MOA	Molln	84.22	321	*i* P	P	11 42 40.4	+0.5
	comp=Z,5.3nm,0.8s						
MOA	Molln	84.22	321	P	P	11 42 40.1	+0.2
	comp=Z,8.5nm,0.8s						
SOKA	Soboth	84.37	319	*i* P	P	11 42 40.7	0.0
	comp=Z,2.7nm,0.8s						
ITM	Ithomi	84.43	308		P	11 42 40.3	-0.8
OBKA	Obir	84.75	319	*i* P	P	11 42 42.7	0.0
	comp=Z,4.3nm,0.7s						
LLLB	Lillooet	84.83	36	P	P	11 42 42.7	-0.2
PGC	Sidney	85.04	38	P	P	11 42 44.3	+0.4
KBA	Koelnbreinsper	85.16	320	*i* P	P	11 42 44.5	-0.3
	comp=Z,1.9nm,0.5s						
A04D	Lummi Island	85.42	38	P	P	11 42 46.4	+0.6
WTTA	Wattenberg	86.04	321	*i* P	P	11 42 48.9	-0.3
	comp=Z,4.2nm,0.9s						
F03A	Seaside	86.44	40	P	P	11 42 51.1	+0.2
F03A				IAmb	IAmb	11 42 54.1	
	comp=Z,8.2nm,1.0s						
BORG	Borgarnes	86.69	346	LR	LR	12 23 06.2	
	comp=Z,8.7nm,21.9s,baz=6.6,slow=37						
BORG	Borgarnes	86.69	346	P	P	11 42 55.1	+3.4
	comp=Z,135nm,1.3s						
FETA	Feichten	86.69	321	*i* P	P	11 42 52.5	+0.1
	comp=Z,3.7nm,1.1s						
DAVA	Damuels	87.03	322	*e*P	P	11 42 54.3	+0.4
	comp=Z,5.9nm,1.0s						
DAVOX	Davos/Dischmat	87.31	321	P	P	11 42 55.9	+0.5
	comp=Z,5.9nm,0.8s,baz=68,slow=4.2,SNR=6.7						
	comp=Z,5.9nm,0.8s						
FDMO	Fiordimonte	87.45	317	P	P	11 42 56.3	+0.4
FDMO				IAmb	IAmb	11 42 57.0	
	comp=Z,6.8nm,0.9s						
G04A	Mulino	87.48	41	P	P	11 42 56.4	+0.5
G04A				IAmb	IAmb	11 42 59.4	
	comp=Z,6.7nm,0.8s						
EDM	Edmonton	87.51	31	P	P	11 42 56.0	+0.1
EDM				IAmb	IAmb	11 42 58.2	
	comp=Z,11nm,0.7s						
TUE	Stuetta	87.79	321	P	P	11 42 57.8	+0.1
CEL	Celeste	88.11	312	P	P	11 42 59.3	+0.1
CEL				IAmb	IAmb	11 43 06.5	
	comp=Z,13nm,1.1s						
E07A	Sunnyside	88.23	38	P	P	11 42 59.7	+0.1
WAH2	Wahluke Slope	88.28	38	P	P	11 43 00.4	+0.7
WAH2				IAmb	IAmb	11 43 03.2	
	comp=Z,5.2nm,0.7s						
EKA	Eskdalemuir Ar	88.34	333	LR	LR	12 28 25.9	
	comp=Z,23nm,18.5s,baz=7.5,slow=40						
C09A	Chrisman Ranch	88.38	37	P	P	11 43 01.1	+0.9
D08A	Wollman Farm,	88.46	38	P	P	11 43 00.4	-0.2
I05D	Terrebonne, OR	88.63	41	P	P	11 43 01.3	-0.2
I05D				IAmb	IAmb	11 43 03.8	
	comp=Z,10nm,1.4s						
E08A	Dider Farm, El	88.72	38	P	P	11 43 01.4	-0.4
NEW	Newport	88.72	36	P	P	11 43 02.2	+0.4
NEW	Newport	88.72	36	P	P	11 43 03.1	+1.3
	comp=Z,5.8nm,1.0s						
SENIN	Lac Senin/Sane	89.01	322		P	11 43 03.3	-0.1
PINE	Pine Mountain	89.18	41	P	P	11 43 03.9	-0.4
PINE				IAmb	IAmb	11 43 07.7	
	comp=Z,8.2nm,1.4s						
BNI	Bardonecchia	90.13	321	P	P	11 43 08.6	0.0
BNI				IAmb	IAmb	11 43 12.6	
	comp=Z,6.5nm,1.1s						
HATC	Hat Creek Radi	90.53	44	P	P	11 43 10.1	-0.4
ORIF	Oris-en-Rattie	90.67	321	P	P	11 43 11.3	+0.2
	comp=Z,6.7nm,0.7s						
FRB	Frobisher Bay	91.01	6	LR	LR	12 26 10.4	
	comp=Z,19nm,21.0s,baz=51,slow=37						
FFC	Flin Flon	91.25	25	P	P	11 43 13.8	+0.3
FFC				IAmb	IAmb	11 43 15.2	
	comp=Z,6.2nm,1.0s						
KVN	Kaiserville	93.66	44	P	P	11 43 25.6	+0.4
KVN				IAmb	IAmb	11 43 29.4	
	comp=Z,4.0nm,1.3s						
KEST	Kesra	93.88	312	P	P	11 43 26.0	-0.1
KEST				IAmb	IAmb	11 43 40.0	
	comp=Z,8.8nm,1.2s						
NVAR	Mina Array Bea	93.90	44	P	P	11 43 27.7	+1.4
	comp=Z,1.2nm,0.6s,baz=292,slow=4.9,SNR=13						
	comp=Z,1.2nm,0.6s						
NVAR	Mina Array Bea	93.90	44	P	P	11 43 26.1	-0.2
PDAR	Pinedale Array	96.32	37	P	P	11 43 37.1	-0.2
	comp=Z,0.2nm,0.6s,baz=285,slow=2.9,SNR=5.4						
	comp=Z,0.2nm,0.6s						
PDAR	Pinedale Array	96.32	37	P	P	11 43 36.6	-0.7

IDC 14 11:57:52.4±3.4,**5°.29S**×**153°.63E,h0**^{km}**,mb3.6**/4,
mbtmp3.6/4,**Error ellipse: s-maj=62.9km s-min=22.4km**
az=50.0,New Ireland region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRVT	Keravat (AS076	1.88	301	Pn	Pb	11 58 26.8	-0.8
	53nm,0.3s,baz=240,slow=20,SNR=3.9						
KRVT				Sn	Sn	11 58 47.5	-2.8
	77nm,0.3s,baz=138,slow=23,SNR=8.6						
WRA	Warramunga Arr	23.76	230	P	P	12 03 07.3	+0.6
	1.0nm,0.6s,baz=52,slow=9.7,SNR=12						
	1.0nm,0.6s						
ASAR	Alice Springs	26.36	224	P	P	12 03 31.4	+0.9
	0.2nm,0.7s,baz=58,slow=8.9,SNR=5.4						
	0.2nm,0.7s						
FITZ	Fitzroy Crossi	30.16	243	P	P	12 04 03.9	-0.6
	0.6nm,0.4s,baz=60,slow=8.1,SNR=1.8						
	0.6nm,0.4s						
VNDA	Vanda	72.31	178	P	P	12 09 17.9	-1.5
	0.8nm,0.8s,baz=341,slow=5.0,SNR=2.5						
	0.8nm,0.8s						

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*SOME **14** 12:15:54.9, 41°.57N×79°.52E, h10^{km}*
*NNC **14** 12:15:55.3±2.3, 41°.51N×79°.47E, h0^{km}, mb3.6, mpv3.2,*
Error ellipse: s-maj=17.2km s-min=15.9km az=73.0
*KRNET **14** 12:15:55.1±0.1, 41°.83N×79°.61E, h16^{km}, mb2.9*
ISC 14 12:15:56.4±2.1,**41°.62N**±0°.08×**79°.40E**±0°.08,**h10**^{km}**,n18,**
σ**1^s.51**/32,**14C-4D,Kyrgyzstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PRZ	Przheval'sk	1.14	320	⇑*i*P	Pb	12 16 16.7	-1.7
PRZ				⇑*i*S	Sg	12 16 31.8	-1.5
TARG	Taragay, Kyrgy	1.20	276	⇑*i*P	Pn	12 16 21.0	+1.4
TARG				⇑*i*S	Sn	12 16 39.4	+3.2
UZB	Uzynbulak	1.56	350	P	Pg	12 16 25.4	-0.9
	6.4nm,0.2s						
UZB				S	Sg	12 16 47.3	+0.8
	3.0nm,0.2s						
UZB	Uzynbulak	1.56	350	*e*P	Pg	12 16 25.4	-0.9
	6.4nm,0.2s						
UZB				*e*S	Sg	12 16 47.3	+0.8
	3.0nm,0.2s						
PDGK	Podgornoye	1.71	2	⇑Pn	Pg	12 16 28.0	-1.3
	5.0nm,0.5s						
PDGK				⇑Lg	Lg	12 16 55.2	

	21nm,0.5s						
KDJ	**Kajisay**	**1.73**	**288**	⇑*i*P	**Pg**	**12 16 29.3**	**-0.4**
KDJ				⇑*i*S	**Sg**	**12 16 53.7**	**+1.5**
ANVS	**Anan'yevo**	**1.74**	**313**	⇓*e*P	**Pb**	**12 16 27.7**	**-0.8**
ANVS				⇓*i*S	**Sb**	**12 16 50.7**	**+0.2**
KPKS	**Kokpek**	**1.92**	**344**	Pg	**Pg**	**12 16 32.1**	**-1.2**
	0.2nm,0.1s						
KPKS				Lg	Lg	12 16 59.3	
	10.0nm,0.3s						
KPKS	**Kokpek**	**1.92**	**344**	*e*P	**Pg**	**12 16 32.1**	**-1.2**
	0.2nm,0.1s						
KPKS				*e*S	**Sg**	**12 16 59.3**	**+1.1**
	10.0nm,0.3s						
TNSS	**Tian-Shan**	**2.31**	**309**	*e*P	**Pg**	**12 16 39.7**	**-1.0**
	0.3nm,0.1s						
TNSS				*e*S	**Sg**	**12 17 11.6**	**+1.0**
	0.4nm,0.2s						
MDOK	**Medeo**	**2.33**	**312**	Pg	**Pg**	**12 16 40.5**	**-0.6**
	11nm,0.3s						
MDOK				Lg	Lg	12 17 13.2	
	23nm,0.5s						
MDOK	**Medeo**	**2.33**	**312**	*e*P	**Pg**	**12 16 40.5**	**-0.6**
	11nm,0.3s						
MDOK				*e*S	**Sg**	**12 17 13.2**	**+1.9**
	23nm,0.5s						
KOTS	**Kotyrbulak**	**2.34**	**314**	Pg	**Pg**	**12 16 40.1**	**-1.1**
	16nm,0.2s						
KOTS				Lg	Lg	12 17 14.0	
	12nm,0.2s						
KOTS	**Kotyrbulak**	**2.34**	**314**	*e*P	**Pg**	**12 16 40.3**	**-1.0**
	16nm,0.2s						
KOTS				*e*S	**Sg**	**12 17 13.1**	**+1.5**
	15nm,0.3s						
ULHL	**Ulahol**	**2.44**	**286**	⇓*i*P	**Pb**	**12 16 39.4**	**-1.1**
ULHL				⇓*i*S	**Sg**	**12 17 12.2**	**-2.6**
NRN	**Naryn**	**2.56**	**267**	⇑*i*P	**Pb**	**12 16 42.2**	**-0.4**
NRN				⇑*i*S	**Sg**	**12 17 17.4**	**-1.2**
BOOM	**Boomskoye usch**	**2.72**	**290**	⇑*i*P	**Pb**	**12 16 43.0**	**-2.3**
BOOM				⇑*i*S	**Sb**	**12 17 18.5**	**-0.2**
TKM2	**Tokmak 2**	**3.11**	**296**	⇑*i*P	**Pn**	**12 16 47.8**	**+2.1**
TKM2				⇑*i*S	**Sb**	**12 17 27.2**	**-2.8**

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*AFAD **14** 12:23:09.9, 39°.52N×45°.50E, h7^{km}±3^{km}, ML2.3*
*AZER **14** 12:23:12.0, 39°.38N×45°.32E, h12^{km}, ml2.9*
*TEH **14** 12:23:18.8, 39°.12N×45°.76E, h10^{km}±61^{km}, ML2.8, Presumed earthquake*

ISC 14 12:23:13.3±0.9, **39°.39N**±0°.02×**45°.43E**±0°.02, **h18**^{km}±5^{km}, **n29**, σ**1^{s}28**/50, **Iran-Armenia-Azerbaijan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SBZ	**Shahbuz**	**0.09**	**86**	P	**Pg**	**12 23 16.6**	**-0.4**
SBZ				S	**Sg**	**12 23 19.6**	**+0.1**
NAX	**Nakhchivan**	**0.22**	**168**	P	**Pg**	**12 23 18.8**	**+0.2**
NAX				S	**Sb**	**12 23 23.6**	**+0.9**
HYR	**Heyderabad**	**0.56**	**306**	P	**Pg**	**12 23 23.0**	**-1.5**
HYR				S	**Sg**	**12 23 31.1**	**-0.9**
ORD	**Ordubad**	**0.64**	**136**	P	**Pb**	**12 23 26.2**	**+0.3**
ORD				S	**Sn**	**12 23 36.3**	**-1.0**
IMRD	**Marand**	**0.71**	**163**	Pg	**Pb**	**12 23 27.5**	**+0.2**
ISHB	**Shabestar**	**1.11**	**173**	Pg	**Pg**	**12 23 35.3**	**+0.3**
IGDI	**IGDIR**	**1.15**	**295**	P	**Pn**	**12 23 32.3**	**-2.3**
IGDI				S	**Sb**	**12 23 48.5**	**-0.9**
IGDI				IAML		12 23 49.0	
	comp=N,93nm,0.3s						
IGDI				IAML		12 23 52.0	
	comp=E,77nm,0.3s						
CLDR	**Caldiran**	**1.20**	**259**	P	**Pn**	**12 23 33.8**	**-1.8**
CLDR				IAML		12 24 01.0	
	comp=E,154nm,0.6s						
CLDR				IAML		12 24 03.0	
	comp=N,109nm,0.7s						
ITBZ	**Tabriz**	**1.28**	**154**	Pg	**Pn**	**12 23 36.4**	**-0.2**
OZAP	**Van, Ozalp-Mer**	**1.34**	**237**	P	**Pn**	**12 23 37.3**	**-0.1**
OZAP				S	**Sg**	**12 23 58.7**	**+2.0**
OZAP				IAML		12 24 06.0	
	comp=E,38nm,0.7s						
OZAP				IAML		12 24 07.0	
	comp=N,42nm,0.8s						
GDB	**GEDABAY**	**1.35**	**10**	Pg	**Pn**	**12 23 37.6**	**+0.1**
GDB				Sg	**Sb**	**12 23 56.0**	**+0.7**
GANJ	**Ganja**	**1.43**	**28**	Pg	**Pn**	**12 23 39.1**	**+0.6**
GANJ				Sg	**Sb**	**12 23 58.4**	**+1.0**
QRD	**Qoradiz**	**1.46**	**87**	Pn	**Pg**	**12 23 41.2**	**-0.3**
QRD				Sn	**Sg**	**12 24 02.4**	**+1.8**
AGDM	**Agdam**	**1.48**	**60**	Pn	**Pg**	**12 23 41.5**	**-0.3**
AGDM				Sn	**Sg**	**12 24 03.0**	**+2.0**
BRDA	**Brd**	**1.60**	**56**	Pn	**Pg**	**12 23 44.3**	**+0.1**
BRDA				Sn	**Sg**	**12 24 07.8**	**+2.8**
IHRS	**Heris**	**1.65**	**130**	Pg	**Pb**	**12 23 43.4**	**0.0**
QZX	**Qazax, Azerbai**	**1.67**	**358**	Pn	**Pb**	**12 23 43.3**	**-0.2**
QZX				Sn	**Sb**	**12 24 05.7**	**+1.5**
BLQ	**Beylaqan**	**1.68**	**78**	Pn	**Pg**	**12 23 44.7**	**-0.8**
BLQ				Sn	**Sg**	**12 24 08.8**	**+1.5**
MNGR	**Mingechevir, A**	**1.87**	**42**	Pg	**Pg**	**12 23 48.7**	**-0.7**
MNGR				Sg	**Sg**	**12 24 14.9**	**+1.2**
GRMI	**Germi**	**2.00**	**106**	Pg	**Pb**	**12 23 50.0**	**+0.7**
DORK	**Agr/Tutak/Do**	**2.06**	**271**	P	**Pn**	**12 23 49.4**	**+2.2**
DORK				S	**Sg**	**12 24 23.0**	**+3.5**
DORK				IAML		12 24 27.0	
	comp=N,14nm,0.6s						
DORK				IAML		12 24 29.0	
	comp=E,16nm,0.8s						
YRD	**Yardimli**	**2.23**	**101**	Pg	**Pg**	**12 23 54.4**	**-1.8**
YRD				Sg	**Sg**	**12 24 25.8**	**+0.5**
SEKA	**Sheki**	**2.26**	**36**	Pg	**Pg**	**12 23 56.4**	**-0.4**
SEKA				Sg	**Sg**	**12 24 26.4**	**+0.2**
GLBA	**Clilabad**	**2.30**	**93**	Pn	**Pb**	**12 23 53.4**	**-0.9**
GLBA				Sg	**Sg**	**12 24 27.5**	**+0.2**
ISRB	**Sarab**	**2.35**	**131**	Pn	**Pb**	**12 23 54.4**	**-0.8**
LRK	**Lerik**	**2.38**	**107**	Pg	**Pg**	**12 23 57.1**	**-2.0**
LRK				Sg	**Sg**	**12 24 30.2**	**+0.1**
LKRN	**Lenkeran, Azer**	**2.69**	**104**	Sg	**Sg**	**12 24 38.2**	**-1.7**
XNQ	**Khinaliq**	**2.73**	**48**	Pg	**Pb**	**12 24 02.5**	**+0.8**
XNQ				Sg	**Sg**	**12 24 40.5**	**-0.6**
ASTR	**Astara**	**2.75**	**107**	Pg	**Pb**	**12 24 03.2**	**+1.3**
ASTR				Sg	**Sg**	**12 24 41.3**	**-0.2**

IDC 14 12:53:41.9±1.4, **1°.04N**×**65°.86E**, **h0**^{km}, **mb3.6**/4, **mbtmp3.6**/4, **Error ellipse: s-maj=57.0km s-min=31.8km az=32.0**, **Carlsberg Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZALV	**Zalesovo Beam**	**55.01**	**14**	P	P	13 03 14.9	-0.1
	0.7nm,0.7s,baz=216,slow=7.1,SNR=3.6						
	0.7nm,0.7s						
H01W3	**Cape Leeuwin H**	**57.53**	**133**	T	T	14 05 17.0	
	baz=300,slow=75,SNR=5.1						
H01W2	**Cape Leeuwin H**	**57.53**	**133**	T	T	14 05 11.5	
	baz=300,slow=75,SNR=4.9						
H01W1	**Cape Leeuwin H**	**57.55**	**133**	T	T	14 05 27.3	
	baz=300,slow=75,SNR=4.5						
TORD	**Torodi Ar. Bea**	**64.63**	**284**	P	P	13 04 22.0	0.0
	0.4nm,1.1s,baz=89,slow=4.9,SNR=0.8						
	0.4nm,1.1s						
WRA	**Warramunga Arr**	**70.19**	**112**	P	P	13 04 57.0	-0.1
	0.7nm,0.8s,baz=278,slow=6.5,SNR=5.3						
	0.7nm,0.8s						
ASAR	**Alice Springs**	**70.39**	**115**	P	P	13 04 58.5	+0.2
	0.4nm,0.7s,baz=285,slow=6.0,SNR=7.9						
	0.4nm,0.7s						

IDC 14 13:18:10.9±2.2, **6°.58S**×**128°.72E**, **h0**^{km}, **mb3.5**/1, **mbtmp3.4**/3, **ML3.5**/2, **Error ellipse: s-maj=202.6km s-min=25.3km az=65.0**, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**14.36**	**158**	Pn	Pn	13 21 29.1	-6.6
	0.2nm,0.3s,baz=332,slow=14,SNR=16						
WRA				Sn	Sn	13 23 47.5	-28
	0.7nm,0.3s,baz=332,slow=23,SNR=13						
	0.2nm,0.3s						
WRA				AML	AML		
ASAR	**Alice Springs**	**17.71**	**164**	Pn	Pn	13 22 13.2	-5.9
	0.1nm,0.3s,baz=344,slow=10,SNR=17						
ASAR				Sn	Sn	13 25 08.8	-28
	0.1nm,0.3s,baz=328,slow=19,SNR=4.8						
	0.4nm,0.4s						
ASAR				AML	AML		
MKAR	**Makanchi Array**	**67.18**	**327**	P	P	13 29 06.8	0.0
	0.3nm,0.5s,baz=128,slow=5.8,SNR=4.2						
	0.3nm,0.5s						

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*IDC **14** 13:23:02.4±1.1, 0°.73N×30°.06W, h0^{km}, mb3.8/5, mbtmp3.8/5, MS3.5/28, Error ellipse: s-maj=52.0km s-min=23.1km az=158.0*
*NEIC **14** 13:23:04.2±2.5, 0°.83N±0°.07×30°.2W±0°.1, h10^{km}±2^{km}, mb4.5/8, Error ellipse: s-maj=26.0km s-min=9.2km az=108.0*

ISC 14 13:23:04.2±0.8, **0°.8N**±0°.2×**30°.1W**±0°.1, **h14**^{km}, **n45**, σ**0^{s}62**/12, **mb4.0**/5, **MS3.6**/28, **Central Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SACV	**Santiago Islan**	**15.49**	**24**	Pn	**Pn**	**13 26 42.1**	**-0.3**
H10N3	**ASCENSION HYDR**	**17.76**	**119**	T	T	13 45 30.4	
	baz=298,slow=74,SNR=774						
H10N2	**ASCENSION HYDR**	**17.77**	**119**	T	T	13 45 26.4	
	baz=298,slow=74,SNR=779						
H10N1	**ASCENSION HYDR**	**17.78**	**119**	T	T	13 45 29.8	
	baz=298,slow=74,SNR=837						
ASCN	**Ascension**	**17.93**	**119**	P	**Pn**	**13 27 13.2**	**-0.1**
H10S3	**ASCENSION HYDR**	**18.17**	**122**	T	T	13 46 02.5	
	baz=301,slow=74,SNR=615						
H10S2	**ASCENSION HYDR**	**18.19**	**122**	T	T	13 46 03.7	
	baz=279,slow=74,SNR=490						
MDP	**Montagnes des**	**22.91**	**281**	LR	LR	13 35 16.5	
	comp=Z,33nm,20.1s,baz=86,slow=32						
BDFB	**Brasilia**	**24.08**	**227**	LR	LR	13 37 12.9	
	comp=Z,241nm,18.1s,baz=81,slow=35						
BDFB	**Brasilia**	**24.08**	**227**	P	**P**	**13 28 19.4**	**-0.2**
DBIC	**Dimbokro**	**25.85**	**76**	P	**P**	**13 28 35.5**	**-0.2**
	3.1nm,0.7s,baz=255,slow=12,SNR=2.2						
DBIC				LR	LR	13 36 36.6	
	comp=Z,48nm,19.6s,baz=184,slow=32						
	3.1nm,0.7s						
DBIC	**Dimbokro**	**25.85**	**76**	P	**P**	**13 28 35.5**	**-0.2**
DBIC				IAmb	IAmb	13 29 04.1	
	comp=Z,14nm,1.1s						
H05S1	**Guadeloupe/Mar**	**33.27**	**296**	T	T	14 04 36.2	
	SNR=34						
TORD	**Torodi Ar. Bea**	**33.80**	**67**	P	**P**	**13 29 46.1**	**-0.1**
	comp=Z,0.3nm,0.5s,baz=259,slow=9.1,SNR=4.1						
	comp=Z,0.3nm,0.5s						
H05N1	**Guadeloupe/Mar**	**34.19**	**298**	T	T	14 05 43.3	
	SNR=7.8						
CPUP	**Villa Florida**	**37.63**	**222**	LR	LR	13 45 29.3	
	comp=Z,205nm,18.1s,baz=72,slow=36						
SJG	**San Juan**	**39.37**	**298**	LR	LR	13 43 37.7	
	comp=Z,32nm,21.4s,baz=78,slow=31						
MDT	**Midelt**	**39.88**	**34**	LR	LR	13 45 03.9	
	comp=Z,99nm,20.9s,baz=226,slow=33						
LPAZ	**La Paz**	**41.18**	**244**	P	**P**	**13 30 49.9**	**+0.4**
	comp=Z,2.2nm,0.7s,baz=39,slow=8.1,SNR=7.4						
LPAZ				LR	LR	13 46 32.3	
	comp=Z,78nm,21.0s,baz=72,slow=34						
	comp=Z,2.2nm,0.7s						
LPAZ	**La Paz**	**41.18**	**244**	P	**P**	**13 30 49.5**	**+0.1**
ESDC	**Sonseca Array**	**45.46**	**28**	P	**P**	**13 31 23.8**	**+0.8**
	comp=Z,0.3nm,0.8s,baz=226,slow=8.4,SNR=5.5						
ESDC				LR	LR	13 47 18.4	
	comp=Z,31nm,18.7s,baz=195,slow=32						
	comp=Z,0.3nm,0.8s						
ESDC	**Sonseca Array**	**45.46**	**28**	IAmb	IAmb	13 31 44.0	
	comp=Z,4.9nm,1.4s						
VAE	**Valguarnera**	**54.87**	**43**	LR	LR	13 56 52.0	
	comp=Z,69nm,18.0s,baz=324,slow=37						
DAVOX	**Davos/Dischmat**	**57.56**	**32**	LR	LR	13 56 08.6	
	comp=Z,32nm,18.1s,baz=261,slow=34						
TKL	**Tuckaleechee C**	**60.64**	**311**	LR	LR	13 53 46.2	
	comp=Z,32nm,20.9s,baz=127,slow=30						
SADO	**Sadowa**	**61.55**	**322**	LR	LR	13 54 47.2	
	comp=Z,31nm,19.9s,baz=183,slow=31						
MLR	**Muntele Rosu**	**66.27**	**40**	LR	LR	14 01 22.4	
	comp=Z,24nm,21.4s,baz=192,slow=35						
NOA	**NORSAR Array B**	**67.83**	**20**	LR	LR	14 00 59.4	
	comp=Z,25nm,18.4s,baz=230,slow=34						
EIL	**Elat**	**68.05**	**58**	LR	LR	14 05 03.3	
	comp=Z,101nm,18.2s,baz=277,slow=37						
HFS	**Hagfors**	**68.10**	**22**	LR	LR	13 59 45.3	
	comp=Z,28nm,20.6s,baz=223,slow=32						
BRTR	**Keskin Array B**	**69.52**	**48**	LR	LR	14 06 06.0	
	comp=Z,44nm,18.6s,baz=288,slow=37						
ASF	**Jabal al Asfar**	**70.21**	**56**	LR	LR	14 06 00.6	
	comp=Z,32nm,19.1s,baz=206,slow=37						
FINES	**FINESS Array B**	**73.78**	**25**	LR	LR	14 05 06.7	
	comp=Z,35nm,18.2s,baz=232,slow=34						
ULM	**Lac du Bonnet**	**74.11**	**323**	LR	LR	14 01 20.4	
	comp=Z,38nm,21.3s,baz=48,slow=31						
TXAR	**Lajitas Array**	**75.31**	**300**	P	**P**	**13 34 48.3**	**+0.7**
	comp=Z,0.6nm,0.9s,baz=120,slow=7.3,SNR=4.6						
	comp=Z,0.6nm,0.9s						
ARCES	**ARCESS Array B**	**77.80**	**17**	LR	LR	14 04 16.8	
	comp=Z,28nm,19.7s,baz=232,slow=32						
GNI	**Garni**	**77.93**	**49**	LR	LR	14 11 23.4	
	comp=Z,29nm,18.2s,baz=214,slow=37						
ANMO	**Albuquerque**	**78.38**	**305**	LR	LR	14 04 27.3	
	comp=Z,25nm,21.0s,baz=95,slow=32						
PDAR	**Pinedale Array**	**81.72**	**313**	LR	LR	14 05 23.9	
	comp=Z,23nm,21.4s,baz=90,slow=31						
KIRV	**Kirov**	**83.86**	**31**	LR	LR	14 11 43.5	
	comp=Z,46nm,19.6s,baz=228,slow=35						
PSUT	**Pine Spring**	**84.62**	**308**	P	**P**	**13 35 36.6**	**-1.4**
PSUT				IAmb	IAmb	13 35 36.8	
	comp=Z,5.7nm,1.5s						
NEW	**Newport**	**87.43**	**318**	LR	LR	14 13 41.2	
	comp=Z,21nm,18.0s,baz=89,slow=35						
ARTI	**Arti**	**88.51**	**34**	LR	LR	14 16 20.8	
	comp=Z,23nm,18.3s,baz=200,slow=36						
YBH	**Yreka Blue Hor**	**91.44**	**312**	LR	LR	14 15 34.9	
	comp=Z,18nm,19.0s,baz=91,slow=34						
ASAR	**Alice Springs**	**152.47**	**147**	PKPbc	**PKiKP**	**13 43 01.7**	**+0.4**
	comp=Z,0.6nm,0.9s,baz=204,slow=2.0,SNR=2.3						

IDC 14 13:23:30.7±2.6, **4°.05N**×**127°.06E**, **h0**^{km}, **mb3.3**/3, **mbtmp3.3**/3, **Error ellipse: s-maj=201.3km s-min=30.2km az=66.0**, **Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	**Don Marcelino,**	**2.44**	**327**	*e*P	Pn	13 24 09.2	-2.7
DDMP				*e*S	Sn	13 24 38.0	-4.5
KCP	**Kidapawan**	**3.54**	**326**	*i* P	Pb	13 24 30.9	-3.3
WRA	**Warramunga Arr**	**24.89**	**164**	P	P	13 28 55.4	-0.1
	0.8nm,0.7s,baz=344,slow=10,SNR=4.8						
	0.8nm,0.7s						
ASAR	**Alice Springs**	**28.34**	**167**	P	P	13 29 26.7	+0.1
	0.2nm,0.6s,baz=340,slow=9.3,SNR=1.5						
	0.2nm,0.6s						
MKAR	**Makanchi Array**	**57.48**	**325**	P	P	13 33 21.7	0.0
	0.2nm,0.5s,baz=123,slow=10,SNR=2.2						
	0.2nm,0.5s						

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*IDC **14** 13:31:37.3±1.4, 6°.27S×129°.32E, h0^{km}, mb3.8/3, mbtmp4.1/6, ML4.3/3, Error ellipse: s-maj=54.4km s-min=17.2km az=75.0*
*NEIC **14** 13:31:53.8±2.0, 7°.09S±0°.08×129°.32E±0°.08, h180^{km}±11^{km}, mb4.1/6, Error ellipse: s-maj=13.0km s-min=9.8km az=217.0*

ISC 14 13:31:51.3±0.7, **7°.11S**±0°.09×**129°.15E**±0°.08, **h156**^{km}, **n25**, σ**1^{s}66**/26, **mb3.9**/6, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SAUI	**Saumlaki**	**2.30**	**112**		**Pn**	**13 32 32.4**	**+2.0**
SAUI				Sn	**Sn**	**13 33 02.2**	**+1.7**
FAKI	**Fak Fak**	**5.18**	**37**	Pn	**Pn**	**13 33 07.2**	**-0.1**
SOEI	**Soe**	**5.50**	**241**	Pn	**Pn**	**13 33 15.3**	**+3.7**
MTN	**Manton Dam**	**6.03**	**161**		**Pn**	**13 33 19.0**	**+0.5**
MMRI	**Maumere**	**7.01**	**257**	Pn	**Pn**	**13 33 31.7**	**+0.1**
KNRA	**Kununurra**	**8.53**	**183**		**Pn**	**13 33 51.5**	**-0.2**
FITZ	**Fitzroy Crossi**	**11.45**	**197**	Pn	**Pn**	**13 34 28.9**	**-1.4**
	3.4nm,0.3s,baz=24,slow=13,SNR=99						
FITZ				Sn	Sn	13 36 26.9	-10
	1.4nm,0.3s,baz=92,slow=16,SNR=7.2						
	11nm,0.5s						
FITZ				AML	AML		
FITZ	**Fitzroy Crossi**	**11.45**	**197**		**Pn**	**13 34 28.4**	**-1.8**
WB0	**Warramunga Arr**	**13.57**	**158**		**Pn**	**13 34 55.4**	**-2.3**
WRAB	**Tennant Creek**	**13.71**	**159**		**Pn**	**13 34 56.8**	**-2.6**
WRA	**Warramunga Arr**	**13.72**	**159**	Pn	**Pn**	**13 34 56.4**	**-3.1**
	0.5nm,0.3s,baz=338,slow=13,SNR=22						
WRA				Sn	Sn	13 37 18.9	-13
	1.9nm,0.3s,baz=331,slow=22,SNR=10.0						
	2.8nm,0.6s						
WRA				AML	AML		
WR8	**Warramunga Arr**	**13.79**	**158**		**Pn**	**13 34 57.3**	**-3.1**
AS31	**Alice Springs**	**17.09**	**165**		**Pn**	**13 35 41.1**	**+0.1**
AS31				IAmb	IAmb	13 35 41.9	
	comp=Z,5.2nm,0.9s						
ASAR	**Alice Springs**	**17.09**	**165**	Pn	**Pn**	**13 35 41.2**	**+0.2**
	comp=Z,2.6nm,0.3s,baz=340,slow=9.4,SNR=382						
ASAR				Sn	S	13 38 38.1	-12
	comp=Z,0.7nm,0.3s,baz=348,slow=26,SNR=7.0						
	comp=Z,9.7nm,0.6s						
ASAR				AML	AML		
ASAR	**Alice Springs**	**17.09**	**165**	P	**Pn**	**13 35 41.1**	**+0.1**
FORT	**Forrest**	**23.57**	**182**	P	**P**	**13 36 48.1**	**+0.3**
FORT				IAmb	IAmb	13 36 49.9	
	comp=Z,6.6nm,0.6s						
CMAR	**Chiang Mai Arr**	**39.16**	**311**	P	**P**	**13 39 05.0**	**+0.9**
	comp=Z,0.7nm,0.4s,baz=143,slow=7.6,SNR=6.4						
	comp=Z,0.7nm,0.4s						
CHTO	**Chiang Mai**	**39.38**	**311**	P	**P**	**13 39 06.9**	**+0.9**
CHTO				IAmb	IAmb	13 39 07.7	
	comp=Z,2.4nm,0.8s						
CASY	**Casey**	**60.47**	**189**	P	**P**	**13 41 42.8**	**-1.5**
CASY				IAmb	IAmb	13 41 46.1	
	comp=Z,5.5nm,1.2s						
MKAR	**Makanchi Array**	**67.86**	**327**	P	**P**	**13 42 33.6**	**+0.8**
	comp=Z,0.4nm,0.3s,baz=127,slow=7.6,SNR=13						
	comp=Z,0.4nm,0.3s						
MKAR	**Makanchi Array**	**67.86**	**327**	P	**P**	**13 42 32.7**	**-0.1**
KURBB	**Kurchatov Arra**	**72.16**	**329**	P	**P**	**13 42 59.1**	**+0.2**
	comp=Z,0.4nm,0.5s,baz=129,slow=4.9,SNR=5.3						
	comp=Z,0.4nm,0.5s						
KURK	**Kurchatov**	**72.17**	**329**	P	**P**	**13 42 59.1**	**+0.2**
AB31	**Akbulak array**	**82.07**	**322**	P	**P**	**13 43 53.8**	**-0.4**
ABKAR	**Akbulak array**	**82.07**	**322**	P	**P**	**13 43 53.6**	**-0.6**

KRSC 14 13:32:05.5±0.9, **54°.75N**×**164°.55E**, **h44**^{km}±19^{km}, **Ml3.6**, **Komandorsky Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BKI	**Bering**	**0.94**	**60**	*i* P	Pn	13 32 23.1	+1.0
BKI				*e*S	Sn	13 32 34.6	+0.1
MKZ	**Mys Kozlova**	**1.65**	**265**	*e*P	Pn	13 32 34.6	+2.7
MKZ				*e*S	Sn	13 32 53.6	+1.7
KBTR	**Krutoberegovo**	**1.77**	**327**	*e*P	Pn	13 32 35.1	+1.5
KBTR				*e*S	Sn	13 32 55.0	+0.2
TUMD	**Tumrok D**	**2.44**	**283**	*e*P	Pn	13 32 45.7	+2.9
ZLN	**Zelenaya**	**2.49**	**302**	*e*P	Pn	13 32 47.3	+3.7
BZGR	**Bezymyannyi-Gr**	**2.51**	**300**	*e*P	Pn	13 32 47.2	+3.4
SMKR	**Semkarok**	**2.54**	**318**	*e*P	Pn	13 32 47.9	+3.7
BZMR	**Bezymyannaya**	**2.61**	**299**	*e*P	Pn	13 32 48.6	+3.3
BZWR	**Bezymyannyi-We**	**2.62**	**299**	*e*P	Pn	13 32 48.8	+3.4
KMNR	**Kamenistaya**	**2.67**	**294**	*e*P	Pn	13 32 47.8	+1.8
KIRR	**Kirishev**	**2.69**	**298**	*e*P	Pn	13 32 50.3	+4.0
KLY	**Klyuchi**	**2.72**	**307**	*e*P	Pn	13 32 48.9	+2.3
KLY				*e*S	Sn	13 33 19.6	+1.5
KPT	**Kopyto**	**2.76**	**298**	*e*P	Pn	13 32 51.8	+4.6
KOZ	**Kozyrevsk**	**2.98**	**298**	*e*P	Pn	13 32 53.9	+3.8
KII	**Karymskiy**	**3.07**	**259**	*e*S	Sn	13 33 30.2	+3.2
SPN	**Mys Shipunski**	**3.15**	**240**	*e*P	Pn	13 32 55.2	+2.7
SRDR	**Sredinnyy**	**3.17**	**302**	*e*P	Pn	13 32 56.8	+4.0
NLC	**Nalytchevo**	**3.46**	**245**	*e*S	Sn	13 33 39.0	+2.7
ESO	**Esso**	**3.55**	**292**	*e*P	Pn	13 33 01.1	+3.1
SMAR	**Somma**	**3.70**	**249**	*e*P	Pn	13 33 04.5	+4.1
KRER	**Koryakskii**	**3.71**	**249**	*e*P	Pn	13 33 04.6	+4.1
UGLR	**Uglovaya**	**3.72**	**248**	*e*P	Pn	13 33 05.0	+4.6
AVH	**Avacha**	**3.74**	**249**	*e*P	Pn	13 33 04.8	+4.2
KRX	**Arik**	**3.75**	**251**	*e*P	Pn	13 33 04.7	+3.8
KOK	**Koryaka**	**3.78**	**250**	*e*P	Pn	13 33 06.1	+4.8
GNL	**Ganaly**	**4.02**	**258**	*e*P	Pn	13 33 08.4	+3.9
RUS	**Russkaya**	**4.28**	**240**	*e*P	Pn	13 33 12.6	+4.5
MTVR	**Mutnovka**	**4.42**	**242**	*e*P	Pn	13 33 13.6	+3.6

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*IDC **14** 13:51:11.7±1.5, 27°.90S×138°.46E, h0^{km}, mbtmp2.6/3, ML2.4/3, Error ellipse: s-maj=64.8km s-min=12.6km az=55.0*
*AUST **14** 13:51:13.2±0.4, 28°S±3°×13°9E±°, h10^{km}, ML2.8/10, Error ellipse: s-maj=7.6km s-min=5.8km az=164.5*

ISC 14 13:51:10.1±0.8, **27°.80S**±0°.05×**138°.61E**±0°.05, **h10**^{km}, **n13**, σ**2^{s}72**/23, **South Australia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
INKA	**Innaminka**	**1.89**	**89**	P	**Pg**	**13 51 46.7**	**+0.3**
INKA				S	**Sg**	**13 52 10.2**	**-0.7**
INKA				AML	AML		
LCRK	**Leigh Creek**	**2.66**	**187**	P	**Pb**	**13 51 56.1**	**-1.7**
LCRK				S	**Sb**	**13 52 29.1**	**-1.4**
LCRK				AML	AML		
YAPP	**Yappala Statio**	**4.06**	**184**	P	**Pn**	**13 52 15.3**	**+3.0**
YAPP				AML	AML		
MULG	**Mulgathing**	**4.69**	**237**	P	**Pn**	**13 52 24.5**	**+3.5**
MULG				AML	AML		
STKA	**Stephens Creek**	**4.81**	**148**	P	**Pn**	**13 52 25.7**	**+3.0**
STKA				S	**Sn**	**13 53 19.0**	**+0.4**
STKA				AML	AML		
STKA	**Stephens Creek**	**4.81**	**148**	Pn	**Pn**	**13 52 24.8**	**+2.1**
	0.2nm,0.3s,baz=317,slow=14,SNR=1.1						
STKA				Sn	**Sn**	**13 53 17.1**	**-1.4**
	0.6nm,0.3s,baz=178,slow=5.5,SNR=6.0						
	0.9nm,0.6s						
STKA				AML	AML		
QLP	**Quilpie**	**5.15**	**78**	P	**Pn**	**13 52 30.7**	**+3.3**
	comp=Z,12nm,2.9s,comp=Z,0.1nm						
QLP				S	**Sn**	**13 53 26.1**	**-0.8**
QLP				AML	AML		
BBOO	**Buckleboo**	**5.46**	**203**	P	**Pn**	**13 52 34.1**	**+2.6**
	comp=Z,17nm,1.6s,comp=Z,0.1nm						
BBOO				AML	AML		
AS31	**Alice Springs**	**5.92**	**313**	P	**Pn**	**13 52 40.8**	**+2.9**
	comp=Z,0.8nm,1.3s,comp=Z,0.0nm						
AS31				S	**Sn**	**13 53 44.7**	**-1.2**
AS31				AML	AML		
ASAR	**Alice Springs**	**5.92**	**313**	Pn	**Pn**	**13 52 39.5**	**+1.7**
	baz=138,slow=13,SNR=6.0						
ASAR				Sn	**Sn**	**13 53 43.7**	**-2.1**
	comp=Z,0.1nm,0.3s,baz=137,slow=23,SNR=5.9						
	comp=Z,0.1nm,0.3s						
CMSA	**Cobar Meteorol**	**7.19**	**123**	P	**Pn**	**13 52 57.8**	**+2.5**
	comp=Z,9.6nm,2.2s,comp=Z,0.1nm						
CMSA				S	**Sn**	**13 54 12.2**	**-4.9**
CMSA				AML	AML		
WRA	**Warramunga Arr**	**8.75**	**333**	Pn	**Pn**	**13 53 17.9**	**+1.1**
	baz=151,slow=11,SNR=2.2						
WRA				Sn	**Sn**	**13 54 51.0**	**-4.5**
	comp=Z,0.1nm,0.3s,baz=169,slow=26,SNR=5.0						
	comp=Z,0.5nm,1.0s						
WRKA	**Warakurna**	**9.65**	**284**	P	**Pn**	**13 53 31.3**	**+2.2**
	comp=Z,3.7nm,2.9s,comp=Z,0.0nm						
WRKA				S	**Sn**	**13 55 14.1**	**-3.6**
WRKA				AML	AML		

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*NEIC **14** 14:06:31.9±1.2, 31°.701N±0°.007×104°.143W±0°.009, h5^{km}±1^{km}, mb_Lg2.4/28, ML2.6/72, Error ellipse: s-maj=2.3km s-min=1.5km az=303.0*
*TXNET **14** 14:06:32.0, 31°.7N±0°.6×104°.1W±0°.6, h7^{km}±1^{km}, ML2.4/19, Error ellipse: s-maj=1.1km s-min=0.7km az=41.1, final*

ISC 14 14:06:32.3±0.8, **31°.69N**±0°.02×**104°.14W**±0°.02, **h13**^{km}±6^{km}, **n93**, σ**0^{s}56**/136, **1C**, **Western Texas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TPB09	**Culberson Coun**	**0.16**	**302**		**Pg**	**14 06 36.0**	**-0.1**
TPB09					**Sg**	**14 06 38.6**	**-0.3**
TPB09	**Culberson Coun**	**0.16**	**302**	P	**Pg**	**14 06 36.0**	**-0.1**
TPB09				S	**Sg**	**14 06 38.6**	**-0.3**
TPB09				AML	AML		
TPB09				AML	AML		
TPB11	**China Draw**	**0.26**	**21**		**Pg**	**14 06 37.5**	**-0.3**
TPB11				Sg	**Sg**	**14 06 41.0**	**-0.6**
TPB11				IAML		14 06 42.2	
	1μm,0.2s						
TPB11	**China Draw**	**0.26**	**21**	P	**Pg**	**14 06 37.6**	**-0.3**
TPB11				S	**Sg**	**14 06 41.3**	**-0.3**
TPB11				AML	AML		
TPB11				AML	AML		
TPB13	**Reeves - Culbe**	**0.29**	**118**	S	**Sg**	**14 06 42.9**	**+0.5**
TPB28		**0.30**	**266**		**Pg**	**14 06 38.5**	**-0.2**

TPB28				IAML		14 06 43.6	
	189nm,0.2s						
TPB28				IAML		14 06 43.8	
	232nm,0.2s						
TPB28		0.30	266	P	Pg	14 06 38.9	+0.2
TPB28				S	Sg	14 06 43.2	+0.3
TPB28				AML	AML		
TPB28				AML	AML		
TPB29		0.32	281		Pg	14 06 39.1	+0.2
TPB29					Sg	14 06 43.6	+0.2
TPB29		0.32	281	P	Pg	14 06 39.1	+0.2
TPB29				S	Sg	14 06 43.6	+0.2
TPB29				AML	AML		
TPB29				AML	AML		
PECS	**Pecos**	0.40	143		Pg	14 06 40.3	0.0
PECS				Sg	Sg	14 06 45.9	+0.2
PECS	**Pecos**	0.40	143	⇑P	Pg	14 06 40.6	+0.2
PECS				S	Sg	14 06 46.0	+0.2
PECS				AML	AML		
PECS				AML	AML		
TPB07	**Mentone**	0.42	105		Pb	14 06 41.2	-0.5
TPB07					Sg	14 06 47.0	+0.6
TPB07	**Mentone**	0.42	105	P	Pb	14 06 41.2	-0.5
TPB07				S	Sg	14 06 47.1	+0.6
TPB07				AML	AML		
TPB07				AML	AML		
TPB12	**Southwest of T**	0.50	161		Pg	14 06 42.6	+0.3
TPB12					Sg	14 06 49.3	+0.3
TPB12	**Southwest of T**	0.50	161	P	Pg	14 06 42.6	+0.3
TPB12				S	Sg	14 06 49.3	+0.3
TPB12				AML	AML		
TPB12				AML	AML		
TPB10	**Southeast of T**	0.53	141		Pg	14 06 42.9	+0.3
TPB10					Sb	14 06 50.7	-0.4
TPB10	**Southeast of T**	0.53	141	P	Pg	14 06 42.9	+0.3
TPB10				S	Sb	14 06 50.7	-0.4
TPB10				AML	AML		
TPB10				AML	AML		
GDL2	**Guadalupe Moun**	0.54	340		Pg	14 06 42.3	-0.7
GDL2	**Guadalupe Moun**	0.54	340	P	Pg	14 06 42.7	-0.3
PCOS	**Crockett Middl**	0.61	117	S	Sb	14 06 53.0	-0.5
CLNB	**Carlsbad**	0.61	21		Pg	14 06 43.9	-0.5
CLNB	**Carlsbad**	0.61	21	P	Pb	14 06 44.6	-0.4
CLNB				S	Sg	14 06 52.5	0.0
CLNB				AML	AML		
CLNB				AML	AML		
LWM1	**Layne Water Mi**	0.64	136	P	Pb	14 06 45.0	-0.4
LWM1				S	Sb	14 06 54.3	0.0
LWM2	**Layne Water Mi**	0.64	131	P	Pb	14 06 45.1	-0.3
LWM2				S	Sb	14 06 54.3	0.0
TPB06	**Permian Basin**	0.79	93		Pb	14 06 48.1	0.0
TPB06					Sg	14 06 57.9	-0.2
TPB06				IAML		14 07 08.8	
	132nm,0.8s						
TPB06	**Permian Basin**	0.79	93	P	Pb	14 06 48.1	0.0
TPB06				S	Sg	14 06 57.9	-0.2
TPB06				AML	AML		
TPB06				AML	AML		
TPB01	**Permian Basin**	0.81	157		Pg	14 06 47.4	-0.6
TPB01					Sg	14 06 57.8	-0.8
TPB01	**Permian Basin**	0.81	157	P	Pg	14 06 47.5	-0.5
TPB01				S	Sg	14 06 57.8	-0.8
TPB01				AML	AML		
TPB01				AML	AML		
TPB03	**Saragosa**	0.81	138		Pg	14 06 47.9	-0.1
TPB03					Sb	14 06 59.2	-0.1
TPB03	**Saragosa**	0.81	138	P	Pg	14 06 47.9	-0.1
TPB03				S	Sb	14 06 59.2	-0.1
TPB03				AML	AML		
TPB03				AML	AML		
TPB30		0.81	120		Sb	14 06 59.3	-0.1
TPB30		0.81	120	S	Sb	14 06 59.3	-0.1
HTMS	**Hat Mesa**	0.89	29	S	Sg	14 07 01.0	-0.3
TPB04	**Verhalen**	0.90	124		Pg	14 06 49.5	-0.2
TPB04					Sb	14 07 01.9	0.0
TPB04	**Verhalen**	0.90	124	P	Pg	14 06 49.6	-0.2
TPB04				S	Sb	14 07 01.9	0.0
TPB04				AML	AML		
TPB04				AML	AML		
NM01	**Eunice**	0.92	44	P	Pg	14 06 49.4	-0.6
NM01				S	Sg	14 07 01.9	-0.2
NM01				AML	AML		
NM01				AML	AML		
TPB18		0.94	121		Pg	14 06 50.4	-0.2
TPB18					Sg	14 07 02.8	-0.1
TPB18		0.94	121	P	Pg	14 06 50.4	-0.2
TPB18				S	Sg	14 07 02.8	-0.1
TPB18				AML	AML		
TPB18				AML	AML		
TPB16	**Coyonosa**	0.95	126		Pg	14 06 50.5	-0.2
TPB16					Sg	14 07 03.1	0.0
TPB16	**Coyonosa**	0.95	126	P	Pg	14 06 50.5	-0.2
TPB16				S	Sg	14 07 03.1	0.0
TPB16				AML	AML		
TPB16				AML	AML		
TPB21		0.99	110	P	Pg	14 06 51.0	-0.4
TPB21				S	Sg	14 07 03.8	-0.6
TPB21				AML	AML		
TPB21				AML	AML		
TPB14		1.02	123		Pg	14 06 51.5	-0.5
TPB14					Sg	14 07 05.1	-0.2
TPB14		1.02	123	P	Pg	14 06 51.5	-0.5
TPB14				S	Sg	14 07 05.1	-0.2
TPB05	**Hovey Rd**	1.04	137		Pg	14 06 51.9	-0.6
TPB05					Sb	14 07 06.5	+0.5
TPB05	**Hovey Rd**	1.04	137	P	Pg	14 06 52.0	-0.4
TPB05				S	Sb	14 07 06.5	+0.5
TPB05				AML	AML		
TPB05				AML	AML		
MNTX	**Cornudas Mount**	1.05	271		Pg	14 06 51.3	-1.4
MNTX					Sb	14 07 06.4	+0.1
MNTX	**Cornudas Mount**	1.05	271	P	Pg	14 06 52.2	-0.5
MNTX				S	Sb	14 07 06.4	+0.1
MNTX				AML	AML		
MNTX				AML	AML		
TPB17		1.10	129		Pg	14 06 53.0	-0.5
TPB17					Sg	14 07 07.4	-0.3
TPB17				IAML		14 07 16.9	
	43nm,0.6s						
TPB17				IAML		14 07 21.7	
	40nm,0.6s						
TPB17		1.10	129	P	Pg	14 06 52.9	-0.5
TPB17				S	Sg	14 07 07.4	-0.3
TPB17				AML	AML		
TPB17				AML	AML		
VHRN	**Van Horn**	1.15	219		Pg	14 06 53.5	-1.1
VHRN					Sb	14 07 10.3	+1.0
VHRN				IAML		14 07 15.4	
	67nm,0.8s						
VHRN	**Van Horn**	1.15	219	P	Pg	14 06 53.9	-0.7
VHRN				S	Sb	14 07 10.3	+1.0
VHRN				AML	AML		
VHRN				AML	AML		
MNHN	**Monahans**	1.23	106		Pg	14 06 54.3	-1.8
MNHN					Sg	14 07 11.7	-0.4
MNHN				IAML		14 07 16.5	
	70nm,0.3s						
MNHN				IAML		14 07 19.5	
	68nm,0.3s						
MNHN	**Monahans**	1.23	106	P	Pg	14 06 54.8	-1.2
MNHN				S	Sg	14 07 11.7	-0.4
TPB08	**Permian Basin**	1.33	127		Sg	14 07 14.6	-0.5
TPB08	**Permian Basin**	1.33	127	S	Sg	14 07 14.6	-0.5
CPRX	**Cap Rock**	1.36	10		Pn	14 06 57.4	+0.2
CPRX	**Cap Rock**	1.36	10	P	Pn	14 06 57.4	+0.2
ALPN	**Alpine**	1.38	162		Pn	14 06 57.3	-0.2
ALPN					Sb	14 07 15.5	-0.3
ALPN				IAML		14 07 20.1	
	80nm,0.4s						
ALPN				IAML		14 07 21.0	
	86nm,0.3s						
ALPN	**Alpine**	1.38	162	P	Pn	14 06 57.4	-0.1
ALPN				S	Sb	14 07 15.5	-0.3
ODSA	**Odessa**	1.42	72		Pn	14 06 57.8	-0.3
ODSA					Sb	14 07 16.9	0.0
ODSA				IAML		14 07 21.2	
	126nm,0.4s						
ODSA	**Odessa**	1.42	72	P	Pn	14 06 57.8	-0.3
ODSA				S	Sb	14 07 16.9	0.0
TMB07		1.64	79	S	Sb	14 07 23.8	+0.6
128A	**Castleberry Fa**	1.69	56		Pn	14 07 02.5	+0.8
128A					Sb	14 07 25.3	+0.8
128A				IAML		14 07 28.6	
	99nm,0.3s						
128A				IAML		14 07 28.8	
	72nm,0.6s						
TMB04	**Seminole**	1.69	56	P	Pn	14 07 02.7	+1.0
TMB04				S	Sb	14 07 25.3	+0.8
TMB01	**Midkiff**	1.76	90		Pn	14 07 03.8	+1.1
TMB01					Sb	14 07 27.1	+0.5
TMB01				IAML		14 07 32.7	
	30nm,0.5s						
TMB01	**Midkiff**	1.76	90	P	Pb	14 07 04.0	-0.5
TMB01				S	Sb	14 07 27.1	+0.5
TMB02	**Rankin**	1.87	105		Pb	14 07 06.1	-0.3
TMB02					Sb	14 07 29.5	-0.2
TMB02	**Rankin**	1.87	105	P	Pb	14 07 06.1	-0.3
TMB02				S	Sb	14 07 29.5	-0.2
229A	**Bryant Ranch,**	2.00	82	Pn	Pn	14 07 07.4	+1.3
229A					Sn	14 07 32.0	+0.9
229A				IAML		14 07 35.7	
	48nm,0.4s						
229A				IAML		14 07 38.9	
	35nm,0.4s						
TMB06	**Greenwood**	2.02	81	S	Sn	14 07 32.0	+0.7
129A	**Stewart Farms,**	2.15	64		Pn	14 07 08.6	+0.6
129A					Sb	14 07 39.0	+1.2
129A				IAML		14 07 40.9	
	58nm,0.5s						
129A				IAML		14 07 41.4	
	52nm,0.4s						
TMB05	**Klondike**	2.15	64	P	Pb	14 07 10.4	-0.8
TMB05				S	Sb	14 07 39.0	+1.1
TX31	**Lajitas Ar. Si**	2.38	170		Pb	14 07 14.2	-1.1
TX31					Sb	14 07 45.6	+1.0
TX31	**Lajitas Ar. Si**	2.38	170	P	Pb	14 07 14.2	-1.1
TX31				S	Sb	14 07 45.6	+1.0
TXAR	**Lajitas Array**	2.39	170		Pn	14 07 11.9	+0.6
SAND	**Sanderson**	2.45	134		Pn	14 07 13.0	+0.8
SAND				IAML		14 07 53.0	
	30nm,0.5s						
SAND				IAML		14 07 53.0	
	24nm,0.8s						
SAND				IAmb_Lg		14 07 54.6	
	comp=Z,13nm,0.9s						
MSTX	**Muleshoe**	2.55	27		Pn	14 07 14.0	+0.5
SGCY	**Sterling City**	2.58	84	IAML		14 07 52.9	
	comp=Z,31nm,0.5s						
SGCY				IAmb_Lg		14 07 56.7	
	comp=Z,18nm,0.8s						
SGCY				IAML		14 07 59.0	
	comp=Z,27nm,0.4s						
OZNA	**Ozona**	2.69	106	IAML		14 07 59.4	
	comp=Z,24nm,0.6s						
OZNA				IAmb_Lg		14 08 00.8	
	comp=Z,9.8nm,0.9s						
OZNA				IAML		14 08 03.4	
	comp=Z,26nm,0.8s						
SN07	**Snyder 07**	3.08	62	IAmb_Lg		14 08 17.4	
	comp=Z,14nm,0.8s						
121A	**Cookes Peak, D**	3.20	286	IAML		14 08 14.1	
	comp=N,19nm,0.6s						
121A				IAmb_Lg		14 08 18.8	
	comp=Z,12nm,0.9s						
121A				IAML		14 08 21.7	
	comp=E,20nm,0.6s						
Y22A	**Socorro**	3.26	314	IAML		14 08 17.7	
	comp=E,16nm,0.6s						
Y22A				IAML		14 08 18.6	
	comp=N,12nm,0.5s						
Y22A				IAmb_Lg		14 08 23.3	
	comp=Z,7.0nm,0.8s						
DKNS	**Dickens**	3.35	53	IAmb_Lg		14 08 25.3	
	comp=Z,9.2nm,0.8s						
APMT	**Aspermont**	3.77	63	IAmb_Lg		14 08 39.9	
	comp=Z,6.8nm,0.7s						
ALQ	**Albuquerque**	3.78	330	IAML		14 08 31.8	
	comp=Z,7.6nm,0.5s						
ALQ				IAML		14 08 31.9	
	comp=Z,5.7nm,0.7s						
ALQ	**Albuquerque**	3.78	330	IAmb_Lg		14 08 36.3	
	comp=Z,3.1nm,0.8s						
ALQ	**Albuquerque**	3.78	330	IAmb_Lg		14 08 31.2	
	comp=Z,3.2nm,0.8s						
ALQ				IAmb_Lg		14 08 31.2	
	comp=Z,3.3nm,0.8s						
ALQ				IAML		14 08 31.8	
	comp=Z,5.8nm,0.5s						
ALQ				IAML		14 08 31.8	
	comp=Z,4.2nm,0.7s						
TASM	**ASL Pad, Albuq**	3.78	330	IAML		14 08 31.6	
	comp=Z,4.9nm,0.4s						
TASM				IAML		14 08 31.9	
	comp=Z,9.0nm,0.7s						
TASM	**ASL Pad, Albuq**	3.78	330	IAmb_Lg		14 08 31.3	
	comp=Z,3.0nm,0.8s						
TASM				IAmb_Lg		14 08 31.3	
	comp=Z,4.0nm,1.0s						
TASM				IAML		14 08 31.9	
	comp=Z,8.1nm,0.5s						
TASM				IAML		14 08 31.9	
	comp=Z,6.5nm,0.6s						
JCT	**Junction City**	3.92	107	IAmb_Lg		14 08 41.1	
	comp=Z,11nm,0.7s						
BRDY	**Brady**	4.41	94	IAmb_Lg		14 08 58.2	
	comp=Z,8.9nm,0.8s						
WMOK	**Wichita Mounta**	5.42	55	IAmb_Lg		14 09 30.7	
	comp=Z,5.0nm,0.9s						
T25A	**Trinidad**	5.44	358	IAmb_Lg		14 09 35.4	
	comp=Z,7.8nm,1.1s						

TXNET ***14*** *14:14:42.4, 31°.3N±0°.7×103°.4W±0°.5, h3^{km}±1^{km}, ML3.2/12, Error ellipse: s-maj=1.2km s-min=0.7km az=18.1, final*

NEIC ***14*** *14:14:42.4±1.3, 31°.273N±0°.009×103°.365W±0°.006, h4^{km}±2^{km}, mb_Lg2.8/57, ML3.2/86, Error ellipse: s-maj=1.3km s-min=0.8km az=176.0*

ISC 14 14:14:42.7±0.8**, 31°.29N**±0°.01×**103°.36W**±0°.01**, h6**^{km}±5^{km}**, n107, σ0^{s}.93**/128**, 2D, Western Texas**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TPB30		0.03	106		Pg	14 14 43.5	-0.5
TPB30					Sg	14 14 44.4	-0.5
TPB30		0.03	106	⇓P	Pg	14 14 43.5	-0.5
TPB30				S	Sg	14 14 44.4	-0.5
TPB30				AML	AML		
TPB30				AML	AML		
TDG01		0.12	41	P	Pg	14 14 45.5	+0.3
TDG01				S	Sg	14 14 49.0	+2.1
TPB04	**Verhalen**	0.13	143		Pg	14 14 45.2	-0.1
TPB04					Sg	14 14 48.3	+1.1
TPB04	**Verhalen**	0.13	143	P	Pg	14 14 45.2	-0.1
TPB04				S	Sg	14 14 48.3	+1.1
TPB04				AML	AML		
TPB04				AML	AML		
TDG03		0.14	313	P	Pg	14 14 46.2	+0.5
TDG03				S	Sg	14 14 49.5	+1.8
TPB18		0.16	123		Pg	14 14 46.4	+0.4
TPB18					Sg	14 14 50.0	+1.8
TPB18		0.16	123	P	Pg	14 14 46.4	+0.4
TPB18				S	Sg	14 14 50.0	+1.8
TPB18				AML	AML		
TPB18				AML	AML		
PCOS	**Crockett Middl**	0.17	313	P	Pg	14 14 47.1	+0.9
PCOS				S	Sg	14 14 50.9	+2.3
TPB16	**Coyonosa**	0.19	150		Pg	14 14 46.8	+0.4
TPB16					Sg	14 14 51.1	+2.2
TPB16	**Coyonosa**	0.19	150	P	Pg	14 14 46.8	+0.4
TPB16				S	Sg	14 14 51.2	+2.2
TPB16				AML	AML		
TPB16				AML	AML		
LWM2	**Layne Water Mi**	0.19	264	P	Pg	14 14 46.9	+0.4
LWM2				S	Sg	14 14 50.9	+1.8
TPB19	**West of Imperi**	0.22	87		Pg	14 14 47.9	+0.8
TPB19					Sg	14 14 52.6	+2.5
TPB19	**West of Imperi**	0.22	87	P	Pg	14 14 47.9	+0.8
TPB19				S	Sg	14 14 52.6	+2.5
LWM1	**Layne Water Mi**	0.24	256	⇓P	Pg	14 14 48.2	+0.9
LWM1				S	Sg	14 14 53.0	+2.4
TPB14		0.24	132		Pg	14 14 48.3	+0.9
TPB14					Sg	14 14 52.8	+2.2
TPB14		0.24	132	P	Pg	14 14 48.3	+0.9
TPB14				S	Sg	14 14 52.8	+2.2
TPB03	**Saragosa**	0.24	213		Pg	14 14 47.9	+0.4
TPB03					Sg	14 14 52.7	+2.0
TPB03	**Saragosa**	0.24	213	P	Pg	14 14 47.9	+0.4
TPB03				S	Sg	14 14 52.7	+2.0
TPB03				AML	AML		
TPB03				AML	AML		
TPB21		0.26	78	P	Pg	14 14 48.5	+0.7
TPB21				S	Sb	14 14 53.4	-1.2
TPB21				AML	AML		
TPB21				AML	AML		
TPB10	**Southeast of T**	0.34	269		Pg	14 14 49.8	+0.5
TPB10					Sb	14 14 56.4	-0.4
TPB10	**Southeast of T**	0.34	269	P	Pg	14 14 49.8	+0.5
TPB10				S	Sb	14 14 56.4	-0.4
TPB17		0.34	148		Pg	14 14 50.1	+0.8
TPB17					Sb	14 14 56.3	-0.6
TPB17				IAML		14 15 00.6	
	2µm,0.5s						
TPB17				IAML		14 15 01.2	
	2µm,0.5s						
TPB17		0.34	148	P	Pg	14 14 50.1	+0.8
TPB17				S	Sb	14 14 56.3	-0.6
TPB05	**Hovey Rd**	0.37	175		Pg	14 14 50.2	+0.3
TPB05					Sb	14 14 57.5	-0.3
TPB05				IAML		14 15 00.0	
	3µm,0.5s						
TPB05	**Hovey Rd**	0.37	175	P	Pg	14 14 50.4	+0.5
TPB05				S	Sb	14 14 57.5	-0.3
TPB05				AML	AML		
TPB05				AML	AML		
TPB06	**Permian Basin**	0.38	19		Pg	14 14 50.7	+0.7
TPB06				IAML		14 15 01.4	
	2µm,0.4s						
TPB06	**Permian Basin**	0.38	19	P	Pg	14 14 50.9	+0.8
TPB06				AML	AML		
TPB06				AML	AML		
TPB07	**Mentone**	0.39	318		Pg	14 14 51.0	+0.7
TPB07					Sb	14 14 58.9	+0.5
TPB07	**Mentone**	0.39	318	P	Pg	14 14 51.0	+0.7
TPB07				S	Sb	14 14 58.9	+0.5
TPB07				AML	AML		
TPB07				AML	AML		
PECS	**Pecos**	0.44	281		Pg	14 14 51.4	+0.2
PECS					Sb	14 14 59.1	-0.7
PECS				IAML		14 15 01.3	
	2µm,0.4s						
PECS	**Pecos**	0.44	281	P	Pg	14 14 51.5	+0.2
PECS				S	Sb	14 14 59.1	-0.7
PECS				AML	AML		
PECS				AML	AML		
TPB13	**Reeves - Culbe**	0.49	303	S	Sb	14 15 00.3	-1.0
TPB01	**Permian Basin**	0.50	226		Pg	14 14 52.0	-0.3
TPB01					Sg	14 14 59.6	+0.8
TPB01				IAML		14 15 03.0	
	1µm,0.5s						
TPB01				IAML		14 15 06.9	
	2µm,0.3s						
TPB01	**Permian Basin**	0.50	226	P	Pg	14 14 52.2	-0.1
TPB01				S	Sg	14 14 59.6	+0.8
TPB01				AML	AML		
TPB01				AML	AML		
MNHN	**Monahans**	0.52	84		Pg	14 14 52.4	-0.2
MNHN	**Monahans**	0.52	84	P	Pg	14 14 52.5	-0.2
MNHN				S	Sb	14 15 01.2	-0.7
MNHN	**Monahans**	0.52	84		Sb	14 15 01.2	-0.7
TPB12	**Southwest of T**	0.52	262		Pg	14 14 52.8	+0.2
TPB12					Sg	14 15 00.1	+0.7
TPB12	**Southwest of T**	0.52	262	P	Pg	14 14 52.8	+0.2
TPB12				S	Sg	14 15 00.1	+0.7
TPB12				AML	AML		
TPB12				AML	AML		
TPB08	**Permian Basin**	0.56	135		Pg	14 14 53.9	+0.5
TPB08					Sb	14 15 02.5	-0.6
TPB08	**Permian Basin**	0.56	135	P	Pg	14 14 53.9	+0.5
TPB08				S	Sb	14 15 02.5	-0.6
TPB08				AML	AML		
TPB08				AML	AML		
TPB11	**China Draw**	0.86	318		Pg	14 14 58.6	-0.6
TPB11					Sb	14 15 11.4	-0.6
TPB11	**China Draw**	0.86	318	S	Sb	14 15 11.4	-0.6
TPB09	**Culberson Coun**	0.94	301		Sg	14 15 13.1	+0.2
TPB09	**Culberson Coun**	0.94	301	S	Sg	14 15 13.1	+0.2
ALPN	**Alpine**	0.94	195		Pg	14 14 59.8	-0.9
ALPN					Sg	14 15 12.7	-0.3
ALPN	**Alpine**	0.94	195	P	Pg	14 15 00.0	-0.7
ALPN				S	Sg	14 15 12.7	-0.3
TPB28		1.04	291	Pg	Pg	14 15 02.2	-0.5
TPB28				IAML		14 15 25.3	
	129nm,0.3s						
TPB28				IAML		14 15 25.5	
	112nm,0.3s						
CLNB	**Carlsbad**	1.07	336		Pg	14 15 03.1	-0.1
CLNB	**Carlsbad**	1.07	336	S	Sb	14 15 17.6	-0.2
ODSA	**Odessa**	1.08	40		Pg	14 15 02.9	-0.5
ODSA					Sg	14 15 17.7	+0.3
ODSA				IAML		14 15 32.0	
	455nm,0.8s						
ODSA	**Odessa**	1.08	40	P	Pg	14 15 03.1	-0.3
ODSA				S	Sg	14 15 17.7	+0.3
TPB29		1.09	295		Sb	14 15 18.7	+0.2
TPB29		1.09	295	S	Sb	14 15 18.7	+0.2
TMB01	**Midkiff**	1.16	71		Pg	14 15 03.7	-1.1
GDL2	**Guadalupe Moun**	1.25	317		Pg	14 15 06.0	-0.5
VHRN	**Van Horn**	1.48	251		Pn	14 15 09.6	-0.4
VHRN					Sg	14 15 30.2	-0.1
VHRN				IAML		14 15 34.6	
	255nm,0.3s						
VHRN	**Van Horn**	1.48	251	P	Pn	14 15 09.8	-0.2
VHRN				S	Sg	14 15 30.2	-0.1
229A	**Bryant Ranch,**	1.48	63		Pn	14 15 10.1	+0.1
229A					Sg	14 15 31.2	+0.8
229A				IAML		14 15 34.5	
	313nm,0.5s						
229A				IAML		14 15 34.8	
	297nm,0.5s						
TMB06	**Greenwood**	1.50	62	S	Sg	14 15 31.2	+0.4
128A	**Castleberry Fa**	1.52	29		Pn	14 15 10.4	-0.1
128A					Sg	14 15 32.2	+0.6
128A				IAML		14 15 36.1	
	229nm,0.4s						
TMB04	**Seminole**	1.52	29	S	Sg	14 15 32.2	+0.5
SAND	**Sanderson**	1.71	141		Pn	14 15 11.9	-1.1
SAND					Sb	14 15 36.7	+0.5
SAND				IAML		14 15 41.6	
	189nm,0.7s						
SAND	**Sanderson**	1.71	141	P	Pb	14 15 13.7	-0.8
SAND				S	Sb	14 15 36.7	+0.5
MNTX	**Cornudas Mount**	1.77	284		Pn	14 15 14.0	+0.1
MNTX				IAmb_Lg		14 15 42.2	
	comp=Z,46nm,0.8s						
MNTX				IAML		14 15 43.5	
	comp=Z,142nm,0.6s						
MNTX				IAML		14 15 43.5	
	comp=Z,234nm,0.5s						
129A	**Stewart Farms,**	1.84	43		Pn	14 15 15.0	0.0
129A					Sg	14 15 41.8	-0.2
129A				IAML		14 15 45.1	
	comp=Z,161nm,0.4s						
129A				IAML		14 15 47.7	
	comp=Z,146nm,0.4s						
TMB05	**Klondike**	1.84	43	S	Sg	14 15 41.8	-0.2
OZNA	**Ozona**	1.95	100		Pb	14 15 17.9	-0.7
OZNA				IAML		14 15 45.3	
	comp=Z,221nm,0.3s						
OZNA				IAML		14 15 49.1	
	comp=Z,155nm,0.7s						
OZNA	**Ozona**	1.95	100	P	Pb	14 15 17.9	-0.7
TX31	**Lajitas Ar. Si**	1.97	188		Pn	14 15 15.8	-0.9
TX31					Sb	14 15 43.8	+0.1
TX31	**Lajitas Ar. Si**	1.97	188	P	Pn	14 15 17.6	+0.9
TX31				S	Sb	14 15 43.8	+0.1
TXAR	**Lajitas Array**	1.97	188		Pn	14 15 16.8	+0.1
SGCY	**Sterling City**	2.01	71	Pn	Pn	14 15 17.6	+0.5
SGCY				IAML		14 15 48.5	
	comp=Z,264nm,0.4s						
SGCY				IAML		14 15 48.5	
	comp=Z,212nm,0.8s						
SGCY	**Sterling City**	2.01	71	P	Pn	14 15 18.3	+1.2
POST	**Post**	2.37	41		Pn	14 15 22.8	+0.6
POST				IAML		14 15 59.0	
	comp=Z,136nm,0.6s						
POST				IAmb_Lg		14 15 60.0	

	comp=Z,27nm,0.7s						
POST				IAML		14 16 01.6	
	comp=Z,156nm,0.3s						
MSTX	**Muleshoe**	2.72	10		Pn	14 15 27.5	+0.5
MSTX				IAML		14 16 10.9	
	comp=Z,144nm,0.3s						
JCT	**Junction City**	3.16	104	IAmb_Lg		14 16 22.5	
	comp=Z,17nm,0.7s						
JCT				IAML		14 16 28.4	
	comp=Z,89nm,0.6s						
JCT				IAML		14 16 36.6	
	comp=Z,99nm,0.5s						
APMT	**Aspermont**	3.41	53	IAmb_Lg		14 16 37.6	
	comp=Z,34nm,0.8s						
ABTX	**Abilene, Hawle**	3.43	66	IAML		14 16 41.0	
	comp=Z,81nm,0.5s						
BRDY	**Brady**	3.73	89	IAML		14 16 46.0	
	comp=Z,72nm,0.3s						
BRDY				IAML		14 16 54.0	
	comp=Z,52nm,0.6s						
AMTX	**Amarillo**	3.85	21	IAmb_Lg		14 16 54.4	
	comp=Z,37nm,0.7s						
HNDO	**Hondo**	3.94	115	IAML		14 16 53.4	
	comp=Z,53nm,0.7s						
121A	**Cookes Peak, D**	3.96	289	IAmb_Lg		14 16 56.0	
	comp=Z,36nm,1.0s						
121A				IAML		14 16 58.1	
	comp=E,34nm,0.5s						
121A				IAML		14 17 00.2	
	comp=N,34nm,1.2s						
Y22A	**Socorro**	4.03	312	IAmb_Lg		14 16 55.6	
	comp=Z,19nm,0.7s						
Y22A				IAML		14 16 56.7	
	comp=E,41nm,0.6s						
Y22A				IAML		14 16 57.4	
	comp=N,27nm,0.7s						
PH02	**Texas Public H**	4.26	16	IAmb_Lg		14 17 03.2	
	comp=Z,27nm,0.8s						
ALQ	**Albuquerque**	4.47	325	IAML		14 17 04.9	
	comp=Z,16nm,0.6s						
ALQ				IAML		14 17 06.1	
	comp=Z,19nm,0.4s						
ALQ	**Albuquerque**	4.47	325	IAML		14 17 04.8	
	comp=Z,12nm,0.6s						
ALQ				IAML		14 17 06.1	
	comp=Z,14nm,0.4s						
ALQ				IAmb_Lg		14 17 12.8	
	comp=Z,10nm,0.7s						
ALQ				IAmb_Lg		14 17 12.8	
	comp=Z,10nm,0.7s						
ALQ	**Albuquerque**	4.47	325	IAmb_Lg		14 17 10.0	
	comp=Z,12nm,0.7s						
ANMO	**Albuquerque**	4.48	325	IAmb_Lg		14 17 07.2	
	comp=Z,12nm,0.7s						
TASM	**ASL Pad, Albuq**	4.48	325	IAML		14 17 04.6	
	comp=Z,14nm,0.6s						
TASM				IAML		14 17 06.2	
	comp=Z,19nm,0.5s						
TASM	**ASL Pad, Albuq**	4.48	325	IAML		14 17 04.4	
	comp=Z,15nm,0.5s						
TASM				IAML		14 17 07.4	
	comp=Z,18nm,0.7s						
TASM				IAmb_Lg		14 17 10.9	
	comp=Z,8.4nm,0.8s						
TASM				IAmb_Lg		14 17 11.0	
	comp=Z,8.7nm,0.8s						
833A	**Chaparral WMA,**	4.54	130	IAmb_Lg		14 17 18.3	
	comp=Z,23nm,0.7s						
PLPT	**Palo Pinto**	4.54	69	IAmb_Lg		14 17 11.0	
	comp=Z,28nm,0.9s						
SMWD	**Samnorwood**	4.62	34	IAmb_Lg		14 17 22.3	
	comp=Z,27nm,0.8s						
HPIG		4.78	205	IAmb_Lg		14 17 19.1	
	comp=Z,12nm,0.7s						
FW13	**Cleburne**	5.16	77	IAmb_Lg		14 17 34.3	
	comp=Z,17nm,0.8s						
WMOK	**Wichita Mounta**	5.16	47	IAML		14 17 28.9	
	comp=Z,17nm,0.7s						
WMOK				IAmb_Lg		14 17 39.4	
	comp=Z,14nm,0.9s						
WMOK				IAML		14 17 42.9	
	comp=Z,22nm,0.8s						
RTBA	**Rita Blanca**	5.16	6	IAmb_Lg		14 17 41.0	
	comp=Z,22nm,1.3s						
FW06	**Azle**	5.20	70	IAmb_Lg		14 17 38.3	
	comp=Z,26nm,0.9s						
T25A	**Trinidad**	5.90	352	IAmb_Lg		14 17 59.7	
	comp=Z,20nm,1.1s						
OK038	**West end E0370**	6.44	35	IAmb_Lg		14 18 17.5	
	comp=Z,13nm,0.7s						
SDCO	**Great Sand Dun**	6.68	345	IAmb_Lg		14 18 26.3	
	comp=Z,6.8nm,0.9s						
PV12	**Saucer Basin,**	8.31	329	IAmb_Lg		14 19 19.8	
	comp=Z,8.6nm,1.2s						
PV04	**Paradox Valley**	8.42	329	IAmb_Lg		14 19 09.3	
	comp=Z,7.7nm,1.2s						
U38A	**Gravette**	9.06	53	IAmb_Lg		14 19 43.3	
	comp=Z,8.7nm,1.1s						
HHAR	**Hobbs**	9.29	55	IAmb_Lg		14 19 45.8	
	comp=Z,5.3nm,0.8s						

TEH ***14*** *14:20:16.5, 38.°28N×45.°34E, h16^{km}±125^{km}, ML2.6, Presumed earthquake*

AZER ***14*** *14:20:17.2, 38.°36N×45.°44E, h20^{km}, ml2.3*

ISC 14 14:20:16.7±1.5**, 38.°29N**±0.°06×**45.°38E**±0.°08**, h10**^{km}**, n9, σ1^{s}38**/14**, Iran-Armenia-Azerbaijan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ISHB	**Shabestar**	0.18	93	Pg	**Pg**	14 20 22.8	+2.0
IMRD	**Marand**	0.49	31	Pg	**Pb**	14 20 27.3	-0.3
IMRD				Sg	**Sb**	14 20 34.7	-0.2
IAZR	**Azarshahr**	0.77	142	Pg	**Pb**	14 20 31.8	-0.7
ORD	**Ordubad**	0.80	37	P	**Pn**	14 20 32.6	-1.5
ORD				S	**Sn**	14 20 44.1	-2.0
NAX	**Nakhchivan**	0.89	6	P	**Pn**	14 20 34.8	-0.5
NAX				S	**Sn**	14 20 47.3	-1.0
SBZ	**Shahbuz**	1.11	7	P	**Pn**	14 20 38.7	+0.2
SBZ				S	**Sn**	14 20 54.1	+0.2
IHRS	**Heris**	1.31	88	Pg	**Pg**	14 20 42.1	+0.3
HYR	**Heyderabad**	1.48	344	P	**Pg**	14 20 44.9	-0.3
HYR				S	**Sg**	14 21 07.5	+3.0
IHSH	**Hashtrud**	1.79	123	Pn	**Pb**	14 20 49.4	-0.3

GFZ ***14*** *14:29:24.6±0.8, 14°N±4°×9°2W±°, h132^{km}±6^{km}, M4.7/8, mb4.6/8, Error ellipse: s-maj=16.6km s-min=7.6km az=71.5, confirmed*

SNET ***14*** *14:29:26.0±0.8, 14.°42N×91.°15W, h147^{km}±6^{km}, ML5.1, Presumed earthquake*

NEIC ***14*** *14:29:28.4±1.8, 14.°41N±0.°07×91.°10W±0.°01, h137^{km}±4^{km}, mb4.6/87, Error ellipse: s-maj=10.4km s-min=1.2km az=183.0*

CATAC ***14*** *14:29:28.5±0.2, 14°N±3°×9°1W±°, h131^{km}±2^{km}, M5.3/50, mb5.6/18, mB5.8/15, MLv4.8/50, Mw(mB)5.4/15, Error ellipse: s-maj=6.2km s-min=2.3km az=29.5, confirmed*

GCG ***14*** *14:29:29.2±2.1, 14.°50N×91.°03W, h118^{km}±8^{km}, MD5.0, ML5.0, Presumed earthquake*

IDC ***14*** *14:29:30.0±0.7, 14.°73N×90.°60W, h148^{km}±3^{km}, mb3.8/10, mbtmp4.3/13, MS3.2/5, Error ellipse: s-maj=24.4km s-min=13.0km az=50.0*

RSNC ***14*** *14:29:35.7±0.7, 15°N±3°×9°0W±°, h157^{km}±5^{km}, M4.7, mB5.2, mb4.7, ML4.2, Mw(mB)4.6*

UCR ***14*** *14:30:33.5±0.3, 11.°95N×86.°75W, h15^{km}±212^{km}, MW3.8, MB4.6(NEIC), Presumed earthquake*

ISC 14 14:29:27.6±0.6**, 14.°43N**±0.°04×**91.°04W**±0.°04**, h136**^{km}±5^{km}**, n287, σ1^{s}64**/316**, mb4.6**/44**, 5C-3D, Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STG8	**El Palmar, Qui**	0.30	275	*i* P	**Pn**	14 29 48.2	+1.4
GCG4	**OSOP**	0.52	72	*i* P	**Pn**	14 29 48.4	+0.8
SOKI	**Kika Raxquin**	0.53	318	*i* P	**Pn**	14 29 48.5	+0.5
SOKI				*i* S	**Sn**	14 30 03.5	+0.1
SOKI				IAML		14 30 08.9	
	comp=N,30µm,1.0s						
FG16	**Alotenango, Sa**	0.53	106	*i* P	**Pn**	14 29 46.5	-1.3
FG16				*i* S	**Sn**	14 30 00.5	-2.5
RTAL	**Retalhuleu**	0.64	279		**Pn**	14 29 48.2	+0.1
RTAL				Sn	**Sn**	14 30 02.6	-1.2
RTAL	**Retalhuleu**	0.64	279	⇑*e*P	**Pn**	14 29 48.2	+0.1
RTAL				*e*S	**Sn**	14 30 03.8	+0.1
RTAL	**Retalhuleu**	0.64	279	P	**Pn**	14 29 48.3	+0.1
RTAL				S	**Sn**	14 30 04.5	+0.7
PCG5	**San Vicente Pa**	0.68	108	*i* P	**Pn**	14 29 47.2	-1.4
PCG5				*i* S	**Sn**	14 29 59.8	-4.7
APG	**El Apazote**	0.80	44	P	**Pn**	14 29 50.5	+0.9
	comp=N,462nm,0.4s,baz=164,slow=10,SNR=4945						
APG				S	**Sn**	14 30 07.7	+1.4
	comp=N,112nm,0.5s,baz=79,slow=18,SNR=11						
APG	**El Apazote**	0.80	44	*i* P	**Pn**	14 29 50.6	+0.9
APG				*i* S	**Sn**	14 30 05.2	-1.1
HUEH	**Huehuetenango**	0.99	333		**Pn**	14 29 52.1	+0.9
HUEH	**Huehuetenango**	0.99	333	*i* P	**Pn**	14 29 52.3	+1.1
HUEH				*i* S	**Sn**	14 30 07.4	-1.8
HUEH				IAML		14 30 11.5	
	comp=N,29µm,0.6s						
HUEH	**Huehuetenango**	0.99	333	*e*P	**Pn**	14 29 52.2	+0.9
HUEH				*e*S	**Sn**	14 30 10.0	+0.8
HUEH	**Huehuetenango**	0.99	333	P	**Pn**	14 29 52.3	+1.1
HUEH				S	**Sn**	14 30 10.7	+1.5
SMCA	**Catarina**	1.09	293	*i* P	**Pn**	14 29 51.8	-0.1
FAME	**Alcaldia de Sa**	1.15	120	P	**Pn**	14 29 52.8	+0.4
FAME				S	**Sn**	14 30 11.8	+0.4
SLOZ	**Alcaldia de Sa**	1.28	108	*e*P	**Pn**	14 29 54.3	+0.5
SLOZ	**Alcaldia de Sa**	1.28	108	P	**Pn**	14 29 54.5	+0.7
THIG		1.28	292	*i* P	**Pn**	14 29 54.3	+0.6
THIG				*i* S	**Sn**	14 30 13.2	-0.5
JUAM	**Asuncion Mita**	1.29	94	*i* P	**Pn**	14 29 54.8	+0.9
JUAM				*i* S	**Sn**	14 30 14.2	+0.2
JUAM				IAML		14 30 17.0	
	comp=N,9µm,0.8s						
NUBE	**Las Nubes**	1.33	113	*i* P	**Pn**	14 29 55.1	+0.7
NUBE				*i* S	**Sn**	14 30 13.0	-1.8
NUBE	**Las Nubes**	1.33	113	⇓*i*P	**Pn**	14 29 55.1	+0.7
NUBE	**Las Nubes**	1.33	113	P	**Pn**	14 29 55.2	+0.7
NUBE				S	**Sn**	14 30 15.8	+1.0
RBDL	**Robledal**	1.35	103	⇓*i*P	**Pn**	14 29 55.4	+0.7
RTR	**El Retiro**	1.45	111	*e*P	**Pn**	14 29 56.7	+0.9
SBLS	**San Blas**	1.49	113	*e*P	**Pn**	14 29 57.4	+1.2
CEVE	**Cerro Verde**	1.50	113	*e*P	**Pn**	14 29 57.3	+1.0
CEVE	**Cerro Verde**	1.50	113	P	**Pn**	14 29 57.2	+0.8
SNJE	**San Jose**	1.50	112	*e*P	**Pn**	14 29 57.1	+0.8
UNIC	**Universidad Ca**	1.51	107	P	**Pn**	14 29 57.0	+0.7
UNIC				S	**Sn**	14 30 19.2	+1.0
ZAFR2	**Estanzuela, Za**	1.64	84	⇓*i*P	**Pn**	14 29 57.4	-0.3
ESQI	**Esquipulas**	1.65	85		**Pn**	14 29 59.0	+1.2
ESQI	**Esquipulas**	1.65	85	*e*P	**Pn**	14 29 58.8	+0.9
ESQI	**Esquipulas**	1.65	85	P	**Pn**	14 29 59.3	+1.4
ESQI				S	**Sn**	14 30 23.1	+2.1
CEDA	**San Andres**	1.71	111	P	**Pn**	14 29 59.7	+1.1
CEDA				S	**Sn**	14 30 23.8	+1.6
JAYA	**Jayaque - finc**	1.72	116	*i* P	**Pn**	14 29 59.5	+0.7
JAYA				IAML		14 30 33.7	
	comp=N,9µm,0.3s						
JAYA	**Jayaque - finc**	1.72	116	*e*P	**Pn**	14 29 59.5	+0.7
JAYA	**Jayaque - finc**	1.72	116	P	**Pn**	14 29 59.6	+0.7
JAYA				S	**Sn**	14 30 23.0	+0.4
PMON	**Piamonte**	1.82	113	*e*P	**Pn**	14 30 00.8	+0.9
PMON	**Piamonte**	1.82	113	P	**Pn**	14 30 00.9	+1.1
PMON				S	**Sn**	14 30 25.8	+1.3
BOQS	**Boqueron**	1.84	112	*e*P	**Pn**	14 30 01.1	+0.9
UEES	**Universidad Ev**	1.88	112	*e*P	**Pn**	14 30 01.6	+1.0
UEES	**Universidad Ev**	1.88	112	P	**Pn**	14 30 01.6	+1.0
UEES				S	**Sn**	14 30 28.5	+2.7
SEMO	**Seminario San**	1.90	112	P	**Pn**	14 30 01.8	+1.0
SEMO				S	**Sn**	14 30 28.1	+2.0
LALI	**Alcalda de L**	1.91	119	*e*P	**Pn**	14 30 01.9	+1.1
LALI	**Alcalda de L**	1.91	119	P	**Pn**	14 30 02.0	+1.2
LALI				S	**Sn**	14 30 27.1	+0.8
LOMA	**Loma Larga**	1.97	113	*e*P	**Pn**	14 30 02.4	+0.7
LOMA	**Loma Larga**	1.97	113	P	**Pn**	14 30 02.7	+1.0
LOMA				S	**Sn**	14 30 31.1	+3.3
PANCS	**Alcalda de**	1.98	114	S	**Sn**	14 30 30.5	+2.7
LFU	**La Fuente**	1.98	110	*e*P	**Pn**	14 30 02.8	+1.0
LLGN	**La Laguna**	2.05	97	P	**Pn**	14 30 03.4	+0.8
LFRS	**El Faro**	2.08	112	*e*P	**Pn**	14 30 03.6	+0.7
SJTE	**Alcalda de S**	2.13	112	*e*P	**Pn**	14 30 04.3	+0.8
PAVA	**Las Pavas**	2.16	109	⇑*e*P	**Pn**	14 30 05.0	+1.1
PAVA	**Las Pavas**	2.16	109	P	**Pn**	14 30 05.2	+1.2
PAVA				S	**Sn**	14 30 33.2	+1.4
SARH	**Santa Rosa de**	2.23	81	⇑*i*P	**Pn**	14 30 06.6	+1.8
SARH				*i* S	**Sn**	14 30 32.0	-1.3
SARH	**Santa Rosa de**	2.23	81	P	**Pn**	14 30 06.8	+2.0
SARH				S	**Sn**	14 30 36.4	+3.0
P5NO	**Presa 5 de nov**	2.25	101	P	**Pn**	14 30 05.6	+0.6
P5NO				S	**Sn**	14 30 35.0	+1.3
SCLA	**Alcaldia de Sa**	2.35	108	P	**Pn**	14 30 07.8	+1.6
SCLA				S	**Sn**	14 30 38.3	+2.4
TECO	**Alcaldia de Te**	2.36	112	P	**Pn**	14 30 07.6	+1.2
TECO				S	**Sn**	14 30 37.0	+0.8
PQSS	**Presa 15 de Se**	2.53	108	P	**Pn**	14 30 09.7	+1.2
TECA	**Tecapa**	2.63	110	*e*P	**Pn**	14 30 10.8	+0.9
ALJI	**Alcalda de J**	2.63	114	P	**Pn**	14 30 11.1	+1.4
ALJI				S	**Sn**	14 30 43.6	+1.4
PACA	**Pacayal**	2.80	110	*e*P	**Pn**	14 30 12.8	+0.8
PACA	**Pacayal**	2.80	110	P	**Pn**	14 30 13.3	+1.3
PACA				S	**Sn**	14 30 48.6	+2.4
RANC	**El Ranchito**	2.85	110	P	**Pn**	14 30 11.9	-0.7
TGIG		3.08	320	*i* P	**Pn**	14 30 15.1	-0.5
LCND	**La Caada**	3.25	110	P	**Pn**	14 30 19.1	+1.4
CNCH	**Conchagua**	3.32	110	⇑*e*P	**Pn**	14 30 19.5	+0.8
CNCH	**Conchagua**	3.32	110	P	**Pn**	14 30 19.7	+1.0
CNCH				S	**Sn**	14 30 59.8	+1.7
TGUH	**Tegucigalpa,Un**	3.67	95		**Pn**	14 30 24.0	+0.7
TGUH	**Tegucigalpa,Un**	3.67	95	P	**Pn**	14 30 24.2	+0.9
TGUH				S	**Sn**	14 31 07.6	+1.2
TGUH	**Tegucigalpa,Un**	3.67	95	P	**Pn**	14 30 24.3	+1.1
TGUH	**Tegucigalpa,Un**	3.67	95	P	**Pn**	14 30 24.4	+1.1
CRIN	**San Cristobal**	4.24	113		**Pn**	14 30 32.6	+1.9
CRIN	**San Cristobal**	4.24	113	P	**Pn**	14 30 32.9	+2.2
CRIN				S	**Sn**	14 31 17.7	-2.1
CRIN	**San Cristobal**	4.24	113	P	**Pn**	14 30 32.7	+1.9
CRIN				S	**Sn**	14 31 19.9	+0.1
CRIN	**San Cristobal**	4.24	113	P	**Pn**	14 30 33.0	+2.2
SCIG	**Sabancuy**	4.52	358	P	**Pn**	14 30 34.3	-0.1
PLRN	**Geotermica Pol**	4.54	113	P	**Pn**	14 30 36.0	+1.3
PLRN				S	**Sn**	14 31 25.1	-1.7
CMIG	**Matias Romero**	4.55	306	P	**Pn**	14 30 35.1	+0.2
	comp=N,83nm,0.4s,baz=127,slow=11,SNR=144						
CMIG				S	**Sn**	14 31 22.8	-4.4
	comp=N,144nm,0.5s,baz=33,slow=16,SNR=9.4						
AESN	**El Sauce Leon**	4.63	109	P	**Pn**	14 30 34.4	-1.5
CNGN	**Cerro Negro**	4.64	114	P	**Pn**	14 30 36.3	+0.3
CNGN				S	**Sn**	14 31 25.5	-3.7
CNGN	**Cerro Negro**	4.64	114	P	**Pn**	14 30 37.1	+1.1
CNGN				S	**Sn**	14 31 27.5	-1.6
CNGN	**Cerro Negro**	4.64	114	P	**Pn**	14 30 37.2	+1.2
	comp=Z,5µm,0.6s						
LIMN	**Finca el Limon**	4.74	106	P	**Pn**	14 30 38.6	+1.2
LEVN	**Ruinas Leon Vi**	4.75	115	P	**Pn**	14 30 38.6	+1.1
LEVN				S	**Sn**	14 31 29.7	-2.1
RCVN	**Varillal2**	4.78	100	P	**Pn**	14 30 38.9	+1.0
MOMN	**Momotombo**	4.81	114	P	**Pn**	14 30 40.3	+1.9
MOMN				S	**Sn**	14 31 31.1	-2.4
MOM2	**El Cardon**	4.85	114	P	**Pn**	14 30 40.1	+1.2
MOM2				S	**Sn**	14 31 32.6	-1.6
COPN	**Copaltepe**	4.87	117	P	**Pn**	14 30 40.2	+1.1
COPN	**Copaltepe**	4.87	117	*e*P	**Pn**	14 30 39.5	+0.5
TISN	**Laguna Tiscapa**	5.17	115	P	**Pn**	14 30 43.9	+0.8
UNAN	**Cigeo UNAN**	5.18	116	P	**Pn**	14 30 45.0	+1.7
UNAN				S	**Sn**	14 31 39.3	-2.9
MGAN	**Managua**	5.18	115		**Pn**	14 30 44.7	+1.5
MGAN	**Managua**	5.18	115	P	**Pn**	14 30 45.0	+1.7
MGAN				S	**Sn**	14 31 38.2	-4.1
MGAN	**Managua**	5.18	115	P	**Pn**	14 30 45.3	+2.0
	comp=Z,399nm,0.7s						
MATN	**Matagalpa**	5.19	106	P	**Pn**	14 30 44.5	+1.1
WILN	**Americas 2**	5.23	115	P	**Pn**	14 30 45.5	+1.6
WILN				S	**Sn**	14 31 40.9	-2.4
MAS3	**Al N del Volca**	5.30	116	P	**Pn**	14 30 46.3	+1.4
MAS3				S	**Sn**	14 31 42.2	-2.9
MASN	**Masaya**	5.34	116	P	**Pn**	14 30 47.0	+1.5
SABN	**Sabanita**	5.35	117	P	**Pn**	14 30 47.0	+1.6
NANN	**Nandasmo**	5.39	117	P	**Pn**	14 30 48.4	+2.4
NANN				S	**Sn**	14 31 44.6	-2.6
BOAB	**BOACO BROADBAN**	5.58	110		**Pn**	14 30 49.4	+0.8
BOAB	**BOACO BROADBAN**	5.58	110	P	**Pn**	14 30 49.6	+1.0
BOAB	**BOACO BROADBAN**	5.58	110	P	**Pn**	14 30 49.8	+1.2
	comp=Z,296nm,0.5s						
SIUN	**Universidad Ur**	6.12	96		**Pn**	14 30 56.7	+0.9
ACON	**Acoyapa**	6.21	112	P	**Pn**	14 30 58.0	+0.9
LCRUZ	**La Cruz**	6.24	122	*e*P	**Pn**	14 30 58.9	+1.5
CARN	**Rivas**	6.27	120		**Pn**	14 30 59.0	+1.2
CARN	**Rivas**	6.27	120	P	**Pn**	14 30 59.2	+1.4
CARN	**Rivas**	6.27	120	*e*P	**Pn**	14 30 59.1	+1.2
TEIG	**Tepich**	6.34	24		**Pn**	14 30 59.1	+0.3
TEIG	**Tepich**	6.34	24	P	**Pn**	14 30 58.5	-0.3
	comp=Z,2µmcomp=Z,278nm,0.7s						
TEIG				S	**Sn**	14 32 06.3	-3.7
	comp=Z,2µmcomp=Z,278nm,0.7s						
TEIG				AML	AML		
TEIG	**Tepich**	6.34	24	P	**Pn**	14 30 59.4	+0.7
TEIG				S	**Sn**	14 32 07.8	-2.3
TEIG	**Tepich**	6.34	24	P	**Pn**	14 30 59.5	+0.7
	comp=Z,286nm,0.7s						
LAPC	**Finca la Perla**	6.57	123	*e*P	**Pn**	14 31 03.5	+1.6
ALIBA	**Liberia Airpor**	6.58	125	*e*P	**Pn**	14 31 04.9	+2.9
BUAI	**Buenos Aires**	6.59	122	*e*P	**Pn**	14 31 04.0	+1.8
PEJA	**Penjamo Buenos**	6.60	121	*e*P	**Pn**	14 31 04.1	+1.8
VRLE	**La Escondida,**	6.61	122	*e*P	**Pn**	14 31 04.3	+1.8
GPS3	**Bodega del ICE**	6.63	123	*e*P	**Pn**	14 31 07.0	+4.3
GPS2	**Hotel Rincn d**	6.64	123	*e*P	**Pn**	14 31 04.9	+1.9
CLARA	**Aguas Claras**	6.77	122	*e*P	**Pn**	14 31 06.3	+1.6
MESS	**Mesas**	6.78	122	*e*P	**Pn**	14 31 06.2	+1.5
VMAR	**Armenia, Volca**	6.81	121	*e*P	**Pn**	14 31 06.5	+1.4
HORNC	**Hornillas**	6.81	122	*e*P	**Pn**	14 31 06.8	+1.7
JUD3	**Juan Diaz 3**	6.84	128		**Pn**	14 31 07.3	+1.7
JUD3	**Juan Diaz 3**	6.84	128	*e*P	**Pn**	14 31 07.8	+2.2
CUI	**Cuipilapa**	6.85	122	*e*P	**Pn**	14 31 07.6	+2.0
TENO	**El Achiote**	6.98	121	*e*P	**Pn**	14 31 09.2	+1.7
TIMP	**Tierras Morena**	7.01	122	*e*P	**Pn**	14 31 09.7	+1.8
CMARA	**Lajas Hojancha**	7.02	128	P	**Pn**	14 31 10.3	+2.3
CMARA				S	**Sn**	14 32 21.8	-4.8
QUEB	**Quebradon, Cot**	7.09	122	*e*P	**Pn**	14 31 10.5	+1.6
CHIK	**Chiripa**	7.18	123	*e*P	**Pn**	14 31 12.2	+2.1
JTS	**Las Juntas de**	7.23	124	P	**Pn**	14 31 12.3	+1.6
	comp=Z,114nm,0.4s,baz=324,slow=4.9,SNR=108						
JTS				S	**Sn**	14 32 26.1	-5.4
	comp=Z,32nm,0.3s,baz=276,slow=15,SNR=4.1						
JTS				LR	LR	14 33 41.7	
	comp=Z,79nm,20.0s,baz=243,slow=36						
JTS	**Las Juntas de**	7.23	124		**Pn**	14 31 11.8	+1.0
JTS	**Las Juntas de**	7.23	124	P	**Pn**	14 31 12.1	+1.3
JTS				S	**Sn**	14 32 25.3	-6.2
JTS	**Las Juntas de**	7.23	124	P	**Pn**	14 31 12.1	+1.3
JTS	**Las Juntas de**	7.23	124	*e*P	**Pn**	14 31 12.0	+1.3
JTS	**Las Juntas de**	7.23	124	P	**Pn**	14 31 12.2	+1.3
	comp=Z,174nm,0.8s						
CEDE	**Laguna Cedeo**	7.32	122	*e*P	**Pn**	14 31 14.1	+2.0
ARE1	**Arenal 1**	7.32	122	*e*P	**Pn**	14 31 13.4	+1.4
VARE2	**V. Arenal**	7.32	122	*e*P	**Pn**	14 31 14.4	+2.3
VACR	**Volcan Arenal**	7.35	122	*e*P	**Pn**	14 31 14.2	+1.8
VPS8	**V Poas**	7.87	122	*e*P	**Pn**	14 31 22.2	+2.5
TLIG	**Tlapa**	7.88	294		**Pn**	14 31 20.8	+1.2
TLIG	**Tlapa**	7.88	294	P	**Pn**	14 31 21.0	+1.4
HDC	**Heredia**	8.07	122	P	**Pn**	14 31 24.2	+2.1
	comp=Z,188nm,0.7s						
PICV	**PH. Pirrs**	8.22	125	*e*P	**Pn**	14 31 26.4	+2.3
ABE2	**San Pablo**	8.29	124	*e*P	**Pn**	14 31 27.1	+1.9
LCR2	**La Lucha 2**	8.30	123		**Pn**	14 31 26.6	+1.2
LCR2	**La Lucha 2**	8.30	123	P	**Pn**	14 31 26.9	+1.5
LCR2	**La Lucha 2**	8.30	123	*e*P	**Pn**	14 31 26.9	+1.5
PIEC	**Cerro El Cedra**	8.41	124	*e*P	**Pn**	14 31 29.4	+2.5
BUS1	**Rivas**	8.62	123	*e*P	**Pn**	14 31 31.7	+1.9
OCHAL	**Ojochal**	8.97	125	P	**Pn**	14 31 36.2	+2.1
EDPE	**Pejibaye, P**	8.99	125	*e*P	**Pn**	14 31 37.2	+2.8
EDP2	**Potrero Grande**	9.39	124	*e*P	**Pn**	14 31 42.7	+2.9
PRVC	**Isla de Provid**	9.45	95	P	**Pn**	14 31 39.3	-1.3
	comp=Z,55nm,1.1s						
PRVC				S	Sn	14 33 14.8	-10
	comp=Z,55nm,1.1s						
PIRO	**Carate, Puerto**	9.63	128	P	**Pn**	14 31 47.0	+4.0
BRU2	**Volcan**	9.91	123	⇑*i*P	**Pn**	14 31 48.4	+1.5
BRU2				*e*S		14 31 57.8	
CLLRA	**Cordillera,**	10.00	123	*e*P	**Pn**	14 31 46.4	-1.7
CLLRA				*e*S		14 31 49.9	
BQTLY	**Boquete Panama**	10.11	123	*e*S		14 31 51.6	
LMNES	**Limones**	10.19	127	*e*P	**Pn**	14 31 54.4	+4.0
RBALA	**Bur**	10.30	121	*e*P	**Pn**	14 31 52.8	+0.8
CACAO	**El Cacao, Vera**	12.22	124	P	**Pn**	14 32 19.2	+1.9
	comp=Z,65nm,0.8s						
MTDJ	**Mount Denham**	13.50	72		**P**	14 32 40.4	+2.1
MTDJ	**Mount Denham**	13.50	72	P	**P**	14 32 39.6	+1.2
	comp=Z,132nm,0.8s						
CAIB	**Caibarien**	13.59	52	Pn	**Pn**	14 32 36.5	+1.6
CHIV	**Chivirico**	15.02	66	Pn	**P**	14 32 54.3	-0.7
CHIV				IAmb	IAmb	14 32 58.8	
	comp=Z,25nm,0.9s						
SJCC	**San Jacinto, C**	16.14	104	P	**Pn**	14 33 06.5	-0.5
	comp=Z,734nmcomp=Z,90nm,1.1s						
SJCC	**San Jacinto, C**	16.14	104	P	**Pn**	14 33 06.5	-0.5
GTBY	**Guantanamo Bay**	16.17	68	P	**P**	14 33 09.6	+1.8
	comp=Z,62nm,1.0s						
NMDO	**Nuevo Mundo**	16.48	66	IAmb	IAmb	14 33 16.1	
	comp=Z,50nm,1.1s						
HELC	**Santa Helena**	17.30	117	P	**P**	14 33 20.7	-0.1
	comp=Z,24nm,1.0s						
PTBC	**PUERTO BERRIO,**	18.08	114	P	**P**	14 33 27.7	-1.2
	comp=Z,31nm,0.9s						
BBAC	**Balboa, Cauca**	18.37	131	P	**Pn**	14 33 36.1	+2.1
	comp=Z,35nm,0.7s						
POPC	**Popayan, Colom**	18.45	128	P	**Pn**	14 33 36.7	+1.7
	comp=Z,656nmcomp=Z,64nm,0.9s						
URIC	**Uribia, Colomb**	18.75	96	P	**P**	14 33 35.5	-0.7
	comp=Z,18nm,1.0s						
ORTC	**Ortega, Tolima**	18.75	122	P	**Pn**	14 33 38.1	-0.2
	comp=Z,771nmcomp=Z,77nm,0.8s						
SPBC	**San Pablo de B**	18.83	116	P	**P**	14 33 37.0	-0.2
	comp=Z,2µmcomp=Z,12nm,0.5s						
TXAR	**Lajitas Array**	18.88	324	P	**Pn**	14 33 40.0	+0.3
	comp=Z,1.0nm,0.9s,baz=147,slow=12,SNR=7.0						
LRAL	**Lakeview Retre**	18.89	11		**Pn**	14 33 40.0	+0.4
CRUC	**La Cruz**	18.89	131	P	**Pn**	14 33 40.3	0.0
ROSC	**El Rosal**	19.02	118	P	**P**	14 33 39.3	-0.3
	comp=Z,13nm,0.5s,baz=273,slow=18,SNR=7.0						
ROSC	**El Rosal**	19.02	118	P	**Pn**	14 33 41.2	-0.6
ROSC				IAmb	IAmb	14 33 46.5	
	comp=Z,34nm,1.0s						
152A	**Waverly Hall**	19.05	17	P	**Pn**	14 33 41.6	0.0
152A				IAmb	IAmb	14 33 42.5	
	comp=Z,24nm,0.9s						
PRAC	**Prado**	19.16	122	P	**P**	14 33 41.7	+1.0
	comp=Z,27nm,0.7s						
BETC	**Betania**	19.32	126	P	**Pn**	14 33 45.5	+0.6
PAMC	**Pamplona, Colo**	19.33	109	P	**P**	14 33 42.1	-0.9
SDDR	**Presa de Saban**	19.45	74	IAmb	IAmb	14 33 53.4	
	comp=Z,23nm,0.8s						
SDDR	**Presa de Saban**	19.45	74	P	**Pn**	14 33 45.8	-0.6
	comp=Z,33nm,0.8s						
SDDR	**Presa de Saban**	19.45	74	P	**Pn**	14 33 46.2	-0.2
	comp=Z,34nm,0.8s						
RUSC	**La Rusia**	19.59	114	P	**P**	14 33 44.6	-1.2
	comp=Z,20nm,1.1s						
CASC	**Dorado de Casc**	19.63	135	P	**Pn**	14 33 48.9	+0.3
	comp=Z,37nm,0.7s						
CHIC	**Chingaza**	19.63	118	P	**P**	14 33 40.7	-5.5
	comp=Z,46nm,1.0s						
Y49A	**Blount Mountai**	19.80	11	P	**Pn**	14 33 49.5	-0.8
Y49A				IAmb	IAmb	14 33 50.6	
	comp=Z,31nm,0.8s						
MNHN	**Monahans**	19.98	329		**P**	14 33 50.8	+1.4
SC01	**Santiago de lo**	20.05	73	P	Pn	14 33 52.3	-1.1
GOGA	**Godfrey**	20.11	19	P	**P**	14 33 51.8	+1.0
GOGA				IAmb	IAmb	14 33 53.3	
	comp=Z,25nm,0.9s						
GOGA	**Godfrey**	20.11	19	P	Pn	14 33 52.5	-1.5
	comp=Z,27nm,0.9s						
MIAR	**Mount Ida**	20.16	354		**P**	14 33 51.5	+0.2
MIAR	**Mount Ida**	20.16	354	P	**P**	14 33 51.0	-0.3
	comp=Z,13nm,0.8s						
X48A	**Hartselle**	20.26	10	P	Pn	14 33 54.6	-1.1
Y52A	**Lilburn**	20.36	17	P	**P**	14 33 55.1	+1.6
SDV	**Santo Domingo**	20.72	103	P	**P**	14 33 56.7	-1.0
	comp=Z,34nm,0.6s,baz=291,slow=6.8,SNR=17						
	comp=Z,34nm,0.6s						
SDV	**Santo Domingo**	20.72	103		**P**	14 33 56.5	-1.2
SDV	**Santo Domingo**	20.72	103	P	**P**	14 33 56.7	-1.0
	comp=Z,4µmcomp=Z,300nm,0.6s						
SDV	**Santo Domingo**	20.72	103	P	**P**	14 33 57.3	-0.4
	comp=Z,303nm,0.7s						
MACC	**Macarena, Meta**	20.91	124	P	**P**	14 34 01.1	+1.6
SWET	**Sewanee**	21.21	12	IAmb	IAmb	14 34 04.6	
	comp=Z,16nm,0.8s						
HODGE	**Hodges**	21.26	20	IAmb	IAmb	14 34 06.0	
	comp=Z,28nm,0.8s						

W52A	**Murphy**	**21.55**	**16**	IAmb	IAmb	14 34 41.0	
	comp=Z,12nm,0.7s						
JSC	**Jenkinsville**	**21.66**	**22**	IAmb	IAmb	14 34 09.8	
	comp=Z,40nm,1.4s						
WVT	**Waverly**	**21.80**	**7**	P	**P**	**14 34 09.2**	**+0.3**
	comp=Z,9.5nm,0.8s						
HHAR	**Hobbs**	**21.92**	**354**		**P**	**14 34 09.5**	**-0.6**
HHAR				IAmb	IAmb	14 34 38.8	
	comp=Z,22nm,0.9s						
PAULI	**Pauline**	**21.95**	**21**	IAmb	IAmb	14 34 13.5	
	comp=Z,16nm,0.7s						
U38A	**Gravette**	**22.13**	**353**	P	**P**	**14 34 12.3**	**+0.1**
TKL	**Tuckaleechee C**	**22.13**	**16**	P	**P**	**14 34 13.0**	**+0.8**
	comp=Z,23nm,0.7s,baz=187,slow=10,SNR=22						
TKL	**Tuckaleechee C**	**22.13**	**16**	IAmb	IAmb	14 34 14.1	
	comp=Z,25nm,0.8s						
SMWD	**Samnorwood**	**22.20**	**340**	IAmb	IAmb	14 34 45.6	
	comp=Z,58nm,1.4s						
BIRD	**Birdtown, Kers**	**22.28**	**24**	IAmb	IAmb	14 34 15.5	
	comp=Z,26nm,1.1s						
V53A	**Saluda**	**22.41**	**18**	IAmb	IAmb	14 34 17.5	
	comp=Z,35nm,1.1s						
TZTN	**Tazewell**	**23.02**	**16**	IAmb	IAmb	14 34 23.5	
	comp=Z,32nm,0.8s						
TZTN	**Tazewell**	**23.02**	**16**	P	**P**	**14 34 21.9**	**+1.1**
	comp=Z,46nm,0.9s						
T50A	**Nancy**	**23.17**	**13**	IAmb	IAmb	14 34 24.2	
	comp=Z,33nm,1.4s						
U56A	**King**	**23.82**	**22**	IAmb	IAmb	14 34 31.2	
	comp=Z,28nm,0.9s						
S51A	**Beattyville**	**24.05**	**15**	IAmb	IAmb	14 35 02.2	
	comp=Z,18nm,0.9s						
WCI	**Wyandotte Cave**	**24.08**	**9**	P	**P**	**14 34 30.5**	**+0.1**
WCI	**Wyandotte Cave**	**24.08**	**9**	P	**P**	**14 34 31.2**	**+0.7**
	comp=Z,26nm,0.8s						
Q54A	**Coxs Mills**	**26.07**	**18**	P	**P**	**14 34 49.3**	**+0.9**
Q56A	**Snyder Ridge,**	**26.65**	**21**	P	**P**	**14 34 55.1**	**+1.4**
Q56A				IAmb	IAmb	14 35 29.2	
	comp=Z,18nm,1.0s						
O52A	**Adamsville**	**26.83**	**16**	IAmb	IAmb	14 34 56.7	
	comp=Z,15nm,0.7s						
M57A	**Sunshine Farm,**	**29.41**	**22**	P	**P**	**14 35 17.7**	**-0.6**
M57A				IAmb	IAmb	14 35 19.7	
	comp=Z,12nm,0.7s						
L59A	**Walton**	**30.93**	**23**	P	**P**	**14 35 31.9**	**+0.3**
L59A				IAmb	IAmb	14 35 32.5	
	comp=Z,15nm,0.9s						
J57A	**Williamstown**	**31.64**	**21**	P	**P**	**14 35 37.5**	**-0.2**
SADO	**Sadowa**	**31.89**	**16**	P	**P**	**14 35 40.4**	**+0.4**
SADO				IAmb	IAmb	14 36 16.3	
	comp=Z,11nm,0.9s						
BUKO	**Buck Lake**	**32.45**	**15**	P	**P**	**14 35 45.3**	**+0.5**
BUKO				IAmb	IAmb	14 35 46.2	
	comp=Z,10nm,0.7s						
CFNY	**Clifton-Fine,**	**32.63**	**22**	IAmb	IAmb	14 35 47.5	
	comp=Z,16nm,1.1s						
NCB	**Newcomb**	**32.76**	**23**	P	**P**	**14 35 47.0**	**-0.6**
NCB				IAmb	IAmb	14 35 48.5	
	comp=Z,11nm,0.8s						
LONY	**Lake Ozonia**	**33.19**	**22**	P	**P**	**14 35 51.0**	**-0.4**
LONY				IAmb	IAmb	14 35 52.9	
	comp=Z,13nm,0.9s						
LBNH	**Lisbon**	**33.89**	**25**	P	**P**	**14 35 58.1**	**+0.7**
LBNH				IAmb	IAmb	14 36 03.7	
	comp=Z,21nm,1.4s						
NVAR	**Mina Array Bea**	**33.94**	**320**	P	**P**	**14 36 01.2**	**+3.1**
	comp=Z,1.5nm,0.8s,baz=140,slow=8.5,SNR=9.9						
NVAR				PcP	**PcP**	**14 38 35.3**	**+1.8**
	comp=Z,0.3nm,0.4s,baz=72,slow=1.9,SNR=3.1						
	comp=Z,1.5nm,0.8s						
MACA	**Manacapuru-AM**	**34.79**	**118**	P	**P**	**14 36 05.4**	**-0.1**
EPLO	**Experimental L**	**35.22**	**357**	P	**P**	**14 36 08.2**	**-0.5**
ULM	**Lac du Bonnet**	**35.94**	**355**	P	**P**	**14 36 13.6**	**-1.3**
	comp=Z,2.4nm,0.6s,baz=184,slow=6.5,SNR=4.4						
ULM				LR	LR	14 51 34.7	
	comp=Z,29nm,20.3s,baz=45,slow=37						
	comp=Z,2.4nm,0.6s						
G65A	**Princeton**	**36.55**	**28**	P	**P**	**14 36 20.9**	**+0.9**
G65A				IAmb	IAmb	14 36 49.1	
	comp=Z,18nm,1.2s						
LPAZ	**La Paz**	**37.99**	**143**	LR	LR	14 52 48.1	
	comp=Z,50nm,18.6s,baz=248,slow=37						
CLDB	**Colider**	**43.04**	**124**	P	**P**	**14 37 12.2**	**-2.0**
	comp=Z,24nm,1.0s						
SCHQ	**Schefferville**	**44.51**	**20**	P	**P**	**14 37 23.6**	**-1.7**
	comp=Z,9.3nm,0.9s,baz=211,slow=7.5,SNR=4.1						
	comp=Z,9.3nm,0.9s						
SCHQ	**Schefferville**	**44.51**	**20**	P	**P**	**14 37 24.8**	**-0.6**
SCHQ				IAmb	IAmb	14 37 25.1	
	comp=Z,18nm,1.1s						
AQDB	**Aquidauana**	**49.09**	**134**	P	**P**	**14 38 00.5**	**-0.9**
YKA	**Yellowknife Ar**	**50.83**	**346**	P	**P**	**14 38 13.6**	**-0.4**
	comp=Z,0.9nm,0.6s,baz=155,slow=7.7,SNR=2.4						
	comp=Z,0.9nm,0.6s						
FRB	**Frobisher Bay**	**51.70**	**13**	LR	LR	15 03 40.0	
	comp=Z,25nm,18.4s,baz=63,slow=40						
BDFB	**Brasilia**	**51.97**	**123**	P	**P**	**14 38 23.0**	**-0.3**
	comp=Z,2.6nm,0.5s,baz=330,slow=14,SNR=2.2						
	comp=Z,2.6nm,0.5s						
R33M	**Jennings River**	**53.64**	**336**	P	**P**	**14 38 36.1**	**+1.1**
PMNB	**Patos De Minas**	**54.81**	**125**	P	**P**	**14 38 43.2**	**-0.8**
	comp=Z,14nm,1.6s						
MMPY	**Sheldon Lake,**	**55.84**	**339**	P	**P**	**14 38 51.5**	**+0.8**
BSCB	**Bom Sucesso**	**57.48**	**127**	P	**P**	**14 39 02.8**	**-0.1**
	comp=Z,17nm,1.0s						
PLCA	**Paso Flores**	**58.08**	**162**	P	**P**	**14 39 08.8**	**+2.1**
	comp=Z,2.7nm,0.9s,baz=8.7,slow=7.6,SNR=4.5						
	comp=Z,2.7nm,0.9s						
M29M	**Somme Creek**	**58.40**	**336**	P	**P**	**14 39 09.5**	**+0.8**
M29M				IAmb	IAmb	14 39 44.3	
	comp=Z,11nm,1.4s						
K29M	**Barlow Dome**	**58.83**	**338**	P	**P**	**14 39 12.5**	**+0.8**
SFJD	**Kangerlussuaq**	**58.83**	**17**	LR	LR	15 05 07.7	
	comp=Z,33nm,18.0s,baz=206,slow=37						
BCAR	**Beaver Creek A**	**60.03**	**336**	P	**P**	**14 39 20.1**	**+0.2**
F28M	**Old Crow**	**61.77**	**341**	P	**P**	**14 39 32.1**	**+0.6**
F28M				IAmb	IAmb	14 40 08.4	
	comp=Z,5.0nm,0.9s						
BRLK	**Bradley Lake**	**62.62**	**330**	P	**P**	**14 39 38.2**	**+0.8**
OHAK	**Old Harbor**	**63.05**	**327**	S	**SKiKP**	**14 49 45.8**	**-1.3**
BMAR	**Burnt Mountain**	**63.22**	**340**	P	**P**	**14 39 41.4**	**+0.2**
SUMG	**Summit**	**65.58**	**15**	P	**P**	**14 39 56.1**	**-0.8**
SUMG				IAmb	IAmb	14 40 32.7	
	comp=Z,6.2nm,1.1s						
E21K	**Killik River**	**66.86**	**339**	P	**P**	**14 40 04.9**	**+0.2**
E21K				IAmb	IAmb	14 40 16.4	
	comp=Z,8.9nm,1.4s						
EKA	**Eskdalemuir Ar**	**77.08**	**36**	P	**P**	**14 41 03.7**	**-2.1**
	comp=Z,0.8nm,0.4s,baz=269,slow=6.2,SNR=10						
	comp=Z,0.8nm,0.4s						
ESDC	**Sonseca Array**	**78.72**	**52**	P	**P**	**14 41 13.3**	**-2.0**
	comp=Z,0.7nm,0.7s,baz=295,slow=4.9,SNR=6.0						
	comp=Z,0.7nm,0.7s						
AFI	**Afiamalu**	**84.70**	**254**	P	P	14 41 40.7	-6.3
	comp=Z,103nm,2.4s						
SENIN	**Lac Senin/Sane**	**85.34**	**43**	P	**P**	**14 41 49.4**	**-0.5**
ARCES	**ARCESS Array B**	**85.44**	**18**	P	**P**	**14 41 48.6**	**-1.0**
	comp=Z,1.5nm,0.8s,baz=80,slow=6.7,SNR=3.8						
	comp=Z,1.5nm,0.8s						
ARCES	**ARCESS Array B**	**85.44**	**18**	IAmb	IAmb	14 42 00.1	
	comp=Z,15nm,1.4s						
MKAR	**Makanchi Array**	**118.77**	**5**	PKP	**PKPdf**	**14 47 58.2**	**-1.8**
	comp=Z,0.4nm,0.9s,baz=322,slow=4.2,SNR=3.0						
HHC	**Hu-ho-hao-te**	**121.15**	**340**	*e*P	**PKPdf**	**14 48 01.1**	**-3.7**
NJ2	**Nanjing**	**125.63**	**329**	*e*P	**PKPdf**	**14 48 13.4**	**-0.1**
NJ2				pmax	pmax		
	comp=Z,12nm,0.5s						
LZH	**Lanzhou**	**127.83**	**345**	*e*PKP	**PKiKP**	**14 48 21.8**	**+3.4**
LZH				sPKP		14 48 58.3	
WRA	**Warramunga Arr**	**136.40**	**256**	PKP	**PKPdf**	**14 48 34.8**	**+0.6**
	comp=Z,1.1nm,0.8s,baz=86,slow=2.4,SNR=8.0						
ASAR	**Alice Springs**	**136.69**	**251**	PKP	**PKiKP**	**14 48 35.7**	**-0.8**
	comp=Z,0.5nm,0.6s,baz=99,slow=2.4,SNR=6.7						
PZH	**PanZhiHua**	**137.46**	**343**	PKP	**PKPdf**	**14 48 35.5**	**-0.7**
FITZ	**Fitzroy Crossi**	**144.64**	**259**	PKPbc	**PKPdf**	**14 48 49.8**	**+0.8**
	comp=Z,5.1nm,0.8s,baz=124,slow=2.5,SNR=9.3						
FITZ	**Fitzroy Crossi**	**144.64**	**259**		**PKPdf**	**14 48 50.0**	**+1.0**
CMAR	**Chiang Mai Arr**	**145.88**	**343**	PKPbc	**PKPdf**	**14 48 51.2**	**-0.1**
	comp=Z,1.2nm,0.6s,baz=335,slow=3.5,SNR=7.5						

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*NEIC **14** 14:48:35.9±0.8, 59°.80N±0°.05×153°.2W±0°.1, h126^{km}±4^{km}, ML3.0/98, ML2.8(AEIC), Error ellipse: s-maj=8.1km s-min=8.0km az=90.0*

*IDC **14** 14:48:35.2±2.3, 59°.85N×153°.45W, h95^{km}±35^{km}, mb3.4/1, mbtmp3.7/4, MS2.5/1, Error ellipse: s-maj=43.0km s-min=21.1km az=101.0*

*AEIC **14** 14:48:37.8±0.3, 59°.83N±0°.06×153°.2W±0°.1, h112^{km}±7^{km}, Error ellipse: s-maj=8.1km s-min=7.3km az=191.0*

ISC 14 14:48:35.6±1.0, 59°.82N±0°.04×153°.20W±0°.04, h118^{km}±9^{km}, n52, σ1^{s}28/41, Southern Alaska

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
ILSW	**Iliamna Southw**	**0.17**	**10**		**Pn**	**14 48 52.6**	**+0.6**
ILSW				IAML		14 49 05.5	
	comp=E,433nm,0.6s						
ILSW				IAML		14 49 05.8	
	comp=N,177nm,0.5s						
O19K	**Port Alsworth**	**0.68**	**304**		**Pn**	**14 48 55.1**	**+0.5**
O19K				IAML		14 49 09.6	
	comp=E,490nm,0.4s						
O19K				IAML		14 49 10.2	
	comp=N,543nm,0.4s						
HOM	**Homer**	**0.81**	**101**		**Pn**	**14 48 56.5**	**+0.9**
HOM				IAML		14 49 14.3	
	comp=N,471nm,0.4s						
HOM				IAML		14 49 14.4	
	comp=E,525nm,0.4s						
Q19K	**Cape Douglas,**	**0.92**	**195**		**Pn**	**14 48 57.6**	**+0.8**
Q19K				IAML		14 49 15.3	
	comp=E,288nm,0.6s						
Q19K				IAML		14 49 18.7	
	comp=N,395nm,0.9s						
O18K	**Koktuh Hills**	**1.01**	**273**		**Pn**	**14 48 58.0**	**+0.4**
CNPM	**China Poot**	**1.04**	**106**		**Pn**	**14 48 58.8**	**+0.9**
CNPM				IAML		14 49 16.0	
	comp=E,218nm,0.2s						
CNPM				IAML		14 49 16.7	
	comp=N,241nm,0.5s						
BRLK	**Bradley Lake**	**1.17**	**92**		**Pn**	**14 49 00.1**	**+0.8**
BRLK				IAML		14 49 18.4	
	comp=E,356nm,0.3s						
BRLK				IAML		14 49 19.0	
	comp=N,254nm,0.1s						
N19K	**Bonanza Creek**	**1.18**	**328**		**Pn**	**14 49 00.2**	**+0.7**
N18K	**Kilae Creek**	**1.59**	**304**		**Pn**	**14 49 04.5**	**+0.4**
SLKM	**Skilak Lake**	**1.64**	**64**		**Pn**	**14 49 05.5**	**+0.9**
P17K	**Kvichak River**	**1.77**	**251**		**Pn**	**14 49 07.0**	**+1.0**
P17K				IAML		14 49 31.7	
	comp=E,83nm,1.0s						
P17K				IAML		14 49 39.6	
	comp=N,81nm,1.0s						
STLK	**Strandline Lak**	**1.81**	**21**		**Pn**	**14 49 07.8**	**+1.1**
STLK				IAML		14 49 32.1	
	comp=N,46nm,0.6s						
STLK				IAML		14 49 35.2	
	comp=E,58nm,0.2s						
O22K	**Cooper Landing**	**1.86**	**68**		**Pn**	**14 49 08.3**	**+1.2**
SEW	**Seward**	**1.91**	**80**		**Pn**	**14 49 08.6**	**+0.9**
SEW				IAML		14 49 37.6	
	comp=N,88nm,0.5s						
SEW				IAML		14 49 38.2	
	comp=E,95nm,0.5s						
ACHA	**Angle Creek He**	**1.95**	**215**		**Pn**	**14 49 09.4**	**+1.0**
KDAK	**Kodiak Island**	**2.07**	**171**	P	**Pn**	**14 49 09.6**	**-0.1**
	comp=E,18nm,0.3s,baz=354,slow=7.5,SNR=142						
KDAK				S	**Sn**	**14 49 35.5**	**-0.4**
	comp=E,26nm,0.3s,baz=225,slow=22,SNR=22						
KDAK	**Kodiak Island**	**2.07**	**171**		**Pn**	**14 49 09.8**	**0.0**
KDAK				IAML		14 49 38.2	
	comp=E,69nm,0.6s						
KDAK				IAML		14 49 43.2	
	comp=E,72nm,0.5s						
M20K	**Styx River**	**2.07**	**1**		**Pn**	**14 49 11.0**	**+1.1**
RC01	**Rabbit Creek A**	**2.14**	**52**		**Pn**	**14 49 11.5**	**+0.9**
SKT	**Skwentna**	**2.31**	**20**		**Pn**	**14 49 13.8**	**+0.9**
SKT				IAML		14 49 46.6	
	comp=N,27nm,0.5s						
SKT				IAML		14 49 50.6	
	comp=E,40nm,0.5s						
M22K	**Willow**	**2.46**	**37**		**Pn**	**14 49 15.7**	**+1.0**
L19K	**White Mountain**	**2.50**	**342**		**Pn**	**14 49 15.8**	**+0.5**
OHAK	**Old Harbor**	**2.61**	**181**	P	**Pn**	**14 49 15.9**	**-0.7**
OHAK	**Old Harbor**	**2.61**	**181**	Pn	**Pn**	**14 49 16.4**	**-0.3**
OHAK				IAML		14 49 47.9	
	comp=N,34nm,0.5s						
OHAK				IAML		14 49 48.4	
	comp=E,38nm,0.3s						
PWL	**Port Wells**	**2.63**	**65**		**Pn**	**14 49 17.0**	**0.0**
PMR	**Palmer**	**2.67**	**47**	P	**Pn**	**14 49 18.0**	**+0.5**
PMR	**Palmer**	**2.67**	**47**	S	**Sn**	**14 49 48.8**	**-0.9**
PMR	**Palmer**	**2.67**	**47**		**Pn**	**14 49 17.6**	**+0.1**
PMR				IAML		14 49 49.1	
	comp=E,70nm,0.3s						
PMR				IAML		14 49 50.2	
	comp=N,65nm,0.3s						
L20K	**Farewell, AK**	**2.69**	**353**		**Pn**	**14 49 18.7**	**+1.0**
CUT	**Chulitna**	**2.96**	**27**	IAML		14 50 54.9	
	comp=E,92nm,0.1s						
SML	**Sawmill**	**3.11**	**48**		**Pn**	**14 49 23.3**	**0.0**
SML				IAML		14 50 01.0	
	comp=E,62nm,0.9s						
SML				IAML		14 50 05.8	
	comp=N,73nm,0.5s						
SII	**Sitkinak Islan**	**3.31**	**189**	P	**Pn**	**14 49 25.7**	**-0.2**
SII	**Sitkinak Islan**	**3.31**	**189**	S	**Sn**	**14 50 03.0**	**-1.8**
SII	**Sitkinak Islan**	**3.31**	**189**	IAML		14 50 04.8	
	comp=N,38nm,0.5s						
SII				IAML		14 50 05.2	
	comp=E,56nm,0.3s						
SCM	**Sheep Creek Mo**	**3.51**	**52**	IAML		14 50 12.4	
	comp=N,53nm,0.5s						
EYAK	**Cordova Ski Ar**	**3.79**	**76**	P	**Pn**	**14 49 33.7**	**+1.5**
EYAK	**Cordova Ski Ar**	**3.79**	**76**	S	**Sn**	**14 50 15.2**	**-0.8**
TRF	**Thorofare Moun**	**3.90**	**20**	IAML		14 50 19.1	
	comp=E,10nm,0.5s						
TRF				IAML		14 50 42.4	
	comp=N,14nm,0.9s						
KTH	**Kantishna Hill**	**3.90**	**15**	IAML		14 50 56.8	
	comp=N,9.0nm,1.1s						
KTH				IAML		14 51 14.3	
	comp=E,8.0nm,1.2s						
RND	**Reindeer**	**4.15**	**28**	IAML		14 50 26.1	
	comp=N,10nm,0.2s						
RND				IAML		14 50 32.4	
	comp=E,9.6nm,0.3s						
DHY	**Denali Highway**	**4.30**	**38**	IAML		14 50 29.5	
	comp=N,23nm,0.2s						
DHY				IAML		14 50 29.8	
	comp=E,28nm,0.3s						
BMRM	**Bremner River**	**4.42**	**71**	IAML		14 50 31.1	
	comp=E,29nm,0.4s						
BMRM				IAML		14 50 33.8	
	comp=N,28nm,0.9s						
MCK	**McKinley**	**4.42**	**25**	IAML		14 50 35.2	
	comp=E,7.2nm,0.6s						
MCK				IAML		14 50 38.4	
	comp=N,6.7nm,1.1s						
VRDI	**Verde Repeater**	**5.02**	**69**	IAML		14 50 46.6	
	comp=N,12nm,0.4s						
VRDI				IAML		14 50 51.5	
	comp=E,10nm,0.7s						
NEA2	**Nenana**	**5.16**	**20**	IAML		14 50 51.5	
	comp=N,2.5nm,1.0s						
NEA2				IAML		14 51 45.5	
	comp=E,2.8nm,1.1s						
WRH	**Wood River Hil**	**5.25**	**25**	IAML		14 50 50.4	
	comp=E,3.5nm,0.6s						
WRH				IAML		14 51 44.3	
	comp=N,3.1nm,0.9s						
COLA	**College**	**5.65**	**24**	P	**Pn**	**14 49 57.5**	**+0.4**
ILAR	**Eielson Array**	**5.77**	**28**	P	**Pn**	**14 49 58.8**	**0.0**
	comp=N,6.0nm,0.6s,baz=217,slow=14,SNR=106						
ILAR				S	**Sn**	**14 50 57.9**	**-5.8**
	comp=N,1.6nm,0.8s,baz=195,slow=17,SNR=4.7						
PNL	**Peninsula**	**6.98**	**85**	P	**Pn**	**14 50 16.1**	**+1.0**
YKA	**Yellowknife Ar**	**18.62**	**65**	P	**Pn**	**14 52 45.4**	**+0.2**
	comp=N,1.2nm,0.6s,baz=279,slow=10,SNR=1.9						
RES	**Resolute Bay**	**25.51**	**32**	LR	LR	15 05 24.7	
	comp=N,12nm,21.9s,baz=22,slow=40						
ZALV	**Zalesovo Beam**	**57.46**	**324**	P	**P**	**14 58 13.0**	**+1.4**
	comp=N,0.5nm,0.5s,baz=46,slow=10,SNR=1.8						
	comp=N,0.5nm,0.5s						

DJA 14 15:11:13.7±0.4, 4°S±4°×12°8E±°, h216^{km}±4^{km}, M3.9/14, mb4.3/6, MLv3.8/14, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
NLAI	**Namlea**	**1.05**	**326**	P	Pn	15 11 46.8	+1.3
NLAI				S	S	15 12 10.1	-0.1
NLAI				AML	AML		
BNDI	**Bandanaira**	**2.24**	**100**	S	S	15 12 28.8	+0.3
SANI	**Sanana**	**2.67**	**320**	P	Pn	15 12 00.6	+0.1
SANI				AML	AML		
FAKI	**Fak Fak**	**4.70**	**75**	P	Pn	15 12 25.4	+0.6
FAKI				AML	AML		
SWI	**Sorong**	**4.81**	**48**	P	Pn	15 12 25.9	-0.3
SWI				AML	AML		
KDI	**Kendari**	**5.06**	**272**	P	Pn	15 12 29.3	0.0
KDI				AML	AML		

TAP 14 15:14:51.2, 23°.79N×121°.72E, h44^{km}, ML2.3, C, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
TEYL	**Yanliau Villag**	**0.14**	**304**	P	Pn	15 14 58.7	+0.3
TEYL				S	Sn	15 15 04.6	+1.1
SHUL	**Shoufeng**	**0.14**	**268**	*i* P	Pn	15 14 58.7	+0.2
SHUL				S	Sn	15 15 04.4	+0.8
TEGC	**Jichi Village**	**0.19**	**243**	*e*P	Pn	15 14 58.8	0.0
TEGC				*e*S	Sn	15 15 04.5	+0.5
ESL	**Shilin**	**0.27**	**275**	*i* P	Pn	15 14 59.3	-0.2
ESL				S	Sn	15 15 05.2	0.0
ETM	**Tongmen**	**0.27**	**309**	P	Pn	15 14 59.6	+0.1
ETM				S	Sn	15 15 05.5	+0.1
TWD	**Chiawan**	**0.31**	**338**	*e*P	Pn	15 14 59.7	-0.2
TWD				S	Sn	15 15 05.9	-0.1
WARBT	**Fenglin Townsh**	**0.32**	**256**	*i* P	Pn	15 14 59.7	-0.3
WARBT				S	Sn	15 15 06.0	-0.2
LXIB	**Xiulin Townshi**	**0.36**	**309**	*i* P	Pn	15 15 00.6	-0.1
LXIB				*i* S	Sn	15 15 06.8	-0.5
ETL	**Fush Village**	**0.38**	**346**	*e*P	Pn	15 15 00.1	-0.5
ETL				*e*S	Sn	15 15 07.9	+0.6
NACB	**Ninganchiao**	**0.40**	**343**	P	Pn	15 15 00.4	-0.4
NACB				*e*S	Sn	15 15 08.0	+0.3
HGSD	**Ruisui**	**0.41**	**222**	*e*P	Pn	15 15 01.1	+0.1
HGSD				*e*S	Sn	15 15 09.0	+1.2
EHYH	**Wanrong**	**0.46**	**229**	*e*P	Pn	15 15 01.0	-0.5
EHYH				*e*S	Sn	15 15 10.0	+1.1
EHY	**Hungye**	**0.46**	**232**	*e*P	Pn	15 15 01.0	-0.7
ETLH	**Xiulin Townshi**	**0.47**	**332**	P	Pn	15 15 01.8	0.0
ETLH				*i* S	Sn	15 15 09.2	-0.1
OWD	**Renai**	**0.52**	**288**	*i* P	Pn	15 15 02.8	+0.2
OWD				*e*S	Sn	15 15 10.6	-0.1
VWDT	**VWDT**	**0.53**	**266**	P	Pn	15 15 02.9	+0.4
VWDT				S	Sn	15 15 10.9	+0.3
ECBN	**Changbin**	**0.54**	**208**	*e*P	Pn	15 15 00.1	-2.4
ECBN				*e*S	Sn	15 15 10.3	-0.3
WHF	**Hehuan Shan**	**0.55**	**310**	P	Pn	15 15 03.1	0.0
WHF				S	Sn	15 15 11.5	-0.1
YULB	**Yu-li**	**0.56**	**224**	*i* P	Pn	15 15 02.4	-0.5
YULB				S	Sn	15 15 10.4	-0.8
EYUL	**Yuli**	**0.58**	**220**	*e*P	Pn	15 15 03.1	0.0
EYUL				*e*S	Sn	15 15 12.1	+0.5
TWF1	**Yuli**	**0.59**	**222**	P	Pn	15 15 02.9	-0.4
TWF1				*e*S	Sn	15 15 11.2	-0.7
WUSB	**Renai**	**0.59**	**290**	*i* P	Pn	15 15 03.9	+0.6
WUSB				*e*S	Sn	15 15 12.6	+0.6
FUSS	**Fushou**	**0.63**	**316**	*i* P	Pn	15 15 04.5	+0.5
FUSS				*e*S	Sn	15 15 14.1	+0.9
ENA	**Nanau**	**0.63**	**2**	*e*P	Pn	15 15 01.3	-2.6
ENA				*e*S	Sn	15 15 11.1	-1.9
EOS4	**EOS4**	**0.64**	**59**	*e*P	Pn	15 15 04.3	+0.7
EOS4				*e*S	Sn	15 15 12.5	0.0
TWT	**Tachien**	**0.68**	**313**	P	Pn	15 15 06.2	+1.6
TWT				S	Sn	15 15 14.9	+0.7
TDCB	**Techi**	**0.69**	**312**	*e*P	Pn	15 15 06.3	+1.6
TDCB				S	Sn	15 15 14.8	+0.4
SSLB	**Suanglung**	**0.70**	**270**	P	Pn	15 15 05.0	+0.2
SSLB				*e*S	Sn	15 15 15.0	+0.4
NNSB	**Datong**	**0.70**	**334**	P	Pn	15 15 05.2	+0.2
NNSB				S	Sn	15 15 15.0	+0.2
FULB	**Fuli**	**0.71**	**214**	*e*P	Pn	15 15 05.3	+0.4
FULB				*e*S	Sn	15 15 15.6	+0.8
NNS	**Nan Shan**	**0.72**	**334**	*e*P	Pn	15 15 05.5	+0.3
NNS				*e*S	Sn	15 15 15.5	+0.3
EOS3	**EOS3**	**0.73**	**48**	*e*P	Pn	15 15 05.4	+0.3
EOS3				*e*S	Sn	15 15 15.8	+0.7
SMLT	**Sun Moon Lake**	**0.76**	**277**	P	Pn	15 15 05.8	+0.2
SMLT				*e*S	Sn	15 15 17.9	+1.8
LATG	**Datong**	**0.76**	**347**	P	Pn	15 15 05.7	0.0
LATG				S	Sn	15 15 16.5	+0.4
CHKT	**Chengkung**	**0.76**	**205**	*e*P	Pn	15 15 05.0	-0.6
CHKT				*e*S	Sn	15 15 14.5	-1.5
YUS	**Yu-Shan**	**0.77**	**247**	*e*P	Pn	15 15 06.5	+0.4
EOS2	**EOS2**	**0.78**	**37**	*e*P	Pn	15 15 06.1	+0.4
WCS	**Beigang Elemen**	**0.79**	**290**	*e*P	Pn	15 15 06.4	+0.5
EHD	**Haiduan**	**0.80**	**217**	*e*P	Pn	15 15 04.5	-1.5
EHD				*e*S	Sn	15 15 17.0	+0.2
WHYT	**Xinyi Township**	**0.80**	**263**	*e*P	Pn	15 15 07.1	+1.0
WHYT				*e*S	Sn	15 15 18.0	+1.0
NDS	**Dongshan**	**0.84**	**360**	*e*P	Pn	15 15 06.9	+0.3
NDS				*e*S	Sn	15 15 18.0	+0.2
ELDTW	**Lidau**	**0.88**	**227**	*e*P	Pn	15 15 07.3	0.0
ELDTW				*e*S	Sn	15 15 18.5	-0.6
ALS	**Alishan**	**0.89**	**252**	*e*P	Pn	15 15 08.5	+1.0
ALS				*e*S	Sn	15 15 20.6	+1.1
EDH	**Donghe**	**0.90**	**205**	P	Pn	15 15 07.3	-0.1
EDH				*e*S	Sn	15 15 18.0	-1.4
YHNB	**Yeheng**	**0.93**	**340**	*e*P	Pn	15 15 08.8	+0.9
YHNB				*e*S	Sn	15 15 20.7	+0.5
NSK	**Sanguang**	**0.94**	**339**	*e*P	Pn	15 15 08.9	+0.9
NSK				*e*S	Sn	15 15 20.0	-0.4
WNT	**Mingjian**	**0.95**	**275**	*e*P	Pn	15 15 09.5	+1.3
NFF	**Wufeng Townshi**	**1.00**	**327**	*e*P	Pn	15 15 11.1	+2.2
NFF				*e*S	Sn	15 15 23.3	+1.4
NWLT	**Wulai**	**1.00**	**349**	*e*P	Pn	15 15 09.9	+1.1
NWLT				*e*S	Sn	15 15 22.4	+0.6
NSTT	**Nanjuang**	**1.06**	**322**	*e*P	Pn	15 15 11.1	+1.4
NSTT				*e*S	Sn	15 15 25.0	+1.7
LIOB	**Emei**	**1.06**	**323**	*e*P	Pn	15 15 11.3	+1.6
LIOB				*e*S	Sn	15 15 25.9	+2.5
STYH	**Taoyuan**	**1.07**	**235**	P	Pn	15 15 10.7	+1.0
STYH				*e*S	Sn	15 15 24.6	+1.3
WCKO	**Fanlu**	**1.08**	**251**	P	Pn	15 15 12.3	+2.3
WCKO				*e*S	Sn	15 15 26.9	+3.1
TPUB	**Ta-pu**	**1.11**	**244**	*e*P	Pn	15 15 12.5	+2.1
TPUB				S	Sn	15 15 27.2	+2.6
TWG	**Pinlang**	**1.14**	**212**	*e*P	Pn	15 15 11.1	+0.4
WTP	**Ta-pu**	**1.15**	**242**	*e*P	Pn	15 15 12.8	+1.8
WTP				*e*S	Sn	15 15 28.5	+2.9
TIPB	**Shuangxi**	**1.18**	**5**	*e*P	Pn	15 15 12.6	+1.3
TIPB				*e*S	Sn	15 15 27.9	+1.8
TWK	**Hsinying**	**1.25**	**245**	*e*P	Pn	15 15 14.0	+1.8
TWK				*e*S	Sn	15 15 30.1	+2.2
CHN1	**Nanshi**	**1.25**	**241**	*e*P	Pn	15 15 14.2	+1.9
SGST	**Jiashian**	**1.26**	**236**	*e*P	Pn	15 15 12.9	+0.5
SGST				*e*S	Sn	15 15 30.8	+2.6
MASBT	**Mashibuluo**	**1.54**	**221**	*e*P	Pn	15 15 17.6	+1.3
MASBT				*e*S	Sn	15 15 37.7	+2.6

JMA 14 15:15:25.7±0.2, 23°.9N±0°.7×123°.3E±0°.3, h27^{km}±1^{km}, MV2.4/9, NEAR ISHIGAKIJIMA ISLAND, Southwestern Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
HATJ	**Hateruma jima**	**0.48**	**66**	P	Pb	15 15 35.5	-0.2
IRIF	**Iriomote-Funau**	**0.60**	**38**	*i* P	Pb	15 15 37.3	-0.4
IRIF				S	Sb	15 15 45.7	-0.2
YOJ	**Yonaguni jima**	**0.67**	**334**	*e*P	Pb	15 15 38.5	-0.3
YOJ				S	Sb	15 15 47.7	0.0
JYNG	**Yonagunijimaku**	**0.69**	**330**	*i* P	Pb	15 15 38.8	-0.3
JYNG				S	Sb	15 15 47.9	-0.3
JKRS	**Kuro-shima**	**0.73**	**59**	P	Pb	15 15 39.6	-0.3
JKRS				*e*S	Sb	15 15 49.8	+0.3
JIJ	**Ishigaki jima**	**0.90**	**56**	P	Pn	15 15 42.0	-0.6
JIJ				S	Sn	15 15 54.8	0.0
JISG	**Ishigakijimahi**	**1.16**	**51**	P	Pn	15 15 46.1	-0.1
JTJ	**Tarama**	**1.48**	**58**	*e*P	Pb	15 15 52.0	-0.5

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*IDC **14** 15:31:27.4±1.3, 8°.29S×116°.91E, h0^{km}, mb3.5/4, mbtmp3.7/6, ML3.6/2, MS3.3/3, Error ellipse: s-maj=25.1km s-min=15.2km az=66.0*

*DJA **14** 15:31:29.2±0.2, 8°S±3°×11°7E±°, h10^{km}, M4.2/22, mb4.4/2, MLv4.0/22*

ISC 14 15:31:28.4±0.8, 8°.44S±0°.05×116°.85E±0°.04, h10^{km}, n27, σ1^{s}.79/29, mb3.7/3, MS3.1/3, Sumbawa region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TWSI	Taliwang, Sumb	0.30	174	P	Pg	15 31 35.6	+1.2
TWSI				S	Sb	15 31 40.2	-0.6
PLAI	Plampang	0.99	113	P	Pg	15 31 47.8	+0.3
PLAI				S	Sb	15 32 02.3	+1.4
PLAI				AML	AML		
KHKI	Kahang-Kahang	1.23	273	P	Pn	15 31 51.7	+0.1
DBNI	Kabupaten Domp	1.45	93	P	Pb	15 31 56.3	+0.8
DBNI				AML	AML		
DNP	Denpasar	1.64	262	P	Pn	15 31 58.5	+1.3
DNP				AML	AML		
SRBI	Singaraja	1.66	282	P	Pn	15 31 58.1	+0.6
SRBI				AML	AML		
IGBI	Denpasar	1.73	257	P	Pn	15 31 59.0	+0.5
IGBI				AML	AML		
RTBI	Rangdo, Negare	1.89	269	P	Pn	15 32 01.1	+0.4
RTBI				AML	AML		
ABJI	Asem Bagus	2.67	284	P	Pn	15 32 12.3	+0.9
ABJI				AML	AML		
JAGI	Jajag, Banyuwa	2.67	269	P	Pn	15 32 11.3	-0.1
JAGI				AML	AML		
LBFI	Labuhan Bajo,	3.01	91	P	Pn	15 32 17.2	+1.1
KMMI	Kalianget	3.17	296	P	Pn	15 32 19.5	+1.1
KMMI				AML	AML		
BLJI	Banyuglugur	3.29	282	P	Pn	15 32 21.0	+0.9
BLJI				AML	AML		
WSI	Waingapu	3.62	110	P	Pn	15 32 26.1	+1.6
BSSI	Bau Bau, Buton	4.27	58	P	Pn	15 32 33.8	+0.3
BSSI				AML	AML		
KAPI	Kappang	4.46	40	Pn	Pn	15 32 36.4	+0.3
	3.4nm,0.3s,baz=163,slow=12,SNR=2.1						
KAPI				Sn	Sn	15 33 27.3	-0.8
	22nm,0.3s,baz=56,slow=23,SNR=14						
	9.4nm,0.3s						
KAPI				AML	AML		
KAPI	Kappang	4.46	40	P	Pn	15 32 36.9	+0.8
KAPI				AML	AML		
EDFI	Ende, Flores	4.80	94	P	Pn	15 32 41.6	+0.8
EDFI				AML	AML		
SNJI	Sawahan-Nganju	5.08	277	P	Pn	15 32 45.6	+0.8
	0.3nm31nm,1.4s						
SNJI				AML	AML		
MMRI	Maumere	5.33	92	P	Pn	15 32 49.1	+1.0
MMRI				AML	AML		
FITZ	Fitzroy Crossi	12.85	139	Pn	Pn	15 34 31.2	-0.1
	0.3nm,0.3s,baz=323,slow=12,SNR=9.0						
FITZ				Sn	Sn	15 36 45.7	-8.8
	0.2nm,0.3s,baz=221,slow=16,SNR=3.6						
	1.4nm,0.6s						
FITZ				AML	AML		
WRA	Warramunga Arr	20.43	126	P	P	15 36 06.3	+0.3
	0.8nm,0.5s,baz=300,slow=12,SNR=22						
WRA				S	S	15 39 46.8	-8.1
	0.2nm,0.8s,baz=294,slow=26,SNR=1.2						
	0.8nm,0.5s						
ASAR	Alice Springs	22.27	135	P	P	15 36 26.2	+0.4
	1.5nm,0.8s,baz=310,slow=9.9,SNR=18						
	1.5nm,0.8s						
NWAO	Narrogin (SRO)	24.37	179	LR	LR	15 47 37.0	
	comp=Z,134nm,18.5s,baz=108,slow=40						
CMAR	Chiang Mai Arr	32.04	327	P	P	15 37 55.3	-0.2
	1.2nm,0.8s,baz=151,slow=7.0,SNR=9.5						
CMAR				LR	LR	15 52 23.3	
	comp=Z,38nm,18.5s,baz=240,slow=39						
	1.2nm,0.8s						
KRVT	Keravat (AS076	35.19	86	LR	LR	15 55 36.8	
	comp=Z,30nm,18.6s,baz=164,slow=41						
MKAR	Makanchi Array	63.01	334	P	P	15 41 55.6	0.0
	0.5nm,0.8s,baz=130,slow=7.8,SNR=3.6						
	0.5nm,0.8s						

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*IDC **14** 16:01:06.1±1.5, 2°.64S×140°.12E, h0^{km}, mb3.7/7, mbtmp3.8/8, ML4.1/1, MS3.0/2, Error ellipse: s-maj=46.2km s-min=14.4km az=94.0*

*DJA **14** 16:01:11.0±1.0, 2°S±7°×14°0E±°, h10^{km}, M4.5/9, mB5.7/1, mb4.5/6, MLv4.5/9, Mw(mB)5.2/1*

*NEIC **14** 16:01:12.1±0.9, 2°.6S±0°.1×140°.05E±0°.10, h34^{km}±7^{km}, mb4.2/13, Error ellipse: s-maj=18.9km s-min=13.9km az=166.0*

ISC 14 16:01:10.9±0.6, 2°.55S±0°.07×140°.01E±0°.07, h25^{km}, n36, σ2^{s}.22/36, mb3.9/9, Near north coast of Irian Jaya

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GENI	Genyem	0.16	105	P	Pb	16 01 17.1	+1.0
GENI				AML	AML		
WAMI	Wamena	1.85	224	P	Pn	16 01 45.4	+4.3
WAMI				AML	AML		
BAKI	Biak	4.13	289	P	Pn	16 02 14.5	+2.1
MWPI	Manokwari, Pap	6.18	285	P	Pn	16 02 40.7	+0.1
	0.1nm28nm,0.9s						
MWPI				AML	AML		
FAKI	Fak Fak	7.76	267	Pn	Pn	16 03 02.4	0.0
FAKI	Fak Fak	7.76	267	P	Pn	16 03 03.7	+1.3
	0.3nm57nm,1.2s						
FAKI				AML	AML		
PMG	Port Moresby	9.84	134	LR	LR	16 08 43.4	
	comp=Z,112nm,18.8s,baz=250,slow=47						
KRVT	Keravat (AS076	12.12	99	LR	LR	16 08 30.7	
	comp=Z,52nm,20.1s,baz=204,slow=37						
RABL	Rabaul	12.24	98	Pn	Pn	16 04 02.9	-0.9
MTN	Manton Dam	13.48	220	Pn	Pn	16 04 20.7	0.0
GUMO	Guam	16.74	17	P	P	16 05 05.8	-0.2
KNRA	Kununurra	17.11	220	Pn	Pn	16 05 08.4	-0.1
KNRA				IAmb	IAmb	16 05 22.1	
	comp=Z,13nm,1.5s						
SOEI	Soe	17.20	245	P	Pn	16 05 12.2	+2.4
SOEI				IAmb	IAmb	16 05 29.5	
	comp=Z,37nm,0.8s						
DAV	Davao City (W)	17.29	304	Pn	Pn	16 05 11.7	+0.9
	comp=Z,57nm,0.3s,baz=63,slow=3.9,SNR=3.7						
DAV	Davao City (W)	17.29	304		Pn	16 05 11.6	+0.9
WR8	Warramunga Arr	18.12	197	P	P	16 05 21.1	-0.1
WR8				IAmb	IAmb	16 05 40.1	
	comp=Z,17nm,1.4s						
WRA	Warramunga Arr	18.15	197	Pn	P	16 05 20.4	-1.1
	comp=Z,0.6nm,0.3s,baz=16,slow=12,SNR=33						
WRA				Sn	Sn	16 08 34.7	-8.7
	comp=Z,0.1nm,0.3s,baz=20,slow=24,SNR=2.1						
	comp=Z,3.0nm,0.5s						
WRA				AML	AML		
WRA	Warramunga Arr	18.15	197	P	P	16 05 21.4	-0.1
FITZ	Fitzroy Crossi	20.91	221	P	P	16 05 49.8	-1.9
	comp=Z,14nm,1.0s,baz=42,slow=14,SNR=12						
FITZ				S	S	16 09 37.8	-6.0
	comp=Z,2.2nm,0.7s,baz=94,slow=14,SNR=3.0						
	comp=Z,14nm,1.0s						
FITZ	Fitzroy Crossi	20.91	221		P	16 05 51.4	-0.3
AS31	Alice Springs	21.81	195	P	P	16 06 00.8	-0.5
ASAR	Alice Springs	21.81	195	P	P	16 06 01.0	-0.3
	comp=Z,1.2nm,0.8s,baz=20,slow=10,SNR=16						
ASAR				S	S	16 10 01.2	-0.2
	comp=Z,0.6nm,0.7s,baz=18,slow=28,SNR=4.1						
	comp=Z,1.2nm,0.8s						
ASAR	Alice Springs	21.81	195	P	P	16 06 00.3	-1.1
CMAR	Chiang Mai Arr	45.49	299	P	P	16 09 28.3	-0.2
	comp=Z,0.9nm,0.6s,baz=115,slow=7.8,SNR=11						
	comp=Z,0.9nm,0.6s						
MORE	Moreh	51.77	304	P	P	16 10 16.0	-0.9
MORE				IAmb	IAmb	16 10 16.2	
	comp=Z,4.2nm,0.9s						
MKAR	Makanchi Array	70.46	322	P	P	16 12 23.9	+0.6
	comp=Z,0.6nm,0.5s,baz=108,slow=8.6,SNR=7.0						
	comp=Z,0.6nm,0.5s						
MKAR	Makanchi Array	70.46	322	P	P	16 12 23.3	0.0
MAKZ	Makanchi	70.66	322	P	P	16 12 24.5	0.0
MAKZ				IAmb	IAmb	16 12 51.4	
	comp=Z,2.4nm,1.0s						
ZALV	Zalesovo Beam	72.46	329	P	P	16 12 34.9	-0.2
	comp=Z,0.2nm,0.3s,baz=104,slow=11,SNR=1.5						
	comp=Z,0.2nm,0.3s						
KURK	Kurchatov	74.34	325	P	P	16 12 46.0	-0.3
KURBB	Kurchatov Arra	74.35	324	P	P	16 12 46.0	-0.4
	comp=Z,0.2nm,0.5s,baz=116,slow=5.5,SNR=4.6						
	comp=Z,0.2nm,0.5s						
ILAR	Eielson Array	85.15	24	P	P	16 13 43.6	-1.1
	comp=Z,0.4nm,0.7s,baz=261,slow=6.2,SNR=3.3						
	comp=Z,0.4nm,0.7s						
ABKAR	Akbulak array	85.44	320	P	P	16 13 46.3	-0.1
RIDG	Independent Ri	85.74	26	P	P	16 13 47.5	-0.2
RIDG				IAmb	IAmb	16 14 03.9	
	comp=Z,4.5nm,1.4s						
S31K	Pelican	88.83	32	P	P	16 14 01.7	-0.9
KHC	Kasperske Hory	115.03	324	eP	Pdif	16 16 10.0	+9.1

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*NIED **14** 16:05:11.8, 31°.33N×128°.72E, h11^{km}, MW4.1, Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M$_{rr}$0.28; M$_{\theta\theta}$0.06; M$_{\phi\phi}$-0.34; M$_{r\theta}$-0.47; M$_{\theta\phi}$1.43; M$_{\phi r}$-0.03; Fault plane solution: M$_{0}$1.53000×10^{15} NP1: ϕ_s183.00000°, δ71.00000°, λ173.00000°. NP2: ϕ_s276.00000°, δ83.00000°, λ19.00000°.*

*JMA **14** 16:05:11.8±0.3, 31°.3N±0°.6×128°.7E±0°.9, h11^{km}±2^{km}, MD4.2/37, MV4.3/37, SW OFF KYUSHU*

*IDC **14** 16:05:12.7±0.7, 31°.24N×129°.49E, h0^{km}, mb3.9/16, mbtmp3.8/19, ML3.0/3, MS3.3/15, Error ellipse: s-maj=20.5km s-min=12.9km az=83.0*

*NEIC **14** 16:05:16.6±2.5, 31°.42N±0°.07×129°.09E±0°.08, h10^{km}±1^{km}, mb4.4/24, Error ellipse: s-maj=12.4km s-min=11.0km az=134.0*

ISC 14 16:05:16.0±0.4, 31°.36N±0°.05×129°.11E±0°.05, h10^{km}, n86, σ2^{s}.01/74, mb4.2/27, MS3.6/12, 1D, Kyushu

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JSJ	Shimokoshiki	0.61	58	⇓iP	Pb	16 05 29.0	+0.3
JSJ				A	A	16 05 29.0	
	comp=N,20nm,1.8s,comp=E,11nm,1.5s						
JSU	Suzuyama	1.16	82		Pb	16 05 38.9	+0.8
JSU	Suzuyama	1.16	82	P	Pb	16 05 38.6	+0.5
JSU				S	Sn	16 05 58.2	+4.1
JKC	Kuchinoerabu	1.29	134	P	Pn	16 05 40.7	+0.7
JKC				S	Sg	16 05 59.9	+2.4
JFU	Fukue jima 2	1.33	347	P	Pn	16 05 36.4	-4.2
JZO	Okuchi	1.49	58	A	A	16 05 43.2	
	comp=N,4.0nm,2.7s,comp=E,4.0nm,1.4s						
JYAK	Yakushimahirau	1.64	133	P	Pn	16 05 43.1	-1.8
JNN	Nakanoshima	1.65	156	P	Pn	16 05 42.0	-3.0
JNN				A	A	16 05 42.0	
	comp=N,4.0nm,0.7s,comp=E,5.0nm,1.7s						
JTN	Tanegashima 3	1.75	113	P	Pn	16 05 46.0	-0.4
JTZ	Takazaki	1.77	72	i P	Pn	16 05 47.3	+0.6
JMTN	Minamitane	1.81	121	P	Pn	16 05 46.5	-0.7
JNAR	Kushima--Naru	1.85	84	A	A	16 05 48.9	
	comp=N,5.0nm,1.9s,comp=E,5.0nm,4.2s						
JIU3	Izumi3	1.87	50	P	Pn	16 05 48.1	+0.1
JNKG	Nichinankitago	1.96	81	A	A	16 05 50.4	
	comp=N,5.0nm,4.7s,comp=E,4.0nm,1.4s						
JNU	Nakatsue	2.31	40	Pn	Pn	16 05 53.9	-0.3
	comp=E,3.7nm,0.3s,baz=221,slow=11,SNR=67						
JNU				Lg	Lg	16 06 27.9	
	comp=E,12nm,0.3s,baz=240,slow=7.8,SNR=6.3						
JNU				LR	LR	16 06 54.9	
	comp=E,330nm,19.7s,baz=236,slow=46						
JOW	Kunigami	4.57	189	Pn	Pn	16 06 23.4	-1.7
	comp=E,1.6nm,0.3s,baz=12,slow=13,SNR=9.0						
	comp=E,5.8nm,0.5s						
JOW				AML	AML		
JOW	Kunigami	4.57	189	Pn	Pn	16 06 26.0	+0.8
TJN	Taejon	5.21	344		Pn	16 06 31.5	-2.5
KSRS	Korea Array	6.16	351	Pn	Pn	16 06 45.0	-2.0
	comp=E,0.5nm,0.3s,baz=173,slow=13,SNR=12						
KSRS				Sn	Sn	16 07 53.5	-3.9
	comp=E,0.6nm,0.3s,baz=180,slow=18,SNR=4.5						
KSRS				Lg	Lg	16 08 22.9	
	comp=E,0.9nm,0.3s,baz=169,slow=29,SNR=5.3						
KSRS				LR	LR	16 08 55.7	
	comp=E,91nm,19.8s,baz=175,slow=35						
KS19	Wonju Array Si	6.21	351	Pn	Pn	16 06 45.5	-2.3
INU	Inuyama	7.72	57		Pn	16 07 09.2	+0.8
NJ2	Nanjing	8.77	277	eP	Pn	16 07 24.0	+1.2
NJ2				pmax	pmax		
	comp=Z,8.0nm,0.6s						
MJAR	Matsushiro Arr	9.15	53	Pn	Pn	16 07 27.1	-1.0
	comp=Z,0.1nm,0.3s,baz=240,slow=14,SNR=5.6						
	comp=Z,1.2nm,0.5s						
MJAR				AML	AML		
DL2	Dalian	9.71	323	eP	Pn	16 07 36.8	+1.2
DL2				eS	Sn	16 09 25.3	+0.6
DL2				pmax	pmax		
	comp=Z,6.0nm,0.5s						
DL2				LR	LR		
	comp=N,450nm,10.3s						
DL2				LR	LR		
	comp=E,280nm,11.9s						
DL2				LR	LR		
	comp=Z,580nm,11.8s						
SSLB	Suanglung	10.45	226		Pn	16 07 50.0	+4.1
TIA	Tai'an	11.09	299	P	Pn	16 08 03.3	+8.7
TIA				pmax	pmax		
	comp=Z,6.0nm,0.8s						
TIA				LR	LR		
	comp=N,430nm,11.5s						
TIA				LR	LR		
	comp=E,520nm,8.2s						
TIA				LR	LR		
	comp=Z,410nm,10.8s						
CN2	Changchun	12.76	348	eP	Pn	16 08 23.5	+6.1
CN2				epP		16 08 33.0	
CN2				eS	Sn	16 10 46.1	+6.7
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
CN2				pmax	pmax		
	comp=Z,100nm,3.0s						
CN2				LR	LR		
	comp=N,300nm,10.0s						
CN2				LR	LR		
	comp=E,300nm,10.0s						
CN2				LR	LR		
	comp=Z,300nm,11.0s						
USRK	Ussuriysk Ar.	13.02	9	LR	LR	16 12 38.0	
	comp=Z,26nm,21.0s,baz=201,slow=34						
ASAJ	Asahikawa	16.58	36	Pn	Pn	16 09 02.5	-6.0
	comp=Z,0.1nm,0.3s,baz=246,slow=20,SNR=2.7						
ASAJ				LR	LR	16 14 53.0	
	comp=Z,95nm,21.8s,baz=234,slow=35						
JKA	Kamikawa-asahi	16.58	36		Pn	16 09 08.6	0.0
JKA				IAmb	IAmb	16 09 42.5	
	comp=Z,28nm,1.3s						
JKA	Kamikawa-asahi	16.58	36		Pn	16 09 02.5	-6.0
KLR	Kul'dur	17.96	6	P	Pn	16 09 24.0	-1.7
	comp=Z,0.1nm,0.3s,baz=176,slow=19,SNR=8.5						
	comp=Z,1.2nm,0.6s						
KLR				AML	AML		
QIZ	Qiongzhong	21.28	239	P	P	16 10 02.1	-0.6
QIZ				S	S	16 14 00.8	+1.5
QIZ				LR	LR		
	comp=N,150nm,7.0s						
QIZ				LR	LR		
	comp=E,140nm,10.8s						
QIZ				LR	LR		
	comp=Z,110nm,11.1s						
LZDM	Lanzhou Array	21.62	289	P	P	16 10 08.3	+1.7
	comp=Z,0.9nm,0.3s,baz=99,slow=13,SNR=1.0						
	comp=Z,0.9nm,0.3s						
GUMO	Guam	22.86	137	LR	LR	16 18 47.6	
	comp=Z,44nm,18.7s,baz=46,slow=36						
SONM	Songino Array	23.89	320	P	P	16 10 30.5	+0.6
	comp=Z,3.3nm,0.8s,baz=137,slow=8.9,SNR=16						
	comp=Z,3.3nm,0.8s						
SONM	Songino Array	23.89	320	P	P	16 10 29.9	0.0
PETK	Petropavlovsk-	30.00	35	LR	LR	16 23 24.5	
	comp=Z,81nm,20.2s,baz=210,slow=36						
CMAR	Chiang Mai Arr	30.12	252	LR	LR	16 23 49.8	
	comp=Z,36nm,19.4s,baz=55,slow=37						
ZALV	Zalesovo Beam	38.77	319	P	P	16 12 41.2	+0.8
	comp=Z,0.4nm,0.4s,baz=95,slow=11,SNR=2.6						
ZALV				LR	LR	16 29 59.1	
	comp=Z,66nm,19.1s,baz=119,slow=38						
	comp=Z,0.4nm,0.4s						
MKAR	Makanchi Array	38.88	307	P	P	16 12 41.6	0.0
	comp=Z,0.7nm,0.8s,baz=99,slow=9.2,SNR=3.6						
	comp=Z,0.7nm,0.8s						
PDGK	Podgornoye	40.67	301	P	P	16 12 56.8	+0.2
KURK	Kurchatov	41.78	313	P	P	16 13 06.5	+1.0
KURK				IAmb	IAmb	16 13 07.0	
	comp=Z,1.2nm,0.8s						
KURBB	Kurchatov Arra	41.82	312	P	P	16 13 06.2	+0.4
	comp=Z,1.2nm,0.8s,baz=100,slow=9.0,SNR=8.5						
	comp=Z,1.2nm,0.8s						
TARG	Taragay, Kyrgy	41.95	299	P	P	16 13 08.5	+1.0
TARG				IAmb	IAmb	16 13 10.3	
	comp=Z,3.5nm,0.7s						
AAK	Ala-Archa	44.36	301	LR	LR	16 32 26.8	
	comp=Z,29nm,18.3s,baz=122,slow=37						
NRIK	Noril'sk	44.66	340	P	P	16 13 27.9	-0.5
	comp=Z,3.1nm,0.7s,baz=122,slow=9.5,SNR=4.9						
	comp=Z,3.1nm,0.7s						
NRIK	Noril'sk	44.66	340	IAmb	IAmb	16 13 52.2	
	comp=Z,5.0nm,1.0s						
BORK	Borovoye	47.12	315		P	16 13 48.5	+0.4
BORK				IAmb	IAmb	16 13 50.5	
	comp=Z,4.2nm,0.6s						
KK31	Karatay Array	47.23	302		P	16 13 48.8	-0.4
KK31				IAmb	IAmb	16 13 51.5	
	comp=Z,4.5nm,0.8s						
KKAR	Karatay Array	47.23	302		P	16 13 50.2	+1.1
FITZ	Fitzroy Crossi	49.28	184	P	P	16 14 02.8	-2.3
	comp=Z,3.6nm,1.0s,baz=352,slow=15,SNR=3.3						
	comp=Z,3.6nm,1.0s						
FITZ	Fitzroy Crossi	49.28	184	IAmb	IAmb	16 14 03.5	
	comp=Z,1.3nm,1.1s						
WRA	Warramunga Arr	51.25	174	P	P	16 14 16.6	-3.4
	comp=Z,1.3nm,0.8s,baz=354,slow=7.6,SNR=7.5						
	comp=Z,1.3nm,0.8s						
WRA	Warramunga Arr	51.25	174	P	P	16 14 17.5	-2.5
G16K	Koyuk River	53.03	29	P	P	16 14 31.8	-1.0
I17K	Unalakleet	53.65	31	P	P	16 14 36.3	-1.1
AB31	Akbulak array	53.81	311		P	16 14 39.6	+0.9
AB31				IAmb	IAmb	16 14 40.8	
	comp=Z,2.2nm,0.8s						
ABKAR	Akbulak array	53.81	311	P	P	16 14 39.4	+0.7
ARTI	Arti	54.03	320	LR	LR	16 40 17.3	
	comp=Z,48nm,21.4s,baz=70,slow=39						
ARTI	Arti	54.03	320	P	P	16 14 41.3	+1.1
AKTO	Aktyubinsk	54.88	312	LR	LR	16 39 52.3	
	comp=Z,128nm,18.1s,baz=48,slow=38						
AS31	Alice Springs	54.90	175	P	P	16 14 44.9	-2.0
ASAR	Alice Springs	54.91	175	P	P	16 14 44.1	-2.8
	comp=Z,1.6nm,0.9s,baz=345,slow=6.0,SNR=18						
	comp=Z,1.6nm,0.9s						
ASAR	Alice Springs	54.91	175	P	P	16 14 44.7	-2.2
D20K	Etivluk River	55.48	25	P	P	16 14 50.2	-0.4
D20K				IAmb	IAmb	16 15 04.5	
	comp=Z,4.2nm,1.1s						
E21K	Killik River	56.44	26	P	P	16 14 57.0	-0.5
E21K				IAmb	IAmb	16 15 23.8	
	comp=Z,5.0nm,1.2s						
H24K	Noodor Dome	59.02	28	P	P	16 15 16.6	+0.9
H24K				IAmb	IAmb	16 15 51.2	
	comp=Z,4.3nm,1.4s						
ILAR	Eielson Array	59.59	30	P	P	16 15 18.7	-0.9
	comp=Z,0.4nm,0.7s,baz=278,slow=7.0,SNR=1.5						
	comp=Z,0.4nm,0.7s						
BCAR	Beaver Creek A	62.15	31	P	P	16 15 37.3	+0.2
SPITS	Spitsbergen Ar	63.99	348	P	P	16 15 51.5	+2.4
	comp=Z,2.4nm,0.6s,baz=89,slow=15,SNR=9.1						
KBZ	Khabaz	66.57	308	P	P	16 16 07.4	+1.2
	comp=Z,2.1nm,0.8s,baz=77,slow=6.7,SNR=6.2						
	comp=Z,2.1nm,0.8s						
FIA1	FINESS Array S	68.81	330	P	P	16 16 20.1	0.0
FINES	FINESS Array B	68.81	330	P	P	16 16 20.3	+0.2
	comp=Z,2.2nm,0.6s,baz=64,slow=4.8,SNR=14						
FINES				LR	LR	16 48 56.8	
	comp=Z,41nm,19.6s,baz=42,slow=38						
	comp=Z,2.2nm,0.6s						
AKASG	Malin Array Be	72.17	319	P	P	16 16 40.6	-0.2
	comp=Z,0.2nm,0.3s,baz=356,slow=14,SNR=2.4						
AKASG				LR	LR	16 49 29.5	
	comp=Z,37nm,20.1s,baz=19,slow=37						
	comp=Z,0.2nm,0.3s						
AKASG	Malin Array Be	72.17	319	IAmb	IAmb	16 16 47.9	
	comp=Z,3.6nm,1.2s						
BRTR	Keskin Array B	74.53	307	P	P	16 16 56.5	+1.3
	comp=Z,1.1nm,0.8s,baz=88,slow=4.6,SNR=4.4						
	comp=Z,1.1nm,0.8s						
NOA	NORSAR Array B	75.08	334	P	P	16 16 57.6	-0.1
	comp=Z,0.7nm,0.6s,baz=52,slow=5.7,SNR=3.6						
	comp=Z,0.7nm,0.6s						
SUMG	Summit	75.99	356	P	P	16 17 02.1	-1.1
SUMG				IAmb	IAmb	16 17 06.8	
	comp=Z,11nm,1.4s						
MLR	Muntele Rosu	76.64	315	LR	LR	16 53 35.9	
	comp=Z,30nm,19.7s,baz=3.0,slow=38						
MORC	Moravsky Berou	79.03	322	P	P	16 17 19.6	-0.6
MORC				IAmb	IAmb	16 17 20.6	
	comp=Z,1.5nm,0.7s						
CLL	Collm	80.40	325	i P	P	16 17 27.9	+0.3
J05D	Fort Rock, OR	81.74	44	P	P	16 17 33.4	-1.8
J05D				IAmb	IAmb	16 18 12.6	
	comp=Z,9.9nm,0.8s						
FOZ	Fox Glacier	83.32	151	P	P	16 17 42.4	-0.4
PDAR	Pinedale Array	88.69	39	P	P	16 18 09.0	-1.0
	comp=Z,0.3nm,0.7s,baz=348,slow=7.0,SNR=1.4						
	comp=Z,0.3nm,0.7s						
PFO	Pinyon Flats O	90.57	49	LR	LR	16 51 59.8	
	comp=Z,22nm,20.0s,baz=80,slow=31						

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*SJA **14** 16:15:46.0±0.7, 21°.11S×68°.68W, h140^{km}, ML3.5, MW3.6*

*IDC **14** 16:15:47.8±3.1, 21°.06S×68°.20W, h140^{km}±33^{km}, mb3.5/2, mbtmp3.8/4, Error ellipse: s-maj=69.7km s-min=26.3km az=107.0*

*GUC **14** 16:15:47.0±0.7, 21°.10S×68°.59W, h135^{km}±4^{km}, ML3.6*

ISC 14 16:15:46.6±0.8, 21°.12S±0°.03×68°.73W±0°.07, h146^{km}±7^{km}, n39, σ1^{s}.13/60, 1C-3D, Chile-Bolivia border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB09	IPOC Station P	0.83	215	eP	Pn	16 16 09.5	-0.2
PB09				eS	Sn	16 16 27.2	-0.2
PB09				IAML		16 16 30.2	
	comp=Z,811nm,0.4s						
PB09	IPOC Station P	0.83	215	⇓iP	Pn	16 16 09.7	-0.1
PB09				eS	Sn	16 16 26.5	-0.9
PB09				IAML		16 16 28.3	
	comp=N,1μm,0.2s						
PB02	IPOC Station P	1.11	259	eP	Pn	16 16 12.2	+0.2
PB02				eS	Sn	16 16 30.6	-0.7
PB02				IAML		16 16 35.7	
	comp=Z,1μm,0.2s						
PB02	IPOC Station P	1.11	259	⇓iP	Pn	16 16 12.2	+0.2
PB02				i S	Sn	16 16 31.4	0.0
PB02				IAML		16 16 33.7	
	comp=E,2μm,0.4s						
PB07	IPOC Station P	1.24	240	eP	Pn	16 16 13.3	0.0
PB07				eS	Sn	16 16 33.9	+0.2
PB07				IAML		16 16 35.1	
	comp=Z,674nm,0.4s						
PB07	IPOC Station P	1.24	240	⇓iP	Pn	16 16 13.5	+0.1
PB07				i S	Sn	16 16 33.3	-0.4
PB07				IAML		16 16 34.2	
	comp=N,977nm,0.4s						
PB03	IPOC Station P	1.33	226	eP	Pn	16 16 14.2	0.0
PB03				eS	Sn	16 16 35.2	-0.2
PB03				IAML		16 16 36.9	
	comp=Z,758nm,0.2s						
PB03	IPOC Station P	1.33	226	eP	Pn	16 16 14.0	-0.2
PB03				eS	Sn	16 16 34.5	-0.9
PB03				IAML		16 16 35.8	
	comp=E,939nm,0.5s						
TA01	Diego Aracena	1.46	292	eP	Pn	16 16 15.7	+0.3
TA01				eS	Sn	16 16 38.0	+0.5
TA01				IAML		16 16 39.9	
	comp=Z,236nm,0.8s						
TA01	Diego Aracena	1.46	292	eP	Pn	16 16 15.3	-0.1
TA01				eS	Sn	16 16 37.2	-0.3
TA01				IAML		16 16 40.8	
	comp=E,485nm,0.3s						
GO01	Chusmiza	1.50	343	eP	Pn	16 16 16.3	-0.2
GO01				IAML		16 16 41.7	
	comp=Z,311nm,0.3s						
GO01	Chusmiza	1.50	343	⇑iP	Pn	16 16 15.9	-0.5
GO01				eS	Sn	16 16 38.2	-0.9
GO01				IAML		16 16 42.0	
	comp=N,1μm,0.3s						
TA02	Huaiquique	1.56	302	eP	Pn	16 16 16.2	-0.3
TA02				IAML		16 16 47.2	
	comp=Z,316nm,0.1s						
TA02	Huaiquique	1.56	302	eP	Pn	16 16 16.2	-0.3
TA02				eS	Sn	16 16 39.2	-0.1
TA02				IAML		16 16 44.0	
	comp=N,1μm,0.1s						
PB11	IPOC Station P	1.60	327	eP	Pn	16 16 16.9	-0.3
PB11				IAML		16 16 41.9	
	comp=Z,368nm,0.3s						
PB11	IPOC Station P	1.60	327	eP	Pn	16 16 16.5	-0.6
PB11				eS	Sn	16 16 39.7	-0.8
PB11				IAML		16 16 41.5	
	comp=N,2μm,0.2s						

```
PB06  IPOC Station P    1.77 206 eP     Pn      16 16 19.3 +0.3
PB06                             eS     Sn      16 16 43.6 -0.2
PB06                              IAML          16 16 45.1
      comp=Z,389nm,0.2s
PB06  IPOC Station P    1.77 206 eP     Pn      16 16 18.8 -0.1
PB06                             eS     Sn      16 16 42.9 -0.9
PB06                              IAML          16 16 45.1
      comp=E,733nm,0.3s
AF01  San Pedro de A    1.90 164 eP     Pn      16 16 20.6  0.0
AF01                             eS     Sn      16 16 27.8  -19
AF01                              IAML          16 17 02.9
      comp=Z,198nm,1.2s
PSGCX Pisagua           2.00 319 eP     Pn      16 16 20.8 -0.8
PSGCX                            eS     Sn      16 16 48.1 -0.2
PSGCX                             IAML          16 16 49.0
      comp=Z,112nm,0.2s
PSGCX Pisagua           2.00 319 eP     Pn      16 16 20.8 -0.8
PSGCX                            eS     Sn      16 16 46.9 -1.5
PB05  IPOC Station P    2.20 218 eP     Pn      16 16 24.5 +0.5
PB05                             eS     Sn      16 16 52.2 -0.6
PB05                              IAML          16 16 55.7
      comp=Z,124nm,0.5s
PB05  IPOC Station P    2.20 218 eP     Pn      16 16 24.1 +0.1
PB05                             i S    Sn      16 16 51.1 -1.7
PB05                              IAML          16 16 55.2
      comp=E,248nm,0.6s
PB16  IPOC Station P    2.86 345 eP     Pn      16 16 33.0 +0.3
PB16                              IAML          16 17 18.2
      comp=Z,50nm,0.3s
PB12  IPOC Station P    2.91 329 eP     Pn      16 16 32.1 -0.6
PB12                             eS     Sn      16 17 04.6 -3.8
PB12                              IAML          16 17 11.6
      comp=Z,83nm,0.2s
PB12  IPOC Station P    2.91 329 eP     Pn      16 16 31.2 -1.5
AP01  Chacalluta        3.12 331 eP     Pn      16 16 48.5  +13
AP01                              IAML          16 18 16.2
      comp=Z,215nm,0.3s
HJA   Humahuaca         3.72 125 eP     Pn      16 16 42.8 -0.6
SALTA                   3.80 145 eP     Pn      16 16 44.9 +0.2
SALTA                            eP             16 16 49.9
PB14  IPOC Station P    3.82 204 eP     Pn      16 16 44.2 -0.5
PB14                             eS     Sn      16 17 27.9 -1.8
PB14                              IAML          16 17 53.4
      comp=Z,46nm,0.4s
LPAZ  La Paz            4.83   7  P     Pn      16 16 58.4  0.0
      comp=Z,12nm,0.5s,baz=186,slow=7.9,SNR=42
LPAZ  La Paz            4.83   7 eP     Pn      16 16 59.6 +1.2
AC01  Pan de Azucar     5.29 199 eP     Pn      16 17 01.6 -2.3
AC01                             eS     Sn      16 18 00.0 -4.2
AC01                              IAML          16 18 48.2
      comp=Z,34nm,1.6s
PLCA  Paso Flores      19.62 184  P     Pn      16 20 05.8 -0.8
      comp=Z,0.6nm,0.5s,baz=0.0,slow=7.1,SNR=1.7
QSPA  South Pole Qui   69.08 180  P     P       16 26 39.6 +3.0
      comp=Z,0.4nm,0.5s,baz=129,slow=7.3,SNR=1.2
      comp=Z,0.4nm,0.5s
TORD  Torodi Ar. Bea   77.07  70  P     P       16 27 23.2 -1.1
      comp=Z,0.9nm,0.5s,baz=253,slow=6.4,SNR=5.8
      comp=Z,0.9nm,0.5s
ASAR  Alice Springs   130.33 208  PKP   PKiKP   16 34 41.9 +0.6
      comp=Z,0.7nm,1.2s,baz=104,slow=2.0,SNR=4.1
WRA   Warramunga Arr  133.37 210  PKP   PKiKP   16 34 47.6 +0.1
      comp=Z,0.5nm,1.0s,baz=143,slow=1.9,SNR=2.0
MKAR  Makanchi Array  145.22  36  PKP   PKPab   16 35 08.2 +1.0
      comp=Z,0.6nm,0.5s,baz=331,slow=3.2,SNR=7.5
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*IDC **14** 16:18:40.3±0.8, 46.°64N×150.°48E, h0^{km}, mb3.6/7, mbtmp3.6/14, ML3.1/6, MS3.1/11, Error ellipse: s-maj=25.9km s-min=13.3km az=142.0*

*SKHL **14** 16:18:41.8±0.4, 46.°60N×150.°50E, h92^{km}±6^{km}, mb4.5/4, msh5.1/4*

ISC 14 16:18:41.5±0.7**, 46.°6N**±0.°1×**150.°5E**±0.°1**, h10**^{km}**, n36, σ2.^{s}24**/24**, mb3.7**/6**, MS3.1**/4**, Kuril Islands**

```
Code  Station Name        Δ°  AZ°   Phase ID        Time     Res
                                  Op     ISC     h  m  s    ISC
REI   Reidovoe          2.16 233 eP     Pn      16 19 15.2 -2.3
REI                               AMB   AMB     16 19 16.6
      100nm,0.6s
REI                              eS     Sn      16 19 40.4 -3.9
REI                               A     A       16 19 42.2
      80nm,0.3s
REI                               A     A       16 19 42.2
      60nm,0.3s
KUR   Kuril'sk          2.26 234 eP     Pn      16 19 17.4 -1.5
KUR                               AMB   AMB     16 19 18.4
      20nm,0.2s
KUR                              eS     Sn      16 19 44.4 -2.4
KUR                               A     A       16 20 05.4
      230nm,0.5s
KUR                               A     A       16 20 05.4
      110nm,0.5s
SHO   Shikotan          3.74 225 eP     Pg      16 19 56.9 +3.9
SHO                               AMB   AMB     16 20 02.2
      20nm,0.4s
SHO                              eS     Sg      16 20 42.4 +1.0
SHO                               A     A       16 20 50.4
      60nm,0.4s
SHO                               A     A       16 20 50.4
      70nm,0.4s
YUK   Yuzh-Kuril'sk     4.13 234 eP     Pn      16 19 43.2 -1.4
YUK                               AMB   AMB     16 19 49.9
      150nm,0.8s
YUK                              eS     Sn      16 20 28.8 -4.1
YUK                               A     A       16 20 33.2
      120nm,0.7s
YUK                               A     A       16 20 33.2
      110nm,0.7s
NMR   Nemuro--Hokkai    4.65 228 eP     Pn      16 19 50.6 -1.1
NMR                              eS     Sn      16 20 42.2 -3.5
AKK   Akkeshi           5.36 230 eP     Pn      16 20 00.7 -0.8
ASAJ  Asahikawa         6.07 249  Pn    Pn      16 20 14.1 +2.9
      0.2nm,0.3s,baz=60,slow=8.1,SNR=2.0
      4.9nm,0.8s
ASAJ                              AML   AML
PETK  Petropavlovsk-    8.03  33  Pn    Pn      16 20 37.5 -0.6
      0.3nm,0.3s,baz=225,slow=16,SNR=1.9
      1.1nm,0.5s
PETK                              AML   AML
KLR   Kul'dur          12.84 289  LR    LR      16 26 33.2
      comp=Z,78nm,18.8s,baz=105,slow=37
MA2   Magadan          13.02   1  LR    LR      16 26 57.7
      comp=Z,67nm,18.7s,baz=219,slow=38
USRK  Ussuriysk Ar.    13.21 266  Pn    Pn      16 21 50.6 +1.7
      0.1nm,0.3s,baz=84,slow=15,SNR=2.7
USRK                              LR    LR      16 27 14.4
      comp=Z,62nm,19.4s,baz=156,slow=39
      2.5nm,0.9s
USRK                              AML   AML
MJAR  Matsushiro Arr   13.58 227  Pn    Pn      16 21 51.1 -3.0
      baz=23,slow=14,SNR=1.9
MJAR                              LR    LR      16 27 37.2
      comp=Z,41nm,19.1s,baz=74,slow=39
      0.3nm,0.4s
JHJ   Hachijo jima 2   15.73 215  LR    LR      16 29 29.8
      comp=Z,16nm,19.0s,baz=200,slow=41
SEY   Seymchan         16.42   3  Pn    P       16 22 33.1 -1.5
      0.2nm,0.3s,baz=179,slow=13,SNR=4.4
SEY                               LR    LR      16 29 35.1
      comp=Z,147nm,18.9s,baz=150,slow=40
      1.3nm,0.8s
SEY                               AML   AML
KSRS  Korea Array      19.02 249  P     Pn      16 23 05.1 +1.0
      0.8nm,0.9s,baz=61,slow=13,SNR=2.0
YAK   Yakutsk          19.52 330  P     Pn      16 23 09.9  0.0
      0.4nm,0.3s,baz=122,slow=19,SNR=2.1
YAK                               LR    LR      16 30 20.9
      comp=Z,59nm,20.9s,baz=158,slow=36
      2.7nm,0.5s
YAK                               AML   AML
HILR  Hailar Array B   20.67 290  P     Pn      16 23 22.3 -1.4
      0.8nm,0.4s,baz=83,slow=12,SNR=2.5
      0.8nm,0.4s
SONM  Songino Array    29.67 289  LR    LR      16 37 28.4
      comp=Z,46nm,19.0s,baz=65,slow=38
H11N2 WAKE ISLAND Hy   29.98 148  T     T       16 56 06.9
      baz=337,slow=76,SNR=180
H11N1 WAKE ISLAND Hy   29.99 148  T     T       16 56 09.2
      baz=337,slow=76,SNR=156
H11N3 WAKE ISLAND Hy   30.00 148  T     T       16 56 10.2
      baz=337,slow=76,SNR=128
H11S1 WAKE ISLAND Hy   31.03 149  T     T       16 57 23.4
      baz=338,slow=76,SNR=173
H11S3 WAKE ISLAND Hy   31.04 149  T     T       16 57 23.6
      baz=338,slow=76,SNR=94
H11S2 WAKE ISLAND Hy   31.05 149  T     T       16 57 24.3
      baz=338,slow=76,SNR=128
ILAR  Eielson Array    37.81  38  P     P       16 25 57.7 +0.1
      0.6nm,1.0s,baz=270,slow=7.7,SNR=4.6
      0.6nm,1.0s
NRIK  Noril'sk         37.97 329  LR    LR      16 42 08.0
      comp=Z,30nm,18.3s,baz=60,slow=37
ZALV  Zalesovo Beam    41.23 305  LR    LR      16 44 04.8
      comp=Z,29nm,19.5s,baz=42,slow=37
MKAR  Makanchi Array   45.39 296  LR    LR      16 46 48.8
      comp=Z,59nm,18.0s,baz=81,slow=37
NVAR  Mina Array Bea   64.11  61  P     P       16 29 17.4 +1.3
      0.3nm,0.4s,baz=298,slow=6.5,SNR=2.5
      0.3nm,0.4s
PDAR  Pinedale Array   66.30  52  P     P       16 29 31.1 +0.9
      0.5nm,0.7s,baz=310,slow=2.9,SNR=5.3
      0.5nm,0.7s
WRA   Warramunga Arr   67.80 196  P     P       16 29 39.9 +0.4
      0.8nm,1.0s,baz=10,slow=6.4,SNR=3.3
      0.8nm,1.0s
ASAR  Alice Springs    71.51 196  P     P       16 30 03.3 +1.0
      0.6nm,0.9s,baz=12,slow=5.2,SNR=4.1
      0.6nm,0.9s
TXAR  Lajitas Array    79.15  59  P     P       16 30 45.4 -1.2
      0.5nm,0.8s,baz=318,slow=6.3,SNR=5.0
      0.5nm,0.8s
H03N2 Juan Fernandez  140.57  89  T     T       19 14 38.0
      baz=301,slow=78,SNR=28
H03N1 Juan Fernandez  140.59  89  T     T       19 14 39.4
      baz=301,slow=78,SNR=26
H03N3 Juan Fernandez  140.59  89  T     T       19 14 42.9
      baz=301,slow=78,SNR=699
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*IDC **14** 16:54:55.7±6.6, 36.°11N×71.°05E, h92^{km}±58^{km}, mb3.3/8, mbtmp3.6/12, ML3.3/4, Error ellipse: s-maj=47.6km s-min=24.0km az=33.0*

*NNC **14** 16:55:03.8±16.0, 36.°79N×70.°60E, h103^{km}±384^{km}, mb3.4, mpv3.9, Error ellipse: s-maj=129.5km s-min=107.9km az=8.0*

ISC 14 16:55:05.1±1.6**, 36.°8N**±0.°1×**71.°0E**±0.°1**, h150**^{km}**, n15, σ1.^{s}75**/17**, mb3.3**/6**, 2C-4D, Hindu Kush region**

```
Code  Station Name        Δ°  AZ°   Phase ID        Time     Res
                                  Op     ISC     h  m  s    ISC
KK31  Karatay Array     6.26 357 ⇓P     Pn      16 56 35.4 +0.1
      6.1nm,0.3s,baz=176,slow=12,SNR=80
KK31                             ⇓S     Sn      16 57 47.5 +1.6
      2.7nm,0.3s,baz=186,slow=24,SNR=7.2
AAK   Ala-Archa         6.40  24  P     Pn      16 56 37.1 -0.2
      1.6nm,0.3s,baz=207,slow=7.7,SNR=13
AAK                               S     Sn      16 57 48.3 -1.1
      3.9nm,0.3s,baz=155,slow=19,SNR=9.7
      3.0nm,0.3s
AAK                               AML   AML
AAK   Ala-Archa         6.40  24 ⇓P     Pn      16 56 37.1 -0.2
      1.9nm,0.4s
AAK                              ⇓S     Sn      16 57 49.0 -0.4
      2.7nm,0.5s
MKAR  Makanchi Array   13.04  37  P     Pn      16 58 04.2 -0.6
      0.1nm,0.3s,baz=221,slow=11,SNR=6.1
      0.4nm,1.0s
MKAR                              AML   AML
AB31  Akbulak array    14.77 331 ⇑P     Pn      16 58 26.9 +0.4
      1.2nm,0.4s,baz=140,slow=12,SNR=52
AB31                             ⇑S     Sn      17 01 06.8 -3.4
      1.0nm,0.7s,baz=298,slow=39,SNR=4.6
KURBB Kurchatov Arra   14.81  19  P     Pn      16 58 27.1 +0.1
      0.1nm,0.3s,baz=207,slow=11,SNR=4.6
      0.3nm,0.4s
KURBB                             AML   AML
BVAR  Borovoye Array   16.19 359  P     P       16 58 45.2 +0.9
      0.1nm,0.3s,baz=167,slow=14,SNR=5.1
      0.8nm,0.4s
BVAR                              AML   AML
ZALV  Zalesovo Beam    19.62  25  P     Pn      16 59 23.4 -1.3
      2.4nm,0.3s,baz=215,slow=10,SNR=14
      2.4nm,0.3s
FINES FINESS Array B   37.18 326  P     P       17 02 04.4 +3.1
      1.8nm,1.0s,baz=109,slow=7.7,SNR=1.2
      1.8nm,1.0s
ARCES ARCESS Array B   40.81 337  P     P       17 02 33.7 +2.3
      0.5nm,0.6s,baz=122,slow=9.5,SNR=3.8
      0.5nm,0.6s
HFS   Hagfors          42.77 322  P     P       17 02 47.5 +0.1
      0.7nm,0.5s,baz=105,slow=11,SNR=2.4
      0.7nm,0.5s
NOA   NORSAR Array B   44.08 323  P     P       17 02 59.0 +1.1
      0.3nm,0.6s,baz=98,slow=8.0,SNR=2.1
      0.3nm,0.6s
TORD  Torodi Ar. Bea   65.68 268  P     P       17 05 30.9 -2.8
      0.8nm,0.9s,baz=51,slow=5.3,SNR=2.7
      0.8nm,0.9s
WRA   Warramunga Arr   82.21 122  P     P       17 07 04.6 -5.0
      0.5nm,1.1s,baz=319,slow=5.3,SNR=2.3
      0.5nm,1.1s
ASAR  Alice Springs    84.48 125  P     P       17 07 15.9 -5.3
      0.3nm,0.8s,baz=314,slow=5.5,SNR=2.0
      0.3nm,0.8s
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*MAN **14** 16:55:33.0, 13.°49N×121.°34E, h5^{km}, MS3.7*

*IDC **14** 16:55:41.4±11.0, 11.°86N×120.°29E, h0^{km}, mb3.2/3, mbtmp3.3/3, Error ellipse: s-maj=445.9km s-min=31.3km az=41.0*

ISC 14 16:55:33.8±2.6**, 13.°45N**±0.°05×**121.°35E**±0.°04**, h8**^{km}±19^{km}**, n10, σ1.^{s}79**/15**, mb3.4**/3**, Mindoro**

```
Code  Station Name        Δ°  AZ°   Phase ID        Time     Res
                                  Op     ISC     h  m  s    ISC
PGP   Puerto Galera     0.39 277 eP     Pb      16 55 41.8 -1.2
PGP                              eS     Sb      16 55 47.9 -1.4
LQP   Lukban            0.68  15 eP     Pb      16 55 47.1 -1.0
LQP                              eS     Sb      16 55 55.6 -2.2
TGY   Tagaytay City     0.76 328 eP     Pb      16 55 48.9 -0.5
TGY                              eS     Sb      16 55 59.4 -0.6
GQP   Guinayangan       1.16  67 eP     Pn      16 55 56.7 +0.3
GQP                              i S    Sn      16 56 13.8 +1.4
MMPH  Masbate           2.47 116 eP     Pb      16 56 18.1 -0.3
MMPH                             eS     Sb      16 56 47.6 -1.5
JAP   San Jose, Anti    2.75 168 eP     Pg      16 56 32.3 +5.7
CAAP  Casiguran, Aur    2.82  14 eP     Pb      16 56 22.6 -2.0
CAAP                             eS     Sg      16 57 06.4 +1.9
CMAR  Chiang Mai Arr   22.11 286  P     P       17 00 33.2 +3.3
      0.4nm,0.8s,baz=110,slow=8.9,SNR=1.6
      0.4nm,0.8s
WRA   Warramunga Arr   35.56 159  P     P       17 02 30.3 -1.6
      0.4nm,0.7s,baz=334,slow=9.0,SNR=5.4
      0.4nm,0.7s
ASAR  Alice Springs    38.88 161  P     P       17 02 59.9 -0.1
      0.3nm,0.4s,baz=341,slow=9.1,SNR=16
      0.3nm,0.4s
```

IDC 14 17:12:12.0±12.0**, 24.°11S**×**174.°95W, h0**^{km}**, mb3.6**/4**, mbtmp3.6**/4**, Error ellipse: s-maj=332.0km s-min=36.2km az=37.0, South of Tonga Islands**

```
Code  Station Name        Δ°  AZ°   Phase ID        Time     Res
                                  Op     ISC     h  m  s    ISC
ASAR  Alice Springs    46.55 260  P     P       17 20 42.6 +0.8
      0.6nm,0.9s,baz=111,slow=7.7,SNR=5.0
      0.6nm,0.9s
WRA   Warramunga Arr   46.99 265  P     P       17 20 44.4 -0.8
      0.2nm,0.5s,baz=94,slow=8.2,SNR=5.2
      0.2nm,0.5s
VNDA  Vanda            54.60 186  P     P       17 21 40.0 -1.8
      1.0nm,0.9s,baz=20,slow=7.5,SNR=4.1
      1.0nm,0.9s
QSPA  South Pole Qui   65.97 180  P     P       17 23 01.0 +1.0
      1.0nm,0.7s,baz=0.0,slow=7.1,SNR=9.3
      1.0nm,0.7s
```

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*BUT **14** 17:15:38.9±2.2, 44.°359N±0.°009×115.°20W±0.°03, h14^{km}±7^{km}, Error ellipse: s-maj=3.1km s-min=1.1km az=77.0*

NEIC 14 17:15:37.1±1.6**, 44.°36N**±0.°02×**115.°19W**±0.°03**, h10**^{km}±2^{km}**, ML3.2**/112**, ML3.6**/29(BUT)**, Error ellipse: s-maj=4.2km s-min=3.1km az=268.0, Western Idaho**

```
Code  Station Name        Δ°  AZ°   Phase ID        Time     Res
                                  Op     ISC     h  m  s    ISC
PLID  Pearl Lake        0.93 322        Pn      17 15 56.3 -0.2
PLID                                    Sb      17 16 08.5 +0.5
PLID  Pearl Lake        0.93 322  IAML          17 16 11.9
      441nm,0.4s
PLID                              IAML          17 16 12.6
      923nm,0.4s
HLID  Hailey            0.97 145        Pn      17 15 57.0 -0.1
HLID                                    Sb      17 16 09.7 +0.5
MFID  Camas Ranch       1.05 206        Pn      17 15 58.4 +0.3
MFID                                    Sn      17 16 12.9  0.0
CNCI  Crows Nest Can    1.32 109        Pg      17 16 03.1 +0.6
BMO   Blue Mountains    1.59 289        Pb      17 16 06.5 -0.2
MCMT  McKenzie Canyo    1.73  74        Pb      17 16 09.2  0.0
MOMT  Monida            2.01  82        Pb      17 16 13.9 -0.1
DLMT  Dillon            2.10  61        Pb      17 16 14.2 -1.1
F10A  Beach Ranch, E    2.16 319        Pn      17 16 14.6 +1.2
F10A                              IAML          17 16 47.2
      comp=E,220nm,0.6s
F10A                              IAML          17 16 51.3
      comp=N,243nm,0.3s
VCMT  Victor            2.20  18        Pb      17 16 15.6 -1.5
HBMT  Mount Humbug      2.32  51        Pn      17 16 17.2 +1.6
BPMT  Black Pine Rid    2.41  30        Pn      17 16 18.2 +1.4
BUT   Butte             2.48  47        Pn      17 16 18.6 +0.8
BUT                               IAML          17 17 03.0
      comp=N,150nm,0.3s
J08A  Circle Bar Ran    2.58 248        Pn      17 16 19.8 +0.7
J08A                              IAML          17 17 09.0
      comp=N,147nm,0.7s
J08A                              IAML          17 17 13.5
      comp=E,117nm,0.6s
MSO   Missoula          2.62  19        Pn      17 16 20.9 +1.3
MSO                               IAML          17 17 10.6
      comp=E,130nm,0.7s
MSO                               IAML          17 17 13.7
      comp=E,98nm,0.9s
LNOR  Linction Mounta   2.66 306        Pn      17 16 21.0 +0.8
QLMT  Earthquake Lak    2.72  79        Pn      17 16 21.8 +0.7
BOZ   Bozeman (W)       2.81  63        Pn      17 16 23.2 +0.9
G08A  Pilot Rock        2.84 290        Pn      17 16 23.6 +0.9
YHB   Horse Butte       2.88  81        Pn      17 16 24.2 +0.9
YHB                               IAML          17 17 08.4
      comp=E,48nm,0.7s
YHB                               IAML          17 17 12.8
      comp=N,60nm,0.5s
CHMT  Chamberlain Mo    2.89  27        Pn      17 16 24.8 +1.3
YHL   Hebgen Lake       2.90  79        Pn      17 16 25.5 +1.9
PCMT  Pistol Creek      2.97  15        Pn      17 16 26.0 +1.5
E09A  Wood Farm, Sta    3.00 317        Pn      17 16 26.5 +1.9
E09A                              IAML          17 17 13.7
      comp=N,52nm,0.7s
E09A                              IAML          17 17 15.4
      comp=E,83nm,1.0s
YMR   Madison River     3.04  83        Pg      17 16 34.2 -1.1
FXWY  Fox Creek         3.09 102        Pn      17 16 28.4 +2.2
YFT   Old Faithful      3.12  87        Pn      17 16 27.6 +1.0
YFT                               IAML          17 17 19.5
      comp=N,44nm,0.9s
YFT                               IAML          17 17 28.7
      comp=E,42nm,1.2s
HVU   Hansel Valley     3.13 145        Pn      17 16 29.2 +2.6
YPP   Pitchstone Pla    3.15  90        Pn      17 16 27.4 +0.4
YPP                               IAML          17 17 19.8
      comp=E,47nm,0.6s
WVOR  Wild Horse Val    3.17 234  IAML          17 17 22.7
      comp=E,45nm,1.1s
WVOR                              IAML          17 17 29.7
      comp=E,41nm,1.4s
YNR   Norris Junctio    3.24  82  IAML          17 17 25.5
      comp=E,73nm,0.6s
SNOW  Snow King Moun    3.33 104  IAML          17 17 25.9
      comp=E,44nm,0.5s
SNOW                              IAML          17 17 33.9
      comp=E,50nm,1.7s
AHID  Auburn Hatcher    3.37 117  IAML          17 17 34.2
      comp=E,56nm,0.7s
AHID                              IAML          17 17 35.0
      comp=E,57nm,0.7s
E08A  Dider Farm, El    3.46 309  IAML          17 17 35.2
      comp=N,34nm,2.0s
YMP   Mirror Lake Pl    3.62  82  IAML          17 17 47.3
      comp=E,38nm,0.8s
YMP                               IAML          17 17 49.5
      comp=N,37nm,0.9s
SPUT  South Promonto    3.66 146  IAML          17 17 37.6
      comp=E,36nm,0.7s
SPUT                              IAML          17 17 38.7
      comp=N,41nm,0.6s
F07A  Phinny Hill Vi    3.69 296  IAML          17 17 40.5
      comp=N,36nm,1.1s
F07A                              IAML          17 17 45.7
      comp=E,38nm,1.0s
YNE   Yellowstone No    3.75  78  IAML          17 17 40.6
      comp=E,51nm,0.6s
D08A  Wollman Farm,     3.76 317  IAML          17 17 44.9
      comp=N,23nm,1.2s
D08A                              IAML          17 17 45.0
      comp=E,34nm,1.1s
BGU   Big Grassy Mou    3.78 154  IAML          17 17 46.7
      comp=E,31nm,0.8s
HWUT  Hardware Ranch    3.83 135  IAML          17 17 47.8
      comp=E,28nm,0.8s
HWUT                              IAML          17 17 49.3
      comp=E,40nm,0.8s
E07A  Sunnyside         3.95 305  IAML          17 17 30.9
      comp=E,21nm,0.7s
E07A                              IAML          17 17 57.6
      comp=N,37nm,0.9s
G06A  Carlson Farm,     3.98 285  IAML          17 17 48.4
      comp=N,20nm,1.3s
LDM   Libby Dam         4.09 359  IAML          17 17 56.5
      comp=N,41nm,0.8s
NEW   Newport           4.13 342  IAML          17 17 47.5
      comp=N,42nm,0.8s
NEW                               IAML          17 17 49.1
      comp=N,23nm,0.7s
BMN   Battle Mountai    4.21 202  IAML          17 17 59.8
      comp=E,20nm,1.0s
BMN                               IAML          17 18 00.0
      comp=N,18nm,1.1s
EPH   Ephrata           4.29 316  IAML          17 17 56.4
      comp=E,21nm,1.7s
EPH                               IAML          17 18 07.0
      comp=N,26nm,1.0s
K05A  Summer Lake       4.46 250  IAML          17 18 16.6
      comp=N,13nm,2.5s
MOD   Modoc Plateau     4.48 238  IAML          17 18 14.7
      comp=E,18nm,0.9s
DUG   Dugway, Tooele    4.52 156  IAML          17 18 12.8
      comp=E,25nm,1.4s
DUG                               IAML          17 18 15.9
      comp=E,21nm,1.0s
LTY   Liberty           4.80 309  IAML          17 18 14.6
      comp=E,14nm,1.2s
LTY                               IAML          17 18 22.0
      comp=N,14nm,1.2s
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*GCMT **14** 17:18:16.0±0.5, 49.°10S±0.°03×106.°30E±0.°04, h18^{km}±2^{km}, MW4.8/73, Moment Tensor Solution. s15,c17; s73,c98; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$0.03±.11; M$_{\theta\theta}$1.43±.10; M$_{\phi\phi}$-1.46±.11; M$_{r\theta}$-0.87±.29; M$_{\theta\phi}$0.71±.08; M$_{\phi r}$-0.15±.21; Best double couple: M$_0$1.80800×10^{16} NP1:φ$_s$209.00000°,δ72.00000°,λ164.00000°. NP2: φ$_s$304.00000°,δ75.00000°,λ19.00000°. Principal axes: T 1.9910, Plg24.0000°, Azm167.0000°; N -0.3620, Plg66.0000°, Azm342.0000°; P -1.6250, Plg2.0000°, Azm76.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Surface-wave location Triangular moment-rate function*

IDC 14 17:18:13.8±2.4**, 48.°82S**×**106.°56E, h0**^{km}**, mb3.6**/3**, mbtmp3.6**/3**, MS3.7**/22 **Error ellipse: s-maj=61.0km s-min=53.6km az=151.0, Southeast Indian Ridge**

```
Code  Station Name        Δ°  AZ°   Phase ID        Time     Res
                                  Op     ISC     h  m  s    ISC
H01W2 Cape Leeuwin H   14.99  25  T     T       17 37 14.9
      baz=199,slow=74,SNR=79
H01W1 Cape Leeuwin H   15.01  25  T     T       17 37 14.3
      baz=199,slow=74,SNR=114
H01W3 Cape Leeuwin H   15.01  25  T     T       17 37 16.9
      baz=199,slow=74,SNR=99
STKA  Stephens Creek   31.26  70  LR    LR      17 34 44.5
      comp=Z,195nm,21.5s,baz=211,slow=32
ASAR  Alice Springs    33.09  50  P     P       17 24 51.0 -0.3
      0.7nm,0.7s,baz=211,slow=8.5,SNR=8.3
ASAR                              LR    LR      17 35 11.6
      comp=Z,147nm,21.0s,baz=213,slow=31
      0.7nm,0.7s
```

VNDA	**Vanda**	**35.48**	**162**	LR	LR	17 38 21.6	
	comp=Z,228nm,20.3s,baz=312,slow=34						
WRA	**Warramunga Arr**	**36.43**	**48**	P	P	17 25 20.4	+0.2
	0.9nm,0.8s,baz=211,slow=7.9,SNR=6.0						
	0.9nm,0.8s						
QSPA	**South Pole Qui**	**41.32**	**180**	LR	LR	17 42 09.0	
	comp=Z,143nm,18.2s,baz=338,slow=35						
CTA	**Charters Tower**	**42.76**	**62**	LR	LR	17 43 02.8	
	comp=Z,99nm,19.9s,baz=213,slow=35						
RPZ	**Rata Peaks**	**43.69**	**109**	LR	LR	17 40 36.3	
	comp=Z,36nm,18.9s,baz=3.0,slow=31						
KAPI	**Kappang**	**45.07**	**19**	LR	LR	17 42 28.5	
	comp=Z,64nm,20.3s,baz=168,slow=32						
SNAA	**Sanae**	**50.03**	**203**	LR	LR	17 45 27.8	
	comp=Z,78nm,18.2s,baz=198,slow=33						
URZ	**Urewera**	**50.51**	**106**	LR	LR	17 43 15.0	
	comp=Z,80nm,21.8s,baz=248,slow=30						
PMG	**Port Moresby**	**51.90**	**55**	LR	LR	17 48 04.5	
	comp=Z,60nm,18.6s,baz=230,slow=34						
DAV	**Davao City (W)**	**58.10**	**22**	LR	LR	17 53 11.4	
	comp=Z,20nm,19.4s,baz=195,slow=36						
HNR	**Honiara**	**59.26**	**67**	LR	LR	17 53 19.2	
	comp=Z,42nm,18.1s,baz=298,slow=36						
PALK	**Pallekele**	**60.28**	**330**	LR	LR	17 47 50.5	
	comp=Z,105nm,19.9s,baz=124,slow=30						
BOSA	**Boshof**	**63.55**	**256**	LR	LR	17 52 11.4	
	comp=Z,18nm,18.4s,baz=173,slow=32						
SUR	**Sutherland**	**63.81**	**250**	LR	LR	17 50 36.0	
	comp=Z,66nm,19.8s,baz=132,slow=30						
LBTB	**Lobatse**	**65.81**	**259**	LR	LR	17 53 14.0	
	comp=Z,51nm,18.1s,baz=137,slow=32						
PMSA	**Palmer Station**	**66.51**	**184**	LR	LR	17 57 40.7	
	comp=Z,55nm,19.1s,baz=79,slow=36						
CMAR	**Chiang Mai Arr**	**67.31**	**352**	P	P	17 29 10.3	0.0
	0.5nm,0.7s,baz=173,slow=5.9,SNR=4.6						
CMAR				LR	LR	17 57 33.8	
	comp=Z,20nm,18.4s,baz=195,slow=35						
	0.5nm,0.7s						
LSZ	**Lusaka**	**71.03**	**268**	LR	LR	17 55 50.3	
	comp=Z,59nm,20.3s,baz=152,slow=32						
BRDH	**Bariadhala**	**72.41**	**346**	LR	LR	17 58 06.8	
	comp=Z,107nm,18.8s,baz=160,slow=33						
PLCA	**Paso Flores**	**90.80**	**182**	LR	LR	18 11 55.3	
	comp=Z,55nm,18.2s,baz=180,slow=36						
SONM	**Songino Array**	**96.27**	**360**	LR	LR	18 17 00.2	
	comp=Z,21nm,18.7s,baz=238,slow=37						
TXAR	**Lajitas Array**	**149.82**	**119**	PKPbc	PKPbc	17 38 05.3	-0.4
	0.6nm,0.9s,baz=201,slow=3.5,SNR=3.9						

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*IDC **14** 17:18:40.8±3.9, 29°.93S×179°.11W, h0^{km}, mb3.3/2, mbtmp3.5/3, ML3.6/1, Error ellipse: s-maj=78.5km s-min=39.6km az=89.0*

*WEL **14** 17:19:31.4±1.1, 31°S±20°×17°9E±5°5, h308^{km}±48^{km}, M4.7/6, mB4.7/3, MLv4.7/6, Mw(mB)3.9/3, Error ellipse: s-maj=75.9km s-min=4.9km az=109.7, confirmed*

ISC 14 17:19:28.6±1.0**, 31°.23S**±0°.08×**178°.3E**±0°.1**, h300**^{km}**, n19, σ1^{s}.62**/25**, mb2.8**/3**, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GLKZ	**Green Lake**	**3.83**	**60**	P	**Pn**	**17 20 32.6**	**-0.3**
GLKZ				S	**S**	**17 21 24.6**	**+0.1**
GLKZ				AML	AML		
RIZ	**Raoul Island**	**3.83**	**60**	P	**Pn**	**17 20 33.1**	**+0.2**
RIZ				AML	AML		
MXZ	**Matakaoa Point**	**6.32**	**180**	P	**Pn**	**17 21 04.3**	**+2.7**
MXZ				S	**S**	**17 22 16.7**	**+0.2**
MXZ				AML	AML		
HAZ	**Te Kaha**	**6.52**	**183**	S	**S**	**17 22 21.9**	**+0.8**
WMGZ	**Waiomatatini S**	**6.57**	**179**	P	**Pn**	**17 21 06.8**	**+2.1**
WMGZ				S	**S**	**17 22 21.3**	**-1.0**
WMGZ				AML	AML		
RUGZ	**Raukumara Rang**	**6.74**	**184**	S	**S**	**17 22 25.2**	**-0.9**
PUZ	**Puketiti**	**6.83**	**180**	P	**Pn**	**17 21 09.2**	**+1.5**
PUZ				S	**S**	**17 22 24.7**	**-3.2**
TWGZ	**Tauwhareparae**	**6.94**	**182**	S	**S**	**17 22 28.7**	**-1.7**
URZ	**Urewera**	**7.08**	**187**	Pn	Pn	17 20 50.4	-20
	0.6nm,0.3s,baz=22,slow=15,SNR=6.6						
URZ				Sn	**S**	**17 22 32.4**	**-1.0**
	4.2nm,0.3s,baz=47,slow=19,SNR=20						
	3.1nm,0.6s						
URZ				AML	AML		
URZ	**Urewera**	**7.08**	**187**	P	**Pn**	**17 21 13.3**	**+2.6**
URZ				S	**S**	**17 22 34.3**	**+0.9**
MWZ	**Matawai**	**7.11**	**185**	P	**Pn**	**17 21 09.9**	**-1.4**
MWZ				S	**S**	**17 22 33.4**	**-0.9**
TKGZ	**Te Karaka**	**7.20**	**183**	P	**Pn**	**17 21 12.8**	**+0.5**
TKGZ				S	**S**	**17 22 34.1**	**-2.0**
TKGZ				AML	AML		
MUGZ	**Murupara**	**7.34**	**189**	P	**Pn**	**17 21 16.6**	**+2.6**
MUGZ				AML	AML		
RAHZ	**Arahi**	**7.73**	**187**	P	**Pn**	**17 21 20.0**	**+1.2**
RAHZ				AML	AML		
NGZ	**Ngauruhoe**	**8.22**	**195**	P	**Pn**	**17 21 23.5**	**-1.4**
NGZ				AML	AML		
ASAR	**Alice Springs**	**39.88**	**270**	P	**P**	**17 26 34.8**	**+0.7**
	0.5nm,1.0s,baz=112,slow=8.4,SNR=2.5						
	0.5nm,1.0s						
WRA	**Warramunga Arr**	**40.96**	**275**	P	**P**	**17 26 43.4**	**+0.5**
	0.2nm,0.4s,baz=113,slow=8.3,SNR=11						
	0.2nm,0.4s						
CN2	**Changchun**	**88.92**	**325**	*e*P	**P**	**17 31 47.8**	**-1.2**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
FINES	**FINESS Array B**	**144.74**	**337**	PKP	PKPbc	17 38 17.7	-11
	comp=Z,0.6nm,0.4s,baz=14,slow=0.6,SNR=4.6						

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*JMA **14** 17:41:13.8±1.1, 46°N±6°×15°3E±°, h30^{km}, MV3.7/11, KURILE ISLANDS REGION*

SKHL 14 17:41:10.7±0.6**, 45°.50N×153°.40E, h75**^{km}±4^{km}**, mb4.5**/2**, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
REI	**Reidovoe**	**3.80**	**268**	*e*P	Pn	17 42 06.4	-0.4
REI				AMB	AMB	17 42 07.5	
	60nm,0.7s						
REI				*e*S	Sn	17 42 48.6	-1.6
REI				A	A	17 42 55.2	
	120nm,0.5s						
REI				A	A	17 42 55.2	
	120nm,0.5s						
KUR	**Kuril'sk**	**3.91**	**268**	*e*P	Pn	17 42 08.8	+0.5
KUR				AMB	AMB	17 42 09.4	
	70nm,0.3s						
KUR				*e*S	Sn	17 42 51.9	-1.0
KUR				A	A	17 43 00.9	
	20nm,0.3s						
KUR				A	A	17 43 00.9	
	50nm,0.3s						
NEM2	**Nemuro 2**	**5.88**	**251**	*e*P	Pn	17 42 35.5	+0.3
NEM2				*e*S	Sn	17 43 37.7	-3.5
NMR	**Nemuro--Hokkai**	**5.89**	**252**	*e*P	Pn	17 42 35.3	0.0
NMR				*e*S	Sn	17 43 38.8	-2.6
JNK	**Nakash**	**6.49**	**256**	*e*P	Pn	17 42 45.2	+1.7
AKK	**Akkeshi**	**6.63**	**251**	*e*S	Sn	17 43 57.9	-1.5
JAR	**Ashorobuto**	**7.24**	**256**	*e*P	Pn	17 42 54.0	+0.3
JAR				*e*S	Sn	17 44 10.9	-3.6
JCH	**Churui**	**7.78**	**252**	*e*P	Pn	17 43 02.6	+1.4
JCH				S	Sn	17 44 26.3	-1.4

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*CATAC **14** 18:01:55.4±0.4, 13°N±2°×9°0W±°, h24^{km}±2^{km}, M3.5/20, MLv3.5/20, Error ellipse: s-maj=5.4km s-min=3.0km az=25.6, confirmed*

*SNET **14** 18:01:55.0±0.8, 13°.20N×89°.80W, h33^{km}±18^{km}, ML3.3, Presumed earthquake*

*GCG **14** 18:01:56.0±1.3, 13°.26N×89°.80W, h36^{km}±10^{km}, MD4.2, Presumed earthquake*

ISC 14 18:01:56.6±1.4**, 13°.23N**±0°.06×**89°.74W**±0°.04**, h32**^{km}±10^{km}**, n53, σ0^{s}.73**/81**, 3D, El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LALI	**Alcalda de L**	**0.48**	**58**	*e*P	**Pn**	**18 02 06.8**	**-0.5**
LALI				*i* S	**Sb**	**18 02 13.7**	**-0.1**
LALI	**Alcalda de L**	**0.48**	**58**	*e*P	**Pn**	**18 02 06.8**	**-0.5**
LALI				*e*S	**Sb**	**18 02 14.5**	**+0.7**
LALI	**Alcalda de L**	**0.48**	**58**	P	**Pn**	**18 02 06.9**	**-0.5**
LALI				S	**Sb**	**18 02 14.5**	**+0.7**
JAYA	**Jayaque - finc**	**0.51**	**34**	⇓*i*P	**Pn**	**18 02 07.3**	**-0.5**
JAYA				*e*S	**Sn**	**18 02 15.9**	**+0.5**
JAYA	**Jayaque - finc**	**0.51**	**34**	⇓*i*P	**Pn**	**18 02 07.3**	**-0.5**
JAYA				*e*S	**Sn**	**18 02 16.0**	**+0.5**
JAYA	**Jayaque - finc**	**0.51**	**34**	P	**Pn**	**18 02 07.4**	**-0.5**
JAYA				S	**Sn**	**18 02 16.0**	**+0.5**
CEVE	**Cerro Verde**	**0.60**	**10**	*e*P	**Pn**	**18 02 08.8**	**-0.4**
CEVE	**Cerro Verde**	**0.60**	**10**	P	**Pn**	**18 02 08.8**	**-0.4**
CEVE				S	**Sn**	**18 02 19.1**	**+1.0**
SBLS	**San Blas**	**0.61**	**10**	*e*P	**Pb**	**18 02 08.8**	**-0.4**
PMON	**Piamonte**	**0.63**	**41**	*e*P	**Pb**	**18 02 09.1**	**-0.3**
PMON				*e*S	**Sn**	**18 02 20.4**	**+1.8**
PMON	**Piamonte**	**0.63**	**41**	P	**Pb**	**18 02 09.1**	**-0.3**
PMON				S	**Sn**	**18 02 19.1**	**+0.6**
SNJE	**San Jose**	**0.65**	**11**	*e*P	**Pb**	**18 02 09.2**	**-0.5**
CEDA	**San Andres**	**0.66**	**30**	P	**Pb**	**18 02 09.9**	**+0.2**
CEDA				S	**Sn**	**18 02 20.2**	**+1.1**
PANCS	**Alcalda de**	**0.66**	**55**	S	**Sb**	**18 02 19.3**	**+0.4**
FAME	**Alcaldia de Sa**	**0.67**	**336**	P	**Pb**	**18 02 08.9**	**-1.0**
FAME				S	**Sn**	**18 02 18.2**	**-1.1**
NUBE	**Las Nubes**	**0.67**	**356**	*i* P	**Pb**	**18 02 09.3**	**-0.7**
NUBE				*i* S	**Sn**	**18 02 18.7**	**-0.9**
NUBE	**Las Nubes**	**0.67**	**356**	⇓*e*P	**Pb**	**18 02 09.3**	**-0.7**
NUBE	**Las Nubes**	**0.67**	**356**	P	**Pb**	**18 02 09.3**	**-0.7**
NUBE				S	**Sn**	**18 02 19.6**	**0.0**
RTR	**El Retiro**	**0.67**	**8**	*e*P	**Pb**	**18 02 09.7**	**-0.4**
BOQS	**Boqueron**	**0.67**	**42**	*e*P	**Pb**	**18 02 09.7**	**-0.4**
UEES	**Universidad Ev**	**0.68**	**45**	P	**Pb**	**18 02 09.9**	**-0.3**
UEES				S	**Sb**	**18 02 20.3**	**+0.8**
SEMO	**Seminario San**	**0.69**	**47**	P	**Pn**	**18 02 09.8**	**-0.4**
SEMO				S	**Sb**	**18 02 20.1**	**+0.6**
LOMA	**Loma Larga**	**0.69**	**53**	*e*P	**Pn**	**18 02 09.7**	**-0.6**
LOMA	**Loma Larga**	**0.69**	**53**	P	**Pn**	**18 02 09.8**	**-0.6**
LOMA				S	**Sb**	**18 02 20.5**	**+0.8**
PIC2	**El Picacho**	**0.69**	**42**	*e*P	**Pb**	**18 02 10.3**	**-0.2**
LFRS	**El Faro**	**0.76**	**59**	*e*P	**Pn**	**18 02 10.8**	**-0.6**
UNIC	**Universidad Ca**	**0.77**	**14**	P	**Pb**	**18 02 11.1**	**-0.5**
UNIC				S	**Sb**	**18 02 22.9**	**+1.1**
LFU	**La Fuente**	**0.80**	**50**	*e*P	**Pb**	**18 02 11.6**	**-0.5**
RBDL	**Robledal**	**0.88**	**3**	*e*P	**Pb**	**18 02 12.7**	**-0.8**
PAVA	**Las Pavas**	**0.91**	**58**	*e*P	**Pn**	**18 02 13.3**	**-0.1**
PAVA	**Las Pavas**	**0.91**	**58**	P	**Pb**	**18 02 13.8**	**-0.3**
PAVA				S	**Sb**	**18 02 27.3**	**+1.4**
COEG	**Centro de Oper**	**0.92**	**65**	*e*P	**Pn**	**18 02 13.0**	**-0.4**
COEG	**Centro de Oper**	**0.92**	**65**	P	**Pn**	**18 02 13.1**	**-0.3**
COEG				S	**Sn**	**18 02 25.7**	**+0.1**
TECO	**Alcaldia de Te**	**0.98**	**72**	P	**Pn**	**18 02 13.6**	**-0.6**
TECO				S	**Sn**	**18 02 27.0**	**0.0**
ALJI	**Alcalda de J**	**1.14**	**85**	P	**Pn**	**18 02 16.2**	**-0.1**
ALJI				S	**Sn**	**18 02 30.9**	**0.0**
LLGN	**La Laguna**	**1.20**	**40**	P	**Pb**	**18 02 17.8**	**-1.2**
LLGN				S	**Sb**	**18 02 34.1**	**-0.1**
PQSS	**Presa 15 de Se**	**1.21**	**71**	P	**Pn**	**18 02 17.1**	**-0.2**
PQSS				S	**Sn**	**18 02 33.7**	**+1.0**
P5NO	**Presa 5 de nov**	**1.21**	**52**	P	**Pn**	**18 02 17.5**	**+0.1**
P5NO				S	**Sb**	**18 02 34.0**	**-0.4**
MTO3	**Montecristo**	**1.22**	**17**	*i* P	**Pn**	**18 02 17.7**	**0.0**
MTO3	**Montecristo**	**1.22**	**17**	*e*P	**Pn**	**18 02 17.7**	**0.0**
TECA	**Tecapa**	**1.23**	**78**	*e*P	**Pn**	**18 02 17.5**	**-0.3**
FG16	**Alotenango, Sa**	**1.28**	**324**	*e*P	**Pb**	**18 02 21.9**	**+1.6**
ESQI	**Esquipulas**	**1.38**	**16**	P	**Pb**	**18 02 20.3**	**-1.6**
ESQI				S	**Sb**	**18 02 38.5**	**-0.7**
PACA	**Pacayal**	**1.40**	**80**	*e*P	**Pn**	**18 02 20.4**	**+0.3**
PACA	**Pacayal**	**1.40**	**80**	P	**Pb**	**18 02 20.8**	**-1.4**
PACA				S	**Sn**	**18 02 38.6**	**+1.2**
RANC	**El Ranchito**	**1.42**	**82**	S	**Sb**	**18 02 39.9**	**-0.7**
LCND	**La Caada**	**1.80**	**87**	P	**Pn**	**18 02 26.1**	**+0.6**
SARH	**Santa Rosa de**	**1.80**	**32**	S	**Sn**	**18 02 49.2**	**+1.7**
CNCH	**Conchagua**	**1.85**	**88**	*e*P	**Pn**	**18 02 26.1**	**-0.2**
CNCH	**Conchagua**	**1.85**	**88**	P	**Pn**	**18 02 26.3**	**0.0**
CNCH				S	**Sn**	**18 02 50.1**	**+1.3**
STG8	**El Palmar, Qui**	**1.98**	**308**	*i* P	**Pb**	**18 02 31.8**	**-0.4**
CSGN	**Cosiguina Volc**	**2.14**	**97**	P	**Pn**	**18 02 30.2**	**-0.1**
CSGN				S	**Sn**	**18 02 55.5**	**-0.2**
RTAL	**Retalhuleu**	**2.29**	**304**	S	**Sn**	**18 03 00.1**	**+0.6**

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*IDC **14** 18:13:30.3±0.8, 9°.60S×119°.08E, h0^{km}, mb4.0/13, mbtmp4.0/16, ML3.9/3, MS3.0/3, Error ellipse: s-maj=29.2km s-min=11.8km az=67.0*

*DJA **14** 18:13:33.3±0.3, 10°S±4°×11°9E±°, h10^{km}, M4.3/22, mb4.5/10, MLv4.2/22*

ISC 14 18:13:34.0±0.6**, 9°.84S**±0°.06×**119°.11E**±0°.04**, h33**^{km}**, n47, σ1^{s}.67**/43**, mb4.0**/13**, Sumba region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WSI	**Waingapu**	**1.18**	**82**	P	**Pn**	**18 13 54.5**	**+0.3**
WSI				S	**Sb**	**18 14 12.5**	**+1.6**
WSI				AML	AML		
DBNI	**Kabupaten Domp**	**1.55**	**329**	P	**Pn**	**18 13 58.9**	**-0.4**
LBFI	**Labuhan Bajo,**	**1.56**	**30**	P	**Pn**	**18 13 59.3**	**-0.1**
PLAI	**Plampang**	**1.66**	**307**	P	**Pn**	**18 13 59.6**	**-1.2**
PLAI				AML	AML		
TWSI	**Taliwang, Sumb**	**2.46**	**296**	P	**Pn**	**18 14 11.6**	**-0.2**
EDFI	**Ende, Flores**	**2.77**	**67**	P	**Pn**	**18 14 16.1**	**-0.1**
MMRI	**Maumere**	**3.31**	**69**	P	**Pn**	**18 14 24.5**	**+1.0**
MMRI				AML	AML		
KHKI	**Kahang-Kahang**	**3.76**	**293**	P	**Pn**	**18 14 31.8**	**+2.1**
KHKI				AML	AML		
BSSI	**Bau Bau, Buton**	**3.92**	**20**	P	**Pn**	**18 14 32.9**	**+1.0**
DNP	**Denpasar**	**4.02**	**286**	P	**Pn**	**18 14 34.2**	**+0.9**
IGBI	**Denpasar**	**4.04**	**284**	P	**Pn**	**18 14 34.1**	**+0.5**
IGBI				AML	AML		
SRBI	**Singaraja**	**4.23**	**294**	P	**Pn**	**18 14 36.3**	**+0.1**
RTBI	**Rangdo, Negare**	**4.34**	**288**	P	**Pn**	**18 14 38.8**	**+1.1**
RTBI				AML	AML		
MKS	**Makassar**	**4.61**	**4**	P	**Pn**	**18 14 41.2**	**-0.2**
KAPI	**Kappang**	**4.84**	**8**	Pn	**Pn**	**18 14 43.1**	**-1.4**
	11nm,0.3s,baz=153,slow=14,SNR=16						
KAPI				Sn	**Sn**	**18 15 37.7**	**-1.8**
	9.7nm,0.3s,baz=197,slow=19,SNR=6.6						
KAPI				LR	LR	18 16 46.2	
	comp=Z,151nm,21.3s,baz=158,slow=43						
	53nm,0.6s						
KAPI				AML	AML		
KAPI	**Kappang**	**4.84**	**8**	P	**Pn**	**18 14 45.3**	**+0.8**
KAPI				AML	AML		
JAGI	**Jajag, Banyuwa**	**5.08**	**285**	P	**Pn**	**18 14 48.4**	**+0.5**
JAGI				AML	AML		
SOEI	**Soe**	**5.08**	**89**	P	**Pn**	**18 14 51.6**	**+3.6**
	0.3nm65nm,0.7s						
SOEI				AML	AML		
BBSI	**Bau Bau**	**5.52**	**39**	P	**Pn**	**18 14 55.2**	**+1.3**
	0.2nm66nm,1.0s						
BBSI				AML	AML		
KKSI	**Kolaka, Sulawe**	**6.17**	**24**	P	**Pn**	**18 15 03.4**	**+0.5**
KDI	**Kendari**	**6.80**	**31**	P	**Pn**	**18 15 12.6**	**+1.0**
	0.1nm26nm,1.1s						
KDI				AML	AML		
MMSI	**Mamuju**	**7.11**	**358**	P	**Pn**	**18 15 16.0**	**+0.2**
	0.2nm39nm,0.7s						
MMSI				AML	AML		
FITZ	**Fitzroy Crossi**	**10.37**	**143**	Pn	**Pn**	**18 16 02.4**	**+2.0**
	0.7nm,0.3s,baz=325,slow=13,SNR=22						
FITZ				Sn	**Sn**	**18 17 50.5**	**-5.1**
	1.0nm,0.3s,baz=338,slow=16,SNR=7.1						
	3.0nm,0.5s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**17.80**	**126**	Pn	**Pn**	**18 17 39.8**	**+0.4**
	0.3nm,0.3s,baz=304,slow=13,SNR=32						
WRA				Sn	Sn	18 20 46.0	-11
	0.1nm,0.3s,baz=304,slow=24,SNR=4.7						
DAV	**Davao City (W)**	**17.99**	**21**	LR	LR	18 24 24.5	
	comp=Z,24nm,18.9s,baz=182,slow=37						
ASAR	**Alice Springs**	**19.71**	**136**	P	**Pn**	**18 18 03.6**	**+1.1**
	0.2nm,0.3s,baz=316,slow=12,SNR=24						
ASAR				S	**S**	**18 21 35.3**	**-6.3**
	1.2nm,0.9s,baz=308,slow=21,SNR=5.2						
	1.0nm,0.6s						
ASAR				AML	AML		
STKA	**Stephens Creek**	**30.24**	**140**	P	**P**	**18 19 43.6**	**+1.7**
	1.2nm,0.6s,baz=319,slow=9.3,SNR=1.6						
	1.2nm,0.6s						
CMAR	**Chiang Mai Arr**	**34.45**	**325**	P	**P**	**18 20 19.0**	**+0.1**
	0.5nm,0.5s,baz=144,slow=8.9,SNR=6.0						
	0.5nm,0.5s						
H08S2	**Diego Garcia H**	**46.10**	**269**	T	T	19 11 03.1	
	baz=96,slow=75,SNR=69						
H08S3	**Diego Garcia H**	**46.11**	**269**	T	T	19 11 05.6	
	baz=96,slow=75,SNR=137						
H08S1	**Diego Carcia H**	**46.12**	**269**	T	T	19 11 04.1	
	baz=96,slow=75,SNR=24						
KSRS	**Korea Array**	**47.77**	**9**	P	**P**	**18 22 07.0**	**-1.1**
	0.8nm,0.6s,baz=189,slow=8.4,SNR=4.7						
	0.8nm,0.6s						
LZDM	**Lanzhou Array**	**47.81**	**343**	P	**P**	**18 22 09.0**	**+0.1**
	1.0nm,0.3s,baz=166,slow=13,SNR=1.2						
	1.0nm,0.3s						
USRK	**Ussuriysk Ar.**	**55.04**	**11**	P	**P**	**18 23 02.0**	**-0.4**
	1.2nm,0.5s,baz=194,slow=3.0,SNR=1.7						
	1.2nm,0.5s						
SONM	**Songino Array**	**58.52**	**350**	P	**P**	**18 23 27.5**	**+0.3**
	1.3nm,0.5s,baz=167,slow=8.5,SNR=10						
	1.3nm,0.5s						
MKAR	**Makanchi Array**	**65.25**	**333**	P	**P**	**18 24 12.2**	**-0.2**
	0.7nm,0.6s,baz=143,slow=6.2,SNR=4.8						
	0.7nm,0.6s						
AAK	**Ala-Archa**	**66.23**	**326**	P	**P**	**18 24 19.2**	**+0.3**
	0.7nm,0.3s,baz=143,slow=5.1,SNR=1.9						
	0.7nm,0.3s						
H04N2	**CROZET ISLANDS**	**67.28**	**224**	T	T	19 37 59.1	
	baz=82,slow=74,SNR=6.1						
H04N1	**CROZET ISLANDS**	**67.29**	**224**	T	T	19 37 60.0	
	baz=82,slow=74,SNR=7.8						
H04N3	**CROZET ISLANDS**	**67.29**	**224**	T	T	19 37 57.8	
	baz=82						
KURBB	**Kurchatov Arra**	**69.77**	**334**	P	**P**	**18 24 40.6**	**-0.2**
	0.4nm,0.5s,baz=141,slow=5.3,SNR=5.2						
	0.4nm,0.5s						
ZALV	**Zalesovo Beam**	**69.86**	**339**	P	**P**	**18 24 41.1**	**-0.2**
	0.7nm,0.6s,baz=134,slow=4.2,SNR=4.1						
	0.7nm,0.6s						
PETK	**Petropavlovsk-**	**70.80**	**23**	P	**P**	**18 24 47.5**	**+0.4**
	3.2nm,1.0s,baz=250,slow=7.4,SNR=1.9						
	3.2nm,1.0s						
BVAR	**Borovoye Array**	**75.08**	**332**	P	**P**	**18 25 12.1**	**-0.4**
	0.3nm,0.6s,baz=133,slow=8.1,SNR=1.9						
	0.3nm,0.6s						
AKTO	**Aktyubinsk**	**79.97**	**325**	P	**P**	**18 25 39.1**	**-0.8**
	0.7nm,0.3s,baz=153,slow=4.5,SNR=1.2						
	0.7nm,0.3s						
ARTI	**Arti**	**82.71**	**331**	LR	LR	19 05 17.8	
	comp=Z,18nm,19.6s,baz=168,slow=38						
TORD	**Torodi Ar. Bea**	**118.71**	**280**	PKP	**PKiKP**	**18 32 21.0**	**+1.1**
	0.3nm,0.4s,baz=50,slow=1.4,SNR=4.1						

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*SOME **14** 18:16:16.4, 40°.97N×83°.22E, h5^{km}*

*NNC **14** 18:16:22.1±3.4, 41°.01N×83°.08E, h0^{km}, mb3.7, mpv3.4, Error ellipse: s-maj=28.5km s-min=24.1km az=38.0*

ISC 14 18:16:14.0±3.4**, 40°.9N**±0°.1×**83°.25E**±0°.08**, h10**^{km}**, n19, σ2^{s}.01**/28**, 7C, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KTMS	**Ketmen**	**3.34**	**321**	Pg	**Pg**	**18 17 17.8**	**-0.2**
	7.2nm,0.4s						
KTMS				Lg	Lg	18 18 02.6	
	25nm,0.4s						
KTMS	**Ketmen**	**3.34**	**321**	*e*P	**Pg**	**18 17 16.8**	**-1.1**
	7.2nm,0.4s						
KTMS				*e*S	**Sg**	**18 18 00.4**	**-0.8**
	27nm,0.3s						
PDGK	**Podgornoye**	**3.71**	**312**	⇑Pn	**Pb**	**18 17 20.3**	**+0.7**
	2.1nm,0.6s						
PDGK				⇑Pg	**Pg**	**18 17 29.0**	**+4.0**
	6.1nm,0.5s						
PDGK				⇑Lg	Lg	18 18 14.9	
	40nm,0.6s						
UZB	**Uzynbulak**	**3.87**	**307**	Pg	**Pg**	**18 17 27.9**	**-0.2**
	2.9nm,0.2s						
UZB				Lg	Lg	18 18 20.1	
	28nm,0.4s						
UZB	**Uzynbulak**	**3.87**	**307**	*e*P	**Pb**	**18 17 26.0**	**+3.5**
	1.7nm,0.2s						
UZB				*e*S	**Sg**	**18 18 16.1**	**-2.2**
	30nm,0.5s						
SATY	**Saty**	**4.21**	**303**	Pg	**Pg**	**18 17 35.7**	**+1.1**
	5.5nm,0.6s						
SATY				Lg	Lg	18 18 36.9	
	60nm,0.6s						
SATY	**Saty**	**4.21**	**303**	*e*P	**Pg**	**18 17 33.6**	**-1.0**
	1.9nm,0.2s						
SATY				*e*S	**Sg**	**18 18 29.8**	**+0.7**
	63nm,0.6s						
KPKS	**Kokpek**	**4.26**	**309**	Pg	**Pg**	**18 17 34.5**	**-0.9**
	0.4nm,0.4s						
KPKS				Lg	Lg	18 18 35.0	
	47nm,0.3s						
KPKS	**Kokpek**	**4.26**	**309**	*e*P	**Pg**	**18 17 33.7**	**-1.8**
	0.2nm,0.1s						
KPKS				*e*S	**Sg**	**18 18 30.1**	**-0.5**
	53nm,0.4s						
DJR	**Jarkent**	**4.28**	**325**	Pg	**Pg**	**18 17 37.4**	**+1.4**
	15nm,0.4s						
DJR				Lg	Lg	18 18 35.7	
	8.9nm,0.6s						
DJR	**Jarkent**	**4.28**	**325**	*e*P	**Pg**	**18 17 34.7**	**-1.3**
	3.5nm,0.2s						
DJR				*e*S	**Sg**	**18 18 31.8**	**+0.4**
	9.1nm,0.6s						
KNOS	**Konyrlen**	**4.58**	**320**	Pg	**Pg**	**18 17 43.0**	**+1.2**
	6.7nm,0.3s						
KNOS				Lg	Lg	18 18 44.2	
	12nm,0.2s						
BLB	**Baldybastay**	**4.76**	**314**	Pg	**Pg**	**18 17 43.3**	**-1.9**
	9.1nm,0.3s						
BLB				Lg	Lg	18 18 46.8	
	17nm,0.6s						
ARXS	**Arharly**	**5.20**	**311**	Pg	**Pg**	**18 17 50.6**	**-2.9**
	2.0nm,0.5s						
ARXS				Lg	Lg	18 18 58.7	
	15nm,0.8s						
ARXS	**Arharly**	**5.20**	**311**	*e*P	**Pg**	**18 17 50.6**	**-2.9**
	2.0nm,0.5s						
ARXS				*e*S	**Sg**	**18 18 58.7**	**-2.2**
	15nm,0.8s						
KTBS	**Karatobe**	**5.62**	**302**	*e*P	**Pg**	**18 17 58.8**	**-2.9**
	4.1nm,0.1s						
KTBS				*e*S	**Sg**	**18 19 12.5**	**-2.0**
	14nm,0.5s						
MK31	**Makanchi Array**	**5.94**	**354**	⇑Pg	**Pg**	**18 18 07.5**	**-0.2**
	0.7nm,0.4s,baz=174,slow=15,SNR=7.4						
MK31				⇑Lg	Lg	18 19 23.9	
	4.8nm,0.7s,baz=165,slow=26,SNR=4.6						
MAKZ	**Makanchi**	**5.98**	**352**	⇑Pg	**Pg**	**18 18 10.8**	**+2.3**
	4.6nm,0.9s						
MAKZ				⇑Lg	Lg	18 19 27.7	
	10nm,1.2s						
ZSN	**Zaisan**	**6.66**	**10**	*e*P	**Pg**	**18 18 18.5**	**-2.8**
	2.3nm,0.2s						
ZSN				*e*S	**Sg**	**18 19 46.3**	**-1.3**
	11nm,0.4s						

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*ISN **14** 18:22:14.3±0.4, 36°.45N×45°.48E, h5^{km}, ML2.4, Presumed earthquake*

*TEH **14** 18:22:14.9, 36°.45N×45°.48E, h5^{km}, ML2.8, Presumed earthquake*

ISC 14 18:22:14.8±1.1**, 36°.45N**±0°.04×**45°.49E**±0°.09**, h10**^{km}**, n7, σ0^{s}.60**/9**, Iran-Iraq border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MAHB	**Mahabad**	**0.36**	**29**	Pg	**Pg**	**18 22 22.7**	**+0.6**
MAHB				Sg	**Sb**	**18 22 28.3**	**-0.9**
IAZR	**Azarshahr**	**1.29**	**18**	Pg	**Pb**	**18 22 39.4**	**0.0**
IKRK	**Kirkuk**	**1.40**	**222**	*i* P	**Pn**	**18 22 40.0**	**-0.4**
	baz=41						
IKRK				*i* S	**Sn**	**18 22 59.3**	**+0.3**
IKRK				IAML		18 23 04.4	
	comp=E,68nm,0.9s						
IKRK				IAML		18 23 04.5	
	comp=N,82nm,0.4s						
SNJK	**Sanadaj _Korde**	**1.65**	**128**	Pg	**Pg**	**18 22 46.2**	**-0.2**
IHSH	**Hashtrud**	**1.66**	**58**	Pg	**Pb**	**18 22 46.2**	**+0.5**
IDHR	**Dehrash**	**1.89**	**157**	Pn	**Pb**	**18 22 50.2**	**+0.6**
IHRS	**Heris**	**2.24**	**33**	Pn	**Pb**	**18 22 55.8**	**+0.3**

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*ISK **14** 18:25:32.4, 34°.10N×25°.26E, h16^{km}, ML3.2/7*

*IDC **14** 18:25:32.4±1.0, 34°.26N×25°.08E, h0^{km}, mb3.7/8, mbtmp3.6/15, ML3.7/6, MS2.7/2, Error ellipse: s-maj=17.9km s-min=12.8km az=36.0*

*THE **14** 18:25:35.4, 34°N±6°×2°5E±°, h0^{km}±11^{km}, M3.0/6, MLh3.0/6*

*ATH **14** 18:25:37.0, 34°.23N×25°.03E, h22^{km}±8^{km}, ML3.1/10, Latitude uncertainty: 2 km; Longitude uncertainty: 1 km*

ISC 14 18:25:34.2±0.8**, 34°.13N**±0°.06×**25°.16E**±0°.03**, h21**^{km}±3^{km}**,**

n69,σ1^{s}33/88,mb3.6/7,Crete

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SIVA	**Sivas**	**0.93**	**342**	P	**Pb**	**18 25 51.1**	**-0.6**
SIVA				S	**Sn**	**18 26 04.3**	**-0.5**
SIVA				AML	AML		
SIVA	**Sivas**	**0.93**	**342**	P	**Pb**	**18 25 51.2**	**-0.5**
SIVA				S	**Sb**	**18 26 02.7**	**-0.8**
SIVA				AML	AML		
GVD	**Gavdhos**	**1.13**	**309**	P	**Pb**	**18 25 55.4**	**+0.3**
GVD				S	**Sn**	**18 26 11.4**	**+1.6**
GVD				AML	AML		
GVD	**Gavdhos**	**1.13**	**309**	Pn	**Pb**	**18 25 55.5**	**+0.4**
GVD				Sn	**Sn**	**18 26 12.2**	**+2.4**
GVD				AML	AML		
GVD	**Gavdhos**	**1.13**	**309**	P	**Pb**	**18 25 55.4**	**+0.3**
GVD				S	**Sb**	**18 26 08.2**	**-1.2**
GVD				AML	AML		
AGNA	**Agios Nikolaos**	**1.16**	**23**	P	**Pb**	**18 25 56.0**	**+0.5**
AGNA				S	**Sn**	**18 26 11.7**	**+1.4**
AGNA				AML	AML		
IACM	**Heraklion**	**1.18**	**357**	P	**Pb**	**18 25 57.2**	**+1.4**
IACM				S	**Sn**	**18 26 10.6**	**-0.2**
IDI	**Anoyia**	**1.18**	**349**	Pn	**Pn**	**18 25 55.0**	**-0.6**
	16nm,0.3s,baz=168,slow=18,SNR=73						
IDI				Sn	**Sb**	**18 26 10.6**	**-0.1**
	45nm,0.3s,baz=108,slow=19,SNR=13						
IDI	**Anoyia**	**1.18**	**349**	P	**Pn**	**18 25 55.4**	**-0.1**
IDI				S	**Sn**	**18 26 11.2**	**+0.2**
IDI				AML	AML		
IDI	**Anoyia**	**1.18**	**349**	Pn	**Pn**	**18 25 55.5**	**0.0**
IDI				Sn	**Sn**	**18 26 12.4**	**+1.4**
IDI	**Anoyia**	**1.18**	**349**	P	**Pn**	**18 25 55.3**	**-0.3**
IDI				S	**Sn**	**18 26 10.8**	**-0.1**
IDI				AML	AML		
NPS	**Neapolis**	**1.19**	**18**	P	**Pb**	**18 25 56.3**	**+0.2**
NPS				S	**Sn**	**18 26 13.2**	**+2.0**
NPS				AML	AML		
NPS	**Neapolis**	**1.19**	**18**	P	**Pb**	**18 25 56.4**	**+0.4**
NPS				S	**Sn**	**18 26 12.4**	**+1.2**
NPS				AML	AML		
ZKR	**Zakros**	**1.31**	**41**	P	**Pb**	**18 25 59.7**	**+1.5**
ZKR				S	**Sb**	**18 26 17.0**	**+2.4**
ZKR	**Zakros**	**1.31**	**41**	Pn	**Pn**	**18 25 56.4**	**-1.0**
ZKR				AML	AML		
ZKR	**Zakros**	**1.31**	**41**	P	**Pb**	**18 25 59.4**	**+1.2**
ZKR				S	**Sb**	**18 26 17.3**	**+2.7**
ZKR				AML	AML		
RTHF	**Rethymno-Limin**	**1.35**	**336**	P	**Pb**	**18 25 59.6**	**+0.8**
RTHF				AML	AML		
VAM	**Vamos**	**1.50**	**329**	P	**Pb**	**18 26 02.4**	**+1.1**
VAM				S	**Sn**	**18 26 17.9**	**-0.9**
VAM				AML	AML		
IMMV	**Iera Moni Meta**	**1.64**	**324**	Pn	**Pn**	**18 26 02.4**	**+0.5**
IMMV				AML	AML		
IMMV	**Iera Moni Meta**	**1.64**	**324**	P	**Pb**	**18 26 03.4**	**-0.4**
IMMV				AML	AML		
KNDR	**Palaiochora Ch**	**1.68**	**312**	P	**Pb**	**18 26 03.8**	**-0.5**
KNDR				AML	AML		
KARP	**Karpathos**	**2.17**	**49**	Pn	**Pn**	**18 26 08.4**	**-0.8**
KARP				AML	AML		
KARP	**Karpathos**	**2.17**	**49**	P	**Pb**	**18 26 12.6**	**-0.2**
KARP				S	**Sb**	**18 26 39.4**	**+0.1**
THERA	**Ancient Thera,**	**2.25**	**7**	P	**Pb**	**18 26 11.9**	**-2.1**
THERA				AML	AML		
THERA	**Ancient Thera,**	**2.25**	**7**	P	**Pn**	**18 26 11.2**	**+1.0**
SNT5	**Nea Kammeni, S**	**2.28**	**5**	P	**Pb**	**18 26 12.9**	**-1.6**
SNT5	**Nea Kammeni, S**	**2.28**	**5**	P	**Pb**	**18 26 13.0**	**-1.6**
THR3	**Thira Island,**	**2.28**	**5**	P	**Pn**	**18 26 12.4**	**+1.7**
THR3	**Thira Island,**	**2.28**	**5**	P	**Pn**	**18 26 12.2**	**+1.6**
THR5	**Thira Island,**	**2.29**	**4**	Pn	**Pn**	**18 26 11.1**	**+0.4**
THR5	**Thira Island,**	**2.29**	**4**	P	**Pn**	**18 26 12.1**	**+1.4**
THR8	**Santorini-Mono**	**2.29**	**6**	P	**Pn**	**18 26 11.3**	**+0.6**
SAP3	**Santorini-Thir**	**2.31**	**4**	P	**Pb**	**18 26 12.9**	**-2.2**
SAP3				S	**Sn**	**18 26 38.9**	**+0.1**
ANKY	**Antikythira Is**	**2.31**	**319**	P	**Pn**	**18 26 11.9**	**+0.9**
MHLO	**Agia Marina, M**	**2.63**	**347**	P	**Pn**	**18 26 15.8**	**+0.3**
MHLO				S	**Sn**	**18 26 46.3**	**-0.4**
KTHA	**Kythira Island**	**2.73**	**322**	P	**Pn**	**18 26 17.1**	**+0.3**
VLI	**Veliai**	**3.16**	**326**	P	**Pn**	**18 26 23.5**	**+0.8**
ARG	**Arkhangelos**	**3.20**	**49**	P	**Pn**	**18 26 26.1**	**+2.8**
DAT	**Datca**	**3.26**	**37**	Pn	**Pn**	**18 26 24.0**	**-0.2**
DAT				AML	AML		
TURN	**Turunc**	**3.65**	**43**	Pn	**Pn**	**18 26 29.4**	**0.0**
MET2	**Kameni Chora,**	**3.78**	**337**	P	**Pn**	**18 26 32.1**	**+0.8**
MET3	**Ano Fanari,Met**	**3.78**	**336**	P	**Pn**	**18 26 31.9**	**+0.6**
VLY	**Voula,Athens**	**3.88**	**344**	P	**Pn**	**18 26 33.3**	**+0.7**
PYL	**PYLOS**	**3.92**	**316**	P	**Pn**	**18 26 34.0**	**+0.8**
DION	**Dionisos Attik**	**4.06**	**346**	P	**Pn**	**18 26 36.2**	**+1.0**
LTK	**Loutraki**	**4.27**	**336**	P	**Pn**	**18 26 39.0**	**+0.9**
VIL2	**Platees**	**4.35**	**340**	P	**Pn**	**18 26 38.9**	**-0.3**
CAME	**Cameli-Denizli**	**4.39**	**49**	Pn	**Pn**	**18 26 40.2**	**+0.4**
CAME				AML	AML		
GUR	**Goura**	**4.43**	**330**	P	**Pn**	**18 26 40.5**	**+0.2**
KLV	**Kalavryta, Ach**	**4.60**	**329**	P	**Pn**	**18 26 43.4**	**+0.8**
DRO	**Drossia**	**4.73**	**325**	P	**Pn**	**18 26 45.6**	**+1.3**
LAKA	**Lakka**	**4.84**	**329**	P	**Pn**	**18 26 46.0**	**+0.1**
MMAI	**Mount Meron Ar**	**8.62**	**95**	Pn	**Pn**	**18 27 37.7**	**-0.1**
	1.1nm,0.3s,baz=280,slow=8.6,SNR=4.1						
MMAI				Sn	Sn	18 29 06.9	-7.6
	0.5nm,0.3s,baz=284,slow=29,SNR=1.0						
	0.3nm,0.3s						
MMAI				AML	AML		
BRTR	**Keskin Array B**	**8.79**	**48**	Pn	**Pn**	**18 27 40.4**	**+0.3**
	0.2nm,0.4s,baz=226,slow=14,SNR=2.0						
BRTR				LR	LR	18 31 56.3	
	comp=Z,39nm,18.9s,baz=312,slow=44						
EIL	**Elat**	**9.44**	**115**	Pn	**Pn**	**18 27 50.2**	**+1.2**
	0.7nm,0.3s,baz=270,slow=1.0,SNR=10.0						
EIL				Sn	**Sn**	**18 29 29.3**	**-5.1**
	1.0nm,0.3s,baz=232,slow=18,SNR=4.8						
	2.3nm,0.5s						
EIL				AML	AML		
ASF	**Jabal al Asfar**	**10.03**	**98**	Sn	**Sn**	**18 29 45.5**	**-3.7**
	0.3nm,0.3s,baz=278,slow=15,SNR=1.5						
MLR	**Muntele Rosu**	**11.36**	**3**	LR	LR	18 33 08.3	
	comp=Z,42nm,20.0s,baz=180,slow=41						
VRAC	**Vranov**	**16.44**	**340**	Pn	**Pn**	**18 29 22.1**	**-1.4**
	0.2nm,0.3s,baz=153,slow=14,SNR=1.8						
	0.7nm,0.3s						
VRAC				AML	AML		
KBZ	**Khabaz**	**16.77**	**50**	Pn	**P**	**18 29 29.4**	**-0.4**
	0.2nm,0.3s,baz=233,slow=9.6,SNR=8.2						
	2.6nm,0.7s						
KBZ				AML	AML		
AKASG	**Malin Array Be**	**16.83**	**9**	Pn	**Pn**	**18 29 27.6**	**-0.8**
	0.7nm,0.3s,baz=200,slow=10,SNR=6.2						
	0.7nm,0.6s						
AKASG				AML	AML		
GERES	**GERESS Array B**	**17.00**	**333**	Pn	**Pn**	**18 29 27.4**	**-3.2**
	baz=141,slow=13,SNR=16						
	0.3nm,0.3s						
ESDC	**Sonseca Array**	**23.88**	**292**	P	**P**	**18 30 46.8**	**+0.4**
	0.4nm,0.8s,baz=90,slow=9.3,SNR=4.7						
	0.4nm,0.8s						
HFS	**Hagfors**	**27.08**	**347**	P	**P**	**18 31 15.5**	**+0.5**
	0.9nm,0.6s,baz=165,slow=12,SNR=2.4						
	0.9nm,0.6s						
FINES	**FINESS Array B**	**27.34**	**1**	P	**P**	**18 31 16.4**	**-1.0**
	0.6nm,0.5s,baz=188,slow=9.6,SNR=0.9						
	0.6nm,0.5s						
EKA	**Eskdalemuir Ar**	**28.89**	**326**	P	**P**	**18 31 30.9**	**-0.4**
	0.1nm,0.3s,baz=121,slow=9.9,SNR=0.6						
	0.1nm,0.3s						
TORD	**Torodi Ar. Bea**	**29.83**	**231**	P	**P**	**18 31 41.2**	**+1.2**
	1.6nm,0.5s,baz=36,slow=9.2,SNR=12						
	1.6nm,0.5s						
MKAR	**Makanchi Array**	**44.35**	**56**	P	**P**	**18 33 43.7**	**+0.9**
	0.9nm,0.6s,baz=279,slow=8.1,SNR=3.7						
	0.9nm,0.6s						
ZALV	**Zalesovo Beam**	**45.72**	**45**	P	**P**	**18 33 53.8**	**+0.2**
	1.0nm,0.5s,baz=271,slow=8.4,SNR=5.6						
	1.0nm,0.5s						
SONM	**Songino Array**	**60.14**	**50**	P	**P**	**18 35 42.2**	**+2.0**
	0.6nm,0.6s,baz=275,slow=7.7,SNR=4.1						
	0.6nm,0.6s						

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*IDC **14** 18:26:50.1±1.1, 39°52N×73°59E, h0^{km}, mb3.6/8, mbtmp3.5/14, ML2.9/5, MS2.8/2, Error ellipse: s-maj=20.1km s-min=15.1km az=105.0*
*SOME **14** 18:26:51.1, 39°67N×74°03E, h10^{km}*
*KRNET **14** 18:26:52.6±0.1, 39°82N×74°03E, h25^{km}, mb4.0*
*NNC **14** 18:26:54.8±1.2, 39°74N×74°05E, h0^{km}, mb4.5, mpv4.1, Error ellipse: s-maj=9.9km s-min=4.9km az=174.0*

ISC 14 18:26:50.9±1.3, 39°73N±0°04×73°99E±0°02, h7^{km}±8^{km}, n84, σ1^{s}56/117, mb3.6/8, 43C-19D, Tajikistan-Xinjiang border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SFK	**Sufi-Kurgan**	**0.46**	**307**	⇑iP	**Pb**	**18 27 01.9**	**+0.3**
SFK				⇑iS	**Sb**	**18 27 08.6**	**-0.2**
SALK	**Salom-Alik**	**1.16**	**354**	⇓eP	**Pg**	**18 27 12.8**	**-0.3**
SALK				⇓eS	**Sg**	**18 27 27.2**	**-0.9**
OHH	**Osh**	**1.21**	**311**	⇑eP	**Pg**	**18 27 14.4**	**+0.2**
OHH				⇑iS	**Sg**	**18 27 30.5**	**+0.6**
KSH2	**Kashi**	**1.36**	**115**	Pg	**Pn**	**18 27 17.6**	**+1.1**
KSH2				Sg	**Sn**	**18 27 35.3**	**+0.4**
KSH2				smax	smax		
	comp=N,1µm,0.6s						
KSH2				smax	smax		
	comp=E,670nm,0.7s						
DRK	**Karamyk**	**1.71**	**262**	⇓iP	**Pg**	**18 27 23.7**	**0.0**
DRK				⇓iS	**Sg**	**18 27 46.7**	**+0.9**
ARSB	**Arslanbob**	**1.76**	**335**	⇑iP	**Pn**	**18 27 23.1**	**+1.0**
ARSB				⇑eS	**Sn**	**18 27 45.4**	**+0.5**
NRN	**Naryn**	**2.29**	**41**	⇓eP	**Pn**	**18 27 29.6**	**+0.1**
NRN				⇓iS	**Sn**	**18 27 56.9**	**-1.2**
BTK	**Batken**	**2.46**	**279**	⇓iP	**Pb**	**18 27 33.9**	**-1.6**
BTK				⇓iS	**Sn**	**18 28 03.9**	**+2.0**
ARK	**Arkit**	**2.57**	**324**	⇑iP	**Pn**	**18 27 34.5**	**+1.3**
ARK				⇑iS	**Sn**	**18 28 05.2**	**+0.4**
TRKS	**Terek-Say**	**2.81**	**311**	⇓iP	**Pn**	**18 27 37.2**	**+0.7**
TRKS				⇓iS	**Sn**	**18 28 10.0**	**-0.8**
AAK	**Ala-Archa**	**2.93**	**7**	Pn	**Pb**	**18 27 44.3**	**+0.7**
	comp=E,14nm,0.3s,baz=204,slow=16,SNR=27						
AAK				Sn	**Sg**	**18 28 24.0**	**-1.0**
	comp=E,30nm,0.3s,baz=168,slow=19,SNR=16						
AAK				LR	LR	18 29 02.2	
	comp=E,77nm,18.3s,baz=180,slow=41						
	comp=E,24nm,0.4s						
AAK				AML	AML		
AAK	**Ala-Archa**	**2.93**	**7**	P	**Pb**	**18 27 44.7**	**+1.1**
	SNR=45						
AAK	**Ala-Archa**	**2.93**	**7**	⇑Pn	**Pb**	**18 27 45.3**	**+1.7**
	comp=E,169nm,0.5s						
AAK				⇑Lg	Lg	18 28 25.8	
	comp=E,1µm,0.7s						
AAK	**Ala-Archa**	**2.93**	**7**	⇑iP	**Pn**	**18 27 39.0**	**+0.9**
AAK				⇑iS	**Sn**	**18 28 12.8**	**-0.8**
EKS2	**Erkin-Say**	**2.93**	**357**	P	**Pg**	**18 27 47.1**	**+0.1**
	SNR=14						
EKS2	**Erkin-Say**	**2.93**	**357**	⇑iP	**Pn**	**18 27 39.1**	**+1.0**
EKS2				⇑iS	**Sn**	**18 28 12.9**	**-0.7**
MNAS	**Manas**	**2.97**	**338**	⇑eP	**Pn**	**18 27 39.9**	**+1.2**
MNAS				⇑iS	**Sn**	**18 28 14.4**	**-0.2**
KBK	**Karagaybulak**	**3.01**	**14**	P	**Pb**	**18 27 46.3**	**+1.4**
	SNR=37						
KBK	**Karagaybulak**	**3.01**	**14**	⇑eP	**Pn**	**18 27 40.0**	**+0.8**
KBK				⇑iS	**Sn**	**18 28 14.5**	**-1.2**
ULHL	**Ulahol**	**3.04**	**34**	P	**Pg**	**18 27 47.4**	**-1.8**
	SNR=11						
ULHL	**Ulahol**	**3.04**	**34**	⇑iP	**Pn**	**18 27 40.3**	**+0.7**
ULHL				⇑iS	**Sn**	**18 28 15.1**	**-1.3**
FRU1	**Bishkek**	**3.11**	**9**	⇑eP	**Pn**	**18 27 41.6**	**+1.1**
FRU1				⇑iS	**Sn**	**18 28 17.6**	**-0.4**
BOOM	**Boomskoye usch**	**3.13**	**28**	⇑iP	**Pn**	**18 27 41.6**	**+0.8**
BOOM				⇑iS	**Sn**	**18 28 17.5**	**-1.0**
CHMS	**Chumysh**	**3.31**	**10**	P	**Pg**	**18 27 52.6**	**-1.8**
	SNR=21						
CHMS	**Chumysh**	**3.31**	**10**	⇑iP	**Pn**	**18 27 44.2**	**+0.9**
CHMS				⇑iS	**Sn**	**18 28 21.7**	**-1.2**
KDJ	**Kajisay**	**3.41**	**44**	⇑iP	**Pn**	**18 27 45.6**	**+0.9**
KDJ				⇑iS	**Sn**	**18 28 24.3**	**-1.1**
TKM2	**Tokmak 2**	**3.41**	**20**	P	**Pb**	**18 27 51.4**	**-0.4**
	SNR=14						
TKM2	**Tokmak 2**	**3.41**	**20**	⇑iP	**Pn**	**18 27 45.6**	**+0.9**
TKM2				⇑iS	**Sn**	**18 28 24.3**	**-1.2**
TARG	**Taragay, Kyrgy**	**3.52**	**54**	⇓iP	**Pn**	**18 27 47.3**	**+0.8**
TARG				⇓iS	**Sn**	**18 28 27.3**	**-1.3**
USP	**Ospenovka**	**3.55**	**6**	P	**Pg**	**18 27 59.5**	**+0.5**
	SNR=22						
USP	**Ospenovka**	**3.55**	**6**	⇓iP	**Pn**	**18 27 47.6**	**+1.0**
USP				⇓iS	**Sn**	**18 28 27.7**	**-1.1**
KST	**Kastek**	**3.63**	**24**	Pg	**Pg**	**18 27 60.0**	**-0.4**
KST				Lg	Lg	18 28 49.1	
KST	**Kastek**	**3.63**	**24**	eP	**Pg**	**18 27 60.0**	**-0.4**
	comp=E,13nm,0.5s						
KST				eS	**Sg**	**18 28 49.1**	**+1.7**
	comp=E,213nm,0.5s						
SGDS	**Sogindy**	**3.75**	**7**	Pg	**Pg**	**18 28 02.2**	**-0.5**
	comp=E,56nm,0.3s						
SGDS				Lg	Lg	18 28 53.4	
	comp=E,52nm,0.6s						
IUG	**Iuzhnay**	**3.84**	**310**	Pg	**Pg**	**18 28 03.6**	**-1.0**
	comp=E,58nm,0.4s						
IUG				Lg	Lg	18 28 55.8	
	comp=E,336nm,0.6s						
IUG	**Iuzhnay**	**3.84**	**310**	eP	**Pg**	**18 28 03.6**	**-1.0**
	comp=E,58nm,0.4s						
IUG				eS	**Sg**	**18 28 55.8**	**+1.4**
	comp=E,336nm,0.6s						
ANVS	**Anan'yevo**	**4.12**	**41**	⇑iP	**Pn**	**18 27 55.6**	**+1.1**
ANVS				⇑iS	**Sn**	**18 28 41.5**	**-1.6**
MDOK	**Medeo**	**4.13**	**33**	Pg	**Pg**	**18 28 09.4**	**-0.6**
	comp=E,42nm,0.4s						
MDOK				Lg	Lg	18 29 05.9	
	comp=E,132nm,0.6s						
MDOK	**Medeo**	**4.13**	**33**	eP	**Pg**	**18 28 09.4**	**-0.6**
	comp=E,42nm,0.4s						
MDOK				eS	**Sg**	**18 29 05.9**	**+2.4**
	comp=E,132nm,0.6s						
KNDC	**Almaty**	**4.14**	**32**	⇑Pg	**Pg**	**18 28 08.0**	**-2.2**
	comp=E,86nm,0.7s						
KNDC				⇑Lg	Lg	18 29 05.7	
	comp=E,312nm,0.8s						
KRBS	**Karabastau**	**4.16**	**17**	Pg	**Pg**	**18 28 09.9**	**-0.7**
	comp=E,16nm,0.3s						
KRBS				Lg	Lg	18 29 06.3	
	comp=E,8.6nm,0.3s						
KRBS	**Karabastau**	**4.16**	**17**	eP	**Pg**	**18 28 09.9**	**-0.7**
	comp=E,16nm,0.3s						
KRBS				eS	**Sg**	**18 29 06.3**	**+1.9**
	comp=E,8.6nm,0.3s						
KOTS	**Kotyrbulak**	**4.21**	**33**	Pg	**Pg**	**18 28 10.4**	**-1.3**
	comp=E,27nm,0.4s						
KOTS				Lg	Lg	18 29 07.0	
	comp=E,366nm,0.6s						
KOTS	**Kotyrbulak**	**4.21**	**33**	eP	**Pg**	**18 28 10.4**	**-1.3**
	comp=E,27nm,0.4s						
KOTS				eS	**Sg**	**18 29 07.0**	**+0.8**
	comp=E,366nm,0.6s						
KK31	**Karatay Array**	**4.26**	**323**	⇓Pn	Pn	18 28 01.4	+5.1
	comp=E,2.4nm,0.4s,baz=131,slow=13,SNR=72						
KK31				⇓Sn	**Sb**	**18 28 54.6**	**-3.3**
	comp=E,6.2nm,0.3s,baz=40,slow=105,SNR=4.1						
KK31				⇓Lg	Lg	18 29 09.5	
	comp=E,19nm,0.4s,baz=142,slow=29,SNR=2.6						
PRZ	**Przheval'sk**	**4.32**	**49**	⇑iP	**Pn**	**18 27 58.5**	**+1.2**
PRZ				⇑iS	**Sn**	**18 28 46.5**	**-1.5**
KTBS	**Karatobe**	**4.46**	**26**	Pg	**Pg**	**18 28 15.1**	**-1.2**
	comp=E,0.2nm,0.1s						
KTBS				Lg	Lg	18 29 14.9	
	comp=E,110nm,0.5s						
KTBS	**Karatobe**	**4.46**	**26**	eP	**Pg**	**18 28 15.2**	**-1.2**
	comp=E,0.2nm,0.1s						
KTBS				eS	**Sg**	**18 29 14.9**	**+0.8**
	comp=E,110nm,0.5s						
KUU	**Kurty**	**4.51**	**22**	Pg	**Pg**	**18 28 16.2**	**-1.2**
	comp=E,0.9nm,0.0s						
KUU				Lg	Lg	18 29 17.0	
	comp=E,94nm,0.6s						
KUU	**Kurty**	**4.51**	**22**	eP	**Pg**	**18 28 16.2**	**-1.2**
	comp=E,0.9nm,0.0s						
KUU				eS	**Sg**	**18 29 17.0**	**+1.1**
	comp=E,94nm,0.6s						
BRLS	**Borolday**	**4.54**	**318**	Pg	**Pg**	**18 28 15.4**	**-2.5**
	comp=E,13nm,0.3s						
BRLS				Lg	Lg	18 29 15.7	
	comp=E,81nm,0.6s						
BRLS	**Borolday**	**4.54**	**318**	eP	**Pg**	**18 28 15.4**	**-2.5**
	comp=E,13nm,0.3s						
BRLS				eS	**Sg**	**18 29 15.7**	**-1.0**
	comp=E,81nm,0.6s						
SATY	**Saty**	**4.70**	**44**	Pg	**Pg**	**18 28 19.8**	**-1.2**
	comp=E,29nm,0.5s						
SATY				Lg	Lg	18 29 23.6	
	comp=E,85nm,0.6s						
SATY	**Saty**	**4.70**	**44**	eP	**Pg**	**18 28 19.8**	**-1.2**
	comp=E,29nm,0.5s						
SATY				eS	**Sg**	**18 29 23.6**	**+1.7**
	comp=E,85nm,0.6s						
UZB	**Uzynbulak**	**5.09**	**46**	Pg	**Pg**	**18 28 26.4**	**-2.1**
	comp=E,13nm,0.5s						
UZB				Lg	Lg	18 29 34.8	
	comp=E,29nm,0.5s						
UZB	**Uzynbulak**	**5.09**	**46**	eP	**Pg**	**18 28 26.4**	**-2.1**
	comp=E,13nm,0.5s						
UZB				eS	**Sg**	**18 29 34.8**	**+0.3**
	comp=E,29nm,0.5s						
KPKS	**Kokpek**	**5.13**	**42**	Pg	**Pg**	**18 28 26.8**	**-2.4**
	comp=E,0.1nm,0.1s						
KPKS				Lg	Lg	18 29 35.2	
	comp=E,53nm,0.4s						
KPKS	**Kokpek**	**5.13**	**42**	eP	**Pg**	**18 28 26.8**	**-2.4**
	comp=E,0.1nm,0.1s						
KPKS				eS	**Sg**	**18 29 35.2**	**-0.4**
	comp=E,53nm,0.4s						
ARXS	**Arharly**	**5.31**	**31**	Pg	**Pg**	**18 28 31.4**	**-1.3**
	comp=E,17nm,0.6s						
ARXS				Lg	Lg	18 29 42.8	
	comp=E,40nm,0.5s						
ARXS	**Arharly**	**5.31**	**31**	eP	**Pg**	**18 28 31.4**	**-1.3**
	comp=E,17nm,0.6s						
ARXS				eS	**Sg**	**18 29 42.9**	**+1.3**
	comp=E,40nm,0.5s						
PDGK	**Podgornoye**	**5.47**	**47**	⇑Pn	Pn	18 28 18.7	+5.7
	comp=E,6.1nm,0.7s						
PDGK				⇑Pg	**Pg**	**18 28 32.9**	**-2.9**
	comp=E,43nm,1.4s						
PDGK				⇑Lg	Lg	18 29 45.7	
	comp=E,74nm,0.9s						
BLB	**Baldybastay**	**5.50**	**36**	Pg	**Pg**	**18 28 35.1**	**-1.2**
	comp=E,28nm,0.6s						
BLB				Lg	Lg	18 29 50.0	
	comp=E,54nm,0.9s						
KNOS	**Konyrlen**	**6.03**	**38**	Pg	**Pg**	**18 28 44.8**	**-1.5**
	comp=E,3.2nm,0.4s						
KNOS				Lg	Lg	18 30 06.5	
	comp=E,26nm,0.8s						
DJR	**Jarkent**	**6.31**	**41**	Pg	**Pg**	**18 28 49.9**	**-1.8**
	comp=E,3.6nm,0.4s						
DJR				Lg	Lg	18 30 15.6	
	comp=E,13nm,0.8s						
DJR	**Jarkent**	**6.31**	**41**	eP	**Pg**	**18 28 49.9**	**-1.8**
	comp=E,3.6nm,0.4s						
DJR				eS	**Sg**	**18 30 15.6**	**+2.2**
	comp=E,13nm,0.8s						
MAKZ	**Makanchi**	**9.16**	**37**	⇑Pn	**Pn**	**18 29 04.7**	**+1.2**
	comp=E,2.1nm,1.0s						
MAKZ				⇓Lg	Lg	18 31 40.5	
	comp=E,9.9nm,1.2s						
MK31	**Makanchi Array**	**9.30**	**38**	⇑Pn	**Pn**	**18 29 09.8**	**+4.4**
	comp=E,0.7nm,0.7s,baz=219,slow=14,SNR=2.7						
MK31				⇑Lg	Lg	18 31 46.1	
	comp=E,5.2nm,1.1s,baz=35,slow=49,SNR=4.3						
MKAR	**Makanchi Array**	**9.30**	**38**	Pn	Pn	18 29 11.0	+5.6
	baz=218,slow=16,SNR=1.9						
MKAR				Lg	Lg	18 31 39.6	
	comp=E,0.1nm,0.3s,baz=221,slow=24,SNR=3.5						
	comp=E,0.2nm,0.5s						
KURBB	**Kurchatov Arra**	**11.35**	**15**	Pn	**Pn**	**18 29 37.9**	**+4.5**
	comp=E,0.1nm,0.3s,baz=184,slow=12,SNR=1.8						
KURBB				Lg	Lg	18 32 48.7	
	comp=E,0.1nm,0.3s,baz=205,slow=30,SNR=6.7						
	comp=E,0.2nm,0.3s						
KURBB				AML	AML		
KURBB	**Kurchatov Arra**	**11.35**	**15**	⇓Lg	Lg	18 32 53.0	
	comp=E,17nm,0.8s						
KURK	**Kurchatov**	**11.46**	**15**	⇑Lg	Lg	18 32 55.8	
	comp=E,10.0nm,0.9s						
BVAR	**Borovoye Array**	**13.52**	**351**	Pn	**Pn**	**18 30 04.9**	**+1.8**
	baz=162,slow=15,SNR=7.3						
BVAR				Lg	Lg	18 33 59.2	
	baz=169,slow=25,SNR=2.8						
	comp=E,0.6nm,0.6s						
AKTO	**Aktyubinsk**	**15.51**	**319**	Pn	**Pn**	**18 30 25.7**	**-4.4**
	comp=E,0.5nm,0.3s,baz=117,slow=2.3,SNR=0.9						
ZALV	**Zalesovo Beam**	**16.01**	**24**	Pn	**P**	**18 30 40.0**	**+0.1**
	comp=E,0.1nm,0.3s,baz=210,slow=9.2,SNR=3.6						
ZALV				Lg	Lg	18 35 15.0	
	comp=E,0.1nm,0.3s,baz=214,slow=26,SNR=1.5						
	comp=E,0.3nm,0.2s						
ZALV				AML	AML		
SONM	**Songino Array**	**24.62**	**60**	P	**P**	**18 32 17.0**	**+5.0**
	comp=E,0.2nm,0.4s,baz=246,slow=11,SNR=1.8						
	comp=E,0.2nm,0.4s						
ASF	**Jabal al Asfar**	**30.79**	**268**	LR	LR	18 46 14.8	
	comp=E,24nm,19.2s,baz=207,slow=38						
FINES	**FINESS Array B**	**36.22**	**323**	P	**P**	**18 33 54.6**	**+0.5**
	comp=E,1.7nm,0.9s,baz=110,slow=8.6,SNR=4.0						
	comp=E,1.7nm,0.9s						
CN2	**Changchun**	**38.09**	**67**	eP	P	18 34 19.1	+8.8
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
HFS	**Hagfors**	**42.06**	**320**	P	**P**	**18 34 43.7**	**+0.8**
	comp=Z,0.8nm,0.8s,baz=100,slow=14,SNR=1.3						
	comp=Z,0.8nm,0.8s						
GERES	**GERESS Array B**	**43.07**	**303**	P	**P**	**18 34 48.5**	**-2.9**
	comp=Z,0.3nm,0.3s,baz=77,slow=13,SNR=3.6						
	comp=Z,0.3nm,0.3s						
NOA	**NORSAR Array B**	**43.29**	**321**	P	**P**	**18 34 52.2**	**-0.8**
	comp=Z,0.3nm,0.6s,baz=90,slow=7.9,SNR=1.5						
	comp=Z,0.3nm,0.6s						
TORD	**Torodi Ar. Bea**	**68.14**	**269**	P	**P**	**18 37 51.6**	**-0.4**
	comp=Z,0.3nm,0.5s,baz=41,slow=5.6,SNR=2.3						
	comp=Z,0.3nm,0.5s						
WRA	**Warramunga Arr**	**81.78**	**124**	P	**P**	**18 39 11.6**	**+1.0**
	comp=Z,0.4nm,0.8s,baz=331,slow=5.0,SNR=2.8						
	comp=Z,0.4nm,0.8s						
ASAR	**Alice Springs**	**84.25**	**127**	P	**P**	**18 39 23.3**	**-0.1**
	comp=Z,0.4nm,1.0s,baz=321,slow=5.0,SNR=2.3						
	comp=Z,0.4nm,1.0s						

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*IDC **14** 18:27:52.0±2.7, 23°77S×179°82E, h546^{km}±31^{km}, mb3.1/4, mbtmp3.9/5, Error ellipse: s-maj=37.9km s-min=23.8km az=158.0*

ISC 14 18:27:50.2±1.1, 23°9S±0°2×179°9E±0°2, h526^{km}, n7, σ1^{s}92/7, mb3.6/4, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**6.39**	**344**	P	**P**	**18 29 32.2**	**+0.6**
	5.6nm,0.7s,baz=158,slow=19,SNR=4.4						
ASAR	**Alice Springs**	**41.90**	**261**	P	**P**	**18 34 55.3**	**+0.6**
	0.6nm,0.4s,baz=98,slow=7.4,SNR=11						
	0.6nm,0.4s						
WRA	**Warramunga Arr**	**42.27**	**266**	P	**P**	**18 34 57.7**	**+0.1**
	2.3nm,0.6s,baz=97,slow=8.0,SNR=92						
	2.3nm,0.6s						
QSPA	**South Pole Qui**	**66.15**	**180**	P	**P**	**18 37 45.7**	**+0.5**
	2.2nm,1.1s,baz=21,slow=1.8,SNR=4.0						
	2.2nm,1.1s						
TXAR	**Lajitas Array**	**90.56**	**58**	P	**P**	**18 39 57.4**	**+1.0**
	0.4nm,0.7s,baz=244,slow=4.6,SNR=4.6						
	0.4nm,0.7s						
BVAR	**Borovoye Array**	**120.38**	**319**	PKP	**PKPdf**	**18 45 40.9**	**-0.4**
	0.3nm,0.5s,baz=101,slow=6.0,SNR=2.5						
HFS	**Hagfors**	**142.55**	**349**	PKP	**PKPdf**	**18 46 19.1**	**-3.6**
	1.5nm,0.7s,baz=90,slow=2.0,SNR=5.2						

IDC 14 18:41:03.5±2.5, 4°76S×134°10E, h0^{km}, mb3.4/1, mbtmp3.4/4, ML3.5/3, Error ellipse: s-maj=67.4km s-min=23.4km az=87.0, Irian Jaya region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**15.09**	**179**	Pn	Pn	18 44 34.4	-3.8
	0.1nm,0.3s,baz=354,slow=13,SNR=12						
WRA				Sn	Sn	18 47 12.6	-14
	0.1nm,0.3s,baz=1.7,slow=23,SNR=2.5						
	0.2nm,0.3s						
WRA				AML	AML		
FITZ	**Fitzroy Crossi**	**15.63**	**211**	Pn	Pn	18 44 39.9	-5.3
	0.3nm,0.3s,baz=29,slow=12,SNR=14						
FITZ				Sn	Sn	18 47 23.0	-16
	0.4nm,0.3s,baz=112,slow=5.4,SNR=9.8						
	0.9nm,0.3s						
FITZ				AML	AML		
ASAR	**Alice Springs**	**18.80**	**181**	Pn	P	18 45 23.3	-1.4
	0.2nm,0.3s,baz=358,slow=12,SNR=11						
ASAR				Sn	Sn	18 48 45.4	-11
	baz=4.1,slow=27,SNR=1.4						

	0.8nm,0.7s						
ASAR				AML	AML		
MKAR	**Makanchi Array**	**68.69**	**325**	P	P	18 52 08.9	0.0
	0.2nm,0.5s,baz=112,slow=7.0,SNR=2.2						
	0.2nm,0.5s						

IDC 14 19:14:04.9±56.0, 16°.56S×179°.32W, h0^{km}, mb3.9/3, mbtmp3.9/3, Error ellipse: s-maj=1015.0km s-min=162.9km az=77.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	**38.54**	**239**	P	P	19 21 29.7	+0.3
	1.3nm,0.7s,baz=80,slow=12,SNR=1.4						
	1.3nm,0.7s						
WRA	**Warramunga Arr**	**44.04**	**258**	P	P	19 22 14.8	0.0
	0.6nm,0.6s,baz=94,slow=7.6,SNR=19						
	0.6nm,0.6s						
ASAR	**Alice Springs**	**44.34**	**253**	P	P	19 22 16.6	-0.5
	1.7nm,0.5s,baz=86,slow=7.9,SNR=45						
	1.7nm,0.5s						

IDC 14 19:36:01.6±999.0, 54°.27N×3°.77E, h0^{km}, Error ellipse: s-maj=405.7km s-min=159.7km az=124.0, North Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I26DE	**FREYUNG INFRAS**	**8.23**	**127**	I	I	20 31 33.4	
	baz=311,slow=330,SNR=1.1						
I48TN	**KESRA INFRASON**	**18.87**	**166**	I	I	21 34 20.0	
	baz=349,slow=283,SNR=0.7						
I43RU	**DUBNA INFRASON**	**19.00**	**69**	I	I	21 32 37.5	
	baz=276,slow=310,SNR=5.3						

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*IDC **14** 19:49:33.6±1.4, 5°.67S×152°.94E, h0^{km}, mb3.7/6, mbtmp3.7/7, ML1.7/1, MS3.3/3, Error ellipse: s-maj=29.2km s-min=16.2km az=110.0*

ISC 14 19:49:39.6±1.4, 5°.62S±0°.08×152°.8E±0°.2, h37^{km}, n10, σ0^{s}.67/10, mb3.7/6, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRVT	**Keravat (AS076**	**1.52**	**329**	Pn	**Pn**	**19 50 03.5**	**-0.7**
	315nm,0.3s,baz=83,slow=0.9,SNR=39						
KRVT				Sn	**Sn**	**19 50 23.9**	**+1.1**
	218nm,0.3s,baz=299,slow=22,SNR=6.9						
PMG	**Port Moresby**	**6.75**	**236**	Pn	**Pn**	**19 51 16.7**	**+0.6**
	0.8nm,0.3s,baz=84,slow=9.2,SNR=1.2						
PMG				Sn	**Sn**	**19 52 31.1**	**-0.7**
	3.7nm,0.3s,baz=186,slow=20,SNR=8.2						
PMG				LR	LR	19 53 45.8	
	comp=Z,101nm,18.8s,baz=228,slow=37						
	7.2nm,0.7s						
PMG				AML	AML		
WRA	**Warramunga Arr**	**22.92**	**230**	P	**P**	**19 54 40.3**	**-0.3**
	0.4nm,0.5s,baz=55,slow=10,SNR=9.9						
	0.4nm,0.5s						
ASAR	**Alice Springs**	**25.56**	**224**	P	**P**	**19 55 05.3**	**+0.1**
	0.8nm,0.7s,baz=61,slow=8.7,SNR=11						
	0.8nm,0.7s						
RPZ	**Rata Peaks**	**41.20**	**160**	LR	LR	20 10 45.0	
	comp=Z,33nm,20.8s,baz=324,slow=31						
SONM	**Songino Array**	**67.02**	**328**	P	**P**	**20 00 29.2**	**+0.2**
	0.5nm,0.5s,baz=138,slow=5.2,SNR=2.7						
	0.5nm,0.5s						
ZALV	**Zalesovo Beam**	**81.84**	**326**	P	**P**	**20 01 54.3**	**-0.5**
	0.7nm,0.5s,baz=105,slow=6.3,SNR=4.2						
	0.7nm,0.5s						
ILAR	**Eielson Array**	**82.91**	**22**	P	**P**	**20 02 00.5**	**+0.3**
	0.5nm,0.7s,baz=256,slow=4.9,SNR=3.7						
	0.5nm,0.7s						
KURBB	**Kurchatov Arra**	**84.45**	**322**	P	**P**	**20 02 08.1**	**-0.2**
	0.3nm,0.6s,baz=120,slow=3.6,SNR=5.2						
	0.3nm,0.6s						
ELK	**Elko**	**95.11**	**50**	LR	LR	20 41 49.0	
	comp=Z,33nm,19.9s,baz=301,slow=33						

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*CRAAG **14** 19:51:08.3, 36°.95N×3°.24E, Ml3.2, Algrie 15km N El-Marsa*

*MDD **14** 19:51:11.1±1.0, 37°.01N×3°.16E, h3^{km}±20^{km}, Mb3.6/18, M_mb2.8/18, Error ellipse: s-maj=26.9km s-min=4.9km az=141.0*

ISC 14 19:51:08.4±1.0, 36°.93N±0°.05×3°.23E±0°.05, h12^{km}, n17, σ1^{s}.27/24, 8C, Northern Algeria

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ABA	**Alger-Bouzarea**	**0.20**	**230**	P	**Pb**	**19 51 13.8**	**-0.3**
ABKD	**Sidi Amar**	**0.84**	**242**	P	**Pb**	**19 51 25.2**	**+0.2**
ATKJ	**Tikjda**	**0.87**	**124**	P	**Pb**	**19 51 25.8**	**+0.3**
AKET	**Djebel Ketaf**	**1.03**	**149**	P	**Pn**	**19 51 29.0**	**+0.2**
EARB	**Arib**	**1.17**	**238**	P	**Pg**	**19 51 31.3**	**+0.4**
EDDR	**Deurdeur**	**1.24**	**222**	P	**Pg**	**19 51 32.3**	**+0.1**
ABRIN	**Birine**	**1.31**	**184**	P	**Pn**	**19 51 32.6**	**0.0**
ADCK	**Dar Chioukh**	**2.02**	**175**	P	**Pn**	**19 51 44.0**	**+1.5**
AFRS	**Ain Fares**	**2.42**	**155**	P	**Pb**	**19 51 51.8**	**-0.1**
EIBI	**Ibiza**	**2.57**	**325**	Pn	**Pn**	**19 51 50.7**	**+0.8**
EIBI				⇑IVmb_VC		19 51 52.1	
	134nm,SNR=1.4						
EIBI				Sn	**Sn**	**19 52 19.0**	**-2.0**
ETOS	**Mallorca**	**2.85**	**354**	Pn	**Pn**	**19 51 54.6**	**+0.9**
ETOS				⇑IVmb_VC		19 51 55.3	
	198nm,SNR=3.5						
ETOS				Sn	**Sn**	**19 52 26.9**	**-1.1**
EBEN2	**Beniarda presa**	**3.22**	**304**	⇑IVmb_VC		19 51 59.3	
	34nm,SNR=1.3						
EBEN2				Pn	**Pn**	**19 51 59.4**	**+0.6**
EVIV	**Cofrentes, Val**	**4.15**	**306**	Pn	**Pn**	**19 52 14.0**	**+2.4**
EVIV				⇑IVmb_VC		19 52 16.5	
	79nm,SNR=1.1						
EVIV				Sn	**Sn**	**19 52 58.6**	**-1.5**
ETOB	**Tobarra**	**4.15**	**296**	Pn	**Pn**	**19 52 12.9**	**+1.2**
ETOB				⇑IVmb_VC		19 52 14.8	
	63nm,SNR=0.8						
ETOB				Sn	**Sn**	**19 52 58.9**	**-1.3**
ECHE	**Chera**	**4.24**	**310**	⇑IVmb_VC		19 52 13.8	
	70nm,SNR=1.0						
ECHE				Pn	**Pn**	**19 52 14.7**	**+1.8**
ECHE				Sn	**Sn**	**19 53 01.1**	**-1.2**
EMOS	**Mosqueruela**	**4.49**	**321**	Pn	**Pn**	**19 52 17.3**	**+0.9**
EMOS				⇑IVmb_VC		19 52 18.8	
	16nm,SNR=3.1						
EMOS				Sn	**Sn**	**19 53 06.4**	**-2.3**
EQES	**Quesada**	**5.09**	**282**	Pn	**Pn**	**19 52 25.7**	**+1.0**
EQES				⇑IVmb_VC		19 52 27.3	
	17nm,SNR=2.9						
EQES				Sn	**Sn**	**19 53 22.3**	**-1.2**

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*IDC **14** 19:53:32.8±0.5, 15°.25S×173°.37W, h0^{km}, mb4.4/13, mbtmp4.4/14, ML4.3/1, MS3.7/27, Error ellipse: s-maj=26.6km s-min=12.0km az=138.0*

*NEIC **14** 19:53:35.5±1.9, 15°.34S±0°.08×172°.99W±0°.09, h10^{km}±1^{km}, mb4.7/121, Error ellipse: s-maj=16.8km s-min=11.0km az=123.0*

ISC 14 19:53:36.9±0.4, 15°.36S±0°.06×172°.98W±0°.08, h29^{km}, n157, σ1^{s}.42/93, mb4.6/66, MS3.8/26, 5C-7D, Samoa Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	**1.85**	**39**	Pn	**Pn**	**19 54 06.0**	**-0.7**
	95nm,0.3s,baz=14,slow=2.6,SNR=128						
AFI				Sn	**Sn**	**19 54 26.6**	**-2.7**
	560nm,0.3s,baz=95,slow=15,SNR=9.2						
	1µm,0.7s						
AFI				AML	AML		
AFI	**Afiamalu**	**1.85**	**39**		**Pn**	**19 54 07.0**	**+0.2**
AFI				Sn	**Sn**	**19 54 26.0**	**-3.3**
NIUE	**Niue**	**4.70**	**142**		**Pn**	**19 54 46.7**	**+0.8**
NIUE				Sn	**Sn**	**19 55 34.6**	**-4.9**
MSVF	**Nonsavu**	**8.92**	**253**	Pn	**Pn**	**19 55 44.6**	**+0.6**
	0.9nm,0.3s,baz=107,slow=13,SNR=11						
MSVF				LR	LR	19 58 48.1	
	comp=Z,771nm,20.2s,baz=129,slow=37						
MARNC	**Mare, Loyalty**	**19.01**	**249**		**Pn**	**19 57 58.4**	**+1.0**
OUENC	**Ouen Island, N**	**20.33**	**247**		**P**	**19 58 11.7**	**+0.8**
DZM	**Mont Dzumac**	**20.59**	**248**	P	**P**	**19 58 11.9**	**-1.9**
	9.9nm,0.9s,baz=74,slow=15,SNR=13						
DZM				LR	LR	20 05 03.4	
	comp=Z,298nm,20.8s,baz=20,slow=34						
	9.9nm,0.9s						
ONTNC	**Ouen Toro**	**20.64**	**247**		**P**	**19 58 15.2**	**+0.9**
PPT	**Papeete**	**22.55**	**99**	LR	LR	20 05 05.7	
	comp=Z,25nm,19.7s,baz=354,slow=30						
TOZ	**Tahuroa Road**	**24.50**	**202**		**P**	**19 58 54.1**	**+0.4**
TOZ				IAmb	IAmb	19 58 57.3	
	comp=Z,26nm,0.9s						
HNR	**Honiara**	**27.08**	**279**	LR	LR	20 08 28.6	
	comp=Z,104nm,18.8s,baz=224,slow=34						
CTA	**Charters Tower**	**39.05**	**257**	LR	LR	20 13 55.9	
	comp=Z,141nm,21.9s,baz=222,slow=32						
H11S2	**WAKE ISLAND Hy**	**39.15**	**329**	T	T	20 41 46.8	
	baz=146,slow=75,SNR=80						
H11S3	**WAKE ISLAND Hy**	**39.16**	**329**	T	T	20 41 47.4	
	baz=146,slow=75,SNR=52						
H11S1	**WAKE ISLAND Hy**	**39.16**	**329**	T	T	20 41 51.4	
	baz=146,slow=75,SNR=39						
H11N3	**WAKE ISLAND Hy**	**40.08**	**330**	T	T	20 42 52.7	
	baz=148,slow=74,SNR=5.2						
H11N1	**WAKE ISLAND Hy**	**40.09**	**330**	T	T	20 42 57.8	
	baz=148,slow=74,SNR=6.4						
H11N2	**WAKE ISLAND Hy**	**40.10**	**330**	T	T	20 42 54.3	
	baz=148,slow=75,SNR=9.1						
STKA	**Stephens Creek**	**44.41**	**240**	P	**P**	**20 01 42.5**	**-2.7**
	comp=Z,4.8nm,0.8s,baz=87,slow=8.5,SNR=14						
STKA				LR	LR	20 20 10.7	
	comp=Z,107nm,18.4s,baz=188,slow=36						
	comp=Z,4.8nm,0.8s						
WRA	**Warramunga Arr**	**50.25**	**257**	P	**P**	**20 02 27.9**	**-3.0**
	comp=Z,4.8nm,0.8s,baz=92,slow=7.3,SNR=54						
WRA				PcP	**PcP**	**20 03 49.0**	**-0.7**
	comp=Z,1.9nm,0.7s,baz=87,slow=4.0,SNR=7.1						
	comp=Z,4.8nm,0.8s						
WRA	**Warramunga Arr**	**50.25**	**257**		**P**	**20 02 27.1**	**-3.8**
ASAR	**Alice Springs**	**50.51**	**252**	P	**P**	**20 02 29.9**	**-3.0**
	comp=Z,9.0nm,0.5s,baz=87,slow=8.1,SNR=24						
ASAR				LR	LR	20 22 38.5	
	comp=Z,223nm,19.3s,baz=128,slow=35						
	comp=Z,9.0nm,0.5s						
ASAR	**Alice Springs**	**50.51**	**252**		**P**	**20 02 29.6**	**-3.3**
FITZ	**Fitzroy Crossi**	**58.62**	**258**	LR	LR	20 27 11.4	
	comp=Z,142nm,18.1s,baz=176,slow=35						
SBA	**Scott Base**	**63.32**	**185**		**P**	**20 04 04.2**	**+1.6**
VNDA	**Vanda**	**63.45**	**186**	P	**P**	**20 04 05.5**	**+1.9**
	comp=Z,4.6nm,0.9s,baz=3.5,slow=6.2,SNR=26						
	comp=Z,4.6nm,0.9s						
VNDA	**Vanda**	**63.45**	**186**		**P**	**20 04 04.8**	**+1.2**
VNDA				IAmb	IAmb	20 04 06.4	
	comp=Z,5.2nm,0.9s						
SHEM	**Shemya Is, Ala**	**68.73**	**352**	LR	LR	20 29 40.9	
	comp=Z,38nm,19.5s,baz=281,slow=32						
MJAR	**Matsushiro Arr**	**69.18**	**320**	LR	LR	20 28 03.6	
	comp=Z,30nm,21.3s,baz=175,slow=30						
KMRM	**Mail Ridge**	**71.78**	**38**		**P**	**20 04 59.1**	**+2.4**
PFO	**Pinyon Flats O**	**72.60**	**47**	LR	LR	20 28 40.3	
	comp=Z,77nm,21.8s,baz=241,slow=29						
LPIG	**La Paz**	**72.67**	**58**	LR	LR	20 28 17.4	
	comp=Z,74nm,21.1s,baz=235,slow=29						
PETK	**Petropavlovsk-**	**72.72**	**342**	P	**P**	**20 05 00.2**	**-1.8**
	comp=Z,1.9nm,0.7s,baz=159,slow=5.8,SNR=2.4						
PETK				LR	LR	20 28 39.8	
	comp=Z,19nm,21.8s,baz=103,slow=29						
	comp=Z,1.9nm,0.7s						
MDPB	**Devils Postpil**	**73.07**	**42**	P	**P**	**20 05 05.0**	**+0.3**
BELC	**Belle Mtn. Jos**	**73.13**	**47**	P	**P**	**20 05 04.5**	**-0.6**
BELC				IAmb	IAmb	20 05 07.6	
	comp=Z,4.2nm,0.8s						
MPMC	**Manual Prospec**	**73.23**	**44**	P	**P**	**20 05 05.1**	**-0.5**
MPMC				IAmb	IAmb	20 05 08.6	
	comp=Z,5.7nm,1.1s						
YBH	**Yreka Blue Hor**	**73.32**	**37**	LR	LR	20 29 40.3	
	comp=Z,68nm,21.2s,baz=220,slow=30						
YBH	**Yreka Blue Hor**	**73.32**	**37**		**P**	**20 05 07.6**	**+1.7**
YBH				IAmb	IAmb	20 05 09.2	
	comp=Z,6.5nm,0.9s						
WAKR	**Walker**	**73.35**	**41**		**P**	**20 05 07.5**	**+1.1**
BEKR	**Beckworth**	**73.58**	**40**	P	**P**	**20 05 09.2**	**+1.6**
BEKR				IAmb	IAmb	20 05 10.2	
	comp=Z,8.9nm,1.5s						
QSM	**Queen of Sheba**	**73.59**	**45**		**P**	**20 05 08.8**	**+1.2**
QSM				IAmb	IAmb	20 05 10.1	
	comp=Z,6.8nm,1.0s						
IRM	**Iron Mountain**	**73.81**	**47**		**P**	**20 05 09.3**	**+0.3**
IRM				IAmb	IAmb	20 05 11.7	
	comp=Z,7.5nm,1.1s						
FURC	**Furnace Creek,**	**73.87**	**44**	IAmb	IAmb	20 05 11.8	
	comp=Z,7.0nm,1.2s						
NVAR	**Mina Array Bea**	**74.03**	**42**	P	**P**	**20 05 11.1**	**+0.7**
	comp=Z,1.0nm,0.5s,baz=226,slow=9.8,SNR=7.3						
NVAR				LR	LR	20 30 17.7	
	comp=Z,81nm,20.6s,baz=270,slow=30						
	comp=Z,1.0nm,0.5s						
KVN	**Kaiserville**	**74.52**	**41**		**P**	**20 05 14.3**	**+1.1**
KVN				IAmb	IAmb	20 05 15.7	
	comp=Z,8.7nm,1.4s						
TPH	**Tonopah**	**74.53**	**43**	IAmb	IAmb	20 05 16.0	
	comp=Z,13nm,1.2s						
QSPA	**South Pole Qui**	**74.68**	**180**	P	**P**	**20 05 14.1**	**+0.5**
	comp=Z,16nm,1.0s,baz=32,slow=2.9,SNR=27						
	comp=Z,16nm,1.0s						
QSPA	**South Pole Qui**	**74.68**	**180**	P	**P**	**20 05 13.9**	**+0.3**
BUCK	**Buck Mountain**	**74.74**	**35**	IAmb	IAmb	20 05 17.2	
	comp=Z,9.8nm,0.9s						
I04A	**Tendick Farm,**	**74.80**	**35**	IAmb	IAmb	20 05 17.0	
	comp=Z,9.3nm,1.1s						
K05A	**Summer Lake**	**75.00**	**37**		**P**	**20 05 17.2**	**+1.3**
Y14A	**Wickenburg**	**75.22**	**48**	IAmb	IAmb	20 05 19.8	
	comp=Z,5.2nm,0.7s						
PRN	**Pahroc Range**	**75.60**	**44**		**P**	**20 05 20.7**	**+1.3**
PRN				IAmb	IAmb	20 05 22.5	
	comp=Z,6.2nm,1.0s						
E03A	**Lebam**	**75.96**	**33**		**P**	**20 05 22.4**	**+1.4**
TUC	**Tucson**	**76.05**	**51**		**P**	**20 05 23.8**	**+1.8**
TUC				IAmb	IAmb	20 05 25.1	
	comp=Z,5.5nm,0.8s						
WVOR	**Wild Horse Val**	**76.15**	**38**	IAmb	IAmb	20 05 25.1	
	comp=Z,9.8nm,1.1s						
HOOD	**Mount Hood Mea**	**76.19**	**35**	P	**P**	**20 05 23.7**	**+1.2**
X16A	**Lo Mia Camp, P**	**76.59**	**48**	IAmb	IAmb	20 05 28.2	
	comp=Z,7.9nm,0.9s						
J08A	**Circle Bar Ran**	**76.79**	**38**	IAmb	IAmb	20 05 28.7	
	comp=Z,13nm,1.2s						
KNB	**Kanab**	**76.91**	**45**	IAmb	IAmb	20 05 31.1	
	comp=Z,7.2nm,1.1s						
U15A	**North Rim**	**76.98**	**46**	IAmb	IAmb	20 05 30.7	
	comp=Z,8.4nm,1.1s						
ELK	**Elko**	**77.29**	**41**	IAmb	IAmb	20 05 31.6	
	comp=Z,6.8nm,1.3s						
G08A	**Pilot Rock**	**77.67**	**36**	IAmb	IAmb	20 05 34.1	
	comp=Z,13nm,1.2s						
MTPU	**Mount Pierson**	**77.87**	**45**	IAmb	IAmb	20 05 36.1	
	comp=Z,4.5nm,0.9s						
BMO	**Blue Mountains**	**78.35**	**37**	IAmb	IAmb	20 05 36.9	
	comp=Z,6.0nm,1.0s						
MFID	**Camas Ranch**	**78.40**	**39**	IAmb	IAmb	20 05 37.4	
	comp=Z,6.4nm,0.9s						
DUG	**Dugway, Tooele**	**78.56**	**43**	IAmb	IAmb	20 05 38.5	
	comp=Z,7.5nm,1.2s						
EPH	**Ephrata**	**78.57**	**34**	IAmb	IAmb	20 05 38.0	
	comp=Z,13nm,1.4s						
D08A	**Wollman Farm,**	**78.75**	**34**	IAmb	IAmb	20 05 39.2	
	comp=Z,8.2nm,0.9s						
F10A	**Beach Ranch, E**	**79.05**	**36**	IAmb	IAmb	20 05 40.4	
	comp=Z,7.3nm,0.8s						
TMUT	**Trail Mountain**	**79.16**	**44**	IAmb	IAmb	20 05 42.8	
	comp=Z,11nm,1.0s						
HLID	**Hailey**	**79.34**	**39**	IAmb	IAmb	20 05 43.1	
	comp=Z,8.8nm,0.9s						
BMRM	**Bremner River**	**79.39**	**14**	IAmb	IAmb	20 06 10.1	
	comp=Z,16nm,1.4s						
P17A	**Butcher Ranch,**	**79.56**	**44**	IAmb	IAmb	20 05 44.6	
	comp=Z,6.7nm,1.0s						
PV13	**Radium Mtn., P**	**80.24**	**46**	IAmb	IAmb	20 05 48.0	
	comp=Z,6.1nm,0.9s						
PV16	**Nyswonger Mesa**	**80.25**	**46**	IAmb	IAmb	20 05 48.0	
	comp=Z,14nm,1.4s						
TX31	**Lajitas Ar. Si**	**80.25**	**56**	IAmb	IAmb	20 05 48.6	
	comp=Z,10nm,1.4s						
TXAR	**Lajitas Array**	**80.25**	**56**	P	**P**	**20 05 47.5**	**+2.1**
	comp=Z,3.0nm,1.1s,baz=224,slow=5.2,SNR=16						
	comp=Z,3.0nm,1.1s						
TXAR	**Lajitas Array**	**80.25**	**56**		**P**	**20 05 47.0**	**+1.7**
MA2	**Magadan**	**80.25**	**342**	LR	LR	20 38 18.6	
	comp=Z,14nm,19.3s,baz=168,slow=34						
PV03	**Paradox Valley**	**80.27**	**46**	IAmb	IAmb	20 05 48.1	
	comp=Z,8.0nm,1.1s						
PV11	**David Mesa, Pa**	**80.27**	**46**	IAmb	IAmb	20 05 50.3	
	comp=Z,6.5nm,0.8s						
PV02	**Paradox Valley**	**80.32**	**46**	IAmb	IAmb	20 05 48.5	
	comp=Z,15nm,1.1s						
PV01	**Paradox Valley**	**80.40**	**46**		**P**	**20 05 47.8**	**+1.7**
PV01				IAmb	IAmb	20 05 48.8	
	comp=Z,7.7nm,0.9s						
NEW	**Newport**	**80.45**	**34**	LR	LR	20 33 26.9	
	comp=Z,45nm,20.9s,baz=230,slow=30						
TASM	**ASL Pad, Albuq**	**80.46**	**50**	IAmb	IAmb	20 05 49.4	
	comp=Z,4.2nm,0.9s						
ALQ	**Albuquerque**	**80.47**	**50**	IAmb	IAmb	20 05 49.4	
	comp=Z,4.2nm,0.9s						
ANMO	**Albuquerque**	**80.47**	**50**	P	**P**	**20 05 48.4**	**+1.9**
	comp=Z,3.4nm,0.9s,baz=209,slow=7.7,SNR=6.6						
ANMO				LR	LR	20 33 20.6	
	comp=Z,62nm,21.5s,baz=234,slow=30						
	comp=Z,3.4nm,0.9s						
ANMO	**Albuquerque**	**80.47**	**50**	P	**P**	**20 05 48.3**	**+1.8**
ALPN	**Alpine**	**80.69**	**55**	IAmb	IAmb	20 05 50.5	
	comp=Z,13nm,1.4s						
KLR	**Kul'dur**	**80.71**	**327**	LR	LR	20 38 02.3	
	comp=Z,19nm,19.8s,baz=190,slow=33						
M27K	**Edge Creek, AK**	**81.24**	**14**	IAmb	IAmb	20 06 06.2	
	comp=Z,12nm,1.4s						
MSO	**Missoula**	**81.41**	**37**	IAmb	IAmb	20 05 53.6	
	comp=Z,11nm,1.2s						
FXWY	**Fox Creek**	**81.47**	**40**	IAmb	IAmb	20 05 54.5	
	comp=Z,9.4nm,1.4s						
LDM	**Libby Dam**	**81.54**	**35**	IAmb	IAmb	20 05 54.6	
	comp=Z,6.0nm,0.9s						
SAND	**Sanderson**	**81.73**	**56**	P	**P**	**20 05 54.2**	**+1.0**
WRH	**Wood River Hil**	**81.84**	**11**	IAmb	IAmb	20 06 04.1	
	comp=Z,5.9nm,1.0s						
YHB	**Horse Butte**	**81.94**	**39**	IAmb	IAmb	20 05 57.4	
	comp=Z,9.4nm,1.1s						
BW06	**Boulder Array**	**81.97**	**42**	IAmb	IAmb	20 05 56.4	
	comp=Z,6.5nm,1.2s						
PD31	**Pinedale Array**	**81.97**	**42**	IAmb	IAmb	20 05 56.4	
	comp=Z,6.3nm,1.2s						
PDAR	**Pinedale Array**	**81.97**	**42**	P	**P**	**20 05 54.8**	**+0.4**
	comp=Z,2.2nm,0.9s,baz=230,slow=3.7,SNR=14						
PDAR				LR	LR	20 36 31.3	
	comp=Z,37nm,19.0s,baz=242,slow=31						
	comp=Z,2.2nm,0.9s						
PDAR	**Pinedale Array**	**81.97**	**42**	P	**P**	**20 05 54.9**	**+0.6**
BOZ	**Bozeman (W)**	**82.11**	**38**	IAmb	IAmb	20 05 57.6	
	comp=Z,7.2nm,1.1s						
ILAR	**Eielson Array**	**82.33**	**11**	P	**P**	**20 05 55.8**	**+0.3**
	comp=Z,0.7nm,0.6s,baz=225,slow=6.8,SNR=9.1						
ILAR				LR	LR	20 35 22.6	
	comp=Z,32nm,20.0s,baz=248,slow=30						
	comp=Z,0.7nm,0.6s						
ILAR	**Eielson Array**	**82.33**	**11**	P	**P**	**20 05 55.6**	**+0.1**
IMAR	**Indian Mountai**	**82.38**	**8**	P	**P**	**20 05 56.1**	**+0.4**
SDCO	**Great Sand Dun**	**82.39**	**48**	IAmb	IAmb	20 05 59.4	
	comp=Z,9.2nm,1.5s						
L29M	**L29M**	**82.79**	**15**	IAmb	IAmb	20 06 22.0	
	comp=Z,3.5nm,0.8s						
Q24A	**Divide**	**83.17**	**47**	IAmb	IAmb	20 06 04.3	
	comp=Z,8.6nm,1.0s						
CMIG	**Matias Romero**	**83.48**	**70**	LR	LR	20 33 57.0	
	comp=Z,45nm,21.1s,baz=180,slow=29						
G26K	**Porcupine Rive**	**84.86**	**11**	IAmb	IAmb	20 06 33.5	
	comp=Z,10nm,1.3s						
MAW	**Mawson**	**87.96**	**199**	P	**P**	**20 06 24.3**	**+0.6**
	comp=Z,4.3nm,0.8s,baz=75,slow=6.9,SNR=5.2						
	comp=Z,4.3nm,0.8s						
MAW	**Mawson**	**87.96**	**199**	P	**P**	**20 06 24.0**	**+0.3**
JTS	**Las Juntas de**	**90.80**	**80**	LR	LR	20 37 28.1	
	comp=Z,34nm,21.6s,baz=233,slow=29						
ELIB	**Princess Elisa**	**92.20**	**185**	*d*P	**P**	**20 06 44.0**	**+0.3**
	comp=Z,10.0nm,0.9s						
SNAA	**Sanae**	**92.92**	**177**	LR	LR	20 45 08.9	
	comp=Z,37nm,18.1s,baz=204,slow=33						
ULM	**Lac du Bonnet**	**93.65**	**39**	LR	LR	20 40 57.1	
	comp=Z,78nm,21.5s,baz=220,slow=30						
TIXI	**Tiksi**	**95.08**	**344**	LR	LR	20 43 43.7	
	comp=Z,12nm,19.9s,baz=187,slow=32						
TKL	**Tuckaleechee C**	**98.16**	**55**	LR	LR	20 44 43.0	
	comp=Z,42nm,20.8s,baz=261,slow=31						
BVAR	**Borovoye Array**	**118.11**	**322**	PKP	**PKPdf**	**20 12 20.3**	**-0.6**
	comp=Z,0.9nm,0.6s,baz=90,slow=0.8,SNR=5.0						
ARCES	**ARCESS Array B**	**124.63**	**352**	PKP	**PKPdf**	**20 12 32.8**	**-0.2**
	comp=Z,1.7nm,0.8s,baz=102,slow=5.1,SNR=3.8						
ARCES	**ARCESS Array B**	**124.63**	**352**		**PKPdf**	**20 12 32.7**	**-0.3**
BURAR	**Bucovina Array**	**144.49**	**339**	⇓P	**PKPab**	**20 13 09.4**	**+0.4**
MORC	**Moravsky Berou**	**144.62**	**348**	*e*PKP	PKPbc	20 13 10.7	+1.2
VRAC	**Vranov**	**145.25**	**349**	*e*PKP	**PKPdf**	**20 13 12.8**	**+1.0**
CFR	**Carcaliu**	**145.35**	**333**	⇓P	**PKPbc**	**20 13 12.5**	**+0.6**
PLOR	**Plostina**	**145.43**	**336**	⇑P	**PKPbc**	**20 13 12.5**	**+0.3**
TPGR	**Topolog**	**145.48**	**333**	⇑P	**PKPbc**	**20 13 12.9**	**+0.6**
KRUC	**Moravsky**	**145.53**	**349**	*e*PKP	**PKPbc**	**20 13 12.5**	**+0.1**
DOPR	**Dopca**	**145.82**	**337**	⇓P	**PKPab**	**20 13 14.9**	**+1.0**
KHC	**Kasperske Hory**	**145.90**	**352**	*e*PKP	**PKPab**	**20 13 15.0**	**+1.0**
MLR	**Muntele Rosu**	**146.00**	**336**	⇓P	**PKPab**	**20 13 15.3**	**+0.6**
DRGR		**146.04**	**341**	⇑P	**PKPdf**	**20 13 13.3**	**0.0**
GERES	**GERESS Array B**	**146.16**	**352**	PKPbc	**PKPbc**	**20 13 15.2**	**+0.7**
	comp=Z,0.5nm,0.3s,baz=32,slow=5.2,SNR=4.8						
GERES	**GERESS Array B**	**146.16**	**352**		**PKPdf**	**20 13 14.4**	**+0.9**
BRTR	**Keskin Array B**	**146.39**	**321**	PKPbc	**PKPbc**	**20 13 16.1**	**+0.6**
	comp=Z,7.7nm,0.8s,baz=105,slow=2.2,SNR=32						
BRTR	**Keskin Array B**	**146.39**	**321**		**PKPdf**	**20 13 15.0**	**+0.8**
VOIR		**146.40**	**337**	⇑P	**PKPbc**	**20 13 16.2**	**+0.9**
ARR	**Arges**	**146.61**	**337**	⇓P	**PKPab**	**20 13 17.6**	**+0.7**
CONA	**Conrad Observa**	**146.72**	**349**	*e*PKP	**PKPbc**	**20 13 16.7**	**+0.6**
	comp=Z,2.3nm,0.9s						
RONA	**Rosalia, Austr**	**146.85**	**349**	*e*PKP	**PKPbc**	**20 13 17.3**	**+0.8**
	comp=Z,3.7nm,1.0s						
MOA	**Molln**	**147.06**	**351**	*i* PKiKP	**PKPab**	**20 13 18.8**	**+0.3**
	comp=Z,3.1nm,0.8s						
GZR	**Gura Zlata**	**147.25**	**339**	⇑P	**PKPdf**	**20 13 16.5**	**+1.1**
BIOA	**Bad Ischl, Aus**	**147.30**	**352**	*i* PKiKP	**PKPab**	**20 13 19.4**	**-0.1**
	comp=Z,3.6nm,0.9s						
ARSA	**Arzberg**	**147.43**	**349**	*i* PKP	**PKPdf**	**20 13 15.4**	**-0.2**
	comp=Z,3.1nm,0.9s						
ARSA				*i* PKiKP	**PKPbc**	**20 13 19.3**	**+1.2**
	comp=Z,3.1nm,0.9s						
BZS	**Buzias**	**147.44**	**341**	⇓P	**PKPbc**	**20 13 19.1**	**+1.0**
LESA	**Schwarzleotal**	**147.69**	**353**	*i* PKiKP	**PKiKP**	**20 13 20.6**	**-0.3**
	comp=Z,2.2nm,0.9s						
WATA	**Walderalm**	**147.90**	**354**	*i* PKiKP	**PKiKP**	**20 13 21.2**	**-0.2**
	comp=Z,2.6nm,0.9s						
MOTA	**Moosalm**	**147.93**	**355**	*e*PKiKP	**PKiKP**	**20 13 21.3**	**-0.2**
	comp=Z,3.2nm,0.8s						
KBA	**Koelnbreinsper**	**147.94**	**352**	*i* PKP	**PKPbc**	**20 13 20.7**	**+1.0**
	comp=Z,2.6nm,1.0s						
WTTA	**Wattenberg**	**147.96**	**354**	*i* PKP	**PKPdf**	**20 13 15.9**	**-0.8**
	comp=Z,4.1nm,1.6s						
WTTA				*i* PKiKP	**PKPbc**	**20 13 21.2**	**+1.5**
	comp=Z,2.8nm,0.6s						
SQTA	**Sankt Quirin**	**148.05**	**355**	*i* PKiKP	**PKiKP**	**20 13 21.8**	**+0.1**
	comp=Z,1.7nm,0.8s						
SOKA	**Soboth**	**148.07**	**350**	*i* PKiKP	**PKPbc**	**20 13 21.1**	**+1.2**
	comp=Z,6.3nm,2.0s						
DAVA	**Damuels**	**148.08**	**356**	*i* PKP	**PKPdf**	**20 13 15.1**	**-1.8**
	comp=Z,6.1nm,1.3s						
FETA	**Feichten**	**148.29**	**355**	*e*PKiKP	**PKPbc**	**20 13 22.0**	**+1.5**
	comp=Z,2.1nm,0.8s						
ABTA	**Abfaltersbach**	**148.38**	**353**	*e*PKP	**PKPbc**	**20 13 21.1**	**+0.4**
	comp=Z,3.4nm,1.0s						
MMAI	**Mount Meron Ar**	**148.86**	**309**	PKPbc	**PKPbc**	**20 13 22.9**	**+0.6**
	comp=Z,4.0nm,0.7s,baz=36,slow=7.5,SNR=7.3						

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*NAO **14** 19:57:44.9±0.0, 78°.40N×13°.01E, h11^{km}, ML3.0*

*BER **14** 19:57:45.8±2.5, 78°.35N×13°.11E, h5^{km}±7^{km}, ML2.8, ML3.0(NAO), Confirmed Earthquake*

*FCIAR **14** 19:57:46.0, 78°.56N×15°.08E, h10^{km}, station OMEGA has station magnitude of 3.90*

*KOLA **14** 19:57:48.3, 78°.23N×13°.75E, h0^{km}, ML2.2, Error ellipse: s-maj=174.7km s-min=76.0km az=60.0, Spitsbergen*

ISC 14 19:57:44.7±1.1, 78°.27N±0°.05×12°.94E±0°.05, h23^{km}±8^{km}, n26, σ2^{s}.73/47, Svalbard region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BRBB	**Barentsburg B**	**0.31**	**123**	Pg	**Pb**	**19 57 51.5**	**-0.2**
BRBB				Sg	**Sb**	**19 57 56.2**	**-0.3**
BRBB	**Barentsburg B**	**0.31**	**123**	*e*P	**Pb**	**19 57 51.2**	**-0.5**
BRBB				*e*S	**Sb**	**19 57 56.1**	**-0.5**
BRBB	**Barentsburg B**	**0.31**	**123**	P	**Pb**	**19 57 51.4**	**-0.3**
BRBB				S	**Sb**	**19 57 56.0**	**-0.5**
BRBA	**Barentsburg A**	**0.34**	**127**	Pg	**Pb**	**19 57 51.9**	**-0.1**
BRBA				Sg	**Sb**	**19 57 57.1**	**0.0**
BRBA	**Barentsburg A**	**0.34**	**127**	*e*P	**Pb**	**19 57 51.6**	**-0.5**
BRBA				*e*S	**Sb**	**19 57 56.7**	**-0.4**
BRBA				IAML		19 57 58.9	

	comp=Z,863nm,0.6s						
SPA0	Spitsbergen Ar	0.71	95	Pb	Pb	19 57 58.6	+0.3
	baz=292,slow=10						
SPA0				Sg	Sb	19 58 08.0	+0.3
	baz=295,slow=37						
SPA0	Spitsbergen Ar	0.71	95	Pb	Pb	19 57 58.6	+0.3
SPA0				Sg	Sb	19 58 08.0	+0.3
SPITS	Spitsbergen Ar	0.71	95	P	Pb	19 57 57.9	-0.4
SPITS				S	Sb	19 58 08.4	+0.7
HSPB	Hornsund (broa	1.39	155	Pb	Pb	19 58 10.7	+0.9
HSPB				Sb	Sb	19 58 30.3	+3.2
HSPB	Hornsund (broa	1.39	155	*e*P	Pb	19 58 09.6	-0.2
HSPB				*e*S	Sb	19 58 28.8	+1.7
HSPB				IAML		19 58 33.2	
	comp=Z,294nm,0.4s						
HOPEN	Hopen	3.18	118	Pn	Pn	19 58 35.7	+2.6
HOPEN				Sn	Sn	19 59 11.5	+1.3
HOPEN	Hopen	3.18	118	*e*P	Pn	19 58 34.3	+1.2
HOPEN				*e*S	Sn	19 59 11.4	+1.3
HOPEN				*e*Sg	Sb	19 59 26.4	+8.0
HOPEN				IAML		19 59 28.9	
	comp=Z,61nm,0.5s						
BJO1	Bjornoya	4.04	156	Pn	Pn	19 58 45.8	+0.8
BJO1	Bjornoya	4.04	156	*e*S	Sn	19 59 32.1	+0.6
BJO1				*e*Sg	Sb	19 59 54.0	+11
BJO1				IAML		20 00 01.4	
	comp=Z,40nm,0.6s						
BEAR	Bear Island, N	4.05	156	Pn	Pn	19 58 47.8	+2.7
	baz=335,slow=18						
BEAR				Sn	Sn	19 59 33.7	+2.0
	baz=335,slow=37						
BEAR				Sg	Sb	19 59 54.3	+11
	baz=335,slow=37						
NOR	Nord	6.09	317	Pn	Pn	19 59 14.8	+1.7
NOR	Nord	6.09	317	*e*P	Pn	19 59 16.4	+3.3
NOR				*e*S	Sn	20 00 26.9	+5.0
NOR	Nord	6.09	317	*e*P	Pn	19 59 14.5	+1.5
OMEGA	Omega	6.72	52	*e*P	Pn	19 59 20.2	-1.5
OMEGA				*e*S	Sn	20 00 32.1	-5.3
	comp=Z,48nm,1.1s						
OMEGA				AML	AML		
DAG	Danmarks Havn	6.94	273	*e*S	Sn	20 00 38.9	-3.9
DBG	Daneborg	8.69	260	*e*P	Pn	19 59 48.4	-0.3
DBG				*e*S	Sn	20 01 20.3	-5.5
VADS	Vadso	9.27	143	P	Pn	19 59 58.0	+1.4
VADS				S	Sn	20 01 36.3	-3.6
ARA0	ARCESS Array S	9.40	152	Pn	Pn	20 00 01.3	+2.8
	baz=348,slow=12						
ARA0				Sn	Sn	20 01 39.9	-3.5
	baz=347,slow=28						
ARA0	ARCESS Array S	9.40	152	Pn	Pn	20 00 01.3	+2.8
ARA0				Sn	Sn	20 01 39.9	-3.5
ARCES	ARCESS Array B	9.40	152	P	Pn	20 00 00.8	+2.3
ARCES				S	Sn	20 01 40.0	-3.3
APA0	Apatity Array	12.10	141	S	Sn	20 02 43.7	-5.4

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*IDC **14** 20:14:30.8±1.3, 1°.48N×66°.88E, h0^{km}, mb3.7/8, mbtmp3.7/8, MS3.4/5, Error ellipse: s-maj=42.6km s-min=23.8km az=48.0*

ISC 14 20:14:32.4±1.5**, 1°.5N**±0°.3×**66°.8E**±0°.2**, h13^{km}, n15, σ0ˢ.75**/9**, mb3.7**/8**, MS3.4**/5**, Carlsberg Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	35.77	60	P	P	20 21 32.7	+1.2
	0.2nm,0.3s,baz=225,slow=7.2,SNR=1.4						
CMAR				LR	LR	20 35 17.6	
	comp=Z,26nm,18.5s,baz=175,slow=35						
	0.2nm,0.3s						
MBAR	Mbarara	36.12	267	LR	LR	20 33 47.1	
	comp=Z,30nm,20.9s,baz=101,slow=32						
KURBB	Kurchatov Arra	49.98	10	P	P	20 23 26.1	-0.1
	0.3nm,0.7s,baz=210,slow=7.8,SNR=3.7						
	0.3nm,0.7s						
ZALV	Zalesovo Beam	54.38	13	P	P	20 23 58.6	-0.3
	1.0nm,0.5s,baz=213,slow=5.6,SNR=5.7						
	1.0nm,0.5s						
H01W3	Cape Leeuwin H	57.14	134	T	T	21 25 41.6	
	baz=300,slow=75,SNR=16						
H01W2	Cape Leeuwin H	57.15	134	T	T	21 25 50.5	
	baz=300,slow=75,SNR=16						
H01W1	Cape Leeuwin H	57.16	134	T	T	21 25 58.7	
	baz=300,slow=75,SNR=14						
SONM	Songino Array	57.47	31	P	P	20 24 20.2	-1.2
	0.3nm,0.5s,baz=216,slow=7.1,SNR=2.1						
	0.3nm,0.5s						
WRA	Warramunga Arr	69.47	112	P	P	20 25 40.9	-0.3
	0.9nm,0.7s,baz=291,slow=5.6,SNR=8.5						
	0.9nm,0.7s						
ASAR	Alice Springs	69.73	116	P	P	20 25 42.5	-0.2
	0.5nm,0.6s,baz=289,slow=6.0,SNR=14						
	0.5nm,0.6s						
ARCES	ARCESS Array B	73.27	346	P	P	20 26 03.5	+0.4
	0.8nm,0.5s,baz=160,slow=3.9,SNR=5.2						
ARCES				LR	LR	21 01 49.3	
	comp=Z,18nm,18.2s,baz=59,slow=39						
	0.8nm,0.5s						
ESDC	Sonseca Array	74.32	311	P	P	20 26 10.4	+0.4
	0.3nm,0.6s,baz=104,slow=6.0,SNR=4.5						
	0.3nm,0.6s						
TIXI	Tiksi	80.08	17	LR	LR	21 03 23.5	
	comp=Z,26nm,18.0s,baz=200,slow=37						
QSPA	South Pole Qui	91.44	180	LR	LR	21 02 10.5	
	comp=Z,88nm,18.9s,baz=309,slow=31						
TXAR	Lajitas Array	148.05	344	PKPbc	PKiKP	20 34 20.3	-0.2
	0.7nm,0.6s,baz=56,slow=3.6,SNR=9.8						

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*IDC **14** 20:27:05.7±1.3, 17°.87S×178°.59W, h573^{km}±14^{km}, mb3.5/11, mbtmp4.5/14, Error ellipse: s-maj=22.6km s-min=11.9km az=148.0*

*NEIC **14** 20:27:05.7±2.0, 17°.87S±0°.07×178°.6W±0°.1, h574^{km}±5^{km}, mb4.3/62, Error ellipse: s-maj=15.8km s-min=10.2km az=98.0*

ISC 14 20:27:05.7±0.5**, 17°.86S**±0°.10×**178°.59W**±0°.08**, h579^{km}, n90, σ0ˢ.89**/83**, mb4.2**/42**, 2D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	3.20	272	P	P	20 28 25.6	+1.2
	133nm,0.8s,baz=122,slow=3.4,SNR=65						
MSVF	Nonsavu	3.20	272		P	20 28 25.3	+0.9
AFI	Afiamalu	7.64	60	P	P	20 28 59.1	-1.9
	30nm,0.6s,baz=261,slow=13,SNR=3.6						
NIUE	Niue	8.31	100	P	P	20 29 06.7	-0.6
MARNC	Mare, Loyalty	13.10	252	P	P	20 29 55.4	-0.2
MARNC	Mare, Loyalty	13.10	252	P	P	20 29 54.9	-0.7
YATNC	Mamie plateau,	14.27	251	P	P	20 30 09.6	+2.1
OUENC	Ouen Island, N	14.41	249	P	P	20 30 10.2	+1.4
OUENC	Ouen Island, N	14.41	249	P	P	20 30 10.2	+1.4
DZM	Mont Dzumac	14.68	251	P	P	20 30 11.0	-0.5
	18nm,0.6s,baz=76,slow=18,SNR=21						
ONTNC	Ouen Toro	14.72	250	P	P	20 30 10.6	-1.3
NOUC	Port Laguerre	14.81	251	P	P	20 30 15.0	+2.3
LTZ	Lake Taylor	26.03	195	P	P	20 31 53.6	-0.2
EIDS	Eidsvold	29.12	250	P	P	20 32 20.3	-0.7
EIDS				IAmb	IAmb	20 32 21.6	
	comp=Z,14nm,0.8s						
MLZ	Mavora Lakes	29.59	199	P	P	20 32 24.2	-0.6
ARMA	Armidale	29.81	240		P	20 32 27.6	+0.5
ARMA				IAmb	IAmb	20 32 28.7	
	comp=Z,11nm,0.7s						
CTA	Charters Tower	33.28	260	P	P	20 32 56.6	0.0
	comp=Z,9.0nm,0.6s,baz=100,slow=12,SNR=8.9						
	comp=Z,9.0nm,0.6s						
CTAO	Charters Tower	33.28	260	P	P	20 32 56.2	-0.4
CAN	Canberra	33.59	232	P	P	20 32 59.4	+0.3
PMG	Port Moresby	34.28	280	P	P	20 33 03.7	-1.3
TOO	Toolangi	37.06	231		P	20 33 28.4	+0.7
TOO				IAmb	IAmb	20 33 30.2	
	comp=Z,11nm,1.1s						
STKA	Stephens Creek	38.50	241	P	P	20 33 40.2	+0.8
	comp=Z,17nm,0.5s,baz=92,slow=7.5,SNR=61						
	comp=Z,17nm,0.5s						
BBOO	Buckleboo	43.28	241		P	20 34 17.4	+0.1
MLH	Mauna Loa	43.56	33	P	P	20 34 20.2	+0.4
KNHH	Kane Nui o Ham	43.57	33	P	P	20 34 19.7	-0.1
HMH	Humu‘ula Sheep	43.60	32	P	P	20 34 20.1	-0.1
STCH	Steam Cracks	43.60	33	P	P	20 34 19.8	-0.2
WR8	Warramunga Arr	44.31	260		P	20 34 24.8	-0.7
WR8				IAmb	IAmb	20 34 25.8	
	comp=Z,7.5nm,0.4s						
WB0	Warramunga Arr	44.43	260		P	20 34 25.7	-0.7
WB0				IAmb	IAmb	20 34 26.6	
	comp=Z,11nm,0.6s						
WRA	Warramunga Arr	44.47	260	P	P	20 34 25.9	-0.7
	comp=Z,6.8nm,0.5s,baz=96,slow=7.5,SNR=209						
WRA				PcP	PcP	20 35 57.5	+0.1
	comp=Z,0.9nm,0.5s,baz=103,slow=2.7,SNR=3.4						
	comp=Z,6.8nm,0.5s						
WRA	Warramunga Arr	44.47	260		P	20 34 24.8	-1.8
AS31	Alice Springs	44.63	254		P	20 34 28.0	+0.1
ASAR	Alice Springs	44.63	254	P	P	20 34 27.9	+0.1
	comp=Z,80nm,0.6s,baz=88,slow=8.3,SNR=1734						
ASAR				PcP	PcP	20 35 58.1	+0.1
	comp=Z,1.5nm,0.4s,baz=99,slow=3.5,SNR=4.6						
ASAR	Alice Springs	44.63	254		P	20 34 28.0	+0.1
MTN	Manton Dam	48.62	268	P	P	20 34 57.8	-0.2
MTN				IAmb	IAmb	20 34 57.9	
	comp=Z,3.8nm,0.6s						
FORT	Forrest	49.87	245	P	P	20 35 05.4	-1.5
FORT				IAmb	IAmb	20 35 06.8	
	comp=Z,9.0nm,0.6s						
KNRA	Kununurra	50.32	264	P	P	20 35 10.0	-0.4
KNRA				IAmb	IAmb	20 35 10.9	
	comp=Z,6.5nm,0.6s						
FITZ	Fitzroy Crossi	52.86	261	P	P	20 35 28.5	-0.2
SOEI	Soe	55.89	270	P	P	20 35 50.4	+0.2
SOEI				IAmb	IAmb	20 35 52.6	
	comp=Z,28nm,0.8s						
MBWA	Marble Bar	57.91	256	P	P	20 36 03.3	-0.4
MBWA				IAmb	IAmb	20 36 05.4	
	comp=Z,12nm,1.1s						
NWAO	Narrogin (SRO)	59.08	242	P	P	20 36 11.6	+0.2
	comp=Z,3.1nm,0.5s,baz=96,slow=9.2,SNR=1.5						
	comp=Z,3.1nm,0.5s						
NWAO	Narrogin (SRO)	59.08	242	P	P	20 36 09.7	-1.6
NWAO				IAmb	IAmb	20 36 30.0	
	comp=Z,23nm,1.4s						
MORW	Morawa	60.34	246	P	P	20 36 19.1	-0.6
MORW				IAmb	IAmb	20 36 22.1	
	comp=Z,27nm,1.3s						
VNDA	Vanda	60.48	185	P	P	20 36 20.3	+0.5
	comp=Z,0.6nm,0.8s,baz=333,slow=4.5,SNR=2.7						
	comp=Z,0.6nm,0.8s						
VNDA	Vanda	60.48	185	P	P	20 36 20.3	+0.5
GIRL	Giralia	62.74	253	P	P	20 36 36.5	+1.1
JAGI	Jajag, Banyuwa	65.86	269	P	P	20 36 53.7	-1.7
UGM	Wanagama	69.47	268	P	P	20 37 16.9	-0.4
SSLB	Suanglung	72.06	303	P	P	20 37 31.9	-0.4
SSLB				IAmb	IAmb	20 38 09.2	
	comp=Z,22nm,1.3s						
QSPA	South Pole Qui	72.20	180	P	P	20 37 32.7	+0.2
	comp=Z,3.1nm,0.8s,baz=297,slow=2.4,SNR=12						
	comp=Z,3.1nm,0.8s						
QSPA	South Pole Qui	72.20	180	P	P	20 37 32.5	0.0
BBJI	Bungbulang	72.33	268	P	P	20 37 33.6	-0.5
BBJI				IAmb	IAmb	20 38 01.9	
	comp=Z,26nm,1.3s						
KSAR	Wonju Array Be	74.56	318	P	P	20 37 46.1	-0.1
SII	Sitkinak Islan	76.92	14	P	P	20 37 59.0	+0.2
SII				IAmb	IAmb	20 38 09.5	
	comp=Z,16nm,0.8s						
YBH	Yreka Blue Hor	78.60	39	P	P	20 38 09.6	+1.3
P17K	Kvichak River	78.89	11	P	P	20 38 09.0	-0.3
P17K				IAmb	IAmb	20 38 09.7	
	comp=Z,16nm,0.8s						
O16K	Kokwok River B	78.97	10	P	P	20 38 09.0	-0.7
O16K				IAmb	IAmb	20 38 49.9	
	comp=Z,11nm,1.2s						
BEKR	Beckworth	78.97	42		P	20 38 09.6	-0.8
L04D	Klamath Falls	79.13	39	P	P	20 38 11.8	+0.6
NVAR	Mina Array Bea	79.51	44	P	P	20 38 14.2	+0.8
	comp=Z,2.0nm,0.7s,baz=224,slow=9.2,SNR=12						
	comp=Z,2.0nm,0.7s						
O18K	Koktuh Hills	79.74	12	P	P	20 38 13.9	+0.1
O18K				IAmb	IAmb	20 38 14.4	
	comp=Z,6.5nm,0.9s						
CNPM	China Poot	80.28	14	P	P	20 38 16.9	+0.3
CNPM				IAmb	IAmb	20 38 17.5	
	comp=Z,9.2nm,1.0s						
N18K	Kilae Creek	80.38	11	P	P	20 38 16.9	-0.2
N18K				IAmb	IAmb	20 38 50.8	
	comp=Z,14nm,1.5s						
M17K	Holitna River	80.78	10	P	P	20 38 20.6	+1.4
M17K				IAmb	IAmb	20 38 21.2	
	comp=Z,16nm,1.1s						
K15K	Wolf Creek Mou	81.02	8	P	P	20 38 21.4	+1.1
K15K				IAmb	IAmb	20 38 31.4	
	comp=Z,24nm,1.4s						
PRN	Pahroc Range	81.17	46	P	P	20 38 23.0	+1.1
SLKM	Skilak Lake	81.39	14	IAmb	IAmb	20 38 22.8	
	comp=Z,5.8nm,0.7s						
J08A	Circle Bar Ran	82.09	40	P	P	20 38 26.0	-0.4
J08A				IAmb	IAmb	20 38 28.1	
	comp=Z,8.3nm,1.3s						
SUA	Susitna One	82.12	13	P	P	20 38 25.8	-0.4
U15A	North Rim	82.62	48	IAmb	IAmb	20 38 31.7	
	comp=Z,4.3nm,0.8s						
GHO	Glory Hole Cre	82.80	14	IAmb	IAmb	20 38 30.4	
	comp=Z,8.8nm,1.0s						
G08A	Pilot Rock	82.88	38		P	20 38 30.7	+0.3
SCM	Sheep Creek Mo	83.22	14	IAmb	IAmb	20 38 32.2	
	comp=Z,6.3nm,0.6s						
CAST	Castle Rocks	83.61	12	IAmb	IAmb	20 38 32.9	
	comp=Z,5.0nm,0.9s						
TRF	Thorofare Moun	84.00	12	IAmb	IAmb	20 38 35.4	
	comp=Z,5.5nm,0.9s						
RND	Reindeer	84.26	13		P	20 38 36.1	-0.7
RND				IAmb	IAmb	20 38 37.2	
	comp=Z,4.5nm,0.7s						
ILAR	Eielson Array	85.88	13	P	P	20 38 43.6	-0.8
	comp=Z,0.8nm,0.4s,baz=223,slow=5.3,SNR=15						
	comp=Z,0.8nm,0.4s						
TX31	Lajitas Ar. Si	86.12	58		P	20 38 47.4	+0.9
TXAR	Lajitas Array	86.12	58	P	P	20 38 48.0	+1.5
	comp=Z,1.7nm,0.7s,baz=221,slow=6.1,SNR=22						
	comp=Z,1.7nm,0.7s						
TXAR	Lajitas Array	86.12	58	P	P	20 38 47.6	+1.1
PDAR	Pinedale Array	87.44	43	P	P	20 38 52.9	+0.3
	comp=Z,1.2nm,0.6s,baz=220,slow=3.4,SNR=15						
	comp=Z,1.2nm,0.6s						
CMAR	Chiang Mai Arr	88.70	290	P	P	20 39 01.0	+2.3
	comp=Z,0.7nm,0.6s,baz=115,slow=3.3,SNR=6.0						
	comp=Z,0.7nm,0.6s						
ELIB	Princess Elisa	89.19	187	*d*P	P	20 38 59.6	-0.6
	comp=Z,2.9nm,0.8s						
BNN	Bunyan	143.49	312		PKPab	20 45 32.9	-1.3
LODK	Lodwar	143.77	251	PKPdf	PKPbc	20 45 35.6	-0.1
BRTR	Keskin Array B	144.62	315	PKP	PKPbc	20 45 38.0	+0.3
	comp=Z,0.8nm,0.5s,baz=109,slow=2.9,SNR=5.6						
MMAI	Mount Meron Ar	145.97	303	PKPbc	PKPbc	20 45 42.0	+0.2
	comp=Z,1.6nm,0.5s,baz=45,slow=6.3,SNR=4.5						
MMAI	Mount Meron Ar	145.97	303		PKPbc	20 45 42.0	+0.2
GERES	GERESS Array B	147.52	345	PKPbc	PKPbc	20 45 45.7	+0.2
	comp=Z,0.3nm,0.3s,baz=356,slow=7.1,SNR=5.0						
BMRD	Maredsous	147.52	356	*d*PKP	PKPbc	20 45 44.2	-1.0

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*IDC **14** 20:37:47.4±1.1, 29°.70N×129°.54E, h0^{km}, mb3.4/5, mbtmp3.4/7, ML2.9/2, MS3.0/5, Error ellipse: s-maj=34.5km s-min=13.6km az=98.0*

*JMA **14** 20:37:47.8±0.1, 29°.7N±1°.0×13°0E±°, h9^{km}±1^{km}, MV3.2/20, NEAR TOKARA ISLANDS*

JMA Felt II J1 at NEAR TOKARA ISLANDS .

ISC 14 20:37:47.4±1.5**, 29°.72N**±0°.04×**129°.77E**±0°.07**, h13^{km}**±11^{km}**, n26, σ1ˢ.21**/29**, mb3.4**/5**, MS3.2**/3**, Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JNN	Nakanoshima	0.15	37	*i* P	Pb	20 37 52.2	+0.1
JNN				*e*S	Sb	20 37 55.2	+0.1
JTAJ	Takarajima	0.76	221	*e*P	Pb	20 38 01.9	-0.5
JYAK	Yakushimahirau	0.82	51	*e*P	Pn	20 38 04.2	-0.5
JYAK				*e*S	Sn	20 38 15.6	-1.1
JKC	Kuchinoerabu	0.82	26	*e*P	Pn	20 38 04.8	+0.1
JKC				*e*S	Sn	20 38 16.3	-0.4
JMTN	Minamitane	1.19	55	P	Pg	20 38 09.9	-0.3
JMTN				*e*S	Sg	20 38 26.1	+0.5
JAM	Amami Oshima	1.32	186	P	Pn	20 38 10.1	-1.4
JAM				*e*S	Sn	20 38 26.9	-2.0
JTN	Tanegashima 3	1.40	48	P	Pb	20 38 13.3	-0.1
JTN				*e*S	Sg	20 38 32.8	+0.3
JZK	Kikaishima	1.42	173	P	Pb	20 38 14.0	+0.3
JAMN	Amaminishikomi	1.57	200	P	Pn	20 38 13.7	-1.3
JTK	Tokunoshima	2.06	201	P	Pn	20 38 20.8	-1.0
JOKE	Okinoerabujima	2.58	204	*e*P	Pn	20 38 29.0	+0.1
JYRO	Yoronjima	2.93	204	*e*P	Pn	20 38 33.9	+0.1
JIH	Iheya	3.12	211	*e*P	Pn	20 38 36.5	+0.2
JOW	Kunigami	3.17	205	Pn	Pn	20 38 36.8	-0.3
	2.8nm,0.3s,baz=78,slow=19,SNR=13						
JOW				Sn	Sn	20 39 13.7	-1.1
	5.7nm,0.3s,baz=356,slow=23,SNR=4.3						
	7.2nm,0.3s						
JOW				AML	AML		
JNU	Nakatsue	3.52	15	Pn	Pb	20 38 46.9	-2.7
	1.3nm,0.3s,baz=192,slow=3.8,SNR=16						
	13nm,0.6s						
JNU				AML	AML		
JNTH	Nagotoyohara	3.55	206	*e*P	Pn	20 38 44.1	+1.9
JKDJ	Kitadaitoujima	4.00	160	*e*S	Sn	20 39 33.3	-1.8
KSRS	Korea Array	7.86	349	LR	LR	20 42 57.3	
	comp=Z,71nm,18.2s,baz=175,slow=40						
KLR	Kul'dur	19.54	4	LR	LR	20 49 03.1	
	comp=Z,23nm,20.3s,baz=218,slow=34						
PETK	Petropavlovsk-	31.03	33	LR	LR	20 56 56.5	
	comp=Z,23nm,18.6s,baz=265,slow=37						
MKAR	Makanchi Array	40.33	309	P	P	20 45 26.0	+1.3
	0.3nm,0.8s,baz=98,slow=10,SNR=2.1						
	0.3nm,0.8s						
ZALV	Zalesovo Beam	40.38	320	P	P	20 45 26.4	+1.5
	0.5nm,0.6s,baz=108,slow=9.3,SNR=2.1						
ZALV				LR	LR	21 03 48.9	
	comp=Z,34nm,20.8s,baz=44,slow=39						
	0.5nm,0.6s						
KURBB	Kurchatov Arra	43.35	314	P	P	20 45 48.0	-1.2
	0.4nm,0.8s,baz=97,slow=8.6,SNR=3.1						
	0.4nm,0.8s						
WRA	Warramunga Arr	49.57	174	P	P	20 46 39.2	+0.9
	0.9nm,1.0s,baz=356,slow=8.1,SNR=5.2						
	0.9nm,1.0s						
ASAR	Alice Springs	53.23	175	P	P	20 47 07.8	+2.1
	0.4nm,0.9s,baz=1.8,slow=6.7,SNR=4.9						
	0.4nm,0.9s						
ARCES	ARCESS Array B	67.27	338	LR	LR	21 24 48.6	
	comp=Z,26nm,18.1s,baz=74,slow=42						

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*IDC **14** 20:44:43.0±1.3, 40°.20S×174°.63E, h0^{km}, mb3.7/2, mbtmp3.5/4, ML3.3/2, Error ellipse: s-maj=38.9km s-min=14.8km az=139.0*

*WEL **14** 20:44:47.7±0.3, 40°S±2°×17°5E±°, h31^{km}±4^{km}, M4.2/37, ML4.2/37, MLv4.2/37, Error ellipse: s-maj=3.8km s-min=2.9km az=104.2, confirmed*

ISC 14 20:44:47.1±1.2**, 40°.45S**±0°.02×**174°.93E**±0°.03**, h36^{km}**±1^{km}**, n140, σ1ˢ.30**/152**, Cook Strait**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FXBS	Foxton Beach S	0.23	92	P	Pn	20 44 55.7	0.0
FXBS				S	Sn	20 45 02.4	-1.4
HOCS	Levin Horowhen	0.32	122	P	Pn	20 44 56.4	+1.1
OTKS	Otaki School	0.34	151	P	Pn	20 44 56.9	+1.5
OHWZ	Ohakea	0.39	50	P	Pn	20 44 57.1	+1.2
OHWZ				AML	AML		
OHWZ				AML	AML		
KIW	Kapiti Island	0.41	182	P	Pn	20 44 57.7	+1.4
KIW				S	Sn	20 45 05.0	+1.9
KIW				AML	AML		
KIW				AML	AML		
OGWZ	Otaki Gorge	0.41	153	P	Pn	20 44 57.8	+1.5
OGWZ				S	Sn	20 45 05.5	+2.5
OGWZ				AML	AML		
OGWZ				AML	AML		
PNMS	Monrad Interme	0.52	80	P	Pn	20 44 59.0	+1.1
PNBS	Palmerston Nor	0.53	79	P	Pn	20 44 59.2	+1.0
MRZ	Mangatainoka R	0.54	113	P	Pn	20 44 59.2	+0.9
MRZ				S	Sn	20 45 07.8	+1.7
MRZ				AML	AML		
MRZ				AML	AML		
HOWZ	Holdsworth Sta	0.63	135	P	Pn	20 45 00.4	+0.7
HOWZ				S	Sn	20 45 10.8	+2.3
HOWZ				AML	AML		
HOWZ				AML	AML		
POWZ	Post Office Ro	0.64	85	P	Pn	20 45 00.5	+0.6
POWZ				S	Sn	20 45 10.0	+1.2
POWZ				AML	AML		
POWZ				AML	AML		
CAW	Cannon Point	0.66	171	P	Pn	20 45 01.3	+1.2
CAW				S	Sn	20 45 11.4	+2.1
CAW				AML	AML		
CAW				AML	AML		
WAZ	Wanganui	0.70	4	P	Pn	20 45 01.5	+0.9
WAZ				S	Sn	20 45 11.6	+1.5
WAZ				AML	AML		
WAZ				AML	AML		
TIWZ	Tintock	0.80	114	P	Pn	20 45 02.4	+0.6
TIWZ				AML	AML		
TIWZ				AML	AML		
PRWZ	Pori Road	0.80	98	P	Pn	20 45 02.7	+0.8
PRWZ				S	Sn	20 45 14.9	+2.3
PRWZ				AML	AML		
PRWZ				AML	AML		
MTW	Mount Morrison	0.83	148	P	Pn	20 45 02.7	+0.4
MTW				AML	AML		
MTW				AML	AML		
WEL	Wellington	0.84	188	P	Pn	20 45 03.7	+1.3
WEL				AML	AML		
WEL				AML	AML		
DUWZ	D’Urville Isla	0.84	245	P	Pn	20 45 03.3	+0.9
DUWZ				AML	AML		
DUWZ				AML	AML		
TSZ	Takapari Road	0.88	64	P	Pn	20 45 03.6	+0.5
TSZ				AML	AML		
TSZ				AML	AML		
TCW	Tory Channel	0.90	213	P	Pn	20 45 04.5	+1.2
TCW				AML	AML		
TCW				AML	AML		
BHW	Baring Head	0.95	183	P	Pn	20 45 05.3	+1.3
BHW				AML	AML		
BHW				AML	AML		
DVHZ	Dannevirke	0.96	81	P	Pn	20 45 04.3	+0.2
DVHZ				AML	AML		
DVHZ				AML	AML		
TMWZ	Te Maipa	0.98	132	P	Pn	20 45 05.3	+1.0
TMWZ				AML	AML		
TMWZ				AML	AML		
MSWZ	Moikau Station	0.99	166	P	Pn	20 45 05.9	+1.4
MSWZ				AML	AML		
MSWZ				AML	AML		
PAWZ	Paruwai Farm	1.00	158	P	Pn	20 45 06.2	+1.5
PAWZ				AML	AML		
PAWZ				AML	AML		
BFZ	Birch Farm	1.03	103	P	Pn	20 45 05.1	+0.1
BFZ				AML	AML		
BFZ				AML	AML		
CPWZ	Castlepoint	1.07	116	P	Pn	20 45 06.1	+0.6
CPWZ				AML	AML		
CPWZ				AML	AML		
LREZ	Lake Rotokare	1.07	338	P	Pn	20 45 06.8	+1.3
LREZ				AML	AML		
LREZ				AML	AML		
TRWZ	Traveller	1.11	149	P	Pn	20 45 07.7	+1.6
TRWZ				AML	AML		
TRWZ				AML	AML		
PNHZ	Pukenui	1.11	61	P	Pn	20 45 06.3	+0.1
PNHZ				AML	AML		
PNHZ				AML	AML		
PLWZ	Palliser	1.14	168	P	Pn	20 45 07.7	+1.1
PLWZ				AML	AML		
PLWZ				AML	AML		
MTVZ	Mangateitei	1.15	22	P	Pn	20 45 07.4	+0.8
MTVZ				AML	AML		
MTVZ				AML	AML		
ANWZ	Angora Road	1.18	91	P	Pn	20 45 07.5	+0.4
ANWZ				AML	AML		
ANWZ				AML	AML		
PKVZ	Pokaka	1.21	16	P	Pn	20 45 07.9	+0.4
PKVZ				AML	AML		
PKVZ				AML	AML		
WPHZ	Waipukurau	1.22	72	P	Pn	20 45 07.7	+0.1
WPHZ				AML	AML		
WPHZ				AML	AML		
MOVZ	Moawhango	1.22	32	P	Pn	20 45 08.0	+0.2
MOVZ				AML	AML		
MOVZ				AML	AML		
TUWZ	Tuamarina	1.23	217	P	Pn	20 45 09.8	+2.1
WNVZ	Wahianoa	1.24	25	P	Pn	20 45 08.7	+0.6
WNVZ				AML	AML		
WNVZ				AML	AML		

TRVZ	**Turoa**	1.25	23	P	Pn	20 45 08.9	+0.6
TRVZ				AML	AML		
TRVZ				AML	AML		
PREZ	**Palmer Road**	1.26	332	P	Pn	20 45 09.9	+1.8
PREZ				AML	AML		
PREZ				AML	AML		
WHVZ	**Whangaehu Hut**	1.27	24	P	Pn	20 45 09.3	+0.7
WHVZ				AML	AML		
WHVZ				AML	AML		
MAVZ	**Matarangi**	1.28	23	P	Pn	20 45 09.4	+0.6
MAVZ				AML	AML		
MAVZ				AML	AML		
FWVZ	**Far West T-bar**	1.29	22	P	Pn	20 45 09.4	+0.6
FWVZ				AML	AML		
FWVZ				AML	AML		
BHHZ	**Black Hill Sta**	1.30	43	P	Pn	20 45 09.4	+0.7
TUVZ	**Tukino**	1.31	26	P	Pn	20 45 10.0	+1.0
TUVZ				AML	AML		
TUVZ				AML	AML		
NMEZ	**Namu Road**	1.32	322	P	Pn	20 45 10.7	+1.8
PRHZ	**Porangahau**	1.32	82	P	Pn	20 45 09.3	+0.4
PRHZ				AML	AML		
PRHZ				AML	AML		
VRZ	**Vera Road**	1.33	354	P	Pn	20 45 10.1	+0.9
VRZ				AML	AML		
VRZ				AML	AML		
COVZ	**Chateau Observ**	1.34	21	P	Pn	20 45 10.0	+0.7
COVZ				AML	AML		
COVZ				AML	AML		
NEZ	**North Egmont**	1.34	331	P	Pn	20 45 11.2	+1.8
NEZ				AML	AML		
NEZ				AML	AML		
KHEZ	**Kahui Hut**	1.35	328	P	Pn	20 45 11.3	+1.8
KHEZ				AML	AML		
KHEZ				AML	AML		
KRHZ	**Kereru**	1.37	54	P	Pn	20 45 09.9	+0.1
NGZ	**Ngauruhoe**	1.38	22	P	Pn	20 45 10.9	+1.0
SNVZ	**South Ngauruho**	1.38	24	P	Pn	20 45 11.5	+1.6
DREZ	**Durham Road**	1.38	336	P	Pn	20 45 11.5	+1.6
DREZ				AML	AML		
DREZ				AML	AML		
NNZ	**Nelson**	1.40	236	P	Pn	20 45 11.4	+1.3
NNZ				AML	AML		
NNZ				AML	AML		
CMWZ	**Cape Campbell**	1.40	202	P	Pn	20 45 14.4	+4.3
OTVZ	**Oturere**	1.41	24	P	Pn	20 45 11.5	+1.2
WTVZ	**West Tongariro**	1.43	21	P	Pn	20 45 11.3	+0.7
TWVZ	**Taurewa**	1.44	16	P	Pn	20 45 11.0	+0.4
NBEZ	**Newall Road No**	1.44	325	P	Pn	20 45 12.6	+2.0
ETVZ	**East Tongariro**	1.45	25	P	Pn	20 45 12.0	+1.1
PKE	**Pukeiti**	1.45	330	P	Pn	20 45 12.7	+1.9
MHEZ	**Mangahewa**	1.45	341	P	Pn	20 45 13.0	+2.2
KRVZ	**Karewarewa**	1.46	22	P	Pn	20 45 11.9	+0.8
TMVZ	**Te Maari**	1.46	24	P	Pn	20 45 12.2	+1.1
NTVZ	**North Tongarir**	1.47	23	P	Pn	20 45 12.4	+1.2
BSWZ	**Blackbirch Sta**	1.49	212	P	Pn	20 45 12.4	+1.0
PXZ	**Pawanui**	1.54	75	P	Pn	20 45 11.3	-0.7
KWHZ	**Kaweka Forest**	1.54	49	P	Pn	20 45 12.4	+0.3
KATZ	**Kakaramea**	1.59	22	P	Pn	20 45 14.1	+1.2
TKNZ	**Takaka Hill**	1.60	248	P	Pn	20 45 14.5	+1.6
TKNZ				AML	AML		
TKNZ				AML	AML		
KAHZ	**Kahuranaki**	1.63	67	P	Pn	20 45 12.9	-0.4
RITZ	**Rihia Road**	1.64	26	P	Pn	20 45 14.5	+1.1
MCHZ	**McNeill Hill**	1.69	54	P	Pn	20 45 14.6	+0.5
RATZ	**Rangitukua**	1.71	23	P	Pn	20 45 16.1	+1.7
BKZ	**Black Stump Fm**	1.76	44	P	Pn	20 45 15.4	+0.3
CKHZ	**Cape Kidnapper**	1.83	65	P	Pn	20 45 15.5	-0.5
WATZ	**Wairara**	1.85	20	P	Pn	20 45 17.6	+1.2
QRZ	**Quartz Range**	1.86	258	P	Pn	20 45 17.4	+1.0
QRZ				AML	AML		
QRZ				AML	AML		
MRNZ	**Matariki Terra**	1.90	239	P	Pn	20 45 18.4	+1.4
MRNZ				AML	AML		
MRNZ				AML	AML		
HIZ	**Hauiti**	1.94	358	P	Pn	20 45 18.4	+0.9
HIZ				S	Sn	20 45 42.5	+1.9
HIZ				AML	AML		
HIZ				AML	AML		
NMHZ	**Naumai**	1.98	48	P	Pn	20 45 18.2	0.0
MRHZ	**Matea Rd**	1.98	36	P	Pn	20 45 17.8	-0.4
ARHZ	**Aropaoanui**	1.99	54	P	Pn	20 45 17.7	-0.5
THZ	**Tophouse**	2.01	229	P	Pn	20 45 19.5	+0.9
KUTZ	**Kaahu Road**	2.08	20	P	Pn	20 45 21.0	+1.6
TLZ	**Tolley Road**	2.17	13	P	Pn	20 45 21.3	+0.5
ALRZ	**Allen Road**	2.18	31	P	Pn	20 45 21.0	+0.1
KHZ	**Kahutara**	2.22	208	P	Pn	20 45 21.7	+0.3
WHHZ	**Waihua**	2.25	53	P	Pn	20 45 21.3	-0.4
RAHZ	**Arahi**	2.27	48	P	Pn	20 45 21.5	-0.5
GRRZ	**Galatos Road**	2.29	24	P	Pn	20 45 23.2	+0.9
HRRZ	**Handcock Road**	2.31	27	P	Pn	20 45 23.0	+0.4
HSRZ	**Hossack Road**	2.37	26	P	Pn	20 45 23.3	-0.2
MUGZ	**Murupara**	2.44	36	P	Pn	20 45 24.1	-0.2
RRRZ	**Republican Roa**	2.44	31	P	Pn	20 45 23.6	-0.9
TARZ	**Mount Tarawera**	2.53	29	P	Pn	20 45 26.7	+1.0
KNZ	**Kokohu**	2.55	57	P	Pn	20 45 24.1	-1.8
MHGZ	**Mahia Peninsul**	2.64	61	P	Pn	20 45 25.7	-1.4
DSZ	**Denniston Nort**	2.69	240	P	Pn	20 45 28.9	+1.0
RAGZ	**Rawiri**	2.74	45	P	Pn	20 45 29.3	+0.7
PRGZ	**Paritu Road**	2.75	57	P	Pn	20 45 26.8	-1.8
TOZ	**Tahuroa Road**	2.75	10	P	Pn	20 45 29.2	+0.5
URZ	**Urewera**	2.77	38	Pn	Pn	20 45 27.2	-1.7
	7.0nm,0.3s,baz=246,slow=4.6,SNR=34						
URZ				Sn	Sn	20 45 59.7	-1.3
	18nm,0.3s,baz=253,slow=15,SNR=4.9						
	12nm,0.3s						
URZ				AML	AML		
URZ	**Urewera**	2.77	38	P	Pn	20 45 27.3	-1.7
RIGZ	**Rimuhau**	2.80	52	P	Pn	20 45 28.0	-1.4
GVZ	**Greta Valley S**	2.88	209	P	Pn	20 45 30.1	-0.4
MWZ	**Matawai**	2.92	44	P	Pn	20 45 29.7	-1.4
LTZ	**Lake Taylor**	3.06	220	P	Pn	20 45 32.7	-0.3
AMCZ	**Amberley**	3.21	211	P	Pn	20 45 34.1	-0.8
RUGZ	**Raukumara Rang**	3.28	42	P	Pn	20 45 35.1	-0.9
TWGZ	**Tauwhareparae**	3.28	47	P	Pn	20 45 35.5	-0.5
MKAZ	**Moumakai**	3.35	3	P	Pn	20 45 37.4	+0.5
AWAZ	**Awhitu Peninsu**	3.39	356	P	Pn	20 45 38.8	+1.4
HAZ	**Te Kaha**	3.49	40	P	Pn	20 45 37.0	-1.8
ETAZ	**East Tamaki Re**	3.49	0	P	Pn	20 45 40.4	+1.5
WTAZ	**Waiatarua**	3.53	355	P	Pn	20 45 41.1	+1.8
OKCZ	**Okains Bay**	3.55	202	P	Pn	20 45 38.8	-0.9
PKGZ	**Pakihiroa**	3.56	45	P	Pn	20 45 37.9	-1.9
MBAZ	**Motutapu North**	3.68	360	P	Pn	20 45 42.5	+1.1
RVAZ	**Riverhead Bore**	3.69	356	P	Pn	20 45 43.0	+1.5
AKCZ	**Akaroa Harbour**	3.73	203	P	Pn	20 45 40.6	-1.5
WMGZ	**Waiomatatini S**	3.78	47	P	Pn	20 45 40.2	-2.6
ABAZ	**Army Bay**	3.85	359	P	Pn	20 45 45.0	+1.3
MXZ	**Matakaoa Point**	3.91	43	P	Pn	20 45 42.9	-1.7
MHCZ	**Mount Hutt**	3.97	218	P	Pn	20 45 44.0	-1.4
WVZ	**Waitaha Valley**	4.08	229	P	Pn	20 45 46.4	-0.5
GRZ	**Great Barrier**	4.22	6	P	Pn	20 45 49.3	+0.5
RPZ	**Rata Peaks**	4.35	220	Pn	Pn	20 45 50.1	-0.6
	1.2nm,0.3s,baz=7.6,slow=2.2,SNR=9.5						
RPZ				Sn	Sn	20 46 36.4	-3.7
	3.2nm,0.3s,baz=314,slow=23,SNR=17						
	1.2nm,0.3s						
RPZ				AML	AML		
RPZ	**Rata Peaks**	4.35	220	P	Pn	20 45 50.6	-0.1
ARCZ	**Arundel**	4.47	217	P	Pn	20 45 51.3	-1.0
WCZ	**Waipu Caves**	4.53	354	P	Pn	20 45 53.7	+0.6
TMZ	**Timaru**	4.88	215	P	Pn	20 45 56.8	-1.2
OUZ	**Omahuta**	5.33	348	P	Pn	20 46 05.0	+0.9
JCZ	**Jackson Bay**	5.82	230	P	Pn	20 46 13.1	+2.2
CTZ	**Chatham Island**	7.09	120	P	Pn	20 46 26.8	-1.4
ASAR	**Alice Springs**	38.20	283	P	P	20 52 01.7	-1.7
	0.5nm,0.4s,baz=125,slow=7.0,SNR=20						
	0.5nm,0.4s						
WRA	**Warramunga Arr**	40.16	288	P	P	20 52 18.4	-1.4
	0.2nm,0.3s,baz=125,slow=8.2,SNR=14						
	0.2nm,0.3s						
ARCES	**ARCESS Array B**	146.73	341	PKPbc	PKPbc	21 04 24.5	+0.6
	1.0nm,0.6s,baz=61,slow=3.5,SNR=8.2						

IDC ***14*** *20:49:25.6±1.2, 77°.86N×13°.99E, h0^{km}, mb3.6/5, mbtmp3.7/7, ML3.1/2, MS2.9/1, Error ellipse: s-maj=19.8km s-min=15.6km az=124.0*

KOLA ***14*** *20:49:26.2, 77°.91N×14°.20E, h0^{km}, ML3.5, Error ellipse: s-maj=4.7km s-min=2.1km az=40.0, Spitsbergen*

NAO ***14*** *20:49:27.0±0.6, 77°.88N×14°.04E, h10^{km}±6^{km}, ML3.9*

BER ***14*** *20:49:27.5±2.6, 77°.87N×14°.16E, h3^{km}±7^{km}, ML2.9, ML3.9(NAO), Confirmed Earthquake*

ISC 14 20:49:25.3±0.9**, 77°.83N**±0°.03×**13°.88E**±0°.04**, h16**^{km}±6^{km}**, n63, σ2^{s}.94**/102**, mb3.7**/5**, 2C, Svalbard region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BRBA	**Barentsburg A**	0.24	17	Pg	Pg	20 49 30.3	-0.4
BRBA				Sg	Sg	20 49 33.1	-1.2
BRBA	**Barentsburg A**	0.24	17	⇑*i*P	Pg	20 49 30.2	-0.4
BRBA				*e*S	Sg	20 49 33.0	-1.2
BRBA				IAML		20 49 33.4	
	comp=Z,9μm,0.2s						
BRBB	**Barentsburg B**	0.27	15	Pg	Pg	20 49 30.8	-0.4
BRBB				Sg	Sg	20 49 34.0	-1.2
BRBB	**Barentsburg B**	0.27	15	⇑*i*P	Pg	20 49 30.8	-0.4
BRBB				*e*S	Sg	20 49 34.0	-1.2
BRBB	**Barentsburg B**	0.27	15	P	Pg	20 49 30.5	-0.6
BRBB				S	Sg	20 49 33.8	-1.3
SPA0	**Spitsbergen Ar**	0.63	55	Pg	Pg	20 49 37.5	-0.1
	baz=233,slow=18						
SPA0				Sg	Sg	20 49 45.6	-0.4
	baz=236,slow=28						
SPA0	**Spitsbergen Ar**	0.63	55	Pg	Pg	20 49 37.5	-0.1
SPA0				Sg	Sg	20 49 45.6	-0.4
SPITS	**Spitsbergen Ar**	0.63	55	Pg	Pg	20 49 37.4	-0.3
	baz=222,slow=16						
SPITS				Lg	Lg	20 49 45.3	
	baz=232,slow=26						
SPITS	**Spitsbergen Ar**	0.63	55	P	Pg	20 49 36.9	-0.7
SPITS				S	Sg	20 49 44.6	-1.3
HSPB	**Hornsund (broa**	0.91	156	Pg	Pn	20 49 43.5	0.0
HSPB				Sg	Sn	20 49 57.4	+1.3
HSPB	**Hornsund (broa**	0.91	156	*e*P	Pg	20 49 43.2	+0.3
HSPB				*e*S	Sn	20 49 57.5	+1.3
HSPB				IAML		20 50 00.6	
	comp=Z,724nm,0.4s						
HOPEN	**Hopen**	2.81	113	Pn	Pn	20 50 10.8	+1.3
HOPEN				Sn	Sn	20 50 43.9	+0.8
HOPEN	**Hopen**	2.81	113	*e*P	Pn	20 50 10.5	+0.9
HOPEN				*e*S	Sn	20 50 42.6	-0.5
HOPEN				IAML		20 50 58.0	
	comp=Z,262nm,0.3s						
BJO1	**Bjornoya**	3.56	157	Pn	Pn	20 50 21.2	+1.4
BJO1				Sn	Sn	20 51 02.8	+1.2
BJO1	**Bjornoya**	3.56	157	*e*P	Pn	20 50 21.3	+1.4
BJO1				*e*S	Sn	20 51 02.5	+0.9
BJO1				*e*Sg	Sg	20 51 19.9	+0.3
BJO1				IAML		20 51 26.1	
	comp=Z,60nm,1.0s						
BEA1	**Bear Island, N**	3.57	157	*e*P	Pn	20 50 21.4	+1.5
BEA1				*e*S	Sn	20 51 02.0	+0.4
BEA1				*e*Sg	Sg	20 51 19.4	-0.2
BEA1				IAML		20 51 29.1	
	comp=Z,69nm,0.5s						
BEAR	**Bear Island, N**	3.57	157	Pn	Pn	20 50 21.1	+1.2
	baz=337,slow=12						
BEAR				Sn	Sn	20 51 02.5	+0.8
	baz=344,slow=37						
NOR	**Nord**	6.55	319	Pn	Pn	20 51 02.0	+1.2
NOR	**Nord**	6.55	319	*e*P	Pn	20 51 02.1	+1.4
NOR				*e*S	Sn	20 52 12.7	-2.3
NOR	**Nord**	6.55	319	*i* P	Pn	20 51 03.2	+2.5
NOR				*i* S	Sn	20 52 12.5	-2.5
NOR				IAML		20 52 20.0	
	comp=Z,2.7nm,0.4s						
DAG	**Danmarks Havn**	7.18	278	*e*P	Pn	20 51 10.8	+1.3
DAG				*e*S	Sn	20 52 26.6	-3.9
DAG	**Danmarks Havn**	7.18	278	*i* P	Pn	20 51 10.6	+1.1
DAG				*i* S	Sn	20 52 26.5	-4.0
DAG				IAML		20 52 29.0	
	comp=Z,5.5nm,0.4s						
HAMF	**Hammerfest**	7.69	155	Pn	Pn	20 51 17.5	+1.1
HAMF				Sn	Sn	20 52 37.1	-5.9
HAMF	**Hammerfest**	7.69	155	*e*P	Pn	20 51 16.8	+0.4
HAMF				*e*S	Sn	20 52 36.3	-6.6
HAMF				IAML		20 52 53.4	
	comp=Z,7.9nm,0.4s						
TRO	**Tromso**	8.36	168	Pn	Pn	20 51 27.2	+1.6
TRO	**Tromso**	8.36	168	*e*P	Pn	20 51 27.7	+2.1
JETT	**Jettan, Norway**	8.51	164	Pn	Pn	20 51 30.9	+3.1
JETT	**Jettan, Norway**	8.51	164	Pn	Pn	20 51 30.9	+3.1
VADS	**Vadso**	8.80	143	Pn	Pn	20 51 32.4	+0.7
VADS				Sn	Sn	20 53 05.3	-5.1
VADS	**Vadso**	8.80	143	*e*P	Pn	20 51 31.9	+0.2
VADS				*e*S	Sn	20 53 04.7	-5.7
VADS				IAML		20 53 09.4	
	comp=Z,13nm,0.6s						
VADS	**Vadso**	8.80	143	P	Pn	20 51 32.2	+0.6
VADS				S	Sn	20 53 05.3	-5.1
DBG	**Daneborg**	8.82	264	Pn	Pn	20 51 34.1	+2.1
DBG	**Daneborg**	8.82	264	*e*P	Pn	20 51 33.3	+1.4
DBG				*e*S	Sn	20 53 03.9	-7.0
DBG	**Daneborg**	8.82	264	*i* P	Pn	20 51 33.3	+1.4
DBG				*i* S	Sn	20 53 05.0	-5.9
DBG				IAML		20 53 34.8	
	comp=Z,11nm,1.6s						
KEV	**Kevo**	8.87	149	Pn	Pn	20 51 33.5	+0.9
KEV				Sn	Sn	20 53 07.5	-4.5
KEV	**Kevo**	8.87	149	*e*P	Pn	20 51 33.1	+0.5
KEV				*e*S	Sn	20 53 05.5	-6.6
ARA0	**ARCESS Array S**	8.93	153	Pn	Pn	20 51 34.2	+0.7
	baz=340,slow=14						
ARA0				Sn	Sn	20 53 07.9	-5.6
	baz=351,slow=22						
ARA0	**ARCESS Array S**	8.93	153	Pn	Pn	20 51 34.2	+0.7
ARA0				Sn	Sn	20 53 07.9	-5.6
ARA0				IAML		20 53 24.6	
	comp=Z,3.9nm,0.4s						
ARCES	**ARCESS Array B**	8.93	153	Pn	Pn	20 51 34.2	+0.8
	comp=Z,0.5nm,0.3s,baz=346,slow=12,SNR=29						
ARCES				Sn	Sn	20 53 07.5	-6.0
	comp=Z,0.4nm,0.3s,baz=358,slow=19,SNR=1.8						
	comp=Z,2.1nm,0.4s						
ARCES				AML	AML		
ARCES	**ARCESS Array B**	8.93	153	P	Pn	20 51 34.9	+1.5
ARCES				S	Sn	20 53 09.8	-3.7
JNE	**Jan Mayen East**	9.01	232	*e*P	Pn	20 51 35.2	+0.7
KTK1	**Kautokeino**	9.24	159	Pn	Pn	20 51 39.4	+1.7
KTK1	**Kautokeino**	9.24	159	*e*P	Pn	20 51 39.0	+1.4
KTK1				IAML		20 53 25.5	
	comp=Z,2.1nm,0.5s						
LOF	**Lofoten**	9.75	181	*e*P	Pn	20 51 47.4	+2.7
LOF				*e*S	Sn	20 53 28.5	-5.2
HEF	**Hetta**	9.87	158	P	Pn	20 51 47.3	+1.1
HEF				Sn	Sn	20 53 32.6	-3.9
HEF	**Hetta**	9.87	158	*e*P	Pn	20 51 46.8	+0.5
LANU	**Lannavaara**	10.10	162	*e*P	Pn	20 51 50.6	+1.1
TERR	**Teriberka**	10.45	135	P	Pn	20 51 52.6	-1.7
TERR				S	Sn	20 53 42.7	-8.1
LVZ	**Lovozero**	11.59	138	S	Sn	20 54 12.6	-6.1
APA0	**Apatity Array**	11.63	142	Pn	Pn	20 52 09.0	-1.4
	baz=347,slow=14						
APA0	**Apatity Array**	11.63	142	Pn	Pn	20 52 09.0	-1.4
APA0	**Apatity Array**	11.63	142	P	Pn	20 52 08.9	-1.4
APA0				S	Sn	20 54 13.3	-6.4
KVDA	**Kovda**	12.48	143	P	Pn	20 52 21.4	-0.5
KVDA				S	Sn	20 54 33.1	-7.3
LILU	**Lilltraesk**	12.74	169	*e*P	Pn	20 52 25.8	+0.3
FIA0	**FINESS Array S**	16.93	160	P	Pn	20 53 21.5	+0.4
	baz=359,slow=11						
FIA0	**FINESS Array S**	16.93	160	P	Pn	20 53 21.5	+0.4
FINES	**FINESS Array B**	16.93	160	Pn	Pn	20 53 19.8	-1.4
	comp=Z,0.1nm,0.3s,baz=12,slow=12,SNR=6.3						
	comp=Z,3.3nm,1.0s						
FINES				AML	AML		
NRIK	**Noril'sk**	20.81	74	LR	LR	21 03 59.1	
	comp=Z,30nm,18.0s,baz=118,slow=42						
KURBB	**Kurchatov Arra**	35.79	100	P	P	20 56 25.0	+1.8
	comp=Z,0.6nm,0.6s,baz=338,slow=7.5,SNR=7.0						
	comp=Z,0.6nm,0.6s						
KBZ	**Khabaz**	36.13	143	P	P	20 56 29.1	+2.8
	comp=Z,1.3nm,0.7s,baz=32,slow=2.5,SNR=4.8						
	comp=Z,1.3nm,0.7s						
ILAR	**Eielson Array**	37.15	346	P	P	20 56 37.7	+3.1
	comp=Z,0.2nm,0.6s,baz=18,slow=6.5,SNR=1.9						
	comp=Z,0.2nm,0.6s						
MKAR	**Makanchi Array**	40.21	98	P	P	20 57 02.9	+2.3
	comp=Z,0.5nm,0.6s,baz=343,slow=7.6,SNR=4.5						
	comp=Z,0.5nm,0.6s						
TXAR	**Lajitas Array**	67.01	303	P	P	21 00 19.6	+2.5
	comp=Z,0.3nm,0.6s,baz=16,slow=5.3,SNR=3.6						
	comp=Z,0.3nm,0.6s						

IDC ***14*** *20:49:34.9±6.3, 6°.25S×130°.05E, h120^{km}±57^{km}, mb3.8/7, mbtmp4.2/10, Error ellipse: s-maj=63.1km s-min=19.8km az=66.0*

NEIC ***14*** *20:49:34.0±1.9, 6°.05S±0°.08×130°.5E±0°.1, h117^{km}±10^{km}, mb4.2/9, Error ellipse: s-maj=20.6km s-min=11.8km az=90.0*

DJA ***14*** *20:49:35.9±0.3, 6°S±2°×13°1E±°, h120^{km}±8^{km}, M4.5/16, mB5.1/6, mb4.3/12, MLv4.7/16, Mw(mB)4.4/6*

ISC 14 20:49:33.6±0.6**, 6°.08S**±0°.04×**130°.65E**±0°.09**, h124**^{km}**, n45, σ2^{s}.21**/49**, mb4.0**/10**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BNDI	**Bandanaira**	1.71	334	P	Pn	20 50 07.2	+3.3
BNDI				AML	AML		
SAUI	**Saumlaki**	2.00	161		Sn	20 50 32.6	-0.5
SAUI	**Saumlaki**	2.00	161	P	Pn	20 50 10.1	+2.8
SAUI				AML	AML		
FAKI	**Fak Fak**	3.52	27		Pn	20 50 28.1	+1.1
FAKI	**Fak Fak**	3.52	27	P	Pn	20 50 27.5	+0.5
FAKI				S	Sn	20 51 05.7	-2.5
FAKI				AML	AML		
NLAI	**Namlea**	4.52	308	P	Pn	20 50 41.4	+1.1
NLAI				AML	AML		
SWI	**Sorong**	5.22	7	P	Pn	20 50 50.1	+0.5
	3μm47nm,0.5s						
SWI				S	Sn	20 51 42.7	-6.1
	3μm47nm,0.5s						
MWPI	**Manokwari, Pap**	6.13	34	P	Pn	20 51 04.8	+2.8
	1.4nm104nm,0.8s						
MWPI				AML	AML		
MTN	**Manton Dam**	6.74	176		Pn	20 51 12.1	+2.0
BAKI	**Biak**	7.30	48	P	Pn	20 51 21.1	+3.4
SOEI	**Soe**	7.30	240	Pn	Pn	20 51 17.0	-0.8
SOEI	**Soe**	7.30	240	P	Pn	20 51 19.8	+2.0
	0.5nm31nm,1.1s						
SOEI				AML	AML		
KDI	**Kendari**	8.27	284	P	Pn	20 51 32.3	+1.5
	23nm,1.0s						
EDFI	**Ende, Flores**	9.27	253	P	Pn	20 51 48.1	+3.7
KNRA	**Kununurra**	9.71	191		Pn	20 51 50.6	+0.3
FITZ	**Fitzroy Crossi**	12.91	202	P	Pn	20 52 31.0	-1.6
	12nm,0.3s,baz=32,slow=8.2,SNR=154						
FITZ				S	Sn	20 54 43.3	-12
	14nm,0.4s,baz=89,slow=12,SNR=11						
FITZ	**Fitzroy Crossi**	12.91	202	P	Pn	20 52 31.3	-1.3
FITZ					Sn	20 54 46.0	-8.9
WB0	**Warramunga Arr**	14.09	165		Pn	20 52 47.8	0.0
WRAB	**Tennant Creek**	14.23	166		Pn	20 52 49.9	+0.2
WRA	**Warramunga Arr**	14.24	166	P	Pn	20 52 49.5	-0.2
	2.0nm,0.4s,baz=336,slow=13,SNR=38						
WRA				S	Sn	20 55 19.8	-7.4
	6.3nm,0.6s,baz=351,slow=22,SNR=11						
WRA	**Warramunga Arr**	14.24	166		Pn	20 52 47.9	-1.9
WRA					Sn	20 55 21.0	-6.2
WR8	**Warramunga Arr**	14.29	165		Pn	20 52 50.3	-0.1
AS31	**Alice Springs**	17.76	170	P	P	20 53 33.6	+1.3
ASAR	**Alice Springs**	17.77	170	P	Pn	20 53 34.7	+1.4
	1.7nm,0.4s,baz=347,slow=10,SNR=44						
ASAR				S	S	20 56 43.6	-6.9
	3.7nm,0.7s,baz=349,slow=27,SNR=8.6						
ASAR	**Alice Springs**	17.77	170	P	Pn	20 53 34.2	+0.9
KKM	**Kota Kinabalu**	18.78	310	P	P	20 53 42.9	-0.6
KKM				IAmb	IAmb	20 54 06.3	
	comp=Z,36nm,1.1s						
CMAR	**Chiang Mai Arr**	39.65	309	P	P	20 56 52.6	-1.1
	comp=Z,0.6nm,0.4s,baz=141,slow=6.4,SNR=7.1						
	comp=Z,0.6nm,0.4s						
CMAR	**Chiang Mai Arr**	39.65	309	P	P	20 56 52.2	-1.4
EVN	**Everest**	54.16	311	P	P	20 58 47.2	+0.1
SONM	**Songino Array**	57.78	341	P	P	20 59 13.4	+1.4
	comp=Z,0.8nm,0.5s,baz=161,slow=5.6,SNR=6.0						
	comp=Z,0.8nm,0.5s						
SONM	**Songino Array**	57.78	341	P	P	20 59 13.2	+1.3
MKAR	**Makanchi Array**	67.82	326	P	P	21 00 19.6	+1.2
	comp=Z,5.5nm,0.5s,baz=113,slow=8.8,SNR=102						
	comp=Z,5.5nm,0.5s						
MKAR	**Makanchi Array**	67.82	326	P	P	21 00 19.1	+0.7
MAKZ	**Makanchi**	68.00	326	P	P	21 00 20.4	+0.8
ARSB	**Arslanbob**	70.65	318	P	P	21 00 36.0	-0.1
ARSB				IAmb	IAmb	21 00 38.2	
	comp=Z,4.0nm,0.7s						
ZALV	**Zalesovo Beam**	71.05	333	P	P	21 00 37.9	-0.1
	comp=Z,1.0nm,0.6s,baz=137,slow=7.3,SNR=4.7						
	comp=Z,1.0nm,0.6s						
ZALV	**Zalesovo Beam**	71.05	333	P	P	21 00 37.8	-0.3
KURBB	**Kurchatov Arra**	72.07	328	P	P	21 00 44.9	+0.7
	comp=Z,1.7nm,0.5s,baz=127,slow=4.9,SNR=20						
	comp=Z,1.7nm,0.5s						
KURK	**Kurchatov**	72.08	328	P	P	21 00 44.1	-0.1
KURK				IAmb	IAmb	21 00 45.6	
	comp=Z,2.4nm,0.9s						
BVAR	**Borovoye Array**	77.64	328	P	P	21 01 16.7	+0.5
	comp=Z,1.1nm,0.5s,baz=118,slow=11,SNR=6.1						
	comp=Z,1.1nm,0.5s						
AB31	**Akbulak array**	82.19	321	P	P	21 01 40.5	-0.4
AB31				IAmb	IAmb	21 01 41.7	
	comp=Z,2.8nm,1.2s						
ABKAR	**Akbulak array**	82.19	321	P	P	21 01 40.4	-0.5
QSPA	**South Pole Qui**	83.89	180	P	P	21 01 50.5	+1.0
	comp=Z,0.8nm,0.6s,baz=276,slow=1.4,SNR=2.7						
	comp=Z,0.8nm,0.6s						
QSPA	**South Pole Qui**	83.89	180	P	P	21 01 50.5	+1.0
QSPA				IAmb	IAmb	21 02 13.2	
	comp=Z,5.6nm,1.4s						
LPAZ	**La Paz**	151.03	140	PKPbc	PKiKP	21 09 16.0	+1.6
	comp=Z,0.8nm,0.4s,baz=42,slow=4.5,SNR=4.6						

IDC ***14*** *20:59:12.0±12.0, 27°.86N×53°.82E, h0^{km}, mb3.5/5, mbtmp3.5/5, MS2.8/1, Error ellipse: s-maj=248.8km s-min=38.7km az=180.0*

TEH ***14*** *20:59:14.7, 27°.72N×53°.47E, h6^{km}, ML2.9, Presumed earthquake*

OMAN ***14*** *20:59:26.8±1.5, 27°.27N×53°.78E, h10^{km}, mb3.1/4, ml3.0/14, Error ellipse: s-maj=17.5km s-min=12.0km az=21.0*

ISC 14 20:59:14.4±0.7**, 27°.75N**±0°.04×**53°.56E**±0°.04**, h10**^{km}**, n36, σ2^{s}.74**/35**, mb3.5**/5**, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KHL1	**Khalili_Fars**	0.26	244	Pg	Pg	20 59 18.4	-1.3
LMD1	**Lamerd**	0.54	221	Pg	Pg	20 59 24.5	-0.5
JHRM	**Jahrom**	0.75	1	Pg	Pb	20 59 30.2	+0.5
DSBU	**Dashti - Bushe**	2.12	287	Pn	Pb	20 59 51.8	-1.3
KAZ2	**Kazeron-Fars-I**	2.50	318	Pn	Pb	20 59 58.9	-0.6
SHME	**Shamm**	2.86	126	P	Pb	21 00 05.2	-0.4
BANOM	**Banah**	3.05	126	P	Pg	21 00 12.3	-0.6
SAKB	**Bahrain**	3.23	238	P	Pg	21 00 17.3	+0.9
MASF	**Masafi**	3.32	135	P	Pb	21 00 14.5	+1.0
NAZ	**Nazwa, Dubai**	3.33	145	P	Pb	21 00 13.0	-0.7
MDH	**Madha**	3.46	134	P	Pb	21 00 14.6	-1.2
ASUD	**Al Ashush, Dub**	3.49	153	P	Pb	21 00 15.1	-1.3
UOSS	**Minazif**	3.66	139	P	Pb	21 00 16.8	-2.5
HATD	**Hatta, Dubai**	3.72	141	P	Pb	21 00 17.8	-2.4
ASHO	**Ashiyiah**	3.79	143	P	Pb	21 00 18.8	-2.6
ALNE	**Al Ain**	4.17	151	P	Pb	21 00 24.1	-3.9
ALNE				S	Sn	21 01 12.7	+5.6
IBAF	**Bafgh**	4.20	24	Pn	Pn	21 00 23.1	+4.3
JASK	**Jask - Hormozg**	4.28	115	P	Pb	21 00 26.0	-3.8
JASK				S	Sb	21 01 18.5	-3.0
SOHO	**SOHO**	4.49	143	P	Pn	21 00 27.2	+4.7
SOHO				S	Sn	21 01 17.1	+2.3
MZR	**Muzera**	4.73	181	P	Pb	21 00 33.0	-4.5
ARQ	**Araqi**	5.14	148	P	Pn	21 00 37.1	+5.5
	SNR=7.3						
UMZA	**Um Al Zommool**	5.22	164	P	Pn	21 00 36.1	+3.5
UMZA				S	Sn	21 01 36.0	+3.1
HOQ	**Hoqain**	5.35	140	P	Pn	21 00 39.5	+5.0
HOQ				S	Sn	21 01 34.6	-1.7
BSY	**Bisya**	5.97	146	P	Pn	21 00 48.1	+5.1
	SNR=9.3						
BSY				S	Sn	21 01 49.8	-1.7
SMDO	**Samad**	6.19	138	P	Pn	21 00 51.5	+5.5
SMDO				S	Sn	21 01 58.0	+1.1
WSAR	**Wadi Sarin**	6.42	133	P	Pn	21 00 54.5	+5.5
WSAR				S	Sn	21 02 01.8	-0.5
JMDO	**Jabal Madar**	6.76	141	P	Pn	21 00 57.3	+3.5
WBK	**Wadi Bani Khal**	7.08	135	P	Pn	21 01 03.4	+5.2
	SNR=9.8						

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JLN   Jalan Bani Buh      7.70 135  P      Pn      21 01 11.2 +4.6
MHTO  MHTO                7.84 148  P      Pn      21 01 13.3 +4.7
AAK   Ala-Archa          22.57  43  LR     LR      21 12 57.8
      comp=Z,25nm,20.3s,baz=154,slow=37
MKAR  Makanchi Array     29.48  42  P      P       21 05 16.9 -1.7
      0.2nm,0.7s,baz=232,slow=7.0,SNR=2.0
      0.2nm,0.7s
ZALV  Zalesovo Beam      34.77  33  P      P       21 06 00.4 -4.5
      0.2nm,0.3s,baz=243,slow=9.5,SNR=1.7
      0.2nm,0.3s
FINES FINESS Array B     38.37 339  P      P       21 06 34.8 -0.7
      1.1nm,0.5s,baz=143,slow=12,SNR=8.9
      1.1nm,0.5s
HFS   Hagfors            42.15 331  P      P       21 07 05.8 -1.0
      0.7nm,0.4s,baz=120,slow=9.0,SNR=6.0
      0.7nm,0.4s
EKA   Eskdalemuir Ar     48.85 321  P      P       21 07 59.2 -0.8
      0.1nm,0.3s,baz=107,slow=8.3,SNR=3.6
      0.1nm,0.3s
```

IDC 14 21:06:23.8±3.8, 6°.03S×142°.47E, h0km, mb3.9/3, mbtmp3.9/5, ML3.8/2, Error ellipse: s-maj=122.7km s-min=26.6km az=102.0, New Guinea

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Code  Station Name         Δ°   AZ°   Phase ID        Time      Res
                                      Op     ISC     h  m  s    ISC
WRA   Warramunga Arr     15.93 209  Pn     Pn      21 10 06.0 -3.5
      0.3nm,0.3s,baz=30,slow=13,SNR=14
      0.5nm,0.4s
WRA                                 AML    AML
ASAR  Alice Springs      19.38 204  P      P       21 10 51.5 +0.1
      0.6nm,0.3s,baz=32,slow=10,SNR=57
      3.9nm,0.6s
ASAR                                AML    AML
FITZ  Fitzroy Crossi     20.34 232  P      P       21 11 02.2 +0.4
      1.3nm,0.5s,baz=48,slow=13,SNR=6.4
      1.3nm,0.5s
MKAR  Makanchi Array     74.69 322  P      P       21 18 05.5 +0.2
      0.8nm,0.8s,baz=108,slow=6.8,SNR=4.4
      0.8nm,0.8s
BVAR  Borovoye Array     84.16 325  P      P       21 18 56.8 -0.1
      2.4nm,0.8s,baz=103,slow=9.1,SNR=6.7
      2.4nm,0.8s
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*IDC **14** 21:08:39.4±1.5, 29°.48N×129°.30E, h0km, mb3.6/6, mbtmp3.6/8, ML2.3/2, MS3.1/6, Error ellipse: s-maj=29.1km s-min=25.1km az=86.0*

*NIED **14** 21:08:39.8, 29°.66N×129°.79E, h8km, MW4.0, Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M_{rr}-0.58; $M_{\theta\theta}$0.72; $M_{\phi\phi}$-0.14; $M_{r\theta}$0.18; $M_{\theta\phi}$0.20; $M_{\phi r}$0.73; Fault plane solution: $M_0$1.00000×10^{15} NP1: ϕ_s103.00000°, δ38.00000°, λ-35.00000°. NP2: ϕ_s222.00000°, δ69.00000°, λ-123.00000°.*

*JMA **14** 21:08:39.8±0.1, 30°N±1°×13°0E±°, h8km±1km, MV3.6/21, NEAR TOKARA ISLANDS*

JMA Felt III J1 at NEAR TOKARA ISLANDS .

ISC 14 21:08:39.7±1.0, 29°.64N±0°.04×129°.83E±0°.06, h12km±8km, n27, σ0s.74/30, mb3.6/6, MS3.3/5, Ryukyu Islands

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Code  Station Name         Δ°   AZ°   Phase ID        Time      Res
                                      Op     ISC     h  m  s    ISC
JNN   Nakanoshima         0.20  11  P      Pg      21 08 44.1  0.0
JNN                                 A      A       21 08 44.1
      comp=N,32nm,1.0s,comp=E,28nm,3.1s
JNN                                 eS     Sg      21 08 47.3 +0.2
JTAJ  Takarajima          0.73 228  P      Pb      21 08 54.0 -0.4
JYAK  Yakushimahirau      0.84  45  P      Pg      21 08 56.0 +0.2
JYAK                                eS     Sg      21 09 07.3 +0.5
JKC   Kuchinoerabu        0.88  21  P      Pb      21 08 56.7 -0.1
JKC                                 A      A       21 08 56.7
      comp=N,4.0nm,1.2s,comp=E,3.0nm,1.6s
JKC                                 eS     Sb      21 09 08.3 -0.2
JMTN  Minamitane          1.19  51  P      Pg      21 09 01.9 -0.8
JMTN                                eS     Sg      21 09 18.2  0.0
JAM   Amami Oshima        1.24 189  P      Pn      21 09 02.0 -0.9
JAM                                 eS     Sg      21 09 19.1 -0.7
JZK   Kikaishima          1.33 175  P      Pn      21 09 05.9 +1.8
JTN   Tanegashima 3       1.42  44  P      Pn      21 09 05.2 -0.2
JAMN  Amaminishikomi      1.51 203  P      Pn      21 09 05.7 -0.9
JTK   Tokunoshima         2.01 203  P      Pn      21 09 12.9 -0.6
JOKE  Okinoerabujima      2.53 206  eP     Pn      21 09 20.9 +0.3
JOKE                                eS     Sn      21 09 52.2 +0.8
JYRO  Yoronjima           2.88 205  eP     Pn      21 09 25.6 +0.2
JIH   Iheya               3.07 213  eP     Pn      21 09 28.5 +0.4
JOW   Kunigami            3.12 206  eP     Pn      21 09 30.3 +1.5
JOW                                 eS     Sn      21 10 06.2 +0.2
JAGN  Aguni-jima          3.81 218  eP     Pn      21 09 39.3 +1.2
JKDJ  Kitadaitoujima      3.90 160  eP     Pn      21 09 40.2 +0.7
JKDJ                                eS     Sn      21 10 24.5 -0.8
KSRS  Korea Array         7.95 349  Pn     Pn      21 10 39.7 +4.6
      baz=173,slow=11,SNR=4.4
KSRS                                LR     LR      21 14 13.0
      comp=E,38nm,19.6s,baz=175,slow=42
      comp=E,0.7nm,0.5s
MJAR  Matsushiro Arr      9.83  43  Pn     Pn      21 11 11.7 +11
      baz=218,slow=13,SNR=5.0
      comp=E,0.9nm,0.5s
GUMO  Guam               21.19 136  LR     LR      21 20 09.7
      comp=E,30nm,21.6s,baz=324,slow=32
SONM  Songino Array      25.61 322  P      P       21 14 09.1 +0.1
      comp=E,0.7nm,0.7s,baz=138,slow=8.2,SNR=3.9
SONM                                LR     LR      21 25 28.7
      comp=E,80nm,19.2s,baz=68,slow=40
      comp=E,0.7nm,0.7s
MKAR  Makanchi Array     40.42 309  P      P       21 16 17.1 -0.7
      comp=E,0.2nm,0.6s,baz=107,slow=9.2,SNR=1.9
      comp=E,0.2nm,0.6s
ZALV  Zalesovo Beam      40.47 320  P      P       21 16 17.7 -0.4
      comp=E,0.6nm,0.5s,baz=123,slow=10,SNR=2.7
      comp=E,0.6nm,0.5s
TIXI  Tiksi              42.06 360  LR     LR      21 33 55.1
      comp=E,25nm,21.8s,baz=203,slow=36
KURBB Kurchatov Arra     43.44 314  P      P       21 16 41.9 -0.5
      comp=E,0.6nm,0.6s,baz=97,slow=8.7,SNR=4.3
KURBB                               LR     LR      21 36 15.4
      comp=E,50nm,19.3s,baz=180,slow=38
      comp=E,0.6nm,0.6s
BVAR  Borovoye Array     48.74 316  P      P       21 17 24.8 +0.7
      comp=E,1.8nm,0.7s,baz=99,slow=9.2,SNR=4.4
      comp=E,1.8nm,0.7s
WRA   Warramunga Arr     49.49 174  P      P       21 17 30.6 +0.5
      comp=E,0.9nm,0.7s,baz=360,slow=7.5,SNR=3.3
      comp=E,0.9nm,0.7s
AKASG Malin Array Be     73.87 319  LR     LR      21 55 12.1
      comp=E,25nm,19.7s,baz=13,slow=38
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*IDC **14** 21:12:22.1±1.2, 62°.29S×58°.26W, h0km, mb4.0/4, mbtmp4.1/4, MS3.4/6, Error ellipse: s-maj=69.4km s-min=23.9km az=67.0*

*NEIC **14** 21:12:23.3±1.8, 62°.38S±0°.05×58°.5W±0°.2, h10km±1km, mb4.5/7, Error ellipse: s-maj=17.0km s-min=4.0km az=62.0*

ISC 14 21:12:23.3±0.6, 62°.37S±0°.07×58°.3W±0°.1, h10km, n33, σ0s.99/24, mb4.3/7, MS3.4/6, South Shetland Islands

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Code  Station Name         Δ°   AZ°   Phase ID        Time      Res
                                      Op     ISC     h  m  s    ISC
ESPZ  Base Esperanza      1.20 150  Pn     Pn      21 12 45.2 -1.0
ESPZ                                Sn     Sb      21 13 01.4 -0.3
PMSA  Palmer Station      3.52 224  Pn     Pn      21 13 18.3 +0.3
SMAI  San Martin Ant      6.85 209  Pn     Pn      21 14 02.9 -0.8
EFI   East Falkland      10.72   1  Pn     Pn      21 14 57.8 +1.1
VNA3  Neumayer Olymp     20.49 136  P      Pn      21 17 03.5 +0.3
      comp=Z,15nm,0.8s
SNAA  Sanae              22.66 137  P      P       21 17 26.6 +2.3
      comp=Z,202nm,0.9s
SNAA  Sanae              22.66 137  P      P       21 17 24.7 +0.4
      comp=Z,8.2nm,0.9s,baz=262,slow=9.9,SNR=11
SNAA                                LR     LR      21 24 58.6
      comp=Z,68nm,18.4s,baz=44,slow=33
      comp=Z,8.2nm,0.9s
SNAA  Sanae              22.66 137  P      P       21 17 26.4 +2.1
SNAA                                IAmb   IAmb    21 17 29.0
      comp=Z,13nm,1.0s
PLCA  Paso Flores        22.88 336  P      P       21 17 26.2 -0.7
      comp=Z,3.2nm,0.9s,baz=162,slow=8.8,SNR=5.9
PLCA                                LR     LR      21 24 60.0
      comp=Z,74nm,19.8s,baz=204,slow=33
      comp=Z,3.2nm,0.9s
PLCA  Paso Flores        22.88 336  P      P       21 17 26.0 -0.8
PLCA                                IAmb   IAmb    21 17 29.8
      comp=Z,14nm,1.3s
GO06  Curarrehue         24.17 335  P      P       21 17 39.7 +0.1
GO06                                IAmb   IAmb    21 17 44.1
      comp=Z,17nm,0.9s
TROLL Troll, Antarti     24.30 139  P      P       21 17 40.4 -0.2
      comp=Z,164nm,0.3s
QSPA  South Pole Qui     27.86 180  P      P       21 18 14.0 +1.2
      comp=Z,2.0nm,0.8s,baz=148,slow=3.7,SNR=5.2
      comp=Z,2.0nm,0.8s
QSPA  South Pole Qui     27.86 180  P      P       21 18 12.7 -0.1
CO01  Juntas del Tor     33.30 341  P      P       21 19 00.8 -0.4
CO01                                IAmb   IAmb    21 19 09.9
      comp=Z,17nm,1.4s
LCO   Las Campanas       34.34 341  P      P       21 19 09.6 -0.6
MAW   Mawson             43.57 152  P      P       21 20 26.8 +0.1
      comp=Z,1.3nm,0.5s,baz=212,slow=15,SNR=4.1
MAW                                 LR     LR      21 37 26.8
      comp=Z,71nm,19.8s,baz=148,slow=34
      comp=Z,1.3nm,0.5s
PB16  IPOC Station P     44.68 345  P      P       21 20 36.9 +0.1
PB16                                IAmb   IAmb    21 20 43.5
      comp=Z,7.2nm,1.4s
LPAZ  La Paz             46.54 347  LR     LR      21 41 11.5
      comp=Z,28nm,18.2s,baz=210,slow=37
SUR   Sutherland         56.92  97  LR     LR      21 41 04.2
      comp=Z,48nm,19.7s,baz=168,slow=30
H10S3 ASCENSION HYDR61.96   51  T      T       22 29 58.5
      baz=203,slow=74,SNR=26
H10S2 ASCENSION HYDR61.97   51  T      T       22 29 58.5
      baz=17,slow=74,SNR=19
H10N3 ASCENSION HYDR63.05   50  T      T       22 31 19.0
      baz=202,slow=75,SNR=56
H10N1 ASCENSION HYDR63.05   50  T      T       22 31 19.2
      baz=202,slow=75,SNR=48
H10N2 ASCENSION HYDR63.07   50  T      T       22 31 20.3
      baz=202,slow=75,SNR=49
LBTB  Lobatse            65.37  97  LR     LR      21 46 40.2
      comp=Z,28nm,18.4s,baz=158,slow=32
ARCES ARCESS Array B    144.15  37  PKP    PKPbc   21 31 56.3 +0.7
      comp=Z,3.2nm,1.0s,baz=235,slow=3.2,SNR=3.7
KKAR  Karatay Array     144.73  99  PKPdf  PKPdf   21 31 59.5 +0.3
G23K  Bananza Creek     144.81 316  PKPdf  PKPab   21 31 56.9 -0.8
E24K  Your Creek        145.12 319         PKPbc   21 31 57.9 -0.9
BVAR  Borovoye Array    151.78  85  PKPbc  PKiKP   21 32 17.1 -0.1
      comp=Z,1.5nm,0.6s,baz=229,slow=1.5,SNR=6.3
MKAR  Makanchi Array    152.92 107  PKPbc  PKiKP   21 32 21.0 +1.3
      comp=Z,1.3nm,1.0s,baz=250,slow=3.6,SNR=4.9
MKAR  Makanchi Array    152.92 107  PKPbc  PKPbc   21 32 18.3 -1.3
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*IDC **14** 21:20:06.2±1.1, 29°.73N×129°.57E, h0km, mb3.7/5, mbtmp3.7/6, ML3.1/1, MS3.1/1, Error ellipse: s-maj=33.6km s-min=16.8km az=96.0*

*NIED **14** 21:20:06.3, 29°.66N×129°.79E, h8km, MW3.8, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}-3.63; $M_{\theta\theta}$4.85; $M_{\phi\phi}$-1.22; $M_{r\theta}$0.51; $M_{\theta\phi}$1.59; $M_{\phi r}$3.11; Fault plane solution: $M_0$5.61000×10^{14} NP1: ϕ_s106.00000°, δ47.00000°, λ-40.00000°. NP2: ϕ_s226.00000°, δ62.00000°, λ-129.00000°.*

*JMA **14** 21:20:06.3±0.1, 30°N±1°×13°0E±°, h8km±2km, MV3.5/22, NEAR TOKARA ISLANDS*

JMA Felt II J1 at NEAR TOKARA ISLANDS .

ISC 14 21:20:06.5±1.0, 29°.69N±0°.04×129°.79E±0°.06, h12km±7km, n24, σ1s.27/32, mb3.7/5, Ryukyu Islands

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Code  Station Name         Δ°   AZ°   Phase ID        Time      Res
                                      Op     ISC     h  m  s    ISC
JNN   Nakanoshima         0.17  25  P      Pg      21 20 10.7 +0.3
JNN                                 A      A       21 20 10.7
      comp=N,41nm,0.6s,comp=E,30nm,0.9s
JNN                                 eS     Sg      21 20 13.8 +0.7
JTAJ  Takarajima          0.74 224  P      Pg      21 20 20.6 -0.2
JYAK  Yakushimahirau      0.83  48  P      Pb      21 20 22.6 -0.4
JYAK                                eS     Sb      21 20 33.7 -0.4
JKC   Kuchinoerabu        0.85  24  P      Pg      21 20 23.3 +0.3
JKC                                 eS     Sg      21 20 34.7 +0.6
JMTN  Minamitane          1.20  53  P      Pn      21 20 28.3 -0.8
JMTN                                eS     Sn      21 20 45.0 -0.2
JAM   Amami Oshima        1.28 187  P      Pn      21 20 28.7 -1.5
JAM                                 eS     Sb      21 20 46.0 -1.0
JZK   Kikaishima          1.37 173  P      Pb      21 20 32.4 +0.3
JTN   Tanegashima 3       1.41  46  P      Pn      21 20 31.7 -0.4
JTN                                 eS     Sb      21 20 51.3 +0.5
JAMN  Amaminishikomi      1.54 201  P      Pn      21 20 32.2 -1.5
JTK   Tokunoshima         2.03 202  P      Pn      21 20 39.4 -1.2
JTK                                 eS     Sn      21 21 05.2 -0.7
JOKE  Okinoerabujima      2.55 205  eP     Pn      21 20 47.3 -0.5
JYRO  Yoronjima           2.90 204  eP     Pn      21 20 52.4 -0.2
JIH   Iheya               3.09 212  eP     Pn      21 20 54.9 -0.3
JOW   Kunigami            3.14 206  eP     Pn      21 20 57.1 +1.2
JNTH  Nagotoyohara        3.52 207  eP     Pn      21 21 02.2 +1.1
JNU   Nakatsue            3.55  15  Pn     Pb      21 21 05.3 -4.0
      comp=E,2.3nm,0.3s,baz=190,slow=5.7,SNR=27
JNU                                 Sn     Sn      21 21 45.7 +2.2
      comp=E,1.4nm,0.3s,baz=211,slow=9.7,SNR=3.5
      comp=E,26nm,0.6s
JNU                                 AML    AML
JAGN  Aguni-jima          3.82 217  eP     Pn      21 21 05.6 +0.5
JKDJ  Kitadaitoujima      3.95 160  eP     Pn      21 21 06.1 -0.9
JKDJ                                eS     Sn      21 21 51.6 -1.7
MKAR  Makanchi Array     40.37 309  P      P       21 27 44.3 +0.1
      comp=E,0.2nm,0.6s,baz=107,slow=9.2,SNR=2.6
      comp=E,0.2nm,0.6s
ZALV  Zalesovo Beam      40.42 320  P      P       21 27 44.1 -0.4
      comp=E,0.4nm,0.4s,baz=102,slow=6.2,SNR=3.8
      comp=E,0.4nm,0.4s
TIXI  Tiksi              42.02 360  LR     LR      21 46 49.8
      comp=E,24nm,18.0s,baz=198,slow=38
BVAR  Borovoye Array     48.68 316  P      P       21 28 50.6 +0.1
      comp=E,2.1nm,0.7s,baz=88,slow=9.3,SNR=8.1
      comp=E,2.1nm,0.7s
WRA   Warramunga Arr     49.53 174  P      P       21 28 59.7 +2.4
      comp=E,1.0nm,0.8s,baz=350,slow=7.8,SNR=4.0
      comp=E,1.0nm,0.8s
ASAR  Alice Springs      53.19 175  P      P       21 29 26.0 +1.3
      comp=E,0.8nm,0.9s,baz=2.0,slow=7.7,SNR=4.6
      comp=E,0.8nm,0.9s
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*SKHL **14** 21:20:28.7±0.2, 45°.20N×150°.30E, h64km±6km, mb5.1/4*

*MOS **14** 21:20:29.1±1.1, 45°.24N×150°.13E, h66km, mb4.7/11, Error ellipse: s-maj=9.0km s-min=8.0km az=146.6*

*JMA **14** 21:20:31.4±0.6, 45°N±2°×15°0E±°, h131km, MV3.9/18, KURILE ISLANDS REGION*

*NEIC **14** 21:20:31.5±1.8, 45°.36N±0°.07×150°.1E±0°.1, h69km±7km, mb4.5/28, Error ellipse: s-maj=12.8km s-min=8.9km az=69.0*

*IDC **14** 21:20:32.3±2.5, 45°.37N×150°.06E, h81km±21km, mb3.6/15, mbtmp3.9/21, MS3.0/7, Error ellipse: s-maj=19.2km s-min=16.2km az=120.0*

ISC 14 21:20:28.4±0.6, 45°.18N±0°.06×150°.26E±0°.06, h50km, n134, σ1s.39/141, mb4.1/41, MS3.2/4, 5C-2D, Kuril Islands

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Code  Station Name         Δ°   AZ°   Phase ID        Time      Res
                                      Op     ISC     h  m  s    ISC
REI   Reidovoe            1.59 274  eP     Pn      21 20 53.4 -0.6
REI                                 AMB    AMB     21 20 54.0
      200nm,0.2s
REI                                 eS     Sn      21 21 11.8 -1.6
REI                                 A      A       21 21 12.4
      720nm,0.2s
REI                                 A      A       21 21 12.4
      840nm,0.2s
KUR   Kuril'sk            1.69 273⇓iPN     Pn      21 20 55.3 -0.2
KUR                                 eS     Sn      21 21 15.4 -0.5
KUR                                 pmax   pmax
      comp=N,762nm,0.3s
KUR                                 pmax   pmax
      comp=Z,2μm,0.3s
KUR                                 pmax   pmax
      comp=E,608nm,0.1s
KUR                                 smax   smax
      comp=N,2μm,0.4s
KUR                                 smax   smax
      comp=E,1μm,0.3s
KUR   Kuril'sk            1.69 273  i P    Pn      21 20 55.3 -0.2
KUR                                 AMB    AMB     21 20 56.3
      comp=E,2μm,0.3s
KUR                                 eS     Sn      21 21 15.4 -0.5
KUR                                 A      A       21 21 19.3
      comp=E,2μm,0.3s
KUR                                 A      A       21 21 19.3
      comp=E,1μm,0.3s
YUK   Yuzh-Kuril'sk       3.34 251  ePN    Pn      21 21 18.8 +0.7
YUK                                 i S    Sn      21 21 58.1 +1.6
YUK                                 pmax   pmax
      comp=E,255nm,0.3s
YUK                                 pmax   pmax
      comp=Z,486nm,0.3s
YUK                                 pmax   pmax
      comp=N,179nm,0.2s
YUK                                 smax   smax
      comp=N,400nm,0.6s
YUK                                 smax   smax
      comp=E,992nm,0.6s
YUK   Yuzh-Kuril'sk       3.34 251  eP     Pn      21 21 18.8 +0.7
YUK                                 AMB    AMB     21 21 23.6
      comp=E,490nm,0.3s
YUK                                 i S    Sn      21 21 57.4 +0.9
YUK                                 A      A       21 22 05.6
      comp=E,400nm,0.6s
YUK                                 A      A       21 22 05.6
      comp=E,990nm,0.6s
NEM2  Nemuro 2            3.72 242  P      Pn      21 21 22.5 -0.7
NEM2                                S      Sn      21 22 04.8 -0.9
NMR   Nemuro--Hokkai      3.72 242  ePN    Pn      21 21 22.4 -0.9
NMR                                 i S    Sn      21 22 04.8 -1.1
NMR   Nemuro--Hokkai      3.72 242  eP     Pn      21 21 22.4 -0.9
NMR                                 i S    Sn      21 22 04.8 -1.1
RUSJ  Misakicho           3.73 255  ePN    Pn      21 21 25.1 +1.6
RUSJ                                i S    Sn      21 22 11.8 +5.6
JRA   Rausu               3.88 253  P      Pn      21 21 27.4 +2.0
JRA                                 S      Sn      21 22 12.0 +2.4
JNK   Nakash              4.28 250  P      Pn      21 21 32.2 +1.3
AKK   Akkeshi             4.46 243  eP     Pn      21 21 33.7 +0.3
JAK   Akkeshi             4.56 243  P      Pn      21 21 34.9  0.0
JAK                                 eS     Sn      21 22 24.7 -1.8
JTKR  Abashiri--Toko      4.70 257  P      Pn      21 21 39.3 +2.7
JAR   Ashorobuto          5.03 250  P      Pn      21 21 43.5 +2.2
JOB   Onbets              5.16 246  P      Pn      21 21 44.2 +1.2
YSS   Yuzhno-Sakhali      5.51 291  ePN    Pn      21 21 49.0 +1.2
YSS                                 eS     Sn      21 22 53.9 +4.0
YSS                                 pmax   pmax
      comp=Z,20nm,0.7s
YSS                                 smax   smax
      comp=N,30nm,1.2s
YSS                                 smax   smax
      comp=E,30nm,1.2s
YSS                                 MLR    MLR
      comp=E,100nm,14.0s
YSS                                 MLR    MLR
      comp=Z,200nm,14.0s
YSS   Yuzhno-Sakhali      5.51 291  Pn     Pn      21 21 49.2 +1.3
YSS   Yuzhno-Sakhali      5.51 291  eP     Pn      21 21 49.0 +1.2
YSS                                 eS     Sn      21 22 49.5 -0.4
JKK2  Kamakawa 2          5.53 259  P      Pn      21 21 49.9 +1.8
JKA   Kamikawa-asahi      5.57 262  Pn     Pn      21 21 50.2 +1.6
JKA   Kamikawa-asahi      5.57 262  eP     Pn      21 21 50.4 +1.8
ASAJ  Asahikawa           5.57 262  P      Pn      21 21 50.4 +1.7
      comp=Z,5.7nm,0.3s,baz=53,slow=23,SNR=10
ASAJ                                LR     LR      21 24 06.6
      comp=Z,95nm,20.7s,baz=92,slow=39
JCH   Churui              5.60 245  P      Pn      21 21 49.6 +0.5
JCH                                 eS     Sn      21 22 51.2 -0.9
ERM   Erimo               6.05 241d iPN    Pn      21 21 57.7 +2.5
ERM   Erimo               6.05 241  Pn     Pn      21 21 57.3 +2.1
TYV   Tymovskoe           7.63 321  ePN    Pn      21 22 18.9 +2.1
TYV                                 pmax   pmax
      comp=Z,13nm,0.5s
TYV                                 pmax   pmax
      comp=Z,200nm,3.5s
TYV   Tymovskoe           7.63 321  eP     Pn      21 22 18.9 +2.1
TYV                                 eS     Sn      21 23 41.9  0.0
JTM   Tenmabayashi        8.04 240  Pn     Pn      21 22 21.6 -0.9
PETK  Petropavlovsk-      9.31  29  P      Pn      21 22 43.3 +3.6
      comp=Z,2.0nm,0.5s,baz=202,slow=13,SNR=3.1
PETK                                LR     LR      21 26 13.2
      comp=Z,29nm,18.3s,baz=227,slow=37
PETK  Petropavlovsk-      9.31  29  Pn     Pn      21 22 40.9 +1.2
PET   Petropavlovsk       9.58  32  eP     Pn      21 22 43.3 -0.2
MJAR  Matsushiro Arr     12.54 231  P      Pn      21 23 28.3 +4.2
      comp=Z,0.5nm,0.4s,baz=28,slow=12,SNR=1.9
MAJO  Matsushiro         12.55 231  ePN    Pn      21 23 25.6 +1.5
USA0B Ussuriysk Arra     13.04 272  PN     Pn      21 23 32.9 +2.1
USA0B Ussuriysk Arra     13.04 272  Pn     Pn      21 23 32.9 +2.1
USRK  Ussuriysk Ar.      13.04 272  P      Pn      21 23 32.2 +1.4
      comp=Z,2.5nm,0.7s,baz=92,slow=14,SNR=2.6
KLR   Kul'dur            13.21 294  P      Pn      21 23 34.8 +1.7
      comp=Z,0.9nm,0.3s,baz=112,slow=14,SNR=6.5
KLR                                 LR     LR      21 28 24.6
      comp=Z,63nm,20.4s,baz=151,slow=36
KLR   Kul'dur            13.21 294  ePN    Pn      21 23 34.6 +1.4
KLR                                 pmax   pmax
      comp=Z,1.0nm,1.2s
KLR   Kul'dur            13.21 294  eP     Pn      21 23 31.9 -1.3
KSRS  Korea Array        18.43 253  P      Pn      21 24 40.0  0.0
      comp=Z,1.1nm,0.6s,baz=59,slow=11,SNR=5.5
YAK   Yakutsk            20.67 332  P      P       21 25 03.6 -0.1
      comp=Z,34nm,0.8s,baz=337,slow=1.5,SNR=16
YAK                                 LR     LR      21 33 24.4
      comp=Z,43nm,18.5s,baz=192,slow=38
      comp=Z,34nm,0.8s
YAK   Yakutsk            20.67 332  eP     Pn      21 25 07.0 +0.6
YAK                                 pmax   pmax
      comp=Z,38nm,0.9s
YAK                                 pmax   pmax
      comp=E,6.0nm,1.0s
YAK                                 pmax   pmax
      comp=N,7.0nm,1.0s
YAK   Yakutsk            20.67 332  P      P       21 25 02.8 -0.9
YAK   Yakutsk            20.67 332  eP     Pn      21 25 07.0 +0.6
H11N2 WAKE ISLAND Hy 28.89 146  T      T       21 57 06.1
      baz=336,slow=76,SNR=1873
H11N1 WAKE ISLAND Hy 28.90 146  T      T       21 57 07.1
      baz=336,slow=76,SNR=1288
H11N3 WAKE ISLAND Hy 28.90 146  T      T       21 57 07.5
      baz=336,slow=76,SNR=1162
H11S1 WAKE ISLAND Hy 29.92 147  T      T       21 58 24.5
      baz=336,slow=76,SNR=1805
H11S3 WAKE ISLAND Hy 29.93 147  T      T       21 58 20.5
      baz=336,slow=76,SNR=1029
H11S2 WAKE ISLAND Hy 29.94 147  T      T       21 58 25.8
      baz=336,slow=76,SNR=1132
G18K  Tagagawik          34.20  35  P      P       21 27 08.8 +0.1
G18K                                IAmb   IAmb    21 27 11.9
      comp=Z,7.8nm,1.3s
C19K  Lookout Ridge      34.67  29  P      P       21 27 13.4 +0.7
D20K  Etivluk River      35.60  30  P      P       21 27 20.8 +0.2
KDAK  Kodiak Island      36.64  49  P      P       21 27 28.9 -0.7
KDAK                                pmax   pmax
      comp=Z,7.0nm,1.1s
KDAK  Kodiak Island      36.64  49  P      P       21 27 28.9 -0.7
KDAK                                IAmb   IAmb    21 28 12.3
      comp=Z,7.1nm,1.1s
E22K  Anaktuvuk Pass     37.23  32  P      P       21 27 35.3 +0.6
D23K  Nanushuk River     37.76  30  P      P       21 27 39.4 +0.3
D23K                                IAmb   IAmb    21 27 41.9
      comp=Z,7.3nm,1.3s
KNK   Knik Glacier       38.44  43  P      P       21 27 42.4 -2.4
SML   Sawmill            38.47  42  P      P       21 27 46.3 +1.1
SML                                 pmax   pmax
      comp=Z,20nm,0.6s
SML   Sawmill            38.47  42  P      P       21 27 46.3 +1.1
F24K  Squaw Lake         38.66  33  P      P       21 27 47.1 +0.4
F24K                                IAmb   IAmb    21 27 57.1
      comp=Z,6.2nm,1.4s
ILAR  Eielson Array      39.01  37  P      P       21 27 49.2 -0.4
      comp=Z,0.5nm,0.6s,baz=278,slow=9.1,SNR=4.7
      comp=Z,0.5nm,0.6s
ILAR  Eielson Array      39.01  37  eP     P       21 27 52.2 +2.6
D25K  Kavik River        39.33  30  P      P       21 27 52.6 +0.3
D25K                                IAmb   IAmb    21 27 53.2
      comp=Z,4.0nm,0.6s
BMAR  Burnt Mountain     39.93  33  P      P       21 27 58.7 +1.5
C27K  Jago River         40.29  30  P      P       21 28 01.0 +0.9
C27K                                IAmb   IAmb    21 28 45.1
      comp=Z,12nm,1.5s
E27K  Coleen River       41.05  32  P      P       21 28 06.7 +0.2
E27K                                IAmb   IAmb    21 28 33.9
      comp=Z,5.8nm,1.4s
BCAR  Beaver Creek A     41.38  40  P      P       21 28 10.4 +1.1
I28M  Miner Creek        41.90  36  P      P       21 28 14.8 +1.2
I28M                                IAmb   IAmb    21 28 21.2
      comp=Z,7.5nm,1.5s
ZALV  Zalesovo Beam      41.93 306  PcP    PcP     21 30 08.7 +0.3
      comp=Z,0.9nm,0.6s,baz=51,slow=5.0,SNR=4.8
ZALV                                LR     LR      21 45 39.2
      comp=Z,36nm,18.2s,baz=134,slow=36
I30M  Mount Dempster     43.41  36  P      P       21 28 26.6 +0.8
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I30M                                   IAmb     IAmb      21 28 27.4
            comp=Z,3.1nm,0.6s
MKAR  Makanchi Array    45.90 298  P        P         21 28 45.4  -0.3
            comp=Z,0.4nm,0.5s,baz=64,slow=7.4,SNR=7.6
MKAR                               PcP      PcP       21 30 21.9  -0.1
            comp=Z,0.5nm,0.5s,baz=65,slow=1.0,SNR=6.8
            comp=Z,0.4nm,0.5s
MKAR  Makanchi Array    45.90 298ceP        P         21 28 46.0  +0.3
MKAR  Makanchi Array    45.90 298  P        P         21 28 45.6  -0.2
MKAR  Makanchi Array    45.90 298 eP        P         21 28 46.0  +0.3
MAKZ  Makanchi          46.09 298  P        P         21 28 47.1  -0.2
MAKZ                               pmax     pmax
            comp=Z,3.0nm,1.2s
MAKZ  Makanchi          46.09 298  P        P         21 28 47.0  -0.2
KURK  Kurchatov         46.58 304  P        P         21 28 50.4  -0.6
KURK  Kurchatov         46.58 304  P        P         21 28 49.1  -1.9
KURK  Kurchatov         46.58 304 eP        P         21 28 50.4  -0.6
KURBB Kurchatov Arra    46.67 304  P        P         21 28 50.4  -1.3
            comp=Z,0.5nm,0.3s,baz=72,slow=8.8,SNR=4.9
            comp=Z,0.5nm,0.3s
BVAR  Borovoye Array    50.31 309  P        P         21 29 17.6  -2.1
            comp=Z,0.3nm,0.3s,baz=45,slow=6.3,SNR=2.2
BVAR                               PcP      PcP       21 30 37.4  -0.4
            comp=Z,0.5nm,0.3s,baz=83,slow=4.6,SNR=4.1
            comp=Z,0.3nm,0.3s
BOOM  Boomskoye usch    51.89 295  P        P         21 29 32.3  +0.4
BOOM                               pmax     pmax
            comp=Z,7.0nm,1.3s
BOOM  Boomskoye usch    51.89 295  P        P         21 29 32.3  +0.4
BOOM                               IAmb     IAmb      21 30 16.5
            comp=Z,7.3nm,1.3s
KKAR  Karatay Array     55.00 298  P        P         21 29 54.4  -0.1
KKAR  Karatay Array     55.00 298  P        P         21 29 54.4  -0.1
AB31  Akbulak array     57.89 309  P        P         21 30 14.2  -0.7
ABKAR Akbulak array     57.89 309  P        P         21 30 13.7  -1.2
NEW   Newport           59.71  51  LR       LR        21 58 01.0
            comp=Z,13nm,19.1s,baz=358,slow=38
FINES FINESS Array B    64.59 334  P        P         21 30 57.1  -2.9
            comp=Z,1.8nm,0.8s,baz=8.5,slow=3.9,SNR=5.8
            comp=Z,1.8nm,0.8s
FINES FINESS Array B    64.59 334ceP        P         21 30 58.7  -1.3
FINES                              pmax     pmax
            comp=Z,2.0nm,0.8s
FINES FINESS Array B    64.59 334  P        P         21 30 58.3  -1.7
WRA   Warramunga Arr    66.41 196  P        P         21 31 12.7  +0.5
            comp=Z,0.3nm,0.5s,baz=16,slow=6.9,SNR=4.6
            comp=Z,0.3nm,0.5s
WRA   Warramunga Arr    66.41 196ceP        P         21 31 14.8  +2.6
ULM   Lac du Bonnet     69.00  39  P        P         21 31 27.9  -0.3
ULM                                pmax     pmax
            comp=Z,12nm,1.5s
ULM   Lac du Bonnet     69.00  39  P        P         21 31 27.9  -0.3
ULM                                IAmb     IAmb      21 31 34.0
            comp=Z,12nm,1.5s
NOA   NORSAR Array B    69.04 340  P        P         21 31 27.1  -1.3
            comp=Z,0.3nm,0.5s,baz=28,slow=6.6,SNR=5.0
            comp=Z,0.3nm,0.5s
ASAR  Alice Springs     70.12 196  P        P         21 31 37.2  +1.9
            comp=Z,0.3nm,0.4s,baz=8.4,slow=5.5,SNR=5.1
            comp=Z,0.3nm,0.4s
KIV   Kislovodsk        70.44 313 eP        P         21 31 37.4  +0.1
KIV                                pmax     pmax
            comp=Z,6.0nm,1.0s
KIV   Kislovodsk        70.44 313 eP        P         21 31 37.4  +0.1
KBZ   Khabaz            70.49 313  P        P         21 31 37.2  -0.3
            comp=Z,3.1nm,0.8s,baz=70,slow=1.4,SNR=7.5
            comp=Z,3.1nm,0.8s
KBZ   Khabaz            70.49 313ceP        P         21 31 38.9  +1.4
KBZ   Khabaz            70.49 313 eP        P         21 31 38.9  +1.4
AKASG Malin Array Be    71.71 325  P        P         21 31 43.8  -1.0
            comp=Z,1.1nm,0.5s,baz=39,slow=6.1,SNR=6.3
            comp=Z,1.1nm,0.5s
BUR08 Bucovina Ar. S    75.75 325  P        P         21 32 07.7  -0.9
BURAR Bucovina Array    75.77 325  P        P         21 32 07.7  -1.0
BURAR                              pmax     pmax
            comp=Z,1.0nm,0.7s
BURAR Bucovina Array    75.77 325  P        P         21 32 07.7  -1.0
MLR   Muntele Rosu      77.17 323  P        P         21 32 17.1  +0.3
MLR                                pmax     pmax
            comp=Z,8.0nm,1.3s
MLR   Muntele Rosu      77.17 323  P        P         21 32 17.1  +0.3
MLR                                IAmb     IAmb      21 32 59.0
            comp=Z,7.5nm,1.3s
EKA   Eskdalemuir Ar    77.36 345  P        P         21 32 16.7  -0.7
            comp=Z,0.4nm,0.3s,baz=19,slow=5.1,SNR=8.4
            comp=Z,0.4nm,0.3s
BRTR  Keskin Array B    78.13 315  P        P         21 32 22.3  +0.1
            comp=Z,0.7nm,0.7s,baz=108,slow=3.1,SNR=5.0
            comp=Z,0.7nm,0.7s
BRTR  Keskin Array B    78.13 315  P        P         21 32 20.9  -1.3
KHC   Kasperske Hory    78.75 333ceP        P         21 32 26.0  +0.7
KHC                                pmax     pmax
            comp=Z,7.0nm,2.5s
KHC   Kasperske Hory    78.75 333  P        P         21 32 23.9  -1.5
GEC2  GERESS Array S    78.96 332  P        P         21 32 25.5  -1.1
GERES GERESS Array B    78.96 332  P        P         21 32 25.8  -0.8
            comp=Z,0.9nm,0.5s,baz=42,slow=6.1,SNR=9.7
            comp=Z,0.9nm,0.5s
GERES GERESS Array B    78.96 332  P        P         21 32 25.4  -1.2
CONA  Conrad Observa    79.02 331 i P       P         21 32 26.8  -0.1
            comp=Z,1.1nm,0.4s
RONA  Rosalia, Austr    79.07 330 i P       P         21 32 27.2  +0.1
            comp=Z,0.4nm,0.3s
BORA  Eskisehir         79.57 317  P        P         21 32 27.8  -2.3
BORA                               IAmb     IAmb      21 32 28.4
            comp=Z,11nm,1.1s
TX31  Lajitas Ar. Si    80.00  58  P        P         21 32 33.3  +0.7
TXAR  Lajitas Array     80.00  58  P        P         21 32 33.4  +0.8
            comp=Z,0.6nm,0.4s,baz=300,slow=4.7,SNR=13
            comp=Z,0.6nm,0.4s
TXAR  Lajitas Array     80.00  58  P        P         21 32 32.8  +0.2
TXAR  Lajitas Array     80.00  58  P        P         21 32 32.8  +0.2
SOKA  Soboth            80.39 331 i P       P         21 32 34.2  -0.2
            comp=Z,0.8nm,0.4s
LESA  Schwarzleotal     80.53 332 i P       P         21 32 34.9  -0.2
            comp=Z,1.0nm,0.4s
KBA   Koelnbreinsper    80.61 332 i P       P         21 32 35.4  -0.3
            comp=Z,0.9nm,0.3s
OBKA  Obir              80.70 331 i P       P         21 32 35.6  -0.4
            comp=Z,0.9nm,0.5s
WATA  Walderalm         80.97 333 i P       P         21 32 37.1  -0.4
            comp=Z,2.0nm,0.3s
WTTA  Wattenberg        81.01 333 i P       P         21 32 37.6  -0.2
            comp=Z,3.3nm,0.4s
MOTA  Moosalm           81.11 333 i P       P         21 32 37.7  -0.5
            comp=Z,0.8nm,0.5s
MMAI  Mount Meron Ar    82.32 310  LR       LR        22 12 15.3
            comp=Z,21nm,18.6s,baz=184,slow=38
PLCA  Paso Flores      150.03  96  PKPbc    PKPbc     21 40 13.3  +0.3
            comp=Z,1.0nm,1.0s,baz=166,slow=4.2,SNR=3.0
```

IDC ***14*** *21:29:14.3±1.5, 4°.26N×126°.86E, h0^{km}, mb3.8/5, mbtmp3.8/5, MS2.8/3, Error ellipse: s-maj=97.6km s-min=19.6km az=69.0*

MAN ***14*** *21:29:16.0, 3°.96N×126°.47E, h2^{km}, MS3.6*

ISC 14 21:29:17.6±0.9**, 3°.93N**±0°.07×**126°.4E**±0°.2**, h10**^{km}**, n16, **σ**1^{s}59**/18**, mb3.9**/6**, MS2.9**/3**, Talaud Islands**

```
Code  Station Name       Δ°   AZ°    Phase ID            Time      Res
                                   Op       ISC        h  m  s     ISC
DDMP  Don Marcelino,     2.25 344 eP        Pn        21 29 53.3  -1.7
DDMP                              eS        Sn        21 30 20.4  -2.5
KCP   Kidapawan          3.31 338 i P       Pn        21 30 11.2  +1.7
CDOP  Cateel, Davao      3.83   1 i P       Pn        21 30 17.2  +0.6
CDOP                              i S       Sn        21 31 02.8  +1.1
CTBH  Cotabato--PC H     3.88 327 i P       Pn        21 30 19.1  +1.7
BUKP  Musuan             4.13 342 eP        Pn        21 30 22.9  +2.1
BUKP                              i S       Sb        21 31 20.0  -0.4
BIPH  Bislig             4.22   0 eP        Pn        21 30 23.2  +1.1
BIPH                              eS        Sn        21 31 12.8  +1.2
CGP   Cagayan de Oro     4.79 340 eP        Pn        21 30 31.8  +2.0
CGP                               eS        Sb        21 31 40.2  +0.8
FITZ  Fitzroy Crossi    21.90 182  P        P         21 34 12.7  +1.5
            2.0nm,0.7s,baz=3.2,slow=9.0,SNR=12
            2.0nm,0.7s
WRA   Warramunga Arr    24.99 162  P        P         21 34 41.0  -0.8
            2.0nm,0.6s,baz=344,slow=11,SNR=24
            2.0nm,0.6s
ASAR  Alice Springs     28.40 165  P        P         21 35 11.7  -0.9
            0.2nm,0.4s,baz=346,slow=7.0,SNR=7.0
            0.2nm,0.4s
MJAR  Matsushiro Arr    34.24  17  LR       LR        21 51 26.1
            comp=Z,9.2nm,19.0s,baz=190,slow=39
STKA  Stephens Creek    38.45 159  P        P         21 36 40.4  +0.6
            2.7nm,0.7s,baz=335,slow=7.1,SNR=5.7
            2.7nm,0.7s
MKAR  Makanchi Array    57.18 325  P        P         21 39 03.3  -1.5
            0.5nm,0.6s,baz=139,slow=8.1,SNR=5.8
            0.5nm,0.6s
MA2   Magadan           58.60  14  LR       LR        22 02 41.1
            comp=Z,10nm,20.9s,baz=186,slow=34
ZALV  Zalesovo Beam     60.24 333  LR       LR        22 08 11.7
            comp=Z,13nm,18.2s,baz=160,slow=39
KURBB Kurchatov Arra    61.37 327  P        P         21 39 31.8  -1.9
            0.6nm,0.3s,baz=128,slow=5.9,SNR=1.8
```

IDC ***14*** *21:44:43.7±6.8, 36°.20N×69°.74E, h0^{km}, mb3.6/4, mbtmp3.7/8, ML3.3/4, MS2.9/2, Error ellipse: s-maj=104.5km s-min=26.2km az=163.0*

NNC ***14*** *21:44:55.3±7.7, 36°.81N×69°.28E, h77^{km}±171^{km}, mb3.7, mpv3.6, Error ellipse: s-maj=56.4km s-min=49.2km az=0.0*

ISC 14 21:44:53.6±2.0**, 36°.8N**±0°.1×**69°.4E**±0°.1**, h37**^{km}**, n14, **σ**1^{s}78**/16**, 5C-3D, Hindu Kush region**

```
Code  Station Name       Δ°   AZ°    Phase ID            Time      Res
                                   Op       ISC        h  m  s     ISC
KK31  Karatay Array      6.38   7 ⇓P        Pn        21 46 26.7  +1.6
            3.0nm,0.3s,baz=197,slow=14,SNR=39
KK31                              ⇑S        Sn        21 47 39.4  +2.7
            2.5nm,0.3s,baz=187,slow=23
AAK   Ala-Archa          7.05  32  Pn       Pn        21 46 33.9  -0.5
            1.0nm,0.3s,baz=208,slow=7.6,SNR=7.2
            1.8nm,0.3s
AAK                                AML      AML
AAK   Ala-Archa          7.05  32 ⇑P        Pn        21 46 35.6  +1.2
            1.0nm,0.4s
AAK                               ⇑S        Sn        21 47 54.7  +1.4
            2.7nm,0.7s
MKAR  Makanchi Array    13.87  40  Pn       Pn        21 48 05.8  -1.6
            0.1nm,0.3s,baz=221,slow=15,SNR=4.9
            0.2nm,0.7s
MKAR                               AML      AML
AB31  Akbulak array     14.25 334 ⇓P        Pn        21 48 12.3  -0.3
            1.3nm,0.3s,baz=160,slow=13,SNR=107
AB31                              ⇑S        Sn        21 50 47.5  -1.8
            0.7nm,0.5s,baz=152,slow=24,SNR=5.1
AKTO  Aktyubinsk        15.93 333  Pn       Pn        21 48 34.5  -0.2
            0.5nm,0.3s,baz=147,slow=12,SNR=6.7
            1.5nm,0.4s
AKTO                               AML      AML
AKTO  Aktyubinsk        15.93 333 ⇓P        Pn        21 48 35.5  +0.7
            5.3nm,0.8s
AKTO                              ⇑S        Sn        21 51 26.5  -3.6
            0.9nm,0.8s
BVAR  Borovoye Array    16.27   2  Pn       Pn        21 48 37.5  -1.6
            baz=157,slow=11,SNR=5.7
            0.4nm,0.3s
ZALV  Zalesovo Beam     20.23  27  P        P         21 49 23.4  -1.9
            1.0nm,0.4s,baz=220,slow=9.9,SNR=4.7
            1.0nm,0.4s
ARTI  Arti              20.98 343  P        P         21 49 34.0  +0.6
            2.0nm,0.6s,baz=164,slow=2.5,SNR=7.1
            2.0nm,0.6s
KBZ   Khabaz            21.33 297  P        P         21 49 37.5  +0.3
            0.9nm,0.7s,baz=120,slow=14,SNR=3.6
            0.9nm,0.7s
CMAR  Chiang Mai Arr    31.72 117  LR       LR        22 06 19.6
            comp=Z,19nm,18.4s,baz=200,slow=42
FINES FINESS Array B    36.54 326  P        P         21 51 56.5  +1.2
            3.4nm,1.0s,baz=121,slow=13,SNR=0.8
            3.4nm,1.0s
NOA   NORSAR Array B    43.39 323  LR       LR        22 13 43.6
            comp=Z,14nm,18.8s,baz=225,slow=40
```

NEIC ***14*** *21:47:48.0±2.0, 19°.09S±0°.06×169°.13E±0°.08, h118^{km}±8^{km}, mb4.4/14, Error ellipse: s-maj=13.1km s-min=3.8km az=130.0*

IDC ***14*** *21:47:48.4±6.8, 19°.09S×168°.99E, h120^{km}±46^{km}, mb4.0/8, mbtmp4.4/9, Error ellipse: s-maj=56.7km s-min=19.6km az=36.0*

NOU ***14*** *21:47:49.8, 19°.19S×169°.09E, h35^{km}, MLv4.9/12, Vanuatu Islands*

ISC 14 21:47:46.6±0.8**, 19°.11S**±0°.06×**169°.1E**±0°.1**, h100**^{km}**, n41, **σ**1^{s}78**/42**, mb4.4**/13**, Vanuatu Islands**

```
Code  Station Name       Δ°   AZ°    Phase ID            Time      Res
                                   Op       ISC        h  m  s     ISC
RTV   Rentapao           1.45 334  P        Pn        21 48 16.3  +4.0
MARNC Mare, Loyalty      2.56 203  P        Pn        21 48 28.2  +1.7
MARNC Mare, Loyalty      2.56 203           Pn        21 48 28.1  +1.5
YATNC Mamie plateau,     3.58 215  P        Pn        21 48 41.4  +1.2
DZM   Mont Dzumac        3.85 220  P        Pn        21 48 46.4  +2.5
            237nm,0.3s,baz=360,slow=23,SNR=402
DZM                                S        Sn        21 49 29.4  +1.2
            98nm,0.3s,baz=353,slow=16,SNR=7.9
OUENC Ouen Island, N     3.91 212  P        Pn        21 48 47.3  +2.8
OUENC Ouen Island, N     3.91 212  S        Sn        21 49 31.3  +1.9
OUENC Ouen Island, N     3.91 212  Pn       Pn        21 48 46.6  +2.0
NOUC  Port Laguerre      3.96 221  P        Pn        21 48 47.6  +2.4
NOUC  Port Laguerre      3.96 221  S        Sn        21 49 32.2  +1.5
ONTNC Ouen Toro          4.03 217  P        Pn        21 48 48.0  +1.8
ONTNC Ouen Toro          4.03 217  S        Sn        21 49 34.1  +1.8
ONTNC Ouen Toro          4.03 217  Pn       Pn        21 48 47.8  +1.7
SANVU Saraoutou          4.06 333  Pn       Pn        21 48 47.7  +1.1
KOUNC Koumac, New Ca     4.74 252  Pn       Pn        21 48 57.6  +1.8
EIDS  Eidsvold          17.79 246  P        P         21 51 47.0  -0.3
HIZ   Hauiti            19.98 167  P        P         21 52 13.1  +2.0
URZ   Urewera           20.32 162  P        P         21 52 16.0  +1.3
            9.2nm,0.5s,baz=307,slow=9.8,SNR=3.8
            9.2nm,0.5s
CTA   Charters Tower    21.53 264  P        P         21 52 28.7  +0.8
            2.5nm,0.5s,baz=88,slow=15,SNR=1.3
            2.5nm,0.5s
TCW   Tory Channel      22.47 170  P        P         21 52 38.5  +0.9
MSWZ  Moikau Station    22.85 168  P        P         21 52 42.1  +0.7
LTZ   Lake Taylor       23.75 174  P        P         21 52 50.4  +0.6
STKA  Stephens Creek    27.79 237  P        P         21 53 26.2  -0.1
            4.7nm,0.6s,baz=63,slow=10,SNR=20
            4.7nm,0.6s
BBOO  Buckleboo         32.53 239  P        P         21 54 07.4  -0.8
WR8   Warramunga Arr    32.57 263  P        P         21 54 05.7  -3.0
WR8                                IAmb     IAmb      21 54 07.6
            comp=Z,4.5nm,1.0s
WB0   Warramunga Arr    32.69 263  P        P         21 54 07.2  -2.5
WB0                                IAmb     IAmb      21 54 13.5
            comp=Z,14nm,1.4s
WRA   Warramunga Arr    32.73 263  P        P         21 54 08.2  -1.8
            comp=Z,0.9nm,0.5s,baz=89,slow=8.4,SNR=18
            comp=Z,0.9nm,0.5s
WRA   Warramunga Arr    32.73 263  P        P         21 54 07.7  -2.4
AS31  Alice Springs     33.02 256  P        P         21 54 11.0  -1.6
AS31                               IAmb     IAmb      21 54 11.9
            comp=Z,6.3nm,0.4s
ASAR  Alice Springs     33.02 256  P        P         21 54 11.3  -1.3
            comp=Z,5.9nm,0.4s,baz=82,slow=8.6,SNR=125
            comp=Z,5.9nm,0.4s
ASAR  Alice Springs     33.02 256  P        P         21 54 10.7  -1.8
KNRA  Kununurra         38.57 269  P        P         21 54 57.9  -2.1
KNRA                               IAmb     IAmb      21 55 19.3
            comp=Z,12nm,1.5s
FITZ  Fitzroy Crossi    41.11 264  P        P         21 55 20.7  -0.4
            comp=Z,8.7nm,0.6s,baz=94,slow=7.2,SNR=43
            comp=Z,8.7nm,0.6s
FITZ  Fitzroy Crossi    41.11 264  P        P         21 55 20.2  -0.9
MBWA  Marble Bar        46.24 259  P        P         21 56 01.0  -1.2
MBWA                               IAmb     IAmb      21 56 01.7
            comp=Z,6.8nm,0.8s
VNDA  Vanda             58.56 182  P        P         21 57 31.8  -0.5
            comp=Z,0.5nm,0.4s,baz=356,slow=7.2,SNR=5.2
            comp=Z,0.5nm,0.4s
VNDA  Vanda             58.56 182  P        P         21 57 31.9  -0.4
VNDA                               IAmb     IAmb      21 58 07.4
            comp=Z,3.9nm,1.4s
QSPA  South Pole Qui    70.94 180  P        P         21 58 52.7  -0.4
            comp=Z,5.5nm,0.8s,baz=329,slow=0.7,SNR=19
            comp=Z,5.5nm,0.8s
QSPA  South Pole Qui    70.94 180  P        P         21 58 52.6  -0.5
QSPA                               IAmb     IAmb      21 58 54.0
            comp=Z,6.2nm,0.9s
BELA  Belgrano 2        82.24 175  P        P         21 59 54.6  -1.7
BELA                               IAmb     IAmb      21 59 55.4
            comp=Z,3.9nm,0.6s
FUORN Ofenpass-Fuorn   147.51 332  PKPbc    PKPdf     22 07 19.1  +2.3
```

IDC 14 21:54:02.3±2.1**, 5°.74S**×**131°.05E, h0**^{km}**, mb3.5**/1**, mbtmp3.4**/4**, ML3.3**/3**, Error ellipse: s-maj=49.8km s-min=21.2km az=85.0, Banda Sea**

```
Code  Station Name       Δ°   AZ°    Phase ID            Time      Res
                                   Op       ISC        h  m  s     ISC
FITZ  Fitzroy Crossi    13.37 203  Pn       Pn        21 57 09.6  -3.9
            0.3nm,0.3s,baz=21,slow=10,SNR=10
FITZ                               Sn       Sn        21 59 30.6   -12
            0.1nm,0.3s,baz=177,slow=9.6,SNR=1.6
            0.6nm,0.3s
FITZ                               AML      AML
WRA   Warramunga Arr    14.48 168  Pn       Pn        21 57 21.0  -7.7
            0.1nm,0.3s,baz=345,slow=13,SNR=2.2
WRA                                Sn       Sn        21 59 52.5   -18
            0.2nm,0.3s,baz=342,slow=26,SNR=5.6
            0.2nm,0.3s
WRA                                AML      AML
ASAR  Alice Springs     18.04 172  Pn       Pn        21 58 09.7  -4.9
            0.1nm,0.3s,baz=344,slow=8.4,SNR=5.3
            0.3nm,0.6s
ASAR                               AML      AML
MKAR  Makanchi Array    67.75 326  P        P         22 05 01.9   0.0
            0.5nm,0.9s,baz=128,slow=6.2,SNR=2.3
            0.5nm,0.9s
```

NEIC ***14*** *22:21:39.4, 27°.80S×71°.62W, h8^{km}*

IDC ***14*** *22:21:39.7±0.7, 27°.72S×71°.41W, h0^{km}, mb4.3/8, mbtmp4.1/12, ML3.9/4, MS3.7/17, Error ellipse: s-maj=20.7km s-min=13.6km az=77.0*

NEIC ***14*** *22:21:41.7±1.4, 27°.87S±0°.01×71°.49W±0°.09, h17^{km}±4^{km}, mb4.5/10, Mwr4.3/35, Mwr4.4(GUC), Error ellipse: s-maj=11.0km s-min=2.0km az=90.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}2.79; $M_{\theta\theta}$0.69; $M_{\phi\phi}$-3.48; $M_{r\theta}$1.56; $M_{\theta\phi}$-0.91; $M_{\phi r}$-2.01; Fault plane solution: $M_0$4.18000×10^{15} NP1:ϕ_s164.40000°, δ65.10000°, λ60.03000°. NP2:ϕ_s38.26000°, δ38.21000°, λ137.09000°. Principal axes: T 4.2457, Plg59.0000°, Azm32.0000°; N -0.1372, Plg27.0000°, Azm178.0000°; P -4.1085, Plg15.0000°, Azm276.0000°;*

SJA ***14*** *22:21:41.3±0.7, 27°.91S×71°.42W, h9^{km}±3^{km}, ML4.4, MW4.2*

GFZ ***14*** *22:21:41.5±0.3, 28° S±2°×7° 1W± °, h10^{km}, M4.8/17, mb4.8/17, confirmed*

GUC ***14*** *22:21:42.7±0.8, 27°.92S×71°.47W, h27^{km}±3^{km}, ML4.4*

ISC 14 22:21:38.6±1.4**, 27°.88S**±0°.02×**71°.56W**±0°.04**, h2**^{km}±8^{km}**, n166, **σ**1^{s}74**/176**, mb4.7**/15**, MS3.8**/14**, 7C-3D, Near coast of northern Chile**

```
Code  Station Name       Δ°   AZ°    Phase ID            Time      Res
                                   Op       ISC        h  m  s     ISC
AC04  Llanos de Chal     0.54 128 eP        Pb        22 21 51.3  +0.4
AC04  Llanos de Chal     0.54 128 eP        Pb        22 21 51.2  +0.4
AC04                              i S       Sg        22 21 57.3  +1.4
AC04  Llanos de Chal     0.54 128           Pb        22 21 51.2  +0.4
AC04                               Sg       Sg        22 21 57.1  +1.3
AC04  Llanos de Chal     0.54 128  P        Pb        22 21 51.4  +0.6
GO03  Copiapo            1.20  77 eP        Pg        22 22 02.6  +0.8
GO03                              eS        Sg        22 22 17.9  +0.6
GO03                               IAML               22 22 23.5
            comp=Z,10µm,0.5s
GO03  Copiapo            1.20  77⇓iP        Pg        22 22 02.4  +0.7
GO03                              i S       Sn        22 22 18.1  -1.5
GO03                               IAML               22 22 24.3
            comp=E,14µm,0.5s
GO03  Copiapo            1.20  77  Pn       Pg        22 22 02.3  +0.7
GO03  Copiapo            1.20  77  P        Pg        22 22 02.6  +0.8
LCO   Las Campanas       1.36 147 eP        Pg        22 22 05.4  +0.7
LCO                               eS        Sg        22 22 23.2  +0.9
LCO                                IAML               22 22 29.1
            comp=Z,8µm,0.5s
LCO   Las Campanas       1.36 147⇓iP        Pg        22 22 05.2  +0.5
LCO                               eS        Sb        22 22 21.7  -1.2
LCO                                IAML               22 22 23.3
            comp=Z,26µm,0.4s
LCO   Las Campanas       1.36 147  Pn       Pg        22 22 05.2  +0.5
AC05  El Transito        1.48 131 eP        Pg        22 22 07.1  +0.1
AC05                              eS        Sg        22 22 26.6  +0.4
AC05                               IAML               22 22 27.0
            comp=Z,3µm,0.6s
AC05  El Transito        1.48 131⇓iP        Pg        22 22 07.1  +0.1
AC05                              i S       Sn        22 22 25.0  -1.4
AC05  El Transito        1.48 131  Pn       Pb        22 22 06.7  -0.2
AC05  El Transito        1.48 131  P        Pg        22 22 07.2  +0.2
AC01  Pan de Azucar      1.92  27 eP        Pn        22 22 12.9  +0.5
AC01                              eS        Sg        22 22 42.0  +1.5
AC01                               IAML               22 22 46.3
            comp=Z,3µm,0.6s
AC01  Pan de Azucar      1.92  27⇑iP        Pn        22 22 12.8  +0.5
AC01  Pan de Azucar      1.92  27  Pn       Pn        22 22 12.9  +0.5
AC01  Pan de Azucar      1.92  27  P        Pn        22 22 13.0  +0.5
GO04  Tololo Observa     2.38 164 eP        Pb        22 22 20.8  -1.6
GO04                              eS        Sn        22 22 49.6  +0.8
GO04                               IAML               22 22 57.3
            comp=Z,3µm,0.8s
GO04  Tololo Observa     2.38 164 eP        Pb        22 22 20.6  -1.8
GO04                              eS        Sb        22 22 50.8  -1.5
GO04  Tololo Observa     2.38 164  Pn       Pn        22 22 20.0  +1.1
GO04  Tololo Observa     2.38 164  P        Pb        22 22 20.9  -1.6
AC02  Maricunga          2.39  65 eP        Pb        22 22 22.0  -0.8
AC02                              eS        Sb        22 22 52.3  -0.7
AC02                               IAML               22 22 59.0
            comp=Z,4µm,0.3s
AC02  Maricunga          2.39  65⇑iP        Pb        22 22 21.9  -0.9
AC02                              eS        Sb        22 22 51.3  -1.6
AC02                               IAML               22 23 00.8
            comp=N,6µm,0.4s
CO01  Juntas del Tor     2.45 149 eP        Pb        22 22 22.4  -1.2
CO01                              eS        Sn        22 22 49.9  -0.7
CO01                               IAML               22 22 58.7
            comp=Z,1µm,1.1s
CO01  Juntas del Tor     2.45 149 eP        Pb        22 22 22.6  -1.0
CO01                              eS        Sb        22 22 52.1  -2.3
CO01                               IAML               22 22 56.8
            comp=N,2µm,0.6s
CO01  Juntas del Tor     2.45 149  Pn       Pn        22 22 21.3  +1.4
CO01  Juntas del Tor     2.45 149  P        Pb        22 22 22.9  -0.8
CO06  Fray Jorge         2.79 181 eP        Pn        22 22 24.7  +0.4
CO06                              eS        Sn        22 22 56.5  -2.1
CO06                               IAML               22 23 20.5
            comp=E,589nm,0.3s
CO06  Fray Jorge         2.79 181  Pn       Pn        22 22 25.3  +1.0
AROD  Rodeo              2.92 142 eP        Pb        22 22 30.9  -0.8
AROD                              eS        Sn        22 23 03.9  +1.6
CO03  El Pedregal        3.05 166 eP        Pn        22 22 29.9  +2.0
CO03                              eS        Sn        22 23 07.0  +1.9
CO03                               IAML               22 23 23.4
            comp=Z,770nm,0.8s
CO03  El Pedregal        3.05 166 eP        Pn        22 22 29.6  +1.7
CO03                              eS        Sn        22 23 06.8  +1.7
CO03                               IAML               22 23 19.3
            comp=E,1µm,0.8s
CO03  El Pedregal        3.05 166  Pn       Pn        22 22 29.2  +1.2
CO03  El Pedregal        3.05 166  P        Pb        22 22 32.7  -1.0
VCA   Vinchina           3.08 107 eP        Pn        22 22 29.8  +1.4
VCA                               eS        Sg        22 23 21.0  +3.5
VCA                                IAML               22 23 23.6
            comp=Z,1µm,0.7s
VCA   Vinchina           3.08 107⇑eP        Pb        22 22 33.4  -0.8
ACDV  Cuesta del Vie     3.13 138 eP        Pb        22 22 32.1  -2.9
ACDV                               IAML               22 23 32.1
            comp=Z,711nm,1.1s
CO02  Combarbal          3.35 172 eP        Pn        22 22 33.7  +1.5
CO02                              eS        Sb        22 23 16.5  -3.6
CO02                               IAML               22 23 35.0
            comp=Z,2µm,0.9s
CO02  Combarbal          3.35 172 eP        Pn        22 22 33.3  +1.2
CO02                              eS        Sn        22 23 11.9  -0.6
CO02  Combarbal          3.35 172  Pn       Pn        22 22 33.0  +0.9
PB14  IPOC Station P     3.40  18 eP        Pn        22 22 33.0   0.0
PB14                              eS        Sb        22 23 21.5  -0.2
PB14                               IAML               22 23 38.4
            comp=Z,815nm,0.5s
PB14  IPOC Station P     3.40  18⇑iP        Pn        22 22 32.7  -0.3
PB14  IPOC Station P     3.40  18  Pn       Pn        22 22 32.8  -0.2
PB14  IPOC Station P     3.40  18  P        Pn        22 22 32.9   0.0
ACCO  Cerro Coronel      3.47 142 eP        Pb        22 22 38.8  -2.2
ACCO                              eS        Sb        22 23 22.3  -1.4
ACCO                               IAML               22 23 35.1
            comp=Z,680nm,0.7s
TINO  Tinogasta          3.53  94 eP        Pb        22 22 37.9  -4.0
TINO                              eS        Sg        22 23 29.3  -2.8
TINO                               IAML               22 23 35.6
            comp=Z,1µm,1.2s
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CO04  Los Peladeros     4.18 173   Pn     Pn       22 22 44.6 +0.9
CO04  Los Peladeros     4.18 173   P      Pn       22 22 45.5 +1.7
ACLC  CERRO LA CRUZ     4.33 112   eP     Pn       22 22 49.3 +3.6
ACLC                               eS     Sb       22 23 42.8 -5.6
ACLC                               IAML            22 23 48.6
      comp=Z,428nm,1.5s
RTLL  Cerro Villicun    4.36 143   eP     Pn       22 22 50.3 +4.3
RTLL                               eS     Sn       22 23 40.9 +3.5
RTLL                               IAML            22 24 08.0
      comp=Z,488nm,0.7s
RTLS  Leoncito          4.37 154   eP     Pb       22 22 51.5 -4.9
RTLS                               eS     Sb       22 23 43.6 -6.2
ZON   Zonda             4.43 146   Pn     Pn       22 22 48.2 +1.2
CFA   Coronel Fontan    4.70 143   Pn     Pn       22 22 54.2 +3.5
      comp=Z,5.0nm,0.3s,baz=312,slow=11,SNR=74
CFA                                Sn     Sn       22 23 50.6 +4.7
      comp=Z,11nm,0.3s,baz=233,slow=23,SNR=10
      comp=Z,15nm,0.3s
CFA                                AML    AML
CFA   Coronel Fontan    4.70 143   eP     Pn       22 22 54.5 +3.8
CFA                                IAML            22 24 10.7
      comp=Z,276nm,1.1s
VA03  San Esteban       4.95 170   Pn     Pn       22 22 55.8 +1.7
VA03  San Esteban       4.95 170   P      Pn       22 22 58.1 +4.0
      comp=Z,161nm,0.7s
CYA   Choya             5.11  98   eP     Pn       22 22 54.1 -2.2
CYA                                eS     Sn       22 23 55.3 -0.6
CYA                                IAML            22 24 08.3
      comp=Z,264nm,0.7s
PB05  IPOC Station P    5.15  14   Pn     Pn       22 22 55.2 -1.8
PB05  IPOC Station P    5.15  14   P      Pn       22 22 56.1 -0.8
      comp=Z,151nm,0.7s
PEL   Peldehue          5.30 172   Pn     Pn       22 23 00.8 +1.9
PEL   Peldehue          5.30 172   P      Pn       22 23 04.7 +5.8
      comp=Z,88nm,0.7s
MT02  Curacav           5.38 176   Pn     Pn       22 23 00.7 +0.8
PB06  IPOC Station P    5.45  20   Pn     Pn       22 22 59.6 -1.5
PB06  IPOC Station P    5.45  20   P      Pn       22 23 00.8 -0.3
      comp=Z,153nm,0.8s
MT05  Renca             5.54 173   Pn     Pn       22 23 04.9 +2.7
MT08  Bocatoma Ro       5.71 167   Pn     Pn       22 23 07.4 +2.8
MT09  Talagante         5.90 175   Pn     Pn       22 23 07.5 +0.3
MT13  San Alfonso       5.95 170   Pn     Pn       22 23 10.0 +2.1
MT01  Popeta            5.97 178   Pn     Pn       22 23 09.1 +1.0
PB03  IPOC Station P    6.03  16   Pn     Pn       22 23 07.2 -1.8
PB03  IPOC Station P    6.03  16   P      Pn       22 23 08.4 -0.6
      comp=Z,69nm,0.6s
BO04  La Punta          6.15 173   Pn     Pn       22 23 13.2 +2.7
SLA   San Lorenzo       6.27  61   eP     Pn       22 23 19.1 +6.7
PB07  IPOC Station P    6.31  14   Pn     Pn       22 23 11.2 -1.7
PB07  IPOC Station P    6.31  14   P      Pn       22 23 12.1 -0.8
      comp=Z,75nm,0.7s
PB09  IPOC Station P    6.41  20   Pn     Pn       22 23 13.8 -0.4
PB09  IPOC Station P    6.41  20   P      Pn       22 23 15.0 +0.7
      comp=Z,106nm,0.9s
BO01  Tunca             6.51 177   Pn     Pn       22 23 17.0 +1.6
PB02  IPOC Station P    6.70  13   Pn     Pn       22 23 16.5 -1.8
PB02  IPOC Station P    6.70  13   P      Pn       22 23 17.3 -0.9
      comp=Z,98nm,0.5s
BO02  Sierra Bellavi    6.92 175   Pn     Pn       22 23 22.8 +1.5
TCA   Tanti             6.97 121 ⇑eP     Pn       22 23 22.7 +0.8
GO05  Hualane           7.12 182   Pn     Pn       22 23 24.4 +0.5
PB08  IPOC Station P    8.01  16   Pn     Pn       22 23 35.3 -1.1
PB11  IPOC Station P    8.26  13   Pn     Pn       22 23 37.6 -2.2
PSGCX Pisagua           8.35   9   Pn     Pn       22 23 38.6 -2.2
H03N1 Juan Fernandez    8.42 227   Pn     Pn       22 23 41.0 -0.5
H03N1                              T      T        22 32 44.5
      baz=55,slow=74,SNR=2174
H03N2 Juan Fernandez    8.43 227   Pn     Pn       22 23 40.9 -0.6
H03N2                              T      T        22 32 41.6
      baz=207,slow=74,SNR=2204
GO01  Chusmiza          8.45  15   Pn     Pn       22 23 40.8 -1.8
GO01  Chusmiza          8.45  15   P      Pn       22 23 40.6 -2.0
      comp=Z,19nm,0.6s
H03S3 Juan Fernandez    8.66 225   Pn     Pn       22 23 43.5 -1.3
      baz=52,slow=77
H03S1 Juan Fernandez    8.67 225   Pn     Pn       22 23 43.3 -1.6
      baz=52,slow=77
H03S2 Juan Fernandez    8.68 225   Pn     Pn       22 23 43.5 -1.6
      baz=52,slow=77
BI02  San Fabin de      8.76 179   Pn     Pn       22 23 47.1 +0.6
PB12  IPOC Station P    9.29   7   P      Pn       22 23 51.9 -1.8
      comp=Z,25nm,1.1s
PB16  IPOC Station P    9.68  12   Pn     Pn       22 23 57.5 -2.1
PB18  Visviri          10.42  11   Pn     Pn       22 24 07.4 -2.2
LPAZ  La Paz           11.96  16   Pn     Pn       22 24 29.8 -1.0
      comp=Z,0.6nm,0.3s,baz=201,slow=6.1,SNR=12
LPAZ                               LR     LR       22 29 36.3
      comp=Z,319nm,18.1s,baz=194,slow=40
      comp=Z,1.6nm,0.5s
LPAZ                               AML    AML
LPAZ  La Paz           11.96  16   Pn     Pn       22 24 30.1 -0.7
LPAZ  La Paz           11.96  16   P      Pn       22 24 29.8 -1.0
      comp=Z,6.7nm,0.8s
CPUP  Villa Florida    12.77  86   Pn     Pn       22 24 40.8 -0.5
      comp=Z,0.1nm,0.3s,baz=252,slow=8.1,SNR=3.2
CPUP                               LR     LR       22 30 01.2
      comp=Z,436nm,19.0s,baz=252,slow=40
      comp=Z,1.4nm,0.6s
CPUP                               AML    AML
CPUP  Villa Florida    12.77  86   Pn     Pn       22 24 41.6 +0.3
PLCA  Paso Flores      12.85 177   LR     LR       22 30 06.1
      comp=Z,370nm,20.3s,baz=352,slow=39
SIV   San Ignacio      15.30  42   Pn     Pn       22 25 11.4 -4.5
      baz=256,slow=7.9,SNR=6.1
      comp=Z,1.1nm,0.5s
TRCB  Terra Rica       17.83  78          P        22 25 48.1 -0.8
VILB  Vilhena          18.25  38          P        22 25 53.6 +0.1
CZSB  Cruzeiro do Su   20.07 357          P        22 26 13.5 +0.1
CZSB                               IAmb   IAmb     22 26 29.2
      comp=Z,44nm,1.3s
FRTB  Fartura          20.33  82   P      P        22 26 16.4 +0.1
GO08  Villa O'Higgin   20.57 182   P      Pn       22 26 21.6 +0.8
      comp=Z,36nm,2.8s
ATAH  Atahualpa        21.62 341   LR     LR       22 33 09.0
      comp=Z,68nm,21.4s,baz=191,slow=32
SPB   Sao Paulo        22.13  84   P      P        22 26 36.4 +0.7
      comp=Z,34nm,1.6s
CLDB  Colider          22.48  44   P      P        22 26 39.1 -0.3
      comp=Z,8.1nm,1.9s
BDFB  Brasilia         24.97  66   P      P        22 27 02.4 -1.5
      comp=Z,5.3nm,0.6s,baz=245,slow=8.0,SNR=7.7
BDFB                               LR     LR       22 38 00.6
      comp=Z,313nm,20.6s,baz=236,slow=40
      comp=Z,5.3nm,0.6s
BDFB  Brasilia         24.97  66   P      P        22 27 02.7 -1.2
BDFB                               IAmb   IAmb     22 27 27.8
      comp=Z,13nm,1.2s
BSFB  Barra de Sao F   29.53  79   P      P        22 27 44.8 +0.1
      comp=Z,31nm,1.1s
BOAV  Boa Vista        31.92  21   P      P        22 28 05.9 +0.1
SDV   Santo Domingo    36.56   2   LR     LR       22 45 26.1
      comp=Z,66nm,18.6s,baz=356,slow=39
MDP   Montagnes des    37.52  32   LR     LR       22 45 10.6
      comp=Z,145nm,18.0s,baz=146,slow=38
RCBR  Riachuelo        40.31  64   LR     LR       22 47 08.1
      comp=Z,66nm,18.7s,baz=172,slow=38
VNA3  Neumayer Olymp   54.90 160   P      P        22 31 12.0 +1.7
      comp=Z,12nm,0.8s
VNA1  Neumayer--Stat   55.17 159   P      P        22 31 14.3 +2.1
      comp=Z,6.0nm,1.0s
SNAA  Sanae            57.12 159 ⇑P      P        22 31 27.2 +0.9
      comp=Z,44nm,0.4s
SNAA  Sanae            57.12 159   P      P        22 31 27.2 +0.9
      comp=Z,4.6nm,0.7s,baz=270,slow=4.3,SNR=5.4
      comp=Z,4.6nm,0.7s
SNAA  Sanae            57.12 159   P      P        22 31 26.4 +0.1
SNAA  Sanae            57.12 159   P      P        22 31 27.9 +1.6
      comp=Z,9.0nm,1.0s
TROLL Troll, Antarti   58.83 160 ⇑P      P        22 31 39.6 +1.2
      comp=Z,185nm,0.5s
QSPA  South Pole Qui   62.34 180   P      P        22 32 04.0 +1.6
      comp=Z,2.9nm,0.9s,baz=107,slow=2.3,SNR=7.1
      comp=Z,2.9nm,0.9s
QSPA  South Pole Qui   62.34 180   P      P        22 32 03.7 +1.3
QSPA                               IAmb   IAmb     22 32 15.9
      comp=Z,5.0nm,0.9s
QSPA  South Pole Qui   62.34 180   P      P        22 32 03.7 +1.3
      comp=Z,8.2nm,1.1s
TXAR  Lajitas Array    64.66 329   P      P        22 32 19.9 +1.8
      comp=Z,0.2nm,0.7s,baz=139,slow=9.0,SNR=2.8
      comp=Z,0.2nm,0.7s
TXAR  Lajitas Array    64.66 329   P      P        22 32 17.5 -0.6
TX31  Lajitas Ar. Si   64.66 329   P      P        22 32 17.7 -0.4
TX31                               IAmb   IAmb     22 32 40.6
      comp=Z,3.4nm,1.4s
WVT   Waverly          65.49 346   P      P        22 32 24.9 +1.7
CCM   Cathedral Cave   68.13 343   P      P        22 32 41.2 +1.2
      comp=Z,8.0nm,1.4s
PPT   Papeete          71.65 259   LR     LR       22 56 57.4
      comp=Z,53nm,21.3s,baz=135,slow=30
DBIC  Dimbokro         72.89  73   P      P        22 33 10.3 +0.6
      comp=Z,6.4nm,0.6s,baz=241,slow=5.6,SNR=12
DBIC                               LR     LR       23 02 36.8
      comp=Z,35nm,21.0s,baz=166,slow=34
      comp=Z,6.4nm,0.6s
DBIC  Dimbokro         72.89  73   P      P        22 33 09.6 -0.1
PDAR  Pinedale Array   78.52 332   P      P        22 33 44.0 +2.4
      comp=Z,0.2nm,0.4s,baz=114,slow=6.2,SNR=2.1
      comp=Z,0.2nm,0.4s
TSUM  Tsumeb           80.52 107   LR     LR       23 06 48.7
      comp=Z,42nm,18.3s,baz=326,slow=34
TORD  Torodi Ar. Bea   81.76  70   P      P        22 33 60.0 +0.6
      comp=Z,5.5nm,0.9s,baz=262,slow=4.2,SNR=13
      comp=Z,5.5nm,0.9s
BOSA  Boshof           82.57 118   P      P        22 34 04.6 +0.9
      comp=Z,5.6nm,1.0s,baz=158,slow=5.6,SNR=4.0
      comp=Z,5.6nm,1.0s
BOSA  Boshof           82.57 118   P      P        22 34 03.8  0.0
BOSA                               IAmb   IAmb     22 34 21.9
      comp=Z,5.6nm,1.1s
LBTB  Lobatse          84.51 115   LR     LR       23 11 04.2
      comp=Z,61nm,18.4s,baz=172,slow=35
TIO   Tiouine          84.72  51   P      P        22 34 16.1 +1.6
      comp=Z,22nm,1.2s
MDT   Midelt           87.65  51   LR     LR       23 13 26.1
      comp=Z,34nm,19.4s,baz=242,slow=36
URZ   Urewera          88.09 227   LR     LR       23 06 25.3
      comp=Z,90nm,18.4s,baz=257,slow=30
LSZ   Lusaka           91.31 108   LR     LR       23 14 39.5
      comp=Z,65nm,19.7s,baz=238,slow=35
BBB   Bella Bella      93.79 329   LR     LR       23 14 25.4
      comp=Z,26nm,18.1s,baz=215,slow=34
KEST  Kesra            99.01  54   LR     LR       23 20 40.5
      comp=Z,71nm,21.1s,baz=348,slow=36
ASAR  Alice Springs   123.17 208   PKP    PKiKP    22 40 38.4 +0.5
      comp=Z,0.5nm,0.8s,baz=129,slow=3.5,SNR=5.1
ASAR  Alice Springs   123.17 208          PKPdf    22 40 36.7 -0.9
H11S2 WAKE ISLAND Hy  126.06 273   T      T        00 59 57.2
      baz=112,slow=75,SNR=6.3
H11S1 WAKE ISLAND Hy  126.07 273   T      T        00 59 56.1
      baz=112,slow=75,SNR=5.8
H11S3 WAKE ISLAND Hy  126.07 273   T      T        00 59 56.2
      baz=112,slow=75,SNR=5.8
WRA   Warramunga Arr  126.26 211   PKP    PKiKP    22 40 44.5 +0.4
      comp=Z,1.1nm,0.7s,baz=156,slow=1.8,SNR=9.4
WRA   Warramunga Arr  126.26 211          PKiKP    22 40 43.4 -0.7
KURK  Kurchatov       147.92  37          PKPdf    22 41 20.8 -1.4
KURBB Kurchatov Arra  147.92  37   PKPbc  PKPbc    22 41 23.7 -1.4
      comp=Z,1.9nm,0.7s,baz=302,slow=3.5,SNR=11
ZALV  Zalesovo Beam   148.71  27   PKP    PKPbc    22 41 24.9 -2.2
      comp=Z,9.7nm,0.8s,baz=355,slow=1.7,SNR=12
ZALV                               PKPbc  PKPbc    22 41 28.9 +1.7
      comp=Z,9.7nm,0.8s,baz=302,slow=3.3,SNR=37
ZALV  Zalesovo Beam   148.71  27          PKPbc    22 41 25.4 -1.8
MKAR  Makanchi Array  152.12  40   PKPbc  PKiKP    22 41 36.9 +1.0
      comp=Z,2.8nm,0.8s,baz=298,slow=2.6,SNR=9.3
MKAR  Makanchi Array  152.12  40          PKPbc    22 41 34.2 -1.4
HHC   Hu-ho-hao-te    166.81 350   eP     PKPdf    22 41 41.3 -4.8
PZH   PanZhiHua       173.88 101   PKP    PKPdf    22 41 48.5 -2.0
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*RSNC **14** 22:26:24.4±0.0, 7°N±1°×7°3W±°, h145km±1km, M3.7, mB4.8, mb3.9, ML3.2, MLv3.9, Mw(mB)4.1*
*FUNV **14** 22:26:25.2, 7°.17N×73°.19W, h5km, MW3.1, Presumed earthquake*
ISC 14 22:26:21.8±1.4, **6°.86N**±0°.03×**73°.11W**±0°.05, **h159**km±9km, **n38**, σ**1s.63**/72, **Northern Colombia**

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Code  Station Name      Δ°   AZ°    Phase ID            Time    Res
                                    Op     ISC        h  m  s   ISC
BARC  Barichara         0.28 194   P      Pn       22 26 44.3 +0.6
BARC                               S      Sn       22 26 59.3 -1.1
BARC                               AML    AML
BARC                               AML    AML
PAMC  Pamplona, Colo    0.63  41   P      Pn       22 26 47.1 +1.7
PAMC                               S      Sn       22 27 04.1 +0.7
PAMC                               AML    AML
PAMC                               AML    AML
BRJC  Barrancabermej    0.64 280   P      Pn       22 26 45.9 +1.0
BRJC                               AML    AML
BRJC                               AML    AML
RUSC  La Rusia          0.96 178   P      Pn       22 26 48.2 +0.4
RUSC                               S      Sn       22 27 06.4 -1.2
RUSC                               AML    AML
RUSC                               AML    AML
RUSC  La Rusia          0.96 178   eP     Pn       22 26 48.0 +0.3
RUSC                               eS     Sn       22 27 06.2 -1.4
PTBC  PUERTO BERRIO,    1.37 257   P      Pn       22 26 50.7 -0.1
PTBC                               S      Sn       22 27 11.8 -1.2
PTBC                               AML    AML
PTBC                               AML    AML
OCAC  Ocana             1.38 352   P      Pn       22 26 52.4 +1.3
OCAC                               S      Sn       22 27 14.2 +0.6
OCAC                               AML    AML
OCAC                               AML    AML
SPBC  San Pablo de B    1.54 218   P      Pn       22 26 53.2 +0.7
SPBC                               S      Sn       22 27 15.1 -1.0
SPBC                               AML    AML
SPBC                               AML    AML
NORC  Norcasia          2.17 234   P      Pn       22 27 00.2 +0.6
NORC                               S      Sn       22 27 27.6 -1.0
NORC                               AML    AML
NORC                               AML    AML
CHIC  Chingaza          2.30 196   P      Pn       22 27 02.5 +1.0
CHIC                               S      Sn       22 27 31.7 -0.3
CHIC                               AML    AML
CHIC                               AML    AML
ROSC  El Rosal          2.34 211   P      Pn       22 27 04.1 +2.2
ROSC                               S      Sn       22 27 32.0 -0.8
ROSC                               AML    AML
ROSC                               AML    AML
HELC  Santa Helena      2.49 255   P      Pn       22 27 05.1 +1.4
HELC                               S      Sn       22 27 34.6 -1.3
HELC                               AML    AML
HELC                               AML    AML
HELC  Santa Helena      2.49 255   eP     Pn       22 27 05.9 +2.3
HELC                               eS     Sn       22 27 36.9 +1.0
CVER  Cruz Verde, Cu    2.52 202   P      Pn       22 27 05.7 +1.6
CVER                               S      Sn       22 27 36.5 -0.2
CVER                               AML    AML
CVER                               AML    AML
UREC  San Jos de Ur     2.56 290   P      Pn       22 27 04.2 +0.1
UREC                               S      Sn       22 27 35.7 -1.1
UREC                               AML    AML
UREC                               AML    AML
GUY2C Guyana, Caldas    2.77 234   P      Pn       22 27 08.6 +1.4
GUY2C                              S      Sn       22 27 42.1 -0.1
GUY2C                              AML    AML
GUY2C                              AML    AML
VILC  Villavicencio,    2.79 192   P      Pn       22 27 07.8 +0.6
VILC                               S      Sn       22 27 41.0 -1.3
VILC                               AML    AML
VILC                               AML    AML
CMAN1 Manizales, Cal    2.99 234   P      Pn       22 27 10.8 +1.1
CMAN1                              AML    AML
CMAN1                              AML    AML
CBOC  Ciudad Bolivar    3.05 251   P      Pn       22 27 12.5 +2.2
CBOC                               S      Sn       22 27 46.6 -1.3
CBOC                               AML    AML
CBOC                               AML    AML
SDV   Santo Domingo     3.17  51   P      Pn       22 27 13.8 +1.8
SDV                                S      Sn       22 27 50.4 -0.4
SDV                                AML    AML
SDV                                AML    AML
SDV   Santo Domingo     3.17  51   eP     Pn       22 27 12.8 +0.9
SDV                                eS     Sn       22 27 49.9 -0.9
APAC  Apartado, Choc    3.59 287   P      Pn       22 27 18.4 +1.4
APAC                               S      Sn       22 27 58.9 -1.0
APAC                               AML    AML
APAC                               AML    AML
PRAC  Prado             3.59 210   P      Pn       22 27 17.8 +0.6
PRAC                               S      Sn       22 27 59.6 -0.6
PRAC                               AML    AML
PRAC                               AML    AML
ORTC  Ortega, Tolima    3.62 216   P      Pn       22 27 18.6 +1.1
ORTC                               S      Sn       22 28 02.5 +1.7
ORTC                               AML    AML
ORTC                               AML    AML
SJCC  San Jacinto, C    3.64 326   P      Pn       22 27 18.1 +0.3
SJCC                               S      Sn       22 27 59.7 -1.6
SJCC                               AML    AML
SJCC                               AML    AML
SJCC  San Jacinto, C    3.64 326   eP     Pn       22 27 17.2 -0.6
SJCC                               eS     Sn       22 27 56.4 -4.9
LCBC  Los crdobas,      3.78 302   P      Pn       22 27 20.8 +1.3
LCBC                               S      Sn       22 28 05.7 +1.3
LCBC                               AML    AML
LCBC                               AML    AML
SMRC  Santa Marta, M    4.41 346   P      Pn       22 27 29.8 +2.1
SMRC                               S      Sn       22 28 17.6 -1.5
SMRC                               AML    AML
SMRC                               AML    AML
PTAC  Punta Ardita,     4.67 274   P      Pn       22 27 31.8 +0.7
PTAC                               AML    AML
PTAC                               AML    AML
MACC  Macarena, Meta    4.74 189   P      Pn       22 27 31.2 -0.9
MACC                               S      Sn       22 28 23.7 -3.3
MACC                               AML    AML
MACC                               AML    AML
BETC  Betania           4.76 209   P      Pn       22 27 33.1 +0.8
BETC                               S      Sn       22 28 25.7 -1.7
BETC                               AML    AML
BETC                               AML    AML
URIC  Uribia, Colomb    4.93  13   P      Pn       22 27 34.7 +0.1
      0.1nm528nm8.2nm,0.8s
URIC                               S      Sn       22 28 30.7 -0.7
      0.1nm528nm8.2nm,0.8s
URIC                               AML    AML
URIC                               AML    AML
URIC  Uribia, Colomb    4.93  13   eP     Pn       22 27 34.2 -0.3
URIC                               eS     Sn       22 28 26.4 -5.0
UPD2  Meteti            5.14 289   P      Pn       22 27 39.1 +1.9
UPD2                               S      Sn       22 28 36.5 +0.3
UPD2                               AML    AML
UPD2                               AML    AML
GARC  Garzon, Huila     5.22 207   P      Pn       22 27 38.6  0.0
GARC                               S      Sn       22 28 33.9 -4.6
GARC                               AML    AML
GARC                               AML    AML
POPC  Popayan, Colom    5.57 220   P      Pn       22 27 44.1 +0.9
      9.5nm,0.5s
POPC                               S      Sn       22 28 44.8 -2.1
      9.5nm,0.5s
POPC                               AML    AML
BBAC  Balboa, Cauca     6.33 221   P      Pn       22 27 55.2 +1.9
BBAC                               S      Sn       22 29 03.3 -1.7
TACV  Tcata             6.84  61   eP     Pn       22 28 02.3 +2.3
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*IDC **14** 22:38:11.2±0.8, 39°.42N×74°.75E, h0km, mb3.7/13, mbtmp3.7/18, ML3.2/4, MS3.0/9, Error ellipse: s-maj=16.8km s-min=11.9km az=96.0*
*SOME **14** 22:38:11.8, 39°.72N×74°.90E, h10km*
*KRNET **14** 22:38:13.1±0.1, 39°.57N×74°.71E, h30km, mb4.2*
*NNC **14** 22:38:17.0±1.7, 39°.93N×74°.90E, h0km, mb4.3, mpv3.8, Error ellipse: s-maj=12.8km s-min=8.4km az=173.0*
ISC 14 22:38:13.3±2.1, **39°.59N**±0°.05×**74°.72E**±0°.03, **h9**km±12km, **n78**, σ**1s.55**/107, **mb3.7**/11, **MS3.2**/4, **47C-12D**, **Southern Xinjiang**

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Code  Station Name      Δ°   AZ°    Phase ID            Time    Res
                                    Op     ISC        h  m  s   ISC
SFK   Sufi-Kurgan       1.03 295 ⇑iP     Pb       22 38 32.3 -1.1
SFK                              ⇑iS     Sg       22 38 46.4  0.0
SALK  Salom-Alik        1.46 332 ⇑eP     Pn       22 38 40.0 -0.1
SALK                             ⇑eS     Sb       22 38 59.6  0.0
OHH   Osh               1.75 303 ⇓iP     Pn       22 38 43.9 -0.1
OHH                              ⇓iS     Sn       22 39 06.4 -0.1
NRN   Naryn             2.08  28 ⇑eP     Pn       22 38 48.5 -0.3
NRN                              ⇑iS     Sn       22 39 14.3 -0.7
ARSB  Arslanbob         2.18 323 ⇑iP     Pn       22 38 50.0 +0.1
ARSB                             ⇑iS     Sn       22 39 17.0 -0.1
DRK   Karamyk           2.26 268 ⇑eP     Pn       22 38 50.7 -0.4
DRK                              ⇑eS     Sn       22 39 18.7 -0.6
UCH   Uchtor            2.64 357 ⇑eP     Pn       22 38 56.6 +0.1
UCH                              ⇑iS     Sn       22 39 28.5 -0.4
ULHL  Ulahol            2.89  23   P      Pb       22 39 05.1 -0.1
      SNR=14
ULHL  Ulahol            2.89  23 ⇑eP     Pn       22 39 00.0 +0.2
ULHL                             ⇑iS     Sn       22 39 34.3 -0.5
BTK   Batken            3.04 280 ⇑eP     Pn       22 39 01.6 -0.1
BTK                              ⇑iS     Sn       22 39 37.3 -0.9
BOOM  Boomskoye usch    3.04  17 ⇑iP     Pn       22 39 02.2 +0.4
BOOM                             ⇑eS     Sn       22 39 37.9 -0.5
ARK   Arkit             3.04 317 ⇑iP     Pn       22 39 02.0 +0.3
ARK                              ⇑iS     Sn       22 39 37.7 -0.6
AAK   Ala-Archa         3.05 357   Pn     Pb       22 39 06.2 -1.6
      13nm,0.3s,baz=177,slow=9.0,SNR=104
AAK                                Lg     Lg       22 39 49.9
      11nm,0.3s,baz=337,slow=17,SNR=10.0
AAK                                LR     LR       22 40 27.9
      comp=Z,252nm,20.7s,baz=198,slow=42
      73nm,0.4s
AAK                                AML    AML
AAK   Ala-Archa         3.05 357   P      Pb       22 39 06.2 -1.6
      SNR=77
AAK   Ala-Archa         3.05 357 ⇑Pg     Pb       22 39 06.0 -1.8
      413nm,0.5s
AAK                              ⇑Lg     Lg       22 39 45.6
      1μm,1.1s
AAK   Ala-Archa         3.05 357 ⇑eP     Pn       22 39 02.2 +0.3
AAK                              ⇑iS     Sn       22 39 38.1 -0.5
KBK   Karagaybulak      3.07   3   P      Pb       22 39 06.0 -2.2
      SNR=105
KBK   Karagaybulak      3.07   3 ⇓iP     Pn       22 39 02.6 +0.4
KBK                              ⇓iS     Sn       22 39 38.5 -0.6
EKS2  Erkin-Say         3.15 347   P      Pb       22 39 07.1 -2.4
      SNR=60
EKS2  Erkin-Say         3.15 347 ⇓eP     Pn       22 39 03.6 +0.4
EKS2                             ⇓iS     Sn       22 39 40.3 -0.7
KDJ   Kajisay           3.15  36 ⇑eP     Pn       22 39 03.6 +0.3
KDJ                              ⇑iS     Sn       22 39 40.4 -0.7
TARG  Taragay, Kyrgy    3.17  47 ⇑eP     Pn       22 39 03.9 +0.1
TARG                             ⇑eS     Sn       22 39 41.1 -0.9
FRU1  Bishkek           3.22 359 ⇑eP     Pn       22 39 04.8 +0.7
FRU1                             ⇑iS     Sn       22 39 42.5 -0.1
TRKS  Terek-Say         3.34 307 ⇑eP     Pn       22 39 05.4 -0.5
TRKS                             ⇑iS     Sn       22 39 43.4 -2.5
TKM2  Tokmak 2          3.39  11   P      Pb       22 39 11.2 -2.5
      SNR=17
TKM2  Tokmak 2          3.39  11 ⇑eP     Pn       22 39 07.0 +0.4
TKM2                             ⇑eS     Sn       22 39 46.4 -0.7
CHMS  Chumysh           3.40   0   P      Pb       22 39 10.9 -3.0
      SNR=54
CHMS  Chumysh           3.40   0 ⇑iP     Pn       22 39 07.0 +0.3
CHMS                             ⇑iS     Sn       22 39 46.3 -0.9
KST   Kastek            3.57  15   Pg     Pb       22 39 13.5 -3.3
      36nm,0.6s
KST                                Lg     Lg       22 39 58.3
      188nm,0.6s
KST   Kastek            3.57  15   eP     Pb       22 39 13.5 -3.3
      36nm,0.6s
KST                                eS     Sb       22 39 58.3 -2.0
      188nm,0.6s
USP   Ospenovka         3.68 358   P      Pn       22 39 14.4 +4.0
      SNR=40
USP   Ospenovka         3.68 358 ⇑iP     Pn       22 39 10.8 +0.4
USP                              ⇑iS     Sn       22 39 52.8 -1.1
SGDS  Sogindy           3.86 359   Pg     Pb       22 39 20.4 -1.2
      14nm,0.5s
SGDS                               Lg     Lg       22 40 09.8
      64nm,0.5s
ANVS  Anan'yevo         3.89  34 ⇓eP     Pn       22 39 13.9 +0.5
ANVS                             ⇓eS     Sn       22 39 58.3 -1.0
MDOK  Medeo             3.98  25   Pg     Pb       22 39 20.6 -3.1
MDOK                               Lg     Lg       22 40 10.6
      132nm,0.5s
MDOK  Medeo             3.98  25   eP     Pb       22 39 21.0 -2.6
      11nm,0.5s
MDOK                               eS     Sb       22 40 10.7 -1.2
      137nm,0.7s
KNDC  Almaty            4.00  24 ⇑Pg     Pb       22 39 25.2 +1.2
      188nm,1.3s
KNDC                             ⇓Lg     Lg       22 40 16.0
      633nm,1.1s
PRZ   Przheval'sk       4.01  43 ⇑eP     Pn       22 39 15.7 +0.6
PRZ                              ⇑iS     Sn       22 40 01.5 -0.9
KOTS  Kotyrbulak        4.06  26   Pg     Pb       22 39 24.2 -0.9
KOTS                               Lg     Lg       22 40 16.2
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KOTS	Kotyrbulak	4.06	26	eP	Pb	22 39 23.5	-1.6
	16nm,0.5s						
KOTS				eS	Sb	22 40 14.9	+0.6
	178nm,0.8s						
KRBS	Karabastau	4.16	10	Pg	Pb	22 39 25.5	-1.3
	13nm,0.4s						
KRBS				Lg	Lg	22 40 19.0	
	110nm,0.6s						
KRBS	Karabastau	4.16	10	eP	Pb	22 39 25.5	-1.3
	13nm,0.4s						
KRBS				eS	Sb	22 40 19.0	+1.8
	110nm,0.6s						
IUG	Iuzhnay	4.38	307	eP	Pb	22 39 33.5	+3.0
	25nm,0.3s						
IUG				eS	Sg	22 40 31.9	-1.9
	177nm,0.6s						
SATY	Saty	4.44	38	Pg	Pb	22 39 29.4	-2.2
	5.4nm,0.4s						
SATY				Lg	Lg	22 40 25.4	
	54nm,0.8s						
SATY	Saty	4.44	38	eP	Pb	22 39 29.4	-2.2
	5.4nm,0.4s						
SATY				eS	Sb	22 40 25.4	+0.2
	54nm,0.8s						
KUU	Kurty	4.47	15	Pg	Pb	22 39 31.6	-0.3
	2.5nm,0.1s						
KUU				Lg	Lg	22 40 29.6	
	39nm,0.4s						
KUU	Kurty	4.47	15	eP	Pb	22 39 31.6	-0.3
	2.5nm,0.1s						
KUU				eS	Sb	22 40 29.6	+3.8
	39nm,0.4s						
KK31	Karatay Array	4.73	319	Pn	Pn	22 39 28.1	+3.3
	6.6nm,0.5s,baz=124,slow=13,SNR=94						
KK31				⇓Sn	Sn	22 40 23.0	+3.2
	9.5nm,0.4s,baz=134,slow=22,SNR=3.5						
KK31				⇓Lg	Lg	22 40 43.0	
	21nm,0.5s,baz=125,slow=28,SNR=5.0						
KPKS	Kokpek	4.88	36	Pg	Pb	22 39 37.1	-1.9
	0.1nm,0.1s						
KPKS				Lg	Lg	22 40 38.8	
	29nm,0.6s						
KPKS	Kokpek	4.88	36	eP	Pb	22 39 37.1	-1.9
	0.1nm,0.1s						
KPKS				eS	Sb	22 40 38.8	+0.8
	29nm,0.6s						
ARXS	Arharly	5.17	26	Pg	Pb	22 39 44.6	+0.7
	30nm,0.7s						
ARXS				Lg	Lg	22 40 51.6	
	65nm,0.9s						
ARXS	Arharly	5.17	26	eP	Pb	22 39 44.6	+0.7
	30nm,0.7s						
ARXS				eS	Sb	22 40 51.6	+5.5
	65nm,0.9s						
PDGK	Podgornoye	5.18	42	⇑Pn	Pn	22 39 33.5	+2.4
	6.1nm,0.9s						
PDGK				⇓Pg	Pb	22 39 46.8	+2.7
	38nm,0.8s						
PDGK				⇑Lg	Lg	22 40 50.5	
	66nm,0.9s						
BLB	Baldybastay	5.30	31	Pg	Pb	22 39 46.9	+0.6
BLB				Lg	Lg	22 40 55.2	
KNOS	Konyrlen	5.81	33	Pg	Pb	22 39 57.7	+2.9
	5.3nm,0.7s						
KNOS				Lg	Lg	22 41 14.2	
	10.0nm,0.5s						
MAKZ	Makanchi	8.95	34	⇑Pn	Pn	22 40 23.0	+0.3
	2.1nm,1.0s						
MAKZ				⇑Lg	Lg	22 42 50.9	
	7.5nm,1.2s						
MK31	Makanchi Array	9.07	35	⇑Pn	Pn	22 40 26.0	+1.5
	0.9nm,0.6s,baz=209,slow=13,SNR=4.1						
MK31				⇑Lg	Lg	22 42 54.2	
	3.6nm,0.9s,baz=227,slow=27,SNR=3.9						
MKAR	Makanchi Array	9.07	35	Pn	Pn	22 40 27.0	+2.5
	0.1nm,0.3s,baz=207,slow=12,SNR=4.2						
MKAR				Lg	Lg	22 42 59.5	
	0.1nm,0.3s,baz=231,slow=28,SNR=3.6						
MKAR				LR	LR	22 44 28.9	
	comp=Z,38nm,22.0s,baz=220,slow=41						
	0.6nm,0.8s						
MKAR				AML	AML		
KURBB	Kurchatov Arra	11.35	12	Pn	Pn	22 40 58.3	+2.7
	0.5nm,0.3s,baz=198,slow=11,SNR=2.8						
KURBB				Lg	Lg	22 44 07.5	
	0.1nm,0.3s,baz=200,slow=28,SNR=9.9						
BVAR	Borovoye Array	13.76	349	Pn	Pn	22 41 28.9	+0.4
	baz=160,slow=9.9,SNR=4.9						
BVAR				Lg	Lg	22 45 24.4	
	baz=163,slow=27,SNR=5.5						
	0.8nm,0.7s						
ZALV	Zalesovo Beam	15.91	22	LR	LR	22 48 49.8	
	comp=Z,20nm,19.0s,baz=179,slow=40						
AKTO	Aktyubinsk	15.99	318	Pn	Pn	22 41 59.0	+0.6
	0.3nm,0.3s,baz=128,slow=13,SNR=11						
AKTO				LR	LR	22 48 33.5	
	comp=Z,57nm,20.5s,baz=67,slow=39						
	2.9nm,0.6s						
AKTO				AML	AML		
ARTI	Arti	19.96	333	P	Pn	22 42 47.0	-0.2
	1.9nm,0.8s,baz=234,slow=11,SNR=3.4						
ARTI				LR	LR	22 50 47.2	
	comp=Z,37nm,18.3s,baz=176,slow=38						
	1.9nm,0.8s						
KIRV	Kirov	24.96	328	LR	LR	22 54 17.3	
	comp=Z,38nm,19.9s,baz=99,slow=38						
NRIK	Noril'sk	30.59	9	LR	LR	22 58 24.2	
	comp=Z,31nm,20.5s,baz=168,slow=39						
BRTR	Keskin Array B	31.43	284	P	P	22 44 35.4	+0.4
	0.6nm,0.6s,baz=90,slow=9.9,SNR=4.3						
	0.6nm,0.6s						
FINES	FINESS Array B	36.68	323	P	P	22 45 20.2	+0.1
	1.1nm,0.7s,baz=111,slow=11,SNR=7.3						
	1.1nm,0.7s						
ARCES	ARCESS Array B	39.49	335	P	P	22 45 43.9	+0.1
	1.4nm,0.7s,baz=82,slow=9.9,SNR=4.2						
	1.4nm,0.7s						
HFS	Hagfors	42.53	320	P	P	22 46 09.8	+0.9
	0.9nm,0.5s,baz=128,slow=12,SNR=2.7						
	0.9nm,0.5s						
GERES	GERESS Array B	43.62	303	P	P	22 46 17.4	-0.6
	0.9nm,0.6s,baz=76,slow=7.0,SNR=4.6						
	0.9nm,0.6s						
NB2	NORSAR Subarra	43.76	321	P	P	22 46 20.1	+1.3
	comp=Z,0.3nm,0.7s,baz=91,slow=7.9						
NOA	NORSAR Array B	43.76	321	P	P	22 46 18.9	0.0
	comp=Z,0.3nm,0.5s,baz=90,slow=7.7,SNR=3.4						
	comp=Z,0.3nm,0.5s						
EKA	Eskdalemuir Ar	52.15	315	P	P	22 47 24.1	+0.3
	comp=Z,0.5nm,0.7s,baz=82,slow=6.8,SNR=3.5						
EKA				LR	LR	23 10 11.1	
	comp=Z,40nm,18.2s,baz=350,slow=37						
	comp=Z,0.5nm,0.7s						
ESDC	Sonseca Array	58.62	298	P	P	22 48 10.6	-0.2
	comp=Z,0.2nm,0.5s,baz=68,slow=6.8,SNR=5.0						
ESDC				LR	LR	23 18 08.0	
	comp=Z,40nm,19.3s,baz=288,slow=41						
	comp=Z,0.2nm,0.5s						
TORD	Torodi Ar. Bea	68.70	270	P	P	22 49 16.9	-0.7
	comp=Z,0.6nm,0.4s,baz=50,slow=5.4,SNR=11						
	comp=Z,0.6nm,0.4s						
ILAR	Eielson Array	70.98	18	P	P	22 49 30.9	+0.1
	comp=Z,0.3nm,0.8s,baz=343,slow=6.5,SNR=2.5						
	comp=Z,0.3nm,0.8s						
WRA	Warramunga Arr	81.23	125	P	P	22 50 28.6	-1.3
	comp=Z,1.1nm,0.7s,baz=326,slow=5.1,SNR=19						
	comp=Z,1.1nm,0.7s						
ASAR	Alice Springs	83.71	128	P	P	22 50 41.3	-1.4
	comp=Z,0.9nm,0.7s,baz=305,slow=4.6,SNR=11						
	comp=Z,0.9nm,0.7s						

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*KRNET **14** 23:02:54.7±0.1, 40.°75N×78.°92E, h21^{km}, mb2.9*
*NNC **14** 23:02:59.6±1.2, 40.°97N×78.°74E, h0^{km}, mb3.7, mpv3.1, Error ellipse: s-maj=8.1km s-min=6.5km az=160.0*
*SOME **14** 23:02:59.0, 40.°92N×78.°70E, h10^{km}*
ISC 14 23:02:56.2±2.2**, 40.°82N**±0.°09×**78.°93E**±0.°06**, h10**^{km}**, n32, σ1.**^{s}**85**/51**, 6C-14D, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TARG	Taragay, Kyrgy	1.24	318	⇑iP	Pb	23 03 19.3	-0.8
TARG				⇑iS	Sn	23 03 37.3	+0.2
PRZ	Przheval'sk	1.71	347	⇑iP	Pg	23 03 28.0	-1.1
PRZ				⇑iS	Sg	23 03 52.3	+1.0
KDJ	Kajisay	1.86	316	⇓iP	Pb	23 03 29.7	-0.7
KDJ				⇓iS	Sg	23 03 55.3	-0.6
ANVS	Anan'yevo	2.18	335	⇓eP	Pb	23 03 35.0	-0.9
ANVS				⇓iS	Sg	23 04 04.5	-1.8
SATY	Saty	2.27	350	Pg	Pg	23 03 38.8	-1.0
	12nm,0.4s						
SATY				Lg	Lg	23 04 07.5	
	9.3nm,0.2s						
SATY	Saty	2.27	350	eP	Pg	23 03 38.8	-1.0
	12nm,0.4s						
SATY				eS	Sg	23 04 07.5	-1.8
	9.3nm,0.2s						
NRN	Naryn	2.29	287	⇑iP	Pb	23 03 36.2	-1.7
NRN				⇑iS	Sb	23 04 06.3	-0.2
UZB	Uzynbulak	2.33	2	Pg	Pg	23 03 39.8	-1.1
	14nm,0.3s						
UZB				Lg	Lg	23 04 09.1	
	8.7nm,0.3s						
UZB	Uzynbulak	2.33	2	eP	Pg	23 03 39.8	-1.1
	14nm,0.3s						
UZB				eS	Sg	23 04 09.1	-2.0
	8.7nm,0.3s						
ULHL	Ulahol	2.47	306	⇓iP	Pb	23 03 38.7	-2.1
ULHL				⇓iS	Sb	23 04 10.6	-0.8
PDGK	Podgornoye	2.55	9	⇓Pg	Pb	23 03 42.1	0.0
	10nm,0.6s						
PDGK				⇓Lg	Lg	23 04 16.6	
	16nm,0.7s						
KPKS	Kokpek	2.66	356	Pg	Pg	23 03 45.5	-1.6
	0.2nm,0.1s						
KPKS				Lg	Lg	23 04 18.9	
	20nm,0.3s						
KPKS	Kokpek	2.66	356	eP	Pg	23 03 45.5	-1.6
	0.2nm,0.1s						
KPKS				eS	Sg	23 04 18.9	-2.6
	20nm,0.3s						
MDOK	Medeo	2.73	330	Pg	Pb	23 03 46.2	+0.9
	9.1nm,0.5s						
MDOK				Lg	Lg	23 04 20.1	
	14nm,0.4s						
MDOK	Medeo	2.73	330	eP	Pb	23 03 46.2	+0.9
	9.1nm,0.5s						
MDOK				eS	Sb	23 04 20.1	+1.2
	14nm,0.4s						
KOTS	Kotyrbulak	2.77	331	Pg	Pg	23 03 47.1	-2.1
	6.9nm,0.3s						
KOTS				Lg	Lg	23 04 22.0	
	14nm,0.3s						
KOTS	Kotyrbulak	2.77	331	eP	Pg	23 03 47.1	-2.1
	6.9nm,0.3s						
KOTS				eS	Sg	23 04 22.0	-3.2
	14nm,0.3s						
BOOM	Boomskoye usch	2.79	308	⇓iP	Pn	23 03 43.0	+1.8
BOOM				⇓iS	Sb	23 04 18.6	-2.1
KST	Kastek	3.14	316	Pg	Pb	23 03 52.7	+0.5
	0.3nm,0.1s						
KST				Lg	Lg	23 04 31.3	
	4.7nm,0.4s						
KST	Kastek	3.14	316	eP	Pb	23 03 52.7	+0.5
	0.3nm,0.1s						
KST				eS	Sb	23 04 31.3	+0.8
	4.7nm,0.4s						
TKM2	Tokmak 2	3.26	311	⇓iP	Pn	23 03 49.7	+2.1
TKM2				⇓iS	Sn	23 04 29.8	+3.3
BLB	Baldybastay	3.30	354	Pg	Pg	23 03 57.3	-2.1
	2.6nm,0.2s						
BLB				Lg	Lg	23 04 39.4	
	3.1nm,0.2s						
KTBS	Karatobe	3.34	331	Pg	Pb	23 03 56.9	+1.3
	0.1nm,0.1s						
KTBS				Lg	Lg	23 04 38.4	
	4.5nm,0.3s						
KTBS	Karatobe	3.34	331	eP	Pb	23 03 56.9	+1.3
	0.1nm,0.1s						
KTBS				eS	Sb	23 04 38.4	+2.1
	4.5nm,0.3s						
ARXS	Arharly	3.49	347	Pg	Pg	23 04 00.5	-2.6
	2.2nm,0.4s						
ARXS				Lg	Lg	23 04 45.0	
	3.9nm,0.3s						
ARXS	Arharly	3.49	347	eP	Pg	23 04 00.5	-2.6
	2.2nm,0.4s						
ARXS				eS	Sg	23 04 45.0	-3.3
	3.9nm,0.3s						
KBK	Karagaybulak	3.50	303	⇓iP	Pn	23 03 52.9	+2.0
KBK				⇓iS	Sn	23 04 35.5	+3.1
KNOS	Konyrlen	3.55	3	Pg	Pg	23 04 01.9	-2.2
	2.3nm,0.3s						
KNOS				Lg	Lg	23 04 47.5	
	4.2nm,0.4s						
DJR	Jarkent	3.57	10	Pg	Pg	23 04 02.8	-1.8
	0.7nm,0.1s						
DJR				Lg	Lg	23 04 48.8	
	2.5nm,0.3s						
DJR	Jarkent	3.57	10	eP	Pg	23 04 02.8	-1.8
	0.7nm,0.1s						
DJR				eS	Sg	23 04 48.8	-2.1
	2.5nm,0.3s						
KRBS	Karabastau	3.76	321	Pg	Pb	23 04 04.0	+1.3
	0.8nm,0.2s						
KRBS				Lg	Lg	23 04 50.7	
	2.8nm,0.2s						
KRBS	Karabastau	3.76	321	eP	Pb	23 04 04.0	+1.3
	0.8nm,0.2s						
KRBS				eS	Sb	23 04 50.7	+2.4
	2.8nm,0.2s						

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*IDC **14** 23:26:38.3±1.8, 20.°54S×177.°72W, h521^{km}±16^{km}, mb3.8/8, mbtmp4.6/11, Error ellipse: s-maj=26.2km s-min=14.8km az=139.0*
*NEIC **14** 23:26:38.1±2.5, 20.°5S±0.°1×177.°6W±0.°2, h513^{km}±5^{km}, mb4.5/20, Error ellipse: s-maj=23.6km s-min=17.7km az=80.0*
ISC 14 23:26:35.7±0.6**, 20.°4S**±0.°1×**177.°5W**±0.°1**, h500**^{km}**, n73, σ1.**^{s}**17**/73**, mb4.3**/18**, 1C-2D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	Nonsavu	4.98	302	P	P	23 28 05.4	+2.8
	43nm,0.4s,baz=134,slow=4.9,SNR=86						
MSVF	Nonsavu	4.98	302		P	23 28 05.2	+2.5
AFI	Afiamalu	8.46	41	S	S	23 30 12.7	-4.0
	122nm,0.5s,baz=24,slow=18,SNR=9.7						
DZM	Mont Dzumac	15.06	261	P	P	23 29 45.1	-1.6
	6.0nm,0.6s,baz=80,slow=18,SNR=5.4						
URZ	Urewera	18.39	194	P	P	23 30 19.1	-0.4
	4.2nm,0.3s,baz=297,slow=2.4,SNR=8.3						
CTAO	Charters Tower	33.96	264		P	23 32 37.0	-0.1
CTAO				IAmb	IAmb	23 32 38.1	
	comp=Z,26nm,0.8s						
STKA	Stephens Creek	38.25	244	P	P	23 33 12.0	-0.5
	comp=Z,6.6nm,0.7s,baz=89,slow=9.9,SNR=13						
	comp=Z,6.6nm,0.7s						
WR8	Warramunga Arr	44.92	262		P	23 34 04.6	-1.0
WR8				IAmb	IAmb	23 34 05.9	
	comp=Z,15nm,0.6s						
AS31	Alice Springs	44.99	257		P	23 34 05.7	-0.4
AS31				IAmb	IAmb	23 34 06.3	
	comp=Z,8.7nm,0.7s						
ASAR	Alice Springs	44.99	257	P	P	23 34 05.7	-0.5
	comp=Z,31nm,0.5s,baz=96,slow=7.6,SNR=448						
ASAR				S	S	23 40 03.9	-4.1
	comp=Z,2.1nm,0.8s,baz=93,slow=16,SNR=11						
	comp=Z,31nm,0.5s						
ASAR	Alice Springs	44.99	257		P	23 34 05.8	-0.3
WB0	Warramunga Arr	45.05	262		P	23 34 05.8	-0.8
WRAB	Tennant Creek	45.07	262	P	P	23 34 05.8	-0.9
WRAB				IAmb	IAmb	23 34 06.4	
	comp=Z,26nm,1.0s						
WRA	Warramunga Arr	45.08	262	P	P	23 34 05.7	-1.1
	comp=Z,16nm,0.4s,baz=98,slow=8.1,SNR=392						
	comp=Z,16nm,0.4s						
WRA	Warramunga Arr	45.08	262		P	23 34 04.5	-2.3
MTN	Manton Dam	49.63	270		P	23 34 40.5	-0.6
MTN				IAmb	IAmb	23 34 41.5	
	comp=Z,13nm,0.6s						
FORT	Forrest	49.76	247	P	P	23 34 40.9	-0.9
FORT				IAmb	IAmb	23 34 41.6	
	comp=Z,8.1nm,0.6s						
KNRA	Kununurra	51.13	266		P	23 34 51.4	-0.7
KNRA				IAmb	IAmb	23 34 52.3	
	comp=Z,8.8nm,0.6s						
FAKI	Fak Fak	51.93	283	P	P	23 34 56.6	-1.4
FITZ	Fitzroy Crossi	53.50	262		P	23 35 09.0	-0.2
SOEI	Soe	56.97	272	P	P	23 35 34.3	+0.8
GIRL	Giralia	63.03	254	P	P	23 36 13.6	-0.1
TOLI2	Tolitoli	64.04	282	P	P	23 36 20.7	+0.4
TOLI2				IAmb	IAmb	23 36 24.0	
	comp=Z,6.4nm,0.8s						
CASY	Casey	64.25	205	P	P	23 36 20.8	+0.1
QSPA	South Pole Qui	69.66	180	P	P	23 36 55.8	+1.5
KKM	Kota Kinabalu	70.19	285	P	P	23 36 58.0	-0.3
JGF	Kuroka	70.22	322	P	P	23 36 58.3	+0.3
JGF				IAmb	IAmb	23 37 42.0	
	comp=Z,23nm,1.4s						
MJAR	Matsushiro Arr	70.41	323	P	P	23 36 58.3	-0.7
	comp=Z,2.8nm,0.5s,baz=162,slow=6.2,SNR=8.6						
	comp=Z,2.8nm,0.5s						
MJAR	Matsushiro Arr	70.41	323	P	P	23 36 59.3	+0.3
KSRS	Korea Array	77.13	318	P	P	23 37 38.6	+1.4
	comp=Z,0.9nm,0.3s,baz=137,slow=6.1,SNR=2.8						
	comp=Z,0.9nm,0.3s						
USRK	Ussuriysk Ar.	79.15	326	P	P	23 37 50.4	+2.5
	comp=Z,4.7nm,0.9s,baz=144,slow=3.6,SNR=5.5						
	comp=Z,4.7nm,0.9s						
USRK	Ussuriysk Ar.	79.15	326	P	P	23 37 48.7	+0.8
K15K	Wolf Creek Mou	83.39	7	P	P	23 38 09.8	+0.4
K15K				IAmb	IAmb	23 38 45.6	
	comp=Z,8.7nm,1.1s						
ELIB	Princess Elisa	86.79	186	dP	P	23 38 26.3	+0.2
ILAR	Eielson Array	88.12	13	P	P	23 38 32.4	+0.3
	comp=Z,0.4nm,0.4s,baz=218,slow=5.7,SNR=5.0						
	comp=Z,0.4nm,0.4s						
CMAR	Chiang Mai Arr	90.52	289	P	P	23 38 46.1	+1.7
	comp=Z,1.0nm,0.3s,baz=130,slow=3.3,SNR=11						
	comp=Z,1.0nm,0.3s						
MKAR	Makanchi Array	111.47	313	PKiKP	PKiKP	23 44 12.5	-0.2
	comp=Z,0.5nm,0.6s,baz=197,slow=1.3,SNR=6.2						
BVAR	Borovoye Array	119.31	320	PKP	PKPdf	23 44 27.2	-0.2
	comp=Z,1.5nm,0.4s,baz=104,slow=2.0,SNR=8.0						
ARCES	ARCESS Array B	128.91	350	PKP	PKPdf	23 44 45.3	-0.1
	comp=Z,1.1nm,0.6s,baz=45,slow=0.5,SNR=5.5						
ARCES	ARCESS Array B	128.91	350		PKPdf	23 44 45.6	+0.2
FINES	FINESS Array B	135.81	344	PKP	PKiKP	23 45 00.3	0.0
	comp=Z,1.3nm,0.8s,baz=96,slow=1.9,SNR=4.2						
FINES	FINESS Array B	135.81	344		PKPdf	23 44 58.7	+0.1
HFS	Hagfors	139.52	351	PKhKP	PKPpre	23 44 58.4	
	comp=Z,1.5nm,0.7s,baz=85,slow=1.8,SNR=5.6						
AKASG	Malin Array Be	143.16	332	PKP	PKPab	23 45 09.8	0.0
	comp=Z,2.1nm,0.4s,baz=44,slow=4.3,SNR=19						
LODK	Lodwar	143.81	247	PKPdf	PKPdf	23 45 14.2	-0.4
ARPR	Arapgir-MALATY	144.04	309	PKPbc	PKPdf	23 45 15.2	+0.9
EKA	Eskdalemuir Ar	144.87	6	PKPbc	PKPdf	23 45 14.8	-0.2
	comp=Z,0.4nm,0.4s,baz=328,slow=2.3,SNR=7.4						
BRTR	Keskin Array B	147.12	313	PKPbc	PKPbc	23 45 22.5	-0.1
	comp=Z,1.3nm,0.6s,baz=136,slow=4.7,SNR=7.6						
ASF	Jabal al Asfar	147.15	298	PKPbc	PKPbc	23 45 23.3	+0.5
	comp=Z,1.0nm,0.7s,baz=103,slow=3.5,SNR=4.5						
BURAR	Bucovina Array	147.21	331	PKPbc	PKiKP	23 45 23.9	-0.4
OJC	Ojcow	147.24	339	PKPbc	PKPbc	23 45 22.8	+0.5
CLL	Collm	148.07	348	i PKPbc	PKPbc	23 45 25.1	+0.7
	comp=Z,7.0nm,0.8s						
MMAI	Mount Meron Ar	148.17	300	PKPbc	PKiKP	23 45 26.4	-0.3
	comp=Z,1.3nm,0.4s,baz=61,slow=8.7,SNR=9.9						
BRG	Berggiesshubel	148.28	346	⇑iPKPb		23 45 25.8	
BRG				Amp		23 45 28.5	
	comp=Z,2.9nm,0.6s						
MORC	Moravsky Berou	148.34	341	PKPbc	PKiKP	23 45 26.6	+0.2
MLR	Muntele Rosu	148.40	328	PKPbc	PKPbc	23 45 26.2	+0.6
GHAJ	Ghor Haditha	148.44	297	PKPbc	PKPbc	23 45 26.1	+0.1
BORA	Eskisehir	149.20	315	PKPbc	PKPbc	23 45 27.9	+0.2
CSS	Mathiatis	149.23	305	PKPbc	PKPbc	23 45 27.7	-0.1
KRUC	Moravsky	149.31	342	eP	PKiKP	23 45 28.3	-0.1
KHC	Kasperske Hory	150.00	345		PKiKP	23 45 30.2	+0.3
KHC	Kasperske Hory	150.00	345	ex	x	23 45 30.5	
BMRD	Maredsous	150.11	357	dPKP	PKiKP	23 45 30.3	+0.3
GERES	GERESS Array B	150.23	345	PKPbc	PKiKP	23 45 30.4	-0.1
	comp=Z,0.6nm,0.4s,baz=29,slow=3.0,SNR=7.8						
GERES	GERESS Array B	150.23	345		PKPbc	23 45 30.2	+0.3
CONA	Conrad Observa	150.49	342	i PKiKP	PKiKP	23 45 31.2	+0.2
	comp=Z,1.7nm,0.6s						
CONA				i PKP	PKPab	23 45 39.2	-0.1
	comp=Z,3.3nm,1.2s						
RONA	Rosalia, Austr	150.56	341	i PKiKP	PKiKP	23 45 31.4	+0.3
	comp=Z,3.2nm,0.5s						
ELL	Elmali	151.08	310	PKPbc	PKiKP	23 45 32.6	0.0
MANT	Manisa	151.18	314	PKPbc	PKPbc	23 45 32.6	0.0
BIOA	Bad Ischl, Aus	151.32	344	i PKP	PKPab	23 45 43.8	+1.2
	comp=Z,1.2nm,0.4s						
WATA	Walderalm	152.14	347	i PKiKP	PKiKP	23 45 34.7	+0.1
	comp=Z,2.9nm,1.1s						
WATA				ePKP	PKPab	23 45 45.3	-1.0
	comp=Z,0.9nm,0.5s						
WTTA	Wattenberg	152.19	347	i PKiKP	PKiKP	23 45 34.7	0.0
	comp=Z,1.2nm,0.4s						
ABTA	Abfaltersbach	152.48	345	i PKiKP	PKPbc	23 45 34.7	-0.3
	comp=Z,1.1nm,0.4s						
ABTA				i PKP	PKPab	23 45 44.1	-3.6
	comp=Z,1.8nm,0.5s						

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*IDC **14** 23:36:15.7±0.9, 34.°19N×25.°69E, h0^{km}, mb3.9/9, mbtmp3.8/17, ML3.2/7, MS2.8/2, Error ellipse: s-maj=18.4km s-min=10.2km az=23.0*
*ISK **14** 23:36:17.3, 34.°13N×25.°73E, h13^{km}, ML3.1/21*
*THE **14** 23:36:21.1, 34°N±9°×2°6E±°, h11^{km}±16^{km}, M2.8/8, MLh2.8/8*
*ATH **14** 23:36:21.8, 34.°36N×25.°62E, h21^{km}±9^{km}, ML2.9/5, Latitude uncertainty: 5 km; Longitude uncertainty: 2 km*
*GII **14** 23:36:22.7±0.0, 33.°799N±0.°002×26.°415E±0.°001, h0^{km}, Mws3.5, confirmed*
*AFAD **14** 23:36:23.0, 34.°31N×26.°08E, h52^{km}, ML2.8*
ISC 14 23:36:15.7±1.2**, 34.°03N**±0.°04×**25.°80E**±0.°03**, h12**^{km}±7^{km}**, n129, σ2.**^{s}**12**/154**, mb3.9**/8**, 1C, Crete**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZKR	Zakros	1.14	18	P	Pn	23 36 38.8	+1.2
ZKR				S	Sn	23 36 53.6	+0.4
ZKR	Zakros	1.14	18	Pg	Pn	23 36 38.1	+0.5
ZKR				Sg	Sn	23 36 53.3	+0.1
ZKR				AML	AML		
ZKR	Zakros	1.14	18	P	Pn	23 36 38.9	+1.2
ZKR				AML	AML		
STIA	Sitia Lasithi	1.20	12	P	Pg	23 36 40.1	+1.4
NPS	Neapolis	1.24	353	P	Pb	23 36 38.4	-0.8
NPS				AML	AML		
NPS	Neapolis	1.24	353	P	Pb	23 36 38.6	-0.6
NPS				S	Sb	23 36 50.5	-4.7
NPS				AML	AML		
SIVA	Sivas	1.28	321	P	Pn	23 36 39.2	-0.3
SIVA				S	Sb	23 36 53.1	-3.2
SIVA				AML	AML		
SIVA	Sivas	1.28	321	P	Pg	23 36 39.6	-0.8
IDI	Anoyia	1.46	330	Pn	Pb	23 36 42.3	-0.7
	2.6nm,0.3s,baz=182,slow=9.6,SNR=19						
IDI				Sn	Sg	23 37 02.4	-0.5
	16nm,0.3s,baz=126,slow=11,SNR=8.1						
IDI	Anoyia	1.46	330	P	Pn	23 36 41.8	-0.2
IDI				AML	AML		
IDI	Anoyia	1.46	330	Pn	Pb	23 36 42.3	-0.7
IDI				AML	AML		
IDI	Anoyia	1.46	330	P	Pb	23 36 42.3	-0.7
GVD	Gavdhos	1.63	300	P	Pb	23 36 45.3	-0.4
GVD				AML	AML		
GVD	Gavdhos	1.63	300	Pn	Pb	23 36 45.1	-0.6
GVD				Sn	Sb	23 37 05.1	-1.2
GVD				AML	AML		
GVD	Gavdhos	1.63	300	P	Pb	23 36 45.4	-0.4
GVD				AML	AML		
GVDS	Gavdos	1.65	300	P	Pb	23 36 45.4	-0.6
GVDS				AML	AML		
KARP	Karpathos	1.89	36	P	Pb	23 36 51.1	+0.9
KARP				AML	AML		
KARP	Karpathos	1.89	36	Pn	Pn	23 36 49.4	+1.5
KARP				AML	AML		
KARP	Karpathos	1.89	36	P	Pb	23 36 50.9	+0.7
KARP				AML	AML		
KARP				AML	AML		
KARP	Karpathos	1.89	36	P	Pb	23 36 51.0	+0.9
IMMV	Iera Moni Meta	2.07	314	P	Pb	23 36 51.7	-1.5
IMMV				AML	AML		
IMMV	Iera Moni Meta	2.07	314	Pn	Pn	23 36 51.3	+1.0
IMMV				AML	AML		
IMMV	Iera Moni Meta	2.07	314	P	Pn	23 36 50.6	+0.3
THR6	Thira Island,	2.35	352	P	Pn	23 36 55.5	+1.3
THERA	Ancient Thera,	2.35	354	P	Pn	23 36 54.4	+0.2
THERA	Ancient Thera,	2.35	354	P	Pn	23 36 54.4	+0.2
THR3	Thira Island,	2.40	352	P	Pn	23 36 55.4	+0.5
THR3	Thira Island,	2.40	352	P	Pn	23 36 56.0	+1.1
THR5	Thira Island,	2.41	351	P	Pn	23 36 56.1	+1.0

THR5	Thira Island,	2.41	351	P	Pn	23 36 56.1	+1.0
THR2	Thira island,	2.43	353	P	Pn	23 36 55.0	-0.4
YAZI	Mula-Dat§a-	2.98	27	P	Pn	23 37 05.6	+2.8
DAT	Datca	3.06	28	Pn	Pn	23 37 05.9	+1.8
DAT				AML	AML		
DAT	Datca	3.06	28	P	Pn	23 37 07.1	+2.9
BODT	Bodrum	3.27	22	Pn	Pn	23 37 08.8	+1.9
BDRM	Kayabasi	3.32	23	P	Pn	23 37 09.2	+1.7
TURN	Turunc	3.40	35	Pn	Pn	23 37 10.8	+2.3
TURN				AML	AML		
TURN	Turunc	3.40	35	P	Pb	23 37 13.0	-2.9
TURN				S	Sn	23 37 47.4	-1.3
VLI	Veliai	3.56	320	P	Pn	23 37 11.3	+0.4
DALY	Dalyan (Mula)	3.63	39	Pn	Pn	23 37 14.3	+2.5
DALY				AML	AML		
DALY	Dalyan (Mula)	3.63	39	P	Pn	23 37 13.4	+1.6
DALY				S	Sn	23 37 53.9	-0.8
DALY				IAML		23 38 15.0	
	comp=N,28nm,1.7s						
DALY				IAML		23 39 04.0	
	comp=E,24nm,1.3s						
MLSB	Milas	3.64	26	Pn	Pn	23 37 14.0	+2.0
MLSB				AML	AML		
IZZE	Mula-Seydike	3.70	48	P	Pn	23 37 15.3	+2.6
YER	Yerkesik	3.71	32	Pn	Pn	23 37 15.5	+2.6
FETY	Fethiye	3.74	45	Pn	Pn	23 37 16.1	+2.7
FETY				AML	AML		
SABU	Mula-Dalaman	3.81	42	P	Pn	23 37 16.4	+2.2
SABU				S	Sn	23 37 53.1	-6.0
SABU				IAML		23 38 44.0	
	comp=N,22nm,1.9s						
AKAS	Kas	3.82	54	Pn	Pn	23 37 17.5	+3.0
AKAS				AML	AML		
AKAS	Kas	3.82	54	P	Pn	23 37 16.7	+2.2
MULA	Mugla, Merkez-	3.82	32	P	Pn	23 37 16.7	+2.2
AYDN	Tasoluk	4.00	24	P	Pn	23 37 19.8	+2.8
CAME	Cameli-Denizli	4.08	44	Pn	Pn	23 37 20.6	+2.5
CAME				AML	AML		
MET3	Ano Fanari,Met	4.11	330	P	Pn	23 37 18.8	+0.4
KNIK	Mula-Seydike	4.17	47	P	Pn	23 37 23.7	+4.3
CAEL	Denizli, Camel	4.22	42	P	Pb	23 37 26.6	-3.4
TAVA	DENIZLI_Tavas	4.27	36	P	Pn	23 37 24.7	+4.1
ESEN	Aydn-Nazilli	4.30	28	P	Pn	23 37 23.3	+2.4
ELL	Elmali	4.32	50	Pn	Pn	23 37 24.4	+3.0
ELL				AML	AML		
NAZL	Nazilli-Aydin	4.42	27	Pn	Pn	23 37 25.4	+2.7
GOLH	Golhisar	4.43	43	P	Pn	23 37 24.7	+1.7
DNIZ	Denizli-Tavas-	4.45	35	P	Pn	23 37 29.0	+5.7
ITM	Ithomi	4.45	316	Pn	Pn	23 37 24.8	+1.7
IZMR	zmir-demi	4.46	22	P	Pn	23 37 25.5	+2.4
APMY	Acipayam-Deniz	4.47	39	Pn	Pn	23 37 26.3	+2.9
APMY				AML	AML		
ODEM	Odemis-Izmir	4.62	23	Pn	Pn	23 37 28.2	+2.7
KIRA	zmir-Kiraz	4.67	26	P	Pn	23 37 30.1	+4.0
SULTU	Buldan	4.69	30	P	Pn	23 37 30.8	+4.4
KORT	Korkueli	4.75	50	Pn	Pn	23 37 30.8	+3.4
KORT				AML	AML		
INCE	Denizli-Bozkur	4.79	39	P	Pn	23 37 31.0	+3.2
HARTU	Esme	4.94	29	P	Pn	23 37 32.4	+2.5
BRDR	BURDUR-Merkez	5.04	42	P	Pn	23 37 35.6	+4.3
KULA	Kula-Manisa	5.04	27	Pn	Pn	23 37 33.9	+2.6
PASA	Karahalli, USA	5.25	34	P	Pn	23 37 36.1	+2.0
CSS	Mathiatis	6.29	79	P	Pn	23 37 49.7	+1.3
	0.0nm0.0nm12nm,0.8s						
CSS				AML	AML		
CSS				AML	AML		
CSS	Mathiatis	6.29	79	⇑P	Pn	23 37 50.8	+2.4
CSS				S	Sn	23 38 58.8	-1.4
KZIT	Kziot	7.91	111	P	Pn	23 38 11.7	+1.1
	0.1nm0.1nm15nm,0.9s						
KZIT				AML	AML		
KZIT				AML	AML		
KZIT	Kziot	7.91	111	P	Pn	23 38 11.6	+1.1
KZIT				S	Sn	23 39 36.4	-3.6
SLTI	Sal'it	7.96	100	P	Pn	23 38 12.4	+1.1
SLTI				S	Sn	23 39 37.6	-3.6
AMAZ	Amatzia	8.07	105	P	Pn	23 38 14.3	+1.4
AMAZ				S	Sn	23 39 40.4	-3.7
MMA0B	Mount Meron ar	8.09	94	P	Pn	23 38 15.0	+1.9
MMA0B				S	Sn	23 39 42.1	-2.4
MMAI	Mount Meron Ar	8.09	94	Pn	Pn	23 38 14.8	+1.7
	1.1nm,0.3s,baz=283,slow=11,SNR=7.1						
MMAI				Sn	Sn	23 39 43.0	-1.5
	2.8nm,0.3s,baz=267,slow=22,SNR=5.4						
	0.5nm,0.3s						
MMAI				AML	AML		
SALP	Salfit	8.13	101	P	Pn	23 38 13.7	+0.1
	23nm,1.7s						
JER	Jerusalem	8.22	103	P	Pn	23 38 16.8	+1.9
JER				S	Sn	23 39 44.6	-3.2
MMLI	Mount Malkishu	8.22	98	P	Pn	23 38 15.8	+0.9
MMLI				S	Sn	23 39 44.1	-3.6
GEM	Giv'at Ha'Em	8.27	93	P	Pn	23 38 16.6	+1.0
GEM	Giv'at Ha'Em	8.27	93	P	Pn	23 38 17.5	+1.9
GEM				S	Sn	23 39 46.6	-2.3
RMNI	Mount Ramon	8.32	112	P	Pn	23 38 17.7	+1.4
RMNI				S	Sn	23 39 46.4	-4.0
QRNJ	Al-Qirein	8.37	99	P	Pn	23 38 17.7	+0.8
	699nm,0.8s						
UJAP	Al Uja	8.38	102	P	Pn	23 38 17.9	+0.8
	12nm,1.1s						
UJAP	Al Uja	8.38	102	P	Pn	23 38 17.8	+0.8
UJAP				S	Sn	23 39 48.4	-3.2
MZS	Mizpe Shalem	8.45	104	P	Pn	23 38 19.5	+1.5
MZS				S	Sn	23 39 50.4	-2.9
BRTR	Keskin Array B	8.47	46	Pn	Pn	23 38 18.6	+0.1
	0.1nm,0.3s,baz=218,slow=14,SNR=5.2						
	0.8nm,0.7s						
BRTR				AML	AML		
MSBI	Mazada	8.50	106	P	Pn	23 38 19.6	+0.9
	4.7nm,1.0s						
MSBI	Mazada	8.50	106	P	Pn	23 38 19.9	+1.2
MSBI				S	Sn	23 39 51.4	-3.2
PRNI	Paran	8.62	113	P	Pn	23 38 21.8	+1.4
	38nm,0.6s						
LISJ	El Lisan	8.63	106	P	Pn	23 38 22.0	+1.6
	14nm,0.6s						
ZFRI	Zfri	8.66	111	P	Pn	23 38 22.1	+1.1
ZFRI				S	Sn	23 39 54.6	-3.9
GHAJ	Ghor Haditha	8.67	106	P	Pn	23 38 23.1	+2.1
	564nm21nm,0.5s						
GHAJ	Ghor Haditha	8.67	106	P	Pn	23 38 22.6	+1.5
GHAJ				S	Sn	23 39 55.9	-2.9
HRFI	Mount Harif	8.79	114	P	Pn	23 38 24.4	+1.6
	428nm18nm,0.7s						
HRFI	Mount Harif	8.79	114	P	Pn	23 38 24.1	+1.3
HRFI				S	Sn	23 39 58.1	-3.8
EIL	Elat	8.91	117	Pn	Pn	23 38 26.6	+2.1
	1.0nm,0.3s,baz=234,slow=1.1,SNR=17						
EIL				Sn	Sn	23 40 02.4	-2.5
	1.2nm,0.3s,baz=18,slow=13,SNR=4.3						
	2.2nm,0.3s						
EIL				AML	AML		
EIL	Elat	8.91	117	P	Pn	23 38 25.4	+1.0
	12nm,1.1s						
EIL	Elat	8.91	117	P	Pn	23 38 25.6	+1.2
EIL				S	Sn	23 40 01.1	-3.7
VAE	Valguarnera	9.87	294	Pn	Pn	23 38 37.6	+0.1
	1.3nm,0.3s,baz=285,slow=3.0,SNR=6.4						
	7.6nm,0.9s						
VAE				AML	AML		
MLR	Muntele Rosu	11.45	1	LR	LR	23 44 10.0	
	comp=Z,46nm,20.0s,baz=50,slow=42						
RONA	Rosalia, Austr	15.42	335	ePn	Pn	23 39 54.9	+1.9
	0.8nm,0.4s						
RONA				i P	pP	23 39 59.5	-0.6
	2.7nm,0.6s						
KBA	Koelnbreinsper	16.08	328	i P	P	23 40 06.4	+1.2
	1.9nm,0.6s						
BIOA	Bad Ischl, Aus	16.43	330	eP	P	23 40 10.9	+2.0
	1.1nm,0.4s						
KBZ	Khabaz	16.44	49	Pn	Pn	23 40 08.3	+2.1
	0.1nm,0.3s,baz=243,slow=6.1,SNR=4.9						
	2.4nm,0.9s						
KBZ				AML	AML		
LESA	Schwarzleotal	16.64	327	i Pn	P	23 40 12.4	+1.1
	3.3nm,0.6s						
AKASG	Malin Array Be	16.85	8	Pn	Pn	23 40 10.8	-0.7
	0.8nm,0.5s,baz=202,slow=11,SNR=11						
WTTA	Wattenberg	17.00	325	ePn	P	23 40 15.5	+0.2
	6.3nm,1.3s						
SQTA	Sankt Quirin	17.18	324	ePn	P	23 40 18.5	+1.2
	3.3nm,0.7s						
FETA	Feichten	17.27	323	i Pn	P	23 40 20.1	+1.8
	5.2nm,1.0s						
MOTA	Moosalm	17.31	325	ePn	P	23 40 20.8	+2.0
	4.3nm,1.5s						
GERES	GERESS Array B	17.33	332	P	Pn	23 40 16.9	-0.6
	baz=144,slow=12,SNR=11						
	1.4nm,0.5s						
DAVOX	Davos/Dischmat	17.54	321	P	Pn	23 40 20.4	+0.1
	0.2nm,0.3s,baz=154,slow=15,SNR=5.2						
	0.9nm,0.7s						
DAVOX				AML	AML		
RETA	Reutte	17.58	324	i Pn	P	23 40 22.8	+1.2
	2.8nm,1.0s						
KHC	Kasperske Hory	17.61	333	ePN	P	23 40 22.0	+0.1
ESDC	Sonseca Array	24.41	292	P	P	23 41 34.8	+0.6
	0.5nm,0.5s,baz=78,slow=8.6,SNR=8.6						
	0.5nm,0.5s						
HFS	Hagfors	27.30	347	LR	LR	23 55 28.1	
	comp=Z,20nm,18.2s,baz=338,slow=42						
FINES	FINESS Array B	27.43	0	P	P	23 42 00.2	-0.9
	1.4nm,0.3s,baz=160,slow=11,SNR=26						
	1.4nm,0.3s						
EKA	Eskdalemuir Ar	29.27	326	P	P	23 42 17.4	-0.2
	0.9nm,0.7s,baz=118,slow=10,SNR=5.0						
	0.9nm,0.7s						
TORD	Torodi Ar. Bea	30.19	232	P	P	23 42 27.3	+1.2
	0.2nm,0.4s,baz=31,slow=7.9,SNR=5.6						
	0.2nm,0.4s						
ARCES	ARCESS Array B	35.56	360	P	P	23 43 11.4	-1.1
	1.0nm,0.4s,baz=177,slow=9.2,SNR=19						
	1.0nm,0.4s						
KURBB	Kurchatov Arra	41.44	50	P	P	23 44 03.5	+1.5
	1.6nm,0.5s,baz=273,slow=8.6,SNR=22						
	1.6nm,0.5s						
MKAR	Makanchi Array	43.97	56	P	P	23 44 24.4	+1.6
	0.7nm,0.5s,baz=269,slow=7.3,SNR=9.8						
	0.7nm,0.5s						
ZALV	Zalesovo Beam	45.42	45	P	P	23 44 35.0	+0.9
	2.3nm,0.4s,baz=267,slow=8.8,SNR=13						
	2.3nm,0.4s						
SONM	Songino Array	59.80	50	P	P	23 46 22.5	+1.5
	0.6nm,0.7s,baz=282,slow=8.7,SNR=1.8						
	0.6nm,0.7s						

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*IDC **15** 00:16:33.5±0.9, 32°.83N×86°.83E, h0^{km}, mb3.5/10, mbtmp3.6/13, ML3.6/3, MS3.3/5, Error ellipse: s-maj=30.9km s-min=16.7km az=57.0*

ISC 15 00:16:39.0±0.8**, 33°.0N**±0°.1×**87°.0E**±0°.1**, h35^{km}, n23, σ1^{s}.43**/19**, mb3.6**/8**, MS3.1**/5**, 1C-4D, Xizang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WMQ	Urumqi	10.84	3	eP	Pn	00 19 09.8	-1.9
MKAR	Makanchi Array	14.26	347	Pn	Pn	00 19 56.8	-1.6
	baz=149,slow=14,SNR=4.5						
	0.6nm,0.8s						
CMAR	Chiang Mai Arr	18.00	141	P	Pn	00 20 45.4	-1.0
	0.3nm,0.3s,baz=320,slow=13,SNR=6.2						
	0.7nm,0.3s						
CMAR				AML	AML		
KURBB	Kurchatov Arra	18.71	343	P	P	00 20 53.3	-1.0
	0.1nm,0.3s,baz=163,slow=12,SNR=5.4						
	0.6nm,0.2s						
KURBB				AML	AML		
SONM	Songino Array	20.85	39	P	P	00 21 19.6	+1.8
	0.4nm,0.3s,baz=230,slow=8.7,SNR=5.3						
	0.4nm,0.3s						
ZALV	Zalesovo Beam	21.02	356	P	P	00 21 19.9	+0.4
	1.2nm,0.6s,baz=169,slow=11,SNR=3.6						
ZALV				LR	LR	00 30 40.5	
	comp=Z,49nm,19.3s,baz=168,slow=40						
	1.2nm,0.6s						
BVAR	Borovoye Array	23.33	334	P	P	00 21 44.2	+0.4
	0.2nm,0.3s,baz=142,slow=7.5,SNR=4.1						
	0.2nm,0.3s						
AKTO	Aktyubinsk	27.54	318	LR	LR	00 35 34.4	
	comp=Z,18nm,18.7s,baz=308,slow=41						
KBZ	Khabaz	35.84	300	LR	LR	00 40 23.6	
	comp=Z,31nm,18.0s,baz=141,slow=40						
VRI	Vrincioaia	47.26	304	⇓P	P	00 25 10.5	+1.8
PLOR	Plostina	47.31	304	⇓P	P	00 25 11.4	+2.2
MLR	Muntele Rosu	47.85	304	⇑P	P	00 25 16.3	+2.9
LOT	Lotru	49.37	304	⇓P	P	00 25 24.9	-0.3
DRGR		49.90	306	⇓P	P	00 25 28.0	-1.1
NOA	NORSAR Array B	54.99	325	P	P	00 26 06.9	+0.4
	0.6nm,0.7s,baz=84,slow=7.5,SNR=2.7						
	0.6nm,0.7s						
GERES	GERESS Array B	55.51	310	P	P	00 26 09.9	-0.7
	1.4nm,0.7s,baz=61,slow=6.3,SNR=9.0						
	1.4nm,0.7s						
DAVOX	Davos/Dischmat	58.52	308	LR	LR	00 56 08.2	
	comp=Z,25nm,21.3s,baz=92,slow=41						
WRA	Warramunga Arr	69.37	132	P	P	00 27 43.2	-0.2
	0.3nm,0.5s,baz=328,slow=6.4,SNR=5.7						
	0.3nm,0.5s						
ESDC	Sonseca Array	70.52	305	P	P	00 27 50.2	-0.2
	0.6nm,0.8s,baz=56,slow=7.0,SNR=4.2						
	0.6nm,0.8s						
KRVT	Keravat (AS076	71.72	108	LR	LR	00 54 55.7	
	comp=Z,129nm,20.8s,baz=162,slow=32						
ASAR	Alice Springs	71.92	135	P	P	00 27 58.4	-0.5
	0.6nm,0.7s,baz=324,slow=6.3,SNR=6.2						
	0.6nm,0.7s						
ILAR	Eielson Array	73.91	21	P	P	00 28 11.6	+1.5
	0.3nm,0.6s,baz=325,slow=5.9,SNR=2.4						
	0.3nm,0.6s						
TORD	Torodi Ar. Bea	79.09	279	P	P	00 28 39.8	-0.5
	0.9nm,0.9s,baz=58,slow=5.4,SNR=3.5						
	0.9nm,0.9s						

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*IDC **15** 00:32:44.9±3.1, 18°.05S×173°.32W, h75^{km}±29^{km}, mb3.5/7, mbtmp3.9/9, MS2.8/1, Error ellipse: s-maj=35.0km s-min=17.8km az=130.0*

ISC 15 00:32:42.5±0.9**, 18°.2S**±0°.1×**173°.1W**±0°.2**, h50^{km}, n12, σ1^{s}.74**/9**, mb3.8**/7**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	4.45	17	P	Pn	00 33 48.8	+1.2
	22nm,0.4s,baz=26,slow=14,SNR=2.1						
AFI				S	Sn	00 34 24.8	-13
	111nm,0.3s,baz=69,slow=23,SNR=9.3						
AFI				LR	LR	00 35 27.6	
	comp=Z,120nm,20.0s,baz=173,slow=37						
MSVF	Nonsavu	8.41	272	P	Pn	00 34 43.1	+1.3
	9.2nm,1.0s,baz=175,slow=13,SNR=3.5						
URZ	Urewera	21.74	201	P	P	00 37 29.7	+0.1
	10nm,0.4s,baz=293,slow=2.8,SNR=16						
	10nm,0.4s						
WRA	Warramunga Arr	49.52	259	P	P	00 41 26.6	-2.0
	0.3nm,0.3s,baz=98,slow=6.4,SNR=8.3						
	0.3nm,0.3s						
ASAR	Alice Springs	49.55	254	P	P	00 41 27.6	-1.2
	1.2nm,0.7s,baz=89,slow=8.7,SNR=10						
	1.2nm,0.7s						
VNDA	Vanda	60.64	186	P	P	00 42 49.5	+1.6
	0.5nm,0.8s,baz=237,slow=7.6,SNR=2.0						
	0.5nm,0.8s						
NVAR	Mina Array Bea	76.23	41	P	P	00 44 27.2	+1.1
	0.8nm,0.7s,baz=237,slow=8.5,SNR=5.2						
	0.8nm,0.7s						
H03S2	Juan Fernandez	83.46	123	T	T	02 17 57.4	
	baz=251						
H03S1	Juan Fernandez	83.47	123	T	T	02 18 03.6	
	baz=251						
H03S3	Juan Fernandez	83.47	123	T	T	02 18 02.0	
	baz=251						
PDAR	Pinedale Array	84.17	42	P	P	00 45 06.8	-1.9
	0.5nm,0.8s,baz=228,slow=1.8,SNR=4.4						
	0.5nm,0.8s						
ILAR	Eielson Array	85.12	11	P	P	00 45 11.3	-1.4
	0.5nm,0.8s,baz=208,slow=5.0,SNR=4.6						
	0.5nm,0.8s						

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*SOME **15** 00:40:19.3, 43°.80N×86°.30E, h5^{km}*

*NNC **15** 00:40:22.6±2.5, 43°.88N×86°.26E, h14^{km}±8^{km}, mb3.5, mpv3.2, Error ellipse: s-maj=18.6km s-min=9.6km az=117.0*

ISC 15 00:40:24.1±2.8**, 43°.90N**±0°.09×**86°.2E**±0°.1**, h10^{km}, n10, σ1^{s}.62**/19**, 10C-2D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZSN	Zaisan	3.66	346	Pg	Pb	00 41 29.9	+1.0
	11nm,0.5s						
ZSN				Lg	Lg	00 42 22.2	
	32nm,0.7s						
ZSN	Zaisan	3.66	346	eP	Pb	00 41 29.9	+1.0
	11nm,0.5s						
ZSN				eS	Sg	00 42 22.2	+0.6
	32nm,0.7s						
MK31	Makanchi Array	3.97	318	⇑Pn	Pn	00 41 23.1	-2.0
	0.5nm,0.3s,baz=134,slow=14,SNR=36						
MK31				Pg	Pg	00 41 38.8	-1.3
	1.4nm,0.5s,baz=132,slow=18,SNR=7.5						
MK31				⇑Sn	Sn	00 42 12.6	+0.9
	2.3nm,0.5s						
MK31				Lg	Lg	00 42 31.9	
	7.3nm,0.5s,baz=131,slow=31,SNR=7.8						
DJR	Jarkent	4.60	278	Pg	Pb	00 41 47.3	+2.3
	0.6nm,0.1s						
DJR				Lg	Lg	00 42 51.8	
	5.6nm,0.8s						
DJR	Jarkent	4.60	278	eP	Pb	00 41 47.2	+2.3
	0.6nm,0.1s						
DJR				eS	Sg	00 42 51.8	+0.1
	5.6nm,0.8s						
PDGK	Podgornoye	4.87	266	⇑Pn	Pn	00 41 36.0	-1.5
	0.7nm,0.4s						
PDGK				⇑Pg	Pg	00 41 55.8	-1.5
	2.8nm,0.6s						
PDGK				⇑Sn	Sn	00 42 33.7	-0.3
	6.2nm,0.8s						
PDGK				⇑Lg	Lg	00 42 59.7	
	23nm,0.9s						
UZB	Uzynbulak	5.24	264	Pg	Pb	00 41 58.3	+2.5
	1.5nm,0.3s						
UZB				Lg	Lg	00 43 11.2	
	5.4nm,0.7s						
UZB	Uzynbulak	5.24	264	eP	Pb	00 41 58.3	+2.5
	1.5nm,0.3s						
UZB				eS	Sg	00 43 11.2	-1.0
	5.4nm,0.7s						
KURBB	Kurchatov Arra	8.48	325	⇑Pn	Pn	00 42 28.0	+1.0
	1.6nm,0.5s						
KURBB				⇓Sn	Sn	00 44 01.2	-1.5
	6.0nm,0.6s						
KURBB				⇑Lg	Lg	00 44 52.5	
	16nm,0.8s						
KURK	Kurchatov	8.52	326	⇑Pn	Pn	00 42 28.0	+0.5
	0.3nm,0.5s						
KURK				⇑Sn	Sn	00 44 04.0	+0.5
	1.1nm,0.6s						
KURK				⇓Lg	Lg	00 44 54.7	
	3.8nm,0.8s						

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*NEIC **15** 00:53:41.9±1.2, 23°.82S±0°.06×180°.0W±0°.2, h527^{km}±9^{km}, mb4.4/13, Error ellipse: s-maj=25.5km s-min=7.0km az=80.0*

*IDC **15** 00:53:43.8±2.4, 23°.62S×179°.91E, h555^{km}±25^{km}, mb3.1/4, mbtmp4.0/5, Error ellipse: s-maj=26.4km s-min=22.7km az=137.0*

ISC 15 00:53:40.5±0.7**, 23°.85S**±0°.10×**180°.0W**±0°.1**, h500^{km}, n32, σ1^{s}.81**/32**, mb4.0**/9**, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	5.68	162	P	P	00 55 16.3	+2.7
MSVF	Nonsavu	6.37	343	P	P	00 55 23.5	+3.0
	5.8nm,0.7s,baz=235,slow=20,SNR=2.2						
MSVF	Nonsavu	6.37	343	P	P	00 55 22.7	+2.2
MARNC	Mare, Loyalty	11.33	280	P	P	00 56 14.5	+2.6
FUNA	Funafuti	15.26	357	P	P	00 56 53.5	0.0
THZ	Tophouse	18.82	197	P	P	00 57 29.1	+0.9
LTZ	Lake Taylor	19.94	197	P	P	00 57 38.8	+0.4
LTZ				IAmb	IAmb	00 58 11.7	
	comp=Z,36nm,1.3s						
CTAO	Charters Tower	31.50	270	P	P	00 59 21.0	0.0
CTAO				IAmb	IAmb	00 59 21.6	
	comp=Z,26nm,1.2s						
PATS	Pohnpei	37.15	323	P	P	01 00 08.0	-0.4
BBOO	Buckleboo	39.49	247	P	P	01 00 26.2	-1.1
BBOO				IAmb	IAmb	01 01 04.9	
	comp=Z,39nm,1.5s						
AS31	Alice Springs	42.07	261	P	P	01 00 47.4	-0.7
ASAR	Alice Springs	42.07	261	P	P	01 00 47.5	-0.6
	comp=Z,0.8nm,0.5s,baz=96,slow=7.7,SNR=11						
	comp=Z,0.8nm,0.5s						
ASAR	Alice Springs	42.07	261	P	P	01 00 46.7	-1.3
WR0	Warramunga Arr	42.25	266	P	P	01 00 48.2	-1.3
WR0				IAmb	IAmb	01 01 25.9	
	comp=Z,10nm,1.4s						
WR8	Warramunga Arr	42.29	266	P	P	01 00 48.4	-1.4
WR8				IAmb	IAmb	01 00 50.6	
	comp=Z,7.1nm,1.4s						
WB0	Warramunga Arr	42.43	266	P	P	01 00 49.4	-1.5
WB0				IAmb	IAmb	01 01 03.1	
	comp=Z,13nm,1.4s						
WRA	Warramunga Arr	42.44	266	P	P	01 00 49.5	-1.5
	comp=Z,1.2nm,0.3s,baz=103,slow=8.1,SNR=85						
	comp=Z,1.2nm,0.3s						
WRA	Warramunga Arr	42.44	266	P	P	01 00 49.5	-1.5
KNRA	Kununurra	48.71	270	P	P	01 01 37.8	-1.3
QSPA	South Pole Qui	66.23	180	P	P	01 03 38.2	+0.1
	comp=Z,1.9nm,0.6s,baz=339,slow=4.0,SNR=11						
	comp=Z,1.9nm,0.6s						
QSPA	South Pole Qui	66.23	180	P	P	01 03 38.3	+0.1
QSPA				IAmb	IAmb	01 03 39.7	
	comp=Z,2.6nm,0.8s						
TXAR	Lajitas Array	90.38	58	P	P	01 05 47.6	-0.7
	comp=Z,0.3nm,0.6s,baz=249,slow=5.1,SNR=3.0						
	comp=Z,0.3nm,0.6s						
BVAR	Borovoye Array	120.42	319	PKP	PKPdf	01 11 31.0	-3.4
	comp=Z,0.5nm,0.4s,baz=94,slow=2.0,SNR=4.2						
POGA	Pongola	120.62	213	PKPdf	PKPdf	01 11 32.8	-2.8
ARCES	ARCESS Array B	131.85	348	PKP	PKPdf	01 11 52.7	-3.0
	comp=Z,2.1nm,0.8s,baz=43,slow=4.5,SNR=4.6						
HFS	Hagfors	142.51	349	PKhKP	PKPpre	01 12 08.9	
	comp=Z,1.0nm,0.3s,baz=69,slow=2.1,SNR=11						
AKASG	Malin Array Be	144.95	327	PKP	PKPdf	01 12 17.1	-2.9
	comp=Z,0.6nm,0.3s,baz=45,slow=3.8,SNR=7.0						
BRTR	Keskin Array B	147.57	307	PKPbc	PKPdf	01 12 24.3	-0.8
	comp=Z,1.0nm,0.6s,baz=74,slow=3.2,SNR=5.2						
BRTR	Keskin Array B	147.57	307		PKPdf	01 12 24.5	-0.5
BRTR				PKPab	PKiKP	01 12 30.8	+0.7
MMAI	Mount Meron Ar	147.71	294	PKPbc	PKPdf	01 12 26.7	+1.3
	comp=Z,1.1nm,0.4s,baz=42,slow=6.6,SNR=2.5						
EKA	Eskdalemuir Ar	148.47	3	PKPbc	PKPdf	01 12 26.4	+0.6
	comp=Z,0.4nm,0.4s,baz=340,slow=2.7,SNR=8.9						
CLL	Collm	150.82	343	i PKPbc	PKPdf	01 12 32.7	+3.1
	comp=Z,3.0nm,0.8s						

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*IDC **15** 00:55:29.2±1.5, 23°.01S×66°.63W, h212^{km}±14^{km}, mb3.3/7, mbtmp4.0/14, Error ellipse: s-maj=15.8km s-min=13.0km az=85.0*

*VAO **15** 00:55:29.7±0.5, 22°.95S×66°.66W, h243^{km}, mb4.0, Presumed earthquake*

*SJA **15** 00:55:29.5±0.9, 22°.93S×66°.65W, h235^{km}±6^{km}, ML4.3, MW3.9*

*NEIC **15** 00:55:29.7±2.0, 22°.97S±0°.06×66°.72W±0°.10, h243^{km}±10^{km}, mb4.3/7, ML4.3(GUC), Error ellipse: s-maj=13.2km s-min=8.4km az=84.0*

*GUC **15** 00:55:31.7±0.6, 22°.96S×66°.73W, h228^{km}±9^{km}, ML4.4*

ISC 15 00:55:29.3±0.6**, 23°.01S**±0°.04×**66°.71W**±0°.04**, h234^{km}**±6^{km}**, n137, σ1^{s}.39**/170**, mb3.7**/9**, 10C-1D, Jujuy Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HJA	Humahuaca	1.22	100	eP	Pn	00 56 05.3	+0.8
SALTA		1.26	164	eP	Pn	00 56 05.8	+0.9
SALTA				eP		00 56 06.0	
SALTA				eS	S	00 56 33.2	+0.4
AF01	San Pedro de A	1.35	272	eP	Pn	00 56 07.3	+2.0
AF01				eS	S	00 56 18.4	-15
AF01	San Pedro de A	1.35	272	⇑eP	Pn	00 56 07.2	+1.9
AF01	San Pedro de A	1.35	272		Pn	00 56 07.1	+1.7
YJA	Yavi	1.38	53	eP	Pn	00 56 06.5	+0.8
YJA				eS	S	00 56 32.3	-1.8
YJA	Yavi	1.38	53	⇑eP	Pn	00 56 06.3	+0.6
SLA	San Lorenzo	2.03	147	eP	Pn	00 56 12.6	+1.6
SLA	San Lorenzo	2.03	147	⇓eP	Pn	00 56 12.5	+1.6
PB09	IPOC Station P	2.63	297	eP	Pn	00 56 18.8	+1.7
PB09	IPOC Station P	2.63	297	⇑eP	Pn	00 56 18.8	+1.7
PB09				eS	S	00 56 54.2	-0.3
PB09				IAML		00 56 58.7	
	comp=N,266nm,0.2s						
PB09	IPOC Station P	2.63	297		Pn	00 56 18.8	+1.7

PB09				Sn	S	00 56 54.9	+0.5
PB06	IPOC Station P	2.66	276	*e*P	Pn	00 56 18.4	+1.2
PB06				*e*S	S	00 56 56.0	+1.3
PB06				IAML		00 56 59.4	
	comp=Z,314nm,0.1s						
PB06	IPOC Station P	2.66	276⇑	*e*P	Pn	00 56 18.5	+1.2
PB06				IAML		00 56 57.5	
	comp=N,732nm,0.1s						
PB06	IPOC Station P	2.66	276		Pn	00 56 18.3	+1.2
PB06				Sn	S	00 56 55.3	+0.5
PB03	IPOC Station P	2.97	288	*e*P	Pn	00 56 21.7	+1.0
PB03				*e*S	S	00 57 00.1	-0.9
PB03				IAML		00 57 01.8	
	comp=Z,579nm,0.1s						
PB03	IPOC Station P	2.97	288⇑	*e*P	Pn	00 56 21.8	+1.0
PB03				*e*S	S	00 56 59.9	-1.0
PB03				IAML		00 57 03.2	
	comp=E,579nm,0.1s						
PB03	IPOC Station P	2.97	288		Pn	00 56 22.0	+1.3
PB03				Sn	S	00 57 00.1	-0.9
FSA	Cafayete	3.16	168	*e*P	Pn	00 56 24.3	+1.5
PB07	IPOC Station P	3.20	293	*e*P	Pn	00 56 24.2	+0.9
PB07				*e*S	S	00 57 05.1	-0.6
PB07				IAML		00 57 07.3	
	comp=Z,539nm,0.1s						
PB07	IPOC Station P	3.20	293	*e*P	Pn	00 56 24.4	+1.0
PB07				*e*S	S	00 57 04.3	-1.4
PB07	IPOC Station P	3.20	293		Pn	00 56 24.2	+0.9
PB07				Sn	S	00 57 04.0	-1.7
PB05	IPOC Station P	3.22	272	*e*P	Pn	00 56 24.6	+1.1
PB05				*e*S	S	00 57 06.2	+0.2
PB05				IAML		00 57 09.1	
	comp=Z,265nm,0.3s						
PB05	IPOC Station P	3.22	272⇑	*e*P	Pn	00 56 24.5	+1.1
PB05				IAML		00 57 07.1	
	comp=E,401nm,0.2s						
PB05	IPOC Station P	3.22	272		Pn	00 56 24.5	+1.1
PB05				Sn	S	00 57 04.8	-1.1
PB02	IPOC Station P	3.40	299	*e*P	Pn	00 56 26.3	+0.8
PB02				IAML		00 57 11.2	
	comp=Z,740nm,0.2s						
PB02	IPOC Station P	3.40	299⇑	*e*P	Pn	00 56 26.2	+0.8
PB02				*e*S	S	00 57 07.7	-1.9
PB02	IPOC Station P	3.40	299		Pn	00 56 26.0	+0.6
PB02				Sn	S	00 57 07.2	-2.4
PB08	IPOC Station P	3.65	321	*e*P	Pn	00 56 30.6	+1.9
PB08				*e*S	S	00 57 16.3	+0.9
PB08				IAML		00 57 17.6	
	comp=Z,172nm,0.8s						
PB08	IPOC Station P	3.65	321⇑	*e*P	Pn	00 56 30.3	+1.6
PB08				*e*S	S	00 57 15.1	-0.3
PB08	IPOC Station P	3.65	321		Pn	00 56 30.3	+1.6
PB08				Sn	S	00 57 15.5	+0.1
PB14	IPOC Station P	3.75	244	*e*P	Pn	00 56 31.1	+1.4
PB14				*e*S	S	00 57 16.8	-0.5
PB14				IAML		00 57 19.7	
	comp=Z,402nm,0.4s						
PB14	IPOC Station P	3.75	244		Pn	00 56 30.9	+1.2
PB14				Sn	S	00 57 16.2	-1.1
TA01	Diego Aracena	4.04	306	*e*P	Pn	00 56 33.4	+0.5
TA01				*e*S	S	00 57 21.5	-1.6
TA01				IAML		00 57 24.1	
	comp=Z,171nm,0.6s						
TA01	Diego Aracena	4.04	306	*e*P	Pn	00 56 32.8	-0.1
TA01				*e*S	S	00 57 20.7	-2.4
TA01	Diego Aracena	4.04	306		Pn	00 56 33.0	+0.1
TA01				Sn	S	00 57 20.2	-2.9
GO01	Chusmiza	4.05	325	*e*P	Pn	00 56 34.8	+1.2
GO01				IAML		00 57 29.0	
	comp=Z,174nm,0.1s						
GO01	Chusmiza	4.05	325⇑	*e*P	Pn	00 56 34.7	+1.2
GO01				*e*S	S	00 57 24.5	+0.4
GO01	Chusmiza	4.05	325		Pn	00 56 34.6	+1.1
GO01				Sn	S	00 57 22.3	-1.8
TA02	Huaiquique	4.19	310	*e*P	Pn	00 56 34.4	-0.3
PB11	IPOC Station P	4.24	319	*e*P	Pn	00 56 35.8	+0.3
PB11				IAML		00 57 28.1	
	comp=Z,266nm,0.2s						
PB11	IPOC Station P	4.24	319⇑	*e*P	Pn	00 56 35.5	0.0
PB11	IPOC Station P	4.24	319		Pn	00 56 35.9	+0.4
PB11				Sn	S	00 57 25.9	-1.9
AC02	Maricunga	4.40	209	*e*P	Pn	00 56 39.3	+1.6
AC02				*e*S	S	00 57 47.7	+16
AC02	Maricunga	4.40	209	*e*P	Pn	00 56 39.4	+1.6
AC02	Maricunga	4.40	209		Pn	00 56 38.5	+0.8
AC02				Sn	S	00 57 32.9	+1.2
PSGCX	Pisagua	4.65	316	*e*P	Pn	00 56 40.0	-0.5
PSGCX				IAML		00 57 37.1	
	comp=Z,462nm,0.9s						
PSGCX	Pisagua	4.65	316	*e*P	Pn	00 56 39.6	-0.8
PSGCX	Pisagua	4.65	316		Pn	00 56 39.8	-0.7
AC01	Pan de Azucar	4.72	228	*e*P	Pn	00 56 41.6	+0.4
AC01				*e*S	S	00 57 35.3	-2.8
AC01				IAML		00 57 41.0	
	comp=Z,128nm,0.3s						
AC01	Pan de Azucar	4.72	228	*e*P	Pn	00 56 41.4	+0.2
AC01	Pan de Azucar	4.72	228		Pn	00 56 41.1	-0.1
TINO	Tinogasta	5.09	189	*e*P	Pn	00 56 48.0	+2.2
PB16	IPOC Station P	5.33	330	*e*P	Pn	00 56 50.5	+1.1
PB16				IAML		00 57 57.0	
	comp=Z,90nm,0.4s						
PB16	IPOC Station P	5.33	330		Pn	00 56 48.9	-0.5
PB12	IPOC Station P	5.53	322		Pn	00 56 50.4	-0.9
GO03	Copiapo	5.57	214		Pn	00 56 52.5	+0.7
PB18	Visviri	5.98	334		Pn	00 56 59.6	+2.1
AC04	Llanos de Chal	6.50	216	Pn	Pn	00 57 03.4	-0.1
AC05	El Transito	6.63	208	Pn	Pn	00 57 06.0	+0.8
LPAZ	La Paz	6.81	348	P	Pn	00 57 08.8	+0.6
	comp=Z,12nm,0.4s,baz=93,slow=3.1,SNR=95						
LPAZ				S	S	00 58 25.4	-1.5
	comp=Z,13nm,0.7s,baz=59,slow=25,SNR=11						
LPAZ	La Paz	6.81	348		Pn	00 57 07.8	-0.3
LPAZ	La Paz	6.81	348	*e*P	Pn	00 57 06.1	-2.1
GO04	Tololo Observa	8.02	206	Pn	Pn	00 57 23.1	+0.1
MURT	Porto Murtinho	8.53	83	*e*P	Pn	00 57 29.2	-0.2
CO03	El Pedregal	8.57	204	Pn	Pn	00 57 30.3	+0.3
CFA	Coronel Fontan	8.67	189	P	Pn	00 57 31.4	+0.3
	comp=Z,1.0nm,0.3s,baz=339,slow=12,SNR=20						
CFA				S	S	00 59 02.7	-6.6
	comp=Z,3.8nm,0.3s,baz=312,slow=23,SNR=14						
SIV	San Ignacio	8.77	38	P	Pn	00 57 31.3	-1.2
	comp=Z,14nm,0.7s,baz=255,slow=8.3,SNR=47						
SIV				S	S	00 59 12.0	+0.2
	comp=Z,1.3nm,0.7s,baz=174,slow=20,SNR=1.2						
COIM	Forte Coimbra	8.86	71	*e*P	Pn	00 57 31.5	-2.1
CO02	Combarbal	9.01	204	Pn	Pn	00 57 35.3	-0.3
CPUP	Villa Florida	9.15	113	P	Pn	00 57 35.9	-1.4
	comp=Z,1.4nm,0.7s,baz=292,slow=12,SNR=4.1						
CPUP	Villa Florida	9.15	113	Pn	Pn	00 57 36.7	-0.6
CPUP	Villa Florida	9.15	113	*e*P	Pn	00 57 36.1	-1.2
CO04	Los Peladeros	9.76	202	Pn	Pn	00 57 44.8	-0.5
VA03	San Esteban	10.30	198	Pn	Pn	00 57 53.1	+1.2
PTLB	Pontes e Lacer	10.37	45		Pn	00 57 51.9	-1.0
PTLB	Pontes e Lacer	10.37	45	*e*P	Pn	00 57 52.1	-0.8
MT02	Curacav	10.93	200	Pn	Pn	00 58 01.1	+1.2
MT09	Talagante	11.37	198	Pn	Pn	00 58 05.8	+0.3
PSAL	Palomas, Salto	11.42	137	*e*P	Pn	00 58 04.7	-1.3
MT01	Popeta	11.53	199	Pn	Pn	00 58 06.6	-0.7
VILB	Vilhena	11.76	33	P	Pn	00 58 09.0	-1.4
VILB	Vilhena	11.76	33	*e*P	Pn	00 58 09.3	-1.1
BO01	Tunca	11.97	198	Pn	Pn	00 58 12.8	-0.2
BO02	Sierra Bellavi	12.27	196	Pn	Pn	00 58 17.3	+0.6
SALV	Santo Antonio	12.56	58	*e*P	Pn	00 58 21.0	+0.6
GO05	Hualane	12.80	200		Pn	00 58 23.2	0.0
TRCB	Terra Rica	12.98	92		P	00 58 28.1	+0.3
TRCB	Terra Rica	12.98	92	*e*P	Pn	00 58 24.2	-1.3
ML02	Panimavida	13.36	197		Pn	00 58 31.0	+1.0
CPSB	Cacapava Do Su	13.96	125		Pn	00 58 37.7	+0.3
CPSB	Cacapava Do Su	13.96	125	*e*P	P	00 58 38.5	-0.1
BI02	San Fabin de	14.17	195	P	P	00 58 42.3	+1.4
NNA	Nana	14.60	317	P	P	00 58 46.9	+1.0
	comp=Z,5.2nm,0.5s,baz=78,slow=17,SNR=1.6						
FRTB	Fartura	15.78	95	*e*P	P	00 58 58.3	-0.4
ARAG	Araguaiana, MT	15.82	65	*e*P	Pn	00 58 59.8	-0.3
CLDB	Colider	15.94	43	*e*P	Pn	00 59 00.7	-0.9
BB19B	Bebedouro	16.97	87	*e*P	P	00 59 11.1	-0.8
GO06	Curarrehue	17.02	193	P	P	00 59 11.2	-1.1
GO06				IAmb	IAmb	00 59 16.2	
	comp=Z,3.1nm,0.8s						
PET01	Itanhaem-SP	17.86	98	*e*P	P	00 59 22.0	+0.5
PLCA	Paso Flores	17.97	189	P	P	00 59 23.6	+1.0
	comp=Z,1.8nm,0.8s,baz=17,slow=13,SNR=3.7						
PLCA	Paso Flores	17.97	189	P	P	00 59 24.7	+2.1
PLCA	Paso Flores	17.97	189	*e*P	P	00 59 24.1	+1.5
IPMB	Ipameri, GO	18.03	77	*e*P	P	00 59 22.8	-0.7
VAO	Valinhos	18.18	94	*e*P	P	00 59 25.2	+0.1
SNDB	Serra Nova Dou	18.33	56	*e*P	P	00 59 26.6	-0.1
CANS	Sao Roque de M	19.08	86	*e*P	P	00 59 35.0	+0.2
BDFB	Brasilia	19.09	71	P	P	00 59 36.2	+1.2
	comp=Z,6.8nm,0.5s,baz=240,slow=9.9,SNR=9.8						
BDFB	Brasilia	19.09	71		P	00 59 36.1	+1.2
BDFB				IAmb	IAmb	00 59 37.0	
	comp=Z,15nm,1.1s						
PMNB	Patos De Minas	19.47	81	*e*P	P	00 59 38.8	-0.1
ITTB	Itaituba	21.35	31	*e*P	P	00 59 58.6	-0.1
DIAM	Diamantina, MG	22.05	82	*e*P	P	01 00 03.7	-1.8
JANB	Januaria	22.58	73	*e*P	P	01 00 09.9	-0.4
SMTB	Santa Maria do	23.11	56	*e*P	P	01 00 13.3	-1.7
CAM01	Campos-RJ	23.19	92	*e*P	P	01 00 14.7	-0.9
SDBA	SAO DESIDERIO	23.26	67	*e*P	P	01 00 14.8	-1.6
ARCA	Ara§uai, MG	24.05	80	*e*P	P	01 00 22.1	-1.3
SJMB	Sao Joao De Ma	24.22	85	*e*P	P	01 00 23.5	-1.6
BSFB	Barra de Sao F	24.50	85	*e*P	P	01 00 26.4	-1.2
RIB01	Linhares ES	24.80	86	*e*P	P	01 00 29.2	-1.1
GUA01	Guaratinga, BA	26.09	81	*e*P	P	01 00 41.1	-0.7
CXM	Morne La Croix	37.97	9	P	P	01 02 22.3	-2.8
CXM				IAmb	IAmb	01 02 33.8	
	comp=Z,26nm,1.0s						
HOPE	Hope Point	38.59	152	P	P	01 02 28.4	-1.2
HOPE				IAmb	IAmb	01 02 32.9	
	comp=Z,27nm,1.1s						
WVT	Waverly	62.11	341	P	P	01 05 25.5	0.0
WVT				IAmb	IAmb	01 05 36.0	
	comp=Z,3.7nm,1.1s						
QSPA	South Pole Qui	67.19	180	P	P	01 06 00.6	+2.4
	comp=Z,1.5nm,0.9s,baz=102,slow=3.0,SNR=3.6						
	comp=Z,1.5nm,0.9s						
DBIC	Dimbokro	67.24	72	P	P	01 06 01.0	+1.9
	comp=Z,8.1nm,1.1s,baz=297,slow=3.7,SNR=2.1						
	comp=Z,8.1nm,1.1s						
ANMO	Albuquerque	68.88	326	P	P	01 06 11.6	+2.5
	comp=Z,0.4nm,0.3s,baz=134,slow=3.9,SNR=3.0						
	comp=Z,0.4nm,0.3s						
SALN	Salton City	73.06	318	P	P	01 06 31.7	-2.2
TORD	Torodi Ar. Bea	75.97	69	P	P	01 06 52.1	+1.0
	comp=Z,0.9nm,0.4s,baz=258,slow=5.9,SNR=27						
	comp=Z,0.9nm,0.4s						
PDAR	Pinedale Array	76.43	329	P	P	01 06 55.9	+2.6
	comp=Z,0.3nm,0.7s,baz=183,slow=4.8,SNR=2.9						
	comp=Z,0.3nm,0.7s						
NVAR	Mina Array Bea	77.93	321	P	P	01 07 04.7	+2.9
	comp=Z,0.2nm,0.6s,baz=145,slow=5.4,SNR=3.8						
	comp=Z,0.2nm,0.6s						
ESDC	Sonseca Array	85.50	43	P	P	01 07 42.8	+1.8
	comp=Z,0.3nm,0.7s,baz=329,slow=4.3,SNR=1.7						
	comp=Z,0.3nm,0.7s						
MKAR	Makanchi Array	145.59	39	PKPbc	PKiKP	01 14 42.4	-1.3
	comp=Z,0.3nm,0.5s,baz=318,slow=3.4,SNR=4.1						
WMQ	Urumqi	150.41	39	*e*PKPbc	PKPdf	01 14 46.0	-1.7
WMQ				PKPab	PKPab	01 15 02.3	+1.8
HHC	Hu-ho-hao-te	162.15	4	*e*P	PKPdf	01 15 02.0	-1.0
LZH	Lanzhou	164.60	30	*e*P	PKPdf	01 15 06.3	+0.8
LZH				pmax	pmax		
	comp=Z,23nm,1.2s						
PZH	PanZhiHua	168.95	69	PKP	PKPdf	01 15 05.6	-3.4

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*IPEC **15** 01:14:39.5±0.2, 51°.49N×16°.20E, h1^{km}, ML2.1/7, Error ellipse: s-maj=2.0km s-min=1.3km az=68.0*
*DNK **15** 01:14:40.1±0.8, 51°.51N×15°.97E, h12^{km}±38^{km}, ML2.5, Presumed earthquake*
*VIE **15** 01:14:40.9±0.5, 51°.38N×15°.99E, h0^{km}, mb2.1/4, ml2.5/5, Error ellipse: s-maj=3.6km s-min=2.7km az=13.0 78 km WNW of Wroclaw Suspected Mining induced.*
*PRU **15** 01:14:41.4, 51°.45N×16°.15E, h0^{km}*
ISC 15 01:14:38.6±0.8, **51°.54N**±0°.03×**16°.14E**±0°.03, **h0**^{km}, **n28**, σ**1^{s}08**/52, **Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	Ksiaz	0.71	172	*e*Pg	Pg	01 14 52.5	+0.4
KSP				*e*Sg	Sg	01 15 01.1	-0.2
CHVC	Chvalec	0.95	183	*e*PG	Pg	01 14 57.3	+0.4
CHVC				*e*SG	Sg	01 15 09.3	0.0
	comp=Z,8.0nm,0.4s						
CHVC				AML	AML		
OSTC	Ostas	0.99	177	*e*PG	Pb	01 14 58.1	-0.5
OSTC				*e*SG	Sg	01 15 09.7	-0.6
	comp=Z,18nm,0.3s						
OSTC				AML	AML		
UPC	Upice	1.04	184	*e*PG	Pb	01 14 59.1	-0.4
UPC				*e*SG	Sg	01 15 11.3	-0.6
	comp=Z,35nm,0.4s						
UPC				AML	AML		
DPC	Dobruska-Polom	1.20	174	*e*PG	Pg	01 15 01.5	-0.1
DPC				*e*SG	Sg	01 15 16.5	-0.6
	comp=Z,11nm,0.3s						
DPC				AML	AML		
PIVO	Bartosovice	1.38	169	*e*Pg	Pg	01 15 04.8	-0.3
	baz=351						
PIVO				*e*Sg	Sg	01 15 21.3	-1.6
	24nm,0.3s,baz=351						
PIVO				AML	AML		
KRLC	Kraliky	1.52	164	*e*PG	Pb	01 15 07.6	-0.2
KRLC				*e*SG	Sn	01 15 27.6	-0.1
	comp=Z,9.5nm,0.3s						
KRLC				AML	AML		
BRG	Berggiesshubel	1.53	245	Pg	Pg	01 15 08.2	+0.2
BRG				Sg	Sg	01 15 28.3	+0.4
BRG				Amp		01 15 29.9	
	comp=Z,19nm,0.4s						
ANAC	Anensky vrch	1.67	151	*e*Pn	Pn	01 15 08.8	-0.3
	baz=333						
ANAC				*e*Sg	Sn	01 15 29.7	-1.5
	baz=333						
RYBC	Ceska Rybna	1.73	182	*e*Pn	Pn	01 15 09.8	-0.2
	baz=2.9						
RYBC				*e*Sg	Sn	01 15 32.3	-0.6
	comp=Z,19nm,0.2s,baz=2.9						
RYBC				AML	AML		
STEB	Steborice	1.92	147	*e*PG	Pb	01 15 14.3	-0.1
STEB				*e*SG	Sb	01 15 39.2	+0.4
	comp=Z,11nm,0.3s						
STEB				AML	AML		
CLL	Collm	1.98	264	*e*Pn	Pn	01 15 14.0	+0.7
CLL				*e*Pg	Pb	01 15 16.0	+0.5
CLL				*e*Sg	Sg	01 15 42.0	-0.1
	comp=Z,10.0nm,0.5s						
MORC	Moravsky Berou	1.98	153	*e*Pn	Pn	01 15 13.3	-0.1
	baz=334						
MORC				*e*Sg	Sn	01 15 39.4	+0.5
	comp=Z,8.7nm,0.4s,baz=334						
MORC				AML	AML		
VRAC	Vranov	2.25	172	*e*Pn	Pn	01 15 17.3	+0.1
	baz=354						
VRAC				*e*Sg	Sb	01 15 48.6	0.0
	comp=Z,7.3nm,0.4s,baz=354						
VRAC				AML	AML		
ZVC	Zvikov	2.44	211	*e*SG	Sg	01 15 57.2	+0.1
KRUC	Moravsky	2.49	176	*e*Sg	Sb	01 15 55.9	+0.6
	comp=Z,5.2nm,0.3s,baz=357						
KRUC				AML	AML		
STAC	Stalkov	2.57	192	*e*Sg	Sb	01 15 58.6	+0.8
	comp=Z,9.4nm,0.3s,baz=13						
STAC				AML	AML		
OJC	Ojcow	2.67	118	*e*Pg	Pg	01 15 32.0	+2.2
OJC				*e*Sg	Sg	01 16 06.3	+1.9
KHC	Kasperske Hory	2.92	215	*e*PN	Pn	01 15 27.8	+1.5
KHC				*e*PG	Pb	01 15 32.6	+1.1
KHC				*e*SN	Sn	01 16 01.6	-0.5
KHC				*e*SG	Sg	01 16 11.8	-0.5
	comp=Z,2.4nm,0.3s						
KHC				AML	AML		
LANS	Liptovska Anna	3.21	137	*e*SG	Sg	01 16 20.2	-1.3
MODS	Modra-Piesok	3.25	166	*e*SG	Sg	01 16 22.2	-0.9
WINA	Alland / Wiene	3.44	181	*e*Sg	Sg	01 16 26.8	-2.2
	comp=Z,2.4nm,0.2s						
CONA	Conrad Observa	3.62	183	*e*Pn	Pn	01 15 35.8	-0.3
	comp=Z,0.1nm,0.1s						
CONA				*e*Sg	Sg	01 16 36.3	+1.4
	comp=Z,1.7nm,0.3s						
BSD	Bornholm Skovb	3.65	349	*i* P	Pn	01 15 37.1	+0.8
BSD				*i* S	Sn	01 16 18.8	-1.3
BSD				IAML		01 16 31.6	
	comp=Z,5.6nm,1.3s						
RONA	Rosalia, Austr	3.85	178	*e*Pn	Pn	01 15 38.7	-0.3
	comp=Z,0.1nm,0.2s						
LUNU	Lund	4.40	340	*i* P	Pn	01 15 46.5	-0.2
LUNU				*i* S	Sn	01 16 36.1	-2.5
BLEU	Blekinge	4.78	358	*i* P	Pn	01 15 52.9	+1.1
BLEU				*i* S	Sn	01 16 45.4	-2.4
DEL	Delary	5.12	346	*i* P	Pn	01 15 57.3	+0.9
DEL				*i* S	Sn	01 16 53.2	-3.0

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*IDC **15** 01:26:23.1±1.2, 82°.93S×110°.46E, h0^{km}, mb3.5/2, mbtmp3.8/4, ML3.6/2, Error ellipse: s-maj=24.3km s-min=21.0km az=149.0*
*NEIC **15** 01:26:24.3±1.0, 82°.88S±0°.09×111°.9E±0°.9, h10^{km}±1^{km}, mb4.2/7, Error ellipse: s-maj=24.0km s-min=6.7km az=305.0*
ISC 15 01:26:23.6±0.8, **82°.99S**±0°.08×**113°.06E**±0°.08, **h10**^{km}, **n19**, σ**1^{s}87**/24, **mb4.1**/6, **Antarctica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
QSPA	South Pole Qui	7.00	180	Pn	Pn	01 28 08.8	+2.6
	1.5nm,0.3s,baz=323,slow=5.1,SNR=43						
QSPA				Sn	Sn	01 29 24.6	-1.1
	1.7nm,0.3s,baz=336,slow=20,SNR=6.9						
QSPA				Lg	Lg	01 30 04.4	
	1.5nm,0.3s,baz=215,slow=23,SNR=11						
	3.4nm,0.3s						
QSPA				AML	AML		
QSPA	South Pole Qui	7.00	180		Pn	01 28 08.3	+2.1
QSPA				Sn	Sn	01 29 25.0	-0.7
VNDA	Vanda	9.51	82	Pn	Pn	01 28 43.0	+2.7
	1.8nm,0.3s,baz=213,slow=13,SNR=105						
VNDA				Sn	Sn	01 30 23.9	-3.1
	1.7nm,0.3s,baz=286,slow=20,SNR=10						
VNDA				Lg	Lg	01 31 22.8	
	0.5nm,0.3s,baz=289,slow=23,SNR=5.4						
	5.2nm,0.4s						
VNDA				AML	AML		
VNDA	Vanda	9.51	82		Pn	01 28 42.7	+2.4
VNDA				Sn	Sn	01 30 24.5	-2.5
SBA	Scott Base	9.83	89	Pn	Pn	01 28 47.2	+2.5
SBA				Sn	Sn	01 30 32.0	-2.9
BELA	Belgrano 2	18.55	201	P	P	01 30 37.3	-2.6
BELA				IAmb	IAmb	01 30 43.5	
	comp=Z,7.7nm,0.7s						
SUR	Sutherland	58.34	263	P	P	01 36 17.8	-0.8
ASAR	Alice Springs	59.91	22	P	P	01 36 30.3	+0.9
	comp=Z,0.3nm,0.4s,baz=193,slow=6.0,SNR=4.2						
	comp=Z,0.3nm,0.4s						
ASAR	Alice Springs	59.91	22	P	P	01 36 29.4	0.0
AS31	Alice Springs	59.91	22	P	P	01 36 29.4	0.0
AS31				IAmb	IAmb	01 36 41.8	
	comp=Z,0.8nm,0.8s						
BOSA	Boshof	61.51	268	P	P	01 36 40.6	+0.2
BOSA				IAmb	IAmb	01 36 56.9	
	comp=Z,2.5nm,1.1s						
WR8	Warramunga Arr	63.62	23	P	P	01 36 55.1	+0.8
WR8				IAmb	IAmb	01 37 10.2	
	comp=Z,4.3nm,1.1s						
WRA	Warramunga Arr	63.63	22	P	P	01 36 55.4	+1.0
	comp=Z,0.2nm,0.4s,baz=183,slow=5.8,SNR=1.6						
	comp=Z,0.2nm,0.4s						
WRA	Warramunga Arr	63.63	22	P	P	01 36 55.0	+0.6
WB0	Warramunga Arr	63.81	22	P	P	01 36 55.4	-0.2
WB0				IAmb	IAmb	01 37 16.1	
	comp=Z,3.6nm,1.1s						
LBTB	Lobatse	65.02	269	P	P	01 37 01.1	-2.5
FINES	FINESS Array B	150.14	285	PKPbc	PKPbc	01 46 12.4	-0.2
	comp=Z,0.8nm,0.7s,baz=147,slow=2.8,SNR=1.3						
FINES	FINESS Array B	150.14	285		PKiKP	01 46 12.8	-0.5
NOA	NORSAR Array B	151.55	271	PKPbc	PKiKP	01 46 16.7	+0.3
	comp=Z,0.3nm,0.6s,baz=166,slow=4.9,SNR=2.1						

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*NEIC **15** 02:26:39.8±2.0, 5°.29S±0°.09×148°.5E±0°.2, h177^{km}±8^{km}, mb4.1/10, Error ellipse: s-maj=28.9km s-min=13.1km az=98.0*
*IDC **15** 02:26:41.9±1.8, 5°.44S×148°.35E, h195^{km}±14^{km}, mb3.4/6, mbtmp3.8/8, MS3.2/1, Error ellipse: s-maj=29.9km s-min=13.2km az=122.0*
ISC 15 02:26:42.1±0.9, **5°.43S**±0°.10×**148°.3E**±0°.2, **h200**^{km}, **n23**, σ**1^{s}16**/26, **mb4.0**/7, **New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	4.11	196	P	Pn	02 27 44.4	-0.9
	5.1nm,0.4s,baz=288,slow=8.5,SNR=1.5						
PMG				S	Sn	02 28 34.6	-0.5
	19nm,0.4s,baz=41,slow=16,SNR=4.5						
PMG	Port Moresby	4.11	196		Pn	02 27 43.9	-1.4
PMG					Sn	02 28 34.6	-0.5
MTN	Manton Dam	18.47	245	P	Pn	02 30 45.0	-0.8
MTN				IAmb	IAmb	02 30 50.1	
	comp=Z,6.7nm,0.6s						
WB0	Warramunga Arr	19.66	222	P	P	02 30 57.9	+1.9
WB0				IAmb	IAmb	02 31 29.7	
	comp=Z,12nm,1.4s						
WR8	Warramunga Arr	19.72	222	P	P	02 30 58.3	+1.7
WR8				IAmb	IAmb	02 31 31.3	
	comp=Z,10nm,1.4s						
WRA	Warramunga Arr	19.82	222	P	P	02 30 58.0	+0.4
	comp=Z,0.6nm,0.4s,baz=53,slow=10,SNR=11						
WRA				S	S	02 34 29.3	-0.7
	comp=Z,1.0nm,0.6s,baz=34,slow=20,SNR=5.8						
WRA	Warramunga Arr	19.82	222	P	P	02 30 57.9	+0.2
EIDS	Eidsvold	20.01	173	P	P	02 31 00.6	+0.9
AS31	Alice Springs	22.83	216	P	P	02 31 29.7	+1.6
AS31				IAmb	IAmb	02 31 30.1	
	comp=Z,1.9nm,0.2s						
ASAR	Alice Springs	22.83	216	P	P	02 31 29.7	+1.6
	comp=Z,2.2nm,0.6s,baz=52,slow=8.4,SNR=24						
ASAR				S	S	02 35 24.9	+2.6
	comp=Z,1.7nm,1.0s,baz=29,slow=17,SNR=7.5						
	comp=Z,2.2nm,0.6s						
ASAR	Alice Springs	22.83	216	P	P	02 31 29.4	+1.3
FITZ	Fitzroy Crossi	25.47	238	P	P	02 31 53.6	+1.6
	comp=Z,4.2nm,0.5s,baz=65,slow=10.0,SNR=7.7						
	comp=Z,4.2nm,0.5s						
FITZ	Fitzroy Crossi	25.47	238	P	P	02 31 52.9	+0.9
FITZ				IAmb	IAmb	02 31 57.0	
	comp=Z,1.2nm,0.6s						
DAV	Davao City (W)	25.85	298	LR	LR	02 43 07.0	
	comp=Z,54nm,19.1s,baz=189,slow=38						
FORT	Forrest	31.60	215	P	P	02 32 45.7	-0.5
VNDA	Vanda	72.41	177	P	P	02 37 46.6	+0.7
	comp=Z,0.5nm,0.5s,baz=328,slow=7.9,SNR=7.9						
	comp=Z,0.5nm,0.5s						
VNDA	Vanda	72.41	177	P	P	02 37 46.2	+0.3
MKAR	Makanchi Array	77.89	320	P	P	02 38 17.5	-0.3
	comp=Z,0.2nm,0.3s,baz=120,slow=5.2,SNR=2.4						
	comp=Z,0.2nm,0.3s						
MKAR	Makanchi Array	77.89	320	P	P	02 38 17.3	-0.5
ILAR	Eielson Array	84.45	23	P	P	02 38 51.8	-0.2
	comp=Z,0.4nm,0.7s,baz=263,slow=5.0,SNR=5.2						
	comp=Z,0.4nm,0.7s						
ILAR	Eielson Array	84.45	23	P	P	02 38 51.2	-0.8
QSPA	South Pole Qui	84.54	180	P	P	02 38 52.5	0.0
	comp=Z,1.4nm,0.7s,baz=283,slow=0.7,SNR=8.1						
	comp=Z,1.4nm,0.7s						
QSPA	South Pole Qui	84.54	180	P	P	02 38 52.4	-0.2
QSPA				IAmb	IAmb	02 39 04.2	
	comp=Z,6.8nm,1.4s						

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*IDC **15** 03:13:05.7±0.6, 6°.68N×60°.48E, h0^{km}, mb4.1/24, mbtmp4.1/24, ML3.2/1, MS3.8/14, Error ellipse: s-maj=16.9km s-min=13.0km az=22.0*
*NEIC **15** 03:13:06.6±1.8, 6°.40N±0°.09×60°.28E±0°.10, h10^{km}±1^{km}, mb4.4/40, Error ellipse: s-maj=16.8km s-min=15.0km az=275.0*
*GFZ **15** 03:13:08.5±0.3, 7°N±6°×6°0E±°, h10^{km}, M4.4/25, mb4.4/25, confirmed*
ISC 15 03:13:06.5±0.4, **6°.38N**±0°.05×**60°.35E**±0°.06, **h10**^{km}, **n167**, σ**1^{s}38**/163, **mb4.4**/71, **MS3.7**/15, **1D**, **Carlsberg Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSEY	Mahe Island	12.01	204	Pn	Pn	03 15 55.8	-2.2
MHTO	MHTO	14.70	351	P	P	03 16 39.7	-1.2
	SNR=6.5						
JMDO	Jabal Madar	16.04	352	P	P	03 16 54.7	-1.2
	SNR=6.3						
WBK	Wadi Bani Khal	16.19	355	P	P	03 16 59.6	+2.1
BSY	Bisya	16.55	350	P	P	03 17 01.9	+0.4

	SNR=12						
SMDO	Samad	16.73	353	P	P	03 17 04.3	+0.8
SMDO				S	S	03 20 18.6	+0.2
WSAR	Wadi Sarin	16.84	355	P	P	03 17 07.9	+3.2
UMZA	Um Al Zommool	16.99	343	P	P	03 17 05.9	-0.4
UMZA				S	Sn	03 20 16.7	+3.3
BIDO	Bidbid	17.17	353	P	P	03 17 10.6	+2.3
	SNR=6.8						
BIDO				S	S	03 20 29.5	+2.2
ARQ	Araqi	17.25	348	P	P	03 17 08.3	-1.0
	SNR=18						
ARQ				S	S	03 20 24.6	-4.4
HOQ	Hoqain	17.35	351	P	P	03 17 10.8	+0.5
ATD	Arta Tunnel	18.02	288	P	P	03 17 18.5	+0.7
	0.1nm,0.3s,baz=93,slow=8.3,SNR=6.5						
ATD				LR	LR	03 22 50.4	
	comp=Z,7.9nm,20.5s,baz=138,slow=32						
ATD				AML	AML		
ATD	Arta Tunnel	18.02	288		Pn	03 17 16.8	-0.6
ATD	Arta Tunnel	18.02	288	P	P	03 17 21.5	+3.6
	comp=Z,15nm,1.3s						
SOHO	SOHO	18.03	349	P	P	03 17 17.7	0.0
SOHO				S	S	03 20 44.9	+0.3
ASHO	Ashiyiah	18.66	348	P	Pn	03 17 24.7	-0.4
	SNR=20						
ASHO				S	S	03 20 57.5	0.0
ASUD	Al Ashush, Dub	18.77	346	P	Pn	03 17 26.3	-0.1
HATD	Hatta, Dubai	18.78	348	P	Pn	03 17 27.0	+0.5
	SNR=9.3						
AJN	Ajban	18.79	345	P	Pn	03 17 27.2	+0.5
AJN				S	S	03 20 59.7	-0.5
FAQ	Al Faqa, Dubai	18.82	346	P	Pn	03 17 26.5	-0.5
FAQ				S	S	03 21 01.4	+0.7
UOSS	Minazif	18.88	348	P	Pn	03 17 27.6	-0.1
UOSS				S	S	03 21 03.2	+1.3
UOSS	Minazif	18.88	348		P	03 17 25.9	-1.3
UOSS				IAmb	IAmb	03 17 34.3	
	comp=Z,33nm,1.0s						
UOSS	Minazif	18.88	348	P	Pn	03 17 27.0	-0.7
	comp=Z,41nm,1.1s						
NAZ	Nazwa, Dubai	19.04	347	P	Pn	03 17 29.2	-0.4
MDH	Madha	19.20	349	P	Pn	03 17 31.7	0.0
MDH				S	S	03 21 11.6	+3.1
MASF	Masafi	19.30	348	P	Pn	03 17 32.3	-0.6
	SNR=7.6						
JASK	Jask - Hormozg	19.52	353	P	Pn	03 17 37.5	+2.1
BANOM	Banah	19.81	349	P	Pn	03 17 39.0	0.0
SHME	Shamm	19.96	349	P	Pn	03 17 40.4	-0.3
PALK	Pallekele	20.23	86	P	P	03 17 40.1	-2.0
	comp=Z,6.4nm,0.8s,baz=224,slow=14,SNR=1.9						
PALK				LR	LR	03 23 47.4	
	comp=Z,345nm,19.8s,baz=258,slow=32						
	comp=Z,6.4nm,0.8s						
PALK	Pallekele	20.23	86	P	Pn	03 17 42.5	-1.5
PALK				IAmb	IAmb	03 17 55.3	
	comp=Z,15nm,1.1s						
FURI	Furi	21.62	278	P	P	03 17 54.5	-2.9
RAYN	Ar Rayn	22.23	322		P	03 18 02.5	-1.1
RAYN				IAmb	IAmb	03 18 04.8	
	comp=Z,9.8nm,0.8s						
RAYN	Ar Rayn	22.23	322	P	P	03 18 02.6	-1.0
	comp=Z,19nm,0.9s						
KIBK	Kibwezi	23.89	249		P	03 18 17.9	-2.9
KIBK				IAmb	IAmb	03 18 29.9	
	comp=Z,19nm,1.3s						
KIBK	Kibwezi	23.89	249	P	P	03 18 23.5	+2.7
	comp=Z,12nm,2.0s						
KMBO	Kilima Mbogo	24.23	253	P	P	03 18 26.2	+2.1
	baz=80,slow=12						
KMBO				LR	LR	03 26 47.6	
	comp=Z,294nm,21.3s,baz=75,slow=34						
LODK	Lodwar	25.06	264		P	03 18 31.0	-0.5
LODK				IAmb	IAmb	03 18 38.9	
	comp=Z,12nm,1.0s						
LODK	Lodwar	25.06	264	P	P	03 18 35.4	+3.9
	comp=Z,14nm,1.1s						
RER	Riviere de l’E	27.74	189	P	P	03 18 54.5	-1.1
OPO	Ambohidratompo	27.99	207	LR	LR	03 27 24.1	
	comp=Z,154nm,19.8s,baz=270,slow=30						
KBL	Kabul	29.15	15	P	P	03 19 06.2	-2.0
KBL				IAmb	IAmb	03 19 27.8	
	comp=Z,6.3nm,1.0s						
MBAR	Mbarara	30.35	258	LR	LR	03 31 49.1	
	comp=Z,162nm,18.4s,baz=84,slow=37						
EVN	Everest	33.02	46	P	P	03 19 41.5	-1.4
EVN	Everest	33.02	46	P	P	03 19 44.3	+1.4
	comp=Z,6.4nm,1.6s						
EIL	Elat	33.30	317	LR	LR	03 32 38.4	
	comp=Z,113nm,18.8s,baz=94,slow=35						
ASF	Jabal al Asfar	33.72	323	LR	LR	03 33 25.9	
	comp=Z,114nm,18.1s,baz=206,slow=36						
BRDH	Bariadhala	34.24	59	LR	LR	03 33 46.2	
	comp=Z,334nm,18.5s,baz=328,slow=36						
BTK	Batken	34.82	14	P	P	03 19 56.9	-1.0
BTK				IAmb	IAmb	03 20 18.3	
	comp=Z,8.5nm,1.1s						
BTK	Batken	34.82	14	P	P	03 19 59.7	+1.9
	comp=Z,5.0nm,1.1s						
MMAI	Mount Meron Ar	35.21	322	LR	LR	03 34 04.6	
	comp=Z,102nm,18.8s,baz=138,slow=36						
GNI	Garni	36.42	340	LR	LR	03 35 47.7	
	comp=Z,41nm,20.3s,baz=140,slow=38						
GNI	Garni	36.42	340	P	P	03 20 11.5	-0.1
GNI				IAmb	IAmb	03 20 36.2	
	comp=Z,6.5nm,0.8s						
MORE	Moreh	37.09	58	P	P	03 20 18.1	+0.7
ASAI	AK-SAY(Kyrgyzs	37.30	20	P	P	03 20 19.9	+0.5
	comp=Z,4.7nm,1.6s						
KK31	Karatay Array	37.66	12	P	P	03 20 21.5	-0.4
KK31				IAmb	IAmb	03 20 30.5	
	comp=Z,9.8nm,1.4s						
KKAR	Karatay Array	37.66	12		P	03 20 22.3	+0.4
AAK	Ala-Archa	38.22	17	LR	LR	03 37 39.8	
	comp=Z,144nm,18.5s,baz=203,slow=39						
AAK	Ala-Archa	38.22	17		P	03 20 25.7	-1.1
AAK				IAmb	IAmb	03 20 36.0	
	comp=Z,9.8nm,1.4s						
EPOS	Posof	38.33	338	P	P	03 20 28.8	+0.9
	comp=Z,12nm,1.3s						
LSZ	Lusaka	38.45	236	LR	LR	03 34 25.3	
	comp=Z,233nm,18.8s,baz=52,slow=33						
CMAR	Chiang Mai Arr	39.46	69	P	P	03 20 36.5	-0.9
	comp=Z,0.7nm,0.3s,baz=256,slow=9.1,SNR=7.0						
CMAR				PcP	PcP	03 22 45.3	-0.1
	comp=Z,0.8nm,0.3s,baz=279,slow=4.0,SNR=4.4						
	comp=Z,0.7nm,0.3s						
CMAR	Chiang Mai Arr	39.46	69	P	P	03 20 37.4	0.0
CHTO	Chiang Mai	39.54	68	P	P	03 20 37.7	-0.4
KBZ	Khabaz	40.23	340	P	P	03 20 43.2	-0.2
	comp=Z,3.5nm,1.0s,baz=162,slow=4.8,SNR=6.8						
	comp=Z,3.5nm,1.0s						
KIV	Kislovodsk	40.51	340	P	P	03 20 44.6	-1.3
BRTR	Keskin Array B	40.97	328	P	P	03 20 49.4	-0.4
	comp=Z,1.7nm,0.9s,baz=155,slow=6.5,SNR=7.8						
	comp=Z,1.7nm,0.9s						
BRTR	Keskin Array B	40.97	328	P	P	03 20 48.6	-1.2
SDSI	Sungai Dareh	41.65	99	P	P	03 20 57.5	+1.9
	comp=Z,6.6nm,1.7s						
AB31	Akbulak array	42.73	360	P	P	03 21 03.4	-0.4
ABKAR	Akbulak array	42.73	360	P	P	03 21 02.4	-1.5
PZH	PanZhiHua	44.18	58	P	P	03 21 18.0	+1.9
WMQ	Urumqi	44.34	28	*e*P	P	03 21 18.6	+1.5
WMQ				pmax	pmax		
	comp=Z,15nm,0.9s						
WMQ				LR	LR		
	comp=Z,120nm,24.1s						
MAKZ	Makanchi	44.37	21	P	P	03 21 16.7	-0.5
MAKZ				IAmb	IAmb	03 21 25.9	
	comp=Z,5.5nm,1.2s						
MKAR	Makanchi Array	44.47	22	P	P	03 21 16.4	-1.5
	comp=Z,1.5nm,1.0s,baz=206,slow=10,SNR=5.8						
	comp=Z,1.5nm,1.0s						
MKAR	Makanchi Array	44.47	22	P	P	03 21 16.3	-1.7
SLVN	Son La	44.65	66	P	P	03 21 21.1	+1.2
	comp=Z,4.8nm,1.0s						
LBTB	Lobatse	46.01	226	LR	LR	03 37 53.9	
	comp=Z,234nm,21.8s,baz=58,slow=32						
KURBB	Kurchatov Arra	46.64	16	P	P	03 21 33.6	-1.5
	comp=Z,2.2nm,0.8s,baz=215,slow=8.1,SNR=9.5						
	comp=Z,2.2nm,0.8s						
KURK	Kurchatov	46.75	16	P	P	03 21 34.6	-1.2
KURK				IAmb	IAmb	03 21 47.6	
	comp=Z,5.0nm,1.1s						
KURK	Kurchatov	46.75	16	P	P	03 21 36.3	+0.4
	comp=Z,6.5nm,2.2s						
BVAR	Borovoye Array	47.22	8	P	P	03 21 37.8	-1.7
	comp=Z,0.4nm,0.3s,baz=207,slow=9.1,SNR=1.2						
	comp=Z,0.4nm,0.3s						
BOSA	Boshof	48.52	222	P	P	03 21 54.8	+4.6
	comp=Z,2.0nm,0.7s,baz=45,slow=10,SNR=5.8						
BOSA				LR	LR	03 40 33.5	
	comp=Z,192nm,19.0s,baz=46,slow=34						
	comp=Z,2.0nm,0.7s						
BOSA	Boshof	48.52	222	P	P	03 21 49.6	-0.5
TSUM	Tsumeb	49.20	238	LR	LR	03 40 43.4	
	comp=Z,127nm,20.9s,baz=84,slow=34						
TESR	Tescani	49.39	330	P	P	03 21 55.5	-0.9
	comp=Z,7.9nm,1.6s						
VOIR		49.49	328	P	P	03 21 56.3	-1.0
	comp=Z,4.4nm,1.7s						
LZH	Lanzhou	49.55	47	*e*P	P	03 21 56.6	-1.5
LZH				sP	pwP	03 22 05.5	+1.2
LZH				pmax	pmax		
	comp=Z,17nm,0.8s						
ARR	Arges	49.67	327	P	P	03 21 58.4	-0.3
	comp=Z,5.4nm,1.1s						
BURAR	Bucovina Array	50.85	330	P	P	03 22 08.0	+0.3
BUR08	Bucovina Ar. S	50.88	330	P	P	03 22 08.2	+0.3
AKASG	Malin Array Be	51.22	335	P	P	03 22 08.8	-1.5
	comp=Z,0.3nm,0.4s,baz=127,slow=6.6,SNR=7.8						
	comp=Z,0.3nm,0.4s						
AKASG	Malin Array Be	51.22	335	P	P	03 22 09.2	-1.0
AKBB	Malin Array Si	51.22	335	P	P	03 22 09.8	-0.5
AKBB				IAmb	IAmb	03 22 17.2	
	comp=Z,7.0nm,1.0s						
KIEV	Kiev	51.23	335	P	P	03 22 08.8	-1.4
KIEV				IAmb	IAmb	03 22 17.2	
	comp=Z,6.9nm,1.1s						
KIEV	Kiev	51.23	335	P	P	03 22 09.1	-1.2
	comp=Z,6.3nm,1.0s						
ZAA0	Zalesovo Array	51.41	18		P	03 22 10.9	-0.6
ZAA0				IAmb	IAmb	03 22 14.9	
	comp=Z,5.4nm,1.1s						
ZALV	Zalesovo Beam	51.41	18	P	P	03 22 09.8	-1.7
	comp=Z,3.9nm,0.9s,baz=225,slow=8.2,SNR=7.9						
	comp=Z,3.9nm,0.9s						
ZALV	Zalesovo Beam	51.41	18		P	03 22 11.2	-0.4
FRGS	Fruska Gora	52.23	324	P	P	03 22 18.8	+0.9
	comp=Z,6.8nm,1.0s						
TRPA	Tarpa	52.55	329	P	P	03 22 20.0	-0.2
	comp=Z,5.2nm,1.1s						
H04N1	CROZET ISLANDS	52.87	187	T	T	04 19 38.7	
	baz=11,slow=75,SNR=401						
H04N2	CROZET ISLANDS	52.87	187	T	T	04 19 37.5	
	baz=11,slow=75,SNR=465						
H04N3	CROZET ISLANDS	52.88	187	T	T	04 19 37.6	
	baz=11,slow=75,SNR=297						
KOLS	Kolonicke sedl	53.20	329	*e*P	P	03 22 27.0	+2.0
ABAH	Abaujker	53.33	328	P	P	03 22 25.3	-0.6
	comp=Z,7.4nm,1.2s						
MORH	Mrgy, Hungar	53.51	325	P	P	03 22 26.7	-0.5
	comp=Z,5.5nm,1.2s						
LANS	Liptovska Anna	54.78	328	*e*P	P	03 22 37.0	+0.4
MODS	Modra-Piesok	55.50	326	*e*P	P	03 22 42.7	+0.9
ARSA	Arzberg	55.87	325	P	P	03 22 42.0	-2.5
ARSA				IAmb	IAmb	03 23 11.5	
	comp=Z,4.7nm,1.2s						
CONA	Conrad Observa	56.04	325	*e*P	P	03 22 45.2	-0.5
	comp=Z,3.6nm,1.0s						
MORC	Moravsky Berou	56.16	328		P	03 22 45.2	-1.3
MORC				IAmb	IAmb	03 22 48.0	
	comp=Z,4.8nm,1.1s						
MORC	Moravsky Berou	56.16	328	*e*P	P	03 22 45.6	-0.9
MORC	Moravsky Berou	56.16	328	P	P	03 22 46.0	-0.5
	comp=Z,4.4nm,1.4s						
SESA	Seetaler Alpe,	56.35	324	*e*P	P	03 22 47.9	-0.3
	comp=Z,11nm,1.1s						
VRAC	Vranov	56.40	327	*e*P	P	03 22 49.0	+0.8
KRLC	Kraliky	56.74	328	P	P	03 22 50.0	-0.6
	comp=Z,4.5nm,1.1s						
SONM	Songino Array	56.88	35	P	P	03 22 50.7	-1.2
	comp=Z,1.6nm,0.8s,baz=224,slow=6.2,SNR=5.6						
	comp=Z,1.6nm,0.8s						
SONM	Songino Array	56.88	35	P	P	03 22 50.8	-1.0
MOA	Molln	56.91	325	*e*P	P	03 22 51.2	-0.6
	comp=Z,4.5nm,1.5s						
TREC	Trest	56.99	327	P	P	03 22 51.8	-0.6
	comp=Z,4.3nm,0.9s						
HHC	Hu-ho-hao-te	57.03	45	*e*P	P	03 22 54.5	+1.5
HHC				pmax	pmax		
	comp=Z,10.0nm,0.7s						
HHC				pmax	pmax		
	comp=Z,57nm,4.2s						
KBA	Koelnbreinsper	57.05	323	*i* P	P	03 22 54.0	+0.9
	comp=Z,4.7nm,1.5s						
DPC	Dobruska-Polom	57.14	328	P	P	03 22 52.6	-0.8
	comp=Z,3.3nm,1.0s						
ULN	Ulaanbaatar	57.28	36	P	P	03 22 54.4	-0.3
GERES	GERESS Array B	57.75	325	P	P	03 22 57.6	-0.3
	comp=Z,0.3nm,0.2s,baz=109,slow=7.2,SNR=3.9						
	comp=Z,0.3nm,0.2s						
GERES	GERESS Array B	57.75	325	P	P	03 22 56.0	-1.8
TORD	Torodi Ar. Bea	58.09	281	P	P	03 23 01.9	+1.2
	comp=Z,1.0nm,0.9s,baz=93,slow=7.3,SNR=3.6						
	comp=Z,1.0nm,0.9s						
TORD	Torodi Ar. Bea	58.09	281	P	P	03 23 01.3	+0.7
TORD				IAmb	IAmb	03 23 42.6	
	comp=Z,4.0nm,0.7s						
WTTA	Wattenberg	58.16	323	*e*P	P	03 23 00.4	-0.5
	comp=Z,7.6nm,1.3s						
SQTA	Sankt Quirin	58.40	323	*i* P	P	03 23 03.1	+0.6
	comp=Z,4.2nm,0.7s						
MOTA	Moosalm	58.52	323	*e*P	P	03 23 01.9	-1.5
	comp=Z,3.5nm,0.8s						
NJ2	Nanjing	60.05	57	*e*P	P	03 23 15.6	+1.5
NJ2				pmax	pmax		
	comp=Z,9.0nm,0.5s						
SENIN	Lac Senin/Sane	60.43	320		P	03 23 16.2	-0.5
FINES	FINESS Array B	60.56	342	P	P	03 23 15.8	-1.1
	comp=Z,1.1nm,0.7s,baz=91,slow=8.3,SNR=3.8						
	comp=Z,1.1nm,0.7s						
BOURR	Bourrignon	60.90	322	P	P	03 23 19.5	-0.2
	comp=Z,17nm,1.2s						
GIMEL	St. Georges /	61.16	320	P	P	03 23 21.2	-0.3
	comp=Z,12nm,2.8s						
LOR	Lormes	62.96	320	P	P	03 23 32.5	-1.0
	comp=Z,3.3nm,1.3s						
LVZ	Lovozero	63.82	349	P	P	03 23 38.1	-0.7
	comp=Z,44nm,0.9s						
HFS	Hagfors	64.08	336	P	P	03 23 39.5	-1.1
	comp=Z,1.6nm,0.8s,baz=214,slow=13,SNR=4.7						
	comp=Z,1.6nm,0.8s						
DBIC	Dimbokro	64.73	274	P	P	03 23 47.5	+1.8
	comp=Z,7.8nm,1.1s,baz=59,slow=9.1,SNR=1.7						
	comp=Z,7.8nm,1.1s						
DBIC	Dimbokro	64.73	274	P	P	03 23 44.7	-1.0
NB2	NORSAR Subarra	65.61	336	P	P	03 23 48.8	-1.8
	comp=Z,1.6nm,1.0s,baz=124,slow=6.5						
NOA	NORSAR Array B	65.61	336	P	P	03 23 49.0	-1.6
	comp=Z,0.9nm,0.9s,baz=122,slow=7.0,SNR=3.6						
	comp=Z,0.9nm,0.9s						
ESDC	Sonseca Array	66.25	311	P	P	03 23 54.9	-0.3
	comp=Z,1.7nm,0.9s,baz=88,slow=5.8,SNR=15						
	comp=Z,1.7nm,0.9s						
ESDC	Sonseca Array	66.25	311		P	03 23 54.6	-0.6
KSAR	Wonju Array Be	68.34	52	P	P	03 24 08.2	-0.2
KSRS	Korea Array	68.37	52	P	P	03 24 07.6	-1.0
	comp=Z,0.6nm,0.4s,baz=254,slow=6.7,SNR=4.5						
	comp=Z,0.6nm,0.4s						
FITZ	Fitzroy Crossi	68.84	112	P	P	03 24 12.1	+0.3
	comp=Z,4.9nm,0.9s,baz=277,slow=5.3,SNR=5.0						
	comp=Z,4.9nm,0.9s						
FITZ	Fitzroy Crossi	68.84	112	P	P	03 24 11.1	-0.7
EKA	Eskdalemuir Ar	69.88	327	P	P	03 24 16.4	-1.2
	comp=Z,1.3nm,0.8s,baz=80,slow=6.0,SNR=6.2						
	comp=Z,1.3nm,0.8s						
WRA	Warramunga Arr	77.27	112	P	P	03 25 02.2	+0.4
	comp=Z,3.8nm,0.9s,baz=290,slow=4.5,SNR=16						
	comp=Z,3.8nm,0.9s						
WRA	Warramunga Arr	77.27	112	P	P	03 25 00.3	-1.5
WB0	Warramunga Arr	77.28	112	P	P	03 25 01.3	-0.6
WB0				IAmb	IAmb	03 25 15.4	
	comp=Z,6.0nm,1.1s						
WR8	Warramunga Arr	77.42	112	P	P	03 25 01.8	-0.8
ASAR	Alice Springs	77.65	116	P	P	03 25 04.8	+0.9
	comp=Z,5.4nm,1.0s,baz=288,slow=5.6,SNR=29						
	comp=Z,5.4nm,1.0s						
ASAR	Alice Springs	77.65	116		P	03 25 03.9	0.0
STKA	Stephens Creek	85.95	123	P	P	03 25 47.8	+0.4
	comp=Z,1.6nm,0.7s,baz=277,slow=4.1,SNR=4.0						
	comp=Z,1.6nm,0.7s						
TROLL	Troll, Antarti	86.59	195	P	P	03 25 51.7	+1.9
	comp=Z,129nm,0.9s						
VNA1	Neumayer--Stat	89.04	198	P	P	03 26 02.8	+1.4
	comp=Z,4.2nm,0.8s						
VNA3	Neumayer Olymp	89.69	198	⇓P	P	03 26 06.6	+2.1
	comp=Z,6.5nm,0.8s						
VNA3	Neumayer Olymp	89.69	198	P	P	03 26 06.9	+2.4
	comp=Z,10.0nm,0.9s						
PDAR	Pinedale Array	130.23	350	PKP	PKPdf	03 32 17.8	+0.1
	comp=Z,0.2nm,0.7s,baz=350,slow=1.7,SNR=4.0						
NVAR	Mina Array Bea	135.40	358	PKP	PKPdf	03 32 28.2	+0.5
	comp=Z,1.3nm,1.0s,baz=338,slow=0.9,SNR=4.5						
NVAR	Mina Array Bea	135.40	358		PKPdf	03 32 27.8	+0.1
TXAR	Lajitas Array	141.30	337	PKhKP	PKPpre	03 32 33.6	
	comp=Z,0.8nm,1.0s,baz=83,slow=3.9,SNR=4.3						
TXAR				PKP	PKPdf	03 32 39.1	+0.6
	comp=Z,0.5nm,0.8s,baz=19,slow=4.1,SNR=4.0						
TXAR	Lajitas Array	141.30	337	PKPdf	PKPdf	03 32 37.6	-0.9

NEIC ***15*** *03:24:14.3±1.4, 9.°82S±0.°06×119.°86E±0.°07, h35^{km}±1^{km}, mb4.1/13, Error ellipse: s-maj=14.6km s-min=6.6km az=49.0*

IDC ***15*** *03:24:15.9±4.3, 9.°82S×119.°87E, h57^{km}±43^{km}, mb3.8/3, mbtmp4.0/7, ML3.9/4, MS2.7/1, Error ellipse: s-maj=100.7km s-min=20.1km az=60.0*

DJA ***15*** *03:24:17.5±0.3, 10˚S±4˚×12˚0E±˚, h32^{km}±4^{km}, M4.2/23, mB6.1/1, mb4.5/7, MLv4.1/23, Mw(mB)5.7/1*

ISC 15 03:24:15.0±0.5**, 9.°82S**±0.°05×**119.°95E**±0.°04**, h50**^{km}**, n51, σ2.^{s}31**/54**, mb4.0**/9**, Sumba region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WSI	Waingapu	0.37	67	P	Pn	03 24 27.2	+2.4
WSI				S	Sn	03 24 35.7	+3.9
WSI				AML	AML		
BASI	Baing, Sumba	0.73	123	P	Pn	03 24 32.6	+3.4
BASI				AML	AML		
LBFI	Labuhan Bajo,	1.33	357	P	Pn	03 24 38.3	+1.0
EDFI	Ende, Flores	2.02	58	P	Pn	03 24 48.8	+2.1
DBNI	Kabupaten Domp	2.08	309	P	Pn	03 24 49.0	+1.5
DBNI				S	Sn	03 25 13.6	+1.3
DBNI				AML	AML		
PLAI	Plampang	2.36	294	P	Pn	03 24 52.7	+1.3
PLAI				AML	AML		
MMRI	Maumere	2.54	63	Pn	Pn	03 24 54.3	+0.5
MMRI	Maumere	2.54	63	P	Pn	03 24 57.4	+3.6
MMRI				AML	AML		
TWSI	Taliwang, Sumb	3.21	289	P	Pn	03 25 04.9	+1.8
TWSI				S	Sn	03 25 41.4	+1.2
TWSI				AML	AML		
BSSI	Bau Bau, Buton	3.69	8	P	Pn	03 25 12.5	+2.9
BSSI				AML	AML		
SOEI	Soe	4.25	90	Pn	Pn	03 25 18.5	+1.0
KHKI	Kahang-Kahang	4.53	288	P	Pn	03 25 23.9	+2.8
KHKI				AML	AML		
MKS	Makassar	4.59	354	P	Pn	03 25 23.0	+1.0
MKS				AML	AML		
KAPI	Kappang	4.77	358	P	Pn	03 25 26.1	+1.6
	9.2nm,0.3s,baz=178,slow=5.3,SNR=22						
KAPI				S	Sn	03 26 13.2	-5.4
	14nm,0.3s,baz=62,slow=23,SNR=8.5						
KAPI				LR	LR	03 27 20.8	
	comp=Z,89nm,21.2s,baz=181,slow=39						
	18nm,0.3s						
KAPI				AML	AML		
KAPI	Kappang	4.77	358	Pn	Pn	03 25 25.9	+1.4
KAPI	Kappang	4.77	358	P	Pn	03 25 26.6	+2.1
KAPI				AML	AML		
IGBI	Denpasar	4.85	281	P	Pn	03 25 27.9	+2.4
RTBI	Rangdo, Negare	5.13	285	P	Pn	03 25 31.3	+1.9
	0.4nm75nm,1.4s						
RTBI				AML	AML		
BYJI	Banyuwangi	5.75	286	P	Pn	03 25 39.9	+2.0
SPSI	Sidrap Palu	5.82	358	P	Pn	03 25 40.2	+1.4
	0.1nm27nm,0.8s						
SPSI				AML	AML		
JAGI	Jajag, Banyuwa	5.88	283		Pn	03 25 37.5	-2.2
JAGI	Jajag, Banyuwa	5.88	283	P	Pn	03 25 38.9	-0.8
	0.3nm65nm,0.7s						
JAGI				AML	AML		
PMSI	Majene	6.36	351	P	Pn	03 25 47.7	+1.4
	140nm,1.0s						
FITZ	Fitzroy Crossi	9.91	147	P	Pn	03 26 35.2	+0.3
	1.0nm,0.3s,baz=328,slow=12,SNR=14						
FITZ				S	Sn	03 28 18.3	-6.5
	10nm,0.4s,baz=173,slow=18,SNR=15						
	2.6nm,0.4s						
FITZ				AML	AML		
FITZ	Fitzroy Crossi	9.91	147		Pn	03 26 35.1	+0.2
KNRA	Kununurra	10.38	125	Pn	Pn	03 26 41.6	+0.2
WB0	Warramunga Arr	17.10	127	Pn	Pn	03 28 11.1	+0.4
WB0				IAmb	IAmb	03 28 50.8	
	comp=Z,11nm,1.4s						
WRA	Warramunga Arr	17.15	128	P	Pn	03 28 11.2	-0.1
	comp=Z,0.4nm,0.3s,baz=303,slow=13,SNR=15						
WRA				S	Sn	03 31 10.3	-11
	comp=Z,1.3nm,0.5s,baz=298,slow=24,SNR=8.5						
	comp=Z,0.7nm,0.5s						
WRA				AML	AML		
WRA	Warramunga Arr	17.15	128	Pn	Pn	03 28 10.1	-1.2
WB2	Warramunga Arr	17.16	128	Pn	Pn	03 28 11.4	-0.1
WR8	Warramunga Arr	17.29	127		Pn	03 28 13.3	+0.3
ASAR	Alice Springs	19.16	138	P	Pn	03 28 37.1	+1.3
	comp=Z,0.4nm,0.3s,baz=316,slow=13,SNR=18						
ASAR				S	S	03 32 01.0	-8.3
	comp=Z,1.7nm,0.7s,baz=310,slow=22,SNR=6.1						
	comp=Z,1.3nm,0.5s						
ASAR				AML	AML		
ASAR	Alice Springs	19.16	138	P	P	03 28 33.6	-1.0
FORT	Forrest	22.18	161	P	P	03 29 07.4	+0.3
FORT				IAmb	IAmb	03 29 07.8	
	comp=Z,6.1nm,0.9s						
NWAO	Narrogin (SRO)	23.14	186	P	P	03 29 16.6	-0.4
CMAR	Chiang Mai Arr	34.92	324	P	P	03 31 02.5	+0.2
	comp=Z,1.5nm,0.3s,baz=142,slow=8.9,SNR=4.2						
	comp=Z,1.5nm,0.3s						
CMAR	Chiang Mai Arr	34.92	324	P	P	03 31 01.4	-0.8
ARMA	Armidale	35.92	129	P	P	03 31 11.3	+0.4
H08S2	Diego Garcia H	46.93	269	T	T	04 23 00.8	
	baz=96						
H08S3	Diego Garcia H	46.94	269	T	T	04 23 00.5	
	baz=96						
H08S1	Diego Carcia H	46.95	269	T	T	04 22 47.3	
	baz=96						
SONM	Songino Array	58.64	349	P	P	03 34 07.5	+0.2
SONM				IAmb	IAmb	03 34 35.1	
	comp=Z,2.6nm,1.4s						
MKAR	Makanchi Array	65.61	333	P	P	03 34 53.5	-0.3
	comp=Z,0.6nm,0.6s,baz=143,slow=6.2,SNR=5.3						
	comp=Z,0.6nm,0.6s						
MKAR	Makanchi Array	65.61	333	P	P	03 34 53.2	-0.6
HRA	Herat	70.11	312	P	P	03 35 22.5	-0.2
ZALV	Zalesovo Beam	70.14	339	P	P	03 35 21.4	-0.7
	comp=Z,0.8nm,0.5s,baz=148,slow=6.5,SNR=3.3						
	comp=Z,0.8nm,0.5s						
VNDA	Vanda	71.04	171	P	P	03 35 29.7	+2.3
VNDA				IAmb	IAmb	03 36 04.4	
	comp=Z,2.9nm,1.1s						
SBA	Scott Base	72.04	171	P	P	03 35 35.2	+1.9
SBA				IAmb	IAmb	03 36 03.6	
	comp=Z,1.4nm,1.0s						
AB31	Akbulak array	78.77	325	P	P	03 36 13.6	+1.2
AB31				IAmb	IAmb	03 36 35.0	
	comp=Z,3.0nm,1.5s						
ABKAR	Akbulak array	78.77	325	P	P	03 36 11.4	-0.9
QSPA	South Pole Qui	80.18	180	P	P	03 36 21.4	+1.4
QSPA				IAmb	IAmb	03 36 43.7	
	comp=Z,4.9nm,1.4s						

IDC ***15*** *03:30:11.2±1.3, 52.°82N×172.°63E, h0^{km}, mb3.9/17, mbtmp3.9/18, ML3.3/1, MS2.6/1, Error ellipse: s-maj=36.6km s-min=11.7km az=9.0*

NEIC ***15*** *03:30:14.1±0.6, 52.°7N±0.°2×172.°62E±0.°07, h23^{km}±6^{km}, mb4.5/14, Error ellipse: s-maj=30.2km s-min=5.7km az=186.0*

ISC 15 03:30:15.4±0.9**, 52.°6N**±0.°2×**172.°60E**±0.°06**, h35**^{km}**, n48, σ0.^{s}47**/43**, mb4.3**/22**, Near Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SHEM	Shemya Is, Ala	0.92	82	Pn	Pn	03 30 31.4	-0.3
	773nm,0.3s,baz=136,slow=2.3,SNR=429						
SHEM				Sn	Sn	03 30 44.0	+0.3
	859nm,0.3s,baz=215,slow=22,SNR=15						

SMY	**Shemya**	**0.92**	**82**		**Pn**	**03 30 31.3**	**-0.4**
SMY				Sn	**Sn**	**03 30 44.0**	**+0.4**
AMKA	**Amchitka**	**4.32**	**104**	Pn	**Pn**	**03 31 18.3**	**-0.2**
PETK	**Petropavlovsk-**	**9.03**	**279**	Pn	**Pn**	**03 32 23.3**	**+0.2**
	1.5nm,0.3s,baz=90,slow=20,SNR=10						
PETK				LR	LR	03 35 53.1	
	comp=Z,39nm,21.6s,baz=147,slow=38						
	5.1nm,0.5s						
PETK				AML	AML		
PETK	**Petropavlovsk-**	**9.03**	**279**		**Pn**	**03 32 22.9**	**-0.2**
KDAK	**Kodiak Island**	**20.37**	**61**	P	Pn	03 34 48.6	-2.2
	4.1nm,0.8s,baz=76,slow=1.9,SNR=6.1						
	4.1nm,0.8s						
KDAK	**Kodiak Island**	**20.37**	**61**	P	**P**	**03 34 47.5**	**-1.1**
KDAK				IAmb	IAmb	03 34 50.9	
	comp=Z,8.4nm,1.1s						
ILAR	**Eielson Array**	**23.82**	**44**	P	**P**	**03 35 24.3**	**-0.3**
	comp=Z,0.3nm,0.6s,baz=254,slow=6.2,SNR=9.0						
	comp=Z,0.3nm,0.6s						
GLB	**Gilahina Butte**	**24.86**	**52**	P	**P**	**03 35 34.0**	**-0.3**
SCRK	**Sand Creek**	**24.94**	**46**	P	**P**	**03 35 35.2**	**+0.1**
H11N2	**WAKE ISLAND Hy**	**33.12**	**190**	T	T	04 12 06.7	
	baz=6.8,slow=76,SNR=60						
H11N3	**WAKE ISLAND Hy**	**33.14**	**190**	T	T	04 12 07.7	
	baz=6.8,slow=76,SNR=76						
H11N1	**WAKE ISLAND Hy**	**33.14**	**190**	T	T	04 12 08.1	
	baz=6.8,slow=76,SNR=93						
H11S1	**WAKE ISLAND Hy**	**34.35**	**190**	T	T	04 13 39.1	
	baz=6.6,slow=76,SNR=139						
H11S3	**WAKE ISLAND Hy**	**34.37**	**190**	T	T	04 13 40.4	
	baz=6.6,slow=76,SNR=114						
H11S2	**WAKE ISLAND Hy**	**34.37**	**190**	T	T	04 13 40.3	
	baz=6.6,slow=76,SNR=71						
SONM	**Songino Array**	**41.28**	**291**	P	**P**	**03 37 56.8**	**-0.3**
	comp=Z,1.1nm,0.7s,baz=57,slow=11,SNR=4.1						
	comp=Z,1.1nm,0.7s						
SONM	**Songino Array**	**41.28**	**291**	P	**P**	**03 37 56.9**	**-0.3**
BCYI	**Bear Canyon**	**47.74**	**69**	P	**P**	**03 38 48.7**	**-0.1**
BCYI				IAmb	IAmb	03 39 05.1	
	comp=Z,4.7nm,1.5s						
SPITS	**Spitsbergen Ar**	**48.66**	**354**	P	**P**	**03 38 54.9**	**-0.3**
	comp=Z,1.1nm,0.3s,baz=60,slow=8.5,SNR=14						
	comp=Z,1.1nm,0.3s						
SPB2	**Spitsbergen Ar**	**48.66**	**354**	P	**P**	**03 38 55.1**	**-0.1**
PDAR	**Pinedale Array**	**50.89**	**68**	P	**P**	**03 39 13.6**	**+0.7**
	comp=Z,0.2nm,0.5s,baz=343,slow=3.1,SNR=3.7						
	comp=Z,0.2nm,0.5s						
PDAR	**Pinedale Array**	**50.89**	**68**	P	**P**	**03 39 12.8**	**-0.1**
KURK	**Kurchatov**	**54.20**	**309**	P	**P**	**03 39 36.6**	**-0.4**
KURK				IAmb	IAmb	03 39 37.5	
	comp=Z,3.8nm,0.9s						
KURBB	**Kurchatov Arra**	**54.31**	**309**	P	**P**	**03 39 37.6**	**-0.1**
	comp=Z,2.6nm,0.7s,baz=51,slow=7.1,SNR=16						
	comp=Z,2.6nm,0.7s						
MKAR	**Makanchi Array**	**54.99**	**303**	P	**P**	**03 39 41.9**	**-0.9**
	comp=Z,0.7nm,0.4s,baz=45,slow=7.0,SNR=12						
	comp=Z,0.7nm,0.4s						
MKAR	**Makanchi Array**	**54.99**	**303**	P	**P**	**03 39 42.1**	**-0.7**
ARCES	**ARCESS Array B**	**55.81**	**347**	P	**P**	**03 39 48.0**	**-0.3**
	comp=Z,0.5nm,0.4s,baz=27,slow=6.8,SNR=9.9						
	comp=Z,0.5nm,0.4s						
ARCES	**ARCESS Array B**	**55.81**	**347**	P	**P**	**03 39 48.2**	**-0.1**
ARCES				IAmb	IAmb	03 40 01.9	
	comp=Z,8.4nm,1.3s						
BVAR	**Borovoye Array**	**56.37**	**315**	P	**P**	**03 39 52.4**	**-0.2**
	comp=Z,1.6nm,0.5s,baz=42,slow=6.8,SNR=5.3						
	comp=Z,1.6nm,0.5s						
FINES	**FINESS Array B**	**63.21**	**343**	P	**P**	**03 40 39.3**	**-0.1**
	comp=Z,2.2nm,0.9s,baz=17,slow=8.4,SNR=4.4						
	comp=Z,2.2nm,0.9s						
AB31	**Akbulak array**	**63.58**	**318**	P	**P**	**03 40 42.4**	**+0.4**
AB31				IAmb	IAmb	03 40 42.7	
	comp=Z,2.0nm,0.5s						
ABKAR	**Akbulak array**	**63.58**	**318**	P	**P**	**03 40 42.3**	**+0.3**
TX31	**Lajitas Ar. Si**	**63.61**	**76**	P	**P**	**03 40 43.3**	**+0.6**
TX31				IAmb	IAmb	03 40 51.8	
	comp=Z,5.2nm,1.5s						
TXAR	**Lajitas Array**	**63.61**	**76**	P	**P**	**03 40 43.5**	**+0.9**
	comp=Z,0.2nm,0.5s,baz=323,slow=5.8,SNR=3.7						
	comp=Z,0.2nm,0.5s						
TXAR	**Lajitas Array**	**63.61**	**76**	P	**P**	**03 40 42.7**	**0.0**
O48B	**Farmland**	**65.72**	**55**	P	**P**	**03 40 55.5**	**-0.7**
NB2	**NORSAR Subarra**	**65.72**	**350**	P	**P**	**03 40 56.1**	**+0.2**
	comp=Z,0.8nm,0.5s,baz=12,slow=6.5						
NOA	**NORSAR Array B**	**65.72**	**350**	P	**P**	**03 40 55.9**	**0.0**
	comp=Z,2.0nm,0.8s,baz=3.0,slow=5.0,SNR=9.4						
	comp=Z,2.0nm,0.8s						
HFS	**Hagfors**	**66.33**	**349**	P	**P**	**03 40 59.6**	**-0.2**
	comp=Z,1.7nm,0.4s,baz=33,slow=4.1,SNR=17						
	comp=Z,1.7nm,0.4s						
EKA	**Eskdalemuir Ar**	**72.36**	**357**	P	**P**	**03 41 37.8**	**+0.7**
	comp=Z,0.8nm,0.5s,baz=17,slow=5.4,SNR=9.9						
	comp=Z,0.8nm,0.5s						
EKB	**Eskdalemuir**	**72.36**	**357**	P	**P**	**03 41 37.4**	**+0.3**
EKB				IAmb	IAmb	03 41 47.7	
	comp=Z,16nm,1.4s						
ESK	**Eskdalemuir**	**72.37**	**357**	P	**P**	**03 41 37.5**	**+0.3**
ESK				IAmb	IAmb	03 41 44.4	
	comp=Z,15nm,1.5s						
AKASG	**Malin Array Be**	**72.51**	**337**	P	**P**	**03 41 38.2**	**+0.2**
	comp=Z,0.5nm,0.5s,baz=24,slow=5.8,SNR=1.8						
	comp=Z,0.5nm,0.5s						
PBA	**Port Blair**	**74.68**	**269**	P	**P**	**03 41 51.2**	**-0.1**
KBZ	**Khabaz**	**74.71**	**325**	P	**P**	**03 41 52.4**	**+1.3**
	comp=Z,1.6nm,0.8s,baz=350,slow=7.7,SNR=4.0						
	comp=Z,1.6nm,0.8s						
GERES	**GERESS Array B**	**77.33**	**346**	P	**P**	**03 42 06.5**	**+0.4**
	comp=Z,0.7nm,0.4s,baz=23,slow=7.2,SNR=7.6						
	comp=Z,0.7nm,0.4s						
GERES	**GERESS Array B**	**77.33**	**346**	P	**P**	**03 42 05.7**	**-0.4**

*IDC **15** 03:38:56.6±1.8, 18°.13S×178°.02W, h542^{km}±20^{km}, mb3.4/5, mbtmp4.2/6, Error ellipse: s-maj=27.0km s-min=19.2km az=146.0*

*NEIC **15** 03:38:57.5±1.4, 18°.2S±0°.1×178°.0W±0°.1, h548^{km}±7^{km}, mb4.5/25, Error ellipse: s-maj=19.2km s-min=15.7km az=135.0*

ISC 15 03:38:57.0±0.6**, 18°.2S**±0°.1×**178°.01W**±0°.09**, h550**^{km}**, n41, σ0^s.81**/45**, mb4.4**/18**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**3.78**	**276**	P	**P**	**03 40 16.6**	**-0.8**
	31nm,0.8s,baz=131,slow=13,SNR=14						
MSVF	**Nonsavu**	**3.78**	**276**	P	**P**	**03 40 16.9**	**-0.5**
NIUE	**Niue**	**7.71**	**98**	P	**P**	**03 40 51.5**	**-0.4**
SANVU	**Saraoutou**	**14.42**	**279**	P	**P**	**03 42 01.4**	**+0.8**
URZ	**Urewera**	**20.45**	**191**	P	**P**	**03 42 57.1**	**+0.1**
	6.8nm,0.3s,baz=252,slow=4.0,SNR=17						
	6.8nm,0.3s						
MRZ	**Mangatainoka R**	**23.07**	**193**	P	**P**	**03 43 20.1**	**-0.4**
MSWZ	**Moikau Station**	**23.86**	**193**	P	**P**	**03 43 28.1**	**+0.5**
BHW	**Baring Head**	**23.93**	**193**	P	**P**	**03 43 28.7**	**+0.6**
PLWZ	**Palliser**	**24.00**	**192**	P	**P**	**03 43 30.0**	**+1.2**
KHZ	**Kahutara**	**25.20**	**195**	P	**P**	**03 43 39.8**	**+0.5**
LTZ	**Lake Taylor**	**25.87**	**197**	P	**P**	**03 43 45.8**	**+0.5**
LTZ				IAmb	IAmb	03 44 20.0	
	comp=Z,58nm,1.3s						
EIDS	**Eidsvold**	**29.53**	**251**	P	**P**	**03 44 17.0**	**-0.5**
EIDS				IAmb	IAmb	03 44 60.0	
	comp=Z,22nm,1.4s						
ARMA	**Armidale**	**30.13**	**240**	P	**P**	**03 44 24.2**	**+1.4**
ARMA				IAmb	IAmb	03 44 29.9	
	comp=Z,12nm,1.3s						
CTAO	**Charters Tower**	**33.77**	**261**	P	**P**	**03 44 53.5**	**-0.3**
CTAO				IAmb	IAmb	03 45 12.5	
	comp=Z,21nm,1.4s						
TOO	**Toolangi**	**37.29**	**231**	P	**P**	**03 45 23.9**	**+1.2**
TOO				IAmb	IAmb	03 45 47.4	
	comp=Z,8.2nm,1.3s						
COEN	**Coen**	**37.49**	**271**	P	**P**	**03 45 24.4**	**-0.2**
STKA	**Stephens Creek**	**38.83**	**242**	P	**P**	**03 45 35.8**	**+0.5**
	comp=Z,5.4nm,0.5s,baz=96,slow=11,SNR=17						
	comp=Z,5.4nm,0.5s						
INKA	**Innaminka**	**38.99**	**248**	P	**P**	**03 45 37.8**	**+1.2**
INKA				IAmb	IAmb	03 45 41.7	
	comp=Z,4.5nm,0.6s						
BBOO	**Buckleboo**	**43.60**	**241**	P	**P**	**03 46 13.7**	**+0.6**
BBOO				IAmb	IAmb	03 46 14.7	
	comp=Z,12nm,0.7s						
WR8	**Warramunga Arr**	**44.80**	**260**	P	**P**	**03 46 21.5**	**-1.0**
WB0	**Warramunga Arr**	**44.92**	**260**		**P**	**03 46 22.4**	**-1.0**
WB0				IAmb	IAmb	03 46 23.2	
	comp=Z,5.3nm,0.7s						
WRA	**Warramunga Arr**	**44.95**	**260**	P	**P**	**03 46 23.0**	**-0.7**
	comp=Z,4.3nm,0.5s,baz=94,slow=7.3,SNR=79						
WRA				PcP	**PcP**	**03 47 53.6**	**+0.4**
	comp=Z,1.1nm,0.7s,baz=92,slow=3.3,SNR=4.5						
	comp=Z,4.3nm,0.5s						
WRA	**Warramunga Arr**	**44.95**	**260**		**P**	**03 46 22.2**	**-1.5**
WRA					**PcP**	**03 47 53.3**	**+0.1**
AS31	**Alice Springs**	**45.08**	**254**		**P**	**03 46 24.7**	**0.0**
AS31				IAmb	IAmb	03 46 25.2	
	comp=Z,15nm,0.7s						
ASAR	**Alice Springs**	**45.08**	**254**	P	**P**	**03 46 24.7**	**0.0**
	comp=Z,54nm,0.5s,baz=89,slow=8.3,SNR=647						
ASAR				PcP	**PcP**	**03 47 54.1**	**+0.4**
	comp=Z,1.4nm,0.6s,baz=102,slow=3.4,SNR=4.4						
ASAR	**Alice Springs**	**45.08**	**254**		**P**	**03 46 24.7**	**0.0**
ASAR					**PcP**	**03 47 53.5**	**-0.2**
FORT	**Forrest**	**50.23**	**245**	P	**P**	**03 47 03.0**	**0.0**
KNRA	**Kununurra**	**50.84**	**264**	P	**P**	**03 47 06.8**	**-0.8**
FAKI	**Fak Fak**	**51.00**	**281**	P	**P**	**03 47 07.6**	**-1.3**
FITZ	**Fitzroy Crossi**	**53.36**	**261**	P	**P**	**03 47 25.3**	**-0.4**
MBWA	**Marble Bar**	**58.37**	**256**	P	**P**	**03 47 59.6**	**-0.8**
MBWA				IAmb	IAmb	03 48 09.2	
	comp=Z,23nm,1.5s						
MORW	**Morawa**	**60.72**	**246**	P	**P**	**03 48 16.0**	**+0.1**
MORW				IAmb	IAmb	03 48 32.0	
	comp=Z,19nm,1.4s						
GIRL	**Giralia**	**63.18**	**253**	P	**P**	**03 48 32.1**	**+0.2**
GIRL				IAmb	IAmb	03 49 05.9	
	comp=Z,62nm,1.4s						
JAGI	**Jajag, Banyuwa**	**66.41**	**269**	P	**P**	**03 48 50.9**	**-1.6**
JAGI				IAmb	IAmb	03 49 12.4	
	comp=Z,57nm,1.5s						
UGM	**Wanagama**	**70.02**	**268**	P	**P**	**03 49 14.0**	**-0.3**
QSPA	**South Pole Qui**	**71.87**	**180**	P	**P**	**03 49 23.9**	**-0.5**
SDPT	**Sand Point**	**74.75**	**10**	P	**P**	**03 49 40.4**	**-0.2**
USRK	**Ussuriysk Ar.**	**77.06**	**326**	P	**P**	**03 49 56.0**	**+2.3**
NVAR	**Mina Array Bea**	**79.36**	**44**	P	**P**	**03 50 06.1**	**-0.4**
	comp=Z,0.6nm,0.8s,baz=240,slow=7.3,SNR=5.1						
	comp=Z,0.6nm,0.8s						
TXAR	**Lajitas Array**	**85.83**	**57**	P	**P**	**03 50 39.7**	**+0.6**
	comp=Z,0.5nm,0.8s,baz=246,slow=3.4,SNR=4.5						
	comp=Z,0.5nm,0.8s						
TXAR	**Lajitas Array**	**85.83**	**57**	P	**P**	**03 50 39.3**	**+0.2**

*BGR **15** 03:40:46.3, 54°.18N×158°.80E, h354^{km}±3^{km}, mb5.9, mB_BB6.5*

*KRSC **15** 03:41:25.0±0.9, 55°.88N×158°.59E, h360^{km}±10^{km}, Mc6.0, Ml6.5, Felt [IV-V] at kordon Valley of Geysers, kordon Aerodrom, cape Shipunskiy; [IV] at kordon Semyachik, kordon Kronoki; [II-III] at HMS Semyachik, Ust-Kamchatsk, HMS Vodopadnaya; [II] at Petropavlovsk, Viluchinsk, Ribachiy, Yuzhno-Kurilsk.*

*BJI **15** 03:41:26.1, 55°.94N×158°.50E, h340^{km}, mB6.2/81, mb5.6/92*

*MOS **15** 03:41:26.2±0.7, 55°.85N×158°.51E, h351^{km}, mb5.7/112, MS5.4/8, Error ellipse: s-maj=7.4km s-min=4.3km az=83.3*

MOS Felt (II) at Petropavlovsk-Kamchatskiy, Yuzhno-Kuril'sk.

*NEIC **15** 03:41:27.4, 55°.95N×158°.51E, h331^{km}*

*GFZ **15** 03:41:27.6, 55°.91N×158°.35E, h353^{km}, Mw6.4/147, Moment Tensor Solution. Moment tensor: Scale 10^{18}Nm; M$_{rr}$0.58; M$_{\theta\theta}$-0.85; M$_{\phi\phi}$0.28; M$_{r\theta}$-4.19; M$_{\theta\phi}$-0.37; M$_{\phi r}$2.78; Fault plane solution: M$_0$5.10188×10^{18} NP1:ϕ$_s$48.66534°, δ7.90904°, λ16.38568°. NP2:ϕ$_s$302.42728°, δ87.77537°, λ97.59164°. Principal axes: T 5.2867, Plg46.7047°, Azm220.2567°; N -0.3922, Plg7.5859°, Azm122.1309°; P -4.8945, Plg42.2938°, Azm25.1720°;*

*PTWC **15** 03:41:27, 55°.80N×158°.50E, h343^{km}, Mwp6.3/15*

*GFZ **15** 03:41:27.8±0.4, 56°N±3°×15°8E±°, h340^{km}±4^{km}, M6.1/43, mb5.8/43*

*IDC **15** 03:41:27.8±0.4, 55°.98N×158°.38E, h341^{km}±3^{km}, mb5.3/39, mbtmp6.0/46, Error ellipse: s-maj=5.0km s-min=4.9km az=133.0*

*IPGP **15** 03:41:27.0, 55°.96N×158°.49E, h350^{km}, Mw6.5, Fault plane solution: NP1:ϕ$_s$67.00000°, δ5.00000°, λ34.00000°. NP2:ϕ$_s$303.00000°, δ87.00000°, λ94.00000°.*

*NEIC **15** 03:41:28.1, 55°.97N×158°.45E, h340^{km}*

*NEIC **15** 03:41:28.0±1.4, 55°.97N±0°.06×158°.38E±0°.08, h344^{km}±1^{km}, mb5.8/261, Mwb6.5/173, Mww6.4/120, Error ellipse: s-maj=10.9km s-min=7.4km az=183.0, Moment Tensor Solution. Moment tensor: Scale 10^{18}Nm; M$_{rr}$0.56; M$_{\theta\theta}$-0.81; M$_{\phi\phi}$0.25; M$_{r\theta}$-5.19; M$_{\theta\phi}$0.25; M$_{\phi r}$3.36; Fault plane solution: M$_0$6.23000×10^{18} NP1: ϕ$_s$302.81000°, δ87.03000°, λ93.51000°. NP2:ϕ$_s$73.02000°, δ4.60000°, λ40.30000°. Principal axes: T 6.1491, Plg48.0000°, Azm217.0000°; N 0.1609, Plg4.0000°, Azm123.0000°; P -6.3100, Plg42.0000°, Azm29.0000°;*

*GCMT **15** 03:41:33.0±0.1, 55°.84N×158°.34E, h353^{km}, MW6.5/176, Moment Tensor Solution. s176,c460; s171,c320; Duration: 4^s.2 Moment tensor: Scale 10^{18}Nm; M$_{rr}$0.66±.02; M$_{\theta\theta}$-1.35±.03; M$_{\phi\phi}$0.68±.03; M$_{r\theta}$-5.11±.02; M$_{\theta\phi}$-0.34±.03; M$_{\phi r}$3.34±.02; Best double couple: M$_0$6.22200×10^{18} NP1:ϕ$_s$47.00000°, δ10.00000°, λ15.00000°. NP2:ϕ$_s$302.00000°, δ87.00000°, λ100.00000°. Principal axes: T 6.3220, Plg47.0000°, Azm222.0000°; N -0.2030, Plg10.0000°, Azm122.0000°; P -6.1220, Plg42.0000°, Azm23.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to mantle waves, cutoff=125s. Triangular moment-rate function*

*NEIC **15** 03:41:37.6, 55°.77N×158°.45E, h360^{km}, Moment Tensor Solution. Duration: 8^s.3 Moment tensor: Scale 10^{18}Nm; M$_{rr}$0.76; M$_{\theta\theta}$-1.37; M$_{\phi\phi}$0.61; M$_{r\theta}$-4.12; M$_{\theta\phi}$0.26; M$_{\phi r}$3.47; Fault plane solution: M$_0$5.53000×10^{18} NP1:ϕ$_s$62.81000°, δ10.47000°, λ23.63000°. NP2:ϕ$_s$309.54000°, δ85.82000°, λ99.61000°. Principal axes: T 5.4912, Plg48.0000°, Azm230.0000°; N 0.0683, Plg10.0000°, Azm129.0000°; P -5.5595, Plg40.0000°, Azm31.0000°;*

ISC 15 03:41:28.1±0.1**, 55°.87N**±0°.02×**158°.44E**±0°.02**, h348**^{km}±1^{km}**, h347**^{km}**:pP-P, n1886, σ1^s.82**/2780**, mb5.7**/577**, 176C-115D, Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ESO	**Esso**	**0.16**	**71**	PN	**Pn**	**03 42 10.6**	**-1.0**
ESO				S	**S**	**03 42 45.3**	**-1.2**
ESO	**Esso**	**0.16**	**71**	*i* P	**Pn**	**03 42 10.6**	**-1.0**
ESO				*e*S	**S**	**03 42 45.4**	**-1.2**
KOZ	**Kozyrevsk**	**0.83**	**77**	PN	**Pn**	**03 42 11.6**	**-1.3**
KOZ				S	**S**	**03 42 47.9**	**-1.0**
KOZ	**Kozyrevsk**	**0.83**	**77**	*e*P	**Pn**	**03 42 11.7**	**-1.3**
KOZ				*e*S	**S**	**03 42 48.0**	**-1.0**
SRDR	**Sredinnyy**	**0.84**	**58**	PN	**Pn**	**03 42 12.0**	**-1.0**
SRDR	**Sredinnyy**	**0.84**	**58**	*i* P	**Pn**	**03 42 12.1**	**-1.0**
KPT	**Kopyto**	**1.01**	**84**	PN	**Pn**	**03 42 12.0**	**-1.7**
KPT	**Kopyto**	**1.01**	**84**	*e*P	**Pn**	**03 42 12.0**	**-1.7**
KMNR	**Kamenistaya**	**1.02**	**96**	PN	**Pn**	**03 42 12.7**	**-1.1**
KMNR	**Kamenistaya**	**1.02**	**96**	*e*P	**Pn**	**03 42 12.8**	**-1.1**
KIRR	**Kirishev**	**1.08**	**85**	PN	**Pn**	**03 42 12.8**	**-1.2**
KIRR				S	**S**	**03 42 48.9**	**-2.0**
KIRR	**Kirishev**	**1.08**	**85**	*e*P	**Pn**	**03 42 12.8**	**-1.2**
KIRR				*e*S	**S**	**03 42 49.0**	**-2.0**
TUMR	**Tumrok**	**1.14**	**121**	PN	**Pn**	**03 42 13.3**	**-1.0**
TUMR	**Tumrok**	**1.14**	**121**	*e*P	**Pn**	**03 42 13.4**	**-1.0**
BZMR	**Bezymyannaya**	**1.16**	**86**	PN	**Pn**	**03 42 13.1**	**-1.3**
BZMR	**Bezymyannaya**	**1.16**	**86**	*i* P	**Pn**	**03 42 13.2**	**-1.3**
BZWR	**Bezymyannyi-We**	**1.16**	**85**	PN	**Pn**	**03 42 13.0**	**-1.4**
BZWR	**Bezymyannyi-We**	**1.16**	**85**	*i* P	**Pn**	**03 42 13.1**	**-1.4**
BZP	**Bezymyannyi-Pe**	**1.19**	**87**	PN	**Pn**	**03 42 13.1**	**-1.4**
BZP	**Bezymyannyi-Pe**	**1.19**	**87**	*i* P	**Pn**	**03 42 13.2**	**-1.4**
BZGR	**Bezymyannyi-Gr**	**1.27**	**86**	PN	**Pn**	**03 42 13.9**	**-1.0**
BZGR				S	**S**	**03 42 50.7**	**-1.7**
BZGR	**Bezymyannyi-Gr**	**1.27**	**86**	*e*P	**Pn**	**03 42 13.9**	**-1.0**
BZGR				*e*S	**S**	**03 42 50.8**	**-1.7**
LGNR	**Loginova**	**1.28**	**80**	PN	**Pn**	**03 42 14.9**	**-0.2**
LGNR	**Loginova**	**1.28**	**80**	*e*P	**Pn**	**03 42 14.9**	**-0.2**
TUMD	**Tumrok D**	**1.30**	**120**	PN	**Pn**	**03 42 13.7**	**-1.2**
TUMD				S	**S**	**03 42 51.6**	**-1.0**
TUMD	**Tumrok D**	**1.30**	**120**	*e*P	**Pn**	**03 42 13.8**	**-1.2**
TUMD				*e*S	**S**	**03 42 51.7**	**-1.0**
KLY	**Klyuchi**	**1.32**	**70**	PN	**Pn**	**03 42 14.4**	**-0.5**
KLY				S	**S**	**03 42 52.0**	**-0.5**
KLY	**Klyuchi**	**1.32**	**70**	*e*P	**Pn**	**03 42 14.5**	**-0.5**
KLY				*e*S	**S**	**03 42 52.1**	**-0.5**
CIRR	**Tsirk**	**1.32**	**78**	PN	**Pn**	**03 42 14.0**	**-1.1**
CIRR	**Tsirk**	**1.32**	**78**	*e*P	**Pn**	**03 42 14.1**	**-1.1**
ZLN	**Zelenaya**	**1.34**	**83**	PN	**Pn**	**03 42 14.1**	**-1.1**
ZLN	**Zelenaya**	**1.34**	**83**	*i* P	**Pn**	**03 42 14.1**	**-1.1**
SMKR	**Semkarok**	**1.84**	**66**	PN	**Pn**	**03 42 16.6**	**-1.4**
SMKR	**Semkarok**	**1.84**	**66**	*e*P	**Pn**	**03 42 16.7**	**-1.4**
TIGL	**Tigil**	**1.90**	**4**	PN	**Pn**	**03 42 17.9**	**-0.4**
TIGL				S	**S**	**03 42 56.8**	**-1.9**
TIGL	**Tigil**	**1.90**	**4**	*e*P	**Pn**	**03 42 18.0**	**-0.4**
TIGL				*e*S	**S**	**03 42 56.9**	**-1.9**
KII	**Karymskiy**	**1.93**	**162**	PN	**Pn**	**03 42 17.3**	**-1.5**
KII	**Karymskiy**	**1.93**	**162**	*e*P	**Pn**	**03 42 17.3**	**-1.5**
GNL	**Ganaly**	**2.20**	**188**	PN	**Pn**	**03 42 20.4**	**-0.4**
GNL	**Ganaly**	**2.20**	**188**	*i* P	**Pn**	**03 42 20.5**	**-0.4**
MKZ	**Mys Kozlova**	**2.30**	**124**	PN	**Pn**	**03 42 17.3**	**-4.0**
MKZ	**Mys Kozlova**	**2.30**	**124**	*e*P	**Pn**	**03 42 17.3**	**-4.0**
KBTR	**Krutoberegovo**	**2.48**	**80**	PN	**Pn**	**03 42 19.0**	**-3.7**
KBTR	**Krutoberegovo**	**2.48**	**80**	*e*P	**Pn**	**03 42 19.1**	**-3.7**
KRX	**Arik**	**2.52**	**177**	PN	**Pn**	**03 42 22.2**	**-1.1**
KRX	**Arik**	**2.52**	**177**	*e*P	**Pn**	**03 42 22.3**	**-1.1**
KRER	**Koryakskii**	**2.58**	**176**	PN	**Pn**	**03 42 22.5**	**-1.4**
KRER	**Koryakskii**	**2.58**	**176**	*e*P	**Pn**	**03 42 22.6**	**-1.4**
KOK	**Koryaka**	**2.59**	**177**	PN	**Pn**	**03 42 22.7**	**-1.1**
KOK	**Koryaka**	**2.59**	**177**	*e*P	**Pn**	**03 42 22.8**	**-1.1**
SDLR	**Sedlovina**	**2.61**	**174**	PN	**Pn**	**03 42 22.7**	**-1.4**
SDLR	**Sedlovina**	**2.61**	**174**	*e*P	**Pn**	**03 42 22.7**	**-1.4**
AVH	**Avacha**	**2.62**	**176**	PN	**Pn**	**03 42 23.5**	**-0.6**
AVH	**Avacha**	**2.62**	**176**	*e*P	**Pn**	**03 42 23.6**	**-0.6**
SMAR	**Somma**	**2.62**	**175**	PN	**Pn**	**03 42 23.1**	**-1.2**
SMAR	**Somma**	**2.62**	**175**	*e*P	**Pn**	**03 42 23.2**	**-1.2**
UGLR	**Uglovaya**	**2.68**	**175**	PN	**Pn**	**03 42 23.5**	**-1.1**
UGLR	**Uglovaya**	**2.68**	**175**	*e*P	**Pn**	**03 42 23.6**	**-1.1**
NLC	**Nalytchevo**	**2.76**	**169**	PN	**Pn**	**03 42 23.0**	**-2.1**
NLC	**Nalytchevo**	**2.76**	**169**	*e*P	**Pn**	**03 42 23.1**	**-2.1**
PEA0B	**Petropavlovsk-**	**2.80**	**189**	*d i*PN	**Pn**	**03 42 25.3**	**-0.3**
PEA0B	**Petropavlovsk-**	**2.80**	**189**	Pn	**Pn**	**03 42 24.8**	**-0.8**
PEA0B				Sn	**S**	**03 43 12.1**	**+0.3**
PEA0B	**Petropavlovsk-**	**2.80**	**189**	P	**Pn**	**03 42 25.0**	**-0.6**
PETK	**Petropavlovsk-**	**2.80**	**189**	P	**Pn**	**03 42 25.5**	**-0.1**
	11µm,0.5s,baz=61,slow=7.2,SNR=5328						
PETK				S	**S**	**03 43 12.6**	**+0.8**
	10µm,1.0s,baz=55,slow=25,SNR=3.2						
PETK	**Petropavlovsk-**	**2.80**	**189**	PN	**Pn**	**03 42 24.9**	**-0.7**
PETK						03 43 08.5	
PETK	**Petropavlovsk-**	**2.80**	**189**	Pn	**Pn**	**03 42 24.9**	**-0.7**
PETK				Sn	**S**	**03 43 08.5**	**-3.3**
I44RU	**PETROPAVLOVSK-**	**2.81**	**189**	P	**Pn**	**03 42 25.0**	**-0.6**
	baz=30,slow=12,SNR=3.3						
INSR	**Institute**	**2.81**	**178**	PN	**Pn**	**03 42 23.9**	**-1.7**
INSR				S	**S**	**03 43 08.8**	**-3.1**
INSR	**Institute**	**2.81**	**178**	*e*P	**Pn**	**03 42 24.0**	**-1.7**
INSR				*e*S	**S**	**03 43 08.8**	**-3.1**
DALK	**Dalny**	**2.85**	**176**	PN	**Pn**	**03 42 24.1**	**-1.8**
DALK				S	**S**	**03 43 09.6**	**-2.9**
DALK	**Dalny**	**2.85**	**176**	*e*P	**Pn**	**03 42 24.2**	**-1.8**
DALK				*e*S	**S**	**03 43 09.7**	**-2.9**
PET	**Petropavlovsk**	**2.86**	**177**	P	**Pn**	**03 42 25.0**	**-1.0**
PET	**Petropavlovsk**	**2.86**	**177**	⇓*i*PN	**Pn**	**03 42 24.4**	**-1.7**
PET				*i* S	**S**	**03 43 10.9**	**-1.7**
PET				pmax	pmax		
	comp=Z,25µm,0.6s						
PET				pmax	pmax		
	comp=Z,111µm,7.4s						
PET				smax	smax		
	comp=E,43µm,0.9s						
PET				smax	smax		
	comp=N,55µm,0.8s						
PET				MLR	MLR		
	comp=Z,70µm,14.0s						
PET				MLR	MLR		
	comp=Z,70µm,15.0s						
PET	**Petropavlovsk**	**2.86**	**177**	Pn	**Pn**	**03 42 24.6**	**-1.4**
PET				Sn	**S**	**03 43 08.0**	**-4.6**
PET	**Petropavlovsk**	**2.86**	**177**	P	**Pn**	**03 42 24.3**	**-1.7**
PET	**Petropavlovsk**	**2.86**	**177**	*i* P	**Pn**	**03 42 24.6**	**-1.4**
PET				*e*S	**S**	**03 43 09.1**	**-3.5**
PET	**Petropavlovsk**	**2.86**	**177**	⇑P	**Pn**	**03 42 24.1**	**-1.9**
PET	**Petropavlovsk**	**2.86**	**177**	P	**Pn**	**03 42 23.9**	**-2.1**
PET				AML	AML		
PET	**Petropavlovsk**	**2.86**	**177**	P	**Pn**	**03 42 24.3**	**-1.7**
SPN	**Mys Shipunski**	**2.93**	**161**	PN	**Pn**	**03 42 24.2**	**-2.4**
SPN				S	**S**	**03 43 08.0**	**-5.8**
SPN	**Mys Shipunski**	**2.93**	**161**	*e*P	**Pn**	**03 42 24.3**	**-2.4**
SPN				*e*S	**S**	**03 43 08.0**	**-5.8**
APC	**Apacha**	**3.05**	**195**	PN	**Pn**	**03 42 27.7**	**0.0**
APC				S	**S**	**03 43 15.1**	**-0.5**
APC	**Apacha**	**3.05**	**195**	*i* P	**Pn**	**03 42 27.7**	**0.0**
APC				*e*S	**S**	**03 43 15.1**	**-0.5**
KRMR	**Karymshinskiy**	**3.06**	**183**	PN	**Pn**	**03 42 26.2**	**-1.5**
KRMR				S	**S**	**03 43 13.5**	**-2.3**
KRMR	**Karymshinskiy**	**3.06**	**183**	*i* P	**Pn**	**03 42 26.3**	**-1.5**
KRMR				*e*S	**S**	**03 43 13.5**	**-2.3**
PALN	**Palana**	**3.33**	**14**	PN	**Pn**	**03 42 29.6**	**-0.5**
PALN	**Palana**	**3.33**	**14**	*i* P	**Pn**	**03 42 29.6**	**-0.5**
GRL	**Gorelyy**	**3.33**	**184**	PN	**Pn**	**03 42 29.2**	**-1.3**
GRL	**Gorelyy**	**3.33**	**184**	*e*P	**Pn**	**03 42 29.3**	**-1.3**
MTVR	**Mutnovka**	**3.40**	**183**	PN	**Pn**	**03 42 30.0**	**-1.2**
MTVR	**Mutnovka**	**3.40**	**183**	*e*P	**Pn**	**03 42 30.1**	**-1.2**
RUS	**Russkaya**	**3.45**	**179**	PN	**Pn**	**03 42 28.8**	**-2.6**
RUS	**Russkaya**	**3.45**	**179**	*e*P	**Pn**	**03 42 28.9**	**-2.6**
ASAK	**Asacha**	**3.51**	**185**	PN	**Pn**	**03 42 31.0**	**-1.2**
ASAK	**Asacha**	**3.51**	**185**	*e*P	**Pn**	**03 42 31.1**	**-1.2**
MIPR	**Malaya Ipel'ka**	**3.74**	**196**	PN	**Pn**	**03 42 33.6**	**-0.7**
MIPR	**Malaya Ipel'ka**	**3.74**	**196**	*e*P	**Pn**	**03 42 33.7**	**-0.7**
KDTR	**Khodutka, Kamc**	**4.08**	**183**	PN	**Pn**	**03 42 35.5**	**-2.2**
KDTR	**Khodutka, Kamc**	**4.08**	**183**	*e*P	**Pn**	**03 42 35.5**	**-2.2**
OSSR	**Ossora**	**4.20**	**34**	PN	**Pn**	**03 42 38.4**	**-0.4**
OSSR				S	**S**	**03 43 33.2**	**-2.8**
OSSR	**Ossora**	**4.20**	**34**	*i* P	**Pn**	**03 42 38.5**	**-0.4**
OSSR				*e*S	**S**	**03 43 33.2**	**-2.8**
BKI	**Bering**	**4.33**	**96**	PN	**Pn**	**03 42 38.4**	**-1.9**
BKI				S	**S**	**03 43 34.3**	**-4.3**
BKI	**Bering**	**4.33**	**96**	*e*P	**Pn**	**03 42 38.4**	**-1.9**
BKI				*e*S	**S**	**03 43 34.4**	**-4.3**
PAU	**Pauzhetka**	**4.52**	**193**	PN	**Pn**	**03 42 41.3**	**-1.1**
PAU				S	**S**	**03 43 40.0**	**-2.3**
PAU	**Pauzhetka**	**4.52**	**193**	*e*P	**Pn**	**03 42 41.3**	**-1.1**
PAU				*e*S	**S**	**03 43 40.1**	**-2.3**
SKR	**Severo-Kuril’s**	**5.38**	**196**	⇓*i*PN	**Pn**	**03 42 50.3**	**-1.5**
SKR				*e*S	**S**	**03 43 56.0**	**-3.6**
SKR				pmax	pmax		
	comp=Z,171µm,6.8s						
SKR				pmax	pmax		
	comp=Z,2µm,0.6s						
SKR				smax	smax		
	comp=N,40nm,0.7s						
SKR				MLR	MLR		
	comp=N,105µm,16.0s						
SKR				MLR	MLR		
	comp=Z,225µm,16.0s						
SKR				MLR	MLR		
	comp=E,101µm,15.0s						
SKR	**Severo-Kuril’s**	**5.38**	**196**	*e*P	**Pn**	**03 42 50.9**	**-1.0**
SKR				*e*S	**S**	**03 43 56.3**	**-3.3**
MA2	**Magadan**	**5.54**	**315**	P	**Pn**	**03 42 53.3**	**-0.1**
	comp=E,1µm,0.7s,baz=124,slow=9.4,SNR=168						
MA2				S	**S**	**03 44 01.1**	**-1.4**
	comp=E,317nm,0.6s,baz=34,slow=18,SNR=6.7						
MA2	**Magadan**	**5.54**	**315**	P	**Pn**	**03 42 51.9**	**-1.5**
MA2	**Magadan**	**5.54**	**315**	S	**S**	**03 43 56.5**	**-6.0**
MA2	**Magadan**	**5.54**	**315**	*c i*PN	**Pn**	**03 42 54.1**	**+0.8**
MA2				pmax	pmax		
	comp=Z,3µm,1.0s						
MA2	**Magadan**	**5.54**	**315**	Pn	**Pn**	**03 42 52.9**	**-0.5**
MA2				Sn	**S**	**03 44 01.0**	**-1.4**
MA2	**Magadan**	**5.54**	**315**	P	**Pn**	**03 42 54.3**	**+1.0**
MA2	**Magadan**	**5.54**	**315**	⇑P	**Pn**	**03 42 54.1**	**+0.8**
MA2	**Magadan**	**5.54**	**315**	P	**Pn**	**03 42 51.1**	**-2.3**
	comp=Z,12nmcomp=Z,33µmcomp=Z,3µm,0.8s						
MA2				AML	AML		
MA2	**Magadan**	**5.54**	**315**	P	**Pn**	**03 42 54.4**	**+1.0**
	comp=Z,3µm,0.8s						
TILK	**Tilichiki**	**6.13**	**38**	PN	**Pn**	**03 42 59.9**	**-0.2**
TILK	**Tilichiki**	**6.13**	**38**	*e*P	**Pn**	**03 42 60.0**	**-0.2**
SEY	**Seymchan**	**7.72**	**339**	P	**Pn**	**03 43 18.6**	**-0.1**
	comp=Z,972nm,0.9s,baz=140,slow=11,SNR=324						
SEY				S	**S**	**03 44 44.5**	**-4.3**
	comp=Z,219nm,0.9s,baz=181,slow=20,SNR=0.8						
SEY	**Seymchan**	**7.72**	**339**	*d i*PN	**Pn**	**03 43 19.3**	**+0.7**
SEY				pmax	pmax		
	comp=Z,1µm,1.0s						
OKH	**Okha**	**9.27**	**262**	*de*PN	Pn	03 43 29.3	-7.8
OKH				*e*S	S	03 45 13.3	-9.5
OKH				MLR	MLR		

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      comp=Z,9µm,8.0s
OKH                             MLR    MLR
      comp=N,10µm,16.0s
OKH                             MLR    MLR
      comp=E,7µm,12.0s
SHEM  Shemya Is, Ala    9.68 102  P      Pn     03 43 41.1 -1.0
      comp=E,2µm,0.7s,baz=338,slow=4.2,SNR=62
SHEM                            S      S      03 45 26.0 -5.8
      comp=E,655nm,0.9s,baz=288,slow=23,SNR=6.5
SHEM  Shemya Is, Ala    9.68 102  Pn     Pn     03 43 40.2 -1.9
SMY   Shemya            9.68 102  P      Pn     03 43 40.7 -1.4
      comp=E,3µm,0.7s
SMY   Shemya            9.68 102  S      S      03 45 32.2 +0.4
      comp=E,3µm,0.7s
SMY   Shemya            9.68 102  PN     Pn     03 43 39.9 -2.2
SMY   Shemya            9.68 102  Pn     Pn     03 43 40.0 -2.1
SMY                               Sn     S      03 45 30.4 -1.4
SMY   Shemya            9.68 102  P      Pn     03 43 40.3 -1.8
SMY   Shemya            9.68 102 ⇑P      Pn     03 43 40.5 -1.5
TYV   Tymovskoe        10.67 249 ePN     P      03 43 57.1 +2.2
TYV                              eS      S      03 45 55.1 +1.4
TYV                               pmax   pmax
      comp=Z,62µm,3.0s
TYV                               pmax   pmax
      comp=Z,7µm,1.1s
TYV                               smax   smax
      comp=N,3µm,1.9s
TYV                               smax   smax
      comp=E,7µm,1.9s
TYV                               smax   smax
      comp=N,179µm,5.0s
TYV                               smax   smax
      comp=E,259µm,5.0s
TYV   Tymovskoe        10.67 249 eP      P      03 43 56.5 +1.6
NKL   Nikolayevsk      10.67 263 ePN     Pn     03 43 52.7 -1.2
NKL                              eS      S      03 45 53.4 -0.3
NKL                               pmax   pmax
      comp=E,6µm,1.1s
NKL                               pmax   pmax
      comp=N,24µm,1.5s
NKL                               pmax   pmax
      comp=Z,43µm,1.2s
NKL                               smax   smax
      comp=E,34µm,1.8s
NKL                               smax   smax
      comp=N,49µm,2.1s
NKL                               MLR    MLR
      comp=E,20µm,8.0s
NKL                               MLR    MLR
      comp=N,36µm,7.0s
NKL                               MLR    MLR
      comp=Z,47µm,9.0s
UGL   Uglegorsk        12.06 242⇑iPN     Pn     03 44 13.3 +2.9
UGL                              eS      S      03 46 26.6 +2.2
UGL                               pmax   pmax
      comp=Z,79µm,5.4s
UGL                               pmax   pmax
      comp=Z,9µm,0.8s
UGL                               smax   smax
      comp=N,273µm,6.7s
UGL                               smax   smax
      comp=E,289µm,6.1s
KUR   Kuril'sk         12.58 217 i PN    P      03 44 14.6 -1.5
BILL  Bilibino         12.74  13d iPN    P      03 44 17.1 -0.5
BILL  Bilibino         12.74  13         Pn     03 44 18.1 -0.1
BILL  Bilibino         12.74  13 eP      P      03 44 17.5  0.0
BILI  Bilibino, Chuk   12.78  14  P      P      03 44 17.8 -0.2
BILI  Bilibino, Chuk   12.78  14  P      P      03 44 17.5 -0.5
      comp=Z,12µm,1.1s
CEPE  Semis' Perret    13.09  99  P      Pn     03 44 22.9 +0.4
AMKA  Amchitka         13.16 101         P      03 44 20.7 -1.7
AMKA  Amchitka         13.16 101  P      P      03 44 21.1 -1.3
YSS   Yuzhno-Sakhali   13.22 234  P      Pn     03 44 24.0 -0.1
YSS   Yuzhno-Sakhali   13.22 234  S      S      03 46 49.3 +1.2
YSS   Yuzhno-Sakhali   13.22 234α iPN    Pn     03 44 25.6 +1.5
YSS                              eS      S      03 46 46.5 -1.6
YSS                               pmax   pmax
      comp=Z,8µm,0.6s
YSS                               pmax   pmax
      comp=Z,41µm,6.0s
YSS                               pmax   pmax
      comp=N,34µm,4.4s
YSS                               smax   smax
      comp=N,241µm,6.3s
YSS                               smax   smax
      comp=E,148µm,6.9s
YSS                               smax   smax
      comp=N,8µm,1.5s
YSS                               smax   smax
      comp=E,7µm,1.8s
YSS                               MLR    MLR
      comp=Z,55µm,10.0s
YSS                               MLR    MLR
      comp=N,36µm,13.0s
YSS   Yuzhno-Sakhali   13.22 234         Pn     03 44 25.0 +0.8
YSS   Yuzhno-Sakhali   13.22 234  P      Pn     03 44 25.5 +1.5
YSS   Yuzhno-Sakhali   13.22 234 eP      Pn     03 44 25.6 +1.5
YSS   Yuzhno-Sakhali   13.22 234 ⇑P      Pn     03 44 24.9 +0.8
YSS   Yuzhno-Sakhali   13.22 234  P      Pn     03 44 25.1 +1.0
      comp=Z,9µm,1.0s
GRNR  Gornyy           14.09 258⇑iP      Pn     03 44 34.2 -0.1
GRNR                              pmax   pmax
      comp=Z,1µm,0.7s
YUK   Yuzh-Kuril'sk    14.32 219 eP      P      03 44 32.6 -2.6
YUK                              i S     S      03 47 03.3 -7.1
YUK                               pmax   pmax
      comp=Z,16µm,0.6s
YUK                               pmax   pmax
      comp=N,2µm,0.4s
YUK                               pmax   pmax
      comp=E,4µm,0.5s
YUK                               smax   smax
      comp=E,127µm,1.2s
YUK                               smax   smax
      comp=N,197µm,1.5s
YUK   Yuzh-Kuril'sk    14.32 219 eP      P      03 44 33.4 -1.8
JWK2  Keihoku          14.86 232  P      Pn     03 44 43.1 -0.1
KIWB  Kanaga Island    14.92  95         P      03 44 40.7 -1.1
NMR   Nemuro--Hokkai   14.95 218 eP      P      03 44 38.1 -4.0
NMR                              i S     S      03 47 13.7 -9.3
ADK   Adak             15.17  95  P      P      03 44 43.6 -0.8
      comp=N,228nm,0.9s
ADK   Adak             15.17  95  S      S      03 47 32.1 +4.8
      comp=N,228nm,0.9s
ADK   Adak             15.17  95  P      P      03 44 43.7 -0.7
ADK   Adak             15.17  95         P      03 44 43.7 -0.7
ADK   Adak             15.17  95  P      P      03 44 44.5 +0.1
ADK   Adak             15.17  95 ⇑P      P      03 44 42.0 -2.4
ADK   Adak             15.17  95  P      P      03 44 44.6 +0.1
      comp=Z,492nm,0.9s
JMP   Maruseppu        15.29 225  P      P      03 44 44.6 -1.3
GSTR  Great Sitkin T   15.44  94  P      P      03 44 47.0 -0.3
JKA   Kamikawa-asahi   15.51 227         P      03 44 47.7 -0.6
JKA                                      ScP    03 52 27.8  0.0
JKA   Kamikawa-asahi   15.51 227  P      P      03 44 48.3  0.0
JKA   Kamikawa-asahi   15.51 227 ⇑P      P      03 44 47.5 -0.8
JKA   Kamikawa-asahi   15.51 227  P      P      03 44 47.9 -0.4
      comp=Z,2µm,1.0s
ASAJ  Asahikawa        15.52 227  P      P      03 44 49.2 +1.0
      comp=Z,1µm,0.9s,baz=299,slow=3.1,SNR=264
ASAJ                              S      S      03 47 29.7 -4.6
      comp=Z,3µm,1.2s,baz=293,slow=33,SNR=7.8
ASAJ                              ScP    ScP    03 52 29.0 +1.2
      comp=Z,292nm,1.3s,baz=195,slow=5.8,SNR=3.7
ASAJ                              ScS    ScS    03 56 07.6 +1.3
      comp=Z,7.3nm,0.4s,baz=16,slow=26,SNR=8.9
YAK   Yakutsk          15.96 304  P      P      03 44 52.1 -0.8
      comp=Z,4µm,0.7s,baz=88,slow=3.2,SNR=456
YAK                               S      S      03 47 42.5 -0.3
      comp=Z,2µm,0.7s,baz=172,slow=22,SNR=25
YAK                               ScS    ScS    03 56 06.7 -0.2
      comp=Z,20nm,0.4s,baz=195,slow=23,SNR=9.7
YAK   Yakutsk          15.96 304c iP     P      03 44 52.1 -0.8
YAK                              eS      S      03 47 41.7 -1.1
YAK                               pmax   pmax
      comp=Z,4µm,0.8s
YAK                               pmax   pmax
      comp=N,553nm,1.2s
YAK                               pmax   pmax
      comp=E,2µm,1.3s
YAK                               smax   smax
      comp=E,30µm,2.2s
YAK                               smax   smax
      comp=N,32µm,2.3s
YAK   Yakutsk          15.96 304         P      03 44 51.4 -1.5
YAK   Yakutsk          15.96 304  P      P      03 44 52.2 -0.8
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YAK   Yakutsk          15.96 304 ⇑P      P      03 44 51.5 -1.5
YAK   Yakutsk          15.96 304  P      P      03 44 52.3 -0.7
      comp=Z,7µm,0.8s
ATKA  Atka Island      16.44  91  P      P      03 44 57.7 -0.5
      comp=Z,3µm,0.9s
ATKA  Atka Island      16.44  91  S      S      03 47 55.1 +2.7
      comp=Z,3µm,0.9s
ATKA  Atka Island      16.44  91         P      03 44 57.4 -0.8
ATKA  Atka Island      16.44  91  P      P      03 44 57.7 -0.5
ATKA  Atka Island      16.44  91 ⇑P      P      03 44 56.9 -1.3
JEW   Eniwo            17.04 227  P      P      03 45 02.6 -2.2
ERM   Erimo            17.06 222  P      P      03 45 03.4 -1.6
      comp=Z,3µm,0.7s
ERM   Erimo            17.06 222  S      S      03 48 05.8 +1.0
      comp=Z,3µm,0.7s
ERM   Erimo            17.06 222⇓iP      P      03 45 02.9 -2.1
ERM                               pmax   pmax
      comp=Z,5µm,1.7s
ERM   Erimo            17.06 222         P      03 45 03.1 -1.9
ERM   Erimo            17.06 222  P      P      03 45 02.9 -2.1
ERM   Erimo            17.06 222 ⇑P      P      03 45 01.0 -4.0
ERM   Erimo            17.06 222  P      P      03 45 03.1 -1.9
      comp=Z,2µm,0.7s
JEM   Erimo            17.06 222  P      P      03 45 03.5 -1.5
      comp=Z,2µm,0.7s
JEM   Erimo            17.06 222  S      S      03 48 05.9 +1.1
      comp=Z,2µm,0.7s
JEM   Erimo            17.06 222  P      P      03 45 02.7 -2.3
SPIA  Saint Paul Isl   17.25  73  P      P      03 45 07.5 +0.7
      comp=Z,1µm,1.5s
SPIA  Saint Paul Isl   17.25  73  P      P      03 45 06.7 -0.1
KLR   Kul'dur          17.46 259  P      P      03 45 09.9 +0.7
      comp=Z,1µm,0.9s,baz=61,slow=10,SNR=722
KLR                               S      S      03 48 15.4 +2.8
      comp=Z,78nm,1.0s,baz=30,slow=22,SNR=1.1
KLR                               ScS    ScS    03 56 13.2 +1.4
      comp=Z,83nm,1.3s,baz=173,slow=23,SNR=21
KLR   Kul'dur          17.46 259c iP     P      03 45 09.4 +0.2
KLR                               pmax   pmax
      comp=Z,3µm,1.3s
TEY   Ternei           17.55 241⇑iP      P      03 45 05.6 -4.6
TEY                               pmax   pmax
      comp=N,3µm,1.3s
TEY                               pmax   pmax
      comp=E,4µm,1.3s
TEY                               pmax   pmax
      comp=Z,7µm,1.3s
TEY                               MLR    MLR
      comp=E,700nm,9.0s
TEY                               MLR    MLR
      comp=N,900nm,11.0s
TEY                               MLR    MLR
      comp=Z,1µm,11.0s
JSH   Shimam           17.79 230  P      P      03 45 10.0 -2.8
ZEA   Zeya             18.02 276 eP      P      03 45 13.9 -1.3
ZEA                              eS      S      03 48 14.6 -8.8
ZEA                               pmax   pmax
      comp=E,100nm,1.1s
ZEA                               pmax   pmax
      comp=N,20nm,1.3s
ZEA                               pmax   pmax
      comp=Z,220nm,1.2s
ZEA                               pmax   pmax
      comp=E,4µm,3.4s
ZEA                               pmax   pmax
      comp=N,700nm,3.2s
ZEA                               pmax   pmax
      comp=Z,5µm,3.2s
ZEA                               smax   smax
      comp=E,24µm,4.5s
ZEA                               smax   smax
      comp=N,38µm,5.3s
JOT   Ohata            18.42 225  P      P      03 45 15.6 -3.9
CLES  Cleveland East   18.62  86         P      03 45 21.2 -0.3
TNA   Tin City         18.85  46         P      03 45 22.8 -0.9
TNA   Tin City         18.85  46  P      P      03 45 23.3 -0.4
TNA   Tin City         18.85  46 ⇑P      P      03 45 23.1 -0.6
JTM   Tenmabayashi     18.92 224         P      03 45 22.3 -2.5
JTM   Tenmabayashi     18.92 224 ⇑P      P      03 45 20.8 -4.0
JTM   Tenmabayashi     18.92 224  P      P      03 45 22.1 -2.7
      comp=Z,4µm,1.2s
JTM   Tenmabayashi     18.92 224  P      P      03 45 21.8 -3.0
HEH   HeiHe            19.36 266 eP      P      03 45 27.5 -1.9
HEH                               S      S      03 48 46.4 -2.1
HEH                               ScP    ScP    03 52 38.3 +2.5
HEH                               ScS    ScS    03 56 17.6 -0.2
HEH                               pmax   pmax
      comp=Z,25µm,9.2s
OKNC  Okmok New Cone   19.39  83  P      P      03 45 29.4 -0.2
ANM   Nome             19.70  49  P      P      03 45 31.7 -1.0
ANM   Nome             19.70  49         P      03 45 31.7 -1.0
MGOD  Makushin Gods    19.97  81  P      P      03 45 34.3 -1.3
TIXI  Tiksi            20.15 333  P      P      03 45 36.6 -0.5
      comp=Z,623nm,0.4s,baz=132,slow=10.0,SNR=270
TIXI                              S      S      03 48 58.0 -2.9
      comp=Z,63nm,1.0s,baz=349,slow=19,SNR=7.0
TIXI                              ScP    ScP    03 52 39.0 +1.7
      comp=Z,108nm,0.8s,baz=127,slow=2.8,SNR=10.0
TIXI                              ScS    ScS    03 56 20.4 +0.7
      comp=Z,16nm,1.0s,baz=320,slow=20,SNR=10
      comp=Z,623nm,0.4s
TIXI  Tiksi            20.15 333d iP     P      03 45 36.4 -0.7
TIXI                              pmax   pmax
      comp=Z,3µm,1.1s
TIXI  Tiksi            20.15 333         P      03 45 36.1 -1.0
TIXI                                     ScP    03 52 36.7 -0.5
TIXI                                     ScS    03 56 18.8 -1.0
UNV   Unalaska Valle   20.15  81  P      P      03 45 35.6 -1.7
      comp=Z,4µm,1.4s
UNV   Unalaska Valle   20.15  81         P      03 45 36.1 -1.2
F15K  North Star Dit   20.21  46         P      03 45 37.2 -0.5
LVA   Lava Point       20.31  80         P      03 45 37.3 -1.6
J14K  Nanvaranak Lak   20.33  55         P      03 45 37.7 -1.1
M13K  Dall Lake        20.46  61         P      03 45 40.1  0.0
AKUT  Akutan           20.46  80  P      P      03 45 39.5 -0.7
      comp=Z,5µm,1.2s
AKUT  Akutan           20.46  80  S      S      03 49 10.9 +4.6
      comp=Z,5µm,1.2s
AKUT  Akutan           20.46  80         P      03 45 39.0 -1.2
AKUT  Akutan           20.46  80 ⇑P      P      03 45 37.9 -2.3
USA0B Ussuriysk Arra   20.47 246c iP     P      03 45 38.6 -1.8
USA0B Ussuriysk Arra   20.47 246  P      P      03 45 39.4 -1.0
USRK  Ussuriysk Ar.    20.47 246  P      P      03 45 40.0 -0.4
      comp=Z,813nm,0.6s,baz=56,slow=6.0,SNR=527
USRK                              S      S      03 49 05.8 -0.9
      comp=Z,29nm,0.8s,baz=38,slow=15,SNR=1.1
USRK                              ScP    ScP    03 52 40.5 +2.0
      comp=Z,43nm,1.0s,baz=263,slow=0.5,SNR=6.5
      comp=Z,813nm,0.6s
USRK  Ussuriysk Ar.    20.47 246         ScP    03 52 38.6 +0.2
C16K  Lisburne Hills   20.62  39         P      03 45 40.5 -0.9
L14K  Kuka Creek       20.74  59         P      03 45 42.3 -0.2
VLA   Vladivostok      21.29 244d iP     P      03 45 46.1 -1.7
VLA                               pmax   pmax
      comp=Z,3µm,1.1s
JYA   Atsumi           21.34 224  P      P      03 45 48.6 +0.3
RDOG  Red Dog Mine     21.42  40  P      P      03 45 48.4 -0.3
MDJ   Mudanjiang       21.44 250  P      P      03 45 47.6 -1.6
MDJ                               S      S      03 49 26.8 +4.3
MDJ                               pmax   pmax
      comp=Z,190nm,0.9s
MDJ                               pmax   pmax
      comp=Z,22µm,7.2s
MDJ   Mudanjiang       21.44 250  P      P      03 45 48.8 -0.4
      comp=Z,910nm,1.0s
MDJ   Mudanjiang       21.44 250         P      03 45 48.2 -1.0
JMM   Marumori         21.57 221  P      P      03 45 50.3  0.0
BNX   BinXian          21.89 255 ⇑P      P      03 45 51.8 -1.5
BNX                               sP     sP     03 47 28.0 -4.1
BNX                               S      S      03 49 29.6 -0.1
BNX                               ScS    ScS    03 56 26.6 -0.3
BNX                               pmax   pmax
      comp=Z,2µm,1.2s
BNX                               pmax   pmax
      comp=Z,21µm,4.4s
PSTR  Posyet           22.18 245c iP     P      03 45 54.4 -1.5
J17K  VABM Dome        22.38  53         P      03 45 56.1 -1.3
SDPT  Sand Point       22.98  74  P      P      03 46 01.7 -1.2
      comp=Z,302nm,1.1s
SDPT  Sand Point       22.98  74         P      03 46 01.8 -1.2
JYT   Yasato           23.24 220  P      P      03 46 06.3 +0.8
CHNA  Chernabura Isl   23.63  75  P      P      03 46 07.0 -1.8
      comp=Z,524nm,0.8s
CHNA  Chernabura Isl   23.63  75  S      S      03 49 57.9 +0.9
      comp=Z,524nm,0.8s
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MJB9  Matsu-Tunnel     23.71 224         P      03 46 11.1 +1.2
MAJO  Matsushiro       23.71 224  P      P      03 46 10.3 +0.5
      comp=Z,4µm,0.8s
MAJO  Matsushiro       23.71 224  S      S      03 50 00.8 +2.1
      comp=Z,4µm,0.8s
MAJO  Matsushiro       23.71 224c iP     P      03 46 09.8 -0.1
MAJO                              pmax   pmax
      comp=Z,4µm,0.9s
MAJO  Matsushiro       23.71 224  P      P      03 46 10.1 +0.2
MAJO  Matsushiro       23.71 224 ⇑P      P      03 46 09.8 -0.1
MAJO  Matsushiro       23.71 224  P      P      03 46 10.0 +0.2
      comp=Z,4µm,0.8s
MAT   Matsushiro       23.71 224  P      P      03 46 09.8 -0.1
MJAR  Matsushiro Arr   23.71 224  P      P      03 46 09.9 +0.1
      comp=Z,1µm,0.9s,baz=14,slow=8.5,SNR=688
MJAR                              S      S      03 50 02.0 +3.3
      comp=Z,31nm,0.7s,baz=38,slow=13,SNR=1.3
      comp=Z,1µm,0.9s
MJAR  Matsushiro Arr   23.71 224         P      03 46 10.6 +0.8
CHGN  Chignik          23.79  71         P      03 46 08.3 -2.0
JRY   Ryogami san      23.90 222  P      P      03 46 11.9 +0.3
I30JP ISUMI INFRASON   24.02 219  P      P      03 46 15.0 +2.4
      baz=48,slow=12,SNR=4.5
HILR  Hailar Array B   24.02 271  P      P      03 46 12.6  0.0
      comp=Z,233nm,0.5s,baz=54,slow=11,SNR=82
HILR                              S      S      03 50 03.5  0.0
      comp=Z,21nm,0.8s,baz=89,slow=28,SNR=1.2
HILR                              ScP    ScP    03 52 48.6 +0.9
      comp=Z,48nm,1.0s,baz=94,slow=5.9,SNR=4.9
      comp=Z,233nm,0.5s
HIA   Hailar           24.18 270  P      P      03 46 14.1 +0.2
      comp=Z,1µm,0.9s
HIA   Hailar           24.18 270  S      S      03 50 05.2 -0.7
      comp=Z,1µm,0.9s
HIA   Hailar           24.18 270  P      P      03 46 13.7 -0.2
HIA                               pmax   pmax
      comp=Z,786nm,0.7s
HIA   Hailar           24.18 270         P      03 46 13.7 -0.2
CN2   Changchun        24.21 254  P      P      03 46 12.3 -1.9
CN2                               S      S      03 50 05.3 -1.1
CN2                               ScS    ScS    03 56 35.5 -0.5
CN2                               pmax   pmax
      comp=Z,110nm,1.2s
CN2                               pmax   pmax
      comp=Z,4µm,5.0s
JGN   Niukaw           24.34 225  P      P      03 46 15.4 -0.2
IMAR  Indian Mountai   24.69  47         P      03 46 17.2 -1.1
JGF   Kuroka           24.86 224  P      P      03 46 20.8 +0.5
      comp=Z,2µm,1.3s
JGF   Kuroka           24.86 224  S      S      03 50 20.4 +3.4
      comp=Z,2µm,1.3s
JGF   Kuroka           24.86 224         P      03 46 21.4 +1.1
JGF   Kuroka           24.86 224 ⇑P      P      03 46 20.2 -0.1
JGF   Kuroka           24.86 224  P      P      03 46 20.6 +0.3
      comp=Z,2µm,1.3s
JGF   Kuroka           24.86 224  P      P      03 46 20.2 -0.1
ACHA  Angle Creek He   24.88  65  P      P      03 46 19.5 -0.7
ACHA                              IAmb   IAmb   03 46 24.7
      comp=Z,358nm,0.9s
INU   Inuyama          25.22 224  P      P      03 46 23.4  0.0
      comp=Z,2µm,1.6s
INU   Inuyama          25.22 224  S      S      03 50 25.5 +3.0
      comp=Z,2µm,1.6s
INU   Inuyama          25.22 224  P      P      03 46 24.4 +1.0
INU   Inuyama          25.22 224 ⇑P      P      03 46 23.1 -0.3
INU   Inuyama          25.22 224  P      P      03 46 23.4  0.0
      comp=Z,2µm,1.6s
JSG   Sagara           25.36 222  P      P      03 46 26.5 +1.9
JSG   Sagara           25.36 222  S      S      03 50 28.9 +4.2
JSG   Sagara           25.36 222  P      P      03 46 26.2 +1.6
JSG   Sagara           25.36 222 ⇑P      P      03 46 25.9 +1.2
JSG   Sagara           25.36 222  P      P      03 46 26.8 +2.2
      comp=Z,2µm,0.7s
CHIR  Chirikof Islan   25.43  71  P      P      03 46 23.7 -1.3
      comp=Z,1µm,1.2s
CHIR  Chirikof Islan   25.43  71  S      S      03 50 26.1 +0.7
      comp=Z,1µm,1.2s
ILSW  Iliamna Southw   25.57  61  P      P      03 46 25.6 -0.7
ILSW                              IAmb   IAmb   03 46 32.4
      comp=Z,495nm,1.5s
HHU   Hamhung          25.85 245  P      P      03 46 28.0 -0.9
HHU                               pP     pP     03 47 27.6 -2.8
HHU                               AmB
      comp=Z,909nm,2.7s
HHU                               AMS    AMS
      comp=Z,32µm,10.6s
STLK  Strandline Lak   25.90  57  P      P      03 46 29.6 +0.4
STLK                              IAmb   IAmb   03 46 32.6
      comp=Z,284nm,0.7s
JWT   Wachi            25.93 227  P      P      03 46 29.5 -0.2
SII   Sitkinak Islan   25.95  69  P      P      03 46 27.6 -2.0
      comp=Z,399nm,1.2s
SII   Sitkinak Islan   25.95  69  S      S      03 50 34.8 +1.2
      comp=Z,399nm,1.2s
JIE   Ise              26.18 224  P      P      03 46 32.4 +0.5
JHJ2  Mitsune          26.18 217  P      P      03 46 32.9 +1.0
      comp=Z,3µm,1.2s
JHJ2  Mitsune          26.18 217         P      03 46 32.6 +0.7
JHJ2  Mitsune          26.18 217 ⇑P      P      03 46 32.8 +0.9
JHJ2  Mitsune          26.18 217  P      P      03 46 33.5 +1.6
      comp=Z,3µm,1.2s
JHJ2  Mitsune          26.18 217  P      P      03 46 33.2 +1.3
OHAK  Old Harbor       26.21  67  P      P      03 46 29.7 -2.2
      comp=Z,310nm,1.5s
OHAK  Old Harbor       26.21  67         P      03 46 30.3 -1.6
CIT   Chita            26.33 281 eP      P      03 46 33.2  0.0
CIT                              e              03 47 40.6
CIT                              e              03 48 14.4
CIT                              e              03 49 48.6
CIT                              eS      S      03 50 36.0 -3.8
CIT                               pmax   pmax
      comp=Z,2µm,2.3s
KDAK  Kodiak Island    26.41  65  P      P      03 46 32.2 -1.4
      comp=Z,128nm,0.5s,baz=61,slow=1.6,SNR=289
      comp=Z,128nm,0.5s
KDAK  Kodiak Island    26.41  65d iP     P      03 46 31.1 -2.5
KDAK                              pmax   pmax
      comp=Z,376nm,1.0s
KDAK  Kodiak Island    26.41  65         P      03 46 31.9 -1.8
KDAK                              IAmb   IAmb   03 46 36.6
      comp=Z,355nm,1.1s
KDAK  Kodiak Island    26.41  65 ⇑P      P      03 46 31.1 -2.5
KDAK  Kodiak Island    26.41  65  P      P      03 46 32.2 -1.4
      comp=Z,303nm,1.3s
SNY   Shenyang         26.56 253 ⇑P      P      03 46 33.9 -1.3
SNY                               pP     pP     03 47 36.8 -1.4
SNY                               sP     sP     03 48 18.1 -1.5
SNY                               S      S      03 50 48.0 +4.6
SNY                               pmax   pmax
      comp=Z,360nm,1.1s
SNY                               pmax   pmax
      comp=Z,4µm,6.7s
SNY                               L      L
      comp=Z,18µm,12.2s
SNY                               L      L
      comp=Z,18µm,14.1s
SNY                               L      L
      comp=Z,30µm,16.0s
M22K  Willow           26.66  56  P      P      03 46 33.6 -2.2
M22K                              IAmb   IAmb   03 46 40.6
      comp=Z,419nm,1.1s
MCK   McKinley         26.88  51  P      P      03 46 36.6 -1.2
MCK                               pmax   pmax
      comp=Z,1µm,1.4s
RND   Reindeer         26.96  52  P      P      03 46 36.9 -1.7
RND                               pmax   pmax
      comp=Z,712nm,1.3s
F24K  Squaw Lake       27.01  43         P      03 46 37.9 -1.1
F24K                              IAmb   IAmb   03 46 42.9
      comp=Z,350nm,1.1s
O22K  Cooper Landing   27.12  59  P      P      03 46 38.2 -1.6
PMR   Palmer           27.15  56  P      P      03 46 38.7 -1.5
      comp=Z,279nm,0.8s
PMR   Palmer           27.15  56  P      P      03 46 39.5 -0.7
PMR                               pmax   pmax
      comp=Z,137nm,0.7s
PMR   Palmer           27.15  56  P      P      03 46 39.5 -0.7
COLA  College          27.20  49  P      P      03 46 39.8 -0.8
      comp=Z,429nm,0.8s
COLA  College          27.20  49d iP     P      03 46 39.6 -1.0
COLA                              pmax   pmax
      comp=Z,509nm,0.7s
COLA  College          27.20  49  P      P      03 46 39.9 -0.8
COLA  College          27.20  49 ⇑P      P      03 46 39.6 -1.0
COLA  College          27.20  49  P      P      03 46 39.8 -0.8
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      comp=Z,730nm,0.8s
G24K  Hadweenzic Riv   27.21  45  P      P      03 46 40.1 -0.5
SUJ   Sinuiju          27.30 249  P      P      03 46 40.8 -0.9
PYAG  Pyongyang        27.41 246  P      P      03 46 42.3 -0.5
PYAG                              AmB
      comp=Z,464nm,1.5s
PYAG                              AMS    AMS
      comp=Z,17µm,9.8s
SML   Sawmill          27.48  56  P      P      03 46 41.9 -1.3
SML                               pmax   pmax
      comp=Z,866nm,0.8s
KS19  Wonju Array Si   27.54 241  P      P      03 46 44.5 +0.5
KSRS  Korea Array      27.55 241  P      P      03 46 44.0  0.0
      comp=Z,706nm,1.0s,baz=37,slow=8.8,SNR=640
KSRS                              pP     pP     03 47 47.6 -0.5
      comp=Z,56nm,0.9s,baz=33,slow=7.5,SNR=1.1
KSRS                              PcP    PcP    03 49 53.0 +1.5
      comp=Z,38nm,0.7s,baz=354,slow=2.4,SNR=8.6
KSRS                              ScP    ScP    03 53 00.2 +2.1
      comp=Z,58nm,1.1s,baz=31,slow=3.4,SNR=12
      comp=Z,706nm,1.0s
KSAR  Wonju Array Be   27.58 241  P      P      03 46 44.2  0.0
KSAR  Wonju Array Be   27.58 241         P      03 46 44.2  0.0
IL31                   27.63  49  P      P      03 46 43.7 -0.7
IL31                              IAmb   IAmb   03 46 48.7
      comp=Z,476nm,0.7s
ILAR  Eielson Array    27.63  49  P      P      03 46 43.4 -1.0
      comp=Z,307nm,0.5s,baz=270,slow=8.5,SNR=2046
ILAR                              S      S      03 51 01.2 +1.5
      comp=Z,9.7nm,1.0s,baz=249,slow=12,SNR=1.6
ILAR                              ScP    ScP    03 52 58.6 +0.7
      comp=Z,11nm,0.6s,baz=284,slow=3.4,SNR=13
ILAR                              ScS    ScS    03 56 50.9 +0.8
      comp=Z,4.5nm,1.0s,baz=288,slow=7.6,SNR=5.3
ILAR                              P3KPbc        04 18 59.9
      comp=Z,6.3nm,1.0s,baz=96,slow=3.6,SNR=28
      comp=Z,307nm,0.5s
ILAR  Eielson Array    27.63  49         P      03 46 43.5 -0.9
F25K  Christian Rive   27.87  43  P      P      03 46 46.8 +0.2
F25K                              IAmb   IAmb   03 46 50.6
      comp=Z,690nm,0.8s
JMN   Monobe           27.90 228  P      P      03 46 48.3 +1.1
      comp=Z,834nm,1.9s
JMN   Monobe           27.90 228         P      03 46 48.5 +1.3
JMN                               IAmb   IAmb   03 46 51.5
      comp=Z,879nm,1.2s
JMN   Monobe           27.90 228 ⇑P      P      03 46 47.6 +0.4
JMN   Monobe           27.90 228  P      P      03 46 48.0 +0.8
      comp=Z,834nm,1.9s
INCN  Inchon           28.17 243  P      P      03 46 49.1 -0.3
      comp=Z,446nm,1.1s
INCN  Inchon           28.17 243  P      P      03 46 49.8 +0.3
INCN                              S      S      03 51 11.3 +2.6
INCN  Inchon           28.17 243  P      P      03 46 49.2 -0.3
INCN                              pmax   pmax
      comp=Z,356nm,1.0s
INCN  Inchon           28.17 243         P      03 46 49.2 -0.3
INCN                              IAmb   IAmb   03 46 50.4
      comp=Z,356nm,1.0s
INCN  Inchon           28.17 243 ⇑P      P      03 46 48.9 -0.6
INCN  Inchon           28.17 243  P      P      03 46 49.2 -0.3
      comp=Z,465nm,1.1s
HJU   Haeju            28.19 245  P      P      03 46 48.7 -1.0
HJU                               S      S      03 51 09.7 +0.6
HJU                               AmB
      comp=Z,3µm,3.0s
HJU                               AMS    AMS
      comp=Z,26µm,11.2s
F26K  Sheenjek River   28.44  42  P      P      03 46 51.6 +0.1
TJN   Taejon           28.67 240  P      P      03 46 53.8 -0.1
      comp=Z,2µm,1.7s
TJN   Taejon           28.67 240c iP     P      03 46 53.3 -0.6
TJN                              i *PP   pP     03 47 56.3 -2.2
TJN   Taejon           28.67 240         P      03 46 54.8 +0.9
TJN   Taejon           28.67 240  P      P      03 46 53.7 -0.2
      comp=Z,2µm,1.7s
EYAK  Cordova Ski Ar   29.00  57  P      P      03 46 55.6 -0.9
      comp=Z,172nm,1.2s
EYAK  Cordova Ski Ar   29.00  57  S      S      03 51 23.1 +1.9
      comp=Z,172nm,1.2s
JTU   Tsushima         29.20 235  P      P      03 46 59.0 +0.4
      comp=Z,1µm,1.1s
JTU   Tsushima         29.20 235 ⇑P      P      03 46 58.3 -0.3
JTU   Tsushima         29.20 235  P      P      03 46 58.7 +0.1
      comp=Z,1µm,1.1s
XLT   XiLinHaoTe       29.32 264 eP      P      03 46 58.6 -1.1
XLT                               pP     pP     03 48 01.3 -3.1
XLT                               S      S      03 51 24.9 -2.0
XLT                               ScP    ScP    03 53 05.6 +1.8
XLT                               PcS    PcS    03 53 36.8 -2.6
XLT                               pmax   pmax
      comp=Z,290nm,1.2s
XLT                               pmax   pmax
      comp=Z,6µm,6.9s
MENT  Mentasta         29.34  52  P      P      03 46 57.4 -2.1
MENT                              IAmb   IAmb   03 47 04.3
      comp=Z,653nm,1.2s
GLB   Gilahina Butte   29.67  55         P      03 47 02.1 -0.4
DL2   Dalian           29.68 251  P      P      03 47 01.6 -1.2
DL2                               pP     pP     03 48 07.3 -0.2
DL2                               PP     PP     03 48 20.6 +2.5
DL2                               S      S      03 51 35.1 +2.7
DL2                               ScP    ScP    03 53 06.3 +1.4
DL2                               sS     sS     03 53 28.3 -3.4
DL2                               SS     SS     03 53 40.9  -15
DL2                               ScS    ScS    03 56 58.8 -1.7
DL2                               pmax   pmax
      comp=Z,580nm,1.0s
DL2                               pmax   pmax
      comp=Z,5µm,5.8s
I27K  Kandik River     29.70  47  P      P      03 47 02.0 -0.7
I27K                              IAmb   IAmb   03 47 06.8
      comp=Z,350nm,0.8s
JNU   Nakatsue         29.71 232  P      P      03 47 03.0 -0.1
M26K  Nabesna, AK      29.79  53  P      P      03 47 03.4 -0.1
BCAR  Beaver Creek A   30.16  52         P      03 47 06.7  0.0
DAWY  Dawson           30.95  49         P      03 47 12.8 -0.8
DAWY                              IAmb   IAmb   03 47 17.7
      comp=Z,300nm,0.7s
JFU   Fukue jima 2     31.06 234  P      P      03 47 14.9  0.0
CBIJ  Chichi jima      31.06 209  P      P      03 47 15.8 +0.8
JSU   Suzuyama         31.27 231  P      P      03 47 17.1 +0.4
      comp=Z,519nm,1.2s
JSU   Suzuyama         31.27 231         P      03 47 17.5 +0.7
JSU                               IAmb   IAmb   03 47 18.3
      comp=Z,404nm,1.0s
JSU   Suzuyama         31.27 231 ⇑P      P      03 47 16.6 -0.1
JSU   Suzuyama         31.27 231  P      P      03 47 16.8 +0.1
      comp=Z,520nm,1.2s
JSU   Suzuyama         31.27 231  P      P      03 47 17.2 +0.4
IRK   Irkutsk          31.31 286 eP      P      03 47 16.4 -0.5
IRK                              e              03 48 26.5
IRK                              eS      S      03 52 00.8 +3.4
IRK                               pmax   pmax
      comp=Z,1µm,2.0s
BJI2  Beijing          31.85 258  P      P      03 47 20.6 -1.1
BJI2                              PcP    PcP    03 50 03.8 +1.1
BJI2                              S      S      03 52 04.4 -1.6
BJI2                              PcS    PcS    03 53 46.8 -1.0
BJI2                              pmax   pmax
      comp=Z,190nm,1.8s
BJI2                              pmax   pmax
      comp=Z,4µm,4.7s
BJI2                              L      L
      comp=Z,4µm,11.2s
BJI2                              L      L
      comp=Z,10µm,11.3s
BJT   Baijiatuau       31.86 258  P      P      03 47 20.8 -0.9
      comp=Z,383nm,2.1s
BJT   Baijiatuau       31.86 258  P      P      03 47 21.5 -0.2
BJT                               *PP    pP     03 48 25.5 -1.5
BJT                               pmax   pmax
      comp=Z,558nm,1.5s
BJT   Baijiatuau       31.86 258         P      03 47 21.5 -0.2
BJT                               IAmb   IAmb   03 47 22.5
      comp=Z,558nm,1.5s
BJT                               pP     pP     03 48 25.5 -1.5
TLY   Talaya           31.93 286  P      P      03 47 22.4 +0.2
TLY                               S      S      03 52 09.9 +3.0
TLY   Talaya           31.93 286  P      P      03 47 22.7 +0.5
TLY                               pP     pP     03 48 33.7 +6.4
TLY                               ScP    ScP    03 53 14.3 +2.1
ULN   Ulaanbaatar      32.05 278  P      P      03 47 24.2 +0.7
ULN                               S      S      03 52 11.7 +2.5
ULN   Ulaanbaatar      32.05 278ceP      P      03 47 23.7 +0.3
ULN                               pmax   pmax
      comp=Z,529nm,0.9s
ULN   Ulaanbaatar      32.05 278  P      P      03 47 24.0 +0.6
ULN                               IAmb   IAmb   03 47 26.5
      comp=Z,428nm,0.8s
ULN   Ulaanbaatar      32.05 278 ⇑P      P      03 47 23.8 +0.3
ULN   Ulaanbaatar      32.05 278  P      P      03 47 24.4 +0.9
      comp=Z,47µmcomp=Z,2µm,1.4s
ULN   Ulaanbaatar      32.05 278  P      P      03 47 23.9 +0.4
      comp=Z,636nm,1.4s
PNL   Peninsula        32.30  57  P      P      03 47 24.6 -0.7
      comp=Z,1µm,0.8s
INK   Inuvik           32.31  40         P      03 47 25.1  0.0
INK   Inuvik           32.31  40 ⇑P      P      03 47 24.7 -0.5
INK   Inuvik           32.31  40  P      P      03 47 24.9 -0.3
      comp=Z,1µm,1.3s
SONM  Songino Array    32.44 278  P      P      03 47 27.3 +0.6
      comp=Z,227nm,0.5s,baz=66,slow=7.4,SNR=411
SONM                              PP     PP     03 48 47.9 -0.6
      comp=Z,228nm,1.3s,baz=72,slow=9.5,SNR=6.4
SONM                              PcP    PcP    03 50 04.9 +0.5
      comp=Z,34nm,0.7s,baz=66,slow=2.3,SNR=4.9
SONM                              S      S      03 52 16.9 +1.8
      comp=Z,46nm,1.0s,baz=58,slow=14,SNR=5.2
SONM                              ScP    ScP    03 53 15.6 +1.4
      comp=Z,20nm,0.5s,baz=87,slow=1.8,SNR=11
      comp=Z,227nm,0.5s
SONM  Songino Array    32.44 278         P      03 47 27.3 +0.6
SONM                              IAmb   IAmb   03 47 29.4
      comp=Z,902nm,1.4s
SONM                                     PP     03 48 47.4 -1.1
SONM                                     PcP    03 50 02.9 -1.5
SONM                                     S      03 52 16.4 +1.3
SONM                                     ScP    03 53 13.4 -0.7
MIDW  Midway           32.63 138  P      P      03 47 31.0 +2.6
      comp=Z,379nm,1.8s
MIDW  Midway           32.63 138         P      03 47 29.1 +0.7
MIDW                              IAmb   IAmb   03 47 34.5
      comp=Z,668nm,1.3s
MIDW  Midway           32.63 138 ⇑P      P      03 47 30.2 +1.8
MIDW  Midway           32.63 138  P      P      03 47 31.0 +2.6
      comp=Z,390nm,1.8s
HYT   Haines Junctio   32.77  55         P      03 47 29.7 +0.3
HYT                               IAmb   IAmb   03 47 35.0
      comp=Z,532nm,1.0s
ZAK   Zakamensk        32.78 284 eP      P      03 47 29.5 -0.2
ZAK                              e              03 52 23.9
ZAK                               pmax   pmax
      comp=Z,489nm,1.2s
NRIK  Noril'sk         33.09 322  P      P      03 47 32.2 +0.3
      comp=Z,73nm,1.1s,baz=83,slow=8.4,SNR=59
NRIK                              PP     PP     03 48 53.9 -1.3
      comp=Z,25nm,0.7s,baz=103,slow=11,SNR=3.8
NRIK                              ScP    ScP    03 53 16.7 +0.8
      comp=Z,46nm,0.9s,baz=93,slow=2.9,SNR=5.0
      comp=Z,73nm,1.1s
NRIK  Noril'sk         33.09 322d iP     P      03 47 32.0 +0.1
NRIK                              pmax   pmax
      comp=Z,185nm,1.5s
NRIK  Noril'sk         33.09 322         P      03 47 32.3 +0.4
NRIK                                     PP     03 48 55.0 -0.2
NRIK                                     ScP    03 53 16.5 +0.7
MOY   Mondy            33.37 287 eP      P      03 47 35.0 +0.3
MOY                              e              03 49 00.5
MOY                              e              03 52 35.4
MOY                              e              03 57 14.1
MOY                               pmax   pmax
      comp=Z,1µm,2.2s
HHC   Hu-ho-hao-te     33.85 264⇑iP      P      03 47 38.8 -0.1
HHC                               pP     pP     03 48 43.8 -0.9
HHC                               PP     PP     03 49 04.8 +0.7
HHC                               S      S      03 52 36.8  0.0
HHC                               sS     sS     03 54 35.3 -2.1
HHC                               pmax   pmax
      comp=Z,280nm,1.1s
HHC                               L      L
      comp=Z,13µm,16.8s
HHC                               L      L
      comp=Z,13µm,14.3s
HHC                               L      L
      comp=Z,11µm,16.8s
WHY   Whitehorse       34.03  54         P      03 47 40.4 +0.2
TIA   Tai'an           34.08 252  P      P      03 47 39.4 -1.4
TIA                               pP     pP     03 48 47.8 +1.1
TIA                               PP     PnPn   03 49 10.5 +0.6
TIA                               sP     sP     03 49 23.6 -3.1
TIA                               S      S      03 52 37.5 -2.8
TIA                               ScP    ScP    03 53 22.8 +2.8
TIA                               ScS    ScS    03 57 21.8 -1.3
TIA                               pmax   pmax
      comp=Z,130nm,1.1s
TIA                               pmax   pmax
      comp=Z,6µm,5.3s
TIA                               L      L
      comp=Z,12µm,12.8s
TIA                               L      L
      comp=Z,18µm,12.8s
TIA                               L      L
      comp=Z,29µm,12.1s
SKAG  Skagway          34.29  56  P      P      03 47 43.0 +0.7
      comp=Z,554nm,1.0s
SKAG  Skagway          34.29  56  P      P      03 47 42.7 +0.4
SKAG                              IAmb   IAmb   03 47 48.3
      comp=Z,404nm,0.9s
SKAG  Skagway          34.29  56 ⇑P      P      03 47 42.9 +0.7
JAM   Amami Oshima     34.32 229  P      P      03 47 43.6 +0.7
HNS   HongShan         34.52 256 ⇑P      P      03 47 43.9 -0.6
HNS                               pP     pP     03 48 55.1 +4.6
HNS                               PP     PnPn   03 49 13.8 -1.1
HNS                               PcP    PcP    03 50 11.8 +1.5
HNS                               S      S      03 52 44.3 -2.5
HNS                               ScP    ScP    03 53 24.6 +3.1
HNS                               SS     SS     03 55 24.1  -10
HNS                               ScS    ScS    03 57 24.5 -0.8
HNS                               pmax   pmax
      comp=Z,560nm,1.5s
HNS                               L      L
      comp=Z,17µm,12.6s
HNS                               L      L
      comp=Z,13µm,12.9s
HNS                               L      L
      comp=Z,18µm,14.9s
BTO2  Baotou           34.87 265 eP      P      03 47 48.0 +0.4
BTO2                              pP     pP     03 48 55.4 +1.7
BTO2                              PP     PnPn   03 49 19.8 +0.7
BTO2                              S      S      03 52 56.5 +4.1
BTO2                              pmax   pmax
      comp=Z,25µm,4.2s
BTO2                              L      L
      comp=Z,32µm,11.8s
BTO2                              L      L
      comp=Z,35µm,12.2s
BTO2                              L      L
      comp=Z,50µm,11.0s
MMPY  Sheldon Lake,    34.89  50         P      03 47 47.7 +0.3
MMPY                              IAmb   IAmb   03 47 53.4
      comp=Z,424nm,1.0s
JIS   Juneau Island    35.23  58  P      P      03 47 50.8 +0.5
      comp=Z,518nm,1.7s
SIT   Sitka            35.32  60  P      P      03 47 52.1 +1.1
      comp=Z,781nm,1.6s
SIT   Sitka            35.32  60  P      P      03 47 52.4 +1.4
TIY   Taiyuan          35.55 259  P      P      03 47 53.8 +0.5
TIY                               pP     pP     03 49 01.0 +1.4
TIY                               PP     PnPn   03 49 27.3 +0.3
TIY                               S      S      03 53 07.8 +5.2
TIY                               sS     sS     03 55 05.1 +1.3
TIY                               pmax   pmax
      comp=Z,360nm,1.1s
TIY                               pmax   pmax
      comp=Z,6µm,7.2s
TIY                               L      L
      comp=Z,6µm,13.1s
TIY                               L      L
      comp=Z,7µm,10.3s
TIY                               L      L
      comp=Z,8µm,12.2s
KNGR  Kungurtug, Tuv   35.79 288⇓iP      P      03 47 57.3 +2.1
KNGR                              pmax   pmax
      comp=Z,685nm,1.7s
JMZ   Minamidaito 2    35.95 225  P      P      03 47 57.2 +0.5
      comp=Z,1µm,2.1s
JMZ   Minamidaito 2    35.95 225         P      03 47 57.6 +1.0
JMZ   Minamidaito 2    35.95 225 ⇑P      P      03 47 57.4 +0.7
JMZ   Minamidaito 2    35.95 225  P      P      03 47 57.8 +1.1
      comp=Z,1µm,2.1s
SSE   Sheshan          35.96 242  P      P      03 47 56.8  0.0
SSE                               S      S      03 53 08.8 -0.1
SSE                               ScS    ScS    03 57 35.4 +1.9
SSE                               pmax   pmax
      comp=Z,130nm,1.0s
SSE                               pmax   pmax
      comp=Z,4µm,5.1s
SSE                               L      L
      comp=Z,6µm,12.2s
SSE   Sheshan          35.96 242  P      P      03 47 55.8 -1.0
SSE                               pP     pP     03 49 06.4 +3.2
SSE                               ScP    ScP    03 53 27.9 +1.0
JOW   Kunigami         36.26 229  P      P      03 47 59.0 -0.4
      comp=Z,1µm,1.7s
JOW   Kunigami         36.26 229  P      P      03 47 59.0 -0.4
JOW   Kunigami         36.26 229 ⇑P      P      03 47 58.5 -0.8
JOW   Kunigami         36.26 229  P      P      03 47 59.6 +0.3
NJ2   Nanjing          36.38 246⇑iP      P      03 47 59.0 -1.2
NJ2                               pP     pP     03 49 06.3 -0.6
NJ2                               PP     PP     03 49 34.1 +2.5
NJ2                               S      S      03 53 11.6 -3.5
NJ2                               ScP    ScP    03 53 30.4 +2.0
NJ2                               PcS    PcS    03 54 05.1 +0.8
NJ2                               ScS    ScS    03 57 36.8 +1.0
NJ2                               pmax   pmax
      comp=Z,350nm,1.0s
NJ2                               pmax   pmax
      comp=Z,6µm,6.3s
H11N2 WAKE ISLAND Hy   36.64 167  P      P      03 48 03.3 +1.0
      baz=294,slow=7.0,SNR=47
H11N3 WAKE ISLAND Hy   36.66 167  P      P      03 48 03.6 +1.1
      baz=294,slow=7.0,SNR=46
H11N1 WAKE ISLAND Hy   36.66 167  P      P      03 48 03.4 +0.9
      baz=294,slow=7.0,SNR=44
WTLY  Watson Lake, Y   37.00  53  P      P      03 48 05.2  0.0
WTLY                              IAmb   IAmb   03 48 10.1
      comp=Z,457nm,1.2s
WAKE  Wake Island      37.05 167         P      03 48 06.9 +1.0
WAKE  Wake Island      37.05 167 ⇑P      P      03 48 06.7 +0.7
WAKE  Wake Island      37.05 167  P      P      03 48 07.0 +1.0
      comp=Z,1µm,1.4s
WAKE  Wake Island      37.05 167  P      P      03 48 07.1 +1.1
WAKE                              pP     pP     03 49 13.3 +0.3
WRAK  Wrangell Islan   37.07  60  P      P      03 48 06.5 +0.8
WRAK                              IAmb   IAmb   03 48 11.4
      comp=Z,340nm,0.8s
WRAK  Wrangell Islan   37.07  60 ⇑P      P      03 48 06.1 +0.4
CRAG  Craig            37.16  61  P      P      03 48 07.9 +1.5
      comp=Z,393nm,0.9s
CRAG  Craig            37.16  61  P      P      03 48 07.0 +0.6
CRAG                              IAmb   IAmb   03 48 12.2
      comp=Z,266nm,0.8s
CRAG  Craig            37.16  61 ⇑P      P      03 48 07.8 +1.4
H11S1 WAKE ISLAND Hy   37.82 167  P      P      03 48 13.6 +1.4
      baz=68,slow=75,SNR=8.2
H11S3 WAKE ISLAND Hy   37.84 167  P      P      03 48 13.8 +1.6
      baz=68,slow=75,SNR=5.8
H11S2 WAKE ISLAND Hy   37.84 167  P      P      03 48 14.1 +1.7
      baz=68,slow=75,SNR=4.9
LYN   LuoYang          37.84 255 ⇑P      P      03 48 12.3 -0.1
LYN                               pP     pP     03 49 21.8 +2.3
LYN                               ScP    S      03 53 36.3 -0.8
LYN                               S      ScP    03 53 42.6 +8.7
LYN                               sS     sS     03 55 34.8 -4.5
LYN                               ScS    ScS    03 57 44.0 -0.1
LYN                               pmax   pmax
      comp=Z,970nm,1.3s
LYN                               pmax   pmax
      comp=Z,12µm,7.6s
WRGLY Wrigley          37.90  46  P      P      03 48 13.0 +0.5
WRGLY                             IAmb   IAmb   03 48 15.5
      comp=Z,986nm,1.6s
DIB   Dawson Inlet,    38.66  64         P      03 48 19.5 +0.7
H02S1 DAWSON INLET T   38.66  64  P      P      03 48 19.0 +0.2
      SNR=192
H02S2 DAWSON INLET T   38.66  64  P      P      03 48 18.8 -0.1
      SNR=189
JMJ   Miyako jima 2    39.32 232  P      P      03 48 25.2 +0.6
      comp=Z,5µm,1.1s
WHN   Wuhan            39.92 249 ⇑P      P      03 48 28.4 -1.1
WHN                               pP     pP     03 49 39.4 +2.1
WHN                               PP     PP     03 50 16.8 +7.1
WHN                               PcP    PcP    03 50 27.3 +0.2
WHN                               ScP    ScP    03 53 44.9 +3.0
WHN                               S      S      03 54 04.3 -3.6
WHN                               sS     sS     03 56 10.3 -0.8
WHN                               ScS    ScS    03 57 56.6 +0.2
WHN                               pmax   pmax
      comp=Z,1µm,1.0s
WHN                               pmax   pmax
      comp=Z,13µm,6.0s
WHN                               L      L
      comp=Z,22µm,11.0s
WHN                               L      L
      comp=Z,23µm,12.1s
WHN                               L      L
      comp=Z,32µm,14.6s
XAN   Xi'an            40.17 258 ⇑P      P      03 48 30.4 -1.2
XAN                               pP     pP     03 49 39.8 +0.3
XAN                               sP     PP     03 50 14.9 +2.5
XAN                               PcP    PcP    03 50 28.4 +0.5
XAN                               ScP    ScP    03 53 43.9 +0.9
XAN                               S      S      03 54 10.4 -1.3
XAN                               pmax   pmax
      comp=Z,350nm,1.6s
XAN                               L      L
      comp=Z,12µm,16.5s
XAN                               L      L
      comp=Z,18µm,13.7s
XAN                               L      L
      comp=Z,19µm,15.5s
ALE   Alert            40.28   8  P      P      03 48 31.0 -0.9
ALE                               pP     pP     03 49 41.4 +1.5
ALE                               ScP    ScP    03 53 43.9 +1.3
ZAA0  Zalesovo Array   40.51 299         P      03 48 33.4 -0.6
ZALV  Zalesovo Beam    40.51 299  P      P      03 48 32.9 -1.1
      comp=Z,68nm,0.6s,baz=53,slow=7.1,SNR=192
ZALV                              PP     PP     03 50 14.7 -1.0
      comp=Z,16nm,0.6s,baz=63,slow=10,SNR=3.6
ZALV                              ScP    ScP    03 53 45.1 +1.2
      comp=Z,18nm,0.7s,baz=38,slow=7.5,SNR=3.7
ZALV                              S      S      03 54 17.5 +1.4
      comp=Z,16nm,0.8s,baz=61,slow=13,SNR=3.4
      comp=Z,68nm,0.6s
ZALV  Zalesovo Beam    40.51 299  P      P      03 48 32.9 -1.1
ZALV                                     PP     03 50 14.6 -1.0
ZALV                                     ScP    03 53 43.1 -0.8
YOJ   Yonaguni jima    40.65 234  P      P      03 48 34.5 -1.0
      comp=Z,98nm,1.1s
YOJ   Yonaguni jima    40.65 234  P      P      03 48 33.9 -1.6
YOJ   Yonaguni jima    40.65 234 ⇑P      P      03 48 32.8 -2.7
YOJ   Yonaguni jima    40.65 234  P      P      03 48 34.0 -1.5
      comp=Z,97nm,1.1s
TATO  Taipei           40.92 236  P      P      03 48 38.8 +1.2
      comp=Z,352nm,2.8s
TATO  Taipei           40.92 236  P      P      03 48 37.9 +0.3
TATO  Taipei           40.92 236  P      P      03 48 37.8 +0.3
TATO                              IAmb   IAmb   03 48 40.2
      comp=Z,1µm,1.8s
TATO  Taipei           40.92 236  P      P      03 48 38.9 +1.2
      comp=Z,352nm,2.8s
TATO  Taipei           40.92 236  P      P      03 48 37.2 -0.4
TATO                              pP     pP     03 49 48.2 +2.3
TATO                              ScP    ScP    03 53 47.1 +1.1
RES   Resolute Bay     41.12  23  P      P      03 48 38.3 -0.3
RES                               pmax   pmax
      comp=Z,275nm,1.0s
RES   Resolute Bay     41.12  23  P      P      03 48 38.5 -0.1
      comp=Z,307nm,0.9s
YHNB  Yeheng           41.23 236  P      P      03 48 40.1 -0.2
      comp=Z,100nm,0.9s
YHNB  Yeheng           41.23 236         P      03 48 39.0 -1.3
YHNB  Yeheng           41.23 236  P      P      03 48 40.4 +0.1
      comp=Z,100nm,0.9s
GTA2  Gaotai           41.42 272  P      P      03 48 42.3 +0.6
GTA2                              pP     pP     03 49 55.3 +5.3
GTA2                              PcP    sP     03 50 29.9 +0.6
GTA2                              ScP    ScP    03 53 48.8 +0.8
GTA2                              S      S      03 54 26.5 -3.5
GTA2                              SS     SS     03 57 44.3 -5.3
GTA2                              ScS    ScS    03 58 05.1 -0.5
GTA2                              pmax   pmax
      comp=Z,860nm,1.1s
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GTA2				pmax	pmax		
	comp=Z,12µm,8.6s						
BBB	Bella Bella	41.43	63	⇑P	P	03 48 42.0	+0.6
BBB	Bella Bella	41.43	63	P	P	03 48 42.4	+1.0
	comp=Z,541nm,1.5s						
LZH	Lanzhou	41.50	265	P	P	03 48 42.9	+0.4
LZH				pP	pP	03 49 54.8	+4.0
LZH				sP	PP	03 50 26.8	+0.2
LZH				ScP	ScP	03 53 50.1	+1.7
LZH				S	S	03 54 27.8	-3.6
LZH				sS	sS	03 56 29.4	-5.9
LZH				SS	SS	03 57 49.5	-1.9
LZH				ScS	ScS	03 58 07.3	+1.0
LZH				pmax	pmax		
	comp=Z,750nm,1.1s						
LZH				pmax	pmax		
	comp=Z,9µm,8.6s						
LZH				L	L		
	comp=Z,16µm,14.1s						
LZH				L	L		
	comp=Z,10µm,13.1s						
LZH				L	L		
	comp=Z,14µm,14.8s						
NACB	Ninganchiao	41.55	236	P	P	03 48 43.3	+0.5
	comp=Z,70nm,1.0s						
NACB	Ninganchiao	41.55	236	P	P	03 48 41.5	-1.3
NACB	Ninganchiao	41.55	236	P	P	03 48 41.2	-1.6
	comp=Z,70nm,1.0s						
DGZ	Jazzator, Alta	41.64	292	c iP	P	03 48 43.6	+0.2
DGZ				pmax	pmax		
	comp=Z,646nm,0.7s						
LZDM	Lanzhou Array	41.68	265	P	P	03 48 44.5	+0.4
	comp=Z,85nm,0.5s,baz=35,slow=5.4,SNR=124						
LZDM				ScP	ScP	03 53 50.4	+1.1
	comp=Z,13nm,0.5s,baz=238,slow=1.4,SNR=4.7						
	comp=Z,85nm,0.5s						
DPSS	Saipan	41.70	199	P	P	03 48 42.8	-1.2
YKA	Yellowknife Ar	41.80	44	P	P	03 48 43.6	-0.6
	comp=Z,417nm,0.7s,baz=306,slow=7.8,SNR=143						
YKA				PcP	PcP	03 50 33.5	+0.8
	comp=Z,16nm,0.6s,baz=312,slow=3.6,SNR=4.6						
YKA				ScP	ScP	03 53 50.1	+1.3
	comp=Z,32nm,0.8s,baz=306,slow=3.9,SNR=11						
YKA				ScS	ScS	03 58 07.0	+0.2
	comp=Z,6.8nm,1.0s,baz=312,slow=6.5,SNR=3.8						
	comp=Z,417nm,0.7s						
YKA	Yellowknife Ar	41.80	44	ceP	P	03 48 43.5	-0.7
YKA				pmax	pmax		
	comp=Z,420nm,0.8s						
YKA	Yellowknife Ar	41.80	44	P	P	03 48 44.1	-0.2
YKA					sP	03 50 31.2	-1.1
YKA					ScP	03 53 49.0	+0.1
SSLB	Suanglung	42.18	236	P	P	03 48 47.5	-0.4
	comp=Z,197nm,1.1s						
SSLB	Suanglung	42.18	236	P	P	03 48 47.7	-0.1
SSLB	Suanglung	42.18	236	P	P	03 48 47.9	0.0
	comp=Z,197nm,1.1s						
QZH2	Quanzhou	42.32	240	⇑iP	P	03 48 47.4	-1.5
QZH2				pP	pP	03 49 56.8	-0.9
QZH2				sP	sP	03 50 38.8	+1.9
QZH2				ScP	ScP	03 53 53.8	+2.2
QZH2				S	S	03 54 41.5	-1.7
QZH2				ScS	ScS	03 58 13.1	+1.9
QZH2				pmax	pmax		
	comp=Z,170nm,1.2s						
QZH2				pmax	pmax		
	comp=Z,8µm,5.4s						
YULB	Yu-li	42.36	235	P	P	03 48 48.4	-0.9
	comp=Z,210nm,1.2s						
YULB	Yu-li	42.36	235	P	P	03 48 48.8	-0.5
YULB	Yu-li	42.36	235	P	P	03 48 48.7	-0.5
	comp=Z,210nm,1.2s						
CNSH	ChangSha	42.54	249	⇑P	P	03 48 49.1	-1.5
CNSH				S	S	03 54 45.8	-0.5
CNSH				pmax	pmax		
	comp=Z,270nm,1.1s						
CNSH				L	L		
	comp=Z,15µm,15.3s						
CNSH				L	L		
	comp=Z,13µm,14.0s						
CNSH				L	L		
	comp=Z,28µm,20.1s						
ENH	Enshi	42.73	254	P	P	03 48 51.3	-0.9
	comp=Z,794nm,1.2s						
ENH	Enshi	42.73	254		P	03 48 51.9	-0.3
ENH				IAmb	IAmb	03 48 53.4	
	comp=Z,761nm,1.1s						
ENH				ScP	ScP	03 53 53.1	-0.1
ENH	Enshi	42.73	254	P	P	03 48 51.7	-0.5
ENH				pP	pP	03 50 04.0	+3.0
ENH				ScP	ScP	03 53 54.1	+0.9
NOR	Nord	42.74	359	i P	P	03 48 51.0	-0.5
NOR				IAmb	IAmb	03 48 54.6	
	comp=Z,395nm,1.6s						
TPUB	Ta-pu	42.75	236	P	P	03 48 51.9	-0.5
	comp=Z,330nm,1.1s						
TPUB	Ta-pu	42.75	236	P	P	03 48 52.8	+0.4
TPUB				IAmb	IAmb	03 48 54.0	
	comp=Z,890nm,1.5s						
TPUB				ScP	ScP	03 53 52.6	-0.8
TPUB	Ta-pu	42.75	236	P	P	03 48 52.3	-0.1
	comp=Z,330nm,1.1s						
KNMB	Chin-men Tao	42.83	240	P	P	03 48 52.9	-0.1
KNMB				IAmb	IAmb	03 50 39.7	
	comp=Z,759nm,1.9s						
KNMB	Chin-men Tao	42.83	240	P	P	03 48 52.4	-0.6
	comp=Z,108nm,1.1s						
TWGBT	Beinan	42.96	235	P	P	03 48 53.2	-0.8
	comp=Z,192nm,1.1s						
TWG	Pinlang	42.96	235	P	P	03 48 54.0	0.0
TWG	Pinlang	42.96	235	P	P	03 48 53.1	-0.9
	comp=Z,192nm,1.1s						
GUMO	Guam	43.48	199	P	P	03 48 56.9	-1.3
GUMO	Guam	43.48	199		P	03 48 57.7	-0.4
GUMO				IAmb	IAmb	03 48 58.2	
	comp=Z,560nm,0.9s						
GUMO	Guam	43.48	199	⇑P	P	03 48 55.3	-2.8
GUMO	Guam	43.48	199	P	P	03 48 56.4	-1.8
	comp=Z,612nm,1.2s						
SPA0	Spitsbergen Ar	44.22	350	⇓iP	P	03 49 03.0	-0.3
SPA0				IVmB_BB		03 49 06.7	
	comp=Z,11µm,1.0s						
SPA0				ePP	PP	03 50 54.5	+1.1
SPA0				eS	S	03 55 09.1	-0.2
SPA0				eScS	ScS	03 58 20.9	-0.8
SPITS	Spitsbergen Ar	44.22	350	P	P	03 49 03.2	-0.1
	comp=Z,200nm,0.4s,baz=56,slow=9.1,SNR=972						
	comp=Z,200nm,0.4s						
SPB2	Spitsbergen Ar	44.22	350	P	P	03 49 03.3	0.0
SPB2				IAmb	IAmb	03 49 06.9	
	comp=Z,1µm,1.2s						
ZSN	Zaisan	44.37	291	c iP	P	03 49 04.5	-0.3
ZSN				eS	S	03 55 12.9	+0.7
ZSN	Zaisan	44.37	291	⇑iP	P	03 49 04.6	-0.3
ZSN				eS	S	03 55 13.0	+0.7
TULEG	Thule	44.48	14	P	P	03 49 04.7	-0.6
TULEG				IAmb	IAmb	03 49 07.8	
	comp=Z,396nm,1.0s						
TULEG	Thule	44.48	14	⇑P	P	03 49 04.4	-0.9
TULEG	Thule	44.48	14	i P	P	03 49 04.7	-0.6
TULEG				IAmb	IAmb	03 49 07.5	
	comp=Z,450nm,1.1s						
TULEG	Thule	44.48	14	P	P	03 49 05.0	-0.3
	comp=Z,443nm,1.0s						
HOPEN	Hopen	44.60	346	eP	P	03 49 07.0	+0.7
HOPEN				IVmB_BB		03 49 08.1	
	comp=Z,7µm,2.7s						
HOPEN				epP	pP	03 50 17.7	+1.9
HOPEN				ePP	PP	03 50 57.5	+0.6
HOPEN				eS	S	03 55 14.1	-0.6
HOPEN				eScS	ScS	03 58 23.4	-0.7
WMQ	Urumqi	45.21	286	⇑P	P	03 49 12.5	+1.0
WMQ				PP	PP	03 51 06.6	+3.5
WMQ				ScP	ScP	03 54 04.9	+1.6
WMQ				S	S	03 55 27.9	+3.5
WMQ				ScS	ScS	03 58 28.0	-1.3
WMQ				SS	SS	03 58 46.8	-5.5
WMQ				pmax	pmax		
	comp=Z,200nm,1.7s						
WMQ				pmax	pmax		
	comp=Z,9µm,4.7s						
WMQ				L	L		
	comp=Z,9µm,21.9s						
WMQ				L	L		
	comp=Z,7µm,24.2s						
WMQ				L	L		
	comp=Z,3µm,24.1s						
HSPB	Hornsund (broa	45.34	349	P	P	03 49 12.5	+0.5
	comp=Z,341nm,1.4s						
CD2	Chengdu	45.39	260	⇑P	P	03 49 12.8	-0.2
CD2				pP	pP	03 50 19.8	-3.0
CD2				PP	PP	03 51 03.8	-1.1
CD2				ScP	ScP	03 54 04.8	+0.6
CD2				S	S	03 55 26.8	-0.4
CD2				sS	sS	03 57 30.1	-2.9
CD2				ScS	ScS	03 58 29.3	-1.5
CD2				pmax	pmax		
	comp=Z,1µm,1.1s						
CD2				pmax	pmax		
	comp=Z,11µm,5.4s						
CD2				L	L		
	comp=Z,15µm,13.3s						
CD2				L	L		
	comp=Z,13µm,13.3s						
CD2				L	L		
	comp=Z,12µm,14.0s						
KURK	Kurchatov	45.49	299	P	P	03 49 13.4	-0.2
KURK				S	S	03 55 26.9	-1.1
KURK	Kurchatov	45.49	299	c iP	P	03 49 12.7	-0.8
KURK				pmax	pmax		
	comp=Z,1µm,1.3s						
KURK	Kurchatov	45.49	299	P	P	03 49 13.3	-0.2
KURK				IAmb	IAmb	03 49 14.8	
	comp=Z,388nm,0.8s						
KURK					ScP	03 54 04.2	0.0
KURK	Kurchatov	45.49	299	⇑P	P	03 49 12.9	-0.5
KURK	Kurchatov	45.49	299	P	P	03 49 13.0	-0.5
	comp=Z,663nm,1.3s						
KURBB	Kurchatov Arra	45.60	299	P	P	03 49 13.6	-0.7
	comp=Z,196nm,0.7s,baz=56,slow=8.2,SNR=597						
KURBB				ScP	ScP	03 54 05.2	+0.6
	comp=Z,28nm,1.0s,baz=45,slow=3.0,SNR=11						
KURBB				S	S	03 55 23.1	-6.4
	comp=Z,178nm,1.2s,baz=56,slow=14,SNR=16						
	comp=Z,196nm,0.7s						
NEEM	North Greenlan	45.68	9	⇑P	P	03 49 13.9	-1.1
NEEM	North Greenlan	45.68	9	i P	P	03 49 15.2	+0.3
NEEM				IAmb	IAmb	03 49 17.5	
	comp=Z,679nm,0.9s						
KEKH	Kekaha	45.81	120	P	P	03 49 16.9	+0.6
C03A	Quillayute Air	45.83	66	P	P	03 49 16.4	+0.3
C03A				IAmb	IAmb	03 49 21.6	
	comp=Z,600nm,1.1s						
GZH2	Guangzhou	45.86	244	P	P	03 49 16.5	-0.2
GZH2				pP	pP	03 50 26.8	+0.1
GZH2				sP	sP	03 51 06.0	+0.4
GZH2				ScP	ScP	03 54 09.5	+3.4
GZH2				S	S	03 55 35.8	+1.9
GZH2				ScS	ScS	03 58 35.5	+1.6
GZH2				pmax	pmax		
	comp=Z,260nm,1.2s						
JOHN	Johnston Islan	46.04	135	P	P	03 49 20.5	+2.4
MK31	Makanchi Array	46.14	292	c iP	P	03 49 17.6	-1.0
MKAR	Makanchi Array	46.14	292	P	P	03 49 18.1	-0.6
	comp=Z,155nm,0.7s,baz=57,slow=6.2,SNR=531						
MKAR				ScP	ScP	03 54 06.5	-0.5
	comp=Z,18nm,1.0s,baz=68,slow=3.3,SNR=3.5						
MKAR				S	S	03 55 34.4	-3.0
	comp=Z,14nm,1.0s,baz=38,slow=9.5,SNR=2.1						
	comp=Z,155nm,0.7s						
MKAR	Makanchi Array	46.14	292	ceP	P	03 49 17.7	-0.9
MKAR				pmax	pmax		
	comp=Z,155nm,0.7s						
MKAR	Makanchi Array	46.14	292	P	P	03 49 18.4	-0.2
MKAR					ScP	03 54 05.2	-1.8
MKAR					S	03 55 35.5	-1.9
A04D	Lummi Island	46.28	64	P	P	03 49 19.9	+0.2
A04D				IAmb	IAmb	03 49 24.5	
	comp=Z,420nm,0.8s						
MAKZ	Makanchi	46.29	293	P	P	03 49 17.1	-2.7
MAKZ	Makanchi	46.29	293	P	P	03 49 18.9	-0.9
MAKZ				IAmb	IAmb	03 49 21.7	
	comp=Z,570nm,1.4s						
MAKZ	Makanchi	46.29	293	⇑P	P	03 49 18.8	-1.0
B04A	Port Angeles	46.31	65	P	P	03 49 19.7	-0.2
A05A	Maple Falls	46.42	63	P	P	03 49 21.0	+0.3
GOMU	GeErMu	46.51	273	P	P	03 49 21.8	-0.2
GOMU				PP	PP	03 51 12.9	-2.5
GOMU				S	S	03 55 44.1	+0.6
GOMU				pmax	pmax		
	comp=Z,100nm,0.8s						
GOMU				L	L		
	comp=Z,5µm,10.6s						
GOMU				L	L		
	comp=Z,5µm,10.5s						
GOMU				L	L		
	comp=Z,9µm,10.7s						
NLWA	Neilton Lookou	46.55	66	⇑P	P	03 49 22.1	+0.3
PACPP	Pamplona Cagay	46.63	232	eP	P	03 49 21.4	-1.3
HKC	Hong Kong Obse	46.73	243	⇑P	P	03 49 24.0	+0.6
HKPS	Hong Kong Po S	46.76	243	P	P	03 49 23.8	+0.1
	comp=Z,351nm,1.2s						
HKPS	Hong Kong Po S	46.76	243	P	P	03 49 24.0	+0.3
HKPS	Hong Kong Po S	46.76	243	P	P	03 49 24.0	+0.3
	comp=Z,352nm,1.2s						
KIP	Kipapa	47.11	119	P	P	03 49 28.0	+1.7
	comp=Z,77nm,1.1s						
KIP	Kipapa	47.11	119	P	P	03 49 28.1	+1.7
	comp=Z,77nm,1.1s						
KIP	Kipapa	47.11	119	P	P	03 49 27.1	+0.8
KIP				pmax	pmax		
	comp=Z,280nm,1.1s						
KIP	Kipapa	47.11	119	P	P	03 49 27.1	+0.8
BJO1	Bjornoya	47.12	346	eP	P	03 49 25.9	+0.3
BJO1				IVmB_BB		03 49 26.9	
	comp=Z,8µm,3.7s						
BJO1				epP	pP	03 50 34.8	-1.3
BJO1				esP	sP	03 51 11.0	-4.1
BJO1				eS	S	03 55 46.9	-3.4
GYA	Guiyang	47.26	254	⇑P	P	03 49 27.0	-0.6
GYA				S	S	03 55 50.3	-3.5
GYA				pmax	pmax		
	comp=Z,470nm,1.1s						
GYA				pmax	pmax		
	comp=Z,8µm,5.9s						
GYA				L	L		
	comp=Z,10µm,18.4s						
GYA				L	L		
	comp=Z,10µm,17.4s						
GYA				L	L		
	comp=Z,16µm,28.3s						
PALP	Palanan	47.39	230	i P	P	03 49 29.8	+1.3
DAG	Danmarks Havn	47.61	359	P	P	03 49 28.7	-0.7
DAG	Danmarks Havn	47.61	359	⇑P	P	03 49 28.4	-1.0
DAG	Danmarks Havn	47.61	359	i P	P	03 49 29.2	-0.2
DAG				IAmb	IAmb	03 49 32.5	
	comp=Z,482nm,1.2s						
DAG	Danmarks Havn	47.61	359	P	P	03 49 28.7	-0.7
	comp=Z,437nm,1.2s						
KULLO	Kullorsuaq	47.67	12	⇑P	P	03 49 29.1	-0.7
KULLO	Kullorsuaq	47.67	12	i P	P	03 49 29.2	-0.7
KULLO				IAmb	IAmb	03 49 32.2	
	comp=Z,920nm,1.0s						
KULLO	Kullorsuaq	47.67	12	P	P	03 49 29.5	-0.4
	comp=Z,941nm,1.0s						
SZP	Santa	47.82	232	P	P	03 49 32.2	+0.4
	comp=Z,3µm,1.1s						
BVAR	Borovoye Array	47.94	306	P	P	03 49 31.8	-0.5
	comp=Z,260nm,0.7s,baz=54,slow=7.9,SNR=305						
BVAR				ScP	ScP	03 54 14.4	-0.1
	comp=Z,22nm,0.7s,baz=61,slow=3.7,SNR=6.6						
BVAR				S	S	03 55 59.7	-2.8
	comp=Z,99nm,1.2s,baz=42,slow=16,SNR=7.6						
BVAR				ScS	ScS	03 58 46.2	-0.6
	comp=Z,27nm,1.0s,baz=36,slow=5.4,SNR=4.2						
	comp=Z,260nm,0.7s						
BORK	Borovoye	47.96	306	c iP	P	03 49 31.8	-0.6
BORK				pmax	pmax		
	comp=Z,386nm,0.9s						
BORK	Borovoye	47.96	306	P	P	03 49 32.1	-0.3
LON	Longmire	48.03	66	P	P	03 49 33.2	0.0
LON				pmax	pmax		
	comp=Z,79nm,0.8s						
STD	Studebaker Rid	48.16	66	P	P	03 49 34.5	+0.3
STD				IAmb	IAmb	03 49 39.0	
	comp=Z,667nm,0.7s						
CAAP	Casiguran, Aur	48.32	230	eP	P	03 49 35.2	-0.3
COR	Corvallis	48.71	69	P	P	03 49 38.7	+0.5
COR				IAmb	IAmb	03 49 43.3	
	comp=Z,337nm,0.8s						
COR	Corvallis	48.71	69	⇑P	P	03 49 39.1	+0.9
COR	Corvallis	48.71	69	P	P	03 49 39.4	+1.1
PATS	Pohnpei	48.90	180	P	P	03 49 41.9	+2.0
	comp=Z,2µm,1.4s,comp=Z,0.0nm						
PATS	Pohnpei	48.90	180	P	P	03 49 41.9	+2.0
	comp=Z,2µm,1.4s,comp=Z,0.0nm						
PATS	Pohnpei	48.90	180	P	P	03 49 41.2	+1.3
	comp=Z,2µm,1.4s						
PATS	Pohnpei	48.90	180	P	P	03 49 41.1	+1.3
PATS	Pohnpei	48.90	180	⇑P	P	03 49 41.3	+1.3
BOLP	Bolinao	49.09	232	eP	P	03 49 42.0	+0.7
VADS	Vadso	49.10	339	eP	P	03 49 40.0	-0.7
VADS				IVmB_BB		03 49 42.0	
	comp=Z,4µm,3.6s						
VADS				epP	pP	03 50 52.5	+0.7
VADS				eScS	ScS	03 58 53.7	-0.5
TDK	Taldyqorghan	49.35	293	eP	P	03 49 42.8	-0.3
TDK				eS	S	03 56 22.9	+0.7
TDK				pmax	pmax		
	comp=Z,466nm,1.1s						
TDK	Taldyqorghan	49.35	293	eP	P	03 49 42.8	-0.3
	comp=Z,466nm,1.1s						
TDK				eS	S	03 56 23.0	+0.7
NEW	Newport	49.38	61	P	P	03 49 42.8	-0.5
NEW				pmax	pmax		
	comp=Z,173nm,0.9s						
NEW	Newport	49.38	61	P	P	03 49 42.8	-0.5
NEW	Newport	49.38	61	⇑P	P	03 49 42.6	-0.7
NEW	Newport	49.38	61	P	P	03 49 42.8	-0.5
	comp=Z,258nm,1.4s						
UPNV	Upernavik	49.43	13	i P	P	03 49 42.2	-1.0
UPNV				IAmb	IAmb	03 49 45.3	
	comp=Z,350nm,0.9s						
HAWA	Hanford	49.44	64	P	P	03 49 43.5	-0.1
HAWA	Hanford	49.44	64	⇑P	P	03 49 43.3	-0.3
SVE	Sverdlovsk	49.61	314	deP	P	03 49 44.8	0.0
SVE				e		03 50 57.1	
SVE				e		03 51 35.5	
SVE				eS	S	03 56 28.0	+2.6
SVE				e		03 58 40.1	
SVE				e		03 58 56.6	
SVE				eSS	SS	03 59 58.9	-2.9
SVE				pmax	pmax		
	comp=Z,207nm,1.5s						
HUH	Hualalai	49.66	118	P	P	03 49 46.0	+0.1
KHLU	Kahalu`u	49.71	118	P	P	03 49 46.3	+0.2
POHA	Pohakuloa	49.75	117	P	P	03 49 48.1	+1.5
	comp=Z,133nm,1.3s						
POHA	Pohakuloa	49.75	117	P	P	03 49 45.8	-0.8
POHA				IAmb	IAmb	03 49 51.0	
	comp=Z,474nm,1.4s						
POHA	Pohakuloa	49.75	117	⇑P	P	03 49 47.0	+0.4
POHA	Pohakuloa	49.75	117	P	P	03 49 47.8	+1.3
	comp=Z,220nm,1.5s						
LVZ	Lovozero	49.76	336	d iP	P	03 49 44.6	-1.2
LVZ				pmax	pmax		
	comp=Z,136nm,0.8s						
LVZ	Lovozero	49.76	336	P	P	03 49 45.3	-0.4
LVZ	Lovozero	49.76	336	P	P	03 49 45.0	-0.8
	comp=Z,6µmcomp=Z,235nm,1.4s						
PVCP	Virac	49.78	226	eP	P	03 49 48.3	+1.8
WIFE	Three Sisters-	49.85	68	P	P	03 49 47.1	+0.1
WIFE				IAmb	IAmb	03 49 51.7	
	comp=Z,393nm,0.9s						
KEV	Kevo	49.87	340	P	P	03 49 45.7	-0.8
KEV	Kevo	49.87	340	⇑P	P	03 49 45.5	-0.9
HMH	Humu‘ula Sheep	49.91	117	P	P	03 49 47.6	-0.2
PZH	PanZhiHua	49.91	258	P	P	03 49 47.1	-0.5
PZH				pP	pP	03 50 57.6	-1.3
PZH				ScP	ScP	03 54 25.3	+1.8
PZH				S	S	03 56 28.4	-2.2
PZH				sS	sS	03 58 36.4	-2.2
PZH				ScS	ScS	03 58 59.3	-2.0
PZH				pmax	pmax		
	comp=Z,360nm,1.1s						
PZH				pmax	pmax		
	comp=Z,6µm,8.7s						
MLOA	Mauna Loa Obse	49.92	118	P	P	03 49 48.3	+0.3
MLOA	Mauna Loa Obse	49.92	118	P	P	03 49 50.9	+2.9
	comp=Z,216nm,0.9s						
PDGK	Podgornoye	49.93	291	P	P	03 49 45.6	-2.0
PDGK	Podgornoye	49.93	291	P	P	03 49 47.5	-0.1
MWH	Mokuaweoweo	49.95	118	P	P	03 49 48.5	+0.1
DAH	Dandelion	50.02	118	P	P	03 49 49.1	+0.3
TRH	Trail	50.03	118	P	P	03 49 49.0	+0.1
DBG	Daneborg	50.10	360	i P	P	03 49 47.3	-0.8
DBG				IAmb	IAmb	03 49 51.2	
	comp=Z,123nm,0.8s						
LDM	Libby Dam	50.14	60	P	P	03 49 49.0	+0.1
GQP	Guinayangan	50.20	228	eP	P	03 49 50.9	+1.3
KPKS	Kokpek	50.26	291	eP	P	03 49 49.7	-0.2
KPKS				eS	S	03 56 35.8	+0.8
KPKS	Kokpek	50.26	291	eP	P	03 49 49.8	-0.2
KPKS				eS	S	03 56 35.9	+0.9
KSXB	Camp Six Broad	50.31	72	P	P	03 49 50.7	+0.4
KSXB				IAmb	IAmb	03 49 55.6	
	comp=Z,449nm,1.2s						
UZB	Uzynbulak	50.31	291	c iP	P	03 49 49.9	-0.4
UZB				eS	S	03 56 36.3	+0.6
UZB	Uzynbulak	50.31	291	⇑iP	P	03 49 50.0	-0.4
UZB				eS	S	03 56 36.3	+0.6
APA	Apatity	50.31	336	⇓eP	P	03 49 47.0	-2.8
APA				e		03 51 01.3	
APA				e		03 51 36.8	
APA				eS	S	03 56 30.3	-4.4
APA				e		03 58 35.3	
APA				pmax	pmax		
	comp=Z,50nm,1.3s						
APA				MLR	MLR		
	comp=Z,5µm,26.8s						
ARA0	ARCESS Array S	50.34	340	eP	P	03 49 49.6	-0.4
ARA0				IVmB_BB		03 49 51.6	
	comp=Z,4µm,3.8s						
ARA0				eS	S	03 56 33.6	-1.4
ARCES	ARCESS Array B	50.34	340	P	P	03 49 49.0	-1.0
	comp=Z,35nm,0.5s,baz=44,slow=8.2,SNR=123						
ARCES				PcP	PcP	03 51 03.5	+0.7
	comp=Z,10nm,0.6s,baz=28,slow=3.6,SNR=4.6						
ARCES				ScP	ScP	03 54 26.0	+1.5
	comp=Z,9.5nm,0.7s,baz=48,slow=5.5,SNR=2.8						
ARCES				S	S	03 56 34.9	-0.2
	comp=Z,11nm,0.9s,baz=23,slow=7.9,SNR=3.7						
ARCES				PKPPKP	P'P'df	04 20 33.0	-2.7
	comp=Z,2.3nm,0.9s,baz=169,slow=5.1,SNR=5.0						
	comp=Z,35nm,0.5s						
ARCES	ARCESS Array B	50.34	340	P	P	03 49 49.3	-0.7
ARCES				IAmb	IAmb	03 49 51.3	
	comp=Z,596nm,1.9s						
ARCES					pP	03 51 01.5	0.0
ARCES					ScP	03 54 24.2	-0.2
LQP	Lukban	50.40	229	eP	P	03 49 52.1	+0.7
KMI2	Kunming	50.43	256	⇑P	P	03 49 51.3	-0.3
KMI2				pP	pP	03 51 02.8	-0.3
KMI2				sP	sP	03 51 45.8	+4.3
KMI2				ScP	ScP	03 54 28.0	+2.2
KMI2				S	S	03 56 37.6	-0.3
KMI2				sS	sS	03 58 46.5	+0.3
KMI2				ScS	ScS	03 59 03.8	-1.3
KMI2				pmax	pmax		
	comp=Z,370nm,1.1s						
KMI2				pmax	pmax		
	comp=Z,7µm,4.3s						
KMI2				L	L		
	comp=Z,6µm,17.2s						
KMI2				L	L		
	comp=Z,5µm,14.9s						
KMI2				L	L		
	comp=Z,5µm,18.0s						
KRMB	Red Mountain	50.51	72	P	P	03 49 52.4	+0.6
KRMB				IAmb	IAmb	03 49 57.1	
	comp=Z,464nm,1.3s						
SATY	Saty	50.69	291	c iP	P	03 49 52.8	-0.4
SATY				eS	S	03 56 41.4	+0.5
SATY	Saty	50.69	291	⇑iP	P	03 49 52.8	-0.4
SATY				eS	S	03 56 41.5	+0.5
ARTI	Arti	50.82	315	c iP	P	03 49 53.1	-0.6
ARTI						03 51 05.8	
ARTI						03 51 53.9	
ARTI				S	S	03 56 41.5	-0.4
ARTI						03 58 58.6	
ARTI				SS	SS	04 00 19.7	-1.1
ARTI				pmax	pmax		
	comp=Z,229nm,1.0s						

ARTI	**Arti**	**50.82**	**315**	P	**P**	**03 49 53.4**	**-0.3**
ARTI				IAmb	IAmb	03 49 56.0	
	comp=Z,419nm,1.3s						
JCC	**Jacoby Creek,**	**50.94**	**73**	P	**P**	**03 49 55.4**	**+0.6**
JCC				IAmb	IAmb	03 50 00.3	
	comp=Z,472nm,1.3s						
NUUG	**Nuugaatsiaq**	**50.94**	**12**	*i* P	**P**	**03 49 53.7**	**-0.7**
NUUG				IAmb	IAmb	03 49 57.5	
	comp=Z,178nm,1.1s						
KHMM	**Horse Mountain**	**51.06**	**72**	P	**P**	**03 49 56.2**	**+0.3**
KHMM				IAmb	IAmb	03 50 01.5	
	comp=Z,418nm,1.0s						
MMPH	**Masbate**	**51.11**	**226**	*e*P	**P**	**03 49 59.3**	**+3.0**
JTMT	**Jette**	**51.13**	**60**	P	**P**	**03 49 56.2**	**-0.1**
M02C	**Callahan**	**51.16**	**71**	P	**P**	**03 49 56.9**	**+0.2**
KMPM	**Mount Pierce**	**51.17**	**73**	P	**P**	**03 49 57.3**	**+0.6**
KMPM				IAmb	IAmb	03 50 02.4	
	comp=Z,540nm,1.1s						
KUU	**Kurty**	**51.19**	**293**	*e*P	**P**	**03 49 56.4**	**-0.3**
KUU	**Kurty**	**51.19**	**293**	*e*P	**P**	**03 49 56.4**	**-0.3**
KUU				*e*S	**S**	**03 56 48.2**	**+0.7**
KTK1	**Kautokeino**	**51.21**	**341**	*e*P	**P**	**03 49 56.0**	**-0.5**
KTK1				IVmB_BB		03 49 58.2	
	comp=Z,5µm,2.0s						
KTK1				*e*pP	**pP**	**03 51 07.9**	**-0.3**
KTK1				*e*sP	**sP**	**03 51 42.9**	**-3.9**
KTK1				*e*S	**S**	**03 56 45.4**	**-1.5**
KTK1				*e*ScS	**ScS**	**03 59 03.2**	**-5.6**
JETT	**Jettan, Norway**	**51.23**	**342**	*e*P	**P**	**03 49 55.3**	**-1.3**
JETT				IVmB_BB		03 49 58.0	
	comp=Z,7µm,3.5s						
JETT				*e*pP	**pP**	**03 51 08.6**	**+0.2**
JETT				*e*S	**S**	**03 56 47.4**	**0.0**
JETT				*e*ScS	**ScS**	**03 59 04.3**	**-4.6**
SUMG	**Summit**	**51.30**	**6**	P	P	03 50 06.2	+8.7
SUMG	**Summit**	**51.30**	**6**	P	**P**	**03 49 57.4**	**-0.2**
SUMG				pmax	pmax		
	comp=Z,999nm,1.3s						
SUMG	**Summit**	**51.30**	**6**	P	**P**	**03 49 57.4**	**-0.2**
SUMG				IAmb	IAmb	03 50 01.5	
	comp=Z,999nm,1.3s						
MDOK	**Medeo**	**51.33**	**292**	*e*P	**P**	**03 49 57.4**	**-0.5**
MDOK	**Medeo**	**51.33**	**292**	*e*P	**P**	**03 49 57.5**	**-0.5**
MDOK				*e*S	**S**	**03 56 50.1**	**+0.5**
AAA	**Alma-Ata**	**51.37**	**292**	*e*P	**P**	**03 49 57.7**	**-0.3**
AAA				pmax	pmax		
	comp=Z,250nm,0.7s						
AAA	**Alma-Ata**	**51.37**	**292**	*e*P	**P**	**03 49 57.8**	**-0.3**
	comp=Z,250nm,0.7s						
TRO	**Tromso**	**51.41**	**343**	*e*P	**P**	**03 49 57.0**	**-0.8**
TRO				IVmB_BB		03 49 59.6	
	comp=Z,5µm,2.5s						
TRO				*e*pP	**pP**	**03 51 09.1**	**-0.6**
TRO				*e*S	**S**	**03 56 49.4**	**-0.2**
TRO				*e*ScS	**ScS**	**03 59 04.7**	**-5.3**
KHBM	**Hayfork Bally**	**51.48**	**72**	P	**P**	**03 49 59.2**	**+0.1**
KMRM	**Mail Ridge**	**51.53**	**73**	P	**P**	**03 49 59.7**	**+0.4**
KMRM				IAmb	IAmb	03 50 05.1	
	comp=Z,442nm,0.9s						
NIAQ	**Niaqornat**	**51.58**	**13**	*i* P	**P**	**03 49 58.9**	**-0.2**
NIAQ				IAmb	IAmb	03 50 00.7	
	comp=Z,696nm,1.5s						
BMO	**Blue Mountains**	**51.63**	**65**	P	**P**	**03 49 59.8**	**-0.2**
BMO				IAmb	IAmb	03 50 04.5	
	comp=Z,472nm,1.3s						
BMO	**Blue Mountains**	**51.63**	**65**	⇑P	**P**	**03 49 60.0**	**-0.1**
QIZ	**Qiongzhong**	**51.66**	**245**	P	**P**	**03 50 01.3**	**+0.9**
QIZ				pP	**pP**	**03 51 17.0**	**+4.7**
QIZ				sP	**sP**	**03 51 54.4**	**+3.7**
QIZ				ScP	**ScP**	**03 54 34.4**	**+3.5**
QIZ				S	**S**	**03 56 58.0**	**+3.8**
QIZ				sS	**sS**	**03 59 02.8**	**-0.4**
QIZ				ScS	**ScS**	**03 59 15.3**	**+2.0**
QIZ				pmax	pmax		
	comp=Z,380nm,1.1s						
QIZ				pmax	pmax		
	comp=Z,9µm,5.6s						
QIZ	**Qiongzhong**	**51.66**	**245**	P	**P**	**03 50 00.9**	**+0.5**
	comp=Z,478nm,1.3s						
QIZ	**Qiongzhong**	**51.66**	**245**	P	**P**	**03 50 01.3**	**+0.9**
QIZ				pP	**pP**	**03 51 17.2**	**+4.9**
QIZ				sP	**sP**	**03 51 53.7**	**+3.0**
QIZ				ScP	**ScP**	**03 54 34.1**	**+3.2**
PLP	**Palo**	**51.66**	**224**	*e*P	**P**	**03 50 00.8**	**+0.4**
FFC	**Flin Flon**	**51.80**	**47**	*ce*P	**P**	**03 50 00.7**	**-0.3**
FFC	**Flin Flon**	**51.80**	**47**	P	**P**	**03 50 00.8**	**-0.2**
FFC				IAmb	IAmb	03 50 03.8	
	comp=Z,247nm,0.8s						
SAATT	**Saattut**	**51.81**	**12**	*i* P	**P**	**03 50 00.1**	**-0.7**
SAATT				IAmb	IAmb	03 50 03.4	
	comp=Z,697nm,1.3s						
SGF	**Sodankyl**	**51.91**	**339**	P	**P**	**03 50 01.0**	**-0.6**
	comp=Z,166nm,2.0s						
MSO	**Missoula**	**51.93**	**61**	P	**P**	**03 50 02.2**	**0.0**
MSO	**Missoula**	**51.93**	**61**	⇑P	**P**	**03 50 01.8**	**-0.5**
TARG	**Taragay, Kyrgy**	**51.94**	**290**	P	**P**	**03 50 02.7**	**0.0**
TARG				pmax	pmax		
	comp=Z,577nm,2.0s						
TARG	**Taragay, Kyrgy**	**51.94**	**290**	P	**P**	**03 50 02.9**	**+0.1**
TARG				ScP	**ScP**	**03 54 30.8**	**-1.7**
TARG	**Taragay, Kyrgy**	**51.94**	**290**	P	**P**	**03 50 03.0**	**+0.3**
	comp=Z,116nm,1.4s						
ADZR	**Andozero**	**51.98**	**331**	*e*P	**P**	**03 50 02.0**	**-0.1**
ADZR				*PP	**pP**	**03 51 14.3**	**+0.2**
ADZR				*SS	**sS**	**03 59 08.9**	**+2.5**
ADZR				pmax	pmax		
	comp=Z,535nm,1.4s						
O02D	**Mt. Diablo Mer**	**52.06**	**72**	P	**P**	**03 50 03.4**	**+0.2**
O02D				IAmb	IAmb	03 50 08.8	
	comp=Z,471nm,1.1s						
PLID	**Pearl Lake**	**52.13**	**63**	P	**P**	**03 50 03.9**	**+0.1**
PLID				IAmb	IAmb	03 50 08.1	
	comp=Z,255nm,0.8s						
MOD	**Modoc Plateau**	**52.15**	**69**	P	**P**	**03 50 04.3**	**+0.3**
MOD				IAmb	IAmb	03 50 09.6	
	comp=Z,328nm,0.9s						
IBAJ	**Ibajay, Aklan**	**52.19**	**227**	*e*P	**P**	**03 50 06.6**	**+2.3**
TKM2	**Tokmak 2**	**52.26**	**293**	P	**P**	**03 50 04.4**	**-0.4**
	SNR=150						
DCMP	**DeCamp, Califo**	**52.27**	**73**	P	**P**	**03 50 05.2**	**+0.6**
HATC	**Hat Creek Radi**	**52.31**	**71**	P	**P**	**03 50 05.5**	**+0.5**
HATC				IAmb	IAmb	03 50 10.9	
	comp=Z,666nm,1.1s						
SGDS	**Sogindy**	**52.38**	**294**	⇑*i*P	**P**	**03 50 05.2**	**-0.3**
SGDS				*e*S	**S**	**03 57 04.3**	**+0.6**
ULHL	**Ulahol**	**52.40**	**292**	P	**P**	**03 50 04.0**	**-1.8**
	SNR=35						
GLSP	**General Luna,**	**52.48**	**222**	*i* P	**P**	**03 50 06.3**	**-0.1**
SAQQ	**Saqqaq**	**52.52**	**13**	*i* P	**P**	**03 50 04.8**	**-1.2**
SAQQ				IAmb	IAmb	03 50 09.2	
	comp=Z,81nm,0.7s						
USP	**Ospenovka**	**52.58**	**294**	P	**P**	**03 50 07.8**	**+0.9**
	SNR=42						
KIRV	**Kirov**	**52.59**	**321**	*c i*P	**P**	**03 50 06.3**	**-0.3**
LYMT	**Lyon Mountain**	**52.64**	**59**	P	**P**	**03 50 07.5**	**0.0**
CHMS	**Chumysh**	**52.64**	**293**	P	**P**	**03 50 07.2**	**-0.2**
	SNR=77						
WVOR	**Wild Horse Val**	**52.65**	**68**	P	**P**	**03 50 07.6**	**+0.1**
WVOR				pmax	pmax		
	comp=Z,385nm,1.2s						
WVOR	**Wild Horse Val**	**52.65**	**68**	P	**P**	**03 50 07.6**	**+0.1**
WVOR				IAmb	IAmb	03 50 12.5	
	comp=Z,385nm,1.1s						
WVOR	**Wild Horse Val**	**52.65**	**68**	⇑P	**P**	**03 50 07.7**	**+0.2**
MSF	**Maaselka**	**52.67**	**336**	P	**P**	**03 50 06.9**	**-0.2**
	comp=Z,390nm,1.6s						
KBK	**Karagaybulak**	**52.78**	**293**	P	**P**	**03 50 08.5**	**0.0**
	SNR=112						
LLP	**Lapu-Lapu**	**52.83**	**224**	*e*P	**P**	**03 50 09.3**	**+0.4**
LLP				*e*S	**S**	**03 57 08.2**	**-1.9**
TNCH	**TengChong**	**52.85**	**260**	⇑P	**P**	**03 50 09.9**	**+0.6**
TNCH				PcP	**PcP**	**03 51 13.3**	**+0.1**
TNCH				pP	pP	03 51 21.4	-0.1
TNCH				sP	sP	03 51 58.6	-1.2
TNCH				PP	**PP**	**03 52 14.5**	**+1.8**
TNCH				ScP	**ScP**	**03 54 38.8**	**+2.5**
TNCH				S	**S**	**03 57 08.9**	**-1.7**
TNCH				sS	sS	03 59 15.8	-4.4
TNCH				ScS	**ScS**	**03 59 21.8**	**-0.2**
TNCH				pmax	pmax		
	comp=Z,350nm,1.4s						
TNCH				pmax	pmax		
	comp=Z,7µm,5.7s						
SLVN	**Son La**	**52.87**	**252**	P	**P**	**03 50 09.1**	**-0.2**
	comp=Z,413nm,1.1s						
SLVN	**Son La**	**52.87**	**252**	P	**P**	**03 50 09.6**	**+0.3**
SLVN				IAmb	IAmb	03 50 11.8	
	comp=Z,316nm,1.0s						
SLVN	**Son La**	**52.87**	**252**	P	**P**	**03 50 09.5**	**+0.3**
	comp=Z,413nm,1.1s						
GDH	**Godhavn**	**53.03**	**14**	*i* P	**P**	**03 50 09.4**	**-0.2**
GDH				IAmb	IAmb	03 50 12.4	
	comp=Z,623nm,1.4s						
AAK	**Ala-Archa**	**53.03**	**293**	P	**P**	**03 50 10.2**	**-0.2**
	SNR=179						
AAK	**Ala-Archa**	**53.03**	**293**	P	**P**	**03 50 10.4**	**+0.1**
AAK				S	**S**	**03 57 14.0**	**+1.5**
AAK	**Ala-Archa**	**53.03**	**293**	*c i*P	**P**	**03 50 10.1**	**-0.2**
AAK				pmax	pmax		
	comp=Z,508nm,1.6s						
AAK	**Ala-Archa**	**53.03**	**293**	P	**P**	**03 50 10.2**	**-0.2**
AAK				IAmb	IAmb	03 50 13.0	
	comp=Z,1µm,1.8s						
AAK	**Ala-Archa**	**53.03**	**293**	*i* P	**P**	**03 50 10.3**	**0.0**
	SNR=191						
JNW	**Jan Mayen West**	**53.05**	**355**	*e*P	**P**	**03 50 11.3**	**+1.5**
JNW				IVmB		03 50 13.4	
	comp=Z,6µm,2.2s						
JNW				*e*pP	**pP**	**03 51 22.1**	**-0.1**
JNW				*e*S	**S**	**03 57 16.8**	**+5.1**
JNW				*e*ScS	**ScS**	**03 59 26.4**	**+4.8**
JNE	**Jan Mayen East**	**53.08**	**355**	*e*P	**P**	**03 50 10.7**	**+0.7**
JNE				IVmB_BB		03 50 13.5	
	comp=Z,7µm,3.5s						
JNE				*e*pP	**pP**	**03 51 22.3**	**0.0**
JNE				*e*ScP	**ScP**	**03 54 39.1**	**+2.8**
JNE				*e*S	**S**	**03 57 18.9**	**+6.8**
JNE				*e*ScS	**ScS**	**03 59 27.4**	**+5.6**
JMIC	**Jan Mayen**	**53.10**	**355**	*e*P	**P**	**03 50 11.2**	**+1.1**
JMIC				IVmB_BB		03 50 13.6	
	comp=Z,8µm,2.6s						
JMIC				*e*pP	**pP**	**03 51 23.8**	**+1.3**
JMIC				*e*S	**S**	**03 57 16.9**	**+4.6**
JMIC				*e*ScS	**ScS**	**03 59 26.9**	**+5.0**
EGMT	**Eagleton**	**53.11**	**57**	P	**P**	**03 50 10.6**	**-0.1**
EGMT				IAmb	IAmb	03 50 15.4	
	comp=Z,390nm,0.9s						
EGMT	**Eagleton**	**53.11**	**57**	⇑P	**P**	**03 50 10.1**	**-0.6**
JMI	**Jan Mayen**	**53.17**	**355**	*e*P	**P**	**03 50 12.4**	**+1.8**
JMI				IVmB_BB		03 50 15.9	
	comp=Z,8µm,4.0s						
JMI				*e*S	**S**	**03 57 19.2**	**+6.0**
JMI				*e*ScS	**ScS**	**03 59 26.7**	**+4.3**
BUT	**Butte**	**53.18**	**61**	P	**P**	**03 50 12.0**	**+0.6**
BUT				ScP	**ScP**	**03 54 38.0**	**+0.5**
ORV	**Oroville**	**53.19**	**72**	P	**P**	**03 50 11.1**	**-0.2**
ORV				pmax	pmax		
	comp=Z,212nm,0.8s						
ILULI	**Ilulissat**	**53.38**	**13**	P	**P**	**03 50 10.9**	**-1.3**
ILULI				pmax	pmax		
	comp=Z,420nm,0.9s						
ILULI	**Ilulissat**	**53.38**	**13**	P	**P**	**03 50 10.8**	**-1.3**
ILULI				IAmb	IAmb	03 50 14.1	
	comp=Z,420nm,0.9s						
ILULI	**Ilulissat**	**53.38**	**13**	⇑P	**P**	**03 50 10.9**	**-1.3**
ILULI	**Ilulissat**	**53.38**	**13**	*i* P	**P**	**03 50 11.2**	**-1.0**
ILULI				IAmb	IAmb	03 50 13.8	
	comp=Z,391nm,0.8s						
LSA	**Lhasa**	**53.38**	**270**	P	**P**	**03 50 14.0**	**+0.6**
LSA	**Lhasa**	**53.38**	**270**	P	**P**	**03 50 13.4**	**+0.1**
LSA	**Lhasa**	**53.38**	**270**		**P**	**03 50 13.4**	**+0.1**
LSA	**Lhasa**	**53.38**	**270**	P	**P**	**03 50 14.5**	**+1.2**
LSA				pP	**pP**	**03 51 30.5**	**+4.7**
LSA				ScP	**ScP**	**03 54 40.5**	**+1.6**
LSA				x	x	03 57 13.2	
EKS2	**Erkin-Say**	**53.38**	**294**	P	**P**	**03 50 12.8**	**0.0**
	SNR=238						
MFID	**Camas Ranch**	**53.40**	**65**	P	**P**	**03 50 12.8**	**-0.2**
MCCM	**Marconi Confer**	**53.47**	**74**	⇑P	**P**	**03 50 13.6**	**+0.3**
STEI	**Steigen**	**53.54**	**344**	*e*P	**P**	**03 50 13.2**	**-0.2**
STEI				IVmB_BB		03 50 14.7	
	comp=Z,4µm,3.5s						
STEI				*e*sP	**sP**	**03 52 02.3**	**-1.9**
STEI				*e*S	**S**	**03 57 17.9**	**-0.4**
STEI				*e*ScS	**ScS**	**03 59 23.8**	**-1.2**
BEKR	**Beckworth**	**53.58**	**71**	P	**P**	**03 50 14.2**	**-0.2**
BEKR				IAmb	IAmb	03 50 19.8	
	comp=Z,931nm,1.4s						
LOF	**Lofoten**	**53.62**	**344**	*e*P	**P**	**03 50 13.7**	**-0.2**
LOF				IVmB_BB		03 50 15.0	
	comp=Z,7µm,3.8s						
LOF				*e*pP	**pP**	**03 51 26.3**	**-0.1**
LOF				*e*S	**S**	**03 57 19.1**	**-0.2**
LOF				*e*ScS	**ScS**	**03 59 27.0**	**+1.3**
DLMT	**Dillon**	**53.63**	**61**	P	**P**	**03 50 14.7**	**+0.1**
DLMT				IAmb	IAmb	03 50 19.8	
	comp=Z,1µm,1.6s						
MCMT	**McKenzie Canyo**	**53.89**	**62**	P	**P**	**03 50 16.5**	**-0.1**
JORH	**JORHAT**	**53.90**	**265**	*e*P	**P**	**03 50 13.9**	**-2.7**
JORH				IAmb	IAmb	03 50 18.3	
	comp=Z,242nm,0.2s						
BOZ	**Bozeman (W)**	**53.94**	**60**	P	**P**	**03 50 16.4**	**-0.4**
BOZ	**Bozeman (W)**	**53.94**	**60**	⇑P	**P**	**03 50 16.6**	**-0.1**
SCO	**Scoresbysund**	**53.94**	**0**	P	**P**	**03 50 16.4**	**+0.2**
SCO				pmax	pmax		
	comp=Z,55nm,0.7s						
SCO	**Scoresbysund**	**53.94**	**0**	P	**P**	**03 50 16.4**	**+0.2**
SCO	**Scoresbysund**	**53.94**	**0**	⇑P	**P**	**03 50 16.1**	**-0.1**
SCO	**Scoresbysund**	**53.94**	**0**	*i* P	**P**	**03 50 17.0**	**+0.8**
SCO				IAmb	IAmb	03 50 20.8	
	comp=Z,62nm,0.8s						
SNPH	**Sibulan**	**54.00**	**225**	*e*P	**P**	**03 50 18.1**	**+0.7**
HLID	**Hailey**	**54.01**	**64**	P	**P**	**03 50 17.2**	**-0.1**
HLID				IAmb	IAmb	03 50 22.1	
	comp=Z,743nm,2.0s						
HLID				ScP	**ScP**	**03 54 41.2**	**+0.1**
FAUS	**Fauske**	**54.03**	**343**	*e*P	**P**	**03 50 16.8**	**-0.1**
FAUS				IVmB_BB		03 50 18.5	
	comp=Z,5µm,2.8s						
FAUS				*e*pP	**pP**	**03 51 28.5**	**-1.0**
FAUS				*e*S	**S**	**03 57 25.2**	**+0.3**
FAUS				*e*ScS	**ScS**	**03 59 29.1**	**+0.4**
LSIP	**Lazi, Siquijor**	**54.04**	**224**	*e*P	**P**	**03 50 17.6**	**0.0**
OUL	**Oulu**	**54.07**	**337**	P	**P**	**03 50 16.8**	**-0.4**
	comp=Z,259nm,1.7s						
MOKO	**MOKOCHONG**	**54.08**	**265**	*e*P	**P**	**03 50 14.8**	**-3.3**
MOKO				IAmb	IAmb	03 50 25.5	
	comp=Z,236nm,1.2s						
MPK	**Martis Peak**	**54.17**	**71**	P	**P**	**03 50 19.2**	**+0.6**
CDOP	**Cateel, Davao**	**54.21**	**220**	*e*P	**P**	**03 50 18.3**	**-0.6**
PAHR	**Pah Rah Range**	**54.21**	**70**	P	**P**	**03 50 19.1**	**+0.3**
PAHR				IAmb	IAmb	03 50 24.4	
	comp=Z,466nm,1.1s						
DZA	**Taraz**	**54.47**	**296**	*e*P	**P**	**03 50 20.1**	**-0.3**
DZA	**Taraz**	**54.47**	**296**	*e*P	**P**	**03 50 20.2**	**-0.3**
TAWA	**Tawang**	**54.58**	**268**	*e*P	**P**	**03 50 18.7**	**-3.1**
TAWA				IAmb	IAmb	03 50 24.7	
	comp=Z,209nm,1.2s						
QLMT	**Earthquake Lak**	**54.59**	**61**	P	**P**	**03 50 21.2**	**-0.3**
QLMT				ScP	**ScP**	**03 54 44.0**	**+0.3**
BUKP	**Musuan**	**54.63**	**222**	*e*P	**P**	**03 50 23.6**	**+1.7**
DCPH	**Dipolog City**	**54.65**	**224**	*i* P	**P**	**03 50 22.5**	**+0.6**
YHL	**Hebgen Lake**	**54.69**	**61**	P	**P**	**03 50 22.4**	**+0.1**
KK31	**Karatay Array**	**54.73**	**296**	P	**P**	**03 50 21.2**	**-1.1**
KK31	**Karatay Array**	**54.73**	**296**	P	**P**	**03 50 21.4**	**-0.9**
KK31				IAmb	IAmb	03 50 24.4	
	comp=Z,1µm,1.8s						
KKAR	**Karatay Array**	**54.73**	**296**	P	**P**	**03 50 21.7**	**-0.6**
KKAR	**Karatay Array**	**54.73**	**296**	P	**P**	**03 50 21.7**	**-0.6**
GCMT	**Greycliff**	**54.75**	**59**	P	**P**	**03 50 23.1**	**+0.5**
YHB	**Horse Butte**	**54.76**	**61**	P	**P**	**03 50 22.9**	**+0.2**
BMN	**Battle Mountai**	**54.83**	**68**	P	**P**	**03 50 23.2**	**0.0**
BMN				pmax	pmax		
	comp=Z,346nm,1.1s						
BMN	**Battle Mountai**	**54.83**	**68**	P	**P**	**03 50 23.2**	**0.0**
BMN				IAmb	IAmb	03 50 28.4	
	comp=Z,346nm,1.1s						
CMB	**Columbia Colle**	**54.89**	**73**	P	**P**	**03 50 24.1**	**+0.5**
CMB				pmax	pmax		
	comp=Z,679nm,1.6s						
YHH	**Holmes Hill**	**54.90**	**60**	P	**P**	**03 50 23.8**	**0.0**
YMR	**Madison River**	**54.93**	**61**	P	**P**	**03 50 24.0**	**0.0**
VAGH	**Vaagaholmen**	**54.95**	**344**	*e*P	**P**	**03 50 23.6**	**+0.2**
VAGH				IVmB_BB		03 50 24.9	
	comp=Z,4µm,3.1s						
VAGH				*e*pP	**pP**	**03 51 36.4**	**0.0**
VAGH				*e*S	**S**	**03 57 38.0**	**+1.0**
VAGH				*e*ScS	**ScS**	**03 59 37.2**	**+2.0**
KSH2	**Kashi**	**54.99**	**290**	P	**P**	**03 50 24.5**	**+0.2**
KSH2				sP	sP	03 52 12.5	-3.0
KSH2				S	**S**	**03 57 35.3**	**-3.3**
KSH2				pmax	pmax		
	comp=Z,350nm,1.6s						
KSH2				pmax	pmax		
	comp=Z,3µm,7.0s						
YNM	**Yellowstone No**	**55.02**	**60**	P	**P**	**03 50 24.2**	**-0.4**
YNR	**Norris Junctio**	**55.04**	**60**	P	**P**	**03 50 24.9**	**+0.1**
YNR				IAmb	IAmb	03 50 30.7	
	comp=Z,415nm,1.3s						
RAUS	**Rausandaksla**	**55.10**	**343**	*e*P	**P**	**03 50 23.8**	**-0.7**
RAUS				IVmB_BB		03 50 26.1	
	comp=Z,6µm,3.1s						
RAUS				*e*pP	**pP**	**03 51 36.4**	**-1.1**
RAUS				*e*S	**S**	**03 57 38.2**	**-0.9**
RAUS				*e*ScS	**ScS**	**03 59 37.2**	**+0.8**
DAV	**Davao City (W)**	**55.19**	**221**	P	**P**	**03 50 27.4**	**+1.6**
	comp=Z,4µm,1.2s						
DAV	**Davao City (W)**	**55.19**	**221**	P	**P**	**03 50 26.8**	**+0.9**
DAV	**Davao City (W)**	**55.19**	**221**	P	**P**	**03 50 26.9**	**+1.1**
DAV	**Davao City (W)**	**55.19**	**221**	⇑P	**P**	**03 50 27.0**	**+1.1**
DAV	**Davao City (W)**	**55.19**	**221**	P	**P**	**03 50 28.2**	**+2.4**
	comp=Z,34µmcomp=Z,47µmcomp=Z,4µm,1.2s						
DAV	**Davao City (W)**	**55.19**	**221**	P	**P**	**03 50 24.0**	**-1.8**
KONS	**Konsvik**	**55.19**	**344**	*e*P	**P**	**03 50 24.1**	**-1.0**
KONS				IVmB_BB		03 50 26.7	
	comp=Z,4µm,3.6s						
KONS				*e*pP	**pP**	**03 51 35.0**	**-3.1**
KONS				*e*PP	**PP**	**03 52 33.2**	**+0.9**
KONS				*e*S	**S**	**03 57 40.5**	**+0.4**
KONS				*e*ScS	**ScS**	**03 59 37.3**	**+0.3**
SAO	**San Andreas Ge**	**55.25**	**74**	P	**P**	**03 50 26.7**	**+0.6**
SAO				pmax	pmax		
	comp=Z,158nm,1.1s						
AKTO	**Aktyubinsk**	**55.26**	**310**	P	**P**	**03 50 23.9**	**-2.0**
MOR8	**Moi Rana**	**55.28**	**343**	*e*P	**P**	**03 50 24.7**	**-1.1**
MOR8				IVmB_BB		03 50 26.1	
	comp=Z,5µm,3.1s						
MOR8				*e*pP	**pP**	**03 51 38.2**	**-0.6**
MOR8				*e*S	**S**	**03 57 39.6**	**-1.8**
MOR8				*e*ScS	**ScS**	**03 59 36.4**	**-1.3**
AB31	**Akbulak array**	**55.28**	**308**	P	**P**	**03 50 24.8**	**-1.3**
AB31	**Akbulak array**	**55.28**	**308**	P	**P**	**03 50 25.6**	**-0.5**
ABKAR	**Akbulak array**	**55.28**	**308**	P	**P**	**03 50 25.7**	**-0.4**
PAGZ	**Pagadian**	**55.31**	**224**	*e*P	**P**	**03 50 27.7**	**+1.0**
FRB	**Frobisher Bay**	**55.33**	**23**	P	**P**	**03 50 24.7**	**-1.4**
STOK	**Stokkvaagen**	**55.36**	**344**	*e*P	**P**	**03 50 26.5**	**+0.2**
STOK				IVmB_BB		03 50 29.4	
	comp=Z,4µm,2.9s						
STOK				*e*pP	**pP**	**03 51 39.5**	**+0.2**
STOK				*e*S	**S**	**03 57 43.1**	**+0.8**
STOK				*e*ScS	**ScS**	**03 59 39.0**	**+0.8**
KVN	**Kaiserville**	**55.37**	**70**	P	**P**	**03 50 27.8**	**+0.7**
KVN				pmax	pmax		
	comp=Z,490nm,1.4s						
KCP	**Kidapawan**	**55.42**	**222**	*i* P	**P**	**03 50 29.5**	**+1.9**
RLMT	**Red Lodge**	**55.43**	**59**	⇑P	**P**	**03 50 27.9**	**+0.5**
PPR	**Puerto Princes**	**55.48**	**230**	*e*P	**P**	**03 50 29.9**	**+2.1**
SFJD	**Kangerlussuaq**	**55.53**	**13**	P	**P**	**03 50 26.0**	**-1.5**
SFJD				IAmb	IAmb	03 50 29.5	
	comp=Z,194nm,0.9s						
SFJD	**Kangerlussuaq**	**55.53**	**13**	*i* P	**P**	**03 50 26.0**	**-1.5**
SFJD				IAmb	IAmb	03 50 28.0	
	comp=Z,242nm,1.1s						
LEIR	**Leirfjorden**	**55.55**	**344**	*e*P	**P**	**03 50 27.0**	**-0.7**
LEIR				IVmB_BB		03 50 29.3	
	comp=Z,4µm,3.4s						
LEIR				*e*pP	**pP**	**03 51 39.0**	**-1.8**
LEIR				*e*S	**S**	**03 57 46.0**	**+1.1**
LEIR				*e*ScS	**ScS**	**03 59 40.4**	**+0.8**
IMP	**Imphal**	**55.56**	**264**	*e*P	**P**	**03 50 26.0**	**-2.5**
IMP				IAmb	IAmb	03 50 30.6	
	comp=Z,1µm,1.9s						
TARA	**Tarawa**	**55.60**	**162**	P	**P**	**03 50 29.9**	**+1.2**
	comp=Z,573nm,1.6s						
TARA	**Tarawa**	**55.60**	**162**	⇑P	**P**	**03 50 30.4**	**+1.7**
ELK	**Elko**	**55.63**	**67**	P	**P**	**03 50 29.2**	**+0.2**
ELK				pmax	pmax		
	comp=Z,400nm,1.2s						
ELK	**Elko**	**55.63**	**67**	P	**P**	**03 50 29.2**	**+0.2**
ELK				IAmb	IAmb	03 50 34.3	
	comp=Z,400nm,1.1s						
ELK	**Elko**	**55.63**	**67**	⇑P	**P**	**03 50 29.7**	**+0.7**
FXWY	**Fox Creek**	**55.65**	**62**	P	**P**	**03 50 29.7**	**+0.6**
FXWY				IAmb	IAmb	03 50 34.3	
	comp=Z,536nm,1.5s						
IUG	**Iuzhnay**	**55.67**	**296**	*c i*P	**P**	**03 50 28.7**	**-0.4**
IUG				*e*S	**S**	**03 57 48.2**	**+0.7**
IUG				pmax	pmax		
	comp=Z,503nm,1.6s						
IUG	**Iuzhnay**	**55.67**	**296**	⇑*i*P	**P**	**03 50 28.7**	**-0.4**
	comp=Z,503nm,1.6s						
IUG				*e*S	**S**	**03 57 48.2**	**+0.7**
NVAR	**Mina Array Bea**	**55.72**	**71**	P	**P**	**03 50 30.5**	**+0.9**
	comp=Z,156nm,0.7s,baz=296,slow=3.2,SNR=256						
NVAR				ScP	**ScP**	**03 54 51.2**	**+2.4**
	comp=Z,7.8nm,0.7s,baz=315,slow=5.0,SNR=3.4						
NVAR				SKKP	**SKKPdf**	**04 14 59.7**	**+0.9**
	comp=Z,0.5nm,0.7s,baz=283,slow=5.3,SNR=4.3						
NVAR				PKPPKP	**P'P'df**	**04 20 26.4**	**+2.0**
	comp=Z,4.9nm,1.2s,baz=213,slow=0.4,SNR=4.8						
	comp=Z,156nm,0.7s						
NVAR	**Mina Array Bea**	**55.72**	**71**		**ScP**	**03 54 49.1**	**+0.3**
LAO	**LASA Array**	**55.73**	**56**	⇑P	**P**	**03 50 29.9**	**+0.5**
CHM	**Chimkent**	**55.76**	**296**	*e*P	**P**	**03 50 29.1**	**-0.5**
CHM				pmax	pmax		
	comp=Z,449nm,1.4s						
CHM	**Chimkent**	**55.76**	**296**	*e*P	**P**	**03 50 29.2**	**-0.5**
	comp=Z,449nm,1.4s						
NV11	**Mina Array Sit**	**55.80**	**71**	P	**P**	**03 50 30.1**	**0.0**
LOHW	**Long Hollow**	**55.88**	**61**	P	**P**	**03 50 31.0**	**+0.3**
LOHW				IAmb	IAmb	03 50 36.0	
	comp=Z,513nm,1.3s						
SNOW	**Snow King Moun**	**55.92**	**62**	P	**P**	**03 50 31.5**	**+0.5**
SNOW				IAmb	IAmb	03 50 36.5	
	comp=Z,651nm,1.6s						
DDMP	**Don Marcelino,**	**56.03**	**220**	*e*P	**P**	**03 50 31.6**	**-0.1**
HVU	**Hansel Valley**	**56.14**	**64**	P	**P**	**03 50 32.8**	**+0.4**
HVU				pmax	pmax		
	comp=Z,894nm,1.6s						
HVU	**Hansel Valley**	**56.14**	**64**	P	**P**	**03 50 32.8**	**+0.4**
HVU				IAmb	IAmb	03 50 37.5	
	comp=Z,894nm,1.6s						
SHL	**Shillong**	**56.14**	**266**	*e*P	**P**	**03 50 29.9**	**-2.8**
SHL				IAmb	IAmb	03 50 34.0	
	comp=Z,195nm,1.6s						
SILR	**SILCHAR**	**56.24**	**265**	*e*P	**P**	**03 50 31.0**	**-2.1**
SILR				IAmb	IAmb	03 50 34.9	
	comp=Z,51nm,0.9s						
AHID	**Auburn Hatcher**	**56.26**	**62**	P	**P**	**03 50 33.7**	**+0.4**
AHID	**Auburn Hatcher**	**56.26**	**62**	⇑P	**P**	**03 50 33.7**	**+0.4**
TPH	**Tonopah**	**56.55**	**70**	P	**P**	**03 50 35.9**	**+0.5**
TPH				pmax	pmax		
	comp=Z,312nm,0.9s						
TPH	**Tonopah**	**56.55**	**70**	P	**P**	**03 50 35.9**	**+0.5**
TPH				IAmb	IAmb	03 50 40.3	
	comp=Z,312nm,0.9s						
BGU	**Big Grassy Mou**	**56.64**	**65**	P	**P**	**03 50 36.4**	**+0.5**
BGU				IAmb	IAmb	03 50 41.0	
	comp=Z,686nm,1.6s						
SPUT	**South Promonto**	**56.65**	**64**	P	**P**	**03 50 36.5**	**+0.5**
SPUT				IAmb	IAmb	03 50 41.1	
	comp=Z,604nm,1.3s						
ZCP	**Zamboanga City**	**56.66**	**225**	*e*P	**P**	**03 50 38.4**	**+2.3**
TIN	**Tinemaha, Big**	**56.77**	**72**	P	**P**	**03 50 37.3**	**+0.4**
TIN				pmax	pmax		
	comp=Z,512nm,1.0s						
TIN	**Tinemaha, Big**	**56.77**	**72**	P	**P**	**03 50 37.3**	**+0.4**
TIN				IAmb	IAmb	03 50 42.8	
	comp=Z,512nm,1.0s						
DHUB	**DHUBRI**	**56.85**	**268**	*e*P	**P**	**03 50 34.8**	**-2.6**
DHUB				IAmb	IAmb	03 50 38.4	
	comp=Z,74nm,1.2s						
HWUT	**Hardware Ranch**	**56.88**	**64**	P	**P**	**03 50 37.7**	**+0.1**
HWUT				IAmb	IAmb	03 50 42.8	
	comp=Z,762nm,1.2s						
HWUT	**Hardware Ranch**	**56.88**	**64**	⇑P	**P**	**03 50 38.3**	**+0.7**
COBR	**COOCHBEHAR**	**56.94**	**269**	*e*P	**P**	**03 50 35.1**	**-2.9**
BW06	**Boulder Array**	**57.02**	**61**	⇑P	**P**	**03 50 38.8**	**+0.2**
PDAR	**Pinedale Array**	**57.02**	**61**	P	**P**	**03 50 38.8**	**+0.1**
	comp=Z,194nm,0.7s,baz=343,slow=2.0,SNR=494						

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PDAR                             ScP      ScP     03 54 55.9 +1.4
      comp=Z,6.8nm,0.7s,baz=302,slow=4.5,SNR=2.8
PDAR                             PKPPKP   P'P'df  04 20 23.9 +0.5
      comp=Z,8.3nm,1.2s,baz=198,slow=4.1,SNR=3.9
      comp=Z,194nm,0.7s
PDAR  Pinedale Array   57.02  61          ScP     03 54 55.0 +0.5
AZL   Aizawl           57.12 264 eP       P       03 50 36.8 -2.7
AZL                              IAmb     IAmb    03 50 42.1
      comp=Z,1µm,2.0s
JPG   JALPAIGURI       57.17 270 eP       P       03 50 37.1 -2.4
FINES FINESS Array B   57.18 335 P        P       03 50 39.1 -0.1
      comp=Z,126nm,0.6s,baz=31,slow=9.1,SNR=164
FINES                            S        S       03 58 07.0 +0.7
      comp=Z,18nm,0.8s,baz=34,slow=14,SNR=6.7
FINES                            PKPPKP   P'P'df  04 20 22.9 -2.6
      comp=Z,2.3nm,0.8s,baz=187,slow=2.2,SNR=5.7
      comp=Z,126nm,0.6s
NSS   Namsos           57.20 343 eP       P       03 50 39.6 +0.4
NSS                              IVmB_BB          03 50 40.8
      comp=Z,4µm,4.0s
NSS                              epP      pP      03 51 51.7 -1.1
NSS                              eS       S       03 58 05.7 -0.7
NSS                              eScS     ScS     03 59 51.2 -0.5
VES   Vestal, Richgr   57.22  73 P        P       03 50 39.9 +0.1
VES                              IAmb     IAmb    03 50 44.0
      comp=Z,462nm,0.8s
GRAC  Grapevine Rang   57.28  71 P        P       03 50 40.6 +0.3
GRAC                             IAmb     IAmb    03 50 45.7
      comp=Z,301nm,1.0s
DUG   Dugway, Tooele   57.29  66 P        P       03 50 40.7 +0.3
DUG                              pmax     pmax
      comp=Z,402nm,1.0s
DUG   Dugway, Tooele   57.29  66 P        P       03 50 40.7 +0.3
DUG                              IAmb     IAmb    03 50 45.7
      comp=Z,402nm,1.0s
DUG   Dugway, Tooele   57.29  66 ⇑P       P       03 50 41.1 +0.7
NOQ   North Oquirrh    57.30  65 P        P       03 50 41.0 +0.5
NOQ                              IAmb     IAmb    03 50 45.6
      comp=Z,330nm,1.0s
CWC   Cottonwood Cre   57.31  72 P        P       03 50 40.9 +0.2
TCUT  Toone Canyon     57.32  64 P        P       03 50 41.2 +0.4
TCUT                             IAmb     IAmb    03 50 45.9
      comp=Z,874nm,1.6s
PUL   Pulkovo          57.55 332 eP       P       03 50 42.2 +0.5
PUL                              pmax     pmax
      comp=Z,501nm,1.5s
CHTO  Chiang Mai       57.60 255 P        P       03 50 43.2 +0.6
CHTO                             S        S       03 58 13.0 +0.2
CHTO  Chiang Mai       57.60 255 P        P       03 50 42.6  0.0
CHTO  Chiang Mai       57.60 255 P        P       03 50 43.0 +0.3
CHTO  Chiang Mai       57.60 255 P        P       03 50 42.7  0.0
CHTO                             pP       pP      03 51 59.0 +2.6
CHTO                             sP       sP      03 52 36.9 +2.5
ULM   Lac du Bonnet    57.62  47 P        P       03 50 41.9 -0.5
      comp=Z,121nm,0.7s,baz=315,slow=6.8,SNR=77
ULM                              ScP      ScP     03 54 57.1 +0.5
      comp=Z,19nm,0.8s,baz=335,slow=3.9,SNR=5.0
ULM                              PKPPKP   P'P'df  04 20 23.1 -0.3
      comp=Z,14nm,1.3s,baz=122,slow=6.9,SNR=3.1
      comp=Z,121nm,0.7s
ULM   Lac du Bonnet    57.62  47d iP      P       03 50 41.8 -0.6
ISA   Isabella, Lake   57.68  73 P        P       03 50 43.0 -0.1
ISA                              pmax     pmax
      comp=Z,223nm,1.2s
ISA   Isabella, Lake   57.68  73 P        P       03 50 43.0 -0.1
ALCI  Alchi Leh        57.77 284 eP       P       03 50 40.6 -3.5
ALCI                             IAmb     IAmb    03 50 45.7
      comp=Z,96nm,0.8s
HNLY  HANLEY           57.87 282 eP       P       03 50 41.0 -3.9
MDND  Maddock          57.87  51 P        P       03 50 44.5 +0.3
CM31  Chiang Mai Arr   57.89 255 P        P       03 50 45.2 +0.5
      SNR=62
CM31                             S        S       03 58 17.9 +1.3
CMAR  Chiang Mai Arr   57.89 255 P        P       03 50 44.9 +0.2
      comp=Z,67nm,0.8s,baz=21,slow=7.4,SNR=184
CMAR                             PcP      PcP     03 51 34.0 +1.3
      comp=Z,60nm,0.7s,baz=12,slow=3.9,SNR=12
CMAR                             ScP      ScP     03 55 00.2 +1.8
      comp=Z,50nm,1.1s,baz=19,slow=4.5,SNR=6.4
CMAR                             ScS      ScS     03 59 57.9 -0.3
      comp=Z,1.5nm,0.5s,baz=38,slow=10,SNR=5.8
CMAR                             PKP2bc   P'P'bc  04 20 37.0 +7.3
      comp=Z,1.1nm,0.3s,baz=236,slow=3.9,SNR=6.4
      comp=Z,67nm,0.8s
CMAR  Chiang Mai Arr   57.89 255ceP       P       03 50 44.9 +0.2
CMAR                             pmax     pmax
      comp=Z,63nm,0.8s
CMAR  Chiang Mai Arr   57.89 255 P        P       03 50 44.4 -0.3
CMAR                                      PcP     03 51 33.0 +0.3
CMAR                             ScP      ScP     03 54 58.3  0.0
TPNV  Topopah Spring   57.91  70 P        P       03 50 45.0 +0.2
TPNV                             pmax     pmax
      comp=Z,375nm,1.2s
TPNV  Topopah Spring   57.91  70 P        P       03 50 45.0 +0.2
TPNV                             IAmb     IAmb    03 50 49.8
      comp=Z,375nm,1.1s
TPNV  Topopah Spring   57.91  70 ⇑P       P       03 50 45.2 +0.4
MPMC  Manual Prospec   57.91  72 P        P       03 50 45.1 +0.2
MPMC                             IAmb     IAmb    03 50 49.7
      comp=Z,365nm,1.4s
SAIH  SAIHA            57.94 263 eP       P       03 50 42.6 -2.6
SAIH                             IAmb     IAmb    03 50 46.2
      comp=Z,210nm,0.3s
BELG  Belogornoye      57.99 318c iP      P       03 50 44.4 -0.4
BELG                             pmax     pmax
      comp=Z,97nm,1.1s
NUUK  Nuuk             58.05  15 i P      P       03 50 44.7 -0.4
NUUK                             IAmb     IAmb    03 50 47.5
      comp=Z,145nm,0.8s
ISOG  Isortoq, Green   58.18   8 i P      P       03 50 45.0 -1.0
ISOG                             IAmb     IAmb    03 50 46.8
      comp=Z,199nm,0.7s
ANGG  Ammassalik, Gr   58.22   8 i P      P       03 50 45.6 -0.6
ANGG                             IAmb     IAmb    03 50 47.8
      comp=Z,100nm,0.7s
E28A  Huff             58.35  53 P        P       03 50 47.9 +0.4
MANU  Manus Island     58.43 193 P        P       03 50 49.0 +0.7
MANU                             IAmb     IAmb    03 50 50.7
      comp=Z,350nm,1.2s
HEL   Helsinki         58.56 335 P        P       03 50 43.3 -5.3
HEL                              pmax     pmax
      comp=Z,253nm,1.0s
K22A  Casper           58.59  59 P        P       03 50 49.5 +0.1
K22A                             IAmb     IAmb    03 50 54.5
      comp=Z,234nm,0.9s
KAVG  Kavieng          58.59 189 P        P       03 50 51.0 +1.6
RSSD  Black Hills      58.67  57 P        P       03 50 50.1 +0.1
RSSD  Black Hills      58.67  57 P        P       03 50 50.1 +0.1
RSSD                             pP       pP      03 52 07.3 +3.2
RSSD                             sP       sP      03 52 40.4 -1.7
RSSD                             S        S       03 58 31.4 +4.8
MOS   Moscow           58.80 325 eP       P       03 50 50.2 -0.2
MOS                              e                03 51 35.5
MOS                              e*PP     pP      03 52 06.3 +1.9
MOS                              e*SP     sP      03 52 46.6 +4.2
MOS                              e                03 53 03.2
MOS                              ePPP     PPP     03 54 31.1
MOS                              i S      S       03 58 28.0 +0.7
MOS                              i                04 00 01.3
MOS                              pmax     pmax
      comp=Z,383nm,1.4s
MOS                              pmax     pmax
      comp=Z,2µm,3.5s
MOS                              pmax     pmax
      comp=N,2µm,3.5s
MOS                              pmax     pmax
      comp=E,1µm,3.5s
MOS                              smax     smax
      comp=E,12µm,4.3s
MOS                              smax     smax
      comp=N,15µm,4.3s
VLK   Valmikinagar     59.17 274 eP       P       03 50 51.0 -2.3
SRNI  Srinagar         59.18 286 eP       P       03 50 50.4 -3.1
KLP   Kalpa            59.21 282 eP       P       03 50 50.8 -3.2
JOSI  Joshimath        59.23 280 eP       P       03 50 50.9 -3.0
GAMI  Galela, Maluku   59.27 216 P        P       03 50 54.5 +0.4
      comp=N,22µmcomp=N,2µm,1.1s
TSSA  Tissa            59.37 284 eP       P       03 50 51.9 -3.0
PTH   Pithoragarh      59.61 279 eP       P       03 50 53.6 -2.9
VSU   Vasula           59.62 333ceP       P       03 50 54.6 -1.3
VSU                              pmax     pmax
      comp=Z,215nm,0.8s
O20A  White River Ci   59.65  62 P        P       03 50 56.8 +0.2
OBN   Obninsk          59.66 326d iP      P       03 50 55.5 -0.7
OBN                              i                03 51 39.8
OBN                              i *PP    pP      03 52 12.4 +2.0
OBN                              i *SP    sP      03 52 51.8 +3.4
OBN                              ePPP     PPP     03 54 42.2
OBN                              i S      S       03 58 37.5 -0.7
OBN                              eSP      SPn     03 58 49.4 -1.2
OBN                              i                03 59 03.3
OBN                              i                04 00 08.7
OBN                              i SS     SS      04 02 44.5 +5.0
OBN                              i SSS    SSS     04 05 33.5
OBN                              pmax     pmax
      comp=Z,271nm,1.7s
OBN   Obninsk          59.66 326 ⇑P       P       03 50 56.4 +0.2
OBN   Obninsk          59.66 326 P        P       03 50 55.7 -0.5
      comp=Z,4µmcomp=Z,123nm,1.6s
BORG  Borgarnes        59.71 360 P        P       03 50 56.6 +0.2
UTK   UTTARKASHI       59.71 281 eP       P       03 50 54.0 -3.1
BAKI  Biak             59.72 206 P        P       03 50 58.4 +1.3
      comp=Z,30µmcomp=Z,31µmcomp=Z,2µm,1.6s
MOL   Molde            59.73 345 eP       P       03 50 57.3 +0.8
MOL                              IVmB_BB          03 50 58.8
      comp=Z,4µm,3.5s
MOL                              epP      pP      03 52 12.3 +1.4
MOL                              eScP     ScP     03 55 05.7  0.0
MOL                              eS       S       03 58 38.7 -0.2
MOL                              eScS     ScS     04 00 10.6 +0.1
MOL                              eSS      SS      04 02 42.4 +2.2
JMUI  Jamui            59.83 270 eP       P       03 50 55.4 -2.4
HAYD  Hayden           59.84  62 P        P       03 50 58.2 +0.2
HAYD                             IAmb     IAmb    03 51 02.9
      comp=Z,969nm,1.9s
THN   Thein Dam        59.88 284 eP       P       03 50 54.9 -3.3
KKM   Kota Kinabalu    59.90 231 P        P       03 50 59.8 +1.3
      comp=Z,2µm,1.5s
KKM   Kota Kinabalu    59.90 231 P        P       03 51 00.1 +1.6
      comp=Z,26µmcomp=Z,28µmcomp=Z,2µm,1.5s
DOMB  Dombas           60.00 344 eP       P       03 50 57.1 -1.3
DOMB                             IVmB             03 51 00.3
      comp=Z,4µm,3.4s
DOMB                             IVmB_BB          03 51 01.2
      comp=Z,4µm,2.0s
DOMB                             eScP     ScP     03 55 08.6 +1.5
DOMB                             eS       S       03 58 40.4 -2.0
DOMB                             eScS     ScS     04 00 09.8 -2.9
MWPI  Manokwari, Pap   60.01 208 P        P       03 51 01.4 +2.4
      comp=Z,47µmcomp=Z,3µm,1.4s
RABL  Rabaul           60.08 187 P        P       03 50 59.7 +0.2
SMLA  Simla            60.11 282 eP       P       03 50 57.1 -2.5
JMU   Jammu            60.13 285 eP       P       03 50 57.5 -2.3
GENI  Genyem           60.16 201 P        P       03 51 01.7 +1.6
      comp=Z,1µm,1.9s
GENI  Genyem           60.16 201 P        P       03 51 02.5 +2.4
      comp=Z,31µmcomp=Z,29µmcomp=Z,1µm,1.9s
AKN   Aaknes           60.18 345 eP       P       03 50 59.9 +0.2
AKN                              IVmB_BB          03 51 02.0
      comp=Z,6µm,3.4s
AKN                              epP      pP      03 52 13.3 -0.8
AKN                              eS       S       03 58 46.4 +1.7
AKN                              eScS     ScS     04 00 16.2 +2.2
PFO   Pinyon Flats O   60.31  73d iP      P       03 51 00.9 -0.2
PFO                              pmax     pmax
      comp=Z,393nm,1.4s
PFO   Pinyon Flats O   60.31  73 P        P       03 51 01.4 +0.2
PFO                              pP       pP      03 52 17.0 +1.3
PFO                              sP       sP      03 52 50.1 -3.5
PFO                              S        S       03 58 52.4 +4.9
NIL   Nilore           60.33 287 P        P       03 51 01.2 +0.1
NIL   Nilore           60.33 287 P        P       03 51 01.6 +0.5
BHK   Bhakra           60.34 283 eP       P       03 50 56.6 -4.6
BRCI  Bahraich         60.38 276 eP       P       03 50 58.5 -3.0
TNTI  Ternate          60.41 216 P        P       03 51 02.1 +0.3
      comp=Z,970nm,1.2s
TNTI  Ternate          60.41 216 P        P       03 51 02.1 +0.3
TNTI  Ternate          60.41 216 P        P       03 51 02.3 +0.5
      comp=Z,15µmcomp=Z,973nm,1.2s
PV21  Cone Mtn., Par   60.47  64 P        P       03 51 02.1 -0.2
GAYA  Gaya             60.49 271 eP       P       03 50 59.3 -2.9
CAL   Calcutta         60.52 267 eP       P       03 50 59.5 -2.9
PV23  Carpenter Ridg   60.54  64 P        P       03 51 02.9 +0.2
PV10  Paradox Valley   60.58  64 P        P       03 51 03.4 +0.4
PV22  Blue Mesa, Par   60.59  64 P        P       03 51 02.8 -0.2
NB2   NORSAR Subarra   60.59 342 P        P       03 51 01.9 -0.6
      comp=Z,943nm,1.7s,baz=21,slow=6.9
NB2                              P'P'             04 20 10.2
      comp=Z,3.4nm,0.8s,baz=207,slow=4.0
NB2   NORSAR Subarra   60.59 342 P        P       03 51 03.7 +1.2
NB2                              pmax     pmax
      comp=Z,1µm,1.9s
NB2   NORSAR Subarra   60.59 342 P        P       03 51 01.9 -0.6
NOA   NORSAR Array B   60.59 342 P        P       03 51 02.4 -0.1
      comp=Z,103nm,0.8s,baz=21,slow=6.7,SNR=183
      comp=Z,103nm,0.8s
CGRH  CHANDIGARH       60.63 282 eP       P       03 51 01.6 -1.6
PV04  Paradox Valley   60.64  64 P        P       03 51 03.3  0.0
PV20  West Nyswonger   60.64  64 P        P       03 51 03.4 +0.1
MNI   Manado           60.66 219 P        P       03 51 04.2 +0.7
      comp=Z,29µmcomp=Z,39µmcomp=Z,3µm,1.2s
TKRD  Thakurdwara      60.70 279 eP       P       03 51 00.3 -3.3
SWI   Sorong           60.73 212 P        P       03 51 04.6 +0.7
SUSD  Miller           60.77  53 P        P       03 51 03.4 -0.5
NC602 NORSAR Array S   60.83 342 eP       P       03 51 04.1 +0.2
NC602                            IVmB_BB          03 51 05.5
      comp=Z,4µm,3.8s
NC602                            epP      pP      03 52 17.9 -0.7
NC602                            eS       S       03 58 52.8  0.0
NC602                            eScS     ScS     04 00 18.8  0.0
NORES NORESS Array B   60.83 342 P        P       03 51 05.5 +1.6
F33A  5 Mile Ranch,    60.86  51 P        P       03 51 04.1 -0.4
BOK   Bokaro           60.91 270 eP       P       03 51 02.3 -2.7
LPSR  Galich'ya Gora   60.97 323 eP       P       03 51 02.5 -2.5
LPSR                             e*PP     pP      03 52 19.0 -0.7
LPSR                             eS       S       03 58 46.7 -8.1
LPSR                             e                04 00 13.3
LPSR                             pmax     pmax
      comp=Z,130nm,0.8s
LPSR                             smax     smax
      comp=N,6µm,8.5s
HFS   Hagfors          61.00 341 P        P       03 51 04.3 -0.8
      comp=N,45nm,0.5s,baz=14,slow=3.7,SNR=44
HFS                              S        S       03 58 54.9  0.0
      comp=N,11nm,0.9s,baz=340,slow=6.3,SNR=5.8
      comp=N,45nm,0.5s
FOO   Floro            61.02 346 eP       P       03 51 05.6 +0.5
FOO                              IVmB             03 51 07.4
      comp=Z,3µm,2.4s
FOO                              epP      pP      03 52 18.7 -1.1
FOO                              eS       S       03 58 55.1  0.0
FOO                              eScS     ScS     04 00 21.9 +1.7
VRH   Novokhopyorsk    61.14 320 eP       P       03 51 03.6 -2.5
VRH                              e*PP     pP      03 52 20.0 -0.9
VRH                              eS       S       03 58 53.3 -3.6
VRH                              pmax     pmax
      comp=Z,80nm,0.8s
VRH                              smax     smax
      comp=N,7µm,8.2s
CBX   Cerro Bola       61.19  74 P        P       03 51 07.3 +0.3
CBX                              IAmb     IAmb    03 51 11.6
      comp=Z,287nm,1.0s
ISCO  Idaho Springs    61.21  61 P        P       03 51 07.4 +0.2
ISCO                             pmax     pmax
      comp=Z,1µm,1.7s
ISCO  Idaho Springs    61.21  61 P        P       03 51 07.4 +0.2
HYA   Hoyanger         61.27 345 eP       P       03 51 07.6 +0.8
HYA                              IVmB_BB          03 51 09.1
      comp=Z,5µm,3.5s
HYA                              epP      pP      03 52 21.1 -0.5
HYA                              eS       S       03 58 59.9 +1.7
HYA                              eScS     ScS     04 00 22.9 +0.8
HYA                              eSS      SS      04 03 02.3 -2.0
VAR   Varanasi         61.38 273 eP       P       03 51 05.4 -2.8
IVI   Ivigtut          61.39  14 i P      P       03 51 07.4 -0.3
IVI                              IAmb     IAmb    03 51 08.5
      comp=Z,179nm,0.7s
LKN   LUCKNOW          61.40 276 eP       P       03 51 06.0 -2.3
SKAR  Skarslia         61.41 344 eP       P       03 51 07.3 -0.6
SKAR                             IVmB_BB          03 51 10.2
      comp=Z,4µm,3.8s
SKAR                             eS       S       03 59 00.5 +0.2
SKAR                             eScS     ScS     04 00 24.1 +0.7
MERT  Meerut           61.45 280 eP       P       03 51 06.0 -2.6
CCX   Cicese           61.53  75 P        P       03 51 09.3 +0.2
WUAZ  Wupatki          61.56  68 P        P       03 51 09.8 +0.3
WUAZ                             IAmb     IAmb    03 51 15.4
      comp=Z,493nm,1.1s
SUE   Sulen            61.58 346 eP       P       03 51 09.6 +0.7
SUE                              IVmB_BB          03 51 11.2
      comp=Z,5µm,3.9s
SUE                              eS       S       03 59 02.3 +0.2
SUE                              eScS     ScS     04 00 26.5 +2.1
ASOR  Ausora           61.60 280 eP       P       03 51 06.8 -2.7
VORR  Voronezh         61.64 322 eP       P       03 51 07.9 -1.6
VORR                             e*PP     pP      03 52 24.8 +0.4
VORR                             eS       S       03 58 58.1 -5.1
VORR                             e                04 00 18.1
VORR                             pmax     pmax
      comp=Z,30nm,0.8s
VORR                             smax     smax
      comp=N,5µm,7.1s
OSL   Oslo             61.72 342 eP       P       03 51 11.0 +1.2
OSL                              IVmB_BB          03 51 12.1
      comp=Z,5µm,2.2s
OSL                              epP      pP      03 52 23.0 -1.7
OSL                              eS       S       03 59 05.8 +1.9
OSL                              eScS     ScS     04 00 25.9 +0.3
WAMI  Wamena           61.72 202 P        P       03 51 15.0 +4.5
TARAI Tarakan          61.76 228 P        P       03 51 13.1 +2.3
NRS   Narsarsuaq       61.80  13 i P      P       03 51 09.7 -0.6
NRS                              IAmb     IAmb    03 51 12.1
      comp=Z,226nm,1.1s
K30B  Basset           61.85  55 P        P       03 51 11.3 +0.2
UGON  Onchagaon        61.87 280 eP       P       03 51 08.2 -3.1
KBL   Kabul            61.89 291 P        P       03 51 10.0 -1.7
      SNR=120
KBL                              S        S       03 59 02.2 -5.1
KBL   Kabul            61.89 291 P        P       03 51 10.3 -1.4
BISR  Bishrakh         61.93 280 eP       P       03 51 09.0 -2.7
NDI   New Delhi        61.96 280 eP       P       03 51 09.4 -2.6
JMIU  JAMIA UNIVERSI   62.01 280 eP       P       03 51 09.4 -2.9
ALBI  Allahabad        62.02 274 eP       P       03 51 09.8 -2.6
ALBI                             IAmb     IAmb    03 51 12.0
      comp=Z,325nm,0.5s
NPLP  NPLP New Delhi   62.02 280 eP       P       03 51 09.6 -2.8
VSR   Storozhevoye     62.04 322 eP       P       03 51 09.9 -2.2
VSR                              e*PP     pP      03 52 25.7 -1.4
VSR                              eS       S       03 59 02.9 -5.2
VSR                              pmax     pmax
      comp=Z,90nm,1.1s
VSR                              smax     smax
      comp=N,8µm,9.5s
LDR   Lodi Road        62.04 280 eP       P       03 51 09.5 -3.0
ASK   Askoy            62.07 345 eP       P       03 51 13.2 +1.1
ASK                              IVmB             03 51 14.7
      comp=Z,5µm,2.0s
ASK                              eS       S       03 59 08.8 +0.6
ASK                              eSKSac   ScS     04 00 29.7 +1.5
GTOI  Gorontalo        62.07 221 P        P       03 51 13.3 +0.5
      comp=Z,23µmcomp=Z,19µmcomp=Z,838nm,1.8s
Q24A  Divide           62.08  61 P        P       03 51 13.1 +0.1
Q24A                             IAmb     IAmb    03 51 17.6
      comp=Z,657nm,2.0s
BHGR  Bahadurgarh      62.11 281 eP       P       03 51 10.3 -2.7
BER   Bergen           62.14 345 eP       P       03 51 13.1 +0.5
BER                              IVmB             03 51 14.9
      comp=Z,4µm,2.2s
BER                              epP      pP      03 52 26.5 -1.2
BER                              eS       S       03 59 10.8 +1.7
BER                              eSKSac   ScS     04 00 30.4 +1.7
AYAN  Aya Nagar        62.17 280 eP       P       03 51 10.9 -2.4
AYAN                             IAmb     IAmb    03 51 14.0
      comp=Z,210nm,0.6s
KONO  Kongsberg        62.18 343d iP      P       03 51 13.7 +0.8
KONO                             pmax     pmax
      comp=Z,257nm,1.4s
KONO  Kongsberg        62.18 343 eP       P       03 51 12.2 -0.7
KONO                             IVmB_BB          03 51 15.3
      comp=Z,3µm,3.8s
KONO                             epP      pP      03 52 26.5 -1.5
KONO                             eScP     ScP     03 55 19.6 +2.9
KONO                             eS       S       03 59 09.1 -0.6
KONO                             eSKSac   ScS     04 00 30.0 +0.9
KONO  Kongsberg        62.18 343 P        P       03 51 13.0 +0.1
KONO                             IAmb     IAmb    03 51 16.3
      comp=Z,600nm,1.8s
E38A  The Farm, Brul   62.27  47 P        P       03 51 12.8 -0.9
ECSD  EROS Data Cent   62.38  52 P        P       03 51 14.0 -0.5
ECSD                             IAmb     IAmb    03 51 16.9
      comp=Z,332nm,0.7s
FAKI  Fak Fak          62.40 210 P        P       03 51 15.6 +0.7
      comp=Z,2µm,1.5s
FAKI  Fak Fak          62.40 210 P        P       03 51 16.3 +1.4
      comp=Z,27µmcomp=Z,28µmcomp=Z,2µm,1.6s
ODD1  Odda             62.40 344 eP       P       03 51 14.8 +0.3
ODD1                             IVmB_BB          03 51 16.8
      comp=Z,4µm,3.7s
ODD1                             eS       S       03 59 13.8 +1.3
ODD1                             eSKSac   ScS     04 00 31.1 +0.1
TOLI2 Tolitoli         62.48 224 P        P       03 51 15.0 -0.5
      comp=Z,3µm,1.2s
STRU  Stroemstad       62.49 342 i P      P       03 51 13.4 -1.5
KMPI  Kaimana, Papua   62.71 208 P        P       03 51 18.2 +1.2
      comp=Z,20µmcomp=Z,34µmcomp=Z,3µm,1.3s
BNDA  BANDA            62.71 276 eP       P       03 51 13.8 -3.1
NACGM Naroch           62.74 331 i P      P       03 51 17.1 +0.4
KUDL  Kundal           62.78 281 eP       P       03 51 15.0 -2.4
MNK   Minsk            62.79 330 i P      P       03 51 17.6 +0.7
MNK                              i                03 51 52.2
MNK                              i *PP    pP      03 52 34.4 +2.2
MNK                              i *SP    sP      03 53 11.8 +2.0
MNK                              i                03 53 40.7
MNK                              i PPP    PPP     03 55 15.8
MNK                              i S      S       03 59 18.3 +1.0
MNK                              i PS             03 59 30.5
MNK                              i                04 00 30.3
MNK                              i SS     SS      04 03 28.8 +0.6
MNK                              pmax     pmax
      comp=N,26nm,1.0s
MNK                              pmax     pmax
      comp=E,75nm,1.0s
MNK                              pmax     pmax
      comp=Z,114nm,0.9s
MNK   Minsk            62.79 330 i P      P       03 51 17.6 +0.7
      comp=E,75nm,1.0s
MNK                              i P      P       03 51 17.6 +0.7
      comp=N,26nm,1.0s
MNK                              i P      P       03 51 17.6 +0.7
      comp=Z,114nm,0.9s,baz=29
MNK                              i pP     pP      03 52 34.4 +2.2
MNK                              i sP     sP      03 53 11.9 +2.0
MNK                              i PP     PP      03 53 40.8 +1.4
MNK                              i PPP    PPP     03 55 15.9
MNK                              i S      S       03 59 18.4 +1.0
MNK                              i PS             03 59 30.5
MNK                              i sS     sS      04 01 35.5 +4.1
MNK                              i SS     SS      04 03 28.8 +0.6
MNK                              i SSS    SSS     04 06 41.1
SRGN  SRI GANGA NAGA62.84 284 eP       P       03 51 15.1 -2.6
BLS5  Blasjo           62.90 344 eP       P       03 51 18.1 +0.4
BLS5                             epP      pP      03 52 31.6 -1.3
BLS5                             eS       S       03 59 17.5 -1.1
BLS5                             eSKSac   ScS     04 00 36.9 +2.2
BLS5                             eSS      SS      04 03 33.2 +3.4
LRW   Lerwick          63.21 349 eP       P       03 51 19.9 +0.3
LRW                              IAmb     IAmb    03 51 23.8
      comp=Z,38nm,0.8s
KMY   Karmoy           63.28 345 eP       P       03 51 21.2 +1.2
KMY                              IVmB_BB          03 51 22.6
      comp=Z,4µm,2.1s
KMY                              epP      pP      03 52 34.4 -1.0
KMY                              eS       S       03 59 23.8 +0.6
KMY                              eSKSac   ScS     04 00 39.1 +1.6
TJOU  Tjoern           63.35 341 i P      P       03 51 20.0 -0.5
SANI  Sanana           63.51 217 P        P       03 51 21.3 -0.9
SANI  Sanana           63.51 217 P        P       03 51 22.0 -0.2
      comp=Z,1µm,1.3s
SANI  Sanana           63.51 217 P        P       03 51 22.5 +0.3
      comp=Z,26µmcomp=Z,24µmcomp=Z,1µm,1.3s
SCHQ  Schefferville    63.62  27 P        P       03 51 21.3 -1.2
      comp=Z,134nm,0.7s,baz=353,slow=5.5,SNR=75
SCHQ                             PKPPKP   P'P'df  04 20 14.7 -0.5
      comp=Z,89nm,1.3s,baz=110,slow=2.7,SNR=9.2
      comp=Z,134nm,0.7s
SCHQ  Schefferville    63.62  27 P        P       03 51 20.9 -1.6
SCHQ                             IAmb     IAmb    03 51 24.4
      comp=Z,216nm,1.1s
HOMB  Homborsund       63.67 343 eP       P       03 51 23.4 +0.8
HOMB                             IVmB_BB          03 51 24.9
      comp=Z,3µm,3.9s
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HOMB                                 epP     pP      03 52 36.5 -1.6
HOMB                                 eS      S       03 59 27.8 -0.2
HOMB                                 eSKSac  ScS     04 00 41.8 +1.3
HOMB  Homborsund       63.67 343 i P     P       03 51 22.4 -0.2
JHNI  Jhansi           63.70 277 eP      P       03 51 20.4 -3.0
LUWI  Luwuk            63.71 221  P      P       03 51 21.3 -2.2
LUWI  Luwuk            63.71 221  P      P       03 51 22.3 -1.2
      comp=Z,1µm,1.3s
LUWI  Luwuk            63.71 221  P      P       03 51 23.3 -0.2
      comp=Z,19µmcomp=Z,1µm,1.1s
BWNR  Bhubaneshwar     63.74 268 eP      P       03 51 21.1 -2.6
MSAI  Masohi           63.78 213  P      P       03 51 27.2 +3.3
      comp=Z,30µmcomp=Z,19µmcomp=Z,1µm,1.2s
SNART Snartemo         63.82 344 eP      P       03 51 23.7 +0.1
SNART                             IVmB           03 51 26.1
      comp=Z,3µm,2.1s
SNART                            epP     pP      03 52 38.3 -0.8
SNART                            eS      S       03 59 33.1 +3.3
SNART Snartemo         63.82 344 i P     P       03 51 22.0 -1.6
ONAU  Onsala           63.90 341 i P     P       03 51 22.4 -1.7
APSI  Ampana           64.01 222  P      P       03 51 26.2 +0.8
TATA  Tatamba Isabel   64.04 178  P      P       03 51 26.8 +1.3
      comp=Z,514nm,1.8s
KHAM  Kharkiv          64.07 323  P      P       03 51 25.5 +0.1
FABU  Falkenberg       64.11 340 i P     P       03 51 24.8 -0.7
BLEU  Blekinge         64.14 338 i P     P       03 51 23.6 -2.1
NLAI  Namlea           64.26 215  P      P       03 51 28.9 +1.9
      comp=Z,29µmcomp=Z,17µmcomp=Z,873nm,1.2s
XMAS  Kiritimati       64.30 129  P      P       03 51 29.4 +2.1
      comp=Z,140nm,1.9s
TUC   Tucson           64.35  70  P      P       03 51 28.2 +0.6
TUC   Tucson           64.35  70  P      P       03 51 28.0 +0.5
TUC                               pP     pP      03 52 41.7 -1.5
TUC                               sP     sP      03 53 16.9 -3.8
TUC                               S      S       03 59 39.7 +2.4
DEL   Delary           64.38 339 i P     P       03 51 25.0 -2.3
ANMO  Albuquerque      64.55  65ceP      P       03 51 29.1 +0.2
ANMO                              pmax   pmax
      comp=Z,219nm,1.3s
ANMO  Albuquerque      64.55  65  P      P       03 51 29.4 +0.4
ANMO                              pP     pP      03 52 43.0 -1.9
ANMO                              sP     sP      03 53 22.6 +0.1
ANMO                              S      S       03 59 46.0 +6.1
BNDI  Bandanaira       64.60 212  P      P       03 51 30.0 +0.8
      comp=Z,4µm,1.3s
BNDI  Bandanaira       64.60 212  P      P       03 51 30.5 +1.3
BKNR  BIKANER          64.65 283 eP      P       03 51 28.2 -1.3
PCI   Palu             64.69 224  P      P       03 51 30.7 +0.9
SAVO  Savo Central     64.79 178  P      P       03 51 30.6 +0.2
      comp=Z,689nm,1.8s
GUNA  GUNA             65.04 277 eP      P       03 51 29.4 -2.7
HNR   Honiara          65.08 178  P      P       03 51 33.9 +1.7
AJM   Ajmer            65.16 281 eP      P       03 51 30.3 -2.5
AJM                               IAmb   IAmb    03 51 34.3
      comp=Z,2µm,1.9s
LUNU  Lund             65.25 339 i P     P       03 51 32.6 -0.3
MUD   Monsted U'grnd   65.28 342 i P     P       03 51 33.0  0.0
MUD                               IAmb   IAmb    03 51 36.6
      comp=Z,212nm,1.5s
COP   Copenhagen       65.41 340 i P     P       03 51 33.2 -0.6
COP                               IAmb   IAmb    03 51 36.9
      comp=Z,152nm,0.7s
BSD   Bornholm Skovb   65.43 338 i P     P       03 51 33.8 -0.2
BSD                               IAmb   IAmb    03 51 36.7
      comp=Z,89nm,0.8s
MAK   Makhachkala      65.60 311c iP     P       03 51 35.3 +0.1
MAK                              e*PP    pP      03 52 50.3 -0.9
MAK                              e*SP    sP      03 53 28.6  0.0
MAK                              e               03 54 03.8
MAK                              ePPP    PPP     03 55 47.3
MAK                              eS      S       03 59 53.6 +1.7
MAK                              eSS     SS      04 04 13.3 +1.0
MAK                               pmax   pmax
      comp=Z,139nm,0.9s
GOF   Gofitskoye       65.70 315c iP     P       03 51 36.3 +0.4
GOF                              eS      S       03 59 55.3 +2.1
AK23  Malin Array Si   65.71 327  P      P       03 51 34.9 -0.9
AK03  Malin Array Si   65.72 327  P      P       03 51 35.0 -0.9
PMG   Port Moresby     65.72 192  P      P       03 51 37.0 +0.7
      comp=Z,889nm,1.4s
PMG   Port Moresby     65.72 192c iP     P       03 51 36.9 +0.7
PMG                               pmax   pmax
      comp=Z,1µm,1.5s
PMG   Port Moresby     65.72 192  P      P       03 51 37.4 +1.1
PMG                               pP     pP      03 52 54.1 +1.6
PMG                               sP     sP      03 53 31.9 +2.0
AK21  Malin Array Si   65.73 327  P      P       03 51 35.0 -0.9
AK22  Malin Array Si   65.73 327  P      P       03 51 35.1 -0.8
AK04  Malin Array Si   65.73 327  P      P       03 51 35.1 -0.9
AKASG Malin Array Be   65.74 327  P      P       03 51 35.2 -0.8
      comp=Z,24nm,0.3s,baz=31,slow=7.0,SNR=117
AKASG                             PP     PP      03 54 01.3 -3.8
      comp=Z,12nm,0.6s,baz=31,slow=7.5,SNR=5.4
AKASG                             S      S       03 59 48.2 -5.1
      comp=Z,3.1nm,0.8s,baz=27,slow=13,SNR=4.9
AKASG                             PKPPKP P'P'df  04 20 08.8 -2.5
      comp=Z,2.3nm,0.8s,baz=224,slow=2.5,SNR=8.1
      comp=Z,24nm,0.3s
AKASG Malin Array Be   65.74 327ceP      P       03 51 35.2 -0.8
AKASG                             pmax   pmax
      comp=Z,26nm,0.3s
AKBB  Malin Array Si   65.74 327deP      P       03 51 35.3 -0.7
AKBB                              pmax   pmax
      comp=Z,125nm,1.1s
AKBB  Malin Array Si   65.74 327  P      P       03 51 35.1 -0.9
KIEV  Kiev             65.75 327  P      P       03 51 35.4 -0.6
KIEV  Kiev             65.75 327 i P     P       03 51 35.4 -0.6
      SNR=57
KIEV  Kiev             65.75 327 ⇓P      P       03 51 35.5 -0.6
KIEV  Kiev             65.75 327  P      P       03 51 35.1 -0.9
      comp=Z,11µmcomp=Z,348nm,1.1s
KIEV  Kiev             65.75 327  P      P       03 51 35.9 -0.2
KIEV                              pP     pP      03 52 50.1 -1.9
KIEV                              sP     sP      03 53 27.5 -2.0
KIEV                              S      S       03 59 55.0 +1.6
AK01  Malin Array Si   65.75 327  P      P       03 51 35.2 -0.9
AK20  Malin Array Si   65.77 327  P      P       03 51 35.3 -0.9
AK18  Malin Array Si   65.77 327  P      P       03 51 35.3 -0.9
AK15  Malin Array Si   65.77 327  P      P       03 51 35.3 -0.9
AK11  Malin Array Si   65.77 327  P      P       03 51 35.4 -0.8
AK02  Malin Array Si   65.78 327  P      P       03 51 35.4 -0.9
AK19  Malin Array Si   65.78 327  P      P       03 51 35.4 -0.9
AK08  Malin Array Si   65.79 327  P      P       03 51 35.4 -0.9
AK09  Malin Array Si   65.79 327  P      P       03 51 35.5 -0.9
AK16  Malin Array Si   65.80 327  P      P       03 51 35.5 -0.9
AK17  Malin Array Si   65.80 327  P      P       03 51 35.5 -0.9
AK12  Malin Array Si   65.81 327  P      P       03 51 35.6 -0.8
AK05  Malin Array Si   65.81 327  P      P       03 51 35.6 -0.9
AK10  Malin Array Si   65.82 327  P      P       03 51 35.6 -0.9
AK14  Malin Array Si   65.83 327  P      P       03 51 35.7 -0.9
MMPI  Merauke          65.84 200  P      P       03 51 39.4 +2.4
      comp=Z,21µmcomp=Z,40µmcomp=Z,3µm,1.3s
AK06  Malin Array Si   65.85 327  P      P       03 51 35.8 -0.9
AK13  Malin Array Si   65.86 327  P      P       03 51 35.9 -0.9
AK07  Malin Array Si   65.88 327  P      P       03 51 36.0 -0.9
RAGD  RAYAGADA         65.88 269 eP      P       03 51 35.0 -2.4
MCD   Coleburn Disti   65.94 349 eP      P       03 51 37.0 -0.2
MCD                               IAmb   IAmb    03 51 41.4
      comp=Z,76nm,0.7s
RNPP9 Sopachiv         66.09 330  P      P       03 51 37.7 -0.5
SSRD  Sdr. Stenderup   66.13 341 i P     P       03 51 38.5 +0.2
SSRD                              IAmb   IAmb    03 51 41.8
      comp=Z,133nm,1.1s
ERBR  Yeremizino-Bor   66.15 317 eP      P       03 51 38.4 -0.3
ERBR                             e*PP    pP      03 52 55.1 +0.3
ERBR                             e               03 54 09.3
ERBR                             ePPP    PPP     03 55 50.6
ERBR                             eS      S       03 59 59.8 +1.3
ERBR                              pmax   pmax
      comp=Z,252nm,1.3s
HURO  Huro Makira      66.16 176  P      P       03 51 40.0 +1.0
      comp=Z,540nm,1.6s
RNPP8 Varash           66.17 330  P      P       03 51 38.2 -0.5
BKB   Balikpapan       66.19 226  P      P       03 51 40.4 +1.1
      comp=Z,5µm,1.2s
BKB   Balikpapan       66.19 226  P      P       03 51 40.9 +1.6
RNPP5 Staryi Chortor   66.25 330  P      P       03 51 39.1 -0.1
RGN   Rugen            66.30 339 eP      P       03 51 40.2 +0.8
      comp=Z,197nm,0.7s,baz=19,slow=6.0
KPL   Plockton         66.41 351 eP      P       03 51 40.5 +0.4
KPL                               IAmb   IAmb    03 51 44.4
      comp=Z,34nm,0.7s
KDI   Kendari          66.46 220  P      P       03 51 43.0 +2.0
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      comp=Z,21µmcomp=Z,19µmcomp=Z,884nm,1.4s
DRUM  Mains of Drumt   66.51 349 eP      P       03 51 40.3 -0.5
DRUM                              IAmb   IAmb    03 51 42.6
      comp=Z,45nm,0.5s
R9F13 Warsaw-Wawer     66.64 333 eP      P       03 51 43.4 +1.7
      comp=Z,2.2nm,1.1s
R9F13                            eS      S       04 00 07.9 +3.8
R9F13                            eSKS    SKiKP   04 01 05.4 +0.2
MMSI  Mamuju           66.69 224  P      P       03 51 43.1 +0.6
      comp=Z,21µmcomp=Z,33µmcomp=Z,3µm,1.2s
AKT   Akhty            66.71 310 eP      P       03 51 41.7 -0.8
AKT                              e*PP    pP      03 52 59.0 +0.3
AKT                              e*SP    sP      03 53 36.4 +0.3
AKT                              ePPP    PPP     03 55 55.5
AKT                              eS      S       04 00 05.6  0.0
AKT                              e               04 01 03.3
AKT                              eSS     SS      04 04 31.5 +1.7
AKT                               pmax   pmax
      comp=Z,275nm,1.6s
AKT                               MLR    MLR
      comp=Z,3µm,15.0s
KIV   Kislovodsk       66.76 315  P      P       03 51 43.2 +0.4
KIV                               S      S       04 00 05.3 -0.8
KIV   Kislovodsk       66.76 315 eP      P       03 51 42.5 -0.2
KIV                              e*PP    pP      03 52 59.4 +0.5
KIV                              e*SP    sP      03 53 37.4 +1.1
KIV                              e               03 54 11.5
KIV                              ePPP    PPP     03 55 55.8
KIV                              eS      S       04 00 04.7 -1.3
KIV                              eSS     SS      04 04 32.3 +1.9
KIV                               pmax   pmax
      comp=Z,61nm,1.1s
KIV   Kislovodsk       66.76 315 i P     P       03 51 43.2 +0.4
      SNR=26
KIV   Kislovodsk       66.76 315 ⇓P      P       03 51 43.3 +0.5
KIV   Kislovodsk       66.76 315  P      P       03 51 42.6 -0.2
      comp=Z,2µmcomp=Z,61nm,0.7s
KIV   Kislovodsk       66.76 315  P      P       03 51 42.6 -0.1
KIV                               pP     pP      03 53 02.5 +3.5
KIV                               S      S       04 00 08.3 +2.3
KIV                               x      x       04 00 09.0
NCK   Nalchik          66.78 314⇓iP      P       03 51 43.5 +0.8
NCK                               pmax   pmax
      comp=Z,119nm,1.2s
NGP   Nagpur           66.83 274 eP      P       03 51 40.2 -3.2
PBA   Port Blair       66.85 256  P      P       03 51 43.1 -0.4
      SNR=21
PBA   Port Blair       66.85 256 eP      P       03 51 41.6 -1.9
KBZ   Khabaz           66.87 315  P      P       03 51 43.5 +0.2
      comp=Z,78nm,1.0s,baz=62,slow=5.7,SNR=84
KBZ                               S      S       04 00 09.9 +2.9
      comp=Z,31nm,1.3s,baz=18,slow=20,SNR=22
      comp=Z,78nm,1.0s
KBZ   Khabaz           66.87 315c iP     P       03 51 43.3 +0.1
KBZ                               pmax   pmax
      comp=Z,167nm,1.4s
LUBAR Lubar, Ukraine   66.87 328  P      P       03 51 42.6 -0.5
SHA1  Shidzhatmaz      66.96 315c iP     P       03 51 43.9 -0.2
LABN  Labinsk          66.96 317 eP      P       03 51 44.2 +0.4
LABN                             e*PP    pP      03 53 00.5 +0.4
LABN                             ePPP    PPP     03 55 59.6
LABN                             eS      S       04 00 10.5 +2.3
LABN                              pmax   pmax
      comp=Z,107nm,1.0s
KKSI  Kolaka, Sulawe   67.01 220  P      P       03 51 46.1 +1.6
      comp=Z,18µmcomp=Z,19µmcomp=Z,1µm,1.3s
UDPR  Udaipur          67.11 280 eP      P       03 51 42.6 -2.5
INVG  Invergeldie, C   67.16 350 eP      P       03 51 44.2 -0.6
INVG                              IAmb   IAmb    03 51 47.3
      comp=Z,29nm,0.7s
SEKA  Sheki            67.16 310  P      P       03 51 46.2 +1.0
VIS   Vishakhapatnam   67.17 268 eP      P       03 51 43.1 -2.3
NGOA  Tingoa Renbel    67.19 178  P      P       03 51 46.0 +0.5
      comp=Z,1µm,1.3s
STKI  Sintang          67.32 232  P      P       03 51 48.7 +2.3
      comp=Z,25µmcomp=Z,34µmcomp=Z,3µm,1.2s
EAB   Aberfoyle        67.42 350 eP      P       03 51 46.2 -0.2
EAB                               IAmb   IAmb    03 51 51.2
      comp=Z,59nm,0.7s
PMSI  Majene           67.43 223  P      P       03 51 48.9 +1.8
      comp=Z,23µmcomp=Z,19µmcomp=Z,1µm,1.7s
LAWE  Loch Awe, Argy   67.45 350 eP      P       03 51 46.5 -0.2
LAWE                              IAmb   IAmb    03 51 51.3
      comp=Z,71nm,0.8s
BSEG  Bad Segeberg     67.47 340 eP      P       03 51 47.3 +0.6
      comp=Z,173nm,1.4s,baz=19,slow=6.0
SAUI  Saumlaki         67.49 209  P      P       03 51 49.5 +2.1
      comp=Z,3µm,1.3s
SAUI  Saumlaki         67.49 209  P      P       03 51 50.0 +2.6
      comp=Z,3µm,1.3s
SPSI  Sidrap Palu      67.52 222  P      P       03 51 48.3 +0.7
      comp=Z,29µmcomp=Z,2µm,1.3s
EDI   Edinburgh        67.56 349 eP      P       03 51 46.9 -0.4
EDI                               IAmb   IAmb    03 51 51.9
      comp=Z,32nm,0.7s
HLG   Helgoland        67.68 342 eP      P       03 51 49.8 +1.8
      comp=Z,136nm,1.0s,baz=19,slow=6.0
PGBU  Glenifferbraes   67.81 350 eP      P       03 51 48.8  0.0
PGBU                              IAmb   IAmb    03 51 53.8
      comp=Z,272nm,0.8s
BBSI  Bau Bau          67.90 219  P      P       03 51 52.6 +2.6
      comp=Z,25µmcomp=Z,27µmcomp=Z,1µm,1.2s
GANJ  Ganja            68.00 311  P      P       03 51 51.5 +1.1
ANN   Anapa            68.07 319 eP      P       03 51 50.3 -0.4
ANN                              e*PP    pP      03 53 06.8 -0.4
ANN                              e               03 54 25.3
ANN                              ePPP    PPP     03 56 09.3
ANN                              eS      S       04 00 21.4 +0.2
ANN                               pmax   pmax
      comp=Z,89nm,1.4s
EKA   Eskdalemuir Ar   68.14 349  P      P       03 51 50.5 -0.4
      comp=Z,25nm,0.5s,baz=20,slow=5.2,SNR=182
EKA                               pP     pP      03 53 06.6 -0.9
      comp=Z,11nm,0.6s,baz=20,slow=5.5,SNR=2.1
EKA                               PKPPKP P'P'df  04 19 58.1  -10
      comp=Z,3.2nm,0.7s,baz=174,slow=2.4,SNR=8.3
      comp=Z,25nm,0.5s
RUE   Ruedersdorf      68.14 338 eP      P       03 51 52.5 +1.6
      comp=Z,239nm,1.3s,baz=19,slow=6.0
ESK   Eskdalemuir      68.16 349ceP      P       03 51 51.0  0.0
ESK   Eskdalemuir      68.16 349 eP      P       03 51 50.8 -0.2
ESK                               IAmb   IAmb    03 51 53.9
      comp=Z,45nm,0.6s
GORT1 Trebel           68.17 339 eP      P       03 51 52.6 +1.5
      comp=Z,3.6nm,1.6s,baz=19,slow=6.0
VSLR  Vesyoloye        68.22 316d iP     P       03 51 51.8 +0.1
VSLR                              pmax   pmax
      comp=Z,313nm,1.4s
SOC   Sochi            68.24 317 eP      P       03 51 50.9 -0.9
SOC                              ePPP    PPP     03 56 07.8
SOC                              eS      S       04 00 22.7 -0.6
SOC                              eSS     SS      04 04 54.9 +2.0
SOC                              eSSS    SSS     04 08 07.5
SOC                               pmax   pmax
      comp=Z,82nm,1.4s
SORM  Soroca           68.27 327  P      P       03 51 51.4 -0.4
SORM  Soroca           68.27 327 ⇑P      P       03 51 51.5 -0.4
SORM  Soroca           68.27 327  P      P       03 51 51.1 -0.7
      comp=Z,3µmcomp=Z,147nm,1.0s
PKKI  Palangkaraya     68.29 229  P      P       03 51 54.6 +2.2
      comp=Z,42µmcomp=Z,3µm,1.2s
AKL   Akola            68.34 275 eP      P       03 51 50.0 -2.8
AKL                               IAmb   IAmb    03 51 54.5
      comp=Z,1µm,1.4s
NEWG  New Galloway     68.47 349 eP      P       03 51 52.5 -0.4
NEWG                              IAmb   IAmb    03 51 55.2
      comp=Z,28nm,0.7s
KMPD  K-Podol'skiy     68.47 328  P      P       03 51 51.8 -1.2
IPM   Ipoh             68.48 245  P      P       03 51 53.0 -0.6
      comp=Z,1µm,1.2s
KAPI  Kappang          68.50 222  P      P       03 51 53.9 +0.3
      comp=Z,528nm,1.5s
KAPI  Kappang          68.50 222  P      P       03 51 54.3 +0.6
KAPI                              S      S       04 00 31.7 +4.9
KAPI  Kappang          68.50 222c iP     P       03 51 53.9 +0.3
KAPI                              pmax   pmax
      comp=Z,1µm,1.3s
KAPI  Kappang          68.50 222  P      P       03 51 54.4 +0.8
KAPI                              pP     pP      03 53 11.7 +1.3
KAPI                              sP     sP      03 53 49.5 +2.0
KAPI                              S      S       04 00 30.0 +3.2
EDMD  Edmundbyers      68.50 348 eP      P       03 51 53.1  0.0
EDMD                              IAmb   IAmb    03 51 55.4
      comp=Z,21nm,0.8s
LKRN  Lenkeran, Azer   68.52 308  P      P       03 51 54.9 +1.4
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WMOK  Wichita Mounta   68.54  60  P      P       03 51 53.4 -0.4
KWP   Kalwaria Pacla   68.58 331  P      P       03 51 53.8  0.0
      comp=Z,5µmcomp=Z,231nm,1.3s
CLGH  Cloghs, Cushen   68.69 351 eP      P       03 51 53.9 -0.3
CLGH                              IAmb   IAmb    03 51 59.0
      comp=Z,62nm,1.1s
NE56  Odesa            68.74 324  P      P       03 51 54.4 -0.3
GAL1  Galloway         68.76 350 eP      P       03 51 54.2 -0.5
GAL1                              IAmb   IAmb    03 51 58.8
      comp=Z,44nm,0.9s
RETH  Rethem/Aller,    68.79 340 eP      P       03 51 55.3 +0.4
      comp=Z,304nm,1.6s,baz=19,slow=6.0
RETH                             epP     pP      03 53 13.6 +2.0
FLTG  Flechtingen      68.81 339 eP      P       03 51 54.9 -0.2
      comp=Z,201nm,1.5s,baz=19,slow=6.0
IDGL  Inch Island, C   68.82 351  P      P       03 51 54.9 -0.1
IDGL  Inch Island, C   68.82 351 eP      P       03 51 55.0 -0.1
IDGL                              IAmb   IAmb    03 51 58.0
      comp=Z,76nm,0.8s
OJC   Ojcow            68.82 333  P      P       03 51 55.2  0.0
      comp=Z,3µmcomp=Z,84nm,1.1s
KESW  Keswick, Cumbr   68.87 349 eP      P       03 51 55.4  0.0
KESW                              IAmb   IAmb    03 52 00.2
      comp=Z,121nm,0.7s
BBKI  Banjar Baru      69.03 227  P      P       03 51 57.9 +1.0
      comp=Z,24µmcomp=Z,3µm,1.4s
GNI   Garni            69.09 311  P      P       03 51 58.1 +0.8
GNI                               S      S       04 00 34.8 +1.2
GNI   Garni            69.09 311ceP      P       03 51 57.7 +0.5
GNI                               pmax   pmax
      comp=Z,348nm,1.6s
GNI   Garni            69.09 311  P      P       03 51 58.1 +0.8
GNI   Garni            69.09 311  P      P       03 51 57.5 +0.3
      comp=Z,4µmcomp=Z,167nm,1.3s
KSP   Ksiaz            69.10 335  P      P       03 51 56.9  0.0
      comp=Z,3µmcomp=Z,90nm,1.4s
ASSE  Asse, Remlinge   69.11 339 eP      P       03 51 57.1 +0.3
      comp=Z,368nm,1.6s,baz=19,slow=6.0
SIM   Simferopol'      69.15 321 eP      P       03 51 57.9 +0.6
SIM                              e*PP    pP      03 53 17.0 +2.9
SIM                              eS      S       04 00 35.2 +1.4
SIM                              e               04 01 23.9
SIM                               smax   smax
      comp=N,4µm,8.5s
STHS  Stebnicka Huta   69.17 332 eP      P       03 51 57.7 +0.3
STHS                             eS      S       04 00 37.8 +3.8
STHS  Stebnicka Huta   69.17 332 eP      P       03 51 57.7 +0.3
STHS                             eS      S       04 00 37.8 +3.8
PURM  Purcari          69.21 325 ⇓P      P       03 51 58.0 +0.4
PURM  Purcari          69.21 325  P      P       03 51 58.0 +0.4
      comp=N,3µmcomp=N,162nm,0.8s
HPK   Haverah Park     69.31 348 eP      P       03 51 58.1  0.0
HPK                               IAmb   IAmb    03 52 01.1
      comp=Z,95nm,0.8s
KOLS  Kolonicke sedl   69.33 331 eP      P       03 51 58.8 +0.4
KOLS  Kolonicke sedl   69.33 331 eP      P       03 51 58.8 +0.4
RAC   Raciborz         69.35 334 eP      P       03 52 00.0 +1.6
RAC                              ePP     pP      03 53 16.1 +0.8
RAC                              eS      S       04 00 35.9  0.0
RAC                               AMS    AMS     04 23 22.0
      comp=Z,3.0nm,20.4s
RAC   Raciborz         69.35 334 eP      P       03 52 00.0 +1.6
RAC                              e*PP    pP      03 53 16.1 +0.8
RAC                              eS      S       04 00 35.9  0.0
RAC                               MLR    MLR
      comp=Z,3µm,20.4s
CCM   Cathedral Cave   69.36  52  P      P       03 51 57.2 -1.5
CCM                               pP     pP      03 53 14.4 -1.2
CCM                               sP     sP      03 53 52.6 -0.2
CCM                               S      S       04 00 36.0 -0.4
MYKOM Kota Tinggi      69.39 240  P      P       03 51 59.4 +0.3
      comp=Z,1µm,1.3s
OSTC  Ostas            69.39 335 eP      P       03 51 59.2 +0.5
OSTC  Ostas            69.39 335 eP      P       03 51 59.2 +0.5
CHVC  Chvalec          69.40 335 eP      P       03 51 59.4 +0.7
CHVC                             eS      S       04 00 38.8 +2.2
CHVC  Chvalec          69.40 335 eP      P       03 51 59.4 +0.7
CHVC                             eS      S       04 00 38.8 +2.2
CLL   Collm            69.41 338⇓iP      P       03 51 58.7  0.0
CLL                              e*PP    pP      03 53 16.0 +0.4
CLL                              eS      S       04 00 40.0 +3.4
CLL                              e               04 01 25.0
CLL                               pmax   pmax
      comp=Z,408nm,1.8s
CLL   Collm            69.41 338 eP      P       03 51 58.6  0.0
      comp=Z,588nm,1.9s,baz=19,slow=6.0
CLL   Collm            69.41 338  P      P       03 51 58.2 -0.5
      comp=Z,4µmcomp=Z,131nm,1.2s
CLL   Collm            69.41 338⇓iP      P       03 51 58.7  0.0
      comp=Z,408nm,1.8s
CLL                              ePmax           03 52 00.0
      comp=Z,0.0nm,4.6s
CLL                              ePlp            03 52 01.0
      comp=Z,1µm,18.0s
CLL                              ex      x       03 53 04.0
CLL                              epP     pP      03 53 16.0 +0.4
CLL                              esP     sP      03 53 51.0 -1.9
CLL                              ePP     PP      03 54 35.0 -1.6
CLL                              ePPP    PPP     03 56 22.0
CLL                              ePPPP           03 57 25.0
CLL                              epPPPP          03 58 24.0
CLL                              i Sk            04 00 38.6
CLL                              eS      S       04 00 40.0 +3.4
      comp=N,8µm,18.0s
CLL                              eS      S       04 00 40.0 +3.4
      comp=E,9µm,19.0s
CLL                              eS      S       04 00 40.0 +3.4
      comp=Z,3µm,20.0s
CLL                              eSKSac  ScS     04 01 25.0 -0.5
CLL                              ex      x       04 01 49.0
CLL                              esS     sS      04 02 49.0 -4.3
CLL                              eSS     SS      04 05 11.0 +0.7
CLL                              esSS            04 07 12.0
CLL                              eSSS    SSS     04 08 36.0
CLL                              eSSSS           04 10 18.0
CLL                              ex      x       04 14 12.0
CLL                              i x     x       04 19 32.5
CLL                              i PKPPKPdP'P'df 04 20 02.1 -3.5
      comp=Z,55nm,1.8s
CLL                               L      L       04 22 00.0
CLL                              eSKPPKPdf       04 23 08.0
NIE   Niedzica         69.42 332  P      P       03 51 59.0 +0.1
      comp=Z,1µmcomp=Z,24nm,1.4s
CLZ   Clausthal        69.44 339 eP      P       03 51 59.6 +0.6
      comp=Z,417nm,1.4s,baz=19,slow=6.0
UPC   Upice            69.48 335 eP      P       03 52 01.5 +2.3
UPC   Upice            69.48 335 eP      P       03 52 01.5 +2.3
IBBN  Ibbenburen       69.50 341 eP      P       03 51 59.5 +0.3
      comp=Z,86nm,0.9s,baz=19,slow=6.0
DPC   Dobruska-Polom   69.56 335 eP      P       03 52 00.8 +1.1
DPC                              eS      S       04 00 41.7 +3.2
DPC   Dobruska-Polom   69.56 335 eP      P       03 52 00.8 +1.1
DPC                              eS      S       04 00 41.7 +3.2
DPC                              ex      x       04 10 22.5
DPC   Dobruska-Polom   69.56 335  P      P       03 52 00.3 +0.6
      comp=Z,3µmcomp=Z,75nm,1.2s
NAX   Nakhchivan       69.58 310  P      P       03 52 00.9 +0.8
OKC   Ostrava-Krasne   69.59 334 eP      P       03 52 01.2 +1.3
OKC   Ostrava-Krasne   69.59 334 eP      P       03 52 01.2 +1.3
STEB  Steborice        69.59 334 eP      P       03 52 00.5 +0.6
BRG   Berggiesshubel   69.61 337 eP      P       03 52 00.0  0.0
      comp=Z,108nm,1.4s,baz=19,slow=6.0
BRG   Berggiesshubel   69.61 337 eP      P       03 52 00.0  0.0
BRG                               Amp            03 52 04.1
      comp=Z,27nm,0.9s
BRG   Berggiesshubel   69.61 337  Amp            03 53 21.1
      comp=Z,32nm,1.1s
BRG                               P      pP      03 53 20.0 +3.1
BRG   Berggiesshubel   69.61 337  sP     sP      03 53 56.0 +1.8
BRG                               PP     PP      03 54 33.5 -4.9
BRG                               Amp            03 54 35.5
      comp=Z,15nm,1.1s
BRG   Berggiesshubel   69.61 337  PPP    PPP     03 56 26.0
BRG   Berggiesshubel   69.61 337  S      S       04 00 41.0 +2.0
BRG                               SP     SKiKP   04 00 58.9  -11
BRG                               Amp            04 01 05.1
      comp=Z,40nm,1.6s
BRG   Berggiesshubel   69.61 337  sS     sS      04 02 56.0 +0.5
BRG   Berggiesshubel   69.61 337  SS     SS      04 05 16.0 +2.6
PRAR  RASCA            69.61 328 ⇓P      P       03 52 01.4 +1.3
BURAR Bucovina Array   69.69 328  P      P       03 52 00.7 +0.1
BURAR Bucovina Array   69.69 328 ⇑P      P       03 52 00.7 +0.1
KRLC  Kraliky          69.70 335 eP      P       03 52 01.3 +0.7
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KRLC	Kraliky	69.70	335	eP	P	03 52 01.3	+0.7
ILTH	Belurgan, Co L	69.75	350	P	P	03 52 01.7	+1.0
NEUB	Neuenburg	69.76	338	eP	P	03 52 01.1	+0.2
	comp=Z,139nm,1.1s,baz=19,slow=6.0						
VASR	Vaslui	69.77	326	P	P	03 52 01.5	+0.5
MORC	Moravsky Berou	69.79	334	P	P	03 52 01.7	+0.5
MORC	Moravsky Berou	69.79	334	eP	P	03 52 01.4	+0.2
MORC				e		03 53 06.1	
MORC				eS	S	04 00 43.8	+2.6
MORC				ePKPPKP	P'P'df	04 20 03.7	-1.2
MORC	Moravsky Berou	69.79	334	⇓P	P	03 52 01.7	+0.5
GTTG	Gottingen	69.81	340	eP	P	03 52 01.4	+0.2
	comp=Z,240nm,1.7s,baz=19,slow=6.0						
GTTG				epP	pP	03 53 20.5	+2.4
LANS	Liptovska Anna	69.89	333	eP	P	03 52 03.0	+1.3
LANS	Liptovska Anna	69.89	333	eP	P	03 52 03.0	+1.3
RICC	Richard	69.89	337	eP	P	03 52 02.7	+1.1
LHMI	Lhok Sumawe	69.96	249	P	P	03 52 03.9	+1.3
	comp=Z,2µm,1.3s						
LHMI	Lhok Sumawe	69.96	249	P	P	03 52 04.5	+1.9
HSKC	Hora Svate Kat	69.97	337	eP	P	03 52 02.7	+0.5
BIZ	Bicaz	70.03	327	⇓P	P	03 52 03.6	+1.0
MAUC	Maruska	70.10	334	eP	P	03 52 03.8	+0.8
HYB	Hyderabad	70.11	272	eP	P	03 52 01.5	-2.0
HYB	Hyderabad	70.11	272	eP	P	03 52 02.9	-0.6
HYB				ePcP	PcP	03 52 23.0	-0.1
HYB				epP	pP	03 53 20.0	-0.6
HYB				ePP	PP	03 54 43.5	-0.2
HYB				eS	S	04 00 46.1	+0.4
HYB				eScS	ScS	04 01 31.8	-0.2
HYB				IAMs_20	IAMs_20	04 09 56.0	
	comp=Z,26µm,88.5s						
BMR	Baia Mare	70.14	329	P	P	03 52 03.7	+0.5
BMR	Baia Mare	70.14	329	⇓P	P	03 52 03.7	+0.5
WACR	West Acre	70.23	346	eP	P	03 52 04.4	+0.8
WACR				IAmb	IAmb	03 52 07.0	
	comp=Z,64nm,0.9s						
BHV	Bhavnagar	70.23	280	eP	P	03 52 01.7	-2.5
KECS	Kecovo	70.23	332	eP	P	03 52 06.5	+2.7
KECS	Kecovo	70.23	332	eP	P	03 52 06.5	+2.7
STNC	Stoke	70.23	348	eP	P	03 52 03.1	-0.6
STNC				IAmb	IAmb	03 52 06.2	
	comp=Z,23nm,0.6s						
TESR	Tescani	70.24	327	⇑P	P	03 52 03.7	-0.2
TESR	Tescani	70.24	327	P	P	03 52 03.3	-0.6
	comp=Z,3µmcomp=Z,91nm,1.2s						
WLF1	Llynfaes	70.29	349	eP	P	03 52 03.7	-0.2
WLF1				IAmb	IAmb	03 52 05.9	
	comp=Z,33nm,0.7s						
PRU	Pruhonice	70.31	336	eP	P	03 52 04.8	+0.6
PRU				eS	S	04 00 51.1	+4.1
PRU				pmax	pmax		
	comp=Z,21nm,0.4s						
PRU	Pruhonice	70.31	336	eP	P	03 52 04.8	+0.6
	comp=Z,21nm,0.4s						
PRU				eS	S	04 00 51.1	+4.1
PRU				ex	x	04 11 06.8	
MOX	Moxa	70.33	338	eP	P	03 52 04.5	+0.2
	comp=Z,133nm,1.4s,baz=19,slow=6.0						
HOMI	Horasan	70.36	313	⇑P	P	03 52 05.8	+0.8
PLN	Plauen	70.36	338	eP	P	03 52 04.9	+0.4
	comp=Z,66nm,1.5s,baz=19,slow=6.0						
TANN	Tannenbergstha	70.36	338	eP	P	03 52 04.8	+0.2
	comp=Z,205nm,1.7s,baz=19,slow=6.0						
VLDR	Vladesti	70.39	326	⇓P	P	03 52 05.4	+0.7
GHRR		70.41	326	⇓P	P	03 52 06.2	+1.3
GHRR		70.41	326	P	P	03 52 05.1	+0.2
BUG	Bochum--Univer	70.41	341	eP	P	03 52 05.0	+0.2
	comp=Z,227nm,1.5s,baz=19,slow=6.0						
VARL	Varlezi	70.42	326	⇑P	P	03 52 06.4	+1.5
TXAR	Lajitas Array	70.43	67	P	P	03 52 05.5	+0.1
	comp=Z,65nm,0.6s,baz=305,slow=2.8,SNR=271						
TXAR				PKPPKP	P'P'df	04 19 58.4	-2.5
	comp=Z,3.0nm,1.1s,baz=225,slow=3.4,SNR=5.1						
	comp=Z,65nm,0.6s						
KASTN	Kahler Asten	70.43	341	eP	P	03 52 05.3	+0.3
	comp=Z,161nm,1.4s,baz=19,slow=6.0						
KASTN				epP	pP	03 53 25.1	+2.9
LATR	Latur	70.45	274	eP	P	03 52 03.0	-2.5
VRAC	Vranov	70.46	335	P	P	03 52 06.1	+1.0
VRAC	Vranov	70.46	335	eP	P	03 52 04.7	-0.4
VRAC				e		03 53 10.5	
VRAC				e		03 53 24.7	
VRAC				ePP	PP	03 54 45.9	+0.2
VRAC				eS	S	04 00 51.0	+2.1
VRAC				ePKPPKP	P'P'df	04 20 00.9	-2.8
VRAC	Vranov	70.46	335	⇑P	P	03 52 06.1	+1.0
CWF	Charnwood Fore	70.47	347	eP	P	03 52 04.9	-0.2
CWF				IAmb	IAmb	03 52 08.6	
	comp=Z,27nm,0.8s						
ONER	Baraj Valea Uz	70.48	327	⇑P	P	03 52 05.7	+0.4
DSB	Dublin	70.53	350	P	P	03 52 05.2	-0.3
DSB	Dublin	70.53	350	P	P	03 52 05.1	-0.3
NKC	Novy Kostel	70.54	338	eP	P	03 52 07.3	+1.7
NKC				eS	S	04 00 53.5	+3.7
NKC	Novy Kostel	70.54	338	eP	P	03 52 07.3	+1.7
NKC				eS	S	04 00 53.5	+3.7
FOEL	Foel Wylfa	70.55	348	eP	P	03 52 05.4	-0.2
FOEL				IAmb	IAmb	03 52 08.9	
	comp=Z,47nm,0.7s						
SCTR	Scanteiesti	70.57	326	⇑P	P	03 52 07.1	+1.3
IGLA	Glengowla, Co	70.61	352	P	P	03 52 05.3	-0.6
IGLA	Glengowla, Co	70.61	352	eP	P	03 52 05.3	-0.6
IGLA				IAmb	IAmb	03 52 08.4	
	comp=Z,55nm,0.8s						
JAVC	Velka Javorina	70.61	334	eP	P	03 52 07.3	+1.2
JAVC				e		03 53 12.6	
JAVC				e		03 53 27.5	
JAVC				eS	S	04 00 54.9	+4.2
JAVC				ePKPPKP	P'P'df	04 20 00.2	-3.3
TATR	Tatarca	70.62	325	⇓P	P	03 52 06.1	0.0
OZAP	Van, Ozalp-Mer	70.65	311	⇓P	P	03 52 08.3	+1.6
VYHS	Vyhne	70.65	333	eP	P	03 52 07.0	+0.7
VYHS				eS	S	04 00 54.5	+3.4
VYHS	Vyhne	70.65	333	eP	P	03 52 07.0	+0.7
VYHS				eS	S	04 00 54.5	+3.4
PANC	Panciu	70.66	326	⇑P	P	03 52 07.9	+1.5
KRUC	Moravsky	70.74	335	eP	P	03 52 07.0	+0.2
KRUC				e		03 53 12.1	
KRUC				e		03 53 26.5	
KRUC				ePP	PP	03 54 46.6	-1.4
KRUC				eS	S	04 00 54.9	+2.9
KRUC				ePKPPKP	P'P'df	04 19 59.7	-3.5
TREC	Trest	70.74	335	eP	P	03 52 07.7	+0.9
TREC	Trest	70.74	335	eP	P	03 52 07.7	+0.9
TLCR		70.74	325	P	P	03 52 06.9	+0.1
TLCR		70.74	325	⇓P	P	03 52 07.0	+0.1
TUDR		70.75	326	⇓P	P	03 52 07.4	+0.5
MESR	Meseseni	70.77	330	⇓P	P	03 52 07.6	+0.6
ODBI	Odobesti	70.79	326	⇑P	P	03 52 08.6	+1.4
ELMS	Elmsett, Ipswi	70.79	345	eP	P	03 52 07.0	0.0
ELMS				IAmb	IAmb	03 52 09.8	
	comp=Z,90nm,0.5s						
VRI	Vrincioaia	70.80	326	P	P	03 52 07.4	+0.2
VRI	Vrincioaia	70.80	326	⇑P	P	03 52 07.5	+0.2
VRI	Vrincioaia	70.80	326	P	P	03 52 07.7	+0.5
	comp=Z,3µmcomp=Z,35nm,1.5s						
PLOR	Plostina	70.83	327	P	P	03 52 08.1	+0.6
PLOR	Plostina	70.83	327	⇓P	P	03 52 08.2	+0.6
TURR	Turia	70.85	327	⇓P	P	03 52 08.6	+1.0
HLM1	Long Mynd	70.88	348	eP	P	03 52 07.3	-0.2
HLM1				IAmb	IAmb	03 52 12.3	
	comp=Z,36nm,0.9s						
OZUR		70.88	327	⇑P	P	03 52 09.3	+1.5
ZVC	Zvikov	70.90	336	eP	P	03 52 08.6	+0.8
ZVC				eS	S	04 00 57.8	+3.9
ZVC				ex	x	04 11 21.3	
PSZ	Piszkesteto	70.91	332	P	P	03 52 09.0	+1.1
PSZ	Piszkesteto	70.91	332	⇑P	P	03 52 09.0	+1.1
SAHR	Sahastru	70.94	326	⇓P	P	03 52 08.8	+0.7
MMRI	Maumere	70.94	218	P	P	03 52 08.4	0.0
	comp=Z,2µm,1.3s						
CFR	Carcaliu	70.97	325	P	P	03 52 08.0	-0.2
CFR	Carcaliu	70.97	325	⇓P	P	03 52 08.0	-0.2
CJR	Cluj-Napoca	70.98	329	P	P	03 52 08.9	+0.6
CJR	Cluj-Napoca	70.98	329	⇓P	P	03 52 08.9	+0.6
COVR	Voineasa-Covas	70.98	327	⇓P	P	03 52 09.6	+1.3
PSI	Prapat	70.99	246	P	P	03 52 08.2	-0.7
	comp=Z,1µm,1.4s						
SMOL	Smolenice	70.99	334	eP	P	03 52 09.5	+1.2
BMOL	Mol	71.01	343	dP	P	03 52 08.6	+0.3
BMOL				dpP	pP	03 53 26.3	+0.7
BMOL				dPP	PP	03 54 49.8	-0.5
BOPT	Opiter	71.02	342	dP	P	03 52 08.7	+0.3
	comp=Z,70nm,1.3s						
DOPR	Dopca	71.12	327	⇓P	P	03 52 09.5	+0.4
MODS	Modra-Piesok	71.16	334	eP	P	03 52 10.6	+1.2
MODS	Modra-Piesok	71.16	334	eP	P	03 52 10.6	+1.2
DRGR		71.16	330	P	P	03 52 09.7	+0.2
DRGR		71.16	330	⇑P	P	03 52 09.7	+0.2
TPGR	Topolog	71.16	325	⇓P	P	03 52 09.4	0.0
MDB	Medias	71.26	328	P	P	03 52 11.3	+1.4
MDB	Medias	71.26	328	⇓P	P	03 52 11.4	+1.4
SOEI	Soe	71.30	216	P	P	03 52 10.1	-0.6
SOEI	Soe	71.30	216	P	P	03 52 10.5	-0.2
	comp=Z,687nm,1.0s						
GRF	Grafenberg Arr	71.31	338	eP	P	03 52 10.9	+0.6
	comp=Z,106nm,1.0s,baz=19,slow=6.0						
GRFO	Grafenberg	71.31	338	P	P	03 52 11.5	+1.3
GRFO				pP	pP	03 53 28.9	+1.4
NEHR	Nehoiu	71.33	327	⇓P	P	03 52 10.7	+0.3
KHC	Kasperske Hory	71.33	336	d iP	P	03 52 10.8	+0.4
KHC				pmax	pmax		
	comp=Z,114nm,1.6s						
KHC	Kasperske Hory	71.33	336	eP	P	03 52 11.3	+0.9
	comp=Z,13nm,0.5s						
KHC				ex	x	03 53 16.5	
KHC				epP	pP	03 53 31.5	+3.7
KHC				ex	x	03 55 11.0	
KHC				eS	S	04 01 01.3	+2.5
KHC				ex	x	04 11 26.2	
KHC	Kasperske Hory	71.33	336	P	P	03 52 10.9	+0.5
	comp=Z,3µmcomp=Z,68nm,1.5s						
BOST	Ostende	71.34	344	dP	P	03 52 09.4	-0.8
BOST				dpP	pP	03 53 27.6	0.0
TNS	Taunus Mts	71.36	340	eP	P	03 52 10.8	+0.3
	comp=Z,42nm,0.8s,baz=19,slow=6.0						
WCI	Wyandotte Cave	71.36	49	P	P	03 52 09.4	-1.3
WCI				pP	pP	03 53 27.2	-1.0
WCI				sP	sP	03 54 04.5	-0.8
WCI				S	S	04 00 56.7	-2.8
ZST	Bratislava	71.37	334	eP	P	03 52 11.2	+0.7
ZST	Bratislava	71.37	334	eP	P	03 52 11.2	+0.7
MLR	Muntele Rosu	71.38	327	P	P	03 52 12.0	+1.2
MLR	Muntele Rosu	71.38	327	⇑P	P	03 52 12.0	+1.2
MLR	Muntele Rosu	71.38	327	P	P	03 52 11.2	+0.4
	comp=Z,2µmcomp=Z,92nm,1.7s						
MCH1	Michaelchurch	71.40	348	eP	P	03 52 10.3	-0.4
MCH1				IAmb	IAmb	03 52 13.4	
	comp=Z,32nm,0.7s						
IWEX	Carrickbyrne,	71.43	350	P	P	03 52 10.2	-0.6
SANVU	Saraoutou	71.43	171	P	P	03 52 11.2	0.0
	comp=Z,746nm,1.4s						
MEM	Membach	71.44	342	dP	P	03 52 10.9	0.0
MEM				dpP	pP	03 53 29.9	+1.6
MEM				dsP	sP	03 54 02.6	-2.9
CKRC	Cesky Krumlov	71.45	336	eP	P	03 52 12.3	+1.2
CKRC	Cesky Krumlov	71.45	336	eP	P	03 52 12.3	+1.2
HARR	Harsova	71.47	325	P	P	03 52 11.5	+0.3
HARR	Harsova	71.47	325	⇑P	P	03 52 11.5	+0.3
WET	Wettzell	71.47	337	eP	P	03 52 11.5	+0.3
	comp=Z,45nm,0.9s,baz=19,slow=6.0						
TIRR	Tirgusor	71.52	325	P	P	03 52 11.1	-0.3
TIRR	Tirgusor	71.52	325	⇑P	P	03 52 11.2	-0.3
TIRR	Tirgusor	71.52	325	P	P	03 52 11.7	+0.2
	comp=Z,2µmcomp=Z,66nm,1.5s						
ISR	Istrita	71.53	326	P	P	03 52 12.6	+1.0
ISR	Istrita	71.53	326	⇑P	P	03 52 12.6	+1.0
ISR	Istrita	71.53	326	P	P	03 52 12.7	+1.1
	comp=Z,4µmcomp=Z,116nm,1.1s						
MONM	Monmouth	71.53	348	eP	P	03 52 11.2	-0.2
MONM				IAmb	IAmb	03 52 14.3	
	comp=Z,37nm,0.7s						
UCC	Uccle	71.53	343	dP	P	03 52 10.6	-0.9
	comp=Z,26nm,1.5s						
TLBR	Topalu	71.56	325	⇑P	P	03 52 12.4	+0.7
GEC2	GERESS Array S	71.57	336	eP	P	03 52 11.9	0.0
	comp=Z,31nm,0.8s,baz=19,slow=6.0						
GERES	GERESS Array B	71.57	336	P	P	03 52 11.9	0.0
	comp=Z,22nm,0.5s,baz=32,slow=6.3,SNR=128						
GERES				PKPPKP	P'P'df	04 19 55.4	-6.5
	comp=Z,0.5nm,0.2s,baz=202,slow=5.7,SNR=5.7						
	comp=Z,22nm,0.5s						
VOIR		71.70	327	P	P	03 52 14.0	+1.3
VOIR		71.70	327	⇓P	P	03 52 14.0	+1.3
VOIR		71.70	327	P	P	03 52 12.9	+0.2
	comp=Z,2µmcomp=Z,52nm,0.7s						
WINA	Alland / Wiene	71.70	334	P	P	03 52 13.4	+0.8
	comp=Z,14nm,0.6s,SNR=23						
WINA				epP	pP	03 53 28.9	-1.1
	comp=Z,2µm,3.8s						
WINA				eS	S	04 01 04.9	+1.8
BSKQ	Steenkerk	71.73	343	dP	P	03 52 12.1	-0.5
	comp=Z,652nm,5.2s						
BSKQ				dpP	pP	03 53 29.6	-0.4
BSKQ				dPP	PP	03 54 57.6	+1.3
BCLA	Clavier	71.74	342	dP	P	03 52 12.0	-0.7
	comp=Z,34nm,1.3s						
DRS	Darwin Rock St	71.85	208	P	P	03 52 14.6	+0.9
	comp=Z,519nm,1.1s						
POO	Poona	71.86	276	eP	P	03 52 11.5	-2.5
ARR	Arges	71.89	328	⇑P	P	03 52 14.9	+1.1
CONA	Conrad Observa	71.92	335	P	P	03 52 14.7	+0.7
	comp=Z,25nm,0.7s,SNR=40						
CONA				epP	pP	03 53 29.7	-1.7
	comp=Z,2µm,4.1s						
CONA				eS	SKiKP	04 01 09.6	-3.6
	comp=Z,3µm,9.8s						
BMRD	Maredsous	71.95	343	dP	P	03 52 13.6	-0.4
	comp=Z,51nm,1.2s						
RCHB	Rochefort	72.01	342	dP	P	03 52 13.9	-0.4
	comp=Z,34nm,1.3s						
RCHB				dpP	pP	03 53 31.3	-0.5
RCHB				dsP	sP	03 54 09.5	+0.6
RCHB				dPP	PP	03 54 58.4	-0.3
SULR		72.01	326	⇓P	P	03 52 15.8	+1.4
ICOR	Ion Corvin	72.02	325	⇑P	P	03 52 15.3	+0.9
RONA	Rosalia, Austr	72.03	334	P	P	03 52 15.5	+0.9
	comp=Z,21nm,0.7s,SNR=35						
RONA				epP	pP	03 53 30.8	-1.2
	comp=Z,2µm,3.9s						
RONA				eS	S	04 01 07.5	+0.7
	comp=Z,2µm,7.3s						
BKNI	Bangkinang	72.04	242	P	P	03 52 14.8	-0.1
BKNI	Bangkinang	72.04	242	P	P	03 52 15.4	+0.4
	comp=Z,4µm,1.2s						
LOT	Lotru	72.07	328	⇑P	P	03 52 15.5	+0.5
BOM	Bombay	72.14	277	eP	P	03 52 13.2	-2.3
VAL	Valentia	72.14	353	P	P	03 52 15.9	+0.9
VAL	Valentia	72.14	353	P	P	03 52 15.1	+0.1
DOU	Dourbes	72.17	343	dP	P	03 52 14.9	-0.4
DOU				dpP	pP	03 53 31.8	-1.0
DOU				dsP	sP	03 54 08.9	-1.1
DOU				dPP	PP	03 55 01.1	+0.9
MPLH	Magyarpolny	72.21	333	P	P	03 52 16.5	+1.0
	comp=Z,8µmcomp=Z,341nm,1.6s						
BAIF	Baives	72.28	343	eP	P	03 52 16.6	+0.8
BAIF				pmax	pmax		
	comp=Z,273nm,1.7s						
WLF	Walferdange	72.32	342	P	P	03 52 16.8	+0.6
WLF	Walferdange	72.32	342	dP	P	03 52 16.2	+0.1
WLF				dpP	pP	03 53 32.1	-1.6
WLF				dsP	sP	03 54 11.4	+0.5
WLF				dPP	PP	03 54 56.8	-4.7
WLF	Walferdange	72.32	342	eP	P	03 52 16.6	+0.4
	comp=Z,238nm,1.7s,baz=19,slow=6.0						
MOA	Molln	72.38	336	P	P	03 52 17.1	+0.5
	comp=Z,2µm,4.9s,SNR=20						
MOA				epP	pP	03 53 34.0	-0.2
	comp=Z,2µm,4.1s						
MOA				eS	S	04 01 10.8	+0.1
	comp=Z,2µm,6.6s						
GZR	Gura Zlata	72.42	329	P	P	03 52 16.7	-0.1
GZR	Gura Zlata	72.42	329	⇓P	P	03 52 16.8	-0.1
WVT	Waverly	72.47	51	P	P	03 52 16.5	-0.7
WVT				pP	pP	03 53 33.4	-1.5
WVT				S	S	04 01 11.4	-0.7
BZS	Buzias	72.54	330	P	P	03 52 17.7	+0.2
BZS	Buzias	72.54	330	⇑P	P	03 52 17.7	+0.2
HTL	Hartland	72.56	349	eP	P	03 52 17.1	-0.4
STU	Stuttgart	72.60	339	eP	P	03 52 17.8	0.0
	comp=Z,325nm,1.5s,baz=19,slow=6.0						
ARSA	Arzberg	72.64	335	P	P	03 52 18.4	+0.3
	comp=Z,19nm,0.6s,SNR=30						
ARSA				epP	pP	03 53 35.3	-0.5
	comp=Z,1µm,3.7s						
ARSA				eS	SKiKP	04 01 14.2	0.0
	comp=Z,2µm,9.8s						
FUTU	Fugatoga	72.64	156	P	P	03 52 20.3	+2.0
	comp=Z,1µm,1.4s						
KAD	Karad	72.65	275	eP	P	03 52 16.5	-2.1
MDRS	Chennai	72.66	268	eP	P	03 52 16.9	-1.7
BIOA	Bad Ischl, Aus	72.67	336	P	P	03 52 19.3	+1.0
	comp=Z,2µm,5.3s,SNR=21						
BIOA				pP	pP	03 53 35.9	-0.1
	comp=Z,2µm,4.5s,SNR=24						
BIOA				eS	SKiKP	04 01 15.7	+1.4
	comp=Z,1µm,6.1s						
PLAI	Plampang	72.75	222	P	P	03 52 17.0	-2.0
	comp=Z,727nm,1.3s						
FUR	Furstenfeldbru	72.75	338	eP	P	03 52 20.1	+1.4
	comp=Z,187nm,1.5s,baz=19,slow=6.0						
MORH	Mrgy, Hungar	72.81	332	⇑P	P	03 52 18.8	-0.2
MORH	Mrgy, Hungar	72.81	332	eP	P	03 52 17.7	-1.3
MORH	Mrgy, Hungar	72.81	332	P	P	03 52 20.0	+1.0
	comp=Z,2µmcomp=Z,35nm,1.7s						
COPA	Copaceanca	72.82	327	⇓P	P	03 52 19.6	+0.4
RAZG	Razgrad	72.93	326	⇑P	P	03 52 20.1	+0.3
GSI	Gunungsitoli	72.96	246	P	P	03 52 19.6	-0.8
	comp=Z,1µm,1.8s						
HERR	Herculane	72.99	329	⇓P	P	03 52 19.8	-0.3
SESA	Seetaler Alpe,	73.00	335	P	P	03 52 21.3	+0.9
	comp=Z,942nm,1.7s,SNR=54						
SESA				epP	pP	03 53 38.3	+0.1
	comp=Z,4µm,4.2s						
SESA				eS	S	04 01 17.6	-0.4
PRD	Provadia	73.00	325	P	P	03 52 21.0	+0.8
SBD	Saint Breward	73.00	349	eP	P	03 52 19.4	-0.7
SBD				IAmb	IAmb	03 52 22.2	
	comp=Z,26nm,0.7s						
DYA	Yadsworthy	73.05	348	eP	P	03 52 19.8	-0.5
DYA				IAmb	IAmb	03 52 22.9	
	comp=Z,64nm,0.6s						
BEHE	Becsehely	73.06	333	eP	P	03 52 20.2	-0.3
LESA	Schwarzleotal	73.14	336	P	P	03 52 21.9	+0.8
	comp=Z,56nm,1.7s,SNR=23						
LESA				epP	pP	03 53 38.1	-0.8
	comp=Z,2µm,4.3s						
LESA				eS	S	04 01 19.5	+0.1
	comp=Z,5µm,9.0s						
BFO	Black Forest	73.19	340	ceP	P	03 52 21.5	+0.2
BFO	Black Forest	73.19	340	eP	P	03 52 21.3	0.0
	comp=Z,68nm,1.1s,baz=19,slow=6.0						
BFO	Black Forest	73.19	340	P	P	03 52 22.1	+0.8
BFO				pP	pP	03 53 38.2	-0.9
BFO				S	SKiKP	04 01 17.4	+2.4
VLAD	Vladila	73.20	327	⇓P	P	03 52 22.4	+1.1
KOGS	Kog	73.21	334	i P	P	03 52 22.7	+1.3
KOGS				epP	pP	03 53 41.9	+2.6
KOGS				esP	sP	03 54 18.3	+2.1
KOGS				ePP	PP	03 55 11.9	+2.9
KOGS				epPP		03 56 20.5	
KOGS				esPP		03 57 02.8	
KOGS				e		03 58 40.5	
KOGS				eS	S	04 01 21.0	+1.0
KOGS				e		04 01 56.3	
HRV	Adam Dziewonsk	73.25	36	P	P	03 52 21.4	-0.3
HRV	Adam Dziewonsk	73.25	36	P	P	03 52 22.0	+0.3
HRV				pP	pP	03 53 39.6	-0.3
HRV				S	S	04 01 23.4	+2.8
MDVR	Moldovita	73.28	329	⇓P	P	03 52 21.1	-0.8
SOKA	Soboth	73.29	335	P	P	03 52 22.3	+0.3
	comp=Z,28nm,0.5s,SNR=56						
SOKA				epP	pP	03 53 38.1	-1.7
	comp=Z,1µm,5.2s						
SOKA				eS	S	04 01 19.0	-2.1
	comp=Z,725nm,6.7s						
KBA	Koelnbreinsper	73.31	336	P	P	03 52 23.1	+0.9
	comp=Z,73nm,0.8s,SNR=108						
KBA				epP	pP	03 53 40.5	+0.4
	comp=Z,2µm,3.7s						
KBA				eS	S	04 01 22.5	+1.0
	comp=Z,1µm,4.0s						
CDF	Champ du Feu	73.32	340	eP	P	03 52 23.0	+0.9
CDF				pmax	pmax		
	comp=Z,200nm,1.4s						
NGCH	Negor - Chabah	73.32	290	P	P	03 52 23.1	+0.8
NGCH				S	S	04 01 22.7	+0.9
SZH	Strazhitsa	73.37	326	P	P	03 52 23.7	+1.3
CCA1	Carnmenellis	73.44	349	eP	P	03 52 22.1	-0.5
CCA1				IAmb	IAmb	03 52 24.9	
	comp=Z,20nm,0.8s						
UBR	Ueberruh	73.45	338	eP	P	03 52 22.9	+0.1
	comp=Z,507nm,2.2s,baz=19,slow=6.0						
WATA	Walderalm	73.47	337	P	P	03 52 24.0	+0.9
	comp=Z,16nm,0.6s,SNR=27						
WATA				epP	pP	03 53 41.7	+0.8
	comp=Z,2µm,3.8s						
WATA				eS	S	04 01 23.2	+0.1
	comp=Z,3µm,7.9s						
FRGS	Fruska Gora	73.47	331	eP	P	03 52 23.3	+0.4
RETA	Reutte	73.50	338	P	P	03 52 23.6	+0.4
	comp=Z,8.1nm,0.8s,SNR=26						
RETA				epP	pP	03 53 42.1	+1.1
	comp=Z,1µm,3.9s						
RETA				eS	S	04 01 22.9	-0.4
	comp=Z,2µm,7.2s						
WTTA	Wattenberg	73.52	337	P	P	03 52 24.2	+0.8
	comp=Z,9.9nm,0.7s,SNR=41						
WTTA				epP	pP	03 53 42.4	+1.1
	comp=Z,2µm,3.5s						
WTTA				eS	S	04 01 23.5	-0.3
	comp=Z,2µm,3.7s						
MOTA	Moosalm	73.56	337	P	P	03 52 24.1	+0.5
	comp=Z,17nm,0.8s,SNR=29						
MOTA				eS	S	04 01 22.7	-1.5
	comp=Z,22nm,1.7s						
OBKA	Obir	73.57	335	P	P	03 52 24.0	+0.4
	comp=Z,44nm,0.6s,SNR=31						
OBKA				epP	pP	03 53 41.1	-0.4
	comp=Z,2µm,3.6s						
OBKA				eS	S	04 01 22.0	-2.1
	comp=Z,539nm,3.5s						
SQTA	Sankt Quirin	73.66	337	P	P	03 52 24.4	+0.3
	comp=Z,25nm,0.6s,SNR=52						
SQTA				epP	pP	03 53 43.9	+1.9
	comp=Z,2µm,3.7s						
SQTA				eS	S	04 01 25.2	0.0
	comp=Z,2µm,6.8s						
MYKA	Terra Mystica	73.67	336	P	P	03 52 24.3	+0.2
	comp=Z,10nm,0.5s,SNR=32						
MYKA				epP	pP	03 53 41.4	-0.7
	comp=Z,2µm,4.0s						
MYKA				eS	S	04 01 24.0	-1.3
	comp=Z,1µm,6.1s						
PLVB	Pleven	73.68	327	⇓P	P	03 52 24.1	0.0
PVL	Pavlikeni	73.75	326	P	P	03 52 25.8	+1.2
ABTA	Abfaltersbach	73.82	336	P	P	03 52 25.2	+0.2
	comp=Z,24nm,0.7s,SNR=34						
ABTA				epP	pP	03 53 42.5	-0.4
	comp=Z,2µm,3.7s						
ABTA				eS	S	04 01 28.6	+1.7
	comp=Z,2µm,6.7s						
JAGI	Jajag, Banyuwa	73.84	226	P	P	03 52 23.2	-2.2
BR106	Keskin Array S	73.87	319	P	P	03 52 25.5	0.0
	comp=Z,448nmcomp=Z,32nm,1.0s						
BR131	Keskin Array S	73.87	319	P	P	03 52 25.7	+0.2
	SNR=31						
BR131				S	S	04 01 27.8	-0.1
BR131	Keskin Array S	73.87	319	c iP	P	03 52 25.0	-0.5
BRTR	Keskin Array B	73.87	319	P	P	03 52 25.4	0.0
	comp=Z,18nm,0.6s,baz=50,slow=4.0,SNR=56						
	comp=Z,18nm,0.6s						
BRTR	Keskin Array B	73.87	319	ceP	P	03 52 25.5	0.0
BRTR				pmax	pmax		
	comp=Z,30nm,0.9s						
DAVA	Damuels	73.88	338	P	P	03 52 25.9	+0.5
	comp=Z,14nm,0.9s,SNR=21						
DAVA				epP	pP	03 53 43.7	+0.3
	comp=Z,2µm,4.1s						
DAVA				eS	S	04 01 26.0	-1.7
	comp=Z,1µm,4.3s						
HKT	Hockley	73.88	60	d iP	P	03 52 25.0	-0.4
HKT				pmax	pmax		
	comp=Z,229nm,1.5s						
AFI	Afiamalu	73.88	150	P	P	03 52 27.8	+2.2
	comp=Z,102nm,1.1s						
HAU	Haudompre	73.88	341	eP	P	03 52 25.8	+0.5
HAU				pmax	pmax		
	comp=Z,191nm,1.4s						
BR105	Keskin Array S	73.89	319	P	P	03 52 25.5	-0.1
	comp=Z,498nmcomp=Z,43nm,1.1s						

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BR104 Keskin Array S   73.89 319  P       P       03 52 25.5 -0.1
      comp=Z,366nmcomp=Z,37nm,1.6s
JMB   Yambol           73.89 325  P       P       03 52 26.8 +1.4
SAHE  Sakarya_HENDEK   73.89 321 ⇑P       P       03 52 25.3 -0.1
FETA  Feichten         73.95 338  P       P       03 52 26.0 +0.2
      comp=Z,27nm,0.7s,SNR=46
FETA                             epP      pP      03 53 44.3 +0.5
      comp=Z,2µm,3.8s
FETA                             eS       S       04 01 25.6 -3.0
      comp=Z,564nm,3.3s
MPEP  Malo Peshtene    73.98 327  P       P       03 52 28.5 +2.6
LJU   Ljubljana        74.01 335 i P      P       03 52 27.0 +1.0
LJU                              epP      pP      03 53 46.2 +2.2
LJU                              esP      sP      03 54 22.9 +1.9
LJU                              ePP      PP      03 55 17.5 +1.7
LJU                              e                03 58 26.6
LJU                              eS       S       04 01 29.6 +0.7
LJU                              e                04 03 49.7
JSA   Saint Aubin      74.06 347 eP       P       03 52 25.8 -0.3
JSA                               IAmb    IAmb    03 52 28.9
      comp=Z,42nm,0.6s
DGTI  Dogotuki         74.11 159  P       P       03 52 28.5 +1.7
      comp=Z,335nm,1.5s
TEKS  Tekeris          74.11 331 eP       P       03 52 25.7 -0.9
SMRI  Semarang         74.12 230  P       P       03 52 27.1 +0.1
      comp=Z,1µm,1.3s
KLYT  Kilyos           74.16 323  P       P       03 52 26.8 -0.1
      comp=Z,3µmcomp=Z,134nm,1.1s
FLN   La Foliniere     74.25 346 eP       P       03 52 27.6 +0.3
FLN                               pmax    pmax
      comp=Z,48nm,0.7s
KIRS  Kirsehir-Merke   74.29 318 ⇓P       P       03 52 28.0 +0.2
GOA   Goa              74.32 274 eP       P       03 52 25.6 -2.5
BOVS  Bovan            74.33 329 ⇑P       P       03 52 27.5 -0.4
BLY   Banja Luka       74.55 332 eP       P       03 52 27.9 -1.2
BLSH  Balsha           74.58 327  P       P       03 52 30.8 +1.4
TAVE  Taveuni          74.58 158  P       P       03 52 31.4 +2.0
      comp=Z,217nm,1.4s
PGB   Panagyurishte    74.61 327  P       P       03 52 31.3 +1.7
JASK  Jask - Hormozg   74.61 293  P       P       03 52 29.4 -0.4
      SNR=22
JASK                              S       S       04 01 35.3 -0.9
GRR   Gorron           74.67 346 eP       P       03 52 30.2 +0.5
GRR                               pmax    pmax
      comp=Z,49nm,0.6s
MTSU  Mount Surprise   74.68 194  P       P       03 52 30.5 +0.4
      comp=Z,197nm,1.2s
TUE   Stuetta          74.76 338  P       P       03 52 30.9 +0.3
      comp=Z,13µmcomp=Z,367nm,0.7s
PLD   Plovdiv          74.77 326  P       P       03 52 32.2 +1.8
BBLS  Lazi&#263i       74.77 331 eP       P       03 52 30.2 -0.3
VTS   Vitosha          74.81 327  P       P       03 52 32.0 +1.2
UGM   Wanagama         74.86 230  P       P       03 52 30.0 -1.2
      comp=Z,2µm,1.8s
PLNA  Plana            74.88 327  P       P       03 52 33.0 +1.8
SGMF  Saint Gilles     75.03 347 eP       P       03 52 31.1 -0.6
SGMF                              pmax    pmax
      comp=Z,232nm,1.5s
LOR   Lormes           75.03 342 eP       P       03 52 32.4 +0.5
LOR                               pmax    pmax
      comp=Z,170nm,1.2s
ROSF  Rostrenen        75.04 347 eP       P       03 52 32.4 +0.6
ROSF                              pmax    pmax
      comp=Z,245nm,1.4s
KDZ   Kurdzhali        75.05 325  P       P       03 52 33.9 +1.9
MNAI  Manna            75.16 238  P       P       03 52 33.7 +0.8
      comp=Z,760nm,1.1s
MSVF  Nonsavu          75.17 161  P       P       03 52 34.7 +1.8
      comp=Z,173nm,1.6s
SJES  Sjenica          75.17 330 eP       P       03 52 32.4 -0.4
CABF  La Chapelle      75.27 341 eP       P       03 52 35.4 +2.1
CABF                              pmax    pmax
      comp=Z,185nm,1.4s
PLE   Pljevlja         75.27 330⇓iP       P       03 52 32.8 -0.6
SHME  Shamm            75.35 295  P       P       03 52 32.5 -1.4
      SNR=20
SHME                              S       S       04 01 41.1 -3.2
SHME  Shamm            75.35 295 i P      P       03 52 32.5 -1.4
      SNR=19
BANOM Banah            75.38 295  P       P       03 52 33.2 -1.0
BANOM                             S       S       04 01 40.2 -4.5
BANOM Banah            75.38 295 i P      P       03 52 33.1 -1.0
      SNR=14
QUIF  Quistinic        75.44 347 eP       P       03 52 34.5 +0.5
QUIF                              pmax    pmax
      comp=Z,46nm,0.8s
TV1H  Townsville Har   75.48 191  P       P       03 52 35.9 +1.4
      comp=Z,180nm,1.4s
UPM   Unac-Piva        75.53 331 eP       P       03 52 35.0 +0.1
UPM   Unac-Piva        75.53 331⇓iP       P       03 52 34.2 -0.7
KKB   Krupnik          75.55 327  P       P       03 52 36.8 +2.0
IVA   Berane           75.56 330⇓iP       P       03 52 34.3 -0.6
AVF   Avril sur Loir   75.58 343 eP       P       03 52 35.6 +0.7
AVF                               pmax    pmax
      comp=Z,50nm,0.8s
MMB   Musomishta       75.62 327  P       P       03 52 36.9 +1.6
CAVK  Edirne/Enez-Ca   75.63 324 ⇑P       P       03 52 36.3 +1.1
KLINJ Klinje           75.64 331 eP       P       03 52 37.2 +1.7
PEHC  Pehcevo          75.67 327 i P      P       03 52 38.3 +2.6
KOME  Kolasin          75.68 330⇓iP       P       03 52 34.6 -1.1
BBJI  Bungbulang       75.71 232  P       P       03 52 34.9 -1.2
      comp=Z,125nm,1.2s
AUAYR Ayr State High   75.73 191  P       P       03 52 37.5 +1.6
      comp=Z,560nm,1.5s
PVY   Plav             75.79 330⇓iP       P       03 52 36.6 +0.3
MDH   Madha            75.89 294  P       P       03 52 35.1 -1.9
      SNR=9.8
MDH                               S       S       04 01 43.6 -6.5
MDH   Madha            75.89 294 i P      P       03 52 35.1 -1.9
      SNR=15
BGF   Bois d'Agland    75.89 343 eP       P       03 52 39.4 +2.7
BGF                               pmax    pmax
      comp=Z,19nm,0.5s
MASF  Masafi           75.90 294  P       P       03 52 36.7 -0.4
MASF                              S       S       04 01 46.3 -4.0
BRY   Bratogost        75.91 331 eP       P       03 52 36.2 -0.8
BRY   Bratogost        75.91 331⇓iP       P       03 52 36.0 -1.0
MSFE  Esma-Masafi      75.91 294 i P      P       03 52 35.9 -1.3
      SNR=13
NKME  Niksic           75.92 330⇓iP       P       03 52 36.0 -0.9
SKO   Skopje           75.94 328 i P      P       03 52 37.8 +0.8
UMQ   Umm Al-Quwin     76.03 295  P       P       03 52 37.3 -0.4
      SNR=13
UMQ                               S       S       04 01 47.5 -4.0
UMQ                               S       S       04 01 51.4 -0.2
UMQ   Umm Al-Quwin     76.03 295 i P      P       03 52 37.5 -0.3
      SNR=15
TREB  Trebinje         76.13 331 eP       P       03 52 37.3 -0.7
CEME  Cevo             76.13 330⇓iP       P       03 52 37.3 -0.8
PDG   Podgorica        76.14 330 ⇑P       P       03 52 39.0 +0.9
PDG   Podgorica        76.14 330 eP       P       03 52 37.3 -0.8
PDG   Podgorica        76.14 330⇓iP       P       03 52 37.6 -0.5
VAY   Valandovo        76.19 327 i P      P       03 52 39.0 +0.6
LPL   La Plagne        76.20 340 eP       P       03 52 40.3 +1.6
LPL                               pmax    pmax
      comp=Z,101nm,0.8s
LPG   La Plagne        76.22 340 eP       P       03 52 40.6 +1.7
LPG                               pmax    pmax
      comp=Z,129nm,0.8s
UOSS  Minazif          76.23 294  P       P       03 52 37.3 -1.6
UOSS                              S       S       04 01 50.3 -3.5
UOSS  Minazif          76.23 294 i P      P       03 52 37.3 -1.6
      SNR=11
KOUNC Koumac, New Ca   76.28 174  P       P       03 52 40.6 +1.6
      comp=Z,304nm,1.8s
LKBA  Tubou, Lakemba   76.28 158  P       P       03 52 41.0 +2.0
      comp=Z,4.7nm,1.8s
MALK  Mahakanadarawa   76.30 265  P       P       03 52 38.4 -1.0
HCY   Herceg Novi      76.34 331 eP       P       03 52 39.8 +0.5
HCY   Herceg Novi      76.34 331⇓iP       P       03 52 39.7 +0.5
EZN   Ezine            76.36 324  P       P       03 52 39.4 +0.1
      comp=Z,1µmcomp=Z,62nm,1.5s
WSAR  Wadi Sarin       76.36 291  P       P       03 52 39.2 -0.4
      SNR=24
WSAR                              S       S       04 01 55.5 +0.2
HATD  Hatta, Dubai     76.36 294  P       P       03 52 38.4 -1.3
      SNR=9.7
HATD                              S       S       04 01 52.2 -3.1
HATD  Hatta, Dubai     76.36 294 i P      P       03 52 38.6 -1.1
      SNR=32
CTA   Charters Tower   76.36 192  P       P       03 52 39.7 +0.3
      comp=Z,24nm,1.4s
CTAO  Charters Tower   76.36 192  P       P       03 52 39.8 +0.3
      comp=Z,302nm,1.4s
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CTAO  Charters Tower   76.36 192  P       P       03 52 40.2 +0.7
CTAO                              pP      pP      03 53 57.1 -1.3
CTAO                              sP      sP      03 54 36.3 +1.2
CTAO                              S       S       04 01 57.1 +2.1
BUM   Brajici-Budva    76.36 330⇓iP       P       03 52 38.7 -0.8
DRME  Dracevica, Mon   76.39 330 eP       P       03 52 39.0 -0.5
DRME  Dracevica, Mon   76.39 330⇓iP       P       03 52 39.3 -0.2
BIDO  Bidbid           76.39 292  P       P       03 52 39.4 -0.4
      SNR=18
BIDO                              S       S       04 01 54.0 -1.6
NAZ   Nazwa, Dubai     76.47 294  P       P       03 52 39.0 -1.3
      SNR=21
NAZ   Nazwa, Dubai     76.47 294 i P      P       03 52 38.9 -1.3
      SNR=20
ASHO  Ashiyiah         76.52 294  P       P       03 52 39.1 -1.5
      SNR=5.4
ASHO                              S       S       04 01 54.1 -2.9
ASHO  Ashiyiah         76.52 294 i P      P       03 52 39.4 -1.2
      SNR=27
KOD   Kodaikanal       76.53 268 eP       P       03 52 38.6 -2.5
ULC   Ulcinj           76.58 330⇓iP       P       03 52 41.2 +0.6
ISP   Isparta          76.69 320d iP      P       03 52 41.2 -0.2
ISP                               pmax    pmax
      comp=Z,113nm,1.5s
WBK   Wadi Bani Khal   76.70 291  P       P       03 52 42.3 +0.8
      SNR=31
WBK                               S       S       04 01 59.0  0.0
FAQ   Al Faqa, Dubai   76.71 294  P       P       03 52 40.9 -0.6
      SNR=15
FAQ                               S       S       04 01 55.1 -3.8
FAQ   Al Faqa, Dubai   76.71 294 i P      P       03 52 40.0 -1.5
      SNR=8.1
SOHO  SOHO             76.72 293  P       P       03 52 41.0 -0.6
SOHO                              S       S       04 01 55.8 -3.3
SOHO  SOHO             76.72 293 i P      P       03 52 39.9 -1.7
      SNR=27
VLC   Villacollemand   76.75 337  P       P       03 52 42.4 +0.9
HOQ   Hoqain           76.77 292  P       P       03 52 42.0  0.0
      SNR=37
HOQ                               S       S       04 01 57.7 -2.0
SMDO  Samad            76.81 291  P       P       03 52 42.5 +0.2
      SNR=28
SMDO                              S       S       04 01 58.5 -1.8
JLN   Jalan Bani Buh   76.84 290  P       P       03 52 43.2 +0.9
      SNR=36
JLN                               S       S       04 02 00.3 -0.1
SSB   Saint Sauveur    76.84 341  P       P       03 52 43.5 +1.5
SSB                               pP      pP      03 53 57.1 -3.7
SSB                               PP      PP      03 55 41.6 +2.2
OHR   Ohrid            76.92 328 i P      P       03 52 42.4 -0.1
ASUD  Al Ashush, Dub   76.94 295  P       P       03 52 42.9 +0.1
      SNR=12
ASUD                              S       S       04 01 59.7 -1.8
ASUD  Al Ashush, Dub   76.94 295 i P      P       03 52 41.7 -1.2
      SNR=13
ORIF  Oris-en-Rattie   76.94 340 eP       P       03 52 44.2 +1.5
ORIF                              pmax    pmax
      comp=Z,96nm,0.9s
MBDF  Montbardon       76.95 340 eP       P       03 52 45.3 +2.5
MBDF                              pmax    pmax
      comp=Z,54nm,0.7s
KEPZ  Antalya-Kepez    77.11 319 ⇑P       P       03 52 43.2 -0.5
PALK  Pallekele        77.13 264  P       P       03 52 44.5 +0.4
PALK                              S       S       04 02 01.1 -2.7
PALK                              S       S       04 02 01.6 -2.2
PALK  Pallekele        77.13 264c iP      P       03 52 43.3 -0.8
PALK                              pmax    pmax
      comp=Z,967nm,1.1s
PALK  Pallekele        77.13 264 i P      P       03 52 43.7 -0.3
      SNR=66
PALK  Pallekele        77.13 264  P       P       03 52 44.7 +0.6
PALK                              PP      PP      03 55 44.5 +1.4
PALK                              S       S       04 02 00.1 -3.7
AJN   Ajban            77.17 295  P       P       03 52 43.4 -0.6
      SNR=8.6
AJN                               S       S       04 01 59.3 -4.6
AJN   Ajban            77.17 295 i P      P       03 52 42.9 -1.2
      SNR=11
ALNE  Al Ain           77.19 294  P       P       03 52 44.1 -0.2
      SNR=33
ALNE                              S       S       04 02 01.1 -3.1
ALNE  Al Ain           77.19 294 i P      P       03 52 43.1 -1.1
      SNR=9.6
VIVF  Saint-Julien-l   77.23 341 eP       P       03 52 43.3 -0.8
VIVF                              pmax    pmax
      comp=Z,167nm,1.5s
JMDO  Jabal Madar      77.35 291  P       P       03 52 44.7 -0.4
      SNR=55
JMDO                              S       S       04 02 04.2 -1.7
ARQ   Araqi            77.38 293  P       P       03 52 45.0 -0.3
      SNR=37
ARQ                               S       S       04 02 03.8 -2.5
MARNC Mare, Loyalty    77.48 171  P       P       03 52 47.6 +2.0
      comp=Z,435nm,1.8s
BSY   Bisya            77.52 292  P       P       03 52 45.6 -0.4
      SNR=51
BSY                               S       S       04 02 04.5 -3.2
TAVA  DENIZLI_Tavas    77.59 321 ⇓P       P       03 52 46.2 -0.1
CAF   Calviac          77.61 343 eP       P       03 52 47.6 +1.3
CAF                               pmax    pmax
      comp=Z,151nm,1.4s
SBF   Sospel           77.65 339 eP       P       03 52 47.7 +1.2
SBF                               pmax    pmax
      comp=Z,146nm,0.9s
AQU   L'Aquila         77.75 334  P       P       03 52 48.1 +1.0
AQU   L'Aquila         77.75 334 eP       P       03 52 45.8 -1.3
AQU   L'Aquila         77.75 334  P       P       03 52 48.2 +1.1
      comp=Z,2µmcomp=Z,75nm,1.5s
QIS   Mount Isa        77.79 198  P       P       03 52 46.9 -0.5
      comp=Z,660nm,1.6s
LFF   La Frestale      77.81 344 eP       P       03 52 48.5 +1.2
LFF                               pmax    pmax
      comp=Z,1µm,1.5s
JRN   Qarnain Island   77.94 297  P       P       03 52 47.5 -0.8
      SNR=6.7
JRN                               S       S       04 02 07.8 -4.3
CASP  Castiglione de   77.94 336  P       P       03 52 47.6 -0.4
NOUC  Port Laguerre    77.95 173  P       P       03 52 49.8 +1.6
      comp=Z,412nm,1.7s
NOUC  Port Laguerre    77.95 173  P       P       03 52 50.1 +1.9
NOUC                              pP      pP      03 54 10.2 +2.8
NOUC                              sP      sP      03 54 44.8 +0.8
YATNC Mamie plateau,   77.95 172  P       P       03 52 49.8 +1.6
WB0   Warramunga Arr   78.05 203  P       P       03 52 48.5 -0.3
ONTNC Ouen Toro        78.17 172  P       P       03 52 50.8 +1.5
CSS   Mathiatis        78.17 317  P       P       03 52 48.1 -1.4
CSS                               IAmb    IAmb    03 52 51.6
      comp=Z,164nm,1.5s
CSS   Mathiatis        78.17 317  P       P       03 52 49.5  0.0
      comp=Z,2µmcomp=Z,77nm,1.5s
WR8   Warramunga Arr   78.21 203  P       P       03 52 49.8 +0.1
WRAB  Tennant Creek    78.22 203  P       P       03 52 49.7  0.0
      comp=Z,665nm,1.3s
WRAB  Tennant Creek    78.22 203ceP       P       03 52 49.9 +0.2
WRAB                              pmax    pmax
      comp=Z,2µm,1.4s
WRAB  Tennant Creek    78.22 203  P       P       03 52 48.9 -0.8
WRAB  Tennant Creek    78.22 203  P       P       03 52 50.0 +0.2
WRAB                              pP      pP      03 54 06.8 -2.3
WRAB                              sP      sP      03 54 47.1 +1.4
WRAB                              S       S       04 02 12.2 -2.7
TRD   Trivandrum       78.23 268 eP       P       03 52 48.0 -2.0
SAKB  Bahrain          78.23 299  P       P       03 52 49.2 -0.7
SAKB                              S       S       04 02 10.4 -4.8
WRA   Warramunga Arr   78.23 203  P       P       03 52 50.3 +0.5
      comp=Z,645nm,1.1s,baz=17,slow=5.7,SNR=271
WRA                               PP      PP      03 55 53.4 +0.9
      comp=Z,106nm,1.0s,baz=15,slow=7.9,SNR=5.4
WRA                               PKiKP   PKiKP   03 58 23.9 +0.4
      comp=Z,4.0nm,0.9s,baz=357,slow=1.5,SNR=5.0
WRA                               S       S       04 02 16.9 +2.0
      comp=Z,8.8nm,1.1s,baz=29,slow=8.8,SNR=9.7
WRA                               PKKPbc  PKKPbc  04 11 44.4 +0.8
      comp=Z,0.5nm,0.4s,baz=207,slow=2.0,SNR=7.5
      comp=Z,645nm,1.1s
WRA   Warramunga Arr   78.23 203  P       P       03 52 48.8 -1.0
WRA                               IAmb    IAmb    03 52 52.6
      comp=Z,278nm,1.4s
WRA                                       PP      03 55 50.4 -2.0
WB1   Warramunga Ar.   78.25 203  P       P       03 52 49.6 -0.3
OUENC Ouen Island, N   78.31 172  P       P       03 52 51.8 +1.7
      comp=Z,403nm,1.6s
LMR   La Mourre        78.35 339 eP       P       03 52 51.2 +1.0
LMR                               pmax    pmax
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      comp=Z,253nm,1.4s
MZWR  Madinat Zayed    78.39 295  P       P       03 52 49.9 -0.9
MZWR                              S       S       04 02 13.0 -3.9
BDRM  Kayabasi         78.46 322 ⇓P       P       03 52 50.9 -0.1
KEK   Kerkira          78.50 329  P       P       03 52 48.9 -2.2
KEK                               IAmb    IAmb    03 52 54.1
      comp=Z,68nm,0.7s
MATE  Matera           78.50 331 ⇓P       P       03 52 51.3 +0.2
MHTO  MHTO             78.55 290  P       P       03 52 51.3 -0.4
      SNR=53
MHTO                              S       S       04 02 16.8 -1.9
PGF   Pioggiola        78.58 337 eP       P       03 52 53.5 +1.8
PGF                               pmax    pmax
      comp=Z,130nm,1.4s
UMZA  Um Al Zommool    78.60 294  P       P       03 52 51.6 -0.3
UMZA                              S       S       04 02 13.6 -5.5
PAOL  Paolisi          78.71 333  P       P       03 52 51.8 -0.5
FITZ  Fitzroy Crossi   78.72 212  P       P       03 52 52.9 +0.5
      comp=Z,2µm,1.3s
FITZ  Fitzroy Crossi   78.72 212  P       P       03 52 52.1 -0.3
FITZ                              IAmb    IAmb    03 52 55.2
      comp=Z,316nm,1.4s
FITZ                              pP      pP      03 54 12.1 +0.3
GHWR  Ruwais           78.74 296  P       P       03 52 50.4 -2.3
GHWR                              S       S       04 02 14.8 -5.7
MMAI  Mount Meron Ar   79.06 314  P       P       03 52 54.2 -0.1
      comp=Z,11nm,0.5s,baz=24,slow=11,SNR=17
      comp=Z,11nm,0.5s
MTLF  Montolieu        79.13 343 eP       P       03 52 57.2 +2.7
MTLF                              pmax    pmax
      comp=Z,99nm,1.1s
AUNRC North Rockhamp   79.19 187  P       P       03 52 55.1 +0.3
      comp=Z,354nm,1.7s
MZR   Muzera           79.23 295  P       P       03 52 54.7 -0.6
      SNR=29
MZR                               S       S       04 02 21.8 -3.9
MZR   Muzera           79.23 295 i P      P       03 52 54.4 -0.9
      SNR=23
SLWR  Sila             79.25 297  P       P       03 52 55.1 -0.3
SLWR                              S       S       04 02 21.3 -4.5
GD1S  Gladstone Soft   79.64 187  P       P       03 52 59.7 +2.5
      comp=Z,293nm,1.3s
TIP   Timpagrande      79.86 331  P       P       03 52 56.6 -1.9
TIP                               IAmb    IAmb    03 53 02.0
      comp=Z,130nm,1.2s
TIP   Timpagrande      79.86 331 ⇓P       P       03 52 58.8 +0.2
TIP   Timpagrande      79.86 331  P       P       03 52 58.9 +0.4
      comp=Z,2µmcomp=Z,81nm,1.5s
EJON  La Jonquera      79.88 342  P       P       03 52 59.4 +0.9
SJPF  Ste Jean         79.89 345 eP       P       03 53 00.3 +1.7
SJPF                              pmax    pmax
      comp=Z,11nm,0.5s
CEST  Esterri de Car   80.01 343  P       P       03 53 00.1 +0.7
CEST                              IAmb    IAmb    03 53 05.6
      comp=Z,174nm,1.6s
ITM   Ithomi           80.18 326  P       P       03 52 58.4 -1.8
ITM                               IAmb    IAmb    03 53 02.1
      comp=Z,158nm,1.4s
UNM   Universidad Na   80.93  69  P       P       03 53 07.0 +2.3
UNM                               pP      pP      03 54 22.7 -1.6
IDI   Anoyia           80.94 323  P       P       03 53 02.8 -1.6
CEL   Celeste          80.96 331  P       P       03 53 03.3 -1.0
CEL   Celeste          80.96 331  P       P       03 53 04.7 +0.4
      comp=Z,1µmcomp=Z,51nm,0.8s
EIDS  Eidsvold         81.16 187  P       P       03 53 06.2 +1.0
      comp=Z,256nm,2.0s
EIDS  Eidsvold         81.16 187  P       P       03 53 05.9 +0.7
VSL   Villasalto       81.42 336  P       P       03 53 06.6  0.0
ECAL  Calabor          81.75 349  P       P       03 53 08.2 -0.2
HMDM  Hanimaadhoo      81.77 270  P       P       03 53 09.7 +0.9
      SNR=6.0
EBR   Ebro Roquetas    81.87 343  P       P       03 53 08.0 -0.9
EBR   Ebro Roquetas    81.87 343  P       P       03 53 08.0 -0.9
PGAV  Gavieira, Arco   81.88 350 eP       P       03 53 09.4 +0.3
PGAV                             i IAmb   IAmb    03 53 14.7
      comp=Z,232nm,1.6s
PGAV                             epP      pP      03 54 29.6 +0.7
PGAV                             esP      sP      03 55 09.0 +3.5
PGAV                             ePP      PP      03 56 22.7 +1.6
PGAV                             eS       S       04 02 53.9 +1.3
PGAV                             eSS      SS      04 08 24.1 +6.0
PBRG  Braganca         81.88 349 eP       P       03 53 09.7 +0.7
PBRG                             i IAmb   IAmb    03 53 14.5
      comp=Z,224nm,1.7s
PBRG                             epP      pP      03 54 29.9 +1.1
PBRG                             esP      sP      03 55 06.6 +1.2
PBRG                             ePP      PP      03 56 23.1 +2.1
AS01  Alice Springs    81.92 203  P       P       03 53 10.0 +0.7
      comp=Z,520nm,1.2s
AS31  Alice Springs    81.93 203  P       P       03 53 08.6 -0.8
AS31                              IAmb    IAmb    03 53 12.1
      comp=Z,239nm,1.3s
ASAR  Alice Springs    81.93 203  P       P       03 53 10.1 +0.7
      comp=Z,129nm,0.4s,baz=10.0,slow=4.2,SNR=403
ASAR                              PKiKP   PKiKP   03 58 30.1 +1.0
      comp=Z,6.2nm,1.0s,baz=19,slow=2.4,SNR=1.7
ASAR                              S       S       04 02 55.0 +1.9
      comp=Z,3.6nm,0.9s,baz=18,slow=4.7,SNR=6.7
ASAR                              PKKPbc  PKKPbc  04 11 36.7 +1.3
      comp=Z,1.0nm,0.5s,baz=193,slow=2.4,SNR=5.8
ASAR                              PKPPKP  P'P'df  04 19 43.2 +8.3
      comp=Z,1.3nm,0.9s,baz=170,slow=1.9,SNR=5.2
      comp=Z,129nm,0.4s
ASAR  Alice Springs    81.93 203  P       P       03 53 08.6 -0.7
ASAR  Alice Springs    81.93 203  P       P       03 53 08.6 -0.7
TAOE  Nuku Hiva Isla   81.94 119 eP       P       03 53 07.7 -2.0
      comp=Z,375nm,28.3s
TAOE                             eS       S       04 02 46.2 -7.6
      comp=Z,850nm,25.5s
TAOE                             eSS      SS      04 08 23.7 +2.0
      comp=Z,3µm,26.4s
TAOE                             eLQ      LQ      04 15 53.2
      comp=Z,8µm,25.2s
MAHO  Mahon            82.10 340  P       P       03 53 11.3 +1.2
PCAB  Cabril           82.11 350 eP       P       03 53 10.9 +0.7
PCAB                             i IAmb   IAmb    03 53 15.7
      comp=Z,217nm,1.6s
PCAB                             epP      pP      03 54 32.1 +2.1
PCAB                             esP      sP      03 55 12.0 +5.4
PCAB                             ePP      PP      03 56 25.0 +2.2
SHAO  Shalim           82.23 291  P       P       03 53 11.2  0.0
SHAO                              S       S       04 02 53.4 -3.3
SHAO  Shalim           82.23 291  P       P       03 53 09.6 -1.6
POLO  Lamas de Olo     82.42 350 eP       P       03 53 12.9 +1.1
POLO                             i IAmb   IAmb    03 53 17.4
      comp=Z,168nm,1.6s
POLO                             epP      pP      03 54 32.7 +0.9
POLO                             esP      sP      03 55 11.0 +2.7
POLO                             ePP      PP      03 56 28.0 +2.5
ETOS  Mallorca         82.49 341  P       P       03 53 13.1 +0.9
PVRL  Vila Real        82.51 350 eP       P       03 53 13.1 +0.8
PVRL                             i IAmb   IAmb    03 53 17.7
      comp=Z,431nm,1.7s
PVRL                             epP      pP      03 54 34.4 +2.2
TLIG  Tlapa            82.72  70  P       P       03 53 14.2 +0.4
TLIG                              IAmb    IAmb    03 53 19.0
      comp=Z,115nm,0.9s
PTO   Porto            82.73 350 eP       P       03 53 14.2 +0.9
PTO                              i IAmb   IAmb    03 53 18.6
      comp=Z,324nm,1.7s
PTO                              epP      pP      03 54 34.8 +1.6
PTO                              ePP      PP      03 56 32.1 +4.3
RAYN  Ar Rayn          82.75 302  P       P       03 53 13.1 -0.6
RAYN                              S       SKSac   04 02 58.8 -2.5
RAYN  Ar Rayn          82.75 302  P       P       03 53 11.0 -2.8
RAYN                              pmax    pmax
      comp=Z,515nm,1.7s
RAYN  Ar Rayn          82.75 302  P       P       03 53 11.0 -2.8
RAYN  Ar Rayn          82.75 302 i P      P       03 53 12.8 -1.0
      SNR=62
DMTO  DMTO             82.85 291  P       P       03 53 13.2 -1.1
DMTO                              S       SKSac   04 02 59.2 -2.8
UCM   Universidad Co   82.93 346  P       P       03 53 14.8 +0.3
QLP   Quilpie          83.01 193  P       P       03 53 15.8 +1.1
      comp=Z,1µm,1.5s
PVIS  Viseu            83.08 350 eP       P       03 53 15.6 +0.4
PVIS                             epP      pP      03 54 36.2 +1.0
PVIS                             esP      sP      03 55 14.3 +2.6
TW1H  Toowoomba 1 Ha   83.27 186  P       P       03 53 18.8 +2.7
AUTOO Toowoomba Stat   83.27 186  P       P       03 53 18.0 +1.9
      comp=Z,138nm,0.9s
WHFO  Wadi Hawf        83.30 292  P       P       03 53 14.8 -1.8
      SNR=9.9
WHFO                              S       SKSac   04 03 03.0 -2.0
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MTE   Manteigas        83.36 349 eP       P        03 53 17.0 +0.4
MTE                              i IAmb   IAmb     03 53 21.9
      comp=Z,327nm,2.1s
MTE                              epP      pP       03 54 37.5 +0.7
MTE                              esP      sP       03 55 14.7 +1.5
MTE                              ePP      PP       03 56 34.1 +1.1
MTE                              eS       SKSac    04 03 05.6 +0.7
MTE                              eSS      SS       04 08 46.3 +6.4
MTE   Manteigas        83.36 349  P       P        03 53 16.1 -0.6
MTE                               IAmb    IAmb     03 53 20.4
      comp=Z,322nm,1.3s
RBK   Rabkut           83.41 291  P       P        03 53 15.7 -1.5
      SNR=6.1
RBK                               S       SKSac    04 03 03.6 -2.1
MBWA  Marble Bar       83.45 216  P       P        03 53 16.4 -0.7
      comp=Z,350nm,1.4s
MBWA  Marble Bar       83.45 216  P       P        03 53 17.3 +0.2
ESBB  Sonseca Array    83.65 346  P       P        03 53 18.0 -0.1
ESDC  Sonseca Array    83.65 346  P       P        03 53 18.2 +0.1
      comp=Z,109nm,1.1s,baz=1.4,slow=5.0,SNR=116
ESDC                              pP      pP       03 54 37.3 -1.0
      comp=Z,31nm,1.1s,baz=4.3,slow=5.7,SNR=3.4
ESDC                              PKKPbc  PKKPbc   04 11 31.1 +1.3
      comp=Z,1.0nm,0.5s,baz=213,slow=1.9,SNR=11
ESDC                              PKPPKP  P'P'df   04 19 38.0 -2.4
      comp=Z,1.0nm,0.8s,baz=251,slow=1.1,SNR=5.3
      comp=Z,109nm,1.1s
ESDC  Sonseca Array    83.65 346  P       P        03 53 17.5 -0.6
ESDC                                      pP       03 54 38.2 -0.1
PMOR  Pomariorio Ree   83.67 128 eP       P        03 53 19.6 +1.3
      comp=Z,217nm,1.1s
PCAS  Casmilo, Conde   83.80 350 eP       P        03 53 19.1 +0.4
PCAS                             i IAmb   IAmb     03 53 23.2
      comp=Z,389nm,1.2s
PCAS                             epP      pP       03 54 39.5 +0.5
PCAS                             esP      sP       03 55 17.5 +2.1
PCAS                             ePP      PP       03 56 38.6 +2.1
GC1S  Gold Coast 1 S   83.80 184  P       P        03 53 20.2 +1.6
PAB   San Pablo        83.82 347  P       P        03 53 18.9 -0.1
PAB                               pmax    pmax
      comp=Z,355nm,1.6s
PAB   San Pablo        83.82 347  P       P        03 53 18.9 -0.1
PAB                               IAmb    IAmb     03 53 22.7
      comp=Z,354nm,1.6s
PAB   San Pablo        83.82 347  P       P        03 53 20.3 +1.3
PAB                               pP      pP       03 54 36.3 -2.9
PAB                               sP      sP       03 55 16.1 +0.4
PAB                               S       SKSac    04 03 08.2 +0.2
PCBR  Castelo Branco   83.90 349 eP       P        03 53 19.6 +0.3
PCBR                             i IAmb   IAmb     03 53 23.7
      comp=Z,285nm,1.3s
PCBR                             epP      pP       03 54 42.2 +2.7
PCBR                             ePP      PP       03 56 41.1 +3.7
VAH   Vaihoa           84.00 128 eP       P        03 53 21.5 +1.6
      comp=Z,185nm,1.2s
PSARD Sardoal          84.21 350 eP       P        03 53 21.2 +0.4
PSARD                            i IAmb   IAmb     03 53 25.0
      comp=Z,188nm,1.4s
PSARD                            epP      pP       03 54 41.7 +0.5
PSARD                            esP      sP       03 55 18.1 +0.5
PSARD                            ePP      PP       03 56 41.5 +1.6
PMRV  Marv??o          84.30 349 eP       P        03 53 21.8 +0.5
PMRV                             i IAmb   IAmb     03 53 26.3
      comp=Z,187nm,1.6s
PMRV                             epP      pP       03 54 42.2 +0.6
PMRV                             esP      sP       03 55 18.6 +0.6
PMRV                             ePP      PP       03 56 42.7 +2.1
PMRV                             eS       SKSac    04 03 11.3 +0.4
PMRV                             eSS      SS       04 08 58.5 +4.9
PSBE  So Bento         84.36 350 eP       P        03 53 21.9 +0.3
PSBE                             i IAmb   IAmb     03 53 26.0
      comp=Z,282nm,1.5s
PSBE                             epP      pP       03 54 43.0 +1.1
PSBE                             esP      sP       03 55 18.7 +0.4
PSBE                             ePP      PP       03 56 43.2 +2.1
RAR   Rarotonga        84.55 141  P       P        03 53 22.7 +0.1
      comp=Z,25nm,0.6s,baz=276,slow=7.6,SNR=6.1
      comp=Z,25nm,0.6s
RAR   Rarotonga        84.55 141  P       P        03 53 21.8 -0.7
RAR                               pmax    pmax
      comp=Z,529nm,2.0s
RAR   Rarotonga        84.55 141  P       P        03 53 21.8 -0.7
RAR                               IAmb    IAmb     03 54 31.5
      comp=Z,529nm,2.0s
INKA  Innaminka        84.64 196  P       P        03 53 22.7 -0.1
INKA                              IAmb    IAmb     03 53 25.7
      comp=Z,230nm,1.1s
PMTG  Montargil        84.74 350 eP       P        03 53 23.7 +0.2
PMTG                             i IAmb   IAmb     03 53 28.2
      comp=Z,179nm,2.0s
PMTG                             epP      pP       03 54 44.3 +0.4
PMTG                             esP      sP       03 55 21.1 +0.8
PMTG                             ePP      PP       03 56 45.3 +1.1
PESTR Estremoz         84.88 349 eP       P        03 53 24.4 +0.2
PESTR                            i IAmb   IAmb     03 53 28.4
      comp=Z,103nm,1.2s
PESTR                            epP      pP       03 54 44.1 -0.4
PESTR                            esP      sP       03 55 21.1 +0.2
PESTR                            ePP      PP       03 56 46.8 +1.5
COCO  West Island      84.91 240  P       P        03 53 25.4 +0.9
      comp=Z,609nm,1.4s
COCO  West Island      84.91 240  P       P        03 53 25.7 +1.2
COCO                              S       SKSac    04 03 15.4 +0.5
PMAFR Mafra            84.96 350 eP       P        03 53 25.2 +0.6
PMAFR                            i IAmb   IAmb     03 53 28.6
      comp=Z,257nm,1.7s
PMAFR                            epP      pP       03 54 46.1 +1.1
PMAFR                            esP      sP       03 55 21.6 +0.2
PMAFR                            ePP      PP       03 56 47.3 +1.4
PARRA Arraiolos        84.98 349 eP       P        03 53 25.1 +0.4
PARRA                            i IAmb   IAmb     03 53 28.6
      comp=Z,165nm,1.7s
PARRA                            epP      pP       03 54 45.9 +0.8
PARRA                            esP      sP       03 55 22.9 +1.4
PARRA                            ePP      PP       03 56 47.5 +1.5
KEST  Kesra            85.02 335  P       P        03 53 24.8 -0.2
      comp=Z,20nm,0.6s,baz=38,slow=2.2,SNR=41
KEST                              S       SKSac    04 03 14.8 -0.8
      comp=Z,4.1nm,1.0s,baz=296,slow=23,SNR=6.8
      comp=Z,20nm,0.6s
KEST  Kesra            85.02 335  P       P        03 53 24.2 -0.8
      SNR=9.1
KEST                              S       SKSac    04 03 13.3 -2.3
KEST  Kesra            85.02 335  P       P        03 53 25.3 +0.3
KEST                              IAmb    IAmb     03 53 28.5
      comp=Z,350nm,1.9s
LIS   Lisbon           85.18 350 eP       P        03 53 26.0 +0.4
LIS                               IAmb    IAmb     03 53 29.3
      comp=Z,216nm,1.4s
LIS                              epP      pP       03 54 46.4 +0.3
LIS                              eSKSac   SKSac    04 03 16.8 +0.5
LIS   Lisbon           85.18 350 eP       P        03 53 26.8 +1.1
LIS                              i IAmb   IAmb     03 53 30.0
      comp=Z,205nm,1.5s
LIS                              epP      pP       03 54 47.1 +1.0
LIS                              esP      sP       03 55 25.1 +2.7
LIS                              ePP      PP       03 56 49.3 +1.6
PPT   Papeete          85.22 131  P       P        03 53 28.5 +2.5
      comp=Z,41nm,0.6s,baz=19,slow=4.6,SNR=9.6
      comp=Z,41nm,0.6s
PPT2  Papeete2         85.24 131 eP       P        03 53 26.6 +0.4
      comp=Z,258nm,1.6s
PPT2                             epP      pP       03 54 48.4 +1.6
      comp=Z,93nm,1.6s
PPT2                             eS       SKSac    04 03 20.4 +3.4
      comp=Z,2µm,22.0s
PPT2                             esS      sS       04 05 39.7 -6.1
      comp=Z,2µm,23.0s
PPT2                             eLQ      LQ       04 16 40.1
      comp=Z,18µm,28.8s
PPTF  Pamatai, Papee   85.25 131  P       P        03 53 28.0 +1.8
      comp=Z,196nm,1.9s
PPTF  Pamatai, Papee   85.25 131  P       P        03 53 26.4 +0.2
EVO   Evora            85.25 349  P       P        03 53 26.0  0.0
EVO   Evora            85.25 349 eP       P        03 53 26.5 +0.5
EVO                              i IAmb   IAmb     03 53 31.0
      comp=Z,134nm,2.1s
EVO                              epP      pP       03 54 47.7 +1.2
EVO                              esP      sP       03 55 24.2 +1.4
EVO                              ePP      PP       03 56 49.5 +1.3
CART  Cartagena        85.27 344  P       P        03 53 26.0 -0.1
MOE   Montemor         85.30 350 eP       P        03 53 26.5 +0.2
MOE                              i IAmb   IAmb     03 53 31.1
      comp=Z,146nm,2.0s
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MOE                              epP      pP       03 54 47.5 +0.7
MOE                              esP      sP       03 55 23.4 +0.3
MOE                              ePP      PP       03 56 49.9 +1.3
PAE   Paea             85.31 131 eP       P        03 53 26.7 +0.4
      comp=Z,508nm,1.6s
PAE                              epP      pP       03 54 53.8 +6.8
      comp=Z,130nm,1.3s
TIAR  Tiarei           85.31 131 eP       P        03 53 27.9 +1.5
      comp=Z,767nm,0.9s
PBAR  Barrancos        85.50 349 eP       P        03 53 28.1 +0.9
PBAR                             i IAmb   IAmb     03 53 32.3
      comp=Z,154nm,1.1s
PBAR                             epP      pP       03 54 48.2 +0.5
PBAR                             esP      sP       03 55 23.9 -0.3
PBAR                             ePP      PP       03 56 51.6 +1.3
TVO   Taravao          85.55 131 eP       P        03 53 29.0 +1.3
      comp=Z,349nm,1.6s
TEIG  Tepich           85.72  60  P       P        03 53 29.2 +0.7
TEIG                              pP      pP       03 54 47.1 -2.0
TEIG                              sP      sP       03 55 26.9 +1.5
PBEJ  Beja             85.74 349 eP       P        03 53 28.9 +0.5
PBEJ                             i IAmb   IAmb     03 53 32.4
      comp=Z,82nm,2.1s
PBEJ                             epP      pP       03 54 49.9 +0.9
PBEJ                             ePP      PP       03 56 53.2 +1.0
PLOUS Minas do Lousa   85.79 350 eP       P        03 53 29.1 +0.4
PLOUS                            i IAmb   IAmb     03 53 33.8
      comp=Z,64nm,2.0s
PLOUS                            epP      pP       03 54 50.2 +1.0
PLOUS                            esP      sP       03 55 26.3 +0.7
PLOUS                            ePP      PP       03 56 54.1 +1.6
MESJ  Messejana        85.96 349 eP       P        03 53 29.8 +0.3
MESJ                              IAmb    IAmb     03 53 32.1
      comp=Z,28nm,0.9s
MESJ                             epP      pP       03 54 50.3 +0.2
MESJ                             eSKSac   SKSac    04 03 21.6 +0.3
MESJ  Messejana        85.96 349 eP       P        03 53 30.3 +0.8
MESJ                             i IAmb   IAmb     03 53 33.5
      comp=Z,64nm,1.9s
MESJ                             epP      pP       03 54 50.6 +0.5
MESJ                             esP      sP       03 55 26.9 +0.5
MESJ                             ePP      PP       03 56 55.8 +1.8
ARMA  Armidale         86.14 186  P       P        03 53 31.9 +1.6
      comp=Z,398nm,1.6s
ARMA  Armidale         86.14 186  P       P        03 53 31.0 +0.7
PCVE  Castro Verde     86.15 349 eP       P        03 53 31.3 +0.9
PCVE                             i IAmb   IAmb     03 53 33.7
      comp=Z,77nm,1.7s
PCVE                             epP      pP       03 54 51.1 +0.1
PCVE                             esP      sP       03 55 28.8 +1.4
PCVE                             ePP      PP       03 56 57.0 +1.5
PTEO  Sao Teotonio     86.30 350 eP       P        03 53 32.0 +0.8
PTEO                             i IAmb   IAmb     03 53 36.2
      comp=Z,67nm,2.0s
PTEO                             epP      pP       03 54 52.0 +0.1
PTEO                             esP      sP       03 55 29.7 +1.5
PTEO                             ePP      PP       03 56 58.5 +1.8
PVAQ  Vaqueiros        86.34 349 eP       P        03 53 32.1 +0.8
PVAQ                             i IAmb   IAmb     03 53 35.4
      comp=Z,77nm,1.5s
PVAQ                             epP      pP       03 54 53.6 +1.6
PVAQ                             esP      sP       03 55 29.9 +1.6
PVAQ                             ePP      PP       03 56 59.0 +2.0
PVAQ                             eS       SKSac    04 03 24.0 +0.5
PVAQ                             eSS      SS       04 09 29.4 +6.1
PBDV  Barranco-do-Ve   86.52 349 eP       P        03 53 33.5 +1.3
PBDV                             i IAmb   IAmb     03 53 36.6
      comp=Z,91nm,1.5s
PBDV                             epP      pP       03 54 54.2 +1.2
PBDV                             esP      sP       03 55 30.8 +1.6
PBDV                             ePP      PP       03 56 59.9 +1.4
MORF  Marmelete        86.53 350 eP       P        03 53 32.5 +0.2
MORF                              IAmb    IAmb     03 53 34.5
      comp=Z,116nm,1.4s
MORF                             epP      pP       03 54 53.3 +0.2
MORF                             eSKSac   SKSac    04 03 25.2 +0.3
MORF  Marmelete        86.53 350 eP       P        03 53 33.1 +0.8
MORF                             i IAmb   IAmb     03 53 35.5
      comp=Z,99nm,1.6s
MORF                             epP      pP       03 54 53.6 +0.5
MORF                             esP      sP       03 55 31.5 +2.1
MORF                             ePP      PP       03 57 00.5 +1.9
EMAL  Malaga-Limoner   86.58 346  P       P        03 53 31.5 -0.9
PFVI  Vila Bisbo       86.72 350 eP       P        03 53 33.5 +0.4
PFVI                             i IAmb   IAmb     03 53 36.3
      comp=Z,75nm,1.6s
PFVI                             epP      pP       03 54 54.4 +0.5
PFVI                             esP      sP       03 55 33.2 +2.9
PFVI                             ePP      PP       03 57 02.0 +1.9
GIRL  Giralia          86.73 220  P       P        03 53 34.3 +1.1
GIRL                              PP      PP       03 56 57.4 -4.1
LHI   Lord Howe Isla   87.05 179  P       P        03 53 35.3 +0.9
SFS   San Fernando     87.09 348  P       P        03 53 35.9 +1.0
CMSA  Cobar Meteorol   87.74 191  P       P        03 53 38.7 +1.0
      comp=Z,315nm,1.4s
WMELI Melilla          87.79 345  P       P        03 53 37.6 -0.6
CAIB  Caibarien        87.86  52  P       P        03 53 37.6 -1.1
CAIB                              IAmb    IAmb     03 53 42.2
      comp=Z,112nm,1.1s
AUDCS Dubbo College    88.15 188  P       P        03 53 40.7 +1.1
      comp=Z,488nm,1.5s
STKA  Stephens Creek   88.58 194  P       P        03 53 42.2 +0.6
      comp=Z,106nm,1.0s,baz=347,slow=6.6,SNR=102
STKA                              pP      pP       03 55 01.7 -1.5
      comp=Z,74nm,1.2s,baz=355,slow=5.7,SNR=3.1
STKA                              S       SKSac    04 03 35.0 -1.4
      comp=Z,2.6nm,0.9s,baz=242,slow=23,SNR=6.5
STKA                              PKKPbc  PKKPbc   04 11 20.4 +0.5
      comp=Z,0.9nm,0.6s,baz=165,slow=3.1,SNR=4.1
      comp=Z,106nm,1.0s
STKA  Stephens Creek   88.58 194  P       P        03 53 42.0 +0.3
      comp=Z,72nm,1.7s
STKA  Stephens Creek   88.58 194c iP      P        03 53 41.9 +0.3
MEEK  Meekatharra      88.91 215  P       P        03 53 42.3 -1.1
      comp=Z,288nm,1.3s
MGCD  Mangrove Creek   88.95 186  P       P        03 53 44.6 +1.3
      comp=Z,165nm,1.4s
AUKHS Kincumber High   89.18 186  P       P        03 53 46.1 +1.7
      comp=Z,502nm,1.5s
SYDH  Sydney Hard Ro   89.52 186  P       P        03 53 48.5 +2.5
IFR   Ifrane           89.86 346  P       P        03 53 48.0 -0.2
AVE   Averroes         90.36 348  P       P        03 53 49.5 -0.7
AVE   Averroes         90.36 348  P       P        03 53 51.6 +1.3
AVE                               IAmb    IAmb     03 53 53.3
      comp=Z,254nm,1.7s
BBOO  Buckleboo        90.38 199  P       P        03 53 49.8 -0.2
      comp=Z,213nm,1.6s
BBOO  Buckleboo        90.38 199  P       P        03 53 49.1 -0.9
MD01  Midelt array s   90.45 346  P       P        03 53 50.0 -0.9
MD01                              PP      PP       03 57 30.0 +0.2
MD31  MD31             90.45 346  P       P        03 53 48.9 -2.0
MD31                              PP      PP       03 57 29.7  0.0
HTT   Hallett          90.50 196  P       P        03 53 50.7 +0.1
      comp=Z,492nm,1.4s
AUUHS Ulladulla High   91.13 187  P       P        03 53 54.9 +1.5
      comp=Z,369nm,0.6s
AUMTS Mt Stromlo       91.19 188  P       P        03 53 55.9 +2.1
CAN   Canberra         91.19 188  P       P        03 53 55.3 +1.5
      comp=Z,85nm,1.9s
CAN   Canberra         91.19 188  P       P        03 53 54.4 +0.6
CAN                               pmax    pmax
      comp=Z,268nm,2.0s
CAN   Canberra         91.19 188  P       P        03 53 54.4 +0.6
CAN                               IAmb    IAmb     03 53 57.8
      comp=Z,268nm,2.0s
PMPST Porto Santo, M   91.29 356 eP       P        03 53 54.7 +0.2
PMPST                            i IAmb   IAmb     03 53 58.7
      comp=Z,113nm,1.9s
PMPST                            epP      pP       03 55 16.2  0.0
PMPST                            esP      sP       03 55 52.8 +0.5
PMPST                            ePP      PP       03 57 37.5 +1.3
PMPS  Porto Santo      91.31 356 eP       P        03 53 56.2 +1.6
PMPS                             i IAmb   IAmb     03 53 58.0
      comp=Z,65nm,1.5s
CHIV  Chivirico        91.41  50  P       P        03 53 54.7 -0.6
CHIV                              IAmb    IAmb     03 53 59.7
      comp=Z,172nm,1.5s
CHIV                              pP      pP       03 55 15.3 -1.5
CHIV                              PP      PP       03 57 36.7 -1.0
TGUH  Tegucigalpa,Un   91.47  62  P       P        03 53 54.9 -0.9
TGUH                              IAmb    IAmb     03 53 59.8
      comp=Z,277nm,1.6s
NMDO  Nuevo Mundo      91.51  49  P       P        03 53 55.5 -0.2
NMDO                              IAmb    IAmb     03 53 59.4
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      comp=Z,167nm,1.5s
PMOZ  Porto Moniz, M   91.58 356 eP       P        03 53 56.6 +0.5
PMOZ                             i IAmb   IAmb     03 53 59.6
      comp=Z,81nm,1.6s
PMOZ                             epP      pP       03 55 17.9 +0.3
PMOZ                             ePP      PP       03 57 40.5 +2.0
PMOZ                             eS       SKSac    04 03 56.9 +2.3
PMOZ                             eSS      SS       04 10 48.6 +9.5
OUZ   Omahuta          91.65 168  P       P        03 53 58.5 +2.7
      comp=Z,81nm,1.7s
PMAR  Madeira          91.67 356 eP       P        03 53 57.0 +0.4
PMAR                             i IAmb   IAmb     03 54 01.1
      comp=Z,137nm,1.4s
PMAR                             epP      pP       03 55 18.7 +0.6
PMAR                             esP      sP       03 55 54.4 +0.1
PMAR                             ePP      PP       03 57 39.7 +0.4
FUL   Funchal          91.74 356 eP       P        03 53 58.2 +1.6
FUL                              i IAmb   IAmb     03 54 00.1
      comp=Z,82nm,1.7s
FUL                              epP      pP       03 55 20.0 +1.8
FUL                              ePP      PP       03 57 41.4 +1.7
AUCAS Cummins Area S   91.85 199  P       P        03 53 57.6 +0.9
      comp=Z,439nm,1.3s
MORW  Morawa           92.00 216  P       P        03 53 56.7 -0.9
      comp=Z,177nm,1.4s
MORW  Morawa           92.00 216  P       P        03 53 56.6 -1.0
MORW                              PP      PP       03 57 40.9 -2.3
AUMBR Murray Bridge    92.11 196  P       P        03 53 58.7 +0.8
      comp=Z,141nm,1.5s
TIO   Tiouine          92.69 348  P       P        03 54 00.9 -0.3
SIUN  Universidad Ur   93.00  60  P       P        03 54 00.6 -2.1
BLDU  Ballidu          93.21 215  P       P        03 54 01.7 -1.4
BOAB  BOACO BROADBA93.64  62  P       P        03 54 02.2 -3.4
BOAB                              IAmb    IAmb     03 54 08.2
      comp=Z,167nm,1.5s
TOO   Toolangi         93.73 190  P       P        03 54 05.4  0.0
TOO                               *PP     pP       03 55 28.1 +1.0
TOO   Toolangi         93.73 190  P       P        03 54 05.4  0.0
TOO                               pP      pP       03 55 28.1 +1.0
KLBR  Kellerberrin     93.78 214  P       P        03 54 04.7 -1.0
      comp=Z,145nm,1.3s
BRAT  Ballarat         93.88 192  P       P        03 54 08.0 +2.0
      comp=Z,11nm,1.0s
ATD   Arta Tunnel      94.27 298  P       P        03 54 08.7 +0.1
ATD   Arta Tunnel      94.27 298  P       P        03 54 07.8 -0.7
ATD                               IAmb    IAmb     03 54 10.5
      comp=Z,97nm,1.9s
MUN   Mundaring        94.63 215  P       P        03 54 09.2 -0.4
      comp=Z,61nm,1.4s
AUKUL Kulin High Sch   94.66 213  P       P        03 54 08.6 -1.1
      comp=Z,99nm,1.6s
URZ   Urewera          95.11 165  P       P        03 54 13.6 +2.0
      comp=Z,34nm,1.3s
NWAO  Narrogin (SRO)   95.18 214  P       P        03 54 11.2 -0.9
      comp=Z,72nm,1.7s
NWAO  Narrogin (SRO)   95.18 214  P       P        03 54 11.0 -1.1
NWAO                              pmax    pmax
      comp=Z,359nm,1.5s
NWAO  Narrogin (SRO)   95.18 214  P       P        03 54 11.0 -1.1
NWAO                              PP      PP       03 58 06.4 -1.4
BANI  BANI             95.36  46  P       P        03 54 13.1 -0.4
BANI                              pP      pP       03 55 34.8 -0.5
BANI                              PP      PP       03 58 07.2 -1.3
BKZ   Black Stump Fm   95.91 166  P       P        03 54 17.1 +1.8
      comp=Z,19nm,1.4s
QRZ   Quartz Range     97.07 169  P       P        03 54 20.3 -0.1
CELP  Cerrillos        97.14  43  P       Pdif     03 54 21.6 +0.1
CELP                              PP      PP       03 58 18.9 -3.0
OBIP  Obispado Ponce   97.16  43  P       P        03 54 20.8 -0.7
OBIP                              PP      PP       03 58 19.0 -3.0
SJG   San Juan         97.27  42  P       P        03 54 21.8 -0.2
SJG                               pmax    pmax
      comp=Z,82nm,1.7s
SJG   San Juan         97.27  42  P       P        03 54 21.8 -0.2
SJG                               IAmb    IAmb     03 54 27.4
      comp=Z,82nm,1.6s
PDPR  Patillas Dam,    97.40  42  P       P        03 54 20.5 -2.1
PDPR                              PP      PP       03 58 19.6 -4.2
TAM   Tamanrasset      98.33 335  P       Pdif     03 54 25.4 -1.5
TAM                               pmax    pmax
      comp=Z,9.0nm,1.0s
TAM   Tamanrasset      98.33 335  P       Pdif     03 54 25.4 -1.5
SDV   Santo Domingo   103.78  50  PP      PP       03 59 11.6 -0.5
      comp=Z,34nm,1.1s,baz=125,slow=2.1,SNR=6.8
SDV                               S       SKSac    04 04 50.0 -7.0
      comp=Z,3.8nm,0.3s,baz=198,slow=22,SNR=13
ROSC  El Rosal        105.70  55  PKiKP   PKiKP    03 59 11.1 +0.1
      comp=Z,2.8nm,0.3s,baz=48,slow=23,SNR=1.4
ROSC                              PP      PP       03 59 26.2 -0.4
      comp=Z,17nm,0.9s,baz=336,slow=11,SNR=5.3
ROSC                              PKKPbc  PKKPbc   04 10 33.8 +1.4
      comp=Z,7.7nm,0.5s,baz=274,slow=22,SNR=5.7
TORD  Torodi Ar. Bea  108.52 336  Pdiff   Pdif     03 55 12.5 +0.4
      comp=Z,0.9nm,0.7s,baz=12,slow=4.7,SNR=5.8
TORD                              PKiKP   PKiKP    03 59 16.6 +0.8
      comp=Z,2.1nm,0.5s,baz=3.6,slow=2.1,SNR=18
TORD                              PP      PP       03 59 44.8 -1.3
      comp=Z,6.3nm,0.9s,baz=11,slow=4.3,SNR=5.5
TORD                              SKiKP   SKiKP    04 02 18.0 +0.9
      comp=Z,2.1nm,0.7s,baz=14,slow=2.5,SNR=4.8
TORD                              PKKPbc  PKKPbc   04 10 24.8 +1.4
      comp=Z,1.6nm,0.4s,baz=194,slow=3.1,SNR=24
TORD                              PKKP    PKKPdf   04 10 35.7 -0.5
      comp=Z,0.8nm,0.5s,baz=170,slow=3.7,SNR=5.2
TORD                              PKKPab  PKKPab   04 10 41.9 -0.8
      comp=Z,4.8nm,1.1s,baz=204,slow=5.5,SNR=5.0
MDP   Montagnes des   114.07  34  PKP     PKiKP    03 59 26.0 -0.3
      comp=Z,2.2nm,0.8s,baz=2.0,slow=1.3,SNR=7.6
MDP                               PP      PP       04 00 23.5 -2.2
      comp=Z,14nm,0.9s,baz=352,slow=9.4,SNR=8.8
MDP                               SKP     SKPdf    04 02 28.7 +0.9
      comp=Z,6.0nm,0.9s,baz=235,slow=1.8,SNR=4.2
MDP                               PKKPbc  PKKPbc   04 10 04.6 -0.8
      comp=Z,5.7nm,0.5s,baz=167,slow=2.6,SNR=19
ATAH  Atahualpa       114.08  65  PKP     PKPdf    03 59 27.4 +0.6
      comp=Z,1.6nm,0.7s,baz=75,slow=8.0,SNR=0.6
ATAH                              PP      PP       04 00 25.6 -1.2
      comp=Z,6.7nm,0.9s,baz=60,slow=2.7,SNR=3.9
ATAH                              PKKPab  PKKPab   04 10 15.7 -0.8
      comp=Z,17nm,1.1s,baz=176,slow=3.8,SNR=9.7
DBIC  Dimbokro        116.16 341  PKP     PKPdf    03 59 29.2 -1.1
      comp=Z,11nm,0.4s,baz=16,slow=1.8,SNR=45
DBIC                              SKP     SKPdf    04 02 32.6 +0.8
      comp=Z,7.8nm,0.5s,baz=20,slow=3.1,SNR=7.7
DBIC                              PKKPbc  PKKPbc   04 09 57.4 -1.0
      comp=Z,5.9nm,1.0s,baz=214,slow=3.9,SNR=4.8
AVY   Angavokely      117.06 276  P       PKiKP    03 59 33.2 +1.1
OPO   Ambohidratompo117.08 277  PKP     PKPdf    03 59 31.8 -0.3
      comp=Z,6.2nm,1.1s,baz=298,slow=1.7,SNR=3.5
OPO                               PP      PP       04 00 46.6 -1.2
      comp=Z,24nm,1.2s,baz=95,slow=2.8,SNR=3.6
ABPO  Ambohimpanom    117.42 276  PKIKP   PKiKP    03 59 32.8  0.0
ABPO  Ambohimpanom    117.42 276  PKPdf   PKiKP    03 59 32.8  0.0
ABPO  Ambohimpanom    117.42 276  P       PKiKP    03 59 33.0 +0.2
ABPO                              S       PP       04 00 47.9 -2.1
MDSM  Mandiavato      117.58 277  P       PKiKP    03 59 34.2 +1.1
DGRM  Ambatolahisoa   118.06 277  P       PKiKP    03 59 35.1 +1.1
MACA  Manacapuru-AM   118.81  46  PKPdf   PKiKP    03 59 35.6 +0.1
VOI   Vohitsoka       119.96 275  PKPdf   PKPdf    03 59 37.0 -0.5
ITTB  Itaituba        121.83  41 eP       PKPdf    03 59 35.9 -5.3
LSZ   Lusaka          124.59 297  PKP     PKPdf    03 59 46.3 -0.3
      comp=Z,8.3nm,0.8s,baz=46,slow=2.1,SNR=14
LSZ                               PP      PP       04 01 38.3  0.0
      comp=Z,4.0nm,0.7s,baz=89,slow=6.3,SNR=4.0
NBPS  Pedro II - PI   126.25  25 eP       PKPdf    03 59 44.2 -5.6
LPAZ  La Paz          127.04  61  PKP     PKPdf    03 59 52.0 +0.2
      comp=Z,6.9nm,1.0s,baz=7.1,slow=10,SNR=12
LPAZ                              PP      PP       04 01 55.4 +0.4
      comp=Z,19nm,1.1s,baz=28,slow=5.0,SNR=5.9
LPAZ  La Paz          127.04  61 eP       PKPdf    03 59 45.4 -6.5
CLDB  Colider         127.77  44 eP       PKPdf    03 59 48.0 -4.5
VILB  Vilhena         127.82  50  PKPdf   PKPdf    03 59 52.8 +0.1
VILB  Vilhena         127.82  50 eP       PKPdf    03 59 46.9 -5.7
RCBR  Riachuelo       128.80  18  PKIKP   PKiKP    03 59 55.8 +0.5
RCBR  Riachuelo       128.80  18  PKPdf   PKiKP    03 59 55.8 +0.5
SMTB  Santa Maria do  128.82  34 eP       PKPdf    03 59 48.7 -5.9
NBPV  Pedro Velho     129.48  18 eP       PKPdf    03 59 50.8 -5.1
PB08  IPOC Station P  129.79  65  PKP     PKPdf    03 59 51.3 -5.3
PB08  IPOC Station P  129.79  65  PKPdf   PKPdf    03 59 56.5 -0.1
SIV   San Ignacio     130.12  53  PKhKP   PKPpre   03 59 44.9
      comp=Z,0.9nm,0.5s,baz=291,slow=5.0,SNR=5.7
SIV                               PKP     PKPdf    03 59 56.8 -0.1
      comp=Z,12nm,0.8s,baz=276,slow=0.8,SNR=17
SIV                               PP      PP       04 02 14.9 +0.7
      comp=Z,53nm,1.2s,baz=326,slow=6.8,SNR=10
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SIV SKPbc SKPab 04 02 46.9 +0.3
comp=Z,70nm,0.6s,baz=305,slow=4.0,SNR=45
SNDB Serra Nova Dou 130.48 40 eP PKPdf 03 59 51.9 -5.8
PTLB Pontes e Lacer 130.50 51 eP PKPdf 03 59 52.9 -4.7
HOED Hoedspruit, Li 130.72 287 eP PKPdf 03 59 57.9 0.0
PB07 IPOC Station P 130.73 66 PKPdf PKiKP 04 00 00.1 +1.0
PB07 SKPbc SKPbc 04 02 48.9 +0.2
NBTA Tacaratu-PE 131.59 22 eP PKPdf 03 59 54.3 -5.5
SALV Santo Antonio 132.36 47 eP PKPdf 03 59 54.9 -6.3
RUST Rust De Winter 132.67 289 eP PKPdf 04 00 01.8 +0.2
PB14 IPOC Station P 132.84 69 PKP PKPdf 03 59 57.0 -5.2
SDBA SAO DESIDERIO 132.99 32 eP PKPdf 03 59 56.7 -5.8
VNDA Vanda 133.15 179 PKhKP PKPpre 03 59 44.9
comp=Z,1.2nm,0.7s,baz=303,slow=4.3,SNR=4.4
VNDA PKP PKPdf 04 00 00.6 -0.2
comp=Z,5.8nm,0.7s,baz=321,slow=2.5,SNR=10
VNDA PP PP 04 02 34.2 +1.0
comp=Z,10nm,1.2s,baz=358,slow=4.3,SNR=6.7
VNDA SKPbc SKPab 04 02 57.0 -0.6
comp=Z,24nm,0.9s,baz=346,slow=4.2,SNR=14
VNDA SKKPbc SKKPbc 04 12 15.9 -0.2
comp=Z,1.9nm,1.0s,baz=222,slow=4.1,SNR=5.2
HRAO HartRAO 133.64 289 eP PKPdf 04 00 01.8 -1.7
ARAG Araguaiana, MT 133.72 42 eP PKPdf 03 59 57.7 -6.1
LBTB Lobatse 134.03 292 PKhKP PKPpre 03 59 51.0
comp=Z,1.7nm,0.6s,baz=154,slow=1.7,SNR=4.1
LBTB PKP PKPdf 04 00 03.9 -0.3
comp=Z,9.0nm,0.6s,baz=112,slow=1.2,SNR=13
LBTB SKPbc SKPbc 04 03 00.8 +0.9
comp=Z,64nm,1.0s,baz=56,slow=1.7,SNR=22
LBTB Lobatse 134.03 292 eP PKPdf 03 59 57.8 -6.4
PP1B Ponte de Pedra 134.22 47 eP PKPdf 03 59 58.7 -6.0
COIM Forte Coimbra 135.03 52 eP PKPdf 03 59 59.9 -6.1
BDFB Brasilia 135.03 37 PKhKP PKPpre 03 59 54.1
comp=Z,2.0nm,0.4s,baz=313,slow=10,SNR=5.0
BDFB PKP PKPdf 04 00 06.5 +0.2
comp=Z,6.3nm,0.5s,baz=304,slow=0.8,SNR=9.6
BDFB PP PP 04 02 45.3 +0.1
comp=Z,13nm,1.0s,baz=319,slow=8.7,SNR=4.1
BDFB SKPbc SKPbc 04 03 03.3 -0.1
comp=Z,49nm,0.9s,baz=316,slow=5.0,SNR=11
BDFB Brasilia 135.03 37 PKIKP PKPdf 04 00 02.0 -4.3
BDFB Brasilia 135.03 37 PKPdf 04 00 02.0 -4.3
BDFB PP 04 02 42.0 -3.2
JANB Januaria 135.68 32 eP PKPdf 04 00 01.8 -5.6
AQDB Aquidauana 136.44 50 eP PKPdf 04 00 02.5 -6.2
MURT Porto Murtinho 136.64 53 eP PKPdf 04 00 04.2 -4.8
NBIT Itapeh - BA 136.89 26 eP PKPdf 04 00 03.3 -6.3
BOSA Boshof 137.11 290 PKhKP PKPpre 03 59 57.3
comp=Z,2.9nm,0.5s,baz=6.5,slow=3.0,SNR=9.8
BOSA PKP PKPdf 04 00 09.4 -0.5
comp=Z,13nm,0.8s,baz=39,slow=2.1,SNR=15
BOSA SKP SKPbc 04 03 10.8 +1.5
comp=Z,68nm,1.0s,baz=52,slow=2.1,SNR=16
BOSA Boshof 137.11 290 eP PKPdf 04 00 03.8 -6.1
IPMB Ipameri, GO 137.13 39 eP PKPdf 04 00 02.5 -7.5
CMC01 Camacan, BA 137.28 26 eP PKPdf 04 00 03.7 -6.7
PMNB Patos De Minas 138.26 37 eP PKPdf 04 00 06.3 -5.9
GUA01 Guaratinga, BA 138.38 27 eP PKPdf 04 00 07.1 -5.3
DIAM Diamantina, MG 138.93 33 eP PKPdf 04 00 09.6 -3.9
CFA Coronel Fontan 139.53 73 PKhKP PKPpre 04 00 06.2
comp=Z,2.2nm,0.4s,baz=322,slow=5.3,SNR=8.0
CFA PKP PKPdf 04 00 13.9 -0.2
comp=Z,6.6nm,0.6s,baz=297,slow=6.2,SNR=10
CFA SKPbc SKPbc 04 03 16.0 +0.1
comp=Z,29nm,0.9s,baz=318,slow=2.8,SNR=13
MT09 Talagante 139.68 78 PKPpre PKPpre 04 00 06.2
MT09 SKPbc 04 03 16.4 0.0
ALKP Alkanpan, Nort 139.75 292 eP PKPdf 04 00 08.1 -6.6
TRCB Terra Rica 139.79 48 eP PKPdf 04 00 07.8 -7.0
SJMB Sao Joao De Ma 140.04 30 eP PKPdf 04 00 09.4 -5.9
MT13 San Alfonso 140.04 77 PKPpre PKPpre 04 00 08.1
SJPY San Joaquin 140.21 54 eP PKPdf 04 00 10.2 -5.3
BSFB Barra de Sao F 140.25 29 eP PKPdf 04 00 09.3 -6.4
BFON Badsfontein, M 140.44 288 eP PKPdf 04 00 10.0 -5.9
CPUP Villa Florida 140.79 56 PKhKP PKPpre 04 00 09.6
comp=Z,2.1nm,0.4s,baz=25,slow=1.5,SNR=13
CPUP SKP SKPdf 04 03 18.6 +1.5
comp=Z,7.7nm,0.6s,baz=338,slow=3.2,SNR=6.8
CPUP SKKPbc SKKPbc 04 11 42.5 -0.4
comp=Z,5.0nm,1.2s,baz=153,slow=6.9,SNR=3.0
CPUP Villa Florida 140.79 56 eP PKPdf 04 00 10.5 -5.9
RIB01 Linhares ES 140.84 29 eP PKPdf 04 00 11.8 -4.9
BRAK Brakfontein 140.85 289 eP PKPdf 04 00 09.3 -7.2
LDASE Londrina, Braz 140.95 46 eP PKPdf 04 00 10.6 -6.3
BSCB Bom Sucesso 141.10 36 eP PKPdf 04 00 12.1 -5.2
FRTB Fartura 141.52 44 eP PKPdf 04 00 13.8 -4.2
MAW Mawson 141.62 218 PKhKP PKPpre 04 00 13.2
comp=Z,30nm,0.6s,baz=98,slow=3.9,SNR=58
MAW SKPbc SKiKP 04 03 21.2 -0.4
comp=Z,41nm,0.7s,baz=70,slow=3.5,SNR=11
MAW SKKPbc SKKPbc 04 11 42.9 -0.1
comp=Z,10nm,0.9s,baz=250,slow=5.2,SNR=10
GRAN Grantham 141.64 289 eP PKPdf 04 00 13.4 -4.6
PTGB Pitanga 141.73 48 eP PKPdf 04 00 14.0 -4.3
FRAZ Fraserburg 141.76 291 eP PKPdf 04 00 14.1 -4.1
VAO Valinhos 142.19 40 eP PKPdf 04 00 14.2 -5.0
SUR Sutherland 142.42 291 PKP PKPdf 04 00 18.1 -1.4
comp=Z,41nm,1.0s,baz=80,slow=7.8,SNR=13
SUR SKPbc SKiKP 04 03 24.3 -0.4
comp=Z,16nm,1.0s,baz=26,slow=3.6,SNR=4.9
SPB Sao Paulo 142.56 41 eP PKPdf 04 00 15.7 -4.0
CAM01 Campos-RJ 142.86 32 eP PKPdf 04 00 17.1 -3.2
PET01 Itanhaem-SP 143.25 41 eP PKPab 04 00 14.8 -2.9
PSAL Palomas, Salto 144.62 61 eP PKPbc 04 00 16.7 -6.1
PLCA Paso Flores 144.89 85 PKP PKPab 04 00 23.7 -0.1
comp=Z,51nm,0.6s,baz=294,slow=4.9,SNR=74
PLCA SKPbc SKiKP 04 03 30.2 +0.8
comp=Z,169nm,0.9s,baz=296,slow=2.7,SNR=22
PLCA Paso Flores 144.89 85 PKIKP PKPbc 04 00 23.6 +0.2
PLCA Paso Flores 144.89 85 PKPbc 04 00 23.6 +0.2
PLCA SKPbc SKiKP 04 03 31.4 +2.0
PLCA Paso Flores 144.89 85 eP PKPdf 04 00 16.6 -6.7
QSPA South Pole Qui 145.62 180 PKPbc PKPbc 04 00 24.6 -0.2
comp=Z,389nm,0.5s,baz=252,slow=0.4,SNR=542
QSPA SKPbc SKiKP 04 03 30.6 +0.6
comp=Z,38nm,0.6s,baz=252,slow=0.7,SNR=6.2
QSPA SKKPbc SKKPbc 04 11 26.6 -0.9
comp=Z,34nm,1.0s,baz=203,slow=2.2,SNR=15
QSPA South Pole Qui 145.62 180 PKPdf PKPbc 04 00 24.4 -0.4
QSPA SKPbc SKiKP 04 03 31.0 +1.0
CPSB Cacapava Do Su 146.05 55 PKPdf PKPdf 04 00 25.9 +0.4
CPSB SKPbc SKiKP 04 03 32.6 +0.5
CPSB Cacapava Do Su 146.05 55 eP PKPdf 04 00 21.8 -3.7
ANCO Parque Anchore 147.01 64 eP PKPdf 04 00 22.0 -5.0
COYC Coyhaique 147.11 93 PKPdf PKPbc 04 00 28.5 -1.0
COYC SKPbc SKiKP 04 03 35.5 +1.8
GO08 Villa O'Higgin 148.50 98 PKPdf PKPdf 04 00 30.7 +1.7
SYO Syowa Base 150.29 220 ⇑iP PKPdf 04 00 31.6 +0.4
SYO Syowa Base 150.29 220 ⇑iP PKPbc 04 00 37.0 +0.3
MG03 Isla Dawson 152.25 107 PKPbc PKPbc 04 00 41.4 -0.2
MG02 Cerro Sombrero 152.47 104 PKPdf PKPdf 04 00 37.7 +2.8
DSPA Despedida 153.48 106 PKPbc PKiKP 04 00 45.6 +1.2
ELIB Princess Elisa 155.41 212 dPKPdf PKPdf 04 00 39.2 +0.4
ELIB dPKP PKPab 04 01 07.5 +1.1
NVL N'lazarevskaya 159.28 211 ePKP2 PKPab 04 01 22.0 -1.1
NVL e 04 05 05.1
NVL pmax pmax
comp=Z,108nm,1.1s
TROLL Troll, Antarti 160.91 203 ⇑PKPdf PKPdf 04 00 44.5 -0.8
comp=Z,617nm,1.0s
TROLL ⇑PKPab PKPab 04 01 30.0 -0.4
comp=Z,8µm,0.7s
TROLL ⇓PP PP 04 05 14.0 -1.2
comp=Z,200µm,3.5s
SNAA Sanae 162.27 199 ⇑PKPdf PKPdf 04 00 45.2 -1.5
comp=Z,173nm,1.0s
SNAA ⇑PKPab PKPab 04 01 35.4 -0.9
comp=Z,3µm,1.0s
SNAA ⇓pPKPab pPKPab 04 02 59.4 +0.9
comp=Z,43µm,4.3s
SNAA ⇓PP PP 04 05 20.6 -1.5
comp=Z,1µm,1.0s
SNAA Sanae 162.27 199 PKP PKPdf 04 00 46.1 -0.6
comp=Z,21nm,1.3s,baz=135,slow=0.1,SNR=22
SNAA PKPab PKPab 04 01 36.0 -0.2
comp=Z,202nm,1.1s,baz=128,slow=3.6,SNR=47
SNAA PP PP 04 05 22.3 +0.1
comp=Z,122nm,1.2s,baz=130,slow=3.6,SNR=9.7
SNAA Sanae 162.27 199 PKPdf 04 00 46.0 -0.7
SNAA PKPab 04 01 35.6 -0.6
SNAA PP 04 05 19.3 -2.9
VNA2 Neumayer--Watz 163.69 197 PKPdf PKPdf 04 00 49.0 +1.0
comp=Z,12nm,0.7s,baz=45,slow=1.1
VNA2 ⇑PKPab PKPab 04 01 41.3 -1.2
comp=Z,81nm,0.8s,baz=121,slow=2.8
VNA2 ⇓pPKPab pPKPab 04 03 05.2 +0.4
comp=Z,2µm,4.4s,baz=144,slow=3.0
VNA2 ⇑sPKPab sPKPab 04 03 41.8 +1.2
comp=Z,1µm,5.8s,baz=115,slow=3.4
VNA2 ⇓PP PP 04 05 28.9 -0.6
comp=Z,4µm,5.4s,baz=97,slow=5.5
VNA3 Neumayer Olymp 163.75 194 ⇑PKPdf PKPdf 04 00 47.3 -0.7
comp=Z,12nm,0.8s
VNA3 ⇑PKPab PKPab 04 01 41.6 -1.1
comp=Z,58nm,0.8s
VNA3 ⇓pPKPab pPKPab 04 03 05.3 +0.3
comp=Z,689nm,2.6s
VNA3 ⇑sPKPab sPKPab 04 03 42.5 +1.7
comp=Z,2µm,7.5s
VNA3 ⇓PP PP 04 05 28.7 -1.1
comp=Z,37nm,1.6s
VNA1 Neumayer--Stat 164.08 196 PKPdf PKPdf 04 00 47.7 -0.5
comp=Z,15nm,1.0s
VNA1 ⇑PKPab PKPab 04 01 42.7 -1.4
comp=Z,238nm,1.2s
VNA1 PP PP 04 05 30.8 -0.6
comp=Z,52nm,1.1s

JMA 15 03:45:40.4±0.1**, 34°.9N**±0°.2×**137°.5E**±0°.2**, h16**km±1km**,**
MV0.2/14**, NE AICHI PREF, Near south coast of eastern Honshu**

Code Station Name Δ° AZ° Phase ID Op ISC Time h m s Res ISC
HMMJ Hamamatsu 2 0.20 112 P Pg 03 45 45.0 0.0
HMMJ eS Sg 03 45 47.6 -0.5
JAA Atsumi 0.42 225 eS Sg 03 45 54.1 -0.4

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*DNK **15** 04:05:20.7±1.4, 51°.53N×16°.35E, h0km±51km, ML2.6, Presumed earthquake*
*BNS **15** 04:05:21.9±0.7, 51°.45N×16°.47E, h10km, ML3.2*
*IDC **15** 04:05:21.4±0.9, 51°.50N×16°.13E, h0km, mbtmp3.3/9, ML2.7/8, Error ellipse: s-maj=11.9km s-min=9.1km az=110.0*
*IPEC **15** 04:05:21.6±0.2, 51°.45N×16°.29E, h1km, ML2.8/8, Error ellipse: s-maj=1.9km s-min=1.2km az=71.0*
*BGR **15** 04:05:23.3±0.3, 51°.38N×16°.17E, h1km, ML3.0/15, Error ellipse: s-maj=5.6km s-min=2.2km az=16.0*
*PRU **15** 04:05:23.7, 51°.42N×16°.16E, h0km*
ISC 15 04:05:20.0±0.6**, 51°.51N**±0°.02×**16°.21E**±0°.02**, h0**km**, n88,**
σ**1°.52**/171**, 1C, Poland**

Code Station Name Δ° AZ° Phase ID Op ISC Time h m s Res ISC
KSP Ksiaz 0.67 176 ePg Pg 04 05 33.7 +0.8
KSP eSg Sg 04 05 42.1 +0.5
KSP Ksiaz 0.67 176 ePg Pg 04 05 33.7 +0.8
KSP eSg Sg 04 05 41.9 +0.3
CHVC Chvalec 0.93 186 ePG Pb 04 05 38.9 -0.2
CHVC eSG Sg 04 05 50.5 +0.6
comp=Z,126nm,0.6s
CHVC AML AML
OSTC Ostas 0.96 180 ePG Pg 04 05 39.3 +0.9
OSTC eSG Sg 04 05 51.4 +0.7
comp=Z,149nm,0.8s
OSTC AML AML
UPC Upice 1.01 187 ePG Pg 04 05 40.3 +0.9
UPC eSG Sg 04 05 53.2 +0.6
comp=Z,222nm,0.4s
UPC AML AML
DPC Dobruska-Polom 1.17 177 ePG Pg 04 05 42.9 +0.6
DPC eSG Sg 04 05 57.4 0.0
comp=Z,95nm,0.7s
DPC AML AML
DPC Dobruska-Polom 1.17 177 ePg Pg 04 05 42.7 +0.3
DPC eSg Sg 04 05 57.6 +0.1
PIVO Bartosovice 1.34 171 ePg Pg 04 05 46.2 +0.4
baz=353
PIVO eSg Sg 04 06 01.8 -1.4
101nm,0.5s,baz=353
PIVO AML AML
KRLC Kraliky 1.48 166 ePG Pn 04 05 48.3 +0.3
KRLC eSG Sn 04 06 08.5 +0.4
comp=Z,289nm,2.0s
KRLC AML AML
BRG Berggiesshubel 1.56 247 ePn Pg 04 05 50.9 +0.9
BRG eSg Sg 04 06 11.4 +1.2
BRG Berggiesshubel 1.56 247 Pn Pn 04 05 49.2 +0.1
BRG Pg Pg 04 05 50.7 +0.7
BRG Sg Sg 04 06 11.5 +1.2
BRG Amp 04 06 13.9
comp=Z,94nm,0.5s
ANAC Anensky vrch 1.62 152 ePn Pn 04 05 50.0 +0.1
baz=334
ANAC eSg Sn 04 06 10.0 -1.5
comp=Z,58nm,0.5s,baz=334
ANAC AML AML
RYBC Ceska Rybna 1.71 183 ePn Pn 04 05 51.5 +0.4
baz=4.9
RYBC eSg Sn 04 06 13.5 -0.1
comp=Z,78nm,0.2s,baz=4.9
RYBC AML AML
RUE Ruedersdorf 1.79 304 ePn Pn 04 05 53.1 +1.0
RUE eSn Sn 04 06 16.5 +1.0
PRU Pruhonice 1.86 215 ePG Pb 04 05 55.4 +0.6
PRU eSG Sb 04 06 19.3 +0.7
comp=Z,49nm,0.4s
PRU AML AML
STEB Steborice 1.87 147 ePG Pg 04 05 56.3 +0.5
STEB eSG Sg 04 06 20.1 +0.2
comp=Z,106nm,0.7s
STEB AML AML
FBE Freiberg 1.89 253 ePn Pg 04 05 56.7 +0.4
FBE eSg Sg 04 06 20.6 -0.1
MORC Moravsky Berou 1.93 153 ePn Pn 04 05 54.5 +0.3
MORC eSg Sn 04 06 19.1 -0.1
MORC Moravsky Berou 1.93 153 ePn Pn 04 05 54.3 +0.1
baz=335
MORC eSg Sn 04 06 19.8 +0.6
comp=Z,56nm,0.7s,baz=335
MORC AML AML
CLL Collm 2.02 265 ePn Pn 04 05 55.8 +0.5
CLL ePg Pg 04 05 59.7 +1.0
CLL eSn Sn 04 06 22.5 +1.2
CLL eSg Sg 04 06 25.0 +0.1
CLL Collm 2.02 265 i Pn Pn 04 05 55.8 +0.5
CLL i Pg Pg 04 05 58.7 0.0
CLL i Sg Sg 04 06 27.0 +2.1
comp=Z,55nm,0.6s
OKC Ostrava-Krasne 2.08 143 ePG Pg 04 06 00.0 +0.1
OKC eSG Sg 04 06 27.9 +1.1
comp=Z,125nm,1.2s
OKC AML AML
OKC Ostrava-Krasne 2.08 143 ePn Pg 04 05 59.9 +0.1
OKC eSg Sb 04 06 25.2 +0.2
VRAC Vranov 2.22 174 Pn Pn 04 05 58.9 +0.8
comp=Z,2.8nm,0.3s,baz=347,slow=15,SNR=14
VRAC Sn Sb 04 06 29.4 +0.4
comp=Z,4.9nm,0.3s,baz=98,slow=20,SNR=9.1
comp=Z,13nm,0.4s
VRAC AML AML
VRAC Vranov 2.22 174 ePn Pn 04 05 58.6 +0.5
baz=355
VRAC eSg Sb 04 06 29.1 +0.1
comp=Z,56nm,0.8s,baz=355
VRAC AML AML
VRAC Vranov 2.22 174 ePN Pn 04 05 58.7 +0.6
VRAC eSG Sb 04 06 29.2 +0.2
ZVC Zvikov 2.44 213 ePG Pb 04 06 05.1 +0.3
ZVC eSG Sg 04 06 37.6 -0.9
comp=Z,72nm,0.8s
ZVC AML AML
KRUC Moravsky 2.46 177 ePn Pn 04 06 02.0 +0.7
baz=358
KRUC eSg Sb 04 06 36.3 +0.5
comp=Z,57nm,1.1s,baz=358
KRUC AML AML
KRUC Moravsky 2.46 177 ePN Pn 04 06 02.1 +0.7
KRUC eSG Sb 04 06 36.4 +0.6
STAC Stalkov 2.55 194 ePn Pn 04 06 03.7 +1.0
baz=14
STAC eSg Sb 04 06 40.1 +1.4
comp=Z,65nm,0.5s,baz=14
STAC AML AML
TANN Tannenbergstha 2.61 247 ePn Pn 04 06 04.7 +1.2
TANN eSg Sg 04 06 43.5 -0.4
OJC Ojcow 2.62 118 ePg Pg 04 06 11.3 +1.1
OJC eSg Sg 04 06 45.3 +1.3
OJC Ojcow 2.62 118 ePn Pn 04 06 04.8 +1.2
OJC ePg Pg 04 06 11.2 +1.1
OJC eSg Sg 04 06 44.8 +0.8
WERD Werda 2.69 248 eSg Sg 04 06 46.4 0.0
JAVC Velka Javorina 2.82 160 ePn Pn 04 06 06.9 +0.6
baz=342
KHC Kasperske Hory 2.92 216 ePN Pn 04 06 09.3 +1.5
KHC ePG Pb 04 06 14.2 +1.2
KHC eSG Sg 04 06 53.4 -0.4
comp=Z,32nm,0.9s
KHC AML AML
CKRC Cesky Krumlov 2.96 205 ePG Pg 04 06 15.7 -1.0
CKRC eSG Sg 04 06 54.5 -0.6
comp=Z,49nm,0.7s
CKRC AML AML
MOX Moxa 3.03 255 ePn Pn 04 06 10.4 +1.2
MOX ePg Pg 04 06 18.1 +0.1
MOX eSn Sn 04 06 47.2 +1.1
MOX eSg Sg 04 06 58.5 +1.3
ROTZ Rotzenmuhle 3.09 237 ePn Pn 04 06 10.9 +0.9
ROTZ eSg Sg 04 06 57.5 -1.8
GERES GERESS Array B 3.12 212 Pn Pn 04 06 11.6 +1.1
comp=Z,0.3nm,0.3s,baz=32,slow=13,SNR=44
GERES Sn Sn 04 06 39.7 -8.9
comp=Z,0.6nm,0.3s,baz=28,slow=24,SNR=6.0
GERES Lg Lg 04 06 57.7
comp=Z,1.5nm,0.3s,baz=29,slow=31,SNR=13
comp=Z,4.8nm,0.5s
GERES AML AML
LANS Liptovska Anna 3.15 137 ePN Pn 04 06 12.0 +1.0
LANS ePG Pg 04 06 20.3 -0.1
LANS eSG Sg 04 07 03.3 +2.0
WET Wettzell 3.19 223 ePn Pn 04 06 12.4 +0.9
WET eSg Sg 04 07 00.3 -2.2
MODS Modra-Piesok 3.22 167 ePN Pn 04 06 14.4 +2.6
MODS ePG Pg 04 06 21.8 +0.1
MODS eSG Sg 04 07 04.9 +1.6
NIE Niedzica 3.35 127 ePg Pg 04 06 25.0 +0.8
NIE eSg Sg 04 07 08.1 +0.5
ZST Bratislava 3.37 170 eSG Sg 04 07 07.1 -1.1
WINA Alland / Wiene 3.41 182 Pn Pn 04 06 15.3 +0.9
comp=Z,1.8nm,0.2s,SNR=5.6
WINA Sg Sb 04 07 04.0 +0.7
comp=Z,17nm,0.5s,SNR=12
VYHS Vyhne 3.46 150 ePN Pn 04 06 15.6 +0.4
VYHS ePG Pg 04 06 27.0 +0.6
VYHS eSG Sg 04 07 13.8 +2.6
CONA Conrad Observa 3.59 184 ePn Pn 04 06 18.4 +1.3
comp=Z,1.7nm,0.4s
CONA eSn Sg 04 07 14.3 -1.2
comp=Z,13nm,0.4s
CLZ Clausthal 3.65 277 ePn Pn 04 06 20.1 +2.4
CLZ eSn Sn 04 07 03.1 +1.6
CLZ eSg Sg 04 07 19.4 +2.2
GRF Grafenberg Arr 3.66 242 ePn Pn 04 06 19.4 +1.4
GRF eSg Sg 04 07 17.8 +0.1
BSD Bornholm Skovb 3.69 348 i P Pn 04 06 18.4 +0.2
BSD i S Sn 04 07 01.8 -0.7
BSD IAML 04 07 33.3
comp=Z,7.4nm,0.7s
RONA Rosalia, Austr 3.82 179 ePn Pn 04 06 21.4 +1.3
comp=Z,1.3nm,0.4s
RONA eSg Sg 04 07 20.2 -2.4
comp=Z,6.0nm,0.5s
STHS Stebnicka Huta 3.84 121 ePG Pg 04 06 33.3 -0.3
STHS eSG Sg 04 07 26.3 +3.0
MOA Molln 3.88 200 Pn Pn 04 06 22.0 +1.1
comp=Z,1.4nm,0.2s,SNR=15
MOA Sg Sg 04 07 24.8 +0.2
comp=Z,74nm,1.1s,SNR=7.0
KECS Kecovo 4.10 136 ePN Pn 04 06 25.1 +1.2
KECS ePG Pg 04 06 38.7 +0.2
BIOA Bad Ischl, Aus 4.17 205 ePn Pn 04 06 26.2 +1.2
comp=Z,1.6nm,0.2s
BIOA eSg Sg 04 07 34.4 +0.3
comp=Z,25nm,0.5s
ARSA Arzberg 4.29 186 ePn Pn 04 06 28.5 +2.0
comp=Z,2.3nm,0.5s
ARSA eSg Sg 04 07 39.0 +1.2
comp=Z,17nm,0.7s
LUNU Lund 4.44 339 i P Pn 04 06 29.9 +1.3
LUNU eS Sn 04 07 19.9 -1.0
SESA Seetaler Alpe, 4.53 194 Pn Pn 04 06 31.3 +1.3
comp=Z,9.0nm,0.4s,SNR=8.6
KOLS Kolonicke sedl 4.67 121 ePN Pn 04 06 32.6 +0.8
KOLS ePG Pg 04 06 54.5 +5.0
LESA Schwarzleotal 4.70 211 i Pn Pn 04 06 33.1 +0.9
comp=Z,0.5nm,0.1s
LESA eSg Sg 04 07 48.6 -2.2
comp=Z,12nm,0.6s
BLEU Blekinge 4.81 357 eP Pn 04 06 34.6 +1.0
BLEU i S Sn 04 07 28.6 -1.3
KBA Koelnbreinsper 4.82 204 Pn Pn 04 06 35.0 +1.1
comp=Z,4.9nm,0.5s,SNR=9.4
KBA Sg Sg 04 07 54.3 -0.4
comp=Z,19nm,0.7s
SOKA Soboth 4.90 190 eSg Sg 04 07 57.9 +0.6
comp=Z,3.2nm,0.4s
DEL Delary 5.16 345 i P Pn 04 06 38.9 +0.5
DEL i S Sn 04 07 36.9 -1.6
WATA Walderalm 5.16 218 eSg Sg 04 08 04.2 -1.5
comp=Z,4.6nm,0.4s
MYKA Terra Mystica 5.17 200 eSg Sg 04 08 07.8 +1.8
comp=Z,4.3nm,0.4s
WTTA Wattenberg 5.20 217 ePn Pn 04 06 40.6 +1.4
comp=Z,0.7nm,0.2s
WTTA Sg Sg 04 08 04.8 -2.0
comp=Z,18nm,0.8s
MOTA Moosalm 5.34 221 eSg Sg 04 08 12.3 +0.9
comp=Z,4.0nm,0.4s
ABTA Abfaltersbach 5.35 208 ePn Pn 04 06 43.1 +1.9
comp=Z,0.7nm,0.3s
ABTA eSg Sg 04 08 11.4 -0.5
comp=Z,10nm,0.6s
RETA Reutte 5.37 223 i Pn Pn 04 06 41.9 +0.5
comp=Z,1.0nm,0.2s,SNR=5.4
RETA eSg Sg 04 08 11.2 -1.2
comp=Z,8.4nm,0.4s
SQTA Sankt Quirin 5.40 219 i Pn Pn 04 06 44.0 +2.1
comp=Z,2.5nm,0.2s,SNR=5.1
SQTA i Sn Sn 04 07 46.6 +1.9
comp=Z,5.0nm,0.4s
SQTA eSg Sg 04 08 11.0 -2.3
comp=Z,7.5nm,0.5s
KOE Koeppel 5.47 262 ⇑eSn Sn 04 07 46.5 +0.2
comp=Z,16nm,1.4s
HOBG Hohbusch 5.60 268 eSn Sn 04 07 49.9 +0.4
comp=Z,18nm,0.7s
FETA Feichten 5.75 221 i Pn Pn 04 06 48.1 +1.3
comp=Z,0.8nm,0.4s
FETA Sg Sg 04 08 19.5 -5.2
comp=Z,5.5nm,0.8s
BGG Burgeitz 5.77 260 eSn Sn 04 07 53.4 -0.3
comp=Z,4.2nm,1.0s
FABU Falkenberg 5.87 341 i P Pn 04 06 48.8 +0.7
FABU i S Sn 04 07 54.0 -2.0
DAVA Damuels 5.91 227 i Pn Pn 04 06 48.8 -0.2
comp=Z,0.9nm,0.2s
DAVA eSg Sb 04 08 22.7 +7.3
comp=Z,7.0nm,0.5s
HILG Hillesheim 6.15 262 eSn Sn 04 08 03.6 +0.4
comp=Z,9.9nm,0.5s
DAVOX Davos/Dischmat 6.30 224 Pn Pn 04 06 54.8 +0.6
comp=Z,0.6nm,0.3s,baz=48,slow=12,SNR=5.8
DAVOX Sn Sn 04 08 02.2 -4.8
comp=Z,0.1nm,0.3s,baz=357,slow=22,SNR=1.2
DAVOX Lg Lg 04 08 33.7
comp=Z,0.4nm,0.3s,baz=20,slow=8.7,SNR=3.1
comp=Z,1.0nm,0.4s
DAVOX AML AML
DREG Dreilaegerbach 6.35 266 eSn Sn 04 08 07.5 -0.4
comp=Z,5.0nm,0.7s
ONAU Onsala 6.40 339 i P Pn 04 06 57.3 +1.8
ONAU eS Sn 04 08 05.5 -3.7
AKASG Malin Array Be 8.23 91 Pn Pn 04 07 21.3 +0.7
comp=Z,0.8nm,0.3s,baz=281,slow=12,SNR=5.3
AKASG Sn Sn 04 08 53.8 -0.4
comp=Z,0.5nm,0.3s,baz=36,slow=35,SNR=1.6
AKASG Lg Lg 04 09 45.0
comp=Z,0.6nm,0.3s,baz=276,slow=29,SNR=2.6
comp=Z,0.7nm,0.4s

AKASG				AML	AML		
HFS	Hagfors	8.76	352	Pn	Pn	04 07 27.2	-0.6
	comp=Z,0.1nm,0.3s,baz=166,slow=13,SNR=1.1						
HFS				Sn	Sn	04 09 04.9	-2.1
	comp=Z,0.1nm,0.3s,baz=170,slow=26,SNR=1.5						
	comp=Z,0.4nm,0.5s						
HFS				AML	AML		
NOA	NORSAR Array B	9.94	346	Pn	Pn	04 07 43.9	-0.1
	baz=166,slow=14,SNR=2.6						
	comp=Z,0.4nm,0.8s						
FINES	FINESS Array B	11.33	25	Pn	Pn	04 08 02.6	-0.4
	comp=Z,0.1nm,0.3s,baz=210,slow=11,SNR=6.7						
FINES				Sn	Sn	04 10 01.9	-8.3
	comp=Z,0.1nm,0.3s,baz=215,slow=22,SNR=2.5						
	comp=Z,1.6nm,0.5s						
FINES				AML	AML		
EKA	Eskdalemuir Ar	12.16	296	Pn	Pn	04 08 12.0	-2.4
	comp=Z,0.2nm,0.3s,baz=102,slow=14,SNR=2.5						
EKA				Sn	Sn	04 10 21.2	-9.3
	baz=102,slow=25						
ARCES	ARCESS Array B	18.61	10	P	Pn	04 09 39.9	+1.1
	comp=Z,0.1nm,0.3s,baz=204,slow=10,SNR=6.9						
	comp=Z,0.5nm,0.4s						
ARCES				AML	AML		

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*IDC **15** 04:12:14.8±0.3, 15°.01S×179°.86E, h0^{km}, mb4.9/41, mbtmp5.0/45, ML5.8/2, MS5.6/63, Error ellipse: s-maj=12.1km s-min=9.4km az=137.0*

*MOS **15** 04:12:14.9±1.2, 15°.07S×179°.89E, h10^{km}, mb5.6/40, MS5.7/7, Error ellipse: s-maj=7.6km s-min=6.5km az=54.4*

*NOU **15** 04:12:15.4, 15°.09S×179°.73W, h1^{km}, mb5.2/108, Fiji Islands Region*

*NEIC **15** 04:12:16.3, 15°.10S×179°.87E, h10^{km}*

*NEIC **15** 04:12:16.3±1.4, 15°.11S±0°.07×179°.87E±0°.07, h10^{km}±1^{km}, mb5.6/199, Ms_20 5.9/619, Mww5.9/30, Error ellipse: s-maj=12.7km s-min=10.3km az=126.0*

*GFZ **15** 04:12:17.0, 14°.96S×179°.93E, h15^{km}, Mw6.0/53, Moment Tensor Solution. Moment tensor: Scale 10^{18}Nm; M$_{rr}$0.01; M$_{\theta\theta}$-0.20; M$_{\phi\phi}$0.19; M$_{r\theta}$0.06; M$_{\theta\phi}$1.15; M$_{\phi r}$0.05; Fault plane solution: M$_0$1.16928×10^{18} NP1: φ$_s$355.19898°, δ86.85239°, λ177.77358°. NP2: φ$_s$85.32129°, δ87.77694°, λ3.14999°. Principal axes: T 1.1680, Plg3.7989°, Azm310.2819°; N 0.0026, Plg86.1452°, Azm120.4994°; P -1.1706, Plg0.6530°, Azm220.2385°;*

*GFZ **15** 04:12:17.0±0.1, 15°S±3°×18°0E±°, h10^{km}, M5.6/55, mb5.2/55*

*GCMT **15** 04:12:20.3±0.1, 14°.93S×179°.99E, h15^{km}, MW6.0/176, Moment Tensor Solution. s126,c237; s176,c567; Duration: 2^{s}4 Moment tensor: Scale 10^{18}Nm; M$_{rr}$0.11±.01; M$_{\theta\theta}$-0.10±.01; M$_{\phi\phi}$0.00±.01; M$_{r\theta}$0.03±.03; M$_{\theta\phi}$1.17±.01; M$_{\phi r}$-0.16±.03; Best double couple: M$_0$1.18200×10^{18} NP1: φ$_s$269.00000°, δ82.00000°, λ0.00000°. NP2: φ$_s$179.00000°, δ90.00000°, λ172.00000°. Principal axes: T 1.1250, Plg6.0000°, Azm134.0000°; N 0.1130, Plg82.0000°, Azm359.0000°; P -1.2390, Plg6.0000°, Azm224.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s. Triangular moment-rate function*

*NEIC **15** 04:12:24.5, 14°.80S×179°.93W, h12^{km}, Moment Tensor Solution. Duration: 4^{s}5 Moment tensor: Scale 10^{18}Nm; M$_{rr}$-0.14; M$_{\theta\theta}$0.07; M$_{\phi\phi}$0.06; M$_{r\theta}$-0.26; M$_{\theta\phi}$0.98; M$_{\phi r}$0.02; Fault plane solution: M$_0$1.02000×10^{18} NP1: φ$_s$180.52000°, δ74.27000°, λ-176.07000°. NP2: φ$_s$89.45000°, δ86.21000°, λ-15.77000°. Principal axes: T 1.0721, Plg8.0000°, Azm136.0000°; N -0.1151, Plg74.0000°, Azm256.0000°; P -0.9570, Plg14.0000°, Azm44.0000°;*

ISC 15 04:12:16.6±0.5**, 15°.09S**±0°.04×**179°.97E**±0°.04**, h13**^{km}±3^{km}**, h13**^{km}**:pP-P, n1075,** σ**1**^{s}**63**/805**, mb5.4**/228**, MS5.9**/376**, 25C-30D, Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DGTI	Dogotuki	1.23	190	P	Pb	04 12 36.9	-2.8
TAVE	Taveuni	1.62	176	P	Pn	04 12 43.1	-1.8
FUTU	Fugatoga	2.01	68	P	Pn	04 12 46.0	-4.3
FUTU	Fugatoga	2.01	68		Pn	04 12 44.0	-6.2
FUTU	Fugatoga	2.01	68	P	Pn	04 12 44.5	-5.8
MSVF	Nonsavu	3.21	215	Pn	Pn	04 13 06.1	-0.8
	51nm,0.3s,baz=60,slow=14,SNR=93						
MSVF				Sn	Sn	04 13 40.1	-5.0
	41nm,0.3s,baz=86,slow=22,SNR=6.4						
MSVF				LR	LR	04 14 22.3	
	comp=Z,248µm,19.1s,baz=16,slow=40						
	149nm,0.5s						
MSVF				AML	AML		
MSVF	Nonsavu	3.21	215	P	Pn	04 13 08.6	+1.7
MSVF	Nonsavu	3.21	215	Pn	Pn	04 13 05.4	-1.5
MSVF	Nonsavu	3.21	215	P	Pn	04 13 05.3	-1.6
LKBA	Tubou, Lakemba	3.34	160	P	Pn	04 13 06.5	-2.1
FUNA	Funafuti	6.56	353	P	Pn	04 13 53.7	+0.7
FUNA	Funafuti	6.56	353	Pn	Pn	04 13 52.9	-0.1
FUNA	Funafuti	6.56	353	P	Pn	04 13 46.7	-6.2
	comp=Z,654nm,1.0s						
AFI	Afiamalu	8.08	83	Pn	Pn	04 14 13.2	-0.6
	comp=Z,173nm,0.9s,baz=50,slow=12,SNR=11						
AFI				LR	LR	04 16 44.6	
	comp=Z,40µm,18.3s,baz=258,slow=33						
AFI	Afiamalu	8.08	83	P	Pn	04 14 11.2	-2.7
AFI	Afiamalu	8.08	83	P	Pn	04 14 14.2	+0.3
AFI	Afiamalu	8.08	83		Pn	04 14 14.2	+0.3
AFI	Afiamalu	8.08	83	P	Pn	04 14 15.6	+1.8
	comp=Z,235nm,1.0s						
SANVU	Saraoutou	12.32	267	P	Pn	04 15 18.2	+6.3
SANVU	Saraoutou	12.32	267	S	Sn	04 17 40.0	+11
SANVU	Saraoutou	12.32	267		Pn	04 15 10.5	-1.4
SANVU	Saraoutou	12.32	267	P	Pn	04 15 15.6	+3.7
	comp=Z,363nm,1.8s						
RAO	Raoul Island	14.23	172	Pn	Pn	04 15 37.9	-0.1
	comp=Z,34nm,0.3s,baz=315,slow=12,SNR=5.3						
	comp=Z,80nm,0.4s						
RAO				AML	AML		
RAO	Raoul Island	14.23	172		Pn	04 15 37.4	-0.6
OUENC	Ouen Island, N	14.40	238	P	P	04 15 44.8	-2.5
OUENC	Ouen Island, N	14.40	238		Pn	04 15 38.3	-2.1
DZM	Mont Dzumac	14.57	240	Pn	Pn	04 15 44.6	+1.8
	comp=Z,26nm,1.2s,baz=55,slow=13,SNR=7.6						
DZM				LR	LR	04 20 23.9	
	comp=Z,65µm,21.0s,baz=68,slow=34						
ONTNC	Ouen Toro	14.67	239	P	P	04 15 48.1	-2.1
ONTNC	Ouen Toro	14.67	239	Pn	Pn	04 15 41.9	-2.1
NOUC	Port Laguerre	14.71	240	P	P	04 15 49.7	-0.9
KOUNC	Koumac, New Ca	15.88	248	P	P	04 16 06.1	+2.4
KOUNC	Koumac, New Ca	15.88	248	Pn	Pn	04 15 58.2	-1.8
TARA	Tarawa	17.76	336	P	P	04 16 27.4	+2.8
TARA	Tarawa	17.76	336	P	P	04 16 25.5	+0.9
	comp=Z,305nm,1.8s						
NFK	Norfolk Island	17.79	217	P	P	04 16 29.3	+4.5
	comp=Z,147nm,1.8s						
NFK	Norfolk Island	17.79	217	P	P	04 16 24.4	-0.4
	comp=Z,147nm,1.8s						
NGOA	Tingoa Renbel	19.68	278	P	Pn	04 16 50.3	+3.2
RAR	Rarotonga	20.18	111	P	Pn	04 16 53.3	+0.2
	comp=Z,88nm,1.1s,baz=340,slow=4.1,SNR=6.1						
RAR				LR	LR	04 22 52.6	
	comp=Z,15µm,21.5s,baz=290,slow=31						
	comp=Z,88nm,1.1s						
RAR	Rarotonga	20.18	111	P	P	04 16 48.3	-2.9
RAR	Rarotonga	20.18	111	P	P	04 16 51.2	+0.1
RAR				IAmb	IAmb	04 16 56.2	
	comp=Z,378nm,1.5s						
RAR	Rarotonga	20.18	111	P	Pn	04 16 55.3	+2.3
HNR	Honiara	20.35	284	P	P	04 16 52.9	-0.1
	comp=Z,233nm,0.8s,baz=296,slow=5.5,SNR=4.7						
HNR				LR	LR	04 23 32.8	
	comp=Z,67µm,19.1s,baz=203,slow=34						
	comp=Z,233nm,0.8s						
HNR	Honiara	20.35	284	P	P	04 16 51.2	-1.7
HNR				IAmb	IAmb	04 16 57.2	
	comp=Z,360nm,0.9s						
HNR	Honiara	20.35	284	IAMs_20	IAMs_20	04 23 12.1	
	comp=Z,68µm,19.0s						
SAVO	Savo Central	20.56	284	P	Pn	04 16 58.6	+1.0
TATA	Tatamba Isabel	20.82	286	P	Pn	04 16 59.7	-0.9
OUZ	Omahuta	20.85	195	P	Pn	04 17 02.0	+1.4
	comp=Z,184nm,1.8s						
MXZ	Matakaoa Point	22.43	183	IAMs_20	IAMs_20	04 25 25.0	
	comp=Z,29µm,19.0s						
TOZ	Tahuroa Road	22.90	189	P	P	04 17 19.3	-0.8
URZ	Urewera	23.22	186	P	P	04 17 24.3	+0.9
	comp=Z,66nm,1.2s,baz=25,slow=5.4,SNR=4.9						
URZ				LR	LR	04 25 21.0	
	comp=Z,19µm,19.1s,baz=359,slow=34						
	comp=Z,66nm,1.2s						
URZ	Urewera	23.22	186	P	P	04 17 22.9	-0.5
	comp=Z,90nm,1.4s						
LHI	Lord Howe Isla	25.14	226	P	P	04 17 44.5	+2.8
	comp=Z,52nm,1.4s						
LHI	Lord Howe Isla	25.14	226	P	P	04 17 43.1	+1.5
	comp=Z,52nm,1.4s						
LHI	Lord Howe Isla	25.14	226	P	P	04 17 40.5	-1.1
	comp=Z,52nm,1.4s						
GC1S	Gold Coast 1 S	27.75	238	P	P	04 18 09.0	+3.9
KHZ	Kahutara	27.79	190	P	P	04 18 04.2	-1.1
	comp=Z,114nm,1.3s						
TW1H	Toowoomba 1 Ha	28.80	240	P	P	04 18 17.1	+2.5
AUTOO	Toowoomba Stat	28.80	240	P	P	04 18 17.8	+3.1
EIDS	Eidsvold	28.91	245	P	P	04 18 17.4	+1.8
	comp=Z,19nm,1.3s						
EIDS	Eidsvold	28.91	245	P	P	04 18 15.6	+0.1
	comp=Z,20nm,1.3s						
EIDS	Eidsvold	28.91	245	P	P	04 18 18.5	+2.9
EIDS	Eidsvold	28.91	245	P	P	04 18 17.9	+2.3
PPT	Papeete	29.32	99	P	P	04 18 20.4	+1.1
	comp=Z,27nm,0.9s,baz=277,slow=15,SNR=5.8						
PPT				LR	LR	04 27 13.6	
	comp=Z,6µm,21.1s,baz=274,slow=30						
	comp=Z,27nm,0.9s						
KRVT	Keravat (AS076	29.51	288	LR	LR	04 28 53.3	
	comp=Z,39µm,20.5s,baz=134,slow=34						
RPZ	Rata Peaks	29.53	193	LR	LR	04 29 35.2	
	comp=Z,2µm,21.9s,baz=354,slow=35						
ARMA	Armidale	30.14	235	P	P	04 18 30.1	+3.5
	comp=Z,42nm,1.6s						
ARMA	Armidale	30.14	235	P	P	04 18 27.8	+1.2
	comp=Z,41nm,1.4s						
ARMA	Armidale	30.14	235	P	P	04 18 24.9	-1.8
	comp=Z,40nm,1.6s						
ARMA	Armidale	30.14	235	P	P	04 18 30.1	+3.5
ARMA	Armidale	30.14	235		P	04 18 24.7	-1.9
ARMA	Armidale	30.14	235	P	P	04 18 29.7	+3.1
	comp=Z,42nm,1.6s						
PATS	Pohnpei	30.58	314	IAMs_20	IAMs_20	04 27 39.1	
	comp=Z,36µm,20.0s						
MGCD	Mangrove Creek	31.76	230	P	P	04 18 46.5	+5.8
	comp=Z,47nm,1.1s						
MGCD	Mangrove Creek	31.76	230	P	P	04 18 47.1	+6.4
MLZ	Mavora Lakes	31.80	196	P	P	04 18 39.9	-1.0
MLZ				IAmb	IAmb	04 18 49.8	
	comp=Z,86nm,0.9s						
SYDH	Sydney Hard Ro	32.29	230	P	P	04 18 46.7	+1.4
WHZ	Wether Hill Ro	32.33	196	P	P	04 18 44.4	-1.1
WHZ				IAmb	IAmb	04 18 53.8	
	comp=Z,84nm,0.9s						
CTA	Charters Tower	32.48	256	P	P	04 18 49.0	+1.8
	comp=Z,16nm,2.2s						
CTA	Charters Tower	32.48	256	P	P	04 18 49.1	+1.8
	comp=Z,16nm,2.2s						
CTA	Charters Tower	32.48	256	P	P	04 18 44.3	-2.9
	comp=Z,16nm,2.2s						
CTA	Charters Tower	32.48	256	P	P	04 18 45.8	-1.4
	comp=Z,5.0nm,0.8s,baz=76,slow=12,SNR=3.8						
CTA				LR	LR	04 31 12.5	
	comp=Z,7µm,18.6s,baz=76,slow=35						
	comp=Z,5.0nm,0.8s						
CTA	Charters Tower	32.48	256	P	P	04 18 50.9	+3.7
CTAO	Charters Tower	32.48	256	P	P	04 18 49.0	+1.8
CTAO	Charters Tower	32.48	256	P	P	04 18 48.0	+0.8
	comp=Z,39nm,2.0s						
WOLH	Wollongong Har	32.50	228	P	P	04 18 52.0	+4.9
PMG	Port Moresby	32.53	276	P	P	04 18 48.6	+1.0
PMG	Port Moresby	32.53	276	P	P	04 18 48.2	+0.6
PMG	Port Moresby	32.53	276	*c i*P	P	04 18 47.0	-0.6
PMG				pmax	pmax		
	comp=Z,79nm,1.3s						
PMG	Port Moresby	32.53	276		P	04 18 46.4	-1.2
PMG				IAmb	IAmb	04 19 05.5	
	comp=Z,108nm,1.2s						
PMG	Port Moresby	32.53	276	P	P	04 18 48.7	+1.1
	comp=Z,72nm,1.3s						
PMG	Port Moresby	32.53	276	P	P	04 18 47.7	+0.1
	comp=Z,74nm,1.3s						
AUDCS	Dubbo College	33.22	234	P	P	04 18 56.3	+2.8
CNB	Canberra Magne	34.02	228	P	P	04 19 02.4	+1.8
	comp=Z,1.8nm,1.7s						
CNB	Canberra Magne	34.02	228	P	P	04 18 59.4	-1.1
	comp=Z,1.8nm,2.1s						
AUMHS	Melrose High S	34.24	228	P	P	04 19 04.6	+2.2
MTSU	Mount Surprise	34.26	260	P	P	04 19 04.2	+1.5
	comp=Z,13nm,1.3s						
MTSU	Mount Surprise	34.26	260	P	P	04 19 08.0	+5.2
	comp=Z,16nm,1.4s						
MTSU	Mount Surprise	34.26	260	P	P	04 19 01.0	-1.8
	comp=Z,13nm,1.3s						
MTSU	Mount Surprise	34.26	260	P	P	04 19 06.8	+4.0
MTSU	Mount Surprise	34.26	260	P	P	04 19 04.3	+1.5
	comp=Z,13nm,1.3s						
AUMTS	Mt Stromlo	34.29	228	P	P	04 19 06.4	+3.6
CAN	Canberra	34.29	228	P	P	04 19 06.0	+3.2
	comp=Z,50nm,1.6s						
CAN	Canberra	34.29	228	P	P	04 19 03.0	+0.1
	comp=Z,50nm,1.6s						
CAN	Canberra	34.29	228	P	P	04 19 02.9	+0.1
	comp=Z,50nm,1.6s						
CAN	Canberra	34.29	228	P	P	04 19 06.4	+3.6
CAN	Canberra	34.29	228	P	P	04 19 03.0	+0.1
CAN	Canberra	34.29	228	IAMs_20	IAMs_20	04 31 01.5	
	comp=Z,22µm,19.0s						
CAN	Canberra	34.29	228	P	P	04 19 06.0	+3.2
	comp=Z,50nm,1.6s						
MILA	Mila	35.02	226	P	P	04 19 10.7	+1.5
	comp=Z,23nm,1.7s						
MILA	Mila	35.02	226	P	P	04 19 11.1	+1.9
	comp=Z,23nm,1.7s						
MILA	Mila	35.02	226	P	P	04 19 08.6	-0.6
	comp=Z,23nm,1.7s						
QLP	Quilpie	35.18	245	P	P	04 19 11.0	+0.4
	comp=Z,151nm,1.8s						
QLP	Quilpie	35.18	245	P	P	04 19 10.0	-0.6
	comp=Z,151nm,1.8s						
QLP	Quilpie	35.18	245	P	P	04 19 13.3	+2.7
QLP	Quilpie	35.18	245	P	P	04 19 10.4	-0.2
	comp=Z,151nm,1.8s						
CMSA	Cobar Meteorol	35.29	236	P	P	04 19 11.4	-0.1
	comp=Z,73nm,1.4s						
CMSA	Cobar Meteorol	35.29	236	P	P	04 19 11.4	-0.1
	comp=Z,73nm,1.4s						
CMSA	Cobar Meteorol	35.29	236	P	P	04 19 10.9	-0.5
	comp=Z,73nm,1.4s						
CMSA	Cobar Meteorol	35.29	236	P	P	04 19 11.0	-0.5
CMSA	Cobar Meteorol	35.29	236	P	P	04 19 11.8	+0.3
	comp=Z,73nm,1.4s						
WAKE	Wake Island	36.58	339	IAMs_20	IAMs_20	04 30 47.9	
	comp=Z,22µm,20.0s						
TOO	Toolangi	37.83	227	P	P	04 19 36.5	+3.3
	comp=Z,32nm,1.2s,comp=Z,0.0nm						
TOO	Toolangi	37.83	227	P	P	04 19 33.4	+0.2
	comp=Z,32nm,1.3s,comp=Z,0.0nm						
TOO	Toolangi	37.83	227	P	P	04 19 32.5	-0.7
	comp=Z,31nm,1.3s,comp=Z,0.0nm						
TOO	Toolangi	37.83	227	P	P	04 19 32.2	-1.0
TOO				pmax	pmax		
	comp=Z,44nm,1.3s						
TOO	Toolangi	37.83	227		P	04 19 32.2	-1.0
STKA	Stephens Creek	38.72	238	P	P	04 19 41.1	+0.5
	comp=Z,276nm,1.9s						
STKA	Stephens Creek	38.72	238	P	P	04 19 41.2	+0.6
	comp=Z,276nm,1.9s						
STKA	Stephens Creek	38.72	238	P	P	04 19 39.4	-1.3
	comp=Z,277nm,1.9s						
STKA	Stephens Creek	38.72	238	P	P	04 19 39.6	-1.1
	comp=Z,18nm,0.8s,baz=71,slow=7.9,SNR=25						
STKA				LR	LR	04 33 49.1	
	comp=Z,11µm,21.5s,baz=71,slow=34						
	comp=Z,18nm,0.8s						
STKA	Stephens Creek	38.72	238	P	P	04 19 40.9	+0.3
STKA	Stephens Creek	38.72	238	⇑ *i*P	P	04 19 40.3	-0.3
STKA	Stephens Creek	38.72	238	P	P	04 19 41.1	+0.5
	comp=Z,276nm,1.9s						
QIS	Mount Isa	38.73	256	P	P	04 19 39.6	-1.3
	comp=Z,25nm,1.7s						
QIS	Mount Isa	38.73	256	P	P	04 19 40.4	-0.5
	comp=Z,29nm,2.4s						
QIS	Mount Isa	38.73	256	P	P	04 19 38.4	-2.6
	comp=Z,25nm,1.7s						
QIS	Mount Isa	38.73	256	P	P	04 19 42.5	+1.5
QIS	Mount Isa	38.73	256	P	P	04 19 39.8	-1.2
	comp=Z,25nm,1.7s						
BRAT	Ballarat	38.94	228	P	P	04 19 45.6	+3.2
MOO	Moorlands	39.19	219	P	P	04 19 45.8	+1.4
MOO	Moorlands	39.19	219	P	P	04 19 43.3	-1.1
MMPI	Merauke	39.26	275	P	P	04 19 49.0	+3.7
TAU	Tasmania Unive	39.37	219	IAMs_20	IAMs_20	04 33 04.2	
	comp=Z,12µm,20.0s						
ARPS	Mount Arapiles	40.15	230	P	P	04 19 53.1	+0.5
	comp=Z,25nm,1.2s						
ARPS	Mount Arapiles	40.15	230	P	P	04 19 53.0	+0.5
	comp=Z,25nm,1.2s						
ARPS	Mount Arapiles	40.15	230	P	P	04 19 51.2	-1.3
	comp=Z,24nm,1.2s						
GENI	Genyem	41.15	284	P	P	04 20 05.7	+4.7
GENI	Genyem	41.15	284	P	P	04 20 01.3	+0.3
	comp=Z,5µmcomp=Z,113nm,1.4s						
HTT	Hallett	41.32	236	P	P	04 20 02.4	+0.1
	comp=Z,18nm,1.2s						
HTT	Hallett	41.32	236	P	P	04 20 00.5	-1.7
	comp=Z,18nm,1.6s						
HTT	Hallett	41.32	236	P	P	04 20 03.6	+1.3
HTT	Hallett	41.32	236	P	P	04 20 02.7	+0.4
HTT	Hallett	41.32	236	P	P	04 20 02.4	+0.1
AUMBR	Murray Bridge	41.53	234	P	P	04 20 05.7	+1.8
HMH	Humu'ula Sheep	42.09	36	P	P	04 20 07.8	-1.1
POHA	Pohakuloa	42.19	36	P	P	04 20 10.0	+0.3
POHA	Pohakuloa	42.19	36	IAMs_20	IAMs_20	04 33 38.9	
	comp=Z,16µm,21.0s						
KIP	Kipapa	42.23	31	IAMs_20	IAMs_20	04 33 08.9	
	comp=Z,13µm,21.0s						
BBOO	Buckleboo	43.48	238	P	P	04 20 23.8	+4.0
	comp=Z,47nm,1.8s						
BBOO	Buckleboo	43.48	238	P	P	04 20 18.4	-1.5
	comp=Z,47nm,1.8s						
BBOO	Buckleboo	43.48	238	P	P	04 20 23.1	+3.2
BBOO	Buckleboo	43.48	238		P	04 20 18.1	-1.8
BBOO				IAmb	IAmb	04 20 33.3	
	comp=Z,222nm,1.9s						
BBOO	Buckleboo	43.48	238	P	P	04 20 22.1	+2.2
	comp=Z,47nm,1.8s						
WR8	Warramunga Arr	43.53	257	P	P	04 20 17.8	-2.6
WR8	Warramunga Arr	43.53	257		P	04 20 18.4	-2.1
WB0	Warramunga Arr	43.63	257		P	04 20 19.2	-2.1
WRAB	Tennant Creek	43.67	257	P	P	04 20 21.2	-0.4
WRAB	Tennant Creek	43.67	257	*d i*P	P	04 20 21.2	-0.4
WRAB				pmax	pmax		
	comp=Z,42nm,1.5s						
WRAB	Tennant Creek	43.67	257	P	P	04 20 20.8	-0.8
WRAB	Tennant Creek	43.67	257	P	P	04 20 21.4	-0.2
	comp=Z,27nm,1.1s						
WRA	Warramunga Arr	43.68	257	P	P	04 20 19.8	-1.9
	comp=Z,17nm,1.0s,baz=90,slow=8.4,SNR=40						
	comp=Z,17nm,1.0s						
WRA	Warramunga Arr	43.68	257		P	04 20 19.6	-2.1
AS17	Alice Springs	44.05	251	P	P	04 20 23.8	-0.8
	comp=Z,27nm,1.3s						
AS17	Alice Springs	44.05	251	P	P	04 20 21.8	-2.8
	comp=Z,27nm,1.3s						
AS01	Alice Springs	44.08	251	P	P	04 20 24.4	-0.6
	comp=Z,27nm,0.9s						
AS01	Alice Springs	44.08	251	P	P	04 20 24.3	-0.6
AS09	Alice Springs	44.09	251	P	P	04 20 23.8	-1.2
	comp=Z,34nm,1.2s						
AUCAS	Cummins Area S	44.10	236	P	P	04 20 27.2	+2.4
AS15	Alice Springs	44.12	252	P	P	04 20 24.4	-0.8
	comp=Z,37nm,1.1s						
AS31	Alice Springs	44.12	251	P	P	04 20 26.1	+0.9
	comp=Z,12nm,1.2s						
AS31	Alice Springs	44.12	251	P	P	04 20 24.1	-1.2
	comp=Z,12nm,1.2s						
AS31	Alice Springs	44.12	251		P	04 20 22.7	-2.6
ASAR	Alice Springs	44.13	251	P	P	04 20 23.8	-1.4
	comp=Z,20nm,0.9s,baz=81,slow=8.5,SNR=44						
ASAR				LR	LR	04 37 52.2	
	comp=Z,7µm,19.6s,baz=88,slow=35						
	comp=Z,20nm,0.9s						
ASAR	Alice Springs	44.13	251		P	04 20 23.0	-2.3
GUMO	Guam	44.92	308	LR	LR	04 36 14.6	
	comp=Z,6µm,21.3s,baz=128,slow=32						
BAKI	Biak	45.44	284	P	P	04 20 36.9	+1.2
	comp=Z,99nm,1.5s						
KDU	Kakadu	46.10	267	P	P	04 20 41.7	+0.8
	comp=Z,20nm,2.3s						
KDU	Kakadu	46.10	267	P	P	04 20 39.7	-1.3
	comp=Z,20nm,2.3s						
MTN	Manton Dam	47.37	266	P	P	04 20 50.5	-0.4
	comp=Z,19nm,1.2s						
MTN	Manton Dam	47.37	266	P	P	04 20 47.4	-3.5
	comp=Z,19nm,1.2s						
MTN	Manton Dam	47.37	266	P	P	04 20 49.1	-1.8
FAKI	Fak Fak	48.54	280	IAMs_20	IAMs_20	04 40 51.2	
	comp=Z,9µm,20.0s						
FAKI	Fak Fak	48.54	280	P	P	04 21 04.0	+4.0
	comp=Z,124nm,1.4s						
KNRA	Kununurra	49.27	262	P	P	04 21 04.3	-1.2
	comp=Z,23nm,2.6s						
KNRA	Kununurra	49.27	262	P	P	04 21 03.3	-2.3
	comp=Z,23nm,2.6s						
KNRA	Kununurra	49.27	262		P	04 21 04.0	-1.6
WRKA	Warakurna	49.28	250	P	P	04 21 04.4	-1.2
	comp=Z,44nm,1.7s						
WRKA	Warakurna	49.28	250	P	P	04 21 02.9	-2.8
	comp=Z,44nm,1.7s						
FORT	Forrest	49.86	242	P	P	04 21 10.9	+1.0
	comp=Z,31nm,1.6s						
FORT	Forrest	49.86	242	P	P	04 21 08.1	-1.8
	comp=Z,31nm,1.6s						
FORT	Forrest	49.86	242	P	P	04 21 08.7	-1.3
SWI	Sorong	50.11	282	P	P	04 21 10.5	-1.5
	comp=Z,2µmcomp=Z,82nm,1.2s						
MSAI	Masohi	51.58	278	P	P	04 21 27.0	+3.9
	comp=Z,50nm,0.7s						
FITZ	Fitzroy Crossi	52.00	259	P	P	04 21 26.1	-0.1
	comp=Z,12nm,1.0s,baz=88,slow=10,SNR=11						
FITZ				LR	LR	04 43 13.0	
	comp=Z,8µm,18.3s,baz=93,slow=36						
	comp=Z,12nm,1.0s						
FITZ	Fitzroy Crossi	52.00	259		P	04 21 25.1	-1.1
FITZ	Fitzroy Crossi	52.00	259	P	P	04 21 26.0	-0.1
	comp=Z,16nm,2.0s						
AAI	Ambon	52.19	277	P	P	04 21 30.4	+2.7
	comp=Z,105nm,1.3s						
SOEI	Soe	54.54	269	P	P	04 21 41.6	-3.5
SOEI	Soe	54.54	269	P	P	04 21 48.8	+3.7
SOEI	Soe	54.54	269	P	P	04 21 45.5	+0.4
SOEI	Soe	54.54	269	P	P	04 21 46.0	+0.9
	comp=Z,122nm,1.2s						
SANI	Sanana	54.77	278	P	P	04 21 43.9	-2.7
KMBL	Kambalda	55.19	242	P	P	04 21 47.4	-2.1
	comp=Z,12nm,1.9s						
KMBL	Kambalda	55.19	242	P	P	04 21 47.2	-2.3
	comp=Z,12nm,1.9s						
EDFI	Ende, Flores	57.23	269	P	P	04 22 02.8	-1.6
	comp=Z,2µmcomp=Z,66nm,1.0s						
MBWA	Marble Bar	57.29	254	P	P	04 22 05.6	+1.0
	comp=Z,45nm,1.4s						
MBWA	Marble Bar	57.29	254	P	P	04 22 02.7	-1.8
	comp=Z,45nm,1.4s						
MBWA	Marble Bar	57.29	254	P	P	04 22 06.8	+2.2
MBWA	Marble Bar	57.29	254		P	04 22 02.9	-1.7
MBWA				IAmb	IAmb	04 22 21.2	
	comp=Z,120nm,1.6s						
MBWA	Marble Bar	57.29	254	IAMs_20	IAMs_20	04 46 50.6	
	comp=Z,6µm,18.0s						
MBWA	Marble Bar	57.29	254	P	P	04 22 05.6	+1.0
	comp=Z,45nm,1.4s						
MEEK	Meekatharra	58.00	248	P	P	04 22 07.1	-2.5
	comp=Z,32nm,2.3s						
MEEK	Meekatharra	58.00	248	P	P	04 22 05.5	-4.0
MEEK	Meekatharra	58.00	248	P	P	04 22 10.6	+1.0
MEEK	Meekatharra	58.00	248	P	P	04 22 07.3	-2.3
	comp=Z,32nm,2.3s						
LUWI	Luwuk	58.13	278	P	P	04 22 07.1	-3.4
DAV	Davao City (W)	58.22	288	LR	LR	04 47 11.7	
	comp=Z,3µm,18.3s,baz=106,slow=36						
AUKUL	Kulin High Sch	58.41	241	P	P	04 22 15.6	+3.3
KLBR	Kellerberrin	58.72	242	P	P	04 22 12.8	-1.7
	comp=Z,68nm,1.2s						
KLBR	Kellerberrin	58.72	242	P	P	04 22 11.9	-2.6
	comp=Z,68nm,1.2s						
KLBR	Kellerberrin	58.72	242	P	P	04 22 16.0	+1.5
KLBR	Kellerberrin	58.72	242	P	P	04 22 12.8	-1.7
	comp=Z,68nm,1.2s						

LBFI	**Labuhan Bajo,**	**59.03**	**269**	P	**P**	**04 22 16.7**	**-0.2**
NWAO	**Narrogin (SRO)**	**59.19**	**241**	P	**P**	**04 22 18.6**	**+0.9**
	comp=Z,14nm,1.0s,baz=82,slow=7.9,SNR=3.0						
NWAO				LR	LR	04 45 46.1	
	comp=Z,16µm,21.7s,baz=91,slow=34						
	comp=Z,14nm,1.0s						
NWAO	**Narrogin (SRO)**	**59.19**	**241**	P	**P**	**04 22 20.7**	**+3.0**
KAPI	**Kappang**	**59.97**	**273**	LR	LR	04 48 56.7	
	comp=Z,623nm,18.6s,baz=100,slow=37						
MORW	**Morawa**	**60.22**	**245**	P	**P**	**04 22 28.7**	**+3.8**
MORW	**Morawa**	**60.22**	**245**	P	**P**	**04 22 27.9**	**+3.0**
MORW	**Morawa**	**60.22**	**245**		**P**	**04 22 22.8**	**-2.1**
MORW				IAmb	IAmb	04 22 40.3	
	comp=Z,95nm,1.7s						
MORW	**Morawa**	**60.22**	**245**	P	**P**	**04 22 27.1**	**+2.2**
	comp=Z,35nm,2.4s						
DBNI	**Kabupaten Domp**	**60.55**	**269**	P	**P**	**04 22 29.6**	**+2.3**
	comp=Z,2µmcomp=Z,45nm,2.0s						
TOLI2	**Tolitoli**	**60.67**	**280**	P	**P**	**04 22 31.8**	**+3.6**
PLAI	**Plampang**	**61.00**	**268**	P	**P**	**04 22 34.2**	**+3.8**
JHJ	**Hachijo jima 2**	**61.40**	**322**	LR	LR	04 43 09.4	
	comp=Z,3µm,21.5s,baz=128,slow=30						
TWSI	**Taliwang, Sumb**	**61.88**	**268**	P	**P**	**04 22 33.2**	**-3.1**
JMZ	**Minamidaito 2**	**62.48**	**310**	P	**P**	**04 22 42.9**	**+2.8**
JMZ	**Minamidaito 2**	**62.48**	**310**	P	**P**	**04 22 43.9**	**+3.8**
VNDA	**Vanda**	**63.12**	**184**	P	**P**	**04 22 44.2**	**+0.7**
	comp=Z,5.1nm,0.9s,baz=3.6,slow=6.4,SNR=11						
VNDA				LR	LR	04 46 59.8	
	comp=Z,2µm,18.6s,baz=10.0,slow=33						
	comp=Z,5.1nm,0.9s						
VNDA	**Vanda**	**63.12**	**184**		**P**	**04 22 43.3**	**-0.3**
VNDA				IAmb	IAmb	04 23 21.6	
	comp=Z,77nm,1.8s						
VNDA	**Vanda**	**63.12**	**184**	P	**P**	**04 22 44.5**	**+0.9**
	comp=Z,14nm,1.1s						
SBA	**Scott Base**	**63.13**	**183**	P	**P**	**04 22 43.8**	**+0.2**
SBA				pmax	pmax		
	comp=Z,135nm,1.8s						
SBA	**Scott Base**	**63.13**	**183**		**P**	**04 22 43.8**	**+0.2**
SBA	**Scott Base**	**63.13**	**183**	P	**P**	**04 22 45.7**	**+2.0**
	comp=Z,42nm,1.4s						
JRY	**Ryogami san**	**63.96**	**324**	P	**P**	**04 22 51.8**	**+2.0**
JGF	**Kuroka**	**64.57**	**322**	P	**P**	**04 22 53.7**	**-0.1**
JGF	**Kuroka**	**64.57**	**322**		**P**	**04 22 51.8**	**-2.0**
JGF				IAmb	IAmb	04 23 11.0	
	comp=Z,81nm,1.5s						
JGF	**Kuroka**	**64.57**	**322**	P	**P**	**04 22 53.1**	**-0.7**
	comp=Z,36nm,1.8s						
INU	**Inuyama**	**64.59**	**322**	P	**P**	**04 22 54.1**	**+0.2**
INU	**Inuyama**	**64.59**	**322**	P	**P**	**04 22 53.6**	**-0.3**
	comp=Z,22nm,2.5s						
MJAR	**Matsushiro Arr**	**64.72**	**324**	P	**P**	**04 22 53.6**	**-1.2**
	comp=Z,23nm,1.1s,baz=157,slow=6.5,SNR=16						
MJAR				LR	LR	04 46 07.7	
	comp=Z,8µm,21.6s,baz=122,slow=32						
	comp=Z,23nm,1.1s						
MJAR	**Matsushiro Arr**	**64.72**	**324**		**P**	**04 22 52.9**	**-1.8**
MJAR				IAmb	IAmb	04 23 11.0	
	comp=Z,53nm,1.7s						
MAJO	**Matsushiro**	**64.73**	**324**	P	**P**	**04 22 54.5**	**-0.3**
MAJO	**Matsushiro**	**64.73**	**324**	⇓*i*P	**P**	**04 22 54.0**	**-0.8**
MAJO				pmax	pmax		
	comp=Z,37nm,1.3s						
MAJO	**Matsushiro**	**64.73**	**324**	P	**P**	**04 22 53.9**	**-0.9**
MAJO	**Matsushiro**	**64.73**	**324**	IAMs_20	IAMs_20	04 45 21.7	
	comp=Z,7µm,20.0s						
MAJO	**Matsushiro**	**64.73**	**324**	P	**P**	**04 22 54.0**	**-0.8**
	comp=Z,24nm,1.4s						
MAT	**Matsushiro**	**64.73**	**324**	P	**P**	**04 22 53.9**	**-0.9**
MJB9	**Matsu-Tunnel**	**64.73**	**324**		**P**	**04 22 53.9**	**-0.9**
JOW	**Kunigami**	**65.23**	**309**	P	**P**	**04 22 58.0**	**-0.3**
	comp=Z,21nm,1.0s,baz=141,slow=6.5,SNR=6.4						
JOW				LR	LR	04 45 31.4	
	comp=Z,5µm,21.6s,baz=100,slow=31						
	comp=Z,21nm,1.0s						
JOW	**Kunigami**	**65.23**	**309**	P	**P**	**04 22 59.3**	**+1.1**
JOW	**Kunigami**	**65.23**	**309**		**P**	**04 22 56.6**	**-1.6**
JOW	**Kunigami**	**65.23**	**309**	P	**P**	**04 22 59.0**	**+0.7**
JMN	**Monobe**	**65.46**	**319**	P	**P**	**04 23 00.3**	**+0.7**
JMN	**Monobe**	**65.46**	**319**		**P**	**04 22 58.7**	**-0.9**
JMN				IAmb	IAmb	04 23 03.7	
	comp=Z,72nm,1.2s						
JMN	**Monobe**	**65.46**	**319**	P	**P**	**04 23 00.2**	**+0.7**
	comp=Z,55nm,1.3s						
JMN	**Monobe**	**65.46**	**319**	P	**P**	**04 22 59.6**	**0.0**
JAD	**Aida**	**66.06**	**320**	P	**P**	**04 23 02.8**	**-0.6**
ERM	**Erimo**	**66.18**	**331**	IAMs_20	IAMs_20	04 46 19.6	
	comp=Z,11µm,21.0s						
RPN	**Rapa Nui**	**66.31**	**113**	LR	LR	04 44 23.6	
	comp=Z,6µm,21.2s,baz=303,slow=29						
RPN	**Rapa Nui**	**66.31**	**113**	IAMs_20	IAMs_20	04 44 21.1	
	comp=Z,7µm,22.0s						
JSU	**Suzuyama**	**66.35**	**315**	P	**P**	**04 23 05.3**	**-0.1**
JSU	**Suzuyama**	**66.35**	**315**	P	**P**	**04 23 04.3**	**-1.1**
JSU	**Suzuyama**	**66.35**	**315**	P	**P**	**04 23 04.9**	**-0.5**
	comp=Z,37nm,1.5s						
KUR	**Kuril'sk**	**66.72**	**336**	P	**P**	**04 23 09.1**	**+1.7**
KUR				*e*		04 23 37.0	
KUR				*e*S	**S**	**04 31 58.8**	**-0.2**
KUR				*e*		04 33 06.2	
KUR				pmax	pmax		
	comp=Z,295nm,1.1s						
KUR				MLR	MLR		
	comp=Z,5µm,16.0s						
KUR				MLR	MLR		
	comp=N,7µm,18.0s						
KUR				MLR	MLR		
	comp=E,1µm,12.0s						
ADK	**Adak**	**66.75**	**2**	P	**P**	**04 23 08.8**	**+1.4**
ADK	**Adak**	**66.75**	**2**	P	**P**	**04 23 06.9**	**-0.5**
ADK				pmax	pmax		
	comp=Z,98nm,1.5s						
ADK	**Adak**	**66.75**	**2**		**P**	**04 23 06.9**	**-0.5**
ADK				IAmb	IAmb	04 23 47.7	
	comp=Z,98nm,1.4s						
ADK	**Adak**	**66.75**	**2**	P	**P**	**04 23 04.0**	**-3.4**
	comp=Z,38nm,1.1s						
JHS	**Saijyo**	**66.75**	**319**	P	**P**	**04 23 08.0**	**+0.1**
JNU	**Nakatsue**	**67.03**	**316**	P	**P**	**04 23 08.4**	**-1.3**
	comp=Z,38nm,1.0s,baz=120,slow=5.4,SNR=12						
JNU				LR	LR	04 53 41.6	
	comp=Z,1µm,18.1s,baz=112,slow=37						
	comp=Z,38nm,1.0s						
JNU	**Nakatsue**	**67.03**	**316**	P	**P**	**04 23 09.4**	**-0.3**
SNJI	**Sawahan-Nganju**	**67.04**	**268**	P	**P**	**04 23 11.2**	**+0.9**
	comp=Z,90nm,1.1s						
SZP	**Santa**	**67.04**	**297**	IAMs_20	IAMs_20	04 47 10.9	
	comp=Z,6µm,20.0s						
ATKA	**Atka Island**	**67.20**	**4**	P	**P**	**04 23 10.0**	**-0.3**
ATKA	**Atka Island**	**67.20**	**4**		**P**	**04 23 09.2**	**-1.1**
PCJI	**Pacitan**	**67.50**	**267**	P	**P**	**04 23 13.3**	**+0.2**
JMP	**Maruseppu**	**67.64**	**332**	P	**P**	**04 23 15.1**	**+1.8**
SHEM	**Shemya Is, Ala**	**67.73**	**356**	LR	LR	04 48 13.1	
	comp=Z,4µm,19.9s,baz=176,slow=32						
WOJI	**Wonogiri, Jawa**	**67.83**	**268**	P	**P**	**04 23 15.2**	**+0.1**
	comp=Z,122nm,1.8s						
CASY	**Casey**	**68.05**	**204**	P	**P**	**04 23 14.2**	**-1.4**
CASY	**Casey**	**68.05**	**204**	P	**P**	**04 23 15.5**	**-0.1**
	comp=Z,30nm,1.1s						
JKA	**Kamikawa-asahi**	**68.07**	**332**	P	**P**	**04 23 14.5**	**-1.4**
JKA				IAmb	IAmb	04 24 17.7	
	comp=Z,74nm,1.4s						
JKA	**Kamikawa-asahi**	**68.07**	**332**	P	**P**	**04 23 16.0**	**0.0**
	comp=Z,39nm,2.4s						
ASAJ	**Asahikawa**	**68.07**	**332**	P	**P**	**04 23 14.8**	**-1.2**
	comp=Z,2.5nm,0.3s,baz=203,slow=13,SNR=3.9						
ASAJ				LR	LR	04 52 21.8	
	comp=Z,4µm,18.1s,baz=157,slow=35						
	comp=Z,2.5nm,0.3s						
TWGBT	**Beinan**	**68.85**	**302**	P	**P**	**04 23 22.4**	**+1.1**
TWG	**Pinlang**	**68.86**	**302**	IAMs_20	IAMs_20	04 51 33.2	
	comp=Z,6µm,19.0s						
YULB	**Yu-li**	**68.94**	**303**	IAMs_20	IAMs_20	04 49 20.6	
	comp=Z,6µm,21.0s						
NACB	**Ninganchiao**	**69.06**	**304**	P	**P**	**04 23 23.0**	**+0.4**
NACB	**Ninganchiao**	**69.06**	**304**	P	**P**	**04 23 20.9**	**-1.7**
NACB	**Ninganchiao**	**69.06**	**304**	P	**P**	**04 23 22.1**	**-0.5**
	comp=Z,48nm,1.3s						
SSLB	**Suanglung**	**69.40**	**303**	P	**P**	**04 23 27.3**	**+2.5**
SSLB	**Suanglung**	**69.40**	**303**	IAMs_20	IAMs_20	04 50 05.5	
	comp=Z,6µm,20.0s						
TPUB	**Ta-pu**	**69.44**	**302**	P	**P**	**04 23 23.9**	**-1.1**
TPUB	**Ta-pu**	**69.44**	**302**	P	**P**	**04 23 23.5**	**-1.5**
TPUB				IAMs_20	IAMs_20	04 49 46.9	
	comp=Z,7µm,20.0s						
TPUB	**Ta-pu**	**69.44**	**302**	P	**P**	**04 23 24.4**	**-0.6**
	comp=Z,55nm,1.6s						
YHNB	**Yeheng**	**69.47**	**304**	P	**P**	**04 23 27.2**	**+1.9**
YHNB	**Yeheng**	**69.47**	**304**	IAMs_20	IAMs_20	04 50 47.4	
	comp=Z,5µm,20.0s						
TATO	**Taipei**	**69.53**	**304**	IAMs_20	IAMs_20	04 50 21.0	
	comp=Z,6µm,20.0s						
UNV	**Unalaska Valle**	**69.63**	**9**	P	**P**	**04 23 26.6**	**+1.2**
KPJI	**Karang Pucung**	**69.87**	**268**	P	**P**	**04 23 31.7**	**+3.9**
	comp=Z,49nm,1.1s						
YSS	**Yuzhno-Sakhali**	**70.21**	**334**	*e*P	**P**	**04 23 29.2**	**0.0**
YSS				*e*		04 26 03.9	
YSS				*e*S	**S**	**04 32 38.4**	**-2.1**
YSS				*e*PPS	PPS	04 33 07.1	
YSS				*e*SS	**SS**	**04 37 06.0**	**-5.1**
YSS				pmax	pmax		
	comp=Z,700nm,6.0s						
YSS				pmax	pmax		
	comp=Z,30nm,1.2s						
YSS	**Yuzhno-Sakhali**	**70.21**	**334**	IAMs_20	IAMs_20	04 47 27.2	
	comp=Z,10µm,22.0s						
PET	**Petropavlovsk**	**70.28**	**347**	*e*P	**P**	**04 23 32.8**	**+3.4**
PET				*e*S	**S**	**04 32 45.6**	**+4.6**
PET				pmax	pmax		
	comp=Z,23nm,1.3s						
PET				MLR	MLR		
	comp=Z,2µm,16.0s						
PET	**Petropavlovsk**	**70.28**	**347**	IAMs_20	IAMs_20	04 48 22.4	
	comp=Z,6µm,21.0s						
PET	**Petropavlovsk**	**70.28**	**347**	P	**P**	**04 23 29.0**	**-0.4**
	comp=Z,34nm,2.1s						
PEA0B	**Petropavlovsk-**	**70.58**	**346**	P	**P**	**04 23 30.9**	**-0.4**
PEA0B				pmax	pmax		
	comp=Z,215nm,1.6s						
PEA0B	**Petropavlovsk-**	**70.58**	**346**		**P**	**04 23 30.9**	**-0.4**
PETK	**Petropavlovsk-**	**70.58**	**346**	P	**P**	**04 23 30.6**	**-0.7**
	comp=Z,26nm,1.1s,baz=129,slow=4.7,SNR=18						
PETK				LR	LR	04 48 46.0	
	comp=Z,6µm,21.1s,baz=161,slow=31						
	comp=Z,26nm,1.1s						
PETK	**Petropavlovsk-**	**70.58**	**346**		**P**	**04 23 30.3**	**-1.0**
KSRS	**Korea Array**	**71.57**	**319**	P	**P**	**04 23 37.9**	**+0.2**
	comp=Z,16nm,1.1s,baz=129,slow=5.4,SNR=19						
KSRS				LR	LR	04 49 12.7	
	comp=Z,4µm,21.3s,baz=120,slow=31						
	comp=Z,16nm,1.1s						
KSAR	**Wonju Array Be**	**71.59**	**319**	P	**P**	**04 23 36.3**	**-1.5**
KSAR	**Wonju Array Be**	**71.59**	**319**		**P**	**04 23 36.3**	**-1.5**
KS19	**Wonju Array Si**	**71.63**	**319**	P	**P**	**04 23 37.0**	**-1.1**
KS19				IAmb	IAmb	04 23 41.3	
	comp=Z,70nm,1.6s						
SSE	**Sheshan**	**72.75**	**310**	P	**P**	**04 23 45.4**	**+0.5**
SSE				S	**S**	**04 33 12.8**	**+2.4**
SSE				pmax	pmax		
	comp=Z,6.0nm,0.4s						
SSE				pmax	pmax		
	comp=Z,340nm,7.3s						
SSE				L	L		
	comp=Z,780nm,21.1s						
SSE				L	L		
	comp=Z,1µm,21.6s						
PSTR	**Posyet**	**73.06**	**324**	⇑*i*P	**P**	**04 23 46.0**	**-0.4**
CGJI	**Cibinong**	**73.16**	**268**	P	P	04 23 40.6	-7.1
TYV	**Tymovskoe**	**73.33**	**336**	*e*P	**P**	**04 23 47.6**	**-0.3**
TYV				*e*S	**S**	**04 33 10.4**	**-5.9**
TYV				pmax	pmax		
	comp=Z,38nm,1.4s						
TYV				pmax	pmax		
	comp=Z,1µm,6.3s						
TYV				smax	smax		
	comp=N,700nm,6.5s						
TYV				smax	smax		
	comp=E,900nm,6.5s						
USA0B	**Ussuriysk Arra**	**73.42**	**326**	*d i*P	**P**	**04 23 50.3**	**+1.7**
USA0B	**Ussuriysk Arra**	**73.42**	**326**		**P**	**04 23 47.7**	**-0.8**
USA0B				IAmb	IAmb	04 24 00.4	
	comp=Z,76nm,1.5s						
USRK	**Ussuriysk Ar.**	**73.42**	**326**	P	**P**	**04 23 49.5**	**+0.9**
	comp=Z,12nm,1.1s,baz=126,slow=2.6,SNR=11						
USRK				LR	LR	04 54 12.0	
	comp=Z,5µm,18.6s,baz=137,slow=34						
	comp=Z,12nm,1.1s						
USRK	**Ussuriysk Ar.**	**73.42**	**326**	P	**P**	**04 23 48.1**	**-0.4**
CHIR	**Chirikof Islan**	**73.57**	**14**	IAMs_20	IAMs_20	04 50 50.7	
	comp=Z,4µm,20.0s						
HKPS	**Hong Kong Po S**	**74.40**	**299**	IAMs_20	IAMs_20	04 51 59.9	
	comp=Z,8µm,20.0s						
QSPA	**South Pole Qui**	**74.95**	**180**	P	**P**	**04 23 57.4**	**0.0**
	comp=Z,53nm,1.0s,baz=97,slow=0.4,SNR=29						
QSPA				LR	LR	04 50 58.0	
	comp=Z,4µm,21.8s,baz=40,slow=31						
	comp=Z,53nm,1.0s						
NJ2	**Nanjing**	**74.95**	**310**	*e*P	**P**	**04 23 58.1**	**+0.3**
NJ2				pmax	pmax		
	comp=Z,16nm,1.3s						
NJ2				L	L		
	comp=Z,3µm,18.8s						
NJ2				L	L		
	comp=Z,2µm,18.6s						
NJ2				L	L		
	comp=Z,4µm,19.1s						
FARB	**Farallon Islan**	**74.96**	**44**	P	**P**	**04 23 57.7**	**0.0**
MDJ	**Mudanjiang**	**74.99**	**325**	P	**P**	**04 23 57.3**	**-0.5**
MDJ				pmax	pmax		
	comp=Z,23nm,1.7s						
MDJ	**Mudanjiang**	**74.99**	**325**	IAMs_20	IAMs_20	04 51 37.9	
	comp=Z,6µm,20.0s						
MDJ	**Mudanjiang**	**74.99**	**325**	P	**P**	**04 23 57.5**	**-0.3**
	comp=Z,33nm,1.5s						
HULI	**Fort Hunter Li**	**75.27**	**46**		**P**	**04 23 59.2**	**-0.4**
MCCM	**Marconi Confer**	**75.29**	**43**	P	**P**	**04 23 58.8**	**-0.8**
MCCM				IAmb	IAmb	04 24 10.6	
	comp=Z,96nm,1.4s						
JRSC	**Jasper Ridge**	**75.31**	**44**	P	**P**	**04 23 59.6**	**-0.2**
JRSC				IAmb	IAmb	04 24 11.0	
	comp=Z,115nm,1.2s						
OHAK	**Old Harbor**	**75.39**	**15**	P	**P**	**04 24 01.3**	**+1.6**
OHAK	**Old Harbor**	**75.39**	**15**		**P**	**04 23 59.5**	**-0.2**
SAO	**San Andreas Ge**	**75.51**	**45**	P	**P**	**04 24 00.6**	**-0.4**
SAO				pmax	pmax		
	comp=Z,60nm,1.2s						
SAO	**San Andreas Ge**	**75.51**	**45**		**P**	**04 24 00.6**	**-0.4**
SAO				IAmb	IAmb	04 24 12.3	
	comp=Z,60nm,1.2s						
PMPB	**Monarch Peak**	**75.67**	**46**	P	**P**	**04 24 01.5**	**-0.4**
KCPM	**Cahto Peak**	**75.68**	**42**	P	**P**	**04 24 01.4**	**-0.6**
KCPM				IAmb	IAmb	04 24 10.8	
	comp=Z,122nm,1.5s						
BBGB	**Big Mountain B**	**75.70**	**45**	P	**P**	**04 24 01.0**	**-1.2**
GDXM	**Geysers**	**75.70**	**43**	P	**P**	**04 24 01.9**	**-0.1**
KMPM	**Mount Pierce**	**75.74**	**41**		**P**	**04 24 02.3**	**0.0**
JCC	**Jacoby Creek,**	**76.03**	**40**	IAMs_20	IAMs_20	04 50 31.2	
	comp=Z,8µm,20.0s						
KDAK	**Kodiak Island**	**76.07**	**15**	P	**P**	**04 24 03.2**	**-0.4**
	comp=Z,22nm,1.1s,baz=253,slow=6.7,SNR=6.7						
	comp=Z,22nm,1.1s						
KDAK	**Kodiak Island**	**76.07**	**15**	*e*P	**P**	**04 24 04.9**	**+1.3**
KDAK				pmax	pmax		
	comp=Z,43nm,1.1s						
KDAK	**Kodiak Island**	**76.07**	**15**		**P**	**04 24 02.7**	**-0.9**
KDAK				IAmb	IAmb	04 24 13.6	
	comp=Z,104nm,1.4s						
KDAK	**Kodiak Island**	**76.07**	**15**	P	**P**	**04 24 03.4**	**-0.2**
	comp=Z,60nm,1.3s						
OSI	**Osito Audit: C**	**76.34**	**48**	IAMs_20	IAMs_20	04 50 25.9	
	comp=Z,7µm,20.0s						
DL2	**Dalian**	**76.48**	**317**	P	**P**	**04 24 08.9**	**+2.5**
DL2				S	**S**	**04 33 57.9**	**+6.0**
DL2				pmax	pmax		
	comp=Z,74nm,1.2s						
DL2				pmax	pmax		
	comp=Z,2µm,8.3s						
DL2				L	L		
	comp=Z,3µm,19.8s						
DL2				L	L		
	comp=Z,3µm,25.2s						
DL2				L	L		
	comp=Z,6µm,26.2s						
P17K	**Kvichak River**	**76.48**	**12**	P	**P**	**04 24 05.2**	**-0.7**
KRMB	**Red Mountain**	**76.50**	**40**	IAMs_20	IAMs_20	04 50 45.7	
	comp=Z,5µm,20.0s						
PASC	**Pasadena Art C**	**76.51**	**49**	P	**P**	**04 24 06.0**	**-0.7**
PASC				IAMs_20	IAMs_20	04 49 07.6	
	comp=Z,7µm,22.0s						
O16K	**Kokwok River B**	**76.52**	**11**		**P**	**04 24 06.0**	**-0.2**
O16K				IAmb	IAmb	04 24 07.9	
	comp=Z,48nm,1.2s						
SUTB	**Sutter Butte**	**76.59**	**43**	IAMs_20	IAMs_20	04 49 59.3	
	comp=Z,7µm,20.0s						
MWC	**Mount Wilson**	**76.63**	**49**	P	**P**	**04 24 07.2**	**-0.4**
MWC				pmax	pmax		
	comp=Z,195nm,2.0s						
MWC	**Mount Wilson**	**76.63**	**49**	P	**P**	**04 24 07.2**	**-0.4**
MWC				IAMs_20	IAMs_20	04 49 10.7	
	comp=Z,7µm,22.0s						
VES	**Vestal, Richgr**	**76.68**	**47**	P	**P**	**04 24 07.0**	**-0.6**
VES				IAMs_20	IAMs_20	04 49 38.0	
	comp=Z,6µm,22.0s						
KSXB	**Camp Six Broad**	**76.69**	**40**	IAMs_20	IAMs_20	04 48 55.8	
	comp=Z,7µm,22.0s						
CBX	**Cerro Bola**	**76.76**	**51**	P	**P**	**04 24 07.2**	**-1.1**
CBX				IAmb	IAmb	04 24 16.0	
	comp=Z,88nm,1.6s						
AONC	**Vina, CA USA**	**76.79**	**42**	IAMs_20	IAMs_20	04 49 57.4	
	comp=Z,8µm,21.0s						
ELS	**Elsinore Mount**	**76.82**	**50**		**P**	**04 24 07.9**	**-0.6**
ELS				IAmb	IAmb	04 24 16.1	
	comp=Z,104nm,1.7s						
CN2	**Changchun**	**76.85**	**323**	P	**P**	**04 24 08.5**	**+0.2**
CN2				PcP	**PcP**	**04 24 18.4**	**-1.1**
CN2				pmax	pmax		
	comp=Z,10.0nm,1.3s						
CN2				L	L		
	comp=Z,1µm,18.0s						
CN2				L	L		
	comp=Z,2µm,18.0s						
CN2				L	L		
	comp=Z,2µm,20.0s						
QIZ	**Qiongzhong**	**76.89**	**294**	P	**P**	**04 24 09.3**	**+0.2**
QIZ				S	**S**	**04 33 59.3**	**+2.1**
QIZ				SS	**SS**	**04 38 55.3**	**+1.2**
QIZ				L	L		
	comp=Z,2µm,18.6s						
QIZ				L	L		
	comp=Z,3µm,19.9s						
QIZ				L	L		
	comp=Z,5µm,27.4s						
QIZ	**Qiongzhong**	**76.89**	**294**	IAMs_20	IAMs_20	04 54 04.7	
	comp=Z,5µm,21.0s						
CMB	**Columbia Colle**	**76.90**	**44**	P	**P**	**04 24 08.6**	**-0.2**
CMB				pmax	pmax		
	comp=Z,61nm,1.4s						
BNX	**BinXian**	**76.90**	**325**	⇑P	**P**	**04 24 07.5**	**-1.1**
BNX				pP	**sP**	**04 24 12.4**	**-0.8**
BNX				PP	**PP**	**04 27 00.6**	**-1.4**
BNX				S	**S**	**04 33 55.0**	**-1.3**
BNX				SS	**SS**	**04 38 53.8**	**+0.5**
BNX				pmax	pmax		
	comp=Z,25nm,1.5s						
BNX				pmax	pmax		
	comp=Z,1µm,6.2s						
BNX				L	L		
	comp=Z,3µm,18.4s						
BNX				L	L		
	comp=Z,4µm,19.0s						
BNX				L	L		
	comp=Z,6µm,20.6s						
KLR	**Kul'dur**	**76.90**	**330**	P	**P**	**04 24 08.6**	**0.0**
	comp=Z,7.5nm,1.1s,baz=98,slow=4.2,SNR=9.1						
KLR				LR	LR	04 53 31.1	
	comp=Z,9µm,20.8s,baz=138,slow=32						
	comp=Z,7.5nm,1.1s						
KLR	**Kul'dur**	**76.90**	**330**	*e*P	**P**	**04 24 10.0**	**+1.5**
KLR				pmax	pmax		
	comp=Z,5.0nm,0.9s						
BAR	**Barrett**	**76.92**	**51**	IAMs_20	IAMs_20	04 52 58.6	
	comp=Z,6µm,18.0s						
BFSC	**Mount Baldy Ra**	**76.93**	**49**	IAMs_20	IAMs_20	04 49 42.6	
	comp=Z,6µm,21.0s						
ORV	**Oroville**	**76.95**	**43**	P	**P**	**04 24 08.8**	**-0.3**
ORV				pmax	pmax		
	comp=Z,41nm,1.3s						
M14K	**Bethel**	**76.96**	**9**		**P**	**04 24 07.8**	**-0.7**
M14K				IAmb	IAmb	04 24 19.0	
	comp=Z,102nm,1.3s						
VTX	**Valle De La Tr**	**77.01**	**52**	P	**P**	**04 24 09.4**	**-0.2**
VTX				IAmb	IAmb	04 24 18.5	
	comp=Z,79nm,1.4s						
ISA	**Isabella, Lake**	**77.03**	**47**	P	**P**	**04 24 10.4**	**+0.7**
ISA				pmax	pmax		
	comp=Z,206nm,2.0s						
ISA	**Isabella, Lake**	**77.03**	**47**	IAMs_20	IAMs_20	04 50 00.2	
	comp=Z,7µm,21.0s						
L02F	**Cave Junction**	**77.05**	**40**	P	**P**	**04 24 08.7**	**-0.8**
L02F				IAmb	IAmb	04 24 21.2	
	comp=Z,62nm,1.3s						
MYKOM	**Kota Tinggi**	**77.08**	**275**	P	**P**	**04 24 14.4**	**+4.1**
M02C	**Callahan**	**77.08**	**40**	IAMs_20	IAMs_20	04 49 53.2	
	comp=Z,9µm,22.0s						
O03E	**Paynes Creek**	**77.15**	**42**	IAMs_20	IAMs_20	04 50 41.1	
	comp=Z,8µm,20.0s						
ESJX	**Sierra Juarez**	**77.16**	**52**	P	**P**	**04 24 09.5**	**-1.2**
ESJX				IAmb	IAmb	04 24 32.1	
	comp=Z,84nm,1.6s						
K02D	**Willamette Mer**	**77.31**	**39**	P	**P**	**04 24 10.4**	**-0.7**
K02D				IAmb	IAmb	04 24 19.1	
	comp=Z,82nm,1.5s						
O18K	**Koktuh Hills**	**77.34**	**13**		**P**	**04 24 09.3**	**-1.5**
O18K				IAmb	IAmb	04 24 13.0	
	comp=Z,101nm,1.2s						
YBH	**Yreka Blue Hor**	**77.36**	**40**	P	**P**	**04 24 11.7**	**+0.3**
	comp=Z,22nm,1.0s,baz=261,slow=2.3,SNR=20						
YBH				LR	LR	04 50 35.0	
	comp=Z,8µm,21.3s,baz=240,slow=30						
	comp=Z,22nm,1.0s						
LRMC	**Laurel Mtn Rad**	**77.50**	**48**	IAMs_20	IAMs_20	04 49 50.8	
	comp=Z,7µm,21.0s						
PFO	**Pinyon Flats O**	**77.51**	**50**	P	**P**	**04 24 13.4**	**+0.9**
	comp=Z,5.8nm,0.9s,baz=281,slow=6.0,SNR=8.0						
PFO				LR	LR	04 51 57.7	
	comp=Z,4µm,19.0s,baz=245,slow=31						
	comp=Z,5.8nm,0.9s						
PFO	**Pinyon Flats O**	**77.51**	**50**	*ce*P	**P**	**04 24 14.3**	**+1.8**
PFO				pmax	pmax		
	comp=Z,81nm,2.2s						
PFO	**Pinyon Flats O**	**77.51**	**50**	P	**P**	**04 24 11.6**	**-0.9**
PFO				IAmb	IAmb	04 24 33.5	
	comp=Z,85nm,1.7s						
PFO	**Pinyon Flats O**	**77.51**	**50**	IAMs_20	IAMs_20	04 49 25.2	
	comp=Z,5µm,22.0s						
PFO	**Pinyon Flats O**	**77.51**	**50**	P	**P**	**04 24 10.0**	**-2.6**
	comp=Z,28nm,1.7s						
N17K	**Nushagak Hills**	**77.56**	**11**		**P**	**04 24 11.2**	**-0.8**
CWC	**Cottonwood Cre**	**77.69**	**47**	IAMs_20	IAMs_20	04 50 51.6	
	comp=Z,8µm,20.0s						
WHN	**Wuhan**	**77.69**	**306**	P	**P**	**04 24 13.0**	**-0.3**
WHN				sP	**PcP**	**04 24 23.9**	**+0.5**
WHN				pmax	pmax		
	comp=Z,94nm,1.1s						
WHN				L	L		
	comp=Z,12µm,21.5s						
WHN				L	L		
	comp=Z,4µm,16.0s						
WHN				L	L		
	comp=Z,9µm,18.9s						
M16K	**Timber Creek**	**77.70**	**10**		**P**	**04 24 12.0**	**-0.8**
K13K	**Kusilvak Mount**	**77.72**	**7**		**P**	**04 24 12.5**	**-0.4**
WAKR	**Walker**	**77.78**	**44**	P	**P**	**04 24 14.1**	**+0.1**
WAKR				IAmb	IAmb	04 24 21.9	
	comp=Z,76nm,1.3s						
MPK	**Martis Peak**	**77.79**	**43**	P	**P**	**04 24 13.3**	**-0.8**
CNSH	**ChangSha**	**77.81**	**304**	P	**P**	**04 24 14.5**	**+0.4**
CNSH				pmax	pmax		
	comp=Z,13nm,1.8s						
O19K	**Port Alsworth**	**77.84**	**13**	P	**P**	**04 24 12.9**	**-0.6**
BEKR	**Beckworth**	**77.86**	**43**		**P**	**04 24 13.9**	**-0.5**
BEKR				IAmb	IAmb	04 24 25.5	
	comp=Z,60nm,1.3s						
L04D	**Klamath Falls**	**77.88**	**40**		**P**	**04 24 13.1**	**-1.2**
TIN	**Tinemaha, Big**	**77.88**	**46**	IAMs_20	IAMs_20	04 51 07.7	
	comp=Z,8µm,20.0s						
ILSW	**Iliamna Southw**	**77.90**	**13**	P	**P**	**04 24 12.9**	**-1.2**
CNPM	**China Poot**	**77.94**	**15**	IAMs_20	IAMs_20	04 57 20.4	
	comp=Z,3µm,18.0s						
PNTR	**Pine Nut**	**77.97**	**44**	P	**P**	**04 24 14.9**	**-0.2**
PNTR				IAmb	IAmb	04 24 26.3	
	comp=Z,74nm,1.1s						
BBOR	**Butler Butte**	**78.02**	**39**	P	**P**	**04 24 15.0**	**-0.2**
BELC	**Belle Mtn. Jos**	**78.03**	**50**	IAMs_20	IAMs_20	04 49 30.9	
	comp=Z,5µm,22.0s						
SRIG	**Santa Rosalia**	**78.07**	**57**	P	P	04 24 20.6	+5.1
	comp=Z,56nm,2.0s						
MA2	**Magadan**	**78.08**	**345**	LR	LR	04 54 22.7	

	comp=Z,5µm,20.5s,baz=152,slow=32						
MA2	**Magadan**	**78.08**	**345**	P	**P**	**04 24 14.5**	**-0.4**
MA2	**Magadan**	**78.08**	**345**	eP	**P**	**04 24 15.8**	**+0.9**
MA2				pmax	pmax		
	comp=Z,28nm,1.2s						
MA2	**Magadan**	**78.08**	**345**		**P**	**04 24 13.9**	**-1.0**
MA2				IAmb	IAmb	04 24 25.2	
	comp=Z,65nm,1.4s						
MA2				IAMs_20	IAMs_20	04 54 20.7	
	comp=Z,5µm,20.0s						
MA2	**Magadan**	**78.08**	**345**	P	**P**	**04 24 14.0**	**-1.0**
	comp=Z,35nm,1.7s						
TIA	**Tai'an**	**78.20**	**313**	P	**P**	**04 24 16.3**	**+0.2**
TIA				pmax	pmax		
	comp=Z,9.0nm,1.3s						
L16K	**Owhat River**	**78.26**	**10**		**P**	**04 24 16.0**	**+0.2**
L16K				IAmb	IAmb	04 24 23.2	
	comp=Z,58nm,1.3s						
BC3	**Big Chuckawall**	**78.28**	**50**	IAMs_20	IAMs_20	04 57 09.4	
	comp=Z,5µm,18.0s						
LPIG	**La Paz**	**78.41**	**61**	P	**P**	**04 24 17.8**	**+0.3**
	comp=Z,6.7nm,0.3s,baz=273,slow=10,SNR=3.8						
LPIG				LR	LR	04 51 14.6	
	comp=Z,9µm,19.9s,baz=243,slow=30						
	comp=Z,6.7nm,0.3s						
NVAR	**Mina Array Bea**	**78.51**	**45**	P	**P**	**04 24 18.3**	**+0.2**
	comp=Z,21nm,0.9s,baz=230,slow=7.8,SNR=52						
NVAR				LR	LR	04 51 15.1	
	comp=Z,10µm,21.2s,baz=256,slow=30						
	comp=Z,21nm,0.9s						
COR	**Corvallis**	**78.60**	**38**	IAMs_20	IAMs_20	04 51 41.1	
	comp=Z,5µm,20.0s						
NV11	**Mina Array Sit**	**78.61**	**45**	P	**P**	**04 24 18.3**	**-0.2**
NV11				IAmb	IAmb	04 24 29.7	
	comp=Z,122nm,1.5s						
SHOC	**Shoshone, Teco**	**78.71**	**48**	IAMs_20	IAMs_20	04 50 17.8	
	comp=Z,6µm,22.0s						
IRM	**Iron Mountain**	**78.73**	**50**	IAMs_20	IAMs_20	04 55 08.5	
	comp=Z,5µm,18.0s						
PIX	**Pinacate**	**78.87**	**53**		**P**	**04 24 20.4**	**+0.5**
PIX				IAmb	IAmb	04 24 34.2	
	comp=Z,67nm,1.3s						
KVN	**Kaiserville**	**78.96**	**44**	P	**P**	**04 24 20.7**	**+0.2**
KVN				pmax	pmax		
	comp=Z,42nm,1.2s						
MOD	**Modoc Plateau**	**78.97**	**41**	IAMs_20	IAMs_20	04 51 39.1	
	comp=Z,7µm,20.0s						
K05A	**Summer Lake**	**79.03**	**40**		**P**	**04 24 20.9**	**0.0**
CAPN	**Captain Cook N**	**79.06**	**14**	IAMs_20	IAMs_20	05 00 39.7	
	comp=Z,3µm,18.0s						
TPH	**Tonopah**	**79.08**	**46**	P	**P**	**04 24 21.1**	**-0.1**
TPH				pmax	pmax		
	comp=Z,66nm,1.3s						
TPH	**Tonopah**	**79.08**	**46**	P	**P**	**04 24 21.1**	**-0.1**
TPH				IAmb	IAmb	04 24 28.9	
	comp=Z,66nm,1.3s						
113A	**Mohawk Valley,**	**79.15**	**52**	P	**P**	**04 24 21.4**	**0.0**
WIFE	**Three Sisters-**	**79.19**	**39**		**P**	**04 24 21.4**	**-0.2**
WIFE				IAmb	IAmb	04 24 29.2	
	comp=Z,53nm,1.1s						
TPNV	**Topopah Spring**	**79.22**	**47**	P	**P**	**04 24 21.4**	**-0.6**
TPNV				pmax	pmax		
	comp=Z,159nm,1.9s						
TPNV	**Topopah Spring**	**79.22**	**47**		**P**	**04 24 21.4**	**-0.6**
TPNV				IAmb	IAmb	04 24 43.1	
	comp=Z,159nm,1.9s						
TPNV				IAMs_20	IAMs_20	04 50 48.2	
	comp=Z,9µm,22.0s						
DIB	**Dawson Inlet,**	**79.31**	**27**		**P**	**04 24 22.0**	**+0.2**
DIB				IAmb	IAmb	04 24 35.5	
	comp=Z,83nm,1.4s						
BKNI	**Bangkinang**	**79.39**	**273**	P	**P**	**04 24 23.6**	**+0.4**
G04A	**Mulino**	**79.43**	**37**		**P**	**04 24 23.4**	**+0.7**
G04A				IAmb	IAmb	04 24 36.3	
	comp=Z,46nm,1.0s						
E03A	**Lebam**	**79.57**	**36**		**P**	**04 24 23.2**	**-0.2**
E03A				IAmb	IAmb	04 24 44.4	
	comp=Z,95nm,1.2s						
HEH	**HeiHe**	**79.71**	**329**	eP	**P**	**04 24 23.8**	**-0.2**
HEH				S	**S**	**04 34 29.3**	**+3.1**
HEH				pmax	pmax		
	comp=Z,13nm,1.5s						
HEH				L	L		
	comp=Z,3µm,20.2s						
HEH				L	L		
	comp=Z,5µm,21.6s						
HEH				L	L		
	comp=Z,8µm,21.1s						
HSIG		**79.80**	**56**		**P**	**04 24 25.1**	**0.0**
NLWA	**Neilton Lookou**	**79.88**	**35**	IAMs_20	IAMs_20	04 53 05.0	
	comp=Z,7µm,20.0s						
W13A	**Hualapai Mount**	**80.08**	**50**	P	**P**	**04 24 26.5**	**-0.2**
STD	**Studebaker Rid**	**80.16**	**37**	P	**P**	**04 24 26.9**	**+0.2**
STD				IAmb	IAmb	04 24 43.8	
	comp=Z,100nm,1.2s						
BMN	**Battle Mountai**	**80.22**	**44**	P	**P**	**04 24 27.5**	**+0.2**
BMN				pmax	pmax		
	comp=Z,42nm,1.1s						
BMN	**Battle Mountai**	**80.22**	**44**	P	**P**	**04 24 27.5**	**+0.2**
EYAK	**Cordova Ski Ar**	**80.24**	**16**	P	**P**	**04 24 27.1**	**+0.4**
PMR	**Palmer**	**80.26**	**14**	P	**P**	**04 24 25.7**	**-1.0**
PMR	**Palmer**	**80.26**	**14**	P	**P**	**04 24 26.2**	**-0.5**
PMR				pmax	pmax		
	comp=Z,69nm,1.4s						
PMR	**Palmer**	**80.26**	**14**	P	**P**	**04 24 26.2**	**-0.5**
PMR				IAmb	IAmb	04 25 04.6	
	comp=Z,69nm,1.4s						
WVOR	**Wild Horse Val**	**80.30**	**41**	P	**P**	**04 24 27.5**	**-0.1**
WVOR				pmax	pmax		
	comp=Z,50nm,1.3s						
WVOR	**Wild Horse Val**	**80.30**	**41**	P	**P**	**04 24 27.5**	**-0.1**
WVOR	**Wild Horse Val**	**80.30**	**41**	P	**P**	**04 24 28.3**	**+0.7**
	comp=Z,35nm,1.4s						
RAGM	**Ragged Mountai**	**80.40**	**17**	IAMs_20	IAMs_20	04 59 06.4	
	comp=Z,4µm,18.0s						
HNS	**HongShan**	**80.47**	**313**	eP	**P**	**04 24 28.8**	**+0.3**
HNS				pmax	pmax		
	comp=Z,14nm,1.4s						
HNS				L	L		
	comp=Z,3µm,17.8s						
HNS				L	L		
	comp=Z,2µm,18.4s						
HNS				L	L		
	comp=Z,3µm,18.8s						
IPM	**Ipoh**	**80.52**	**277**	P	**P**	**04 24 32.5**	**+3.2**
	comp=Z,27nm,1.3s						
IPM	**Ipoh**	**80.52**	**277**	P	P	04 24 34.0	+4.6
	comp=Z,27nm,1.3s						
CLRS	**Cowichan Lake**	**80.57**	**34**		**P**	**04 24 29.0**	**+0.3**
CRAG	**Craig**	**80.61**	**25**	P	**P**	**04 24 29.7**	**+0.9**
CRAG	**Craig**	**80.61**	**25**	P	**P**	**04 24 29.0**	**+0.2**
BBB	**Bella Bella**	**80.62**	**29**	P	**P**	**04 24 29.1**	**+0.2**
	comp=Z,16nm,1.0s,baz=287,slow=5.6,SNR=4.7						
BBB				LR	LR	04 52 39.2	
	comp=Z,5µm,20.4s,baz=242,slow=30						
	comp=Z,16nm,1.0s						
BBB	**Bella Bella**	**80.62**	**29**	P	**P**	**04 24 29.6**	**+0.7**
BBB	**Bella Bella**	**80.62**	**29**	P	**P**	**04 24 27.7**	**-1.2**
	comp=Z,51nm,1.2s						
CBB	**Campbell River**	**80.65**	**32**		**P**	**04 24 29.4**	**+0.3**
CBB				IAmb	IAmb	04 24 40.3	
	comp=Z,64nm,1.2s						
BJI2	**Beijing**	**80.68**	**316**	P	**P**	**04 24 30.6**	**+1.0**
BJI2				S	**S**	**04 34 35.0**	**-1.9**
BJI2				pmax	pmax		
	comp=Z,9.0nm,1.6s						
BJI2				pmax	pmax		
	comp=Z,700nm,11.4s						
BJI2				L	L		
	comp=Z,1µm,19.3s						
BJI2				L	L		
	comp=Z,900nm,18.8s						
BJI2				L	L		
	comp=Z,2µm,24.5s						
BJT	**Baijiatuau**	**80.69**	**316**	P	**P**	**04 24 30.0**	**+0.5**
	comp=Z,17nm,2.0s						
SEY	**Seymchan**	**80.70**	**348**	LR	LR	04 54 04.9	
	comp=Z,3µm,21.5s,baz=152,slow=31						
SEY	**Seymchan**	**80.70**	**348**	d iP	**P**	**04 24 28.4**	**-0.7**
SEY				pmax	pmax		
	comp=Z,50nm,1.3s						
CUT	**Chulitna**	**80.70**	**14**	IAMs_20	IAMs_20	04 57 16.3	
	comp=Z,3µm,19.0s						
PPLA	**Purkeypile**	**80.72**	**13**	IAMs_20	IAMs_20	04 56 05.8	
	comp=Z,4µm,20.0s						
PGC	**Sidney**	**80.84**	**34**	P	**P**	**04 24 30.2**	**0.0**
PGC				IAmb	IAmb	04 24 37.6	
	comp=Z,70nm,1.5s						
LYN	**LuoYang**	**80.84**	**309**	P	**P**	**04 24 31.3**	**+0.8**
LYN				pmax	pmax		
	comp=Z,33nm,1.3s						
LYN				L	L		
	comp=Z,4µm,18.2s						
LYN				L	L		
	comp=Z,2µm,20.6s						
LYN				L	L		
	comp=Z,5µm,17.9s						
SIT	**Sitka**	**80.88**	**23**	P	**P**	**04 24 31.8**	**+1.6**
U33K	**Whale Pass**	**81.06**	**24**	IAMs_20	IAMs_20	04 53 07.5	
	comp=Z,5µm,20.0s						
V35K	**Ketchikan**	**81.14**	**26**	IAMs_20	IAMs_20	04 53 00.4	
	comp=Z,5µm,20.0s						
CRQM	**Cirque**	**81.14**	**17**	IAMs_20	IAMs_20	04 53 21.3	
	comp=Z,3µm,20.0s						
CAST	**Castle Rocks**	**81.21**	**12**	IAMs_20	IAMs_20	04 56 19.7	
	comp=Z,3µm,20.0s						
TGL	**Tana Glacier**	**81.23**	**17**	IAMs_20	IAMs_20	04 53 22.4	
	comp=Z,3µm,19.0s						
H17K	**Granite Mounta**	**81.24**	**9**	IAMs_20	IAMs_20	04 57 17.4	
	comp=Z,3µm,20.0s						
TUC	**Tucson**	**81.25**	**53**	P	**P**	**04 24 32.8**	**0.0**
TUC				pmax	pmax		
	comp=Z,94nm,1.6s						
TUC	**Tucson**	**81.25**	**53**		**P**	**04 24 32.8**	**0.0**
TUC				IAmb	IAmb	04 24 54.7	
	comp=Z,94nm,1.6s						
TUC	**Tucson**	**81.25**	**53**	IAMs_20	IAMs_20	04 52 12.2	
	comp=Z,6µm,20.0s						
TUC	**Tucson**	**81.25**	**53**	P	**P**	**04 24 34.3**	**+1.4**
	comp=Z,39nm,2.4s						
LCMT	**Little Creek M**	**81.39**	**48**	P	**P**	**04 24 33.0**	**-0.6**
LCMT				IAmb	IAmb	04 24 41.4	
	comp=Z,92nm,1.9s						
ENH	**Enshi**	**81.40**	**304**	P	**P**	**04 24 34.3**	**+0.6**
	comp=Z,54nm,1.9s						
PNL	**Peninsula**	**81.42**	**20**	P	**P**	**04 24 33.5**	**+0.4**
S32K	**Killisnoo**	**81.46**	**23**	IAMs_20	IAMs_20	04 52 14.9	
	comp=Z,5µm,21.0s						
PCA	**Pinnacle**	**81.48**	**19**	IAMs_20	IAMs_20	04 57 18.2	
	comp=Z,4µm,19.0s						
GRNC	**Granite Creek**	**81.53**	**18**	IAMs_20	IAMs_20	04 55 58.3	
	comp=Z,3µm,19.0s						
CCUT	**Cedar City**	**81.55**	**48**		**P**	**04 24 34.8**	**+0.3**
WRAK	**Wrangell Islan**	**81.59**	**25**	IAMs_20	IAMs_20	04 53 13.3	
	comp=Z,6µm,20.0s						
X16A	**Lo Mia Camp, P**	**81.61**	**51**		**P**	**04 24 35.0**	**+0.1**
PSUT	**Pine Spring**	**81.64**	**46**		**P**	**04 24 35.1**	**+0.2**
KNB	**Kanab**	**81.70**	**48**	P	**P**	**04 24 35.6**	**+0.3**
KNB				pmax	pmax		
	comp=Z,110nm,1.5s						
KNB	**Kanab**	**81.70**	**48**	P	**P**	**04 24 35.6**	**+0.3**
KNB				IAmb	IAmb	04 24 59.9	
	comp=Z,110nm,1.5s						
ELK	**Elko**	**81.70**	**44**	P	**P**	**04 24 35.7**	**+0.4**
	comp=Z,13nm,0.9s,baz=259,slow=5.2,SNR=26						
ELK				LR	LR	04 54 33.4	
	comp=Z,10µm,19.9s,baz=237,slow=31						
	comp=Z,13nm,0.9s						
ELK	**Elko**	**81.70**	**44**		**P**	**04 24 35.5**	**+0.2**
SZCU	**Shurtz Canyon**	**81.76**	**48**	P	**P**	**04 24 35.9**	**+0.3**
SZCU				IAmb	IAmb	04 24 57.0	
	comp=Z,66nm,1.4s						
HAWA	**Hanford**	**81.81**	**37**	IAMs_20	IAMs_20	04 53 22.0	
	comp=Z,5µm,21.0s						
RND	**Reindeer**	**81.90**	**14**	IAMs_20	IAMs_20	04 58 38.8	
	comp=Z,4µm,20.0s						
ZEA	**Zeya**	**81.98**	**331**	eP	**P**	**04 24 36.3**	**+0.2**
ZEA				eS	**S**	**04 34 51.0**	**+1.2**
ZEA				pmax	pmax		
	comp=Z,30nm,1.4s						
ZEA				smax	smax		
	comp=E,400nm,13.7s						
ZEA				smax	smax		
	comp=N,900nm,7.7s						
O28M	**Mount Upton**	**82.03**	**19**	IAMs_20	IAMs_20	04 57 18.6	
	comp=Z,3µm,19.0s						
R32K	**Eaglecrest**	**82.06**	**22**	IAMs_20	IAMs_20	04 53 56.8	
	comp=Z,3µm,20.0s						
PSI	**Prapat**	**82.09**	**275**	P	**P**	**04 24 39.7**	**+1.9**
PSI	**Prapat**	**82.09**	**275**	P	**P**	**04 24 37.3**	**-0.5**
	comp=Z,22nm,1.7s						
JIS	**Juneau Island**	**82.12**	**22**	P	**P**	**04 24 36.1**	**-0.6**
WUAZ	**Wupatki**	**82.12**	**50**		**P**	**04 24 37.4**	**-0.1**
WUAZ				IAmb	IAmb	04 24 59.1	
	comp=Z,75nm,1.4s						
WUAZ				IAMs_20	IAMs_20	04 54 22.1	
	comp=Z,4µm,20.0s						
MCK	**McKinley**	**82.16**	**13**	IAMs_20	IAMs_20	04 59 06.8	
	comp=Z,5µm,18.0s						
BESE	**Bessie Mountai**	**82.16**	**22**	IAMs_20	IAMs_20	04 51 36.3	
	comp=Z,4µm,22.0s						
O29M	**Mount Kennedy**	**82.17**	**19**	IAMs_20	IAMs_20	04 56 05.5	
	comp=Z,4µm,20.0s						
BMO	**Blue Mountains**	**82.36**	**40**	P	**P**	**04 24 38.2**	**-0.2**
BMO				pmax	pmax		
	comp=Z,98nm,1.8s						
BMO	**Blue Mountains**	**82.36**	**40**	IAMs_20	IAMs_20	04 53 37.7	
	comp=Z,8µm,21.0s						
BWN	**Browne**	**82.43**	**13**	IAMs_20	IAMs_20	05 00 21.8	
	comp=Z,3µm,19.0s						
MFID	**Camas Ranch**	**82.58**	**41**		**P**	**04 24 39.0**	**-0.7**
MFID				IAmb	IAmb	04 25 00.5	
	comp=Z,94nm,1.6s						
XLT	**XiLinHaoTe**	**82.61**	**319**	eP	**P**	**04 24 37.4**	**-2.4**
XLT				S	**S**	**04 34 51.8**	**-5.1**
XLT				pmax	pmax		
	comp=Z,8.0nm,0.5s						
XLT				L	L		
	comp=Z,3µm,20.4s						
XLT				L	L		
	comp=Z,4µm,22.1s						
SKAG	**Skagway**	**82.64**	**21**	P	**P**	**04 24 40.1**	**+0.7**
SKAG	**Skagway**	**82.64**	**21**	P	**P**	**04 24 39.6**	**+0.3**
SKAG				IAmb	IAmb	04 25 27.4	
	comp=Z,121nm,1.8s						
MENT	**Mentasta**	**82.76**	**16**	P	**P**	**04 24 39.5**	**-0.6**
MENT	**Mentasta**	**82.76**	**16**	P	**P**	**04 24 39.8**	**-0.2**
MENT				IAmb	IAmb	04 25 52.8	
	comp=Z,46nm,1.4s						
T35M	**Bob Quinn**	**82.82**	**25**	IAMs_20	IAMs_20	04 56 18.9	
	comp=Z,6µm,20.0s						
NEA2	**Nenana**	**82.88**	**13**	IAMs_20	IAMs_20	05 01 46.8	
	comp=Z,3µm,18.0s						
SLVN	**Son La**	**82.91**	**294**	P	**P**	**04 24 41.9**	**+0.1**
SLVN	**Son La**	**82.91**	**294**		**P**	**04 24 40.5**	**-1.3**
SLVN				IAMs_20	IAMs_20	04 57 32.3	
	comp=Z,4µm,20.0s						
SLVN	**Son La**	**82.91**	**294**	P	**P**	**04 24 42.4**	**+0.6**
	comp=Z,17nm,2.0s						
WRH	**Wood River Hil**	**82.99**	**13**	IAMs_20	IAMs_20	04 59 40.7	
	comp=Z,3µm,18.0s						
GSI	**Gunungsitoli**	**82.99**	**273**	P	**P**	**04 24 44.1**	**+1.8**
GSI	**Gunungsitoli**	**82.99**	**273**	P	**P**	**04 24 43.9**	**+1.6**
	comp=Z,62nm,2.2s						
GSI	**Gunungsitoli**	**82.99**	**273**	P	**P**	**04 24 42.7**	**+0.4**
	comp=Z,61nm,2.2s						
DUG	**Dugway, Tooele**	**83.10**	**45**	P	**P**	**04 24 42.4**	**-0.1**
DUG				pmax	pmax		
	comp=Z,56nm,1.4s						
DUG	**Dugway, Tooele**	**83.10**	**45**		**P**	**04 24 42.4**	**-0.1**
DUG				IAmb	IAmb	04 24 53.6	
	comp=Z,56nm,1.4s						
DUG	**Dugway, Tooele**	**83.10**	**45**	P	**P**	**04 24 44.8**	**+2.3**
	comp=Z,32nm,1.3s						
S34M	**Telegraph Cree**	**83.10**	**24**	IAMs_20	IAMs_20	04 53 49.2	
	comp=Z,5µm,20.0s						
RIDG	**Independent Ri**	**83.14**	**15**	IAMs_20	IAMs_20	05 02 25.7	
	comp=Z,3µm,18.0s						
HIA	**Hailar**	**83.18**	**325**	IAMs_20	IAMs_20	04 58 02.9	
	comp=Z,5µm,20.0s						
HIA	**Hailar**	**83.18**	**325**	P	**P**	**04 24 43.0**	**+0.4**
	comp=Z,19nm,0.7s						
IMAR	**Indian Mountai**	**83.20**	**11**		**P**	**04 24 41.8**	**-0.4**
CCB	**Clear Creek Bu**	**83.20**	**13**	IAMs_20	IAMs_20	04 59 56.3	
	comp=Z,3µm,19.0s						
PLID	**Pearl Lake**	**83.28**	**40**		**P**	**04 24 43.7**	**+0.3**
PLID				IAmb	IAmb	04 25 09.2	
	comp=Z,65nm,1.8s						
PLID				IAMs_20	IAMs_20	04 53 12.1	
	comp=Z,6µm,22.0s						
I23K	**Minto, Yukon-K**	**83.30**	**13**	IAMs_20	IAMs_20	05 00 43.1	
	comp=Z,3µm,18.0s						
XAN	**Xi'an**	**83.31**	**308**	⇓P	**P**	**04 24 43.9**	**+0.3**
XAN				pP	pwP	04 24 51.9	+1.5
XAN				S	**SKSac**	**04 35 08.3**	**+2.4**
XAN				pmax	pmax		
	comp=Z,20nm,1.0s						
XAN				pmax	pmax		
	comp=Z,510nm,11.6s						
XAN				L	L		
	comp=Z,2µm,20.6s						
XAN				L	L		
	comp=Z,3µm,19.5s						
XAN				L	L		
	comp=Z,3µm,17.9s						
HILR	**Hailar Array B**	**83.33**	**325**	P	**P**	**04 24 43.2**	**-0.1**
	comp=Z,1.5nm,0.4s,baz=128,slow=11,SNR=4.9						
HILR				LR	LR	04 57 57.4	
	comp=Z,3µm,20.4s,baz=75,slow=33						
	comp=Z,1.5nm,0.4s						
HPIG		**83.35**	**60**	P	**P**	**04 24 46.9**	**+2.8**
	comp=Z,17nm,1.8s						
Q32M	**Nakina River**	**83.38**	**23**	IAMs_20	IAMs_20	04 53 23.7	
	comp=Z,5µm,22.0s						
BCAR	**Beaver Creek A**	**83.39**	**16**		**P**	**04 24 42.2**	**-1.2**
COLA	**College**	**83.39**	**13**	P	**P**	**04 24 42.0**	**-1.2**
COLA	**College**	**83.39**	**13**	i P	**P**	**04 24 41.5**	**-1.7**
COLA				pmax	pmax		
	comp=Z,53nm,1.1s						
COLA	**College**	**83.39**	**13**	P	**P**	**04 24 42.3**	**-0.9**
COLA	**College**	**83.39**	**13**	IAMs_20	IAMs_20	04 59 36.2	
	comp=Z,3µm,18.0s						
COLA	**College**	**83.39**	**13**	P	**P**	**04 24 42.2**	**-0.9**
	comp=Z,60nm,1.3s						
BILL	**Bilibino**	**83.49**	**355**	ceP	**P**	**04 24 43.8**	**+0.1**
BILL				pmax	pmax		
	comp=Z,27nm,1.5s						
IL31		**83.52**	**14**	P	**P**	**04 24 42.4**	**-1.4**
IL31				IAmb	IAmb	04 24 45.9	
	comp=Z,63nm,1.2s						
ILAR	**Eielson Array**	**83.52**	**14**	P	**P**	**04 24 42.6**	**-1.3**
	comp=Z,29nm,1.0s,baz=234,slow=5.7,SNR=48						
ILAR				LR	LR	04 59 49.7	
	comp=Z,2µm,18.2s,baz=208,slow=34						
	comp=Z,29nm,1.0s						
N30M	**Aishikik Lake**	**83.53**	**19**	IAMs_20	IAMs_20	04 57 18.3	
	comp=Z,4µm,19.0s						
H22K	**Ishtalitna Cre**	**83.55**	**11**		**P**	**04 24 43.8**	**-0.3**
H22K				IAmb	IAmb	04 24 54.4	
	comp=Z,57nm,1.2s						
HLID	**Hailey**	**83.56**	**42**		**P**	**04 24 44.2**	**-0.6**
HLID	**Hailey**	**83.56**	**42**	P	**P**	**04 24 45.7**	**+0.9**
	comp=Z,40nm,1.5s						
121A	**Cookes Peak, D**	**83.67**	**54**		**P**	**04 24 45.6**	**0.0**
121A				IAmb	IAmb	04 24 59.9	
	comp=Z,66nm,1.3s						
RDOG	**Red Dog Mine**	**83.84**	**6**	IAMs_20	IAMs_20	04 55 11.0	
	comp=Z,4µm,22.0s						
M29M	**Somme Creek**	**83.85**	**18**	IAMs_20	IAMs_20	04 55 56.7	
	comp=Z,3µm,20.0s						
DLBC	**Dease Lake**	**83.88**	**24**	P	**P**	**04 24 45.2**	**-0.8**
	comp=Z,9.3nm,1.1s,baz=203,slow=7.4,SNR=11						
DLBC				LR	LR	04 54 36.8	
	comp=Z,4µm,21.3s,baz=204,slow=30						
	comp=Z,9.3nm,1.1s						
N31M	**Braeburn, Yuko**	**83.97**	**20**	IAMs_20	IAMs_20	04 56 52.0	
	comp=Z,3µm,20.0s						
R33M	**Jennings River**	**84.17**	**23**	IAMs_20	IAMs_20	04 54 11.5	
	comp=Z,4µm,21.0s						
NEW	**Newport**	**84.18**	**37**	P	**P**	**04 24 47.9**	**+0.2**
	comp=Z,9.7nm,1.0s,baz=209,slow=2.4,SNR=13						
NEW				LR	LR	04 57 51.7	
	comp=Z,4µm,18.5s,baz=233,slow=32						
	comp=Z,9.7nm,1.0s						
NEW	**Newport**	**84.18**	**37**	P	**P**	**04 24 47.2**	**-0.5**
NEW	**Newport**	**84.18**	**37**	IAMs_20	IAMs_20	04 58 44.6	
	comp=Z,4µm,19.0s						
NEW	**Newport**	**84.18**	**37**	P	**P**	**04 24 48.2**	**+0.5**
	comp=Z,19nm,2.6s						
HHC	**Hu-ho-hao-te**	**84.19**	**315**	eP	**P**	**04 24 48.3**	**+0.3**
HHC				pmax	pmax		
	comp=Z,9.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,350nm,4.8s						
SRU	**San Rafael Swe**	**84.23**	**47**	P	**P**	**04 24 49.4**	**+1.0**
SRU				pmax	pmax		
	comp=Z,70nm,1.1s						
EPT	**El Paso**	**84.39**	**55**	IAMs_20	IAMs_20	04 56 26.6	
	comp=Z,6µm,19.0s						
BCYI	**Bear Canyon**	**84.55**	**41**	P	**P**	**04 24 49.9**	**0.0**
BCYI				IAmb	IAmb	04 25 11.2	
	comp=Z,58nm,1.5s						
HWUT	**Hardware Ranch**	**84.56**	**44**		**P**	**04 24 50.5**	**+0.5**
HWUT				IAmb	IAmb	04 25 10.8	
	comp=Z,66nm,1.2s						
HWUT	**Hardware Ranch**	**84.56**	**44**	P	**P**	**04 24 51.7**	**+1.7**
	comp=Z,51nm,1.8s						
SBM	**South Baldy**	**84.68**	**53**	P	**P**	**04 24 51.1**	**+0.1**
PV05	**Paradox Valley**	**84.83**	**48**	P	**P**	**04 24 52.4**	**+0.9**
Y22A	**Socorro**	**84.83**	**53**		**P**	**04 24 51.4**	**-0.1**
Y22A				IAmb	IAmb	04 25 05.4	
	comp=Z,49nm,1.2s						
D19K	**Kuna River**	**84.84**	**8**	IAMs_20	IAMs_20	04 54 17.4	
	comp=Z,4µm,22.0s						
LENM	**Lemitar**	**84.91**	**53**		**P**	**04 24 52.0**	**+0.1**
MVCO	**Mesa Verde**	**84.92**	**49**		**P**	**04 24 51.4**	**-0.6**
MVCO				IAMs_20	IAMs_20	04 57 54.3	
	comp=Z,6µm,18.0s						
MVCO	**Mesa Verde**	**84.92**	**49**	P	**P**	**04 24 54.4**	**+2.4**
	comp=Z,23nm,1.3s						
M31M	**Drury Creek, Y**	**84.94**	**20**	IAMs_20	IAMs_20	04 58 01.7	
	comp=Z,3µm,20.0s						
PV10	**Paradox Valley**	**84.99**	**48**	P	**P**	**04 24 51.4**	**-0.9**
PV19	**Morning Glory**	**85.00**	**48**	P	**P**	**04 24 52.1**	**-0.3**
PV17	**East Wray Mesa**	**85.01**	**48**	P	**P**	**04 24 52.1**	**-0.3**
CRNM	**Carthage**	**85.01**	**53**		**P**	**04 24 53.2**	**+0.8**
PV20	**West Nyswonger**	**85.03**	**48**	P	**P**	**04 24 52.6**	**+0.2**
G24K	**Hadweenzic Riv**	**85.04**	**12**	IAMs_20	IAMs_20	04 59 35.9	
	comp=Z,3µm,20.0s						
MCMT	**McKenzie Canyo**	**85.14**	**41**	P	**P**	**04 24 53.0**	**+0.1**
BELA	**Belgrano 2**	**85.14**	**173**	P	**P**	**04 24 52.6**	**+0.5**
KMI2	**Kunming**	**85.16**	**298**	P	**P**	**04 24 54.1**	**+0.7**
KMI2				S	**S**	**04 35 30.0**	**+6.4**
KMI2				SS	**SS**	**04 40 54.6**	**-3.3**
KMI2				pmax	pmax		
	comp=Z,14nm,1.2s						
KMI2				pmax	pmax		
	comp=Z,1µm,10.8s						
KMI2				L	L		
	comp=Z,4µm,20.4s						
KMI2				L	L		
	comp=Z,6µm,21.5s						
KMI2				L	L		
	comp=Z,9µm,21.8s						
C19K	**Lookout Ridge**	**85.22**	**7**	IAMs_20	IAMs_20	05 10 12.6	
	comp=Z,3µm,20.0s						
VHRN	**Van Horn**	**85.25**	**57**	P	**P**	**04 24 53.8**	**+0.1**
VHRN				IAmb	IAmb	04 25 07.7	
	comp=Z,53nm,1.4s						
MNTX	**Cornudas Mount**	**85.26**	**56**		**P**	**04 24 54.6**	**+1.1**
MNTX				IAmb	IAmb	04 25 43.2	
	comp=Z,61nm,1.8s						
MNTX				IAMs_20	IAMs_20	04 55 58.5	
	comp=Z,6µm,20.0s						
MNTX	**Cornudas Mount**	**85.26**	**56**	P	**P**	**04 24 57.3**	**+3.8**
	comp=Z,18nm,2.4s						
LDM	**Libby Dam**	**85.32**	**37**		**P**	**04 24 53.9**	**+0.4**
LDM				IAmb	IAmb	04 25 00.8	
	comp=Z,52nm,1.2s						
MSO	**Missoula**	**85.37**	**39**	IAMs_20	IAMs_20	04 54 35.4	
	comp=Z,5µm,21.0s						
AHID	**Auburn Hatcher**	**85.37**	**44**	P	**P**	**04 24 53.8**	**-0.3**
AHID				IAmb	IAmb	04 25 07.6	
	comp=Z,56nm,1.2s						
AHID				IAMs_20	IAMs_20	04 56 48.8	
	comp=Z,6µm,20.0s						
AHID	**Auburn Hatcher**	**85.37**	**44**	P	**P**	**04 24 54.5**	**+0.5**
	comp=Z,44nm,1.9s						
WTLY	**Watson Lake, Y**	**85.47**	**23**	P	**P**	**04 24 54.9**	**+1.0**
WTLY				IAmb	IAmb	04 25 41.7	
	comp=Z,97nm,1.7s						
DLMT	**Dillon**	**85.54**	**41**	P	**P**	**04 24 54.4**	**-0.3**
TASM	**ASL Pad, Albuq**	**85.59**	**52**	P	**P**	**04 24 56.0**	**+0.6**
TASM	**ASL Pad, Albuq**	**85.59**	**52**	P	**P**	**04 24 55.8**	**+0.5**
TASM				IAmb	IAmb	04 25 08.8	
	comp=Z,30nm,1.2s						
TASM	**ASL Pad, Albuq**	**85.59**	**52**	IAMs_20	IAMs_20	04 55 25.1	
	comp=Z,6µm,20.0s						
TASM	**ASL Pad, Albuq**	**85.59**	**52**	IAMs_20	IAMs_20	04 55 25.1	

	comp=Z,6µm,20.0s						
TASM	**ASL Pad, Albuq**	**85.59**	**52**	IAMs_20	IAMs_20	04 55 25.1	
	comp=Z,5µm,20.0s						
TASM	**ASL Pad, Albuq**	**85.59**	**52**	IAMs_20	IAMs_20	04 55 25.1	
	comp=Z,6µm,20.0s						
ABQ	**Albuquerque**	**85.59**	**52**	IAMs_20	IAMs_20	04 55 25.2	
	comp=Z,5µm,20.0s						
ALQ	**Albuquerque**	**85.59**	**52**		**P**	**04 24 55.4**	**+0.1**
ALQ				IAMs_20	IAMs_20	04 55 25.1	
	comp=Z,5µm,20.0s						
ALQ	**Albuquerque**	**85.59**	**52**		**P**	**04 24 54.9**	**-0.4**
ALQ				IAmb	IAmb	04 25 08.8	
	comp=Z,30nm,1.1s						
ALQ				IAMs_20	IAMs_20	04 55 25.2	
	comp=Z,5µm,20.0s						
ANMO	**Albuquerque**	**85.59**	**52**	P	**P**	**04 24 55.7**	**+0.4**
	comp=Z,5.0nm,0.9s,baz=222,slow=5.6,SNR=17						
ANMO				LR	LR	04 55 46.7	
	comp=Z,5µm,20.6s,baz=249,slow=30						
	comp=Z,5.0nm,0.9s						
ANMO	**Albuquerque**	**85.59**	**52**	*ce*P	**P**	**04 24 55.0**	**-0.3**
ANMO				pmax	pmax		
	comp=Z,24nm,2.4s						
ANMO	**Albuquerque**	**85.59**	**52**	P	**P**	**04 24 55.2**	**-0.2**
ANMO	**Albuquerque**	**85.59**	**52**	IAMs_20	IAMs_20	04 55 25.2	
	comp=Z,5µm,20.0s						
ANMO	**Albuquerque**	**85.59**	**52**	P	**P**	**04 24 55.9**	**+0.6**
	comp=Z,30nm,1.2s						
JTMT	**Jette**	**85.59**	**38**		**P**	**04 24 55.6**	**+0.7**
F24K	**Squaw Lake**	**85.66**	**12**	IAMs_20	IAMs_20	05 02 01.3	
	comp=Z,3µm,18.0s						
FXWY	**Fox Creek**	**85.79**	**43**	P	**P**	**04 24 56.7**	**+0.5**
FXWY				IAmb	IAmb	04 25 14.3	
	comp=Z,64nm,1.2s						
FXWY				IAMs_20	IAMs_20	04 55 34.9	
	comp=Z,6µm,20.0s						
TX31	**Lajitas Ar. Si**	**85.83**	**58**		**P**	**04 24 56.2**	**-0.3**
TX31				IAmb	IAmb	04 25 10.9	
	comp=Z,73nm,1.4s						
TXAR	**Lajitas Array**	**85.83**	**58**	P	**P**	**04 24 58.4**	**+1.9**
	comp=Z,2.8nm,0.8s,baz=228,slow=4.9,SNR=17						
TXAR				LR	LR	04 57 14.8	
	comp=Z,8µm,18.5s,baz=246,slow=31						
	comp=Z,2.8nm,0.8s						
TXAR	**Lajitas Array**	**85.83**	**58**		**P**	**04 24 56.6**	**+0.1**
SNOW	**Snow King Moun**	**85.90**	**43**	P	**P**	**04 24 56.9**	**+0.2**
SNOW				IAMs_20	IAMs_20	04 55 58.6	
	comp=Z,6µm,21.0s						
MAW	**Mawson**	**85.97**	**200**	P	**P**	**04 24 58.2**	**+1.9**
MAW	**Mawson**	**85.97**	**200**	P	**P**	**04 24 58.0**	**+1.7**
	comp=Z,14nm,1.0s,baz=120,slow=7.0,SNR=11						
MAW				LR	LR	05 00 18.8	
	comp=Z,4µm,19.1s,baz=106,slow=34						
	comp=Z,14nm,1.0s						
MAW	**Mawson**	**85.97**	**200**		**P**	**04 24 56.6**	**+0.3**
MAW	**Mawson**	**85.97**	**200**	P	**P**	**04 24 58.2**	**+1.9**
	comp=Z,5.3nm,1.2s						
QLMT	**Earthquake Lak**	**86.04**	**42**		**P**	**04 24 57.5**	**+0.1**
LOHW	**Long Hollow**	**86.06**	**43**	P	**P**	**04 24 58.1**	**+0.6**
LOHW				IAmb	IAmb	04 25 18.0	
	comp=Z,54nm,1.3s						
YHB	**Horse Butte**	**86.16**	**42**	P	**P**	**04 24 58.3**	**+0.4**
YHB				IAmb	IAmb	04 25 06.3	
	comp=Z,53nm,1.3s						
F25K	**Christian Rive**	**86.18**	**13**	IAMs_20	IAMs_20	05 00 13.1	
	comp=Z,3µm,20.0s						
ALPN	**Alpine**	**86.20**	**57**		**P**	**04 24 58.9**	**+0.5**
YPP	**Pitchstone Pla**	**86.21**	**42**	P	**P**	**04 24 59.0**	**+0.7**
YHL	**Hebgen Lake**	**86.21**	**42**		**P**	**04 24 58.5**	**+0.2**
CD2	**Chengdu**	**86.23**	**303**	P	**P**	**04 24 59.5**	**+1.1**
CD2				pmax	pmax		
	comp=Z,20nm,1.0s						
CD2				L	L		
	comp=Z,4µm,18.4s						
CD2				L	L		
	comp=Z,3µm,21.6s						
CD2				L	L		
	comp=Z,4µm,19.0s						
GDL2	**Guadalupe Moun**	**86.24**	**55**	P	**P**	**04 24 59.2**	**+0.7**
GDL2				PP	**PP**	**04 28 22.2**	**+2.6**
BOZ	**Bozeman (W)**	**86.25**	**41**	P	**P**	**04 24 58.7**	**+0.4**
BOZ				pmax	pmax		
	comp=Z,129nm,1.8s						
O20A	**White River Ci**	**86.25**	**47**		**P**	**04 24 59.0**	**+0.5**
O20A				IAMs_20	IAMs_20	04 56 39.4	
	comp=Z,6µm,20.0s						
YFT	**Old Faithful**	**86.26**	**42**	P	**P**	**04 24 59.1**	**+0.6**
BMAR	**Burnt Mountain**	**86.27**	**13**		**P**	**04 24 58.0**	**+0.2**
YMR	**Madison River**	**86.27**	**42**	P	**P**	**04 24 58.6**	**+0.1**
YMR				IAmb	IAmb	04 25 24.6	
	comp=Z,96nm,1.6s						
MMPY	**Sheldon Lake,**	**86.28**	**20**		**P**	**04 24 57.8**	**-0.1**
MMPY				IAmb	IAmb	04 25 41.3	
	comp=Z,59nm,1.6s						
TPB01	**Permian Basin**	**86.28**	**57**	P	**P**	**04 24 58.9**	**+0.1**
YAK	**Yakutsk**	**86.39**	**339**	*e*P	**P**	**04 24 58.6**	**+0.2**
YAK				*e*		04 25 00.7	
YAK				*e**PP	**pwP**	**04 25 06.6**	**+1.5**
YAK				*e*		04 28 19.6	
YAK				*e*S	**SKSac**	**04 35 24.5**	**+0.3**
YAK				*e*SS	**SS**	**04 41 07.9**	**-6.1**
YAK				pmax	pmax		
	comp=Z,15nm,0.9s						
YAK				pmax	pmax		
	comp=N,2.0nm,0.9s						
YAK				pmax	pmax		
	comp=E,5.0nm,1.2s						
YAK				pmax	pmax		
	comp=Z,746nm,8.6s						
YAK				pmax	pmax		
	comp=E,421nm,6.8s						
YAK				pmax	pmax		
	comp=N,266nm,6.0s						
YAK				smax	smax		
	comp=N,430nm,6.0s						
YAK				smax	smax		
	comp=E,186nm,4.8s						
PD31	**Pinedale Array**	**86.40**	**44**		**P**	**04 24 58.9**	**-0.4**
PD31				IAmb	IAmb	04 25 12.3	
	comp=Z,72nm,1.4s						
PDAR	**Pinedale Array**	**86.40**	**44**	P	**P**	**04 24 58.6**	**-0.6**
	comp=Z,15nm,0.9s,baz=206,slow=3.3,SNR=35						
PDAR				LR	LR	04 58 14.5	
	comp=Z,4µm,19.0s,baz=238,slow=32						
	comp=Z,15nm,0.9s						
PDAR	**Pinedale Array**	**86.40**	**44**		**P**	**04 24 59.1**	**-0.1**
TPB11	**China Draw**	**86.42**	**56**	P	**P**	**04 24 59.9**	**+0.6**
LYMT	**Lyon Mountain**	**86.44**	**39**	P	**P**	**04 24 59.2**	**-0.1**
PZH	**PanZhiHua**	**86.45**	**298**	P	**P**	**04 25 01.3**	**+1.6**
CMAR	**Chiang Mai Arr**	**86.46**	**290**	P	**P**	**04 25 00.6**	**+0.8**
	comp=Z,7.3nm,0.8s,baz=114,slow=3.3,SNR=10						
CMAR				LR	LR	05 01 17.8	
	comp=Z,3µm,20.0s,baz=100,slow=34						
	comp=Z,7.3nm,0.8s						
CMAR	**Chiang Mai Arr**	**86.46**	**290**	*ce*P	**P**	**04 25 00.6**	**+0.8**
CMAR				pmax	pmax		
	comp=Z,4.0nm,0.2s						
CMAR	**Chiang Mai Arr**	**86.46**	**290**		**P**	**04 24 58.9**	**-0.9**
CHTO	**Chiang Mai**	**86.57**	**290**	P	**P**	**04 25 00.8**	**+0.6**
CHTO	**Chiang Mai**	**86.57**	**290**	P	**P**	**04 25 00.2**	**-0.1**
CHTO				pmax	pmax		
	comp=Z,38nm,1.5s						
CHTO	**Chiang Mai**	**86.57**	**290**	P	**P**	**04 25 00.2**	**-0.1**
CHTO				IAMs_20	IAMs_20	05 01 29.2	
	comp=Z,4µm,20.0s						
CHTO	**Chiang Mai**	**86.57**	**290**	P	**P**	**04 24 59.9**	**-0.3**
CHTO	**Chiang Mai**	**86.57**	**290**	P	**P**	**04 25 00.5**	**+0.3**
	comp=Z,18nm,1.5s						
TPB05	**Hovey Rd**	**86.64**	**57**	P	**P**	**04 25 01.0**	**+0.5**
PMSA	**Palmer Station**	**87.00**	**157**	LR	LR	04 54 38.4	
	comp=Z,2µm,21.8s,baz=250,slow=29						
HAYD	**Hayden**	**87.10**	**47**	P	**P**	**04 25 02.8**	**+0.1**
HAYD				IAmb	IAmb	04 25 47.6	
	comp=Z,53nm,1.5s						
SDCO	**Great Sand Dun**	**87.33**	**50**	IAMs_20	IAMs_20	04 59 40.1	
	comp=Z,4µm,19.0s						
H31M	**Peel River**	**87.57**	**17**	IAMs_20	IAMs_20	04 58 26.9	
	comp=Z,3µm,20.0s						
GCMT	**Greycliff**	**87.58**	**41**	P	**P**	**04 25 04.8**	**+0.1**
T25A	**Trinidad**	**87.93**	**51**	IAMs_20	IAMs_20	04 57 37.9	
	comp=Z,3µm,20.0s						
LZH	**Lanzhou**	**87.94**	**308**	*e*P	**P**	**04 25 07.9**	**+1.2**
LZH				sP	pwP	04 25 15.0	+1.5
LZH				pmax	pmax		
	comp=Z,25nm,1.4s						
LZH				L	L		
	comp=Z,1µm,20.3s						
LZH				L	L		
	comp=Z,2µm,21.3s						
LZH				L	L		
	comp=Z,7µm,22.0s						
CIT	**Chita**	**87.97**	**325**	*e*P	**P**	**04 25 06.6**	**+0.3**
CIT				*e*		04 28 31.2	
CIT				*e*		04 30 30.2	
ISCO	**Idaho Springs**	**88.00**	**48**	IAMs_20	IAMs_20	04 58 33.6	
	comp=Z,3µm,20.0s						
LZDM	**Lanzhou Array**	**88.01**	**308**	P	**P**	**04 25 07.5**	**+0.3**
	comp=Z,1.3nm,0.3s,baz=39,slow=9.6,SNR=6.7						
LZDM				LR	LR	05 04 56.3	
	comp=Z,2µm,18.4s,baz=90,slow=36						
	comp=Z,1.3nm,0.3s						
Q24A	**Divide**	**88.03**	**49**	P	**P**	**04 25 07.2**	**-0.1**
Q24A				IAmb	IAmb	04 25 20.7	
	comp=Z,57nm,1.8s						
Q24A				IAMs_20	IAMs_20	04 57 49.5	
	comp=Z,6µm,20.0s						
MSTX	**Muleshoe**	**88.10**	**54**	P	**P**	**04 25 08.1**	**+0.6**
MSTX				IAmb	IAmb	04 25 20.2	
	comp=Z,38nm,1.2s						
MSTX				IAMs_20	IAMs_20	04 56 11.7	
	comp=Z,6µm,21.0s						
C27K	**Jago River**	**88.27**	**12**	IAMs_20	IAMs_20	05 02 58.3	
	comp=Z,3µm,19.0s						
K22A	**Casper**	**88.42**	**45**	P	**P**	**04 25 09.4**	**+0.5**
K22A				IAmb	IAmb	04 25 22.1	
	comp=Z,39nm,1.2s						
K22A				IAMs_20	IAMs_20	04 58 01.4	
	comp=Z,7µm,20.0s						
EGMT	**Eagleton**	**88.45**	**39**	IAMs_20	IAMs_20	04 58 25.8	
	comp=Z,5µm,20.0s						
TNCH	**TengChong**	**88.77**	**296**	P	**P**	**04 25 11.9**	**+1.0**
TNCH				pP	sP	04 25 14.8	-0.7
TNCH				S	**S**	**04 35 53.8**	**-4.6**
TNCH				SS	**SS**	**04 41 49.0**	**-1.7**
TNCH				pmax	pmax		
	comp=Z,27nm,1.0s						
TNCH				L	L		
	comp=Z,2µm,21.3s						
TNCH				L	L		
	comp=Z,2µm,23.8s						
TNCH				L	L		
	comp=Z,6µm,23.7s						
AMTX	**Amarillo**	**89.25**	**54**	IAMs_20	IAMs_20	04 56 38.2	
	comp=Z,5µm,22.0s						
INK	**Inuvik**	**89.60**	**16**	LR	LR	04 59 36.6	
	comp=Z,2µm,20.9s,baz=221,slow=32						
USHA	**Ushuaia**	**89.70**	**147**	LR	LR	05 00 29.3	
	comp=Z,2µm,18.5s,baz=241,slow=32						
CMIG	**Matias Romero**	**89.85**	**72**	LR	LR	04 57 45.8	
	comp=Z,5µm,18.5s,baz=255,slow=30						
KSCO	**Kaye Shedlock'**	**89.89**	**49**	IAMs_20	IAMs_20	04 57 04.8	
	comp=Z,5µm,22.0s						
ULN	**Ulaanbaatar**	**90.01**	**320**	⇑*i*P	**P**	**04 25 15.7**	**-0.5**
ULN				pmax	pmax		
	comp=Z,10.0nm,1.3s						
ULN	**Ulaanbaatar**	**90.01**	**320**		**P**	**04 25 15.4**	**-0.8**
ULN				IAmb	IAmb	04 25 35.9	
	comp=Z,62nm,1.6s						
ULN	**Ulaanbaatar**	**90.01**	**320**	P	**P**	**04 25 17.5**	**+1.3**
ULN	**Ulaanbaatar**	**90.01**	**320**	P	**P**	**04 25 16.5**	**+0.3**
	comp=Z,23nm,1.6s						
KVTX	**Kingsville**	**90.10**	**62**	IAMs_20	IAMs_20	05 01 17.1	
	comp=Z,5µm,18.0s						
ABTX	**Abilene, Hawle**	**90.16**	**56**	P	**P**	**04 25 17.3**	**+0.2**
ABTX				IAMs_20	IAMs_20	05 00 22.3	
	comp=Z,6µm,19.0s						
SONM	**Songino Array**	**90.41**	**320**	P	**P**	**04 25 17.6**	**-0.4**
	comp=Z,8.5nm,1.2s,baz=146,slow=2.9,SNR=11						
SONM				LR	LR	05 01 50.0	
	comp=Z,2µm,21.1s,baz=106,slow=33						
	comp=Z,8.5nm,1.2s						
SONM	**Songino Array**	**90.41**	**320**		**P**	**04 25 17.1**	**-0.9**
SONM				IAmb	IAmb	04 26 23.1	
	comp=Z,53nm,1.8s						
RSSD	**Black Hills**	**90.64**	**44**	P	**P**	**04 25 19.0**	**-0.3**
RSSD				pmax	pmax		
	comp=Z,88nm,1.4s						
RSSD	**Black Hills**	**90.64**	**44**		**P**	**04 25 18.9**	**-0.3**
RSSD	**Black Hills**	**90.64**	**44**	IAMs_20	IAMs_20	04 59 31.2	
	comp=Z,5µm,20.0s						
RSSD	**Black Hills**	**90.64**	**44**	P	**P**	**04 25 19.3**	**0.0**
	comp=Z,49nm,1.4s						
OGNE	**Ogallala**	**90.96**	**48**	IAMs_20	IAMs_20	04 59 40.0	
	comp=Z,3µm,20.0s						
COYC	**Coyhaique**	**91.43**	**138**		**P**	**04 25 23.2**	**+0.4**
COYC	**Coyhaique**	**91.43**	**138**	P	**P**	**04 25 26.0**	**+3.2**
	comp=Z,71nm,1.0s						
WMOK	**Wichita Mounta**	**91.48**	**55**	IAMs_20	IAMs_20	04 59 01.1	
	comp=Z,6µm,21.0s						
SYO	**Syowa Base**	**91.53**	**193**	⇓*e*P	**P**	**04 25 24.2**	**+1.5**
ELIB	**Princess Elisa**	**91.76**	**187**	*d*P	**P**	**04 25 22.9**	**-1.0**
	comp=Z,12nm,1.2s						
CBKS	**Cedar Bluff**	**91.97**	**50**	IAMs_20	IAMs_20	05 01 26.8	
	comp=Z,3µm,19.0s						
OK038	**West end E0370**	**92.02**	**53**	IAMs_20	IAMs_20	04 59 20.4	
	comp=Z,5µm,21.0s						
GTA2	**Gaotai**	**92.10**	**310**	*e*P	**P**	**04 25 25.5**	**-0.6**
GTA2				pmax	pmax		
	comp=Z,5.0nm,1.5s						
GTA2				L	L		
	comp=Z,2µm,21.3s						
GTA2				L	L		
	comp=Z,3µm,22.5s						
GTA2				L	L		
	comp=Z,5µm,24.8s						
MORE	**Moreh**	**92.23**	**294**	IAMs_20	IAMs_20	05 06 18.2	
	comp=Z,3µm,20.0s						
YKA	**Yellowknife Ar**	**92.44**	**25**	P	**P**	**04 25 27.4**	**+0.5**
	comp=Z,4.0nm,1.1s,baz=236,slow=5.4,SNR=2.2						
YKA				LR	LR	04 59 45.4	
	comp=Z,7µm,21.6s,baz=237,slow=31						
	comp=Z,4.0nm,1.1s						
YKA	**Yellowknife Ar**	**92.44**	**25**	P	**P**	**04 25 26.4**	**-0.5**
LL02	**Futaleuf**	**92.53**	**136**		**P**	**04 25 28.5**	**+0.6**
LL02				IAmb	IAmb	04 25 35.8	
	comp=Z,38nm,1.0s						
LL02				IAMs_20	IAMs_20	04 56 43.9	
	comp=Z,6µm,22.0s						
LL02	**Futaleuf**	**92.53**	**136**	P	**P**	**04 25 30.6**	**+2.7**
	comp=Z,45nm,1.1s						
R32A	**Long Quarter,**	**92.61**	**51**	P	**P**	**04 25 29.2**	**+0.9**
R32A				IAmb	IAmb	04 25 42.4	
	comp=Z,48nm,1.5s						
R32A				IAMs_20	IAMs_20	05 02 47.0	
	comp=Z,5µm,18.0s						
FNO	**Franklin**	**92.71**	**54**	P	**P**	**04 25 29.9**	**+1.1**
OK029	**Liberty Lake**	**92.82**	**54**	IAMs_20	IAMs_20	04 58 53.7	
	comp=Z,5µm,22.0s						
C36M	**Paulatuk**	**92.87**	**17**	IAMs_20	IAMs_20	05 01 45.9	
	comp=Z,3µm,20.0s						
JORH	**JORHAT**	**92.94**	**297**	*e*P	**P**	**04 25 32.7**	**+2.7**
LL03	**Petrohue**	**92.95**	**134**	IAMs_20	IAMs_20	05 06 31.0	
	comp=Z,3µm,18.0s						
TIXI	**Tiksi**	**93.05**	**346**	LR	LR	05 04 19.2	
	comp=Z,3µm,19.8s,baz=148,slow=34						
TIXI	**Tiksi**	**93.05**	**346**	⇑*i*P	**P**	**04 25 29.8**	**+0.3**
TIXI				pmax	pmax		
	comp=Z,4.0nm,0.8s						
TIXI	**Tiksi**	**93.05**	**346**	IAMs_20	IAMs_20	05 04 37.7	
	comp=Z,3µm,20.0s						
W35A	**Tecumseh**	**93.09**	**55**		**P**	**04 25 31.2**	**+0.6**
TROLL	**Troll, Antarti**	**93.10**	**181**	P	**P**	**04 25 28.6**	**-1.5**
	comp=Z,1µm,1.0s						
K30B	**Basset**	**93.22**	**47**		**P**	**04 25 31.3**	**+0.3**
ZAK	**Zakamensk**	**93.23**	**321**	*e*P	**P**	**04 25 29.6**	**-1.4**
ZAK				pmax	pmax		
	comp=Z,10.0nm,1.5s						
BLOK	**Blackwell**	**93.28**	**53**	P	**P**	**04 25 32.5**	**+1.1**
OK052	**Battle Ridge R**	**93.38**	**54**	IAMs_20	IAMs_20	04 59 42.6	
	comp=Z,6µm,22.0s						
OK048	**Pawnee Station**	**93.39**	**53**	IAMs_20	IAMs_20	05 01 21.8	
	comp=Z,5µm,20.0s						
APG	**El Apazote**	**93.41**	**75**	LR	LR	04 58 30.6	
	comp=Z,177nm,20.4s,baz=254,slow=30						
SNAA	**Sanae**	**93.43**	**179**	P	**P**	**04 25 31.4**	**-0.2**
	comp=Z,127nm,0.8s						
SNAA	**Sanae**	**93.43**	**179**	P	**P**	**04 25 31.9**	**+0.3**
	comp=Z,3.5nm,0.6s,baz=181,slow=4.5,SNR=7.4						
SNAA				LR	LR	05 06 27.5	
	comp=Z,2µm,18.1s,baz=187,slow=35						
	comp=Z,3.5nm,0.6s						
SNAA	**Sanae**	**93.43**	**179**	*ce*P	**P**	**04 25 30.7**	**-0.9**
SNAA				pmax	pmax		
	comp=Z,19nm,1.5s						
SNAA	**Sanae**	**93.43**	**179**		**P**	**04 25 31.1**	**-0.5**
SNAA				IAmb	IAmb	04 25 58.8	
	comp=Z,31nm,1.5s						
SNAA				IAMs_20	IAMs_20	05 06 43.5	
	comp=Z,4µm,21.0s						
SNAA	**Sanae**	**93.43**	**179**	P	**P**	**04 25 33.9**	**+2.3**
	comp=Z,12nm,1.7s						
VNA3	**Neumayer Olymp**	**93.63**	**177**	P	**P**	**04 25 33.0**	**+0.6**
	comp=Z,19nm,0.8s						
VNA3	**Neumayer Olymp**	**93.63**	**177**	P	**P**	**04 25 32.9**	**+0.4**
	comp=Z,41nm,0.9s						
E28A	**Huff**	**93.67**	**43**	P	**P**	**04 25 33.4**	**+0.4**
E28A				IAmb	IAmb	04 25 46.5	
	comp=Z,56nm,1.3s						
E28A				IAMs_20	IAMs_20	04 59 33.3	
	comp=Z,5µm,22.0s						
T35A	**Sooner Cattle**	**93.86**	**53**		**P**	**04 25 34.8**	**+0.7**
T35A				IAmb	IAmb	04 25 47.9	
	comp=Z,45nm,1.2s						
T35A				IAMs_20	IAMs_20	05 00 57.2	
	comp=Z,6µm,20.0s						
BGNE	**Belgrade**	**93.89**	**48**		**P**	**04 25 35.1**	**+1.0**
BGNE				IAMs_20	IAMs_20	05 00 49.6	
	comp=Z,6µm,20.0s						
VNA2	**Neumayer--Watz**	**94.05**	**178**	P	**P**	**04 25 35.0**	**+0.7**
	comp=Z,11nm,0.8s,baz=183,slow=4.2						
VNA2	**Neumayer--Watz**	**94.05**	**178**	P	**P**	**04 25 35.1**	**+0.7**
	comp=Z,21nm,1.3s						
TUL3	**Leonard**	**94.15**	**54**	IAMs_20	IAMs_20	04 59 42.9	
	comp=Z,5µm,21.0s						
BRDH	**Bariadhala**	**94.19**	**292**	LR	LR	05 05 31.4	
	comp=Z,2µm,21.3s,baz=160,slow=34						
VNA1	**Neumayer--Stat**	**94.29**	**177**	P	**P**	**04 25 36.0**	**+0.6**
	comp=Z,20nm,1.0s						
KSU1	**Kansas State U**	**94.38**	**51**	IAMs_20	IAMs_20	05 02 03.8	
	comp=Z,5µm,20.0s						
PLCA	**Paso Flores**	**94.40**	**134**	P	**P**	**04 25 38.7**	**+2.0**
	comp=Z,3.3nm,0.9s,baz=300,slow=6.6,SNR=5.3						
PLCA				LR	LR	05 01 13.4	
	comp=Z,2µm,19.9s,baz=277,slow=31						
	comp=Z,3.3nm,0.9s						
GOMU	**GeErMu**	**94.94**	**306**	P	**P**	**04 25 39.5**	**0.0**
GOMU				pmax	pmax		
	comp=Z,900nm,11.4s						
GOMU				L	L		
	comp=Z,980nm,17.8s						
GOMU				L	L		
	comp=Z,2µm,17.8s						
GOMU				L	L		
	comp=Z,3µm,17.8s						
MOY	**Mondy**	**95.01**	**322**	*e*P	P	04 25 47.0	+7.9
L34A	**Svendsen Farm,**	**95.32**	**48**	IAMs_20	IAMs_20	05 01 43.5	
	comp=Z,6µm,20.0s						
U38A	**Gravette**	**95.39**	**54**	IAMs_20	IAMs_20	05 01 13.6	
	comp=Z,6µm,21.0s						
FFC	**Flin Flon**	**95.44**	**35**	IAMs_20	IAMs_20	05 02 34.3	
	comp=Z,6µm,20.0s						
MIAR	**Mount Ida**	**95.55**	**56**	IAMs_20	IAMs_20	05 03 34.1	
	comp=Z,5µm,20.0s						
ECSD	**EROS Data Cent**	**95.62**	**46**	P	**P**	**04 25 41.2**	**-0.8**
	comp=Z,16nm,1.2s						
GO05	**Hualane**	**95.66**	**128**	IAMs_20	IAMs_20	04 58 17.3	
	comp=Z,4µm,21.0s						
HHAR	**Hobbs**	**95.69**	**54**	P	**P**	**04 25 43.6**	**+1.1**
HHAR				IAmb	IAmb	04 26 25.3	
	comp=Z,28nm,1.5s						
ML02	**Panimavida**	**95.75**	**129**	IAMs_20	IAMs_20	04 58 31.7	
	comp=Z,3µm,19.0s						
F33A	**5 Mile Ranch,**	**96.39**	**44**	IAMs_20	IAMs_20	05 07 00.5	
	comp=Z,5µm,18.0s						
S39A	**Bolivar**	**96.52**	**53**	IAMs_20	IAMs_20	05 01 19.5	
	comp=Z,4µm,22.0s						
TEIG	**Tepich**	**96.70**	**71**	IAMs_20	IAMs_20	05 00 46.5	
	comp=Z,3µm,20.0s						
P38A	**Dawn**	**96.82**	**51**	IAMs_20	IAMs_20	05 04 25.4	
	comp=Z,5µm,19.0s						
BOAB	**BOACO BROADBAN**	**97.31**	**79**	IAMs_20	IAMs_20	04 58 09.8	
	comp=Z,4µm,22.0s						
N38A	**Joes South For**	**97.32**	**50**	IAMs_20	IAMs_20	05 03 33.5	
	comp=Z,5µm,20.0s						
R40A	**Maddies Statio**	**97.47**	**52**	IAMs_20	IAMs_20	05 04 43.6	
	comp=Z,5µm,19.0s						
JTS	**Las Juntas de**	**97.48**	**81**	LR	LR	05 01 31.4	
	comp=Z,2µm,18.4s,baz=274,slow=30						
JTS	**Las Juntas de**	**97.48**	**81**	IAMs_20	IAMs_20	05 03 29.2	
	comp=Z,3µm,18.0s						
VBMS	**Vicksburg**	**97.49**	**59**	IAMs_20	IAMs_20	05 03 26.6	
	comp=Z,5µm,20.0s						
CO04	**Los Peladeros**	**97.55**	**126**	IAMs_20	IAMs_20	05 00 07.3	
	comp=Z,3µm,21.0s						
ULM	**Lac du Bonnet**	**97.77**	**40**	LR	LR	05 05 56.3	
	comp=Z,5µm,18.6s,baz=238,slow=33						
P40A	**Paris**	**97.92**	**51**	IAMs_20	IAMs_20	05 07 46.4	
	comp=Z,4µm,19.0s						
346A	**Big Creek Wild**	**98.18**	**60**	IAMs_20	IAMs_20	05 04 50.0	
	comp=Z,4µm,20.0s						
HDC	**Heredia**	**98.21**	**82**	IAMs_20	IAMs_20	05 01 34.6	
	comp=Z,3µm,19.0s						
ATAH	**Atahualpa**	**99.29**	**100**	LR	LR	05 03 20.9	
	comp=Z,2µm,18.1s,baz=264,slow=31						
NNA	**Nana**	**99.34**	**105**	LR	LR	05 02 30.7	
	comp=Z,2µm,20.5s,baz=252,slow=30						
AC05	**El Transito**	**99.35**	**123**	IAMs_20	IAMs_20	05 00 16.5	
	comp=Z,5µm,21.0s						
Z47A	**Carrollton**	**99.71**	**58**	IAMs_20	IAMs_20	05 03 18.5	
	comp=Z,5µm,21.0s						
E38A	**The Farm, Brul**	**99.77**	**44**	IAMs_20	IAMs_20	05 09 20.8	
	comp=Z,5µm,18.0s						
P43A	**Skaggs, Pawnee**	**99.85**	**52**	IAMs_20	IAMs_20	05 08 01.5	
	comp=Z,5µm,18.0s						
CFA	**Coronel Fontan**	**99.85**	**126**	LR	LR	05 02 35.5	
	comp=Z,1µm,21.5s,baz=242,slow=30						
GO03	**Copiapo**	**99.86**	**122**	IAMs_20	IAMs_20	05 00 07.9	
	comp=Z,5µm,22.0s						
I40A	**Norwalk**	**99.88**	**47**	IAMs_20	IAMs_20	05 03 42.0	
	comp=Z,5µm,21.0s						
JFWS	**Jewell Farm**	**99.95**	**48**	IAMs_20	IAMs_20	05 06 04.0	
	comp=Z,6µm,20.0s						
T45A	**Paducah**	**100.01**	**54**	IAMs_20	IAMs_20	05 10 43.0	
	comp=Z,3µm,18.0s						
EYMN	**Ely**	**100.08**	**43**	IAMs_20	IAMs_20	05 11 13.8	
	comp=Z,5µm,18.0s						
HDIL	**Hopedale**	**100.20**	**51**	IAMs_20	IAMs_20	05 07 40.7	
	comp=Z,5µm,19.0s						
L42A	**Oliver, Polo**	**100.20**	**49**	IAMs_20	IAMs_20	05 04 23.6	
	comp=Z,6µm,22.0s						
WVT	**Waverly**	**100.48**	**55**	IAMs_20	IAMs_20	05 02 56.6	
	comp=Z,5µm,22.0s						
LRAL	**Lakeview Retre**	**100.56**	**59**	IAMs_20	IAMs_20	05 03 45.1	
	comp=Z,4µm,20.0s						
PALK	**Pallekele**	**100.77**	**275**	IAMs_20	IAMs_20	05 14 46.4	
	comp=Z,3µm,20.0s						
250A	**Grady**	**100.97**	**60**	IAMs_20	IAMs_20	05 08 08.8	
	comp=Z,4µm,21.0s						
AC02	**Maricunga**	**101.06**	**122**	IAMs_20	IAMs_20	05 00 44.8	
	comp=Z,5µm,22.0s						
M44A	**Midewin, Midew**	**101.28**	**50**	IAMs_20	IAMs_20	05 06 01.3	
	comp=Z,4µm,20.0s						
P46A	**Rosedale**	**101.60**	**52**	IAMs_20	IAMs_20	05 06 18.0	
	comp=Z,4µm,20.0s						
SFIN	**Lafayette**	**101.81**	**51**	IAMs_20	IAMs_20	05 07 18.5	
	comp=Z,5µm,20.0s						
WMQ	**Urumqi**	**101.90**	**312**	P	**Pdif**	**04 26 12.0**	**+1.8**
WMQ				pP	pwP	04 26 15.3	-2.0
WMQ				pmax	pmax		
	comp=Z,14nm,0.9s						
WMQ				L	L		
	comp=Z,2µm,18.9s						
WMQ				L	L		
	comp=Z,4µm,24.0s						
WMQ				L	L		
	comp=Z,6µm,24.0s						
352A	**Blakely**	**102.00**	**60**	IAMs_20	IAMs_20	05 07 43.1	
	comp=Z,3µm,19.0s						
WCI	**Wyandotte Cave**	**102.07**	**53**	IAMs_20	IAMs_20	05 06 47.4	
	comp=Z,5µm,20.0s						
U49A	**Red Boiling Sp**	**102.18**	**55**	IAMs_20	IAMs_20	05 09 59.6	
	comp=Z,5µm,19.0s						
553A	**Crawfordville**	**102.19**	**62**	IAMs_20	IAMs_20	05 09 52.2	
	comp=Z,5µm,20.0s						
PB06	**IPOC Station P**	**102.27**	**118**	IAMs_20	IAMs_20	05 01 15.2	
	comp=Z,5µm,22.0s						
PB07	**IPOC Station P**	**102.37**	**117**	IAMs_20	IAMs_20	05 01 45.8	
	comp=Z,3µm,20.0s						
152A	**Waverly Hall**	**102.38**	**59**	IAMs_20	IAMs_20	05 08 20.2	
	comp=Z,4µm,20.0s						
TA01	**Diego Aracena**	**102.54**	**115**	IAMs_20	IAMs_20	05 01 25.4	

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      comp=Z,4µm,22.0s
X51A  Calhoun            102.59  57  IAMs_20  IAMs_20   05 06 37.7
      comp=Z,5µm,20.0s
N47A  Urbana             102.95  51  IAMs_20  IAMs_20   05 08 09.5
      comp=Z,5µm,20.0s
R49A  Shelbyville        102.95  54  IAMs_20  IAMs_20   05 07 42.7
      comp=Z,4µm,20.0s
T50A  Nancy              103.01  55  IAMs_20  IAMs_20   05 04 47.5
      comp=Z,5µm,22.0s
PB12  IPOC Station P     103.11 114  IAMs_20  IAMs_20   05 02 20.7
      comp=Z,4µm,21.0s
TIGA  Tifton             103.12  61  IAMs_20  IAMs_20   05 10 01.8
      comp=Z,4µm,20.0s
PB11  IPOC Station P     103.29 115  IAMs_20  IAMs_20   05 01 36.4
      comp=Z,4µm,20.0s
AF01  San Pedro de A     103.37 118  IAMs_20  IAMs_20   05 02 06.1
      comp=Z,5µm,22.0s
PB08  IPOC Station P     103.59 115  P        Pdif      04 26 16.9 -1.8
R50A  Paris              103.60  54  IAMs_20  IAMs_20   05 09 38.1
      comp=Z,4µm,19.0s
154A  Montrose           103.71  60  IAMs_20  IAMs_20   05 09 37.5
      comp=Z,4µm,19.0s
GO01  Chusmiza           103.73 115  IAMs_20  IAMs_20   05 02 13.0
      comp=Z,5µm,22.0s
PB16  IPOC Station P     103.94 114  IAMs_20  IAMs_20   05 01 44.6
      comp=Z,5µm,22.0s
TZTN  Tazewell           103.96  56  IAMs_20  IAMs_20   05 07 48.7
      comp=Z,5µm,20.0s
S51A  Beattyville        104.08  54  IAMs_20  IAMs_20   05 08 22.9
      comp=Z,3µm,21.0s
HOPE  Hope Point         104.24 159  IAMs_20  IAMs_20   05 11 34.1
      comp=Z,4µm,19.0s
456A  Hilliard           104.33  62  IAMs_20  IAMs_20   05 10 37.9
      comp=Z,3µm,20.0s
DWPF  Disney Wildern     104.41  64  IAMs_20  IAMs_20   05 12 31.3
      comp=Z,3µm,19.0s
AAM   Ann Arbor          104.66  50  IAMs_20  IAMs_20   05 11 33.7
      comp=Z,4µm,18.0s
DGAR  Diego Garcia       104.78 258  IAMs_20  IAMs_20   05 09 54.3
      comp=Z,5µm,20.0s
M50A  Fremont            105.00  51  IAMs_20  IAMs_20   05 11 19.9
      comp=Z,5µm,19.0s
HYB   Hyderabad          105.04 284  IAMs_20  IAMs_20   04 28 13.4
      comp=Z,47µm,99.9s
HYB                                 ePKiKP    PKiKP     04 30 38.3 -1.3
HYB                                 eSKSac    SKSac     04 37 03.4 -1.9
HYB                                 eSKKSac   SKKSac    04 37 47.0 -3.6
ZALV  Zalesovo Beam      105.06 322  Pdiff    Pdif      04 26 25.2 +1.3
      comp=Z,0.5nm,0.5s,baz=38,slow=7.7,SNR=4.7
ZALV                                 PP       PP        04 30 43.8 -1.0
      comp=Z,0.3nm,0.3s,baz=53,slow=5.7,SNR=3.6
ZALV  Zalesovo Beam      105.06 322 i P       Pdif      04 26 20.8 -3.1
ZALV  Zalesovo Beam      105.06 322  Pdif     Pdif      04 26 20.8 -3.1
060A  Indiantown         105.17  66  IAMs_20  IAMs_20   05 10 08.5
      comp=Z,4µm,19.0s
U54A  Nelsons Funny      105.33  56  IAMs_20  IAMs_20   05 07 04.1
      comp=Z,5µm,22.0s
257A  Skidaway Islan     105.36  61  IAMs_20  IAMs_20   05 10 54.1
      comp=Z,5µm,19.0s
N51A  Ashland            105.45  51  IAMs_20  IAMs_20   05 10 23.7
      comp=Z,4µm,20.0s
K50A  Casco              105.47  49  IAMs_20  IAMs_20   05 07 02.2
      comp=Z,5µm,22.0s
S54A  Dingess, Beckl     105.90  55  IAMs_20  IAMs_20   05 12 44.9
      comp=Z,4µm,19.0s
MKAR  Makanchi Array     106.06 315  Pdiff    Pdif      04 26 30.6 +2.0
      comp=Z,0.8nm,1.0s,baz=64,slow=5.8,SNR=3.5
NHSC  New Hope           106.22  59  IAMs_20  IAMs_20   05 10 02.0
      comp=Z,5µm,20.0s
MAKZ  Makanchi           106.27 315  IAMs_20  IAMs_20   05 11 34.4
      comp=Z,3µm,21.0s
U56A  King               106.46  56  IAMs_20  IAMs_20   05 06 34.0
      comp=Z,5µm,22.0s
S57A  Dark Hollow, R     107.75  55  IAMs_20  IAMs_20   05 09 58.0
      comp=Z,5µm,20.0s
KURK  Kurchatov          108.69 319  IAMs_20  IAMs_20   05 14 54.1
      comp=Z,4µm,20.0s
KURBB Kurchatov Arra     108.75 319  Pdiff    Pdif      04 26 41.5 +1.1
      comp=Z,0.2nm,0.6s,baz=60,slow=3.8,SNR=1.8
KURBB                                PKiKP    PKiKP     04 30 44.6 -0.9
      comp=Z,1.0nm,0.8s,baz=73,slow=1.3,SNR=3.5
KURBB                                PP       PP        04 31 10.9 -1.0
      comp=Z,3.5nm,1.1s,baz=90,slow=5.5,SNR=5.8
GTBY  Guantanamo Bay     108.77  74  IAMs_20  IAMs_20   05 09 29.1
      comp=Z,2µm,20.0s
L56A  Greenwood          109.15  50  IAMs_20  IAMs_20   05 09 19.7
      comp=Z,5µm,22.0s
TULEG Thule              109.47  13  IAMs_20  IAMs_20   05 15 41.5
      comp=Z,2µm,20.0s
AAK   Ala-Archa          111.39 310  IAMs_20  IAMs_20   05 19 18.2
      comp=Z,3µm,19.0s
LONY  Lake Ozonia        111.40  48  IAMs_20  IAMs_20   05 16 41.8
      comp=Z,3µm,18.0s
NIL   Nilore             111.99 301  IAMs_20  IAMs_20   05 16 15.9
      comp=Z,3µm,22.0s
SDDR  Presa de Saban     112.17  75  IAMs_20  IAMs_20   05 10 14.5
      comp=Z,3µm,20.0s
GRTK  Grand Turk         112.69  73  IAMs_20  IAMs_20   05 11 38.0
      comp=Z,3µm,21.0s
LBNH  Lisbon             113.31  48  IAMs_20  IAMs_20   05 13 12.3
      comp=Z,4µm,20.0s
BVAR  Borovoye Array     113.68 322  PKiKP    PKiKP     04 30 53.3 -1.5
      comp=Z,0.9nm,0.6s,baz=76,slow=1.8,SNR=2.1
BVAR                                 PP       PP        04 31 46.1 -1.2
      comp=Z,0.7nm,0.5s,baz=104,slow=4.7,SNR=3.6
BORK  Borovoye           113.72 322  IAMs_20  IAMs_20   05 20 13.9
      comp=Z,2µm,20.0s
SPITS Spitsbergen Ar     116.37 356  PP       PP        04 32 03.9 -1.6
      comp=Z,1.5nm,0.5s,baz=298,slow=11,SNR=7.9
ILULI Ilulissat          117.28  18  IAMs_20  IAMs_20   05 17 18.1
      comp=Z,3µm,20.0s
SUMG  Summit             118.34  12  IAMs_20  IAMs_20   05 19 24.8
      comp=Z,2µm,19.0s
SFJD  Kangerlussuaq      118.61  20  IAMs_20  IAMs_20   05 18 11.6
      comp=Z,4µm,20.0s
SABA  Saba               119.54  78  IAMs_20  IAMs_20   05 21 18.8
      comp=Z,2µm,18.0s
ARTI  Arti               119.76 327  PKP      PKPdf     04 31 05.9 -0.4
      comp=Z,2.3nm,0.5s,baz=233,slow=0.4,SNR=3.9
ARTI                                 PP       PP        04 32 28.0 -1.5
      comp=Z,0.8nm,0.3s,baz=121,slow=4.8,SNR=4.0
ARTI  Arti               119.76 327 i PKIKP   PKPdf     04 31 06.2 -0.2
ARTI                                                    04 32 27.5
ARTI                                                    04 38 18.1
ARTI                                 SP       SP        04 42 13.9 -2.5
ARTI                                 SS       SS        04 48 50.1 -3.7
ARTI  Arti               119.76 327           PKPdf     04 31 05.0 -1.4
ARTI                                          PP        04 32 26.8 -2.7
ARTI                                 IAMs_20  IAMs_20   05 22 44.6
      comp=Z,3µm,20.0s
GDHS  Morne Mazeau,      120.76  80  IAMs_20  IAMs_20   05 17 10.2
      comp=Z,2µm,19.0s
ABKAR Akbulak array      120.80 319           PKPdf     04 31 07.2 -1.3
MAGL  Barre de l’ile     121.17  80  IAMs_20  IAMs_20   05 18 30.1
      comp=Z,2µm,20.0s
VOI   Vohitsoka          121.19 232  IAMs_20  IAMs_20   05 13 29.0
      comp=Z,4µm,21.0s
MSEY  Mahe Island        121.61 255  IAMs_20  IAMs_20   05 19 01.3
      comp=Z,2µm,20.0s
AKTO  Aktyubinsk         121.72 320  PKP      PKPdf     04 31 10.3  0.0
      comp=Z,1.2nm,0.5s,baz=151,slow=2.2,SNR=3.9
AKTO                                 PKKPbc   PKKPbc    04 41 11.2 +0.6
      comp=Z,1.3nm,0.7s,baz=241,slow=3.4,SNR=4.4
BBGH  Gun Hill           122.39  84  IAMs_20  IAMs_20   05 23 22.4
      comp=Z,2µm,20.0s
ABPO  Ambohimpanom       122.44 235  IAMs_20  IAMs_20   05 17 00.6
      comp=Z,3µm,20.0s
LVZ   Lovozero           122.69 345  IAMs_20  IAMs_20   05 24 23.0
      comp=Z,2µm,21.0s
KEV   Kevo               122.82 349  IAMs_20  IAMs_20   05 23 28.5
      comp=Z,3µm,22.0s
SCO   Scoresbysund       123.01   9  IAMs_20  IAMs_20   05 22 31.1
      comp=Z,2µm,20.0s
APA   Apatity            123.24 345 i PKIKP   PKiKP     04 31 14.2 +1.2
APA                                  pmax     pmax
      comp=Z,7.0nm,1.0s
ARCES ARCESS Array B     123.28 350  PKP      PKiKP     04 31 13.7 +0.7
      comp=Z,2.8nm,0.8s,baz=46,slow=3.5,SNR=5.1
KIRV  Kirov              123.32 332  PKP      PKiKP     04 31 14.2 +0.9
      comp=Z,6.5nm,0.5s,baz=116,slow=3.9,SNR=4.8
KIRV  Kirov              123.32 332⇑iPKIKP    PKiKP     04 31 14.4 +1.1
ANGG  Ammassalik, Gr     123.58  18  IAMs_20  IAMs_20   05 25 29.5
      comp=Z,2µm,19.0s
BELG  Belogornoye        127.09 325  PKP      PKiKP     04 31 20.9 -0.1
      comp=Z,9.3nm,0.7s,baz=258,slow=2.3,SNR=4.7
FINES FINESS Array B     130.06 344  PKP      PKiKP     04 31 26.6 -0.1
      comp=Z,1.9nm,0.9s,baz=134,slow=5.5,SNR=4.4
MOS   Moscow             130.23 333 i PKIKP   PKPdf     04 31 26.8 +0.4
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MOS                                 e                   04 33 45.5
MOS                                 ePPP      PPP       04 36 33.7
MAK   Makhachkala        130.87 314 eP        Pdif      04 28 15.4 -3.6
MAK                                 i                   04 31 25.3
MAK                                 ePPP      PPP       04 36 31.3
MAK                                 e                   04 38 28.9
MAK                                 eSSS      SSS       04 56 00.9
MAK                                  pmax     pmax
      comp=Z,118nm,1.1s
MAK                                  MLR      MLR
      comp=Z,2µm,19.0s
OBN   Obninsk            131.09 333⇓ePKIKP    PKPdf     04 31 27.7 -0.3
OBN                                 i                   04 31 29.3
OBN                                  SS       SS        04 51 16.0 +0.5
OBN                                  pmax     pmax
      comp=Z,7.0nm,0.7s
OBN                                  pmax     pmax
      comp=Z,26nm,1.5s
OBN   Obninsk            131.09 333  IAMs_20  IAMs_20   05 32 06.9
      comp=Z,3µm,20.0s
AKT   Akhty              131.19 312 i PKIKP   PKPdf     04 31 29.2 +0.3
GOF   Gofitskoye         133.04 319cePKIKP    PKPdf     04 31 26.3 -5.8
NOA   NORSAR Array B     133.40 352  PKP      PKPdf     04 31 32.9 +0.5
      comp=Z,1.0nm,1.0s,baz=16,slow=2.5,SNR=2.8
KIV   Kislovodsk         133.75 317 i PKIKP   PKiKP     04 31 34.4 -0.5
KIV                                  pmax     pmax
      comp=Z,5.0nm,1.0s
KIV                                  MLR      MLR
      comp=Z,2µm,23.0s
GNI   Garni              133.77 312  IAMs_20  IAMs_20   05 34 02.2
      comp=Z,2µm,20.0s
KONO  Kongsberg          134.95 353  IAMs_20  IAMs_20   05 43 31.3
      comp=Z,2µm,19.0s
MNK   Minsk              135.07 337 i PKIKP   PKPdf     04 31 35.4 -0.1
MNK                                 i                   04 31 37.3
MNK                                 i                   04 34 11.7
MNK                                 i PPP     PPP       04 37 07.5
MNK                                 i SS      SS        04 52 08.5 +4.9
MNK                                 i SSS     SSS       04 57 09.4
MNK                                  pmax     pmax
      comp=N,6.0nm,0.7s
MNK                                  pmax     pmax
      comp=Z,3.0nm,0.7s
MNK                                  pmax     pmax
      comp=E,8.0nm,1.0s
MNK                                  pmax     pmax
      comp=Z,9.0nm,1.0s
MNK   Minsk              135.07 337 i PKP     PKPdf     04 31 35.4 -0.1
      comp=E,8.0nm,1.0s
MNK                                 i PKP     PKPdf     04 31 35.4 -0.1
      comp=N,6.0nm,0.7s
MNK                                 i PKP     PKPdf     04 31 35.4 -0.1
      comp=Z,3.0nm,0.7s,baz=40
MNK                                 i PKiKP   PKiKP     04 31 37.3 +0.2
      comp=Z,9.0nm,1.0s
MNK                                 i PP      PP        04 34 11.7 +1.6
MNK                                 i SKP     SKPbc     04 34 57.9 -8.2
MNK                                 i PKS     PKSdf     04 35 11.7 +0.1
MNK                                 i PPP     PPP       04 37 07.6
MNK                                 i SKS     SKSdf     04 38 20.9  -25
MNK                                 i SS      SS        04 52 08.6 +5.0
MNK                                 i SSS     SSS       04 57 09.5
RAYN  Ar Rayn            136.36 288  IAMs_20  IAMs_20   05 34 17.4
      comp=Z,1µm,20.0s
SUW   Suwalki            137.12 340  IAMs_20  IAMs_20   05 35 10.8
      comp=Z,2µm,20.0s
AKASG Malin Array Be     137.35 333  PKP      PKiKP     04 31 41.2 -0.6
      comp=Z,0.2nm,0.3s,baz=38,slow=1.4,SNR=6.7
AKASG Malin Array Be     137.35 333c iPKIKP   PKiKP     04 31 43.9 +2.1
AKBB  Malin Array Si     137.35 333⇓iPKIKP    PKiKP     04 31 41.9 +0.1
AKBB                                 pmax     pmax
      comp=Z,12nm,1.5s
AKBB  Malin Array Si     137.35 333  PKP      PKPdf     04 31 40.8 +0.9
KIEV  Kiev               137.37 333  IAMs_20  IAMs_20   05 31 06.5
      comp=Z,3µm,22.0s
KIEV  Kiev               137.37 333  PKP      PKPdf     04 31 40.6 +0.7
AK21  Malin Array Si     137.38 333  PKP      PKPdf     04 31 40.8 +0.8
ATD   Arta Tunnel        138.17 271  IAMs_20  IAMs_20   05 28 47.6
      comp=Z,2µm,20.0s
RNPP9 Sopachiv           138.22 336  PKP      PKPdf     04 31 42.4 +0.9
KIBK  Kibwezi            138.53 249  IAMs_20  IAMs_20   05 27 47.8
      comp=Z,2µm,20.0s
LUBAR Lubar, Ukraine     138.57 333  PKP      PKPdf     04 31 43.2 +1.0
ARPR  Arapgir-MALATY     138.75 313  IAMs_20  IAMs_20   05 35 34.9
      comp=Z,2µm,21.0s
RCBR  Riachuelo          138.83 118  IAMs_20  IAMs_20   05 24 41.8
      comp=Z,3µm,22.0s
LSZ   Lusaka             138.91 224  IAMs_20  IAMs_20   05 26 53.9
      comp=Z,3µm,20.0s
RGN   Rugen              139.27 348  IAMs_20  IAMs_20   05 35 13.4
      comp=Z,2µm,20.0s
EKA   Eskdalemuir Ar     139.77   3  PKP      PKPdf     04 31 45.6 +1.3
      comp=Z,0.1nm,0.4s,baz=8.6,slow=2.9,SNR=1.8
ESK   Eskdalemuir        139.78   3  IAMs_20  IAMs_20   05 25 34.6
      comp=Z,2µm,22.0s
DSB   Dublin             141.60   6  IAMs_20  IAMs_20   05 38 19.1
      comp=Z,2µm,21.0s
KOLS  Kolonicke sedl     141.61 336 ePKIKP    PKiKP     04 31 49.9 -0.7
KOLS  Kolonicke sedl     141.61 336 ePKP      PKiKP     04 31 49.9 -0.7
FURI  Furi               141.68 265  IAMs_20  IAMs_20   05 34 49.4
      comp=Z,1µm,19.0s
BRTR  Keskin Array B     141.69 316  PKP      PKPdf     04 31 45.9 -2.5
      comp=Z,1.4nm,0.9s,baz=52,slow=2.0,SNR=5.0
BRTR  Keskin Array B     141.69 316c iPKIKP   PKiKP     04 31 52.0 +0.7
BRTR                                 pmax     pmax
      comp=Z,2.0nm,1.0s
BRTR  Keskin Array B     141.69 316           PKPdf     04 31 42.3 -6.2
TSUM  Tsumeb             141.77 208  IAMs_20  IAMs_20   05 28 25.1
      comp=Z,3µm,22.0s
TIRR  Tirgusor           142.07 326  IAMs_20  IAMs_20   05 34 27.9
      comp=Z,3µm,22.0s
OSTC  Ostas              142.26 343 ePKIKP    PKPdf     04 31 48.4 -0.5
OSTC  Ostas              142.26 343 ePKPDF    PKPdf     04 31 48.4 -0.5
CHVC  Chvalec            142.27 343  AMS      AMS       05 37 30.0
      comp=Z,3µm,19.7s
OKC   Ostrava-Krasne     142.31 341  AMS      AMS       05 34 30.0
      comp=Z,3µm,21.4s
CLL   Collm              142.38 347 ePKIKP    PKPdf     04 31 46.0 -3.1
CLL                                 e                   04 31 50.0
CLL                                  pmax     pmax
      comp=Z,4.0nm,1.1s
CLL                                  pmax     pmax
      comp=Z,5.0nm,1.0s
CLL   Collm              142.38 347  IAMs_20  IAMs_20   05 31 27.6
      comp=Z,2µm,22.0s
CLL   Collm              142.38 347 ePKPpre   PKPpre    04 31 46.0
      comp=Z,4.0nm,1.1s
CLL                                 ePKPdf    PKPdf     04 31 50.0 +0.9
      comp=Z,5.0nm,1.0s
CLL                                 i PKiKP   sPKPdf    04 31 52.9 -0.8
      comp=Z,7.0nm,1.1s
CLL                                 i x       x         04 31 57.3
CLL                                 eSS       SS        04 53 22.0 -7.4
CLL                                 e(SSS)              04 58 24.0
CLL                                  LH                 05 11 00.0
CLL                                  L        L         05 19 00.0
CLL                                  AMS      AMS       05 31 00.0
      comp=Z,2µm,22.8s
CLL                                  AMS      AMS       05 34 00.0
      comp=N,2µm,21.5s
CLL                                  AMS      AMS       05 34 00.0
      comp=E,1µm,22.6s
CLL                                  AMS      AMS       05 39 00.0
      comp=Z,0.0nm,20.3s
DPC   Dobruska-Polom     142.41 343  AMS      AMS       05 42 00.0
      comp=Z,3µm,18.1s
LANS  Liptovska Anna     142.46 339 ePKIKP    PKiKP     04 31 52.5  0.0
LANS  Liptovska Anna     142.46 339 ePKP      PKiKP     04 31 52.4  0.0
KRLC  Kraliky            142.52 342  AMS      AMS       05 38 40.0
      comp=Z,2µm,19.0s
MORC  Moravsky Berou     142.56 341 ePKP      PKPdf     04 31 44.7 -4.8
BRG   Berggiesshubel     142.56 345  P        PKiKP     04 32 00.7 +8.2
BRG                                  Amp                04 32 05.3
      comp=Z,18nm,1.4s
MLR   Muntele Rosu       142.62 329 ⇑PKIKP    PKPdf     04 31 46.0 -3.9
MLR   Muntele Rosu       142.62 329 ⇑P        PKPdf     04 31 46.0 -3.9
HSKC  Hora Svate Kat     142.93 346  AMS      AMS       05 36 20.0
      comp=Z,2µm,22.9s
VOIR                     143.10 330 ⇓PKIKP    PKPbc     04 31 48.3 +0.8
VOIR                     143.10 330 ⇓P        PKPbc     04 31 48.3 +0.8
DRGR                     143.13 334 ⇓PKIKP    PKPbc     04 31 47.9 +0.4
DRGR                     143.13 334 ⇓P        PKPbc     04 31 47.9 +0.4
PRU   Pruhonice          143.23 344  AMS      AMS       05 29 30.0
      comp=Z,3µm,21.5s
VYHS  Vyhne              143.24 339 ePKIKP    PKiKP     04 31 53.7 -0.3
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VYHS  Vyhne              143.24 339 ePKP      PKiKP     04 31 53.7 -0.3
VRAC  Vranov             143.26 342  PKP      PKPbc     04 31 49.2 +1.5
      comp=Z,1.3nm,0.3s,baz=34,slow=6.4,SNR=3.1
VRAC  Vranov             143.26 342 ePKP      PKPbc     04 31 47.5 -0.2
LODK  Lodwar             143.26 255  IAMs_20  IAMs_20   05 28 37.0
      comp=Z,2µm,22.0s
ARR   Arges              143.35 330 ⇑P        PKPdf     04 31 50.4 -0.7
KRUC  Moravsky           143.54 342 ePKP      PKPbc     04 31 48.1 -0.4
BORA  Eskisehir          143.68 319           PKPbc     04 31 49.4 +0.1
LOT   Lotru              143.69 331 ⇑P        PKPdf     04 31 52.8 +1.0
GHAJ  Ghor Haditha       143.71 303  IAMs_20  IAMs_20   05 38 36.5
      comp=Z,1µm,21.0s
BMOL  Mol                143.73 355 dPKPdf    PKPdf     04 31 50.8 -0.6
BMOL                                dPKP      pPKPdf    04 31 53.8 -1.1
ZVC   Zvikov             143.82 344 ePKPDF    PKiKP     04 31 56.2 +1.1
ZVC                                  AMS      AMS       05 29 50.0
      comp=Z,3µm,23.3s
MODS  Modra-Piesok       143.87 340 ePKIKP    PKPdf     04 31 53.1 +1.3
MODS  Modra-Piesok       143.87 340 ePKP      PKPdf     04 31 53.1 +1.3
ZST   Bratislava         144.08 340 ePKIKP    PKPdf     04 31 53.5 +1.3
ZST   Bratislava         144.08 340 ePKP      PKPdf     04 31 53.5 +1.3
CSS   Mathiatis          144.11 310  IAMs_20  IAMs_20   05 38 59.3
      comp=Z,2µm,21.0s
GZR   Gura Zlata         144.19 332 ⇓P        PKPdf     04 31 52.3 -0.3
MEM   Membach            144.24 353 dPKP      PKPdf     04 31 52.0 -0.4
KHC   Kasperske Hory     144.26 345 ePKIKP    PKPab     04 31 50.3 -0.1
KHC                                  MLR      MLR
      comp=Z,3µm,25.5s
KHC   Kasperske Hory     144.26 345 ePKPDF    PKPab     04 31 50.3 -0.1
KHC                                 ex        x         04 32 46.0
KHC                                  AMS      AMS       05 29 50.0
      comp=Z,3µm,25.5s
KHC   Kasperske Hory     144.26 345  IAMs_20  IAMs_20   05 39 22.5
      comp=Z,3µm,21.0s
GRA1  Grafenberg Arr     144.29 347  IAMs_20  IAMs_20   05 34 42.1
      comp=Z,2µm,21.0s
GRFO  Grafenberg         144.29 347  IAMs_20  IAMs_20   05 34 42.2
      comp=Z,2µm,21.0s
CKRC  Cesky Krumlov      144.36 344 ePKIKP    PKPbc     04 31 51.1 +0.1
CKRC                                 MLR      MLR
      comp=Z,3µm,25.1s
CKRC  Cesky Krumlov      144.36 344 ePKPDF    PKPbc     04 31 51.1 +0.1
CKRC                                 AMS      AMS       05 30 20.0
      comp=Z,3µm,25.1s
BSKQ  Steenkerk          144.38 356 dPKPdf    PKPab     04 31 50.5 -0.1
KEPZ  Antalya-Kepez      144.48 314 ⇓P        PKPab     04 31 50.9 -0.7
WINA  Alland / Wiene     144.49 341  PKP      PKPab     04 31 51.2  0.0
      comp=Z,28nm,1.6s,SNR=13
GERES GERESS Array B     144.50 344  PKP      PKPab     04 31 51.0 -0.3
      comp=Z,3.3nm,0.8s,baz=0.0,slow=2.7,SNR=21
BCLA  Clavier            144.50 354 dPKPdf    PKPdf     04 31 53.3 +0.5
BZS   Buzias             144.53 333 ⇑PKIKP    PKPab     04 31 50.5 -0.9
BZS   Buzias             144.53 333 ⇑P        PKPab     04 31 50.5 -0.9
BMRD  Maredsous          144.66 355 dPKPdf    PKPab     04 31 51.5 -0.2
CONA  Conrad Observa     144.71 341  PKP      PKPab     04 31 52.0 -0.1
      comp=Z,25nm,1.7s,SNR=16
HERR  Herculane          144.75 332 ⇓P        PKPab     04 31 51.7 -0.5
ISP   Isparta            144.75 316  IAMs_20  IAMs_20   05 43 59.5
      comp=Z,1µm,20.0s
RCHB  Rochefort          144.76 354 dPKPdf    PKPab     04 31 51.9 -0.2
RCHB                                dPKP      pPKPdf    04 31 56.0 -0.8
RONA  Rosalia, Austr     144.78 341  PKP      PKPab     04 31 51.6 -0.7
      comp=Z,24nm,1.8s,SNR=9.3
PLVB  Pleven             144.79 328 ⇓P        PKPbc     04 31 52.7 +0.2
DOU   Dourbes            144.88 355 dPKPdf    PKPdf     04 31 54.3 +0.8
MDVR  Moldovita          145.14 333 ⇑P        PKPbc     04 31 52.3 -1.4
WLF   Walferdange        145.15 353  PKP      PKPbc     04 31 53.1 -0.3
WLF   Walferdange        145.15 353  PKP2     PKPbc     04 31 51.5 -2.0
WLF   Walferdange        145.15 353           PKPbc     04 31 51.5 -2.0
WLF                                  IAMs_20  IAMs_20   05 40 26.0
      comp=Z,2µm,21.0s
WLF   Walferdange        145.15 353 dPKPdf    PKPbc     04 31 52.8 -0.6
MORH  Mrgy, Hungar       145.24 337 ⇓P        PKPbc     04 31 52.9 -1.0
MOA   Molln              145.25 343 ePKP      PKPbc     04 31 53.3 -0.6
      comp=Z,67nm,2.0s,SNR=35
ARSA  Arzberg            145.42 341           PKPbc     04 31 51.4 -3.1
ARSA  Arzberg            145.42 341  PKP      PKPbc     04 31 54.0 -0.5
      comp=Z,33nm,1.7s,SNR=11
STU   Stuttgart          145.56 349  IAMs_20  IAMs_20   05 34 46.9
      comp=Z,2µm,22.0s
BIOA  Bad Ischl, Aus     145.57 344 ePKP      PKPdf     04 31 54.2 -0.6
      comp=Z,33nm,1.3s,SNR=19
MANT  Manisa             145.68 318           PKPdf     04 31 52.4 -3.1
MBAR  Mbarara            145.81 246c iPKP2    PKiKP     04 32 00.6 +0.1
MBAR                                 pmax     pmax
      comp=Z,27nm,1.3s
MBAR  Mbarara            145.81 246  IAMs_20  IAMs_20   05 34 17.9
      comp=Z,2µm,19.0s
SESA  Seetaler Alpe,     145.83 342 ePKP      PKPdf     04 31 55.2 -0.3
      comp=Z,105nm,1.2s,SNR=28
KOGS  Kog                145.89 340 ePKPdf    PKPdf     04 31 54.6 -0.7
TAVA  DENIZLI_Tavas      146.02 316 ⇓P        PKPab     04 31 57.2 -0.1
LESA  Schwarzleotal      146.07 344 ePKP      PKPdf     04 31 55.4 -0.4
      comp=Z,23nm,1.5s,SNR=19
SOKA  Soboth             146.08 341 ePKP      PKPdf     04 31 55.8  0.0
      comp=Z,32nm,1.5s,SNR=12
BFO   Black Forest       146.14 350  PKP2     PKPdf     04 31 55.2 -0.6
BFO   Black Forest       146.14 350           PKPdf     04 31 54.0 -1.8
BFO                                  IAMs_20  IAMs_20   05 41 22.2
      comp=Z,2µm,22.0s
KBA   Koelnbreinsper     146.21 343 ePKP      PKPdf     04 31 55.5 -0.6
      comp=Z,12nm,1.1s
OBKA  Obir               146.38 342 ePKP      PKPdf     04 31 56.5 +0.2
      comp=Z,16nm,1.2s
WATA  Walderalm          146.43 346 ePKP      PKPdf     04 31 56.8 +0.3
      comp=Z,18nm,1.4s
ECH   Echery             146.44 351  PKP2     PKPbc     04 31 57.1 -0.5
ECH   Echery             146.44 351           PKPdf     04 31 55.4 -0.9
ECH                                  IAMs_20  IAMs_20   05 38 42.0
      comp=Z,2µm,20.0s
RETA  Reutte             146.47 347  PKP      PKPdf     04 31 57.1 +0.7
      comp=Z,32nm,1.8s,SNR=13
WTTA  Wattenberg         146.48 346  PKP      PKPdf     04 31 57.3 +0.7
      comp=Z,17nm,1.2s,SNR=12
MOTA  Moosalm            146.53 346 ePKP      PKPdf     04 31 57.1 +0.5
      comp=Z,17nm,1.3s,SNR=9.6
MYKA  Terra Mystica      146.54 343 ePKP      PKPdf     04 31 56.0 -0.5
      comp=Z,6.4nm,0.7s
SQTA  Sankt Quirin       146.62 346 ePKP      PKPdf     04 31 57.4 +0.7
      comp=Z,9.4nm,1.0s
ABTA  Abfaltersbach      146.74 344 ePKP      PKPdf     04 31 57.0 +0.1
      comp=Z,9.2nm,0.9s
LJU   Ljubljana          146.81 341 ePKPdf    PKPdf     04 31 57.6 +0.6
LJU                                 e                   04 32 23.7
DAVA  Damuels            146.85 348 ePKP      PKPbc     04 31 58.5 -0.5
      comp=Z,16nm,1.3s
FETA  Feichten           146.92 346 ePKP      PKPbc     04 31 59.1 -0.1
      comp=Z,30nm,1.2s,SNR=9.3
BLY   Banja Luka         147.03 337           PKPdf     04 31 57.5 +0.1
BLY                                  IAMs_20  IAMs_20   05 34 31.2
      comp=Z,3µm,22.0s
BLY   Banja Luka         147.03 337 ⇑P        PKPbc     04 31 59.7 +0.3
STAL  STALIGIAL          147.14 344           PKPdf     04 31 56.3 -1.2
FUORN Ofenpass-Fuorn     147.40 347           PKPdf     04 31 57.2 -1.0
CTI   Castel Tesino      147.61 345  PKIKP    PKPdf     04 31 57.1 -1.3
CTI   Castel Tesino      147.61 345           PKPdf     04 31 57.1 -1.3
TUE   Stuetta            147.74 348           PKPdf     04 31 58.0 -0.7
TUE                                  IAMs_20  IAMs_20   05 40 02.5
      comp=Z,3µm,22.0s
PDG   Podgorica          148.09 332           PKPdf     04 31 58.3 -0.8
PDG                                  IAMs_20  IAMs_20   05 43 03.6
      comp=Z,2µm,20.0s
PDG   Podgorica          148.09 332 ⇑P        PKPbc     04 32 02.3  0.0
SENIN Lac Senin/Sane     148.22 350           PKPdf     04 31 59.5 -0.1
SENIN                                IAMs_20  IAMs_20   05 36 31.2
      comp=Z,3µm,22.0s
TEOL  Teolo              148.25 344           PKPdf     04 31 60.0 +0.6
KARP  Karpathos          148.25 315  IAMs_20  IAMs_20   05 51 12.2
      comp=Z,1µm,20.0s
LIT   Litokhoron         148.25 326  PKIKP    PKPdf     04 31 59.0 -0.5
LIT   Litokhoron         148.25 326           PKPdf     04 31 59.0 -0.5
BNI   Bardonecchia       149.60 351  IAMs_20  IAMs_20   05 41 37.6
      comp=Z,3µm,21.0s
SSB   Saint Sauveur      149.66 354  PKHKP    PKPpre    04 32 00.9
SSB   Saint Sauveur      149.66 354           PKPdf     04 32 00.9 -0.8
SSB   Saint Sauveur      149.66 354  IAMs_20  IAMs_20   05 46 05.4
      comp=Z,2µm,19.0s
VLC   Villacollemand     149.70 345  PKP      PKPdf     04 32 00.9 -0.8
IDI   Anoyia             149.93 317  PKP      PKPdf     04 31 59.5 -2.9
KEK   Kerkira            149.94 328           PKPdf     04 32 02.2 -0.1
FDMO  Fiordimonte        149.96 341           PKPdf     04 32 03.3 +1.1
NRCA  Norcia             150.13 340  PKPdf    PKPdf     04 32 01.7 -0.9
AQU   L'Aquila           150.46 340  PKP      PKPdf     04 32 02.8 -0.3
AQU   L'Aquila           150.46 340  PKIKP    PKPdf     04 32 02.7 -0.3
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AQU	L'Aquila	150.46	340	PKPdf	PKPdf	04 32 02.7	-0.3
INTR	Introdacqua	150.59	339		PKPdf	04 32 02.6	-0.7
ITM	Ithomi	150.60	323		PKPdf	04 32 03.2	-0.1
TIP	Timpagrande	151.83	332	PKPdf	PKPdf	04 32 03.5	-1.8
TIP				IAMs_20	IAMs_20	05 44 31.6	
	comp=Z,3µm,21.0s						
TIP	Timpagrande	151.83	332	⇓P	PKPbc	04 32 11.3	-0.3
CEST	Esterri de Car	152.56	358		PKPdf	04 32 03.8	-2.5
EJON	La Jonquera	152.62	355	PKP	PKPdf	04 32 02.2	-4.1
ECAL	Calabor	152.62	11	PKP	PKPdf	04 32 03.6	-2.7
CEL	Celeste	152.97	332	IAMs_20	IAMs_20	05 43 07.8	
	comp=Z,2µm,21.0s						
CORI	Orista	153.15	357		PKPdf	04 32 10.0	+3.0
VSL	Villasalto	154.32	343	IAMs_20	IAMs_20	05 38 50.6	
	comp=Z,2µm,21.0s						
UCM	Universidad Co	154.72	6	PKP	PKPdf	04 32 08.2	-1.2
MAHO	Mahon	155.00	352	IAMs_20	IAMs_20	05 42 37.7	
	comp=Z,2µm,20.0s						
ESDC	Sonseca Array	155.26	7	PKP	PKPdf	04 32 12.0	+1.8
	comp=Z,0.2nm,0.3s,baz=0.0,slow=1.3,SNR=1.7						
ESDC				PKPab	PKPab	04 32 36.0	+1.0
	comp=Z,3.5nm,1.0s,baz=341,slow=3.2,SNR=7.9						
ESDC	Sonseca Array	155.26	7		PKPdf	04 32 08.6	-1.5
ESDC					PKPab	04 32 34.7	-0.3
PAB	San Pablo	155.34	8	PKIKP	PKPdf	04 32 11.4	+1.1
PAB	San Pablo	155.34	8		PKPdf	04 32 11.3	+1.1
PAB	San Pablo	155.34	8	IAMs_20	IAMs_20	05 39 00.8	
	comp=Z,3µm,20.0s						
SACV	Santiago Islan	157.23	87	IAMs_20	IAMs_20	05 39 44.7	
	comp=Z,2µm,20.0s						
CART	Cartagena	157.57	2	IAMs_20	IAMs_20	05 47 31.3	
	comp=Z,3µm,21.0s						
KEST	Kesra	157.79	339	PKPab	PKPab	04 32 47.0	+1.0
	comp=Z,12nm,1.2s,baz=29,slow=3.0,SNR=3.6						
KEST	Kesra	157.79	339		PKPab	04 32 45.6	-0.4
AVE	Averroes	160.67	19	PKP	PKPdf	04 32 13.6	-3.3
IFR	Ifrane	161.08	13	PKP	PKPdf	04 32 14.1	-3.5
TIO	Tiouine	162.90	22	PKP	PKPdf	04 32 18.2	-1.3
TAM	Tamanrasset	170.71	326	PKP2	PKPab	04 33 42.8	-0.4
TAM	Tamanrasset	170.71	326		PKPab	04 33 42.8	-0.4
TORD	Torodi Ar. Bea	177.44	221	PKP	PKPdf	04 32 30.1	+2.2
	comp=Z,2.9nm,1.1s,baz=233,slow=1.5,SNR=6.6						
TORD				PKPab	sPKPab	04 34 16.3	-1.4
	comp=Z,0.2nm,0.8s,baz=196,slow=42,SNR=3.0						
TORD				PP	PP	04 38 12.0	+6.5
	comp=Z,6.1nm,1.2s,baz=129,slow=2.5,SNR=6.3						
TORD	Torodi Ar. Bea	177.44	221		PKPdf	04 32 28.0	+0.1
TORD					pPKPab	04 34 14.5	-2.0
TORD					PP	04 38 04.2	-1.3

*NEIC **15** 04:18:14.9±1.8, 14°.87S±0°.06×179°.79E±0°.08, h10^{km}±1^{km}, mb4.4/7, Error ellipse: s-maj=14.7km s-min=9.7km az=116.0*

*IDC **15** 04:18:15.9±0.9, 14°.83S×179°.50E, h0^{km}, mb3.9/6, mbtmp3.9/7, ML5.2/1, Error ellipse: s-maj=42.2km s-min=19.7km az=126.0*

*NOU **15** 04:18:23.8, 15°.77S×179°.94E, h14^{km}, MLv4.2/4, Fiji Islands*

ISC 15 04:18:15.3±0.7, **15°.14S**±0°.09×**179°.89E**±0°.10, **h10**^{km}, **n26**, σ**2^{s}.04**/27, **mb4.0**/10, **Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DGTI	Dogotuki	1.17	187	P	Pn	04 18 35.6	-2.1
TAVE	Taveuni	1.57	173	P	Pn	04 18 41.9	-1.4
FUTU	Fugatoga	2.09	67	Pn	Pn	04 18 49.4	-1.1
MSVF	Nonsavu	3.13	214	Pn	Pn	04 19 06.3	+1.6
	11nm,0.3s,baz=159,slow=24,SNR=7.2						
MSVF				Sn	Sn	04 19 41.2	-1.1
	4.3nm,0.3s,baz=178,slow=15,SNR=2.2						
	25nm,0.4s						
MSVF				AML	AML		
MSVF	Nonsavu	3.13	214	P	Pn	04 19 06.4	+1.6
LKBA	Tubou, Lakemba	3.32	158	P	Pn	04 19 07.2	-0.1
GVZ	Greta Valley S	28.35	191	P	P	04 24 09.5	0.0
ARMA	Armidale	30.06	235	P	P	04 24 22.2	-2.7
ARMA				IAmb	IAmb	04 24 40.3	
	comp=Z,7.6nm,1.1s						
WB0	Warramunga Arr	43.55	257	P	P	04 26 17.7	-2.1
WB0				IAmb	IAmb	04 26 30.1	
	comp=Z,5.2nm,1.1s						
WRA	Warramunga Arr	43.60	257	P	P	04 26 19.7	-0.4
	comp=Z,1.4nm,1.1s,baz=88,slow=9.1,SNR=3.6						
	comp=Z,1.4nm,1.1s						
WRA	Warramunga Arr	43.60	257	P	P	04 26 18.3	-1.9
ASAR	Alice Springs	44.04	252	P	P	04 26 24.1	+0.5
	comp=Z,0.7nm,0.8s,baz=82,slow=8.9,SNR=5.6						
	comp=Z,0.7nm,0.8s						
ASAR	Alice Springs	44.04	252	P	P	04 26 22.1	-1.6
FITZ	Fitzroy Crossi	51.92	259	P	P	04 27 23.0	-1.7
MBWA	Marble Bar	57.21	254	P	P	04 28 01.6	-1.5
MBWA				IAmb	IAmb	04 28 01.9	
	comp=Z,4.3nm,0.9s						
VNDA	Vanda	63.06	184	P	P	04 28 43.6	+1.3
VNDA				IAmb	IAmb	04 28 51.0	
	comp=Z,1.3nm,0.8s						
QSPA	South Pole Qui	74.90	180	P	P	04 30 00.1	+3.9
	comp=Z,3.5nm,0.9s,baz=40,slow=2.4,SNR=6.9						
	comp=Z,3.5nm,0.9s						
QSPA	South Pole Qui	74.90	180	P	P	04 29 59.1	+2.9
QSPA				IAmb	IAmb	04 30 07.5	
	comp=Z,13nm,1.1s						
NVAR	Mina Array Bea	78.59	45	P	P	04 30 21.2	+3.5
	comp=Z,1.0nm,0.8s,baz=227,slow=9.4,SNR=6.9						
	comp=Z,1.0nm,0.8s						
NVAR	Mina Array Bea	78.59	45	P	P	04 30 14.9	-2.8
ILAR	Eielson Array	83.58	14	P	P	04 30 42.7	-0.7
	comp=Z,0.7nm,1.0s,baz=239,slow=4.9,SNR=4.2						
	comp=Z,0.7nm,1.0s						
ILAR	Eielson Array	83.58	14	P	P	04 30 43.1	-0.2
PDAR	Pinedale Array	86.49	44	P	P	04 31 01.2	+2.4
	comp=Z,0.5nm,0.9s,baz=243,slow=4.2,SNR=1.8						
	comp=Z,0.5nm,0.9s						
PDAR	Pinedale Array	86.49	44	P	P	04 30 59.5	+0.7
TORD	Torodi Ar. Bea	177.36	222	PKP	PKPdf	04 38 30.0	+3.0
	comp=Z,3.6nm,1.1s,baz=144,slow=0.2,SNR=4.4						
TORD	Torodi Ar. Bea	177.36	222		PKPdf	04 38 25.7	-1.3

*IDC **15** 04:23:50.1±0.9, 24°.22N×126°.23E, h0^{km}, mb4.0/8, mbtmp4.0/9, ML3.3/1, MS4.4/1, Error ellipse: s-maj=23.4km s-min=16.6km az=101.0*

*NEIC **15** 04:23:50.4±1.3, 24°.24N±0°.08×126°.53E±0°.08, h10^{km}±1^{km}, mb4.5/14, Error ellipse: s-maj=14.3km s-min=10.6km az=147.0*

*JMA **15** 04:23:52.8±0.3, 24˚N±2˚×12˚6E±˚, h87^{km}±2^{km}, MV3.5/19, NEAR MIYAKOJIMA ISLAND*

ISC 15 04:23:50.3±0.6, **24°.27N**±0°.07×**126°.50E**±0°.05, **h10**^{km}, **n61**, σ**0^{s}.86**/66, **mb4.3**/16, **Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JOGS	Gusukube	1.10	296	P	Pg	04 24 12.4	+0.9
JOGS				A	A	04 24 12.4	
	comp=N,13nm,2.3s,comp=E,9.0nm,2.0s						
JMJ2	Miyako jima3	1.16	294	P	Pn	04 24 13.3	+0.7
JMJ	Miyako jima 2	1.22	296	P	Pn	04 24 13.3	-0.1
JIRJ	Irabujima	1.31	295	P	Pn	04 24 15.0	+0.4
JTJ	Tarama	1.68	283	P	Pn	04 24 19.9	+0.2
JISG	Ishigakijimahi	2.02	279	eP	Pn	04 24 24.7	+0.4
JKE	Kume jima 2	2.06	7	P	Pn	04 24 25.1	+0.1
JKE				eS	Sn	04 24 49.7	-1.0
JIJ	Ishigaki jima	2.15	273	P	Pn	04 24 26.3	+0.1
JJT3	Tamagusuku3	2.20	32	eS	Sn	04 24 53.6	-0.5
JKRS	Kuro-shima	2.27	270	eP	Pn	04 24 28.2	+0.4
JKRS				eS	Sn	04 24 55.3	-0.6
JAGN	Aguni-jima	2.40	16	P	Pn	04 24 29.8	+0.2
JAGN				S	Sn	04 24 58.0	-1.2
HATJ	Hateruma jima	2.47	266	P	Pn	04 24 30.5	-0.1
HATJ				eS	Sn	04 24 59.3	-1.5
IRIF	Iriomote-Funau	2.52	272	P	Pn	04 24 31.6	+0.3
JOW	Kunigami	3.01	32	Pn	Pn	04 24 38.9	+0.8
	comp=E,6.0nm,0.3s,baz=125,slow=25,SNR=113						
JOW				Sn	Sn	04 25 13.7	-0.5
	comp=E,15nm,0.3s,baz=258,slow=27,SNR=4.3						
	comp=E,34nm,0.2s						
JOW				AML	AML		
JOW	Kunigami	3.01	32	Pn	Pn	04 24 38.0	0.0
JOW	Kunigami	3.01	32	P	Pn	04 24 38.8	+0.8
JOW				eS	Sn	04 25 13.2	-1.1
YOJ	Yonaguni jima	3.18	274	P	Pn	04 24 40.5	+0.1
YOJ	Yonaguni jima	3.18	274	Pn	Pn	04 24 40.1	-0.3
JYRO	Yoronjima	3.26	32	P	Pn	04 24 42.5	+1.0
JOKE	Okinoerabujima	3.60	31	P	Pn	04 24 47.0	+0.8
JTK	Tokunoshima	4.14	32	P	Pn	04 24 53.6	+0.1
JTK				eS	Sn	04 25 39.3	-2.6
NACB	Ninganchiao	4.48	270		Pn	04 24 57.4	-0.8
NACB	Ninganchiao	4.48	270	IAmb	IAmb	04 24 57.9	
	comp=Z,46nm,0.7s						
JMZ	Minamidaito 2	4.56	69	Pn	Pn	04 24 57.6	-1.7
YHNB	Yeheng	4.68	276	P	Pn	04 25 02.2	+1.1
YHNB	Yeheng	4.68	276		Pn	04 25 01.6	+0.5
YULB	Yu-li	4.84	261		Pn	04 25 01.8	-1.5
SSLB	Suanglung	5.09	266	P	Pn	04 25 05.6	-1.1
SSLB	Suanglung	5.09	266		Pn	04 25 05.8	-0.9
TPUB	Ta-pu	5.46	261	P	Pn	04 25 11.6	-0.2
TPUB	Ta-pu	5.46	261		Pn	04 25 12.1	+0.3
JMN	Monobe	11.42	33	Pn	Pn	04 26 32.5	-1.0
JHJ	Hachijo jima 2	14.60	50	LR	LR	04 31 39.2	
	comp=Z,1µm,20.5s,baz=306,slow=32						
MYKOM	Kota Tinggi	31.29	228	P	P	04 30 09.4	-1.4
MYKOM				IAmb	IAmb	04 30 12.7	
	comp=Z,12nm,1.2s						
MKAR	Makanchi Array	41.71	314	P	P	04 31 39.5	+0.2
	comp=Z,0.9nm,0.7s,baz=92,slow=10,SNR=4.1						
	comp=Z,0.9nm,0.7s						
MKAR	Makanchi Array	41.71	314	P	P	04 31 39.0	-0.4
FITZ	Fitzroy Crossi	42.12	181	P	P	04 31 42.7	-0.2
ZAA0	Zalesovo Array	42.89	325	P	P	04 31 48.4	-0.3
ZAA0				IAmb	IAmb	04 31 57.8	
	comp=Z,7.2nm,1.1s						
ZALV	Zalesovo Beam	42.89	325	P	P	04 31 48.7	-0.1
	comp=Z,1.6nm,0.5s,baz=113,slow=8.3,SNR=5.8						
	comp=Z,1.6nm,0.5s						
ZALV	Zalesovo Beam	42.89	325	P	P	04 31 48.5	-0.2
WB0	Warramunga Arr	44.45	169	P	P	04 32 02.7	+1.0
WB0				IAmb	IAmb	04 32 19.6	
	comp=Z,15nm,1.4s						
WRA	Warramunga Arr	44.61	169	P	P	04 32 04.0	+1.0
	comp=Z,1.5nm,0.6s,baz=352,slow=8.6,SNR=19						
	comp=Z,1.5nm,0.6s						
WRA	Warramunga Arr	44.61	169	P	P	04 32 03.5	+0.5
WR8	Warramunga Arr	44.65	169	P	P	04 32 03.3	0.0
WR8				IAmb	IAmb	04 32 30.9	
	comp=Z,8.3nm,1.4s						
KURK	Kurchatov	45.19	318	P	P	04 32 07.4	+0.1
KURK				IAmb	IAmb	04 32 18.5	
	comp=Z,5.0nm,1.2s						
KURBB	Kurchatov Arra	45.22	318	P	P	04 32 07.8	+0.3
	comp=Z,1.0nm,0.6s,baz=108,slow=8.7,SNR=7.0						
	comp=Z,1.0nm,0.6s						
GIRL	Giralia	48.13	195	P	P	04 32 30.6	0.0
ASAR	Alice Springs	48.20	171	P	P	04 32 32.5	+1.3
	comp=Z,0.4nm,0.5s,baz=356,slow=11,SNR=5.1						
	comp=Z,0.4nm,0.5s						
ASAR	Alice Springs	48.20	171	P	P	04 32 31.5	+0.4
KKAR	Karatay Array	49.29	307	P	P	04 32 38.7	-0.7
AB31	Akbulak array	56.85	314	P	P	04 33 34.0	-1.0
AB31				IAmb	IAmb	04 33 46.8	
	comp=Z,6.8nm,1.5s						
ABKAR	Akbulak array	56.85	314	P	P	04 33 34.9	-0.1
M11K	Mekoryuk	58.01	33	P	P	04 33 43.0	0.0
G31M	Satah River	71.46	24	P	P	04 35 11.1	+0.5
G31M				IAmb	IAmb	04 35 23.8	
	comp=Z,11nm,1.2s						
FINES	FINESS Array B	73.79	331	P	P	04 35 27.5	+2.9
	comp=Z,2.1nm,0.9s,baz=61,slow=8.6,SNR=3.4						
	comp=Z,2.1nm,0.9s						
FINES	FINESS Array B	73.79	331	P	P	04 35 24.6	+0.1
P32M	Atlin	74.16	31	P	P	04 35 26.9	0.0
S32K	Killisnoo	74.49	34	P	P	04 35 28.9	+0.2
S32K				IAmb	IAmb	04 35 58.3	
	comp=Z,5.3nm,0.9s						
AKASG	Malin Array Be	75.99	319	P	P	04 35 37.4	-0.2
	comp=Z,0.5nm,0.2s,baz=62,slow=5.7,SNR=4.3						
	comp=Z,0.5nm,0.2s						
BRTR	Keskin Array B	76.99	308	P	P	04 35 44.6	+1.0
	comp=Z,1.3nm,0.8s,baz=92,slow=4.3,SNR=4.8						
	comp=Z,1.3nm,0.8s						
SALO	Salr	89.39	321	P	P	04 36 47.1	-0.2

*SOME **15** 04:28:46.4, 41°.92N×79°.48E, h10^{km}*

*NNC **15** 04:28:46.6±1.6, 41°.94N×79°.61E, h0^{km}, mb3.2, mpv3.0, Error ellipse: s-maj=10.8km s-min=8.5km az=169.0*

*KRNET **15** 04:28:47.0±0.1, 41°.78N×79°.44E, h19^{km}, mb2.6*

ISC 15 04:28:45.6±2.1, **41°.89N**±0°.07×**79°.52E**±0°.05, **h5**^{km}±11^{km}, **n23**, σ**0^{s}.82**/41, **5C-9D**, **Kyrgyzstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PRZ	Przheval'sk	1.02	306	⇓eP	Pn	04 29 06.6	-0.2
PRZ				⇓eS	Sn	04 29 21.1	-0.5
TARG	Taragay, Kyrgy	1.29	264	⇓eP	Pn	04 29 09.7	-1.0
TARG				⇓eS	Sb	04 29 26.3	-1.4
UZB	Uzynbulak	1.31	344	P	Pg	04 29 11.3	+0.5
	21nm,0.2s						
UZB				S	Sn	04 29 29.6	+0.8
	17nm,0.4s						
UZB	Uzynbulak	1.31	344	eP	Pn	04 29 10.1	-0.7
	21nm,0.2s						
UZB				eS	Sb	04 29 27.2	-0.9
	17nm,0.3s						
SATY	Saty	1.43	325	P	Pg	04 29 13.5	+0.4
	6.8nm,0.3s						
SATY				S	Sg	04 29 33.2	+1.5
	34nm,0.1s						
SATY	Saty	1.43	325	eP	Pg	04 29 13.5	+0.4
	6.8nm,0.3s						
SATY				eS	Sg	04 29 33.1	+1.5
	34nm,0.1s						
PDGK	Podgornoye	1.44	359	⇑Pn	Pn	04 29 12.5	0.0
	3.3nm,0.5s						
PDGK				⇓Sn	Sg	04 29 33.0	+1.0
	71nm,0.6s						
ANVS	Anan'yevo	1.64	304	⇑eP	Pg	04 29 17.5	+0.5
ANVS				⇑eS	Sg	04 29 39.0	+0.7
KTMS	Ketmen	1.68	21	P	Pb	04 29 17.3	+0.3
	1.3nm,0.2s						
KTMS				S	Sg	04 29 39.7	+0.2
	9.3nm,0.7s						
KTMS	Ketmen	1.68	21	eP	Pn	04 29 16.3	+0.6
	1.3nm,0.2s						
KTMS				eS	Sn	04 29 37.8	+0.1
	9.3nm,0.7s						
KDJ	Kajisay	1.76	279	⇓eP	Pb	04 29 18.1	-0.4
KDJ				⇓eS	Sb	04 29 40.9	0.0
KURS	Kuram	1.88	329	P	Pb	04 29 20.9	+0.4
	9.2nm,0.8s						
KURS				S	Sg	04 29 45.8	-0.3
	9.3nm,0.5s						
KURS	Kuram	1.88	329	eP	Pb	04 29 20.9	+0.4
	9.2nm,0.8s						
KURS				eS	Sg	04 29 45.8	-0.3
	9.3nm,0.5s						
MDOK	Medeo	2.23	306	Pg	Pg	04 29 27.4	-0.9
	6.6nm,0.3s						
MDOK				Lg	Lg	04 29 57.1	
	19nm,0.9s						
MDOK	Medeo	2.23	306	eP	Pg	04 29 27.4	-0.9
	6.6nm,0.3s						
MDOK				eS	Sg	04 29 57.1	-0.1
	19nm,0.9s						
BLB	Baldybastay	2.34	341	Pg	Pb	04 29 28.0	-0.3
	3.8nm,0.2s						
BLB				Lg	Lg	04 29 58.1	
	7.4nm,0.2s						
DJR	Jarkent	2.45	5	Pg	Pb	04 29 29.5	-0.8
	0.6nm,0.1s						
DJR				Lg	Lg	04 30 00.7	
	3.3nm,0.4s						
DJR	Jarkent	2.45	5	eP	Pb	04 29 29.5	-0.8
	0.6nm,0.1s						
DJR				eS	Sb	04 30 00.7	-0.1
	3.3nm,0.4s						
KNOS	Konyrlen	2.48	354	Pg	Pb	04 29 30.5	-0.4
	1.2nm,0.1s						
KNOS				Lg	Lg	04 30 02.2	
	4.8nm,0.5s						
ARXS	Arharly	2.63	333	Pg	Pg	04 29 34.8	-1.3
	1.8nm,0.4s						
ARXS				Lg	Lg	04 30 09.7	
	9.9nm,0.5s						
ARXS	Arharly	2.63	333	eP	Pg	04 29 34.9	-1.3
	1.8nm,0.4s						
ARXS				eS	Sg	04 30 09.7	-0.5
	9.9nm,0.5s						
NRN	Naryn	2.67	261	⇑eP	Pn	04 29 30.8	+1.2
NRN				⇑eS	Sn	04 30 02.9	+0.3
BOOM	Boomskoye usch	2.73	284	⇓eP	Pn	04 29 31.8	+1.6
BOOM				⇓eS	Sn	04 30 04.8	+1.2

*NOU **15** 04:31:36.5, 37°.16S×177°.92E, h208^{km}, mb4.3/12, Off E. Coast of N. Island, N.Z.*

*WEL **15** 04:31:38.3±1.1, 37˚S±5˚×17˚7E±˚, h178^{km}±10^{km}, M3.3/12, ML3.1/12, MLv3.3/12, Error ellipse: s-maj=7.8km s-min=6.5km az=91.6, confirmed*

ISC 15 04:31:32.6±2.4, **36°.79S**±0°.08×**177°.64E**±0°.08, **h225**^{km}±13^{km}, **n88**, σ**1^{s}.74**/107, **Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	0.94	145	P	Pn	04 32 05.2	+0.7
MXZ	Matakaoa Point	0.94	145	S	S	04 32 27.4	-2.2
MXZ	Matakaoa Point	0.94	145	P	Pn	04 32 05.3	+0.8
MXZ				S	S	04 32 27.6	-1.9
MXZ				AML	AML		
HAZ	Te Kaha	0.97	173	P	Pn	04 32 05.3	+0.6
HAZ				S	S	04 32 26.7	-3.3
HAZ				AML	AML		
PKGZ	Pakihiroa	1.13	162	P	Pn	04 32 07.5	+1.7
PKGZ				S	S	04 32 31.4	-0.4
PKGZ				AML	AML		
PKGZ				AML	AML		
RUGZ	Raukumara Rang	1.17	178	P	Pn	04 32 06.5	+0.3
RUGZ				S	S	04 32 28.9	-3.7
RUGZ				AML	AML		
RUGZ				AML	AML		
WMGZ	Waiomatatini S	1.20	149	P	Pn	04 32 07.6	+1.4
WMGZ				S	S	04 32 31.5	-1.0
WMGZ				AML	AML		
WMGZ				AML	AML		
PUZ	Puketiti	1.37	159	P	Pn	04 32 09.3	+1.8
PUZ				S	S	04 32 33.5	-1.4
PUZ				AML	AML		
PUZ				AML	AML		
TWGZ	Tauwhareparae	1.41	169	P	Pn	04 32 10.1	+2.3
TWGZ				AML	AML		
TWGZ				AML	AML		
EDRZ	Edgecumbe	1.50	208	P	Pn	04 32 10.1	+1.6
EDRZ				AML	AML		
URZ	Urewera	1.52	196	P	Pn	04 32 09.8	+1.2
URZ	Urewera	1.52	196	S	S	04 32 34.5	-2.4
URZ	Urewera	1.52	196	P	Pn	04 32 09.9	+1.2
URZ				S	S	04 32 34.8	-2.2
URZ				AML	AML		
URZ				AML	AML		
MWZ	Matawai	1.54	183	P	Pn	04 32 10.4	+1.5
MWZ				S	S	04 32 35.3	-2.1
MWZ				AML	AML		
MWZ				AML	AML		
KARZ	Kaharoa	1.65	222	P	Pn	04 32 11.4	+1.6
KARZ				AML	AML		
TKGZ	Te Karaka	1.66	174	P	Pn	04 32 11.7	+2.0
TKGZ				S	S	04 32 37.9	-1.0
TKGZ				AML	AML		
TKGZ				AML	AML		
TARZ	Mount Tarawera	1.70	212	P	Pn	04 32 12.8	+2.5
TARZ				AML	AML		
RAGZ	Rawiri	1.71	186	P	Pn	04 32 12.3	+1.9
RAGZ				S	S	04 32 39.0	-1.0
CNGZ	Carnagh Statio	1.75	165	P	Pn	04 32 13.2	+2.6
CNGZ				S	S	04 32 40.9	+0.5
RRRZ	Republican Roa	1.79	210	P	Pn	04 32 12.9	+1.9
MUGZ	Murupara	1.82	202	P	Pn	04 32 12.7	+1.5
MUGZ				S	S	04 32 39.9	-1.6
GRZ	Great Barrier	1.83	286	P	Pn	04 32 12.1	+0.6
GRZ				AML	AML		
RTZ	Ruatahuna	1.90	196	P	Pn	04 32 13.3	+1.3
RIGZ	Rimuhau	1.92	177	P	Pn	04 32 14.3	+2.2
RIGZ				S	S	04 32 44.6	+1.4
HRRZ	Handcock Road	1.93	213	P	Pn	04 32 14.7	+2.5
TOZ	Tahuroa Road	1.94	240	P	Pn	04 32 14.4	+2.0
TOZ				AML	AML		
PRRZ	Plateau Road	1.97	210	P	Pn	04 32 14.5	+1.8
MKAZ	Moumakai	2.01	260	P	Pn	04 32 14.7	+1.7
ALRZ	Allen Road	2.04	210	P	Pn	04 32 15.4	+2.0
ALRZ				S	S	04 32 44.4	-0.9
WPRZ	Whakapapatarin	2.09	214	P	Pn	04 32 16.0	+2.2
PRGZ	Paritu Road	2.14	175	P	Pn	04 32 16.5	+2.2
PRGZ				S	S	04 32 47.5	+0.4
MTHZ	Maungataniwha	2.15	197	P	Pn	04 32 16.1	+1.6
MTHZ				S	S	04 32 46.4	-0.9
RAHZ	Arahi	2.17	191	P	Pn	04 32 16.6	+2.0
RAHZ				S	S	04 32 46.8	-0.8
MBAZ	Motutapu North	2.20	270	P	Pn	04 32 16.6	+1.7
MBAZ				AML	AML		
MBAZ				AML	AML		
KUTZ	Kaahu Road	2.22	220	P	Pn	04 32 17.9	+2.8
KNZ	Kokohu	2.23	179	P	Pn	04 32 17.0	+1.9
KNZ				S	S	04 32 47.6	-1.0
MRHZ	Matea Rd	2.26	205	P	Pn	04 32 17.0	+1.5
TLZ	Tolley Road	2.27	227	P	Pn	04 32 18.5	+2.8
WHHZ	Waihua	2.31	188	P	Pn	04 32 18.1	+2.2
WHHZ				S	S	04 32 49.4	-0.6
MHGZ	Mahia Peninsul	2.37	175	P	Pn	04 32 19.0	+2.4
NMHZ	Naumai	2.40	196	P	Pn	04 32 19.1	+2.1
NMHZ				S	S	04 32 51.9	+0.1
AWAZ	Awhitu Peninsu	2.41	263	P	Pn	04 32 19.3	+2.2
AWAZ				AML	AML		
AWAZ				AML	AML		
ARHZ	Aropaoanui	2.52	191	P	S	04 32 20.3	-34
ARHZ				S	S	04 32 54.7	+0.7
BKZ	Black Stump Fm	2.54	200	P	Pn	04 32 19.7	+1.2
BKZ	Black Stump Fm	2.54	200	P	Pn	04 32 52.8	+34
BKZ	Black Stump Fm	2.54	200	P	Pn	04 32 19.7	+1.2
BKZ				S	S	04 32 52.4	-2.0
RATZ	Rangitukua	2.54	215	P	Pn	04 32 20.7	+2.2
MCHZ	McNeill Hill	2.75	195	P	Pn	04 32 23.0	+2.3
TMVZ	Te Maari	2.78	213	P	Pn	04 32 23.4	+2.2
WCZ	Waipu Caves	2.79	287	P	Pn	04 32 22.0	+0.8
WCZ				AML	AML		
ETVZ	East Tongariro	2.79	212	P	Pn	04 32 23.1	+1.7
HIZ	Hauiti	2.80	231	P	Pn	04 32 24.4	+3.2
HIZ	Hauiti	2.80	231	P	Pn	04 32 24.3	+3.1
KWHZ	Kaweka Forest	2.80	200	P	Pn	04 32 22.9	+1.6
WTVZ	West Tongariro	2.83	214	P	Pn	04 32 23.7	+2.0
CKHZ	Cape Kidnapper	2.90	189	P	Pn	04 32 24.1	+1.8
FWVZ	Far West T-bar	2.96	213	P	Pn	04 32 25.0	+1.7
BHHZ	Black Hill Sta	2.97	204	P	Pn	04 32 24.4	+1.2
MAVZ	Matarangi	2.97	213	P	Pn	04 32 25.1	+1.6
WHVZ	Whangaehu Hut	2.97	212	P	Pn	04 32 24.9	+1.5
TRVZ	Turoa	3.00	213	P	Pn	04 32 25.3	+1.6
WNVZ	Wahianoa	3.00	212	P	Pn	04 32 25.1	+1.4
MOVZ	Moawhango	3.01	209	P	Pn	04 32 24.6	+0.9
KRHZ	Kereru	3.02	199	P	Pn	04 32 25.1	+1.4
KAHZ	Kahuranaki	3.06	191	P	Pn	04 32 26.1	+1.9
PKVZ	Pokaka	3.08	215	P	Pn	04 32 24.5	0.0
VRZ	Vera Road	3.26	223	P	Pn	04 32 29.2	+2.8
PXZ	Pawanui	3.29	190	P	Pn	04 32 28.2	+1.4
PNHZ	Pukenui	3.32	199	P	Pn	04 32 28.2	+1.0
TSZ	Takapari Road	3.52	201	P	Pn	04 32 30.5	+1.0
OUZ	Omahuta	3.63	294	P	Pn	04 32 32.2	+1.4
DVHZ	Dannevirke	3.69	198	P	Pn	04 32 32.3	+0.9
ANWZ	Angora Road	3.78	194	P	Pn	04 32 33.4	+0.9
POWZ	Post Office Ro	3.88	202	P	Pn	04 32 34.8	+1.0
PRWZ	Pori Road	3.98	199	P	Pn	04 32 36.0	+1.0
BFZ	Birch Farm	4.04	195	P	Pn	04 32 36.7	+1.1
BFZ	Birch Farm	4.04	195	S	S	04 33 23.0	-2.4
BFZ	Birch Farm	4.04	195	P	Pn	04 32 36.5	+0.8
MRZ	Mangatainoka R	4.19	202	P	Pn	04 32 37.9	+0.5
CPWZ	Castlepoint	4.26	195	P	Pn	04 32 40.0	+1.7
HOWZ	Holdsworth Sta	4.42	201	P	Pn	04 32 40.7	+0.3
OGWZ	Otaki Gorge	4.46	205	P	Pn	04 32 41.3	+0.6
TMWZ	Te Maipa	4.52	197	P	Pn	04 32 42.4	+0.8
KIW	Kapiti Island	4.59	207	P	Pn	04 32 42.7	+0.3
CAW	Cannon Point	4.75	204	P	Pn	04 32 44.6	+0.1
SNZO	South Karori	5.06	206	P	Pn	04 32 48.5	+0.3
SNZO	South Karori	5.06	206	S	S	04 33 45.3	-2.8
KHZ	Kahutara	6.45	208	P	Pn	04 33 05.4	-0.4

*IDC **15** 04:38:09.8±0.7, 31°.60N×93°.38E, h0^{km}, mb4.0/17, mbtmp4.0/22, ML4.0/5, MS4.8/3, Error ellipse:*

s-maj=23.5km s-min=12.9km az=51.0

*NDI **15** 04:38:09.9±0.9, 31°.90N×93°.39E, h10km, ML4.5, MW4.4, mb4.6(NEIC), Presumed earthquake*

*NEIC **15** 04:38:11.8±1.4, 31°.73N±0°.06×93°.46E±0°.05, h10km±1km, mb4.6/17, Error ellipse: s-maj=12.5km s-min=4.3km az=30.0*

ISC 15 04:38:11.4±0.5, **31°.67N**±0°.05×**93°.43E**±0°.07, **h10km, n60,** σ**0s.97**/60, **mb4.3**/23, **Xizang**

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Code   Station Name       Δ°    AZ°    Phase ID            Time      Res
                                       Op      ISC        h  m  s    ISC
LSA    Lhasa               2.78 226            Pn       04 38 58.5 +2.1
TEZP   TEZPUR              5.07 186   eP       Pn       04 39 28.4 +1.0
TEZP                                  eS       Sn       04 40 04.2  -22
TEZP                                   IAML             04 40 23.3
       comp=E,685nm,0.1s
TEZP                                   IAML             04 40 23.8
       comp=N,525nm,0.1s
MOKO   MOKOCHONG           5.41 170   eP       Pn       04 39 34.4 +2.1
MOKO                                  eS       Sn       04 40 34.6 -0.2
MOKO                                   IAML             04 40 47.9
       comp=E,906nm,0.6s
MOKO                                   IAML             04 40 49.2
       comp=N,914nm,0.3s
EVN    Everest             6.84 239            Pn       04 39 53.3 +0.9
MORE   Moreh               7.44 174            Pn       04 40 00.2 +0.1
AZL    Aizawl              7.93 185   eP       Pn       04 40 07.6 +0.8
BRDH   Bariadhala          9.10 191    LR      LR       04 45 09.8
       comp=N,932nm,18.9s,baz=12,slow=47
SAIH   SAIHA               9.15 183   eP       Pn       04 40 24.6 +0.9
SAIH                                  eS       Sn       04 42 03.2 -3.7
SAIH                                   IAML             04 42 09.5
       comp=N,379nm,0.1s
SAIH                                   IAML             04 42 09.5
       comp=E,263nm,0.1s
LZDM   Lanzhou Array       9.55  61    Pn      Pn       04 40 30.9 +1.6
       baz=265,slow=12
       comp=E,2.9nm,0.3s
CMAR   Chiang Mai Arr     14.06 158    Pn      Pn       04 41 29.9 -0.9
       comp=E,0.6nm,0.3s,baz=340,slow=11,SNR=5.7
       comp=E,1.2nm,0.4s
CMAR                                   AML     AML
CMAR   Chiang Mai Arr     14.06 158            Pn       04 41 30.3 -0.5
PDGK   Podgornoye         16.03 320    Pn      Pn       04 41 56.1 -1.0
MKAR   Makanchi Array     17.37 334    P       Pn       04 42 13.7 -0.2
       comp=E,0.1nm,0.3s,baz=159,slow=12,SNR=4.4
       comp=E,1.0nm,0.7s
MKAR                                   AML     AML
MKAR   Makanchi Array     17.37 334    Pn      Pn       04 42 12.4 -1.4
AAK    Ala-Archa          18.61 311    P       P        04 42 28.0 -1.0
       comp=E,0.2nm,0.3s,baz=112,slow=19,SNR=4.9
       comp=E,1.1nm,0.3s
AAK                                    AML     AML
AAK    Ala-Archa          18.61 311    P       P        04 42 28.6 -0.4
SONM   Songino Array      18.93  28    P       Pn       04 42 34.4 +1.4
       comp=E,0.5nm,0.3s,baz=209,slow=12,SNR=6.2
       comp=E,2.5nm,0.8s
SONM                                   AML     AML
SONM   Songino Array      18.93  28    P       P        04 42 31.4 -1.1
HYB    Hyderabad          19.58 227   eP       P        04 42 40.3 +0.6
HYB                                   eS       Sn       04 46 23.0 +2.1
BTK    Batken             20.11 301    P       P        04 42 45.8 +0.3
KBL    Kabul              20.62 285            P        04 42 50.5 -0.6
KBL                                    IAmb    IAmb     04 42 56.4
       comp=Z,36nm,1.1s
KURBB  Kurchatov Arra     21.93 334    P       P        04 43 05.2 +0.3
       comp=Z,6.7nm,1.2s,baz=146,slow=10,SNR=14
       comp=Z,6.7nm,1.2s
KURK   Kurchatov          21.98 334    P       P        04 43 04.9 -0.5
KURK                                   IAmb    IAmb     04 43 15.2
       comp=Z,17nm,1.3s
ZALV   Zalesovo Beam      23.11 347    P       P        04 43 16.6 -0.8
       comp=Z,1.0nm,0.7s,baz=167,slow=7.3,SNR=3.9
       comp=Z,1.0nm,0.7s
ZALV   Zalesovo Beam      23.11 347    P       P        04 43 16.2 -1.1
BVAR   Borovoye Array     27.09 329    P       P        04 43 55.3 +1.2
       comp=Z,0.9nm,0.5s,baz=137,slow=13,SNR=5.1
       comp=Z,0.9nm,0.5s
KSRS   Korea Array        28.88  69    P       P        04 44 09.9 -0.3
       comp=Z,0.7nm,0.4s,baz=264,slow=9.3,SNR=2.1
       comp=Z,0.7nm,0.4s
AKTO   Aktyubinsk         32.22 316    P       P        04 44 39.2 -0.4
       comp=Z,0.9nm,0.5s,baz=74,slow=7.1,SNR=1.8
       comp=Z,0.9nm,0.5s
ARTI   Arti               34.67 326    P       P        04 45 01.6 +0.7
       comp=Z,3.4nm,0.6s,baz=124,slow=7.3,SNR=3.2
       comp=Z,3.4nm,0.6s
ARTI   Arti               34.67 326    P       P        04 45 01.6 +0.7
ARTI                                   IAmb    IAmb     04 45 02.4
       comp=Z,7.0nm,0.5s
KIRV   Kirov              39.98 325    P       P        04 45 47.0 +1.1
       comp=Z,13nm,0.6s,baz=157,slow=3.2,SNR=5.3
       comp=Z,13nm,0.6s
BRTR   Keskin Array B     48.44 297    P       P        04 46 55.0 +0.8
       comp=Z,0.8nm,0.8s,baz=126,slow=6.3,SNR=5.5
       comp=Z,0.8nm,0.8s
ELL    Elmali             51.94 294    P       P        04 47 20.6  0.0
ELL                                    IAmb    IAmb     04 47 21.4
       comp=Z,10nm,1.0s
FINES  FINESS Array B     51.98 326    P       P        04 47 20.8 +0.4
       comp=Z,1.1nm,0.6s,baz=100,slow=8.1,SNR=1.8
       comp=Z,1.1nm,0.6s
FINES  FINESS Array B     51.98 326    P       P        04 47 20.4  0.0
ARCES  ARCESS Array B     53.00 336    P       P        04 47 28.2 +0.3
       comp=Z,2.1nm,0.8s,baz=92,slow=3.8,SNR=7.4
       comp=Z,2.1nm,0.8s
ARCES  ARCESS Array B     53.00 336    P       P        04 47 28.0  0.0
ARCES                                  IAmb    IAmb     04 47 45.8
       comp=Z,12nm,1.4s
HFS    Hagfors            58.11 325    P       P        04 48 04.6 -0.1
       comp=Z,1.7nm,0.8s,baz=144,slow=5.2,SNR=3.6
       comp=Z,1.7nm,0.8s
NB2    NORSAR Subarra     59.16 326    P       P        04 48 12.1 -0.1
       comp=Z,0.5nm,0.7s,baz=79,slow=6.9
NOA    NORSAR Array B     59.16 326    P       P        04 48 11.8 -0.4
       comp=Z,1.2nm,0.8s,baz=81,slow=6.6,SNR=4.5
       comp=Z,1.2nm,0.8s
GERES  GERESS Array B     60.49 312    P       P        04 48 22.0 +0.5
       comp=Z,18nm,0.4s,baz=78,slow=6.0,SNR=3.9
GERES  GERESS Array B     60.49 312    P       P        04 48 21.2 -0.3
STAL   STALIGIAL          61.86 309    P       P        04 48 30.0 -0.8
STAL                                   IAmb    IAmb     04 49 01.4
       comp=Z,6.9nm,1.3s
NRCA   Norcia             62.65 305    P       P        04 48 35.9 -0.3
NRCA                                   IAmb    IAmb     04 48 45.4
       comp=Z,11nm,1.5s
TEOL   Teolo              62.83 308    P       P        04 48 36.2 -1.1
WB0    Warramunga Arr     64.48 137    P       P        04 48 48.8 +0.4
WRA    Warramunga Arr     64.59 137    P       P        04 48 49.3 +0.2
       comp=Z,0.4nm,0.8s,baz=334,slow=6.7,SNR=4.7
       comp=Z,0.4nm,0.8s
WRA    Warramunga Arr     64.59 137    P       P        04 48 49.0 -0.1
WR8    Warramunga Arr     64.69 137    P       P        04 48 49.8 +0.1
WR8                                    IAmb    IAmb     04 48 57.1
       comp=Z,4.5nm,1.2s
TNA    Tin City           65.05  27    P       P        04 48 50.9 -0.6
ASAR   Alice Springs      67.28 140    P       P        04 49 06.6 +0.2
       comp=Z,1.2nm,0.5s,baz=325,slow=6.4,SNR=12
       comp=Z,1.2nm,0.5s
ASAR   Alice Springs      67.28 140    P       P        04 49 06.5  0.0
EKA    Eskdalemuir Ar     68.11 322    P       P        04 49 11.3  0.0
       comp=Z,2.7nm,1.0s,baz=67,slow=6.5,SNR=7.7
       comp=Z,2.7nm,1.0s
BORG   Borgarnes          71.41 336    LR      LR       05 24 52.8
       comp=Z,1μm,18.9s,baz=328,slow=39
ILAR   Eielson Array      73.08  23    P       P        04 49 41.8 +0.4
       comp=Z,0.7nm,0.8s,baz=297,slow=5.9,SNR=8.8
       comp=Z,0.7nm,0.8s
ILAR   Eielson Array      73.08  23    P       P        04 49 41.5 +0.1
KLU    Klutina            75.53  25    P       P        04 49 54.8 -1.1
KLU                                    IAmb    IAmb     04 49 60.0
       comp=Z,6.0nm,1.2s
LSZ    Lusaka             78.01 244    LR      LR       05 26 29.4
       comp=Z,2μm,18.4s,baz=146,slow=37
TORD   Torodi Ar. Bea     84.67 282    P       P        04 50 45.8 -0.1
       comp=Z,3.7nm,1.0s,baz=53,slow=5.3,SNR=11
       comp=Z,3.7nm,1.0s
TORD   Torodi Ar. Bea     84.67 282    P       P        04 50 45.0 -0.9
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*IDC **15** 05:05:51.1±0.6, 62°.03S×57°.73W, h0km, mb4.2/12, mbtmp4.2/13, ML3.8/1, Error ellipse: s-maj=20.6km s-min=13.3km az=101.0*

*NEIC **15** 05:05:52.5±1.6, 62°.29S±0°.07×58°.1W±0°.2, h10km±1km, mb4.7/26, Error ellipse: s-maj=12.9km s-min=11.1km az=243.0*

ISC 15 05:05:52.4±0.4, **62°.20S**±0°.06×**57°.98W**±0°.08, **h10km, n74,** σ**1s.02**/69, **mb4.5**/19, **South Shetland Islands**

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Code   Station Name       Δ°    AZ°    Phase ID            Time      Res
                                       Op      ISC        h  m  s    ISC
ESPZ   Base Esperanza      1.29 160    Pn      Pn       05 06 15.4 -1.0
PMSA   Palmer Station      3.75 224    Pn      Pn       05 06 51.3 +1.1
       6.2nm,0.3s,baz=53,slow=9.4,SNR=7.1
PMSA                                   Sn      Sn       05 07 35.2 +0.8
       9.6nm,0.3s,baz=320,slow=20,SNR=4.4
       34nm,0.6s
PMSA                                   AML     AML
PMSA   Palmer Station      3.75 224            Pn       05 06 48.4 -1.8
ORCD   Orcadas             6.51  83    Pn      Pn       05 07 28.7 +0.6
SMAI   San Martin Ant      7.08 209    Pn      Pn       05 07 33.9 -2.0
GO08   Villa O'Higgin     16.00 323    Pn      Pn       05 09 38.3 +1.0
GO08                                   IAmb    IAmb     05 09 45.7
       comp=Z,41nm,1.4s
BELA   Belgrano 2         17.39 164            Pn       05 09 54.5 -0.2
VNA3   Neumayer Olymp     20.51 136    P       Pn       05 10 33.4 +1.1
       comp=Z,10nm,0.8s
LL02   Futaleuf           20.72 330    P       P        05 10 32.4 -0.3
VNA1   Neumayer--Stat     20.97 135    P       Pn       05 10 39.1 +1.4
       comp=Z,14nm,0.9s
LL07   Hotel Espejo d     21.45 327    P       P        05 10 39.6 -0.9
SNAA   Sanae              22.68 138    P       P        05 10 55.9 +2.3
       comp=Z,170nm,0.8s
SNAA   Sanae              22.68 138    P       P        05 10 55.1 +1.6
       comp=Z,9.5nm,1.0s,baz=256,slow=7.6,SNR=11
       comp=Z,9.5nm,1.0s
SNAA   Sanae              22.68 138    P       P        05 10 53.2 -0.3
SNAA                                   IAmb    IAmb     05 11 01.9
       comp=Z,19nm,1.1s
PLCA   Paso Flores        22.79 335    P       P        05 10 53.7 -1.2
       comp=Z,12nm,1.1s,baz=169,slow=7.0,SNR=12
       comp=Z,12nm,1.1s
PLCA   Paso Flores        22.79 335    P       P        05 10 54.4 -0.6
PLCA                                   IAmb    IAmb     05 11 01.1
       comp=Z,21nm,1.1s
LL05   Los Muermos        22.80 329    P       P        05 10 55.3 +0.4
GO06   Curarrehue         24.09 334    P       P        05 11 06.8 -1.0
GO06                                   IAmb    IAmb     05 11 15.8
       comp=Z,36nm,1.1s
TROLL  Troll, Antarti     24.32 139    P       P        05 11 13.1 +3.2
       comp=Z,250nm,0.9s
QSPA   South Pole Qui     28.03 180    P       P        05 11 44.9 +1.5
       comp=Z,2.4nm,0.8s,baz=164,slow=2.2,SNR=9.6
       comp=Z,2.4nm,0.8s
QSPA   South Pole Qui     28.03 180    P       P        05 11 42.7 -0.7
QSPA                                   IAmb    IAmb     05 11 57.9
       comp=Z,11nm,1.2s
GO05   Hualane            28.60 336    P       P        05 11 49.0 +0.5
BO04   La Punta           29.35 338    P       P        05 11 54.8 -0.3
BO04                                   IAmb    IAmb     05 11 56.1
       comp=Z,31nm,1.5s
MT08   Bocatoma Ro        29.78 339    P       P        05 12 00.3 +1.1
MT08                                   IAmb    IAmb     05 12 02.3
       comp=Z,15nm,1.0s
CFA    Coronel Fontan     31.32 343    P       P        05 12 12.1 -0.5
       comp=Z,1.1nm,0.5s,baz=162,slow=7.7,SNR=3.6
       comp=Z,1.1nm,0.5s
ZON    Zonda              31.43 342    P       P        05 12 14.7 +1.1
ZON                                    IAmb    IAmb     05 12 16.6
       comp=Z,15nm,1.3s
CPUP   Villa Florida      35.86   1    P       P        05 12 51.3 -0.8
       comp=Z,1.1nm,0.7s,baz=176,slow=16,SNR=3.0
       comp=Z,1.1nm,0.7s
CPUP   Villa Florida      35.86   1    P       P        05 12 53.2 +1.1
MAW    Mawson             43.64 152    P       P        05 13 59.0 +2.6
       comp=Z,1.7nm,0.7s,baz=228,slow=12,SNR=2.3
       comp=Z,1.7nm,0.7s
MAW    Mawson             43.64 152    P       P        05 13 55.9 -0.4
SIV    San Ignacio        46.20 356    P       P        05 14 17.2  0.0
       comp=Z,0.6nm,0.3s,baz=157,slow=9.8,SNR=6.1
       comp=Z,0.6nm,0.3s
BDFB   Brasilia           47.03  13    P       P        05 14 24.1 +0.2
       comp=Z,4.2nm,0.7s,baz=197,slow=5.9,SNR=5.8
       comp=Z,4.2nm,0.7s
BDFB   Brasilia           47.03  13    P       P        05 14 24.1 +0.2
BDFB                                   IAmb    IAmb     05 14 25.9
       comp=Z,6.0nm,0.9s
BOSA   Boshof             62.01  99    P       P        05 16 13.9 +1.3
       comp=Z,7.3nm,1.1s,baz=231,slow=6.5,SNR=3.9
       comp=Z,7.3nm,1.1s
BOSA   Boshof             62.01  99    P       P        05 16 11.7 -1.0
H10N3  ASCENSION HYDR62.82  50    T       T        06 24 48.5
       baz=202,slow=74
H10N1  ASCENSION HYDR62.82  50    T       T        06 24 48.8
       baz=202,slow=74
H10N2  ASCENSION HYDR62.84  50    T       T        06 24 49.8
       baz=202,slow=74
SLOR   San Lorenzo -      63.24 337    P       P        05 16 20.1 -1.2
SLOR                                   IAmb    IAmb     05 16 32.1
       comp=Z,2.1nm,0.7s
WIN    Windhoek           63.35  88    P       P        05 16 20.2 -1.5
WIN                                    IAmb    IAmb     05 16 42.2
       comp=Z,12nm,1.2s
OTAV   Otavalo            64.17 337    P       P        05 16 27.9 +0.4
OTAV                                   IAmb    IAmb     05 16 30.1
       comp=Z,7.7nm,1.1s
BOAV   Boa Vista          64.44 357    P       P        05 16 29.3 +0.6
DCZ    Deep Cove          66.75 213    P       P        05 16 43.7 +0.4
TORD   Torodi Ar. Bea     88.22  57    P       P        05 18 42.1 -1.3
       comp=Z,0.8nm,0.9s,baz=195,slow=5.4,SNR=2.7
       comp=Z,0.8nm,0.9s
TORD   Torodi Ar. Bea     88.22  57    P       P        05 18 43.5 +0.1
TORD                                   IAmb    IAmb     05 18 56.3
       comp=Z,2.7nm,0.6s
ASAR   Alice Springs      93.91 191    P       P        05 19 09.7 -0.4
       comp=Z,1.2nm,0.9s,baz=159,slow=4.5,SNR=6.7
       comp=Z,1.2nm,0.9s
HBVL   Hebbronville       94.74 324    P       P        05 19 14.2 +0.8
WRA    Warramunga Arr     97.56 192    P       P        05 19 25.9 -0.8
       comp=Z,0.7nm,0.9s,baz=177,slow=4.1,SNR=3.5
       comp=Z,0.7nm,0.9s
WRA    Warramunga Arr     97.56 192    P       P        05 19 26.3 -0.4
GERES  GERESS Array B    124.45  50    PKP     PKPdf    05 24 49.6 -0.9
       comp=Z,0.9nm,0.2s,baz=225,slow=1.2,SNR=4.7
BRTR   Keskin Array B    124.92  70    PKP     PKPdf    05 24 50.2 -1.7
       comp=Z,0.7nm,0.8s,baz=269,slow=2.6,SNR=2.4
NOA    NORSAR Array B    133.67  39    PKP     PKPdf    05 25 07.5 -0.1
       comp=Z,0.5nm,0.8s,baz=236,slow=1.6,SNR=3.4
ARCES  ARCESS Array B    143.91  36    PKP     PKPab    05 25 23.5 +0.2
       comp=Z,6.7nm,0.8s,baz=318,slow=1.6,SNR=13
AB31   Akbulak array     144.21  82    PKPdf   PKPab    05 25 25.1 +0.1
ABKAR  Akbulak array     144.21  82    PKPdf   PKPab    05 25 24.8 -0.2
ARSB   Arslanbob         144.35 103    PKPdf   PKPdf    05 25 27.5 -0.4
L18K   Granite Mounta    144.44 307    PKPdf   PKPdf    05 25 26.5 -0.6
F24K   Squaw Lake        144.59 318    PKPdf   PKPdf    05 25 27.2 -0.1
KK31   Karatay Array     144.60  98    PKPdf   PKPdf    05 25 28.4 +0.3
KKAR   Karatay Array     144.60  98    PKPdf   PKPdf    05 25 27.8 -0.3
J19K   Poorman           145.11 310    PKPbc   PKPdf    05 25 28.3 +0.1
K17K   Iditarod          145.34 307    PKPbc   PKPab    05 25 29.0 +0.2
IMAR   Indian Mountai    145.60 314    PKPdf   PKPab    05 25 29.5 -0.2
LVZ    Lovozero          145.66  42    PKPdf   PKPbc    05 25 29.5  0.0
G21K   Allakaket         145.82 315    PKPdf   PKPab    05 25 30.4 -0.1
E22K   Anaktuvuk Pass    146.17 318    PKPdf   PKPab    05 25 31.4 -0.4
ADK    Adak              146.38 281    PKPdf   PKPdf    05 25 31.0 +0.3
LZDM   Lanzhou Array     151.34 148    PKPbc   PKiKP    05 25 46.7 +0.4
       comp=Z,1.1nm,0.3s,baz=284,slow=2.4,SNR=1.8
BVAR   Borovoye Array    151.61  85    PKPbc   PKPbc    05 25 45.6 +0.1
       comp=Z,3.5nm,0.6s,baz=245,slow=2.5,SNR=16
MJAR   Matsushiro Arr    152.41 209    PKPbc   PKPbc    05 25 47.4 -0.4
       comp=Z,0.6nm,0.4s,baz=183,slow=4.5,SNR=1.5
MKAR   Makanchi Array    152.82 106    PKPbc   PKPbc    05 25 48.4  0.0
       comp=Z,1.4nm,0.7s,baz=222,slow=3.2,SNR=12
MKAR   Makanchi Array    152.82 106            PKPbc    05 25 47.8 -0.6
KURBB  Kurchatov Arra    153.84  96    PKPbc   PKPbc    05 25 49.2 -1.3
       comp=Z,0.7nm,0.8s,baz=243,slow=1.9,SNR=4.8
KURK   Kurchatov         153.95  96            PKPbc    05 25 49.2 -1.5
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*SJA **15** 05:11:47.9±0.6, 28°.01S×71°.86W, h31km±3km, ML4.7, MW4.8*

*IDC **15** 05:11:51.4±0.6, 27°.77S×71°.29W, h0km, mb4.1/11, mbtmp4.0/16, ML3.8/5, Error ellipse: s-maj=18.6km s-min=12.1km az=83.0*

*VAO **15** 05:11:53.2±0.6, 27°.89S×71°.46W, h23km, mb4.7, Presumed earthquake*

*GUC **15** 05:11:53.9±0.8, 27°.95S×71°.43W, h19km±7km, ML4.4*

*NEIC **15** 05:11:53.4, 27°.90S×71°.45W, h18km*

*NEIC **15** 05:11:53.4±0.9, 27°.90S±0°.03×71°.45W±0°.06, h18km±2km, mb4.7/30, Mwr4.5/21, Mwr4.6(GUC), Error ellipse: s-maj=7.1km s-min=4.4km az=76.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}2.89; $M_{\theta\theta}$0.75; $M_{\phi\phi}$-3.64; $M_{r\theta}$1.02; $M_{\theta\phi}$-0.97; $M_{\phi r}$-4.82; Fault plane solution: $M_0$6.03000×10^{15} NP1:ϕ_s171.41000°, δ74.11000°, λ74.62000°. NP2:ϕ_s36.56000°, δ21.98000°, λ132.99000°. Principal axes: T 5.8162, Plg58.0000°, Azm61.0000°; N 0.4074, Plg15.0000°, Azm176.0000°; P -6.2236, Plg28.0000°, Azm274.0000°;*

ISC 15 05:11:50.5±1.4, **27°.87S**±0°.02×**71°.54W**±0°.04, **h4km**±8km, **n184,** σ**1s.56**/211, **mb4.5**/21, **8C-2D, Near coast of northern Chile**

```
Code   Station Name       Δ°    AZ°    Phase ID            Time      Res
                                       Op      ISC        h  m  s    ISC
AC04   Llanos de Chal      0.53 129   eP       Pb       05 12 02.3 -0.1
AC04   Llanos de Chal      0.53 129⇓iP       Pb       05 12 02.5  0.0
AC04                                  eS       Sg       05 12 08.2 +0.6
AC04                                   IAML             05 12 10.5
       comp=E,28μm,0.5s
AC04   Llanos de Chal      0.53 129            Pb       05 12 02.5  0.0
AC04                                   Sg      Sg       05 12 08.5 +0.9
GO03   Copiapo             1.19  77   eP       Pb       05 12 13.2 -0.4
GO03                                   IAML             05 12 35.5
       comp=Z,12μm,0.8s
GO03   Copiapo             1.19  77⇓iP       Pg       05 12 13.7 +0.4
GO03                                   IAML             05 12 36.0
       comp=E,19μm,0.3s
GO03   Copiapo             1.19  77            Pg       05 12 13.8 +0.6
GO03                                   Sn      Sn       05 12 29.1 -1.6
LCO    Las Campanas        1.36 147   eP       Pn       05 12 16.4 -0.2
LCO                                   eS       Sg       05 12 35.6 +1.4
LCO                                    IAML             05 12 39.4
       comp=Z,12μm,0.7s
LCO    Las Campanas        1.36 147   eP       Pn       05 12 15.8 -0.7
LCO                                   eS       Sb       05 12 32.7 -1.9
LCO                                    IAML             05 12 37.8
       comp=Z,56μm,0.6s
LCO    Las Campanas        1.36 147            Pn       05 12 16.4 -0.2
AC05   El Transito         1.48 131   eP       Pn       05 12 18.2 +0.2
AC05                                  eS       Sg       05 12 37.8 -0.2
AC05                                   IAML             05 12 38.4
       comp=Z,4μm,0.6s
AC05   El Transito         1.48 131   i P      Pn       05 12 18.2 +0.2
AC05                                  eS       Sn       05 12 35.4 -2.5
AC05                                   IAML             05 12 39.3
       comp=E,7μm,0.6s
AC05   El Transito         1.48 131            Pn       05 12 18.2 +0.2
AC01   Pan de Azucar       1.91  26   eP       Pn       05 12 24.1 +0.3
AC01                                  eS       Sg       05 12 55.1 +3.4
AC01                                   IAML             05 12 57.9
       comp=Z,2μm,0.5s
AC01   Pan de Azucar       1.91  26   i P      Pn       05 12 24.1 +0.3
AC01                                   IAML             05 12 58.9
       comp=E,5μm,0.4s
AC01   Pan de Azucar       1.91  26            Pn       05 12 24.1 +0.3
AC02   Maricunga           2.38  65   eP       Pb       05 12 33.3 -0.9
AC02                                  eS       Sg       05 13 05.1 -1.8
AC02                                   IAML             05 13 10.2
       comp=Z,5μm,0.8s
AC02   Maricunga           2.38  65⇑iP       Pb       05 12 33.2 -0.9
AC02                                   IAML             05 13 10.6
       comp=N,6μm,0.2s
AC02   Maricunga           2.38  65            Pb       05 12 33.2 -1.0
GO04   Tololo Observa      2.39 164   eP       Pn       05 12 26.1 -4.5
GO04                                  eS       Sn       05 12 55.6 -4.9
GO04                                   IAML             05 13 13.2
       comp=Z,4μm,0.7s
GO04   Tololo Observa      2.39 164   eP       Pn       05 12 31.6 +0.9
GO04   Tololo Observa      2.39 164            Pn       05 12 30.1 -0.5
CO01   Juntas del Tor      2.46 149   eP       Pn       05 12 29.8 -1.8
CO01                                  eS       Sn       05 12 58.8 -3.4
CO01                                   IAML             05 13 07.7
       comp=Z,3μm,0.7s
CO01   Juntas del Tor      2.46 149⇑eP       Pn       05 12 33.6 +2.0
CO01   Juntas del Tor      2.46 149    Pn      Pn       05 12 31.4 -0.2
CO06   Fray Jorge          2.80 182   eP       Pn       05 12 35.7 -0.4
CO06   Fray Jorge          2.80 182            Pn       05 12 35.9 -0.2
AROD   Rodeo               2.92 142   eP       Pb       05 12 41.9 -1.4
AROD                                  eS       Sn       05 13 14.9 +1.1
VCA    Vinchina            3.06 107   eP       Pn       05 12 39.5 -0.4
VCA                                   eS       Sb       05 13 23.1 -0.5
VCA                                    IAML             05 13 30.4
       comp=Z,2μm,1.5s
VCA    Vinchina            3.06 107⇑eP       Pb       05 12 44.6 -1.1
ACDV   Cuesta del Vie      3.12 138   eP       Pn       05 12 39.8 -0.9
ACDV                                  eS       Sb       05 13 26.8 +1.5
ACDV                                   IAML             05 13 42.4
       comp=Z,844nm,1.6s
CO02   Combarbal           3.36 172   eP       Pn       05 12 38.8 -5.1
CO02                                  eS       Sn       05 13 28.3 +3.9
CO02                                   IAML             05 13 41.2
       comp=Z,3μm,0.6s
CO02   Combarbal           3.36 172   eP       Pn       05 12 44.2 +0.3
CO02   Combarbal           3.36 172            Pn       05 12 44.4 +0.5
PB14   IPOC Station P      3.38  18   eP       Pn       05 12 44.3 -0.1
PB14                                  eS       Sg       05 13 37.1 -2.1
PB14                                   IAML             05 13 50.1
       comp=Z,1μm,0.6s
PB14   IPOC Station P      3.38  18⇑eP       Pn       05 12 44.0 -0.4
PB14   IPOC Station P      3.38  18            Pn       05 12 44.0 -0.4
ACCO   Cerro Coronel       3.47 142   eP       Pn       05 12 44.4 -1.2
ACCO                                  eS       Sb       05 13 35.4  0.0
ACCO                                   IAML             05 13 46.0
       comp=Z,976nm,0.4s
TINO   Tinogasta           3.52  94   eP       Pn       05 12 48.9 +2.8
TINO                                  eS       Sb       05 13 37.5 +0.9
TINO                                   IAML             05 13 42.1
       comp=Z,1μm,1.1s
CO04   Los Peladeros       4.19 173   eP       Pn       05 12 56.2 +0.7
CO04   Los Peladeros       4.19 173            Pn       05 12 56.4 +0.9
ACLC   CERRO LA CRUZ       4.32 112   eP       Pn       05 13 00.3 +3.2
ACLC                                  eS       Sb       05 14 00.3 +0.6
ACLC                                   IAML             05 14 02.1
       comp=Z,432nm,0.7s
RTLL   Cerro Villicun      4.36 143   eP       Pn       05 12 57.0 -0.7
RTLL                                  eS       Sn       05 13 52.5 +3.4
RTLL                                   IAML             05 14 19.1
       comp=Z,887nm,0.7s
RTLS   Leoncito            4.38 154   eP       Pn       05 12 57.3 -0.8
RTLS                                  eS       Sb       05 13 59.3 -2.2
ZON    Zonda               4.43 147   eP       Pn       05 12 58.3 -0.3
ZON                                   eS       Sb       05 14 02.8 -0.1
ZON                                    IAML             05 14 22.6
       comp=Z,367nm,0.7s
ZON    Zonda               4.43 147            Pn       05 13 01.8 +3.2
CFA    Coronel Fontan      4.70 143    Pn      Pn       05 13 05.5 +3.2
       comp=Z,7.9nm,0.3s,baz=320,slow=14,SNR=123
CFA                                    Sn      Sn       05 13 58.3 +0.9
       comp=Z,9.4nm,0.3s,baz=107,slow=5.9,SNR=3.8
       comp=Z,21nm,0.4s
CFA                                    AML     AML
CFA    Coronel Fontan      4.70 143   eP       Pn       05 13 05.6 +3.2
CFA                                   eS       Sn       05 14 00.8 +3.4
CFA                                    IAML             05 14 21.7
       comp=Z,483nm,1.1s
VA03   San Esteban         4.96 170   eP       Pn       05 13 04.5 -1.4
VA03                                  eS       Sn       05 13 60.0 -3.8
VA03                                   IAML             05 14 27.8
       comp=Z,794nm,0.7s
VA03   San Esteban         4.96 170   eP       Pn       05 13 07.2 +1.4
VA03   San Esteban         4.96 170    Pn      Pn       05 13 06.5 +0.6
CYA    Choya               5.10  98   eP       Pn       05 13 10.0 +2.2
CYA                                   eS       Sn       05 14 09.8 +2.6
CYA                                    IAML             05 14 17.3
       comp=Z,402nm,1.1s
PB05   IPOC Station P      5.14  14⇑eP       Pn       05 13 07.1 -1.3
PB05   IPOC Station P      5.14  14            Pn       05 13 07.0 -1.3
VA01   Torpederas          5.14 181    Pn      Pn       05 13 06.7 -1.6
PEL    Peldehue            5.31 172    Pn      Pn       05 13 11.6 +0.9
MT02   Curacav             5.39 176    Pn      Pn       05 13 11.9 +0.2
PB06   IPOC Station P      5.44  20   eP       Pn       05 13 12.2 -0.4
PB06                                  eS       Sb       05 14 34.3 +2.5
PB06                                   IAML             05 14 54.6
       comp=Z,886nm,0.7s
PB06   IPOC Station P      5.44  20⇑eP       Pn       05 13 11.9 -0.6
PB06   IPOC Station P      5.44  20    Pn      Pn       05 13 12.0 -0.5
MT16   CCHEN               5.61 171            Pn       05 13 16.0 +1.1
MT03   Universidad Ad      5.68 171            Pn       05 13 16.5 +0.7
MT08   Bocatoma Ro         5.71 167    Pn      Pn       05 13 17.4 +1.0
AF01   San Pedro de A      5.76  33            Pn       05 13 18.3 +1.2
MT09   Talagante           5.91 176            Pn       05 13 20.1 +1.1
MT13   San Alfonso         5.96 170            Pn       05 13 23.3 +3.7
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MT01	**Popeta**	**5.99**	**178**		**Pn**	**05 13 20.3**	**+0.4**
PB03	**IPOC Station P**	**6.01**	**16**		**Pn**	**05 13 18.9**	**-1.5**
BO04	**La Punta**	**6.16**	**173**	Pn	**Pn**	**05 13 21.1**	**-1.2**
SLA	**San Lorenzo**	**6.26**	**61**	*e*P	**Pn**	**05 13 27.9**	**+4.1**
PB07	**IPOC Station P**	**6.29**	**14**		**Pn**	**05 13 23.0**	**-1.3**
PB09	**IPOC Station P**	**6.39**	**20**		**Pn**	**05 13 25.6**	**-0.1**
BO01	**Tunca**	**6.52**	**177**	Pn	**Pn**	**05 13 31.0**	**+3.8**
PB02	**IPOC Station P**	**6.69**	**13**		**Pn**	**05 13 28.4**	**-1.3**
BO02	**Sierra Bellavi**	**6.94**	**175**	Pn	**Pn**	**05 13 36.6**	**+3.6**
TCA	**Tanti**	**6.96**	**121**	⇑*e*P	**Pn**	**05 13 34.1**	**+0.6**
GO05	**Hualane**	**7.13**	**183**	Pn	**Pn**	**05 13 38.7**	**+3.0**
TA01	**Diego Aracena**	**7.37**	**10**	Pn	**Pn**	**05 13 37.8**	**-1.2**
PB08	**IPOC Station P**	**7.99**	**16**	Pn	**Pn**	**05 13 45.7**	**-2.1**
PB11	**IPOC Station P**	**8.25**	**12**		**Pn**	**05 13 49.8**	**-1.4**
PSGCX	**Pisagua**	**8.33**	**9**		**Pn**	**05 13 50.1**	**-2.1**
GO01	**Chusmiza**	**8.44**	**15**		**Pn**	**05 13 54.1**	**+0.1**
BI02	**San Fabin de**	**8.78**	**179**	Pn	**Pn**	**05 14 00.1**	**+1.9**
LPAZ	**La Paz**	**11.95**	**16**	Pn	**Pn**	**05 14 42.0**	**-0.3**
	comp=Z,0.9nm,0.3s,baz=213,slow=4.4,SNR=18						
	comp=Z,2.0nm,0.4s						
LPAZ				AML	AML		
LPAZ	**La Paz**	**11.95**	**16**	*e*P	**Pn**	**05 14 41.5**	**-0.7**
PSAL	**Palomas, Salto**	**12.55**	**108**	*e*P	**Pn**	**05 14 50.6**	**+0.6**
PSAL				*e*S	**Sn**	**05 17 09.0**	**-1.3**
CPUP	**Villa Florida**	**12.75**	**86**	Pn	**Pn**	**05 14 51.9**	**-0.8**
	comp=Z,0.2nm,0.3s,baz=238,slow=12,SNR=3.8						
CPUP				Lg	Lg	05 18 16.6	
	comp=Z,0.2nm,0.3s,baz=337,slow=20,SNR=4.1						
	comp=Z,3.0nm,1.0s						
CPUP				AML	AML		
PLCA	**Paso Flores**	**12.86**	**177**	Pn	**Pn**	**05 14 53.2**	**-1.0**
	baz=3.8,slow=15,SNR=1.1						
PLCA				Lg	Lg	05 18 28.9	
	comp=Z,0.1nm,0.3s,baz=225,slow=20,SNR=1.3						
	comp=Z,1.7nm,1.1s						
ANCO	**Parque Anchore**	**13.27**	**122**	*e*P	**Pn**	**05 14 59.1**	**-0.6**
MURT	**Porto Murtinho**	**14.08**	**67**	*e*P	**Pn**	**05 15 11.9**	**+1.1**
COIM	**Forte Coimbra**	**14.85**	**61**	*e*P	**Pn**	**05 15 18.4**	**-3.0**
SIV	**San Ignacio**	**15.28**	**42**	Pn	**Pn**	**05 15 21.9**	**-5.3**
	baz=233,slow=9.9,SNR=4.8						
	comp=Z,1.0nm,0.4s						
CPSB	**Cacapava Do Su**	**16.02**	**103**	*e*P	**Pn**	**05 15 36.5**	**-0.2**
AQDB	**Aquidauana**	**16.21**	**66**	P	**P**	**05 15 42.8**	**+0.3**
AQDB	**Aquidauana**	**16.21**	**66**	*e*P	**Pn**	**05 15 39.6**	**+0.4**
PTLB	**Pontes e Lacer**	**16.88**	**46**	P	**P**	**05 15 49.8**	**-0.1**
PTLB	**Pontes e Lacer**	**16.88**	**46**	*e*P	**P**	**05 15 48.6**	**-1.3**
PTGB	**Pitanga**	**17.74**	**84**	*e*P	**Pn**	**05 15 57.5**	**-1.1**
TRCB	**Terra Rica**	**17.82**	**78**	P	**P**	**05 16 00.2**	**-0.1**
TRCB	**Terra Rica**	**17.82**	**78**	*e*P	**P**	**05 16 00.0**	**-0.3**
VILB	**Vilhena**	**18.23**	**38**	P	**P**	**05 16 04.9**	**+0.1**
VILB	**Vilhena**	**18.23**	**38**	*e*P	**P**	**05 16 05.2**	**+0.3**
C2SB	**Chapadao do Su**	**19.40**	**66**	*e*P	**P**	**05 16 15.6**	**-2.1**
CZSB	**Cruzeiro do Su**	**20.06**	**357**	P	**P**	**05 16 25.4**	**+0.6**
CZSB				IAmb	IAmb	05 16 32.4	
	comp=Z,31nm,1.0s						
CZSB	**Cruzeiro do Su**	**20.06**	**357**	*e*P	**P**	**05 16 25.5**	**+0.6**
FRTB	**Fartura**	**20.32**	**82**	*e*P	**P**	**05 16 26.4**	**-1.4**
ARAG	**Araguaiana, MT**	**21.92**	**61**	*e*P	**P**	**05 16 44.1**	**-0.9**
BB19B	**Bebedouro**	**21.99**	**77**	*e*P	**P**	**05 16 45.0**	**-0.8**
CLDB	**Colider**	**22.46**	**44**	*e*P	**P**	**05 16 49.8**	**-1.0**
VAO	**Valinhos**	**22.70**	**83**	P	**P**	**05 16 52.6**	**-0.8**
VAO	**Valinhos**	**22.70**	**83**	*e*P	**P**	**05 16 52.6**	**-0.8**
IPMB	**Ipameri, GO**	**23.59**	**70**	*e*P	**P**	**05 17 00.2**	**-2.4**
CANS	**Sao Roque de M**	**24.14**	**77**	*e*P	**P**	**05 17 05.8**	**-2.0**
SNDB	**Serra Nova Dou**	**24.68**	**54**	*e*P	**P**	**05 17 12.3**	**-0.4**
PMNB	**Patos De Minas**	**24.83**	**73**	*e*P	**P**	**05 17 13.5**	**-0.7**
BDFB	**Brasilia**	**24.95**	**66**	P	**P**	**05 17 14.2**	**-1.2**
	comp=Z,8.9nm,0.7s,baz=238,slow=10,SNR=10						
	comp=Z,8.9nm,0.7s						
BDFB	**Brasilia**	**24.95**	**66**	P	**P**	**05 17 14.7**	**-0.6**
BDFB				IAmb	IAmb	05 17 39.5	
	comp=Z,23nm,1.4s						
MACA	**Manacapuru-AM**	**26.66**	**25**	P	**P**	**05 17 30.3**	**-0.3**
MACA				IAmb	IAmb	05 17 34.3	
	comp=Z,15nm,0.7s						
MACA	**Manacapuru-AM**	**26.66**	**25**	*e*P	**P**	**05 17 31.5**	**+0.9**
DIAM	**Diamantina, MG**	**27.29**	**76**	*e*P	**P**	**05 17 36.5**	**-0.1**
ITTB	**Itaituba**	**27.80**	**36**	*e*P	**P**	**05 17 40.4**	**-0.5**
SDBA	**SAO DESIDERIO**	**29.26**	**64**	*e*P	**P**	**05 17 52.4**	**-1.6**
SJMB	**Sao Joao De Ma**	**29.27**	**78**	*e*P	**P**	**05 17 53.8**	**-0.2**
SMTB	**Santa Maria do**	**29.46**	**55**	*e*P	**P**	**05 17 54.8**	**-0.9**
BSFB	**Barra de Sao F**	**29.51**	**79**	*e*P	**P**	**05 17 53.5**	**-2.7**
GUA01	**Guaratinga, BA**	**31.36**	**76**	*e*P	**P**	**05 18 12.3**	**-0.2**
BOAV	**Boa Vista**	**31.90**	**21**	P	**P**	**05 18 17.2**	**0.0**
BOAV				IAmb	IAmb	05 18 42.9	
	comp=Z,5.1nm,1.1s						
BOAV	**Boa Vista**	**31.90**	**21**	*e*P	**P**	**05 18 17.6**	**+0.4**
NBTA	**Tacaratu-PE**	**36.63**	**66**	*e*P	**P**	**05 18 58.1**	**-0.2**
NBMA	**Muriti-CE**	**37.10**	**63**	*e*P	**P**	**05 19 02.5**	**+0.2**
RCBR	**Riachuelo**	**40.29**	**64**	P	**P**	**05 19 28.8**	**-0.4**
GRGR	**Grenville**	**40.90**	**15**	P	**P**	**05 19 33.7**	**-0.3**
MGAN	**Managua**	**42.25**	**338**	P	**P**	**05 19 44.6**	**-0.5**
CXM	**Morne La Croix**	**43.60**	**15**	P	**P**	**05 19 56.1**	**-0.1**
OBIP	**Obispado Ponce**	**45.89**	**7**	P	**P**	**05 20 14.6**	**+0.4**
OBIP				IAmb	IAmb	05 20 16.0	
	comp=Z,4.3nm,0.9s						
CELP	**Cerrillos**	**45.92**	**7**	P	**P**	**05 20 14.8**	**+0.3**
CELP				IAmb	IAmb	05 20 16.2	
	comp=Z,16nm,1.0s						
PCDR	**Punta Cana, DR**	**46.21**	**4**	P	**P**	**05 20 17.4**	**+0.7**
GTBY	**Guantanamo Bay**	**47.64**	**355**	P	**P**	**05 20 28.8**	**+0.9**
GTBY				IAmb	IAmb	05 20 56.4	
	comp=Z,8.4nm,0.8s						
TEIG	**Tepich**	**50.48**	**339**	P	**P**	**05 20 50.9**	**+1.2**
TEIG				IAmb	IAmb	05 21 05.1	
	comp=Z,11nm,1.0s						
TLIG	**Tlapa**	**52.20**	**327**	P	**P**	**05 21 03.0**	**+0.1**
TLIG				IAmb	IAmb	05 21 06.2	
	comp=Z,8.9nm,1.3s						
BELA	**Belgrano 2**	**52.84**	**171**	P	**P**	**05 21 07.6**	**+0.8**
VNA3	**Neumayer Olymp**	**54.90**	**160**	⇑P	**P**	**05 21 22.5**	**+0.6**
	comp=Z,4.7nm,0.9s						
VNA1	**Neumayer--Stat**	**55.18**	**159**	P	**P**	**05 21 25.7**	**+1.8**
	comp=Z,4.1nm,0.9s						
SNAA	**Sanae**	**57.12**	**159**	P	**P**	**05 21 38.5**	**+0.5**
	comp=Z,100nm,0.7s						
SNAA	**Sanae**	**57.12**	**159**	P	**P**	**05 21 37.9**	**0.0**
	comp=Z,5.3nm,0.8s,baz=267,slow=11,SNR=7.4						
	comp=Z,5.3nm,0.8s						
SNAA	**Sanae**	**57.12**	**159**		**P**	**05 21 37.8**	**-0.1**
SNAA				IAmb	IAmb	05 21 39.5	
	comp=Z,12nm,1.1s						
TROLL	**Troll, Antarti**	**58.84**	**160**	P	**P**	**05 21 50.6**	**+0.6**
	comp=Z,271nm,0.8s						
QSPA	**South Pole Qui**	**62.35**	**180**	P	**P**	**05 22 15.3**	**+1.3**
	comp=Z,3.8nm,1.0s,baz=175,slow=1.8,SNR=10						
	comp=Z,3.8nm,1.0s						
QSPA	**South Pole Qui**	**62.35**	**180**	P	**P**	**05 22 15.6**	**+1.5**
QSPA				IAmb	IAmb	05 22 21.8	
	comp=Z,9.7nm,1.2s						
W50A	**Signal Mountai**	**64.06**	**347**	P	**P**	**05 22 26.6**	**+1.1**
W50A				IAmb	IAmb	05 22 28.4	
	comp=Z,6.8nm,0.8s						
TXAR	**Lajitas Array**	**64.66**	**329**	P	**P**	**05 22 32.5**	**+2.8**
	comp=Z,0.3nm,0.7s,baz=147,slow=8.1,SNR=4.5						
	comp=Z,0.3nm,0.7s						
TXAR	**Lajitas Array**	**64.66**	**329**	P	**P**	**05 22 29.9**	**+0.2**
TX31	**Lajitas Ar. Si**	**64.66**	**329**	P	**P**	**05 22 29.8**	**+0.2**
VNDA	**Vanda**	**70.19**	**191**	P	**P**	**05 23 08.0**	**+4.0**
	comp=Z,0.3nm,0.7s,baz=116,slow=7.7,SNR=3.3						
	comp=Z,0.3nm,0.7s						
VNDA	**Vanda**	**70.19**	**191**	P	**P**	**05 23 04.6**	**+0.7**
DBIC	**Dimbokro**	**72.88**	**73**	P	**P**	**05 23 21.7**	**+0.6**
	comp=Z,13nm,0.8s,baz=238,slow=6.1,SNR=12						
	comp=Z,13nm,0.8s						
PDAR	**Pinedale Array**	**78.52**	**332**	P	**P**	**05 23 54.9**	**+1.8**
	comp=Z,0.2nm,0.5s,baz=190,slow=3.1,SNR=2.6						
	comp=Z,0.2nm,0.5s						
PDAR	**Pinedale Array**	**78.52**	**332**	P	**P**	**05 23 53.4**	**+0.3**
NVAR	**Mina Array Bea**	**79.13**	**324**	P	**P**	**05 23 59.4**	**+2.8**
	comp=Z,0.2nm,0.6s,baz=137,slow=4.9,SNR=2.4						
	comp=Z,0.2nm,0.6s						
NVAR	**Mina Array Bea**	**79.13**	**324**	P	**P**	**05 23 57.0**	**+0.4**
TORD	**Torodi Ar. Bea**	**81.74**	**70**	P	**P**	**05 24 11.2**	**+0.4**
	comp=Z,6.6nm,0.9s,baz=263,slow=3.0,SNR=21						
	comp=Z,6.6nm,0.9s						
TORD	**Torodi Ar. Bea**	**81.74**	**70**	P	**P**	**05 24 10.2**	**-0.7**
TORD				IAmb	IAmb	05 24 12.4	
	comp=Z,15nm,1.2s						
BOSA	**Boshof**	**82.56**	**118**	P	**P**	**05 24 15.3**	**0.0**
	comp=Z,2.5nm,0.8s,baz=207,slow=2.3,SNR=4.2						
	comp=Z,2.5nm,0.8s						
BOSA	**Boshof**	**82.56**	**118**	P	**P**	**05 24 14.1**	**-1.2**
ESDC	**Sonseca Array**	**92.01**	**46**	P	**P**	**05 24 59.8**	**-0.8**
	comp=Z,0.5nm,0.8s,baz=253,slow=3.9,SNR=2.5						
	comp=Z,0.5nm,0.8s						
ESDC	**Sonseca Array**	**92.01**	**46**	P	**P**	**05 25 00.4**	**-0.2**
ASAR	**Alice Springs**	**123.19**	**208**	PKP	**PKiKP**	**05 30 50.0**	**+0.5**
	comp=Z,0.8nm,0.7s,baz=151,slow=0.8,SNR=7.4						
WRA	**Warramunga Arr**	**126.28**	**211**	PKP	**PKiKP**	**05 30 56.1**	**+0.4**
	comp=Z,1.2nm,0.7s,baz=164,slow=1.7,SNR=9.3						
BBJI	**Bungbulang**	**144.87**	**179**	PKPdf	**PKPab**	**05 31 26.3**	**-2.5**
KBL	**Kabul**	**145.79**	**69**	PKPdf	**PKPdf**	**05 31 28.2**	**-2.8**
KK31	**Karatay Array**	**145.88**	**53**	PKPdf	**PKPdf**	**05 31 29.9**	**-0.7**
KKAR	**Karatay Array**	**145.88**	**53**	PKPdf	**PKPdf**	**05 31 29.8**	**-0.8**
BTK	**Batken**	**146.73**	**59**	PKPdf	**PKPdf**	**05 31 30.6**	**-1.7**
KURK	**Kurchatov**	**147.90**	**37**	PKPdf	**PKPdf**	**05 31 32.4**	**-1.3**
KURBB	**Kurchatov Arra**	**147.90**	**37**	PKPbc	**PKPbc**	**05 31 35.8**	**-0.9**
	comp=Z,2.9nm,0.8s,baz=298,slow=3.3,SNR=18						
ZALV	**Zalesovo Beam**	**148.70**	**27**	PKPbc	**PKiKP**	**05 31 40.1**	**0.0**
	comp=Z,6.2nm,0.9s,baz=312,slow=3.6,SNR=7.1						
ZALV	**Zalesovo Beam**	**148.70**	**27**		**PKPdf**	**05 31 36.6**	**+1.8**
AAK	**Ala-Archa**	**148.83**	**53**	PKPbc	**PKiKP**	**05 31 41.6**	**+0.6**
	comp=Z,4.5nm,0.6s,baz=248,slow=2.1,SNR=8.3						
AAK	**Ala-Archa**	**148.83**	**53**		**PKiKP**	**05 31 42.0**	**+1.0**
KSH2	**Kashi**	**150.51**	**59**	PKPbc	**PKPdf**	**05 31 39.3**	**+0.8**
MKAR	**Makanchi Array**	**152.10**	**40**	PKPbc	**PKiKP**	**05 31 48.1**	**+0.7**
	comp=Z,2.5nm,0.7s,baz=328,slow=2.3,SNR=21						
MKAR				PKPab	**PKPab**	**05 31 56.3**	**-0.4**
	comp=Z,2.7nm,0.7s,baz=309,slow=2.5,SNR=9.9						
WMQ	**Urumqi**	**156.93**	**41**	*e*PKP	**PKPdf**	**05 31 47.9**	**+0.5**
WMQ				pPKP	sPKPdf	05 31 59.4	+12
HHC	**Hu-ho-hao-te**	**166.80**	**350**	*e*P	**PKPdf**	**05 31 54.6**	**-3.0**
NJ2	**Nanjing**	**170.07**	**297**	*e*P	**PKPdf**	**05 32 00.8**	**+0.9**
NJ2				pmax	pmax		
	comp=Z,8.0nm,0.7s						
PZH	**PanZhiHua**	**173.87**	**101**	PKP	**PKPdf**	**05 32 00.8**	**-1.2**

SJA ***15*** *05:19:43.2±0.6, 27°.81S×71°.69W, h5^{km}±3^{km}, ML3.5, MW3.2*

GUC ***15*** *05:19:48.8±0.8, 27°.95S×71°.44W, h17^{km}±11^{km}, ML3.5*

ISC 15 05:19:43.9±1.1**, 27°.86S**±0°.03×**71°.70W**±0°.06**, h10^{km}, n34, σ2.^{s}26**/54**, 1D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	**Llanos de Chal**	**0.66**	**122**	*e*P	**Pb**	**05 19 57.1**	**-0.3**
AC04	**Llanos de Chal**	**0.66**	**122**	⇓*i*P	**Pb**	**05 19 57.2**	**-0.3**
AC04				*e*S	**Sg**	**05 20 03.1**	**-2.1**
AC04				IAML		05 20 03.5	
	comp=E,10µm,0.1s						
GO03	**Copiapo**	**1.33**	**79**	*e*P	**Pg**	**05 20 08.7**	**-0.8**
GO03				*e*S	Sb	05 20 15.7	-10
GO03				IAML		05 20 29.6	
	comp=Z,821nm,0.8s						
GO03	**Copiapo**	**1.33**	**79**	*e*P	**Pg**	**05 20 08.4**	**-1.1**
GO03				IAML		05 20 30.5	
	comp=E,1µm,0.3s						
LCO	**Las Campanas**	**1.45**	**143**	*e*P	**Pb**	**05 20 11.1**	**-0.1**
LCO				*e*S	**Sn**	**05 20 29.0**	**-0.7**
LCO				IAML		05 20 31.5	
	comp=Z,1µm,0.2s						
LCO	**Las Campanas**	**1.45**	**143**	*e*P	**Pb**	**05 20 11.0**	**-0.2**
LCO				*e*S	**Sn**	**05 20 27.5**	**-2.2**
LCO				IAML		05 20 32.3	
	comp=Z,6µm,0.2s						
AC05	**El Transito**	**1.59**	**128**	*e*P	**Pb**	**05 20 13.2**	**-0.4**
AC05				*e*S	**Sn**	**05 20 33.2**	**+0.1**
AC05				IAML		05 20 36.0	
	comp=Z,297nm,0.4s						
AC05	**El Transito**	**1.59**	**128**	*e*P	**Pb**	**05 20 13.0**	**-0.6**
AC05				IAML		05 20 40.2	
	comp=N,453nm,0.4s						
AC01	**Pan de Azucar**	**1.97**	**30**	*e*P	**Pb**	**05 20 19.0**	**-0.8**
AC01				*e*S	**Sg**	**05 20 45.1**	**-2.0**
AC01				IAML		05 20 52.5	
	comp=Z,214nm,0.4s						
AC01	**Pan de Azucar**	**1.97**	**30**	*e*P	**Pb**	**05 20 18.8**	**-1.0**
AC01				IAML		05 20 53.7	
	comp=N,229nm,0.3s						
GO04	**Tololo Observa**	**2.44**	**161**	*e*P	**Pb**	**05 20 26.7**	**-1.4**
GO04				*e*S	**Sb**	**05 21 00.3**	**+2.0**
GO04				IAML		05 21 04.6	
	comp=Z,324nm,0.3s						
GO04	**Tololo Observa**	**2.44**	**161**	*e*P	**Pb**	**05 20 26.4**	**-1.7**
AC02	**Maricunga**	**2.51**	**67**	*e*P	**Pb**	**05 20 28.1**	**-1.2**
AC02				*e*S	**Sb**	**05 20 59.9**	**-0.5**
AC02				IAML		05 21 05.1	
	comp=Z,318nm,0.3s						
AC02	**Maricunga**	**2.51**	**67**	*e*P	**Pb**	**05 20 27.9**	**-1.4**
AC02				IAML		05 21 04.6	
	comp=E,606nm,0.2s						
CO01	**Juntas del Tor**	**2.54**	**147**	*e*P	**Pb**	**05 20 28.5**	**-1.3**
CO01				*e*S	**Sn**	**05 20 58.2**	**+1.6**
CO01				IAML		05 21 02.3	
	comp=Z,232nm,0.6s						
CO01	**Juntas del Tor**	**2.54**	**147**	*e*P	**Pb**	**05 20 28.4**	**-1.4**
CO01				IAML		05 21 02.2	
	comp=E,210nm,0.4s						
CO06	**Fray Jorge**	**2.81**	**179**	*e*P	**Pn**	**05 20 30.5**	**+1.6**
CO06				IAML		05 21 28.0	
	comp=E,112nm,0.2s						
AROD	**Rodeo**	**3.02**	**140**	*e*P	**Pb**	**05 20 36.7**	**-1.3**
AROD				*e*S	**Sn**	**05 21 09.9**	**+1.4**
VCA	**Vinchina**	**3.21**	**107**	*e*P	**Pb**	**05 20 39.7**	**-1.4**
VCA				*e*S	**Sb**	**05 21 18.8**	**-1.5**
VCA				IAML		05 21 27.7	
	comp=Z,164nm,0.3s						
ACDV	**Cuesta del Vie**	**3.23**	**136**	*e*P	**Pb**	**05 20 39.8**	**-1.7**
ACDV				*e*S	**Sb**	**05 21 17.6**	**-3.3**
ACDV				IAML		05 21 27.8	
	comp=Z,52nm,0.5s						
CO02	**Combarbal**	**3.39**	**170**	*e*P	**Pn**	**05 20 39.4**	**+2.4**
CO02				*e*S	**Sb**	**05 21 23.1**	**-2.4**
CO02				IAML		05 21 35.9	
	comp=Z,152nm,0.5s						
CO02	**Combarbal**	**3.39**	**170**	*e*P	**Pn**	**05 20 39.1**	**+2.1**
CO02				IAML		05 21 39.2	
	comp=E,627nm,0.3s						
PB14	**IPOC Station P**	**3.42**	**20**	*e*P	**Pn**	**05 20 39.2**	**+1.6**
PB14				*e*S	**Sg**	**05 21 33.8**	**-0.1**
PB14				IAML		05 21 44.5	
	comp=Z,67nm,0.5s						
ACCO	**Cerro Coronel**	**3.57**	**140**	*e*P	**Pb**	**05 20 44.7**	**-2.6**
ACCO				*e*S	**Sb**	**05 21 31.4**	**+0.6**
ACCO				IAML		05 21 39.8	
	comp=Z,83nm,0.7s						
TINO	**Tinogasta**	**3.66**	**94**	*e*P	**Pn**	**05 20 43.8**	**+3.1**
TINO				*e*S	**Sg**	**05 21 39.1**	**-2.5**
TINO				IAML		05 21 40.2	
	comp=Z,71nm,0.8s						
CO04	**Los Peladeros**	**4.22**	**172**	*e*P	**Pn**	**05 20 51.1**	**+2.5**
RTLS	**Leoncito**	**4.45**	**153**	*e*P	Pb	05 20 57.1	-5.2
RTLS				*e*S	**Sb**	**05 21 53.2**	**-3.0**
ACLC	**CERRO LA CRUZ**	**4.46**	**112**	*e*P	**Pn**	**05 20 55.3**	**+3.5**
ACLC				*e*S	**Sn**	**05 21 49.4**	**+5.5**
ACLC				IAML		05 21 55.0	
	comp=Z,46nm,1.1s						
RTLL	**Cerro Villicun**	**4.46**	**142**	*e*P	**Pn**	**05 20 53.9**	**+2.3**
RTLL				*e*S	**Sn**	**05 21 47.9**	**+4.3**
RTLL				IAML		05 22 13.6	
	comp=Z,50nm,0.8s						
CFA	**Coronel Fontan**	**4.80**	**142**	*e*P	**Pn**	**05 21 00.3**	**+4.0**
CFA				*e*S	**Sb**	**05 22 01.6**	**-4.4**
CFA				IAML		05 22 12.4	
	comp=Z,35nm,2.4s						
VA03	**San Esteban**	**4.99**	**169**	*e*P	**Pn**	**05 21 03.3**	**+4.3**
VA03				*e*S	**Sb**	**05 22 11.5**	**-0.1**
VA03				IAML		05 22 22.5	
	comp=Z,57nm,0.6s						
PB05	**IPOC Station P**	**5.16**	**16**	*e*P	**Pn**	**05 21 02.0**	**+0.6**
PB05				IAML		05 22 45.7	
	comp=Z,25nm,0.6s						
PB05	**IPOC Station P**	**5.16**	**16**	*e*P	**Pn**	**05 21 01.9**	**+0.5**
CYA	**Choya**	**5.24**	**98**	*e*P	**Pn**	**05 21 05.1**	**+2.6**
CYA				*e*S	**Sn**	**05 22 06.9**	**+3.9**
CYA				IAML		05 22 28.5	
	comp=Z,12nm,0.6s						

JMA ***15*** *05:58:05.2±0.2, 37°.3N±0°.9×135°.3E±0°.9, h374^{km}±2^{km}, MV4.0/34, SEA OF JAPAN*

IDC ***15*** *05:58:05.6±0.6, 37°.31N×135°.38E, h373^{km}±8^{km}, mb3.3/19, mbtmp4.1/26, Error ellipse: s-maj=14.9km s-min=11.1km az=64.0*

ISC 15 05:58:05.3±0.6**, 37°.38N**±0°.06×**135°.37E**±0°.05**, h367**^{km}±6^{km}**, n48, σ1.^{s}02**/61**, mb3.6**/20**, Sea of Japan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JJH	**Hakui**	**1.22**	**112**	P	**Pn**	**05 58 54.5**	**+0.8**
JHG	**Hegura jima**	**1.31**	**69**	P	**Pn**	**05 58 55.5**	**+1.4**
JKG	**Kaga**	**1.34**	**145**	P	**Pn**	**05 58 54.5**	**+0.1**
JSZ	**Suzu**	**1.59**	**87**	P	**Pn**	**05 58 56.9**	**+1.3**
JOI	**OKI**	**2.02**	**238**	P	**Pn**	**05 58 58.5**	**+0.2**
JOI				*e*S	**S**	**05 59 40.8**	**-0.1**
JWT	**Wachi**	**2.10**	**179**	P	**Pn**	**05 58 59.1**	**+0.2**
JWT				S	**S**	**05 59 40.9**	**-1.0**
JYTA	**Yamagatataniai**	**2.10**	**148**	*i* P	**Pn**	**05 58 58.9**	**+0.1**
JYTA				S	**S**	**05 59 40.7**	**-1.3**
MAT	**Matsushiro**	**2.42**	**109**	*i* P	**Pn**	**05 59 02.0**	**+0.8**
MAT				*e*S	**S**	**05 59 46.7**	**+0.5**
MJAR	**Matsushiro Arr**	**2.42**	**109**	P	**Pn**	**05 59 02.5**	**+1.2**
	182nm,0.6s,baz=287,slow=9.1,SNR=361						
MJAR				S	**S**	**05 59 48.3**	**+2.0**
	2.3nm,0.4s,baz=91,slow=27,SNR=0.3						
JHS	**Saijyo**	**3.00**	**218**	P	**Pn**	**05 59 06.0**	**-0.1**
JHS				*e*S	**S**	**05 59 53.4**	**-1.5**
JRY	**Ryogami san**	**3.15**	**115**	P	**Pn**	**05 59 08.0**	**+0.7**
JWY	**Kouya**	**3.16**	**177**	P	**Pn**	**05 59 07.5**	**-0.1**
JYN	**Shimob**	**3.17**	**125**	P	**Pn**	**05 59 07.6**	**0.0**
JIE	**Ise**	**3.17**	**160**	*i* P	**Pn**	**05 59 08.1**	**+0.6**
JIE				*e*S	**S**	**05 59 58.0**	**+0.3**
JGT2	**ShimaneMisato**	**3.27**	**226**	*e*P	**Pn**	**05 59 08.4**	**0.0**
JTNC	**Tanabenakahech**	**3.56**	**177**	P	**Pn**	**05 59 10.6**	**-0.6**
JOD2	**Odawara 2**	**3.67**	**124**	P	**Pn**	**05 59 12.6**	**+0.4**
JOD2				*e*S	**S**	**06 00 05.6**	**-0.5**
TTO1	**TONANKAI O.B.S**	**3.92**	**163**	*e*P	**Pn**	**05 59 15.4**	**+1.1**
JMK	**Ichinoseki**	**4.87**	**69**	P	**Pn**	**05 59 25.5**	**+1.3**
JMK				S	**S**	**06 00 28.5**	**+0.4**
BSO1	**Boso 1**	**5.30**	**119**	P	**Pn**	**05 59 28.0**	**-0.4**
BSO1				S	**S**	**06 00 35.0**	**-0.7**
JHJ	**Hachijo jima 2**	**5.58**	**138**	P	**Pn**	**05 59 31.6**	**-0.4**
	35nm,0.4s,baz=9.5,slow=12,SNR=1.4						
JHJ				S	**S**	**06 00 42.7**	**+0.3**
	98nm,0.3s,baz=266,slow=23,SNR=5.7						
JHJ2	**Mitsune**	**5.60**	**138**	*e*S	**S**	**06 00 44.3**	**+1.4**
JNU	**Nakatsue**	**5.62**	**222**	P	**Pn**	**05 59 32.8**	**+0.3**
	9.9nm,0.7s,baz=51,slow=6.1,SNR=8.6						
KSRS	**Korea Array**	**5.93**	**273**	P	**Pn**	**05 59 36.7**	**+0.9**
	18nm,0.6s,baz=93,slow=12,SNR=91						
USRK	**Ussuriysk Ar.**	**7.28**	**340**	P	**P**	**05 59 53.0**	**+0.8**
	12nm,0.7s,baz=164,slow=11,SNR=18						
ASAJ	**Asahikawa**	**8.68**	**37**	P	**Pn**	**06 00 08.5**	**+1.1**
	37nm,0.5s,baz=227,slow=12,SNR=22						
ASAJ				S	**S**	**06 01 42.7**	**-4.8**
	21nm,0.8s,baz=113,slow=33,SNR=15						
KLR	**Kul'dur**	**12.13**	**349**	P	**P**	**06 00 46.6**	**-0.8**
	1.0nm,0.4s,baz=174,slow=14,SNR=2.8						
SONM	**Songino Array**	**23.62**	**305**	P	**P**	**06 02 45.2**	**+0.3**
	0.6nm,0.5s,baz=115,slow=11,SNR=4.4						
	0.6nm,0.5s						
CMAR	**Chiang Mai Arr**	**37.00**	**249**	P	**P**	**06 04 40.8**	**-0.7**
	0.9nm,0.3s,baz=29,slow=9.9,SNR=4.2						
	0.9nm,0.3s						
ZALV	**Zalesovo Beam**	**38.11**	**312**	P	**P**	**06 04 49.2**	**-0.9**
	0.7nm,0.4s,baz=104,slow=9.1,SNR=3.0						
ZALV				PcP	**PcP**	**06 06 56.6**	**+0.3**
	1.0nm,0.4s,baz=106,slow=4.8,SNR=4.4						
	0.7nm,0.4s						
MKAR	**Makanchi Array**	**39.83**	**301**	P	**P**	**06 05 04.0**	**-0.4**
	0.7nm,0.5s,baz=90,slow=9.5,SNR=7.8						
	0.7nm,0.5s						
KURBB	**Kurchatov Arra**	**41.97**	**307**	P	**P**	**06 05 20.9**	**-0.6**
	1.5nm,0.7s,baz=88,slow=8.1,SNR=6.0						
	1.5nm,0.7s						
AAK	**Ala-Archa**	**46.05**	**296**	P	**P**	**06 05 54.2**	**+0.3**
	2.6nm,0.4s,baz=218,slow=2.3,SNR=5.2						
	2.6nm,0.4s						
BVAR	**Borovoye Array**	**46.74**	**311**	P	**P**	**06 05 58.7**	**-0.1**
	0.9nm,0.3s,baz=74,slow=6.5,SNR=3.5						
	0.9nm,0.3s						
ILAR	**Eielson Array**	**51.78**	**32**	P	**P**	**06 06 35.0**	**-1.4**
	0.5nm,0.9s,baz=278,slow=7.3,SNR=2.1						
	0.5nm,0.9s						
ARTI	**Arti**	**52.97**	**317**	P	**P**	**06 06 44.7**	**-0.4**
	6.8nm,0.5s,baz=84,slow=2.3,SNR=10						
	6.8nm,0.5s						
AKTO	**Aktyubinsk**	**54.81**	**310**	P	**P**	**06 06 58.4**	**0.0**
	2.1nm,0.7s,baz=79,slow=11,SNR=4.9						
	2.1nm,0.7s						
WRA	**Warramunga Arr**	**57.02**	**181**	P	**P**	**06 07 13.6**	**-0.6**
	0.4nm,0.5s,baz=1.6,slow=7.1,SNR=4.8						
	0.4nm,0.5s						
ASAR	**Alice Springs**	**60.74**	**182**	P	**P**	**06 07 38.1**	**-1.3**
	0.3nm,0.5s,baz=18,slow=12,SNR=6.9						
	0.3nm,0.5s						
ARCES	**ARCESS Array B**	**61.92**	**338**	P	**P**	**06 07 47.2**	**+0.5**
	1.0nm,0.5s,baz=56,slow=5.8,SNR=6.5						
	1.0nm,0.5s						
FINES	**FINESS Array B**	**66.19**	**330**	P	**P**	**06 08 14.5**	**+0.2**
	1.2nm,0.3s,baz=56,slow=6.2,SNR=12						
	1.2nm,0.3s						
KBZ	**Khabaz**	**66.95**	**308**	P	**P**	**06 08 20.4**	**+1.1**
	3.0nm,0.9s,baz=330,slow=4.5,SNR=4.2						
	3.0nm,0.9s						
AKASG	**Malin Array Be**	**70.99**	**320**	P	**P**	**06 08 43.9**	**0.0**
	0.9nm,0.4s,baz=49,slow=7.1,SNR=7.0						
	0.9nm,0.4s						
HFS	**Hagfors**	**71.70**	**333**	P	**P**	**06 08 48.3**	**+0.4**
	1.9nm,0.5s,baz=65,slow=12,SNR=7.5						
	1.9nm,0.5s						
NB2	**NORSAR Subarra**	**71.91**	**335**	P	**P**	**06 08 49.7**	**+0.5**
	comp=Z,0.9nm,0.6s,baz=42,slow=5.9						
NOA	**NORSAR Array B**	**71.91**	**335**	P	**P**	**06 08 49.6**	**+0.5**
	comp=Z,1.1nm,0.6s,baz=42,slow=6.0,SNR=8.9						
	comp=Z,1.1nm,0.6s						
GERES	**GERESS Array B**	**79.77**	**325**	P	**P**	**06 09 33.8**	**+0.3**
	comp=Z,20nm,0.6s,baz=17,slow=5.8,SNR=4.4						
EKA	**Eskdalemuir Ar**	**81.08**	**337**	P	**P**	**06 09 40.6**	**+0.5**
	comp=Z,0.5nm,0.5s,baz=28,slow=3.8,SNR=4.7						
	comp=Z,0.5nm,0.5s						

ASRS ***15*** *05:59:51.0±1.2, 54°.22N×86°.36E, h0^{km}, M2.5(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 15 05:59:53.3±3.9**, 54°.18N×86°.41E, h0^{km}, mbtmp2.7**/2**, ML2.5**/2**, Error ellipse: s-maj=32.6km s-min=13.8km az=70.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	**ZALESOVO INFRA**	**0.97**	**257**	I	I	06 05 30.0	
	baz=75,slow=323,SNR=2.4						
ZALV	**Zalesovo Beam**	**0.97**	**257**	Pg	Pg	06 00 10.6	-1.2
	1.0nm,0.3s,baz=75,slow=17,SNR=7.7						
ZALV				Lg	Lg	06 00 25.9	
	4.0nm,0.3s,baz=77,slow=30,SNR=21						
ZALV				Rg	Rg	06 00 33.2	
	4.1nm,0.7s,baz=76,slow=31,SNR=5.1						
KURBB	**Kurchatov Arra**	**6.00**	**237**	Pn	Pn	06 01 24.3	+1.1
	0.1nm,0.3s,baz=52,slow=13,SNR=4.6						
	0.6nm,0.4s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**7.85**	**201**	Pn	Pn	06 01 50.0	+1.3
	0.1nm,0.3s,baz=24,slow=12,SNR=4.2						
	0.2nm,0.4s						
MKAR				AML	AML		

IDC 15 06:00:51.1±2.8**, 54°.64N×83°.50E, h0^{km}, mbtmp2.6**/2**, ML2.1**/2**, Error ellipse: s-maj=24.3km s-min=12.1km az=151.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	**ZALESOVO INFRA**	**1.04**	**131**	I	I	06 07 40.0	
	baz=312,slow=312,SNR=2.9						
ZALV	**Zalesovo Beam**	**1.04**	**131**	Pg	Pg	06 01 11.0	0.0
	3.5nm,0.3s,baz=315,slow=18,SNR=29						
ZALV				Lg	Lg	06 01 26.1	
	2.8nm,0.3s,baz=312,slow=30,SNR=13						
KURBB	**Kurchatov Arra**	**5.03**	**219**	Pn	Pn	06 02 08.6	+0.8
	baz=37,slow=15,SNR=1.9						
KURBB				Lg	Lg	06 03 33.0	
	baz=40,slow=27,SNR=5.8						
	0.4nm,0.8s						
MKAR	**Makanchi Array**	**7.89**	**186**	Pn	Pn	06 02 47.3	+0.2
	baz=1.9,slow=13,SNR=3.3						
MKAR				Sn	Sn	06 04 14.7	-2.4
	0.1nm,0.3s,baz=3.7,slow=25,SNR=3.7						
	0.4nm,0.7s						

IDC ***15*** *06:06:53.5±0.6, 35°.62N×140°.54E, h0^{km}, mb4.0/16, mbtmp3.9/22, ML3.5/4, MS3.5/1, Error ellipse: s-maj=13.4km s-min=11.3km az=93.0*

NIED ***15*** *06:06:55.6, 35°.81N×140°.89E, h12^{km}, MW4.1, Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M_{rr}-0.37; $M_{\theta\theta}$-0.45; $M_{\phi\phi}$0.82; $M_{r\theta}$-0.90; $M_{\theta\phi}$-1.02; $M_{\phi r}$0.97; Fault plane solution: $M_0$1.70000×10^{15} NP1:ϕ_s19.00000°, δ37.00000°, λ-12.00000°. NP2:ϕ_s119.00000°, δ83.00000°, λ-127.00000°.*

JMA ***15*** *06:06:55.6±0.1, 35°.8N±0°.3×140°.9E±0°.2, h12^{km}, MD4.4/37, MV4.4/37, NEAR CHOSHI CITY*

JMA Felt II J1 at NEAR CHOSHI CITY .

NEIC ***15*** *06:07:00.6±1.3, 35°.94N±0°.06×140°.58E±0°.08, h42^{km}±5^{km}, mb4.6/42, Error ellipse: s-maj=9.8km s-min=8.7km az=106.0*

ISC 15 06:06:56.2±1.1**, 35°.82N**±0°.03×**140°.58E**±0°.05**, h13**^{km}±7^{km}**, n123,** σ**1**^{s}**19**/118**, mb4.5**/40**, 1C-3D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JIHU	Itakohorinouch	0.15	344	⇓iP	Pb	06 07 03.0	+2.2
JIHU				A	A	06 07 03.0	
	comp=N,135nm,2.2s,comp=E,158nm,1.2s						
JSMT	Sammumatsuo	0.21	211	iP	Pb	06 07 03.9	+2.1
JSMT				A	A	06 07 03.9	
	comp=N,40nm,1.0s,comp=E,64nm,0.6s						
JYT	Yasato	0.51	323	iP	Pn	06 07 08.9	-0.3
JYT				A	A	06 07 08.9	
	comp=N,29nm,0.4s,comp=E,20nm,0.3s						
JYT				S	Sn	06 07 18.1	+0.4
JCCN	Chibachonan	0.52	213	A	A	06 07 08.7	
	comp=N,26nm,1.3s,comp=E,28nm,1.7s						
JHYU	Hitachinakayam	0.52	1	A	A	06 07 07.0	
	comp=N,63nm,1.1s,comp=E,55nm,0.7s						
TOK	Tokyo	0.68	259	A	A	06 07 13.1	
	comp=N,56nm,1.0s,comp=E,23nm,0.5s						
JKUC	kamogawauchiur	0.73	205	A	A	06 07 11.8	
	comp=N,10.0nm,1.2s,comp=E,9.0nm,3.2s						
JHO	Hitachi	0.79	359	⇓iP	Pg	06 07 11.0	-0.5
JHO				⇓S	Sb	06 07 22.5	+0.2
BSO4	Boso 4	0.85	193	P	Pn	06 07 13.5	-0.3
BSO3	Boso 3	1.02	183	P	Pg	06 07 15.1	-0.7
JAG	Ashikaga	1.09	304	A	A	06 07 19.7	
	comp=N,4.0nm,1.7s,comp=E,3.0nm,0.6s						
JSB	Shiboa	1.26	335	A	A	06 07 21.1	
	comp=N,11nm,1.3s,comp=E,10.0nm,1.3s						
JKT	Katashina	1.43	312	A	A	06 07 24.8	
	comp=N,12nm,0.3s,comp=E,10.0nm,0.5s						
JIM2	Oshima 3	1.45	221	A	A	06 07 24.3	
	comp=N,5.0nm,1.7s,comp=E,5.0nm,1.2s						
JGK	Kuni	1.73	296	A	A	06 07 29.7	
	comp=N,3.0nm,0.7s,comp=E,4.0nm,4.0s						
JOTO	OTAMA OYAMA	1.75	354	A	A	06 07 27.2	
	comp=N,12nm,0.6s,comp=E,14nm,0.6s						
MJAR	Matsushiro Arr	2.05	291	Pn	Pn	06 07 30.1	-0.2
	comp=E,5.6nm,0.3s,baz=92,slow=8.9,SNR=148						
MJAR				Sn	Sn	06 07 54.7	-1.0
	comp=E,4.5nm,0.3s,baz=240,slow=42,SNR=3.9						
	comp=E,32nm,0.3s						
MJAR				AML	AML		
MJAR	Matsushiro Arr	2.05	291		Pb	06 07 32.5	-0.7
MAJO	Matsushiro	2.05	291		Pb	06 07 32.6	-0.7
MAJO				Sn	Sn	06 07 53.3	-2.5
MJB9	Matsu-Tunnel	2.05	291	Pn	Pb	06 07 33.9	+0.6
MJB9				Sn	Sn	06 07 54.5	-1.4
JSG	Sagara	2.27	240		Pb	06 07 36.9	-0.1
JGF	Kuroka	2.63	266	Pn	Pb	06 07 42.9	-0.3
JHJ	Hachijo jima 2	2.77	194	Pn	Pn	06 07 35.3	-5.0
	comp=E,65nm,0.7s,baz=18,slow=19,SNR=1.5						
JHJ				Sn	Sn	06 08 03.8	-10
	comp=E,36nm,0.3s,baz=220,slow=19,SNR=3.6						
JHJ2	Mitsune	2.77	193	Pn	Pb	06 07 43.4	-2.2
INU	Inuyama	2.94	262		Pn	06 07 44.2	+1.6
JTM	Tenmabayashi	4.97	4	Pn	Pn	06 08 11.2	+0.6
JMN	Monobe	5.89	251	Pn	Pn	06 08 26.1	+2.8
ERM	Erimo	6.50	17	Pn	Pn	06 08 32.4	+0.9
ASAJ	Asahikawa	8.43	10	Pn	Pn	06 08 58.1	+0.2
	comp=E,2.8nm,0.3s,baz=176,slow=15,SNR=5.4						
	comp=E,4.9nm,0.3s						
ASAJ				AML	AML		
JKA	Kamikawa-asahi	8.43	10	Pn	Pn	06 08 58.3	+0.4
JNU	Nakatsue	8.45	254	Pn	Pn	06 08 58.1	-0.2
	comp=E,0.3nm,0.3s,baz=27,slow=16,SNR=1.1						
	comp=E,2.0nm,0.6s						
JNU				AML	AML		
JSU	Suzuyama	9.47	246	Pn	Pn	06 09 15.1	+2.8
KSRS	Korea Array	10.30	283	Pn	Pn	06 09 28.2	+4.6
	comp=E,0.1nm,0.3s,baz=93,slow=15,SNR=1.6						
	comp=E,1.0nm,0.6s						
KSRS				AML	AML		
KSAR	Wonju Array Be	10.33	283	Pn	Pn	06 09 25.4	+1.4
KS19	Wonju Array Si	10.35	283	Pn	Pn	06 09 25.9	+1.6
USRK	Ussuriysk Ar.	10.64	324	Pn	Pn	06 09 32.0	+3.7
	comp=E,1.7nm,0.8s,baz=108,slow=12,SNR=2.6						
USRK				LR	LR	06 13 02.2	
	comp=E,272nm,20.2s,baz=27,slow=34						
USRK	Ussuriysk Ar.	10.64	324	Pn	Pn	06 09 28.2	-0.1
CN2	Changchun	14.08	309	P	Pn	06 10 12.9	-2.4
CN2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
NJ2	Nanjing	18.41	264	eP	Pn	06 11 12.9	+1.8
NJ2				pmax	pmax		
	comp=Z,8.0nm,0.6s						
DPSS	Saipan	21.02	166	P	P	06 11 40.9	+1.3
PETK	Petropavlovsk-	21.07	30	P	P	06 11 41.4	+1.5
	comp=Z,4.2nm,1.0s,baz=212,slow=4.7,SNR=3.9						
	comp=Z,4.2nm,1.0s						
PETK	Petropavlovsk-	21.07	30	P	P	06 11 39.9	-0.1
WHN	Wuhan	22.54	264	⇑P	P	06 11 58.4	+2.5
HHC	Hu-ho-hao-te	23.25	291	eP	P	06 12 02.6	-0.7
HHC				pmax	pmax		
	comp=Z,6.0nm,0.7s						
HHC				pmax	pmax		
	comp=Z,74nm,5.4s						
ENH	Enshi	26.58	267	P	P	06 12 34.0	0.0
ENH				IAmb	IAmb	06 12 35.2	
	comp=Z,20nm,1.1s						
SONM	Songino Array	27.93	306	P	P	06 12 47.3	+1.1
	comp=Z,0.7nm,0.5s,baz=114,slow=9.4,SNR=2.4						
	comp=Z,0.7nm,0.5s						
SONM	Songino Array	27.93	306	P	P	06 12 45.3	-0.8
H11N2	WAKE ISLAND Hy	28.14	118	T	T	06 41 48.2	
	baz=311,slow=75,SNR=99						
H11N1	WAKE ISLAND Hy	28.15	118	T	T	06 41 52.6	
	baz=311,slow=75,SNR=41						
H11N3	WAKE ISLAND Hy	28.16	118	T	T	06 41 56.3	
	baz=311,slow=75,SNR=56						
H11S1	WAKE ISLAND Hy	28.80	120	T	T	06 42 31.2	
	baz=312,slow=75,SNR=215						
H11S3	WAKE ISLAND Hy	28.80	120	T	T	06 42 31.2	
	baz=312,slow=75,SNR=83						
H11S2	WAKE ISLAND Hy	28.82	120	T	T	06 42 33.3	
	baz=312,slow=75,SNR=93						
LZH	Lanzhou	29.63	281	eP	P	06 13 01.9	+0.5
LZH				sP	sP	06 13 14.3	+7.2
LZH				pmax	pmax		
	comp=Z,27nm,0.8s						
AMKA	Amchitka	31.63	48	P	P	06 13 18.8	+0.1
PZH	PanZhiHua	34.32	265	P	P	06 13 43.4	+0.8
CMAR	Chiang Mai Arr	40.54	256	P	P	06 14 33.7	-1.6
	comp=Z,0.8nm,0.3s,baz=72,slow=11,SNR=1.2						
	comp=Z,0.8nm,0.3s						
WMQ	Urumqi	40.80	298	eP	P	06 14 37.4	+0.2
WMQ				pmax	pmax		
	comp=Z,14nm,0.9s						
ZAA0	Zalesovo Array	42.24	313	P	P	06 14 48.2	-0.6
ZAA0				PcP	PcP	06 16 42.5	-0.1
ZALV	Zalesovo Beam	42.24	313	P	P	06 14 48.4	-0.4
	comp=Z,2.1nm,0.6s,baz=100,slow=8.1,SNR=8.1						
ZALV				PcP	PcP	06 16 41.5	-1.1
	comp=Z,0.4nm,0.4s,baz=149,slow=3.0,SNR=2.0						
	comp=Z,2.1nm,0.6s						
ZALV	Zalesovo Beam	42.24	313	P	P	06 14 48.6	-0.3
ZALV					PcP	06 16 42.2	-0.4
SHL	Shillong	42.73	270	P	P	06 14 52.7	-0.7
MKAR	Makanchi Array	44.20	303	P	P	06 15 04.8	0.0
	comp=Z,1.6nm,0.6s,baz=88,slow=9.7,SNR=14						
MKAR				PcP	PcP	06 16 49.8	+0.4
	comp=Z,0.3nm,0.5s,baz=71,slow=6.2,SNR=1.8						
	comp=Z,1.6nm,0.6s						
MKAR	Makanchi Array	44.20	303	P	P	06 15 04.6	-0.2
MKAR				PcP	PcP	06 16 48.8	-0.6
VNFG	Fog Glacier, M	44.67	43	P	P	06 15 07.6	-0.9
K17K	Iditarod	45.73	34	P	P	06 15 15.3	-1.4
K17K				IAmb	IAmb	06 15 43.7	
	comp=Z,13nm,1.2s						
EVN	Everest	45.84	276	P	P	06 15 18.3	-0.5
EVN				IAmb	IAmb	06 15 25.7	
	comp=Z,3.0nm,0.6s						
M17K	Holitna River	46.02	36	P	P	06 15 19.3	+0.3
M17K				IAmb	IAmb	06 15 24.9	
	comp=Z,5.8nm,0.8s						
G18K	Tagagawik	46.03	30	P	P	06 15 18.6	-0.4
G18K				IAmb	IAmb	06 15 23.6	
	comp=Z,7.7nm,1.2s						
KURK	Kurchatov	46.16	309	P	P	06 15 19.9	-0.4
KURK				IAmb	IAmb	06 15 28.8	
	comp=Z,4.8nm,1.0s						
KURBB	Kurchatov Arra	46.23	309	P	P	06 15 21.4	+0.6
	comp=Z,1.7nm,0.2s,baz=82,slow=8.2,SNR=5.4						
	comp=Z,1.7nm,0.2s						
E19K	Redstone River	46.86	28	P	P	06 15 24.4	-1.1
E19K				IAmb	IAmb	06 15 30.8	
	comp=Z,7.5nm,1.1s						
B20K	Meade River	47.37	24	P	P	06 15 28.5	-0.9
B20K				IAmb	IAmb	06 15 29.6	
	comp=Z,16nm,1.4s						
KDAK	Kodiak Island	48.45	41	P	P	06 15 37.1	-0.9
KDAK				IAmb	IAmb	06 15 42.2	
	comp=Z,8.3nm,0.9s						
PPLA	Purkeypile	48.55	34	P	P	06 15 37.8	-1.1
PPLA				IAmb	IAmb	06 15 52.2	
	comp=Z,9.6nm,1.3s						
COEN	Coen	49.57	177	P	P	06 15 48.4	+1.5
KSH2	Kashi	50.70	294	P	P	06 15 59.8	+4.1
IL31		50.88	32	P	P	06 15 56.1	-0.3
ILAR	Eielson Array	50.88	32	P	P	06 15 55.9	-0.5
	comp=Z,2.3nm,0.9s,baz=275,slow=6.8,SNR=16						
	comp=Z,2.3nm,0.9s						
ILAR	Eielson Array	50.88	32	P	P	06 15 56.1	-0.3
BORK	Borovoye	50.93	313	P	P	06 15 56.2	-0.8
KKAR	Karatay Array	53.16	301	P	P	06 16 12.2	-1.5
BCAR	Beaver Creek A	53.27	34	P	P	06 16 14.2	-0.2
EPYK	Eagle Plains	54.91	29	P	P	06 16 25.7	-0.5
EPYK				IAmb	IAmb	06 16 31.8	
	comp=Z,5.3nm,0.8s						
FITZ	Fitzroy Crossi	55.46	197	P	P	06 16 28.5	-2.1
	comp=Z,2.6nm,1.1s,baz=24,slow=8.9,SNR=7.1						
	comp=Z,2.6nm,1.1s						
FITZ	Fitzroy Crossi	55.46	197	P	P	06 16 31.9	+1.3
WB0	Warramunga Arr	55.59	187	P	P	06 16 32.1	+0.5
WB0				IAmb	IAmb	06 16 40.4	
	comp=Z,5.0nm,0.9s						
G31M	Satah River	55.77	28	P	P	06 16 31.5	-0.8
G31M				IAmb	IAmb	06 16 57.8	
	comp=Z,11nm,1.3s						
INK	Inuvik	55.77	27	P	P	06 16 31.8	-0.5
INK				IAmb	IAmb	06 16 33.8	
	comp=Z,12nm,1.4s						
WRA	Warramunga Arr	55.77	187	P	P	06 16 30.6	-2.2
	comp=Z,1.2nm,0.6s,baz=4.8,slow=7.6,SNR=16						
	comp=Z,1.2nm,0.6s						
WRA	Warramunga Arr	55.77	187	P	P	06 16 32.8	0.0
CTAO	Charters Tower	55.86	174	P	P	06 16 34.2	+0.8
ARTI	Arti	56.93	319	P	P	06 16 39.7	-1.1
ARTI				IAmb	IAmb	06 16 45.7	
	comp=Z,7.3nm,1.0s						
P33M	Teslin, Yukon	58.07	36	P	P	06 16 47.5	-1.4
P33M				IAmb	IAmb	06 16 54.9	
	comp=Z,3.2nm,1.0s						
MMPY	Sheldon Lake,	58.08	33	P	P	06 16 48.1	-0.8
MMPY				PcP	PcP	06 17 39.0	-1.5
AB31	Akbulak array	58.21	310	P	P	06 16 50.6	+0.7
AB31				IAmb	IAmb	06 17 01.4	
	comp=Z,7.4nm,1.5s						
ABKAR	Akbulak array	58.21	310	P	P	06 16 49.9	0.0
AS31	Alice Springs	59.50	187	P	P	06 16 59.6	+0.6
ASAR	Alice Springs	59.50	187	P	P	06 16 58.3	-0.7
	comp=Z,0.3nm,0.6s,baz=20,slow=12,SNR=6.6						
	comp=Z,0.3nm,0.6s						
ASAR	Alice Springs	59.50	187	P	P	06 16 59.8	+0.7
MBWA	Marble Bar	60.01	203	P	P	06 17 03.2	+0.7
MSVF	Nonsavu	64.00	140	P	P	06 17 30.4	+0.8
FINES	FINESS Array B	69.57	332	P	P	06 18 04.8	+0.4
	comp=Z,2.2nm,0.8s,baz=50,slow=7.3,SNR=3.2						
	comp=Z,2.2nm,0.8s						
FINES	FINESS Array B	69.57	332	P	P	06 18 03.2	-1.3
PINE	Pine Mountain	71.64	49	P	P	06 18 17.4	-0.3
PINE				IAmb	IAmb	06 18 34.6	
	comp=Z,8.4nm,1.5s						
AKASG	Malin Array Be	74.84	322	P	P	06 18 35.7	-0.5
	comp=Z,1.1nm,0.6s,baz=49,slow=6.1,SNR=7.4						
	comp=Z,1.1nm,0.6s						
AKBB	Malin Array Si	74.84	322	P	P	06 18 36.3	+0.1
AKBB				IAmb	IAmb	06 18 41.1	
	comp=Z,12nm,1.5s						
NB2	NORSAR Subarra	75.04	337	P	P	06 18 37.5	+0.3
	comp=Z,1.9nm,0.8s,baz=41,slow=5.9						
NOA	NORSAR Array B	75.04	337	P	P	06 18 37.2	0.0
	comp=Z,1.0nm,0.8s,baz=39,slow=5.9,SNR=4.5						
	comp=Z,1.0nm,0.8s						
FFC	Flin Flon	75.09	32	P	P	06 18 37.1	-0.4
FFC				IAmb	IAmb	06 19 04.5	
	comp=Z,17nm,1.5s						
RAO	Raoul Island	75.60	143	P	P	06 18 40.6	-0.1
NVAR	Mina Array Bea	76.26	53	P	P	06 18 45.9	+1.1
	comp=Z,0.9nm,0.8s,baz=286,slow=6.0,SNR=5.5						
	comp=Z,0.9nm,0.8s						
PDAR	Pinedale Array	79.00	45	P	P	06 19 01.6	+1.5
	comp=Z,0.4nm,0.6s,baz=290,slow=2.7,SNR=6.0						
	comp=Z,0.4nm,0.6s						
PDAR	Pinedale Array	79.00	45	P	P	06 18 58.9	-1.1
CLL	Collm	81.81	330	iP	P	06 19 14.6	-0.1
PV16	Nyswonger Mesa	82.20	48	P	P	06 19 16.9	-0.4
EPLO	Experimental L	82.25	32	P	P	06 19 16.3	-0.8
EPLO				IAmb	IAmb	06 19 56.7	
	comp=Z,17nm,1.5s						
SRIG	Santa Rosalia	87.00	58	P	P	06 19 41.0	-0.4
MCQ	Macquarie Isla	91.34	169	P	P	06 20 02.4	+1.4
TXAR	Lajitas Array	91.40	52	P	P	06 20 02.9	+0.6
	comp=Z,0.5nm,0.8s,baz=272,slow=1.6,SNR=5.6						
	comp=Z,0.5nm,0.8s						
TXAR	Lajitas Array	91.40	52	P	P	06 20 01.0	-1.3
LPAZ	La Paz	147.88	60	PKPbc	PKPbc	06 26 41.1	-1.2
	comp=Z,2.3nm,0.8s,baz=307,slow=5.1,SNR=6.0						
LPAZ	La Paz	147.88	60	PKPdf	PKPdf	06 26 37.6	-1.7
LPAZ				PKPbc	PKPbc	06 26 41.1	-1.2
LPAZ				PKPab	pPKPdf	06 26 43.3	-0.5

KNET ***15*** *06:43:01.9±0.3, 43°.14N×74°.54E, h18^{km}±2^{km}, ml1.5, Error ellipse: s-maj=2.7km s-min=2.0km az=75.0*

NNC ***15*** *06:43:02.3±0.7, 43°.14N×74°.51E, h0^{km}, mb2.8, mpv2.6, Error ellipse: s-maj=6.5km s-min=3.2km az=114.0*

KRNET ***15*** *06:43:02.4±0.1, 43°.15N×74°.54E, h20^{km}, mb2.6*

SOME ***15*** *06:43:02.8, 43°.12N×74°.52E, h10^{km}*

ISC 15 06:43:02.3±0.9**, 43°.14N**±0°.02×**74°.53E**±0°.02**, h18**^{km}±4^{km}**, n30,** σ**0**^{s}**40**/58**, 27C-10D, Central Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
USP	Ospenovka	0.13	350	⇑P	Pg	06 43 06.4	0.0
	92nm,0.1s,SNR=88						
USP				⇓S	Sg	06 43 09.0	-0.1
	459nm,0.1s						
USP	Ospenovka	0.13	350	⇑eP	Pg	06 43 06.3	0.0
USP				⇑eS	Sg	06 43 09.1	0.0
CHMS	Chumysh	0.22	131	⇑P	Pg	06 43 07.6	+0.1
	13nm,0.1s,SNR=63						
CHMS				⇑S	Sg	06 43 11.2	+0.1
	77nm,0.1s						
CHMS	Chumysh	0.22	131	⇑eP	Pg	06 43 07.6	+0.1
CHMS				⇑eS	Sg	06 43 11.1	+0.1
SGDS	Sogindy	0.32	13	P	Pg	06 43 09.4	+0.1
	8.8nm,0.1s						
SGDS				S	Sg	06 43 13.8	-0.2
	98nm,0.1s						
AAK	Ala-Archa	0.50	183	⇓P	Pg	06 43 12.7	+0.2
	6.3nm,0.1s,SNR=14						
AAK				⇓S	Sb	06 43 19.9	+0.1
	25nm,0.2s						
AAK	Ala-Archa	0.50	183	⇑P	Pg	06 43 12.3	-0.3
	2.4nm,0.5s						
AAK				⇑S	Sg	06 43 19.3	-0.1
	1.8nm,0.3s						
AAK	Ala-Archa	0.50	183	⇑eP	Pg	06 43 12.4	-0.1
AAK				⇑eS	Sb	06 43 19.7	-0.1
KBK	Karagaybulak	0.57	147	⇓P	Pb	06 43 13.9	0.0
	8.6nm,0.1s,SNR=9.8						
KBK				⇑S	Sb	06 43 22.2	+0.4
	9.2nm,0.1s						
KBK	Karagaybulak	0.57	147	⇓eP	Pg	06 43 13.6	-0.2
KBK				⇓eS	Sb	06 43 21.7	-0.1
EKS2	Erkin-Say	0.73	229	⇑P	Pb	06 43 16.5	-0.1
	2.9nm,0.2s,SNR=15						
EKS2				⇑S	Sg	06 43 26.7	+0.3
	2.9nm,0.1s						
EKS2	Erkin-Say	0.73	229	⇑eP	Pb	06 43 16.4	-0.2
EKS2				⇑eS	Sb	06 43 26.5	+0.2
TKM2	Tokmak 2	0.81	105	⇑P	Pb	06 43 17.9	-0.1
	2.2nm,0.1s,SNR=16						
TKM2				⇓S	Sb	06 43 28.8	0.0
	23nm,0.1s						
TKM2	Tokmak 2	0.81	105	⇑eP	Pb	06 43 17.8	-0.2
TKM2				⇑eS	Sb	06 43 28.8	0.0
UCH	Uchtor	0.91	181	⇑P	Pb	06 43 19.9	0.0
	0.6nm,0.1s						
UCH				⇑S	Sb	06 43 32.0	+0.2
	5.5nm,0.2s						
UCH	Uchtor	0.91	181	⇑eP	Pb	06 43 19.7	-0.2
UCH				⇑eS	Sg	06 43 32.2	-0.1
KRBS	Karabastau	1.00	56	P	Pn	06 43 21.6	0.0
	1.2nm,0.1s						
KRBS				S	Sb	06 43 34.5	+0.4
	2.7nm,0.1s						
KRBS	Karabastau	1.00	56	eP	Pn	06 43 21.6	0.0
	1.2nm,0.1s						
KRBS				eS	Sb	06 43 34.5	+0.4
	2.7nm,0.1s						
MRKS	Merke	1.04	248	P	Pb	06 43 22.0	+0.2
	1.5nm,0.1s						
MRKS				S	Sb	06 43 35.4	+0.3
	6.7nm,0.2s						
MRKS	Merke	1.04	248	eP	Pb	06 43 21.8	+0.1
	1.9nm,0.1s						
MRKS				eS	Sb	06 43 35.3	+0.3
	8.3nm,0.1s						
KST	Kastek	1.05	95	P	Pg	06 43 22.9	+0.1
	0.8nm,0.1s						
KST				S	Sg	06 43 36.7	+0.1
	8.9nm,0.4s						
KST	Kastek	1.05	95	eP	Pg	06 43 22.9	+0.1
	0.8nm,0.1s						
KST				eS	Sg	06 43 36.7	+0.1
	8.9nm,0.4s						
BOOM	Boomskoye usch	1.23	122	⇑eP	Pb	06 43 25.0	0.0
BOOM				⇑eS	Sn	06 43 41.4	+0.5
ULHL	Ulahol	1.55	125	⇓P	Pb	06 43 30.5	0.0
	0.9nm,0.1s,SNR=8.1						
ULHL	Ulahol	1.55	125	⇑eP	Pb	06 43 30.6	0.0
ULHL				⇑eS	Sg	06 43 51.2	-1.1
KTBS	Karatobe	1.67	69	P	Pb	06 43 32.7	+0.1
	0.6nm,0.1s						
KTBS				S	Sb	06 43 53.8	+0.5
	8.0nm,0.4s						
KTBS	Karatobe	1.67	69	eP	Pg	06 43 33.5	-0.9
	0.9nm,0.1s						
KTBS				eS	Sg	06 43 54.9	-1.2
	8.0nm,0.4s						
KOTS	Kotyrbulak	1.89	86	P	Pg	06 43 39.0	+0.3
	1.9nm,0.4s						
KOTS				S	Sg	06 44 04.5	+1.2
	19nm,0.3s						
KOTS	Kotyrbulak	1.89	86	eP	Pg	06 43 38.0	-0.7
	1.1nm,0.1s						
KOTS				eS	Sg	06 44 02.5	-0.8
	19nm,0.3s						
KK31	Karatay Array	2.94	271	⇓Pg	Pg	06 43 58.0	-0.7
	0.8nm,0.5s,baz=90,slow=22,SNR=4.3						
KK31				⇓Lg	Lg	06 44 32.4	
	1.8nm,0.5s,baz=86,slow=28,SNR=5.6						

VAO ***15*** *06:44:02.9±0.5, 3°.39S×80°.53W, h10^{km}, mb4.9, Presumed earthquake*

IGQ ***15*** *06:44:03.3±0.5, 3°S±1°×8°1W±°, h15^{km}±3^{km}, M5.4/36, mB5.8/8, mb5.7/8, Mjma5.3/36, ML5.6/34, MLv5.2/33, Mw(mB)5.3/8*

GFZ ***15*** *06:44:08.6±0.2, 3°S±3°×8°0W±°, h39^{km}, M4.9/36, mb4.7/36, confirmed*

IDC ***15*** *06:44:09.1±1.9, 3°.50S×80°.49W, h55^{km}±18^{km}, mb4.0/13, mbtmp4.4/18, ML3.6/5, MS4.2/33, Error ellipse: s-maj=20.3km s-min=10.3km az=67.0*

NEIC ***15*** *06:44:10.1±1.5, 3°.40S±0°.05×80°.34W±0°.08, h53^{km}±6^{km}, mb4.7/301, Error ellipse: s-maj=12.3km s-min=7.7km az=81.0*

ISC 15 06:44:07.5±0.6**, 3°.42S**±0°.03×**80°.59W**±0°.05**, h41**^{km}±5^{km}**, n427,** σ**1**^{s}**54**/334**, mb4.7**/148**, MS4.1**/30**, 25C-2D, Peru-Ecuador border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ISPG	Isla Puna-Puer	0.61	43	P	Pn	06 44 18.6	-1.2
ISPG				S	Sn	06 44 32.2	+3.6
MORR	Playas El Morr	0.81	18	⇑P	Pn	06 44 20.9	-1.6
MORR				S	Sn	06 44 33.1	-0.3
AMCR	Ecuador-Macara	1.14	146	P	Pn	06 44 24.3	-2.8
AMCR				S	Sn	06 44 40.0	-1.5
MCRA	Macar, Loja	1.14	146	P	Pn	06 44 23.8	-3.2
MCRA				S	Sn	06 44 39.5	-2.0
MCRA	Macar, Loja	1.14	146	P	Pn	06 44 23.8	-3.2
SALI	Salinas	1.29	342	⇓P	Pn	06 44 27.3	-1.7
SALI				S	Sn	06 44 43.3	-1.7
AC07	Ecuador-Guayaq	1.40	26	P	Pn	06 44 29.2	-1.3
PPLP	Puerto Lpez	1.87	354	P	Pn	06 44 34.7	-2.3
PPLP	Puerto Lpez	1.87	354	P	Pn	06 44 35.3	-1.7
PPLP				S	Sn	06 44 55.5	-4.0
PPLP				S		06 44 56.8	
PPLP	Puerto Lpez	1.87	354	P	Pn	06 44 35.5	-1.5
ABAB	Ecuador-Univer	1.94	34	P	Pn	06 44 35.6	-2.3
ZUMB	Zumba	2.04	135	P	Pn	06 44 38.4	-1.0
ZUMB				S	Sn	06 45 05.9	+2.1
ISPT	Isla de la Pla	2.19	347	P	Pn	06 44 39.4	-2.1
ISPT				S	Sn	06 45 03.3	-4.1
AGRD	Ecuador-Guaran	2.42	41	P	Pn	06 44 42.9	-2.1
TAMH	Tambohuasha Ch	2.60	44	P	Pn	06 44 46.6	-0.8
TAMH				S	Sn	06 45 20.2	+2.2
SANGA	Volcan Sangay	2.60	59	⇑P	Pn	06 44 47.5	0.0
SANGA				S	Sn	06 45 25.0	+7.0
PORT	Chimborazo Vol	2.66	43	⇑P	Pn	06 44 47.0	-1.4
IGUA	Igualata	2.73	46	P	Pn	06 44 48.7	-0.8
ARRY	Arrayan	2.86	48	P	Pn	06 44 50.8	-0.1
BBIL	Ulba Tungurahu	2.87	47	P	Pn	06 44 53.5	+2.4
JUI6	Juive	2.90	47	P	Pn	06 44 52.1	+0.6
AAM2	Ambato 2 (Merc	2.91	43	P	Pn	06 44 52.6	+1.0
ASLC	Ecuador-Salced	3.10	40	P	Pn	06 44 55.3	+1.2
ALAT	Latacunga	3.17	39	P	Pn	06 44 56.5	+1.4
PIS1	Pisayambo	3.22	43	⇑P	Pn	06 44 56.8	+0.8
TAIS	Taisha	3.26	72	P	Pn	06 44 55.7	-0.4
ILLI	Illinizas Sur	3.27	35	⇑P	Pn	06 44 56.6	-0.1
SRAM	San Ramn-Vol	3.33	37	⇑P	Pn	06 44 58.0	+0.5
BRRN	Barrancas-Volc	3.37	39	P	Pn	06 44 58.4	+0.4
SLOR	San Lorenzo -	3.39	38		Pn	06 44 58.9	+0.6
SLOR	San Lorenzo -	3.39	38	⇑P	Pn	06 44 59.0	+0.6
BMOR	Cotopaxi Volca	3.42	39	P	Pn	06 45 00.3	+1.5
SUCR	Mariscal Sucre	3.46	37	⇑P	Pn	06 45 00.2	+0.8
PKYU	Pakayacu	3.47	60	⇑P	Pn	06 44 58.9	-0.1
BREF	Cotopaxi Volca	3.48	38	⇑P	Pn	06 45 00.6	+1.0
NAS2	Nasa	3.48	38	P	Pn	06 45 01.4	+1.8
BTAM	Cotopaxi Volca	3.50	39	P	Pn	06 45 00.7	+0.8
BVC2	Cotopaxi Volca	3.50	39	P	Pn	06 45 00.7	+0.7
TAMB	Tambo	3.50	39	⇑P	Pn	06 45 00.5	+0.6
VC1	Cotopaxi 1	3.52	38	⇑P	Pn	06 45 01.2	+1.0
PITA	Cotopaxi Volc	3.57	37	P	Pn	06 45 01.8	+1.0
TOMA	Boca Toma-Volc	3.61	37	P	Pn	06 45 01.9	+0.6
ANTM	Antisana-La Mi	3.71	40	⇑P	Pn	06 45 03.4	+0.5
ANTG	Antisana-Guama	3.72	39	⇑P	Pn	06 45 03.3	+0.3
GGPT	Toaza - Volcan	3.73	32	P	Pn	06 45 03.1	+0.1
ZALD	Colegio Gonzal	3.74	33	P	Pn	06 45 03.8	+0.7
JUA2	San Juan 2	3.75	32	P	Pn	06 45 03.6	+0.3
ANTS	Antisana-Sarah	3.78	40	⇑P	Pn	06 45 04.2	+0.4
TING	Casa Alexandra	3.78	35	P	Pn	06 45 04.6	+1.0
TERV	Terraza Guagua	3.79	32	⇑P	Pn	06 45 03.8	-0.1
CIVI	Edificio de In	3.81	33	P	Pn	06 45 05.5	+1.4
ANTI	Antisana	3.82	40	⇑P	Pn	06 45 04.5	+0.1
YANA	Yana	3.85	32	P	Pn	06 45 05.2	+0.5
FENY	Casa Vinicio C	3.87	33	P	Pn	06 45 05.9	+1.0
PUEM	Granja Avicola	3.94	34	⇑P	Pn	06 45 06.6	+0.8
PULU	Pululahua	4.00	31	⇑P	Pn	06 45 06.8	0.0
PAC1	Pacto, Paraso	4.08	26	⇓P	Pn	06 45 06.2	-1.3

PAC1	Pacto, Paraso	4.08	26	P	Pn	06 45 06.0	-1.5
OTAV	Otavalo	4.21	31		Pn	06 45 09.4	-0.2
OTAV				Sn	Sn	06 45 56.4	-1.5
OTAV	Otavalo	4.21	31	⇑P	Pn	06 45 09.4	-0.2
OTAV	Otavalo	4.21	31	P	Pn	06 45 09.4	-0.2
OTAV	Otavalo	4.21	31	*e*P	Pn	06 45 07.7	-2.0
OTAV	Otavalo	4.21	31	P	Pn	06 45 09.5	-0.2
CAYR	Refugio Cayamb	4.28	37	P	Pn	06 45 11.2	+0.5
ATAH	Atahualpa	4.29	149	P	Pn	06 45 12.1	+1.4
	5.5nm,0.3s,baz=333,slow=10.0,SNR=97						
ATAH				S	Sn	06 45 58.5	-1.3
	229nm,0.7s,baz=146,slow=22,SNR=3.6						
ATAH				LR	LR	06 46 59.2	
	comp=Z,4µm,18.3s,baz=316,slow=41						
	219nm,0.8s						
ATAH				AML	AML		
CUSE	Cuicocha Este	4.30	31	P	Pn	06 45 10.9	+0.1
CUSE	Cuicocha Este	4.30	31	P	Pn	06 45 10.7	-0.1
ANGU	Angureal	4.30	37	P	Pn	06 45 11.6	+0.5
CUIC	Cuicocha-Domo	4.32	31	⇑P	Pn	06 45 11.0	0.0
AOTA	Otavalo	4.32	33	P	Pn	06 45 12.6	+1.6
COTA	Cotacachi	4.36	31	P	Pn	06 45 12.2	+0.5
IMBA	Imbabura, San	4.38	33	⇑P	Pn	06 45 13.0	+1.0
AAT1	Ecuador-Atunta	4.42	33	P	Pn	06 45 14.2	+1.8
URCU	Urcuqui	4.49	31	⇑P	Pn	06 45 13.6	+0.2
YAHU	Yahuarcocha	4.53	34	⇑P	Pn	06 45 14.4	+0.4
RVRD	Rio Verde	4.62	15	P	Pn	06 45 14.6	-0.1
ALIT	Ecuador-Imbabu	4.74	28	P	Pn	06 45 17.5	+0.8
LITE1	Lita	4.74	28	P	Pn	06 45 16.1	-0.5
CASC	Dorado de Casc	4.80	43	P	Pn	06 45 17.1	-0.3
CASC	Dorado de Casc	4.80	43	P	Pn	06 45 17.4	0.0
LNGL	El Angel-Carch	4.87	32	P	Pn	06 45 22.2	+3.4
CHMA	Chilma	4.95	31	P	Pn	06 45 18.1	-1.5
CHL1	Volc¡n Chiles	4.95	32	P	Pn	06 45 20.4	+0.5
ECEN	Cerro Negro	4.96	32	P	Pn	06 45 20.2	+0.1
SNLR	San Lorenzo-Es	4.99	20	P	Pn	06 45 19.1	-0.8
CMBC	Cumbal	5.14	33	⇑P	Pn	06 45 23.5	+1.1
CMBC	Cumbal	5.14	33	P	Pn	06 45 23.3	+1.0
CMBC				AML	AML		
CRUC	La Cruz	6.15	36	P	Pn	06 45 34.4	-1.7
BBAC	Balboa, Cauca	6.35	32	P	Pn	06 45 37.5	-1.4
	2µm194nm,0.9s						
PTLC	Puerto Leguiza	6.80	59	P	Pn	06 45 39.5	-5.3
	4µm372nm,0.9s						
POPC	Popayan, Colom	7.10	34	P	Pn	06 45 46.9	-2.2
	1µm98nm,0.9s						
GARC	Garzon, Huila	7.55	43	P	Pn	06 45 53.5	-1.8
	2µm109nm,0.7s						
CZSB	Cruzeiro do Su	8.94	119		Pn	06 46 12.7	-1.5
CZSB	Cruzeiro do Su	8.94	119	P	Pn	06 46 12.7	-1.5
	3µm258nm,1.2s						
CZSB	Cruzeiro do Su	8.94	119	*e*P	Pn	06 46 12.3	-1.9
CZSB				*e*S	Sn	06 47 53.3	-0.4
NNA	Nana	9.29	157	P	Pn	06 46 19.9	+0.9
	2.9nm,0.3s,baz=316,slow=11,SNR=5.2						
NNA				S	Sn	06 47 59.0	-3.2
	20nm,0.5s,baz=38,slow=22,SNR=1.8						
	9.9nm,0.4s						
NNA				AML	AML		
NNA	Nana	9.29	157	Pn	Pn	06 46 19.3	+0.3
NNA				Sn	Sn	06 48 01.8	-0.4
NNA	Nana	9.29	157	P	Pn	06 46 22.8	+3.8
	comp=Z,46nm,1.1s						
PAYG	Puerto Ayora	10.06	286	Pn	Pn	06 46 33.0	+3.4
ROSC	El Rosal	10.32	37	P	Pn	06 46 36.6	+3.2
	comp=Z,1.1nm,0.3s,baz=202,slow=18,SNR=4.9						
ROSC				S	Sn	06 48 28.6	+0.5
	comp=Z,10.0nm,0.7s,baz=191,slow=22,SNR=0.9						
ROSC				LR	LR	06 51 20.2	
	comp=Z,5µm,18.8s,baz=224,slow=42						
	comp=Z,8.4nm,0.7s						
ROSC				AML	AML		
ROSC	El Rosal	10.32	37	Pn	Pn	06 46 32.1	-1.4
LCR2	La Lucha 2	13.51	345	Pn	Pn	06 47 19.4	+2.5
HDC	Heredia	13.79	345	Pn	Pn	06 47 23.2	+2.6
HDC	Heredia	13.79	345	*e*P	Pn	06 47 17.7	-2.9
SJCC	San Jacinto, C	14.28	22	P	Pn	06 47 21.4	-5.9
	comp=Z,869nmcomp=Z,100nm,1.0s						
JTS	Las Juntas de	14.29	342	P	Pn	06 47 30.0	+2.7
	comp=Z,0.4nm,0.3s,baz=172,slow=2.9,SNR=7.8						
JTS				LR	LR	06 52 13.2	
	comp=Z,409nm,18.3s,baz=150,slow=34						
	comp=Z,17nm,1.1s						
JTS				AML	AML		
JTS	Las Juntas de	14.29	342		Pn	06 47 30.4	+3.0
JTS	Las Juntas de	14.29	342	P	Pn	06 47 30.5	+3.1
	comp=Z,49nm,1.4s						
JUD3	Juan Diaz 3	14.37	340	Pn	Pn	06 47 31.9	+3.5
SDV	Santo Domingo	15.75	39		Pn	06 47 45.1	-1.6
BOAB	BOACO BROADBAN	16.55	342		P	06 47 59.3	+0.5
BOAB				IAmb	IAmb	06 48 10.7	
	comp=Z,133nm,1.4s						
BOAB	BOACO BROADBAN	16.55	342	P	P	06 47 59.4	+0.5
	comp=Z,65nm,1.8s						
SIUN	Universidad Ur	17.52	346		Pn	06 48 10.5	+1.7
LPAZ	La Paz	17.71	137	P	Pn	06 48 11.0	-0.8
	comp=Z,0.3nm,0.3s,baz=321,slow=12,SNR=17						
LPAZ				LR	LR	06 56 11.2	
	comp=Z,2µm,21.5s,baz=306,slow=41						
	comp=Z,6.4nm,0.8s						
LPAZ				AML	AML		
LPAZ	La Paz	17.71	137		Pn	06 48 09.6	-2.2
LPAZ	La Paz	17.71	137	*e*P	Pn	06 48 10.0	-1.8
LPAZ	La Paz	17.71	137	P	Pn	06 48 12.5	+0.7
	comp=Z,25nm,1.4s						
PB18	Visviri	17.81	143		Pn	06 48 12.1	-0.8
PB18				IAmb	IAmb	06 48 21.4	
	comp=Z,74nm,1.3s						
PB18	Visviri	17.81	143	P	P	06 48 16.6	+3.4
	comp=Z,43nm,1.2s						
PB12	IPOC Station P	18.14	147	P	Pn	06 48 15.7	-0.8
PB16	IPOC Station P	18.37	145	P	P	06 48 18.5	-1.1
PB16	IPOC Station P	18.37	145	P	Pn	06 48 21.1	+1.3
	comp=Z,32nm,0.9s						
TGUH	Tegucigalpa,Un	18.58	339		Pn	06 48 23.3	+1.4
TGUH				IAmb	IAmb	06 48 36.4	
	comp=Z,63nm,1.1s						
TGUH	Tegucigalpa,Un	18.58	339	P	Pn	06 48 23.9	+1.9
	comp=Z,820nmcomp=Z,62nm,1.2s						
TGUH	Tegucigalpa,Un	18.58	339	P	Pn	06 48 25.3	+3.3
	comp=Z,63nm,1.2s						
PB11	IPOC Station P	19.44	148	P	P	06 48 29.6	-1.2
PB11	IPOC Station P	19.44	148	P	P	06 48 31.2	+0.4
	comp=Z,33nm,1.0s						
GO01	Chusmiza	19.61	146	P	P	06 48 31.9	-1.2
GO01				IAmb	IAmb	06 48 51.2	
	comp=Z,38nm,1.1s						
GO01	Chusmiza	19.61	146	P	Pn	06 48 34.8	+0.1
	comp=Z,36nm,1.2s						
ESQI	Esquipulas	19.86	334	P	Pn	06 48 38.9	+1.7
ESQI				IAmb	IAmb	06 48 46.7	
	comp=Z,74nm,1.2s						
MACA	Manacapuru-AM	19.88	90		P	06 48 33.7	-1.8
MACA	Manacapuru-AM	19.88	90	*e*P	P	06 48 32.6	-3.0
PB08	IPOC Station P	20.02	147	P	P	06 48 37.2	-0.2
PB08	IPOC Station P	20.02	147	P	P	06 48 37.2	-0.2
	comp=Z,15nm,1.0s						
PB02	IPOC Station P	20.61	151	P	P	06 48 43.8	+0.3
APG	El Apazote	20.75	332	P	P	06 48 47.1	+1.9
	comp=Z,1.2nm,1.0s,baz=195,slow=12,SNR=7.6						
APG				LR	LR	06 54 47.2	
	comp=Z,31nm,19.9s,baz=338,slow=31						
BOAV	Boa Vista	20.88	74		P	06 48 44.7	-1.6
BOAV				IAmb	IAmb	06 48 58.2	
	comp=Z,38nm,0.9s						
BOAV	Boa Vista	20.88	74	P	P	06 48 44.2	-2.1
	comp=Z,57nm,0.9s						
BOAV	Boa Vista	20.88	74	*e*P	P	06 48 44.4	-2.0
PB07	IPOC Station P	20.96	151	P	P	06 48 48.0	+0.6
PB07				IAmb	IAmb	06 48 54.2	
	comp=Z,48nm,1.4s						
PB07	IPOC Station P	20.96	151	P	P	06 48 46.0	-1.4
	comp=Z,32nm,1.3s						
PB03	IPOC Station P	21.30	151	P	P	06 48 50.3	-0.7
PB03				IAmb	IAmb	06 49 08.2	
	comp=Z,62nm,1.5s						
PB03	IPOC Station P	21.30	151	P	P	06 48 52.8	+1.8
	comp=Z,30nm,1.2s						
PB09	IPOC Station P	21.34	150	P	P	06 48 51.6	+0.2
HUEH	Huehuetenango	21.52	330	P	P	06 48 55.9	+2.5
HUEH				IAmb	IAmb	06 49 21.2	
	comp=Z,25nm,0.6s						
MTDJ	Mount Denham	21.72	8	IAmb	IAmb	06 48 57.5	
	comp=Z,41nm,0.9s						
VILB	Vilhena	22.28	116		P	06 49 00.4	-1.0
VILB	Vilhena	22.28	116	*e*P	P	06 49 00.7	-0.7
SIV	San Ignacio	22.91	124	LR	LR	06 58 34.8	
	comp=Z,634nm,18.7s,baz=302,slow=38						
GTBY	Guantanamo Bay	23.82	13		P	06 49 18.2	+1.5
GTBY				IAmb	IAmb	06 49 19.8	
	comp=Z,26nm,0.8s						
GTBY	Guantanamo Bay	23.82	13	P	P	06 49 15.9	-0.9
	comp=Z,38nm,0.8s						
SDDR	Presa de Saban	24.07	22	P	P	06 49 18.8	-0.4
SDDR	Presa de Saban	24.07	22	P	P	06 49 19.1	-0.1
	comp=Z,20nm,1.0s						
PTLB	Pontes e Lacer	24.27	121	P	P	06 49 19.6	-1.5
PTLB	Pontes e Lacer	24.27	121	*e*P	P	06 49 20.9	-0.2
NMDO	Nuevo Mundo	24.46	13	P	P	06 49 22.7	+0.1
SC01	Santiago de lo	24.69	23	P	P	06 49 25.3	+0.4
CMIG	Matias Romero	24.79	326	LR	LR	06 57 57.2	
	comp=Z,305nm,19.9s,baz=159,slow=33						
ITTB	Itaituba	24.82	93	*e*P	P	06 49 25.2	-0.9
SALTA		24.84	148	P	P	06 49 28.9	+2.1
CRPR	Cabo Rojo, PR	25.10	32	P	P	06 49 28.5	-0.1
CRPR				IAmb	IAmb	06 49 41.7	
	comp=Z,31nm,0.9s						
PRSN	Puerto Rico Se	25.25	31	P	P	06 49 30.1	+0.1
CLDB	Colider	25.68	108	*e*P	P	06 49 32.5	-1.4
CLDB	Colider	25.68	108	P	P	06 49 33.0	-0.9
	comp=Z,61nm,1.0s						
SJG	San Juan	25.70	33	P	P	06 49 34.3	+0.3
	comp=Z,58nm,0.8s,baz=224,slow=5.7,SNR=17						
SJG				LR	LR	07 01 24.7	
	comp=Z,574nm,19.3s,baz=194,slow=40						
SJG	San Juan	25.70	33	P	P	06 49 33.3	-0.7
SJG	San Juan	25.70	33	P	P	06 49 34.1	+0.1
SJG	San Juan	25.70	33	P	P	06 49 33.8	-0.2
	comp=Z,84nm,1.1s						
ECPR	Experimental S	25.75	33	P	P	06 49 33.9	-0.6
FDFM	Morne la Roset	26.38	46	P	P	06 49 39.8	-0.5
MPOM	Morne Pois Mar	26.41	47	P	P	06 49 38.7	-1.8
CXM	Morne La Croix	26.43	46	P	P	06 49 39.1	-1.7
SMRT	St. Maarten	27.45	38	P	P	06 49 47.7	-2.1
	comp=Z,24nm,1.3s						
SALV	Santo Antonio	27.45	119	*e*P	P	06 49 49.1	-0.8
DSDZ	La Diserade, G	27.51	44	*e*P	P	06 49 56.4	+6.0
DSDZ				x	x	07 00 58.9	
COIM	Forte Coimbra	27.63	128	*e*P	P	06 49 50.6	-0.9
ANWB	Willy Bob	27.99	41	*e*P	P	06 49 51.5	-3.1
ANWB				x	x	07 00 26.0	
ANWB	Willy Bob	27.99	41	P	P	06 49 53.3	-1.3
	comp=Z,379nm,1.0s						
MURT	Porto Murtinho	28.76	131	*e*P	P	06 50 00.5	-1.0
PP1B	Ponte de Pedra	28.88	121	*e*P	P	06 50 02.7	0.0
MDP	Montagnes des	29.18	73	LR	LR	07 02 16.9	
	comp=Z,2µm,21.2s,baz=255,slow=37						
AQDB	Aquidauana	29.59	127	IAmb	IAmb	06 50 09.4	
	comp=Z,24nm,1.3s						
AQDB	Aquidauana	29.59	127	*e*P	P	06 50 08.0	-0.9
AQDB	Aquidauana	29.59	127	P	P	06 50 08.4	-0.5
	comp=Z,16nm,1.9s						
SNDB	Serra Nova Dou	30.22	108	*e*P	P	06 50 13.6	-1.0
ARAG	Araguaiana, MT	30.84	115	*e*P	P	06 50 18.7	-1.3
SJPY	San Joaquin	31.87	135	*e*P	P	06 50 28.4	-0.6
CPUP	Villa Florida	31.88	138	P	P	06 50 28.1	-1.0
	comp=Z,3.2nm,1.0s,baz=344,slow=14,SNR=4.8						
CPUP				LR	LR	07 06 00.7	
	comp=Z,360nm,19.6s,baz=314,slow=41						
	comp=Z,3.2nm,1.0s						
TRCB	Terra Rica	33.23	128	*e*P	P	06 50 40.1	-0.9
TRCB	Terra Rica	33.23	128	P	P	06 50 39.7	-1.3
	comp=Z,20nm,0.7s						
SMTB	Santa Maria do	33.24	101	*e*P	P	06 50 41.1	-0.1
BDFB	Brasilia	34.28	113	P	P	06 50 49.5	-0.7
	comp=Z,5.2nm,0.8s,baz=260,slow=12,SNR=6.3						
BDFB				LR	LR	07 06 37.2	
	comp=Z,1µm,18.2s,baz=338,slow=40						
	comp=Z,5.2nm,0.8s						
BDFB	Brasilia	34.28	113	P	P	06 50 49.1	-1.1
BDFB				IAmb	IAmb	06 50 53.6	
	comp=Z,13nm,1.1s						
PTGB	Pitanga	34.69	130	*e*P	P	06 50 52.4	-1.3
LDASE	Londrina, Braz	34.73	127	*e*P	P	06 50 53.2	-0.8
IPMB	Ipameri, GO	34.86	117	*e*P	P	06 50 53.6	-1.6
PSAL	Palomas, Salto	35.03	144	*e*P	P	06 50 56.7	+0.3
SDBA	SAO DESIDERIO	36.42	106	*e*P	P	06 51 05.5	-3.1
CPSB	Cacapava Do Su	37.14	139	P	P	06 51 14.0	-0.5
HNDO	Hondo	37.34	333	P	P	06 51 18.1	+1.9
HNDO				IAmb	IAmb	06 51 30.9	
	comp=Z,12nm,1.1s						
PLCA	Paso Flores	38.24	168	P	P	06 51 22.7	-1.0
	comp=Z,1.4nm,0.9s,baz=328,slow=12,SNR=3.5						
	comp=Z,1.4nm,0.9s						
BG3	Lake Jocassee	38.27	357	P	P	06 51 24.2	+0.3
BG3				IAmb	IAmb	06 51 39.4	
	comp=Z,11nm,0.9s						
HPIG		38.69	323	P	P	06 51 28.5	+0.7
	comp=Z,7.9nm,1.1s						
BSCB	Bom Sucesso	38.97	120	*e*P	P	06 51 28.2	-1.9
TKL	Tuckaleechee C	38.98	356	LR	LR	07 07 07.4	
	comp=Z,252nm,21.9s,baz=178,slow=35						
DIAM	Diamantina, MG	39.04	115	*e*P	P	06 51 30.1	-0.7
NBPS	Pedro II - PI	39.06	93	*e*P	P	06 51 29.9	-1.2
SLBS	Sierra La Lagu	39.28	315	P	P	06 51 34.7	+2.0
SLBS	Sierra La Lagu	39.28	315	P	P	06 51 33.2	+0.5
	comp=Z,22nm,1.2s						
TX31	Lajitas Ar. Si	39.37	327	P	P	06 51 35.0	+1.6
TXAR	Lajitas Array	39.37	327	P	P	06 51 34.2	+0.8
	comp=Z,0.8nm,0.8s,baz=149,slow=9.5,SNR=8.4						
TXAR				PcP	PcP	06 53 42.1	+0.8
	comp=Z,0.3nm,0.8s,baz=156,slow=3.3,SNR=1.6						
	comp=Z,0.8nm,0.8s						
TXAR	Lajitas Array	39.37	327	P	P	06 51 35.5	+2.1
TXAR					PcP	06 53 41.0	-0.3
TZTN	Tazewell	39.85	356	P	P	06 51 35.8	-1.4
	comp=Z,17nm,0.9s						
WVT	Waverly	39.92	351	P	P	06 51 36.0	-1.7
	comp=Z,11nm,2.2s						
WHAR	Wooly Hollow	40.04	345	P	P	06 51 38.7	0.0
WHAR				IAmb	IAmb	06 51 39.8	
	comp=Z,7.5nm,0.7s						
ABTX	Abilene, Hawle	40.14	335	IAmb	IAmb	06 51 53.7	
	comp=Z,13nm,1.2s						
ALPN	Alpine	40.18	328	IAmb	IAmb	06 51 53.7	
	comp=Z,13nm,1.0s						
SGCY	Sterling City	40.20	332	IAmb	IAmb	06 51 54.4	
	comp=Z,18nm,1.1s						
ARCA	Ara§uai, MG	40.20	112	*e*P	P	06 51 39.5	-0.8
MNHN	Monahans	40.51	330	IAmb	IAmb	06 51 56.3	
	comp=Z,11nm,0.8s						
LCAR	Lake Charles	40.51	347	P	P	06 51 42.5	-0.1
LCAR				IAmb	IAmb	06 51 44.9	
	comp=Z,12nm,0.8s						
FCAR	Ozark Folk Cen	40.57	346	P	P	06 51 43.2	+0.2
WTFS	Witchita Falls	40.65	337	IAmb	IAmb	06 51 57.9	
	comp=Z,20nm,1.1s						
TPB01	Permian Basin	40.70	329	IAmb	IAmb	06 51 58.6	
	comp=Z,18nm,1.0s						
S51A	Beattyville	40.94	356	IAmb	IAmb	06 51 45.8	
	comp=Z,11nm,0.9s						
PECS	Pecos	41.09	329	P	P	06 51 48.9	+1.4
X34A	Smith Ranch, M	41.15	338	IAmb	IAmb	06 51 52.3	
	comp=Z,24nm,1.2s						
VHRN	Van Horn	41.22	327	P	P	06 51 50.4	+1.7
W35A	Tecumseh	41.30	340	P	P	06 51 50.2	+1.1
W35A				IAmb	IAmb	06 52 16.1	
	comp=Z,18nm,1.3s						
POST	Post	41.33	333	IAmb	IAmb	06 52 03.3	
	comp=Z,16nm,1.0s						
SJMB	Sao Joao De Ma	41.41	115	*e*P	P	06 51 49.2	-1.1
HHAR	Hobbs	41.42	344	P	P	06 51 50.3	+0.2
WMOK	Wichita Mounta	41.63	337	P	P	06 51 54.0	+2.1
	comp=Z,8.1nm,1.2s						
WMOK				pP	pP	06 52 03.3	0.0
R50A	Paris	41.63	356	IAmb	IAmb	06 51 55.1	
	comp=Z,23nm,1.4s						
TPB28		41.65	329	IAmb	IAmb	06 52 07.3	
	comp=Z,16nm,1.2s						
U38A	Gravette	41.69	343	IAmb	IAmb	06 51 54.5	
	comp=Z,15nm,1.0s						
BSFB	Barra de Sao F	41.76	115	*e*P	P	06 51 52.1	-1.0
WCI	Wyandotte Cave	41.77	353	P	P	06 51 51.8	-1.1
DEOK	Depew	41.80	340	IAmb	IAmb	06 51 55.0	
	comp=Z,12nm,0.8s						
NBMA	Muriti-CE	41.81	97	*e*P	P	06 51 52.9	-0.9
OK052	Battle Ridge R	42.04	340	IAmb	IAmb	06 51 57.0	
	comp=Z,13nm,1.0s						
NBIT	Itapeh - BA	42.12	108	*e*P	P	06 51 56.1	-0.1
CMC01	Camacan, BA	42.13	109	*e*P	P	06 51 55.5	-0.8
MNTX	Cornudas Mount	42.14	328	IAmb	IAmb	06 52 09.2	
	comp=Z,14nm,1.1s						
MNTX	Cornudas Mount	42.14	328	P	P	06 51 55.7	-0.4
	comp=Z,13nm,1.1s						
MNTX				pP	pP	06 52 07.1	-0.4
RIB01	Linhares ES	42.31	115	*e*P	P	06 51 56.4	-1.2
Q51A	Peebles	42.31	357	IAmb	IAmb	06 51 59.4	
	comp=Z,15nm,1.1s						
CCM	Cathedral Cave	42.43	348	P	P	06 51 58.9	+0.6
SMWD	Samnorwood	42.53	336	IAmb	IAmb	06 52 02.5	
	comp=Z,23nm,1.0s						
T35A	Sooner Cattle	42.78	341		P	06 52 02.6	+1.4
T35A				IAmb	IAmb	06 52 03.5	
	comp=Z,16nm,0.9s						
MCWV	Mont Chateau	42.87	1	P	P	06 52 02.4	+0.5
MCWV				IAmb	IAmb	06 52 24.4	
	comp=Z,26nm,1.4s						
P48A	Milroy	42.90	355	IAmb	IAmb	06 52 17.3	
	comp=Z,23nm,1.3s						
CROK	Carrier	42.91	339	IAmb	IAmb	06 52 04.2	
	comp=Z,17nm,1.2s						
AMTX	Amarillo	42.95	334	P	P	06 52 04.8	+2.1
AMTX				IAmb	IAmb	06 52 16.1	
	comp=Z,12nm,0.9s						
ELIS	Ellis County	43.04	337	P	P	06 52 05.8	+2.4
ELIS				IAmb	IAmb	06 52 08.8	
	comp=Z,13nm,0.8s						
ACSO	Alum Creek Sta	43.49	357	IAmb	IAmb	06 52 06.6	
	comp=Z,13nm,0.8s						
O48B	Farmland	43.66	355	IAmb	IAmb	06 52 10.3	
	comp=Z,27nm,1.4s						
319A	Douglas	44.08	324	IAmb	IAmb	06 52 26.5	
	comp=Z,14nm,0.8s						
RCBR	Riachuelo	44.60	95	LR	LR	07 12 39.9	
	comp=Z,468nm,19.2s,baz=243,slow=38						
RTBA	Rita Blanca	44.72	334	IAmb	IAmb	06 52 31.2	
	comp=Z,17nm,1.2s						
KSU1	Kansas State U	44.81	342	P	P	06 52 18.5	+1.0
R32A	Long Quarter,	44.88	340	IAmb	IAmb	06 52 21.9	
	comp=Z,19nm,0.9s						
ALQ	Albuquerque	45.24	330	IAmb	IAmb	06 52 35.5	
	comp=Z,15nm,1.0s						
ALQ	Albuquerque	45.24	330	IAmb	IAmb	06 52 35.5	
	comp=Z,15nm,1.0s						
ANMO	Albuquerque	45.24	330	P	P	06 52 22.9	+1.7
ANMO				IAmb	IAmb	06 52 35.5	
	comp=Z,12nm,0.9s						
ANMO	Albuquerque	45.24	330	P	P	06 52 23.2	+2.0
	comp=Z,15nm,1.0s						
TASM	ASL Pad, Albuq	45.24	330	IAmb	IAmb	06 52 35.6	
	comp=Z,14nm,1.0s						
TASM	ASL Pad, Albuq	45.24	330	IAmb	IAmb	06 52 35.6	
	comp=Z,15nm,1.0s						
CBKS	Cedar Bluff	45.59	339	IAmb	IAmb	06 52 26.2	
	comp=Z,12nm,0.8s						
BINY	Binghamton	45.59	5	P	P	06 52 23.9	+0.2
BINY	Binghamton	45.59	5	P	P	06 52 22.9	-0.8
	comp=Z,15nm,0.9s						
TUC	Tucson	45.64	323		P	06 52 25.9	+1.6
T25A	Trinidad	46.04	333	IAmb	IAmb	06 52 50.4	
	comp=Z,12nm,1.1s						
L40A	Anamosa	46.29	349	IAmb	IAmb	06 52 28.6	
	comp=Z,13nm,1.0s						
SDCO	Great Sand Dun	47.03	333	P	P	06 52 36.5	+1.2
SDCO				IAmb	IAmb	06 52 38.2	
	comp=Z,7.1nm,0.9s						
Q24A	Divide	47.88	334	IAmb	IAmb	06 52 46.5	
	comp=Z,8.3nm,1.2s						
SADO	Sadowa	47.99	1	LR	LR	07 13 12.3	
	comp=Z,135nm,21.9s,baz=203,slow=36						
MVCO	Mesa Verde	48.04	330	P	P	06 52 45.1	+2.0
MVCO	Mesa Verde	48.04	330	P	P	06 52 45.2	+2.1
	comp=Z,6.6nm,0.9s						
ISCO	Idaho Springs	48.77	334	P	P	06 52 50.6	+1.8
	comp=Z,7.4nm,1.2s						
ISCO				pP	pP	06 53 00.7	+0.2
PV15	Paradox Valley	48.91	331		P	06 52 52.4	+2.5
ECSD	EROS Data Cent	49.10	345	IAmb	IAmb	06 53 16.1	
	comp=Z,11nm,0.9s						
ECSD	EROS Data Cent	49.10	345	P	P	06 52 50.7	-0.3
	comp=Z,14nm,1.3s						
BC3	Big Chuckawall	49.42	321	P	P	06 52 56.1	+2.5
BC3				IAmb	IAmb	06 53 07.4	
	comp=Z,7.3nm,1.1s						
U15A	North Rim	49.46	326	P	P	06 52 56.2	+2.1
U15A				IAmb	IAmb	06 53 08.2	
	comp=Z,12nm,1.4s						
IRM	Iron Mountain	49.56	322	IAmb	IAmb	06 53 09.0	
	comp=Z,9.4nm,1.1s						
HMU	Henry Mountain	49.74	329	IAmb	IAmb	06 53 15.2	
	comp=Z,10nm,1.0s						
BORC	Borrego Spring	49.78	320	P	P	06 52 59.1	+2.9
BORC				IAmb	IAmb	06 53 10.6	
	comp=Z,8.1nm,1.2s						
PFO	Pinyon Flats O	50.02	320	P	P	06 53 00.6	+2.4
HAYD	Hayden	50.08	334	IAmb	IAmb	06 53 01.8	
	comp=Z,6.2nm,0.9s						
KNB	Kanab	50.18	326	P	P	06 53 02.0	+2.6
KNB				IAmb	IAmb	06 53 15.2	
	comp=Z,11nm,1.1s						
LCMT	Little Creek M	50.41	326	IAmb	IAmb	06 53 18.8	
	comp=Z,7.2nm,1.1s						
SRU	San Rafael Swe	50.52	330	IAmb	IAmb	06 53 16.0	
	comp=Z,9.3nm,1.1s						
SZCU	Shurtz Canyon	50.74	327	IAmb	IAmb	06 53 17.8	
	comp=Z,9.1nm,1.0s						
P18A	Preston Nutter	50.78	330	IAmb	IAmb	06 53 28.4	
	comp=Z,17nm,1.5s						
P17A	Butcher Ranch,	50.90	330	IAmb	IAmb	06 53 18.9	
	comp=Z,10nm,0.9s						
TMUT	Trail Mountain	51.00	329	IAmb	IAmb	06 53 20.0	
	comp=Z,8.7nm,1.2s						
GSC	Goldstone, Bar	51.34	322	IAmb	IAmb	06 53 22.7	
	comp=Z,9.9nm,1.1s						
SHOC	Shoshone, Teco	51.41	323	IAmb	IAmb	06 53 23.9	
	comp=Z,11nm,1.0s						
BSUT	Blindstream Ca	51.73	331	IAmb	IAmb	06 53 33.3	
	comp=Z,12nm,1.1s						
RSSD	Black Hills	51.79	339		P	06 53 12.9	+1.4
RSSD				IAmb	IAmb	06 53 26.8	
	comp=Z,14nm,1.3s						
RSSD	Black Hills	51.79	339	P	P	06 53 13.1	+1.6
QSM	Queen of Sheba	51.81	322	P	P	06 53 13.9	+2.4
QSM				IAmb	IAmb	06 53 25.7	
	comp=Z,7.7nm,1.0s						
PSUT	Pine Spring	51.84	327	IAmb	IAmb	06 53 25.9	
	comp=Z,7.6nm,1.0s						
NLU	North Lily Min	51.94	329	IAmb	IAmb	06 53 26.3	
	comp=Z,8.0nm,1.3s						
TPNV	Topopah Spring	52.10	324	P	P	06 53 16.2	+2.4
TPNV				IAmb	IAmb	06 53 31.0	
	comp=Z,9.2nm,1.1s						
FURC	Furnace Creek,	52.14	323	IAmb	IAmb	06 53 27.9	
	comp=Z,10nm,0.9s						
CLC	China Lake	52.16	322	IAmb	IAmb	06 53 27.8	
	comp=Z,7.1nm,1.1s						
WCT	Wildcat Mounta	52.22	323	IAmb	IAmb	06 53 32.0	
	comp=Z,9.8nm,1.2s						
DUG	Dugway, Tooele	52.50	329	IAmb	IAmb	06 53 34.8	
	comp=Z,12nm,1.3s						
DUG	Dugway, Tooele	52.50	329	P	P	06 53 19.2	+2.5
	comp=Z,7.3nm,1.2s						
DUG				pP	pP	06 53 28.4	-0.1
GRAC	Grapevine Rang	52.79	323	IAmb	IAmb	06 53 33.0	
	comp=Z,8.8nm,1.0s						
BW06	Boulder Array	52.91	333	IAmb	IAmb	06 53 21.6	
	comp=Z,5.8nm,0.8s						
PD31	Pinedale Array	52.91	333	IAmb	IAmb	06 53 21.6	
	comp=Z,5.7nm,0.8s						
PDAR	Pinedale Array	52.91	333	P	P	06 53 20.6	+0.7
	comp=Z,4.7nm,0.8s,baz=125,slow=8.5,SNR=46						
PDAR				LR	LR	07 16 52.3	
	comp=Z,172nm,18.5s,baz=121,slow=37						
	comp=Z,4.7nm,0.8s						
PDAR	Pinedale Array	52.91	333		P	06 53 20.4	+0.5
HWUT	Hardware Ranch	52.94	331	P	P	06 53 20.3	+0.3
	comp=Z,21nm,0.8s						
SPUT	South Promonto	53.14	330	IAmb	IAmb	06 53 38.4	
	comp=Z,13nm,1.0s						
BGU	Big Grassy Mou	53.15	329	IAmb	IAmb	06 53 36.5	
	comp=Z,6.4nm,1.0s						
AGMN	Agassiz Nation	53.20	347	P	P	06 53 21.8	+0.2
	comp=Z,32nm,0.8s						
TPH	Tonopah	53.43	324	IAmb	IAmb	06 53 38.5	
	comp=Z,7.5nm,1.0s						
AHID	Auburn Hatcher	53.61	332	IAmb	IAmb	06 53 48.8	
	comp=Z,8.1nm,1.0s						

AHID	**Auburn Hatcher**	**53.61**	**332**	P	**P**	**06 53 25.9**	**+1.0**
	comp=Z,13nm,1.0s						
HVU	**Hansel Valley**	**53.66**	**330**	IAmb	IAmb	06 53 38.8	
	comp=Z,7.2nm,1.0s						
SNOW	**Snow King Moun**	**54.00**	**333**	IAmb	IAmb	06 53 55.6	
	comp=Z,9.8nm,1.1s						
LOHW	**Long Hollow**	**54.05**	**333**	IAmb	IAmb	06 53 32.1	
	comp=Z,9.3nm,1.3s						
ELK	**Elko**	**54.16**	**328**	LR	LR	07 16 44.3	
	comp=Z,285nm,18.3s,baz=126,slow=36						
ELK	**Elko**	**54.16**	**328**	IAmb	IAmb	06 53 43.4	
	comp=Z,6.0nm,0.9s						
NVAR	**Mina Array Bea**	**54.30**	**324**	P	**P**	**06 53 31.6**	**+1.5**
	comp=Z,3.8nm,0.9s,baz=140,slow=6.3,SNR=21						
	comp=Z,3.8nm,0.9s						
NVAR	**Mina Array Bea**	**54.30**	**324**	P	**P**	**06 53 31.4**	**+1.3**
KVN	**Kaiserville**	**54.59**	**324**		**P**	**06 53 33.3**	**+1.1**
KVN				IAmb	IAmb	06 53 57.0	
	comp=Z,7.5nm,1.2s						
YFT	**Old Faithful**	**54.81**	**334**	IAmb	IAmb	06 54 03.0	
	comp=Z,12nm,1.2s						
YNE	**Yellowstone No**	**54.89**	**335**	IAmb	IAmb	06 53 52.1	
	comp=Z,11nm,0.9s						
WAKR	**Walker**	**55.02**	**323**	IAmb	IAmb	06 53 49.4	
	comp=Z,6.6nm,1.0s						
BMN	**Battle Mountai**	**55.02**	**326**	IAmb	IAmb	06 53 49.5	
	comp=Z,9.9nm,1.0s						
ULM	**Lac du Bonnet**	**55.05**	**348**	P	**P**	**06 53 34.9**	**-0.2**
	comp=Z,19nm,0.7s,baz=152,slow=7.6,SNR=26						
	comp=Z,19nm,0.7s						
PAHR	**Pah Rah Range**	**55.77**	**324**	IAmb	IAmb	06 53 53.8	
	comp=Z,11nm,1.5s						
HLID	**Hailey**	**55.79**	**331**	IAmb	IAmb	06 53 58.9	
	comp=Z,6.6nm,0.9s						
HLID	**Hailey**	**55.79**	**331**	P	**P**	**06 53 42.6**	**+1.8**
	comp=Z,8.1nm,0.9s						
HLID				pP	**pP**	**06 53 51.9**	**-0.6**
MPK	**Martis Peak**	**55.88**	**323**	IAmb	IAmb	06 53 58.6	
	comp=Z,11nm,1.0s						
BOZ	**Bozeman (W)**	**56.06**	**334**	IAmb	IAmb	06 53 57.3	
	comp=Z,7.8nm,1.0s						
DLMT	**Dillon**	**56.30**	**333**	IAmb	IAmb	06 54 04.5	
	comp=Z,9.8nm,1.1s						
BEKR	**Beckworth**	**56.44**	**324**	IAmb	IAmb	06 53 59.2	
	comp=Z,7.5nm,1.0s						
ORV	**Oroville**	**56.93**	**323**	IAmb	IAmb	06 54 03.3	
	comp=Z,14nm,1.2s						
WVOR	**Wild Horse Val**	**57.17**	**327**	P	**P**	**06 53 51.6**	**+1.1**
WVOR	**Wild Horse Val**	**57.17**	**327**	P	**P**	**06 53 51.8**	**+1.3**
	comp=Z,19nm,1.0s						
O03E	**Paynes Creek**	**57.57**	**323**	IAmb	IAmb	06 54 19.9	
	comp=Z,8.1nm,0.9s						
PLID	**Pearl Lake**	**57.69**	**331**	IAmb	IAmb	06 54 09.1	
	comp=Z,5.3nm,0.9s						
J08A	**Circle Bar Ran**	**57.71**	**328**	IAmb	IAmb	06 54 10.3	
	comp=Z,8.2nm,1.1s						
MOD	**Modoc Plateau**	**57.73**	**326**	IAmb	IAmb	06 54 07.7	
	comp=Z,9.4nm,0.9s						
K05A	**Summer Lake**	**58.60**	**326**	P	**P**	**06 54 02.5**	**+1.9**
KHBM	**Hayfork Bally**	**58.65**	**323**	IAmb	IAmb	06 54 14.8	
	comp=Z,8.9nm,1.0s						
JTMT	**Jette**	**58.88**	**334**	P	**P**	**06 54 03.7**	**+1.4**
YBH	**Yreka Blue Hor**	**59.01**	**324**	IAmb	IAmb	06 54 15.8	
	comp=Z,6.8nm,0.9s						
LNOR	**Lincton Mounta**	**59.37**	**330**	IAmb	IAmb	06 54 27.4	
	comp=Z,7.5nm,0.9s						
NEW	**Newport**	**60.53**	**333**	IAmb	IAmb	06 54 36.2	
	comp=Z,8.6nm,1.1s						
NEW	**Newport**	**60.53**	**333**	P	**P**	**06 54 11.6**	**-2.0**
	comp=Z,5.9nm,2.2s						
E07A	**Sunnyside**	**60.63**	**330**	P	**P**	**06 54 15.8**	**+1.5**
E07A				IAmb	IAmb	06 54 37.5	
	comp=Z,8.6nm,0.9s						
LON	**Longmire**	**61.75**	**329**	IAmb	IAmb	06 54 37.2	
	comp=Z,7.1nm,1.1s						
EDM	**Edmonton**	**62.78**	**339**	IAmb	IAmb	06 54 29.2	
	comp=Z,6.4nm,0.8s						
PPT	**Papeete**	**68.94**	**253**	LR	LR	07 18 19.1	
	comp=Z,127nm,21.7s,baz=117,slow=30						
SFJD	**Kangerlussuaq**	**73.42**	**12**	LR	LR	07 28 19.7	
	comp=Z,99nm,20.3s,baz=204,slow=36						
MMPY	**Sheldon Lake,**	**76.11**	**338**		**P**	**06 55 51.9**	**+1.1**
DBIC	**Dimbokro**	**76.26**	**82**	P	**P**	**06 55 52.5**	**-0.1**
	comp=Z,8.1nm,0.7s,baz=245,slow=6.3,SNR=8.4						
DBIC				LR	LR	07 28 26.5	
	comp=Z,262nm,20.1s,baz=266,slow=35						
	comp=Z,8.1nm,0.7s						
DBIC	**Dimbokro**	**76.26**	**82**	P	**P**	**06 55 51.5**	**-1.1**
DBIC				IAmb	IAmb	06 55 53.2	
	comp=Z,12nm,0.8s						
WHY	**Whitehorse**	**76.38**	**336**	P	**P**	**06 55 53.8**	**+1.3**
RES	**Resolute Bay**	**78.47**	**356**	LR	LR	07 30 40.7	
	comp=Z,89nm,21.0s,baz=212,slow=36						
EVO	**Evora**	**78.60**	**50**	P	**P**	**06 56 04.7**	**-0.5**
	comp=Z,3.3nm,1.4s						
MD01	**Midelt array s**	**80.00**	**56**	P	**P**	**06 56 12.2**	**-1.0**
INK	**Inuvik**	**80.29**	**342**	LR	LR	07 34 08.5	
	comp=Z,126nm,21.7s,baz=357,slow=37						
INK	**Inuvik**	**80.29**	**342**	P	**P**	**06 56 14.3**	**+0.6**
VRDI	**Verde Repeater**	**80.30**	**334**		**P**	**06 56 15.0**	**+0.8**
SUMG	**Summit**	**80.41**	**12**		**P**	**06 56 14.8**	**0.0**
SUMG	**Summit**	**80.41**	**12**	*i* P	P	06 56 25.5	+11
SUMG	**Summit**	**80.41**	**12**	P	**P**	**06 56 16.4**	**+1.5**
	comp=Z,18nm,0.9s						
SUMG				pP	**PcP**	**06 56 25.2**	**+3.4**
BORG	**Borgarnes**	**80.48**	**22**	LR	LR	07 29 48.2	
	comp=Z,59nm,21.5s,baz=236,slow=34						
GLB	**Gilahina Butte**	**80.55**	**334**	IAmb	IAmb	06 56 28.1	
	comp=Z,13nm,1.4s						
VNA3	**Neumayer Olymp**	**80.70**	**162**	P	**P**	**06 56 15.5**	**-0.5**
	comp=Z,5.2nm,0.8s						
VNA3	**Neumayer Olymp**	**80.70**	**162**	P	**P**	**06 56 16.2**	**+0.2**
	comp=Z,11nm,0.9s						
I28M	**Miner Creek**	**80.86**	**339**	P	**P**	**06 56 17.7**	**+0.7**
G29M	**Pine Creek**	**80.94**	**340**	P	**P**	**06 56 18.1**	**+0.8**
G29M				IAmb	IAmb	06 56 29.1	
	comp=Z,16nm,1.4s						
VNA1	**Neumayer--Stat**	**80.98**	**161**	P	**P**	**06 56 17.7**	**+0.3**
	comp=Z,6.4nm,0.8s						
KLU	**Klutina**	**81.49**	**334**	IAmb	IAmb	06 56 42.7	
	comp=Z,6.8nm,1.0s						
E29M	**Blow River**	**81.68**	**342**	P	**P**	**06 56 21.3**	**+0.1**
E29M				IAmb	IAmb	06 56 38.2	
	comp=Z,12nm,1.4s						
ESDC	**Sonseca Array**	**81.92**	**49**	P	**P**	**06 56 24.2**	**+1.1**
	comp=Z,1.7nm,0.7s,baz=263,slow=5.1,SNR=14						
	comp=Z,1.7nm,0.7s						
ESDC	**Sonseca Array**	**81.92**	**49**		**P**	**06 56 22.1**	**-1.1**
ESDC				IAmb	IAmb	06 56 23.8	
	comp=Z,15nm,1.3s						
NEEM	**North Greenlan**	**82.40**	**6**	*i* P	**P**	**06 56 25.5**	**+0.3**
ILAR	**Eielson Array**	**83.19**	**337**	P	**P**	**06 56 28.9**	**-0.3**
	comp=Z,1.0nm,0.9s,baz=130,slow=3.2,SNR=8.9						
ILAR				LR	LR	07 35 31.8	
	comp=Z,111nm,19.2s,baz=94,slow=37						
	comp=Z,1.0nm,0.9s						
TORD	**Torodi Ar. Bea**	**83.27**	**76**	P	**P**	**06 56 28.8**	**-1.9**
	comp=Z,3.0nm,0.9s,baz=292,slow=5.1,SNR=9.4						
	comp=Z,3.0nm,0.9s						
TORD	**Torodi Ar. Bea**	**83.27**	**76**	P	**P**	**06 56 29.5**	**-1.1**
H24K	**Noodor Dome**	**83.99**	**338**	P	**P**	**06 56 33.9**	**+0.6**
NEA2	**Nenana**	**84.00**	**336**	P	**P**	**06 56 33.4**	**+0.1**
NEA2				IAmb	IAmb	06 57 01.0	
	comp=Z,8.7nm,1.1s						
TROLL	**Troll, Antarti**	**84.64**	**162**	P	**P**	**06 56 36.0**	**-0.6**
	comp=Z,90nm,0.8s						
CAST	**Castle Rocks**	**84.86**	**335**	IAmb	IAmb	06 57 05.3	
	comp=Z,5.2nm,1.0s						
G23K	**Bananza Creek**	**85.12**	**338**	IAmb	IAmb	06 57 08.2	
	comp=Z,5.7nm,1.0s						
EKA	**Eskdalemuir Ar**	**85.67**	**34**	P	**P**	**06 56 42.5**	**+0.6**
	comp=Z,2.0nm,0.9s,baz=254,slow=6.0,SNR=4.9						
	comp=Z,2.0nm,0.9s						
QSPA	**South Pole Qui**	**86.66**	**180**	P	**P**	**06 56 47.2**	**+0.5**
	comp=Z,2.1nm,1.1s,baz=154,slow=1.0,SNR=5.2						
	comp=Z,2.1nm,1.1s						
QSPA	**South Pole Qui**	**86.66**	**180**	P	**P**	**06 56 46.9**	**+0.2**
JMIC	**Jan Mayen**	**87.44**	**18**	LR	LR	07 33 27.2	
	comp=Z,93nm,21.4s,baz=229,slow=34						
TAM	**Tamanrasset**	**87.73**	**67**	P	**P**	**06 56 53.1**	**+0.3**
	comp=Z,5.3nm,0.9s						
RUSF	**Rustrel**	**89.52**	**46**	P	**P**	**06 57 00.4**	**-0.3**
	comp=Z,6.7nm,1.4s						
KEST	**Kesra**	**91.92**	**54**	LR	LR	07 36 06.2	
	comp=Z,91nm,22.0s,baz=274,slow=34						
DAVOX	**Davos/Dischmat**	**92.79**	**43**	LR	LR	07 37 56.0	
	comp=Z,42nm,18.4s,baz=276,slow=35						
NOA	**NORSAR Array B**	**93.84**	**29**	LR	LR	07 38 19.2	
	comp=Z,59nm,19.9s,baz=265,slow=35						
SPITS	**Spitsbergen Ar**	**94.75**	**12**	LR	LR	07 39 05.3	
	comp=Z,78nm,22.0s,baz=285,slow=35						
CLL	**Collm**	**94.90**	**39**	L	L	07 30 00.0	
HFS	**Hagfors**	**95.08**	**30**	LR	LR	07 37 35.2	
	comp=Z,124nm,20.2s,baz=290,slow=34						
VAE	**Valguarnera**	**96.04**	**53**	LR	LR	07 37 01.8	
	comp=Z,159nm,21.1s,baz=314,slow=33						
TSUM	**Tsumeb**	**96.59**	**110**	LR	LR	07 38 23.5	
	comp=Z,392nm,21.0s,baz=321,slow=34						
VRAC	**Vranov**	**97.27**	**41**	LR	LR	07 37 40.2	
	comp=Z,31nm,19.7s,baz=282,slow=33						
SUR	**Sutherland**	**97.78**	**123**	LR	LR	07 40 21.8	
	comp=Z,129nm,18.1s,baz=282,slow=34						
ARCES	**ARCESS Array B**	**98.79**	**20**	LR	LR	07 39 16.0	
	comp=Z,41nm,20.9s,baz=312,slow=34						
KURK	**Kurchatov**	**129.72**	**17**		**PKPdf**	**07 03 13.2**	**+0.8**
KURBB	**Kurchatov Arra**	**129.77**	**17**	PKP	**PKPdf**	**07 03 13.2**	**+0.7**
	comp=Z,1.6nm,0.7s,baz=336,slow=1.6,SNR=9.4						
MKAR	**Makanchi Array**	**134.31**	**16**	PKP	**PKPdf**	**07 03 19.9**	**-1.3**
	comp=Z,0.3nm,0.5s,baz=8.5,slow=2.5,SNR=3.9						
SONM	**Songino Array**	**135.34**	**353**	PKP	**PKPdf**	**07 03 22.0**	**-1.3**
	comp=Z,0.5nm,0.4s,baz=320,slow=3.8,SNR=1.8						
ASAR	**Alice Springs**	**136.94**	**230**	PKP	**PKPdf**	**07 03 26.1**	**-0.7**
	comp=Z,0.8nm,1.0s,baz=83,slow=2.6,SNR=4.2						
KSRS	**Korea Array**	**137.21**	**326**	PKP	**PKPdf**	**07 03 24.9**	**-2.0**
	comp=Z,0.7nm,0.5s,baz=273,slow=2.3,SNR=1.8						
WRA	**Warramunga Arr**	**138.58**	**235**	PKP	**PKPdf**	**07 03 29.5**	**-0.4**
	comp=Z,0.8nm,0.9s,baz=124,slow=2.1,SNR=3.2						
HHC	**Hu-ho-hao-te**	**141.16**	**345**	*e*P	**PKPdf**	**07 03 35.1**	**+1.0**
JOW	**Kunigami**	**143.88**	**313**		PKPab	07 03 37.8	+1.5
MTN	**Manton Dam**	**144.59**	**242**	PKPdf	**PKPab**	**07 03 38.1**	**-1.2**
KNRA	**Kununurra**	**145.31**	**236**	PKPdf	**PKPbc**	**07 03 40.2**	**-1.5**
NJ2	**Nanjing**	**146.16**	**329**	*e*P	**PKPdf**	**07 03 43.9**	**+0.9**
NJ2				pmax	pmax		
	comp=Z,11nm,0.6s						
FITZ	**Fitzroy Crossi**	**146.45**	**230**	PKPdf	**PKPdf**	**07 03 44.7**	**+0.9**
PZH	**PanZhiHua**	**156.94**	**355**	PKP	**PKPdf**	**07 03 59.6**	**0.0**
CMAR	**Chiang Mai Arr**	**165.05**	**2**	PKP	**PKPdf**	**07 04 08.0**	**-0.3**
	comp=Z,0.8nm,0.3s,baz=358,slow=2.5,SNR=1.0						

IDC 15 06:49:41.2±9.0**, 2°.29N**×**67°.64E, h0^{km}, mb3.9**/2**, mbtmp3.9**/2**, Error ellipse: s-maj=766.0km s-min=49.4km az=40.0, Carlsberg Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H01W3	**Cape Leeuwin H**	**57.12**	**135**	T	T	08 01 05.5	
	baz=299						
H01W2	**Cape Leeuwin H**	**57.12**	**135**	T	T	08 01 17.6	
	baz=299						
H01W1	**Cape Leeuwin H**	**57.13**	**135**	T	T	08 01 06.8	
	baz=299						
WRA	**Warramunga Arr**	**69.00**	**112**	P	P	07 00 49.4	+0.3
	1.1nm,0.8s,baz=291,slow=5.4,SNR=6.0						
	1.1nm,0.8s						
ASAR	**Alice Springs**	**69.33**	**116**	P	P	07 00 51.0	-0.2
	0.7nm,0.7s,baz=289,slow=5.9,SNR=9.2						
	0.7nm,0.7s						
TXAR	**Lajitas Array**	**147.47**	**346**	PKPbc	PKPbc	07 09 27.3	-0.7
	0.4nm,0.6s,baz=50,slow=3.2,SNR=6.7						

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*ASRS **15** 07:00:51.0±1.0, 54°.65N×83°.67E, h0^{km}, M2.7(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 15 07:00:51.6±1.9**, 54°.66N**×**83°.76E, h0^{km}, mbtmp2.9**/3**, ML2.5**/3**, Error ellipse: s-maj=16.4km s-min=11.4km az=160.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	**ZALESOVO INFRA**	**0.94**	**138**	I	I	07 06 40.0	
	baz=318,slow=313,SNR=19						
ZALV	**Zalesovo Beam**	**0.94**	**138**	Pg	Pg	07 01 09.4	-0.2
	2.5nm,0.3s,baz=322,slow=18,SNR=18						
ZALV				Lg	Lg	07 01 23.0	
	9.2nm,0.3s,baz=317,slow=30,SNR=50						
KURBB	**Kurchatov Arra**	**5.14**	**220**	Pn	Pn	07 02 08.7	-1.0
	0.1nm,0.3s,baz=40,slow=13,SNR=5.3						
KURBB				Pg	Pg	07 02 28.0	-2.1
	0.1nm,0.3s,baz=43,slow=16,SNR=8.8						
KURBB				Lg	Lg	07 03 36.1	
	0.2nm,0.3s,baz=44,slow=31,SNR=6.7						
	0.4nm,0.4s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**7.93**	**187**	Pn	Pn	07 02 47.5	-0.6
	0.1nm,0.3s,baz=5.7,slow=16,SNR=3.2						
MKAR				Sn	Sn	07 04 18.2	-0.1
	0.1nm,0.3s,baz=12,slow=21,SNR=1.9						
MKAR				Lg	Lg	07 05 01.6	
	0.1nm,0.3s,baz=3.2,slow=28,SNR=3.7						
	0.3nm,0.5s						
MKAR				AML	AML		
BVAR	**Borovoye Array**	**8.08**	**264**	Pn	Pn	07 02 49.7	-0.3
	0.1nm,0.3s,baz=67,slow=14,SNR=4.6						
	0.7nm,0.3s						
BVAR				AML	AML		

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*ASRS **15** 07:08:50.0±1.8, 54°.58N×83°.61E, h0^{km}, M2.6(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 15 07:08:51.7±2.5**, 54°.59N**×**83°.75E, h0^{km}, mbtmp2.7**/2**, ML2.3**/2**, Error ellipse: s-maj=23.3km s-min=12.4km az=155.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	**ZALESOVO INFRA**	**0.90**	**135**	I	I	07 14 00.0	
	baz=317,slow=313,SNR=1.5						
ZALV	**Zalesovo Beam**	**0.90**	**135**	Pg	Pg	07 09 08.5	-0.3
	1.0nm,0.3s,baz=316,slow=18,SNR=12						
ZALV				Lg	Lg	07 09 21.6	
	10nm,0.3s,baz=314,slow=29,SNR=44						
KURBB	**Kurchatov Arra**	**5.08**	**221**	Pn	Pn	07 10 09.7	+0.7
	0.1nm,0.3s,baz=41,slow=14,SNR=6.0						
KURBB				Pg	Pg	07 10 26.8	-2.2
	0.1nm,0.3s,baz=41,slow=16,SNR=10						
KURBB				Lg	Lg	07 11 26.1	
	0.1nm,0.3s,baz=41,slow=30,SNR=5.1						
	0.4nm,0.3s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**7.86**	**187**	Pn	Pn	07 10 46.6	-0.6
	0.1nm,0.3s,baz=9.2,slow=11,SNR=2.5						
	0.2nm,0.4s						
MKAR				AML	AML		

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*IDC **15** 07:10:12.7±1.0, 0°.34S×120°.17E, h0^{km}, mb3.6/5, mbtmp3.6/6, ML3.5/1, MS3.1/1, Error ellipse: s-maj=49.5km s-min=15.7km az=77.0*

*DJA **15** 07:10:17.5±0.2, 0°S±2°×11°9E±°, h10^{km}, M4.2/30, mb4.1/2, MLv4.3/30*

ISC 15 07:10:18.5±0.9**, 0°.45S**±0°.06×**119°.52E**±0°.07**, h35^{km}, n22,** σ**2^{s}15**/24**, mb4.0**/5**, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCI	**Palu**	**0.55**	**145**	P	**Pn**	**07 10 28.8**	**-1.1**
APSI	**Ampana**	**2.17**	**102**	P	**Pn**	**07 10 54.0**	**+1.7**
APSI				AML	AML		
MMSI	**Mamuju**	**2.31**	**195**	P	**Pn**	**07 10 54.1**	**0.0**
BKB	**Balikpapan**	**2.75**	**253**	P	**Pn**	**07 11 00.0**	**-0.1**
BKB				AML	AML		
PMSI	**Majene**	**3.09**	**191**	P	**Pn**	**07 11 06.6**	**+1.7**
PMSI				AML	AML		
LUWI	**Luwuk**	**3.30**	**100**	P	**Pn**	**07 11 11.3**	**+3.5**
SPSI	**Sidrap Palu**	**3.50**	**176**	P	**Pn**	**07 11 12.1**	**+1.6**
SPSI				AML	AML		
GTOI	**Gorontalo**	**3.65**	**73**	P	**Pn**	**07 11 12.7**	**+0.1**
GTOI				AML	AML		
TARAI	**Tarakan**	**4.23**	**333**	P	**Pn**	**07 11 22.5**	**+1.9**
KKSI	**Kolaka, Sulawe**	**4.26**	**150**	P	**Pn**	**07 11 23.8**	**+2.8**
KKSI				AML	AML		
KAPI	**Kappang**	**4.54**	**177**	Pn	**Pn**	**07 11 27.4**	**+2.7**
	2.0nm,0.3s,baz=231,slow=6.1,SNR=4.4						
KAPI				Sn	**Sn**	**07 12 17.0**	**+0.7**
	baz=53,slow=23						
KAPI				LR	LR	07 13 32.9	
	comp=Z,201nm,20.0s,baz=285,slow=43						
	8.8nm,0.4s						
KAPI				AML	AML		
KAPI	**Kappang**	**4.54**	**177**	P	**Pn**	**07 11 28.1**	**+3.3**
KDI	**Kendari**	**4.66**	**138**	P	**Pn**	**07 11 28.3**	**+1.8**
KDI				AML	AML		
MKS	**Makassar**	**4.73**	**181**	P	**Pn**	**07 11 29.7**	**+2.2**
MKS				AML	AML		
BSSI	**Bau Bau, Buton**	**5.74**	**170**	P	**Pn**	**07 11 44.0**	**+2.7**
	0.2nm67nm,1.4s						
BSSI				AML	AML		
KKM	**Kota Kinabalu**	**7.25**	**333**	P	**Pn**	**07 12 02.3**	**+0.1**
KKM				AML	AML		
SBUM	**Sibu**	**7.85**	**292**	P	**Pn**	**07 12 09.9**	**-0.4**
SBUM				AML	AML		
WRA	**Warramunga Arr**	**24.20**	**144**	P	**P**	**07 15 27.4**	**-4.7**
	0.7nm,1.0s,baz=320,slow=10,SNR=5.0						
	0.7nm,1.0s						
ASAR	**Alice Springs**	**26.97**	**150**	P	**P**	**07 15 55.3**	**-1.9**
	0.2nm,0.7s,baz=323,slow=7.9,SNR=4.6						
ASAR				PcP	**PcP**	**07 19 17.7**	**-0.8**
	0.5nm,0.6s,baz=339,slow=2.0,SNR=9.9						
	0.2nm,0.7s						
MKAR	**Makanchi Array**	**57.23**	**330**	P	**P**	**07 20 03.7**	**+1.3**
	0.7nm,0.4s,baz=130,slow=7.9,SNR=5.1						
	0.7nm,0.4s						
KURBB	**Kurchatov Arra**	**61.66**	**332**	P	**P**	**07 20 33.9**	**+1.1**
	0.4nm,0.3s,baz=117,slow=5.7,SNR=2.4						
	0.4nm,0.3s						
BVAR	**Borovoye Array**	**67.11**	**330**	P	**P**	**07 21 08.7**	**+0.2**
	0.9nm,0.6s,baz=136,slow=11,SNR=3.9						
	0.9nm,0.6s						

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*ASRS **15** 07:20:01.0±1.2, 54°.46N×86°.78E, h0^{km}, M2.7(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 15 07:20:00.1±3.6**, 54°.53N**×**86°.84E, h0^{km}, mbtmp3.0**/2**, ML2.7**/2**, Error ellipse: s-maj=29.0km s-min=18.5km az=67.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	**ZALESOVO INFRA**	**1.32**	**245**	I	I	07 28 30.0	
	baz=65,slow=321,SNR=11						
ZALV	**Zalesovo Beam**	**1.32**	**245**	Pg	Pn	07 20 25.7	0.0
	1.0nm,0.3s,baz=64,slow=16,SNR=7.0						
ZALV				Lg	Lg	07 20 41.5	
	1.8nm,0.3s,baz=62,slow=25,SNR=5.8						
KURBB	**Kurchatov Arra**	**6.40**	**236**	Pn	Pn	07 21 36.1	+0.6
	0.1nm,0.3s,baz=53,slow=14,SNR=4.2						
KURBB				Lg	Lg	07 23 22.7	
	baz=51,slow=32,SNR=1.7						
	0.6nm,0.3s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**8.26**	**202**	Pn	Pn	07 22 01.1	0.0
	0.2nm,0.3s,baz=22,slow=13,SNR=4.8						
MKAR				Sn	Sn	07 23 35.6	+0.5
	0.1nm,0.3s,baz=18,slow=24,SNR=4.6						
MKAR				Lg	Lg	07 24 18.4	
	0.1nm,0.3s,baz=27,slow=32,SNR=1.4						
	0.2nm,0.4s						
MKAR				AML	AML		

IDC 15 07:25:43.9±1.6**, 14°.90S**×**179°.91E, h0^{km}, mb3.7**/4**, mbtmp3.6**/5**, ML4.4**/1**, MS3.4**/1**, Error ellipse: s-maj=49.2km s-min=26.0km az=119.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**3.34**	**212**	Pn	Pn	07 26 37.8	+0.3
	1.7nm,0.3s,baz=344,slow=15,SNR=11						
MSVF				Sn	Sn	07 27 12.5	-5.4
	5.9nm,0.3s,baz=80,slow=22,SNR=5.4						
MSVF				LR	LR	07 27 49.7	
	comp=Z,576nm,19.2s,baz=322,slow=38						
	7.8nm,0.6s						
MSVF				AML	AML		
WRA	**Warramunga Arr**	**43.67**	**257**	P	P	07 33 50.2	-0.7
	0.5nm,0.7s,baz=92,slow=9.0,SNR=4.6						
	0.5nm,0.7s						
ASAR	**Alice Springs**	**44.14**	**251**	P	P	07 33 54.0	-0.6
	0.6nm,0.8s,baz=86,slow=9.4,SNR=5.9						
	0.6nm,0.8s						
QSPA	**South Pole Qui**	**75.14**	**180**	P	P	07 37 26.9	-0.9
	2.1nm,1.0s,baz=28,slow=6.1,SNR=3.6						
	2.1nm,1.0s						
ILAR	**Eielson Array**	**83.34**	**14**	P	P	07 38 13.1	+0.7
	0.4nm,0.8s,baz=225,slow=6.8,SNR=5.6						
	0.4nm,0.8s						

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*NOU **15** 07:29:41.9, 36°.67S×177°.26E, h12^{km}, MLv4.5/12, Off E. Coast of N. Island, N.Z.*

*WEL **15** 07:29:41.8±0.6, 37°S±4°×17°7E±°, h5^{km}, M4.4/20, ML4.2/20, MLv4.4/20, Error ellipse: s-maj=5.5km s-min=2.6km az=33.2, confirmed*

*WEL **15** 07:29:41.4, 36°.67S×177°.19E, ML4.3, Mw4.5, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}-2.09; $M_{\theta\theta}$2.02; $M_{\phi\phi}$4.96; $M_{r\theta}$-3.48; $M_{\theta\phi}$3.32; $M_{\phi r}$0.29; Fault plane solution: $M_0$6.30000×10^{15} NP1:ϕ_s64.00000°, δ64.00000°, λ-52.00000°. NP2:ϕ_s183.00000°, δ45.00000°, λ-142.00000°. Principal axes: T 5.8135, Plg11.0000°, Azm128.0000°; N 0.3084, Plg33.0000°, Azm225.0000°; P -6.1220, Plg54.0000°, Azm22.0000°; Stations used: BKZ GRZ HAZ HIZ KNZ MKAZ MWZ MXZ OTVZ PUZ RATZ RTZ OBLIQUE-NORMAL FAULTING*

*IDC **15** 07:29:42.6±0.8, 36°.75S×177°.09E, h0^{km}, mb4.3/11, mbtmp4.3/13, ML5.1/1, MS3.9/10 Error ellipse: s-maj=25.6km s-min=14.0km az=80.0*

*NEIC **15** 07:29:43.5±1.7, 36°.83S±0°.07×177°.27E±0°.07, h10^{km}±1^{km}, mb4.5/13, Error ellipse: s-maj=11.6km s-min=8.9km az=9.0*

ISC 15 07:29:42.8±1.6**, 36°.73S**±0°.05×**177°.20E**±0°.03**, h7^{km}**±9^{km}**, n179,** σ**1^{s}44**/179**, mb4.5**/17**, MS3.9**/8**, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WSRZ	**White Island S**	**0.79**	**181**	P	**Pg**	**07 29 58.1**	**+0.1**
WSRZ				S	**Sb**	**07 30 08.7**	**-1.2**
WSRZ				AML	AML		
WSRZ				AML	AML		
WIZ	**White Island**	**0.80**	**180**	P	**Pg**	**07 29 58.0**	**-0.2**
WIZ				S	**Sb**	**07 30 09.3**	**-0.7**
WIZ				AML	AML		
WIZ				AML	AML		
HAZ	**Te Kaha**	**1.13**	**156**	P	**Pb**	**07 30 02.6**	**-2.0**
HAZ				S	**Sb**	**07 30 18.0**	**-1.5**
HAZ				AML	AML		
HAZ				AML	AML		
WHRZ	**Whale Island**	**1.14**	**189**	P	**Pg**	**07 30 06.5**	**+1.8**
WHRZ				AML	AML		
WHRZ				AML	AML		
MXZ	**Matakaoa Point**	**1.22**	**134**	P	**Pn**	**07 30 04.3**	**-2.0**
MXZ	**Matakaoa Point**	**1.22**	**134**	S	**Sb**	**07 30 21.2**	**-0.9**
MXZ	**Matakaoa Point**	**1.22**	**134**		**Pn**	**07 30 04.2**	**-2.0**
MXZ	**Matakaoa Point**	**1.22**	**134**	P	**Pn**	**07 30 04.2**	**-2.0**
MXZ				S	**Sb**	**07 30 20.6**	**-1.5**
MXZ				AML	AML		
MXZ				AML	AML		
TGRZ	**Tauranga**	**1.25**	**216**	P	**Pn**	**07 30 05.8**	**-0.8**
TGRZ				AML	AML		
TGRZ				AML	AML		
RUGZ	**Raukumara Rang**	**1.30**	**163**	P	**Pn**	**07 30 05.7**	**-1.8**
RUGZ				S	**Sg**	**07 30 25.0**	**+0.5**
RUGZ				AML	AML		
RUGZ				AML	AML		
MARZ	**Manawahe**	**1.32**	**198**	P	**Pg**	**07 30 08.9**	**+0.7**
MARZ				S	**Sg**	**07 30 25.1**	**-0.3**
PKGZ	**Pakihiroa**	**1.34**	**148**	P	**Pn**	**07 30 06.3**	**-1.6**
PKGZ				AML	AML		
PKGZ				AML	AML		
EDRZ	**Edgecumbe**	**1.43**	**195**	P	**Pg**	**07 30 11.7**	**+1.6**
LIRZ	**Lichensteins R**	**1.43**	**207**	P	**Pg**	**07 30 11.5**	**+1.3**
WMGZ	**Waiomatatini S**	**1.46**	**139**	P	**Pb**	**07 30 09.7**	**-0.6**
WMGZ				S	**Sb**	**07 30 29.2**	**+0.1**
WMGZ				AML	AML		
WMGZ				AML	AML		
GRZ	**Great Barrier**	**1.48**	**288**	P	**Pn**	**07 30 07.5**	**-2.3**
GRZ				S	**Sn**	**07 30 27.2**	**-2.2**
GRZ				AML	AML		
GRZ				AML	AML		
KARZ	**Kaharoa**	**1.50**	**210**	P	**Pn**	**07 30 09.0**	**-1.2**
KMRZ	**Kaimai**	**1.50**	**221**	P	**Pn**	**07 30 09.9**	**-0.3**
KMRZ				S	**Sb**	**07 30 29.3**	**-0.9**
KMRZ				AML	AML		

KMRZ				AML	AML		
URZ	Urewera	1.53	182	Pn	Pn	07 30 08.7	-1.8
	77nm,0.3s,baz=352,slow=11,SNR=90						
URZ				Sn	Sn	07 30 28.4	-2.3
	142nm,0.3s,baz=334,slow=14,SNR=6.3						
URZ	Urewera	1.53	182	P	Pn	07 30 08.8	-1.8
URZ	Urewera	1.53	182	P	Pn	07 30 08.7	-1.8
TWGZ	Tauwhareparae	1.58	157	P	Pb	07 30 11.9	-0.5
TWGZ				AML	AML		
TWGZ				AML	AML		
PUZ	Puketiti	1.59	148	P	Pb	07 30 11.7	-0.8
PUZ				AML	AML		
PUZ				AML	AML		
NGRZ	Ngongotaha	1.59	210	P	Pg	07 30 14.3	+1.0
TARZ	Mount Tarawera	1.60	200	P	Pg	07 30 13.9	+0.4
TARZ				AML	AML		
TARZ				AML	AML		
MWZ	Matawai	1.63	171	P	Pn	07 30 10.1	-1.8
MWZ				AML	AML		
MWZ				AML	AML		
UTU	Utuhina	1.65	209	P	Pg	07 30 17.3	+2.8
WIAZ	Waiheke Island	1.66	267	P	Pn	07 30 11.0	-1.3
WIAZ				S	Sn	07 30 32.2	-1.6
WIAZ				AML	AML		
WIAZ				AML	AML		
HLRZ	Highlands Stat	1.67	203	P	Pg	07 30 18.8	+4.0
MKAZ	Moumakai	1.67	256	P	Pn	07 30 10.3	-2.2
MKAZ				S	Sn	07 30 33.2	-1.0
MKAZ				AML	AML		
MKAZ				AML	AML		
TOZ	Tahuroa Road	1.68	233		Pn	07 30 11.1	-1.5
TOZ	Tahuroa Road	1.68	233	P	Pn	07 30 10.9	-1.8
TOZ				S	Sn	07 30 33.5	-1.0
TOZ				AML	AML		
TOZ				AML	AML		
RRRZ	Republican Roa	1.70	198	P	Pg	07 30 14.8	-0.6
HSRZ	Hossack Road	1.75	205	P	Pg	07 30 17.2	+0.7
HSRZ				AML	AML		
HSRZ				AML	AML		
RAGZ	Rawiri	1.78	174	P	Pn	07 30 12.9	-1.1
MUGZ	Murupara	1.78	191	P	Pn	07 30 12.3	-1.7
MUGZ				AML	AML		
MUGZ				AML	AML		
TKGZ	Te Karaka	1.79	163	P	Pn	07 30 14.1	0.0
TKGZ				AML	AML		
TKGZ				AML	AML		
HRRZ	Handcock Road	1.81	203	P	Pn	07 30 13.6	-0.9
ETAZ	East Tamaki Re	1.83	262	P	Pn	07 30 13.0	-1.7
GRRZ	Galatos Road	1.84	208	P	Pg	07 30 18.1	+0.1
MBAZ	Motutapu North	1.85	268	P	Pn	07 30 13.1	-1.8
PRRZ	Plateau Road	1.88	200	P	Pn	07 30 14.1	-1.3
PRRZ				AML	AML		
PRRZ				AML	AML		
KBAZ	Karaka Road Bo	1.89	258	P	Pg	07 30 18.5	-0.4
KBAZ				S	Sn	07 30 39.0	-0.4
RTZ	Ruatahuna	1.90	185		Pn	07 30 14.2	-1.4
ABAZ	Army Bay	1.90	273	P	Pn	07 30 14.2	-1.4
ABAZ				S	Sb	07 30 40.2	-1.6
ABAZ				AML	AML		
ABAZ				AML	AML		
CNGZ	Carnagh Statio	1.93	156	P	Pb	07 30 17.1	-1.2
ALRZ	Allen Road	1.96	200	P	Pg	07 30 19.8	-0.4
WPRZ	Whakapapatarin	1.97	204	P	Pg	07 30 22.7	+2.1
EPAZ	Eden Park BICE	1.97	265	P	Pn	07 30 15.7	-0.9
EPAZ				AML	AML		
EPAZ				AML	AML		
HBAZ	Herne Bay Bore	1.98	266	P	Pn	07 30 16.3	-0.4
RIGZ	Rimuhau	2.03	167	P	Pb	07 30 19.0	-1.0
KUTZ	Kaahu Road	2.07	211	P	Pn	07 30 17.0	-1.0
AWAZ	Awhitu Peninsu	2.07	260	P	Pn	07 30 16.5	-1.5
TLZ	Tolley Road	2.07	219	P	Pn	07 30 16.7	-1.4
RVAZ	Riverhead Bore	2.10	268	P	Pn	07 30 17.4	-1.0
WTAZ	Waiatarua	2.11	264	P	Pn	07 30 17.5	-1.1
MTHZ	Maungataniwha	2.14	187	P	Pn	07 30 18.5	-0.5
RAHZ	Arahi	2.19	182	P	Pb	07 30 22.7	0.0
PRGZ	Paritu Road	2.26	166	P	Pb	07 30 22.3	-1.6
WATZ	Wairara	2.29	210	P	Pg	07 30 28.8	+2.0
KNZ	Kokohu	2.32	171	P	Pn	07 30 21.6	+0.2
WHHZ	Waihua	2.35	179	P	Pb	07 30 23.2	-2.3
NMHZ	Naumai	2.39	187	P	Pb	07 30 24.5	-1.6
RATZ	Rangitukua	2.42	207	P	Pg	07 30 32.1	+3.0
WCZ	Waipu Caves	2.43	288	P	Pn	07 30 21.2	-1.7
WCZ				AML	AML		
WCZ				AML	AML		
RITZ	Rihia Road	2.48	205	P	Pb	07 30 28.8	+1.1
BKZ	Black Stump Fm	2.50	193	P	Pn	07 30 24.0	+0.1
BKZ	Black Stump Fm	2.50	193	P	Pb	07 30 26.4	-1.7
ARHZ	Aropaoanui	2.54	183	P	Pn	07 30 25.4	+1.0
HIZ	Hauiti	2.58	225	P	Pn	07 30 24.6	-0.4
HIZ	Hauiti	2.58	225		Pn	07 30 24.5	-0.4
HIZ	Hauiti	2.58	225	P	Pn	07 30 24.0	-0.9
NTVZ	North Tongarir	2.66	206	P	Pb	07 30 31.2	+0.5
TMVZ	Te Maari	2.66	206	P	Pb	07 30 29.2	-1.6
KRVZ	Karewarewa	2.67	207	P	Pb	07 30 29.1	-1.8
ETVZ	East Tongariro	2.68	206	P	Pb	07 30 30.5	-0.6
WTVZ	West Tongariro	2.70	208	P	Pb	07 30 31.5	-0.1
OTVZ	Oturere	2.72	206	P	Pb	07 30 29.0	-2.9
TWVZ	Taurewa	2.72	210	P	Pb	07 30 29.0	-2.9
MCHZ	McNeill Hill	2.74	188	P	Pn	07 30 28.8	+1.6
NGZ	Ngauruhoe	2.75	207	P	Pb	07 30 33.5	+1.1
KWHZ	Kaweka Forest	2.76	193	P	Pb	07 30 30.4	-2.1
COVZ	Chateau Observ	2.79	207	P	Pb	07 30 32.9	-0.2
FWVZ	Far West T-bar	2.84	207	P	Pb	07 30 32.8	-1.2
MAVZ	Matarangi	2.85	206	P	Pb	07 30 33.3	-0.8
WHVZ	Whangaehu Hut	2.85	206	P	Pb	07 30 32.7	-1.4
TRVZ	Turoa	2.88	206	P	Pb	07 30 33.4	-1.3
WNVZ	Wahianoa	2.89	205	P	Pb	07 30 33.0	-1.7
BHHZ	Black Hill Sta	2.90	198	P	Pn	07 30 31.4	+2.0
MOVZ	Moawhango	2.91	203	P	Pb	07 30 31.9	-3.1
KRHZ	Kereru	2.98	192	P	Pn	07 30 31.4	+0.9
KAHZ	Kahuranaki	3.07	185	P	Pn	07 30 33.2	+1.4
PNHZ	Pukenui	3.28	194	P	Pn	07 30 34.9	+0.3
OUZ	Omahuta	3.28	296	P	Pn	07 30 33.3	-1.3
OUZ	Omahuta	3.28	296	P	Pn	07 30 33.4	-1.2
OUZ				AML	AML		
OUZ				AML	AML		
PXZ	Pawanui	3.31	184	P	Pn	07 30 35.5	+0.5
WPHZ	Waipukurau	3.39	190	P	Pn	07 30 37.9	+1.8
TSZ	Takapari Road	3.47	196	P	Pn	07 30 37.4	+0.2
WAZ	Wanganui	3.49	209	P	Pb	07 30 41.4	-3.5
LREZ	Lake Rotokare	3.51	218	P	Pb	07 30 42.9	-2.3
KHEZ	Kahui Hut	3.59	223	P	Pn	07 30 40.2	+1.3
KHEZ	Kahui Hut	3.59	223	P	Pn	07 30 41.0	+2.0
MRZ	Mangatainoka R	4.13	197		Pn	07 30 45.5	-0.8
MRZ	Mangatainoka R	4.13	197	P	Pn	07 30 45.7	-0.5
TMWZ	Te Maipa	4.49	193	P	Pn	07 30 50.3	-1.0
MTW	Mount Morrison	4.62	196	P	Pn	07 30 50.0	-3.0
CAW	Cannon Point	4.68	200	P	Pn	07 30 55.0	+1.2
DUWZ	D’Urville Isla	4.81	211	P	Pn	07 30 58.8	+3.2
TRWZ	Traveller	4.81	194	P	Pn	07 30 54.1	-1.5
MSWZ	Moikau Station	4.92	197	Pn	Pn	07 30 55.2	-2.0
SNZO	South Karori	4.97	202	P	Pn	07 30 56.0	-1.8
BHW	Baring Head	5.01	200	Pn	Pn	07 30 56.7	-1.7
TCW	Tory Channel	5.02	206		Pn	07 30 57.6	-1.0
TCW	Tory Channel	5.02	206	P	Pn	07 30 59.8	+1.3
TUWZ	Tuamarina	5.33	207		Pn	07 31 02.9	+0.1
TUWZ	Tuamarina	5.33	207	P	Pn	07 31 04.8	+1.9
NNZ	Nelson	5.38	212	P	Pn	07 31 06.6	+3.2
TKNZ	Takaka Hill	5.42	216		Pn	07 31 04.8	+0.8
TKNZ	Takaka Hill	5.42	216	P	Pn	07 31 08.4	+4.3
QRZ	Quartz Range	5.48	220	P	Pn	07 31 10.0	+5.1
MRNZ	Matariki Terra	5.80	215	Pn	Pn	07 31 10.1	+0.8
MRNZ	Matariki Terra	5.80	215	P	Pn	07 31 11.1	+1.9
THZ	Tophouse	6.03	212		Pn	07 31 12.4	0.0
THZ	Tophouse	6.03	212	P	Pn	07 31 12.0	-0.4
KHZ	Kahutara	6.35	205	P	Pn	07 31 14.7	-2.0
KHZ	Kahutara	6.35	205	P	Pn	07 31 15.8	-0.9
GVZ	Greta Valley S	7.01	206	P	Pn	07 31 26.2	+0.4
LTZ	Lake Taylor	7.14	211	P	Pn	07 31 28.0	+0.4
OKCZ	Okains Bay	7.67	203	P	Pn	07 31 34.6	-0.4
OXZ	Oxford	7.69	209	P	Pn	07 31 36.1	+0.9
RPZ	Rata Peaks	8.41	212	Pn	Pn	07 31 44.2	-0.8
	4.6nm,1.0s,baz=32,slow=19,SNR=1.8						
RPZ	Rata Peaks	8.41	212	P	Pn	07 31 45.3	+0.2
CTZ	Chatham Island	8.45	148	P	Pn	07 31 44.1	-1.4
RAO	Raoul Island	8.51	30	LR	LR	07 34 39.6	
	comp=Z,549nm,18.2s,baz=196,slow=35						
TMZ	Timaru	8.98	210	P	Pn	07 31 52.7	-0.2
ODZ	Otahua Downs	9.67	209	P	Pn	07 32 01.7	-0.7
DZM	Mont Dzumac	17.33	324	LR	LR	07 38 26.4	
	comp=Z,396nm,21.7s,baz=52,slow=30						
MSVF	Nonsavu	18.93	3	P	Pn	07 34 05.5	+0.5
	0.3nm,0.3s,baz=192,slow=17,SNR=4.1 20nm,1.1s						
MSVF				AML	AML		
RAR	Rarotonga	25.30	59	LR	LR	07 44 13.7	
	comp=Z,81nm,19.1s,baz=258,slow=34						
STKA	Stephens Creek	29.69	269	P	P	07 35 50.1	+0.7
	3.1nm,1.0s,baz=66,slow=10,SNR=4.0						
STKA				LR	LR	07 46 59.0	
	comp=Z,196nm,19.1s,baz=87,slow=35 3.1nm,1.0s						
CTA	Charters Tower	31.68	293	LR	LR	07 47 40.8	
	comp=Z,165nm,19.5s,baz=160,slow=34						
PMG	Port Moresby	38.47	307	LR	LR	07 52 30.3	
	comp=Z,160nm,18.2s,baz=132,slow=36						
AS31	Alice Springs	39.30	277	P	P	07 37 12.6	0.0
ASAR	Alice Springs	39.30	277	P	P	07 37 12.8	+0.2
	1.5nm,0.7s,baz=122,slow=8.6,SNR=12						
ASAR				LR	LR	07 52 00.5	
	comp=Z,244nm,21.7s,baz=120,slow=34 1.5nm,0.7s						
ASAR	Alice Springs	39.30	277	P	P	07 37 12.2	-0.3
WR8	Warramunga Arr	40.76	282	P	P	07 37 24.8	+0.2
WR8				IAmb	IAmb	07 37 40.4	
	comp=Z,9.3nm,1.1s						
WRA	Warramunga Arr	40.89	282	P	P	07 37 25.7	0.0
	comp=Z,2.6nm,0.9s,baz=121,slow=7.7,SNR=9.4 comp=Z,2.6nm,0.9s						
WRA	Warramunga Arr	40.89	282	P	P	07 37 25.3	-0.4
FORT	Forrest	40.92	264		P	07 37 26.3	+0.4
FORT				IAmb	IAmb	07 37 33.9	
	comp=Z,13nm,0.8s						
WB0	Warramunga Arr	40.95	282	P	P	07 37 26.3	+0.1
WB0				IAmb	IAmb	07 37 26.8	
	comp=Z,18nm,1.4s						
FITZ	Fitzroy Crossi	48.78	278	LR	LR	07 58 14.1	
	comp=Z,239nm,21.7s,baz=156,slow=35						
FITZ	Fitzroy Crossi	48.78	278	P	P	07 38 28.5	-0.1
FITZ				IAmb	IAmb	07 38 29.9	
	comp=Z,3.7nm,1.2s						
MORW	Morawa	51.16	260	P	P	07 38 47.1	+0.4
QSPA	South Pole Qui	53.40	180	P	P	07 39 04.6	+1.7
	comp=Z,7.6nm,1.1s,baz=20,slow=3.4,SNR=12 comp=Z,7.6nm,1.1s						
QSPA	South Pole Qui	53.40	180		P	07 39 01.9	-1.0
KAPI	Kappang	61.16	287	LR	LR	08 07 18.3	
	comp=Z,94nm,18.4s,baz=116,slow=37						
MAW	Mawson	64.97	203	P	P	07 40 23.1	+0.3
	comp=Z,0.6nm,0.3s,baz=74,slow=7.4,SNR=3.9 comp=Z,0.6nm,0.3s						
MAW	Mawson	64.97	203	IAmb	IAmb	07 40 31.1	
	comp=Z,2.6nm,1.3s						
PMSA	Palmer Station	68.14	156	LR	LR	08 06 11.1	
	comp=Z,411nm,19.5s,baz=76,slow=32						
SNAA	Sanae	71.90	180	P	P	07 41 07.1	+0.9
	comp=Z,0.8nm,0.3s,baz=213,slow=7.7,SNR=3.6 comp=Z,0.8nm,0.3s						
SNAA	Sanae	71.90	180	IAmb	IAmb	07 41 14.7	
	comp=Z,18nm,1.5s						
VNA2	Neumayer--Watz	72.60	178	P	P	07 41 10.6	+0.3
	comp=Z,10nm,0.7s,baz=166,slow=6.4						
PLCA	Paso Flores	81.04	135	P	P	07 42 00.0	+1.5
	comp=Z,1.5nm,1.0s,baz=221,slow=7.2,SNR=5.6 comp=Z,1.5nm,1.0s						
MJAR	Matsushiro Arr	81.38	329	P	P	07 41 59.1	-0.9
	comp=Z,0.7nm,0.3s,baz=152,slow=6.8,SNR=5.6 comp=Z,0.7nm,0.3s						
MJAR	Matsushiro Arr	81.38	329	IAmb	IAmb	07 42 07.3	
	comp=Z,5.7nm,1.5s						
RPSI	Rantau Prapat	82.22	279	P	P	07 42 03.8	-1.3
GSI	Gunungsitoli	82.46	277		P	07 42 05.8	-0.5
KSRS	Korea Array	86.75	323	P	P	07 42 28.3	+1.0
	comp=Z,4.3nm,1.0s,baz=140,slow=5.4,SNR=9.9 comp=Z,4.3nm,1.0s						
KSAR	Wonju Array Be	86.76	323		P	07 42 27.8	+0.4
PETK	Petropavlovsk-	91.06	348	P	P	07 42 47.1	-0.2
	comp=Z,1.1nm,0.5s,baz=157,slow=6.2,SNR=1.8 comp=Z,1.1nm,0.5s						
CMAR	Chiang Mai Arr	91.84	292	P	P	07 42 52.2	+0.4
	comp=Z,1.6nm,0.2s,baz=149,slow=3.4,SNR=12 comp=Z,1.6nm,0.2s						
PZH	PanZhiHua	94.79	299	P	P	07 43 07.0	+1.6
HHC	Hu-ho-hao-te	97.84	316	*e*P	Pdif	07 43 20.9	+1.9
HHC				pmax	pmax		
	comp=Z,7.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,40nm,5.5s						
ARCES	ARCESS Array B	143.72	344	PKP	PKPdf	07 49 17.8	+0.3
	comp=Z,2.2nm,0.9s,baz=60,slow=1.3,SNR=2.1						
KBZ	Khabaz	144.77	296	PKP	PKPbc	07 49 18.6	-0.4
	comp=Z,1.3nm,0.5s,baz=81,slow=2.4,SNR=5.5						
FINES	FINESS Array B	149.34	333	PKPbc	PKPab	07 49 33.8	-2.4
	comp=Z,1.5nm,0.7s,baz=78,slow=3.3,SNR=7.7						
BRTR	Keskin Array B	151.34	287	PKPbc	PKiKP	07 49 38.0	+0.2
	comp=Z,0.9nm,0.9s,baz=113,slow=1.9,SNR=3.7						
AKASG	Malin Array Be	153.21	312	PKPbc	PKiKP	07 49 44.2	+3.2
	comp=Z,0.5nm,0.3s,baz=66,slow=1.1,SNR=2.2						
TORD	Torodi Ar. Bea	156.18	191	PKPab	PKPab	07 50 05.2	-0.8
	comp=Z,1.8nm,0.8s,baz=162,slow=4.0,SNR=7.4						

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*IDC **15** 07:35:58.2±1.4, 33°.88S×73°.00W, h0^{km}, mb3.7/2, mbtmp3.7/5, ML3.5/3, Error ellipse: s-maj=43.1km s-min=21.4km az=88.0*

*SJA **15** 07:35:59.6±0.6, 34°.17S×73°.43W, h36^{km}±6^{km}, ML3.3, MW3.5*

*GUC **15** 07:36:00.0±0.7, 34°.26S×73°.40W, h34^{km}±4^{km}, ML3.5*

ISC 15 07:36:02.0±1.0**, 34°.18S**±0°.03×**73°.37W**±0°.07**, h35^{km}, n47, σ1^{s}93**/68**, 8C, Off coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BO03	Pichilemu	1.21	106⇑	*e*P	Pn	07 36 22.3	-0.1
BO03				*e*S	Sn	07 36 36.3	-1.3
BO03				IAML		07 36 37.7	
	comp=N,956nm,0.3s						
GO05	Hualane	1.45	125	*e*P	Pn	07 36 25.9	+0.2
GO05				*e*S	Sn	07 36 42.4	-1.2
GO05				IAML		07 36 43.4	
	comp=Z,419nm,0.7s						
GO05	Hualane	1.45	125	*e*P	Pn	07 36 25.7	-0.1
GO05				*e*S	Sn	07 36 41.8	-1.8
GO05				IAML		07 36 43.3	
	comp=E,867nm,0.3s						
MT01	Popeta	1.79	81	*e*P	Pn	07 36 30.0	-0.4
MT01				*e*S	Sn	07 36 51.6	-0.3
MT01				IAML		07 36 52.6	
	comp=Z,128nm,0.5s						
MT01	Popeta	1.79	81⇑	*e*P	Pn	07 36 29.9	-0.5
MT01				IAML		07 36 52.5	
	comp=E,210nm,0.6s						
VA01	Torpederas	1.84	52	*e*P	Pn	07 36 31.0	-0.1
VA01				*e*S	Sn	07 36 52.8	-0.3
VA01				IAML		07 36 55.0	
	comp=Z,99nm,0.1s						
VA01	Torpederas	1.84	52⇑	*e*P	Pn	07 36 30.8	-0.3
VA01				*e*S	Sn	07 36 52.3	-0.9
VA01				IAML		07 36 53.0	
	comp=E,247nm,0.4s						
BO01	Tunca	1.90	97	*e*P	Pn	07 36 32.1	+0.1
BO01				IAML		07 36 57.9	
	comp=Z,89nm,0.4s						
BO01	Tunca	1.90	97	*e*P	Pn	07 36 31.9	-0.1
BO01				*e*S	Sn	07 36 54.7	-0.1
MT02	Curacav	2.07	64	*e*P	Pn	07 36 34.3	-0.1
MT02				*e*S	Sn	07 37 01.0	+2.0
MT02				IAML		07 37 01.4	
	comp=Z,85nm,0.6s						
MT02	Curacav	2.07	64⇑	*e*P	Pn	07 36 34.2	-0.1
MT02				*e*S	Sn	07 36 56.2	-2.8
BO02	Sierra Bellavi	2.22	107	*e*P	Pn	07 36 37.6	+1.2
BO02				*e*S	Sn	07 37 04.9	+2.1
BO02				IAML		07 37 06.7	
	comp=Z,457nm,0.2s						
BO02	Sierra Bellavi	2.22	107⇑	*e*P	Pn	07 36 37.4	+0.9
BO02				*e*S	Sn	07 37 02.9	+0.1
BO02				IAML		07 37 05.5	
	comp=E,1µm,0.3s						
ML02	Panimavida	2.25	135	*e*P	Pn	07 36 38.1	+1.4
ML02				*e*S	Sn	07 37 05.0	+1.7
ML02				IAML		07 37 12.7	
	comp=Z,350nm,0.3s						
ML02	Panimavida	2.25	135	*e*P	Pn	07 36 38.1	+1.4
ML02				*e*S	Sn	07 37 01.8	-1.6
ML02				IAML		07 37 07.3	
	comp=E,906nm,0.2s						
BO04	La Punta	2.30	86⇑	*e*P	Pn	07 36 38.0	+0.5
BO04				*e*S	Sn	07 37 04.1	-0.4
BO04				IAML		07 37 06.5	
	comp=N,241nm,0.4s						
ROCH	El Roble	2.31	59⇑	*e*P	Pn	07 36 37.8	+0.1
ROCH				IAML		07 37 07.7	
	comp=N,153nm,0.4s						
MT05	Renca	2.33	71	*e*P	Pn	07 36 38.7	+0.8
MT05				*e*S	Sn	07 37 10.2	+4.9
MT05				IAML		07 37 15.8	
	comp=Z,71nm,0.3s						
PEL	Peldehue	2.46	66	*e*P	Pn	07 36 40.7	+0.9
PEL				*e*S	Sn	07 37 12.6	+3.9
PEL				IAML		07 37 13.7	
	comp=Z,95nm,0.4s						
MT03	Universidad Ad	2.48	75	*e*P	Pn	07 36 40.7	+0.8
MT03				*e*S	Sn	07 37 05.5	-3.5
MT03				IAML		07 37 14.0	
	comp=Z,114nm,0.2s						
BI05	Punta Hualpn	2.57	177	*e*P	Pn	07 36 41.3	+0.2
BI05				IAML		07 37 15.8	
	comp=Z,76nm,0.3s						
MT13	San Alfonso	2.60	81	*e*P	Pn	07 36 42.6	+1.0
MT13				*e*S	Sn	07 37 13.8	+1.8
MT13				IAML		07 37 15.3	
	comp=Z,103nm,0.2s						
VA03	San Esteban	2.75	60	*e*P	Pn	07 36 44.4	+0.7
VA03				IAML		07 37 19.1	
	comp=Z,158nm,0.3s						
MT04	Ro Olivares	2.80	75	*e*P	Pn	07 36 45.5	+0.9
MT04				*e*S	Sn	07 37 19.2	+2.0
MT04				IAML		07 37 21.8	
	comp=Z,68nm,0.5s						
CO04	Los Peladeros	2.93	44⇑	*e*P	Pn	07 36 46.4	0.0
CO04				*e*S	Sn	07 37 20.1	-0.3
CO04				IAML		07 37 22.6	
	comp=N,364nm,0.2s						
BI02	San Fabin de	3.01	146	*e*P	Pn	07 36 49.1	+1.8
BI02				IAML		07 37 27.7	
	comp=Z,87nm,0.4s						
BI02	San Fabin de	3.01	146	*e*P	Pn	07 36 48.6	+1.3
BI02				*e*S	Sn	07 37 20.4	-1.9
BI02				IAML		07 37 26.0	
	comp=N,133nm,0.7s						
CO02	Combarbal	3.58	35	*e*P	Pn	07 36 55.7	+0.6
CO02				*e*S	Sn	07 37 37.5	+1.3
CO02				IAML		07 37 38.2	
	comp=Z,128nm,0.2s						
CO02	Combarbal	3.58	35	*e*P	Pn	07 36 55.6	+0.5
CO02				*e*S	Sn	07 37 37.0	+0.8
AAGR	Agrelo	3.94	75	*e*P	Pn	07 37 03.9	+3.7
AAGR				IAML		07 38 37.5	
	comp=Z,28nm,2.5s						
GO04	Tololo Observa	4.55	29	*e*P	Pn	07 37 08.9	+0.3
GO04				IAML		07 38 03.9	
	comp=Z,70nm,0.3s						
GO04	Tololo Observa	4.55	29	*i* P	Pn	07 37 08.7	+0.1
H03S1	Juan Fernandez	4.61	273	T	T	07 41 50.3	
	baz=91,slow=72,SNR=5.9						
H03S3	Juan Fernandez	4.62	273	T	T	07 41 45.2	
	baz=91,slow=72,SNR=15						
H03S2	Juan Fernandez	4.63	273	T	T	07 41 50.7	
	baz=91,slow=72,SNR=6.8						
ZON	Zonda	4.74	58	*e*P	Pn	07 37 14.0	+3.0
ZON				IAML		07 38 12.6	
	comp=Z,19nm,1.3s						
RTLL	Cerro Villicun	5.01	57	*e*P	Pn	07 37 17.4	+2.7
RTLL				IAML		07 38 19.6	
	comp=Z,26nm,0.3s						
CFA	Coronel Fontan	5.02	61	*e*P	Pn	07 37 17.0	+2.1
CFA				IAML		07 38 18.0	
	comp=Z,14nm,3.7s						
CO01	Juntas del Tor	5.03	34	*e*P	Pn	07 37 16.6	+1.4
CO01				*e*S	Sn	07 38 13.6	+1.4
CO01				IAML		07 38 13.7	
	comp=Z,18nm,1.5s						
ACCO	Cerro Coronel	5.11	47	*e*P	Pn	07 37 19.0	+2.7
ACCO				IAML		07 38 41.5	
	comp=Z,35nm,0.3s						
AROD	Rodeo	5.19	41	*e*P	Pn	07 37 20.6	+3.2
ACDV	Cuesta del Vie	5.38	43	*e*P	Pn	07 37 22.8	+2.8
ACDV				*e*S	Sn	07 38 36.5	+16
ACDV				IAML		07 38 36.6	
	comp=Z,22nm,0.9s						
PLCA	Paso Flores	6.92	162	Pn	Pn	07 37 42.3	+1.4
	comp=Z,0.5nm,0.3s,baz=331,slow=13,SNR=22 comp=Z,2.7nm,0.6s						
PLCA				AML	AML		
CPUP	Villa Florida	15.90	65	Pn	Pn	07 39 37.4	-5.8
	baz=215,slow=18,SNR=2.0 comp=Z,1.9nm,0.9s						
LPAZ	La Paz	18.43	16	P	P	07 40 10.6	-4.4
	baz=190,slow=15,SNR=3.7 comp=Z,2.5nm,1.1s						
QSPA	South Pole Qui	56.06	180	P	P	07 45 40.5	+3.3
	comp=Z,1.9nm,0.9s,baz=148,slow=4.4,SNR=7.7 comp=Z,1.9nm,0.9s						
TXAR	Lajitas Array	69.36	332	P	P	07 47 07.4	+1.2
	comp=Z,0.2nm,0.6s,baz=146,slow=5.7,SNR=2.3 comp=Z,0.2nm,0.6s						

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*ASRS **15** 07:54:53.0±1.3, 54°.23N×86°.11E, h0^{km}, M2.9(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 15 07:54:51.8±4.1**, 54°.32N×86°.33E, h0^{km}, mbtmp3.5**/2**, ML2.9**/2**, Error ellipse: s-maj=34.3km s-min=14.5km az=62.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	0.96	248	I	I	08 00 20.0	
	baz=66,slow=320,SNR=1.3						
ZALV	Zalesovo Beam	0.96	248	Pg	Pg	07 55 09.9	-0.2
	1.3nm,0.3s,baz=63,slow=16,SNR=6.8						
ZALV				Lg	Lg	07 55 23.0	
	5.0nm,0.3s,baz=70,slow=33,SNR=6.6						
KURBB	Kurchatov Arra	6.03	235	Pn	Pn	07 56 22.1	0.0
	0.1nm,0.3s,baz=53,slow=14,SNR=2.3 2.4nm,0.2s						
KURBB				AML	AML		
MKAR	Makanchi Array	7.96	200	Pn	Pn	07 56 49.9	+1.3
	0.4nm,0.3s,baz=23,slow=12,SNR=8.1 0.5nm,0.3s						
MKAR				AML	AML		

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*ASRS **15** 08:00:08.0±1.4, 54°.58N×83°.65E, h0^{km}, M2.6(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 15 08:00:09.8±2.1**, 54°.68N×83°.76E, h0^{km}, mbtmp3.2**/3**, ML2.8**/3**, Error ellipse: s-maj=18.0km s-min=12.9km az=171.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	0.96	139	I	I	08 06 20.0	
	baz=317,slow=318,SNR=4.3						
ZALV	Zalesovo Beam	0.96	139	Pg	Pg	08 00 27.5	-0.7
	4.4nm,0.3s,baz=320,slow=19,SNR=26						
ZALV				Lg	Lg	08 00 41.4	
	21nm,0.3s,baz=322,slow=28,SNR=25						
KURBB	Kurchatov Arra	5.16	220	Pn	Pn	08 01 28.8	+0.5
	0.3nm,0.3s,baz=40,slow=14,SNR=1.6						
KURBB				Lg	Lg	08 02 54.6	
	0.7nm,0.3s,baz=41,slow=30,SNR=7.2 1.2nm,0.2s						
KURBB				AML	AML		
MKAR	Makanchi Array	7.95	187	Pn	Pn	08 02 06.8	+0.2
	0.3nm,0.3s,baz=21,slow=14,SNR=5.0						
MKAR				Lg	Lg	08 04 20.0	
	0.1nm,0.3s,baz=19,slow=32,SNR=3.5 0.2nm,0.3s						
MKAR				AML	AML		
BVAR	Borovoye Array	8.08	264	Pn	Pn	08 02 07.8	-0.6
	0.1nm,0.3s,baz=68,slow=14,SNR=5.4 1.0nm,0.3s						
BVAR				AML	AML		

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*NOU **15** 08:04:25.6, 17°.04S×168°.81E, h10^{km}, MLv5.1/19, Vanuatu Islands*

*GFZ **15** 08:04:25.4±0.7, 17°S±8°×16°9E±°, h10^{km}, M4.7/13, mb4.7/13, Error ellipse: s-maj=21.4km s-min=12.4km az=39.9, confirmed*

*IDC **15** 08:04:27.1±0.7, 17°.20S×168°.60E, h0^{km}, mb4.3/14,*

mbtmp4.3/15, ML4.2/1, MS3.9/45, Error ellipse: s-maj=23.1km s-min=13.9km az=105.0

*NEIC **15** 08:04:28.9±2.6, 17˚.00S±0˚.03×168˚.6E±0˚.1, h10^{km}±1^{km}, mb4.7/29, Error ellipse: s-maj=20.1km s-min=4.3km az=83.0*

*GCMT **15** 08:04:31.9±0.3, 17˚.11S±0˚.02×168˚.47E±0˚.02, h25^{km}±1^{km}, MW5.0/76, Moment Tensor Solution. s10,c10; s76,c93; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}0.24±.25; $M_{\theta\theta}$0.13±.17; $M_{\phi\phi}$-0.37±.19; $M_{r\theta}$-1.11±.37; $M_{\theta\phi}$-3.81±.16; $M_{\phi r}$0.59±.42; Best double couple: $M_0$4.02400×10^{16} NP1:ϕ_s359.00000°, δ74.00000°, λ9.00000°. NP2: ϕ_s267.00000°, δ81.00000°, λ164.00000°. Principal axes: T 4.0810, Plg18.0000°, Azm222.0000°; N -0.1160, Plg72.0000°, Azm58.0000°; P -3.9660, Plg5.0000°, Azm314.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 15 08:04:28.5±0.5**, 17˚.16S**±0˚.05×**168˚.66E**±0˚.09**, h10^{km}, n146, σ1^{s}.41**/107**, mb4.7**/43**, MS4.0**/43**, 1D, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RTV	Rentapao	0.67	200	P	Pg	08 04 40.8	-0.8
RTV	Rentapao	0.67	200	S	Sg	08 04 51.6	+1.2
SANVU	Saraoutou	2.20	320	P	Pn	08 05 02.4	-2.8
SANVU	Saraoutou	2.20	320		Pn	08 05 02.1	-3.1
SANVU	Saraoutou	2.20	320	P	Pn	08 05 02.1	-3.1
MARNC	Mare, Loyalty	4.34	188	P	Pn	08 05 34.2	-0.4
MARNC	Mare, Loyalty	4.34	188		Pn	08 05 34.1	-0.6
YATNC	Mamie plateau,	5.16	199	P	Pn	08 05 45.0	-0.8
DZM	Mont Dzumac	5.32	203	Pn	Pn	08 05 46.4	-1.7
	8.2nm,0.3s,baz=25,slow=2.3,SNR=61						
DZM				LR	LR	08 06 42.7	
	comp=Z,431nm,20.5s,baz=28,slow=26						
DZM				Sn	Sn	08 06 44.3	-5.2
	baz=292,slow=22						
	37nm,0.5s						
DZM				AML	AML		
KOUNC	Koumac, New Ca	5.34	230	P	Pn	08 05 49.0	+0.6
KOUNC	Koumac, New Ca	5.34	230		Pn	08 05 46.8	-1.6
NOUC	Port Laguerre	5.40	204	P	Pn	08 05 48.8	-0.3
OUENC	Ouen Island, N	5.51	198	P	Pn	08 05 51.4	+0.7
OUENC	Ouen Island, N	5.51	198		Pn	08 05 51.0	+0.4
ONTNC	Ouen Toro	5.53	202	P	Pn	08 05 51.1	+0.1
ONTNC	Ouen Toro	5.53	202		Pn	08 05 51.5	+0.6
HURO	Huro Makira	9.34	315	P	Pn	08 06 41.6	-1.8
NGOA	Tingoa Renbel	10.02	303	P	Pn	08 06 52.4	-0.2
HNR	Honiara	11.44	311	LR	LR	08 11 17.4	
	comp=Z,739nm,19.9s,baz=234,slow=36						
RAO	Raoul Island	17.22	137	LR	LR	08 13 15.6	
	comp=Z,396nm,21.7s,baz=321,slow=31						
EIDS	Eidsvold	18.30	241		Pn	08 08 41.7	-0.9
EIDS	Eidsvold	18.30	241	P	P	08 08 46.1	+3.4
	comp=Z,35nm,1.3s						
ARMA	Armidale	20.39	227	P	P	08 09 07.6	+1.9
	comp=Z,20nm,1.2s						
CTA	Charters Tower	21.43	259	P	P	08 09 16.4	-0.6
	comp=Z,11nm,0.7s,baz=89,slow=9.8,SNR=9.6						
CTA				LR	LR	08 16 56.7	
	comp=Z,307nm,18.1s,baz=62,slow=35						
	comp=Z,11nm,0.7s						
CTAO	Charters Tower	21.43	259	P	P	08 09 16.6	-0.4
CTAO				IAmb	IAmb	08 09 24.6	
	comp=Z,47nm,1.4s						
CTAO	Charters Tower	21.43	259	P	P	08 09 19.6	+2.6
	comp=Z,23nm,1.4s						
PMG	Port Moresby	22.28	287	LR	LR	08 16 49.6	
	comp=Z,588nm,18.1s,baz=94,slow=33						
URZ	Urewera	22.29	162	LR	LR	08 16 59.5	
	comp=Z,386nm,18.7s,baz=336,slow=34						
MTSU	Mount Surprise	23.22	264	P	P	08 09 36.8	+0.8
	comp=Z,16nm,0.9s						
QLP	Quilpie	24.50	243	P	P	08 09 47.4	-0.7
	comp=Z,83nm,1.4s						
CMSA	Cobar Meteorol	25.28	231	P	P	08 09 56.6	+1.4
	comp=Z,13nm,0.7s						
RPZ	Rata Peaks	26.55	176	LR	LR	08 18 29.0	
	comp=Z,63nm,19.0s,baz=228,slow=32						
STKA	Stephens Creek	28.55	234	P	P	08 10 23.6	-1.0
	comp=Z,7.2nm,0.9s,baz=84,slow=9.2,SNR=4.7						
STKA				LR	LR	08 21 36.3	
	comp=Z,344nm,18.3s,baz=51,slow=36						
	comp=Z,7.2nm,0.9s						
STKA	Stephens Creek	28.55	234	P	P	08 10 24.6	-0.1
	comp=Z,48nm,1.4s						
RAR	Rarotonga	30.06	103	LR	LR	08 20 18.1	
	comp=Z,93nm,21.0s,baz=286,slow=32						
MOO	Moorlands	31.16	212	P	P	08 10 48.4	+0.7
	comp=Z,75nm,1.5s						
WR8	Warramunga Arr	32.47	260	P	P	08 10 59.4	-0.1
WR8				IAmb	IAmb	08 11 06.9	
	comp=Z,18nm,1.4s						
WB0	Warramunga Arr	32.58	260		P	08 10 58.7	-1.7
WB0				IAmb	IAmb	08 11 06.2	
	comp=Z,9.1nm,1.1s						
WRA	Warramunga Arr	32.62	260	P	P	08 10 58.4	-2.4
	comp=Z,2.8nm,1.0s,baz=83,slow=6.2,SNR=15						
WRA				PcP	PcP	08 13 48.7	+1.7
	comp=Z,0.5nm,0.7s,baz=85,slow=3.3,SNR=2.4						
	comp=Z,2.8nm,1.0s						
WRA	Warramunga Arr	32.62	260		P	08 10 59.0	-1.8
AS31	Alice Springs	33.15	253		P	08 11 04.0	-1.4
ASAR	Alice Springs	33.15	253	P	P	08 11 03.6	-1.8
	comp=Z,5.3nm,0.7s,baz=78,slow=8.8,SNR=42						
ASAR				LR	LR	08 23 54.3	
	comp=Z,399nm,18.4s,baz=78,slow=35						
	comp=Z,5.3nm,0.7s						
ASAR	Alice Springs	33.15	253		P	08 11 04.3	-1.1
BBOO	Buckleboo	33.24	236		P	08 11 07.4	+1.3
BBOO	Buckleboo	33.24	236	P	P	08 11 05.6	-0.4
	comp=Z,25nm,1.3s						
SAUI	Saumlaki	37.53	279	P	P	08 11 45.2	+2.1
MWPI	Manokwari, Pap	37.69	292	P	P	08 11 45.3	+0.9
GUMO	Guam	38.54	321	LR	LR	08 27 15.3	
	comp=Z,111nm,18.4s,baz=140,slow=36						
FORT	Forrest	39.28	242	P	P	08 11 58.5	+0.7
FORT				IAmb	IAmb	08 12 01.5	
	comp=Z,16nm,0.8s						
PPT	Papeete	39.80	97	LR	LR	08 27 23.9	
	comp=Z,20nm,18.0s,baz=260,slow=34						
FITZ	Fitzroy Crossi	40.95	262	LR	LR	08 27 29.7	
	comp=Z,149nm,20.3s,baz=108,slow=34						
FITZ	Fitzroy Crossi	40.95	262		P	08 12 10.5	-1.1
FITZ	Fitzroy Crossi	40.95	262	P	P	08 12 11.0	-0.6
	comp=Z,5.5nm,1.4s						
MEEK	Meekatharra	47.14	249	P	P	08 13 02.3	+1.0
	comp=Z,26nm,1.4s						
KLBR	Kellerberrin	48.14	243	P	P	08 13 09.1	0.0
	comp=Z,29nm,1.0s						
NWAO	Narrogin (SRO)	48.70	241	LR	LR	08 33 02.0	
	comp=Z,243nm,18.4s,baz=212,slow=35						
NWAO	Narrogin (SRO)	48.70	241	P	P	08 13 14.2	+0.8
DAV	Davao City (W)	48.91	296	LR	LR	08 35 08.5	
	comp=Z,47nm,18.1s,baz=38,slow=38						
KAPI	Kappang	49.35	278	LR	LR	08 34 47.2	
	comp=Z,126nm,18.7s,baz=265,slow=37						
MORW	Morawa	49.47	246	P	P	08 13 20.2	+0.9
	comp=Z,27nm,2.1s						
JHJ	Hachijo jima 2	57.10	331	LR	LR	08 36 33.7	
	comp=Z,41nm,19.8s,baz=334,slow=34						
VNDA	Vanda	60.48	182	P	P	08 14 37.9	-0.3
	comp=Z,2.1nm,0.8s,baz=15,slow=4.6,SNR=12						
	comp=Z,2.1nm,0.8s						
VNDA	Vanda	60.48	182		P	08 14 40.8	+2.6
VNDA	Vanda	60.48	182	P	P	08 14 36.9	-1.3
	comp=Z,6.6nm,1.1s						
MJAR	Matsushiro Arr	60.66	332	P	P	08 14 40.2	+0.2
	comp=Z,2.1nm,0.9s,baz=154,slow=7.8,SNR=5.8						
MJAR				LR	LR	08 43 14.7	
	comp=Z,29nm,18.6s,baz=150,slow=38						
	comp=Z,2.1nm,0.9s						
SBA	Scott Base	60.73	180	P	P	08 14 41.1	+1.3
SBA	Scott Base	60.73	180	P	P	08 14 39.8	0.0
	comp=Z,18nm,1.1s						
JNU	Nakatsue	61.66	324	LR	LR	08 39 21.7	
	comp=Z,39nm,18.8s,baz=126,slow=34						
ASAJ	Asahikawa	65.47	340	LR	LR	08 39 59.5	
	comp=Z,146nm,20.9s,baz=110,slow=33						
KSRS	Korea Array	66.49	326	P	P	08 15 19.1	+0.7
	comp=Z,0.3nm,0.3s,baz=147,slow=7.2,SNR=1.5						
KSRS				LR	LR	08 42 07.7	
	comp=Z,31nm,19.8s,baz=145,slow=34						
	comp=Z,0.3nm,0.3s						
NJ2	Nanjing	68.34	316	*e*P	P	08 15 31.3	+1.0
NJ2				pmax	pmax		
	comp=Z,11nm,0.8s						
USRK	Ussuriysk Ar.	69.64	333	LR	LR	08 42 03.9	
	comp=Z,49nm,21.1s,baz=167,slow=32						
SHEM	Shemya Is, Ala	69.75	4	LR	LR	08 39 55.6	
	comp=Z,91nm,21.2s,baz=252,slow=30						
PETK	Petropavlovsk-	70.61	353	LR	LR	08 41 43.6	
	comp=Z,105nm,20.2s,baz=157,slow=32						
QSPA	South Pole Qui	72.89	180	P	P	08 15 57.1	-0.6
	comp=Z,8.6nm,1.0s,baz=11,slow=5.9,SNR=14						
QSPA				LR	LR	08 43 45.6	
	comp=Z,113nm,20.8s,baz=40,slow=32						
	comp=Z,8.6nm,1.0s						
QSPA	South Pole Qui	72.89	180	P	P	08 15 58.1	+0.4
CMAR	Chiang Mai Arr	77.16	294	P	P	08 16 24.8	+1.8
	comp=Z,0.9nm,0.3s,baz=104,slow=6.8,SNR=5.1						
	comp=Z,0.9nm,0.3s						
PZH	PanZhiHua	78.13	303	P	P	08 16 27.8	-0.6
HHC	Hu-ho-hao-te	78.29	319	*e*P	P	08 16 29.9	+0.9
HHC				pmax	pmax		
	comp=Z,13nm,0.6s						
HHC				pmax	pmax		
	comp=Z,89nm,4.4s						
MAW	Mawson	80.15	202	LR	LR	08 46 46.6	
	comp=Z,96nm,21.0s,baz=82,slow=32						
KDAK	Kodiak Island	81.27	20	LR	LR	08 46 52.2	
	comp=Z,81nm,19.1s,baz=203,slow=31						
L19K	White Mountain	84.16	16	P	P	08 16 58.3	-1.3
YAK	Yakutsk	84.73	343	LR	LR	08 55 00.4	
	comp=Z,61nm,18.2s,baz=150,slow=36						
ULN	Ulaanbaatar	84.87	324	P	P	08 17 07.1	+3.4
PWL	Port Wells	85.03	20		P	08 17 03.4	-0.6
PWL				IAmb	IAmb	08 17 04.6	
	comp=Z,5.1nm,0.9s						
SONM	Songino Array	85.23	323	P	P	08 17 04.9	-0.6
	comp=Z,1.6nm,0.8s,baz=139,slow=5.3,SNR=4.7						
	comp=Z,1.6nm,0.8s						
SONM	Songino Array	85.23	323		P	08 17 05.0	-0.5
SONM				IAmb	IAmb	08 17 14.1	
	comp=Z,8.2nm,1.4s						
GTA2	Gaotai	85.38	314	*e*P	P	08 17 06.3	-0.1
GTA2				pmax	pmax		
	comp=Z,5.0nm,1.1s						
CAST	Castle Rocks	85.92	17	P	P	08 17 07.3	-1.1
CAST				IAmb	IAmb	08 17 08.3	
	comp=Z,4.0nm,0.9s						
AFDM	Forest Hills D	86.16	47		P	08 17 09.7	-0.5
AFDM				IAmb	IAmb	08 17 11.2	
	comp=Z,7.8nm,1.4s						
YBH	Yreka Blue Hor	86.19	44	LR	LR	08 47 03.6	
	comp=Z,110nm,21.3s,baz=255,slow=30						
YBH	Yreka Blue Hor	86.19	44	IAmb	IAmb	08 17 11.7	
	comp=Z,8.2nm,1.4s						
MDPB	Devils Postpil	86.96	49	IAmb	IAmb	08 17 16.4	
	comp=Z,6.0nm,1.3s						
WAKR	Walker	87.06	48	P	P	08 17 15.4	+0.6
WAKR				IAmb	IAmb	08 17 17.2	
	comp=Z,6.5nm,1.3s						
CLC	China Lake	87.32	51	IAmb	IAmb	08 17 18.2	
	comp=Z,5.9nm,1.2s						
PFO	Pinyon Flats O	87.33	54	LR	LR	08 48 33.4	
	comp=Z,112nm,20.6s,baz=233,slow=30						
NVAR	Mina Array Bea	87.84	49	P	P	08 17 18.6	0.0
	comp=Z,1.1nm,0.8s,baz=231,slow=7.5,SNR=7.4						
NVAR				LR	LR	08 51 53.0	
	comp=Z,49nm,18.2s,baz=234,slow=32						
	comp=Z,1.1nm,0.8s						
NVAR	Mina Array Bea	87.84	49	P	P	08 17 19.7	+1.1
NV11	Mina Array Sit	87.95	49	IAmb	IAmb	08 17 32.2	
	comp=Z,6.0nm,1.4s						
BBB	Bella Bella	88.04	33	LR	LR	08 51 17.2	
	comp=Z,54nm,18.7s,baz=230,slow=32						
ELIB	Princess Elisa	88.08	190	*d*P	P	08 17 17.9	-1.2
	comp=Z,2.0nm,1.4s						
HDA	Harding Lake	88.13	18	IAmb	IAmb	08 17 19.8	
	comp=Z,7.5nm,1.2s						
ILAR	Eielson Array	88.42	17	P	P	08 17 19.1	-1.3
	comp=Z,1.0nm,1.0s,baz=223,slow=6.5,SNR=6.2						
ILAR				LR	LR	08 54 01.0	
	comp=Z,73nm,18.1s,baz=239,slow=34						
	comp=Z,1.0nm,1.0s						
LPIG	La Paz	89.02	65	LR	LR	08 51 01.7	
	comp=Z,110nm,18.1s,baz=243,slow=31						
PALK	Pallekele	90.18	278	LR	LR	08 59 15.2	
	comp=Z,76nm,18.0s,baz=120,slow=36						
G08A	Pilot Rock	90.19	42		P	08 17 29.4	0.0
G08A				IAmb	IAmb	08 17 30.3	
	comp=Z,3.9nm,1.0s						
DLBC	Dease Lake	90.45	27	LR	LR	08 50 41.2	
	comp=Z,83nm,20.6s,baz=232,slow=31						
TROLL	Troll, Antarti	90.56	184	P	P	08 17 29.5	-1.3
	comp=Z,298nm,0.8s						
ELK	Elko	90.92	48	LR	LR	08 52 51.8	
	comp=Z,72nm,18.5s,baz=253,slow=32						
SNAA	Sanae	91.21	183	P	P	08 17 33.2	-0.5
	comp=Z,2.8nm,0.8s,baz=166,slow=4.2,SNR=2.6						
SNAA				LR	LR	08 59 39.5	
	comp=Z,80nm,18.0s,baz=216,slow=36						
	comp=Z,2.8nm,0.8s						
SNAA	Sanae	91.21	183	P	P	08 17 31.7	-2.0
	comp=Z,4.9nm,0.4s						
VNA3	Neumayer Olymp	91.82	181	P	P	08 17 34.8	-1.7
	comp=Z,4.9nm,0.8s						
VNA3	Neumayer Olymp	91.82	181	P	P	08 17 35.1	-1.4
	comp=Z,8.3nm,0.9s						
VNA2	Neumayer--Watz	92.10	181	P	P	08 17 36.5	-1.3
	comp=Z,4.5nm,0.8s,baz=172,slow=3.7						
VNA2	Neumayer--Watz	92.10	181	P	P	08 17 36.3	-1.4
	comp=Z,11nm,1.4s						
NEW	Newport	92.54	40	LR	LR	08 52 04.6	
	comp=Z,42nm,19.7s,baz=255,slow=31						
TIXI	Tiksi	92.60	348	LR	LR	08 57 38.2	
	comp=Z,50nm,18.9s,baz=162,slow=34						
INK	Inuvik	94.75	18	LR	LR	08 59 47.0	
	comp=Z,48nm,18.1s,baz=21,slow=35						
WMQ	Urumqi	95.37	314	*e*P	P	08 17 54.9	+1.6
WMQ				sP	sP	08 18 00.5	+3.1
WMQ				pmax	pmax		
	comp=Z,17nm,0.7s						
WMQ				LR	LR		
	comp=Z,75nm,24.5s						
ANMO	Albuquerque	95.57	55	LR	LR	08 52 12.1	
	comp=Z,65nm,21.7s,baz=258,slow=30						
PDAR	Pinedale Array	95.61	47	LR	LR	08 54 19.2	
	comp=Z,33nm,18.9s,baz=243,slow=31						
YKA	Yellowknife Ar	99.08	27	LR	LR	08 56 30.9	
	comp=Z,66nm,19.5s,baz=296,slow=32						
MKAR	Makanchi Array	99.87	316	P	Pdif	08 18 13.0	-0.4
	comp=Z,0.3nm,0.4s,baz=104,slow=4.7,SNR=4.0						
MKAR				LR	LR	09 02 31.3	
	comp=Z,29nm,20.6s,baz=98,slow=35						
	comp=Z,0.3nm,0.4s						
MKAR	Makanchi Array	99.87	316		Pdif	08 18 13.0	-0.4
ZALV	Zalesovo Beam	100.13	323	P	Pdif	08 18 14.1	-0.2
	comp=Z,0.6nm,0.5s,baz=134,slow=10,SNR=3.6						
KURBB	Kurchatov Arra	103.14	319	Pdiff	Pdif	08 18 27.0	-0.8
	comp=Z,0.5nm,0.2s,baz=70,slow=12,SNR=1.7						
KBZ	Khabaz	127.37	312	PKP	PKPdf	08 23 33.6	-0.1
	comp=Z,1.4nm,0.6s,baz=70,slow=2.1,SNR=3.6						
FINES	FINESS Array B	128.46	338	PKP	PKPdf	08 23 35.2	0.0
	comp=Z,4.1nm,1.1s,baz=43,slow=2.5,SNR=3.8						
NOA	NORSAR Array B	133.30	345	PKP	PKPdf	08 23 44.7	+0.2
	comp=Z,0.5nm,0.8s,baz=39,slow=2.1,SNR=2.0						
HFS	Hagfors	133.42	343	PKP	PKiKP	08 23 45.5	-0.4
	comp=Z,1.3nm,0.8s,baz=61,slow=6.8,SNR=2.5						
AKASG	Malin Array Be	133.48	325	PKP	PKiKP	08 23 46.8	+0.5
	comp=Z,3.5nm,1.0s,baz=68,slow=1.9,SNR=5.0						
BRTR	Keskin Array B	135.09	309	PKP	PKiKP	08 23 50.2	+0.1
	comp=Z,1.4nm,0.9s,baz=69,slow=2.4,SNR=4.1						
CLL	Collm	140.81	336	*e*PKPdf	PKPdf	08 23 59.0	+0.4
CLL				*e*PKiKP	sPKPdf	08 24 03.0	+0.2
RONA	Rosalia, Austr	142.03	329	*e*PKP	PKPdf	08 23 58.7	-2.3
	comp=Z,2.5nm,0.8s						
CONA	Conrad Observa	142.08	330	*e*PKP	PKPdf	08 23 59.1	-2.1
	comp=Z,3.4nm,1.0s						
SOKA	Soboth	143.36	329	*e*PKP	PKPbc	08 24 01.2	+0.7
	comp=Z,4.3nm,1.3s						
KBA	Koelnbreinsper	143.88	331	*e*PKP	PKPbc	08 24 02.4	+0.3
	comp=Z,9.7nm,1.2s						
LESA	Schwarzleotal	143.92	332	*e*PKP	PKPbc	08 24 01.7	-0.4
	comp=Z,2.4nm,0.6s						
MYKA	Terra Mystica	144.06	330	*e*PKP	PKPbc	08 24 02.6	+0.1
	comp=Z,5.2nm,1.0s						
ABTA	Abfaltersbach	144.50	331	*e*PKP	PKPab	08 24 02.8	-0.9
	comp=Z,4.6nm,0.6s						
WTTA	Wattenberg	144.50	333	*e*PKP	PKPab	08 24 03.5	-0.3
	comp=Z,7.4nm,1.0s						
MOTA	Moosalm	144.67	333	*e*PKP	PKPab	08 24 03.9	-0.6
	comp=Z,9.1nm,1.2s						
RETA	Reutte	144.71	334	*e*PKP	PKPab	08 24 04.0	-0.5
	comp=Z,0.3nm,0.2s						
FETA	Feichten	145.09	333	*e*PKP	PKPab	08 24 04.0	-1.9
	comp=Z,9.5nm,0.9s						
DAVA	Damuels	145.24	334	*e*PKP	PKPbc	08 24 04.7	-1.7
	comp=Z,40nm,1.4s						
TORD	Torodi Ar. Bea	166.80	254	PKP	PKPdf	08 24 37.3	+1.9
	comp=Z,1.2nm,0.9s,baz=113,slow=1.0,SNR=4.7						
TORD				PKPab	PKPab	08 25 40.2	+1.7
	comp=Z,1.0nm,0.8s,baz=108,slow=5.4,SNR=3.6						

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*DNK **15** 08:59:47.3±1.9, 54˚.31N×19˚.10E, h0^{km}, ML2.4, Suspected explosion*

*IDC **15** 08:59:51.3±8.2, 54˚.44N×18˚.81E, h0^{km}, mbtmp3.0/4, ML2.3/4, Error ellipse: s-maj=90.8km s-min=32.1km az=164.0*

ISC 15 08:59:46.9±3.1**, 54˚.3N**±0˚.2×**19˚.04E**±0˚.09**, h0^{km}, n11, σ1^{s}.71**/18**, Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BSD	Bornholm Skovb	2.52	290	*i* P	Pn	09 00 30.0	+1.0
BSD				*i* S	Sb	09 01 03.0	-1.3
BSD				IAML		09 01 07.4	
	comp=Z,8.5nm,0.2s						
BLEU	Blekinge	2.70	318	*i* P	Pn	09 00 33.1	+1.6
BLEU				*i* S	Sn	09 01 06.3	+1.5
LUNU	Lund	3.48	294	*i* P	Pn	09 00 43.1	+1.0
LUNU				*i* S	Sn	09 01 23.7	-0.2
DEL	Delary	3.64	308	*i* P	Pn	09 00 45.4	+1.0
DEL				*i* S	Sn	09 01 26.8	-1.3
FABU	Falkenberg	4.47	309	*i* P	Pn	09 00 56.2	+0.5
FABU				*i* S	Sn	09 01 48.9	+0.5
ONAU	Onsala	5.05	310	*i* P	Pn	09 01 04.9	+1.1
TJOU	Tjoern	5.56	315	*i* P	Pn	09 01 13.5	+2.8
TJOU				*i* S	Sn	09 02 13.2	-2.0
HFS	Hagfors	6.50	336	Pn	Pn	09 01 25.8	+2.1
	comp=Z,0.2nm,0.3s,baz=137,slow=14,SNR=1.5						
	comp=Z,0.4nm,0.3s						
HFS				AML	AML		
NOA	NORSAR Array B	7.92	331	Pn	Pn	09 01 43.6	+0.5
	baz=146,slow=11,SNR=6.1						
	comp=Z,0.2nm,0.7s						
FINES	FINESS Array B	8.05	25	Pn	Pn	09 01 47.4	+2.5
	comp=Z,0.1nm,0.3s,baz=216,slow=14,SNR=6.6						
FINES				Sn	Sn	09 03 15.6	-1.0
	comp=Z,0.2nm,0.3s,baz=214,slow=26,SNR=2.6						
	comp=Z,0.6nm,0.2s						
FINES				AML	AML		
ARCES	ARCESS Array B	15.54	9	Pn	Pn	09 03 24.2	-2.8
	baz=194,slow=11,SNR=1.8						
	comp=Z,0.2nm,0.3s						

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*DJA **15** 09:02:24.7±0.5, 10˚S±4˚×12˚1E±˚, h11^{km}±3^{km}, M4.1/17, mB5.8/2, mb4.6/7, MLv3.8/17, Mw(mB)5.4/2*

*IDC **15** 09:02:38.0±8.6, 10˚.27S×123˚.28E, h267^{km}±93^{km}, mb3.5/2, mbtmp3.8/4, Error ellipse: s-maj=124.1km s-min=30.2km az=55.0*

ISC 15 09:02:06.8±0.9**, 10˚.39S**±0˚.07×**121˚.95E**±0˚.07**, h10^{km}, n18, σ2^{s}.55**/19**, Savu Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BASI	Baing, Sumba	1.36	277	P	Pn	09 02 28.3	-3.5
EDFI	Ende, Flores	1.65	351	S	Sb	09 03 22.8	+25
EDFI				P	Sg	09 02 59.0	-0.9
EDFI				AML	AML		
MMRI	Maumere	1.77	9	P	Sg	09 03 04.6	+0.9
MMRI				AML	AML		
WSI	Waingapu	1.78	294	P	Pn	09 02 37.6	0.0
WSI				AML	AML		
SOEI	Soe	2.37	75	P	Sg	09 03 21.9	-1.1
SOEI				AML	AML		
LBFI	Labuhan Bajo,	2.78	313	P	Pg	09 02 58.8	-1.3
DBNI	Kabupaten Domp	4.05	297	P	Pn	09 03 09.8	+1.0
DBNI				AML	AML		
PLAI	Plampang	4.40	290	P	Pn	09 03 13.6	0.0
PLAI				S	Sn	09 03 49.1	-16
PLAI				AML	AML		
BSSI	Bau Bau, Buton	4.46	341	P	Pg	09 03 28.5	-3.8
BSSI				AML	AML		
TWSI	Taliwang, Sumb	5.26	288	P	Pn	09 03 25.3	-0.2
TWSI				AML	AML		
KHKI	Kahang-Kahang	6.57	287	P	Pn	09 03 43.5	0.0
	0.2nm45nm,0.8s						
KHKI				AML	AML		
SRBI	Singaraja	7.03	288	P	Pn	09 03 47.5	-2.4
	0.3nm55nm,1.2s						
SRBI				AML	AML		
RTBI	Rangdo, Negare	7.17	285	P	Pn	09 03 50.1	-1.7
	0.4nm87nm,1.1s						
RTBI				AML	AML		
JAGI	Jajag, Banyuwa	7.92	283	P	Pn	09 04 02.4	+0.3
WRA	Warramunga Arr	15.26	130	P	P	09 05 48.9	+1.5
	0.2nm,0.3s,baz=313,slow=12,SNR=4.8						
WRA				S	Sn	09 08 31.2	-0.5
	1.1nm,0.4s,baz=318,slow=23,SNR=6.2						
ASAR	Alice Springs	17.45	141	P	P	09 06 14.9	+3.3
	1.0nm,0.5s,baz=311,slow=12,SNR=21						
ASAR				S	Sn	09 09 19.5	-5.3
	1.5nm,0.6s,baz=319,slow=20,SNR=7.8						
MKAR	Makanchi Array	67.03	332	P	P	09 13 04.8	+4.7
	0.3nm,0.3s,baz=128,slow=7.9,SNR=3.9						
	0.3nm,0.3s						
ZALV	Zalesovo Beam	71.39	338	P	P	09 13 32.5	+5.6
	1.7nm,0.4s,baz=137,slow=4.4,SNR=8.7						
	1.7nm,0.4s						

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*SKHL **15** 09:25:06.1±0.1, 46˚.70N×145˚.20E, h366^{km}±8^{km}, mb4.4/6, msh4.6/3*

*IDC **15** 09:25:07.2±2.0, 46˚.91N×144˚.80E, h376^{km}±18^{km}, mb3.0/7, mbtmp3.7/11, Error ellipse: s-maj=36.5km s-min=16.7km az=81.0*

*JMA **15** 09:25:09.2±0.5, 46˚N±3˚×14˚5E±˚, h397^{km}, MV3.5/18, SOUTHERN SEA OF OKHOTSK*

ISC 15 09:25:06.0±0.8**, 46˚.65N**±0˚.05×**145˚.05E**±0˚.10**, h379^{km}, n33, σ1^{s}.70**/41**, mb3.3**/7**, Sea of Okhotsk**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YSS	Yuzhno-Sakhali	1.60	282	*e*P	Pn	09 25 58.1	+0.5
YSS				AMB	AMB	09 26 01.7	
	30nm,0.4s						
YSS				*e*S	S	09 26 38.6	-0.5
YSS				A	A	09 26 40.6	
	30nm,0.8s						
YSS				A	A	09 26 40.6	
	40nm,0.8s						
REI	Reidovoe	2.49	123	*e*P	Pn	09 26 02.9	-0.6
REI				AMB	AMB	09 26 04.0	
	40nm,0.4s						
JWK2	Keihoku	2.57	240	*e*P	Pn	09 26 06.5	+2.4
YUK	Yuzh-Kuril'sk	2.67	167	*e*P	Pn	09 26 05.6	+0.6
YUK				AMB	AMB	09 26 08.2	
	120nm,0.5s						
JRA	Rausu	2.71	179	*e*P	Pn	09 26 07.7	+2.4
JTKR	Abashiri--Toko	2.79	197	*e*P	Pn	09 26 08.2	+2.3
JMP	Maruseppu	2.90	205	*e*P	Pn	09 26 08.7	+1.8
JRBN	Rebuntou	3.03	248	*e*P	Pn	09 26 09.0	+1.2
SHO	Shikotan	3.05	155	*e*P	Pn	09 26 24.6	+17
SHO				AMB	AMB	09 26 26.2	
	50nm,0.3s						
SHO				*e*S	S	09 27 12.8	+15
SHO				A	A	09 27 15.2	
	40nm,0.4s						
SHO				A	A	09 27 15.2	
	70nm,0.4s						
ASAJ	Asahikawa	3.06	215	P	Pn	09 26 10.1	+1.9
	9.5nm,0.6s,baz=268,slow=5.6,SNR=13						
JNK	Nakash	3.07	184	*e*P	Pn	09 26 10.8	+2.5
UGL	Uglegorsk	3.15	322	*e*P	Pn	09 26 10.0	+1.3
NMR	Nemuro--Hokkai	3.31	171	*e*P	Pn	09 26 10.5	+0.1
NMR				*e*S	S	09 27 00.8	-1.6
NEM2	Nemuro 2	3.32	171	*e*P	Pn	09 26 10.6	+0.1
NEM2				*e*S	S	09 27 01.3	-1.2
JAR	Ashorobuto	3.47	196	*e*P	Pn	09 26 13.6	+1.7
AKK	Akkeshi	3.63	182	*e*P	Pn	09 26 13.6	+0.3
AKK				*e*S	S	09 27 06.5	-1.2
JAK	Akkeshi	3.66	184	*e*P	Pn	09 26 14.2	+0.6

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
JAK				eS	S	09 27 06.0	-2.1
JCH	Churui	4.21	197	eP	Pn	09 26 19.1	+0.2
JCH				eS	S	09 27 14.8	-3.0
TYV	Tymovskoe	4.50	340	eP	Pn	09 26 21.8	+0.1
TYV				AMB	AMB	09 26 22.6	
	30nm,0.3s						
TYV				eS	S	09 27 22.7	-0.4
JNBK	Urakawa-nobuka	4.66	201	eP	Pn	09 26 23.8	+0.3
JNBK				eS	S	09 27 24.0	-2.4
JOT	Ohata	6.00	210	eP	Pn	09 26 38.6	+0.7
JOT				eS	S	09 27 48.5	-4.1
NKL	Nikolayevsk	7.09	338	eP	P	09 26 50.8	-0.1
KLR	Kul'dur	9.29	291	P	Pn	09 27 13.2	-2.3
	0.5nm,0.4s,baz=89,slow=6.4,SNR=3.5						
MJAR	Matsushiro Arr	11.31	209	P	Pn	09 27 41.7	+2.2
	1.3nm,0.5s,baz=13,slow=13,SNR=4.8						
SEY	Seymchan	16.84	12	P	P	09 28 39.2	+0.4
	0.9nm,0.4s,baz=198,slow=10,SNR=3.8						
MKAR	Makanchi Array	41.98	294	P	P	09 32 21.1	-0.3
	0.4nm,0.5s,baz=72,slow=7.8,SNR=5.9						
	0.4nm,0.5s						
KURBB	Kurchatov Arra	42.81	301	P	P	09 32 27.1	-0.7
	0.6nm,0.4s,baz=74,slow=8.5,SNR=5.1						
	0.6nm,0.4s						
FINES	FINESS Array B	61.62	331	P	P	09 34 43.2	-1.1
	1.3nm,0.5s,baz=39,slow=8.1,SNR=10						
	1.3nm,0.5s						
NB2	NORSAR Subarra	66.36	337	P	P	09 35 14.4	-0.5
	comp=Z,0.5nm,0.4s,baz=32,slow=6.5						
NOA	NORSAR Array B	66.36	337	P	P	09 35 14.0	-0.9
	comp=Z,0.5nm,0.6s,baz=31,slow=6.7,SNR=5.6						
	comp=Z,0.5nm,0.6s						
HFS	Hagfors	66.44	336	P	P	09 35 14.6	-0.7
	comp=Z,1.3nm,0.5s,baz=46,slow=6.2,SNR=4.4						
	comp=Z,1.3nm,0.5s						
WRA	Warramunga Arr	66.98	191	P	P	09 35 21.2	+2.0
	comp=Z,0.5nm,1.1s,baz=16,slow=5.8,SNR=2.0						
	comp=Z,0.5nm,1.1s						
ASAR	Alice Springs	70.70	191	P	P	09 35 45.3	+3.4
	comp=Z,0.3nm,0.6s,baz=8.9,slow=5.8,SNR=4.5						
	comp=Z,0.3nm,0.6s						

TAP 15 09:26:30.4, 24°.40N×122°.13E, h73^{km}, ML2.7, B, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EOS2	EOS2	0.10	81	P	Pn	09 26 41.7	+0.9
EOS2				S	Sn	09 26 49.5	+1.0
EOS3	EOS3	0.21	124	i P	Pn	09 26 41.7	+0.5
EOS3				i S	Sn	09 26 50.2	+1.1
EWUT	Wuta	0.32	277	i P	Pn	09 26 42.5	+0.5
EWUT				i S	Sn	09 26 51.4	+0.7
EWUT	Wuta	0.32	277	eP	Pn	09 26 51.4	+9.3
EOS4	EOS4	0.33	149	P	Pn	09 26 41.9	+0.3
ENA	Nanau	0.35	274	eP	Pn	09 26 40.2	-2.1
ENA				eS	Sn	09 26 49.3	-1.7
EAHA	Aohua	0.36	258	eP	Pn	09 26 42.8	+0.4
EAHA				eS	Sn	09 26 51.5	+0.4
EHP	Heping Village	0.37	255	eP	Pn	09 26 42.4	+0.1
NDS	Dongshan	0.44	301	P	Pn	09 26 43.1	+0.2
NDS				S	Sn	09 26 52.7	+0.4
EGS		0.47	338	i P	Pn	09 26 43.6	+0.4
EGS				S	Sn	09 26 53.0	+0.3
ILA	Ilan	0.50	316	P	Pn	09 26 44.0	+0.6
ILA				S	Sn	09 26 54.1	+0.9
ETL	Fush Village	0.52	242	P	Pn	09 26 44.8	+1.1
ETL				S	Sn	09 26 54.6	+1.0
TWE	Neicheng	0.53	307	P	Pn	09 26 43.9	+0.2
TWE				eS	Sn	09 26 52.4	-1.2
NACB	Ninganchiao	0.54	245	P	Pn	09 26 44.2	+0.4
NACB				S	Sn	09 26 54.9	+1.1
LATG	Datong	0.56	284	P	Pn	09 26 44.6	+0.4
LATG				S	Sn	09 26 55.1	+0.6
TWD	Chiawan	0.58	237	P	Pn	09 26 44.8	+0.5
TWD				S	Sn	09 26 55.2	+0.6
NDT	Datong Townshi	0.59	290	eP	Pn	09 26 45.0	+0.5
NDT				S	Sn	09 26 55.5	+0.7
FUSB	Fushanzhiwuyua	0.61	306	P	Pn	09 26 45.4	+0.8
FUSB				S	Sn	09 26 55.8	+0.6
TWB1	Santiao Chiao	0.61	348	P	Pn	09 26 45.4	+0.8
TWB1				eS	Sn	09 26 56.2	+1.0
ETLH	Xiulin Townshi	0.62	252	P	Pn	09 26 45.1	+0.3
ETLH				S	Sn	09 26 56.0	+0.6
TIPB	Shuangxi	0.63	334	eP	Pn	09 26 47.2	+2.3
HWA	Hwalien	0.64	228	P	Pn	09 26 45.8	+1.0
HWA				S	Sn	09 26 56.0	+0.4
NNSB	Datong	0.68	272	P	Pn	09 26 45.9	+0.4
NNSB				S	Sn	09 26 57.4	+0.8
NNSH	Datong	0.68	272	S	Sn	09 26 57.2	+0.6
NWLT	Wulai	0.68	303	P	Pn	09 26 46.1	+0.7
NWLT				S	Sn	09 26 57.3	+0.9
SXI1	Grass Mountain	0.72	342	P	Pn	09 26 46.3	+0.4
SXI1				S	Sn	09 26 58.0	+0.6
ETM	Tongmen	0.73	233	P	Pn	09 26 46.3	+0.4
ETM				eS	Sn	09 26 55.7	-1.5
ETM	Tongmen	0.73	233	P	Pn	09 26 46.6	+0.8
YHNB	Yeheng	0.73	291	P	Pn	09 26 45.8	-0.2
YHNB				S	Sn	09 26 58.1	+0.5
NSK	Sanguang	0.75	291	P	Pn	09 26 47.0	+0.8
NSK				S	Sn	09 26 58.6	+0.7
LXIB	Xiulin Townshi	0.76	240	P	Pn	09 26 46.4	+0.1
LXIB				S	Sn	09 26 58.6	+0.5
LXIB	Xiulin Townshi	0.76	240	eP	Pn	09 26 46.1	-0.2
YOJ	Yonaguni jima	0.81	86	eP	Pn	09 26 45.6	-1.1
YOJ				eS	Sn	09 26 57.9	-0.9
FUSS	Fushou	0.82	259	P	Pn	09 26 48.1	+1.0
FUSS				eS	Sn	09 27 01.6	+2.0
WHF	Hehuan Shan	0.83	252	P	Pn	09 26 47.9	+0.5
WHF				eS	Sn	09 27 01.5	+1.5
WHF	Hehuan Shan	0.83	252	eP	Pn	09 26 48.2	+0.8
WHF				S	Sn	09 27 01.1	+1.1
TWT	Tachien	0.88	260	P	Pn	09 26 48.3	+0.5
TWT				eS	Sn	09 27 03.1	+2.3
TWT	Tachien	0.88	260	eS	Sn	09 27 03.2	+2.5
YM01	YM01	0.90	326	P	Pn	09 26 48.2	+0.4
YM01				eS	Sn	09 27 01.5	+0.7
TDCB	Techi	0.90	261	P	Pn	09 26 48.7	+0.7
TDCB				S	Sn	09 27 01.3	+0.3
TWS1	Kuangyinshan	0.95	317	P	Pn	09 26 49.0	+0.5
TWS1				S	Sn	09 27 02.7	+0.8
NFF	Wufeng Townshi	0.95	284	P	Pn	09 26 49.3	+0.8
NFF				S	Sn	09 27 03.1	+1.2
OWD	Renai	0.98	243	eP	Pn	09 26 47.5	-1.4
OWD				eS	Sn	09 27 04.2	+1.5
OWD	Renai	0.98	243	P	Pn	09 26 47.3	-1.6
NJD	Zhudong	1.00	289	eP	Pn	09 26 48.1	-1.0
NJD				S	Sn	09 27 04.2	+1.2
WUSB	Renai	1.01	246	eP	Pn	09 26 48.9	-0.4
WUSB				S	Sn	09 27 03.8	+0.4
WUSB	Renai	1.01	246	P	Pn	09 26 48.7	-0.6
HGSD	Ruisui	1.11	216	P	Pn	09 26 51.2	+0.7
HGSD				eS	Sn	09 27 05.4	-0.1

TAP 15 09:26:33.3, 23°.28N×121°.57E, h43^{km}, ML2.5, C, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ECBN	Changbin	0.11	287	eP	Pn	09 26 40.6	+0.2
ECBN				S	Sn	09 26 45.6	+0.3
CHKH	Chenggong	0.18	240	P	Pn	09 26 40.7	-0.1
CHKH				eS	Sn	09 26 45.9	-0.2
EYUL	Yuli	0.24	286	P	Pn	09 26 41.6	+0.4
EYUL				S	Sn	09 26 47.6	+0.8
HGSD	Ruisui	0.25	327	P	Pn	09 26 41.3	0.0
HGSD				S	Sn	09 26 48.4	+1.4
TWF1	Yuli	0.26	285	P	Pn	09 26 41.6	+0.2
TWF1				S	Sn	09 26 48.1	+0.9
CHKT	Chengkung	0.26	226	P	Pn	09 26 41.1	-0.3
CHKT				S	Sn	09 26 47.4	+0.3
FULB	Fuli	0.27	252	eP	Pn	09 26 41.6	+0.1
FULB				eS	Sn	09 26 48.0	+0.7
YULB	Yu-li	0.27	294	eP	Pn	09 26 41.6	0.0
YULB				S	Sn	09 26 47.4	0.0
EHYH	Wanrong	0.29	315	i P	Pn	09 26 41.8	0.0
EHYH				eS	Sn	09 26 47.7	-0.1
EHY	Hungye	0.32	314	P	Pn	09 26 41.7	-0.3
EHY				eS	Sn	09 26 49.4	+1.2
EHD	Haiduan	0.36	248	P	Pn	09 26 42.5	0.0
EHD				S	Sn	09 26 48.9	-0.1
ECS	Chishang	0.37	240	P	Pn	09 26 42.2	-0.4
ECS				eS	Sn	09 26 49.1	-0.1
EDH	Donghe	0.39	218	P	Pn	09 26 42.6	-0.3
EDH				S	Sn	09 26 50.2	+0.6
TEGC	Jichi Village	0.42	356	eP	Pn	09 26 44.7	+1.4
TEGC				eS	Sn	09 26 52.0	+1.8
WARBT	Fenglin Townsh	0.47	339	eP	Pn	09 26 43.1	-0.7
WARBT				eS	Sn	09 26 50.6	-0.5
SHUL	Shoufeng	0.50	359	P	Pn	09 26 44.0	-0.2
SHUL				S	Sn	09 26 52.1	+0.2
ELDTW	Lidau	0.52	260	P	Pn	09 26 44.5	+0.1
ELDTW				S	Sn	09 26 51.7	-0.7
ESL	Shilin	0.54	347	P	Pn	09 26 44.7	0.0
ESL				S	Sn	09 26 52.7	-0.2
LONT	Longtian	0.55	227	P	Pn	09 26 45.1	+0.2
LONT				S	Sn	09 26 53.4	+0.3
TEYL	Yanliau Villag	0.58	3	eP	Pn	09 26 44.7	-0.5
TEYL				eS	Sn	09 26 54.5	+0.7
YUS	Yu-Shan	0.60	290	P	Pn	09 26 46.0	0.0
YUS				S	Sn	09 26 55.3	+0.3
VWDT	VWDT	0.61	320	P	Pn	09 26 45.9	+0.3
VWDT				S	Sn	09 26 53.4	-1.1
TWGBT	Beinan	0.65	224	P	Pn	09 26 45.7	-0.4
TWGBT				S	Sn	09 26 55.1	-0.2
TWG	Pinlang	0.65	225	P	Pn	09 26 46.1	-0.1
TWG				S	Sn	09 26 55.0	-0.4
HWA	Hwalien	0.69	3	eP	Pn	09 26 48.1	+1.4
HWA				eS	Sn	09 26 59.0	+2.6
ALS	Alishan	0.74	288	P	Pn	09 26 48.9	+1.3
ALS				S	Sn	09 26 59.3	+1.4
STYH	Taoyuan	0.74	261	P	Pn	09 26 47.4	+0.1
STYH				S	Sn	09 26 58.7	+1.2
LXIB	Xiulin Townshi	0.75	349	S	Sn	09 26 59.2	+1.3
SSLB	Suanglung	0.76	312	P	Pn	09 26 47.8	+0.2
SSLB				eS	Sn	09 26 59.4	+1.5
STYT	Tauyuan	0.76	261	P	Pn	09 26 47.9	+0.2
STYT				S	Sn	09 26 58.9	+0.9
OWD	Renai	0.76	332	eS	Sn	09 26 57.0	-1.2
WHYT	Xinyi Township	0.78	302	i P	Pn	09 26 49.0	+1.1
WHYT				i S	Sn	09 26 59.5	+1.0
TWD	Chiawan	0.79	2	eP	Pn	09 26 49.8	+1.7
WUSB	Renai	0.82	330	eS	Sn	09 26 58.9	-0.8
SMLT	Sun Moon Lake	0.86	314	P	Pn	09 26 49.9	+0.8
SMLT				S	Sn	09 27 02.5	+2.0
TPUB	Ta-pu	0.86	271	eP	Pn	09 26 51.1	+2.1
TPUB				S	Sn	09 27 03.2	+2.6
WTP	Ta-pu	0.88	268	eP	Pn	09 26 49.3	+0.1
WTP				S	Sn	09 27 04.1	+3.1
ECL	Taimali	0.89	220	P	Pn	09 26 49.0	-0.4
ECL				S	Sn	09 27 00.7	-0.4
TYC	Yuchr	0.90	314	P	Pn	09 26 50.0	+0.5
TYC				S	Sn	09 27 02.9	+1.6
CHN4	Tsaushan	0.90	275	P	Pn	09 26 51.7	+2.2
CHN4				S	Sn	09 27 04.6	+3.2
WCKO	Fanlu	0.90	280	P	Pn	09 26 50.2	+0.7
WCKO				eS	Sn	09 27 02.5	+1.1
WPL	Puli Township	0.92	322	P	Pn	09 26 50.4	+0.6
WPL				S	Sn	09 27 03.2	+1.4
SNST	Tainan City	0.99	267	eP	Pn	09 26 53.2	+2.5
TWK	Hsinying	0.99	269	eP	Pn	09 26 53.4	+2.6
TWK				eS	Sn	09 27 07.7	+3.9
WNT	Mingjian	1.01	306	P	Pn	09 26 51.8	+0.8
WNT				eS	Sn	09 27 05.5	+1.5
WGK	Gukeng	1.01	294	P	Pn	09 26 51.5	+0.5
TWT	Tachien	1.03	340	P	Pn	09 26 52.1	+0.6
EOS4	EOS4	1.08	39	P	Pn	09 26 50.7	-0.9
EOS4				S	Sn	09 27 04.1	-1.1
MASBT	Mashibuluo	1.09	232	P	Pn	09 26 52.2	+0.1
MASBT				eS	Sn	09 27 06.0	-0.1
ICHU	Yijhu	1.19	274	eP	Pn	09 26 53.9	+0.4
LYUB	Lan-yu	1.27	179	P	Pn	09 26 54.8	+0.2
LYUB				S	Sn	09 27 10.3	-0.3
SLIU	Shizi	1.28	214	P	Pn	09 26 54.7	0.0
SLIU				eS	Sn	09 27 10.2	-0.4

KRNET ***15*** *09:31:34.5±0.1, 40°.50N×72°.58E, h12^{km}, mb2.8*
SOME ***15*** *09:31:36.4, 40°.52N×72°.65E, h10^{km}*
ISU ***15*** *09:31:37, 40°.50N×72°.49E, h0^{km}*
NNC ***15*** *09:31:39.7±4.5, 40°.59N×72°.47E, h0^{km}, mb3.5, mpv3.0,*
Error ellipse: s-maj=36.9km s-min=15.0km az=172.0

ISC 15 09:31:34.1±1.0, 40°.50N±0°.03×72°.62E±0°.02, h16^{km}±7^{km}, n27, σ1§39/47, 14C-9D, Kyrgyzstan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OHH	Osh	0.13	78	⇑eP	Pb	09 31 37.6	-0.6
OHH				⇑eS	Sb	09 31 40.0	-1.0
TSTA	Tashata	0.14	307	P	Pg	09 31 38.1	+0.1
TSTA				S	Sg	09 31 40.0	-0.6
FRG	Fergana	0.65	259	S	Sn	09 31 59.6	+1.0
SFK	Sufi-Kurgan	0.83	125	⇓eP	Pg	09 31 50.9	+0.6
SFK				⇓eS	Sg	09 32 02.9	+1.5
ARSB	Arslanbob	0.87	18	⇑eP	Pn	09 31 51.2	-0.6
ARSB				⇑eS	Sn	09 32 03.6	-0.7
SALK	Salom-Alik	0.99	67	⇓eP	Pg	09 31 54.0	+0.6
SALK				⇓eS	Sg	09 32 08.1	+1.7
ARK	Arkit	1.39	339	⇑eP	Pg	09 32 00.7	-0.2
ARK				⇑eS	Sg	09 32 20.0	+0.9
BTK	Batken	1.45	253	⇑eP	Pg	09 32 01.2	-0.8
BTK				⇑eS	Sg	09 32 20.5	-0.3
TRKS	Terek-Say	1.52	313	⇓eP	Pb	09 32 01.4	-0.6
TRKS				⇓eS	Sg	09 32 21.2	-2.1
PSK	Pskem	2.22	311	P	Pg	09 32 17.7	+1.1
PSK				S	Sg	09 32 46.9	+1.5
CHMG	Chimgan	2.24	299	P	Pg	09 32 19.2	+2.2
CHMG				S	Sg	09 32 48.9	+2.8
MRKS	Merke	2.29	11	Pg	Pg	09 32 19.3	+1.2
	22nm,0.5s						
MRKS				Lg	Lg	09 32 50.1	
	64nm,0.6s						
MRKS	Merke	2.29	11	eP	Pg	09 32 19.3	+1.2
	22nm,0.5s						
MRKS				eS	Sg	09 32 50.1	+2.3
	64nm,0.6s						
EKS2	Erkin-Say	2.33	22	⇑eP	Pb	09 32 16.0	+0.2
EKS2				⇑eS	Sb	09 32 46.3	+1.9
TVKS	Tavaksay	2.49	297	S	Sg	09 32 56.8	+2.7
IUG	Iuzhnay	2.55	311	Pg	Pg	09 32 23.4	+0.4
	13nm,0.3s						
IUG				Lg	Lg	09 32 57.5	
	38nm,0.6s						
IUG	Iuzhnay	2.55	311	eP	Pg	09 32 23.4	+0.4
	13nm,0.3s						
IUG				eS	Sg	09 32 57.5	+1.3
	38nm,0.6s						
AAK	Ala-Archa	2.56	33	⇓Pn	Pg	09 32 23.8	+0.6
	3.2nm,0.5s						
AAK				⇑Sn	Sg	09 32 58.4	+2.0
	15nm,0.8s						
AAK	Ala-Archa	2.56	33	⇓eP	Pb	09 32 19.4	-0.3
AAK				⇓eS	Sb	09 32 52.0	+1.0
NRN	Naryn	2.73	69	⇑eP	Pb	09 32 21.5	-1.1
NRN				⇑eS	Sb	09 32 55.8	-0.1
KK31	Karatay Array	3.04	330	Pn	Pb	09 32 27.1	-0.8
	0.5nm,0.3s,baz=152,slow=15,SNR=7.5						
KK31				⇑Sn	Sb	09 33 05.9	+1.2
	0.9nm,0.3s,baz=130,slow=29,SNR=5.6						
BRLS	Borolday	3.28	321	Pg	Pg	09 32 34.7	-2.2
	0.5nm,0.1s						
BRLS				Lg	Lg	09 33 16.6	
	4.9nm,0.3s						
BRLS	Borolday	3.28	321	eP	Pg	09 32 34.7	-2.2
	0.5nm,0.1s						
BRLS				eS	Sg	09 33 16.6	-2.7
	4.9nm,0.3s						
SGDS	Sogindy	3.31	26	Pg	Pg	09 32 36.7	-0.9
	1.0nm,0.2s						
SGDS				Lg	Lg	09 33 20.0	
	4.1nm,0.7s						
MTBS	Maitube	3.88	46	eP	Pg	09 32 47.5	-0.8
	2.8nm,0.1s						
MTBS				eS	Sg	09 33 38.2	-0.3
	5.1nm,0.1s						
KRBS	Karabastau	3.92	34	Pg	Pg	09 32 48.0	-1.3
	1.5nm,0.9s						
KRBS				Lg	Lg	09 33 39.5	
	2.3nm,0.6s						
KRBS	Karabastau	3.92	34	eP	Pg	09 32 48.0	-1.3
	1.5nm,0.9s						
KRBS				eS	Sg	09 33 39.5	-0.5
	2.3nm,0.6s						

IDC ***15*** *09:35:56.8±1.0, 34°.30N×25°.06E, h0^{km}, mb3.7/9, mbtmp3.7/14, ML3.6/5, MS3.2/1, Error ellipse: s-maj=16.2km s-min=11.9km az=43.0*
ISK ***15*** *09:35:56.9, 34°.15N×25°.13E, h3^{km}, ML3.1/10*
THE ***15*** *09:36:00.1, 34°N±7°×2°5E±°, h3^{km}±4^{km}, M3.2/12, MLh3.2/12*
ATH ***15*** *09:36:01.3, 34°.33N×25°.08E, h14^{km}±3^{km}, ML3.1/10, Latitude uncertainty: 3 km; Longitude uncertainty: 1 km*
AFAD ***15*** *09:36:07.0, 34°.62N×26°.10E, h7^{km}, ML2.8*

ISC 15 09:35:58.6±1.5, 34°.22N±0°.06×25°.17E±0°.03, h14^{km}±9^{km}, n81, σ1§78/106, mb3.6/8, Crete

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SIVA	Sivas	0.85	340	P	Pg	09 36 15.2	+0.1
SIVA				S	Sb	09 36 26.6	+0.1
SIVA				AML	AML		
SIVA	Sivas	0.85	340	P	Pg	09 36 15.3	+0.1
SIVA				S	Sg	09 36 25.4	-1.0
SIVA				AML	AML		
AGNA	Agios Nikolaos	1.07	25	P	Pg	09 36 19.9	+0.7
AGNA				S	Sb	09 36 33.9	+1.2
AGNA				AML	AML		
GVD	Gavdhos	1.09	305	P	Pg	09 36 19.4	-0.3
GVD				S	Sb	09 36 34.7	+1.3
GVD				AML	AML		
GVD	Gavdhos	1.09	305	Pn	Pg	09 36 18.9	-0.7
GVD				Sn	Sb	09 36 34.7	+1.3
GVD				AML	AML		
GVD	Gavdhos	1.09	305	P	Pg	09 36 19.5	-0.1
GVD				S	Sg	09 36 32.4	-1.5
GVD				AML	AML		
IACM	Heraklion	1.09	356	P	Pg	09 36 19.3	-0.3
IACM				S	Sb	09 36 33.2	-0.1
IACM				AML	AML		
IACM	Heraklion	1.09	356	P	Pb	09 36 20.2	+1.0
IDI	Anoyia	1.10	348	Pg	Pg	09 36 18.9	-0.8
	19nm,0.3s,baz=164,slow=19,SNR=95						
IDI				Lg	Lg	09 36 34.9	
	51nm,0.3s,baz=94,slow=18,SNR=7.9						
IDI	Anoyia	1.10	348	P	Pg	09 36 19.2	-0.6
IDI				S	Sb	09 36 33.7	+0.2
IDI				AML	AML		
IDI	Anoyia	1.10	348	Pn	Pg	09 36 19.6	-0.1
IDI				AML	AML		
IDI	Anoyia	1.10	348	P	Pg	09 36 19.2	-0.6
IDI				S	Sg	09 36 32.4	-1.7
IDI				AML	AML		
NPS	Neapolis	1.11	19	P	Pg	09 36 19.4	-0.6
NPS				S	Sg	09 36 33.9	-0.5
NPS				AML	AML		
NPS	Neapolis	1.11	19	P	Pg	09 36 20.1	+0.2
NPS				S	Sg	09 36 34.2	-0.2
ZKR	Zakros	1.24	43	P	Pg	09 36 22.7	+0.1
ZKR	Zakros	1.24	43	Pn	Pg	09 36 22.8	+0.3
ZKR				Sn	Sn	09 36 41.8	+3.7
ZKR				AML	AML		
ZKR	Zakros	1.24	43	P	Pg	09 36 23.1	+0.6
ZKR				S	Sb	09 36 40.0	+2.3
ZKR				AML	AML		
VAM	Vamos	1.43	326	P	Pb	09 36 26.2	+1.1
VAM				S	Sn	09 36 44.0	+1.1
VAM				AML	AML		
VAM	Vamos	1.43	326	P	Pn	09 36 25.6	+1.5
VAM				S	Sg	09 36 41.8	-3.0
VAM				AML	AML		
IMMV	Iera Moni Meta	1.58	322	P	Pn	09 36 27.6	+1.4
IMMV				S	Sn	09 36 47.8	+1.2
IMMV				AML	AML		
IMMV	Iera Moni Meta	1.58	322	Pn	Pn	09 36 27.3	+1.1
IMMV				AML	AML		
IMMV	Iera Moni Meta	1.58	322	P	Pn	09 36 26.6	+0.3
IMMV				AML	AML		
KNDR	Palaiochora Ch	1.63	309	P	Pn	09 36 28.3	+1.4
KNDR				AML	AML		
KARP	Karpathos	2.11	50	P	Pn	09 36 35.9	+2.4
KARP				AML	AML		
KARP	Karpathos	2.11	50	Pn	Pn	09 36 35.1	+1.6
KARP				AML	AML		
KARP	Karpathos	2.11	50	P	Pn	09 36 36.9	+3.4
KARP				AML	AML		
THR6	Thira Island,	2.15	5	P	Pn	09 36 35.7	+1.8
THERA	Ancient Thera,	2.16	6	P	Pn	09 36 35.8	+1.7
THERA				AML	AML		
THERA	Ancient Thera,	2.16	6	P	Pn	09 36 35.9	+1.7
THERA				AML	AML		
SNT5	Nea Kammeni, S	2.19	5	P	Pn	09 36 36.1	+1.6
THR3	Thira Island,	2.20	5	P	Pn	09 36 36.1	+1.5
THR5	Thira Island,	2.20	4	P	Pn	09 36 36.0	+1.3
THR5	Thira Island,	2.20	4	P	Pn	09 36 36.1	+1.4
SAP3	Santorini-Thir	2.22	4	P	Pn	09 36 37.1	+2.1
SAP3				AML	AML		
SAP3	Santorini-Thir	2.22	4	P	Pn	09 36 36.3	+1.3
ANKY	Antikythira Is	2.25	318	P	Pn	09 36 38.1	+2.7
ANKY				AML	AML		
MHLO	Agia Marina, M	2.55	346	P	Pn	09 36 41.0	+1.5
MHLO	Agia Marina, M	2.55	346	P	Pn	09 36 40.6	+1.1
KTHA	Kythira Island	2.67	320	P	Pn	09 36 40.9	-0.3
YAZI	Mula-Dat§a-	3.08	36	P	Pn	09 36 48.5	+1.6
VLI	Veliai	3.09	324	P	Pn	09 36 48.3	+1.3
ARG	Arkhangelos	3.13	50	Pn	Pn	09 36 49.9	+2.3
ARG				AML	AML		
ARG	Arkhangelos	3.13	50	P	Pn	09 36 50.2	+2.6
DAT	Datca	3.19	37	Pn	Pn	09 36 50.7	+2.4
DAT				AML	AML		
TURN	Turunc	3.58	44	Pn	Pn	09 36 56.1	+2.5
TURN				AML	AML		
TURN	Turunc	3.58	44	P	Pn	09 36 54.1	+0.5
TURN				S	Sn	09 37 34.4	-1.3
TURN				IAML		09 37 44.0	
	comp=N,22nm,0.4s						
MET2	Kameni Chora,	3.71	337	P	Pn	09 36 56.2	+0.8
MET3	Ano Fanari,Met	3.71	335	P	Pn	09 36 55.8	+0.3
DALY	Dalyan (Mula)	3.85	47	Pn	Pn	09 36 59.9	+2.6
DALY	Dalyan (Mula)	3.85	47	P	Pn	09 36 58.4	+1.1
DALY				S	Sn	09 37 38.6	-3.7
DALY				IAML		09 37 58.0	
	comp=E,16nm,1.6s						
DALY				IAML		09 38 12.0	
	comp=N,21nm,1.6s						
YER	Yerkesik	3.86	40	Pn	Pn	09 37 00.2	+2.6
YER				AML	AML		
ITM	Ithomi	3.97	319	P	Pn	09 36 59.0	0.0
DION	Dionisos Attik	3.98	346	P	Pn	09 37 00.1	+0.8
IZZE	Mula-Seydike	3.99	55	P	Pn	09 36 59.2	-0.1
IZZE				S	Sn	09 37 43.7	-2.1
IZZE				IAML		09 37 49.0	
	comp=N,134nm,0.6s						
IZZE				IAML		09 37 49.0	
	comp=E,61nm,0.5s						
SABU	Mula-Dalaman	4.04	49	P	Pn	09 37 02.4	+2.3
SABU				S	Sn	09 37 42.1	-5.1
AYDN	Tasoluk	4.08	32	P	Pn	09 37 02.5	+1.9
AKAS	Kas	4.15	60	Pn	Pn	09 37 04.0	+2.4
AKAS	Kas	4.15	60	P	Pn	09 37 02.9	+1.3
AKAS				S	Sn	09 37 44.2	-5.8
AKAS				IAML		09 37 56.0	
	comp=N,71nm,0.7s						
AKAS				IAML		09 38 03.0	
	comp=E,39nm,0.5s						
CAME	Cameli-Denizli	4.33	50	Pn	Pn	09 37 06.3	+2.2
ESEN	Aydn-Nazilli	4.41	35	P	Pn	09 37 07.6	+2.6
TAVA	DENIZLI_Tavas	4.44	42	P	Pn	09 37 05.9	+0.3
TAVA				S	Sn	09 37 54.7	-2.5
TAVA				IAML		09 38 03.0	
	comp=E,11nm,0.4s						
TAVA				IAML		09 38 04.0	
	comp=N,13nm,0.7s						
KNIK	Mula-Seydike	4.45	53	P	Pn	09 37 06.9	+1.2
KNIK				IAML		09 37 53.0	
	comp=N,40nm,2.0s						
KNIK				S	Sn	09 37 55.1	-2.1
KNIK				IAML		09 38 02.0	
	comp=E,22nm,0.5s						
GOLH	Golhisar	4.67	49	P	Pn	09 37 10.0	+1.2
GOLH				S	Sn	09 37 57.5	-5.4
GOLH				IAML		09 38 12.0	
	comp=E,22nm,0.5s						
GOLH				IAML		09 38 12.0	

	comp=N,25nm,0.8s						
AKUM	**Antalya-Kumluc**	**4.72**	**62**	P	**Pn**	**09 37 10.0**	**+0.7**
AKUM				S	**Sn**	**09 37 58.9**	**-5.0**
AKUM				IAML		09 38 07.0	
	comp=E,24nm,0.4s						
AKUM				IAML		09 38 11.0	
	comp=N,13nm,0.6s						
SEDI	**Konya, Seydise**	**6.25**	**57**	P	**Pn**	**09 37 32.0**	**+1.6**
SEDI				S	**Sn**	**09 38 43.1**	**+1.5**
SEDI				IAML		09 38 46.0	
	comp=N,18nm,0.9s						
SEDI				IAML		09 38 52.0	
	comp=E,15nm,0.5s						
MMAI	**Mount Meron Ar**	**8.62**	**95**	Pn	**Pn**	**09 38 03.9**	**+0.9**
	1.2nm,0.3s,baz=280,slow=14,SNR=1.8						
MMAI				Sn	**Sn**	**09 39 36.3**	**-3.7**
	baz=310,slow=30						
	0.7nm,0.3s						
MMAI				AML	AML		
BRTR	**Keskin Array B**	**8.72**	**48**	Pn	**Pn**	**09 38 04.9**	**+0.4**
	0.1nm,0.3s,baz=221,slow=14,SNR=4.2						
	0.3nm,0.4s						
BRTR				AML	AML		
EIL	**Elat**	**9.46**	**116**	Pn	**Pn**	**09 38 14.2**	**-0.3**
	0.7nm,0.3s,baz=302,slow=13,SNR=7.8						
EIL				Sn	Sn	09 39 55.1	-5.5
	0.5nm,0.3s,baz=44,slow=12,SNR=1.6						
	2.5nm,0.4s						
EIL				AML	AML		
KBZ	**Khabaz**	**16.71**	**50**	Pn	**Pn**	**09 39 52.6**	**+0.5**
	0.2nm,0.3s,baz=255,slow=7.8,SNR=5.7						
	2.1nm,0.7s						
KBZ				AML	AML		
AKASG	**Malin Array Be**	**16.74**	**9**	Pn	**Pn**	**09 39 52.6**	**+0.1**
	0.8nm,0.3s,baz=200,slow=10,SNR=7.0						
	0.3nm,0.4s						
AKASG				AML	AML		
GERES	**GERESS Array B**	**16.92**	**333**	Pn	**Pn**	**09 39 55.9**	**+0.9**
	0.1nm,0.3s,baz=148,slow=13,SNR=14						
ESDC	**Sonseca Array**	**23.86**	**292**	P	**P**	**09 41 10.5**	**-1.1**
	0.1nm,0.3s,baz=86,slow=11,SNR=1.8						
	0.1nm,0.3s						
FINES	**FINESS Array B**	**27.25**	**1**	P	**P**	**09 41 40.6**	**-1.4**
	1.1nm,0.9s,baz=182,slow=6.4,SNR=3.4						
	1.1nm,0.9s						
EKA	**Eskdalemuir Ar**	**28.82**	**326**	P	**P**	**09 41 55.6**	**-0.6**
	0.2nm,0.4s,baz=124,slow=9.9,SNR=1.1						
	0.2nm,0.4s						
AKTO	**Aktyubinsk**	**28.89**	**46**	LR	LR	09 56 14.7	
	comp=Z,44nm,19.6s,baz=318,slow=42						
TORD	**Torodi Ar. Bea**	**29.90**	**231**	P	**P**	**09 42 06.7**	**+0.6**
	1.5nm,0.6s,baz=34,slow=8.6,SNR=13						
	1.5nm,0.6s						
BVAR	**Borovoye Array**	**36.99**	**45**	P	**P**	**09 43 07.9**	**+0.5**
	0.7nm,0.7s,baz=276,slow=6.6,SNR=1.9						
	0.7nm,0.7s						
KURBB	**Kurchatov Arra**	**41.71**	**50**	P	**P**	**09 43 47.4**	**+0.5**
	1.0nm,0.8s,baz=279,slow=8.8,SNR=7.9						
	1.0nm,0.8s						
MKAR	**Makanchi Array**	**44.29**	**56**	P	**P**	**09 44 08.6**	**+0.8**
	1.2nm,0.7s,baz=282,slow=6.0,SNR=8.5						
	1.2nm,0.7s						
ZALV	**Zalesovo Beam**	**45.65**	**46**	P	**P**	**09 44 18.0**	**-0.5**
	1.3nm,0.5s,baz=264,slow=8.1,SNR=2.5						
	1.3nm,0.5s						
SONM	**Songino Array**	**60.08**	**50**	P	**P**	**09 46 04.6**	**-0.7**
	0.7nm,0.6s,baz=290,slow=8.6,SNR=3.2						
	0.7nm,0.6s						

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*ASRS **15** 09:37:20.0±1.0, 54°.11N×87°.10E, h0^{km}, M2.7(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 15 09:37:22.4±4.2**, 54°.22N×87°.17E, h0**^{km}**, mbtmp2.7**/2**, ML2.5**/2**, Error ellipse: s-maj=40.7km s-min=21.3km az=69.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	**1.41**	**260**	I	I	09 46 40.0	
	baz=80,slow=322,SNR=1.4						
ZALV	**Zalesovo Beam**	**1.41**	**260**	Pg	Pn	09 37 48.4	-1.0
	0.8nm,0.3s,baz=77,slow=16,SNR=4.9						
ZALV				Lg	Lg	09 38 08.2	
	0.9nm,0.3s,baz=76,slow=29,SNR=3.6						
KURBB	**Kurchatov Arra**	**6.39**	**239**	Pn	Pn	09 38 58.9	+1.1
	baz=56,slow=14,SNR=1.9						
	0.2nm,0.4s						
MKAR	**Makanchi Array**	**8.05**	**205**	Pn	Pn	09 39 21.8	+1.2
	0.1nm,0.3s,baz=28,slow=14,SNR=1.5						
	0.1nm,0.3s						
MKAR				AML	AML		

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*IDC **15** 09:51:48.4±3.1, 4°.90S×144°.45E, h67^{km}±30^{km}, mb4.0/11, mbtmp4.3/14, ML4.0/2, MS3.3/10, Error ellipse: s-maj=29.0km s-min=11.6km az=97.0*

*NEIC **15** 09:51:48.5±1.6, 4°.8S±0°.1×144°.5E±0°.1, h71^{km}±9^{km}, mb4.4/21, Error ellipse: s-maj=20.3km s-min=19.2km az=59.0*

*DJA **15** 09:51:49.4±1.2, 5°S±13°×14°5E±1°2, h101^{km}±10^{km}, M5.1/8, mb4.7/8, mB4.6/2, MLv5.2/5, Mw(mB)3.8/2*

ISC 15 09:51:49.7±0.6**, 4°.92S**±0°.07×**144°.53E**±0°.09**, h82**^{km}**, n53, σ1^{s}16**/47**, mb4.3**/21**, Near north coast of New Guinea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GENI	**Genyem**	**4.92**	**298**	P	**Pn**	**09 53 02.0**	**+0.7**
GENI				AML	AML		
PMG	**Port Moresby**	**5.17**	**150**	P	**Pn**	**09 53 04.3**	**-0.2**
	26nm,0.7s,baz=336,slow=12,SNR=8.0						
PMG				S	**Sn**	**09 54 01.5**	**-1.4**
	15nm,0.5s,baz=352,slow=9.5,SNR=1.1						
PMG				LR	LR	09 55 31.4	
	comp=Z,277nm,21.0s,baz=318,slow=43						
PMG	**Port Moresby**	**5.17**	**150**	Pn	**Pn**	**09 53 03.9**	**-0.7**
PMG	**Port Moresby**	**5.17**	**150**	P	**Pn**	**09 53 05.6**	**+1.1**
	77nm,0.8s						
CTA	**Charters Tower**	**15.17**	**174**	P	**Pn**	**09 55 17.8**	**-1.7**
	0.2nm,0.3s,baz=0.0,slow=14,SNR=2.0						
	7.1nm,1.1s						
CTA				AML	AML		
MTN	**Manton Dam**	**15.39**	**238**	Pn	**Pn**	**09 55 20.7**	**-1.6**
WB0	**Warramunga Arr**	**17.75**	**213**		**P**	**09 55 52.1**	**+0.8**
WB0				IAmb	IAmb	09 55 54.3	
	comp=Z,27nm,0.9s						
WR8	**Warramunga Arr**	**17.85**	**212**		**P**	**09 55 52.7**	**+0.4**
WRAB	**Tennant Creek**	**17.91**	**213**	P	**P**	**09 55 52.8**	**-0.2**
WRAB				IAmb	IAmb	09 55 56.2	
	comp=Z,31nm,0.8s						
WRA	**Warramunga Arr**	**17.92**	**213**	P	**P**	**09 55 53.3**	**+0.1**
	comp=Z,1.0nm,0.3s,baz=37,slow=12,SNR=90						
WRA				S	Sn	09 59 02.8	-11
	comp=Z,1.0nm,0.6s,baz=31,slow=24,SNR=3.4						
	comp=Z,23nm,0.8s						
WRA				AML	AML		
WRA	**Warramunga Arr**	**17.92**	**213**		**P**	**09 55 52.6**	**-0.6**
GUMO	**Guam**	**18.39**	**1**	LR	LR	10 03 21.3	
	comp=Z,49nm,19.1s,baz=154,slow=38						
KNRA	**Kununurra**	**18.82**	**234**		**P**	**09 56 04.3**	**+1.3**
KNRA				IAmb	IAmb	09 56 08.3	
	comp=Z,15nm,0.7s						
SOEI	**Soe**	**20.65**	**255**		**P**	**09 56 23.1**	**0.0**
SOEI	**Soe**	**20.65**	**255**	P	**P**	**09 56 23.6**	**+0.5**
	comp=Z,79nm,0.9s						
AS31	**Alice Springs**	**21.26**	**208**		**P**	**09 56 30.6**	**+1.1**
AS31				IAmb	IAmb	09 56 36.6	
	comp=Z,19nm,0.8s						
ASAR	**Alice Springs**	**21.27**	**208**	P	**P**	**09 56 30.2**	**+0.8**
	comp=Z,12nm,0.7s,baz=33,slow=11,SNR=203						
ASAR				S	**S**	**10 00 20.4**	**-1.0**
	comp=Z,1.7nm,0.9s,baz=20,slow=28,SNR=4.6						
	comp=Z,12nm,0.7s						
FITZ	**Fitzroy Crossi**	**22.64**	**233**	P	**P**	**09 56 43.7**	**-0.4**
INKA	**Innaminka**	**22.98**	**189**		**P**	**09 56 47.8**	**+0.3**
TOLI2	**Tolitoli**	**24.46**	**284**	P	**P**	**09 56 58.9**	**-2.3**
STKA	**Stephens Creek**	**26.96**	**186**	P	**P**	**09 57 25.6**	**+2.0**
	comp=Z,4.6nm,0.9s,baz=352,slow=9.7,SNR=6.6						
	comp=Z,4.6nm,0.9s						
MBWA	**Marble Bar**	**28.97**	**234**	P	**P**	**09 57 42.4**	**+0.7**
MBWA				IAmb	IAmb	09 57 54.5	
	comp=Z,22nm,1.5s						
JNU	**Nakatsue**	**39.99**	**342**	LR	LR	10 13 20.0	
	comp=Z,32nm,18.7s,baz=148,slow=32						
AFI	**Afiamalu**	**43.96**	**105**	LR	LR	10 16 07.2	
	comp=Z,85nm,20.2s,baz=138,slow=33						
KSRS	**Korea Array**	**44.91**	**341**	P	**P**	**09 59 55.8**	**-0.5**
	comp=Z,2.3nm,0.9s,baz=158,slow=8.9,SNR=8.7						
KSRS				LR	LR	10 16 44.5	
	comp=Z,18nm,21.2s,baz=155,slow=33						
	comp=Z,2.3nm,0.9s						
RPSI	**Rantau Prapat**	**46.18**	**278**		**P**	**10 00 05.8**	**-0.9**
ASAJ	**Asahikawa**	**48.84**	**358**	LR	LR	10 24 12.8	
	comp=Z,12nm,18.1s,baz=268,slow=40						
HHC	**Hu-ho-hao-te**	**54.64**	**330**	*e*P	**P**	**10 01 10.9**	**+0.7**
HHC				pmax	pmax		
	comp=Z,6.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,71nm,4.0s						
LZH	**Lanzhou**	**55.80**	**320**	*e*P	**P**	**10 01 21.3**	**+2.6**
LZH				pP	pP	10 01 37.3	-2.0
LZH				pmax	pmax		
	comp=Z,21nm,1.3s						
PETK	**Petropavlovsk-**	**58.88**	**9**	P	**P**	**10 01 40.5**	**+0.7**
	comp=Z,1.9nm,0.8s,baz=186,slow=7.4,SNR=2.0						
	comp=Z,1.9nm,0.8s						
YAK	**Yakutsk**	**67.73**	**353**	LR	LR	10 32 55.9	
	comp=Z,25nm,18.4s,baz=167,slow=36						
VNDA	**Vanda**	**73.14**	**176**	P	**P**	**10 03 12.4**	**+1.5**
	comp=Z,1.3nm,0.7s,baz=334,slow=6.3,SNR=8.0						
	comp=Z,1.3nm,0.7s						
MK31	**Makanchi Array**	**75.11**	**321**	P	**P**	**10 03 21.5**	**-1.5**
MKAR	**Makanchi Array**	**75.11**	**321**	P	**P**	**10 03 23.2**	**+0.3**
	comp=Z,0.9nm,0.5s,baz=105,slow=7.0,SNR=7.7						
	comp=Z,0.9nm,0.5s						
MKAR	**Makanchi Array**	**75.11**	**321**	P	**P**	**10 03 21.9**	**-1.0**
ZALV	**Zalesovo Beam**	**76.80**	**328**	P	**P**	**10 03 31.2**	**-1.1**
	comp=Z,1.0nm,0.5s,baz=123,slow=4.7,SNR=4.7						
	comp=Z,1.0nm,0.5s						
KURK	**Kurchatov**	**78.88**	**324**	P	**P**	**10 03 42.2**	**-1.7**
MAW	**Mawson**	**82.29**	**202**	P	**P**	**10 04 03.0**	**+1.1**
	comp=Z,2.9nm,0.7s,baz=97,slow=6.1,SNR=5.0						
	comp=Z,2.9nm,0.7s						
BVAR	**Borovoye Array**	**84.46**	**324**	P	**P**	**10 04 12.9**	**-0.4**
	comp=Z,2.6nm,0.5s,baz=108,slow=6.7,SNR=12						
	comp=Z,2.6nm,0.5s						
BORK	**Borovoye**	**84.50**	**324**	P	**P**	**10 04 12.1**	**-1.4**
BORK				IAmb	IAmb	10 04 18.6	
	comp=Z,3.9nm,0.6s						
DHY	**Denali Highway**	**84.65**	**25**	P	**P**	**10 04 14.0**	**-0.3**
DHY				IAmb	IAmb	10 04 15.7	
	comp=Z,2.6nm,0.8s						
QSPA	**South Pole Qui**	**85.04**	**180**	P	**P**	**10 04 16.9**	**+0.7**
	comp=Z,1.6nm,0.7s,baz=3.1,slow=5.2,SNR=10						
QSPA				LR	LR	10 41 36.6	
	comp=Z,73nm,19.6s,baz=80,slow=35						
	comp=Z,1.6nm,0.7s						
IL31		**85.47**	**24**	P	**P**	**10 04 17.7**	**-0.3**
IL31				IAmb	IAmb	10 04 18.6	
	comp=Z,2.0nm,0.8s						
ILAR	**Eielson Array**	**85.47**	**24**	P	**P**	**10 04 17.6**	**-0.6**
	comp=Z,1.8nm,0.7s,baz=252,slow=5.0,SNR=22						
	comp=Z,1.8nm,0.7s						
F24K	**Squaw Lake**	**86.13**	**21**	P	**P**	**10 04 21.9**	**+0.5**
F24K				IAmb	IAmb	10 04 24.9	
	comp=Z,2.8nm,0.8s						
K29M	**Barlow Dome**	**89.10**	**26**	P	**P**	**10 04 35.1**	**-0.7**
K29M				IAmb	IAmb	10 04 38.1	
	comp=Z,2.5nm,0.9s						
AB31	**Akbulak array**	**90.16**	**319**	P	**P**	**10 04 38.7**	**-2.2**
AB31				IAmb	IAmb	10 05 04.5	
	comp=Z,1.1nm,0.8s						
ABKAR	**Akbulak array**	**90.16**	**319**	P	**P**	**10 04 38.5**	**-2.4**
YBH	**Yreka Blue Hor**	**95.31**	**49**	LR	LR	10 42 11.2	
	comp=Z,10nm,18.3s,baz=214,slow=32						
YKA	**Yellowknife Ar**	**99.36**	**28**	LR	LR	10 46 41.2	
	comp=Z,14nm,21.5s,baz=298,slow=33						
GERES	**GERESS Array B**	**119.62**	**325**	PKP	**PKiKP**	**10 10 30.8**	**+0.4**
	comp=Z,1.7nm,0.4s,baz=78,slow=2.2,SNR=1.9						
TORD	**Torodi Ar. Bea**	**142.44**	**285**	PKhKP	PKPpre	10 11 09.5	
	comp=Z,0.4nm,0.8s,baz=68,slow=3.2,SNR=3.7						
DBIC	**Dimbokro**	**149.49**	**275**	PKPbc	**PKiKP**	**10 11 31.7**	**0.0**
	comp=Z,4.0nm,0.7s,baz=87,slow=3.0,SNR=4.5						

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*IDC **15** 10:09:14.7±2.5, 21°.80S×178°.00W, h390^{km}±23^{km}, mb3.4/8, mbtmp4.2/11, Error ellipse: s-maj=22.3km s-min=17.0km az=102.0*

ISC 15 10:09:12.6±0.6**, 21°.83S**±0°.10×**177°.8W**±0°.1**, h373**^{km}**, n18, σ1^{s}30**/21**, mb3.7**/8**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**5.64**	**316**	P	**Pn**	**10 10 42.3**	**+1.9**
	4.6nm,0.5s,baz=251,slow=22,SNR=6.1						
AFI	**Afiamalu**	**9.75**	**37**	P	**Pn**	**10 11 25.9**	**-1.9**
	14nm,0.4s,baz=284,slow=19,SNR=4.2						
AFI				S	S	10 13 10.0	-8.7
	28nm,0.7s,baz=238,slow=24,SNR=2.4						
DZM	**Mont Dzumac**	**14.61**	**266**	P	**Pn**	**10 12 23.5**	**-1.0**
	14nm,0.9s,baz=84,slow=16,SNR=4.0						
URZ	**Urewera**	**16.95**	**194**	P	**P**	**10 12 47.5**	**+0.5**
	16nm,1.0s,baz=268,slow=4.1,SNR=12						
URZ				S	**S**	**10 15 42.8**	**-1.9**
	15nm,1.0s,baz=189,slow=16,SNR=2.8						
STKA	**Stephens Creek**	**37.39**	**246**	P	**P**	**10 15 51.1**	**-0.3**
	6.0nm,0.7s,baz=101,slow=7.7,SNR=12						
	6.0nm,0.7s						
ASAR	**Alice Springs**	**44.40**	**258**	P	**P**	**10 16 47.0**	**-1.1**
	4.0nm,0.8s,baz=91,slow=9.0,SNR=39						
ASAR				PcP	**PcP**	**10 18 25.7**	**+1.2**
	1.0nm,0.9s,baz=96,slow=3.6,SNR=3.4						
	4.0nm,0.8s						
WRA	**Warramunga Arr**	**44.61**	**263**	P	**P**	**10 16 48.0**	**-1.7**
	2.1nm,0.6s,baz=96,slow=7.4,SNR=19						
WRA				PcP	**PcP**	**10 18 27.1**	**+1.9**
	0.9nm,1.1s,baz=103,slow=3.3,SNR=2.8						
	2.1nm,0.6s						
VNDA	**Vanda**	**56.61**	**185**	P	**P**	**10 18 18.1**	**+0.7**
	0.4nm,0.5s,baz=27,slow=11,SNR=3.0						
	0.4nm,0.5s						
QSPA	**South Pole Qui**	**68.24**	**180**	P	**P**	**10 19 35.0**	**+1.0**
	4.3nm,0.9s,baz=37,slow=3.4,SNR=9.2						
	4.3nm,0.9s						
ILAR	**Eielson Array**	**89.57**	**13**	P	**P**	**10 21 27.5**	**-0.5**
	0.5nm,0.8s,baz=212,slow=5.3,SNR=6.0						
	0.5nm,0.8s						
PDAR	**Pinedale Array**	**89.81**	**43**	P	**P**	**10 21 30.8**	**+0.8**
	0.3nm,0.7s,baz=258,slow=8.7,SNR=2.9						
	0.3nm,0.7s						
CMAR	**Chiang Mai Arr**	**90.72**	**289**	P	**P**	**10 21 34.1**	**-0.3**
	0.5nm,0.3s,baz=130,slow=4.2,SNR=5.0						
	0.5nm,0.3s						
ARCES	**ARCESS Array B**	**130.26**	**349**	PKP	**PKPdf**	**10 27 37.2**	**-1.0**
	2.6nm,1.1s,baz=5.7,slow=1.2,SNR=5.6						
FINES	**FINESS Array B**	**137.09**	**343**	PKP	**PKPdf**	**10 27 50.3**	**-0.9**
	2.2nm,1.0s,baz=30,slow=2.0,SNR=1.9						
EKA	**Eskdalemuir Ar**	**146.31**	**6**	PKPbc	**PKPdf**	**10 28 08.9**	**+1.2**
	0.2nm,0.3s,baz=325,slow=2.3,SNR=3.5						
BRTR	**Keskin Array B**	**147.85**	**311**	PKPbc	**PKPdf**	**10 28 12.7**	**+1.7**
	0.3nm,0.3s,baz=41,slow=4.6,SNR=2.2						
VYHS	**Vyhne**	**150.25**	**337**	*e*PN	**PKPdf**	**10 28 14.2**	**-0.2**
GERES	**GERESS Array B**	**151.52**	**344**	PKPbc	**PKPbc**	**10 28 22.5**	**-0.5**
	0.3nm,0.4s,baz=3.1,slow=4.8,SNR=2.8						

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*IDC **15** 10:14:35.2±1.4, 49°.70N×81°.47E, h0^{km}, mbtmp2.7/2, ML2.1/2, Error ellipse: s-maj=15.7km s-min=11.1km az=81.0*

*NNC **15** 10:14:38.8±2.5, 49°.76N×81°.57E, h0^{km}, mb3.1, mpv2.6, Error ellipse: s-maj=30.4km s-min=11.4km az=56.0, Suspected Mining explosion.*

ISC 15 10:14:37.1±1.5**, 49°.72N**±0°.07×**81°.60E**±0°.08**, h0**^{km}**, n8, σ0^{s}51**/9**, 4C-1D, Eastern Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KURK	**Kurchatov**	**2.15**	**299**	⇑Pn	**Pn**	**10 15 14.5**	**+0.2**
	6.1nm,0.8s						
KURK				⇑Sn	**Sb**	**10 15 43.9**	**-0.3**
	13nm,0.7s						
KURBB	**Kurchatov Arra**	**2.17**	**296**	Pg	**Pn**	**10 15 14.4**	**0.0**
	0.2nm,0.3s,baz=112,slow=18,SNR=48						
KURBB				Lg	Lg	10 15 44.0	
	0.8nm,0.3s,baz=117,slow=30,SNR=21						
KURBB	**Kurchatov Arra**	**2.17**	**296**	⇑Pn	**Pn**	**10 15 14.8**	**+0.4**
	19nm,0.8s,baz=111,slow=18						
KURBB				⇑Sn	**Sb**	**10 15 44.3**	**-0.2**
	48nm,0.8s,baz=116,slow=31						
MK31	**Makanchi Array**	**2.97**	**171**	Pn	**Pn**	**10 15 26.3**	**+0.8**
	0.1nm,0.2s,baz=116,slow=41,SNR=15						
MK31				⇓Sn	**Sb**	**10 16 06.9**	**-0.7**
	8.1nm,0.8s,baz=341,slow=19,SNR=16						
MKAR	**Makanchi Array**	**2.97**	**171**	Pn	**Pn**	**10 15 25.5**	**0.0**
	0.7nm,0.3s,baz=354,slow=12,SNR=11						
MKAR				Lg	Lg	10 16 06.6	
	1.1nm,0.3s,baz=351,slow=32,SNR=24						
	2.1nm,0.6s						
MKAR				AML	AML		
I46RU	**ZALESOVO INFRA**	**4.68**	**24**	I	I	10 43 45.0	
	baz=208,slow=312,SNR=1.8						
ZALV	**Zalesovo Beam**	**4.68**	**24**	Pn	**Pn**	**10 15 49.0**	**+0.1**
	0.2nm,0.3s,baz=207,slow=12,SNR=2.4						
ZALV				Lg	Lg	10 17 04.9	
	0.3nm,0.3s,baz=207,slow=32,SNR=12						
	0.5nm,0.3s						
ZALV				AML	AML		
BVAR	**Borovoye Array**	**7.75**	**300**	Lg	Lg	10 18 43.0	
	baz=108,slow=28,SNR=2.1						

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*IDC **15** 10:55:13.5±0.6, 15°.01S×179°.95E, h0^{km}, mb4.5/17, mbtmp4.5/19, ML5.4/1, MS3.8/32, Error ellipse: s-maj=20.1km s-min=13.5km az=124.0*

*NEIC **15** 10:55:13.5±1.5, 14°.9S±0°.1×179°.85W±0°.09, h10^{km}±1^{km}, mb4.9/30, Error ellipse: s-maj=22.6km s-min=9.0km az=146.0*

*GFZ **15** 10:55:15.5±0.2, 15°S±7°×18°0W±°, h10^{km}, M4.8/14, mb4.8/14, confirmed*

ISC 15 10:55:14.0±0.4**, 14°.87S**±0°.07×**179°.88W**±0°.07**, h10**^{km}**, n153, σ1^{s}59**/129**, mb4.8**/57**, MS3.9**/28**, 3C-2D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FUTU	**Fugatoga**	**1.79**	**72**	Pn	**Pn**	**10 55 43.1**	**-1.9**
FUTU				Sn	**Sn**	**10 56 07.6**	**-0.3**
FUTU	**Fugatoga**	**1.79**	**72**	P	**Pn**	**10 55 41.8**	**-3.2**
MSVF	**Nonsavu**	**3.48**	**215**	Pn	**Pn**	**10 56 06.4**	**-1.8**
	17nm,0.3s,baz=52,slow=17,SNR=43						
MSVF				Sn	**Sn**	**10 56 47.7**	**-1.9**
	9.9nm,0.3s,baz=221,slow=9.2,SNR=3.7						
MSVF				LR	LR	10 57 30.1	
	comp=Z,3µm,19.4s,baz=355,slow=42						
	26nm,0.3s						
MSVF				AML	AML		
MSVF	**Nonsavu**	**3.48**	**215**	Pn	**Pn**	**10 56 06.8**	**-1.5**
MSVF	**Nonsavu**	**3.48**	**215**	P	**Pn**	**10 56 06.5**	**-1.8**
AFI	**Afiamalu**	**7.91**	**84**	Pn	**Pn**	**10 57 12.3**	**+3.1**
	30nm,0.9s,baz=259,slow=16,SNR=1.8						
AFI				LR	LR	10 59 44.2	
	comp=Z,850nm,20.7s,baz=188,slow=34						
RAO	**Raoul Island**	**14.43**	**173**	LR	LR	11 02 18.5	
	comp=Z,171nm,20.2s,baz=284,slow=30						
DZM	**Mont Dzumac**	**14.81**	**239**	LR	LR	11 03 22.7	
	comp=Z,887nm,21.6s,baz=58,slow=34						
RAR	**Rarotonga**	**20.13**	**111**	LR	LR	11 06 17.8	
	comp=Z,57nm,21.9s,baz=282,slow=33						
HNR	**Honiara**	**20.44**	**283**	LR	LR	11 06 31.4	
	comp=Z,697nm,19.9s,baz=201,slow=33						
URZ	**Urewera**	**23.45**	**186**	LR	LR	11 07 22.5	
	comp=Z,155nm,20.0s,baz=4.5,slow=31						
PPT	**Papeete**	**29.21**	**99**	LR	LR	11 10 00.3	
	comp=Z,109nm,20.3s,baz=246,slow=30						
PPT2	**Papeete2**	**29.21**	**99**	*e*LQ	LQ	11 07 25.8	
	297nm,25.8s						
PPT2				*e*LR	LR	11 08 41.3	
	551nm,27.0s						
PPT2				*e*LR	LR	11 08 48.0	
	320nm,27.5s						
KRVT	**Keravat (AS076**	**29.58**	**288**	LR	LR	11 12 03.1	
	comp=Z,241nm,20.8s,baz=148,slow=34						
CTA	**Charters Tower**	**32.68**	**256**	LR	LR	11 12 41.9	
	comp=Z,172nm,18.6s,baz=78,slow=32						
CMSA	**Cobar Meteorol**	**35.54**	**236**	P	**P**	**11 02 10.7**	**-0.7**
	comp=Z,8.4nm,1.2s						
INKA	**Innaminka**	**38.69**	**244**	P	**P**	**11 02 37.2**	**-1.1**
STKA	**Stephens Creek**	**38.96**	**237**	P	**P**	**11 02 40.0**	**-0.5**
	comp=Z,3.7nm,0.7s,baz=76,slow=8.6,SNR=8.8						
STKA				LR	LR	11 16 47.4	
	comp=Z,179nm,20.8s,baz=62,slow=33						
	comp=Z,3.7nm,0.7s						
TAOE	**Nuku Hiva Isla**	**39.30**	**86**	*e*LR	LR	11 13 18.7	
	comp=Z,386nm,29.6s						
BBOO	**Buckleboo**	**43.73**	**238**	P	**P**	**11 03 17.9**	**-1.7**
BBOO				IAmb	IAmb	11 03 19.4	
	comp=Z,44nm,1.8s						
WB0	**Warramunga Arr**	**43.82**	**257**	P	**P**	**11 03 18.4**	**-2.2**
WB0				IAmb	IAmb	11 03 19.3	
	comp=Z,31nm,1.8s						
WB2	**Warramunga Arr**	**43.86**	**257**	P	**P**	**11 03 19.0**	**-1.9**
WRA	**Warramunga Arr**	**43.87**	**257**	P	**P**	**11 03 19.4**	**-1.7**
	comp=Z,2.7nm,0.8s,baz=90,slow=8.6,SNR=19						
	comp=Z,2.7nm,0.8s						
WRA	**Warramunga Arr**	**43.87**	**257**	P	**P**	**11 03 18.4**	**-2.6**
AS31	**Alice Springs**	**44.33**	**251**	P	**P**	**11 03 21.8**	**-2.9**
ASAR	**Alice Springs**	**44.34**	**251**	P	**P**	**11 03 23.4**	**-1.3**
	comp=Z,4.6nm,0.9s,baz=82,slow=8.8,SNR=33						
ASAR				LR	LR	11 20 40.1	
	comp=Z,212nm,18.6s,baz=124,slow=35						
	comp=Z,4.6nm,0.9s						
ASAR	**Alice Springs**	**44.34**	**251**	P	**P**	**11 03 20.9**	**-3.9**
FITZ	**Fitzroy Crossi**	**52.19**	**258**	LR	LR	11 26 03.1	
	comp=Z,164nm,18.2s,baz=122,slow=36						
FITZ	**Fitzroy Crossi**	**52.19**	**258**	P	**P**	**11 04 25.9**	**+0.5**
	comp=Z,3.0nm,1.7s						
NWAO	**Narrogin (SRO)**	**59.43**	**240**	LR	LR	11 29 47.6	
	comp=Z,236nm,19.7s,baz=90,slow=35						
VNDA	**Vanda**	**63.35**	**184**	P	**P**	**11 05 43.3**	**+0.4**
	comp=Z,1.0nm,0.8s,baz=6.1,slow=5.3,SNR=3.9						
	comp=Z,1.0nm,0.8s						
VNDA	**Vanda**	**63.35**	**184**	P	**P**	**11 05 42.7**	**-0.2**
SBA	**Scott Base**	**63.36**	**183**	P	**P**	**11 05 42.9**	**-0.1**
SBA	**Scott Base**	**63.36**	**183**	P	**P**	**11 05 44.7**	**+1.8**
MJAR	**Matsushiro Arr**	**64.63**	**323**	P	**P**	**11 05 52.4**	**+0.4**
	comp=Z,4.5nm,0.9s,baz=145,slow=6.0,SNR=9.6						
MJAR				LR	LR	11 28 06.0	
	comp=Z,31nm,20.2s,baz=184,slow=30						
	comp=Z,4.5nm,0.9s						
MJAR	**Matsushiro Arr**	**64.63**	**323**	P	**P**	**11 05 50.9**	**-1.1**
MAJO	**Matsushiro**	**64.64**	**323**	P	**P**	**11 05 49.8**	**-2.2**
MJB9	**Matsu-Tunnel**	**64.64**	**323**	P	**P**	**11 05 50.9**	**-1.1**
JOW	**Kunigami**	**65.20**	**309**	P	**P**	**11 05 54.8**	**-1.1**
CASY	**Casey**	**68.31**	**204**	P	**P**	**11 06 13.1**	**-1.9**
CASY				IAmb	IAmb	11 06 14.9	
	comp=Z,9.8nm,1.1s						
PETK	**Petropavlovsk-**	**70.40**	**346**	P	**P**	**11 06 29.5**	**+1.5**
	comp=Z,6.9nm,0.9s,baz=175,slow=7.5,SNR=7.6						
	comp=Z,6.9nm,0.9s						
PETK	**Petropavlovsk-**	**70.40**	**346**	P	**P**	**11 06 27.5**	**-0.6**
KSRS	**Korea Array**	**71.50**	**318**	P	**P**	**11 06 36.4**	**+1.3**
	comp=Z,3.9nm,1.0s,baz=133,slow=6.8,SNR=12						
KSRS				LR	LR	11 34 31.0	
	comp=Z,21nm,19.8s,baz=170,slow=33						
	comp=Z,3.9nm,1.0s						
KSAR	**Wonju Array Be**	**71.52**	**318**	P	**P**	**11 06 35.0**	**-0.2**
USRK	**Ussuriysk Ar.**	**73.31**	**326**	P	**P**	**11 06 47.6**	**+1.8**
	comp=Z,2.9nm,0.9s,baz=127,slow=6.1,SNR=4.4						
	comp=Z,2.9nm,0.9s						
USRK	**Ussuriysk Ar.**	**73.31**	**326**	P	**P**	**11 06 45.0**	**-0.8**
NJ2	**Nanjing**	**74.92**	**310**	*e*P	**P**	**11 06 57.3**	**+1.9**
NJ2				pmax	pmax		
	comp=Z,8.0nm,0.8s						
QSPA	**South Pole Qui**	**75.17**	**180**	P	**P**	**11 06 55.9**	**-0.6**
	comp=Z,17nm,1.0s,baz=46,slow=1.2,SNR=27						
	comp=Z,17nm,1.0s						
QSPA	**South Pole Qui**	**75.17**	**180**	P	**P**	**11 06 55.8**	**-0.8**
QSPA	**South Pole Qui**	**75.17**	**180**	P	**P**	**11 06 57.3**	**+0.8**
	comp=Z,26nm,1.1s						
SAO	**San Andreas Ge**	**75.25**	**45**	P	**P**	**11 06 56.4**	**-0.9**
SAO				IAmb	IAmb	11 07 01.6	
	comp=Z,12nm,0.9s						
CVS	**Carmenet Viney**	**75.41**	**43**	P	**P**	**11 06 56.7**	**-1.5**
CVS				IAmb	IAmb	11 07 02.2	
	comp=Z,17nm,1.1s						
KCPM	**Cahto Peak**	**75.41**	**42**	P	**P**	**11 06 57.3**	**-1.0**
KCPM				IAmb	IAmb	11 07 03.0	
	comp=Z,21nm,1.3s						
MHC	**Mount Hamilton**	**75.42**	**44**	P	**P**	**11 06 56.8**	**-1.6**
MHC				IAmb	IAmb	11 07 02.9	
	comp=Z,12nm,1.1s						
KDAK	**Kodiak Island**	**75.82**	**15**	LR	LR	11 38 50.3	
	comp=Z,30nm,18.3s,baz=203,slow=34						
O02D	**Mt. Diablo Mer**	**76.19**	**41**	P	**P**	**11 07 01.8**	**-0.9**
ORV	**Oroville**	**76.69**	**43**	P	**P**	**11 07 04.4**	**-1.1**
ORV				IAmb	IAmb	11 07 09.4	
	comp=Z,12nm,1.1s						
CN2	**Changchun**	**76.76**	**323**	P	**P**	**11 07 07.8**	**+2.1**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
BNX	**BinXian**	**76.80**	**325**	⇓P	**P**	**11 07 07.9**	**+2.0**

BNX				pmax	pmax		
	comp=Z,8.0nm,0.8s						
YBH	**Yreka Blue Hor**	**77.10**	**40**	LR	LR	11 33 43.2	
	comp=Z,62nm,19.4s,baz=248,slow=30						
PFO	**Pinyon Flats O**	**77.26**	**50**	LR	LR	11 36 26.7	
	comp=Z,51nm,19.2s,baz=214,slow=32						
PFO	**Pinyon Flats O**	**77.26**	**50**	P	**P**	**11 07 11.8**	**+2.9**
	comp=Z,3.7nm,1.3s						
MA2	**Magadan**	**77.91**	**345**	P	**P**	**11 07 11.3**	**-0.5**
	comp=Z,16nm,1.4s						
LPIG	**La Paz**	**78.18**	**61**	LR	LR	11 33 11.7	
	comp=Z,106nm,18.2s,baz=237,slow=29						
NVAR	**Mina Array Bea**	**78.25**	**45**	P	**P**	**11 07 17.3**	**+2.8**
	comp=Z,7.4nm,0.8s,baz=230,slow=9.4,SNR=54						
NVAR				LR	LR	11 34 34.9	
	comp=Z,94nm,21.7s,baz=245,slow=30						
	comp=Z,7.4nm,0.8s						
HOOD	**Mount Hood Mea**	**79.72**	**38**	P	**P**	**11 07 22.5**	**+0.2**
HOOD				IAmb	IAmb	11 07 26.0	
	comp=Z,12nm,0.9s						
BMN	**Battle Mountai**	**79.96**	**44**	P	**P**	**11 07 23.1**	**-0.7**
BMN				IAmb	IAmb	11 07 27.8	
	comp=Z,12nm,1.0s						
WVOR	**Wild Horse Val**	**80.04**	**41**	P	**P**	**11 07 27.1**	**+3.1**
	comp=Z,11nm,1.1s						
BBB	**Bella Bella**	**80.36**	**29**	LR	LR	11 36 17.1	
	comp=Z,48nm,18.8s,baz=226,slow=31						
SCM	**Sheep Creek Mo**	**80.66**	**15**	P	**P**	**11 07 24.8**	**-2.1**
SCM				IAmb	IAmb	11 07 29.7	
	comp=Z,8.3nm,1.0s						
LYN	**LuoYang**	**80.82**	**309**	P	**P**	**11 07 31.0**	**+2.8**
LYN				pmax	pmax		
	comp=Z,16nm,0.9s						
CAST	**Castle Rocks**	**80.96**	**12**	P	**P**	**11 07 26.8**	**-1.6**
CAST				IAmb	IAmb	11 07 30.2	
	comp=Z,11nm,1.0s						
TUC	**Tucson**	**81.00**	**53**	P	**P**	**11 07 32.9**	**+3.5**
	comp=Z,5.4nm,2.0s						
KTH	**Kantishna Hill**	**81.32**	**13**	P	**P**	**11 07 29.5**	**-0.9**
KTH				IAmb	IAmb	11 07 35.1	
	comp=Z,11nm,1.1s						
ELK	**Elko**	**81.44**	**44**	LR	LR	11 37 21.5	
	comp=Z,94nm,20.1s,baz=246,slow=31						
BARN	**Barnard Glacie**	**81.56**	**18**	P	**P**	**11 07 31.7**	**-0.2**
BARN				IAmb	IAmb	11 07 35.0	
	comp=Z,15nm,1.2s						
XLT	**XiLinHaoTe**	**82.54**	**319**	*e*P	**P**	**11 07 39.8**	**+2.6**
NEA2	**Nenana**	**82.63**	**13**	P	**P**	**11 07 35.8**	**-1.4**
NEA2				IAmb	IAmb	11 07 39.2	
	comp=Z,5.8nm,1.0s						
DUG	**Dugway, Tooele**	**82.84**	**45**	P	**P**	**11 07 41.5**	**+2.5**
	comp=Z,11nm,1.2s						
IMAR	**Indian Mountai**	**82.95**	**10**	P	**P**	**11 07 38.8**	**0.0**
BCAR	**Beaver Creek A**	**83.13**	**16**	P	**P**	**11 07 39.9**	**+0.1**
COLA	**College**	**83.14**	**13**	P	**P**	**11 07 41.2**	**+1.5**
	comp=Z,23nm,1.2s						
IL31		**83.27**	**14**	P	**P**	**11 07 40.5**	**+0.1**
ILAR	**Eielson Array**	**83.27**	**14**	P	**P**	**11 07 41.7**	**+1.3**
	comp=Z,12nm,1.0s,baz=205,slow=4.6,SNR=84						
ILAR				LR	LR	11 48 07.8	
	comp=Z,13nm,18.3s,baz=258,slow=38						
	comp=Z,12nm,1.0s						
ILAR	**Eielson Array**	**83.27**	**14**	P	**P**	**11 07 40.5**	**0.0**
HLID	**Hailey**	**83.29**	**42**	P	**P**	**11 07 44.4**	**+3.1**
	comp=Z,16nm,1.1s						
DLBC	**Dease Lake**	**83.62**	**24**	LR	LR	11 36 39.1	
	comp=Z,41nm,20.9s,baz=204,slow=30						
HHC	**Hu-ho-hao-te**	**84.14**	**315**	*e*P	**P**	**11 07 45.8**	**+0.2**
HHC				pmax	pmax		
	comp=Z,5.0nm,0.5s						
HHC				pmax	pmax		
	comp=Z,93nm,4.8s						
HWUT	**Hardware Ranch**	**84.30**	**44**	P	**P**	**11 07 49.1**	**+2.6**
	comp=Z,14nm,1.2s						
MVCO	**Mesa Verde**	**84.67**	**49**	P	**P**	**11 07 51.0**	**+2.4**
	comp=Z,4.9nm,1.3s						
AHID	**Auburn Hatcher**	**85.11**	**44**	P	**P**	**11 07 53.5**	**+2.8**
	comp=Z,7.2nm,1.6s						
ANMO	**Albuquerque**	**85.34**	**52**	LR	LR	11 38 23.2	
	comp=Z,60nm,18.9s,baz=250,slow=30						
ANMO	**Albuquerque**	**85.34**	**52**	P	**P**	**11 07 54.5**	**+2.6**
	comp=Z,5.1nm,2.8s						
TXAR	**Lajitas Array**	**85.59**	**58**	P	**P**	**11 07 55.5**	**+2.3**
	comp=Z,1.8nm,1.0s,baz=224,slow=5.2,SNR=12						
	comp=Z,1.8nm,1.0s						
TXAR	**Lajitas Array**	**85.59**	**58**	P	**P**	**11 07 51.0**	**-2.1**
PDAR	**Pinedale Array**	**86.14**	**44**	P	**P**	**11 07 58.0**	**+2.2**
	comp=Z,6.9nm,0.9s,baz=215,slow=3.2,SNR=38						
PDAR				LR	LR	11 40 34.6	
	comp=Z,46nm,18.7s,baz=238,slow=32						
	comp=Z,6.9nm,0.9s						
PDAR	**Pinedale Array**	**86.14**	**44**	P	**P**	**11 07 55.6**	**-0.2**
MAW	**Mawson**	**86.22**	**200**	P	**P**	**11 07 55.4**	**-0.1**
	comp=Z,4.2nm,0.8s,baz=89,slow=9.5,SNR=5.4						
	comp=Z,4.2nm,0.8s						
PZH	**PanZhiHua**	**86.48**	**298**	P	**P**	**11 07 57.3**	**-0.3**
CMAR	**Chiang Mai Arr**	**86.53**	**290**	P	**P**	**11 07 59.5**	**+1.6**
	comp=Z,1.5nm,0.7s,baz=100,slow=3.8,SNR=12						
	comp=Z,1.5nm,0.7s						
CHTO	**Chiang Mai**	**86.63**	**290**	P	**P**	**11 07 59.4**	**+1.0**
	comp=Z,4.4nm,1.1s						
LZH	**Lanzhou**	**87.92**	**308**	*e*P	**P**	**11 08 04.8**	**+0.3**
LZH				sP	pwP	11 08 13.8	+3.6
LZH				pmax	pmax		
	comp=Z,13nm,1.0s						
LZDM	**Lanzhou Array**	**87.98**	**308**	P	**P**	**11 08 07.6**	**+2.6**
	comp=Z,1.2nm,0.3s,baz=109,slow=5.1,SNR=1.6						
	comp=Z,1.2nm,0.3s						
CMIG	**Matias Romero**	**89.65**	**72**	LR	LR	11 39 39.2	
	comp=Z,80nm,19.9s,baz=232,slow=30						
ULN	**Ulaanbaatar**	**89.93**	**320**	P	**P**	**11 08 15.6**	**+1.9**
	comp=Z,9.2nm,1.1s						
SONM	**Songino Array**	**90.33**	**320**	P	**P**	**11 08 16.7**	**+1.2**
	comp=Z,3.0nm,1.0s,baz=126,slow=5.2,SNR=12						
	comp=Z,3.0nm,1.0s						
SONM	**Songino Array**	**90.33**	**320**	P	**P**	**11 08 15.9**	**+0.4**
SONM				IAmb	IAmb	11 08 18.4	
	comp=Z,5.2nm,1.1s						
RSSD	**Black Hills**	**90.38**	**44**	P	**P**	**11 08 18.1**	**+2.2**
	comp=Z,11nm,1.2s						
ELIB	**Princess Elisa**	**92.00**	**187**	*d*P	**P**	**11 08 21.9**	**-1.0**
	comp=Z,2.9nm,0.9s						
YKA	**Yellowknife Ar**	**92.18**	**25**	LR	LR	11 44 32.2	
	comp=Z,45nm,18.7s,baz=306,slow=32						
TROLL	**Troll, Antarti**	**93.32**	**181**	⇑P	**P**	**11 08 28.4**	**-0.6**
	comp=Z,265nm,0.7s						
VNA3	**Neumayer Olymp**	**93.84**	**177**	⇑P	**P**	**11 08 31.0**	**-0.4**
	comp=Z,5.6nm,0.8s						
VNA3	**Neumayer Olymp**	**93.84**	**177**	P	**P**	**11 08 30.9**	**-0.4**
	comp=Z,9.7nm,0.8s						
VNA2	**Neumayer--Watz**	**94.27**	**178**	⇑P	**P**	**11 08 32.5**	**-0.8**
	comp=Z,3.1nm,0.6s,baz=172,slow=4.2						
VNA2	**Neumayer--Watz**	**94.27**	**178**	P	**P**	**11 08 32.4**	**-0.8**
	comp=Z,6.8nm,1.3s						
JTS	**Las Juntas de**	**97.30**	**81**	LR	LR	11 43 24.7	
	comp=Z,40nm,18.6s,baz=264,slow=30						
ULM	**Lac du Bonnet**	**97.51**	**40**	LR	LR	11 48 34.7	
	comp=Z,42nm,18.3s,baz=188,slow=33						
ATAH	**Atahualpa**	**99.19**	**100**	LR	LR	11 44 19.6	
	comp=Z,80nm,18.9s,baz=270,slow=30						
HFS	**Hagfors**	**133.72**	**351**	PKP	**PKiKP**	**11 14 33.1**	**+1.0**
	comp=Z,0.6nm,0.6s,baz=39,slow=1.8,SNR=2.1						
AKASG	**Malin Array Be**	**137.22**	**333**	PKP	**PKiKP**	**11 14 40.4**	**+1.0**
	comp=Z,2.8nm,0.9s,baz=62,slow=1.7,SNR=4.4						
AKBB	**Malin Array Si**	**137.22**	**333**	PKP	**PKPdf**	**11 14 35.4**	**-2.2**
KIEV	**Kiev**	**137.23**	**333**	PKP	**PKPdf**	**11 14 35.4**	**-2.2**
LUBAR	**Lubar, Ukraine**	**138.44**	**333**	PKP	**PKPdf**	**11 14 38.5**	**-1.3**
SORM	**Soroca**	**139.46**	**331**	PKP	**PKPdf**	**11 14 40.1**	**-1.6**
BRTR	**Keskin Array B**	**141.63**	**317**	PKhKP	PKPpre	11 14 42.0	
	comp=Z,0.5nm,0.5s,baz=50,slow=2.2,SNR=2.2						
CLL	**Collm**	**142.20**	**347**	*e*PKPpre	PKPpre	11 14 43.0	
CLL				*e*PKPdf	**PKPdf**	**11 14 47.0**	**+0.4**
CLL				*e*PKiKP	**PKiKP**	**11 14 49.0**	**-0.6**
CLL				*e*x	x	11 14 59.0	
KHC	**Kasperske Hory**	**144.09**	**345**	*e*PKP	**PKPab**	**11 14 47.0**	**-0.6**
GERES	**GERESS Array B**	**144.32**	**345**	PKP	**PKPdf**	**11 14 50.6**	**0.0**
	comp=Z,0.9nm,0.3s,baz=40,slow=1.9,SNR=1.9						
WINA	**Alland / Wiene**	**144.32**	**342**	*e*pPKP	**PKPdf**	**11 14 50.8**	**+0.3**
	comp=Z,14nm,1.0s						
CONA	**Conrad Observa**	**144.55**	**342**	pPKP	**PKPdf**	**11 14 51.4**	**+0.4**
	comp=Z,15nm,1.3s,SNR=7.5						
RONA	**Rosalia, Austr**	**144.62**	**341**	*e*pPKP	**PKPdf**	**11 14 51.6**	**+0.5**
	comp=Z,8.9nm,1.1s						
MOA	**Molln**	**145.08**	**343**	pPKP	**PKPdf**	**11 14 53.1**	**+1.3**
	comp=Z,20nm,0.9s,SNR=11						
ARSA	**Arzberg**	**145.25**	**341**	PKPbc	**PKPbc**	**11 14 50.2**	**-1.6**
ARSA	**Arzberg**	**145.25**	**341**	pPKP	**PKPdf**	**11 14 53.2**	**+1.1**
	comp=Z,16nm,1.3s,SNR=5.6						
BIOA	**Bad Ischl, Aus**	**145.40**	**344**	*e*pPKP	**PKiKP**	**11 14 54.1**	**-2.3**
	comp=Z,4.4nm,0.6s						
SESA	**Seetaler Alpe,**	**145.66**	**342**	pPKP	**PKPab**	**11 14 54.4**	**+0.8**
	comp=Z,42nm,1.0s,SNR=12						
LESA	**Schwarzleotal**	**145.90**	**345**	*e*pPKP	**PKPab**	**11 14 55.0**	**+0.6**
	comp=Z,8.0nm,1.1s						
SOKA	**Soboth**	**145.92**	**342**	pPKP	**PKPab**	**11 14 55.1**	**+0.7**
	comp=Z,16nm,1.4s,SNR=6.0						
PERS	**Pernice**	**145.93**	**341**	*i* PKPbc	**PKPab**	**11 14 55.2**	**+0.7**
KBA	**Koelnbreinsper**	**146.04**	**344**	*e*pPKP	**PKPab**	**11 14 55.0**	**0.0**
	comp=Z,7.4nm,1.1s						
OBKA	**Obir**	**146.22**	**342**	*e*pPKP	**PKPab**	**11 14 55.4**	**-0.2**
	comp=Z,9.4nm,1.2s						
WATA	**Walderalm**	**146.25**	**346**	*e*pPKP	**PKPab**	**11 14 56.5**	**+0.8**
	comp=Z,12nm,1.0s						
RETA	**Reutte**	**146.29**	**347**	pPKP	**PKPab**	**11 14 56.5**	**+0.7**
	comp=Z,13nm,1.1s,SNR=5.9						
WTTA	**Wattenberg**	**146.30**	**346**	*e*pPKP	**PKiKP**	**11 14 56.8**	**-1.6**
	comp=Z,11nm,0.7s						
MOTA	**Moosalm**	**146.35**	**346**	pPKP	**PKiKP**	**11 14 57.0**	**-1.5**
	comp=Z,13nm,1.0s,SNR=5.5						
MYKA	**Terra Mystica**	**146.37**	**343**	*e*pPKP	**PKPab**	**11 14 56.3**	**+0.1**
	comp=Z,7.8nm,1.1s						
SQTA	**Sankt Quirin**	**146.44**	**346**	*e*pPKP	**PKiKP**	**11 14 57.2**	**-1.5**
	comp=Z,12nm,1.0s						
CRES	**Cresnjevec Ost**	**146.54**	**340**	*i* PKPbc	**PKPab**	**11 14 56.9**	**+0.1**
ABTA	**Abfaltersbach**	**146.57**	**344**	*e*pPKP	**PKPbc**	**11 14 55.9**	**0.0**
	comp=Z,7.6nm,0.9s						
DAVA	**Damuels**	**146.67**	**348**	*e*pPKP	**PKPab**	**11 14 57.5**	**+0.1**
	comp=Z,8.0nm,0.8s						
FETA	**Feichten**	**146.74**	**347**	PKiKP	**PKiKP**	**11 14 58.1**	**-1.2**
	comp=Z,12nm,1.0s,SNR=6.3						
BOJS	**Bojanci**	**146.89**	**340**	*i* PKPbc	**PKiKP**	**11 14 58.5**	**-0.9**
ESDC	**Sonseca Array**	**155.03**	**7**	PKPbc	PKPdf	11 15 17.1	+9.4
	comp=Z,0.4nm,0.8s,baz=356,slow=4.6,SNR=4.9						
ESDC				PKPab	pPKPab	11 15 33.5	-0.9
	comp=Z,2.1nm,1.1s,baz=349,slow=3.7,SNR=7.1						

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*IDC **15** 10:58:17.2±3.2, 64°.55N×31°.20E, h0^{km}, mbtmp2.7/2, ML1.9/2, Error ellipse: s-maj=45.8km s-min=12.8km az=100.0*
*UPP **15** 10:58:17.5±3.3, 64°.53N×30°.90E, h0^{km}, ML1.9, Presumed earthquake*
*HEL **15** 10:58:19.2±0.0, 64°.71N×30°.73E, h0^{km}, ML1.9, Explosion*
*KOLA **15** 10:58:20.0, 64°.68N×30°.55E, h0^{km}, ML2.4, Error ellipse: s-maj=14.1km s-min=9.9km az=150.0, Kostomuksha, Karelia*
*BER **15** 10:58:20.7±3.2, 64°.71N×30°.72E, h0^{km}, ML1.6, ML1.9(HEL), Suspected explosion*
ISC 15 10:58:18.1±0.8**, 64°.72N**±0°.02×**30°.71E**±0°.04**, h0^{km}, n40,** σ**1^{s}19**/59**, Finland-Karelia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RMF	**Romuvaara**	**0.61**	**214**	*e*P	**Pg**	**10 58 29.9**	**+0.2**
RMF				*e*S	**Sg**	**10 58 37.9**	**+0.3**
RMF	**Romuvaara**	**0.61**	**214**	*e*P	**Pg**	**10 58 29.9**	**+0.2**
RMF				*e*S	**Sg**	**10 58 37.9**	**+0.3**
KU1	**Kurvinen**	**0.98**	**331**	*e*P	**Pg**	**10 58 37.0**	**+0.2**
KU1				*e*S	**Sg**	**10 58 49.5**	**+0.1**
KU1	**Kurvinen**	**0.98**	**331**	*e*P	**Pg**	**10 58 37.0**	**+0.2**
KU1				*e*S	**Sg**	**10 58 49.5**	**+0.1**
MSF	**Maaselka**	**1.39**	**330**	*e*P	**Pg**	**10 58 44.3**	**-0.4**
MSF				*e*S	**Sg**	**10 59 02.1**	**-0.4**
MSF	**Maaselka**	**1.39**	**330**	*e*P	**Pg**	**10 58 44.3**	**-0.4**
MSF				*e*S	**Sg**	**10 59 02.1**	**-0.4**
KU2	**Taivalkoski**	**1.44**	**315**	*e*P	**Pn**	**10 58 45.1**	**-0.3**
KU2				*e*S	**Sg**	**10 59 03.9**	**-0.5**
OLKF	**Oulanka, Finla**	**1.70**	**342**	*e*P	**Pn**	**10 58 49.6**	**+0.6**
OLKF				*e*S	**Sn**	**10 59 11.6**	**+0.3**
OLKF				smax	smax	10 59 13.9	
OLKF	**Oulanka, Finla**	**1.70**	**342**	*e*P	**Pn**	**10 58 49.6**	**+0.6**
OLKF				*e*S	**Sn**	**10 59 11.6**	**+0.3**
OLKF				smax	smax	10 59 13.9	
	comp=Z,4.2nm,0.1s						
JOF	**Joensuu**	**1.83**	**171**	*e*P	**Pn**	**10 58 51.3**	**+0.6**
JOF				*e*S	**Sn**	**10 59 14.5**	**-0.1**
JOF				smax	smax	10 59 16.3	
JOF	**Joensuu**	**1.83**	**171**	*e*P	**Pn**	**10 58 51.7**	**+1.0**
JOF	**Joensuu**	**1.83**	**171**	*e*P	**Pn**	**10 58 51.3**	**+0.6**
JOF				*e*S	**Sn**	**10 59 14.5**	**-0.1**
JOF				smax	smax	10 59 16.3	
	comp=Z,8.7nm,0.1s						
NIF	**Nilsia**	**1.85**	**225**	*e*P	**Pn**	**10 58 51.6**	**+0.7**
NIF				*e*S	**Sn**	**10 59 15.4**	**+0.4**
NIF				smax	smax	10 59 17.4	
NIF	**Nilsia**	**1.85**	**225**	*e*P	**Pn**	**10 58 51.6**	**+0.7**
NIF				*e*S	**Sn**	**10 59 15.4**	**+0.4**
NIF				smax	smax	10 59 17.4	
	comp=Z,9.4nm,0.1s						
OUL	**Oulu**	**2.08**	**282**	*e*P	**Pn**	**10 58 55.6**	**+1.4**
OUL				*e*S	**Sn**	**10 59 22.1**	**+1.2**
OUL				smax	smax	10 59 25.3	
OUL	**Oulu**	**2.08**	**282**	*e*P	**Pn**	**10 58 55.6**	**+1.4**
OUL				*e*S	**Sn**	**10 59 22.1**	**+1.2**
OUL				smax	smax	10 59 25.3	
	comp=Z,11nm,0.1s						
KVDA	**Kovda**	**2.17**	**23**	P	**Pb**	**10 58 58.0**	**-0.2**
KVDA				S	**Sb**	**10 59 25.9**	**+0.3**
SUF	**Sumiainen**	**2.86**	**227**	*e*P	**Pb**	**10 59 08.2**	**-1.6**
APA0	**Apatity Array**	**3.04**	**17**	P	**Pn**	**10 59 09.8**	**+2.4**
APA0				S	**Sb**	**10 59 48.1**	**-2.6**
LVZ	**Lovozero**	**3.56**	**25**	S	**Sn**	**10 59 58.5**	**+1.1**
KEF	**Keuruu**	**3.67**	**228**	*e*P	**Pn**	**10 59 18.6**	**+2.6**
FINES	**FINESS Array B**	**3.91**	**215**	Pn	**Pn**	**10 59 17.5**	**-1.7**
	comp=Z,0.1nm,0.3s,baz=36,slow=14,SNR=2.1						
FINES				Pg	Pb	10 59 21.6	-6.2
	comp=Z,0.2nm,0.3s,baz=32,slow=13,SNR=1.5						
FINES				Lg	Lg	11 00 19.1	
	comp=Z,0.8nm,0.3s,baz=34,slow=27,SNR=6.4						
	comp=Z,1.4nm,0.8s						
FINES				AML	AML		
SJUU	**Sjulsmark**	**3.93**	**286**	P	**Pn**	**10 59 20.4**	**+0.8**
SJUU				S	**Sn**	**11 00 08.1**	**+1.8**
SJUU	**Sjulsmark**	**3.93**	**286**	*e*P	**Pn**	**10 59 20.4**	**+0.8**
VAF	**Ylistaro**	**3.93**	**248**	*e*P	**Pn**	**10 59 20.7**	**+1.1**
BURU	**Burvik**	**4.02**	**272**	P	**Pn**	**10 59 20.8**	**+0.1**
	baz=109						
ODEU	**Stanfors**	**4.32**	**270**	P	**Pn**	**10 59 24.6**	**-0.4**
UMAU	**Umeaa**	**4.45**	**264**	P	**Pn**	**10 59 26.3**	**-0.4**
LILU	**Lilltraesk**	**4.64**	**282**	P	**Pn**	**10 59 29.9**	**+0.5**
HEF	**Hetta**	**4.65**	**326**	*e*P	**Pn**	**10 59 33.0**	**+3.5**
SVAU	**Svanoeiden**	**4.80**	**272**	P	**Pn**	**10 59 31.6**	**0.0**
TERR	**Teriberka**	**4.82**	**19**	S	**Sn**	**11 00 28.4**	**+0.2**
LANU	**Lannavaara**	**4.84**	**318**	*e*P	**Pn**	**10 59 33.6**	**+1.5**
KTK1	**Kautokeino**	**5.22**	**329**	*e*P	**Pn**	**10 59 38.9**	**+1.6**
KTK1				*e*		11 00 42.2	
KTK1				IAML		11 01 07.5	
	comp=Z,2.2nm,0.3s						
ARA0	**ARCESS Array S**	**5.24**	**340**	*e*P	**Pn**	**10 59 36.8**	**-0.8**
ARA0				*e*S	**Sn**	**11 00 36.7**	**-2.0**
ARA0				IAML		11 01 05.8	
	comp=Z,1.4nm,0.3s						
ARCES	**ARCESS Array B**	**5.24**	**340**	Pn	**Pn**	**10 59 38.3**	**+0.7**
	comp=Z,0.2nm,0.3s,baz=154,slow=14,SNR=28						
ARCES				Lg	Lg	11 01 02.4	
	comp=Z,0.3nm,0.3s,baz=153,slow=26,SNR=3.0						
	comp=Z,0.4nm,0.2s						
ARCES				AML	AML		
ARCES	**ARCESS Array B**	**5.24**	**340**	P	**Pn**	**10 59 38.6**	**+1.0**
ARCES				S	**Sn**	**11 00 37.3**	**-1.4**
RAF	**Rauma**	**5.52**	**232**	*e*P	**Pn**	**10 59 43.7**	**+2.3**
SALU	**Saltoluokta**	**5.64**	**304**	*e*P	**Pn**	**10 59 45.1**	**+2.0**
I37NO	**I37NO**	**6.46**	**318**	I	I	11 43 10.0	
	baz=126,slow=325,SNR=2.8						

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*CATAC **15** 11:17:43.7±0.6, 15°N±4°×8°7W±°, h1^{km}±3^{km}, M4.0/22, MLv4.0/22, Error ellipse: s-maj=9.0km s-min=4.0km az=23.8, confirmed*
*SNET **15** 11:17:44.8±4.3, 14°.85N×86°.88W, h6^{km}, ML3.8, Presumed earthquake*
*GCG **15** 11:17:52.8±1.9, 14°.74N×87°.50W, h0^{km}±36^{km}, MD4.6, Presumed earthquake*
ISC 15 11:17:42.7±1.4**, 14°.75N**±0°.04×**86°.93W**±0°.03**, h5^{km}**±11^{km}**, n39,** σ**0^{s}90**/49**, Honduras**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TGUH	**Tegucigalpa,Un**	**0.76**	**206**	P	**Pg**	**11 17 57.7**	**+0.3**
TGUH				S	**Sg**	**11 18 07.8**	**+0.5**
OCON	**Estacion meteo**	**1.19**	**158**	P	**Pg**	**11 18 04.9**	**-0.8**
OCON				S	**Sg**	**11 18 20.1**	**-1.0**
RCVN	**Varillal2**	**1.36**	**148**	P	**Pb**	**11 18 08.3**	**-0.4**
RCVN				S	**Sn**	**11 18 26.7**	**-0.2**
RCFN	**Al S de San Ju**	**1.40**	**150**	S	**Sn**	**11 18 27.2**	**-0.6**
RCPN	**Sur Rio San Ju**	**1.46**	**146**	S	**Sg**	**11 18 29.2**	**-0.4**
CNCH	**Conchagua**	**1.71**	**211**	*e*P	**Pg**	**11 18 15.5**	**+0.1**
CNCH				*e*S	**Sb**	**11 18 37.0**	**+0.7**
CNCH	**Conchagua**	**1.71**	**211**	P	**Pb**	**11 18 14.5**	**-0.1**
CNCH				S	**Sb**	**11 18 37.1**	**+0.7**
LCND	**La Caada**	**1.71**	**213**	P	**Pb**	**11 18 14.5**	**-0.1**
SARH	**Santa Rosa de**	**1.77**	**271**	*i* P	**Pb**	**11 18 14.9**	**-0.8**
SARH				*i* S	**Sn**	**11 18 34.3**	**-2.7**
SARH	**Santa Rosa de**	**1.77**	**271**	S	**Sg**	**11 18 40.0**	**+0.3**
RANC	**El Ranchito**	**1.86**	**225**	S	**Sg**	**11 18 42.3**	**-0.1**
PACA	**Pacayal**	**1.86**	**227**	S	**Sb**	**11 18 42.0**	**+1.3**
CSGN	**Cosiguina Volc**	**1.86**	**199**	S	**Sb**	**11 18 40.9**	**0.0**
IZABA	**Izabal, Puerto**	**1.87**	**302**	P	**Pg**	**11 18 18.5**	**-0.1**
IZABA				S	**Sg**	**11 18 44.0**	**+1.0**
INTP	**Intipuca**	**1.89**	**215**	*e*P	**Pb**	**11 18 17.9**	**+0.3**
P5NO	**Presa 5 de nov**	**1.93**	**247**	P	**Pb**	**11 18 18.1**	**-0.2**
P5NO				S	**Sb**	**11 18 44.0**	**+1.3**
LLGN	**La Laguna**	**2.04**	**254**	S	**Sg**	**11 18 48.1**	**-0.1**
MATN	**Matagalpa**	**2.05**	**152**	S	**Sb**	**11 18 46.7**	**+0.3**
ALJI	**Alcalda de J**	**2.13**	**229**	*e*S	**Sg**	**11 18 50.5**	**-0.7**
PLRN	**Geotermica Pol**	**2.16**	**176**	S	**Sb**	**11 18 49.4**	**+0.1**
TECO	**Alcaldia de Te**	**2.16**	**236**	S	**Sb**	**11 18 50.6**	**+1.1**
ILCN	**San Idelfonso**	**2.17**	**174**	S	**Sb**	**11 18 50.5**	**+0.8**
PAVA	**Las Pavas**	**2.20**	**242**	S	**Sb**	**11 18 51.2**	**+0.5**
CNGN	**Cerro Negro**	**2.25**	**174**	S	**Sg**	**11 18 53.8**	**-1.1**
SIUN	**Universidad Ur**	**2.33**	**116**	S	**Sn**	**11 18 51.0**	**+0.3**
ESQI	**Esquipulas**	**2.34**	**266**	*e*P	**Pb**	**11 18 26.1**	**+0.6**
ESQI				*e*S	**Sg**	**11 18 58.3**	**+0.3**
ESQI	**Esquipulas**	**2.34**	**266**	S	**Sg**	**11 18 57.2**	**-0.8**
ZAFR2	**Estanzuela, Za**	**2.35**	**266**	*i* P	**Pg**	**11 18 29.3**	**+1.5**
MOMN	**Momotombo**	**2.36**	**171**	S	**Sb**	**11 18 56.0**	**+0.9**
MTO3	**Montecristo**	**2.38**	**262**	P	**Pn**	**11 18 22.9**	**+0.4**
BOQS	**Boqueron**	**2.49**	**246**	*e*P	**Pb**	**11 18 28.0**	**-0.1**
BOAB	**BOACO BROADBAN**	**2.59**	**152**	S	**Sb**	**11 19 01.5**	**-0.3**
JUAM	**Asuncion Mita**	**2.72**	**262**	*i* P	**Pb**	**11 18 29.6**	**-2.3**
CEVE	**Cerro Verde**	**2.77**	**251**	*e*P	**Pb**	**11 18 32.9**	**+0.1**
NUBE	**Las Nubes**	**2.89**	**253**	*i* P	**Pn**	**11 18 29.6**	**+0.1**
NUBE	**Las Nubes**	**2.89**	**253**	S	**Sb**	**11 19 10.5**	**0.0**
ACON	**Acoyapa**	**3.25**	**148**	P	**Pb**	**11 18 41.2**	**+0.3**
APG	**El Apazote**	**3.43**	**275**	*i* P	**Pb**	**11 18 41.6**	**-2.4**
BILN	**Bilwi Airport**	**3.51**	**101**	P	**Pn**	**11 18 38.5**	**+0.5**
BILN				S	**Sn**	**11 19 20.8**	**+0.9**

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*IDC **15** 11:32:19.4±0.5, 20°.14S×67°.54E, h0^{km}, mb4.0/21, mbtmp4.0/21, MS3.8/25, Error ellipse: s-maj=21.4km s-min=14.7km az=78.0*
*NEIC **15** 11:32:21.2±0.9, 20°.2S±0°.1×67°.5E±0°.2, h10^{km}±1^{km}, mb4.5/15, Error ellipse: s-maj=24.9km s-min=19.8km az=251.0*
ISC 15 11:32:21.1±0.5**, 20°.15S**±0°.09×**67°.6E**±0°.1**, h10^{km}, n70,** σ**0^{s}68**/48**, mb4.2**/26**, MS3.8**/25**, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H08S1	**Diego Carcia H**	**13.32**	**22**	T	T	11 49 03.7	
	baz=201,slow=75,SNR=7.6						
H08S2	**Diego Garcia H**	**13.33**	**22**	T	T	11 49 02.7	
	baz=201,slow=75,SNR=8.8						
H08S3	**Diego Garcia H**	**13.34**	**22**	T	T	11 49 06.5	
	baz=201,slow=75,SNR=21						
H04N2	**CROZET ISLANDS**	**28.99**	**203**	T	T	12 08 49.1	
	baz=33,slow=74,SNR=334						
H04N1	**CROZET ISLANDS**	**28.99**	**203**	T	T	12 08 53.5	
	baz=33,slow=74,SNR=314						
H04N3	**CROZET ISLANDS**	**29.00**	**203**	T	T	12 08 49.4	
	baz=33,slow=74,SNR=307						
PALK	**Pallekele**	**30.17**	**27**	LR	LR	11 47 33.4	
	comp=Z,238nm,20.2s,baz=198,slow=30						
KMBO	**Kilima Mbogo**	**35.14**	**299**	LR	LR	11 51 09.8	
	comp=Z,187nm,18.3s,baz=102,slow=32						
LSZ	**Lusaka**	**37.74**	**271**	LR	LR	11 52 48.9	
	comp=Z,122nm,21.0s,baz=135,slow=33						
BOSA	**Boshof**	**39.27**	**249**	LR	LR	11 54 50.7	
	comp=Z,70nm,18.1s,baz=88,slow=34						
MBAR	**Mbarara**	**40.91**	**294**	LR	LR	11 54 55.3	
	comp=Z,71nm,18.2s,baz=106,slow=33						
MAW	**Mawson**	**47.53**	**182**	P	**P**	**11 40 56.5**	**+0.2**
	2.2nm,0.6s,baz=86,slow=1.2,SNR=3.7						
MAW				LR	LR	11 56 32.5	
	comp=Z,117nm,19.2s,baz=348,slow=31						
	2.2nm,0.6s						
RAYN	**Ar Rayn**	**48.44**	**333**		**P**	**11 41 03.6**	**-0.4**
RAYN				IAmb	IAmb	11 41 09.9	
	comp=Z,2.6nm,0.8s						
BRDH	**Bariadhala**	**48.64**	**30**	LR	LR	12 02 06.6	
	comp=Z,169nm,18.3s,baz=185,slow=37						
CMAR	**Chiang Mai Arr**	**49.20**	**41**	P	**P**	**11 41 10.8**	**+1.0**
	comp=Z,0.8nm,0.3s,baz=234,slow=7.9,SNR=5.2						
CMAR				LR	LR	12 01 41.1	
	comp=Z,74nm,18.1s,baz=245,slow=36						
	comp=Z,0.8nm,0.3s						
CMAR	**Chiang Mai Arr**	**49.20**	**41**	P	**P**	**11 41 09.8**	**0.0**
SHL	**Shillong**	**51.23**	**29**	P	**P**	**11 41 25.8**	**+0.5**
EVN	**Everest**	**51.33**	**22**	P	**P**	**11 41 27.2**	**+0.6**
EVN				IAmb	IAmb	11 41 51.4	
	comp=Z,11nm,1.3s						
FITZ	**Fitzroy Crossi**	**54.69**	**98**	P	**P**	**11 41 51.5**	**+0.6**
	comp=Z,2.4nm,0.7s,baz=242,slow=9.0,SNR=3.9						
FITZ				LR	LR	12 02 22.1	
	comp=Z,74nm,19.4s,baz=182,slow=33						
	comp=Z,2.4nm,0.7s						
FITZ	**Fitzroy Crossi**	**54.69**	**98**	P	**P**	**11 41 50.2**	**-0.7**
ASAR	**Alice Springs**	**61.17**	**107**	P	**P**	**11 42 36.3**	**-0.1**
	comp=Z,1.2nm,0.8s,baz=261,slow=6.6,SNR=12						
ASAR				LR	LR	12 04 49.2	
	comp=Z,206nm,21.4s,baz=292,slow=32						
	comp=Z,1.2nm,0.8s						
ASAR	**Alice Springs**	**61.17**	**107**	P	**P**	**11 42 36.0**	**-0.4**
AS31	**Alice Springs**	**61.17**	**107**	P	**P**	**11 42 35.5**	**-1.0**
WRA	**Warramunga Arr**	**62.33**	**102**	P	**P**	**11 42 43.8**	**-0.5**
	comp=Z,1.4nm,0.9s,baz=259,slow=5.8,SNR=7.8						
	comp=Z,1.4nm,0.9s						
WRA	**Warramunga Arr**	**62.33**	**102**	P	**P**	**11 42 43.6**	**-0.6**
AAK	**Ala-Archa**	**62.80**	**6**	LR	LR	12 07 18.5	
	comp=Z,84nm,21.7s,baz=188,slow=33						
KK31	**Karatay Array**	**63.00**	**2**	P	**P**	**11 42 48.1**	**-0.1**
KK31				IAmb	IAmb	11 42 59.8	
	comp=Z,5.7nm,1.3s						
KKAR	**Karatay Array**	**63.00**	**2**	P	**P**	**11 42 48.3**	**+0.1**
PDGK	**Podgornoye**	**64.11**	**10**	P	**P**	**11 42 55.3**	**-0.4**
SNAA	**Sanae**	**64.87**	**199**	P	**P**	**11 42 59.5**	**-0.8**
	comp=Z,0.8nm,0.5s,baz=74,slow=1.9,SNR=3.6						
SNAA				LR	LR	12 03 58.3	
	comp=Z,49nm,22.0s,baz=59,slow=29						
	comp=Z,0.8nm,0.5s						
SNAA	**Sanae**	**64.87**	**199**	P	**P**	**11 42 59.7**	**-0.5**
STKA	**Stephens Creek**	**66.44**	**117**	LR	LR	12 07 19.6	
	comp=Z,155nm,21.7s,baz=209,slow=32						
VNA1	**Neumayer--Stat**	**66.44**	**201**	P	P	11 43 16.6	+6.4
VNA3	**Neumayer Olymp**	**66.96**	**200**	P	**P**	**11 43 14.6**	**+1.0**
BRTR	**Keskin Array B**	**67.46**	**332**	P	**P**	**11 43 17.1**	**-0.2**
	comp=Z,0.3nm,0.3s,baz=140,slow=7.9,SNR=4.3						
	comp=Z,0.3nm,0.3s						
BRTR	**Keskin Array B**	**67.46**	**332**	P	**P**	**11 43 16.8**	**-0.5**
KBZ	**Khabaz**	**67.47**	**341**	P	**P**	**11 43 17.6**	**+0.6**
	comp=Z,0.7nm,0.3s,baz=152,slow=6.3,SNR=3.8						
	comp=Z,0.7nm,0.3s						
MKAR	**Makanchi Array**	**67.95**	**11**	P	**P**	**11 43 19.4**	**-0.8**
	comp=Z,0.3nm,0.5s,baz=198,slow=7.6,SNR=9.9						
MKAR				LR	LR	12 11 58.5	
	comp=Z,48nm,19.5s,baz=196,slow=35						
	comp=Z,0.3nm,0.5s						
AB31	**Akbulak array**	**69.43**	**355**		**P**	**11 43 28.9**	**-0.3**
ABKAR	**Akbulak array**	**69.43**	**355**		**P**	**11 43 27.4**	**-1.9**
QSPA	**South Pole Qui**	**69.95**	**180**	P	**P**	**11 43 32.3**	**-0.3**
	comp=Z,4.4nm,0.9s,baz=272,slow=5.0,SNR=9.1						
QSPA				LR	LR	12 11 15.2	
	comp=Z,113nm,18.1s,baz=253,slow=33						
	comp=Z,4.4nm,0.9s						
QSPA	**South Pole Qui**	**69.95**	**180**	P	**P**	**11 43 32.4**	**-0.3**
KURBB	**Kurchatov Arra**	**71.13**	**7**	P	**P**	**11 43 38.7**	**-0.9**
	comp=Z,0.8nm,0.8s,baz=202,slow=6.8,SNR=12						
	comp=Z,0.8nm,0.8s						
KURK	**Kurchatov**	**71.23**	**7**	P	**P**	**11 43 40.0**	**-0.2**
KURK				IAmb	IAmb	11 43 46.6	
	comp=Z,3.1nm,0.8s						
VNDA	**Vanda**	**71.40**	**167**	P	**P**	**11 43 40.7**	**-0.3**

	comp=Z,1.1nm,1.1s,baz=258,slow=4.7,SNR=6.0						
VNDA				LR	LR	12 10 52.3	
	comp=Z,92nm,18.0s,baz=253,slow=32						
	comp=Z,1.1nm,1.1s						
VNDA	Vanda	71.40	167	P	P	11 43 41.5	+0.4
VNDA				IAmb	IAmb	11 43 42.9	
	comp=Z,3.8nm,1.4s						
TORD	Torodi Ar. Bea	72.72	291	P	P	11 43 49.5	-0.4
	comp=Z,0.9nm,1.0s,baz=111,slow=6.4,SNR=2.1						
	comp=Z,0.9nm,1.0s						
TORD	Torodi Ar. Bea	72.72	291	P	P	11 43 49.9	-0.1
TORD				IAmb	IAmb	11 43 54.5	
	comp=Z,2.9nm,0.7s						
BVAR	Borovoye Array	72.91	2	P	P	11 43 49.3	-1.0
	comp=Z,0.7nm,0.4s,baz=164,slow=6.0,SNR=7.9						
	comp=Z,0.7nm,0.4s						
CTA	Charters Tower	73.15	106	LR	LR	12 14 35.5	
	comp=Z,93nm,18.3s,baz=216,slow=35						
ZAA0	Zalesovo Array	75.28	10		P	11 44 04.3	+0.3
ZAA0				IAmb	IAmb	11 44 15.1	
	comp=Z,6.8nm,1.3s						
ZALV	Zalesovo Beam	75.28	10	P	P	11 44 03.2	-0.9
	comp=Z,0.5nm,0.4s,baz=212,slow=5.3,SNR=11						
ZALV				LR	LR	12 16 47.9	
	comp=Z,56nm,19.5s,baz=190,slow=36						
	comp=Z,0.5nm,0.4s						
ZALV	Zalesovo Beam	75.28	10	P	P	11 44 03.9	-0.2
SONM	Songino Array	76.12	26	P	P	11 44 09.1	-0.2
	comp=Z,0.4nm,0.3s,baz=223,slow=5.8,SNR=8.3						
	comp=Z,0.4nm,0.3s						
SONM	Songino Array	76.12	26	P	P	11 44 09.5	+0.3
SONM				IAmb	IAmb	11 44 21.2	
	comp=Z,4.0nm,1.2s						
PMG	Port Moresby	77.13	95	LR	LR	12 15 29.4	
	comp=Z,63nm,20.7s,baz=161,slow=34						
AKASG	Malin Array Be	78.21	336	P	P	11 44 20.8	+0.1
	comp=Z,0.2nm,0.3s,baz=134,slow=4.7,SNR=2.3						
	comp=Z,0.2nm,0.3s						
JNU	Nakatsue	80.35	50	LR	LR	12 18 32.7	
	comp=Z,40nm,19.9s,baz=229,slow=34						
KSRS	Korea Array	80.67	45	P	P	11 44 34.3	-0.1
	comp=Z,0.5nm,0.3s,baz=245,slow=4.6,SNR=1.8						
KSRS				LR	LR	12 19 32.8	
	comp=Z,30nm,19.5s,baz=225,slow=35						
	comp=Z,0.5nm,0.3s						
CLL	Collm	85.67	329	LV		12 25 00.0	
MJAR	Matsushiro Arr	87.28	50	P	P	11 45 07.7	-0.5
	comp=Z,0.6nm,0.7s,baz=226,slow=5.7,SNR=6.0						
MJAR				LR	LR	12 22 13.2	
	comp=Z,31nm,20.8s,baz=240,slow=34						
	comp=Z,0.6nm,0.7s						
MJAR	Matsushiro Arr	87.28	50	P	P	11 45 07.4	-0.8
MJAR				IAmb	IAmb	11 45 25.5	
	comp=Z,4.3nm,1.1s						
ESDC	Sonseca Array	89.30	313	P	P	11 45 17.7	-0.2
	comp=Z,0.4nm,0.9s,baz=108,slow=4.9,SNR=2.4						
	comp=Z,0.4nm,0.9s						
KLR	Kul'dur	89.46	36	LR	LR	12 27 59.7	
	comp=Z,27nm,18.0s,baz=229,slow=37						
NRIK	Noril'sk	90.39	7	LR	LR	12 25 51.3	
	comp=Z,52nm,19.1s,baz=192,slow=36						
HFS	Hagfors	91.10	336	P	P	11 45 27.2	+1.6
	comp=Z,0.3nm,0.3s,baz=135,slow=4.8,SNR=1.6						
	comp=Z,0.3nm,0.3s						
ARCES	ARCESS Array B	94.31	346	LR	LR	12 27 14.0	
	comp=Z,30nm,20.4s,baz=102,slow=35						
PPT	Papeete	127.72	133	PKP	PKiKP	11 51 29.9	+1.6
	comp=Z,9.3nm,0.6s,baz=225,slow=1.4,SNR=4.1						
ULM	Lac du Bonnet	147.21	340	PKPbc	PKPbc	11 52 04.6	0.0
	comp=Z,3.6nm,0.8s,baz=350,slow=6.1,SNR=4.2						
TXAR	Lajitas Array	167.87	321	PKPab	PKPab	11 53 35.7	+0.3
	comp=Z,0.5nm,0.9s,baz=96,slow=5.0,SNR=4.1						

*THE **15** 11:35:44.2, 42°N±4°×2°0E±°, h0km, M2.9/32, MLh2.9/32*
*SKO **15** 11:35:44.4, 41°.93N×19°.67E, h13km, ML3.4*
*PDG **15** 11:35:45.9±0.4, 41°.86N×19°.74E, h17km±1km, MD3.2/6, ML3.1/13, Error ellipse: s-maj=1.4km s-min=1.5km az=0.0*
*BEO **15** 11:35:45.5±0.3, 41°.80N×19°.76E, h14km±2km, ML3.1/23*
*TIR **15** 11:35:45.3, 41°.83N×19°.76E, h26km±1km, Ml3.1/4*
*SOF **15** 11:35:46.9, 41°.97N±0°.03×20°.09E±0°.04, h4km±6km, MD3.5/6*

ISC 15 11:35:44.8±1.0**, 41°.80N**±0°.02×**19°.73E**±0°.02**, h13**km±8km**, n134, σ0ˢ.99**/201**, 18C-14D, Albania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SDA	Shkodra	0.31	325	Pg	Pb	11 35 52.5	+0.4
SDA				Sg	Sb	11 35 57.7	+0.7
SDA				AML	AML	11 35 58.8	
	9.1nm,0.3s						
SDA				AML	AML	11 35 59.3	
	8.2nm,0.3s						
ULC	Ulcinj	0.40	294	⇑iPg	Pb	11 35 54.0	+0.3
ULC				iSg	Sb	11 35 59.8	+0.1
ULC				AML	AML		
TIR	Tirane	0.46	168	Pg	Pb	11 35 55.1	+0.3
TIR				Sg	Sb	11 36 02.7	+1.2
TIR				AML	AML	11 36 05.4	
	6.4nm,0.5s						
PHP	Peshkopia	0.54	102	Pg	Pg	11 35 55.3	-0.1
PHP				Sg	Sb	11 36 03.5	-0.4
PHP				AML	AML	11 36 04.9	
	9.7nm,0.4s						
PHP	Peshkopia	0.54	102	P	Pb	11 35 55.4	-0.7
PHP				S	Sg	11 36 02.3	-0.3
PHP				AML	AML		
DRME	Dracevica, Mon	0.56	314	⇓iPg	Pb	11 35 56.3	-0.1
DRME				iSg	Sb	11 36 04.7	+0.3
DRME				AML	AML		
PDG	Podgorica	0.72	331	Pg	Pb	11 35 59.0	-0.1
PDG				Sg	Sb	11 36 09.6	+0.6
PDG	Podgorica	0.72	331	ePg	Pb	11 35 59.0	-0.1
PDG				eSg	Sb	11 36 10.0	+1.0
PDG	Podgorica	0.72	331	⇑P	Pb	11 35 59.0	-0.1
PDG				⇓S	Sb	11 36 09.9	+1.0
PDG	Podgorica	0.72	331	⇓iPg	Pg	11 35 58.8	0.0
PDG				iSg	Sb	11 36 10.1	+1.0
PDG				AML	AML		
BUM	Brajici-Budva	0.80	309	⇑iPg	Pb	11 36 00.7	+0.2
BUM				iSg	Sb	11 36 12.9	+1.6
BUM				AML	AML		
PVY	Plav	0.81	12	⇑iPg	Pg	11 35 59.7	-0.8
PVY				iSg	Sb	11 36 11.9	+0.2
PVY				AML	AML		
CEME	Cevo	0.96	321	⇑iPg	Pb	11 36 03.3	0.0
CEME				iSg	Sn	11 36 17.9	+0.4
CEME				AML	AML		
OHR	Ohrid	1.06	130	iPg	Pn	11 36 06.1	+0.8
OHR				iSg	Sn	11 36 22.3	+2.4
OHR				eLg	Lg	11 36 23.7	
	comp=E,634nm,0.6s						
OHR				eLg	Lg	11 36 24.7	
	comp=N,325nm,0.4s						
KOME	Kolasin	1.06	351	⇑iPg	Pg	11 36 04.3	-0.9
KOME				iSg	Sn	11 36 20.7	+0.6
KOME				AML	AML		
IVA	Berane	1.08	6	⇓iPg	Pg	11 36 04.7	-0.8
IVA				iSg	Sn	11 36 21.0	+0.5
IVA				AML	AML		
HCY	Herceg Novi	1.12	305	⇑iPg	Pg	11 36 06.3	-0.1
HCY				iSg	Sn	11 36 23.3	+1.8
HCY				AML	AML		
NKME	Niksic	1.12	329	⇑iPg	Pg	11 36 05.7	-0.8
NKME				iSg	Sn	11 36 23.3	+1.7
NKME				AML	AML		
SKO	Skopje	1.29	82	iPg	Pn	11 36 08.6	+0.2
SKO				iSg	Sn	11 36 25.6	+0.2
VLO	Vlora	1.34	188	P	Pn	11 36 08.2	-0.9
VLO				S	Sb	11 36 24.8	-2.0
VLO				AML	AML		
TREB	Trebinje	1.38	312	ePg	Pg	11 36 10.8	-0.4
TREB				eSg	Sg	11 36 29.5	+0.4
BRY	Bratogost	1.41	322	⇓iPg	Pb	11 36 11.1	+0.1
BRY				iSg	Sg	11 36 31.6	+1.3
BRY				AML	AML		
KBN	Korca	1.42	146	Pn	Pb	11 36 11.4	+0.3
KBN				Sn	Sg	11 36 31.4	+0.8
KBN				AML	AML	11 36 39.6	
	comp=N,1.2nm,0.7s						
KBN	Korca	1.42	146	P	Pn	11 36 10.5	+0.2
KBN				S	Sb	11 36 27.3	-1.8
KBN				AML	AML		
DBRK	Dubrovnik	1.46	307	iPn	Pn	11 36 11.4	+0.6
DBRK				Sn	Sg	11 36 31.6	-0.3
SJES	Sjenica	1.47	7	ePg	Pb	11 36 11.8	-0.2
SJES				eSg	Sg	11 36 32.1	0.0
UPM	Unac-Piva	1.53	337	ePg	Pg	11 36 13.5	-0.7
UPM				iSg	Sg	11 36 34.5	+0.5
UPM				AML	AML		
PLE	Pljevlja	1.55	351	⇓iPg	Pb	11 36 13.4	0.0
PLE				iSg	Sg	11 36 34.8	+0.1
PLE				AML	AML		
SELS	Selova	1.75	35	ePn	Pn	11 36 14.7	-0.1
SELS				eSn	Sb	11 36 38.6	0.0
IVAS	Ivanjica	1.80	10	ePn	Pn	11 36 15.7	+0.2
IVAS				eSn	Sn	11 36 39.3	+1.0
BARS	Barje	1.85	56	ePn	Pn	11 36 15.8	-0.3
BARS				eSn	Sn	11 36 40.0	+0.6
STON	Ston	1.85	306	ePn	Pn	11 36 16.7	+0.6
STON				Sn	Sn	11 36 40.4	+1.1
STON	Ston	1.85	306	ePn	Pn	11 36 17.6	+1.5
STON				eSn	Sn	11 36 40.5	+1.2
SRN	Sarande	1.93	174	Pn	Pn	11 36 17.7	+0.5
SRN	Sarande	1.93	174	P	Pn	11 36 17.6	+0.4
SRN				AML	AML		
GOCS	Kraljevo Serbi	1.95	25	ePn	Pn	11 36 18.0	+0.4
GOCS				eSn	Sn	11 36 43.4	+1.4
BBLS	Lazi&#263i	2.08	353	ePn	Pn	11 36 20.2	+0.8
BBLS				eSn	Sb	11 36 47.2	-0.9
KEK	Kerkira	2.09	179	P	Pn	11 36 18.2	-1.2
KEK				AML	AML		
KZN	Kozani	2.15	133	P	Pn	11 36 22.0	+1.7
KZN				AML	AML		
BOSS	Bosilegrad	2.16	70	ePn	Pn	11 36 20.8	+0.4
BOSS				eSn	Sn	11 36 46.9	-0.1
GRG	Griva	2.18	112	P	Pn	11 36 21.1	+0.4
GRG				AML	AML		
VAY	Valandovo	2.18	102	ePn	Pn	11 36 20.9	+0.2
VAY				eSn	Sn	11 36 48.8	+1.2
VAY				eLg	Lg	11 36 49.6	
	comp=N,236nm,0.7s						
VAY				eLg	Lg	11 36 49.8	
	comp=E,243nm,0.7s						
GRUS	Gruza	2.21	19	ePn	Pn	11 36 21.4	+0.3
DIVS	Divibare	2.30	5	ePn	Pn	11 36 22.8	+0.3
DIVS				eSn	Sn	11 36 51.5	+0.8
JAN	Janina	2.30	158	P	Pn	11 36 22.8	+0.4
JAN				AML	AML		
IGT	Igoumenitsa	2.31	168	Pn	Pn	11 36 23.3	+0.8
IGT	Igoumenitsa	2.31	168	P	Pn	11 36 23.1	+0.6
IGT				AML	AML		
IGT	Igoumenitsa	2.31	168	ePn	Pn	11 36 23.7	+1.2
LSTV	Lastovo	2.32	296	ePn	Pn	11 36 22.5	-0.1
LSTV				Sn	Sn	11 36 49.3	-1.6
BOVS	Bovan	2.34	38	ePn	Pn	11 36 22.9	0.0
BOVS				eSn	Sn	11 36 51.8	+0.3
BOVS	Bovan	2.34	38	⇑P	Pn	11 36 22.9	0.0
BOVS				⇓S	Sn	11 36 51.1	-0.4
KNT	Kendrikon	2.46	104	P	Pn	11 36 26.4	+1.8
KNT				AML	AML		
TRUS	Trudelj	2.47	11	ePn	Pn	11 36 25.1	+0.4
TRUS				eSn	Sn	11 36 54.6	-0.1
MAKA	Makarska	2.50	307	iPn	Pn	11 36 25.5	+0.5
MAKA				Sn	Sn	11 36 55.5	+0.3
PRMD	Pramanda	2.50	155	P	Pn	11 36 26.2	+1.1
PRMD				AML	AML		
KKB	Krupnik	2.54	88	P	Pn	11 36 26.6	+0.9
KKB				AML	AML		
KKB	Krupnik	2.54	88	P	Pn	11 36 26.9	+1.3
KKB				S	Sn	11 36 56.5	+0.1
MATE	Matera	2.56	244	⇑P	Pb	11 36 29.7	-0.8
RICI	Ricice	2.56	312	iPn	Pn	11 36 26.6	+0.7
RICI				Sn	Sn	11 36 57.5	+0.6
ZAPS	Zavoj	2.60	55	ePn	Pn	11 36 27.1	+0.6
ZAPS				eSn	Sn	11 36 58.9	+0.9
LIT	Litokhoron	2.69	128	P	Pn	11 36 29.1	+1.4
LIT				AML	AML		
TETR	Tetrakomo, Epi	2.72	154	P	Pn	11 36 29.5	+1.3
TETR				AML	AML		
ZAGS	Zajecar	2.73	42	ePn	Pn	11 36 28.5	+0.3
ZAGS				eSn	Sn	11 37 02.0	+1.0
VTS	Vitosha	2.73	71	P	Pn	11 36 29.2	+0.8
VTS				AML	AML		
VTS	Vitosha	2.73	71	P	Pn	11 36 29.2	+0.8
VTS	Vitosha	2.73	71	ePn	Pn	11 36 29.0	+0.7
VTS				eSn	Sn	11 37 01.1	-0.1
TEKS	Tekeris	2.75	357	ePn	Pn	11 36 28.5	-0.1
HVAR	Hvar	2.79	301	iPn	Pn	11 36 29.2	+0.2
HVAR				Sn	Sn	11 37 01.3	-1.3
HORT	Hortiatis	2.81	114	P	Pn	11 36 30.2	+0.8
TYRN	Tyrnavos	2.82	137	P	Pn	11 36 30.8	+1.3
TYRN				AML	AML		
THL	Klokotos Trika	2.83	141	P	Pn	11 36 30.5	+0.9
THL				AML	AML		
BLKB	Belogradchik	2.83	49	⇑S	Sn	11 37 03.2	-0.5
SOH	Sokhos	2.90	109	P	Pn	11 36 32.1	+1.5
SOH				AML	AML		
AVAS	Avala Beograd	2.95	11	ePn	Pn	11 36 31.3	0.0
KUBS	Kucevo	2.97	28	ePn	Pn	11 36 30.7	-0.9
KUBS				eSn	Sn	11 37 06.7	-0.4
SRS	Serrai	2.98	102	P	Pn	11 36 32.5	+0.8
SRS				AML	AML		
SRS	Serrai	2.98	102	ePn	Pn	11 36 33.0	+1.3
SRS				eSn	Sn	11 37 07.1	-0.2
MMB	Musomishta	3.02	93	P	Pn	11 36 33.6	+1.3
MMB				AML	AML		
MMB	Musomishta	3.02	93	P	Pn	11 36 33.7	+1.4
TSLK	Tsoukalades, L	3.06	166	P	Pn	11 36 33.0	+0.3
TSLK				AML	AML		
AMPL	Ampelaki	3.09	158	P	Pn	11 36 34.2	+1.0
AMPL				AML	AML		
LKD2	Lefkada island	3.09	166	P	Pn	11 36 32.9	-0.3
LKD2				AML	AML		
PLG	Polygyros	3.15	116	P	Pn	11 36 35.4	+1.4
PLG				AML	AML		
NYDR	Nydri-Lefkada	3.17	166	P	Pn	11 36 33.8	-0.5
NYDR				AML	AML		
DRAG	Dragano-Lefkad	3.18	168	P	Pn	11 36 33.7	-0.8
DRAG				AML	AML		
EVGI	Lefkada island	3.25	167	P	Pn	11 36 34.9	-0.5
EVGI				AML	AML		
EVR	Evrytania	3.29	150	P	Pn	11 36 37.4	+1.4
EVR				AML	AML		
KIJV	Kijevo	3.29	313	ePn	Pn	11 36 37.0	+1.0
KIJV				Sn	Sn	11 37 16.1	+1.2
MDVR	Moldovita	3.31	25	⇓P	Pn	11 36 36.4	+0.1
MPEP	Malo Peshtene	3.34	61	P	Pn	11 36 37.9	+1.2
FRGS	Fruska Gora	3.36	1	ePn	Pn	11 36 36.9	0.0
PGB	Panagyurishte	3.38	76	P	Pn	11 36 38.7	+1.5
PDO	Prodromos	3.39	160	P	Pn	11 36 37.5	+0.2
PDO				AML	AML		
FSK	Fiskardo	3.40	169	P	Pn	11 36 36.6	-0.9
FSK				AML	AML		
AGG	Agios Georgios	3.41	144	P	Pn	11 36 38.9	+1.2
AGG				AML	AML		
PVO	Paravola	3.46	156	P	Pn	11 36 39.2	+0.9
VRSS	Vrsac	3.52	19	ePn	Pn	11 36 39.1	0.0
ZIRJ	Zirje	3.54	303	ePn	Pn	11 36 39.8	+0.5
ZIRJ				Sn	Sn	11 37 20.2	-0.7
MORI	Morici	3.61	306	ePn	Pn	11 36 41.2	+0.9
MORI				Sn	Sn	11 37 22.7	0.0
HERR	Herculane	3.65	32	⇑P	Pn	11 36 41.4	+0.5
RZN	Rozhen	3.75	90	P	Pn	11 36 43.9	+1.5
SRE	Strehaia	3.82	40	⇑P	Pn	11 36 44.1	+0.8
UDBI	Udbina	3.98	315	ePn	Pn	11 36 47.2	+1.7
UDBI				Sn	Sn	11 37 32.9	+0.8
BZS	Buzias	4.05	19	ePn	Pn	11 36 46.3	-0.1
BZS				eSn	Sn	11 37 32.3	-1.4
BZS	Buzias	4.05	19	⇑P	Pn	11 36 46.3	-0.1
DUGI	Dugi Otok	4.07	304	ePn	Pn	11 36 47.1	+0.4
DUGI				Sn	Sn	11 37 33.1	-1.1
GZR	Gura Zlata	4.22	31	ePn	Pn	11 36 48.7	-0.1
GZR				eSn	Sn	11 37 37.4	-0.4
GZR	Gura Zlata	4.22	31	⇓P	Pn	11 36 48.6	-0.1
VIRC	Vir	4.24	308	ePn	Pn	11 36 49.4	+0.5
VIRC				Sn	Sn	11 37 37.4	-0.8
MORH	Mrgy, Hungar	4.48	350	⇑P	Pn	11 36 52.3	0.0
NVLJ	Novalja	4.50	309	ePn	Pn	11 36 52.8	+0.3
NVLJ				Sn	Sn	11 37 43.8	-0.9
LOT	Lotru	4.68	37	⇑P	Pn	11 36 55.4	+0.3
HUMR	Humele	4.71	53	⇓P	Pn	11 36 56.0	+0.6
BOJS	Bojanci	4.93	320	ePn	Pn	11 36 58.9	+0.5
BOJS				eSn	Sn	11 37 53.1	-2.1
ARR	Arges	5.04	43	⇓P	Pn	11 37 00.7	+0.7
MTUR	Matau	5.17	47	⇓P	Pn	11 37 02.5	+0.6
VOIR		5.30	45	⇓P	Pn	11 37 04.4	+0.7
CEY	Cerknica	5.50	317	ePn	Pn	11 37 07.7	+1.4
CEY				eSn	Sn	11 38 08.1	-1.3
SOKA	Soboth	5.93	327	ePn	Pn	11 37 12.4	+0.1
	comp=E,1.2nm,0.4s						
OBKA	Obir	6.00	323	iPn	Pn	11 37 13.0	-0.3
	comp=E,0.8nm,0.2s						
OBKA				eSn	Sn	11 38 21.5	-0.4
	comp=E,8.3nm,0.7s						
PSZ	Piszkesteto	6.12	1	⇓P	Pn	11 37 15.3	+0.4
ARSA	Arzberg	6.22	333	ePn	Pn	11 37 17.0	+0.7
	comp=E,0.6nm,0.3s						
PLOR	Plostina	6.43	49	⇑P	Pn	11 37 20.3	+1.1
SESA	Seetaler Alpe,	6.47	327	ePn	Pn	11 37 19.8	0.0
	comp=E,2.3nm,0.4s						
VRI	Vrincioaia	6.49	49	⇑P	Pn	11 37 20.9	+1.0
KECS	Kecovo	6.70	4	ePN	Pn	11 37 24.3	+1.5
KECS				eSN	Sn	11 38 34.6	-4.4
VYHS	Vyhne	6.72	355	ePN	Pn	11 37 24.8	+1.7
VYHS				eSN	Sn	11 38 37.9	-1.6
MODS	Modra-Piesok	6.80	346	ePN	Pn	11 37 25.7	+1.6
KBA	Koelnbreinsper	6.98	321	ePn	Pn	11 37 26.5	-0.3
	comp=E,0.8nm,0.4s						
KBA				iSn	Sn	11 38 41.5	-4.5
	comp=E,1.4nm,0.3s						
ABTA	Abfaltersbach	7.16	316	ePn	Pn	11 37 29.9	+0.7
	comp=E,1.2nm,0.5s						
MOA	Molln	7.19	329	ePn	Pn	11 37 29.4	-0.1
	comp=E,0.4nm,0.4s						
KOLS	Kolonicke sedl	7.35	13	ePN	Pn	11 37 33.0	+1.3
LESA	Schwarzleotal	7.54	321	ePn	Pn	11 37 35.0	+0.6
	comp=E,0.7nm,0.4s						
LESA				iSn	Sn	11 38 57.8	-2.0
	comp=E,1.3nm,0.3s						
STHS	Stebnicka Huta	7.69	7	ePN	Pn	11 37 37.5	+1.1

*DJA **15** 11:55:45.2±0.5, 8°S±4°×12°4E±°, h169km±10km, M4.0/14, mB4.9/2, mb4.1/4, MLv3.9/14, Mw(mB)4.1/2*
*IDC **15** 11:55:55.2±3.6, 8°.88S×123°.07E, h223km±39km, mb3.4/3, mbtmp3.8/6, Error ellipse: s-maj=95.9km s-min=12.8km az=58.0*

ISC 15 11:55:47.0±0.9**, 7°.77S**±0°.07×**124°.23E**±0°.07**, h150**km**, n27, σ2ˢ.49**/26**, mb3.8**/3**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SOEI	Soe	1.97	179	P	Pn	11 56 23.8	+1.8
SOEI	Soe	1.97	179	P	Pn	11 56 23.5	+1.5
SOEI				AML	AML		
MMRI	Maumere	2.15	246	P	Pn	11 56 25.1	+1.1
MMRI	Maumere	2.15	246	S	Sn	11 56 50.0	-2.4
MMRI	Maumere	2.15	246	P	Pn	11 56 24.2	+0.2
MMRI				AML	AML		
EDFI	Ende, Flores	2.70	249	P	Pn	11 56 30.2	-0.5
EDFI				AML	AML		
BSSI	Bau Bau, Buton	4.05	293	P	Pn	11 56 46.9	-1.1
BSSI				AML	AML		
WSI	Waingapu	4.32	244	P	Pn	11 56 49.3	-2.2
LBFI	Labuhan Bajo,	4.36	260	P	Pn	11 56 51.8	-0.2
KKSI	Kolaka, Sulawe	4.40	324	P	Pn	11 56 49.0	-3.6
KKSI				AML	AML		
DBNI	Kabupaten Domp	5.91	263	P	Pn	11 57 11.9	-0.6
	0.1nm25nm,1.2s						
DBNI				AML	AML		
PLAI	Plampang	6.47	260	P	Pn	11 57 19.0	-1.1
PLAI	Plampang	6.47	260	P	Pn	11 57 19.1	-1.1
PLAI				AML	AML		
BNDI	Bandanaira	6.50	61	P	Pn	11 57 17.4	-3.1
	16µm236nm,1.4s						
DRS	Darwin Rock St	8.03	126	P	Pn	11 57 45.2	+4.3
FITZ	Fitzroy Crossi	10.35	173	P	Pn	11 58 07.7	-4.1
	1.5nm,0.3s,baz=352,slow=12,SNR=25						
FITZ				S	Sn	11 59 53.4	-13
	18nm,0.6s,baz=90,slow=20,SNR=11						
WRA	Warramunga Arr	15.56	142	P	P	11 59 20.1	+0.5
	0.9nm,0.4s,baz=313,slow=13,SNR=33						
WRA				S	Sn	12 01 58.1	-14
	1.4nm,0.5s,baz=314,slow=24,SNR=7.5						
WRAB	Tennant Creek	15.56	142	P	P	11 59 21.0	+1.4
WB1	Warramunga Ar.	15.58	142	P	P	11 59 21.1	+1.3
ASAR	Alice Springs	18.32	151	P	Pn	11 59 51.4	-0.4
	0.8nm,0.6s,baz=331,slow=12,SNR=21						
ASAR				S	S	12 03 04.9	-6.8
	0.5nm,0.5s,baz=313,slow=19,SNR=5.8						
AS01	Alice Springs	18.35	151	P	Pn	11 59 52.6	+0.6
MEEK	Meekatharra	19.51	195	P	P	12 00 01.5	-1.3
QIS	Mount Isa	19.56	132	P	Pn	12 00 07.2	+0.9
QIS	Mount Isa	19.56	132	S	S	12 03 39.8	+3.4
MKAR	Makanchi Array	65.87	330	P	P	12 06 19.5	+2.9
	0.9nm,0.5s,baz=129,slow=7.4,SNR=11						
	0.9nm,0.5s						
ZALV	Zalesovo Beam	69.87	336	P	P	12 06 44.4	+3.0
	0.6nm,0.4s,baz=125,slow=5.0,SNR=2.9						
	0.6nm,0.4s						
KURBB	Kurchatov Arra	70.29	331	P	P	12 06 47.5	+3.5
	0.4nm,0.5s,baz=127,slow=6.1,SNR=2.4						
	0.4nm,0.5s						

*LVSN **15** 12:05:54.7±0.7, 58°.67N×21°.43E, h0km±23km, ML1.7, Presumed earthquake*

HEL 15 12:05:54.3±0.1**, 62°.10N×25°.66E, h0**km**, ML1.5, Suspected explosion, Finland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAF	Kangasniemi	0.30	87	PG	Pg	12 05 59.2	-0.8
KAF				SG	Sg	12 06 03.2	-0.8
KAF				smax	smax	12 06 05.0	
	comp=Z,10.0nm,0.2s						
KEF	Keuruu	0.38	281	eP	Pg	12 06 00.8	-0.7
KEF	Keuruu	0.38	281	PG	Pg	12 06 00.8	-0.8
KEF				SG	Sg	12 06 06.0	-0.5
KEF				smax	smax	12 06 07.0	
	comp=Z,10nm,0.2s						
SUF	Sumiainen	0.66	20	eP	Pg	12 06 06.7	-0.3
SUF	Sumiainen	0.66	20	PG	Pg	12 06 06.2	-0.8
SUF				SG	Sg	12 06 15.2	-0.4
SUF				smax	smax	12 06 15.3	
	comp=Z,2.9nm,0.2s						
FIA0	FINESS Array S	0.69	163	PB	Pb	12 06 09.9	+0.8
FIA0				SG	Sg	12 06 15.3	-1.0
FIA0				smax	smax	12 06 15.8	
	comp=Z,4.8nm,0.2s						
PVF	Pernaja	1.56	176	PG	Pn	12 06 22.6	-0.7
	baz=1.0						
PVF				smax	smax	12 06 41.0	
	comp=Z,2.1nm,0.2s						
NIF	Nilsia	1.63	36	PG	Pn	12 06 23.8	-0.4
NIF				smax	smax	12 06 43.0	
	comp=Z,2.6nm,0.2s						
NIF				SN	Sn	12 06 45.5	-0.4
NUR	Nurmijarvi	1.67	198	smax	smax	12 06 44.1	
	comp=Z,6.2nm,0.2s						
NUR				SN	Sb	12 06 47.1	-0.2
VAF	Ylistaro	1.68	306	eP	Pn	12 06 25.0	+0.1
VAF	Ylistaro	1.68	306	PG	Pn	12 06 24.5	-0.3
	baz=125						
VAF				smax	smax	12 06 44.6	
	comp=Z,2.4nm,0.2s						
VAF				SN	Sn	12 06 47.2	+0.2
RUF	Ruokolahti	1.70	112	PG	Pn	12 06 25.0	-0.2
	baz=299						
RUF				smax	smax	12 06 45.1	
	comp=Z,1.9nm,0.2s						
RUF				SN	Sn	12 06 47.1	-0.5
KPF	Kankaanpaa	1.72	263	PG	Pn	12 06 25.2	-0.2
KPF				smax	smax	12 06 45.6	
	comp=Z,4.4nm,0.2s						
KPF				SG	Sn	12 06 47.4	-0.6
VJF	Virojoki	1.81	149	smax	smax	12 06 48.2	
	comp=Z,1.9nm,0.2s						
VJF				SG	Sb	12 06 51.0	-0.5
MEF	Metsahovi	1.98	199	eP	Pn	12 06 29.8	+0.7
MEF				eS	Sb	12 06 56.1	-0.3
MEF				AML	AML	12 06 56.7	
	comp=E,6.2nm,0.5s						
MEF				AML	AML	12 07 10.1	
	comp=Z,9.3nm,0.6s						
MEF				AML	AML	12 07 10.2	

	comp=N,6.2nm,0.8s						
MEF	Metsahovi	1.98	199	smax	smax	12 06 53.4	
	comp=Z,2.7nm,0.2s						
MEF				SG	Sb	12 06 56.1	-0.3
RAF	Rauma	2.15	242	eP	Pb	12 06 32.9	-1.2
RAF				eS	Sb	12 07 01.0	-0.3
RAF				AML	AML	12 07 02.1	
	comp=Z,8.0nm,0.3s						
RAF				AML	AML	12 07 02.9	
	comp=E,8.1nm,0.2s						
RAF				AML	AML	12 07 03.0	
	comp=N,14nm,0.2s						
RAF	Rauma	2.15	242	eP	Pn	12 06 32.1	+0.7
RAF	Rauma	2.15	242	PG	Pb	12 06 32.8	-1.3
RAF				smax	smax	12 06 58.0	
	comp=Z,5.1nm,0.2s						
RAF				SG	Sb	12 07 00.8	-0.5
OUF	Merijarvi	2.32	350	PG	Pn	12 06 34.9	+1.2
	baz=169						
OUF				smax	smax	12 07 02.7	
	comp=Z,1.4nm,0.2s						
OUF				SG	Sb	12 07 05.3	-0.8
OBF8	Ulkokalla	2.46	337	PG	Pn	12 06 37.2	+1.7
OBF8				smax	smax	12 07 06.9	
	comp=Z,2.6nm,0.2s						
OBF8				SG	Sb	12 07 09.4	-0.6
OBF0	Syolatti, Pyha	2.49	346	smax	smax	12 07 07.9	
	comp=Z,2.1nm,0.2s						
OBF0				SG	Sb	12 07 10.7	-0.4
TVF	Tvarminne	2.55	209	PG	Pn	12 06 38.8	+2.0
	baz=25						
TVF				smax	smax	12 07 09.4	
	comp=Z,4.3nm,0.2s						
TVF				SG	Sb	12 07 12.3	-0.4
ARBE	Arbavere	2.67	176	eS	Sn	12 07 03.8	-7.8
OBF4	Vikkela, Lumij	2.74	355	smax	smax	12 07 14.9	
	comp=Z,1.1nm,0.2s						
OBF4				SG	Sb	12 07 17.9	-0.2
JOF	Joensuu	2.75	70	eP	Pn	12 06 41.7	+2.2
JOF	Joensuu	2.75	70	PB	Pb	12 06 42.4	-1.8
JOF				SB	Sb	12 07 17.0	-1.4
RMF	Romuvaara	2.88	40	smax	smax	12 07 19.0	
	comp=Z,1.6nm,0.2s						
RMF				SB	Sb	12 07 20.5	-1.6
UMAU	Umeaa	2.90	310	PN	Pn	12 06 42.3	+0.7
UMAU				SG	Sb	12 07 21.8	-0.9
RANF	Ranua	3.96	7	SG	Sg	12 07 58.3	-3.2
RNF	Rovaniemi	4.53	2	SG	Sg	12 08 15.0	-4.7

IDC 15 12:18:41.9±4.7,34°.96N×71°.76E,h0km,mb3.5/2, mbtmp3.6/5,ML3.1/3,MS3.5/1,Error ellipse: s-maj=126.1km s-min=29.1km az=134.0,Pakistan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MKAR	Makanchi Array	14.24	31	Pn	Pn	12 22 03.6	-1.2
	0.1nm,0.3s,baz=225,slow=16,SNR=2.4						
	0.3nm,0.7s						
MKAR				AML	AML		
KURBB	Kurchatov Arra	16.41	15	Pn	Pn	12 22 32.7	-0.9
	baz=196,slow=11,SNR=1.1						
	0.3nm,0.2s						
BVAR	Borovoye Array	18.09	357	P	Pn	12 22 54.0	-0.5
	0.1nm,0.3s,baz=171,slow=13,SNR=7.6						
	1.4nm,0.4s						
BVAR				AML	AML		
ZALV	Zalesovo Beam	21.09	22	P	P	12 23 28.6	+0.9
	1.0nm,0.3s,baz=214,slow=10,SNR=5.9						
	1.0nm,0.3s						
KEST	Kesra	50.13	290	LR	LR	12 52 35.6	
	comp=Z,44nm,18.1s,baz=322,slow=41						
TORD	Torodi Ar. Bea	66.31	270	P	P	12 29 32.5	-0.1
	0.2nm,0.4s,baz=44,slow=4.8,SNR=1.9						
	0.2nm,0.4s						

DJA 15 12:30:52.9±0.3,0°S±3°×12°4E±°,h83km±10km,M4.2/30, mB5.0/3,mb4.1/6,MLv4.3/30,Mw(mB)4.3/3
IDC 15 12:30:55.7±7.3,0°.16S×123°.64E,h146km±70km,mb3.3/5, mbtmp3.8/7,MS3.6/1,Error ellipse: s-maj=65.0km s-min=17.3km az=54.0
ISC 15 12:30:52.1±0.9,0°.05S±0°.07×123°.91E±0°.05,h110km,n18, σ1ˢ.07/20,mb3.5/5,Minahassa Peninsula, Sulawesi

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LUWI	Luwuk	1.51	229	P	Pn	12 31 18.9	-0.2
LUWI				AML	AML		
MNI	Manado	1.75	32	P	Pn	12 31 22.3	+0.3
APSI	Ampana	2.42	249	P	Pn	12 31 30.3	-0.2
APSI				AML	AML		
SANI	Sanana	2.87	134	P	Pn	12 31 37.3	+0.8
TNTI	Ternate	3.55	77	P	Pn	12 31 46.0	+0.5
TNTI				S	Sn	12 32 27.5	+0.8
PCI	Palu	4.16	258	P	Pn	12 31 55.0	+1.3
PCI				AML	AML		
NLAI	Namlea	4.49	135	P	Pn	12 31 58.2	+0.1
NLAI				AML	AML		
MMSI	Mamuju	5.65	242	P	Pn	12 32 16.2	+2.4
	0.2nm30nm,1.7s						
MMSI				AML	AML		
SPSI	Sidrap Palu	5.68	227	P	Pn	12 32 16.1	+1.9
	0.2nm3µm19nm,0.5s						
SPSI				AML	AML		
KAPI	Kappang	6.45	220	P	Pn	12 32 25.1	+0.5
	6.9nm,0.3s,baz=22,slow=16,SNR=3.5						
KAPI				S	Sn	12 33 34.9	-1.9
	8.1nm,0.3s,baz=142,slow=20,SNR=6.1						
KAPI	Kappang	6.45	220	P	Pn	12 32 25.7	+1.1
KAPI				AML	AML		
FITZ	Fitzroy Crossi	18.02	175	P	Pn	12 34 55.4	-0.2
	1.6nm,0.6s,baz=42,slow=16,SNR=3.0						
WRA	Warramunga Arr	22.25	153	P	P	12 35 40.5	+0.3
	1.1nm,0.5s,baz=336,slow=9.9,SNR=13						
	1.1nm,0.5s						
ASAR	Alice Springs	25.40	158	P	P	12 36 09.4	-0.2
	0.4nm,0.4s,baz=352,slow=14,SNR=5.0						
ASAR				PcP	PcP	12 39 39.0	-0.3
	0.4nm,0.7s,baz=332,slow=2.2,SNR=2.7						
	0.4nm,0.4s						
NWAO	Narrogin (SRO)	33.30	190	LR	LR	12 51 10.8	
	comp=Z,88nm,18.5s,baz=28,slow=37						
STKA	Stephens Creek	35.80	154	P	P	12 37 41.4	+0.4
	1.2nm,0.4s,baz=333,slow=8.1,SNR=7.8						
	1.2nm,0.4s						
MKAR	Makanchi Array	59.14	328	P	P	12 40 40.7	-0.7
	0.4nm,0.6s,baz=126,slow=7.3,SNR=4.4						
	0.4nm,0.6s						
KURBB	Kurchatov Arra	63.47	330	P	P	12 41 09.5	-0.8
	0.2nm,0.3s,baz=138,slow=6.2,SNR=4.4						
	0.2nm,0.3s						

IDC 15 12:34:56.8±5.2,36°.29N×71°.16E,h222km±47km,mb3.1/5, mbtmp3.6/9,Error ellipse: s-maj=53.4km s-min=37.3km az=144.0
ISC 15 12:35:01.9±1.7,36°.9N±0°.1×71°.2E±0°.1,h250km,n11, σ2ˢ.19/14,mb3.5/3,1C-2D,Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KK31	Karatay Array	6.26	356	Pn	Pn	12 36 35.5	+2.3
	0.6nm,0.2s,baz=178,slow=13,SNR=16						
KK31				⇓Sn	S	12 37 43.5	-2.9
	4.3nm,0.3s,baz=178,slow=23,SNR=11						
AAK	Ala-Archa	6.32	23	P	Pn	12 36 35.5	+1.4
	2.6nm,0.4s,baz=200,slow=2.4,SNR=7.3						
AAK				S	S	12 37 44.4	-3.5
	4.2nm,0.5s,baz=233,slow=6.7,SNR=5.4						
AAK	Ala-Archa	6.32	23	⇓Pn	Pn	12 36 36.8	+2.7
	0.6nm,0.4s						
AAK				⇑Sn	S	12 37 48.7	+0.8
	8.9nm,0.7s						
MKAR	Makanchi Array	12.93	36	P	P	12 37 58.3	-0.3
	0.6nm,0.5s,baz=216,slow=11,SNR=6.4						
KURBB	Kurchatov Arra	14.75	19	P	Pn	12 38 20.1	+1.3
	0.3nm,0.5s,baz=202,slow=10,SNR=2.0						
AKTO	Aktyubinsk	16.55	329	P	Pn	12 38 40.4	+0.2
	1.4nm,0.5s,baz=140,slow=11,SNR=5.2						
ZALV	Zalesovo Beam	19.54	25	P	Pn	12 39 13.1	-2.1
	0.5nm,0.3s,baz=217,slow=11,SNR=2.4						
	0.5nm,0.3s						
FINES	FINESS Array B	37.27	326	P	P	12 41 50.9	+1.4
	0.5nm,0.3s,baz=118,slow=11,SNR=5.7						
	0.5nm,0.3s						
ARCES	ARCESS Array B	40.87	337	P	P	12 42 21.0	+1.8
	3.2nm,1.0s,baz=122,slow=9.0,SNR=5.6						
	3.2nm,1.0s						
NOA	NORSAR Array B	44.18	323	P	P	12 42 46.5	+0.6
	0.4nm,0.7s,baz=93,slow=7.8,SNR=3.0						
	0.4nm,0.7s						
TORD	Torodi Ar. Bea	65.86	269	P	P	12 45 18.8	-2.3
	0.5nm,0.5s,baz=46,slow=6.4,SNR=4.4						
	0.5nm,0.5s						

BGSI 15 12:51:05.8±1.8,24°.85S×23°.48E,h248km±63km,ML2.3, Presumed earthquake
PRE 15 12:50:56.9±0.9,26°.46S×27°.71E,h2km,ML2.4, Presumed earthquake,South Africa

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HRAO	HartRAO	0.57	358	eP	Pg	12 51 07.7	-0.1
HRAO				eS	Sg	12 51 16.3	+1.2
RUST	Rust De Winter	1.42	31	eP	Pb	12 51 24.4	+0.3
RUST				eS	Sn	12 51 43.9	+0.8
RUST				IAML		12 51 44.5	
	comp=Z,36nm,0.4s						
CRLN	Carolina, Mapu	2.13	78	eP	Pn	12 51 34.8	+1.2
CRLN				eS	Sn	12 52 01.1	+0.4
CRLN				IAML		12 52 23.3	
	comp=Z,5.4nm,0.4s						
LBTB	Lobatse	2.39	307	eP	Pn	12 51 37.5	+0.3
LBTB				eS	Sn	12 52 07.4	+0.3
LBTB				IAML		12 52 09.4	
	comp=Z,43nm,0.3s						
WTBG	Waterberg Wild	2.48	26	eP	Pn	12 51 38.5	+0.1
WTBG				eS	Sn	12 52 09.9	+0.6
WTBG				IAML		12 52 19.4	
	comp=Z,16nm,0.2s						
MAKGR	Makgori	2.69	283	i P	Pn	12 51 41.7	+0.3
MAKGR				i S	Sn	12 52 11.0	-3.7
MAKGR				IAML		12 52 26.5	
	comp=N,90nm,0.6s						
BOSA	Boshof	3.06	225	eP	Pn	12 51 47.2	+0.8
BOSA				eS	Sn	12 52 24.4	+0.7
BOSA				IAML		12 52 29.7	
	comp=Z,11nm,0.3s						
LPHEP	Lephephe	3.51	331	i P	Pn	12 51 53.5	+0.8
LPHEP				IAML		12 52 48.0	
	comp=E,14nm,0.3s						
HOED	Hoedspruit, Li	3.55	56	eP	Pn	12 51 53.4	+0.2
HOED				eS	Sn	12 52 35.8	+0.1
HOED				IAML		12 52 52.5	
	comp=Z,8.3nm,0.7s						
CRAIL	Swartwater, Li	3.67	8	eP	Pn	12 51 55.4	+0.6
CRAIL				eS	Sn	12 52 38.4	-0.4
CRAIL				IAML		12 52 55.7	
	comp=Z,752nm,0.3s						
MREMI	Moremi	3.88	356	i P	Pg	12 52 11.7	+0.4
BROLN	Tlhalogang	5.34	356	i P	Pn	12 52 22.4	+4.5
BROLN				i S	Sn	12 53 17.4	-2.7
BROLN				IAML		12 53 19.4	
	comp=N,3.3nm,0.3s						

JMA 15 13:13:17.1±0.2,27°N±2°×14°1E±°,h412km,MV4.0/20,W OFF OGASAWARA,Bonin Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CBIJ	Chichi jima	0.98	100	P	P	13 14 09.6	+0.2
CBIJ				S	S	13 14 50.5	-1.0
JHH2	Haha-jima-NKT2	1.15	123	P	P	13 14 10.2	+0.2
JHH2				S	S	13 14 52.4	-0.3
BSO1	Boso 1	7.36	359	P	P	13 15 07.3	+2.7
BSO3	Boso 3	7.53	356	P	P	13 15 08.7	+2.0
BSO3				eS	S	13 16 36.2	+0.2
JIE	Ise	8.04	333	P	P	13 15 13.7	+1.1
JKN2	Miekihoku	8.09	330	eP	P	13 15 14.0	+0.8
JAG	Ashikaga	9.23	352	eP	P	13 15 26.0	+0.2
JHO	Hitachi	9.32	357	P	P	13 15 28.8	+2.0

SOME 15 13:20:24.9,40°.73N×77°.32E,h5km
NNC 15 13:20:25.9±1.0,40°.71N×77°.34E,h0km,mb3.5,mpv3.1, Error ellipse: s-maj=7.2km s-min=4.5km az=167.0
KRNET 15 13:20:26.3±0.1,40°.78N×77°.25E,h16km,mb2.9
ISC 15 13:20:24.1±2.0,40°.68N±0°.08×77°.26E±0°.03,h12km±15km, n44,σ1ˢ.45/70,14C-14D,Kyrgyzstan-Xinjiang border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TARG	Taragay, Kyrgy	1.13	21	⇑eP	Pb	13 20 46.2	+0.4
TARG				⇑eS	Sg	13 21 00.6	+0.1
NRN	Naryn	1.22	309	⇓eP	Pg	13 20 48.6	+1.1
NRN				⇓eS	Sg	13 21 04.9	+1.5
KDJ	Kajisay	1.45	358	⇑eP	Pb	13 20 51.9	+0.7
KDJ				⇑eS	Sg	13 21 10.5	-0.4
ULHL	Ulahol	1.74	334	⇑eP	Pb	13 20 57.3	+1.1
ULHL				⇑eS	Sg	13 21 19.8	-0.4
PRZ	Przheval'sk	1.99	25	⇓eP	Pg	13 21 02.3	-0.1
PRZ				⇓eS	Sg	13 21 28.4	+0.2
BOOM	Boomskoye usch	2.06	332	⇑eP	Pb	13 21 03.0	+1.4
BOOM				⇑eS	Sg	13 21 29.7	-0.8
ANVS	Anan'yevo	2.12	8	⇑eP	Pb	13 21 04.0	+1.3
ANVS				⇑eS	Sg	13 21 31.5	-0.9
MDOK	Medeo	2.49	356	Pg	Pg	13 21 11.5	-0.3
	13nm,0.4s						
MDOK				Lg	Lg	13 21 44.8	
	57nm,0.7s						
MDOK	Medeo	2.49	356	eP	Pg	13 21 11.5	-0.3
	13nm,0.4s						
MDOK				eS	Sg	13 21 44.8	+0.7
	57nm,0.7s						
MTBS	Maitube	2.53	346	eP	Pg	13 21 13.3	+0.7
	5.6nm,0.1s						
MTBS				eS	Sg	13 21 47.6	+2.3
	25nm,0.3s						
SATY	Saty	2.53	19	Pg	Pg	13 21 11.6	-1.0
	7.3nm,0.5s						
SATY				Lg	Lg	13 21 44.9	
	39nm,0.5s						
SATY	Saty	2.53	19	eP	Pg	13 21 11.6	-1.0
	7.3nm,0.5s						
SATY				eS	Sg	13 21 44.9	-0.4
	39nm,0.5s						
KST	Kastek	2.55	338	Pg	Pg	13 21 13.1	+0.1
	1.1nm,0.3s						
KST				Lg	Lg	13 21 47.7	
	30nm,0.5s						
KST	Kastek	2.55	338	eP	Pg	13 21 13.2	+0.1
	1.1nm,0.3s						
KST				eS	Sg	13 21 47.7	+1.5
	30nm,0.5s						
KOTS	Kotyrbulak	2.56	358	Pg	Pg	13 21 13.0	-0.1
	19nm,0.5s						
KOTS				Lg	Lg	13 21 47.5	
	49nm,0.5s						
KOTS	Kotyrbulak	2.56	358	eP	Pg	13 21 13.0	-0.1
	19nm,0.5s						
KOTS				eS	Sg	13 21 47.5	+1.2
	49nm,0.5s						
TKM2	Tokmak 2	2.56	331	⇓eP	Pb	13 21 10.0	-0.2
TKM2				⇓eS	Sb	13 21 41.8	+0.1
SALK	Salom-Alik	2.62	276	⇓eP	Pb	13 21 11.5	+0.4
SALK				⇓eS	Sb	13 21 44.9	+1.5
KBK	Karagaybulak	2.63	319	⇑eP	Pb	13 21 11.1	-0.2
KBK				⇑eS	Sb	13 21 43.6	0.0
UZB	Uzynbulak	2.79	27	Pg	Pb	13 21 16.1	+2.0
	4.1nm,0.4s						
UZB				Lg	Lg	13 21 52.7	
	14nm,0.6s						
UZB	Uzynbulak	2.79	27	eP	Pb	13 21 16.1	+2.0
	4.1nm,0.4s						
UZB				eS	Sg	13 21 52.7	-1.2
	14nm,0.6s						
AAK	Ala-Archa	2.85	314	⇓Pg	Pb	13 21 16.6	+1.5
	0.8nm,0.4s						
AAK				⇑Lg	Lg	13 21 57.4	
	12nm,0.9s						
AAK	Ala-Archa	2.85	314	⇓eP	Pb	13 21 14.3	-0.8
AAK				⇓eS	Sb	13 21 49.2	-0.8
KURS	Kuram	2.89	13	Pg	Pg	13 21 18.0	-1.4
	6.4nm,0.6s						
KURS				Lg	Lg	13 21 56.1	
	12nm,0.6s						
KURS	Kuram	2.89	13	eP	Pg	13 21 18.0	-1.4
	6.4nm,0.6s						
KURS				eS	Sg	13 21 56.1	-0.7
	12nm,0.6s						
KPKS	Kokpek	2.98	20	Pg	Pb	13 21 19.2	+2.0
	0.1nm,0.1s						
KPKS				Lg	Lg	13 21 58.2	
	14nm,0.3s						
KPKS	Kokpek	2.98	20	eP	Pb	13 21 19.2	+2.0
	0.1nm,0.1s						
KPKS				eS	Sg	13 21 58.2	-1.6
	14nm,0.3s						
KTBS	Karatobe	3.06	352	Pg	Pb	13 21 20.6	+2.0
KTBS				Lg	Lg	13 22 00.5	
KTBS	Karatobe	3.06	352	eP	Pb	13 21 20.6	+2.0
KTBS				eS	Sg	13 22 00.5	-1.9
PDGK	Podgornoye	3.12	31	⇓Pg	Pb	13 21 20.6	+0.9
	4.8nm,0.5s						
PDGK				⇑Lg	Lg	13 22 01.8	
	44nm,0.8s						
KRBS	Karabastau	3.24	339	Pg	Pg	13 21 25.2	-0.9
	3.0nm,0.7s						
KRBS				Lg	Lg	13 22 08.3	
	11nm,0.6s						
KRBS	Karabastau	3.24	339	eP	Pg	13 21 25.2	-0.9
	3.0nm,0.7s						
KRBS				eS	Sg	13 22 08.2	+0.2
	11nm,0.6s						
EKS2	Erkin-Say	3.28	308	⇓eP	Pb	13 21 20.2	-2.1
EKS2				⇓eS	Sb	13 21 59.6	-2.6
KUU	Kurty	3.28	348	Pg	Pg	13 21 25.8	-1.2
KUU				Lg	Lg	13 22 09.5	
KUU	Kurty	3.28	348	eP	Pg	13 21 25.8	-1.2
KUU				eS	Sg	13 22 09.5	0.0
SGDS	Sogindy	3.39	326	Pg	Pg	13 21 28.4	-0.7
	2.3nm,0.5s						
SGDS				Lg	Lg	13 22 13.9	
	9.1nm,0.7s						
BLB	Baldybastay	3.53	14	Pg	Pg	13 21 29.7	-2.1
	3.6nm,0.3s						
BLB				Lg	Lg	13 22 16.0	
	19nm,0.4s						
ARXS	Arharly	3.56	7	Pg	Pb	13 21 29.6	+2.6
	4.7nm,0.6s						
ARXS				Lg	Lg	13 22 16.3	
	14nm,0.4s						
ARXS	Arharly	3.56	7	eP	Pb	13 21 29.6	+2.6
	4.7nm,0.6s						
ARXS				eS	Sg	13 22 16.3	-2.0
	14nm,0.4s						
MRKS	Merke	3.66	306	Pg	Pg	13 21 33.1	-1.1
	1.5nm,0.2s						
MRKS				Lg	Lg	13 22 21.9	
	4.7nm,0.4s						
MRKS	Merke	3.66	306	eP	Pg	13 21 33.1	-1.1
	1.5nm,0.2s						
MRKS				eS	Sg	13 22 21.9	+0.3
	4.7nm,0.4s						
KNOS	Konyrlen	3.94	20	Pg	Pg	13 21 38.3	-1.3
	0.6nm,0.3s						
KNOS				Lg	Lg	13 22 30.8	
	4.9nm,0.7s						
DJR	Jarkent	4.10	26	Pg	Pb	13 21 39.5	+3.2
	1.0nm,0.2s						
DJR				Lg	Lg	13 22 32.8	
	4.3nm,0.6s						
DJR	Jarkent	4.10	26	eP	Pb	13 21 39.5	+3.2
	1.0nm,0.2s						
DJR				eS	Sg	13 22 32.8	-2.9
	4.3nm,0.6s						

IDC 15 13:34:16.5±7.1,18°.54S×176°.93W,h0km,mb3.6/3, mbtmp3.6/3,Error ellipse: s-maj=306.1km s-min=40.6km az=143.0,Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	Warramunga Arr	45.91	260	P	P	13 42 40.7	-0.6
	1.0nm,1.2s,baz=98,slow=8.3,SNR=9.5						
	1.0nm,1.2s						
ASAR	Alice Springs	45.98	255	P	P	13 42 42.1	+0.3
	0.9nm,0.8s,baz=87,slow=7.9,SNR=19						
	0.9nm,0.8s						
ILAR	Eielson Array	86.19	12	P	P	13 46 59.3	0.0
	0.3nm,0.8s,baz=207,slow=5.7,SNR=3.2						
	0.3nm,0.8s						

IDC 15 13:48:23.4±1.3,13°.24N×142°.95E,h0km,mb3.6/5, mbtmp3.6/5,Error ellipse: s-maj=69.5km s-min=25.6km az=96.0,South of Mariana Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	Warramunga Arr	34.05	195	P	P	13 55 08.9	-0.6
	0.2nm,0.7s,baz=9.0,slow=9.3,SNR=2.4						
	0.2nm,0.7s						
ASAR	Alice Springs	37.73	194	P	P	13 55 41.3	+0.2
	0.3nm,1.0s,baz=23,slow=13,SNR=4.3						
	0.3nm,1.0s						
BVAR	Borovoye Array	69.04	322	P	P	13 59 32.8	+1.9
	0.5nm,0.3s,baz=92,slow=6.5,SNR=4.6						
	0.5nm,0.3s						
ILAR	Eielson Array	69.68	25	P	P	13 59 34.0	-0.7
	0.3nm,0.6s,baz=246,slow=6.5,SNR=4.1						
	0.3nm,0.6s						
FINES	FINESS Array B	90.68	335	P	P	14 01 26.5	-1.3
	0.4nm,0.3s,baz=58,slow=5.2,SNR=5.0						
	0.4nm,0.3s						

IDC 15 13:56:32.5±1.5,4°.01N×126°.38E,h0km,mb3.8/6, mbtmp3.8/6,MS3.2/4,Error ellipse: s-maj=102.5km s-min=19.6km az=68.0
MAN 15 13:56:34.0,3°.79N×126°.56E,h32km,MS4.0
NEIC 15 13:56:40.9±2.2,3°.68N±0°.06×125°.8E±0°.1,h62km±5km, mb4.4/17,Error ellipse: s-maj=17.1km s-min=8.5km az=74.0
ISC 15 13:56:37.9±0.6,3°.79N±0°.05×125°.8E±0°.1,h35km,n38, σ1ˢ.74/37,mb4.2/15,MS3.2/4,Talaud Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DDMP	Don Marcelino,	2.30	358	eP	Pn	13 57 10.7	-2.8
DDMP				eS	Sn	13 57 40.5	0.0
GSPH	General Santos	2.44	340	i P	Pn	13 57 19.0	+3.6
GSPH				i S	Sn	13 57 38.7	-5.3
DAV	Davao City (W)	3.27	356	Pn	Pn	13 57 30.8	+4.1
KCP	Kidapawan	3.28	347	i P	Pn	13 57 34.6	+7.7
KCP				eS	Sn	13 58 24.6	+20
TNTI	Ternate	3.38	152	Pn	Pn	13 57 30.1	+1.9
CDOP	Cateel, Davao	4.02	9	i P	Pn	13 57 34.8	-2.2
CDOP				eS	Sn	13 58 25.3	+2.4
BIPH	Bislig	4.40	7	eP	Pn	13 57 43.9	+1.6
BIPH				eS	Sn	13 58 33.9	+1.6
LUWI	Luwuk	5.68	212	Pn	Pn	13 57 59.8	-0.1
MTN	Manton Dam	17.35	162	P	Pn	14 00 36.2	-1.3
KNRA	Kununurra	19.56	171	P	P	14 01 01.9	-1.1
FITZ	Fitzroy Crossi	21.75	180	P	P	14 01 28.5	+2.0
	2.6nm,1.1s,baz=16,slow=6.7,SNR=6.7						
	2.6nm,1.1s						
MNAI	Manna	24.22	251	P	P	14 01 51.1	-0.7
WB0	Warramunga Arr	24.89	160	P	P	14 01 58.0	+0.3
WB0				IAmb	IAmb	14 01 58.5	
	comp=Z,9.6nm,1.1s						
WRAB	Tennant Creek	25.03	161	P	P	14 01 59.3	+0.4
WRA	Warramunga Arr	25.03	161	P	P	14 01 58.5	-0.5
	comp=Z,4.6nm,1.0s,baz=342,slow=9.4,SNR=20						
	comp=Z,4.6nm,1.0s						
WR8	Warramunga Arr	25.10	160	P	P	14 01 59.7	+0.2
WR8				IAmb	IAmb	14 02 32.9	
	comp=Z,19nm,1.4s						
ASAR	Alice Springs	28.41	164	P	P	14 02 29.7	+0.3
	comp=Z,0.4nm,0.7s,baz=344,slow=7.3,SNR=11						
	comp=Z,0.4nm,0.7s						
ASAR	Alice Springs	28.41	164	P	P	14 02 29.5	+0.1
CMAR	Chiang Mai Arr	30.05	301	LR	LR	14 14 56.9	
	comp=Z,25nm,20.8s,baz=170,slow=36						
JGF	Kuroka	33.41	17	P	P	14 03 13.8	+0.4
JGF				IAmb	IAmb	14 03 45.6	
	comp=Z,13nm,1.5s						
KSRS	Korea Array	33.56	3	LR	LR	14 16 50.7	
	comp=Z,23nm,20.4s,baz=200,slow=37						
EIDS	Eidsvold	37.97	141	P	P	14 03 52.7	+0.1
STKA	Stephens Creek	38.52	158	P	P	14 03 57.1	0.0

	comp=Z,3.5nm,0.9s,baz=332,slow=9.0,SNR=5.6						
	comp=Z,3.5nm,0.9s						
USA0B	Ussuriysk Arra	40.61	7	P	P	14 04 14.3	-0.1
USA0B				IAmb	IAmb	14 04 41.9	
	comp=Z,5.5nm,0.8s						
USRK	Ussuriysk Ar.	40.61	7	P	P	14 04 14.6	+0.2
SONM	Songino Array	46.95	342	LR	LR	14 25 12.5	
	comp=Z,44nm,19.4s,baz=141,slow=37						
MKAR	Makanchi Array	56.98	326	P	P	14 06 21.6	+1.4
	comp=Z,0.2nm,0.3s,baz=122,slow=7.7,SNR=5.4						
MKAR				LR	LR	14 31 55.4	
	comp=Z,37nm,19.0s,baz=105,slow=37						
	comp=Z,0.2nm,0.3s						
MKAR	Makanchi Array	56.98	326	P	P	14 06 20.7	+0.6
TARG	Taragay, Kyrgy	57.09	319	P	P	14 06 21.0	-0.5
TARG				IAmb	IAmb	14 06 43.3	
	comp=Z,1.6nm,0.9s						
YAK	Yakutsk	58.18	2	P	P	14 06 29.2	+1.0
BOOM	Boomskoye usch	58.67	319	P	P	14 06 32.4	+0.2
BOOM				IAmb	IAmb	14 06 44.8	
	comp=Z,7.0nm,1.4s						
ARSB	Arslanbob	60.18	316	P	P	14 06 43.5	+0.9
ARSB				IAmb	IAmb	14 06 46.7	
	comp=Z,4.3nm,1.1s						
KURBB	Kurchatov Arra	61.19	328	P	P	14 06 48.9	-0.3
	comp=Z,0.3nm,0.4s,baz=127,slow=6.5,SNR=2.9						
	comp=Z,0.3nm,0.4s						
KURK	Kurchatov	61.20	328	P	P	14 06 48.9	-0.3
KURK	Kurchatov	61.20	328	IAmb	IAmb	14 07 04.7	
	comp=Z,1.1nm,0.6s						
AKUT	Akutan	74.39	35	P	P	14 08 12.3	+0.1
PPTF	Pamatai, Papee	86.02	108	P	P	14 09 13.4	-2.3
RAGM	Ragged Mountai	86.49	30	P	P	14 09 16.2	-0.9
RAGM				IAmb	IAmb	14 09 32.9	
	comp=Z,7.3nm,1.3s						

IDC ***15*** *14:03:25.7±0.8, 56°.66S×25°.99W, h0^{km}, mb4.3/9, mbtmp4.3/10, ML4.2/1, MS3.2/1, Error ellipse: s-maj=30.0km s-min=17.6km az=61.0*
NEIC ***15*** *14:03:31.4±1.1, 56°.8S±0°.1×26°.1W±0°.2, h36^{km}±3^{km}, mb4.5/15, Error ellipse: s-maj=23.2km s-min=14.0km az=210.0*
ISC 15 14:03:30.4±0.7**, 56°.7S**±0°.1×**26°.0W**±0°.1**, h33^{km}, n36, σ0^{s}.84**/28**, mb4.4**/12**, 1C, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HOPE	Hope Point	6.42	288	Pn	Pn	14 05 03.1	+0.6
VNA1	Neumayer--Stat	15.93	158	P	P	14 07 14.7	-0.2
	comp=Z,4.4nm,0.4s						
VNA3	Neumayer Olymp	16.14	161	P	P	14 07 16.7	-0.7
	comp=Z,3.1nm,0.2s						
VNA3				⇑S	Sn	14 10 00.1	-12
	comp=E,0.9nm,0.2s						
VNA2	Neumayer--Watz	16.32	158	P	P	14 07 19.6	+0.2
	comp=Z,2.2nm,0.2s,baz=321,slow=13						
SNAA	Sanae	17.86	156	P	Pn	14 07 34.7	-1.3
	comp=Z,0.8nm,0.3s,baz=323,slow=8.5,SNR=7.9						
	comp=Z,1.8nm,0.6s						
SNAA				AML	AML		
SNAA	Sanae	17.86	156		Pn	14 07 35.6	-0.4
EFI	East Falkland	19.29	272	Pn	Pn	14 07 53.9	+0.6
EFI				IAmb	IAmb	14 08 07.5	
	comp=Z,78nm,1.3s						
PMSA	Palmer Station	19.95	231	P	P	14 07 58.7	-0.5
	comp=Z,23nm,0.8s,baz=59,slow=5.9,SNR=4.4						
	comp=Z,23nm,0.8s						
PMSA	Palmer Station	19.95	231	P	P	14 07 57.0	-2.2
BELA	Belgrano 2	21.45	185	P	P	14 08 15.5	+0.1
BELA				IAmb	IAmb	14 08 16.1	
	comp=Z,30nm,0.7s						
GO08	Villa O'Higgin	28.93	267	P	P	14 09 25.1	-1.1
GO08				IAmb	IAmb	14 10 01.3	
	comp=Z,20nm,1.4s						
PLCA	Paso Flores	32.75	280	LR	LR	14 21 02.2	
	comp=Z,44nm,20.2s,baz=172,slow=32						
QSPA	South Pole Qui	33.52	180	P	P	14 10 07.4	+0.8
	comp=Z,14nm,0.6s,baz=210,slow=2.3,SNR=178						
	comp=Z,14nm,0.6s						
QSPA	South Pole Qui	33.52	180	P	P	14 10 07.2	+0.6
GO06	Curarrehue	34.06	281	P	P	14 10 11.9	+0.4
GO06				IAmb	IAmb	14 10 44.0	
	comp=Z,9.1nm,1.1s						
CPUP	Villa Florida	37.74	310	P	P	14 10 42.9	0.0
	comp=Z,1.7nm,0.7s,baz=149,slow=6.9,SNR=3.2						
	comp=Z,1.7nm,0.7s						
CFA	Coronel Fontan	38.41	293	P	P	14 10 47.3	-1.4
	comp=Z,1.5nm,0.4s,baz=55,slow=24,SNR=2.5						
	comp=Z,1.5nm,0.4s						
MT02	Curacav	38.61	288	P	P	14 10 49.8	-0.4
MAW	Mawson	39.22	143	P	P	14 10 55.4	+0.5
	comp=Z,1.8nm,0.4s,baz=254,slow=9.6,SNR=4.6						
	comp=Z,1.8nm,0.4s						
MAW	Mawson	39.22	143	IAmb	IAmb	14 10 57.2	
	comp=Z,0.5nm,0.7s						
CO01	Juntas del Tor	40.67	292	P	P	14 11 07.5	-0.2
CO01				IAmb	IAmb	14 11 13.8	
	comp=Z,4.7nm,1.1s						
SBA	Scott Base	45.45	184	P	P	14 11 46.6	+1.2
SBA				IAmb	IAmb	14 11 47.0	
	comp=Z,4.8nm,1.4s						
VNDA	Vanda	45.92	182	P	P	14 11 50.0	+0.8
	comp=Z,3.5nm,0.8s,baz=192,slow=6.9,SNR=21						
	comp=Z,3.5nm,0.8s						
VNDA	Vanda	45.92	182	P	P	14 11 49.8	+0.6
VNDA				IAmb	IAmb	14 11 50.9	
	comp=Z,4.0nm,0.9s						
H10S2	ASCENSION HYDR	48.48	15	T	T	15 05 00.5	
	baz=189,slow=74,SNR=18						
H10S3	ASCENSION HYDR	48.48	15	T	T	15 05 01.0	
	baz=31,slow=74,SNR=19						
H10N1	ASCENSION HYDR	49.60	15	T	T	15 06 24.8	
	baz=189,slow=74,SNR=11						
H10N3	ASCENSION HYDR	49.60	15	T	T	15 06 25.5	
	baz=189,slow=74,SNR=18						
H10N2	ASCENSION HYDR	49.61	15	T	T	15 06 20.5	
	baz=189,slow=74,SNR=15						
LPAZ	La Paz	51.29	304	P	P	14 12 32.9	+1.1
	comp=Z,5.2nm,0.6s,baz=119,slow=4.6,SNR=26						
	comp=Z,5.2nm,0.6s						
LPAZ	La Paz	51.29	304	P	P	14 12 32.7	+0.8
LPAZ				IAmb	IAmb	14 12 33.3	
	comp=Z,5.3nm,0.6s						
BOAV	Boa Vista	65.21	321	P	P	14 14 08.0	-0.3
BOAV				IAmb	IAmb	14 14 08.9	
	comp=Z,2.7nm,0.6s						
TORD	Torodi Ar. Bea	73.34	28	P	P	14 14 58.1	-0.5
	comp=Z,0.3nm,0.6s,baz=198,slow=6.0,SNR=1.5						
	comp=Z,0.3nm,0.6s						
ASAR	Alice Springs	98.14	161	P	Pdif	14 17 05.8	+1.9
	comp=Z,0.4nm,0.8s,baz=190,slow=4.3,SNR=5.0						
	comp=Z,0.4nm,0.8s						
SONM	Songino Array	150.13	87	PKPbc	PKPbc	14 23 16.8	-0.1
	comp=Z,2.6nm,0.6s,baz=229,slow=3.4,SNR=12						
ILAR	Eielson Array	151.04	311	PKPbc	PKPbc	14 23 18.2	0.0
	comp=Z,0.7nm,0.7s,baz=116,slow=2.1,SNR=7.7						

IDC 15 14:25:29.4±4.0**, 10°.96S×118°.42E, h0^{km}, mb3.6**/1**, mbtmp3.1**/3**, ML3.1**/2**, Error ellipse: s-maj=284.2km s-min=30.3km az=47.0, South of Sumbawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	17.74	122	P	P	14 29 38.6	-0.3
	0.1nm,0.3s,baz=301,slow=12,SNR=6.1						
	0.1nm,0.4s						
WRA				AML	AML		
ASAR	Alice Springs	19.42	133	P	P	14 29 57.1	-0.4
	baz=310,slow=10,SNR=5.1						
	0.4nm,0.9s						
MKAR	Makanchi Array	65.94	334	P	P	14 36 17.4	0.0
	0.4nm,0.7s,baz=131,slow=7.9,SNR=4.2						
	0.4nm,0.7s						

DJA ***15*** *14:30:04.8±0.9, 4°N±10°×12°6E±°, h217^{km}±8^{km}, M4.4/12, mB4.8/1, mb4.4/4, MLv4.4/12, Mw(mB)4.1/1*
IDC ***15*** *14:30:06.1±1.0, 4°.35N×127°.21E, h0^{km}, mb3.9/12, mbtmp3.9/12, MS3.1/3, Error ellipse: s-maj=67.9km s-min=11.9km az=69.0*
MAN ***15*** *14:30:11.0, 3°.91N×126°.69E, h33^{km}, MS3.9*
NEIC ***15*** *14:30:12.2±1.1, 4°.26N±0°.09×126°.9E±0°.1, h35^{km}±2^{km}, mb4.2/15, Error ellipse: s-maj=19.7km s-min=12.7km az=59.0*
ISC 15 14:30:12.4±0.6**, 4°.13N**±0°.05×**126°.9E**±0°.1**, h35^{km}, n52, σ1^{s}.62**/39**, mb4.0**/16**, MS2.8**/3**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	Don Marcelino,	2.27	330	eP	Pn	14 30 46.2	-1.3
DDMP				eS	Sn	14 31 26.4	+12
MNI	Manado	3.35	217	P	Pn	14 30 58.2	-4.1
MNI				AML	AML		
KCP	Kidapawan	3.36	328	eP	Pn	14 31 04.8	+2.2
KCP				eS	Sn	14 31 54.2	+13
TNTI	Ternate	3.38	171		Pn	14 31 02.2	-0.5
TNTI	Ternate	3.38	171	P	Pn	14 31 03.6	+0.9
CDOP	Cateel, Davao	3.65	353	i P	Pn	14 31 09.8	+3.3
CDOP				i S	Sn	14 31 53.1	+4.7
CTBH	Cotabato--PC H	4.03	320	i P	Pn	14 31 12.6	+0.9
BIPH	Bislig	4.06	353	eP	Pn	14 31 20.8	+8.7
BIPH				eS	Sn	14 32 09.3	+11
BUKP	Musuan	4.13	334	eP	Pn	14 31 18.7	+5.6
BUKP				eS	Sn	14 31 32.6	-28
CGP	Cagayan de Oro	4.81	333	eP	Pn	14 31 33.2	+11
CGP				eS	Sn	14 32 33.9	+17
PAGZ	Pagadian	5.06	317	i P	Pn	14 31 28.0	+2.1
GTOI	Gorontalo	5.18	228	P	Pn	14 31 21.1	-6.5
GLSP	General Luna,	5.66	353	eP	Pn	14 31 43.5	+9.4
GLSP				eS	Sn	14 32 52.4	+14
LUWI	Luwuk	6.57	219	Pn	Pn	14 31 46.0	-0.6
LUWI	Luwuk	6.57	219	P	Pn	14 31 35.7	-11
	2µm108nm,0.8s						
SWI	Sorong	6.63	138	P	Pn	14 31 46.7	-0.7
SWI				AML	AML		
TOLI2	Tolitoli	6.78	244	Pn	Pn	14 31 50.3	+0.8
FAKI	Fak Fak	8.83	142	Pn	Pn	14 32 18.9	+1.2
MTN	Manton Dam	17.39	166	Pn	Pn	14 34 10.8	-1.6
MTN				IAmb	IAmb	14 34 18.1	
	comp=Z,15nm,1.4s						
JAGI	Jajag, Banyuwa	17.82	225	P	Pn	14 34 18.8	+1.0
JAGI				IAmb	IAmb	14 34 46.1	
	comp=Z,34nm,1.2s						
KNRA	Kununurra	19.77	175	Pn	Pn	14 34 41.9	+0.5
KNRA				IAmb	IAmb	14 34 50.0	
	comp=Z,7.4nm,1.0s						
GUMO	Guam	20.10	61	LR	LR	14 41 11.7	
	comp=Z,32nm,20.9s,baz=120,slow=34						
FITZ	Fitzroy Crossi	22.12	183	P	P	14 35 05.5	+0.4
	comp=Z,3.3nm,0.5s,baz=16,slow=11,SNR=10						
	comp=Z,3.3nm,0.5s						
FITZ	Fitzroy Crossi	22.12	183	P	P	14 35 05.3	+0.3
WB0	Warramunga Arr	24.88	163	P	P	14 35 31.7	-0.4
WRAB	Tennant Creek	25.02	163	P	P	14 35 33.3	0.0
WRAB				IAmb	IAmb	14 35 50.9	
	comp=Z,6.5nm,0.7s						
WRA	Warramunga Arr	25.03	163	P	P	14 35 33.4	0.0
	comp=Z,3.1nm,0.7s,baz=338,slow=11,SNR=41						
WRA				S	S	14 40 00.8	+5.4
	comp=Z,0.7nm,0.8s,baz=334,slow=19,SNR=4.3						
	comp=Z,3.1nm,0.7s						
WR8	Warramunga Arr	25.09	163	P	P	14 35 34.2	+0.3
WR8				IAmb	IAmb	14 35 57.7	
	comp=Z,10nm,1.1s						
MBWA	Marble Bar	26.09	195	P	P	14 35 44.3	+1.3
MBWA				IAmb	IAmb	14 35 46.8	
	comp=Z,8.0nm,0.8s						
AS31	Alice Springs	28.47	166	P	P	14 36 04.2	-0.2
ASAR	Alice Springs	28.47	166	P	P	14 36 04.5	0.0
	comp=Z,0.4nm,0.4s,baz=349,slow=7.5,SNR=19						
	comp=Z,0.4nm,0.4s						
ASAR	Alice Springs	28.47	166	P	P	14 36 04.2	-0.2
CMAR	Chiang Mai Arr	30.79	300	P	P	14 36 25.3	+0.2
	comp=Z,0.5nm,0.4s,baz=121,slow=7.2,SNR=5.0						
CMAR				LR	LR	14 49 11.4	
	comp=Z,17nm,18.2s,baz=160,slow=37						
	comp=Z,0.5nm,0.4s						
BBOO	Buckleboo	37.76	167	P	P	14 37 25.7	+0.5
STKA	Stephens Creek	38.46	160	P	P	14 37 30.0	-1.1
	comp=Z,1.4nm,0.5s,baz=5.6,slow=6.3,SNR=5.9						
	comp=Z,1.4nm,0.5s						
H11S3	WAKE ISLAND Hy	41.45	67	T	T	15 22 18.1	
	baz=251,slow=74						
H11S1	WAKE ISLAND Hy	41.46	67	T	T	15 22 20.1	
	baz=251						
H11S2	WAKE ISLAND Hy	41.46	67	T	T	15 22 17.0	
	baz=251,slow=74						
PALK	Pallekele	46.02	276	LR	LR	15 00 23.3	
	comp=Z,65nm,18.1s,baz=121,slow=39						
SONM	Songino Array	46.96	341	P	P	14 38 36.6	-3.5
	comp=Z,0.4nm,0.5s,baz=152,slow=6.5,SNR=1.8						
	comp=Z,0.4nm,0.5s						
SONM	Songino Array	46.96	341	IAmb	IAmb	14 38 38.7	
	comp=Z,1.4nm,1.4s						
MKAR	Makanchi Array	57.30	325	P	P	14 39 56.1	-0.8
	comp=Z,0.8nm,0.6s,baz=119,slow=9.4,SNR=7.6						
	comp=Z,0.8nm,0.6s						
MKAR	Makanchi Array	57.30	325	P	P	14 39 55.8	-1.0
ZALV	Zalesovo Beam	60.29	333	P	P	14 40 17.1	-0.4
	comp=Z,0.7nm,0.6s,baz=118,slow=5.5,SNR=4.1						
	comp=Z,0.7nm,0.6s						
ZALV	Zalesovo Beam	60.29	333	P	P	14 40 16.2	-1.3
KURBB	Kurchatov Arra	61.48	327	P	P	14 40 24.8	-0.7
	comp=Z,1.1nm,0.5s,baz=125,slow=6.0,SNR=14						
	comp=Z,1.1nm,0.5s						
KURK	Kurchatov	61.48	327	P	P	14 40 24.4	-1.1
KURK				IAmb	IAmb	14 40 26.8	
	comp=Z,2.4nm,0.7s						
BVAR	Borovoye Array	67.06	327	P	P	14 41 01.2	-0.9
	comp=Z,0.4nm,0.4s,baz=120,slow=8.8,SNR=3.8						
	comp=Z,0.4nm,0.4s						
VNDA	Vanda	83.81	173	P	P	14 42 37.7	0.0
	comp=Z,0.5nm,0.5s,baz=325,slow=10,SNR=2.1						
	comp=Z,0.5nm,0.5s						
VNDA	Vanda	83.81	173	IAmb	IAmb	14 42 46.2	
	comp=Z,1.1nm,0.8s						
FINES	FINESS Array B	91.54	332	P	P	14 43 14.5	-0.8
	comp=Z,0.6nm,0.6s,baz=71,slow=13,SNR=1.6						
	comp=Z,0.6nm,0.6s						
FINES	FINESS Array B	91.54	332	P	P	14 43 14.3	-1.0

IDC ***15*** *14:41:12.6±0.9, 62°.24S×57°.96W, h0^{km}, mb4.3/8, mbtmp4.2/9, ML4.1/1, MS3.7/14, Error ellipse: s-maj=24.6km s-min=20.0km az=112.0*
NEIC ***15*** *14:41:13.7±2.4, 62°.27S±0°.05×58°.44W±0°.07, h10^{km}±1^{km}, mb4.5/10, Error ellipse: s-maj=8.3km s-min=5.6km az=354.0*
ISC 15 14:41:14.0±0.6**, 62°.32S**±0°.08×**58°.19W**±0°.08**, h10^{km}, n41, σ1^{s}.07**/24**, mb4.3**/13**, MS3.8**/14**, 4C, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ESPZ	Base Esperanza	1.21	154		Pn	14 41 35.2	-1.7
PMSA	Palmer Station	3.59	224	Pn	Pn	14 42 09.2	-0.4
	16nm,0.3s,baz=30,slow=12,SNR=11						
PMSA				Sn	Sb	14 43 00.9	-0.2
	14nm,0.3s,baz=348,slow=13,SNR=5.1						
	16nm,0.3s						
PMSA				AML	AML		
PMSA	Palmer Station	3.59	224		Pn	14 42 08.9	-0.7
SMAI	San Martin Ant	6.92	209	Pn	Pn	14 42 54.9	-0.4
VNA3	Neumayer Olymp	20.48	136	⇑P	Pn	14 45 53.3	-0.4
	comp=Z,22nm,0.7s						
VNA1	Neumayer--Stat	20.95	134	P	Pn	14 45 59.2	+0.2
	comp=Z,27nm,0.9s						
VNA2	Neumayer--Watz	21.23	135	⇑P	P	14 46 01.6	+2.1
	comp=Z,9.8nm,0.7s,baz=253,slow=10						
SNAA	Sanae	22.66	137	⇑P	P	14 46 16.4	+1.5
	comp=Z,509nm,1.0s						
SNAA	Sanae	22.66	137	P	P	14 46 14.6	-0.2
	comp=Z,22nm,0.9s,baz=262,slow=8.2,SNR=22						
SNAA				LR	LR	14 53 31.0	
	comp=Z,213nm,21.6s,baz=268,slow=33						
	comp=Z,22nm,0.9s						
SNAA	Sanae	22.66	137	P	P	14 46 14.3	-0.6
PLCA	Paso Flores	22.86	335	P	P	14 46 17.1	-0.3
	comp=Z,12nm,1.1s,baz=162,slow=9.7,SNR=9.0						
PLCA				LR	LR	14 53 60.0	
	comp=Z,177nm,18.1s,baz=168,slow=34						
	comp=Z,12nm,1.1s						
GO06	Curarrehue	24.16	334	P	P	14 46 29.9	-0.2
GO06				IAmb	IAmb	14 46 34.2	
	comp=Z,25nm,0.9s						
TROLL	Troll, Antarti	24.29	139	⇑P	P	14 46 33.2	+2.0
	comp=Z,543nm,0.9s						
QSPA	South Pole Qui	27.90	180	P	P	14 47 04.9	+1.1
	comp=Z,1.8nm,0.6s,baz=162,slow=2.7,SNR=21						
QSPA				LR	LR	14 59 46.1	
	comp=Z,88nm,20.2s,baz=173,slow=40						
	comp=Z,1.8nm,0.6s						
QSPA	South Pole Qui	27.90	180	IAmb	IAmb	14 47 11.6	
	comp=Z,6.8nm,1.1s						
CO01	Juntas del Tor	33.27	341	P	P	14 47 52.0	+0.4
CO01				IAmb	IAmb	14 47 59.8	
	comp=Z,17nm,1.2s						
CPUP	Villa Florida	35.99	1	LR	LR	15 03 34.1	
	comp=Z,52nm,19.1s,baz=230,slow=37						
SBA	Scott Base	37.42	194	P	P	14 48 26.5	0.0
SBA				IAmb	IAmb	14 48 29.9	
	comp=Z,2.9nm,1.0s						
PB08	IPOC Station P	42.83	345	P	P	14 49 11.3	-0.9
PB08				IAmb	IAmb	14 49 32.5	
	comp=Z,8.5nm,1.2s						
MAW	Mawson	43.58	152	P	P	14 49 18.4	+1.0
	comp=Z,4.2nm,1.0s,baz=215,slow=6.0,SNR=4.8						
MAW				LR	LR	15 07 27.6	
	comp=Z,258nm,18.2s,baz=232,slow=36						
	comp=Z,4.2nm,1.0s						
LPAZ	La Paz	46.51	347	LR	LR	15 12 52.2	
	comp=Z,59nm,18.6s,baz=180,slow=41						
SUR	Sutherland	56.86	97	LR	LR	15 11 10.5	
	comp=Z,68nm,18.8s,baz=170,slow=32						
H10S3	ASCENSION HYDR	61.89	50	T	T	15 58 43.0	
	baz=202,slow=74,SNR=7.8						
H10S2	ASCENSION HYDR	61.89	51	T	T	15 58 43.1	
	baz=18,slow=74,SNR=7.2						
BOSA	Boshof	62.09	99	P	P	14 51 34.2	-0.6
	comp=Z,2.3nm,0.8s,baz=218,slow=19,SNR=2.3						
	comp=Z,2.3nm,0.8s						
BOSA	Boshof	62.09	99	P	P	14 51 34.0	-0.7
BOSA				IAmb	IAmb	14 52 13.1	
	comp=Z,9.1nm,1.4s						
H10N3	ASCENSION HYDR	62.98	50	T	T	16 00 08.3	
	baz=203						
H10N1	ASCENSION HYDR	62.98	50	T	T	16 00 08.5	
	baz=203						
H10N2	ASCENSION HYDR	62.99	50	T	T	16 00 09.7	
	baz=203						
LBTB	Lobatse	65.31	97	LR	LR	15 14 55.7	
	comp=Z,66nm,19.5s,baz=176,slow=31						
ROSC	El Rosal	68.11	343	LR	LR	15 21 03.0	
	comp=Z,37nm,21.2s,baz=230,slow=35						
LSZ	Lusaka	74.93	94	LR	LR	15 20 41.7	
	comp=Z,47nm,19.9s,baz=156,slow=32						
PPT	Papeete	75.25	260	LR	LR	15 18 45.6	
	comp=Z,87nm,19.4s,baz=149,slow=30						
DBIC	Dimbokro	79.92	54	P	P	14 53 24.4	+1.6
	comp=Z,1.8nm,0.6s,baz=161,slow=9.2,SNR=1.3						
DBIC				LR	LR	15 23 15.0	
	comp=Z,44nm,18.2s,baz=181,slow=32						
	comp=Z,1.8nm,0.6s						
SJG	San Juan	80.41	352	LR	LR	15 30 21.2	
	comp=Z,42nm,19.4s,baz=108,slow=37						
KMBO	Kilima Mbogo	91.55	95	LR	LR	15 30 34.6	
	comp=Z,62nm,20.5s,baz=100,slow=32						
ASAR	Alice Springs	93.77	191	P	P	14 54 29.7	-1.3
	comp=Z,0.6nm,0.9s,baz=165,slow=4.3,SNR=6.3						
	comp=Z,0.6nm,0.9s						
WRA	Warramunga Arr	97.41	192	P	P	14 54 47.5	-0.1
	comp=Z,0.5nm,0.7s,baz=179,slow=4.2,SNR=3.3						
	comp=Z,0.5nm,0.7s						
ARCES	ARCESS Array B	144.07	37	PKhKP	PKPpre	15 00 44.0	
	comp=Z,3.3nm,0.8s,baz=247,slow=2.5,SNR=6.2						
BVAR	Borovoye Array	151.72	85	PKPbc	PKPbc	15 01 06.3	-0.9
	comp=Z,3.1nm,0.8s,baz=243,slow=2.5,SNR=10						
MKAR	Makanchi Array	152.88	106	PKPbc	PKiKP	15 01 10.0	-0.3
	comp=Z,0.6nm,0.8s,baz=222,slow=1.9,SNR=4.2						

TIF ***15*** *14:51:20.9, 42°.52N×45°.84E, h12^{km}±1^{km}*
MOS ***15*** *14:51:20.3, 42°.48N×45°.91E, h9^{km}, MPVA4.6*
NORS ***15*** *14:51:21.7, 42°.43N×45°.90E, h6^{km}, MPVA4.6*
DRS ***15*** *14:51:22.5, 42°.42N×46°.11E, h3^{km}*
ISC 15 14:51:21.7±1.0**, 42°.48N**±0°.02×**45°.87E**±0°.01**, h5^{km}**±9^{km}**, n102, σ1^{s}.01**/187**, 2C-2D, Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BTLR	Botlikh	0.32	55	i Pg	Pg	14 51 28.1	+0.2
BTLR				eSg	Sg	14 51 32.8	+0.7
BTLR	Botlikh	0.32	55	i PG	Pg	14 51 28.1	+0.2
BTLR				eS	Sg	14 51 32.8	+0.7
DVE	Vedeno	0.51	21	ePg	Pg	14 51 30.7	-0.9
DVE				eSg	Sg	14 51 38.2	0.0
DVE	Vedeno	0.51	21	⇓ePG	Pg	14 51 30.7	-0.9
DVE				eS	Sg	14 51 38.2	0.0
TLTR	Tlyarata	0.52	136	ePG	Pg	14 51 31.9	+0.2
TLTR				eS	Sg	14 51 38.5	0.0
SHTL	Shatili	0.56	288	P	Pg	14 51 31.8	-0.7
SHTL				S	Sg	14 51 39.1	-0.7
SHTL	Shatili	0.56	288	PG	Pg	14 51 31.8	-0.7
SHTL				S	Sg	14 51 39.1	-0.7
XNZR	Khunzakh	0.62	84	i Pg	Pg	14 51 33.9	+0.3
XNZR				eSg	Sg	14 51 42.4	+0.7
HNZR	Khunzah	0.63	83	i PG	Pg	14 51 33.9	+0.1
HNZR				eS	Sg	14 51 42.4	+0.4
CHRG	Chargali	0.72	258	P	Pg	14 51 34.9	-0.6
CHRG				S	Sg	14 51 44.3	-0.5
UNCR	Uncukul	0.72	71	ePg	Pg	14 51 35.0	-0.5
UNCR				eSg	Sg	14 51 44.9	0.0
UNCR	Uncukul	0.72	71	ePG	Pg	14 51 35.0	-0.5
UNCR				eS	Sg	14 51 44.9	0.0
GROC	Groznyy	0.72	356	i Pg	Pb	14 51 36.8	-0.1
GROC				eSg	Sb	14 51 47.6	+0.5
GROC	Groznyy	0.72	356	i PG	Pb	14 51 36.8	-0.1
GROC				eS	Sb	14 51 47.6	+0.5
DLMR	Dylym	0.81	43	i Pg	Pg	14 51 37.5	+0.2
DLMR				eSg	Sb	14 51 48.6	-1.0
DLMR	Dylym	0.81	43	i PG	Pg	14 51 37.5	+0.2
DLMR				eS	Sb	14 51 48.6	-1.0
GNBR	Gunib	0.81	96	ePG	Pg	14 51 37.2	-0.1
GNBR				eS	Sg	14 51 48.0	+0.1
KRNR	Karanay	0.84	65	ePg	Pg	14 51 37.3	-0.5
KRNR				eSg	Sg	14 51 48.8	+0.1
KRNR	Karanay	0.84	65	ePG	Pg	14 51 37.3	-0.5
KRNR				eS	Sg	14 51 48.8	+0.1
ARKR	Arakani	0.84	81	ePg	Pg	14 51 37.5	-0.3
ARKR				eSg	Sb	14 51 49.4	-1.2
ARKR	Arakani	0.84	81	ePG	Pg	14 51 37.5	-0.3
ARKR				eS	Sb	14 51 49.3	-1.2
DBC	Dubki	0.89	52	ePg	Pg	14 51 38.6	-0.2
DBC				eSg	Sb	14 51 51.5	-0.4
DBC	Dubki	0.89	52	ePG	Pg	14 51 38.6	-0.2
DBC				eS	Sb	14 51 51.5	-0.4
KMGR	Komgaron	0.94	308	ePg	Pb	14 51 40.6	0.0
KMGR				eSg	Sn	14 51 54.8	-0.7
KMGR	Komgaron	0.94	308	ePG	Pb	14 51 40.6	0.0
KMGR				eS	Sn	14 51 54.8	-0.7
BUJR	Buynaksk	0.97	69	ePg	Pg	14 51 40.4	0.0
BUJR				eSg	Sb	14 51 54.0	-0.4
BUJR	Buynaksk	0.97	69	ePG	Pg	14 51 40.4	0.0
BUJR				eS	Sb	14 51 54.0	-0.4
KMKR	Kumukh	0.98	111	i Pg	Pg	14 51 39.9	-0.5
KMKR				eSg	Sb	14 51 53.5	-1.1
KMKR	Kumukh	0.98	111	i PG	Pg	14 51 39.9	-0.5
KMKR				eS	Sb	14 51 53.5	-1.1
VLKR	Vladikavkaz	1.04	303	ePg	Pb	14 51 42.7	+0.3
VLKR				eSg	Sn	14 51 57.6	-0.6
VLKR	Vladikavkaz	1.04	303	ePG	Pb	14 51 42.7	+0.3
VLKR				eS	Sn	14 51 57.6	-0.6
DDFL	Dedoflistskaro	1.05	170	P	Pb	14 51 42.5	0.0
DDFL	Dedoflistskaro	1.05	170	PG	Pb	14 51 42.5	0.0
SEAG	Tbilisi Sea	1.07	228	P	Pg	14 51 42.6	+0.3
SEAG				S	Sb	14 51 57.5	+0.4
SEAG	Tbilisi Sea	1.07	228	PG	Pg	14 51 42.6	+0.3
SEAG				S	Sb	14 51 57.5	+0.4
DGRG	David-gareji	1.09	200	P	Pn	14 51 43.7	-0.1
DGRG				S	Sn	14 52 01.6	+2.2
DGRG	David-gareji	1.09	200	PG	Pn	14 51 43.7	-0.1
DGRG				S	Sn	14 52 01.6	+2.2
BTNK	Botanikuri	1.13	225	PG	Pg	14 51 43.2	-0.2
TBLG	Delisi	1.13	229	P	Pg	14 51 43.1	-0.2
TBLG				S	Sb	14 51 58.7	-0.1
TBLG	Delisi	1.13	229	PG	Pg	14 51 43.1	-0.2
TBLG				S	Sb	14 51 58.7	-0.1
LACR	Lac	1.21	287	ePg	Pg	14 51 43.8	-1.2
LACR				eSg	Sg	14 51 59.2	-1.5
LACR	Lac	1.21	287	ePG	Pg	14 51 43.8	-1.2
LACR				eS	Sg	14 51 59.2	-1.5
MAK	Makhachkala	1.30	68	ePg	Pn	14 51 46.0	-0.6

MAK				eSg	Sn	14 52 05.7	+1.4
MAK	**Makhachkala**	1.30	68	⇓iPG	Pn	14 51 46.1	-0.4
MAK				eS	Sn	14 52 03.8	-0.5
MAK				pmax	pmax		
	comp=Z,414nm,0.3s						
MAK				smax	smax		
	comp=N,1µm,0.5s						
MAK				smax	smax		
	comp=N,2µm,0.5s						
VSHL	**Vashlovani**	1.31	162	P	Pg	14 51 47.7	+0.8
VSHL				S	Sn	14 52 07.7	+2.9
BTKR	**Batakoyurt**	1.32	313	ePG	Pg	14 51 49.4	+2.3
BTKR				eS	Sn	14 52 07.1	+2.1
SGKR	**Sergokala**	1.32	90	ePg	Pn	14 51 46.5	-0.4
SGKR				eSg	Sn	14 52 05.7	+0.7
SGKR	**Sergokala**	1.32	90	ePG	Pn	14 51 46.5	-0.4
SGKR				eS	Sn	14 52 05.7	+0.7
URKR	**Urkarakh**	1.34	103	ePg	Pn	14 51 46.5	-0.8
URKR				eSg	Sg	14 52 04.8	-0.1
URKR	**Urkarakh**	1.34	103	ePG	Pn	14 51 46.5	-0.8
URKR				eS	Sg	14 52 04.8	-0.1
ARNR	**Ardon**	1.36	301	ePg	Pg	14 51 48.4	+0.6
ARNR				eSg	Sg	14 52 07.3	+1.9
ARNR	**Ardon**	1.36	301	ePG	Pg	14 51 48.4	+0.6
ARNR				eS	Sg	14 52 07.3	+1.9
KORR	**Kora**	1.46	295	ePg	Pg	14 51 50.2	+0.5
KORR				eSg	Sg	14 52 10.4	+1.8
KORR	**Kora**	1.46	295	ePG	Pg	14 51 50.2	+0.5
KORR				eS	Sg	14 52 10.4	+1.8
TRKR	**Terskaya**	1.50	326	ePg	Pg	14 51 50.8	+0.4
TRKR				eSg	Sg	14 52 10.9	+1.1
TRKR	**Terskaya**	1.50	326	ePG	Pg	14 51 50.8	+0.4
TRKR				eS	Sg	14 52 10.9	+1.1
KZRT	**Kazreti**	1.55	226	P	Pn	14 51 44.7	-5.4
KZRT				S	Sn	14 52 05.4	-5.2
KZRT	**Kazreti**	1.55	226	PG	Pn	14 51 44.7	-5.4
STDR	**Stavd-Durt**	1.60	304	ePg	Pg	14 51 52.6	+0.3
STDR				eSg	Sg	14 52 15.5	+2.5
STDR	**Stavd-Durt**	1.60	304	ePG	Pg	14 51 52.6	+0.3
STDR				eS	Sg	14 52 15.5	+2.5
SEKA	**Sheki**	1.61	142	PG	Pb	14 51 51.5	-0.5
LSNR	**Lesken**	1.70	299	ePg	Pg	14 51 54.1	-0.2
LSNR				eSg	Sg	14 52 17.8	+1.4
LSNR	**Lesken**	1.70	299	ePN	Pg	14 51 54.1	-0.2
LSNR				eS	Sg	14 52 17.8	+1.4
AKT	**Akhty**	1.71	125	ePg	Pn	14 51 52.2	-0.1
AKT				eSg	Sg	14 52 16.3	-0.3
AKT	**Akhty**	1.71	125	⇑iPN	Pn	14 51 52.2	-0.1
AKT				eS	Sg	14 52 18.6	+2.0
AKT				pmax	pmax		
	comp=Z,121nm,0.2s						
AKT				smax	smax		
	comp=E,268nm,0.2s						
AKT				smax	smax		
	comp=E,293nm,0.3s						
AKT				smax	smax		
	comp=N,284nm,0.3s						
PRTR	**Priterechnaya**	1.72	318	ePg	Pg	14 51 54.4	-0.3
PRTR				eSg	Sg	14 52 19.0	+2.0
PRTR	**Priterechnaya**	1.72	318	ePN	Pg	14 51 54.4	-0.3
PRTR				eS	Sg	14 52 19.0	+2.0
DIGR	**Digorskoe uzhe**	1.74	285	ePg	Pn	14 51 53.1	+0.3
DIGR				eSg	Sn	14 52 15.7	+0.1
DIGR	**Digorskoe uzhe**	1.74	285	ePN	Pn	14 51 53.1	+0.3
DIGR				eS	Sn	14 52 15.7	+0.1
GARIG	**Gari**	1.78	275	P	Pb	14 51 54.3	-0.6
GARIG				S	Sg	14 52 18.5	-0.4
GANJ	**Ganja**	1.86	169	PN	Pn	14 51 54.7	+0.3
DRN	**Derbent**	1.88	103	ePg	Pg	14 51 59.0	+1.2
DRN				eSg	Sg	14 52 24.1	+2.0
DRN	**Derbent**	1.88	103	i PN	Pn	14 51 54.6	+0.1
DRN				pmax	pmax		
	comp=Z,115nm,1.4s						
KSMR	**Kasumkent**	1.90	117	ePg	Pg	14 51 58.1	0.0
KSMR				eSg	Sg	14 52 22.4	-0.3
KSMR	**Kasumkent**	1.90	117	ePN	Pg	14 51 58.1	0.0
KSMR				eS	Sg	14 52 22.4	-0.3
MNGR	**Mingechevir, A**	1.94	152	PN	Pg	14 51 58.3	-0.5
NCK	**Nalchik**	1.95	302	ePg	Pb	14 51 58.2	+0.4
NCK				eSg	Sg	14 52 24.1	-0.3
NCK	**Nalchik**	1.95	302	i PN	Pn	14 51 56.3	+0.7
NCK				i S	Sb	14 52 22.4	-0.1
NCK				pmax	pmax		
	comp=Z,81nm,0.3s						
AKH	**Akhalkalaki**	2.07	240	P	Pn	14 51 57.8	+0.4
AKH				S	Sb	14 52 25.2	-0.9
AKH	**Akhalkalaki**	2.07	240	PN	Pn	14 51 57.8	+0.4
AKH				S	Sb	14 52 25.2	-0.9
BGD	**Bogdanovka**	2.09	235	P	Pb	14 51 59.0	-1.2
BGD				S	Sb	14 52 26.4	-0.2
BGD	**Bogdanovka**	2.09	235	PN	Pb	14 51 59.0	-1.2
BGD				S	Sb	14 52 26.4	-0.2
KBTC	**Kuba-Taba**	2.24	307	ePn	Pb	14 52 02.0	-0.8
KBTC				eSn	Sb	14 52 32.0	+1.1
KBTC	**Kuba-Taba**	2.24	307	ePN	Pb	14 52 02.0	-0.8
KBTC				eS	Sb	14 52 32.0	+1.1
NEUR	**Neytrino**	2.46	290	ePn	Pb	14 52 05.0	-1.6
NEUR				eSn	Sb	14 52 36.7	-0.5
NEUR	**Neytrino**	2.46	290	ePN	Pb	14 52 06.2	-0.3
NEUR				eS	Sb	14 52 37.4	+0.2
GNI	**Garni**	2.48	200	i PN	Pn	14 52 03.2	+0.2
GNI				pmax	pmax		
	comp=Z,39nm,0.4s						
KBZ	**Khabaz**	2.51	301	ePn	Pn	14 52 04.1	+0.9
KBZ				eSn	Sb	14 52 37.9	-0.6
KBZ	**Khabaz**	2.51	301	i PN	Pn	14 52 02.5	-0.7
PYA1	**Pyatigorsk**	2.57	309	ePn	Pn	14 52 05.2	+1.1
PYA1				eSn	Sn	14 52 34.2	-1.6
PYA1	**Pyatigorsk**	2.57	309	i PN	Pn	14 52 04.7	+0.6
SHA1	**Shidzhatmaz**	2.67	299	ePn	Pn	14 52 04.4	-1.2
SHA1				eSn	Sb	14 52 42.9	-0.4
SHA1	**Shidzhatmaz**	2.67	299	i PN	Pn	14 52 06.1	+0.5
BEYR	**Belyy Ugol+**	2.71	305	ePN	Pn	14 52 04.7	-1.3
BEYR				eS	Sn	14 52 36.5	-2.6
KIV0	**Kislovodsk Arr**	2.75	303	ePn	Pn	14 52 05.7	-0.9
KIV0				eSn	Sn	14 52 41.3	+1.0
KIV	**Kislovodsk**	2.75	303	ePn	Pn	14 52 05.6	-1.1
KIV				eSn	Sb	14 52 43.2	-2.4
KIV	**Kislovodsk**	2.75	303	ePN	Pn	14 52 05.7	-1.0
KIV				eS	Sn	14 52 41.3	+0.9
ALER	**Alexandrovskoy**	3.13	318	ePn	Pn	14 52 12.2	+0.4
ALER	**Alexandrovskoy**	3.13	318	ePN	Pn	14 52 12.2	+0.4
GOF	**Gofitskoye**	3.29	322	cePN	Pn	14 52 13.9	-0.1
GOF				eS	Sg	14 53 05.8	-1.6
LKRN	**Lenkeran, Azer**	4.37	149	PN	Pn	14 52 30.7	+1.9
SOC	**Sochi**	4.64	286	ePN	Pn	14 52 33.0	+0.4
SOC				ePPP	PPP	14 52 49.2	
SOC				e		14 53 28.5	
SOC				eSS	Sb	14 53 41.1	+1.2

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*BER **15** 14:52:10.9±3.7, 66°.22N×17°.72W, h10^{km}, Mw4.7, mb4.3(USGS)*
*REY **15** 14:52:11.8, 66°.13N×17°.72W, h11^{km}*
*IDC **15** 14:52:11.5±0.6, 66°.04N×17°.66W, h0^{km}, mb4.0/15, mbtmp4.0/23, ML3.5/7, MS3.6/37, Error ellipse: s-maj=13.7km s-min=11.1km az=162.0*
*MOS **15** 14:52:11.2±1.2, 66°.08N×17°.91W, h10^{km}, mb4.5/35, Error ellipse: s-maj=12.2km s-min=5.1km az=104.2*
*NEIC **15** 14:52:12.6±1.5, 66°.15N±0°.06×17°.9W±0°.1, h10^{km}±1^{km}, mb4.3/28, Error ellipse: s-maj=11.2km s-min=8.2km az=156.0*
*GFZ **15** 14:52:12.4±0.3, 66°N±4°×1°8W±°, h10^{km}, M4.2/23, mb4.2/23*
*INMG **15** 14:52:14.0±3.4, 66°.00N×17°.88W, h10^{km}, M4.4, mb4.6, #DIST_RANGE: DISTANT*
*DNK **15** 14:53:11.2±1.9, 70°.21N×23°.51W, h1^{km}±160^{km}, ML2.0, Presumed earthquake*
ISC 15 14:52:12.7±0.6, **66°.12N**±0°.02×**17°.72W**±0°.02, **h10**^{km}±3^{km}, **n331**, σ1^{s}.**85**/340, **mb4.3**/86, **MS3.5**/35, **6C-6D, Iceland region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IBRE	**Brettingsstaoi**	0.08	276	P	Pg	14 52 14.2	-0.8
IBRE				S	Sg	14 52 16.3	-0.4
IHED	**Heoinshofoi**	0.17	102	P	Pg	14 52 15.4	-0.9
IHED				S	Sg	14 52 18.5	-0.4
IGRA	**Granastaoir**	0.21	164	P	Pg	14 52 16.2	-0.8
IGRA				S	Sg	14 52 19.4	-0.5
IDIM	**Dimmadalss**	0.36	115	P	Pg	14 52 18.4	-1.4
IDIM				S	Sg	14 52 23.7	-0.7
ISKI	**Skildingahlsh**	0.38	131	P	Pg	14 52 19.7	-0.4
ISKI				S	Sg	14 52 25.0	-0.1
IGRI	**Grimsey**	0.44	345	P	Pg	14 52 19.7	-1.7
IGRI				S	Sg	14 52 25.8	-1.5
ISIG	**Siglufjorour**	0.49	272	P	Pg	14 52 20.4	-1.8
ISIG				S	Sg	14 52 27.1	-1.5
IGHA	**Grjothals**	0.51	122	P	Pg	14 52 20.8	-1.8
IGHA				S	Sg	14 52 28.4	-1.0
IKVO	**Krokottuvotn**	0.53	139	P	Pg	14 52 21.2	-1.7
IKVO				S	Sg	14 52 28.3	-1.7
IGIL	**Gilhagi**	0.56	93	P	Pg	14 52 21.6	-1.9
IGIL				S	Sg	14 52 29.4	-1.5
ILEI	**Leirhofn**	0.58	59	P	Pg	14 52 22.0	-1.8
ILEI				S	Sg	14 52 30.1	-1.3
IREN	**Reynihlio**	0.58	144	P	Pg	14 52 22.0	-1.8
IREN				S	Sg	14 52 30.1	-1.3
IMEL	**Melhnausar**	0.70	141	P	Pg	14 52 24.2	-2.0
IMEL				S	Sg	14 52 33.9	-1.4
ISVA	**Svartarkot**	0.81	166	P	Pg	14 52 25.9	-2.3
ISVA				S	Sg	14 52 36.9	-1.7
IGRS	**Grimsstaoir**	0.81	125	P	Pg	14 52 25.8	-2.5
IGRS				S	Sg	14 52 36.9	-1.9
IHRN	**Hraun**	0.98	271	P	Pg	14 52 28.2	-3.3
IHRN				S	Sg	14 52 41.2	-3.0
IASK	**Askja**	1.16	157	P	Pb	14 52 31.5	-3.2
IASK				S	Sb	14 52 47.3	-2.5
THOR	**Thorvaldshraun**	1.26	159	P	Pn	14 52 33.1	-3.2
IMKO	**Mokollar**	1.28	153	P	Pn	14 52 33.1	-3.5
IDYN	**Dyngjuhals**	1.34	174	P	Pn	14 52 34.5	-3.0
IDYN				S	Sb	14 52 52.3	-2.7
IKIS	**Kista**	1.45	177	P	Pn	14 52 36.3	-2.7
IKIS				S	Sn	14 52 55.8	-2.3
IKRE	**Kreppuhraun**	1.45	157	P	Pn	14 52 35.7	-3.2
IVON	**Vonarskard**	1.45	181	P	Pn	14 52 36.1	-2.8
IVON				S	Sn	14 52 55.2	-2.8
ISTE	**Stelbrattur**	1.50	213	P	Pn	14 52 37.4	-2.2
ISTE				S	Sn	14 52 57.5	-1.6
IVSH	**V-Sauoahnukur**	1.55	147	P	Pn	14 52 37.2	-3.2
ISKR	**Skrokkalda**	1.59	190	P	Pn	14 52 38.8	-2.1
ISKR				S	Sn	14 52 59.8	-1.6
IDJK	**Dyngjujokull**	1.63	173	P	Pn	14 52 39.0	-2.6
IBJK	**Bruarjokull**	1.70	166	P	Pn	14 52 39.7	-2.8
IGRF	**Grimsfjall**	1.73	173	P	Pn	14 52 40.4	-2.4
IJOK	**Jokulheimar**	1.82	187	P	Pn	14 52 42.0	-2.0
IVOT	**Vottur**	1.87	173	P	Pn	14 52 42.4	-2.3
IVAT	**Vatnsfell**	2.00	195	P	Pn	14 52 44.6	-1.9
IIEY	**Innrieyrar**	2.04	185	P	Pn	14 52 45.1	-1.9
IASB	**sbjarnarstai**	2.04	229	P	Pn	14 52 45.1	-1.8
BORG	**Borgarnes**	2.04	229	Pn	Pn	14 52 45.2	-1.7
	2µm,0.5s,baz=54,slow=4.8,SNR=1565						
BORG				Sn	Sn	14 53 11.7	-0.8
	379nm,0.3s,baz=106,slow=20,SNR=15						
BORG				LR	LR	14 53 38.6	
	comp=Z,854nm,21.8s,baz=29,slow=43						
BORG	**Borgarnes**	2.04	229	⇑iP	Pn	14 52 45.3	-1.7
BORG				eS	Sn	14 53 11.6	-0.8
BORG	**Borgarnes**	2.04	229	P	Pn	14 52 45.4	-1.6
IKAL	**Kalfafell**	2.18	180	P	Pn	14 52 47.0	-1.8
IFAL	**Falljokull**	2.20	170	P	Pn	14 52 47.3	-1.9
IKVI	**Kvisker**	2.21	165	P	Pn	14 52 46.9	-2.4
IHES	**Hestalda**	2.22	201	P	Pn	14 52 48.9	-0.6
IHES				S	Sn	14 53 18.1	+1.2
SCO	**Scoresbysund**	4.66	342	P	Pn	14 53 21.0	-2.0
SCO	**Scoresbysund**	4.66	342	⇓iP	Pn	14 53 20.8	-2.2
SCO	**Scoresbysund**	4.66	342		Pn	14 53 21.0	-2.0
SCO	**Scoresbysund**	4.66	342	i P	Pn	14 53 20.9	-2.0
SCO				IAML		14 53 31.6	
	comp=Z,45nm,0.3s						
SCO	**Scoresbysund**	4.66	342	P	Pn	14 53 20.9	-2.0
SOEG	**Soedalen**	5.71	298	eP	Pn	14 53 36.4	-1.0
JMIC	**Jan Mayen**	5.94	30	Pn	Pn	14 53 40.9	+0.4
	comp=Z,4.1nm,0.3s,baz=191,slow=3.3,SNR=8.7						
JMIC				Sn	Sn	14 54 44.1	-4.4
	comp=Z,18nm,0.3s,baz=212,slow=22,SNR=3.0						
JMIC				LR	LR	14 55 05.9	
	comp=Z,118nm,18.4s,baz=127,slow=29						
	comp=Z,62nm,0.5s						
JMIC				AML	AML		
JMIC	**Jan Mayen**	5.94	30	eP	Pn	14 53 35.9	-4.6
JNE	**Jan Mayen East**	5.99	31	eP	Pn	14 53 37.0	-4.1
JNE				IAML		14 55 00.8	
	comp=Z,69nm,0.5s						
JNW	**Jan Mayen West**	5.99	30	eP	Pn	14 53 36.4	-4.7
JNW				IAML		14 55 03.4	
	comp=Z,40nm,0.5s						
SOFL	**Sornfelli, Far**	6.22	126	eP	Pn	14 53 48.0	+3.6
ANGG	**Ammassalik, Gr**	8.17	276	Pn	Pn	14 54 10.5	-0.6
DBG	**Daneborg**	8.28	355	eP	Pn	14 54 09.9	-2.6
DBG	**Daneborg**	8.28	355	i P	Pn	14 54 17.5	+5.0
LRW	**Lerwick**	9.57	121	eP	Pn	14 54 32.0	+1.8
LRW				eS	Sn	14 56 15.1	-2.6
SUMG	**Summit**	9.72	321	P	Pn	14 54 31.6	-1.1
SUMG	**Summit**	9.72	321	eP	Pn	14 54 31.5	-1.1
SUMG	**Summit**	9.72	321		Pn	14 54 31.6	-1.1
SUMG	**Summit**	9.72	321	i P	Pn	14 54 31.0	-1.7
SUMG	**Summit**	9.72	321	P	Pn	14 54 28.2	-4.4
	comp=Z,22nm,0.5s						
KPL	**Plockton**	10.48	141	eP	Pn	14 54 45.5	+2.9
DAG	**Danmarks Havn**	10.72	359	i	Pn	14 54 50.0	+4.2
DAG	**Danmarks Havn**	10.72	359	i P	Pn	14 54 50.0	+4.2
SUE	**Sulen**	11.18	106	eP	Pn	14 54 52.4	+0.1
AKN	**Aaknes**	11.44	99	eP	Pn	14 54 56.6	+0.7
AKN				IAML		14 57 11.0	
	comp=Z,9.2nm,0.6s						
MOL	**Molde**	11.47	96	eP	Pn	14 54 55.4	-0.8
MOL				IAML		14 57 08.9	
	comp=Z,4.7nm,0.5s						
ASK	**Askoy**	11.70	108	eP	Pn	14 54 59.8	+0.5
LOF	**Lofoten**	12.25	66	eP	Pn	14 55 03.8	-3.0
LOF				IAML		14 57 28.2	
	comp=Z,7.2nm,0.6s						
STOK	**Stokkvaagen**	12.34	75	eP	Pn	14 55 05.5	-2.6
KONS	**Konsvik**	12.34	74	eP	Pn	14 55 05.0	-3.1
KONS				IAML		14 57 28.2	
	comp=Z,5.4nm,0.5s						
DOMB	**Dombas**	12.35	97	eP	Pn	14 55 08.4	+0.2
VAGH	**Vaagaholmen**	12.35	73	eP	Pn	14 55 05.5	-2.8
VAGH				IAML		14 57 29.0	
	comp=Z,3.8nm,0.8s						
LEIR	**Leirfjorden**	12.43	76	eP	Pn	14 55 06.8	-2.5
LEIR				IAML		14 57 28.6	
	comp=Z,3.7nm,0.6s						
NSS	**Namsos**	12.44	84	eP	Pn	14 55 06.6	-2.9
KMY	**Karmoy**	12.55	113	eP	Pn	14 55 10.6	-0.4
RAUS	**Rausandaksla**	12.72	74	eP	Pn	14 55 10.7	-2.5
SKAR	**Skarslia**	12.80	103	eP	Pn	14 55 13.3	-1.2
BLS5	**Blasjo**	12.87	110	eP	Pn	14 55 15.1	-0.3
EKB	**Eskdalemuir**	12.89	140	Pn	Pn	14 55 16.4	+0.7
EKA	**Eskdalemuir Ar**	12.90	140	Pn	Pn	14 55 15.7	-0.1
	baz=330,slow=12						
	comp=Z,0.7nm,0.6s						
ESK	**Eskdalemuir**	12.90	140	P	Pn	14 55 16.8	+0.9
ESK	**Eskdalemuir**	12.90	140	Pn	Pn	14 55 16.8	+0.9
STEI	**Steigen**	12.91	67	eP	Pn	14 55 13.3	-2.5
STEI				IAML		14 57 42.2	
	comp=Z,4.7nm,0.8s						
SFJD	**Kangerlussuaq**	13.04	289	LR	LR	14 59 52.5	
	comp=Z,264nm,19.0s,baz=86,slow=35						
NC204	**NORSAR Array S**	13.44	98	eP	Pn	14 55 23.6	+0.4
NC204	**NORSAR Array S**	13.44	98		Pn	14 55 23.6	+0.4
NBO00	**NORSAR Array S**	13.59	99		Pn	14 55 25.0	-0.1
NOA	**NORSAR Array B**	13.76	98	Pn	Pn	14 55 25.9	-1.6
	baz=311,slow=12,SNR=6.8						
NOA				Sn	Sn	14 58 01.6	+1.4
	baz=313,slow=23,SNR=3.8						
	comp=Z,0.6nm,0.5s						
NOA	**NORSAR Array B**	13.76	98	eP	Pn	14 55 27.1	-0.4
NC602	**NORSAR Array S**	14.06	99	Pn	Pn	14 55 32.8	+1.2
NORES	**NORESS Array B**	14.06	99	P	Pn	14 55 33.1	+1.5
TRO	**Tromso**	14.09	59	eP	Pn	14 55 28.4	-3.5
SALU	**Saltoluokta**	14.23	68	eP	Pn	14 55 33.3	-0.6
JETT	**Jettan, Norway**	14.61	59	eP	Pn	14 55 37.1	-2.0
HFS	**Hagfors**	15.28	98	Pn	Pn	14 55 49.3	+1.2
	comp=Z,0.2nm,0.3s,baz=318,slow=11,SNR=19						
HFS				Sn	Sn	14 58 31.7	-5.4
	comp=Z,0.1nm,0.3s,baz=320,slow=15,SNR=1.7						
HFS				LR	LR	15 01 23.3	
	comp=Z,106nm,21.0s,baz=308,slow=36						
	comp=Z,0.9nm,0.6s						
HFS				AML	AML		
LANU	**Lannavaara**	15.40	65	eP	P	14 55 54.5	+0.2
NOR	**Nord**	15.57	1	P	P	14 55 54.5	-1.6
NOR	**Nord**	15.57	1	P	P	14 55 54.5	-1.6
	comp=Z,14nm,1.1s						
SPITS	**Spitsbergen Ar**	15.58	25	Pn	Pn	14 55 53.8	+1.8
	baz=208,slow=14						
	comp=Z,10nm,1.1s						
KTK1	**Kautokeino**	15.68	61	eP	Pn	14 55 53.1	-0.2
SJUU	**Sjulsmark**	15.95	74	eP	P	14 56 00.3	0.0
ARCES	**ARCESS Array B**	16.39	59	Pn	Pn	14 56 01.6	-0.9
	comp=Z,0.2nm,0.3s,baz=283,slow=11,SNR=16						
ARCES				LR	LR	15 01 13.5	
	comp=Z,48nm,18.8s,baz=273,slow=33						
	comp=Z,10nm,0.8s						
ARCES				AML	AML		
ARCES	**ARCESS Array B**	16.39	59	eP	Pn	14 56 02.9	+0.5
ARCES	**ARCESS Array B**	16.39	59		Pn	14 56 02.4	-0.1
SGF	**Sodankyl**	17.22	65	P	P	14 56 15.9	+1.5
SGF	**Sodankyl**	17.22	65	P	P	14 56 15.9	+1.5
	comp=Z,38nm,1.1s						
VAF	**Ylistaro**	17.39	81	eP	P	14 56 16.4	+0.2
VADS	**Vadso**	17.62	56	eP	Pn	14 56 17.8	0.0
RAF	**Rauma**	18.05	88	eP	Pn	14 56 22.8	-0.3
MSF	**Maaselka**	18.67	69	P	Pn	14 56 31.1	+0.4
MSF	**Maaselka**	18.67	69	P	Pn	14 56 31.1	+0.4
	comp=Z,34nm,1.9s						
KEF	**Keuruu**	18.70	82	eP	Pn	14 56 31.2	+0.1
FINES	**FINESS Array B**	19.57	83	P	P	14 56 39.8	-0.5
	comp=Z,0.6nm,0.3s,baz=311,slow=9.1,SNR=23						
FINES				LR	LR	15 03 44.9	
	comp=Z,109nm,18.9s,baz=292,slow=36						
	comp=Z,10nm,0.8s						
FINES				AML	AML		
FINES	**FINESS Array B**	19.57	83	eP	P	14 56 40.8	+0.5
FINES				pmax	pmax		
	comp=Z,1.0nm,0.3s						
FINES	**FINESS Array B**	19.57	83		P	14 56 40.5	+0.2
FIA1	**FINESS Array S**	19.57	83		P	14 56 40.6	+0.3
FIA1				IAmb	IAmb	14 56 44.5	
	comp=Z,34nm,0.9s						
MEF	**Metsahovi**	19.58	88	eP	P	14 56 41.0	+0.7
FLN	**La Foliniere**	19.59	144	eP	Pn	14 56 41.5	-0.3
FLN				pmax	pmax		
	comp=Z,22nm,1.0s						
BMRD	**Maredsous**	19.59	133	dP	P	14 56 41.3	+0.7
SGMF	**Saint Gilles**	19.60	149	eP	P	14 56 40.6	0.0
SGMF				pmax	pmax		
	comp=Z,22nm,1.3s						
BAIF	**Baives**	19.65	134	eP	P	14 56 40.8	-0.4
BAIF				pmax	pmax		
	comp=Z,5.0nm,0.8s						
APA	**Apatity**	19.70	62	eP	P	14 56 38.5	-3.1
APA				pmax	pmax		
	comp=Z,15nm,1.2s						
MEM	**Membach**	19.70	130	dP	P	14 56 41.9	+0.1
DOU	**Dourbes**	19.73	134	dP	P	14 56 42.2	+0.2
	comp=Z,4.8nm,1.0s						
LDF	**La Druitiere**	19.83	144	eP	Pn	14 56 44.5	-0.3
LDF				pmax	pmax		
	comp=Z,26nm,1.2s						
GRR	**Gorron**	19.85	145	eP	Pn	14 56 45.7	+0.7
GRR				pmax	pmax		
	comp=Z,39nm,1.6s						
CLZ	**Clausthal**	20.09	122	P	Pn	14 56 47.8	0.0
	comp=Z,7.2nm,0.7s						
WLF	**Walferdange**	20.58	132	dP	P	14 56 51.4	+0.1
ARBE	**Arbavere**	20.69	88	P	P	14 56 52.5	+0.1
	comp=Z,116nm,1.0s						
TNS	**Taunus Mts**	20.81	127	P	P	14 56 55.1	+1.2
TNS	**Taunus Mts**	20.81	127	P	P	14 56 55.1	+1.2
	comp=Z,11nm,0.9s						
JOF	**Joensuu**	20.89	76	eP	P	14 56 54.7	+0.1
FRB	**Frobisher Bay**	21.18	287	LR	LR	15 04 37.5	
	comp=Z,232nm,19.2s,baz=72,slow=35						
CLL	**Collm**	21.45	119	i P	P	14 57 02.5	+1.8
CLL				i		14 57 09.8	
CLL				eS	S	15 01 01.0	+2.7
CLL				pmax	pmax		
	comp=Z,8.0nm,1.1s						
CLL	**Collm**	21.45	119	P	P	14 57 00.6	-0.1
	comp=Z,6.5nm,1.0s						
CLL	**Collm**	21.45	119	P	P	14 57 02.8	+2.1
	comp=Z,6.4nm,1.0s						
CLL	**Collm**	21.45	119	i P	P	14 57 02.5	+1.8
	comp=Z,8.0nm,1.1s						
CLL				i x	x	14 57 09.8	
CLL				eS	S	15 01 01.0	+2.7
CLL				eSSS	SSS	15 01 49.0	
CLL				L	L	15 03 00.0	
CLL				AMS	AMS	15 05 00.0	
	comp=N,300nm,20.9s						
CLL				AMS	AMS	15 05 00.0	
	comp=E,200nm,22.7s						
CLL				AMS	AMS	15 05 00.0	
	comp=Z,100nm,20.3s						
MOX	**Moxa**	21.52	122	P	P	14 57 05.2	+3.8
MOX	**Moxa**	21.52	122	P	P	14 57 05.2	+3.8
	comp=Z,7.4nm,0.8s						
VSU	**Vasula**	21.60	89	ceP	P	14 57 00.7	-1.5
VSU				pmax	pmax		
	comp=Z,47nm,1.3s						
VSU	**Vasula**	21.60	89	eP	P	14 57 01.1	-1.2
VSU	**Vasula**	21.60	89	P	P	14 57 01.0	-1.2
	comp=Z,32nm,0.9s						
MFF	**Saint Martin d**	21.69	146	eP	P	14 57 04.2	+0.9
MFF				pmax	pmax		
	comp=Z,48nm,1.0s						
MFF	**Saint Martin d**	21.69	146	P	P	14 57 03.0	-0.4
	comp=Z,2.9nm,1.4s						
TANN	**Tannenbergstha**	22.00	121	P	P	14 57 10.0	+3.3
	comp=Z,11nm,0.9s						
LOR	**Lormes**	22.08	138	eP	P	14 57 07.0	-0.5
LOR				pmax	pmax		
	comp=Z,16nm,1.0s						
LOR	**Lormes**	22.08	138	P	P	14 57 07.3	-0.1
	comp=Z,14nm,1.2s						
HAU	**Haudompre**	22.11	133	eP	P	14 57 08.2	+0.3
HAU				pmax	pmax		
	comp=Z,17nm,1.2s						
BRG	**Berggiesshubel**	22.15	118	P	P	14 57 06.4	-1.8
BRG	**Berggiesshubel**	22.15	118	P	P	14 57 06.4	-1.8
	comp=Z,8.8nm,1.0s						
BRG	**Berggiesshubel**	22.15	118	eP	P	14 57 09.2	+1.0
BRG				Amp		14 57 14.6	
	comp=Z,5.5nm,0.9s						
ECH	**Echery**	22.17	132	P	P	14 57 09.2	+0.7
ECH				pmax	pmax		
	comp=Z,6.0nm,0.9s						
ECH	**Echery**	22.17	132		P	14 57 09.2	+0.7
ECH	**Echery**	22.17	132	P	P	14 57 07.5	-1.0
	comp=Z,8.5nm,1.2s						
AVF	**Avril sur Loir**	22.38	140	eP	P	14 57 09.8	-0.9
AVF				pmax	pmax		
	comp=Z,17nm,1.0s						
BFO	**Black Forest**	22.43	130	P	P	14 57 12.7	+1.4
BFO				pmax	pmax		
	comp=Z,10.0nm,1.1s						
BFO	**Black Forest**	22.43	130	P	P	14 57 12.7	+1.4
BFO				IAmb	IAmb	14 57 14.0	
	comp=Z,10nm,1.1s						
HINF	**Hinteralfeld**	22.43	133	eP	P	14 57 12.5	+1.2
HINF				pmax	pmax		
	comp=Z,9.0nm,1.2s						
PABE	**Paberze**	22.46	98	eP	P	14 57 11.9	+0.4
PABE	**Paberze**	22.46	98	P	P	14 57 11.5	0.0
	comp=Z,32nm,1.1s						
BGF	**Bois d'Agland**	22.46	141	eP	P	14 57 11.0	-0.6
BGF				pmax	pmax		
	comp=Z,5.0nm,0.3s						
SMF	**Signal de Mont**	22.65	139	eP	P	14 57 13.9	+0.3
SMF				pmax	pmax		
	comp=Z,27nm,1.1s						
SLE	**Schleitheim**	22.98	130	P	P	14 57 18.3	+1.2
SLE	**Schleitheim**	22.98	130	P	P	14 57 18.3	+1.2
	comp=Z,12nm,0.9s						
KSP	**Ksiaz**	23.03	115	P	P	14 57 17.2	-0.3
	comp=Z,11nm,0.9s						
PRU	**Pruhonice**	23.10	119	P	P	14 57 18.8	+0.6
PRU	**Pruhonice**	23.10	119	P	P	14 57 18.9	+0.6
	comp=Z,4.8nm,1.1s						
SUW	**Suwalki**	23.23	102	eP	P	14 57 20.5	+1.0
RJF	**Les Rejaudoux**	23.30	144	eP	P	14 57 18.9	-1.5
RJF				pmax	pmax		
	comp=Z,44nm,1.0s						

DPC	**Dobruska-Polom**	**23.44**	**116**	P	**P**	**14 57 25.0**	**+3.3**
DPC	**Dobruska-Polom**	**23.44**	**116**	P	**P**	**14 57 21.3**	**-0.5**
	comp=Z,6.9nm,1.1s						
DPC	**Dobruska-Polom**	**23.44**	**116**	P	**P**	**14 57 25.0**	**+3.3**
	comp=Z,7.0nm,1.1s						
LFF	**La Frestale**	**23.47**	**146**	*e*P	**P**	**14 57 23.1**	**+1.1**
LFF				pmax	pmax		
	comp=Z,71nm,1.1s						
KHC	**Kasperske Hory**	**23.48**	**121**	*ce*P	**P**	**14 57 24.3**	**+2.2**
KHC				pmax	pmax		
	comp=Z,9.0nm,1.7s						
KHC	**Kasperske Hory**	**23.48**	**121**	*e*P	**P**	**14 57 23.0**	**+0.9**
KHC	**Kasperske Hory**	**23.48**	**121**	P	**P**	**14 57 23.6**	**+1.5**
KHC	**Kasperske Hory**	**23.48**	**121**	P	**P**	**14 57 22.2**	**+0.1**
	comp=Z,5.6nm,1.0s						
KHC	**Kasperske Hory**	**23.48**	**121**	P	**P**	**14 57 23.4**	**+1.3**
	comp=Z,5.7nm,1.0s						
GEC2	**GERESS Array S**	**23.76**	**121**	P	**P**	**14 57 29.3**	**+4.3**
GEC2	**GERESS Array S**	**23.76**	**121**	P	**P**	**14 57 29.3**	**+4.3**
	comp=Z,4.8nm,1.3s						
GERES	**GERESS Array B**	**23.76**	**121**	P	**P**	**14 57 23.9**	**-1.1**
	comp=Z,0.7nm,0.2s,baz=347,slow=11,SNR=9.4						
	comp=Z,0.7nm,0.2s						
CAF	**Calviac**	**23.79**	**143**	*e*P	**P**	**14 57 25.7**	**+0.5**
CAF				pmax	pmax		
	comp=Z,10.0nm,1.2s						
SENIN	**Lac Senin/Sane**	**23.88**	**134**	P	**P**	**14 57 26.5**	**+0.3**
TREC	**Trest**	**24.01**	**118**	P	**P**	**14 57 29.3**	**+2.0**
TREC	**Trest**	**24.01**	**118**	P	**P**	**14 57 29.3**	**+2.0**
	comp=Z,6.9nm,1.4s						
NACGM	**Naroch**	**24.03**	**96**	*e*P	**P**	**14 57 26.5**	**-0.8**
SSB	**Saint Sauveur**	**24.09**	**139**	P	**P**	**14 57 27.5**	**-0.6**
SSB				pmax	pmax		
	comp=Z,7.0nm,1.0s						
SSB	**Saint Sauveur**	**24.09**	**139**		**P**	**14 57 27.4**	**-0.6**
SSB				IAmb	IAmb	14 57 28.8	
	comp=Z,7.3nm,1.0s						
SSB	**Saint Sauveur**	**24.09**	**139**	P	**P**	**14 57 28.1**	**0.0**
	comp=Z,9.8nm,0.9s						
DAVOX	**Davos/Dischmat**	**24.29**	**129**	LR	LR	15 07 40.0	
	comp=Z,142nm,18.3s,baz=260,slow=38						
MORC	**Moravsky Berou**	**24.36**	**115**	P	**P**	**14 57 31.4**	**+0.9**
MORC				pmax	pmax		
	comp=Z,5.0nm,1.0s						
MORC	**Moravsky Berou**	**24.36**	**115**		**P**	**14 57 31.4**	**+0.9**
MORC	**Moravsky Berou**	**24.36**	**115**	*e*P	**P**	**14 57 33.4**	**+2.9**
MORC	**Moravsky Berou**	**24.36**	**115**	P	**P**	**14 57 31.8**	**+1.2**
	comp=Z,5.3nm,0.9s						
TUE	**Stuetta**	**24.40**	**130**		**P**	**14 57 30.8**	**-0.2**
TUE				IAmb	IAmb	14 57 37.4	
	comp=Z,7.5nm,1.1s						
TUE	**Stuetta**	**24.40**	**130**	P	**P**	**14 57 30.4**	**-0.6**
	comp=Z,27nm,1.9s						
TUE				pP	**pP**	**14 57 34.0**	**-0.1**
	comp=Z,27nm,1.9s						
TUE	**Stuetta**	**24.40**	**130**	P	**P**	**14 57 31.8**	**+0.7**
	comp=Z,6.9nm,1.9s						
VRAC	**Vranov**	**24.40**	**117**	LR	LR	15 07 18.3	
	comp=Z,97nm,18.2s,baz=312,slow=37						
VRAC	**Vranov**	**24.40**	**117**	*e*P	**P**	**14 57 33.4**	**+2.6**
LPL	**La Plagne**	**24.48**	**135**	*e*P	**P**	**14 57 32.1**	**+0.3**
LPL				pmax	pmax		
	comp=Z,9.0nm,1.2s						
LPG	**La Plagne**	**24.50**	**135**	*e*P	**P**	**14 57 32.5**	**+0.4**
LPG				pmax	pmax		
	comp=Z,8.0nm,1.1s						
PGAV	**Gavieira, Arco**	**24.77**	**163**	*e*P	**P**	**14 57 35.0**	**+0.7**
PGAV				*i* IAmb	IAmb	14 58 10.2	
	comp=Z,35nm,1.6s						
OJC	**Ojcow**	**24.85**	**111**	P	**P**	**14 57 33.9**	**-0.9**
	comp=Z,4.5nm,1.0s						
BNI	**Bardonecchia**	**24.89**	**136**	P	**P**	**14 57 36.6**	**+1.1**
BNI				pmax	pmax		
	comp=Z,4.0nm,1.0s						
BNI	**Bardonecchia**	**24.89**	**136**	P	**P**	**14 57 36.5**	**+1.1**
BNI				IAmb	IAmb	14 57 56.1	
	comp=Z,4.3nm,0.9s						
ECAL	**Calabor**	**24.99**	**160**	P	**P**	**14 57 37.6**	**+1.4**
	comp=Z,40nm,1.0s						
PCAB	**Cabril**	**25.05**	**163**	*e*P	**P**	**14 57 37.8**	**+1.1**
PCAB				*i* IAmb	IAmb	14 57 38.9	
	comp=Z,35nm,1.5s						
PBRG	**Braganca**	**25.12**	**160**	*e*P	**P**	**14 57 38.7**	**+1.3**
PBRG				*i* IAmb	IAmb	14 58 02.3	
	comp=Z,17nm,1.5s						
ETSF	**Etsaut**	**25.13**	**149**	*e*P	**P**	**14 57 37.0**	**-0.5**
ETSF				pmax	pmax		
	comp=Z,41nm,1.2s						
EPF	**Esparros**	**25.19**	**148**	*e*P	**P**	**14 57 37.3**	**-0.8**
EPF				pmax	pmax		
	comp=Z,21nm,0.9s						
MBDF	**Montbardon**	**25.22**	**136**	*e*P	**P**	**14 57 40.0**	**+1.6**
MBDF				pmax	pmax		
	comp=Z,9.0nm,0.9s						
RES	**Resolute Bay**	**25.24**	**323**	LR	LR	15 07 23.7	
	comp=Z,92nm,21.5s,baz=262,slow=36						
MTLF	**Montolieu**	**25.32**	**144**	*e*P	**P**	**14 57 39.2**	**0.0**
MTLF				pmax	pmax		
	comp=Z,7.0nm,1.2s						
POLO	**Lamas de Olo**	**25.41**	**162**	*e*P	**P**	**14 57 41.2**	**+1.1**
POLO				*i* IAmb	IAmb	14 57 42.0	
	comp=Z,12nm,1.1s						
MODS	**Modra-Piesok**	**25.43**	**117**	*e*P	**P**	**14 57 44.1**	**+4.0**
MODS	**Modra-Piesok**	**25.43**	**117**	*e*P	**P**	**14 57 44.1**	**+4.0**
CTI	**Castel Tesino**	**25.50**	**128**	P	**P**	**14 57 39.7**	**-1.2**
CTI				pmax	pmax		
	comp=Z,9.0nm,0.8s						
CTI	**Castel Tesino**	**25.50**	**128**		**P**	**14 57 39.7**	**-1.2**
CTI				IAmb	IAmb	14 57 47.7	
	comp=Z,9.2nm,0.8s						
PVRL	**Vila Real**	**25.52**	**162**	*e*P	**P**	**14 57 42.2**	**+1.2**
PVRL				*i* IAmb	IAmb	14 58 15.2	
	comp=Z,21nm,1.6s						
LANS	**Liptovska Anna**	**25.59**	**113**	*e*P	**P**	**14 57 46.4**	**+4.8**
LANS	**Liptovska Anna**	**25.59**	**113**	*e*P	**P**	**14 57 46.4**	**+4.8**
NIE	**Niedzica**	**25.69**	**112**	P	**P**	**14 57 41.0**	**-1.5**
	comp=Z,4.0nm,1.3s						
CEST	**Esterri de Car**	**25.81**	**147**		**P**	**14 57 45.0**	**+1.2**
CEST				IAmb	IAmb	14 57 46.4	
	comp=Z,9.8nm,1.3s						
VYHS	**Vyhne**	**25.90**	**115**	*e*P	**P**	**14 57 48.3**	**+3.9**
VYHS	**Vyhne**	**25.90**	**115**	*e*P	**P**	**14 57 48.3**	**+3.9**
SCHQ	**Schefferville**	**25.95**	**268**	LR	LR	15 06 00.6	
	comp=Z,88nm,19.9s,baz=110,slow=32						
STHS	**Stebnicka Huta**	**26.05**	**111**	*e*P	**P**	**14 57 48.3**	**+2.6**
STHS	**Stebnicka Huta**	**26.05**	**111**	*e*P	**P**	**14 57 48.3**	**+2.6**
RNPP8	**Varash**	**26.32**	**103**	P	**P**	**14 57 48.1**	**0.0**
MTE	**Manteigas**	**26.40**	**162**	*e*P	**P**	**14 57 50.8**	**+1.8**
MTE				*i* IAmb	IAmb	14 58 38.2	
	comp=Z,20nm,1.8s						
RNPP5	**Staryi Chortor**	**26.41**	**103**	P	**P**	**14 57 48.8**	**-0.2**
KWP	**Kalwaria Pacla**	**26.43**	**109**	P	**P**	**14 57 49.2**	**0.0**
	comp=Z,1µmcomp=Z,12nm,1.2s						
KOLS	**Kolonicke sedl**	**26.83**	**110**	*e*P	**P**	**14 57 57.1**	**+4.3**
KOLS	**Kolonicke sedl**	**26.83**	**110**	*e*P	**P**	**14 57 57.1**	**+4.3**
PCBR	**Castelo Branco**	**26.96**	**162**	*e*P	**P**	**14 57 55.5**	**+1.5**
PMRV	**Marv??o**	**27.38**	**162**	*e*P	**P**	**14 57 59.0**	**+1.3**
PMRV				*i* IAmb	IAmb	14 58 04.8	
	comp=Z,13nm,1.8s						
TRPA	**Tarpa**	**27.59**	**111**	P	**P**	**14 58 03.8**	**+4.2**
	comp=Z,8.7nm,0.8s						
ESDC	**Sonseca Array**	**27.62**	**157**	P	**P**	**14 58 00.1**	**+0.1**
	comp=Z,2.6nm,0.9s,baz=346,slow=9.6,SNR=17						
ESDC				LR	LR	15 08 46.0	
	comp=Z,93nm,18.1s,baz=332,slow=36						
	comp=Z,2.6nm,0.9s						
ESDC	**Sonseca Array**	**27.62**	**157**		**P**	**14 58 00.2**	**+0.1**
PMAFR	**Mafra**	**27.63**	**166**	*e*P	**P**	**14 58 01.0**	**+1.0**
PAB	**San Pablo**	**27.69**	**157**	P	**P**	**14 58 01.3**	**+0.7**
PAB				pmax	pmax		
	comp=Z,5.0nm,0.9s						
PAB	**San Pablo**	**27.69**	**157**	P	**P**	**14 58 01.3**	**+0.7**
PAB				IAmb	IAmb	14 58 05.8	
	comp=Z,5.3nm,0.9s						
MI30	**MI30,Zelenitsa**	**27.71**	**101**	P	**P**	**14 58 01.2**	**+0.6**
	comp=Z,13nm,1.1s						
MORH	**Mrgy, Hungar**	**27.76**	**118**	P	**P**	**14 58 00.5**	**-0.6**
	comp=Z,2.9nm,1.4s						
MI29	**MI29, Kamyanyy**	**27.83**	**102**	P	**P**	**14 58 00.0**	**-1.7**
	comp=Z,75nm,0.8s						
OBN	**Obninsk**	**27.86**	**87**	⇓*e*P	**P**	**14 58 01.8**	**-0.1**
OBN				*e**PP	**sP**	**14 58 05.9**	**-0.4**
OBN				*SP	**pP**	**14 58 08.0**	**+3.0**
OBN						14 58 49.0	
OBN				PPP	PPP	14 58 58.0	
OBN						15 01 16.0	
OBN				S	**S**	**15 02 41.0**	**-3.7**
OBN				pmax	pmax		
	comp=Z,8.0nm,0.8s						
OBN				MLR	MLR		
	comp=Z,70nm,15.0s						
AK21	**Malin Array Si**	**28.02**	**100**	P	**P**	**14 58 02.9**	**-0.5**
AK20	**Malin Array Si**	**28.04**	**100**	P	**P**	**14 58 03.0**	**-0.5**
AK22	**Malin Array Si**	**28.05**	**100**	P	**P**	**14 58 03.1**	**-0.5**
KIEV	**Kiev**	**28.16**	**100**	P	**P**	**14 58 05.0**	**+0.4**
KIEV				pmax	pmax		
	comp=Z,4.0nm,0.9s						
KIEV	**Kiev**	**28.16**	**100**	P	**P**	**14 58 05.0**	**+0.4**
KIEV				IAmb	IAmb	14 58 08.6	
	comp=Z,3.9nm,0.8s						
KIEV	**Kiev**	**28.16**	**100**	P	**P**	**14 58 04.2**	**-0.4**
	comp=Z,22nm,1.5s						
AKASG	**Malin Array Be**	**28.16**	**100**	P	**P**	**14 58 04.1**	**-0.5**
	comp=Z,1.1nm,0.5s,baz=327,slow=9.7,SNR=7.0						
AKASG				LR	LR	15 08 40.3	
	comp=Z,112nm,20.0s,baz=342,slow=35						
	comp=Z,1.1nm,0.5s						
AKASG	**Malin Array Be**	**28.16**	**100**	P	**P**	**14 58 04.1**	**-0.5**
AKASG				pmax	pmax		
	comp=Z,3.0nm,1.2s						
AKBB	**Malin Array Si**	**28.16**	**100**	*i* P	**P**	**14 58 07.6**	**+3.0**
AKBB				pmax	pmax		
	comp=Z,4.0nm,0.8s						
AKBB	**Malin Array Si**	**28.16**	**100**	P	**P**	**14 58 04.2**	**-0.4**
AK13	**Malin Array Si**	**28.16**	**100**	P	**P**	**14 58 03.9**	**-0.7**
LUBAR	**Lubar, Ukraine**	**28.18**	**103**	P	**P**	**14 58 04.4**	**-0.5**
PBAR	**Barrancos**	**28.66**	**162**	*e*P	**P**	**14 58 10.5**	**+1.3**
PBAR				*i* IAmb	IAmb	14 58 22.2	
	comp=Z,11nm,2.0s						
KMPD	**K-Podol'skiy**	**28.75**	**106**	P	**P**	**14 58 09.6**	**-0.3**
TESR	**Tescani**	**30.51**	**108**	P	**P**	**14 58 24.9**	**-0.6**
	comp=Z,8.0nm,0.9s						
KIRV	**Kirov**	**30.58**	**72**	LR	LR	15 09 22.1	
	comp=Z,111nm,20.4s,baz=322,slow=34						
KIRV	**Kirov**	**30.58**	**72**	*ce*P	**P**	**14 58 25.8**	**-0.2**
PAOL	**Paolisi**	**30.94**	**128**	P	**P**	**14 58 30.1**	**+0.7**
MLR	**Muntele Rosu**	**31.09**	**110**	LR	LR	15 12 46.5	
	comp=Z,62nm,18.9s,baz=186,slow=40						
VAE	**Valguarnera**	**34.14**	**131**	LR	LR	15 12 58.7	
	comp=Z,170nm,18.2s,baz=120,slow=37						
MD01	**Midelt array s**	**34.18**	**160**		**P**	**14 58 58.5**	**+0.5**
MD31	**MD31**	**34.18**	**160**	P	**P**	**14 58 58.8**	**+0.9**
MDT	**Midelt**	**34.25**	**160**	LR	LR	15 12 42.9	
	comp=Z,64nm,18.2s,baz=39,slow=36						
NRIK	**Noril'sk**	**35.33**	**36**	*i* P	**P**	**14 59 09.9**	**+2.5**
NRIK				pmax	pmax		
	comp=Z,4.0nm,1.0s						
ARTI	**Arti**	**35.56**	**68**	LR	LR	15 12 39.4	
	comp=Z,144nm,20.0s,baz=294,slow=34						
ARTI	**Arti**	**35.56**	**68**	*c i*P	**P**	**14 59 09.8**	**+0.3**
ARTI						15 00 26.8	
ARTI						15 01 36.9	
ARTI				S	**S**	**15 04 44.2**	**-0.6**
ARTI				SS	**SnSn**	**15 06 59.4**	**-5.2**
ARTI				pmax	pmax		
	comp=Z,7.0nm,0.8s						
ARTI	**Arti**	**35.56**	**68**		**P**	**14 59 09.4**	**-0.1**
YKA	**Yellowknife Ar**	**38.16**	**312**	LR	LR	15 14 55.6	
	comp=Z,63nm,18.9s,baz=4.0,slow=36						
SADO	**Sadowa**	**38.76**	**268**	LR	LR	15 14 19.2	
	comp=Z,112nm,18.0s,baz=250,slow=34						
BR106	**Keskin Array S**	**38.95**	**107**	P	**P**	**14 59 39.3**	**+0.7**
	comp=Z,45nmcomp=Z,5.0nm,0.8s						
BR105	**Keskin Array S**	**38.97**	**107**	P	**P**	**14 59 39.5**	**+0.8**
	comp=Z,72nmcomp=Z,8.0nm,0.9s						
BR131	**Keskin Array S**	**38.97**	**107**	*i* P	**P**	**14 59 39.8**	**+1.1**
BR131	**Keskin Array S**	**38.97**	**107**		**P**	**14 59 39.7**	**+1.0**
BR131				IAmb	IAmb	14 59 40.9	
	comp=Z,5.5nm,0.8s						
BRTR	**Keskin Array B**	**38.97**	**107**	P	**P**	**14 59 40.1**	**+1.4**
	comp=Z,4.2nm,0.7s,baz=336,slow=7.1,SNR=16						
	comp=Z,4.2nm,0.7s						
BRTR	**Keskin Array B**	**38.97**	**107**	*e*P	**P**	**14 59 40.3**	**+1.6**
BRTR				pmax	pmax		
	comp=Z,4.0nm,0.7s						
BRTR	**Keskin Array B**	**38.97**	**107**	P	**P**	**14 59 39.7**	**+1.0**
BR104	**Keskin Array S**	**38.98**	**107**	P	**P**	**14 59 39.2**	**+0.4**
	comp=Z,52nmcomp=Z,7.0nm,0.9s						
KIV	**Kislovodsk**	**39.02**	**94**	*e*P	**P**	**14 59 41.1**	**+2.1**
KIV				pmax	pmax		
	comp=Z,4.0nm,1.0s						
KIV				MLR	MLR		
	comp=Z,40nm,16.0s						
KVAR	**Kislovodsk Arr**	**39.02**	**94**	LR	LR	15 15 41.7	
	comp=Z,53nm,18.7s,baz=254,slow=36						
SHA1	**Shidzhatmaz**	**39.18**	**94**	*i* P	**P**	**14 59 41.5**	**+0.9**
KBZ	**Khabaz**	**39.29**	**94**	P	**P**	**14 59 42.8**	**+1.6**
	comp=Z,2.5nm,0.8s,baz=298,slow=9.4,SNR=4.5						
KBZ				LR	LR	15 15 49.0	
	comp=Z,83nm,21.8s,baz=344,slow=36						
	comp=Z,2.5nm,0.8s						
KBZ	**Khabaz**	**39.29**	**94**	*i* P	**P**	**14 59 42.8**	**+1.6**
KBZ				pmax	pmax		
	comp=Z,4.0nm,0.9s						
AKTO	**Aktyubinsk**	**39.97**	**75**	P	**P**	**14 59 47.0**	**+0.2**
	comp=Z,2.3nm,0.6s,baz=315,slow=4.0,SNR=4.7						
	comp=Z,2.3nm,0.6s						
AKTO	**Aktyubinsk**	**39.97**	**75**	P	**P**	**14 59 47.0**	**+0.2**
ULM	**Lac du Bonnet**	**41.07**	**287**	LR	LR	15 16 17.8	
	comp=Z,202nm,18.2s,baz=22,slow=35						
BVAR	**Borovoye Array**	**42.61**	**63**	P	**P**	**15 00 09.1**	**+0.7**
	comp=Z,1.3nm,0.7s,baz=326,slow=7.7,SNR=6.5						
	comp=Z,1.3nm,0.7s						
N51A	**Ashland**	**43.28**	**267**	P	**P**	**15 00 13.7**	**-0.3**
ILAR	**Eielson Array**	**44.36**	**332**	P	**P**	**15 00 24.7**	**+2.3**
	comp=Z,0.6nm,0.9s,baz=24,slow=8.0,SNR=7.1						
ILAR				LR	LR	15 21 20.9	
	comp=Z,50nm,18.2s,baz=9.5,slow=39						
	comp=Z,0.6nm,0.9s						
M29M	**Somme Creek**	**44.62**	**325**		**P**	**15 00 24.5**	**-0.1**
RIDG	**Independent Ri**	**44.87**	**330**	P	**P**	**15 00 28.1**	**+1.5**
RIDG				IAmb	IAmb	15 01 08.6	
	comp=Z,4.8nm,0.6s						
ZAA0	**Zalesovo Array**	**46.81**	**52**	P	**P**	**15 00 41.8**	**0.0**
ZAA0				IAmb	IAmb	15 00 42.7	
	comp=Z,1.6nm,0.8s						
ZALV	**Zalesovo Beam**	**46.81**	**52**	P	**P**	**15 00 41.9**	**+0.1**
	comp=Z,0.6nm,0.6s,baz=294,slow=4.6,SNR=3.6						
ZALV				LR	LR	15 21 58.5	
	comp=Z,18nm,21.5s,baz=281,slow=38						
	comp=Z,0.6nm,0.6s						
ZALV	**Zalesovo Beam**	**46.81**	**52**	*e*P	**P**	**15 00 43.5**	**+1.6**
ZALV	**Zalesovo Beam**	**46.81**	**52**	P	**P**	**15 00 41.5**	**-0.3**
KURK	**Kurchatov**	**47.43**	**59**	*ce*P	**P**	**15 00 46.3**	**-0.5**
KURK				pmax	pmax		
	comp=Z,4.0nm,0.9s						
KURK	**Kurchatov**	**47.43**	**59**		**P**	**15 00 46.5**	**-0.3**
KURK				IAmb	IAmb	15 00 47.6	
	comp=Z,3.0nm,0.8s						
KURBB	**Kurchatov Arra**	**47.48**	**59**	P	**P**	**15 00 46.7**	**-0.5**
	comp=Z,2.2nm,0.8s,baz=326,slow=7.6,SNR=19						
	comp=Z,2.2nm,0.8s						
EIL	**Elat**	**48.34**	**112**	LR	LR	15 22 15.8	
	comp=Z,24nm,21.9s,baz=282,slow=37						
TKL	**Tuckaleechee C**	**48.34**	**265**	LR	LR	15 19 35.6	
	comp=Z,77nm,18.9s,baz=16,slow=34						
BBB	**Bella Bella**	**50.78**	**312**	LR	LR	15 22 55.3	
	comp=Z,80nm,18.4s,baz=10.0,slow=36						
DGZ	**Jazzator, Alta**	**51.28**	**53**	*i* P	**P**	**15 01 17.9**	**+1.5**
DGZ				pmax	pmax		
	comp=Z,3.0nm,1.0s						
KDAK	**Kodiak Island**	**51.88**	**331**	LR	LR	15 25 58.9	
	comp=Z,46nm,18.0s,baz=28,slow=39						
MKAR	**Makanchi Array**	**52.05**	**59**	P	**P**	**15 01 22.1**	**+0.1**
	comp=Z,2.6nm,0.9s,baz=318,slow=5.2,SNR=9.5						
	comp=Z,2.6nm,0.9s						
MKAR	**Makanchi Array**	**52.05**	**59**	*e*P	**P**	**15 01 22.2**	**+0.2**
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.9s						
MKAR	**Makanchi Array**	**52.05**	**59**	P	**P**	**15 01 22.2**	**+0.2**
PDAR	**Pinedale Array**	**52.53**	**292**	P	**P**	**15 01 26.0**	**+0.1**
	comp=Z,1.4nm,0.8s,baz=64,slow=8.4,SNR=8.3						
PDAR				LR	LR	15 23 51.6	
	comp=Z,70nm,18.0s,baz=24,slow=36						
	comp=Z,1.4nm,0.8s						
AAK	**Ala-Archa**	**52.78**	**68**	LR	LR	15 23 04.1	
	comp=Z,56nm,21.3s,baz=328,slow=35						
AAK	**Ala-Archa**	**52.78**	**68**	*i* P	**P**	**15 01 28.5**	**+0.8**
AAK				pmax	pmax		
	comp=Z,2.0nm,1.2s						
KNGR	**Kungurtug, Tuv**	**53.61**	**46**	*i* P	**P**	**15 01 36.0**	**+2.4**
KNGR				pmax	pmax		
	comp=Z,8.0nm,1.1s						
TORD	**Torodi Ar. Bea**	**54.51**	**157**	P	**P**	**15 01 39.3**	**-1.1**
	comp=Z,1.9nm,0.9s,baz=345,slow=9.0,SNR=6.9						
	comp=Z,1.9nm,0.9s						
TORD	**Torodi Ar. Bea**	**54.51**	**157**	IAmb	IAmb	15 02 10.0	
	comp=Z,1.8nm,0.8s						
PV13	**Radium Mtn., P**	**56.23**	**289**	P	**P**	**15 01 53.3**	**+0.4**
WMQ	**Urumqi**	**56.51**	**57**	*e*P	**P**	**15 01 58.5**	**+4.0**
WMQ				LR	LR		
	comp=Z,52nm,20.3s						
ANMO	**Albuquerque**	**58.12**	**285**	LR	LR	15 26 13.6	
	comp=Z,95nm,18.5s,baz=47,slow=35						
SONM	**Songino Array**	**58.59**	**41**	LR	LR	15 30 27.4	
	comp=Z,53nm,18.3s,baz=30,slow=39						
TXAR	**Lajitas Array**	**61.95**	**279**	P	**P**	**15 02 33.1**	**+0.7**
	comp=Z,0.7nm,0.8s,baz=14,slow=9.6,SNR=5.1						
TXAR				LR	LR	15 29 11.4	
	comp=Z,109nm,19.4s,baz=33,slow=36						
	comp=Z,0.7nm,0.8s						
HHC	**Hu-ho-hao-te**	**66.45**	**40**	*e*P	**P**	**15 03 01.3**	**-0.5**
HHC				pmax	pmax		
	comp=Z,7.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,47nm,5.1s						
LZH	**Lanzhou**	**68.72**	**48**	*e*P	**P**	**15 03 17.6**	**+1.3**
LZH				sP	sP	15 03 27.8	+6.9
LZH				pmax	pmax		
	comp=Z,19nm,1.5s						
LPIG	**La Paz**	**69.26**	**283**	LR	LR	15 33 38.0	
	comp=Z,99nm,18.6s,baz=29,slow=36						
JTS	**Las Juntas de**	**71.51**	**253**	LR	LR	15 33 53.5	
	comp=Z,24nm,18.0s,baz=27,slow=35						
CMAR	**Chiang Mai Arr**	**83.45**	**59**	P	**P**	**15 04 40.1**	**-0.1**
	comp=Z,0.6nm,0.6s,baz=329,slow=7.0,SNR=5.8						
	comp=Z,0.6nm,0.6s						
CMAR	**Chiang Mai Arr**	**83.45**	**59**	*e*P	**P**	**15 04 40.3**	**+0.1**
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
BDFB	**Brasilia**	**84.61**	**209**	LR	LR	15 39 13.1	
	comp=Z,76nm,18.8s,baz=212,slow=33						
ASAR	**Alice Springs**	**133.87**	**37**	PKP	**PKPdf**	**15 11 29.2**	**-0.2**
	comp=Z,0.3nm,0.8s,baz=10.0,slow=2.2,SNR=6.2						

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*AFAD **15** 15:22:22.7, 38°.98N×29°.85E, h7^{km}±2^{km}, MW3.5*
*ISK **15** 15:22:22.8, 38°.99N×29°.89E, h6^{km}, ML3.6/12*
ISC 15 15:22:23.4±1.0**, 38°.98N**±0°.02×**29°.88E**±0°.02**, h5**^{km}±10^{km}**,**
n47, σ0^{s}.55/67**, 14C-8D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ALT	**Altintas**	**0.19**	**68**	Pg	**Pg**	**15 22 27.1**	**-0.1**
ALT				Sg	**Sg**	**15 22 29.7**	**-0.1**
ALT				AML	AML		
BNAZ	**Uak-Banaz**	**0.30**	**180**	P	**Pg**	**15 22 29.5**	**+0.2**
BNAZ				S	**Sg**	**15 22 33.9**	**+0.6**
BNAZ				IAML		15 22 34.0	
	comp=E,7µm,0.1s						
BNAZ				IAML		15 22 39.0	
	comp=N,9µm,0.5s						
GDZ	**Gediz**	**0.33**	**289**	P	**Pg**	**15 22 29.2**	**-0.5**
GDZ				S	**Sg**	**15 22 33.8**	**-0.3**
GDZ				IAML		15 22 34.0	
	comp=E,3µm,0.3s						
GEDZ	**Gediz**	**0.37**	**280**	Pg	**Pg**	**15 22 31.4**	**+0.9**
GEDZ				Sg	**Sg**	**15 22 36.4**	**+1.0**
AFYO	**Afyonkarahisar**	**0.38**	**121**	P	**Pg**	**15 22 30.6**	**-0.1**
AFYO				IAML		15 22 37.0	
	comp=N,3µm,0.6s						
AFYO				IAML		15 22 37.0	
	comp=E,6µm,0.5s						
AFYO				S	**Sg**	**15 22 37.0**	**+1.3**
KUTH	**Kutahya**	**0.43**	**15**	P	**Pg**	**15 22 31.4**	**-0.2**
KUTH				S	**Sg**	**15 22 37.5**	**+0.3**
SHAP	**Saphane-Kutahy**	**0.51**	**275**	Pg	**Pg**	**15 22 33.0**	**-0.2**
ANDZ	**Kutahya, Merke**	**0.53**	**2**	P	**Pg**	**15 22 32.9**	**-0.6**
ANDZ				S	**Sg**	**15 22 40.4**	**0.0**
TVSB	**Tavsanli**	**0.57**	**325**	Pg	**Pg**	**15 22 34.4**	**+0.1**
TVSB				AML	AML		
AUKIR	**Kırka- Seyitga**	**0.58**	**60**	P	**Pg**	**15 22 34.5**	**-0.1**
AUKIR				S	**Sg**	**15 22 42.6**	**+0.4**
AUKIR				IAML		15 22 45.0	
	comp=N,4µm,0.3s						
AUKIR				IAML		15 22 51.0	
	comp=E,2µm,0.6s						
EMET	**Ktahya-Emet**	**0.58**	**312**	P	**Pg**	**15 22 34.3**	**-0.4**
EMET				S	**Sg**	**15 22 42.3**	**+0.1**
EMET				IAML		15 22 43.0	
	comp=N,4µm,0.8s						
EMET				IAML		15 22 43.0	
	comp=E,2µm,0.5s						
SHUT	**Suhut-Afyon**	**0.68**	**129**	Pg	**Pg**	**15 22 36.5**	**+0.1**
SHUT				AML	AML		
PASA	**Karahalli, USA**	**0.70**	**206**	P	**Pg**	**15 22 36.2**	**-0.7**
PASA				S	**Sg**	**15 22 45.7**	**-0.4**
PASA				IAML		15 22 47.0	
	comp=N,2µm,0.4s						
PASA				IAML		15 22 47.0	
	comp=E,2µm,0.4s						
SIMA	**Simav-Kutahya**	**0.70**	**278**	Pg	**Pg**	**15 22 36.9**	**0.0**
SMAA	**Simav-Kutahya**	**0.71**	**280**	Pg	**Pg**	**15 22 37.0**	**0.0**
SMAA				Sg	**Sg**	**15 22 47.3**	**+1.1**
SMAA				AML	AML		
KHL	**Karahalli**	**0.72**	**203**	Pg	**Pg**	**15 22 36.3**	**-0.8**
USAK	**Uak-Merkez**	**0.72**	**248**	P	**Pg**	**15 22 36.7**	**-0.5**
USAK				S	**Sg**	**15 22 46.1**	**-0.5**
USAK				IAML		15 22 47.0	
	comp=N,2µm,0.2s						
USAK				IAML		15 22 48.0	
	comp=E,2µm,0.2s						
KZIL	**AFYON_Kizioren**	**0.75**	**164**	P	**Pg**	**15 22 37.7**	**-0.1**
KZIL				S	**Sb**	**15 22 48.6**	**-1.1**
KZIL				IAML		15 22 53.0	
	comp=N,1µm,0.5s						
KZIL				IAML		15 22 53.0	
	comp=E,1µm,0.3s						
KURO	**Afyon-Bolvadin**	**0.86**	**107**	P	**Pg**	**15 22 39.2**	**-0.7**
SDAG	**Sultandagi-AFY**	**0.98**	**123**	Pg	**Pg**	**15 22 42.2**	**+0.1**
SDAG				Sg	**Sb**	**15 22 55.8**	**-0.3**
SDAG				AML	AML		
KULA	**Kula-Manisa**	**1.06**	**244**	Pg	**Pg**	**15 22 42.9**	**-0.8**
KULA				AML	AML		
BASM	**Basmaki-Afyon**	**1.07**	**173**	Pg	**Pb**	**15 22 44.1**	**-0.4**
BASM				Sg	**Sb**	**15 22 59.1**	**+0.3**
DST	**Dursunbey**	**1.16**	**303**	Pn	**Pg**	**15 22 45.4**	**-0.2**
DST				AML	AML		
CAVI	**Cavuskoy**	**1.22**	**359**	Pn	**Pg**	**15 22 45.9**	**-0.8**
CAVI				Sn	**Sb**	**15 23 03.5**	**+0.5**
CAVI				AML	AML		
ORLT	**Orhaneli**	**1.30**	**325**	Pn	**Pn**	**15 22 48.0**	**-0.4**
ORLT				AML	AML		
GORD	**Gordes-Manisa**	**1.33**	**267**	Pn	**Pn**	**15 22 48.8**	**+0.1**
GORD				AML	AML		
IZI	**Iznik**	**1.39**	**347**	Pn	**Pn**	**15 22 49.5**	**0.0**
IZI				AML	AML		
ODEM	**Odemis-Izmir**	**1.58**	**244**	Pn	**Pn**	**15 22 52.3**	**+0.1**
BALB	**Balikesir**	**1.68**	**294**	Pn	**Pn**	**15 22 54.2**	**+0.7**
BALB				AML	AML		
TAVA	**DENIZLI_Tavas**	**1.70**	**207**	⇑P	**Pn**	**15 22 53.8**	**0.0**
TAVA				⇓S	**Sg**	**15 23 17.8**	**-0.1**
BAND	**Balkesir-Ban**	**1.94**	**315**	⇓P	**Pn**	**15 22 58.2**	**+1.1**
BAND				⇑S	**Sb**	**15 23 24.3**	**+0.6**
SAHE	**Sakarya_HENDEK**	**2.01**	**22**	⇑P	**Pb**	**15 22 59.5**	**-0.9**
SILT	**Sile**	**2.17**	**355**	⇑P	**Pn**	**15 23 01.5**	**+1.3**
SILT				⇑S	**Sb**	**15 23 30.1**	**-0.4**
KEPZ	**Antalya-Kepez**	**2.49**	**146**	⇑P	**Pn**	**15 23 05.2**	**+0.6**
KEPZ				⇓S	**Sn**	**15 23 36.0**	**+0.7**
KIRS	**Kirsehir-Merke**	**3.15**	**86**	⇓P	**Pn**	**15 23 13.9**	**+0.1**
TIRR	**Tirgusor**	**5.58**	**349**	⇓P	**Pn**	**15 23 46.9**	**-0.1**
CFR	**Carcaliu**	**6.32**	**349**	⇓P	**Pn**	**15 23 57.4**	**+0.2**
BISRR	**Bisoca**	**6.97**	**341**	⇑P	**Pn**	**15 24 06.9**	**+0.7**
MLR	**Muntele Rosu**	**7.13**	**337**	⇓P	**Pn**	**15 24 08.3**	**-0.1**
VRI	**Vrincioaia**	**7.26**	**342**	⇑P	**Pn**	**15 24 09.8**	**-0.3**
PLOR	**Plostina**	**7.27**	**342**	⇑P	**Pn**	**15 24 10.6**	**+0.4**
COVR	**Voineasa-Covas**	**7.38**	**340**	⇑P	**Pn**	**15 24 12.3**	**+0.5**
OZUR		**7.72**	**338**	⇑P	**Pn**	**15 24 17.2**	**+0.7**
ONER	**Baraj Valea Uz**	**7.78**	**342**	⇑P	**Pn**	**15 24 17.4**	**+0.2**
BIZ	**Bicaz**	**8.42**	**342**	⇓P	**Pn**	**15 24 26.1**	**+0.1**
MARR	**Marisel-Cluj**	**9.15**	**329**	⇑P	**Pn**	**15 24 36.4**	**+0.3**
BORR	**Bors**	**10.03**	**326**	⇑P	**Pn**	**15 24 48.7**	**+0.6**

*SJA **15** 15:34:23.7±0.8, 22.°81S×66.°57W, h245km±4km, ML4.6, MW4.1*

*IDC **15** 15:34:24.2±1.3, 22.°79S×66.°47W, h219km±12km, mb3.3/6, mbtmp4.0/13, Error ellipse: s-maj=17.1km s-min=12.5km az=78.0*

*NEIC **15** 15:34:24.9±1.8, 22.°85S±0.°07×66.°54W±0.°09, h226km±7km, mb4.2/6, Error ellipse: s-maj=12.6km s-min=10.3km az=89.0*

*VAO **15** 15:34:26.1±0.5, 22.°73S×66.°48W, h248km, mb4.2, Presumed earthquake*

ISC 15 15:34:24.3±0.6**, 22.°83S**±0.°04×**66.°59W**±0.°04**, h231**km±6km**, n103, σ1ˢ40**/120**, mb3.8**/8**, Jujuy Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HJA	Humahuaca	1.15	109	*i* P	Pn	15 35 00.0	+1.3
YJA	Yavi	1.19	57	*i* P	Pn	15 35 00.2	+1.2
YJA				*i* S	S	15 35 26.1	0.0
SALTA		1.41	171	*i* P	Pn	15 35 02.0	+1.3
SALTA				*i* S	S	15 35 30.4	+1.3
AF01	San Pedro de A	1.47	265	*i* P	Pn	15 35 03.8	+2.8
AF01	San Pedro de A	1.47	265	Pn	Pn	15 35 02.8	+1.8
SLA	San Lorenzo	2.13	152	*i* P	Pn	15 35 07.8	+1.2
SLA				*i* S	S	15 35 39.6	-0.2
PB09	IPOC Station P	2.67	292	*i* P	Pn	15 35 14.1	+1.9
PB09				*i* S	S	15 35 49.5	-0.2
PB09				IAML		15 35 52.5	
	comp=Z,837nm,0.2s						
PB09	IPOC Station P	2.67	292		Pn	15 35 13.9	+1.7
PB06	IPOC Station P	2.76	272	*i* P	Pn	15 35 14.3	+1.1
PB06				*i* S	S	15 35 50.9	-0.5
PB06				IAML		15 35 56.2	
	comp=Z,674nm,0.2s						
PB06	IPOC Station P	2.76	272		Pn	15 35 14.2	+1.1
PB03	IPOC Station P	3.03	284	*i* P	Pn	15 35 17.1	+1.0
PB03				*i* S	S	15 35 56.4	-0.5
PB03				IAML		15 36 00.1	
	comp=Z,2µm,0.1s						
PB03	IPOC Station P	3.03	284		Pn	15 35 16.8	+0.6
PB07	IPOC Station P	3.25	289	*i* P	Pn	15 35 19.6	+0.9
PB07				*i* S	S	15 36 00.3	-1.0
PB07	IPOC Station P	3.25	289		Pn	15 35 19.5	+0.9
FSA	Cafayete	3.31	171	*i* P	Pn	15 35 20.4	+1.0
FSA				*i* S	S	15 36 02.3	-0.4
PB05	IPOC Station P	3.33	269	*i* P	Pn	15 35 20.4	+0.8
PB05				IAML		15 36 04.4	
	comp=Z,493nm,0.5s						
PB05	IPOC Station P	3.33	269		Pn	15 35 19.9	+0.3
PB02	IPOC Station P	3.42	295		Pn	15 35 21.2	+0.6
PB08	IPOC Station P	3.59	318	*i* P	Pn	15 35 24.8	+1.9
PB08				IAML		15 36 13.7	
	comp=Z,506nm,0.2s						
PB08	IPOC Station P	3.59	318		Pn	15 35 24.7	+1.8
PB14	IPOC Station P	3.93	242	*i* P	Pn	15 35 27.4	+0.6
PB14				*i* S	S	15 36 14.7	-1.2
PB14				IAML		15 36 17.4	
	comp=Z,852nm,0.2s						
PB14	IPOC Station P	3.93	242		Pn	15 35 27.3	+0.6
GO01	Chusmiza	3.98	322	*i* P	Pn	15 35 28.6	+1.1
GO01				*i* S	S	15 36 17.7	+0.4
GO01				IAML		15 36 21.0	
	comp=Z,781nm,0.3s						
GO01	Chusmiza	3.98	322		Pn	15 35 28.8	+1.3
TA01	Diego Aracena	4.03	303	*i* P	Pn	15 35 27.8	+0.1
TA01				*i* S	S	15 36 15.6	-2.1
TA01				IAML		15 36 16.5	
	comp=Z,480nm,0.5s						
TA01	Diego Aracena	4.03	303		Pn	15 35 27.5	-0.2
TA02	Huaiquique	4.17	307	*i* P	Pn	15 35 29.8	+0.5
TA02				*i* S	S	15 36 18.2	-2.5
PB11	IPOC Station P	4.18	316	*i* P	Pn	15 35 30.3	+0.5
PB11				*i* S	S	15 36 19.3	-2.1
PB11	IPOC Station P	4.18	316		Pn	15 35 29.9	+0.2
AC02	Maricunga	4.61	210		Pn	15 35 36.0	+0.8
PSGCX	Pisagua	4.61	314	*i* P	Pn	15 35 34.8	-0.1
PSGCX				*i* S	S	15 36 28.0	-2.6
PSGCX				IAML		15 36 29.4	
	comp=Z,426nm,0.2s						
PSGCX	Pisagua	4.61	314		Pn	15 35 34.3	-0.6
AC01	Pan de Azucar	4.92	227	*i* P	Pn	15 35 38.1	-0.5
AC01				*i* S	S	15 36 34.6	-2.9
AC01				IAML		15 36 36.2	
	comp=Z,312nm,0.5s						
AC01	Pan de Azucar	4.92	227		Pn	15 35 38.0	-0.5
PB16	IPOC Station P	5.24	328	*i* P	Pn	15 35 44.6	+1.4
PB16				*i* S	S	15 36 44.2	-1.5
PB16				IAML		15 36 49.3	
	comp=Z,169nm,0.3s						
PB16	IPOC Station P	5.24	328		Pn	15 35 43.9	+0.7
TINO	Tinogasta	5.29	189	*i* P	Pn	15 35 43.9	+0.8
TINO				*i* S	S	15 36 43.4	-2.5
PB12	IPOC Station P	5.46	319		Pn	15 35 44.6	-0.9
LPAZ	La Paz	6.67	347	P	Pn	15 36 01.5	+0.3
	comp=Z,8.9nm,0.4s,baz=166,slow=7.9,SNR=53						
LPAZ				S	S	15 37 18.0	-0.5
	comp=Z,11nm,0.8s,baz=358,slow=11,SNR=5.4						
LPAZ	La Paz	6.67	347		Pn	15 36 01.3	+0.1
LPAZ	La Paz	6.67	347	*e*P	Pn	15 36 01.8	+0.6
LPAZ				*e*S	S	15 37 17.5	-1.0
LCO	Las Campanas	7.18	210		Pn	15 36 05.8	-1.5
MURT	Porto Murtinho	8.40	84	*e*P	Pn	15 36 23.0	+0.3
SIV	San Ignacio	8.56	38	P	Pn	15 36 23.8	-1.2
	comp=Z,5.4nm,0.4s,baz=212,slow=12,SNR=26						
SIV				S	S	15 37 51.2	-11
	comp=Z,2.0nm,0.7s,baz=214,slow=15,SNR=3.6						
COIM	Forte Coimbra	8.70	72	*e*P	Pn	15 36 24.4	-2.1
CFA	Coronel Fontan	8.86	189	P	Pn	15 36 28.0	-0.6
	comp=Z,3.2nm,0.3s,baz=293,slow=12,SNR=21						
CFA				S	S	15 38 01.6	-7.1
	comp=Z,5.0nm,0.3s,baz=85,slow=24,SNR=8.3						
CPUP	Villa Florida	9.12	114	P	Pn	15 36 31.2	-0.6
	comp=Z,1.3nm,0.6s,baz=295,slow=13,SNR=3.8						
CPUP	Villa Florida	9.12	114	*e*P	Pn	15 36 33.1	+1.2
PTLB	Pontes e Lacer	10.17	45	*e*P	Pn	15 36 44.4	-1.0
MT13	San Alfonso	11.35	196		Pn	15 37 00.4	+0.1
PSAL	Palomas, Salto	11.47	138	*e*P	Pn	15 37 02.1	+0.4
VILB	Vilhena	11.55	33		Pn	15 37 03.2	+0.4
PP1B	Ponte de Pedra	12.16	67	*e*P	Pn	15 37 09.4	-1.0
SALV	Santo Antonio	12.37	58	*e*P	Pn	15 37 11.7	-1.5
BO02	Sierra Bellavi	12.47	196	P	Pn	15 37 16.0	+1.8
PTGB	Pitanga	13.43	101	*e*P	P	15 37 26.9	-1.1
C2SB	Chapadao do Su	13.48	75	*e*P	P	15 37 26.6	-1.9
ANCO	Parque Anchore	13.68	148	*e*P	Pn	15 37 29.3	+0.2
CPSB	Cacapava Do Su	13.96	125		P	15 37 33.6	-0.2
CPSB	Cacapava Do Su	13.96	125	*e*P	P	15 37 33.4	-0.4
LDASE	Londrina, Braz	14.25	95	*e*P	P	15 37 35.9	-1.1
NNA	Nana	14.55	316	P	P	15 37 42.3	+1.8
	comp=Z,9.8nm,0.5s,baz=157,slow=13,SNR=4.6						
ARAG	Araguaiana, MT	15.64	66	*e*P	Pn	15 37 52.8	-0.3
CLDB	Colider	15.74	43	*e*P	Pn	15 37 53.3	-1.0
PET01	Itanhaem-SP	17.77	99	*e*P	P	15 38 15.7	0.0
IPMB	Ipameri, GO	17.88	78	*e*P	Pn	15 38 17.5	-2.1
VAO	Valinhos	18.08	94	P	P	15 38 19.4	+0.3
VAO	Valinhos	18.08	94	*e*P	Pn	15 38 19.6	-2.2
SNDB	Serra Nova Dou	18.13	56	*e*P	P	15 38 19.3	-0.4
PLCA	Paso Flores	18.16	190	P	P	15 38 20.8	+1.0
	comp=Z,1.0nm,0.5s,baz=6.2,slow=14,SNR=3.2						
BDFB	Brasilia	18.93	71	P	P	15 38 28.9	+0.5
	comp=Z,30nm,0.8s,baz=240,slow=11,SNR=31						
BDFB	Brasilia	18.93	71	P	P	15 38 28.9	+0.5
CANS	Sao Roque de M	18.95	86	*e*P	P	15 38 28.8	+0.2
PMNB	Patos De Minas	19.33	81	*e*P	P	15 38 32.0	-0.6
BSCB	Bom Sucesso	20.32	89	*e*P	P	15 38 43.5	+0.2
ITTB	Itaituba	21.14	31	*e*P	P	15 38 50.1	-1.7
DIAM	Diamantina, MG	21.92	82	*e*P	P	15 38 59.5	+0.1
JANB	Januaria	22.42	74	*e*P	P	15 39 03.6	-0.4
SGC2	Sao Gabriel da	22.55	359	*e*P	P	15 39 05.8	+0.8
SMTB	Santa Maria do	22.91	56	*e*P	P	15 39 07.4	-1.0
SDBA	SAO DESIDERIO	23.09	67	*e*P	P	15 39 09.2	-0.8
BOAV	Boa Vista	25.76	14	P	P	15 39 33.9	-0.2
BOAV				IAmb	IAmb	15 39 36.2	
	comp=Z,9.3nm,1.4s						
BOAV	Boa Vista	25.76	14	*e*P	P	15 39 33.9	-0.2
GUA01	Guaratinga, BA	25.94	81	*e*P	P	15 39 35.4	-0.4
NBTA	Tacaratu-PE	30.54	68	*e*P	P	15 40 15.7	-0.9
VNA2	Neumayer--Watz	58.69	161	P	P	15 43 58.0	+0.7
	comp=Z,2.2nm,0.6s,baz=286,slow=8.8						
TROLL	Troll, Antarti	62.04	161	P	P	15 44 22.5	+2.4
	comp=Z,76nm,0.5s						
TXAR	Lajitas Array	62.96	324	P	P	15 44 26.8	+0.1
	comp=Z,0.8nm,0.8s,baz=145,slow=7.5,SNR=6.3						
	comp=Z,0.8nm,0.8s						
QSPA	South Pole Qui	67.37	180	P	P	15 44 56.5	+1.9
	comp=Z,1.2nm,0.7s,baz=135,slow=5.7,SNR=11						
	comp=Z,1.2nm,0.7s						
QSPA	South Pole Qui	67.37	180	IAmb	IAmb	15 45 17.6	
	comp=Z,4.6nm,1.4s						
TORD	Torodi Ar. Bea	75.80	69	P	P	15 45 44.5	-0.9
	comp=Z,0.7nm,0.4s,baz=255,slow=4.7,SNR=15						
	comp=Z,0.7nm,0.4s						
TORD	Torodi Ar. Bea	75.80	69	IAmb	IAmb	15 45 54.8	
	comp=Z,8.0nm,0.8s						
PDAR	Pinedale Array	76.34	329	P	P	15 45 50.0	+1.9
	comp=Z,0.4nm,0.6s,baz=139,slow=7.2,SNR=4.7						
	comp=Z,0.4nm,0.6s						
NVAR	Mina Array Bea	77.87	321	P	P	15 45 58.4	+1.6
	comp=Z,0.7nm,0.8s,baz=128,slow=3.4,SNR=3.9						
	comp=Z,0.7nm,0.8s						
ESDC	Sonseca Array	85.29	43	P	P	15 46 36.8	+1.5
	comp=Z,1.2nm,1.1s,baz=237,slow=6.6,SNR=5.2						
	comp=Z,1.2nm,1.1s						
ASAR	Alice Springs	129.67	205	SKPbc	SKPab	15 56 08.8	+2.2
	comp=Z,0.6nm,0.9s,baz=158,slow=3.6,SNR=4.5						
WRA	Warramunga Arr	132.83	207	PKP	PKiKP	15 53 14.6	+0.8
	comp=Z,0.1nm,0.3s,baz=151,slow=2.0,SNR=1.6						
WRA				SKPbc	SKPbc	15 56 20.5	+2.2
	comp=Z,1.8nm,1.1s,baz=160,slow=3.2,SNR=5.9						
ZALV	Zalesovo Beam	142.19	27	PKP	PKPdf	15 53 28.6	-0.1
	comp=Z,0.6nm,0.3s,baz=318,slow=1.9,SNR=2.0						
MKAR	Makanchi Array	145.38	39	PKPbc	PKPbc	15 53 35.8	+0.8
	comp=Z,0.8nm,0.5s,baz=313,slow=3.4,SNR=9.2						
MKAR	Makanchi Array	145.38	39		PKPdf	15 53 34.4	-0.2
HHC	Hu-ho-hao-te	161.97	5	*e*P	PKPdf	15 53 51.1	-7.0
PZH	PanZhiHua	168.78	69	PKP	PKPdf	15 54 01.6	-2.6
NJ2	Nanjing	169.62	333	*e*P	PKPdf	15 54 02.3	-2.1
NJ2				pmax	pmax		
	comp=Z,7.0nm,0.8s						

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*IDC **15** 15:38:26.0±0.6, 6.°81S×150.°55E, h0km, mb4.3/18, mbtmp4.4/21, ML3.3/2, MS3.4/15, Error ellipse: s-maj=21.2km s-min=10.7km az=114.0*

*NEIC **15** 15:38:29.0±1.1, 6.°81S±0.°08×150.°4E±0.°1, h10km±1km, mb5.0/109, Error ellipse: s-maj=20.4km s-min=8.4km az=126.0*

*DJA **15** 15:38:41.2±0.7, 8°S±4°×15°0E±°, h44km±7km, M4.9/17, mb4.8/17, mB5.3/1, MLv5.0/1, Mw(mB)4.8/1*

ISC 15 15:38:28.7±2.3**, 6.°87S**±0.°06×**150.°51E**±0.°08**, h13**km±14km**, n154, σ1ˢ23**/115**, mb5.0**/73**, MS3.4**/11**, 1D, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KRVT	Keravat (AS076	2.96	31	Pn	Pn	15 39 14.1	-1.2
	321nm,0.5s,baz=286,slow=22,SNR=13						
KRVT				Sn	Sn	15 39 52.5	+1.8
	448nm,0.3s,baz=20,slow=23,SNR=38						
KRVT				LR	LR	15 40 34.1	
	comp=Z,779nm,18.7s,baz=156,slow=44						
RABL	Rabaul	3.12	32		Pn	15 39 18.2	+0.6
PMG	Port Moresby	4.17	233	Pn	Pn	15 39 33.7	+1.7
	26nm,0.3s,baz=55,slow=9.7,SNR=77						
PMG				Sn	Sn	15 40 20.2	-0.5
	143nm,0.3s,baz=60,slow=21,SNR=17						
PMG				LR	LR	15 40 48.2	
	comp=Z,230nm,18.7s,baz=49,slow=34						
	266nm,0.7s						
PMG				AML	AML		
PMG	Port Moresby	4.17	233	S	Sn	15 40 20.1	-0.5
PMG	Port Moresby	4.17	233	P	Pn	15 39 34.6	+2.6
PMG	Port Moresby	4.17	233	S	Sn	15 40 20.2	-0.5
PMG	Port Moresby	4.17	233		Pn	15 39 31.9	-0.1
PMG	Port Moresby	4.17	233	P	Pn	15 39 32.5	+0.5
PMG				AML	AML		
HNR	Honiara	9.68	106	LR	LR	15 43 58.5	
	comp=Z,110nm,18.0s,baz=34,slow=34						
CTA	Charters Tower	13.78	197	Pn	Pn	15 41 44.0	+0.2
	0.4nm,0.3s,baz=181,slow=12,SNR=2.2						
CTA				LR	LR	15 46 38.2	
	comp=Z,147nm,18.7s,baz=24,slow=36						
	4.1nm,0.7s						
CTA				AML	AML		
CTAO	Charters Tower	13.78	197	Pn	Pn	15 41 45.0	+1.2
QIS	Mount Isa	17.23	217	P	Pn	15 42 29.9	+0.7
EIDS	Eidsvold	18.41	178	P	P	15 42 44.8	+1.2
EIDS	Eidsvold	18.41	178		P	15 42 44.2	+0.6
MTN	Manton Dam	19.99	251	P	P	15 43 00.6	-0.5
WB0	Warramunga Arr	20.23	229	P	P	15 43 03.4	-0.3
WB0				IAmb	IAmb	15 43 04.4	
	comp=Z,42nm,0.7s						
WR8	Warramunga Arr	20.27	229	P	P	15 43 03.8	-0.3
WRAB	Tennant Creek	20.37	229	P	P	15 43 04.8	-0.4
WRAB	Tennant Creek	20.37	229	P	P	15 43 04.8	-0.4
WRA	Warramunga Arr	20.38	229	P	P	15 43 04.9	-0.4
	comp=Z,34nm,0.7s,baz=57,slow=12,SNR=171						
WRA				PcP	PcP	15 47 17.9	-0.2
	comp=Z,0.7nm,0.7s,baz=38,slow=1.9,SNR=3.1						
	comp=Z,34nm,0.7s						
WRA	Warramunga Arr	20.38	229	P	P	15 43 03.4	-2.0
WB1	Warramunga Ar.	20.39	229	P	P	15 43 05.3	-0.1
QLP	Quilpie	20.50	196	P	P	15 43 06.1	-0.4
TW1H	Toowoomba 1 Ha	20.61	176	P	P	15 43 09.5	+1.7
AUTOO	Toowoomba Stat	20.62	176	P	P	15 43 09.6	+1.7
GUMO	Guam	21.08	345	LR	LR	15 49 41.9	
	comp=Z,80nm,21.6s,baz=134,slow=32						
DZM	Mont Dzumac	21.56	136	LR	LR	15 49 30.2	
	comp=Z,142nm,20.8s,baz=264,slow=31						
AULRC	Lightning Ridg	22.57	186	P	P	15 43 29.6	+0.8
INKA	Innaminka	22.73	203		P	15 43 30.1	-0.4
KNRA	Kununurra	23.04	246		P	15 43 32.9	-1.0
AS01	Alice Springs	23.07	222	P	P	15 43 33.7	-0.4
AS31	Alice Springs	23.10	222		P	15 43 33.8	-0.6
ASAR	Alice Springs	23.10	222	P	P	15 43 33.5	-0.9
	comp=Z,11nm,0.8s,baz=59,slow=9.6,SNR=131						
ASAR				PcP	PcP	15 47 23.5	0.0
	comp=Z,0.3nm,0.5s,baz=7.8,slow=2.1,SNR=2.0						
ASAR				S	S	15 47 42.8	-2.7
	comp=Z,2.7nm,0.9s,baz=42,slow=21,SNR=10						
	comp=Z,11nm,0.8s						
ASAR	Alice Springs	23.10	222	P	P	15 43 33.7	-0.8
AUALC	St Philip's Co	23.13	222	P	P	15 43 34.6	-0.2
ARMA	Armidale	23.45	178	P	P	15 43 39.8	+1.8
AUPHS	Peel High Scho	24.11	179	P	P	15 43 44.1	-0.1
CMSA	Cobar Meteorol	24.96	190	P	P	15 43 52.5	+0.6
SOEI	Soe	26.12	262	P	P	15 44 09.5	+6.7
	comp=Z,35nm,1.4s						
STKA	Stephens Creek	26.24	197	P	P	15 44 02.2	-1.3
	comp=Z,15nm,0.7s,baz=12,slow=12,SNR=23						
STKA				LR	LR	15 55 38.0	
	comp=Z,289nm,18.2s,baz=231,slow=39						
	comp=Z,15nm,0.7s						
FITZ	Fitzroy Crossi	26.69	243	LR	LR	15 54 27.4	
	comp=Z,110nm,18.1s,baz=42,slow=36						
FITZ	Fitzroy Crossi	26.69	243	P	P	15 44 08.5	+0.8
FITZ	Fitzroy Crossi	26.69	243	P	P	15 44 07.5	-0.3
MMRI	Maumere	28.07	265	P	P	15 44 27.6	+7.4
CAN	Canberra	28.35	183	P	P	15 44 23.1	+0.5
CAN				IAmb	IAmb	15 45 24.6	
	comp=Z,65nm,1.8s						
DAV	Davao City (W)	28.47	299	LR	LR	15 54 15.2	
	comp=Z,205nm,20.2s,baz=86,slow=33						
HTT	Hallett	28.54	201	P	P	15 44 24.5	+0.3
FORT	Forrest	31.76	219	P	P	15 44 52.2	-0.5
MBWA	Marble Bar	32.98	241	P	P	15 45 03.4	-0.1
TAU	Tasmania Unive	36.01	184	P	P	15 45 30.0	+0.6
MORW	Morawa	39.29	231	P	P	15 45 57.4	0.0
MORW				IAmb	IAmb	15 47 19.3	
	comp=Z,64nm,1.8s						
URZ	Urewera	39.45	146	LR	LR	16 01 34.3	
	comp=Z,69nm,18.2s,baz=283,slow=35						
JGF	Kuroka	44.02	345	P	P	15 46 35.8	-0.3
JGF				IAmb	IAmb	15 46 50.0	
	comp=Z,44nm,1.9s						
MJAR	Matsushiro Arr	44.70	346	P	P	15 46 38.3	-3.1
	comp=Z,1.2nm,0.7s,baz=161,slow=8.2,SNR=4.8						
MJAR				PcP	PcP	15 48 23.4	-0.5
	comp=Z,1.7nm,0.8s,baz=161,slow=4.3,SNR=4.0						
MJAR				LR	LR	16 03 13.5	
	comp=Z,24nm,19.4s,baz=205,slow=33						
	comp=Z,1.2nm,0.7s						
MJAR	Matsushiro Arr	44.70	346	P	P	15 46 39.8	-1.7
KSRS	Korea Array	48.88	336	P	P	15 47 13.9	-0.3
	comp=Z,1.6nm,0.6s,baz=152,slow=8.1,SNR=13						
	comp=Z,1.6nm,0.6s						
NJ2	Nanjing	49.08	324	*e*P	P	15 47 16.4	+0.6
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.8s						
ASAJ	Asahikawa	51.25	353	LR	LR	16 06 25.8	
	comp=Z,27nm,21.1s,baz=210,slow=33						
GSI	Gunungsitoli	53.45	277	P	P	15 47 47.0	-1.9
GSI				IAmb	IAmb	15 48 02.3	
	comp=Z,21nm,0.8s						
CMAR	Chiang Mai Arr	56.74	297	P	P	15 48 12.7	0.0
	comp=Z,0.4nm,0.3s,baz=131,slow=5.4,SNR=4.0						
CMAR				PcP	PcP	15 49 08.4	-0.3
	comp=Z,0.8nm,0.8s,baz=108,slow=4.1,SNR=4.4						
	comp=Z,0.4nm,0.3s						
HHC	Hu-ho-hao-te	59.44	326	*e*P	P	15 48 33.0	+1.6
HHC				pmax	pmax		
	comp=Z,9.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,74nm,5.8s						
PEA0B	Petropavlovsk-	60.05	5	P	P	15 48 35.2	0.0
PEA0B				IAmb	IAmb	15 49 11.3	
	comp=Z,24nm,1.3s						
PETK	Petropavlovsk-	60.05	5	P	P	15 48 33.7	-1.5
	comp=Z,1.6nm,0.6s,baz=159,slow=5.2,SNR=4.6						
PETK				LR	LR	16 08 25.6	
	comp=Z,29nm,21.2s,baz=172,slow=30						
	comp=Z,1.6nm,0.6s						
BTO2	Baotou	60.31	325	*e*P	P	15 48 39.6	+2.2
BTO2				S	S	15 56 54.0	+2.3
BTO2				pmax	pmax		
	comp=Z,18nm,0.5s						
BTO2				pmax	pmax		
	comp=Z,250nm,5.5s						
BTO2				L	L		
	comp=Z,200nm,8.9s						
BTO2				L	L		
	comp=Z,190nm,6.8s						
BTO2				L	L		
	comp=Z,240nm,5.7s						
HEH	HeiHe	60.32	343	*e*P	P	15 48 36.8	-0.2
LZH	Lanzhou	61.17	318	*e*P	P	15 48 45.4	+2.1
LZH				pP	pwP	15 48 51.5	-2.5
LZH				pmax	pmax		
	comp=Z,23nm,1.4s						
KIWB	Kanaga Island	64.71	22	P	P	15 49 07.2	+0.8
ADK	Adak	64.91	22	P	P	15 49 08.7	+1.1
ATKA	Atka Island	66.10	23	P	P	15 49 16.3	+1.0
MA2	Magadan	66.23	0	LR	LR	16 14 37.5	
	comp=Z,14nm,21.5s,baz=148,slow=33						
SONM	Songino Array	66.89	329	P	P	15 49 19.8	-0.9
	comp=Z,1.8nm,0.8s,baz=145,slow=5.9,SNR=7.7						
SONM				LR	LR	16 18 44.0	
	comp=Z,22nm,20.6s,baz=153,slow=36						
	comp=Z,1.8nm,0.8s						
SONM	Songino Array	66.89	329	P	P	15 49 20.5	-0.2
UNV	Unalaska Valle	70.44	25	P	P	15 49 43.0	+0.5
VNDA	Vanda	70.87	177	P	P	15 49 44.6	-0.2
	comp=Z,1.1nm,0.8s,baz=327,slow=7.2,SNR=4.2						
	comp=Z,1.1nm,0.8s						
VNDA	Vanda	70.87	177	P	P	15 49 45.4	+0.6
AKUT	Akutan	70.96	25	P	P	15 49 46.8	+1.2
HYB	Hyderabad	75.03	290	*e*P	P	15 50 09.8	-0.8
HYB				*e*PcP	PcP	15 50 23.9	-0.5
HYB				*e*PP	PP	15 52 57.6	-1.2
HYB				*e*S	S	15 59 48.4	-0.5
HYB				*e*ScS	SKKSac	16 00 22.2	+1.9
WMQ	Urumqi	75.74	318	*e*P	P	15 50 15.9	+1.7
O14K	Tigyukauivet M	76.23	23	P	P	15 50 17.8	+1.2
L14K	Kuka Creek	77.08	21		P	15 50 22.4	+1.1
N15K	Kwethluk River	77.28	23	P	P	15 50 23.6	+1.1
L18K	Granite Mounta	79.84	22	P	P	15 50 37.2	+0.7
L18K				IAmb	IAmb	15 52 41.0	
	comp=Z,48nm,2.0s						
MKAR	Makanchi Array	80.40	320	P	P	15 50 39.2	-0.8
	comp=Z,0.7nm,0.7s,baz=106,slow=6.1,SNR=6.1						
	comp=Z,0.7nm,0.7s						
CNPM	China Poot	80.55	26	P	P	15 50 41.1	+0.6
M20K	Styx River	81.02	24	IAmb	IAmb	15 50 46.0	
	comp=Z,35nm,1.8s						
SLKM	Skilak Lake	81.50	25	P	P	15 50 45.9	+0.4
SLKM				IAmb	IAmb	15 50 47.3	
	comp=Z,15nm,0.8s						
ZALV	Zalesovo Beam	81.62	327	P	P	15 50 44.4	-1.8
	comp=Z,1.3nm,0.6s,baz=115,slow=5.7,SNR=7.2						
	comp=Z,1.3nm,0.6s						
SEW	Seward	81.62	26	P	P	15 50 47.1	+0.9
SEW				IAmb	IAmb	15 50 48.2	
	comp=Z,12nm,0.8s						
J20K	Nowinta River	81.92	21		P	15 50 48.5	+0.9
CAST	Castle Rocks	82.27	22	P	P	15 50 50.1	+0.5
CAST				IAmb	IAmb	15 50 51.5	
	comp=Z,7.7nm,0.8s						
P23K	Montague Islan	82.48	27	IAmb	IAmb	15 50 52.9	
	comp=Z,7.8nm,0.9s						
GHO	Glory Hole Cre	82.67	25	IAmb	IAmb	15 50 53.5	
	comp=Z,11nm,0.9s						
KTH	Kantishna Hill	82.78	23	IAmb	IAmb	15 50 53.7	
	comp=Z,9.8nm,1.0s						
TRF	Thorofare Moun	82.97	23	P	P	15 50 53.7	+0.3
QSPA	South Pole Qui	83.11	180	P	P	15 50 53.8	-0.3
	comp=Z,5.0nm,0.7s,baz=322,slow=1.4,SNR=17						
	comp=Z,5.0nm,0.7s						
QSPA	South Pole Qui	83.11	180		P	15 50 54.1	+0.1
QSPA				IAmb	IAmb	15 50 58.2	
	comp=Z,6.1nm,0.8s						
FID	Port Fidalgo	83.23	26	IAmb	IAmb	15 50 56.5	
	comp=Z,11nm,0.9s						
SCM	Sheep Creek Mo	83.37	25	IAmb	IAmb	15 50 57.5	
	comp=Z,10nm,0.9s						
MLY	Manley	83.62	21	IAmb	IAmb	15 50 58.4	
	comp=Z,8.1nm,0.7s						
DIV	Divide	83.71	26	IAmb	IAmb	15 50 59.4	
	comp=Z,10nm,0.7s						
KAIM	Kayak Island	83.79	27		P	15 50 58.2	+0.7
KAIM				IAmb	IAmb	15 51 00.2	
	comp=Z,14nm,0.8s						
KLU	Klutina	83.81	26	IAmb	IAmb	15 51 00.6	
	comp=Z,14nm,0.9s						
RAGM	Ragged Mountai	83.87	27	IAmb	IAmb	15 51 00.9	
	comp=Z,17nm,1.2s						
DHY	Denali Highway	83.93	24	IAmb	IAmb	15 51 00.7	
	comp=Z,8.0nm,0.8s						
KURK	Kurchatov	84.00	323	P	P	15 50 57.7	-1.0
NEA2	Nenana	84.01	22	IAmb	IAmb	15 50 59.5	
	comp=Z,7.3nm,0.8s						
KURBB	Kurchatov Arra	84.03	322	P	P	15 50 58.4	-0.5
	comp=Z,0.6nm,0.3s,baz=111,slow=4.0,SNR=7.7						
	comp=Z,0.6nm,0.3s						
BMRM	Bremner River	84.15	26	IAmb	IAmb	15 51 01.6	
	comp=Z,10nm,1.0s						
WRH	Wood River Hil	84.32	22	IAmb	IAmb	15 51 01.1	
	comp=Z,10nm,1.0s						
AAK	Ala-Archa	84.44	314	P	P	15 51 01.9	+0.5
	comp=Z,1.7nm,0.5s,baz=180,slow=8.1,SNR=3.9						
	comp=Z,1.7nm,0.5s						
AAK	Ala-Archa	84.44	314	IAmb	IAmb	15 52 08.8	
	comp=Z,12nm,1.7s						
CCB	Clear Creek Bu	84.51	22		P	15 51 00.9	-0.1
CCB				IAmb	IAmb	15 51 01.8	
	comp=Z,8.0nm,0.8s						
GLB	Gilahina Butte	84.70	26	IAmb	IAmb	15 51 04.3	
	comp=Z,7.5nm,0.8s						
CRQM	Cirque	84.71	27	IAmb	IAmb	15 51 04.8	
	comp=Z,11nm,0.9s						
VRDI	Verde Repeater	84.77	26	IAmb	IAmb	15 51 04.9	
	comp=Z,9.7nm,1.0s						
TGL	Tana Glacier	84.85	27	IAmb	IAmb	15 51 05.3	
	comp=Z,10nm,1.0s						
K24K	Donnelly Dome	84.91	24	IAmb	IAmb	15 51 06.1	
	comp=Z,12nm,1.0s						
IL31		84.92	22	IAmb	IAmb	15 51 03.6	
	comp=Z,8.9nm,0.8s						
ILAR	Eielson Array	84.92	22	P	P	15 51 02.2	-0.9
	comp=Z,7.3nm,0.8s,baz=253,slow=5.2,SNR=55						
	comp=Z,7.3nm,0.8s						
ILAR	Eielson Array	84.92	22		P	15 51 02.8	-0.3
MCARA	McCarthy VSAT	85.02	26	IAmb	IAmb	15 51 06.6	
	comp=Z,9.5nm,1.0s						
BARN	Barnard Glacie	85.50	27	IAmb	IAmb	15 51 08.9	
	comp=Z,10.0nm,0.8s						
L26K	Log Cabin Wild	85.56	25	IAmb	IAmb	15 51 08.6	
	comp=Z,5.7nm,0.7s						
G24K	Hadweenzic Riv	85.62	21	P	P	15 51 07.3	+0.7
D23K	Nanushuk River	85.70	18	IAmb	IAmb	15 51 10.4	
	comp=Z,15nm,0.9s						
LOGN	Logan Glacier	85.70	27	IAmb	IAmb	15 51 10.7	
	comp=Z,9.7nm,1.1s						
F24K	Squaw Lake	85.87	20	IAmb	IAmb	15 51 10.6	
	comp=Z,8.0nm,0.8s						
M27K	Edge Creek, AK	85.91	26	IAmb	IAmb	15 51 11.1	
	comp=Z,13nm,0.8s						

BCAR	Beaver Creek A	86.22	25	P	P	15 51 10.2	+0.5
BMAR	Burnt Mountain	86.96	20	P	P	15 51 14.0	+0.8
M29M	Somme Creek	87.42	26		P	15 51 16.4	+0.7
M29M				IAmb	IAmb	15 51 18.5	
	comp=Z,11nm,0.9s						
DAWY	Dawson	87.59	24	IAmb	IAmb	15 51 19.1	
	comp=Z,12nm,0.9s						
N30M	Aishikik Lake	87.71	27	IAmb	IAmb	15 51 19.9	
	comp=Z,9.8nm,1.1s						
I28M	Miner Creek	87.88	23	IAmb	IAmb	15 51 20.1	
	comp=Z,8.3nm,0.8s						
K29M	Barlow Dome	88.29	25		P	15 51 20.5	+0.7
E27K	Coleen River	88.31	20	IAmb	IAmb	15 51 22.5	
	comp=Z,14nm,1.1s						
I29M	Ogilvie Camp,	88.48	23	IAmb	IAmb	15 51 22.8	
	comp=Z,9.9nm,0.9s						
F28M	Old Crow	88.69	21	IAmb	IAmb	15 51 24.1	
	comp=Z,5.7nm,0.9s						
J30M	Hart River	89.02	24	IAmb	IAmb	15 51 26.0	
	comp=Z,7.7nm,0.9s						
I30M	Mount Dempster	89.20	24	IAmb	IAmb	15 51 26.3	
	comp=Z,7.5nm,1.1s						
EPYK	Eagle Plains	89.43	23	IAmb	IAmb	15 51 27.3	
	comp=Z,12nm,0.9s						
BVAR	Borovoye Array	89.53	323	P	P	15 51 23.8	-1.9
	comp=Z,1.8nm,0.9s,baz=90,slow=4.4,SNR=7.1						
	comp=Z,1.8nm,0.9s						
G30M	tAoh Zraii Nji	89.81	22	IAmb	IAmb	15 54 09.2	
	comp=Z,16nm,1.4s						
G31M	Satah River	90.53	22	IAmb	IAmb	15 51 31.9	
	comp=Z,7.4nm,0.8s						
INK	Inuvik	91.19	21	IAmb	IAmb	15 51 35.1	
	comp=Z,5.5nm,0.9s						
ELIB	Princess Elisa	94.25	194	*d*P	P	15 51 47.5	+0.1
NVAR	Mina Array Bea	95.14	52	P	P	15 51 51.7	-0.6
	comp=Z,1.2nm,1.0s,baz=247,slow=6.0,SNR=5.5						
	comp=Z,1.2nm,1.0s						
ARTI	Arti	96.85	326	P	P	15 51 58.0	-1.3
	comp=Z,1.1nm,0.4s,baz=207,slow=8.1,SNR=3.2						
	comp=Z,1.1nm,0.4s						
ARTI	Arti	96.85	326	IAmb	IAmb	15 54 52.9	
	comp=Z,4.0nm,1.0s						
CLL	Collm	123.51	329	L	L	16 40 00.0	
EKA	Eskdalemuir Ar	127.30	341	PKP	PKPdf	15 57 32.1	-0.8
	comp=Z,0.9nm,0.5s,baz=28,slow=2.5,SNR=3.3						
TORD	Torodi Ar. Bea	148.69	284	PKPbc	PKPbc	15 58 16.7	0.0
	comp=Z,8.7nm,0.9s,baz=65,slow=2.7,SNR=22						
BOAV	Boa Vista	148.76	97	PKPbc	PKPbc	15 58 16.7	-0.3
BDFB	Brasilia	151.07	141	PKPbc	PKPbc	15 58 22.0	-0.7
	comp=Z,4.3nm,0.6s,baz=171,slow=4.6,SNR=5.4						

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*IDC **15** 15:46:08.8±2.3, 6°.09S×104°.77E, h0^{km}, mb3.9/8, mbtmp3.9/8, MS3.4/2, Error ellipse: s-maj=114.4km s-min=17.7km az=53.0*
*DJA **15** 15:46:14.5±0.8, 7°S±3°×10°4E±°, h13^{km}±5^{km}, M3.9/23, MLv3.9/23*
*NEIC **15** 15:46:18.7±0.9, 6°.0S±0°.1×104°.84E±0°.09, h63^{km}±9^{km}, mb4.5/12, Error ellipse: s-maj=22.9km s-min=2.9km az=213.0*
ISC 15 15:46:16.8±0.7**, 6°.0S**±0°.1×**104°.77E**±0°.09**, h50**^{km}**, n45, σ1^{s}55**/35**, mb4.1**/13**, Sunda Strait**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KASI	Kota Agung	0.56	331	P	Pn	15 46 32.7	+3.9
KASI				AML	AML		
BLSI	Bandar Lampung	0.80	36	P	Pn	15 46 39.2	+7.3
BLSI				S	Sn	15 46 56.4	+13
BLSI				AML	AML		
CGJI	Cibinong	1.09	123	P	Pn	15 46 36.3	+0.5
CGJI				S	Sn	15 46 52.2	+2.4
KLI	Kotabumi	1.15	4	P	Pn	15 46 46.1	+9.5
KLI				AML	AML		
MDSI	Maura Dua	1.63	339	P	Pn	15 46 48.6	+5.4
SKJI	Sukabumi	2.03	119	P	Pn	15 46 50.4	+1.8
SKJI				AML	AML		
CBJI	Citeko	2.11	101	P	Pn	15 46 50.1	+0.5
CBJI				AML	AML		
MNAI	Manna	2.44	312	Pn	Pn	15 46 55.5	+1.3
MNAI	Manna	2.44	312	P	Pn	15 46 55.7	+1.4
MNAI				AML	AML		
CNJI	Cibinong	2.67	119	P	Pn	15 46 58.3	+0.9
CNJI				AML	AML		
KSI	Kapahiang	3.20	317	P	Pn	15 47 08.6	+3.9
BBJI	Bungbulang	3.20	117	Pn	Pn	15 47 05.0	+0.3
BBJI	Bungbulang	3.20	117	P	Pn	15 47 06.5	+1.8
TPI	Tanjungpandan	4.33	42	P	Pn	15 47 27.8	+7.6
UGM	Wanagama	6.01	109	Pn	Pn	15 47 44.7	+1.4
JAGI	Jajag, Banyuwa	9.62	105	Pn	Pn	15 48 35.0	+2.3
LUWI	Luwuk	18.63	75	P	P	15 50 30.1	-0.4
LUWI				IAmb	IAmb	15 50 30.5	
	comp=Z,35nm,1.0s						
GIRL	Giralia	18.88	152	P	P	15 50 34.2	+1.0
FITZ	Fitzroy Crossi	23.64	122	P	P	15 51 23.1	-0.7
WRA	Warramunga Arr	31.89	118	P	P	15 52 35.7	-2.0
	comp=Z,0.7nm,0.9s,baz=290,slow=8.8,SNR=11						
	comp=Z,0.7nm,0.9s						
WRAB	Tennant Creek	31.89	118	P	P	15 52 36.8	-0.9
WRAB				IAmb	IAmb	15 53 01.4	
	comp=Z,9.1nm,1.4s						
WR8	Warramunga Arr	32.03	118	P	P	15 52 37.9	-1.0
WR8				IAmb	IAmb	15 52 57.3	
	comp=Z,9.2nm,1.4s						
H08S2	Diego Garcia H	32.08	265	T	T	16 26 18.6	
	baz=89,slow=76,SNR=20						
H08S3	Diego Garcia H	32.09	265	T	T	16 26 20.8	
	baz=89,slow=76,SNR=31						
H08S1	Diego Carcia H	32.10	265	T	T	16 26 19.9	
	baz=89,slow=76,SNR=11						
ASAR	Alice Springs	33.06	125	P	P	15 52 47.3	-0.7
	comp=Z,0.2nm,0.7s,baz=298,slow=8.4,SNR=6.6						
	comp=Z,0.2nm,0.7s						
HMDM	Hanimaadhoo	33.99	291	P	P	15 52 56.8	+0.8
STKA	Stephens Creek	42.94	132	P	P	15 54 08.3	-2.7
	comp=Z,0.9nm,0.5s,baz=295,slow=12,SNR=5.6						
	comp=Z,0.9nm,0.5s						
JNU	Nakatsue	46.15	31	LR	LR	16 15 41.2	
	comp=Z,43nm,18.0s,baz=192,slow=38						
JMN	Monobe	48.20	33	P	P	15 54 52.0	-0.6
JMN				IAmb	IAmb	15 55 31.7	
	comp=Z,12nm,1.2s						
MKAR	Makanchi Array	56.24	342	P	P	15 55 51.8	-0.2
	comp=Z,0.8nm,0.4s,baz=139,slow=7.6,SNR=9.3						
	comp=Z,0.8nm,0.4s						
HILR	Hailar Array B	56.87	12	P	P	15 55 55.8	-0.7
	comp=Z,0.7nm,0.3s,baz=184,slow=9.4,SNR=1.7						
	comp=Z,0.7nm,0.3s						
H04N2	CROZET ISLANDS	60.58	220	T	T	17 02 35.3	
	baz=64,slow=75,SNR=22						
H04N1	CROZET ISLANDS	60.59	220	T	T	17 02 38.0	
	baz=64,slow=75,SNR=18						
H04N3	CROZET ISLANDS	60.60	220	T	T	17 02 33.3	
	baz=64,slow=75,SNR=21						
KURBB	Kurchatov Arra	60.80	341	P	P	15 56 22.9	-0.7
	comp=Z,0.9nm,0.7s,baz=156,slow=6.1,SNR=4.8						
	comp=Z,0.9nm,0.7s						
KURK	Kurchatov	60.85	341	P	P	15 56 22.9	-1.1
ZAA0	Zalesovo Array	62.06	347	P	P	15 56 32.1	+0.1
ZAA0				IAmb	IAmb	15 56 33.5	
	comp=Z,2.0nm,0.8s						
ZALV	Zalesovo Beam	62.06	347	P	P	15 56 30.8	-1.2
	comp=Z,2.3nm,0.4s,baz=152,slow=6.1,SNR=13						
ZALV				LR	LR	16 26 40.8	
	comp=Z,29nm,19.8s,baz=108,slow=39						
	comp=Z,2.3nm,0.4s						
ZALV	Zalesovo Beam	62.06	347	P	P	15 56 32.0	-0.1
BVAR	Borovoye Array	65.62	338	P	P	15 56 55.7	+0.1
	comp=Z,0.5nm,0.4s,baz=133,slow=6.8,SNR=3.2						
	comp=Z,0.5nm,0.4s						
KIBK	Kibwezi	66.61	270	P	P	15 57 02.9	0.0
KIBK				IAmb	IAmb	15 57 03.7	
	comp=Z,4.1nm,0.6s						
AB31	Akbulak array	67.45	330	P	P	15 57 07.1	-0.2
ABKAR	Akbulak array	67.45	330	P	P	15 57 07.0	-0.3
TXAR	Lajitas Array	144.53	46	PKPbc	PKPab	16 05 48.6	+1.6
	comp=Z,0.6nm,0.6s,baz=224,slow=0.9,SNR=6.9						

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*IDC **15** 15:51:16.4±1.2, 4°.08N×126°.65E, h0^{km}, mb3.8/7, mbtmp3.8/7, Error ellipse: s-maj=93.0km s-min=16.8km az=64.0*
*MAN **15** 15:51:18.0, 3°.91N×126°.53E, h7^{km}, MS4.1*
*NEIC **15** 15:51:18.6±1.2, 4°.19N±0°.09×126°.7E±0°.1, h10^{km}±1^{km}, mb4.1/14, Error ellipse: s-maj=18.9km s-min=13.1km az=57.0*
ISC 15 15:51:18.2±0.6**, 4°.21N**±0°.04×**126°.77E**±0°.08**, h10**^{km}**, n34, σ1^{s}77**/39**, mb4.0**/11**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DDMP	Don Marcelino,	2.16	331	*e*P	Pn	15 51 55.2	+0.9
DDMP				*e*S	Sg	15 52 34.3	+6.7
GSPH	General Santos	2.60	316	*i* P	Pn	15 52 01.5	+1.1
GSPH				*i* S	Sb	15 52 38.7	+1.6
KCP	Kidapawan	3.24	329	*e*P	Pg	15 52 18.8	-1.6
TNTI	Ternate	3.47	170	Pn	Pn	15 52 13.9	+1.7
TNTI				Sn	Sn	15 52 53.2	-0.2
CDOP	Cateel, Davao	3.56	355	*i* P	Pb	15 52 21.5	+0.1
CDOP				*i* S	Sb	15 53 05.8	+1.0
CTBH	Cotabato--PC H	3.91	320	*i* P	Pb	15 52 26.5	-0.7
BIPH	Bislig	3.97	354	*e*P	Pg	15 52 32.7	-1.5
BIPH				*e*S	Sg	15 53 26.4	+0.7
BUKP	Musuan	4.02	335	*i* P	Pb	15 52 26.6	-2.5
BUKP				*e*S	Sg	15 53 23.0	-4.4
TOLI2	Tolitoli	6.73	243	Pn	Pn	15 52 57.7	+0.6
KAPI	Kappang	11.54	217	Pn	Pn	15 54 04.0	+0.9
MTN	Manton Dam	17.49	166	P	Pn	15 55 23.0	+0.7
MTN				IAmb	IAmb	15 55 54.2	
	comp=Z,6.7nm,1.1s						
DLV	Lat	19.65	294	P	P	15 55 47.8	+0.3
DLV				IAmb	IAmb	15 56 04.6	
	comp=Z,28nm,1.5s						
KNRA	Kununurra	19.86	174	P	P	15 55 49.4	-0.2
KNRA				IAmb	IAmb	15 55 50.2	
	comp=Z,7.7nm,1.2s						
FITZ	Fitzroy Crossi	22.20	183	P	P	15 56 14.0	-0.8
BBJI	Bungbulang	22.33	239	P	P	15 56 14.3	-2.1
WB0	Warramunga Arr	24.98	163	P	P	15 56 40.8	-1.4
WB0				IAmb	IAmb	15 56 50.8	
	comp=Z,18nm,1.5s						
WRA	Warramunga Arr	25.13	163	P	P	15 56 42.2	-1.4
	comp=Z,2.4nm,0.7s,baz=344,slow=10,SNR=20						
	comp=Z,2.4nm,0.7s						
WRA	Warramunga Arr	25.13	163	P	P	15 56 41.1	-2.5
AS31	Alice Springs	28.57	166	P	P	15 57 13.9	-0.7
ASAR	Alice Springs	28.57	166	P	P	15 57 13.1	-1.5
	comp=Z,0.4nm,0.6s,baz=348,slow=7.7,SNR=14						
	comp=Z,0.4nm,0.6s						
ASAR	Alice Springs	28.57	166	P	P	15 57 13.7	-0.8
CMAR	Chiang Mai Arr	30.67	300	P	P	15 57 33.6	+0.4
	comp=Z,0.2nm,0.2s,baz=113,slow=7.9,SNR=1.9						
	comp=Z,0.2nm,0.2s						
CMAR	Chiang Mai Arr	30.67	300	P	P	15 57 32.6	-0.7
INKA	Innaminka	34.51	158	P	P	15 58 07.0	+0.3
INKA				IAmb	IAmb	15 58 21.4	
	comp=Z,3.2nm,1.4s						
STKA	Stephens Creek	38.56	160	P	P	15 58 41.3	0.0
	comp=Z,1.9nm,0.7s,baz=330,slow=12,SNR=5.7						
	comp=Z,1.9nm,0.7s						
SONM	Songino Array	46.86	341	P	P	15 59 50.3	+1.7
	comp=Z,0.4nm,0.7s,baz=142,slow=7.3,SNR=2.4						
	comp=Z,0.4nm,0.7s						
SONM	Songino Array	46.86	341	P	P	15 59 49.8	+1.2
SONM				IAmb	IAmb	15 59 55.2	
	comp=Z,2.4nm,1.4s						
MKAR	Makanchi Array	57.19	325	P	P	16 01 04.8	-0.7
	comp=Z,0.4nm,0.5s,baz=113,slow=7.4,SNR=6.8						
	comp=Z,0.4nm,0.5s						
KURBB	Kurchatov Arra	61.36	327	P	P	16 01 33.5	-0.7
	comp=Z,0.6nm,0.3s,baz=123,slow=6.4,SNR=6.3						
	comp=Z,0.6nm,0.3s						
KURK	Kurchatov	61.36	327	P	P	16 01 33.5	-0.7
KURK	Kurchatov	61.36	327	IAmb	IAmb	16 01 35.6	
	comp=Z,1.4nm,0.8s						
SKT	Skwentna	82.40	28	P	P	16 03 40.7	+0.3
H22K	Ishtalitna Cre	82.84	24	P	P	16 03 42.8	+0.2
H22K				IAmb	IAmb	16 03 56.1	
	comp=Z,3.9nm,1.2s						
H31M	Peel River	89.83	24	P	P	16 04 17.7	+0.7

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*IDC **15** 16:11:19.1±1.9, 3°.94N×126°.15E, h0^{km}, mb3.4/5, mbtmp3.4/5, Error ellipse: s-maj=112.4km s-min=26.8km az=68.0*
ISC 15 16:11:19.8±0.9**, 4°.12N**±0°.07×**126°.6E**±0°.2**, h10**^{km}**, n8, σ1^{s}82**/11**, mb3.4**/5**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DDMP	Don Marcelino,	2.18	335	*e*P	Pn	16 11 54.9	-1.2
DDMP				*e*S	Sg	16 12 31.3	+1.4
CDOP	Cateel, Davao	3.65	357	*e*P	Pb	16 12 20.8	-3.6
CDOP				*i* S	Sb	16 13 10.2	+1.5
BIPH	Bislig	4.05	356	*e*P	Pg	16 12 39.6	+2.2
BIPH				*e*S	Sb	16 13 20.6	+0.3
FITZ	Fitzroy Crossi	22.10	183	P	P	16 16 15.4	0.0
	0.5nm,0.4s,baz=359,slow=7.6,SNR=7.1						
	0.5nm,0.4s						
WRA	Warramunga Arr	25.08	163	P	P	16 16 44.7	-0.1
	0.3nm,0.4s,baz=338,slow=10,SNR=16						
	0.3nm,0.4s						
ASAR	Alice Springs	28.51	166	P	P	16 17 15.1	-0.6
	0.1nm,0.5s,baz=344,slow=10,SNR=6.4						
	0.1nm,0.5s						
STKA	Stephens Creek	38.52	159	P	P	16 18 44.2	+1.6
	0.4nm,0.3s,baz=342,slow=9.6,SNR=3.0						
	0.4nm,0.3s						
MKAR	Makanchi Array	57.19	325	P	P	16 21 07.2	+0.1
	0.2nm,0.4s,baz=128,slow=7.7,SNR=2.0						
	0.2nm,0.4s						

IDC 15 16:16:20.1±16.0**, 0°.40N×127°.24E, h0**^{km}**, mb3.3**/3**, mbtmp3.4**/4**, ML3.2**/1**, Error ellipse: s-maj=262.3km s-min=111.2km az=149.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	18.44	185	P	P	16 20 38.6	+1.2
	0.1nm,0.3s,baz=10,slow=11,SNR=1.6						
	1.3nm,0.8s						
FITZ				AML	AML		
WRA	Warramunga Arr	21.38	161	P	P	16 21 08.1	-1.3
	0.5nm,0.7s,baz=338,slow=10,SNR=6.1						
	0.5nm,0.7s						
ASAR	Alice Springs	24.78	165	P	P	16 21 44.1	+0.3
	0.2nm,0.7s,baz=348,slow=9.0,SNR=4.4						
	0.2nm,0.7s						
STKA	Stephens Creek	34.86	158	P	P	16 23 13.1	-0.1
	1.0nm,0.5s,baz=346,slow=12,SNR=2.9						
	1.0nm,0.5s						

IDC 15 16:22:36.3±3.0**, 21°.92N×145°.63E, h0**^{km}**, mb3.7**/8**, mbtmp3.7**/8**, Error ellipse: s-maj=112.7km s-min=20.3km az=80.0, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSRS	Korea Array	21.76	319	P	P	16 27 30.8	+1.2
	1.3nm,0.8s,baz=139,slow=9.4,SNR=5.8						
	1.3nm,0.8s						
WRA	Warramunga Arr	43.04	196	P	P	16 30 38.3	+0.3
	0.4nm,0.5s,baz=9.1,slow=8.0,SNR=6.7						
	0.4nm,0.5s						
FITZ	Fitzroy Crossi	44.32	208	P	P	16 30 49.2	+1.0
	1.2nm,0.6s,baz=34,slow=12,SNR=1.8						
	1.2nm,0.6s						
ASAR	Alice Springs	46.73	195	P	P	16 31 05.9	-1.4
	0.3nm,0.7s,baz=7.5,slow=7.2,SNR=5.3						
	0.3nm,0.7s						
MKAR	Makanchi Array	56.22	312	P	P	16 32 18.6	+0.3
	0.2nm,0.5s,baz=97,slow=8.5,SNR=2.1						
	0.2nm,0.5s						
KURBB	Kurchatov Arra	58.91	317	P	P	16 32 37.2	+0.1
	0.5nm,0.4s,baz=93,slow=7.3,SNR=5.3						
	0.5nm,0.4s						
BVAR	Borovoye Array	63.98	319	P	P	16 33 11.2	-0.2
	0.8nm,0.5s,baz=92,slow=6.4,SNR=6.0						
	0.8nm,0.5s						
FINES	FINESS Array B	83.95	335	P	P	16 35 07.2	-0.9
	2.0nm,1.0s,baz=100,slow=7.2,SNR=2.1						
	2.0nm,1.0s						

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*IDC **15** 16:22:49.4±1.0, 11°.01S×73°.82W, h0^{km}, mb3.8/2, mbtmp3.8/6, ML3.6/4, MS3.6/3, Error ellipse: s-maj=22.4km s-min=11.0km az=27.0*
*NEIC **15** 16:22:51.9±1.6, 11°.14S±0°.07×73°.67W±0°.07, h21^{km}±8^{km}, mb4.6/5, Error ellipse: s-maj=11.4km s-min=9.0km az=141.0*
ISC 15 16:22:50.3±0.8**, 11°.11S**±0°.07×**73°.67W**±0°.06**, h10**^{km}**, n17, σ1^{s}00**/16**, mb4.6**/3**, MS3.4**/3**, Central Peru**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NNA	Nana	3.22	254	Pn	Pn	16 23 41.7	+0.6
	14nm,0.3s,baz=78,slow=8.4,SNR=11						
NNA				Sn	Sn	16 24 19.2	-0.4
	41nm,0.3s,baz=205,slow=20,SNR=14						
	41nm,0.2s						
NNA				AML	AML		
NNA	Nana	3.22	254		Pn	16 23 40.8	-0.3
NNA				Sn	Sn	16 24 18.3	-1.3
CZSB	Cruzeiro do Su	3.50	16	Pn	Pn	16 23 43.9	-0.8
CZSB				Sn	Sn	16 24 26.4	+0.2
ATAH	Atahualpa	6.11	310	Pn	Pn	16 24 21.3	+0.2
	4.1nm,0.3s,baz=128,slow=8.2,SNR=22						
ATAH				Sn	Sn	16 25 33.6	+2.2
	1.2nm,0.3s,baz=54,slow=6.4,SNR=1.3						
	28nm,0.5s						
ATAH				AML	AML		
LPAZ	La Paz	7.45	134	Pn	Pn	16 24 47.5	+7.9
	0.2nm,0.3s,baz=321,slow=8.7,SNR=5.5						
LPAZ				Lg	Lg	16 26 50.4	
	0.6nm,0.3s,baz=171,slow=22,SNR=4.2						
	0.5nm,0.5s						
LPAZ				AML	AML		
LPAZ	La Paz	7.45	134	Pn	Pn	16 24 39.1	-0.5
SIV	San Ignacio	13.17	113	Pn	Pn	16 25 58.8	+1.2
	baz=279,slow=19,SNR=2.3						
SIV				Lg	Lg	16 29 51.7	
	0.1nm,0.3s,baz=196,slow=22,SNR=4.3						
	0.7nm,0.4s						
BOAV	Boa Vista	18.74	45	P	P	16 27 03.1	-6.4
VA01	Torpederas	21.89	175	P	P	16 27 44.2	+0.8
BOAB	BOACO BROADBA	26.26	333	P	P	16 28 25.4	-0.6
BOAB				IAmb	IAmb	16 28 29.1	
	comp=Z,14nm,1.0s						
TXAR	Lajitas Array	49.54	325	P	P	16 31 41.5	-0.1
	comp=Z,0.5nm,0.5s,baz=141,slow=8.0,SNR=4.7						
	comp=Z,0.5nm,0.5s						
T42A	Van Buren	50.61	342	P	P	16 31 48.3	-1.2
T42A				IAmb	IAmb	16 32 04.9	
	comp=Z,9.7nm,1.4s						
ANMO	Albuquerque	55.34	327	LR	LR	16 56 26.7	
	comp=Z,31nm,18.1s,baz=12,slow=37						
ULM	Lac du Bonnet	64.12	344	P	P	16 33 24.4	-0.2
PPT	Papeete	73.41	255	LR	LR	17 01 20.3	
	comp=Z,146nm,18.1s,baz=196,slow=32						
TORD	Torodi Ar. Bea	78.57	74	P	P	16 34 53.5	+0.8
	comp=Z,0.9nm,0.8s,baz=257,slow=5.3,SNR=3.8						
	comp=Z,0.9nm,0.8s						
JMIC	Jan Mayen	92.63	17	LR	LR	17 15 26.8	
	comp=Z,13nm,19.9s,baz=252,slow=34						

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*NEIC **15** 16:33:35.3±1.9, 38°.11N±0°.03×118°.02W±0°.04, h10^{km}±2^{km}, ML4.0/128, Mwr4.0/126, ML4.2/18(REN), Error ellipse: s-maj=5.9km s-min=4.8km az=71.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}0.18; $M_{\theta\theta}$-0.76; $M_{\phi\phi}$0.58; $M_{r\theta}$-0.20; $M_{\theta\phi}$0.82; $M_{\phi r}$0.14; Fault plane solution: $M_0$1.10000×10^{15} NP1:ϕ_s69.93000°, δ80.77000°, λ-4.66000°. NP2:ϕ_s160.68000°, δ85.40000°, λ-170.74000°. Principal axes: T 0.9738, Plg3.0000°, Azm295.0000°; N 0.2187, Plg80.0000°, Azm187.0000°; P -1.1925, Plg10.0000°, Azm26.0000°;*
*NEIC **15** 16:33:35.7, 38°.15N×117°.95W, h17^{km}*
*REN **15** 16:33:36.5±3.0, 38°.160N±0°.007×117°.96W±0°.03, h12^{km}±5^{km}, Error ellipse: s-maj=3.1km s-min=0.8km az=100.0*
*IDC **15** 16:33:36.7±1.6, 38°.15N×117°.93W, h0^{km}, mbtmp3.1/2, ML3.7/1, Error ellipse: s-maj=14.9km s-min=6.3km az=137.0*
ISC 15 16:33:36.4±0.8**, 38°.16N**±0°.02×**117°.95W**±0°.02**, h15**^{km}±5^{km}**, n89, σ0^{s}63**/84**, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
COLR	Columbus	0.08	261		Pg	16 33 39.5	-0.2
COLR					Sg	16 33 41.5	-0.3
NV11	Mina Array Sit	0.32	330	Pg	Pg	16 33 43.1	0.0
NV11				IAML		16 33 48.2	
	comp=N,10µm,0.6s						
NV11				IAML		16 33 48.8	
	comp=E,15µm,0.9s						
NV06	Mina Array Sit	0.37	316		Pg	16 33 44.1	+0.1
NV06					Sg	16 33 49.8	+0.6
NV07	Mina Array Sit	0.37	313		Pg	16 33 44.1	0.0
NV07					Sg	16 33 49.5	+0.2
NV08	Mina Array Sit	0.38	311		Pg	16 33 44.2	0.0
NV03	Mina Array Sit	0.38	315		Pg	16 33 44.3	+0.1
NV03					Sg	16 33 49.7	+0.2
NV04	Mina Array Sit	0.39	314		Pg	16 33 44.4	+0.1
NV01	Mina Array Sit	0.39	315		Pg	16 33 44.4	0.0
NV01					Sg	16 33 50.0	+0.2
NVAR	Mina Array Bea	0.39	315	Pg	Pg	16 33 44.4	0.0
	comp=E,2µm,0.3s,baz=138,slow=17,SNR=4455						
NVAR				Lg	Lg	16 33 50.4	
	comp=E,4µm,0.3s,baz=136,slow=40,SNR=24						
NV05	Mina Array Sit	0.39	317		Pg	16 33 44.5	0.0
NV05					Sg	16 33 50.2	+0.2
NV02	Mina Array Sit	0.39	315		Pg	16 33 44.5	+0.1
NV02					Sg	16 33 50.3	+0.3
NV09	Mina Array Sit	0.41	313		Pg	16 33 44.8	+0.1
NV09					Sg	16 33 51.1	+0.7
LHV	Little Huntoon	0.45	282		Sb	16 33 52.1	-0.3
LHV	Little Huntoon	0.45	282	Pg	Pg	16 33 45.4	+0.2
LHV				IAML		16 33 52.7	
	comp=N,19µm,0.6s						
LHV				IAML		16 33 52.9	
	comp=E,21µm,0.6s						
TPH	Tonopah	0.58	98		Sg	16 33 56.1	+0.4
TPH	Tonopah	0.58	98		Pg	16 33 47.8	-0.1
TPH	Tonopah	0.58	98	IAML		16 33 56.7	
	comp=E,3µm,0.6s						
TPH				IAML		16 33 57.2	
	comp=N,6µm,0.2s						
RYN	Ryan	0.65	317		Sg	16 33 58.3	+0.5
RYN	Ryan	0.65	317	Pg	Pg	16 33 49.1	-0.1
RYN				IAML		16 33 59.1	
	comp=E,9µm,0.5s						
RYN				IAML		16 33 59.8	
	comp=N,5µm,0.3s						
MLAC	Mammoth, Mammo	0.88	233		Pg	16 33 53.5	0.0
MLAC					Sb	16 34 05.8	+0.7
KVN	Kaiserville	0.90	353		Sg	16 34 05.5	-0.2
KVN	Kaiserville	0.90	353	Pg	Pg	16 33 53.4	-0.6
KVN	Kaiserville	0.90	353	IAML		16 34 09.6	
	comp=E,4µm,0.6s						
KVN				IAML		16 34 09.9	
	comp=N,5µm,0.8s						
MCBM	Casa Benchmark	0.91	236		Pg	16 33 54.0	-0.1
MCBM					Sb	16 34 06.8	+0.8
Q09A	Carvers	0.91	42		Sb	16 34 06.6	+0.6
Q09A	Carvers	0.91	42		Pg	16 33 53.9	-0.2
Q09A	Carvers	0.91	42	IAML		16 34 10.6	
	comp=N,14µm,0.9s						
Q09A				IAML		16 34 12.2	
	comp=E,11µm,0.7s						
LCH	Last Change Ra	0.95	165		Pg	16 33 54.8	-0.1
LCH					Sg	16 34 07.3	-0.1
MDYM	Dry Creek	0.97	240		Pb	16 33 55.4	+0.1
MDYM					Sb	16 34 08.2	+0.2
GMN	Gold Mountain	1.02	147		Pg	16 33 56.0	-0.1
GMN					Sb	16 34 09.7	+0.5
GMN	Gold Mountain	1.02	147	IAML		16 34 11.2	
	comp=N,4µm,0.6s						
GMN				IAML		16 34 13.0	
	comp=E,5µm,0.7s						
MDPB	Devils Postpil	1.03	240		Sg	16 34 09.7	-0.3
MDPB	Devils Postpil	1.03	240		Pg	16 33 56.0	-0.5
MDPB	Devils Postpil	1.03	240	IAML		16 34 10.3	
	comp=N,5µm,0.4s						
MDPB				IAML		16 34 10.4	
	comp=E,4µm,0.7s						
TIN	Tinemaha, Big	1.12	191		Sn	16 34 13.3	+0.2
TIN	Tinemaha, Big	1.12	191		Pg	16 33 57.9	-0.3
TIN	Tinemaha, Big	1.12	191	IAML		16 34 14.3	
	comp=N,6µm,0.5s						
TIN				IAML		16 34 15.0	
	comp=E,6µm,0.6s						

WAKR	**Walker**	**1.22**	**287**		**Pb**	**16 33 59.1**	**-0.2**
WAKR				IAML		16 34 25.4	
	comp=E,1µm,0.9s						
GRAC	**Grapevine Rang**	**1.25**	**158**		**Sn**	**16 34 17.0**	**+1.0**
GRAC	**Grapevine Rang**	**1.25**	**158**	Pn	**Pn**	**16 33 59.8**	**+0.3**
YERR	**Yerington**	**1.30**	**310**		**Sn**	**16 34 19.0**	**+1.4**
YERR	**Yerington**	**1.30**	**310**		**Pn**	**16 34 00.3**	**0.0**
YERR	**Yerington**	**1.30**	**310**	IAML		16 34 21.0	
	comp=E,5µm,0.4s						
YERR				IAML		16 34 21.2	
	comp=N,5µm,0.6s						
EBP	**Ebbets Pass**	**1.52**	**287**		**Pb**	**16 34 04.7**	**+0.2**
PNTR	**Pine Nut**	**1.59**	**306**		**Sg**	**16 34 27.8**	**+0.1**
PNTR	**Pine Nut**	**1.59**	**306**		**Pn**	**16 34 04.5**	**+0.2**
PNTR	**Pine Nut**	**1.59**	**306**	IAML		16 34 32.5	
	comp=E,3µm,0.6s						
PNTR				IAML		16 34 36.5	
	comp=N,2µm,1.1s						
CWC	**Cottonwood Cre**	**1.72**	**183**		**Pn**	**16 34 06.4**	**+0.4**
WCT	**Wildcat Mounta**	**1.72**	**142**		**Pn**	**16 34 06.1**	**+0.1**
WCT				IAML		16 34 34.4	
	comp=N,1µm,0.5s						
TPNV	**Topopah Spring**	**1.81**	**131**		**Pn**	**16 34 07.7**	**+0.3**
TPNV	**Topopah Spring**	**1.81**	**131**	IAML		16 34 39.8	
	comp=N,2µm,0.8s						
TPNV				IAML		16 34 45.3	
	comp=N,2µm,1.1s						
FURC	**Furnace Creek,**	**1.90**	**152**		**Pn**	**16 34 08.9**	**+0.6**
PAHR	**Pah Rah Range**	**1.91**	**325**		**Pn**	**16 34 08.8**	**+0.2**
PAHR				IAML		16 34 37.8	
	comp=N,1µm,0.8s						
PAHR				IAML		16 34 39.8	
	comp=E,2µm,0.7s						
CMB	**Columbia Colle**	**1.92**	**267**		**Pn**	**16 34 08.7**	**0.0**
CPY	**CP-1**	**1.94**	**128**		**Pn**	**16 34 09.4**	**+0.4**
MPK	**Martis Peak**	**1.98**	**306**		**Pn**	**16 34 09.8**	**+0.1**
MPK				IAML		16 34 41.1	
	comp=N,1µm,0.9s						
MPMC	**Manual Prospec**	**2.13**	**170**		**Pn**	**16 34 11.9**	**+0.2**
MPMC				IAML		16 34 46.5	
	comp=E,555nm,0.9s						
GWY	**Greenwater Val**	**2.22**	**152**		**Pn**	**16 34 12.9**	**0.0**
GWY				IAML		16 34 48.0	
	comp=N,1µm,0.6s						
BMN	**Battle Mountai**	**2.34**	**14**		**Pn**	**16 34 14.6**	**0.0**
BMN				IAML		16 34 51.9	
	comp=E,732nm,0.6s						
BMN				IAML		16 34 52.5	
	comp=N,1µm,0.4s						
TOW	**Tower One**	**2.35**	**176**		**Pn**	**16 34 16.3**	**+1.8**
QSM	**Queen of Sheba**	**2.35**	**158**	IAML		16 34 53.8	
	comp=N,907nm,0.6s						
QSM				IAML		16 34 56.4	
	comp=E,1µm,1.1s						
PRN	**Pahroc Range**	**2.42**	**107**		**Pn**	**16 34 15.6**	**0.0**
PRN				IAML		16 35 07.5	
	comp=E,958nm,0.8s						
PRN				IAML		16 35 13.0	
	comp=N,800nm,0.9s						
SRTC	**Snort**	**2.47**	**176**		**Pn**	**16 34 17.5**	**+1.3**
AFDM	**Forest Hills D**	**2.50**	**289**		**Pn**	**16 34 15.7**	**-0.9**
ISA	**Isabella, Lake**	**2.52**	**190**	IAML		16 34 58.5	
	comp=E,387nm,1.1s						
BEKR	**Beckworth**	**2.54**	**313**		**Pn**	**16 34 17.5**	**+0.2**
BEKR				IAML		16 34 58.2	
	comp=N,342nm,0.6s						
BEKR				IAML		16 34 58.3	
	comp=E,337nm,0.7s						
SHPR	**Sheep Range**	**2.77**	**126**		**Pn**	**16 34 20.7**	**+0.3**
SHPR				IAML		16 35 17.0	
	comp=E,308nm,1.1s						
PMPB	**Monarch Peak**	**2.99**	**230**	Pn	**Pn**	**16 34 23.9**	**+0.6**
GSC	**Goldstone, Bar**	**3.00**	**162**	IAML		16 35 19.3	
	comp=N,414nm,0.8s						
ORV	**Oroville**	**3.10**	**298**		**Pn**	**16 34 25.2**	**+0.4**
TUQ	**Turquoise Moun**	**3.17**	**148**		**Pn**	**16 34 26.4**	**+0.5**
SUTB	**Sutter Butte**	**3.19**	**291**	IAML		16 35 21.0	
	comp=N,462nm,0.5s						
SUTB				IAML		16 35 29.4	
	comp=E,545nm,0.7s						
MTPC	**Mountain Pass**	**3.29**	**143**		**Pn**	**16 34 27.5**	**-0.1**
ELK	**Elko**	**3.33**	**38**		**Pn**	**16 34 28.3**	**+0.1**
ELK				IAML		16 35 23.0	
	comp=E,189nm,0.6s						
JRSC	**Jasper Ridge**	**3.48**	**259**	Pn	**Pn**	**16 34 30.7**	**+0.7**
JRSC				IAML		16 35 32.9	
	comp=E,158nm,1.0s						
OSI	**Osito Audit: C**	**3.59**	**190**	IAML		16 35 33.2	
	comp=N,243nm,0.8s						
OSI				IAML		16 35 34.1	
	comp=E,302nm,1.1s						
O03E	**Paynes Creek**	**3.67**	**307**	IAML		16 35 45.7	
	comp=N,125nm,0.8s						
O03E				IAML		16 35 52.2	
	comp=E,214nm,1.4s						
HATC	**Hat Creek Radi**	**3.80**	**315**	IAML		16 35 48.3	
	comp=E,256nm,1.7s						
HATC				IAML		16 35 49.8	
	comp=N,294nm,2.1s						
LCMT	**Little Creek M**	**3.91**	**106**		**Pn**	**16 34 36.5**	**+0.3**
MWC	**Mount Wilson**	**3.93**	**181**	IAML		16 35 45.3	
	comp=E,123nm,1.6s						
FARB	**Farallon Islan**	**4.02**	**265**	Pn	**Pn**	**16 34 36.8**	**-0.7**
DUG	**Dugway, Tooele**	**4.48**	**61**	Pn	**Pn**	**16 34 44.1**	**+0.1**
ELS	**Elsinore Mount**	**4.52**	**174**	Pn	**Pn**	**16 34 44.2**	**-0.2**
ELS				IAML		16 36 09.2	
	comp=E,76nm,1.8s						
PFO	**Pinyon Flats O**	**4.70**	**165**		**Pn**	**16 34 46.4**	**-0.5**
PFO				IAML		16 36 13.6	
	comp=E,96nm,1.7s						
BGU	**Big Grassy Mou**	**4.70**	**52**		**Pn**	**16 34 46.1**	**-0.9**
BLYC	**Blythe**	**5.20**	**147**	IAML		16 36 25.8	
	comp=N,128nm,0.7s						
PDAR	**Pinedale Array**	**7.88**	**52**	Pn	**Pn**	**16 35 34.2**	**+3.5**
	comp=N,0.1nm,0.3s,baz=230,slow=13,SNR=8.7						
PDAR				Pg	Pg	16 36 03.6	-3.6
	comp=N,0.7nm,0.3s,baz=234,slow=17,SNR=9.5						
PDAR				Lg	Lg	16 37 43.1	
	comp=N,0.4nm,0.3s,baz=231,slow=28,SNR=7.2						
	comp=N,1.3nm,0.8s						
PDAR				AML	AML		
TXAR	**Lajitas Array**	**14.77**	**122**	Pn	**P**	**16 37 10.2**	**-0.8**
	comp=N,0.2nm,0.5s,baz=310,slow=12,SNR=2.3						
HHC	**Hu-ho-hao-te**	**89.28**	**325**	*e*P	**P**	**16 46 30.9**	**-1.3**
HHC				pmax	pmax		
	comp=Z,18nm,0.7s						
HHC				pmax	pmax		
	comp=Z,55nm,4.4s						
HHC				LR	LR		
	comp=N,270nm,19.3s						
HHC				LR	LR		
	comp=E,160nm,17.7s						
HHC				LR	LR		
	comp=Z,140nm,12.5s						

WEL ***15*** *16:42:56.1±0.9, 34°S±6°×17°8W±1°4, h12^{km}, M4.8/12, mB5.2/6, ML4.8/14, MLv4.9/12, Mw(mB)4.6/6, Error ellipse: s-maj=19.9km s-min=4.3km az=109.8, confirmed*

IDC ***15*** *16:42:57.2±0.6, 33°.61S×178°.67W, h0^{km}, mb4.5/6, mbtmp4.5/9, ML4.5/3, MS3.8/2, Error ellipse: s-maj=24.5km s-min=14.0km az=101.0*

NEIC ***15*** *16:42:59.2±1.0, 33°.57S±0°.07×178°.6W±0°.2, h10^{km}±1^{km}, mb4.7/18, Error ellipse: s-maj=23.0km s-min=10.2km az=110.0*

ISC 15 16:42:58.0±0.5**, 33°.62S**±0°.05×**178°.40W**±0°.08**, h10**^{km}**, n79,** σ**1**^{s}**62**/93**, mb4.7**/17**, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GLKZ	**Green Lake**	**4.36**	**6**	P	**Pn**	**16 44 01.7**	**-2.6**
GLKZ				S	**Sn**	**16 44 49.8**	**-5.4**
GLKZ				AML	AML		
GLKZ				AML	AML		
RAO	**Raoul Island**	**4.37**	**6**	Pn	**Pn**	**16 44 03.4**	**-1.1**
	39nm,0.3s,baz=274,slow=22,SNR=1.8						
RAO				Sn	**Sn**	**16 44 50.7**	**-4.8**
	40nm,0.3s,baz=69,slow=23,SNR=2.0						
	88nm,0.3s						
RAO				AML	AML		
RAO	**Raoul Island**	**4.37**	**6**		**Pn**	**16 44 04.4**	**-0.1**
RAO				Sn	**Sn**	**16 44 53.5**	**-2.0**
MXZ	**Matakaoa Point**	**4.77**	**213**	P	**Pn**	**16 44 09.0**	**-0.9**
MXZ				S	**Sn**	**16 45 04.7**	**-0.5**
MXZ				AML	AML		
MXZ				AML	AML		
HAZ	**Te Kaha**	**5.17**	**216**	P	**Pn**	**16 44 15.5**	**+0.1**
HAZ				S	**Sn**	**16 45 16.8**	**+1.7**
HAZ				AML	AML		
HAZ				AML	AML		
PUZ	**Puketiti**	**5.21**	**210**	P	**Pn**	**16 44 14.2**	**-1.8**
PUZ				S	**Sn**	**16 45 14.9**	**-1.3**
PUZ				AML	AML		
PUZ				AML	AML		
MWZ	**Matawai**	**5.75**	**214**	P	**Pn**	**16 44 22.8**	**-0.6**
MWZ				S	**Sn**	**16 45 27.1**	**-2.4**
MWZ				AML	AML		
MWZ				AML	AML		
URZ	**Urewera**	**5.89**	**217**	Pn	**Pn**	**16 44 25.3**	**0.0**
	20nm,0.3s,baz=51,slow=2.6,SNR=74						
URZ				Sn	**Sn**	**16 45 30.9**	**-2.1**
	18nm,0.3s,baz=132,slow=21,SNR=12						
	97nm,0.6s						
URZ				AML	AML		
URZ	**Urewera**	**5.89**	**217**	P	**Pn**	**16 44 25.1**	**-0.3**
URZ				S	**Sn**	**16 45 30.5**	**-2.5**
URZ				AML	AML		
URZ				AML	AML		
RAGZ	**Rawiri**	**5.93**	**214**	P	**Pn**	**16 44 26.4**	**+0.4**
RAGZ				S	**Sn**	**16 45 32.3**	**-1.8**
RAGZ				AML	AML		
RAGZ				AML	AML		
RIGZ	**Rimuhau**	**5.95**	**210**	P	**Pn**	**16 44 26.5**	**+0.2**
RIGZ				S	**Sn**	**16 45 33.2**	**-1.3**
RIGZ				AML	AML		
RIGZ				AML	AML		
TGRZ	**Tauranga**	**5.98**	**225**	P	**Pn**	**16 44 28.6**	**+2.1**
TGRZ				AML	AML		
TGRZ				AML	AML		
PRGZ	**Paritu Road**	**6.09**	**208**	P	**Pn**	**16 44 27.0**	**-1.1**
PRGZ				AML	AML		
PRGZ				AML	AML		
MUGZ	**Murupara**	**6.23**	**218**	P	**Pn**	**16 44 28.5**	**-1.5**
MUGZ				S	**Sn**	**16 45 38.3**	**-3.0**
MUGZ				AML	AML		
MUGZ				AML	AML		
RTZ	**Ruatahuna**	**6.24**	**216**		**Pn**	**16 44 29.0**	**-1.2**
RTZ	**Ruatahuna**	**6.24**	**216**	P	**Pn**	**16 44 29.7**	**-0.4**
RTZ				AML	AML		
RTZ				AML	AML		
KNZ	**Kokohu**	**6.26**	**209**	P	**Pn**	**16 44 27.6**	**-2.7**
KNZ				AML	AML		
MHGZ	**Mahia Peninsul**	**6.28**	**207**	P	**Pn**	**16 44 30.6**	**-0.1**
MHGZ				S	**Sn**	**16 45 39.2**	**-3.3**
MHGZ				AML	AML		
MHGZ				AML	AML		
WCZ	**Waipu Caves**	**6.41**	**247**	P	**Pn**	**16 44 34.7**	**+2.3**
WCZ				AML	AML		
WCZ				AML	AML		
TOZ	**Tahuroa Road**	**6.44**	**229**	P	**Pn**	**16 44 35.4**	**+2.5**
TOZ				AML	AML		
TOZ				AML	AML		
OUZ	**Omahuta**	**6.81**	**254**	P	**Pn**	**16 44 40.7**	**+2.8**
OUZ				AML	AML		
BKZ	**Black Stump Fm**	**6.90**	**215**	P	**Pn**	**16 44 38.1**	**-1.2**
BKZ				AML	AML		
BKZ				AML	AML		
NGZ	**Ngauruhoe**	**7.36**	**219**	P	**Pn**	**16 44 45.2**	**-0.4**
VRZ	**Vera Road**	**7.79**	**223**	P	**Pn**	**16 44 52.5**	**+1.1**
BFZ	**Birch Farm**	**8.25**	**210**	P	**Pn**	**16 44 54.5**	**-3.1**
MRZ	**Mangatainoka R**	**8.52**	**213**	P	**Pn**	**16 44 59.2**	**-2.1**
NNZ	**Nelson**	**10.01**	**218**	Pn	**Pn**	**16 45 21.7**	**-0.2**
CTZ	**Chatham Island**	**10.20**	**173**		**Pn**	**16 45 22.4**	**-2.0**
RPZ	**Rata Peaks**	**13.01**	**216**	Pn	**Pn**	**16 45 58.8**	**-4.1**
	0.3nm,0.3s,baz=239,slow=17,SNR=3.2						
OUENC	**Ouen Island, N**	**17.13**	**307**		**P**	**16 46 58.8**	**-0.5**
OUENC				IAmb	IAmb	16 47 04.8	
	comp=Z,91nm,1.3s						
DZM	**Mont Dzumac**	**17.64**	**307**	P	**Pn**	**16 47 03.5**	**-0.5**
	comp=Z,0.6nm,0.3s,baz=125,slow=16,SNR=7.1						
	comp=Z,14nm,1.0s						
DZM				AML	AML		
EIDS	**Eidsvold**	**27.73**	**279**	P	**P**	**16 48 46.4**	**-0.4**
EIDS				IAmb	IAmb	16 49 01.8	
	comp=Z,21nm,1.3s						
HNR	**Honiara**	**31.25**	**315**	P	**P**	**16 49 17.1**	**-0.8**
STKA	**Stephens Creek**	**33.55**	**262**	LR	LR	17 01 34.5	
	comp=Z,323nm,18.4s,baz=196,slow=34						
CTA	**Charters Tower**	**34.12**	**284**	LR	LR	17 01 48.4	
	comp=Z,78nm,18.5s,baz=212,slow=33						
CTAO	**Charters Tower**	**34.12**	**284**	P	**P**	**16 49 42.8**	**-0.4**
INKA	**Innaminka**	**35.45**	**268**		**P**	**16 49 54.4**	**-0.2**
INKA				IAmb	IAmb	16 50 00.0	
	comp=Z,4.9nm,1.1s						
AS31	**Alice Springs**	**42.70**	**271**		**P**	**16 50 54.6**	**-0.7**
ASAR	**Alice Springs**	**42.70**	**271**	P	**P**	**16 50 54.7**	**-0.7**
	comp=Z,8.0nm,0.8s,baz=112,slow=7.2,SNR=106						
ASAR				PcP	**PcP**	**16 52 46.2**	**-0.9**
	comp=Z,1.7nm,0.9s,baz=115,slow=4.4,SNR=4.2						
	comp=Z,8.0nm,0.8s						
ASAR	**Alice Springs**	**42.70**	**271**	P	**P**	**16 50 54.2**	**-1.2**
WR8	**Warramunga Arr**	**43.84**	**276**		**P**	**16 51 03.9**	**-0.7**
WR8				IAmb	IAmb	16 51 05.1	
	comp=Z,11nm,0.8s						
WRAB	**Tennant Creek**	**43.97**	**276**	P	**P**	**16 51 04.8**	**-0.8**
WRAB				IAmb	IAmb	16 51 16.8	
	comp=Z,8.3nm,0.8s						
WRA	**Warramunga Arr**	**43.98**	**276**	P	**P**	**16 51 04.8**	**-0.9**
	comp=Z,8.7nm,0.8s,baz=117,slow=7.9,SNR=67						
WRA				PcP	**PcP**	**16 52 50.3**	**-1.1**
	comp=Z,0.7nm,0.7s,baz=115,slow=3.5,SNR=4.9						
	comp=Z,8.7nm,0.8s						
WRA	**Warramunga Arr**	**43.98**	**276**		**P**	**16 51 05.0**	**-0.7**
WB0	**Warramunga Arr**	**44.02**	**276**		**P**	**16 51 05.2**	**-0.8**
WB0				IAmb	IAmb	16 51 18.4	
	comp=Z,13nm,0.8s						
VNDA	**Vanda**	**44.87**	**186**	P	**P**	**16 51 14.0**	**+2.0**
	comp=Z,0.3nm,0.7s,baz=21,slow=6.3,SNR=1.7						
MTN	**Manton Dam**	**50.23**	**282**	P	**P**	**16 51 54.3**	**-0.2**
MTN				IAmb	IAmb	16 52 25.8	
	comp=Z,19nm,1.5s						
KNRA	**Kununurra**	**50.69**	**277**	P	**P**	**16 51 57.5**	**-0.5**
KNRA				IAmb	IAmb	16 52 11.3	
	comp=Z,3.8nm,0.8s						
FITZ	**Fitzroy Crossi**	**52.09**	**273**	P	**P**	**16 52 07.6**	**-0.9**
CASY	**Casey**	**52.16**	**209**		**P**	**16 52 08.8**	**+0.5**
CASY				IAmb	IAmb	16 52 10.6	
	comp=Z,8.4nm,0.7s						
QSPA	**South Pole Qui**	**56.50**	**180**	P	**P**	**16 52 41.9**	**+1.8**
	comp=Z,5.6nm,0.9s,baz=32,slow=2.4,SNR=19						
	comp=Z,5.6nm,0.9s						
QSPA	**South Pole Qui**	**56.50**	**180**		**P**	**16 52 42.0**	**+1.8**
SPT	**South Point**	**56.62**	**26**	P	**P**	**16 52 42.3**	**+1.0**
TROLL	**Troll, Antarti**	**74.67**	**180**	P	**P**	**16 54 37.1**	**-0.2**
	comp=Z,115nm,0.7s						
SNAA	**Sanae**	**74.96**	**179**	P	**P**	**16 54 39.0**	**0.0**
	comp=Z,2.3nm,0.8s,baz=191,slow=10,SNR=4.4						
	comp=Z,2.3nm,0.8s						
SNAA	**Sanae**	**74.96**	**179**	IAmb	IAmb	16 54 43.3	
	comp=Z,6.1nm,1.0s						
VNA3	**Neumayer Olymp**	**75.13**	**176**	P	**P**	**16 54 40.5**	**+0.6**
	comp=Z,9.1nm,0.8s						
VNA2	**Neumayer--Watz**	**75.56**	**177**	P	**P**	**16 54 43.1**	**+0.7**
	comp=Z,7.4nm,0.6s,baz=177,slow=5.8						
PETK	**Petropavlovsk-**	**88.84**	**346**	P	**P**	**16 55 52.9**	**+1.1**
	comp=Z,3.8nm,0.9s,baz=142,slow=7.4,SNR=4.7						
	comp=Z,3.8nm,0.9s						
NVAR	**Mina Array Bea**	**90.82**	**43**	P	**P**	**16 56 03.6**	**+1.9**
	comp=Z,0.6nm,0.7s,baz=238,slow=5.2,SNR=2.3						
	comp=Z,0.6nm,0.7s						
833A	**Chaparral WMA,**	**96.88**	**61**	P	**P**	**16 56 30.5**	**+1.0**
MKAR	**Makanchi Array**	**119.55**	**309**	PKP	**PKPdf**	**17 01 47.9**	**+0.2**
	comp=Z,1.0nm,0.8s,baz=77,slow=2.7,SNR=7.5						
ZALV	**Zalesovo Beam**	**120.18**	**317**	PKP	**PKPdf**	**17 01 48.7**	**+0.1**
	comp=Z,0.3nm,0.3s,baz=155,slow=1.3,SNR=1.6						
KURBB	**Kurchatov Arra**	**123.02**	**312**	PKP	**PKPdf**	**17 01 54.3**	**+0.1**
	comp=Z,2.4nm,0.9s,baz=106,slow=2.0,SNR=10						
BVAR	**Borovoye Array**	**128.43**	**314**	PKP	**PKPdf**	**17 02 04.9**	**+0.4**
	comp=Z,1.7nm,0.8s,baz=80,slow=3.2,SNR=7.3						
KBZ	**Khabaz**	**146.52**	**300**	PKPbc	**PKPdf**	**17 02 39.1**	**+1.2**
	comp=Z,3.3nm,0.9s,baz=204,slow=2.2,SNR=5.9						
FINES	**FINESS Array B**	**148.02**	**338**	PKPbc	**PKPbc**	**17 02 42.9**	**0.0**
	comp=Z,11nm,0.9s,baz=79,slow=4.1,SNR=26						
FINES	**FINESS Array B**	**148.02**	**338**	PKPbc	**PKPbc**	**17 02 42.6**	**-0.3**
MMAI	**Mount Meron Ar**	**151.82**	**278**	PKPbc	**PKPbc**	**17 02 53.2**	**-0.1**
	comp=Z,8.4nm,0.8s,baz=49,slow=4.4,SNR=7.1						
NB2	**NORSAR Subarra**	**151.86**	**350**	PKP	**PKPbc**	**17 02 52.4**	**0.0**
	comp=Z,1.5nm,0.8s,baz=17,slow=2.6						
NOA	**NORSAR Array B**	**151.86**	**350**	PKPbc	**PKPbc**	**17 02 52.7**	**+0.3**
	comp=Z,1.2nm,0.9s,baz=19,slow=4.7,SNR=7.5						
HFS	**Hagfors**	**152.31**	**347**	PKPbc	**PKPbc**	**17 02 53.6**	**+0.2**
	comp=Z,1.8nm,0.7s,baz=349,slow=1.5,SNR=4.6						
NACGM	**Naroch**	**152.37**	**328**	*e*PKiKP	**PKPbc**	**17 02 54.1**	**+0.5**
	comp=Z,24nm,0.9s,baz=49						
AKASG	**Malin Array Be**	**153.56**	**319**	PKPbc	**PKPbc**	**17 02 56.5**	**+0.1**
	comp=Z,1.9nm,0.7s,baz=62,slow=2.5,SNR=6.7						
AKASG				PKPab	**PKPab**	**17 03 07.7**	**-1.3**
	comp=Z,2.4nm,0.8s,baz=66,slow=2.5,SNR=5.0						
BRTR	**Keskin Array B**	**153.68**	**293**	PKPbc	**PKPbc**	**17 02 57.8**	**+0.5**
	comp=Z,2.2nm,0.8s,baz=128,slow=3.4,SNR=10						
BRTR				PKPab	**PKPab**	**17 03 09.3**	**-0.7**
	comp=Z,1.6nm,0.7s,baz=143,slow=3.7,SNR=6.1						
TORD	**Torodi Ar. Bea**	**159.62**	**180**	PKPab	**PKPab**	**17 03 36.0**	**+0.2**
	comp=Z,1.6nm,0.8s,baz=182,slow=3.5,SNR=6.5						
CLL	**Collm**	**160.46**	**338**	*e*PKPab	**PKPab**	**17 03 42.0**	**+3.4**
GERES	**GERESS Array B**	**162.31**	**333**	PKPab	**PKPab**	**17 03 46.5**	**-0.4**
	comp=Z,0.4nm,0.2s,baz=48,slow=2.0,SNR=3.6						
ESDC	**Sonseca Array**	**172.48**	**35**	PKPab	**PKPab**	**17 04 33.4**	**+1.4**
	comp=Z,0.1nm,0.3s,baz=277,slow=5.1,SNR=4.0						

NEIC ***15*** *16:49:09.7±1.3, 15°.83N±0°.06×97°.79W±0°.04, h20^{km}±7^{km}, mb4.3/21, Md4.4/94(MEX), Error ellipse: s-maj=8.9km s-min=4.6km az=202.0*

MEX ***15*** *16:49:11.3±0.8, 15°.78N×97°.83W, h16^{km}±11^{km}, MD4.4, Presumed earthquake*

ISC 15 16:49:08.5±1.5**, 15°.69N**±0°.05×**97°.84W**±0°.03**, h25**^{km}±12^{km}**, n111,** σ**2**^{s}**32**/187**, mb4.3**/4**, Near coast of Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PEIG	**Puerto Escondi**	**0.73**	**65**	*e*P	**Pn**	**16 49 22.1**	**-1.1**
PEIG				*e*S	**Sb**	**16 49 30.7**	**-1.6**
PEIG	**Puerto Escondi**	**0.73**	**65**		**Pn**	**16 49 22.1**	**-1.1**
PEIG					**Sb**	**16 49 30.7**	**-1.6**
YOIG	**Yosondua**	**1.20**	**13**	*i* P	**Pn**	**16 49 28.6**	**-1.2**
YOIG				*e*S	**Sn**	**16 49 41.4**	**-4.0**
YOIG	**Yosondua**	**1.20**	**13**		**Pn**	**16 49 28.6**	**-1.2**
YOIG					**Sn**	**16 49 41.4**	**-4.0**
TXIG	**Tlaxiaco**	**1.56**	**2**	*e*P	**Pn**	**16 49 34.0**	**-0.8**
TXIG				*e*S	**Sn**	**16 49 51.9**	**-2.5**
TXIG	**Tlaxiaco**	**1.56**	**2**		**Pn**	**16 49 34.0**	**-0.8**
TXIG					**Sn**	**16 49 51.9**	**-2.5**
CRIG	**Cruz Grande**	**1.62**	**310**	*e*P	**Pn**	**16 49 35.0**	**-0.5**
CRIG				*e*S	**Sn**	**16 49 51.8**	**-3.8**
CRIG	**Cruz Grande**	**1.62**	**310**		**Pn**	**16 49 35.0**	**-0.5**
CRIG					**Sn**	**16 49 51.8**	**-3.8**
HUIG	**Huatulco**	**1.67**	**87**	*e*P	**Pn**	**16 49 35.9**	**-0.1**
HUIG				*e*S	**Sn**	**16 49 54.3**	**-2.3**
HUIG	**Huatulco**	**1.67**	**87**		**Pn**	**16 49 35.9**	**-0.1**
HUIG					**Sn**	**16 49 54.3**	**-2.3**
MGIG	**Malinaltepec**	**1.72**	**334**	*i* P	**Pn**	**16 49 36.9**	**-0.1**
MGIG				*i* S	**Sn**	**16 49 55.6**	**-2.6**
MGIG	**Malinaltepec**	**1.72**	**334**		**Pn**	**16 49 36.9**	**-0.1**
MGIG					**Sn**	**16 49 55.6**	**-2.6**
VHO	**Vista Hermosa**	**1.74**	**37**	*e*P	**Pn**	**16 49 36.7**	**-0.6**
VHO				*e*S	**Sn**	**16 49 57.1**	**-1.5**
OXIG	**Oaxaca**	**1.74**	**37**		**Pn**	**16 49 36.7**	**-0.6**
OXIG					**Sn**	**16 49 57.1**	**-1.6**
OXBJ	**Oaxaca**	**1.74**	**38**	*e*P	**Pn**	**16 49 37.1**	**-0.2**
OXBJ				*e*S	**Sn**	**16 49 57.6**	**-1.2**
OXBJ	**Oaxaca**	**1.74**	**38**		**Pn**	**16 49 37.1**	**-0.2**
OXBJ					**Sn**	**16 49 57.6**	**-1.2**
OXLC	**Oaxaca**	**1.75**	**38**	*e*P	**Pn**	**16 49 36.4**	**-1.0**
OXLC				*e*S	**Sn**	**16 49 57.1**	**-1.9**
OXLC	**Oaxaca**	**1.75**	**38**		**Pn**	**16 49 36.4**	**-1.0**
OXLC					**Sn**	**16 49 57.1**	**-1.9**
TLIG	**Tlapa**	**1.99**	**340**	*e*P	**Pn**	**16 49 41.0**	**+0.4**
TLIG				*e*S	**Sn**	**16 50 02.0**	**-2.9**
TLIG	**Tlapa**	**1.99**	**340**		**Pn**	**16 49 40.2**	**-0.5**
TLIG					**Sn**	**16 50 03.0**	**-1.9**
HLIG	**Huajuapan de L**	**2.13**	**1**	*e*P	**Pn**	**16 49 42.6**	**-0.1**
HLIG				*e*S	**Sn**	**16 50 06.4**	**-2.1**
HLIG	**Huajuapan de L**	**2.13**	**1**		**Pn**	**16 49 42.6**	**-0.1**
HLIG					**Sn**	**16 50 06.4**	**-2.1**
DAIG	**Los Arroyos**	**2.19**	**308**	*e*P	**Pn**	**16 49 43.1**	**-0.2**
DAIG				*e*S	**Sn**	**16 50 06.4**	**-3.2**
DAIG	**Los Arroyos**	**2.19**	**308**		**Pn**	**16 49 43.1**	**-0.2**
DAIG					**Sn**	**16 50 06.4**	**-3.2**
HMTT	**Tlapaneco**	**2.21**	**342**	*e*P	**Pb**	**16 49 49.4**	**+1.6**
HMTT				*e*S	**Sn**	**16 50 08.5**	**-1.7**
HMTT	**Tlapaneco**	**2.21**	**342**		**Pb**	**16 49 49.4**	**+1.6**
HMTT					**Sn**	**16 50 08.5**	**-1.7**
FTIG	**Fresnillo de T**	**2.23**	**353**	*e*P	**Pn**	**16 49 44.2**	**+0.3**
FTIG				*e*S	**Sn**	**16 50 07.4**	**-3.3**
FTIG	**Fresnillo de T**	**2.23**	**353**		**Pn**	**16 49 44.2**	**+0.3**
FTIG					**Sn**	**16 50 07.4**	**-3.3**
TOIG	**Toxpalan**	**2.51**	**17**	*e*P	**Pn**	**16 49 47.7**	**0.0**
TOIG				*e*S	**Sn**	**16 50 16.4**	**-1.2**
TOIG	**Toxpalan**	**2.51**	**17**		**Pn**	**16 49 47.7**	**0.0**
TOIG					**Sn**	**16 50 16.4**	**-1.2**
CAIG	**El Cayaco**	**2.70**	**300**	*e*P	**Pn**	**16 49 50.8**	**+0.5**
CAIG				*e*S	**Sn**	**16 50 18.6**	**-3.6**
CAIG	**El Cayaco**	**2.70**	**300**		**Pn**	**16 49 50.8**	**+0.5**
CAIG					**Sn**	**16 50 18.6**	**-3.6**
TPIG	**Tehuac#an**	**2.75**	**9**	*e*P	**Pn**	**16 49 52.0**	**+0.8**
TPIG				*e*S	**Sn**	**16 50 21.8**	**-2.0**
TPIG	**Tehuac#an**	**2.75**	**9**		**Pn**	**16 49 52.0**	**+0.8**
TPIG					**Sn**	**16 50 21.8**	**-2.0**
NEUV	**Arroyo Zacate**	**2.80**	**44**	*e*P	**Pn**	**16 49 51.4**	**-0.3**
NEUV				*e*S	**Sn**	**16 50 24.7**	**0.0**
NEUV	**Arroyo Zacate**	**2.80**	**44**		**Pn**	**16 49 51.4**	**-0.3**
NEUV					**Sn**	**16 50 24.7**	**0.0**
MEIG	**Mezcala**	**2.81**	**323**	*e*P	**Pn**	**16 49 53.5**	**+1.6**
MEIG				*e*S	**Sn**	**16 50 22.9**	**-2.0**
MEIG	**Mezcala**	**2.81**	**323**		**Pn**	**16 49 53.5**	**+1.6**
MEIG					**Sn**	**16 50 22.9**	**-2.0**
PLIG	**Platanillo**	**3.13**	**330**	*e*P	**Pn**	**16 49 58.0**	**+1.7**
PLIG				*e*S	**Sn**	**16 50 31.9**	**-0.9**
PLIG	**Platanillo**	**3.13**	**330**		**Pn**	**16 49 58.0**	**+1.7**
PLIG					**Sn**	**16 50 31.9**	**-0.9**
CMIG	**Matias Romero**	**3.16**	**63**	*e*P	**Pn**	**16 49 56.1**	**-0.4**
CMIG				*e*S	**Sn**	**16 50 29.8**	**-3.8**
CMIG	**Matias Romero**	**3.16**	**63**		**Pn**	**16 49 56.1**	**-0.4**
CMIG					**Sn**	**16 50 29.8**	**-3.8**
PPAX	**Atlixo**	**3.27**	**350**	*e*P	**Pn**	**16 50 01.3**	**+3.1**
PPAX				*e*S	**Sn**	**16 50 32.9**	**-3.6**
PPAX	**Atlixo**	**3.27**	**350**		**Pn**	**16 50 01.3**	**+3.1**
PPAX					**Sn**	**16 50 32.9**	**-3.6**
PPCL	**Tochimilco**	**3.29**	**347**	*e*P	**Pn**	**16 50 01.9**	**+3.2**
PPCL				*e*S	**Sn**	**16 50 33.0**	**-4.2**
PPCL	**Tochimilco**	**3.29**	**347**		**Pn**	**16 50 01.9**	**+3.2**
PPCL					**Sn**	**16 50 33.0**	**-4.2**
PPPT	**Popocatepetl**	**3.35**	**347**	*e*P	**Pn**	**16 50 02.3**	**+2.5**
PPPT				*e*S	**Sn**	**16 50 36.2**	**-2.9**
PPPT	**Popocatepetl**	**3.35**	**347**		**Pn**	**16 50 02.3**	**+2.5**
PPPT					**Sn**	**16 50 36.2**	**-2.9**
PBCV	**Popocatepetl**	**3.35**	**348**	*e*P	**Pn**	**16 50 02.0**	**+2.4**
PBCV				*e*S	**Sn**	**16 50 34.7**	**-4.0**
YAIG	**Yautepec**	**3.37**	**340**	*e*P	**Pb**	**16 50 07.7**	**+0.1**
YAIG				*e*S	**Sn**	**16 50 35.8**	**-3.2**
YAIG	**Yautepec**	**3.37**	**340**		**Pb**	**16 50 07.7**	**+0.1**
YAIG					**Sn**	**16 50 35.8**	**-3.2**
PPCU	**Popocatapetl**	**3.38**	**347**	*e*P	**Pn**	**16 50 01.5**	**+1.4**
PPCU				*e*S	**Sn**	**16 50 34.9**	**-4.8**
PPCU	**Popocatapetl**	**3.38**	**347**		**Pn**	**16 50 01.5**	**+1.4**
PPCU					**Sn**	**16 50 34.9**	**-4.8**
PBXN	**Popocatepetl**	**3.40**	**347**	*e*P	**Pn**	**16 50 02.3**	**+1.9**
PBXN				*e*S	**Sn**	**16 50 35.5**	**-4.5**
PPM	**Popocatepetl**	**3.44**	**347**	*e*P	**Pn**	**16 50 03.1**	**+2.1**
PPM				*e*S	**Sn**	**16 50 38.4**	**-2.9**
PPIG	**Popocatepetl**	**3.45**	**347**		**Pn**	**16 50 03.1**	**+2.1**
PPIG					**Sn**	**16 50 38.4**	**-2.9**
MAVM	**Malinalco, Edo**	**3.62**	**334**	*e*P	**Pn**	**16 50 07.3**	**+4.2**
MAVM				*e*S	**Sn**	**16 50 42.6**	**-2.5**
MAVM	**Malinalco, Edo**	**3.62**	**334**		**Pn**	**16 50 07.3**	**+4.2**
MAVM					**Sn**	**16 50 42.6**	**-2.5**
MPVM	**San Francisco**	**3.67**	**342**	*e*P	**Pn**	**16 50 07.3**	**+3.4**
MPVM				*e*S	**Sn**	**16 50 43.6**	**-2.9**
MPVM	**San Francisco**	**3.67**	**342**		**Pn**	**16 50 07.3**	**+3.4**
MPVM					**Sn**	**16 50 43.6**	**-2.9**
TLVM	**San Miguel Top**	**3.72**	**340**	*e*P	Pn	16 50 10.0	+5.3
TLVM				*e*S	**Sn**	**16 50 45.8**	**-2.1**
TLVM	**San Miguel Top**	**3.72**	**340**		Pn	16 50 10.0	+5.3
TLVM					**Sn**	**16 50 45.8**	**-2.1**
MZVM		**3.73**	**339**	*e*P	Pn	16 50 10.6	+6.2
MZVM				*e*S	**Sn**	**16 50 46.9**	**-0.6**
MZVM		**3.73**	**339**		Pn	16 50 10.6	+6.2

MZVM					Sn	16 50 46.9	-0.6
XCVM	Xochimilco	3.75	341	eS	Sn	16 50 46.8	-1.7
XCVM	Xochimilco	3.75	341		Sn	16 50 46.8	-1.7
THVM	De Xico	3.76	343	eP	Pn	16 50 09.0	+3.8
THVM				eS	Sn	16 50 45.9	-3.0
THVM	De Xico	3.76	343		Pn	16 50 09.0	+3.8
THVM					Sn	16 50 45.9	-3.0
JAUV	Jalcomulco	3.79	15	eP	Pn	16 50 00.2	-5.1
JAUV				eS	Sn	16 50 48.0	-1.1
JAUV	Jalcomulco	3.79	15		Pn	16 50 00.2	-5.1
JAUV					Sn	16 50 48.0	-1.1
AOVM	Tlapan	3.83	338	eP	Pn	16 50 09.0	+2.7
AOVM				eS	Sn	16 50 48.1	-2.7
AOVM	Tlapan	3.83	338		Pn	16 50 09.0	+2.7
AOVM					Sn	16 50 48.1	-2.7
INVM	La Marquesa	3.88	338	eP	Pn	16 50 10.5	+3.7
INVM				eS	Sn	16 50 47.5	-4.2
INVM	La Marquesa	3.88	338		Pn	16 50 10.5	+3.7
INVM					Sn	16 50 47.5	-4.2
UXUV	UXUV	3.89	65	eP	Pn	16 50 06.5	-0.2
UXUV				eS	Sn	16 50 49.9	-1.7
UXUV	UXUV	3.89	65		Pn	16 50 06.5	-0.2
UXUV					Sn	16 50 49.9	-1.7
PBVM	Pinon	3.92	342	eS	Sn	16 50 48.7	-3.5
PBVM	Pinon	3.92	342		Sn	16 50 48.7	-3.5
ZIIG	Zihuatanejo	3.97	299	eP	Pn	16 50 09.7	+2.0
ZIIG				eS	Sn	16 50 49.1	-4.4
ZIIG	Zihuatanejo	3.97	299		Pn	16 50 09.7	+2.0
ZIIG					Sn	16 50 49.1	-4.4
TOVM	TOLUCA	3.98	334	eP	Pn	16 50 11.4	+3.1
TOVM				eS	Sn	16 50 51.9	-2.5
TOVM	TOLUCA	3.98	334		Pn	16 50 11.4	+3.1
TOVM					Sn	16 50 51.9	-2.5
AZVM	Cuida Lopez Ma	4.12	341	eS	Sn	16 50 55.4	-2.1
AZVM	Cuida Lopez Ma	4.12	341		Sn	16 50 55.4	-2.1
VTVM	Tizayuca	4.16	348	eP	Pn	16 50 13.8	+3.1
VTVM				eS	Sn	16 50 54.6	-4.0
VTVM	Tizayuca	4.16	348		Pn	16 50 13.8	+3.1
VTVM					Sn	16 50 54.6	-4.0
CXUV	Coxquihui	4.47	3	eP	Pn	16 50 14.9	+0.3
CXUV				eS	Sn	16 51 05.8	-0.1
CXUV	Coxquihui	4.47	3		Pn	16 50 14.9	+0.3
CXUV					Sn	16 51 05.8	-0.1
ATVM	ATLACOMULCO	4.48	335	eP	Pn	16 50 20.8	+5.8
ATVM	ATLACOMULCO	4.48	335		Pn	16 50 20.8	+5.8
TGIG		4.66	76	eP	Pn	16 50 16.7	-0.6
TGIG				eS	Sn	16 51 09.9	-0.6
TGIG		4.66	76		Pn	16 50 16.7	-0.6
TGIG					Sn	16 51 09.9	-0.6
DHIG	Demacu	4.73	346		Pn	16 50 22.6	+4.2
DHIG					Sn	16 51 12.6	0.0
DEIG	Demacu	4.73	346	eP	Pn	16 50 22.6	+4.2
DEIG				eS	Sn	16 51 12.6	0.0
TEIG	Tepich	10.15	62	Pn	Pn	16 51 31.6	-1.0
JCT	Junction City	14.84	353	P	P	16 52 42.3	0.0
BRDY	Brady	15.56	356	Pn	Pn	16 52 45.9	-0.4
SNAG	San Augustine	16.11	11	Pn	Pn	16 52 53.0	-0.3
SNAG				IAmb	IAmb	16 53 22.7	
	comp=Z,27nm,1.0s						
346A	Big Creek Wild	17.40	25		Pn	16 53 09.2	-0.3
Z35A	Perchaven, San	17.57	2	Pn	Pn	16 53 11.0	-0.7
POST	Post	17.62	350	Pn	Pn	16 53 11.0	-1.3
POST				IAmb	IAmb	16 53 17.1	
	comp=Z,17nm,0.9s						
PAYG	Puerto Ayora	17.89	155	P	P	16 53 18.0	+1.8
Z41A	Richland Creek	18.08	14	P	Pn	16 53 17.9	0.0
Z41A				IAmb	IAmb	16 53 39.9	
	comp=Z,22nm,0.4s						
MIAR	Mount Ida	19.17	11	P	P	16 53 30.0	-0.1
FPAL	Fort Paine	21.76	28	P	P	16 53 58.4	+0.2
SWET	Sewanee	22.18	27	P	P	16 54 02.7	-0.1
SWET				IAmb	IAmb	16 54 03.6	
	comp=Z,10nm,0.9s						
WVT	Waverly	22.23	22	P	P	16 54 03.7	+0.4
WVT				IAmb	IAmb	16 54 05.9	
	comp=Z,13nm,1.3s						
W50A	Signal Mountai	22.44	28	P	P	16 54 05.6	0.0
W50A				IAmb	IAmb	16 54 06.3	
	comp=Z,10nm,0.6s						
CPCT	Cooper Cave	23.01	29	P	P	16 54 11.3	-0.2
CPCT				IAmb	IAmb	16 54 13.6	
	comp=Z,13nm,1.2s						
RES	Resolute Bay	59.02	1	P	P	16 59 06.9	+1.2
D27M	Malcolm River	59.89	344	P	P	16 59 13.3	+1.4

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*HEL **15** 17:00:09.3±0.3, 67°.08N×20°.72E, h0^{km}, ML2.1, Explosion*
*UPP **15** 17:00:10.2±0.1, 67°.07N×20°.92E, h0^{km}, ML2.6, Suspected explosion*
*IDC **15** 17:00:11.0±1.4, 67°.14N×20°.78E, h0^{km}, mbtmp2.9/4, ML2.2/4, Error ellipse: s-maj=30.4km s-min=10.7km az=119.0*
ISC 15 17:00:09.5±0.8**, 67°.10N**±0°.02×**20°.81E**±0°.03**, h0**^{km}**, n43, σ1^{s}.04**/67**, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MASU	Masugnsbyn	0.58	52	P	Pg	17 00 21.1	+0.4
MASU				S	Sg	17 00 28.8	+0.6
ERTU	Ertsjaerv	0.77	135	P	Pg	17 00 23.9	-0.4
ERTU				S	Sg	17 00 33.6	-0.7
ERTU	Ertsjaerv	0.77	135	PG	Pg	17 00 23.6	-0.7
ERTU				SG	Sg	17 00 33.2	-1.2
RATU	Laukkuluspa	0.87	328	P	Pb	17 00 27.2	-0.2
RATU				S	Sb	17 00 39.9	+0.3
KUA	Kurravaara	0.88	348	P	Pb	17 00 27.2	-0.4
PAJU	Pajala	0.91	94	P	Pg	17 00 26.2	-0.6
PAJU				S	Sg	17 00 38.4	-0.1
PAJU	Pajala	0.91	94	PG	Pg	17 00 26.1	-0.7
	baz=279						
PAJU				SG	Sg	17 00 38.4	-0.1
SALU	Saltoluokta	0.94	288	P	Pb	17 00 28.9	+0.2
SALU	Saltoluokta	0.94	288	eP	Pg	17 00 28.2	+0.7
NIKU	Nikkaluokta	1.03	319	P	Pb	17 00 30.3	+0.1
LANU	Lannavaara	1.05	25	P	Pg	17 00 29.7	-0.1
LANU	Lannavaara	1.05	25	PB	Pg	17 00 29.6	-0.1
LANU				SN	Sn	17 00 46.0	-0.9
KLF	Kolari	1.24	82	PG	Pg	17 00 32.2	-1.0
	baz=267						
KLF				smax	smax	17 00 47.9	
	comp=Z,17nm,0.2s						
KLF				SG	Sg	17 00 49.5	+0.3
KALU	Kalix	1.61	140	P	Pn	17 00 38.8	-0.3
KALU	Kalix	1.61	140	PG	Pn	17 00 38.7	-0.5
KALU				SN	Sn	17 01 00.7	+0.1
SJUU	Sjulsmark	1.63	168	P	Pn	17 00 39.6	+0.2
HEF	Hetta	1.70	38	eP	Pn	17 00 40.8	+0.3
HEF	Hetta	1.70	38	PG	Pn	17 00 40.6	+0.1
	baz=223						
HEF				smax	smax	17 01 01.4	
	comp=Z,18nm,0.2s						
HEF				SG	Sb	17 01 03.6	0.0
TOF	Tornio	1.74	125	PG	Pn	17 00 41.1	+0.2
TOF				smax	smax	17 01 01.9	
	comp=Z,11nm,0.2s						
TOF				SG	Sn	17 01 03.8	+0.1
RNF	Rovaniemi	2.11	101	PG	Pn	17 00 46.7	+0.6
RNF				SG	Sb	17 01 15.2	-0.2
KTK1	Kautokeino	2.12	24	PG	Pb	17 00 48.2	-0.7
KTK1				SG	Sg	17 01 16.8	-0.9
BURU	Burvik	2.54	174	PG	Pn	17 00 53.3	+1.4
BURU				SG	Sb	17 01 26.6	-1.0
RANF	Ranua	2.63	112	PN	Pn	17 00 53.8	+0.7
	baz=299						
RANF				SG	Sb	17 01 30.0	-0.1
TRO	Tromso	2.64	346	PG	Pb	17 00 56.2	-1.4
TRO				SG	Sb	17 01 30.2	-0.2
OUL	Oulu	2.90	132	PB	Pn	17 00 58.4	+1.6
	baz=316						
OUL				SG	Sb	17 01 39.1	+1.3
OBF0	Syolatti, Pyha	2.97	150	PB	Pn	17 00 59.3	+1.5
OBF0				smax	smax	17 01 36.6	
	comp=Z,6.4nm,0.2s						
OBF8	Ulkokalla	2.99	157	PB	Pn	17 00 59.9	+1.8
OBF8				smax	smax	17 01 36.9	
	comp=Z,7.2nm,0.2s						
ARA0	ARCESS Array S	3.00	33	PB	Pn	17 00 59.2	+0.9
ARA0				SB	Sb	17 01 39.8	-1.2
ARCES	ARCESS Array B	3.00	33	Pn	Pn	17 00 59.2	+1.0
	comp=Z,0.7nm,0.3s,baz=214,slow=14,SNR=68						
ARCES				Lg	Lg	17 01 39.7	
	comp=Z,1.8nm,0.3s,baz=214,slow=27,SNR=17						
	comp=Z,1.6nm,0.3s						
ARCES				AML	AML		
RAJF	Raja-Jooseppi	3.17	61	PN	Pn	17 01 00.6	+0.1
RAJF				SG	Sb	17 01 47.3	+1.7
OUF	Merijarvi	3.19	148	PB	Pn	17 01 02.1	+1.3
UMAU	Umeaa	3.23	181	PB	Pn	17 01 02.6	+1.2
UMAU				SB	Sn	17 01 41.9	+1.4
KU2	Taivalkoski	3.29	112	PN	Pn	17 01 02.8	+0.5
VRF	Varrio	3.46	75	PN	Pn	17 01 04.9	+0.4
VRF				SG	Sb	17 01 55.0	+1.0
OLKF	Oulanka, Finla	3.50	99	PN	Pn	17 01 06.4	+1.3
MSF	Maaselka	3.50	106	PN	Pn	17 01 06.3	+1.1
	baz=293						
MSF				SG	Sb	17 01 58.6	+3.2
KEV	Kevo	3.51	38	PN	Pn	17 01 05.8	+0.5
KEV				SN	Sn	17 01 49.0	+1.6
KU1	Kurvinen	3.85	110	PN	Pn	17 01 10.9	+1.0
HEMU	Hemsoen	4.60	196	SN	Sn	17 02 12.9	-1.3
NIF	Nilsia	4.75	138	PN	Pn	17 01 23.7	+1.5
	baz=323						
FINES	FINESS Array B	6.12	156	Pn	Pn	17 01 42.4	+1.3
	comp=Z,0.2nm,0.3s,baz=345,slow=11,SNR=16						
	comp=Z,0.6nm,0.3s						
FINES				AML	AML		
NOA	NORSAR Array B	7.39	219	Pn	Pn	17 01 58.0	-0.5
	baz=29,slow=11,SNR=4.1						
	comp=Z,0.7nm,1.0s						
HFS	Hagfors	7.67	208	Pn	Pn	17 02 02.9	+0.5
	comp=Z,0.1nm,0.3s,baz=19,slow=11,SNR=1.6						
HFS				Sn	Sn	17 03 26.8	-3.1
	comp=Z,0.1nm,0.3s,baz=39,slow=21,SNR=1.5						
HFS				Lg	Lg	17 04 09.4	
	comp=Z,0.2nm,0.3s,baz=20,slow=28,SNR=1.6						
	comp=Z,0.3nm,0.3s						
HFS				AML	AML		

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*IDC **15** 17:02:15.6±6.7, 21°.50N×143°.63E, h0^{km}, mb3.4/6, mbtmp3.4/6, Error ellipse: s-maj=267.6km s-min=22.9km az=76.0*
ISC 15 17:02:15.3±6.9**, 21°.8N**±0°.5×**14°5E**±°**, h35**^{km}**, n6, σ1^{s}.13**/6**, mb3.4**/6**, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSRS	Korea Array	21.54	320	P	P	17 07 01.2	-0.3
	0.2nm,0.3s,baz=146,slow=8.8,SNR=4.2						
	0.2nm,0.3s						
WRA	Warramunga Arr	42.82	195	P	P	17 10 11.2	+1.1
	0.4nm,0.7s,baz=12,slow=8.3,SNR=7.4						
	0.4nm,0.7s						
ASAR	Alice Springs	46.51	194	P	P	17 10 38.3	-1.2
	0.3nm,0.7s,baz=9.3,slow=7.7,SNR=2.2						
	0.3nm,0.7s						
ZALV	Zalesovo Beam	55.24	321	P	P	17 11 45.6	+0.8
	0.2nm,0.4s,baz=117,slow=8.6,SNR=2.2						
	0.2nm,0.4s						
MKAR	Makanchi Array	55.95	312	P	P	17 11 50.5	+0.4
	0.4nm,0.9s,baz=103,slow=9.6,SNR=2.5						
	0.4nm,0.9s						
KURBB	Kurchatov Arra	58.67	317	P	P	17 12 08.5	-0.7
	0.4nm,0.2s,baz=92,slow=7.6,SNR=5.1						
	0.4nm,0.2s						

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*IDC **15** 17:06:45.3±1.4, 66°.26N×18°.02W, h0^{km}, mb3.5/3, mbtmp3.6/10, ML3.1/6, MS3.1/8, Error ellipse: s-maj=27.4km s-min=14.8km az=140.0*
*REY **15** 17:06:46.0, 66°.12N×17°.73W, h12^{km}*
ISC 15 17:06:45.3±0.8**, 66°.12N**±0°.02×**17°.68W**±0°.02**, h15**^{km}±5^{km}**, n47, σ1^{s}.14**/62**, mb3.5**/3**, MS3.2**/4**, Iceland region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IBRE	Brettingsstaoi	0.09	272	P	Pg	17 06 48.4	-0.1
IBRE				S	Sg	17 06 50.3	-0.3
IHED	Heoinshofoi	0.16	104	P	Pg	17 06 49.6	+0.4
IHED				S	Sg	17 06 52.5	+0.6
IGRA	Granastaoir	0.21	168	P	Pg	17 06 50.3	+0.3
IGRA				S	Sg	17 06 53.5	+0.4
IDIM	Dimmadalss	0.35	117	P	Pb	17 06 52.6	-0.5
IDIM				S	Sb	17 06 57.9	-0.4
ISKI	Skildingahlsh	0.37	133	P	Pn	17 06 53.9	-2.1
ISKI				S	Sb	17 06 59.1	+0.1
IGRI	Grimsey	0.44	343	P	Pb	17 06 54.0	-0.8
IGRI				S	Sb	17 07 00.0	-1.2
IGHA	Grjothals	0.50	123	P	Pb	17 06 55.0	-0.7
ISIG	Siglufjorour	0.50	272	P	Pg	17 06 54.5	-0.7
ISIG				S	Sg	17 07 01.2	-0.7
IKVO	Krokottuvotn	0.52	141	P	Pb	17 06 55.4	-0.8
IKVO				S	Sb	17 07 02.6	-0.9
IGIL	Gilhagi	0.54	94	P	Pb	17 06 55.9	-0.6
IGIL				S	Sb	17 07 03.6	-0.4
ILEI	Leirhofn	0.56	59	P	Pg	17 06 56.3	0.0
ILEI				S	Sn	17 07 04.4	-3.3
IREN	Reynihlio	0.57	146	P	Pg	17 06 56.2	-0.3
IREN				S	Sg	17 07 04.1	0.0
IMEL	Melhnausar	0.70	142	P	Pb	17 06 58.3	-0.8
IMEL				S	Sg	17 07 07.7	-0.3
IGRS	Grimsstaoir	0.80	126	P	Pb	17 06 59.9	-1.0
IGRS				S	Sg	17 07 11.4	0.0
ISVA	Svartarkot	0.81	167	P	Pb	17 07 00.1	-0.9
ISVA				S	Sb	17 07 11.1	-0.5
IHRN	Hraun	0.99	271	P	Pb	17 07 02.3	-1.8
IASK	Askja	1.16	158	P	Pn	17 07 05.7	-1.2
IASK				S	Sn	17 07 21.4	-1.1
THOR	Thorvaldshraun	1.26	160	P	Pn	17 07 07.5	-0.9
THOR				S	Sn	17 07 24.6	-0.4
IMKO	Mokollar	1.28	153	P	Pn	17 07 07.6	-0.9
IMKO				S	Sb	17 07 24.9	-0.2
IDYN	Dyngjuhals	1.34	174	P	Pn	17 07 08.6	-0.9
IDYN				S	Sb	17 07 26.8	-0.3
IADA	Aoalbol	1.41	141	P	Pn	17 07 09.8	-0.6
IADA				S	Sb	17 07 28.5	-0.6
IKRE	Kreppuhraun	1.45	157	P	Pn	17 07 09.8	-1.1
IKIS	Kista	1.45	178	P	Pn	17 07 10.5	-0.6
IKIS				S	Sb	17 07 29.8	-0.6
IVON	Vonarskard	1.45	181	P	Pn	17 07 10.3	-0.7
IVON				S	Sn	17 07 29.4	-0.4
ISTE	Stelbrattur	1.51	213	P	Pn	17 07 11.6	-0.1
IVSH	V-Sauoahnukur	1.55	147	P	Pn	17 07 11.8	-0.6
ISKR	Skrokkalda	1.59	191	P	Pn	17 07 12.8	-0.2
IDJK	Dyngjujokull	1.63	173	P	Pn	17 07 13.2	-0.4
IBJK	Bruarjokull	1.70	166	P	Pn	17 07 13.8	-0.8
BORG	Borgarnes	2.05	230	Pn	Pn	17 07 19.4	+0.3
	495nm,0.4s,baz=51,slow=5.4,SNR=894						
BORG				Sn	Sn	17 07 45.7	+1.3
	56nm,0.3s,baz=83,slow=22,SNR=14						
BORG				LR	LR	17 08 12.5	
	comp=Z,142nm,19.7s,baz=31,slow=43						
SCO	Scoresbysund	4.66	342	i P	Pn	17 07 54.8	-0.1
SCO				i S	Sn	17 08 50.7	+2.1
DAG	Danmarks Havn	10.71	359	i P	Pn	17 09 25.5	+7.7
DAG				i S	Sn	17 10 53.9	-23
EKA	Eskdalemuir Ar	12.90	140	Pn	P	17 09 53.0	-5.4
	baz=329,slow=14						
	0.3nm,0.5s						
SFJD	Kangerlussuaq	13.05	289	LR	LR	17 14 27.9	
	comp=Z,97nm,18.4s,baz=125,slow=36						
NOA	NORSAR Array B	13.74	98	Pn	Pn	17 10 01.8	+2.5
	baz=309,slow=12,SNR=2.9						
NOA				LR	LR	17 14 48.3	
	comp=Z,21nm,19.8s,baz=300,slow=35						
	0.3nm,0.5s						
HFS	Hagfors	15.27	98	Pn	P	17 10 22.7	-2.0
	0.1nm,0.3s,baz=241,slow=30,SNR=3.8						
	1.1nm,0.8s						
HFS				AML	AML		
SPITS	Spitsbergen Ar	15.57	25	Pn	P	17 10 26.2	-1.8
	baz=215,slow=12						
	4.5nm,0.9s						
ARCES	ARCESS Array B	16.38	59	Pn	P	17 10 36.0	-1.0
	0.1nm,0.3s,baz=304,slow=6.4,SNR=5.3						
	1.3nm,0.8s						
ARCES				AML	AML		
FINES	FINESS Array B	19.56	83	P	Pn	17 11 15.2	+1.9
	0.1nm,0.3s,baz=316,slow=9.7,SNR=5.2						
FINES				LR	LR	17 18 19.4	
	comp=Z,44nm,18.5s,baz=341,slow=35						
	1.6nm,0.7s						
FINES				AML	AML		
FRB	Frobisher Bay	21.20	287	LR	LR	17 19 07.4	
	comp=Z,111nm,18.1s,baz=136,slow=35						
CLL	Collm	21.44	119	i P	P	17 11 33.9	+1.4
CLL				i x	x	17 11 38.1	
CLL				L	L	17 19 00.0	
GERES	GERESS Array B	23.75	121	P	P	17 12 02.8	+6.1
	0.3nm,0.3s,baz=337,slow=9.9,SNR=2.7						
	0.3nm,0.3s						
AKASG	Malin Array Be	28.14	100	LR	LR	17 23 05.7	
	comp=Z,26nm,19.0s,baz=356,slow=35						
ULM	Lac du Bonnet	41.08	287	LR	LR	17 29 06.7	
	comp=Z,59nm,19.2s,baz=356,slow=33						
GNI	Garni	43.02	95	LR	LR	17 34 15.5	
	comp=Z,27nm,18.6s,baz=356,slow=38						
KURBB	Kurchatov Arra	47.46	59	P	P	17 15 21.0	+2.2
	0.3nm,0.4s,baz=318,slow=6.6,SNR=1.9						
	0.3nm,0.4s						
MKAR	Makanchi Array	52.03	59	P	P	17 15 56.4	+2.7
	0.6nm,1.0s,baz=321,slow=4.1,SNR=2.2						
	0.6nm,1.0s						

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*SDD **15** 17:16:02.3±2.8, 18°.36N×71°.66W, h23^{km}±6^{km}, MD3.2, ML3.7, MW3.7, Presumed earthquake*
*SSNC **15** 17:16:03.4±1.1, 18°.27N×71°.59W, h4^{km}±8^{km}, MD3.6, ML3.5, MW3.5, Presumed earthquake*
*OSPL **15** 17:16:04.8±2.2, 18°.37N×71°.69W, h7^{km}±9^{km}, ML3.8, Presumed earthquake*
ISC 15 17:16:04.0±0.9**, 18°.35N**±0°.03×**71°.64W**±0°.02**, h10**^{km}±7^{km}**, n36, σ1^{s}.26**/58**, 5C-11D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LODU1	El Espartillar	0.16	89	⇑iP	Pg	17 16 07.6	0.0
LODU1				eS	Sg	17 16 11.0	+0.9
LODU1				IAML		17 16 14.1	
	comp=Z,49μm,0.3s						
JIDR	Jimani	0.24	306	i P	Pg	17 16 08.9	-0.1
JIDR				i S	Sg	17 16 13.6	+1.3
JIDR				IAML		17 16 15.4	
	comp=N,8μm,0.3s						
NEDR	Neiba UASD	0.25	58	i P	Pb	17 16 10.0	-0.7
NEDR				⇓iS	Sb	17 16 15.9	+0.8
NEDR				IAML		17 16 17.1	
	comp=N,18μm,0.5s						
LONE3	El Aguacate, B	0.31	35	⇑iP	Pg	17 16 10.3	0.0
LONE3				eS	Sb	17 16 16.7	-0.2
LONE3				IAML		17 16 17.4	
	comp=Z,13μm,0.4s						
PODR	Polo	0.39	118	i P	Pb	17 16 12.4	-0.7
PODR				i S	Sb	17 16 18.9	-0.4
LOBH	Bahia de las A	0.48	179	⇓iP	Pg	17 16 13.2	-0.3
LOBH				eS	Sb	17 16 21.2	-0.6
LOBH				IAML		17 16 26.4	
	comp=Z,5μm,0.5s						
LOVI	El Cajuil, Ovi	0.61	154	⇑iP	Pb	17 16 16.0	-0.7
LOVI				eS	Sb	17 16 26.6	+1.3
LOVI				IAML		17 16 38.3	
	comp=Z,16μm,0.2s						
SDDR	Presa de Saban	0.71	28	eP	Pg	17 16 16.8	-1.1
SDDR				eS	Sg	17 16 26.8	-0.4
SDDR				eSg	Sn	17 16 31.2	-0.1
SDDR				IAML		17 16 33.9	
	comp=Z,3μm,0.6s						
SDDR	Presa de Saban	0.71	28	⇓iP	Pg	17 16 17.1	-0.7
SDDR				eS	Sg	17 16 27.3	+0.1
REDR	Restauracion	0.85	16	⇓iP	Pb	17 16 20.7	-0.1
REDR				i S	Sn	17 16 34.3	-0.1
REDR				IAML		17 16 35.1	
	comp=N,3μm,0.2s						
ABDR	Alto Bandera	1.07	64	⇓iP	Pg	17 16 23.6	-1.0
ABDR				i S	Sb	17 16 40.0	+1.0
ABDR				IAML		17 16 44.6	
	comp=N,2μm,0.3s						
BANI	BANI	1.22	88	i P	Pg	17 16 26.2	-1.3
BANI				i S	Sn	17 16 44.1	+0.2
BANI				IAML		17 16 52.2	
	comp=N,1μm,0.3s						
MADR	Mao Valverde	1.31	23	⇓iP	Pn	17 16 27.6	-0.8
MADR				IAML		17 16 51.8	
	comp=N,2μm,0.6s						
SC01	Santiago de lo	1.38	39	⇓iP	Pn	17 16 29.1	-0.3
SC01				IAML		17 16 57.9	
	comp=Z,487nm,0.7s						
SC01	Santiago de lo	1.38	39	⇓iP	Pn	17 16 29.1	-0.3
SC01				i S	Sg	17 16 49.3	+0.9
SC01				IAML		17 17 07.6	
	comp=N,756nm,0.7s						
MCDR	Montecristi	1.54	360	⇓iP	Pn	17 16 30.8	-0.6
MCDR				IAML		17 17 04.0	
	comp=N,659nm,0.8s						
LOPP1	Punta Rusia, P	1.55	16	⇑iP	Pn	17 16 31.9	+0.2
LOPP1				IAML		17 16 58.4	
	comp=Z,813nm,0.4s						
SFDR	San Fco. de Ma	1.62	55	i P	Pn	17 16 33.0	+0.4
SFDR				IAML		17 17 02.9	
	comp=N,2μm,0.5s						
SDD	Santo Domingo	1.65	86	⇑iP	Pn	17 16 32.7	-0.2
SDD				IAML		17 16 59.2	
	comp=Z,684nm,1.4s						
SDD	Santo Domingo	1.65	86	i P	Pn	17 16 32.9	-0.1
SDD				IAML		17 17 00.4	
	comp=N,400nm,0.5s						
LUDR	Luperon	1.67	23	⇓iP	Pb	17 16 34.1	-0.8
NADR	Nagua	1.97	59	i P	Pn	17 16 37.4	0.0
NADR				IAML		17 17 21.3	
	comp=N,1μm,0.5s						
SMDR	Samana, DR	2.51	68	⇓iP	Pb	17 16 47.3	-1.9
SMDR				IAML		17 17 32.4	
	comp=N,316nm,0.9s						
HIDR	Higuey Centro	2.79	85	i P	Pn	17 16 50.0	+1.3
HIDR				IAML		17 17 45.6	
	comp=N,151nm,0.5s						
GRTK	Grand Turk	3.18	9	eP	Pn	17 16 54.6	+0.5
GRTK				eS	Sn	17 17 34.6	+2.5
GRTK				IAML		17 17 42.8	
	comp=N,62nm,0.5s						
GRTK				IAML		17 17 47.4	
	comp=N,81nm,0.3s						
GRTK	Grand Turk	3.18	9	i P	Pn	17 16 55.9	+1.8
GRTK				IAML		17 17 51.3	
	comp=N,110nm,0.5s						
QMBU	Quimbuelo	3.51	302	eP	Pn	17 16 56.5	-2.2
QMBU				eS	Sn	17 17 43.6	+3.3
QMBU				IAML		17 17 49.6	
	comp=E,51nm,0.5s						
QMBU				IAML		17 17 53.9	
	comp=N,54nm,0.4s						
QMBU	Quimbuelo	3.51	302	i P	Pn	17 16 57.3	-1.4
QMBU				IAML		17 18 08.9	
	comp=N,43nm,0.9s						
GTBY	Guantanamo Bay	3.63	296	eP	Pn	17 16 60.0	-0.4
GTBY				eS	Sb	17 17 50.3	-2.2
GTBY	Guantanamo Bay	3.63	296	i P	Pn	17 16 58.7	-1.6
GTBY				IAML		17 18 00.0	
	comp=N,55nm,0.5s						
NMDO	Nuevo Mundo	3.84	305	eP	Pn	17 17 02.1	-1.1
NMDO				eS	Sn	17 17 50.4	+2.0
NMDO	Nuevo Mundo	3.84	305	i P	Pn	17 17 02.6	-0.6
NMDO				IAML		17 18 22.8	
	comp=N,24nm,1.4s						
MOAC	Moa	3.88	307	eP	Pn	17 17 02.9	-0.9
MOAC				eS	Sn	17 17 49.5	+0.1
MARVS	Santiago de Cu	4.34	293	eP	Pn	17 17 09.2	-0.9
MARVS				eS	Sn	17 18 05.0	+4.2
PINC	Pinares de May	4.45	299	eP	Pn	17 17 10.8	-0.8
PINC				eS	Sn	17 18 05.2	+1.6
YAR	Yar	4.88	295	eP	Pn	17 17 16.6	-1.0
YAR				eS	Sn	17 18 15.6	+1.4

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*GFZ **15** 17:16:14.1±0.5, 35°N±4°×9°3E±°, h10^{km}, M4.4/9, mb4.4/9, Error ellipse: s-maj=13.8km s-min=6.8km az=67.7, confirmed*
*IDC **15** 17:16:22.4±1.2, 33°.35N×92°.24E, h0^{km}, mb3.3/4, mbtmp3.4/8, ML3.4/4, MS3.2/12, Error ellipse: s-maj=59.6km s-min=17.9km az=64.0*
ISC 15 17:16:23.6±0.7**, 33°.39N**±0°.06×**92°.3E**±0°.1**, h10**^{km}**, n23, σ2^{s}.47**/14**, mb3.4**/4**, MS3.3**/8**, Qinghai**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GOMU	GeErMu	3.46	35	P	Pn	17 17 21.6	+3.7
GOMU				pP	Pb	17 17 24.8	-0.4
GOMU				sP	Pg	17 17 29.1	-0.9

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GOMU                               S      Sb      17 18 04.5 -3.0
GOMU                               pmax   pmax
        comp=Z,9.0nm,0.5s
GOMU                               LR     LR
        comp=N,1µm,9.0s
GOMU                               LR     LR
        comp=E,1µm,9.4s
LSA    Lhasa             3.82 196  P      Pb      17 17 29.9 -1.4
        comp=Z,161nm,0.8s
LSA                                P      Sg      17 18 29.8 +3.6
EVN    Everest           7.21 223  P      Pn      17 18 15.9 +6.3
        comp=Z,9.1nm,0.6s
GTA2   Gaotai            8.53  42 eP      Pn      17 18 29.8 +2.6
GTA2                               pmax   pmax
        comp=Z,3.0nm,0.9s
GTA2                               LR     LR
        comp=N,390nm,15.9s
GTA2                               LR     LR
        comp=E,340nm,14.3s
GTA2                               LR     LR
        comp=Z,190nm,12.1s
NPW    Naypyitaw        13.97 165  P      P       17 19 46.2 -3.6
        comp=Z,10nm,0.9s
KDJ    Kajisay          14.81 310  P      Pn      17 19 39.4  -14
        comp=Z,5.1nm,1.6s
MKAR   Makanchi Array   15.42 333  Pn     Pn      17 19 59.0 -2.2
        baz=142,slow=14,SNR=4.0
MKAR                               LR     LR      17 25 40.0
        comp=Z,54nm,21.1s,baz=148,slow=36
        comp=Z,0.5nm,0.9s
MAKZ   Makanchi         15.55 333  P      Pn      17 19 43.0  -20
        comp=Z,2.4nm,1.1s
CMAR   Chiang Mai Arr   16.00 157  Pn     Pn      17 20 08.2 -0.6
        comp=Z,0.1nm,0.3s,baz=328,slow=12,SNR=5.7
CMAR                               LR     LR      17 26 25.2
        comp=Z,24nm,18.9s,baz=15,slow=38
        comp=Z,0.3nm,0.6s
CMAR                               AML    AML
AAK    Ala-Archa        16.80 308  LR     LR      17 27 54.0
        comp=Z,79nm,19.4s,baz=112,slow=41
SONM   Songino Array    17.90  32  P      P       17 20 34.2 +0.8
        comp=Z,0.2nm,0.3s,baz=222,slow=13,SNR=8.3
SONM                               LR     LR      17 27 36.2
        comp=Z,47nm,20.4s,baz=206,slow=38
        comp=Z,1.4nm,0.9s
SONM                               AML    AML
KURBB  Kurchatov Arra   19.99 334  P      Pn      17 20 56.5 -1.3
        comp=Z,0.2nm,0.3s,baz=145,slow=11,SNR=12
        comp=Z,1.6nm,0.5s
KURBB                              AML    AML
ZALV   Zalesovo Beam    21.23 348  P      P       17 21 09.3 -0.2
        comp=Z,0.7nm,0.6s,baz=148,slow=8.5,SNR=6.0
        comp=Z,0.7nm,0.6s
KSRS   Korea Array      29.17  72  LR     LR      17 35 00.4
        comp=Z,23nm,19.6s,baz=250,slow=38
JOW    Kunigami         31.65  92  LR     LR      17 36 11.6
        comp=Z,68nm,18.8s,baz=226,slow=38
JNU    Nakatsue         32.10  80  LR     LR      17 35 52.8
        comp=Z,44nm,20.3s,baz=256,slow=36
YAK    Yakutsk          37.19  28  LR     LR      17 38 32.2
        comp=Z,36nm,19.9s,baz=225,slow=36
JHJ    Hachijo jima 2   39.40  77  LR     LR      17 39 49.6
        comp=Z,52nm,21.9s,baz=279,slow=36
EIL    Elat             48.53 282  LR     LR      17 47 29.0
        comp=Z,35nm,18.3s,baz=84,slow=38
NOA    NORSAR Array B   57.23 325  P      P       17 26 12.0 +1.2
        comp=Z,0.3nm,0.5s,baz=80,slow=7.2,SNR=2.2
NOA                                LR     LR      17 50 23.6
        comp=Z,20nm,20.1s,baz=240,slow=36
        comp=Z,0.3nm,0.5s
DAVOX  Davos/Dischmat   61.75 309  LR     LR      17 55 10.6
        comp=Z,26nm,18.4s,baz=84,slow=38
WRA    Warramunga Arr   66.47 137  P      P       17 27 14.4 +0.9
        comp=Z,0.2nm,0.9s,baz=312,slow=6.1,SNR=1.2
        comp=Z,0.2nm,0.9s
ASAR   Alice Springs    69.19 139  P      P       17 27 31.2 +0.7
        comp=Z,0.3nm,0.6s,baz=326,slow=6.7,SNR=6.6
        comp=Z,0.3nm,0.6s
```

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*SDD **15** 17:19:49.5±2.2, 18.°38N×71.°65W, h26km±5km, MD2.9, ML2.5, MW2.8, Presumed earthquake*
*OSPL **15** 17:19:51.4±1.2, 18.°36N×71.°69W, h0km±12km, ML2.5, Presumed earthquake*
ISC 15 17:19:51.6±1.1**, 18.°34N**±0.°03×**71.°65W**±0.°04**, h14**km±7km**, n12, σ1.s20**/22**, Dominican Republic region**

```
Code   Station Name        Δ°  AZ°   Phase ID          Time    Res
                                    Op     ISC       h  m  s   ISC
LODU1  El Espartillar    0.17  85 i P     Pg      17 19 54.3 -1.5
LODU1                             eS      Sg      17 19 58.0 -0.5
LODU1                              IAML           17 19 60.0
        comp=Z,2µm,2.0s
JIDR   Jimani            0.24 309 i P     Pg      17 19 56.6 -0.2
JIDR                              i S     Sg      17 20 01.1 +0.7
JIDR                               IAML           17 20 01.7
        comp=N,901nm,0.5s
NEDR   Neiba UASD        0.27  57 i P     Pg      17 19 57.3  0.0
NEDR                              i S     Sg      17 20 03.1 +1.9
NEDR                               IAML           17 20 04.5
        comp=N,710nm,0.5s
LONE3  El Aguacate, B    0.32  35 i P     Pg      17 19 57.5 -0.8
LONE3                              IAML           17 20 05.0
        comp=Z,530nm,0.6s
PODR   Polo              0.39 116 i P     Pg      17 19 59.4 -0.3
PODR                              i S     Sg      17 20 06.3 +1.2
LOBH   Bahia de las A    0.47 178 i P     Pg      17 20 00.0 -1.0
LOBH                              eS      Sg      17 20 07.2 -0.2
LOBH                               IAML           17 20 12.9
        comp=Z,264nm,0.7s
SDDR   Presa de Saban    0.73  28 i P     Pg      17 20 04.1 -1.7
SDDR                              eS      Sg      17 20 14.1 -1.3
REDR   Restauracion      0.86  17 i P     Pg      17 20 07.7 -0.7
REDR                              i S     Sg      17 20 21.3 +1.7
REDR                               IAML           17 20 21.5
        comp=N,233nm,0.2s
ABDR   Alto Bandera      1.08  64 i P     Pg      17 20 11.1 -1.5
ABDR                              i S     Sg      17 20 26.4 -0.4
ABDR                               IAML           17 20 30.7
        comp=N,45nm,0.6s
BANI   BANI              1.23  87 i P     Pg      17 20 14.8 -0.6
BANI                              i S     Sb      17 20 32.8 +2.2
BANI                               IAML           17 20 36.2
        comp=N,63nm,1.1s
MCDR   Montecristi       1.54 360 i P     Pn      17 20 18.6 -0.2
MCDR                              i S     Sn      17 20 38.4 -0.3
MCDR                               IAML           17 20 56.3
        comp=N,71nm,0.5s
LOPP1  Punta Rusia, P    1.57  16 i P     Pn      17 20 19.1  0.0
LOPP1                              IAML           17 20 45.6
        comp=Z,66nm,0.7s
```

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*OSPL **15** 17:25:10.5±1.4, 18.°29N×71.°62W, h10km±9km, ML1.8, Presumed earthquake*
SDD 15 17:25:03.3±2.6**, 18.°58N×71.°77W, h146**km±17km**, MD3.0, ML2.8, MW3.2, Presumed earthquake, Dominican Republic region**

```
Code   Station Name        Δ°  AZ°   Phase ID          Time    Res
                                    Op     ISC       h  m  s   ISC
JIDR   Jimani            0.11 222 i P     Pn      17 25 22.0 -0.9
JIDR                              i S     Sn      17 25 38.5 +0.7
JIDR                               IAML           17 25 40.6
        comp=N,289nm,0.6s
LONE3  El Aguacate, B    0.30  84 i P     Pn      17 25 16.4 -7.1
LONE3                             eS      Sn      17 25 22.5  -16
LONE3                              IAML           17 25 23.7
        comp=Z,122nm,0.6s
NEDR   Neiba UASD        0.35 105 i P     Pn      17 25 22.6 -0.9
NEDR                              i S     Sn      17 25 40.0 +1.2
NEDR                               IAML           17 25 43.9
        comp=N,350nm,0.3s
LODU1  El Espartillar    0.36 128 i P     Pn      17 25 13.1  -10
LODU1                             eS      Sn      17 25 16.5  -22
LODU1                              IAML           17 25 19.9
        comp=Z,362nm,0.2s
SDDR   Presa de Saban    0.61  48 i P     Pn      17 25 24.7 -0.2
SDDR                              eS      Sn      17 25 33.9 -7.4
PODR   Polo              0.62 131 i P     Pn      17 25 25.7 +0.5
PODR                              i S     Sn      17 25 43.2 +1.6
REDR   Restauracion      0.69  31 i P     Pn      17 25 27.8 +2.5
REDR                              i S     Sn      17 25 41.9 -0.1
REDR                               IAML           17 26 00.5
        comp=N,110nm,0.2s
LOBH   Bahia de las A    0.72 170 i P     Pn      17 25 18.6 -6.9
LOBH                               IAML           17 25 31.1
        comp=Z,60nm,1.6s
ABDR   Alto Bandera      1.11  78 i P     Pn      17 25 28.8 -0.3
ABDR                              i S     Sn      17 25 49.2 +0.5
ABDR                               IAML           17 26 06.5
        comp=N,27nm,1.4s
LUDR   Luperon           1.52  30 i P     Pn      17 25 34.0 +1.2
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*SDD **15** 17:31:32.0±2.2, 18.°38N×71.°67W, h24km±6km, MD2.7, ML1.9, MW2.3, Presumed earthquake*
*OSPL **15** 17:31:34.0±0.9, 18.°32N×71.°65W, h11km±7km, ML1.8, Presumed earthquake*
ISC 15 17:31:34.0±1.3**, 18.°34N**±0.°04×**71.°65W**±0.°04**, h9**km±9km**, n10, σ0.s74**/19**, Dominican Republic region**

```
Code   Station Name        Δ°  AZ°   Phase ID          Time    Res
                                    Op     ISC       h  m  s   ISC
LODU1  El Espartillar    0.17  85 i P     Pg      17 31 36.9 -0.8
LODU1                             eS      Sg      17 31 40.3 +0.1
LODU1                              IAML           17 31 41.8
        comp=Z,469nm,1.0s
JIDR   Jimani            0.24 309 i P     Pg      17 31 38.4 -0.6
JIDR                              i S     Sg      17 31 43.7 +1.5
JIDR                               IAML           17 31 44.6
        comp=N,85nm,0.2s
NEDR   Neiba UASD        0.27  57 i P     Pg      17 31 39.3 -0.1
NEDR                              i S     Sb      17 31 45.4 -0.3
NEDR                               IAML           17 31 47.4
        comp=N,182nm,0.3s
LONE3  El Aguacate, B    0.32  35 i P     Pg      17 31 40.2 -0.4
LONE3                             eS      Sg      17 31 45.5 +0.6
LONE3                              IAML           17 31 46.9
        comp=Z,98nm,0.4s
PODR   Polo              0.39 116 i P     Pg      17 31 42.0 +0.2
PODR                              i S     Sb      17 31 49.2 -0.3
LOBH   Bahia de las A    0.47 178 i P     Pg      17 31 42.6 -0.6
LOBH                               IAML           17 31 54.7
        comp=Z,43nm,1.1s
SDDR   Presa de Saban    0.73  28 i P     Pg      17 31 47.0 -1.1
SDDR                              eS      Sg      17 31 57.5 -0.2
REDR   Restauracion      0.86  17 i P     Pg      17 31 50.2 -0.4
REDR                              i S     Sb      17 32 03.9 +1.1
REDR                               IAML           17 32 04.8
        comp=N,38nm,0.2s
ABDR   Alto Bandera      1.08  64 i P     Pg      17 31 54.8 -0.1
ABDR                              i S     Sn      17 32 10.2 -0.9
ABDR                               IAML           17 32 16.3
        comp=N,16nm,1.2s
BANI   BANI              1.23  87 i P     Pg      17 31 58.5 +0.8
BANI                              i S     Sn      17 32 14.6 +0.2
BANI                               IAML           17 32 28.3
        comp=N,46nm,1.6s
```

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*KNET **15** 17:54:25.3±0.2, 42.°52N×74.°74E, h18km±2km, ml3.0, Error ellipse: s-maj=2.2km s-min=1.9km az=110.0*
*KRNET **15** 17:54:25.9±0.1, 42.°50N×74.°74E, h19km, mb3.8*
*SOME **15** 17:54:26.2, 42.°50N×74.°73E, h15km*
*NNC **15** 17:54:27.7±0.5, 42.°75N×74.°68E, h0km, mb4.1, mpv3.9, Error ellipse: s-maj=11.1km s-min=2.7km az=155.0*
ISC 15 17:54:26.4±1.0**, 42.°48N**±0.°02×**74.°75E**±0.°01**, h4**km±9km**, n63, σ0.s76**/110**, 39C-34D, Kyrgyzstan**

```
Code   Station Name        Δ°  AZ°   Phase ID          Time    Res
                                    Op     ISC       h  m  s   ISC
KBK    Karagaybulak      0.23  39 ⇑P      Pg      17 54 31.2 +0.3
        1µm,0.1s,SNR=2112
KBK                               ⇓S      Sg      17 54 34.7 +0.7
        9µm,0.2s
KBK    Karagaybulak      0.23  39⇑iP      Pg      17 54 30.9  0.0
KBK                              ⇑iS      Sg      17 54 34.3 +0.3
AAK    Ala-Archa         0.25 310 ⇑P      Pg      17 54 31.0 -0.2
        466nm,0.2s,SNR=694
AAK                               ⇑S      Sg      17 54 34.4 -0.1
        8µm,0.2s
AAK    Ala-Archa         0.25 310 ⇑P      Pg      17 54 31.2 -0.1
AAK                               ⇓S      Sg      17 54 34.2 -0.3
AAK    Ala-Archa         0.25 310⇑iP      Pg      17 54 30.9 -0.3
AAK                              ⇑iS      Sg      17 54 34.3 -0.3
UCH    Uchtor            0.31 215 ⇑P      Pg      17 54 33.0 +0.6
        1.3nm,0.1s,SNR=11
UCH                               ⇓S      Sg      17 54 37.3 +0.8
        4µm,0.3s
UCH    Uchtor            0.31 215⇑iP      Pg      17 54 32.8 +0.4
UCH                              ⇑iS      Sg      17 54 37.3 +0.8
FRU1   Bishkek           0.34 345⇓iP      Pg      17 54 33.0 -0.1
FRU1                             ⇓iS      Sg      17 54 37.9 +0.3
CHMS   Chumysh           0.52   0  P      Pg      17 54 35.9 -0.5
        296nm,0.1s,SNR=686
CHMS                              ⇑S      Sg      17 54 42.6 -0.7
        471nm,0.1s
CHMS   Chumysh           0.52   0⇓iP      Pg      17 54 35.7 -0.7
CHMS                             ⇓iS      Sg      17 54 42.5 -0.7
EKS2   Erkin-Say         0.74 285 ⇑P      Pg      17 54 40.0 -0.6
        254nm,0.2s,SNR=1067
EKS2                              ⇑S      Sg      17 54 50.1 -0.2
        350nm,0.2s
EKS2   Erkin-Say         0.74 285⇑iP      Pg      17 54 39.8 -0.8
EKS2                             ⇑iS      Sg      17 54 49.6 -0.7
TKM2   Tokmak 2          0.77  54 ⇑P      Pg      17 54 40.5 -0.5
        104nm,0.1s,SNR=332
TKM2                              ⇓S      Sg      17 54 50.7 -0.3
        436nm,0.1s
TKM2   Tokmak 2          0.77  54⇓iP      Pg      17 54 40.4 -0.7
TKM2                             ⇓iS      Sg      17 54 50.5 -0.5
USP    Ospenovka         0.81 347 ⇓P      Pg      17 54 41.0 -0.9
        198nm,0.1s,SNR=322
USP                               ⇓S      Sg      17 54 51.5 -1.0
        327nm,0.1s
USP    Ospenovka         0.81 347⇑iP      Pg      17 54 40.7 -1.2
USP                              ⇑iS      Sg      17 54 51.3 -1.2
BOOM   Boomskoye usch    0.88  89⇑iP      Pg      17 54 42.4 -0.9
BOOM                             ⇑iS      Sg      17 54 54.6 -0.1
KST    Kastek            1.06  57  P      Pg      17 54 46.1 -0.6
        44nm,0.1s
KST                                S      Sg      17 55 00.2 -0.2
        128nm,0.2s
KST    Kastek            1.06  57 eP      Pg      17 54 46.1 -0.6
        44nm,0.1s
KST                               eS      Sg      17 55 00.2 -0.2
        128nm,0.2s
ULHL   Ulahol            1.13 101  P      Pg      17 54 47.3 -0.7
        49nm,0.1s,SNR=82
ULHL                              ⇑S      Sg      17 55 02.5 -0.1
        144nm,0.1s
ULHL   Ulahol            1.13 101⇓iP      Pg      17 54 47.0 -1.0
ULHL                             ⇓iS      Sg      17 55 02.4 -0.3
MRKS   Merke             1.16 284 eP      Pg      17 54 47.4 -1.2
        177nm,0.2s
MRKS                              eS      Sg      17 55 02.8 -0.8
        390nm,0.3s
NRN    Naryn             1.40 138⇓iP      Pn      17 54 51.9 -1.1
NRN                              ⇓iS      Sb      17 55 10.8 -0.7
SALK   Salom-Alik        1.74 204⇓eP      Pb      17 54 58.2 -0.7
SALK                             ⇓eS      Sb      17 55 21.6 +0.4
AAA    Alma-Ata          1.75  65  P      Pb      17 54 59.1  0.0
        147nm,0.1s
AAA                                S      Sg      17 55 22.9 +0.2
        20nm,0.1s
AAA    Alma-Ata          1.75  65 eP      Pb      17 54 59.1  0.0
        147nm,0.1s
AAA                               eS      Sg      17 55 22.9 +0.2
        20nm,0.1s
ARSB   Arslanbob         1.75 229⇓iP      Pn      17 54 57.9 +0.2
ARSB                             ⇓iS      Sb      17 55 21.3 -0.3
KNDC   Almaty            1.79  65 ⇓P      Pb      17 54 59.5 -0.3
        47nm,0.2s
KNDC                              ⇑S      Sg      17 55 23.6 -0.3
        269nm,0.4s
MDOK   Medeo             1.82  67  Pg     Pb      17 54 59.9 -0.5
        126nm,0.2s
MDOK                               Lg     Lg      17 55 24.1
        188nm,0.4s
MDOK   Medeo             1.82  67 eP      Pb      17 54 59.9 -0.5
        126nm,0.2s
MDOK                              eS      Sg      17 55 24.1 -0.9
        188nm,0.4s
KDJ    Kajisay           1.83 100⇓iP      Pb      17 54 59.5 -1.1
KDJ                              ⇓iS      Sb      17 55 23.8 -0.2
KOTS   Kotyrbulak        1.89  66  P      Pb      17 55 01.5 -0.1
        65nm,0.1s
KOTS                               S      Sg      17 55 26.9 -0.3
        265nm,0.9s
KOTS   Kotyrbulak        1.89  66 eP      Pb      17 55 01.5 -0.1
        65nm,0.1s
KOTS                              eS      Sg      17 55 26.9 -0.3
        265nm,0.9s
ANVS   Anan'yevo         2.17  81⇑eP      Pn      17 55 03.7 +0.2
ANVS                             ⇑eS      Sn      17 55 31.2 +0.3
ARK    Arkit             2.18 253⇑iP      Pn      17 55 03.9 +0.4
ARK                              ⇑iS      Sn      17 55 31.3 +0.3
TARG   Taragay, Kyrgy    2.39 107⇓iP      Pn      17 55 07.0 +0.3
TARG                             ⇓iS      Sn      17 55 37.2 +0.6
OHH    Osh               2.45 218⇓iP      Pn      17 55 07.7 +0.5
OHH                              ⇓iS      Sn      17 55 38.1 +0.6
SFK    Sufi-Kurgan       2.64 201⇓eP      Pn      17 55 10.7 +0.8
SFK                              ⇓eS      Sn      17 55 41.8 -0.6
PRZ    Przheval'sk       2.70  89⇑iP      Pn      17 55 11.2 +0.5
PRZ                              ⇑iS      Sn      17 55 44.2 +0.3
KURS   Kuram             2.70  67  Pg     Pb      17 55 15.4  0.0
        40nm,0.4s
KURS                               Lg     Lg      17 55 51.0
        87nm,0.4s
KURS   Kuram             2.70  67 eP      Pb      17 55 15.4  0.0
        40nm,0.4s
KURS                              eS      Sg      17 55 51.0 -2.2
        87nm,0.4s
SATY   Saty              2.75  77  Pg     Pb      17 55 16.9 +0.7
        75nm,0.2s
SATY                               Lg     Lg      17 55 53.7
        156nm,0.2s
SATY   Saty              2.75  77 eP      Pb      17 55 16.9 +0.7
        75nm,0.2s
SATY                              eS      Sg      17 55 53.7 -1.1
        156nm,0.2s
ARXS   Arharly           2.84  51  Pg     Pb      17 55 17.3 -0.3
        15nm,0.3s
ARXS                               Lg     Lg      17 55 53.7
        80nm,0.2s
ARXS   Arharly           2.84  51 eP      Pb      17 55 17.3 -0.3
        15nm,0.3s
ARXS                              eS      Sb      17 55 53.7 +1.1
        80nm,0.2s
TRKS   Terek-Say         2.85 252⇓iP      Pn      17 55 13.2 +0.4
TRKS                             ⇓iS      Sn      17 55 47.7  0.0
KPKS   Kokpek            3.05  70  Pg     Pb      17 55 21.8 +0.6
        0.3nm,0.1s
KPKS                               Lg     Lg      17 56 01.7
        232nm,0.3s
KPKS   Kokpek            3.05  70 eP      Pb      17 55 21.8 +0.6
        0.3nm,0.1s
KPKS                              eS      Sg      17 56 01.7 -2.6
        232nm,0.3s
BLB    Baldybastay       3.17  58  Pg     Pb      17 55 22.3 -0.9
        17nm,0.1s
BLB                                Lg     Lg      17 56 03.1
        86nm,0.4s
KK31   Karatay Array     3.18 283 ⇓Pn     Pn      17 55 18.1 +0.9
        0.3nm,0.2s,baz=96,slow=13,SNR=361
KK31                              ⇑Pg     Pb      17 55 23.6 +0.1
        9.5nm,0.3s,baz=120,slow=14,SNR=42
KK31                              ⇑Lg     Lg      17 56 04.2
        27nm,0.3s,baz=98,slow=28,SNR=18
UZB    Uzynbulak         3.21  77  Pg     Pb      17 55 24.0  0.0
        40nm,0.3s
UZB                                Lg     Lg      17 56 05.9
        58nm,0.3s
UZB    Uzynbulak         3.21  77 eP      Pb      17 55 24.1  0.0
        40nm,0.3s
UZB                               eS      Sb      17 56 06.0 +2.4
        58nm,0.3s
PDGK   Podgornoye        3.58  75 ⇑Pg     Pb      17 55 30.3 -0.1
        23nm,0.5s
PDGK                              ⇑Lg     Lg      17 56 16.2
        14nm,0.3s
TDK    Taldyqorghan      3.66  45  Pg     Pb      17 55 31.0 -0.6
        9.0nm,0.1s
TDK                                Lg     Lg      17 56 17.4
        90nm,0.4s
TDK    Taldyqorghan      3.66  45 eP      Pb      17 55 31.0 -0.6
        9.0nm,0.1s
TDK                               eS      Sb      17 56 17.4 +1.1
        90nm,0.4s
KNOS   Konyrlen          3.73  58  Pg     Pb      17 55 32.6 -0.4
        3.8nm,0.3s
KNOS                               Lg     Lg      17 56 19.9
        23nm,0.2s
DRK    Karamyk           3.74 218⇑iP      Pn      17 55 25.7 +0.6
DRK                              ⇑iS      Sn      17 56 09.3 -0.3
BTK    Batken            3.83 232⇑eP      Pn      17 55 26.8 +0.7
BTK                              ⇑iS      Sn      17 56 10.9 -0.6
KAPS   Kapalarasan       4.35  48  Pg     Pb      17 55 43.7 +0.2
        2.5nm,0.1s
KAPS                               Lg     Lg      17 56 39.0
        34nm,0.2s
KAPS   Kapalarasan       4.35  48 eP      Pb      17 55 43.7 +0.2
        2.5nm,0.1s
KAPS                              eS      Sb      17 56 39.0 +2.6
        34nm,0.2s
MK31   Makanchi Array    6.89  49 ⇓Pn     Pn      17 56 09.5 +1.3
        0.2nm,0.3s,baz=229,slow=14,SNR=21
MK31                              ⇑Lg     Lg      17 58 01.5
        1.1nm,0.4s,baz=228,slow=28,SNR=4.6
KURBB  Kurchatov Arra    8.55  16 ⇑Lg     Lg      17 58 55.5
        27nm,0.7s
KURK   Kurchatov         8.66  17 ⇓Lg     Lg      17 58 57.4
        9.2nm,0.8s
```

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*IDC **15** 18:00:50.5±1.0, 25.°17N×94.°86E, h0km, mb3.5/10, mbtmp3.4/11, Error ellipse: s-maj=59.3km s-min=15.6km az=61.0*
ISC 15 18:00:52.4±1.0**, 25.°2N**±0.°2×**94.°9E**±0.°4**, h10**km**, n11, σ0.s60**/11**, mb3.6**/10**, Myanmar-India border region**

```
Code   Station Name        Δ°  AZ°   Phase ID          Time    Res
                                    Op     ISC       h  m  s   ISC
CMAR   Chiang Mai Arr    7.72 150  Pn     Pn      18 02 45.2 +0.3
        0.2nm,0.6s,baz=327,slow=13,SNR=5.2
MKAR   Makanchi Array   23.74 338  P      P       18 06 05.0 +0.3
        1.1nm,0.5s,baz=151,slow=7.8,SNR=15
        1.1nm,0.5s
SONM   Songino Array    24.31  19  P      P       18 06 10.1 -0.1
        0.4nm,0.5s,baz=194,slow=11,SNR=4.3
        0.4nm,0.5s
KURBB  Kurchatov Arra   28.31 338  P      P       18 06 46.6 +0.6
        0.2nm,0.4s,baz=143,slow=9.7,SNR=1.9
        0.2nm,0.4s
ZALV   Zalesovo Beam    29.64 348  P      P       18 06 58.6 +0.7
        0.4nm,0.5s,baz=173,slow=13,SNR=2.2
        0.4nm,0.5s
BVAR   Borovoye Array   33.31 333  P      P       18 07 30.2  0.0
        0.5nm,0.6s,baz=148,slow=8.7,SNR=2.0
        0.5nm,0.6s
WRA    Warramunga Arr   59.06 136  P      P       18 10 52.1 -0.8
        0.2nm,0.6s,baz=326,slow=7.2,SNR=1.3
        0.2nm,0.6s
ASAR   Alice Springs    61.58 139  P      P       18 11 10.5 +0.3
        0.2nm,0.6s,baz=326,slow=8.0,SNR=1.9
        0.2nm,0.6s
HFS    Hagfors          64.12 327  P      P       18 11 26.8 +0.2
        0.8nm,0.5s,baz=92,slow=7.2,SNR=2.2
        0.8nm,0.5s
NOA    NORSAR Array B   65.23 328  P      P       18 11 32.9 -1.0
        0.3nm,0.6s,baz=100,slow=4.2,SNR=1.6
        0.3nm,0.6s
EKA    Eskdalemuir Ar   74.01 324  P      P       18 12 28.0 -0.1
        0.3nm,0.4s,baz=69,slow=5.2,SNR=5.3
        0.3nm,0.4s
```

WEL 15 18:10:29.0±1.1**, 36.°S**±15.°×**17.°9E**±2.°0**, h194**km±15km**, M3.9**/12**, ML3.8**/12**, MLv3.9**/12**, Error ellipse: s-maj=31.7km s-min=8.7km az=124.6, confirmed, Off east coast of North Island**

```
Code   Station Name        Δ°  AZ°   Phase ID          Time    Res
                                    Op     ISC       h  m  s   ISC
MXZ    Matakaoa Point    1.75 202  P      Pn      18 11 02.8 -1.6
MXZ                                S      Sn      18 11 28.5 -3.7
WMGZ   Waiomatatini S    1.96 196  P      Pn      18 11 06.4 -0.2
WMGZ                               AML    AML
WMGZ                               AML    AML
PKGZ   Pakihiroa         2.10 203  P      Pn      18 11 07.9 -0.1
PKGZ                               AML    AML
PKGZ                               AML    AML
HAZ    Te Kaha           2.11 210  P      Pn      18 11 08.1  0.0
HAZ                                AML    AML
HAZ                                AML    AML
PUZ    Puketiti          2.24 198  P      Pn      18 11 09.2 -0.4
```

PUZ				S	Sn	18 11 40.1	-1.3
PUZ				AML	AML		
PUZ				AML	AML		
RUGZ	Raukumara Rang	2.33	209	P	Pn	18 11 10.4	-0.3
RUGZ				AML	AML		
RUGZ				AML	AML		
TWGZ	Tauwhareparae	2.41	202	P	Pn	18 11 12.3	+0.8
TWGZ				S	Sn	18 11 46.8	+1.9
TWGZ				AML	AML		
TWGZ				AML	AML		
CNGZ	Carnagh Statio	2.64	196	P	Pn	18 11 14.6	+0.5
CNGZ				AML	AML		
CNGZ				AML	AML		
TKGZ	Te Karaka	2.70	202	S	Sn	18 11 51.8	+1.3
MWZ	Matawai	2.71	207	P	Pn	18 11 14.9	+0.1
MWZ				S	Sn	18 11 50.6	-0.2
MWZ				AML	AML		
MWZ				AML	AML		
URZ	Urewera	2.82	214	P	Pn	18 11 15.5	-0.6
URZ				S	Sn	18 11 52.9	-0.1
URZ				AML	AML		
URZ				AML	AML		
RAGZ	Rawiri	2.89	207	P	Pn	18 11 17.2	+0.1
RAGZ				AML	AML		
RAGZ				AML	AML		
MUGZ	Murupara	3.15	216	P	Pn	18 11 20.0	0.0
MUGZ				AML	AML		
MUGZ				AML	AML		
MTHZ	Maungataniwha	3.43	211	P	Pn	18 11 23.8	+0.3
MTHZ				S	Sn	18 12 07.5	+1.3
MTHZ				AML	AML		
MTHZ				AML	AML		
NMHZ	Naumai	3.65	209	P	Pn	18 11 26.2	0.0
NMHZ				S	Sn	18 12 11.3	+0.2
NMHZ				AML	AML		
ARHZ	Aropaoanui	3.72	206	P	Pn	18 11 27.2	+0.2
ARHZ				S	Sn	18 12 14.3	+1.6
ARHZ				AML	AML		
ARHZ				AML	AML		
BKZ	Black Stump Fm	3.84	212	P	Pn	18 11 28.3	-0.2
BKZ				AML	AML		
KAHZ	Kahuranaki	4.24	204	P	Pn	18 11 33.5	0.0
KAHZ				P		18 12 26.0	
KAHZ				AML	AML		
MOVZ	Moawhango	4.37	217	S	Sn	18 12 27.6	+0.2
WNVZ	Wahianoa	4.39	218	P	Pn	18 11 36.9	+1.4
WNVZ				AML	AML		
PNHZ	Pukenui	4.59	209	S	Sn	18 12 30.6	-1.8
VRZ	Vera Road	4.70	226	P	Pn	18 11 45.0	+5.7
TSZ	Takapari Road	4.81	210	P	Pn	18 11 39.2	-1.6
TIWZ	Tintock	5.46	207	P	Pn	18 11 47.9	-1.2
TIWZ				S	Sn	18 12 50.8	-1.5
MRZ	Mangatainoka R	5.47	209	P	Pn	18 11 47.0	-2.2
OGWZ	Otaki Gorge	5.77	211	P	Pn	18 11 51.1	-2.0
OGWZ				S	Sn	18 12 59.7	0.0
CAW	Cannon Point	6.06	210	P	Pn	18 11 54.9	-1.9

*IDC **15** 18:41:36.9±1.4, 2°.06N×127°.27E, h0^{km}, mb4.0/6, mbtmp4.1/6, Error ellipse: s-maj=101.1km s-min=17.5km az=69.0*

*DJA **15** 18:41:51.7±0.6, 2°N±4°×12°7E±°, h105^{km}±7^{km}, M4.1/11, mB5.1/1, mb4.5/1, MLv3.9/11, Mw(mB)4.4/1*

*MAN **15** 18:41:52.0, 2°.26N×127°.17E, h15^{km}, MS4.0*

*NEIC **15** 18:41:52.5±0.8, 1°.85N±0°.10×127°.14E±0°.08, h129^{km}±6^{km}, mb4.0/16, Error ellipse: s-maj=14.8km s-min=11.5km az=206.0*

ISC 15 18:41:51.2±0.6**, 2°.00N**±0°.04×**127°.23E**±0°.06**, h129**^{km}**, n40,** σ**1ˢ.51**/45**, mb4.1**/10**, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TNTI	Ternate	1.23	174		Pn	18 42 16.2	-0.1
TNTI				Sn	Sn	18 42 34.1	-1.2
TNTI	Ternate	1.23	174	P	Pn	18 42 16.1	-0.1
TNTI				S	Sn	18 42 35.3	0.0
MNI	Manado	2.45	257	P	Pn	18 42 32.8	+2.0
SANI	Sanana	4.21	197	P	Pn	18 42 53.1	-0.6
SANI				AML	AML		
DDMP	Don Marcelino,	4.35	340	*e*P	Pn	18 42 54.8	-0.8
DDMP				*e*S	Sn	18 43 39.0	-6.7
GTOI	Gorontalo	4.43	252	P	Pn	18 43 00.5	+3.8
GTOI				AML	AML		
LUWI	Luwuk	5.39	236	Pn	Pn	18 43 07.1	-2.3
LUWI					Sn	18 44 07.8	-2.6
KCP	Kidapawan	5.42	337	*e*P	Pn	18 43 10.7	+0.8
KCP				*i* S	Sn	18 44 12.2	+0.9
CDOP	Cateel, Davao	5.80	352	*e*P	Pn	18 43 13.8	-1.3
CDOP				*i* S	Sn	18 44 19.4	-1.1
BIPH	Bislig	6.21	352	*i* P	Pn	18 43 21.7	+1.2
BIPH				*i* S	Sn	18 44 23.0	-7.3
BUKP	Musuan	6.23	340	*e*P	Pn	18 43 14.9	-5.9
BUKP				*e*S	Sn	18 44 26.1	-4.8
TOLI2	Tolitoli	6.51	262	Pn	Pn	18 43 25.1	+0.5
TOLI2				Sn	Sn	18 44 35.6	-2.0
FAKI	Fak Fak	7.00	134	Pn	Pn	18 43 31.9	+0.7
KAPI	Kappang	10.22	227	Sn	Sn	18 46 07.0	-0.4
	1.7nm,0.3s,baz=90,slow=19,SNR=2.2						
SOEI	Soe	12.04	194	Pn	Pn	18 44 36.9	-2.0
SBUM	Sibu	15.01	272	Pn	Pn	18 45 16.3	-0.5
MTN	Manton Dam	15.24	165	Pn	Pn	18 45 17.9	-1.8
MTN				IAmb	IAmb	18 45 44.5	
	comp=Z,15nm,1.4s						
KNRA	Kununurra	17.63	175		P	18 45 47.7	-0.2
KNRA				IAmb	IAmb	18 45 58.6	
	comp=Z,11nm,1.4s						
FITZ	Fitzroy Crossi	20.03	184	P	P	18 46 13.6	-0.5
	comp=Z,1.2nm,0.5s,baz=13,slow=9.8,SNR=9.5						
	comp=Z,1.2nm,0.5s						
WB0	Warramunga Arr	22.74	162	P	P	18 46 41.5	-1.0
WRAB	Tennant Creek	22.89	163	P	P	18 46 43.2	-0.7
WRAB				IAmb	IAmb	18 46 43.7	
	comp=Z,8.6nm,0.5s						
WRA	Warramunga Arr	22.89	163	P	P	18 46 43.3	-0.7
	comp=Z,6.5nm,0.5s,baz=339,slow=11,SNR=115						
	comp=Z,6.5nm,0.5s						
WR8	Warramunga Arr	22.95	162	P	P	18 46 43.7	-0.9
WR8				IAmb	IAmb	18 46 52.6	
	comp=Z,20nm,1.5s						
AS31	Alice Springs	26.32	166	P	P	18 47 14.4	-0.7
ASAR	Alice Springs	26.32	166	P	P	18 47 14.5	-0.6
	comp=Z,1.2nm,0.5s,baz=352,slow=7.7,SNR=42						
	comp=Z,1.2nm,0.5s						
FORT	Forrest	32.60	179	P	P	18 48 10.2	-0.3
MORW	Morawa	32.70	198	P	P	18 48 11.0	-0.5
BBOO	Buckleboo	35.61	167	P	P	18 48 36.4	-0.2
STKA	Stephens Creek	36.34	159	P	P	18 48 42.6	-0.2
	comp=Z,1.6nm,0.5s,baz=344,slow=9.0,SNR=4.3						
	comp=Z,1.6nm,0.5s						
SANVU	Saraoutou	43.16	115	P	P	18 49 40.0	+0.6
MKAR	Makanchi Array	59.26	326	P	P	18 51 40.5	+1.3
	comp=Z,2.2nm,0.6s,baz=117,slow=7.9,SNR=10						
	comp=Z,2.2nm,0.6s						
KURBB	Kurchatov Arra	63.46	328	P	P	18 52 08.1	+0.9
	comp=Z,1.4nm,0.6s,baz=131,slow=6.2,SNR=11						
	comp=Z,1.4nm,0.6s						
KURK	Kurchatov	63.46	328	P	P	18 52 08.1	+0.9
KURK	Kurchatov	63.46	328	IAmb	IAmb	18 52 09.5	
	comp=Z,1.8nm,0.7s						
SHEM	Shemya Is, Ala	63.70	30	P	P	18 52 11.0	+2.2
SMY	Shemya	63.70	30	P	P	18 52 10.9	+2.1
KK31	Karatay Array	64.84	317	P	P	18 52 17.6	+1.1
KK31				IAmb	IAmb	18 52 21.3	
	comp=Z,1.0nm,0.9s						
KKAR	Karatay Array	64.84	317	P	P	18 52 17.7	+1.2
AB31	Akbulak array	73.80	321	P	P	18 53 12.2	+0.7
AB31				IAmb	IAmb	18 53 34.3	
	comp=Z,1.1nm,0.9s						
ABKAR	Akbulak array	73.80	321	P	P	18 53 12.4	+0.9

*IDC **15** 19:09:41.8±2.3, 3°.36N×125°.38E, h0^{km}, mb3.2/3, mbtmp3.2/3, Error ellipse: s-maj=211.4km s-min=29.2km az=64.0*

ISC 15 19:09:40.9±1.3**, 4°.2N**±0°.1×**126°.9E**±0°.3**, h10**^{km}**, n5,** σ**1ˢ.09**/7**, mb3.2**/3**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	Don Marcelino,	2.24	328	*e*P	Pn	19 10 18.4	+0.3
DDMP				*e*S	Sg	19 10 52.1	-0.9
BIPH	Bislig	4.00	352	*i* P	Pb	19 10 52.1	+0.6
BIPH				*i* S	Sb	19 11 38.9	-1.0
WRA	Warramunga Arr	25.08	163	P	P	19 15 05.3	-0.5
	0.5nm,0.7s,baz=338,slow=11,SNR=9.3						
	0.5nm,0.7s						
ASAR	Alice Springs	28.52	166	P	P	19 15 36.0	-0.9
	0.3nm,0.8s,baz=340,slow=8.1,SNR=4.8						
	0.3nm,0.8s						
MKAR	Makanchi Array	57.28	325	P	P	19 19 30.0	+1.1
	0.1nm,0.4s,baz=132,slow=8.1,SNR=1.6						
	0.1nm,0.4s						

*IDC **15** 19:14:28.2±1.1, 24°.22N×126°.27E, h0^{km}, mb3.5/5, mbtmp3.5/6, ML2.9/1, Error ellipse: s-maj=27.1km s-min=16.7km az=102.0*

*JMA **15** 19:14:30.6±0.3, 24°N±2°×12°6E±°, h89^{km}±3^{km}, MV2.9/21, NEAR MIYAKOJIMA ISLAND*

ISC 15 19:14:28.6±3.8**, 24°.32N**±0°.09×**126°.44E**±0°.06**, h8**^{km}±25^{km}**, n34,** σ**0ˢ.96**/42**, mb3.5**/5**, Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JOGS	Gusukube	1.04	295	*e*P	Pn	19 14 50.4	+1.0
JMJ2	Miyako jima3	1.10	293	P	Pn	19 14 51.2	+1.0
JMJ	Miyako jima 2	1.16	295	P	Pn	19 14 51.4	+0.4
JIKM	Ikemajima	1.24	299	*e*P	Pn	19 14 53.1	+0.9
JIRJ	Irabujima	1.25	294	P	Pn	19 14 52.9	+0.7
JTJ	Tarama	1.62	282	P	Pb	19 14 57.9	-0.8
JISG	Ishigakijimahi	1.96	278	*e*P	Pn	19 15 02.1	0.0
JKE	Kume jima 2	2.02	9	P	Pn	19 15 03.0	+0.1
JKE				S	Sn	19 15 27.2	-1.2
JIJ	Ishigaki jima	2.10	272	P	Pn	19 15 04.4	+0.4
JIJ				*e*S	Sn	19 15 29.6	-0.6
JJT3	Tamagusuku3	2.18	34	*e*P	Pn	19 15 05.3	+0.1
JJT3				*e*S	Sn	19 15 31.4	-1.0
JKRS	Kuro-shima	2.22	268	P	Pn	19 15 06.4	+0.7
JKRS				*e*S	Sn	19 15 32.5	-0.8
JAGN	Aguni-jima	2.37	18	*e*P	Pn	19 15 07.9	+0.2
IRIF	Iriomote-Funau	2.47	271	P	Pn	19 15 09.4	+0.3
JNTH	Nagotoyohara	2.61	33	*e*P	Pn	19 15 10.8	-0.3
JNTH				*e*S	Sn	19 15 42.0	-1.0
JOW	Kunigami	3.00	33	Pn	Pn	19 15 16.9	+0.5
	2.7nm,0.3s,baz=156,slow=12,SNR=65						
JOW				Sn	Sn	19 15 50.7	-1.8
	6.1nm,0.3s,baz=76,slow=25,SNR=4.2						
	7.6nm,0.2s						
JOW				AML	AML		
JOW	Kunigami	3.00	33	P	Pn	19 15 17.7	+1.3
JOW	Kunigami	3.00	33	*e*P	Pn	19 15 17.7	+1.3
JIH	Iheya	3.03	27	*e*P	Pn	19 15 17.1	+0.3
JIH				*e*S	Sn	19 15 52.3	-1.0
YOJ	Yonaguni jima	3.13	273	P	Pn	19 15 17.1	-1.1
YOJ	Yonaguni jima	3.13	273	*e*P	Pn	19 15 17.1	-1.1
JYRO	Yoronjima	3.25	34	P	Pn	19 15 20.6	+0.8
JOKE	Okinoerabujima	3.58	32	*e*P	Pn	19 15 25.0	+0.6
JTK	Tokunoshima	4.12	33	P	Pn	19 15 31.5	-0.4
JTK				*e*S	Sn	19 16 18.4	-1.9
NACB	Ninganchiao	4.43	269	P	Pn	19 15 35.1	-0.9
JMZ	Minamidaito 2	4.59	70	P	Pn	19 15 38.2	0.0
YHNB	Yeheng	4.63	275	P	Pn	19 15 39.3	+0.4
YULB	Yu-li	4.80	260	P	Pn	19 15 39.7	-1.5
SSLB	Suanglung	5.04	265	P	Pn	19 15 43.4	-1.2
TPUB	Ta-pu	5.42	260	P	Pn	19 15 49.5	-0.2
SONM	Songino Array	28.35	331	P	P	19 20 25.4	+2.2
	0.5nm,0.5s,baz=145,slow=12,SNR=4.2						
	0.5nm,0.5s						
MKAR	Makanchi Array	41.64	314	P	P	19 22 17.7	+0.4
	0.3nm,0.6s,baz=88,slow=9.9,SNR=2.8						
	0.3nm,0.6s						
ZALV	Zalesovo Beam	42.82	325	P	P	19 22 26.2	-0.6
	0.8nm,0.5s,baz=108,slow=12,SNR=5.2						
	0.8nm,0.5s						
WRA	Warramunga Arr	44.66	169	P	P	19 22 41.9	-0.1
	0.5nm,0.6s,baz=352,slow=8.6,SNR=8.0						
	0.5nm,0.6s						
ASAR	Alice Springs	48.25	171	P	P	19 23 10.6	+0.5
	0.2nm,0.7s,baz=354,slow=13,SNR=6.5						
	0.2nm,0.7s						

*NOU **15** 19:24:58.0, 16°.44S×167°.06E, h0^{km}, mb4.5/8, Vanuatu Islands*

*IDC **15** 19:25:14.8±0.9, 17°.78S×167°.71E, h0^{km}, mb4.1/7, mbtmp4.1/9, ML4.4/2, MS3.2/2, Error ellipse: s-maj=21.2km s-min=16.6km az=103.0*

*NEIC **15** 19:25:15.8±2.3, 17°.77S±0°.06×167°.5E±0°.2, h10^{km}±1^{km}, mb4.0/6, Error ellipse: s-maj=28.9km s-min=9.5km az=85.0*

ISC 15 19:25:16.3±0.6**, 17°.80S**±0°.04×**167°.55E**±0°.07**, h10**^{km}**, n39,** σ**3ˢ.00**/39**, mb4.1**/9**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTV	Rentapao	0.84	89	P	Pg	19 25 31.1	-1.3
SANVU	Saraoutou	2.37	352		Pn	19 25 53.3	-1.9
SANVU				Sn	Sn	19 26 20.6	-3.6
MARNC	Mare, Loyalty	3.69	173	P	Pn	19 26 15.9	+2.5
MARNC	Mare, Loyalty	3.69	173		Pn	19 26 11.7	-1.7
MARNC				Sn	Sn	19 26 49.6	-7.4
KOUNC	Koumac, New Ca	4.12	228	Pn	Pn	19 26 12.1	-7.3
KOUNC				Sn	Sn	19 27 03.8	-3.8
YATNC	Mamie plateau,	4.28	188	P	Pn	19 26 21.2	-0.3
DZM	Mont Dzumac	4.37	194	Pn	Pn	19 26 22.1	-0.8
	4.7nm,0.3s,baz=0.0,slow=20,SNR=32						
DZM				Sn	Sn	19 27 11.5	-2.5
	6.4nm,0.3s,baz=0.0,slow=20,SNR=7.0						
DZM				LR	LR	19 27 12.0	
	comp=Z,105nm,20.2s,baz=6.0,slow=26						
	9.0nm,0.3s						
DZM				AML	AML		
NOUC	Port Laguerre	4.43	195	P	Pn	19 26 22.9	-0.7
ONTNC	Ouen Toro	4.60	193	P	Pn	19 26 26.4	+0.5
ONTNC	Ouen Toro	4.60	193	Pn	Pn	19 26 20.1	-5.8
OUENC	Ouen Island, N	4.64	188	P	Pn	19 26 29.2	+2.7
OUENC	Ouen Island, N	4.64	188		Pn	19 26 20.5	-6.0
MSVF	Nonsavu	10.01	91	Pn	Pn	19 27 40.4	+0.1
	0.3nm,0.3s,baz=250,slow=11,SNR=4.2						
	7.9nm,0.8s						
MSVF				AML	AML		
STKA	Stephens Creek	27.31	234	P	P	19 31 03.4	+2.0
	3.7nm,1.0s,baz=68,slow=11,SNR=3.1						
	3.7nm,1.0s						
RAR	Rarotonga	30.96	102	LR	LR	19 40 29.2	
	comp=Z,100nm,20.6s,baz=294,slow=30						
WR8	Warramunga Arr	31.32	261	P	P	19 31 34.0	-3.1
WRA	Warramunga Arr	31.47	261	P	P	19 31 38.6	+0.2
	1.7nm,1.0s,baz=83,slow=6.2,SNR=7.3						
	1.7nm,1.0s						
WRA	Warramunga Arr	31.47	261	P	P	19 31 35.5	-2.9
AS31	Alice Springs	31.95	254	P	P	19 31 40.9	-1.8
AS31				IAmb	IAmb	19 32 00.5	
	comp=Z,0.9nm,0.8s						
ASAR	Alice Springs	31.95	254	P	P	19 31 42.8	+0.2
	comp=Z,1.9nm,0.7s,baz=79,slow=8.6,SNR=28						
	comp=Z,1.9nm,0.7s						
ASAR	Alice Springs	31.95	254	P	P	19 31 40.3	-2.3
FITZ	Fitzroy Crossi	39.80	263	P	P	19 32 48.8	-1.1
FITZ				IAmb	IAmb	19 33 00.5	
	comp=Z,3.6nm,1.3s						
PETK	Petropavlovsk-	71.13	354	P	P	19 36 35.5	+0.8
	comp=Z,2.8nm,0.8s,baz=182,slow=6.4,SNR=3.7						
	comp=Z,2.8nm,0.8s						
PETK	Petropavlovsk-	71.13	354	P	P	19 36 34.1	-0.7
QSPA	South Pole Qui	72.24	180	P	P	19 36 41.9	+0.2
	comp=Z,2.4nm,0.7s,baz=345,slow=0.5,SNR=17						
	comp=Z,2.4nm,0.7s						
QSPA	South Pole Qui	72.24	180	P	P	19 36 41.8	+0.2
CMAR	Chiang Mai Arr	76.45	295	P	P	19 37 08.1	+1.3
	comp=Z,0.4nm,0.4s,baz=131,slow=4.5,SNR=12						
	comp=Z,0.4nm,0.4s						
CMAR	Chiang Mai Arr	76.45	295	P	P	19 37 06.0	-0.8
SONM	Songino Array	85.11	324	P	P	19 37 54.0	+1.4
	comp=Z,0.7nm,0.8s,baz=128,slow=5.1,SNR=5.6						
	comp=Z,0.7nm,0.8s						
SONM	Songino Array	85.11	324	P	P	19 37 52.2	-0.5
SONM				IAmb	IAmb	19 38 07.0	
	comp=Z,3.0nm,1.1s						
TROLL	Troll, Antarti	89.84	185	P	P	19 38 15.5	+0.3
	comp=Z,164nm,0.9s						
MOA	Molln	142.92	330	*e*PKP	PKiKP	19 44 57.4	+3.9
	comp=Z,1.0nm,0.5s						
KBA	Koelnbreinsper	143.91	330	*e*PKP	PKiKP	19 44 59.0	+3.3
	comp=Z,3.8nm,1.1s						
LESA	Schwarzleotal	143.97	331	*e*PKP	PKiKP	19 44 59.4	+3.7
	comp=Z,1.5nm,0.6s						
ABTA	Abfaltersbach	144.54	330	*e*PKP	PKiKP	19 45 01.0	+4.1
	comp=Z,3.3nm,0.7s						
MOTA	Moosalm	144.75	332	*e*PKP	PKiKP	19 45 02.3	+4.8
	comp=Z,4.8nm,0.9s						
SQTA	Sankt Quirin	144.80	332	*e*PKiKP	PKiKP	19 45 02.7	+5.2
	comp=Z,4.6nm,1.1s						
FETA	Feichten	145.17	332	*e*PKiKP	PKiKP	19 45 04.0	+5.7
	comp=Z,7.2nm,0.8s						
DAVA	Damuels	145.34	333	*e*PKiKP	PKiKP	19 45 04.6	+5.9
	comp=Z,8.3nm,1.0s						

*IDC **15** 19:33:19.6±0.8, 17°.65S×167°.46E, h0^{km}, mb4.1/10, mbtmp4.2/13, ML4.5/3, MS3.6/11, Error ellipse: s-maj=18.2km s-min=15.2km az=81.0*

*NEIC **15** 19:33:20.4±2.2, 17°.70S±0°.05×167°.4E±0°.1, h10^{km}±1^{km}, mb4.5/18, Error ellipse: s-maj=16.8km s-min=7.6km az=95.0*

ISC 15 19:33:22.7±0.5**, 17°.76S**±0°.04×**167°.38E**±0°.07**, h23**^{km}**, n57,** σ**1ˢ.83**/54**, mb4.4**/15**, MS3.5**/11**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SANVU	Saraoutou	2.31	356		Pn	19 33 57.5	-1.8
SANVU				Sn	Sn	19 34 22.5	-4.5
MARNC	Mare, Loyalty	3.75	171	Pn	Pn	19 34 16.4	-2.7
MARNC				Sn	Sn	19 34 54.6	-8.0
KOUNC	Koumac, New Ca	4.03	226	Pn	Pn	19 34 21.6	-1.4
KOUNC				Sn	Sn	19 35 09.4	-0.2
DZM	Mont Dzumac	4.38	191	Pn	Pn	19 34 27.8	-0.1
	3.5nm,0.3s,baz=210,slow=1.5,SNR=8.7						
DZM				Sn	Sn	19 35 17.0	-1.2
	baz=323,slow=20						
	16nm,0.5s						
DZM				AML	AML		
ONTNC	Ouen Toro	4.61	191	Pn	Pn	19 34 29.4	-1.5
ONTNC				Sn	Sn	19 35 21.5	-2.3
OUENC	Ouen Island, N	4.66	186	Pn	Pn	19 34 31.8	+0.1
OUENC				Sn	Sn	19 35 23.4	-1.7
MSVF	Nonsavu	10.16	91	Pn	Pn	19 35 49.9	+2.5
	0.4nm,0.3s,baz=255,slow=13,SNR=5.9						
	6.3nm,0.7s						
MSVF				AML	AML		
MSVF	Nonsavu	10.16	91		Pn	19 35 49.2	+1.8
HNR	Honiara	10.99	318	Pn	Pn	19 35 58.2	-0.4
	3.8nm,0.3s,baz=294,slow=3.3,SNR=2.5						
	113nm,1.0s						
HNR				AML	AML		
HNR	Honiara	10.99	318		Pn	19 35 57.1	-1.4
CTA	Charters Tower	20.12	260	P	Pn	19 37 57.8	+0.7
	6.4nm,0.8s,baz=75,slow=13,SNR=2.4						
CTA				LR	LR	19 44 27.5	
	comp=Z,232nm,19.6s,baz=40,slow=33						
	6.4nm,0.8s						
CTAO	Charters Tower	20.12	260	P	P	19 37 55.1	0.0
CTAO				IAmb	IAmb	19 38 05.5	
	comp=Z,23nm,1.1s						
AFI	Afiamalu	20.41	82	LR	LR	19 43 51.6	
	comp=Z,131nm,20.3s,baz=166,slow=31						
PMG	Port Moresby	21.32	290	LR	LR	19 45 42.1	
	comp=Z,214nm,18.4s,baz=152,slow=35						
MRZ	Mangatainoka R	23.89	164	P	P	19 38 33.2	-1.4
STKA	Stephens Creek	27.21	234	P	P	19 39 06.3	+1.4
	comp=Z,2.8nm,0.8s,baz=56,slow=4.3,SNR=6.0						
STKA				LR	LR	19 48 25.2	
	comp=Z,224nm,18.4s,baz=190,slow=33						
	comp=Z,2.8nm,0.8s						
RAR	Rarotonga	31.12	102	LR	LR	19 50 45.5	
	comp=Z,116nm,20.0s,baz=294,slow=34						
WR8	Warramunga Arr	31.17	261	P	P	19 39 38.5	-1.7
WR8				IAmb	IAmb	19 39 50.6	
	comp=Z,11nm,1.2s						
WB0	Warramunga Arr	31.27	261	P	P	19 39 40.4	-0.7
WB0				IAmb	IAmb	19 39 53.7	
	comp=Z,6.5nm,1.0s						
WRA	Warramunga Arr	31.32	261	P	P	19 39 42.0	+0.5
	comp=Z,1.8nm,0.9s,baz=92,slow=9.2,SNR=13						
	comp=Z,1.8nm,0.9s						
WRA	Warramunga Arr	31.32	261	P	P	19 39 39.9	-1.6
AS31	Alice Springs	31.81	254	P	P	19 39 44.9	-0.9
ASAR	Alice Springs	31.81	254	P	P	19 39 47.0	+1.2
	comp=Z,2.9nm,0.5s,baz=78,slow=9.1,SNR=29						
ASAR				LR	LR	19 51 26.7	
	comp=Z,166nm,21.0s,baz=108,slow=34						
	comp=Z,2.9nm,0.5s						
ASAR	Alice Springs	31.81	254	P	P	19 39 45.4	-0.5
BBOO	Buckleboo	31.89	236	P	P	19 39 45.5	-1.0
KNRA	Kununurra	37.00	267	P	P	19 40 29.9	-0.9
KNRA				IAmb	IAmb	19 40 37.1	
	comp=Z,7.6nm,1.1s						
GUMO	Guam	38.26	323	LR	LR	19 54 41.1	
	comp=Z,42nm,21.2s,baz=142,slow=34						
FITZ	Fitzroy Crossi	39.66	263	LR	LR	19 56 02.0	
	comp=Z,190nm,20.1s,baz=147,slow=34						
FITZ	Fitzroy Crossi	39.66	263	P	P	19 40 53.8	+0.6
VNDA	Vanda	59.85	181	P	P	19 43 28.6	+2.7
	comp=Z,0.7nm,0.5s,baz=0.0,slow=5.1,SNR=7.4						
	comp=Z,0.7nm,0.5s						
VNDA	Vanda	59.85	181	P	P	19 43 27.6	+1.6
VNDA				IAmb	IAmb	19 43 40.7	
	comp=Z,3.4nm,1.2s						
CASY	Casey	60.78	203	P	P	19 43 32.3	-0.1
CASY				IAmb	IAmb	19 44 03.5	
	comp=Z,4.8nm,1.1s						
JNU	Nakatsue	61.45	325	LR	LR	20 07 03.3	
	comp=Z,17nm,21.4s,baz=150,slow=33						
PETK	Petropavlovsk-	71.07	354	LR	LR	20 12 35.4	
	comp=Z,24nm,20.4s,baz=173,slow=33						
GSI	Gunungsitoli	71.22	278	P	P	19 44 40.6	+0.1
QSPA	South Pole Qui	72.28	180	P	P	19 44 46.7	+0.6
	comp=Z,1.9nm,0.8s,baz=1.5,slow=2.7,SNR=9.2						
	comp=Z,1.9nm,0.8s						
QSPA	South Pole Qui	72.28	180	P	P	19 44 46.5	+0.3
CM31	Chiang Mai Arr	76.29	295	P	P	19 45 09.9	-0.3
CM31				IAmb	IAmb	19 45 24.7	
	comp=Z,4.7nm,1.1s						
CMAR	Chiang Mai Arr	76.29	295	P	P	19 45 11.1	+0.9
	comp=Z,0.6nm,0.7s,baz=128,slow=4.8,SNR=6.4						
	comp=Z,0.6nm,0.7s						
CMAR	Chiang Mai Arr	76.29	295	P	P	19 45 09.6	-0.5
ULN	Ulaanbaatar	84.64	324	P	P	19 45 54.9	+0.4
ULN				IAmb	IAmb	19 45 59.1	
	comp=Z,3.7nm,1.1s						
YAK	Yakutsk	84.95	343		P	19 45 55.9	+0.3
SONM	Songino Array	84.99	324	P	P	19 45 56.9	+0.6
	comp=Z,0.9nm,0.7s,baz=132,slow=3.7,SNR=7.6						
	comp=Z,0.9nm,0.7s						
SONM	Songino Array	84.99	324	P	P	19 45 56.2	-0.1
SONM				IAmb	IAmb	19 46 00.3	
	comp=Z,6.0nm,1.5s						
ILAR	Eielson Array	89.36	18	P	P	19 46 15.2	-1.7
	comp=Z,0.3nm,0.7s,baz=252,slow=4.9,SNR=3.1						
	comp=Z,0.3nm,0.7s						
LPIG	La Paz	90.38	65	LR	LR	20 20 07.4	
	comp=Z,37nm,18.2s,baz=196,slow=31						
SNAA	Sanae	90.54	183	P	P	19 46 22.0	-0.6
	comp=Z,1.1nm,0.6s,baz=227,slow=7.8,SNR=3.5						
	comp=Z,1.1nm,0.6s						
SNAA	Sanae	90.54	183	P	P	19 46 22.6	0.0
ARCES	ARCESS Array B	123.19	345	PKP	PKiKP	19 52 19.7	+2.5
	comp=Z,4.7nm,1.2s,baz=18,slow=1.5,SNR=3.7						
LESA	Schwarzleotal	143.86	331	*e*PKP	PKPdf	19 52 59.0	+2.8
	comp=Z,0.8nm,0.5s						
ABTA	Abfaltersbach	144.43	330	*e*PKP	PKiKP	19 53 00.9	0.0
	comp=Z,2.0nm,0.7s						
WATA	Walderalm	144.44	331	*e*PKP	PKiKP	19 53 00.8	-0.2
	comp=Z,2.4nm,0.7s						
WTTA	Wattenberg	144.46	331	*e*PKP	PKiKP	19 53 01.8	+0.8
	comp=Z,2.5nm,0.9s						
MOTA	Moosalm	144.64	332	*e*PKP	PKPab	19 52 57.5	+1.1
	comp=Z,1.6nm,0.5s						
SQTA	Sankt Quirin	144.69	332	*e*PKP	PKPdf	19 52 59.0	+1.3
	comp=Z,2.0nm,0.7s						
FETA	Feichten	145.06	332	*e*PKP	PKPab	19 52 59.3	+1.5
	comp=Z,4.7nm,1.0s						
DAVA	Damuels	145.23	333	*e*PKP	PKPbc	19 52 58.9	+0.5
	comp=Z,1.1nm,0.5s						

*NEIC **15** 19:46:08.8±1.2, 19°.0S±0°.1×175°.37W±0°.09, h172^{km}±7^{km}, mb4.3/13, Error ellipse: s-maj=16.7km s-min=9.6km az=209.0*

*IDC **15** 19:46:16.1±2.7, 19°.09S×175°.53W, h238^{km}±24^{km}, mb3.5/8,* *mbtmp4.2/10, Error ellipse: s-maj=21.0km s-min=18.9km az=133.0*

ISC 15 19:46:10.0±0.6**, 18°.86S**±0°.10×**175°.28W**±0°.07**, h200**^{km}**,**
n31, σ**1**^{s}**.60**/34**, mb4.0**/12**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NIUE	**Niue**	**5.07**	**93**	Pn	**Pn**	**19 47 23.2**	**-2.1**
NIUE				Sn	**Sn**	**19 48 23.2**	**-1.5**
FUTU	**Fugatoga**	**5.28**	**328**	Pn	**Pn**	**19 47 27.7**	**-0.4**
FUTU				Sn	**Sn**	**19 48 27.3**	**-2.4**
MSVF	**Nonsavu**	**6.44**	**279**	P	Pn	19 47 47.9	+4.9
	38nm,0.8s,baz=145,slow=14,SNR=19						
RAR	**Rarotonga**	**14.76**	**102**	P	P	19 49 35.5	+5.2
	12nm,0.8s,baz=111,slow=18,SNR=1.8						
URZ	**Urewera**	**20.44**	**197**	P	Pn	19 50 32.1	-5.1
	32nm,1.1s,baz=34,slow=11,SNR=8.3						
	32nm,1.1s						
EIDS	**Eidsvold**	**31.77**	**252**	P	**P**	**19 52 15.8**	**+0.1**
ARMA	**Armidale**	**32.09**	**243**	P	**P**	**19 52 19.2**	**+0.6**
ARMA				IAmb	IAmb	19 52 46.0	
	comp=Z,11nm,1.2s						
CTAO	**Charters Tower**	**36.24**	**262**	P	**P**	**19 52 53.8**	**-0.4**
STKA	**Stephens Creek**	**40.81**	**243**	P	**P**	**19 53 31.8**	**-0.4**
	comp=Z,1.3nm,0.6s,baz=101,slow=11,SNR=3.9						
	comp=Z,1.3nm,0.6s						
WR8	**Warramunga Arr**	**47.24**	**260**	P	**P**	**19 54 22.5**	**-0.9**
WR8				IAmb	IAmb	19 54 48.2	
	comp=Z,9.7nm,1.4s						
WR8				PcP	**PcP**	**19 55 51.2**	**-0.2**
WRA	**Warramunga Arr**	**47.39**	**260**	P	**P**	**19 54 24.0**	**-0.6**
	comp=Z,1.7nm,0.5s,baz=98,slow=5.8,SNR=62						
WRA				PcP	**PcP**	**19 55 52.9**	**+0.9**
	comp=Z,0.7nm,0.6s,baz=99,slow=3.6,SNR=1.7						
	comp=Z,1.7nm,0.5s						
WRA	**Warramunga Arr**	**47.39**	**260**	P	**P**	**19 54 23.3**	**-1.3**
AS31	**Alice Springs**	**47.41**	**255**	P	**P**	**19 54 24.5**	**-0.2**
ASAR	**Alice Springs**	**47.41**	**255**	P	**P**	**19 54 24.5**	**-0.2**
	comp=Z,6.5nm,0.9s,baz=90,slow=8.3,SNR=48						
ASAR				PcP	**PcP**	**19 55 53.3**	**+1.3**
	comp=Z,0.8nm,0.6s,baz=104,slow=3.7,SNR=5.9						
	comp=Z,6.5nm,0.9s						
ASAR	**Alice Springs**	**47.41**	**255**	P	**P**	**19 54 24.1**	**-0.6**
ASAR					**PcP**	**19 55 51.4**	**-0.6**
MTN	**Manton Dam**	**51.74**	**268**	P	**P**	**19 54 57.0**	**-0.5**
MTN				IAmb	IAmb	19 55 00.4	
	comp=Z,17nm,1.5s						
FORT	**Forrest**	**52.30**	**245**	P	**P**	**19 55 00.7**	**-0.7**
FORT				IAmb	IAmb	19 55 00.9	
	comp=Z,8.0nm,0.9s						
KNRA	**Kununurra**	**53.35**	**264**	P	**P**	**19 55 08.8**	**-0.4**
FITZ	**Fitzroy Crossi**	**55.81**	**261**	P	**P**	**19 55 26.7**	**-0.2**
AMKA	**Amchitka**	**70.09**	**356**	P	**P**	**19 57 02.1**	**+1.9**
QSPA	**South Pole Qui**	**71.21**	**180**	P	**P**	**19 57 08.2**	**+1.1**
	comp=Z,1.2nm,0.8s,baz=52,slow=1.5,SNR=3.0						
	comp=Z,1.2nm,0.8s						
QSPA	**South Pole Qui**	**71.21**	**180**	P	**P**	**19 57 08.6**	**+1.5**
QSPA				IAmb	IAmb	19 57 31.9	
	comp=Z,5.0nm,1.4s						
KSRS	**Korea Array**	**77.40**	**317**	P	**P**	**19 57 44.5**	**+1.5**
	comp=Z,1.1nm,0.8s,baz=149,slow=8.1,SNR=3.1						
	comp=Z,1.1nm,0.8s						
NVAR	**Mina Array Bea**	**78.08**	**42**	P	**P**	**19 57 50.3**	**+3.2**
	comp=Z,0.3nm,0.6s,baz=337,slow=6.5,SNR=2.0						
	comp=Z,0.3nm,0.6s						
L18K	**Granite Mounta**	**82.14**	**9**	P	**P**	**19 58 10.9**	**+3.0**
L18K				IAmb	IAmb	19 58 32.0	
	comp=Z,12nm,1.4s						
ILAR	**Eielson Array**	**86.17**	**12**	P	**P**	**19 58 31.2**	**+3.0**
	comp=Z,0.4nm,0.6s,baz=203,slow=5.1,SNR=2.8						
	comp=Z,0.4nm,0.6s						
HFS	**Hagfors**	**138.27**	**353**	PKP	**PKPdf**	**20 05 10.2**	**-0.8**
	comp=Z,0.5nm,0.7s,baz=14,slow=0.6,SNR=1.6						
AKASG	**Malin Array Be**	**142.74**	**334**	PKP	**PKiKP**	**20 05 19.7**	**-2.8**
	comp=Z,1.2nm,0.4s,baz=44,slow=4.0,SNR=9.2						
EKA	**Eskdalemuir Ar**	**143.09**	**7**	PKP	**PKiKP**	**20 05 20.8**	**-2.3**
	comp=Z,0.1nm,0.3s,baz=16,slow=1.9,SNR=2.6						
BRTR	**Keskin Array B**	**147.54**	**316**	PKPbc	**PKPab**	**20 05 32.3**	**-1.4**
	comp=Z,0.7nm,0.7s,baz=153,slow=4.3,SNR=1.8						
GERES	**GERESS Array B**	**149.22**	**348**	PKPbc	**PKPab**	**20 05 37.5**	**-2.5**
	comp=Z,0.6nm,0.5s,baz=8.7,slow=1.8,SNR=4.7						

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*AFAD **15** 20:22:11.1, 35°.40N×29°.88E, h7^{km}±2^{km}, ML2.3*
*ISK **15** 20:22:13.8, 35°.50N×29°.62E, h24^{km}, ML2.7/25*
*NIC **15** 20:22:14.9, 35°.55N×29°.89E, h40^{km}±21^{km}, Ml2.6/9*
ISC 15 20:22:09.9±1.7**, 35°.37N**±0°.05×**29°.71E**±0°.04**, h9**^{km}±13^{km}**,**
n42, σ**1**^{s}**.73**/61**, Eastern Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AKAS	**Kas**	**0.87**	**354**	Pg	**Pn**	**20 22 28.9**	**+0.5**
AKAS				Sg	**Sb**	**20 22 39.7**	**+0.6**
AKAS				AML	AML		
DEMR	**Demre-Antalya**	**0.88**	**10**	Pg	**Pn**	**20 22 29.3**	**+0.8**
DEMR				Sg	**Sn**	**20 22 40.8**	**-0.6**
DEMR				AML	AML		
FETY	**Fethiye**	**1.37**	**338**	Pn	**Pn**	**20 22 34.9**	**-0.3**
FETY				Sn	**Sb**	**20 22 51.8**	**-1.4**
FETY				AML	AML		
ELL	**Elmali**	**1.39**	**7**	Pn	**Pg**	**20 22 36.9**	**+0.3**
ELL				AML	AML		
ARG	**Arkhangelos**	**1.54**	**304**	Pn	**Pn**	**20 22 38.6**	**+1.0**
ARG				AML	AML		
ARG	**Arkhangelos**	**1.54**	**304**	P	**Pg**	**20 22 40.1**	**+0.6**
ARG				AML	AML	20 22 56.7	
	0.2nm,0.2s						
ARG				AML	AML	20 23 04.8	
	0.1nm,0.2s						
CAME	**Cameli-Denizli**	**1.61**	**348**	Pn	**Pn**	**20 22 39.5**	**+0.9**
CAME				AML	AML		
DALY	**Dalyan (Mula)**	**1.68**	**330**	Pn	**Pn**	**20 22 40.3**	**+0.8**
DALY				AML	AML		
ANTB	**Antalya**	**1.71**	**26**	Pn	**Pb**	**20 22 41.9**	**+0.4**
ANTB				Sn	**Sn**	**20 23 02.1**	**+0.3**
ANTB				AML	AML		
KORT	**Korkueli**	**1.71**	**17**	Pn	**Pb**	**20 22 41.6**	**0.0**
KORT				AML	AML		
TURN	**Turunc**	**1.84**	**320**	Pn	**Pn**	**20 22 42.7**	**+1.0**
TURN				AML	AML		
KARP	**Karpathos**	**2.09**	**276**	Pn	**Pn**	**20 22 46.9**	**+1.8**
KARP				AML	AML		
YER	**Yerkesik**	**2.11**	**327**	Pn	**Pn**	**20 22 46.6**	**+1.2**
YER				AML	AML		
APMY	**Acipayam-Deniz**	**2.13**	**351**	Pn	**Pn**	**20 22 47.3**	**+1.6**
APMY				AML	AML		
KEPZ	**Antalya-Kepez**	**2.17**	**44**	P	**Pb**	**20 22 48.4**	**-0.9**
KEPZ				S	**Sb**	**20 23 15.8**	**-0.4**
KEPZ				IAML		20 23 18.0	
	comp=E,19nm,0.7s						
KEPZ				IAML		20 23 19.0	
	comp=N,15nm,0.5s						
AKMS	**Akamas**	**2.18**	**98**	P	**Pn**	**20 22 47.6**	**+1.3**
AKMS				S	**Sn**	**20 23 12.6**	**-0.8**
AKMS				AML	AML	20 23 17.7	
	0.2nm,0.7s						
AKMS				AML	AML	20 23 19.8	
	0.1nm,0.5s						
DAT	**Datca**	**2.20**	**309**	Pn	**Pn**	**20 22 47.9**	**+1.2**
DAT				AML	AML		
GAZI	**Gazipasa**	**2.29**	**67**	Pn	**Pb**	**20 22 51.2**	**-0.1**
GAZI				AML	AML		
ALFC	**Alefka**	**2.37**	**94**	P	**Pn**	**20 22 49.8**	**+0.8**
ALFC				S	**Sn**	**20 23 17.3**	**-0.9**
ALFC				AML	AML	20 23 19.8	
	0.1nm,0.5s						
ALFC				AML	AML	20 23 20.2	
	0.1nm,0.4s						
NATA	**Nata**	**2.42**	**103**	P	**Pn**	**20 22 50.8**	**+1.2**
NATA				S	**Sn**	**20 23 19.5**	**+0.2**
NATA				AML	AML	20 23 20.2	
	0.2nm,0.5s						
NATA				AML	AML	20 23 21.5	
	0.3nm,0.4s						
MLSB	**Milas**	**2.48**	**322**	Pn	**Pn**	**20 22 51.4**	**+0.9**
MLSB				AML	AML		
BASM	**Basmaki-Afyon**	**2.56**	**6**	Pn	**Pn**	**20 22 53.3**	**+1.6**
BASM				AML	AML		
BODT	**Bodrum**	**2.58**	**312**	Pn	**Pn**	**20 22 53.1**	**+1.3**
BODT				AML	AML		
TROD	**Troodos**	**2.62**	**98**	P	**Pn**	**20 22 53.3**	**+0.8**
TROD				S	**Sn**	**20 23 25.0**	**+0.5**
TROD				AML	AML	20 23 33.0	
	0.1nm,0.4s						
TROD				AML	AML	20 23 33.7	
	0.1nm,0.4s						
SEDI	**Konya, Seydise**	**2.66**	**38**	P	**Pb**	**20 22 55.7**	**-2.0**
SEDI				S	**Sb**	**20 23 29.5**	**-0.9**
SEDI				IAML		20 23 30.0	
	comp=N,45nm,0.4s						
SEDI				IAML		20 23 30.0	
	comp=E,47nm,0.4s						
SEYD	**Seydisehir-KON**	**2.66**	**39**	Pn	**Pb**	**20 22 55.7**	**-2.1**
SEYD				AML	AML		
HDMB	**Hadim**	**2.75**	**54**	Pn	**Pb**	**20 22 57.7**	**-1.7**
HDMB				AML	AML		
XYLS	**Xyliatos**	**2.76**	**96**	P	**Pn**	**20 22 55.7**	**+1.4**
XYLS				S	**Sn**	**20 23 26.8**	**-0.9**
XYLS				AML	AML	20 23 31.0	
	0.1nm,0.2s						
XYLS				AML	AML	20 23 31.9	
	0.1nm,0.3s						
BAGO	**Egridir - ISPA**	**2.76**	**18**	P	**Pn**	**20 22 56.8**	**+2.5**
BAGO				IAML		20 23 34.0	
	comp=N,12nm,1.1s						
BAGO				IAML		20 23 57.0	
	comp=E,11nm,0.9s						
NAZL	**Nazilli-Aydin**	**2.83**	**337**	Pn	**Pn**	**20 22 56.8**	**+1.5**
NAZL				AML	AML		
ASGA	**Asgata**	**2.96**	**100**	P	**Pn**	**20 22 58.6**	**+1.6**
ASGA				S	**Sn**	**20 23 32.7**	**+0.1**
ASGA				AML	AML	20 23 35.9	
	0.1nm,0.4s						
ASGA				AML	AML	20 23 40.1	
	0.1nm,0.5s						
CSS	**Mathiatis**	**2.99**	**97**	P	**Pn**	**20 22 59.0**	**+1.5**
CSS				S	**Sn**	**20 23 32.9**	**-0.6**
CSS				AML	AML	20 23 35.9	
	0.1nm,0.5s						
CSS				AML	AML	20 23 39.5	
	0.1nm,0.4s						
GCAM	**G?zelcaml?**	**3.07**	**320**	Pn	**Pn**	**20 23 00.2**	**+1.7**
GCAM				AML	AML		
YVAC	**Isparta, Yalva**	**3.15**	**22**	P	**Pn**	**20 23 03.1**	**+3.4**
YVAC				S	**Sb**	**20 23 41.6**	**-3.0**
YVAC				IAML		20 23 43.0	
	comp=E,9.0nm,0.5s						
YVAC				IAML		20 23 45.0	
	comp=N,6.2nm,0.5s						
DOGA	**KONYA_Doganhis**	**3.15**	**29**	P	**Pb**	**20 23 03.6**	**-2.6**
DOGA				S	**Sb**	**20 23 42.0**	**-2.8**
DOGA				IAML		20 23 43.0	
	comp=E,27nm,0.6s						
DOGA				IAML		20 23 49.0	
	comp=N,21nm,0.3s						
ODEM	**Odemis-Izmir**	**3.19**	**336**	Pn	**Pn**	**20 23 01.5**	**+1.2**
KKBE	**Karaman, Kazim**	**3.20**	**54**	P	**Pn**	**20 23 03.7**	**+3.2**
KKBE				S	**Sn**	**20 23 41.6**	**+2.9**
KKBE				IAML		20 23 44.0	
	comp=N,22nm,0.4s						
KKBE				IAML		20 23 44.0	
	comp=E,16nm,0.4s						
MVOU	**Mavrovouni**	**3.23**	**95**	P	**Pn**	**20 23 03.0**	**+2.2**
MVOU				S	**Sn**	**20 23 39.1**	**-0.2**
MVOU				AML	AML	20 23 43.3	
MVOU				AML	AML	20 23 45.9	
SHUT	**Suhut-Afyon**	**3.25**	**12**	Pn	**Pn**	**20 23 03.7**	**+2.5**
KULA	**Kula-Manisa**	**3.25**	**345**	Pn	**Pn**	**20 23 03.3**	**+2.1**
UCKU	**Afyonkarahisar**	**3.54**	**22**	P	**Pn**	**20 23 08.5**	**+3.4**
UCKU				IAML		20 23 51.0	
	comp=N,7.2nm,0.7s						
UCKU				S	**Sb**	**20 23 51.6**	**-4.3**
UCKU				IAML		20 23 55.0	
	comp=E,7.3nm,0.6s						
KDHN	**Kadinhani**	**3.69**	**31**	P	**Pn**	**20 23 09.8**	**+2.6**
KDHN				S	**Sn**	**20 23 52.6**	**+1.7**
KDHN				IAML		20 23 54.0	
	comp=E,7.2nm,0.5s						
KDHN				IAML		20 23 55.0	
	comp=N,10nm,0.4s						

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*JMA **15** 20:25:24.9±0.2, 25°N±2°×122°.7E±0°.5, h100^{km}±1^{km},*
MV2.6/16, NW OFF ISHIGAKIJIMA IS
*TAP **15** 20:25:24.7, 24°.71N×122°.77E, h100^{km}, ML3.6, D*
ISC 15 20:25:25.0±1.3**, 24°.66N**±0°.03×**122°.76E**±0°.02**, h101**^{km}±6^{km}**,**
n123, σ**0**^{s}**.98**/205**, 3C-1D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JYNG	**Yonagunijimaku**	**0.27**	**140**	*i* P	**Pn**	**20 25 39.4**	**-0.1**
JYNG				S	**Sn**	**20 25 50.4**	**0.0**
YOJ	**Yonaguni jima**	**0.30**	**130**	⇓*i*P	**Pn**	**20 25 39.5**	**-0.2**
YOJ				S	**Sn**	**20 25 50.8**	**+0.1**
YOJ	**Yonaguni jima**	**0.30**	**130**	P	**Pn**	**20 25 39.6**	**-0.2**
YOJ				S	**Sn**	**20 25 50.3**	**-0.4**
EOS2	**EOS2**	**0.53**	**244**	P	**Pn**	**20 25 41.2**	**+0.3**
EOS2				*i* S	**Sn**	**20 25 53.8**	**+0.9**
EOS3	**EOS3**	**0.54**	**227**	⇑P	**Pn**	**20 25 41.6**	**+0.5**
EOS3				S	**Sn**	**20 25 54.0**	**+1.0**
EOS4	**EOS4**	**0.67**	**217**	P	**Pn**	**20 25 42.3**	**+0.5**
EOS4				*e*S	**Sn**	**20 25 55.4**	**+1.0**
EGS		**0.77**	**284**	P	**Pn**	**20 25 43.7**	**+0.6**
EGS				*i* S	**Sn**	**20 25 57.4**	**+0.6**
TWB1	**Santiao Chiao**	**0.78**	**297**	P	**Pn**	**20 25 43.1**	**-0.1**
TIPB	**Shuangxi**	**0.90**	**291**	⇑P	**Pn**	**20 25 44.6**	**+0.1**
TIPB				*i* S	**Sn**	**20 25 58.3**	**-0.8**
SXI1	**Grass Mountain**	**0.91**	**299**	⇑P	**Pn**	**20 25 44.6**	**0.0**
SXI1				*e*S	**Sn**	**20 25 59.1**	**-0.3**
EWUT	**Wuta**	**0.91**	**257**	*e*S	**Sn**	**20 25 58.9**	**-0.4**
ILA	**Ilan**	**0.92**	**277**	*e*S	**Sn**	**20 25 60.0**	**+0.5**
IRIF	**Iriomote-Funau**	**0.94**	**110**	*i* P	**Pn**	**20 25 44.8**	**-0.1**
IRIF				*e*S	**Sn**	**20 26 00.1**	**+0.2**
NDS	**Dongshan**	**0.94**	**269**	P	**Pn**	**20 25 45.1**	**+0.2**
NDS				*i* S	**Sn**	**20 25 59.3**	**-0.6**
WFSB	**Wu-fen Shan**	**0.97**	**295**	*e*P	**Pn**	**20 25 45.6**	**+0.3**
WFSB				*e*S	**Sn**	**20 26 00.0**	**-0.4**
TWE	**Neicheng**	**0.99**	**274**	*i* P	**Pn**	**20 25 45.4**	**+0.1**
TWE				*i* S	**Sn**	**20 25 59.9**	**-0.9**
TNOU	**National Taiwa**	**1.02**	**299**	P	**Pn**	**20 25 45.9**	**+0.2**
FUSB	**Fushanzhiwuyua**	**1.07**	**276**	*i* P	**Pn**	**20 25 46.7**	**+0.4**
FUSB				*e*S	**Sn**	**20 26 01.6**	**-0.8**
TWA	**Mucha**	**1.11**	**287**	P	**Pn**	**20 25 47.2**	**+0.5**
TWA				S	**Sn**	**20 26 02.7**	**-0.5**
LATG	**Datong**	**1.12**	**264**	*e*P	**Pn**	**20 25 47.5**	**+0.5**
LATG				*e*S	**Sn**	**20 26 03.8**	**+0.3**
HATJ	**Hateruma jima**	**1.13**	**122**	*e*P	**Pn**	**20 25 47.6**	**+0.7**
HATJ				*e*S	**Sn**	**20 26 04.5**	**+1.0**
NDT	**Datong Townshi**	**1.13**	**267**	*e*P	**Pn**	**20 25 47.9**	**+0.9**
NDT				*e*S	**Sn**	**20 26 04.3**	**+0.8**
NHY	**Taipei**	**1.14**	**290**	*e*S	**Sn**	**20 26 04.5**	**+0.8**
ETL	**Fush Village**	**1.15**	**245**	*e*P	**Pn**	**20 25 46.9**	**-0.2**
ETL				*e*S	**Sn**	**20 26 02.7**	**-1.1**
NWLT	**Wulai**	**1.15**	**276**	P	**Pn**	**20 25 47.3**	**+0.2**
NWLT				*e*S	**Sn**	**20 26 03.0**	**-0.9**
PCYT	**Pengchaiyu**	**1.15**	**328**	*e*P	**Pn**	**20 25 47.3**	**+0.2**
NACB	**Ninganchiao**	**1.16**	**246**	*e*P	**Pn**	**20 25 47.0**	**-0.3**
NACB				*e*S	**Sn**	**20 26 03.4**	**-0.7**
YM01	**YM01**	**1.18**	**295**	*i* P	**Pn**	**20 25 47.8**	**+0.2**
YM01				S	**Sn**	**20 26 04.7**	**+0.1**
YM08	**YM08**	**1.18**	**297**	*e*P	**Pn**	**20 25 47.6**	**+0.1**
YM08				*e*S	**Sn**	**20 26 03.2**	**-1.4**
TWD	**Chiawan**	**1.20**	**242**	*e*S	**Sn**	**20 26 03.9**	**-1.0**
ZUZH	**Zhuzihu**	**1.21**	**295**	*i* P	**Pn**	**20 25 48.0**	**+0.1**
ZUZH				*i* S	**Sn**	**20 26 05.4**	**+0.3**
TWY	**Chenhua**	**1.22**	**301**	P	**Pn**	**20 25 48.2**	**+0.3**
TWY				S	**Sn**	**20 26 04.8**	**-0.4**
JKRS	**Kuro-shima**	**1.22**	**110**	P	**Pn**	**20 25 48.2**	**+0.3**
JKRS				S	**Sn**	**20 26 05.8**	**+0.6**
ANP	**Anpu**	**1.24**	**295**	*e*P	**Pn**	**20 25 48.8**	**+0.5**
ETLH	**Xiulin Townshi**	**1.24**	**249**	*e*P	**Pn**	**20 25 48.1**	**-0.2**
ETLH				S	**Sn**	**20 26 04.7**	**-1.3**
HWA	**Hwalien**	**1.25**	**237**	*e*S	**Sn**	**20 26 06.7**	**+0.8**
YHNB	**Yeheng**	**1.25**	**271**	*i* P	**Pn**	**20 25 49.0**	**+0.6**
YHNB				*i* S	**Sn**	**20 26 06.0**	**-0.2**
NNSB	**Datong**	**1.27**	**260**	*e*P	**Pn**	**20 25 48.9**	**+0.2**
NNSB				*i* S	**Sn**	**20 26 06.6**	**+0.1**
NSK	**Sanguang**	**1.27**	**271**	*i* P	**Pn**	**20 25 49.0**	**+0.4**
NSK				*e*S	**Sn**	**20 26 05.9**	**-0.6**
NNS	**Nan Shan**	**1.28**	**261**	*e*P	**Pn**	**20 25 50.0**	**+1.2**
NNS				S	**Sn**	**20 26 06.7**	**0.0**
NTST	**Danshui**	**1.29**	**293**	*e*P	**Pn**	**20 25 49.4**	**+0.6**
NTST				*e*S	**Sn**	**20 26 07.4**	**+0.6**
JIJ	**Ishigaki jima**	**1.30**	**103**	*i* P	**Pn**	**20 25 48.8**	**-0.1**
JIJ				S	**Sn**	**20 26 06.6**	**-0.3**
TEYL	**Yanliau Villag**	**1.32**	**234**	*e*P	**Pn**	**20 25 47.6**	**-1.5**
TEYL				S	**Sn**	**20 26 06.7**	**-0.6**
ETM	**Tongmen**	**1.34**	**239**	*e*P	**Pn**	**20 25 49.0**	**-0.4**
ETM				*e*S	**Sn**	**20 26 06.6**	**-1.3**
LXIB	**Xiulin Townshi**	**1.38**	**243**	*e*P	**Pn**	**20 25 49.9**	**0.0**
LXIB				*e*S	**Sn**	**20 26 07.8**	**-1.1**
SHUL	**Shoufeng**	**1.39**	**232**	*e*P	**Pn**	**20 25 50.0**	**0.0**
SHUL				*e*S	**Sn**	**20 26 08.4**	**-0.5**
JISG	**Ishigakijimahi**	**1.42**	**93**	P	**Pn**	**20 25 50.3**	**+0.1**
JISG				S	**Sn**	**20 26 09.2**	**-0.3**
KSHI	**Guanxi Townshi**	**1.44**	**275**	*e*P	**Pn**	**20 25 51.4**	**+0.9**
KSHI				*i* S	**Sn**	**20 26 10.4**	**+0.5**
WHF	**Hehuan Shan**	**1.45**	**250**	P	**Pn**	**20 25 51.5**	**+0.3**
WHF				*i* S	**Sn**	**20 26 09.8**	**-1.1**
TEGC	**Jichi Village**	**1.46**	**230**	*e*P	**Pn**	**20 25 50.9**	**+0.1**
TEGC				S	**Sn**	**20 26 10.3**	**0.0**
NCUH	**Zhongli**	**1.46**	**283**	*e*S	**Sn**	**20 26 10.9**	**+0.5**
ESL	**Shilin**	**1.47**	**235**	*i* P	**Pn**	**20 25 50.6**	**-0.4**
ESL				S	**Sn**	**20 26 08.7**	**-1.9**
NFF	**Wufeng Townshi**	**1.49**	**269**	*i* P	**Pn**	**20 25 51.7**	**+0.4**
NFF				S	**Sn**	**20 26 10.1**	**-1.0**
TWT	**Tachien**	**1.49**	**255**	*e*P	**Pn**	**20 25 53.1**	**+1.7**
TWT				*i* S	**Sn**	**20 26 11.3**	**-0.1**
TDCB	**Techi**	**1.51**	**255**	*e*P	**Pn**	**20 25 52.4**	**+0.8**
TDCB				*i* S	**Sn**	**20 26 11.3**	**-0.5**
WARBT	**Fenglin Townsh**	**1.56**	**233**	P	**Pn**	**20 25 51.6**	**-0.5**
WARBT				*e*S	**Sn**	**20 26 11.3**	**-1.4**
LIOB	**Emei**	**1.58**	**270**	*e*P	**Pn**	**20 25 53.0**	**+0.6**
LIOB				*i* S	**Sn**	**20 26 13.2**	**0.0**
NSTT	**Nanjuang**	**1.60**	**269**	P	**Pn**	**20 25 52.9**	**+0.4**
NSTT				*i* S	**Sn**	**20 26 12.6**	**-0.8**
OWD	**Renai**	**1.60**	**244**	*i* P	**Pn**	**20 25 52.8**	**+0.1**
OWD				S	**Sn**	**20 26 12.6**	**-1.2**
WUSB	**Renai**	**1.63**	**246**	*i* P	**Pn**	**20 25 53.6**	**+0.5**
WUSB				S	**Sn**	**20 26 14.5**	**0.0**
HGSD	**Ruisui**	**1.68**	**227**	*e*P	**Pn**	**20 25 53.5**	**-0.1**
HGSD				S	**Sn**	**20 26 15.3**	**0.0**
WHP	**Taichung City**	**1.69**	**257**	*e*P	**Pn**	**20 25 55.2**	**+1.5**
VWDT	**VWDT**	**1.73**	**239**	*i* P	**Pn**	**20 25 54.6**	**+0.5**
VWDT				*i* S	**Sn**	**20 26 16.0**	**-0.2**
EHYH	**Wanrong**	**1.73**	**228**	*e*P	**Pn**	**20 25 54.2**	**0.0**
EHYH				S	**Sn**	**20 26 15.2**	**-1.2**
EHY	**Hungye**	**1.74**	**229**	*e*P	**Pn**	**20 25 54.1**	**-0.2**
JTJ	**Tarama**	**1.77**	**90**	*e*P	**Pn**	**20 25 55.1**	**+0.5**
JTJ				S	**Sn**	**20 26 17.6**	**+0.3**
WCS	**Beigang Elemen**	**1.78**	**251**	*e*P	**Pn**	**20 25 56.2**	**+1.4**
WCS				S	**Sn**	**20 26 18.7**	**+1.1**
ECBN	**Changbin**	**1.79**	**222**	P	**Pn**	**20 25 54.9**	**-0.1**
ECBN				*e*S	**Sn**	**20 26 16.9**	**-0.8**
TWQ1	**Liyutan**	**1.83**	**261**	P	**Pn**	**20 25 57.3**	**+1.8**
TWQ1				S	**Sn**	**20 26 18.8**	**+0.1**
YULB	**Yu-li**	**1.83**	**227**	*i* P	**Pn**	**20 25 55.1**	**-0.4**
YULB				*e*S	**Sn**	**20 26 17.6**	**-1.2**
SSLB	**Suanglung**	**1.86**	**243**	*e*P	**Pn**	**20 25 57.5**	**+1.7**
SSLB				*e*S	**Sn**	**20 26 18.9**	**-0.4**
SMLT	**Sun Moon Lake**	**1.86**	**246**	*e*P	**Pn**	**20 25 57.4**	**+1.5**
SMLT				*i* S	**Sn**	**20 26 21.1**	**+1.6**
TWF1	**Yuli**	**1.86**	**226**	P	**Pn**	**20 25 55.5**	**-0.4**
TWF1				*i* S	**Sn**	**20 26 19.9**	**+0.5**
TYC	**Yuchr**	**1.89**	**247**	*e*P	**Pn**	**20 25 57.7**	**+1.6**
TYC				*e*S	**Sn**	**20 26 21.1**	**+1.2**
CHKH	**Chenggong**	**1.92**	**221**	*e*P	**Pn**	**20 25 56.9**	**+0.3**
CHKH				S	**Sn**	**20 26 18.9**	**-1.7**
TCU	**Taichung**	**1.96**	**255**	*e*P	**Pn**	**20 25 57.9**	**+0.8**
TCU				*e*S	**Sn**	**20 26 23.0**	**+1.3**
FULB	**Fuli**	**1.97**	**223**	*e*P	**Pn**	**20 25 57.4**	**+0.1**
FULB				S	**Sn**	**20 26 21.3**	**-0.7**
WHYT	**Xinyi Township**	**1.98**	**242**	*i* P	**Pn**	**20 25 58.9**	**+1.5**
WHYT				*i* S	**Sn**	**20 26 23.0**	**+0.8**
CHKT	**Chengkung**	**2.01**	**220**	P	**Pn**	**20 25 57.2**	**-0.5**
CHKT				*i* S	**Sn**	**20 26 20.5**	**-2.2**
YUS	**Yu-Shan**	**2.02**	**235**	*e*P	**Pn**	**20 25 59.0**	**+0.7**
WJS	**Zhushan**	**2.03**	**246**	*e*P	**Pn**	**20 25 59.1**	**+1.2**
WNT	**Mingjian**	**2.04**	**248**	*e*S	**Sn**	**20 26 25.1**	**+1.6**
EHD	**Haiduan**	**2.06**	**224**	*e*P	**Pn**	**20 25 58.2**	**-0.3**
ECS	**Chishang**	**2.10**	**222**	*e*P	**Pn**	**20 25 59.6**	**+0.7**
ECS				*e*S	**Sn**	**20 26 24.3**	**-0.5**
WCH1	**Changhua City**	**2.10**	**254**	*e*S	**Sn**	**20 26 24.8**	**+0.1**
ALS	**Alishan**	**2.12**	**238**	P	**Pn**	**20 26 00.7**	**+1.3**
ALS				*i* S	**Sn**	**20 26 26.6**	**+1.0**
ELDTW	**Lidau**	**2.16**	**228**	P	**Pn**	**20 25 59.8**	**0.0**
ELDTW				*e*S	**Sn**	**20 26 25.2**	**-1.2**
JIRJ	**Irabujima**	**2.23**	**85**	S	**Sn**	**20 26 27.4**	**-0.3**
WDL	**Douliou City**	**2.23**	**246**	*e*S	**Sn**	**20 26 30.0**	**+2.2**
WDLH	**Douliu**	**2.24**	**245**	*e*P	**Pn**	**20 26 02.4**	**+1.6**
WRL	**Guolierlin Hig**	**2.30**	**251**	*e*P	**Pn**	**20 26 01.8**	**+0.3**
WCKO	**Fanlu**	**2.31**	**239**	P	**Pn**	**20 26 03.4**	**+1.8**
WCKO				*i* S	**Sn**	**20 26 31.8**	**+2.0**
STYH	**Taoyuan**	**2.34**	**231**	P	**Pn**	**20 26 03.4**	**+1.4**
STYH				S	**Sn**	**20 26 31.3**	**+0.9**
JMJ2	**Miyako jima3**	**2.34**	**87**	*e*P	**Pn**	**20 26 03.0**	**+0.9**
JMJ2				*e*S	**Sn**	**20 26 30.5**	**0.0**
CHN4	**Tsaushan**	**2.37**	**237**	*e*P	**Pn**	**20 26 04.2**	**+1.8**
CHN4				*e*S	**Sn**	**20 26 33.6**	**+2.5**
TPUB	**Ta-pu**	**2.37**	**236**	*e*P	**Pn**	**20 26 04.6**	**+2.1**
TPUB				S	**Sn**	**20 26 33.1**	**+2.0**
TWGBT	**Beinan**	**2.39**	**220**	*i* P	**Pn**	**20 26 02.5**	**-0.2**
TWGBT				S	**Sn**	**20 26 30.9**	**-0.7**
TWG	**Pinlang**	**2.39**	**220**	P	**Pn**	**20 26 02.4**	**-0.3**
TWG				*e*S	**Sn**	**20 26 30.6**	**-1.1**
WTP	**Ta-pu**	**2.41**	**235**	P	**Pn**	**20 26 05.4**	**+2.4**
WTP				*e*S	**Sn**	**20 26 34.5**	**+2.4**
TWK	**Hsinying**	**2.49**	**237**	*e*P	**Pn**	**20 26 05.8**	**+1.7**
CHN1	**Nanshi**	**2.51**	**235**	P	**Pn**	**20 26 06.0**	**+1.6**
CHN1				*e*S	**Sn**	**20 26 37.0**	**+2.5**
SGST	**Jiashian**	**2.53**	**232**	*e*P	**Pn**	**20 26 05.5**	**+0.9**
SGST				*e*S	**Sn**	**20 26 36.4**	**+1.4**
SLGT	**Liugui**	**2.54**	**230**	*e*P	**Pn**	**20 26 07.1**	**+2.3**
WSL	**Shuilin Townsh**	**2.57**	**244**	*e*P	**Pn**	**20 26 06.3**	**+1.2**
ECL	**Taimali**	**2.63**	**219**	*e*P	**Pn**	**20 26 05.3**	**-0.6**
SSD	**Sandimen**	**2.72**	**226**	P	**Pn**	**20 26 09.2**	**+2.1**
MASBT	**Mashibuluo**	**2.82**	**224**	*e*P	**Pn**	**20 26 09.6**	**+1.2**
LAY	**Lan-yu**	**2.83**	**203**	*e*P	**Pn**	**20 26 07.9**	**-0.7**
LYUB	**Lan-yu**	**2.85**	**202**	*i* P	**Pn**	**20 26 08.2**	**-0.7**
LYUB				*e*S	**Sn**	**20 26 39.6**	**-3.0**
EAST	**Anshuo**	**2.86**	**218**	*e*P	**Pn**	**20 26 09.1**	**+0.1**
MATB	**Ma-tsu**	**2.94**	**301**	*e*P	**Pn**	**20 26 09.3**	**-0.7**
SCZT	**Fangliau**	**3.00**	**221**	*e*P	**Pn**	**20 26 12.3**	**+1.4**
VWUC	**VWUC**	**3.02**	**277**	*e*P	**Pn**	**20 26 10.3**	**-0.8**
PNG	**Penghu**	**3.12**	**250**	*e*P	**Pn**	**20 26 11.6**	**-0.8**
PHUB	**P'eng-hu**	**3.12**	**249**	P	**Pn**	**20 26 11.9**	**-0.5**
PHUB				*i* S	**Sn**	**20 26 47.2**	**-1.8**
WDGT	**Dungji**	**3.15**	**244**	P	**Pn**	**20 26 12.9**	**+0.1**
XPSS	**Dashiqiu**	**3.23**	**315**	*e*P	**Pn**	**20 26 13.0**	**-0.9**
LYJJ	**Jianjiangzhen**	**3.30**	**306**	*e*P	**Pn**	**20 26 14.3**	**-0.4**
PTMZ	**Houxiangcun**	**3.32**	**277**	*e*P	**Pn**	**20 26 14.4**	**-0.7**
VCHM	**Qimei**	**3.37**	**245**	*e*P	**Pn**	**20 26 16.0**	**+0.3**
KNMB	**Chin-men Tao**	**3.98**	**268**	*e*P	**Pn**	**20 26 23.2**	**-0.7**
AXDP	**Jialang**	**4.36**	**274**	*e*P	**Pn**	**20 26 28.5**	**-0.5**
ZPLA	**Ao Xicun**	**4.62**	**262**	*e*P	**Pn**	**20 26 32.1**	**-0.5**

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*ATH **15** 20:25:46.9, 39°.37N×19°.83E, h41^{km}±2^{km}, ML2.5/6,*
Latitude uncertainty: 0 km; Longitude uncertainty: 1 km
*THE **15** 20:25:47.6, 39°N±2°×2°0E±°, h30^{km}±3^{km}, M2.1/15,*
MLh2.1/15
*TIR **15** 20:25:48.6, 39°.41N×19°.90E, h7^{km}±4^{km}, Md1.9/3, Ml1.9/1*
ISC 15 20:25:47.0±1.0**, 39°.35N**±0°.03×**19°.88E**±0°.04**, h33**^{km}±3^{km}**,**
n56, σ**0**^{s}**.64**/79**, Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LFKM	**Lefkimmi**	**0.17**	**56**	P	**Pb**	**20 25 54.1**	**+0.8**
LFKM				S	**Sb**	**20 25 57.7**	**+0.1**
LFKM				AML	AML		
KRK1	**kERKIRA**	**0.27**	**6**	P	**Pn**	**20 25 55.0**	**+0.5**
KRK1				S	**Sn**	**20 26 00.6**	**+1.4**
KEK	**Kerkira**	**0.37**	**350**	P	**Pb**	**20 25 55.0**	**-0.6**
KEK				S	**Sb**	**20 26 01.0**	**-0.5**
KEK				AMd		20 26 26.2	
KEK	**Kerkira**	**0.37**	**350**	P	**Pb**	**20 25 55.1**	**-0.6**
KEK				S	**Sb**	**20 26 01.7**	**+0.1**
KEK				AML	AML		
KEK	**Kerkira**	**0.37**	**350**	P	**Pb**	**20 25 55.1**	**-0.6**
KEK				S	**Sb**	**20 26 01.7**	**+0.1**
KEK				AML	AML		
IGT	**Igoumenitsa**	**0.40**	**63**	P	**Pn**	**20 25 55.7**	**-0.8**
IGT				S	**Sn**	**20 26 01.2**	**-1.6**
IGT				AMd		20 26 25.6	
IGT	**Igoumenitsa**	**0.40**	**63**	P	**Pn**	**20 25 55.7**	**-0.8**
IGT				S	**Sn**	**20 26 01.4**	**-1.4**

IGT				AML	AML		
SRN	Sarande	0.54	10	P	Pb	20 25 58.5	+0.3
SRN				S	Sb	20 26 05.8	-0.1
SRN				AML	AML	20 26 08.8	
	0.5nm,0.2s						
SRN				AMd		20 26 36.8	
SRN	Sarande	0.54	10	P	Pb	20 25 58.3	+0.1
SRN				S	Sb	20 26 05.7	-0.1
SRN				AML	AML		
TSLK	Tsoukalades, L	0.80	131	P	Pn	20 26 02.3	+0.3
TSLK				S	Sn	20 26 12.8	0.0
TSLK				AML	AML		
TSLK	Tsoukalades, L	0.80	131	P	Pn	20 26 02.5	+0.5
TSLK				S	Sn	20 26 13.5	+0.7
JAN	Janina	0.81	68	P	Pn	20 26 02.0	-0.2
JAN				S	Sn	20 26 12.6	-0.5
JAN				AML	AML		
JAN	Janina	0.81	68	P	Pn	20 26 02.2	0.0
JAN				S	Sn	20 26 13.2	+0.1
JAN				AML	AML		
LKD2	Lefkada island	0.83	133	P	Pn	20 26 02.8	+0.4
LKD2				S	Sn	20 26 13.4	0.0
LKD2				AML	AML		
LKD2	Lefkada island	0.83	133	P	Pn	20 26 02.6	+0.2
LKD2				S	Sn	20 26 14.6	+1.1
DRAG	Dragano-Lefkad	0.86	141	P	Pn	20 26 03.2	+0.3
DRAG				AML	AML		
DRAG	Dragano-Lefkad	0.86	141	P	Pn	20 26 03.1	+0.2
DRAG				S	Sn	20 26 15.2	+1.0
DRAG				AML	AML		
ARTB	Arta	0.88	102	P	Pn	20 26 03.0	0.0
ARTB				S	Sn	20 26 15.6	+1.0
ART2	Arta	0.89	103	P	Pn	20 26 03.5	+0.3
ART2				S	Sn	20 26 15.9	+1.0
NYDR	Nydri-Lefkada	0.90	135	P	Pn	20 26 03.7	+0.3
NYDR				AML	AML		
NYDR	Nydri-Lefkada	0.90	135	P	Pb	20 26 03.3	-0.9
NYDR				S	Sn	20 26 15.7	+0.5
EVGI	Lefkada island	0.95	140	P	Pn	20 26 05.2	+1.1
EVGI				AML	AML		
EVGI	Lefkada island	0.95	140	P	Pn	20 26 04.5	+0.5
EVGI				S	Sn	20 26 17.0	+0.5
PRMD	Pramanda	0.96	79	P	Pn	20 26 04.5	+0.2
PRMD				AML	AML		
PRMD	Pramanda	0.96	79	P	Pn	20 26 04.6	+0.3
PRMD				S	Sn	20 26 17.7	+0.8
FSK	Fiskardo	1.04	149	P	Pb	20 26 05.2	-1.3
FSK				AML	AML		
FSK	Fiskardo	1.04	149	P	Pb	20 26 05.3	-1.3
FSK				S	Sn	20 26 19.5	+0.8
TETR	Tetrakomo, Epi	1.08	90	P	Pn	20 26 06.2	+0.3
TETR				AML	AML		
TETR	Tetrakomo, Epi	1.08	90	P	Pn	20 26 06.3	+0.3
TETR				S	Sn	20 26 20.2	+0.4
TETR				AML	AML		
MSVA	Metsovo	1.09	67	P	Pn	20 26 06.7	+0.6
AMPL	Ampelaki	1.12	112	P	Pn	20 26 06.6	+0.1
AMPL				AML	AML		
AMPL	Ampelaki	1.12	112	P	Pn	20 26 06.6	+0.1
DMLN	Damoulianata-K	1.18	161	P	Pn	20 26 07.7	+0.5
PDO	Prodromos	1.27	126	P	Pn	20 26 08.7	+0.3
KPRO	Kipourio	1.29	62	P	Pn	20 26 08.9	0.0
VLS	Valsamata	1.30	154	P	Pn	20 26 09.0	+0.1
PSDA	Pessada-Kefalo	1.35	156	P	Pn	20 26 09.2	-0.4
RTZL	Ratzakli, Kefa	1.45	151	P	Pn	20 26 10.9	-0.1
PVO	Paravola	1.48	119	P	Pn	20 26 10.9	-0.4
EVR	Evrytania	1.56	106	P	Pn	20 26 13.1	+0.5
ORTH	Orthonies,Zaky	1.63	157	P	Pn	20 26 13.1	-0.3
AXS	Araxos	1.64	134	P	Pn	20 26 14.0	+0.4
THL	Klokotos Trika	1.67	82	P	Pn	20 26 14.6	+0.7
KZN	Kozani	1.74	56	P	Pn	20 26 15.0	-0.1
ANX	Ano Chora	1.76	115	P	Pn	20 26 15.8	+0.5
RLS	Riolos of Patr	1.79	136	P	Pn	20 26 16.1	+0.5
TYRN	Tyrnavos	1.85	78	P	Pn	20 26 17.2	+0.7
TYRN	Tyrnavos	1.85	78	P	Pn	20 26 16.9	+0.4
AGG	Agios Georgios	1.93	99	P	Pn	20 26 18.7	+1.1
DRO	Drossia	2.00	134	P	Pn	20 26 19.4	+0.8
LIT	Litokhoron	2.15	69	P	Pn	20 26 21.0	+0.4
KLV	Kalavryta, Ach	2.21	126	P	Pn	20 26 22.4	+1.0
GUR	Goura	2.39	125	P	Pn	20 26 24.4	+0.4
TIP	Timpagrande	2.43	267	P	Pn	20 26 24.7	+0.2
NOCI	Noci	2.59	304	P	Pn	20 26 26.1	-0.5
NEO	Neokhori	2.59	90	P	Pn	20 26 26.5	-0.3

IDC 15 20:27:03.7±5.5**, 17°.42S**×**177°.81W, h415**^{km}±25^{km}**,**
mb3.1/4**, mbtmp3.9**/5**, Error ellipse: s-maj=125.6km**
s-min=31.8km az=28.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	Nonsavu	3.96	265	P	P	20 28 16.3	0.0
	6.2nm,0.5s,baz=115,slow=20,SNR=6.3						
STKA	Stephens Creek	39.37	241	P	P	20 33 56.2	+0.7
	1.4nm,0.5s,baz=86,slow=9.2,SNR=6.3						
	1.4nm,0.5s						
WRA	Warramunga Arr	45.28	259	P	P	20 34 41.8	-0.9
	0.5nm,0.8s,baz=92,slow=7.7,SNR=15						
	0.5nm,0.8s						
ASAR	Alice Springs	45.48	254	P	P	20 34 44.3	+0.1
	2.6nm,0.6s,baz=88,slow=8.2,SNR=48						
	2.6nm,0.6s						
QSPA	South Pole Qui	72.63	180	P	P	20 37 47.4	0.0
	0.9nm,0.7s,baz=124,slow=1.2,SNR=8.5						
	0.9nm,0.7s						

IDC 15 20:51:46.5±3.2**, 17°.83S**×**167°.48E, h0**^{km}**, mb3.6**/3**,**
mbtmp3.6/4**, ML3.2**/1**, Error ellipse: s-maj=69.4km**
s-min=22.1km az=86.0, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	Mont Dzumac	4.33	193	Pn	Pn	20 52 51.5	-2.2
	1.2nm,0.3s,baz=314,slow=8.2,SNR=8.9						
DZM				Sn	Sn	20 53 40.6	-4.4
	1.8nm,0.3s,baz=136,slow=23,SNR=7.3						
	2.9nm,0.3s						
DZM				AML	AML		
WRA	Warramunga Arr	31.39	261	P	P	20 58 10.8	+1.3
	0.7nm,0.9s,baz=93,slow=9.2,SNR=3.3						
	0.7nm,0.9s						
ASAR	Alice Springs	31.88	254	P	P	20 58 12.6	-1.1
	0.7nm,0.6s,baz=79,slow=8.8,SNR=9.9						
	0.7nm,0.6s						
SONM	Songino Array	85.10	324	P	P	21 04 24.6	+0.2
	0.3nm,0.8s,baz=132,slow=6.2,SNR=2.5						
	0.3nm,0.8s						

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*SNET **15** 20:56:35.5±2.9, 12°.50N×87°.44W, h88^{km}, ML2.9,*
Presumed earthquake
*CATAC **15** 20:56:36.7±0.6, 12°N±4°×8°8W±°, h31^{km}±3^{km}, M3.0/13,*
MLv3.0/13, Error ellipse: s-maj=9.1km s-min=3.8km
az=30.2, confirmed
ISC 15 20:56:35.3±2.3**, 12°.37N**±0°.09×**87°.58W**±0°.05**, h11**^{km}±15^{km}**,**
n19, σ0^{s}.82/34**, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CSGN	Cosiguina Volc	0.60	2	P	Pn	20 56 50.2	+0.3
CSGN				S	Sn	20 57 00.0	+0.3
CRIN	San Cristobal	0.61	58	P	Pn	20 56 50.4	+0.4
CRIN				S	Sn	20 57 01.0	+1.1
POTN	Potosi Cosigui	0.63	6	P	Pn	20 56 50.2	0.0
POTN				S	Sn	20 57 00.5	+0.2
PLRN	Geotermica Pol	0.82	75	P	Pn	20 56 52.3	-0.6
PLRN				S	Sb	20 57 03.6	+1.0
CNGN	Cerro Negro	0.87	81	P	Pn	20 56 53.6	+0.1
CNGN				S	Sb	20 57 05.2	+1.1
ILCN	San Idelfonso	0.88	76	P	Pb	20 56 52.3	-0.4
ILCN				S	Sb	20 57 04.5	+0.1
CNCH	Conchagua	0.93	344	*e*P	Pn	20 56 54.5	0.0
CNCH				*e*S	Sn	20 57 08.0	0.0
CNCH	Conchagua	0.93	344	P	Pn	20 56 54.6	0.0
CNCH				S	Sn	20 57 07.9	0.0
INTP	Intipuca	0.94	330	*e*P	Pn	20 56 55.9	+1.3
INTP				*e*S	Sn	20 57 07.4	-0.6
COPN	Copaltepe	0.98	101	P	Pn	20 56 54.0	-1.1
LCND	La Caada	0.98	342	*e*P	Pn	20 56 55.5	+0.4
LCND				*e*S	Sn	20 57 08.9	-0.1
MOMN	Momotombo	1.01	88	P	Pn	20 56 54.7	-0.8
MOMN				S	Sb	20 57 08.1	-0.2
MOM2	El Cardon	1.07	86	P	Pn	20 56 55.8	-0.4
MOM2				S	Sb	20 57 10.0	+0.1
JUCU	Jucuar¡n	1.09	323	*e*P	Pn	20 56 56.6	-0.1
JUCU				*e*S	Sb	20 57 09.9	-0.8
PACA	Pacayal	1.31	326	*e*P	Pb	20 56 59.9	-0.2
LIMN	Finca el Limon	1.37	60	P	Pn	20 56 59.4	-1.0
LIMN				S	Sg	20 57 17.6	-1.8
RCVN	Varillal2	1.81	48	P	Pn	20 57 06.7	+0.1
RCVN				S	Sn	20 57 28.8	-0.8
RCPN	Sur Rio San Ju	1.84	51	P	Pn	20 57 07.3	+0.3
ACON	Acoyapa	2.38	99	P	Pg	20 57 35.6	+15
ACON				S	Sg	20 57 54.4	+2.5

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*ISK **15** 20:57:33.8, 38°.11N×38°.61E, h5^{km}, ML3.7/15*
*IDC **15** 20:57:34.7±1.0, 38°.15N×38°.73E, h0^{km}, mb3.3/5,*
mbtmp3.3/8, ML3.2/3, MS2.8/6, Error ellipse: s-maj=13.0km
s-min=10.6km az=109.0
*AFAD **15** 20:57:35.4, 38°.15N×38°.63E, h7^{km}±1^{km}, MW3.5*
ISC 15 20:57:36.3±1.0**, 38°.15N**±0°.02×**38°.63E**±0°.02**, h7**^{km}±8^{km}**,**
n52, σ1^{s}.01/68**, mb3.3**/4**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MAYA	Malatya/Merkez	0.24	318	P	Pg	20 57 40.4	-0.7
MAYA				S	Sg	20 57 44.2	0.0
NARI	Adyaman-Kaht	0.29	158	P	Pg	20 57 41.2	-0.7
NARI				S	Sg	20 57 45.8	0.0
MDYL	Doganyol-Malat	0.36	63	Pg	Pg	20 57 42.5	-1.0
MDYL				Sg	Sg	20 57 49.3	+1.0
MDYL				AML	AML		
ESGZ	Sivrice-Elazig	0.44	51	Pg	Pg	20 57 43.7	-1.3
ESGZ				AML	AML		
ELZG	Elazig	0.45	39	P	Pg	20 57 44.0	-1.1
ELZG				S	Sg	20 57 51.2	+0.2
AZEY	Adyaman-Merk	0.45	221	P	Pg	20 57 44.8	-0.2
AZEY				S	Sb	20 57 52.0	-1.6
CNGT	ngs	0.54	83	P	Pg	20 57 45.6	-1.0
CNGT				S	Sg	20 57 53.6	-0.1
AKCD	Akcadag	0.57	285	P	Pg	20 57 46.7	-0.7
AKCD				S	Sb	20 57 55.6	-1.6
SVRC	Sivrice-ELAZID	0.58	67	Pg	Pg	20 57 46.4	-1.2
SVRC				Sg	Sg	20 57 56.6	+1.4
SVRC				AML	AML		
HANM	anlurfa/Hi	0.60	160	P	Pg	20 57 47.3	-0.6
HANM				S	Sg	20 57 55.5	-0.3
ESIJ	Sivrice-Elazig	0.62	61	Pg	Pg	20 57 47.6	-0.6
ESIJ				Sg	Sg	20 57 57.9	+1.6
ESIJ				AML	AML		
ELZ	Elazig	0.71	40	P	Pg	20 57 48.6	-1.3
ELZ				S	Sg	20 57 59.7	+0.6
ATAB	Bozova	0.73	201	P	Pg	20 57 49.6	-0.7
AKCA	Adyaman/G¶l	0.82	245	P	Pg	20 57 51.6	-0.5
MDNT	Maden	0.87	73	P	Pg	20 57 52.1	-0.9
MDNT				S	Sg	20 58 04.3	0.0
HEKM	Malatya_Hekimh	0.90	325	P	Pg	20 57 52.3	-1.2
HEKM				S	Sb	20 58 05.7	-0.9
ARPR	Arapgir-MALATY	0.97	347	Pg	Pg	20 57 53.6	-1.3
KOVA	Elazig, Kovanc	1.08	59	P	Pg	20 57 55.9	-1.3
GZT	Gaziantep	1.16	227	P	Pg	20 57 57.9	-0.6
GZT				S	Sn	20 58 15.4	+0.2
ELBS	KAHRAMANMARAS	1.19	279	P	Pg	20 57 57.6	-1.5
ELBS				S	Sn	20 58 17.1	+1.1
TNCL	Tunceli-Merkez	1.20	36	P	Pg	20 57 57.3	-2.1
CUGUR	Gurin_SVAS	1.21	299	P	Pg	20 57 57.9	-1.6
DYBB	Diyarbakir	1.21	99	Pn	Pg	20 57 58.0	-1.5
DYBB				Sn	Sg	20 58 16.1	+0.8
DYBB				AML	AML		
ILIC	ilic-Erzincan	1.30	358	Pn	Pg	20 58 00.5	-0.8
ILIC				AML	AML		
KHMN	Narli-Kahraman	1.39	237	Pn	Pn	20 58 00.7	-1.4
KHMN				AML	AML		
GAZ	Gaziantep	1.49	229	Pn	Pn	20 58 02.0	-1.5
GAZ				AML	AML		
KMRS	Kahramanmaras	1.51	245	Pn	Pn	20 58 02.7	-1.1
KMRS				AML	AML		
SARI	SarD1z-Kayseri	1.76	279	Pn	Pn	20 58 06.7	-0.6
SARI				AML	AML		
BNGB	Bingl	1.82	62	Pn	Pn	20 58 08.0	-0.1
BNGB				AML	AML		
YEDI	Yedisu-Bingol	1.98	49	Pn	Pn	20 58 10.5	+0.1
YEDI				AML	AML		
SVSK	Karacayir	2.17	325	Pn	Pn	20 58 13.4	+0.5
SVSK				AML	AML		
KARO	Karliova-Bingo	2.22	58	Pn	Pn	20 58 13.7	-0.1
KARO				AML	AML		
VRTB	Varto-Mus	2.44	65	Pn	Pn	20 58 16.7	0.0
VRTB				AML	AML		
BEIL	Beino	4.10	209	*e*P	Pn	20 58 39.3	-0.2
BRTR	Keskin Array B	4.19	294	Pn	Pn	20 58 42.0	+1.2
	1.1nm,0.3s,baz=104,slow=4.9,SNR=27						
BRTR				Pg	Pb	20 58 52.4	+1.9
	1.7nm,0.3s,baz=104,slow=18,SNR=8.5						
BRTR				Lg	Lg	20 59 52.0	
	0.8nm,0.3s,baz=122,slow=30,SNR=5.1						
BRTR				LR	LR	21 00 35.9	
	comp=Z,112nm,19.2s,baz=71,slow=42						
	1.9nm,0.4s						
BRTR				AML	AML		
HWQ	Hawqa	4.43	210	*e*P	Pn	20 58 44.1	0.0
ZAHL	Zahle	4.82	208	*e*P	Pn	20 58 49.8	+0.3
BHL	Bhannes	4.87	211	*e*P	Pn	20 58 50.2	+0.1
DQRL	Deir Qamar	5.08	210	*e*P	Pn	20 58 53.4	+0.4
GNI	Garni	5.16	65	Pg	Pb	20 59 08.2	+1.3
	0.4nm,0.3s,baz=246,slow=10.0,SNR=4.4						
QRWL	Qaraoun	5.18	208	*e*P	Pn	20 58 55.0	+0.8
SHBL	Chebaa	5.33	207	*e*P	Pn	20 58 57.0	+0.6
MMAI	Mount Meron Ar	5.76	208	Pn	Pn	20 59 02.3	+0.1
	1.9nm,0.3s,baz=22,slow=17,SNR=7.8						
MMAI				Pg	Pg	20 59 25.1	-1.4
	3.8nm,0.3s,baz=22,slow=20,SNR=4.6						
MMAI				Lg	Lg	21 00 41.3	
	4.0nm,0.3s,baz=25,slow=34,SNR=2.6						
MMAI				LR	LR	21 01 34.8	
	comp=Z,67nm,19.2s,baz=338,slow=42						
	0.7nm,0.3s						
MMAI				AML	AML		
ASF	Jabal al Asfar	6.13	194	Pn	Pn	20 59 06.4	-1.0
	0.3nm,0.3s,baz=12,slow=11,SNR=4.3						
ASF				Pg	Pg	20 59 34.0	+0.3
	1.0nm,0.3s,baz=8.7,slow=10,SNR=5.9						
ASF				Lg	Lg	21 00 53.3	
	2.9nm,0.3s,baz=188,slow=22,SNR=6.2						
ASF				LR	LR	21 01 54.7	
	comp=Z,68nm,19.6s,baz=40,slow=42						
	2.5nm,0.8s						
ASF				AML	AML		
EIL	Elat	8.99	201	Lg	Lg	21 02 17.8	
	0.3nm,0.3s,baz=353,slow=8.8,SNR=1.4						
EIL				LR	LR	21 03 37.1	
	comp=Z,95nm,18.9s,baz=70,slow=40						
MLR	Muntele Rosu	11.96	312	LR	LR	21 05 06.3	
	comp=Z,55nm,18.8s,baz=178,slow=38						
VRAC	Vranov	19.36	312	LR	LR	21 09 46.9	
	comp=Z,28nm,18.5s,baz=90,slow=38						
GERES	GERESS Array B	20.91	309	P	P	21 02 20.2	+0.9
	0.4nm,0.3s,baz=104,slow=9.8,SNR=8.2						
	0.4nm,0.3s						
FINES	FINESS Array B	24.60	345	P	P	21 02 57.2	+0.4
	0.7nm,0.8s,baz=145,slow=8.2,SNR=1.7						
	0.7nm,0.8s						
KURBB	Kurchatov Arra	30.75	53	P	P	21 03 52.1	+0.1
	0.2nm,0.5s,baz=264,slow=8.7,SNR=1.4						
	0.2nm,0.5s						
ESDC	Sonseca Array	32.95	286	P	P	21 04 11.9	+0.3
	0.1nm,0.5s,baz=50,slow=10,SNR=1.7						
	0.1nm,0.5s						
MKAR	Makanchi Array	32.98	61	P	P	21 04 09.6	-2.1
	0.4nm,0.9s,baz=271,slow=6.8,SNR=4.6						
	0.4nm,0.9s						

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*IDC **15** 21:01:46.6±20.0, 43°.39N×146°.60E, h0^{km}, mb3.5/3,*
mbtmp3.4/4, ML2.4/1, Error ellipse: s-maj=367.4km
s-min=37.5km az=101.0
*JMA **15** 21:01:48.0±0.2, 42°.9N±0°.4×146°.6E±1°.0, h12^{km}±3^{km},*
MV3.4/24, OFF NEMURO PENINSULA
*SKHL **15** 21:01:49.1±0.4, 42°.80N×146°.50E, h22^{km}±3^{km}, mb4.4/2*
ISC 15 21:01:46.7±3.4**, 42°.80N**±0°.10×**146°.6E**±0°.1**, h15**^{km}±16^{km}**,**
n18, σ0^{s}.73/16**, mb3.6**/3**, Off southeast coast of Hokkaido**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NEM2	Nemuro 2	0.83	313	P	Pb	21 02 03.3	+0.5
NEM2				*e*S	Sb	21 02 14.4	+0.7
NMR	Nemuro--Hokkai	0.84	313	*e*P	Pb	21 02 03.5	+0.5
NMR				*e*S	Sg	21 02 13.7	-0.4
JKHN	Kushirohamanak	1.07	286	S	Sn	21 02 22.4	+0.5
SHO	Shikotan	1.08	10	*e*S	Sn	21 02 37.4	+15
SHO				A	A	21 02 39.9	
	670nm,0.4s						
SHO				A	A	21 02 39.9	
	510nm,0.4s						
AKK	Akkeshi	1.29	280	*e*P	Pn	21 02 10.2	0.0
AKK				*e*S	Sb	21 02 25.9	-1.1
YUK	Yuzh-Kuril'sk	1.34	337	*e*P	Pn	21 02 10.8	0.0
YUK				AMB	AMB	21 02 14.8	
	190nm,0.3s						
YUK				*e*S	Sn	21 02 26.7	-1.6
YUK				A	A	21 02 32.7	
	260nm,0.3s						
YUK				A	A	21 02 32.7	
	790nm,0.3s						
JAK	Akkeshi	1.39	279	P	Pb	21 02 12.2	-0.2
JAK				*e*S	Sb	21 02 30.2	+0.2
JNSB	Nemuroshibetsu	1.50	311	P	Pn	21 02 13.7	+0.6
JNSB				*e*S	Sn	21 02 32.5	+0.1
MJAR	Matsushiro Arr	8.98	229	Pn	Pn	21 04 02.9	+7.1
	baz=58,slow=19,SNR=2.0						
	0.3nm,0.5s						
SONM	Songino Array	28.46	294	P	P	21 07 41.4	+0.4
	1.0nm,0.8s,baz=90,slow=8.5,SNR=5.4						
	1.0nm,0.8s						
H11N2	WAKE ISLAND Hy	28.68	137	T	T	21 38 42.1	
	baz=328,slow=75,SNR=9.2						
H11N1	WAKE ISLAND Hy	28.69	137	T	T	21 38 46.9	
	baz=328,slow=75,SNR=7.1						
H11N3	WAKE ISLAND Hy	28.69	137	T	T	21 38 45.8	
	baz=328,slow=75,SNR=8.8						
H11S1	WAKE ISLAND Hy	29.62	139	T	T	21 39 48.8	
	baz=330,slow=76,SNR=11						
H11S3	WAKE ISLAND Hy	29.62	139	T	T	21 39 49.5	
	baz=330,slow=76,SNR=9.5						
H11S2	WAKE ISLAND Hy	29.63	139	T	T	21 39 50.2	
	baz=330,slow=76,SNR=7.4						
MKAR	Makanchi Array	44.66	298	P	P	21 09 58.0	-0.6
	0.6nm,0.7s,baz=69,slow=7.9,SNR=5.1						
	0.6nm,0.7s						
KURBB	Kurchatov Arra	45.80	305	P	P	21 10 07.6	+0.1
	0.2nm,0.6s,baz=80,slow=8.4,SNR=2.4						
	0.2nm,0.6s						

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*OSPL **15** 21:31:07.1±0.9, 17°.80N×70°.47W, h5^{km}±19^{km}, ML2.0,*
Presumed earthquake
*SDD **15** 21:31:08.3±2.0, 17°.96N×70°.59W, h25^{km}±10^{km}, MD2.7,*
ML2.1, MW2.7, Presumed earthquake
ISC 15 21:31:04.3±2.8**, 17°.6N**±0°.1×**70°.38W**±0°.09**, h30**^{km}±14^{km}**,**
n10, σ1^{s}.23/17**, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BANI	BANI	0.78	2	*i* P	Pb	21 31 19.5	0.0
BANI				IAML		21 31 35.6	
	comp=N,78nm,0.2s						
LOVI	El Cajuil, Ovi	0.96	282	*i* P	Pb	21 31 23.1	+0.6
LOVI				*e*S	Sb	21 31 33.6	-1.1
LOVI				IAML		21 31 35.9	
	comp=Z,103nm,0.2s						
PODR	Polo	1.02	303	*i* P	Pb	21 31 23.5	-0.1
PODR				*i* S	Sb	21 31 34.9	-1.9
ABDR	Alto Bandera	1.22	349	*i* P	Pb	21 31 26.2	-0.9
ABDR				*i* S	Sn	21 31 40.3	-1.1
ABDR				IAML		21 31 41.2	
	comp=N,83nm,0.2s						
LODU1	El Espartillar	1.28	306	*i* P	Pn	21 31 26.5	+0.3
LODU1				IAML		21 31 44.8	
	comp=Z,34nm,4.6s						
LONE3	El Aguacate, B	1.43	314	*i* P	Pn	21 31 29.2	+0.8
LONE3				*e*S	Sn	21 31 45.8	-0.4
LONE3				IAML		21 31 48.3	
	comp=Z,15nm,1.6s						
SDDR	Presa de Saban	1.62	328	*i* P	Pn	21 31 31.6	+0.7
SDDR				*e*S	Sn	21 31 49.5	-1.3
SDDR	Presa de Saban	1.62	328	*i* P	Pb	21 31 34.2	+0.6
SDDR				*i* S	Sn	21 31 49.9	-0.9
SDDR				IAML		21 31 57.9	
	comp=N,9.2nm,0.4s						
NADR	Nagua	1.81	16	*i* P	Pb	21 31 36.7	0.0
NADR				IAML		21 32 00.4	
	comp=N,128nm,0.9s						
REDR	Restauracion	1.82	328	*i* P	Pb	21 31 38.1	+1.0
REDR				*i* S	Sb	21 32 02.2	+2.6
REDR				IAML		21 32 35.1	
	comp=N,24nm,2.8s						

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*IDC **15** 22:08:09.2±0.8, 11°.58N×86°.04W, h0^{km}, mb3.9/5,*
mbtmp3.9/5, ML1.7/1, MS3.5/8, Error ellipse: s-maj=91.1km
s-min=11.6km az=49.0
*NEIC **15** 22:08:09.6±1.5, 10°.89N±0°.02×86°.64W±0°.06, h10^{km}±2^{km},*
mb4.5/47, Error ellipse: s-maj=9.6km s-min=3.7km
az=283.0
*CATAC **15** 22:08:10.4±0.5, 11°N±3°×8°7W±°, h20^{km}, M4.2/24,*
MLv4.2/24, Error ellipse: s-maj=7.8km s-min=3.9km
az=47.8, confirmed
*SNET **15** 22:08:16.7±2.6, 11°.12N×87°.04W, h64^{km}, ML4.2,*
Presumed earthquake
ISC 15 22:08:09.9±1.6**, 10°.85N**±0°.04×**86°.72W**±0°.04**, h18**^{km}±8^{km}**,**
n118, σ1^{s}.05/125**, mb4.4**/26**, MS3.5**/7**, 6C-1D, Off coast of**
Costa Rica

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAPN	Al SSO del Vol	1.22	57	⇓P	Pb	22 08 33.0	+0.5
CARN	Rivas	1.22	74	Pn	Pn	22 08 32.2	+0.1
CARN	Rivas	1.22	74	⇑P	Pn	22 08 32.5	+0.4
CARN				S	Sb	22 08 48.2	+0.2
SABN	Sabanita	1.22	26	P	Pb	22 08 32.7	+0.1
NANN	Nandasmo	1.23	28	⇑P	Pg	22 08 33.7	0.0
MASN	Masaya	1.26	26	P	Pb	22 08 33.0	-0.1
MORN	Al O del Volca	1.26	57	⇑P	Pn	22 08 32.9	+0.3
MAS3	Al N del Volca	1.28	25	P	Pn	22 08 33.1	+0.2
COPN	Copaltepe	1.32	5	⇑P	Pn	22 08 33.6	0.0
UNAN	Cigeo UNAN	1.32	19	⇑P	Pb	22 08 34.0	-0.3
UNAN				S	Sg	22 08 52.0	-0.9
USIM	UNAN	1.33	19	Pn	Pn	22 08 31.5	-2.2
JUD3	Juan Diaz 3	1.35	120	Pn	Pn	22 08 33.1	-0.9
TISN	Laguna Tiscapa	1.35	19	P	Pn	22 08 33.6	-0.4
MGAN	Managua	1.36	20	Pn	Pn	22 08 33.9	-0.3
MGAN	Managua	1.36	20	P	Pn	22 08 34.2	0.0
MGAN				S	Sb	22 08 52.7	+0.5
APQ2	Apoyeque	1.39	16	P	Pn	22 08 34.3	-0.2
APQ2				S	Sn	22 08 52.5	+0.1
WILN	Americas 2	1.40	22	P	Pn	22 08 34.9	+0.3
WILN				S	Sb	22 08 53.5	+0.4
MOMN	Momotombo	1.56	6	P	Pn	22 08 37.3	+0.5
MOMN				S	Sb	22 08 57.5	-0.1
MOM2	El Cardon	1.59	8	P	Pn	22 08 37.3	+0.1
MOM2				S	Sb	22 08 58.3	-0.3
CNGN	Cerro Negro	1.64	1	P	Pn	22 08 37.8	-0.1
ILCN	San Idelfonso	1.71	1	P	Pn	22 08 38.6	-0.4
ILCN				S	Sn	22 09 00.8	+0.3
JTS	Las Juntas de	1.82	108	Pg	Pn	22 08 39.7	-0.7
	11nm,0.3s,baz=319,slow=19,SNR=18						
JTS				Lg	Lg	22 09 03.0	
	93nm,0.3s,baz=271,slow=23,SNR=14						
JTS	Las Juntas de	1.82	108	Pn	Pn	22 08 40.1	-0.3
JTS	Las Juntas de	1.82	108	P	Pn	22 08 40.7	+0.2
JTS				S	Sn	22 09 02.4	-0.8
CRIN	San Cristobal	1.86	350	Pn	Pn	22 08 40.1	-0.9
CRIN	San Cristobal	1.86	350	P	Pn	22 08 41.7	+0.6
CRIN				S	Sn	22 09 04.9	+0.6
ACON	Acoyapa	1.88	54	P	Pn	22 08 41.2	0.0
BOAB	BOACO BROADBAN	1.89	33	Pn	Pn	22 08 41.0	-0.4
BOAB	BOACO BROADBAN	1.89	33	⇑P	Pn	22 08 41.5	+0.1
CSGN	Cosiguina Volc	2.26	339	P	Pn	22 08 47.0	+0.4
CSGN				S	Sn	22 09 14.4	+0.2
CNCH	Conchagua	2.64	336	*e*P	Pn	22 08 52.2	+0.4
CNCH				*e*S	Sn	22 09 22.6	-0.9
INTP	Intipuca	2.67	331	*e*P	Pn	22 08 51.0	-1.1
LCND	La Caada	2.69	335	*e*P	Pn	22 08 52.5	+0.1
LCND				*e*S	Sn	22 09 23.4	-1.3

JUCU	Jucuar¡n	2.81	328	*e*P	Pn	22 08 53.2	-0.9
LCR2	La Lucha 2	2.89	112	Pn	Pn	22 08 56.8	+1.4
RAFA	San Farael, Vo	3.00	107	Pn	Pn	22 08 55.4	-1.4
PACA	Pacayal	3.04	329	*e*P	Pn	22 08 57.3	0.0
ALJI	Alcalda de J	3.05	324	*e*S	Sn	22 09 30.9	-2.5
TECA	Tecapa	3.15	327	*e*P	Pn	22 08 58.5	-0.3
TGUH	Tegucigalpa,Un	3.23	350	Pn	Pn	22 09 00.8	+0.9
SIUN	Universidad Ur	3.42	34	Pn	Pn	22 09 01.9	-0.5
COEG	Centro de Oper	3.47	323	*e*P	Pn	22 09 03.4	+0.3
LFRS	El Faro	3.58	320	*e*P	Pn	22 09 04.7	0.0
CEVE	Cerro Verde	4.10	316	*e*P	Pn	22 09 12.4	+0.4
PIRO	Carate, Puerto	4.13	126	Pn	Pn	22 09 12.1	0.0
ESQI	Esquipulas	4.49	325	Pn	Pn	22 09 19.1	+2.0
BILN	Bilwi Airport	4.55	45	Pn	Pn	22 09 18.9	+0.9
APG	El Apazote	5.51	319	Pn	Pn	22 09 33.7	+2.3
	baz=82,slow=14,SNR=3.5						
CMIG	Matias Romero	10.06	309	Pn	Pn	22 10 35.0	+1.3
	0.6nm,0.3s,baz=113,slow=11,SNR=9.0						
TLIG	Tlapa	13.28	301	Pn	Pn	22 11 19.7	+1.9
ATAH	Atahualpa	19.70	155	LR	LR	22 19 21.8	
	comp=Z,131nm,18.4s,baz=334,slow=34						
MLPR	Magueyes Islan	20.32	67	P	P	22 12 44.4	-0.8
HKT	Hockley	20.81	337	P	P	22 12 50.4	0.0
152A	Waverly Hall	21.79	5	P	P	22 13 01.9	+1.0
152A				IAmb	IAmb	22 13 05.5	
	comp=Z,17nm,0.9s						
LRAL	Lakeview Retre	22.08	359	P	P	22 13 05.1	+1.0
GOGA	Godfrey	22.65	7	P	P	22 13 10.4	+0.2
Y49A	Blount Mountai	22.90	1	P	P	22 13 12.6	-0.3
Y49A				IAmb	IAmb	22 13 13.8	
	comp=Z,9.7nm,0.7s						
BRDY	Brady	23.30	333	P	P	22 13 16.6	-0.4
FW13	Cleburne	23.57	337	P	P	22 13 19.2	-0.4
FW13				IAmb	IAmb	22 13 45.0	
	comp=Z,11nm,0.7s						
HODGE	Hodges	23.62	9	P	P	22 13 20.2	+0.1
HODGE				IAmb	IAmb	22 13 45.1	
	comp=Z,17nm,1.4s						
JSC	Jenkinsville	23.85	11	P	P	22 13 22.5	+0.3
JSC				IAmb	IAmb	22 13 23.1	
	comp=Z,14nm,0.7s						
FW06	Azle	24.17	337	P	P	22 13 26.2	+0.9
TXAR	Lajitas Array	24.26	322	P	P	22 13 27.2	+0.9
	comp=Z,3.5nm,0.8s,baz=137,slow=9.8,SNR=30						
TXAR				PcP	PcP	22 17 09.2	+2.8
	comp=Z,0.8nm,0.8s,baz=120,slow=2.8,SNR=6.2						
	comp=Z,3.5nm,0.8s						
TXAR	Lajitas Array	24.26	322	P	P	22 13 26.6	+0.3
TX31	Lajitas Ar. Si	24.26	322	P	P	22 13 26.6	+0.3
W50A	Signal Mountai	24.27	3	P	P	22 13 25.3	-0.9
W50A				IAmb	IAmb	22 13 37.0	
	comp=Z,18nm,1.3s						
PLPT	Palo Pinto	24.32	336	P	P	22 13 26.9	+0.2
PLPT				IAmb	IAmb	22 13 28.3	
	comp=Z,14nm,0.8s						
MIAR	Mount Ida	24.40	346	P	P	22 13 27.3	-0.1
CPCT	Cooper Cave	24.57	4	P	P	22 13 28.6	-0.3
CPCT				IAmb	IAmb	22 13 31.8	
	comp=Z,9.2nm,0.7s						
TKL	Tuckaleechee C	24.84	6	P	P	22 13 31.2	-0.2
TKL				IAmb	IAmb	22 13 49.2	
	comp=Z,27nm,1.5s						
WHAR	Wooly Hollow	24.85	349	P	P	22 13 30.6	-0.9
WHAR				IAmb	IAmb	22 13 31.0	
	comp=Z,8.8nm,0.9s						
LOOK	Love County	24.94	339	P	P	22 13 32.6	+0.3
V53A	Saluda	24.96	8	P	P	22 13 32.3	-0.2
V53A				IAmb	IAmb	22 14 01.9	
	comp=Z,13nm,1.3s						
CLTN	Cedars of Leba	25.13	1	P	P	22 13 34.3	+0.3
CLTN				IAmb	IAmb	22 13 50.6	
	comp=Z,10.0nm,1.3s						
MNHN	Monahans	25.23	326	P	P	22 13 35.0	0.0
V58A	Windy Hill, Pi	25.77	14	P	P	22 13 39.0	-0.8
V58A				IAmb	IAmb	22 13 40.6	
	comp=Z,11nm,0.8s						
129A	Stewart Farms,	25.77	330	P	P	22 13 39.1	-0.8
128A	Castleberry Fa	26.08	329	P	P	22 13 42.1	-0.7
WMOK	Wichita Mounta	26.20	337	P	P	22 13 44.9	+1.1
WMOK				IAmb	IAmb	22 13 46.7	
	comp=Z,13nm,0.9s						
SMWD	Samnorwood	27.10	335	P	P	22 13 50.7	-1.2
SMWD				IAmb	IAmb	22 13 56.2	
	comp=Z,9.3nm,0.7s						
MSTX	Muleshoe	27.30	330	P	P	22 13 53.8	0.0
MSTX				IAmb	IAmb	22 13 57.1	
	comp=Z,6.2nm,0.9s						
S39A	Bolivar	27.37	349	P	P	22 13 52.5	-1.8
S39A				IAmb	IAmb	22 13 54.3	
	comp=Z,6.7nm,0.9s						
R55A	Marlinton	27.95	11	P	P	22 13 59.6	+0.1
Q52A	Bidwell	28.27	7	P	P	22 14 01.2	-1.0
Q54A	Coxs Mills	28.50	10	P	P	22 14 03.8	-0.5
Q56A	Snyder Ridge,	28.86	12	P	P	22 14 07.7	+0.2
Q56A				IAmb	IAmb	22 14 38.9	
	comp=Z,9.7nm,1.0s						
P52A	Corning	28.95	7	P	P	22 14 07.1	-1.2
O52A	Adamsville	29.46	8	P	P	22 14 11.8	-1.1
O53A	New Philadelph	29.68	9	P	P	22 14 13.7	-1.1
L42A	Oliver, Polo	31.14	356	P	P	22 14 25.8	-1.9
M57A	Sunshine Farm,	31.52	14	P	P	22 14 30.6	-0.4
M57A				IAmb	IAmb	22 14 31.5	
	comp=Z,8.9nm,0.9s						
LPAZ	La Paz	32.64	145	LR	LR	22 30 13.8	
	comp=Z,55nm,19.6s,baz=312,slow=40						
PV03	Paradox Valley	33.72	328	P	P	22 14 51.1	+0.5
PV03				IAmb	IAmb	22 14 53.1	
	comp=Z,3.0nm,0.7s						
PV18	Skein Mesa, Pa	33.74	328	P	P	22 14 51.2	+0.4
P17A	Butcher Ranch,	35.61	327	P	P	22 15 07.8	+0.9
P17A				IAmb	IAmb	22 15 10.0	
	comp=Z,4.6nm,0.9s						
PDAR	Pinedale Array	37.51	332	P	P	22 15 22.2	-0.9
	comp=Z,0.8nm,0.7s,baz=129,slow=9.8,SNR=7.5						
	comp=Z,0.8nm,0.7s						
PDAR	Pinedale Array	37.51	332	P	P	22 15 22.8	-0.3
NVAR	Mina Array Bea	39.37	320	P	P	22 15 39.3	+0.4
	comp=Z,0.7nm,0.7s,baz=135,slow=8.7,SNR=4.8						
NVAR				PcP	PcP	22 17 50.4	+3.3
	comp=Z,1.3nm,0.7s,baz=95,slow=3.6,SNR=5.8						
	comp=Z,0.7nm,0.7s						
NVAR	Mina Array Bea	39.37	320	P	P	22 15 38.3	-0.5
BOZ	Bozeman (W)	40.65	333	P	P	22 15 49.5	+0.3
LYMT	Lyon Mountain	42.00	334	P	P	22 16 01.0	+0.5
YBH	Yreka Blue Hor	44.03	321	LR	LR	22 36 18.2	
	comp=Z,60nm,18.1s,baz=168,slow=38						
BDFB	Brasilia	46.49	124	P	P	22 16 37.5	+0.8
	comp=Z,3.4nm,0.7s,baz=283,slow=8.2,SNR=4.6						
	comp=Z,3.4nm,0.7s						
SCHQ	Schefferville	46.60	16	LR	LR	22 35 24.3	
	comp=Z,104nm,18.7s,baz=256,slow=36						
DLBC	Dease Lake	57.65	335	LR	LR	22 47 46.6	
	comp=Z,26nm,19.4s,baz=86,slow=42						
SFJD	Kangerlussuaq	61.05	15	LR	LR	22 44 54.8	
	comp=Z,54nm,19.4s,baz=207,slow=37						
BCAR	Beaver Creek A	64.99	336	P	P	22 18 48.7	-0.1
ILAR	Eielson Array	67.76	336	P	P	22 19 05.0	-1.3
	comp=Z,1.1nm,1.1s,baz=86,slow=3.8,SNR=4.7						
	comp=Z,1.1nm,1.1s						
ILAR	Eielson Array	67.76	336	P	P	22 19 05.7	-0.7
NOA	NORSAR Array B	84.41	29	LR	LR	22 57 47.3	
	comp=Z,9.8nm,18.1s,baz=300,slow=36						
HFS	Hagfors	85.81	30	LR	LR	22 56 09.9	
	comp=Z,18nm,19.8s,baz=60,slow=34						
KSRS	Korea Array	122.00	328	PKP	PKiKP	22 27 05.7	+1.7
	comp=Z,1.3nm,0.6s,baz=29,slow=1.8,SNR=5.8						
HHC	Hu-ho-hao-te	125.85	343	*e*P	PKPdf	22 27 06.3	-5.0
NJ2	Nanjing	130.82	331	*e*P	PKiKP	22 27 21.8	+0.1
NJ2				pmax	pmax		
	comp=Z,8.0nm,0.6s						
LZH	Lanzhou	132.26	348	*e*P	PKPdf	22 27 20.0	-3.7
LZH				pP	pPKPdf	22 27 27.6	-2.0
LZH				pmax	pmax		
	comp=Z,18nm,1.3s						
WRA	Warramunga Arr	139.49	252	PKP	PKiKP	22 27 39.6	-0.1
	comp=Z,0.3nm,0.9s,baz=94,slow=2.7,SNR=1.7						
CMAR	Chiang Mai Arr	150.34	349	PKPbc	PKiKP	22 28 02.1	+0.1
	comp=Z,0.4nm,0.3s,baz=322,slow=2.6,SNR=7.8						
CMAR	Chiang Mai Arr	150.34	349		PKPdf	22 27 55.4	-0.7

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*AEIC **15** 22:31:45.7±1.6, 66.°980N±0.°009×157.°62W±0.°08, h10^{km}±3^{km}, Error ellipse: s-maj=4.5km s-min=1.2km az=94.0*

*NEIC **15** 22:31:46, 67.°00N×157.°48W, h10^{km}*

NEIC 15 22:31:45.6±1.5**, 66.°98N**±0.°02×**157.°62W**±0.°07**, h10**^{km}±1^{km}, **ML3.6**/118, **Mwr3.5**/30, **ML3.4**(AEIC), **Error ellipse: s-maj=4.6km s-min=3.0km az=87.0, Moment Tensor Solution. Moment tensor: Scale** 10^{14}**Nm;** M$_{rr}$0.40; M$_{\theta\theta}$-1.17; M$_{\phi\phi}$0.77; M$_{r\theta}$-0.75; M$_{\theta\phi}$-2.00; M$_{\phi r}$0.13; **Fault plane solution:** M$_0$2.37000×10^{14} **NP1:**ϕ_s281.88000°, δ86.25000°, λ160.24000°. **NP2:**ϕ_s13.23000°, δ70.29000°, λ3.99000°. **Principal axes:** T 2.1708, Plg17.0000°, Azm236.0000°; N 0.3578, Plg70.0000°, Azm92.0000°; P -2.5286, Plg11.0000°, Azm329.0000°; **Northern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
F19K	Shaleruckik Mo	0.16	203	Pg	Pg	22 31 50.2	+1.1
F19K				Sg	Sg	22 31 53.0	+1.5
F19K				IAML		22 31 53.3	
	comp=N,14μm,0.4s						
E19K	Redstone River	0.51	17	Pg	Pg	22 31 54.7	-0.7
E19K				Sg	Sg	22 32 00.6	-1.5
F20K	Avaraart Lake	0.75	84		Pg	22 31 59.2	-0.8
G19K	Purcell Mounta	0.86	165	Pg	Pg	22 32 02.3	0.0
G19K				Sg	Sb	22 32 14.3	0.0
F18K	Selawik	0.89	246		Pg	22 32 02.7	-0.1
F18K					Sb	22 32 16.0	+1.0
G18K	Tagagawik	1.16	201		Pb	22 32 07.3	-0.5
G18K				Sg	Sb	22 32 22.3	-0.6
G18K				IAML		22 32 25.9	
	comp=E,1μm,0.4s						
G18K				IAML		22 32 26.4	
	comp=N,998nm,0.6s						
E18K	Tukpahlearik C	1.25	292		Pn	22 32 09.0	0.0
E18K					Sn	22 32 26.1	+0.2
E18K	Tukpahlearik C	1.25	292	IAML		22 32 28.4	
	comp=N,1μm,0.7s						
E20K	Nigu River	1.40	22		Pn	22 32 11.0	-0.2
D19K	Kuna River	1.54	353	Pn	Pb	22 32 14.0	-0.2
D19K	Kuna River	1.54	353		Sb	22 32 34.0	+0.4
D19K	Kuna River	1.54	353	IAML		22 32 37.0	
	comp=E,810nm,0.8s						
D19K				IAML		22 32 38.9	
	comp=N,765nm,0.7s						
F17K	Baldwin Pennin	1.54	251	IAML		22 32 37.3	
	comp=E,1μm,0.6s						
F17K	Baldwin Pennin	1.54	251		Pn	22 32 13.0	-0.1
F17K					Pb	22 32 13.3	-0.9
F21K	Alatna River	1.64	79	Pn	Pn	22 32 14.1	-0.4
F21K				IAML		22 32 39.1	
	comp=E,966nm,0.7s						
F21K				IAML		22 32 39.4	
	comp=N,902nm,0.7s						
F21K	Alatna River	1.64	79		Sb	22 32 36.7	+0.2
E17K	Hotham Inlet	1.65	276		Pn	22 32 14.8	+0.2
G21K	Allakaket	1.70	104	Pn	Pn	22 32 15.1	-0.2
G21K	Allakaket	1.70	104		Sb	22 32 38.1	-0.1
G21K	Allakaket	1.70	104	IAML		22 32 40.5	
	comp=E,1μm,0.7s						
G21K				IAML		22 32 40.8	
	comp=N,1μm,0.7s						
D20K	Etivluk River	1.79	12	Pn	Pb	22 32 17.5	-0.9
IM01	Indian Mountai	1.85	120		Pn	22 32 17.0	-0.3
H18K	Honhosa River	1.86	190	Pn	Pn	22 32 17.2	-0.3
H18K	Honhosa River	1.86	190		Sb	22 32 42.0	-0.9
H18K	Honhosa River	1.86	190	IAML		22 32 46.8	
	comp=N,1μm,0.6s						
H18K				IAML		22 32 50.5	
	comp=E,777nm,1.0s						
H20K	Anotleneega Mo	1.86	142		Pn	22 32 17.3	-0.2
F22K	John River	2.18	73		Pn	22 32 22.6	+0.6
H17K	Granite Mounta	2.25	206	Pn	Pn	22 32 22.6	-0.3
H17K				IAML		22 32 57.8	
	comp=N,531nm,0.6s						
H17K				IAML		22 33 01.4	
	comp=E,532nm,0.6s						
C19K	Lookout Ridge	2.26	342	Pn	Pn	22 32 23.7	+0.6
GCSA	Galena City Sc	2.26	172		Pn	22 32 24.1	+1.1
RDOG	Red Dog Mine	2.30	300	Pn	Pn	22 32 25.1	+1.5
H21K	Melozitna Rive	2.35	122	Pn	Pn	22 32 24.0	-0.3
H21K				IAML		22 33 00.9	
	comp=E,255nm,0.4s						
H21K				IAML		22 33 01.0	
	comp=N,439nm,0.7s						
C21K	Knifeblade Rid	2.44	25		Pn	22 32 25.9	+0.5
G16K	Koyuk River	2.50	233		Pn	22 32 25.8	-0.4
G16K	Koyuk River	2.50	233	IAML		22 33 04.9	
	comp=N,243nm,0.7s						
G16K				IAML		22 33 09.1	
	comp=E,220nm,0.7s						
I20K	Naaghedeneel	2.54	148	Pn	Pn	22 32 27.2	+0.4
D22K	Ayikyak River	2.67	42	Pn	Pn	22 32 29.8	+1.2
H22K	Ishtalitna Cre	2.73	111	Pn	Pn	22 32 29.9	+0.4
H22K				IAML		22 33 13.3	
	comp=N,246nm,0.9s						
H22K				IAML		22 33 13.4	
	comp=E,204nm,0.8s						
PS05	TAPS Pump Stn5	2.75	90		Pn	22 32 30.2	+0.5
PS05					Pb	22 32 31.0	-3.8
B18K	Kokolik River	2.86	329		Pn	22 32 31.7	+0.5
COLD	Coldfoot	2.91	82	Pn	Pn	22 32 32.2	+0.2
COLD				IAML		22 33 20.7	
	comp=N,204nm,0.6s						
COLD				IAML		22 33 25.4	
	comp=E,211nm,0.5s						
I21K	Tanana	2.92	126	Pn	Pn	22 32 32.0	-0.1
G23K	Bananza Creek	3.01	92	Pn	Pn	22 32 34.0	+0.6
G23K				IAML		22 33 24.3	
	comp=N,247nm,0.9s						
G23K				IAML		22 33 25.4	
	comp=E,159nm,0.6s						
B20K	Meade River	3.05	3		Pn	22 32 34.4	+0.6
F15K	North Star Dit	3.11	249	Pn	Pn	22 32 35.1	+0.4
J19K	Poorman	3.11	164	Pn	Pn	22 32 34.9	+0.2
J20K	Nowinta River	3.16	151	Pn	Pn	22 32 36.5	+1.1
C16K	Lisburne Hills	3.23	297	Pn	Pn	22 32 37.3	+1.0
C16K				IAML		22 33 36.0	
	comp=N,119nm,1.2s						
C16K				IAML		22 33 36.4	
	comp=E,141nm,0.8s						
E23K	Chandalar	3.26	67	Pn	Pn	22 32 37.6	+0.8
E23K				IAML		22 33 34.0	
	comp=N,191nm,1.1s						
E23K				IAML		22 33 37.3	
	comp=E,183nm,0.8s						
D23K	Nanushuk River	3.29	49	IAML		22 33 31.9	
	comp=N,198nm,0.8s						
D23K	Nanushuk River	3.29	49		Pn	22 32 37.5	+0.4
D23K					Pb	22 32 37.8	-6.2
G15K	Niukluk	3.29	236		Pn	22 32 37.4	+0.2
I17K	Unalakleet	3.36	204	Pn	Pn	22 32 38.6	+0.6
MLY	Manley	3.42	122	Pn	Pn	22 32 38.6	-0.5
H23K	Yukon River	3.45	106	IAML		22 33 32.7	
	comp=E,135nm,1.1s						
H23K				IAML		22 33 33.4	
	comp=N,171nm,1.4s						
H23K	Yukon River	3.45	106		Pn	22 32 39.0	-0.4
H23K					Pb	22 32 39.6	-7.1
PS04	TAPS Pump Stn4	3.47	62		Pn	22 32 39.9	+0.3
TOLK	Toolik Lake Re	3.48	58		Pn	22 32 40.1	+0.3
J18K	Innoko River	3.55	173	Pn	Pn	22 32 40.7	0.0
J17K	VABM Dome	3.65	190	Pn	Pn	22 32 42.9	+0.8
J17K				IAML		22 33 45.6	
	comp=N,131nm,1.1s						
J17K				IAML		22 33 48.4	
	comp=E,146nm,0.7s						
B22K	Teshekpuk Lake	3.71	23	Pn	Pn	22 32 44.2	+1.3
CHUM	Lake Minchumin	3.82	142		Pn	22 32 45.1	+0.7
CHUM					Pb	22 32 45.7	-7.2
F24K	Squaw Lake	3.82	77	Pn	Pn	22 32 45.6	+1.1
F24K				IAML		22 33 51.9	
	comp=E,132nm,0.6s						
F24K				IAML		22 33 53.6	
	comp=N,118nm,1.0s						
I23K	Minto, Yukon-K	3.83	115	Pn	Pn	22 32 45.0	+0.4
I23K				IAML		22 33 53.2	
	comp=E,99nm,1.2s						
I23K				IAML		22 33 56.0	
	comp=N,110nm,1.3s						
F14K	Arctic Creek	3.84	251		Pn	22 32 44.6	0.0
F14K					Pb	22 32 44.8	-8.5
C23K	Itkillik River	3.87	39	Pn	Pn	22 32 47.1	+2.1
C23K				IAML		22 33 58.5	
	comp=N,131nm,0.9s						
J16K	Anvik River	3.92	200	Pn	Pn	22 32 46.4	+0.6
K20K	Telida	3.93	156	Pn	Pn	22 32 46.8	+0.8
BPAW	Bear Paw Mtn.	3.99	133		Pn	22 32 47.2	+0.4
G24K	Hadweenzic Riv	4.02	89		Pn	22 32 46.2	-0.9
H24K	Noodor Dome	4.08	102		Pn	22 32 47.2	-0.9
H24K	Noodor Dome	4.08	102	IAML		22 33 58.8	
	comp=E,85nm,0.9s						
H24K				IAML		22 33 59.2	
	comp=N,87nm,1.3s						
NEA2	Nenana	4.26	120		Pn	22 32 50.5	+0.1
NEA2	Nenana	4.26	120	IAML		22 34 08.1	
	comp=E,59nm,1.2s						
K17K	Iditarod	4.29	184	Pn	Pn	22 32 51.4	+0.5
K17K				IAML		22 34 15.7	
	comp=N,71nm,1.3s						
K17K				IAML		22 34 18.3	
	comp=E,78nm,1.1s						
A21K	Barrow	4.38	4		Pn	22 32 51.8	-0.3
BWN	Browne	4.40	126	Pn	Pn	22 32 52.2	-0.3
KTH	Kantishna Hill	4.44	138	Pn	Pn	22 32 53.7	+0.6
KTH				IAML		22 34 12.5	
	comp=N,61nm,1.0s						
KTH				IAML		22 34 26.7	
	comp=E,49nm,1.2s						
POKR	Poker Plat Res	4.55	109		Pn	22 32 54.4	-0.1
WRH	Wood River Hil	4.67	118	Pn	Pn	22 32 55.9	-0.1
F25K	Christian Rive	4.68	77		Pn	22 32 56.0	-0.3
F25K	Christian Rive	4.68	77	IAML		22 34 26.1	
	comp=N,58nm,1.0s						
F25K				IAML		22 34 28.6	
	comp=E,63nm,0.8s						
TRF	Thorofare Moun	4.70	136	Pn	Pn	22 32 56.6	0.0
TRF				IAML		22 34 21.0	
	comp=E,61nm,1.5s						
TRF				IAML		22 34 25.3	
	comp=N,39nm,1.4s						
E25K	Arctic Village	4.76	71	Pn	Pn	22 32 58.2	+0.8
E25K				IAML		22 34 28.4	
	comp=N,58nm,1.1s						
E25K				IAML		22 34 29.0	
	comp=E,66nm,1.1s						
L18K	Granite Mounta	4.79	175	Pn	Pn	22 32 58.9	+1.1
L18K				IAML		22 34 22.9	
	comp=N,35nm,1.0s						
L18K				IAML		22 34 24.4	
	comp=E,37nm,1.2s						
L17K	Donlin	4.87	184		Pn	22 32 59.2	+0.3
L17K					Pb	22 32 59.9	-11
MCK	McKinley	4.88	128		Pn	22 32 59.3	+0.3
ILAR	Eielson Array	4.93	112	Pn	Pn	22 32 59.5	-0.2
L19K	White Mountain	4.96	165	Pn	Pn	22 33 00.9	+0.8
L19K				IAML		22 34 35.5	
	comp=N,32nm,1.3s						
L19K				IAML		22 34 44.6	
	comp=E,33nm,1.5s						
K15K	Wolf Creek Mou	4.99	201	Pn	Pn	22 33 01.8	+1.2
K15K				IAML		22 34 26.8	
	comp=E,44nm,0.9s						
K15K				IAML		22 34 31.5	
	comp=N,55nm,1.0s						
BMAR	Burnt Mountain	5.09	79	Pn	Pn	22 33 02.1	+0.2
HDA	Harding Lake	5.11	115	Pn	Pn	22 33 02.0	-0.1
HDA				IAML		22 34 31.6	
	comp=E,30nm,1.0s						
HDA				IAML		22 34 33.7	
	comp=N,37nm,0.8s						
BM01	Burnt Mountain	5.11	79		Pn	22 33 01.4	-0.8
F26K	Sheenjek River	5.26	76		Pn	22 33 03.6	-0.7
F26K	Sheenjek River	5.26	76	IAML		22 34 42.6	
	comp=E,30nm,0.8s						
L16K	Owhat River	5.35	190	Pn	Pn	22 33 05.6	+0.2
L16K				IAML		22 34 36.1	
	comp=E,26nm,1.1s						
L16K				IAML		22 34 37.7	
	comp=N,28nm,1.4s						
M20K	Styx River	5.47	157		Pn	22 33 08.5	+1.3
M18K	Stony River	5.56	171		Pn	22 33 08.7	+0.4
J25K	Salcha River,	5.57	110		Pn	22 33 08.3	-0.2
WAT7	Susitna Watana	5.59	134		Pn	22 33 09.4	+0.6
SKT	Skwentna	5.66	150	Pn	Pn	22 33 11.2	+1.4
WAT1	Susitna Watana	5.67	133		Pn	22 33 10.8	+0.9
C27K	Jago River	5.80	56	Pn	Pn	22 33 12.3	+0.8
DHY	Denali Highway	5.84	127		Pn	22 33 13.2	+0.9
M16K	Timber Creek	6.01	186	Pn	Pn	22 33 14.8	+0.3
E27K	Coleen River	6.25	71	Pn	Pn	22 33 18.8	+1.0
N19K	Bonanza Creek	6.34	166		Pn	22 33 20.2	+1.1
N18K	Kilae Creek	6.37	172		Pn	22 33 20.6	+1.1
N18K					Pb	22 33 20.8	-16
SCRK	Sand Creek	6.42	112	Pn	Pn	22 33 20.1	-0.2
N17K	Nushagak Hills	6.48	178	Pn	Pn	22 33 22.4	+1.5
N16K	Nishlik Lake	6.55	185		Pn	22 33 22.6	+0.7
I27K	Kandik River	6.60	95	Pn	Pn	22 33 23.0	+0.4
D27M	Malcolm River	6.62	62		Pn	22 33 23.6	+0.6
F28M	Old Crow	6.89	77	Pn	Pn	22 33 25.4	-1.2
O16K	Kokwok River B	7.42	182	Pn	Pn	22 33 33.9	+0.1
E29M	Blow River	7.63	70	Pn	Pn	22 33 37.8	+1.1
I30M	Mount Dempster	8.79	92	Pn	Pn	22 33 51.8	-0.8
G31M	Satah River	9.14	80	Pn	Pn	22 33 55.7	-1.6

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*SJA **15** 22:56:25.2±0.6, 33.°04S×70.°99W, h72^{km}±3^{km}, ML3.4, MW3.5*

*GUC **15** 22:56:26.6±0.8, 33.°03S×70.°89W, h77^{km}±2^{km}, ML3.6*

ISC 15 22:56:27.4±1.3**, 33.°04S**±0.°03×**70.°93W**±0.°04**, h67**^{km}±6^{km}**, n34,** σ**0.**^{s}**95**/67**, 4C-8D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ROCH	El Roble	0.10	317	⇓*i*P	Pn	22 56 37.5	-0.1
ROCH				*e*S	Sn	22 56 46.3	+1.3
ROCH				IAML		22 56 46.6	
	comp=N,3μm,0.3s						
PEL	Peldehue	0.23	116	*e*P	Pn	22 56 37.2	-0.7
PEL				*e*S	Sn	22 56 46.2	+0.7
PEL				IAML		22 56 46.7	
	comp=Z,2μm,0.2s						
PEL	Peldehue	0.23	116	*e*P	Pn	22 56 37.1	-0.8
PEL				*e*S	Sn	22 56 45.6	0.0
PEL				IAML		22 56 46.7	
	comp=E,9μm,0.2s						
MT02	Curacav	0.28	218	⇓*i*P	Pn	22 56 38.4	+0.3
MT02				*e*S	Sn	22 56 46.8	+0.9
MT02				IAML		22 56 48.1	
	comp=E,2μm,0.2s						
MT05	Renca	0.39	155	⇓*i*P	Pn	22 56 38.9	-0.1
MT05				*i* S	Sn	22 56 48.3	+0.8
MT05				IAML		22 56 49.3	
	comp=E,10μm,0.4s						
MT10	Hacienda Santa	0.40	125	⇓*i*P	Pn	22 56 38.7	-0.6
MT10				*i* S	Sn	22 56 48.0	+0.1
MT10				IAML		22 56 49.5	
	comp=N,8μm,0.4s						
VA03	San Esteban	0.42	49	*e*P	Pn	22 56 38.6	-0.8
VA03				*e*S	Sn	22 56 48.2	+0.1
VA03				IAML		22 56 49.1	
	comp=Z,1μm,0.2s						
VA03	San Esteban	0.42	49	⇓*i*P	Pn	22 56 38.5	-0.9
VA03				*i* S	Sn	22 56 47.5	-0.6
VA03				IAML		22 56 48.9	
	comp=E,5μm,0.1s						
MT14	Cerro Cal¡n	0.48	137	⇓*i*P	Pn	22 56 39.6	-0.4
MT14				*i* S	Sn	22 56 49.3	+0.2
MT14				IAML		22 56 50.3	
	comp=E,9μm,0.4s						
MT16	CCHEN	0.52	138	*e*P	Pn	22 56 39.8	-0.4
MT16				*e*S	Sn	22 56 49.6	+0.1
MT16				IAML		22 56 50.6	
	comp=N,2μm,0.2s						
MT03	Universidad Ad	0.57	142	⇓*i*P	Pn	22 56 40.3	-0.5
MT03				*e*S	Sn	22 56 50.8	+0.1
MT03				IAML		22 56 51.6	
	comp=E,9μm,0.2s						
VA01	Torpederas	0.60	272	*e*P	Pn	22 56 41.3	+0.3
VA01				*e*S	Sn	22 56 52.2	+1.3
VA01				IAML		22 56 56.8	
	comp=N,7μm,0.1s						
MT15	Las Vizcachas	0.66	147	*e*P	Pn	22 56 41.0	-0.8
MT15				*e*S	Sn	22 56 52.3	+0.1
MT15				IAML		22 56 53.0	
	comp=E,7μm,0.4s						
MT09	Talagante	0.73	184	⇓*i*P	Pn	22 56 42.5	-0.2
MT09				IAML		22 56 55.1	
	comp=N,3μm,0.2s						
MT04	Ro Olivares	0.76	119	⇑*i*P	Pn	22 56 42.5	-0.6
MT04				*e*S	Sn	22 56 54.1	-0.4

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MT04                              IAML                  22 56 55.3
         comp=N,4µm,0.2s
MT12     Pirque          0.76 155 eP          Pn        22 56 42.3 -0.6
MT12                              eS          Sn        22 56 54.1 -0.2
MT12                              IAML                  22 56 55.3
         comp=N,4µm,0.3s
MT01     Popeta          0.86 198 eP          Pn        22 56 44.1  0.0
MT01                              eS          Sn        22 56 56.8 +0.4
MT01                              IAML                  22 56 59.0
         comp=E,2µm,0.3s
MT08     Bocatoma Ro     0.87 118⇑iP          Pn        22 56 43.9 -0.5
MT08                              i S         Sn        22 56 57.2 +0.3
MT08                              IAML                  22 56 58.5
         comp=E,1µm,0.4s
MT13     San Alfonso     0.89 142⇑iP          Pn        22 56 44.0 -0.5
MT13                              i S         Sn        22 56 57.1 +0.1
MT13                              IAML                  22 56 58.8
         comp=N,4µm,0.2s
BO04     La Punta        0.98 164 eP          Pn        22 56 45.1 -0.6
BO04                              eS          Sn        22 56 59.1  0.0
CO04     Los Peladeros   1.00 358 eP          Pn        22 56 45.2 -0.8
CO04                              eS          Sn        22 56 58.5 -1.3
LMEL     Las Melosas     1.01 143⇑iP          Pn        22 56 45.6 -0.4
LMEL                              eS          Sn        22 57 00.1 +0.3
LMEL                              IAML                  22 57 01.1
         comp=E,4µm,0.2s
BO01     Tunca           1.35 185 eP          Pn        22 56 50.2 -0.1
BO01                              eS          Sn        22 57 07.8 +0.3
BO01                              IAML                  22 57 12.1
         comp=E,494nm,0.3s
AUSP     Uspallata       1.54  58 eP          Pn        22 56 53.3 +0.2
AUSP                              eS          Sn        22 57 14.0 +1.6
BO03     Pichilemu       1.68 210 eP          Pn        22 56 54.3 -0.4
BO03                              eS          Sn        22 57 16.0 +0.5
BO03                              IAML                  22 57 22.4
         comp=N,431nm,0.6s
ARCO     CERRO ARCO      1.69  84 eP          Pn        22 56 55.1  0.0
ARCO                              eS          Sn        22 57 14.0 -1.9
BO02     Sierra Bellavi  1.75 176 eP          Pn        22 56 55.6 -0.1
BO02                              eS          Sn        22 57 16.7 -0.4
BO02                              IAML                  22 57 22.4
         comp=E,968nm,0.2s
CO02     Combarbal       1.83 358 eP          Pn        22 56 56.2 -0.7
CO02                              eS          Sn        22 57 19.2  0.0
CO02                              IAML                  22 57 27.7
         comp=Z,473nm,0.1s
CO02     Combarbal       1.83 358 eP          Pn        22 56 56.2 -0.7
CO02                              eS          Sn        22 57 19.0 -0.2
CO02                              IAML                  22 57 25.6
         comp=N,2µm,0.2s
RTLS     Leoncito        1.86  49 eP          Pn        22 56 57.9 +0.5
RTLS                              eS          Sn        22 57 25.4 +5.3
RTLS                              IAML                  22 57 30.8
         comp=Z,171nm,0.4s
CO03     El Pedregal     2.21   5 eP          Pn        22 57 01.5 -0.4
CO03                              eS          Sn        22 57 29.1 +0.9
CO03                              IAML                  22 57 32.0
         comp=Z,354nm,0.7s
CO03     El Pedregal     2.21   5 eP          Pn        22 57 01.5 -0.4
CO03                              eS          Sn        22 57 28.1 -0.2
CO03                              IAML                  22 57 31.9
         comp=E,1µm,0.3s
CO06     Fray Jorge      2.44 346 eP          Pn        22 57 03.9 -1.0
CO06                              i S         Sn        22 57 32.5 -1.1
CO06                              IAML                  22 57 42.6
         comp=N,388nm,0.3s
RTLL     Cerro Villicun  2.69  51 eP          Pn        22 57 08.4 -0.1
RTLL                              eS          Sn        22 57 41.5 +1.4
RTLL                              IAML                  22 57 46.0
         comp=Z,96nm,0.3s
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*IDC **15** 23:06:56.2±3.6, 11°.17S×114°.88E, h41km±36km, mb3.4/7, mbtmp3.6/7, ML4.5/1, Error ellipse: s-maj=116.7km s-min=11.4km az=43.0*

ISC 15 23:06:55.5±1.8**, 11°.2S**±0°.5×**114°.9E**±0°.4**, h35**km**, n17, σ1§41**/12**, mb3.7**/6**, South of Bali**

```
Code     Station Name      Δ°   AZ°    Phase ID              Time      Res
                                      Op          ISC       h  m  s    ISC
SNJI     Sawahan-Nganju  4.59 317 P           Pn        23 08 02.2 -0.5
SNJI                              AML         AML
UGM      Wanagama        5.42 306 P           Pn        23 08 07.4 -6.5
UGM      Wanagama        5.42 306 P           Pn        23 08 07.2 -6.7
KPJI     Karang Pucung   7.04 302 P           Pn        23 08 28.0 -8.1
         0.2nm34nm,1.0s
KPJI                              AML         AML
BBJI     Bungbulang      8.07 297 P           Pn        23 08 38.0  -12
FITZ     Fitzroy Crossi 12.44 125 P           Pn        23 09 50.4 +0.2
         2.0nm,0.3s,baz=300,slow=8.7,SNR=65
FITZ                              S           Sn        23 12 04.8 -2.9
         2.9nm,0.5s,baz=328,slow=19,SNR=1.8
FITZ                              AML         AML
FITZ     Fitzroy Crossi 12.44 125 P           Pn        23 09 51.1 +0.9
WRA      Warramunga Arr 20.62 117 P           Pn        23 11 33.5 -0.9
         0.8nm,0.6s,baz=294,slow=9.3,SNR=18
WRA                               S           S         23 15 21.2 +0.4
         0.2nm,0.4s,baz=283,slow=22,SNR=2.2
         0.8nm,0.6s
ASAR     Alice Springs  21.93 127 P           P         23 11 46.6 +0.5
         1.8nm,0.6s,baz=298,slow=10.0,SNR=21
ASAR                              S           S         23 15 48.7 +2.2
         1.4nm,0.7s,baz=286,slow=23,SNR=5.3
         1.8nm,0.6s
CMAR     Chiang Mai Arr 33.40 332 P           P         23 13 30.6 -0.4
         0.5nm,0.3s,baz=155,slow=8.5,SNR=4.9
         0.5nm,0.3s
H08S2    Diego Garcia H 41.98 271 T           T         23 57 09.1
         baz=100,slow=75,SNR=13
H08S3    Diego Garcia H 41.99 271 T           T         23 57 13.5
         baz=100,slow=75,SNR=23
H08S1    Diego Carcia H 42.00 271 T           T         23 57 13.6
         baz=100,slow=75,SNR=5.2
SONM     Songino Array  59.23 353 P           P         23 16 54.8 +1.4
         0.2nm,0.3s,baz=179,slow=7.2,SNR=1.7
         0.2nm,0.3s
MKAR     Makanchi Array 64.67 336 P           P         23 17 29.5 -0.3
         0.5nm,0.7s,baz=113,slow=9.6,SNR=2.0
         0.5nm,0.7s
KURBB    Kurchatov Arra 69.22 336 P           P         23 17 58.5 -0.2
         0.3nm,0.8s,baz=158,slow=6.0,SNR=2.9
         0.3nm,0.8s
ZALV     Zalesovo Beam  69.73 342 P           P         23 18 00.6 -1.1
         0.4nm,0.5s,baz=144,slow=5.2,SNR=2.7
         0.4nm,0.5s
```

IDC 15 23:08:02.6±2.5**, 37°.85N×98°.94E, h0**km**, mbtmp3.1**/5**, ML3.0**/5**, Error ellipse: s-maj=47.4km s-min=17.6km az=33.0, Qinghai**

```
Code     Station Name      Δ°   AZ°    Phase ID              Time      Res
                                      Op          ISC       h  m  s    ISC
LZDM     Lanzhou Array   4.25 115 Pn          Pn        23 09 09.4 +0.4
         baz=297,slow=13
LZDM                              Sn          Sn        23 10 01.9 +2.4
         baz=300,slow=26
LZDM                              Lg          Lg        23 10 17.0
         baz=298,slow=21
         3.2nm,0.3s
SONM     Songino Array  11.38  26 Pn          Pn        23 10 48.1 +1.7
         0.1nm,0.3s,baz=207,slow=19,SNR=3.4
         0.2nm,0.5s
SONM                              AML         AML
MKAR     Makanchi Array 15.19 311 Pn          Pn        23 11 37.3 -1.1
         baz=116,slow=13,SNR=1.2
         0.1nm,0.6s
ZALV     Zalesovo Beam  18.80 333 P           P         23 12 22.8 -0.6
         0.1nm,0.3s,baz=146,slow=10,SNR=2.6
         0.5nm,0.4s
ZALV                              AML         AML
KURBB    Kurchatov Arra 19.33 318 P           P         23 12 27.9 -1.4
         baz=126,slow=11,SNR=4.1
         0.3nm,0.6s
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*RSNC **15** 23:14:12.0±0.0, 10°N±1°×7°3W±°, h7km±3km, M2.6, mb3.2, ML2.5, MLv3.2*

*FUNV **15** 23:14:15.0, 10°.30N×72°.55W, h33km, MW3.3, Presumed earthquake*

ISC 15 23:14:11.8±1.3**, 10°.19N**±0°.03×**72°.56W**±0°.04**, h28**km±15km**, n17, σ1§74**/31**, Venezuela**

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Code     Station Name      Δ°   AZ°    Phase ID              Time      Res
                                      Op          ISC       h  m  s    ISC
URIC     Uribia, Colomb  1.60  20 P           Pb        23 14 39.9 -0.7
URIC                              S           Sb        23 15 01.3 +0.9
URIC                              AML         AML
URIC                              AML         AML
URIC     Uribia, Colomb  1.60  20 eP          Pn        23 14 39.0 +0.8
URIC                              eS          Sn        23 14 57.6 -0.3
SMRC     Santa Marta, M  1.90 301 P           Pn        23 14 41.3 -1.1
SMRC                              S           Sb        23 15 09.4 +0.2
OCAC     Ocana           2.08 201 P           Pn        23 14 46.0 +1.0
OCAC                              S           Sn        23 15 12.5 +2.4
OCAC                              AML         AML
OCAC                              AML         AML
SDV      Santo Domingo   2.30 124 P           Pn        23 14 50.1 +2.1
SDV                               S           Sn        23 15 17.0 +1.5
SDV                               AML         AML
SDV                               AML         AML
SJCC     San Jacinto, C  2.60 264 P           Pn        23 14 53.3 +1.3
SJCC                              S           Sn        23 15 25.0 +2.2
SJCC                              AML         AML
SJCC                              AML         AML
SJCC     San Jacinto, C  2.60 264 eP          Pn        23 14 53.7 +1.6
SJCC                              eS          Sn        23 15 23.1 +0.3
PAMC     Pamplona, Colo  2.84 183 P           Pb        23 15 02.3 +0.2
PAMC                              S           Sb        23 15 35.2 -1.4
BRJC     Barrancabermej  3.41 200 P           Pn        23 15 02.8 -0.3
BRJC                              AML         AML
BRJC                              AML         AML
PTBC     PUERTO BERRIO,  4.09 208 P           Pn        23 15 13.9 +1.4
PTBC                              S           Sn        23 15 57.5 -2.0
PTBC                              AML         AML
PTBC                              AML         AML
RUSC     La Rusia        4.30 187 P           Pn        23 15 14.3 -1.6
RUSC                              AML         AML
RUSC                              AML         AML
RUSC     La Rusia        4.30 187 eP          Pn        23 15 19.0 +3.1
RUSC                              eS          Sn        23 16 05.1 -0.3
TURV     Turiamo         4.65  86 eP          Pn        23 15 21.0 +0.8
TURV                              eS          Sn        23 16 10.1 -3.1
SPBC     San Pablo de B  4.76 199 P           Pn        23 15 20.7 -1.0
SPBC                              S           Sn        23 16 13.7 -2.3
SPBC                              AML         AML
SPBC                              AML         AML
BENV     Beln            4.89  92 eP          Pn        23 15 24.9 +1.4
BENV                              eS          Sn        23 16 15.7 -3.5
CHIC     Chingaza        5.65 192 P           Pn        23 15 35.3 +1.0
GUY2C    Guyana, Caldas  5.67 210 P           Pn        23 15 35.2 +0.6
GUY2C                             S           Sn        23 16 37.2 -1.9
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*ISU **15** 23:14:43, 40°.92N×73°.32E, h26km*

*KRNET **15** 23:14:46.9±0.1, 40°.93N×73°.30E, h21km, mb3.2*

*NNC **15** 23:14:48.5±1.4, 41°.02N×73°.29E, h0km, mb3.9, mpv3.5, Error ellipse: s-maj=11.7km s-min=5.3km az=173.0*

*SOME **15** 23:14:48.5, 41°.07N×73°.30E, h5km*

*KNET **15** 23:14:50.0±0.4, 41°.08N×73°.41E, h15km±5km, ml2.5, Error ellipse: s-maj=7.0km s-min=2.0km az=70.0*

ISC 15 23:14:47.4±1.1**, 40°.94N**±0°.02×**73°.28E**±0°.02**, h4**km±9km**, n59, σ1§49**/105**, 45C-16D, Kyrgyzstan**

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Code     Station Name      Δ°   AZ°    Phase ID              Time      Res
                                      Op          ISC       h  m  s    ISC
SALK     Salom-Alik      0.41  98⇑eP          Pg        23 14 55.0 -0.4
SALK                             ⇑eS          Sg        23 15 00.2 -0.7
ARSB     Arslanbob       0.45 330⇑iP          Pg        23 14 56.2 +0.2
ARSB                             ⇑iS          Sg        23 15 02.9 +1.0
OHH      Osh             0.56 222⇑iP          Pg        23 14 57.7 -0.5
OHH                              ⇑iS          Sg        23 15 05.7 +0.2
TSTA     Tashata         0.71 240 P           Pb        23 15 01.8 -0.6
TSTA                              S           Sb        23 15 12.2 -0.3
SFK      Sufi-Kurgan     0.94 170⇑iP          Pg        23 15 04.5 -1.0
SFK                              ⇑iS          Sg        23 15 17.0 -0.7
FRG      Fergana         1.27 244 P           Pg        23 15 12.9 +1.1
FRG                               S           Sn        23 15 31.4 +1.9
ARK      Arkit           1.31 311⇑iP          Pn        23 15 11.7 -0.9
ARK                              ⇑iS          Sb        23 15 29.5 -0.4
KSNS     Kasansay        1.35 280 P           Pg        23 15 14.4 +1.1
KSNS                              S           Sg        23 15 34.5 +3.7
UCH      Uchtor          1.58  35⇑iP          Pn        23 15 16.1 -0.6
UCH                              ⇑iS          Sn        23 15 37.2 -0.6
TRKS     Terek-Say       1.72 291⇑iP          Pn        23 15 17.7 -0.6
TRKS                             ⇑iS          Sn        23 15 40.0 -0.7
EKS2     Erkin-Say       1.76  12 ⇑P          Pb        23 15 19.8 -0.6
         17nm,0.2s,SNR=27
EKS2                              ⇑S          Sb        23 15 42.4 -0.5
         40nm,0.3s
EKS2     Erkin-Say       1.76  12⇓iP          Pn        23 15 18.7 -0.1
EKS2                             ⇓iS          Sn        23 15 41.8 +0.1
MRKS     Merke           1.80 359 P           Pb        23 15 20.8 -0.3
         9.0nm,0.2s
MRKS                              S           Sb        23 15 43.9 -0.2
         151nm,0.2s
MRKS     Merke           1.80 359 eP          Pb        23 15 20.8 -0.3
         9.0nm,0.2s
MRKS                              eS          Sb        23 15 43.9 -0.2
         151nm,0.2s
DRK      Karamyk         1.85 218⇑iP          Pn        23 15 20.0 -0.1
DRK                              ⇑iS          Sb        23 15 43.9 -1.6
AAK      Ala-Archa       1.92  28 ⇑P          Pb        23 15 22.3 -0.8
         37nm,0.4s,SNR=19
AAK                               ⇑S          Sb        23 15 47.0 -0.5
         27nm,0.2s
AAK      Ala-Archa       1.92  28 ⇑Pn         Pb        23 15 22.4 -0.8
         7.4nm,0.4s
AAK                               ⇑Sn         Sb        23 15 47.3 -0.3
         1.9nm,0.3s
AAK      Ala-Archa       1.92  28⇓eP          Pn        23 15 21.1  0.0
AAK                              ⇓iS          Sn        23 15 45.8  0.0
BTK      Batken          2.07 246⇓iP          Pn        23 15 23.2 +0.1
BTK                              ⇓iS          Sn        23 15 49.4  0.0
NRN      Naryn           2.11  76⇓iP          Pn        23 15 23.1 -0.7
NRN                              ⇓iS          Sn        23 15 49.5 -1.1
KBK      Karagaybulak    2.12  35 ⇑P          Pb        23 15 25.6 -0.9
         19nm,0.3s,SNR=10.0
KBK                               ⇑S          Sb        23 15 53.7 +0.5
         78nm,0.3s
KBK      Karagaybulak    2.12  35⇑iP          Pn        23 15 23.8  0.0
KBK                              ⇑iS          Sn        23 15 50.6 -0.1
FRU1     Bishkek         2.12  28⇑iP          Pn        23 15 24.1 +0.4
FRU1                             ⇑iS          Sn        23 15 50.8 +0.2
CHMS     Chumysh         2.33  28 ⇑P          Pb        23 15 28.5 -1.5
         10nm,0.2s,SNR=15
CHMS                              ⇑S          Sb        23 15 59.5 +0.4
         18nm,0.3s
CHMS     Chumysh         2.33  28⇓iP          Pn        23 15 26.5 -0.1
CHMS                             ⇓iS          Sn        23 15 55.3 -0.4
PSK      Pskem           2.40 295 P           Pb        23 15 30.6 -0.6
PSK                               S           Sg        23 16 03.6 -0.9
DZA      Taraz           2.43 324 Pg          Pb        23 15 32.4 +0.7
         62nm,0.1s
DZA                               Lg          Lg        23 16 04.3
         223nm,0.3s
DZA      Taraz           2.43 324 eP          Pb        23 15 32.4 +0.7
         62nm,0.1s
DZA                               eS          Sg        23 16 04.3 -1.3
         223nm,0.3s
USP      Ospenovka       2.50  21 ⇑P          Pn        23 15 30.3 +1.5
         9.0nm,0.2s,SNR=14
USP                               ⇑S          Sb        23 16 03.4 -0.5
         25nm,0.3s
USP      Ospenovka       2.50  21⇑iP          Pn        23 15 29.0 +0.2
USP                              ⇑iS          Sn        23 15 59.5 -0.2
BOOM     Boomskoye usch  2.52  51⇑iP          Pn        23 15 29.4 +0.1
BOOM                             ⇑iS          Sn        23 16 00.0 -0.6
CHMG     Chimgan         2.54 285 P           Pb        23 15 34.4 +0.8
CHMG                              S           Sg        23 16 08.8 -0.2
ULHL     Ulahol          2.58  59 ⇑P          Pn        23 15 30.9 +0.8
         2.6nm,0.1s
ULHL                              ⇑S          Sb        23 16 04.4 -1.9
         18nm,0.3s
ULHL     Ulahol          2.58  59⇑iP          Pn        23 15 30.0 -0.1
ULHL                             ⇑iS          Sn        23 16 01.3 -0.6
CHRV     Charvak         2.60 287 S           Sb        23 16 06.0 -1.1
TKM2     Tokmak 2        2.63  40 ⇑P          Pn        23 15 32.1 +1.3
         8.2nm,0.3s,SNR=9.1
TKM2                              ⇓S          Sb        23 16 06.0 -1.9
         17nm,0.3s
TKM2     Tokmak 2        2.63  40⇑iP          Pn        23 15 30.9 +0.1
TKM2                             ⇑iS          Sn        23 16 02.8 -0.4
SGDS     Sogindy         2.70  21 Pg          Pb        23 15 36.9 +0.5
         2.0nm,0.2s
SGDS                              Lg          Lg        23 16 11.4
         19nm,0.4s
IUG      Iuzhnay         2.72 297 Pg          Pg        23 15 38.3 -1.3
         57nm,0.3s
IUG                               Lg          Lg        23 16 14.3
         107nm,0.4s
IUG      Iuzhnay         2.72 297 eP          Pg        23 15 38.3 -1.3
         57nm,0.3s
IUG                               eS          Sg        23 16 14.3 -0.5
         107nm,0.4s
TVKS     Tavaksay        2.81 284 S           Sb        23 16 09.4 -3.5
KST      Kastek          2.90  43 Pg          Pb        23 15 39.8 +0.1
         4.1nm,0.2s
KST                               Lg          Lg        23 16 16.4
         16nm,0.5s
KST      Kastek          2.90  43 eP          Pb        23 15 39.8 +0.1
         4.1nm,0.2s
KST                               eS          Sb        23 16 16.4 +0.8
         16nm,0.5s
KK31     Karatay Array   2.99 317 Pg          Pb        23 15 41.5 +0.3
         3.2nm,0.3s,baz=140,slow=18,SNR=23
KK31                             ⇓Lg          Lg        23 16 21.6
         17nm,0.5s,baz=131,slow=31,SNR=11
KDJ      Kajisay         3.16  67⇓iP          Pn        23 15 38.1  0.0
KDJ                              ⇓iS          Sn        23 16 15.6 -0.7
BRLS     Borolday        3.31 310 Pg          Pb        23 15 47.6 +1.0
         3.9nm,0.2s
BRLS                              Lg          Lg        23 16 30.1
         8.9nm,0.2s
BRLS     Borolday        3.31 310 eP          Pb        23 15 47.6 +1.0
         3.9nm,0.2s
BRLS                              eS          Sb        23 16 30.1 +2.8
         8.9nm,0.2s
TARG     Taragay, Kyrgy  3.50  75⇓iP          Pn        23 15 43.0 +0.1
TARG                             ⇓iS          Sn        23 16 23.5 -1.4
MDOK     Medeo           3.58  50 Pg          Pb        23 15 52.3 +0.9
         5.7nm,0.6s
MDOK                              Lg          Lg        23 16 38.3
         22nm,0.5s
MDOK     Medeo           3.58  50 eP          Pb        23 15 52.3 +0.9
         5.7nm,0.6s
MDOK                              eS          Sb        23 16 38.2 +3.1
         22nm,0.5s
KOTS     Kotyrbulak      3.66  50 Pg          Pb        23 15 53.8 +1.1
         4.6nm,0.3s
KOTS                              Lg          Lg        23 16 40.9
         32nm,0.7s
KOTS     Kotyrbulak      3.66  50 eP          Pb        23 15 53.8 +1.1
         4.6nm,0.3s
KOTS                              eS          Sb        23 16 40.9 +3.5
         32nm,0.7s
PRZ      Przheval'sk     4.13  66⇑iP          Pn        23 15 51.8 +0.4
PRZ                              ⇑iS          Sn        23 16 38.9 -1.4
SATY     Saty            4.37  59 Pg          Pb        23 16 06.9 +2.2
         1.0nm,0.1s
SATY                              Lg          Lg        23 17 02.9
         13nm,0.3s
SATY     Saty            4.37  59 eP          Pb        23 16 06.9 +2.2
         1.0nm,0.1s
SATY                              eS          Sb        23 17 02.9 +5.1
         13nm,0.3s
KPKS     Kokpek          4.74  56 Pg          Pb        23 16 14.7 +3.6
         0.1nm,0.1s
KPKS                              Lg          Lg        23 17 16.3
         5.3nm,0.3s
KPKS     Kokpek          4.74  56 eP          Pb        23 16 14.7 +3.6
         0.1nm,0.1s
KPKS                              eS          Sg        23 17 16.3 -3.4
         5.3nm,0.3s
UZB      Uzynbulak       4.81  61 Pg          Pb        23 16 16.1 +3.8
         4.1nm,0.4s
UZB                               Lg          Lg        23 17 18.6
         9.2nm,0.4s
UZB      Uzynbulak       4.81  61 eP          Pb        23 16 16.1 +3.8
         4.1nm,0.4s
UZB                               eS          Sg        23 17 18.6 -3.3
         9.2nm,0.4s
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*MOS **15** 23:34:01.4±1.0, 27°.79N×85°.84E, h10km, mb5.4/68, MS4.7/24, Error ellipse: s-maj=5.5km s-min=2.7km az=122.4*

*BJI **15** 23:34:02.2, 27°.97N×85°.97E, h7km, mB5.3/53, mb5.0/74, Ms5.1/83, Ms7 5.1/80*

*NEIC **15** 23:34:03.4±1.7, 27°.85N±0°.07×85°.88E±0°.04, h10km±1km, mb5.3/309, Error ellipse: s-maj=11.6km s-min=6.2km az=177.0*

*DMN **15** 23:34:03.7±0.1, 27°.77N×85°.88E, h10km, Ml6.0/8, Error ellipse: s-maj=2.8km s-min=1.6km az=17.0*

*GFZ **15** 23:34:04.2±0.2, 28°N±2°×8°6E±°, h12km±1km, M5.0/167, mb5.2/167, Mw5.0/12, Error ellipse: s-maj=5.7km s-min=2.5km az=31.8, confirmed*

*IDC **15** 23:34:05.9±1.6, 27°.72N×85°.87E, h31km±11km, mb4.7/32, mbtmp4.9/37, ML5.2/4, MS4.5/65, Error ellipse: s-maj=8.9km s-min=7.4km az=54.0*

*GCMT **15** 23:34:07.4±0.2, 27°.53N±0°.02×85°.88E±0°.02, h28km, MW5.1/106, Moment Tensor Solution. s61,c73; s106,c176; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}3.81±.21; $M_{\theta\theta}$-3.61±.13; $M_{\phi\phi}$-0.19±.12; $M_{r\theta}$4.33±.24; $M_{\theta\phi}$2.01±.07; $M_{\phi r}$-1.07±.20; Best double couple: $M_0$6.11800×10^{16} NP1:ϕ_s306.00000°, δ23.00000°, λ108.00000°. NP2:ϕ_s106.00000°, δ69.00000°, λ83.00000°. Principal axes: T 5.8050, Plg66.0000°, Azm3.0000°; N 0.6280, Plg7.0000°, Azm109.0000°; P -6.4310, Plg23.0000°, Azm202.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*NDI **15** 23:34:07.6±1.6, 27°.86N×85°.86E, h10km, ML5.1, MW5.0, mb5.3(NEIC), Presumed earthquake*

*BGR **15** 23:34:08.3, 27°.29N×85°.33E, h33km, mb5.2, Ms4.8*

ISC 15 23:34:03.6±0.4**, 27°.77N**±0°.02×**85°.87E**±0°.02**, h12**km±2km**, h12**km**:pP-P, n1297, σ1§44**/1264**, mb5.2**/488**, MS4.7**/103**, 70C-60D, Nepal**

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Code     Station Name      Δ°   AZ°    Phase ID              Time      Res
                                      Op          ISC       h  m  s    ISC
GUN      Gumba           0.14   5 Pg          Pg        23 34 07.5 +0.2
         baz=360,slow=0.0
GUN                               Sg          Sg        23 34 09.8 -0.1
         baz=360,slow=0.0
PKI      Pulchoki        0.45 244 Pg          Pg        23 34 13.1 +0.5
         baz=245,slow=0.0
PKI                               Sg          Sg        23 34 19.6 +1.0
         234µm,0.5s,baz=245,slow=0.0
PKI                               AML         AML
PKIN     Phulchoki       0.46 245 Pg          Pb        23 34 13.8  0.0
         baz=246,slow=0.0
PKIN                              Sg          Sg        23 34 19.5 +0.7
         178µm,0.5s,baz=246,slow=0.0
PKIN                              AML         AML
KKN      Kakani          0.52 272 Pg          Pg        23 34 14.2 +0.4
         baz=274,slow=0.0
KKN                               Sg          Sb        23 34 21.7 -0.7
         56µm,0.2s,baz=274,slow=0.0
KKN                               AML         AML
DMN      Daman           0.69 257 Pg          Pb        23 34 17.8  0.0
         baz=257,slow=0.0
DMN                               Sg          Sg        23 34 25.8 -0.4
         58µm,0.3s,baz=257,slow=0.0
DMN                               AML         AML
EVN      Everest         0.86  77             Pg        23 34 19.6 -0.8
EVN                               Sg          Sg        23 34 29.5 -2.3
EVN      Everest         0.86  77 P           Pg        23 34 20.1 -0.3
RAMN     Ramite          1.05 141 Pg          Pg        23 34 22.8 -1.0
         baz=142,slow=0.0
RAMN                              Sg          Sg        23 34 37.3 -0.1
         59µm,0.5s,baz=142,slow=0.0
RAMN                              AML         AML
GKN      Gorkha          1.11 282 Pg          Pn        23 34 25.2  0.0
         baz=282,slow=0.0
GKN                               Sg          Sg        23 34 39.7 +0.2
         33µm,0.3s,baz=282,slow=0.0
GKN                               AML         AML
ODAN     Odare           1.63 123 Pg          Pb        23 34 34.4 +0.6
         baz=123,slow=0.0
ODAN                              Sg          Sg        23 34 55.6 -0.5
         116µm,0.6s,baz=123,slow=0.0
ODAN                              AML         AML
DANN     Dangsing        1.95 288 Pg          Pb        23 34 38.6 -0.6
         baz=288,slow=0.0
DANN                              Sg          Sg        23 35 05.6 -0.7
         20µm,0.3s,baz=288,slow=0.0
DANN                              AML         AML
JPG      JALPAIGURI      2.82 115 eP          Pb        23 34 53.1 -0.8
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JPG                                eS      Sb      23 35 26.4  -1.9
JPG                                 IAML           23 35 37.5
      comp=N,13µm,0.1s
JPG                                 IAML           23 35 37.8
      comp=E,14µm,0.2s
COBR  COOCHBEHAR          3.53 114 eP      Pb      23 35 02.9  -3.1
COBR                               eS      Sn      23 35 43.5  +3.6
COBR                                IAML           23 35 43.9
      comp=E,19µm,0.2s
COBR                                IAML           23 35 44.8
      comp=N,20µm,0.3s
DHUB  DHUBRI              4.08 114 eP      Pn      23 35 10.0  +4.2
DHUB                               eS      Sn      23 35 57.5  +4.0
DHUB                                IAML           23 36 27.1
      comp=N,1µm,0.6s
ALBI  Allahabad           4.38 237 eP      Pn      23 35 11.9  +1.9
ALBI                               eS      Sn      23 36 04.0  +3.0
ALBI                                IAML           23 36 04.7
      comp=E,16µm,0.4s
ALBI                                IAML           23 36 04.9
      comp=N,15µm,0.2s
LSA   Lhasa               5.02  66  P      Pn      23 35 22.1  +2.9
LSA   Lhasa               5.02  66  P      Pn      23 35 20.4  +1.2
LSA   Lhasa               5.02  66  Pn     Pn      23 35 20.4  +1.2
LSA   Lhasa               5.02  66  P      Pn      23 35 22.1  +2.9
PTH   Pithoragarh         5.29 291 eP      Pn      23 35 25.9  +3.2
PTH                                eS      Sn      23 36 23.8  +0.1
PTH                                 IAML           23 36 27.3
      comp=N,11µm,0.3s
PTH                                 IAML           23 36 28.5
      comp=E,13µm,0.3s
LGTI  Lohaghat            5.33 289 eP      Pn      23 35 27.0  +3.8
LGTI                               eS      Sn      23 36 25.1  +0.4
LGTI                                IAML           23 36 27.4
      comp=N,11µm,0.3s
LGTI                                IAML           23 36 29.7
      comp=E,10µm,0.3s
CAL   Calcutta            5.67 156 eP      Pn      23 35 32.7  +5.0
CAL                                eS      Sn      23 36 36.7  +3.9
CAL                                 IAML           23 37 11.3
      comp=E,11µm,1.6s
SHL   Shillong            5.81 111  P      Pn      23 35 30.9  +1.0
SHL   Shillong            5.81 111  P      Pn      23 35 30.2  +0.3
SHL   Shillong            5.81 111         Pn      23 35 30.2  +0.3
SHL   Shillong            5.81 111 eP      Pn      23 35 35.1  +5.2
SHL                                eS      Sn      23 36 41.3  +4.7
SHL                                 IAML           23 37 12.1
      comp=N,1µm,0.4s
SHL                                 IAML           23 37 19.5
      comp=E,1µm,1.4s
JOSI  Joshimath           6.17 298 eP      Pn      23 35 37.9  +3.1
JOSI                               eS      Sn      23 36 44.3  -1.2
JOSI                                IAML           23 36 47.9
      comp=E,1µm,0.3s
JHSG  JHARSUGUGA          6.28 198 eP      Pn      23 35 41.3  +5.2
JHSG                               eS      Sn      23 36 48.1  +0.3
JHSG                                IAML           23 36 48.1
      comp=N,2µm,0.5s
JHSG                                IAML           23 36 49.5
      comp=E,1µm,0.1s
TEZP  TEZPUR              6.28  99 eP      Pn      23 35 40.0  +3.9
TEZP                               eS      Sn      23 36 47.6  -0.3
TEZP                                IAML           23 36 50.1
      comp=E,2µm,0.1s
TEZP                                IAML           23 36 50.3
      comp=N,2µm,0.1s
BRDH  Bariadhala          7.29 133  Pn     Pn      23 35 49.9  +0.1
      comp=N,56nm,0.3s,baz=259,slow=5.2,SNR=8.3
BRDH                                Sn     Sn      23 37 07.8  -4.7
      comp=N,55nm,0.3s,baz=267,slow=18,SNR=1.9
BRDH                                LR     LR      23 39 47.6
      comp=N,2µm,19.4s,baz=324,slow=47
      comp=N,172nm,0.4s
BRDH                                AML    AML
IMP   Imphal              7.82 110 eP      Pn      23 36 00.8  +3.5
IMP                                eS      Sn      23 37 24.1  -1.7
IMP                                 IAML           23 37 42.1
      comp=E,2µm,1.2s
IMP                                 IAML           23 37 43.0
      comp=N,1µm,0.8s
MOKO  MOKOCHONG           7.85  99 eP      Pn      23 36 01.5  +3.8
MOKO                               eS      Sn      23 37 24.6  -2.0
MOKO                                IAML           23 37 36.5
      comp=E,1µm,1.0s
MOKO                                IAML           23 37 37.9
      comp=N,2µm,0.5s
SAIH  SAIHA               8.32 128 eP      Pn      23 36 08.2  +3.9
SAIH                               eS      Sn      23 37 36.7  -1.6
SAIH                                IAML           23 37 57.9
      comp=E,2µm,1.1s
SAIH                                IAML           23 38 00.3
      comp=N,1µm,1.9s
MORE  Moreh               8.37 113  Pn     Pn      23 36 05.4  +0.6
GOMU  GeErMu             11.32  40  P      Pn      23 36 46.6  +1.0
GOMU                                pP             23 36 50.4
GOMU                                sP             23 36 54.1
GOMU                                pmax   pmax
      comp=N,14nm,0.9s
GOMU                                L      L
      comp=N,5µm,11.8s
GOMU                                L      L
      comp=N,7µm,11.4s
GOMU                                L      L
      comp=N,11µm,11.9s
TNCH  TengChong          11.67 101 ⇑P      Pn      23 36 49.9  -0.3
TNCH                                pP             23 36 53.4
TNCH                                sP             23 36 55.8
TNCH                                PP     PnPn    23 37 00.4  +2.5
TNCH                                S      Sn      23 39 00.8  +0.3
TNCH                                sS             23 39 05.4
TNCH                                pmax   pmax
      comp=N,31nm,0.6s
TNCH                                L      L
      comp=N,3µm,10.0s
TNCH                                L      L
      comp=N,5µm,9.3s
TNCH                                L      L
      comp=N,6µm,10.6s
NPW   Naypyitaw          12.31 128  P      Pn      23 36 57.8  -1.0
      comp=Z,128nm,0.8s
HYB   Hyderabad          12.31 215 ePn     Pn      23 36 59.5  +0.6
HYB                                eSn     Sn      23 39 18.7  +2.5
NIL   Nilore             12.33 301  P      Pn      23 36 57.3  -1.7
NIL   Nilore             12.33 301  P      Pn      23 36 57.5  -1.5
NIL   Nilore             12.33 301  Pn     Pn      23 36 56.3  -2.8
NIL   Nilore             12.33 301  P      Pn      23 36 56.8  -2.2
      comp=Z,304nm,0.7s
KSH2  Kashi              14.22 326  P      Pn      23 37 21.8  -3.2
KSH2                                S      Sn      23 39 53.3  -9.4
KSH2                                pmax   pmax
      comp=Z,90nm,0.7s
KSH2                                L      L
      comp=Z,2µm,13.7s
KSH2                                L      L
      comp=Z,4µm,13.0s
KSH2                                L      L
      comp=Z,3µm,10.4s
WUS   Wushi              14.47 340  Pn     Pn      23 37 25.2  -3.1
WUS   Wushi              14.47 340  P      Pn      23 37 25.7  -2.6
WUS   Wushi              14.47 340  P      Pn      23 37 25.9  -2.5
      comp=Z,98nm,0.8s
CHTO  Chiang Mai         14.95 124  P      P       23 37 38.3  -2.2
CHTO  Chiang Mai         14.95 124  P      Pn      23 37 37.7  +2.9
CHTO                                S      Sn      23 40 24.9  +4.4
CHTO  Chiang Mai         14.95 124  P      Pn      23 37 33.9  -1.0
CHTO  Chiang Mai         14.95 124  Pn     Pn      23 37 33.9  -1.0
CHTO  Chiang Mai         14.95 124  P      Pn      23 37 37.6  +2.7
      comp=Z,941nmcomp=Z,68nm,1.6s
CHTO  Chiang Mai         14.95 124  P      P       23 37 37.9  -2.6
      comp=Z,68nm,1.6s
CM31  Chiang Mai Arr     15.18 125  P      Pn      23 37 39.8  +1.9
CM31  Chiang Mai Arr     15.18 125  Pn     Pn      23 37 38.2  +0.3
CMAR  Chiang Mai Arr     15.18 125  Pn     Pn      23 37 35.4  -2.5
      comp=Z,5.0nm,0.8s,baz=310,slow=13,SNR=23
CMAR                                Sn     Sn      23 40 20.4  -5.6
      comp=Z,0.4nm,0.3s,baz=312,slow=12,SNR=1.2
CMAR                                LR     LR      23 45 26.7
      comp=Z,647nm,19.3s,baz=300,slow=45
CMAR                                ScP    ScP     23 46 13.8  -4.7
      comp=Z,0.5nm,0.4s,baz=326,slow=3.0,SNR=1.8
CMAR  Chiang Mai Arr     15.18 125  P      Pn      23 37 37.2  -0.7
CMAR  Chiang Mai Arr     15.18 125  Pn     Pn      23 37 37.1  -0.7
ASAI  AK-SAY(Kyrgyzs     15.20 332  P      Pn      23 37 35.2  -3.3
      comp=Z,53nm,1.4s
KMI2  Kunming            15.34  96  P      Pn      23 37 38.0  -2.3
KMI2                                S      Sn      23 40 31.5  +1.1
KMI2                                pmax   pmax
      comp=Z,15nm,1.3s
KMI2                                pmax   pmax
      comp=Z,220nm,3.9s
KMI2                                L      L
      comp=Z,2µm,14.0s
KMI2                                L      L
      comp=Z,2µm,16.7s
KMI2                                L      L
      comp=Z,3µm,16.8s
TARG  Taragay, Kyrgy     15.41 337  P      Pn      23 37 38.2  -3.0
TARG                                pmax   pmax
      comp=Z,75nm,1.1s
TARG  Taragay, Kyrgy     15.41 337  Pn     Pn      23 37 38.2  -3.0
TARG  Taragay, Kyrgy     15.41 337  P      Pn      23 37 39.8  -1.4
      comp=Z,97nm,0.7s
NRN   Naryn              15.85 332  P      Pn      23 37 43.6  -3.3
NRN                                 pmax   pmax
      comp=Z,22nm,0.4s
NRN   Naryn              15.85 332  Pn     Pn      23 37 43.6  -3.3
PRZ   Przheval'sk        15.89 339  P      Pn      23 37 45.4  -1.8
PRZ                                 pmax   pmax
      comp=Z,224nm,1.5s
PRZ   Przheval'sk        15.89 339  Pn     Pn      23 37 45.4  -1.8
PRZ                                 IAmb   IAmb    23 37 54.1
      comp=Z,224nm,1.5s
PRZ   Przheval'sk        15.89 339  P      Pn      23 37 46.0  -1.3
      comp=Z,111nm,1.1s
KBL   Kabul              15.89 299  P      Pn      23 37 44.1  -3.3
      SNR=35
KBL   Kabul              15.89 299  P      Pn      23 37 44.5  -2.9
KBL                                 pmax   pmax
      comp=Z,49nm,0.6s
KBL   Kabul              15.89 299  Pn     Pn      23 37 44.5  -2.9
KBL   Kabul              15.89 299  P      Pn      23 37 44.3  -3.1
      comp=Z,66nm,0.8s
CD2   Chengdu            15.91  74  P      Pn      23 37 46.0  -1.5
CD2                                 pmax   pmax
      comp=Z,40nm,0.8s
CD2                                 pmax   pmax
      comp=Z,510nm,3.9s
CD2                                 L      L
      comp=Z,7µm,10.2s
CD2                                 L      L
      comp=Z,11µm,11.2s
CD2                                 L      L
      comp=Z,12µm,11.4s
KDJ   Kajisay            15.98 336  P      Pn      23 37 46.7  -1.8
KDJ                                 pmax   pmax
      comp=Z,24nm,0.8s
KDJ   Kajisay            15.98 336  Pn     Pn      23 37 46.7  -1.8
KDJ   Kajisay            15.98 336  P      Pn      23 37 46.6  -1.8
      comp=Z,96nm,0.7s
WMQ   Urumqi             16.09   5 eP      Pn      23 37 49.3  -0.3
WMQ                                 pP     P       23 37 54.3  +1.3
WMQ                                 pmax   pmax
      comp=Z,12nm,0.7s
WMQ                                 pmax   pmax
      comp=Z,400nm,3.8s
WMQ                                 L      L
      comp=Z,5µm,16.7s
WMQ                                 L      L
      comp=Z,2µm,15.7s
WMQ                                 L      L
      comp=Z,2µm,14.5s
UZB   Uzynbulak          16.31 342d iP     Pn      23 37 51.6  -1.0
UZB                                eS      Sn      23 40 54.0  +0.4
UZB   Uzynbulak          16.31 342⇓iP     Pn      23 37 51.6  -1.0
UZB                                eS      Sn      23 40 54.1  +0.4
PDGK  Podgornoye         16.36 343  P      Pn      23 37 50.3  -2.9
PDGK  Podgornoye         16.36 343  Pn     Pn      23 37 50.3  -2.9
SATY  Saty               16.41 340d iP     Pn      23 37 53.1  -0.7
SATY                               eS      Sn      23 40 56.6  +0.7
SATY  Saty               16.41 340⇓iP     Pn      23 37 53.2  -0.7
SATY                               eS      Sn      23 40 56.7  +0.7
GTA2  Gaotai             16.42  41 eP      Pn      23 37 51.3  -2.7
GTA2                                sS     S       23 41 02.4  -6.1
GTA2                                pmax   pmax
      comp=Z,18nm,1.4s
GTA2                                pmax   pmax
      comp=Z,380nm,4.4s
GTA2                                L      L
      comp=Z,3µm,14.3s
GTA2                                L      L
      comp=Z,4µm,13.0s
GTA2                                L      L
      comp=Z,6µm,12.4s
ULHL  Ulahol             16.43 334  P      Pn      23 37 53.0  -1.2
      SNR=11
DRK   Karamyk            16.52 319  P      Pn      23 37 50.7  -4.7
DRK                                 pmax   pmax
      comp=Z,63nm,0.8s
DRK   Karamyk            16.52 319  Pn     Pn      23 37 50.7  -4.7
DRK   Karamyk            16.52 319  P      Pn      23 37 51.2  -4.3
      comp=Z,69nm,0.5s
OHH   Osh                16.68 323  P      Pn      23 37 52.4  -4.9
      comp=Z,32nm,0.7s
KPKS  Kokpek             16.70 342 eP      Pn      23 37 56.5  -1.0
KPKS  Kokpek             16.70 342 eP      Pn      23 37 56.6  -1.0
BOOM  Boomskoye usch     16.76 334  P      Pn      23 37 56.2  -2.1
BOOM                                pmax   pmax
      comp=Z,36nm,0.6s
BOOM  Boomskoye usch     16.76 334  Pn     Pn      23 37 56.2  -2.1
BOOM  Boomskoye usch     16.76 334  P      Pn      23 37 56.2  -2.1
      comp=Z,53nm,0.6s
TNSS  Tian-Shan          16.86 337 eP      Pn      23 37 58.9  -0.9
TNSS  Tian-Shan          16.86 337 eP      Pn      23 37 58.9  -0.9
MDOK  Medeo              16.94 337 eP      Pn      23 37 59.7  -0.9
MDOK                               eS      Sn      23 41 09.4  +0.6
MDOK                                MLR    MLR
      comp=Z,528nm,12.0s
MDOK  Medeo              16.94 337 eP      Pn      23 37 59.7  -0.9
MDOK                               eS      Sn      23 41 09.4  +0.6
MDOK                                LR     LR      23 44 39.9
      comp=Z,528nm,11.9s
ARSB  Arslanbob          17.16 325  P      Pn      23 37 58.9  -4.5
ARSB                                pmax   pmax
      comp=Z,47nm,0.6s
ARSB  Arslanbob          17.16 325  Pn     Pn      23 37 58.9  -4.5
LZDM  Lanzhou Array      17.19  57  P      Pn      23 38 03.2  -0.7
      baz=248,slow=12
LZDM                                S      Sn      23 41 19.6  +4.4
      comp=Z,1.0nm,0.3s,baz=242,slow=11,SNR=1.2
LZDM                                Lg     Lg      23 43 27.2
      baz=243,slow=31
LZDM                                LR     LR      23 45 30.5
      comp=Z,2µm,19.0s,baz=245,slow=40
      comp=Z,56nm,0.5s
TKM2  Tokmak 2           17.26 334  P      Pn      23 38 04.5  -0.1
      SNR=30
PBA   Port Blair         17.28 157         P       23 38 05.7  -0.5
PBA                                 IAmb   IAmb    23 38 11.9
      comp=Z,187nm,1.2s
PBA   Port Blair         17.28 157  P      P       23 38 07.3  +1.0
      comp=Z,165nm,1.4s
KBK   Karagaybulak       17.30 332  P      P       23 38 09.3  +2.8
      SNR=71
LZH   Lanzhou            17.35  57 eP      Pn      23 38 03.6  -2.2
LZH                                 sP     sP      23 38 13.6  +0.9
LZH                                 S      Sn      23 41 21.4  +2.5
LZH                                 SS     SnSn    23 41 38.5  +6.2
LZH                                 pmax   pmax
      comp=Z,25nm,1.9s
LZH                                 pmax   pmax
      comp=Z,570nm,5.8s
LZH                                 L      L
      comp=Z,4µm,13.1s
LZH                                 L      L
      comp=Z,6µm,11.0s
LZH                                 L      L
      comp=Z,8µm,11.7s
BTK   Batken             17.47 318  P      Pn      23 38 02.6  -4.5
BTK                                 pmax   pmax
      comp=Z,108nm,0.9s
BTK   Batken             17.47 318  Pn     Pn      23 38 02.6  -4.5
BTK   Batken             17.47 318  P      Pn      23 38 03.4  -3.7
      comp=Z,131nm,0.8s
AAK   Ala-Archa          17.48 331  P      Pn      23 38 06.2  -1.1
      comp=Z,0.9nm,0.3s,baz=144,slow=11,SNR=30
AAK                                 S      Sn      23 41 22.3  +0.4
      comp=Z,9.3nm,0.8s,baz=158,slow=19,SNR=2.5
AAK                                 Lg     Lg      23 43 19.1
      comp=Z,0.2nm,0.3s,baz=208,slow=17,SNR=1.4
AAK                                 LR     LR      23 45 19.5
      comp=Z,1µm,18.8s,baz=136,slow=38
      comp=Z,11nm,0.7s
AAK                                 AML    AML
AAK   Ala-Archa          17.48 331  P      P       23 38 11.3  +2.7
      SNR=25
AAK   Ala-Archa          17.48 331  P      Pn      23 38 06.9  -0.5
AAK                                 S      Sn      23 41 17.0  -4.9
AAK   Ala-Archa          17.48 331 i P     Pn      23 38 07.2  -0.1
AAK                                 pmax   pmax
      comp=Z,269nm,1.1s
AAK   Ala-Archa          17.48 331  Pn     Pn      23 38 04.4  -3.0
AAK   Ala-Archa          17.48 331 i P     Pn      23 38 07.0  -0.3
      SNR=29
AAK   Ala-Archa          17.48 331  P      Pn      23 38 06.2  -1.1
      comp=Z,47nm,0.8s
FRU1  Bishkek            17.56 332  P      Pn      23 38 06.2  -2.1
FRU1                                pmax   pmax
      comp=Z,228nm,1.9s
FRU1  Bishkek            17.56 332  Pn     Pn      23 38 06.2  -2.1
SLVN  Son La             17.61 107  P      P       23 38 11.2  +1.2
SLVN  Son La             17.61 107         Pn      23 38 08.7  -0.3
SLVN  Son La             17.61 107  P      P       23 38 10.3  +0.3
      comp=Z,34nm,1.3s
CHMS  Chumysh            17.66 332  P      Pn      23 38 09.6   0.0
      SNR=15
EKS2  Erkin-Say          17.81 330  P      Pn      23 38 10.6  -0.8
      SNR=77
KUU   Kurty              17.82 337 eP      Pn      23 38 10.8  -0.6
KUU                                 MLR    MLR
      comp=Z,419nm,11.0s
KUU   Kurty              17.82 337 eP      Pn      23 38 10.9  -0.6
KUU                                 LR     LR      23 45 17.0
      comp=Z,420nm,11.0s
USP   Ospenovka          17.99 332  P      Pn      23 38 13.3  -0.3
      SNR=34
ARK   Arkit              18.03 325  P      Pn      23 38 10.4  -3.7
      comp=Z,109nm,1.0s
SGDS  Sogindy            18.09 333⇓iP     Pn      23 38 13.9  -0.9
TDK   Taldyqorghan       18.20 343 eP      Pn      23 38 15.4  -0.7
TDK                                 MLR    MLR
      comp=Z,1µm,14.0s
TDK   Taldyqorghan       18.20 343 eP      Pn      23 38 15.5  -0.7
TDK                                 LR     LR      23 45 30.4
      comp=Z,1µm,14.1s
GYA   Guiyang            18.56  89 ⇓P      Pn      23 38 21.6  +0.8
GYA                                 S      Sn      23 41 46.4  -1.9
GYA                                 pmax   pmax
      comp=Z,71nm,0.7s
GYA                                 L      L
      comp=Z,940nm,8.6s
GYA                                 L      L
      comp=Z,980nm,9.2s
GYA                                 L      L
      comp=Z,2µm,10.1s
DZA   Taraz              19.15 326 eP      P       23 38 25.9  -0.8
DZA   Taraz              19.15 326 eP      P       23 38 25.9  -0.8
MK31  Makanchi Array     19.20 353 i P     P       23 38 27.5  +0.2
MK31                                pmax   pmax
      comp=Z,39nm,0.6s
MKAR  Makanchi Array     19.20 353  P      P       23 38 27.2   0.0
      comp=Z,15nm,0.3s,baz=174,slow=12,SNR=374
MKAR                                S      S       23 42 04.1  -0.5
      comp=Z,2.8nm,0.9s,baz=162,slow=15,SNR=1.1
MKAR                                LR     LR      23 47 06.0
      comp=Z,2µm,19.2s,baz=176,slow=40
      comp=Z,72nm,0.5s
MKAR                                AML    AML
MKAR  Makanchi Array     19.20 353ceP      P       23 38 27.3   0.0
MKAR                                pmax   pmax
      comp=Z,71nm,0.5s
MKAR  Makanchi Array     19.20 353         P       23 38 25.9  -1.4
MAKZ  Makanchi           19.25 352  P      P       23 38 27.2  -0.6
MAKZ                                pmax   pmax
      comp=Z,77nm,0.6s
MAKZ  Makanchi           19.25 352  P      P       23 38 27.2  -0.6
MAKZ                                IAmb   IAmb    23 38 30.4
      comp=Z,77nm,0.6s
MAKZ  Makanchi           19.25 352  P      P       23 38 28.3  +0.4
      comp=Z,111nm,0.6s
IUG   Iuzhnay            19.30 322d iP     P       23 38 27.6  -0.9
IUG   Iuzhnay            19.30 322⇓iP     P       23 38 27.6  -0.9
CHM   Chimkent           19.65 322 eP      P       23 38 31.8  -0.4
CHM                                 MLR    MLR
      comp=Z,966nm,10.0s
CHM   Chimkent           19.65 322 eP      P       23 38 31.8  -0.4
CHM                                 LR     LR      23 46 17.9
      comp=Z,966nm,10.1s
ZSN   Zaisan             19.66 358 eP      P       23 38 31.6  -0.7
ZSN   Zaisan             19.66 358 eP      P       23 38 31.7  -0.7
KK31  Karatay Array      19.71 325  P      P       23 38 31.6  -1.3
KK31                                pmax   pmax
      comp=Z,23nm,0.8s
KK31  Karatay Array      19.71 325  P      P       23 38 31.6  -1.3
KKAR  Karatay Array      19.71 325  P      P       23 38 31.9  -1.0
KKAR  Karatay Array      19.71 325  P      P       23 38 31.9  -1.0
MALK  Mahakanadarawa     19.92 196  P      Pn      23 38 38.6  +1.7
MALK                                S      S       23 42 09.5   -10
MALK  Mahakanadarawa     19.92 196  P      Pn      23 38 38.2  +1.2
      comp=Z,104nm,0.8s
BRLS  Borolday           20.01 324d iP     P       23 38 34.6  -1.6
BRLS  Borolday           20.01 324⇓iP     P       23 38 34.6  -1.6
XAN   Xi'an              20.73  67 ⇓P      P       23 38 43.8  -0.3
XAN                                 pP     pP      23 38 47.8  -0.3
XAN                                 S      S       23 42 37.8  +2.4
XAN                                 pmax   pmax
      comp=Z,35nm,0.7s
XAN                                 pmax   pmax
      comp=Z,890nm,11.0s
XAN                                 L      L
      comp=Z,2µm,13.1s
XAN                                 L      L
      comp=Z,4µm,11.4s
XAN                                 L      L
      comp=Z,4µm,12.4s
ENH   Enshi              20.80  77  P      P       23 38 45.4  +0.5
ENH   Enshi              20.80  77  P      P       23 38 44.2  -0.7
ENH   Enshi              20.80  77  P      P       23 38 44.9   0.0
      comp=Z,77nm,1.0s
PALK  Pallekele          20.97 194  P      P       23 38 47.1  +0.3
      comp=Z,8.3nm,0.6s,baz=14,slow=12,SNR=5.8
PALK                                S      S       23 42 31.2  -9.1
      comp=Z,15nm,0.8s,baz=79,slow=19,SNR=3.2
PALK                                LR     LR      23 46 41.7
      comp=Z,2µm,22.0s,baz=7.5,slow=36
      comp=Z,8.3nm,0.6s
PALK  Pallekele          20.97 194  P      Pn      23 38 50.0  +0.6
PALK  Pallekele          20.97 194  P      P       23 38 46.2  -0.5
PALK  Pallekele          20.97 194  P      Pn      23 38 49.1  -0.2
      comp=Z,32nm,1.1s
PALK  Pallekele          20.97 194  P      Pn      23 38 49.9  +0.6
HRA   Herat              21.25 294  P      P       23 38 48.6  -1.3
DGZ   Jazzator, Alta     21.93   3c iP     P       23 38 57.6  +0.6
DGZ                                 pmax   pmax
      comp=Z,170nm,0.6s
HALK  Hakmana            22.12 194  P      P       23 39 00.1  +1.0
      comp=Z,52nm,1.2s
NGCH  Negor - Chabah     22.24 269  P      P       23 39 02.6  +2.3
NGCH                                S      S       23 43 01.7  -3.3
SEM   Semipalatinsk      23.01 351 eP      P       23 39 07.7  -0.8
SEM                                 pmax   pmax
      comp=Z,35nm,0.7s
SEM   Semipalatinsk      23.01 351 eP      P       23 39 07.8  -0.8
      comp=Z,35nm,0.7s
KURBB Kurchatov Arra     23.50 348  P      P       23 39 12.7  -0.4
      comp=Z,50nm,0.6s,baz=167,slow=10.0,SNR=337
KURBB                               PcP    PcP     23 42 58.1  -0.6
      comp=Z,2.1nm,0.7s,baz=191,slow=2.0,SNR=3.3
KURBB                               S      S       23 43 24.9  -1.7
      comp=Z,0.8nm,0.7s,baz=161,slow=12,SNR=1.5
      comp=Z,50nm,0.6s
KURK  Kurchatov          23.57 348  P      P       23 39 14.0  +0.2
KURK                                S      S       23 43 27.4  -0.4
KURK  Kurchatov          23.57 348 i P     P       23 39 14.4  +0.5
KURK                                pmax   pmax
      comp=Z,49nm,0.6s
KURK  Kurchatov          23.57 348  P      P       23 39 13.0  -0.9
KURK                                IAmb   IAmb    23 39 16.5
      comp=Z,65nm,0.8s
KURK  Kurchatov          23.57 348  P      P       23 39 14.1  +0.2
      comp=Z,95nm,0.7s
BTO2  Baotou             23.60  51 eP      P       23 39 15.3  +0.8
BTO2                                PP     PnPn    23 39 46.6  +5.1
BTO2                                S      S       23 43 30.3  +1.5
BTO2                                pmax   pmax
      comp=Z,140nm,1.2s
BTO2                                pmax   pmax
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       comp=Z,1µm,3.6s
BTO2                               L       L
       comp=Z,3µm,11.1s
BTO2                               L       L
       comp=Z,5µm,10.9s
BTO2                               L       L
       comp=Z,7µm,12.0s
QIZ    Qiongzhong        23.63 106  P       P       23 39 14.8  0.0
QIZ                                 S       S       23 43 30.8 +1.5
QIZ                                 pmax    pmax
       comp=Z,21nm,1.4s
QIZ                                 pmax    pmax
       comp=Z,460nm,6.3s
QIZ                                 L       L
       comp=Z,420nm,10.3s
QIZ                                 L       L
       comp=Z,520nm,10.7s
QIZ                                 L       L
       comp=Z,580nm,12.6s
QIZ    Qiongzhong        23.63 106  P       P       23 39 13.6 -1.2
       comp=Z,26nm,1.3s
LYN    LuoYang           23.71  67  P       P       23 39 12.9 -2.5
LYN                                 S       S       23 43 31.3 +1.0
LYN                                 pmax    pmax
       comp=Z,110nm,1.3s
LYN                                 pmax    pmax
       comp=Z,840nm,4.2s
LYN                                 L       L
       comp=Z,900nm,9.3s
LYN                                 L       L
       comp=Z,3µm,13.2s
LYN                                 L       L
       comp=Z,3µm,11.3s
CNSH   ChangSha          23.89  83  P       P       23 39 16.8 -0.4
CNSH                                S       S       23 43 33.8 +0.4
CNSH                                L       L
       comp=Z,870nm,10.6s
CNSH                                L       L
       comp=Z,2µm,11.6s
CNSH                                L       L
       comp=Z,2µm,11.2s
HMDM   Hanimaadhoo       24.10 212  P       P       23 39 23.5 +4.3
TIY    Taiyuan           24.38  59  P       P       23 39 22.1 +0.3
TIY                                 S       S       23 43 40.4 -0.7
TIY                                 pmax    pmax
       comp=Z,570nm,3.8s
TIY                                 L       L
       comp=Z,950nm,7.6s
TIY                                 L       L
       comp=Z,3µm,9.6s
TIY                                 L       L
       comp=Z,3µm,11.0s
KNGR   Kungurtug, Tuv    24.47  18d iP      P       23 39 24.4 +1.9
KNGR                                pmax    pmax
       comp=Z,51nm,0.8s
JLN    Jalan Bani Buh    24.60 263  P       P       23 39 25.1 +1.2
       SNR=8.4
JLN                                 S       S       23 43 47.0 +2.1
HHC    Hu-ho-hao-te      24.81  52 eP       P       23 39 27.1 +1.4
HHC                                 S       S       23 43 48.3 +0.1
HHC                                 sS      sS      23 43 57.4 +2.0
HHC                                 pmax    pmax
       comp=Z,48nm,1.4s
HHC                                 pmax    pmax
       comp=Z,600nm,4.9s
HHC                                 L       L
       comp=Z,2µm,11.4s
HHC                                 L       L
       comp=Z,3µm,12.9s
HHC                                 L       L
       comp=Z,4µm,12.0s
WBK    Wadi Bani Khal    24.85 264  P       P       23 39 27.4 +1.3
       SNR=8.6
WSAR   Wadi Sarin        24.97 266  P       P       23 39 28.4 +1.2
       SNR=6.8
WSAR                                S       S       23 43 51.4 +0.6
WHN    Wuhan             25.00  77  P       P       23 39 28.0 +0.6
WHN                                 sP      sP      23 39 34.0 +0.8
WHN                                 S       S       23 43 56.9 +5.7
WHN                                 pmax    pmax
       comp=Z,910nm,4.2s
WHN                                 L       L
       comp=Z,6µm,9.3s
WHN                                 L       L
       comp=Z,1µm,9.1s
WHN                                 L       L
       comp=Z,4µm,8.7s
JASK   Jask - Hormozg    25.04 272  P       P       23 39 29.9 +2.1
BIDO   Bidbid            25.34 267  P       P       23 39 32.2 +1.7
       SNR=7.5
BIDO                                S       S       23 43 56.1 -0.5
SMDO   Samad             25.53 266  P       P       23 39 33.4 +1.0
       SNR=9.1
SONM   Songino Array     25.63  33  P       P       23 39 33.9 +0.8
       comp=Z,76nm,0.7s,baz=221,slow=9.1,SNR=320
SONM                                PcP     PcP     23 43 03.8 +0.1
       comp=Z,1.2nm,0.7s,baz=205,slow=3.1,SNR=1.8
SONM                                S       S       23 44 01.1 -0.1
       comp=Z,0.4nm,0.5s,baz=221,slow=31,SNR=1.1
SONM                                LR      LR      23 50 48.6
       comp=Z,3µm,21.9s,baz=230,slow=39
       comp=Z,76nm,0.7s
SONM   Songino Array     25.63  33  P       P       23 39 32.9 -0.2
JMDO   Jabal Madar       25.69 264  P       P       23 39 34.4 +0.7
       SNR=5.6
ULN    Ulaanbaatar       25.97  34  P       P       23 39 36.6 +0.3
ULN    Ulaanbaatar       25.97  34ceP       P       23 39 37.0 +0.7
ULN                                 pmax    pmax
       comp=Z,77nm,0.6s
ULN    Ulaanbaatar       25.97  34  P       P       23 39 36.0 -0.3
ULN    Ulaanbaatar       25.97  34  P       P       23 39 36.8 +0.6
ULN    Ulaanbaatar       25.97  34  P       P       23 39 37.0 +0.7
       comp=Z,144nm,0.6s
HOQ    Hoqain            26.04 267  P       P       23 39 37.8 +0.9
       SNR=10
HOQ                                 S       S       23 44 07.3 -0.6
HNS    HongShan          26.04  61 ⇑P       P       23 39 37.6 +0.8
HNS                                 S       S       23 44 10.0 +2.4
HNS                                 pmax    pmax
       comp=Z,77nm,1.2s
HNS                                 pmax    pmax
       comp=Z,470nm,9.3s
HNS                                 L       L
       comp=Z,2µm,11.5s
HNS                                 L       L
       comp=Z,2µm,12.5s
HNS                                 L       L
       comp=Z,3µm,13.1s
ZAA0   Zalesovo Array    26.16 359  P       P       23 39 37.7  0.0
ZALV   Zalesovo Beam     26.16 359  P       P       23 39 37.7  0.0
       comp=Z,66nm,0.6s,baz=179,slow=9.1,SNR=145
ZALV                                S       S       23 44 10.0 +0.8
       comp=Z,1.4nm,0.7s,baz=141,slow=9.3,SNR=1.7
ZALV                                LR      LR      23 50 18.7
       comp=Z,344nm,20.2s,baz=186,slow=37
       comp=Z,66nm,0.6s
ZALV   Zalesovo Beam     26.16 359 i P      P       23 39 37.9 +0.2
ZALV                                pmax    pmax
       comp=Z,68nm,0.6s
ZALV   Zalesovo Beam     26.16 359  P       P       23 39 37.2 -0.4
ZAK    Zakamensk         26.19  26 eP       P       23 39 38.8 +0.7
ZAK                                 pmax    pmax
       comp=Z,34nm,1.6s
MHTO   MHTO              26.25 261  P       P       23 39 40.2 +1.4
       SNR=5.8
MHTO                                S       S       23 44 13.1 +1.9
BSY    Bisya             26.37 266  P       P       23 39 41.1 +1.1
       SNR=6.1
BANOM  Banah             26.42 273  P       P       23 39 39.5 -0.8
MOY    Mondy             26.45  21 eP       P       23 39 42.4 +2.0
MOY                                 pmax    pmax
       comp=Z,98nm,1.9s
SHME   Shamm             26.53 273  P       P       23 39 41.6 +0.3
SHME   Shamm             26.53 273  P       P       23 39 40.4 -0.9
MDH    Madha             26.54 271  P       P       23 39 41.8 +0.4
MDH    Madha             26.54 271  P       P       23 39 40.7 -0.7
SOHO   SOHO              26.59 269  P       P       23 39 43.2 +1.3
SOHO   SOHO              26.59 269  P       P       23 39 41.1 -0.8
MSFE   Esma-Masafi       26.65 272  P       P       23 39 43.4 +1.0
UOSS   Minazif           26.70 271  P       P       23 39 43.3 +0.5
UOSS   Minazif           26.70 271  P       P       23 39 42.8 -0.1
UOSS   Minazif           26.70 271  P       P       23 39 42.6 -0.2
UOSS   Minazif           26.70 271  P       P       23 39 42.3 -0.5
HATD   Hatta, Dubai      26.79 271  P       P       23 39 46.1 +2.4
HATD   Hatta, Dubai      26.79 271  P       P       23 39 45.9 +2.3
ARQ    Araqi             26.81 267  P       P       23 39 45.9 +2.1
ASHO   Ashiyiah          26.88 270  P       P       23 39 46.0 +1.5
       SNR=13
ASHO   Ashiyiah          26.88 270 i P      P       23 39 45.5 +1.0
       SNR=18
NAZ    Nazwa, Dubai      27.17 271  P       P       23 39 47.9 +0.8
IPM    Ipoh              27.30 145  P       P       23 39 50.9 +2.7
IPM    Ipoh              27.30 145  P       P       23 39 48.8 +0.5
IPM    Ipoh              27.30 145  P       P       23 39 48.5 +0.2
       comp=Z,18nm,2.5s
ALNE   Al Ain            27.30 269  P       P       23 39 49.5 +1.2
ALNE   Al Ain            27.30 269 i P      P       23 39 48.9 +0.6
       SNR=10
TLY    Talaya            27.37  24  P       P       23 39 49.4 +0.7
BVAR   Borovoye Array    27.72 340  P       P       23 39 51.7  0.0
       comp=Z,14nm,0.4s,baz=148,slow=9.8,SNR=50
BVAR                                PcP     PcP     23 43 07.8 -0.5
       comp=Z,3.1nm,0.6s,baz=176,slow=2.2,SNR=4.2
BVAR                                S       S       23 44 28.1 -5.7
       comp=Z,1.4nm,0.9s,baz=160,slow=22,SNR=1.3
       comp=Z,14nm,0.4s
TIA    Tai'an            27.72  64  P       P       23 39 52.3 +0.4
TIA                                 S       S       23 44 32.4 -1.8
TIA                                 pmax    pmax
       comp=Z,52nm,1.8s
TIA                                 pmax    pmax
       comp=Z,290nm,3.9s
TIA                                 L       L
       comp=Z,1µm,11.6s
TIA                                 L       L
       comp=Z,2µm,12.0s
TIA                                 L       L
       comp=Z,3µm,12.3s
BORK   Borovoye          27.76 340c iP      P       23 39 52.4 +0.3
BORK                                pmax    pmax
       comp=Z,9.0nm,0.8s
BORK   Borovoye          27.76 340  P       P       23 39 52.2 +0.1
BJT    Baijiatuau        27.82  56  P       P       23 39 52.9 +0.1
BJT                                 pmax    pmax
       comp=Z,87nm,1.9s
BJT    Baijiatuau        27.82  56  P       P       23 39 52.9 +0.1
BJT                                 IAmb    IAmb    23 39 55.4
       comp=Z,87nm,1.9s
BJT    Baijiatuau        27.82  56  P       P       23 39 53.4 +0.6
       comp=Z,11nm,0.7s
BJI2   Beijing           27.83  56  P       P       23 39 54.4 +1.6
BJI2                                S       S       23 44 38.8 +3.1
BJI2                                pmax    pmax
       comp=Z,11nm,2.1s
BJI2                                pmax    pmax
       comp=Z,140nm,3.7s
BJI2                                L       L
       comp=Z,660nm,11.2s
BJI2                                L       L
       comp=Z,1µm,9.0s
BJI2                                L       L
       comp=Z,2µm,9.2s
IRK    Irkutsk           28.06  24 eP       P       23 39 55.8 +1.1
IRK                                 pmax    pmax
       comp=Z,84nm,2.2s
UMZA   Um Al Zommool     28.18 267  P       P       23 39 56.9 +0.7
GSI    Gunungsitoli      28.61 155  P       P       23 40 02.1 +2.2
GSI    Gunungsitoli      28.61 155  P       P       23 40 00.2 +0.2
GSI    Gunungsitoli      28.61 155  P       P       23 40 01.4 +1.5
       comp=Z,95nm,1.8s
GSI    Gunungsitoli      28.61 155  P       P       23 40 01.8 +1.8
       comp=Z,95nm,1.8s
NJ2    Nanjing           28.85  73 eP       P       23 40 02.4 +0.4
NJ2                                 S       S       23 44 59.5 +7.6
NJ2                                 pmax    pmax
       comp=Z,17nm,0.7s
NJ2                                 pmax    pmax
       comp=Z,430nm,5.8s
NJ2                                 L       L
       comp=Z,1µm,12.3s
NJ2                                 L       L
       comp=Z,2µm,13.3s
NJ2                                 L       L
       comp=Z,3µm,13.8s
XLT    XiLinHaoTe        29.10  48 eP       P       23 40 04.5 +0.3
XLT                                 pP      sP      23 40 09.3 -0.8
XLT                                 pmax    pmax
       comp=Z,27nm,0.8s
XLT                                 pmax    pmax
       comp=Z,190nm,4.6s
XLT                                 L       L
       comp=Z,2µm,11.9s
XLT                                 L       L
       comp=Z,3µm,11.9s
AB31   Akbulak array     29.27 324  P       P       23 40 05.7 +0.1
AB31                                IAmb    IAmb    23 40 07.7
       comp=Z,33nm,0.7s
ABKAR  Akbulak array     29.27 324  P       P       23 40 05.3 -0.2
JRN    Qarnain Island    29.67 272  P       P       23 40 09.5 +0.1
MNSI   Mandailing Nat    29.87 152  P       P       23 40 09.0 -2.1
       comp=Z,26nm,0.6s
GHWR   Ruwais            29.88 270  P       P       23 40 11.5 +0.4
SSE    Sheshan           30.86  75  P       P       23 40 19.3 -0.5
SSE                                 S       S       23 45 23.3 -0.2
SSE                                 pmax    pmax
       comp=Z,16nm,0.6s
SSE                                 pmax    pmax
       comp=Z,84nm,3.8s
SSE                                 L       L
       comp=Z,300nm,12.7s
SSE                                 L       L
       comp=Z,910nm,12.5s
SLWR   Sila              30.90 271  P       P       23 40 20.0 -0.2
AKTO   Aktyubinsk        30.98 325  LR      LR      23 54 13.2
       comp=Z,2µm,18.2s,baz=148,slow=39
WHFO   Wadi Hawf         31.08 259  P       P       23 40 22.4 +0.4
SAKB   Bahrain           31.50 275  P       P       23 40 25.1 -0.4
DL2    Dalian            31.69  60  P       P       23 40 27.8 +0.8
DL2                                eS       S       23 45 38.1 +1.8
DL2                                 pmax    pmax
       comp=Z,63nm,0.6s
DL2                                 pmax    pmax
       comp=Z,250nm,3.6s
DL2                                 L       L
       comp=Z,2µm,14.6s
DL2                                 L       L
       comp=Z,4µm,13.6s
DL2                                 L       L
       comp=Z,6µm,15.2s
TATO   Taipei            31.97  87  P       P       23 40 27.6 -2.0
YULB   Yu-li             32.19  90  P       P       23 40 34.0 +2.4
YULB   Yu-li             32.19  90  P       P       23 40 31.4 -0.2
YULB                                IAmb    IAmb    23 40 34.6
       comp=Z,37nm,1.1s
YULB   Yu-li             32.19  90  P       P       23 40 33.4 +1.8
       comp=Z,32nm,1.4s
NACB   Ninganchiao       32.25  88  P       P       23 40 33.5 +1.4
NACB   Ninganchiao       32.25  88  S       S       23 45 43.7 -1.7
NACB   Ninganchiao       32.25  88  P       P       23 40 32.5 +0.4
NACB   Ninganchiao       32.25  88  P       P       23 40 33.1 +1.0
       comp=Z,37nm,1.7s
LKRN   Lenkeran, Azer    32.68 299  P       P       23 40 37.9 +2.2
SNY    Shenyang          33.71  55  P       P       23 40 44.9 +0.2
SNY                                 S       S       23 46 01.1 -6.6
SNY                                 pmax    pmax
       comp=Z,26nm,1.1s
SNY                                 pmax    pmax
       comp=Z,93nm,3.8s
SNY                                 L       L
       comp=Z,900nm,11.5s
SNY                                 L       L
       comp=Z,1µm,12.4s
SNY                                 L       L
       comp=Z,1µm,11.8s
HILR   Hailar Array B    33.82  41  P       P       23 40 45.5 -0.1
       comp=Z,1.2nm,0.4s,baz=234,slow=12,SNR=1.3
       comp=Z,1.2nm,0.4s
AKT    Akhty             33.95 304 eP       P       23 40 47.6 +0.7
AKT                                e                23 42 00.2
AKT                                eS       S       23 46 12.8 +1.1
AKT                                eSS      SnSn    23 48 17.2 -0.5
AKT                                 pmax    pmax
       comp=Z,31nm,0.6s
AKT                                 MLR     MLR
       comp=Z,212nm,14.0s
SEKA   Sheki             34.29 303  P       P       23 40 51.0 +1.1
MNGR   Mingechevir, A    34.30 302  P       P       23 40 52.0 +2.2
MAK    Makhachkala       34.43 306 eP       P       23 40 48.5 -2.4
MAK                                e                23 42 05.8
MAK                                eS       S       23 46 16.2 -2.7
MAK                                eSS      SnSn    23 48 30.0 +0.8
MAK                                 pmax    pmax
       comp=Z,84nm,1.2s
MAK                                 MLR     MLR
       comp=Z,582nm,12.0s
ARTI   Arti              34.67 333c iP      P       23 40 53.2 +0.3
ARTI                                                23 42 05.0
ARTI                                                23 43 25.3
ARTI                                S       S       23 46 22.7 +0.4
ARTI                                SS      SnSn    23 48 34.8  0.0
ARTI                                pmax    pmax
       comp=Z,50nm,0.6s
ARTI                                MLR     MLR
       comp=Z,528nm,14.0s
ARTI   Arti              34.67 333  P       P       23 40 52.4 -0.5
GANJ   Ganja             34.85 302  P       P       23 40 56.0 +1.4
NAX    Nakhchivan        35.28 299  P       P       23 41 00.2 +1.8
INCN   Inchon            35.44  64  P       P       23 40 59.6 -0.2
INCN   Inchon            35.44  64  P       P       23 40 58.9 -0.9
INCN                                pmax    pmax
       comp=Z,150nm,1.5s
INCN   Inchon            35.44  64  P       P       23 40 58.9 -0.9
INCN   Inchon            35.44  64  P       P       23 40 59.4 -0.4
       comp=Z,72nm,1.7s
CN2    Changchun         35.49  53  P       P       23 41 00.3 +0.2
CN2                                 pP      sP      23 41 07.6 +1.6
CN2                                 S       S       23 46 34.0 -1.2
CN2                                 pmax    pmax
       comp=Z,20nm,0.5s
CN2                                 L       L
       comp=Z,730nm,12.0s
CN2                                 L       L
       comp=Z,600nm,12.0s
CN2                                 L       L
       comp=Z,900nm,14.0s
SBUM   Sibu              35.61 130  P       P       23 41 03.5 +2.1
SBUM   Sibu              35.61 130  P       P       23 41 01.9 +0.5
GNI    Garni             35.97 301  P       P       23 41 03.4 -1.1
GNI    Garni             35.97 301c iP      P       23 41 05.9 +1.4
GNI                                 pmax    pmax
       comp=Z,31nm,1.1s
GNI    Garni             35.97 301  P       P       23 41 03.9 -0.6
GNI                                 IAmb    IAmb    23 41 17.0
       comp=Z,38nm,1.1s
GNI    Garni             35.97 301  P       P       23 41 04.5  0.0
GNI    Garni             35.97 301  P       P       23 41 03.7 -0.8
       comp=Z,30nm,1.1s
GNI    Garni             35.97 301  P       P       23 41 04.5  0.0
       comp=Z,30nm,1.1s
TJN    Taejon            35.97  66  P       P       23 41 03.1 -1.2
TJN                                 pmax    pmax
       comp=Z,542nm,1.8s
TJN    Taejon            35.97  66  P       P       23 41 03.1 -1.2
TBLG   Delisi            36.20 304  P       P       23 41 07.7 +1.4
OZAP   Van, Ozalp-Mer    36.40 298 ⇑P       P       23 41 08.6 +0.4
KS19   Wonju Array Si    36.42  64  P       P       23 41 07.6 -0.6
KS19                                IAmb    IAmb    23 41 17.4
       comp=Z,80nm,1.8s
KSAR   Wonju Array Be    36.43  64  P       P       23 41 06.5 -1.7
KSAR   Wonju Array Be    36.43  64  P       P       23 41 06.5 -1.7
KSRS   Korea Array       36.46  64  P       P       23 41 07.2 -1.2
       comp=Z,8.9nm,0.6s,baz=269,slow=8.4,SNR=32
KSRS                                LR      LR      23 57 12.1
       comp=Z,546nm,20.5s,baz=265,slow=38
       comp=Z,8.9nm,0.6s
RAYN   Ar Rayn           36.52 273  P       P       23 41 08.8 -0.3
RAYN   Ar Rayn           36.52 273  P       P       23 41 08.9 -0.3
RAYN   Ar Rayn           36.52 273  P       P       23 41 08.2 -1.0
RAYN   Ar Rayn           36.52 273 i P      P       23 41 08.5 -0.7
       SNR=11
RAYN   Ar Rayn           36.52 273  P       P       23 41 08.7 -0.5
       comp=Z,9.5nm,1.3s
HAKT   HAKKARI           36.55 296  P       P       23 41 10.8 +1.3
       comp=Z,62nm,1.8s
GEVA   Gevas             37.10 298  P       P       23 41 12.7 -1.5
BNX    BinXian           37.31  50 ⇓P       P       23 41 16.3 +0.7
BNX                                 PP      PnPn    23 42 42.3 +1.1
BNX                                 S       S       23 47 03.6 +0.6
BNX                                 pmax    pmax
       comp=Z,35nm,1.4s
BNX                                 pmax    pmax
       comp=Z,240nm,4.2s
BNX                                 L       L
       comp=Z,1µm,13.3s
BNX                                 L       L
       comp=Z,550nm,11.1s
BNX                                 L       L
       comp=Z,3µm,14.5s
NCK    Nalchik           37.34 306c iP      P       23 41 16.2 +0.3
NCK                                 pmax    pmax
       comp=Z,16nm,0.7s
BELG   Belogornoye       37.56 322  LR      LR      23 58 57.7
       comp=Z,942nm,19.2s,baz=124,slow=40
BELG   Belogornoye       37.56 322 i P      P       23 41 17.8 +0.2
BELG                                pmax    pmax
       comp=Z,6.0nm,0.6s
JOW    Kunigami          37.56  81  LR      LR      23 57 18.6
       comp=Z,306nm,19.2s,baz=217,slow=37
JOW    Kunigami          37.56  81  P       P       23 41 18.1 +0.1
JOW    Kunigami          37.56  81  P       P       23 41 16.9 -1.0
JOW                                 IAmb    IAmb    23 41 18.9
       comp=Z,17nm,0.5s
JOW    Kunigami          37.56  81  P       P       23 41 17.9  0.0
       comp=Z,22nm,0.6s
EPOS   Posof             37.66 303  P       P       23 41 20.6 +1.8
       comp=Z,35nm,1.9s
KBZ    Khabaz            37.88 306  P       P       23 41 20.3 -0.1
       comp=Z,7.2nm,0.8s,baz=102,slow=9.9,SNR=21
KBZ                                 LR      LR      23 59 33.0
       comp=Z,198nm,21.8s,baz=80,slow=40
       comp=Z,7.2nm,0.8s
KBZ    Khabaz            37.88 306d iP      P       23 41 20.7 +0.3
KBZ                                 pmax    pmax
       comp=Z,10.0nm,0.9s
NEUR   Neytrino          37.94 306c iP      P       23 41 23.2 +2.0
NEUR                                pmax    pmax
       comp=Z,29nm,1.4s
GOF    Gofitskoye        38.04 309ceP       P       23 41 22.2 +0.4
SHA1   Shidzhatmaz       38.05 306ceP       P       23 41 23.6 +1.4
KIV    Kislovodsk        38.07 307  P       P       23 41 20.4 -1.8
KIV    Kislovodsk        38.07 307 eP       P       23 41 22.7 +0.5
KIV                                eS       S       23 47 16.4 +1.7
KIV                                 pmax    pmax
       comp=Z,15nm,1.1s
KIV                                 MLR     MLR
       comp=Z,173nm,16.0s
KIV    Kislovodsk        38.07 307  P       P       23 41 21.4 -0.8
KIV    Kislovodsk        38.07 307 i P      P       23 41 22.6 +0.5
       SNR=7.2
KIV    Kislovodsk        38.07 307 ⇑P       P       23 41 23.1 +0.9
KIV    Kislovodsk        38.07 307  P       P       23 41 22.0 -0.2
       comp=Z,263nmcomp=Z,13nm,0.8s
KIV    Kislovodsk        38.07 307  P       P       23 41 22.6 +0.4
       comp=Z,17nm,0.8s
HEH    HeiHe             38.64  43 eP       P       23 41 26.5 -0.3
HEH                                 sP      sP      23 41 32.8 +0.2
HEH                                 PP      PnPn    23 43 02.6 +5.4
HEH                                 pmax    pmax
       comp=Z,16nm,0.9s
HEH                                 L       L
       comp=Z,680nm,13.9s
HEH                                 L       L
       comp=Z,2µm,12.2s
HEH                                 L       L
       comp=Z,3µm,12.3s
JNU    Nakatsue          38.95  71  LR      LR      23 59 11.1
       comp=Z,1µm,18.4s,baz=270,slow=39
KOPT   Kop Dagi          39.20 300  P       P       23 41 31.1 -0.9
LABN   Labinsk           39.58 307 eP       P       23 41 35.3 +0.6
LABN                               e                23 43 05.9
LABN                               eS       S       23 47 40.3 +3.0
LABN                                pmax    pmax
       comp=Z,26nm,0.7s
KIRV   Kirov             39.81 331  LR      LR      23 59 55.2
       comp=Z,683nm,20.9s,baz=127,slow=39
KIRV   Kirov             39.81 331ceP       P       23 41 36.8 +0.4
ZEA    Zeya              39.84  38 eP       P       23 41 37.8 +1.0
ZEA                                 pmax    pmax
       comp=N,10.0nm,0.2s
ZEA                                 pmax    pmax
       comp=Z,10.0nm,0.6s
ZEA                                 MLR     MLR
       comp=E,2µm,12.0s
ZEA                                 MLR     MLR
       comp=N,900nm,15.0s
ZEA                                 MLR     MLR
       comp=Z,2µm,16.0s
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ERBR	**Yeremizino-Bor**	**39.94**	**309**	eP	**P**	**23 41 37.6**	**-0.1**
ERBR				pmax	pmax		
	comp=Z,28nm,0.6s						
ERBR				MLR	MLR		
	comp=E,1µm,12.0s						
ERBR				MLR	MLR		
	comp=Z,383nm,12.0s						
SOC	**Sochi**	**40.14**	**306**	eP	**P**	**23 41 39.2**	**-0.2**
SOC				e		23 43 10.6	
SOC				ePPP	PPP	23 43 32.8	
SOC				eS	**S**	**23 47 45.5**	**-0.1**
SOC				eSSS	SSS	23 51 04.8	
SOC				pmax	pmax		
	comp=Z,23nm,0.6s						
KELT	**Kelkit**	**40.16**	**300**	P	**P**	**23 41 42.4**	**+2.5**
	comp=Z,97nm,1.9s						
USA0B	**Ussuriysk Arra**	**40.20**	**53**	c iP	**P**	**23 41 39.6**	**-0.3**
USA0B	**Ussuriysk Arra**	**40.20**	**53**	P	**P**	**23 41 38.6**	**-1.3**
USRK	**Ussuriysk Ar.**	**40.20**	**53**	P	**P**	**23 41 40.2**	**+0.3**
	comp=Z,7.4nm,0.5s,baz=258,slow=7.2,SNR=19						
USRK				LR	LR	23 59 19.3	
	comp=Z,550nm,19.7s,baz=256,slow=38						
	comp=Z,7.4nm,0.5s						
USRK	**Ussuriysk Ar.**	**40.20**	**53**	P	**P**	**23 41 39.4**	**-0.6**
JMZ	**Minamidaito 2**	**40.36**	**82**	P	**P**	**23 41 43.6**	**+2.2**
	comp=Z,85nm,1.9s						
VRH	**Novokhopyorsk**	**40.51**	**318**	eP	**P**	**23 41 42.3**	**0.0**
VRH				pmax	pmax		
	comp=Z,79nm,0.7s						
ARPR	**Arapgir-MALATY**	**40.83**	**299**	P	**P**	**23 41 45.4**	**+0.1**
ARPR	**Arapgir-MALATY**	**40.83**	**299**	P	**P**	**23 41 47.8**	**+2.5**
	comp=Z,20nm,1.2s						
KLR	**Kul'dur**	**41.03**	**46**	LR	LR	00 00 52.4	
	comp=Z,489nm,18.8s,baz=254,slow=39						
KLR	**Kul'dur**	**41.03**	**46**	ceP	**P**	**23 41 47.0**	**+0.3**
KLR				pmax	pmax		
	comp=Z,31nm,1.7s						
JMN	**Monobe**	**41.40**	**70**	P	**P**	**23 41 51.3**	**+1.4**
JMN	**Monobe**	**41.40**	**70**	P	**P**	**23 41 49.9**	**0.0**
JMN				IAmb	IAmb	23 41 52.1	
	comp=Z,38nm,0.9s						
JMN	**Monobe**	**41.40**	**70**	P	**P**	**23 41 51.6**	**+1.7**
	comp=Z,48nm,0.9s						
NRIK	**Noril'sk**	**41.61**	**1**	P	**P**	**23 41 51.9**	**+0.7**
	comp=Z,142nm,0.6s,baz=165,slow=6.9,SNR=209						
NRIK				S	**S**	**23 48 06.0**	**-0.9**
	comp=Z,0.6nm,0.3s,baz=212,slow=3.6,SNR=1.2						
NRIK				LR	LR	00 01 21.6	
	comp=Z,2µm,18.4s,baz=184,slow=39						
NRIK	**Noril'sk**	**41.61**	**1**	c iP	**P**	**23 41 51.9**	**+0.7**
NRIK				pmax	pmax		
	comp=Z,149nm,0.6s						
NRIK	**Noril'sk**	**41.61**	**1**	P	**P**	**23 41 51.2**	**+0.1**
GAZ	**Gaziantep**	**41.72**	**296**	P	**P**	**23 41 53.1**	**+0.5**
VORD	**Divnogorie**	**41.91**	**317**	eP	**P**	**23 41 52.6**	**-1.2**
VORD				pmax	pmax		
	comp=Z,20nm,0.9s						
ANN	**Anapa**	**41.92**	**307**	⇑iP	**P**	**23 41 54.1**	**+0.1**
ANN				eS	**S**	**23 48 14.9**	**+2.8**
ANN				pmax	pmax		
	comp=Z,57nm,0.7s						
ANN				MLR	MLR		
	comp=Z,533nm,11.0s						
ANN				MLR	MLR		
	comp=E,539nm,11.0s						
ANN				MLR	MLR		
	comp=N,339nm,13.0s						
VSR	**Storozhevoye**	**42.05**	**317**	eP	**P**	**23 41 54.0**	**-1.0**
VSR				pmax	pmax		
	comp=Z,16nm,0.8s						
VORR	**Voronezh**	**42.15**	**318**	eP	**P**	**23 41 55.8**	**0.0**
VORR				pmax	pmax		
	comp=Z,47nm,0.7s						
TOKA	**Tokat**	**42.29**	**300**	P	**P**	**23 41 57.4**	**+0.2**
ASF	**Jabal al Asfar**	**42.36**	**288**	LR	LR	00 02 51.8	
	comp=Z,323nm,20.1s,baz=82,slow=41						
ANDN	**Andirin**	**42.40**	**296**	P	**P**	**23 41 59.6**	**+1.4**
	comp=Z,80nm,1.8s						
LPSR	**Galich'ya Gora**	**42.58**	**319**	eP	**P**	**23 41 59.7**	**+0.4**
LPSR				pmax	pmax		
	comp=Z,87nm,0.8s						
BNN	**Bunyan**	**42.77**	**298**	P	**P**	**23 42 01.6**	**+0.4**
DAV	**Davao City (W)**	**42.84**	**111**	LR	LR	00 02 42.7	
	comp=Z,121nm,19.3s,baz=317,slow=40						
GEM	**Giv'at Ha'Em**	**43.27**	**290**	P	P	23 42 12.2	+7.0
ATD	**Arta Tunnel**	**43.36**	**257**	LR	LR	23 59 34.5	
	comp=Z,14nm,18.3s,baz=50,slow=35						
ATD	**Arta Tunnel**	**43.36**	**257**	P	**P**	**23 42 06.8**	**+0.7**
ATD				S	**S**	**23 48 30.9**	**-3.2**
ATD	**Arta Tunnel**	**43.36**	**257**	P	**P**	**23 42 06.0**	**-0.2**
ATD	**Arta Tunnel**	**43.36**	**257**	P	**P**	**23 42 07.7**	**+1.5**
	comp=Z,12nm,0.6s						
QRNJ	**Al-Qirein**	**43.45**	**289**	P	**P**	**23 42 09.2**	**+2.6**
	comp=Z,20µmcomp=Z,3µm,0.7s						
MMAI	**Mount Meron Ar**	**43.51**	**290**	P	**P**	**23 42 07.0**	**-0.2**
	comp=Z,2.2nm,0.6s,baz=119,slow=15,SNR=6.2						
MMAI				S	**S**	**23 48 36.6**	**+0.6**
	comp=Z,1.4nm,0.8s,baz=116,slow=9.8,SNR=1.9						
MMAI				LR	LR	00 03 58.3	
	comp=Z,368nm,19.3s,baz=88,slow=41						
	comp=Z,2.2nm,0.6s						
KHAM	**Kharkiv**	**43.57**	**315**	P	**P**	**23 42 06.5**	**-0.9**
UJAP	**Al Uja**	**43.59**	**288**	P	**P**	**23 42 09.6**	**+1.8**
	comp=Z,25nm,1.3s						
GHAJ	**Ghor Haditha**	**43.60**	**287**	P	**P**	**23 42 04.7**	**-3.1**
GHAJ	**Ghor Haditha**	**43.60**	**287**	P	**P**	**23 42 10.9**	**+3.1**
	comp=Z,539nmcomp=Z,27nm,0.9s						
BZK	**Bozkurt**	**44.20**	**303**	P	**P**	**23 42 12.6**	**0.0**
BZK	**Bozkurt**	**44.20**	**303**	P	**P**	**23 42 12.5**	**0.0**
	comp=Z,72nm,0.7s						
PRNI	**Paran**	**44.23**	**286**	P	P	23 42 20.2	+7.2
KIRS	**Kirsehir-Merke**	**44.27**	**299**	⇓P	**P**	**23 42 13.7**	**+0.5**
MOS	**Moscow**	**44.27**	**323**	eP	**P**	**23 42 12.8**	**-0.1**
MOS				e		23 43 57.7	
MOS				ePPP	PPP	23 44 35.8	
MOS				eS	**S**	**23 48 45.2**	**-1.1**
MOS				pmax	pmax		
	comp=Z,49nm,0.6s						
MOS				MLR	MLR		
	comp=E,1µm,16.0s						
MOS				MLR	MLR		
	comp=Z,1µm,16.0s						
SIM	**Simferopol'**	**44.28**	**307**	eP	**P**	**23 42 14.0**	**+0.8**
SIM				eS	**S**	**23 48 48.4**	**+1.6**
SIM				pmax	pmax		
	comp=Z,52nm,0.8s						
SIM				smax	smax		
	comp=N,130nm,9.3s						
GRNR	**Gornyy**	**44.31**	**45**	⇑iP	**P**	**23 42 13.8**	**+0.5**
GRNR				pmax	pmax		
	comp=Z,5.0nm,1.2s						
GRNR				MLR	MLR		
	comp=E,650nm,13.0s						
GRNR				MLR	MLR		
	comp=N,360nm,10.0s						
GRNR				MLR	MLR		
	comp=Z,970nm,11.0s						
EIL	**Elat**	**44.40**	**285**	LR	LR	00 04 16.8	
	comp=Z,542nm,18.3s,baz=96,slow=41						
ILGA	**Ilgaz**	**44.40**	**301**	P	**P**	**23 42 13.3**	**-1.2**
ILGA				IAmb	IAmb	23 42 20.5	
	comp=Z,84nm,1.7s						
BR104	**Keskin Array S**	**44.47**	**299**	P	**P**	**23 42 14.0**	**-0.9**
	comp=Z,69nmcomp=Z,8.7nm,0.8s						
BR131	**Keskin Array S**	**44.47**	**300**	P	**P**	**23 42 14.7**	**-0.3**
BR131	**Keskin Array S**	**44.47**	**300**	i P	**P**	**23 42 15.0**	**+0.1**
BR131	**Keskin Array S**	**44.47**	**300**	P	**P**	**23 42 13.9**	**-1.0**
BR131				IAmb	IAmb	23 42 20.7	
	comp=Z,55nm,1.9s						
BRTR	**Keskin Array B**	**44.47**	**300**	P	**P**	**23 42 14.6**	**-0.3**
	comp=Z,3.7nm,0.6s,baz=107,slow=6.8,SNR=28						
BRTR				PcP	**PcP**	**23 43 57.2**	**-1.1**
	comp=Z,1.7nm,0.6s,baz=107,slow=3.5,SNR=2.4						
BRTR				S	**S**	**23 48 49.6**	**-0.3**
	comp=Z,0.3nm,0.7s,baz=62,slow=20,SNR=1.4						
	comp=Z,3.7nm,0.6s						
BRTR	**Keskin Array B**	**44.47**	**300**	i P	**P**	**23 42 15.5**	**+0.6**
BRTR				pmax	pmax		
	comp=Z,4.0nm,0.6s						
BRTR	**Keskin Array B**	**44.47**	**300**	P	**P**	**23 42 13.5**	**-1.4**
BR106	**Keskin Array S**	**44.48**	**300**	P	**P**	**23 42 14.6**	**-0.4**
	comp=Z,89nmcomp=Z,8.4nm,0.7s						
BR105	**Keskin Array S**	**44.48**	**300**	P	**P**	**23 42 14.9**	**-0.1**
	comp=Z,94nmcomp=Z,10nm,0.9s						
OBN	**Obninsk**	**44.66**	**322**	LR	LR	00 02 47.1	
	comp=Z,830nm,19.8s,baz=67,slow=38						
OBN	**Obninsk**	**44.66**	**322**	c iP	**P**	**23 42 15.6**	**-0.3**
OBN				e*PP	**pP**	**23 42 18.7**	**-1.3**
OBN				e*SP	**sP**	**23 42 20.7**	**-1.2**
OBN				e		23 43 58.5	
OBN				i		23 44 07.7	
OBN				ePPP	PPP	23 44 36.2	
OBN				eS	**S**	**23 48 54.9**	**+3.1**
OBN				eSSS	SSS	23 52 57.8	
OBN				pmax	pmax		
	comp=Z,50nm,0.9s						
OBN				MLR	MLR		
	comp=Z,888nm,18.0s						
OBN	**Obninsk**	**44.66**	**322**	P	**P**	**23 42 15.5**	**-0.5**
OBN	**Obninsk**	**44.66**	**322**	⇓P	**P**	**23 42 16.0**	**+0.1**
OBN	**Obninsk**	**44.66**	**322**	P	**P**	**23 42 15.4**	**-0.5**
	comp=Z,1µmcomp=Z,95nm,0.8s						
OBN	**Obninsk**	**44.66**	**322**	P	**P**	**23 42 16.2**	**+0.2**
	comp=Z,96nm,0.8s						
KZIT	**Kziot**	**44.66**	**287**	P	**P**	**23 42 18.7**	**+2.4**
	comp=Z,789nmcomp=Z,51nm,1.2s						
KZIT	**Kziot**	**44.66**	**287**	P	**P**	**23 42 18.5**	**+2.1**
	comp=Z,51nm,1.2s						
MAJO	**Matsushiro**	**44.70**	**65**	P	**P**	**23 42 16.7**	**0.0**
	comp=Z,18nm,1.9s						
MJAR	**Matsushiro Arr**	**44.71**	**65**	P	**P**	**23 42 16.1**	**-0.6**
	comp=Z,2.1nm,0.6s,baz=277,slow=9.8,SNR=13						
MJAR				LR	LR	00 01 35.3	
	comp=Z,219nm,19.0s,baz=275,slow=37						
	comp=Z,2.1nm,0.6s						
MJAR	**Matsushiro Arr**	**44.71**	**65**	P	**P**	**23 42 16.1**	**-0.6**
MJAR				pmax	pmax		
	comp=Z,15nm,1.5s						
MJAR	**Matsushiro Arr**	**44.71**	**65**	P	**P**	**23 42 16.1**	**-0.6**
YAK	**Yakutsk**	**44.75**	**28**	LR	LR	00 02 30.9	
	comp=Z,674nm,21.7s,baz=240,slow=38						
YAK	**Yakutsk**	**44.75**	**28**	eP	**P**	**23 42 16.5**	**-0.1**
YAK				e*PP	**pP**	**23 42 20.3**	**-0.5**
YAK				e		23 44 00.0	
YAK				ePPP	PPP	23 44 36.2	
YAK				eS	**S**	**23 48 51.9**	**-1.2**
YAK				e*SS	**sS**	**23 49 04.4**	**+4.5**
YAK				eSS	SS	23 52 00.8	-13
YAK				e		23 52 15.7	
YAK				pmax	pmax		
	comp=Z,50nm,0.8s						
YAK				pmax	pmax		
	comp=N,12nm,1.4s						
YAK				pmax	pmax		
	comp=E,25nm,1.6s						
YAK				smax	smax		
	comp=E,25nm,2.0s						
YAK				smax	smax		
	comp=N,22nm,1.7s						
YAK				MLR	MLR		
	comp=E,566nm,19.0s						
YAK				MLR	MLR		
	comp=Z,687nm,19.0s						
YAK				MLR	MLR		
	comp=N,235nm,18.0s						
YAK	**Yakutsk**	**44.75**	**28**	P	**P**	**23 42 16.4**	**-0.2**
YAK	**Yakutsk**	**44.75**	**28**	P	**P**	**23 42 17.1**	**+0.5**
	comp=Z,124nm,0.7s						
CSS	**Mathiatis**	**45.00**	**293**	P	**P**	**23 42 18.9**	**-0.1**
CSS				IAmb	IAmb	23 42 35.5	
	comp=Z,17nm,0.7s						
CSS	**Mathiatis**	**45.00**	**293**	P	**P**	**23 42 18.4**	**-0.7**
	comp=Z,30nm,0.7s						
CSS	**Mathiatis**	**45.00**	**293**	P	**P**	**23 42 20.3**	**+1.2**
	comp=Z,30nm,0.7s						
CSS	**Mathiatis**	**45.00**	**293**	P	**P**	**23 42 19.9**	**+0.9**
	comp=Z,30nm,0.7s						
KKUL	**Konya-Kulu**	**45.04**	**299**	P	**P**	**23 42 18.2**	**-1.2**
	comp=Z,40nm,0.9s						
KLMR	**Klimovskoe**	**45.28**	**330**	eP	**P**	**23 42 20.1**	**-0.8**
KLMR				pmax	pmax		
	comp=Z,40nm,0.7s						
KLMR				MLR	MLR		
	comp=Z,817nm,17.0s						
LUWI	**Luwuk**	**45.57**	**123**	P	**P**	**23 42 27.3**	**+3.6**
KAPI	**Kappang**	**46.16**	**130**	LR	LR	00 05 23.8	
	comp=Z,232nm,19.9s,baz=293,slow=41						
KAPI	**Kappang**	**46.16**	**130**	S	**S**	**23 49 19.3**	**+4.8**
KEPZ	**Antalya-Kepez**	**46.21**	**296**	⇓P	**P**	**23 42 28.9**	**+0.3**
JHJ	**Hachijo jima 2**	**46.37**	**70**	LR	LR	00 03 57.3	
	comp=Z,853nm,18.1s,baz=304,slow=39						
JTM	**Tenmabayashi**	**46.72**	**59**	P	**P**	**23 42 32.0**	**-0.5**
BORA	**Eskisehir**	**46.92**	**300**	P	**P**	**23 42 34.2**	**0.0**
ADZR	**Andozero**	**47.16**	**334**	c iP	**P**	**23 42 35.7**	**+0.1**
ADZR				pmax	pmax		
	comp=Z,68nm,0.6s						
PURM	**Purcari**	**47.35**	**309**	⇑P	**P**	**23 42 36.1**	**-1.3**
PURM	**Purcari**	**47.35**	**309**	P	**P**	**23 42 36.7**	**-0.7**
	comp=Z,2µmcomp=Z,147nm,0.6s						
PURM				pP	**pP**	**23 42 39.8**	**-1.7**
	comp=Z,2µmcomp=Z,147nm,0.6s						
ELL	**Elmali**	**47.58**	**296**	P	**P**	**23 42 39.2**	**-0.3**
ELL				pmax	pmax		
	comp=Z,97nm,0.6s						
ELL	**Elmali**	**47.58**	**296**	P	**P**	**23 42 39.2**	**-0.3**
ASAJ	**Asahikawa**	**47.81**	**54**	LR	LR	00 04 01.8	
	comp=Z,500nm,19.0s,baz=272,slow=38						
ASAJ	**Asahikawa**	**47.81**	**54**	P	**P**	**23 42 41.1**	**+0.2**
AKAS	**Kas**	**47.88**	**295**	P	**P**	**23 42 40.0**	**-1.8**
AKAS				IAmb	IAmb	23 42 45.8	
	comp=Z,31nm,0.8s						
YSS	**Yuzhno-Sakhali**	**47.99**	**51**	P	**P**	**23 42 43.1**	**+0.8**
YSS	**Yuzhno-Sakhali**	**47.99**	**51**	eP	**P**	**23 42 40.3**	**-2.0**
YSS				e*SP	**pP**	**23 42 44.2**	**-2.3**
YSS				eS	**S**	**23 49 33.4**	**-6.6**
YSS				eSS	**ScS**	**23 52 38.2**	**+2.7**
YSS				eSSS	SSS	23 54 12.2	
YSS				pmax	pmax		
	comp=Z,200nm,2.3s						
YSS				pmax	pmax		
	comp=Z,40nm,1.1s						
YSS				smax	smax		
	comp=N,200nm,5.2s						
YSS				MLR	MLR		
	comp=Z,800nm,15.0s						
YSS	**Yuzhno-Sakhali**	**47.99**	**51**	P	**P**	**23 42 42.4**	**+0.1**
	comp=Z,49nm,1.3s						
JURR	**Jurilovca**	**48.00**	**306**	⇑P	**P**	**23 42 43.2**	**+0.9**
TLCR		**48.05**	**307**	P	**P**	**23 42 42.5**	**-0.2**
TLCR		**48.05**	**307**	⇑P	**P**	**23 42 42.6**	**-0.2**
AK09	**Malin Array Si**	**48.07**	**314**	P	**P**	**23 42 41.8**	**-1.1**
AK10	**Malin Array Si**	**48.09**	**314**	P	**P**	**23 42 42.2**	**-0.8**
AK08	**Malin Array Si**	**48.09**	**314**	P	**P**	**23 42 42.4**	**-0.6**
AKASG	**Malin Array Be**	**48.12**	**314**	P	**P**	**23 42 42.1**	**-1.1**
	comp=Z,7.6nm,0.5s,baz=84,slow=6.9,SNR=84						
AKASG				LR	LR	00 06 07.1	
	comp=Z,370nm,18.6s,baz=74,slow=40						
	comp=Z,7.6nm,0.5s						
AKASG	**Malin Array Be**	**48.12**	**314**	i P	**P**	**23 42 42.2**	**-1.1**
AKASG				pmax	pmax		
	comp=Z,18nm,0.5s						
AKASG	**Malin Array Be**	**48.12**	**314**	P	**P**	**23 42 41.6**	**-1.7**
AKASG				IAmb	IAmb	23 42 45.0	
	comp=Z,23nm,0.6s						
AKBB	**Malin Array Si**	**48.12**	**314**	ceP	**P**	**23 42 42.8**	**-0.5**
AKBB				pmax	pmax		
	comp=Z,25nm,0.7s						
AKBB	**Malin Array Si**	**48.12**	**314**	IAmb	IAmb	23 42 44.9	
	comp=Z,26nm,0.7s						
AKBB	**Malin Array Si**	**48.12**	**314**	P	**P**	**23 42 42.5**	**-0.8**
AK05	**Malin Array Si**	**48.13**	**314**	P	**P**	**23 42 42.3**	**-1.0**
AK06	**Malin Array Si**	**48.13**	**314**	P	**P**	**23 42 42.5**	**-0.8**
KIEV	**Kiev**	**48.13**	**314**	P	**P**	**23 42 42.8**	**-0.5**
KIEV	**Kiev**	**48.13**	**314**	P	**P**	**23 42 41.7**	**-1.6**
KIEV				IAmb	IAmb	23 42 44.9	
	comp=Z,24nm,0.8s						
KIEV	**Kiev**	**48.13**	**314**	i P	**P**	**23 42 42.6**	**-0.8**
	SNR=16						
KIEV	**Kiev**	**48.13**	**314**	⇑P	**P**	**23 42 42.9**	**-0.5**
KIEV	**Kiev**	**48.13**	**314**	P	**P**	**23 42 42.5**	**-0.8**
	comp=Z,2µmcomp=Z,141nm,0.7s						
KIEV	**Kiev**	**48.13**	**314**	P	**P**	**23 42 42.8**	**-0.5**
	comp=Z,36nm,0.7s						
ERM	**Erimo**	**48.25**	**57**	P	**P**	**23 42 44.7**	**+0.3**
TPGR	**Topolog**	**48.32**	**307**	⇓P	**P**	**23 42 45.0**	**+0.1**
TIRR	**Tirgusor**	**48.33**	**306**	P	**P**	**23 42 44.2**	**-0.7**
	comp=Z,17nm,1.8s						
LEOM	**Leova**	**48.48**	**309**	P	**P**	**23 42 46.3**	**+0.3**
SORM	**Soroca**	**48.48**	**311**	P	**P**	**23 42 45.0**	**-1.0**
	comp=Z,37nm,0.5s						
CFR	**Carcaliu**	**48.53**	**307**	P	**P**	**23 42 46.2**	**-0.2**
CFR	**Carcaliu**	**48.53**	**307**	⇑P	**P**	**23 42 46.3**	**-0.2**
VLDR	**Vladesti**	**48.58**	**308**	⇑P	**P**	**23 42 47.1**	**+0.3**
TLBR	**Topalu**	**48.59**	**306**	⇑P	**P**	**23 42 46.7**	**-0.2**
SCTR	**Scanteiesti**	**48.63**	**308**	⇑P	**P**	**23 42 48.1**	**+0.8**
HARR	**Harsova**	**48.67**	**306**	P	**P**	**23 42 47.5**	**0.0**
HARR	**Harsova**	**48.67**	**306**	⇓P	**P**	**23 42 47.6**	**0.0**
VARL	**Varlezi**	**48.74**	**308**	⇑P	**P**	**23 42 48.1**	**0.0**
ICOR	**Ion Corvin**	**48.77**	**306**	⇑P	**P**	**23 42 49.0**	**+0.7**
MI30	**MI30,Zelenitsa**	**48.78**	**314**	P	**P**	**23 42 47.1**	**-1.2**
	comp=Z,69nm,0.5s						
VASR	**Vaslui**	**48.79**	**309**	⇓P	**P**	**23 42 49.1**	**+0.6**
TUDR		**48.86**	**308**	⇑P	**P**	**23 42 50.0**	**+1.0**
BIR	**Birlad**	**48.90**	**308**	P	**P**	**23 42 49.9**	**+0.6**
BIR	**Birlad**	**48.90**	**308**	⇓P	**P**	**23 42 49.9**	**+0.6**
IASR	**Iasi**	**48.96**	**310**	⇓P	**P**	**23 42 49.2**	**-0.5**
MI29	**MI29, Kamyanyy**	**48.97**	**314**	P	**P**	**23 42 47.8**	**-2.0**
	comp=Z,235nm,0.7s						
LUBAR	**Lubar, Ukraine**	**48.99**	**313**	P	**P**	**23 42 49.2**	**-0.7**
GHRR		**49.05**	**308**	⇑P	**P**	**23 42 51.2**	**+0.7**
GHRR		**49.05**	**308**	P	**P**	**23 42 49.9**	**-0.6**
GHRR		**49.05**	**308**	P	**P**	**23 42 50.7**	**+0.3**
	comp=Z,101nm,0.6s						
BALY	**Balya**	**49.10**	**300**	P	**P**	**23 42 51.0**	**-0.1**
	comp=Z,116nm,0.7s						
NEF	**NEVSHA**	**49.17**	**305**	eP	**P**	**23 42 52.4**	**+0.9**
PUL	**Pulkovo**	**49.20**	**327**	ceP	**P**	**23 42 53.2**	**+1.8**
PUL				pmax	pmax		
	comp=Z,69nm,0.4s						
ODBI	**Odobesti**	**49.29**	**308**	⇑P	**P**	**23 42 53.6**	**+1.2**
MNK	**Minsk**	**49.42**	**319**	i P	**P**	**23 42 53.3**	**+0.2**
MNK				i		23 44 14.7	
MNK				i		23 44 48.4	
MNK				i S	**S**	**23 50 02.7**	**+2.8**
MNK				pmax	pmax		
	comp=E,2.0nm,0.7s						
MNK				pmax	pmax		
	comp=Z,16nm,0.6s						
MNK				pmax	pmax		
	comp=N,11nm,0.8s						
MNK				MLR	MLR		
	comp=N,420nm,16.0s						
MNK				MLR	MLR		
	comp=Z,390nm,13.0s						
MNK				MLR	MLR		
	comp=E,191nm,13.0s						
MNK	**Minsk**	**49.42**	**319**	i LQ	LQ	00 01 06.8	
MNK				i P	**P**	**23 42 53.4**	**+0.2**
	comp=E,2.0nm,0.7s						
MNK				i P	**P**	**23 42 53.4**	**+0.2**
	comp=N,11nm,0.8s						
MNK				i P	**P**	**23 42 53.4**	**+0.2**
	comp=Z,16nm,0.6s,baz=99						
MNK				i PcP	**PcP**	**23 44 14.8**	**-0.6**
MNK				i PP	**PP**	**23 44 48.5**	**+1.4**
MNK				i PPP	PPP	23 46 13.6	
MNK				i ScP	**ScP**	**23 48 15.0**	**+4.4**
MNK				i PcS	PcS	23 48 22.8	+11
MNK				i S	**S**	**23 50 02.8**	**+2.8**
MNK				i ScS	**ScS**	**23 52 53.7**	**+8.9**
MNK				i SS	SS	23 53 58.6	+27
MNK				i SSS	SSS	23 55 02.7	
MNK				i LR	LR	00 04 03.8	
MNK				i LRM	MLR	00 05 51.6	
	comp=N,420nm,15.6s						
MNK				i LRM	MLR	00 05 55.1	
	comp=Z,390nm,13.2s						
MNK				i LRM	MLR	00 06 59.9	
	comp=E,191nm,13.1s						
VRI	**Vrincioaia**	**49.52**	**308**	P	**P**	**23 42 54.7**	**+0.6**
VRI	**Vrincioaia**	**49.52**	**308**	⇓P	**P**	**23 42 54.7**	**+0.6**
VRI	**Vrincioaia**	**49.52**	**308**	P	**P**	**23 42 53.4**	**-0.7**
	comp=E,45nm,0.7s						
VRI	**Vrincioaia**	**49.52**	**308**	P	**P**	**23 42 54.8**	**+0.6**
	comp=Z,46nm,0.7s						
BISRR	**Bisoca**	**49.53**	**308**	⇓P	**P**	**23 42 54.2**	**-0.1**
BISRR	**Bisoca**	**49.53**	**308**	P	**P**	**23 42 55.2**	**+0.9**
	comp=Z,108nm,0.8s						
SAHR	**Sahastru**	**49.55**	**308**	⇓P	**P**	**23 42 55.5**	**+1.1**
PLOR	**Plostina**	**49.58**	**308**	P	**P**	**23 42 55.2**	**+0.6**
PLOR	**Plostina**	**49.58**	**308**	⇑P	**P**	**23 42 55.2**	**+0.6**
TESR	**Tescani**	**49.58**	**309**	P	**P**	**23 42 53.8**	**-0.8**
	comp=Z,455nmcomp=Z,27nm,0.7s						
TESR	**Tescani**	**49.58**	**309**	P	**P**	**23 42 54.0**	**-0.5**
	comp=Z,27nm,0.8s						
GIRR	**Girov**	**49.69**	**309**	⇓P	**P**	**23 42 55.3**	**-0.1**
RAZG	**Razgrad**	**49.72**	**305**	⇓P	**P**	**23 42 56.1**	**+0.4**
ONER	**Baraj Valea Uz**	**49.75**	**309**	⇓P	**P**	**23 42 56.9**	**+1.0**
KMPD	**K-Podol'skiy**	**49.76**	**311**	P	**P**	**23 42 54.7**	**-1.1**
NEHR	**Nehoiu**	**49.83**	**307**	⇓P	**P**	**23 42 57.7**	**+1.2**
TIXI	**Tiksi**	**49.84**	**16**	LR	LR	00 05 01.2	
	comp=Z,854nm,18.6s,baz=252,slow=37						
TIXI	**Tiksi**	**49.84**	**16**	ceP	**P**	**23 42 55.9**	**-0.2**
TIXI				pmax	pmax		
	comp=Z,43nm,0.7s						
TIXI	**Tiksi**	**49.84**	**16**	P	**P**	**23 42 55.2**	**-0.9**
PRAR	**RASCA**	**49.88**	**310**	⇑P	**P**	**23 42 56.2**	**-0.6**
COVR	**Voineasa-Covas**	**49.89**	**308**	⇓P	**P**	**23 42 57.7**	**+0.7**
KARP	**Karpathos**	**49.94**	**294**	P	**P**	**23 42 56.9**	**-0.6**
	comp=Z,79nm,1.1s						
KARP	**Karpathos**	**49.94**	**294**	P	P	23 43 06.2	+8.7
BIZ	**Bicaz**	**49.96**	**309**	⇑P	**P**	**23 42 57.5**	**0.0**
TURR	**Turia**	**50.02**	**308**	⇓P	**P**	**23 42 58.9**	**+0.9**
MLR	**Muntele Rosu**	**50.07**	**307**	LR	LR	00 09 09.1	
	comp=Z,314nm,18.3s,baz=17,slow=42						
MLR	**Muntele Rosu**	**50.07**	**307**	P	**P**	**23 42 59.6**	**+1.1**
MLR	**Muntele Rosu**	**50.07**	**307**	⇓P	**P**	**23 42 59.7**	**+1.1**
MLR	**Muntele Rosu**	**50.07**	**307**	P	**P**	**23 42 58.7**	**+0.2**
	comp=Z,840nmcomp=Z,93nm,0.8s						
MLR	**Muntele Rosu**	**50.07**	**307**	P	**P**	**23 42 59.5**	**+1.1**
	comp=Z,80nm,0.7s						
OZUR		**50.18**	**308**	⇓P	**P**	**23 43 00.2**	**+1.1**
BOSR	**Bodos**	**50.26**	**308**	⇓P	**P**	**23 43 00.4**	**+0.6**
RNPP5	**Staryi Chortor**	**50.27**	**315**	P	**P**	**23 42 58.8**	**-0.9**
LVZ	**Lovozero**	**50.28**	**337**	i P	**P**	**23 43 00.4**	**+0.8**
LVZ				pmax	pmax		
	comp=Z,40nm,1.0s						
LVZ	**Lovozero**	**50.28**	**337**	P	**P**	**23 42 59.0**	**-0.6**
LVZ				IAmb	IAmb	23 43 00.5	
	comp=Z,34nm,0.7s						
LVZ	**Lovozero**	**50.28**	**337**	P	**P**	**23 42 59.0**	**-0.6**
	comp=Z,63nm,1.0s						
RNPP9	**Sopachiv**	**50.28**	**315**	P	**P**	**23 42 58.9**	**-0.9**
RNPP8	**Varash**	**50.30**	**315**	P	**P**	**23 42 59.1**	**-0.8**
RNPP1	**Kostyukhnivka**	**50.35**	**315**	P	**P**	**23 42 59.8**	**-0.5**
DOPR	**Dopca**	**50.45**	**308**	⇑P	**P**	**23 43 02.2**	**+1.0**
APA	**Apatity**	**50.57**	**337**	eP	**P**	**23 43 01.3**	**-0.4**
APA				e		23 44 15.7	
APA				e		23 45 00.3	
APA				eS	**S**	**23 50 12.4**	**-3.1**
APA				e		23 52 55.2	
APA				eSS	**SS**	**23 53 50.3**	**+1.0**
BURAR	**Bucovina Array**	**50.57**	**310**	P	**P**	**23 43 02.0**	**-0.1**
BURAR	**Bucovina Array**	**50.57**	**310**	P	**P**	**23 43 01.5**	**-0.7**
BURAR				IAmb	IAmb	23 43 03.7	
	comp=Z,22nm,0.7s						
BURAR	**Bucovina Array**	**50.57**	**310**	⇑P	**P**	**23 43 02.0**	**-0.1**
BUR08	**Bucovina Ar. S**	**50.58**	**310**	IAmb	IAmb	23 43 03.6	
	comp=Z,14nm,0.6s						
VOIR		**50.70**	**307**	P	**P**	**23 43 03.1**	**-0.1**
VOIR		**50.70**	**307**	⇓P	**P**	**23 43 03.1**	**-0.1**
VOIR		**50.70**	**307**	P	**P**	**23 43 02.5**	**-0.7**
	comp=Z,9.5nm,0.6s						
VOIR		**50.70**	**307**	P	**P**	**23 43 03.6**	**+0.4**
	comp=Z,9.4nm,0.6s						
VSU	**Vasula**	**50.71**	**324**	ceP	**P**	**23 43 02.4**	**-0.5**
VSU				pmax	pmax		
	comp=Z,60nm,1.7s						
VSU	**Vasula**	**50.71**	**324**	P	**P**	**23 43 01.6**	**-1.3**
	comp=Z,68nm,0.7s						
ARR	**Arges**	**51.00**	**307**	⇓P	**P**	**23 43 05.6**	**+0.2**
ARR	**Arges**	**51.00**	**307**	P	**P**	**23 43 05.7**	**+0.3**
	comp=Z,20nm,0.7s						
MDB	**Medias**	**51.15**	**308**	P	**P**	**23 43 07.5**	**+1.0**
MDB	**Medias**	**51.15**	**308**	⇓P	**P**	**23 43 07.5**	**+1.0**
ARBE	**Arbavere**	**51.27**	**325**	P	**P**	**23 43 07.4**	**+0.3**
	comp=Z,209nm,0.6s						
PGB	**Panagyurishte**	**51.48**	**304**	eP	**P**	**23 43 10.2**	**+1.2**
MSF	**Maaselka**	**51.56**	**334**	P	**P**	**23 43 09.4**	**+0.1**
MSF	**Maaselka**	**51.56**	**334**	P	**P**	**23 43 09.3**	**+0.1**
	comp=Z,65nm,1.2s						
LOT	**Lotru**	**51.60**	**307**	⇓P	**P**	**23 43 10.5**	**+0.5**
LOT	**Lotru**	**51.60**	**307**	P	**P**	**23 43 10.6**	**+0.5**
	comp=Z,10nm,0.7s						
FINES	**FINESS Array B**	**51.63**	**328**	P	**P**	**23 43 09.2**	**-0.6**

	comp=Z,28nm,0.6s,baz=105,slow=7.9,SNR=207					
FINES			LR	LR	00 07 01.6	
	comp=Z,565nm,19.4s,baz=100,slow=38					
	comp=Z,28nm,0.6s					
FINES	FINESS Array B	51.63 328	P	P	23 43 08.8	-1.0
CJR	Cluj-Napoca	51.68 309	P	P	23 43 10.5	+0.1
CJR	Cluj-Napoca	51.68 309	⇓P	P	23 43 10.6	+0.1
BMR	Baia Mare	51.73 310	P	P	23 43 11.5	+0.8
BMR	Baia Mare	51.73 310	⇓P	P	23 43 11.5	+0.8
BMR	Baia Mare	51.73 310	P	P	23 43 11.8	+1.0
	comp=Z,74nm,0.8s					
MPEP	Malo Peshtene	51.74 305	eP	P	23 43 12.2	+1.3
PABE	Paberze	51.78 320	P	P	23 43 10.3	-0.7
PABE	Paberze	51.78 320	P	P	23 43 10.9	-0.1
	comp=Z,245nm,0.6s					
IDI	Anoyia	51.81 294	P	P	23 43 10.3	-1.3
IDI	Anoyia	51.81 294	IAmb	IAmb	23 43 16.6	
	comp=Z,21nm,0.8s					
BAIL	Bailesti	51.98 306	⇑P	P	23 43 12.5	-0.1
MARR	Marisel-Cluj	52.01 309	⇑P	P	23 43 13.6	+0.6
PLNA	Plana	52.04 304	eP	P	23 43 14.4	+1.1
BLSH	Balsha	52.11 304	eP	P	23 43 15.2	+1.4
VTS	Vitosha	52.17 304	eP	P	23 43 15.4	+1.1
DEV	Deva	52.19 308	P	P	23 43 14.8	+0.6
DEV	Deva	52.19 308	⇓P	P	23 43 14.9	+0.6
DEV	Deva	52.19 308	P	P	23 43 14.8	+0.6
	comp=Z,29nm,0.9s					
KWP	Kalwaria Pacla	52.24 313	P	P	23 43 15.1	+0.5
KWP	Kalwaria Pacla	52.24 313	P	P	23 43 13.7	-0.9
	comp=Z,1µmcomp=Z,63nm,0.6s					
MTSE	Matsula	52.26 324	P	P	23 43 14.3	-0.1
	comp=Z,511nm,0.6s					
DRGR		52.29 309	P	P	23 43 15.4	+0.4
DRGR		52.29 309	⇑P	P	23 43 15.4	+0.4
DRGR		52.29 309	P	P	23 43 15.8	+0.7
	comp=Z,27nm,0.7s					
KKB	Krupnik	52.31 303	eP	P	23 43 15.6	+0.4
TRPA	Tarpa	52.37 311	P	P	23 43 15.7	+0.2
	comp=Z,28nm,0.7s					
IMMV	Iera Moni Meta	52.51 295	P	P	23 43 17.5	+0.8
	comp=Z,149nm,0.8s					
UZHM	Uzhgorod	52.52 312	P	P	23 43 15.8	-0.8
KOLS	Kolonicke sedl	52.53 312	eP	P	23 43 16.9	+0.2
KOLS			pmax	pmax		
	comp=Z,15nm,0.6s					
KOLS	Kolonicke sedl	52.53 312	eP	P	23 43 16.9	+0.2
KOLS	Kolonicke sedl	52.53 312	P	P	23 43 17.5	+0.8
	comp=Z,15nm,0.6s					
THE	Thessaloniki	52.56 301	P	P	23 43 17.8	+0.7
OUL	Oulu	52.58 332	P	P	23 43 17.8	+1.1
OUL			pmax	pmax		
	comp=Z,29nm,0.7s					
OUL	Oulu	52.58 332	P	P	23 43 14.8	-1.9
	comp=Z,28nm,0.7s					
HERR	Herculane	52.59 307	⇑P	P	23 43 17.0	-0.1
SOEI	Soe	52.66 130	P	P	23 43 21.0	+2.8
SOEI	Soe	52.66 130	P	P	23 43 16.8	-1.4
SOEI	Soe	52.66 130	P	P	23 43 17.9	-0.3
	comp=Z,87nm,0.9s					
LTVH	Ltavrtes, Hu	52.82 310	P	P	23 43 20.6	+1.7
	comp=Z,22nm,1.2s					
VADS	Vadso	52.93 339	eP	P	23 43 19.3	0.0
GRG	Griva	52.95 302	P	P	23 43 20.2	+0.2
GRG	Griva	52.95 302	P	P	23 43 20.2	+0.2
	comp=Z,74nm,0.7s					
PBUR	Paburge	52.98 321	P	P	23 43 20.3	+0.5
	comp=Z,128nm,0.6s					
SGF	Sodankyl	52.99 335	P	P	23 43 20.4	+0.6
SGF			pmax	pmax		
	comp=Z,53nm,0.8s					
SGF	Sodankyl	52.99 335	P	P	23 43 19.7	-0.1
	comp=Z,53nm,0.8s					
MDVR	Moldovita	53.09 307	⇓P	P	23 43 20.9	-0.1
BZS	Buzias	53.10 308	P	P	23 43 21.2	+0.2
BZS	Buzias	53.10 308	⇓P	P	23 43 21.3	+0.2
BZS	Buzias	53.10 308	P	P	23 43 21.7	+0.7
	comp=Z,12nm,1.6s					
BOVS	Bovan	53.19 305	⇑P	P	23 43 22.1	+0.4
STHS	Stebnicka Huta	53.20 313	eP	P	23 43 20.8	-0.9
STHS			pmax	pmax		
	comp=Z,11nm,0.7s					
STHS	Stebnicka Huta	53.20 313	eP	P	23 43 20.8	-0.9
ABAH	Abaujker	53.23 311	P	P	23 43 22.7	+0.8
	comp=Z,11nm,1.6s					
AGG	Agios Georgios	53.26 300	P	P	23 43 21.6	-0.7
AGG	Agios Georgios	53.26 300	P	P	23 43 21.6	-0.7
	comp=Z,35nm,0.8s					
BANR	Banloc	53.46 308	⇓P	P	23 43 24.2	+0.6
VAF	Ylistaro	53.51 330	P	P	23 43 23.9	+0.3
VAF			pmax	pmax		
	comp=Z,104nm,0.7s					
KEV	Kevo	53.56 338	P	P	23 43 23.8	-0.1
KEV			pmax	pmax		
	comp=Z,76nm,0.6s					
KEV	Kevo	53.56 338	P	P	23 43 23.8	-0.1
KEV	Kevo	53.56 338	P	P	23 43 24.0	+0.1
	comp=Z,106nm,0.7s					
KECS	Kecovo	53.73 311	eP	P	23 43 26.2	+0.7
KECS			pmax	pmax		
	comp=Z,13nm,0.6s					
KECS	Kecovo	53.73 311	eP	P	23 43 26.2	+0.7
NIE	Niedzica	53.82 313	P	P	23 43 26.3	+0.1
	comp=Z,13nm,0.8s					
MA2	Magadan	53.83 35	LR	LR	00 07 56.1	
	comp=Z,956nm,18.5s,baz=272,slow=38					
MA2	Magadan	53.83 35	P	P	23 43 26.8	+0.7
MA2	Magadan	53.83 35	ceP	P	23 43 27.6	+1.5
MA2			pmax	pmax		
	comp=Z,70nm,2.5s					
MA2	Magadan	53.83 35	P	P	23 43 25.7	-0.4
MA2			IAmb	IAmb	23 43 27.4	
	comp=Z,69nm,1.4s					
LODK	Lodwar	53.84 253	P	P	23 43 27.8	+0.9
ITM	Ithomi	53.86 297	IAmb	IAmb	23 43 40.1	
	comp=Z,17nm,0.7s					
BSZH	Besenyszg	53.93 310	⇑P	P	23 43 27.6	+0.6
BSZH	Besenyszg	53.93 310	P	P	23 43 28.7	+1.7
	comp=Z,43nm,0.9s					
ARA0	ARCESS Array S	53.98 338	eP	P	23 43 27.5	+0.4
ARCES	ARCESS Array B	53.98 338	P	P	23 43 27.1	0.0
	comp=Z,68nm,0.6s,baz=106,slow=6.9,SNR=262					
ARCES			PcP	PcP	23 44 31.6	-0.6
	comp=Z,5.1nm,0.6s,baz=104,slow=4.9,SNR=1.5					
ARCES			LR	LR	00 08 05.9	
	comp=Z,502nm,18.0s,baz=98,slow=38					
	comp=Z,68nm,0.6s					
ARCES	ARCESS Array B	53.98 338	P	P	23 43 26.9	-0.2
OJC	Ojcow	54.12 314	P	P	23 43 28.5	+0.1
OJC	Ojcow	54.12 314	P	P	23 43 27.4	-1.0
	comp=Z,31nm,0.7s					
OJC	Ojcow	54.12 314	P	P	23 43 27.9	-0.4
	comp=Z,30nm,0.7s					
PSZ	Piszkesteto	54.15 311	P	P	23 43 29.2	+0.5
PSZ	Piszkesteto	54.15 311	IAmb	IAmb	23 43 34.3	
	comp=Z,49nm,1.6s					
PSZ	Piszkesteto	54.15 311	⇑P	P	23 43 29.2	+0.5
PSZ	Piszkesteto	54.15 311	P	P	23 43 29.6	+0.9
	comp=Z,22nm,0.8s					
KBN	Korca	54.21 302	P	P	23 43 27.9	-1.4
KBN	Korca	54.21 302	P	P	23 43 27.9	-1.4
	comp=Z,19nm,1.4s					
KBN			pP	pP	23 43 32.7	-0.8
LANS	Liptovska Anna	54.37 312	eP	P	23 43 31.1	+0.8
LANS	Liptovska Anna	54.37 312	eP	P	23 43 31.0	+0.8
FRGS	Fruska Gora	54.41 307	⇑iP	P	23 43 30.2	-0.4
SJES	Sjenica	54.48 305	⇑iP	P	23 43 31.2	-0.1
KTK1	Kautokeino	54.61 337	eP	P	23 43 31.4	-0.3
KTK1			IAmb	IAmb	23 43 32.6	
	comp=Z,54nm,0.7s					
TEKS	Tekeris	54.67 307	⇑iP	P	23 43 31.7	-0.8
KMBO	Kilima Mbogo	54.78 247	P	P	23 43 33.9	0.0
	baz=53,slow=17					
KMBO			LR	LR	00 06 58.8	
	comp=Z,321nm,19.2s,baz=78,slow=36					
VYHS	Vyhne	54.82 311	eP	P	23 43 33.8	+0.3
VYHS			pmax	pmax		
	comp=Z,14nm,1.5s					
VYHS	Vyhne	54.82 311	eP	P	23 43 33.8	+0.3
VYHS	Vyhne	54.82 311	P	P	23 43 34.3	+0.7
	comp=Z,3.2nm,1.3s					
BBLS	Lazi&#263i	54.83 306	⇑iP	P	23 43 33.3	-0.4
KIBK	Kibwezi	54.85 245	P	P	23 43 34.3	+0.1
KIBK	Kibwezi	54.85 245	P	P	23 43 36.8	+2.6
SEY	Seymchan	54.99 31	ceP	P	23 43 35.3	+0.8
SEY			pmax	pmax		
	comp=Z,43nm,0.7s					
PDG	Podgorica	55.11 304	IAmb	IAmb	23 43 40.3	
	comp=Z,27nm,0.7s					
PDG	Podgorica	55.11 304	⇑P	P	23 43 34.8	-0.8
PDG	Podgorica	55.11 304	⇑iP	P	23 43 34.3	-1.4
PDG	Podgorica	55.11 304	P	P	23 43 35.1	-0.5
	comp=Z,38nm,0.7s					
MORH	Mrgy, Hungar	55.13 309	⇓P	P	23 43 35.6	-0.1
MORH	Mrgy, Hungar	55.13 309	⇑iP	P	23 43 35.0	-0.7
MORH	Mrgy, Hungar	55.13 309	P	P	23 43 35.2	-0.5
	comp=Z,20nm,0.8s					
MORH	Mrgy, Hungar	55.13 309	P	P	23 43 35.4	-0.3
	comp=Z,23nm,0.7s					
DRME	Dracevica, Mon	55.20 304	⇑iP	P	23 43 34.7	-1.6
OKC	Ostrava-Krasne	55.20 313	eP	P	23 43 36.5	+0.3
OKC	Ostrava-Krasne	55.20 313	eP	P	23 43 36.5	+0.3
OKC	Ostrava-Krasne	55.20 313	P	P	23 43 36.9	+0.7
	comp=Z,29nm,0.8s					
SRO	Srobarova	55.22 311	eP	P	23 43 39.5	+3.1
SRO			pmax	pmax		
	comp=Z,23nm,0.8s					
SRO	Srobarova	55.22 311	eP	P	23 43 39.5	+3.1
UPM	Unac-Piva	55.27 305	eP	P	23 43 36.4	-0.6
MAUC	Maruska	55.43 313	eP	P	23 43 38.5	+0.6
STEB	Steborice	55.43 313	eP	P	23 43 37.8	-0.1
JAVC	Velka Javorina	55.57 312	eP	P	23 43 39.8	+0.8
JAVC	Velka Javorina	55.57 312	P	P	23 43 39.6	+0.7
	comp=Z,11nm,1.3s					
BRY	Bratogost	55.57 305	⇑iP	P	23 43 38.1	-1.1
MORC	Moravsky Berou	55.59 313	P	P	23 43 39.3	+0.2
MORC	Moravsky Berou	55.59 313	P	P	23 43 38.6	-0.5
MORC	Moravsky Berou	55.59 313	eP	P	23 43 39.1	0.0
MORC	Moravsky Berou	55.59 313	⇓P	P	23 43 39.3	+0.2
MORC	Moravsky Berou	55.59 313	P	P	23 43 39.0	-0.1
	comp=Z,13nm,0.9s					
HCY	Herceg Novi	55.67 304	⇑iP	P	23 43 37.3	-2.4
JETT	Jettan, Norway	55.72 337	eP	P	23 43 39.7	0.0
JETT			IAmb	IAmb	23 43 40.9	
	comp=Z,58nm,0.7s					
TREB	Trebinje	55.73 305	eP	P	23 43 38.9	-1.3
SMOL	Smolenice	55.76 312	eP	P	23 43 40.5	+0.3
MPLH	Magyarpolny	55.80 310	P	P	23 43 39.8	-0.7
	comp=Z,34nm,1.1s					
MPLH	Magyarpolny	55.80 310	P	P	23 43 40.2	-0.3
	comp=Z,14nm,1.1s					
MPLH			pP	pP	23 43 45.2	+0.4
MODS	Modra-Piesok	55.87 311	eP	P	23 43 41.4	+0.3
MODS	Modra-Piesok	55.87 311	eP	P	23 43 41.4	+0.3
MODS	Modra-Piesok	55.87 311	P	P	23 43 40.9	-0.2
	comp=Z,8.2nm,0.5s					
ZST	Bratislava	56.00 311	eP	P	23 43 42.5	+0.5
ZST	Bratislava	56.00 311	eP	P	23 43 42.5	+0.5
KRLC	Kraliky	56.06 313	eP	P	23 43 42.4	-0.1
KRLC			MLR	MLR		
	comp=Z,600nm,15.6s					
KRLC	Kraliky	56.06 313	eP	P	23 43 42.4	-0.1
KRLC			AMS	AMS	00 01 00.0	
	comp=Z,600nm,15.6s					
KRLC	Kraliky	56.06 313	P	P	23 43 42.3	-0.2
	comp=Z,17nm,1.0s					
VRAC	Vranov	56.24 313	LR	LR	00 11 18.4	
	comp=Z,266nm,18.7s,baz=65,slow=40					
VRAC	Vranov	56.24 313	P	P	23 43 43.9	+0.2
VRAC	Vranov	56.24 313	eP	P	23 43 43.5	-0.2
VRAC	Vranov	56.24 313	⇑P	P	23 43 44.0	+0.2
VRAC	Vranov	56.24 313	P	P	23 43 43.9	+0.2
	comp=Z,8.2nm,0.8s					
TRO	Tromso	56.24 337	P	P	23 43 43.3	0.0
TRO	Tromso	56.24 337	eP	P	23 43 43.1	-0.3
TRO			IAmb	IAmb	23 43 44.2	
	comp=Z,42nm,1.0s					
BLY	Banja Luka	56.31 307	IAmb	IAmb	23 43 51.7	
	comp=Z,30nm,1.5s					
BLY	Banja Luka	56.31 307	⇑iP	P	23 43 43.6	-0.6
BLY	Banja Luka	56.31 307	P	P	23 43 44.1	-0.2
	comp=Z,12nm,1.4s					
KSP	Ksiaz	56.32 314	P	P	23 43 43.4	-0.9
	comp=Z,15nm,1.6s					
DPC	Dobruska-Polom	56.34 314	eP	P	23 43 44.6	+0.2
DPC			MLR	MLR		
	comp=Z,600nm,15.9s					
DPC	Dobruska-Polom	56.34 314	eP	P	23 43 44.6	+0.2
DPC			AMS	AMS	00 10 20.0	
	comp=Z,600nm,15.9s					
DPC	Dobruska-Polom	56.34 314	P	P	23 43 43.5	-0.9
	comp=Z,13nm,0.8s					
DPC	Dobruska-Polom	56.34 314	P	P	23 43 45.1	+0.6
	comp=Z,13nm,0.8s					
BEHE	Becsehely	56.39 309	⇑iP	P	23 43 44.7	-0.1
BEHE	Becsehely	56.39 309	P	P	23 43 44.9	+0.1
	comp=Z,18nm,1.5s					
BEHE			pP	pP	23 43 49.9	+0.9
KRUC	Moravsky	56.39 312	P	P	23 43 45.3	+0.5
KRUC	Moravsky	56.39 312	eP	P	23 43 44.8	0.0
KRUC	Moravsky	56.39 312	P	P	23 43 45.3	+0.5
	comp=Z,11nm,0.6s					
OSTC	Ostas	56.39 314	eP	P	23 43 45.3	+0.5
OSTC			MLR	MLR		
	comp=Z,700nm,14.4s					
OSTC	Ostas	56.39 314	eP	P	23 43 45.3	+0.5
OSTC			AMS	AMS	00 10 20.0	
	comp=Z,700nm,14.4s					
BLEU	Blekinge	56.41 321	i P	P	23 43 43.6	-1.1
SOP	Sopron	56.41 311	P	P	23 43 45.1	+0.2
SOP	Sopron	56.41 311	P	P	23 43 45.3	+0.4
	comp=Z,26nm,0.8s					
CHVC	Chvalec	56.49 314	eP	P	23 43 45.7	+0.2
CHVC	Chvalec	56.49 314	eP	P	23 43 45.7	+0.2
UPC	Upice	56.52 314	eP	P	23 43 46.3	+0.6
UPC			MLR	MLR		
	comp=Z,800nm,15.6s					
UPC	Upice	56.52 314	eP	P	23 43 46.3	+0.6
UPC			AMS	AMS	00 10 20.0	
	comp=Z,800nm,15.6s					
UPC	Upice	56.52 314	P	P	23 43 46.5	+0.8
	comp=Z,29nm,1.9s					
UPC			pP	pP	23 43 50.4	+0.4
RONA	Rosalia, Austr	56.59 311	i P	P	23 43 45.6	-0.6
	comp=Z,7.5nm,0.6s,SNR=7.7					
WINA	Alland / Wiene	56.69 311	eP	P	23 43 46.4	-0.6
	comp=Z,28nm,1.7s,SNR=9.4					
KOGS	Kog	56.75 309	i P	P	23 43 47.1	-0.3
SKR	Severo-Kuril's	56.77 46	eP	P	23 44 03.8	+16
SKR			pmax	pmax		
	comp=Z,100nm,2.6s					
SKR			MLR	MLR		
	comp=Z,700nm,15.0s					
CONA	Conrad Observa	56.85 311	i P	P	23 43 47.6	-0.6
	comp=Z,14nm,0.8s,SNR=13					
BSD	Bornholm Skovb	56.94 320	i P	P	23 43 47.4	-1.1
BSD			IAmb	IAmb	23 43 48.2	
	comp=Z,13nm,0.7s					
TREC	Trest	56.97 313	P	P	23 43 49.3	+0.4
TREC	Trest	56.97 313	P	P	23 43 48.9	0.0
	comp=Z,13nm,1.9s					
ABNA	Allensteig Bun	57.06 312	i P	P	23 43 49.6	0.0
	comp=Z,5.1nm,0.6s					
ARSA	Arzberg	57.16 310	P	P	23 43 49.7	-0.6
ARSA	Arzberg	57.16 310	eP	P	23 43 49.7	-0.6
	comp=Z,8.0nm,0.6s,SNR=6.6					
ARSA	Arzberg	57.16 310	P	P	23 43 50.6	+0.3
	comp=Z,19nm,0.7s					
STEI	Steigen	57.30 335	eP	P	23 43 50.4	-0.5
MOR8	Moi Rana	57.44 333	eP	P	23 43 50.9	-1.0
MOR8			IAmb	IAmb	23 43 51.3	
	comp=Z,16nm,0.7s					
DEL	Delary	57.48 321	i P	P	23 43 52.1	-0.3
TIP	Timpagrande	57.50 301	IAmb	IAmb	23 44 20.0	
	comp=Z,30nm,1.4s					
TIP	Timpagrande	57.50 301	P	P	23 43 52.1	-0.9
	comp=Z,14nm,1.1s					
TIP	Timpagrande	57.50 301	P	P	23 43 52.0	-0.9
	comp=Z,18nm,1.1s					
PERS	Pernice	57.51 310	i P	P	23 43 53.0	+0.2
PRU	Pruhonice	57.51 314	eP	P	23 43 53.2	+0.5
PRU			pmax	pmax		
	comp=Z,9.0nm,0.6s					
PRU			MLR	MLR		
	comp=Z,700nm,15.0s					
PRU	Pruhonice	57.51 314	eP	P	23 43 53.2	+0.5
	comp=Z,8.6nm,0.6s					
PRU			AMS	AMS	00 11 00.0	
	comp=Z,700nm,15.0s					
PRU	Pruhonice	57.51 314	P	P	23 43 52.9	+0.2
	comp=Z,19nm,0.8s					
HFS	Hagfors	57.52 326	P	P	23 43 52.3	-0.3
	comp=Z,34nm,0.7s,baz=92,slow=8.7,SNR=38					
HFS			LR	LR	00 09 58.1	
	comp=Z,968nm,18.5s,baz=87,slow=37					
	comp=Z,34nm,0.7s					
SOKA	Soboth	57.56 310	i P	P	23 43 52.7	-0.5
	comp=Z,17nm,0.7s,SNR=18					
PETK	Petropavlovsk-	57.56 43	P	P	23 43 52.7	-0.4
	comp=Z,2.8nm,0.6s,baz=267,slow=7.2,SNR=5.6					
PETK			LR	LR	00 11 18.6	
	comp=Z,505nm,18.1s,baz=266,slow=39					
	comp=Z,2.8nm,0.6s					
PETK	Petropavlovsk-	57.56 43	P	P	23 43 51.0	-2.0
LUNU	Lund	57.76 320	i P	P	23 43 54.3	0.0
RUE	Ruedersdorf	57.77 317	eP	P	23 43 54.5	+0.1
	comp=Z,23nm,0.7s,baz=83,slow=6.9					
RUE	Ruedersdorf	57.77 317	P	P	23 43 54.1	-0.3
	comp=Z,42nm,0.8s					
CKRC	Cesky Krumlov	57.78 312	eP	P	23 43 55.0	+0.3
CKRC			MLR	MLR		
	comp=Z,400nm,20.1s					
CKRC	Cesky Krumlov	57.78 312	eP	P	23 43 55.0	+0.3
CKRC			AMS	AMS	00 12 10.0	
	comp=Z,400nm,20.1s					
ZVC	Zvikov	57.79 313	eP	P	23 43 55.0	+0.3
ZVC			AMS	AMS	00 11 10.0	
	comp=Z,500nm,16.8s					
BRG	Berggiesshubel	57.81 315	P	P	23 43 54.6	-0.1
BRG	Berggiesshubel	57.81 315	eP	P	23 43 55.2	+0.4
	comp=Z,16nm,0.8s,baz=83,slow=6.9					
BRG	Berggiesshubel	57.81 315	P	P	23 43 54.6	-0.1
	comp=Z,20nm,1.4s					
BRG	Berggiesshubel	57.81 315	i P	P	23 43 54.8	+0.1
BRG			Amp		23 43 56.2	
	comp=Z,16nm,0.8s					
BRG	Berggiesshubel	57.81 315	P	P	23 43 59.5	+4.7
BRG			Amp		23 44 00.3	
	comp=Z,14nm,0.7s					
SESA	Seetaler Alpe,	57.82 310	eP	P	23 43 54.5	-0.6
	comp=Z,16nm,0.9s,SNR=7.2					
RGN	Rugen	57.89 319	P	P	23 43 54.2	-1.0
RGN	Rugen	57.89 319	eP	P	23 43 54.9	-0.4
	comp=Z,23nm,0.6s,baz=83,slow=6.9					
OBKA	Obir	57.91 309	i P	P	23 43 55.6	-0.1
	comp=Z,13nm,0.7s,SNR=9.1					
OBKA	Obir	57.91 309	P	P	23 43 56.2	+0.5
	comp=Z,28nm,0.7s					
MOA	Molln	57.93 311	i P	P	23 43 54.8	-0.9
	comp=Z,14nm,0.7s,SNR=12					
MOA	Molln	57.93 311	P	P	23 43 55.0	-0.7
	comp=Z,22nm,0.6s					
VAGH	Vaagaholmen	57.95 333	eP	P	23 43 54.7	-0.8
VAGH			IAmb	IAmb	23 43 56.0	
	comp=Z,20nm,0.7s					
LOF	Lofoten	57.96 335	eP	P	23 43 54.1	-1.4
LEIR	Leirfjorden	57.97 333	eP	P	23 43 55.3	-0.4
LEIR			IAmb	IAmb	23 43 55.9	
	comp=Z,19nm,0.6s					
LJU	Ljubljana	57.99 309	i P	P	23 43 56.2	+0.1
MARCO	Tramutola	58.01 302	P	P	23 43 57.4	+0.9
	comp=Z,40nm,0.7s					
STOK	Stokkvaagen	58.03 333	eP	P	23 43 55.4	-0.6
STOK			IAmb	IAmb	23 43 56.1	
	comp=Z,21nm,0.7s					
FABU	Falkenberg	58.09 322	i P	P	23 43 55.9	-0.7
PET	Petropavlovsk	58.15 43	eP	P	23 43 57.1	0.0
PET			eS	S	23 51 58.2	+0.1
PET			pmax	pmax		
	comp=Z,100nm,12.1s					
PET			MLR	MLR		
	comp=Z,800nm,14.0s					
PET			MLR	MLR		
	comp=Z,800nm,14.0s					
HSKC	Hora Svate Kat	58.16 314	eP	P	23 43 56.0	-1.2
HSKC	Hora Svate Kat	58.16 314	P	P	23 43 57.4	+0.1
	comp=Z,16nm,1.7s					
GEC2	GERESS Array S	58.18 312	eP	P	23 43 57.8	+0.3
	baz=83,slow=6.9					
GEC2	GERESS Array S	58.18 312	P	P	23 43 57.9	+0.3
	comp=Z,14nm,1.3s					
GERES	GERESS Array B	58.18 312	P	P	23 43 57.4	-0.2
	comp=Z,7.6nm,0.6s,baz=81,slow=8.1,SNR=42					
	comp=Z,7.6nm,0.6s					
GERES	GERESS Array B	58.18 312	P	P	23 43 56.5	-1.0
KHC	Kasperske Hory	58.23 313	ceP	P	23 43 58.3	+0.5
KHC			pmax	pmax		
	comp=Z,24nm,1.7s					
KHC	Kasperske Hory	58.23 313	eP	P	23 43 57.7	-0.1
	comp=Z,7.0nm,0.6s					
KHC			AMS	AMS	00 11 40.0	
	comp=Z,400nm,12.4s					
KHC	Kasperske Hory	58.23 313	P	P	23 43 56.8	-1.0
	comp=Z,14nm,0.7s					
KHC	Kasperske Hory	58.23 313	P	P	23 43 57.5	-0.3
	comp=Z,14nm,0.7s					
COP	Copenhagen	58.33 320	i P	P	23 43 59.3	+1.0
COP			IAmb	IAmb	23 43 60.0	
	comp=Z,18nm,0.7s					
CEL	Celeste	58.35 300	IAmb	IAmb	23 44 04.2	
	comp=Z,27nm,0.9s					
CEL	Celeste	58.35 300	P	P	23 43 58.3	-0.6
	comp=Z,42nm,1.5s					
CEL	Celeste	58.35 300	P	P	23 43 58.8	-0.1
	comp=Z,42nm,1.5s					
CEL			pP	pP	23 44 03.0	-0.1
CLL	Collm	58.35 315	i P	P	23 43 58.4	-0.2
CLL			i		23 44 03.0	
CLL			eS	S	23 52 01.0	+0.1
CLL			pmax	pmax		
	comp=Z,10.0nm,1.1s					
CLL			MLR	MLR		
	comp=Z,500nm,18.0s					
CLL	Collm	58.35 315	P	P	23 43 57.4	-1.2
CLL			IAmb	IAmb	23 44 06.7	
	comp=Z,43nm,1.9s					
CLL	Collm	58.35 315	eP	P	23 43 58.6	+0.1
	comp=Z,13nm,1.3s,baz=83,slow=6.9					
CLL	Collm	58.35 315	P	P	23 43 57.8	-0.8
	comp=Z,6.6nm,0.6s					
CLL	Collm	58.35 315	P	P	23 43 58.8	+0.3
	comp=Z,6.5nm,0.6s					
CLL	Collm	58.35 315	i P	P	23 43 58.4	-0.2
	comp=Z,10.0nm,1.1s					
CLL			i x	x	23 44 03.0	
	comp=Z,53nm,2.2s					
CLL			eS	S	23 52 01.0	+0.1
CLL			ex	x	23 53 23.0	
CLL			ex	x	23 57 00.0	
CLL			eSSS	SSS	23 58 30.0	
CLL			LH		00 02 00.0	
CLL			LV		00 04 00.0	
CLL			AMS	AMS	00 11 00.0	
	comp=N,300nm,17.2s					
CLL			AMS	AMS	00 11 00.0	
	comp=E,300nm,17.3s					
CLL			AMS	AMS	00 11 00.0	
	comp=Z,500nm,18.0s					
BIOA	Bad Ischl, Aus	58.37 311	i P	P	23 43 58.1	-0.7
	comp=Z,8.8nm,0.6s,SNR=14					
LLD	Lille Linde	58.47 320	i P	P	23 44 00.4	+1.1
LLD			IAmb	IAmb	23 44 00.8	
	comp=Z,14nm,0.6s					
NC405	NORSAR Array S	58.49 327	IAmb	IAmb	23 44 00.1	
	comp=Z,18nm,0.7s					
ONAU	Onsala	58.51 322	i P	P	23 43 58.9	-0.6
MYKA	Terra Mystica	58.51 310	eP	P	23 43 59.1	-0.8
	comp=Z,3.0nm,0.7s					
TRI	Trieste	58.57 309	IAmb	IAmb	23 44 00.6	
	comp=Z,20nm,0.6s					
NC602	NORSAR Array S	58.58 326	eP	P	23 43 59.3	-0.7
NC602	NORSAR Array S	58.58 326	IAmb	IAmb	23 44 22.5	
	comp=Z,65nm,1.9s					
NORES	NORESS Array B	58.58 326	P	P	23 43 59.7	-0.3
NORES			pmax	pmax		
	comp=Z,3.0nm,0.5s					
DRE	Drenchia	58.58 309	P	P	23 43 60.0	-0.4
	comp=Z,54nm,0.7s					
PRED	Cave del Predi	58.59 309	P	P	23 43 59.8	-0.7
	comp=Z,16nm,0.7s					
ACOM	Acomizza, Ital	58.61 310	P	P	23 43 59.4	-1.4
	comp=Z,22nm,0.8s					
TJOU	Tjoern	58.63 323	i P	P	23 43 59.5	-0.9
MBWA	Marble Bar	58.64 142	P	P	23 44 01.1	+0.3
	comp=Z,9.2nm,1.2s					
MBWA	Marble Bar	58.64 142	P	P	23 44 01.2	+0.3
	comp=Z,9.2nm,1.2s					

MBWA	Marble Bar	58.64 142	P	P	23 44 04.4	+3.6
MBWA	Marble Bar	58.64 142	P	P	23 44 01.0	+0.1
MBWA	Marble Bar	58.64 142	P	P	23 44 04.8	+3.9
	comp=Z,13nm,1.5s					
SABO	M.te Sabotino	58.64 309	IAmb	IAmb	23 44 05.5	
	comp=Z,25nm,0.8s					
KBA	Koelnbreinsper	58.65 310	P	P	23 44 00.7	-0.3
KBA	Koelnbreinsper	58.65 310	*i* P	P	23 44 00.3	-0.7
	comp=Z,6.3nm,0.7s					
KBA	Koelnbreinsper	58.65 310	P	P	23 44 00.7	-0.3
	comp=Z,12nm,0.7s					
NC303	NORSAR Array S	58.65 327	IAmb	IAmb	23 44 01.1	
	comp=Z,24nm,0.6s					
WET	Wettzell	58.68 313	P	P	23 44 00.6	-0.4
WET	Wettzell	58.68 313	*e*P	P	23 44 01.4	+0.4
	baz=83,slow=6.9					
WET	Wettzell	58.68 313	P	P	23 44 00.6	-0.4
	comp=Z,15nm,0.8s					
NB201	NORSAR Array S	58.69 327	IAmb	IAmb	23 44 08.4	
	comp=Z,66nm,1.6s					
NB2	NORSAR Subarra	58.73 327	P	P	23 43 59.8	-1.3
	comp=Z,17nm,0.7s,baz=87,slow=6.9					
NB2	NORSAR Subarra	58.73 327	P	P	23 43 59.8	-1.3
NOA	NORSAR Array B	58.73 327	P	P	23 43 59.9	-1.2
	comp=Z,11nm,0.6s,baz=88,slow=7.0,SNR=76					
NOA			LR	LR	00 11 02.5	
	comp=Z,397nm,19.7s,baz=80,slow=38					
	comp=Z,11nm,0.6s					
HSPB	Hornsund (broa	58.74 346	*e*P	P	23 44 00.4	-0.4
TANN	Tannenbergstha	58.79 314	*e*P	P	23 44 01.4	-0.4
	baz=83,slow=6.9					
TANN	Tannenbergstha	58.79 314	P	P	23 44 01.5	-0.2
	comp=Z,22nm,1.1s					
STRU	Stroemstad	58.82 324	*i* P	P	23 44 00.9	-0.7
NKC	Novy Kostel	58.82 314	AMS	AMS	00 11 50.0	
	comp=Z,1µm,16.5s					
NKC	Novy Kostel	58.82 314	P	P	23 44 02.8	+0.9
	comp=Z,10.0nm,2.0s					
SPB2	Spitsbergen Ar	58.83 347	IAmb	IAmb	23 44 03.3	
	comp=Z,24nm,0.6s					
SPITS	Spitsbergen Ar	58.83 347	P	P	23 44 01.6	+0.1
	comp=Z,16nm,0.6s,baz=105,slow=11,SNR=39					
SPITS			LR	LR	00 13 50.7	
	comp=Z,463nm,18.6s,baz=96,slow=40					
	comp=Z,16nm,0.6s					
NAO01	NORSAR Array S	58.90 326	P	P	23 44 01.1	-1.1
	comp=Z,15nm,0.7s					
RJOB	Jochberg	58.93 311	P	P	23 44 03.0	+0.3
	comp=Z,6.3nm,2.1s					
NC204	NORSAR Array S	58.95 327	IAmb	IAmb	23 44 03.0	
	comp=Z,25nm,0.6s					
PLN	Plauen	58.98 314	*e*P	P	23 44 03.3	+0.4
	baz=83,slow=6.9					
FUSE	Fusea	58.98 310	P	P	23 44 02.8	-0.3
	comp=Z,14nm,1.5s					
OSL	Oslo	59.01 325	*e*P	P	23 44 02.5	-0.4
OSL			IAmb	IAmb	23 44 03.5	
	comp=Z,17nm,0.8s					
LESA	Schwarzleotal	59.05 311	*e*P	P	23 44 02.5	-1.1
	comp=Z,11nm,0.6s,SNR=18					
INTR	Introdacqua	59.10 304	IAmb	IAmb	23 44 09.6	
	comp=Z,22nm,0.7s					
NEUB	Neuenburg	59.13 315	*e*P	P	23 44 04.4	+0.5
	comp=Z,20nm,0.8s,baz=83,slow=6.9					
NEUB	Neuenburg	59.13 315	P	P	23 44 04.6	+0.6
	comp=Z,26nm,0.9s					
STAL	STALIGIAL	59.21 309	IAmb	IAmb	23 44 04.9	
	comp=Z,25nm,0.7s					
WIMM	Wimmelburg	59.26 316	P	P	23 44 04.5	-0.3
	comp=Z,106nm,0.9s					
ABTA	Abfaltersbach	59.27 310	*e*P	P	23 44 03.8	-1.4
	comp=Z,5.1nm,0.7s					
MOX	Moxa	59.30 315	P	P	23 44 05.7	+0.5
MOX	Moxa	59.30 315	*e*P	P	23 44 05.5	+0.3
	baz=83,slow=6.9					
MOX			*e*L	L	00 12 37.9	
	comp=Z,630nm,18.2s					
MOX	Moxa	59.30 315	P	P	23 44 05.7	+0.5
	comp=Z,12nm,0.9s					
GUMA	Gualdo di Mace	59.32 306	IAmb	IAmb	23 44 17.8	
	comp=Z,20nm,0.6s					
FLTG	Flechtingen	59.33 317	*e*P	P	23 44 05.3	0.0
	comp=Z,17nm,0.9s,baz=83,slow=6.9					
FLTG	Flechtingen	59.33 317	P	P	23 44 05.5	+0.1
	comp=Z,23nm,1.2s					
GRB3	Grafenberg Arr	59.35 313	P	P	23 44 06.2	+0.7
	comp=Z,26nm,0.8s					
OPO	Ambohidratompo	59.37 224	LR	LR	00 06 36.3	
	comp=Z,693nm,18.2s,baz=276,slow=33					
AQU	L'Aquila	59.40 305	P	P	23 44 06.2	+0.1
AQU	L'Aquila	59.40 305	P	P	23 44 08.0	+1.9
AQU			pmax	pmax		
	comp=Z,30nm,1.3s					
AQU	L'Aquila	59.40 305⇑	*i*P	P	23 44 04.7	-1.4
AQU	L'Aquila	59.40 305	P	P	23 44 05.3	-0.8
	comp=Z,383nmcomp=Z,30nm,1.3s					
AQU	L'Aquila	59.40 305	P	P	23 44 06.7	+0.6
	comp=Z,38nm,1.3s					
GRB1	Grafenberg Arr	59.44 313	P	P	23 44 07.0	+0.8
	comp=Z,20nm,1.3s					
GRB2	Grafenberg Arr	59.45 313	P	P	23 44 07.1	+0.9
	comp=Z,38nm,0.7s					
GRB5	Grafenberg Arr	59.47 313	P	P	23 44 06.7	+0.4
	comp=Z,24nm,0.7s					
GRB4	Grafenberg Arr	59.49 313	P	P	23 44 07.7	+1.1
	comp=Z,23nm,0.8s					
FDMO	Fiordimonte	59.50 306	IAmb	IAmb	23 44 11.8	
	comp=Z,16nm,0.6s					
NRCA	Norcia	59.52 305	IAmb	IAmb	23 44 13.0	
	comp=Z,25nm,0.8s					
GRC4	Grafenberg Arr	59.57 313	P	P	23 44 07.8	+0.7
	comp=Z,18nm,0.8s					
GRC1	Grafenberg Arr	59.59 313	P	P	23 44 07.8	+0.6
	comp=Z,15nm,0.8s					
GRA2	Grafenberg Arr	59.60 313	P	P	23 44 08.3	+1.0
	comp=Z,21nm,1.8s					
KONO	Kongsberg	59.60 325	P	P	23 44 05.7	-1.3
KONO			pmax	pmax		
	comp=Z,55nm,1.7s					
KONO	Kongsberg	59.60 325	P	P	23 44 05.7	-1.3
KONO			IAmb	IAmb	23 44 15.7	
	comp=Z,55nm,1.7s					
GRA3	Grafenberg Arr	59.61 314	P	P	23 44 08.6	+1.3
	comp=Z,22nm,1.8s					
VAE	Valguarnera	59.67 299	LR	LR	00 16 17.8	
	comp=Z,89nm,18.4s,baz=19,slow=42					
GRA1	Grafenberg Arr	59.68 313	P	P	23 44 07.6	-0.2
GRA1	Grafenberg Arr	59.68 313	P	P	23 44 08.9	+1.1
	comp=Z,21nm,1.5s					
GRF	Grafenberg Arr	59.68 313	P	P	23 44 07.6	-0.2
GRF			pmax	pmax		
	comp=Z,72nm,1.7s					
GRF	Grafenberg Arr	59.68 313	*e*P	P	23 44 08.8	+1.0
	baz=83,slow=6.9					
GRF			*e*L	L	00 12 56.1	
	comp=Z,725nm,18.1s					
FITZ	Fitzroy Crossi	59.69 135	P	P	23 44 08.3	+0.1
	comp=Z,2.4nm,1.2s					
FITZ	Fitzroy Crossi	59.69 135	P	P	23 44 07.8	-0.4
	comp=Z,2.4nm,1.2s					
FITZ	Fitzroy Crossi	59.69 135	P	P	23 44 11.7	+3.5
FITZ	Fitzroy Crossi	59.69 135	P	P	23 44 08.0	-0.2
FITZ	Fitzroy Crossi	59.69 135	P	P	23 44 08.0	-0.2
	comp=Z,2.4nm,1.2s					
ASSE	Asse, Remlinge	59.70 316	*e*P	P	23 44 07.9	+0.1
	comp=Z,36nm,1.8s,baz=83,slow=6.9					
ASSE	Asse, Remlinge	59.70 316	P	P	23 44 08.1	+0.3
	comp=Z,8.1nm,2.5s					
BSEG	Bad Segeberg	59.70 318	P	P	23 44 08.0	+0.2
BSEG	Bad Segeberg	59.70 318	*e*P	P	23 44 08.0	+0.2
	comp=Z,24nm,0.7s,baz=83,slow=6.9					
BSEG	Bad Segeberg	59.70 318	P	P	23 44 08.0	+0.2
	comp=Z,44nm,0.9s					
DOMB	Dombas	59.73 328	*e*P	P	23 44 07.6	-0.4
WTTA	Wattenberg	59.77 311	P	P	23 44 08.1	-0.6
WTTA	Wattenberg	59.77 311	*e*P	P	23 44 07.3	-1.5
	comp=Z,9.2nm,0.7s,SNR=7.4					
WTTA	Wattenberg	59.77 311	P	P	23 44 08.1	-0.6
	comp=Z,20nm,1.0s					
WATA	Walderalm	59.80 311	*e*P	P	23 44 07.3	-1.6
	comp=Z,9.3nm,0.7s,SNR=9.1					
FUR	Furstenfeldbru	59.87 312	P	P	23 44 08.9	-0.3
FUR	Furstenfeldbru	59.87 312	*e*P	P	23 44 09.5	+0.3
	baz=83,slow=6.9					
FUR	Furstenfeldbru	59.87 312	P	P	23 44 08.9	-0.3
	comp=Z,30nm,1.9s					
MBAR	Mbarara	59.88 252	LR	LR	00 10 16.2	
	comp=Z,132nm,19.4s,baz=62,slow=36					
MBAR	Mbarara	59.88 252	P	P	23 44 09.4	-0.5
MBAR	Mbarara	59.88 252	P	P	23 44 09.1	-0.8
MBAR			pmax	pmax		
	comp=Z,24nm,1.6s					
MBAR	Mbarara	59.88 252	P	P	23 44 09.1	-0.8
MBAR			IAmb	IAmb	23 44 14.5	
	comp=Z,24nm,1.6s					
MBAR	Mbarara	59.88 252	P	P	23 44 09.8	-0.1
	comp=Z,7.1nm,0.6s					
CGRP	Cima Grappa	59.90 309	P	P	23 44 09.6	0.0
	comp=Z,24nm,1.1s					
CLZ	Clausthal	59.92 316	*e*P	P	23 44 10.1	+0.6
	comp=Z,79nm,1.4s,baz=83,slow=6.9					
CLZ	Clausthal	59.92 316	P	P	23 44 09.4	-0.1
	comp=Z,43nm,0.9s					
SSRD	Sdr. Stenderup	59.93 320	*i* P	P	23 44 10.2	+0.8
SSRD			IAmb	IAmb	23 44 10.9	
	comp=Z,26nm,0.6s					
KNRA	Kununurra	59.95 131	P	P	23 44 14.8	+4.9
KNRA	Kununurra	59.95 131	P	P	23 44 09.6	-0.3
CESX	Cesi	59.95 305	IAmb	IAmb	23 44 15.2	
	comp=Z,26nm,1.2s					
CTI	Castel Tesino	59.97 309	IAmb	IAmb	23 44 14.6	
	comp=Z,17nm,0.6s					
SQTA	Sankt Quirin	60.07 311	*e*P	P	23 44 09.1	-1.6
	comp=Z,13nm,0.7s,SNR=11					
MUD	Monsted U'grnd	60.08 321	*i* P	P	23 44 11.1	+0.7
MUD			IAmb	IAmb	23 44 12.5	
	comp=Z,11nm,0.6s					
MOTA	Moosalm	60.12 311	*e*P	P	23 44 09.5	-1.6
	comp=Z,17nm,0.7s,SNR=15					
SKAR	Skarslia	60.17 326	*e*P	P	23 44 11.0	0.0
GTTG	Gottingen	60.21 316	*e*P	P	23 44 12.0	+0.6
	comp=Z,12nm,0.6s,baz=83,slow=6.9					
GTTG	Gottingen	60.21 316	P	P	23 44 12.1	+0.7
	comp=Z,32nm,1.0s					
HOMB	Homborsund	60.27 324	*e*P	P	23 44 11.5	-0.1
HOMB	Homborsund	60.27 324	*i* P	P	23 44 10.9	-0.7
RETA	Reutte	60.32 311	*e*P	P	23 44 11.0	-1.3
	comp=Z,10nm,0.7s,SNR=14					
MOL	Molde	60.40 329	*e*P	P	23 44 11.4	-1.1
RETH	Rethem/Aller,	60.42 317	*e*P	P	23 44 13.4	+0.7
	comp=Z,34nm,1.5s,baz=83,slow=6.9					
RETH	Rethem/Aller,	60.42 317	P	P	23 44 13.6	+0.8
	comp=Z,14nm,1.9s					
FETA	Feichten	60.43 311	*e*P	P	23 44 11.7	-1.5
	comp=Z,9.5nm,0.7s,SNR=7.9					
CLTB	Caltabellotta	60.57 299	P	P	23 44 13.9	-0.3
	comp=Z,81nm,1.6s					
UBR	Ueberruh	60.73 311	*e*P	P	23 44 14.7	-0.4
	baz=83,slow=6.9					
UBR	Ueberruh	60.73 311	P	P	23 44 14.8	-0.4
	comp=Z,26nm,0.7s					
ZCCA	Zocca	60.75 307	P	P	23 44 15.3	0.0
ZCCA			IAmb	IAmb	23 44 47.6	
	comp=Z,20nm,0.9s					
FUORN	Ofenpass-Fuorn	60.81 310	IAmb	IAmb	23 44 22.3	
	comp=Z,12nm,0.6s					
FUORN	Ofenpass-Fuorn	60.81 310	P	P	23 44 15.8	-0.1
	comp=Z,17nm,0.6s					
SNART	Snartemo	60.94 324	*i* P	P	23 44 16.3	0.0
DAVA	Damuels	60.95 311	*e*P	P	23 44 15.5	-1.3
	comp=Z,20nm,1.0s,SNR=18					
DAVA	Damuels	60.95 311	P	P	23 44 16.1	-0.7
	comp=Z,48nm,0.8s					
BILL	Bilibino	60.99 25	*ce*P	P	23 44 19.2	+2.8
BILL			pmax	pmax		
	comp=Z,45nm,2.5s					
DAVOX	Davos/Dischmat	61.04 310	LR	LR	00 16 14.7	
	comp=Z,259nm,18.7s,baz=56,slow=41					
ODD1	Odda	61.07 326	*e*P	P	23 44 17.1	-0.1
STU	Stuttgart	61.14 313	P	P	23 44 17.0	-0.8
STU			pmax	pmax		
	comp=Z,20nm,0.7s					
STU	Stuttgart	61.14 313	P	P	23 44 17.0	-0.8
STU			IAmb	IAmb	23 44 23.1	
	comp=Z,20nm,0.7s					
STU	Stuttgart	61.14 313	*e*P	P	23 44 17.4	-0.4
	baz=83,slow=6.9					
VLC	Villacollemand	61.20 307	P	P	23 44 18.7	+0.4
VLC	Villacollemand	61.20 307	P	P	23 44 19.6	+1.2
	comp=Z,20nm,1.2s					
KASTN	Kahler Asten	61.22 316	*e*P	P	23 44 18.6	+0.2
	baz=83,slow=6.9					
TNS	Taunus Mts	61.37 314	P	P	23 44 19.3	-0.1
TNS	Taunus Mts	61.37 314	*e*P	P	23 44 19.9	+0.5
	baz=83,slow=6.9					
TNS	Taunus Mts	61.37 314	P	P	23 44 19.3	-0.1
	comp=Z,20nm,0.8s					
IBBN	Ibbenburen	61.45 317	*e*P	P	23 44 20.4	+0.6
	comp=Z,74nm,1.5s,baz=83,slow=6.9					
IBBN	Ibbenburen	61.45 317	P	P	23 44 19.8	0.0
	comp=Z,30nm,1.0s					
TUE	Stuetta	61.46 310	P	P	23 44 18.7	-1.6
TUE			IAmb	IAmb	23 44 25.7	
	comp=Z,14nm,0.6s					
TUE	Stuetta	61.46 310	P	P	23 44 19.3	-1.0
	comp=Z,77nm,0.6s					
TUE	Stuetta	61.46 310	P	P	23 44 20.0	-0.3
	comp=Z,20nm,0.6s					
FOO	Floro	61.66 328	*e*P	P	23 44 21.0	-0.1
BFO	Black Forest	61.78 312	P	P	23 44 20.9	-1.3
BFO			pmax	pmax		
	comp=Z,5.0nm,0.6s					
BFO	Black Forest	61.78 312	P	P	23 44 20.9	-1.3
BFO	Black Forest	61.78 312	*e*P	P	23 44 21.6	-0.6
	baz=83,slow=6.9					
SLE	Schleitheim	61.78 312	P	P	23 44 20.5	-1.7
SLE	Schleitheim	61.78 312	P	P	23 44 20.5	-1.7
	comp=Z,17nm,1.8s					
BUG	Bochum--Univer	61.89 316	P	P	23 44 22.7	-0.1
BUG	Bochum--Univer	61.89 316	*e*P	P	23 44 23.4	+0.6
	comp=Z,46nm,1.4s,baz=83,slow=6.9					
BUG	Bochum--Univer	61.89 316	P	P	23 44 22.7	-0.1
	comp=Z,27nm,1.1s					
BNALP	Bannalp	62.01 311	P	P	23 44 22.9	-1.0
	comp=Z,31nm,0.6s					
VOI	Vohitsoka	62.16 221	P	P	23 44 28.6	+3.5
ECH	Echery	62.57 312	P	P	23 44 25.7	-1.8
ECH			pmax	pmax		
	comp=Z,8.0nm,0.9s					
ECH	Echery	62.57 312	P	P	23 44 25.7	-1.8
ECH	Echery	62.57 312	P	P	23 44 27.3	-0.2
	comp=Z,11nm,2.1s					
MEEK	Meekatharra	62.59 147	P	P	23 44 27.3	-0.4
	comp=Z,12nm,2.0s					
BOURR	Bourrignon	62.70 311	P	P	23 44 28.4	0.0
	comp=Z,22nm,2.0s					
MEM	Membach	62.83 315	*d*P	P	23 44 28.8	-0.3
	comp=Z,9.3nm,0.9s					
MEM	Membach	62.83 315	P	P	23 44 29.4	+0.3
	comp=Z,19nm,1.5s					
BHOU	Houvegnez	62.88 315	*d*P	P	23 44 30.2	+0.7
BHOU			*d*pP	pP	23 44 32.8	-1.2
BHOU			*d*PP	PP	23 46 46.2	-1.3
WLF	Walferdange	62.93 314	P	P	23 44 28.6	-1.2
WLF	Walferdange	62.93 314	IAmb	IAmb	23 44 31.6	
	comp=Z,36nm,1.2s					
WLF	Walferdange	62.93 314	*d*P	P	23 44 29.8	0.0
	comp=Z,12nm,1.1s					
WLF	Walferdange	62.93 314	P	P	23 44 31.0	+1.2
	comp=Z,29nm,1.1s					
BOPT	Opiter	62.96 316	*d*P	P	23 44 30.3	+0.3
BMOL	Mol	63.28 316	*d*P	P	23 44 31.8	-0.3
BCLA	Clavier	63.31 315	*d*P	P	23 44 32.4	+0.1
	comp=Z,6.8nm,0.7s					
ESCA	l'Escarene	63.40 308	P	P	23 44 33.4	+0.3
	comp=Z,22nm,1.5s					
RCHB	Rochefort	63.41 315	*d*P	P	23 44 31.5	-1.5
RCHB	Rochefort	63.41 315	P	P	23 44 33.6	+0.7
	comp=Z,18nm,1.4s					
MORW	Morawa	63.48 151	P	P	23 44 33.2	-0.4
	comp=Z,23nm,2.4s					
GIMEL	St. Georges /	63.53 311	P	P	23 44 34.4	+0.4
	comp=Z,14nm,1.9s					
ISO	Isola	63.54 308	P	P	23 44 33.6	-0.4
	comp=Z,21nm,0.8s					
BNI	Bardonecchia	63.59 309	IAmb	IAmb	23 44 41.8	
	comp=Z,12nm,0.7s					
BNI	Bardonecchia	63.59 309	P	P	23 44 33.5	-1.0
	comp=Z,20nm,0.8s					
BMRD	Maredsous	63.67 315	*d*P	P	23 44 34.2	-0.5
	comp=Z,11nm,0.7s					
BMRD			*d*PP	PP	23 46 52.7	-1.7
CALF	Calern	63.73 308	P	P	23 44 35.6	+0.2
	comp=Z,24nm,0.7s					
UCC	Uccle	63.82 316	IAmb	IAmb	23 44 36.6	
	comp=Z,9.3nm,0.6s					
UCC	Uccle	63.82 316	*d*P	P	23 44 35.5	-0.2
	comp=Z,8.2nm,0.6s					
UCC	Uccle	63.82 316	P	P	23 44 35.2	-0.4
	comp=Z,2.2nm,0.6s					
DOU	Dourbes	63.82 315	*d*P	P	23 44 35.8	+0.1
	comp=Z,6.2nm,0.5s					
KEST	Kesra	64.05 298	P	P	23 44 37.9	+0.3
	comp=Z,42nm,0.7s,baz=81,slow=5.7,SNR=68					
	comp=Z,42nm,0.7s					
KEST	Kesra	64.05 298	P	P	23 44 37.9	+0.3
ORIF	Oris-en-Rattie	64.17 309	P	P	23 44 37.9	-0.4
	comp=Z,16nm,0.7s					
NOR	Nord	64.52 351	*i* P	P	23 44 40.0	+0.2
NOR			IAmb	IAmb	23 44 40.8	
	comp=Z,12nm,0.7s					
RUSF	Rustrel	64.69 308	P	P	23 44 41.8	+0.2
	comp=Z,17nm,1.8s					
ARBF	Arbois	64.92 308	P	P	23 44 43.1	+0.1
	comp=Z,29nm,1.8s					
LOR	Lormes	64.96 312	P	P	23 44 43.1	-0.2
	comp=Z,9.5nm,0.9s					
SSB	Saint Sauveur	65.00 310	IAmb	IAmb	23 44 48.5	
	comp=Z,11nm,0.8s					
SSB	Saint Sauveur	65.00 310	P	P	23 44 43.0	-0.6
	comp=Z,16nm,0.8s					
BLDU	Ballidu	65.10 151	P	P	23 44 49.9	+5.7
ELMS	Elmsett, Ipswi	65.57 318	*e*P	P	23 44 46.8	-0.2
ELMS			IAmb	IAmb	23 44 48.1	
	comp=Z,56nm,0.6s					
WACR	West Acre	65.63 318	*e*P	P	23 44 47.3	-0.1
WACR			IAmb	IAmb	23 44 48.6	
	comp=Z,76nm,0.7s					
WACR	West Acre	65.63 318	P	P	23 44 47.1	-0.3
	comp=Z,124nm,0.7s					
ELSH	Elham, Standar	65.72 317	*e*P	P	23 44 48.1	0.0
ELSH			IAmb	IAmb	23 44 49.2	
	comp=Z,99nm,0.6s					
LMK	Market Rasen	66.00 319	P	P	23 44 50.2	+0.4
	comp=Z,93nm,0.7s					
DRUM	Mains of Drumt	66.33 323	*e*P	P	23 44 51.8	-0.1
DRUM			IAmb	IAmb	23 44 53.0	
	comp=Z,30nm,0.6s					
KLBR	Kellerberrin	66.39 151	P	P	23 44 58.4	+5.9
DAG	Danmarks Havn	66.43 346	*i* P	P	23 44 52.0	-0.2
DAG			IAmb	IAmb	23 44 53.2	
	comp=Z,22nm,1.0s					
DAG	Danmarks Havn	66.43 346	P	P	23 44 52.8	+0.6
	comp=Z,23nm,1.1s					
WRKA	Warakurna	66.53 138	P	P	23 44 54.1	+0.5
	comp=Z,9.4nm,1.2s					
WRKA	Warakurna	66.53 138	P	P	23 44 54.1	+0.5
	comp=Z,9.4nm,1.2s					
MCD	Coleburn Disti	66.56 324	*e*P	P	23 44 53.4	+0.1
MCD			IAmb	IAmb	23 44 54.7	
	comp=Z,65nm,0.7s					
EDMD	Edmundbyers	66.58 321	P	P	23 44 53.8	+0.3
	comp=Z,41nm,1.3s					
HPK	Haverah Park	66.62 320	*e*P	P	23 44 53.3	-0.5
HPK			IAmb	IAmb	23 44 54.9	
	comp=Z,23nm,0.7s					
WB6	Warramunga Arr	66.66 130	P	P	23 44 54.8	+0.3
WRA	Warramunga Arr	66.70 130	P	P	23 44 54.5	-0.2
	comp=Z,16nm,0.5s,baz=317,slow=6.2,SNR=424					
WRA			PKP2bc	P'P'bc	00 13 25.5	+0.4
	comp=Z,0.9nm,0.7s,baz=132,slow=3.0,SNR=9.5					
	comp=Z,16nm,0.5s					
WRA	Warramunga Arr	66.70 130	*i* P	P	23 44 54.7	-0.1
WRA			pmax	pmax		
	comp=Z,21nm,0.5s					
WRA	Warramunga Arr	66.70 130	P	P	23 44 54.1	-0.7
WRAB	Tennant Creek	66.70 130	P	P	23 44 55.2	+0.5
WRAB	Tennant Creek	66.70 130	*ce*P	P	23 44 55.3	+0.5
WRAB			pmax	pmax		
	comp=Z,11nm,0.6s					
WRAB	Tennant Creek	66.70 130	P	P	23 44 54.2	-0.6
WRAB	Tennant Creek	66.70 130	P	P	23 44 54.5	-0.2
	comp=Z,40nm,0.6s					
WR2	Warramunga Arr	66.72 130	P	P	23 44 54.9	0.0
WC3	Warramunga Arr	66.74 130	P	P	23 44 55.3	+0.3
CWF	Charnwood Fore	66.76 319	*e*P	P	23 44 54.0	-0.7
CWF			IAmb	IAmb	23 44 55.3	
	comp=Z,7.6nm,0.7s					
CWF	Charnwood Fore	66.76 319	P	P	23 44 54.6	-0.1
	comp=Z,20nm,2.6s					
WR8	Warramunga Arr	66.82 130	P	P	23 44 55.1	-0.4
WR8			IAmb	IAmb	23 44 56.5	
	comp=Z,17nm,0.6s					
EJON	La Jonquera	66.93 307	P	P	23 44 55.6	-0.4
EDI	Edinburgh	66.96 322	*e*P	P	23 44 55.7	-0.2
EDI			IAmb	IAmb	23 44 57.4	
	comp=Z,26nm,0.7s					
WOL	Wolverton	67.10 317	*e*P	P	23 44 56.5	-0.4
WOL			IAmb	IAmb	23 44 58.5	
	comp=Z,38nm,0.6s					
EKA	Eskdalemuir Ar	67.11 322	P	P	23 44 56.2	-0.7
	comp=Z,10nm,0.5s,baz=74,slow=6.4,SNR=91					
EKA			LR	LR	00 16 56.3	
	comp=Z,629nm,18.5s,baz=71,slow=38					
	comp=Z,10nm,0.5s					
ESK	Eskdalemuir	67.14 322	*i* P	P	23 44 57.6	+0.5
ESK	Eskdalemuir	67.14 322	P	P	23 44 55.8	-1.3
ESK			IAmb	IAmb	23 44 57.9	
	comp=Z,20nm,0.8s					
ESK	Eskdalemuir	67.14 322	*e*P	P	23 44 56.9	-0.2
ESK			IAmb	IAmb	23 44 58.2	
	comp=Z,17nm,0.6s					
ESK	Eskdalemuir	67.14 322	P	P	23 44 57.5	+0.4
	comp=Z,33nm,2.0s					
ESK	Eskdalemuir	67.14 322	P	P	23 44 56.6	-0.5
	comp=Z,34nm,2.0s					
MTLF	Montolieu	67.14 308	P	P	23 44 56.8	-0.5
	comp=Z,14nm,1.6s					
KESW	Keswick, Cumbr	67.28 321	*e*P	P	23 44 57.7	-0.3
KESW			IAmb	IAmb	23 44 59.4	
	comp=Z,27nm,0.7s					
KESW	Keswick, Cumbr	67.28 321	P	P	23 44 58.2	+0.2
	comp=Z,39nm,0.6s					
NWAO	Narrogin (SRO)	67.32 152	P	P	23 44 57.7	-0.7
SHEM	Shemya Is, Ala	67.39 41	LR	LR	00 17 00.6	
	comp=Z,254nm,18.2s,baz=300,slow=38					
EAB	Aberfoyle	67.51 323	*e*P	P	23 44 58.9	-0.5
EAB			IAmb	IAmb	23 45 00.2	
	comp=Z,5.5nm,0.7s					
CORI	Orista	67.67 307	IAmb	IAmb	23 45 07.1	
	comp=Z,50nm,1.6s					
PGBU	Glenifferbraes	67.70 322	*e*P	P	23 45 00.5	-0.1
PGBU			IAmb	IAmb	23 45 02.3	
	comp=Z,54nm,0.6s					
DBG	Daneborg	67.72 344	*i* P	P	23 45 01.1	+0.6
DBG			IAmb	IAmb	23 45 02.3	
	comp=Z,16nm,0.8s					
HLM1	Long Mynd	67.75 319	*e*P	P	23 45 01.1	+0.1
HLM1			IAmb	IAmb	23 45 02.8	
	comp=Z,11nm,0.6s					
NEWG	New Galloway	67.76 322	*e*P	P	23 45 00.8	-0.2
NEWG			IAmb	IAmb	23 45 02.4	
	comp=Z,12nm,0.6s					
MFF	Saint Martin d	67.78 312	P	P	23 45 01.1	-0.2
	comp=Z,4.7nm,0.7s					
ETOS	Mallorca	67.79 304	P	P	23 45 02.0	+0.5
FOEL	Foel Wylfa	67.82 319	*e*P	P	23 45 01.2	-0.3
FOEL			IAmb	IAmb	23 45 03.0	
	comp=Z,39nm,0.7s					
FOEL	Foel Wylfa	67.82 319	P	P	23 45 01.7	+0.2
	comp=Z,34nm,0.7s					
MONM	Monmouth	67.90 318	*e*P	P	23 45 01.4	-0.6
MONM			IAmb	IAmb	23 45 02.8	
	comp=Z,37nm,0.6s					
MCH1	Michaelchurch	67.97 318	*e*P	P	23 45 02.0	-0.4
MCH1			IAmb	IAmb	23 45 03.2	
	comp=Z,26nm,0.6s					
GAL1	Galloway	68.10 321	*e*P	P	23 45 03.1	0.0
GAL1			IAmb	IAmb	23 45 04.4	
	comp=Z,14nm,0.7s					
IOMK	Kirk Michael	68.20 321	*e*P	P	23 45 03.3	-0.5
IOMK			IAmb	IAmb	23 45 05.2	
	comp=Z,5.0nm,0.7s					
JSA	Saint Aubin	68.30 315	*e*P	P	23 45 03.9	-0.6
JSA			IAmb	IAmb	23 45 05.2	
	comp=Z,26nm,0.6s					
WLF1	Llynfaes	68.39 320	*e*P	P	23 45 05.0	0.0
WLF1			IAmb	IAmb	23 45 06.0	
	comp=Z,20nm,0.7s					

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AS13  Alice Springs     68.99 133   P       P       23 45 09.2 +0.1
      comp=Z,21nm,0.6s
AS15  Alice Springs     68.99 133   P       P       23 45 09.4 +0.3
      comp=Z,18nm,0.6s
AS12  Alice Springs     69.01 133   P       P       23 45 09.4 +0.2
      comp=Z,19nm,0.6s
AS31  Alice Springs     69.01 133   P       P       23 45 09.6 +0.3
      comp=Z,6.8nm,0.6s
ASAR  Alice Springs     69.01 133   P       P       23 45 08.9 -0.4
      comp=Z,10nm,0.6s,baz=314,slow=6.3,SNR=105
ASAR                                PKP2bc  P'P'bc  00 13 19.8 +2.0
      comp=Z,0.4nm,0.6s,baz=140,slow=4.2,SNR=6.8
ASAR                                LR      LR      00 20 13.3
      comp=Z,142nm,21.6s,baz=296,slow=40
      comp=Z,10nm,0.6s
ASAR  Alice Springs     69.01 133   P       P       23 45 08.7 -0.5
AS01  Alice Springs     69.04 133   P       P       23 45 10.0 +0.6
      comp=Z,21nm,0.7s
AS01  Alice Springs     69.04 133   P       P       23 45 10.2 +0.8
AS09  Alice Springs     69.06 133   P       P       23 45 09.8 +0.3
      comp=Z,19nm,0.7s
AS17  Alice Springs     69.06 133   P       P       23 45 09.9 +0.3
      comp=Z,16nm,0.8s
HTL   Hartland          69.16 317  eP       P       23 45 09.1 -0.7
HTL                                 IAmb    IAmb    23 45 10.8
      comp=Z,27nm,0.6s
HTL   Hartland          69.16 317   P       P       23 45 09.6 -0.2
      comp=Z,11nm,0.6s
ATE   Arette            69.25 309   P       P       23 45 11.3 +0.7
      comp=Z,9.4nm,1.8s
ILTH  Belurgan, Co L    69.26 321   P       P       23 45 10.1 -0.3
ROSF  Rostrenen         69.26 314   P       P       23 45 10.6 +0.1
      comp=Z,38nm,0.7s
SBD   Saint Breward     69.42 317  eP       P       23 45 11.0 -0.5
SBD                                 IAmb    IAmb    23 45 12.4
      comp=Z,16nm,0.7s
DSB   Dublin            69.54 320   P       P       23 45 12.2 +0.1
IDGL  Inch Island, C    69.56 322   P       P       23 45 13.1 +0.9
IDGL  Inch Island, C    69.56 322  eP       P       23 45 12.2  0.0
IDGL                                IAmb    IAmb    23 45 14.2
      comp=Z,7.5nm,0.7s
CCA1  Carnmenellis      69.87 317  eP       P       23 45 13.4 -0.8
CCA1                                IAmb    IAmb    23 45 14.8
      comp=Z,14nm,0.6s
IWEX  Carrickbyrne,     70.05 319   P       P       23 45 15.8 +0.5
LSZ   Lusaka            70.37 240   LR      LR      00 16 22.1
      comp=Z,316nm,18.0s,baz=59,slow=36
LSZ   Lusaka            70.37 240   P       P       23 45 17.8 -0.1
LSZ   Lusaka            70.37 240   P       P       23 45 16.6 -1.3
LSZ                                 pmax    pmax
      comp=Z,9.0nm,0.6s
LSZ   Lusaka            70.37 240   P       P       23 45 16.6 -1.3
LSZ                                 IAmb    IAmb    23 45 18.2
      comp=Z,8.5nm,0.6s
LSZ   Lusaka            70.37 240   P       P       23 45 17.4 -0.5
      comp=Z,15nm,2.9s
QIS   Mount Isa         70.77 127   P       P       23 45 20.6 +0.4
      comp=Z,18nm,0.9s
QIS   Mount Isa         70.77 127   P       P       23 45 20.9 +0.7
QIS   Mount Isa         70.77 127   P       P       23 45 20.8 +0.6
      comp=Z,18nm,0.9s
IGLA  Glengowla, Co     71.16 321   P       P       23 45 22.3 +0.3
CART  Cartagena         71.34 303   P       P       23 45 23.2 -0.2
CART  Cartagena         71.34 303   IAmb    IAmb    23 45 28.4
      comp=Z,32nm,0.9s
ETOB  Tobarra           71.36 304   P       P       23 45 23.9 +0.3
TAM   Tamanrasset       71.60 287   IAmb    IAmb    23 45 33.6
      comp=Z,21nm,0.5s
TAM   Tamanrasset       71.60 287   P       P       23 45 24.9 -0.5
      comp=Z,6.1nm,0.8s
NEEM  North Greenlan    71.90 351  i P      P       23 45 26.5  0.0
NEEM                                IAmb    IAmb    23 45 27.6
      comp=Z,32nm,0.8s
UCM   Universidad Co    71.99 306   P       P       23 45 26.6 -0.7
BORG  Borgarnes         72.16 335   LR      LR      00 17 43.9
      comp=Z,300nm,18.4s,baz=64,slow=36
VAL   Valentia          72.20 320   P       P       23 45 28.8 +0.5
ESBB  Sonseca Array     72.73 306   IAmb    IAmb    23 45 37.1
      comp=Z,50nm,1.8s
ESDC  Sonseca Array     72.74 306   P       P       23 45 31.2 -0.7
      comp=Z,3.3nm,0.7s,baz=70,slow=6.0,SNR=46
ESDC                                LR      LR      00 22 40.8
      comp=Z,139nm,18.6s,baz=50,slow=40
      comp=Z,3.3nm,0.7s
ESDC  Sonseca Array     72.74 306   P       P       23 45 31.0 -0.9
ALOT  Alotau            73.04 112   P       P       23 45 35.8 +1.9
SUMG  Summit            73.06 345   P       P       23 45 32.9 -0.7
SUMG                                pmax    pmax
      comp=Z,151nm,1.8s
SUMG  Summit            73.06 345   P       P       23 45 32.9 -0.7
SUMG  Summit            73.06 345  i P      P       23 45 34.0 +0.4
SUMG                                IAmb    IAmb    23 45 35.7
      comp=Z,27nm,0.9s
SUMG  Summit            73.06 345   P       P       23 45 34.8 +1.3
      comp=Z,51nm,1.9s
PAB   San Pablo         73.06 306   P       P       23 45 33.4 -0.4
PAB                                 pmax    pmax
      comp=Z,63nm,1.8s
PAB   San Pablo         73.06 306   P       P       23 45 33.4 -0.4
PAB                                 IAmb    IAmb    23 45 39.0
      comp=Z,63nm,1.8s
PAB   San Pablo         73.06 306   P       P       23 45 34.0 +0.2
      comp=Z,20nm,1.9s
F17K  Baldwin Pennin    73.39  23   IAmb    IAmb    23 45 37.8
      comp=Z,34nm,0.8s
PBRG  Braganca          73.88 309  eP       P       23 45 38.3 -0.2
EMAL  Malaga-Limoner    74.19 303   P       P       23 45 39.5 -0.9
KSANE Kasane            74.20 240   IAmb    IAmb    23 45 46.0
      comp=Z,26nm,1.4s
E21K  Killik River      74.57  19   IAmb    IAmb    23 45 43.8
      comp=Z,31nm,0.7s
H17K  Granite Mounta    74.66  24   IAmb    IAmb    23 45 45.2
      comp=Z,21nm,0.8s
D22K  Ayikyak River     74.67  19   IAmb    IAmb    23 45 44.7
      comp=Z,78nm,1.8s
TULEG Thule             74.76 354  i P      P       23 45 42.8 -0.2
TULEG                               IAmb    IAmb    23 45 48.7
      comp=Z,140nm,1.4s
PVRL  Vila Real         74.76 309  eP       P       23 45 44.5 +0.8
PGAV  Gavieira, Arco    74.86 310  eP       P       23 45 44.3 -0.1
G19K  Purcell Mounta    74.96  22   IAmb    IAmb    23 45 46.4
      comp=Z,56nm,1.9s
MTE   Manteigas         74.99 308  eP       P       23 45 45.6 +0.5
MTE                                i IAmb   IAmb    23 45 52.5
      comp=Z,36nm,1.6s
MTE   Manteigas         74.99 308   P       P       23 45 44.7 -0.4
MTE                                 IAmb    IAmb    23 45 50.7
      comp=Z,72nm,1.8s
H18K  Honhosa River     75.09  23   IAmb    IAmb    23 45 47.3
      comp=Z,18nm,0.8s
PVIS  Viseu             75.11 308  eP       P       23 45 46.0 +0.2
PCBR  Castelo Branco    75.17 307  eP       P       23 45 45.9 -0.1
PCBR                               i IAmb   IAmb    23 45 47.6
      comp=Z,22nm,1.9s
PMRV  Marv??o           75.27 307  eP       P       23 45 46.7  0.0
PMRV                               i IAmb   IAmb    23 45 53.6
      comp=Z,19nm,1.4s
J16K  Anvik River       75.31  25   IAmb    IAmb    23 48 07.5
      comp=Z,75nm,1.9s
CTA   Charters Tower    75.33 122   P       P       23 45 54.3 +7.2
CTA   Charters Tower    75.33 122   LR      LR      00 24 17.7
      comp=Z,104nm,18.5s,baz=224,slow=40
CTA   Charters Tower    75.33 122   P       P       23 45 50.2 +3.1
E22K  Anaktuvuk Pass    75.39  19   IAmb    IAmb    23 45 48.8
      comp=Z,36nm,1.5s
F21K  Alatna River      75.46  20   IAmb    IAmb    23 45 49.2
      comp=Z,20nm,0.9s
PBAR  Barrancos         75.53 306  eP       P       23 45 48.0 -0.2
PBAR                               i IAmb   IAmb    23 45 56.1
      comp=Z,45nm,2.1s
CNIL  Conil             75.54 304   P       P       23 45 48.2  0.0
D24K  Happy Valley      75.56  18   IAmb    IAmb    23 46 01.9
      comp=Z,74nm,1.9s
PSARD Sardoal           75.75 307  eP       P       23 45 49.7 +0.3
PSARD                              i IAmb   IAmb    23 45 52.4
      comp=Z,36nm,1.5s
MDT   Midelt            75.89 300   LR      LR      00 24 53.1
      comp=Z,110nm,18.3s,baz=86,slow=40
MD01  Midelt array s    75.98 300   P       P       23 45 50.0 -1.0
PARRA Arraiolos         75.98 307  eP       P       23 45 50.9 +0.2
PARRA                              i IAmb   IAmb    23 46 01.1
      comp=Z,16nm,1.7s
IFR   Ifrane            76.00 301   P       P       23 45 50.3 -0.9
PMTG  Montargil         76.01 307  eP       P       23 45 50.8 -0.1
PMTG                               i IAmb   IAmb    23 45 57.7
      comp=Z,23nm,1.4s
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E23K  Chandalar         76.07  19   IAmb    IAmb    23 45 52.9
      comp=Z,31nm,1.6s
EVO   Evora             76.08 306   P       P       23 45 50.3 -1.0
EVO   Evora             76.08 306  eP       P       23 45 51.6 +0.4
EVO                                i IAmb   IAmb    23 45 53.5
      comp=Z,29nm,1.6s
IMAR  Indian Mountai    76.15  21   P       P       23 45 50.6 -0.5
PBEJ  Beja              76.19 306  eP       P       23 45 52.3 +0.4
PBEJ                               i IAmb   IAmb    23 45 59.0
      comp=Z,27nm,1.7s
PSBE  So Bento          76.23 307  eP       P       23 45 53.2 +1.0
PSBE                               i IAmb   IAmb    23 46 02.4
      comp=Z,47nm,1.8s
MOE   Montemor          76.33 306  eP       P       23 45 53.4 +0.8
PVAQ  Vaqueiros         76.33 305  eP       P       23 45 53.3 +0.5
PVAQ                               i IAmb   IAmb    23 46 00.5
      comp=Z,36nm,2.3s
PVAQ  Vaqueiros         76.33 305   P       P       23 45 52.6 -0.1
      comp=Z,22nm,1.6s
E24K  Your Creek        76.37  18   IAmb    IAmb    23 45 54.5
      comp=Z,15nm,0.8s
PCVE  Castro Verde      76.47 305  eP       P       23 45 53.9 +0.3
PCVE                               i IAmb   IAmb    23 46 01.6
      comp=Z,18nm,2.1s
K17K  Iditarod          76.50  25   IAmb    IAmb    23 45 55.8
      comp=Z,67nm,1.5s
MESJ  Messejana         76.52 306  eP       P       23 45 54.5 +0.8
MESJ                               i IAmb   IAmb    23 46 01.1
      comp=Z,30nm,1.6s
PBDV  Barranco-do-Ve    76.56 305  eP       P       23 45 54.4 +0.3
PBDV                               i IAmb   IAmb    23 46 01.3
      comp=Z,42nm,1.7s
PLOUS Minas do Lousa    76.58 306  eP       P       23 45 54.0 -0.1
PLOUS                              i IAmb   IAmb    23 46 02.2
      comp=Z,22nm,2.4s
J18K  Innoko River      76.65  24   IAmb    IAmb    23 45 56.4
      comp=Z,56nm,1.7s
H21K  Melozitna Rive    76.66  21   IAmb    IAmb    23 45 56.2
      comp=Z,15nm,0.9s
J19K  Poorman           76.73  23   IAmb    IAmb    23 45 57.2
      comp=Z,24nm,0.8s
BBOO  Buckleboo         76.83 138   P       P       23 45 55.6 +0.2
      comp=Z,33nm,0.7s
BBOO  Buckleboo         76.83 138   P       P       23 45 59.0 +3.6
BBOO  Buckleboo         76.83 138   IAmb    IAmb    23 46 04.4
      comp=Z,36nm,1.1s
BBOO  Buckleboo         76.83 138   P       P       23 45 55.0 -0.4
      comp=Z,33nm,0.7s
F24K  Squaw Lake        76.92  19   P       P       23 45 55.3 -0.2
F24K                                IAmb    IAmb    23 45 57.8
      comp=Z,44nm,1.8s
H22K  Ishtalitna Cre    76.96  21   IAmb    IAmb    23 45 58.1
      comp=Z,29nm,1.5s
J20K  Nowinta River     77.13  23   IAmb    IAmb    23 45 58.8
      comp=Z,80nm,1.9s
M16K  Timber Creek      77.22  27   IAmb    IAmb    23 45 59.9
      comp=Z,26nm,1.1s
L18K  Granite Mounta    77.40  25   IAmb    IAmb    23 46 00.8
      comp=Z,46nm,1.6s
H23K  Yukon River       77.57  20   IAmb    IAmb    23 46 01.7
      comp=Z,75nm,2.0s
G24K  Hadweenzic Riv    77.60  19   P       P       23 45 57.8 -1.5
G24K                                IAmb    IAmb    23 46 01.8
      comp=Z,18nm,1.1s
M17K  Holitna River     77.60  26   IAmb    IAmb    23 46 02.4
      comp=Z,17nm,0.7s
MLY   Manley            77.72  21   IAmb    IAmb    23 46 02.1
      comp=Z,16nm,0.9s
RES   Resolute Bay      77.80   0   LR      LR      00 22 10.8
      comp=Z,213nm,20.8s,baz=23,slow=37
AVE   Averroes          77.83 301   P       P       23 45 59.7 -1.5
AVE   Averroes          77.83 301   P       P       23 46 01.0 -0.3
      comp=Z,73nm,0.6s
BMAR  Burnt Mountain    77.89  18   P       P       23 46 01.0  0.0
I23K  Minto, Yukon-K    78.08  21   IAmb    IAmb    23 46 04.9
      comp=Z,11nm,0.7s
E27K  Coleen River      78.11  16   IAmb    IAmb    23 46 04.3
      comp=Z,63nm,1.9s
N17K  Nushagak Hills    78.21  27   IAmb    IAmb    23 46 06.8
      comp=Z,29nm,1.4s
LBTB  Lobatse           78.24 234   LR      LR      00 17 16.1
      comp=Z,383nm,21.1s,baz=50,slow=33
LBTB  Lobatse           78.24 234   P       P       23 46 03.1 -0.5
LBTB                                pmax    pmax
      comp=Z,16nm,1.1s
LBTB  Lobatse           78.24 234   P       P       23 46 03.1 -0.5
E28M  Babbage River     78.30  15   IAmb    IAmb    23 46 04.7
      comp=Z,53nm,1.9s
G26K  Porcupine Rive    78.45  18   IAmb    IAmb    23 46 06.5
      comp=Z,83nm,1.9s
NEA2  Nenana            78.55  21   IAmb    IAmb    23 46 06.3
      comp=Z,25nm,0.8s
KTH   Kantishna Hill    78.63  22   IAmb    IAmb    23 46 07.1
      comp=Z,35nm,1.6s
TIO   Tiouine           78.73 299   P       P       23 46 05.0 -1.4
COLA  College           78.74  21   P       P       23 46 06.3 +0.7
COLA  College           78.74  21   P       P       23 46 06.0 +0.4
      comp=Z,27nm,1.6s
E29M  Blow River        78.85  15   IAmb    IAmb    23 46 08.3
      comp=Z,18nm,0.8s
TORD  Torodi Ar. Bea    78.91 279   P       P       23 46 05.4 -2.0
      comp=Z,3.1nm,0.6s,baz=60,slow=4.1,SNR=20
      comp=Z,3.1nm,0.6s
TORD  Torodi Ar. Bea    78.91 279   P       P       23 46 05.2 -2.3
TRF   Thorofare Moun    78.92  22   IAmb    IAmb    23 46 42.9
      comp=Z,37nm,1.9s
F28M  Old Crow          78.97  16   IAmb    IAmb    23 46 08.9
      comp=Z,49nm,1.9s
HTT   Hallett           78.98 137   P       P       23 46 08.1 +0.7
      comp=Z,7.0nm,1.3s
HTT   Hallett           78.98 137   P       P       23 46 14.4 +7.0
HTT   Hallett           78.98 137   P       P       23 46 09.3 +1.9
PRP   Porcupine Dome    79.00  19   IAmb    IAmb    23 46 09.6
      comp=Z,18nm,0.8s
N19K  Bonanza Creek     79.10  26   IAmb    IAmb    23 46 11.7
      comp=Z,82nm,1.8s
ILAR  Eielson Array     79.11  20   P       P       23 46 06.8 -0.9
      comp=Z,7.7nm,0.6s,baz=320,slow=5.5,SNR=85
ILAR                                PP      PP      23 49 05.4 -0.9
      comp=Z,2.7nm,0.6s,baz=314,slow=7.7,SNR=13
      comp=Z,7.7nm,0.6s
ILAR  Eielson Array     79.11  20   P       P       23 46 07.2 -0.5
ILAR  Eielson Array     79.11  20   P       P       23 46 07.2 -0.5
MCK   McKinley          79.18  22   IAmb    IAmb    23 46 09.6
      comp=Z,14nm,0.7s
GRTLG Ghanzi            79.29 239   IAmb    IAmb    23 46 14.8
      comp=Z,36nm,1.6s
MAKGR Makgori           79.30 233   P       P       23 46 08.1 -1.3
MAKGR                               IAmb    IAmb    23 46 14.1
      comp=Z,29nm,1.4s
P17K  Kvichak River     79.31  28   IAmb    IAmb    23 46 13.0
      comp=Z,31nm,0.6s
O18K  Koktuh Hills      79.41  27   IAmb    IAmb    23 46 13.2
      comp=Z,32nm,0.6s
RND   Reindeer          79.42  22   IAmb    IAmb    23 46 10.4
      comp=Z,17nm,0.7s
STKA  Stephens Creek    79.58 134   P       P       23 46 11.0 +0.3
      comp=Z,49nm,1.1s
STKA  Stephens Creek    79.58 134   P       P       23 46 09.7 -1.0
      comp=Z,6.3nm,0.5s,baz=320,slow=6.1,SNR=20
STKA                                LR      LR      00 25 34.8
      comp=Z,97nm,18.8s,baz=295,slow=39
      comp=Z,6.3nm,0.5s
STKA  Stephens Creek    79.58 134   P       P       23 46 10.9 +0.3
STKA  Stephens Creek    79.58 134   P       P       23 46 11.0 +0.3
      comp=Z,49nm,1.1s
H27K  Steamboat Moun    79.60  18   IAmb    IAmb    23 46 12.4
      comp=Z,39nm,1.8s
I26K  Coal Creek Min    79.83  19   IAmb    IAmb    23 46 13.8
      comp=Z,44nm,1.4s
INK   Inuvik            79.88  14   P       P       23 46 11.2 -0.6
INK                                 pmax    pmax
      comp=Z,11nm,0.9s
INK   Inuvik            79.88  14   P       P       23 46 11.2 -0.6
INK   Inuvik            79.88  14   P       P       23 46 12.8 +1.0
      comp=Z,16nm,1.6s
F30M  Barrier River     79.95  15   IAmb    IAmb    23 46 24.6
      comp=Z,21nm,0.8s
G29M  Pine Creek        79.98  16   IAmb    IAmb    23 46 14.7
      comp=Z,103nm,1.8s
SFJD  Kangerlussuaq     80.00 344   LR      LR      00 26 23.8
      comp=Z,209nm,20.1s,baz=27,slow=39
SFJD  Kangerlussuaq     80.00 344  i P      P       23 46 12.8 +0.3
SUA   Susitna One       80.07  24   IAmb    IAmb    23 46 14.7
      comp=Z,28nm,0.6s
H29M  Whitestone        80.43  17   IAmb    IAmb    23 46 16.5
      comp=Z,79nm,1.8s
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RIDG  Independent Ri    80.47  20   IAmb    IAmb    23 46 16.1
      comp=Z,21nm,0.6s
GHO   Glory Hole Cre    80.51  23   P       P       23 46 14.5 -1.0
GHO                                 IAmb    IAmb    23 46 17.5
      comp=Z,50nm,1.4s
F31M  Tsiigehtchic      80.55  14   IAmb    IAmb    23 46 17.0
      comp=Z,71nm,1.7s
PMR   Palmer            80.56  23   P       P       23 46 16.0 +0.4
PMR   Palmer            80.56  23   IAmb    IAmb    23 46 17.0
      comp=Z,26nm,0.6s
SCRK  Sand Creek        80.56  20   IAmb    IAmb    23 46 17.2
      comp=Z,24nm,0.6s
I28M  Miner Creek       80.62  18   IAmb    IAmb    23 46 17.3
      comp=Z,75nm,1.9s
RC01  Rabbit Creek A    80.69  24   IAmb    IAmb    23 46 17.8
      comp=Z,22nm,0.7s
SML   Sawmill           80.69  23   P       P       23 46 15.9 -0.5
BOSA  Boshof            80.70 231   P       P       23 46 15.4 -1.5
      comp=Z,3.0nm,0.6s,baz=56,slow=5.1,SNR=11
BOSA                                LR      LR      00 21 07.9
      comp=Z,506nm,18.1s,baz=51,slow=35
      comp=Z,3.0nm,0.6s
BOSA  Boshof            80.70 231   IAmb    IAmb    23 46 40.1
      comp=Z,47nm,1.6s
G31M  Satah River       80.86  15   IAmb    IAmb    23 46 18.4
      comp=Z,23nm,0.7s
LKGWB Lokgwabe          80.89 237   IAmb    IAmb    23 46 20.8
      comp=Z,53nm,1.3s
TSUM  Tsumeb            80.89 243   LR      LR      00 22 23.1
      comp=Z,181nm,19.5s,baz=334,slow=36
SLKM  Skilak Lake       80.90  25   IAmb    IAmb    23 46 18.9
      comp=Z,22nm,0.5s
K27K  Chicken           81.10  19   IAmb    IAmb    23 46 20.6
      comp=Z,66nm,1.6s
CNPM  China Poot        81.17  26   IAmb    IAmb    23 46 22.3
      comp=Z,27nm,0.6s
MENT  Mentasta          81.41  21   P       P       23 46 19.1 -1.1
MENT                                IAmb    IAmb    23 46 22.6
      comp=Z,30nm,0.8s
I30M  Mount Dempster    81.73  17   IAmb    IAmb    23 46 23.2
      comp=Z,62nm,1.5s
H31M  Peel River        81.76  16   IAmb    IAmb    23 46 23.2
      comp=Z,20nm,0.6s
GLI   Glacier Island    81.77  23   IAmb    IAmb    23 46 23.5
      comp=Z,18nm,0.6s
KDAK  Kodiak Island     81.78  27   LR      LR      00 26 03.6
      comp=Z,480nm,18.9s,baz=277,slow=38
KDAK  Kodiak Island     81.78  27   P       P       23 46 21.6 -0.6
KDAK                                pmax    pmax
      comp=Z,74nm,0.6s
KDAK  Kodiak Island     81.78  27   P       P       23 46 21.6 -0.6
DAWY  Dawson            81.84  18   IAmb    IAmb    23 46 23.9
      comp=Z,67nm,1.8s
OHAK  Old Harbor        81.85  28   P       P       23 46 23.6 +1.1
J29N  Klondike Camp     81.86  18   IAmb    IAmb    23 46 24.4
      comp=Z,16nm,0.7s
L27K  Beaver Creek,     81.90  20   IAmb    IAmb    23 46 25.1
      comp=Z,35nm,1.4s
BCAR  Beaver Creek A    81.91  20   P       P       23 46 22.7 -0.1
CMSA  Cobar Meteorol    82.01 132   P       P       23 46 24.3 +0.7
      comp=Z,15nm,0.8s
CMSA  Cobar Meteorol    82.01 132   P       P       23 46 24.6 +0.9
CMSA  Cobar Meteorol    82.01 132   P       P       23 46 23.8 +0.1
      comp=Z,15nm,0.8s
DIV   Divide            82.05  23   IAmb    IAmb    23 46 25.4
      comp=Z,13nm,0.5s
J30M  Hart River        82.26  17   IAmb    IAmb    23 46 26.4
      comp=Z,12nm,0.7s
M27K  Edge Creek, AK    82.41  20   IAmb    IAmb    23 46 27.9
      comp=Z,69nm,2.0s
EYAK  Cordova Ski Ar    82.47  23   P       P       23 46 27.2 +1.5
EYAK  Cordova Ski Ar    82.47  23   IAmb    IAmb    23 46 27.5
      comp=Z,13nm,0.6s
GLB   Gilahina Butte    82.48  22   IAmb    IAmb    23 46 27.9
      comp=Z,59nm,1.8s
K29M  Barlow Dome       82.53  18   P       P       23 46 25.0 -1.1
K29M                                IAmb    IAmb    23 46 28.0
      comp=Z,50nm,1.5s
BMRM  Bremner River     82.56  22   IAmb    IAmb    23 46 28.2
      comp=Z,20nm,0.6s
VRDI  Verde Repeater    82.75  22   IAmb    IAmb    23 46 29.6
      comp=Z,48nm,1.5s
L29M  L29M              82.94  19   IAmb    IAmb    23 46 30.4
      comp=Z,34nm,1.4s
LOGN  Logan Glacier     83.85  21   IAmb    IAmb    23 46 35.6
      comp=Z,53nm,1.6s
M31M  Drury Creek, Y    84.70  18   IAmb    IAmb    23 46 38.8
      comp=Z,13nm,1.0s
HYT   Haines Junctio    84.93  20   P       P       23 46 37.8 -0.7
HYT                                 IAmb    IAmb    23 46 40.6
      comp=Z,20nm,0.8s
MMPY  Sheldon Lake,     85.16  16   IAmb    IAmb    23 46 41.9
      comp=Z,24nm,1.4s
WHY   Whitehorse        85.83  19   IAmb    IAmb    23 46 44.4
      comp=Z,23nm,0.7s
SUR   Sutherland        86.03 230   LR      LR      00 23 00.1
      comp=Z,485nm,18.1s,baz=66,slow=34
SUR   Sutherland        86.03 230   P       P       23 46 47.3 +2.8
FRB   Frobisher Bay     86.58 349   LR      LR      00 31 20.2
      comp=Z,448nm,18.1s,baz=44,slow=40
P32M  Atlin             87.04  19   IAmb    IAmb    23 46 51.0
      comp=Z,15nm,1.1s
BESE  Bessie Mountai    87.54  20   IAmb    IAmb    23 46 53.7
      comp=Z,17nm,1.0s
DBIC  Dimbokro          87.57 276   P       P       23 46 52.3 +0.1
      comp=Z,5.8nm,0.9s,baz=65,slow=6.0,SNR=5.9
DBIC                                LR      LR      00 29 22.4
      comp=Z,234nm,18.1s,baz=68,slow=38
      comp=Z,5.8nm,0.9s
R32K  Eaglecrest        87.89  20   IAmb    IAmb    23 46 55.4
      comp=Z,11nm,0.7s
JIS   Juneau Island     87.93  20   P       P       23 46 55.1 +2.0
R33M  Jennings River    87.97  18   IAmb    IAmb    23 46 55.5
      comp=Z,14nm,1.4s
YKA   Yellowknife Ar    88.56   9   P       P       23 46 54.9 -1.2
      comp=Z,1.8nm,0.7s,baz=341,slow=5.1,SNR=6.2
YKA                                 LR      LR      00 29 32.2
      comp=Z,288nm,20.5s,baz=344,slow=38
      comp=Z,1.8nm,0.7s
YKA   Yellowknife Ar    88.56   9  i P      P       23 46 57.2 +1.2
YKA                                 pmax    pmax
      comp=Z,2.0nm,0.6s
SCHQ  Schefferville     94.45 345   PP      PP      23 51 08.4 -1.6
      comp=Z,2.6nm,0.6s,baz=24,slow=10.0,SNR=4.7
SCHQ                                LR      LR      00 36 23.1
      comp=Z,109nm,18.3s,baz=25,slow=40
MAW   Mawson            96.63 189   P       P       23 47 31.5 -1.3
      comp=Z,1.1nm,0.7s,baz=27,slow=14,SNR=1.6
MAW                                 LR      LR      00 26 19.2
      comp=Z,162nm,19.6s,baz=32,slow=32
      comp=Z,1.1nm,0.7s
PDAR  Pinedale Array   108.39  12   PKiKP   PKiKP   23 52 30.9 -1.5
      comp=Z,0.4nm,0.6s,baz=350,slow=1.9,SNR=6.1
PDAR  Pinedale Array   108.39  12           PKiKP   23 52 30.6 -1.8
TROLL Troll, Antarti   114.11 200   PKiKP   PKPdf   23 52 41.4 -0.7
      comp=Z,93nm,0.6s
VNA2  Neumayer--Watz   117.02 202  ⇓PKiKP   PKPdf   23 52 47.0 -0.5
      comp=Z,4.8nm,0.6s,baz=46,slow=3.1
VNA1  Neumayer--Stat   117.27 202   PKiKP   PKPdf   23 52 47.1 -0.8
      comp=Z,3.1nm,0.8s
QSPA  South Pole Qui   117.58 180   PKP     PKPdf   23 52 46.4 -2.4
      comp=Z,1.4nm,0.6s,baz=304,slow=1.4,SNR=14
QSPA  South Pole Qui   117.58 180   PKPdf   PKPdf   23 52 47.3 -1.5
VNA3  Neumayer Olymp   117.79 201   PKiKP   PKPdf   23 52 47.0 -2.0
      comp=Z,4.1nm,0.5s
TX31  Lajitas Ar. Si   122.49  10   PKPdf   PKPdf   23 52 58.8 -0.8
TXAR  Lajitas Array    122.49  10   PKP     PKPdf   23 52 57.8 -1.7
      comp=Z,0.7nm,0.5s,baz=356,slow=2.8,SNR=20
TXAR  Lajitas Array    122.49  10   PKIKP   PKPdf   23 52 58.1 -1.5
TXAR  Lajitas Array    122.49  10   PKPdf   PKPdf   23 52 58.1 -1.5
PPT2  Papeete2         128.22  91  eLR      LR      00 33 25.5
      comp=Z,82nm,22.8s
PPT2                               eLR      LR      00 33 30.0
      comp=Z,147nm,25.2s
TAOE  Nuku Hiva Isla   132.77  76  eLR      LR      00 35 26.9
      comp=Z,127nm,23.8s
AQDB  Aquidauana       144.29 273  eP       PKPab   23 53 37.7 -0.4
CPSB  Cacapava Do Su   144.47 256   PKPdf   PKPab   23 53 38.2 -0.4
CPSB  Cacapava Do Su   144.47 256  eP       PKPab   23 53 37.7 -0.9
VILB  Vilhena          145.08 288  eP       PKPbc   23 53 40.8 -0.3
PTLB  Pontes e Lacer   145.35 283  eP       PKPbc   23 53 41.9 -0.1
SJPY  San Joaquin      145.91 266  eP       PKPdf   23 53 42.3 -0.6
COIM  Forte Coimbra    145.94 275  eP       PKPdf   23 53 41.5 -1.5
MURT  Porto Murtinho   146.35 272  eP       PKPdf   23 53 41.8 -1.9
SIV   San Ignacio      147.26 284   PKPbc   PKPdf   23 53 46.6 +1.2
      comp=Z,16nm,0.6s,baz=45,slow=3.5,SNR=102
CPUP  Villa Florida    147.26 264   PKPbc   PKPbc   23 53 46.4 -1.0
```

	comp=Z,2.3nm,0.6s,baz=81,slow=4.5,SNR=7.3						
CPUP	**Villa Florida**	**147.26**	**264**	PKP2	**PKPdf**	**23 53 46.2**	**+1.1**
CPUP	**Villa Florida**	**147.26**	**264**		**PKPdf**	**23 53 46.2**	**+1.1**
CPUP	**Villa Florida**	**147.26**	**264**	*e*P	**PKPdf**	**23 53 44.0**	**-1.1**
OTAV	**Otavalo**	**148.34**	**329**	*e*P	**PKPdf**	**23 53 46.8**	**-1.1**
LPAZ	**La Paz**	**153.38**	**290**	PKPbc	**PKPbc**	**23 54 02.5**	**-0.7**
	comp=Z,1.0nm,0.5s,baz=45,slow=1.4,SNR=5.4						
LPAZ	**La Paz**	**153.38**	**290**	PKIKP	**PKPbc**	**23 54 01.0**	**-2.3**
LPAZ	**La Paz**	**153.38**	**290**	PKPdf	**PKPdf**	**23 53 53.8**	**-1.9**
LPAZ				PKPbc	**PKPbc**	**23 54 01.0**	**-2.3**

IDC ***15*** *23:38:05.6±1.1,34°.49N×25°.04E,h0^{km},mb3.6/8, mbtmp3.5/11,ML3.9/2,Error ellipse: s-maj=26.7km s-min=17.4km az=167.0*

ATH ***15*** *23:38:06.7,34°.12N×25°.14E,h7^{km}±2^{km},ML3.2/7,Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*

ISK ***15*** *23:38:08.3,34°.23N×25°.08E,h85^{km},ML2.8/8*

THE ***15*** *23:38:09.6,34°N±9°×2°5E±°,h0^{km}±6^{km},M2.9/7,MLh2.9/7*

ISC 15 23:38:06.9±1.7**,34°.20N**±0°.07×**25°.12E**±0°.03**,h13**^{km}±9^{km}**, n52,**σ1^{s}**34**/67**,mb3.5**/7**,Crete**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SIVA	**Sivas**	**0.85**	**343**	P	**Pb**	**23 38 24.2**	**+0.6**
SIVA				S	**Sb**	**23 38 35.3**	**+0.3**
SIVA				AML	AML		
SIVA	**Sivas**	**0.85**	**343**	P	**Pb**	**23 38 24.2**	**+0.6**
SIVA				S	**Sn**	**23 38 37.3**	**+0.3**
SIVA				AML	AML		
GVD	**Gavdhos**	**1.06**	**307**	P	**Pn**	**23 38 28.5**	**+1.0**
GVD				AML	AML		
GVD	**Gavdhos**	**1.06**	**307**	Pg	**Pn**	**23 38 28.5**	**+1.0**
GVD				Sg	**Sn**	**23 38 43.7**	**+1.5**
GVD	**Gavdhos**	**1.06**	**307**	P	**Pn**	**23 38 28.5**	**+1.0**
GVD				S	**Sn**	**23 38 43.4**	**+1.2**
GVD				AML	AML		
GVDS	**Gavdos**	**1.08**	**306**	P	**Pn**	**23 38 28.8**	**+1.0**
GVDS				AML	AML		
IDI	**Anoyia**	**1.10**	**350**	P	**Pb**	**23 38 28.2**	**+0.3**
IDI				AML	AML		
IDI	**Anoyia**	**1.10**	**350**	Pg	**Pn**	**23 38 28.5**	**+0.4**
IDI				Sg	**Sn**	**23 38 44.5**	**+1.3**
IDI				AML	AML		
AGNA	**Agios Nikolaos**	**1.10**	**26**	P	**Pn**	**23 38 28.8**	**+0.7**
AGNA				S	**Sn**	**23 38 44.4**	**+1.2**
NPS	**Neapolis**	**1.13**	**21**	P	**Pn**	**23 38 29.0**	**+0.4**
NPS				AML	AML		
NPS	**Neapolis**	**1.13**	**21**	P	**Pn**	**23 38 28.9**	**+0.4**
NPS				S	**Sn**	**23 38 45.7**	**+1.7**
RTHF	**Rethymno-Limin**	**1.27**	**336**	P	**Pn**	**23 38 32.0**	**+1.5**
RTHF				S	**Sn**	**23 38 49.5**	**+2.1**
ZKR	**Zakros**	**1.28**	**45**	P	**Pn**	**23 38 32.1**	**+1.5**
ZKR	**Zakros**	**1.28**	**45**	Pn	**Pn**	**23 38 32.1**	**+1.5**
ZKR				Sn	**Sn**	**23 38 49.5**	**+1.8**
ZKR				AML	AML		
ZKR	**Zakros**	**1.28**	**45**	P	**Pg**	**23 38 31.5**	**-0.1**
ZKR				S	**Sn**	**23 38 50.1**	**+2.4**
ZKR				AML	AML		
SIT2	**Siteia**	**1.29**	**39**	P	**Pn**	**23 38 32.3**	**+1.6**
SIT2				S	**Sn**	**23 38 50.3**	**+2.5**
VAM	**Vamos**	**1.42**	**328**	P	**Pg**	**23 38 36.4**	**+2.2**
VAM				AML	AML		
VAM	**Vamos**	**1.42**	**328**	P	**Pg**	**23 38 34.3**	**+0.1**
VAM				S	**Sn**	**23 38 53.7**	**+2.6**
VAM				AML	AML		
IMMV	**Iera Moni Meta**	**1.57**	**324**	P	**Pg**	**23 38 36.8**	**-0.2**
IMMV	**Iera Moni Meta**	**1.57**	**324**	Pn	**Pn**	**23 38 35.2**	**+0.7**
IMMV				Sn	**Sn**	**23 38 54.7**	**0.0**
IMMV				AML	AML		
IMMV	**Iera Moni Meta**	**1.57**	**324**	P	**Pg**	**23 38 36.5**	**-0.5**
IMMV				S	**Sg**	**23 38 57.1**	**-0.2**
IMMV				AML	AML		
CHAN	**Chania**	**1.58**	**326**	P	**Pb**	**23 38 36.2**	**+0.2**
CHAN				S	**Sg**	**23 38 57.6**	**-0.3**
KARP	**Karpathos**	**2.15**	**51**	P	**Pb**	**23 38 46.4**	**+0.6**
KARP	**Karpathos**	**2.15**	**51**	Pn	**Pn**	**23 38 43.9**	**+1.4**
KARP				AML	AML		
KARP	**Karpathos**	**2.15**	**51**	P	**Pn**	**23 38 43.9**	**+1.4**
THR6	**Thira Island,**	**2.16**	**6**	P	**Pb**	**23 38 45.4**	**-0.5**
THR6	**Thira Island,**	**2.16**	**6**	P	**Pn**	**23 38 44.3**	**+1.7**
THERA	**Ancient Thera,**	**2.18**	**8**	P	**Pn**	**23 38 44.2**	**+1.3**
SNT5	**Nea Kammeni, S**	**2.21**	**6**	P	**Pb**	**23 38 46.1**	**-0.7**
SNT5	**Nea Kammeni, S**	**2.21**	**6**	P	**Pn**	**23 38 44.9**	**+1.6**
THR3	**Thira Island,**	**2.21**	**6**	P	**Pb**	**23 38 45.7**	**-1.1**
THR3	**Thira Island,**	**2.21**	**6**	P	**Pn**	**23 38 45.2**	**+1.8**
THR5	**Thira Island,**	**2.22**	**5**	P	**Pn**	**23 38 45.1**	**+1.7**
ANKY	**Antikythira Is**	**2.23**	**319**	P	**Pn**	**23 38 45.4**	**+1.7**
MHLO	**Agia Marina, M**	**2.55**	**347**	P	**Pn**	**23 38 50.0**	**+2.0**
VLI	**Veliai**	**3.08**	**325**	P	**Pn**	**23 38 57.0**	**+1.7**
ARG	**Arkhangelos**	**3.18**	**50**	Pn	**Pn**	**23 38 57.7**	**+1.1**
ARG				AML	AML		
TURN	**Turunc**	**3.62**	**44**	Pn	**Pn**	**23 39 03.9**	**+1.2**
TURN				AML	AML		
MLSB	**Milas**	**3.77**	**34**	Pn	**Pn**	**23 39 05.5**	**+0.7**
ITM	**Ithomi**	**3.95**	**320**	Pn	**Pn**	**23 39 07.4**	**+0.2**
MMAI	**Mount Meron Ar**	**8.66**	**95**	Pn	**Pn**	**23 40 13.2**	**+1.2**
	1.6nm,0.3s,baz=303,slow=13,SNR=6.1						
	0.4nm,0.4s						
MMAI				AML	AML		
BRTR	**Keskin Array B**	**8.77**	**49**	Pn	**Pn**	**23 40 12.0**	**-1.5**
	0.3nm,0.7s,baz=240,slow=11,SNR=1.7						
AKASG	**Malin Array Be**	**16.76**	**9**	Pn	**Pn**	**23 41 58.9**	**-2.3**
	0.5nm,0.3s,baz=201,slow=11,SNR=5.1						
	0.6nm,0.5s						
AKASG				AML	AML		
GERES	**GERESS Array B**	**16.91**	**333**	Pn	**Pn**	**23 42 02.8**	**-0.5**
	baz=144,slow=12,SNR=16						
ESDC	**Sonseca Array**	**23.82**	**292**	P	**P**	**23 43 18.6**	**-1.1**
	0.1nm,0.5s,baz=92,slow=7.9,SNR=1.3						
	0.1nm,0.5s						
HFS	**Hagfors**	**27.00**	**347**	P	**P**	**23 43 45.7**	**-2.6**
	3.0nm,0.7s,baz=123,slow=10,SNR=3.3						
	3.0nm,0.7s						
EKA	**Eskdalemuir Ar**	**28.81**	**326**	P	**P**	**23 44 04.6**	**0.0**
	0.2nm,0.4s,baz=126,slow=9.3,SNR=2.0						
	0.2nm,0.4s						
TORD	**Torodi Ar. Bea**	**29.86**	**231**	P	**P**	**23 44 15.7**	**+1.5**
	0.9nm,0.5s,baz=36,slow=9.3,SNR=14						
	0.9nm,0.5s						
KURBB	**Kurchatov Arra**	**41.75**	**50**	P	**P**	**23 45 55.8**	**+0.1**
	0.5nm,0.6s,baz=275,slow=9.2,SNR=2.8						
	0.5nm,0.6s						
MKAR	**Makanchi Array**	**44.34**	**56**	P	**P**	**23 46 15.0**	**-1.8**
	0.5nm,0.7s,baz=278,slow=10.0,SNR=1.8						
	0.5nm,0.7s						
ZALV	**Zalesovo Beam**	**45.69**	**45**	P	**P**	**23 46 26.3**	**-1.0**
	0.5nm,0.4s,baz=265,slow=6.6,SNR=2.1						
	0.5nm,0.4s						
SONM	**Songino Array**	**60.12**	**50**	P	**P**	**23 48 13.8**	**-0.4**
	0.5nm,0.5s,baz=280,slow=9.0,SNR=2.4						
	0.5nm,0.5s						

IDC 16 00:06:44.7±2.4**,29°.72S**×**176°.34W,h0**^{km}**,mb3.8**/2**, mbtmp3.8**/2**,MS4.0**/1**,Error ellipse: s-maj=46.2km s-min=32.1km az=20.0,Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	**Raoul Island**	**1.45**	**288**	Pn	Pn	00 07 10.2	-2.0
	177nm,0.3s,baz=28,slow=18,SNR=15						
RAO				Sn	Sg	00 07 28.4	-2.8
	504nm,0.3s,baz=109,slow=23,SNR=8.8						
ASAR	**Alice Springs**	**44.59**	**266**	P	P	00 14 58.4	-0.4
	0.4nm,0.4s,baz=104,slow=8.3,SNR=7.1						
ASAR				LR	LR	00 32 40.9	
	comp=Z,157nm,18.7s,baz=94,slow=35						
	0.4nm,0.4s						
WRA	**Warramunga Arr**	**45.52**	**271**	P	P	00 15 05.3	-1.0
	1.2nm,0.8s,baz=110,slow=7.8,SNR=6.3						
	1.2nm,0.8s						
FINES	**FINESS Array B**	**144.98**	**341**	PKP	PKPdf	00 26 23.4	+0.3
	0.9nm,0.8s,baz=346,slow=1.7,SNR=4.8						

WEL ***16*** *00:26:01.8±0.6,33°S±4°×17°8W±°,h33^{km},M5.0/19, mB5.5/13,ML4.9/22,MLv5.1/19,Mw(mB)4.9/13,Error ellipse: s-maj=11.5km s-min=2.8km az=109.0,confirmed*

NEIC ***16*** *00:26:05.9±0.8,32°.7S±0°.1×178°.9W±0°.1,h35^{km}±1^{km}, mb4.1/8,Error ellipse: s-maj=20.9km s-min=8.0km az=141.0*

IDC ***16*** *00:26:07.2±3.5,32°.60S×178°.81W,h52^{km}±31^{km},mb3.9/3, mbtmp4.3/4,ML5.4/2,Error ellipse: s-maj=29.7km s-min=21.4km az=115.0*

NOU ***16*** *00:27:14.5,37°.82S×178°.32E,h4^{km},MLv3.1/6,Off E. Coast of N. Island, N.Z.*

ISC 16 00:26:01.9±0.8**,33°.01S**±0°.05×**178°.1W**±0°.1**,h34**^{km}**,n91,** σ**2**^{s}**09**/112**,mb4.4**/10**,4C,South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GLKZ	**Green Lake**	**3.74**	**2**	P	**Pn**	**00 26 56.5**	**-0.6**
GLKZ				S	**Sn**	**00 27 37.3**	**-2.7**
GLKZ				AML	AML		
GLKZ				AML	AML		
RAO	**Raoul Island**	**3.75**	**2**	P	**Pn**	**00 26 56.8**	**-0.4**
	193nm,0.3s,baz=205,slow=19,SNR=14						
RAO				S	**Sn**	**00 27 38.3**	**-1.9**
	480nm,0.3s,baz=83,slow=24,SNR=5.3						
RAO				AML	AML		
RAO	**Raoul Island**	**3.75**	**2**		**Pn**	**00 26 57.0**	**-0.3**
RIZ	**Raoul Island**	**3.75**	**2**	P	**Pn**	**00 26 57.5**	**+0.1**
RIZ				S	**Sn**	**00 27 40.4**	**+0.1**
RIZ				AML	AML		
RIZ				AML	AML		
MXZ	**Matakaoa Point**	**5.42**	**212**	P	**Pn**	**00 27 20.2**	**-0.1**
MXZ	**Matakaoa Point**	**5.42**	**212**	S	**Pn**	**00 27 23.4**	**+3.2**
MXZ	**Matakaoa Point**	**5.42**	**212**	Pn	**Pn**	**00 27 20.1**	**-0.1**
MXZ	**Matakaoa Point**	**5.42**	**212**	P	**Pn**	**00 27 20.5**	**+0.3**
MXZ				S	**Sn**	**00 28 21.8**	**+0.4**
MXZ				AML	AML		
MXZ				AML	AML		
WMGZ	**Waiomatatini S**	**5.59**	**210**	P	**Pn**	**00 27 23.4**	**+0.9**
WMGZ				S	**Sn**	**00 28 28.0**	**+2.4**
WMGZ				AML	AML		
WMGZ				AML	AML		
PKGZ	**Pakihiroa**	**5.77**	**212**	P	**Pn**	**00 27 25.3**	**+0.2**
PKGZ				S	**Sn**	**00 28 29.8**	**-0.3**
PKGZ				AML	AML		
PKGZ				AML	AML		
HAZ	**Te Kaha**	**5.82**	**214**	P	**Pn**	**00 27 26.5**	**+0.8**
HAZ				S	**Sn**	**00 28 31.6**	**+0.4**
HAZ				AML	AML		
HAZ				AML	AML		
PUZ	**Puketiti**	**5.87**	**210**	P	**Pn**	**00 27 27.4**	**+0.9**
PUZ				S	**Sn**	**00 28 31.7**	**-0.8**
PUZ				AML	AML		
PUZ				AML	AML		
RUGZ	**Raukumara Rang**	**6.04**	**214**	P	**Pn**	**00 27 28.3**	**-0.5**
RUGZ				S	**Sn**	**00 28 36.4**	**-0.4**
RUGZ				AML	AML		
RUGZ				AML	AML		
TWGZ	**Tauwhareparae**	**6.07**	**211**	P	**Pn**	**00 27 30.5**	**+1.2**
TWGZ				S	**Sn**	**00 28 36.8**	**-0.8**
TWGZ				AML	AML		
TWGZ				AML	AML		
GRZ	**Great Barrier**	**6.23**	**237**	P	**Pn**	**00 27 34.3**	**+2.9**
GRZ				AML	AML		
GRZ				AML	AML		
CNGZ	**Carnagh Statio**	**6.24**	**208**	P	**Pn**	**00 27 31.9**	**+0.3**
CNGZ				S	**Sn**	**00 28 40.4**	**-1.3**
CNGZ				AML	AML		
CNGZ				AML	AML		
WHRZ	**Whale Island**	**6.30**	**218**	P	**Pn**	**00 27 35.7**	**+3.4**
WHRZ				S	**Sn**	**00 28 45.2**	**+2.1**
WHRZ				AML	AML		
WHRZ				AML	AML		
TKGZ	**Te Karaka**	**6.35**	**210**	P	**Pn**	**00 27 35.2**	**+2.2**
TKGZ				S	**Sn**	**00 28 44.0**	**-0.3**
TKGZ				AML	AML		
TKGZ				AML	AML		
MWZ	**Matawai**	**6.40**	**213**	P	**Pn**	**00 27 32.8**	**-1.0**
MWZ				S	**Sn**	**00 28 44.0**	**-1.7**
MWZ				AML	AML		
MWZ				AML	AML		
URZ	**Urewera**	**6.54**	**215**	P	**Pn**	**00 27 35.1**	**-0.5**
	19nm,0.3s,baz=4.7,slow=1.5,SNR=32						
URZ				S	**Sn**	**00 28 46.9**	**-2.1**
	43nm,0.4s,baz=71,slow=20,SNR=7.2						
URZ	**Urewera**	**6.54**	**215**	P	**Pn**	**00 27 34.8**	**-0.8**
URZ	**Urewera**	**6.54**	**215**	P	**Pn**	**00 27 34.7**	**-0.8**
URZ				S	**Sn**	**00 28 47.6**	**-1.4**
URZ				AML	AML		
URZ				AML	AML		
RAGZ	**Rawiri**	**6.59**	**212**	P	**Pn**	**00 27 36.4**	**+0.1**
RAGZ				S	**Sn**	**00 28 50.6**	**+0.3**
RAGZ				AML	AML		
RAGZ				AML	AML		
RIGZ	**Rimuhau**	**6.61**	**210**	P	**Pn**	**00 27 37.8**	**+1.2**
RIGZ				S	**Sn**	**00 28 50.6**	**-0.2**
RIGZ				AML	AML		
RIGZ				AML	AML		
PRGZ	**Paritu Road**	**6.75**	**208**	P	**Pn**	**00 27 37.8**	**-0.7**
MUGZ	**Murupara**	**6.88**	**216**	P	**Pn**	**00 27 36.2**	**-4.0**
MUGZ				S	**Sn**	**00 28 53.6**	**-3.8**
MUGZ				AML	AML		
MUGZ				AML	AML		
MBAZ	**Motutapu North**	**6.88**	**235**	P	**Pn**	**00 27 43.9**	**+3.6**
MBAZ				AML	AML		
MBAZ				AML	AML		
RTZ	**Ruatahuna**	**6.88**	**214**	Pn	**Pn**	**00 27 39.5**	**-0.9**
RTZ	**Ruatahuna**	**6.88**	**214**	P	**Pn**	**00 27 41.7**	**+1.2**
RTZ				S	**Sn**	**00 28 55.0**	**-2.6**
MKAZ	**Moumakai**	**6.88**	**232**	P	**Pn**	**00 27 42.2**	**+1.8**
MKAZ				AML	AML		
WCZ	**Waipu Caves**	**6.90**	**243**	P	**Pn**	**00 27 43.2**	**+2.6**
WCZ				AML	AML		
KNZ	**Kokohu**	**6.92**	**209**	P	**Pn**	**00 27 37.7**	**-3.0**
KNZ				S	**Sn**	**00 28 50.3**	**-8.0**
KNZ				AML	AML		
MHGZ	**Mahia Peninsul**	**6.94**	**207**	P	**Pn**	**00 27 39.3**	**-1.8**
MHGZ				S	**Sn**	**00 28 58.5**	**-0.4**
MHGZ				AML	AML		
MHGZ				AML	AML		
TOZ	**Tahuroa Road**	**7.05**	**226**	Pn	**Pn**	**00 27 42.1**	**-0.5**
TOZ	**Tahuroa Road**	**7.05**	**226**	P	**Pn**	**00 27 41.1**	**-1.5**
TOZ				AML	AML		
RAHZ	**Arahi**	**7.08**	**212**	P	**Pn**	**00 27 41.9**	**-1.1**
RAHZ				S	**Sn**	**00 28 59.6**	**-2.7**
RAHZ				AML	AML		
RAHZ				AML	AML		
MTHZ	**Maungataniwha**	**7.14**	**214**	P	**Pn**	**00 27 42.5**	**-1.4**
MTHZ				S	**Sn**	**00 29 04.0**	**+0.2**
MTHZ				AML	AML		
MTHZ				AML	AML		
WHHZ	**Waihua**	**7.14**	**211**	P	**Pn**	**00 27 45.5**	**+1.5**
WHHZ				S	**Sn**	**00 29 02.8**	**-1.1**
WHHZ				AML	AML		
WHHZ				AML	AML		
OUZ	**Omahuta**	**7.25**	**250**	P	**Pn**	**00 27 46.7**	**+1.4**
OUZ				S	**Sn**	**00 29 04.6**	**-1.8**
OUZ				AML	AML		
NMHZ	**Naumai**	**7.35**	**213**	P	**Pn**	**00 27 46.5**	**-0.3**
NMHZ				S	**Sn**	**00 29 07.0**	**-2.1**
ARHZ	**Aropaoanui**	**7.40**	**211**	P	**Pn**	**00 27 46.8**	**-0.7**
ARHZ				S	**Sn**	**00 29 05.2**	**-5.1**
BKZ	**Black Stump Fm**	**7.55**	**214**	P	**Pn**	**00 27 48.5**	**-1.1**
BKZ	**Black Stump Fm**	**7.55**	**214**	P	**Pn**	**00 27 47.9**	**-1.6**
BKZ				S	**Sn**	**00 29 09.8**	**-4.2**
CKHZ	**Cape Kidnapper**	**7.70**	**209**	P	**Pn**	**00 27 50.7**	**-0.8**
CKHZ				S	**Sn**	**00 29 14.9**	**-2.6**
RITZ	**Rihia Road**	**7.72**	**218**	P	**Pn**	**00 27 54.9**	**+3.0**
KWHZ	**Kaweka Forest**	**7.79**	**213**	P	**Pn**	**00 27 53.0**	**+0.1**
KWHZ				S	**Sn**	**00 29 14.8**	**-5.1**
KAHZ	**Kahuranaki**	**7.90**	**210**	P	**Pn**	**00 27 52.8**	**-1.5**
KAHZ				S	**Sn**	**00 29 18.9**	**-3.6**
TMVZ	**Te Maari**	**7.90**	**218**	P	**Pn**	**00 27 55.0**	**+0.5**
TMVZ				S	**Sn**	**00 29 20.4**	**-2.3**
HIZ	**Hauiti**	**7.94**	**224**	P	Pn	00 27 59.9	+5.0
HIZ	**Hauiti**	**7.94**	**224**	P	**Pn**	**00 27 57.3**	**+2.4**
OTVZ	**Oturere**	**7.96**	**218**	P	**Pn**	**00 27 55.0**	**-0.2**
FWVZ	**Far West T-bar**	**8.08**	**218**	P	**Pn**	**00 27 57.0**	**0.0**
MAVZ	**Matarangi**	**8.09**	**218**	P	**Pn**	**00 27 57.5**	**+0.3**
MOVZ	**Moawhango**	**8.10**	**216**	P	**Pn**	**00 27 57.2**	**+0.2**
WNVZ	**Wahianoa**	**8.12**	**217**	P	**Pn**	**00 27 58.0**	**+0.6**
TRVZ	**Turoa**	**8.12**	**218**	P	**Pn**	**00 27 58.1**	**+0.6**
PNHZ	**Pukenui**	**8.29**	**212**	P	**Pn**	**00 27 59.1**	**-0.6**
WPHZ	**Waipukurau**	**8.31**	**210**	P	**Pn**	**00 27 59.1**	**-0.8**
BFZ	**Birch Farm**	**8.90**	**209**	P	**Pn**	**00 28 06.4**	**-1.7**
BFZ	**Birch Farm**	**8.90**	**209**	Pn	**Pn**	**00 28 05.6**	**-2.5**
MSVF	**Nonsavu**	**15.60**	**346**	P	**Pn**	**00 29 37.8**	**-1.6**
	1.0nm,0.3s,baz=170,slow=14,SNR=4.1						
	13nm,0.8s						
MSVF				AML	AML		
MSVF	**Nonsavu**	**15.60**	**346**	Pn	**Pn**	**00 29 36.5**	**-2.9**
AS31	**Alice Springs**	**42.96**	**270**	P	**P**	**00 33 55.6**	**-2.3**
AS31				IAmb	IAmb	00 33 58.4	
	comp=Z,1.0nm,0.8s						
ASAR	**Alice Springs**	**42.97**	**270**	P	**P**	**00 33 56.4**	**-1.5**
	comp=Z,2.2nm,0.6s,baz=109,slow=7.5,SNR=26						
	comp=Z,2.2nm,0.6s						
ASAR	**Alice Springs**	**42.97**	**270**	P	**P**	**00 33 55.0**	**-2.9**
WR8	**Warramunga Arr**	**44.05**	**275**	P	**P**	**00 34 04.6**	**-2.0**
WR8				IAmb	IAmb	00 34 09.4	
	comp=Z,12nm,1.4s						
WRA	**Warramunga Arr**	**44.19**	**275**	P	**P**	**00 34 05.8**	**-1.9**
	comp=Z,2.2nm,0.5s,baz=115,slow=7.8,SNR=22						
	comp=Z,2.2nm,0.5s						
WRA	**Warramunga Arr**	**44.19**	**275**	P	**P**	**00 34 05.6**	**-2.2**
WB0	**Warramunga Arr**	**44.22**	**275**	P	**P**	**00 34 05.9**	**-2.1**
WB0				IAmb	IAmb	00 34 23.1	
	comp=Z,8.8nm,1.1s						
VNDA	**Vanda**	**45.50**	**186**	P	P	00 34 23.2	+5.8
FITZ	**Fitzroy Crossi**	**52.33**	**272**	P	**P**	**00 35 07.9**	**-2.7**
FITZ				IAmb	IAmb	00 35 26.3	
	comp=Z,1.6nm,1.2s						
QSPA	**South Pole Qui**	**57.11**	**180**	P	P	00 35 51.2	+6.5
	comp=Z,1.6nm,0.7s,baz=45,slow=6.4,SNR=10						
	comp=Z,1.6nm,0.7s						
QSPA	**South Pole Qui**	**57.11**	**180**	P	P	00 35 51.2	+6.4
TROLL	**Troll, Antarti**	**75.27**	**180**	⇑P	P	00 37 48.6	+7.6
	comp=Z,103nm,0.5s						
VNA3	**Neumayer Olymp**	**75.72**	**176**	⇑P	P	00 37 48.8	+5.4
	comp=Z,6.8nm,0.6s						
VNA2	**Neumayer--Watz**	**76.15**	**177**	⇑P	P	00 37 51.5	+5.6
	comp=Z,4.4nm,0.6s,baz=181,slow=6.0						
VNA1	**Neumayer--Stat**	**76.38**	**177**	⇑P	**P**	**00 37 51.5**	**+4.3**
	comp=Z,3.8nm,0.7s						
H03S2	**Juan Fernandez**	**79.09**	**123**	T	T	02 06 39.9	
	baz=235,slow=74,SNR=45						
H03S1	**Juan Fernandez**	**79.10**	**123**	T	T	02 06 40.0	
	baz=235,slow=74,SNR=22						
H03S3	**Juan Fernandez**	**79.11**	**123**	T	T	02 06 45.1	
	baz=235,slow=74,SNR=62						
KURBB	**Kurchatov Arra**	**122.81**	**312**	PKP	**PKiKP**	**00 44 54.6**	**+0.6**
	comp=Z,0.4nm,0.5s,baz=115,slow=1.9,SNR=3.8						
ARCES	**ARCESS Array B**	**141.11**	**347**	PKhKP	PKPpre	00 45 24.3	
	comp=Z,0.4nm,0.5s,baz=37,slow=2.0,SNR=6.8						
ARCES	**ARCESS Array B**	**141.11**	**347**		PKPpre	00 45 24.0	
FINES	**FINESS Array B**	**147.55**	**338**	PKPbc	**PKiKP**	**00 45 42.8**	**-1.0**
	comp=Z,3.2nm,0.4s,baz=37,slow=4.5,SNR=75						
NB2	**NORSAR Subarra**	**151.31**	**351**	PKP	**PKiKP**	**00 45 53.0**	**+1.4**
	comp=Z,1.2nm,0.7s,baz=20,slow=4.1						
NOA	**NORSAR Array B**	**151.31**	**351**	PKPbc	**PKiKP**	**00 45 52.8**	**+1.2**
	comp=Z,0.6nm,0.5s,baz=13,slow=4.1,SNR=6.3						
HFS	**Hagfors**	**151.77**	**348**	PKPbc	**PKiKP**	**00 45 53.8**	**+1.2**
	comp=Z,1.2nm,0.4s,baz=32,slow=4.1,SNR=8.1						
NACGM	**Naroch**	**152.00**	**329**	*e*PKiKP	**PKiKP**	**00 45 55.3**	**+2.1**
	comp=Z,5.0nm,0.7s,baz=48						
BRTR	**Keskin Array B**	**153.69**	**294**	PKPbc	**PKiKP**	**00 45 57.8**	**+0.4**
	comp=Z,0.3nm,0.4s,baz=78,slow=2.6,SNR=4.4						
TORD	**Torodi Ar. Bea**	**160.23**	**179**	PKPab	**PKPab**	**00 46 42.6**	**+4.2**
	comp=Z,1.2nm,0.8s,baz=171,slow=3.1,SNR=5.2						
TORD	**Torodi Ar. Bea**	**160.23**	**179**	PKPab	**PKPab**	**00 46 41.1**	**+2.6**

SOF ***16*** *00:28:15.1,43°.23N±0°.01×20°.80E±0°.01,h10^{km}±1^{km}, MD3.4/11*

BEO ***16*** *00:28:16.2±0.2,43°.25N×20°.80E,h5^{km}±2^{km},ML3.2/19*

PDG ***16*** *00:28:16.4±0.4,43°.27N×20°.84E,h11^{km},MD3.1/2, ML3.0/11,Error ellipse: s-maj=0.5km s-min=0.6km az=0.0*

THE ***16*** *00:28:18.6,43°N±13°×2°1E±1°1,h0^{km},M2.9/15, MLh2.9/15*

PRU ***16*** *00:28:21.8,43°.51N×20°.54E,h1^{km}*

ISC 16 00:28:16.5±1.0**,43°.26N**±0°.02×**20°.79E**±0°.01**,h8**^{km}±8^{km}**, n121,**σ1^{s}**35**/190**,31C-14D,Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SELS	**Selova**	**0.24**	**100**	*e*Pg	**Pg**	**00 28 20.8**	**-0.6**
SELS				*e*Sg	**Sg**	**00 28 24.2**	**-0.4**
GOCS	**Kraljevo Serbi**	**0.31**	**11**	*e*Pg	**Pg**	**00 28 21.8**	**-0.8**
GOCS				*e*Sg	**Sg**	**00 28 26.3**	**-0.4**
IVAS	**Ivanjica**	**0.56**	**304**	*e*Pg	**Pg**	**00 28 26.4**	**-1.1**
IVAS				*e*Sg	**Sg**	**00 28 33.7**	**-1.2**
SJES	**Sjenica**	**0.60**	**270**	*e*Pg	**Pg**	**00 28 27.3**	**-0.9**
SJES				*e*Sg	**Sg**	**00 28 35.8**	**-0.2**
GRUS	**Gruza**	**0.63**	**355**	*e*Pg	**Pg**	**00 28 28.2**	**-0.5**
GRUS				*e*Sg	**Sg**	**00 28 37.7**	**+0.8**
BOVS	**Bovan**	**0.76**	**60**	*e*Pg	**Pg**	**00 28 30.2**	**-1.0**
BOVS				*e*Sg	**Sb**	**00 28 42.9**	**+0.3**
BOVS	**Bovan**	**0.76**	**60**	⇓P	**Pg**	**00 28 30.3**	**-1.0**
BOVS				⇓S	**Sb**	**00 28 43.0**	**+0.5**
IVA	**Berane**	**0.77**	**240**	*e*Pg	**Pg**	**00 28 30.2**	**-1.1**
IVA				*i* Sg	**Sg**	**00 28 41.3**	**0.0**
IVA				AML	AML		
BARS	**Barje**	**0.87**	**120**	*e*Pg	**Pg**	**00 28 32.0**	**-1.3**
BARS				*e*Sg	**Sb**	**00 28 45.8**	**+0.1**
PVY	**Plav**	**0.91**	**223**	⇑*i*Pg	**Pg**	**00 28 32.7**	**-1.3**
PVY				*e*Sg	**Sg**	**00 28 45.2**	**-0.6**
PVY				AML	AML		
TRUS	**Trudelj**	**1.00**	**344**	*e*Pg	**Pg**	**00 28 35.1**	**-0.7**
TRUS				*e*Sg	**Sn**	**00 28 51.5**	**+0.3**
DIVS	**Divibare**	**1.02**	**325**	*e*Pg	**Pg**	**00 28 35.1**	**-1.0**
DIVS				*e*Sg	**Sg**	**00 28 49.7**	**+0.3**
KOME	**Kolasin**	**1.02**	**247**	⇓*i*Pg	**Pg**	**00 28 34.7**	**-1.5**
KOME				*i* Sg	**Sb**	**00 28 51.2**	**+1.0**
KOME				AML	AML		
PLE	**Pljevlja**	**1.03**	**274**	⇓*i*Pg	**Pg**	**00 28 35.2**	**-1.1**
PLE				*i* Sg	**Sg**	**00 28 49.5**	**-0.2**
PLE				AML	AML		
SVIS	**Svilajnac**	**1.05**	**17**	*e*Pg	**Pg**	**00 28 37.0**	**+0.3**
SVIS				*e*Sg	**Sg**	**00 28 50.9**	**+0.6**
BBLS	**Lazi&#263i**	**1.18**	**301**	*e*Pg	**Pg**	**00 28 38.0**	**-1.1**
BBLS				*e*Sg	**Sg**	**00 28 53.8**	**-0.6**
ZAGS	**Zajecar**	**1.18**	**62**	*e*Pg	**Pg**	**00 28 38.2**	**-1.0**
ZAGS				*e*Sg	**Sg**	**00 28 53.8**	**-0.8**
BORS2	**Bor- Borsko je**	**1.21**	**47**	*e*Pg	**Pg**	**00 28 37.1**	**-2.7**
BORS2				*e*Sg	**Sg**	**00 28 53.8**	**-1.8**
KUBS	**Kucevo**	**1.31**	**29**	*e*Pg	**Pn**	**00 28 38.9**	**-2.3**
KUBS				*e*Sg	**Sg**	**00 28 56.3**	**-2.5**
ZAPS	**Zavoj**	**1.34**	**89**	*e*Pg	**Pn**	**00 28 40.9**	**-0.7**
ZAPS				*e*Sg	**Sg**	**00 28 58.7**	**-1.0**
SKO	**Skopje**	**1.37**	**160**	*i* Pn	**Pn**	**00 28 41.3**	**-0.7**
SKO				*e*Sn	**Sn**	**00 29 01.2**	**+0.8**
UPM	**Unac-Piva**	**1.38**	**268**	*e*Pg	**Pn**	**00 28 41.8**	**-0.5**
UPM				*i* Sg	**Sn**	**00 29 02.7**	**+1.8**
UPM				AML	AML		
PDG	**Podgorica**	**1.40**	**234**	*e*Pg	**Pn**	**00 28 41.7**	**-0.7**
PDG				*e*Sg	**Sb**	**00 29 00.0**	**-1.0**
PDG	**Podgorica**	**1.40**	**234**	⇓P	**Pn**	**00 28 42.0**	**-0.4**
PDG				⇑S	**Sn**	**00 29 02.4**	**+1.3**
PDG	**Podgorica**	**1.40**	**234**	⇓*i*Pg	**Pn**	**00 28 41.7**	**-0.7**
PDG				*i* Sg	**Sn**	**00 29 02.1**	**+1.0**
PDG				AML	AML		
TRAN	**Tran**	**1.43**	**107**	P	**Pn**	**00 28 42.6**	**-0.2**
TRAN				S	**Sb**	**00 29 01.0**	**-0.8**
NKME	**Niksic**	**1.44**	**251**	⇑*i*Pg	**Pn**	**00 28 42.3**	**-0.7**
AVAS	**Avala Beograd**	**1.45**	**352**	*e*Pg	**Pn**	**00 28 41.7**	**-1.4**
AVAS				*e*Sg	**Sb**	**00 29 02.2**	**-0.2**
BOSS	**Bosilegrad**	**1.46**	**121**	*e*Pg	**Pn**	**00 28 42.5**	**-0.7**
BOSS				*e*Sg	**Sb**	**00 29 00.3**	**-2.3**
CEME	**Cevo**	**1.55**	**243**	⇓*i*Pn	**Pn**	**00 28 44.3**	**-0.2**
CEME				*i* Sn	**Sg**	**00 29 06.3**	**-0.2**
CEME				AML	AML		
BEO	**Beograd**	**1.56**	**352**	*e*Pg	**Pn**	**00 28 44.5**	**-0.1**
BEO				*e*Sg	**Sb**	**00 29 06.7**	**+1.0**
TEKS	**Tekeris**	**1.58**	**325**	*e*Pg	**Pn**	**00 28 43.9**	**-1.0**
TEKS				*e*Sg	**Sg**	**00 29 07.5**	**+0.2**
PHP	**Peshkopia**	**1.60**	**190**	P	**Pn**	**00 28 44.7**	**-0.4**
PHP				S	**Sn**	**00 29 04.4**	**-1.6**
PHP				AML	AML		
DRME	**Dracevica, Mon**	**1.60**	**228**	⇓*i*Pn	**Pn**	**00 28 45.6**	**+0.5**
DRME				*e*Sn	**Sg**	**00 29 08.4**	**+0.4**
DRME				AML	AML		
MDVR	**Moldovita**	**1.66**	**23**	⇑P	**Pn**	**00 28 44.8**	**-1.1**
MDVR				⇑S	**Sn**	**00 29 05.9**	**-1.6**
BRY	**Bratogost**	**1.69**	**258**	⇓*i*Pn	**Pn**	**00 28 46.6**	**+0.1**
BUM	**Brajici-Budva**	**1.70**	**236**	*e*Pn	**Pn**	**00 28 47.0**	**+0.5**
BUM				*e*Sn	**Sg**	**00 29 10.4**	**-0.7**
BUM				AML	AML		
ULC	**Ulcinj**	**1.73**	**222**	*e*Pn	**Pb**	**00 28 48.3**	**-0.3**

ULC				*e*Sn	Sg	00 29 11.5	-0.6
ULC				AML	AML		
PUNG	**Punghina**	1.85	56	⇑P	Pn	00 28 49.7	+1.1
PUNG				⇓S	Sb	00 29 14.2	+0.2
BLSH	**Balsha**	1.87	102	P	Pn	00 28 48.7	-0.1
BLSH				S	Sn	00 29 13.5	+0.9
DJES	**Djerdap**	1.88	41	⇑P	Pn	00 28 49.0	+0.1
DJES				⇑S	Sn	00 29 13.6	+0.8
HCY	**Herceg Novi**	1.88	245	⇑*i*Pn	Pn	00 28 49.9	+1.0
HCY				*e*Sn	Sb	00 29 15.2	+0.5
HCY				AML	AML		
VRSS	**Vrsac**	1.90	11	*e*Pn	Pn	00 28 48.0	-1.3
VRSS				*e*Sn	Sb	00 29 15.8	+0.5
VTS	**Vitosha**	1.90	109	P	Pn	00 28 48.7	-0.8
VTS				S	Sn	00 29 11.6	-2.1
VTS				AML	AML		
VTS	**Vitosha**	1.90	109	P	Pn	00 28 48.9	-0.6
VTS				*e*S	Sn	00 29 14.6	+0.9
RMGR	**Halanga-Turnu**	1.96	44	⇓S	Sn	00 29 16.4	+1.5
VALD	**Valchedram**	1.97	77	P	Pn	00 28 49.8	-0.4
HERR	**Herculane**	2.00	35	⇑P	Pn	00 28 50.0	-0.6
HERR				⇓S	Sn	00 29 14.7	-1.1
BAIL	**Bailesti**	2.00	67	⇑P	Pn	00 28 52.0	+1.4
BAIL				⇑S	Sb	00 29 18.2	0.0
FRGS	**Fruska Gora**	2.02	340	*e*Pn	Pn	00 28 49.8	-1.2
FRGS				*e*Sn	Sn	00 29 15.0	-1.5
PLNA	**Plana**	2.09	111	P	Pn	00 28 51.7	-0.2
PLNA				S	Sn	00 29 18.3	+0.1
OHR	**Ohrid**	2.15	180	*i* Pn	Pn	00 28 53.2	+0.5
OHR				*e*Sn	Sg	00 29 28.1	+2.5
PEHC	**Pehcevo**	2.15	133	*i* Pn	Pg	00 28 56.9	-0.8
MPEP	**Malo Peshtene**	2.15	86	P	Pn	00 28 53.1	+0.4
MPEP				*e*S	Sb	00 29 23.4	+0.8
KKB	**Krupnik**	2.23	129	P	Pn	00 28 53.4	-0.4
KKB				AML	AML		
KKB	**Krupnik**	2.23	129	P	Pn	00 28 53.6	-0.3
VAY	**Valandovo**	2.34	145	*i* Pn	Pn	00 28 55.0	-0.4
VAY				*e*Sn	Sg	00 29 31.9	+0.1
BZS	**Buzias**	2.43	14	⇑P	Pn	00 28 54.9	-1.6
GZR	**Gura Zlata**	2.56	33	⇑P	Pn	00 28 57.7	-0.7
GZR				⇑S	Sn	00 29 29.5	-0.3
PGB	**Panagyurishte**	2.59	106	P	Pn	00 28 59.0	+0.2
GRG	**Griva**	2.59	152	P	Pn	00 28 58.4	-0.4
GRG				AML	AML		
KBN	**Korca**	2.64	180	P	Pn	00 28 59.9	+0.5
KBN				AML	AML		
VLAD	**Vladila**	2.72	73	⇑P	Pn	00 29 00.4	-0.2
MMB	**Musomishta**	2.78	127	P	Pn	00 29 01.0	-0.4
MMB				AML	AML		
MMB	**Musomishta**	2.78	127	P	Pn	00 29 01.1	-0.3
PLVB	**Pleven**	2.79	86	⇑P	Pn	00 29 01.7	+0.1
NVR	**Nevrokopi**	2.97	129	P	Pn	00 29 03.8	-0.2
NVR				AML	AML		
SRS	**Serrai**	2.99	135	P	Pn	00 29 03.6	-0.6
SRS				AML	AML		
BLY	**Banja Luka**	3.00	301	⇑S	Sn	00 29 37.2	-3.3
DEV	**Deva**	3.02	29	⇑P	Pn	00 29 04.1	-0.6
DEV				⇑S	Sn	00 29 41.2	+0.1
KZN	**Kozani**	3.04	166	P	Pn	00 29 05.4	+0.4
KZN				AML	AML		
LOT	**Lotru**	3.05	43	⇑P	Pn	00 29 04.9	-0.3
PENT	**Pentalofos**	3.07	175	P	Pn	00 29 05.8	+0.3
SOH	**Sokhos**	3.10	141	P	Pn	00 29 05.3	-0.5
SOH				AML	AML		
HORT	**Hortiatis**	3.17	146	P	Pn	00 29 06.5	-0.2
HORT				AML	AML		
HUMR	**Humele**	3.28	66	⇑P	Pn	00 29 08.6	+0.4
RZN	**Rozhen**	3.31	117	P	Pn	00 29 08.9	+0.1
RZN				AML	AML		
RZN	**Rozhen**	3.31	117	P	Pn	00 29 09.0	+0.2
MORH	**Mrgy, Hungar**	3.33	333	⇓P	Pn	00 29 08.1	-0.8
KPRO	**Kipourio**	3.33	172	P	Pn	00 29 09.5	+0.5
KPRO				AML	AML		
LIT	**Litokhoron**	3.40	158	P	Pn	00 29 09.8	-0.2
ARR	**Arges**	3.47	51	⇑P	Pn	00 29 10.8	-0.1
PLG	**Polygyros**	3.50	145	P	Pn	00 29 11.3	0.0
PLG				AML	AML		
KAVA	**Kavala**	3.57	128	P	Pn	00 29 12.1	-0.1
TYRN	**Tyrnavos**	3.71	163	P	Pn	00 29 14.1	0.0
KDZ	**Kurdzhali**	3.74	114	P	Pn	00 29 14.3	-0.2
VOIR		3.75	53	⇑P	Pn	00 29 14.4	-0.4
DRGR		3.78	20	⇑P	Pn	00 29 14.1	-1.1
SZH	**Strazhitsa**	3.79	88	P	Pn	00 29 15.0	-0.2
SGRR	**Singureni**	3.87	74	⇑P	Pn	00 29 16.1	-0.2
DOPR	**Dopca**	4.25	49	⇑P	Pn	00 29 21.8	+0.2
JMB	**Yambol**	4.29	98	P	Pn	00 29 22.3	+0.3
MLR	**Muntele Rosu**	4.31	57	⇑P	Pn	00 29 23.3	+0.8
KOGS	**Kog**	4.54	316	*i* Pn	Pn	00 29 25.1	-0.3
KOGS				*i* Sn	Sn	00 30 16.7	-1.7
KOGS				IAML		00 30 22.1	
	comp=Z,8.5nm,0.3s						
OZUR		4.55	50	⇓P	Pn	00 29 24.7	-1.0
GOLS	**Golise**	4.60	308	*i* Pn	Pn	00 29 27.1	+0.7
GOLS				*e*Sn	Sn	00 30 17.1	-2.9
GOLS				IAML		00 30 20.3	
	comp=Z,2.0nm,0.1s						
PSZ	**Piszkesteto**	4.70	353	⇑P	Pn	00 29 26.9	-0.9
SRO	**Srobarova**	4.87	340	*e*PN	Pn	00 29 32.9	+2.8
SRO				*e*PG	Pg	00 29 48.4	-1.5
VISS	**Visnje**	4.96	303	*i* Pn	Pn	00 29 31.9	+0.6
VISS				*i* Sn	Sn	00 30 23.6	-5.2
VRI	**Vrincioaia**	4.97	56	⇑P	Pn	00 29 31.8	+0.3
SOKA	**Soboth**	5.33	312	*e*Pn	Pn	00 29 36.7	+0.3
	comp=Z,0.5nm,0.3s						
SOKA				*e*Sn	Sn	00 30 35.3	-2.7
	comp=Z,1.1nm,0.3s						
BURAR	**Bucovina Array**	5.35	34	⇑P	Pn	00 29 36.9	+0.2
VYHS	**Vyhne**	5.41	346	*e*PN	Pn	00 29 37.6	+0.1
VYHS				*e*PG	Pg	00 30 01.6	+1.5
RONA	**Rosalia, Austr**	5.45	326	*e*Pn	Pn	00 29 37.8	-0.2
	comp=Z,0.5nm,0.2s						
RONA				*e*Sn	Sn	00 30 41.5	+0.5
	comp=Z,5.1nm,0.4s						
ARSA	**Arzberg**	5.45	319	*e*Pn	Pn	00 29 37.9	-0.2
	comp=Z,2.1nm,0.3s						
ARSA				*e*Sn	Sn	00 30 37.0	-4.1
	comp=Z,1.5nm,0.3s						
OBKA	**Obir**	5.50	308	*e*Pn	Pn	00 29 39.0	+0.2
	comp=Z,1.0nm,0.2s						
OBKA				*e*Sn	Sn	00 30 40.3	-1.9
	comp=Z,2.0nm,0.3s						
MODS	**Modra-Piesok**	5.67	336	*e*PN	Pn	00 29 41.3	+0.2
MODS				*e*PG	Pb	00 30 00.5	+4.8
CONA	**Conrad Observa**	5.81	325	*e*Pn	Pn	00 29 43.4	+0.3
	comp=Z,0.6nm,0.2s						
CONA				*e*Sn	Sn	00 30 49.4	-0.5
	comp=Z,3.9nm,0.5s						
SESA	**Seetaler Alpe,**	5.85	313	*i* Pn	Pn	00 29 43.8	+0.1
	comp=Z,0.9nm,0.2s						
SESA				*e*Sn	Sn	00 30 47.5	-3.5
	comp=Z,3.8nm,0.5s						
WINA	**Alland / Wiene**	5.87	327	*e*Pn	Pn	00 29 44.1	+0.3
	comp=Z,1.7nm,0.3s						
WINA				*e*Sn	Sn	00 30 50.3	-0.8
	comp=Z,3.4nm,0.3s						
MYKA	**Terra Mystica**	6.09	306	*e*Pn	Pn	00 29 49.1	+2.2
	comp=Z,1.8nm,0.3s						
STHS	**Stebnicka Huta**	6.16	3	*e*PN	Pn	00 29 38.0	-10
STHS				*e*SN	Sn	00 30 37.0	-22
MOA	**Molln**	6.48	317	*i* Pn	Pn	00 29 53.7	+1.5
	comp=Z,0.5nm,0.2s						
MOA				*e*Sn	Sn	00 31 05.4	-1.0
	comp=Z,1.4nm,0.3s						
KBA	**Koelnbreinsper**	6.50	309	*e*Pn	Pn	00 29 54.8	+2.2
	comp=Z,0.6nm,0.3s						
KBA				*e*Sn	Sn	00 31 04.4	-2.6
	comp=Z,0.7nm,0.3s						
BIOA	**Bad Ischl, Aus**	6.70	314	*i* Pn	Pn	00 29 56.1	+0.9
	comp=Z,1.0nm,0.2s						
BIOA				*e*Sn	Sn	00 31 09.7	-2.1
	comp=Z,1.4nm,0.3s						
ABTA	**Abfaltersbach**	6.83	304	*e*Pn	Pn	00 29 57.7	+0.7
	comp=Z,0.5nm,0.2s						
LESA	**Schwarzleotal**	7.07	309	*e*Pn	Pn	00 30 02.7	+2.3
	comp=Z,0.4nm,0.2s						
LESA				*e*Sn	Sn	00 31 20.0	-1.0
	comp=Z,3.9nm,0.6s						
WTTA	**Wattenberg**	7.60	305	*i* Pn	Pn	00 30 10.6	+3.0
	comp=Z,1.7nm,0.2s						
WATA	**Walderalm**	7.67	305	*e*Pn	Pn	00 30 11.6	+3.0
	comp=Z,1.4nm,0.2s						
KHC	**Kasperske Hory**	7.71	322	*e*PN	Pn	00 30 10.7	+1.6
KHC				*e*SN	Sn	00 31 30.9	-5.7
FETA	**Feichten**	8.05	301	*i* Pn	Pn	00 30 17.1	+3.3
	comp=Z,0.1nm,0.1s						

NNC ***16*** *00:47:51.9±0.3, 43°22N×78°34E, h4^{km}±3^{km}, mb2.7, mpv3.2, Error ellipse: s-maj=3.1km s-min=2.0km az=178.0*
KRNET ***16*** *00:47:52.0±0.1, 43°21N×78°31E, h23^{km}, mb3.0*
SOME ***16*** *00:47:53.2, 43°22N×78°30E, h20^{km}*
ISC 16 00:47:52.3±0.9**, 43°19N**±0°02×**78°34E**±0°02**, h13**^{km}±6^{km}**, n41, σ0^{s}60**/78**, 9C-11D, Lake Issyk-Kul region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SATY	**Saty**	0.14	159	P	Pb	00 47 56.6	-0.3
	166nm,0.1s						
SATY				S	Sg	00 47 59.2	+0.6
	1µm,0.1s						
SATY	**Saty**	0.14	159	*e*P	Pb	00 47 56.6	-0.3
	166nm,0.1s						
SATY				*e*S	Sg	00 47 59.2	+0.6
	1µm,0.1s						
KURS	**Kuram**	0.32	338	P	Pg	00 47 58.7	-0.2
	12nm,0.2s						
KURS				S	Sg	00 48 02.6	-0.8
	20nm,0.2s						
KURS	**Kuram**	0.32	338	*e*P	Pg	00 47 58.7	-0.2
	12nm,0.2s						
KURS				*e*S	Sg	00 48 02.6	-0.8
	20nm,0.2s						
KPKS	**Kokpek**	0.37	43	P	Pb	00 48 00.2	-0.6
	4.5nm,0.1s						
KPKS				S	Sg	00 48 05.3	+0.4
	192nm,0.2s						
KPKS	**Kokpek**	0.37	43	*e*P	Pb	00 48 00.2	-0.6
	4.5nm,0.1s						
KPKS				*e*S	Sg	00 48 05.3	+0.4
	192nm,0.2s						
UZB	**Uzynbulak**	0.50	95	P	Pb	00 48 02.7	-0.3
	54nm,0.1s						
UZB				S	Sb	00 48 09.6	-0.7
	313nm,0.1s						
UZB	**Uzynbulak**	0.50	95	*e*P	Pb	00 48 02.7	-0.3
UZB				*e*S	Sb	00 48 09.6	-0.7
UZB	**Uzynbulak**	0.50	95	*e*P	Pb	00 48 02.7	-0.3
	54nm,0.1s						
UZB				*e*S	Sb	00 48 09.6	-0.7
	313nm,0.1s						
ANVS	**Anan'yevo**	0.64	230	⇑*e*P	Pg	00 48 04.2	-0.6
ANVS				⇑*e*S	Sg	00 48 13.3	0.0
PRZ	**Przheval'sk**	0.71	176	⇓*i*P	Pg	00 48 05.7	-0.4
PRZ				⇓*i*S	Sg	00 48 15.3	-0.2
PDGK	**Podgornoye**	0.85	80	⇑P	Pb	00 48 08.4	-0.6
	1.4nm,0.2s						
PDGK				⇓S	Sg	00 48 19.9	-0.1
	15nm,0.2s						
KOTS	**Kotyrbulak**	0.90	273	P	Pb	00 48 09.3	-0.5
	9.5nm,0.1s						
KOTS				S	Sb	00 48 20.9	-0.8
	32nm,0.2s						
KOTS	**Kotyrbulak**	0.90	273	*e*P	Pb	00 48 09.3	-0.5
KOTS				*e*S	Sb	00 48 20.9	-0.8
KOTS	**Kotyrbulak**	0.90	273	*e*P	Pb	00 48 09.3	-0.5
	9.5nm,0.1s						
KOTS				*e*S	Sb	00 48 20.9	-0.8
	32nm,0.2s						
BLB	**Baldybastay**	0.91	6	P	Pb	00 48 09.6	-0.4
	16nm,0.1s						
BLB				S	Sb	00 48 21.2	-0.8
	25nm,0.1s						
MDOK	**Medeo**	0.94	269	Pg	Pb	00 48 09.7	-0.8
	2.3nm,0.2s						
MDOK				Lg	Lg	00 48 21.7	
	29nm,0.5s						
MDOK	**Medeo**	0.94	269	*e*P	Pb	00 48 09.7	-0.8
	2.3nm,0.2s						
MDOK				*e*S	Sb	00 48 21.8	-1.3
	29nm,0.5s						
ARXS	**Arharly**	1.08	340	P	Pb	00 48 12.5	-0.4
	3.1nm,0.1s						
ARXS				S	Sb	00 48 26.4	-0.6
	18nm,0.2s						
ARXS	**Arharly**	1.08	340	*e*P	Pb	00 48 12.5	-0.4
	3.1nm,0.1s						
ARXS				*e*S	Sb	00 48 26.4	-0.6
	18nm,0.2s						
KNOS	**Konyrlen**	1.32	27	P	Pb	00 48 16.9	0.0
	7.2nm,0.1s						
KNOS				S	Sn	00 48 34.0	+0.1
	13nm,0.2s						
KDJ	**Kajisay**	1.36	219	⇑*i*P	Pb	00 48 17.5	-0.2
KDJ				⇑*i*S	Sb	00 48 35.2	+0.1
MTBS	**Maitube**	1.40	268	P	Pb	00 48 18.5	+0.2
	10nm,0.2s						
MTBS				S	Sg	00 48 36.6	-0.8
	13nm,0.2s						
MTBS	**Maitube**	1.40	268	*e*P	Pb	00 48 18.5	+0.2
	10nm,0.2s						
MTBS				*e*S	Sg	00 48 36.6	-0.8
	13nm,0.2s						
KTMS	**Ketmen**	1.49	80	P	Pb	00 48 19.1	-0.8
	1.6nm,0.1s						
KTMS				S	Sn	00 48 37.9	-0.3
	6.0nm,0.1s						
KTMS	**Ketmen**	1.49	80	*e*P	Pb	00 48 19.1	-0.8
	1.6nm,0.1s						
KTMS				*e*S	Sn	00 48 37.9	-0.3
	6.0nm,0.1s						
TARG	**Taragay, Kyrgy**	1.52	195	⇓*i*P	Pb	00 48 20.4	0.0
TARG				⇓*i*S	Sb	00 48 39.9	+0.2
DJR	**Jarkent**	1.55	42	P	Pb	00 48 20.8	-0.1
	4.1nm,0.1s						
DJR				S	Sb	00 48 40.8	+0.4
	4.6nm,0.2s						
DJR	**Jarkent**	1.55	42	*e*P	Pb	00 48 20.8	-0.1
	4.1nm,0.1s						
DJR				*e*S	Sb	00 48 40.8	+0.4
	4.6nm,0.2s						
KST	**Kastek**	1.75	266	P	Pb	00 48 24.6	+0.4
	1.0nm,0.3s						
KST				S	Sb	00 48 46.9	+0.9
	7.4nm,0.2s						
KST	**Kastek**	1.75	266	*e*P	Pb	00 48 24.6	+0.4
	1.0nm,0.3s						
KST				*e*S	Sb	00 48 46.9	+0.9
	7.4nm,0.2s						
TDK	**Taldyqorghan**	1.81	2	P	Pb	00 48 25.1	-0.1
	29nm,0.3s						
TDK				S	Sb	00 48 48.0	+0.2
	40nm,0.2s						
TDK	**Taldyqorghan**	1.81	2	*e*P	Pb	00 48 25.1	-0.1
	29nm,0.3s						
TDK				*e*S	Sb	00 48 48.0	+0.2
	40nm,0.2s						
ULHL	**Ulahol**	1.81	239	⇓*i*P	Pb	00 48 24.2	-1.2
ULHL				⇓*i*S	Sb	00 48 47.7	-0.3
BOOM	**Boomskoye usch**	1.90	249	⇓*i*P	Pb	00 48 25.4	-1.4
BOOM				⇓*i*S	Sb	00 48 49.6	-0.9
KAPS	**Kapalarasan**	2.22	19	Pg	Pb	00 48 32.1	-0.1
	1.7nm,0.1s						
KAPS				Lg	Lg	00 49 00.1	
	24nm,0.1s						
KAPS	**Kapalarasan**	2.22	19	*e*P	Pb	00 48 32.1	-0.1
	1.7nm,0.1s						
KAPS				*e*S	Sb	00 49 00.1	+0.6
	24nm,0.1s						
KBK	**Karagaybulak**	2.55	259	⇑*i*P	Pn	00 48 34.4	+1.0
KBK				⇑*i*S	Sn	00 49 05.2	+0.9
SGDS	**Sogindy**	2.72	277	Pg	Pb	00 48 40.7	0.0
	0.7nm,0.2s						
SGDS				Lg	Lg	00 49 14.7	
	3.6nm,0.3s						
USP	**Ospenovka**	2.81	273	⇑*i*P	Pn	00 48 37.8	+1.0
USP				⇑*i*S	Sn	00 49 11.3	+0.8
AAK	**Ala-Archa**	2.88	260	⇓Pg	Pb	00 48 44.1	+0.6
AAK				⇓Lg	Lg	00 49 20.9	
	1.2nm,0.5s						

NOU ***16*** *00:48:32.0, 40°41S×179°36E, h28^{km}, MLv4.2/9, Off E. Coast of N. Island, N.Z.*
WEL ***16*** *00:48:37.2±0.8, 40°S±5°×17°9E±°, h12^{km}, M3.6/28, ML3.6/29, MLv3.6/28, Error ellipse: s-maj=7.5km s-min=4.9km az=125.2, confirmed*
ISC 16 00:48:34.7±1.4**, 40°30S**±0°04×**179°05E**±0°05**, h35**^{km}**, n104, σ1^{s}66**/114**, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MHGZ	**Mahia Peninsul**	1.44	322	P	Pn	00 48 58.9	+0.6
MHGZ				S	Sn	00 49 14.4	-1.6
MHGZ				AML	AML		
MHGZ				AML	AML		
PRGZ	**Paritu Road**	1.64	326	P	Pn	00 49 01.4	+0.3
PRGZ				AML	AML		
PRGZ				AML	AML		
CKHZ	**Cape Kidnapper**	1.64	292	P	Pn	00 49 01.9	+0.9
CKHZ				S	Sn	00 49 19.5	-1.4
CKHZ				AML	AML		
CKHZ				AML	AML		
KNZ	**Kokohu**	1.66	320	P	Pn	00 49 01.7	+0.5
KNZ				S	Sn	00 49 19.2	-2.0
KNZ				AML	AML		
KNZ				AML	AML		
PXZ	**Pawanui**	1.69	278	P	Pn	00 49 02.9	+1.2
PXZ				S	Sn	00 49 20.5	-1.7
PXZ				AML	AML		
PXZ				AML	AML		
KAHZ	**Kahuranaki**	1.74	286	P	Pn	00 49 03.7	+1.3
KAHZ				S	Sn	00 49 21.9	-1.5
KAHZ				AML	AML		
KAHZ				AML	AML		
WHHZ	**Waihua**	1.85	310	P	Pn	00 49 05.0	+1.0
WHHZ				AML	AML		
WHHZ				AML	AML		
RIGZ	**Rimuhau**	1.87	328	P	Pn	00 49 05.1	+0.8
RIGZ				S	Sn	00 49 25.0	-1.7
RIGZ				AML	AML		
RIGZ				AML	AML		
ARHZ	**Aropaoanui**	1.89	302	P	Pn	00 49 05.8	+1.4
ARHZ				AML	AML		
ARHZ				AML	AML		
CNGZ	**Carnagh Statio**	1.92	340	P	Pn	00 49 05.8	+0.9
CNGZ				AML	AML		
CNGZ				AML	AML		
MCHZ	**McNeill Hill**	2.00	294	P	Pn	00 49 08.0	+2.1
MCHZ				AML	AML		
MCHZ				AML	AML		
WPHZ	**Waipukurau**	2.01	276	P	Pn	00 49 07.4	+1.3
WPHZ				AML	AML		
WPHZ				AML	AML		
RAHZ	**Arahi**	2.05	312	P	Pn	00 49 07.9	+1.3
RAHZ				S	Sn	00 49 29.0	-2.0
RAHZ				AML	AML		
RAHZ				AML	AML		
TKGZ	**Te Karaka**	2.07	333	P	Pn	00 49 07.5	+0.5
TKGZ				AML	AML		
TKGZ				AML	AML		
NMHZ	**Naumai**	2.10	304	P	Pn	00 49 08.9	+1.5
NMHZ				AML	AML		
NMHZ				AML	AML		
KRHZ	**Kereru**	2.16	287	P	Pn	00 49 09.2	+1.0
KRHZ				AML	AML		
KRHZ				AML	AML		
BFZ	**Birch Farm**	2.17	259	P	Pn	00 49 08.7	+0.4
BFZ	**Birch Farm**	2.17	259	S	Sn	00 49 38.1	+4.1
BFZ	**Birch Farm**	2.17	259	P	Pn	00 49 08.9	+0.6
BFZ				AML	AML		
RAGZ	**Rawiri**	2.20	324	P	Pn	00 49 09.8	+1.0
RAGZ				AML	AML		
RAGZ				AML	AML		
KWHZ	**Kaweka Forest**	2.20	292	P	Pn	00 49 10.2	+1.4
KWHZ				AML	AML		
KWHZ				AML	AML		
DVHZ	**Dannevirke**	2.20	269	P	Pn	00 49 09.9	+1.1
DVHZ				AML	AML		
DVHZ				AML	AML		
PNHZ	**Pukenui**	2.22	279	P	Pn	00 49 10.3	+1.3
PNHZ				AML	AML		
PNHZ				AML	AML		
MTHZ	**Maungataniwha**	2.23	310	P	Pn	00 49 10.3	+1.1
MTHZ				AML	AML		
MTHZ				AML	AML		
BKZ	**Black Stump Fm**	2.27	299	P	Pn	00 49 10.9	+1.2
BKZ	**Black Stump Fm**	2.27	299	P	Pn	00 49 11.0	+1.3
BKZ				AML	AML		
BKZ				AML	AML		
TWGZ	**Tauwhareparae**	2.27	338	P	Pn	00 49 11.3	+1.5
TWGZ				AML	AML		
TWGZ				AML	AML		
MWZ	**Matawai**	2.29	329	P	Pn	00 49 10.6	+0.6
MWZ				AML	AML		
MWZ				AML	AML		
PUZ	**Puketiti**	2.30	344	P	Pn	00 49 10.7	+0.5
PUZ				AML	AML		
PUZ				AML	AML		
RTZ	**Ruatahuna**	2.32	316	P	Pn	00 49 11.6	+1.2
RTZ				AML	AML		
RTZ				AML	AML		
PRWZ	**Pori Road**	2.36	263	P	Pn	00 49 12.1	+1.2
PRWZ				AML	AML		
PRWZ				AML	AML		
TSZ	**Takapari Road**	2.38	275	P	Pn	00 49 12.4	+1.2
TSZ				AML	AML		
TSZ				AML	AML		
BHHZ	**Black Hill Sta**	2.43	288	P	Pn	00 49 13.4	+1.5
BHHZ				AML	AML		
BHHZ				AML	AML		
MRHZ	**Matea Rd**	2.50	305	P	Pn	00 49 14.8	+1.9
MRHZ				AML	AML		
MRHZ				AML	AML		
POWZ	**Post Office Ro**	2.51	267	P	Pn	00 49 14.6	+1.7
POWZ				AML	AML		
POWZ				AML	AML		
WMGZ	**Waiomatatini S**	2.52	349	P	Pn	00 49 13.7	+0.6
WMGZ				AML	AML		
WMGZ				AML	AML		
URZ	**Urewera**	2.53	323	P	Pn	00 49 14.1	+0.9
URZ	**Urewera**	2.53	323	P	Pn	00 49 14.2	+0.9
URZ				AML	AML		
URZ				AML	AML		
PKGZ	**Pakihiroa**	2.54	342	P	Pn	00 49 13.5	+0.1
PKGZ				AML	AML		
PKGZ				AML	AML		
RUGZ	**Raukumara Rang**	2.56	335	P	Pn	00 49 13.9	+0.1
RUGZ				AML	AML		
RUGZ				AML	AML		
MRZ	**Mangatainoka R**	2.67	261	P	Pn	00 49 15.6	+0.4
MOVZ	**Moawhango**	2.69	288	P	Pn	00 49 17.3	+1.9
ALRZ	**Allen Road**	2.72	309	P	Pn	00 49 17.5	+1.7
HAZ	**Te Kaha**	2.72	338	P	Pn	00 49 16.3	+0.4
RRRZ	**Republican Roa**	2.77	314	P	Pn	00 49 18.1	+1.5
TRWZ	**Traveller**	2.77	246	P	Pn	00 49 16.4	-0.2
MXZ	**Matakaoa Point**	2.79	348	P	Pn	00 49 17.2	+0.4
MXZ	**Matakaoa Point**	2.79	348	P	Pn	00 49 17.3	+0.5
MXZ				AML	AML		
MXZ				AML	AML		
RITZ	**Rihia Road**	2.79	297	P	Pn	00 49 19.2	+2.4
TUVZ	**Tukino**	2.81	290	P	Pn	00 49 19.5	+2.3
WNVZ	**Wahianoa**	2.83	289	P	Pn	00 49 19.6	+2.1
MTW	**Mount Morrison**	2.83	251	P	Pn	00 49 17.3	0.0
TMVZ	**Te Maari**	2.83	294	P	Pn	00 49 19.6	+2.1
OTVZ	**Oturere**	2.84	292	P	Pn	00 49 19.8	+2.1
TARZ	**Mount Tarawera**	2.85	315	P	Pn	00 49 19.3	+1.6
WHVZ	**Whangaehu Hut**	2.85	290	P	Pn	00 49 19.9	+2.0
SNVZ	**South Ngauruho**	2.85	292	P	Pn	00 49 19.9	+2.1
NTVZ	**North Tongarir**	2.86	294	P	Pn	00 49 20.0	+2.0
HRRZ	**Handcock Road**	2.87	311	P	Pn	00 49 19.4	+1.5
TRVZ	**Turoa**	2.87	289	P	Pn	00 49 20.2	+2.0
MAVZ	**Matarangi**	2.87	290	P	Pn	00 49 20.7	+2.4
NGZ	**Ngauruhoe**	2.88	292	P	Pn	00 49 20.3	+2.0
FWVZ	**Far West T-bar**	2.88	290	P	Pn	00 49 20.2	+1.8
KRVZ	**Karewarewa**	2.89	293	P	Pn	00 49 21.1	+2.8
RATZ	**Rangitukua**	2.91	298	P	Pn	00 49 20.5	+2.0
COVZ	**Chateau Observ**	2.91	291	P	Pn	00 49 20.5	+1.9
WTVZ	**West Tongariro**	2.92	293	P	Pn	00 49 20.9	+2.2
PAWZ	**Paruwai Farm**	2.95	247	P	Pn	00 49 18.8	-0.3
OGWZ	**Otaki Gorge**	3.00	259	P	Pn	00 49 20.2	+0.5
TWVZ	**Taurewa**	3.04	293	P	Pn	00 49 22.0	+1.6
KUTZ	**Kaahu Road**	3.08	305	P	Pn	00 49 22.4	+1.6
MSWZ	**Moikau Station**	3.09	248	P	Pn	00 49 20.8	-0.2
CAW	**Cannon Point**	3.13	254	P	Pn	00 49 22.0	+0.5
PLWZ	**Palliser**	3.14	245	P	Pn	00 49 21.1	-0.6
WAZ	**Wanganui**	3.16	279	P	Pn	00 49 25.1	+3.1
KIW	**Kapiti Island**	3.20	259	P	Pn	00 49 23.4	+0.9

TLZ	Tolley Road	3.35	305	P	Pn	00 49 25.8	+1.1
BHW	Baring Head	3.36	249	P	Pn	00 49 25.3	+0.7
SNZO	South Karori	3.45	251	P	Pn	00 49 27.1	+1.3
VRZ	Vera Road	3.51	288	P	Pn	00 49 28.9	+2.2
HIZ	Hauiti	3.70	297	P	Pn	00 49 31.1	+1.7
HIZ	Hauiti	3.70	297	P	Pn	00 49 31.0	+1.7
TCW	Tory Channel	3.74	254	P	Pn	00 49 30.1	+0.3
CMWZ	Cape Campbell	3.93	247	P	Pn	00 49 34.0	+1.5
DUWZ	D’Urville Isla	3.94	261	P	Pn	00 49 33.7	+1.1
KHEZ	Kahui Hut	4.00	283	P	Pn	00 49 35.8	+2.2
KHEZ	Kahui Hut	4.00	283	P	Pn	00 49 37.7	+4.1
PKE	Pukeiti	4.05	284	P	Pn	00 49 37.7	+3.5
PKE				S	Sn	00 50 19.7	-0.7
NNZ	Nelson	4.40	256	P	Pn	00 49 39.7	+0.8
KHZ	Kahutara	4.65	241	P	Pn	00 49 41.4	-1.0
TKNZ	Takaka Hill	4.69	259	P	Pn	00 49 44.1	+1.2
CTZ	Chatham Island	4.72	138	P	Pn	00 49 47.0	+3.7
CTZ				S	Sn	00 50 37.8	+1.1
MBAZ	Motutapu North	4.79	316	P	Pn	00 49 46.4	+2.1
THZ	Tophouse	4.87	251	P	Pn	00 49 46.4	+0.9
MRNZ	Matariki Terra	4.89	255	P	Pn	00 49 47.2	+1.4
QRZ	Quartz Range	4.99	262	P	Pn	00 49 47.2	+0.1
QRZ	Quartz Range	4.99	262	P	Pn	00 49 47.3	+0.2
LTZ	Lake Taylor	5.66	242	P	Pn	00 49 57.2	+0.9
WCZ	Waipu Caves	5.71	318	P	Pn	00 49 58.8	+1.8
AKCZ	Akaroa Harbour	5.80	230	P	Pn	00 49 58.4	+0.2
MQZ	McQueen’s Vall	5.86	232	P	Pn	00 49 58.6	-0.3
MQZ				S	Sn	00 50 59.4	-5.3
INZ	Inchbonnie	6.20	244	P	Pn	00 50 04.2	+0.5
WACZ	Wakanui South	6.48	233	P	Pn	00 50 09.0	+1.5
OUZ	Omahuta	6.66	318	P	Pn	00 50 11.2	+1.2

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*AEIC **16** 00:51:48.3±0.9, 51°.33N±0°.05×176°.00W±0°.06, h30^{km}±6^{km}, Error ellipse: s-maj=7.5km s-min=5.0km az=158.0*

NEIC 16 00:51:48.0±0.9**, 51°.33N**±0°.05×**176°.00W**±0°.06**, h26**^{km}±10^{km}**, mb3.8**/17**, ML3.7**/12**, ML3.3**(AEIC)**, Error ellipse: s-maj=8.0km s-min=5.0km az=159.0, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ETKA	Kagalaska Isla	0.59	335		Pb	00 51 59.9	+0.1
ETKA					Sb	00 52 08.3	+0.5
GSIG	Igitkin Island	0.66	4		Pn	00 52 01.3	-0.4
GSIG					Sn	00 52 10.8	-0.5
GSCK	Great Sitkin C	0.69	352		Pn	00 52 02.1	-0.1
GSCK					Sn	00 52 11.9	-0.1
ADK	Adak	0.70	323		Pb	00 52 01.2	-0.4
ADK				IAML		00 52 13.4	
	3μm,0.2s						
ADK				IAML		00 52 14.1	
	3μm,0.2s						
ADK	Adak	0.70	323		Sb	00 52 09.6	-1.2
GSMY	Great Sitkin M	0.72	357		Pn	00 52 02.4	0.0
GSTD	Great Sitkin T	0.74	353		Pn	00 52 02.7	-0.1
GSTD					Sn	00 52 12.9	-0.3
ADAG	Mount Adagdak	0.76	330		Pn	00 52 02.9	-0.1
ADAG					Sn	00 52 13.9	+0.3
GSTR	Great Sitkin T	0.77	357		Pb	00 52 02.9	+0.1
GSTR					Sn	00 52 14.0	+0.1
GSTR				IAML		00 52 19.0	
	comp=E,6μm,0.4s						
GSSP	Great Sitkin S	0.78	352		Pn	00 52 03.4	+0.1
KIMD	Kanaga Island	0.89	300		Pb	00 52 04.1	-0.6
KIRH	Kanaga Island	0.89	310		Pb	00 52 04.6	-0.2
KIRH					Sn	00 52 16.7	-0.3
KIWB	Kanaga Island	0.89	307		Pb	00 52 04.0	-0.8
KIWB				IAML		00 52 17.1	
	comp=N,3μm,0.4s						
KIWB				IAML		00 52 17.9	
	comp=E,2μm,0.6s						
KIKV	Kanaga Island	0.92	308		Pn	00 52 04.9	-0.3
KIKV					Sb	00 52 17.1	+0.1
KINC	Kanaga Island	0.93	311		Pn	00 52 05.2	-0.2
KICM	Kanaga Island	0.95	309		Pn	00 52 05.5	-0.1
TAPA	Tanaga Point A	1.23	294		Pn	00 52 09.3	-0.2
TAFL	Tanaga Flats	1.26	291		Pn	00 52 09.6	-0.3
TASE	Tanaga Southea	1.37	293		Pn	00 52 11.6	+0.2
ATKA	Atka Island	1.42	51		Pn	00 52 11.4	-0.7
TACS	Tanaga Cape Sa	1.44	293		Pn	00 52 12.8	+0.4
TANO	Tanaga North	1.45	295		Pn	00 52 13.1	+0.6
KOKL	Mount Kliuchef	1.50	47		Pn	00 52 13.4	+0.2
KOWE	Korovin West	1.50	45		Pn	00 52 13.7	+0.4
KOFP	Korovin Flat P	1.52	50		Pn	00 52 13.5	+0.1
GAEA	Gareloi East	1.78	286		Pn	00 52 17.7	+0.8
GAKI	Gareloi-Kavalg	1.78	278		Pn	00 52 16.6	-0.3
GALAA	Gareloi Lava P	1.79	285		Pn	00 52 17.8	+0.7
GANE	Gareloi Northe	1.80	287		Pn	00 52 18.1	+0.8
AMKA	Amchitka	2.95	273	Pn	Pn	00 52 32.2	-0.9
AMKA				IAML		00 53 23.6	
	comp=N,156nm,0.5s						
CLES	Cleveland East	4.05	66	Pn	Pn	00 52 50.1	+1.8
SPIA	Saint Paul Isl	6.76	28	Pn	Pn	00 53 27.9	+2.5
CNBA	Chernabura Isl	10.47	64	Pn	Pn	00 54 16.7	+0.4
O14K	Tigyukauivet M	11.54	41	Pn	Pn	00 54 34.0	+3.2
N14K	Kuskokwak Cree	11.79	38	Pn	Pn	00 54 38.3	+4.0
O16K	Kokwok River B	13.07	44	Pn	Pn	00 54 55.4	+3.7
M17K	Holitna River	14.35	38		P	00 55 17.6	+1.6
KDAK	Kodiak Island	14.99	55	Pn	Pn	00 55 15.8	-2.1
J17K	VABM Dome	15.09	30	Pn	Pn	00 55 19.1	0.0
CNPM	China Poot	16.19	50	Pn	Pn	00 55 32.6	-0.8
KTH	Kantishna Hill	18.06	38		P	00 55 57.7	+0.6
KTH				IAmb	IAmb	00 56 00.9	
	comp=Z,6.2nm,1.1s						
BPAW	Bear Paw Mtn.	18.33	36	P	Pn	00 56 00.6	+0.6
MLY	Manley	18.93	34	P	Pn	00 56 07.2	-0.3
DHY	Denali Highway	19.26	41	P	P	00 56 10.2	-0.2
DHY				IAmb	IAmb	00 56 12.2	
	comp=Z,2.7nm,0.5s						
H23K	Yukon River	19.80	33	P	P	00 56 16.2	+0.1
CCB	Clear Creek Bu	19.80	37	P	P	00 56 15.9	-0.1
CCB				IAmb	IAmb	00 56 19.6	
	comp=Z,4.5nm,1.3s						
H24K	Noodor Dome	20.38	34	P	P	00 56 23.2	+0.8
H24K				IAmb	IAmb	00 56 25.8	
	comp=Z,3.2nm,1.1s						
RIDG	Independent Ri	20.57	41	P	P	00 56 24.6	+0.1
RIDG				IAmb	IAmb	00 56 37.3	
	comp=Z,9.2nm,1.5s						
SCRK	Sand Creek	21.01	41	P	P	00 56 28.6	-0.7
F24K	Squaw Lake	21.31	30	P	P	00 56 34.2	+1.7
F24K				IAmb	IAmb	00 56 40.4	
	comp=Z,8.0nm,1.4s						
K27K	Chicken	21.82	41	P	P	00 56 38.5	+0.6
K27K				IAmb	IAmb	00 56 46.6	
	comp=Z,7.3nm,1.4s						
I28M	Miner Creek	23.17	39	P	P	00 56 51.3	-0.9
I28M				IAmb	IAmb	00 57 05.3	
	comp=Z,7.8nm,1.5s						
K29M	Barlow Dome	23.69	43	P	P	00 56 57.6	+0.2
H29M	Whitestone	24.04	37	P	P	00 57 00.3	-0.2
I30M	Mount Dempster	24.52	40	P	P	00 57 04.7	-0.4
I30M				IAmb	IAmb	00 57 14.9	
	comp=Z,5.7nm,1.4s						

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*TAP **16** 00:52:30.5, 24°.58N×122°.60E, h99^{km}, ML2.5, C*

*JMA **16** 00:52:31.6±0.2, 24°N±1°×122°.6E±0°.4, h89^{km}±1^{km}, MV1.9/9, NW OFF ISHIGAKIJIMA IS*

ISC 16 00:52:31.7±1.6**, 24°.56N**±0°.06×**122°.57E**±0°.03**, h90**^{km}±9^{km}**, n39, σ0^s.90**/69**, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EOS2	EOS2	0.33	246	P	Pn	00 52 45.5	+0.4
EOS2				*i* S	Sn	00 52 56.7	+1.6
EOS3	EOS3	0.35	220	P	Pn	00 52 45.7	+0.5
EOS3				S	Sn	00 52 56.4	+1.2
YOJ	Yonaguni jima	0.41	103	P	Pn	00 52 45.6	-0.1
YOJ				S	Sn	00 52 56.5	+0.2
YOJ	Yonaguni jima	0.41	103	P	Pn	00 52 45.7	-0.1
EOS4	EOS4	0.49	208	*e*P	Pn	00 52 45.8	-0.1
EOS4				*e*S	Sn	00 52 56.6	+0.2
NDS	Dongshan	0.78	276	P	Pn	00 52 49.2	+0.2
NDS				S	Sn	00 53 01.7	-0.2
TIPB	Shuangxi	0.79	302	*e*P	Pn	00 52 49.1	0.0
TIPB				*i* S	Sn	00 53 01.9	-0.3
SXI1	Grass Mountain	0.83	311	P	Pn	00 52 49.6	0.0
SXI1				S	Sn	00 53 03.4	+0.5
FUSB	Fushanzhiwuyua	0.91	283	*i* P	Pn	00 52 50.6	+0.2
FUSB				*e*S	Sn	00 53 04.0	-0.6
LATG	Datong	0.95	269	*e*P	Pn	00 52 50.9	0.0
LATG				*i* S	Sn	00 53 05.4	+0.1
NACB	Ninganchiao	0.96	247	*i* P	Pn	00 52 50.3	-0.7
NACB				*e*S	Sn	00 53 04.5	-0.9
NWLT	Wulai	0.99	283	*e*P	Pn	00 52 51.0	-0.3
NWLT				*e*S	Sn	00 53 04.2	-1.9
ETLH	Xiulin Townshi	1.05	251	P	Pn	00 52 51.5	-0.6
ETLH				*e*S	Sn	00 53 06.3	-1.0
IRIF	Iriomote-Funau	1.08	101	P	Pn	00 52 52.1	-0.2
IRIF				S	Sn	00 53 07.5	-0.3
NNSB	Datong	1.09	264	P	Pn	00 52 52.2	-0.3
NNSB				*e*S	Sn	00 53 07.9	-0.3
YHNB	Yeheng	1.09	276	*i* P	Pn	00 52 52.8	+0.3
YHNB				S	Sn	00 53 08.1	-0.1
NNS	Nan Shan	1.09	264	*e*P	Pn	00 52 52.3	-0.3
NSK	Sanguang	1.11	276	P	Pn	00 52 52.7	0.0
NSK				*e*S	Sn	00 53 08.1	-0.3
LXIB	Xiulin Townshi	1.18	243	*e*P	Pn	00 52 52.8	-0.8
LXIB				*e*S	Sn	00 53 08.8	-1.3
WHF	Hehuan Shan	1.26	251	*e*P	Pn	00 52 54.5	-0.3
WHF				*e*S	Sn	00 53 11.1	-1.1
TDCB	Techi	1.32	257	*e*P	Pn	00 52 55.3	0.0
NFF	Wufeng Townshi	1.32	274	*e*P	Pn	00 52 55.5	+0.2
NFF				S	Sn	00 53 12.9	-0.1
JKRS	Kuro-shima	1.35	103	P	Pn	00 52 55.9	+0.4
JKRS				*e*S	Sn	00 53 13.6	0.0
WARBT	Fenglin Townsh	1.36	233	P	Pn	00 52 54.8	-0.9
WARBT				*e*S	Sn	00 53 11.8	-2.0
OWD	Renai	1.40	245	*e*P	Pn	00 52 56.0	-0.4
OWD				S	Sn	00 53 13.6	-1.4
WUSB	Renai	1.44	247	*e*P	Pn	00 52 56.8	+0.1
WUSB				S	Sn	00 53 15.5	-0.2
JIJ	Ishigaki jima	1.45	97	S	Sn	00 53 14.9	-0.8
HGSD	Ruisui	1.49	225	*e*P	Pn	00 52 56.6	-0.7
WHP	Taichung City	1.50	260	*e*P	Pn	00 52 58.5	+0.9
VWDT	VWDT	1.53	239	*e*P	Pn	00 52 57.8	0.0
VWDT				*e*S	Sn	00 53 16.6	-0.9
YULB	Yu-li	1.64	225	*e*P	Pn	00 52 58.1	-1.1
YULB				S	Sn	00 53 18.2	-2.0
SSLB	Suanglung	1.66	243	*e*P	Pn	00 53 00.1	+0.6
SSLB				*e*S	Sn	00 53 21.6	+1.0
SMLT	Sun Moon Lake	1.66	247	*e*P	Pn	00 53 00.4	+0.8
SMLT				*e*S	Sn	00 53 23.1	+2.3
TWF1	Yuli	1.67	224	*e*P	Pn	00 52 58.4	-1.2
STYH	Taoyuan	2.14	230	*e*P	Pn	00 53 06.6	+0.9
STYH				*e*S	Sn	00 53 33.1	+1.3
CHN4	Tsaushan	2.17	237	*e*P	Pn	00 53 06.9	+0.8
CHN4				*e*S	Sn	00 53 33.6	+1.2
TPUB	Ta-pu	2.17	235	*e*P	Pn	00 53 07.1	+1.0
TPUB				*e*S	Sn	00 53 34.8	+2.3
WTP	Ta-pu	2.21	234	P	Pn	00 53 08.1	+1.3
VWUC	VWUC	2.87	279	*e*P	Pn	00 53 14.9	-0.5

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*NIED **16** 00:58:16.8, 31°.45N×128°.70E, h7^{km}, MW4.5, Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M$_{rr}$-4.85; M$_{\theta\theta}$4.14; M$_{\phi\phi}$0.70; M$_{r\theta}$-1.11; M$_{\theta\phi}$5.27; M$_{\phi r}$-2.82; Fault plane solution: M$_0$7.32000×10^{15} NP1: φ$_s$262.00000°, δ41.00000°, λ-47.00000°. NP2:φ$_s$31.00000°, δ61.00000°, λ-121.00000°.*

*JMA **16** 00:58:16.8±0.3, 31°.5N±0°.6×128°.7E±0°.7, h7^{km}±2^{km}, MD4.3/34, MV4.5/34, SW OFF KYUSHU*

JMA Felt I J1 at SW OFF KYUSHU .

*IDC **16** 00:58:18.4±0.6, 31°.48N×128°.70E, h0^{km}, mb3.9/20, mbtmp3.9/26, ML3.9/6, MS4.0/47, Error ellipse: s-maj=14.0km s-min=9.6km az=101.0*

*NEIC **16** 00:58:20.7±2.0, 31°.48N±0°.07×128°.62E±0°.07, h10^{km}±1^{km}, mb4.3/15, Error ellipse: s-maj=11.9km s-min=10.4km az=157.0*

ISC 16 00:58:19.6±0.5**, 31°.42N**±0°.05×**128°.80E**±0°.06**, h10**^{km}**, n107, σ1^s.33**/69**, mb3.9**/28**, MS4.0**/43**, Northwest of Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JSJ	Shimokoshiki	0.82	72	*e*P	Pg	00 58 33.8	-1.7
JSJ				A	A	00 58 33.8	
	comp=N,30nm,4.3s,comp=E,18nm,1.3s						
JSJ				*e*S	Sb	00 58 46.1	-1.1
JFU	Fukue jima 2	1.23	358	P	Pb	00 58 39.8	-3.2
JFU				A	A	00 58 39.8	
	comp=N,7.0nm,5.9s,comp=E,10.0nm,3.8s						
JSU	Suzuyama	1.42	86	Pn	Pn	00 58 45.1	-0.3
JSU	Suzuyama	1.42	86	*e*P	Pn	00 58 44.4	-1.0
JSU				A	A	00 58 44.4	
	comp=N,13nm,2.8s,comp=E,5.0nm,1.5s						
JKC	Kuchinoerabu	1.53	128	A	A	00 58 45.9	
	comp=N,9.0nm,3.4s,comp=E,6.0nm,2.6s						
JHD	Hondo	1.54	47	A	A	00 58 45.6	
	comp=N,8.0nm,2.8s,comp=E,6.0nm,4.4s						
JZO	Okuchi	1.69	64	A	A	00 58 48.2	
	comp=N,8.0nm,2.4s,comp=E,6.0nm,1.9s						
JNN	Nakanoshima	1.83	149	*e*P	Pn	00 58 50.0	-1.1
JNN				A	A	00 58 50.0	
	comp=N,9.0nm,3.6s,comp=E,8.0nm,2.4s						
JTZ	Takazaki	2.01	76	*e*P	Pn	00 58 52.8	-0.8
JTN	Tanegashima 3	2.02	112	*e*P	Pn	00 58 52.1	-1.6
JMTN	Minamitane	2.07	119	*e*P	Pn	00 58 54.0	-0.5
JTA	Tamana	2.13	43	A	A	00 58 54.2	
	comp=N,3.0nm,5.4s,comp=E,3.0nm,6.4s						
JNU	Nakatsue	2.44	46	Pn	Pn	00 58 60.0	+0.3
	comp=E,42nm,0.3s,baz=239,slow=7.6,SNR=41						
JNU				Lg	Lg	00 59 36.5	
	comp=E,119nm,0.3s,baz=25,slow=9.8,SNR=11						
	comp=E,53nm,0.4s						
JNU				AML	AML		
JOW	Kunigami	4.60	186	Pn	Pn	00 59 31.1	+1.8
	comp=E,5.3nm,0.3s,baz=352,slow=12,SNR=21						
JOW				LR	LR	01 01 29.0	
	comp=E,1μm,19.6s,baz=67,slow=41						
	comp=E,8.0nm,0.4s						
JOW				AML	AML		
JOW	Kunigami	4.60	186	Pn	Pn	00 59 31.4	+2.2
JMN	Monobe	4.87	60	Pn	Pb	00 59 38.4	-6.5
TJN	Taejon	5.08	347	Pn	Pn	00 59 33.4	-2.5
KSAR	Wonju Array Be	6.05	353	Pn	Pn	00 59 50.8	+1.6
KSRS	Korea Array	6.06	353	Pn	Pn	00 59 48.6	-0.7
	comp=E,1.4nm,0.3s,baz=175,slow=14,SNR=12						
KSRS				Lg	Lg	01 01 24.9	
	comp=E,2.2nm,0.3s,baz=172,slow=29,SNR=9.1						
	comp=E,5.2nm,0.4s						
KSRS				AML	AML		
KS19	Wonju Array Si	6.11	353	Pn	Pn	00 59 48.6	-1.4
SSE	Sheshan	6.53	269	Pn	Pb	01 00 06.5	-6.8
SSE				Sn	Sb	01 01 21.3	-10
SSE				smax	smax		
	comp=N,140nm,0.9s						
SSE				smax	smax		
	comp=E,53nm,1.2s						
SSE				LR	LR		
	comp=N,2μm,13.8s						
SSE				LR	LR		
	comp=E,430nm,14.2s						
JGF	Kuroka	8.27	57	Pn	Pn	01 00 24.9	+5.2
NJ2	Nanjing	8.49	277	*e*P	Pn	01 00 33.8	+11
NJ2				pmax	pmax		
	comp=Z,19nm,0.8s						
NJ2				smax	smax		
	comp=N,90nm,1.2s						
NJ2				smax	smax		
	comp=E,82nm,0.8s						
NJ2				LR	LR		
	comp=N,3μm,10.8s						
NJ2				LR	LR		
	comp=E,1μm,12.6s						
NJ2				LR	LR		
	comp=Z,2μm,13.3s						
USRK	Ussuriysk Ar.	13.00	10	LR	LR	01 05 58.1	
	comp=Z,222nm,19.5s,baz=191,slow=36						
XLT	XiLinHaoTe	15.99	325	*e*P	P	01 02 10.1	+1.8
XLT				pP	sP	01 02 13.9	+1.8
XLT				pmax	pmax		
	comp=Z,7.0nm,0.9s						
XLT				LR	LR		
	comp=N,87nm,15.1s						
XLT				LR	LR		
	comp=E,930nm,15.9s						
XLT				LR	LR		
	comp=Z,1μm,14.8s						
ASAJ	Asahikawa	16.69	37	Pn	P	01 02 17.2	+1.3
	comp=Z,1.3nm,0.3s,baz=209,slow=19,SNR=6.5						
	comp=Z,13nm,0.7s						
ASAJ				AML	AML		
JKA	Kamikawa-asahi	16.69	37	P	P	01 02 18.8	+2.9
JKA				IAmb	IAmb	01 02 56.1	
	comp=Z,22nm,1.1s						
KLR	Kul'dur	17.93	6	P	P	01 02 29.8	+0.2
	comp=Z,0.4nm,0.3s,baz=192,slow=13,SNR=5.9						
KLR				LR	LR	01 08 42.7	
	comp=Z,126nm,21.0s,baz=184,slow=35						
	comp=Z,1.9nm,0.6s						
KLR				AML	AML		
HEH	HeiHe	18.84	357	*e*P	Pn	01 02 41.8	+1.7
HEH				pP	sP	01 02 45.9	+2.5
HEH				S	S	01 06 18.0	+4.3
HEH				pmax	pmax		
	comp=Z,5.0nm,0.7s						
HEH				LR	LR		
	comp=N,630nm,17.5s						
HEH				LR	LR		
	comp=E,2μm,15.3s						
HEH				LR	LR		
	comp=Z,900nm,16.6s						
HILR	Hailar Array B	19.35	342	P	Pn	01 02 45.7	-0.6
	baz=142,slow=14						
HILR				LR	LR	01 10 39.5	
	comp=Z,308nm,19.3s,baz=95,slow=38						
	comp=Z,0.6nm,0.3s						
LZDM	Lanzhou Array	21.35	289	P	P	01 03 05.4	-2.0
	comp=Z,1.6nm,0.3s,baz=100,slow=13,SNR=1.7						
LZDM				LR	LR	01 11 28.2	
	comp=Z,505nm,18.6s,baz=95,slow=37						
	comp=Z,1.6nm,0.3s						
GUMO	Guam	23.09	137	LR	LR	01 11 20.4	
	comp=Z,178nm,18.9s,baz=318,slow=34						
ULN	Ulaanbaatar	23.33	321	P	P	01 03 29.1	+1.0
ULN				IAmb	IAmb	01 03 49.1	
	comp=Z,5.3nm,1.1s						
SONM	Songino Array	23.67	320	P	P	01 03 31.7	+0.3
	comp=Z,1.9nm,0.8s,baz=146,slow=9.5,SNR=6.6						
SONM				LR	LR	01 13 41.8	
	comp=Z,588nm,19.1s,baz=128,slow=39						
	comp=Z,1.9nm,0.8s						
SONM	Songino Array	23.67	320	P	P	01 03 30.8	-0.7
DAV	Davao City (W)	24.41	188	LR	LR	01 12 33.1	
	comp=Z,133nm,21.3s,baz=343,slow=35						
CMAR	Chiang Mai Arr	29.89	252	P	P	01 04 28.3	+0.7
	comp=Z,0.5nm,0.3s,baz=74,slow=6.7,SNR=4.2						
	comp=Z,0.5nm,0.3s						
CMAR	Chiang Mai Arr	29.89	252	P	P	01 04 27.8	+0.1
PETK	Petropavlovsk-	30.10	36	LR	LR	01 15 58.7	
	comp=Z,109nm,18.6s,baz=220,slow=35						
YAK	Yakutsk	30.63	1	LR	LR	01 16 18.1	
	comp=Z,130nm,21.9s,baz=182,slow=35						
SEY	Seymchan	34.94	19	P	P	01 05 12.8	+1.4
	comp=Z,1.1nm,0.6s,baz=195,slow=20,SNR=5.0						
	comp=Z,1.1nm,0.6s						
ZALV	Zalesovo Beam	38.55	319	P	P	01 05 42.3	0.0
	comp=Z,0.9nm,0.7s,baz=102,slow=6.6,SNR=4.8						
ZALV				LR	LR	01 22 43.8	
	comp=Z,347nm,18.5s,baz=100,slow=38						
	comp=Z,0.9nm,0.7s						
ZALV	Zalesovo Beam	38.55	319	P	P	01 05 41.8	-0.5
MKAR	Makanchi Array	38.63	307	P	P	01 05 42.6	-0.4
	comp=Z,1.0nm,1.0s,baz=91,slow=9.7,SNR=5.7						
MKAR				LR	LR	01 22 41.7	
	comp=Z,160nm,18.2s,baz=90,slow=38						
	comp=Z,1.0nm,1.0s						
MKAR	Makanchi Array	38.63	307	P	P	01 05 42.1	-1.0
TIXI	Tiksi	40.28	0	LR	LR	01 22 38.2	
	comp=Z,260nm,18.4s,baz=206,slow=36						
PDGK	Podgornoye	40.41	301	P	P	01 05 57.6	-0.5
KURBB	Kurchatov Arra	41.58	312	P	P	01 06 06.7	-0.8
	comp=Z,1.7nm,0.9s,baz=98,slow=8.7,SNR=6.3						
KURBB				LR	LR	01 24 58.6	
	comp=Z,644nm,19.0s,baz=176,slow=39						
	comp=Z,1.7nm,0.9s						
AAK	Ala-Archa	44.09	301	LR	LR	01 27 12.4	
	comp=Z,287nm,18.1s,baz=94,slow=39						
NRIK	Noril'sk	44.51	341	LR	LR	01 26 23.1	
	comp=Z,189nm,18.3s,baz=119,slow=38						
BVAR	Borovoye Array	46.85	315	P	P	01 06 47.8	-1.9
	comp=Z,0.5nm,0.4s,baz=106,slow=4.8,SNR=4.9						
	comp=Z,0.5nm,0.4s						
KK31	Karatay Array	46.97	302	P	P	01 06 49.5	-1.3
KK31				IAmb	IAmb	01 06 56.8	
	comp=Z,4.2nm,0.9s						
KKAR	Karatay Array	46.97	302	P	P	01 06 50.5	-0.3
FITZ	Fitzroy Crossi	49.33	184	P	P	01 07 09.4	+0.3
	comp=Z,2.4nm,0.8s,baz=359,slow=8.4,SNR=7.0						
	comp=Z,2.4nm,0.8s						
FITZ	Fitzroy Crossi	49.33	184	P	P	01 07 09.6	+0.5
WB0	Warramunga Arr	51.18	173	P	P	01 07 22.6	-0.5
WRA	Warramunga Arr	51.35	173	P	P	01 07 24.7	+0.4
	comp=Z,1.5nm,0.7s,baz=353,slow=8.1,SNR=9.4						
	comp=Z,1.5nm,0.7s						
WRA	Warramunga Arr	51.35	173	P	P	01 07 23.9	-0.5
WR8	Warramunga Arr	51.38	173	P	P	01 07 25.5	+0.9
AB31	Akbulak array	53.56	311	P	P	01 07 39.7	-0.9
AB31				IAmb	IAmb	01 07 45.8	
	comp=Z,3.9nm,0.8s						
ABKAR	Akbulak array	53.56	311	P	P	01 07 40.3	-0.3
ARTI	Arti	53.81	320	LR	LR	01 33 11.6	
	comp=Z,444nm,18.5s,baz=92,slow=39						
CTA	Charters Tower	53.88	160	LR	LR	01 30 22.7	
	comp=Z,140nm,19.6s,baz=43,slow=36						
AKTO	Aktyubinsk	54.64	312	LR	LR	01 32 55.0	
	comp=Z,754nm,18.6s,baz=120,slow=38						
ASAR	Alice Springs	54.99	174	P	P	01 07 52.0	+0.8
	comp=Z,0.7nm,0.6s,baz=358,slow=6.3,SNR=6.8						
	comp=Z,0.7nm,0.6s						
ASAR	Alice Springs	54.99	174	P	P	01 07 51.7	+0.5
KDAK	Kodiak Island	58.10	38	LR	LR	01 33 58.0	
	comp=Z,78nm,19.4s,baz=259,slow=37						
KIRV	Kirov	58.37	323	LR	LR	01 35 27.5	
	comp=Z,120nm,19.9s,baz=84,slow=38						
H23K	Yukon River	58.41	29	P	P	01 08 16.4	+1.3
H23K				IAmb	IAmb	01 08 21.6	
	comp=Z,2.6nm,0.8s						
ILAR	Eielson Array	59.67	30	P	P	01 08 24.4	+0.6
	comp=Z,0.4nm,0.8s,baz=290,slow=9.2,SNR=5.1						
ILAR				LR	LR	01 35 19.5	
	comp=Z,51nm,18.7s,baz=257,slow=37						
	comp=Z,0.4nm,0.8s						
BELG	Belogornoye	60.64	316	LR	LR	01 36 41.8	
	comp=Z,350nm,19.1s,baz=94,slow=38						
L27K	Beaver Creek,	62.22	31	P	P	01 08 43.1	+1.9
L27K				IAmb	IAmb	01 08 46.5	
	comp=Z,1.9nm,1.0s						
SPITS	Spitsbergen Ar	63.87	348	LR	LR	01 38 00.7	
	comp=Z,129nm,19.1s,baz=32,slow=37						
INK	Inuvik	63.95	24	LR	LR	01 40 44.4	
	comp=Z,30nm,18.8s,baz=321,slow=40						
HYT	Haines Junctio	64.83	33	P	P	01 08 58.1	-0.5
HYT				IAmb	IAmb	01 09 05.2	
	comp=Z,3.3nm,0.9s						
ARCES	ARCESS Array B	65.39	338	LR	LR	01 42 10.5	
	comp=Z,166nm,18.4s,baz=70,slow=40						
OBN	Obninsk	66.08	321	LR	LR	01 40 17.0	
	comp=Z,353nm,18.6s,baz=300,slow=38						
GNI	Garni	66.36	304	LR	LR	01 42 16.6	
	comp=Z,68nm,19.0s,baz=76,slow=40						
MMPY	Sheldon Lake,	66.93	30	P	P	01 09 11.6	-0.5
MMPY				IAmb	IAmb	01 09 26.7	
	comp=Z,4.4nm,1.5s						
FINES	FINESS Array B	68.62	330	P	P	01 09 21.3	-1.3
	comp=Z,0.9nm,0.5s,baz=70,slow=6.3,SNR=9.7						
FINES				LR	LR	01 41 28.5	
	comp=Z,109nm,20.8s,baz=50,slow=38						
	comp=Z,0.9nm,0.5s						
FINES	FINESS Array B	68.62	330	P	P	01 09 20.8	-1.7
AKASG	Malin Array Be	71.94	319	P	P	01 09 42.7	-0.5
	comp=Z,0.5nm,0.6s,baz=56,slow=6.8,SNR=1.6						
AKASG				LR	LR	01 42 57.9	
	comp=Z,198nm,18.8s,baz=52,slow=37						
	comp=Z,0.5nm,0.6s						
YKA	Yellowknife Ar	73.63	26	P	P	01 09 52.9	-0.1
	comp=Z,1.4nm,1.1s,baz=293,slow=6.2,SNR=2.0						
	comp=Z,1.4nm,1.1s						
BRTR	Keskin Array B	74.28	307	P	P	01 09 57.0	-0.4
	comp=Z,0.6nm,0.8s,baz=90,slow=2.5,SNR=5.6						
BRTR				LR	LR	01 49 19.9	
	comp=Z,50nm,18.1s,baz=81,slow=41						
	comp=Z,0.6nm,0.8s						
BRTR	Keskin Array B	74.28	307	P	P	01 09 57.1	-0.2
HFS	Hagfors	74.48	332	LR	LR	01 45 57.5	
	comp=Z,121nm,18.4s,baz=48,slow=38						
NOA	NORSAR Array B	74.90	333	P	P	01 10 00.4	0.0
	comp=Z,0.6nm,0.6s,baz=51,slow=5.6,SNR=2.0						

NOA				LR	LR	01 46 01.6	
	comp=Z,65nm,18.3s,baz=70,slow=38						
	comp=Z,0.6nm,0.6s						
ASF	Jabal al Asfar	75.47	299	LR	LR	01 47 22.8	
	comp=Z,49nm,18.6s,baz=45,slow=39						
BURAR	Bucovina Array	75.75	317	P	P	01 10 05.6	-0.1
BURAR				IAmb	IAmb	01 10 20.5	
	comp=Z,0.9nm,0.8s						
MLR	Muntele Rosu	76.41	315	LR	LR	01 46 40.6	
	comp=Z,130nm,19.3s,baz=7.0,slow=38						
EIL	Elat	78.14	297	LR	LR	01 51 05.5	
	comp=Z,63nm,18.4s,baz=95,slow=41						
VRAC	Vranov	79.59	322	LR	LR	01 49 12.3	
	comp=Z,171nm,19.4s,baz=61,slow=38						
BORG	Borgarnes	81.34	348	LR	LR	01 47 04.3	
	comp=Z,33nm,21.7s,baz=349,slow=36						
SFJD	Kangerlussuaq	81.89	360	LR	LR	01 47 31.1	
	comp=Z,51nm,18.2s,baz=4.0,slow=36						
FRB	Frobisher Bay	84.16	8	LR	LR	01 50 18.5	
	comp=Z,67nm,18.6s,baz=230,slow=37						
EKA	Eskdalemuir Ar	84.31	335	LR	LR	01 53 57.0	
	comp=Z,110nm,18.5s,baz=2.5,slow=40						
DAVOX	Davos/Dischmat	84.68	323	LR	LR	01 52 23.8	
	comp=Z,205nm,18.3s,baz=34,slow=38						
NVAR	Mina Array Bea	86.57	46	P	P	01 11 03.1	-0.4
	comp=Z,0.1nm,0.4s,baz=293,slow=5.5,SNR=7.3						
	comp=Z,0.1nm,0.4s						
NVAR	Mina Array Bea	86.57	46	P	P	01 11 03.5	0.0
VAE	Valguarnera	88.08	314	LR	LR	01 56 07.8	
	comp=Z,86nm,18.1s,baz=110,slow=39						
PDAR	Pinedale Array	88.81	39	P	P	01 11 14.8	+0.6
	comp=Z,1.9nm,0.8s,baz=299,slow=0.9,SNR=15						
	comp=Z,1.9nm,0.8s						
PDAR	Pinedale Array	88.81	39	P	P	01 11 14.4	+0.2
ULM	Lac du Bonnet	89.57	27	P	P	01 11 18.6	+1.3
	comp=Z,5.3nm,0.8s,baz=337,slow=3.8,SNR=7.1						
ULM				LR	LR	01 55 16.5	
	comp=Z,32nm,18.1s,baz=20,slow=38						
	comp=Z,5.3nm,0.8s						
ULM	Lac du Bonnet	89.57	27	P	P	01 11 18.7	+1.4
KMBO	Kilima Mbogo	91.90	270	LR	LR	01 53 57.5	
	comp=Z,35nm,19.7s,baz=104,slow=36						
SCHQ	Schefferville	93.05	9	LR	LR	01 55 32.1	
	comp=Z,36nm,19.2s,baz=38,slow=37						
ESDC	Sonseca Array	96.78	325	LR	LR	02 00 26.8	
	comp=Z,122nm,18.2s,baz=29,slow=39						

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*MIRAS **16** 01:04:48.6, 58°.68N×50°.23E, h0^{km}, ML2.8/6*

ISC 16 01:04:48.8±0.9**, 58°.62N**±0°.05×**50°.21E**±0°.04**, h10**^{km}**, n8,** σ**2^{s}.26**/29**, Baltic States-Belarus-Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KIRV	Kirov	0.42	265	*i* P	Pg	01 04 56.2	-0.8
	30nm,0.1s						
KIRV				*i* S	Sg	01 05 03.5	+0.9
	275nm,0.1s						
KIRV				*i* S	Sg	01 05 03.5	+0.9
KIRV				*i* S	Sg	01 05 03.5	+0.9
KIRV				*i* AML	AML	01 05 10.8	
	261nm,0.1s						
PR4R	Vlasy	2.97	101	*i* P	Pn	01 05 37.0	+0.9
	45nm,0.3s						
PR4R				*i* S	Sn	01 06 14.1	+2.4
	51nm,0.4s						
PR4R				*i* S	Sb	01 06 14.2	-4.0
PR4R				*i* AML	AML	01 06 26.2	
	216nm,0.3s						
PR6R	Ekimyata	3.13	96	*i* P	Pn	01 05 39.2	+1.1
	4.2nm,0.1s						
PR6R				*i* S	Sn	01 06 18.0	+2.4
	26nm,0.2s						
PR6R				*i* S	Sn	01 06 18.0	+2.4
PR6R				*i* S	Sb	01 06 18.1	-4.6
PR6R				*i* AML	AML	01 06 21.6	
	79nm,0.3s						
PR1R	Pomanovo	3.44	78	*i* P	Pn	01 05 43.1	+0.7
	4.8nm,0.2s						
PR1R				*i* S	Sn	01 06 25.6	+2.5
PR1R				*i* S	Sn	01 06 25.6	+2.5
	28nm,0.2s						
PR1R				*i* S	Sn	01 06 25.6	+2.5
PR1R				*i* AML	AML	01 06 39.1	
	75nm,0.2s						
BRK30	Berezniki,	3.51	75	*i* P	Pn	01 05 44.2	+0.9
	8.6nm,0.4s						
BRK30				*i* S	Sn	01 06 27.3	+2.5
BRK30				*i* S	Sn	01 06 27.3	+2.5
BRK30				*i* S	Sn	01 06 27.3	+2.5
	26nm,0.2s						
BRK30				*i* AML	AML	01 06 38.7	
	58nm,0.3s						
SHIP	Sredneye Shipi	3.70	326	*e*P	Pb	01 05 52.1	-2.0
SHIP				*e*S	Sb	01 06 38.3	-0.7
PZG	Pozheg	3.94	30	*i* P	Pn	01 05 49.9	+0.6
PZG				*i* S	Sn	01 06 37.6	+2.0
PZG				*i* S	Sn	01 06 37.6	+2.0
PZG				*i* S	Sn	01 06 37.6	+2.0
ARTI	Arti	4.94	113	*i* P	Pn	01 06 03.9	+0.8
	1.7nm,0.4s						
ARTI				*i* S	Sn	01 07 02.6	+2.4
	5.9nm,0.1s						
ARTI				*i* S	Sn	01 07 02.6	+2.4
ARTI				*i* S	Sn	01 07 02.6	+2.4
ARTI				*i* AML	AML	01 07 09.4	
	16nm,0.2s						

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*IDC **16** 01:14:52.0±0.6, 18°.96S×175°.93E, h0^{km}, mb4.1/11, mbtmp4.1/14, ML4.0/3, MS3.3/11, Error ellipse: s-maj=26.4km s-min=14.5km az=148.0*

*NEIC **16** 01:14:56.4±2.2, 18°.9S±0°.2×176°.07E±0°.09, h28^{km}±6^{km}, mb4.6/5, Error ellipse: s-maj=26.6km s-min=3.2km az=153.0*

ISC 16 01:14:55.8±0.5**, 18°.9S**±0°.1×**176°.09E**±0°.09**, h30**^{km}**, n60,** σ**0^{s}.97**/52**, mb4.3**/16**, MS3.5**/9**, 2C, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	Nonsavu	2.20	58	Pn	Pn	01 15 29.2	-1.3
	5.0nm,0.3s,baz=242,slow=12,SNR=24						
MSVF				Sn	Sn	01 15 55.3	-1.4
	9.9nm,0.3s,baz=142,slow=24,SNR=9.7						
MSVF				LR	LR	01 16 04.6	
	comp=Z,331nm,20.9s,baz=179,slow=31						
	52nm,0.8s						
MSVF				AML	AML		
MSVF	Nonsavu	2.20	58		Pn	01 15 29.3	-1.2
MSVF				Sn	Sn	01 15 54.9	-1.9
DZM	Mont Dzumac	9.57	249	Pn	Pn	01 17 09.8	-1.9
	0.3nm,0.3s,baz=82,slow=16,SNR=4.6						
	14nm,0.8s						
DZM				AML	AML		
AFI	Afiamalu	12.66	69	LR	LR	01 21 06.7	
	comp=Z,44nm,21.1s,baz=244,slow=29						
URZ	Urewera	19.30	178	P	Pn	01 19 20.0	+0.5
	0.4nm,0.3s,baz=346,slow=6.7,SNR=5.2						
	15nm,0.9s						
URZ				AML	AML		
MRZ	Mangatainoka R	21.68	181	P	P	01 19 44.8	+0.6
MRZ				IAmb	IAmb	01 19 47.4	
	comp=Z,57nm,1.3s						
RAR	Rarotonga	22.79	100	LR	LR	01 26 48.0	
	comp=Z,176nm,20.5s,baz=272,slow=31						
PPT	Papeete	32.61	93	LR	LR	01 31 28.3	
	comp=Z,72nm,19.9s,baz=169,slow=30						
STKA	Stephens Creek	33.58	241	P	P	01 21 32.9	-0.5
	comp=Z,4.4nm,0.8s,baz=98,slow=8.9,SNR=6.8						
STKA				LR	LR	01 34 32.0	
	comp=Z,127nm,18.1s,baz=324,slow=35						
	comp=Z,4.4nm,0.8s						
WB0	Warramunga Arr	39.28	262	P	P	01 22 21.7	-0.5
WB0				IAmb	IAmb	01 22 43.4	
	comp=Z,5.2nm,1.1s						
WRA	Warramunga Arr	39.31	261	P	P	01 22 22.4	-0.1
	comp=Z,0.4nm,0.8s,baz=98,slow=7.4,SNR=1.4						
	comp=Z,0.4nm,0.8s						
WRA	Warramunga Arr	39.31	261	P	P	01 22 21.8	-0.7
ASAR	Alice Springs	39.48	256	P	P	01 22 23.1	-0.9
	comp=Z,1.3nm,0.9s,baz=85,slow=8.7,SNR=8.4						
ASAR				PcP	PcP	01 24 32.0	+0.6
	comp=Z,0.8nm,0.9s,baz=81,slow=3.2,SNR=4.7						
ASAR				LR	LR	01 36 30.3	
	comp=Z,89nm,22.0s,baz=132,slow=33						
	comp=Z,1.3nm,0.9s						
GUMO	Guam	44.60	314	LR	LR	01 40 05.8	
	comp=Z,39nm,21.8s,baz=138,slow=34						
MJAR	Matsushiro Arr	65.74	327	P	P	01 25 38.4	+0.5
	comp=Z,0.6nm,0.3s,baz=140,slow=9.6,SNR=4.0						
	comp=Z,0.6nm,0.3s						
QSPA	South Pole Qui	71.15	180	P	P	01 26 11.4	-0.1
	comp=Z,5.6nm,1.0s,baz=47,slow=1.7,SNR=8.3						
	comp=Z,5.6nm,1.0s						
QSPA	South Pole Qui	71.15	180	P	P	01 26 11.4	-0.1
KSRS	Korea Array	72.09	321	LR	LR	01 58 22.1	
	comp=Z,8.6nm,18.0s,baz=220,slow=36						
KDAK	Kodiak Island	80.72	16	LR	LR	01 53 46.7	
	comp=Z,27nm,21.9s,baz=169,slow=29						
MA2	Magadan	80.89	347	LR	LR	01 55 51.1	
	comp=Z,16nm,21.0s,baz=136,slow=30						
MAW	Mawson	81.11	201	P	P	01 27 08.0	+0.1
	comp=Z,1.9nm,0.6s,baz=95,slow=6.4,SNR=3.7						
	comp=Z,1.9nm,0.6s						
LPIG	La Paz	83.49	62	LR	LR	01 57 32.0	
	comp=Z,28nm,19.6s,baz=270,slow=31						
NVAR	Mina Array Bea	83.82	46	P	P	01 27 24.9	+2.1
	comp=Z,1.6nm,1.0s,baz=225,slow=9.0,SNR=8.9						
	comp=Z,1.6nm,1.0s						
NVAR	Mina Array Bea	83.82	46	P	P	01 27 23.2	+0.4
CMAR	Chiang Mai Arr	84.34	292	P	P	01 27 26.7	+1.1
	comp=Z,0.7nm,0.3s,baz=106,slow=4.7,SNR=4.4						
	comp=Z,0.7nm,0.3s						
CMAR	Chiang Mai Arr	84.34	292	P	P	01 27 25.3	-0.3
TROLL	Troll, Antarti	89.21	182	⇑P	P	01 27 48.1	-0.5
	comp=Z,304nm,0.9s						
BSUT	Blindstream Ca	89.97	47	P	P	01 27 53.8	+0.9
BSUT				IAmb	IAmb	01 27 58.9	
	comp=Z,5.0nm,0.9s						
VNA3	Neumayer Olymp	90.00	178	⇑P	P	01 27 51.1	-1.0
	comp=Z,4.1nm,0.8s						
VNA2	Neumayer--Watz	90.37	179	P	P	01 27 53.0	-0.8
	comp=Z,2.4nm,0.8s,baz=191,slow=4.6						
ANMO	Albuquerque	90.85	53	P	P	01 27 58.8	+1.9
	comp=Z,1.1nm,0.7s,baz=267,slow=3.0,SNR=3.6						
	comp=Z,1.1nm,0.7s						
TXAR	Lajitas Array	90.97	59	P	P	01 28 00.4	+2.9
	comp=Z,0.9nm,0.8s,baz=230,slow=5.2,SNR=11						
	comp=Z,0.9nm,0.8s						
TXAR	Lajitas Array	90.97	59	P	P	01 27 58.4	+0.9
PDAR	Pinedale Array	91.72	45	P	P	01 28 02.4	+1.6
	comp=Z,0.4nm,0.8s,baz=239,slow=4.4,SNR=2.9						
	comp=Z,0.4nm,0.8s						
PDAR	Pinedale Array	91.72	45	P	P	01 28 01.1	+0.3
MORC	Moravsky Berou	144.73	336	*e*PKP	PKPab	01 34 28.5	0.0
CLL	Collm	145.01	341	*i* PKPbc	PKPdf	01 34 30.0	0.0
	comp=Z,9.0nm,1.1s						
CLL				*i* x	x	01 34 33.2	
	comp=Z,12nm,1.1s						
CLL				*i* PKiKP	pPKPab	01 34 36.4	-1.5
BRG	Berggiesshubel	145.10	340	*e*PKP	PKPdf	01 34 31.0	+0.8
BRG				Amp		01 34 31.8	
	comp=Z,7.4nm,1.1s						
BRG	Berggiesshubel	145.10	340	Amp		01 34 35.1	
	comp=Z,12nm,1.2s						
BRG	Berggiesshubel	145.10	340	Amp		01 34 44.5	
	comp=Z,4.8nm,1.1s						
BRG	Berggiesshubel	145.10	340	P	PKiKP	01 34 34.1	0.0
BRG	Berggiesshubel	145.10	340	P	PKiKP	01 34 43.4	+9.4
JAVC	Velka Javorina	145.41	335	*e*PKP	PKPab	01 34 32.8	+1.8
VRAC	Vranov	145.48	336	*e*PKP	PKPab	01 34 31.5	+0.3
KRUC	Moravsky	145.75	336	*e*PKP	PKPab	01 34 32.5	+0.3
ABNA	Allensteig Bun	146.44	337	*e*PKP	PKPab	01 34 35.4	+0.6
	comp=Z,4.0nm,1.3s						
CONA	Conrad Observa	146.88	335	*e*PKP	PKPab	01 34 36.7	0.0
	comp=Z,3.3nm,0.9s						
RONA	Rosalia, Austr	146.89	335	*e*PKP	PKPab	01 34 36.6	-0.1
	comp=Z,3.1nm,0.9s						
GERES	GERESS Array B	146.92	339	PKPbc	PKPbc	01 34 35.5	0.0
	comp=Z,2.3nm,0.8s,baz=35,slow=3.3,SNR=11						
MOA	Molln	147.56	337	*e*PKP	PKPbc	01 34 38.0	+0.9
	comp=Z,3.1nm,1.3s						
SESA	Seetaler Alpe,	148.05	336	*e*PKP	PKPbc	01 34 39.4	+0.6
	comp=Z,9.1nm,1.0s						
LESA	Schwarzleotal	148.49	338	*e*PKP	PKPbc	01 34 40.1	+0.4
	comp=Z,1.9nm,0.8s						
WATA	Walderalm	148.94	339	*e*PKP	PKPbc	01 34 41.4	+0.4
	comp=Z,2.6nm,1.1s						
WTTA	Wattenberg	148.98	339	*e*PKP	PKiKP	01 34 41.8	-0.6
	comp=Z,3.1nm,1.1s						
MOTA	Moosalm	149.09	340	*e*PKP	PKPbc	01 34 41.7	+0.4
	comp=Z,3.2nm,0.9s						
ABTA	Abfaltersbach	149.13	338	*e*PKP	PKPbc	01 34 41.4	0.0
	comp=Z,4.4nm,1.6s						
SQTA	Sankt Quirin	149.16	340	*e*PKP	PKPbc	01 34 42.1	+0.6
	comp=Z,4.9nm,1.3s						
FETA	Feichten	149.50	340	*e*PKiKP	PKiKP	01 34 43.2	-0.3
	comp=Z,4.2nm,1.4s						
FUORN	Ofenpass-Fuorn	150.00	340	PKPbc	PKPbc	01 34 43.4	-0.4
TUE	Stuetta	150.42	341	PKPbc	PKPbc	01 34 44.1	-0.6

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*NIED **16** 01:17:05.8, 31°.45N×128°.71E, h12^{km}, MW4.2, Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M_{rr}-1.26; $M_{\theta\theta}$1.28; $M_{\phi\phi}$-0.02; $M_{r\theta}$-1.03; $M_{\theta\phi}$1.96; $M_{\phi r}$-1.22; Fault plane solution: $M_0$2.63000×10^{15} NP1: ϕ_s271.00000°, δ37.00000°, λ-34.00000°. NP2:ϕ_s29.00000°, δ70.00000°, λ-122.00000°.*

*JMA **16** 01:17:05.8±0.2, 31°.5N±0°.4×128°.7E±0°.6, h12^{km}±1^{km}, MV4.2/34, SW OFF KYUSHU*

*IDC **16** 01:17:06.0±0.6, 31°.43N×128°.70E, h0^{km}, mb3.9/18, mbtmp3.9/24, ML3.3/6, MS3.6/18, Error ellipse: s-maj=13.8km s-min=9.8km az=101.0*

*NEIC **16** 01:17:07.7±1.6, 31°.44N±0°.02×128°.85E±0°.06, h10^{km}±1^{km}, mb4.3/15, Error ellipse: s-maj=8.8km s-min=3.4km az=284.0*

ISC 16 01:17:07.4±0.5**, 31°.44N**±0°.04×**128°.81E**±0°.04**, h10**^{km}**, n73,** σ**1^{s}.01**/67**, mb4.0**/27**, MS3.6**/15**, Northwest of Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JSJ	Shimokoshiki	0.81	73	*i* P	Pg	01 17 22.6	-0.4
JSJ				A	A	01 17 22.6	
	comp=N,14nm,2.5s,comp=E,10.0nm,2.2s						
JSJ				S	Sb	01 17 34.3	-0.2
JFU	Fukue jima 2	1.22	357	*i* P	Pn	01 17 28.2	-2.3
JFU				*e*S	Sb	01 17 44.1	-2.1
JSU	Suzuyama	1.40	87		Pn	01 17 32.8	-0.3
JSU				Sn	Sb	01 17 50.0	-1.8
JNN	Nakanoshima	1.84	150	P	Pn	01 17 38.0	-1.0
JYAK	Yakushimahirau	1.89	129	P	Pn	01 17 38.5	-1.2
JTZ	Takazaki	1.99	76	*e*P	Pn	01 17 41.2	+0.1
JTN	Tanegashima 3	2.02	112	P	Pn	01 17 40.8	-0.7
JMTN	Minamitane	2.07	120	*e*P	Pn	01 17 41.8	-0.4
JNU	Nakatsue	2.42	46	Pn	Pb	01 17 49.4	-1.7
	comp=E,17nm,0.3s,baz=235,slow=5.3,SNR=76						
JNU				Lg	Lg	01 18 24.5	
	comp=E,19nm,0.3s,baz=272,slow=4.2,SNR=5.0						
	comp=E,140nm,0.7s						
JNU				AML	AML		
JOW	Kunigami	4.61	186	Pn	Pn	01 18 16.8	-0.4
	comp=E,1.5nm,0.3s,baz=3.5,slow=14,SNR=6.0						
	comp=E,5.5nm,0.5s						
JOW				AML	AML		
JOW	Kunigami	4.61	186		Pn	01 18 17.4	+0.1
JMN	Monobe	4.85	61		Pn	01 18 21.3	+0.8
TJN	Taejon	5.07	347		Pn	01 18 22.8	-0.6
KSAR	Wonju Array Be	6.04	353	Pn	Pn	01 18 37.4	+0.7
KSRS	Korea Array	6.05	353	Pn	Pn	01 18 36.8	-0.1
	comp=E,1.2nm,0.3s,baz=175,slow=14,SNR=22						
KSRS				Sn	Sn	01 19 47.1	+1.0
	comp=E,1.2nm,0.3s,baz=166,slow=32,SNR=4.6						
KSRS				Lg	Lg	01 20 13.4	
	comp=E,2.5nm,0.3s,baz=173,slow=31,SNR=8.9						
	comp=E,10nm,0.8s						
KSRS				AML	AML		
KS19	Wonju Array Si	6.10	353		Pn	01 18 37.2	-0.4
MJAR	Matsushiro Arr	9.31	54	Pn	Pn	01 19 26.3	+4.6
	comp=E,0.1nm,0.3s,baz=234,slow=13,SNR=1.4						
MJAR				LR	LR	01 23 31.1	
	comp=E,92nm,18.5s,baz=218,slow=41						
	comp=E,0.9nm,0.3s						
MJAR				AML	AML		
SSLB	Suanglung	10.32	224		Pn	01 19 36.3	+0.7
USRK	Ussuriysk Ar.	12.98	10	LR	LR	01 24 37.1	
	comp=E,79nm,20.5s,baz=182,slow=35						
XLT	XiLinHaoTe	15.99	325	*e*P	P	01 20 57.8	+1.8
XLT				pmax	pmax		
	comp=Z,4.0nm,0.4s						
XLT				pmax	pmax		
	comp=Z,92nm,5.4s						
XLT				LR	LR		
	comp=N,28nm,16.0s						
XLT				LR	LR		
	comp=E,330nm,15.9s						
XLT				LR	LR		
	comp=Z,480nm,15.1s						
ASAJ	Asahikawa	16.67	37	Pn	P	01 21 03.1	-0.4
	comp=Z,0.4nm,0.3s,baz=238,slow=20,SNR=5.2						
ASAJ				LR	LR	01 26 43.2	
	comp=Z,132nm,19.7s,baz=136,slow=34						
	comp=Z,10.0nm,0.8s						
ASAJ				AML	AML		
JKA	Kamikawa-asahi	16.67	37		Pn	01 21 01.2	+0.1
JKA				IAmb	IAmb	01 21 11.9	
	comp=Z,24nm,1.1s						
HHC	Hu-ho-hao-te	16.78	309	*e*P	Pn	01 21 03.0	+0.4
HHC				pmax	pmax		
	comp=Z,6.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,110nm,5.5s						
HHC				LR	LR		
	comp=N,410nm,13.0s						
HHC				LR	LR		
	comp=E,410nm,12.6s						
HHC				LR	LR		
	comp=Z,410nm,13.8s						
KLR	Kul'dur	17.91	6	P	P	01 21 18.0	+0.9
	comp=Z,0.1nm,0.3s,baz=177,slow=13,SNR=6.9						
KLR				LR	LR	01 27 07.6	
	comp=Z,86nm,18.3s,baz=189,slow=34						
	comp=Z,1.8nm,0.7s						
KLR				AML	AML		
LZH	Lanzhou	21.25	289	*e*P	P	01 21 54.6	+0.7
LZH				sP	sP	01 22 01.1	+3.3
LZH				pmax	pmax		
	comp=Z,18nm,1.3s						
LZDM	Lanzhou Array	21.36	289	LR	LR	01 31 09.1	
	comp=Z,251nm,18.0s,baz=135,slow=40						
ULN	Ulaanbaatar	23.33	321	P	P	01 22 15.7	-0.1
SONM	Songino Array	23.66	320	P	P	01 22 19.0	-0.1
	comp=Z,1.6nm,0.7s,baz=133,slow=8.5,SNR=6.8						
SONM				LR	LR	01 32 29.2	
	comp=Z,177nm,21.9s,baz=154,slow=39						
	comp=Z,1.6nm,0.7s						
SONM	Songino Array	23.66	320	P	P	01 22 17.4	-1.7
CMAR	Chiang Mai Arr	29.90	251	P	P	01 23 14.2	-1.3
	comp=Z,0.7nm,0.3s,baz=60,slow=8.4,SNR=4.4						
CMAR				LR	LR	01 35 05.6	
	comp=Z,37nm,18.3s,baz=240,slow=36						
	comp=Z,0.7nm,0.3s						
YAK	Yakutsk	30.61	1	LR	LR	01 34 51.9	
	comp=Z,68nm,18.8s,baz=180,slow=35						
MA2	Magadan	31.76	21	LR	LR	01 36 15.6	
	comp=Z,57nm,19.0s,baz=334,slow=36						
WMQ	Urumqi	34.49	303	*e*P	P	01 23 58.9	+3.3
WMQ				pmax	pmax		
	comp=Z,8.0nm,0.7s						
WMQ				LR	LR		
	comp=N,170nm,11.1s						
WMQ				LR	LR		
	comp=E,250nm,13.1s						
WMQ				LR	LR		
	comp=Z,110nm,18.5s						
ZALV	Zalesovo Beam	38.54	319	P	P	01 24 28.8	-1.2
	comp=Z,0.4nm,0.3s,baz=116,slow=9.8,SNR=1.9						
ZALV				LR	LR	01 41 48.9	
	comp=Z,153nm,18.2s,baz=246,slow=38						
	comp=Z,0.4nm,0.3s						
MKAR	Makanchi Array	38.63	307	P	P	01 24 30.2	-0.7
	comp=Z,1.1nm,0.9s,baz=88,slow=11,SNR=4.8						
MKAR				LR	LR	01 43 29.1	
	comp=Z,46nm,18.3s,baz=90,slow=41						
	comp=Z,1.1nm,0.9s						
MKAR	Makanchi Array	38.63	307	P	P	01 24 30.6	-0.3
TIXI	Tiksi	40.27	0	LR	LR	01 40 45.1	
	comp=Z,61nm,21.2s,baz=206,slow=35						
PDGK	Podgornoye	40.41	301	P	P	01 24 45.7	-0.2
KURBB	Kurchatov Arra	41.58	312	P	P	01 24 54.5	-0.7
	comp=Z,1.8nm,1.0s,baz=98,slow=8.8,SNR=9.4						
KURBB				LR	LR	01 43 46.0	
	comp=Z,212nm,18.6s,baz=188,slow=38						
	comp=Z,1.8nm,1.0s						
TARG	Taragay, Kyrgy	41.69	299	P	P	01 24 55.6	-1.2
TARG				IAmb	IAmb	01 25 02.2	
	comp=Z,3.2nm,0.9s						
AAK	Ala-Archa	44.10	301	LR	LR	01 45 42.7	
	comp=Z,116nm,18.2s,baz=126,slow=39						
NRIK	Noril'sk	44.50	340	P	P	01 25 19.4	+0.8
	comp=Z,2.6nm,0.6s,baz=132,slow=7.8,SNR=5.1						
NRIK				LR	LR	01 43 30.3	
	comp=Z,44nm,19.5s,baz=146,slow=36						
	comp=Z,2.6nm,0.6s						
NRIK	Noril'sk	44.50	340	P	P	01 25 18.8	+0.2
NRIK				IAmb	IAmb	01 25 23.6	
	comp=Z,10.0nm,1.4s						
BVAR	Borovoye Array	46.84	315	P	P	01 25 37.4	0.0
	comp=Z,1.8nm,0.7s,baz=106,slow=9.4,SNR=6.2						
	comp=Z,1.8nm,0.7s						
BORK	Borovoye	46.89	315		P	01 25 38.3	+0.6
BORK				IAmb	IAmb	01 25 45.5	
	comp=Z,3.1nm,0.7s						
KK31	Karatay Array	46.97	302		P	01 25 38.1	-0.4
KKAR	Karatay Array	46.97	302		P	01 25 38.5	-0.1
BTK	Batken	47.12	297	P	P	01 25 40.7	+0.8
BTK				IAmb	IAmb	01 25 45.9	
	comp=Z,6.2nm,1.3s						
FITZ	Fitzroy Crossi	49.35	184	P	P	01 25 57.0	+0.1
FITZ				IAmb	IAmb	01 26 30.5	
	comp=Z,1.5nm,1.2s						
WB0	Warramunga Arr	51.19	173	P	P	01 26 09.9	-1.1
WRA	Warramunga Arr	51.36	173	P	P	01 26 11.9	-0.3
	comp=Z,1.6nm,0.9s,baz=354,slow=7.8,SNR=12						
	comp=Z,1.6nm,0.9s						
WRA	Warramunga Arr	51.36	173	P	P	01 26 10.9	-1.3
AB31	Akbulak array	53.56	311	P	P	01 26 28.3	-0.1
AB31				IAmb	IAmb	01 26 33.0	
	comp=Z,4.3nm,0.8s						
ABKAR	Akbulak array	53.56	311	P	P	01 26 28.2	-0.2
ARTI	Arti	53.80	320	LR	LR	01 52 08.0	
	comp=Z,112nm,18.9s,baz=110,slow=39						
AKTO	Aktyubinsk	54.63	312	LR	LR	01 51 42.2	
	comp=Z,271nm,18.7s,baz=130,slow=38						
ASAR	Alice Springs	55.01	174	P	P	01 26 39.6	+0.4
	comp=Z,1.0nm,0.8s,baz=2.6,slow=14,SNR=20						
	comp=Z,1.0nm,0.8s						
ASAR	Alice Springs	55.01	174	P	P	01 26 38.5	-0.7
KIRV	Kirov	58.37	323	LR	LR	01 54 16.6	
	comp=Z,56nm,18.4s,baz=77,slow=38						
ILAR	Eielson Array	59.65	30	P	P	01 27 11.8	+0.4
	comp=Z,0.3nm,0.6s,baz=264,slow=7.1,SNR=2.4						
	comp=Z,0.3nm,0.6s						
M26K	Nabesna, AK	61.84	32	P	P	01 27 27.7	+1.2
BCAR	Beaver Creek A	62.22	31	P	P	01 27 30.2	+1.2
KBZ	Khabaz	66.32	308	P	P	01 27 55.9	-0.2
	comp=Z,1.8nm,0.8s,baz=62,slow=6.0,SNR=4.3						
	comp=Z,1.8nm,0.8s						
FINES	FINESS Array B	68.61	330	P	P	01 28 09.4	-0.9
	comp=Z,0.8nm,0.7s,baz=86,slow=7.2,SNR=6.1						
	comp=Z,0.8nm,0.7s						
AKASG	Malin Array Be	71.94	319	P	P	01 28 30.3	-0.6
	comp=Z,0.7nm,0.6s,baz=55,slow=6.4,SNR=5.0						
	comp=Z,0.7nm,0.6s						
RAYN	Ar Rayn	72.70	287	P	P	01 28 35.0	-1.0
RAYN				IAmb	IAmb	01 28 37.3	
	comp=Z,4.4nm,1.2s						
BRTR	Keskin Array B	74.28	307	P	P	01 28 45.7	+0.6
	comp=Z,1.0nm,0.8s,baz=99,slow=7.6,SNR=5.4						
	comp=Z,1.0nm,0.8s						
NOA	NORSAR Array B	74.89	333	P	P	01 28 50.2	+2.0
	comp=Z,0.7nm,0.8s,baz=60,slow=5.2,SNR=1.9						
	comp=Z,0.7nm,0.8s						
BURAR	Bucovina Array	75.75	317	P	P	01 28 53.3	-0.1
BURAR				IAmb	IAmb	01 28 59.7	
	comp=Z,1.1nm,0.9s						
NVAR	Mina Array Bea	86.55	46	P	P	01 29 52.2	+1.0
	comp=Z,1.0nm,0.9s,baz=303,slow=5.0,SNR=5.8						
	comp=Z,1.0nm,0.9s						
PDAR	Pinedale Array	88.79	39	P	P	01 30 02.6	+0.7
	comp=Z,1.7nm,0.9s,baz=304,slow=1.1,SNR=8.0						
	comp=Z,1.7nm,0.9s						
PDAR	Pinedale Array	88.79	39	P	P	01 30 00.9	-1.0
ULM	Lac du Bonnet	89.55	27	P	P	01 30 06.1	+1.1
	comp=Z,4.9nm,0.9s,baz=319,slow=5.8,SNR=5.1						
	comp=Z,4.9nm,0.9s						

*NEIC **16** 01:26:45.7±1.6, 54°.10N±0°.06×159°.48W±0°.09, h23^{km}±6^{km}, mb3.6/10, ML3.5/24, ML3.1(AEIC), Error ellipse: s-maj=9.1km s-min=6.7km az=145.0*

*AEIC **16** 01:26:46.5±2.2, 54°.15N±0°.04×159°.54W±0°.09, h32^{km}±6^{km}, Error ellipse: s-maj=8.2km s-min=5.4km az=108.0*

ISC 16 01:26:46.6±1.1**, 54°.09N**±0°.08×**159°.46W**±0°.05**, h35^{km}, n81, σ0^s.89**/87**, South of Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CNBA	Chernabura Isl	0.73	354	Pn	Pn	01 26 59.5	-0.9
CNBA				Sg	Sn	01 27 09.1	-1.3
CNBA				IAML		01 27 11.0	
	comp=N,1μm,0.4s						
CHNA	Chernabura Isl	0.74	354	P	Pn	01 26 59.5	-1.1
CHNA	Chernabura Isl	0.74	354	S	Sn	01 27 07.3	-3.3
SDPT	Sand Point	1.39	335	P	Pn	01 27 08.8	-0.7
SDPT	Sand Point	1.39	335	S	Sn	01 27 26.0	-0.6
SDPT	Sand Point	1.39	335		Pn	01 27 08.7	-0.8
SDPT				Sn	Sn	01 27 25.6	-1.0
SDPT				IAML		01 27 26.1	
	comp=N,568nm,0.7s						
VNKR	Veniaminof 5	1.94	1		Pn	01 27 17.9	+0.8
VNKR					Sn	01 27 41.8	+1.5
PN7A	Pavlof North-7	1.99	313		Pn	01 27 17.9	+0.1
PN7A					Sn	01 27 41.9	+0.3
VNSG	Veniaminof 6	2.05	6		Pn	01 27 19.2	+0.6
VNFG	Fog Glacier, M	2.20	359	Pn	Pn	01 27 20.6	0.0
VNFG	Fog Glacier, M	2.20	359		Sn	01 27 48.6	+2.0
VNFG	Fog Glacier, M	2.20	359	IAML		01 28 03.6	
	comp=N,459nm,1.0s						
CHGN	Chignik	2.29	15		Pn	01 27 21.5	-0.3
CHGN				IAML		01 27 46.8	
	comp=N,164nm,0.1s						
CHGN				IAML		01 27 51.4	
	comp=E,257nm,0.2s						
BPBCA	Veniaminof	2.57	12		Pn	01 27 25.7	+0.1
SSLS	Shishaldin Sou	2.73	285		Pn	01 27 28.7	+0.8
ANPB	Aniakchak Plen	2.80	13		Pn	01 27 29.6	+0.8
R16K	Pilot Point	3.64	16		Pn	01 27 41.0	+0.6
AKBBA	Akutan Broad B	3.81	273		Pn	01 27 43.9	+1.1
AKBBA					Sn	01 28 26.6	+0.3
AKGG	Akutan Green G	3.84	274		Pn	01 27 44.1	+0.9
LVA	Lava Point	3.87	274	Pn	Pn	01 27 40.7	-2.9
LVA				IAML		01 29 41.1	
	comp=E,91nm,2.7s						
SII	Sitkinak Islan	3.90	48	P	Pn	01 27 43.7	-0.2
SII	Sitkinak Islan	3.90	48	S	Sn	01 28 27.8	-0.6
SII	Sitkinak Islan	3.90	48	Pn	Pn	01 27 43.6	-0.2
SII				IAML		01 28 33.1	
	comp=E,102nm,1.7s						
MNAT	Makushin Natee	4.27	270		Pn	01 27 49.7	+0.6
MNAT					Sn	01 28 36.8	-0.8
MSW	Makushin Switc	4.33	271		Pn	01 27 50.7	+0.9
MSW					Sn	01 28 38.2	-0.8
MGOD	Makushin Gods	4.39	269		Pn	01 27 51.7	+0.9
KJL	Kejulik	4.53	27		Pn	01 27 53.0	+0.4
Q17K	Contact Creek	4.63	24		Pn	01 27 54.2	+0.1
ANCK	Angle Creek	4.67	27		Pn	01 27 54.8	+0.2
OHAK	Old Harbor	4.69	46	P	Pn	01 27 54.1	-0.7
OHAK	Old Harbor	4.69	46	Pn	Pn	01 27 54.2	-0.6
MGLS	Mageik Landsli	4.71	29		Pn	01 27 55.9	+0.8
ACHA	Angle Creek He	4.73	28	Pn	Pn	01 27 55.1	-0.3
KABU	Katmai Buttres	4.79	27		Pn	01 27 56.5	+0.2
O15K	Ungalikthiuk R	5.10	358	Pn	Pn	01 28 00.6	+0.2
O15K				IAML		01 29 37.5	
	comp=E,23nm,3.1s						
KARR	Katmai Rainbow	5.15	29		Pn	01 28 01.1	0.0
Q18K	Katmai Hardscr	5.19	27		Pn	01 28 01.8	0.0
O14K	Tigyukauivet M	5.27	350	Pn	Pn	01 28 03.0	+0.3
O14K				IAML		01 28 46.8	
	comp=N,30nm,3.0s						
O14K				IAML		01 31 33.5	
	comp=E,30nm,2.9s						
KDAK	Kodiak Island	5.35	43	Pn	Pn	01 28 03.0	-0.7
KDAK				IAML		01 29 20.0	
	comp=E,22nm,2.6s						
KDAK				IAML		01 30 37.6	
	comp=E,19nm,2.5s						
Q19K	Cape Douglas,	5.82	31	Pn	Pn	01 28 10.6	+0.3
O17K	Koliganek Bris	5.84	12		Pn	01 28 11.3	+0.8
O18K	Koktuh Hills	6.22	20	Pn	Pn	01 28 16.2	+0.3
N17K	Nushagak Hills	6.57	10	Pn	Pn	01 28 20.7	+0.2
N18K	Kilae Creek	6.88	15	Pn	Pn	01 28 25.4	+0.6
M16K	Timber Creek	6.95	2	Pn	Pn	01 28 26.1	+0.3
M17K	Holitna River	7.41	8	Pn	Pn	01 28 32.1	0.0
SLKM	Skilak Lake	8.14	34	Pn	Pn	01 28 42.8	+0.7
K17K	Iditarod	8.67	4	Pn	Pn	01 28 49.2	-0.1
P23K	Montague Islan	8.83	43	Pn	Pn	01 28 51.5	-0.1
PWL	Port Wells	9.04	37		Pn	01 28 53.2	-1.2
KNK	Knik Glacier	9.39	34		Pn	01 28 59.6	+0.4
HIN	Hinchinbrook I	9.43	43		Pn	01 28 59.5	-0.4
GHO	Glory Hole Cre	9.51	32		Pn	01 29 01.2	+0.3
FID	Port Fidalgo	9.66	41	Pn	Pn	01 29 01.2	-1.7
EYAK	Cordova Ski Ar	9.82	43	P	Pn	01 29 05.5	+0.4
KAIM	Kayak Island	10.06	48	Pn	Pn	01 29 09.2	+0.9
BERG	Berg Lake	10.60	47	Pn	Pn	01 29 15.9	+0.2
DHY	Denali Highway	10.97	30	Pn	Pn	01 29 20.4	-0.6
YAH	Yahtse	11.45	50		Pn	01 29 28.1	+0.5
GRNC	Granite Creek	11.61	48	Pn	Pn	01 29 30.4	+0.6
PCA	Pinnacle	12.02	52	Pn	Pn	01 29 36.8	+1.5
PNL	Peninsula	12.28	55	P	Pn	01 29 39.4	+0.6
BCAR	Beaver Creek A	12.83	38	Pn	Pn	01 29 45.6	-0.7
O29M	Mount Kennedy	12.88	53	Pn	Pn	01 29 48.5	+1.5
HYT	Haines Junctio	13.56	51	Pn	Pn	01 29 56.7	+0.4
L29M	L29M	14.25	42	Pn	Pn	01 30 04.7	-1.0
S32K	Killisnoo	14.37	66	Pn	Pn	01 30 06.3	-0.9
R32K	Eaglecrest	14.46	63	Pn	Pn	01 30 07.7	-0.8
WHY	Whitehorse	14.73	54	Pn	Pn	01 30 13.5	+1.2
K29M	Barlow Dome	14.86	40	Pn	Pn	01 30 15.3	+1.4
P32M	Atlin	15.06	58	Pn	Pn	01 30 16.8	+0.2
P32M				IAmb	IAmb	01 30 45.1	
	comp=Z,2.5nm,0.9s						
P33M	Teslin, Yukon	15.62	56	Pn	Pn	01 30 24.6	+0.7
Q32M	Nakina River	15.71	61	Pn	Pn	01 30 26.2	+1.0
H29M	Whitestone	15.94	32	Pn	Pn	01 30 28.5	+0.6
H29M				IAmb	IAmb	01 30 35.1	
	comp=Z,5.5nm,0.8s						
MMPY	Sheldon Lake,	16.95	49		Pn	01 30 41.6	+0.9
MMPY				IAmb	IAmb	01 30 44.3	
	comp=Z,5.2nm,1.4s						
H31M	Peel River	17.04	37	Pn	Pn	01 30 42.1	+0.3
H31M				IAmb	IAmb	01 31 10.4	
	comp=Z,6.6nm,1.2s						
G30M	tAoh Zraii Nji	17.09	32		Pn	01 30 43.1	+0.7
G30M				IAmb	IAmb	01 30 48.3	
	comp=Z,5.8nm,0.7s						
F30M	Barrier River	17.61	31		Pn	01 30 48.9	0.0
F30M				IAmb	IAmb	01 30 49.5	
	comp=Z,6.0nm,1.1s						
G31M	Satah River	17.68	34		Pn	01 30 49.7	+0.1
C36M	Paulatuk	22.20	33	P	P	01 31 40.0	+0.7
ABKAR	Akbulak array	71.81	334	P	P	01 38 04.1	-1.0

OTT 16 02:07:44.1±0.1**, 74°.38N×93°.51W, h18^{km}, MN3.5**/6**, 1C, 53km southeast from Resolute, Nu Boothia Ungava Seismic Zone., Queen Elizabeth Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RES	Resolute Bay	0.48	310	⇑PG	Pg	02 07 53.3	-0.5
RES				SG	Sg	02 07 60.0	-0.4
RES				Trac		02 08 02.3	
	comp=Z,617nm,0.1s						
POIN	Pond Inlet	4.73	103	PN	Pn	02 08 53.8	-0.5
POIN				SN	Sn	02 09 44.6	-4.0
POIN				Trac		02 10 12.9	
	comp=Z,19nm,0.3s						
ILON	Igloolik, Nuna	6.20	138	PN	Pn	02 09 11.7	-2.8
ILON				SN	Sn	02 10 20.6	-4.2
ILON				LG	Lg	02 10 58.1	
ILON				Trac		02 10 59.4	
	comp=Z,34nm,0.4s						
A36M	Sachs Harbour	9.42	271	PN	Pn	02 09 57.9	-0.8
A36M				SN	Sn	02 11 37.9	-5.9
A36M				Trac		02 12 12.5	
	comp=Z,20nm,0.6s						
KUKN	Kugluktuk,NWT	9.54	237	PN	Pn	02 09 59.3	-1.0
KUKN				SN	Sn	02 11 39.3	-7.5
KUKN				Trac		02 12 57.1	
	comp=Z,45nm,0.8s						
BLKN	Baker Lake	10.15	186	PN	Pn	02 10 05.7	-3.0
BLKN				SN	Sn	02 11 56.5	-5.3
BLKN				Trac		02 13 02.1	
	comp=Z,18nm,0.3s						
C36M	Paulatuk	10.66	257	PN	Pn	02 10 15.6	+0.1
C36M				SN	Sn	02 12 07.3	-6.9
C36M				Trac		02 13 40.6	
	comp=Z,648nm,3.9s						

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*IDC **16** 02:34:21.4±7.7, 33°.94S×77°.72E, h0^{km}, mb3.8/6, mbtmp3.8/6, Error ellipse: s-maj=254.4km s-min=35.5km az=37.0*

*NEIC **16** 02:34:22.2±1.1, 34°.0S±0°.2×77°.7E±0°.1, h10^{km}±2^{km}, mb4.6/13, Error ellipse: s-maj=40.2km s-min=8.5km az=158.0*

ISC 16 02:34:21.2±1.1**, 34°.1S**±0°.3×**77°.5E**±0°.2**, h10^{km}, n37, σ0^s.92**/26**, mb4.3**/12**, 1C, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H04N2	CROZET ISLANDS	22.93	231	T	T	03 03 32.6	
	baz=67,slow=74,SNR=7.4						
H04N1	CROZET ISLANDS	22.94	231	T	T	03 03 29.3	
	baz=67,slow=74,SNR=8.2						
H04N3	CROZET ISLANDS	22.95	231	T	T	03 03 31.6	
	baz=67,slow=74,SNR=292						
H04S1	CROZET ISLANDS	23.13	229	T	T	03 03 40.7	
	baz=65,slow=75,SNR=6.8						
H04S3	CROZET ISLANDS	23.14	229	T	T	03 03 43.5	
	baz=65,slow=75,SNR=6.9						
H04S2	CROZET ISLANDS	23.14	229	T	T	03 03 44.3	
	baz=65,slow=75,SNR=7.2						
H01W2	Cape Leeuwin H	30.11	102	T	T	03 11 56.5	
	baz=261,slow=74,SNR=3.4						
H01W3	Cape Leeuwin H	30.11	102	T	T	03 11 53.5	
	baz=261,slow=74,SNR=2.6						
H01W1	Cape Leeuwin H	30.12	102	T	T	03 11 54.1	
	baz=261,slow=74,SNR=3.1						
LBTB	Lobatse	45.63	267	P	P	02 42 43.2	+1.1
LBTB				IAmb	IAmb	02 42 55.4	
	comp=Z,8.1nm,1.2s						
MAKGR	Makgori	45.97	266	P	P	02 42 46.5	+1.7
LKGWB	Lokgwabe	49.63	266	P	P	02 43 11.1	-2.1
ASAR	Alice Springs	49.94	94	P	P	02 43 16.0	+0.5
	comp=Z,0.6nm,0.9s,baz=246,slow=7.4,SNR=4.1						
	comp=Z,0.6nm,0.9s						
WRA	Warramunga Arr	51.97	90	P	P	02 43 30.8	0.0
	comp=Z,1.0nm,0.8s,baz=240,slow=7.9,SNR=4.7						
	comp=Z,1.0nm,0.8s						
TROLL	Troll, Antarti	53.31	202	⇑S	S	02 51 20.3	+8.8
	comp=E,114nm,0.7s						
VNA2	Neumayer--Watz	56.53	203	S	S	02 52 06.0	+11
	baz=245,slow=21						
KBL	Kabul	68.75	353	P	P	02 45 25.6	+0.2
KBL				IAmb	IAmb	02 45 34.2	
	comp=Z,5.6nm,0.9s						
BTK	Batken	74.05	355	P	P	02 45 57.7	+0.5
BTK				IAmb	IAmb	02 46 06.8	
	comp=Z,8.8nm,1.4s						
ARSB	Arslanbob	75.17	356	P	P	02 46 04.3	+0.6
NRN	Naryn	75.18	359	P	P	02 46 04.1	+0.1
NRN				IAmb	IAmb	02 46 12.3	
	comp=Z,7.3nm,1.4s						
PDGK	Podgornoye	77.08	1	P	P	02 46 14.5	-0.1
KK31	Karatay Array	77.10	355	P	P	02 46 15.6	+1.0
KKAR	Karatay Array	77.10	355	P	P	02 46 15.3	+0.8
MKAR	Makanchi Array	80.64	3	P	P	02 46 34.4	+0.4
	comp=Z,0.8nm,0.8s,baz=182,slow=3.6,SNR=5.2						
	comp=Z,0.8nm,0.8s						
MKAR	Makanchi Array	80.64	3	P	P	02 46 34.0	+0.1
KURBB	Kurchatov Arra	84.36	1	P	P	02 46 54.3	+1.2
	comp=Z,0.6nm,0.7s,baz=176,slow=4.9,SNR=5.4						
	comp=Z,0.6nm,0.7s						
AB31	Akbulak array	84.45	349	P	P	02 46 52.6	-1.0
AB31				IAmb	IAmb	02 47 06.5	
	comp=Z,6.0nm,1.4s						
ABKAR	Akbulak array	84.45	349	P	P	02 46 52.4	-1.2
KURK	Kurchatov	84.46	1	P	P	02 46 54.4	+0.8
SONM	Songino Array	85.59	19	P	P	02 47 00.3	+0.8
	comp=Z,0.3nm,0.4s,baz=201,slow=6.2,SNR=4.2						
	comp=Z,0.3nm,0.4s						
SONM	Songino Array	85.59	19	P	P	02 46 59.1	-0.5
ZAA0	Zalesovo Array	87.92	4	P	P	02 47 10.1	-0.5
ZAA0				IAmb	IAmb	02 47 18.3	
	comp=Z,3.5nm,1.1s						
ZALV	Zalesovo Beam	87.92	4	P	P	02 47 11.7	+1.1
	comp=Z,0.4nm,0.3s,baz=199,slow=4.1,SNR=4.5						
	comp=Z,0.4nm,0.3s						
ZALV	Zalesovo Beam	87.92	4	P	P	02 47 09.9	-0.7
N31M	Braeburn, Yuko	145.34	28	PKPbc	PKPab	02 53 58.6	0.0
M31M	Drury Creek, Y	145.42	26	PKPbc	PKPdf	02 53 58.3	-0.4
BESE	Bessie Mountai	147.42	31	PKPbc	PKPbc	02 54 03.9	-0.8

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*IDC **16** 02:36:54.4±1.3, 33°.97S×77°.72E, h0^{km}, mb3.9/8, mbtmp3.9/8, MS3.8/22, Error ellipse: s-maj=45.7km s-min=26.5km az=54.0*

*NEIC **16** 02:36:55.2±1.1, 34°.0S±0°.1×77°.7E±0°.2, h10^{km}±1^{km}, mb4.6/20, Error ellipse: s-maj=23.2km s-min=21.1km az=150.0*

ISC 16 02:36:55.3±0.6**, 34°.0S**±0°.1×**77°.6E**±0°.1**, h10^{km}, n64, σ0^s.68**/35**, mb4.4**/17**, MS3.9**/22**, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H04N2	CROZET ISLANDS	23.05	231	T	T	03 06 04.0	
	baz=68,slow=74,SNR=53						
H04N1	CROZET ISLANDS	23.06	231	T	T	03 06 01.5	
	baz=68,slow=74,SNR=40						
H04N3	CROZET ISLANDS	23.07	231	T	T	03 06 00.3	
	baz=68,slow=74,SNR=50						
H04S1	CROZET ISLANDS	23.25	229	T	T	03 06 18.8	
	baz=66,slow=75,SNR=31						
H04S3	CROZET ISLANDS	23.26	229	T	T	03 06 15.0	
	baz=66,slow=75,SNR=17						
H04S2	CROZET ISLANDS	23.27	229	T	T	03 06 14.5	
	baz=66,slow=75,SNR=19						
FOMA	Nahampoana Res	28.03	281	P	P	02 42 46.0	-0.7
H01W2	Cape Leeuwin H	30.05	102	T	T	03 14 18.3	
	baz=261,slow=74,SNR=8.5						
H01W3	Cape Leeuwin H	30.06	102	T	T	03 14 20.8	
	baz=261,slow=74,SNR=7.1						
H01W1	Cape Leeuwin H	30.07	102	T	T	03 14 19.5	
	baz=261,slow=74,SNR=11						
PALK	Pallekele	41.16	5	LR	LR	02 57 19.5	
	comp=Z,200nm,21.4s,baz=146,slow=30						
BOSA	Boshof	44.63	262	LR	LR	03 00 07.3	
	comp=Z,105nm,21.6s,baz=127,slow=31						
FITZ	Fitzroy Crossi	45.58	82	LR	LR	03 03 38.5	
	comp=Z,238nm,18.4s,baz=238,slow=35						
LBTB	Lobatse	45.71	267	LR	LR	02 59 54.1	
	comp=Z,66nm,21.3s,baz=119,slow=30						
LBTB	Lobatse	45.71	267	P	P	02 45 15.6	-1.2
LBTB				IAmb	IAmb	02 45 23.0	
	comp=Z,7.5nm,1.2s						
SUR	Sutherland	47.01	255	LR	LR	03 01 14.2	
	comp=Z,109nm,18.4s,baz=117,slow=31						
SUR	Sutherland	47.01	255	P	P	02 45 27.3	+0.2
LSZ	Lusaka	48.12	280	LR	LR	03 03 47.2	
	comp=Z,91nm,18.2s,baz=129,slow=33						
KAPI	Kappang	48.57	63	LR	LR	03 04 16.3	
	comp=Z,100nm,19.6s,baz=247,slow=34						
ASAR	Alice Springs	49.87	94	P	P	02 45 49.2	+0.1
	comp=Z,1.3nm,0.9s,baz=234,slow=7.6,SNR=7.0						
ASAR				LR	LR	03 03 12.0	
	comp=Z,115nm,21.4s,baz=234,slow=32						
	comp=Z,1.3nm,0.9s						
WRA	Warramunga Arr	51.89	90	P	P	02 46 03.8	-0.6
	comp=Z,1.9nm,0.9s,baz=242,slow=7.1,SNR=7.3						
	comp=Z,1.9nm,0.9s						
WRA	Warramunga Arr	51.89	90	P	P	02 46 03.7	-0.6
WB0	Warramunga Arr	52.02	89	P	P	02 46 03.5	-1.7
WR8	Warramunga Arr	52.02	90	P	P	02 46 04.4	-0.9
WR8				IAmb	IAmb	02 46 30.6	
	comp=Z,10nm,1.4s						
WIN	Windhoek	53.79	265	P	P	02 46 18.2	-0.3
WIN				IAmb	IAmb	02 46 55.6	
	comp=Z,7.6nm,1.1s						
TSUM	Tsumeb	54.93	269	LR	LR	03 06 58.9	
	comp=Z,122nm,18.3s,baz=328,slow=33						
SNAA	Sanae	55.12	202	LR	LR	03 06 44.6	
	comp=Z,83nm,18.2s,baz=80,slow=32						
VNDA	Vanda	55.85	165	P	P	02 46 33.0	+0.6
	comp=Z,1.1nm,0.8s,baz=284,slow=7.7,SNR=5.0						
VNDA				LR	LR	03 07 57.7	
	comp=Z,170nm,18.5s,baz=272,slow=33						
	comp=Z,1.1nm,0.8s						
VNDA	Vanda	55.85	165	P	P	02 46 32.1	-0.3
CMAR	Chiang Mai Arr	56.00	25	LR	LR	03 07 10.7	
	comp=Z,55nm,20.1s,baz=185,slow=32						
QSPA	South Pole Qui	56.15	180	LR	LR	03 08 58.2	
	comp=Z,137nm,18.1s,baz=288,slow=34						
QSPA	South Pole Qui	56.15	180	P	P	02 46 35.1	+0.2
QSPA				IAmb	IAmb	02 46 51.8	
	comp=Z,11nm,1.4s						
BRDH	Bariadhala	57.94	15	LR	LR	03 11 46.2	
	comp=Z,126nm,19.1s,baz=171,slow=36						
NIL	Nilore	67.42	356	P	P	02 47 50.5	-0.4
KBL	Kabul	68.66	352	P	P	02 47 58.9	0.0
LZDM	Lanzhou Array	73.75	22	LR	LR	03 19 35.5	
	comp=Z,102nm,19.6s,baz=220,slow=35						
BTK	Batken	73.96	355	P	P	02 48 31.4	+0.7
WUS	Wushi	74.85	1	P	P	02 48 35.7	-0.2
WUS				IAmb	IAmb	02 48 39.4	
	comp=Z,9.8nm,1.4s						
ARSB	Arslanbob	75.08	356	P	P	02 48 36.3	-1.0
NRN	Naryn	75.08	359	P	P	02 48 36.5	-1.0
NRN				IAmb	IAmb	02 48 44.8	
	comp=Z,5.2nm,1.2s						
ASF	Jabal al Asfar	76.16	325	LR	LR	03 19 39.4	
	comp=Z,34nm,18.2s,baz=190,slow=34						
AAK	Ala-Archa	76.33	358	LR	LR	03 19 14.2	
	comp=Z,101nm,20.9s,baz=170,slow=33						
AAK	Ala-Archa	76.33	358	P	P	02 48 45.0	+0.6
AAK				IAmb	IAmb	02 48 52.5	
	comp=Z,5.2nm,1.4s						
PDGK	Podgornoye	76.98	1	P	P	02 48 48.0	-0.1
KK31	Karatay Array	77.01	355	P	P	02 48 48.4	+0.3
KK31				IAmb	IAmb	02 48 51.5	
	comp=Z,5.8nm,0.9s						
KKAR	Karatay Array	77.01	355	P	P	02 48 48.7	+0.7
GUMO	Guam	79.52	66	LR	LR	03 18 37.3	
	comp=Z,15nm,20.0s,baz=282,slow=32						
GNI	Garni	79.78	335	LR	LR	03 20 04.9	
	comp=Z,35nm,21.2s,baz=125,slow=32						
MKAR	Makanchi Array	80.54	3	P	P	02 49 07.4	+0.1
	comp=Z,1.2nm,0.8s,baz=165,slow=5.0,SNR=6.6						
	comp=Z,1.2nm,0.8s						
MKAR	Makanchi Array	80.54	3	P	P	02 49 06.8	-0.5
BRTR	Keskin Array B	83.86	327	P	P	02 49 26.5	+1.4
	comp=Z,0.8nm,0.8s,baz=137,slow=5.0,SNR=4.1						
	comp=Z,0.8nm,0.8s						
BRTR	Keskin Array B	83.86	327	P	P	02 49 25.0	-0.1
KURBB	Kurchatov Arra	84.26	1	P	P	02 49 27.6	+0.9
	comp=Z,0.6nm,0.8s,baz=185,slow=4.5,SNR=8.7						
	comp=Z,0.6nm,0.8s						
KURK	Kurchatov	84.36	1	P	P	02 49 27.4	+0.2
AB31	Akbulak array	84.37	348	P	P	02 49 27.2	0.0
AB31				IAmb	IAmb	02 49 39.3	
	comp=Z,6.3nm,1.5s						
ABKAR	Akbulak array	84.37	348	P	P	02 49 26.9	-0.3
SONM	Songino Array	85.47	19	P	P	02 49 34.0	+1.0
	comp=Z,0.3nm,0.4s,baz=197,slow=4.4,SNR=1.8						
	comp=Z,0.3nm,0.4s						
SONM	Songino Array	85.47	19	P	P	02 49 33.1	+0.1
AKTO	Aktyubinsk	85.84	348	LR	LR	03 27 57.7	
	comp=Z,27nm,18.4s,baz=214,slow=36						
ZAA0	Zalesovo Array	87.82	4	P	P	02 49 44.1	-0.1
ZALV	Zalesovo Beam	87.82	4	P	P	02 49 43.8	-0.3
	comp=Z,0.5nm,0.4s,baz=191,slow=2.9,SNR=1.5						
	comp=Z,0.5nm,0.4s						
ZALV	Zalesovo Beam	87.82	4	P	P	02 49 43.7	-0.4
ARTI	Arti	91.51	349	LR	LR	03 28 49.0	
	comp=Z,32nm,18.1s,baz=346,slow=34						
KLR	Kul'dur	95.83	32	LR	LR	03 34 14.9	
	comp=Z,60nm,18.1s,baz=214,slow=36						

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*IDC **16** 02:51:54.1±2.3, 3°.03S×131°.19E, h0^{km}, mb3.7/3, mbtmp3.7/5, ML3.7/2, Error ellipse: s-maj=107.4km s-min=23.8km az=79.0*

*DJA **16** 02:52:00.0±0.3, 3°S±5°×13°1E±°, h10^{km}, M4.1/9, mb5.0/1, MLv3.7/9*

ISC 16 02:51:59.5±0.9**, 3°.61S**±0°.08×**130°.63E**±0°.08**, h31^{km}, n9, σ1^s.89**/11**, Seram**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSAI	Masohi	1.72	279	P	Pb	02 52 31.8	+1.3
MSAI				AML	AML		
FAKI	Fak Fak	1.75	67	P	Pn	02 52 27.4	-0.4
FAKI				S	Sn	02 52 48.9	-0.2
FAKI				AML	AML		
SWI	Sorong	2.80	13	P	Pn	02 52 36.5	-5.7
SWI				AML	AML		
BAKI	Biak	5.97	66	P	Pn	02 53 27.0	+1.2
FITZ	Fitzroy Crossi	15.21	198	Pn	Pn	02 55 34.2	+2.1
	0.2nm,0.3s,baz=20,slow=7.5,SNR=6.6						
FITZ				Sn	Sn	02 58 16.1	-3.7
	baz=205,slow=21						
	0.6nm,0.5s						
FITZ				AML	AML		
WRA	Warramunga Arr	16.63	168	P	P	02 55 53.0	+0.3
	0.3nm,0.3s,baz=352,slow=13,SNR=13						
WRA				S	Sn	02 58 54.5	+0.1
	0.4nm,0.7s,baz=342,slow=23,SNR=2.4						
	0.9nm,0.6s						
WRA				AML	AML		
ASAR	Alice Springs	20.19	171	P	Pn	02 56 36.8	+3.0
	6.7nm,0.5s,baz=351,slow=11,SNR=47						
ASAR				S	S	03 00 17.3	+0.3
	0.3nm,0.5s,baz=350,slow=20,SNR=4.1						
	6.7nm,0.5s						
MKAR	Makanchi Array	65.77	326	P	P	03 02 39.0	-2.7
	0.3nm,0.4s,baz=126,slow=7.3,SNR=2.8						
	0.3nm,0.4s						
KURBB	Kurchatov Arra	69.98	328	P	P	03 03 07.3	-0.7
	0.1nm,0.4s,baz=128,slow=5.7,SNR=2.3						
	0.1nm,0.4s						

HEL 16 04:04:33.8±0.1**, 65°.80N×24°.68E, h0^{km}, ML1.1, Suspected explosion, Finland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TOF	Tornio	0.32	333	PG	Pg	04 04 39.8	-0.1
TOF				SG	Sg	04 04 42.2	-1.7
TOF				smax	smax	04 04 44.7	
	comp=Z,2.9nm,0.2s						
KALU	Kalix	0.55	277	PG	Pg	04 04 43.6	-0.6
KALU				SG	Sg	04 04 51.1	-0.2
OUL	Oulu	0.88	144	PG	Pg	04 04 49.2	-1.5
	baz=324						
RANF	Ranua	0.89	75	PG	Pg	04 04 50.1	-0.8
RANF				SB	Sn	04 05 07.1	-0.1
RNF	Rovaniemi	0.98	33	PB	Pg	04 04 52.4	-0.1
	baz=211						
OBF4	Vikkela, Lumij	1.01	170	PG	Pg	04 04 52.0	-1.1
	baz=351						
OBF4				smax	smax	04 05 04.7	
	comp=Z,0.9nm,0.2s						
ERTU	Ertsjaerv	1.26	308	PB	Pg	04 04 57.6	-0.4
OBF0	Syolatti, Pyha	1.32	188	PG	Pg	04 04 57.4	-1.6
	baz=10.0						
OBF0				smax	smax	04 05 13.7	
	comp=Z,1.0nm,0.2s						
PAJU	Pajala	1.38	334	PN	Pg	04 04 59.5	-0.7
PAJU				SN	Sn	04 05 21.3	+2.0
OUF	Merijarvi	1.44	179	PG	Pn	04 04 59.7	-1.3
OUF				smax	smax	04 05 17.1	
	comp=Z,1.3nm,0.2s						
KLF	Kolari	1.47	349	PN	Pn	04 05 00.9	-0.6
KLF				smax	smax	04 05 17.9	
	comp=Z,1.5nm,0.2s						
KU2	Taivalkoski	1.47	92	PG	Pn	04 04 60.0	-1.5
MSF	Maaselka	1.80	84	SN	Sb	04 05 30.2	-0.5
BURU	Burvik	1.85	230	PG	Pn	04 05 07.0	+0.3
BURU				SG	Sg	04 05 32.8	-0.3
OLKF	Oulanka, Finla	2.00	73	smax	smax	04 05 33.1	
	comp=Z,0.8nm,0.2s						
OLKF				SG	Sb	04 05 35.6	-0.8
LANU	Lannavaara	2.49	336	PG	Pb	04 05 18.0	-1.4
UMAU	Umeaa	2.57	223	PN	Pn	04 05 17.0	+0.3
	baz=43						

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*KOLA **16** 04:05:25.1, 67°.66N×33°.74E, h0^{km}, ML1.5, Error ellipse: s-maj=3.0km s-min=1.6km az=140.0, Khibiny, mines*

Kirovsk, Yukspor

HEL 16 04:05:25.9±0.3**, 67°.65N×33°.71E, h0^{km}, ML1.3, Suspected explosion, Baltic States-Belarus-Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APA	Apatity	0.14	234	P	Pg	04 05 28.2	-0.5
APA0	Apatity Array	0.28	261	P	Pg	04 05 30.4	-0.8
APA0				S	Sg	04 05 34.5	-0.3
LVZ	Lovozero	0.43	55	P	Pg	04 05 32.7	-1.5
LVZ				S	Sg	04 05 39.0	-0.8
LVZ	Lovozero	0.43	55	PG	Pg	04 05 33.4	-0.8
LVZ				SG	Sg	04 05 39.3	-0.5
KVDA	Kovda	1.02	199	S	Sg	04 05 57.1	-1.5
VRF	Varrio	1.57	275	smax	smax	04 05 55.2	
	comp=Z,1.1nm,0.2s						
VRF				SN	Pn	04 05 53.6	-1.4
VRF	Varrio	1.57	275	PG	Pn	04 05 53.6	-1.4
VRF				smax	smax	04 06 12.8	
	comp=Z,1.9nm,0.2s						
VRF				SG	Sn	04 06 13.8	-2.2
TERR	Teriberka	1.64	18	P	Pn	04 05 54.5	-1.5
TERR				S	Sn	04 06 15.5	-2.2
OLKF	Oulanka, Finla	2.16	234	smax	smax	04 06 29.9	
	comp=Z,1.3nm,0.2s						
OLKF				SG	Sb	04 06 33.0	-0.1
RAJF	Raja-Jooseppi	2.19	295	SG	Pb	04 06 05.0	-1.4
RAJF	Raja-Jooseppi	2.19	295	PG	Pb	04 06 05.0	-1.4
RAJF				SB	Sn	04 06 30.0	-1.3
MSF	Maaselka	2.55	229	SG	Sb	04 06 44.0	-0.2
VADS	Vadso	2.94	330	S	Sn	04 06 47.7	-1.9
RNF	Rovaniemi	3.18	254	SB	Sn	04 06 56.4	+0.7
RANF	Ranua	3.19	242	SG	Sb	04 07 05.0	+2.2
KEV	Kevo	3.23	314	PN	Pn	04 06 17.8	0.0
KEV				SN	Sn	04 06 55.7	-1.2
ARA0	ARCESS Array S	3.55	306	SB	Pn	04 06 21.8	-0.5
ARA0	ARCESS Array S	3.55	306	PN	Pn	04 06 21.7	-0.5
ARA0				SN	Sn	04 07 03.8	-1.1
ARCES	ARCESS Array B	3.55	306	P	Pn	04 06 18.9	-3.3
ARCES				S	Sn	04 07 02.8	-2.1
OUL	Oulu	4.07	234	SN	Sn	04 07 14.0	-3.4
KTK1	Kautokeino	4.12	294	SN	Sn	04 07 17.9	-0.8
ERTU	Ertsjaerv	4.63	262	SN	Sn	04 07 30.1	-1.4

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*TEH **16** 04:07:47.0, 34°.60N×46°.19E, h10^{km}±45^{km}, ML2.6, Presumed earthquake*

*ISN **16** 04:07:52.7±0.6, 34°.60N×46°.19E, h10^{km}, ML2.7, Presumed earthquake*

ISC 16 04:07:48.4±1.5**, 34°.66N**±0°.07×**46°.28E**±0°.10**, h15**^{km}±8^{km}**, n9, σ1^{s}31**/11**, Western Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IDHR	Dehrash	0.10	65	Pg	Pg	04 07 51.7	-0.3
IDHR				Sg	Sg	04 07 55.2	+0.9
IGHG	Ghaleghazi	0.41	144	Pg	Pg	04 07 55.9	-0.8
KCHF	Cheshme Sefid,	0.73	121	Pg	Pb	04 08 01.6	-1.4
SNJK	Sanadaj _Korde	1.01	40	Pg	Pn	04 08 08.1	-0.3
ILBA	Ilam Banvizeh	1.03	183	Pg	Pb	04 08 06.1	-2.0
SNQR	Sonqor, Kerman	1.13	79	Pg	Pg	04 08 10.7	+0.4
IBZA	Bozab	1.32	98	Pg	Pb	04 08 13.3	+0.3
IBDR	Badra	1.57	191	*i* P	Pg	04 08 20.5	+1.8
IBDR				*i* S	Sg	04 08 39.8	+0.7
	baz=8.1						
IBDR				IAML		04 08 41.2	
	comp=N,104nm,0.5s						
IBDR				IAML		04 08 41.5	
	comp=E,115nm,0.3s						
IKFM	Kafar-mosalman	1.72	131	Pg	Pb	04 08 20.3	+0.5

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*TAP **16** 04:12:33.6, 24°.15N×122°.48E, h63^{km}, ML3.6, C*

*JMA **16** 04:12:33.5±0.1, 24°.1N±0°.9×122°.5E±0°.3, h59^{km}±2^{km}, MV2.8/15, NW OFF ISHIGAKIJIMA IS*

ISC 16 04:12:33.5±1.2**, 24°.14N**±0°.02×**122°.48E**±0°.02**, h65**^{km}±6^{km}**, n189, σ1^{s}16**/347**, 1C-1D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EOS4	EOS4	0.15	263	*i* P	Pn	04 12 42.9	+0.1
EOS4				*e*S	Sn	04 12 50.0	+0.4
EOS3	EOS3	0.21	314	P	Pn	04 12 43.7	+0.4
EOS3				S	Sn	04 12 51.5	+1.1
EOS2	EOS2	0.36	320	*e*P	Pn	04 12 45.0	+0.6
EOS2				S	Sn	04 12 53.9	+1.6
JYNG	Yonagunijimaku	0.52	54	P	Pn	04 12 46.3	+0.3
JYNG				S	Sn	04 12 55.6	+0.4
YOJ	Yonaguni jima	0.58	56	P	Pn	04 12 46.9	+0.3
YOJ	Yonaguni jima	0.58	56	S	Sn	04 12 55.9	-0.3
YOJ	Yonaguni jima	0.58	56	P	Pn	04 12 47.0	+0.3
YOJ				*i* S	Sn	04 12 56.5	+0.3
YOJ	Yonaguni jima	0.58	56	P	Pn	04 12 47.0	+0.3
YOJ				S	Sn	04 12 56.2	0.0
EHP	Heping Village	0.70	284	*e*P	Pn	04 12 48.1	+0.1
EAHA	Aohua	0.70	286	*i* P	Pn	04 12 48.2	+0.1
EAHA				*i* S	Sn	04 12 59.3	+0.5
ESAO	Su ao	0.73	307	*e*P	Pn	04 12 48.5	+0.1
ESAO				*e*S	Sn	04 12 59.7	+0.5
ENA	Nanau	0.74	293	⇓*e*P	Pn	04 12 45.8	-2.6
ENA				*e*S	Sn	04 12 56.9	-2.5
ETL	Fush Village	0.79	271	*e*P	Pn	04 12 48.8	-0.3
ETL				S	Sn	04 13 00.3	-0.3
NACB	Ninganchiao	0.81	272	P	Pn	04 12 48.9	-0.4
NACB	Ninganchiao	0.81	272	S	Sn	04 12 59.1	-2.0
NACB	Ninganchiao	0.81	272	*i* P	Pn	04 12 49.0	-0.4
NACB				S	Sn	04 13 00.3	-0.8
TWD	Chiawan	0.81	266	*i* P	Pn	04 12 48.7	-0.7
TWD				S	Sn	04 13 00.2	-0.9
HWA	Hwalien	0.82	259	*e*P	Pn	04 12 49.7	+0.2
HWA				*i* S	Sn	04 13 01.4	+0.2
NDS	Dongshan	0.85	305	P	Pn	04 12 50.1	+0.2
NDS				*i* S	Sn	04 13 01.8	-0.2
TEYL	Yanliau Villag	0.85	252	*i* P	Pn	04 12 49.5	-0.3
TEYL				*i* S	Sn	04 13 02.0	0.0
EGS		0.86	324	P	Pn	04 12 50.4	+0.4
EGS				S	Sn	04 13 02.8	+0.6
SHUL	Shoufeng	0.91	248	*i* P	Pn	04 12 50.6	-0.1
SHUL				S	Sn	04 13 03.2	-0.1
ILA	Ilan	0.92	313	P	Pn	04 12 51.1	+0.5
ILA				S	Sn	04 13 03.8	+0.5
ETLH	Xiulin Townshi	0.92	274	*i* P	Pn	04 12 50.4	-0.4
ETLH				*e*S	Sn	04 13 02.7	-0.9
ETM	Tongmen	0.92	259	P	Pn	04 12 50.3	-0.4
ETM				S	Sn	04 13 02.3	-1.2
TWE	Neicheng	0.94	308	P	Pn	04 12 51.4	+0.4
TWE				*e*S	Sn	04 13 04.6	+0.6
LATG	Datong	0.96	294	P	Pn	04 12 51.5	+0.1
LATG				*i* S	Sn	04 13 05.0	+0.5
TEGC	Jichi Village	0.96	244	*e*P	Pn	04 12 51.5	+0.2
TEGC				S	Sn	04 13 04.7	+0.2
TWB1	Santiao Chiao	0.97	332	*e*P	Pn	04 12 50.7	-0.7
TWB1				*e*S	Sn	04 13 03.5	-1.2
LXIB	Xiulin Townshi	0.99	263	*i* P	Pn	04 12 51.3	-0.4
LXIB				*e*S	Sn	04 13 04.2	-0.9
NDT	Datong Townshi	1.00	298	P	Pn	04 12 52.1	+0.4
NDT				S	Sn	04 13 05.5	+0.3
ESL	Shilin	1.01	252	*e*P	Pn	04 12 51.4	-0.5
ESL				*e*S	Sn	04 13 03.9	-1.7
TIPB	Shuangxi	1.02	324	*e*P	Pn	04 12 52.1	0.0
TIPB				S	Sn	04 13 05.7	-0.1
FUSB	Fushanzhiwuyua	1.02	307	*i* P	Pn	04 12 52.8	+0.7
FUSB				S	Sn	04 13 06.6	+0.7
NNSB	Datong	1.04	286	P	Pn	04 12 52.4	0.0
NNSB				*i* S	Sn	04 13 05.9	-0.6
NNSH	Datong	1.04	286	P	Pn	04 12 52.3	-0.1
NNSH				S	Sn	04 13 06.2	-0.3
NNS	Nan Shan	1.06	287	*e*P	Pn	04 12 52.5	-0.1
NNS				S	Sn	04 13 07.0	+0.2
EGFH	Guangfu	1.07	244	P	Pn	04 12 52.4	-0.3
EGFH				S	Sn	04 13 07.3	+0.3
WARBT	Fenglin Townsh	1.09	247	*i* P	Pn	04 12 52.4	-0.5
WARBT				*e*S	Sn	04 13 05.9	-1.4
NWLT	Wulai	1.10	306	*e*P	Pn	04 12 53.9	+0.9
NWLT				*i* S	Sn	04 13 08.5	+0.9
SXI1	Grass Mountain	1.10	330	P	Pn	04 12 53.0	-0.1
SXI1				*i* S	Sn	04 13 06.9	-0.8
WHF	Hehuan Shan	1.11	270	*e*P	Pn	04 12 53.3	-0.3
WHF				S	Sn	04 13 07.6	-0.9
WFSB	Wu-fen Shan	1.13	325	*e*P	Pn	04 12 53.5	+0.1
WFSB				*e*S	Sn	04 13 07.0	-1.2
FUSS	Fushou	1.14	276	P	Pn	04 12 53.9	+0.1
FUSS				S	Sn	04 13 09.1	+0.3
YHNB	Yeheng	1.14	298	P	Pn	04 12 53.9	+0.3
YHNB	Yeheng	1.14	298	S	Sn	04 13 08.6	0.0
YHNB	Yeheng	1.14	298	*i* P	Pn	04 12 54.0	+0.3
YHNB				S	Sn	04 13 08.7	+0.1
IRIF	Iriomote-Funau	1.15	80	P	Pn	04 12 54.2	+0.5
IRIF				S	Sn	04 13 09.2	+0.4
NSK	Sanguang	1.16	298	*e*P	Pn	04 12 54.1	+0.2
NSK				S	Sn	04 13 08.8	-0.2
HGSD	Ruisui	1.17	237	*e*P	Pn	04 12 55.2	+1.4
HGSD				*e*S	Sn	04 13 09.9	+0.9
TWA	Mucha	1.17	316	P	Pn	04 12 54.4	+0.4
TWA				*e*S	Sn	04 13 08.7	-0.6
TNOU	National Taiwa	1.20	327	P	Pn	04 12 54.9	+0.7
TNOU				S	Sn	04 13 09.8	+0.1
NHDH	Xindian Distri	1.20	313	*e*P	Pn	04 12 55.4	+1.1
NHDH				*e*S	Sn	04 13 10.6	+0.8
TWT	Tachien	1.20	276	*e*P	Pn	04 12 55.3	+0.8
TWT				*i* S	Sn	04 13 10.6	+0.4
HATJ	Hateruma jima	1.21	94	P	Pn	04 12 55.4	+1.0
HATJ				*e*S	Sn	04 13 11.5	+1.4
OWD	Renai	1.21	261	*i* P	Pn	04 12 54.5	-0.1
OWD				*i* S	Sn	04 13 09.4	-0.9
TDCB	Techi	1.22	276	P	Pn	04 12 55.1	+0.5
TDCB				*i* S	Sn	04 13 10.6	+0.1
NHY	Taipei	1.22	317	*e*P	Pn	04 12 55.4	+0.8
NHY				*e*S	Sn	04 13 11.2	+0.8
EHYH	Wanrong	1.23	239	*i* P	Pn	04 12 55.0	+0.4
EHYH				*i* S	Sn	04 13 10.8	+0.3
TATO	Taipei	1.23	313	P	Pn	04 12 55.3	+0.6
TATO				S	Sn	04 13 11.3	+0.7
EHY	Hungye	1.24	240	*e*P	Pn	04 12 54.5	-0.3
EHY				*e*S	Sn	04 13 08.9	-1.9
ECBN	Changbin	1.25	229	*e*P	Pn	04 12 55.0	0.0
ECBN				*e*S	Sn	04 13 09.7	-1.4
TAP	Taipei	1.26	315	*e*P	Pn	04 12 55.2	0.0
TAP				S	Sn	04 13 12.0	+0.7
VWDT	VWDT	1.29	253	*i* P	Pn	04 12 55.9	+0.5
VWDT				*i* S	Sn	04 13 11.5	-0.4
NWRT	Kuosheng	1.30	325	P	Pn	04 12 56.3	+0.7
NWRT				*e*S	Sn	04 13 13.1	+1.0
YM01	YM01	1.30	320	P	Pn	04 12 55.5	-0.2
YM01				*e*S	Sn	04 13 11.1	-1.2
YULB	Yu-li	1.32	236	P	Pn	04 12 55.6	-0.3
YULB	Yu-li	1.32	236	S	Sn	04 13 11.7	-1.0
YULB	Yu-li	1.32	236	*i* P	Pn	04 12 55.7	-0.2
YULB				*i* S	Sn	04 13 11.9	-0.8
YM08	YM08	1.32	322	*e*P	Pn	04 12 53.9	-2.0
YM08				S	Sn	04 13 11.3	-1.5
EYUL	Yuli	1.33	234	P	Pn	04 12 56.1	+0.1
EYUL				S	Sn	04 13 13.4	+0.5
ZUZH	Zhuzihu	1.33	320	*e*P	Pn	04 12 54.8	-1.2
ZUZH				*e*S	Sn	04 13 11.2	-1.7
NFF	Wufeng Townshi	1.34	292	*e*P	Pn	04 12 57.2	+1.0
NFF				S	Sn	04 13 13.5	+0.3
TWF1	Yuli	1.34	234	*e*P	Pn	04 12 56.1	-0.1
TWF1				S	Sn	04 13 12.6	-0.6
KSHI	Guanxi Townshi	1.35	298	P	Pn	04 12 57.5	+1.2
KSHI				*i* S	Sn	04 13 15.0	+1.6
ANP	Anpu	1.36	320	*e*P	Pn	04 12 55.2	-1.4
ANP				*e*S	Sn	04 13 14.5	+0.6
TWS1	Kuangyinshan	1.36	315	P	Pn	04 12 57.2	+0.8
TWS1				S	Sn	04 13 14.2	+0.6
CHKH	Chenggong	1.37	227	P	Pn	04 12 56.0	-0.6
CHKH				*i* S	Sn	04 13 12.2	-1.8
NTY	Taoyuan	1.38	309	P	Pn	04 12 57.7	+1.0
NTY				S	Sn	04 13 14.9	+0.9
TWY	Chenhua	1.39	325	P	Pn	04 12 57.6	+0.8
TWY				S	Sn	04 13 14.2	0.0
JKRS	Kuro-shima	1.40	86	P	Pn	04 12 57.6	+0.8
JKRS				*e*S	Sn	04 13 15.3	+0.8
WPL	Puli Township	1.40	265	P	Pn	04 12 57.6	+0.6
WPL				*e*S	Sn	04 13 15.5	+0.8
NJD	Zhudong	1.40	295	P	Pn	04 12 58.0	+1.0
NJD				S	Sn	04 13 15.7	+1.0
DPDB	Guoxing	1.43	266	P	Pn	04 12 57.8	+0.4
DPDB				*e*S	Sn	04 13 16.7	+1.4
LIOB	Emei	1.43	291	*e*P	Pn	04 12 58.5	+1.2
LIOB				S	Sn	04 13 16.8	+1.4
NSTT	Nanjuang	1.44	290	P	Pn	04 12 58.6	+1.1
NSTT				S	Sn	04 13 16.5	+1.0
FULB	Fuli	1.44	230	*e*P	Pn	04 12 57.1	-0.4
FULB				*e*S	Sn	04 13 14.6	-1.0
WCS	Beigang Elemen	1.44	267	*e*P	Pn	04 12 58.3	+0.8
WCS				*e*S	Sn	04 13 17.0	+1.4
NCUH	Zhongli	1.44	305	P	Pn	04 12 57.9	+0.4
SSLB	Suanglung	1.44	256	P	Pn	04 12 57.9	+0.3
SSLB	Suanglung	1.44	256	S	Sn	04 13 17.0	+1.3
SSLB	Suanglung	1.44	256	*e*P	Pn	04 12 57.9	+0.3
SSLB				S	Sn	04 13 15.6	-0.1
CHKT	Chengkung	1.46	225	*e*P	Pn	04 12 56.0	-1.7
CHKT				S	Sn	04 13 14.0	-2.0
SMLT	Sun Moon Lake	1.47	260	*i* P	Pn	04 12 58.8	+0.8
SMLT				S	Sn	04 13 16.9	+0.5
HSN1	Hsinchu	1.48	296	*e*P	Pn	04 12 58.1	+0.1
HSN1				S	Sn	04 13 17.4	+0.9
TYC	Yuchr	1.51	261	*e*P	Pn	04 12 59.2	+0.9
TYC				S	Sn	04 13 17.6	+0.5
HSN	Hsinchu	1.53	296	P	Pn	04 12 58.9	+0.2
HSN				S	Sn	04 13 17.8	+0.1
PCYT	Pengchaiyu	1.53	346	*e*P	Pn	04 12 59.1	+0.4
PCYT				S	Sn	04 13 18.4	+0.8
JIJ	Ishigaki jima	1.53	81	P	Pn	04 12 59.0	+0.3
JIJ				*e*S	Sn	04 13 17.5	-0.2
EHD	Haiduan	1.53	230	*e*P	Pn	04 12 58.9	+0.1
EHD				S	Sn	04 13 18.8	+1.0
YUS	Yu-Shan	1.55	246	P	Pn	04 12 59.9	+0.6
YUS				S	Sn	04 13 18.3	-0.5
WHYT	Xinyi Township	1.56	254	*i* P	Pn	04 13 00.2	+1.1
WHYT				*e*S	Sn	04 13 20.5	+2.1
ECS	Chishang	1.56	228	P	Pn	04 12 59.8	+0.7
ECS				S	Sn	04 13 18.8	+0.3
NHW	Xinwu Township	1.57	304	P	Pn	04 12 59.8	+0.6
NHW				S	Sn	04 13 19.5	+0.9
NJN	Zhunan	1.57	290	P	Pn	04 12 59.9	+0.8
NJN				*e*S	Sn	04 13 19.2	+0.7
TWQ1	Liyutan	1.58	278	*e*P	Pn	04 13 00.1	+0.8
TWQ1				S	Sn	04 13 20.5	+1.7
EDH	Donghe	1.59	223	P	Pn	04 12 59.0	-0.5
EDH				S	Sn	04 13 17.1	-2.0
NSY	Sanyi	1.60	280	P	Pn	04 13 00.5	+0.9
NSY				S	Sn	04 13 20.9	+1.6
WWF	Wufeng	1.64	267	P	Pn	04 13 02.0	+1.9
WWF				*e*S	Sn	04 13 21.9	+1.7
WJS	Zhushan	1.64	259	S	Sn	04 13 23.5	+3.2
ELDTW	Lidau	1.65	235	*e*P	Pn	04 13 00.3	-0.1
ELDTW				*i* S	Sn	04 13 19.7	-1.0
TCU	Taichung	1.65	271	*e*P	Pn	04 13 00.7	+0.4
TCU				*e*S	Sn	04 13 23.5	+2.9
ALS	Alishan	1.66	248	*e*P	Pn	04 13 02.2	+1.5
ALS				S	Sn	04 13 21.9	+0.7
WNT1	Nantou City	1.67	262	*e*P	Pn	04 13 00.3	-0.2
WNT1				S	Sn	04 13 24.0	+3.0
WNT	Mingjian	1.67	261	*e*P	Pn	04 13 02.4	+1.9
WNT				*e*S	Sn	04 13 24.3	+3.3
WDJ	Dajia District	1.70	277	P	Pn	04 13 02.0	+1.1
WDJ				S	Sn	04 13 22.6	+0.9
JISG	Ishigakijimahi	1.72	75	P	Pn	04 13 01.6	+0.3
JISG				*e*S	Sn	04 13 21.9	-0.5
CHN5	Tsauling	1.74	252	*e*P	Pn	04 13 03.1	+1.5
CHN5				S	Sn	04 13 24.6	+1.7
LONT	Longtian	1.75	226	P	Pn	04 13 00.8	-0.8
LONT				S	Sn	04 13 22.2	-0.8
WYL	Yuanlin Townsh	1.75	265	P	Pn	04 13 03.0	+1.4
WYL				*e*S	Sn	04 13 23.8	+0.8
WCH1	Changhua City	1.77	268	P	Pn	04 13 02.9	+1.0
WCH1				*e*S	Sn	04 13 24.1	+0.6
WWCA	Taichung City	1.79	274	P	Pn	04 13 03.2	+1.0
WWCA				S	Sn	04 13 25.0	+1.0
WGK	Gukeng	1.82	256	*e*P	Pn	04 13 04.5	+1.9
WGK				*e*S	Sn	04 13 26.0	+1.4
WDL	Douliou City	1.83	257	P	Pn	04 13 03.9	+1.2
WDL				*e*S	Sn	04 13 25.8	+0.9
STYH	Taoyuan	1.84	239	*i* P	Pn	04 13 04.0	+1.2
STYH				*e*S	Sn	04 13 25.8	+0.7
TWGBT	Beinan	1.84	225	P	Pn	04 13 03.0	+0.1
TWGBT	Beinan	1.84	225	S	Sn	04 13 24.9	-0.4
TWGBT	Beinan	1.84	225	*e*P	Pn	04 13 02.7	-0.2
TWGBT				S	Sn	04 13 24.1	-1.2
TWG	Pinlang	1.85	225	*e*P	Pn	04 13 02.7	-0.3
TWG				*e*S	Sn	04 13 23.6	-1.7
TTN	Taitung	1.85	222	*e*P	Pn	04 13 04.4	+1.4
TTN				*e*S	Sn	04 13 26.8	+1.5
WCKO	Fanlu	1.86	248	*i* P	Pn	04 13 05.2	+2.1
WCKO				*i* S	Sn	04 13 28.0	+2.4
STYT	Tauyuan	1.86	239	⇑P	Pn	04 13 04.3	+1.1
STYT				S	Sn	04 13 26.7	+0.9
TPUB	Ta-pu	1.89	244	P	Pn	04 13 05.6	+2.0
TPUB	Ta-pu	1.89	244	S	Sn	04 13 27.5	+1.0
TPUB	Ta-pu	1.89	244	P	Pn	04 13 05.6	+2.0
TPUB				*e*S	Sn	04 13 29.1	+2.6
CHN4	Tsaushan	1.90	246	P	Pn	04 13 05.5	+1.8
CHN4				*e*S	Sn	04 13 30.5	+3.7
WTP	Ta-pu	1.93	243	P	Pn	04 13 06.0	+1.8
WTP				*e*S	Sn	04 13 30.5	+3.0
CHN2	Minshiung	1.94	252	*e*P	Pn	04 13 05.6	+1.4
CHN2				*e*S	Sn	04 13 28.5	+1.0
WRL	Guolierlin Hig	1.94	263	*e*P	Pn	04 13 06.0	+1.7
WRL				*e*S	Sn	04 13 29.6	+2.0
RLNB	Erlin	1.96	263	*e*P	Pn	04 13 05.2	+0.7
RLNB				*e*S	Sn	04 13 29.8	+1.8
WTK	Tuku	1.97	257	*e*P	Pn	04 13 06.2	+1.6
WTK				*e*S	Sn	04 13 29.9	+1.6
TWK	Hsinying	2.03	245	P	Pn	04 13 07.5	+2.1
TWK				*e*S	Sn	04 13 31.8	+2.0
CHN1	Nanshi	2.03	242	*e*P	Pn	04 13 07.5	+2.1
CHN1				*i* S	Sn	04 13 32.8	+3.0
WTCT	Ta-ch'eng	2.03	263	*e*P	Pn	04 13 06.6	+1.2
SLGT	Liugui	2.04	236	P	Pn	04 13 07.4	+1.9
SLGT				S	Sn	04 13 30.9	+1.0
SGST	Jiashian	2.04	239	*e*P	Pn	04 13 06.8	+1.3
SGST				S	Sn	04 13 32.0	+2.0
SNST	Tainan City	2.04	244	*e*P	Pn	04 13 05.7	+0.1
SNST				*e*S	Sn	04 13 30.7	+0.7
JTJ	Tarama	2.08	76	P	Pn	04 13 06.9	+0.8
JTJ				S	Sn	04 13 30.7	-0.4
ECL	Taimali	2.08	223	P	Pn	04 13 05.4	-0.8
ECL				S	Sn	04 13 29.6	-1.5
WMLT	Mailiao	2.10	261	*e*S	Sn	04 13 32.6	+1.3
WSL	Shuilin Townsh	2.16	254	P	Pn	04 13 08.7	+1.5
WSL				*e*S	Sn	04 13 33.6	+0.8
ICHU	Yijhu	2.17	249	P	Pn	04 13 08.7	+1.4
ICHU				S	Sn	04 13 35.0	+2.0
SSD	Sandimen	2.20	231	*e*P	Pn	04 13 09.2	+1.5
SSD				*e*S	Sn	04 13 35.7	+1.9
SCST	Cishan	2.21	236	P	Pn	04 13 10.8	+2.9
SCST				*e*S	Sn	04 13 35.5	+1.2
TSMG	Majia	2.21	230	*e*P	Pn	04 13 10.0	+2.1
TSMG				S	Sn	04 13 35.2	+1.0
CHN8	Yiju	2.23	250	P	Pn	04 13 08.9	+0.8
CHN8				*e*S	Sn	04 13 35.3	+0.8
SSHA	Shanhua	2.25	244	P	Pn	04 13 09.4	+1.0
SSHA				*e*S	Sn	04 13 36.1	+1.1
LAY	Lan-yu	2.26	203	*e*P	Pn	04 13 07.4	-1.2
LAY				*e*S	Sn	04 13 34.1	-1.4
MASBT	Mashibuluo	2.28	229	P	Pn	04 13 09.7	+0.8
MASBT				*e*S	Sn	04 13 35.0	-0.9
LYUB	Lan-yu	2.29	201	*i* P	Pn	04 13 07.9	-1.0
LYUB				*e*S	Sn	04 13 34.6	-1.4
TAW	Tawu	2.30	220	P	Pn	04 13 08.8	-0.3
TAW				S	Sn	04 13 35.5	-0.8
EAST	Anshuo	2.31	221	P	Pn	04 13 08.4	-0.8
EAST				S	Sn	04 13 34.8	-1.8
SGLT	Jiouru	2.31	233	*e*P	Pn	04 13 10.5	+1.2
TAWH	Dawu Township	2.32	220	*e*P	Pn	04 13 10.3	+0.9
TAWH				*e*S	Sn	04 13 37.0	+0.3
SCZT	Fangliau	2.46	225	*e*P	Pn	04 13 13.3	+2.1
SCZT				*e*S	Sn	04 13 38.8	-1.4
SLIU	Shizi	2.46	219	*e*P	Pn	04 13 10.7	-0.6
SLIU				*e*S	Sn	04 13 39.1	-1.3
WSSB	Gushan	2.53	234	*e*P	Pn	04 13 13.6	+1.3
TWP	Hsiaoliuchiu	2.65	228	*e*P	Pn	04 13 15.2	+1.3
TSEB	Hengchuen, Pin	2.67	214	P	Pn	04 13 14.8	+0.7
TSEB				S	Sn	04 13 46.7	+1.4
TWKBT	Hengchun	2.68	215	P	Pn	04 13 14.8	+0.5
TWKBT				S	Sn	04 13 46.0	+0.5
SNW	Nanwan	2.69	217	*e*P	Pn	04 13 16.1	+1.6
WDGT	Dungji	2.73	252	P	Pn	04 13 15.7	+0.7
WDGT				S	Sn	04 13 47.1	+0.2
PHUB	P'eng-hu	2.74	257	*e*P	Pn	04 13 16.0	+1.0
PHUB				*e*S	Sn	04 13 47.7	+0.7
PNG	Penghu	2.74	259	P	Pn	04 13 15.7	+0.6
VWUC	VWUC	2.89	288	*e*P	Pn	04 13 16.5	-0.6
VCHM	Qimei	2.95	252	P	Pn	04 13 18.9	+0.9
VCHM				S	Sn	04 13 51.3	-0.9
MATB	Ma-tsu	3.05	312	*e*P	Pn	04 13 19.2	-0.1
MSUT	Lienchiang	3.08	312	P	Pn	04 13 20.0	+0.3
MSUT				*e*S	Sn	04 13 52.9	-2.4
PTMZ	Houxiangcun	3.19	287	*e*P	Pn	04 13 20.2	-1.0
LYJJ	Jianjiangzhen	3.44	315	*e*P	Pn	04 13 24.4	-0.2
LYJJ				*e*S	Sn	04 14 02.1	-2.0
XPSS	Dashiqiu	3.46	324	P	Pn	04 13 25.2	+0.3
XPSS				*e*S	Sn	04 14 02.8	-2.0
MHZQ	Yeshan	3.69	303	P	Pn	04 13 28.3	+0.3
KNM	Kinmen	3.71	275	P	Pn	04 13 30.5	+2.2
KNMB	Chin-men Tao	3.75	276	*e*P	Pn	04 13 27.9	-1.0
KNMB				*e*S	Sn	04 14 08.7	-3.1
AXDP	Jialang	4.18	281	*e*P	Pn	04 13 34.3	-0.4
ZPLA	Ao Xicun	4.33	268	*e*P	Pn	04 13 36.2	-0.6
ZPLA				S	Sn	04 14 24.5	-1.6
DSXP	Dongshan	4.65	266	P	Pn	04 13 41.7	+0.5
DSXP				*e*S	Sn	04 14 32.2	-1.7
SXFK	Yanhouchang	4.92	298	*e*P	Pn	04 13 44.4	-0.6
SXFK				*e*S	Sn	04 14 37.4	-3.3
JOW	Kunigami	5.88	62	*e*P	Pn	04 13 57.0	-1.0

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*IDC **16** 04:28:35.9±0.8, 11°.53N×124°.31E, h0^{km}, mb4.0/11, mbtmp4.1/12, ML3.4/1, MS3.4/20, Error ellipse: s-maj=32.6km s-min=14.9km az=72.0*

*MAN **16** 04:28:37.0, 11°.65N×124°.28E, h11^{km}, MS3.8*

MAN INTENSITY III - KAWAYAN ALMERIA NAVAL AND BILIRAN BILIRAN; . INTENSITY II - CULABA BILIRAN; VILLABA AND LEYTE LEYTE.

*NEIC **16** 04:28:37.6±1.6, 11°.63N±0°.07×124°.13E±0°.08, h10^{km}±1^{km}, mb4.5/13, Error ellipse: s-maj=17.3km s-min=4.1km az=130.0*

ISC 16 04:28:36.9±1.2**, 11°.61N**±0°.03×**124°.23E**±0°.03**, h10**^{km}±8^{km}**, n70, σ1^{s}47**/70**, mb4.3**/17**, MS3.5**/18**, Leyte**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLP	Palo	0.86	121	*e*P	Pg	04 28 52.8	-0.7
PLP				*e*S	Sn	04 29 08.9	+1.1
MMPH	Masbate	0.95	322	*e*P	Pg	04 28 55.6	+0.5
MMPH				*e*S	Sn	04 29 09.7	-0.2
LLP	Lapu-Lapu	1.31	191	*e*P	Pn	04 29 01.5	+0.1
LLP				*i* S	Sg	04 29 20.4	+1.3
GUIM	Jordan	1.88	239	*e*P	Pn	04 29 10.1	+0.9
GUIM				*i* S	Sn	04 29 31.5	-1.5
TBP	Tagbilaran	1.94	191	*e*P	Pn	04 29 10.4	+0.4
TBP				*i* S	Sn	04 29 35.8	+1.2
PVCP	Virac	1.97	358	*i* P	Pn	04 29 11.5	+1.1
PVCP				*i* S	Sn	04 29 34.6	-0.6
IBAJ	Ibajay, Aklan	2.02	276	*e*P	Pb	04 29 14.7	+0.9
IBAJ				*e*S	Sg	04 29 43.4	+1.4
JAP	San Jose, Anti	2.40	249	*e*P	Pb	04 29 20.2	0.0
SNPH	Sibulan	2.46	203	*i* P	Pn	04 29 18.2	+1.1
SNPH				*i* S	Sg	04 29 58.0	+2.1
LSIP	Lazi, Siquijor	2.54	193	*e*P	Pn	04 29 18.8	+0.6
LSIP				*e*S	Sn	04 29 49.0	-0.2
GLSP	General Luna,	2.61	134	*e*P	Pn	04 29 20.9	+1.8
GLSP				*e*S	Sb	04 29 56.2	+0.4
GQP	Guinayangan	2.87	323	*e*P	Pn	04 29 21.2	-1.5
GQP				*i* S	Sb	04 30 01.6	-1.7
DCPH	Dipolog City	3.13	196	*i* P	Pn	04 29 26.9	+0.5
DCPH				*i* S	Sn	04 30 05.1	+1.2
CGP	Cagayan de Oro	3.17	172	*e*P	Pn	04 29 28.8	+1.8
CGP				*e*S	Sb	04 30 12.0	-0.1
PAGZ	Pagadian	3.83	193	*i* P	Pn	04 29 38.0	+1.9
PAGZ				*i* S	Sn	04 30 16.2	-4.9
BIPH	Bislig	4.00	148	*e*P	Pb	04 29 45.8	-1.8
BIPH				*i* S	Sn	04 30 29.9	+4.5
CTBH	Cotabato--PC H	4.36	180	*i* P	Pn	04 29 46.0	+2.6
CDOP	Cateel, Davao	4.38	150	*i* P	Pn	04 29 41.2	-2.4
CDOP				*e*S	Sn	04 29 56.3	-39

KCP	Kidapawan	4.65	169	eP	Pg	04 30 03.4	-2.7
DAV	Davao City (W)	4.71	163	Pn	Pn	04 29 49.9	+1.8
SBUM	Sibu	14.99	233	Pn	Pn	04 32 08.2	-0.8
JMZ	Minamidaito 2	15.60	24	Pn	Pn	04 32 16.9	-0.1
JOW	Kunigami	15.61	14	Pn	P	04 32 19.6	-1.9
	0.3nm,0.3s,baz=231,slow=6.5,SNR=5.4						
JOW				LR	LR	04 37 55.3	
	comp=Z,84nm,20.4s,baz=224,slow=36						
	17nm,0.9s						
JOW				AML	AML		
JOW	Kunigami	15.61	14		Pn	04 32 17.4	+0.2
JOW				IAmb	IAmb	04 32 25.3	
	comp=Z,22nm,1.0s						
KAPI	Kappang	17.11	195	LR	LR	04 39 53.6	
	comp=Z,154nm,18.8s,baz=336,slow=40						
GUMO	Guam	20.24	82	LR	LR	04 39 08.2	
	comp=Z,77nm,20.1s,baz=269,slow=31						
IPM	Ipoh	24.03	255		P	04 33 51.5	-0.9
IPM				IAmb	IAmb	04 33 54.2	
	comp=Z,14nm,0.8s						
CMAR	Chiang Mai Arr	25.33	289	P	P	04 34 06.4	+2.2
	comp=Z,1.2nm,0.3s,baz=97,slow=8.1,SNR=4.9						
CMAR				LR	LR	04 43 11.5	
	comp=Z,39nm,20.6s,baz=180,slow=34						
	comp=Z,1.2nm,0.3s						
CMAR	Chiang Mai Arr	25.33	289	P	P	04 34 02.4	-1.9
KSRS	Korea Array	25.95	7	P	P	04 34 09.9	+0.3
	comp=Z,0.6nm,0.4s,baz=173,slow=11,SNR=5.3						
KSRS				LR	LR	04 43 39.2	
	comp=Z,36nm,20.4s,baz=190,slow=35						
	comp=Z,0.6nm,0.4s						
MJAR	Matsushiro Arr	27.84	25	LR	LR	04 45 18.7	
	comp=Z,59nm,18.4s,baz=212,slow=36						
WB0	Warramunga Arr	32.75	162	P	P	04 35 09.6	-0.6
WB0				IAmb	IAmb	04 35 47.2	
	comp=Z,5.3nm,1.1s						
WRAB	Tennant Creek	32.89	162	P	P	04 35 10.7	-0.8
WRAB				IAmb	IAmb	04 35 12.9	
	comp=Z,7.3nm,1.1s						
WRA	Warramunga Arr	32.90	162	P	P	04 35 10.2	-1.4
	comp=Z,1.3nm,0.8s,baz=341,slow=9.6,SNR=6.0						
	comp=Z,1.3nm,0.8s						
WRA	Warramunga Arr	32.90	162	P	P	04 35 09.8	-1.8
BRDH	Bariadhala	32.95	294	LR	LR	04 50 35.3	
	comp=Z,132nm,18.7s,baz=136,slow=40						
WR8	Warramunga Arr	32.96	162	P	P	04 35 11.2	-0.9
WR8				IAmb	IAmb	04 35 35.2	
	comp=Z,9.3nm,1.4s						
ASAJ	Asahikawa	36.05	23	LR	LR	04 50 14.1	
	comp=Z,39nm,19.9s,baz=272,slow=36						
ASAR	Alice Springs	36.32	165	P	P	04 35 40.9	-0.2
	comp=Z,1.3nm,0.5s,baz=347,slow=8.4,SNR=12						
	comp=Z,1.3nm,0.5s						
ASAR	Alice Springs	36.32	165	P	P	04 35 40.5	-0.6
SONM	Songino Array	39.09	341	P	P	04 36 04.9	+0.5
	comp=Z,0.9nm,0.7s,baz=146,slow=9.0,SNR=4.5						
SONM				LR	LR	04 52 12.1	
	comp=Z,52nm,21.0s,baz=114,slow=36						
	comp=Z,0.9nm,0.7s						
SONM	Songino Array	39.09	341	P	P	04 36 04.5	+0.1
HNR	Honiara	41.21	119	LR	LR	04 51 24.2	
	comp=Z,45nm,21.2s,baz=9.5,slow=33						
STKA	Stephens Creek	46.33	159	P	P	04 37 03.5	+0.2
	comp=Z,2.2nm,0.6s,baz=326,slow=11,SNR=6.4						
	comp=Z,2.2nm,0.6s						
PETK	Petropavlovsk-	49.28	26	P	P	04 37 26.9	+0.9
	comp=Z,3.1nm,0.8s,baz=246,slow=7.2,SNR=4.0						
	comp=Z,3.1nm,0.8s						
PETK	Petropavlovsk-	49.28	26	P	P	04 37 26.4	+0.4
MKAR	Makanchi Array	49.75	323	P	P	04 37 31.1	+1.4
	comp=Z,2.9nm,0.7s,baz=124,slow=8.5,SNR=17						
	comp=Z,2.9nm,0.7s						
MKAR	Makanchi Array	49.75	323		P	04 37 31.2	+1.6
PDGK	Podgornoye	49.86	318	P	P	04 37 31.1	+0.4
YAK	Yakutsk	50.49	3	LR	LR	04 58 54.9	
	comp=Z,37nm,20.1s,baz=199,slow=36						
ZALV	Zalesovo Beam	52.50	332	P	P	04 37 50.5	+0.4
	comp=Z,0.5nm,0.4s,baz=139,slow=7.7,SNR=3.8						
	comp=Z,0.5nm,0.4s						
ZALV	Zalesovo Beam	52.50	332	P	P	04 37 50.0	-0.1
KURK	Kurchatov	53.83	326		P	04 37 59.0	-1.0
KURK				IAmb	IAmb	04 38 03.2	
	comp=Z,7.4nm,1.0s						
KURBB	Kurchatov Arra	53.84	326	P	P	04 38 01.2	+1.2
	comp=Z,1.4nm,0.2s,baz=122,slow=7.0,SNR=13						
	comp=Z,1.4nm,0.2s						
SEY	Seymchan	55.04	15	LR	LR	05 02 11.0	
	comp=Z,45nm,20.1s,baz=150,slow=37						
KK31	Karatay Array	55.88	315	P	P	04 38 14.2	-0.8
KKAR	Karatay Array	55.88	315		P	04 38 14.2	-0.8
KKAR				PcP	PcP	04 39 14.6	+0.8
BVAR	Borovoye Array	59.43	326	P	P	04 38 41.3	+1.5
	comp=Z,1.2nm,0.6s,baz=109,slow=6.9,SNR=3.7						
	comp=Z,1.2nm,0.6s						
TIXI	Tiksi	60.06	2	LR	LR	05 05 01.9	
	comp=Z,51nm,20.6s,baz=219,slow=36						
NRIK	Noril'sk	62.23	346	LR	LR	05 09 32.2	
	comp=Z,46nm,18.2s,baz=180,slow=39						
ATKA	Atka Island	63.60	37	P	P	04 39 08.2	+0.2
AB31	Akbulak array	64.56	319		P	04 39 15.6	+1.3
AB31				IAmb	IAmb	04 39 17.7	
	comp=Z,2.1nm,0.8s						
ABKAR	Akbulak array	64.56	319	P	P	04 39 13.7	-0.6
AIS	Amsterdam Isla	65.75	219	P	P	04 39 22.1	-0.1
AKTO	Aktyubinsk	66.02	320	LR	LR	05 10 39.1	
	comp=Z,58nm,19.3s,baz=204,slow=38						
BRTR	Keskin Array B	83.13	309	LR	LR	05 21 06.5	
	comp=Z,20nm,20.6s,baz=115,slow=38						
RES	Resolute Bay	90.53	10	LR	LR	05 25 41.0	
	comp=Z,17nm,19.1s,baz=20,slow=38						
NOA	NORSAR Array B	90.67	333	LR	LR	05 24 57.0	
	comp=Z,35nm,19.7s,baz=80,slow=37						
VRAC	Vranov	92.47	321	LR	LR	05 25 45.6	
	comp=Z,20nm,18.1s,baz=38,slow=37						
MBAR	Mbarara	93.54	270	LR	LR	05 26 04.3	
	comp=Z,19nm,18.1s,baz=130,slow=37						

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*SDD **16** 04:34:02.7±2.2, 18.°03N×71.°50W, h47^{km}±56^{km}, MD2.7, ML1.4, MW2.2, Presumed earthquake*

*OSPL **16** 04:34:16.2±1.3, 18.°30N×71.°67W, h3^{km}±999^{km}, ML1.3, Presumed earthquake*

ISC 16 04:34:13.0±1.3, **18.°37N**±0.°07×**71.°63W**±0.°07, **h23**^{km}±9^{km}, **n6**, σ**1.^{s}74**/8, **3C-2D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LODU1	El Espartillar	0.15	96	i P	Pn	04 34 19.1	-0.8
LODU1				eS	Sb	04 34 22.4	+1.1
LODU1				IAML		04 34 25.4	
	comp=Z,58nm,0.2s						
NEDR	Neiba UASD	0.23	61	⇑ePg	Pb	04 34 13.2	-5.8
NEDR				⇑eSg	Sb	04 34 24.0	+1.0
NEDR				IAML		04 34 28.6	
	comp=N,16nm,0.2s						
JIDR	Jimani	0.24	300	⇑ePg	Pb	04 34 17.2	-1.9
JIDR				⇓eSg	Sb	04 34 25.3	+2.2
JIDR				IAML		04 35 10.7	
	comp=N,23nm,3.0s						
LONE3	El Aguacate, B	0.29	35	i P	Pn	04 34 22.2	+0.3
LONE3				eS	Sn	04 34 28.2	+0.7
LONE3				IAML		04 34 29.9	
	comp=Z,19nm,1.4s						
PODR	Polo	0.39	121	⇓ePg	Pb	04 34 12.3	-9.1
LOVI	El Cajuil, Ovi	0.62	156	i P	Pn	04 34 27.1	+0.7
LOVI				IAML		04 34 37.2	
	comp=Z,34nm,1.0s						

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*CATAC **16** 04:48:28.1±0.8, 14°N±8°×9°2W±°, h30^{km}±7^{km}, M3.0/8, MLv3.0/8, Error ellipse: s-maj=18.1km s-min=6.2km az=23.9, confirmed*

*GCG **16** 04:48:28.5±1.2, 14.°06N×91.°57W, h45^{km}±31^{km}, MD3.8, Presumed earthquake*

*SNET **16** 04:48:35.0±4.3, 14.°04N×91.°10W, h79^{km}, ML2.8, Presumed earthquake*

ISC 16 04:48:26.3±2.9, **14.°0N**±0.°1×**91.°6W**±0.°1, **h23**^{km}±18^{km}, **n17**, σ**1.^{s}21**/25, **Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STG8	El Palmar, Qui	0.56	28	i P	Pn	04 48 42.1	+3.0
RTAL	Retalhuleu	0.57	353	P	Pn	04 48 39.9	+0.8
RTAL				S	Sn	04 48 46.6	-1.2
ESSG	Sabana Grande	0.88	61	i P	Pb	04 48 43.4	+0.5
ESSG				i S	Sn	04 48 54.2	-1.2
SMCA	Catarina	1.00	334	i P	Pn	04 48 44.7	-0.2
FG16	Alotenango, Sa	1.12	73	i P	Pn	04 48 44.2	-2.7
APG	El Apazote	1.53	47	i P	Pb	04 48 53.5	-0.6
FAME	Alcaldia de Sa	1.56	94	P	Pn	04 48 52.6	-0.1
FAME				S	Sn	04 49 10.7	-1.5
SLOZ	Alcaldia de Sa	1.79	87	P	Pn	04 48 56.7	+1.0
SLOZ				S	Sb	04 49 19.9	-0.5
NUBE	Las Nubes	1.79	91	i P	Pn	04 48 56.4	+0.5
NUBE	Las Nubes	1.79	91	eP	Pn	04 48 56.2	+0.2
NUBE	Las Nubes	1.79	91	P	Pn	04 48 56.5	+0.5
NUBE				S	Sn	04 49 18.5	+0.5
CEVE	Cerro Verde	1.94	93	eP	Pn	04 48 59.1	+1.0
CEVE				eS	Sn	04 49 23.1	+1.1
CEVE	Cerro Verde	1.94	93	P	Pn	04 48 59.3	+1.1
UNIC	Universidad Ca	2.01	89	P	Pn	04 48 59.9	+1.0
JAYA	Jayaque - finc	2.13	98	eP	Pn	04 49 01.0	+0.4
JAYA				eS	Sn	04 49 26.7	+0.2
JAYA	Jayaque - finc	2.13	98	P	Pn	04 49 00.6	0.0
JAYA				S	Sn	04 49 26.4	-0.1
PMON	Piamonte	2.25	96	P	Pn	04 49 03.6	+1.3

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*NEIC **16** 04:49:41.6±0.6, 24.°38S±0.°05×179.°9E±0.°2, h528^{km}±10^{km}, mb4.4/15, Error ellipse: s-maj=22.6km s-min=7.4km az=88.0*

*IDC **16** 04:49:43.0±2.7, 24.°13S×179.°76E, h550^{km}±30^{km}, mb3.0/5, mbtmp3.9/6, Error ellipse: s-maj=37.8km s-min=21.1km az=149.0*

ISC 16 04:49:40.2±0.8, **24.°3S**±0.°1×**179.°9E**±0.°1, **h517**^{km}, **n24**, σ**1.^{s}04**/24, **mb4.0**/13, **South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	Nonsavu	6.79	345	P	P	04 51 26.5	+1.3
	3.3nm,0.4s,baz=287,slow=22,SNR=6.2						
QRZ	Quartz Range	17.57	199	P	P	04 53 15.8	+0.2
THZ	Tophouse	18.33	197	P	P	04 53 22.4	-0.2
THZ				IAmb	IAmb	04 53 52.2	
	comp=Z,38nm,1.2s						
EIDS	Eidsvold	26.16	262	P	P	04 54 33.7	+0.6
EIDS				IAmb	IAmb	04 55 11.9	
	comp=Z,5.1nm,1.1s						
CTAO	Charters Tower	31.39	271	P	P	04 55 19.9	+1.2
CTAO				IAmb	IAmb	04 55 50.8	
	comp=Z,15nm,1.2s						
TAU	Tasmania Unive	32.58	227	P	P	04 55 28.3	-0.2
TAU				IAmb	IAmb	04 55 43.5	
	comp=Z,37nm,1.1s						
MCQ	Macquarie Isla	33.93	202	P	P	04 55 40.4	+0.8
STKA	Stephens Creek	34.48	249	P	P	04 55 45.3	+0.5
	comp=Z,1.5nm,0.6s,baz=86,slow=8.5,SNR=4.3						
	comp=Z,1.5nm,0.6s						
BBOO	Buckleboo	39.20	247	P	P	04 56 23.0	-0.5
BBOO				IAmb	IAmb	04 56 26.4	
	comp=Z,24nm,1.4s						
ASAR	Alice Springs	41.88	261	P	P	04 56 44.9	-0.3
	comp=Z,1.1nm,0.7s,baz=99,slow=7.4,SNR=8.3						
	comp=Z,1.1nm,0.7s						
WR8	Warramunga Arr	42.14	267	P	P	04 56 46.8	-0.5
WR8				IAmb	IAmb	04 57 20.4	
	comp=Z,11nm,1.4s						
WB0	Warramunga Arr	42.29	267	P	P	04 56 48.1	-0.3
WB0				IAmb	IAmb	04 56 50.7	
	comp=Z,5.8nm,1.1s						
WRA	Warramunga Arr	42.29	267	P	P	04 56 47.9	-0.6
	comp=Z,2.6nm,0.5s,baz=98,slow=8.3,SNR=53						
	comp=Z,2.6nm,0.5s						
WRA	Warramunga Arr	42.29	267	P	P	04 56 46.7	-1.7
FORT	Forrest	46.08	250	P	P	04 57 16.7	-0.9
FORT				IAmb	IAmb	04 57 48.4	
	comp=Z,15nm,1.2s						
FITZ	Fitzroy Crossi	50.71	266	P	P	04 57 52.1	-0.2
QSPA	South Pole Qui	65.75	180	P	P	04 59 34.1	+0.7
	comp=Z,0.7nm,0.9s,baz=34,slow=6.5,SNR=3.2						
	comp=Z,0.7nm,0.9s						
QSPA	South Pole Qui	65.75	180	P	P	04 59 34.0	+0.5
DLV	Lat	78.45	289	P	P	05 00 47.4	-0.7
MHC	Mount Hamilton	82.36	43	P	P	05 01 08.3	+0.3
MHC				IAmb	IAmb	05 01 36.8	
	comp=Z,10nm,1.4s						
TXAR	Lajitas Array	90.73	58	P	P	05 01 48.9	+0.8
	comp=Z,0.4nm,0.7s,baz=206,slow=7.5,SNR=4.8						
	comp=Z,0.4nm,0.7s						
TXAR	Lajitas Array	90.73	58	P	P	05 01 48.1	-0.1
HFS	Hagfors	142.96	349	PKP	PKPdf	05 08 11.2	-3.1
	comp=Z,1.3nm,0.4s,baz=23,slow=2.2,SNR=11						
EKA	Eskdalemuir Ar	148.96	3	PKPbc	PKPbc	05 08 28.0	-1.2
	comp=Z,0.4nm,0.4s,baz=354,slow=3.2,SNR=4.5						

IDC 16 05:10:00.9±8.8, **4.°89S**×**145.°79E**, **h153**^{km}±91^{km}, **mb3.2**/2, **mbtmp3.8**/4, **Error ellipse: s-maj=90.1km s-min=31.2km az=137.0, Near north coast of New Guinea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	4.69	163	P	Pn	05 11 10.3	-0.1
	5.5nm,0.4s,baz=230,slow=20,SNR=1.6						
PMG				S	Sn	05 12 05.0	+0.6
	15nm,0.5s,baz=126,slow=22,SNR=7.1						
WRA	Warramunga Arr	18.66	216	P	P	05 14 07.3	+0.1
	2.4nm,0.4s,baz=37,slow=11,SNR=46						
ASAR	Alice Springs	21.90	210	P	P	05 14 42.0	0.0
	1.8nm,0.6s,baz=44,slow=7.8,SNR=28						
	1.8nm,0.6s						
ILAR	Eielson Array	84.95	23	P	P	05 22 18.5	0.0
	0.2nm,0.6s,baz=262,slow=5.9,SNR=2.9						
	0.2nm,0.6s						

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*IDC **16** 05:55:56.4±3.5, 37.°16S×178.°88E, h0^{km}, mb4.2/3, mbtmp4.2/3, MS3.6/2, Error ellipse: s-maj=78.2km s-min=26.4km az=128.0*

*NEIC **16** 05:55:56.4±2.0, 37.°82S±0.°09×179.°22E±0.°06, h10^{km}±2^{km}, mb4.4/8, Error ellipse: s-maj=16.1km s-min=7.6km az=13.0*

*NOU **16** 05:55:58.0, 37.°85S×179.°05E, h0^{km}, mb4.4/12, Off E. Coast of N. Island, N.Z.*

*WEL **16** 05:56:02.9±1.0, 38°S±5°×17°9E±°, h25^{km}±3^{km}, M4.0/13, ML4.1/13, MLv4.0/13, Error ellipse: s-maj=8.0km s-min=6.3km az=58.8, confirmed*

ISC 16 05:55:58.2±1.9, **37.°61S**±0.°05×**179.°14E**±0.°08, **h29**^{km}±10^{km}, **n180**, σ**1.^{s}66**/197, **mb4.2**/7, **Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ECLS	East Cape Ligh	0.47	260	P	Pn	05 56 11.5	+2.4
WMGZ	Waiomatatini S	0.61	250	P	Pn	05 56 12.5	+1.5
WMGZ				S	Sn	05 56 19.6	-0.2
WMGZ				AML	AML		
WMGZ				AML	AML		
TDHS	Te Araroa Dist	0.61	268	P	Pn	05 56 11.6	+0.6
TDHS				S	Sn	05 56 18.9	-0.9
MXZ	Matakaoa Point	0.66	274	P	Pb	05 56 11.0	-0.2
MXZ	Matakaoa Point	0.66	274	S	Sb	05 56 18.0	-2.1
MXZ	Matakaoa Point	0.66	274		Pb	05 56 11.3	0.0
MXZ	Matakaoa Point	0.66	274	P	Pb	05 56 11.2	0.0
MXZ				S	Sb	05 56 17.5	-2.6
MXZ				AML	AML		
MXZ				AML	AML		
PUZ	Puketiti	0.83	236	P	Pb	05 56 16.2	+2.0
PUZ				S	Sn	05 56 26.1	+0.7
PUZ				AML	AML		
PUZ				AML	AML		
PKGZ	Pakihiroa	0.88	253	P	Pb	05 56 15.7	+0.8
PKGZ				S	Sn	05 56 25.0	-1.5
PKGZ				AML	AML		
PKGZ				AML	AML		
TWGZ	Tauwhareparae	1.08	238	P	Pb	05 56 19.6	+1.3
TWGZ				S	Sb	05 56 32.5	+0.5
TWGZ				AML	AML		
TWGZ				AML	AML		
HAZ	Te Kaha	1.08	262	P	Pb	05 56 18.3	0.0
HAZ				S	Sn	05 56 29.3	-2.2
HAZ				AML	AML		
HAZ				AML	AML		
CNGZ	Carnagh Statio	1.14	220	P	Pb	05 56 21.9	+2.6
CNGZ				S	Sb	05 56 38.0	+4.3
CNGZ				AML	AML		
CNGZ				AML	AML		
RUGZ	Raukumara Rang	1.21	253	P	Pb	05 56 20.3	-0.2
RUGZ				S	Sb	05 56 34.2	-1.6
RUGZ				AML	AML		
RUGZ				AML	AML		
TKGZ	Te Karaka	1.31	231	P	Pb	05 56 22.6	+0.4
TKGZ				S	Sb	05 56 37.8	-0.8
TKGZ				AML	AML		
TKGZ				AML	AML		
MWZ	Matawai	1.46	240	P	Pn	05 56 24.1	+1.3
MWZ				AML	AML		
MWZ				AML	AML		
RIGZ	Rimuhau	1.54	224	P	Pn	05 56 26.0	+2.2
RIGZ				S	Sb	05 56 44.5	-0.7
RIGZ				AML	AML		
RIGZ				AML	AML		
WIZ	White Island	1.55	273	P	Pn	05 56 24.8	+0.9
WIZ				S	Sn	05 56 39.9	-3.2
WIZ				AML	AML		
WIZ				AML	AML		
RAGZ	Rawiri	1.62	236	P	Pn	05 56 26.6	+1.6
RAGZ				AML	AML		
RAGZ				AML	AML		
PRGZ	Paritu Road	1.64	217	P	Pn	05 56 27.6	+2.5
PRGZ				AML	AML		
PRGZ				AML	AML		
URZ	Urewera	1.73	247	Pn	Pn	05 56 27.8	+1.6
	125nm,0.3s,baz=79,slow=9.4,SNR=550						
URZ				Sn	Sn	05 56 47.2	-0.3
	279nm,0.3s,baz=132,slow=17,SNR=51						
URZ				LR	LR	05 57 28.8	
	comp=Z,395nm,18.4s,baz=51,slow=52						
URZ	Urewera	1.73	247	P	Pn	05 56 27.9	+1.6
URZ	Urewera	1.73	247	S	Sn	05 56 47.1	-0.3
URZ	Urewera	1.73	247	P	Pn	05 56 27.9	+1.6
URZ				S	Sn	05 56 46.8	-0.6
URZ				AML	AML		
URZ				AML	AML		
WHRZ	Whale Island	1.73	261	P	Pn	05 56 27.7	+1.3
WHRZ				S	Sn	05 56 46.1	-1.5
WHRZ				AML	AML		
WHRZ				AML	AML		
MHGZ	Mahia Peninsul	1.82	212	P	Pn	05 56 30.3	+2.8
KNZ	Kokohu	1.82	219	P	Pn	05 56 29.3	+1.7
EDRZ	Edgecumbe	1.96	255	P	Pn	05 56 30.8	+1.2
RTZ	Ruatahuna	1.98	239		Pn	05 56 31.7	+1.9
RTZ	Ruatahuna	1.98	239	P	Pn	05 56 31.8	+2.0
MARZ	Manawahe	1.99	258	P	Pn	05 56 30.8	+0.9
MUGZ	Murupara	2.06	244	P	Pn	05 56 32.2	+1.3
RAHZ	Arahi	2.08	230	P	Pn	05 56 33.2	+2.1
WHHZ	Waihua	2.09	225	P	Pn	05 56 33.4	+2.1
TARZ	Mount Tarawera	2.17	253	P	Pn	05 56 34.1	+1.5
MTHZ	Maungataniwha	2.19	235	P	Pn	05 56 34.8	+2.0
RRRZ	Republican Roa	2.20	250	P	Pn	05 56 34.1	+1.3
TGRZ	Tauranga	2.29	266	P	Pn	05 56 34.3	+0.3
KARZ	Kaharoa	2.33	259	P	Pn	05 56 35.4	+0.8
MYRZ	Mayor Island	2.33	277	P	Pn	05 56 36.4	+1.8
MYRZ				AML	AML		
MYRZ				AML	AML		
PRRZ	Plateau Road	2.34	247	P	Pn	05 56 35.9	+1.1
ARHZ	Aropaoanui	2.36	225	P	Pn	05 56 37.1	+2.1
NMHZ	Naumai	2.36	230	P	Pn	05 56 37.1	+2.1
HRRZ	Handcock Road	2.38	250	P	Pn	05 56 36.6	+1.2
NGRZ	Ngongotaha	2.39	257	P	Pn	05 56 37.3	+1.9
HSRZ	Hossack Road	2.39	252	P	Pn	05 56 37.1	+1.7
ALRZ	Allen Road	2.40	246	P	Pn	05 56 36.9	+1.3
MRHZ	Matea Rd	2.47	239	P	Pn	05 56 38.0	+1.4
WPRZ	Whakapapatarin	2.52	248	P	Pn	05 56 38.7	+1.5
BKZ	Black Stump Fm	2.59	232	P	Pn	05 56 39.9	+1.6
BKZ	Black Stump Fm	2.59	232	S	Sn	05 57 08.9	0.0
BKZ	Black Stump Fm	2.59	232	P	Pn	05 56 39.9	+1.6
CKHZ	Cape Kidnapper	2.60	218	P	Pn	05 56 39.6	+1.2
MCHZ	McNeill Hill	2.65	226	P	Pn	05 56 40.8	+1.8
WHTZ	Whakaora	2.72	246	P	Pn	05 56 42.1	+2.1
KUTZ	Kaahu Road	2.76	250	P	Pn	05 56 41.7	+1.1
KWHZ	Kaweka Forest	2.79	229	P	Pn	05 56 42.4	+1.4
KAHZ	Kahuranaki	2.81	218	P	Pn	05 56 42.8	+1.6
TOZ	Tahuroa Road	2.89	267		Pn	05 56 42.4	+0.1
TOZ	Tahuroa Road	2.89	267	P	Pn	05 56 42.5	+0.3
WATZ	Wairara	2.90	247	P	Pn	05 56 44.3	+1.9
RITZ	Rihia Road	2.92	241	P	Pn	05 56 44.2	+1.5
RATZ	Rangitukua	2.93	244	P	Pn	05 56 44.6	+1.6
KRHZ	Kereru	2.97	226	P	Pn	05 56 44.3	+0.9
PXZ	Pawanui	3.00	216	P	Pn	05 56 44.6	+0.8
KATZ	Kakaramea	3.03	242	P	Pn	05 56 45.9	+1.5
BHHZ	Black Hill Sta	3.05	231	P	Pn	05 56 45.7	+1.1
TMVZ	Te Maari	3.09	240	P	Pn	05 56 46.3	+1.1
ETVZ	East Tongariro	3.09	239	P	Pn	05 56 46.4	+1.1
NTVZ	North Tongarir	3.10	240	P	Pn	05 56 46.5	+1.2
KRVZ	Karewarewa	3.12	241	P	Pn	05 56 46.8	+1.2
OTVZ	Oturere	3.14	239	P	Pn	05 56 47.0	+1.1
SNVZ	South Ngauruho	3.17	239	P	Pn	05 56 47.5	+1.2
WTVZ	West Tongariro	3.17	241	P	Pn	05 56 47.6	+1.4
NGZ	Ngauruhoe	3.19	240	P	Pn	05 56 47.5	+1.0
TUVZ	Tukino	3.20	238	P	Pn	05 56 47.7	+1.0
MOVZ	Moawhango	3.20	235	P	Pn	05 56 47.4	+0.7
MKAZ	Moumakai	3.21	278	P	Pn	05 56 47.0	+0.3
WPHZ	Waipukurau	3.23	220	P	Pn	05 56 47.8	+0.8
COVZ	Chateau Observ	3.24	240	P	Pn	05 56 48.3	+1.1
GRZ	Great Barrier	3.25	294	P	Pn	05 56 47.8	+0.6
WHVZ	Whangaehu Hut	3.25	238	P	Pn	05 56 48.3	+0.8
PNHZ	Pukenui	3.25	224	P	Pn	05 56 47.6	+0.3
TWVZ	Taurewa	3.25	242	P	Pn	05 56 48.5	+1.1
MAVZ	Matarangi	3.26	238	P	Pn	05 56 48.6	+0.9
WNVZ	Wahianoa	3.26	237	P	Pn	05 56 48.5	+0.9
TRVZ	Turoa	3.28	238	P	Pn	05 56 48.8	+0.8
PRHZ	Porangahau	3.29	216	P	Pn	05 56 48.5	+0.6
WIAZ	Waiheke Island	3.30	283	P	Pn	05 56 48.5	+0.5
MTVZ	Mangateitei	3.38	237	P	Pn	05 56 50.2	+1.1
PKVZ	Pokaka	3.42	239	P	Pn	05 56 51.0	+1.4
ETAZ	East Tamaki Re	3.42	280	P	Pn	05 56 50.5	+0.9
TSZ	Takapari Road	3.48	224	P	Pn	05 56 50.3	-0.2
MBAZ	Motutapu North	3.49	283	P	Pn	05 56 51.4	+0.8
HIZ	Hauiti	3.50	254	P	Pn	05 56 52.4	+1.8
HIZ	Hauiti	3.50	254		Pn	05 56 52.4	+1.8
HIZ	Hauiti	3.50	254	P	Pn	05 56 52.4	+1.8
ANWZ	Angora Road	3.52	215	P	Pn	05 56 51.1	+0.1
ABAZ	Army Bay	3.59	285	P	Pn	05 56 52.9	+1.0
HBAZ	Herne Bay Bore	3.60	281	P	Pn	05 56 53.3	+1.3
AWAZ	Awhitu Peninsu	3.62	277	P	Pn	05 56 53.7	+1.3
WTAZ	Waiatarua	3.70	279	P	Pn	05 56 56.5	+3.0
RVAZ	Riverhead Bore	3.73	282	P	Pn	05 56 55.2	+1.3
VRZ	Vera Road	3.76	245	P	Pn	05 56 56.0	+1.7
BFZ	Birch Farm	3.80	215	Pn	Pn	05 56 54.4	-0.5
BFZ					Sn	05 57 36.7	-1.9
BFZ	Birch Farm	3.80	215	P	Pn	05 56 54.8	-0.1
POWZ	Post Office Ro	3.82	222	P	Pn	05 56 55.1	0.0
PRWZ	Pori Road	3.84	219	P	Pn	05 56 56.1	+0.8
WAZ	Wanganui	3.89	235	P	Pn	05 56 57.6	+1.5
TIWZ	Tintock	4.05	218	P	Pn	05 56 58.2	0.0
MRZ	Mangatainoka R	4.12	221		Pn	05 56 58.3	-0.8
MRZ	Mangatainoka R	4.12	221	P	Pn	05 56 58.5	-0.7
DREZ	Durham Road	4.19	246	P	Pn	05 57 02.6	+2.5
WCZ	Waipu Caves	4.19	292	P	Pn	05 57 00.9	+0.7
PREZ	Palmer Road	4.27	245	P	Pn	05 57 04.1	+2.7
NEZ	North Egmont	4.29	246	P	Pn	05 57 04.3	+2.6
TMWZ	Te Maipa	4.30	215	P	Pn	05 57 01.1	-0.7
HOWZ	Holdsworth Sta	4.32	219	P	Pn	05 57 01.2	-0.8
PKE	Pukeiti	4.34	247	P	Pn	05 57 05.2	+2.9
KHEZ	Kahui Hut	4.36	246	P	Pn	05 57 05.2	+2.6
KHEZ	Kahui Hut	4.36	246	S	Sn	05 57 54.8	+2.4
KHEZ	Kahui Hut	4.36	246	P	Pn	05 57 05.0	+2.5
OGWZ	Otaki Gorge	4.44	223	P	Pn	05 57 02.7	-1.0
NBEZ	Newall Road No	4.46	247	P	Pn	05 57 07.1	+3.3
KIW	Kapiti Island	4.62	224	P	Pn	05 57 04.9	-1.2
TRWZ	Traveller	4.63	214	P	Pn	05 57 03.3	-2.9
CAW	Cannon Point	4.71	221	P	Pn	05 57 05.7	-1.6
PAWZ	Paruwai Farm	4.74	216	P	Pn	05 57 06.6	-1.1
MSWZ	Moikau Station	4.84	217	Pn	Pn	05 57 07.5	-1.6
MSWZ	Moikau Station	4.84	217	P	Pn	05 57 07.2	-2.0
PLWZ	Palliser	4.96	216	Pn	Pn	05 57 08.4	-2.4
PLWZ					Sn	05 58 03.0	-4.3
PLWZ	Palliser	4.96	216	P	Pn	05 57 08.9	-1.9
BHW	Baring Head	5.03	220	Pn	Pn	05 57 10.3	-1.3
BHW					Sn	05 58 04.7	-4.1
SNZO	South Karori	5.04	221	P	Pn	05 57 09.8	-2.0
SNZO	South Karori	5.04	221	Pn	Pn	05 57 10.3	-1.5
SNZO					Sn	05 58 04.8	-4.3
OUZ	Omahuta	5.07	296	P	Pn	05 57 13.7	+1.5
DUWZ	D’Urville Isla	5.15	230	P	Pn	05 57 12.1	-1.3
TCW	Tory Channel	5.21	225	Pn	Pn	05 57 11.9	-2.2

TCW	Tory Channel	5.21	225	P	Pn	05 57 11.9	-2.2
TUWZ	Tuamarina	5.54	225	Pn	Pn	05 57 17.4	-1.3
TUWZ	Tuamarina	5.54	225	P	Pn	05 57 17.8	-0.9
NNZ	Nelson	5.73	229	Pn	Pn	05 57 20.4	-0.9
NNZ	Nelson	5.73	229	P	Pn	05 57 19.4	-2.0
BSWZ	Blackbirch Sta	5.77	223	P	Pn	05 57 19.9	-2.0
TKNZ	Takaka Hill	5.88	233	P	Pn	05 57 21.7	-1.8
QRZ	Quartz Range	6.05	236	P	Pn	05 57 24.1	-1.7
QRZ	Quartz Range	6.05	236	Pn	Pn	05 57 25.4	-0.4
QRZ	Quartz Range	6.05	236	P	Pn	05 57 23.8	-1.9
MRNZ	Matariki Terra	6.22	231	Pn	Pn	05 57 26.3	-1.7
MRNZ	Matariki Terra	6.22	231	P	Pn	05 57 26.0	-2.0
THZ	Tophouse	6.35	227	P	Pn	05 57 27.8	-2.1
KHZ	Kahutara	6.44	220	P	Pn	05 57 29.6	-1.5
KHZ	Kahutara	6.44	220	Pn	Pn	05 57 31.3	+0.3
KHZ	Kahutara	6.44	220	P	Pn	05 57 29.8	-1.3
DSZ	Denniston Nort	7.00	232	Pn	Pn	05 57 37.6	-1.2
DSZ	Denniston Nort	7.00	232	P	Pn	05 57 36.0	-2.8
GVZ	Greta Valley S	7.10	219	P	Pn	05 57 39.7	-0.4
LTZ	Lake Taylor	7.37	223	Pn	Pn	05 57 43.1	-0.7
LTZ	Lake Taylor	7.37	223	P	Pn	05 57 41.0	-2.8
AMCZ	Amberley	7.44	220	P	Pn	05 57 42.6	-2.2
OKCZ	Okains Bay	7.65	215	P	Pn	05 57 45.4	-2.4
MQZ	McQueen's Vall	7.83	217	P	Pn	05 57 47.0	-3.2
AKCZ	Akaroa Harbour	7.84	215	P	Pn	05 57 47.9	-2.4
OXZ	Oxford	7.86	221	P	Pn	05 57 48.3	-2.4
MHCZ	Mount Hutt	8.25	222	P	Pn	05 57 53.8	-2.2
WACZ	Wakanui South	8.40	219	P	Pn	05 57 55.4	-2.6
RPZ	Rata Peaks	8.65	223	Pn	Pn	05 58 00.5	-1.0
ODZ	Otahua Downs	9.79	218	Pn	Pn	05 58 16.1	-0.9
STKA	Stephens Creek	31.23	269	P	P	06 02 16.5	+1.2
	2.3nm,0.7s,baz=101,slow=10,SNR=4.5						
STKA				LR	LR	06 12 41.2	
	comp=Z,89nm,19.5s,baz=206,slow=32						
	2.3nm,0.7s						
BBOO	Buckleboo	35.29	265	P	P	06 02 51.1	+0.4
AS31	Alice Springs	40.94	277	P	P	06 03 38.8	+0.3
AS31				IAmb	IAmb	06 03 39.4	
	comp=Z,1.9nm,0.5s						
ASAR	Alice Springs	40.94	277	P	P	06 03 38.3	-0.1
	comp=Z,3.8nm,0.7s,baz=124,slow=8.3,SNR=55						
	comp=Z,3.8nm,0.7s						
FORT	Forrest	42.37	264	P	P	06 03 49.2	-0.7
FORT				IAmb	IAmb	06 04 16.2	
	comp=Z,21nm,1.3s						
WR8	Warramunga Arr	42.46	282	P	P	06 03 50.8	-0.1
WR8				IAmb	IAmb	06 04 12.7	
	comp=Z,8.8nm,1.4s						
WRA	Warramunga Arr	42.59	282	P	P	06 03 51.6	-0.3
	comp=Z,0.7nm,0.4s,baz=123,slow=7.0,SNR=27						
	comp=Z,0.7nm,0.4s						
WRA	Warramunga Arr	42.59	282	IAmb	IAmb	06 03 52.8	
	comp=Z,0.3nm,1.3s						
WB0	Warramunga Arr	42.65	282	P	P	06 03 52.6	+0.3
WB0				IAmb	IAmb	06 04 30.1	
	comp=Z,11nm,1.5s						
FITZ	Fitzroy Crossi	50.43	277	P	P	06 04 54.1	+0.7
BELA	Belgrano 2	62.97	172	P	P	06 06 21.4	-0.3
SNAA	Sanae	71.01	179	LR	LR	06 37 03.8	
	comp=Z,49nm,18.4s,baz=94,slow=34						
FINES	FINESS Array B	150.83	333	PKPbc	PKPbc	06 15 48.4	+1.5
	comp=Z,1.2nm,0.8s,baz=45,slow=3.0,SNR=1.8						

NNC 16 06:01:30.8±8.1**, 36°.87N×69°.75E, h124**^{km}±146^{km}**, mb3.4, mpv4.2, 2C-2D, Error ellipse: s-maj=68.7km s-min=52.3km az=9.0, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IUG	Iuzhnay	5.27	2	Pg	Pn	06 02 50.3	+2.8
	101nm,0.3s						
IUG				Lg	Lg	06 03 51.2	
	212nm,0.9s						
BRLS	Borolday	6.15	1	Pg	Pn	06 02 57.8	-1.5
	5.6nm,0.2s						
BRLS				Lg	Lg	06 04 04.0	
	13nm,0.2s						
KK31	Karatay Array	6.25	5	Pn	Pn	06 03 00.7	+0.1
	4.2nm,0.3s,baz=185,slow=13,SNR=67						
KK31				⇓Sn	Sn	06 04 12.2	+1.5
	8.6nm,0.4s,baz=189,slow=24						
MRKS	Merke	6.45	23	Pg	Pn	06 03 02.7	-0.6
	6.5nm,0.2s						
MRKS				Lg	Lg	06 04 13.4	
	47nm,0.5s						
AAK	Ala-Archa	6.82	31	⇑Pn	Pn	06 03 09.7	+1.3
	1.0nm,0.4s						
AAK				⇓Sn	Sn	06 04 23.8	-0.9
	26nm,0.8s						
SGDS	Sogindy	7.56	28	P	Pn	06 03 16.5	-1.8
	3.4nm,0.2s						
KST	Kastek	7.79	36	Pg	Pn	06 03 19.3	-2.2
	1.6nm,0.3s						
KST				Lg	Lg	06 04 42.7	
	13nm,0.5s						
MK31	Makanchi Array	13.61	39	P	Pn	06 04 37.6	-1.1
	0.9nm,0.6s,baz=205,slow=10.0,SNR=12						
AB31	Akbulak array	14.28	333	⇑P	Pn	06 04 48.8	+1.6
	0.7nm,0.5s,baz=161,slow=12,SNR=23						

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*SJA **16** 06:30:13.4±0.7, 31°.49S×71°.78W, h68*^{km}*±4*^{km}*, ML4.1, MW4.2*

*GUC **16** 06:30:15.6±0.9, 31°.50S×71°.66W, h65*^{km}*±8*^{km}*, ML4.3*

*NEIC **16** 06:30:15.5±1.3, 31°.48S±0°.04×71°.79W±0°.04, h56*^{km}*±6*^{km}*, mb4.4/9, Mwr4.3(GUC), Error ellipse: s-maj=7.3km s-min=1.7km az=218.0*

*IDC **16** 06:30:16.7±3.1, 31°.47S×71°.65W, h73*^{km}*±25*^{km}*, mb3.8/6, mbtmp4.1/11, MS3.2/4, Error ellipse: s-maj=26.1km s-min=19.2km az=119.0*

ISC 16 06:30:14.8±0.8**, 31°.50S**±0°.02×**71°.80W**±0°.04**, h62**^{km}±8^{km}**, n118, σ1**^{s}**27**/154**, mb4.3**/6**, 14D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CO02	Combarbal	0.74	67	eP	Pn	06 30 29.8	-0.1
CO02				eS	Sn	06 30 40.9	+0.1
CO02				IAML		06 30 41.4	
	comp=Z,14µm,0.6s						
CO02	Combarbal	0.74	67	⇓iP	Pn	06 30 30.1	+0.2
CO02				eS	Sn	06 30 40.1	-0.7
CO02				IAML		06 30 41.8	
	comp=N,62µm,0.2s						
CO02	Combarbal	0.74	67		Pn	06 30 30.0	+0.2
CO06	Fray Jorge	0.83	10	⇓iP	Pn	06 30 31.9	+1.1
CO06				eS	Sn	06 30 43.5	+0.9
CO06				IAML		06 30 45.0	
	comp=N,14µm,0.2s						
CO06	Fray Jorge	0.83	10		Pn	06 30 31.9	+1.1
CO04	Los Peladeros	0.89	128	eP	Pn	06 30 31.6	-0.2
CO04				eS	Sn	06 30 43.9	-0.4
CO04				IAML		06 30 45.8	
	comp=N,11µm,0.2s						
CO04	Los Peladeros	0.89	128		Pn	06 30 32.0	+0.2
VA01	Torpederas	1.53	175	eP	Pn	06 30 40.9	+1.0
VA01				eS	Sn	06 30 59.4	+0.6
VA01	Torpederas	1.53	175	eP	Pn	06 30 40.5	+0.6
VA01	Torpederas	1.53	175		Pn	06 30 40.6	+0.6
GO04	Tololo Observa	1.57	33	eP	Pn	06 30 40.9	+0.1
GO04				eS	Sn	06 30 59.9	-0.5
GO04	Tololo Observa	1.57	33	i P	Pn	06 30 41.0	+0.1
GO04				eS	Sn	06 30 59.3	-1.1
GO04	Tololo Observa	1.57	33		Pn	06 30 41.0	+0.1
ROCH	El Roble	1.61	156	⇓iP	Pn	06 30 41.7	+0.4
ROCH				IAML		06 31 03.2	
	comp=N,4µm,0.3s						
VA03	San Esteban	1.65	140	eP	Pn	06 30 41.9	+0.2
VA03				eS	Sn	06 31 01.7	-0.2
VA03				IAML		06 31 02.3	
	comp=Z,2µm,0.3s						
VA03	San Esteban	1.65	140	eP	Pn	06 30 41.9	+0.2
VA03				eS	Sn	06 31 01.0	-0.9
VA03				IAML		06 31 04.9	
	comp=E,6µm,0.1s						
VA03	San Esteban	1.65	140		Pn	06 30 42.2	+0.5
MT02	Curacav	1.84	163	eP	Pn	06 30 44.5	+0.2
MT02				eS	Sn	06 31 08.1	+1.5
MT02				IAML		06 31 10.9	
	comp=Z,673nm,0.4s						
MT02	Curacav	1.84	163	eP	Pn	06 30 44.4	+0.2
MT02				IAML		06 31 08.8	
	comp=E,1µm,0.4s						
MT02	Curacav	1.84	163		Pn	06 30 44.4	+0.2
PEL	Peldehue	1.89	150	eP	Pn	06 30 45.5	+0.5
PEL				eS	Sn	06 31 08.7	+0.9
PEL				IAML		06 31 11.5	
	comp=Z,1µm,0.5s						
PEL	Peldehue	1.89	150	eP	Pn	06 30 45.3	+0.4
PEL				eS	Sn	06 31 06.4	-1.4
PEL				IAML		06 31 11.7	
	comp=E,2µm,0.3s						
PEL	Peldehue	1.89	150		Pn	06 30 45.6	+0.6
MT10	Hacienda Santa	2.07	149	eP	Pn	06 30 47.8	+0.4
MT10				eS	Sn	06 31 11.5	-0.7
MT10				IAML		06 31 15.6	
	comp=N,5µm,0.5s						
MT05	Renca	2.09	155	eP	Pn	06 30 48.3	+0.6
MT05				eS	Sn	06 31 13.0	+0.4
MT05				IAML		06 31 17.6	
	comp=Z,1µm,0.3s						
MT05	Renca	2.09	155	i P	Pn	06 30 48.2	+0.5
MT05				eS	Sn	06 31 11.8	-0.8
MT05				IAML		06 31 13.3	
	comp=E,4µm,0.3s						
MT05	Renca	2.09	155		Pn	06 30 48.3	+0.6
CO01	Juntas del Tor	2.11	45	eP	Pn	06 30 48.4	+0.4
CO01				eS	Sn	06 31 13.1	-0.2
CO01				IAML		06 31 13.5	
	comp=Z,3µm,0.6s						
CO01	Juntas del Tor	2.11	45	⇓iP	Pn	06 30 48.6	+0.5
CO01				IAML		06 31 13.5	
	comp=N,4µm,0.3s						
CO01	Juntas del Tor	2.11	45		Pn	06 30 48.5	+0.5
RTLS	Leoncito	2.15	99	eP	Pn	06 30 50.1	+1.4
RTLS				IAML		06 31 19.3	
	comp=Z,3µm,0.5s						
MT14	Cerro Cal¡n	2.17	151	eP	Pn	06 30 49.4	+0.6
MT14				IAML		06 31 15.9	
	comp=E,5µm,0.6s						
MT16	CCHEN	2.21	151	eP	Pn	06 30 49.8	+0.6
MT16				eS	Sn	06 31 14.9	-0.6
MT16				IAML		06 31 16.0	
	comp=N,880nm,0.3s						
MT16	CCHEN	2.21	151		Pn	06 30 49.9	+0.6
MT03	Universidad Ad	2.27	152	eP	Pn	06 30 50.7	+0.6
MT03				eS	Sn	06 31 17.6	+0.6
MT03				IAML		06 31 18.9	
	comp=Z,1µm,0.2s						
MT03	Universidad Ad	2.27	152	⇓eP	Pn	06 30 50.7	+0.6
MT03				IAML		06 31 18.3	
	comp=E,4µm,0.4s						
MT03	Universidad Ad	2.27	152		Pn	06 30 50.7	+0.6
MT15	Las Vizcachas	2.36	153	eP	Pn	06 30 51.8	+0.5
MT15				IAML		06 31 21.4	
	comp=E,3µm,0.3s						
MT04	Ro Olivares	2.37	144	eP	Pn	06 30 52.6	+1.1
MT04				eS	Sn	06 31 20.9	+1.4
MT04				IAML		06 31 21.6	
	comp=Z,779nm,0.7s						
MT04	Ro Olivares	2.37	144	⇓eP	Pn	06 30 52.7	+1.2
MT09	Talagante	2.37	163	⇓eP	Pn	06 30 52.5	+1.0
MT09	Talagante	2.37	163		Pn	06 30 52.3	+0.7
AROD	Rodeo	2.40	57	eP	Pn	06 30 53.9	+1.9
AROD				eS	Sn	06 31 24.1	+3.6
MT01	Popeta	2.41	169	eP	Pn	06 30 52.6	+0.7
MT01				eS	Sn	06 31 19.8	-0.4
MT01				IAML		06 31 21.4	
	comp=Z,572nm,0.5s						
MT01	Popeta	2.41	169	⇓eP	Pn	06 30 52.5	+0.6
MT01	Popeta	2.41	169		Pn	06 30 52.5	+0.6
MT12	Pirque	2.47	155	⇓eP	Pn	06 30 53.3	+0.6
MT12				IAML		06 31 22.9	
	comp=N,2µm,0.5s						
ACCO	Cerro Coronel	2.52	70	eP	Pn	06 30 55.5	+1.8
ACCO				IAML		06 31 32.1	
	comp=Z,752nm,0.7s						
MT13	San Alfonso	2.58	151	eP	Pn	06 30 55.4	+1.1
MT13				eS	Sn	06 31 25.2	+0.6
MT13				IAML		06 31 27.0	
	comp=Z,665nm,0.6s						
MT13	San Alfonso	2.58	151	⇓eP	Pn	06 30 55.4	+1.1
MT13	San Alfonso	2.58	151		Pn	06 30 55.2	+0.9
LCO	Las Campanas	2.65	21	eP	Pn	06 30 55.8	+0.3
LCO				eS	Sn	06 31 26.6	-0.1
LCO				IAML		06 31 28.4	
	comp=Z,2µm,0.3s						
LCO	Las Campanas	2.65	21	⇓eP	Pn	06 30 55.8	+0.3
LCO	Las Campanas	2.65	21		Pn	06 30 55.7	+0.3
ACDV	Cuesta del Vie	2.66	61	eP	Pn	06 30 57.4	+2.0
ACDV				IAML		06 31 42.8	
	comp=Z,487nm,1.0s						
ZON	Zonda	2.67	92	eP	Pn	06 30 56.8	+1.4
ZON				eS	Sn	06 31 23.2	-3.4
ZON				IAML		06 31 33.2	
	comp=Z,911nm,0.6s						
ZON	Zonda	2.67	92		Pn	06 30 56.9	+1.4
LMEL	Las Melosas	2.70	151	⇓eP	Pn	06 30 57.0	+1.0
SJA	San Juan	2.77	91	eP	Pn	06 30 45.5	-11
SJA				eS	Sn	06 31 11.5	-18
SJA				IAML		06 31 19.1	
	comp=Z,1µm,0.7s						
ARCO	CERRO ARCO	2.78	120	eP	Pn	06 30 59.9	+2.9
ARCO				eS	Sn	06 31 28.0	-1.4
ARCO				IAML		06 31 33.4	
	comp=Z,571nm,0.6s						
RTLL	Cerro Villicun	2.85	87	eP	Pn	06 30 58.6	+0.7
RTLL				eS	Sn	06 31 48.7	+18
RTLL				IAML		06 31 58.7	
	comp=Z,538nm,0.4s						
BO01	Tunca	2.95	168	eP	Pn	06 30 59.9	+0.6
BO01				eS	Sn	06 31 34.0	+0.5
BO01				IAML		06 31 37.4	
	comp=Z,220nm,0.2s						
BO01	Tunca	2.95	168		Pn	06 30 59.6	+0.4
AC05	El Transito	2.96	27	eP	Pn	06 31 00.2	+0.7
AC05				eS	Sn	06 31 33.9	-0.1
AC05				IAML		06 31 35.7	
	comp=Z,571nm,0.2s						
AAGR	Agrelo	2.97	123	eP	Pn	06 31 02.5	+2.8
AAGR				eS	Sn	06 31 22.5	-12
AAGR				IAML		06 31 23.9	
	comp=Z,522nm,0.6s						
CFA	Coronel Fontan	3.04	93	P	Pn	06 31 01.4	+0.9
	comp=Z,70nm,0.4s,baz=267,slow=10.0,SNR=1103						
CFA				S	Sn	06 31 36.0	+0.1
	comp=Z,272nm,0.4s,baz=123,slow=15,SNR=8.2						
CFA	Coronel Fontan	3.04	93	eP	Pn	06 31 01.4	+0.9
CFA				eS	Sn	06 31 36.6	+0.8
CFA				IAML		06 31 40.9	
	comp=Z,467nm,0.3s						
AC04	Llanos de Chal	3.34	11	eP	Pn	06 31 04.8	+0.1
AC04				IAML		06 32 04.0	
	comp=Z,234nm,0.7s						
BO02	Sierra Bellavi	3.40	166	eP	Pn	06 31 06.1	+0.7
BO02				eS	Sn	06 31 44.4	-0.1
BO02				IAML		06 31 46.8	
	comp=Z,678nm,0.2s						
AVIZ	Vizcacheras	3.40	126	eP	Pn	06 30 47.8	-18
AVIZ				eS	Sn	06 31 38.5	-6.3
GO05	Hualane	3.50	182	eP	Pn	06 31 01.7	-5.2
GO05				eP		06 31 07.2	
GO05				eS	Sn	06 31 46.0	-1.1
GO05				IAML		06 31 46.6	
	comp=Z,219nm,0.4s						
GO05	Hualane	3.50	182	⇓eP	Pn	06 31 06.9	0.0
ACAN	Cantantal	4.00	102	eP	Pn	06 31 14.0	+0.4
GO03	Copiapo	4.12	20	eP	Pn	06 31 15.4	0.0
GO03				eS	Sn	06 32 02.5	+0.1
GO03				IAML		06 32 20.9	
	comp=Z,256nm,0.6s						
GO03	Copiapo	4.12	20	⇓eP	Pn	06 31 15.1	-0.3
VCA	Vinchina	4.16	49	eP	Pn	06 31 17.7	+1.7
VCA				eS	Sn	06 32 01.7	-1.7
VCA				IAML		06 32 07.4	
	comp=Z,660nm,0.6s						
ML02	Panimavida	4.27	176	eP	Pn	06 31 17.9	+0.7
ML02				eS	Sn	06 32 05.8	+0.1
ML02				IAML		06 32 07.8	
	comp=Z,185nm,0.5s						
ML02	Panimavida	4.27	176		Pn	06 31 17.7	+0.4
ACLC	CERRO LA CRUZ	4.67	65	eP	Pn	06 31 23.4	+0.4
ACLC				eS	Sn	06 32 14.6	-1.3
ACLC				IAML		06 32 16.2	
	comp=Z,282nm,0.8s						
TINO	Tinogasta	5.02	48	eP	Pn	06 31 27.6	-0.1
TINO				eS	Sn	06 32 26.9	+2.3
TINO				IAML		06 32 28.8	
	comp=Z,184nm,1.1s						
BI02	San Fabin de	5.17	175	eP	Pn	06 31 30.9	+1.1
BI02				IAML		06 32 33.0	
	comp=Z,56nm,0.6s						
BI02	San Fabin de	5.17	175		Pn	06 31 30.4	+0.7
AC02	Maricunga	5.20	27	eP	Pn	06 31 30.4	-0.1
AC02				eS	Sn	06 32 28.9	-0.5
AC02				IAML		06 32 48.2	
	comp=Z,99nm,0.3s						
AC02	Maricunga	5.20	27		Pn	06 31 30.2	-0.3
AC01	Pan de Azucar	5.43	11		Pn	06 31 31.2	-2.1
TCA	Tanti	6.16	90	eP	Pn	06 31 41.9	-1.4
H03N1	Juan Fernandez	6.32	250	P	Pn	06 31 48.4	+3.3
	baz=22,slow=74,SNR=44						
H03N1				S	Sn	06 32 53.3	-2.4
	baz=113,slow=74,SNR=5.6						
H03N2	Juan Fernandez	6.33	250	P	Pn	06 31 48.3	+3.1
	baz=240,slow=74,SNR=39						
H03N2				S	Sn	06 32 53.7	-2.4
	baz=148,slow=74,SNR=4.7						
H03S3	Juan Fernandez	6.43	247	P	Pn	06 31 48.4	+1.8
	baz=8.8,slow=74,SNR=14						
H03S3				S	Sn	06 32 57.0	-1.5
	baz=45,slow=71,SNR=4.1						
H03S3				T	T	06 38 40.4	
	baz=81,slow=75,SNR=10						
H03S1	Juan Fernandez	6.43	247	P	Pn	06 31 48.8	+2.1
	baz=171,slow=74,SNR=17						
H03S1				S	Sn	06 32 55.7	-2.8
	baz=45,slow=71,SNR=6.9						
H03S1				T	T	06 38 29.0	
	baz=81,slow=75,SNR=9.8						
H03S2	Juan Fernandez	6.45	247	P	Pn	06 31 48.9	+2.1
H03S2				S	Sn	06 32 55.3	-3.5
	baz=45,slow=71,SNR=21						
H03S2				T	T	06 38 40.4	
	baz=81,slow=75,SNR=13						
PLCA	Paso Flores	9.27	174	P	Pn	06 32 26.3	+0.5
	comp=Z,7.0nm,0.4s,baz=356,slow=14,SNR=97						
PLCA				LR	LR	06 36 49.2	
	comp=Z,88nm,20.1s,baz=276,slow=42						
CPUP	Villa Florida	13.68	72	P	Pn	06 33 26.1	+0.3
	comp=Z,0.7nm,0.6s,baz=236,slow=15,SNR=4.6						
CPUP				LR	LR	06 39 49.9	
	comp=Z,71nm,20.9s,baz=252,slow=42						
CPUP	Villa Florida	13.68	72	Pn	Pn	06 33 27.4	+1.6
LPAZ	La Paz	15.51	13	P	Pn	06 33 51.0	+0.6
	comp=Z,13nm,0.6s,baz=183,slow=6.9,SNR=73						
LPAZ	La Paz	15.51	13		Pn	06 33 51.3	+0.9
SIV	San Ignacio	18.27	35	P	P	06 34 22.6	-1.1
	comp=Z,2.6nm,0.6s,baz=209,slow=8.7,SNR=18						
TRCB	Terra Rica	19.11	68	P	Pn	06 34 32.7	-1.5
PTLB	Pontes e Lacer	19.72	39		Pn	06 34 40.3	-1.1
VILB	Vilhena	21.32	33	P	P	06 34 56.1	-0.6
VILB				IAmb	IAmb	06 35 19.3	
	comp=Z,16nm,0.7s						
VAO	Valinhos	23.60	75	P	P	06 35 19.5	-0.9
BDFB	Brasilia	26.82	59	P	P	06 35 48.3	-1.4
	comp=Z,6.1nm,0.6s,baz=237,slow=7.6,SNR=10						
	comp=Z,6.1nm,0.6s						
BDFB	Brasilia	26.82	59	P	P	06 35 49.0	-0.6
BDFB				IAmb	IAmb	06 35 50.2	
	comp=Z,8.8nm,0.8s						
MDP	Montagnes des	40.73	30	LR	LR	06 54 19.6	
	comp=Z,62nm,19.8s,baz=160,slow=36						
SNAA	Sanae	53.83	159	P	P	06 39 31.4	+0.4
	comp=Z,0.7nm,0.3s,baz=331,slow=10,SNR=1.8						
	comp=Z,0.7nm,0.3s						
SNAA	Sanae	53.83	159	IAmb	IAmb	06 40 00.5	
	comp=Z,2.4nm,0.6s						
QSPA	South Pole Qui	58.73	180	P	P	06 40 07.4	+1.3
	comp=Z,0.6nm,0.8s,baz=121,slow=5.9,SNR=1.2						
	comp=Z,0.6nm,0.8s						
QSPA	South Pole Qui	58.73	180	IAmb	IAmb	06 40 34.7	
	comp=Z,3.5nm,1.1s						
TXAR	Lajitas Array	67.66	330	P	P	06 41 06.9	+1.3
	comp=Z,0.2nm,0.7s,baz=143,slow=6.9,SNR=2.2						
	comp=Z,0.2nm,0.7s						
DBIC	Dimbokro	74.20	72	P	P	06 41 44.5	-0.9
	comp=Z,5.7nm,0.8s,baz=222,slow=8.3,SNR=3.1						
	comp=Z,5.7nm,0.8s						
PDAR	Pinedale Array	81.63	333	LR	LR	07 18 25.7	
	comp=Z,22nm,18.1s,baz=348,slow=35						
TORD	Torodi Ar. Bea	83.17	70	P	P	06 42 34.2	-0.4
	comp=Z,3.3nm,0.7s,baz=234,slow=4.9,SNR=17						
	comp=Z,3.3nm,0.7s						
TORD	Torodi Ar. Bea	83.17	70	IAmb	IAmb	06 42 35.8	
	comp=Z,28nm,0.6s						
BVAR	Borovoye Array	145.28	41	PKPbc	PKPdf	06 49 45.7	+0.6
	comp=Z,3.8nm,0.5s,baz=299,slow=3.0,SNR=12						
KURBB	Kurchatov Arra	150.88	40	PKPbc	PKiKP	06 50 00.3	-0.3
	comp=Z,1.4nm,0.7s,baz=300,slow=3.1,SNR=13						
KURK	Kurchatov	150.88	40		PKiKP	06 50 00.3	-0.3
ZALV	Zalesovo Beam	151.99	30	PKPbc	PKiKP	06 50 02.7	-0.1
	comp=Z,7.1nm,0.4s,baz=297,slow=3.1,SNR=25						
MKAR	Makanchi Array	154.91	45	PKPbc	PKiKP	06 50 09.2	+0.1
	comp=Z,0.2nm,0.4s,baz=292,slow=1.5,SNR=2.6						
MKAR				PKPab	PKPab	06 50 24.8	0.0
	comp=Z,0.6nm,0.7s,baz=276,slow=5.5,SNR=3.6						

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*BJI **16** 06:48:01.5, 8°.57S×160°.64E, h51*^{km}*, mB5.0/5, mb4.9/16*

*IDC **16** 06:48:05.1±1.1, 8°.67S×160°.23E, h57*^{km}*±10*^{km}*, mb4.2/22, mbtmp4.4/23, MS3.7/36, Error ellipse: s-maj=21.2km s-min=14.1km az=100.0*

*NEIC **16** 06:48:05.4±1.6, 8°.68S±0°.08×160°.3E±0°.1, h52*^{km}*±5*^{km}*, mb4.9/86, Error ellipse: s-maj=15.9km s-min=9.8km az=116.0*

ISC 16 06:48:03.1±0.4**, 8°.61S**±0°.04×**160°.34E**±0°.05**, h35**^{km}**, n158, σ1**^{s}**39**/112**, mb4.8**/57**, MS3.7**/34**, 1D, Bougainville-Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ALEG	Aligegeo Malai	0.38	112	P	Pn	06 48 11.3	-0.8
TATA	Tatamba Isabel	0.57	293	P	Pn	06 48 16.4	+1.6
TATA	Tatamba Isabel	0.57	293	S	Sn	06 48 25.1	+2.1
SAVO	Savo Central	0.74	224	P	Pn	06 48 17.5	+0.3
SAVO	Savo Central	0.74	224	S	Sn	06 48 26.4	-0.9
HNR	Honiara	0.90	205	P	Pn	06 48 19.6	+0.3
	4µm,0.3s,baz=24,slow=6.3,SNR=368						
HNR				S	Sn	06 48 33.0	+1.9
	12µm,0.3s,baz=133,slow=21,SNR=22						
HNR	Honiara	0.90	205	P	Pn	06 48 19.8	+0.5
HNR	Honiara	0.90	205	S	Sn	06 48 31.5	+0.3
HURO	Huro Makira	2.41	140	P	Pn	06 48 42.2	+2.2
HURO	Huro Makira	2.41	140	S	Sn	06 49 11.4	+3.1
NGOA	Tingoa Renbel	2.94	185	P	Pn	06 48 47.8	+0.4
SANVU	Saraoutou	9.55	136	Pn	Pn	06 50 20.1	+1.9
PMG	Port Moresby	13.04	266	LR	LR	06 55 52.5	
	comp=Z,402nm,21.7s,baz=83,slow=36						
DZM	Mont Dzumac	14.62	157	P	Pn	06 51 30.2	+2.6
	5.2nm,0.9s,baz=0.0,slow=14,SNR=10.0						
MARNC	Mare, Loyalty	14.79	151	Pn	P	06 51 33.1	-2.2
CTA	Charters Tower	17.77	229	P	P	06 52 10.1	+1.7
	15nm,0.9s,baz=37,slow=12,SNR=8.7						
CTA				LR	LR	06 58 01.0	
	comp=Z,215nm,21.1s,baz=42,slow=34						
CTA	Charters Tower	17.77	229	P	P	06 52 10.8	+2.4
CTAO	Charters Tower	17.77	229	P	P	06 52 10.9	+2.5
CTAO	Charters Tower	17.77	229		P	06 52 08.4	0.0
MTSU	Mount Surprise	18.22	237	P	Pn	06 52 16.5	+3.1
EIDS	Eidsvold	18.86	207	P	Pn	06 52 22.5	+1.4
EIDS	Eidsvold	18.86	207		Pn	06 52 21.7	+0.7
AUBSH	Beerwah State	19.46	200	P	Pn	06 52 29.4	+1.2
TW1H	Toowoomba 1 Ha	20.43	202	P	Pn	06 52 40.1	+0.3
ARMA	Armidale	23.18	199	P	P	06 53 08.5	+1.6
ARMA	Armidale	23.18	199		P	06 53 07.2	+0.3
QIS	Mount Isa	23.28	237	P	P	06 53 11.1	+3.2
AULRC	Lightning Ridg	23.74	208	P	P	06 53 14.2	+2.0
AUPHS	Peel High Scho	24.05	200	P	P	06 53 18.1	+3.0
AUDCS	Dubbo College	25.89	203	P	P	06 53 35.0	+3.1
INKA	Innaminka	26.54	222	P	P	06 53 38.0	+0.2
GUMO	Guam	26.88	325	LR	LR	07 03 12.9	
	comp=Z,59nm,21.5s,baz=161,slow=34						
WR8	Warramunga Arr	27.42	243		P	06 53 44.9	-0.9
WB0	Warramunga Arr	27.45	243		P	06 53 45.0	-1.0
WRAB	Tennant Creek	27.54	243	P	P	06 53 46.1	-0.7
WRA	Warramunga Arr	27.55	243	P	P	06 53 45.2	-1.8
	6.3nm,0.6s,baz=71,slow=9.8,SNR=61						
	6.3nm,0.6s						
WRA	Warramunga Arr	27.55	243		P	06 53 45.2	-1.8

H11S2	WAKE ISLAND Hy	27.65	13	T	T	07 22 23.5	
	baz=194,slow=76,SNR=1186						
H11S3	WAKE ISLAND Hy	27.65	13	T	T	07 22 24.3	
	baz=194,slow=76,SNR=909						
H11S1	WAKE ISLAND Hy	27.67	13	T	T	07 22 25.6	
	baz=194,slow=76,SNR=583						
AFI	Afiamalu	27.84	103	LR	LR	07 02 12.0	
	comp=Z,90nm,21.9s,baz=109,slow=30						
CAN	Canberra	28.54	200	P	P	06 53 54.5	-1.2
CAN				IAmb	IAmb	06 54 08.7	
	comp=Z,96nm,2.0s						
H11N1	WAKE ISLAND Hy	28.88	13	T	T	07 24 01.8	
	baz=193,slow=76,SNR=1691						
H11N3	WAKE ISLAND Hy	28.88	13	T	T	07 23 55.6	
	baz=193,slow=76,SNR=1165						
H11N2	WAKE ISLAND Hy	28.89	13	T	T	07 24 03.9	
	baz=193,slow=76,SNR=8601						
STKA	Stephens Creek	28.97	214	P	P	06 53 58.8	-0.7
	comp=Z,1.4nm,0.3s,baz=42,slow=14,SNR=5.5						
STKA				LR	LR	07 05 25.1	
	comp=Z,263nm,19.0s,baz=26,slow=36						
	comp=Z,1.4nm,0.3s						
AS31	Alice Springs	29.39	236	P	P	06 54 02.9	-0.5
ASAR	Alice Springs	29.39	236	P	P	06 54 01.1	-2.3
	comp=Z,2.1nm,0.4s,baz=62,slow=10,SNR=53						
ASAR				PcP	PcP	06 57 07.0	-2.0
	comp=Z,0.8nm,0.4s,baz=70,slow=2.6,SNR=4.5						
ASAR				LR	LR	07 05 36.0	
	comp=Z,156nm,19.1s,baz=70,slow=36						
	comp=Z,2.1nm,0.4s						
ASAR	Alice Springs	29.39	236	P	P	06 54 01.8	-1.6
KNRA	Kununurra	31.63	254	P	P	06 54 22.0	-1.1
TOO	Toolangi	31.81	203	P	P	06 54 24.1	-0.4
BBOO	Buckleboo	32.93	220	P	P	06 54 33.4	-1.1
BBOO				IAmb	IAmb	06 54 36.9	
	comp=Z,23nm,1.4s						
URZ	Urewera	33.17	155	LR	LR	07 05 32.0	
	comp=Z,133nm,20.0s,baz=304,slow=32						
FITZ	Fitzroy Crossi	34.99	251	LR	LR	07 07 22.2	
	comp=Z,129nm,19.7s,baz=8.5,slow=33						
FITZ	Fitzroy Crossi	34.99	251	P	P	06 54 50.9	-1.6
RPZ	Rata Peaks	36.20	167	LR	LR	07 09 08.2	
	comp=Z,46nm,18.7s,baz=178,slow=35						
FORT	Forrest	37.32	229	P	P	06 55 10.8	-1.4
FORT				IAmb	IAmb	06 55 20.6	
	comp=Z,14nm,1.1s						
KAPI	Kappang	40.44	272	LR	LR	07 11 49.7	
	comp=Z,101nm,21.8s,baz=140,slow=35						
MBWA	Marble Bar	41.05	248	P	P	06 55 42.9	-0.6
MBWA				IAmb	IAmb	06 55 44.1	
	comp=Z,10nm,0.7s						
JHJ	Hachijo jima 2	45.88	336	LR	LR	07 11 50.3	
	comp=Z,54nm,21.3s,baz=126,slow=31						
KKM	Kota Kinabalu	46.34	287	P	P	06 56 25.2	-1.1
NWAO	Narrogin (SRO)	46.55	232	P	P	06 56 25.8	-1.8
MJAR	Matsushiro Arr	49.49	336	LR	LR	07 16 26.4	
	comp=Z,29nm,21.4s,baz=214,slow=34						
JNU	Nakatsue	50.08	327	LR	LR	07 17 43.9	
	comp=Z,30nm,18.0s,baz=196,slow=36						
JKA	Kamikawa-asahi	54.88	344	P	P	06 57 30.4	+0.3
ASAJ	Asahikawa	54.89	344	P	P	06 57 30.2	+0.1
	comp=Z,3.7nm,0.4s,baz=157,slow=7.2,SNR=5.5						
	comp=Z,3.7nm,0.4s						
KSRS	Korea Array	54.95	329	P	P	06 57 30.8	+0.1
	comp=Z,1.3nm,0.6s,baz=149,slow=7.8,SNR=5.4						
KSRS				LR	LR	07 19 46.7	
	comp=Z,28nm,20.0s,baz=140,slow=35						
	comp=Z,1.3nm,0.6s						
NJ2	Nanjing	56.60	318	*e*P	P	06 57 44.8	+2.1
NJ2				pmax	pmax		
	comp=Z,9.0nm,0.5s						
USA0B	Ussuriysk Arra	58.49	336	P	P	06 57 57.1	+1.3
USA0B				IAmb	IAmb	06 57 57.4	
	comp=Z,11nm,0.8s						
USRK	Ussuriysk Ar.	58.49	336	P	P	06 57 56.0	+0.2
	comp=Z,6.2nm,0.7s,baz=144,slow=5.8,SNR=9.6						
	comp=Z,6.2nm,0.7s						
USRK	Ussuriysk Ar.	58.49	336		P	06 57 56.1	+0.4
PEA0B	Petropavlovsk-	61.52	358	P	P	06 58 17.0	+0.6
PETK	Petropavlovsk-	61.52	358	P	P	06 58 16.6	+0.3
	comp=Z,3.9nm,0.7s,baz=148,slow=7.0,SNR=5.6						
PETK				LR	LR	07 21 02.0	
	comp=Z,84nm,21.3s,baz=148,slow=32						
	comp=Z,3.9nm,0.7s						
PETK	Petropavlovsk-	61.52	358	P	P	06 58 16.9	+0.5
BNX	BinXian	61.63	334	⇓P	P	06 58 17.4	+0.1
BNX				pmax	pmax		
	comp=Z,16nm,0.9s						
SHEM	Shemya Is, Ala	62.22	9	LR	LR	07 20 45.5	
	comp=Z,45nm,20.5s,baz=4.0,slow=32						
KLR	Kul'dur	62.81	339	P	P	06 58 25.3	+0.2
	comp=Z,8.8nm,0.8s,baz=157,slow=3.4,SNR=14						
	comp=Z,8.8nm,0.8s						
KIWB	Kanaga Island	63.26	15	P	P	06 58 29.5	+1.5
ADK	Adak	63.41	16	P	P	06 58 29.0	0.0
XAN	Xi'an	64.58	314	P	P	06 58 34.8	-2.4
XAN				pmax	pmax		
	comp=Z,7.0nm,0.4s						
HEH	HeiHe	65.24	337	*e*P	P	06 58 41.3	+0.3
XLT	XiLinHaoTe	65.84	326	*e*P	P	06 58 46.1	+0.9
XLT				pmax	pmax		
	comp=Z,17nm,0.8s						
XLT				pmax	pmax		
	comp=Z,110nm,7.3s						
CMAR	Chiang Mai Arr	66.26	294	P	P	06 58 48.4	+0.1
	comp=Z,1.0nm,0.3s,baz=114,slow=5.0,SNR=8.8						
	comp=Z,1.0nm,0.3s						
HHC	Hu-ho-hao-te	66.58	322	*e*P	P	06 58 51.5	+1.5
HHC				pmax	pmax		
	comp=Z,10.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,84nm,5.8s						
PZH	PanZhiHua	66.69	304	P	P	06 58 52.3	+1.3
HILR	Hailar Array B	67.90	333	P	P	06 58 58.2	0.0
	comp=Z,2.6nm,0.4s,baz=142,slow=7.5,SNR=4.5						
	comp=Z,2.6nm,0.4s						
MA2	Magadan	68.39	355	LR	LR	07 28 06.3	
	comp=Z,26nm,19.7s,baz=194,slow=35						
VNDA	Vanda	68.89	180	P	P	06 59 04.7	+0.9
	comp=Z,1.3nm,0.7s,baz=359,slow=6.5,SNR=9.3						
VNDA				LR	LR	07 23 55.9	
	comp=Z,92nm,21.3s,baz=330,slow=31						
	comp=Z,1.3nm,0.7s						
VNDA	Vanda	68.89	180	P	P	06 59 04.8	+1.0
LZH	Lanzhou	69.21	314	*e*P	P	06 59 08.3	+1.5
LZH				pP	pP	06 59 18.1	+1.0
LZH				pmax	pmax		
	comp=Z,18nm,1.3s						
SEY	Seymchan	71.59	356	P	P	06 59 20.2	-0.3
	comp=Z,2.1nm,0.7s,baz=169,slow=5.8,SNR=5.4						
	comp=Z,2.1nm,0.7s						
SONM	Songino Array	73.61	325	P	P	06 59 33.5	+0.6
	comp=Z,5.8nm,0.8s,baz=139,slow=5.7,SNR=20						
SONM				LR	LR	07 32 52.5	
	comp=Z,29nm,18.1s,baz=189,slow=36						
	comp=Z,5.8nm,0.8s						
SONM	Songino Array	73.61	325		P	06 59 33.6	+0.6
O14K	Tigyukauivet M	74.30	19	P	P	06 59 37.2	+0.6
YAK	Yakutsk	74.34	346	P	P	06 59 36.7	-0.1
	comp=Z,37nm,0.6s,baz=145,slow=5.9,SNR=6.5						
YAK				LR	LR	07 30 47.2	
	comp=Z,37nm,20.3s,baz=168,slow=34						
YAK	Yakutsk	74.34	346	IAmb	IAmb	06 59 37.6	
	comp=Z,39nm,0.6s						
KDAK	Kodiak Island	76.40	24	LR	LR	07 26 00.5	
	comp=Z,44nm,21.2s,baz=219,slow=30						
KDAK	Kodiak Island	76.40	24	P	P	06 59 49.3	+0.6
M16K	Timber Creek	76.40	19	P	P	06 59 49.4	+0.7
M16K				IAmb	IAmb	07 01 43.4	
	comp=Z,20nm,1.2s						
N17K	Nushagak Hills	76.62	20	P	P	06 59 50.6	+0.7
N17K				IAmb	IAmb	07 00 08.5	
	comp=Z,28nm,1.8s						
L19K	White Mountain	78.59	20	P	P	07 00 01.7	+0.8
SLKM	Skilak Lake	79.11	23	P	P	07 00 04.2	+0.3
SLKM				IAmb	IAmb	07 01 48.4	
	comp=Z,31nm,1.3s						
PWL	Port Wells	80.05	23	IAmb	IAmb	07 00 10.8	
	comp=Z,13nm,0.9s						
PMR	Palmer	80.21	22	P	P	07 00 10.0	+0.3
CAST	Castle Rocks	80.37	20	P	P	07 00 10.2	-0.4
GHO	Glory Hole Cre	80.40	22	P	P	07 00 10.7	-0.2
SML	Sawmill	80.64	22	P	P	07 00 12.2	0.0
SML				IAmb	IAmb	07 00 36.8	
	comp=Z,9.5nm,1.0s						
PALK	Pallekele	80.92	279	LR	LR	07 40 11.3	
	comp=Z,82nm,18.1s,baz=124,slow=39						
TRF	Thorofare Moun	81.00	20	P	P	07 00 13.6	-0.6
QSPA	South Pole Qui	81.38	180	P	P	07 00 14.4	-1.8
	comp=Z,0.7nm,0.4s,baz=348,slow=5.6,SNR=2.5						
QSPA				LR	LR	07 34 24.2	
	comp=Z,70nm,18.0s,baz=3.0,slow=34						
	comp=Z,0.7nm,0.4s						
IMAR	Indian Mountai	81.61	17	P	P	07 00 17.6	+0.5
DHY	Denali Highway	81.78	21	P	P	07 00 18.5	+0.2
DHY				IAmb	IAmb	07 03 23.9	
	comp=Z,14nm,1.6s						
GLB	Gilahina Butte	82.17	24	P	P	07 00 20.8	+0.6
GLB				IAmb	IAmb	07 02 00.9	
	comp=Z,19nm,1.5s						
TIXI	Tiksi	82.76	350	LR	LR	07 40 09.9	
	comp=Z,30nm,18.4s,baz=228,slow=38						
TIXI	Tiksi	82.76	350		P	07 00 22.9	-0.1
TIXI				IAmb	IAmb	07 00 23.3	
	comp=Z,28nm,1.8s						
BARN	Barnard Glacie	82.82	25	P	P	07 00 25.7	+1.9
ILAR	Eielson Array	82.99	20	P	P	07 00 22.8	-1.6
	comp=Z,2.0nm,0.5s,baz=234,slow=5.1,SNR=26						
ILAR				LR	LR	07 31 28.5	
	comp=Z,28nm,21.6s,baz=168,slow=31						
	comp=Z,2.0nm,0.5s						
ILAR	Eielson Array	82.99	20		P	07 00 23.4	-1.0
HYT	Haines Junctio	84.45	26	IAmb	IAmb	07 00 34.1	
	comp=Z,8.4nm,1.0s						
SKAG	Skagway	84.79	28	P	P	07 00 34.0	+0.4
SKAG				IAmb	IAmb	07 00 35.6	
	comp=Z,6.3nm,0.9s						
V35K	Ketchikan	84.88	32	IAmb	IAmb	07 00 35.8	
	comp=Z,5.3nm,0.8s						
MAW	Mawson	84.94	202	LR	LR	07 34 07.2	
	comp=Z,86nm,19.1s,baz=50,slow=33						
G26K	Porcupine Rive	85.31	19	IAmb	IAmb	07 00 38.1	
	comp=Z,8.8nm,0.9s						
BBB	Bella Bella	85.67	36	LR	LR	07 31 47.7	
	comp=Z,37nm,19.2s,baz=240,slow=31						
HULI	Fort Hunter Li	85.77	53	P	P	07 00 40.0	+0.9
K29M	Barlow Dome	85.90	23	IAmb	IAmb	07 00 41.2	
	comp=Z,7.3nm,1.0s						
YBH	Yreka Blue Hor	86.07	47	LR	LR	07 33 37.5	
	comp=Z,29nm,18.8s,baz=250,slow=32						
E27K	Coleen River	86.70	19	IAmb	IAmb	07 00 45.6	
	comp=Z,10nm,1.1s						
I30M	Mount Dempster	86.99	22	IAmb	IAmb	07 00 45.9	
	comp=Z,6.1nm,0.8s						
WIFE	Three Sisters-	87.30	45	IAmb	IAmb	07 00 48.5	
	comp=Z,8.8nm,0.9s						
K05A	Summer Lake	87.63	46	IAmb	IAmb	07 00 50.4	
	comp=Z,13nm,1.2s						
PINE	Pine Mountain	87.85	45		P	07 00 50.8	+1.4
MKAR	Makanchi Array	88.13	318	P	P	07 00 49.7	-0.7
	comp=Z,2.0nm,0.5s,baz=98,slow=6.4,SNR=7.6						
	comp=Z,2.0nm,0.5s						
ZALV	Zalesovo Beam	88.50	325	P	P	07 00 49.8	-2.1
	comp=Z,1.1nm,0.7s,baz=98,slow=6.1,SNR=4.2						
	comp=Z,1.1nm,0.7s						
NVAR	Mina Array Bea	88.59	51	P	P	07 00 53.7	+0.7
	comp=Z,2.2nm,0.8s,baz=241,slow=7.5,SNR=17						
NVAR				LR	LR	07 33 30.5	
	comp=Z,30nm,19.2s,baz=262,slow=31						
	comp=Z,2.2nm,0.8s						
PFO	Pinyon Flats O	89.10	56	LR	LR	07 33 53.8	
	comp=Z,96nm,19.6s,baz=268,slow=31						
BELC	Belle Mtn. Jos	89.55	56	P	P	07 00 58.6	+1.1
BC3	Big Chuckawall	89.93	56	IAmb	IAmb	07 01 01.3	
	comp=Z,8.0nm,1.0s						
SHPR	Sheep Range	90.67	53	IAmb	IAmb	07 01 04.8	
	comp=Z,6.8nm,1.0s						
BLYC	Blythe	90.71	56	IAmb	IAmb	07 01 04.7	
	comp=Z,7.7nm,0.9s						
F10A	Beach Ranch, E	90.91	44	P	P	07 01 04.1	+0.6
ELK	Elko	91.36	49	IAmb	IAmb	07 01 07.8	
	comp=Z,7.3nm,1.2s						
KURK	Kurchatov	91.39	321	P	P	07 01 04.2	-1.3
NEW	Newport	91.42	42	LR	LR	07 33 46.4	
	comp=Z,52nm,20.9s,baz=267,slow=30						
KURBB	Kurchatov Arra	91.43	321	P	P	07 01 04.2	-1.4
	comp=Z,0.6nm,0.6s,baz=97,slow=4.8,SNR=8.6						
	comp=Z,0.6nm,0.6s						
PLID	Pearl Lake	91.58	45	IAmb	IAmb	07 01 08.1	
	comp=Z,5.6nm,0.8s						
NRIK	Noril'sk	92.01	340	LR	LR	07 42 32.9	
	comp=Z,35nm,20.2s,baz=110,slow=36						
CCUT	Cedar City	92.27	53	IAmb	IAmb	07 01 12.4	
	comp=Z,3.0nm,0.9s						
AAK	Ala-Archa	92.72	313	LR	LR	07 42 46.4	
	comp=Z,25nm,20.8s,baz=134,slow=35						
LPIG	La Paz	92.88	66	LR	LR	07 37 04.6	
	comp=Z,46nm,18.2s,baz=232,slow=32						
YKA	Yellowknife Ar	95.29	28	P	P	07 01 22.0	-1.1
	comp=Z,1.4nm,0.6s,baz=260,slow=4.4,SNR=5.4						
	comp=Z,1.4nm,0.6s						
PDAR	Pinedale Array	95.85	48	P	P	07 01 25.9	-0.6
	comp=Z,1.7nm,0.7s,baz=225,slow=2.2,SNR=18						
	comp=Z,1.7nm,0.7s						
BVAR	Borovoye Array	96.78	323	P	P	07 01 28.3	-1.9
	comp=Z,1.2nm,0.5s,baz=86,slow=7.8,SNR=2.8						
	comp=Z,1.2nm,0.5s						
ANMO	Albuquerque	97.48	56	LR	LR	07 38 10.9	
	comp=Z,48nm,20.0s,baz=251,slow=31						
SNAA	Sanae	99.11	185	LR	LR	07 42 37.5	
	comp=Z,64nm,20.4s,baz=98,slow=33						
CLL	Collm	129.67	334	LV		08 00 00.0	
ESDC	Sonseca Array	146.03	338	PKPbc	PKPdf	07 07 38.8	-0.1
	comp=Z,1.6nm,1.0s,baz=11,slow=4.0,SNR=8.3						
TORD	Torodi Ar. Bea	158.55	284	PKP	PKPdf	07 07 56.2	-1.8
	comp=Z,1.2nm,0.8s,baz=63,slow=1.9,SNR=4.7						
TORD				PKPab	PKPab	07 08 29.8	-3.3
	comp=Z,0.7nm,0.7s,baz=75,slow=4.4,SNR=3.0						

IDC ***16*** *06:50:28.1±1.4, 15.°76S×178.°00W, h425^{km}±15^{km}, mb3.9/13, mbtmp4.7/15, Error ellipse: s-maj=22.9km s-min=9.5km az=146.0*

NOU ***16*** *06:50:28.6, 15.°88S×177.°64W, h441^{km}, MLv4.6/10, Fiji Islands Region*

NEIC ***16*** *06:50:28.3±2.1, 15.°9S±0.°1×177.°7W±0.°1, h425^{km}±6^{km}, mb4.5/223, Error ellipse: s-maj=18.7km s-min=12.9km az=142.0*

GFZ ***16*** *06:50:29.7±0.2, 16°S±5°×17°8W±°, h447^{km}, M4.6/19, mb4.6/19, confirmed*

ISC 16 06:50:28.1±0.4**, 15.°85S**±0.°07×**177.°74W**±0.°06**, h425**^{km}**, n254,** σ1.^{s}**43**/151**, mb4.5**/138**, 2C-6D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FUTU	Fugatoga	1.57	346	P	P	06 51 26.6	+2.4
FUTU	Fugatoga	1.57	346		P	06 51 26.1	+2.0
FUTU	Fugatoga	1.57	346	P	P	06 51 26.6	+2.4
TAVE	Taveuni	2.25	247	P	P	06 51 30.4	+2.6
DGTI	Dogotuki	2.47	259	P	P	06 51 31.2	+1.9
LKBA	Tubou, Lakemba	2.59	203	P	P	06 51 32.1	+2.1
MSVF	Nonsavu	4.45	244	P	P	06 51 48.8	+3.0
	851nm,0.8s,baz=104,slow=12,SNR=283						
MSVF				S	S	06 52 53.3	+4.1
	394nm,1.2s,baz=267,slow=22,SNR=11						
MSVF	Nonsavu	4.45	244	P	P	06 51 48.5	+2.7
MSVF	Nonsavu	4.45	244		P	06 51 48.5	+2.7
MSVF	Nonsavu	4.45	244	P	P	06 51 49.0	+3.1
AFI	Afiamalu	6.08	72	P	P	06 52 02.8	+0.5
	320nm,0.6s,baz=246,slow=10,SNR=48						
AFI				S	S	06 53 18.5	-1.0
	145nm,1.0s,baz=46,slow=23,SNR=2.1						
AFI	Afiamalu	6.08	72	P	P	06 52 02.8	+0.5
AFI	Afiamalu	6.08	72	P	S	06 53 19.9	+0.4
AFI	Afiamalu	6.08	72	P	P	06 52 02.7	+0.3
AFI	Afiamalu	6.08	72	P	P	06 52 02.9	+0.5
	comp=Z,648nm,0.9s						
FUNA	Funafuti	7.87	337	P	P	06 52 22.4	+0.4
FUNA	Funafuti	7.87	337	P	P	06 52 22.5	+0.4
	comp=Z,192nm,0.8s						
SANVU	Saraoutou	14.51	270	P	P	06 53 32.8	-1.8
SANVU	Saraoutou	14.51	270	P	P	06 53 37.1	+2.5
	comp=Z,106nm,1.1s						
MARNC	Mare, Loyalty	14.60	245	P	P	06 53 36.9	+1.4
MARNC	Mare, Loyalty	14.60	245	P	P	06 53 35.6	+0.1
DZM	Mont Dzumac	16.18	245	P	P	06 53 52.6	0.0
	comp=Z,14nm,0.6s,baz=92,slow=17,SNR=8.3						
OUZ	Omahuta	20.80	200	P	P	06 54 38.9	+0.8
	comp=Z,63nm,1.8s						
TOZ	Tahuroa Road	22.60	194		P	06 54 53.6	-0.9
URZ	Urewera	22.78	191	P	P	06 54 53.3	-2.8
	comp=Z,63nm,1.5s						
RTZ	Ruatahuna	23.15	191	P	P	06 54 57.0	-2.5
BFZ	Birch Farm	25.29	191	P	P	06 55 20.4	+1.9
	comp=Z,104nm,1.0s						
EIDS	Eidsvold	30.62	247	P	P	06 56 04.2	-1.4
EIDS				IAmb	IAmb	06 56 07.3	
	comp=Z,12nm,0.8s						
EIDS	Eidsvold	30.62	247	P	P	06 56 04.6	-1.0
	comp=Z,19nm,0.8s						
ARMA	Armidale	31.56	237	P	P	06 56 13.5	-0.3
ARMA	Armidale	31.56	237	P	P	06 56 14.2	+0.4
	comp=Z,13nm,2.1s						
MLZ	Mavora Lakes	31.74	199	P	P	06 56 14.3	-0.8
MGCD	Mangrove Creek	33.02	233	P	P	06 56 26.8	+0.6
	comp=Z,63nm,0.7s						
CTA	Charters Tower	34.47	258	P	P	06 56 39.8	+1.1
	comp=Z,17nm,0.8s,baz=93,slow=10.0,SNR=10						
CTAO	Charters Tower	34.47	258		P	06 56 38.1	-0.6
CTAO				IAmb	IAmb	06 56 41.3	
	comp=Z,22nm,0.9s						
CTAO	Charters Tower	34.47	258	P	P	06 56 39.8	+1.1
	comp=Z,28nm,1.5s						
PMG	Port Moresby	34.81	276	P	P	06 56 45.7	+4.1
	comp=Z,24nm,0.7s,baz=96,slow=4.7,SNR=7.3						
PMG	Port Moresby	34.81	276	IAmb	IAmb	06 56 47.0	
	comp=Z,35nm,0.8s						
CAN	Canberra	35.48	231		P	06 56 47.4	+0.3
CAN	Canberra	35.48	231	P	P	06 56 46.9	-0.2
	comp=Z,22nm,1.2s						
MTSU	Mount Surprise	36.32	261	P	P	06 56 54.1	-0.2
	comp=Z,31nm,0.9s						
TOO	Toolangi	38.98	229		P	06 57 14.7	-1.3
INKA	Innaminka	40.14	246		P	06 57 24.7	-0.8
STKA	Stephens Creek	40.21	239	P	P	06 57 25.3	-0.7
	comp=Z,18nm,0.8s,baz=84,slow=8.4,SNR=18						
	comp=Z,18nm,0.8s						
STKA	Stephens Creek	40.21	239	P	P	06 57 25.2	-0.7
	comp=Z,97nm,0.9s						
BBOO	Buckleboo	44.98	239	P	P	06 58 02.8	-1.0
BBOO				IAmb	IAmb	06 58 05.4	
	comp=Z,20nm,0.9s						
BBOO	Buckleboo	44.98	239	P	P	06 58 02.3	-1.5
	comp=Z,33nm,0.9s						
WR8	Warramunga Arr	45.52	257		P	06 58 06.5	-1.6
WR8				IAmb	IAmb	06 58 07.5	
	comp=Z,16nm,1.1s						
WB0	Warramunga Arr	45.63	258		P	06 58 06.9	-2.1
WB0				IAmb	IAmb	06 58 08.2	
	comp=Z,24nm,0.9s						
WRAB	Tennant Creek	45.66	257	P	P	06 58 07.2	-2.0
WRAB				IAmb	IAmb	06 58 08.5	
	comp=Z,15nm,0.8s						
WRAB	Tennant Creek	45.66	257	P	P	06 58 07.7	-1.5
	comp=Z,21nm,1.3s						
WRA	Warramunga Arr	45.67	257	P	P	06 58 07.6	-1.7
	comp=Z,13nm,0.8s,baz=89,slow=7.7,SNR=52						
WRA				ScP	ScP	07 02 50.9	0.0
	comp=Z,0.8nm,0.9s,baz=87,slow=3.5,SNR=3.7						
WRA				S	S	07 04 15.8	-4.3
	comp=Z,0.3nm,0.8s,baz=210,slow=15,SNR=5.1						
	comp=Z,13nm,0.8s						
WRA	Warramunga Arr	45.67	257		P	06 58 07.1	-2.2
AS31	Alice Springs	45.99	252		P	06 58 10.8	-1.0
AS31				IAmb	IAmb	06 58 11.4	
	comp=Z,14nm,0.7s						
ASAR	Alice Springs	45.99	252	P	P	06 58 10.3	-1.5
	comp=Z,49nm,0.8s,baz=86,slow=7.9,SNR=186						
ASAR				ScP	ScP	07 02 53.5	+1.3
	comp=Z,0.7nm,0.8s,baz=79,slow=2.8,SNR=3.2						
ASAR				S	S	07 04 20.6	-4.0
	comp=Z,2.7nm,0.8s,baz=82,slow=15,SNR=15						
	comp=Z,49nm,0.8s						
ASAR	Alice Springs	45.99	252		P	06 58 10.9	-0.8
MTN	Manton Dam	49.53	266		P	06 58 37.9	-0.6
KNRA	Kununurra	51.36	262	P	P	06 58 51.0	-1.0
FORT	Forrest	51.48	243		P	06 58 51.2	-1.6
FORT				IAmb	IAmb	06 58 52.0	
	comp=Z,19nm,0.8s						
FITZ	Fitzroy Crossi	54.02	259	P	P	06 59 11.1	-0.1
	comp=Z,3.0nm,0.4s						
SOEI	Soe	56.73	269	P	P	06 59 30.5	0.0
SOEI	Soe	56.73	269	P	P	06 59 31.5	+1.1
	comp=Z,75nm,1.0s						
MBWA	Marble Bar	59.22	255	P	P	06 59 45.6	-1.6
MBWA				IAmb	IAmb	06 59 47.0	
	comp=Z,18nm,1.1s						
KLBR	Kellerberrin	60.33	242	P	P	06 59 53.0	-1.5
	comp=Z,83nm,1.0s						
KIWB	Kanaga Island	67.41	0	P	P	07 00 39.7	+0.3
ADK	Adak	67.45	1	P	P	07 00 38.5	-1.1
PETK	Petropavlovsk-	71.86	345	P	P	07 01 05.2	-1.1
	comp=Z,2.1nm,0.6s,baz=158,slow=5.9,SNR=2.6						
	comp=Z,2.1nm,0.6s						
QSPA	South Pole Qui	74.20	180	P	P	07 01 20.0	+0.2
	comp=Z,6.8nm,0.9s,baz=38,slow=5.7,SNR=6.7						
	comp=Z,6.8nm,0.9s						
QSPA	South Pole Qui	74.20	180	IAmb	IAmb	07 01 21.1	
	comp=Z,17nm,1.3s						
SAO	San Andreas Ge	74.50	44		P	07 01 22.1	+0.2
MHC	Mount Hamilton	74.69	43	IAmb	IAmb	07 01 25.5	
	comp=Z,15nm,1.1s						
KMRM	Mail Ridge	75.03	40		P	07 01 26.2	+1.3
O02D	Mt. Diablo Mer	75.58	40	IAmb	IAmb	07 01 30.8	
	comp=Z,14nm,1.1s						
VES	Vestal, Richgr	75.61	46	IAmb	IAmb	07 01 29.8	
	comp=Z,15nm,1.0s						
TPO	Tropico Hills	75.70	47	IAmb	IAmb	07 01 31.1	
	comp=Z,15nm,1.1s						
CMB	Columbia Colle	75.91	43	IAmb	IAmb	07 01 32.4	
	comp=Z,14nm,1.3s						
ISA	Isabella, Lake	75.93	46	IAmb	IAmb	07 01 32.3	
	comp=Z,16nm,1.4s						
AFDM	Forest Hills D	76.03	42		P	07 01 30.9	+0.4
AFDM				IAmb	IAmb	07 01 32.3	
	comp=Z,13nm,1.2s						
ORV	Oroville	76.03	41	IAmb	IAmb	07 01 32.3	
	comp=Z,5.5nm,1.0s						
BORC	Borrego Spring	76.18	49	IAmb	IAmb	07 01 33.5	
	comp=Z,7.3nm,1.0s						
M02C	Callahan	76.24	39	IAmb	IAmb	07 01 34.4	
	comp=Z,15nm,1.3s						
YUH	Yuha Desert	76.24	50	IAmb	IAmb	07 01 34.0	
	comp=Z,9.6nm,1.1s						
KDAK	Kodiak Island	76.26	14	P	P	07 01 31.3	+0.1
	comp=Z,6.4nm,0.8s,baz=196,slow=3.2,SNR=7.1						
	comp=Z,6.4nm,0.8s						
LRMC	Laurel Mtn Rad	76.39	47	IAmb	IAmb	07 01 34.8	
	comp=Z,13nm,1.3s						
YBH	Yreka Blue Hor	76.53	39	P	P	07 01 34.1	+0.8
YBH				IAmb	IAmb	07 01 35.8	
	comp=Z,5.0nm,0.8s						
MDPB	Devils Postpil	76.56	44	IAmb	IAmb	07 01 35.7	
	comp=Z,10nm,1.1s						
CWC	Cottonwood Cre	76.61	46	IAmb	IAmb	07 01 35.5	
	comp=Z,9.3nm,1.4s						
CLC	China Lake	76.62	46	IAmb	IAmb	07 01 36.0	
	comp=Z,10nm,1.2s						
WAKR	Walker	76.79	43	IAmb	IAmb	07 01 37.2	
	comp=Z,15nm,1.3s						
MPMC	Manual Prospec	76.82	46	IAmb	IAmb	07 01 37.4	
	comp=Z,12nm,1.2s						
MPK	Martis Peak	76.83	42	IAmb	IAmb	07 01 37.4	
	comp=Z,12nm,0.8s						
BELC	Belle Mtn. Jos	76.85	49	IAmb	IAmb	07 01 37.3	
	comp=Z,10nm,1.2s						
GSC	Goldstone, Bar	76.92	47	IAmb	IAmb	07 01 37.6	
	comp=Z,10nm,1.3s						
BEKR	Beckworth	76.93	42		P	07 01 36.5	+0.9
BEKR				IAmb	IAmb	07 01 37.6	
	comp=Z,5.5nm,1.0s						
NJ2	Nanjing	77.14	309	*e*P	P	07 01 36.4	-0.3
NJ2				pmax	pmax		
	comp=Z,13nm,0.5s						
QSM	Queen of Sheba	77.21	47	IAmb	IAmb	07 01 38.9	
	comp=Z,12nm,1.1s						
LHV	Little Huntoon	77.27	44	IAmb	IAmb	07 01 39.8	
	comp=Z,18nm,1.2s						
GWY	Greenwater Val	77.46	46	IAmb	IAmb	07 01 40.2	
	comp=Z,13nm,1.3s						
FURC	Furnace Creek,	77.47	46	IAmb	IAmb	07 01 40.5	
	comp=Z,14nm,1.2s						
PAHR	Pah Rah Range	77.47	42	IAmb	IAmb	07 01 40.6	
	comp=Z,6.8nm,1.0s						
NVAR	Mina Array Bea	77.50	44	P	P	07 01 39.7	+0.9
	comp=Z,2.0nm,0.5s,baz=228,slow=8.4,SNR=15						
	comp=Z,2.0nm,0.5s						
NVAR	Mina Array Bea	77.50	44	P	P	07 01 38.8	-0.1
IRM	Iron Mountain	77.54	49	IAmb	IAmb	07 01 41.3	
	comp=Z,11nm,1.2s						

WCT	Wildcat Mounta	77.80	46	IAmb	IAmb	07 01 42.4	
	comp=Z,14nm,1.3s						
MTPC	Mountain Pass	77.90	48	IAmb	IAmb	07 01 43.1	
	comp=Z,5.8nm,1.0s						
113A	Mohawk Valley,	77.90	51	IAmb	IAmb	07 01 43.2	
	comp=Z,13nm,1.2s						
KVN	Kaiserville	77.96	43	IAmb	IAmb	07 01 43.2	
	comp=Z,14nm,1.3s						
MOD	Modoc Plateau	78.10	40	IAmb	IAmb	07 01 43.2	
	comp=Z,4.0nm,0.8s						
TPNV	Topopah Spring	78.14	46	IAmb	IAmb	07 01 44.4	
	comp=Z,18nm,1.4s						
K05A	Summer Lake	78.20	39	IAmb	IAmb	07 01 45.4	
	comp=Z,18nm,1.4s						
HSIG		78.39	55	IAmb	IAmb	07 01 46.0	
	comp=Z,12nm,1.4s						
PINE	Pine Mountain	78.78	38		P	07 01 46.9	+1.3
I05D	Terrebonne, OR	78.86	38	IAmb	IAmb	07 01 47.8	
	comp=Z,12nm,1.2s						
PRN	Pahroc Range	79.19	46	IAmb	IAmb	07 01 50.4	
	comp=Z,12nm,1.1s						
HOOD	Mount Hood Mea	79.25	37	IAmb	IAmb	07 01 49.6	
	comp=Z,11nm,0.8s						
WVOR	Wild Horse Val	79.43	40	IAmb	IAmb	07 01 50.5	
	comp=Z,9.8nm,1.1s						
STD	Studebaker Rid	79.46	36	IAmb	IAmb	07 01 51.2	
	comp=Z,14nm,1.1s						
L18K	Granite Mounta	79.56	10	IAmb	IAmb	07 01 50.7	
	comp=Z,6.7nm,0.6s						
GNW	Green Mountain	79.92	34	IAmb	IAmb	07 01 53.1	
	comp=Z,19nm,1.4s						
J08A	Circle Bar Ran	80.03	40	IAmb	IAmb	07 01 53.5	
	comp=Z,9.8nm,1.2s						
SZCU	Shurtz Canyon	80.65	47	IAmb	IAmb	07 01 58.1	
	comp=Z,9.7nm,1.1s						
GHO	Glory Hole Cre	80.67	13	IAmb	IAmb	07 01 56.1	
	comp=Z,15nm,1.4s						
U15A	North Rim	80.67	48	IAmb	IAmb	07 01 58.5	
	comp=Z,16nm,1.3s						
J18K	Innoko River	80.73	9	IAmb	IAmb	07 01 56.2	
	comp=Z,13nm,1.1s						
G08A	Pilot Rock	80.80	38	IAmb	IAmb	07 01 58.0	
	comp=Z,14nm,1.3s						
E07A	Sunnyside	80.99	36	IAmb	IAmb	07 01 58.9	
	comp=Z,9.8nm,1.0s						
BMRM	Bremner River	81.01	16	IAmb	IAmb	07 01 57.8	
	comp=Z,12nm,1.2s						
K20K	Telida	81.07	11	IAmb	IAmb	07 01 58.3	
	comp=Z,18nm,1.3s						
HAWA	Hanford	81.08	37	IAmb	IAmb	07 01 59.3	
	comp=Z,16nm,1.4s						
YAH	Yahtse	81.28	17	IAmb	IAmb	07 01 59.9	
	comp=Z,13nm,1.2s						
CAST	Castle Rocks	81.49	11	P	P	07 01 58.4	-0.8
EPH	Ephrata	81.58	36	IAmb	IAmb	07 02 01.6	
	comp=Z,11nm,1.1s						
GRNC	Granite Creek	81.58	17	IAmb	IAmb	07 02 01.1	
	comp=Z,11nm,1.4s						
MFID	Camas Ranch	81.70	41	IAmb	IAmb	07 02 02.7	
	comp=Z,7.3nm,1.1s						
BARN	Barnard Glacie	81.88	17	IAmb	IAmb	07 02 03.2	
	comp=Z,7.0nm,0.8s						
SEY	Seymchan	81.92	347	P	P	07 02 00.8	-0.6
	comp=Z,1.7nm,0.4s,baz=147,slow=9.3,SNR=6.4						
	comp=Z,1.7nm,0.4s						
BESE	Bessie Mountai	82.05	21	IAmb	IAmb	07 02 04.1	
	comp=Z,15nm,1.4s						
O28M	Mount Upton	82.06	18	IAmb	IAmb	07 02 03.7	
	comp=Z,14nm,1.3s						
DUG	Dugway, Tooele	82.07	44	P	P	07 02 02.2	-0.7
DUG	Dugway, Tooele	82.07	44	P	P	07 02 00.1	-2.8
	comp=Z,4.8nm,1.1s						
DHY	Denali Highway	82.16	13	P	P	07 02 02.6	-0.2
F10A	Beach Ranch, E	82.19	38		P	07 02 03.6	+0.3
F10A				IAmb	IAmb	07 02 04.0	
	comp=Z,8.6nm,1.0s						
121A	Cookes Peak, D	82.33	53	IAmb	IAmb	07 02 07.1	
	comp=Z,13nm,1.3s						
MCK	McKinley	82.40	12	IAmb	IAmb	07 02 04.5	
	comp=Z,16nm,1.2s						
HMU	Henry Mountain	82.46	47	IAmb	IAmb	07 02 07.0	
	comp=Z,12nm,1.4s						
M26K	Nabesna, AK	82.64	16	IAmb	IAmb	07 02 06.4	
	comp=Z,12nm,1.2s						
HLID	Hailey	82.66	41	IAmb	IAmb	07 02 07.5	
	comp=Z,7.2nm,0.7s						
HLID	Hailey	82.66	41	P	P	07 02 07.0	+1.1
	comp=Z,11nm,1.0s						
SPUT	South Promonto	82.84	44	IAmb	IAmb	07 02 08.8	
	comp=Z,14nm,1.3s						
HVU	Hansel Valley	82.85	43	IAmb	IAmb	07 02 08.2	
	comp=Z,6.3nm,0.7s						
M27K	Edge Creek, AK	82.89	16	IAmb	IAmb	07 02 08.1	
	comp=Z,16nm,1.3s						
S34M	Telegraph Cree	82.91	23	IAmb	IAmb	07 02 08.6	
	comp=Z,12nm,1.2s						
ZAIG	Zacatecas	82.94	64	IAmb	IAmb	07 02 12.4	
	comp=Z,14nm,1.5s						
ZAIG	Zacatecas	82.94	64	P	P	07 02 10.0	+2.1
	comp=Z,5.6nm,1.2s						
SRU	San Rafael Swe	83.14	46	IAmb	IAmb	07 02 09.6	
	comp=Z,5.8nm,0.6s						
RIDG	Independent Ri	83.31	14	P	P	07 02 08.4	-0.1
RIDG				IAmb	IAmb	07 02 09.4	
	comp=Z,4.7nm,0.6s						
HDA	Harding Lake	83.42	13	IAmb	IAmb	07 02 09.7	
	comp=Z,16nm,1.3s						
CCB	Clear Creek Bu	83.44	12	IAmb	IAmb	07 02 09.5	
	comp=Z,27nm,1.4s						
I23K	Minto, Yukon-K	83.57	12	IAmb	IAmb	07 02 11.0	
	comp=Z,14nm,1.4s						
BSUT	Blindstream Ca	83.62	45	IAmb	IAmb	07 02 12.8	
	comp=Z,9.8nm,1.1s						
COLA	College	83.63	12	P	P	07 02 09.2	-0.8
COLA	College	83.63	12	P	P	07 02 09.4	-0.6
	comp=Z,15nm,1.3s						
BCYI	Bear Canyon	83.66	41	IAmb	IAmb	07 02 13.1	
	comp=Z,10nm,1.4s						
SCRK	Sand Creek	83.72	14	IAmb	IAmb	07 02 11.7	
	comp=Z,11nm,1.3s						
ILAR	Eielson Array	83.75	13	P	P	07 02 09.8	-0.8
	comp=Z,2.9nm,0.4s,baz=224,slow=5.3,SNR=32						
	comp=Z,2.9nm,0.4s						
ILAR	Eielson Array	83.75	13		P	07 02 10.0	-0.6
VHRN	Van Horn	83.84	56	IAmb	IAmb	07 02 14.6	
	comp=Z,18nm,1.5s						
H22K	Ishtalitna Cre	83.87	11	IAmb	IAmb	07 02 12.8	
	comp=Z,10nm,1.3s						
PV23	Carpenter Ridg	83.91	47	IAmb	IAmb	07 02 13.6	
	comp=Z,8.6nm,0.9s						
J25K	Salcha River,	83.94	13	IAmb	IAmb	07 02 12.5	
	comp=Z,14nm,1.3s						
PV21	Cone Mtn., Par	83.98	47	IAmb	IAmb	07 02 15.4	
	comp=Z,15nm,1.3s						
PV02	Paradox Valley	84.00	48	IAmb	IAmb	07 02 14.5	
	comp=Z,11nm,1.2s						
R33M	Jennings River	84.02	22	IAmb	IAmb	07 02 14.3	
	comp=Z,7.5nm,1.1s						
PV01	Paradox Valley	84.09	48	IAmb	IAmb	07 02 14.4	
	comp=Z,8.3nm,1.2s						
PV22	Blue Mesa, Par	84.10	47	IAmb	IAmb	07 02 17.8	
	comp=Z,12nm,1.2s						
ALQ	Albuquerque	84.32	51	IAmb	IAmb	07 02 16.3	
	comp=Z,7.5nm,1.1s						
ALQ	Albuquerque	84.32	51	IAmb	IAmb	07 02 16.2	
	comp=Z,7.2nm,1.0s						
TASM	ASL Pad, Albuq	84.32	51	IAmb	IAmb	07 02 16.3	
	comp=Z,7.5nm,1.1s						
TASM	ASL Pad, Albuq	84.32	51	IAmb	IAmb	07 02 16.3	
	comp=Z,8.0nm,1.1s						
ANMO	Albuquerque	84.32	51	P	P	07 02 15.0	+0.6
ANMO	Albuquerque	84.32	51	P	P	07 02 15.6	+1.2
	comp=Z,9.2nm,2.4s						
TXAR	Lajitas Array	84.36	58	P	P	07 02 15.8	+1.2
	comp=Z,5.6nm,0.9s,baz=226,slow=6.2,SNR=41						
	comp=Z,5.6nm,0.9s						
TXAR	Lajitas Array	84.36	58	P	P	07 02 16.1	+1.5
LDM	Libby Dam	84.60	36	IAmb	IAmb	07 02 16.9	
	comp=Z,14nm,1.2s						
ALPN	Alpine	84.76	57	IAmb	IAmb	07 02 19.1	
	comp=Z,14nm,1.4s						
TPB01	Permian Basin	84.86	56	IAmb	IAmb	07 02 19.3	
	comp=Z,11nm,1.4s						
FXWY	Fox Creek	84.86	42	IAmb	IAmb	07 02 20.4	
	comp=Z,7.3nm,1.2s						
DAWY	Dawson	84.94	16	IAmb	IAmb	07 02 18.4	
	comp=Z,10.0nm,1.3s						
I26K	Coal Creek Min	85.03	14	IAmb	IAmb	07 02 18.3	
	comp=Z,14nm,1.4s						
LOHW	Long Hollow	85.12	42	IAmb	IAmb	07 02 20.1	
	comp=Z,7.6nm,1.2s						
YHB	Horse Butte	85.26	41	IAmb	IAmb	07 02 22.0	
	comp=Z,13nm,1.2s						
YMR	Madison River	85.37	41	IAmb	IAmb	07 02 21.9	
	comp=Z,9.3nm,1.3s						
BOZ	Bozeman (W)	85.39	40	IAmb	IAmb	07 02 21.3	
	comp=Z,6.0nm,1.0s						
PD31	Pinedale Array	85.42	43	IAmb	IAmb	07 02 20.3	
	comp=Z,3.0nm,0.7s						
PDAR	Pinedale Array	85.42	43	P	P	07 02 20.0	+0.3
	comp=Z,2.0nm,0.6s,baz=202,slow=2.8,SNR=34						
	comp=Z,2.0nm,0.6s						
PDAR	Pinedale Array	85.42	43	P	P	07 02 19.5	-0.2
H17A	Grant Village	85.49	42	P	P	07 02 20.1	0.0
H17A				IAmb	IAmb	07 02 23.5	
	comp=Z,8.2nm,1.1s						
MAW	Mawson	86.01	200	P	P	07 02 21.6	-0.2
	comp=Z,8.2nm,0.8s,baz=98,slow=6.2,SNR=12						
	comp=Z,8.2nm,0.8s						
MAW	Mawson	86.01	200		P	07 02 22.1	+0.3
MAW	Mawson	86.01	200	P	P	07 02 22.3	+0.5
	comp=Z,2.6nm,2.2s						
YNE	Yellowstone No	86.13	41	IAmb	IAmb	07 02 25.9	
	comp=Z,14nm,1.3s						
MMPY	Sheldon Lake,	86.23	20	IAmb	IAmb	07 02 24.6	
	comp=Z,10nm,1.2s						
HHC	Hu-ho-hao-te	86.30	314	*e*P	P	07 02 23.1	-0.7
HHC				pmax	pmax		
	comp=Z,15nm,0.7s						
HHC				pmax	pmax		
	comp=Z,60nm,4.7s						
RLMT	Red Lodge	86.65	41	IAmb	IAmb	07 02 27.1	
	comp=Z,11nm,1.1s						
EDM	Edmonton	88.09	33	IAmb	IAmb	07 02 33.0	
	comp=Z,11nm,1.0s						
PZH	PanZhiHua	88.76	298	P	P	07 02 37.3	+1.6
RSSD	Black Hills	89.64	44		P	07 02 39.7	+0.1
RSSD				IAmb	IAmb	07 02 40.8	
	comp=Z,9.0nm,1.1s						
RSSD	Black Hills	89.64	44	P	P	07 02 39.9	+0.3
	comp=Z,8.9nm,1.3s						
LZH	Lanzhou	90.15	307	*e*P	P	07 02 41.4	-0.6
ELIB	Princess Elisa	91.27	186	*d*P	P	07 02 45.6	-0.9
	comp=Z,3.7nm,1.0s						
YKA	Yellowknife Ar	92.20	24	P	P	07 02 50.6	0.0
	comp=Z,0.8nm,0.5s,baz=240,slow=4.7,SNR=8.0						
	comp=Z,0.8nm,0.5s						
TROLL	Troll, Antarti	92.36	180	⇓P	P	07 02 51.2	-0.4
	comp=Z,352nm,0.8s						
VNA3	Neumayer Olymp	92.74	176	⇓P	P	07 02 53.2	0.0
	comp=Z,7.6nm,0.7s						
VNA3				⇑pP	pwP	07 04 35.9	+3.0
	comp=Z,1.8nm,0.6s						
VNA2	Neumayer--Watz	93.19	177	⇓P	P	07 02 56.1	+0.9
	comp=Z,3.7nm,0.6s,baz=190,slow=4.6						
VNA1	Neumayer--Stat	93.42	177	⇓P	P	07 02 57.3	+1.1
	comp=Z,5.1nm,1.0s						
VNA1				⇑pP	pwP	07 04 39.5	+3.5
	comp=Z,4.2nm,1.1s						
KSH2	Kashi	112.68	306	PKP	PKiKP	07 08 12.9	-2.7
BVAR	Borovoye Array	115.65	322	PKP	PKPdf	07 08 19.7	-0.9
	comp=Z,1.7nm,0.3s,baz=93,slow=1.6,SNR=6.7						
ILULI	Ilulissat	117.29	19		PKiKP	07 08 25.0	+1.6
ARCES	ARCESS Array B	124.41	350	PKP	PKPdf	07 08 36.1	-0.9
	comp=Z,1.4nm,0.5s,baz=34,slow=0.9,SNR=26						
FINES	FINESS Array B	131.38	345	PKP	PKPdf	07 08 49.4	-1.1
	comp=Z,1.9nm,0.7s,baz=58,slow=4.7,SNR=4.8						
STEB	Steborice	143.75	343	*e*PKP	PKPab	07 09 12.2	+0.2
BR131	Keskin Array S	143.75	317		PKPab	07 09 12.3	-0.2
BRTR	Keskin Array B	143.75	317	PKP	PKPab	07 09 12.4	-0.1
	comp=Z,7.8nm,0.9s,baz=77,slow=1.3,SNR=22						
BRTR	Keskin Array B	143.75	317		PKPab	07 09 12.6	0.0
DPC	Dobruska-Polom	143.75	345	*e*PKP	PKPab	07 09 12.1	0.0
MORC	Moravsky Berou	143.95	343	*e*PKP	PKPbc	07 09 12.5	-0.3
MLR	Muntele Rosu	144.38	331		PKPbc	07 09 14.0	-0.5
MMAI	Mount Meron Ar	145.51	306	PKPbc	PKPdf	07 09 17.4	+0.2
	comp=Z,1.3nm,0.4s,baz=67,slow=3.7,SNR=2.5						
ABNA	Allensteig Bun	145.53	345	*e*PKP	PKPbc	07 09 17.8	0.0
	comp=Z,3.3nm,0.5s						
KHC	Kasperske Hory	145.54	347	*e*PKP	PKPbc	07 09 17.7	-0.1
BMRD	Maredsous	145.57	357	*d*PKiKP	PKiKP	07 09 20.6	-0.3
GERES	GERESS Array B	145.78	347	PKPbc	PKPdf	07 09 17.9	+0.7
	comp=Z,1.5nm,0.3s,baz=34,slow=2.6,SNR=13						
GERES	GERESS Array B	145.78	347	PKPdf	PKPdf	07 09 16.9	-0.3
CONA	Conrad Observa	146.10	344	*e*PKP	PKPbc	07 09 19.7	+0.2
	comp=Z,9.6nm,1.2s						
RONA	Rosalia, Austr	146.18	343	*e*PKP	PKPbc	07 09 19.9	+0.2
	comp=Z,8.3nm,1.1s						
MOA	Molln	146.58	345	*e*PKP	PKPbc	07 09 20.2	-0.6
	comp=Z,2.6nm,0.7s						
ARSA	Arzberg	146.81	343	*e*PKP	PKPbc	07 09 20.7	-0.7
	comp=Z,4.0nm,1.1s						
BIOA	Bad Ischl, Aus	146.88	346	*e*PKP	PKPbc	07 09 20.8	-0.8
	comp=Z,2.4nm,0.4s						
SESA	Seetaler Alpe,	147.19	344	*e*PKP	PKPbc	07 09 22.1	-0.6
	comp=Z,17nm,1.0s						
BFO	Black Forest	147.22	353		PKPbc	07 09 21.6	-0.9
LESA	Schwarzleotal	147.35	347	*e*PKP	PKPbc	07 09 22.3	-0.6
	comp=Z,2.1nm,0.4s						
SOKA	Soboth	147.47	344	*e*PKP	PKPbc	07 09 22.5	-0.8
	comp=Z,6.8nm,1.3s						
KBA	Koelnbreinsper	147.53	346	*e*PKP	PKPbc	07 09 22.6	-1.0
	comp=Z,1.8nm,0.5s						
RETA	Reutte	147.67	349	*e*PKP	PKPbc	07 09 23.2	-0.6
	comp=Z,2.3nm,0.6s						
WTTA	Wattenberg	147.72	348	*e*PKP	PKPbc	07 09 23.1	-0.9
	comp=Z,3.6nm,0.4s						
MOTA	Moosalm	147.75	349	*e*PKP	PKPbc	07 09 23.6	-0.5
	comp=Z,11nm,1.4s						
OBKA	Obir	147.75	344	*e*PKP	PKPbc	07 09 23.0	-1.1
	comp=Z,4.6nm,1.2s						
SQTA	Sankt Quirin	147.85	349	*e*PKP	PKPbc	07 09 23.5	-0.8
	comp=Z,7.8nm,1.2s						
MYKA	Terra Mystica	147.87	345	*e*PKP	PKPbc	07 09 23.1	-1.2
	comp=Z,2.0nm,0.5s						
DAVA	Damuels	148.02	350	*e*PKP	PKPbc	07 09 23.9	-0.9
	comp=Z,2.7nm,0.5s						
ABTA	Abfaltersbach	148.03	347	*e*PKP	PKPbc	07 09 23.6	-1.1
	comp=Z,3.9nm,0.6s						
FETA	Feichten	148.13	349	*e*PKP	PKPdf	07 09 23.2	+1.9
	comp=Z,4.2nm,0.9s						
STAL	STALIGIAL	148.44	346		PKPbc	07 09 24.6	-1.2
TUE	Stuetta	148.90	350	PKPdf	PKPdf	07 09 22.4	-0.2

TAP 16 06:56:47.6,23°.93N×121°.61E,h44^{km},ML2.0,C,Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ETM	Tongmen	0.11	290	*e*P	Pn	06 56 54.4	-0.4
ETM				*e*S	Sn	06 56 59.7	-0.2
SHUL	Shoufeng	0.14	197	*e*P	Pn	06 56 55.2	+0.3
SHUL				*e*S	Sn	06 57 01.4	+1.3
TWD	Chiawan	0.15	355	*e*P	Pn	06 56 54.9	-0.2
TWD				*e*S	Sn	06 57 00.4	+0.2
ESL	Shilin	0.20	235	*e*P	Pn	06 56 54.6	-0.7
LXIB	Xiulin Townshi	0.20	298	*e*P	Pn	06 56 54.9	-0.6
LXIB				*e*S	Sn	06 57 00.8	-0.3
NACB	Ninganchiao	0.25	357	P	Pn	06 56 55.2	-0.5
NACB				*e*S	Sn	06 57 00.5	-1.0
NACB	Ninganchiao	0.25	357	P	Pn	06 56 54.9	-0.8
WARBT	Fenglin Townsh	0.29	225	*e*P	Pn	06 56 55.4	-0.7
WARBT				*e*S	Sn	06 57 01.5	-0.7
ETLH	Xiulin Townshi	0.30	337	*e*P	Pn	06 56 55.7	-0.6
ETLH				*e*S	Sn	06 57 01.3	-1.2
WHF	Hehuan Shan	0.38	305	*e*P	Pn	06 56 57.6	+0.1
WHF				*e*S	Sn	06 57 04.6	0.0
OWD	Renai	0.40	274	*e*P	Pn	06 56 57.5	+0.1
OWD				*e*S	Sn	06 57 04.5	+0.2
VWDT	VWDT	0.46	248	*e*P	Pn	06 56 58.1	+0.1
VWDT				*e*S	Sn	06 57 06.0	+0.6
HGSD	Ruisui	0.47	202	*e*P	Pn	06 56 58.2	+0.2
HGSD				*e*S	Sn	06 57 06.9	+1.4
EHYH	Wanrong	0.49	209	*e*P	Pn	06 56 57.4	-1.0
EHYH				*e*S	Sn	06 57 05.5	-0.7
NNSB	Datong	0.54	337	*e*P	Pn	06 56 58.6	-0.6
NNSB				*e*S	Sn	06 57 07.2	-0.2
YULB	Yu-li	0.60	208	*e*P	Pn	06 56 58.8	-1.1
YULB				*e*S	Sn	06 57 07.4	-1.2
LATG	Datong	0.61	353	*e*P	Pn	06 56 59.1	-0.9
LATG				*e*S	Sn	06 57 08.1	-0.8
TWF1	Yuli	0.64	207	*e*P	Pn	06 57 00.6	+0.3
TWF1				*e*S	Sn	06 57 10.0	+0.5
SMLT	Sun Moon Lake	0.65	266	*e*P	Pn	06 57 01.5	+0.9
WCS	Beigang Elemen	0.65	282	*e*P	Pn	06 57 02.0	+1.5
WCS				*e*S	Sn	06 57 10.9	+1.1
EOS4	EOS4	0.68	73	*e*P	Pn	06 57 00.1	-0.3
EOS4				*e*S	Sn	06 57 08.0	-1.7
NDS	Dongshan	0.71	8	*e*P	Pn	06 57 01.1	-0.2
NDS				*e*S	Sn	06 57 11.6	+0.5
WHYT	Xinyi Township	0.73	252	*e*S	Sn	06 57 13.3	+1.7
YHNB	Yeheng	0.77	344	*e*P	Pn	06 57 01.4	-0.8
YHNB				*e*S	Sn	06 57 11.8	-0.9

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*SDD **16** 06:56:46.7±0.5,18°.29N×71°.68W,h0^{km}±133^{km},MD2.5,*
ML0.9,MW1.9,Presumed earthquake
*OSPL **16** 06:56:49.0±1.3,18°.31N×71°.64W,h3^{km}±999^{km},ML1.3,*
Presumed earthquake
ISC 16 06:56:48.1±1.3,**18°.31N**±0°.06×**71°.65W**±0°.05,**h10**^{km}±12^{km},
n6,σ**0^{s}.62**/10,**5C,Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LODU1	El Espartillar	0.17	75	*i* P	Pg	06 56 51.5	-0.3
LODU1				*e*S	Sg	06 56 54.2	-0.3
LODU1				IAML		06 56 57.7	
	comp=Z,64nm,0.2s						
JIDR	Jimani	0.26	314	⇑*e*Pg	Pg	06 56 53.4	-0.1
JIDR				⇑*e*Sg	Sg	06 56 57.8	+0.7
JIDR				IAML		06 56 58.7	
	comp=N,20nm,0.5s						
NEDR	Neiba UASD	0.28	52	⇑*e*Pg	Pg	06 56 54.3	+0.5
NEDR				⇑*e*Sg	Sb	06 57 00.3	+0.2
NEDR				IAML		06 57 01.4	
	comp=N,19nm,0.3s						
LONE3	El Aguacate, B	0.35	32	*i* P	Pg	06 56 54.5	-0.5
LONE3				*e*S	Sg	06 57 00.4	+0.6
LONE3				IAML		06 57 00.6	
	comp=Z,21nm,2.8s						
PODR	Polo	0.38	111	⇑*e*Pg	Pg	06 56 56.3	+0.6
LOVI	El Cajuil, Ovi	0.57	152	*i* P	Pb	06 56 59.7	-0.5
LOVI				IAML		06 57 10.1	
	comp=Z,39nm,1.1s						

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*SKHL **16** 06:57:09.7±0.7,45°.00N×152°.40E,h52^{km}±7^{km},mb4.6/4*
*IDC **16** 06:57:10.1±3.6,46°.84N×151°.08E,h156^{km}±33^{km},*
mb3.4/12,mbtmp3.8/13,Error ellipse: s-maj=18.3km
s-min=15.4km az=135.0
*JMA **16** 06:57:15.4±0.5,46°N±3°×15°1E±°,h189^{km},MV3.7/14,*
KURILE ISLANDS REGION
ISC 16 06:57:09.0±1.4,**46°.1N**±0°.2×**151°.7E**±0°.2,**h200**^{km},**n31,**
σ**2^{s}.34**/26,**mb3.5**/12,**Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
REI	Reidovoe	2.69	252	*e*P	Pn	06 57 56.2	+1.2
REI				AMB	AMB	06 57 58.7	
	70nm,0.5s						
REI				*e*S	Sn	06 58 31.6	+0.7
REI				A	A	06 58 32.7	
	50nm,0.3s						
REI				A	A	06 58 32.7	
	60nm,0.3s						
KUR	Kuril'sk	2.81	253	*e*P	Pn	06 57 58.1	+1.8
KUR				AMB	AMB	06 58 01.9	
	80nm,0.5s						
KUR				*e*S	Sn	06 58 33.7	+0.5
KUR				A	A	06 58 38.7	
	80nm,0.5s						
KUR				A	A	06 58 38.7	
	160nm,0.5s						
YUK	Yuzh-Kuril'sk	4.61	245	*e*P	Pn	06 58 19.5	+1.1
YUK				AMB	AMB	06 58 24.5	
	90nm,0.4s						
YUK				*e*S	Sn	06 59 12.0	-1.0
YUK				A	A	06 59 18.0	
	240nm,0.6s						
YUK				A	A	06 59 18.0	
	250nm,0.6s						
NEM2	Nemuro 2	5.04	239	*e*P	Pn	06 58 24.7	+0.8
NEM2				S	Sn	06 59 19.6	-3.3
NMR	Nemuro--Hokkai	5.05	239	*e*P	Pn	06 58 24.1	+0.1
NMR				*e*S	Sn	06 59 19.8	-3.2
JNK	Nakash	5.55	245	*e*P	Pn	06 58 31.9	+1.5
AKK	Akkeshi	5.78	240	*e*P	Pn	06 58 34.7	+1.3
AKK				*e*S	Sn	06 59 36.0	-4.0
JAK	Akkeshi	5.88	240	*e*S	Sn	06 59 38.9	-3.5
JAR	Ashorobuto	6.29	246	*e*S	Sn	06 59 51.5	-0.5
JOB	Onbets	6.46	243	*e*P	Pn	06 58 44.0	+1.9
JOB				*e*S	Sn	06 59 53.3	-2.6
JCH	Churui	6.91	242	*e*S	Sn	07 00 03.3	-3.2
PETK	Petropavlovsk-	8.00	27	P	Pn	06 58 57.7	-4.5
	4.7nm,0.4s,baz=206,slow=12,SNR=26						
H11N2	WAKE ISLAND Hy	29.17	149	T	T	07 34 41.1	
	baz=339,slow=76,SNR=44						
H11N1	WAKE ISLAND Hy	29.18	149	T	T	07 34 48.4	
	baz=339,slow=76,SNR=43						
H11N3	WAKE ISLAND Hy	29.19	149	T	T	07 34 59.0	
	baz=339,slow=76,SNR=35						
H11S1	WAKE ISLAND Hy	30.23	151	T	T	07 36 22.3	
	baz=340,slow=76,SNR=45						
H11S3	WAKE ISLAND Hy	30.24	151	T	T	07 36 11.2	
	baz=340,slow=76,SNR=35						
H11S2	WAKE ISLAND Hy	30.25	151	T	T	07 36 10.2	
	baz=340,slow=76,SNR=34						
ILAR	Eielson Array	37.66	38	P	P	07 04 07.8	+3.4
	0.4nm,0.9s,baz=269,slow=8.4,SNR=4.3						
	0.4nm,0.9s						
MKAR	Makanchi Array	46.33	297	P	P	07 05 15.6	+0.8
	0.7nm,0.6s,baz=65,slow=8.2,SNR=4.6						
MKAR				PcP	PcP	07 06 50.4	+4.0
	0.2nm,0.4s,baz=66,slow=3.8,SNR=2.1						
	0.7nm,0.6s						
KURBB	Kurchatov Arra	46.95	303	P	P	07 05 18.7	-0.8
	0.5nm,0.7s,baz=74,slow=8.5,SNR=4.5						
	0.5nm,0.7s						
YKA	Yellowknife Ar	52.02	36	P	P	07 06 00.7	+3.2
	1.1nm,0.9s,baz=299,slow=7.0,SNR=2.4						
	1.1nm,0.9s						
ARCES	ARCESS Array B	58.10	340	P	P	07 06 41.4	+0.6
	2.3nm,1.1s,baz=52,slow=10,SNR=3.9						
	2.3nm,1.1s						
NVAR	Mina Array Bea	63.61	61	P	P	07 07 24.9	+6.2
	0.4nm,0.6s,baz=304,slow=7.6,SNR=4.5						
	0.4nm,0.6s						
FINES	FINESS Array B	64.16	334	P	P	07 07 21.3	-0.3
	0.9nm,0.4s,baz=34,slow=6.8,SNR=9.4						
	0.9nm,0.4s						
PDAR	Pinedale Array	65.92	53	P	P	07 07 38.3	+4.7
	0.4nm,0.6s,baz=319,slow=1.5,SNR=7.6						
	0.4nm,0.6s						
WRA	Warramunga Arr	67.61	198	P	P	07 07 52.9	+8.8
	1.2nm,0.6s,baz=16,slow=6.8,SNR=12						
	1.2nm,0.6s						
ASAR	Alice Springs	71.32	197	P	P	07 08 16.4	+10
	1.5nm,0.6s,baz=11,slow=5.4,SNR=21						
	1.5nm,0.6s						
AKASG	Malin Array Be	71.49	326	P	P	07 08 08.4	+0.9
	0.4nm,0.4s,baz=38,slow=6.1,SNR=1.9						
	0.4nm,0.4s						
TXAR	Lajitas Array	78.67	59	P	P	07 08 54.5	+5.4
	0.6nm,0.6s,baz=300,slow=4.6,SNR=15						
	0.6nm,0.6s						
PLCA	Paso Flores	149.16	95	PKPbc	PKPab	07 16 40.7	+2.3
	1.1nm,0.5s,baz=298,slow=2.4,SNR=12						

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*IDC **16** 07:03:06.0±0.9,28°.39N×104°.71E,h0^{km},mb4.0/15,*
mbtmp4.0/17,ML4.3/2,MS3.5/3,Error ellipse:
s-maj=24.5km s-min=15.1km az=52.0
ISC 16 07:03:11.2±1.1,**28°.4N**±0°.1×**104°.7E**±0°.2,**h35**^{km},**n21,**
σ**0^{s}.67**/18,**mb4.0**/14,**MS3.5**/3,**Sichuan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LZDM	Lanzhou Array	7.56	354	Pn	Pn	07 04 58.6	-0.6
	baz=172,slow=12						
	5.8nm,0.4s						
SONM	Songino Array	19.42	3	Pn	P	07 07 34.9	+0.4
	0.5nm,0.3s,baz=184,slow=12,SNR=8.1						
	2.0nm,0.6s						
SONM				AML	AML		
WMQ	Urumqi	20.57	323	*e*P	Pn	07 07 51.9	+2.6
JOW	Kunigami	20.91	89	P	P	07 07 50.0	-0.7
	12nm,0.9s,baz=250,slow=12,SNR=2.4						
	12nm,0.9s						
KSRS	Korea Array	21.40	59	P	P	07 07 55.3	-0.5

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
	3.1nm,0.7s,baz=244,slow=9.9,SNR=9.2						
	3.1nm,0.7s						
JNU	Nakatsue	22.92	72	P	P	07 08 12.6	+0.4
	3.3nm,0.6s,baz=215,slow=13,SNR=2.0						
	3.3nm,0.6s						
HILR	Hailar Array B	24.03	24	P	P	07 08 24.3	+1.5
	0.9nm,0.3s,baz=187,slow=11,SNR=2.3						
	0.9nm,0.3s						
MKAR	Makanchi Array	25.40	322	P	P	07 08 35.7	+0.4
	3.0nm,0.6s,baz=130,slow=11,SNR=26						
	3.0nm,0.6s						
USRK	Ussuriysk Ar.	26.86	47	P	P	07 08 48.2	-0.2
	3.2nm,0.7s,baz=248,slow=8.4,SNR=6.7						
	3.2nm,0.7s						
ZALV	Zalesovo Beam	29.38	336	P	P	07 09 10.7	-0.1
	1.3nm,0.6s,baz=126,slow=8.0,SNR=6.7						
	1.3nm,0.6s						
KURBB	Kurchatov Arra	29.73	325	P	P	07 09 14.5	+0.6
	0.9nm,0.6s,baz=132,slow=9.6,SNR=12						
KURBB				LR	LR	07 21 41.1	
	comp=Z,52nm,20.6s,baz=182,slow=38						
	0.9nm,0.6s						
NRIK	Noril'sk	42.16	351	P	P	07 10 60.0	+0.1
	4.8nm,0.5s,baz=134,slow=7.1,SNR=5.9						
	4.8nm,0.5s						
TIXI	Tiksi	45.27	11	LR	LR	07 29 55.4	
	comp=Z,53nm,18.6s,baz=197,slow=36						
WRA	Warramunga Arr	55.95	146	P	P	07 12 46.0	-0.1
	0.8nm,0.6s,baz=336,slow=8.2,SNR=14						
	0.8nm,0.6s						
ASAR	Alice Springs	58.92	149	P	P	07 13 07.2	+0.2
	0.8nm,0.7s,baz=334,slow=6.6,SNR=14						
	0.8nm,0.7s						
ARCES	ARCESS Array B	59.92	336	P	P	07 13 13.2	-0.2
	1.5nm,0.8s,baz=76,slow=6.2,SNR=2.1						
	1.5nm,0.8s						
NOA	NORSAR Array B	67.21	328	P	P	07 14 00.6	-1.0
	1.1nm,0.8s,baz=73,slow=7.1,SNR=3.7						
	1.1nm,0.8s						
ILAR	Eielson Array	72.01	25	P	P	07 14 30.4	-0.6
	0.2nm,0.5s,baz=285,slow=4.6,SNR=2.5						
	0.2nm,0.5s						
YKA	Yellowknife Ar	84.08	17	P	P	07 15 38.8	+0.8
	1.1nm,0.8s,baz=298,slow=9.8,SNR=2.6						
	1.1nm,0.8s						
LBTB	Lobatse	92.78	243	LR	LR	07 55 39.2	
	comp=Z,36nm,21.0s,baz=127,slow=34						
TXAR	Lajitas Array	116.47	28	PKP	PKiKP	07 21 52.3	+0.5
	0.2nm,1.1s,baz=342,slow=4.1,SNR=2.1						

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*IDC **16** 07:03:20.6±2.0, 16°.03S×177°.93W, h457km±18km, mb3.0/6, mbtmp3.9/8, Error ellipse: s-maj=29.0km s-min=24.5km az=161.0*

ISC 16 07:03:19.9±1.0**, 16°.0S**±0°.2×**177°.8W**±0°.2**, h450km, n8, σ1s.23**/9**, mb3.2**/6**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	4.28	246	P	P	07 04 38.0	+0.4
	86nm,0.6s,baz=94,slow=12,SNR=63						
MSVF				S	S	07 05 42.1	+1.2
	11nm,0.8s,baz=30,slow=20,SNR=1.6						
DZM	Mont Dzumac	16.02	246	P	P	07 06 41.7	-0.3
	6.8nm,0.7s,baz=75,slow=16,SNR=2.2						
URZ	Urewera	22.58	190	P	P	07 07 42.8	-1.8
	2.2nm,0.3s,baz=271,slow=23,SNR=1.6						
	2.2nm,0.3s						
WRA	Warramunga Arr	45.53	258	P	P	07 10 57.0	-1.2
	0.3nm,0.4s,baz=96,slow=6.9,SNR=8.0						
	0.3nm,0.4s						
ASAR	Alice Springs	45.85	252	P	P	07 11 00.2	-0.4
	2.5nm,0.6s,baz=86,slow=7.8,SNR=48						
	2.5nm,0.6s						
VNDA	Vanda	62.34	185	P	P	07 12 57.9	+1.2
	0.3nm,0.3s,baz=39,slow=7.6,SNR=7.9						
	0.3nm,0.3s						
TXAR	Lajitas Array	84.54	58	P	P	07 15 05.8	+0.9
	0.2nm,0.7s,baz=212,slow=4.4,SNR=3.5						
	0.2nm,0.7s						
PDAR	Pinedale Array	85.63	43	P	P	07 15 09.5	-0.6
	0.2nm,0.6s,baz=268,slow=7.7,SNR=2.1						
	0.2nm,0.6s						

TRN 16 07:24:52.7, 15°.62N×61°.29W, h18km, MD3.7, Near North-east coast of Dominica., Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DWS	Wesley	0.06	206	*e*P	Pg	07 24 57.5	+1.6
DWS				*e*S	Sg	07 24 59.8	+1.6
DSDZ	La Diserade, G	0.72	17	*e*P	Pn	07 25 09.2	+1.2
DSDZ				*e*S	Sn	07 25 20.9	+2.2
SVN	Savane Anatole	0.78	172	*e*P	Pn	07 25 10.1	+1.2
SVN				*e*S	Sn	07 25 22.1	+2.0
DHSZ	Broadband at M	0.80	325	*e*P	Pn	07 25 09.9	+0.9
DHSZ				*e*S	Sn	07 25 22.6	+2.1
BIM	Bigot	1.11	169	*e*P	Pg	07 25 15.5	+1.2
BIM				*e*S	Sg	07 25 30.8	+1.9
SLBI	Saint Lucia, B	1.61	169	*e*P	Pb	07 25 22.6	+0.7
SLBI				*e*S	Sg	07 25 44.3	-0.5
ANWB	Willy Bob	2.09	347	*e*P	Pb	07 25 28.8	-1.3
ANWB				*e*S	Sb	07 25 55.2	-0.6
SKI	Saint Kitts	2.20	321	*e*P	Pb	07 25 31.3	-0.8
SKI				*e*S	Sb	07 25 58.6	-0.4

LJU 16 07:49:14.7, 46°.15N×14°.07E, h0km, ML0.7, 3C, Suspected explosion, Northwestern Balkan Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CRNS	Crni Vrh	0.15	116	⇑*i*Pg	Pg	07 49 18.0	+0.5
CRNS				*i* Sg	Sg	07 49 20.1	+0.6
CRNS				IAML		07 49 20.8	
	comp=Z,73nm,0.3s						
JAVS	Javornik	0.26	180	⇑*i*Pg	Pg	07 49 19.8	+0.3
JAVS				*i* Sg	Sg	07 49 23.5	+0.7
JAVS				IAML		07 49 24.1	
	comp=Z,11nm,0.3s						
GBAS	Gorenja Brezov	0.34	129	⇑*i*Pg	Pg	07 49 21.2	0.0
GBAS				*i* Sg	Sg	07 49 25.9	+0.4
GBAS				IAML		07 49 26.3	
	comp=Z,3.5nm,0.3s						

VIE 16 07:49:28.5±0.1**, 47°.48N×14°.90E, h0km, mb1.2**/4**, ml1.5**/6**, Error ellipse: s-maj=1.4km s-min=0.8km az=173.0 4 km S of Erzberg Mining explosion., Austria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SESA	Seetaler Alpe,	0.43	212	*e*Pg	Pg	07 49 37.4	+0.7
	5.3nm,0.1s						
SESA				*e*Sg	Sg	07 49 43.0	+0.7
	3.5nm,0.2s						
ARSA	Arzberg	0.48	118	*e*Pg	Pg	07 49 37.8	+0.1
	0.1nm,0.0s						
ARSA				*e*Sg	Sg	07 49 44.4	+0.5
	1.0nm,0.1s						
MOA	Molln	0.57	311	*e*Pg	Pg	07 49 39.3	-0.1
	0.8nm,0.2s						
MOA				*e*Sg	Sg	07 49 47.5	+0.8
	2.3nm,0.3s						
CONA	Conrad Observa	0.79	55	Pg	Pg	07 49 43.6	0.0
	0.9nm,0.3s						
CONA				*e*Sg	Sb	07 49 55.6	-0.8
	1.2nm,0.3s						
RONA	Rosalia, Austr	0.97	76	*e*Pg	Pg	07 49 47.4	+0.4
	0.7nm,0.2s						
KBA	Koelnbreinsper	1.13	250	*e*Pg	Pg	07 49 50.0	-0.2
	0.5nm,0.2s						

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*NNC **16** 08:20:12.2±1.2, 54°.02N×86°.82E, h0km, mb2.8, mpv2.7, Error ellipse: s-maj=7.5km s-min=6.0km az=61.0, Suspected Mining explosion.*

*ASRS **16** 08:20:13.0±0.8, 53°.93N×86°.60E, h0km, M3.0(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

*IDC **16** 08:20:14.2±3.4, 53°.97N×86°.63E, h0km, mbtmp3.0/2, ML2.7/2, Error ellipse: s-maj=26.2km s-min=15.6km az=77.0*

ISC 16 08:20:10.5±5.6**, 54°.3N**±0°.4×**86°.8E**±0°.2**, h0km, n9, σ0s.60**/8**, 1C-4D, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	1.23	255	I	I	08 27 27.4	
	baz=88,slow=327,SNR=2.3						
ZAA0	Zalesovo Array	1.23	255	⇑P	Pb	08 20 34.4	-0.2
	0.8nm,0.3s,baz=87,slow=15						
ZAA0				⇓S	Sb	08 20 51.0	-0.1
	32nm,1.4s,baz=86,slow=26						
ZALV	Zalesovo Beam	1.23	255	Pg	Pg	08 20 34.4	+0.3
	1.1nm,0.3s,baz=90,slow=18,SNR=7.8						
ZALV				Lg	Lg	08 20 49.0	
	2.1nm,0.3s,baz=92,slow=30,SNR=5.4						
KURK	Kurchatov	6.16	238	⇓P	Pn	08 21 42.8	+0.1
	0.7nm,1.1s						
KURBB	Kurchatov Arra	6.26	237	Pn	Pn	08 21 44.3	+0.2
	0.1nm,0.3s,baz=56,slow=13,SNR=6.2						
KURBB				Lg	Lg	08 23 24.0	
	0.1nm,0.3s,baz=58,slow=32,SNR=6.1						
	0.5nm,0.3s						
KURBB				AML	AML		
KURBB	Kurchatov Arra	6.26	237	⇓P	Pn	08 21 43.6	-0.4
	0.9nm,0.3s						
MK31	Makanchi Array	8.04	203	P	Pn	08 22 07.6	-0.8
	baz=29,slow=14,SNR=5.3						
MK31	Makanchi Array	8.04	203	Pn	Pg	08 22 49.8	+5.3
	0.1nm,0.1s,baz=118,slow=14,SNR=24						
MK31				⇓Lg	Lg	08 23 18.2	
	1.1nm,0.4s,baz=117,slow=29						
MKAR	Makanchi Array	8.04	203	Pn	Pn	08 22 09.3	+0.8
	0.1nm,0.3s,baz=24,slow=13,SNR=5.2						
MKAR				Lg	Lg	08 24 15.6	
	baz=22,slow=31						
	0.2nm,0.2s						
MKAR				AML	AML		

IDC 16 08:26:51.5±4.0**, 20°.27S×177°.08W, h319km**±35km**, mb3.0**/4**, mbtmp3.7**/5**, Error ellipse: s-maj=42.5km s-min=30.8km az=138.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	5.25	298	P	Pn	08 28 12.7	-0.1
	8.4nm,0.9s,baz=216,slow=14,SNR=1.8						
ASAR	Alice Springs	45.41	256	P	P	08 34 39.6	0.0
	0.7nm,0.6s,baz=95,slow=8.6,SNR=11						
	0.7nm,0.6s						
WRA	Warramunga Arr	45.49	262	P	P	08 34 39.9	-0.3
	0.2nm,0.3s,baz=97,slow=7.4,SNR=11						
	0.2nm,0.3s						
QSPA	South Pole Qui	69.80	180	P	P	08 37 27.7	0.0
	1.2nm,1.0s,baz=196,slow=6.3,SNR=2.5						
	1.2nm,1.0s						
ILAR	Eielson Array	87.90	12	P	P	08 39 04.9	0.0
	0.2nm,0.3s,baz=210,slow=5.1,SNR=8.2						
	0.2nm,0.3s						

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*IGQ **16** 08:32:12.8±1.0, 1°N±4°×8°0W±°, h10km±3km, M3.7/8, Mjma3.7/8, ML4.0/7, MLv3.5/6, Ms(BB)3.6/8*

*RSNC **16** 08:32:15.1±0.6, 0°N±4°×8°0W±°, h0km, M3.7, mB4.9, mb4.1, ML2.9, Mw(mB)4.2*

ISC 16 08:32:14.9±2.0**, 0°.64N**±0°.05×**80°.18W**±0°.10**, h11km**±12km**, n75, σ1s.24**/81**, 13C-10D, Near coast of Ecuador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AATC	Ecuador-Atacam	0.39	55	P	Pg	08 32 22.8	+0.1
AATC				S	Sn	08 32 30.9	+3.0
ATON	Ecuador-Tonsup	0.45	56	P	Pb	08 32 25.0	+0.2
ATON				S	Sn	08 32 34.1	+4.5
AES2	Ecuador-Puerto	0.64	57	P	Pb	08 32 27.7	-0.4
AES2				S	Sn	08 32 39.9	-0.2
RVRD	Rio Verde	0.90	62	⇑P	Pn	08 32 32.6	-0.9
RVRD				S	Sn	08 32 47.4	+0.8
ASDO	Santo Domingo	1.39	130	P	Pn	08 32 38.3	-2.0
PECV	Mancha de Ca P	1.41	175	P	Pn	08 32 41.0	+0.4
PAC1	Pacto, Paraso	1.44	105	⇑P	Pn	08 32 40.1	-0.9
PAC1	Pacto, Paraso	1.44	105	P	Pn	08 32 40.3	-0.8
SNLR	San Lorenzo-Es	1.48	64	⇑P	Pb	08 32 41.9	-0.7
TERV	Terraza Guagua	1.77	117	⇑P	Pn	08 32 45.5	-0.5
OTAV	Otavalo	1.78	103	⇑P	Pn	08 32 46.0	0.0
OTAV	Otavalo	1.78	103	P	Pn	08 32 46.1	+0.1
OTAV				S	Sb	08 33 10.7	+0.4
YANA	Yana	1.78	115	P	Pn	08 32 45.8	-0.3
GGPC	Guagua Pichinc	1.78	117	P	Pn	08 32 46.5	+0.3
GGPT	Toaza - Volcan	1.78	119	⇑P	Pn	08 32 45.4	-0.6
PULU	Pululahua	1.79	110	⇓P	Pn	08 32 46.3	+0.2
JUA2	San Juan 2	1.79	118	P	Pn	08 32 45.9	-0.3
CUSE	Cuicocha Este	1.81	101	P	Pn	08 32 46.6	+0.1
CUSE	Cuicocha Este	1.81	101	P	Pn	08 32 46.5	0.0
CUSE				S	Sb	08 33 12.0	+0.7
ALIT	Ecuador-Imbabu	1.83	85	P	Pn	08 32 46.0	-0.4
LITE1	Lita	1.83	85	P	Pn	08 32 45.6	-0.8
CUIC	Cuicocha-Domo	1.85	100	⇑P	Pn	08 32 47.2	+0.2
COTA	Cotacachi	1.87	99	⇓P	Pn	08 32 48.1	+0.7
ZALD	Colegio Gonzal	1.87	119	⇓P	Pn	08 32 47.8	+0.6
CIVI	Edificio de In	1.89	117	P	Pn	08 32 48.0	+0.5
URCU	Urcuqui	1.94	96	P	Pn	08 32 48.3	+0.1
AOTA	Otavalo	1.97	102	P	Pb	08 32 50.3	-0.7
ILLI	Illinizas Sur	1.98	133	P	Pn	08 32 48.2	-0.6
IMBA	Imbabura, San	2.02	100	⇑P	Pb	08 32 51.1	-0.7
TOMA	Boca Toma-Volc	2.08	123	P	Pn	08 32 51.2	+1.0
SUCR	Mariscal Sucre	2.11	127	P	Pn	08 32 51.5	+0.9
PITA	Cotopaxi Volc	2.12	124	P	Pn	08 32 51.6	+0.9
SRAM	San Ramn-Vol	2.12	130	⇓P	Pn	08 32 51.5	+0.7
YAHU	Yahuarcocha	2.13	97	P	Pb	08 32 53.5	-0.2
CHMA	Chilma	2.13	84	P	Pn	08 32 49.2	-1.5
NAS2	Nasa	2.14	127	P	Pn	08 32 52.0	+1.0
SLOR	San Lorenzo -	2.17	129	⇑P	Pn	08 32 52.2	+0.9
BREF	Cotopaxi Volca	2.17	127	⇑P	Pn	08 32 52.5	+0.9
LNGL	El Angel-Carch	2.18	87	P	Pn	08 32 51.8	+0.2
VC1	Cotopaxi 1	2.19	126	P	Pn	08 32 52.9	+1.2
BVC2	Cotopaxi Volca	2.19	126	⇑P	Pn	08 32 52.7	+0.9
BMOR	Cotopaxi Volca	2.19	128	⇑P	Pn	08 32 52.4	+0.5
BTAM	Cotopaxi Volca	2.21	126	⇑P	Pn	08 32 53.1	+1.0
BRRN	Barrancas-Volc	2.21	130	P	Pn	08 32 53.0	+0.9
ECEN	Cerro Negro	2.22	85	P	Pn	08 32 52.5	+0.4
ANTG	Antisana-Guama	2.24	120	P	Pn	08 32 53.7	+1.3
CHL1	Volc¡n Chiles	2.24	86	P	Pn	08 32 52.7	+0.2
TAMB	Tambo	2.25	126	⇓P	Pn	08 32 53.8	+1.3
ANGU	Angureal	2.25	105	⇓P	Pb	08 32 55.1	-0.9
CAYR	Refugio Cayamb	2.26	106	P	Pb	08 32 55.0	-1.1
CHL2	Volc¡n Chiles	2.27	86	⇓P	Pn	08 32 53.3	+0.4
ANTM	Antisana-La Mi	2.28	121	⇓P	Pn	08 32 54.4	+1.4
ANTI	Antisana	2.29	118	P	Pn	08 32 54.8	+1.6
ANTS	Antisana-Sarah	2.31	119	P	Pn	08 32 54.4	+1.0
CMBC	Cumbal	2.38	83	P	Pb	08 32 56.1	-1.9
TULM	Tulcn-Chalpat	2.40	88	⇓P	Pn	08 32 56.0	+1.5
TULM	Tulcn-Chalpat	2.40	88	P	Pb	08 32 56.8	-1.6
PIS1	Pisayambo	2.46	133	⇓P	Pn	08 32 57.4	+1.9
CHSH	Refugio Sur-Vo	2.49	148	P	Pn	08 32 56.5	+0.5
TAMH	Tambohuasha Ch	2.58	147	P	Pn	08 32 57.1	0.0
BPAT	Tungurahua Vol	2.75	141	P	Pn	08 33 01.4	+1.9
CASC	Dorado de Casc	2.89	100	P	Pn	08 33 03.8	+2.8
CASC	Dorado de Casc	2.89	100	P	Pn	08 33 03.5	+2.5
CASC				S	Sb	08 33 42.7	+0.8
PUYO	Puyo, Santa Ro	3.02	134	P	Pb	08 33 07.2	-1.7
BBAC	Balboa, Cauca	3.24	65	P	Pn	08 33 05.2	-0.7
BBAC	Balboa, Cauca	3.24	65	P	Pn	08 33 05.1	-0.8
BBAC				S	Sn	08 33 44.8	+0.2
CRUC	La Cruz	3.36	74	P	Pn	08 33 08.9	+1.2
POPC	Popayan, Colom	3.98	62	P	Pn	08 33 15.9	-0.2
GARC	Garzon, Huila	4.93	72	P	Pn	08 33 30.3	+1.0
	10nm,0.4s						
GARC				AML	AML		
PTLC	Puerto Leguiza	5.41	95	P	Pn	08 33 37.2	+1.7
	1μm20nm,0.7s						
PTLC				AML	AML		
ORTC	Ortega, Tolima	5.91	57	P	Pn	08 33 44.8	+2.4
	15nm,0.9s						
ORTC				AML	AML		
PRAC	Prado	6.11	60	P	Pn	08 33 46.2	+0.9
	7.7nm,1.5s						
PRAC				AML	AML		
MACC	Macarena, Meta	6.51	77	P	Pn	08 33 56.2	+5.5
	20nm,0.6s						
GUY2C	Guyana, Caldas	6.62	46	P	Pb	08 34 02.6	-7.9
	6.1nm,1.0s						
CHIC	Chingaza	7.56	58	P	Pn	08 34 08.1	+2.5

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*MEX **16** 08:38:46.7±0.5, 14°.46N×92°.13W, h83km±9km, MD3.8, Presumed earthquake*

*GCG **16** 08:38:48.8±0.5, 14°.83N×91°.91W, h68km±4km, MD3.6, Presumed earthquake*

ISC 16 08:38:43.7±2.2**, 14°.4N**±0°.1×**92°.14W**±0°.09**, h90km**±12km**, n11, σ2s.25**/22**, Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SMCA	Catarina	0.43	8	*i* P	Pn	08 38 59.0	+1.0
SMCA				*i* S	Sn	08 39 07.1	-1.5
RTAL	Retalhuleu	0.44	77	*e*P	Pn	08 39 00.4	+2.4
RTAL				*e*S	Sn	08 39 09.6	+0.9
THIG		0.50	346	*e*P	Pn	08 38 59.4	+0.9
THIG				*e*S	Sn	08 39 08.4	-0.9
CHUJ	Union Juarez	0.67	3	*e*P	Pn	08 39 00.7	+0.5
CHUJ				*e*S	Sn	08 39 12.2	-0.3
PATR	El Naranjo	0.69	353	*e*P	Pn	08 39 00.8	+0.3
PATR				*e*S	Sn	08 39 11.3	-1.6
STG8	El Palmar, Qui	0.77	88	*i* P	Pn	08 39 00.7	-0.4
STG8				*i* S	Sn	08 39 10.3	-3.8
PAVE	Pavencul	0.77	357	*e*P	Pn	08 39 01.8	+0.6
PAVE				*e*S	Sn	08 39 14.2	0.0
HUEH	Huehuetenango	1.08	35	*e*P	Pn	08 39 05.9	+1.3
HUEH				*e*S	Sn	08 39 20.4	+0.1
TGIG		2.52	338	*e*P	Pn	08 39 25.2	+2.3
TGIG				*e*S	Sn	08 39 50.5	-2.5
UXUV	UXUV	3.46	326	*e*P	Pn	08 39 37.7	+2.2
UXUV				*e*S	Sn	08 40 13.1	-2.5
CMIG	Matias Romero	3.74	315	*e*P	Pn	08 39 42.4	+3.1
CMIG				*e*S	Sn	08 40 17.1	-5.2

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*BJI **16** 08:44:27.2, 22°.23S×171°.73E, h110km, mB5.7/52, mb5.9/91*

*NEIC **16** 08:44:28.7±2.3, 22°.31S±0°.08×171°.59E±0°.07, h102km±1km, mb5.7/574, Mwb5.7/71, Mww5.7/57, Error ellipse: s-maj=13.0km s-min=10.9km az=168.0, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}1.48; $M_{\theta\theta}$-2.88; $M_{\phi\phi}$1.40; $M_{r\theta}$2.93; $M_{\theta\phi}$2.00; $M_{\phi r}$1.38; Fault plane solution: $M_0$4.55000×10^{17} NP1:ϕ_s74.32000°, δ77.67000°, λ50.92000°. NP2:ϕ_s329.58000°, δ40.68000°, λ160.87000°. Principal axes: T 4.4941, Plg43.0000°, Azm306.0000°; N 0.1079, Plg38.0000°, Azm84.0000°; P -4.6020, Plg23.0000°, Azm193.0000°;*

*NEIC **16** 08:44:29.8, 22°.33S×171°.52E, h110km*

*IDC **16** 08:44:29.8±1.1, 22°.33S×171°.54E, h122km±8km, mb5.3/31, mbtmp5.7/37, MS4.4/47, Error ellipse: s-maj=9.0km s-min=8.2km az=167.0*

*MOS **16** 08:44:29.4±1.1, 22°.30S×171°.54E, h125km, mb5.7/26, Error ellipse: s-maj=7.8km s-min=6.7km az=118.3*

*NEIC **16** 08:44:29.3, 22°.31S×171°.55E, h107km*

*GFZ **16** 08:44:29.2, 22°.29S×171°.59E, h102km, Mw5.7/63, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}1.22; $M_{\theta\theta}$-2.05; $M_{\phi\phi}$0.84; $M_{r\theta}$2.41; $M_{\theta\phi}$2.23; $M_{\phi r}$1.08; Fault plane solution: $M_0$3.88957×10^{17} NP1: ϕ_s336.69859°, δ44.85070°, λ161.62209°. NP2: ϕ_s79.95201°, δ77.15248°, λ46.64807°. Principal axes: T 3.9206, Plg41.1880°, Azm309.7847°; N -0.0628, Plg42.0124°, Azm91.8074°; P -3.8578, Plg20.1251°, Azm201.0818°;*

*GCMT **16** 08:44:30.7±0.1, 22°.43S±0°.01×171°.53E±0°.01, h118km, MW5.7/166, Moment Tensor Solution. s153,c306; s166,c367; Duration: 1s.8 Moment tensor: Scale 10^{17} Nm; M_{rr}0.73±.04; $M_{\theta\theta}$-2.45±.04; $M_{\phi\phi}$1.72±.04; $M_{r\theta}$3.01±.03; $M_{\theta\phi}$2.80±.04; $M_{\phi r}$1.51±.03; Best double couple: $M_0$4.88600×10^{17} NP1:ϕ_s338.00000°, δ47.00000°, λ170.00000°. NP2:ϕ_s74.00000°, δ83.00000°, λ44.00000°. Principal axes: T 5.0260, Plg35.0000°, Azm306.0000°; N -0.2780, Plg46.0000°, Azm81.0000°; P -4.7460, Plg24.0000°, Azm198.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*NOU **16** 08:44:30.8, 22°.31S×171°.46E, h125km, ML5.9/148, Southeast of Loyalty Islands*

*PTWC **16** 08:44:31, 22°.40S×171°.50E, h117km, Mwp5.7/5*

*BGR **16** 08:44:33.0, 22°.64S×172°.27E, h160km±2km*

*GFZ **16** 08:44:33.2±0.5, 22°S±3°×17°2E±°, h154km±6km, M5.8/39, mb6.0/39*

*NEIC **16** 08:44:34.3, 22°.33S×171°.73E, h110km, Moment Tensor Solution. Duration: 3s.6 Moment tensor: Scale 10^{17}Nm; M_{rr}1.25; $M_{\theta\theta}$-2.36; $M_{\phi\phi}$1.11; $M_{r\theta}$2.60; $M_{\theta\phi}$2.47; $M_{\phi r}$1.34; Fault plane solution: $M_0$4.34000×10^{17} NP1: ϕ_s335.87000°, δ46.10000°, λ162.79000°. NP2: ϕ_s77.99000°, δ77.69000°, λ45.21000°. Principal axes: T 4.4218, Plg40.0000°, Azm308.0000°; N -0.1615, Plg43.0000°, Azm90.0000°; P -4.2604, Plg20.0000°, Azm200.0000°;*

ISC 16 08:44:30.1±0.3**, 22°.36S**±0°.03×**171°.54E**±0°.03**, h126km**±1km**, h126km:pP-P, n1525, σ1s.36**/1428**, mb5.7**/457**, 135C-67D, Southeast of Loyalty Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MARNC	Mare, Loyalty	3.37	284	P	Pn	08 45 20.8	-0.7
MARNC	Mare, Loyalty	3.37	284	S	Sn	08 45 59.2	-1.9
MARNC	Mare, Loyalty	3.37	284		Pn	08 45 20.8	-0.7
MARNC	Mare, Loyalty	3.37	284	P	Pn	08 45 20.7	-0.7
MARNC				S	Sn	08 45 59.7	-1.4
YATNC	Mamie plateau,	4.31	273	P	Pn	08 45 33.4	-0.6
YATNC	Mamie plateau,	4.31	273	S	Sn	08 46 23.0	-0.6
OUENC	Ouen Island, N	4.34	268	P	Pn	08 45 34.5	+0.1
OUENC	Ouen Island, N	4.34	268	S	Sn	08 46 22.8	-1.5
OUENC	Ouen Island, N	4.34	268		Pn	08 45 34.2	-0.1
OUENC	Ouen Island, N	4.34	268	P	Pn	08 45 34.5	+0.1
ONTNC	Ouen Toro	4.71	270	P	Pn	08 45 39.5	+0.3
ONTNC	Ouen Toro	4.71	270	S	Sn	08 46 31.5	-1.4
ONTNC	Ouen Toro	4.71	270		Pn	08 45 39.1	-0.1
ONTNC	Ouen Toro	4.71	270	P	Pn	08 45 39.1	-0.1
DZM	Mont Dzumac	4.73	272	P	Pn	08 45 40.1	+0.5
	5μm,0.7s,baz=84,slow=19						
DZM				S	Sn	08 46 32.5	-1.1
	4μm,0.7s,baz=132,slow=23,SNR=15						
DZM				LR	LR	08 46 46.3	
	comp=Z,3μm,20.1s,baz=78,slow=29						
NOUC	Port Laguerre	4.85	272	P	Pn	08 45 41.4	+0.2
NOUC	Port Laguerre	4.85	272	S	Sn	08 46 34.9	-1.6
NOUC	Port Laguerre	4.85	272	P	Pn	08 45 41.3	+0.1
NOUC	Port Laguerre	4.85	272	P	Pn	08 45 41.1	-0.1
NOUC				S	Sn	08 46 35.8	-0.8
NOUC				AML	AML		
RTV	Rentapao	5.40	327	P	Pn	08 45 48.9	+0.3
RTV	Rentapao	5.40	327	P	Pn	08 45 50.1	+1.5
DVP	Devils Point	5.58	325	P	Pn	08 45 51.0	0.0
KOUNC	Koumac, New Ca	6.99	284	P	Pn	08 46 10.4	+0.5
KOUNC	Koumac, New Ca	6.99	284	S	Sn	08 47 28.0	0.0
KOUNC	Koumac, New Ca	6.99	284		Pn	08 46 10.2	+0.3
KOUNC	Koumac, New Ca	6.99	284	P	Pn	08 46 11.2	+1.3
NFK	Norfolk Island	7.41	205	P	Pn	08 46 15.5	-0.1
	comp=Z,9μm,0.9s,comp=Z,0.0nm						
NFK	Norfolk Island	7.41	205	P	Pn	08 46 15.5	-0.1
NFK	Norfolk Island	7.41	205	P	Pn	08 46 15.5	-0.1
NFK	Norfolk Island	7.41	205	P	Pn	08 46 15.6	+0.1
NFK				AML	AML		
MSVF	Nonsavu	7.66	54	P	Pn	08 46 18.2	-0.9
	comp=Z,177nm,0.8s,baz=261,slow=19,SNR=41						
MSVF	Nonsavu	7.66	54	P	Pn	08 46 20.2	+1.1
MSVF	Nonsavu	7.66	54	S	Sn	08 47 45.5	+1.1
MSVF	Nonsavu	7.66	54	⇓*i*P	Pn	08 46 19.2	+0.1
MSVF				pmax	pmax		
	comp=Z,181nm,0.8s						
MSVF	Nonsavu	7.66	54		Pn	08 46 20.0	+0.9
MSVF	Nonsavu	7.66	54	P	Pn	08 46 20.4	+1.3
MSVF	Nonsavu	7.66	54	P	Pn	08 46 19.6	+0.5
MSVF				AML	AML		
MSVF	Nonsavu	7.66	54	P	Pn	08 46 20.4	+1.3
	comp=Z,536nm,1.3s						
SANVU	Saraoutou	8.00	328	P	Pn	08 46 23.4	-0.3
SANVU	Saraoutou	8.00	328		Pn	08 46 23.2	-0.4
SANVU	Saraoutou	8.00	328	P	Pn	08 46 25.2	+1.5
SANVU	Saraoutou	8.00	328	P	Pn	08 46 22.4	-1.3
SANVU				AML	AML		
SANVU	Saraoutou	8.00	328	P	Pn	08 46 26.6	+3.0
	comp=Z,1μm,1.1s						
TAVE	Taveuni	9.83	57	P	Pn	08 46 49.9	+1.6
LKBA	Tubou, Lakemba	9.94	67	P	Pn	08 46 50.8	+1.0

RIZ	Raoul Island	11.71	128	P	Pn	08 47 15.5	+2.3
RAO	Raoul Island	11.72	128	P	Pn	08 47 13.7	+0.3
	comp=Z,192nm,0.5s,baz=302,slow=19,SNR=9.0						
RAO				LR	LR	08 50 00.2	
	comp=Z,4µm,21.4s,baz=298,slow=28						
RAO	Raoul Island	11.72	128	P	Pn	08 47 15.3	+1.9
RAO	Raoul Island	11.72	128		Pn	08 47 15.5	+2.1
RAO	Raoul Island	11.72	128	P	Pn	08 47 15.7	+2.3
	comp=Z,855nm,1.5s						
FUTU	Fugatoga	12.66	53		Pn	08 47 25.6	-0.3
FUTU	Fugatoga	12.66	53	P	Pn	08 47 27.2	+1.3
FUTU	Fugatoga	12.66	53	P	Pn	08 47 27.4	+1.5
	comp=Z,385nm,1.5s						
OUZ	Omahuta	12.94	172	P	Pn	08 47 31.2	+1.9
OUZ	Omahuta	12.94	172	P	Pn	08 47 29.5	+0.2
OUZ	Omahuta	12.94	172	P	Pn	08 47 29.6	+0.3
OUZ	Omahuta	12.94	172	P	Pn	08 47 30.6	+1.2
	comp=Z,831nm,0.9s						
WCZ	Waipu Caves	13.75	170	P	Pn	08 47 41.3	+1.5
GRZ	Great Barrier	14.26	167	P	Pn	08 47 47.6	+1.3
LHI	Lord Howe Isla	14.38	228	P	Pn	08 47 48.8	+1.0
	comp=Z,509nm,1.2s						
LHI	Lord Howe Isla	14.38	228	P	Pn	08 47 48.6	+0.8
LHI	Lord Howe Isla	14.38	228		Pn	08 47 48.4	+0.6
LHI	Lord Howe Isla	14.38	228	P	Pn	08 47 48.6	+0.8
LHI	Lord Howe Isla	14.38	228	P	Pn	08 47 49.0	+1.2
ABAZ	Army Bay	14.48	169	P	P	08 47 51.9	-0.3
MBAZ	Motutapu North	14.65	169	P	P	08 47 53.7	-0.4
WIAZ	Waiheke Island	14.72	169	P	P	08 47 54.4	-0.5
WTAZ	Waiatarua	14.76	170	P	P	08 47 54.9	-0.4
ETAZ	East Tamaki Re	14.84	169	P	Pn	08 47 54.7	+1.1
AWAZ	Awhitu Peninsu	14.90	170	P	P	08 47 55.8	-1.0
HURO	Huro Makira	15.00	321	P	Pn	08 47 55.4	-0.3
HURO	Huro Makira	15.00	321	P	Pn	08 47 54.9	-0.8
MKAZ	Moumakai	15.03	169	P	P	08 47 57.5	-0.7
NGOA	Tingoa Renbel	15.35	313	P	Pn	08 47 59.4	-0.7
NGOA	Tingoa Renbel	15.35	313	P	Pn	08 47 59.6	-0.5
TOZ	Tahuroa Road	15.70	168	P	P	08 48 05.2	-0.5
TOZ	Tahuroa Road	15.70	168	P	P	08 48 05.6	-0.1
MXZ	Matakaoa Point	16.24	160	P	P	08 48 12.6	+0.9
MXZ	Matakaoa Point	16.24	160		P	08 48 12.2	+0.5
MXZ	Matakaoa Point	16.24	160	P	P	08 48 14.3	+2.6
HAZ	Te Kaha	16.27	162	P	P	08 48 14.1	+2.2
TLZ	Tolley Road	16.29	169	P	P	08 48 14.4	+2.1
HIZ	Hauiti	16.35	171	P	P	08 48 13.7	+0.8
HIZ	Hauiti	16.35	171	P	P	08 48 14.4	+1.5
HIZ	Hauiti	16.35	171	P	P	08 48 14.2	+1.3
HIZ	Hauiti	16.35	171	P	P	08 48 14.2	+1.3
HIZ	Hauiti	16.35	171	P	P	08 48 14.4	+1.5
	comp=Z,890nm,1.3s						
URZ	Urewera	16.56	164	P	P	08 48 16.5	+1.3
	comp=Z,483nm,1.0s,baz=344,slow=5.3,SNR=103						
URZ				S	Sn	08 51 19.6	+0.6
	comp=Z,14nm,0.9s,baz=12,slow=20,SNR=1.5						
URZ				LR	LR	08 53 54.9	
	comp=Z,5µm,18.1s,baz=338,slow=34						
URZ	Urewera	16.56	164	P	P	08 48 16.7	+1.6
URZ	Urewera	16.56	164	P	P	08 48 16.8	+1.6
URZ	Urewera	16.56	164	P	P	08 48 17.2	+2.1
URZ	Urewera	16.56	164	P	P	08 48 16.8	+1.6
	comp=Z,1µm,1.7s						
PUZ	Puketiti	16.70	161	P	P	08 48 18.5	+1.8
MWZ	Matawai	16.74	163	P	P	08 48 18.8	+1.6
RTZ	Ruatahuna	16.86	165	P	Pn	08 48 20.2	+1.5
RTZ	Ruatahuna	16.86	165	P	Pn	08 48 21.0	+2.3
VRZ	Vera Road	16.94	171	P	Pn	08 48 21.7	+2.2
HNR	Honiara	17.00	317	P	Pn	08 48 20.7	+0.4
	comp=Z,2µm,1.0s,baz=151,slow=2.7,SNR=27						
HNR	Honiara	17.00	317	P	P	08 48 20.1	-0.1
HNR	Honiara	17.00	317	P	Pn	08 48 20.3	0.0
HNR	Honiara	17.00	317	P	Pn	08 48 21.1	+0.7
HNR	Honiara	17.00	317	P	Pn	08 48 20.7	+0.4
	comp=Z,3µm,1.1s						
NEZ	North Egmont	17.00	173	P	Pn	08 48 22.6	+2.3
KHEZ	Kahui Hut	17.02	173	P	Pn	08 48 21.8	+1.3
ALEG	Aligegeo Malai	17.07	321	P	P	08 48 21.1	+0.1
NGZ	Ngauruhoe	17.12	169	P	Pn	08 48 23.6	+1.8
BKZ	Black Stump Fm	17.28	167	P	Pn	08 48 24.9	+1.2
BKZ	Black Stump Fm	17.28	167	P	Pn	08 48 25.1	+1.4
KNZ	Kokohu	17.42	164	P	Pn	08 48 25.5	+0.2
WAZ	Wanganui	17.59	171	P	Pn	08 48 29.8	+2.4
TATA	Tatamba Isabel	17.89	319	P	P	08 48 30.2	+0.1
TATA	Tatamba Isabel	17.89	319	P	P	08 48 30.4	+0.3
AFI	Afiamalu	17.93	65	P	P	08 48 29.4	-1.1
	comp=Z,83nm,0.9s,baz=203,slow=10,SNR=4.6						
AFI	Afiamalu	17.93	65	P	P	08 48 30.4	-0.2
TSZ	Takapari Road	18.04	169	P	Pn	08 48 32.8	0.0
PXZ	Pawanui	18.19	167	P	P	08 48 33.6	+0.5
QRZ	Quartz Range	18.43	178	P	Pn	08 48 37.0	-0.3
QRZ	Quartz Range	18.43	178	P	Pn	08 48 37.9	+0.5
QRZ	Quartz Range	18.43	178	P	Pn	08 48 38.4	+1.0
MRZ	Mangatainoka R	18.57	170	P	P	08 48 37.3	+0.1
MRZ	Mangatainoka R	18.57	170	P	P	08 48 37.6	+0.4
TKNZ	Takaka Hill	18.66	177	P	Pn	08 48 40.6	+0.5
BFZ	Birch Farm	18.70	169	P	P	08 48 38.8	+0.2
BFZ	Birch Farm	18.70	169	P	Pn	08 48 39.9	-0.6
BFZ	Birch Farm	18.70	169	P	P	08 48 38.8	+0.2
	comp=Z,1µm,0.8s						
NNZ	Nelson	18.87	176	P	Pn	08 48 41.9	-0.5
EIDS	Eidsvold	18.95	257	P	Pn	08 48 44.6	+1.0
	comp=Z,715nm,1.4s						
EIDS	Eidsvold	18.95	257	P	P	08 48 41.9	+0.4
EIDS	Eidsvold	18.95	257	P	Pn	08 48 44.1	+0.6
EIDS	Eidsvold	18.95	257	P	Pn	08 48 44.3	+0.8
EIDS	Eidsvold	18.95	257	P	Pn	08 48 44.6	+1.0
	comp=Z,715nm,1.4s						
WEL	Wellington	19.07	173	P	Pn	08 48 43.7	-1.1
SNZO	South Karori	19.09	173	P	P	08 48 43.0	+0.2
SNZO	South Karori	19.09	173	P	P	08 48 43.2	+0.4
SNZO	South Karori	19.09	173	P	P	08 48 43.1	+0.2
SNZO	South Karori	19.09	173	P	P	08 48 43.5	+0.6
	comp=Z,890nm,1.2s						
DSZ	Denniston Nort	19.33	179	P	Pn	08 48 47.5	-0.5
THZ	Tophouse	19.38	177	P	Pn	08 48 47.7	-0.8
ARMA	Armidale	19.54	242	P	Pn	08 48 51.5	+0.9
	comp=Z,144nm,1.4s,comp=Z,0.0nm						
ARMA	Armidale	19.54	242	P	P	08 48 48.4	+0.4
ARMA	Armidale	19.54	242	P	Pn	08 48 51.1	+0.6
ARMA	Armidale	19.54	242	P	Pn	08 48 51.0	+0.5
ARMA	Armidale	19.54	242	P	Pn	08 48 51.8	+1.2
	comp=Z,144nm,1.4s						
KHZ	Kahutara	20.07	176	P	P	08 48 53.5	0.0
KHZ	Kahutara	20.07	176	P	P	08 48 53.8	+0.2
KHZ	Kahutara	20.07	176	P	P	08 48 53.7	+0.2
	comp=Z,1µm,0.8s						
INZ	Inchbonnie	20.31	180	P	Pn	08 48 57.8	-1.5
LTZ	Lake Taylor	20.38	178	P	Pn	08 48 58.6	-1.6
GVZ	Greta Valley S	20.59	177	P	P	08 48 59.3	+0.2
WVZ	Waitaha Valley	20.67	182	P	P	08 49 01.3	+1.4
OXZ	Oxford	20.92	179	P	P	08 49 02.1	-0.5
MGCD	Mangrove Creek	21.02	235	P	P	08 49 07.0	+3.2
	comp=Z,180nm,0.8s						
MGCD	Mangrove Creek	21.02	235	P	P	08 49 04.2	+0.4
MGCD	Mangrove Creek	21.02	235	P	P	08 49 07.3	+3.5
	comp=Z,180nm,0.8s						
RMQ	Roma	21.14	254	P	P	08 49 08.6	+3.5
	comp=Z,208nm,1.0s						
RMQ	Roma	21.14	254	P	P	08 49 08.3	+3.2
	comp=Z,209nm,1.0s						
FOZ	Fox Glacier	21.17	183	P	P	08 49 06.6	+1.4
RPZ	Rata Peaks	21.30	181	P	P	08 49 07.6	+0.8
	comp=Z,162nm,1.1s,baz=21,slow=5.4,SNR=46						
RPZ				LR	LR	08 56 28.6	
	comp=Z,604nm,18.9s,baz=38,slow=34						
	comp=Z,162nm,1.1s						
RPZ	Rata Peaks	21.30	181	P	P	08 49 08.0	+1.3
RPZ	Rata Peaks	21.30	181	P	P	08 49 07.5	+0.7
RPZ	Rata Peaks	21.30	181	P	P	08 49 07.9	+1.1
SYDH	Sydney Hard Ro	21.54	234	P	P	08 49 10.3	+1.0
JCZ	Jackson Bay	21.78	185	P	P	08 49 12.9	+1.0
JCZ	Jackson Bay	21.78	185	P	P	08 49 14.2	+2.3
LBZ	Lake Benmore	22.00	183	P	P	08 49 13.9	-0.2
LBZ	Lake Benmore	22.00	183	P	P	08 49 14.2	+0.1
MSZ	Milford Sound	22.46	187	P	P	08 49 21.8	+3.1
ODZ	Otahua Downs	22.64	182	P	P	08 49 20.8	+0.3
ODZ	Otahua Downs	22.64	182	P	P	08 49 21.0	+0.6
ODZ	Otahua Downs	22.64	182	P	P	08 49 21.3	+0.8
	comp=Z,255nm,1.5s						
CNB	Canberra Magne	23.26	231	P	P	08 49 29.0	+2.5
	comp=Z,6.0nm,1.0s						
TV1H	Townsville Har	23.32	273	P	P	08 49 27.4	+0.2
DCZ	Deep Cove	23.33	188	P	P	08 49 28.6	+1.6
CTZ	Chatham Island	23.47	158	P	P	08 49 29.1	+0.8
HHSZ	Highcliff Hill	23.48	182	P	P	08 49 30.5	+2.2
CAN	Canberra	23.52	232	P	P	08 49 30.6	+1.7
	comp=Z,157nm,0.8s						
CAN	Canberra	23.52	232	P	P	08 49 29.5	+0.6
CAN	Canberra	23.52	232	P	P	08 49 30.3	+1.3
CAN	Canberra	23.52	232	P	P	08 49 30.2	+1.3
CAN	Canberra	23.52	232	P	P	08 49 31.1	+2.2
	comp=Z,157nm,0.8s						
TARA	Tarawa	23.61	3	P	P	08 49 29.9	+0.2
	comp=Z,1µm,1.2s						
WHZ	Wether Hill Ro	23.66	186	P	P	08 49 29.7	-0.2
CTA	Charters Tower	23.67	271	P	P	08 49 31.7	+1.4
	comp=Z,207nm,1.5s,comp=Z,0.0nm						
CTA	Charters Tower	23.67	271	P	P	08 49 31.9	+1.5
	comp=Z,177nm,0.8s,baz=90,slow=10,SNR=56						
CTA				PcP	PcP	08 53 12.3	+0.9
	comp=Z,31nm,1.0s,baz=149,slow=5.9,SNR=3.5						
CTA				LR	LR	08 57 18.2	
	comp=Z,664nm,18.7s,baz=88,slow=32						
	comp=Z,177nm,0.8s						
CTA	Charters Tower	23.67	271	P	P	08 49 30.6	+0.3
CTAO	Charters Tower	23.67	271	P	P	08 49 30.8	+0.5
CTAO	Charters Tower	23.67	271	P	P	08 49 31.4	+1.1
CTAO	Charters Tower	23.67	271	P	P	08 49 31.4	+1.1
CTAO	Charters Tower	23.67	271	P	P	08 49 31.8	+1.5
	comp=Z,518nm,1.5s						
SYZ	Scrubby Hill	24.20	184	P	P	08 49 36.1	+1.3
MILA	Mila	24.26	228	P	P	08 49 37.7	+2.1
	comp=Z,52nm,0.8s						
MILA	Mila	24.26	228	P	P	08 49 37.2	+1.7
	comp=Z,53nm,0.8s						
MTSU	Mount Surprise	25.86	274	P	P	08 49 52.0	+1.7
	comp=Z,1µm,0.8s						
MTSU	Mount Surprise	25.86	274	P	P	08 49 51.9	+1.7
	comp=Z,1µm,0.8s						
MTSU	Mount Surprise	25.86	274	P	P	08 49 50.7	+0.4
MTSU	Mount Surprise	25.86	274	P	P	08 49 52.0	+1.7
	comp=Z,1µm,0.8s						
RABL	Rabaul	26.04	311	P	P	08 49 51.3	-0.6
RABL				IAmb	IAmb	08 49 56.4	
	comp=Z,215nm,0.6s						
RAR	Rarotonga	26.65	93	LR	LR	08 58 22.1	
	comp=Z,694nm,21.7s,baz=264,slow=31						
PMG	Port Moresby	26.69	295	P	P	08 49 57.9	+0.2
	comp=Z,372nm,0.7s,baz=112,slow=5.8,SNR=71						
PMG				LR	LR	08 58 25.3	
	comp=Z,390nm,18.6s,baz=133,slow=31						
	comp=Z,372nm,0.7s						
PMG	Port Moresby	26.69	295	P	P	08 49 57.7	0.0
PMG	Port Moresby	26.69	295*c*	*i*P	P	08 49 58.2	+0.5
PMG				pmax	pmax		
	comp=Z,334nm,0.8s						
PMG	Port Moresby	26.69	295	P	P	08 49 58.1	+0.5
PMG	Port Moresby	26.69	295	P	P	08 49 58.2	+0.5
	comp=Z,4µmcomp=Z,5µmcomp=Z,574nm,0.9s						
PMG	Port Moresby	26.69	295	P	P	08 49 58.4	+0.7
	comp=Z,587nm,0.9s						
TOO	Toolangi	27.07	230	P	P	08 50 02.7	+1.8
	comp=Z,24nm,0.9s						
TOO	Toolangi	27.07	230	P	P	08 50 02.4	+1.5
	comp=Z,24nm,0.9s						
TOO	Toolangi	27.07	230	P	P	08 50 02.3	+1.5
TOO				pmax	pmax		
	comp=Z,16nm,0.8s						
TOO	Toolangi	27.07	230	P	P	08 50 02.3	+1.4
STKA	Stephens Creek	28.21	244	P	P	08 50 12.7	+1.6
	comp=Z,350nm,1.4s						
STKA	Stephens Creek	28.21	244	P	P	08 50 12.4	+1.4
	comp=Z,350nm,1.4s						
STKA	Stephens Creek	28.21	244	P	P	08 50 11.9	+0.8
	comp=Z,42nm,0.8s,baz=85,slow=9.9,SNR=71						
STKA				PcP	PcP	08 53 22.6	+0.9
	comp=Z,37nm,0.7s,baz=75,slow=4.3,SNR=9.0						
STKA				ScP	ScP	08 56 53.4	+2.2
	comp=Z,28nm,1.0s,baz=45,slow=4.3,SNR=11						
STKA				LR	LR	08 59 50.3	
	comp=Z,900nm,20.9s,baz=72,slow=33						
	comp=Z,42nm,0.8s						
STKA	Stephens Creek	28.21	244	P	P	08 50 11.7	+0.6
STKA	Stephens Creek	28.21	244	*i* P	P	08 50 11.1	0.0
STKA	Stephens Creek	28.21	244	P	P	08 50 12.7	+1.6
	comp=Z,350nm,1.4s						
INKA	Innaminka	28.36	253	P	P	08 50 13.6	+1.1
MOO	Moorlands	28.53	220	P	P	08 50 16.0	+2.3
	comp=Z,99nm,1.5s						
MOO	Moorlands	28.53	220	P	P	08 50 15.6	+1.8
	comp=Z,83nm,1.0s						
MOO	Moorlands	28.53	220	P	P	08 50 14.8	+1.0
MOO	Moorlands	28.53	220	P	P	08 50 15.2	+1.4
TAU	Tasmania Unive	28.73	219	P	P	08 50 16.3	+0.7
ARPS	Mount Arapiles	29.41	234	P	P	08 50 23.4	+1.7
	comp=Z,16nm,0.8s						
ARPS	Mount Arapiles	29.41	234	P	P	08 50 22.9	+1.3
	comp=Z,16nm,0.8s						
QIS	Mount Isa	29.74	267	P	P	08 50 25.3	+0.4
	comp=Z,111nm,1.6s						
QIS	Mount Isa	29.74	267	P	P	08 50 25.1	+0.3
	comp=Z,111nm,1.6s						
QIS	Mount Isa	29.74	267	P	P	08 50 24.8	0.0
QIS	Mount Isa	29.74	267	P	P	08 50 25.2	+0.4
	comp=Z,111nm,1.6s						
HTT	Hallett	30.74	242	P	P	08 50 35.0	+1.5
	comp=Z,43nm,1.3s						
HTT	Hallett	30.74	242	P	P	08 50 34.8	+1.2
	comp=Z,43nm,1.3s						
HTT	Hallett	30.74	242	P	P	08 50 34.8	+1.2
BBOO	Buckleboo	32.99	244	P	P	08 50 54.1	+1.0
	comp=Z,142nm,1.1s						
BBOO	Buckleboo	32.99	244	P	P	08 50 53.9	+0.8
	comp=Z,142nm,1.1s						
BBOO	Buckleboo	32.99	244	P	P	08 50 53.7	+0.6
BBOO	Buckleboo	32.99	244	P	P	08 50 53.9	+0.8
BBOO				IAmb	IAmb	08 50 55.1	
	comp=Z,127nm,0.9s						
BBOO	Buckleboo	32.99	244	P	P	08 50 54.1	+1.0
	comp=Z,142nm,1.1s						
AS17	Alice Springs	34.52	260	P	P	08 51 06.9	+0.3
	comp=Z,372nm,1.0s						
WR0	Warramunga Arr	34.53	267	P	P	08 51 06.2	-0.5
	comp=Z,182nm,1.1s						
WR0	Warramunga Arr	34.53	267	P	P	08 51 06.1	-0.5
	comp=Z,182nm,1.1s						
AS01	Alice Springs	34.55	260	P	P	08 51 07.4	+0.5
AS09	Alice Springs	34.56	260	P	P	08 51 07.3	+0.4
	comp=Z,474nm,1.1s						
WR8	Warramunga Arr	34.57	267	IAmb	IAmb	08 51 10.5	
	comp=Z,144nm,0.8s						
AS15	Alice Springs	34.59	260	P	P	08 51 07.5	+0.3
	comp=Z,678nm,0.9s						
AS31	Alice Springs	34.60	260	P	P	08 51 07.7	+0.4
	comp=Z,169nm,0.9s						
AS31	Alice Springs	34.60	260	P	P	08 51 07.4	+0.2
	comp=Z,169nm,0.9s						
AS31	Alice Springs	34.60	260	IAmb	IAmb	08 51 08.9	
	comp=Z,139nm,0.9s						
ASAR	Alice Springs	34.60	260	P	P	08 51 07.3	+0.1
	comp=Z,323nm,0.8s,baz=85,slow=8.9,SNR=1357						
ASAR				PcP	PcP	08 53 39.4	+0.3
	comp=Z,27nm,0.7s,baz=102,slow=3.4,SNR=9.3						
ASAR				S	S	08 56 25.9	-1.6
	comp=Z,6.3nm,0.9s,baz=94,slow=13,SNR=4.6						
ASAR				ScP	ScP	08 57 15.7	+2.9
	comp=Z,6.5nm,0.8s,baz=107,slow=4.0,SNR=5.0						
ASAR				PKiKP	PKiKP	09 01 00.7	-1.2
	comp=Z,1.6nm,0.9s,baz=168,slow=1.8,SNR=4.2						
ASAR				LR	LR	09 03 51.9	
	comp=Z,543nm,21.4s,baz=94,slow=34						
ASAR				P3KPbc		09 22 01.1	
	comp=Z,0.3nm,0.6s,baz=270,slow=3.7,SNR=5.4						
	comp=Z,323nm,0.8s						
WB9	Warramunga Arr	34.71	267	P	P	08 51 07.6	-0.6
	comp=Z,250nm,1.7s						
WB2	Warramunga Arr	34.71	267	P	P	08 51 07.7	-0.5
	comp=Z,212nm,1.1s						
WB2	Warramunga Arr	34.71	267	P	P	08 51 07.6	-0.5
	comp=Z,212nm,1.1s						
WRAB	Tennant Creek	34.71	267	P	P	08 51 07.9	-0.3
WRAB	Tennant Creek	34.71	267*c*	*i*P	P	08 51 07.5	-0.7
WRAB				pmax	pmax		
	comp=Z,121nm,1.0s						
WRAB	Tennant Creek	34.71	267	P	P	08 51 07.5	-0.7
WRAB				IAmb	IAmb	08 51 08.2	
	comp=Z,161nm,1.1s						
WRAB	Tennant Creek	34.71	267	P	P	08 51 07.7	-0.6
	comp=Z,205nm,1.4s						
WRAB	Tennant Creek	34.71	267	P	P	08 51 07.6	-0.7
WRAB				PcP	PcP	08 53 40.0	+0.6
WR1	Warramunga Arr	34.72	267	P	P	08 51 07.7	-0.6
	comp=Z,216nm,1.1s						
WR1	Warramunga Arr	34.72	267	P	P	08 51 07.7	-0.6
WRA	Warramunga Arr	34.72	267	P	P	08 51 07.6	-0.7
	comp=Z,89nm,0.7s,baz=96,slow=8.6,SNR=256						
WRA				PP	PP	08 52 29.5	0.0
	comp=Z,19nm,0.9s,baz=103,slow=15,SNR=6.2						
WRA				PcP	PcP	08 53 39.7	+0.3
	comp=Z,22nm,0.6s,baz=98,slow=3.0,SNR=6.8						
WRA				S	S	08 56 27.6	-1.8
	comp=Z,30nm,1.1s,baz=98,slow=14,SNR=9.3						
WRA				ScP	ScP	08 57 15.4	+2.2
	comp=Z,4.8nm,0.9s,baz=99,slow=3.8,SNR=4.0						
WRA				LR	LR	09 04 37.9	
	comp=Z,709nm,19.1s,baz=90,slow=35						
	comp=Z,89nm,0.7s						
WRA	Warramunga Arr	34.72	267	P	P	08 51 07.7	-0.7
GENI	Genyem	36.23	298	P	P	08 51 21.7	+0.5
GENI	Genyem	36.23	298	P	P	08 51 21.9	+0.7
	comp=Z,16µmcomp=Z,1µm,1.4s						
GENI	Genyem	36.23	298	P	P	08 51 22.0	+0.8
	comp=Z,1µm,1.4s						
PPT2	Papeete2	36.79	90	*e*P	P	08 51 28.6	+2.6
	comp=Z,330nm,27.2s						
PPT2				*e*S	S	08 57 00.8	-0.2
	comp=Z,448nm,32.8s						
PPT2				*e*LQ	LQ	08 59 48.5	
	comp=Z,4µm,34.8s						
PPT2				*e*LR	LR	09 01 25.9	
	comp=Z,3µm,29.0s						
PPT2				*e*LR	LR	09 01 33.4	
	comp=Z,2µm,32.8s						
PPT	Papeete	36.79	90	LR	LR	09 02 59.3	
	comp=Z,673nm,19.8s,baz=280,slow=30						
KDU	Kakadu	38.37	278	P	P	08 51 39.4	+0.1
	comp=Z,190nm,1.0s						
KDU	Kakadu	38.37	278	P	P	08 51 39.3	+0.1
	comp=Z,190nm,1.0s						
MTN	Manton Dam	39.55	277	P	P	08 51 49.2	+0.1
	comp=Z,333nm,0.9s						
MTN	Manton Dam	39.55	277	P	P	08 51 48.9	-0.2
	comp=Z,333nm,0.9s						
MTN	Manton Dam	39.55	277	P	P	08 51 49.0	-0.2
WRKA	Warakurna	39.56	257	P	P	08 51 49.8	+0.6
	comp=Z,167nm,1.4s						
WRKA	Warakurna	39.56	257	P	P	08 51 49.7	+0.5
	comp=Z,167nm,1.4s						
FORT	Forrest	39.58	248	P	P	08 51 49.8	+0.6
	comp=Z,223nm,0.8s						
FORT	Forrest	39.58	248	P	P	08 51 49.6	+0.3
	comp=Z,223nm,0.8s						
FORT	Forrest	39.58	248	P	P	08 51 49.7	+0.5
DRS	Darwin Rock St	39.90	277	P	P	08 51 52.4	+0.4
BAKI	Biak	40.36	297	P	P	08 51 58.6	+2.8
H11S2	WAKE ISLAND Hy	40.87	353	P	P	08 51 59.2	-0.4
	SNR=3.5						
H11S2				T	T	09 36 32.8	
	baz=171,slow=76,SNR=11						
KNRA	Kununurra	40.88	272	P	P	08 52 00.3	+0.2
KNRA	Kununurra	40.88	272	P	P	08 52 00.2	+0.1
	comp=Z,324nm,1.1s						
KNRA	Kununurra	40.88	272	P	P	08 52 00.1	+0.1
H11S3	WAKE ISLAND Hy	40.88	353	P	P	08 51 59.4	-0.3
H11S3				T	T	09 36 19.2	
	baz=171,slow=76,SNR=8.1						
H11S1	WAKE ISLAND Hy	40.89	353	P	P	08 52 00.1	+0.3
H11S1				T	T	09 36 22.4	
	baz=171,slow=76,SNR=8.8						
KMPI	Kaimana, Papua	41.09	291	P	P	08 52 02.8	+1.0
	comp=Z,12µmcomp=Z,1µm,1.1s						
SAUI	Saumlaki	41.23	284	P	P	08 52 04.0	+1.1
SAUI	Saumlaki	41.23	284	P	P	08 52 05.2	+2.3
	comp=Z,858nm,1.1s						
SAUI	Saumlaki	41.23	284	P	P	08 52 04.2	+1.3
	comp=Z,871nm,1.1s						
WAKE	Wake Island	41.66	353	P	P	08 52 06.5	+0.3
WAKE	Wake Island	41.66	353	P	P	08 52 06.2	0.0
	comp=Z,470nm,1.1s						
H11N1	WAKE ISLAND Hy	42.06	353	P	P	08 52 09.1	-0.1
H11N1				T	T	09 37 36.3	
	baz=173,slow=76,SNR=14						
H11N3	WAKE ISLAND Hy	42.06	353	P	P	08 52 09.7	+0.4
H11N3				T	T	09 37 36.7	
	baz=173,slow=76,SNR=8.6						
H11N2	WAKE ISLAND Hy	42.08	353	P	P	08 52 09.1	-0.3
	SNR=4.0						
H11N2				T	T	09 37 38.7	
	baz=173,slow=76,SNR=12						
MWPI	Manokwari, Pap	42.23	295	P	P	08 52 12.4	+1.3
	comp=Z,8µmcomp=Z,588nm,1.4s						
FAKI	Fak Fak	42.72	291	P	P	08 52 15.3	+0.2
FAKI	Fak Fak	42.72	291	P	P	08 52 15.0	-0.1
FAKI	Fak Fak	42.72	291	P	P	08 52 14.9	-0.1
	comp=Z,3µmcomp=Z,7µmcomp=Z,469nm,1.2s						
FAKI	Fak Fak	42.72	291	P	P	08 52 15.3	+0.2
	comp=Z,475nm,1.2s						
FITZ	Fitzroy Crossi	43.15	267	P	P	08 52 19.6	+1.1
FITZ	Fitzroy Crossi	43.15	267	P	P	08 52 19.4	+0.9
	comp=Z,323nm,1.0s						
FITZ	Fitzroy Crossi	43.15	267	P	P	08 52 19.4	+0.9
	comp=Z,1µm,0.8s,baz=109,slow=6.7,SNR=1350						
FITZ				LR	LR	09 09 48.9	
	comp=Z,379nm,20.5s,baz=102,slow=35						
FITZ	Fitzroy Crossi	43.15	267	P	P	08 52 19.2	+0.7
FITZ	Fitzroy Crossi	43.15	267	P	P	08 52 19.6	+1.1
	comp=Z,323nm,1.0s						
BNDI	Bandanaira	43.99	288	P	P	08 52 25.0	-0.3
	comp=Z,1µm,1.0s						
BNDI	Bandanaira	43.99	288	P	P	08 52 25.1	-0.3
	comp=Z,1µm,1.0s						
GUMO	Guam	44.27	321	LR	LR	09 08 35.6	
	comp=Z,459nm,21.6s,baz=136,slow=33						
GUMO	Guam	44.27	321	P	P	08 52 27.8	+0.5
GUMO	Guam	44.27	321	P	P	08 52 27.9	+0.5
GUMO				pmax	pmax		
	comp=Z,205nm,0.9s						
GUMO	Guam	44.27	321	P	P	08 52 27.9	+0.5
GUMO	Guam	44.27	321	P	P	08 52 27.6	+0.3
	comp=Z,290nm,1.4s						
SWI	Sorong	44.61	293	P	P	08 52 30.3	+0.1
	comp=Z,13µmcomp=Z,2µm,1.1s						
KMBL	Kambalda	44.88	247	P	P	08 52 32.4	+0.2
MSAI	Masohi	45.40	288	P	P	08 52 36.3	-0.2
	comp=Z,228nm,0.7s						
SOEI	Soe	46.93	278	P	P	08 52 49.6	+1.0
SOEI	Soe	46.93	278	P	P	08 52 48.9	+0.3
SOEI	Soe	46.93	278	P	P	08 52 48.9	+0.3
SOEI	Soe	46.93	278	P	P	08 52 49.8	+1.2
	comp=Z,6µmcomp=Z,527nm,0.9s						
SOEI	Soe	46.93	278	P	P	08 52 50.3	+1.7
	comp=Z,528nm,0.9s						
NLAI	Namlea	47.06	287	P	P	08 52 50.1	+0.6
	comp=Z,9µmcomp=Z,846nm,1.1s						
MBWA	Marble Bar	47.93	261	P	P	08 52 56.8	+0.6
MBWA	Marble Bar	47.93	261	P	P	08 52 56.6	+0.5
MBWA	Marble Bar	47.93	261	P	P	08 52 56.7	+0.6
MBWA				S	S	08 59 45.6	+1.3
MBWA	Marble Bar	47.93	261	P	P	08 52 56.2	+0.1
MBWA	Marble Bar	47.93	261	P	P	08 52 56.8	+0.6
	comp=Z,697nm,1.1s						
MBWA	Marble Bar	47.93	261	P	P	08 52 56.7	+0.6
MBWA				ScP	ScP	08 58 09.7	+4.2
TAOE	Nuku Hiva Isla	48.22	82	*e*P	P	08 53 02.1	+3.5
	comp=Z,202nm,25.1s						
TAOE				*e*S	S	08 59 54.3	+5.5
	comp=Z,306nm,27.4s						
TAOE				*e*LQ	LQ	09 04 35.6	
	comp=Z,3µm,24.0s						
TAOE				*e*LR	LR	09 06 50.7	
	comp=Z,2µm,28.9s						
KLBR	Kellerberrin	48.40	247	P	P	08 52 59.9	+0.3
KLBR	Kellerberrin	48.40	247	P	P	08 52 59.8	+0.2
	comp=Z,675nm,0.9s						
SANI	Sanana	48.60	288	P	P	08 53 01.5	+0.2
SANI	Sanana	48.60	288	P	P	08 53 01.3	0.0
SANI	Sanana	48.60	288	P	P	08 53 01.9	+0.6
	comp=Z,3µmcomp=Z,11µmcomp=Z,1µm,1.2s						
SANI	Sanana	48.60	288	P	P	08 53 02.3	+1.0
	comp=Z,1µm,0.9s						
DRV	Dumont d’Urvil	48.61	196	P	P	08 53 01.0	+0.4
DRV	Dumont d’Urvil	48.61	196	P	P	08 53 00.8	+0.2
DRV				ScP	ScP	08 58 09.6	+2.2
NWAO	Narrogin (SRO)	48.78	245	P	P	08 53 03.1	+0.6
NWAO	Narrogin (SRO)	48.78	245	LR	LR	09 11 44.5	
	comp=Z,1µm,21.9s,baz=89,slow=34						

NWAO	Narrogin (SRO)	48.78	245	P	P	08 53 02.7	+0.3
NWAO	Narrogin (SRO)	48.78	245	P	P	08 53 03.1	+0.6
NWAO	Narrogin (SRO)	48.78	245	P	P	08 53 03.0	+0.4
NWAO				S	S	08 59 57.5	+1.5
NWAO	Narrogin (SRO)	48.78	245	P	P	08 53 02.8	+0.3
NWAO				pmax	pmax		
	comp=Z,250nm,1.1s						
NWAO	Narrogin (SRO)	48.78	245	P	P	08 53 02.8	+0.3
NWAO	Narrogin (SRO)	48.78	245	P	P	08 53 03.0	+0.4
	comp=Z,266nm,1.1s						
NWAO	Narrogin (SRO)	48.78	245	P	P	08 53 02.8	+0.3
NWAO				PcP	PcP	08 54 25.0	-0.5
TNTI	Ternate	48.78	292	P	P	08 53 02.5	-0.2
TNTI	Ternate	48.78	292	P	P	08 53 03.7	+1.0
TNTI	Ternate	48.78	292	P	P	08 53 03.9	+1.1
	comp=Z,166nm,1.7s						
MMRI	Maumere	49.20	278	P	P	08 53 06.3	+0.3
MMRI	Maumere	49.20	278	P	P	08 53 06.4	+0.4
MMRI	Maumere	49.20	278	P	P	08 53 06.7	+0.8
	comp=Z,1µm,0.8s						
BLDU	Ballidu	49.35	248	P	P	08 53 07.1	+0.2
BLDU	Ballidu	49.35	248	P	P	08 53 07.0	+0.2
	comp=Z,287nm,0.9s						
EDFI	Ende, Flores	49.66	278	P	P	08 53 09.4	-0.2
	comp=Z,4µmcomp=Z,386nm,0.9s						
MUN	Mundaring	49.69	246	P	P	08 53 10.2	+0.7
BBSI	Bau Bau	50.14	282	P	P	08 53 14.5	+1.5
	comp=Z,6µmcomp=Z,487nm,1.2s						
BASI	Baing, Sumba	50.16	275	P	P	08 53 14.9	+1.7
WSI	Waingapu	50.61	276	P	P	08 53 17.8	+1.2
KDI	Kendari	50.74	284	P	P	08 53 18.1	+0.6
	comp=Z,2µmcomp=Z,7µmcomp=Z,511nm,0.9s						
H01W1	Cape Leeuwin H	51.28	243	P	P	08 53 20.8	-0.3
H01W3	Cape Leeuwin H	51.29	243	P	P	08 53 21.7	+0.6
H01W2	Cape Leeuwin H	51.29	243	P	P	08 53 21.7	+0.6
MNI	Manado	51.30	291	P	P	08 53 21.9	+0.2
MIDW	Midway	51.41	13	P	P	08 53 22.4	+0.3
MIDW	Midway	51.41	13	P	P	08 53 22.2	+0.1
	comp=Z,130nm,1.3s						
LBFI	Labuhan Bajo,	51.42	277	P	P	08 53 22.9	+0.3
KKSI	Kolaka, Sulawe	51.52	283	P	P	08 53 24.5	+1.1
	comp=Z,7µmcomp=Z,578nm,1.1s						
BSSI	Bau Bau, Buton	51.76	280	P	P	08 53 25.9	+0.7
	comp=Z,4µmcomp=Z,217nm,0.8s						
LUWI	Luwuk	51.91	287	P	P	08 53 27.4	+1.1
LUWI	Luwuk	51.91	287	P	P	08 53 27.4	+1.1
	comp=Z,16µmcomp=Z,2µm,1.1s						
LUWI	Luwuk	51.91	287	P	P	08 53 27.9	+1.7
	comp=Z,2µm,1.1s						
KEKH	Kekaha	52.23	34	P	P	08 53 28.8	+0.4
KHLU	Kahalu`u	52.45	40	IAmb	IAmb	08 53 31.5	
	comp=Z,85nm,1.0s						
GTOI	Gorontalo	52.49	289	P	P	08 53 32.0	+1.5
	comp=Z,8µmcomp=Z,843nm,1.2s						
MLOA	Mauna Loa Obse	52.60	40	IAmb	IAmb	08 53 35.1	
	comp=Z,61nm,0.8s						
KIP	Kipapa	52.68	36	⇓*i*P	P	08 53 31.9	+0.2
KIP				pmax	pmax		
	comp=Z,64nm,0.9s						
KIP	Kipapa	52.68	36	P	P	08 53 32.1	+0.3
KIP				IAmb	IAmb	08 53 32.4	
	comp=Z,65nm,0.8s						
KIP	Kipapa	52.68	36	P	P	08 53 29.4	-2.3
	comp=Z,89nm,1.2s						
KIP	Kipapa	52.68	36	P	P	08 53 31.9	+0.2
BYL	Byron's Ledge	52.69	41	IAmb	IAmb	08 53 33.4	
	comp=Z,193nm,1.4s						
HMH	Humu'ula Sheep	52.70	40	P	P	08 53 33.1	+0.8
POHA	Pohakuloa	52.79	40	P	P	08 53 33.1	+0.2
POHA	Pohakuloa	52.79	40	P	P	08 53 33.3	+0.4
POHA				IAmb	IAmb	08 53 35.2	
	comp=Z,122nm,1.0s						
POHA	Pohakuloa	52.79	40	P	P	08 53 33.7	+0.9
	comp=Z,139nm,0.9s						
DBNI	Kabupaten Domp	52.86	276	P	P	08 53 33.4	+0.1
	comp=Z,5µmcomp=Z,388nm,0.8s						
KAPI	Kappang	52.89	281	LR	LR	09 18 10.8	
	comp=Z,194nm,18.8s,baz=128,slow=38						
KAPI	Kappang	52.89	281	P	P	08 53 33.9	+0.4
KAPI	Kappang	52.89	281	P	P	08 53 34.9	+1.4
KAPI				S	S	09 00 57.6	+4.5
KAPI	Kappang	52.89	281	*c i*P	P	08 53 34.4	+0.9
KAPI				pmax	pmax		
	comp=Z,642nm,1.2s						
KAPI	Kappang	52.89	281	P	P	08 53 34.7	+1.2
KAPI	Kappang	52.89	281	P	P	08 53 34.3	+0.8
	comp=Z,3µmcomp=Z,269nm,1.2s						
KAPI	Kappang	52.89	281	P	P	08 53 34.9	+1.4
	comp=Z,515nm,1.2s						
KAPI	Kappang	52.89	281	P	P	08 53 34.7	+1.2
APSI	Ampana	52.96	287	P	P	08 53 35.6	+1.6
	comp=Z,6µmcomp=Z,614nm,1.2s						
MKS	Makassar	53.06	281	P	P	08 53 36.0	+1.2
	comp=Z,7µmcomp=Z,525nm,1.2s						
PLAI	Plampang	53.23	276	P	P	08 53 36.5	+0.5
PLAI	Plampang	53.23	276	P	P	08 53 36.5	+0.5
	comp=Z,7µmcomp=Z,643nm,1.0s						
PLAI	Plampang	53.23	276	P	P	08 53 36.9	+0.9
	comp=Z,648nm,1.0s						
SPSI	Sidrap Palu	53.31	282	P	P	08 53 36.1	-0.5
	comp=Z,5µmcomp=Z,257nm,1.0s						
DAV	Davao City (W)	53.66	298	LR	LR	09 15 49.5	
	comp=Z,128nm,19.3s,baz=122,slow=35						
DAV	Davao City (W)	53.66	298	P	P	08 53 39.4	+0.2
TWSI	Taliwang, Sumb	54.09	275	P	P	08 53 42.9	+0.6
	comp=Z,6µmcomp=Z,612nm,1.0s						
PMSI	Majene	54.27	282	P	P	08 53 44.7	+1.1
	comp=Z,8µmcomp=Z,695nm,1.0s						
PCI	Palu	54.58	286	P	P	08 53 48.0	+2.2
	comp=Z,13µmcomp=Z,1µm,1.1s						
MMSI	Mamuju	54.62	283	P	P	08 53 46.8	+0.7
	comp=Z,3µmcomp=Z,313nm,0.9s						
TOLI2	Tolitoli	54.67	288	P	P	08 53 46.9	+0.4
TOLI2	Tolitoli	54.67	288	P	P	08 53 46.7	+0.2
	comp=Z,753nm,1.0s						
KHKI	Kahang-Kahang	55.40	275	P	P	08 53 52.6	+0.9
	comp=Z,5µmcomp=Z,584nm,1.0s						
VNDA	Vanda	55.41	183	P	P	08 53 51.1	+0.2
	comp=Z,45nm,1.1s,baz=4.1,slow=7.8,SNR=11						
VNDA				LR	LR	09 13 23.3	
	comp=Z,799nm,21.7s,baz=26,slow=31						
	comp=Z,45nm,1.1s						
VNDA	Vanda	55.41	183	P	P	08 53 51.2	+0.4
SBA	Scott Base	55.60	181	P	P	08 53 53.8	+1.7
SBA				pmax	pmax		
	comp=Z,409nm,1.0s						
SBA	Scott Base	55.60	181	P	P	08 53 53.8	+1.7
SBA	Scott Base	55.60	181	P	P	08 53 54.0	+1.8
	comp=Z,538nm,1.0s						
SBA	Scott Base	55.60	181	P	P	08 53 53.9	+1.8
DNP	Denpasar	55.65	275	P	P	08 53 55.0	+1.5
	comp=Z,17µmcomp=Z,993nm,0.9s						
IGBI	Denpasar	55.66	275	P	P	08 53 54.6	+1.0
SRBI	Singaraja	55.87	275	P	P	08 53 55.6	+0.6
	comp=Z,7µmcomp=Z,598nm,1.1s						
RTBI	Rangdo, Negare	55.98	275	P	P	08 53 56.2	+0.3
	comp=Z,7µmcomp=Z,628nm,1.1s						
JAGI	Jajag, Banyuwa	56.70	275	P	P	08 54 01.0	0.0
JAGI	Jajag, Banyuwa	56.70	275	P	P	08 54 00.6	-0.4
	comp=Z,6µmcomp=Z,609nm,1.1s						
JAGI	Jajag, Banyuwa	56.70	275	P	P	08 54 01.0	0.0
	comp=Z,603nm,1.1s						
KMMI	Kalianget	57.39	276	P	P	08 54 07.2	+1.4
	comp=Z,6µmcomp=Z,402nm,1.2s						
BLJI	Banyuglugur	57.48	275	P	P	08 54 07.0	+0.5
	comp=Z,4µmcomp=Z,343nm,0.9s						
BBKI	Banjar Baru	57.99	280	P	P	08 54 11.1	+1.1
	comp=Z,8µmcomp=Z,665nm,1.4s						
CASY	Casey	58.17	205	P	P	08 54 10.5	+0.1
CASY	Casey	58.17	205	P	P	08 54 10.5	+0.1
CASY				ScP	ScP	08 58 51.7	+2.7
CCD	Concordia, Ant	58.34	193	P	P	08 54 12.0	0.0
CCD				ScP	ScP	08 58 51.9	+1.7
SNJI	Sawahan-Nganju	59.16	274	P	P	08 54 19.9	+1.5
	comp=Z,8µmcomp=Z,918nm,1.0s						
SJI	Sawahan	59.17	274	P	P	08 54 19.2	+0.9
	comp=Z,16µmcomp=Z,1µm,0.9s						
PKKI	Palangkaraya	59.28	281	P	P	08 54 20.4	+1.4
PCJI	Pacitan	59.55	274	P	P	08 54 21.9	+1.1
NGJI	Ngawi	59.59	275	P	P	08 54 23.9	+2.8
	comp=Z,644nm,1.2s						
WOJI	Wonogiri, Jawa	59.91	274	P	P	08 54 24.2	+0.9
UGM	Wanagama	60.26	274	P	P	08 54 25.9	+0.3
UGM	Wanagama	60.26	274	P	P	08 54 26.0	+0.3
UGM	Wanagama	60.26	274	P	P	08 54 26.7	+1.0
	comp=Z,10µmcomp=Z,1µm,1.0s						
UGM	Wanagama	60.26	274	P	P	08 54 26.9	+1.2
	comp=Z,1µm,1.1s						
YOGI	Yogyakarta	60.50	274	P	P	08 54 29.1	+1.8
SMRI	Semarang	60.64	275	P	P	08 54 28.7	+0.4
SMRI	Semarang	60.64	275	P	P	08 54 29.3	+1.0
SMRI	Semarang	60.64	275	P	P	08 54 30.0	+1.6
	comp=Z,8µmcomp=Z,586nm,0.9s						
SMRI	Semarang	60.64	275	P	P	08 54 29.9	+1.6
	comp=Z,588nm,0.9s						
KKM	Kota Kinabalu	61.03	291	P	P	08 54 31.4	+0.4
KKM	Kota Kinabalu	61.03	291	P	P	08 54 32.1	+1.1
KKM	Kota Kinabalu	61.03	291	P	P	08 54 32.1	+1.1
	comp=Z,8µmcomp=Z,767nm,0.9s						
SCJI	Gunung Srandil	61.59	273	P	P	08 54 35.3	+0.6
	comp=Z,4µmcomp=Z,513nm,0.8s						
JMZ	Minamidaito 2	61.81	319	P	P	08 54 36.2	+0.4
JMZ	Minamidaito 2	61.81	319	IAmb	IAmb	08 54 43.9	
	comp=Z,107nm,0.9s						
CTJI	Waduk Cacaban	61.82	274	P	P	08 54 37.2	+1.0
	comp=Z,9µmcomp=Z,888nm,1.0s						
KPJI	Karang Pucung	61.94	274	P	P	08 54 37.5	+0.5
	comp=Z,568nm,1.1s						
CMJI	Cimerak	62.22	273	P	P	08 54 39.1	+0.2
	comp=Z,6µmcomp=Z,473nm,1.0s						
STKI	Sintang	62.51	282	P	P	08 54 42.2	+1.4
	comp=Z,15µmcomp=Z,1µm,1.1s						
SBUM	Sibu	62.88	285	P	P	08 54 43.8	+0.6
SBUM	Sibu	62.88	285	P	P	08 54 44.6	+1.3
JHJ2	Mitsune	62.92	330	P	P	08 54 43.4	+0.4
JHJ	Hachijo jima 2	62.94	330	LR	LR	09 23 31.8	
	comp=Z,125nm,18.5s,baz=132,slow=37						
BBJI	Bungbulang	63.07	273	P	P	08 54 45.1	+0.5
BBJI	Bungbulang	63.07	273	P	P	08 54 44.3	-0.3
BBJI	Bungbulang	63.07	273	P	P	08 54 44.6	0.0
	comp=Z,3µmcomp=Z,320nm,0.8s						
CNJI	Cibinong	63.61	273	P	P	08 54 48.1	0.0
	comp=Z,9µmcomp=Z,1µm,1.0s						
CBJI	Citeko	64.19	274	P	P	08 54 51.4	-0.5
	comp=Z,1µm,0.8s						
SKJI	Sukabumi	64.25	273	P	P	08 54 52.8	+0.5
	comp=Z,9µmcomp=Z,985nm,0.8s						
JOW	Kunigami	64.37	317	P	P	08 54 53.4	+0.7
TNG	Tangerang	64.47	274	P	P	08 54 55.6	+1.8
TNG				P	P	08 54 55.5	+1.8
TPI	Tanjungpandan	64.84	278	P	P	08 54 57.0	+0.9
	comp=Z,3µmcomp=Z,227nm,1.1s						
SBJI	Serang	64.97	274	P	P	08 54 57.3	+0.4
	comp=Z,11µmcomp=Z,1µm,1.1s						
CGJI	Cibinong	65.19	273	P	P	08 54 58.0	-0.4
BLSI	Bandar Lampung	66.06	274	P	P	08 55 03.7	-0.3
INU	Inuyama	66.06	330	P	P	08 55 03.8	+0.3
INU	Inuyama	66.06	330	P	P	08 55 03.8	+0.3
INU				pP	PcP	08 55 29.6	-3.4
JGF	Kuroka	66.11	330	P	P	08 55 04.0	+0.1
JGF	Kuroka	66.11	330	IAmb	IAmb	08 55 05.0	
	comp=Z,122nm,0.8s						
YOJ	Yonaguni jima	66.23	312	P	P	08 55 05.4	+0.6
JMN	Monobe	66.31	326	P	P	08 55 05.5	+0.3
JMN	Monobe	66.31	326	P	P	08 55 05.9	+0.7
JSU	Suzuyama	66.46	322	P	P	08 55 06.4	+0.2
JSU	Suzuyama	66.46	322	IAmb	IAmb	08 55 08.8	
	comp=Z,166nm,1.0s						
MJAR	Matsushiro Arr	66.50	331	P	P	08 55 06.0	-0.3
	comp=Z,102nm,0.9s,baz=163,slow=7.0,SNR=256						
MJAR				PKP2bc	P'P'bc	09 23 37.1	-2.2
	comp=Z,1.6nm,0.8s,baz=325,slow=3.5,SNR=5.3						
MJAR				LR	LR	09 23 41.9	
	comp=Z,61nm,18.6s,baz=132,slow=35						
	comp=Z,102nm,0.9s						
MJAR	Matsushiro Arr	66.50	331	P	P	08 55 06.2	-0.1
MJAR				pmax	pmax		
	comp=Z,180nm,1.2s						
MJAR	Matsushiro Arr	66.50	331	P	P	08 55 06.2	-0.1
MJAR				IAmb	IAmb	08 55 07.4	
	comp=Z,180nm,1.2s						
MAJO	Matsushiro	66.50	331	P	P	08 55 06.8	+0.5
MAJO	Matsushiro	66.50	331	*c i*P	P	08 55 06.3	0.0
MAJO				pmax	pmax		
	comp=Z,156nm,1.1s						
MAJO	Matsushiro	66.50	331	P	P	08 55 06.4	0.0
MAJO				IAmb	IAmb	08 55 07.2	
	comp=Z,85nm,0.8s						
MAJO	Matsushiro	66.50	331	P	P	08 55 06.3	0.0
TWGBT	Beinan	66.55	309	P	P	08 55 07.3	+0.5
TWG	Pinlang	66.56	309	IAmb	IAmb	08 55 06.7	
	comp=Z,77nm,0.7s						
KASI	Kota Agung	66.69	274	P	P	08 55 07.5	-0.5
	comp=Z,7µmcomp=Z,830nm,1.0s						
YULB	Yu-li	66.75	310	P	P	08 55 07.6	-0.6
YULB	Yu-li	66.75	310	P	P	08 55 06.5	-1.6
YULB				IAmb	IAmb	08 55 15.5	
	comp=Z,93nm,1.3s						
NACB	Ninganchiao	67.04	311	P	P	08 55 10.0	+0.1
TPUB	Ta-pu	67.17	309	P	P	08 55 10.2	-0.6
SSLB	Suanglung	67.25	310	P	P	08 55 10.7	-0.6
MDSI	Maura Dua	67.38	275	P	P	08 55 11.4	-0.9
	comp=Z,6µmcomp=Z,707nm,0.9s						
YHNB	Yeheng	67.51	311	P	P	08 55 13.4	+0.4
TATO	Taipei	67.62	311	P	P	08 55 13.6	0.0
TATO	Taipei	67.62	311	P	P	08 55 13.8	+0.2
TATO				S	S	09 04 02.2	+1.4
TATO	Taipei	67.62	311	P	P	08 55 13.5	-0.1
TATO	Taipei	67.62	311	P	P	08 55 13.5	-0.1
QSPA	South Pole Qui	67.71	180	P	P	08 55 13.9	+0.2
	comp=Z,103nm,0.7s,baz=7.2,slow=1.0,SNR=587						
QSPA				LR	LR	09 20 23.0	
	comp=Z,512nm,21.5s,baz=39,slow=32						
QSPA				PKP2bc	P'P'bc	09 23 33.8	-4.2
	comp=Z,5.3nm,0.8s,baz=253,slow=2.9,SNR=3.8						
	comp=Z,103nm,0.7s						
QSPA	South Pole Qui	67.71	180	P	P	08 55 14.0	+0.2
QSPA	South Pole Qui	67.71	180	P	P	08 55 14.0	+0.2
LHSI	Lahat	68.23	275	P	P	08 55 17.4	-0.3
	comp=Z,4µmcomp=Z,275nm,1.0s						
MNAI	Manna	68.55	274	P	P	08 55 19.7	0.0
DSRI	Dabo	68.56	279	P	P	08 55 20.6	+0.8
	comp=Z,327nm,1.0s						
JTM	Tenmabayashi	68.92	336	P	P	08 55 21.5	+0.2
JMBI	JAMBI	68.96	277	P	P	08 55 24.2	+2.0
	comp=Z,9µmcomp=Z,873nm,1.0s						
KSI	Kapahiang	69.15	275	P	P	08 55 23.2	-0.3
	comp=Z,666nm,0.9s						
TPRI	Tanjung Pinang	69.17	280	P	P	08 55 24.7	+1.1
	comp=Z,538nm,0.9s						
ERM	Erimo	69.22	338	P	P	08 55 23.2	+0.1
JEM	Erimo	69.22	338	P	P	08 55 23.3	+0.2
JTU	Tsushima	69.30	324	P	P	08 55 23.8	0.0
KNMB	Chin-men Tao	69.50	309	IAmb	IAmb	08 55 26.9	
	comp=Z,108nm,0.8s						
QZH2	Quanzhou	69.64	309	⇑*i*P	P	08 55 26.8	+0.7
QZH2				pmax	pmax		
	comp=Z,110nm,1.0s						
QZH2				pmax	pmax		
	comp=Z,690nm,9.3s						
QZH2				L	L		
	comp=Z,650nm,8.2s						
QZH2				L	L		
	comp=Z,560nm,10.0s						
MASI	Maura Aman, Be	69.67	275	P	P	08 55 26.6	-0.1
	comp=Z,11µmcomp=Z,1µm,1.0s						
MYKOM	Kota Tinggi	70.15	281	P	P	08 55 30.0	+0.5
MYKOM	Kota Tinggi	70.15	281	P	P	08 55 30.2	+0.7
	comp=Z,4µmcomp=Z,290nm,1.1s						
DLV	Lat	70.56	292	IAmb	IAmb	08 55 35.1	
	comp=Z,175nm,1.1s						
RGRI	Rengat	70.67	278	P	P	08 55 34.9	+2.2
JKA	Kamikawa-asahi	71.27	338	IAmb	IAmb	08 55 37.6	
	comp=Z,198nm,1.6s						
ASAJ	Asahikawa	71.27	338	P	P	08 55 36.6	+1.0
	comp=Z,34nm,0.6s,baz=215,slow=7.3,SNR=54						
ASAJ				LR	LR	09 22 22.8	
	comp=Z,278nm,21.7s,baz=159,slow=32						
	comp=Z,34nm,0.6s						
SDSI	Sungai Dareh	71.27	277	P	P	08 55 35.2	-1.1
	comp=Z,131nm,1.0s						
HKPS	Hong Kong Po S	71.37	305	IAmb	IAmb	08 55 38.9	
	comp=Z,144nm,0.9s						
COCO	West Island	71.45	264	P	P	08 55 38.0	+0.6
COCO				S	S	09 04 41.9	-4.1
TJN	Taejon	71.79	324	P	P	08 55 39.2	+0.4
TJN	Taejon	71.79	324	*c i*P	P	08 55 39.3	+0.4
TJN				pmax	pmax		
	comp=Z,3.0nm,0.9s						
SSE	Sheshan	71.80	316	P	P	08 55 38.6	-0.4
SSE				S	S	09 04 50.0	+0.6
SSE				pmax	pmax		
	comp=Z,67nm,1.3s						
SSE				pmax	pmax		
	comp=Z,270nm,3.5s						
SSE				L	L		
	comp=Z,97nm,20.5s						
SSE				L	L		
	comp=Z,120nm,20.7s						
PPSI	Pulau Pagai	71.87	275	P	P	08 55 41.7	+1.8
BKNI	Bangkinang	72.12	278	P	P	08 55 41.5	+0.1
BKNI	Bangkinang	72.12	278	P	P	08 55 42.9	+1.4
	comp=Z,5µmcomp=Z,103nm,0.4s						
KSRS	Korea Array	72.28	325	P	P	08 55 42.5	+0.8
	comp=Z,124nm,0.8s,baz=141,slow=5.9,SNR=321						
KSRS				LR	LR	09 26 09.0	
	comp=Z,77nm,19.8s,baz=130,slow=35						
	comp=Z,124nm,0.8s						
KSAR	Wonju Array Be	72.29	325	P	P	08 55 42.7	+0.8
KSAR	Wonju Array Be	72.29	325	P	P	08 55 42.7	+0.8
KS19	Wonju Array Si	72.34	325	IAmb	IAmb	08 55 43.8	
	comp=Z,183nm,0.9s						
PPI	Padang Panjang	72.41	277	P	P	08 55 42.6	-0.5
	comp=Z,93nm,0.7s						
GZH2	Guangzhou	72.52	305	P	P	08 55 44.8	+1.3
GZH2				sP	sP	08 56 23.8	-3.4
GZH2				S	S	09 05 01.8	+3.9
GZH2				pmax	pmax		
	comp=Z,170nm,1.0s						
QIZ	Qiongzhong	72.98	299	P	P	08 55 47.8	+1.5
QIZ				PcP	PcP	08 56 05.0	+2.4
QIZ				PP	PP	08 58 32.8	+2.1
QIZ				S	SKiKP	09 05 07.8	+1.0
QIZ				SS	SS	09 09 52.5	+5.5
QIZ				pmax	pmax		
	comp=Z,97nm,0.7s						
QIZ				pmax	pmax		
	comp=Z,560nm,3.7s						
QIZ	Qiongzhong	72.98	299	IAmb	IAmb	08 55 48.7	
	comp=Z,94nm,1.0s						
QIZ	Qiongzhong	72.98	299	P	P	08 55 47.9	+1.5
INCN	Inchon	73.00	324	P	P	08 55 46.9	+0.9
INCN	Inchon	73.00	324	P	P	08 55 46.5	+0.4
INCN				pmax	pmax		
	comp=Z,467nm,1.0s						
INCN	Inchon	73.00	324	P	P	08 55 46.5	+0.4
INCN	Inchon	73.00	324	P	P	08 55 47.6	+1.5
MNSI	Mandailing Nat	73.65	278	P	P	08 55 49.8	-0.6
	comp=Z,453nm,0.8s						
YSS	Yuzhno-Sakhali	73.72	340	P	P	08 55 50.4	+0.4
YSS	Yuzhno-Sakhali	73.72	340	*αe*P	P	08 55 51.4	+1.4
YSS				*e*		08 56 05.9	
YSS				*e**PP	pwP	08 56 22.8	-1.5
YSS				*e*		08 58 40.0	
YSS				*e*S	S	09 05 08.9	-1.7
YSS				*e*PS	PnS	09 05 56.6	-4.8
YSS				pmax	pmax		
	comp=Z,800nm,3.6s						
YSS				pmax	pmax		
	comp=N,400nm,3.4s						
YSS				smax	smax		
	comp=N,400nm,7.0s						
YSS	Yuzhno-Sakhali	73.72	340	P	P	08 55 50.7	+0.7
YSS				IAmb	IAmb	08 55 52.5	
	comp=Z,158nm,0.9s						
YSS	Yuzhno-Sakhali	73.72	340	P	P	08 55 51.7	+1.7
AMKA	Amchitka	73.73	5	P	P	08 55 50.5	+0.5
IPM	Ipoh	73.82	282	P	P	08 55 52.0	+0.5
IPM	Ipoh	73.82	282	P	P	08 55 51.7	+0.2
	comp=Z,5µmcomp=Z,498nm,1.0s						
NJ2	Nanjing	73.93	315	⇑*i*P	P	08 55 52.3	+0.7
NJ2				S	S	09 05 15.8	+2.3
NJ2				pmax	pmax		
	comp=Z,150nm,1.1s						
NJ2				pmax	pmax		
	comp=Z,140nm,4.7s						
HHU	Hamhung	74.32	326	P	P	08 55 54.6	+0.9
HHU				S	S	09 05 16.6	-1.0
HHU				AmB			
	comp=Z,915nm,1.1s						
KULM	Kulim	74.50	282	P	P	08 55 56.0	+0.6
PYAG	Pyongyang	74.61	325	P	P	08 55 56.4	+1.1
PYAG				pP	pP	08 56 26.5	+0.6
PYAG				S	S	09 05 22.9	+2.1
PYAG				AmB			
	comp=Z,692nm,0.8s						
ADK	Adak	74.64	8	P	P	08 55 55.4	+0.2
ADK	Adak	74.64	8	P	P	08 55 55.3	0.0
ADK				pmax	pmax		
	comp=Z,141nm,0.8s						
ADK	Adak	74.64	8	P	P	08 55 55.2	0.0
ADK				IAmb	IAmb	08 55 56.2	
	comp=Z,141nm,0.8s						
ADK	Adak	74.64	8	P	P	08 55 55.5	+0.2
VLA	Vladivostok	74.67	331	*de*P	P	08 55 56.4	+0.7
VLA				pmax	pmax		
	comp=Z,51nm,0.8s						
SHEM	Shemya Is, Ala	74.80	2	P	P	08 55 56.0	-0.2
	comp=Z,65nm,0.5s,baz=61,slow=3.2,SNR=13						
SHEM				LR	LR	09 24 08.7	
	comp=Z,297nm,19.8s,baz=182,slow=32						
	comp=Z,65nm,0.5s						
SHEM	Shemya Is, Ala	74.80	2	IAmb	IAmb	08 56 53.4	
	comp=Z,227nm,1.4s						
RPSI	Rantau Prapat	75.01	279	P	P	08 55 58.1	-0.2
PSI	Prapat	75.05	279	P	P	08 55 58.8	+0.1
PSI	Prapat	75.05	279	P	P	08 55 58.1	-0.6
PSI				pmax	pmax		
	comp=Z,247nm,1.1s						
PSI	Prapat	75.05	279	P	P	08 55 58.1	-0.6
	comp=Z,2µmcomp=Z,214nm,1.2s						
ATKA	Atka Island	75.28	9	P	P	08 55 58.9	0.0
USA0B	Ussuriysk Arra	75.48	332	*c i*P	P	08 56 00.8	+0.5
USA0B	Ussuriysk Arra	75.48	332	IAmb	IAmb	08 56 02.4	
	comp=Z,108nm,1.0s						
USRK	Ussuriysk Ar.	75.48	332	P	P	08 56 00.9	+0.7
	comp=Z,60nm,0.8s,baz=139,slow=4.2,SNR=75						
USRK				LR	LR	09 24 16.8	
	comp=Z,118nm,21.9s,baz=148,slow=32						
	comp=Z,60nm,0.8s						
USRK	Ussuriysk Ar.	75.48	332	P	P	08 56 01.0	+0.7
USRK	Ussuriysk Ar.	75.48	332	P	P	08 56 00.8	+0.5
CNSH	ChangSha	75.64	309	P	P	08 56 02.3	+0.7
TSI	Tuntungan	75.66	280	P	P	08 56 02.3	+0.3
	comp=Z,176nm,1.1s						
GSI	Gunungsitoli	75.69	277	P	P	08 56 02.9	+0.7
GSI	Gunungsitoli	75.69	277	P	P	08 56 03.2	+1.0
	comp=Z,418nm,0.9s						
UGL	Uglegorsk	75.82	341	*e*P	P	08 56 02.9	+0.8
UGL				*e*S	S	09 05 39.2	+5.5
UGL				pmax	pmax		
	comp=Z,900nm,5.0s						
UGL				pmax	pmax		
	comp=Z,100nm,0.8s						
PET	Petropavlovsk	75.89	352	P	P	08 56 02.9	+0.5
PET	Petropavlovsk	75.89	352	⇑*i*P	P	08 56 02.7	+0.3
PET				*e*		08 56 15.3	
PET				*e**PP	pP	08 56 32.0	-1.0
PET				*e*S	S	09 05 36.6	+2.2
PET				*e**SS	sS	09 06 28.8	+1.7
PET				*e*SS	SS	09 10 33.7	+3.6
PET				pmax	pmax		
	comp=Z,86nm,0.6s						
PET				pmax	pmax		
	comp=Z,600nm,6.8s						
PET				pmax	pmax		
	comp=Z,300nm,16.0s						
PET				MLR	MLR		
	comp=Z,300nm,16.0s						
PET				MLR	MLR		
	comp=Z,200nm,19.0s						
PET	Petropavlovsk	75.89	352	P	P	08 56 02.3	-0.1
PET				IAmb	IAmb	08 56 03.7	
	comp=Z,174nm,1.4s						
PET	Petropavlovsk	75.89	352	P	P	08 56 02.3	-0.1
	comp=Z,2µmcomp=Z,92nm,1.3s						
GULI	GuiLin	75.91	305	P	P	08 56 02.3	-0.9
GULI				sP	pwP	08 56 40.8	+3.4
GULI				S	S	09 05 35.8	0.0
GULI				pmax	pmax		
	comp=Z,160nm,0.9s						
GULI				L	L		
	comp=Z,140nm,20.1s						
GULI				L	L		
	comp=Z,180nm,21.1s						

GULI				L	L		
	comp=Z,360nm,34.7s						
WHN	**Wuhan**	**76.02**	**312**	P	**P**	**08 56 03.9**	**+0.2**
WHN				PcP	**PcP**	**08 56 15.0**	**-0.4**
WHN				S	**S**	**09 05 36.9**	**+0.1**
WHN				pmax	pmax		
	comp=Z,940nm,1.6s						
WHN				pmax	pmax		
	comp=Z,2µm,3.4s						
SUJ	**Sinuiju**	**76.04**	**325**	P	**P**	**08 56 05.2**	**+1.6**
SUJ				AmB			
	comp=Z,2µm,2.4s						
PEA0B	**Petropavlovsk-**	**76.10**	**351**	*c i*P	**P**	**08 56 04.1**	**+0.5**
PEA0B	**Petropavlovsk-**	**76.10**	**351**	IAmb	IAmb	08 56 05.3	
	comp=Z,184nm,1.1s						
PETK	**Petropavlovsk-**	**76.10**	**351**	P	**P**	**08 56 04.0**	**+0.4**
	comp=Z,102nm,0.8s,baz=140,slow=6.8,SNR=97						
PETK				LR	LR	09 23 47.0	
	comp=Z,415nm,21.6s,baz=149,slow=31						
	comp=Z,102nm,0.8s						
MAW	**Mawson**	**76.36**	**202**	P	**P**	**08 56 05.8**	**+0.8**
	comp=Z,21nm,0.6s,baz=119,slow=6.4,SNR=118						
MAW				LR	LR	09 24 43.8	
	comp=Z,413nm,21.8s,baz=105,slow=32						
	comp=Z,21nm,0.6s						
MAW	**Mawson**	**76.36**	**202**	P	**P**	**08 56 05.8**	**+0.8**
KCSI	**Kotacane, Aceh**	**76.39**	**280**	P	**P**	**08 56 05.3**	**-0.9**
DL2	**Dalian**	**76.78**	**322**	⇑*i*P	**P**	**08 56 08.6**	**+0.8**
DL2				S	**S**	**09 05 47.5**	**+2.7**
DL2				sS	**sS**	**09 06 38.4**	**+0.4**
DL2				pmax	pmax		
	comp=Z,490nm,1.0s						
DL2				pmax	pmax		
	comp=Z,2µm,3.6s						
TPTI		**76.83**	**279**	P	**P**	**08 56 08.3**	**-0.3**
MDJ	**Mudanjiang**	**76.88**	**331**	P	**P**	**08 56 08.9**	**+0.7**
MDJ				S	**S**	**09 05 51.0**	**+5.4**
MDJ				pmax	pmax		
	comp=Z,160nm,1.1s						
MDJ				pmax	pmax		
	comp=Z,1µm,3.5s						
MDJ	**Mudanjiang**	**76.88**	**331**	IAmb	IAmb	08 56 10.2	
	comp=Z,133nm,1.0s						
MDJ	**Mudanjiang**	**76.88**	**331**	P	**P**	**08 56 09.3**	**+1.1**
TYV	**Tymovskoe**	**77.22**	**342**	*e*P	**P**	**08 56 11.0**	**+1.0**
TYV				*e*S	**S**	**09 05 47.5**	**-1.5**
TYV				pmax	pmax		
	comp=Z,55nm,1.2s						
TYV				pmax	pmax		
	comp=Z,500nm,4.4s						
TYV				smax	smax		
	comp=N,200nm,6.6s						
TYV				smax	smax		
	comp=E,200nm,6.6s						
SNSI	**Sinabang, Aceh**	**77.27**	**278**	P	**P**	**08 56 12.5**	**+1.4**
	comp=E,8µmcomp=E,672nm,1.1s						
TIA	**Tai'an**	**77.69**	**318**	P	**P**	**08 56 13.5**	**+0.6**
TIA				S	**S**	**09 05 54.6**	**-0.1**
TIA				ScS	**SKKSac**	**09 06 17.1**	**+1.4**
TIA				pmax	pmax		
	comp=E,650nm,0.9s						
TIA				pmax	pmax		
	comp=E,1µm,3.9s						
TIA				L	L		
	comp=E,170nm,18.4s						
TIA				L	L		
	comp=E,350nm,17.3s						
TIA				L	L		
	comp=E,370nm,18.6s						
SNY	**Shenyang**	**77.76**	**325**	P	**P**	**08 56 13.3**	**+0.2**
SNY				S	**S**	**09 05 59.6**	**+4.5**
SNY				pmax	pmax		
	comp=E,85nm,1.0s						
SNY				pmax	pmax		
	comp=E,420nm,3.5s						
SNY				L	L		
	comp=E,320nm,17.3s						
SNY				L	L		
	comp=E,300nm,13.8s						
SNY				L	L		
	comp=E,600nm,39.4s						
LHMI	**Lhok Sumawe**	**77.83**	**281**	P	**P**	**08 56 16.0**	**+1.8**
	comp=E,5µmcomp=E,441nm,1.0s						
MLSI	**Meulaboh, Aceh**	**77.94**	**280**	P	**P**	**08 56 15.1**	**+0.3**
	comp=E,7µmcomp=E,541nm,1.1s						
UNV	**Unalaska Valle**	**78.22**	**13**	P	**P**	**08 56 15.2**	**-0.2**
UNV	**Unalaska Valle**	**78.22**	**13**	IAmb	IAmb	08 56 15.8	
	comp=Z,96nm,0.8s						
CN2	**Changchun**	**78.23**	**328**	*e*P	**P**	**08 56 16.0**	**+0.3**
CN2				*e*pP	pP	08 56 48.3	+1.8
CN2				*e*sP	sP	08 56 58.8	-0.8
CN2				*e*S	**S**	**09 06 01.3**	**+1.2**
CN2				pmax	pmax		
	comp=Z,100nm,0.9s						
CN2				pmax	pmax		
	comp=Z,500nm,3.0s						
CN2				L	L		
	comp=Z,300nm,25.0s						
CN2				L	L		
	comp=Z,200nm,25.0s						
CN2				L	L		
	comp=Z,100nm,15.0s						
BNX	**BinXian**	**78.73**	**330**	⇑P	**P**	**08 56 18.1**	**-0.3**
BNX				PcP	**PcP**	**08 56 26.6**	**-0.2**
BNX				PP	**PP**	**08 59 20.3**	**+1.6**
BNX				S	**S**	**09 06 06.1**	**+0.6**
BNX				sS	**sS**	**09 06 58.3**	**-0.5**
BNX				SS	**SS**	**09 11 15.8**	**+2.6**
BNX				pmax	pmax		
	comp=Z,210nm,0.8s						
BNX				pmax	pmax		
	comp=Z,270nm,5.7s						
BNX				L	L		
	comp=Z,360nm,20.6s						
BNX				L	L		
	comp=Z,270nm,21.1s						
BNX				L	L		
	comp=Z,710nm,40.1s						
BELA	**Belgrano 2**	**78.81**	**175**	P	**P**	**08 56 17.4**	**-1.2**
SLVN	**Son La**	**78.95**	**299**	IAmb	IAmb	08 56 23.2	
	comp=Z,261nm,2.0s						
GRNR	**Gornyy**	**79.12**	**338**	⇑*i*P	**P**	**08 56 21.7**	**+1.2**
GRNR				pmax	pmax		
	comp=Z,40nm,1.1s						
ENH	**Enshi**	**79.30**	**309**	P	**P**	**08 56 22.5**	**+0.5**
ENH	**Enshi**	**79.30**	**309**	P	**P**	**08 56 22.0**	**+0.1**
ENH	**Enshi**	**79.30**	**309**	P	**P**	**08 56 22.5**	**+0.5**
GYA	**Guiyang**	**79.35**	**304**	⇑P	**P**	**08 56 23.1**	**+0.7**
GYA				PcP	**PcP**	**08 56 28.8**	**-1.4**
GYA				pP	pwP	08 56 55.1	-1.6
GYA				sP	sP	08 57 07.8	+1.2
GYA				PP	**PP**	**08 59 24.3**	**-0.1**
GYA				S	**S**	**09 06 13.4**	**+0.3**
GYA				SKS	**SKSac**	**09 06 23.5**	**-3.9**
GYA				ScS	**ScS**	**09 06 32.3**	**-2.2**
GYA				pmax	pmax		
	comp=Z,150nm,0.8s						
GYA				L	L		
	comp=Z,250nm,15.8s						
BSI	**Banda Aceh**	**79.44**	**280**	P	**P**	**08 56 23.0**	**-0.1**
	comp=Z,9µmcomp=Z,988nm,1.1s						
KLR	**Kul'dur**	**79.59**	**335**	LR	LR	09 28 48.7	
	comp=Z,148nm,19.9s,baz=156,slow=33						
KLR	**Kul'dur**	**79.59**	**335**	*c i*P	**P**	**08 56 23.3**	**+0.3**
KLR				pmax	pmax		
	comp=Z,40nm,1.3s						
LYN	**LuoYang**	**79.67**	**314**	⇑*i*P	**P**	**08 56 24.8**	**+1.0**
LYN				S	**S**	**09 06 18.3**	**+2.4**
LYN				pmax	pmax		
	comp=Z,490nm,1.0s						
HNS	**HongShan**	**79.94**	**317**	⇑P	**P**	**08 56 26.3**	**+1.1**
HNS				sP	**sP**	**08 57 06.0**	**-3.3**
HNS				S	**S**	**09 06 21.5**	**+3.0**
HNS				sS	**sS**	**09 07 11.4**	**-0.9**
HNS				pmax	pmax		
	comp=Z,260nm,1.3s						
HNS				L	L		
	comp=Z,180nm,15.7s						
HNS				L	L		
	comp=Z,250nm,17.7s						
HNS				L	L		
	comp=Z,320nm,22.1s						
BJI2	**Beijing**	**80.69**	**320**	P	**P**	**08 56 30.0**	**+0.9**
BJI2				S	**SKSac**	**09 06 30.5**	**-5.3**
BJI2				pmax	pmax		
	comp=Z,110nm,1.0s						
BJI2				L	L		
	comp=Z,220nm,25.0s						
BJI2				L	L		
	comp=Z,260nm,23.4s						
BJI2				L	L		
	comp=Z,520nm,25.0s						
BJT	**Baijiatuau**	**80.69**	**320**	P	**P**	**08 56 29.6**	**+0.5**
BJT	**Baijiatuau**	**80.69**	**320**	IAmb	IAmb	08 56 31.2	
	comp=Z,194nm,1.0s						
BJT	**Baijiatuau**	**80.69**	**320**	P	**P**	**08 56 30.3**	**+1.1**
SPIA	**Saint Paul Isl**	**80.69**	**10**	P	**P**	**08 56 29.5**	**+0.8**
CNBA	**Chernabura Isl**	**80.75**	**16**	IAmb	IAmb	08 56 30.0	
	comp=Z,157nm,1.2s						
CHNA	**Chernabura Isl**	**80.76**	**16**	P	**P**	**08 56 29.3**	**+0.2**
SDPT	**Sand Point**	**81.00**	**16**	P	**P**	**08 56 30.8**	**+0.4**
SDPT	**Sand Point**	**81.00**	**16**	P	**P**	**08 56 30.1**	**-0.3**
SDPT				IAmb	IAmb	08 56 30.4	
	comp=Z,91nm,0.7s						
TIY	**Taiyuan**	**81.57**	**317**	*e*P	**P**	**08 56 35.3**	**+1.3**
TIY				PP	**PP**	**08 59 40.4**	**-2.1**
TIY				S	**SKSac**	**09 06 41.0**	**-1.1**
TIY				pmax	pmax		
	comp=Z,350nm,0.9s						
TIY				L	L		
	comp=Z,210nm,19.9s						
TIY				L	L		
	comp=Z,260nm,24.0s						
TIY				L	L		
	comp=Z,350nm,28.9s						
CM31	**Chiang Mai Arr**	**81.73**	**294**	P	**P**	**08 56 37.4**	**+2.2**
	SNR=47						
CM31	**Chiang Mai Arr**	**81.73**	**294**	IAmb	IAmb	08 56 38.5	
	comp=Z,190nm,1.0s						
CMAR	**Chiang Mai Arr**	**81.73**	**294**	P	**P**	**08 56 37.0**	**+1.9**
	comp=Z,85nm,0.8s,baz=136,slow=4.0,SNR=303						
CMAR				LR	LR	09 34 30.7	
	comp=Z,52nm,20.1s,baz=130,slow=37						
	comp=Z,85nm,0.8s						
CMAR	**Chiang Mai Arr**	**81.73**	**294**	*i* P	**P**	**08 56 37.2**	**+2.1**
CMAR				pmax	pmax		
	comp=Z,90nm,0.8s						
CMAR	**Chiang Mai Arr**	**81.73**	**294**	P	**P**	**08 56 36.7**	**+1.5**
KMI2	**Kunming**	**81.74**	**301**	⇑P	**P**	**08 56 36.9**	**+1.6**
KMI2				S	**SKSac**	**09 06 42.1**	**-2.0**
KMI2				sS	sS	09 07 28.0	-4.3
KMI2				pmax	pmax		
	comp=Z,140nm,0.9s						
KMI2				pmax	pmax		
	comp=Z,750nm,6.4s						
KMI2				L	L		
	comp=Z,250nm,17.2s						
KMI2				L	L		
	comp=Z,190nm,20.3s						
KMI2				L	L		
	comp=Z,300nm,24.3s						
XAN	**Xi'an**	**81.79**	**312**	⇑P	**P**	**08 56 35.9**	**+0.7**
XAN				pP	pwP	08 57 08.9	-0.9
XAN				S	**SKSac**	**09 06 40.8**	**-2.8**
XAN				pmax	pmax		
	comp=Z,260nm,1.2s						
XAN				pmax	pmax		
	comp=Z,220nm,3.6s						
XAN	**Xi'an**	**81.79**	**312**	P	**P**	**08 56 36.2**	**+1.0**
CHTO	**Chiang Mai**	**81.89**	**294**	P	**P**	**08 56 36.7**	**+0.7**
CHTO	**Chiang Mai**	**81.89**	**294**	P	**P**	**08 56 38.0**	**+2.0**
CHTO	**Chiang Mai**	**81.89**	**294**	P	**P**	**08 56 37.6**	**+1.6**
CHTO				pmax	pmax		
	comp=Z,261nm,1.2s						
CHTO	**Chiang Mai**	**81.89**	**294**	P	**P**	**08 56 37.6**	**+1.6**
CHTO				IAmb	IAmb	08 56 38.9	
	comp=Z,261nm,1.2s						
CHTO	**Chiang Mai**	**81.89**	**294**	P	**P**	**08 56 37.3**	**+1.3**
	comp=Z,3µmcomp=Z,220nm,1.4s						
CHTO	**Chiang Mai**	**81.89**	**294**	P	**P**	**08 56 38.0**	**+2.0**
HEH	**HeiHe**	**82.15**	**333**	*e*P	**P**	**08 56 36.6**	**0.0**
HEH				pP	**pP**	**08 57 08.1**	**+0.4**
HEH				PP	**PP**	**08 59 43.5**	**-3.4**
HEH				S	**S**	**09 06 46.1**	**+5.2**
HEH				pmax	pmax		
	comp=Z,92nm,1.3s						
CHGN	**Chignik**	**82.38**	**16**	IAmb	IAmb	08 56 37.9	
	comp=Z,77nm,0.8s						
SYO	**Syowa Base**	**82.54**	**196**	⇓*e*P	**P**	**08 56 38.0**	**-0.5**
CHIR	**Chirikof Islan**	**82.72**	**18**	P	**P**	**08 56 39.7**	**+0.3**
PZH	**PanZhiHua**	**83.18**	**302**	P	**P**	**08 56 42.9**	**+0.2**
PZH				S	**SKSac**	**09 06 51.5**	**-1.9**
PZH				pmax	pmax		
	comp=Z,60nm,1.1s						
PZH				pmax	pmax		
	comp=Z,470nm,6.8s						
XLT	**XiLinHaoTe**	**83.22**	**323**	*e*P	**P**	**08 56 42.9**	**+0.5**
XLT				S	**S**	**09 06 53.8**	**+1.6**
XLT				pmax	pmax		
	comp=Z,260nm,0.9s						
XLT				pmax	pmax		
	comp=Z,820nm,8.6s						
XLT				L	L		
	comp=Z,38nm,18.2s						
XLT				L	L		
	comp=Z,330nm,23.0s						
PMSA	**Palmer Station**	**83.25**	**159**	LR	LR	09 29 43.2	
	comp=Z,257nm,18.3s,baz=241,slow=33						
PMSA	**Palmer Station**	**83.25**	**159**	P	**P**	**08 56 42.4**	**+0.2**
PMSA	**Palmer Station**	**83.25**	**159**	*e*P	**P**	**08 56 42.2**	**0.0**
PMSA	**Palmer Station**	**83.25**	**159**	P	**P**	**08 56 42.2**	**0.0**
PMSA				pP	**pP**	**08 57 09.2**	**-3.9**
MA2	**Magadan**	**83.40**	**350**	P	**P**	**08 56 41.8**	**-1.0**
	comp=Z,22nm,0.8s,baz=144,slow=3.7,SNR=10						
MA2				LR	LR	09 28 45.1	
	comp=Z,394nm,20.7s,baz=166,slow=32						
	comp=Z,22nm,0.8s						
MA2	**Magadan**	**83.40**	**350**	*c i*P	**P**	**08 56 41.9**	**-1.0**
MA2				pmax	pmax		
	comp=Z,32nm,1.0s						
MA2	**Magadan**	**83.40**	**350**	P	**P**	**08 56 41.5**	**-1.3**
MA2	**Magadan**	**83.40**	**350**	P	**P**	**08 56 41.6**	**-1.3**
	comp=Z,48nm,0.9s						
ELIB	**Princess Elisa**	**83.45**	**190**	*d*P	**P**	**08 56 42.9**	**-0.4**
	comp=Z,52nm,0.7s						
SII	**Sitkinak Islan**	**83.77**	**18**	P	**P**	**08 56 45.3**	**+0.5**
SII	**Sitkinak Islan**	**83.77**	**18**	P	**P**	**08 56 45.4**	**+0.5**
CD2	**Chengdu**	**83.82**	**307**	⇑P	**P**	**08 56 46.4**	**+0.6**
CD2				PP	**PP**	**08 59 57.8**	**-3.3**
CD2				S	**S**	**09 06 58.8**	**0.0**
CD2				sS	sS	09 07 54.9	+1.7
CD2				SS	**SS**	**09 12 29.4**	**-0.2**
CD2				pmax	pmax		
	comp=Z,80nm,1.2s						
CD2				pmax	pmax		
	comp=Z,1µm,3.8s						
HHC	**Hu-ho-hao-te**	**83.97**	**319**	⇑*i*P	**P**	**08 56 47.8**	**+1.4**
HHC				sP	sP	08 57 30.6	-0.1
HHC				SKS	**S**	**09 06 58.3**	**-1.7**
HHC				S	**SKKSac**	**09 07 02.4**	**-0.8**
HHC				pmax	pmax		
	comp=Z,230nm,1.0s						
HHC				pmax	pmax		
	comp=Z,220nm,5.1s						
HHC				L	L		
	comp=Z,180nm,18.5s						
HHC				L	L		
	comp=Z,200nm,22.7s						
HHC				L	L		
	comp=Z,300nm,21.9s						
PBA	**Port Blair**	**84.24**	**285**	P	**P**	**08 56 49.6**	**+1.5**
O14K	**Tigyukauivet M**	**84.34**	**14**	IAmb	IAmb	08 56 49.4	
	comp=Z,86nm,0.9s						
OHAK	**Old Harbor**	**84.59**	**18**	P	**P**	**08 56 49.4**	**+0.5**
OHAK	**Old Harbor**	**84.59**	**18**	P	**P**	**08 56 49.1**	**+0.2**
OHAK				IAmb	IAmb	08 56 50.5	
	comp=Z,132nm,0.8s						
ZEA	**Zeya**	**84.87**	**335**	*e*P	**P**	**08 56 50.9**	**+0.5**
ZEA				pmax	pmax		
	comp=N,20nm,0.7s						
ZEA				pmax	pmax		
	comp=Z,50nm,0.7s						
ZEA				pmax	pmax		
	comp=Z,300nm,4.1s						
P16K	**Nushagak River**	**84.90**	**15**	IAmb	IAmb	08 57 21.4	
	comp=Z,114nm,1.2s						
BTO2	**Baotou**	**84.95**	**318**	*e*P	**P**	**08 56 52.3**	**+1.0**
BTO2				sP	**sP**	**08 57 35.8**	**+0.1**
BTO2				SKS	**SKSac**	**09 07 04.4**	**+0.2**
BTO2				S	**SKKSac**	**09 07 10.4**	**-0.2**
BTO2				pmax	pmax		
	comp=Z,200nm,0.9s						
BTO2				pmax	pmax		
	comp=Z,810nm,4.7s						
BTO2				L	L		
	comp=Z,480nm,21.7s						
BTO2				L	L		
	comp=Z,400nm,18.9s						
BTO2				L	L		
	comp=Z,380nm,13.9s						
M13K	**Dall Lake**	**84.97**	**12**	IAmb	IAmb	08 56 52.8	
	comp=Z,84nm,0.8s						
TNCH	**TengChong**	**85.06**	**299**	⇑P	**P**	**08 56 52.3**	**0.0**
TNCH				sP	sP	08 57 31.8	-4.9
TNCH				PP	**PP**	**09 00 09.3**	**-2.0**
TNCH				S	**S**	**09 07 07.0**	**-4.6**
TNCH				sS	sS	09 08 00.6	-5.4
TNCH				pmax	pmax		
	comp=Z,100nm,1.6s						
TNCH				pmax	pmax		
	comp=Z,720nm,3.9s						
HILR	**Hailar Array B**	**85.07**	**329**	P	**P**	**08 56 52.2**	**+0.6**
	comp=Z,7.6nm,0.6s,baz=141,slow=9.6,SNR=12						
	comp=Z,7.6nm,0.6s						
KDAK	**Kodiak Island**	**85.27**	**18**	P	**P**	**08 56 52.2**	**-0.1**
	comp=Z,20nm,0.7s,baz=239,slow=5.0,SNR=15						
	comp=Z,20nm,0.7s						
KDAK	**Kodiak Island**	**85.27**	**18**	P	**P**	**08 56 53.2**	**+0.9**
KDAK				pmax	pmax		
	comp=Z,117nm,1.5s						
KDAK	**Kodiak Island**	**85.27**	**18**	P	**P**	**08 56 53.2**	**+0.9**
KDAK				IAmb	IAmb	08 56 53.9	
	comp=Z,117nm,1.5s						
P17K	**Kvichak River**	**85.43**	**16**	IAmb	IAmb	08 56 55.9	
	comp=Z,82nm,0.8s						
M14K	**Bethel**	**85.56**	**13**	IAmb	IAmb	08 56 55.4	
	comp=Z,100nm,0.8s						
TROLL	**Troll, Antarti**	**85.58**	**183**	⇓P	**P**	**08 56 53.4**	**-0.7**
	comp=Z,3µm,0.6s						
FORD	**Fort Ord Natur**	**86.01**	**48**	P	**P**	**08 56 56.4**	**-0.1**
NVL	**N'lazarevskaya**	**86.04**	**187**	*e*P	**P**	**08 56 54.1**	**-2.0**
NVL				*e**PP	**pP**	**08 57 25.7**	**-1.3**
NVL				*e*S	**SKSac**	**09 07 07.3**	**-2.7**
NVL				pmax	pmax		
	comp=Z,23nm,0.8s						
MCCM	**Marconi Confer**	**86.04**	**46**	IAmb	IAmb	08 56 58.5	
	comp=Z,59nm,0.8s						
JRSC	**Jasper Ridge**	**86.08**	**47**	IAmb	IAmb	08 56 58.9	
	comp=Z,75nm,0.8s						
SNAA	**Sanae**	**86.14**	**182**	⇓P	**P**	**08 56 55.7**	**-1.0**
	comp=Z,270nm,0.4s						
SNAA	**Sanae**	**86.14**	**182**	P	**P**	**08 56 55.8**	**-0.9**
	comp=Z,34nm,1.0s,baz=204,slow=6.1,SNR=24						
	comp=Z,34nm,1.0s						
SNAA	**Sanae**	**86.14**	**182**	*d i*P	**P**	**08 56 55.6**	**-1.1**
SNAA				*i* *PP	**pwP**	**08 57 30.9**	**-2.1**
SNAA				pmax	pmax		
	comp=Z,44nm,1.1s						
SNAA	**Sanae**	**86.14**	**182**	P	**P**	**08 56 55.7**	**-1.0**
SAO	**San Andreas Ge**	**86.28**	**48**	IAmb	IAmb	08 57 00.0	
	comp=Z,76nm,0.9s						
O18K	**Koktuh Hills**	**86.32**	**16**	IAmb	IAmb	08 57 02.0	
	comp=Z,56nm,0.9s						
SEY	**Seymchan**	**86.34**	**351**	P	**P**	**08 56 57.4**	**-0.1**
	comp=Z,74nm,0.7s,baz=150,slow=5.4,SNR=229						
SEY				LR	LR	09 30 21.0	
	comp=Z,314nm,20.5s,baz=154,slow=32						
	comp=Z,74nm,0.7s						
SEY	**Seymchan**	**86.34**	**351**	*c i*P	**P**	**08 56 57.1**	**-0.4**
SEY				pmax	pmax		
	comp=Z,74nm,0.9s						
LZH	**Lanzhou**	**86.40**	**311**	P	**P**	**08 57 00.3**	**+1.7**
LZH				pP	pP	08 57 31.4	+1.4
LZH				sP	pwP	08 57 37.3	+3.7
LZH				PP	**PP**	**09 00 22.8**	**+0.8**
LZH				SKS	**SKSac**	**09 07 13.8**	**+0.3**
LZH				S	**S**	**09 07 28.1**	**+3.9**
LZH				sS	sS	09 08 15.5	-3.2
LZH				pmax	pmax		
	comp=Z,320nm,1.2s						
LZH				pmax	pmax		
	comp=Z,890nm,7.9s						
CVS	**Carmenet Viney**	**86.43**	**46**	IAmb	IAmb	08 57 00.5	
	comp=Z,103nm,1.1s						
LZDM	**Lanzhou Array**	**86.43**	**311**	P	**P**	**08 57 00.6**	**+1.5**
	comp=Z,24nm,0.5s,baz=100,slow=6.6,SNR=60						
LZDM				LR	LR	09 33 12.3	
	comp=Z,81nm,21.2s,baz=230,slow=34						
	comp=Z,24nm,0.5s						
PMPB	**Monarch Peak**	**86.44**	**49**	IAmb	IAmb	08 57 01.1	
	comp=Z,105nm,0.9s						
M16K	**Timber Creek**	**86.44**	**14**	IAmb	IAmb	08 57 01.2	
	comp=Z,108nm,0.9s						
MHC	**Mount Hamilton**	**86.45**	**47**	IAmb	IAmb	08 57 01.1	
	comp=Z,72nm,0.9s						
GDXM	**Geysers**	**86.45**	**46**	IAmb	IAmb	08 57 01.4	
	comp=Z,78nm,1.3s						
ESPZ	**Base Esperanza**	**86.46**	**160**	P	**P**	**08 56 58.1**	**-0.2**
ESPZ				IAmb	IAmb	08 57 01.0	
	comp=Z,71nm,1.0s						
BBGB	**Big Mountain B**	**86.47**	**48**	IAmb	IAmb	08 57 03.7	
	comp=Z,124nm,1.0s						
PKD	**Bear Valley Ra**	**86.48**	**49**	IAmb	IAmb	08 57 01.0	
	comp=Z,102nm,0.8s						
VNA3	**Neumayer Olymp**	**86.65**	**180**	⇓P	**P**	**08 56 57.9**	**-1.3**
	comp=Z,48nm,0.5s						
VNA3				⇑SKSac	**SKSac**	**09 07 13.2**	**-0.7**
	comp=E,1.4nm,0.7s						
VNA3				⇑S	**SKKSac**	**09 07 23.1**	**+0.6**
	comp=E,8.2nm,1.0s						
JCC	**Jacoby Creek,**	**86.74**	**43**	P	**P**	**08 57 01.1**	**+1.2**
JCC				IAmb	IAmb	08 57 02.4	
	comp=Z,134nm,1.3s						
O19K	**Port Alsworth**	**86.84**	**16**	IAmb	IAmb	08 57 01.0	
	comp=Z,71nm,1.1s						
GAMB	**Gambell**	**86.85**	**7**	IAmb	IAmb	08 57 01.9	
	comp=Z,90nm,0.9s						
L16K	**Owhat River**	**86.95**	**13**	IAmb	IAmb	08 57 02.6	
	comp=Z,51nm,0.9s						
VNA2	**Neumayer--Watz**	**86.97**	**180**	⇓P	**P**	**08 56 59.9**	**-0.8**
	comp=Z,71nm,0.5s,baz=179,slow=4.5						
ILSW	**Iliamna Southw**	**86.97**	**17**	IAmb	IAmb	08 57 02.2	
	comp=Z,87nm,1.0s						
K15K	**Wolf Creek Mou**	**87.05**	**12**	IAmb	IAmb	08 57 04.7	
	comp=Z,41nm,0.8s						
HOM	**Homer**	**87.11**	**18**	P	**P**	**08 57 02.9**	**+1.6**
M17K	**Holitna River**	**87.12**	**14**	IAmb	IAmb	08 57 04.2	
	comp=Z,104nm,1.6s						
KHBM	**Hayfork Bally**	**87.17**	**44**	IAmb	IAmb	08 57 04.5	
	comp=Z,100nm,0.7s						
KRMB	**Red Mountain**	**87.20**	**43**	IAmb	IAmb	08 57 04.9	
	comp=Z,109nm,1.0s						
VNA1	**Neumayer--Stat**	**87.25**	**180**	⇓P	**P**	**08 57 01.3**	**-0.7**
	comp=Z,38nm,0.9s						
SUTB	**Sutter Butte**	**87.34**	**46**	IAmb	IAmb	08 57 04.6	
	comp=Z,142nm,1.1s						
KSXB	**Camp Six Broad**	**87.39**	**43**	IAmb	IAmb	08 57 05.7	
	comp=Z,101nm,1.0s						
MWC	**Mount Wilson**	**87.39**	**51**	IAmb	IAmb	08 57 05.1	
	comp=Z,102nm,1.4s						
BRLK	**Bradley Lake**	**87.42**	**18**	IAmb	IAmb	08 57 04.9	
	comp=Z,57nm,0.9s						
VES	**Vestal, Richgr**	**87.45**	**50**	IAmb	IAmb	08 57 05.0	
	comp=Z,78nm,0.8s						
CMB	**Columbia Colle**	**87.66**	**47**	IAmb	IAmb	08 57 06.4	
	comp=Z,75nm,1.1s						
BAR	**Barrett**	**87.67**	**53**	IAmb	IAmb	08 57 06.3	
	comp=Z,114nm,2.0s						
BFSC	**Mount Baldy Ra**	**87.69**	**52**	IAmb	IAmb	08 57 06.4	
	comp=Z,168nm,1.8s						
ORV	**Oroville**	**87.70**	**45**	IAmb	IAmb	08 57 06.5	
	comp=Z,69nm,1.1s						
AFDM	**Forest Hills D**	**87.73**	**46**	IAmb	IAmb	08 57 06.7	
	comp=Z,87nm,1.0s						
L02F	**Cave Junction**	**87.74**	**42**	IAmb	IAmb	08 57 07.2	
	comp=Z,147nm,1.5s						
ISA	**Isabella, Lake**	**87.80**	**50**	IAmb	IAmb	08 57 07.3	
	comp=Z,107nm,0.9s						
K02D	**Willamette Mer**	**87.99**	**42**	IAmb	IAmb	08 57 08.2	
	comp=Z,123nm,1.3s						
YBH	**Yreka Blue Hor**	**88.07**	**43**	LR	LR	09 31 58.7	
	comp=Z,201nm,18.4s,baz=242,slow=32						
YBH	**Yreka Blue Hor**	**88.07**	**43**	IAmb	IAmb	08 57 08.7	
	comp=Z,61nm,0.7s						
J01E	**Myrtle Point**	**88.08**	**41**	IAmb	IAmb	08 57 08.5	
	comp=Z,124nm,0.9s						
DNR	**Dunn Ranch,Anz**	**88.12**	**53**	IAmb	IAmb	08 57 08.8	

	comp=Z,139nm,1.7s						
BORC	**Borrego Spring**	**88.13**	**53**	IAmb	IAmb	08 57 08.7	
	comp=Z,200nm,1.9s						
J16K	**Anvik River**	**88.14**	**12**	P	**P**	**08 57 06.7**	**+0.6**
MORE	**Moreh**	**88.15**	**297**	IAmb	IAmb	08 57 07.1	
	comp=Z,47nm,0.7s						
YUH	**Yuha Desert**	**88.21**	**54**	IAmb	IAmb	08 57 09.1	
	comp=Z,100nm,1.7s						
PFO	**Pinyon Flats O**	**88.27**	**53**	LR	LR	09 27 59.1	
	comp=Z,330nm,20.8s,baz=245,slow=30						
PFO	**Pinyon Flats O**	**88.27**	**53**	P	**P**	**08 57 07.8**	**+0.2**
PFO				pmax	pmax		
	comp=Z,94nm,1.7s						
PFO	**Pinyon Flats O**	**88.27**	**53**	P	**P**	**08 57 07.8**	**+0.2**
PFO				IAmb	IAmb	08 57 09.6	
	comp=Z,94nm,1.7s						
PFO	**Pinyon Flats O**	**88.27**	**53**	P	**P**	**08 57 08.4**	**+0.8**
LRMC	**Laurel Mtn Rad**	**88.27**	**50**	IAmb	IAmb	08 57 09.5	
	comp=Z,208nm,1.8s						
O22K	**Cooper Landing**	**88.34**	**18**	IAmb	IAmb	08 57 15.8	
	comp=Z,66nm,0.7s						
MDPB	**Devils Postpil**	**88.35**	**48**	IAmb	IAmb	08 57 10.1	
	comp=Z,80nm,1.1s						
L19K	**White Mountain**	**88.41**	**15**	IAmb	IAmb	08 57 10.8	
	comp=Z,44nm,0.8s						
CWC	**Cottonwood Cre**	**88.46**	**49**	IAmb	IAmb	08 57 10.5	
	comp=Z,68nm,1.2s						
CLC	**China Lake**	**88.50**	**50**	IAmb	IAmb	08 57 10.6	
	comp=Z,114nm,1.2s						
SAIH	**SAIHA**	**88.50**	**295**	*e*P	**P**	**08 57 07.0**	**-2.0**
SAIH				IAmb	IAmb	08 57 10.8	
	comp=Z,69nm,0.8s						
CCCA	**Chr Cany lake**	**88.52**	**51**	IAmb	IAmb	08 57 10.8	
	comp=Z,105nm,1.1s						
L04D	**Klamath Falls**	**88.58**	**43**	P	**P**	**08 57 10.0**	**+1.1**
P23K	**Montague Islan**	**88.64**	**19**	IAmb	IAmb	08 57 08.9	
	comp=Z,51nm,1.2s						
I02E	**Swisshome, OR**	**88.65**	**41**	IAmb	IAmb	08 57 11.4	
	comp=Z,139nm,1.4s						
MPMC	**Manual Prospec**	**88.69**	**50**	IAmb	IAmb	08 57 11.6	
	comp=Z,47nm,1.1s						
IMP	**Imphal**	**88.69**	**297**	*e*P	**P**	**08 57 08.3**	**-1.5**
IMP				IAmb	IAmb	08 57 10.8	
	comp=Z,58nm,1.6s						
BELC	**Belle Mtn. Jos**	**88.79**	**52**	IAmb	IAmb	08 57 12.0	
	comp=Z,69nm,0.9s						
RC01	**Rabbit Creek A**	**88.83**	**18**	P	**P**	**08 57 09.0**	**-0.4**
RC01				IAmb	IAmb	08 57 09.8	
	comp=Z,102nm,1.5s						
LPIG	**La Paz**	**88.85**	**63**	LR	LR	09 28 26.3	
	comp=Z,394nm,20.4s,baz=246,slow=30						
MOKO	**MOKOCHONG**	**88.86**	**299**	*e*P	**P**	**08 57 08.5**	**-2.1**
MOKO				IAmb	IAmb	08 57 17.8	
	comp=Z,62nm,0.9s						
YERR	**Yerington**	**88.91**	**47**	IAmb	IAmb	08 57 12.5	
	comp=Z,104nm,1.1s						
KOHI	**KOHIMA**	**88.94**	**298**	*e*P	**P**	**08 57 07.0**	**-4.0**
KOHI				IAmb	IAmb	08 57 11.3	
	comp=Z,65nm,0.2s						
SLBS	**Sierra La Lagu**	**88.98**	**64**	P	**P**	**08 57 12.1**	**+1.0**
SLBS				IAmb	IAmb	08 57 13.8	
	comp=Z,49nm,1.2s						
QSM	**Queen of Sheba**	**89.09**	**50**	IAmb	IAmb	08 57 13.0	
	comp=Z,52nm,1.0s						
PAHR	**Pah Rah Range**	**89.18**	**46**	IAmb	IAmb	08 57 13.7	
	comp=Z,80nm,1.0s						
RYN	**Ryan**	**89.22**	**47**	IAmb	IAmb	08 57 14.1	
	comp=Z,51nm,0.8s						
COR	**Corvallis**	**89.24**	**40**	P	**P**	**08 57 12.6**	**+0.9**
COR				pmax	pmax		
	comp=Z,80nm,1.1s						
COR	**Corvallis**	**89.24**	**40**	P	**P**	**08 57 12.6**	**+0.9**
COR				IAmb	IAmb	08 57 14.0	
	comp=Z,80nm,1.1s						
COR	**Corvallis**	**89.24**	**40**	P	**P**	**08 57 13.1**	**+1.4**
JORH	**JORHAT**	**89.26**	**299**	*e*P	**P**	**08 57 11.1**	**-1.2**
JORH				IAmb	IAmb	08 57 14.1	
	comp=Z,37nm,0.1s						
AZL	**Aizawl**	**89.27**	**296**	*e*P	**P**	**08 57 11.1**	**-1.4**
AZL				IAmb	IAmb	08 57 13.9	
	comp=Z,55nm,0.8s						
NVAR	**Mina Array Bea**	**89.28**	**48**	P	**P**	**08 57 13.0**	**+0.6**
	comp=Z,62nm,0.7s,baz=226,slow=8.3,SNR=440						
NVAR				PKKPbc	**PKKPbc**	**09 14 49.7**	**+0.2**
	comp=Z,1.4nm,0.7s,baz=64,slow=3.3,SNR=11						
NVAR				PKPPKP	**P'P'df**	**09 22 56.5**	**+0.1**
	comp=Z,1.5nm,0.8s,baz=76,slow=3.7,SNR=11						
NVAR				LR	LR	09 29 55.7	
	comp=Z,370nm,20.2s,baz=248,slow=30						
	comp=Z,62nm,0.7s						
NVAR	**Mina Array Bea**	**89.28**	**48**	P	**P**	**08 57 13.5**	**+1.1**
FURC	**Furnace Creek,**	**89.33**	**50**	IAmb	IAmb	08 57 14.3	
	comp=Z,76nm,1.0s						
GWY	**Greenwater Val**	**89.33**	**50**	IAmb	IAmb	08 57 14.2	
	comp=Z,56nm,1.0s						
I04A	**Tendick Farm,**	**89.35**	**41**	IAmb	IAmb	08 57 13.9	
	comp=Z,70nm,0.9s						
NV11	**Mina Array Sit**	**89.38**	**48**	IAmb	IAmb	08 57 14.6	
	comp=Z,92nm,0.8s						
PMR	**Palmer**	**89.41**	**18**	IAmb	IAmb	08 57 12.5	
	comp=Z,49nm,1.2s						
GLI	**Glacier Island**	**89.43**	**19**	IAmb	IAmb	08 57 12.4	
	comp=Z,105nm,1.1s						
GMN	**Gold Mountain**	**89.45**	**49**	P	**P**	**08 57 14.0**	**+0.8**
GMN				IAmb	IAmb	08 57 14.8	
	comp=Z,40nm,0.9s						
KNK	**Knik Glacier**	**89.46**	**18**	IAmb	IAmb	08 57 12.9	
	comp=Z,60nm,1.2s						
H02S1	**DAWSON INLET T**	**89.46**	**30**	P	**P**	**08 57 13.6**	**+1.1**
	SNR=47						
H02S2	**DAWSON INLET T**	**89.46**	**30**	P	**P**	**08 57 13.6**	**+1.1**
	SNR=48						
H02S2				T	T	10 36 47.1	
	SNR=6.4						
SHOC	**Shoshone, Teco**	**89.48**	**51**	IAmb	IAmb	08 57 14.9	
	comp=Z,97nm,1.1s						
IRM	**Iron Mountain**	**89.49**	**53**	IAmb	IAmb	08 57 15.4	
	comp=Z,68nm,1.1s						
FID	**Port Fidalgo**	**89.51**	**19**	IAmb	IAmb	08 57 12.8	
	comp=Z,86nm,1.2s						
KAIM	**Kayak Island**	**89.52**	**20**	IAmb	IAmb	08 57 13.8	
	comp=Z,103nm,1.0s						
H04D	**Lebanon**	**89.55**	**41**	IAmb	IAmb	08 57 15.3	
	comp=Z,101nm,0.9s						
PIX	**Pinacate**	**89.57**	**56**	IAmb	IAmb	08 57 15.2	
	comp=Z,47nm,1.0s						
EYAK	**Cordova Ski Ar**	**89.58**	**20**	P	**P**	**08 57 12.3**	**-0.6**
EYAK	**Cordova Ski Ar**	**89.58**	**20**	IAmb	IAmb	08 57 13.4	
	comp=Z,64nm,1.1s						
K20K	**Telida**	**89.61**	**15**	IAmb	IAmb	09 00 46.8	
	comp=Z,93nm,1.6s						
GHO	**Glory Hole Cre**	**89.62**	**18**	IAmb	IAmb	08 57 13.6	
	comp=Z,48nm,1.2s						
WCT	**Wildcat Mounta**	**89.65**	**50**	IAmb	IAmb	08 57 15.9	
	comp=Z,67nm,1.0s						
CIT	**Chita**	**89.66**	**328**	*e*P	**P**	**08 57 14.1**	**+0.5**
CIT				*e*		08 57 43.3	
CIT				pmax	pmax		
	comp=Z,460nm,1.6s						
MOBC	**Moresby Island**	**89.66**	**30**	IAmb	IAmb	08 57 15.4	
	comp=Z,56nm,1.0s						
MOD	**Modoc Plateau**	**89.69**	**44**	P	**P**	**08 57 15.2**	**+1.1**
MOD				IAmb	IAmb	08 57 16.0	
	comp=Z,97nm,0.9s						
BRDH	**Bariadhala**	**89.71**	**295**	P	**P**	**08 57 15.9**	**+1.4**
	comp=Z,70nm,0.3s,baz=79,slow=6.7,SNR=4.3						
	comp=Z,70nm,0.3s						
KVN	**Kaiserville**	**89.72**	**47**	IAmb	IAmb	08 57 16.1	
	comp=Z,71nm,0.8s						
BLYC	**Blythe**	**89.76**	**53**	IAmb	IAmb	08 57 16.5	
	comp=Z,69nm,1.1s						
CUT	**Chulitna**	**89.77**	**17**	IAmb	IAmb	08 57 15.0	
	comp=Z,40nm,1.0s						
RAGM	**Ragged Mountai**	**89.79**	**20**	P	**P**	**08 57 13.7**	**-0.3**
RAGM				IAmb	IAmb	08 57 14.8	
	comp=Z,81nm,1.1s						
MTPC	**Mountain Pass**	**89.80**	**51**	IAmb	IAmb	08 57 16.8	
	comp=Z,67nm,1.1s						
SML	**Sawmill**	**89.81**	**18**	P	**P**	**08 57 13.6**	**-0.4**
SML				IAmb	IAmb	09 00 46.8	
	comp=Z,69nm,1.5s						
113A	**Mohawk Valley,**	**89.88**	**54**	IAmb	IAmb	08 57 17.0	
	comp=Z,53nm,1.2s						
ZIRO	**ZIRO**	**89.92**	**300**	*e*P	**P**	**08 57 13.8**	**-1.8**
TPNV	**Topopah Spring**	**89.99**	**50**	IAmb	IAmb	08 57 17.6	
	comp=Z,79nm,0.8s						
HOLB	**Holberg**	**89.99**	**34**	IAmb	IAmb	08 57 17.0	
	comp=Z,99nm,0.9s						
DIV	**Divide**	**90.03**	**19**	IAmb	IAmb	08 57 15.5	
	comp=Z,73nm,1.1s						
BERG	**Berg Lake**	**90.11**	**20**	P	**P**	**08 57 15.5**	**+0.1**
SCM	**Sheep Creek Mo**	**90.12**	**18**	IAmb	IAmb	08 57 16.1	
	comp=Z,81nm,1.2s						
BILL	**Bilibino**	**90.21**	**358***c*	*i*P	**P**	**08 57 15.3**	**-0.4**
BILL				pmax	pmax		
	comp=Z,60nm,0.9s						
KLU	**Klutina**	**90.26**	**19**	IAmb	IAmb	08 57 16.7	
	comp=Z,64nm,1.2s						
I05D	**Terrebonne, OR**	**90.30**	**41**	IAmb	IAmb	08 57 18.6	
	comp=Z,84nm,0.8s						
TEZP	**TEZPUR**	**90.38**	**299**	*e*P	**P**	**08 57 15.8**	**-1.7**
HSIG		**90.42**	**59**	IAmb	IAmb	08 57 19.4	
	comp=Z,55nm,0.9s						
NLWA	**Neilton Lookou**	**90.44**	**38**	IAmb	IAmb	08 57 19.5	
	comp=Z,77nm,0.9s						
YAK	**Yakutsk**	**90.48**	**342**	P	**P**	**08 57 16.4**	**-0.7**
	comp=Z,79nm,0.8s,baz=62,slow=1.2,SNR=6.5						
YAK				LR	LR	09 36 15.8	
	comp=Z,184nm,18.5s,baz=136,slow=34						
	comp=Z,79nm,0.8s						
YAK	**Yakutsk**	**90.48**	**342***c*	*i*P	**P**	**08 57 16.2**	**-0.9**
YAK				*e**PP	**sP**	**08 58 03.8**	**+2.3**
YAK				*e*		09 00 58.2	
YAK				*e*PPP	PPP	09 02 50.9	
YAK				*e*S	**SKSac**	**09 07 28.2**	**-8.1**
YAK				*e*		09 07 56.3	
YAK				*e*SS	**SS**	**09 13 58.9**	**-6.6**
YAK				*e*SSS	SSS	09 17 37.2	
YAK				pmax	pmax		
	comp=Z,105nm,1.1s						
YAK				pmax	pmax		
	comp=E,6.0nm,0.9s						
YAK				pmax	pmax		
	comp=N,10.0nm,1.0s						
YAK				pmax	pmax		
	comp=Z,96nm,2.0s						
YAK				pmax	pmax		
	comp=N,52nm,2.0s						
YAK				pmax	pmax		
	comp=E,28nm,1.9s						
YAK				smax	smax		
	comp=E,104nm,4.8s						
YAK				smax	smax		
	comp=N,67nm,2.0s						
YAK	**Yakutsk**	**90.48**	**342**	IAmb	IAmb	08 57 17.4	
	comp=Z,76nm,0.8s						
SHPR	**Sheep Range**	**90.56**	**51**	IAmb	IAmb	08 57 20.5	
	comp=Z,51nm,1.1s						
CRQM	**Cirque**	**90.57**	**20**	IAmb	IAmb	08 57 18.4	
	comp=Z,112nm,1.2s						
HOOD	**Mount Hood Mea**	**90.62**	**40**	IAmb	IAmb	08 57 19.9	
	comp=Z,97nm,1.1s						
ULN	**Ulaanbaatar**	**90.64**	**323**	P	**P**	**08 57 19.3**	**+1.0**
ULN				S	**SKSac**	**09 07 39.4**	**+1.2**
ULN	**Ulaanbaatar**	**90.64**	**323***c*	*i*P	**P**	**08 57 18.7**	**+0.3**
ULN				pmax	pmax		
	comp=Z,140nm,1.2s						
ULN	**Ulaanbaatar**	**90.64**	**323**	P	**P**	**08 57 19.1**	**+0.7**
ULN	**Ulaanbaatar**	**90.64**	**323**	P	**P**	**08 57 18.6**	**+0.2**
	comp=Z,7μmcomp=Z,603nm,1.3s						
CRAG	**Craig**	**90.64**	**28**	IAmb	IAmb	08 57 20.0	
	comp=Z,53nm,1.5s						
TGL	**Tana Glacier**	**90.67**	**21**	IAmb	IAmb	08 57 18.9	
	comp=Z,87nm,1.1s						
S11A	**Rachel**	**90.67**	**49**	IAmb	IAmb	08 57 20.5	
	comp=Z,71nm,0.9s						
SHL	**Shillong**	**90.69**	**297**	P	**P**	**08 57 19.6**	**+0.3**
	SNR=24						
SHL	**Shillong**	**90.69**	**297**	*e*P	**P**	**08 57 17.7**	**-1.5**
YAH	**Yahtse**	**90.73**	**21**	IAmb	IAmb	08 57 19.6	
	comp=Z,82nm,1.1s						
I20K	**Naaghedeneel**	**90.75**	**14**	IAmb	IAmb	08 57 19.4	
	comp=Z,83nm,1.6s						
SIT	**Sitka**	**90.77**	**26**	P	**P**	**08 57 19.1**	**+0.6**
SIT				pmax	pmax		
	comp=Z,38nm,1.2s						
SIT	**Sitka**	**90.77**	**26**	P	**P**	**08 57 19.1**	**+0.6**
VRDI	**Verde Repeater**	**90.82**	**20**	P	**P**	**08 57 17.7**	**-1.2**
VRDI				IAmb	IAmb	08 57 19.5	
	comp=Z,73nm,1.3s						
W13A	**Hualapai Mount**	**90.84**	**52**	IAmb	IAmb	08 57 21.7	
	comp=Z,48nm,1.2s						
G18K	**Tagagawik**	**90.86**	**12**	IAmb	IAmb	08 57 19.6	
	comp=Z,52nm,1.5s						
F17K	**Baldwin Pennin**	**90.88**	**11**	IAmb	IAmb	08 57 20.2	
	comp=Z,73nm,0.8s						
GTA2	**Gaotai**	**90.89**	**313**	P	**P**	**08 57 20.6**	**+0.9**
GTA2				SKS	**SKSac**	**09 07 39.5**	**-0.5**
GTA2				pmax	pmax		
	comp=Z,140nm,1.3s						
GTA2				L	L		
	comp=Z,150nm,17.5s						
GTA2				L	L		
	comp=Z,200nm,18.7s						
GTA2				L	L		
	comp=Z,380nm,18.4s						
BBB	**Bella Bella**	**90.92**	**32**	LR	LR	09 29 31.3	
	comp=Z,232nm,21.8s,baz=230,slow=30						
BBB	**Bella Bella**	**90.92**	**32**	IAmb	IAmb	08 57 21.2	
	comp=Z,54nm,0.9s						
SONM	**Songino Array**	**90.99**	**322**	P	**P**	**08 57 20.3**	**+0.3**
	comp=Z,81nm,0.9s,baz=141,slow=4.5,SNR=275						
SONM				PKKP	**PKKPdf**	**09 14 43.9**	**+1.6**
	comp=Z,0.6nm,0.7s,baz=280,slow=2.1,SNR=4.9						
SONM				LR	LR	09 37 44.4	
	comp=Z,73nm,19.1s,baz=118,slow=35						
	comp=Z,81nm,0.9s						
SONM	**Songino Array**	**90.99**	**322**	P	**P**	**08 57 20.5**	**+0.5**
SONM				pmax	pmax		
	comp=Z,158nm,1.1s						
SONM	**Songino Array**	**90.99**	**322**	P	**P**	**08 57 20.5**	**+0.5**
GRNC	**Granite Creek**	**91.00**	**21**	P	**P**	**08 57 19.2**	**-0.7**
GRNC				IAmb	IAmb	08 57 20.6	
	comp=Z,72nm,1.0s						
S31K	**Pelican**	**91.02**	**25**	IAmb	IAmb	08 57 21.4	
	comp=Z,56nm,1.1s						
WVOR	**Wild Horse Val**	**91.03**	**44**	P	**P**	**08 57 20.9**	**+0.6**
WVOR	**Wild Horse Val**	**91.03**	**44**	IAmb	IAmb	08 57 22.2	
	comp=Z,63nm,0.9s						
PCA	**Pinnacle**	**91.04**	**22**	IAmb	IAmb	08 57 20.5	
	comp=Z,48nm,1.0s						
U33K	**Whale Pass**	**91.06**	**27**	IAmb	IAmb	08 57 21.7	
	comp=Z,36nm,0.9s						
CLRS	**Cowichan Lake**	**91.08**	**37**	IAmb	IAmb	08 57 22.0	
	comp=Z,57nm,0.9s						
CBB	**Campbell River**	**91.09**	**35**	P	**P**	**08 57 21.2**	**+1.0**
CBB				IAmb	IAmb	08 57 22.2	
	comp=Z,84nm,1.1s						
DHY	**Denali Highway**	**91.09**	**17**	IAmb	IAmb	08 57 20.5	
	comp=Z,54nm,1.6s						
HARP	**HAARP**	**91.20**	**19**	IAmb	IAmb	08 57 21.1	
	comp=Z,72nm,1.0s						
V35K	**Ketchikan**	**91.21**	**29**	IAmb	IAmb	08 57 22.5	
	comp=Z,43nm,1.0s						
BARN	**Barnard Glacie**	**91.28**	**21**	P	**P**	**08 57 21.1**	**0.0**
LOGN	**Logan Glacier**	**91.32**	**21**	IAmb	IAmb	08 57 22.1	
	comp=Z,64nm,1.2s						
S32K	**Killisnoo**	**91.34**	**26**	IAmb	IAmb	08 57 22.7	
	comp=Z,42nm,1.4s						
PGC	**Sidney**	**91.36**	**37**	IAmb	IAmb	08 57 23.2	
	comp=Z,82nm,1.0s						
G19K	**Purcell Mounta**	**91.38**	**12**	IAmb	IAmb	08 57 22.4	
	comp=Z,46nm,1.1s						
TAWA	**Tawang**	**91.54**	**299**	*e*P	**P**	**08 57 21.3**	**-2.1**
O28M	**Mount Upton**	**91.55**	**21**	IAmb	IAmb	08 57 23.4	
	comp=Z,47nm,1.0s						
WRAK	**Wrangell Islan**	**91.58**	**27**	P	**P**	**08 57 22.9**	**+0.6**
WRAK				IAmb	IAmb	08 57 24.0	
	comp=Z,34nm,1.1s						
J08A	**Circle Bar Ran**	**91.59**	**43**	IAmb	IAmb	08 57 24.6	
	comp=Z,65nm,0.9s						
I21K	**Tanana**	**91.64**	**15**	IAmb	IAmb	08 57 23.1	
	comp=Z,43nm,1.0s						
M26K	**Nabesna, AK**	**91.85**	**19**	IAmb	IAmb	08 57 24.2	
	comp=Z,61nm,1.1s						
F19K	**Shaleruckik Mo**	**91.86**	**12**	IAmb	IAmb	08 57 24.4	
	comp=Z,43nm,1.0s						
F07A	**Phinny Hill Vi**	**91.96**	**41**	IAmb	IAmb	08 57 25.9	
	comp=Z,45nm,0.7s						
BESE	**Bessie Mountai**	**91.97**	**25**	IAmb	IAmb	08 57 25.9	
	comp=Z,74nm,1.2s						
WRH	**Wood River Hil**	**92.02**	**16**	IAmb	IAmb	08 57 24.1	
	comp=Z,45nm,1.2s						
MENT	**Mentasta**	**92.04**	**19**	IAmb	IAmb	08 57 25.1	
	comp=Z,54nm,1.3s						
MXC	**Moxie City**	**92.08**	**40**	IAmb	IAmb	08 57 26.4	
	comp=Z,35nm,0.8s						
RDOG	**Red Dog Mine**	**92.09**	**9**	IAmb	IAmb	08 57 25.9	
	comp=Z,40nm,0.9s						
K24K	**Donnelly Dome**	**92.11**	**18**	IAmb	IAmb	08 57 25.1	
	comp=Z,50nm,0.8s						
LCMT	**Little Creek M**	**92.16**	**51**	IAmb	IAmb	08 57 27.6	
	comp=Z,50nm,0.9s						
M27K	**Edge Creek, AK**	**92.17**	**20**	IAmb	IAmb	08 57 26.1	
	comp=Z,68nm,1.2s						
L26K	**Log Cabin Wild**	**92.22**	**19**	IAmb	IAmb	08 57 25.9	
	comp=Z,54nm,1.3s						
CCB	**Clear Creek Bu**	**92.23**	**16**	IAmb	IAmb	08 57 24.8	
	comp=Z,38nm,1.0s						
G08A	**Pilot Rock**	**92.24**	**41**	IAmb	IAmb	08 57 27.3	
	comp=Z,50nm,0.7s						
I23K	**Minto, Yukon-K**	**92.25**	**15**	IAmb	IAmb	08 57 25.0	
	comp=Z,62nm,1.8s						
HDA	**Harding Lake**	**92.27**	**17**	IAmb	IAmb	08 57 25.5	
	comp=Z,76nm,1.2s						
CCUT	**Cedar City**	**92.31**	**50**	IAmb	IAmb	08 57 28.8	
	comp=Z,27nm,1.0s						
RIDG	**Independent Ri**	**92.33**	**18**	IAmb	IAmb	08 57 26.1	
	comp=Z,74nm,1.1s						
E07A	**Sunnyside**	**92.33**	**40**	IAmb	IAmb	08 57 27.8	
	comp=Z,52nm,0.8s						
X16A	**Lo Mia Camp, P**	**92.35**	**54**	IAmb	IAmb	08 57 29.3	
	comp=Z,40nm,0.9s						
H22K	**Ishtalitna Cre**	**92.38**	**14**	IAmb	IAmb	08 57 26.7	
	comp=Z,73nm,1.6s						
SKAG	**Skagway**	**92.38**	**24**	IAmb	IAmb	08 57 27.7	
	comp=Z,36nm,1.3s						
COLA	**College**	**92.41**	**16**	P	**P**	**08 57 24.9**	**-1.0**
COLA	**College**	**92.41**	**16**	P	**P**	**08 57 24.7**	**-1.2**
COLA				pmax	pmax		
	comp=Z,60nm,0.9s						
COLA	**College**	**92.41**	**16**	P	**P**	**08 57 24.7**	**-1.2**
COLA				IAmb	IAmb	08 57 26.1	
	comp=Z,59nm,0.9s						
PSUT	**Pine Spring**	**92.41**	**49**	IAmb	IAmb	08 57 28.6	
	comp=Z,103nm,1.9s						
G21K	**Allakaket**	**92.43**	**13**	IAmb	IAmb	08 57 27.0	
	comp=Z,34nm,0.9s						
F20K	**Avaraart Lake**	**92.44**	**12**	IAmb	IAmb	08 57 27.3	
	comp=Z,41nm,1.1s						
HAWA	**Hanford**	**92.44**	**40**	IAmb	IAmb	08 57 28.2	
	comp=Z,53nm,0.8s						
ELK	**Elko**	**92.46**	**47**	P	**P**	**08 57 27.6**	**+0.5**
ELK	**Elko**	**92.46**	**47**	IAmb	IAmb	08 57 28.7	
	comp=Z,82nm,1.6s						
SZCU	**Shurtz Canyon**	**92.53**	**50**	IAmb	IAmb	08 57 29.6	
	comp=Z,41nm,1.1s						
IL31		**92.57**	**17**	IAmb	IAmb	08 57 26.4	
	comp=Z,34nm,0.9s						
ILAR	**Eielson Array**	**92.57**	**17**	P	**P**	**08 57 25.1**	**-1.7**
	comp=Z,20nm,0.8s,baz=236,slow=5.8,SNR=178						
ILAR				PKKP	**PKKPdf**	**09 14 38.6**	**-1.3**
	comp=Z,2.0nm,0.8s,baz=347,slow=2.5,SNR=16						
ILAR				PKPPKP	**P'P'df**	**09 22 41.1**	**-6.9**
	comp=Z,0.4nm,0.8s,baz=354,slow=5.7,SNR=4.2						
	comp=Z,20nm,0.8s						
ILAR	**Eielson Array**	**92.57**	**17**	P	**P**	**08 57 25.3**	**-1.5**
ILAR	**Eielson Array**	**92.57**	**17**	P	**P**	**08 57 25.3**	**-1.5**
LL02	**Futaleuf**	**92.60**	**139**	IAmb	IAmb	08 58 03.7	
	comp=Z,44nm,1.4s						
WAH2	**Wahluke Slope**	**92.61**	**40**	IAmb	IAmb	08 57 28.7	
	comp=Z,20nm,0.8s						
L27K	**Beaver Creek,**	**92.70**	**19**	IAmb	IAmb	08 57 28.2	
	comp=Z,36nm,1.3s						
BCAR	**Beaver Creek A**	**92.72**	**19**	P	**P**	**08 57 26.9**	**-0.7**
H23K	**Yukon River**	**92.75**	**15**	IAmb	IAmb	08 57 33.9	
	comp=Z,56nm,2.0s						
SCRK	**Sand Creek**	**92.75**	**18**	IAmb	IAmb	08 57 28.4	
	comp=Z,62nm,1.3s						
H03S2	**Juan Fernandez**	**92.76**	**128**	T	T	10 40 50.4	
	baz=238						
H03S1	**Juan Fernandez**	**92.77**	**128**	T	T	10 41 01.6	
	baz=238						
H03S3	**Juan Fernandez**	**92.77**	**128**	T	T	10 40 58.7	
	baz=238						
E08A	**Dider Farm, El**	**92.78**	**40**	IAmb	IAmb	08 57 29.6	
	comp=Z,43nm,0.9s						
J25K	**Salcha River,**	**92.86**	**17**	IAmb	IAmb	08 57 28.5	
	comp=Z,67nm,1.4s						
WUAZ	**Wupatki**	**92.87**	**53**	IAmb	IAmb	08 57 31.0	
	comp=Z,40nm,1.0s						
GOMU	**GeErMu**	**92.89**	**308**	P	**P**	**08 57 30.4**	**+1.0**
GOMU				pmax	pmax		
	comp=Z,33nm,1.0s						
GOMU				L	L		
	comp=Z,63nm,12.3s						
GOMU				L	L		
	comp=Z,140nm,12.1s						
GOMU				L	L		
	comp=Z,92nm,12.6s						
EPH	**Ephrata**	**92.89**	**39**	IAmb	IAmb	08 57 30.0	
	comp=Z,42nm,1.2s						
LSA	**Lhasa**	**92.97**	**301**	P	**P**	**08 57 29.9**	**-0.2**
D08A	**Wollman Farm,**	**93.14**	**40**	IAmb	IAmb	08 57 31.3	
	comp=Z,37nm,1.0s						
MFID	**Camas Ranch**	**93.31**	**44**	IAmb	IAmb	08 57 33.3	
	comp=Z,27nm,1.1s						
DUN6	**Lazy B Ranch**	**93.35**	**56**	IAmb	IAmb	08 57 33.2	
	comp=Z,77nm,1.2s						
K27K	**Chicken**	**93.35**	**19**	IAmb	IAmb	08 57 31.6	
	comp=Z,51nm,1.2s						
WHY	**Whitehorse**	**93.35**	**23**	IAmb	IAmb	08 58 04.3	
	comp=Z,48nm,1.6s						
LL03	**Petrohue**	**93.40**	**137**	IAmb	IAmb	08 57 33.0	
	comp=Z,44nm,0.7s						
PALK	**Pallekele**	**93.49**	**276**	P	**P**	**08 57 33.3**	**+1.1**
	comp=Z,65nm,1.1s,baz=131,slow=3.5,SNR=10						
PALK				LR	LR	09 37 43.6	
	comp=Z,136nm,21.9s,baz=120,slow=34						
	comp=Z,65nm,1.1s						
PALK	**Pallekele**	**93.49**	**276**	P	**P**	**08 57 33.3**	**+1.1**
PALK	**Pallekele**	**93.49**	**276**	P	**P**	**08 57 33.3**	**+1.1**
PALK	**Pallekele**	**93.49**	**276**	P	**P**	**08 57 34.0**	**+1.7**
PALK	**Pallekele**	**93.49**	**276**	P	**P**	**08 57 32.9**	**+0.7**
X18A	**Snowflake**	**93.51**	**54**	IAmb	IAmb	08 57 33.8	
	comp=Z,24nm,1.0s						
C19K	**Lookout Ridge**	**93.57**	**10**	IAmb	IAmb	08 57 32.8	
	comp=Z,71nm,1.1s						
F10A	**Beach Ranch, E**	**93.63**	**41**	P	**P**	**08 57 32.1**	**-0.1**
F10A				IAmb	IAmb	08 57 33.0	
	comp=Z,31nm,0.9s						
DLBC	**Dease Lake**	**93.83**	**27**	LR	LR	09 36 58.2	
	comp=Z,270nm,18.1s,baz=220,slow=34						
L29M	**L29M**	**93.91**	**21**	IAmb	IAmb	08 57 34.1	
	comp=Z,54nm,1.3s						
G24K	**Hadweenzic Riv**	**93.96**	**15**	IAmb	IAmb	08 57 33.5	
	comp=Z,27nm,0.9s						
PLID	**Pearl Lake**	**93.98**	**43**	P	**P**	**08 57 33.7**	**-0.3**
E21K	**Killik River**	**93.98**	**12**	IAmb	IAmb	08 57 34.2	
	comp=Z,56nm,1.1s						
R33M	**Jennings River**	**94.04**	**26**	IAmb	IAmb	08 57 35.5	
	comp=Z,30nm,1.4s						
MALK	**Mahakanadarawa**	**94.06**	**277**	P	**P**	**08 57 35.9**	**+1.2**
ZAK	**Zakamensk**	**94.07**	**323**	*e*P	**P**	**08 57 33.5**	**-0.6**
ZAK				pmax	pmax		
	comp=Z,78nm,1.4s						
E22K	**Anaktuvuk Pass**	**94.16**	**13**	IAmb	IAmb	08 57 35.2	
	comp=Z,83nm,1.5s						
121A	**Cookes Peak, D**	**94.34**	**57**	IAmb	IAmb	08 57 37.8	
	comp=Z,25nm,1.1s						
HMU	**Henry Mountain**	**94.35**	**51**	IAmb	IAmb	08 57 37.3	
	comp=Z,56nm,1.8s						
FYU	**Fort Yukon**	**94.41**	**16**	IAmb	IAmb	09 00 45.4	
	comp=Z,78nm,2.0s						
IRK	**Irkutsk**	**94.49**	**325**	*e*P	**P**	**08 57 32.2**	**-3.7**
IRK				pmax	pmax		
	comp=Z,60nm,1.6s						
F24K	**Squaw Lake**	**94.51**	**15**	IAmb	IAmb	08 57 36.8	
	comp=Z,40nm,0.8s						
TLY	**Talaya**	**94.53**	**325**	P	**P**	**08 57 36.7**	**+0.6**
TLY	**Talaya**	**94.53**	**325**	P	**P**	**08 57 36.0**	**-0.1**
TLY				IAmb	IAmb	08 57 37.2	
	comp=Z,42nm,1.0s						
E23K	**Chandalar**	**94.56**	**14**	IAmb	IAmb	08 57 37.0	
	comp=Z,34nm,1.0s						
TMUT	**Trail Mountain**	**94.59**	**49**	IAmb	IAmb	08 57 40.4	
	comp=Z,22nm,1.0s						
NEW	**Newport**	**94.79**	**39**	LR	LR	09 38 37.0	
	comp=Z,136nm,18.1s,baz=244,slow=34						
PLCA	**Paso Flores**	**94.79**	**138**	P	**P**	**08 57 38.1**	**+0.3**
	comp=Z,8.9nm,0.9s,baz=212,slow=4.9,SNR=18						

PLCA				PKKPbc	PKKPbc	09 14 34.0	-0.4
	comp=Z,2.8nm,0.9s,baz=109,slow=2.8,SNR=7.1						
PLCA				LR	LR	09 35 32.5	
	comp=Z,146nm,18.1s,baz=219,slow=32						
	comp=Z,8.9nm,0.9s						
PLCA	Paso Flores	94.79	138	P	P	08 57 38.0	+0.2
PLCA	Paso Flores	94.79	138	eP	P	08 57 38.5	+0.7
GO06	Curarrehue	94.86	136	P	P	08 57 38.3	+0.1
I28M	Miner Creek	95.02	18	IAmb	IAmb	08 58 08.4	
	comp=Z,52nm,1.9s						
G26K	Porcupine Rive	95.07	16	IAmb	IAmb	08 57 39.3	
	comp=Z,53nm,1.1s						
H27K	Steamboat Moun	95.14	17	IAmb	IAmb	08 57 39.6	
	comp=Z,28nm,1.3s						
TCUT	Toone Canyon	95.23	48	IAmb	IAmb	08 57 43.2	
	comp=Z,26nm,0.7s						
BMAR	Burnt Mountain	95.24	16	P	P	08 57 39.3	+0.3
I29M	Ogilvie Camp,	95.44	19	IAmb	IAmb	08 58 13.7	
	comp=Z,31nm,1.4s						
J30M	Hart River	95.50	20	IAmb	IAmb	08 58 10.1	
	comp=Z,37nm,1.9s						
E25K	Arctic Village	95.53	15	IAmb	IAmb	08 57 41.5	
	comp=Z,27nm,1.2s						
PV05	Paradox Valley	95.59	51	IAmb	IAmb	08 57 44.2	
	comp=Z,22nm,0.9s						
PV10	Paradox Valley	95.76	51	IAmb	IAmb	08 57 44.2	
	comp=Z,20nm,0.9s						
PV19	Morning Glory	95.77	51	IAmb	IAmb	08 57 44.5	
	comp=Z,18nm,1.0s						
PV17	East Wray Mesa	95.78	51	IAmb	IAmb	08 57 44.5	
	comp=Z,18nm,1.1s						
PV20	West Nyswonger	95.79	51	IAmb	IAmb	08 57 44.6	
	comp=Z,19nm,0.9s						
EVN	Everest	95.80	298	P	P	08 57 43.6	+0.4
EVN				IAmb	IAmb	08 57 44.9	
	comp=Z,49nm,1.1s						
PV04	Paradox Valley	95.86	51	IAmb	IAmb	08 59 48.9	
	comp=Z,36nm,1.5s						
PV21	Cone Mtn., Par	95.88	51	IAmb	IAmb	08 57 44.3	
	comp=Z,37nm,1.1s						
MNTX	Cornudas Mount	95.90	58	IAmb	IAmb	08 57 44.1	
	comp=Z,33nm,1.9s						
PV12	Saucer Basin,	95.90	51	IAmb	IAmb	08 57 44.8	
	comp=Z,15nm,0.8s						
PV02	Paradox Valley	95.91	51	IAmb	IAmb	08 57 43.5	
	comp=Z,22nm,1.3s						
MMPY	Sheldon Lake,	95.94	23	IAmb	IAmb	08 57 44.6	
	comp=Z,21nm,1.2s						
LDM	Libby Dam	95.94	40	IAmb	IAmb	08 57 43.5	
	comp=Z,16nm,0.8s						
MOY	Mondy	95.96	324	eP	P	08 57 42.7	0.0
MOY				pmax	pmax		
	comp=Z,82nm,2.1s						
PV22	Blue Mesa, Par	96.00	51	IAmb	IAmb	08 57 45.2	
	comp=Z,20nm,1.0s						
H29M	Whitestone	96.02	18	IAmb	IAmb	08 57 48.1	
	comp=Z,60nm,1.8s						
ALQ	Albuquerque	96.31	55	IAmb	IAmb	08 57 47.6	
	comp=Z,7.5nm,0.9s						
ANMO	Albuquerque	96.31	55	LR	LR	09 34 07.1	
	comp=Z,255nm,19.8s,baz=247,slow=31						
ANMO	Albuquerque	96.31	55	eP	P	08 57 44.5	-0.4
ANMO				i *PP	pwP	08 58 19.7	-0.5
ANMO				pmax	pmax		
	comp=Z,8.0nm,0.9s						
ANMO	Albuquerque	96.31	55	P	P	08 57 44.9	0.0
TXAR	Lajitas Array	96.38	61	P	P	08 57 45.4	+0.2
	comp=Z,3.4nm,0.9s,baz=214,slow=5.9,SNR=35						
TXAR				PKKP	PKKPdf	09 14 31.6	-0.1
	comp=Z,3.3nm,0.5s,baz=104,slow=3.7,SNR=65						
TXAR				PKPPKP	P'P'df	09 22 35.6	-8.3
	comp=Z,0.4nm,0.9s,baz=68,slow=4.4,SNR=3.5						
	comp=Z,3.4nm,0.9s						
TXAR	Lajitas Array	96.38	61	P	P	08 57 45.6	+0.4
TXAR	Lajitas Array	96.38	61	P	P	08 57 45.6	+0.4
E27K	Coleen River	96.56	16	IAmb	IAmb	08 57 45.7	
	comp=Z,17nm,0.9s						
TPB28		96.58	59	IAmb	IAmb	09 00 51.1	
	comp=Z,14nm,0.6s						
F28M	Old Crow	96.59	17	IAmb	IAmb	08 57 45.9	
	comp=Z,19nm,1.1s						
EPYK	Eagle Plains	96.61	19	IAmb	IAmb	08 58 15.8	
	comp=Z,84nm,1.9s						
SNOW	Snow King Moun	96.65	46	P	P	08 57 46.8	+0.5
O20A	White River Ci	97.03	50	IAmb	IAmb	08 59 00.3	
	comp=Z,32nm,1.9s						
C27K	Jago River	97.12	14	IAmb	IAmb	08 57 48.6	
	comp=Z,23nm,0.9s						
PD31	Pinedale Array	97.16	47	P	P	08 57 48.1	-0.4
PDAR	Pinedale Array	97.16	47	P	P	08 57 48.1	-0.4
	comp=Z,2.8nm,0.7s,baz=217,slow=2.2,SNR=15						
PDAR				PP	PP	09 01 44.5	-2.2
	comp=Z,1.6nm,1.0s,baz=269,slow=5.7,SNR=4.8						
PDAR				PKKPbc	PKKPbc	09 14 28.0	-1.0
	comp=Z,1.8nm,0.7s,baz=88,slow=5.9,SNR=16						
PDAR				PKPPKP	P'P'df	09 22 41.2	-0.4
	comp=Z,1.3nm,1.1s,baz=90,slow=1.8,SNR=6.2						
PDAR				LR	LR	09 36 21.7	
	comp=Z,116nm,18.6s,baz=231,slow=32						
	comp=Z,2.8nm,0.7s						
G30M	tAoh Zraii Nji	97.17	18	IAmb	IAmb	08 58 21.5	
	comp=Z,23nm,1.1s						
E28M	Babbage River	97.39	16	IAmb	IAmb	08 57 49.6	
	comp=Z,25nm,0.8s						
D27M	Malcolm River	97.49	15	IAmb	IAmb	08 57 49.9	
	comp=Z,32nm,1.2s						
F30M	Barrier River	97.72	18	IAmb	IAmb	08 58 23.4	
	comp=Z,67nm,1.8s						
YNE	Yellowstone No	97.77	45	P	Pdif	08 57 51.5	+0.2
F31M	Tsiigehtchic	98.20	19	IAmb	IAmb	08 58 22.6	
	comp=Z,22nm,1.3s						
TIXI	Tiksi	98.23	347	PKPPKP	P'P'df	09 22 39.9	+2.7
	comp=Z,2.9nm,0.6s,baz=347,slow=5.6,SNR=1.8						
TIXI				LR	LR	09 38 59.7	
	comp=Z,184nm,20.4s,baz=148,slow=33						
TIXI	Tiksi	98.23	347	i P	P	08 57 51.0	-1.3
MSTX	Muleshoe	98.78	57	IAmb	IAmb	08 57 56.7	
	comp=Z,22nm,1.4s						
INK	Inuvik	98.82	18	P	P	08 57 54.3	-0.8
INK				pmax	pmax		
	comp=Z,12nm,1.1s						
INK	Inuvik	98.82	18	P	P	08 57 54.2	-0.8
HYB	Hyderabad	99.12	285	ePdif	Pdif	08 57 57.5	-0.2
HYB				ePP	PP	09 02 01.9	0.0
HYB				eSKSac	SKSac	09 08 26.7	+2.1
HYB				eSKKSac	SKKSac	09 08 57.0	+0.5
CMIG	Matias Romero	99.54	75	LR	LR	09 33 49.0	
	comp=Z,184nm,20.1s,baz=250,slow=30						
WMQ	Urumqi	100.90	313	eP	Pdif	08 58 05.6	+0.6
WMQ				PP	PP	09 02 15.3	+0.4
WMQ				pmax	pmax		
	comp=Z,28nm,1.3s						
WMQ				pmax	pmax		
	comp=Z,170nm,3.7s						
WMQ				L	L		
	comp=Z,370nm,16.1s						
WMQ				L	L		
	comp=Z,350nm,21.5s						
WMQ				L	L		
	comp=Z,350nm,23.8s						
PTH	Pithoragarh	101.80	297	eP	Pdif	08 58 07.3	-2.2
YKA	Yellowknife Ar	102.44	27	Pdiff	Pdif	08 58 11.3	0.0
	comp=Z,3.2nm,0.8s,baz=251,slow=4.8,SNR=7.0						
HNLY	HANLEY	103.81	300	eP	Pdif	08 58 16.6	-2.2
ZSN	Zaisan	103.96	316	ePKiKP	PKiKP	09 02 35.4	+0.1
SMLA	Simla	104.78	298	eP	Pdif	08 58 20.6	-1.9
MKAR	Makanchi Array	105.45	315	Pdiff	Pdif	08 58 25.7	+0.5
	comp=Z,11nm,0.6s,baz=95,slow=5.8,SNR=46						
MKAR				PKiKP	PKiKP	09 02 36.4	-1.8
	comp=Z,3.1nm,0.9s,baz=182,slow=0.9,SNR=6.8						
MKAR				PKKPbc	PKKPbc	09 14 01.7	-3.0
	comp=Z,2.6nm,0.8s,baz=290,slow=3.6,SNR=11						
ZALV	Zalesovo Beam	105.89	322	Pdiff	Pdif	08 58 26.5	-0.3
	comp=Z,9.8nm,0.8s,baz=116,slow=5.1,SNR=29						
ZALV				PKiKP	PKiKP	09 02 38.1	-0.5
	comp=Z,1.1nm,0.5s,baz=133,slow=3.0,SNR=2.0						
ZALV				PP	PP	09 02 53.3	+1.6
	comp=Z,1.5nm,0.6s,baz=98,slow=6.0,SNR=4.0						
ZALV				PKKPbc	PKKPbc	09 13 59.5	-4.2
	comp=Z,1.0nm,0.5s,baz=308,slow=4.9,SNR=3.9						
THN	Thein Dam	106.30	299	eP	Pdif	08 58 27.2	-2.1
SHLS	Shalkode	106.40	310	ePKiKP	PKiKP	09 02 39.3	-0.8
UZB	Uzynbulak	106.70	310	ePKiKP	PKiKP	09 02 40.4	-0.4
UZB				ePP	PP	09 02 58.4	+0.2
KPKS	Kokpek	107.02	310	ePKiKP	PKiKP	09 02 41.1	-0.1
SATY	Saty	107.12	310	ePKiKP	PKiKP	09 02 41.2	-0.3
SATY				ePP	PP	09 03 01.4	+0.2
TDK	Taldyqorghan	107.60	312	ePKiKP	PKiKP	09 02 42.1	-0.1
MDOK	Medeo	108.11	310	ePKiKP	PKiKP	09 02 43.1	-0.2
TNSS	Tian-Shan	108.15	310	ePKiKP	PKiKP	09 02 43.2	-0.5
AAA	Alma-Ata	108.21	310	ePKiKP	PKiKP	09 02 43.3	-0.1
KUU	Kurty	108.78	310	ePKiKP	PKiKP	09 02 44.3	-0.1
KURBB	Kurchatov Arra	108.81	318	Pdiff	Pdif	08 58 39.7	-0.2
	comp=Z,4.3nm,0.8s,baz=101,slow=4.1,SNR=29						
KURBB				PKiKP	PKiKP	09 02 41.8	-2.4
	comp=Z,4.9nm,0.9s,baz=105,slow=2.0,SNR=12						
KURBB				PP	PP	09 03 11.9	-1.2
	comp=Z,15nm,1.2s,baz=109,slow=6.9,SNR=6.3						
KURBB				PKKPbc	PKKPbc	09 13 52.0	-2.3
	comp=Z,3.5nm,0.8s,baz=283,slow=3.9,SNR=17						
KURBB				PKKPab	PKKPab	09 14 05.2	+0.9
	comp=Z,1.6nm,0.9s,baz=281,slow=5.0,SNR=4.6						
AAK	Ala-Archa	109.81	309	PKiKP	PKiKP	09 02 44.6	-2.0
	comp=Z,1.3nm,0.5s,baz=175,slow=0.9,SNR=4.5						
AAK				PP	PP	09 03 21.9	+1.0
	comp=Z,1.6nm,0.6s,baz=198,slow=6.5,SNR=3.6						
SGDS	Sogindy	109.89	310	ePKiKP	PKiKP	09 02 46.2	-0.4
LPAZ	La Paz	110.09	118	PKKPbc	PKKPbc	09 13 49.5	-0.4
	comp=Z,2.4nm,0.8s,baz=21,slow=6.5,SNR=7.2						
DZA	Taraz	112.15	309	i PKIKP	PKiKP	09 02 50.6	-0.2
DZA	Taraz	112.15	309	ePKiKP	PKiKP	09 02 50.7	-0.2
KBL	Kabul	112.26	299	P	PKiKP	09 02 52.1	+0.5
CPUP	Villa Florida	112.31	133	PKKPbc	PKKPbc	09 13 41.6	-0.5
	comp=Z,3.4nm,0.8s,baz=67,slow=5.4,SNR=7.0						
IUG	Iuzhnay	112.96	308	i PKIKP	PKiKP	09 02 52.3	-0.2
IUG				e		09 03 43.6	
IUG	Iuzhnay	112.96	308	ePKiKP	PKiKP	09 02 52.3	-0.2
IUG				ePP	PP	09 03 43.6	+0.2
BRLS	Borolday	113.25	309	i PKIKP	PKiKP	09 02 52.8	-0.1
BRLS	Borolday	113.25	309	ePKiKP	PKiKP	09 02 52.9	-0.1
CHM	Chimkent	113.31	308	i PKIKP	PKiKP	09 02 52.8	-0.2
CHM	Chimkent	113.31	308	ePKiKP	PKiKP	09 02 52.9	-0.2
BVAR	Borovoye Array	114.17	319	Pdiff	Pdif	08 59 04.2	+0.5
	comp=Z,4.0nm,0.7s,baz=104,slow=6.3,SNR=12						
BVAR				PKP	PKPdf	09 02 53.6	-0.7
	comp=Z,5.6nm,0.5s,baz=110,slow=2.2,SNR=13						
BVAR				PP	PP	09 03 48.9	-2.6
	comp=Z,5.4nm,1.0s,baz=96,slow=4.3,SNR=3.7						
BORK	Borovoye	114.22	320	ePKIKP	PKPdf	09 02 52.0	-2.4
SIV	San Ignacio	115.92	122	PKP	PKPdf	09 02 58.1	-0.8
	comp=Z,0.5nm,0.7s,baz=21,slow=9.5,SNR=2.3						
POGA	Pongola	117.15	220		PKiKP	09 03 01.2	+0.2
POGA	Pongola	117.15	220	P	PKiKP	09 03 01.4	+0.4
JLN	Jalan Bani Buh	117.71	284	P	PKiKP	09 03 02.2	+0.2
WBK	Wadi Bani Khal	118.22	284	P	PKPdf	09 03 03.0	-0.1
WSAR	Wadi Sarin	118.67	285	P	PKPdf	09 03 03.3	-0.6
MHTO	MHTO	118.72	282	P	PKiKP	09 03 04.1	0.0
	SNR=12						
SUR	Sutherland	118.80	208	P	PKiKP	09 03 05.0	+0.7
JMDO	Jabal Madar	118.94	284	P	PKPdf	09 03 04.2	-0.2
	SNR=5.4						
SMDO	Samad	119.15	285	P	PKPdf	09 03 04.9	0.0
	SNR=7.0						
BIDO	Bidbid	119.19	285	P	PKiKP	09 03 05.0	+0.1
BOSA	Boshof	119.79	214	PKP	PKiKP	09 03 06.7	+0.5
	comp=Z,14nm,0.5s,baz=158,slow=1.8,SNR=52						
BOSA				PKKPbc	PKKPbc	09 13 15.7	-0.8
	comp=Z,5.7nm,1.0s,baz=302,slow=4.3,SNR=4.9						
BOSA	Boshof	119.79	214	P	PKiKP	09 03 06.9	+0.6
BSY	Bisya	119.84	284	P	PKPdf	09 03 06.0	-0.2
	SNR=6.3						
JASK	Jask - Hormozg	119.93	288	P	PKiKP	09 03 06.9	+0.6
HOQ	Hoqain	119.93	285	P	PKPdf	09 03 05.8	-0.5
	SNR=5.3						
SHAO	Shalim	120.08	278	P	PKPdf	09 03 06.4	-0.3
SHAO	Shalim	120.08	278	P	PKPdf	09 03 06.3	-0.4
ARQ	Araqi	120.58	285	P	PKPdf	09 03 07.2	-0.4
ABKAR	Akbulak array	120.59	315		PKPdf	09 03 06.0	-0.7
DMTO	DMTO	120.62	278	P	PKiKP	09 03 07.9	0.0
SOHO	SOHO	120.75	286	P	PKPdf	09 03 07.4	-0.5
SOHO	SOHO	120.75	286	i P	PKPdf	09 03 07.4	-0.5
	SNR=66						
ARTI	Arti	121.11	323	i PKIKP	PKPdf	09 03 06.4	-1.2
ARTI						09 04 38.8	
ARTI						09 10 04.8	
ARTI				SS	SS	09 21 00.3	-1.9
ARTI	Arti	121.11	323		PKPdf	09 03 07.2	-0.4
MDH	Madha	121.20	287	P	PKPdf	09 03 08.0	-0.7
	SNR=7.6						
MDH	Madha	121.20	287	i P	PKPdf	09 03 07.7	-0.9
	SNR=12						
UOSS	Minazif	121.21	286	P	PKPdf	09 03 07.8	-1.0
UOSS	Minazif	121.21	286		PKPdf	09 03 07.9	-0.8
UOSS	Minazif	121.21	286	i P	PKPdf	09 03 07.7	-1.0
	SNR=26						
RBK	Rabkut	121.24	277	P	PKiKP	09 03 09.5	+0.3
HATD	Hatta, Dubai	121.25	286	P	PKiKP	09 03 09.0	0.0
	SNR=20						
HATD	Hatta, Dubai	121.25	286	i P	PKPdf	09 03 08.4	-0.4
	SNR=43						
ASHO	Ashiyiah	121.28	286	P	PKPdf	09 03 08.4	-0.5
	SNR=15						
ASHO	Ashiyiah	121.28	286	i P	PKPdf	09 03 08.4	-0.5
	SNR=33						
BANOM	Banah	121.32	288	P	PKPdf	09 03 08.5	-0.5
MSFE	Esma-Masafi	121.33	287	i P	PKPdf	09 03 08.6	-0.4
	SNR=22						
MASF	Masafi	121.34	287	P	PKPdf	09 03 08.9	-0.1
	SNR=11						
ALNE	Al Ain	121.43	285	P	PKPdf	09 03 09.2	0.0
	SNR=14						
ALNE	Al Ain	121.43	285	i P	PKPdf	09 03 08.8	-0.4
	SNR=10						
SHME	Shamm	121.49	288	P	PKPdf	09 03 08.8	-0.4
SHME	Shamm	121.49	288	i P	PKPdf	09 03 08.8	-0.4
	SNR=7.7						
UMZA	Um Al Zommool	121.66	284	P	PKPdf	09 03 09.1	-0.5
NAZ	Nazwa, Dubai	121.70	286	P	PKPdf	09 03 09.7	0.0
	SNR=10						
NAZ	Nazwa, Dubai	121.70	286	i P	PKPdf	09 03 09.0	-0.6
	SNR=13						
FAQ	Al Faqa, Dubai	121.71	286	P	PKPdf	09 03 09.2	-0.4
FAQ	Al Faqa, Dubai	121.71	286	i P	PKPdf	09 03 09.1	-0.6
	SNR=7.9						
WHFO	Wadi Hawf	121.75	278	P	PKPdf	09 03 09.9	-0.1
ASUD	Al Ashush, Dub	121.92	286	P	PKPdf	09 03 09.4	-0.7
	SNR=5.1						
ASUD	Al Ashush, Dub	121.92	286	i P	PKPdf	09 03 10.0	-0.1
	SNR=16						
MAKGR	Makgori	122.27	216	P	PKiKP	09 03 12.0	+0.8
LBTB	Lobatse	122.46	217	P	PKiKP	09 03 12.0	+0.4
SPITS	Spitsbergen Ar	122.91	354	PKP	PKPdf	09 03 09.4	-1.1
	comp=Z,12nm,0.7s,baz=91,slow=8.3,SNR=13						
SPITS	Spitsbergen Ar	122.91	354	PKIKP	PKPdf	09 03 09.7	-0.8
MZWR	Madinat Zayed	123.04	285	P	PKiKP	09 03 12.4	-0.1
CLDB	Colider	123.05	120	eP	PKPdf	09 03 10.4	-2.2
ARAG	Araguaiana, MT	123.14	128	eP	PKPdf	09 03 11.8	-0.9
MZR	Muzera	123.24	284	P	PKiKP	09 03 13.7	+0.8
	SNR=10.0						
MZR	Muzera	123.24	284	P	PKiKP	09 03 13.3	+0.3
SKOMA	Sekoma	123.78	216	P	PKiKP	09 03 14.8	+0.6
GHWR	Ruwais	123.98	285	P	PKiKP	09 03 14.4	+0.1
JRN	Qarnain Island	124.19	286	P	PKPdf	09 03 14.0	-0.4
BROLN	Tlhalogang	124.45	221	P	PKiKP	09 03 15.8	+0.2
SLWR	Sila	125.06	284	P	PKiKP	09 03 16.5	0.0
KIRV	Kirov	125.45	327c	iPKIKP	PKPdf	09 03 14.8	-1.0
LKGWB	Lokgwabe	125.54	214	P	PKiKP	09 03 17.9	+0.2
BDFB	Brasilia	125.90	131	PKP	PKPdf	09 03 17.5	-0.6
	comp=Z,2.0nm,0.4s,baz=189,slow=5.5,SNR=3.8						
SNDB	Serra Nova Dou	125.90	125	eP	PKPdf	09 03 17.0	-1.1
SJG	San Juan	125.98	83	PKIKP	PKPdf	09 03 16.6	-1.4
SJG	San Juan	125.98	83		PKPdf	09 03 16.6	-1.4
SCHQ	Schefferville	126.11	38	PKP	PKPdf	09 03 15.7	-1.5
	comp=Z,2.4nm,0.8s,baz=258,slow=9.3,SNR=1.4						
SAKB	Bahrain	126.44	286	P	PKPdf	09 03 18.5	-0.2
ITTB	Itaituba	126.71	114	eP	PKPdf	09 03 18.0	-1.6
DIAM	Diamantina, MG	126.91	137	eP	PKPdf	09 03 19.4	-0.7
APA	Apatity	127.86	341	ePKHKP	PKPpre	09 03 07.4	
APA				pmax	pmax		
	comp=Z,6.0nm,1.1s						
BELG	Belogornoye	127.98	320	PKP	PKPdf	09 03 20.3	-0.5
	comp=Z,64nm,0.6s,baz=77,slow=1.3,SNR=19						
BELG	Belogornoye	127.98	320	⇓iPKIKP	PKPdf	09 03 20.8	0.0
RIB01	Linhares ES	128.14	141	eP	PKPdf	09 03 21.4	-0.8
SJMB	Sao Joao De Ma	128.15	139	eP	PKPdf	09 03 21.1	-1.2
LSZ	Lusaka	128.15	227	P	PKiKP	09 03 23.5	+0.4
LSZ	Lusaka	128.15	227	PKIKP	PKiKP	09 03 23.2	+0.1
LSZ	Lusaka	128.15	227		PKiKP	09 03 23.2	+0.1
LSZ	Lusaka	128.15	227	P	PKiKP	09 03 23.4	+0.4
BSFB	Barra de Sao F	128.25	140	eP	PKPdf	09 03 21.1	-1.4
KIBK	Kibwezi	128.41	248	PKP	PKiKP	09 03 24.3	+0.7
KIBK	Kibwezi	128.41	248	P	PKiKP	09 03 23.9	+0.3
	SNR=11						
KIBK	Kibwezi	128.41	248		PKiKP	09 03 23.9	+0.3
ARCES	ARCESS Array B	128.61	345	PKP	PKPdf	09 03 20.7	-0.9
	comp=Z,6.3nm,0.6s,baz=74,slow=0.8,SNR=38						
ARCA	Ara§uai, MG	129.08	137	eP	PKPdf	09 03 24.1	0.0
KLMR	Klimovskoe	129.28	332	ePKIKP	PKPdf	09 03 20.1	-2.9
KLMR				pmax	pmax		
	comp=Z,49nm,1.5s						
KBD	Kabd	129.37	290	P	PKiKP	09 03 24.6	-0.3
AKT	Akhty	129.54	306	i PKIKP	PKPdf	09 03 24.5	+0.2
AKT				pmax	pmax		
	comp=Z,32nm,0.7s						
MAK	Makhachkala	129.58	308	eP	Pdif	09 00 12.1	-0.3
MAK				i		09 03 24.0	
MAK				e		09 03 58.4	
MAK				e		09 05 35.7	
MAK				e		09 10 25.1	
MAK				ePS	PS	09 15 39.4	-8.4
MAK				eSS	SS	09 22 52.6	+3.5
MAK				pmax	pmax		
	comp=Z,217nm,1.3s						
KMBO	Kilima Mbogo	129.71	248	PKP	PKiKP	09 03 26.8	+0.4
ATD	Arta Tunnel	129.96	266	P	PKiKP	09 03 28.6	+2.0
SDBA	SAO DESIDERIO	130.30	130	eP	PKPdf	09 03 25.1	-1.5
RAYN	Ar Rayn	130.53	282	P	PKiKP	09 03 27.5	-0.1
RAYN	Ar Rayn	130.53	282	PKIKP	PKPdf	09 03 27.1	+0.5
RAYN	Ar Rayn	130.53	282		PKPdf	09 03 27.1	+0.5
RAYN	Ar Rayn	130.53	282	P	PKPdf	09 03 27.2	+0.5
GUA01	Guaratinga, BA	130.61	139	eP	PKPdf	09 03 26.2	-0.8
SMTB	Santa Maria do	130.68	125	eP	PKPdf	09 03 25.8	-1.4
TSUM	Tsumeb	131.48	214		PKPdf	09 03 26.2	-2.5
VRH	Novokhopyorsk	131.83	320	ePKIKP	PKPdf	09 03 27.9	-0.2
VRH				pmax	pmax		
	comp=Z,25nm,0.9s						
GNI	Garni	131.90	304	P	PKiKP	09 03 29.8	-0.2
MOS	Moscow	132.45	326	i PKIKP	PKPdf	09 03 29.7	+0.5
MOS				e		09 04 06.9	
MOS				e		09 05 51.2	
MOS				ePPP	PPP	09 08 45.0	
MOS				eSS	SS	09 23 19.1	-3.9
MOS				eSSS	SSS	09 28 18.6	
OZAP	Van, Ozalp-Mer	132.60	303	⇑P	PKiKP	09 03 31.0	-0.5
KBZ	Khabaz	132.81	309	PKP	PKPdf	09 03 30.3	+0.1
	comp=Z,7.4nm,0.8s,baz=100,slow=3.2,SNR=14						
KBZ	Khabaz	132.81	309	ePKIKP	PKiKP	09 03 30.9	-0.5
KVAR	Kislovodsk Arr	132.91	310	PKP	PKPdf	09 03 30.2	-0.4
	comp=Z,1.7nm,0.3s,baz=315,slow=1.4,SNR=1.6						
KIV	Kislovodsk	132.92	310	i PKIKP	PKPdf	09 03 30.0	-0.6
KIV				e		09 05 55.1	
KIV				eSS	SS	09 23 25.3	-4.7
KIV				pmax	pmax		
	comp=Z,17nm,1.0s						
KIV	Kislovodsk	132.92	310		PKPdf	09 03 31.1	+0.5
LPSR	Galich'ya Gora	133.00	322	ePKIKP	PKPdf	09 03 29.7	-0.6
LPSR				pmax	pmax		
	comp=Z,16nm,1.0s						
VORR	Voronezh	133.16	321	ePKIKP	PKPdf	09 03 30.8	+0.1
VORR				pmax	pmax		
	comp=Z,30nm,0.7s						
OBN	Obninsk	133.27	326	ePKIKP	PKPdf	09 03 30.2	-0.5
OBN				e		09 04 05.9	
OBN				e		09 05 56.7	
OBN				ePPP	PPP	09 08 54.3	
OBN				pmax	pmax		
	comp=Z,8.0nm,0.9s						
VSR	Storozhevoye	133.34	320	ePKIKP	PKPdf	09 03 29.8	-1.2
VSR				pmax	pmax		
	comp=Z,17nm,1.0s						
VORD	Divnogorie	133.35	320	ePKIKP	PKPdf	09 03 29.6	-1.4
VORD				pmax	pmax		
	comp=Z,10.0nm,1.0s						
LODK	Lodwar	133.56	253	P	PKiKP	09 03 34.4	+0.4
LODK	Lodwar	133.56	253		PKPdf	09 03 30.5	-2.2
FINES	FINESS Array B	134.27	338	PKhKP	PKPpre	09 03 19.4	
	comp=Z,2.7nm,0.9s,baz=29,slow=4.4,SNR=5.0						
FINES				PKP	PKPdf	09 03 31.1	-1.4
	comp=Z,4.9nm,0.7s,baz=81,slow=2.5,SNR=11						
FINES				SKPbc	SKPbc	09 06 49.6	-0.9
	comp=Z,5.9nm,0.7s,baz=42,slow=5.9,SNR=6.5						
SOC	Sochi	135.10	310	ePKIKP	PKPdf	09 03 32.0	-2.6
SOC				ePPP	PPP	09 09 09.7	
SOC				eSS	SS	09 23 58.6	+2.6
SOC				eSSS	SSS	09 28 55.8	
MBAR	Mbarara	135.51	244	P	PKiKP	09 03 37.7	-0.4
MNK	Minsk	137.91	329	i PKIKP	PKiKP	09 03 41.2	-0.2
MNK				i		09 04 18.4	
MNK				i		09 06 29.2	
MNK				i PPP	PPP	09 09 30.7	
MNK				i		09 10 35.9	
MNK				i SS	SS	09 24 30.6	+2.4
MNK				pmax	pmax		
	comp=N,13nm,0.7s						
MNK				pmax	pmax		
	comp=Z,29nm,0.8s						
MNK				pmax	pmax		
	comp=E,19nm,0.8s						
MNK	Minsk	137.91	329	i PKiKP	PKiKP	09 03 41.2	-0.2
	comp=E,19nm,0.8s						
MNK				i PKiKP	PKiKP	09 03 41.2	-0.2
	comp=N,13nm,0.7s						
MNK				i PKiKP	PKiKP	09 03 41.2	-0.2
	comp=Z,29nm,0.8s,baz=55						
MNK				i pPKiKP	pPKiKP	09 04 18.4	+3.8
MNK				i sPKiKP	sPKiKP	09 04 33.1	+5.7
MNK				i PP	PP	09 06 29.2	+0.9
MNK				i PPP	PPP	09 09 30.7	
MNK				i SKS	SKSdf	09 10 36.0	-2.3
MNK				i SKKS	SKKSdf	09 20 09.3	-5.6
MNK				i SS	SS	09 24 30.6	+2.5
MNK				i SSS	SSS	09 30 04.0	
MNK				i LR	LR	09 56 54.5	
NB2	NORSAR Subarra	138.99	346	PKPdf	PKPdf	09 03 31.7	-10
	comp=Z,10.0nm,1.4s,baz=27,slow=1.8						
NB2	NORSAR Subarra	138.99	346	PKPdf	PKPdf	09 03 31.7	-10
NOA	NORSAR Array B	138.99	346	PKhKP	PKPpre	09 03 32.4	
	comp=Z,1.9nm,0.8s,baz=17,slow=4.3,SNR=7.4						
NOA				SKPbc	SKPbc	09 07 02.4	-2.4
	comp=Z,2.4nm,0.9s,baz=17,slow=2.8,SNR=3.7						
HFS	Hagfors	139.16	343	PKhKP	PKPpre	09 03 31.9	
	comp=Z,3.1nm,0.7s,baz=258,slow=7.4,SNR=4.1						
AK03	Malin Array Si	139.25	323	PKP	PKPdf	09 03 41.3	-0.7
AKASG	Malin Array Be	139.26	323	PKhKP	PKPpre	09 03 32.0	
	comp=Z,6.4nm,0.5s,baz=64,slow=3.3,SNR=20						
AKASG				PP	PP	09 06 35.5	-1.3
	comp=Z,7.4nm,1.0s,baz=60,slow=6.6,SNR=5.7						
AKASG				SKPbc	SKPbc	09 07 06.0	+0.2
	comp=Z,5.2nm,0.8s,baz=49,slow=3.5,SNR=5.7						
AKBB	Malin Array Si	139.26	323	PKP	PKPdf	09 03 41.1	-0.9
KIEV	Kiev	139.28	323	⇓PKHKP	PKPpre	09 03 35.3	
KIEV	Kiev	139.28	323	P	PKPdf	09 03 40.8	-1.2
KIEV	Kiev	139.28	323	⇓P	PKPdf	09 03 35.3	-6.7
KIEV	Kiev	139.28	323	PKP	PKPdf	09 03 41.3	-0.7
GEM	Giv'at Ha'Em	139.75	295	PKP	PKPdf	09 03 42.7	-0.8
MMAI	Mount Meron Ar	139.98	295	PKhKP	PKPpre	09 03 36.7	
	comp=Z,3.6nm,0.5s,baz=59,slow=6.9,SNR=6.4						
MMAI				PKP	PKiKP	09 03 45.9	-0.5
	comp=Z,26nm,0.9s,baz=52,slow=9.6,SNR=12						
MMAI				SKPbc	SKiKP	09 07 09.8	-1.3
	comp=Z,0.7nm,0.3s,baz=60,slow=3.5,SNR=4.3						
UJAP	Al Uja	139.99	293	PKP	PKPdf	09 03 43.1	-0.8
LISJ	El Lisan	140.00	292	PKP	PKPdf	09 03 45.0	+1.1
MSBI	Mazada	140.11	292	PKP	PKPdf	09 03 39.7	-4.4
SALP	Salfit	140.22	294	PKP	PKPdf	09 03 38.6	-5.8
BAL3X	Bal3x, Balta	140.35	319	PKP	PKPdf	09 03 43.4	-0.7
SUW	Suwalki	140.39	331	ePKP	PKiKP	09 03 46.7	+0.2
BRTR	Keskin Array B	140.39	306	PKhKP	PKPpre	09 03 36.4	
	comp=Z,8.2nm,0.8s,baz=139,slow=4.8,SNR=16						
BRTR				PP	PP	09 06 39.4	-5.2
	comp=Z,1.8nm,0.9s,baz=80,slow=5.4,SNR=3.5						
STRU	Stroemstad	140.76	344	i P	PKPdf	09 03 34.9	-10
SORM	Soroca	141.01	320	⇑PKHKP	PKPpre	09 03 39.4	
SORM	Soroca	141.01	320	⇑P	PKPdf	09 03 39.4	-5.9
TJOU	Tjoern	141.51	343	i P	PKPdf	09 03 37.4	-8.4
BLEU	Blekinge	141.66	338	i P	PKPdf	09 03 39.6	-6.5
ONAU	Onsala	141.98	342	i P	PKPdf	09 03 40.4	-6.3
FABU	Falkenberg	142.08	341	i P	PKPdf	09 03 41.6	-5.3
HOMB	Homborsund	142.09	345	i P	PKPdf	09 03 41.6	-5.2
SAHE	Sakarya_HENDEK	142.16	308	⇑P	PKPdf	09 03 43.5	-4.1
DEL	Delary	142.17	340	i P	PKPdf	09 03 42.7	-4.4
SNART	Snartemo	142.32	347	i P	PKPdf	09 03 43.8	-3.5
TPGR	Topolog	142.42	316	⇓P	PKPdf	09 03 44.1	-3.9
CFR	Carcaliu	142.47	316	⇑PKIKP	PKPdf	09 03 44.3	-3.7

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CFR   Carcaliu          142.47 316 ⇑P        PKPdf    09 03 44.3 -3.7
KEPZ  Antalya-Kepez     142.56 302 ⇑P        PKPdf    09 03 43.9 -4.6
PANC  Panciu            142.79 318 ⇓P        PKPdf    09 03 46.4 -2.1
TLBR  Topalu            142.79 315 ⇑P        PKPdf    09 03 45.7 -2.8
TESR  Tescani           142.80 319 ⇑P        PKPdf    09 03 45.7 -2.9
ODBI  Odobesti          142.89 318 ⇓P        PKPdf    09 03 46.9 -1.8
BEL   Belsk             142.91 330 ePKP      PKPdf    09 03 46.7 -1.8
BSD   Bornholm Skovb    142.91 338 i P       PKPdf    09 03 44.5 -3.9
BIZ   Bicaz             142.92 320 ⇑P        PKPdf    09 03 46.2 -2.5
LUNU  Lund              142.99 339 i P       PKPdf    09 03 44.8 -3.8
ONER  Baraj Valea Uz    143.04 319 ⇓P        PKPbc    09 03 46.9 +0.7
VRI   Vrincioaia        143.05 318 ⇓PKIKP    PKPbc    09 03 46.5 +0.2
VRI   Vrincioaia        143.05 318 ⇓P        PKPbc    09 03 46.5 +0.2
BUR08 Bucovina Ar. S    143.09 321           PKPbc    09 03 47.6 +1.1
BURAR Bucovina Array    143.10 321 ⇑PKIKP    PKPbc    09 03 46.8 +0.4
BURAR Bucovina Array    143.10 321  PKPdf    PKPbc    09 03 47.2 +0.8
BURAR Bucovina Array    143.10 321 ⇑P        PKPbc    09 03 46.8 +0.4
PLOR  Plostina          143.11 318 ⇑PKIKP    PKPbc    09 03 45.9 -0.5
PLOR  Plostina          143.11 318 ⇑P        PKPbc    09 03 45.9 -0.5
ICOR  Ion Corvin        143.13 315 ⇓P        PKPbc    09 03 47.2 +0.8
SAHR  Sahastru          143.14 318 ⇓P        PKPbc    09 03 46.8 +0.3
BISRR Bisoca            143.21 317 ⇑P        PKPbc    09 03 47.1 +0.3
PGOR  Pogoanele         143.32 316 ⇓P        PKPbc    09 03 48.0 +1.0
KWP   Kalwaria Pacla    143.35 326 ePKP      PKPbc    09 03 46.7 -0.2
COVR  Voineasa-Covas    143.38 318 ⇑P        PKPbc    09 03 47.1 -0.1
TURR  Turia             143.40 319 ⇑P        PKPbc    09 03 47.8 +0.6
GKP   Gorka Klasztor    143.46 334 ePKP      PKPbc    09 03 47.6 +0.5
ISR   Istrita           143.51 317 ⇑PKIKP    PKPbc    09 03 48.4 +0.8
ISR   Istrita           143.51 317 ⇑P        PKPbc    09 03 48.4 +0.9
OZUR                    143.52 319 ⇑P        PKPbc    09 03 47.8 +0.2
NEHR  Nehoiu            143.52 318 ⇓P        PKPbc    09 03 48.3 +0.7
MUD   Monsted U'grnd    143.55 344 i P       PKPab    09 03 46.4 +0.2
BOSR  Bodos             143.61 319 ⇑P        PKPbc    09 03 48.8 +0.9
LLD   Lille Linde       143.63 340 i P       PKPbc    09 03 47.2 -0.2
MLR   Muntele Rosu      143.71 318 ⇓PKIKP    PKPbc    09 03 48.1 -0.2
MLR   Muntele Rosu      143.71 318  PKPdf    PKPbc    09 03 48.6 +0.3
MLR   Muntele Rosu      143.71 318 ⇓P        PKPbc    09 03 48.1 -0.1
PRD   Provadia          143.77 313 eP        PKPdf    09 03 49.4 -0.9
NEF   NEVSHA            143.82 314 eP        PKPdf    09 03 49.5 -1.0
DOPR  Dopca             143.83 319 ⇑P        PKPdf    09 03 49.6 -0.8
SULR                    143.89 316 ⇑P        PKPbc    09 03 49.0 +0.4
KOLS  Kolonicke sedl    144.00 325 ePKIKP    PKPbc    09 03 49.7 +0.9
KOLS  Kolonicke sedl    144.00 325 ePKP      PKPbc    09 03 49.6 +0.8
BMR   Baia Mare         144.05 322 ⇑PKIKP    PKPbc    09 03 49.5 +0.5
BMR   Baia Mare         144.05 322 ⇑P        PKPbc    09 03 49.5 +0.5
TGMR  Targu Mures       144.07 320 ⇓P        PKPdf    09 03 50.9 +0.1
RAZG  Razgrad           144.21 315 ⇑P        PKPbc    09 03 50.3 +0.6
STHS  Stebnicka Huta    144.24 326 ePKIKP    PKPbc    09 03 49.5 -0.1
STHS  Stebnicka Huta    144.24 326 ePKP      PKPbc    09 03 49.5 -0.1
SGRR  Singureni         144.27 316 ⇓P        PKPbc    09 03 50.3 +0.5
SSRD  Sdr. Stenderup    144.28 342 i P       PKPbc    09 03 49.3 -0.1
VOIR                    144.29 318 ⇑PKIKP    PKPbc    09 03 50.0 +0.1
VOIR                    144.29 318 ⇑P        PKPbc    09 03 50.0 +0.1
BAND  Balkesir-Ban      144.31 309 ⇑P        PKPbc    09 03 50.4 +0.4
MDB   Medias            144.35 320 ⇓PKIKP    PKPdf    09 03 51.1 -0.2
MDB   Medias            144.35 320 ⇓P        PKPdf    09 03 51.1 -0.2
MTUR  Matau             144.38 318 ⇑PKIKP    PKPbc    09 03 50.4 +0.2
MTUR  Matau             144.38 318 ⇑P        PKPbc    09 03 50.4 +0.1
OJC   Ojcow             144.45 328 ePKP      PKPab    09 03 49.9  0.0
CJR   Cluj-Napoca       144.51 321 ⇑PKIKP    PKPdf    09 03 51.4 -0.2
CJR   Cluj-Napoca       144.51 321 ⇑P        PKPdf    09 03 51.4 -0.2
TAVA  DENIZLI_Tavas     144.53 304 ⇑P        PKPbc    09 03 51.4 +0.4
ARR   Arges             144.58 318 ⇓P        PKPdf    09 03 51.6 -0.2
CEI   Carei             144.63 323 ⇑PKIKP    PKPdf    09 03 51.7  0.0
CEI   Carei             144.63 323 ⇑P        PKPdf    09 03 51.7  0.0
JMB   Yambol            144.63 313 eP        PKPdf    09 03 51.9  0.0
MESR  Meseseni          144.65 322 ⇑P        PKPdf    09 03 51.7  0.0
TNR   Turnu Rosu        144.66 319 ⇑PKIKP    PKPdf    09 03 52.1 +0.2
TNR   Turnu Rosu        144.66 319 ⇑P        PKPdf    09 03 52.1 +0.2
SZH   Strazhitsa        144.68 314 eP        PKPdf    09 03 52.2 +0.2
NIE   Niedzica          144.72 327 ePKP      PKPdf    09 03 51.8 -0.1
HUMR  Humele            144.77 317 ⇑P        PKPbc    09 03 51.4 +0.1
COPA  Copaceanca        144.80 316 ⇓P        PKPbc    09 03 51.7 +0.3
MARR  Marisel-Cluj      144.81 321 ⇑P        PKPbc    09 03 51.8 +0.2
DRGR                    144.98 322 ⇑PKIKP    PKPab    09 03 52.2 +0.1
DRGR                    144.98 322 ⇑P        PKPab    09 03 52.2 +0.1
KPL   Plockton          145.00 357 eP        PKPbc    09 03 50.6 -0.9
LOT   Lotru             145.07 319 ⇑P        PKPbc    09 03 52.3 -0.1
LTVH  Ltavrtes, Hu      145.11 323 ⇓P        PKPdf    09 03 53.2 +0.7
DRUM  Mains of Drumt    145.21 354 eP        PKPbc    09 03 50.8 -1.5
KECS  Kecovo            145.21 326 ePKIKP    PKPab    09 03 53.2 +0.4
KECS  Kecovo            145.21 326 ePKP      PKPab    09 03 53.2 +0.4
PVL   Pavlikeni         145.28 315 eP        PKPab    09 03 54.3 +1.1
LANS  Liptovska Anna    145.31 327 ePKIKP    PKPab    09 03 54.2 +1.0
LANS  Liptovska Anna    145.31 327 ePKP      PKPab    09 03 54.2 +1.0
BORR  Bors              145.34 323 ⇑P        PKPab    09 03 53.9 +0.6
VLAD  Vladila           145.38 316 ⇑P        PKPab    09 03 54.1 +0.5
BSEG  Bad Segeberg      145.41 340 ePKPbc    PKPbc    09 03 53.0  0.0
      baz=34,slow=2.6
RUE   Ruedersdorf       145.41 336 ePKPbc    PKPbc    09 03 53.1 +0.1
      baz=34,slow=2.6
DIM   Dimitrovgrad      145.46 313 eP        PKPab    09 03 54.6 +0.7
OKC   Ostrava-Krasne    145.50 329 ePKP2     PKPbc    09 03 53.6 +0.2
OKC   Ostrava-Krasne    145.50 329⇑ePKP      PKPbc    09 03 53.6 +0.2
PLVB  Pleven            145.52 315 ⇑P        PKPab    09 03 54.3 +0.1
CRAR  CRAIOVA           145.61 317 ⇑P        PKPab    09 03 54.9 +0.5
STEB  Steborice         145.61 330⇑ePKP      PKPbc    09 03 53.9 +0.1
KSP   Ksiaz             145.63 332 ePKP      PKPab    09 03 54.5 +0.2
GZR   Gura Zlata        145.70 320 ⇓PKP2     PKPbc    09 03 54.1 -0.2
GZR   Gura Zlata        145.70 320 ⇓P        PKPbc    09 03 54.1 -0.2
BDRM  Kayabasi          145.76 304 ⇑P        PKPbc    09 03 54.6 -0.1
KDZ   Kurdzhali         145.79 312 eP        PKPab    09 03 55.1 -0.1
SRE   Strehaia          145.81 318 ⇑PKP2     PKPab    09 03 55.5 +0.3
SRE   Strehaia          145.81 318 ⇑P        PKPab    09 03 55.5 +0.3
INVG  Invergeldie, C    145.82 356 eP        PKPdf    09 03 53.2 -0.2
MORC  Moravsky Berou    145.82 330 ⇓PKP2     PKPdf    09 03 53.9 +0.1
MORC  Moravsky Berou    145.82 330 ePKP      PKPdf    09 03 52.8 -1.0
MORC  Moravsky Berou    145.82 330 ⇓P        PKPdf    09 03 53.9 +0.1
OSTC  Ostas             145.88 332 ePKP2     PKPbc    09 03 54.9 +0.3
OSTC  Ostas             145.88 332⇑ePKP      PKPbc    09 03 54.9 +0.3
PSZ   Piszkesteto       145.88 325 ⇑PKP2     PKPab    09 03 55.2 -0.2
PSZ   Piszkesteto       145.88 325           PKPdf    09 03 53.8 -0.2
PSZ   Piszkesteto       145.88 325 ⇑P        PKPab    09 03 55.2 -0.2
SIRR  Siria             145.88 322 ⇓P        PKPdf    09 03 54.0 +0.1
GORT1 Trebel            145.88 339 ePKPbc    PKPab    09 03 54.8 -0.2
      baz=34,slow=2.6
CHVC  Chvalec           145.92 332 ePKP2     PKPab    09 03 55.2 -0.2
CHVC  Chvalec           145.92 332⇑ePKP      PKPab    09 03 55.2 -0.2
KRLC  Kraliky           145.97 331 ePKP2     PKPbc    09 03 55.0  0.0
KRLC  Kraliky           145.97 331⇑ePKP      PKPbc    09 03 55.0  0.0
MAUC  Maruska           145.97 329⇑ePKP      PKPab    09 03 55.7  0.0
DPC   Dobruska-Polom    145.98 331 ePKP2     PKPab    09 03 55.5 -0.2
DPC   Dobruska-Polom    145.98 331⇑ePKP      PKPab    09 03 55.5 -0.2
DPC                                ePKPAB    PKiKP    09 03 59.5 +1.3
UPC   Upice             146.00 332 ePKP2     PKPab    09 03 55.4 -0.3
UPC   Upice             146.00 332⇑ePKP      PKPab    09 03 55.4 -0.3
BAIL  Bailesti          146.04 317 ⇑P        PKPab    09 03 56.1 +0.1
VYHS  Vyhne             146.06 327 ePKP2     PKPbc    09 03 55.6 +0.3
VYHS  Vyhne             146.06 327 ePKP      PKPbc    09 03 55.5 +0.3
LAWE  Loch Awe, Argy    146.06 357 eP        PKPdf    09 03 53.8 -0.1
EAB   Aberfoyle         146.07 356 eP        PKPdf    09 03 54.2 +0.3
MPEP  Malo Peshtene     146.10 316 eP        PKPab    09 03 56.4  0.0
PUNG  Punghina          146.17 318 ⇓P        PKPab    09 03 56.2 -0.4
RZN   Rozhen            146.17 313 eP        PKPbc    09 03 56.3 +0.3
HERR  Herculane         146.18 319 ⇓P        PKPbc    09 03 55.6 -0.1
PGB   Panagyurishte     146.20 314 eP        PKPbc    09 03 56.2 +0.3
DJES  Djerdap           146.23 319 ⇓P        PKPdf    09 03 54.9 +0.3
EDI   Edinburgh         146.25 355 eP        PKPdf    09 03 54.3 +0.1
BZS   Buzias            146.26 321 ⇑PKIKP    PKPdf    09 03 54.2 -0.4
BZS   Buzias            146.26 321 ⇑P        PKPdf    09 03 54.2 -0.4
AMBH  Ambrzfalva        146.36 322 ⇓P        PKPab    09 03 57.0 -0.2
JAVC  Velka Javorina    146.39 328 ePKP      PKPdf    09 03 55.0 +0.2
FLTG  Flechtingen       146.45 338 ePKPbc    PKPbc    09 03 55.8 -0.4
      baz=34,slow=2.6
VRAC  Vranov            146.59 330 ⇑PKIKP    PKPdf    09 03 54.7 -0.3
VRAC  Vranov            146.59 330 ePKP      PKPdf    09 03 54.5 -0.5
VRAC  Vranov            146.59 330 ⇑P        PKPdf    09 03 54.7 -0.3
BRG   Berggiesshubel    146.60 334 ePKPbc    PKPbc    09 03 56.5 -0.2
      baz=34,slow=2.6
BRG   Berggiesshubel    146.60 334⇓ePKPf              09 03 54.6
BRG                                 Amp               09 03 55.0
      comp=Z,9.5nm,1.2s
BRG                                ⇑PKPb     PKPbc    09 03 56.8 +0.1
BRG                                 Amp               09 03 57.5
      comp=Z,68nm,0.8s
BRG                                 PKPab    PKPab    09 03 58.5 +0.5
BRG                                 Amp               09 03 58.8
      comp=Z,58nm,0.7s
BRG   Berggiesshubel    146.60 334  P        PKiKP    09 04 08.0 +8.6
BRG                                 Amp               09 04 10.6
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      comp=Z,51nm,0.9s
BRG                                 pPKP     pPKPab   09 04 30.6 +0.5
BRG                                 Amp               09 04 31.6
      comp=Z,27nm,1.0s
CLL   Collm             146.63 335⇑iPKP2     PKPbc    09 03 56.5 -0.3
CLL                                 pmax     pmax
      comp=Z,91nm,0.9s
CLL   Collm             146.63 335 ePKPbc    PKPbc    09 03 56.5 -0.3
      baz=34,slow=2.6
CLL   Collm             146.63 335⇑iPKPbc    PKPbc    09 03 56.5 -0.3
      comp=Z,91nm,0.9s
CLL                                i (PKPab) PKPab    09 03 58.0 -0.1
      comp=Z,76nm,0.6s
CLL                                i x       x        09 04 09.0
CLL                                esPKPdf   pPKPab   09 04 33.0 +2.8
CLL                                ePP       PP       09 07 23.0 +2.2
CLL                                epPP               09 07 53.0
CLL                                ePPP      PPP      09 10 40.0
CLL                                eSKKSac   SKKSac   09 14 02.0 +1.2
CLL                                ePSKS              09 17 34.0
CLL                                ePPS      PPS      09 20 01.0
CLL                                ex        x        09 21 18.0
CLL                                ex        x        09 23 33.0
CLL                                eSS       SS       09 26 12.0 +3.3
CLL                                eSSS      SSS      09 31 41.0
CLL                                 LH                09 46 00.0
CLL                                ePKPlp             09 53 57.0
      comp=Z,300nm,19.3s
CLL                                 L        L        09 54 00.0
CLL                                 AMS      AMS      09 59 00.0
      comp=Z,400nm,30.6s
MDVR  Moldovita         146.66 319 ⇓P        PKPbc    09 03 57.1  0.0
BANR  Banloc            146.68 321 ⇑P        PKPab    09 03 58.3 -0.1
PLNA  Plana             146.71 315 eP        PKPbc    09 03 58.2 +0.7
RETH  Rethem/Aller,     146.73 340 ePKPbc    PKPbc    09 03 56.7 -0.2
      baz=34,slow=2.6
SMOL  Smolenice         146.74 328 ePKP2     PKPbc    09 03 57.9 +0.7
SRO   Srobarova         146.76 326 ePKP2     PKPab    09 03 59.3 +0.6
SRO   Srobarova         146.76 326 ePKP      PKPab    09 03 59.3 +0.6
VTS   Vitosha           146.78 315 eP        PKPbc    09 03 58.4 +0.7
ASSE  Asse, Remlinge    146.81 338 ePKPbc    PKPbc    09 03 57.1 -0.1
      baz=34,slow=2.6
EKA   Eskdalemuir Ar    146.83 354  PKPbc    PKPdf    09 03 56.1 +0.9
      comp=Z,51nm,0.7s,baz=355,slow=2.4,SNR=90
ESK   Eskdalemuir       146.85 355  PKIKP    PKPdf    09 03 56.0 +0.7
ESK   Eskdalemuir       146.85 355           PKPdf    09 03 56.0 +0.7
ESK   Eskdalemuir       146.85 355 eP        PKPdf    09 03 55.9 +0.7
KRUC  Moravsky          146.86 330 ePKP      PKPdf    09 03 54.6 -0.9
MMB   Musomishta        146.91 313 eP        PKPbc    09 03 58.0  0.0
MODS  Modra-Piesok      146.91 328 ePKP2     PKPbc    09 03 58.1 +0.4
MODS  Modra-Piesok      146.91 328 ePKP      PKPbc    09 03 58.1 +0.4
HSKC  Hora Svate Kat    147.01 334⇑ePKP      PKPbc    09 03 57.3 -0.6
PRU   Pruhonice         147.02 332 ePKP2     PKPbc    09 03 58.0 +0.1
PRU   Pruhonice         147.02 332⇑ePKP      PKPbc    09 03 58.0 +0.1
PRU                                ePKPAB    PKiKP    09 04 03.9 +3.6
ZST   Bratislava        147.12 328 ePKP2     PKPab    09 04 00.0 -0.1
ZST   Bratislava        147.12 328 ePKP      PKPab    09 04 00.0 -0.1
NEWG  New Galloway      147.13 356 eP        PKPdf    09 03 56.7 +1.0
CLZ   Clausthal         147.16 338 ePKPdf    PKPdf    09 03 55.7 -0.2
      baz=34,slow=0.9
CLZ                                ePKPbc    PKPbc    09 03 58.4 +0.1
      baz=34,slow=2.6
NEUB  Neuenburg         147.18 336 ePKPbc    PKPbc    09 03 58.2 -0.1
      baz=34,slow=2.6
KKB   Krupnik           147.20 314 eP        PKPbc    09 03 59.0 +0.3
EDMD  Edmundbyers       147.21 353 eP        PKPbc    09 03 57.1 -1.1
BOVS  Bovan             147.26 318 ⇑P        PKPbc    09 03 58.7 -0.1
IDGL  Inch Island, C    147.32 359  PKPdf    PKPdf    09 03 56.9 +0.9
IDGL                                PKP      PKPbc    09 03 58.4 -0.2
IDGL  Inch Island, C    147.32 359 eP        PKPbc    09 03 57.4 -1.2
PEHC  Pehcevo           147.38 314⇑iP        PKPbc    09 03 59.1 -0.2
GAL1  Galloway          147.41 356 eP        PKPbc    09 03 57.8 -1.0
GTTG  Gottingen         147.55 338 ePKPbc    PKPbc    09 03 59.4  0.0
      baz=34,slow=2.6
TANN  Tannenbergstha    147.55 335 ePKPdf    PKPdf    09 03 56.3 -0.4
      baz=34,slow=0.9
TANN                               ePKPbc    PKPbc    09 03 59.4 -0.1
      baz=34,slow=2.6
TANN                               epPKPbc   sPKPdf   09 04 40.8 -1.8
      baz=35,slow=2.1
KESW  Keswick, Cumbr    147.56 354 eP        PKPbc    09 03 58.3 -0.9
FRGS  Fruska Gora       147.57 321⇑iP        PKPbc    09 03 59.6  0.0
ZVC   Zvikov            147.58 332⇑ePKP      PKPbc    09 03 59.8 +0.3
ZVC                                ePKPAB    PKPab    09 04 02.8 +0.9
ABNA  Allensteig Bun    147.59 330 ePKP      PKPdf    09 03 56.6 -0.2
      comp=Z,12nm,1.3s
ABNA                               ePP       PP       09 07 30.9 +4.3
      comp=Z,12nm,1.2s
IBBN  Ibbenburen        147.59 341 ePKPbc    PKPbc    09 03 59.1 -0.3
      baz=34,slow=2.6
MORH  Mrgy, Hungar      147.60 324 ⇑P        PKPbc    09 03 59.4 -0.2
MORH  Mrgy, Hungar      147.60 324⇑iP        PKPbc    09 03 59.4 -0.2
PLN   Plauen            147.61 335 ePKPbc    PKPbc    09 03 59.4 -0.1
      baz=34,slow=2.6
WINA  Alland / Wiene    147.68 329  PKP      PKPdf    09 03 56.3 -0.6
      comp=Z,14nm,1.2s,SNR=25
WINA                               ePP       PP       09 07 26.3 -0.8
      comp=Z,26nm,1.7s
MOX   Moxa              147.69 336 ePKPdf    PKPdf    09 03 56.1 -0.7
      baz=34,slow=0.9
MOX                                ePKPbc    PKPbc    09 03 59.4 -0.4
      baz=34,slow=2.6
NKC   Novy Kostel       147.70 335 ePKP2     PKPbc    09 04 00.1 +0.3
NKC   Novy Kostel       147.70 335⇑ePKP      PKPbc    09 04 00.1 +0.3
VAY   Valandovo         147.80 313⇑iP        PKPbc    09 03 59.5 -0.9
RONA  Rosalia, Austr    147.85 328  PKP      PKPdf    09 03 56.4 -0.8
      comp=Z,22nm,1.6s,SNR=44
CONA  Conrad Observa    147.91 329  PKP      PKPdf    09 03 56.6 -0.8
      comp=Z,16nm,1.3s,SNR=51
CONA                               ePP       PP       09 07 27.4 -1.2
      comp=Z,22nm,1.4s
CKRC  Cesky Krumlov     147.99 331 ePKP2     PKPbc    09 04 00.9 +0.3
CKRC  Cesky Krumlov     147.99 331⇑ePKP      PKPbc    09 04 00.9 +0.3
KHC   Kasperske Hory    148.08 332 ePKIKP    PKPdf    09 03 57.5 -0.1
KHC                                e                  09 04 01.1
KHC   Kasperske Hory    148.08 332 ePKPDF    PKPdf    09 03 57.5 -0.1
KHC                               ⇑ePKP      PKPbc    09 04 01.1 +0.2
KHC                                ePKPAB    PKPab    09 04 04.5 +0.5
TEKS  Tekeris           148.09 321⇑iP        PKPbc    09 04 00.7 -0.3
IDI   Anoyia            148.22 301  PKPbc    PKPbc    09 04 01.1 -0.6
      comp=Z,242nm,0.6s,baz=31,slow=9.4,SNR=105
IDI   Anoyia            148.22 301  PKP      PKPbc    09 04 01.1 -0.6
GEC2  GERESS Array S    148.24 332 ePKPdf    PKPdf    09 03 56.9 -1.0
      baz=34,slow=0.9
GEC2                               ePKPbc    PKPbc    09 04 01.1 -0.3
      baz=34,slow=2.6
GEC2                               ePKPab    PKPab    09 04 04.5 -0.2
      baz=33,slow=4.3
GEC2                               epPKPbc   sPKPdf   09 04 43.1 -0.7
      baz=35,slow=2.1
GERES GERESS Array B    148.24 332  PKPbc    PKPbc    09 04 01.1 -0.3
      comp=Z,42nm,0.8s,baz=44,slow=3.0,SNR=81
GERES                               PP       PP       09 07 31.1 +0.6
      comp=Z,0.6nm,0.4s,baz=75,slow=6.9,SNR=2.7
GERES GERESS Array B    148.24 332  PKIKP    PKPdf    09 03 58.9 +1.0
GERES GERESS Array B    148.24 332  PKPdf    PKPdf    09 03 58.9 +1.0
SKO   Skopje            148.25 315⇑iP        PKPbc    09 04 01.7 +0.2
ILTH  Belurgan, Co L    148.34 358  PKP      PKPbc    09 04 00.3 -1.0
ILTH  Belurgan, Co L    148.34 358 eP        PKPbc    09 04 00.3 -1.0
KASTN Kahler Asten      148.35 340 ePKPbc    PKPbc    09 04 01.1 -0.4
      baz=34,slow=2.6
KASTN                              epPKPbc   sPKPdf   09 04 43.3 -0.6
      baz=35,slow=2.1
WET   Wettzell          148.37 333 ePKPdf    PKPdf    09 03 57.0 -1.1
      baz=34,slow=0.9
WET                                ePKPbc    PKPbc    09 04 01.5 -0.1
      baz=34,slow=2.6
WET                                epPKPbc   sPKPdf   09 04 43.8 -0.1
      baz=35,slow=2.1
BEHE  Becsehely         148.44 326 eP        PKPbc    09 04 00.2 -1.6
BUG   Bochum--Univer    148.50 341 ePKPdf    PKPdf    09 03 57.0 -1.0
      baz=34,slow=0.9
BUG                                ePKPbc    PKPbc    09 04 01.2 -0.6
      baz=34,slow=2.6
BUG                                ePKPab    PKPab    09 04 04.8 -0.7
      baz=33,slow=4.3
ARSA  Arzberg           148.54 328  PKP      PKPdf    09 03 56.7 -1.7
      comp=Z,3.1nm,0.6s,SNR=13
ARSA                               ePP       PP       09 07 32.6 +0.4
      comp=Z,14nm,1.4s
BBLS  Lazi&#263i        148.55 320⇑iP        PKPbc    09 04 02.5 +0.2
GRF   Grafenberg Arr    148.61 335 ePKPbc    PKPbc    09 04 02.1 -0.1
      baz=34,slow=2.6
GRF                                ePKPab    PKPab    09 04 06.3 +0.2
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      baz=33,slow=4.3
GRFO  Grafenberg        148.61 335  PKP2     PKPbc    09 04 02.6 +0.4
GRFO  Grafenberg        148.61 335           PKPbc    09 04 02.6 +0.4
MOA   Molln             148.72 330  PKP      PKPdf    09 03 57.7 -0.9
      comp=Z,23nm,0.7s,SNR=18
IVA   Berane            148.79 318⇑iPKP      PKPbc    09 04 02.7 -0.3
WPS   Cemaes, Angles    148.86 355 eP        PKPbc    09 04 01.3 -1.3
PVY   Plav              148.89 317⇑iPKP      PKPbc    09 04 02.9 -0.4
WLF1  Llynfaes          148.96 355 eP        PKPbc    09 04 01.9 -1.0
IGLA  Glengowla, Co     148.98   1  PKP      PKPbc    09 04 01.6 -1.3
KOME  Kolasin           149.03 318⇑iPKP      PKPbc    09 04 03.4 -0.2
OHR   Ohrid             149.09 314⇑iP        PKPbc    09 04 04.0 +0.3
SESA  Seetaler Alpe,    149.10 329  PKP      PKPdf    09 03 58.2 -1.3
      comp=Z,280nm,1.1s,SNR=74
SESA                               ePP       PP       09 07 36.5 +0.7
      comp=Z,38nm,1.3s
DSB   Dublin            149.12 358  PKP      PKPbc    09 04 01.6 -1.7
DSB   Dublin            149.12 358  PKP      PKPbc    09 04 02.1 -1.2
BIOA  Bad Ischl, Aus    149.12 330  PKP      PKPdf    09 03 57.7 -1.5
      comp=Z,97nm,1.7s,SNR=11
BIOA                               ePP       PP       09 07 33.2 -2.4
      comp=Z,3.8nm,0.5s
PERS  Pernice           149.17 327 ePKPdf    PKPdf    09 03 58.1 -1.3
PERS                               ePKPbc    PKPbc    09 04 02.9 -0.8
CWF   Charnwood Fore    149.18 351 eP        PKPbc    09 04 02.2 -1.3
TNS   Taunus Mts        149.18 339 ePKPbc    PKPbc    09 04 03.3 -0.3
      baz=34,slow=2.6
SOKA  Soboth            149.18 328  PKP      PKPdf    09 03 58.3 -1.2
      comp=Z,90nm,1.2s,SNR=80
SOKA                               ePP       PP       09 07 36.1  0.0
      comp=Z,19nm,1.4s
UPM   Unac-Piva         149.22 319⇑iP        PKPbc    09 04 03.2 -0.9
UPM   Unac-Piva         149.22 319⇑iPKP      PKPbc    09 04 03.3 -0.9
FOEL  Foel Wylfa        149.25 354 eP        PKPbc    09 04 02.8 -0.9
BOPT  Opiter            149.27 343 dPKPdf    PKPdf    09 03 58.4 -0.9
BLY   Banja Luka        149.31 323 ⇓P        PKPbc    09 04 04.1  0.0
BLY   Banja Luka        149.31 323⇑iP        PKPbc    09 04 04.1  0.0
BMOL  Mol               149.32 343 dPKP      PKPbc    09 04 03.9 +0.1
PDG   Podgorica         149.42 317 ⇑P        PKPbc    09 04 03.9 -0.5
PDG   Podgorica         149.42 317⇑iP        PKPbc    09 04 04.0 -0.5
PDG   Podgorica         149.42 317⇑iPKP      PKPbc    09 04 04.1 -0.3
ELMS  Elmsett, Ipswi    149.43 349 eP        PKPbc    09 04 03.1 -0.9
KLINJ Klinje            149.43 319 eP        PKPbc    09 04 04.0 -0.6
OBKA  Obir              149.54 328  PKP      PKPdf    09 03 58.9 -1.1
      comp=Z,44nm,1.2s,SNR=12
CEME  Cevo              149.57 318⇑iPKP      PKPbc    09 04 04.2 -0.7
HLM1  Long Mynd         149.58 353 eP        PKPbc    09 04 03.5 -1.0
DRME  Dracevica, Mon    149.59 317⇑iP        PKPbc    09 04 04.5 -0.4
BRY   Bratogost         149.61 319⇑iPKP      PKPbc    09 04 04.5 -0.6
MEM   Membach           149.61 342 dPKP      PKPbc    09 04 04.0 -0.6
MEM                                dPKPab    PKPab    09 04 09.8 -0.3
ULC   Ulcinj            149.67 317⇑iPKP      PKPbc    09 04 04.6 -0.5
KBA   Koelnbreinsper    149.71 330  PKP      PKPdf    09 03 58.6 -1.8
      comp=Z,73nm,1.1s,SNR=49
KBA                                ePP       PP       09 07 37.2 -1.9
      comp=Z,23nm,1.4s
LESA  Schwarzleotal     149.76 331  PKP      PKPdf    09 03 59.0 -1.4
      comp=Z,27nm,0.5s,SNR=48
LESA                               ePP       PP       09 07 38.4 -0.9
      comp=Z,37nm,2.0s
FUR   Furstenfeldbru    149.80 333 ePKPbc    PKPbc    09 04 04.8 -0.4
      baz=34,slow=2.6
FUR                                ePKPab    PKPab    09 04 11.6 +0.6
      baz=33,slow=4.3
FUR                                epPKPbc   sPKPdf   09 04 45.9 -0.3
      baz=35,slow=2.1
TREB  Trebinje          149.83 319 eP        PKPbc    09 04 04.4 -1.0
BHOU  Houvegnez         149.84 341 dPKP      PKPbc    09 04 05.0 -0.2
BHOU                               dPKPab    PKPab    09 04 10.9 -0.1
BOJS  Bojanci           149.87 326 i PKPdf   PKPdf    09 03 59.9 -0.6
BOJS                               i PKPbc   PKPbc    09 04 05.5 +0.1
LJU   Ljubljana         149.88 327 i PKPdf   PKPdf    09 03 59.5 -1.0
LJU                                i PKPbc   PKPbc    09 04 05.3 -0.2
HCY   Herceg Novi       149.89 318⇑iP        PKPbc    09 04 04.4 -1.2
HCY   Herceg Novi       149.89 318⇑iPKP      PKPbc    09 04 04.9 -0.7
UCC   Uccle             149.89 344 dPKP      PKPbc    09 04 04.8 -0.5
UCC                                dPKPab    PKPab    09 04 10.4 -0.8
MYKA  Terra Mystica     149.90 329  PKP      PKPdf    09 03 59.1 -1.5
      comp=Z,27nm,0.5s,SNR=22
MYKA                               ePP       PP       09 07 39.5 -0.7
      comp=Z,8.2nm,1.1s
BCLA  Clavier           149.98 342 dPKP      PKPbc    09 04 05.0 -0.6
BCLA                               dPKPab    PKPab    09 04 10.9 -0.7
IWEX  Carrickbyrne,     150.01 358  PKP      PKPbc    09 04 04.2 -1.3
IWEX  Carrickbyrne,     150.01 358 eP        PKPbc    09 04 04.2 -1.3
BSKQ  Steenkerk         150.10 344 dPKP      PKPbc    09 04 05.4 -0.4
BSKQ                               dPKPab    PKPab    09 04 11.6 -0.4
MCH1  Michaelchurch     150.11 353 eP        PKPbc    09 04 04.8 -1.0
STU   Stuttgart         150.13 336 ePKPbc    PKPbc    09 04 05.7 -0.3
      baz=34,slow=2.6
BMRD  Maredsous         150.24 343 dPKP      PKPbc    09 04 05.4 -0.8
BMRD                               dPKPab    PKPab    09 04 12.2 -0.5
RCHB  Rochefort         150.24 342 dPKP      PKPbc    09 04 05.5 -0.7
RCHB                               dPKPab    PKPab    09 04 12.1 -0.5
MONM  Monmouth          150.25 353 eP        PKPbc    09 04 04.8 -1.3
WATA  Walderalm         150.31 332  PKP      PKPdf    09 04 00.3 -1.1
      comp=Z,83nm,1.2s,SNR=13
ABTA  Abfaltersbach     150.34 330  PKP      PKPdf    09 03 59.7 -1.7
      comp=Z,95nm,1.3s,SNR=33
WTTA  Wattenberg        150.34 332  PKP      PKPdf    09 04 00.6 -0.8
      comp=Z,128nm,1.4s,SNR=32
WLF   Walferdange       150.40 341 dPKPdf    PKPdf    09 04 01.2  0.0
WLF                                dPKP      PKPbc    09 04 06.8 +0.2
WLF                                dPKPab    PKPab    09 04 13.1 -0.3
WLF   Walferdange       150.40 341 ePKPbc    PKPbc    09 04 06.6  0.0
      baz=34,slow=2.6
WLF                                ePKPab    PKPab    09 04 13.8 +0.4
      baz=33,slow=4.3
WLF                                epPKPbc   sPKPdf   09 04 47.5 +0.4
      baz=35,slow=2.1
VAL   Valentia          150.44   2  PKP      PKPbc    09 04 05.0 -1.5
VAL   Valentia          150.44   2  PKP      PKPbc    09 04 05.5 -1.0
SWN1  Swindon           150.44 352 eP        PKPbc    09 04 05.8 -0.8
DOU   Dourbes           150.47 343 dPKP      PKPbc    09 04 05.9 -0.8
MOTA  Moosalm           150.51 332  PKP      PKPdf    09 04 00.2 -1.5
      comp=Z,90nm,1.2s,SNR=17
RETA  Reutte            150.54 333  PKP      PKPdf    09 04 00.4 -1.2
      comp=Z,36nm,1.2s,SNR=10
RETA                               ePP       PP       09 07 43.5 -0.2
      comp=Z,8.7nm,0.9s
SQTA  Sankt Quirin      150.56 332  PKP      PKPdf    09 04 00.7 -1.0
      comp=Z,106nm,1.3s,SNR=20
UBR   Ueberruh          150.66 334 ePKPbc    PKPbc    09 04 06.6 -0.7
      baz=34,slow=2.6
UBR                                ePKPab    PKPab    09 04 14.7  0.0
      baz=33,slow=4.3
BFO   Black Forest      150.82 337 i PKIKP   PKPbc    09 04 07.1 -0.5
BFO   Black Forest      150.82 337 ePKPbc    PKPbc    09 04 06.8 -0.8
      baz=34,slow=2.6
BFO                                ePKPab    PKPab    09 04 14.3 -0.9
      baz=33,slow=4.3
BFO                                epPKPbc   sPKPdf   09 04 48.2 +0.3
      baz=35,slow=2.1
FETA  Feichten          150.92 332  PKP      PKPdf    09 04 01.1 -1.2
      comp=Z,70nm,1.3s,SNR=25
DAVA  Damuels           151.07 334  PKP      PKPdf    09 04 01.2 -1.4
      comp=Z,19nm,0.5s,SNR=11
DAVA                               ePP       PP       09 07 46.9 +0.1
      comp=Z,23nm,1.4s
HTL   Hartland          151.25 355 eP        PKPbc    09 04 07.6 -0.9
SBD   Saint Breward     151.69 355 eP        PKPbc    09 04 08.5 -1.0
MATE  Matera            151.99 316 ⇑P        PKPbc    09 04 10.2 -0.3
CCA1  Carnmenellis      152.11 356 eP        PKPbc    09 04 09.6 -0.9
TIP   Timpagrande       152.73 314 ⇓P        PKPdf    09 04 04.0 -1.1
AQU   L'Aquila          152.96 323  PKP      PKPbc    09 04 11.8 -0.9
AQU   L'Aquila          152.96 323⇑iP        PKPab    09 04 24.8 +0.4
VLC   Villacollemand    153.27 329  PKP      PKPbc    09 04 10.8 -2.5
EDA   Edea              154.18 227           PKPdf    09 04 07.3 -0.6
EDA                                          PKPbc    09 04 16.0 -0.2
EDA                                          PKPab    09 04 29.9 -0.4
KEST  Kesra             159.55 315  PKPab    PKPab    09 04 53.4 +0.4
      comp=Z,72nm,0.9s,baz=7.9,slow=1.3,SNR=30
PGAV  Gavieira, Arco    160.45 360 ePKPab    PKPab    09 04 57.0 +0.4
PBRG  Braganca          160.55 356 ePKPab    PKPab    09 04 56.4 -0.6
PCAB  Cabril            160.70 359 ePKPab    PKPab    09 04 57.7 +0.1
POLO  Lamas de Olo      161.03 358 ePKPab    PKPab    09 04 59.1 -0.1
PVRL  Vila Real         161.13 358 ePKPab    PKPab    09 04 59.4 -0.1
PVIS  Viseu             161.69 359 ePKPab    PKPab    09 05 01.6 -0.4
MTE   Manteigas         162.00 358 ePKPab    PKPab    09 05 03.3 -0.1
ESDC  Sonseca Array     162.32 348  PKPab    PKPab    09 05 03.1 -1.6
      comp=Z,17nm,0.9s,baz=8.0,slow=3.7,SNR=48
ESDC                                PP       PP       09 08 48.5 +0.2
      comp=Z,4.1nm,1.2s,baz=23,slow=5.4,SNR=4.4
ESDC  Sonseca Array     162.32 348           PKPdf    09 04 16.8 -0.2
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PCAS	Casmilo, Conde	162.36	0	*e*PKPab	PKPab	09 05 04.9	0.0
PCBR	Castelo Branco	162.55	357	*e*PKPab	PKPab	09 05 05.3	-0.4
PSARD	Sardoal	162.81	359	*e*PKPab	PKPab	09 05 06.6	-0.2
PMRV	Marv??o	162.96	357	*e*PKPab	PKPab	09 05 07.3	-0.2
PMTG	Montargil	163.34	359	*e*PKPab	PKPab	09 05 08.9	-0.3
PESTR	Estremoz	163.53	358	*e*PKPab	PKPab	09 05 09.7	-0.3
PARRA	Arraiolos	163.59	359	*e*PKPab	PKPab	09 05 09.6	-0.7
EVO	Evora	163.87	359	*e*PKPab	PKPab	09 05 11.1	-0.4
MOE	Montemor	163.89	360	*e*PKPab	PKPab	09 05 11.5	-0.1
DBIC	Dimbokro	164.02	193	PKP	PKPdf	09 04 18.9	-0.4
	comp=Z,19nm,0.9s,baz=192,slow=2.2,SNR=9.8						
DBIC				PKPab	PKPab	09 05 13.5	+0.7
	comp=Z,7.2nm,0.7s,baz=161,slow=4.9,SNR=5.0						
DBIC	Dimbokro	164.02	193	⇓PKIKP	PKPdf	09 04 19.3	0.0
DBIC	Dimbokro	164.02	193		PKPdf	09 04 17.5	-1.8
PBAR	Barrancos	164.19	356	*e*PKPab	PKPab	09 05 12.6	-0.3
PBEJ	Beja	164.37	358	*e*PKPab	PKPab	09 05 13.9	+0.2
PLOUS	Minas do Lousa	164.38	360	*e*PKPab	PKPab	09 05 14.2	+0.5
MESJ	Messejana	164.57	359	*e*PKPdf	PKPdf	09 04 18.8	-0.3
MESJ				*e*PKPab	PKPab	09 05 14.6	0.0
MESJ	Messejana	164.57	359	*e*PKPab	PKPab	09 05 15.6	+1.0
PCVE	Castro Verde	164.77	359	*e*PKPab	PKPab	09 05 15.3	-0.2
PTEO	Sao Teotonio	164.86	1	*e*PKPab	PKPab	09 05 16.1	+0.2
PVAQ	Vaqueiros	164.99	358	*e*PKPab	PKPab	09 05 16.6	+0.2
MORF	Marmelete	165.10	1	*e*PKPab	PKPab	09 05 17.0	-0.1
MORF	Marmelete	165.10	1	*e*PKPab	PKPab	09 05 17.1	+0.1
PBDV	Barranco-do-Ve	165.16	358	*e*PKPab	PKPab	09 05 17.6	+0.4
PFVI	Vila Bisbo	165.27	1	*e*PKPab	PKPab	09 05 18.1	+0.4
TORD	Torodi Ar. Bea	166.68	228	PKP	PKPdf	09 04 21.2	-0.2
	comp=Z,23nm,1.0s,baz=99,slow=0.5,SNR=57						
TORD				PKPab	PKPab	09 05 25.1	+0.5
	comp=Z,25nm,0.9s,baz=118,slow=4.5,SNR=23						
TAM	Tamanrasset	167.07	275	PKP2	PKPab	09 05 27.6	+1.0
TAM	Tamanrasset	167.07	275		PKPab	09 05 27.6	+1.0
MD01	Midelt array s	169.03	343		PKPdf	09 04 22.0	-0.9
MD01					PKPab	09 05 34.0	-0.7
MDT	Midelt	169.04	343	PKP	PKPdf	09 04 22.9	+0.2
	comp=Z,2.0nm,0.7s,baz=346,slow=3.0,SNR=4.2						
MDT				PKPab	PKPab	09 05 34.4	-0.3
	comp=Z,2.3nm,0.7s,baz=12,slow=5.3,SNR=4.2						
MDT				PP	PP	09 09 24.1	+0.8
	comp=Z,7.8nm,1.1s,baz=333,slow=4.5,SNR=6.7						

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*ASRS **16** 09:17:22.0±1.5, 53°.74N×91°.05E, h0km, M3.5(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

NNC 16 09:17:26.2±4.0**, 53°.19N×91°.42E, h0km, mb4.1, mpv3.8, 5C-5D, Error ellipse: s-maj=30.4km s-min=19.0km az=75.0, Suspected Mining explosion., Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAA0	Zalesovo Array	4.01	284	⇑Pn	Pn	09 18 29.0	+0.3
	13nm,0.8s,baz=98,slow=14						
ZAA0				⇓Sn	Sn	09 19 18.0	+1.7
	143nm,0.8s,baz=96,slow=24						
KURK	Kurchatov	8.29	258	⇓Pn	Pn	09 19 28.0	+0.6
	2.3nm,1.1s						
KURK				⇓Sn	Sn	09 21 03.4	+1.7
	9.4nm,0.8s						
KURBB	Kurchatov Arra	8.37	257	⇑Pn	Pn	09 19 28.2	-0.5
	3.0nm,0.4s,baz=67,slow=15						
KURBB				⇑Sn	Sn	09 21 04.6	+0.8
	62nm,0.8s,baz=70,slow=25						
MK31	Makanchi Array	8.69	226	⇓Pn	Pn	09 19 33.0	0.0
	4.7nm,1.0s,baz=30,slow=12,SNR=3.9						
MK31				⇓Sn	Sn	09 21 11.5	-0.1
	4.3nm,0.8s,baz=34,slow=20						
MAKZ	Makanchi	8.81	227	⇑Pn	Pn	09 19 33.7	-1.1
	6.2nm,1.1s						
MAKZ				⇑Sn	Sn	09 21 14.9	+0.2
	7.0nm,0.8s						

NNC 16 09:19:47.1±2.2**, 37°.81N×71°.64E, h0km, mb3.8, mpv3.4, 1C-3D, Error ellipse: s-maj=17.1km s-min=12.8km az=162.0, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AAK	Ala-Archa	5.29	23	⇓P	Pn	09 21 07.0	-0.7
	1.4nm,0.4s						
AAK				⇓S	Sn	09 22 10.8	+1.4
	2.0nm,0.6s						
KK31	Karatay Array	5.36	351	P	Pn	09 21 08.4	+0.1
	3.2nm,0.3s,baz=176,slow=13,SNR=27						
KK31				⇓S	Sn	09 22 11.6	+0.9
	4.2nm,0.3s,baz=171,slow=22						
AB31	Akbulak array	14.22	327	⇑P	Pn	09 23 10.9	+1.3
	1.4nm,0.9s,baz=142,slow=12,SNR=5.0						

IDC 16 09:26:40.9±5.2**, 21°.21S×176°.09W, h0km, mb3.6**/3**, mbtmp3.6**/3**, Error ellipse: s-maj=208.5km s-min=64.6km az=144.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	39.10	245	P	P	09 34 09.4	-0.7
	1.0nm,0.7s,baz=69,slow=8.6,SNR=1.5						
	1.0nm,0.7s						
ASAR	Alice Springs	46.10	257	P	P	09 35 06.8	-0.4
	0.2nm,0.3s,baz=100,slow=7.0,SNR=6.0						
	0.2nm,0.3s						
WRA	Warramunga Arr	46.28	262	P	P	09 35 09.0	+0.4
	0.4nm,0.6s,baz=96,slow=8.0,SNR=50						
	0.4nm,0.6s						
BRTR	Keskin Array B	148.64	313	PKPbc	PKPbc	09 46 29.8	-0.6
	0.3nm,0.4s,baz=104,slow=4.6,SNR=1.8						

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*IDC **16** 09:35:34.6±0.9, 7°.90N×137°.27E, h0km, mb4.0/13, mbtmp4.0/13, MS3.3/6, Error ellipse: s-maj=38.4km s-min=16.6km az=82.0*

ISC 16 09:35:36.3±0.8**, 7°.9N**±0°.1×**137°.3E**±0°.2**, h10km, n23, σ0s.74**/13**, mb4.1**/13**, MS3.4**/5**, Western Caroline Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DAV	Davao City (W)	11.62	267	LR	LR	09 41 59.1	
	comp=Z,72nm,21.9s,baz=158,slow=33						
JHJ	Hachijo jima 2	25.23	5	LR	LR	09 50 20.8	
	comp=Z,60nm,18.9s,baz=106,slow=35						
JNU	Nakatsue	25.81	348	LR	LR	09 50 08.4	
	comp=Z,64nm,20.7s,baz=208,slow=34						
WRA	Warramunga Arr	27.80	186	P	P	09 41 25.9	+0.1
	1.1nm,0.9s,baz=8.8,slow=10,SNR=5.3						
	1.1nm,0.9s						
HNR	Honiara	28.39	127	LR	LR	09 51 12.9	
	comp=Z,95nm,20.1s,baz=19,slow=33						
H11S3	WAKE ISLAND Hy	30.48	67	T	T	10 13 48.7	
	baz=254,slow=75,SNR=88						
H11S1	WAKE ISLAND Hy	30.49	67	T	T	10 13 49.6	
	baz=254,slow=75,SNR=135						
H11S2	WAKE ISLAND Hy	30.49	67	T	T	10 13 48.6	
	baz=254,slow=75,SNR=109						
H11N1	WAKE ISLAND Hy	31.02	65	T	T	10 14 43.9	
	baz=252,slow=75,SNR=21						
H11N2	WAKE ISLAND Hy	31.03	65	T	T	10 14 38.2	
	baz=252,slow=75,SNR=12						
H11N3	WAKE ISLAND Hy	31.04	65	T	T	10 14 39.4	
	baz=252,slow=75,SNR=19						
ASAR	Alice Springs	31.52	186	P	P	09 41 59.0	+0.2
	0.2nm,0.6s,baz=15,slow=13,SNR=7.0						
	0.2nm,0.6s						
CMAR	Chiang Mai Arr	38.69	290	P	P	09 43 00.7	+0.1
	0.7nm,0.3s,baz=106,slow=8.4,SNR=1.4						
	0.7nm,0.3s						
STKA	Stephens Creek	39.75	174	P	P	09 43 09.4	+0.2
	2.1nm,0.9s,baz=0.0,slow=9.1,SNR=3.6						
STKA				LR	LR	10 01 57.0	
	comp=Z,64nm,18.2s,baz=289,slow=40						
	2.1nm,0.9s						
KLR	Kul'dur	41.48	355	P	P	09 43 23.8	+0.5
	2.2nm,0.7s,baz=190,slow=3.0,SNR=4.8						
	2.2nm,0.7s						
SONM	Songino Array	47.66	332	P	P	09 44 13.7	+0.8
	3.1nm,0.9s,baz=147,slow=8.1,SNR=9.4						
SONM				PcP	PcP	09 45 42.3	-0.1
	0.4nm,0.4s,baz=119,slow=4.4,SNR=1.9						
SONM				LR	LR	10 04 59.5	
	comp=Z,60nm,19.5s,baz=205,slow=37						
	3.1nm,0.9s						
SEY	Seymchan	56.04	8	P	P	09 45 16.3	+1.3
	1.3nm,0.7s,baz=197,slow=15,SNR=4.3						
	1.3nm,0.7s						
MKAR	Makanchi Array	60.69	320	P	P	09 45 47.7	-0.2
	2.4nm,0.7s,baz=104,slow=8.8,SNR=18						
	2.4nm,0.7s						
KURBB	Kurchatov Arra	64.38	323	P	P	09 46 11.7	-0.7
	3.0nm,0.7s,baz=115,slow=5.9,SNR=14						
	3.0nm,0.7s						
BVAR	Borovoye Array	69.91	324	P	P	09 46 47.3	-0.3
	3.9nm,0.7s,baz=104,slow=6.3,SNR=11						
	3.9nm,0.7s						
ILAR	Eielson Array	76.89	25	P	P	09 47 27.4	-1.1
	0.2nm,0.6s,baz=239,slow=5.1,SNR=4.4						
	0.2nm,0.6s						
ARCES	ARCESS Array B	90.10	341	P	P	09 48 35.1	-1.1
	1.1nm,0.8s,baz=70,slow=7.0,SNR=5.3						
	1.1nm,0.8s						
FINES	FINESS Array B	93.02	333	P	P	09 48 47.8	-2.0
	0.9nm,0.6s,baz=65,slow=4.7,SNR=5.0						
	0.9nm,0.6s						

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*NIED **16** 10:14:27.2, 42°.87N×146°.57E, h15km, MW3.6, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}1.42; $M_{\theta\theta}$0.14; $M_{\phi\phi}$-1.55; $M_{r\theta}$0.59; $M_{\theta\phi}$-0.43; $M_{\phi r}$2.48; Fault plane solution: $M_0$2.98000×10^{14} NP1: ϕ_s194.00000°, δ16.00000°, λ90.00000°. NP2:ϕ_s13.00000°, δ74.00000°, λ90.00000°.*

*JMA **16** 10:14:27.2±0.2, 42°.9N±0°.4×146°.6E±0°.8, h15km±2km, MV4.0/37, OFF NEMURO PENINSULA*

*SKHL **16** 10:14:29.1±0.8, 42°.90N×146°.70E, h53km±8km, mb4.9/3*

*IDC **16** 10:14:30.7±2.2, 43°.49N×145°.80E, h0km, mb3.8/5, mbtmp3.7/6, MS3.4/3, Error ellipse: s-maj=47.1km s-min=26.7km az=132.0*

*MOS **16** 10:14:32.4±1.2, 42°.94N×146°.60E, h51km, mb4.3/7, Error ellipse: s-maj=14.9km s-min=9.6km az=111.5*

ISC 16 10:14:27.4±1.2**, 42°.92N**±0°.07×**146°.69E**±0°.05**, h23km**±6km**, n49, σ1s.36**/53**, mb4.0**/12**, 1C-1D, Off southeast coast of Hokkaido**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NEM2	Nemuro 2	0.82	303	*i* P	Pb	10 14 42.6	-0.3
NEM2				*e*S	Sb	10 14 54.2	+0.6
NMR	Nemuro--Hokkai	0.83	303	⇓*i*PN	Pb	10 14 42.6	-0.5
NMR				*e*S	Sb	10 14 53.5	-0.4
NMR	Nemuro--Hokkai	0.83	303	*i* P	Pb	10 14 43.4	+0.3
NMR				AMB	AMB	10 14 44.3	
	1μm,0.3s						
NMR				*e*S	Sb	10 14 54.4	+0.5
NMR				A	A	10 14 56.2	
	4μm,0.4s						
NMR				A	A	10 14 56.2	
	3μm,0.4s						
SHO	Shikotan	0.95	6	*e*P	Pb	10 15 03.0	+18
SHO				*e*S	Sn	10 15 16.9	+19
SHO				A	A	10 15 19.2	
	2μm,0.4s						
SHO				A	A	10 15 19.2	
	2μm,0.4s						
JKHN	Kushirohamanak	1.13	279	P	Pn	10 14 47.0	-0.8
JKHN				*e*S	Sn	10 15 01.9	-0.7
YUK	Yuzh-Kuril'sk	1.26	332	*e*PN	Pn	10 14 50.0	+0.4
YUK				*e*S	Sb	10 15 06.3	0.0
YUK				pmax	pmax		
	comp=Z,606nm,0.6s						
YUK				pmax	pmax		
	comp=E,243nm,0.4s						
YUK				pmax	pmax		
	comp=N,204nm,0.3s						
YUK				smax	smax		
	comp=N,3μm,0.4s						
YUK				smax	smax		
	comp=E,1μm,0.4s						
YUK	Yuzh-Kuril'sk	1.26	332	*e*P	Pb	10 14 50.3	-0.2
YUK				AMB	AMB	10 14 54.3	
	comp=E,610nm,0.4s						
YUK				*e*S	Sn	10 15 05.7	-0.2
YUK				A	A	10 15 12.5	
	comp=E,3μm,0.6s						
YUK				A	A	10 15 12.5	
	comp=E,3μm,0.6s						
AKK	Akkeshi	1.36	275	*e*P	Pn	10 14 50.0	-0.9
AKK				*e*S	Sn	10 15 06.4	-1.8
JAK	Akkeshi	1.46	274	P	Pn	10 14 51.4	-1.0
JAK				*e*S	Sn	10 15 10.6	-0.2
JNSB	Nemuroshibetsu	1.50	305	P	Pn	10 14 52.8	0.0
JRA	Rausu	1.53	312	P	Pn	10 14 53.7	+0.5
RUSJ	Misakicho	1.58	319	*e*PN	Pn	10 14 54.7	+0.8
JNK	Nakash	1.58	295	*e*P	Pn	10 14 53.7	-0.4
JNK				*e*S	Sn	10 15 13.1	-0.7
KUR	Kuril'sk	2.46	20	*e*PN	Pb	10 15 09.3	-1.6
KUR				S	Sb	10 15 38.7	-2.0
KUR				pmax	pmax		
	comp=Z,23nm,0.6s						
KUR				smax	smax		
	comp=E,110nm,0.4s						
KUR				smax	smax		
	comp=N,74nm,0.2s						
KUR	Kuril'sk	2.46	20	*e*P	Pb	10 15 09.3	-1.6
KUR				AMB	AMB	10 15 10.1	
	comp=N,20nm,0.3s						
KUR				*e*S	Sb	10 15 38.7	-2.0
KUR				A	A	10 15 44.5	
	comp=N,90nm,0.3s						
KUR				A	A	10 15 44.5	
	comp=N,150nm,0.3s						
REI	Reidovoe	2.53	22	*e*P	Pn	10 15 07.6	+0.6
REI				*e*S	Sn	10 15 39.2	+2.1
ERM	Erimo	2.77	252	*i* PN	Pn	10 15 10.5	+0.3
ERM				*i* S	Sn	10 15 44.2	+1.3
ERM				pmax	pmax		
	comp=Z,89nm,1.0s						
YSS	Yuzhno-Sakhali	4.90	327	*e*PN	Pn	10 15 41.4	+1.8
YSS				*e*S	Sn	10 16 36.2	+0.6
YSS				smax	smax		
	comp=N,10.0nm,0.8s						
YSS				smax	smax		
	comp=E,10.0nm,1.0s						
YSS	Yuzhno-Sakhali	4.90	327	*e*P	Pn	10 15 41.4	+1.8
TEY	Ternei	7.58	290	*e*PN	Pn	10 16 06.4	-10
TYV	Tymovskoe	8.41	342	*e*P	Pn	10 16 32.0	+4.3
MJAR	Matsushiro Arr	9.12	229	Pn	Pn	10 16 42.8	+5.2
	comp=E,0.7nm,0.7s,baz=33,slow=14,SNR=2.0						
KLR	Kul'dur	12.13	306	LR	LR	10 21 45.6	
	comp=E,53nm,19.2s,baz=43,slow=39						
KLR	Kul'dur	12.13	306	*i* PN	Pn	10 17 17.8	-0.9
KLR	Kul'dur	12.13	306	*e*P	Pn	10 17 17.8	-0.9
BILL	Bilibino	27.25	16	*i* P	P	10 20 08.9	-0.5
BILL				pmax	pmax		
	comp=Z,6.0nm,1.1s						
ULN	Ulaanbaatar	28.05	294	*i* P	P	10 20 16.8	-0.1
ULN				pmax	pmax		
	comp=Z,2.0nm,1.0s						
ULN	Ulaanbaatar	28.05	294	*e*P	P	10 20 16.8	-0.1
SONM	Songino Array	28.49	294	P	P	10 20 20.9	+0.1
	comp=Z,3.0nm,0.8s,baz=87,slow=8.8,SNR=12						
	comp=Z,3.0nm,0.8s						
H11N2	WAKE ISLAND Hy	28.71	137	T	T	10 51 21.9	
	baz=328,slow=75,SNR=32						
H11N1	WAKE ISLAND Hy	28.72	137	T	T	10 51 23.1	
	baz=328,slow=75,SNR=14						
H11N3	WAKE ISLAND Hy	28.73	137	T	T	10 51 28.4	
	baz=328,slow=75,SNR=14						
H11S1	WAKE ISLAND Hy	29.65	139	T	T	10 52 36.7	
	baz=329,slow=76,SNR=54						
H11S3	WAKE ISLAND Hy	29.66	139	T	T	10 52 34.9	
	baz=329,slow=76,SNR=44						
H11S2	WAKE ISLAND Hy	29.67	139	T	T	10 52 27.3	
	baz=329,slow=76,SNR=33						
DGZ	Jazzator, Alta	40.55	301	*i* P	P	10 22 03.9	-0.9
DGZ				pmax	pmax		
	comp=Z,1.0nm,2.2s						
ILAR	Eielson Array	42.36	36	P	P	10 22 26.1	+6.8
	comp=Z,0.1nm,0.5s,baz=263,slow=6.6,SNR=1.8						
	comp=Z,0.1nm,0.5s						
MK31	Makanchi Array	44.67	298	*i* P	P	10 22 38.2	0.0
MK31				*i* *SP	sP	10 22 48.2	+1.3
MKAR	Makanchi Array	44.67	298	P	P	10 22 38.5	+0.3
	comp=Z,1.9nm,0.7s,baz=80,slow=9.2,SNR=13						
	comp=Z,1.9nm,0.7s						
KURK	Kurchatov	45.72	305	*i* P	P	10 22 46.6	+0.2
KURK				pmax	pmax		
	comp=Z,2.0nm,1.2s						
KURK	Kurchatov	45.72	305	*e*P	P	10 22 46.6	+0.2
KURBB	Kurchatov Arra	45.80	304	P	P	10 22 47.1	+0.1
	comp=Z,0.5nm,0.3s,baz=74,slow=8.4,SNR=7.6						
	comp=Z,0.5nm,0.3s						
BORK	Borovoye	49.80	310	*i* P	P	10 23 18.8	+0.8
BORK				pmax	pmax		
	comp=Z,1.0nm,0.8s						
ARTI	Arti	54.83	317	LR	LR	10 50 43.3	
	comp=Z,67nm,18.1s,baz=288,slow=40						
ARTI	Arti	54.83	317*c*	*i*P	P	10 23 53.7	-1.6
ARTI						10 24 57.7	
ARTI				S	S	10 31 32.8	-1.9
ARTI				SS	SKiKP	10 35 06.1	+5.0
ARTI				pmax	pmax		
	comp=Z,5.0nm,1.0s						
RES	Resolute Bay	55.86	16	LR	LR	10 49 46.4	
	comp=Z,54nm,20.0s,baz=42,slow=38						
FINES	FINESS Array B	65.46	333	P	P	10 25 07.9	-0.1
	comp=Z,0.9nm,0.7s,baz=40,slow=13,SNR=1.4						
	comp=Z,0.9nm,0.7s						
OBN	Obninsk	65.78	324	*e*P	P	10 25 10.2	0.0
OBN				*e*		10 25 39.6	
OBN				pmax	pmax		
	comp=Z,3.0nm,0.7s						
OBN	Obninsk	65.78	324	*e*P	P	10 25 10.2	0.0

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*IDC **16** 10:16:38.0±1.7, 4°.17N×126°.71E, h0km, mb3.8/5, mbtmp3.8/5, MS3.0/2, Error ellipse: s-maj=166.1km s-min=20.7km az=65.0*

*MAN **16** 10:16:38.0, 3°.46N×126°.48E, h30km, MS3.9*

ISC 16 10:16:38.6±1.0**, 4°.41N**±0°.08×**127°.2E**±0°.1**, h10km, n14, σ1s.45**/18**, mb3.8**/5**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	Don Marcelino,	2.25	318	*e*P	Pb	10 17 18.6	-0.7
DDMP				*e*S	Sg	10 17 51.8	+0.8
KCP	Kidapawan	3.33	321	*i* P	Pb	10 17 37.9	0.0
KCP				*i* S	Sg	10 18 26.9	+1.1
CDOP	Cateel, Davao	3.44	347	*i* P	Pg	10 17 43.3	-1.3
CDOP				*i* S	Sb	10 18 21.4	-0.1
BIPH	Bislig	3.84	347	*e*P	Pg	10 17 52.2	-0.1
BIPH				*e*S	Sg	10 18 43.7	+1.6
BUKP	Musuan	4.05	328	*e*P	Pb	10 17 48.3	-1.9
BUKP				*i* S	Sb	10 18 38.0	-1.3
CTBH	Cotabato--PC H	4.06	314	*i* P	Pb	10 17 48.2	-2.1
CGP	Cagayan de Oro	4.73	328	*e*P	Pn	10 17 49.5	-0.6
CGP				*e*S	Sb	10 19 02.3	+3.5
WRA	Warramunga Arr	25.20	164	P	P	10 22 04.2	-0.4
	1.7nm,0.9s,baz=343,slow=10,SNR=10						
	1.7nm,0.9s						
ASAR	Alice Springs	28.66	167	P	P	10 22 35.6	-0.3
	0.2nm,0.7s,baz=346,slow=9.1,SNR=6.1						
	0.2nm,0.7s						
MJAR	Matsushiro Arr	33.54	16	LR	LR	10 39 58.9	
	comp=Z,9.2nm,19.1s,baz=242,slow=41						
STKA	Stephens Creek	38.60	160	P	P	10 24 03.4	+1.3
	1.5nm,0.7s,baz=353,slow=8.1,SNR=3.4						
	1.5nm,0.7s						
MKAR	Makanchi Array	57.27	325	P	P	10 26 26.8	+0.2
	0.7nm,0.6s,baz=126,slow=7.3,SNR=7.5						
	0.7nm,0.6s						
ZALV	Zalesovo Beam	60.20	333	LR	LR	10 56 29.7	
	comp=Z,34nm,18.3s,baz=301,slow=40						
KURBB	Kurchatov Arra	61.43	327	P	P	10 26 55.7	+0.6
	1.2nm,0.5s,baz=128,slow=5.9,SNR=1.8						
	1.2nm,0.5s						

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*CATAC **16** 10:37:53.7±0.3, 10°N±2°×8°4W±°, h4km±2km, M4.6/23, MLv4.6/23, Error ellipse: s-maj=5.5km s-min=2.9km az=45.5, confirmed*

*UPA **16** 10:37:53.9±1.8, 10°.22N×83°.40W, h10km±146km, MW3.9, Presumed earthquake*

*UCR **16** 10:37:54.7±0.7, 10°.02N×83°.55W, h16km±2km, MW4.5, Fault plane solution: NP1:ϕ_s81.83000°, δ57.39000°, λ66.04000°., Presumed earthquake*

*RSNC **16** 10:37:57.9±2.6, 10°N±5°×8°3W±°, h7km±21km, ML3.2*

ISC 16 10:37:55.1±0.8**, 10°.00N**±0°.02×**83°.56W**±0°.02**, h18km**±4km**, n136, σ0s.82**/161**, 30C-30D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IRES	Siquirres	0.11	28	⇑*e*P	Pg	10 37 58.8	0.0
IRES				*e*S	Sg	10 38 02.0	+0.6
RVLA	Villa Bonita	0.11	344	⇑*e*P	Pg	10 37 58.9	0.0
RVLA				*e*S	Sg	10 38 02.1	+0.6
VTCV	VTCV, Calle Va	0.17	264	⇓*e*P	Pg	10 37 59.8	0.0
CVTR	Volcan Turrial	0.20	275	⇑*e*P	Pb	10 38 00.2	-0.1
CVTR				*e*S	Sg	10 38 04.1	+0.1
VTR0	Volcan Turrial	0.20	275	⇑*e*P	Pb	10 38 00.3	0.0
CVTQ	Turrialba Volc	0.21	271	⇑*e*P	Pg	10 38 00.5	0.0
VINA	Juan Vinas	0.21	241	⇓*e*P	Pg	10 38 00.1	-0.3
TAAN	Batan	0.22	68	*e*P	Pb	10 38 00.5	0.0
PCAYA	Pacayas	0.27	252	⇓*e*P	Pg	10 38 01.1	-0.1
VICA	Volcano Irazu	0.28	267	⇓*e*P	Pg	10 38 01.4	-0.2
PILE	Guapiles	0.31	313	⇓*e*P	Pg	10 38 02.0	+0.1
REPA	Paraso	0.35	241	⇓*e*P	Pg	10 38 02.3	-0.3
CVIMO	Finca Echandi	0.38	274	*e*P	Pn	10 38 07.3	+1.4
TAGO	Cartago	0.39	250	*e*P	Pg	10 38 02.8	-0.5
CORON	Coronado	0.44	266	*e*P	Pg	10 38 04.2	0.0
TRIO	Tres Rios	0.44	258	⇓*e*P	Pg	10 38 03.6	-0.6
BUS1	Rivas	0.48	203	⇓*e*P	Pg	10 38 04.3	-0.8
ECI	Escuela Centro	0.49	263	⇓*e*P	Pg	10 38 04.8	-0.3
SJS3	Mercedes San J	0.49	263	⇓*e*P	Pg	10 38 04.9	-0.2
LUPE	Guadalupe	0.49	264	*e*P	Pg	10 38 04.9	-0.2
SJS	Escuela Geolog	0.49	263	⇓*e*P	Pg	10 38 04.8	-0.3
LUJA	Lujan	0.51	262	⇓*e*P	Pg	10 38 05.0	-0.5
MEXI	Barrio Mexico	0.53	264	*e*P	Pg	10 38 05.4	-0.3
DOMI	Santo Domingo	0.53	268	*e*P	Pg	10 38 05.8	0.0
PIEC	Cerro El Cedra	0.55	227	⇓*e*P	Pg	10 38 05.4	-0.8
VBV1	V. Barva	0.55	282	⇑*e*P	Pg	10 38 05.6	-0.6
HDC	Heredia	0.55	270	⇑P	Pg	10 38 06.0	-0.2
HDC				S	Sg	10 38 13.3	-0.3
HDC	Heredia	0.55	270	*e*P	Pg	10 38 06.0	-0.2
PAVB	Pavas, San Jos	0.56	264	*e*P	Pg	10 38 05.9	-0.4
PITB	Pirrs, San	0.57	234	⇓*e*P	Pg	10 38 05.8	-0.8
ABE2	San Pablo	0.57	239	⇓*e*P	Pg	10 38 05.8	-0.8
HEME	Heredia, Merce	0.57	270	⇑*e*P	Pb	10 38 07.3	+0.6
RAZU	San Marcos de	0.57	234	⇓*e*P	Pg	10 38 05.8	-0.8
BELE	Belen	0.62	268	*e*P	Pg	10 38 07.0	-0.5
SANTA	Santa Ana	0.62	264	⇓*e*P	Pg	10 38 06.6	-0.9
ACOS	Acosta	0.63	251	⇓*e*P	Pg	10 38 06.8	-0.9
SAJE	San Jernim	0.65	176	⇓*e*P	Pb	10 38 06.7	-1.4
ZEDO	Perez Zeledon	0.65	191	⇓*e*P	Pb	10 38 08.0	-0.1
POAS	San Pedro de P	0.68	276	*e*P	Pb	10 38 08.5	-0.1
VPS5	V. Poas	0.69	286	⇑*e*P	Pb	10 38 08.2	-0.7
VPS8	V Poas	0.70	285	⇑*e*P	Pb	10 38 08.4	-0.5
CEUA	Cerro Uatsi, L	0.71	122	*e*P	Pb	10 38 09.0	-0.1
PICV	PH. Pirrs	0.73	240	⇓*e*P	Pb	10 38 08.2	-1.2
ARTO	Ro Cuarto	0.73	298	*e*P	Pb	10 38 08.4	-1.0
TCS1	Tacares	0.73	273	⇑P	Pb	10 38 09.1	-0.4
TCS1	Tacares	0.73	273	⇑*e*P	Pb	10 38 09.0	-0.4
PURI	Puriscal	0.76	258	*e*P	Pb	10 38 09.2	-0.8
ATEO	Atenas	0.81	268	*e*P	Pb	10 38 10.1	-0.7
VPL3	V. Platanar	0.82	295	⇑*e*P	Pb	10 38 10.0	-0.9
QUEP	Quepos	0.82	227	P	Pb	10 38 10.1	-0.9
QUEP				S	Sg	10 38 22.5	+0.4
QUEP	Quepos	0.82	227	*e*P	Pb	10 38 10.1	-0.9
VPL1	V. Platanar	0.84	288	*e*P	Pb	10 38 10.5	-0.7
EDPE	Pejibaye, P	0.84	181	⇓*e*P	Pb	10 38 10.2	-1.0
ZARE	Zarcero	0.84	283	*e*P	Pb	10 38 11.1	-0.3
BURE	Buenos Aires	0.85	165	⇓*e*P	Pb	10 38 10.0	-1.4
PALD	Palmares	0.87	274	⇑*e*P	Pb	10 38 10.9	-0.8
VPL2	V. Platanar	0.87	291	*e*P	Pb	10 38 11.0	-0.8
TRB2	Turrubares	0.88	264	⇑P	Pb	10 38 11.0	-1.0
TRB2				S	Sb	10 38 23.4	0.0
TRB2	Turrubares	0.88	264	*e*P	Pb	10 38 11.0	-1.0
RAMO	San Ramon	0.90	276	*e*P	Pb	10 38 11.4	-0.9
QUEU	Ciudad Quesada	0.92	290	⇑*e*P	Pb	10 38 12.3	-0.3
RGM0	Gandoca	1.02	113	P	Pb	10 38 14.0	-0.3
RGM0				S	Sn	10 38 29.2	+0.8
RGM0	Gandoca	1.02	113	*e*P	Pb	10 38 13.7	-0.5
PANP	Palmar Norte	1.04	175	⇓*e*P	Pb	10 38 14.5	-0.1
EDP2	Potrero Grande	1.05	159	*e*P	Pb	10 38 13.9	-0.9
ARZA	Esparza	1.09	270	⇑*e*P	Pb	10 38 14.7	-0.9
BITO	Garabito Jaco	1.12	250	⇓*e*P	Pn	10 38 15.3	-0.6
VACR	Volcan Arenal	1.20	293	⇑*e*P	Pn	10 38 16.6	-0.5
CEDE	Laguna Cedeo	1.23	293	⇑*e*P	Pn	10 38 17.1	-0.4
ARE1	Arenal 1	1.23	292	⇑*e*P	Pn	10 38 17.2	-0.3
VARE2	V. Arenal	1.23	292	⇑*e*P	Pn	10 38 17.2	-0.4
CASO	Castillo	1.24	290	*e*P	Pn	10 38 17.1	-0.5

REZ	Monterrey de S	1.24	295	eP	Pn	10 38 17.3	-0.3
TABAC	Tabacon	1.29	293	⇑eP	Pn	10 38 18.0	-0.4
VITO	San Vito	1.31	154	eP	Pn	10 38 18.6	0.0
VITO	San Vito	1.31	154	⇑eP	Pb	10 38 19.1	-0.1
VITO				eS	Sg	10 38 39.0	+1.4
PAQE	Paquera	1.37	263	eP	Pn	10 38 19.2	-0.2
SCLRA	Santa Clara, W	1.39	147	⇑eP	Pn	10 38 19.8	0.0
SCLRA				eS	Sg	10 38 40.9	+0.7
CHIK	Chiripa	1.40	288	eP	Pn	10 38 20.2	+0.2
JTS	Las Juntas de	1.41	282	P	Pn	10 38 19.5	-0.4
JTS	Las Juntas de	1.41	282	⇑P	Pn	10 38 19.7	-0.2
JTS				S	Sb	10 38 38.8	+0.3
JTS	Las Juntas de	1.41	282	eP	Pn	10 38 19.7	-0.2
FITO	Golfito	1.42	164	eP	Pn	10 38 19.1	-1.0
FITO	Golfito	1.42	164	eS	Sn	10 38 38.5	+0.1
NELY	Ciudad Neily	1.47	156	eP	Pb	10 38 21.7	-0.3
NELY				eS	Sg	10 38 41.8	-0.9
BRU2	Volcan	1.47	144	⇓eP	Pn	10 38 20.6	-0.4
BRU2	Volcan	1.47	144	⇓eP	Pn	10 38 20.9	0.0
BRU2				eS	Sb	10 38 40.8	+0.2
LCHIL	Los Chiles	1.54	312	eP	Pn	10 38 21.7	0.0
TENO	El Achiote	1.56	297	eP	Pn	10 38 21.8	-0.3
CDITO	Canoas	1.57	155	⇓P	Pn	10 38 22.3	+0.2
CDITO				S	Sb	10 38 43.6	+0.4
CNAS	Canas	1.57	286	eP	Pn	10 38 22.5	+0.4
PIRO	Carate, Puerto	1.60	172	P	Pn	10 38 23.3	+0.8
PIRO				S	Sb	10 38 44.6	+0.5
BQTLY	Boquete Panama	1.64	139	⇓eP	Pn	10 38 23.2	0.0
BQTLY				eS	Sb	10 38 45.4	0.0
UPAL	Upala	1.69	302	P	Pn	10 38 23.7	0.0
UPAL				S	Sn	10 38 45.5	+0.6
CANAL	Canalete	1.69	299	⇑eP	Pn	10 38 23.2	-0.6
CUI	Cuipilapa	1.71	293	⇑eP	Pn	10 38 24.0	-0.1
VMAR	Armenia, Volca	1.73	298	⇑eP	Pn	10 38 24.1	-0.3
HORNC	Hornillas	1.75	294	eP	Pn	10 38 24.4	-0.3
BAGA	Bagaces	1.76	287	eP	Pn	10 38 25.3	+0.6
MESS	Mesas	1.77	295	eP	Pn	10 38 24.7	-0.3
CLARA	Aguas Claras	1.77	296	eP	Pn	10 38 24.9	0.0
RBALA	Bur	1.78	129	eP	Pn	10 38 24.3	-0.7
RBALA				eS	Sn	10 38 46.8	-0.4
CMARA	Lajas Hojancha	1.84	271	P	Pn	10 38 26.9	+1.0
CMARA				S	Sb	10 38 51.5	+0.5
CMARA	Lajas Hojancha	1.84	271	eP	Pn	10 38 26.7	+0.8
GPS2	Hotel Rincn d	1.92	293	eP	Pn	10 38 27.1	+0.1
JUD3	Juan Diaz 3	1.96	275	⇑eP	Pn	10 38 28.4	+0.9
LAPC	Finca la Perla	2.00	293	eP	Pn	10 38 27.9	-0.2
BLUN	Bluefields	2.00	354	P	Pn	10 38 27.3	-0.8
BLUN				S	Sn	10 38 53.0	+0.3
BLUN	Bluefields	2.00	354	⇓P	Pn	10 38 27.4	-0.8
BLUN				S	Sn	10 38 52.6	-0.1
ALIBA	Liberia Airpor	2.04	287	eP	Pn	10 38 29.6	+0.9
KKNTU	Kakintº	2.08	124	eP	Pn	10 38 28.6	-0.5
CARN	Rivas	2.26	302	P	Pn	10 38 31.6	-0.1
CARN				S	Sb	10 39 04.1	+0.9
LCRUZ	La Cruz	2.30	298	eP	Pn	10 38 32.1	-0.2
PDCAN	Manzana , Fuen	2.50	133	eP	Pn	10 38 36.3	+1.3
ACON	Acoyapa	2.52	321	P	Pn	10 38 34.6	-0.6
ACON				S	Sn	10 39 05.2	-0.2
MORN	Al O del Volca	2.57	307	P	Pn	10 38 35.7	-0.1
MORN				S	Sb	10 39 12.5	+0.6
JAPN	Al SSO del Vol	2.58	306	P	Pn	10 38 36.4	+0.4
NANN	Nandasmo	3.17	308	P	Pn	10 38 45.1	+0.9
NANN				S	Sb	10 39 31.3	+1.9
BOAB	BOACO BROADBAN	3.19	320	⇑P	Pn	10 38 43.6	-0.9
BOAB				S	Sb	10 39 29.9	-0.1
GMAL	Guarumal, Vera	3.20	134	P	Pn	10 38 45.4	+0.9
MGAN	Managua	3.40	309	P	Pg	10 38 59.5	-0.7
MATN	Matagalpa	3.72	322	P	Pn	10 38 51.1	-0.8
CACAO	El Cacao, Vera	3.75	135	P	Pn	10 38 55.0	+2.9
BCIP	Isla Barro Col	3.76	102	P	Pn	10 38 49.1	-3.2
AZU	Azuero	3.92	124	P	Pn	10 38 58.1	+3.7
CNGN	Cerro Negro	3.96	309	P	Pn	10 38 58.8	+3.7
CNGN	Cerro Negro	3.96	309	P	Pn	10 38 56.5	+1.5
PRVC	Isla de Provid	3.98	32	P	Pn	10 38 54.3	-1.0
PRVC	Isla de Provid	3.98	32	P	Pn	10 38 55.7	+0.3
BILN	Bilwi Airport	4.03	3	P	Pn	10 38 56.1	+0.1
RCPN	Sur Rio San Ju	4.29	325	P	Pn	10 38 59.5	-0.3
RCFN	Al S de San Ju	4.37	324	P	Pn	10 39 00.6	-0.2
RCVN	Varillal2	4.40	324	P	Pn	10 39 00.8	-0.4
OCON	Estacion meteo	4.60	322	P	Pn	10 39 03.7	-0.2
TGUH	Tegucigalpa,Un	5.43	318	P	Pb	10 39 28.3	-1.3
SJCC	San Jacinto, C	8.25	90	P	Pn	10 39 54.1	0.0

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*SOME **16** 11:10:18.5, 43.°65N×84.°65E, h5^{km}*
*NNC **16** 11:10:25.6±2.5, 43.°39N×84.°24E, h0^{km}, mb3.9, mpv3.7, Error ellipse: s-maj=20.3km s-min=10.6km az=140.0*
ISC 16 11:10:22.3±2.4, **43.°04N**±0.°09×**84.°34E**±0.°10, **h10**^{km}, **n35, σ2.^{s}78**/50, **6C-6D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KTMS	Ketmen	2.94	279	Pg	Pn	11 11 10.6	+1.3
	9.5nm,0.2s						
KTMS				Lg	Lg	11 11 47.3	
	55nm,0.3s						
DJR	Jarkent	3.54	293	Pg	Pb	11 11 24.3	-0.9
	13nm,0.3s						
DJR				Lg	Lg	11 12 11.2	
	33nm,0.3s						
DJR	Jarkent	3.54	293	eP	Pb	11 11 24.8	-0.4
	13nm,0.3s						
DJR				eS	Sb	11 12 12.1	+3.8
	33nm,0.3s						
PDGK	Podgornoye	3.56	276	⇓Pg	Pg	11 11 28.4	-2.1
	7.8nm,0.3s						
PDGK				⇑Lg	Lg	11 12 16.0	
	18nm,0.3s						
SHLS	Shalkode	3.58	274	Pg	Pb	11 11 23.6	-2.1
	36nm,0.3s						
SHLS				Lg	Lg	11 12 10.8	
	138nm,0.3s						
SHLS	Shalkode	3.58	274	eP	Pb	11 11 23.6	-2.1
	36nm,0.3s						
SHLS				eS	Sb	11 12 10.8	+1.5
	138nm,0.3s						
UZB	Uzynbulak	3.90	273	Pg	Pg	11 11 34.2	-2.8
	2.2nm,0.2s						
UZB				Lg	Lg	11 12 28.6	
	18nm,0.3s						
UZB	Uzynbulak	3.90	273	eP	Pg	11 11 34.2	-2.8
	2.2nm,0.2s						
UZB				eS	Sg	11 12 28.6	+1.2
	18nm,0.3s						
KNOS	Konyrlen	3.97	291	Pg	Pb	11 11 32.3	-0.1
	5.2nm,0.2s						
KNOS				Lg	Lg	11 12 25.4	
	40nm,0.3s						
MK31	Makanchi Array	4.03	340	⇑Pn	Pn	11 11 26.0	+1.9
	1.7nm,0.4s,baz=151,slow=16,SNR=28						
MK31				⇓Lg	Lg	11 12 20.7	
	49nm,0.6s,baz=149,slow=29						
MAKZ	Makanchi	4.13	337	⇑Pn	Pn	11 11 26.8	+1.4
	3.0nm,0.5s						
MAKZ				⇓Lg	Lg	11 12 24.0	
	16nm,0.6s						
KPKS	Kokpek	4.16	278	Pg	Pb	11 11 37.4	+1.8
	0.2nm,0.2s						
KPKS				Lg	Lg	11 12 34.0	
	33nm,0.4s						
KPKS	Kokpek	4.16	278	eP	Pb	11 11 37.4	+1.8
	0.2nm,0.2s						
KPKS				eS	Sg	11 12 34.0	-1.7
	33nm,0.4s						
KAPS	Kapalarasan	4.23	304	Pg	Pb	11 11 36.9	0.0
	3.3nm,0.1s						
KAPS				Lg	Lg	11 12 32.8	
	54nm,0.2s						
KAPS	Kapalarasan	4.23	304	eP	Pb	11 11 36.9	0.0
	3.3nm,0.1s						
KAPS				eS	Sb	11 12 32.8	+4.8
	54nm,0.2s						
SATY	Saty	4.35	272	Pg	Pg	11 11 44.0	-1.6
	2.6nm,0.1s						
SATY				Lg	Lg	11 12 45.7	
	34nm,0.2s						
SATY	Saty	4.35	272	eP	Pg	11 11 44.0	-1.6
	2.6nm,0.1s						
SATY				eS	Sg	11 12 45.7	+3.7
	34nm,0.2s						
BLB	Baldybastay	4.39	286	Pg	Pb	11 11 39.4	-0.2
	9.6nm,0.3s						
BLB				Lg	Lg	11 12 37.4	
	40nm,0.4s						
KURS	Kuram	4.53	278	Pg	Pg	11 11 45.0	-4.0
	3.5nm,0.5s						
KURS				Lg	Lg	11 12 46.9	
	11nm,0.7s						
KURS	Kuram	4.53	278	eP	Pg	11 11 45.0	-4.0
	3.5nm,0.5s						
KURS				eS	Sg	11 12 47.0	-0.8
	11nm,0.7s						
TDK	Taldyqorghan	4.71	297	Pg	Pb	11 11 47.5	+2.6
	77nm,0.3s						
TDK				Lg	Lg	11 12 51.2	
	72nm,0.3s						
TDK	Taldyqorghan	4.71	297	eP	Pb	11 11 47.5	+2.6
	77nm,0.3s						
TDK				eS	Sg	11 12 51.2	-2.2
	72nm,0.3s						
ARXS	Arharly	4.87	286	Pg	Pb	11 11 47.4	-0.4
	2.3nm,0.3s						
ARXS				Lg	Lg	11 12 50.8	
	30nm,0.5s						
ARXS	Arharly	4.87	286	eP	Pb	11 11 47.4	-0.4
	2.3nm,0.3s						
ARXS				eS	Sb	11 12 50.8	+4.3
	30nm,0.5s						
KOTS	Kotyrbulak	5.29	275	Pg	Pg	11 12 00.0	-3.7
	8.9nm,0.4s						
KOTS				Lg	Lg	11 13 12.4	
	19nm,0.5s						
KOTS	Kotyrbulak	5.29	275	eP	Pg	11 12 00.0	-3.7
	8.9nm,0.4s						
KOTS				eS	Sg	11 13 12.4	+0.2
	19nm,0.5s						
MDOK	Medeo	5.34	274	Pg	Pg	11 12 01.5	-3.1
	3.8nm,0.3s						
MDOK				Lg	Lg	11 13 15.2	
	14nm,0.5s						
MDOK	Medeo	5.34	274	eP	Pg	11 12 01.5	-3.1
	3.8nm,0.3s						
MDOK				eS	Sg	11 13 15.2	+1.4
	14nm,0.5s						
KUU	Kurty	5.89	281	Pg	Pb	11 12 08.3	+3.2
	3.1nm,0.1s						
KUU				Lg	Lg	11 13 26.7	
	9.1nm,0.2s						
KUU	Kurty	5.89	281	eP	Pb	11 12 08.3	+3.2
	3.1nm,0.1s						
KUU				eS	Sg	11 13 26.7	-4.5
	9.1nm,0.2s						
KST	Kastek	6.14	273	Pg	Pg	11 12 16.5	-3.4
	0.7nm,0.3s						
KST				Lg	Lg	11 13 40.5	
	4.5nm,0.7s						
KST	Kastek	6.14	273	eP	Pg	11 12 16.5	-3.4
	0.7nm,0.3s						
KST				eS	Sg	11 13 40.5	+1.1
	4.5nm,0.7s						
SGDS	Sogindy	7.10	277	Pg	Pg	11 12 33.7	-4.6
	1.1nm,0.4s						
SGDS				Lg	Lg	11 14 10.0	
	2.3nm,0.5s						
KURBB	Kurchatov Arra	8.56	334	⇑Pn	Pn	11 12 30.4	+4.1
	1.2nm,0.6s,baz=152,slow=12						
KURBB				⇓Sn	Sn	11 14 00.6	-2.3
	6.1nm,0.6s						
KURBB				⇓Lg	Lg	11 14 46.4	
	14nm,0.6s						
KURK	Kurchatov	8.62	335	⇑Pn	Pn	11 12 29.2	+2.2
	0.7nm,1.1s						
KURK				⇓Sn	Sn	11 13 59.1	-5.1
	1.9nm,0.8s						
KURK				⇑Lg	Lg	11 14 48.4	
	3.0nm,0.6s						

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*IDC **16** 11:38:15.5±0.7, 4.°13S×136.°02E, h0^{km}, mb4.2/9, mbtmp4.2/13, ML4.1/4, Error ellipse: s-maj=32.7km s-min=14.3km az=80.0*
*NEIC **16** 11:38:17.2±1.4, 4.°26S±0.°05×136.°10E±0.°08, h10^{km}±1^{km}, mb4.3/21, Error ellipse: s-maj=14.0km s-min=9.1km az=91.0*
*DJA **16** 11:38:19.6±0.2, 4°S±3°×13°6E±°, h10^{km}, M4.5/11, mB4.9/1, mb4.8/5, MLv4.4/11, Mw(mB)4.2/1*
ISC 16 11:38:17.0±0.5, **4.°39S**±0.°05×**136.°06E**±0.°06, **h10**^{km}, **n57, σ1.^{s}87**/60, **mb4.4**/21, **Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BAKI	Biak	3.18	1	P	Pn	11 39 06.7	-0.5
BAKI				AML	AML		
MWPI	Manokwari, Pap	3.99	330	P	Pn	11 39 19.8	+1.5
MWPI				AML	AML		
FAKI	Fak Fak	4.08	291		Pn	11 39 19.6	+0.1
FAKI				Sn	Sn	11 40 07.2	-0.1
FAKI	Fak Fak	4.08	291	P	Pn	11 39 20.9	+1.4
GENI	Genyem	4.47	67	P	Pb	11 39 37.2	+1.4
SAUI	Saumlaki	5.92	233	Pn	Pn	11 39 45.9	+0.9
SWI	Sorong	5.94	306	P	Pn	11 39 46.4	+1.3
	0.2nm70nm,0.6s						
SWI				AML	AML		
MTN	Manton Dam	9.71	210		Pn	11 40 38.6	+1.8
PMG	Port Moresby	12.09	115	Pn	Pn	11 41 09.9	+0.4
KNRA	Kununurra	13.31	212		Pn	11 41 28.7	+2.5
LUWI	Luwuk	13.68	284	Pn	Pn	11 41 30.6	-0.7
WB0	Warramunga Arr	15.37	186		Pn	11 41 53.5	-0.6
WRAB	Tennant Creek	15.54	186		Pn	11 41 56.5	+0.2
WR8	Warramunga Arr	15.54	185	Pn	Pn	11 41 56.3	-0.2
WR8				IAmb	IAmb	11 42 07.0	
	comp=Z,10nm,0.8s						
WRA	Warramunga Arr	15.55	186	Pn	Pn	11 41 56.2	-0.3
	comp=Z,0.4nm,0.3s,baz=6.5,slow=13,SNR=23						
WRA				Sn	Sn	11 44 42.5	-6.5
	comp=Z,0.8nm,0.3s,baz=358,slow=23,SNR=5.9						
WRA				Lg	Lg	11 46 30.3	
	comp=Z,0.6nm,0.3s,baz=8.8,slow=30,SNR=5.3						
	comp=Z,1.3nm,0.6s						
WRA				AML	AML		
WRA	Warramunga Arr	15.55	186	Pn	Pn	11 41 55.1	-1.4
FITZ	Fitzroy Crossi	17.01	216	Pn	Pn	11 42 14.7	-0.5
	comp=Z,0.7nm,0.3s,baz=43,slow=10.0,SNR=8.8						
FITZ				Sn	Sn	11 45 15.9	-8.6
	comp=Z,0.8nm,0.3s,baz=231,slow=12,SNR=7.0						
	comp=Z,3.5nm,0.5s						
FITZ				AML	AML		
FITZ	Fitzroy Crossi	17.01	216		Pn	11 42 17.5	+2.2
CTA	Charters Tower	18.49	148	P	P	11 42 35.3	+1.9
	comp=Z,0.5nm,0.3s,baz=325,slow=13,SNR=6.3						
	comp=Z,3.1nm,0.5s						
CTA				AML	AML		
CTAO	Charters Tower	18.49	148	P	P	11 42 34.3	+0.8
CTAO				IAmb	IAmb	11 42 45.1	
	comp=Z,18nm,1.1s						
AS31	Alice Springs	19.27	186		P	11 42 43.6	+1.6
AS31				IAmb	IAmb	11 42 49.3	
	comp=Z,7.3nm,0.7s						
ASAR	Alice Springs	19.27	186	P	P	11 42 44.8	+2.7
	comp=Z,1.3nm,0.3s,baz=10,slow=10,SNR=126						
ASAR				S	Sn	11 46 13.3	-6.0
	comp=Z,1.5nm,0.7s,baz=2.7,slow=28,SNR=4.6						
	comp=Z,15nm,0.7s						
ASAR				AML	AML		
ASAR	Alice Springs	19.27	186		P	11 42 42.6	+0.6
MBWA	Marble Bar	23.01	222	P	P	11 43 23.8	+1.5
MBWA				IAmb	IAmb	11 43 28.0	
	comp=Z,15nm,1.1s						
INKA	Innaminka	23.64	170		P	11 43 28.6	0.0
STKA	Stephens Creek	27.83	170	P	P	11 44 09.1	+2.4
	comp=Z,2.7nm,0.7s,baz=353,slow=8.8,SNR=5.1						
	comp=Z,2.7nm,0.7s						
ARMA	Armidale	29.77	152	P	P	11 44 25.6	+1.5
ARMA				IAmb	IAmb	11 44 42.3	
	comp=Z,4.0nm,1.1s						
JMZ	Minamidaito 2	30.40	351	P	P	11 44 27.8	-1.8
NJ2	Nanjing	39.77	337	eP	P	11 45 50.8	+0.6
NJ2				pmax	pmax		
	comp=Z,6.0nm,0.7s						
KS19	Wonju Array Si	42.37	350	P	P	11 46 11.0	-0.6
KS19				IAmb	IAmb	11 46 26.0	
	comp=Z,6.5nm,1.1s						
CMAR	Chiang Mai Arr	43.05	303	P	P	11 46 14.8	-2.6
	comp=Z,0.7nm,0.3s,baz=131,slow=6.7,SNR=5.0						
	comp=Z,0.7nm,0.3s						
CMAR	Chiang Mai Arr	43.05	303	P	P	11 46 16.9	-0.5
PZH	PanZhiHua	45.24	315	P	P	11 46 37.0	+2.0
HHC	Hu-ho-hao-te	50.30	336	eP	P	11 47 16.0	+1.9
HHC				pmax	pmax		
	comp=Z,19nm,0.7s						
HHC				pmax	pmax		
	comp=Z,57nm,4.9s						
LZH	Lanzhou	50.31	326	eP	P	11 47 16.4	+2.2
LZH				pP	sP	11 47 21.8	+3.1
LZH				pmax	pmax		
	comp=Z,16nm,1.0s						
WMQ	Urumqi	64.72	323	eP	P	11 48 56.0	+0.3
WMQ				pmax	pmax		
	comp=Z,17nm,0.7s						
MKAR	Makanchi Array	69.54	324	P	P	11 49 25.5	-0.7
	comp=Z,2.0nm,0.6s,baz=110,slow=8.4,SNR=20						
	comp=Z,2.0nm,0.6s						
PDGK	Podgornoye	69.58	319	P	P	11 49 25.5	-1.1
MAKZ	Makanchi	69.73	324	P	P	11 49 26.6	-0.7
ATKA	Atka Island	70.33	30	P	P	11 49 29.4	-1.4
ZALV	Zalesovo Beam	72.08	331	P	P	11 49 39.5	-2.0
	comp=Z,1.7nm,0.5s,baz=122,slow=7.5,SNR=7.0						
	comp=Z,1.7nm,0.5s						
ZALV	Zalesovo Beam	72.08	331	P	P	11 49 38.9	-2.5
KURK	Kurchatov	73.60	326	P	P	11 49 49.7	-0.8
KURK				IAmb	IAmb	11 49 50.1	
	comp=Z,1.9nm,0.8s						
KURBB	Kurchatov Arra	73.60	326	P	P	11 49 49.5	-1.1
	comp=Z,1.7nm,0.8s,baz=120,slow=5.1,SNR=11						
	comp=Z,1.7nm,0.8s						
KK31	Karatay Array	75.50	316	P	P	11 49 59.0	-2.8
KK31				IAmb	IAmb	11 50 08.7	
	comp=Z,1.9nm,1.1s						
KKAR	Karatay Array	75.50	316	P	P	11 49 59.0	-2.8
BVAR	Borovoye Array	79.19	326	P	P	11 50 21.4	-0.9
	comp=Z,2.6nm,0.7s,baz=121,slow=5.7,SNR=6.4						
	comp=Z,2.6nm,0.7s						
BORK	Borovoye	79.24	326	P	P	11 50 21.6	-0.9
BORK				IAmb	IAmb	11 50 24.3	
	comp=Z,4.2nm,1.0s						
KDAK	Kodiak Island	83.89	31	P	P	11 50 47.7	+0.7
	comp=Z,3.0nm,0.7s,baz=281,slow=5.2,SNR=1.2						
	comp=Z,3.0nm,0.7s						
KDAK	Kodiak Island	83.89	31	P	P	11 50 46.5	-0.4
G18K	Tagagawik	84.16	22	P	P	11 50 46.6	-1.6
G18K				IAmb	IAmb	11 50 48.3	
	comp=Z,3.0nm,0.9s						
M20K	Styx River	84.94	27	P	P	11 50 51.8	-0.6
J20K	Nowinta River	85.27	24	P	P	11 50 53.0	-0.9
J20K				IAmb	IAmb	11 50 55.1	
	comp=Z,4.4nm,1.1s						
QSPA	South Pole Qui	85.56	180	P	P	11 50 57.2	+1.8
	comp=Z,1.4nm,1.0s,baz=338,slow=7.3,SNR=2.8						
	comp=Z,1.4nm,1.0s						
QSPA	South Pole Qui	85.56	180	P	P	11 50 55.4	-0.1
ILAR	Eielson Array	88.45	25	P	P	11 51 06.8	-2.6
	comp=Z,0.6nm,0.7s,baz=266,slow=5.3,SNR=5.9						
	comp=Z,0.6nm,0.7s						
LPAZ	La Paz	148.46	131	PKPbc	PKPbc	11 58 06.4	+0.5
	comp=Z,1.3nm,0.6s,baz=205,slow=5.6,SNR=5.5						

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*JMA **16** 11:52:53.5±0.4, 24.°4N±0.°7×12°2E±°, h61^{km}±4^{km}, MV2.9/10, TAIWAN REGION*
*TAP **16** 11:52:54.4, 24.°46N×121.°82E, h50^{km}, ML3.6, B*
ISC 16 11:52:55.1±1.2, **24.°46N**±0.°02×**121.°86E**±0.°02, **h48**^{km}±4^{km}, **n173, σ1.^{s}20**/306, **9C-10D, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EWUT	Wuta	0.08	259	eP	Pn	11 53 02.3	-0.3
ESAO	Su ao	0.12	353	eP	Pn	11 53 02.8	+0.1
ESAO				S	Sn	11 53 08.9	+0.8
EAHA	Aohua	0.17	220	i P	Pn	11 53 02.7	-0.3
EAHA				eS	Sn	11 53 08.9	+0.4
NDS	Dongshan	0.22	323	⇓iP	Pn	11 53 03.5	+0.2
NDS				S	Sn	11 53 09.6	+0.4
LATG	Datong	0.31	284	⇑iP	Pn	11 53 03.9	-0.4
LATG				i S	Sn	11 53 10.8	0.0
TWE	Neicheng	0.31	326	⇓iP	Pn	11 53 04.3	+0.2
TWE				eS	Sn	11 53 10.8	+0.2
ILA	Ilan	0.32	342	eP	Pn	11 53 04.6	+0.4
ILA				eS	Sn	11 53 12.1	+1.4
EOS2	EOS2	0.34	97	eP	Pn	11 53 05.5	+1.2
NDT	Datong Townshi	0.35	294	P	Pn	11 53 04.3	-0.1
NDT				S	Sn	11 53 11.4	+0.2
ETL	Fush Village	0.37	216	eP	Pn	11 53 04.2	-0.6
ETL				eS	Sn	11 53 11.9	+0.3
NACB	Ninganchiao	0.37	220	P	Pn	11 53 03.9	-0.9
NACB	Ninganchiao	0.37	220	S	Sn	11 53 11.7	+0.1
NACB	Ninganchiao	0.37	220	P	Pn	11 53 03.7	-1.1
NACB	Ninganchiao	0.37	220	S	Sn	11 53 11.8	+0.1
NACB	Ninganchiao	0.37	220	⇑iP	Pn	11 53 04.0	-0.7
NACB				i S	Sn	11 53 11.6	-0.1
FUSB	Fushanzhiwuyua	0.39	320	⇓iP	Pn	11 53 04.9	-0.1
FUSB				i S	Sn	11 53 12.3	+0.2
EGS		0.39	10	P	Pn	11 53 05.5	+0.6
EGS				eS	Sn	11 53 13.3	+1.3
NTC	Toucheng	0.39	356	P	Pn	11 53 05.5	+0.6
ETLH	Xiulin Townshi	0.43	234	i P	Pn	11 53 04.9	-0.5
ETLH				i S	Sn	11 53 12.6	-0.3
NNSB	Datong	0.44	266	⇑iP	Pn	11 53 05.0	-0.5
NNSB				eS	Sn	11 53 12.3	-0.8
NNSH	Datong	0.44	266	i P	Pn	11 53 05.3	-0.3
NNSH				i S	Sn	11 53 13.1	0.0
NNS	Nan Shan	0.44	267	⇑eP	Pn	11 53 05.2	-0.5
NNS				i S	Sn	11 53 13.0	-0.2
TWD	Chiawan	0.45	212	⇑iP	Pn	11 53 05.0	-0.6
TWD				eS	Sn	11 53 12.9	-0.2
EOS3	EOS3	0.45	112	eP	Pn	11 53 06.2	+0.7
NWLT	Wulai	0.45	314	eP	Pn	11 53 05.5	-0.2
NWLT				i S	Sn	11 53 13.4	+0.1
YHNB	Yeheng	0.49	295	P	Pn	11 53 05.7	-0.4
YHNB	Yeheng	0.49	295	P	Pn	11 53 05.9	-0.2
YHNB	Yeheng	0.49	295	S	Sn	11 53 14.2	+0.2
YHNB	Yeheng	0.49	295	⇓iP	Pn	11 53 05.8	-0.4
YHNB				S	Sn	11 53 13.5	-0.5
NSK	Sanguang	0.51	295	⇓iP	Pn	11 53 05.9	-0.4
NSK				i S	Sn	11 53 13.8	-0.6
TIPB	Shuangxi	0.51	357	eP	Pn	11 53 06.8	+0.4
TIPB				eS	Sn	11 53 15.4	+1.0
HWA	Hwalien	0.53	206	eP	Pn	11 53 06.6	0.0
HWA				eS	Sn	11 53 16.1	+1.2
EOS4	EOS4	0.54	129	i P	Pn	11 53 06.4	+0.1
EOS4				S	Sn	11 53 15.4	+1.0
TWB1	Santiao Chiao	0.56	12	i P	Pn	11 53 07.0	+0.1
TWB1				i S	Sn	11 53 16.4	+1.0
TWA	Mucha	0.57	334	⇓iP	Pn	11 53 07.1	0.0
TWA				i S	Sn	11 53 16.8	+1.0
NHDH	Xindian Distri	0.59	329	i P	Pn	11 53 07.1	-0.2
NHDH				i S	Sn	11 53 16.7	+0.7
ETM	Tongmen	0.60	214	eP	Pn	11 53 06.3	-1.1
ETM				eS	Sn	11 53 15.9	-0.3
LXIB	Xiulin Townshi	0.60	223	⇑iP	Pn	11 53 06.4	-1.2
LXIB				eS	Sn	11 53 15.9	-0.6
FUSS	Fushou	0.60	249	i P	Pn	11 53 07.3	-0.4
FUSS				i S	Sn	11 53 17.0	+0.2
WFSB	Wu-fen Shan	0.61	353	i P	Pn	11 53 08.1	+0.4
WFSB				S	Sn	11 53 17.9	+1.2
TATO	Taipei	0.61	327	P	Pn	11 53 07.1	-0.5
TATO	Taipei	0.61	327	S	Sn	11 53 16.6	-0.1
TATO	Taipei	0.61	327	P	Pn	11 53 07.4	-0.2
TATO	Taipei	0.61	327	S	Sn	11 53 16.9	+0.2
TATO	Taipei	0.61	327	⇓iP	Pn	11 53 07.2	-0.4
TATO				i S	Sn	11 53 16.6	-0.1
WHF	Hehuan Shan	0.63	240	i P	Pn	11 53 07.8	-0.5
WHF				i S	Sn	11 53 17.5	-0.1
SXI1	Grass Mountain	0.63	1	i P	Pn	11 53 08.0	+0.1
SXI1				i S	Sn	11 53 18.2	+1.0
TEYL	Yanliau Villag	0.64	202	i P	Pn	11 53 07.6	-0.3
TEYL				eS	Sn	11 53 18.3	+1.1
TWT	Tachien	0.66	252	i P	Pn	11 53 08.3	0.0
TWT				i S	Sn	11 53 18.0	+0.1
TDCB	Techi	0.67	252	⇑iP	Pn	11 53 08.4	-0.1
TDCB				i S	Sn	11 53 17.9	-0.3
TNOU	National Taiwa	0.69	353	i P	Pn	11 53 08.6	0.0
TNOU				S	Sn	11 53 19.4	+0.9
KSHI	Guanxi Townshi	0.70	297	i P	Pn	11 53 08.8	+0.1
KSHI				i S	Sn	11 53 19.9	+1.4
NFF	Wufeng Townshi	0.70	284	i P	Pn	11 53 08.7	-0.1
NFF				i S	Sn	11 53 18.3	-0.3
SHUL	Shoufeng	0.72	202	eP	Pn	11 53 09.2	+0.1
SHUL				eS	Sn	11 53 20.6	+1.5
YM01	YM01	0.73	339	⇓iP	Pn	11 53 08.8	-0.4
YM01				i S	Sn	11 53 19.8	+0.4
ESL	Shilin	0.75	211	⇑iP	Pn	11 53 07.8	-1.6

ESL				eS	Sn	11 53 19.8	0.0
NJD	Zhudong	0.75	291	iP	Pn	11 53 09.7	+0.2
NJD				iS	Sn	11 53 21.0	+1.1
TWS1	Kuangyinshan	0.75	328	iP	Pn	11 53 09.2	-0.2
TWS1				iS	Sn	11 53 20.5	+0.6
ZUZH	Zhuzihu	0.76	338	⇓iP	Pn	11 53 09.1	-0.4
ZUZH				iS	Sn	11 53 19.9	-0.1
YM08	YM08	0.77	341	iP	Pn	11 53 08.9	-0.7
YM08				S	Sn	11 53 19.7	-0.5
ANP	Anpu	0.79	337	iP	Pn	11 53 09.2	-0.8
ANP				S	Sn	11 53 20.1	-0.7
LIOB	Emei	0.79	284	iP	Pn	11 53 09.9	-0.1
LIOB				iS	Sn	11 53 21.5	+0.7
NTST	Danshui	0.79	332	iP	Pn	11 53 09.8	-0.2
NTST				iS	Sn	11 53 21.9	+1.1
NCUH	Zhongli	0.80	310	iP	Pn	11 53 09.4	-0.6
NCUH				S	Sn	11 53 21.3	+0.4
NSTT	Nanjuang	0.80	282	iP	Pn	11 53 09.8	-0.2
NSTT				iS	Sn	11 53 21.4	+0.4
OWD	Renai	0.80	231	iP	Pn	11 53 09.8	-0.4
OWD				iS	Sn	11 53 20.8	-0.5
TEGC	Jichi Village	0.80	201	iP	Pn	11 53 10.1	0.0
TEGC				eS	Sn	11 53 22.2	+1.2
WUSB	Renai	0.82	236	⇑iP	Pn	11 53 10.2	-0.3
WUSB				iS	Sn	11 53 21.8	+0.1
TWY	Chenhua	0.85	344	iP	Pn	11 53 10.7	+0.1
TWY				iS	Sn	11 53 22.5	+0.4
WHP	Taichung City	0.85	258	iP	Pn	11 53 11.4	+0.5
WHP				iS	Sn	11 53 23.1	+0.7
WARBT	Fenglin Townsh	0.86	210	iP	Pn	11 53 08.8	-2.0
WARBT				iS	Sn	11 53 21.7	-0.7
SBCB	Hsinchu	0.86	293	iP	Pn	11 53 10.4	-0.5
SBCB				eS	Sn	11 53 23.9	+1.5
HSN	Hsinchu	0.88	293	eP	Pn	11 53 12.3	+1.2
HSN				iS	Sn	11 53 22.9	0.0
DPDB	Guoxing	0.95	244	iP	Pn	11 53 12.0	-0.2
DPDB				iS	Sn	11 53 25.5	+0.8
WCS	Beigang Elemen	0.95	245	iP	Pn	11 53 12.2	+0.1
WCS				iS	Sn	11 53 25.8	+1.2
VWDT	VWDT	0.96	223	iP	Pn	11 53 11.8	-0.4
VWDT				eS	Sn	11 53 25.9	+1.0
NMLH	Miaoli	0.98	275	iP	Pn	11 53 12.8	+0.4
NMLH				S	Sn	11 53 26.6	+1.3
JYNG	Yonagunijimaku	0.99	90	eP	Pn	11 53 12.5	-0.1
JYNG				eS	Sn	11 53 26.0	+0.5
TWQ1	Liyutan	1.00	264	eP	Pn	11 53 14.2	+1.5
TWQ1				eS	Sn	11 53 27.1	+1.4
NSY	Sanyi	1.00	268	iP	Pn	11 53 12.7	-0.1
NSY				eS	Sn	11 53 25.6	-0.2
HGSD	Ruisui	1.04	203	iP	Pn	11 53 13.2	-0.2
HGSD				S	Sn	11 53 27.3	+0.5
SMLT	Sun Moon Lake	1.05	237	iP	Pn	11 53 13.6	+0.1
SMLT				eS	Sn	11 53 29.6	+2.5
YOJ	Yonaguni jima	1.05	90	iP	Pn	11 53 13.2	-0.2
YOJ				S	Sn	11 53 26.8	-0.1
YOJ	Yonaguni jima	1.05	90	eP	Pn	11 53 13.2	-0.2
YOJ				eS	Sn	11 53 26.3	-0.6
SSLB	Suanglung	1.06	231	P	Pn	11 53 13.4	-0.3
SSLB	Suanglung	1.06	231	S	Sn	11 53 29.6	+2.2
SSLB	Suanglung	1.06	231	P	Pn	11 53 14.0	+0.3
SSLB	Suanglung	1.06	231	S	Sn	11 53 28.4	+1.0
SSLB	Suanglung	1.06	231	iP	Pn	11 53 13.3	-0.3
SSLB				S	Sn	11 53 28.3	+0.9
EHY	Hungye	1.07	207	iP	Pn	11 53 12.9	-0.8
EHY				iS	Sn	11 53 25.8	-1.6
TYC	Yuchr	1.07	239	iP	Pn	11 53 14.0	+0.3
TYC				iS	Sn	11 53 28.3	+0.9
EHYH	Wanrong	1.07	206	iP	Pn	11 53 12.7	-1.1
EHYH				iS	Sn	11 53 26.3	-1.1
WDJ	Dajia District	1.12	264	eP	Pn	11 53 14.4	0.0
WDJ				S	Sn	11 53 29.3	+0.7
TCU	Taichung	1.12	254	iP	Pn	11 53 14.8	+0.4
TCU				eS	Sn	11 53 30.5	+1.7
WWF	Wufeng	1.14	249	iP	Pn	11 53 14.9	+0.3
WWF				iS	Sn	11 53 31.1	+1.9
PCYT	Pengchaiyu	1.18	9	iP	Pn	11 53 15.0	-0.1
PCYT				eS	Sn	11 53 32.1	+1.9
YULB	Yu-li	1.18	206	P	Pn	11 53 14.3	-0.9
YULB	Yu-li	1.18	206	S	Sn	11 53 29.8	-0.4
YULB	Yu-li	1.18	206	P	Pn	11 53 16.3	+1.1
YULB	Yu-li	1.18	206	S	Sn	11 53 29.7	-0.4
WHYT	Xinyi Township	1.19	231	iP	Pn	11 53 16.4	+1.0
WHYT				iS	Sn	11 53 32.6	+2.0
ECBN	Changbin	1.20	198	P	Pn	11 53 14.9	-0.5
ECBN				eS	Sn	11 53 30.8	+0.3
EYUL	Yuli	1.21	204	iP	Pn	11 53 15.5	-0.1
EYUL				eS	Sn	11 53 30.0	-0.9
TWF1	Yuli	1.22	205	eP	Pn	11 53 13.7	-2.0
TWF1				S	Sn	11 53 30.7	-0.3
WNT	Mingjian	1.22	242	iP	Pn	11 53 16.2	+0.5
WNT				iS	Sn	11 53 33.2	+2.1
WCHH	Zhanghua	1.25	253	eP	Pn	11 53 17.6	+1.5
WCHH				eS	Sn	11 53 33.8	+2.0
WCH1	Changhua City	1.26	252	P	Pn	11 53 17.8	+1.5
WCH1				S	Sn	11 53 34.4	+2.4
YUS	Yu-Shan	1.27	221	iP	Pn	11 53 16.4	-0.5
YUS				iS	Sn	11 53 34.1	+1.0
CHKH	Chenggong	1.33	199	iP	Pn	11 53 16.1	-1.2
CHKH				eS	Sn	11 53 35.2	+1.4
ALS	Alishan	1.35	226	iP	Pn	11 53 18.4	+0.6
ALS				iS	Sn	11 53 36.6	+1.9
FULB	Fuli	1.36	203	iP	Pn	11 53 17.2	-0.4
FULB				iS	Sn	11 53 35.8	+1.2
CHN5	Tsauling	1.38	232	iP	Pn	11 53 18.5	+0.5
CHN5				iS	Sn	11 53 37.4	+2.2
WGK	Gukeng	1.42	237	P	Pn	11 53 18.5	+0.1
WGK				iS	Sn	11 53 38.2	+2.4
CHKT	Chengkung	1.43	199	iP	Pn	11 53 17.6	-1.0
CHKT				eS	Sn	11 53 37.1	+0.9
WDLH	Douliu	1.43	238	iP	Pn	11 53 19.3	+0.7
WDLH				iS	Sn	11 53 38.3	+2.0
EHD	Haiduan	1.44	205	iP	Pn	11 53 17.6	-1.1
EHD				eS	Sn	11 53 35.5	-0.9
WRL	Guolierlin Hig	1.46	248	iP	Pn	11 53 18.5	-0.5
WRL				eS	Sn	11 53 36.4	-0.7
ECS	Chishang	1.48	203	P	Pn	11 53 20.2	+0.9
ECS				iS	Sn	11 53 37.8	+0.3
ELDTW	Lidau	1.48	212	iP	Pn	11 53 18.7	-0.7
ELDTW				iS	Sn	11 53 37.5	-0.2
RLNB	Erlin	1.48	248	iP	Pn	11 53 19.1	-0.1
RLNB				S	Sn	11 53 38.5	+1.0
WCKO	Fanlu	1.53	229	iP	Pn	11 53 21.2	+1.2
WCKO				eS	Sn	11 53 42.3	+3.5
WTK	Tuku	1.55	241	iP	Pn	11 53 20.8	+0.6
WTK				iS	Sn	11 53 40.8	+1.6
EDH	Donghe	1.57	199	iP	Pn	11 53 19.2	-1.2
EDH				eS	Sn	11 53 38.4	-1.1
CHN4	Tsaushan	1.60	227	iP	Pn	11 53 22.0	+1.1
CHN4				iS	Sn	11 53 43.5	+3.1
TPUB	Ta-pu	1.61	225	S	Sn	11 53 42.2	+1.4
TPUB	Ta-pu	1.61	225	P	Pn	11 53 21.9	+0.8
TPUB	Ta-pu	1.61	225	iP	Pn	11 53 22.1	+1.0
TPUB				iS	Sn	11 53 43.0	+2.3
STYH	Taoyuan	1.62	218	iP	Pn	11 53 21.4	+0.2
STYH				iS	Sn	11 53 43.5	+2.5
CHY	Chiayi	1.63	234	iP	Pn	11 53 21.7	+0.5
CHY				iS	Sn	11 53 42.8	+1.8
WTP	Ta-pu	1.66	224	iP	Pn	11 53 22.6	+0.7
WTP				iS	Sn	11 53 45.0	+3.0
LONT	Longtian	1.69	204	iP	Pn	11 53 20.4	-1.7
LONT				iS	Sn	11 53 42.1	-0.4
WSF	Szhu	1.71	242	iP	Pn	11 53 22.1	-0.3
WSF				iS	Sn	11 53 44.1	+1.1
IRIF	Iriomote-Funau	1.71	94	eS	Sn	11 53 42.3	-0.8
TWK	Hsinying	1.73	227	⇓iP	Pn	11 53 23.7	+1.0
TWK				iS	Sn	11 53 46.4	+2.7
CHN1	Nanshi	1.76	224	iP	Pn	11 53 24.2	+1.0
CHN1				iS	Sn	11 53 47.5	+3.1
WSL	Shuilin Townsh	1.76	238	iP	Pn	11 53 23.0	-0.1
WSL				iS	Sn	11 53 45.9	+1.5
TWG	Pinlang	1.79	204	eP	Pn	11 53 21.6	-1.9
TWG				eS	Sn	11 53 43.0	-2.0
TWGBT	Beinan	1.79	204	P	Pn	11 53 24.5	+1.0
TWGBT	Beinan	1.79	204	iP	Pn	11 53 21.5	-1.9
TWGBT				eS	Sn	11 53 43.0	-1.9
SGST	Jiashian	1.80	221	iP	Pn	11 53 23.9	+0.2
SGST				eS	Sn	11 53 46.8	+1.4
ICHU	Yijhu	1.81	233	iP	Pn	11 53 24.5	+0.7
ICHU				iS	Sn	11 53 48.0	+2.3
SLGT	Liugui	1.83	218	P	Pn	11 53 24.8	+0.7
SLGT				eS	Sn	11 53 49.8	+3.6
CHN8	Yiju	1.87	234	eP	Pn	11 53 25.9	+1.3
CHN8				S	Sn	11 53 49.7	+2.6
CHN3	Shinhua	1.94	225	eP	Pn	11 53 25.9	+0.3
JKRS	Kuro-shima	1.97	96	eP	Pn	11 53 26.1	+0.1
JKRS				eS	Sn	11 53 50.0	+0.4
SCST	Cishan	2.01	219	iP	Pn	11 53 27.6	+1.2
SCST				S	Sn	11 53 54.0	+3.6
ECL	Taimali	2.03	204	iP	Pn	11 53 26.6	-0.2
ECL				eS	Sn	11 53 49.4	-1.6
SSD	Sandimen	2.04	214	iP	Pn	11 53 28.1	+1.1
SSD				iS	Sn	11 53 54.2	+2.9
TSMG	Majia	2.07	213	iP	Pn	11 53 28.1	+0.7
TSMG				iS	Sn	11 53 54.2	+2.2
TSCK	Chigu Township	2.08	232	iP	Pn	11 53 28.4	+0.8
TSCK				eS	Sn	11 53 53.1	+0.8
TWM1	Shoushan	2.10	219	eP	Pn	11 53 30.6	+2.9
TWM1				S	Sn	11 53 56.8	+4.2
MASBT	Mashibuluo	2.16	212	eP	Pn	11 53 29.2	+0.7
MASBT				eS	Sn	11 53 55.9	+1.8
JISG	Ishigakijimahi	2.24	86	eP	Pn	11 53 29.2	-0.4
JISG				eS	Sn	11 53 55.1	-0.9
VWUC	VWUC	2.25	284	eP	Pn	11 53 28.2	-1.6
EAST	Anshuo	2.27	204	iP	Pn	11 53 30.0	-0.1
TAW	Tawu	2.27	203	eP	Pn	11 53 32.0	+1.9
PNG	Penghu	2.29	248	P	Pn	11 53 28.8	-1.5
PNG				eS	Sn	11 53 54.9	-2.4
PHUB	P'eng-hu	2.29	246	iP	Pn	11 53 28.9	-1.5
PHUB				eS	Sn	11 53 54.8	-2.7
WDGT	Dungji	2.34	240	iP	Pn	11 53 30.5	-0.6
WDGT				S	Sn	11 53 58.3	-0.3
SCZT	Fangliau	2.37	209	iP	Pn	11 53 32.5	+1.1
SCZT				iS	Sn	11 54 01.7	+2.4
MATB	Ma-tsu	2.42	315	eP	Pn	11 53 30.3	-1.7
SLIU	Shizi	2.44	204	iP	Pn	11 53 33.5	+1.1
SLIU				eS	Sn	11 54 03.5	+2.5
LYUB	Lan-yu	2.46	186	iP	Pn	11 53 31.2	-1.5
LYUB				S	Sn	11 53 58.1	-3.5
VCHM	Qimei	2.55	241	iP	Pn	11 53 32.4	-1.5
VCHM				eS	Sn	11 54 01.7	-2.1
PTMZ	Houxiangcun	2.56	284	eP	Pn	11 53 32.5	-1.5
SMST	Manzhou Townsh	2.60	201	eP	Pn	11 53 35.6	+0.9
SMST				iS	Sn	11 54 04.4	-0.7
LYJJ	Jianjiangzhen	2.82	318	eP	Pn	11 53 35.7	-1.8
XPSS	Dashiqiu	2.88	329	eP	Pn	11 53 37.2	-1.3
MHZQ	Yeshan	3.04	303	eP	Pn	11 53 38.4	-2.3
JMJ	Miyako jima 2	3.15	83	eP	Pn	11 53 43.0	+0.9
KNMB	Chin-men Tao	3.16	271	eP	Pn	11 53 40.8	-1.5
AXDP	Jialang	3.56	278	eP	Pn	11 53 46.9	-1.0
ZPLA	Ao Xicun	3.79	263	eP	Pn	11 53 49.8	-1.2

MAN ***16*** *12:05:57.0, 3°.48N×126°.23E, h125^{km}, MS4.2*

IDC ***16*** *12:05:59.4±1.4, 3°.98N×125°.88E, h0^{km}, mb3.7/6, mbtmp3.7/6, Error ellipse: s-maj=108.1km s-min=19.3km az=68.0*

ISC 16 12:06:09.8±0.9**, 4°.31N**±0°.09×**126°.8E**±0°.2**, h100**^{km}**, n11,** σ1^s.**75**/13**, mb3.7**/6**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	Don Marcelino,	2.08	329	eP	Pn	12 06 42.1	-1.2
DDMP				eS	Sn	12 07 07.9	-1.1
KCP	Kidapawan	3.17	328	eP	Pn	12 07 00.7	+2.8
CDOP	Cateel, Davao	3.47	354	iP	Pn	12 07 02.2	+0.4
CDOP				iS	Sn	12 07 40.6	-1.4
CTBH	Cotabato--PC H	3.84	319	iP	Pn	12 07 07.7	+0.9
BIPH	Bislig	3.87	354	eP	Pn	12 07 07.8	+0.5
BIPH				eS	Sn	12 08 09.7	+18
FITZ	Fitzroy Crossi	22.30	183	P	P	12 10 55.8	-3.3
	0.7nm,0.3s,baz=13,slow=9.8,SNR=8.3 0.7nm,0.3s						
WRA	Warramunga Arr	25.22	163	P	P	12 11 25.5	-0.9
	2.2nm,0.7s,baz=338,slow=11,SNR=23 2.2nm,0.7s						
ASAR	Alice Springs	28.66	166	P	P	12 11 57.0	-0.3
	0.3nm,0.7s,baz=341,slow=7.9,SNR=7.0 0.3nm,0.7s						
STKA	Stephens Creek	38.65	160	P	P	12 13 25.7	+2.1
	1.7nm,0.6s,baz=326,slow=11,SNR=2.7 1.7nm,0.6s						
MKAR	Makanchi Array	57.11	325	P	P	12 15 45.7	-0.2
	0.5nm,0.8s,baz=118,slow=8.3,SNR=2.8 0.5nm,0.8s						
KURBB	Kurchatov Arra	61.28	327	P	P	12 16 15.3	+0.8
	0.9nm,0.7s,baz=124,slow=6.4,SNR=7.7 0.9nm,0.7s						

IDC ***16*** *12:06:24.4±0.6, 19°.39N×69°.88W, h0^{km}, mb3.9/11, mbtmp4.0/15, ML3.5/4, MS3.5/36, Error ellipse: s-maj=16.1km s-min=13.7km az=46.0*

CATAC ***16*** *12:06:26.6±0.6, 19°N±4°×7°0W±°, h88^{km}±6^{km}, M4.8/9, mb5.0/6, mB5.0/4, MLv4.9/9, Mw(mB)4.3/4, Error ellipse: s-maj=9.1km s-min=7.2km az=43.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M$_{rr}$3.52; M$_{\theta\theta}$-4.53; M$_{\phi\phi}$1.01; M$_{r\theta}$-2.96; M$_{\theta\phi}$4.79; M$_{\phi r}$3.76; Fault plane solution: M$_0$7.92470×10^{15} NP1:ϕ_s82.81867°, δ37.18525°, λ31.16424°. NP2:ϕ_s327.09341°, δ71.77378°, λ122.98982°. Principal axes: T 6.2545, Plg51.6748°, Azm275.4726°; N 2.6574, Plg31.1428°, Azm135.6163°; P -8.9119, Plg20.0098°, Azm32.9045°; confirmed*

GFZ ***16*** *12:06:27.0±0.3, 19°N±4°×7°0W±°, h10^{km}, M4.5/12, mb4.5/12, confirmed*

SDD ***16*** *12:06:26.1±2.3, 19°.19N×69°.82W, h30^{km}±12^{km}, MD4.1, ML4.3, MW4.5, Presumed earthquake*

PTWC ***16*** *12:06:28, 19°.20N×69°.80W, h10^{km}, Ml4.5/19*

OSPL ***16*** *12:06:28.9±2.0, 19°.23N×69°.80W, h9^{km}±6^{km}, ML4.3, Presumed earthquake*

NEIC ***16*** *12:06:29.1±1.4, 19°.15N±0°.03×69°.93W±0°.03, h29^{km}±3^{km}, mb4.5/92, Error ellipse: s-maj=5.7km s-min=3.3km az=215.0*

RSNC ***16*** *12:06:34.6±0.8, 19°N±4°×7°0W±°, h0^{km}, M4.6, mB4.8, mb4.6, ML3.8, Mw(mB)4.0*

ISC 16 12:06:27.6±0.7**, 19°.19N**±0°.03×**69°.85W**±0°.02**, h25**^{km}±5^{km}**, n264,** σ1^s.**50**/257**, mb4.4**/56**, MS3.6**/32**, 12C-12D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NADR	Nagua	0.17	359	P	Pb	12 06 32.2	-0.6
NADR				S	Sb	12 06 37.1	+0.7
NADR	Nagua	0.17	359	⇑ePg	Pb	12 06 32.2	-0.6
NADR				⇑eSg	Sb	12 06 36.5	+0.1
NADR				IAML		12 06 36.7	
	comp=E,58nm,0.6s						
NADR				IAML		12 06 36.9	
	comp=N,50nm,0.4s						
SMDR	Samana, DR	0.64	80	P	Pb	12 06 38.7	-1.3
SMDR	Samana, DR	0.64	80	⇑ePg	Pb	12 06 38.6	-1.5
SMDR				IAML		12 06 50.0	
	comp=E,13μm,0.6s						
SMDR				IAML		12 06 50.6	
	comp=N,11μm,0.9s						
SDD	Santo Domingo	0.73	185		Pn	12 06 42.5	+0.3
SDD				Sn	Sb	12 06 50.5	-0.6
SDD	Santo Domingo	0.73	185	P	Pn	12 06 42.6	+0.3
SDD	Santo Domingo	0.73	185	P	Pn	12 06 42.7	+0.5
SDD				S	Sn	12 06 53.5	+0.9
SDD	Santo Domingo	0.73	185	⇓iP	Pn	12 06 42.5	+0.3
SDD				eS	Sn	12 06 53.0	+0.5
SDD				IAML		12 06 55.1	
	comp=Z,14μm,0.8s						
SDD	Santo Domingo	0.73	185	⇓ePg	Pn	12 06 42.5	+0.3
SDD				⇓eSg	Sn	12 06 53.3	+0.7
SDD				IAML		12 06 53.5	
	comp=N,5μm,0.8s						
SDD				IAML		12 06 56.8	
	comp=E,6μm,1.1s						
ABDR	Alto Bandera	0.82	243	⇓ePg	Pb	12 06 43.5	0.0
ABDR				IAML		12 06 57.6	
	comp=N,16μm,0.6s						
SC01	Santiago de lo	0.86	286		Pn	12 06 44.4	+0.3
SC01				Sn	Sn	12 06 55.8	-0.1
SC01	Santiago de lo	0.86	286	P	Pn	12 06 44.5	+0.3
SC01	Santiago de lo	0.86	286	P	Pn	12 06 44.2	0.0
SC01				S	Sn	12 06 59.6	+3.6
SC01	Santiago de lo	0.86	286	⇓iP	Pn	12 06 44.4	+0.3
SC01				eS	Sn	12 06 56.8	+0.8
SC01				IAML		12 07 04.9	
	comp=Z,9μm,0.7s						
SC01	Santiago de lo	0.86	286	ePg	Pn	12 06 44.5	+0.3
SC01				IAML		12 07 00.6	
	comp=N,21μm,0.3s						
SC01				IAML		12 07 04.9	
	comp=E,22μm,0.4s						
SODR	Sosua Marina B	0.89	310	ePg	Pn	12 06 44.8	+0.3
SODR				IAML		12 07 06.6	
	comp=E,26μm,0.7s						
SODR				IAML		12 07 12.8	
	comp=N,24μm,1.3s						
BANI	BANI	0.92	211		Pn	12 06 45.2	+0.2
BANI				Sn	Sn	12 06 58.1	+0.5
BANI	BANI	0.92	211	⇓ePg	Pn	12 06 45.3	+0.2
BANI				⇓eSg	Sn	12 06 58.8	+1.2
BANI				IAML		12 07 00.1	
	comp=E,8μm,0.1s						
BANI				IAML		12 07 01.8	
	comp=N,12μm,0.1s						
HIDR	Higuey Centro	1.23	119	⇑ePg	Pn	12 06 49.4	+0.3
HIDR				IAML		12 07 12.1	
	comp=E,4μm,0.2s						
HIDR				IAML		12 07 12.9	
	comp=N,5μm,0.3s						
MADR	Mao Valverde	1.24	288	⇑ePg	Pb	12 06 50.4	+0.1
MADR				IAML		12 07 14.9	
	comp=E,35μm,0.5s						
MADR				IAML		12 07 15.0	
	comp=N,56μm,0.4s						
LUDR	Luperon	1.25	304	ePg	Pb	12 06 50.4	-0.2
LUDR				IAML		12 07 17.5	
	comp=E,70μm,0.4s						
SDDR	Presa de Saban	1.37	262		Pn	12 06 51.6	+0.4
SDDR				Sn	Sn	12 07 07.9	-0.7
SDDR	Presa de Saban	1.37	262	⇓iP	Pb	12 06 52.9	+0.3
SDDR				iS	Sb	12 07 12.0	+2.2
SDDR	Presa de Saban	1.37	262	eP	Pn	12 06 51.6	+0.4
SDDR				eS	Sb	12 07 11.0	+1.2
SDDR	Presa de Saban	1.37	262	iP	Pb	12 06 52.2	-0.4
SDDR				eS	Sb	12 07 11.6	+1.8
SDDR	Presa de Saban	1.37	262	ePg	Pb	12 06 52.7	+0.1
SDDR				eSg	Sb	12 07 12.2	+2.4
SDDR				IAML		12 07 14.3	
	comp=E,4μm,0.6s						
SDDR				IAML		12 07 17.3	
	comp=N,6μm,0.6s						
LOPP1	Punta Rusia, P	1.44	298	⇑iP	Pb	12 06 53.3	-0.3
LOPP1				eS	Sb	12 07 12.6	+1.1
LOPP1				IAML		12 07 23.1	
	comp=Z,17μm,0.7s						
REDR	Restauracion	1.46	270	ePg	Pb	12 06 57.7	+3.7
REDR				IAML		12 07 23.9	
	comp=N,16μm,0.2s						
REDR				IAML		12 07 24.9	
	comp=E,7μm,0.2s						
PCDR	Punta Cana, DR	1.54	115		Pb	12 06 55.2	-0.3
PCDR				Sn	Sb	12 07 15.6	+1.0
PCDR	Punta Cana, DR	1.54	115	P	Pb	12 06 55.1	-0.3
PCDR	Punta Cana, DR	1.54	115	⇑iP	Pb	12 06 55.3	-0.2
PCDR				IAML		12 07 27.9	
	comp=Z,1μm,0.8s						
PCDR	Punta Cana, DR	1.54	115	⇑ePg	Pb	12 06 55.3	-0.2
PCDR				IAML		12 07 23.9	
	comp=N,2μm,0.7s						
PCDR				IAML		12 07 23.9	
	comp=E,939nm,1.0s						
LONE3	El Aguacate, B	1.63	249	⇑iP	Pb	12 06 56.9	-0.1
LONE3				IAML		12 07 23.9	
	comp=Z,2μm,0.6s						
PODR	Polo	1.69	233	⇓ePg	Pb	12 06 58.3	+0.1
PODR				IAML		12 07 32.9	
	comp=E,4μm,0.6s						
LODU1	El Espartillar	1.75	242	iP	Pb	12 06 59.5	+0.6
LODU1				IAML		12 07 27.5	
	comp=Z,4μm,0.7s						
MCDR	Montecristi	1.84	293	P	Pn	12 06 58.8	+1.2
MCDR				S	Sb	12 07 25.4	+2.2
MCDR	Montecristi	1.84	293	⇑eSg	Sb	12 07 26.1	+2.9
MCDR				IAML		12 07 35.6	
	comp=N,10μm,0.7s						
MCDR				IAML		12 07 37.4	
	comp=E,10μm,0.6s						
LOVI	El Cajuil, Ovi	1.99	226	iP	Pb	12 07 03.1	0.0
LOVI				IAML		12 07 32.4	
	comp=Z,977nm,0.5s						
JIDR	Jimani	2.02	250	⇑ePg	Pb	12 07 04.0	+0.4
JIDR				IAML		12 07 34.9	
	comp=E,4μm,0.5s						
JIDR				IAML		12 07 36.6	
	comp=N,4μm,0.6s						
GRTK	Grand Turk	2.61	333	Pn	Pn	12 07 08.2	+0.1
GRTK	Grand Turk	2.61	333	P	Pn	12 07 07.8	-0.3
GRTK				S	Sn	12 07 38.5	-0.5
GRTK	Grand Turk	2.61	333	eP	Pn	12 07 07.5	-0.7
GRTK	Grand Turk	2.61	333	iP	Pn	12 07 07.8	-0.3
GRTK				eS	Sn	12 07 39.0	-0.1
GRTK	Grand Turk	2.61	333	IAML		12 07 44.2	
	comp=E,3μm,0.3s						
GRTK				IAML		12 07 46.7	
	comp=N,3μm,0.5s						
GRTK	Grand Turk	2.61	333	P	Pn	12 07 07.7	-0.5
AGPR	Aguadilla, PR	2.69	105		Pn	12 07 11.0	+1.7
AGPR	Aguadilla, PR	2.69	105	P	Pn	12 07 10.9	+1.6
LGNH	Logne	2.69	256	P	Pb	12 07 13.2	-1.8
LGNH				S	Sb	12 07 45.0	-2.7
PRSN	Puerto Rico Se	2.74	110		Pn	12 07 12.1	+2.1
CRPR	Cabo Rojo, PR	2.85	114		Pn	12 07 14.2	+2.7
CRPR	Cabo Rojo, PR	2.85	114	P	Pn	12 07 13.8	+2.3
MLPR	Magueyes Islan	2.92	114		Pn	12 07 15.2	+2.7
MLPR	Magueyes Islan	2.92	114	P	Pn	12 07 15.0	+2.5
AOPR	Arecibo Observ	3.05	105		Pn	12 07 15.3	+1.0
AOPR	Arecibo Observ	3.05	105	P	Pn	12 07 15.3	+1.0
EMPR	Esperanza - Ma	3.22	102	P	Pn	12 07 18.1	+1.5
OBIP	Obispado Ponce	3.28	110		Pn	12 07 19.6	+2.1
OBIP	Obispado Ponce	3.28	110	P	Pn	12 07 20.1	+2.7
CELP	Cerrillos	3.29	109		Pn	12 07 19.6	+2.0
CELP	Cerrillos	3.29	109	P	Pn	12 07 20.7	+3.1
ECPR	Experimental S	3.42	104		Pn	12 07 19.3	0.0
SJG	San Juan	3.67	106	Pn	Pn	12 07 25.5	+2.8
	comp=N,16nm,0.3s,baz=292,slow=9.3,SNR=37						
SJG				Sn	Sn	12 08 04.4	-0.8
	comp=N,43nm,0.3s,baz=348,slow=7.2,SNR=4.0						
SJG				LR	LR	12 08 51.7	
	comp=N,536nm,18.9s,baz=278,slow=39 comp=N,64nm,0.3s						
SJG				AML	AML		
SJG	San Juan	3.67	106		Pn	12 07 23.8	+1.0
SJG	San Juan	3.67	106	P	Pn	12 07 26.8	+4.1
PDPR	Patillas Dam,	3.81	107		Pn	12 07 26.1	+1.4
PDPR	Patillas Dam,	3.81	107	P	Pn	12 07 27.4	+2.7
HUMP	Col San Antoni	3.93	105		Pn	12 07 27.2	+0.8
HUMP	Col San Antoni	3.93	105	P	Pn	12 07 27.2	+0.8
QMBU	Quimbuelo	4.78	283	P	Pn	12 07 35.7	-2.3
QMBU				S	Sn	12 08 31.5	-1.3
QMBU	Quimbuelo	4.78	283	eP	Pn	12 07 36.2	-1.9
QMBU				ePg	Pb	12 07 42.5	-8.2
QMBU				eS	Sn	12 08 30.3	-2.4
QMBU				eSg	Sb	12 08 42.4	-5.4
GTBY	Guantanamo Bay	5.01	279	Pn	Pn	12 07 39.7	-1.5
GTBY	Guantanamo Bay	5.01	279	iP	Pn	12 07 41.0	-0.2
GTBY				iS	Sn	12 08 40.3	+1.9
GTBY	Guantanamo Bay	5.01	279	P	Pn	12 07 39.6	-1.6
GTBY				S	Sn	12 08 38.8	+0.4
GTBY	Guantanamo Bay	5.01	279	eP	Pn	12 07 40.3	-0.9
GTBY				eS	Sn	12 08 38.3	-0.1
GTBY	Guantanamo Bay	5.01	279	P	Pn	12 07 42.7	+1.5
NMDO	Nuevo Mundo	5.02	287		Pn	12 07 39.2	-2.1
NMDO	Nuevo Mundo	5.02	287	P	Pn	12 07 38.7	-2.5
NMDO				S	Sn	12 08 36.9	-1.7
NMDO	Nuevo Mundo	5.02	287	eP	Pn	12 07 37.8	-3.6
NMDO				eP	Pn	12 07 38.8	-2.5
MOAC	Moa	5.03	288	eP	Pn	12 07 38.8	-2.6
MOAC				eS	Sn	12 08 36.4	-2.3
PINC	Pinares de May	5.74	284	eP	Pn	12 07 49.8	-1.4
MARVS	Santiago de Cu	5.76	279	eP	Pn	12 07 50.4	-1.1
HLGC	Holguin	6.08	287	eP	Pn	12 07 56.5	+0.5
CHIV	Chivirico	6.24	278		Pn	12 07 56.8	-1.3
CHIV	Chivirico	6.24	278	P	Pn	12 07 56.8	-1.3
CHIV				S	Sn	12 09 06.8	-1.8
CHIV	Chivirico	6.24	278	eP	Pn	12 07 57.6	-0.5
YAR	Yar	6.24	282	eP	Pn	12 07 56.5	-1.6

SABA	Saba	6.46	103	Pn	Pn	12 08 01.8	+0.5
SMRT	St. Maarten	6.52	99	Pn	Pn	12 08 02.0	0.0
SMRT	St. Maarten	6.52	99	P	Pn	12 08 00.6	-1.4
	comp=Z,69nm,0.7s						
GWJ	Greenwich	6.61	261	⇓*i*P	Pn	12 08 05.4	+2.1
STH	Stony Hill	6.69	262	⇑*i*P	Pn	12 08 05.4	+1.1
STH				*i* P	Pn	12 08 06.2	+1.9
LMGC	Las Mercedes	6.80	279	*e*P	Pn	12 08 04.9	-0.9
PCJ	Portland Cotta	7.08	259	⇓*i*P	Pn	12 08 12.8	+3.2
PILO	Pilon	7.16	277	P	Pn	12 08 09.1	-1.7
PILO	Pilon	7.16	277	*e*P	Pn	12 08 09.3	-1.5
CVJ	Coleyville	7.34	264	⇓*i*P	Pn	12 08 15.5	+2.1
MTDJ	Mount Denham	7.34	264		Pn	12 08 13.2	-0.2
MTDJ	Mount Denham	7.34	264	*e*P	Pn	12 08 12.6	-0.8
MCJ	Malvern	7.54	262	*i* P	Pn	12 08 19.6	+3.5
CCCC	Cccc	7.70	286	*e*S	Sn	12 09 29.1	-15
URIC	Uribia, Colomb	7.72	196	P	Pn	12 08 20.1	+1.6
URIC	Uribia, Colomb	7.72	196	P	Pn	12 08 19.6	+1.1
	comp=Z,527nmcomp=Z,15nm,1.0s						
URIC				S	Sn	12 09 42.0	-3.2
	comp=Z,527nmcomp=Z,15nm,1.0s						
URI	Uribia	7.72	196	P	Pn	12 08 19.3	+0.8
MAGL	Barre de l’ile	8.78	110	Pn	Pn	12 08 34.8	+1.7
SMRC	Santa Marta, M	9.02	209	P	Pn	12 08 29.9	-6.4
	comp=Z,24nm,1.1s						
CBCY	The Bluff, Cay	9.36	275	*e*P	Pn	12 08 40.0	-1.0
LCCY	Blossom Villag	9.67	275	Pn	Pn	12 08 43.8	-1.3
LCCY	Blossom Villag	9.67	275	*e*P	Pn	12 08 44.7	-0.4
SDV	Santo Domingo	10.27	184	Pn	Pn	12 08 57.8	+4.2
	comp=Z,1.5nm,0.3s,baz=12,slow=7.8,SNR=4.0						
SDV				Sn	Sn	12 10 47.5	-0.5
	comp=Z,1.8nm,0.3s,baz=244,slow=12,SNR=4.0						
SDV				LR	LR	12 13 29.5	
	comp=Z,208nm,18.8s,baz=274,slow=41						
	comp=Z,4.8nm,0.3s						
SDV				AML	AML		
SDV	Santo Domingo	10.27	184		Pn	12 08 54.1	+0.5
SDV	Santo Domingo	10.27	184	P	Pn	12 08 56.1	+2.5
	comp=Z,165nm,0.7s						
SDV	Santo Domingo	10.27	184	P	Pn	12 08 56.9	+3.3
	comp=Z,165nm,0.7s						
SJCC	San Jacinto, C	10.57	210	P	Pn	12 09 01.9	+4.2
	comp=Z,18nm,1.7s						
SJCC				S	Sn	12 10 50.6	-4.8
	comp=Z,18nm,1.7s						
OCAC	Ocana	11.39	198	P	Pn	12 09 12.3	+3.4
	comp=Z,32nm,0.5s						
PAMC	Pamplona, Colo	12.10	194	P	Pn	12 09 20.9	+2.0
UREC	San Jos de Ur	12.63	207	P	Pn	12 09 28.3	+2.5
	comp=Z,11nm,0.6s						
BRJC	Barrancabermej	12.71	198	P	Pn	12 09 25.5	-1.4
	comp=Z,32nm,0.6s						
BARC	Barichara	12.93	195	P	Pn	12 09 30.6	+0.5
	comp=Z,23nm,0.9s						
PTBC	PUERTO BERRIO,	13.34	200	P	Pn	12 09 36.5	+1.0
	comp=Z,15nm,0.7s						
RUSC	La Rusia	13.58	194	P	Pn	12 09 39.8	+0.6
	comp=Z,25nm,1.0s						
BCIP	Isla Barro Col	13.88	226	P	Pn	12 09 43.5	+0.7
	comp=Z,28nm,1.3s						
BBSR	BB Station	13.92	18	Pn	Pn	12 09 43.3	0.0
NORC	Norcasia	14.39	200	P	Pn	12 09 53.4	+3.5
	comp=Z,13nm,0.8s						
GUY2C	Guyana, Caldas	14.88	202	P	Pn	12 09 59.5	+2.6
	comp=Z,37nm,0.8s						
ROSC	El Rosal	14.91	198	Pn	P	12 10 01.0	-1.7
	comp=Z,1.1nm,0.3s,baz=267,slow=7.9,SNR=6.1						
ROSC				LR	LR	12 15 43.6	
	comp=Z,133nm,21.9s,baz=48,slow=37						
	comp=Z,6.6nm,0.4s						
ROSC				AML	AML		
ROSC	El Rosal	14.91	198		Pn	12 09 56.9	-0.3
CHIC	Chingaza	14.95	195	P	P	12 10 01.8	-1.4
SIUN	Universidad Ur	15.31	251	Pn	Pn	12 10 00.5	-1.7
RAFA	San Farael, Vo	16.32	238	Pn	Pn	12 10 14.6	-0.9
JTS	Las Juntas de	17.06	241	P	Pn	12 10 25.1	+0.5
	comp=Z,0.5nm,0.3s,baz=56,slow=10.0,SNR=6.7						
JTS				LR	LR	12 16 53.0	
	comp=Z,83nm,19.3s,baz=42,slow=37						
	comp=Z,1.8nm,0.2s						
JTS				AML	AML		
JTS	Las Juntas de	17.06	241	Pn	Pn	12 10 24.3	-0.3
JTS	Las Juntas de	17.06	241	P	P	12 10 27.0	+0.8
	comp=Z,26nm,1.2s						
JSC	Jenkinsville	18.14	328	P	Pn	12 10 37.6	-0.2
JSC				IAmb	IAmb	12 11 18.1	
	comp=Z,36nm,1.4s						
V58A	Windy Hill, Pi	18.45	336	P	P	12 10 40.6	-0.9
T59A	Double "B" Far	18.96	341	P	P	12 10 47.0	0.0
T59A				IAmb	IAmb	12 10 49.4	
	comp=Z,37nm,1.5s						
BOAV	Boa Vista	19.02	150	P	P	12 10 48.3	+0.5
APG	El Apazote	20.13	261	P	P	12 11 00.1	-0.1
	comp=Z,0.4nm,0.7s,baz=114,slow=10,SNR=3.7						
TKL	Tuckaleechee C	20.50	326	P	P	12 11 00.1	-3.8
	comp=Z,4.0nm,1.0s,baz=140,slow=12,SNR=1.6						
TKL				S	S	12 14 40.5	-12
	comp=Z,5.8nm,0.4s,baz=216,slow=21,SNR=6.1						
TKL				LR	LR	12 19 37.5	
	comp=Z,66nm,18.7s,baz=144,slow=39						
	comp=Z,4.0nm,1.0s						
OTAV	Otavalo	20.63	205	P	Pn	12 11 09.5	+1.3
	comp=Z,19nm,1.1s						
SDMD	Soldier’s Deli	21.04	345	P	P	12 11 11.4	+1.8
SDMD				IAmb	IAmb	12 11 29.1	
	comp=Z,8.2nm,0.7s						
Q56A	Snyder Ridge,	21.38	340	P	P	12 11 13.5	+0.2
Q56A				IAmb	IAmb	12 11 30.8	
	comp=Z,23nm,1.2s						
MDP	Montagnes des	21.85	128	LR	LR	12 20 46.0	
	comp=Z,82nm,19.9s,baz=291,slow=39						
Q54A	Coxs Mills	21.91	337	P	P	12 11 19.0	+0.1
Q54A				IAmb	IAmb	12 11 54.2	
	comp=Z,38nm,1.5s						
R50A	Paris	22.82	330		P	12 11 28.9	+0.2
R50A				IAmb	IAmb	12 11 31.7	
	comp=Z,14nm,0.8s						
WVT	Waverly	23.14	321	P	P	12 11 32.4	+0.4
	comp=Z,18nm,2.9s						
S44A	Carbondale	25.03	321	P	P	12 11 50.3	+0.5
LCAR	Lake Charles	25.19	316	P	P	12 11 51.0	-0.2
X40A	Basin Creek Fa	25.46	311	P	P	12 11 53.7	0.0
X40A				IAmb	IAmb	12 11 55.6	
	comp=Z,13nm,0.8s						
WHAR	Wooly Hollow	25.51	314	P	P	12 11 54.3	+0.2
WHAR				IAmb	IAmb	12 11 55.7	
	comp=Z,13nm,1.0s						
MIAR	Mount Ida	26.02	311	P	P	12 11 59.4	+0.6
CCM	Cathedral Cave	26.46	320	P	P	12 12 02.9	+0.2
	comp=Z,9.5nm,1.5s						
SADO	Sadowa	26.66	345	LR	LR	12 21 33.4	
	comp=Z,51nm,21.5s,baz=184,slow=34						
ATAH	Atahualpa	27.48	199	LR	LR	12 25 42.1	
	comp=Z,23nm,18.9s,baz=346,slow=42						
BRDY	Brady	28.90	300	P	P	12 12 24.6	0.0
WMOK	Wichita Mounta	29.94	307	P	P	12 12 33.9	+0.1
	comp=Z,12nm,1.0s						
TX31	Lajitas Ar. Si	32.34	295	P	P	12 12 55.2	0.0
TX31				IAmb	IAmb	12 13 18.9	
	comp=Z,5.7nm,1.4s						
TXAR	Lajitas Array	32.34	295	P	P	12 12 55.6	+0.4
	comp=Z,0.9nm,0.7s,baz=115,slow=8.8,SNR=7.3						
TXAR				LR	LR	12 28 59.4	
	comp=Z,55nm,20.7s,baz=57,slow=42						
	comp=Z,0.9nm,0.7s						
TXAR	Lajitas Array	32.34	295	P	P	12 12 54.3	-0.8
ECSD	EROS Data Cent	33.20	323	P	P	12 13 01.8	-0.7
RTBA	Rita Blanca	33.57	308	P	P	12 13 05.6	-0.2
RTBA				IAmb	IAmb	12 13 06.8	
	comp=Z,9.2nm,1.0s						
VHRN	Van Horn	33.74	297	P	P	12 13 07.1	-0.4
VHRN				IAmb	IAmb	12 13 25.4	
	comp=Z,6.3nm,1.2s						
MNTX	Cornudas Mount	34.27	298	P	P	12 13 12.4	+0.5
MNTX	Cornudas Mount	34.27	298	P	P	12 13 13.2	+1.4
	comp=Z,12nm,1.1s						
LPAZ	La Paz	35.29	177	P	P	12 13 24.4	+3.0
	comp=Z,0.7nm,0.5s,baz=25,slow=7.1,SNR=4.9						
LPAZ				LR	LR	12 30 29.0	
	comp=Z,42nm,18.5s,baz=334,slow=41						
	comp=Z,0.7nm,0.5s						
LPAZ	La Paz	35.29	177	P	P	12 13 20.8	-0.6
SCHQ	Schefferville	35.66	3	LR	LR	12 27 12.5	
	comp=Z,83nm,19.8s,baz=180,slow=35						
CRNM	Carthage	35.90	302		P	12 13 26.4	+0.3
ALQ	Albuquerque	35.95	303		P	12 13 27.1	+0.6
ANMO	Albuquerque	35.95	303	LR	LR	12 31 01.9	
	comp=Z,58nm,18.6s,baz=119,slow=41						
ANMO	Albuquerque	35.95	303	P	P	12 13 26.1	-0.4
ANMO	Albuquerque	35.95	303	P	P	12 13 27.3	+0.8
SDCO	Great Sand Dun	36.10	308	P	P	12 13 28.8	+0.9
LENM	Lemitar	36.15	302		P	12 13 27.8	-0.5
ISCO	Idaho Springs	36.95	312	P	P	12 13 34.6	-0.6
ISCO				IAmb	IAmb	12 13 37.1	
	comp=Z,4.8nm,0.8s						
ISCO	Idaho Springs	36.95	312	P	P	12 13 36.6	+1.4
	comp=Z,8.2nm,2.0s						
PB16	IPOC Station P	37.29	179	P	P	12 13 38.0	-0.4
PB16				IAmb	IAmb	12 13 46.9	
	comp=Z,5.2nm,0.9s						
WUAZ	Wupatki	39.99	303	P	P	12 14 00.1	-0.4
P18A	Preston Nutter	40.23	309	P	P	12 14 03.4	+0.7
TMUT	Trail Mountain	40.84	308	P	P	12 14 08.7	+0.9
TMUT				IAmb	IAmb	12 14 10.1	
	comp=Z,6.8nm,0.7s						
PDAR	Pinedale Array	40.85	314	P	P	12 14 07.6	-0.1
	comp=Z,0.5nm,0.6s,baz=121,slow=8.6,SNR=6.9						
	comp=Z,0.5nm,0.6s						
PDAR	Pinedale Array	40.85	314	P	P	12 14 07.0	-0.6
HWUT	Hardware Ranch	41.83	312	P	P	12 14 15.2	-0.5
	comp=Z,6.2nm,1.1s						
AHID	Auburn Hatcher	41.90	313	P	P	12 14 16.2	-0.1
	comp=Z,4.4nm,1.0s						
DUG	Dugway, Tooele	42.29	309	P	P	12 14 20.4	+1.1
	comp=Z,6.4nm,0.8s						
BGU	Big Grassy Mou	42.66	310	IAmb	IAmb	12 14 23.9	
	comp=Z,6.6nm,0.8s						
PFO	Pinyon Flats O	43.79	299	LR	LR	12 36 29.2	
	comp=Z,15nm,18.4s,baz=170,slow=41						
TPNV	Topopah Spring	44.14	304	IAmb	IAmb	12 14 37.5	
	comp=Z,5.7nm,1.1s						
WCT	Wildcat Mounta	44.41	303	IAmb	IAmb	12 14 40.0	
	comp=Z,5.5nm,1.0s						
HLID	Hailey	44.45	313	P	P	12 14 37.4	+0.6
FRB	Frobisher Bay	44.54	1	LR	LR	12 32 25.5	
	comp=Z,93nm,20.6s,baz=112,slow=35						
FURC	Furnace Creek,	44.54	303	IAmb	IAmb	12 14 40.4	
	comp=Z,6.5nm,1.2s						
TPH	Tonopah	45.11	305	IAmb	IAmb	12 14 44.7	
	comp=Z,3.8nm,0.9s						
NVAR	Mina Array Bea	46.01	305	P	P	12 14 50.6	+1.3
	comp=Z,3.5nm,0.8s,baz=90,slow=7.3,SNR=26						
NVAR				LR	LR	12 36 08.0	
	comp=Z,44nm,18.6s,baz=140,slow=39						
	comp=Z,3.5nm,0.8s						
MDPB	Devils Postpil	46.48	304	IAmb	IAmb	12 14 55.8	
	comp=Z,5.5nm,0.8s						
WAKR	Walker	46.90	305	IAmb	IAmb	12 14 59.2	
	comp=Z,3.8nm,0.9s						
WVOR	Wild Horse Val	47.11	311	IAmb	IAmb	12 14 59.2	
	comp=Z,4.8nm,1.2s						
WVOR	Wild Horse Val	47.11	311	P	P	12 14 58.2	+0.5
	comp=Z,3.7nm,1.2s						
F10A	Beach Ranch, E	47.12	316	IAmb	IAmb	12 15 06.5	
	comp=Z,2.6nm,0.8s						
J08A	Circle Bar Ran	47.22	312	IAmb	IAmb	12 14 59.8	
	comp=Z,4.2nm,0.8s						
LNOR	Lincton Mounta	47.79	315	IAmb	IAmb	12 15 04.3	
	comp=Z,5.7nm,0.8s						
NEW	Newport	47.81	319	LR	LR	12 35 35.5	
	comp=Z,74nm,18.0s,baz=104,slow=37						
NEW	Newport	47.81	319	P	P	12 15 03.4	+0.3
	comp=Z,14nm,0.9s						
E09A	Wood Farm, Sta	47.89	316	IAmb	IAmb	12 15 05.2	
	comp=Z,3.7nm,0.9s						
G08A	Pilot Rock	48.08	314	IAmb	IAmb	12 15 06.5	
	comp=Z,4.6nm,1.0s						
MOD	Modoc Plateau	48.20	309	P	P	12 15 06.9	+0.6
MXC	Moxie City	49.33	315	IAmb	IAmb	12 15 16.4	
	comp=Z,6.3nm,1.0s						
SFJD	Kangerlussuaq	49.38	10	LR	LR	12 33 31.6	
	comp=Z,84nm,21.5s,baz=188,slow=33						
WIFE	Three Sisters-	49.74	312	IAmb	IAmb	12 15 19.9	
	comp=Z,4.9nm,0.9s						
LTY	Liberty	49.77	316	IAmb	IAmb	12 15 19.1	
	comp=Z,4.5nm,0.7s						
YBH	Yreka Blue Hor	49.93	309	LR	LR	12 41 28.7	
	comp=Z,21nm,18.0s,baz=132,slow=42						
BBOR	Butler Butte	50.12	310	IAmb	IAmb	12 15 21.5	
	comp=Z,2.4nm,0.7s						
JCC	Jacoby Creek,	50.76	307	P	P	12 15 26.1	+0.4
K02D	Willamette Mer	50.80	310	P	P	12 15 26.7	+0.7
K02D				IAmb	IAmb	12 16 08.9	
	comp=Z,13nm,1.5s						
G03D	McMinnville, O	51.00	313	P	P	12 15 26.6	-0.8
J01E	Myrtle Point	51.07	310	P	P	12 15 28.6	+0.7
I02E	Swisshome, OR	51.19	312	P	P	12 15 30.0	+1.2
RADR	Rader Ridge	51.63	314	P	P	12 15 32.7	+0.5
CLRS	Cowichan Lake	52.42	317	P	P	12 15 37.9	-0.1
CLRS				IAmb	IAmb	12 15 38.8	
	comp=Z,5.2nm,0.8s						
YKA	Yellowknife Ar	53.06	336	P	P	12 15 41.7	-0.7
	comp=Z,1.0nm,0.7s,baz=111,slow=7.1,SNR=4.3						
YKA				LR	LR	12 38 11.0	
	comp=Z,56nm,18.7s,baz=116,slow=36						
	comp=Z,1.0nm,0.7s						
BBB	Bella Bella	55.70	321	LR	LR	12 39 27.9	
	comp=Z,54nm,19.0s,baz=132,slow=36						
BBB	Bella Bella	55.70	321	P	P	12 16 02.7	+0.9
SUMG	Summit	56.32	11	P	P	12 16 07.1	+0.7
MDT	Midelt	59.37	63	LR	LR	12 39 22.8	
	comp=Z,31nm,18.3s,baz=228,slow=33						
ESDC	Sonseca Array	59.62	55	P	P	12 16 29.2	-0.5
	comp=Z,0.8nm,0.7s,baz=278,slow=7.4,SNR=6.7						
ESDC				LR	LR	12 37 34.5	
	comp=Z,58nm,20.5s,baz=296,slow=31						
	comp=Z,0.8nm,0.7s						
EKA	Eskdalemuir Ar	61.20	37	LR	LR	12 38 11.3	
	comp=Z,40nm,21.9s,baz=359,slow=31						
N31M	Braeburn, Yuko	61.86	330	P	P	12 16 45.3	+0.7
N31M				IAmb	IAmb	12 16 45.8	
	comp=Z,3.2nm,0.7s						
K29M	Barlow Dome	63.13	333		P	12 16 54.3	+1.2
K29M				IAmb	IAmb	12 16 54.5	
	comp=Z,4.6nm,0.8s						
DAWY	Dawson	63.98	333	IAmb	IAmb	12 16 59.4	
	comp=Z,3.0nm,0.6s						
I28M	Miner Creek	64.45	334	P	P	12 17 02.2	+0.5
BCAR	Beaver Creek A	64.89	331		P	12 17 04.7	+0.1
L27K	Beaver Creek,	64.91	331		P	12 17 05.3	+0.6
L27K				IAmb	IAmb	12 17 05.9	
	comp=Z,2.8nm,0.7s						
GLB	Gilahina Butte	65.67	330	P	P	12 17 10.8	+1.1
GLB				IAmb	IAmb	12 17 11.9	
	comp=Z,7.1nm,1.3s						
MENT	Mentasta	65.76	331	IAmb	IAmb	12 17 11.2	
	comp=Z,3.1nm,0.6s						
SCRK	Sand Creek	65.97	332		P	12 17 12.6	+0.9
PRP	Porcupine Dome	66.77	334	P	P	12 17 17.1	+0.3
PRP				IAmb	IAmb	12 17 17.6	
	comp=Z,3.0nm,0.8s						
ILAR	Eielson Array	67.29	333	P	P	12 17 19.6	-0.4
	comp=Z,0.9nm,0.9s,baz=97,slow=4.4,SNR=8.1						
ILAR				LR	LR	12 46 58.8	
	comp=Z,58nm,19.3s,baz=78,slow=36						
	comp=Z,0.9nm,0.9s						
G24K	Hadweenzic Riv	67.65	335	P	P	12 17 22.8	+0.6
G24K				IAmb	IAmb	12 17 23.5	
	comp=Z,5.0nm,0.8s						
TORD	Torodi Ar. Bea	68.58	83	P	P	12 17 28.4	-0.5
	comp=Z,0.7nm,0.7s,baz=286,slow=6.5,SNR=3.2						
	comp=Z,0.7nm,0.7s						
DAVOX	Davos/Dischmat	69.32	46	LR	LR	12 47 36.6	
	comp=Z,24nm,18.6s,baz=255,slow=36						
KEST	Kesra	70.49	58	LR	LR	12 44 36.9	
	comp=Z,24nm,20.1s,baz=318,slow=33						
SPITS	Spitsbergen Ar	70.58	13	LR	LR	12 48 32.2	
	comp=Z,46nm,18.7s,baz=303,slow=36						
VRAC	Vranov	73.42	43	LR	LR	12 46 14.9	
	comp=Z,66nm,19.9s,baz=260,slow=33						
ARCES	ARCESS Array B	74.05	21	P	P	12 18 00.6	-0.4
	comp=Z,0.7nm,0.6s,baz=316,slow=3.3,SNR=4.3						
ARCES				LR	LR	12 45 03.5	
	comp=Z,23nm,19.7s,baz=348,slow=31						
	comp=Z,0.7nm,0.6s						
ARCES	ARCESS Array B	74.05	21	P	P	12 18 01.0	-0.1
ARCES				IAmb	IAmb	12 18 11.1	
	comp=Z,8.1nm,1.2s						
VAE	Valguarnera	74.15	55	LR	LR	12 47 18.5	
	comp=Z,72nm,18.9s,baz=311,slow=33						
FINES	FINESS Array B	76.14	29	P	P	12 18 13.5	+0.4
	comp=Z,4.9nm,1.1s,baz=265,slow=7.0,SNR=1.5						
	comp=Z,4.9nm,1.1s						
FINES	FINESS Array B	76.14	29	P	P	12 18 13.8	+0.6
AKASG	Malin Array Be	80.95	39	LR	LR	12 53 23.1	
	comp=Z,43nm,18.9s,baz=266,slow=35						
PPT	Papeete	86.40	250	LR	LR	12 50 07.3	
	comp=Z,86nm,20.2s,baz=119,slow=30						
NRIK	Noril'sk	90.25	8	LR	LR	13 01 21.9	
	comp=Z,38nm,19.0s,baz=354,slow=37						
EIL	Elat	92.83	57	LR	LR	12 57 55.3	
	comp=Z,23nm,19.1s,baz=289,slow=33						
TSUM	Tsumeb	93.83	109	LR	LR	12 56 53.0	
	comp=Z,26nm,18.8s,baz=339,slow=32						
GNI	Garni	95.26	44	LR	LR	12 59 34.1	
	comp=Z,21nm,20.4s,baz=14,slow=34						
VNDA	Vanda	116.50	191	PKP	PKiKP	12 25 11.2	+2.7
	comp=Z,0.5nm,0.7s,baz=111,slow=4.5,SNR=4.8						
VNDA	Vanda	116.50	191		PKPdf	12 25 08.4	0.0
HHC	Hu-ho-hao-te	120.26	359	*e*P	PKPdf	12 25 15.0	-2.0
MAW	Mawson	123.19	160	PKP	PKPdf	12 25 20.4	-1.1
	comp=Z,1.1nm,0.7s,baz=207,slow=6.8,SNR=2.6						
MAW	Mawson	123.19	160		PKPdf	12 25 20.6	-0.8
LZH	Lanzhou	124.71	6	*e*P	PKPdf	12 25 25.3	-0.4
LZH				pP	sPKPdf	12 25 35.8	-1.2
LZH				pmax	pmax		
	comp=Z,13nm,1.0s						
PZH	PanZhiHua	133.86	10	PKP	PKPdf	12 25 42.4	-0.9
STKA	Stephens Creek	149.06	240	PKPbc	PKPbc	12 26 13.2	-0.9
	comp=Z,4.9nm,0.8s,baz=142,slow=3.5,SNR=8.0						
WRA	Warramunga Arr	157.20	264	PKP	PKPdf	12 26 21.3	-0.8
	comp=Z,1.1nm,1.0s,baz=82,slow=1.3,SNR=5.1						
WRA				PKPab	PKPab	12 26 52.9	0.0
	comp=Z,1.0nm,0.7s,baz=90,slow=4.3,SNR=8.3						
WRA	Warramunga Arr	157.20	264		PKPdf	12 26 20.9	-1.2
WRA					PKPab	12 26 53.1	+0.2
ASAR	Alice Springs	157.45	254	PKP	PKPdf	12 26 22.6	+0.3
	comp=Z,0.4nm,1.0s,baz=101,slow=3.6,SNR=1.6						
ASAR				PKPab	PKPab	12 26 53.7	-0.3
	comp=Z,1.1nm,0.7s,baz=97,slow=4.6,SNR=8.5						

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*IDC **16** 12:16:46.9±1.4, 1°.94S×127°.56E, h0^{km}, mb3.9/4, mbtmp4.0/6, ML4.0/2, MS3.4/6, Error ellipse: s-maj=86.6km s-min=18.8km az=70.0*

ISC 16 12:16:52.6±1.4, **2°.5S**±0°.2×**126°.4E**±0°.5, **h35^{km}, n12, σ3^{s}.67**/9, **mb3.9**/4, **MS3.3**/5, **3C, Ceram Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	15.52	183	Pn	P	12 20 33.9	+1.0
	0.4nm,0.3s,baz=11,slow=13,SNR=9.0						
FITZ				LR	LR	12 27 57.2	
	comp=Z,124nm,18.9s,baz=7.5,slow=42						
	1.8nm,0.5s						
FITZ				AML	AML		
WRA	Warramunga Arr	18.98	157	P	P	12 21 11.2	0.0
	0.5nm,0.3s,baz=338,slow=12,SNR=47						
	7.7nm,0.7s						
WRA				AML	AML		
ASAR	Alice Springs	22.25	162	P	P	12 21 47.0	+0.3
	3.7nm,0.8s,baz=345,slow=12,SNR=21						
ASAR				LR	LR	12 31 04.4	
	comp=Z,116nm,18.3s,baz=328,slow=38						
	3.7nm,0.8s						
STKA	Stephens Creek	32.53	156	P	P	12 23 20.7	+0.4
	1.3nm,0.6s,baz=308,slow=6.9,SNR=2.8						
STKA				LR	LR	12 35 51.6	
	comp=Z,109nm,19.1s,baz=12,slow=35						
	1.3nm,0.6s						
HNR	Honiara	34.03	103	LR	LR	12 39 39.1	
	comp=Z,27nm,18.7s,baz=355,slow=42						
CMAR	Chiang Mai Arr	34.14	309	LR	LR	12 41 19.2	
	comp=Z,27nm,18.2s,baz=130,slow=42						
BRDH	Bariadhala	42.16	308	LR	LR	12 43 00.7	
	comp=Z,101nm,19.8s,baz=161,slow=37						
MKAR	Makanchi Array	62.54	327	P	P	12 27 14.0	+1.1
	0.3nm,0.6s,baz=136,slow=6.9,SNR=7.4						
	0.3nm,0.6s						
KURBB	Kurchatov Arra	66.84	329	P	P	12 27 40.8	-0.1
	0.5nm,0.2s,baz=129,slow=5.7,SNR=5.6						
	0.5nm,0.2s						
VNA2	Neumayer--Watz	100.74	194	⇑P	Pdif	12 30 37.5	+0.4
	comp=Z,0.8nm,0.2s,baz=314,slow=13						
VNA3	Neumayer Olymp	101.06	193	⇑P	Pdif	12 30 33.6	-4.9
	comp=Z,0.8nm,0.2s						
VNA1	Neumayer--Stat	101.14	194	⇑P	Pdif	12 30 31.4	-7.4
	comp=Z,0.5nm,0.2s						

IDC 16 12:34:20.4±1.9, **1°.91S**×**127°.65E, h0^{km}, mb3.4**/2, **mbtmp3.7**/4, **ML3.7**/2, **Error ellipse: s-maj=100.1km s-min=24.8km az=70.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	16.21	187	Pn	Pn	12 38 07.9	-1.8
	0.2nm,0.3s,baz=14,slow=12,SNR=2.1						
	2.8nm,1.1s						
FITZ				AML	AML		
WRA	Warramunga Arr	19.08	160	P	Pn	12 38 45.5	0.0
	0.3nm,0.3s,baz=338,slow=12,SNR=26						
	2.8nm,0.6s						
WRA				AML	AML		
ASAR	Alice Springs	22.46	165	P	P	12 39 20.4	-0.9
	1.1nm,0.7s,baz=346,slow=12,SNR=19						
	1.1nm,0.7s						
MKAR	Makanchi Array	62.71	327	P	P	12 44 47.3	0.0
	0.2nm,0.5s,baz=116,slow=8.2,SNR=4.7						
	0.2nm,0.5s						

IDC 16 12:38:51.6±2.1, **2°.12S**×**127°.27E, h0^{km}, mb3.3**/2, **mbtmp3.7**/4, **ML3.2**/2, **MS3.0**/1, **Error ellipse: s-maj=103.8km s-min=26.6km az=70.0, Ceram Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAPI	Kappang	8.03	249	LR	LR	12 44 58.3	
	comp=Z,106nm,19.0s,baz=222,slow=46						
FITZ	Fitzroy Crossi	15.96	186	Pn	Pn	12 42 36.3	-1.3
	0.1nm,0.3s,baz=20,slow=12,SNR=1.4						
	4.1nm,1.1s						
FITZ				AML	AML		
WRA	Warramunga Arr	19.01	159	P	P	12 43 15.3	+0.2
	0.1nm,0.3s,baz=336,slow=12,SNR=11						
	2.7nm,0.8s						
WRA				AML	AML		
ASAR	Alice Springs	22.36	164	P	P	12 43 50.4	-1.1
	0.9nm,0.8s,baz=341,slow=9.6,SNR=6.1						
	0.9nm,0.8s						
MKAR	Makanchi Array	62.68	327	P	P	12 49 18.3	0.0
	0.3nm,0.7s,baz=114,slow=7.1,SNR=2.6						
	0.3nm,0.7s						

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*IDC **16** 12:47:20.7±4.7, 22°.73S×66°.07W, h213^{km}±61^{km}, mb3.1/1, mbtmp3.6/3, Error ellipse: s-maj=101.0km s-min=22.6km az=97.0*

*SJA **16** 12:47:23.5±0.7, 22°.71S×66°.36W, h250^{km}±6^{km}, ML3.6, MW3.6*

ISC 16 12:47:22.3±0.9, **22°.75S**±0°.04×**66°.34W**±0°.05, **h245^{km}, n25, σ1^{s}.97**/43, **Jujuy Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YJA	Yavi	0.95	53	*e*P	Pn	12 47 59.2	+2.1
YJA				*e*S	S	12 48 19.3	-5.1
HJA	Humahuaca	0.97	118	*e*P	Pn	12 47 59.3	+2.1
SALTA		1.47	180	*e*P	Pn	12 47 57.2	-3.3
SALTA				*e*P		12 48 02.9	
SALTA				*e*P		12 48 02.9	
AF01	San Pedro de A	1.71	263	*e*P	Pn	12 48 01.2	-0.9
AF01				*e*S	S	12 48 51.6	+18
SLA	San Lorenzo	2.11	159	*e*P	Pn	12 48 07.9	+2.4
SLA				*e*S	S	12 48 40.8	+1.1
PB09	IPOC Station P	2.85	289	*e*P	Pn	12 48 14.9	+1.8
PB09				*e*S	S	12 48 54.3	+1.2
PB09				IAML		12 48 57.0	
	comp=Z,42nm,0.2s						
PB06	IPOC Station P	2.98	270	*e*P	Pn	12 48 16.4	+1.8
PB06				*e*S	S	12 48 56.3	+0.6
PB06				IAML		12 49 01.6	
	comp=Z,82nm,0.4s						
PB03	IPOC Station P	3.23	282	*e*P	Pn	12 48 18.9	+1.6
PB03				*e*S	S	12 48 59.6	-1.1
PB03				IAML		12 49 00.7	
	comp=Z,134nm,0.2s						
FSA	Cafayete	3.37	174	*e*P	Pn	12 48 21.3	+2.5

PB07	IPOC Station P	3.44	287	eP	Pn	12 48 21.0	+1.4
PB07				eS	S	12 49 04.1	-0.8
PB07				IAML		12 49 05.5	
	comp=Z,62nm,0.2s						
PB05	IPOC Station P	3.57	268	eP	Pn	12 48 22.5	+1.5
PB05				eS	S	12 49 06.2	-1.2
PB05				IAML		12 49 11.9	
	comp=Z,67nm,0.3s						
PB02	IPOC Station P	3.59	293	eP	Pn	12 48 22.8	+1.5
PB02				eS	S	12 49 06.2	-1.8
PB02				IAML		12 49 10.3	
	comp=Z,96nm,0.2s						
PB08	IPOC Station P	3.69	314	eP	Pn	12 48 24.5	+1.8
PB08				eS	S	12 49 10.6	+0.2
PB08				IAML		12 49 11.9	
	comp=Z,26nm,0.2s						
GO01	Chusmiza	4.06	318	eP	Pn	12 48 29.2	+2.0
GO01				eS	S	12 49 19.2	+0.8
GO01				IAML		12 49 22.6	
	comp=Z,58nm,0.1s						
PB14	IPOC Station P	4.17	243	eP	Pn	12 48 29.6	+1.4
PB14				eS	S	12 49 18.6	-1.8
PB14				IAML		12 49 20.4	
	comp=Z,129nm,0.1s						
TA01	Diego Aracena	4.18	301	eP	Pn	12 48 29.4	+1.3
TA01				eS	S	12 49 19.0	-1.2
TA01				IAML		12 49 19.4	
	comp=Z,28nm,0.7s						
PB11	IPOC Station P	4.29	313	eP	Pn	12 48 30.2	+0.6
PB11				eS	S	12 49 20.3	-2.6
PB11				IAML		12 49 22.2	
	comp=Z,105nm,0.3s						
PSGCX	Pisagua	4.72	311	eP	Pn	12 48 35.2	+0.5
PSGCX				eS	S	12 49 29.6	-2.6
PSGCX				IAML		12 49 33.3	
	comp=Z,32nm,0.6s						
AC02	Maricunga	4.79	211	eP	Pn	12 48 37.8	+1.9
AC02				eS	S	12 49 30.3	-4.1
AC02				IAML		12 49 43.2	
	comp=Z,22nm,0.3s						
AC01	Pan de Azucar	5.15	228	eP	Pn	12 48 40.2	+0.4
AC01				eS	S	12 49 39.5	-2.0
AC01				IAML		12 49 42.7	
	comp=Z,45nm,0.5s						
PB16	IPOC Station P	5.30	325	eP	Pn	12 48 43.5	+1.2
PB16				eS	S	12 49 44.8	-1.0
PB16				IAML		12 49 48.8	
	comp=Z,15nm,0.7s						
LPAZ	La Paz	6.64	345	P	Pn	12 48 59.2	0.0
	comp=Z,1.3nm,0.3s,baz=161,slow=11,SNR=11						
LPAZ				S	S	12 50 13.1	-3.4
	comp=Z,1.6nm,0.5s,baz=20,slow=24,SNR=4.2						
PLCA	Paso Flores	18.28	190	P	P	12 51 18.8	+0.5
	comp=Z,1.4nm,0.8s,baz=8.2,slow=12,SNR=5.0						
TORD	Torodi Ar. Bea	75.55	69	P	P	12 58 39.9	-0.6
	comp=Z,0.3nm,0.5s,baz=255,slow=5.7,SNR=1.3						
	comp=Z,0.3nm,0.5s						
MKAR	Makanchi Array	145.17	39	PKPbc	PKPab	13 06 32.0	+0.9
	comp=Z,0.3nm,0.4s,baz=334,slow=3.2,SNR=5.4						

IDC 16 13:03:50.6±31.0, 25°.55S×174°.81W, h0^{km}, mb4.2/4, mbtmp4.2/4, MS3.0/1, Error ellipse: s-maj=559.4km s-min=149.4km az=81.0, South of Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	14.40	206	LR	LR	13 13 16.4	
	comp=Z,55nm,18.4s,baz=314,slow=39						
CTA	Charters Tower	36.20	271	P	P	13 10 56.2	+0.8
	2.9nm,0.5s,baz=89,slow=9.2,SNR=6.3						
	2.9nm,0.5s						
STKA	Stephens Creek	38.55	250	P	P	13 11 14.5	-0.7
	1.5nm,0.4s,baz=93,slow=11,SNR=5.4						
	1.5nm,0.4s						
ASAR	Alice Springs	46.43	261	P	P	13 12 19.2	-0.1
	1.6nm,0.5s,baz=95,slow=8.0,SNR=53						
	1.6nm,0.5s						
WRA	Warramunga Arr	47.00	266	P	P	13 12 23.4	-0.5
	1.5nm,0.7s,baz=105,slow=7.9,SNR=4.6						
	1.5nm,0.7s						

IDC 16 13:08:58.0±573.0, 52°.65N×8°.54E, h0^{km}, Error ellipse: s-maj=212.9km s-min=105.7km az=132.0, Germany

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I26DE	FREYUNG INFRAS	5.02	137	I	I	13 41 10.0	
	baz=321,slow=323,SNR=4.3						
I43RU	DUBNA INFRASON	17.01	65	I	I	14 50 20.0	
	baz=268,slow=321,SNR=2.8						
I37NO	I37NO	17.15	12	I	I	15 00 10.0	
	baz=202,slow=328,SNR=1.0						

HEL 16 13:29:35.3±0.3, 67°.75N×20°.08E, h0^{km}, ML1.4, Suspected explosion, Sweden

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SALU	Saltoluokta	0.71	239	eP	Pb	13 29 51.0	+0.4
LANU	Lannavaara	0.78	67	PB	Pg	13 29 50.2	-0.1
LANU				SG	Sg	13 29 59.3	-1.0
PAJU	Pajala	1.38	121	PN	Pg	13 30 01.2	-0.5
	baz=302						
PAJU				SN	Sn	13 30 21.1	+0.3
HEF	Hetta	1.50	62	eP	Pn	13 30 01.5	-1.9
HEF	Hetta	1.50	62	PG	Pn	13 30 02.0	-1.3
HEF				smax	smax	13 30 20.1	
	comp=Z,2.0nm,0.2s						
HEF				SN	Sg	13 30 23.0	-0.2
KLF	Kolari	1.58	107	PN	Pn	13 30 04.8	+0.2
KLF				smax	smax	13 30 22.7	
	comp=Z,3.2nm,0.2s						
KLF				SN	Sg	13 30 27.2	+1.2
KTK1	Kautokeino	1.72	41	PG	Pn	13 30 06.3	-0.2
KTK1				SG	Sn	13 30 28.3	-0.8
TRO	Tromso	1.93	348	SG	Sb	13 30 35.2	-0.8
TOF	Tornio	2.37	133	PG	Pb	13 30 18.2	-0.5
TOF				smax	smax	13 30 45.5	
	comp=Z,1.4nm,0.2s						
TOF				SG	Sg	13 30 51.0	-0.3
RNF	Rovaniemi	2.58	114	PG	Pb	13 30 21.1	-1.3
RNF				SG	Sb	13 30 55.3	+0.7
ARA0	ARCESS Array S	2.67	45	PG	Pn	13 30 21.7	+2.2
ARA0				SB	Sn	13 30 54.6	+2.1
RAJF	Raja-Jooseppi	3.17	73	SG	Sb	13 31 11.8	+0.4
KEV	Kevo	3.22	48	PB	Pb	13 30 31.0	-2.3
	baz=235						
KEV				SN	Sn	13 31 06.3	+0.2

HEL 16 13:30:09.1±0.1, 63°.15N×21°.74E, h0^{km}, ML1.2, Explosion, Finland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VAF	Ylistaro	0.44	104	PG	Pg	13 30 16.3	-1.2
VAF				SG	Sg	13 30 21.4	-1.8
VAF				smax	smax	13 30 23.4	
	comp=Z,3.6nm,0.2s						
UMAU	Umeaa	0.87	328	PN	Pn	13 30 37.1	+8.5
UMAU	Umeaa	0.87	328	PB	Pg	13 30 25.3	-0.5
	baz=147						
UMAU				SB	Sg	13 30 37.1	0.0
KPF	Kankaanpaa	1.33	173	PG	Pg	13 30 32.9	-1.7
KPF				smax	smax	13 30 49.3	
	comp=Z,0.6nm,0.2s						
KPF				SG	Sg	13 30 51.1	-0.8
OBF8	Ulkokalla	1.41	32	PN	Pn	13 30 33.5	-2.4
OBF8	Ulkokalla	1.41	32	PG	Pn	13 30 33.5	-2.4
OBF8				smax	smax	13 30 51.4	
	comp=Z,1.5nm,0.2s						
BURU	Burvik	1.45	354	PN	Pn	13 30 36.2	-0.2
OBF0	Syolatti, Pyha	1.75	38	PG	Pn	13 30 41.0	+0.4
OBF0				smax	smax	13 31 01.2	
	comp=Z,1.2nm,0.2s						
OBF0				SN	Sb	13 31 04.4	0.0
KEF	Keuruu	1.75	123	PG	Pn	13 30 40.6	-0.1
KEF				smax	smax	13 31 01.5	
	comp=Z,1.4nm,0.2s						
KEF				SN	Sn	13 31 02.8	-0.8
HEMU	Hemsoen	1.76	256	PG	Pn	13 30 40.4	-0.4
HEMU				SG	Sg	13 31 05.6	0.0
OUF	Merijarvi	1.81	46	PB	Pn	13 30 41.7	+0.3
OUF	Merijarvi	1.81	46	PG	Pn	13 30 41.7	+0.3
	baz=232						
OUF				smax	smax	13 31 02.8	
	comp=Z,0.8nm,0.2s						
OUF				SN	Sb	13 31 06.2	+0.1
SUF	Sumiainen	2.06	100	PG	Pn	13 30 46.1	+1.1
SUF				smax	smax	13 31 10.3	
	comp=Z,0.8nm,0.2s						
SUF				SG	Sb	13 31 12.9	-0.7
RAF	Rauma	2.14	180	PG	Pb	13 30 47.6	-1.0
RAF				smax	smax	13 31 12.6	
	comp=Z,1.1nm,0.2s						
RAF				SG	Sb	13 31 15.4	-0.2
KAF	Kangasniemi	2.35	114	smax	smax	13 31 18.8	
	comp=Z,2.3nm,0.2s						
KAF				SG	Sb	13 31 20.9	-1.0
MSF	Maaselka	4.20	45	PN	Pn	13 31 12.3	-2.0
ARBE	Arbavere	4.25	149	PN	Pn	13 31 15.0	0.0
ARBE				SN	Sn	13 32 03.1	-2.2

*KRNET **16** 13:40:33.9±0.1, 39°.98N×77°.27E, mb3.2*

*SOME **16** 13:40:34.1, 39°.88N×77°.25E, h15^{km}*

*NNC **16** 13:40:35.7±1.2, 40°.00N×77°.29E, h0^{km}, mb3.7, mpv3.3, Error ellipse: s-maj=8.0km s-min=5.4km az=166.0*

ISC 16 13:40:36.9±2.5, 39°.97N±0°.08×77°.25E±0°.05, h0^{km}±16^{km}, n39, σ1^{s}.83/61, 17C-10D, Southern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NRN	Naryn	1.74	327	⇑iP	Pn	13 41 06.2	-2.4
NRN				⇑iS	Sn	13 41 30.1	-1.6
TARG	Taragay, Kyrgy	1.81	13	⇑iP	Pn	13 41 07.3	-2.3
TARG				⇑iS	Sn	13 41 31.6	-1.9
KDJ	Kajisay	2.16	359	⇑iP	Pn	13 41 12.8	-1.4
KDJ				⇑iS	Sn	13 41 41.1	-0.7
ULHL	Ulahol	2.40	342	⇓iP	Pn	13 41 16.1	-1.4
ULHL				⇓iS	Sn	13 41 47.0	-0.7
PRZ	Przheval'sk	2.66	19	⇑eP	Pn	13 41 19.6	-1.5
PRZ				⇑eS	Sn	13 41 53.5	-0.6
BOOM	Boomskoye usch	2.70	339	⇑iP	Pn	13 41 20.3	-1.4
BOOM				⇑iS	Sn	13 41 54.3	-0.9
SALK	Salom-Alik	2.77	290	⇓eP	Pn	13 41 22.0	-0.6
SALK				⇓eS	Sn	13 41 56.5	-0.3
ANVS	Anan'yevo	2.83	6	⇑eP	Pn	13 41 21.9	-1.6
ANVS				⇑iS	Sn	13 41 57.1	-1.2
SFK	Sufi-Kurgan	2.88	272	⇓eP	Pn	13 41 23.3	-0.8
SFK				⇓eS	Sn	13 41 58.9	-0.7
UCH	Uchtor	3.06	318	⇓iP	Pn	13 41 25.5	-1.3
UCH				⇓iS	Sn	13 42 03.3	-1.1
KBK	Karagaybulak	3.19	328	⇑iP	Pn	13 41 27.0	-1.5
KBK				⇑iS	Sn	13 42 06.1	-1.2
MDOK	Medeo	3.19	357	Pg	Pb	13 41 33.8	-0.8
	7.8nm,0.7s						
MDOK				Lg	Lg	13 42 16.8	
	23nm,0.6s						
MDOK	Medeo	3.19	357	eP	Pb	13 41 33.8	-0.8
	7.8nm,0.7s						
MDOK				eS	Sb	13 42 16.8	+2.7
	23nm,0.6s						
SATY	Saty	3.21	15	Pg	Pb	13 41 34.0	-0.8
	14nm,0.6s						
SATY				Lg	Lg	13 42 16.7	
	28nm,0.6s						
SATY	Saty	3.21	15	eP	Pb	13 41 34.0	-0.8
	14nm,0.6s						
SATY				eS	Sb	13 42 16.7	+2.3
	28nm,0.6s						
KST	Kastek	3.22	343	Pg	Pb	13 41 34.5	-0.5
	1.7nm,0.4s						
KST				Lg	Lg	13 42 17.9	
	12nm,0.3s						
KST	Kastek	3.22	343	eP	Pb	13 41 34.5	-0.5
	1.7nm,0.4s						
KST				eS	Sb	13 42 17.9	+3.2
	12nm,0.3s						
KNDC	Almaty	3.25	356	Pg	Pb	13 41 34.6	-0.8
	21nm,0.5s						
KNDC				⇑Lg	Lg	13 42 19.2	
	59nm,0.5s						
KOTS	Kotyrbulak	3.26	358	Pg	Pb	13 41 34.8	-0.9
	8.1nm,0.3s						
KOTS				Lg	Lg	13 42 18.5	
	26nm,0.6s						
KOTS	Kotyrbulak	3.26	358	eP	Pb	13 41 34.8	-0.9
	8.1nm,0.3s						
KOTS				eS	Sb	13 42 18.6	+2.5
	26nm,0.6s						
AAK	Ala-Archa	3.38	323	⇑Pg	Pb	13 41 38.1	+0.4
	6.9nm,1.0s						
AAK				⇓Lg	Lg	13 42 24.5	
	6.0nm,0.7s						
UZB	Uzynbulak	3.44	22	Pg	Pb	13 41 37.8	-1.0
	5.5nm,0.5s						
UZB				Lg	Lg	13 42 23.6	
	9.1nm,0.6s						
UZB	Uzynbulak	3.44	22	eP	Pb	13 41 37.8	-1.0
	5.5nm,0.5s						
UZB				eS	Sb	13 42 23.6	+2.4
	9.1nm,0.6s						
KURS	Kuram	3.58	11	Pg	Pb	13 41 40.2	-0.9
	7.2nm,0.6s						
KURS				Lg	Lg	13 42 27.7	
	3.9nm,0.5s						
KURS	Kuram	3.58	11	eP	Pb	13 41 40.2	-0.9
	7.2nm,0.6s						
KURS				eS	Sb	13 42 27.7	+2.5
	3.9nm,0.5s						
SHLS	Shalkode	3.59	27	Pg	Pb	13 41 43.9	+2.6
	7.6nm,0.5s						
SHLS				Lg	Lg	13 42 34.4	
	12nm,0.7s						
SHLS	Shalkode	3.59	27	eP	Pb	13 41 43.9	+2.6
	7.6nm,0.5s						
SHLS				eS	Sg	13 42 34.4	+2.1
	12nm,0.7s						
KPKS	Kokpek	3.66	17	Pg	Pb	13 41 42.5	+0.1
	0.3nm,0.2s						
KPKS				Lg	Lg	13 42 31.6	
	19nm,0.5s						
KPKS	Kokpek	3.66	17	eP	Pb	13 41 42.5	+0.1
	0.3nm,0.2s						
KPKS				eS	Sb	13 42 31.6	+4.4
	19nm,0.5s						
PDGK	Podgornoye	3.75	26	⇑Pg	Pb	13 41 41.3	-2.8
	4.5nm,0.7s						
PDGK				⇓Lg	Lg	13 42 32.2	
	12nm,0.8s						
SGDS	Sogindy	3.99	331	Pg	Pb	13 41 47.4	-0.7
	1.3nm,0.2s						
SGDS				Lg	Lg	13 42 40.2	
	4.4nm,0.5s						
MRKS	Merke	4.10	314	Pg	Pb	13 41 49.8	-0.2
	2.8nm,0.5s						
MRKS				Lg	Lg	13 42 44.2	
	6.4nm,0.4s						
MRKS	Merke	4.10	314	eP	Pb	13 41 49.8	-0.2
	2.8nm,0.5s						
MRKS				eS	Sb	13 42 44.2	+4.1
	6.4nm,0.4s						
BLB	Baldybastay	4.22	12	Pg	Pb	13 41 52.2	+0.1
	6.9nm,0.4s						
BLB				Lg	Lg	13 42 48.3	
	7.1nm,0.4s						
ARXS	Arharly	4.26	6	Pg	Pb	13 41 52.6	-0.1
	4.4nm,0.7s						
ARXS				Lg	Lg	13 42 49.3	
	6.7nm,0.5s						
ARXS	Arharly	4.26	6	eP	Pb	13 41 52.6	-0.1
	4.4nm,0.7s						
ARXS				eS	Sb	13 42 49.3	+4.6
	6.7nm,0.5s						
KNOS	Konyrlen	4.62	18	Pg	Pb	13 41 59.3	+0.6
	2.3nm,0.4s						
KNOS				Lg	Lg	13 43 00.5	
	3.3nm,0.7s						
DJR	Jarkent	4.75	23	Pg	Pb	13 42 02.5	+1.5
	1.5nm,0.4s						
DJR				Lg	Lg	13 43 06.0	
	2.1nm,0.5s						
DJR	Jarkent	4.75	23	eP	Pb	13 42 02.5	+1.5
	1.5nm,0.4s						
DJR				eS	Sg	13 43 06.0	-3.5
	2.1nm,0.5s						

NNC 16 14:03:38.2±5.0, 38°.88N×73°.11E, h0^{km}, mb3.5, mpv3.1, 3C, Error ellipse: s-maj=39.1km s-min=26.5km az=162.0, Tajikistan-Xinjiang border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AAK	Ala-Archa	3.90	15	⇑Pn	Pn	14 04 39.2	-0.4
	0.6nm,0.5s						
AAK				⇑Sn	Sn	14 05 27.9	+1.8
	7.2nm,0.7s						
KK31	Karatay Array	4.65	336	Pn	Pn	14 04 50.0	+0.2
	5.6nm,0.4s,baz=149,slow=14,SNR=69						
KK31				⇑Sn	Sn	14 05 45.1	+0.5
	7.2nm,0.4s,baz=150,slow=22						
AB31	Akbulak array	14.02	322	P	Pn	14 06 57.0	-1.0
	0.4nm,0.3s,baz=130,slow=13,SNR=17						

IDC 16 14:13:56.3±50.0, 17°.93S×178°.24W, h0^{km}, mb4.1/3, mbtmp4.1/3, Error ellipse: s-maj=916.5km s-min=152.9km az=79.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	38.76	241	P	P	14 21 23.3	+0.7
	1.4nm,0.5s,baz=80,slow=6.1,SNR=5.0						
	1.4nm,0.5s						
WRA	Warramunga Arr	44.78	260	P	P	14 22 11.6	-0.6
	0.3nm,0.3s,baz=97,slow=7.5,SNR=25						
	0.3nm,0.3s						
ASAR	Alice Springs	44.94	254	P	P	14 22 13.1	-0.3
	3.7nm,0.5s,baz=90,slow=8.5,SNR=139						
	3.7nm,0.5s						

*NOU **16** 14:39:33.9, 38°.47S×177°.15E, h35^{km}, mb4.4/12, North Island, New Zealand*

*WEL **16** 14:39:34.5±0.3, 38°S±3°×17°7E±°, h36^{km}±4^{km}, M3.2/66, ML3.3/28, MLv3.2/66, Error ellipse: s-maj=4.0km s-min=3.4km az=178.6, confirmed*

ISC 16 14:39:34.8±1.3, 38°.36S±0°.03×177°.11E±0°.03, h51^{km}±6^{km}, n132, σ0^{s}.97/135, North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	0.10	359	P	Pn	14 39 42.1	-0.7
URZ	Urewera	0.10	359	P	Sn	14 39 48.2	-0.2
URZ	Urewera	0.10	359	P	Pn	14 39 42.3	-0.5
URZ				AML	AML		
URZ				AML	AML		
RAGZ	Rawiri	0.27	120	P	Pn	14 39 43.9	0.0
RAGZ				S	Sn	14 39 51.5	+1.1
RAGZ				AML	AML		
RAGZ				AML	AML		
RTZ	Ruatahuna	0.27	202	P	Pn	14 39 43.6	-0.3
RTZ				S	Sn	14 39 50.9	+0.4
RTZ				AML	AML		
RTZ				AML	AML		
MUGZ	Murupara	0.29	247	P	Pn	14 39 43.8	-0.2
MUGZ				S	Sn	14 39 51.0	+0.4
MUGZ				AML	AML		
MUGZ				AML	AML		
MWZ	Matawai	0.33	85	P	Pn	14 39 44.1	-0.2
MWZ				S	Sn	14 39 51.4	+0.2
MWZ				AML	AML		
MWZ				AML	AML		
EDRZ	Edgecumbe	0.39	311	P	Pn	14 39 44.7	-0.3
EDRZ				AML	AML		
EDRZ				AML	AML		
WKHS	Whakatane High	0.41	346	P	Pn	14 39 44.7	-0.5
WKHS				S	Sn	14 39 52.2	-0.3
RRRZ	Republican Roa	0.47	273	P	Pn	14 39 45.6	-0.2
RRRZ				S	Sn	14 39 54.1	+0.3
RRRZ				AML	AML		
RRRZ				AML	AML		
TARZ	Mount Tarawera	0.49	285	P	Pn	14 39 46.2	0.0
TARZ				AML	AML		
TARZ				AML	AML		
MARZ	Manawahe	0.51	317	P	Pn	14 39 46.1	-0.2
MARZ				AML	AML		
MARZ				AML	AML		
WHRZ	Whale Island	0.52	348	P	Pn	14 39 46.0	-0.3
WHRZ				AML	AML		
WHRZ				AML	AML		
MTHZ	Maungataniwha	0.53	203	P	Pn	14 39 46.3	-0.3
MTHZ				S	Sn	14 39 55.7	+0.6
MTHZ				AML	AML		
MTHZ				AML	AML		
RAHZ	Arahi	0.55	182	P	Pn	14 39 47.1	+0.3
RAHZ				AML	AML		
RAHZ				AML	AML		
MKRZ	Makatiti	0.56	293	AML	AML		
TKGZ	Te Karaka	0.58	98	P	Pn	14 39 47.4	+0.4
TKGZ				AML	AML		
TKGZ				AML	AML		
PRRZ	Plateau Road	0.58	256	P	Pn	14 39 46.7	-0.4
PRRZ				AML	AML		
PRRZ				AML	AML		
RUGZ	Raukumara Rang	0.59	48	P	Pn	14 39 46.5	-0.9
RUGZ				AML	AML		
RUGZ				AML	AML		
HLRZ	Highlands Stat	0.61	280	P	Pn	14 39 47.3	-0.2
HLRZ				AML	AML		
HLRZ				AML	AML		
RPCS	Reporoa Colleg	0.61	263	P	Pn	14 39 47.5	0.0
MWFS	Matata Watchor	0.61	325	P	Pn	14 39 46.8	-0.7
RIGZ	Rimuhau	0.61	124	P	Pn	14 39 48.0	+0.4
RIGZ				AML	AML		
RIGZ				AML	AML		
ALRZ	Allen Road	0.64	251	P	Pn	14 39 47.5	-0.3
ALRZ				AML	AML		
ALRZ				AML	AML		
HRRZ	Handcock Road	0.65	267	P	Pn	14 39 47.6	-0.4
HRRZ				AML	AML		
HRRZ				AML	AML		
LIRZ	Lichensteins R	0.68	302	P	Pn	14 39 47.8	-0.5
LIRZ				AML	AML		
LIRZ				AML	AML		
HSRZ	Hossack Road	0.69	274	P	Pn	14 39 48.3	-0.1
HSRZ				AML	AML		
HSRZ				AML	AML		
GWTS	Gisborne Waipa	0.69	113	P	Pn	14 39 49.4	+1.0
TWGZ	Tauwhareparae	0.71	75	P	Pn	14 39 49.3	+0.6
TWGZ				AML	AML		
TWGZ				AML	AML		
WHHZ	Waihua	0.72	173	P	Pn	14 39 49.5	+0.6
WHHZ				AML	AML		
WHHZ				AML	AML		
MRHZ	Matea Rd	0.72	229	P	Pn	14 39 48.5	-0.4
MRHZ				AML	AML		
MRHZ				AML	AML		
UTU	Utuhina	0.75	284	P	Pn	14 39 49.6	+0.4
UTU				AML	AML		
UTU				AML	AML		
WPRZ	Whakapapatarin	0.76	258	P	Pn	14 39 49.3	-0.2
WPRZ				AML	AML		
WPRZ				AML	AML		
KARZ	Kaharoa	0.77	296	P	Pn	14 39 48.8	-0.6
KARZ				AML	AML		
KARZ				AML	AML		
NMHZ	Naumai	0.77	198	P	Pn	14 39 50.1	+0.5
NMHZ				AML	AML		
NMHZ				AML	AML		
NGRZ	Ngongotaha	0.77	289	P	Pn	14 39 49.8	+0.2
NGRZ				AML	AML		
NGRZ				AML	AML		
GRRZ	Galatos Road	0.79	271	P	Pn	14 39 49.8	0.0
GRRZ				AML	AML		
GRRZ				AML	AML		
KNZ	Kokohu	0.79	147	P	Pn	14 39 49.6	-0.2
KNZ				AML	AML		
HAZ	Te Kaha	0.80	41	P	Pn	14 39 48.7	-1.2
HAZ				AML	AML		
HAZ				AML	AML		
PRGZ	Paritu Road	0.82	133	P	Pn	14 39 49.9	-0.3
PRGZ				AML	AML		
ARAZ	Aratiatia Land	0.82	251	AML	AML		
WIZ	White Island	0.84	4	P	Pn	14 39 49.5	-0.9
CNGZ	Carnagh Statio	0.87	98	P	Pn	14 39 51.3	+0.5
CNGZ				AML	AML		
CNGZ				AML	AML		

ARHZ	Aropaoanui	0.91	186	P	Pn	14 39 51.9	+0.6
ARHZ				AML	AML		
ARHZ				AML	AML		
PKGZ	Pakihiroa	0.91	57	P	Pn	14 39 51.3	-0.1
PKGZ				AML	AML		
PKGZ				AML	AML		
TGRZ	Tauranga	0.92	313	P	Pn	14 39 50.4	-1.1
TGRZ				AML	AML		
BKZ	Black Stump Fm	0.94	211	P	Pn	14 39 51.4	-0.4
BKZ	Black Stump Fm	0.94	211	P	Pn	14 39 51.6	-0.2
BKZ				AML	AML		
BKZ				AML	AML		
PUZ	Puketiti	0.95	73	P	Pn	14 39 51.8	0.0
PUZ				AML	AML		
PUZ				AML	AML		
WHTZ	Whakaora	0.96	251	P	Pn	14 39 52.1	+0.1
WHTZ				AML	AML		
MHGZ	Mahia Peninsul	1.00	142	P	Pn	14 39 52.3	-0.3
MHGZ				AML	AML		
KUTZ	Kaahu Road	1.02	262	P	Pn	14 39 52.5	-0.3
KUTZ				AML	AML		
KMRZ	Kaimai	1.06	299	AML	AML		
MCHZ	McNeill Hill	1.13	197	P	Pn	14 39 54.8	+0.5
MCHZ				AML	AML		
WATZ	Wairara	1.14	252	P	Pn	14 39 54.1	-0.3
WATZ				AML	AML		
RITZ	Rihia Road	1.16	238	P	Pn	14 39 54.7	0.0
RITZ				AML	AML		
WMGZ	Waiomatatini S	1.16	63	P	Pn	14 39 54.6	-0.1
WMGZ				AML	AML		
RATZ	Rangitukua	1.17	244	P	Pn	14 39 54.7	-0.1
KWHZ	Kaweka Forest	1.19	207	P	Pn	14 39 55.8	+0.7
KWHZ				AML	AML		
MXZ	Matakaoa Point	1.23	50	P	Pn	14 39 55.9	+0.2
MXZ	Matakaoa Point	1.23	50	S	Sn	14 40 12.1	+0.8
MXZ	Matakaoa Point	1.23	50	P	Pn	14 39 56.0	+0.3
MXZ				AML	AML		
TLZ	Tolley Road	1.24	271	P	Pn	14 39 55.3	-0.5
KATZ	Kakaramea	1.27	241	AML	AML		
CKHZ	Cape Kidnapper	1.29	181	P	Pn	14 39 55.9	-0.6
CKHZ				AML	AML		
TMVZ	Te Maari	1.33	235	P	Pn	14 39 56.9	-0.2
TMVZ				AML	AML		
ETVZ	East Tongariro	1.34	234	P	Pn	14 39 57.0	-0.3
ETVZ				AML	AML		
NTVZ	North Tongarir	1.34	236	P	Pn	14 39 57.2	-0.1
NTVZ				AML	AML		
KRVZ	Karewarewa	1.36	237	P	Pn	14 39 57.4	-0.1
KRVZ				AML	AML		
OTVZ	Oturere	1.39	234	P	Pn	14 39 55.8	-2.1
OTVZ				AML	AML		
BHHZ	Black Hill Sta	1.39	216	P	Pn	14 39 57.6	-0.3
BHHZ				AML	AML		
KRHZ	Kereru	1.41	204	P	Pn	14 39 57.5	-0.5
KRHZ				AML	AML		
WTVZ	West Tongariro	1.41	237	P	Pn	14 39 58.1	-0.1
WTVZ				AML	AML		
SNVZ	South Ngauruho	1.42	234	P	Pn	14 39 58.1	-0.2
SNVZ				AML	AML		
TOZ	Tahuroa Road	1.42	296	P	Pn	14 39 57.5	-0.7
NGZ	Ngauruhoe	1.44	235	P	Pn	14 39 58.4	-0.2
NGZ				AML	AML		
KAHZ	Kahuranaki	1.44	187	P	Pn	14 39 58.2	-0.4
KAHZ				AML	AML		
TUVZ	Tukino	1.46	231	P	Pn	14 39 58.6	-0.2
TUVZ				AML	AML		
COVZ	Chateau Observ	1.49	235	P	Pn	14 39 59.0	-0.2
MOVZ	Moawhango	1.49	225	P	Pn	14 39 58.8	-0.5
MOVZ				AML	AML		
TWVZ	Taurewa	1.49	241	P	Pn	14 39 58.8	-0.5
TWVZ				AML	AML		
WHVZ	Whangaehu Hut	1.50	232	P	Pn	14 39 59.2	-0.3
WHVZ				AML	AML		
FWVZ	Far West T-bar	1.51	233	P	Pn	14 39 59.3	-0.4
MAVZ	Matarangi	1.51	233	P	Pn	14 39 59.4	-0.4
MAVZ				AML	AML		
WNVZ	Wahianoa	1.53	230	P	Pn	14 39 59.5	-0.4
WNVZ				AML	AML		
TRVZ	Turoa	1.54	232	P	Pn	14 39 59.7	-0.4
MTVZ	Mangateitei	1.64	231	P	Pn	14 40 01.1	-0.2
MTVZ				AML	AML		
PKVZ	Pokaka	1.66	236	P	Pn	14 40 01.6	0.0
PKVZ				AML	AML		
PXZ	Pawanui	1.68	187	P	Pn	14 40 00.4	-1.3
PNHZ	Pukenui	1.71	204	P	Pn	14 40 01.0	-1.2
PNHZ				AML	AML		
WPHZ	Waipukurau	1.78	197	P	Pn	14 40 01.9	-1.2
WPHZ				AML	AML		
HIZ	Hauiti	1.78	264	P	Pn	14 40 03.2	+0.1
HIZ	Hauiti	1.78	264	S	Sn	14 40 25.2	+0.6
HIZ	Hauiti	1.78	264	P	Pn	14 40 03.5	+0.4
TSZ	Takapari Road	1.92	207	P	Pn	14 40 03.6	-1.4
PRHZ	Porangahau	1.94	191	P	Pn	14 40 03.5	-1.8
PRHZ				AML	AML		
MKAZ	Moumakai	1.99	308	P	Pn	14 40 05.4	-0.6
VRZ	Vera Road	1.99	247	P	Pn	14 40 06.4	+0.4
DVHZ	Dannevirke	2.07	200	P	Pn	14 40 05.1	-1.9
DVHZ				AML	AML		
WAZ	Wanganui	2.16	229	P	Pn	14 40 08.9	+0.6
WIAZ	Waiheke Island	2.22	314	P	Pn	14 40 08.8	-0.3
ETAZ	East Tamaki Re	2.23	308	P	Pn	14 40 09.3	0.0
ETAZ				AML	AML		
OHWZ	Ohakea	2.31	217	P	Pn	14 40 12.0	+1.7
AWAZ	Awhitu Peninsu	2.35	303	P	Pn	14 40 10.8	-0.1
MBAZ	Motutapu North	2.37	311	P	Pn	14 40 11.1	-0.1
MBAZ				AML	AML		
LREZ	Lake Rotokare	2.38	242	P	Pn	14 40 12.4	+1.1
LREZ				AML	AML		
GRZ	Great Barrier	2.49	327	P	Pn	14 40 12.1	-0.7
PREZ	Palmer Road	2.51	246	P	Pn	14 40 15.1	+2.0
NEZ	North Egmont	2.53	248	P	Pn	14 40 15.6	+2.2
NEZ				AML	AML		
ABAZ	Army Bay	2.53	313	P	Pn	14 40 13.4	+0.1
RVAZ	Riverhead Bore	2.56	307	P	Pn	14 40 13.6	-0.3
RVAZ				AML	AML		
PKE	Pukeiti	2.58	250	P	Pn	14 40 16.3	+2.2
MRZ	Mangatainoka R	2.58	207	P	Pn	14 40 13.5	-0.7
KHEZ	Kahui Hut	2.59	248	P	Pn	14 40 16.5	+2.2
HOWZ	Holdsworth Sta	2.82	205	P	Pn	14 40 14.6	-2.7
HOWZ				AML	AML		
OGWZ	Otaki Gorge	2.88	211	P	Pn	14 40 15.8	-2.3
KIW	Kapiti Island	3.02	214	P	Pn	14 40 17.7	-2.5
MTW	Mount Morrison	3.06	203	P	Pn	14 40 19.5	-1.1
MTW				AML	AML		
WCZ	Waipu Caves	3.28	317	P	Pn	14 40 23.5	-0.1
DUWZ	D’Urville Isla	3.47	224	P	Pn	14 40 29.4	+3.2
DUWZ				AML	AML		
NNZ	Nelson	4.05	224	P	Pn	14 40 34.3	+0.1
TKNZ	Takaka Hill	4.17	229	P	Pn	14 40 37.3	+1.4
TKNZ				AML	AML		
BSWZ	Blackbirch Sta	4.17	216	P	Pn	14 40 33.3	-2.5
OUZ	Omahuta	4.22	317	P	Pn	14 40 36.9	+0.4
OUZ	Omahuta	4.22	317	P	Pn	14 40 36.9	+0.4
QRZ	Quartz Range	4.31	234	P	Pn	14 40 36.3	-1.5
QRZ	Quartz Range	4.31	234	S	Sn	14 41 25.9	-0.9
QRZ	Quartz Range	4.31	234	P	Pn	14 40 37.4	-0.4
KHZ	Kahutara	4.88	213	P	Pn	14 40 43.2	-2.4
DSZ	Denniston Nort	5.29	229	P	Pn	14 40 54.0	+2.7
CTZ	Chatham Island	7.16	141	P	Pn	14 41 15.5	-1.2
ODZ	Otahua Downs	8.24	214	P	Pn	14 41 29.4	-2.2

SDD ***16*** *14:42:07.1±1.4, 18°.35N×70°.31W, h30^{km}±5^{km}, MD2.9, ML2.3, MW2.9, Presumed earthquake*

OSPL ***16*** *14:42:10.0±0.9, 18°.32N×70°.31W, h13^{km}±17^{km}, ML2.2, Presumed earthquake*

ISC 16 14:42:08.6±1.2**, 18°.33N**±0°.07×**70°.29W**±0°.04**, h27**^{km}±7^{km}**, n12,** σ**0^{s}.51**/16**, 1C-1D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BANI	BANI	0.09	313	⇑eP	Pb	14 42 13.2	-0.4
BANI				eS	Sb	14 42 16.7	-0.2
BANI				IAML		14 42 17.3	
	comp=N,3µm,0.2s						
BANI				IAML		14 42 17.7	
	comp=E,2µm,0.1s						
LOSC1	San Cristbal	0.19	66	i P	Pb	14 42 14.6	+0.4
LOSC1				IAML		14 42 19.7	
	comp=Z,1µm,0.4s						
SDD	Santo Domingo	0.38	70	i P	Pb	14 42 17.3	+0.4
SDD				IAML		14 42 25.0	
	comp=Z,284nm,0.5s						
SDD	Santo Domingo	0.38	70	ePg	Pb	14 42 17.0	+0.1
SDD				⇓eSg	Sn	14 42 24.2	-0.5
SDD				IAML		14 42 24.4	
	comp=E,88nm,0.8s						
SDD				IAML		14 42 29.4	
	comp=N,51nm,0.3s						
ABDR	Alto Bandera	0.58	326	ePg	Pb	14 42 20.5	+0.1
ABDR				eSg	Sn	14 42 29.5	-0.6
ABDR				IAML		14 42 31.3	
	comp=E,136nm,0.2s						
ABDR				IAML		14 42 32.6	
	comp=N,112nm,0.5s						
PODR	Polo	0.96	260	ePg	Pb	14 42 26.3	-0.3
PODR				IAML		14 42 45.0	
	comp=E,212nm,0.2s						
LODU1	El Espartillar	1.12	271	i P	Pb	14 42 29.4	0.0
LODU1				IAML		14 42 48.3	
	comp=Z,40nm,1.0s						
LONE3	El Aguacate, B	1.14	284	i P	Pn	14 42 29.1	+0.1
LONE3				eS	Sn	14 42 44.7	+0.9
LONE3				IAML		14 42 49.0	
	comp=Z,20nm,1.8s						
LOVI	El Cajuil, Ovi	1.15	243	i P	Pb	14 42 29.4	-0.5
LOVI				eS	Sn	14 42 44.7	+0.8
LOVI				IAML		14 42 46.4	
	comp=Z,84nm,0.6s						
REDR	Restauracion	1.34	309	ePg	Pb	14 42 38.0	+5.0
REDR				IAML		14 43 05.9	
	comp=E,18nm,0.2s						
REDR				IAML		14 43 06.9	
	comp=N,30nm,0.2s						
SMDR	Samana, DR	1.41	47	ePg	Pb	14 42 34.2	-0.1
SMDR				IAML		14 43 37.5	
	comp=N,67nm,0.7s						
HIDR	Higuey Centro	1.52	80	ePg	Pb	14 42 35.6	-0.4
HIDR				IAML		14 42 58.0	
	comp=N,35nm,0.3s						

NNC ***16*** *14:46:05.2±5.6, 41°.81N×80°.78E, h0^{km}, mb2.9, mpv2.5, Error ellipse: s-maj=43.6km s-min=29.1km az=6.0*

SOME ***16*** *14:46:11.4, 42°.42N×81°.08E, h15^{km}*

ISC 16 14:46:01.1±2.7**, 42°.4N**±0°.1×**81°.68E**±0°.08**, h10**^{km}**, n10,** σ**2^{s}.02**/19**, 3C-1D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KTMS	Ketmen	1.43	318	eP	Pg	14 46 33.3	+4.6
	0.7nm,0.2s						
KTMS				eS	Sg	14 46 49.1	+1.9
	1.4nm,0.1s						
SHLS	Shalkode	1.80	296	eP	Pn	14 46 32.9	+0.6
	2.5nm,0.1s						
SHLS				eS	Sn	14 46 48.7	-6.6
	5.4nm,0.2s						
PDGK	Podgornoye	1.86	301	⇑Pn	Pg	14 46 37.2	+0.4
	3.6nm,1.4s						
PDGK				⇑Sn	Sg	14 47 02.5	+1.6
	1.7nm,0.4s						
UZB	Uzynbulak	2.10	292	eP	Pg	14 46 42.6	+1.3
	2.6nm,0.2s						
UZB				eS	Sb	14 47 05.4	0.0
	3.6nm,0.2s						
KPKS	Kokpek	2.45	297	eP	Pg	14 46 48.6	+0.6
	0.4nm,0.2s						
KPKS				eS	Sb	14 47 15.4	0.0
	4.1nm,0.2s						
SATY	Saty	2.50	287	eP	Pg	14 46 49.0	0.0
	1.2nm,0.2s						
SATY				eS	Sb	14 47 16.3	-0.8
	5.4nm,0.1s						
ARXS	Arharly	3.35	304	eP	Pg	14 47 04.6	-0.7
	0.6nm,0.2s						
ARXS				eS	Sb	14 47 42.6	+1.2
	2.0nm,0.3s						
KOTS	Kotyrbulak	3.46	286	eP	Pg	14 47 06.1	-1.3
	1.7nm,0.3s						
KOTS				eS	Sb	14 47 45.3	+0.5
	7.1nm,0.7s						
MAKZ	Makanchi	4.42	3	⇓Pn	Pb	14 47 21.1	+2.3
	4.3nm,1.6s						
MAKZ				Sn	Sg	14 48 21.8	-1.2
	1.5nm,1.4s						
MK31	Makanchi Array	4.42	5	Pn	Pg	14 47 24.8	-1.0
	0.3nm,0.7s,baz=195,slow=14,SNR=7.7						
MK31				⇑Sn	Sg	14 48 23.7	+0.6
	0.8nm,0.8s,baz=199,slow=23						

ISK ***16*** *14:48:18.2, 38°.67N×41°.97E, h5^{km}, ML4.6/19*

IDC ***16*** *14:48:18.8±0.5, 38°.57N×42°.08E, h0^{km}, mb4.3/28, mbtmp4.3/40, ML4.0/11, MS3.8/58, Error ellipse: s-maj=11.8km s-min=7.1km az=146.0*

AFAD ***16*** *14:48:19.5, 38°.71N×41°.98E, h17^{km}±1^{km}, MW4.7*

MOS ***16*** *14:48:19.9±1.2, 38°.66N×42°.07E, h9^{km}, mb4.8/48, Error ellipse: s-maj=4.1km s-min=3.3km az=103.5*

DSN ***16*** *14:48:20.0±0.4, 38°.51N×41°.90E, h10^{km}, mb4.8/16, Error ellipse: s-maj=7.3km s-min=5.3km az=76.0*

GCMT ***16*** *14:48:21.6±0.4, 38°.56N±0°.02×41°.87E±0°.02, h13^{km}±2^{km}, MW4.7/75, Moment Tensor Solution. s75,c109; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}0.16±.06; $M_{\theta\theta}$-1.19±.07; $M_{\phi\phi}$1.03±.05; $M_{r\theta}$0.32±.15; $M_{\theta\phi}$-0.30±.04; $M_{\phi r}$-0.08±.14; Best double couple: $M_0$1.19000×10^{16} NP1:ϕ_s217.00000°, δ76.00000°, λ-3.00000°. NP2: ϕ_s308.00000°, δ87.00000°, λ-166.00000°. Principal axes: T 1.0850, Plg8.0000°, Azm81.0000°; N 0.2060, Plg76.0000°, Azm320.0000°; P -1.2960, Plg12.0000°, Azm173.0000°; nsta1 refers to body waves. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

NEIC ***16*** *14:48:21.6±1.1, 38°.72N±0°.06×42°.03E±0°.05, h10^{km}±1^{km}, mb4.7/139, Mwr4.6/14 Error ellipse: s-maj=10.9km s-min=6.0km az=203.0, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}0.27; $M_{\theta\theta}$-1.04; $M_{\phi\phi}$0.77; $M_{r\theta}$0.02; $M_{\theta\phi}$-0.19; $M_{\phi r}$-0.47; Fault plane solution: $M_0$1.06000×10^{16} NP1:ϕ_s124.75000°, δ67.81000°, λ158.27000°. NP2:ϕ_s223.31000°, δ69.96000°, λ23.71000°. Principal axes: T 1.0650, Plg31.0000°, Azm85.0000°; N -0.0018, Plg59.0000°, Azm261.0000°; P -1.0633, Plg1.0000°, Azm354.0000°;*

NEIC ***16*** *14:48:21.9, 38°.74N×42°.05E, h10^{km}*

GFZ ***16*** *14:48:22.4±0.3, 39°N±3°×4°2E±°, h10^{km}, M4.2/25, mb4.3/25*

MCSM ***16*** *14:48:26.3±0.5, 39°N±4°×4°2E±°, h15^{km}±3^{km}, mb4.5, mB4.7, MLv4.3, Mw(mB)4.0*

GII ***16*** *14:48:28.9±0.0, 38°.976N±0°.002×41°.622E±0°.001, h0^{km}, Mws4.9, confirmed*

ISC 16 14:48:21.1±0.6**, 38°.72N**±0°.02×**42°.03E**±0°.02**, h8**^{km}±3^{km}**, n679,** σ**1^{s}.89**/664**, mb4.6**/146**, MS3.9**/58**, 36C-25D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BLIS	Bitlis-Merkez	0.31	168	P	Pg	14 48 26.4	-0.8
BLIS				S	Sg	14 48 30.9	-0.4
MUSM	Mu-Merkez	0.41	271	P	Pg	14 48 27.0	-2.0
MUSM				S	Sg	14 48 32.4	-1.9
ADCV	BITLIS_Adilcev	0.55	80	P	Pg	14 48 31.2	-0.5
MLAZ	Malazgirt-MUS	0.58	43	Pg	Pg	14 48 32.0	-0.4
MLAZ				Sg	Sb	14 48 42.4	+0.2
MLAZ				AML	AML		
VRTB	Varto-Mus	0.63	315	Pg	Pg	14 48 31.5	-1.8
VRTB				AML	AML		
VRTB	Varto-Mus	0.63	315	P	Pg	14 48 31.9	-1.3
SRTM	Siirt_Merkez	0.73	187	P	Pg	14 48 34.4	-0.7
SRTM				S	Sb	14 48 47.1	+0.9
SLHN	Bingol, Solhan	0.82	287	S	Sn	14 48 50.8	-0.7
AKDM	Akdamar-Van	0.84	117	Pg	Pg	14 48 36.3	-0.9
AKDM				Sg	Sg	14 48 48.6	+0.5
AKDM				AML	AML		
PERV	Siirt/Pervari-	0.87	152	P	Pg	14 48 36.8	-1.0
PERV				S	Sb	14 48 50.8	+0.5
DORK	Agr/Tutak/Do	0.89	41	P	Pg	14 48 36.5	-1.6
DORK				S	Sg	14 48 48.8	-0.9
GEVA	Gevas	0.90	116	P	Pg	14 48 37.4	-1.0
GEVA				S	Sb	14 48 50.8	-0.5
GEVA	Gevas	0.90	116		Pg	14 48 37.9	-0.5
GEVA				Sg	Sb	14 48 51.3	0.0
KARO	Karliova-Bingo	0.97	308	Pg	Pg	14 48 37.9	-1.8
KARO				AML	AML		
BTMN	Batman	1.02	216	P	Pg	14 48 39.6	-1.1
BTMN				S	Sg	14 48 53.8	-0.1
ERCV	ERCIS-VAN	1.06	73	Pn	Pg	14 48 41.1	-0.4
ERCV				AML	AML		
VANB	Van	1.07	96	Pn	Pg	14 48 40.8	-0.8
VANB				Sn	Sn	14 48 58.1	+0.5
VANB				AML	AML		
BNGB	Bingl	1.09	285	Pg	Pg	14 48 39.1	-2.9
BNGB				AML	AML		
TVAN	Van	1.09	99	P	Pg	14 48 41.4	-0.7
TVAN				S	Sb	14 48 57.0	+0.1
AGRB	Hanur-Agry	1.14	41	Pn	Pg	14 48 41.9	-1.0
AGRB				AML	AML		
EATA	Eleskirt	1.20	17	P	Pg	14 48 42.8	-1.3
EATA				S	Sn	14 49 00.9	-0.1
ECAT	Cat-ERZURUM	1.21	318	P	Pg	14 48 42.1	-2.2
ECAT				S	Sg	14 48 59.0	-1.0
VMUR	Van-Muradiye	1.23	77	P	Pg	14 48 43.5	-1.2
VMUR				S	Sn	14 49 06.3	+4.6
EJDE	Erzurum, Palan	1.25	333	P	Pg	14 48 42.3	-2.7
EJDE				S	Sn	14 49 05.2	+2.7
SIRN	Sırnak	1.25	166	P	Pn	14 48 44.1	-0.9
SIRN				S	Sn	14 49 03.1	+1.0
ETEKE	Tekederesi - E	1.28	327	P	Pn	14 48 43.2	-2.3
ETEKE				S	Sn	14 49 05.1	+2.1
KOPR	Koprukoy-ERZUR	1.28	354	Pn	Pn	14 48 44.4	-1.1
KOPR				AML	AML		
HOMI	Horasan	1.33	356	P	Pn	14 48 44.1	-2.1
HOMI				S	Sn	14 49 07.2	+3.0
ATA5	Erzurum, Merke	1.33	333	Pn	Pn	14 48 45.2	-1.0
YEDI	Yedisu-Bingol	1.36	302	Pn	Pn	14 48 45.1	-1.5
YEDI				AML	AML		
MIDY	Mardin/Midyat-	1.40	201	P	Pn	14 48 46.8	-0.2
MIDY				S	Sb	14 49 05.4	-0.1
KOTA	Agri, Merkez-K	1.42	40	P	Pn	14 48 46.5	-0.8
KOTA				S	Sg	14 49 08.0	+1.4
CLDR	Caldiran	1.53	73	Pn	Pn	14 48 48.5	-0.4
CLDR				AML	AML		
CLDR	Caldiran	1.53	73	P	Pn	14 48 48.5	-0.4
DYDN	Diyadin	1.53	57	P	Pn	14 48 47.6	-1.3
OZAP	Van, Ozalp-Mer	1.54	91	P	Pn	14 48 48.8	-0.3
OZAP				S	Sg	14 49 19.9	+9.5
EMRE	Erzurum,Aziziy	1.55	328	P	Pn	14 48 48.5	-0.6
DYBB	Diyarbakir	1.67	243	Pn	Pn	14 48 49.4	-1.3
DYBB				AML	AML		
DIYA	Diyarbakir	1.70	243	P	Pb	14 48 53.2	+0.6
KOVA	Elazig, Kovanc	1.74	270	P	Pn	14 48 50.0	-1.7
HAKT	HAKKARI	1.76	131	P	Pb	14 48 52.9	-0.8
HAKT				S	Sg	14 49 20.1	+2.6
HAKT	HAKKARI	1.76	131	P	Pb	14 48 53.8	+0.1
KOPT	Kop Dagi	1.76	318	P	Pn	14 48 52.9	+0.7
KOPT				S	Sg	14 49 20.1	+2.4
KOPT	Kop Dagi	1.76	318		Pn	14 48 52.5	+0.3
EOLT	Oltu	1.83	359	P	Pn	14 48 53.8	+0.9
EOLT				S	Sg	14 49 22.6	+2.8
KRIK	Erzurum-spir	1.83	333	P	Pn	14 48 53.6	+0.6
KRIK				S	Sg	14 49 23.1	+3.2
SENK	Senkaya-Erzuru	1.86	8	Pn	Pn	14 48 53.6	+0.2
SENK				AML	AML		
MDNT	Maden	1.87	261	P	Pn	14 48 52.0	-1.5
MDNT				S	Sn	14 49 18.0	+0.7
CUKT	Cukurca	1.92	139	P	Pn	14 48 55.2	+1.0
CUKT				S	Sg	14 49 24.2	+1.3
IGDI	IGDIR	1.96	53	P	Pn	14 48 54.9	+0.2
IGDI				S	Sg	14 49 25.4	+1.4
TNCL	Tunceli-Merkez	1.98	282	P	Pn	14 48 54.7	-0.3
TNCL				S	Sg	14 49 26.6	+1.8
ERZN	Erzincan	2.00	297	Pn	Pn	14 48 54.4	-0.8
ERZN				AML	AML		
BOZK	Kars-Merkez-Bo	2.01	21	P	Pn	14 48 55.8	+0.3
BOZK				S	Sg	14 49 28.5	+2.9
BAYB	BAYBURT	2.06	319	P	Pn	14 48 56.9	+0.6
BAYB				S	Sg	14 49 29.4	+2.1
EUZM	Uzumlu	2.06	299	P	Pn	14 48 55.8	-0.4
EUZM				S	Sg	14 49 29.2	+1.7
KARS	Kars	2.07	23	Pn	Pn	14 48 56.2	-0.1
KARS				AML	AML		
KARS	Kars	2.07	23	P	Pn	14 48 56.2	-0.1
YOVA	Hakkari_Yksek	2.11	122	P	Pn	14 48 58.1	+1.3
GOLE	Ardahan-G¶le	2.16	11	P	Pn	14 48 58.7	+1.1
GOLE				S	Sg	14 49 32.8	+2.3
SVRC	Sivrice-ELAZID	2.16	262	Pn	Pn	14 48 56.4	-1.2
SVRC				AML	AML		
DDEM	Demirkent	2.18	354	P	Pn	14 48 59.0	+1.2
DDEM				S	Sg	14 49 32.4	+1.2
CNGT	ngs	2.20	258	P	Pn	14 48 57.3	-0.7
CNGT				S	Sb	14 49 29.2	+0.5
ELZ	Elazig	2.21	270	P	Pn	14 48 58.8	+0.7
ELZ				S	Sg	14 49 32.4	+0.3
EAK	Akyaka	2.31	31	P	Pb	14 49 01.8	-1.3
EAK				S	Sg	14 49 40.6	+5.3
EZC	Erzincan	2.32	297	P	Pn	14 48 54.6	-5.2
ESGZ	Sivrice-Elazig	2.34	264	Pn	Pn	14 48 58.6	-1.5
MDYL	Doganyol-Malat	2.38	261	Pn	Pn	14 48 59.5	-1.0
MDYL				AML	AML		
ELZG	Elazig	2.40	266	P	Pn	14 49 00.8	0.0
ELZG				S	Sg	14 49 36.4	-1.7
GNI	Garni	2.54	55	Pn	Pn	14 49 04.0	+1.3
	26nm,0.3s,baz=233,slow=2.9,SNR=32						
GNI				Lg	Lg	14 49 42.2	
	31nm,0.3s,baz=155,slow=23,SNR=3.8						
GNI				LR	LR	14 50 14.8	
	comp=Z,2µm,20.9s,baz=232,slow=45						
	955nm,0.7s						
GNI				AML	AML		
GNI	Garni	2.54	55	P	Pn	14 49 04.2	+1.4
GNI	Garni	2.54	55		Pn	14 49 03.8	+1.0
GNI	Garni	2.54	55	P	Pn	14 49 03.9	+1.2
GNI	Garni	2.54	55	Pn	Pn	14 49 04.0	+1.3
CHOM	Cayeli-Rize	2.57	338	Pn	Pn	14 49 02.9	-0.1
CHOM				AML	AML		
KELT	Kelkit	2.58	304	P	Pn	14 49 03.7	+0.3
NAX	Nakhchivan	2.74	79	P	Pn	14 49 06.4	+1.0
EPOS	Posof	2.83	11	P	Pn	14 49 08.1	+1.4
KTUT	Trabzon	2.86	323	Pn	Pn	14 49 06.9	-0.1
KTUT				AML	AML		
ARPR	Arapgir-MALATY	2.91	279		Pn	14 49 08.6	+0.7
ARPR	Arapgir-MALATY	2.91	279	P	Pn	14 49 08.9	+1.1
GANJ	Ganja	3.83	58	P	Pn	14 49 21.9	+1.5
GAZ	Gaziantep	4.11	249		Pn	14 49 24.4	+0.2
MNGR	Mingechevir, A	4.40	61	P	Pn	14 49 29.8	+1.6
NEUR	Neytrino	4.57	6	⇓iP	Pn	14 49 32.2	+1.5
TOKA	Tokat	4.58	292	Pn	Pn	14 49 31.2	+0.4
ANDN	Andirin	4.62	258	P	Pn	14 49 31.0	-0.3
BNN	Bunyan	4.83	274		Pn	14 49 34.8	+0.6
NCK	Nalchik	4.92	13	eP	Pn	14 49 38.7	+3.4
KBZ	Khabaz	5.05	7	Pn	Pn	14 49 39.4	+2.3
	0.6nm,0.3s,baz=166,slow=10,SNR=12						
	14nm,1.1s						
KBZ				AML	AML		
KBZ	Khabaz	5.05	7	⇑iP	Pn	14 49 39.6	+2.6
RPOR	Krasnaya Polya	5.15	346	⇑iP	Pn	14 49 40.1	+1.6
SOC	Sochi	5.17	341	eP	Pn	14 49 38.6	-0.1
SOC				e		14 50 38.1	
SOC				pmax	pmax		
	comp=Z,51nm,0.8s						
SOC				MLR	MLR		
	comp=Z,718nm,15.0s						
AKT	Akhty	5.17	56	eP	Pn	14 49 42.5	+3.7
AKT				eS	Sn	14 50 37.8	-0.9
AKT				pmax	pmax		
	comp=Z,48nm,0.7s						
AKT				smax	smax		
	comp=E,44nm,0.8s						
AKT				smax	smax		
	comp=N,49nm,0.6s						
AKT				smax	smax		
	comp=N,84nm,1.4s						
AKT				MLR	MLR		
	comp=Z,1µm,14.0s						
KIV	Kislovodsk	5.26	5	eP	Pn	14 49 42.4	+2.4
KIV				pmax	pmax		
	comp=Z,28nm,1.0s						
KIV				MLR	MLR		
	comp=Z,274nm,11.0s						
KIV	Kislovodsk	5.26	5	Pn	Pn	14 49 38.5	-1.5
KIV	Kislovodsk	5.26	5	i P	Pn	14 49 42.5	+2.5
	SNR=6.0						

KIV	Kislovodsk	5.26	5	P	Pn	14 49 42.9	+2.9
	comp=Z,92nm,1.3s						
KVAR	Kislovodsk Arr	5.26	5	Pn	Pn	14 49 42.9	+2.9
	baz=264,slow=22						
	comp=Z,3.8nm,0.4s						
LKRN	Lenkeran, Azer	5.28	88	P	Pn	14 49 41.3	+1.1
GUZR	Guzeripl'	5.47	345	⇑iP	Pn	14 49 45.0	+2.1
GUZR				pmax	pmax		
	comp=Z,37nm,1.4s						
MAK	Makhachkala	5.93	43	c iP	Pn	14 49 46.2	-3.0
MAK				eS	Sn	14 50 53.8	-3.5
MAK				pmax	pmax		
	comp=Z,138nm,0.8s						
MAK				MLR	MLR		
	comp=Z,766nm,13.0s						
LABN	Labinsk	6.00	351	eP	Pn	14 49 50.7	+0.6
LABN				eS	Sn	14 50 58.5	-0.5
LABN				pmax	pmax		
	comp=Z,46nm,0.6s						
LABN				MLR	MLR		
	comp=Z,1µm,14.0s						
SNOP	Sinop	6.17	304	Pn	Pn	14 49 51.9	-0.6
BR104	Keskin Array S	6.59	281	Pn	Pn	14 50 02.4	+4.0
	comp=Z,0.1nmcomp=Z,191nmcomp=Z,22nm,1.1s						
BR104				AML	AML		
BR131	Keskin Array S	6.59	281	P	Pn	14 50 02.4	+4.0
BR131	Keskin Array S	6.59	281	eP	Pn	14 50 00.7	+2.3
BR131	Keskin Array S	6.59	281	Pn	Pn	14 49 59.2	+0.8
BRTR	Keskin Array B	6.59	281	Pn	Pn	14 50 01.2	+2.8
	comp=Z,1.0nm,0.3s,baz=102,slow=14,SNR=17						
BRTR				LR	LR	14 52 49.9	
	comp=Z,1µm,18.6s,baz=102,slow=41						
	comp=Z,3.8nm,0.6s						
BRTR				AML	AML		
BRTR	Keskin Array B	6.59	281		Pn	14 49 58.1	-0.3
BR105	Keskin Array S	6.61	281	Pn	Pn	14 50 02.5	+3.8
	comp=Z,0.1nmcomp=Z,216nmcomp=Z,18nm,0.9s						
BR105				AML	AML		
BR106	Keskin Array S	6.61	281	Pn	Pn	14 50 02.8	+4.1
	comp=Z,0.1nmcomp=Z,248nmcomp=Z,17nm,0.9s						
BR106				AML	AML		
ILGA	Ilgaz	6.81	293	Pn	Pn	14 50 01.7	+0.3
ANN	Anapa	6.98	332	eP	Pn	14 50 08.6	+5.0
ANN				eS	Sn	14 51 26.5	+3.4
ANN				pmax	pmax		
	comp=Z,52nm,0.9s						
ANN				MLR	MLR		
	comp=Z,677nm,15.0s						
ERBR	Yeremizino-Bor	7.09	351	eP	Pn	14 50 06.1	+1.1
ERBR				eS	Sn	14 51 30.1	+4.3
ERBR				pmax	pmax		
	comp=Z,22nm,0.9s						
KKUL	Konya-Kulu	7.12	277	P	Pn	14 50 10.9	+5.3
CY602	RAF Akrotiri,	7.46	236	Pn	Pn	14 50 09.9	+0.1
NATI	Neve Ativ	7.46	225	P	Pn	14 50 16.6	+6.4
NATI				S	Sn	14 51 40.6	+5.7
CY604	RAF Akrotiri,	7.46	236		Pn	14 50 10.3	+0.4
GEM	Giv'at Ha'Em	7.54	225	P	Pn	14 50 10.8	-0.5
GEM	Giv'at Ha'Em	7.54	225	P	Pn	14 50 17.3	+6.1
GEM				S	Sn	14 51 42.4	+5.4
ASF	Jabal al Asfar	7.76	214	Pn	Pn	14 50 14.0	-0.4
	comp=Z,2.4nm,0.3s,baz=19,slow=12,SNR=24						
ASF				Lg	Lg	14 52 22.2	
	comp=Z,2.7nm,0.3s,baz=231,slow=23,SNR=5.9						
ASF				LR	LR	14 52 53.0	
	comp=Z,72nm,18.6s,baz=23,slow=36						
	comp=Z,20nm,0.6s						
ASF				AML	AML		
RMOT	Ramot	7.81	223	P	Pn	14 50 20.8	+5.8
RMOT				S	Sn	14 51 49.4	+5.8
MMAI	Mount Meron Ar	7.83	225	Pn	Pn	14 50 16.1	+0.8
	comp=Z,7.3nm,0.3s,baz=50,slow=17,SNR=17						
MMAI				Lg	Lg	14 52 27.2	
	comp=Z,10nm,0.3s,baz=66,slow=32,SNR=4.4						
MMAI				LR	LR	14 53 08.7	
	comp=Z,356nm,21.9s,baz=34,slow=37						
	comp=Z,4.6nm,0.4s						
MMAI				AML	AML		
KNHM	Kefar Nahum	7.83	224	P	Pn	14 50 21.3	+6.0
KNHM				S	Sn	14 51 49.1	+5.0
HNTI	Hanita	7.91	227	P	Pn	14 50 21.8	+5.5
HNTI				S	Sn	14 51 51.1	+5.1
CSS	Mathiatis	7.92	244	Pn	Pn	14 50 16.6	+0.2
CSS	Mathiatis	7.92	244	Pn	Pn	14 50 24.8	+8.3
	comp=Z,369nmcomp=Z,26nm,1.1s						
CSS	Mathiatis	7.92	244	P	Pn	14 50 16.4	-0.1
	comp=Z,0.1nmcomp=Z,0.2nmcomp=Z,369nmcomp=Z,18nm,0.7s						
CSS				AML	AML		
CSS				AML	AML		
HSUJ	Al Zarqa	8.14	218	P	Pn	14 50 20.4	+0.9
	comp=Z,1µmcomp=Z,132nm,0.7s						
MMLI	Mount Malkishu	8.26	223	P	Pn	14 50 27.8	+6.6
MMLI				S	Sn	14 51 59.6	+4.9
QRNJ	Al-Qirein	8.26	222	P	Pn	14 50 20.7	-0.4
	comp=Z,76µmcomp=Z,9µm,0.7s						
ROII	Roi	8.37	222	P	Pn	14 50 29.1	+6.4
ROII				S	Sn	14 52 03.6	+6.2
KEPZ	Antalya-Kepez	8.45	261	⇓P	Pn	14 50 30.0	+6.2
MDUB	Mudurnu	8.55	285	Pn	Pn	14 50 25.4	+0.2
SIM	Simferopol'	8.58	319	eP	Pn	14 50 40.4	+15
SIM				S	Sn	14 52 12.8	+10
SIM				pmax	pmax		
	comp=Z,20nm,0.3s						
SIM				smax	smax		
	comp=E,32nm,1.1s						
SLTI	Sal'it	8.62	224	P	Pn	14 50 31.8	+5.8
SLTI				S	Sn	14 52 09.4	+6.0
UJAP	Al Uja	8.62	220	P	Pn	14 50 26.2	+0.1
	comp=E,39nm,0.7s						
ARIL	Ariel Universi	8.63	222	P	Pn	14 50 32.8	+6.5
ARIL				S	Sn	14 52 09.7	+5.7
SALP	Salfit	8.67	222	P	Pn	14 50 25.8	-1.0
	comp=E,1µmcomp=E,52nm,0.7s						
SWQJ	Swaqa	8.92	215	P	Pn	14 50 26.6	-3.7
	comp=E,297nmcomp=E,9.3nm,0.7s						
MZS	Mizpe Shalem	8.96	219	P	Pn	14 50 37.8	+7.1
MZS				S	Sn	14 52 17.9	+6.0
BORA	Eskisehir	9.05	281	Pn	Pn	14 50 31.9	-0.2
GHAJ	Ghor Haditha	9.10	218		Pn	14 50 32.7	+0.1
GHAJ	Ghor Haditha	9.10	218	P	Pn	14 50 31.1	-1.5
	comp=E,1µmcomp=E,54nm,0.8s						
GHAJ	Ghor Haditha	9.10	218	P	Pn	14 50 34.2	+1.5
	comp=Z,48nm,0.7s						
GHAJ	Ghor Haditha	9.10	218	P	Pn	14 50 39.0	+6.4
GHAJ				S	Sn	14 52 21.9	+6.7
MSBI	Mazada	9.19	219	P	Pn	14 50 33.1	-0.8
	comp=Z,176nmcomp=Z,8.2nm,0.9s						
MSBI	Mazada	9.19	219	P	Pn	14 50 40.7	+6.8
MSBI				S	Sn	14 52 23.7	+6.2
LISJ	El Lisan	9.19	218	P	Pn	14 50 32.9	-1.0
	comp=Z,4µmcomp=Z,19nm,0.6s						
AMAZ	Amatzia	9.23	221	P	Pn	14 50 34.4	-0.2
	comp=Z,36nm,1.0s						
IDAN	Idan	9.63	217	P	Pn	14 50 46.6	+6.7
IDAN				S	Sn	14 52 34.9	+6.7
SILT	Sile	9.82	288	⇑P	Pn	14 50 47.6	+5.0
HSNJ	Maan	9.93	214	P	Pn	14 50 43.3	-0.9
	comp=Z,3µmcomp=Z,146nm,0.8s						
KZIT	Kziot	10.00	221	P	Pn	14 50 44.6	-0.5
	comp=Z,32nm,0.9s						
PRNI	Paran	10.15	217	P	Pn	14 50 46.1	-1.1
	comp=Z,2µmcomp=Z,67nm,0.7s						
HRFI	Mount Harif	10.41	216	P	Pn	14 50 51.1	+0.5
	comp=Z,589nmcomp=Z,25nm,1.0s						
HRFI	Mount Harif	10.41	216	P	Pn	14 50 57.6	+7.0
HRFI				S	Sn	14 52 53.7	+6.2
TAVA	DENIZLI_Tavas	10.42	267	⇑P	Pn	14 50 56.7	+5.8
KBD	Kabd	10.61	152	P	Pn	14 50 53.9	+0.5
AQBJ	Aqaba	10.66	215	P	Pn	14 50 53.8	-0.3
	comp=Z,3µmcomp=Z,49nm,0.7s						
EIL	Elat	10.76	215	Pn	Pn	14 50 58.9	+3.4
	comp=Z,0.3nm,0.3s,baz=88,slow=14,SNR=1.9						
EIL				Lg	Lg	14 53 57.2	
	comp=Z,1.1nm,0.3s,baz=132,slow=18,SNR=2.4						
EIL				LR	LR	14 55 41.2	
	comp=Z,1µm,18.5s,baz=48,slow=42						
EIL	Elat	10.76	215	P	Pn	14 50 54.8	-0.6
	comp=Z,646nmcomp=Z,11nm,1.0s						
EIL	Elat	10.76	215	P	Pn	14 51 02.1	+6.7
EIL				S	Sn	14 53 02.7	+6.7
TIRR	Tirgusor	11.70	304	⇑P	Pn	14 51 12.1	+3.9
TIRR	Tirgusor	11.70	304	Pn	Pn	14 51 07.7	-0.5
TIRR	Tirgusor	11.70	304	⇑P	Pn	14 51 12.1	+3.9
TIRR	Tirgusor	11.70	304	Pn	Pn	14 51 10.1	+1.9
	comp=Z,21nm,1.9s						
TPGR	Topolog	11.86	305	⇑P	Pn	14 51 11.9	+1.4
CFR	Carcaliu	12.19	306	P	Pn	14 51 17.5	+2.6
CFR	Carcaliu	12.19	306	⇑P	Pn	14 51 17.5	+2.6
VRH	Novokhopyorsk	12.49	359	eP	Pn	14 51 21.3	+2.4
VRH				pmax	pmax		
	comp=Z,18nm,0.9s						
VSR	Storozhevoye	12.66	352	eP	Pn	14 51 22.3	+1.0
VSR				pmax	pmax		
	comp=Z,12nm,1.0s						
ISR	Istrita	13.18	304	⇓P	Pn	14 51 32.2	+3.7
ISR	Istrita	13.18	304	⇓P	Pn	14 51 32.2	+3.7
ISR	Istrita	13.18	304	Pn	Pn	14 51 30.5	+2.0
	comp=Z,49nm,1.1s						
VRI	Vrincioaia	13.38	307	P	Pn	14 51 34.3	+3.1
VRI	Vrincioaia	13.38	307	⇓P	Pn	14 51 34.3	+3.1
VRI	Vrincioaia	13.38	307	P	Pn	14 51 35.2	+4.0
	comp=Z,13nm,1.4s						
PLOR	Plostina	13.42	307	⇓P	Pn	14 51 34.7	+2.9
PLOR	Plostina	13.42	307	⇓P	Pn	14 51 34.7	+2.9
NEHR	Nehoiu	13.46	305	⇑P	Pn	14 51 35.7	+3.3
SORM	Soroca	13.67	318	⇑P	Pn	14 51 37.6	+2.5
SORM	Soroca	13.67	318	⇑P	Pn	14 51 37.6	+2.5
SORM	Soroca	13.67	318	Pn	Pn	14 51 35.2	+0.1
	comp=Z,507nmcomp=Z,11nm,1.0s						
COVR	Voineasa-Covas	13.70	306	⇑P	Pn	14 51 39.1	+3.6
MLR	Muntele Rosu	13.72	305	Pn	Pn	14 51 39.2	+3.3
	comp=Z,0.1nm,0.3s,baz=104,slow=9.6,SNR=6.3						
MLR				LR	LR	14 58 23.9	
	comp=Z,252nm,18.6s,baz=152,slow=44						
	comp=Z,18nm,1.2s						
MLR				AML	AML		
MLR	Muntele Rosu	13.72	305		Pn	14 51 35.5	-0.4
MLR	Muntele Rosu	13.72	305	⇓P	Pn	14 51 39.7	+3.8
MLR	Muntele Rosu	13.72	305	Pn	Pn	14 51 39.0	+3.1
	comp=Z,327nmcomp=Z,16nm,1.2s						
MLR	Muntele Rosu	13.72	305	P	P	14 51 41.7	-3.0
	comp=Z,16nm,1.2s						
TESR	Tescani	13.73	309	⇑P	Pn	14 51 38.8	+2.8
TESR	Tescani	13.73	309	P	Pn	14 51 35.2	-0.8
	comp=Z,22nm,1.6s						
ONER	Baraj Valea Uz	13.80	308	⇑P	Pn	14 51 38.7	+1.7
TURR	Turia	13.91	307	⇓P	Pn	14 51 41.2	+2.7
LPSR	Galich'ya Gora	14.05	352	eP	Pn	14 51 39.5	-0.8
LPSR				pmax	pmax		
	comp=Z,46nm,1.0s						
OZUR		14.07	307	⇑P	Pn	14 51 41.9	+1.2
IDI	Anoyia	14.12	261	Pn	Pn	14 51 42.1	+0.7
	comp=Z,18nm,1.1s,baz=61,slow=18,SNR=3.0						
IDI	Anoyia	14.12	261		Pn	14 51 41.5	+0.1
BELG	Belogornoye	14.22	14	Pn	Pn	14 51 43.1	+0.5
	comp=Z,1.3nm,0.3s,baz=77,slow=4.0,SNR=5.3						
	comp=Z,18nm,0.9s						
BELG				AML	AML		
BELG	Belogornoye	14.22	14	eP	Pn	14 51 43.3	+0.7
BELG				pmax	pmax		
	comp=Z,3.0nm,0.9s						
DOPR	Dopca	14.27	306	⇑P	Pn	14 51 44.7	+1.4
BIZ	Bicaz	14.27	310	⇓P	Pn	14 51 45.3	+2.0
VOIR		14.28	303	⇓P	Pn	14 51 45.9	+2.4
VOIR		14.28	303	⇓P	Pn	14 51 45.9	+2.4
VOIR		14.28	303	Pn	Pn	14 51 45.4	+1.9
	comp=Z,353nmcomp=Z,42nm,1.1s						
VOIR		14.28	303	P	Pn	14 51 45.2	+1.6
	comp=Z,42nm,1.1s						
ARR	Arges	14.52	303	⇑P	Pn	14 51 49.7	+2.8
GVD	Gavdhos	14.89	260	P	Pn	14 51 53.0	+1.1
	comp=Z,70nm,1.2s						
AK07	Malin Array Si	14.92	327	Pn	Pn	14 51 52.0	-0.1
AK09	Malin Array Si	14.93	327	Pn	Pn	14 51 51.9	-0.4
KMPD	K-Podol'skiy	14.94	316	Pn	Pn	14 51 54.7	+2.3
AKASG	Malin Array Be	15.02	327	Pn	Pn	14 51 52.9	-0.6
	comp=Z,0.4nm,0.3s,baz=138,slow=12,SNR=42						
AKASG				LR	LR	14 58 50.1	
	comp=Z,365nm,18.8s,baz=150,slow=42						
	comp=Z,6.4nm,0.9s						
AKASG				AML	AML		
AKASG	Malin Array Be	15.02	327	P	Pn	14 51 53.6	+0.1
AKASG				pmax	pmax		
	comp=Z,11nm,1.3s						
AKASG	Malin Array Be	15.02	327		Pn	14 51 53.5	+0.1
AKBB	Malin Array Si	15.02	327	⇑iP	Pn	14 51 53.0	-0.5
AKBB	Malin Array Si	15.02	327		Pn	14 51 53.0	-0.5
AKBB				IAmb	IAmb	14 52 14.8	
	comp=Z,17nm,0.8s						
AKBB	Malin Array Si	15.02	327	P	Pn	14 51 52.5	-1.0
KIEV	Kiev	15.02	327	⇓P	Pn	14 51 53.7	+0.2
KIEV	Kiev	15.02	327		Pn	14 51 52.9	-0.6
KIEV				IAmb	IAmb	14 52 14.8	
	comp=Z,15nm,0.8s						
KIEV	Kiev	15.02	327	i P	Pn	14 51 53.5	0.0
	SNR=10.0						
KIEV	Kiev	15.02	327	⇓P	Pn	14 51 53.7	+0.2
KIEV	Kiev	15.02	327	Pn	Pn	14 51 52.0	-1.5
	comp=Z,86nm,1.0s						
AK13	Malin Array Si	15.03	327	P	Pn	14 51 53.3	-0.3
AK11	Malin Array Si	15.03	327	P	Pn	14 51 52.9	-0.7
AK19	Malin Array Si	15.13	327	P	Pn	14 51 54.7	-0.2
BURAR	Bucovina Array	15.13	311	⇑P	P	14 51 58.8	-1.6
BURAR	Bucovina Array	15.13	311	Pn	Pn	14 51 55.7	+0.6
BURAR	Bucovina Array	15.13	311	⇑P	P	14 51 58.8	-1.6
LUBAR	Lubar, Ukraine	15.13	322	P	Pn	14 51 54.2	-0.8
BUR08	Bucovina Ar. S	15.15	311	Pn	Pn	14 51 55.5	0.0
LIT	Litokhoron	15.17	281	P	Pn	14 51 54.1	-1.5
LIT				pmax	pmax		
	comp=Z,18nm,1.3s						
LIT	Litokhoron	15.17	281	Pn	Pn	14 51 54.1	-1.5
MI29	MI29, Kamyanyy	15.43	324	P	Pn	14 51 59.2	+0.3
	comp=Z,141nm,1.0s						
RAYN	Ar Rayn	15.43	168	P	Pn	14 51 55.7	-3.5
RAYN	Ar Rayn	15.43	168	P	Pn	14 51 55.6	-3.5
	comp=Z,14nm,0.7s						
MI30	MI30,Zelenitsa	15.50	325	P	Pn	14 51 58.8	-1.1
	comp=Z,38nm,1.3s						
GZR	Gura Zlata	15.76	301	⇑P	P	14 52 06.6	-0.8
GZR	Gura Zlata	15.76	301	⇑P	P	14 52 06.6	-0.8
ITM	Ithomi	15.94	271	Pn	Pn	14 52 05.5	-0.1
MARR	Marisel-Cluj	15.99	306	⇓P	P	14 52 10.0	+0.1
BOVS	Bovan	16.06	294	⇓P	P	14 52 11.2	+0.6
DRGR		16.30	306	⇓P	P	14 52 13.3	0.0
DRGR		16.30	306	⇓P	P	14 52 13.3	0.0
AKTO	Aktyubinsk	16.30	39	Pn	Pn	14 52 08.7	-1.4
	comp=Z,0.2nm,0.3s,baz=231,slow=11,SNR=14						
AKTO				LR	LR	15 00 02.0	
	comp=Z,338nm,18.8s,baz=96,slow=43						
	comp=Z,7.5nm,0.7s						
AKTO				AML	AML		
MDVR	Moldovita	16.31	298	⇑P	P	14 52 13.9	+0.5
JRN	Qarnain Island	16.51	143	P	Pn	14 52 13.8	+0.8
AB31	Akbulak array	16.61	45	eP	Pn	14 52 13.3	-0.8
AB31	Akbulak array	16.61	45		Pn	14 52 13.2	-0.8
ABKAR	Akbulak array	16.61	45		Pn	14 52 13.1	-1.0
PHP	Peshkopia	16.75	287	P	P	14 52 21.4	+3.0
	comp=Z,31nm,1.5s						
SIRR	Siria	16.79	303	⇓P	P	14 52 19.5	+0.9
HRA	Herat	16.80	99	Pn	Pn	14 52 15.2	-1.6
OBN	Obninsk	16.81	349	Pn	Pn	14 52 15.7	-0.9
	comp=Z,6.5nm,0.3s,baz=160,slow=20,SNR=3.6						
OBN				LR	LR	15 00 06.0	
	comp=Z,327nm,19.8s,baz=174,slow=42						
	comp=Z,22nm,0.4s						
OBN				AML	AML		
OBN	Obninsk	16.81	349	eP	Pn	14 52 15.6	-1.0
OBN				pmax	pmax		
	comp=Z,17nm,1.1s						
OBN				MLR	MLR		
	comp=Z,307nm,17.0s						
KEK	Kerkira	17.26	280		Pn	14 52 23.0	+0.6
MOS	Moscow	17.28	352	eP	Pn	14 52 21.2	-1.4
MOS				e		14 55 36.0	
MOS				pmax	pmax		
	comp=Z,39nm,0.7s						
SHME	Shamm	17.34	133	P	Pn	14 52 23.1	-0.3
SHME	Shamm	17.34	133	P	Pn	14 52 20.9	-2.6
GHWR	Ruwais	17.36	145	P	P	14 52 25.2	+0.2
KOLS	Kolonicke sedl	17.49	312	P	P	14 52 29.4	+3.0
	comp=Z,12nm,1.0s						
BANOM	Banah	17.52	133	P	Pn	14 52 23.8	-2.1
KWP	Kalwaria Pacla	17.59	315	P	P	14 52 27.7	+0.2
PDG	Podgorica	17.68	289		Pn	14 52 27.9	+0.2
MASF	Masafi	17.87	134	P	Pn	14 52 28.0	-2.1
	SNR=10						
MSFE	Esma-Masafi	17.88	134	P	Pn	14 52 27.9	-2.3
AJN	Ajban	17.88	138	P	Pn	14 52 30.3	+0.1
	SNR=9.2						
AJN	Ajban	17.88	138	i P	Pn	14 52 28.3	-1.9
	SNR=8.2						
NAZ	Nazwa, Dubai	17.90	136	P	Pn	14 52 28.1	-2.3
	SNR=15						
NAZ	Nazwa, Dubai	17.90	136	i P	Pn	14 52 28.0	-2.4
	SNR=15						
MZWR	Madinat Zayed	18.00	142	P	P	14 52 32.9	+0.8
MDH	Madha	18.01	134	P	Pn	14 52 29.9	-1.8
	SNR=12						
MDH	Madha	18.01	134	i P	Pn	14 52 28.7	-3.1
	SNR=15						
ASUD	Al Ashush, Dub	18.01	137	P	Pn	14 52 30.1	-1.7
	SNR=8.3						
ASUD	Al Ashush, Dub	18.01	137	P	Pn	14 52 29.4	-2.4
FAQ	Al Faqa, Dubai	18.05	137	P	P	14 52 34.0	+1.2
	SNR=8.5						
UOSS	Minazif	18.23	135	P	Pn	14 52 34.3	-0.2
UOSS	Minazif	18.23	135		Pn	14 52 33.8	-0.7
UOSS				IAmb	IAmb	14 52 38.3	
	comp=Z,51nm,0.9s						
UOSS	Minazif	18.23	135	i P	Pn	14 52 31.7	-2.8
	SNR=8.3						
UOSS	Minazif	18.23	135	P	Pn	14 52 31.9	-2.6
	comp=Z,71nm,1.1s						
HATD	Hatta, Dubai	18.29	135	P	Pn	14 52 35.3	+0.1
	SNR=29						
HATD	Hatta, Dubai	18.29	135	i P	Pn	14 52 33.1	-2.1
	SNR=15						
ASHO	Ashiyiah	18.36	136	P	Pn	14 52 33.4	-2.7
	SNR=26						
ASHO	Ashiyiah	18.36	136	i P	Pn	14 52 33.6	-2.5
	SNR=29						
MZR	Muzera	18.46	145	P	P	14 52 36.9	-0.5
	SNR=16						
MZR	Muzera	18.46	145	i P	P	14 52 36.8	-0.5
	SNR=13						
MNK	Minsk	18.48	333	i P	P	14 52 36.1	-1.1
MNK				i S	Sn	14 56 03.2	-0.7
MNK				pmax	pmax		
	comp=N,13nm,1.0s						
MNK				pmax	pmax		
	comp=Z,9.0nm,0.8s						
MNK				pmax	pmax		
	comp=E,16nm,0.8s						
MNK				MLR	MLR		
	comp=N,219nm,16.0s						
MNK				MLR	MLR		
	comp=Z,223nm,16.0s						
MNK				MLR	MLR		
	comp=E,126nm,17.0s						
MNK	Minsk	18.48	333	i P	P	14 52 36.2	-1.1
	comp=E,16nm,0.8s						
MNK				i P	P	14 52 36.2	-1.1
	comp=N,13nm,1.0s						
MNK				i P	P	14 52 36.2	-1.1
	comp=Z,9.0nm,0.8s,baz=143						
MNK				i PP	PnPn	14 52 47.2	-1.8
MNK				i PPP	PPP	14 52 55.4	
MNK				i S	Sn	14 56 03.2	-0.7
MNK				i SS	SnSn	14 56 18.9	+1.3
MNK				i SSS	SSS	14 56 30.9	
MNK				i LR	LR	14 59 31.7	
MNK				i LRM	MLR	15 00 50.2	
	comp=N,219nm,15.9s						
MNK				i LRM	MLR	15 00 53.0	
	comp=E,126nm,16.5s						
MNK				i LRM	MLR	15 00 53.0	
	comp=Z,223nm,16.2s						
PSZ	Piszkesteto	18.50	307	P	Pn	14 52 40.9	+3.2
PSZ	Piszkesteto	18.50	307	P	P	14 52 37.2	-0.4
PSZ	Piszkesteto	18.50	307	⇑P	Pn	14 52 40.9	+3.2
PSZ	Piszkesteto	18.50	307	P	Pn	14 52 40.5	+2.8
	comp=Z,8.2nm,1.3s						
ALNE	Al Ain	18.70	137	P	P	14 52 38.5	-1.4
	SNR=19						
ALNE	Al Ain	18.70	137	i P	P	14 52 37.9	-2.0
	SNR=9.6						
MORH	Mrgy, Hungar	18.77	301	⇓P	Pn	14 52 44.3	+3.4
MORH	Mrgy, Hungar	18.77	301	P	Pn	14 52 43.6	+2.7
	comp=Z,287nmcomp=Z,7.7nm,1.0s						
MORH	Mrgy, Hungar	18.77	301	P	Pn	14 52 45.4	+4.5
	comp=Z,8.6nm,1.0s						
NIE	Niedzica	18.86	312	P	Pn	14 52 43.3	+1.2
	comp=Z,5.3nm,1.4s						
SOHO	SOHO	19.05	136	P	P	14 52 42.4	-1.3
SOHO	SOHO	19.05	136	i P	P	14 52 42.1	-1.7
	SNR=7.4						
NACGM	Naroch	19.19	332	eP	Pn	14 52 46.1	+0.1
	comp=N,11nm,0.7s						
VYHS	Vyhne	19.36	308	eP	Pn	14 52 51.4	+3.3
VYHS				pmax	pmax		
	comp=Z,6.0nm,1.1s						
VYHS	Vyhne	19.36	308	eP	Pn	14 52 51.4	+3.3
VYHS	Vyhne	19.36	308	P	Pn	14 52 51.3	+3.2
	comp=Z,3.0nm,1.9s						
UMZA	Um Al Zommool	19.51	141	P	P	14 52 48.8	+0.1
OJC	Ojcow	19.51	313	eP	Pn	14 52 51.8	+1.9
OJC	Ojcow	19.51	313	P	Pn	14 52 50.4	+0.5
OJC	Ojcow	19.51	313	P	P	14 52 48.5	-0.2
OJC	Ojcow	19.51	313	P	Pn	14 52 50.3	+0.4
	comp=Z,7.6nm,0.9s						
OJC	Ojcow	19.51	313	P	Pn	14 52 50.4	+0.4
	comp=Z,7.6nm,0.9s						
TIP	Timpagrande	19.65	279		P	14 52 50.7	+0.4
TIP	Timpagrande	19.65	279	P	Pn	14 52 51.7	0.0
	comp=Z,21nm,1.4s						
ARQ	Araqi	19.69	137	P	P	14 52 50.3	-0.4
	SNR=20						
MPLH	Magyarpolny	19.76	303	P	Pn	14 52 55.0	+2.2
	comp=Z,43nm,1.5s						
BEL	Belsk	19.79	318	eP	P	14 52 46.2	-5.4
HOQ	Hoqain	19.92	135	P	P	14 52 53.5	+0.2
SUW	Suwalki	19.98	326	eP	Pn	14 52 55.9	+0.5
JAVC	Velka Javorina	20.22	308	eP	Pn	14 52 57.8	-0.5
JAVC	Velka Javorina	20.22	308	P	Pn	14 53 00.1	+1.8
	comp=Z,9.0nm,0.9s						
CUC	Castrocucco	20.29	282	P	P	14 52 57.7	+0.4
CUC				IAmb	IAmb	14 53 02.8	
	comp=Z,30nm,1.1s						
CUC	Castrocucco	20.29	282	P	Pn	14 53 00.1	+0.9
	comp=Z,26nm,1.0s						
MODS	Modra-Piesok	20.30	306	eP	Pn	14 53 02.5	+3.3
MODS				pmax	pmax		
	comp=Z,66nm,1.9s						
MODS	Modra-Piesok	20.30	306	eP	Pn	14 53 02.5	+3.3
MODS	Modra-Piesok	20.30	306	P	Pn	14 53 03.0	+3.8
	comp=Z,13nm,1.7s						
BIDO	Bidbid	20.43	133	P	P	14 52 58.8	0.0
CEL	Celeste	20.45	277	P	P	14 52 58.0	-1.0
CEL				IAmb	IAmb	14 53 05.4	
	comp=Z,40nm,1.0s						
CEL	Celeste	20.45	277	P	Pn	14 53 02.8	+1.7
	comp=Z,44nm,1.1s						
CEL	Celeste	20.45	277	P	Pn	14 53 00.5	-0.6
	comp=Z,45nm,1.1s						
KIRV	Kirov	20.45	11	P	P	14 52 58.2	-0.5
	comp=Z,28nm,0.6s,baz=39,slow=12,SNR=5.6						
KIRV				LR	LR	15 01 29.5	
	comp=Z,254nm,20.0s,baz=202,slow=38						
	comp=Z,28nm,0.6s						
KIRV	Kirov	20.45	11	eP	P	14 52 57.9	-0.8
BSY	Bisya	20.53	136	P	P	14 53 00.1	+0.2
	SNR=12						
STEB	Steborice	20.57	311	eP	Pn	14 53 07.9	+5.6
MORC	Moravsky Berou	20.64	310	⇑P	Pn	14 53 04.1	+0.9
MORC	Moravsky Berou	20.64	310	P	P	14 52 59.9	-1.1
MORC	Moravsky Berou	20.64	310	eP	Pn	14 53 04.3	+1.1
MORC	Moravsky Berou	20.64	310	⇑P	Pn	14 53 04.1	+0.8
PABE	Paberze	20.71	330	P	P	14 53 00.8	-0.7
PABE				IAmb	IAmb	14 53 13.7	
	comp=Z,42nm,1.1s						
PABE	Paberze	20.71	330	P	P	14 53 02.1	+0.6
	comp=Z,30nm,0.9s						
RONA	Rosalia, Austr	20.72	304	i pP	Pn	14 53 04.4	+0.2
	comp=Z,16nm,1.4s						
ARTI	Arti	20.75	26	P	P	14 53 01.7	-0.3
	comp=Z,11nm,0.8s,baz=211,slow=5.9,SNR=15						
ARTI				LR	LR	15 02 50.3	
	comp=Z,132nm,20.8s,baz=230,slow=42						
	comp=Z,11nm,0.8s						
ARTI	Arti	20.75	26	d iP	P	14 53 03.1	+1.1
ARTI						14 53 19.6	
ARTI				S	S	14 56 53.6	0.0
ARTI				SS	SnSn	14 57 11.5	-1.6
ARTI				pmax	pmax		
	comp=Z,27nm,1.2s						

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ARTI  Arti              20.75  26         P       14 53 01.8 -0.3
ARTI                              IAmb    IAmb    14 53 14.3
      comp=Z,20nm,0.9s
SMDO  Samad             20.75 134   P     P       14 53 03.1 +0.7
      SNR=10
WSAR  Wadi Sarin        20.94 133   P     Pn      14 53 05.8 -1.0
VRAC  Vranov            21.04 308   P     P       14 53 05.2 -0.1
      comp=Z,3.7nm,0.8s,baz=105,slow=11,SNR=8.6
VRAC                              LR      LR      15 03 45.8
      comp=Z,168nm,19.7s,baz=124,slow=44
      comp=Z,3.7nm,0.8s
VRAC  Vranov            21.04 308  eP     P       14 53 08.5 +3.2
VRAC  Vranov            21.04 308   P     P       14 53 08.9 +3.7
      comp=Z,3.5nm,1.4s
CONA  Conrad Observa    21.06 304  epP    P       14 53 08.1 +2.5
      comp=Z,21nm,1.2s,SNR=12
KRUC  Moravsky          21.08 308  eP     P       14 53 07.2 +1.6
KRUC  Moravsky          21.08 308   P     P       14 53 08.5 +2.9
      comp=Z,13nm,1.5s
ARSA  Arzberg           21.11 302   P     P       14 53 05.8 -0.2
ARSA  Arzberg           21.11 302  epP    P       14 53 08.8 +2.8
      comp=Z,11nm,1.1s
ARSA  Arzberg           21.11 302   P     P       14 53 10.4 +4.4
      comp=Z,15nm,1.3s
KRLC  Kraliky           21.21 311  eP     P       14 53 09.8 +2.7
KRLC  Kraliky           21.21 311  eP     P       14 53 09.8 +2.7
KRLC  Kraliky           21.21 311   P     P       14 53 09.8 +2.7
      comp=Z,11nm,1.4s
CHM   Chimkent          21.23  71  eP     P       14 53 08.1 +0.7
CHM                               pmax    pmax
      comp=Z,20nm,0.8s
CHM   Chimkent          21.23  71  eP     P       14 53 08.1 +0.7
      comp=Z,20nm,0.8s
SOKA  Soboth            21.30 301  epP    P       14 53 11.4 +3.2
      comp=Z,12nm,1.2s,SNR=8.6
JMDO  Jabal Madar       21.32 135   P     P       14 53 10.0 +1.5
      SNR=5.7
BRLS  Borolday          21.42  70c iP     P       14 53 08.8 -0.6
BRLS                              pmax    pmax
      comp=Z,17nm,1.0s
BRLS  Borolday          21.42  70⇑iP     P       14 53 08.8 -0.6
      comp=Z,17nm,1.0s
IUG   Iuzhnay           21.55  72  eP     P       14 53 11.5 +0.6
IUG                               pmax    pmax
      comp=Z,25nm,0.9s
IUG   Iuzhnay           21.55  72  eP     P       14 53 11.6 +0.6
      comp=Z,25nm,0.9s
DPC   Dobruska-Polom    21.59 311   P     P       14 53 14.6 +3.4
      comp=Z,9.3nm,1.1s
OBKA  Obir              21.60 300  epP    P       14 53 13.2 +1.9
      comp=Z,12nm,1.3s
WBK   Wadi Bani Khal    21.62 133   P     P       14 53 12.6 +0.8
INTR  Introdacqua       21.64 288   P     P       14 53 11.7 -0.2
SESA  Seetaler Alpe,    21.71 302   pP    P       14 53 14.1 +1.4
      SNR=8.0
TREC  Trest             21.72 308   P     P       14 53 15.7 +3.1
      comp=Z,9.0nm,1.2s
OSTC  Ostas             21.73 311  eP     P       14 53 15.8 +3.1
OSTC                              MLR     MLR
      comp=Z,300nm,14.6s
OSTC  Ostas             21.73 311  eP     P       14 53 15.8 +3.1
OSTC                              AMS     AMS     15 03 40.0
      comp=Z,300nm,14.6s
VAE   Valguarnera       21.74 275   LR    LR      15 02 43.8
      comp=Z,300nm,18.0s,baz=94,slow=40
KSP   Ksiaz             21.80 312  eP     P       14 53 18.1 +4.7
KSP   Ksiaz             21.80 312   P     P       14 53 15.6 +2.2
      comp=Z,22nm,1.2s
UPC   Upice             21.83 311   AMS   AMS     15 04 30.0
      comp=Z,300nm,14.4s
UPC   Upice             21.83 311   P     P       14 53 16.7 +2.9
      comp=Z,17nm,1.6s
CHVC  Chvalec           21.84 311  eP     P       14 53 16.6 +2.8
CHVC  Chvalec           21.84 311  eP     P       14 53 16.6 +2.8
SVE   Sverdlovsk        21.89  28  eP     P       14 53 17.9 +3.7
SVE                               pmax    pmax
      comp=Z,32nm,1.2s
KK31  Karatay Array     21.91  69  i P    P       14 53 15.6 +0.9
KK31  Karatay Array     21.91  69         P       14 53 14.9 +0.2
KK31                              IAmb    IAmb    14 53 19.4
      comp=Z,40nm,1.0s
KKAR  Karatay Array     21.91  69   P     P       14 53 15.4 +0.7
KKAR  Karatay Array     21.91  69         P       14 53 15.4 +0.7
AQU   L'Aquila          22.01 289   P     P       14 53 15.6 -0.2
AQU                               pmax    pmax
      comp=Z,37nm,1.1s
AQU   L'Aquila          22.01 289   P     P       14 53 15.6 -0.2
AQU                               IAmb    IAmb    14 53 38.3
      comp=Z,37nm,1.1s
AQU   L'Aquila          22.01 289   P     P       14 53 19.2 +3.4
      comp=Z,506nmcomp=Z,26nm,1.0s
AQU   L'Aquila          22.01 289   P     P       14 53 19.6 +3.7
      comp=Z,32nm,1.0s
KBL   Kabul             22.04  93   P     P       14 53 17.5 +1.1
KBL                               pmax    pmax
      comp=Z,76nm,1.3s
KBL   Kabul             22.04  93   P     P       14 53 17.5 +1.1
MOA   Molln             22.08 303  i pP   P       14 53 17.7 +1.3
      comp=Z,18nm,1.0s,SNR=9.6
VSU   Vasula            22.10 338⇑iP     P       14 53 17.6 +1.1
VSU                               pmax    pmax
      comp=Z,25nm,1.0s
VSU   Vasula            22.10 338   P     P       14 53 17.3 +0.9
      comp=Z,37nm,1.2s
SABO  M.te Sabotino     22.15 298         P       14 53 17.1 -0.1
SABO                              IAmb    IAmb    14 53 25.9
      comp=Z,37nm,1.2s
KLMR  Klimovskoe        22.22 357  eP     P       14 53 18.0 +0.3
KLMR                              pmax    pmax
      comp=Z,75nm,1.1s
NRCA  Norcia            22.23 290   P     P       14 53 18.2  0.0
MYKA  Terra Mystica     22.23 300  i pP   P       14 53 19.2 +1.0
      comp=Z,14nm,1.5s
JLN   Jalan Bani Buh    22.23 133   P     P       14 53 19.2 +0.9
      SNR=5.3
BTK   Batken            22.25  77   P     P       14 53 18.1 -0.3
BTK                               pmax    pmax
      comp=Z,27nm,1.1s
BTK   Batken            22.25  77         P       14 53 18.1 -0.3
BTK                               IAmb    IAmb    14 53 48.8
      comp=Z,27nm,1.1s
PRED  Cave del Predi    22.25 299   P     P       14 53 18.5 +0.1
FDMO  Fiordimonte       22.25 290   P     P       14 53 17.5 -0.9
FDMO                              IAmb    IAmb    14 53 37.3
      comp=Z,34nm,1.5s
MHTO  MHTO              22.37 138   P     P       14 53 21.6 +1.9
      SNR=19
GKP   Gorka Klasztor    22.39 319  eP     P       14 53 13.8 -5.9
BIOA  Bad Ischl, Aus    22.45 303  epP    P       14 53 22.1 +1.6
      comp=Z,21nm,1.3s,SNR=5.6
DZA   Taraz             22.51  70  eP     P       14 53 21.8 +0.7
DZA   Taraz             22.51  70  eP     P       14 53 21.9 +0.7
KBA   Koelnbreinsper    22.52 301  i pP   P       14 53 22.8 +1.4
      comp=Z,20nm,1.3s,SNR=6.9
PRU   Pruhonice         22.53 309   P     P       14 53 23.1 +1.9
PRU   Pruhonice         22.53 309  eS     S       14 57 33.2 +4.9
PRU                               AMS     AMS     15 04 20.0
      comp=Z,300nm,14.6s
PRU   Pruhonice         22.53 309   P     P       14 53 23.1 +1.9
      comp=Z,10nm,1.2s
ZVC   Zvikov            22.57 307  eP     P       14 53 26.2 +4.6
ZVC                               AMS     AMS     15 03 10.0
      comp=Z,300nm,22.8s
CESX  Cesi              22.62 289   P     P       14 53 20.9 -1.4
MURB  Monte Urbino      22.67 291   P     P       14 53 23.0 +0.1
MURB                              IAmb    IAmb    14 53 55.7
      comp=Z,33nm,1.2s
GEC2  GERESS Array S    22.70 306   P     P       14 53 23.3 +0.1
GEC2  GERESS Array S    22.70 306   P     P       14 53 26.6 +3.5
      comp=Z,7.2nm,1.3s
GERES GERESS Array B    22.70 306   P     P       14 53 23.7 +0.5
      comp=Z,1.7nm,0.5s,baz=113,slow=10,SNR=16
      comp=Z,1.7nm,0.5s
STAL  STALIGIAL         22.81 299   P     P       14 53 23.8 -0.4
KHC   Kasperske Hory    22.86 306⇓iP     P       14 53 27.3 +2.5
KHC                               pmax    pmax
      comp=Z,8.0nm,1.2s
KHC   Kasperske Hory    22.86 306  eP     P       14 53 26.9 +2.1
      comp=Z,0.8nm,0.5s
KHC                               AMS     AMS     15 02 50.0
      comp=Z,300nm,19.0s
KHC   Kasperske Hory    22.86 306   P     P       14 53 24.4 -0.4
KHC   Kasperske Hory    22.86 306   P     P       14 53 27.4 +2.6
      comp=Z,9.1nm,1.3s
KHC                               pP      sP      14 53 31.8 +3.1
      comp=Z,9.1nm,1.3s
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ABTA  Abfaltersbach     23.02 300  epP    P       14 53 28.1 +1.6
      comp=Z,7.4nm,1.4s
LESA  Schwarzleotal     23.03 302  epP    P       14 53 27.6 +1.0
      comp=Z,6.1nm,1.0s
DRK   Karamyk           23.07  79   P     P       14 53 27.7 +0.4
DRK                               pmax    pmax
      comp=Z,30nm,1.1s
DRK   Karamyk           23.07  79   P     P       14 53 27.7 +0.4
DRK                               IAmb    IAmb    14 53 31.0
      comp=Z,30nm,1.1s
WHFO  Wadi Hawf         23.11 150   P     P       14 53 28.2 +0.6
BRG   Berggiesshubel    23.19 311  eP     P       14 53 29.1 +1.0
BRG                               Amp             14 53 30.1
      comp=Z,2.3nm,1.1s
BRG   Berggiesshubel    23.19 311   P     P       14 53 34.5 +6.3
BRG                               Amp             14 53 39.8
      comp=Z,4.7nm,0.9s
BRG   Berggiesshubel    23.19 311   S     S       14 57 43.0 +3.0
HSKC  Hora Svate Kat    23.40 310  eP     P       14 53 32.3 +2.0
TEOL  Teolo             23.41 296   P     P       14 53 30.5  0.0
CTI   Castel Tesino     23.51 298   P     P       14 53 31.8 +0.3
CTI                               pmax    pmax
      comp=Z,40nm,1.3s
CTI   Castel Tesino     23.51 298         P       14 53 31.8 +0.3
RBK   Rabkut            23.66 150   P     P       14 53 33.3 +0.2
WTTA  Wattenberg        23.70 301  i pP   P       14 53 35.0 +1.5
      comp=Z,17nm,1.2s
WATA  Walderalm         23.75 301  i pP   P       14 53 34.9 +1.0
      comp=Z,19nm,1.3s
DMTO  DMTO              23.77 148   P     P       14 53 35.0 +1.0
ARSB  Arslanbob         23.78  74   P     P       14 53 33.9 -0.4
ARSB                              pmax    pmax
      comp=Z,123nm,1.5s
ARSB  Arslanbob         23.78  74   P     P       14 53 33.9 -0.4
ZCCA  Zocca             23.83 294   P     P       14 53 34.8 +0.2
NKC   Novy Kostel       23.88 308  eP     P       14 53 39.2 +4.2
NKC                               MLR     MLR
      comp=Z,300nm,15.8s
NKC   Novy Kostel       23.88 308  eP     P       14 53 39.2 +4.2
NKC                               eS      Sn      14 58 03.3  -10
NKC                               AMS     AMS     15 04 50.0
      comp=Z,300nm,15.8s
CLL   Collm             23.90 311  i P    P       14 53 35.3 +0.2
CLL                               i *PP   pP      14 53 37.3 -0.5
CLL                               eS      S       14 57 53.0 +1.6
CLL   Collm             23.90 311   P     P       14 53 35.8 +0.7
CLL   Collm             23.90 311   P     P       14 53 37.6 +2.5
CLL   Collm             23.90 311  i P    P       14 53 35.3 +0.2
CLL                               i pP    pP      14 53 37.3 -0.5
      comp=Z,20nm,1.6s
CLL                               i sP    sP      14 53 40.6 +1.5
CLL                               i x     x       14 53 51.1
CLL                               i PP    PnPn    14 54 07.3 +4.2
CLL                               ePPP    PPP     14 54 10.0
CLL                               eS      S       14 57 53.0 +1.6
CLL                               eSS     SnSn    14 58 34.0 +3.6
CLL                               eSSS    SSS     14 58 54.0
CLL                               LH              15 01 00.0
CLL                               L       L       15 02 00.0
CLL                               AMS     AMS     15 04 00.0
      comp=N,400nm,21.7s
CLL                               AMS     AMS     15 04 00.0
      comp=E,300nm,20.5s
CLL                               AMS     AMS     15 04 00.0
      comp=Z,100nm,20.2s
SQTA  Sankt Quirin      23.98 301  i pP   P       14 53 37.6 +1.5
      comp=Z,19nm,1.2s,SNR=5.5
MOTA  Moosalm           24.07 301  i pP   P       14 53 39.1 +2.2
      comp=Z,32nm,1.7s,SNR=8.1
BORK  Borovoye          24.15  44d iP     P       14 53 39.0 +1.6
BORK                              pmax    pmax
      comp=Z,6.0nm,0.9s
BORK  Borovoye          24.15  44         P       14 53 37.2 -0.2
BORK                              IAmb    IAmb    14 53 57.1
      comp=Z,13nm,0.8s
BVA2  Borovoye Array    24.18  44   P     P       14 53 38.3 +0.6
BVAR  Borovoye Array    24.18  44   P     P       14 53 37.4 -0.4
      comp=Z,4.5nm,0.7s,baz=232,slow=1.7,SNR=15
      comp=Z,4.5nm,0.7s
SALO  Salr              24.24 297   P     P       14 53 37.2 -1.2
FETA  Feichten          24.27 300  i P    P       14 53 38.9 +0.1
      comp=Z,25nm,1.1s,SNR=16
EKS2  Erkin-Say         24.31  70   P     P       14 53 40.9 +1.7
      SNR=17
RETA  Reutte            24.32 301  i P    P       14 53 39.2  0.0
      comp=Z,20nm,1.2s
GRA1  Grafenberg Arr    24.49 307   P     P       14 53 40.1 -0.5
GRF   Grafenberg Arr    24.49 307   P     P       14 53 40.1 -0.5
GRF                               pmax    pmax
      comp=Z,102nm,1.3s
FUORN Ofenpass-Fuorn    24.53 299   P     P       14 53 40.9 -0.4
FIA1  FINESS Array S    24.81 342   P     P       14 53 43.1 -0.2
FINES FINESS Array B    24.81 342   P     P       14 53 42.9 -0.4
      comp=Z,5.4nm,0.8s,baz=163,slow=9.3,SNR=8.3
FINES                             LR      LR      15 04 31.5
      comp=Z,260nm,18.6s,baz=154,slow=39
      comp=Z,5.4nm,0.8s
FINES FINESS Array B    24.81 342  i P    P       14 53 44.0 +0.7
FINES                             pmax    pmax
      comp=Z,5.0nm,0.8s
FINES FINESS Array B    24.81 342   P     P       14 53 43.1 -0.2
DAVOX Davos/Dischmat    24.81 299   LR    LR      15 05 12.8
      comp=Z,258nm,18.0s,baz=77,slow=41
AAK   Ala-Archa         24.84  71   LR    LR      15 05 20.9
      comp=Z,489nm,19.0s,baz=278,slow=41
AAK   Ala-Archa         24.84  71c iP     P       14 53 45.1 +1.0
AAK                               pmax    pmax
      comp=Z,5.0nm,0.9s
AAK   Ala-Archa         24.84  71         P       14 53 43.6 -0.5
AAK                               IAmb    IAmb    14 54 26.1
      comp=Z,15nm,1.1s
DAVA  Damuels           24.88 301  i P    P       14 53 43.7 -0.7
      comp=Z,22nm,1.2s,SNR=5.6
SGDS  Sogindy           24.93  69⇑iP     P       14 53 45.3 +0.6
CHMS  Chumysh           25.02  70   P     P       14 53 47.1 +1.5
      SNR=15
KBK   Karagaybulak      25.18  70   P     P       14 53 49.5 +2.5
      SNR=16
PGF   Pioggiola         25.27 289  eP     P       14 53 47.8  0.0
PGF                               pmax    pmax
      comp=Z,23nm,1.1s
NIL   Nilore            25.63  92   P     P       14 53 50.9 -0.2
NIL                               pmax    pmax
      comp=Z,57nm,1.5s
NIL   Nilore            25.63  92         P       14 53 50.9 -0.2
TKM2  Tokmak 2          25.64  70   P     P       14 53 53.1 +1.7
      SNR=28
BOOM  Boomskoye usch    25.92  71   P     P       14 53 53.1 -0.7
BOOM                              pmax    pmax
      comp=Z,18nm,1.1s
BOOM  Boomskoye usch    25.92  71         P       14 53 53.1 -0.7
BOOM                              IAmb    IAmb    14 54 01.0
      comp=Z,18nm,1.1s
KSH2  Kashi             26.01  78   P     P       14 53 56.1 +1.4
KSH2                              sP      sP      14 54 02.8 +4.1
KSH2                              pmax    pmax
      comp=Z,8.0nm,1.1s
KSH2                              L       L
      comp=Z,220nm,10.4s
KSH2                              L       L
      comp=Z,200nm,15.2s
KSH2                              L       L
      comp=Z,170nm,13.7s
KEST  Kesra             26.12 274   P     P       14 53 56.4 +0.8
      comp=Z,5.4nm,0.8s,baz=33,slow=3.2,SNR=13
KEST                              LR      LR      15 05 17.1
      comp=Z,79nm,21.5s,baz=50,slow=39
      comp=Z,5.4nm,0.8s
KEST  Kesra             26.12 274   P     P       14 53 59.4 +3.8
KEST  Kesra             26.12 274         P       14 53 55.9 +0.3
ULHL  Ulahol            26.16  71   P     P       14 53 57.8 +1.8
      SNR=16
KUU   Kurty             26.16  68  eP     P       14 53 56.5 +0.7
KUU                               pmax    pmax
      comp=Z,8.0nm,1.2s
KUU   Kurty             26.16  68  eP     P       14 53 56.5 +0.7
      comp=Z,8.5nm,1.2s
SENIN Lac Senin/Sane    26.54 298         P       14 53 59.3 -0.2
AAA   Alma-Ata          26.60  69  eP     P       14 54 00.5 +0.7
AAA                               pmax    pmax
      comp=Z,21nm,1.1s
AAA   Alma-Ata          26.60  69  eP     P       14 54 00.5 +0.7
      comp=Z,21nm,1.1s
TNSS  Tian-Shan         26.63  69  eP     P       14 54 00.7 +0.2
TNSS  Tian-Shan         26.63  69  eP     P       14 54 00.8 +0.2
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MDOK  Medeo             26.70  69  eP     P       14 54 01.5 +0.7
MDOK  Medeo             26.70  69  eP     P       14 54 01.5 +0.7
KDJ   Kajisay           26.86  71   P     P       14 54 02.0 -0.3
KDJ                               pmax    pmax
      comp=Z,9.0nm,1.0s
KDJ   Kajisay           26.86  71         P       14 54 02.0 -0.3
LPL   La Plagne         26.89 296  eP     P       14 54 04.1 +1.4
LPL                               pmax    pmax
      comp=Z,5.0nm,0.8s
BNI   Bardonecchia      26.92 295   P     P       14 54 02.3 -0.5
BNI                               pmax    pmax
      comp=Z,14nm,1.1s
BNI   Bardonecchia      26.92 295         P       14 54 02.2 -0.5
BNI                               IAmb    IAmb    14 54 08.3
      comp=Z,14nm,1.1s
CABF  La Chapelle       27.40 298  eP     P       14 54 06.5 -0.5
CABF                              pmax    pmax
      comp=Z,21nm,1.1s
TDK   Taldyqorghan      27.64  65  eP     P       14 54 09.9 +0.8
TDK                               pmax    pmax
      comp=Z,8.0nm,0.5s
TDK   Taldyqorghan      27.64  65  eP     P       14 54 09.9 +0.8
      comp=Z,8.0nm,0.5s
SATY  Saty              27.70  69  eP     P       14 54 10.3 +0.5
SATY  Saty              27.70  69  eP     P       14 54 10.3 +0.5
KPKS  Kokpek            27.88  68  eP     P       14 54 11.8 +0.5
KPKS  Kokpek            27.88  68  eP     P       14 54 11.9 +0.5
HFS   Hagfors           27.88 329   P     P       14 54 11.1  0.0
      comp=Z,3.4nm,0.8s,baz=181,slow=7.4,SNR=3.6
HFS                               LR      LR      15 06 38.7
      comp=Z,185nm,19.2s,baz=120,slow=39
      comp=Z,3.4nm,0.8s
UZB   Uzynbulak         28.14  69  eP     P       14 54 14.3 +0.5
UZB   Uzynbulak         28.14  69  eP     P       14 54 14.3 +0.5
KURBB Kurchatov Arra    28.27  53   P     P       14 54 15.7 +1.1
      comp=Z,7.2nm,0.8s,baz=264,slow=9.1,SNR=53
KURBB                             PcP     PcP     14 57 27.7 +0.1
      comp=Z,2.3nm,0.9s,baz=269,slow=3.1,SNR=8.9
KURBB                             LR      LR      15 07 29.2
      comp=Z,276nm,18.2s,baz=184,slow=41
      comp=Z,7.2nm,0.8s
KURBB Kurchatov Arra    28.27  53   P     P       14 54 14.9 +0.3
KURK  Kurchatov         28.34  53   P     P       14 54 16.2 +1.0
KURK  Kurchatov         28.34  53  i P    P       14 54 16.0 +0.7
KURK                              pmax    pmax
      comp=Z,12nm,1.0s
KURK  Kurchatov         28.34  53         P       14 54 15.7 +0.5
KURK                              IAmb    IAmb    14 54 17.8
      comp=Z,9.9nm,0.8s
KURK                                      PcP     14 57 27.5 -0.3
SHLS  Shalkode          28.46  69  eP     P       14 54 19.8 +3.2
SHLS  Shalkode          28.46  69  eP     P       14 54 19.9 +3.2
PDGK  Podgornoye        28.47  69   P     P       14 54 17.1 +0.4
PDGK  Podgornoye        28.47  69   P     P       14 54 17.1 +0.4
WUS   Wushi             28.47  73   IAmb  IAmb    14 54 19.4
      comp=Z,10.0nm,0.8s
GIVF  Givet             28.62 306  eP     P       14 54 14.5 -3.3
GIVF                              pmax    pmax
      comp=Z,24nm,1.6s
LOR   Lormes            28.96 300  eP     P       14 54 20.0 -0.9
LOR                               pmax    pmax
      comp=Z,1.0nm,0.3s
UCC   Uccle             29.03 307   P     P       14 54 21.4  0.0
UCC                               pmax    pmax
      comp=Z,12nm,1.1s
UCC   Uccle             29.03 307   P     P       14 54 21.4  0.0
UCC                               IAmb    IAmb    14 54 53.3
      comp=Z,12nm,1.1s
AVF   Avril sur Loir    29.29 299  eP     P       14 54 22.5 -1.2
AVF                               pmax    pmax
      comp=Z,7.0nm,1.0s
SEM   Semipalatinsk     29.31  54  eP     P       14 54 24.6 +0.4
SEM   Semipalatinsk     29.31  54  eP     P       14 54 24.7 +0.5
NOA   NORSAR Array B    29.41 329   LR    LR      15 07 35.0
      comp=Z,174nm,18.9s,baz=130,slow=39
NAO01 NORSAR Array S    29.43 329   P     P       14 54 24.1 -0.7
NC204 NORSAR Array S    29.72 330   P     P       14 54 27.1 -0.4
MAKZ  Makanchi          30.16  61   P     P       14 54 31.0 -0.5
MAKZ                              pmax    pmax
      comp=Z,11nm,0.8s
MAKZ  Makanchi          30.16  61         P       14 54 31.0 -0.5
MAKZ                              IAmb    IAmb    14 54 33.7
      comp=Z,11nm,0.8s
MK31  Makanchi Array    30.37  61  i P    P       14 54 34.1 +0.7
MK31  Makanchi Array    30.37  61   P     P       14 54 33.6 +0.2
MK31                              IAmb    IAmb    14 54 35.5
      comp=Z,10nm,0.8s
MKAR  Makanchi Array    30.37  61   P     P       14 54 34.5 +1.1
      comp=Z,13nm,0.8s,baz=272,slow=6.5,SNR=97
MKAR                              LR      LR      15 08 44.7
      comp=Z,181nm,21.0s,baz=266,slow=40
      comp=Z,13nm,0.8s
MKAR  Makanchi Array    30.37  61         P       14 54 33.2 -0.2
LDF   La Druitiere      31.70 302  eP     P       14 54 42.1 -2.9
LDF                               pmax    pmax
      comp=Z,18nm,1.3s
ARCES ARCESS Array B    32.12 349   P     P       14 54 49.2 +0.6
      comp=Z,1.7nm,0.8s,baz=152,slow=8.2,SNR=5.7
ARCES                             LR      LR      15 08 32.1
      comp=Z,278nm,18.4s,baz=148,slow=38
      comp=Z,1.7nm,0.8s
ARCES ARCESS Array B    32.12 349   P     P       14 54 48.1 -0.4
ARCES                             IAmb    IAmb    14 55 26.7
      comp=Z,13nm,1.4s
ZSN   Zaisan            32.13  60  eP     P       14 54 49.6 +0.7
ZSN   Zaisan            32.13  60  eP     P       14 54 49.6 +0.7
ZAA0  Zalesovo Array    32.67  48   P     P       14 54 53.6 +0.1
ZALV  Zalesovo Beam     32.67  48   P     P       14 54 53.5 +0.1
      comp=Z,2.2nm,0.8s,baz=265,slow=8.8,SNR=9.4
ZALV                              LR      LR      15 10 20.4
      comp=Z,111nm,19.6s,baz=253,slow=40
      comp=Z,2.2nm,0.8s
QUIF  Quistinic         33.72 301  eP     P       14 55 04.9 +2.2
QUIF                              pmax    pmax
      comp=Z,33nm,1.5s
DGZ   Jazzator, Alta    33.86  56⇑iP     P       14 55 05.0 +0.9
DGZ                               pmax    pmax
      comp=Z,10.0nm,1.0s
EKA   Eskdalemuir Ar    34.29 314   P     P       14 55 07.0 -0.6
      comp=Z,3.7nm,0.8s,baz=106,slow=7.9,SNR=4.9
EKA                               LR      LR      15 12 41.1
      comp=Z,282nm,18.2s,baz=16,slow=42
      comp=Z,3.7nm,0.8s
EKA   Eskdalemuir Ar    34.29 314   P     P       14 55 07.0 -0.6
ESDC  Sonseca Array     35.36 286   P     P       14 55 15.2 -1.9
      comp=Z,2.2nm,1.0s,baz=58,slow=8.6,SNR=6.1
      comp=Z,2.2nm,1.0s
ESDC  Sonseca Array     35.36 286   P     P       14 55 16.2 -0.8
ESDC                              IAmb    IAmb    14 55 51.0
      comp=Z,9.9nm,1.4s
MDT   Midelt            37.98 276   LR    LR      15 14 37.9
      comp=Z,60nm,18.6s,baz=46,slow=42
EVN   Everest           38.59  92         P       14 55 44.1 -1.2
EVN                               IAmb    IAmb    14 55 48.8
      comp=Z,26nm,1.2s
NRIK  Noril'sk          39.02  24   P     P       14 55 45.8 -2.0
      comp=Z,4.1nm,0.8s,baz=230,slow=11,SNR=4.1
NRIK                              LR      LR      15 15 51.7
      comp=Z,219nm,18.2s,baz=238,slow=42
      comp=Z,4.1nm,0.8s
NRIK  Noril'sk          39.02  24  eP     P       14 55 48.1 +0.4
NRIK                              pmax    pmax
      comp=Z,4.0nm,0.9s
NRIK  Noril'sk          39.02  24   P     P       14 55 46.2 -1.5
KMBO  Kilima Mbogo      39.89 187   LR    LR      15 11 02.9
      comp=Z,255nm,19.4s,baz=318,slow=34
MBAR  Mbarara           40.48 198   LR    LR      15 12 56.8
      comp=Z,139nm,21.9s,baz=24,slow=37
MBAR  Mbarara           40.48 198   P     P       14 56 07.6 +7.0
SPITS Spitsbergen Ar    40.98 352   LR    LR      15 15 01.4
      comp=Z,132nm,19.0s,baz=146,slow=39
JMIC  Jan Mayen         41.28 337   LR    LR      15 13 35.4
      comp=Z,137nm,20.9s,baz=170,slow=37
MOY   Mondy             42.39  52  eP     P       14 56 17.0 +1.1
MOY                               pmax    pmax
      comp=Z,14nm,1.7s
TORD  Torodi Ar. Bea    43.81 246   P     P       14 56 25.6 -2.0
      comp=Z,4.4nm,1.2s,baz=34,slow=7.7,SNR=8.5
      comp=Z,4.4nm,1.2s
ZAK   Zakamensk         43.99  54  eP     P       14 56 29.3 +0.4
ZAK                               pmax    pmax
      comp=Z,5.0nm,1.4s
GTA2  Gaotai            44.13  70  eP     P       14 56 31.3 +1.1
GTA2                              pmax    pmax
      comp=Z,16nm,1.1s
GTA2                              L       L
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	comp=Z,170nm,15.9s						
GTA2				L	L		
	comp=Z,100nm,15.9s						
GTA2				L	L		
	comp=Z,160nm,14.6s						
SONM	**Songino Array**	**46.50**	**57**	P	**P**	**14 56 48.6**	**-0.2**
	comp=Z,1.1nm,0.7s,baz=282,slow=7.9,SNR=5.8						
SONM				LR	LR	15 18 37.8	
	comp=Z,306nm,19.1s,baz=290,slow=39						
	comp=Z,1.1nm,0.7s						
SONM	**Songino Array**	**46.50**	**57**	P	**P**	**14 56 48.3**	**-0.6**
PALK	**Pallekele**	**46.82**	**122**	LR	LR	15 16 17.2	
	comp=Z,138nm,19.5s,baz=308,slow=36						
ULN	**Ulaanbaatar**	**46.92**	**57**	P	**P**	**14 56 53.7**	**+1.5**
ULN	**Ulaanbaatar**	**46.92**	**57**	*c i*P	**P**	**14 56 52.8**	**+0.6**
ULN				pmax	pmax		
	comp=Z,15nm,0.9s						
ULN	**Ulaanbaatar**	**46.92**	**57**		**P**	**14 56 52.6**	**+0.4**
ULN	**Ulaanbaatar**	**46.92**	**57**	P	**P**	**14 56 53.1**	**+0.9**
	comp=Z,75nm,1.1s						
LZDM	**Lanzhou Array**	**48.29**	**73**	P	**P**	**14 57 03.6**	**+0.4**
	comp=Z,1.6nm,0.3s,baz=318,slow=3.9,SNR=2.0						
LZDM				LR	LR	15 21 16.2	
	comp=Z,195nm,19.8s,baz=285,slow=41						
	comp=Z,1.6nm,0.3s						
TIXI	**Tiksi**	**52.81**	**23**	LR	LR	15 24 41.5	
	comp=Z,113nm,19.2s,baz=292,slow=41						
TIXI	**Tiksi**	**52.81**	**23**	*e*P	**P**	**14 57 36.7**	**+0.4**
TIXI				pmax	pmax		
	comp=Z,4.0nm,0.9s						
TIXI	**Tiksi**	**52.81**	**23**	P	**P**	**14 57 36.6**	**+0.3**
TIXI				IAmb	IAmb	14 57 49.7	
	comp=Z,10nm,1.4s						
CHTO	**Chiang Mai**	**52.83**	**95**	P	**P**	**14 57 36.9**	**-0.4**
CHTO				pmax	pmax		
	comp=Z,5.0nm,0.9s						
CHTO	**Chiang Mai**	**52.83**	**95**	P	**P**	**14 57 36.9**	**-0.4**
CHTO				IAmb	IAmb	14 57 37.4	
	comp=Z,5.0nm,0.8s						
CHTO	**Chiang Mai**	**52.83**	**95**	P	**P**	**14 57 37.2**	**-0.1**
	comp=Z,9.7nm,1.7s						
DBIC	**Dimbokro**	**52.92**	**245**	P	**P**	**14 57 35.7**	**-2.2**
	comp=Z,12nm,1.1s,baz=327,slow=11,SNR=3.7						
DBIC				LR	LR	15 22 30.0	
	comp=Z,60nm,19.5s,baz=57,slow=39						
	comp=Z,12nm,1.1s						
DBIC	**Dimbokro**	**52.92**	**245**	P	**P**	**14 57 37.5**	**-0.4**
DBIC				pmax	pmax		
	comp=Z,15nm,1.1s						
DBIC	**Dimbokro**	**52.92**	**245**	P	**P**	**14 57 37.5**	**-0.4**
CM31	**Chiang Mai Arr**	**53.03**	**96**	P	**P**	**14 57 37.9**	**-0.8**
CM31				IAmb	IAmb	14 57 41.0	
	comp=Z,14nm,1.4s						
CMAR	**Chiang Mai Arr**	**53.03**	**96**	P	**P**	**14 57 37.6**	**-1.2**
	comp=Z,3.1nm,0.9s,baz=299,slow=7.9,SNR=19						
CMAR				LR	LR	15 25 44.4	
	comp=Z,69nm,18.5s,baz=210,slow=42						
	comp=Z,3.1nm,0.9s						
CMAR	**Chiang Mai Arr**	**53.03**	**96**	*i* P	**P**	**14 57 38.7**	**-0.1**
CMAR				pmax	pmax		
	comp=Z,3.0nm,0.9s						
CMAR	**Chiang Mai Arr**	**53.03**	**96**		**P**	**14 57 38.5**	**-0.2**
HILR	**Hailar Array B**	**54.47**	**51**	P	**P**	**14 57 47.6**	**-1.4**
	comp=Z,0.7nm,0.2s,baz=260,slow=4.1,SNR=5.1						
	comp=Z,0.7nm,0.2s						
ENH	**Enshi**	**55.12**	**77**	P	**P**	**14 57 53.5**	**-0.4**
ENH				IAmb	IAmb	14 57 55.0	
	comp=Z,11nm,1.1s						
SLVN	**Son La**	**55.31**	**89**		**P**	**14 57 55.2**	**-0.3**
SLVN				IAmb	IAmb	14 57 57.1	
	comp=Z,11nm,1.2s						
YAK	**Yakutsk**	**55.63**	**35**	LR	LR	15 24 30.5	
	comp=Z,99nm,18.3s,baz=282,slow=39						
YAK	**Yakutsk**	**55.63**	**35**	*e*P	**P**	**14 57 56.5**	**-0.6**
YAK				pmax	pmax		
	comp=Z,7.0nm,0.8s						
YAK				pmax	pmax		
	comp=N,3.0nm,1.8s						
YAK				pmax	pmax		
	comp=E,4.0nm,1.4s						
YAK	**Yakutsk**	**55.63**	**35**		**P**	**14 57 56.2**	**-0.9**
SFJD	**Kangerlussuaq**	**56.04**	**332**	LR	LR	15 22 31.3	
	comp=E,110nm,18.9s,baz=66,slow=36						
HEH	**HeiHe**	**58.80**	**48**	*e*P	**P**	**14 58 19.8**	**+0.2**
HEH				pmax	pmax		
	comp=E,8.0nm,0.7s						
BNX	**BinXian**	**60.73**	**53**	⇓P	**P**	**14 58 33.6**	**+0.5**
BNX				pmax	pmax		
	comp=E,5.0nm,1.1s						
KLR	**Kul'dur**	**61.78**	**48**	LR	LR	15 27 42.0	
	comp=E,120nm,18.8s,baz=280,slow=38						
KLR	**Kul'dur**	**61.78**	**48**	⇓*i*P	**P**	**14 58 40.5**	**+0.4**
KLR				pmax	pmax		
	comp=Z,3.0nm,1.0s						
RES	**Resolute Bay**	**63.34**	**348**	LR	LR	15 27 49.2	
	comp=Z,81nm,18.8s,baz=356,slow=37						
USRK	**Ussuriysk Ar.**	**64.33**	**53**	P	**P**	**14 58 56.3**	**-0.8**
	comp=Z,2.3nm,0.9s,baz=313,slow=6.5,SNR=5.0						
USRK				LR	LR	15 31 28.9	
	comp=Z,128nm,20.6s,baz=302,slow=40						
	comp=Z,2.3nm,0.9s						
USRK	**Ussuriysk Ar.**	**64.33**	**53**	P	**P**	**14 58 56.4**	**-0.7**
USRK	**Ussuriysk Ar.**	**64.33**	**53**	P	**P**	**14 58 56.4**	**-0.7**
SEY	**Seymchan**	**64.57**	**28**	P	**P**	**14 58 58.1**	**-0.3**
	comp=Z,8.5nm,0.7s,baz=286,slow=5.7,SNR=40						
	comp=Z,8.5nm,0.7s						
SEY	**Seymchan**	**64.57**	**28**	⇑*i*P	**P**	**14 58 59.2**	**+0.9**
SEY				pmax	pmax		
	comp=Z,8.0nm,0.9s						
KS19	**Wonju Array Si**	**64.99**	**61**	P	**P**	**14 59 01.7**	**+0.1**
KSAR	**Wonju Array Be**	**65.03**	**61**	P	**P**	**14 59 01.4**	**-0.4**
KSAR	**Wonju Array Be**	**65.03**	**61**		**P**	**14 59 01.4**	**-0.4**
KSRS	**Korea Array**	**65.05**	**61**	P	**P**	**14 59 01.3**	**-0.6**
	comp=Z,6.0nm,0.9s,baz=299,slow=6.4,SNR=19						
KSRS				LR	LR	15 30 48.1	
	comp=Z,93nm,18.8s,baz=320,slow=39						
	comp=Z,6.0nm,0.9s						
MA2	**Magadan**	**65.90**	**32**	LR	LR	15 33 00.8	
	comp=Z,77nm,18.2s,baz=295,slow=41						
MYKOM	**Kota Tinggi**	**67.13**	**107**	P	**P**	**14 59 13.9**	**-1.7**
ASAJ	**Asahikawa**	**70.80**	**49**	LR	LR	15 33 27.3	
	comp=Z,113nm,19.8s,baz=265,slow=38						
D25K	**Kavik River**	**72.10**	**3**	P	**P**	**14 59 46.4**	**+0.9**
INU	**Inuyama**	**72.35**	**59**	P	**P**	**14 59 47.5**	**+0.1**
MJB9	**Matsu-Tunnel**	**72.45**	**57**	P	**P**	**14 59 48.4**	**+0.2**
MJB9				IAmb	IAmb	14 59 53.1	
	comp=Z,4.7nm,0.8s						
MAJO	**Matsushiro**	**72.45**	**57**	P	**P**	**14 59 48.0**	**-0.1**
MAJO				pmax	pmax		
	comp=Z,5.0nm,0.9s						
MAJO	**Matsushiro**	**72.45**	**57**	P	**P**	**14 59 48.0**	**-0.1**
MAJO				IAmb	IAmb	14 59 51.8	
	comp=Z,5.0nm,0.9s						
MJAR	**Matsushiro Arr**	**72.45**	**57**	P	**P**	**14 59 46.2**	**-2.0**
	comp=Z,3.5nm,1.0s,baz=304,slow=6.5,SNR=7.6						
MJAR				LR	LR	15 34 38.0	
	comp=Z,130nm,18.6s,baz=315,slow=38						
	comp=Z,3.5nm,1.0s						
MJAR	**Matsushiro Arr**	**72.45**	**57**	P	**P**	**14 59 48.3**	**+0.1**
MJAR				pmax	pmax		
	comp=Z,3.0nm,1.0s						
MJAR	**Matsushiro Arr**	**72.45**	**57**	P	**P**	**14 59 48.3**	**+0.1**
E18K	**Tukpahlearik C**	**72.80**	**9**	P	**P**	**14 59 49.5**	**-0.1**
E22K	**Anaktuvuk Pass**	**72.96**	**5**	P	**P**	**14 59 50.8**	**+0.2**
E22K				IAmb	IAmb	14 59 52.0	
	comp=Z,8.0nm,1.1s						
PEA0B	**Petropavlovsk-**	**72.98**	**35**	P	**P**	**14 59 50.4**	**-0.5**
PEA0B				pmax	pmax		
	comp=Z,23nm,1.3s						
PEA0B	**Petropavlovsk-**	**72.98**	**35**	P	**P**	**14 59 50.4**	**-0.5**
PETK	**Petropavlovsk-**	**72.98**	**35**	P	**P**	**14 59 50.6**	**-0.3**
	comp=Z,1.2nm,0.8s,baz=327,slow=6.9,SNR=1.8						
PETK				LR	LR	15 37 53.6	
	comp=Z,82nm,18.4s,baz=309,slow=41						
	comp=Z,1.2nm,0.8s						
PETK	**Petropavlovsk-**	**72.98**	**35**	P	**P**	**14 59 50.3**	**-0.6**
E23K	**Chandalar**	**73.18**	**5**	P	**P**	**14 59 52.3**	**+0.3**
E23K				IAmb	IAmb	14 59 56.0	
	comp=Z,7.5nm,1.0s						
E29M	**Blow River**	**73.21**	**360**		**P**	**14 59 52.8**	**+0.7**
INK	**Inuvik**	**73.24**	**358**	LR	LR	15 34 07.1	
	comp=Z,45nm,21.4s,baz=335,slow=37						
INK	**Inuvik**	**73.24**	**358**	P	**P**	**14 59 52.6**	**+0.4**
INK				pmax	pmax		
	comp=Z,5.0nm,1.1s						
INK	**Inuvik**	**73.24**	**358**	P	**P**	**14 59 52.6**	**+0.4**
INK				IAmb	IAmb	15 00 03.3	
	comp=Z,4.7nm,1.1s						
E27K	**Coleen River**	**73.38**	**1**	IAmb	IAmb	14 59 54.5	
	comp=Z,9.1nm,1.1s						
SUR	**Sutherland**	**73.44**	**199**	LR	LR	15 33 38.0	
	comp=Z,99nm,18.9s,baz=21,slow=37						
COLD	**Coldfoot**	**73.97**	**5**	IAmb	IAmb	15 00 05.5	
	comp=Z,8.5nm,1.0s						
BMAR	**Burnt Mountain**	**74.06**	**3**	P	**P**	**14 59 58.3**	**+1.1**
G19K	**Purcell Mounta**	**74.43**	**8**	IAmb	IAmb	15 00 00.7	
	comp=Z,9.8nm,1.1s						
G26K	**Porcupine Rive**	**74.57**	**2**	IAmb	IAmb	15 00 01.9	
	comp=Z,7.5nm,0.8s						
G27K	**Doyon Strip**	**74.76**	**2**	IAmb	IAmb	15 00 03.1	
	comp=Z,11nm,1.1s						
IMAR	**Indian Mountai**	**74.92**	**7**	P	**P**	**15 00 02.3**	**+0.3**
H23K	**Yukon River**	**75.40**	**5**	IAmb	IAmb	15 00 06.8	
	comp=Z,6.2nm,1.0s						
I21K	**Tanana**	**75.86**	**6**	IAmb	IAmb	15 00 08.5	
	comp=Z,6.2nm,1.0s						
MLY	**Manley**	**76.10**	**6**	IAmb	IAmb	15 00 10.8	
	comp=Z,5.8nm,1.1s						
I28M	**Miner Creek**	**76.16**	**1**	IAmb	IAmb	15 00 16.9	
	comp=Z,7.0nm,1.1s						
I26K	**Coal Creek Min**	**76.23**	**2**	IAmb	IAmb	15 00 10.6	
	comp=Z,5.4nm,1.0s						
I30M	**Mount Dempster**	**76.39**	**359**	IAmb	IAmb	15 00 11.5	
	comp=Z,7.4nm,0.9s						
ILAR	**Eielson Array**	**76.61**	**4**	P	**P**	**15 00 10.2**	**-1.6**
	comp=Z,0.6nm,0.7s,baz=315,slow=4.9,SNR=8.1						
ILAR				LR	LR	15 38 27.6	
	comp=Z,38nm,20.6s,baz=301,slow=39						
	comp=Z,0.6nm,0.7s						
ILAR	**Eielson Array**	**76.61**	**4**	P	**P**	**15 00 11.4**	**-0.4**
ILAR	**Eielson Array**	**76.61**	**4**	P	**P**	**15 00 11.3**	**-0.4**
CCB	**Clear Creek Bu**	**76.68**	**4**		**P**	**15 00 12.4**	**+0.2**
CCB				IAmb	IAmb	15 00 12.6	
	comp=Z,4.5nm,1.1s						
HDA	**Harding Lake**	**76.97**	**4**	IAmb	IAmb	15 00 14.0	
	comp=Z,5.0nm,0.8s						
J30M	**Hart River**	**77.04**	**359**	IAmb	IAmb	15 00 25.6	
	comp=Z,5.9nm,1.0s						
YKA	**Yellowknife Ar**	**77.39**	**349**	P	**P**	**15 00 15.5**	**-0.7**
	comp=Z,1.7nm,0.8s,baz=15,slow=5.0,SNR=3.6						
YKA				LR	LR	15 35 29.7	
	comp=Z,64nm,18.4s,baz=18,slow=36						
	comp=Z,1.7nm,0.8s						
SCRK	**Sand Creek**	**77.53**	**3**		**P**	**15 00 17.6**	**+0.5**
SCRK				IAmb	IAmb	15 00 18.3	
	comp=Z,9.6nm,1.3s						
K27K	**Chicken**	**77.54**	**2**	P	**P**	**15 00 17.0**	**0.0**
K27K				IAmb	IAmb	15 00 18.3	
	comp=Z,10nm,1.2s						
KTH	**Kantishna Hill**	**77.55**	**6**	IAmb	IAmb	15 00 19.1	
	comp=Z,6.0nm,0.9s						
DAWY	**Dawson**	**77.55**	**1**	IAmb	IAmb	15 00 18.1	
	comp=Z,5.4nm,1.0s						
CAST	**Castle Rocks**	**77.58**	**6**	IAmb	IAmb	15 00 18.2	
	comp=Z,8.2nm,1.0s						
K29M	**Barlow Dome**	**77.78**	**360**		**P**	**15 00 18.4**	**-0.1**
K29M				IAmb	IAmb	15 00 19.8	
	comp=Z,5.0nm,1.0s						
L29M	**L29M**	**78.52**	**0**	IAmb	IAmb	15 00 23.8	
	comp=Z,8.8nm,1.3s						
MENT	**Mentasta**	**78.58**	**3**	IAmb	IAmb	15 00 24.1	
	comp=Z,5.2nm,0.8s						
MMPY	**Sheldon Lake,**	**78.86**	**357**	IAmb	IAmb	15 00 26.4	
	comp=Z,7.5nm,1.2s						
M29M	**Somme Creek**	**79.19**	**0**	P	**P**	**15 00 26.2**	**-0.1**
M27K	**Edge Creek, AK**	**79.22**	**2**	P	**P**	**15 00 26.4**	**-0.1**
M27K				IAmb	IAmb	15 00 28.2	
	comp=Z,8.6nm,1.2s						
WBO	**Williamsburg**	**79.38**	**320**	P	**P**	**15 00 27.2**	**-0.3**
M31M	**Drury Creek, Y**	**79.39**	**358**	P	**P**	**15 00 27.3**	**0.0**
M31M				IAmb	IAmb	15 00 35.8	
	comp=Z,5.7nm,1.1s						
L61B	**Northampton**	**79.81**	**317**	P	**P**	**15 00 30.3**	**+0.4**
KNK	**Knik Glacier**	**79.85**	**5**	P	**P**	**15 00 29.5**	**-0.3**
KNK				IAmb	IAmb	15 00 50.2	
	comp=Z,8.3nm,1.0s						
N19K	**Bonanza Creek**	**79.90**	**8**	IAmb	IAmb	15 00 31.6	
	comp=Z,11nm,0.9s						
KLU	**Klutina**	**79.93**	**4**	IAmb	IAmb	15 00 39.4	
	comp=Z,11nm,1.0s						
LOGN	**Logan Glacier**	**80.78**	**2**	P	**P**	**15 00 35.2**	**+0.2**
LOGN				IAmb	IAmb	15 00 36.1	
	comp=Z,7.8nm,1.0s						
HYT	**Haines Junctio**	**80.81**	**360**		**P**	**15 00 35.4**	**+0.3**
HYT				IAmb	IAmb	15 00 43.8	
	comp=Z,6.0nm,1.0s						
GRNC	**Granite Creek**	**80.86**	**2**	IAmb	IAmb	15 00 43.9	
	comp=Z,8.1nm,1.2s						
R33M	**Jennings River**	**82.07**	**356**	IAmb	IAmb	15 00 43.4	
	comp=Z,6.7nm,1.2s						
KDAK	**Kodiak Island**	**83.08**	**8**	LR	LR	15 41 46.8	
	comp=Z,50nm,18.1s,baz=324,slow=38						
S34M	**Telegraph Cree**	**83.56**	**356**	IAmb	IAmb	15 00 51.2	
	comp=Z,5.7nm,1.1s						
ULM	**Lac du Bonnet**	**83.98**	**334**	LR	LR	15 38 28.8	
	comp=Z,59nm,19.0s,baz=330,slow=36						
WRAK	**Wrangell Islan**	**85.11**	**357**	P	**P**	**15 00 57.8**	**+0.6**
EDM	**Edmonton**	**85.98**	**345**	P	**P**	**15 01 01.1**	**-0.6**
EDM				pmax	pmax		
	comp=Z,7.0nm,0.8s						
EDM	**Edmonton**	**85.98**	**345**	P	**P**	**15 01 01.1**	**-0.6**
BBB	**Bella Bella**	**89.06**	**354**	LR	LR	15 42 53.6	
	comp=Z,54nm,20.8s,baz=57,slow=37						
NEW	**Newport**	**91.44**	**346**	LR	LR	15 43 08.5	
	comp=Z,67nm,19.4s,baz=17,slow=36						
SJG	**San Juan**	**92.27**	**295**	LR	LR	15 42 53.3	
	comp=Z,29nm,19.1s,baz=106,slow=36						
PDAR	**Pinedale Array**	**94.89**	**339**	LR	LR	15 46 14.4	
	comp=Z,73nm,20.0s,baz=11,slow=37						
J05D	**Fort Rock, OR**	**96.98**	**348**	P	**P**	**15 01 53.1**	**-0.3**
ELK	**Elko**	**98.23**	**343**	LR	LR	15 51 06.6	
	comp=Z,35nm,18.4s,baz=162,slow=38						
YBH	**Yreka Blue Hor**	**98.73**	**349**	LR	LR	15 49 32.4	
	comp=Z,38nm,18.5s,baz=33,slow=37						
QSPA	**South Pole Qui**	**128.54**	**180**	PKP	**PKPdf**	**15 07 25.8**	**-1.8**
	comp=Z,1.3nm,0.7s,baz=260,slow=2.1,SNR=8.6						

GCMT 16 14:57:21.0±0.4,**41°.25S**±0°.06×**16°.56W**±0°.03,**h18**^{km}±1^{km}, **MW4.9**/70,**3C-1D,Moment Tensor Solution. s22,c22; s70,c88; Duration: 0 Moment tensor: Scale** 10^{16}**Nm;** M$_{rr}$-2.46±.22; M$_{\theta\theta}$0.39±.15; M$_{\phi\phi}$2.06±.14; M$_{r\theta}$-1.09±.51; M$_{\theta\phi}$0.04±.08; M$_{\phi r}$-0.33±.28; **Best double couple:** M$_0$2.47100×10^{16} **NP1:**φ$_s$166.00000°,δ43.00000°, λ-117.00000°. **NP2:**φ$_s$21.00000°,δ53.00000°, λ-67.00000°. **Principal axes:** T 2.0950, Plg5.0000°, Azm95.0000°; N 0.7440, Plg18.0000°, Azm187.0000°; P -2.8470, Plg71.0000°, Azm349.0000°; **nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Surface-wave location Triangular moment-rate function Southern Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
VNA2	**Neumayer--Watz**	**30.11**	**174**	⇑P	P	15 03 35.1	+6.0
	comp=Z,4.4nm,0.8s,baz=345,slow=8.5						
VNA3	**Neumayer Olymp**	**30.27**	**176**	⇑P	P	15 03 36.4	+5.9
	comp=Z,4.8nm,0.8s						
VNA3	**Neumayer Olymp**	**30.27**	**176**	⇓P	P	15 03 31.5	+1.0
TROLL	**Troll, Antarti**	**32.25**	**169**	⇑P	P	15 03 49.2	+1.2
	comp=Z,134nm,1.0s						

IDC ***16*** *14:57:17.6±2.2, 51°.15N×176°.69W, h0^{km}, mb3.6/7, mbtmp3.7/7, MS2.9/2 Error ellipse: s-maj=68.9km s-min=21.8km az=12.0*

AEIC ***16*** *14:57:23.6±1.0, 51°.36N±0°.06×176°.34W±0°.06, h27^{km}±4^{km}, Error ellipse: s-maj=8.3km s-min=5.8km az=177.0*

NEIC ***16*** *14:57:24.6±1.1, 51°.45N±0°.05×176°.35W±0°.06, h35^{km}±1^{km}, mb4.0/61, ML3.9/10, ML3.6(AEIC), Error ellipse: s-maj=9.0km s-min=6.7km az=351.0*

ISC 16 14:57:25.1±1.4,**51°.5N**±0°.1×**176°.40W**±0°.04,**h45**^{km}±11^{km}, **n115,**σ0^{s}.**63**/114,**mb4.0**/16,**Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
ETKA	**Kagalaska Isla**	**0.39**	**359**		**Pn**	**14 57 34.0**	**-0.7**
ETKA					**Sn**	**14 57 41.8**	**+0.3**
ADK	**Adak**	**0.45**	**337**		**Pn**	**14 57 34.7**	**-0.7**
ADK	**Adak**	**0.45**	**337**	Sn	**Sn**	**14 57 42.8**	**+0.1**
ADAG	**Mount Adagdak**	**0.53**	**346**		**Pn**	**14 57 36.5**	**+0.2**
ADAG					**Sn**	**14 57 45.6**	**+1.2**
GSCK	**Great Sitkin C**	**0.56**	**15**		**Pn**	**14 57 36.8**	**0.0**
GSCK					**Sn**	**14 57 46.1**	**+0.9**
GSIG	**Igitkin Island**	**0.59**	**29**		**Pn**	**14 57 36.9**	**-0.4**
KIMD	**Kanaga Island**	**0.60**	**299**		**Pn**	**14 57 36.6**	**-0.7**
KIMD					**Sn**	**14 57 46.0**	**-0.1**
GSTD	**Great Sitkin T**	**0.60**	**15**		**Pn**	**14 57 37.3**	**-0.2**
GSTD					**Sn**	**14 57 47.4**	**+1.1**
KIWB	**Kanaga Island**	**0.61**	**309**		**Pn**	**14 57 37.1**	**-0.3**
KIWB				Sn	**Sn**	**14 57 46.5**	**+0.3**
KIWB				IAML		14 57 47.0	
	comp=N,10μm,0.4s						
KIWB				IAML		14 57 47.3	
	comp=E,7μm,0.6s						
GSMY	**Great Sitkin M**	**0.61**	**20**		**Pn**	**14 57 37.2**	**-0.3**
KIRH	**Kanaga Island**	**0.61**	**315**		**Pn**	**14 57 37.5**	**+0.1**
KIRH					**Sn**	**14 57 47.3**	**+1.0**
KIKV	**Kanaga Island**	**0.63**	**310**		**Sn**	**14 57 47.7**	**+0.9**
KINC	**Kanaga Island**	**0.65**	**316**		**Pn**	**14 57 38.0**	**+0.1**
KINC					**Sn**	**14 57 48.3**	**+1.1**
GSTR	**Great Sitkin T**	**0.66**	**18**		**Pn**	**14 57 38.3**	**+0.2**
GSTR				IAML		14 57 52.8	
	comp=E,6μm,0.4s						
GSTR				IAML		14 57 57.4	
	comp=N,7μm,0.7s						
GAEA	**Gareloi East**	**1.50**	**283**		**Pn**	**14 57 50.1**	**+0.6**
GALAA	**Gareloi Lava P**	**1.51**	**282**		**Pn**	**14 57 50.2**	**+0.6**
GAKI	**Gareloi-Kavalg**	**1.51**	**274**		**Pn**	**14 57 49.1**	**-0.5**
GANE	**Gareloi Northe**	**1.52**	**284**		**Pn**	**14 57 50.3**	**+0.5**
GANE					**Sn**	**14 58 10.6**	**+2.2**
ATKA	**Atka Island**	**1.55**	**61**		**Pn**	**14 57 49.1**	**-1.0**
ATKA				IAML		14 58 16.2	
	comp=N,750nm,0.5s						
KOWE	**Korovin West**	**1.60**	**55**		**Pn**	**14 57 50.9**	**0.0**
KOKL	**Mount Kliuchef**	**1.60**	**57**		**Pn**	**14 57 50.8**	**-0.2**
KOFP	**Korovin Flat P**	**1.64**	**60**		**Pn**	**14 57 51.5**	**+0.1**
KONW	**Korovin Northw**	**1.64**	**55**		**Pn**	**14 57 52.6**	**+1.2**
AMKA	**Amchitka**	**2.69**	**270**	Pn	**Pn**	**14 58 06.1**	**+0.3**
AMKA				IAML		14 58 49.8	
	comp=N,326nm,0.6s						
CLES	**Cleveland East**	**4.23**	**69**	Pn	**Pn**	**14 58 29.5**	**+2.6**
SHEM	**Shemya Is, Ala**	**5.99**	**286**	LR	LR	15 01 12.9	
	comp=N,35nm,19.7s,baz=64,slow=40						
UNV	**Unalaska Valle**	**6.47**	**65**	Pn	**Pn**	**14 58 59.0**	**+1.4**
M11K	**Mekoryuk**	**10.59**	**29**	Pn	**Pn**	**14 59 53.9**	**-0.1**
CNBA	**Chernabura Isl**	**10.63**	**65**	Pn	**Pn**	**14 59 54.4**	**-0.2**
CHGN	**Chignik**	**11.65**	**58**	Pn	**Pn**	**15 00 08.1**	**-0.4**
L14K	**Kuka Creek**	**12.44**	**32**	Pn	**Pn**	**15 00 18.6**	**-0.5**
N17K	**Nushagak Hills**	**14.01**	**42**	Pn	**Pn**	**15 00 40.6**	**-0.1**
Q19K	**Cape Douglas,**	**14.93**	**51**	Pn	**Pn**	**15 00 53.0**	**+0.2**
J17K	**VABM Dome**	**15.09**	**31**	Pn	**Pn**	**15 00 55.0**	**+0.1**
KDAK	**Kodiak Island**	**15.12**	**56**	pmax	pmax		
	comp=Z,25nm,1.4s						
KDAK	**Kodiak Island**	**15.12**	**56**	Pn	**Pn**	**15 00 54.6**	**-0.7**
KDAK				IAmb	IAmb	15 01 06.5	
	comp=Z,25nm,1.4s						
KDAK	**Kodiak Island**	**15.12**	**56**	P	**Pn**	**15 00 54.6**	**-0.7**
L19K	**White Mountain**	**15.85**	**39**	Pn	**Pn**	**15 01 04.3**	**-0.4**
L19K				IAmb	IAmb	15 01 12.1	
	comp=Z,13nm,1.1s						
M19K	**Big River Lodg**	**15.88**	**40**	Pn	**Pn**	**15 01 05.5**	**+0.3**
J18K	**Innoko River**	**15.92**	**33**	Pn	**Pn**	**15 01 05.3**	**-0.3**
J18K				IAmb	IAmb	15 01 15.5	
	comp=Z,12nm,1.5s						
CNPM	**China Poot**	**16.29**	**51**	Pn	**Pn**	**15 01 10.0**	**-0.4**
BRLK	**Bradley Lake**	**16.54**	**50**	Pn	**Pn**	**15 01 13.7**	**+0.2**
BRLK				IAmb	IAmb	15 01 23.6	
	comp=Z,32nm,1.3s						
J19K	**Poorman**	**16.63**	**33**		**Pn**	**15 01 15.8**	**+1.1**
K20K	**Telida**	**16.80**	**36**	Pn	**Pn**	**15 01 16.6**	**-0.2**
G18K	**Tagagawik**	**17.05**	**25**	Pn	**Pn**	**15 01 19.9**	**+0.1**
G18K				IAmb	IAmb	15 01 51.4	
	comp=Z,22nm,1.5s						
SLKM	**Skilak Lake**	**17.10**	**48**	Pn	**Pn**	**15 01 20.3**	**-0.3**
SLKM				IAmb	IAmb	15 01 24.4	
	comp=Z,23nm,1.3s						
SKT	**Skwentna**	**17.11**	**42**	Pn	**Pn**	**15 01 20.4**	**-0.2**
SKT				IAmb	IAmb	15 01 23.8	
	comp=Z,14nm,1.5s						
J20K	**Nowinta River**	**17.26**	**34**	Pn	**Pn**	**15 01 21.3**	**-1.2**
PPLA	**Purkeypile**	**17.27**	**39**	Pn	**Pn**	**15 01 22.6**	**-0.3**
PPLA				IAmb	IAmb	15 01 59.5	
	comp=Z,13nm,1.4s						
O22K	**Cooper Landing**	**17.32**	**48**	Pn	**Pn**	**15 01 22.7**	**-0.5**
I20K	**Naaghedeneel**	**17.53**	**32**		**P**	**15 01 26.4**	**0.0**
I20K				IAmb	IAmb	15 02 07.5	
	comp=Z,18nm,1.4s						
F19K	**Shaleruckik Mo**	**17.99**	**24**		**Pn**	**15 01 32.2**	**+0.8**
KTH	**Kantishna Hill**	**18.10**	**38**		**Pn**	**15 01 33.2**	**+0.3**
KTH				IAmb	IAmb	15 01 35.5	
	comp=Z,12nm,1.2s						
GHO	**Glory Hole Cre**	**18.14**	**45**		**P**	**15 01 33.3**	**0.0**
TRF	**Thorofare Moun**	**18.30**	**39**	P	**P**	**15 01 34.4**	**-0.7**
BPAW	**Bear Paw Mtn.**	**18.36**	**37**	P	**P**	**15 01 35.9**	**+0.3**
SML	**Sawmill**	**18.42**	**45**	P	**P**	**15 01 36.4**	**0.0**
SML				IAmb	IAmb	15 02 03.6	
	comp=Z,17nm,1.4s						
I21K	**Tanana**	**18.61**	**33**	P	**P**	**15 01 37.9**	**-0.4**
I21K				IAmb	IAmb	15 01 44.8	
	comp=Z,9.9nm,1.2s						
H21K	**Melozitna Rive**	**18.62**	**31**	P	**P**	**15 01 38.4**	**-0.1**
RND	**Reindeer**	**18.85**	**40**	P	**Pn**	**15 01 41.8**	**-0.2**
RND				IAmb	IAmb	15 01 42.5	
	comp=Z,8.3nm,1.2s						
MLY	**Manley**	**18.95**	**34**	P	**P**	**15 01 42.3**	**+0.2**
MCK	**McKinley**	**18.97**	**39**	P	**P**	**15 01 42.4**	**+0.1**
BWN	**Browne**	**18.97**	**38**	P	**P**	**15 01 42.6**	**+0.3**
I23K	**Minto, Yukon-K**	**19.51**	**35**	P	**P**	**15 01 48.6**	**+0.5**
I23K				IAmb	IAmb	15 01 54.1	
	comp=Z,5.7nm,0.7s						
CCB	**Clear Creek Bu**	**19.83**	**37**	P	**P**	**15 01 51.8**	**+0.1**
HDA	**Harding Lake**	**20.05**	**39**	P	**P**	**15 01 54.8**	**+0.7**
HDA				IAmb	IAmb	15 01 56.8	
	comp=Z,5.0nm,0.7s						
SEY	**Seymchan**	**20.20**	**317**	P	**P**	**15 01 55.6**	**0.0**
	comp=Z,0.9nm,0.5s,baz=108,slow=12,SNR=5.4						
	comp=Z,0.9nm,0.5s						
IL31		**20.24**	**38**	P	**P**	**15 01 56.0**	**0.0**
IL31				IAmb	IAmb	15 01 59.8	
	comp=Z,8.0nm,1.5s						
ILAR	**Eielson Array**	**20.24**	**38**	P	Pn	15 01 57.6	-0.7
	comp=Z,0.9nm,0.4s,baz=233,slow=10,SNR=12						
	comp=Z,0.9nm,0.4s						
ILAR	**Eielson Array**	**20.24**	**38**	P	**P**	**15 01 56.1**	**0.0**
K24K	**Donnelly Dome**	**20.27**	**41**	P	**P**	**15 01 57.2**	**+0.7**
K24K				IAmb	IAmb	15 01 58.1	
	comp=Z,16nm,1.1s						
RIDG	**Independent Ri**	**20.62**	**41**	P	**P**	**15 02 00.2**	**-0.1**
RIDG				IAmb	IAmb	15 02 17.0	
	comp=Z,4.3nm,0.7s						
J25K	**Salcha River,**	**20.76**	**39**	P	**P**	**15 02 02.4**	**+0.6**
SCRK	**Sand Creek**	**21.07**	**41**	P	**P**	**15 02 05.5**	**+0.3**
SCRK				IAmb	IAmb	15 02 06.5	
	comp=Z,7.5nm,0.8s						
YAH	**Yahtse**	**21.13**	**52**	P	**P**	**15 02 05.6**	**-0.4**
D23K	**Nanushuk River**	**21.40**	**25**	P	**P**	**15 02 07.7**	**-0.8**
D23K				IAmb	IAmb	15 02 14.0	
	comp=Z,17nm,1.4s						
BCAR	**Beaver Creek A**	**21.71**	**44**	P	**P**	**15 02 11.4**	**-0.6**
C23K	**Itkillik River**	**22.01**	**24**	P	**P**	**15 02 14.5**	**-0.5**
BMAR	**Burnt Mountain**	**22.34**	**32**	P	**P**	**15 02 19.1**	**+0.4**
DAWY	**Dawson**	**23.01**	**43**	P	**P**	**15 02 26.1**	**+0.3**
K29M	**Barlow Dome**	**23.76**	**44**	P	**P**	**15 02 33.2**	**+0.1**
K29M				IAmb	IAmb	15 02 38.3	
	comp=Z,2.5nm,0.6s						
J30M	**Hart River**	**24.43**	**42**	P	**P**	**15 02 38.6**	**-0.6**
J30M				IAmb	IAmb	15 02 44.4	
	comp=Z,3.3nm,0.8s						
I30M	**Mount Dempster**	**24.57**	**41**	P	**P**	**15 02 39.8**	**-0.7**
I30M				IAmb	IAmb	15 02 44.6	
	comp=Z,4.6nm,0.8s						
INK	**Inuvik**	**26.52**	**35**	P	**P**	**15 02 58.6**	**+0.6**
INK				IAmb	IAmb	15 03 16.8	
	comp=Z,7.6nm,1.3s						
H11N2	**WAKE ISLAND Hy**	**34.29**	**209**	T	T	15 40 32.8	
	baz=18,slow=76,SNR=112						
H11N3	**WAKE ISLAND Hy**	**34.30**	**209**	T	T	15 40 33.5	
	baz=18,slow=76,SNR=96						
H11N1	**WAKE ISLAND Hy**	**34.31**	**209**	T	T	15 40 34.2	
	baz=18,slow=76,SNR=91						
H11S1	**WAKE ISLAND Hy**	**35.51**	**208**	T	T	15 42 08.8	
	baz=18,slow=76,SNR=42						
H11S2	**WAKE ISLAND Hy**	**35.52**	**208**	T	T	15 42 11.1	
	baz=18,slow=76,SNR=26						

H11S3	WAKE ISLAND Hy	35.52	208	T	T	15 42 09.3	
	baz=18,slow=76,SNR=20						
RES	Resolute Bay	39.03	25	P	P	15 04 46.7	0.0
JSU	Suzuyama	43.44	264	P	P	15 05 23.0	-0.4
BW06	Boulder Array	44.84	74	P	P	15 05 34.9	+0.1
BW06				IAmb	IAmb	15 05 41.2	
	comp=Z,3.2nm,1.2s						
PD31	Pinedale Array	44.84	74	P	P	15 05 35.6	+0.7
PD31				IAmb	IAmb	15 05 41.2	
	comp=Z,2.3nm,1.1s						
PDAR	Pinedale Array	44.84	74	P	P	15 05 35.8	+0.9
	comp=Z,0.8nm,0.6s,baz=316,slow=4.1,SNR=7.8						
	comp=Z,0.8nm,0.6s						
PDAR	Pinedale Array	44.84	74	P	P	15 05 35.5	+0.7
BSUT	Blindstream Ca	45.43	77	P	P	15 05 39.9	+0.3
RDMU	Red Mountain	46.13	76	P	P	15 05 45.4	+0.3
PV12	Saucer Basin,	47.99	78	P	P	15 05 59.2	-0.3
SRIG	Santa Rosalia	53.22	91	P	P	15 06 38.8	0.0
TX31	Lajitas Ar. Si	57.15	83	P	P	15 07 07.8	+0.6
TX31				IAmb	IAmb	15 07 09.2	
	comp=Z,2.4nm,1.3s						
TXAR	Lajitas Array	57.15	83	P	P	15 07 07.8	+0.5
	comp=Z,0.4nm,0.5s,baz=297,slow=4.6,SNR=6.4						
	comp=Z,0.4nm,0.5s						
TXAR	Lajitas Array	57.15	83	P	P	15 07 07.5	+0.3
P40A	Paris	57.16	66	P	P	15 07 07.0	0.0
R40A	Maddies Statio	57.87	68	P	P	15 07 12.1	+0.1
KURK	Kurchatov	60.03	315	P	P	15 07 26.5	-0.4
KURK				IAmb	IAmb	15 07 26.9	
	comp=Z,0.8nm,0.6s						
KURBB	Kurchatov Arra	60.14	315	P	P	15 07 27.0	-0.6
	comp=Z,0.5nm,0.5s,baz=44,slow=6.6,SNR=9.3						
	comp=Z,0.5nm,0.5s						
MKAR	Makanchi Array	61.14	310	P	P	15 07 33.2	-1.4
	comp=Z,0.1nm,0.4s,baz=35,slow=5.3,SNR=2.0						
	comp=Z,0.1nm,0.4s						
MKAR	Makanchi Array	61.14	310	P	P	15 07 33.7	-0.9
BVAR	Borovoye Array	61.78	321	P	P	15 07 38.9	+0.2
	comp=Z,1.0nm,0.3s,baz=58,slow=6.7,SNR=4.7						
	comp=Z,1.0nm,0.3s						
BOOM	Boomskoye usch	67.37	310	P	P	15 08 15.4	-0.2
BOOM				IAmb	IAmb	15 08 56.4	
	comp=Z,2.2nm,1.0s						
NC204	NORSAR Array S	67.46	356	P	P	15 08 15.3	-0.3
AB31	Akbulak array	68.76	324	P	P	15 08 23.7	-0.2
AB31				IAmb	IAmb	15 08 25.3	
	comp=Z,2.7nm,1.4s						
ABKAR	Akbulak array	68.76	324	P	P	15 08 23.6	-0.3
BRTR	Keskin Array B	85.46	337	LR	LR	15 54 40.9	
	comp=Z,20nm,18.2s,baz=113,slow=40						

WEL ***16*** *15:08:19.9±0.7, 33°S±5°×17°8W±1°3, h12^{km}, M5.1/19, mB5.5/10, ML4.9/18, MLv5.2/19, Mw(mB)5.0/10, Error ellipse: s-maj=17.8km s-min=3.0km az=110.0, confirmed*

NEIC ***16*** *15:08:24.3±1.9, 33°.24S±0°.07×179°.0W±0°.1, h29^{km}±4^{km}, mb4.9/31, Error ellipse: s-maj=17.2km s-min=9.1km az=110.0*

IDC ***16*** *15:08:25.8±1.6, 33°.19S×179°.03W, h45^{km}±14^{km}, mb4.3/9, mbtmp4.5/11, ML5.4/3, MS3.8/13, Error ellipse: s-maj=20.9km s-min=10.2km az=112.0*

GFZ ***16*** *15:08:26.6±0.7, 33°S±4°×17°9W±°, h50^{km}±5^{km}, M5.0/15, mb5.0/15, Error ellipse: s-maj=12.9km s-min=9.4km az=89.4, confirmed*

ISC 16 15:08:25.5±0.4, **33°.29S**±0°.05×**178°.78W**±0°.07, **h48**^{km}, **n242,** σ1ˢ.**73**/236, **mb4.9**/39, **MS3.8**/12, **4C-2D, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GLKZ	Green Lake	4.09	11	P	Pn	15 09 23.6	-1.9
GLKZ				S	Sn	15 10 10.5	-1.5
GLKZ				AML	AML		
GLKZ				AML	AML		
RAO	Raoul Island	4.10	11	P	Pn	15 09 24.4	-1.2
	147nm,0.3s,baz=110,slow=9.1,SNR=16						
RAO				S	Sn	15 10 11.5	-0.8
	524nm,0.3s,baz=295,slow=24,SNR=6.8						
RAO				AML	AML		
RAO	Raoul Island	4.10	11		Pn	15 09 23.9	-1.7
RAO	Raoul Island	4.10	11	P	Pn	15 09 24.6	-1.0
RAO				S	Sn	15 10 11.4	-0.8
RAO				AML	AML		
RAO				AML	AML		
RAO	Raoul Island	4.10	11	P	Pn	15 09 25.1	-0.5
RIZ	Raoul Island	4.10	11	P	Pn	15 09 24.6	-1.1
RIZ				AML	AML		
RIZ				AML	AML		
MXZ	Matakaoa Point	4.88	208		Pn	15 09 34.3	-1.9
MXZ	Matakaoa Point	4.88	208	P	Pn	15 09 34.8	-1.4
MXZ				AML	AML		
MXZ				AML	AML		
WMGZ	Waiomatatini S	5.06	206	P	Pn	15 09 37.8	-1.0
WMGZ				S	Sn	15 10 36.7	+0.8
WMGZ				AML	AML		
WMGZ				AML	AML		
PKGZ	Pakihiroa	5.23	208	P	Pn	15 09 39.3	-1.8
PKGZ				S	Sn	15 10 40.0	-0.1
PKGZ				AML	AML		
PKGZ				AML	AML		
HAZ	Te Kaha	5.26	211	P	Pn	15 09 40.3	-1.1
HAZ				S	Sn	15 10 43.6	+2.8
HAZ				AML	AML		
HAZ				AML	AML		
PUZ	Puketiti	5.34	206	P	Pn	15 09 40.7	-1.9
PUZ				S	Sn	15 10 41.9	-1.0
PUZ				AML	AML		
PUZ				AML	AML		
WIZ	White Island	5.35	217	P	Pn	15 09 42.7	-0.1
WIZ				AML	AML		
WIZ				AML	AML		
RUGZ	Raukumara Rang	5.48	211	P	Pn	15 09 42.2	-2.5
RUGZ				S	Sn	15 10 46.4	0.0
RUGZ				AML	AML		
RUGZ				AML	AML		
TWGZ	Tauwhareparae	5.54	207	P	Pn	15 09 43.2	-2.1
TWGZ				S	Sn	15 10 47.1	-0.6
TWGZ				AML	AML		
TWGZ				AML	AML		
GRZ	Great Barrier	5.58	237	P	Pn	15 09 47.0	+1.0
GRZ				AML	AML		
GRZ				AML	AML		
WHRZ	Whale Island	5.71	216	P	Pn	15 09 48.0	+0.2
CNGZ	Carnagh Statio	5.72	204	P	Pn	15 09 46.1	-1.8
CNGZ				AML	AML		
CNGZ				AML	AML		
TKGZ	Te Karaka	5.82	207	P	Pn	15 09 46.2	-3.0
TKGZ				S	Sn	15 10 52.7	-1.8
MWZ	Matawai	5.85	210	P	Pn	15 09 47.0	-2.7
MWZ				S	Sn	15 10 54.0	-1.5
MWZ				AML	AML		
MWZ				AML	AML		
MARZ	Manawahe	5.96	217	P	Pn	15 09 51.6	+0.4
URZ	Urewera	5.97	213	P	Pn	15 09 50.1	-1.2
	23nm,0.3s,baz=278,slow=0.8,SNR=107						
URZ				S	Sn	15 10 58.0	-0.3
	97nm,0.5s,baz=255,slow=9.1,SNR=7.4						
	82nm,0.3s						
URZ				AML	AML		
URZ	Urewera	5.97	213	P	Pn	15 09 48.6	-2.7
URZ				AML	AML		
URZ				AML	AML		
URZ	Urewera	5.97	213	P	Pn	15 09 51.3	0.0
	comp=Z,209nm,0.7s						
EDRZ	Edgecumbe	6.03	216	P	Pn	15 09 52.4	+0.3
RAGZ	Rawiri	6.04	210	P	Pn	15 09 52.3	+0.1
RIGZ	Rimuhau	6.08	206	P	Pn	15 09 51.3	-1.6
WIAZ	Waiheke Island	6.09	233	P	Pn	15 09 55.2	+2.3
WIAZ				AML	AML		
WIAZ				AML	AML		
KARZ	Kaharoa	6.21	219	P	Pn	15 09 55.4	+0.8
PRGZ	Paritu Road	6.23	205	P	Pn	15 09 51.6	-3.3
PRGZ				S	Sn	15 11 00.8	-3.9
MKAZ	Moumakai	6.25	231	P	Pn	15 09 56.5	+1.5
MKAZ				AML	AML		
MKAZ				AML	AML		
WCZ	Waipu Caves	6.25	243	P	Pn	15 09 56.6	+1.5
WCZ				AML	AML		
WCZ				AML	AML		
MUGZ	Murupara	6.30	214	P	Pn	15 09 52.6	-3.2
MUGZ				S	Sn	15 11 04.2	-2.3
RRRZ	Republican Roa	6.32	216	P	Pn	15 09 55.7	-0.4
RRRZ				S	Sn	15 11 08.5	+1.7
RRRZ				AML	AML		
RRRZ				AML	AML		
RTZ	Ruatahuna	6.32	212		Pn	15 09 52.9	-3.2
RTZ	Ruatahuna	6.32	212	P	Pn	15 09 53.9	-2.2
RTZ				AML	AML		
RTZ				AML	AML		
HLRZ	Highlands Stat	6.33	217	P	Pn	15 09 56.7	+0.5
KNZ	Kokohu	6.39	206	P	Pn	15 09 54.0	-3.0
KNZ				AML	AML		
KNZ				AML	AML		
TOZ	Tahuroa Road	6.43	225		Pn	15 09 56.6	-0.9
TOZ	Tahuroa Road	6.43	225	P	Pn	15 09 58.4	+0.9
TOZ				AML	AML		
MHGZ	Mahia Peninsul	6.43	204	P	Pn	15 09 54.5	-3.0
HSRZ	Hossack Road	6.43	217	P	Pn	15 09 58.1	+0.5
HRRZ	Handcock Road	6.47	217	P	Pn	15 09 58.8	+0.6
PRRZ	Plateau Road	6.50	216	P	Pn	15 09 57.0	-1.5
RAHZ	Arahi	6.53	210	P	Pn	15 09 56.7	-2.2
RAHZ				S	Sn	15 11 10.3	-1.8
ALRZ	Allen Road	6.58	216	P	Pn	15 09 58.6	-0.9
MTHZ	Maungataniwha	6.58	211	P	Pn	15 09 57.5	-2.1
OUZ	Omahuta	6.59	251	P	Pn	15 10 00.8	+1.0
OUZ				AML	AML		
OUZ				AML	AML		
OUZ	Omahuta	6.59	251	P	Pn	15 10 00.6	+0.8
	comp=Z,256nm,0.7s						
WHHZ	Waihua	6.61	208	P	Pn	15 09 59.1	-0.8
WPRZ	Whakapapatarin	6.63	217	P	Pn	15 09 59.6	-0.8
MRHZ	Matea Rd	6.76	214	P	Pn	15 09 59.7	-2.4
KUTZ	Kaahu Road	6.78	219	P	Pn	15 10 02.1	-0.3
NMHZ	Naumai	6.80	210	P	Pn	15 10 01.2	-1.5
TLZ	Tolley Road	6.82	221	P	Pn	15 10 02.8	-0.2
TLZ				AML	AML		
TLZ				AML	AML		
ARHZ	Aropaoanui	6.86	209	P	Pn	15 10 01.5	-1.9
BKZ	Black Stump Fm	6.99	212	P	Pn	15 10 01.7	-3.6
WATZ	Wairara	6.99	218	P	Pn	15 10 04.2	-1.1
RATZ	Rangitukua	7.09	217	P	Pn	15 10 05.9	-0.8
RITZ	Rihia Road	7.14	216	P	Pn	15 10 06.5	-0.8
MCHZ	McNeill Hill	7.14	209	P	Pn	15 10 05.2	-2.1
CKHZ	Cape Kidnapper	7.17	206	P	Pn	15 10 04.4	-3.3
TMVZ	Te Maari	7.32	216	P	Pn	15 10 07.6	-2.2
NTVZ	North Tongarir	7.32	216	P	Pn	15 10 08.3	-1.6
HIZ	Hauiti	7.33	223	P	Pn	15 10 10.7	+0.8
HIZ	Hauiti	7.33	223	P	Pn	15 10 10.9	+1.0
	comp=Z,84nm,1.0s						
ETVZ	East Tongariro	7.33	216	P	Pn	15 10 08.6	-1.5
KAHZ	Kahuranaki	7.37	207	P	Pn	15 10 07.2	-3.2
WTVZ	West Tongariro	7.38	216	P	Pn	15 10 09.6	-1.0
SNVZ	South Ngauruho	7.41	216	P	Pn	15 10 10.7	-0.4
NGZ	Ngauruhoe	7.42	216	P	Pn	15 10 10.1	-1.1
TWVZ	Taurewa	7.42	217	P	Pn	15 10 09.3	-1.9
KRHZ	Kereru	7.44	210	P	Pn	15 10 08.0	-3.5
BHHZ	Black Hill Sta	7.45	212	P	Pn	15 10 08.4	-3.2
TUVZ	Tukino	7.46	215	P	Pn	15 10 10.0	-1.9
COVZ	Chateau Observ	7.46	216	P	Pn	15 10 10.4	-1.4
WHVZ	Whangaehu Hut	7.50	216	P	Pn	15 10 10.8	-1.8
MAVZ	Matarangi	7.51	216	P	Pn	15 10 10.7	-1.9
MOVZ	Moawhango	7.52	214	P	Pn	15 10 09.8	-2.9
WNVZ	Wahianoa	7.54	215	P	Pn	15 10 10.8	-2.0
TRVZ	Turoa	7.54	216	P	Pn	15 10 11.0	-2.0
PXZ	Pawanui	7.58	206	P	Pn	15 10 09.1	-4.2
PKVZ	Pokaka	7.63	217	P	Pn	15 10 12.6	-1.5
PNHZ	Pukenui	7.74	210	P	Pn	15 10 11.4	-4.1
WPHZ	Waipukurau	7.77	208	P	Pn	15 10 12.2	-3.7
VRZ	Vera Road	7.81	220	P	Pn	15 10 15.5	-1.0
PRHZ	Porangahau	7.87	207	P	Pn	15 10 15.1	-2.2
TSZ	Takapari Road	7.96	211	P	Pn	15 10 14.4	-4.1
ANWZ	Angora Road	8.10	207	P	Pn	15 10 18.1	-2.3
WAZ	Wanganui	8.17	216	P	Pn	15 10 18.7	-2.7
LREZ	Lake Rotokare	8.25	220	P	Pn	15 10 21.3	-1.2
KHEZ	Kahui Hut	8.34	222	P	Pn	15 10 24.1	+0.2
PRWZ	Pori Road	8.37	209	P	Pn	15 10 22.7	-1.5
BFZ	Birch Farm	8.38	207	P	Pn	15 10 20.8	-3.5
MRZ	Mangatainoka R	8.62	210	Pn	Pn	15 10 22.7	-4.9
MRZ	Mangatainoka R	8.62	210	P	Pn	15 10 22.9	-4.7
TMWZ	Te Maipa	8.88	207	P	Pn	15 10 26.4	-4.7
OGWZ	Otaki Gorge	8.93	211	P	Pn	15 10 26.4	-5.3
KIW	Kapiti Island	9.08	212	P	Pn	15 10 28.2	-5.7
CAW	Cannon Point	9.21	210	P	Pn	15 10 30.6	-5.1
MSWZ	Moikau Station	9.39	209	P	Pn	15 10 33.1	-5.0
TUWZ	Tuamarina	9.97	213		Pn	15 10 39.2	-6.8
CTZ	Chatham Island	10.56	171	P	Pn	15 10 53.6	-0.5
THZ	Tophouse	10.72	216	Pn	Pn	15 10 49.0	-7.3
MSVF	Nonsavu	15.76	349	P	Pn	15 12 03.3	-1.0
	comp=Z,2.0nm,0.3s,baz=170,slow=12,SNR=6.8						
MSVF				LR	LR	15 16 59.1	
	comp=Z,294nm,19.0s,baz=184,slow=33						
	comp=Z,5.8nm,0.6s						
MSVF				AML	AML		
MSVF	Nonsavu	15.76	349	Pn	Pn	15 12 02.7	-1.5
RAR	Rarotonga	20.71	59	LR	LR	15 21 26.6	
	comp=Z,184nm,18.7s,baz=270,slow=38						
SANVU	Saraoutou	21.84	321	P	P	15 13 12.9	-1.0
SANVU				IAmb	IAmb	15 13 17.0	
	comp=Z,60nm,0.7s						
EIDS	Eidsvold	27.36	279	P	P	15 14 06.6	+0.4
EIDS				IAmb	IAmb	15 14 07.8	
	comp=Z,8.5nm,0.7s						
EIDS	Eidsvold	27.36	279	P	P	15 14 06.8	+0.5
	comp=Z,13nm,2.0s						
TOO	Toolangi	29.31	251	P	P	15 14 24.3	+0.8
TOO				IAmb	IAmb	15 15 03.4	
	comp=Z,20nm,1.9s						
PPT2	Papeete2	30.52	66	*e*LR	LR	15 22 31.2	
	comp=Z,314nm,23.0s						
PPT2				*e*LR	LR	15 22 35.3	
	comp=Z,262nm,26.0s						
PPT	Papeete	30.54	66	LR	LR	15 23 54.5	
	comp=Z,131nm,20.6s,baz=190,slow=30						
STKA	Stephens Creek	33.28	261	P	P	15 14 58.4	0.0
	comp=Z,1.1nm,0.5s,baz=93,slow=8.6,SNR=6.6						
STKA				LR	LR	15 27 21.8	
	comp=Z,227nm,18.9s,baz=41,slow=34						
	comp=Z,1.1nm,0.5s						
CTA	Charters Tower	33.73	284	P	P	15 15 02.6	+0.2
	comp=Z,9.3nm,0.5s,baz=113,slow=9.8,SNR=26						
CTA				LR	LR	15 26 18.0	
	comp=Z,137nm,21.5s,baz=86,slow=32						
	comp=Z,9.3nm,0.5s						
CTAO	Charters Tower	33.73	284	P	P	15 15 02.8	+0.4
CTAO	Charters Tower	33.73	284	P	P	15 15 03.2	+0.8
	comp=Z,21nm,0.6s						
INKA	Innaminka	35.14	268	P	P	15 15 14.7	+0.1
MTSU	Mount Surprise	36.30	285	P	P	15 15 24.9	+0.3
	comp=Z,7.9nm,1.1s						
BBOO	Buckleboo	37.63	258	P	P	15 15 34.0	-1.7
BBOO				IAmb	IAmb	15 16 34.1	
	comp=Z,72nm,1.8s						
QIS	Mount Isa	38.96	278	P	P	15 15 46.6	-0.5
	comp=Z,9.9nm,1.1s						
PMG	Port Moresby	39.34	299	LR	LR	15 28 52.2	
	comp=Z,144nm,21.6s,baz=132,slow=31						
PMG	Port Moresby	39.34	299	P	P	15 15 50.3	0.0
PMG				IAmb	IAmb	15 16 25.8	
	comp=Z,30nm,1.0s						
RABL	Rabaul	39.66	311		P	15 15 51.6	-1.4
DRV	Dumont d’Urvil	41.22	203	P	P	15 16 06.4	+1.2
AS31	Alice Springs	42.37	270		P	15 16 14.0	-1.3
AS31				IAmb	IAmb	15 16 15.2	
	comp=Z,4.5nm,0.4s						
ASAR	Alice Springs	42.38	270	P	P	15 16 14.2	-1.1
	comp=Z,7.6nm,0.5s,baz=111,slow=7.5,SNR=371						
ASAR				PcP	PcP	15 18 05.5	-2.4
	comp=Z,1.0nm,0.4s,baz=121,slow=3.8,SNR=4.9						
ASAR				PKiKP	PKiKP	15 25 12.6	-0.6
	comp=Z,0.3nm,0.6s,baz=74,slow=1.2,SNR=5.0						
ASAR				LR	LR	15 33 03.6	
	comp=Z,120nm,18.5s,baz=164,slow=35						
	comp=Z,7.6nm,0.5s						
ASAR	Alice Springs	42.38	270	P	P	15 16 13.8	-1.5
TAOE	Nuku Hiva Isla	43.11	65	P	P	15 16 21.4	+0.1
WR8	Warramunga Arr	43.49	276		P	15 16 23.0	-1.3
WR8				IAmb	IAmb	15 16 24.3	
	comp=Z,12nm,0.8s						
WRAB	Tennant Creek	43.62	276	P	P	15 16 24.1	-1.2
WRAB				IAmb	IAmb	15 16 24.9	
	comp=Z,15nm,1.1s						
WRAB	Tennant Creek	43.62	276	P	P	15 16 24.4	-0.9
	comp=Z,17nm,0.6s						
WRAB	Tennant Creek	43.62	276	P	P	15 16 24.3	-1.0
WRA	Warramunga Arr	43.63	276	P	P	15 16 24.2	-1.2
	comp=Z,8.6nm,0.4s,baz=117,slow=7.8,SNR=189						
WRA				PcP	PcP	15 18 10.5	-1.7
	comp=Z,0.6nm,0.5s,baz=121,slow=3.3,SNR=1.9						
WRA				PKiKP	PKiKP	15 25 13.9	-0.4
	comp=Z,0.4nm,0.6s,baz=131,slow=0.4,SNR=6.6						
	comp=Z,8.6nm,0.4s						
WRA	Warramunga Arr	43.63	276	P	P	15 16 23.7	-1.7
WB0	Warramunga Arr	43.66	276		P	15 16 24.5	-1.2
WB0				IAmb	IAmb	15 16 25.7	
	comp=Z,17nm,0.8s						
FORT	Forrest	44.73	258	P	P	15 16 32.7	-1.4
FORT				IAmb	IAmb	15 17 33.6	
	comp=Z,24nm,1.2s						
VNDA	Vanda	45.16	186	P	P	15 16 38.7	+1.8
PATS	Pohnpei	45.45	327	P	P	15 16 39.0	-0.9
GENI	Genyem	49.04	300	P	P	15 17 07.5	-0.4
	comp=Z,48nm,0.9s						
MTN	Manton Dam	49.85	282	P	P	15 17 12.8	-1.3
MTN				IAmb	IAmb	15 17 25.4	
	comp=Z,16nm,1.4s						
CCD	Concordia, Ant	49.99	197	P	P	15 17 16.4	+1.5
KNRA	Kununurra	50.33	277	P	P	15 17 16.8	-1.0
KNRA				IAmb	IAmb	15 18 15.3	
	comp=Z,45nm,1.9s						
FITZ	Fitzroy Crossi	51.75	273	LR	LR	15 38 43.6	
	comp=Z,175nm,18.8s,baz=165,slow=35						
FITZ	Fitzroy Crossi	51.75	273	P	P	15 17 27.3	-1.1
FITZ	Fitzroy Crossi	51.75	273	P	P	15 17 27.2	-1.1
	comp=Z,4.9nm,1.4s						
CASY	Casey	52.28	209		P	15 17 31.0	-0.6
CASY				IAmb	IAmb	15 17 32.5	
	comp=Z,12nm,0.7s						
CASY	Casey	52.28	209	P	P	15 17 32.1	+0.5
	comp=Z,28nm,1.0s						
MBWA	Marble Bar	55.30	266	P	P	15 17 52.0	-2.4
MBWA				IAmb	IAmb	15 19 28.7	
	comp=Z,29nm,1.5s						
OVEH	Oceanview Est	56.60	26	P	P	15 18 05.5	+1.8
QSPA	South Pole Qui	56.82	180	P	P	15 18 07.5	+2.7
	comp=Z,9.2nm,0.7s,baz=15,slow=0.9,SNR=71						
	comp=Z,9.2nm,0.7s						
QSPA	South Pole Qui	56.82	180	P	P	15 18 07.7	+2.9
QSPA				IAmb	IAmb	15 18 09.2	
	comp=Z,9.2nm,0.7s						
QSPA	South Pole Qui	56.82	180	P	P	15 18 08.4	+3.6
QSPA	South Pole Qui	56.82	180	P	P	15 18 08.2	+3.4
HMH	Humu‘ula Sheep	57.11	26	P	P	15 18 09.0	+1.5
GIRL	Giralia	59.22	262	P	P	15 18 20.3	-1.7
EDFI	Ende, Flores	59.84	280	P	P	15 18 25.0	-1.5
	comp=Z,9.8nm,0.8s						
SPSI	Sidrap Palu	64.09	283	P	P	15 18 52.6	-2.3
	comp=Z,13nm,0.9s						
ELIB	Princess Elisa	73.91	187	*d*P	P	15 19 56.0	+0.8
	comp=Z,5.9nm,0.6s						
TROLL	Troll, Antarti	74.98	180	⇑P	P	15 20 03.3	+2.0
	comp=Z,132nm,0.5s						
SNAA	Sanae	75.29	179	P	P	15 20 03.8	+0.7
	comp=Z,1.4nm,0.4s,baz=180,slow=6.1,SNR=3.6						
	comp=Z,1.4nm,0.4s						
SNAA	Sanae	75.29	179	P	P	15 20 04.0	+1.0
SNAA	Sanae	75.29	179	P	P	15 20 03.9	+0.9
	comp=Z,4.4nm,1.0s						
VNA3	Neumayer Olymp	75.47	176	⇑P	P	15 20 05.7	+1.7
	comp=Z,11nm,0.7s						
VNA3	Neumayer Olymp	75.47	176	P	P	15 20 05.9	+1.9
	comp=Z,18nm,0.8s						
VNA2	Neumayer--Watz	75.89	177	⇑P	P	15 20 08.5	+2.1
	comp=Z,9.4nm,0.6s,baz=181,slow=5.4						
VNA2	Neumayer--Watz	75.89	177	P	P	15 20 08.7	+2.3
	comp=Z,17nm,0.8s						
VNA1	Neumayer--Stat	76.13	177	⇑P	P	15 20 10.0	+2.3
	comp=Z,7.5nm,0.7s						
H03S2	Juan Fernandez	79.43	123	T	T	16 48 49.0	
	baz=235,slow=74,SNR=90						
H03S1	Juan Fernandez	79.44	123	T	T	16 48 51.0	
	baz=235,slow=74,SNR=74						
H03S3	Juan Fernandez	79.45	123	T	T	16 48 51.0	
	baz=235,slow=74,SNR=87						
H03N3	Juan Fernandez	79.64	123	T	T	16 48 36.3	
	baz=239,slow=76,SNR=338						
H03N2	Juan Fernandez	79.64	123	T	T	16 48 58.4	
	baz=239,slow=76,SNR=97						
H03N1	Juan Fernandez	79.65	123	T	T	16 48 52.8	
	baz=239,slow=76,SNR=167						
MJAR	Matsushiro Arr	80.25	326	LR	LR	15 54 04.9	
	comp=Z,24nm,18.2s,baz=206,slow=34						
ASAJ	Asahikawa	84.70	333	LR	LR	15 51 59.2	
	comp=Z,35nm,20.7s,baz=257,slow=31						
GSI	Gunungsitoli	85.39	275	P	P	15 20 57.2	-1.0
	comp=Z,29nm,1.0s						
KSRS	Korea Array	86.13	320	P	P	15 21 01.1	-0.1
	comp=Z,0.6nm,0.7s,baz=146,slow=5.7,SNR=2.8						
	comp=Z,0.6nm,0.7s						
LPIG	La Paz	86.62	58	LR	LR	15 55 58.0	
	comp=Z,40nm,18.4s,baz=246,slow=33						
TPTI		86.79	276	P	P	15 21 02.7	-2.3
	comp=Z,231nm,2.0s						
UNV	Unalaska Valle	87.43	7	P	P	15 21 08.3	+1.3
NJ2	Nanjing	87.63	311	*e*P	P	15 21 10.8	+2.2
NJ2				pmax	pmax		
	comp=Z,5.0nm,0.7s						
PETK	Petropavlovsk-	88.45	346	P	P	15 21 12.3	+0.3
	comp=Z,1.8nm,0.7s,baz=115,slow=6.7,SNR=9.6						
	comp=Z,1.8nm,0.7s						
PETK	Petropavlovsk-	88.45	346	P	P	15 21 11.7	-0.3
SDPT	Sand Point	89.67	10	P	P	15 21 18.9	+1.3
NVAR	Mina Array Bea	90.81	43	P	P	15 21 26.0	+2.3
	comp=Z,0.5nm,0.6s,baz=212,slow=5.3,SNR=3.7						
	comp=Z,0.5nm,0.6s						
CHGN	Chignik	90.91	11	P	P	15 21 25.2	+1.8
CMIG	Matias Romero	94.27	72	LR	LR	15 55 07.2	
	comp=Z,39nm,20.6s,baz=332,slow=30						
TXAR	Lajitas Array	94.50	58	LR	LR	15 58 59.1	
	comp=Z,41nm,18.3s,baz=298,slow=32						
XAN	Xi'an	95.33	307	P	P	15 21 48.3	+3.8
XAN				pmax	pmax		
	comp=Z,9.0nm,0.4s						
PZH	PanZhiHua	96.05	298	P	P	15 21 49.8	+1.8
HHC	Hu-ho-hao-te	97.76	314	*e*P	Pdif	15 21 56.0	+0.5
HHC				pmax	pmax		
	comp=Z,15nm,0.7s						
HHC				pmax	pmax		
	comp=Z,45nm,4.8s						
BTO2	Baotou	98.72	313	*e*P	Pdif	15 22 01.8	+2.1
BTO2				pmax	pmax		
	comp=Z,11nm,0.6s						
BTO2				pmax	pmax		
	comp=Z,300nm,6.5s						
ILAR	Eielson Array	100.89	13	P	Pdif	15 22 10.4	+1.8
	comp=Z,0.4nm,0.6s,baz=188,slow=3.6,SNR=5.8						
WMQ	Urumqi	114.47	307	*e*PKP	PKiKP	15 27 01.3	+1.4
MKAR	Makanchi Array	119.09	309	PKP	PKPdf	15 27 07.5	-1.2
	comp=Z,0.3nm,0.4s,baz=249,slow=1.5,SNR=8.5						
ZALV	Zalesovo Beam	119.73	317	PKP	PKPdf	15 27 08.6	-1.0
	comp=Z,0.7nm,0.4s,baz=116,slow=2.6,SNR=5.4						
ZALV	Zalesovo Beam	119.73	317	PKPdf	PKPdf	15 27 08.1	-1.5
NRIK	Noril'sk	121.99	335	PKP	PKPdf	15 27 13.0	-0.5
	comp=Z,2.1nm,0.4s,baz=108,slow=3.2,SNR=3.7						
NRIK	Noril'sk	121.99	335	PKPdf	PKPdf	15 27 13.2	-0.3
KURK	Kurchatov	122.54	313	PKPdf	PKPdf	15 27 14.2	-0.9
KURBB	Kurchatov Arra	122.57	312	PKP	PKPdf	15 27 14.4	-0.7
	comp=Z,1.6nm,0.6s,baz=114,slow=1.7,SNR=12						
BVAR	Borovoye Array	127.97	314	PKP	PKPdf	15 27 25.3	-0.1
	comp=Z,2.0nm,0.5s,baz=129,slow=2.3,SNR=11						
SPA0	Spitsbergen Ar	134.53	356	*e*PKPdf	PKiKP	15 27 38.8	+0.1
SPITS	Spitsbergen Ar	134.53	356	PKP	PKiKP	15 27 38.2	-0.4
	comp=Z,6.2nm,0.7s,baz=27,slow=3.5,SNR=6.1						
ARCES	ARCESS Array B	141.26	347	PKhKP	PKPpre	15 27 45.2	
	comp=Z,0.6nm,0.4s,baz=34,slow=3.2,SNR=11						
ARCES				PKP	PKiKP	15 27 51.4	-1.1
	comp=Z,1.2nm,0.4s,baz=35,slow=2.1,SNR=11						
ARCES	ARCESS Array B	141.26	347	PKPdf	PKPdf	15 27 50.5	+0.7
KTK1	Kautokeino	142.13	347	*e*PKPdf	PKPdf	15 27 48.0	-3.3
STEI	Steigen	144.38	351	*e*PKPdf	PKPbc	15 27 54.3	+0.5
SALU	Saltoluokta	144.41	349	*e*PKPdf	PKPdf	15 27 54.6	-0.8
FAUS	Fauske	144.89	351	*e*PKPbc	PKPdf	15 27 55.7	-0.5
VAGH	Vaagaholmen	145.77	352	*e*PKPdf	PKPab	15 27 58.6	-0.1
GEVA	Gevas	145.91	291		PKPdf	15 27 58.5	-0.6
RAUS	Rausandaksla	145.95	351	*e*PKPdf	PKPbc	15 27 58.8	-0.1
KBZ	Khabaz	146.08	300	PKPbc	PKPdf	15 27 59.0	+0.1
	comp=Z,1.6nm,0.6s,baz=92,slow=6.3,SNR=3.7						
MOR8	Moi Rana	146.15	350	*e*PKPdf	PKPbc	15 27 58.9	-0.6
STOK	Stokkvaagen	146.18	351	*e*PKPdf	PKPbc	15 27 59.0	-0.5
LEIR	Leirfjorden	146.38	351	*e*PKPdf	PKPbc	15 27 59.4	-0.7
FINES	FINESS Array B	147.60	338	PKPbc	PKPbc	15 28 03.7	0.0

	comp=Z,17nm,0.5s,baz=40,slow=4.2,SNR=164						
FINES	**FINESS Array B**	**147.60**	**338**	PKPdf	**PKPbc**	**15 28 02.6**	**-1.1**
NSS	**Namsos**	**148.04**	**351**	*e*PKPbc	**PKPbc**	**15 28 04.9**	**+0.1**
MOL	**Molde**	**150.43**	**354**	*e*PKPbc	**PKiKP**	**15 28 11.5**	**-0.1**
DOMB	**Dombas**	**150.80**	**352**	*e*PKPbc	**PKPbc**	**15 28 12.0**	**+0.2**
NC303	**NORSAR Array S**	**151.29**	**350**		**PKPbc**	**15 28 12.8**	**-0.2**
MMAI	**Mount Meron Ar**	**151.45**	**279**	PKPbc	**PKiKP**	**15 28 14.5**	**-0.2**
	comp=Z,2.6nm,0.4s,baz=70,slow=7.2,SNR=8.9						
NB2	**NORSAR Subarra**	**151.49**	**350**	PKP	**PKiKP**	**15 28 13.7**	**-0.2**
	comp=Z,5.8nm,0.5s,baz=15,slow=2.6						
NB2	**NORSAR Subarra**	**151.49**	**350**	PKP	**PKiKP**	**15 28 13.7**	**-0.2**
NOA	**NORSAR Array B**	**151.49**	**350**	PKPbc	**PKiKP**	**15 28 13.7**	**-0.2**
	comp=Z,5.8nm,0.5s,baz=14,slow=4.1,SNR=31						
NC602	**NORSAR Array S**	**151.73**	**349**	*e*PKPbc	**PKiKP**	**15 28 14.1**	**-0.3**
NC602	**NORSAR Array S**	**151.73**	**349**	PKPbc	**PKPbc**	**15 28 13.5**	**-0.4**
HFS	**Hagfors**	**151.92**	**347**	PKPbc	**PKPbc**	**15 28 14.4**	**0.0**
	comp=Z,6.9nm,0.5s,baz=86,slow=1.9,SNR=22						
SKAR	**Skarslia**	**152.21**	**353**	*e*PKPbc	**PKiKP**	**15 28 16.3**	**+0.9**
CY604	**RAF Akrotiri,**	**152.38**	**281**		**PKPbc**	**15 28 15.2**	**-0.7**
PABE	**Paberze**	**152.72**	**331**	PKPbc	**PKPbc**	**15 28 16.1**	**-0.2**
DBIC	**Dimbokro**	**152.91**	**167**	PKPbc	**PKiKP**	**15 28 19.1**	**+0.9**
	comp=Z,2.5nm,0.4s,baz=190,slow=3.0,SNR=9.7						
AKASG	**Malin Array Be**	**153.11**	**319**	PKPbc	**PKPbc**	**15 28 16.4**	**-0.9**
	comp=Z,1.1nm,0.3s,baz=52,slow=3.1,SNR=9.2						
BR131	**Keskin Array S**	**153.26**	**293**		**PKPbc**	**15 28 17.2**	**-1.0**
BRTR	**Keskin Array B**	**153.26**	**293**	PKPbc	**PKPbc**	**15 28 16.9**	**-1.3**
	comp=Z,2.1nm,0.5s,baz=128,slow=3.5,SNR=14						
BRTR	**Keskin Array B**	**153.26**	**293**	PKPbc	**PKiKP**	**15 28 18.2**	**-0.1**
EKA	**Eskdalemuir Ar**	**157.75**	**7**	PKPab	**PKPab**	**15 28 49.0**	**+0.3**
	comp=Z,0.8nm,0.5s,baz=310,slow=3.1,SNR=5.1						
TORD	**Torodi Ar. Bea**	**159.94**	**181**	PKPab	**PKPab**	**15 29 00.3**	**+1.2**
	comp=Z,1.6nm,0.7s,baz=167,slow=3.6,SNR=7.7						
BMRD	**Maredsous**	**162.80**	**352**	*d*PKP	**PKPdf**	**15 28 25.0**	**+3.2**

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*ISK **16** 15:22:19.3, 38°.67N×41°.96E, h9^{km}, ML2.3/8*
*AFAD **16** 15:22:20.0, 38°.72N×42°.00E, h7^{km}±4^{km}, ML2.6*
ISC 16 15:22:20.1±1.1**, 38°.72N**±0°.03×**41°.99E**±0°.03**, h13**^{km}±12^{km},
n19, σ**0^s.67**/24**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BLIS	**Bitlis-Merkez**	**0.32**	**162**	P	**Pb**	**15 22 26.9**	**-0.8**
BLIS				S	**Sb**	**15 22 31.4**	**-1.3**
BLIS				IAML		15 22 32.0	
	comp=E,1μm,0.2s						
MUSM	**Mu-Merkez**	**0.38**	**271**	P	**Pg**	**15 22 27.6**	**-0.1**
MUSM				S	**Sb**	**15 22 33.2**	**-1.3**
MUSM				IAML		15 22 35.0	
	comp=E,372nm,0.5s						
ADCV	**BITLIS_Adilcev**	**0.58**	**81**	P	**Pb**	**15 22 32.5**	**+0.4**
MLAZ	**Malazgirt-MUS**	**0.61**	**45**	Pg	**Pb**	**15 22 32.7**	**0.0**
MLAZ				AML	AML		
VRTB	**Varto-Mus**	**0.61**	**317**	Pg	**Pg**	**15 22 32.1**	**0.0**
VRTB				AML	AML		
SLHN	**Bingol, Solhan**	**0.79**	**288**	P	**Pb**	**15 22 36.2**	**+0.4**
AKDM	**Akdamar-Van**	**0.86**	**116**	Pg	**Pg**	**15 22 36.6**	**-0.2**
AKDM				Sg	**Sb**	**15 22 49.0**	**+0.4**
AKDM				AML	AML		
PERV	**Siirt/Pervari-**	**0.88**	**150**	P	**Pn**	**15 22 37.9**	**-0.4**
DORK	**Agr/Tutak/Do**	**0.91**	**42**	P	**Pg**	**15 22 36.8**	**-0.9**
DORK				S	**Sg**	**15 22 49.7**	**+0.1**
DORK				IAML		15 22 55.0	
	comp=E,83nm,0.5s						
GEVA	**Gevas**	**0.93**	**115**	P	**Pb**	**15 22 38.3**	**+0.1**
BTMN	**Batman**	**1.00**	**215**	P	**Pn**	**15 22 40.7**	**+0.8**
BNGB	**Bingl**	**1.06**	**285**	Pg	**Pg**	**15 22 39.7**	**-0.9**
BNGB				AML	AML		
VANB	**Van**	**1.10**	**96**	Pn	**Pn**	**15 22 41.7**	**+0.4**
VANB				AML	AML		
AGRB	**Hanur-Agry**	**1.16**	**42**	Pn	**Pn**	**15 22 42.7**	**+0.5**
AGRB				AML	AML		
SIRN	**Sırnak**	**1.26**	**165**	P	**Pg**	**15 22 44.3**	**0.0**
VMUR	**Van-Muradiye**	**1.26**	**77**	P	**Pn**	**15 22 44.0**	**+0.4**
KOPR	**Koprukoy-ERZUR**	**1.28**	**355**	Pn	**Pg**	**15 22 44.6**	**-0.1**
KOPR				AML	AML		
MIDY	**Mardin/Midyat-**	**1.39**	**200**	P	**Pg**	**15 22 47.4**	**+0.7**
MIDY				S	**Sg**	**15 23 05.4**	**+0.6**
MIDY				IAML		15 23 07.0	
	comp=N,179nm,0.4s						
CLDR	**Caldiran**	**1.56**	**74**	Pn	**Pn**	**15 22 48.6**	**+0.9**
CLDR				AML	AML		

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*JMA **16** 15:42:20.6±0.1, 23°.6N±0°.5×12°2E±°, h36^{km}±1^{km},*
MV3.4/18, TAIWAN REGION
*TAP **16** 15:42:21.5, 23°.60N×121°.56E, h31^{km}, ML3.7, C*
ISC 16 15:42:21.7±0.8**, 23°.60N**±0°.01×**121°.58E**±0°.02**, h32**^{km}±4^{km},
n150, σ**0^s.87**/260**, 3C-10D, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TEGC	**Jichi Village**	**0.11**	**341**	⇑*i*P	**Pb**	**15 42 27.4**	**+0.1**
TEGC				S	**Sb**	**15 42 32.2**	**+1.0**
HGSD	**Ruisui**	**0.18**	**233**	⇑P	**Pb**	**15 42 28.0**	**0.0**
HGSD				S	**Sb**	**15 42 35.1**	**+2.9**
SHUL	**Shoufeng**	**0.18**	**355**	⇑P	**Pb**	**15 42 28.1**	**+0.1**
SHUL				S	**Sb**	**15 42 33.3**	**+1.0**
WARBT	**Fenglin Townsh**	**0.21**	**303**	⇓P	**Pb**	**15 42 27.7**	**-0.6**
WARBT				*i* S	**Sb**	**15 42 32.2**	**-0.6**
EHYH	**Wanrong**	**0.24**	**244**	⇓P	**Pb**	**15 42 28.2**	**-0.4**
EHYH				S	**Sb**	**15 42 32.8**	**-0.5**
ESL	**Shilin**	**0.25**	**327**	⇓*i*P	**Pb**	**15 42 28.2**	**-0.5**
ESL				*i* S	**Sb**	**15 42 33.0**	**-0.5**
EHY	**Hungye**	**0.26**	**248**	*i* P	**Pb**	**15 42 28.1**	**-0.6**
EHY				S	**Sb**	**15 42 32.7**	**-0.9**
TEYL	**Yanliau Villag**	**0.27**	**3**	P	**Pb**	**15 42 29.5**	**+0.6**
TEYL				*e*S	**Sb**	**15 42 35.9**	**+2.1**
ECBN	**Changbin**	**0.31**	**203**	*e*P	**Pn**	**15 42 29.8**	**-0.2**
ECBN				*e*S	**Sb**	**15 42 35.9**	**+1.2**
YULB	**Yu-li**	**0.33**	**231**	P	**Pb**	**15 42 29.0**	**-0.8**
YULB	**Yu-li**	**0.33**	**231**	S	**Sb**	**15 42 34.4**	**-0.9**
YULB	**Yu-li**	**0.33**	**231**	*i* P	**Pb**	**15 42 29.2**	**-0.6**
YULB				*e*S	**Sb**	**15 42 34.5**	**-0.9**
EYUL	**Yuli**	**0.35**	**223**	*i* P	**Pn**	**15 42 29.6**	**-1.0**
TWF1	**Yuli**	**0.36**	**226**	⇓P	**Pb**	**15 42 29.5**	**-0.6**
TWF1				*i* S	**Sb**	**15 42 35.2**	**-0.7**
ETM	**Tongmen**	**0.37**	**347**	⇓P	**Pb**	**15 42 29.9**	**-0.5**
ETM				S	**Sn**	**15 42 36.5**	**-0.5**
HWA	**Hwalien**	**0.37**	**3**	*e*P	**Pn**	**15 42 30.5**	**-0.4**
HWA				*e*S	**Sn**	**15 42 38.0**	**+0.9**
VWDT	**VWDT**	**0.43**	**291**	⇓P	**Pn**	**15 42 31.0**	**-0.6**
VWDT				*e*S	**Sn**	**15 42 38.2**	**-0.2**
CHKH	**Chenggong**	**0.44**	**203**	*e*P	**Pn**	**15 42 31.3**	**-0.5**
CHKH				*i* S	**Sn**	**15 42 38.9**	**+0.1**
LXIB	**Xiulin Townshi**	**0.44**	**340**	⇓P	**Pb**	**15 42 30.7**	**-0.8**
LXIB				*e*S	**Sb**	**15 42 37.9**	**-0.3**
TWD	**Chiawan**	**0.48**	**2**	*i* P	**Pb**	**15 42 31.6**	**-0.3**
TWD				*i* S	**Sn**	**15 42 39.1**	**-0.5**
FULB	**Fuli**	**0.48**	**213**	*i* P	**Pn**	**15 42 31.9**	**-0.5**
FULB				*e*S	**Sn**	**15 42 39.9**	**+0.1**
OWD	**Renai**	**0.51**	**314**	*i* P	**Pb**	**15 42 31.9**	**-0.6**
OWD				S	**Sb**	**15 42 39.3**	**-0.7**
CHKT	**Chengkung**	**0.54**	**202**	*i* P	**Pn**	**15 42 32.2**	**-0.9**
CHKT				*i* S	**Sn**	**15 42 41.0**	**-0.1**
ETL	**Fush Village**	**0.56**	**4**	*e*P	**Pn**	**15 42 32.5**	**-0.9**
ETL				*e*S	**Sn**	**15 42 41.4**	**-0.2**
EHD	**Haiduan**	**0.57**	**217**	*e*P	**Pn**	**15 42 33.9**	**+0.3**
NACB	**Ninganchiao**	**0.57**	**1**	P	**Pn**	**15 42 32.3**	**-1.3**
NACB	**Ninganchiao**	**0.57**	**1**	S	**Sb**	**15 42 40.7**	**-0.6**
NACB	**Ninganchiao**	**0.57**	**1**	*i* P	**Pn**	**15 42 32.5**	**-1.1**
NACB				S	**Sb**	**15 42 40.7**	**-0.6**
WUSB	**Renai**	**0.57**	**313**	⇓P	**Pb**	**15 42 33.0**	**-0.5**
WUSB				S	**Sn**	**15 42 41.4**	**-0.9**
YUS	**Yu-Shan**	**0.59**	**259**	*e*P	**Pn**	**15 42 33.5**	**-0.8**
YUS				*e*S	**Sb**	**15 42 41.5**	**-0.9**
SSLB	**Suanglung**	**0.60**	**288**	P	**Pn**	**15 42 33.0**	**-1.1**
SSLB	**Suanglung**	**0.60**	**288**	S	**Sn**	**15 42 41.9**	**-0.9**
SSLB	**Suanglung**	**0.60**	**288**	*e*P	**Pn**	**15 42 33.1**	**-1.0**
SSLB				*e*S	**Sn**	**15 42 42.5**	**-0.3**
ECS	**Chishang**	**0.60**	**213**	*e*P	**Pb**	**15 42 33.3**	**-0.6**
ECS				*e*S	**Sn**	**15 42 44.4**	**+1.6**
ETLH	**Xiulin Townshi**	**0.61**	**351**	*e*P	**Pn**	**15 42 33.1**	**-1.1**
ETLH				*e*S	**Sb**	**15 42 41.4**	**-1.1**
WHF	**Hehuan Shan**	**0.61**	**332**	*i* P	**Pn**	**15 42 33.5**	**-1.1**
WHF				*e*S	**Sb**	**15 42 41.9**	**-1.1**
ELDTW	**Lidau**	**0.66**	**232**	*i* P	**Pn**	**15 42 33.6**	**-1.3**
ELDTW				*i* S	**Sb**	**15 42 42.0**	**-2.0**
WHYT	**Xinyi Township**	**0.67**	**278**	*i* P	**Pb**	**15 42 34.8**	**-0.3**
WHYT				*e*S	**Sb**	**15 42 43.8**	**-0.5**
EDH	**Donghe**	**0.68**	**202**	*i* P	**Pb**	**15 42 34.2**	**-0.9**
EDH				*e*S	**Sb**	**15 42 45.0**	**+0.8**
SMLT	**Sun Moon Lake**	**0.68**	**294**	⇓*i*P	**Pb**	**15 42 34.7**	**-0.6**
SMLT				S	**Sb**	**15 42 45.3**	**+0.8**
FUSS	**Fushou**	**0.71**	**334**	*i* P	**Pn**	**15 42 35.1**	**-0.7**
FUSS				*e*S	**Sn**	**15 42 44.8**	**-1.0**
ALS	**Alishan**	**0.72**	**263**	*i* P	**Pb**	**15 42 35.7**	**-0.3**
ALS				S	**Sb**	**15 42 45.3**	**-0.4**
TYC	**Yuchr**	**0.73**	**295**	*i* P	**Pb**	**15 42 35.4**	**-0.6**
TYC				S	**Sb**	**15 42 46.2**	**+0.5**
EAHA	**Aohua**	**0.74**	**11**	P	**Pb**	**15 42 35.7**	**-0.4**
EAHA				*i* S	**Sb**	**15 42 47.0**	**+1.0**
TWT	**Tachien**	**0.75**	**330**	*i* P	**Pb**	**15 42 36.1**	**-0.3**
TWT				*i* S	**Sn**	**15 42 45.5**	**-1.1**
TDCB	**Techi**	**0.76**	**329**	*e*P	**Pb**	**15 42 36.2**	**-0.3**
TDCB				*i* S	**Sn**	**15 42 45.7**	**-1.0**
WCS	**Beigang Elemen**	**0.76**	**307**	*e*P	**Pb**	**15 42 36.2**	**-0.4**
LONT	**Longtian**	**0.81**	**211**	*e*P	**Pn**	**15 42 35.5**	**-1.4**
WJS	**Zhushan**	**0.81**	**286**	P	**Pb**	**15 42 37.7**	**+0.3**
CHN5	**Tsauling**	**0.83**	**270**	P	**Pb**	**15 42 37.6**	**-0.1**
CHN5				*i* S	**Sb**	**15 42 49.5**	**+0.9**
NNSB	**Datong**	**0.84**	**348**	*i* P	**Pn**	**15 42 37.0**	**-0.5**
NNSB				*e*S	**Sn**	**15 42 48.0**	**-0.9**
EOS4	**EOS4**	**0.85**	**52**	*e*P	**Pn**	**15 42 37.1**	**0.0**
EOS4				S	**Sn**	**15 42 48.3**	**0.0**
STYH	**Taoyuan**	**0.85**	**240**	*e*P	**Pb**	**15 42 37.4**	**-0.7**
STYH				*e*S	**Sb**	**15 42 48.8**	**-0.4**
NNS	**Nan Shan**	**0.86**	**347**	P	**Pn**	**15 42 37.2**	**-0.4**
NNS				S	**Sn**	**15 42 48.5**	**-0.7**
EWUT	**Wuta**	**0.86**	**12**	*e*P	**Pb**	**15 42 37.9**	**-0.3**
EWUT				*e*S	**Sn**	**15 42 48.2**	**-0.9**
WNT	**Mingjian**	**0.87**	**289**	*e*P	**Pb**	**15 42 38.5**	**+0.2**
WNT				S	**Sb**	**15 42 50.5**	**+1.0**
WHP	**Taichung City**	**0.89**	**319**	*e*P	**Pb**	**15 42 38.5**	**-0.3**
TWGBT	**Beinan**	**0.91**	**211**	P	**Pb**	**15 42 40.0**	**+1.0**
TWGBT	**Beinan**	**0.91**	**211**	*e*P	**Pn**	**15 42 37.5**	**-0.7**
TWG	**Pinlang**	**0.91**	**211**	*e*P	**Pn**	**15 42 36.8**	**-1.4**
WCKO	**Fanlu**	**0.91**	**260**	*i* P	**Pb**	**15 42 39.1**	**+0.1**
WCKO				S	**Sb**	**15 42 51.7**	**+0.8**
TPUB	**Ta-pu**	**0.92**	**251**	P	**Pb**	**15 42 39.2**	**-0.1**
TPUB	**Ta-pu**	**0.92**	**251**	S	**Sb**	**15 42 51.8**	**+0.6**
TPUB	**Ta-pu**	**0.92**	**251**	*e*P	**Pb**	**15 42 39.0**	**-0.3**
TPUB				*i* S	**Sb**	**15 42 52.1**	**+0.9**
LATG	**Datong**	**0.93**	**357**	*e*P	**Pn**	**15 42 38.1**	**-0.6**
LDUT	**Ludao**	**0.93**	**186**	*e*P	**Pn**	**15 42 36.5**	**-2.1**
CHN4	**Tsaushan**	**0.94**	**255**	*e*P	**Pb**	**15 42 39.6**	**+0.1**
CHN4				S	**Sb**	**15 42 53.0**	**+1.3**
WTP	**Ta-pu**	**0.96**	**248**	*i* P	**Pb**	**15 42 39.5**	**-0.4**
WTP				S	**Sb**	**15 42 53.1**	**+0.9**
EOS3	**EOS3**	**0.96**	**45**	*e*P	**Pb**	**15 42 39.7**	**-0.1**
EOS3				S	**Sb**	**15 42 52.4**	**+0.4**
WDLH	**Douliu**	**0.96**	**275**	*i* P	**Pb**	**15 42 39.7**	**-0.1**
WDLH				*i* S	**Sb**	**15 42 52.8**	**+0.6**
WDL	**Douliou City**	**0.96**	**277**	*e*P	**Pb**	**15 42 39.8**	**0.0**
WDL				*e*S	**Sb**	**15 42 53.2**	**+0.9**
TCU	**Taichung**	**0.99**	**303**	*e*P	**Pb**	**15 42 40.6**	**+0.3**
TCU				*e*S	**Sb**	**15 42 54.6**	**+1.5**
NDT	**Datong Townshi**	**1.00**	**356**	*e*P	**Pn**	**15 42 39.3**	**-0.2**
NDT				*e*S	**Sn**	**15 42 52.4**	**-0.2**
ESAO	**Su ao**	**1.00**	**14**	*e*P	**Pb**	**15 42 40.0**	**-0.5**
ESAO				*e*S	**Sb**	**15 42 53.7**	**+0.4**
NDS	**Dongshan**	**1.03**	**7**	*e*P	**Pb**	**15 42 40.1**	**-1.0**
NDS				*e*S	**Sn**	**15 42 53.3**	**-0.1**
TWQ1	**Liyutan**	**1.05**	**315**	*i* P	**Pb**	**15 42 41.6**	**+0.3**
TWQ1				S	**Sb**	**15 42 56.2**	**+1.4**
WCHH	**Zhanghua**	**1.05**	**297**	*i* P	**Pb**	**15 42 41.6**	**+0.2**
WCHH				*e*S	**Sb**	**15 42 56.4**	**+1.6**
SLGT	**Liugui**	**1.05**	**235**	*e*P	**Pb**	**15 42 41.7**	**+0.3**
SLGT				S	**Sb**	**15 42 54.7**	**-0.1**
CHN1	**Nanshi**	**1.05**	**247**	*i* P	**Pb**	**15 42 41.5**	**+0.1**
CHN1				*i* S	**Sb**	**15 42 55.6**	**+0.7**
SGST	**Jiashian**	**1.05**	**241**	*i* P	**Pb**	**15 42 40.6**	**-0.8**
SGST				S	**Sb**	**15 42 55.0**	**+0.1**
WCH1	**Changhua City**	**1.06**	**296**	*e*P	**Pb**	**15 42 41.6**	**+0.2**
WCH1				*i* S	**Sb**	**15 42 56.6**	**+1.6**
TWK	**Hsinying**	**1.06**	**252**	*i* P	**Pb**	**15 42 41.1**	**-0.5**
TWK				S	**Sb**	**15 42 55.9**	**+0.8**
CHY	**Chiayi**	**1.07**	**265**	*e*P	**Pb**	**15 42 41.5**	**-0.1**
CHY				S	**Sb**	**15 42 56.5**	**+1.3**
YHNB	**Yeheng**	**1.08**	**350**	P	**Pn**	**15 42 40.7**	**0.0**
YHNB	**Yeheng**	**1.08**	**350**	S	**Sn**	**15 42 54.6**	**0.0**
YHNB	**Yeheng**	**1.08**	**350**	*i* P	**Pb**	**15 42 40.8**	**-1.1**
YHNB				S	**Sn**	**15 42 54.6**	**0.0**
NSK	**Sanguang**	**1.09**	**349**	*e*P	**Pb**	**15 42 41.0**	**-1.0**
NSK				*e*S	**Sn**	**15 42 54.5**	**-0.3**
WTK	**Tuku**	**1.10**	**275**	*e*P	**Pb**	**15 42 41.8**	**-0.3**
WTK				S	**Sb**	**15 42 56.7**	**+0.6**
NFF	**Wufeng Townshi**	**1.11**	**338**	*e*P	**Pb**	**15 42 43.0**	**+0.6**
TWE	**Neicheng**	**1.12**	**4**	⇓*i*P	**Pn**	**15 42 41.1**	**0.0**
TWE				*i* S	**Sn**	**15 42 55.6**	**+0.2**
WDJ	**Dajia District**	**1.14**	**311**	*e*P	**Pb**	**15 42 43.2**	**+0.4**
WDJ				*i* S	**Sb**	**15 42 59.1**	**+1.9**
WRL	**Guolierlin Hig**	**1.14**	**285**	*e*P	**Pb**	**15 42 42.4**	**-0.5**
WRL				*e*S	**Sb**	**15 42 57.4**	**0.0**
FUSB	**Fushanzhiwuyua**	**1.15**	**0**	*e*P	**Pn**	**15 42 41.7**	**0.0**
FUSB				S	**Sn**	**15 42 56.5**	**+0.1**
NSTT	**Nanjuang**	**1.15**	**333**	*i* P	**Pb**	**15 42 42.9**	**-0.2**
NSTT				*e*S	**Sb**	**15 42 57.3**	**-0.5**
ECL	**Taimali**	**1.16**	**210**	*e*P	**Pn**	**15 42 40.9**	**-0.7**
RLNB	**Erlin**	**1.16**	**285**	*e*P	**Pb**	**15 42 43.1**	**0.0**
RLNB				*e*S	**Sb**	**15 42 59.5**	**+1.8**
LIOB	**Emei**	**1.16**	**334**	*e*P	**Pb**	**15 42 43.2**	**0.0**
LIOB				*e*S	**Sb**	**15 42 58.8**	**+0.8**
NWLT	**Wulai**	**1.17**	**357**	*e*P	**Pb**	**15 42 42.3**	**-1.2**
NWLT				S	**Sn**	**15 42 56.8**	**0.0**
NMLH	**Miaoli**	**1.18**	**322**	P	**Pb**	**15 42 43.5**	**-0.1**
NMLH				*e*S	**Sb**	**15 42 58.9**	**+0.4**
ICHU	**Yijhu**	**1.22**	**259**	*e*P	**Pb**	**15 42 44.5**	**+0.3**
ICHU				*e*S	**Sb**	**15 43 00.6**	**+1.0**
WTCT	**Ta-ch'eng**	**1.22**	**283**	*e*P	**Pb**	**15 42 43.7**	**-0.5**
WTCT				*i* S	**Sb**	**15 43 00.0**	**+0.4**
SSD	**Sandimen**	**1.22**	**226**	*i* P	**Pb**	**15 42 43.5**	**-0.7**
SSD				*i* S	**Sb**	**15 43 00.0**	**+0.4**
KSHI	**Guanxi Townshi**	**1.23**	**343**	*i* P	**Pb**	**15 42 44.4**	**0.0**
SCST	**Cishan**	**1.23**	**235**	*e*P	**Pb**	**15 42 45.7**	**+1.4**
SCST				S	**Sb**	**15 43 02.6**	**+2.8**
CHN3	**Shinhua**	**1.23**	**245**	*e*P	**Pb**	**15 42 45.3**	**+0.8**
CHN3				*i* S	**Sb**	**15 43 02.8**	**+2.8**
TSMG	**Majia**	**1.24**	**224**	P	**Pb**	**15 42 45.0**	**+0.4**
TSMG				*i* S	**Sb**	**15 43 01.8**	**+1.6**
WSL	**Shuilin Townsh**	**1.24**	**267**	*e*P	**Pb**	**15 42 43.9**	**-0.7**
WSL				*i* S	**Sb**	**15 43 00.7**	**+0.4**
WSF	**Szhu**	**1.25**	**272**	*i* P	**Pb**	**15 42 44.3**	**-0.3**
WSF				*i* S	**Sb**	**15 43 00.3**	**-0.1**
EGS		**1.28**	**14**	P	**Pb**	**15 42 45.7**	**+0.5**
CHN8	**Yiju**	**1.28**	**259**	*e*P	**Pb**	**15 42 44.5**	**-0.7**
CHN8				*i* S	**Sb**	**15 43 01.6**	**+0.1**
MASBT	**Mashibuluo**	**1.32**	**222**	*e*P	**Pb**	**15 42 45.6**	**-0.2**
MASBT				S	**Sb**	**15 43 02.7**	**+0.3**
TWM1	**Shoushan**	**1.32**	**234**	*e*P	**Pb**	**15 42 46.9**	**+1.0**
TWM1				*e*S	**Sb**	**15 43 05.1**	**+2.7**
HSN	**Hsinchu**	**1.32**	**335**	*e*S	**Sb**	**15 43 03.8**	**+1.4**
SGLT	**Jiouru**	**1.33**	**229**	P	**Pb**	**15 42 46.6**	**+0.6**
SGLT				S	**Sb**	**15 43 06.4**	**+3.7**
TAI1	**Yung-k'ang**	**1.36**	**246**	*e*S	**Sb**	**15 43 05.0**	**+1.3**
TWA	**Mucha**	**1.37**	**0**	*e*S	**Sn**	**15 43 02.4**	**+0.6**
TIPB	**Shuangxi**	**1.38**	**9**	*e*P	**Pb**	**15 42 46.4**	**-0.6**
NCUH	**Zhongli**	**1.41**	**345**	*e*S	**Sb**	**15 43 06.8**	**+1.8**
TSCK	**Chigu Township**	**1.45**	**252**	*e*P	**Pb**	**15 42 47.2**	**-0.9**
TSCK				*i* S	**Sb**	**15 43 05.3**	**-0.7**
SSPT	**Xinbi**	**1.45**	**220**	*e*P	**Pb**	**15 42 48.2**	**0.0**
WFSB	**Wu-fen Shan**	**1.47**	**7**	*e*S	**Sb**	**15 43 05.7**	**-1.2**
TWS1	**Kuangyinshan**	**1.50**	**354**	*e*P	**Pb**	**15 42 48.4**	**-0.6**
TWS1				S	**Sb**	**15 43 07.2**	**-0.4**
JYNG	**Yonagunijimaku**	**1.51**	**56**	*e*P	**Pn**	**15 42 46.9**	**+0.4**
JYNG				*e*S	**Sn**	**15 43 05.6**	**+0.6**
SXI1	**Grass Mountain**	**1.51**	**10**	*e*P	**Pb**	**15 42 47.8**	**-1.3**
SCZT	**Fangliau**	**1.51**	**216**	*e*P	**Pb**	**15 42 47.7**	**-1.5**
SCZT				*e*S	**Sb**	**15 43 08.0**	**+0.1**
YM01	**YM01**	**1.54**	**360**	*e*P	**Pb**	**15 42 48.8**	**-0.8**
YM01				*e*S	**Sn**	**15 43 06.8**	**+0.9**
ZUZH	**Zhuzihu**	**1.55**	**359**	P	**Pn**	**15 42 47.7**	**+0.5**
ZUZH				*e*S	**Sn**	**15 43 06.5**	**+0.3**
LAY	**Lan-yu**	**1.56**	**181**	*e*P	**Pn**	**15 42 46.1**	**-1.1**
LAY				*e*S	**Sn**	**15 43 05.3**	**-1.0**
SLIU	**Shizi**	**1.56**	**208**	*e*P	**Pb**	**15 42 48.5**	**-1.4**
YOJ	**Yonaguni jima**	**1.56**	**57**	*i* P	**Pn**	**15 42 48.1**	**+0.8**
YOJ				*i* S	**Sb**	**15 43 08.2**	**-1.2**
YOJ	**Yonaguni jima**	**1.56**	**57**	*e*P	**Pn**	**15 42 47.8**	**+0.5**
YOJ				*e*S	**Sn**	**15 43 06.8**	**+0.4**
ANP	**Anpu**	**1.58**	**358**	*e*P	**Pb**	**15 42 49.1**	**-1.3**
YM08	**YM08**	**1.58**	**0**	*e*P	**Pn**	**15 42 47.5**	**-0.1**
LYUB	**Lan-yu**	**1.59**	**180**	*e*P	**Pn**	**15 42 47.8**	**+0.1**
LYUB				*e*S	**Sn**	**15 43 07.2**	**0.0**
TWP	**Hsiaoliuchiu**	**1.68**	**222**	*e*P	**Pb**	**15 42 51.1**	**-0.8**
SMST	**Manzhou Townsh**	**1.72**	**204**	*e*P	**Pb**	**15 42 50.7**	**-2.0**
WDGT	**Dungji**	**1.80**	**259**	*e*P	**Pn**	**15 42 50.9**	**+0.4**
WDGT				*e*S	**Sn**	**15 43 11.8**	**-0.3**
PHUB	**P'eng-hu**	**1.84**	**268**	*i* P	**Pn**	**15 42 51.8**	**+0.7**
PHUB				*i* S	**Sn**	**15 43 13.2**	**-0.2**
PNG	**Penghu**	**1.86**	**269**	*e*P	**Pn**	**15 42 51.8**	**+0.4**
PNG				*i* S	**Sn**	**15 43 13.2**	**-0.5**
VCHM	**Qimei**	**2.02**	**259**	P	**Pn**	**15 42 54.1**	**+0.7**
VCHM				*e*S	**Sn**	**15 43 17.7**	**+0.1**
HATJ	**Hateruma jima**	**2.09**	**77**	*e*P	**Pn**	**15 42 54.4**	**-0.1**
HATJ				S	**Sn**	**15 43 18.8**	**-0.5**
IRIF	**Iriomote-Funau**	**2.10**	**69**	P	**Pn**	**15 42 55.1**	**+0.5**
IRIF				S	**Sn**	**15 43 20.1**	**+0.5**
JKRS	**Kuro-shima**	**2.31**	**74**	*e*P	**Pn**	**15 42 58.0**	**+0.4**
JKRS				S	**Sn**	**15 43 25.6**	**+0.7**
JIJ	**Ishigaki jima**	**2.46**	**72**	P	**Pn**	**15 42 59.4**	**-0.3**
JIJ				S	**Sn**	**15 43 28.1**	**-0.6**
JISG	**Ishigakijimahi**	**2.68**	**68**	P	**Pn**	**15 43 02.5**	**-0.1**
JISG				*e*S	**Sn**	**15 43 33.3**	**-0.8**
JTJ	**Tarama**	**3.03**	**69**	*e*P	**Pn**	**15 43 08.4**	**+0.9**
JTJ				*e*S	**Sn**	**15 43 42.4**	**-0.3**
JIRJ	**Irabujima**	**3.52**	**69**	*e*P	**Pn**	**15 43 14.2**	**0.0**
JIRJ				S	**Sn**	**15 43 55.2**	**+0.5**
JMJ2	**Miyako jima3**	**3.60**	**71**	P	**Pn**	**15 43 15.9**	**+0.5**
JMJ2				*e*S	**Sn**	**15 43 57.4**	**+0.6**
JOGS	**Gusukube**	**3.68**	**71**	P	**Pn**	**15 43 17.2**	**+0.8**
SXFK	**Yanhouchang**	**4.53**	**309**	P	**Pn**	**15 43 29.2**	**+1.1**

IDC 16 16:32:50.3±1.9**, 31°.09N**×**92°.43E, h0**^{km}**, mb3.7**/5**,**
mbtmp3.6/6**, ML3.2**/1**, MS3.6**/1**, Error ellipse:**
s-maj=229.1km s-min=20.0km az=57.0, Xizang

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MKAR	**Makanchi Array**	**17.53**	**336**	P	P	16 36 57.3	0.0
	0.1nm,0.3s,baz=143,slow=13,SNR=4.7						
	0.6nm,0.7s						
MKAR				AML	AML		
KURBB	**Kurchatov Arra**	**22.09**	**336**	P	P	16 37 47.8	+0.8
	0.9nm,0.6s,baz=140,slow=11,SNR=8.2						
	0.9nm,0.6s						
SEY	**Seymchan**	**49.20**	**32**	LR	LR	17 04 54.8	
	comp=Z,73nm,21.0s,baz=152,slow=39						
FINES	**FINESS Array B**	**51.98**	**326**	P	P	16 42 01.1	+0.2
	2.3nm,0.9s,baz=95,slow=8.4,SNR=4.8						
	2.3nm,0.9s						
ARCES	**ARCESS Array B**	**53.18**	**336**	P	P	16 42 08.3	-1.4
	1.2nm,0.9s,baz=101,slow=6.3,SNR=5.5						
	1.2nm,0.9s						
WRA	**Warramunga Arr**	**64.76**	**136**	P	P	16 43 31.9	+1.1
	0.4nm,1.0s,baz=319,slow=8.2,SNR=1.7						
	0.4nm,1.0s						
ASAR	**Alice Springs**	**67.40**	**139**	P	P	16 43 47.3	-0.5
	0.5nm,0.6s,baz=324,slow=6.8,SNR=11						
	0.5nm,0.6s						

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*IDC **16** 16:51:45.3±0.8, 14°.95S×179°.82E, h0^{km}, mb3.9/8,*
mbtmp3.9/9, ML4.7/1, MS3.6/25, Error ellipse:
s-maj=38.9km s-min=14.8km az=130.0
ISC 16 16:51:50.6±0.9**, 15°.0S**±0°.2×**179°.8E**±0°.2**, h35**^{km}**, n30,**
σ**1^s.41**/10**, mb3.9**/8**, MS3.6**/21**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**3.21**	**211**	Pn	**Pn**	**16 52 36.5**	**-2.0**
	3.5nm,0.3s,baz=208,slow=17,SNR=11						
MSVF				Sn	**Sn**	**16 53 17.7**	**+2.1**
	2.7nm,0.3s,baz=193,slow=23,SNR=4.1						
MSVF				LR	LR	16 53 49.8	
	comp=Z,1μm,18.7s,baz=356,slow=38						
	10nm,0.5s						
MSVF				AML	AML		
AFI	**Afiamalu**	**8.23**	**84**	LR	LR	16 56 05.0	
	comp=Z,326nm,20.0s,slow=32						
RAO	**Raoul Island**	**14.36**	**172**	LR	LR	17 00 16.1	
	comp=Z,236nm,18.2s,baz=344,slow=36						
DZM	**Mont Dzumac**	**14.48**	**239**	LR	LR	16 59 40.3	
	comp=Z,375nm,20.4s,baz=30,slow=33						
HNR	**Honiara**	**20.16**	**284**	LR	LR	17 03 02.0	
	comp=Z,171nm,18.9s,baz=198,slow=34						
KRVT	**Keravat (AS076**	**29.32**	**288**	LR	LR	17 08 31.8	
	comp=Z,158nm,19.4s,baz=102,slow=34						
CTA	**Charters Tower**	**32.35**	**256**	LR	LR	17 09 29.4	
	comp=Z,133nm,18.1s,baz=212,slow=33						
STKA	**Stephens Creek**	**38.63**	**237**	P	**P**	**16 59 12.0**	**+1.3**
	2.8nm,0.9s,baz=48,slow=15,SNR=3.3						
STKA				LR	LR	17 12 41.2	
	comp=Z,126nm,21.8s,baz=27,slow=32						
	2.8nm,0.9s						
WRA	**Warramunga Arr**	**43.54**	**257**	P	**P**	**16 59 50.8**	**-0.5**
	1.4nm,0.9s,baz=90,slow=8.7,SNR=7.9						
	1.4nm,0.9s						
ASAR	**Alice Springs**	**44.00**	**251**	P	**P**	**16 59 54.9**	**-0.1**
	1.4nm,1.0s,baz=76,slow=9.4,SNR=6.9						
ASAR				LR	LR	17 15 48.6	
	comp=Z,101nm,20.9s,baz=232,slow=33						
	1.4nm,1.0s						
GUMO	**Guam**	**44.73**	**308**	LR	LR	17 16 05.5	
	comp=Z,30nm,20.2s,baz=124,slow=33						
DAV	**Davao City (W)**	**58.03**	**288**	LR	LR	17 24 56.3	
	comp=Z,51nm,19.1s,baz=290,slow=34						
MJAR	**Matsushiro Arr**	**64.55**	**324**	LR	LR	17 25 26.4	
	comp=Z,42nm,21.2s,baz=174,slow=31						
SHEM	**Shemya Is, Ala**	**67.61**	**356**	LR	LR	17 27 11.0	
	comp=Z,29nm,19.1s,baz=263,slow=32						
ASAJ	**Asahikawa**	**67.90**	**332**	LR	LR	17 32 09.6	
	comp=Z,23nm,18.2s,baz=160,slow=36						
PETK	**Petropavlovsk-**	**70.44**	**346**	LR	LR	17 30 36.2	
	comp=Z,17nm,18.9s,baz=157,slow=33						
KSRS	**Korea Array**	**71.38**	**319**	LR	LR	17 29 26.1	
	comp=Z,24nm,21.3s,baz=110,slow=32						
QSPA	**South Pole Qui**	**75.05**	**180**	P	**P**	**17 03 27.9**	**-0.7**
	3.7nm,1.0s,baz=353,slow=2.7,SNR=6.6						
	3.7nm,1.0s						
KLR	**Kul'dur**	**76.73**	**330**	LR	LR	17 33 00.3	
	comp=Z,37nm,19.9s,baz=202,slow=32						
YBH	**Yreka Blue Hor**	**77.39**	**40**	LR	LR	17 31 54.6	
	comp=Z,42nm,18.3s,baz=218,slow=31						
PFO	**Pinyon Flats O**	**77.57**	**50**	LR	LR	17 30 00.4	
	comp=Z,46nm,19.9s,baz=208,slow=30						
MA2	**Magadan**	**77.94**	**345**	LR	LR	17 34 52.6	
	comp=Z,24nm,19.2s,baz=136,slow=33						
LPIG	**La Paz**	**78.51**	**61**	LR	LR	17 30 44.5	
	comp=Z,44nm,19.5s,baz=222,slow=30						
NVAR	**Mina Array Bea**	**78.55**	**45**	P	**P**	**17 03 49.8**	**+0.9**
	1.4nm,0.7s,baz=232,slow=9.3,SNR=8.7						
	1.4nm,0.7s						
ILAR	**Eielson Array**	**83.46**	**14**	P	**P**	**17 04 13.5**	**-0.6**
	0.9nm,0.9s,baz=225,slow=6.1,SNR=5.6						
	0.9nm,0.9s						
ANMO	**Albuquerque**	**85.66**	**52**	LR	LR	17 35 32.1	
	comp=Z,46nm,18.7s,baz=238,slow=31						
TXAR	**Lajitas Array**	**85.92**	**58**	P	**P**	**17 04 28.7**	**+1.2**
	0.3nm,0.8s,baz=246,slow=4.3,SNR=3.6						
	0.3nm,0.8s						
CMAR	**Chiang Mai Arr**	**86.27**	**290**	LR	LR	17 40 58.5	
	comp=Z,19nm,20.1s,baz=165,slow=34						
PDAR	**Pinedale Array**	**86.45**	**44**	P	**P**	**17 04 29.3**	**-0.6**
	0.8nm,0.9s,baz=259,slow=4.0,SNR=5.1						
PDAR				LR	LR	17 37 26.0	
	comp=Z,15nm,18.4s,baz=242,slow=32						
	0.8nm,0.9s						
CMIG	**Matias Romero**	**89.98**	**72**	LR	LR	17 37 42.6	
	comp=Z,27nm,18.7s,baz=167,slow=31						

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*KRNET **16** 16:53:17.5±0.1, 40°.91N×77°.91E, h22^{km}, mb3.0*
*NNC **16** 16:53:18.9±1.0, 40°.99N×77°.93E, h0^{km}, mb3.6, mpv3.3,*
Error ellipse: s-maj=7.0km s-min=4.0km az=167.0
*SOME **16** 16:53:18.5, 40°.93N×77°.97E, h15^{km}*
ISC 16 16:53:17.0±1.8**, 40°.90N**±0°.07×**77°.75E**±0°.03**, h17**^{km}±14^{km},
n41, σ**1^s.40**/64**, 17C-11D, Kyrgyzstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TARG	**Taragay, Kyrgy**	**0.82**	**3**	⇓*i*P	**Pb**	**16 53 33.2**	**+0.1**
TARG				⇓*i*S	**Sb**	**16 53 44.8**	**+0.7**
KDJ	**Kajisay**	**1.30**	**341**	⇑*i*P	**Pg**	**16 53 41.8**	**-0.3**

KDJ				⇑iS	Sg	16 53 59.8	+0.7
NRN	Naryn	1.42	292	⇑iP	Pg	16 53 45.7	+1.2
NRN				⇑iS	Sg	16 54 06.5	+3.4
PRZ	Przheval'sk	1.65	17	⇑iP	Pb	16 53 47.3	+0.2
PRZ				⇑iS	Sb	16 54 09.0	+1.3
ULHL	Ulahol	1.75	320	⇑iP	Pg	16 53 50.7	-0.1
ULHL				⇑iS	Sg	16 54 14.8	+1.2
ANVS	Anan'yevo	1.88	358	⇑iP	Pb	16 53 51.4	+0.4
ANVS				⇑iS	Sb	16 54 16.1	+1.9
BOOM	Boomskoye usch	2.09	320	⇓iP	Pb	16 53 55.1	+0.6
BOOM				⇓iS	Sg	16 54 22.8	-1.4
MDOK	Medeo	2.32	347	Pg	Pg	16 54 00.8	-0.7
	16nm,0.4s						
MDOK				Lg	Lg	16 54 31.0	
	45nm,0.6s						
MDOK	Medeo	2.32	347	eP	Pg	16 54 00.8	-0.7
	16nm,0.4s						
MDOK				eS	Sg	16 54 31.0	-0.6
	45nm,0.6s						
KOTS	Kotyrbulak	2.38	349	Pg	Pg	16 54 02.1	-0.5
	7.7nm,0.2s						
KOTS				Lg	Lg	16 54 33.4	
	37nm,0.4s						
KOTS	Kotyrbulak	2.38	349	eP	Pg	16 54 02.1	-0.5
	7.7nm,0.2s						
KOTS				eS	Sg	16 54 33.4	0.0
	37nm,0.4s						
KNDC	Almaty	2.38	346	⇑Pg	Pg	16 54 02.4	-0.4
	15nm,0.4s						
KNDC				⇓Lg	Lg	16 54 34.9	
	103nm,0.9s						
UZB	Uzynbulak	2.43	22	Pg	Pb	16 54 01.0	+0.6
	10nm,0.3s						
UZB				Lg	Lg	16 54 31.6	
	21nm,0.7s						
UZB	Uzynbulak	2.43	22	eP	Pb	16 54 01.0	+0.6
	10nm,0.3s						
UZB				eS	Sb	16 54 31.6	+1.5
	21nm,0.7s						
KST	Kastek	2.52	329	Pg	Pg	16 54 05.2	-0.2
	1.9nm,0.2s						
KST				Lg	Lg	16 54 38.6	
	12nm,0.5s						
KST	Kastek	2.52	329	eP	Pg	16 54 05.2	-0.2
	1.9nm,0.2s						
KST				eS	Sg	16 54 38.6	+0.6
	12nm,0.5s						
TKM2	Tokmak 2	2.58	322	⇑iP	Pb	16 54 01.9	-1.0
TKM2				⇑iS	Sb	16 54 34.5	+0.1
SHLS	Shalkode	2.59	29	Pg	Pg	16 54 06.1	-0.5
	23nm,0.5s						
SHLS				Lg	Lg	16 54 40.5	
	41nm,0.5s						
SHLS	Shalkode	2.59	29	eP	Pg	16 54 06.1	-0.5
	23nm,0.5s						
SHLS				eS	Sg	16 54 40.5	+0.3
	41nm,0.5s						
KURS	Kuram	2.60	7	Pg	Pb	16 54 04.8	+1.6
	10nm,0.4s						
KURS				Lg	Lg	16 54 37.9	
	13nm,0.3s						
KURS	Kuram	2.60	7	eP	Pb	16 54 04.8	+1.6
	10nm,0.4s						
KURS				eS	Sb	16 54 37.9	+3.1
	13nm,0.3s						
KPKS	Kokpek	2.65	15	Pg	Pb	16 54 04.5	+0.4
	0.3nm,0.2s						
KPKS				Lg	Lg	16 54 37.8	
	16nm,0.5s						
KPKS	Kokpek	2.65	15	eP	Pb	16 54 04.5	+0.4
	0.3nm,0.2s						
KPKS				eS	Sb	16 54 37.8	+1.4
	16nm,0.5s						
KBK	Karagaybulak	2.73	311	⇑iP	Pb	16 54 04.2	-1.3
KBK				⇑iS	Sb	16 54 38.5	-0.2
PDGK	Podgornoye	2.75	28	⇓Pg	Pb	16 54 06.0	+0.3
	6.6nm,0.4s						
PDGK				⇓Lg	Lg	16 54 42.6	
	21nm,0.6s						
SALK	Salom-Alik	2.98	271	⇓eP	Pb	16 54 08.5	-1.2
SALK				⇓eS	Sb	16 54 45.4	-0.5
AAK	Ala-Archa	2.99	306	⇑Pg	Pg	16 54 13.5	-0.8
	1.1nm,0.5s						
AAK				⇑Lg	Lg	16 54 54.6	
	2.9nm,0.5s						
AAK	Ala-Archa	2.99	306	⇓iP	Pb	16 54 07.9	-2.0
AAK				⇓iS	Sb	16 54 44.8	-1.3
KRBS	Karabastau	3.19	332	Pg	Pg	16 54 16.2	-1.9
	4.2nm,0.4s						
KRBS				Lg	Lg	16 54 57.6	
	5.2nm,0.4s						
KRBS	Karabastau	3.19	332	eP	Pg	16 54 16.2	-1.9
	4.2nm,0.4s						
KRBS				eS	Sg	16 54 57.6	-1.7
	5.2nm,0.4s						
KTMS	Ketmen	3.19	36	Pg	Pb	16 54 14.4	+1.1
	3.1nm,0.3s						
KTMS				Lg	Lg	16 54 54.4	
	8.4nm,0.4s						
KTMS	Ketmen	3.19	36	eP	Pb	16 54 14.4	+1.1
	3.1nm,0.3s						
KTMS				eS	Sb	16 54 54.4	+2.4
	8.4nm,0.4s						
BLB	Baldybastay	3.24	9	Pg	Pg	16 54 16.8	-2.3
	6.6nm,0.1s						
BLB				Lg	Lg	16 54 58.7	
	14nm,0.3s						
ARXS	Arharly	3.31	1	Pg	Pg	16 54 19.4	-1.0
	4.2nm,0.3s						
ARXS				Lg	Lg	16 55 03.1	
	17nm,0.3s						
ARXS	Arharly	3.31	1	eP	Pg	16 54 19.4	-1.0
	4.2nm,0.3s						
ARXS				eS	Sg	16 55 03.1	-0.1
	17nm,0.3s						
SGDS	Sogindy	3.44	319	Pg	Pg	16 54 22.7	-0.3
	2.0nm,0.3s						
SGDS				Lg	Lg	16 55 08.6	
	4.0nm,0.5s						
KNOS	Konyrlen	3.61	16	Pg	Pg	16 54 23.6	-2.6
	2.6nm,0.3s						
KNOS				Lg	Lg	16 55 10.4	
	4.7nm,0.3s						
DJR	Jarkent	3.74	23	Pg	Pg	16 54 25.9	-2.8
	4.2nm,0.3s						
DJR				Lg	Lg	16 55 14.2	
	6.8nm,0.4s						
DJR	Jarkent	3.74	23	eP	Pg	16 54 25.9	-2.8
	4.2nm,0.3s						
DJR				eS	Sg	16 55 14.2	-3.0
	6.8nm,0.4s						
MRKS	Merke	3.85	300	Pg	Pg	16 54 30.8	0.0
	1.6nm,0.2s						
MRKS				Lg	Lg	16 55 22.5	
	4.1nm,0.5s						
MRKS	Merke	3.85	300	eP	Pg	16 54 30.8	0.0
	1.6nm,0.2s						
MRKS				eS	Sg	16 55 22.5	+1.9
	4.1nm,0.5s						

IDC 16 16:54:12.3±3.8**, 17°.27S×178°.87W, h581**^{km}±20^{km}**,**
mb3.5/3**, mbtmp4.4**/4**, Error ellipse: s-maj=103.8km**
s-min=60.1km az=150.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	2.97	261	P	P	16 55 29.8	+0.1
	41nm,0.7s,baz=84,slow=6.1,SNR=4.7						
STKA	Stephens Creek	38.55	240	P	P	17 00 46.1	-0.2
	2.8nm,0.5s,baz=85,slow=9.2,SNR=9.8						
	2.8nm,0.5s						
WRA	Warramunga Arr	44.31	259	P	P	17 01 31.6	-0.4
	1.1nm,0.5s,baz=93,slow=6.9,SNR=47						
WRA				PcP	PcP	17 03 03.3	0.0
	0.3nm,0.7s,baz=99,slow=3.7,SNR=2.4						
	1.1nm,0.5s						
ASAR	Alice Springs	44.54	254	P	P	17 01 33.8	+0.1
	13nm,0.5s,baz=89,slow=7.8,SNR=274						
ASAR				PcP	PcP	17 03 03.5	-0.5
	0.5nm,0.6s,baz=108,slow=3.5,SNR=2.9						
	13nm,0.5s						

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*IDC **16** 17:13:19.2±1.4, 59°.89N×153°.53W, h121^{km}±24^{km}, mb3.5/9,*
mbtmp4.0/13, MS3.4/2, Error ellipse: s-maj=32.5km
s-min=10.3km az=113.0

*NEIC **16** 17:13:20.9±0.9, 59°.86N±0°.04×153°.5W±0°.1, h140^{km}±3^{km},*
mb3.9/3, ML3.9/174, ML3.6(AEIC), Error ellipse:
s-maj=7.4km s-min=6.1km az=100.0

*AEIC **16** 17:13:22.0±1.5, 59°.83N±0°.04×153°.49W±0°.06,*
h136^{km}±4^{km}, Error ellipse: s-maj=6.0km s-min=4.1km
az=193.0

ISC 16 17:13:20.8±0.6**, 59°.83N**±0°.03×**153°.41W**±0°.03**,**
h146^{km}±5^{km}**, n294,** σ1^{s}**16**/303**, mb3.9**/10**, Southern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
P19K	Oil Pt	0.20	153		Pn	17 13 40.3	-0.3
P19K					Sn	17 13 54.9	-0.7
ILSW	Iliamna Southw	0.21	41		Pn	17 13 39.8	-0.9
ILSW	Iliamna Southw	0.21	41		Sn	17 13 54.6	-1.3
ILSW	Iliamna Southw	0.21	41	IAML		17 13 55.2	
	comp=N,829nm,0.7s						
ILSW				IAML		17 13 55.3	
	comp=E,916nm,0.9s						
ILS	Iliamna Low So	0.22	53		Pn	17 13 40.2	-0.5
ILS					Sn	17 13 54.9	-1.0
IVE	Iliamna Volcan	0.28	46		Pn	17 13 40.4	-0.5
IVE					Sn	17 13 55.2	-1.0
ILIM	Iliamna	0.34	42		Pn	17 13 40.5	-0.5
AUF	Augustine Flow	0.44	183		Pn	17 13 40.8	-0.5
AUF					Sn	17 13 56.3	-0.7
AUL	Augustine Lava	0.45	182		Pn	17 13 41.1	-0.3
AUL					Sn	17 13 56.3	-0.7
AU22	Augustine Moun	0.46	177		Pn	17 13 41.2	-0.2
AU22					Sn	17 13 56.4	-0.7
O20K	Slope Mountain	0.47	57		Pn	17 13 41.5	-0.1
AUI	Augustine Isla	0.49	181		Pn	17 13 41.2	-0.4
AUI					Sn	17 13 56.4	-1.0
O19K	Port Alsworth	0.59	309		Pn	17 13 40.8	-1.3
O19K	Port Alsworth	0.59	309		Sn	17 13 55.9	-2.4
O19K	Port Alsworth	0.59	309	IAML		17 13 56.5	
	comp=E,2µm,0.5s						
O19K				IAML		17 13 56.8	
	comp=N,2µm,0.4s						
RDSO	Redoubt South	0.71	28		Pn	17 13 42.6	-0.5
RDSO					Sn	17 13 59.0	-1.1
NCT	North Crescent	0.78	18		Pn	17 13 43.1	-0.4
NCT					Sn	17 13 59.4	-1.4
RDJH	Redoubt Jeurge	0.82	21		Pn	17 13 43.5	-0.4
RDJH					Sn	17 14 00.6	-0.9
DFR	Drift River	0.85	25		Pn	17 13 43.8	-0.2
DFR					Sn	17 14 01.0	-0.8
RDT	Redoubt	0.90	33		Pn	17 13 44.2	-0.2
Q19K	Cape Douglas,	0.91	188		Pn	17 13 43.9	-0.5
Q19K				IAML		17 14 06.6	
	comp=N,4µm,1.0s						
HOM	Homer	0.91	100		Pn	17 13 44.7	+0.3
HOM	Homer	0.91	100		Sn	17 14 02.6	+0.3
HOM	Homer	0.91	100	IAML		17 14 03.7	
	comp=N,6µm,0.4s						
HOM				IAML		17 14 05.2	
	comp=E,4µm,0.3s						
P18K	Big Mountain,	1.02	246		Pn	17 13 44.0	-1.3
P18K					Sn	17 14 01.7	-2.4
N19K	Bonanza Creek	1.12	332		Pn	17 13 45.5	-0.9
N19K	Bonanza Creek	1.12	332		Sn	17 14 03.6	-2.3
N19K	Bonanza Creek	1.12	332	IAML		17 14 04.0	
	comp=N,328nm,0.7s						
N19K				IAML		17 14 04.3	
	comp=E,742nm,0.5s						
CNPM	China Poot	1.14	104		Pn	17 13 46.6	+0.1
CNPM	China Poot	1.14	104		Sn	17 14 05.2	-0.9
CNPM	China Poot	1.14	104	IAML		17 14 06.0	
	comp=E,3µm,0.4s						
CNPM				IAML		17 14 06.1	
	comp=N,3µm,0.5s						
BRLK	Bradley Lake	1.28	92		Pn	17 13 47.9	+0.2
BRLK				IAML		17 14 09.6	
	comp=E,2µm,0.1s						
BRLK				IAML		17 14 09.7	
	comp=N,2µm,0.1s						
KAPH	Katmai Pasha	1.32	202		Pn	17 13 47.9	-0.4
BRSE	Bradley Lake S	1.35	92		Pn	17 13 48.7	+0.2
BRSE					Sn	17 14 08.8	-0.9
Q18K	Katmai Hardscr	1.44	215		Pn	17 13 48.8	-0.7
KAHG	Katmai Hook Gl	1.46	204		Pn	17 13 49.2	-0.4
CAPN	Captain Cook N	1.47	49		Pn	17 13 51.5	+2.0
KARR	Katmai Rainbow	1.49	207		Pn	17 13 49.7	-0.3
N18K	Kilae Creek	1.50	306		Pn	17 13 49.2	-0.9
N18K	Kilae Creek	1.50	306		Sn	17 14 10.2	-2.3
N18K	Kilae Creek	1.50	306	IAML		17 14 10.6	
	comp=N,128nm,1.0s						
N18K				IAML		17 14 10.7	
	comp=E,136nm,0.6s						
SPWE	Spurr West	1.51	16		Pn	17 13 50.2	0.0
SPNN	North Nagishla	1.58	12		Pn	17 13 50.7	-0.4
KAWH	Katmai	1.61	207		Sn	17 14 12.9	-1.8
P17K	Kvichak River	1.67	249		Pn	17 13 51.5	-0.3
P17K				IAML		17 14 15.6	
	comp=E,1µm,0.9s						
P17K				IAML		17 14 24.2	
	comp=N,555nm,0.7s						
SLKM	Skilak Lake	1.73	65		Sn	17 14 15.7	-1.3
SLKM	Skilak Lake	1.73	65		Pn	17 13 52.6	0.0
SLKM	Skilak Lake	1.73	65	IAML		17 14 16.6	
	comp=E,3µm,0.2s						
SLKM				IAML		17 14 17.3	
	comp=N,3µm,0.3s						
KABU	Katmai Buttres	1.84	213		Pn	17 13 53.5	-0.4
STLK	Strandline Lak	1.85	24		Pn	17 13 54.0	+0.1
STLK				IAML		17 14 22.2	
	comp=N,357nm,0.5s						
STLK				IAML		17 14 23.6	
	comp=E,284nm,0.2s						
O17K	Koliganek Bris	1.86	270		Pn	17 13 53.3	-0.7
ACHA	Angle Creek He	1.90	212		Pn	17 13 54.0	-0.6
MGLS	Mageik Landsli	1.93	209		Pn	17 13 54.4	-0.4
O22K	Cooper Landing	1.96	69		Pn	17 13 55.5	+0.5
O22K	Cooper Landing	1.96	69		Sn	17 14 20.6	-0.8
SEW	Seward	2.01	80		Pn	17 13 55.9	+0.2
SEW	Seward	2.01	80		Sn	17 14 21.2	-1.2
SEW	Seward	2.01	80	IAML		17 14 22.7	
	comp=N,583nm,0.2s						
SEW				IAML		17 14 23.1	
	comp=E,544nm,0.3s						
N17K	Nushagak Hills	2.01	292		Sn	17 14 20.3	-2.3
N17K	Nushagak Hills	2.01	292		Pn	17 13 55.2	-0.6
N17K	Nushagak Hills	2.01	292	IAML		17 14 21.2	
	comp=N,61nm,0.9s						
N17K				IAML		17 14 21.6	
	comp=E,47nm,0.9s						
Q17K	Contact Creek	2.02	220		Pn	17 13 55.1	-0.9
Q16K	King Salmon	2.03	237		Pn	17 13 55.5	-0.4
CAHL	Cahill	2.03	210		Pn	17 13 55.8	-0.2
M18K	Stony River	2.05	326		Pn	17 13 55.1	-1.0
M18K					Sn	17 14 21.1	-2.3
M20K	Styx River	2.07	4		Pn	17 13 56.3	-0.1
KDAK	Kodiak Island	2.10	168	P	Pn	17 13 55.5	-1.2
	comp=E,70nm,0.3s,baz=46,slow=4.8,SNR=468						
KDAK				S	Sn	17 14 22.3	-2.0
	comp=E,446nm,0.5s,baz=48,slow=8.8,SNR=20						
KDAK	Kodiak Island	2.10	168		Pn	17 13 55.5	-1.2
KDAK				IAML		17 14 23.1	
	comp=E,709nm,0.4s						
KDAK				IAML		17 14 27.3	
	comp=E,676nm,0.6s						
KJL	Kejulik	2.10	213		Pn	17 13 56.7	-0.2
SUA	Susitna One	2.10	37		Pn	17 13 57.2	+0.3
M19K	Big River Lodg	2.14	347		Pn	17 13 56.5	-0.7
RC01	Rabbit Creek A	2.22	54		Pn	17 13 58.1	-0.1
SKT	Skwentna	2.35	22		Pn	17 13 59.8	0.0
SKT				IAML		17 14 31.6	
	comp=N,405nm,0.4s						
SKT				IAML		17 14 33.3	
	comp=E,452nm,0.3s						
O16K	Kokwok River B	2.38	266		Pn	17 13 59.7	-0.5
O16K				IAML		17 14 30.9	
	comp=E,115nm,0.9s						
L19K	White Mountain	2.46	344		Pn	17 14 00.3	-0.9
P16K	Nushagak River	2.47	253		Pn	17 14 01.2	-0.1
P16K				IAML		17 14 33.1	
	comp=N,248nm,0.9s						
P16K				IAML		17 14 44.2	
	comp=E,158nm,1.1s						
M22K	Willow	2.52	38		Pn	17 14 02.1	+0.3
M17K	Holitna River	2.54	310		Pn	17 14 01.5	-0.5
M17K				IAML		17 14 34.6	
	comp=E,113nm,1.1s						
OHAK	Old Harbor	2.61	179	P	Pn	17 14 01.2	-1.8
OHAK	Old Harbor	2.61	179	S	Sn	17 14 33.1	-2.5
OHAK	Old Harbor	2.61	179		Pn	17 14 01.4	-1.6
OHAK				IAML		17 14 34.0	
	comp=E,244nm,0.5s						
OHAK				IAML		17 14 34.4	
	comp=N,436nm,0.5s						
L20K	Farewell, AK	2.67	355		Pn	17 14 03.1	-0.6
R17L	Mt. Peulik Vol	2.69	216		Pn	17 14 03.7	-0.3
PWL	Port Wells	2.73	65		Pn	17 14 03.8	-0.7
PWL				IAML		17 14 40.7	
	comp=E,606nm,0.2s						
PWL				IAML		17 14 45.2	
	comp=N,845nm,0.5s						
PMR	Palmer	2.75	48	P	Pn	17 14 04.8	+0.1
PMR	Palmer	2.75	48	S	Sn	17 14 36.1	-2.5
PMR	Palmer	2.75	48		Pn	17 14 04.8	+0.1
PMR					Sn	17 14 36.1	-2.5
PMR	Palmer	2.75	48	IAML		17 14 37.4	
	comp=N,484nm,0.3s						
PMR				IAML		17 14 38.6	
	comp=E,395nm,0.3s						
N16K	Nishlik Lake	2.76	286		Pn	17 14 03.7	-1.1
PLBL	Peulik Blue Cr	2.77	221		Pn	17 14 04.6	-0.5
L18K	Granite Mounta	2.88	328		Pn	17 14 05.5	-0.9
L18K				IAML		17 14 40.7	
	comp=N,77nm,0.9s						
KNK	Knik Glacier	2.91	55		Pn	17 14 06.0	-0.8
KNK					Sn	17 14 40.9	-1.5
KNK	Knik Glacier	2.91	55	IAML		17 14 43.0	
	comp=E,761nm,0.5s						
KNK				IAML		17 14 45.0	
	comp=N,743nm,0.5s						
GHO	Glory Hole Cre	2.94	46		Pn	17 14 06.3	-0.9
GHO					Sn	17 14 41.1	-2.0
GHO	Glory Hole Cre	2.94	46	IAML		17 14 42.8	
	comp=E,736nm,0.4s						
GHO				IAML		17 14 45.7	
	comp=N,569nm,0.5s						
M16K	Timber Creek	3.00	296		Pn	17 14 07.8	-0.1
CUT	Chulitna	3.00	29		Pn	17 14 07.8	0.0
P23K	Montague Islan	3.03	84		Pn	17 14 08.9	+0.7
PPLA	Purkeypile	3.14	10		Pn	17 14 10.3	+0.6
PPLA	Purkeypile	3.14	10	IAML		17 14 50.2	
	comp=E,175nm,0.7s						
PPLA				IAML		17 14 52.1	
	comp=N,124nm,0.6s						
R16K	Pilot Point	3.14	226	Pn	Pn	17 14 09.5	-0.2
R16K				IAML		17 14 48.6	
	comp=N,356nm,1.1s						
R16K				IAML		17 14 53.0	
	comp=E,137nm,1.1s						
SML	Sawmill	3.18	49		Pn	17 14 09.2	-1.1
SML				IAML		17 14 48.5	
	comp=N,524nm,0.6s						
SML				IAML		17 14 50.4	
	comp=E,385nm,0.7s						
SII	Sitkinak Islan	3.30	187	P	Pn	17 14 10.4	-1.4
SII	Sitkinak Islan	3.30	187	S	Sn	17 14 48.2	-3.1
SII	Sitkinak Islan	3.30	187		Pn	17 14 10.3	-1.5
SII				IAML		17 14 51.0	
	comp=N,347nm,0.3s						
SII				IAML		17 14 51.0	
	comp=E,534nm,0.3s						
GLI	Glacier Island	3.31	69		Pn	17 14 10.8	-1.0
GLI					Sn	17 14 49.4	-2.1
GLI	Glacier Island	3.31	69	IAML		17 14 51.6	
	comp=E,523nm,0.2s						
GLI				IAML		17 14 52.9	
	comp=N,535nm,0.7s						
L17K	Donlin	3.32	316		Pn	17 14 11.1	-0.9
O15K	Ungalikthiuk R	3.33	261		Pn	17 14 11.6	-0.6
N15K	Kwethluk River	3.37	279		Pn	17 14 12.9	+0.2
M23K	Glacier View	3.41	52		Pn	17 14 12.7	-0.5
M23K					Sn	17 14 51.5	-2.4
HIN	Hinchinbrook I	3.50	78		Pn	17 14 14.2	-0.2
HIN	Hinchinbrook I	3.50	78		Sn	17 14 54.7	-1.3
HIN	Hinchinbrook I	3.50	78	IAML		17 14 56.4	
	comp=N,379nm,0.4s						
HIN				IAML		17 14 57.5	
	comp=E,490nm,0.6s						
L16K	Owhat River	3.52	305		Pn	17 14 14.4	-0.2
K20K	Telida	3.56	355		Pn	17 14 14.5	-0.6
FID	Port Fidalgo	3.57	72		Pn	17 14 14.1	-1.2
FID					Sn	17 14 55.0	-2.5
SCM	Sheep Creek Mo	3.59	53		Pn	17 14 15.2	-0.4
SCM	Sheep Creek Mo	3.59	53	IAML		17 15 00.6	
	comp=N,486nm,0.3s						
CAST	Castle Rocks	3.66	9		Pn	17 14 16.4	0.0
CAST	Castle Rocks	3.66	9	IAML		17 14 59.3	
	comp=N,45nm,0.7s						
CAST				IAML		17 15 01.7	
	comp=E,49nm,0.5s						
VMT	TAPS TI Valdez	3.71	67		Pn	17 14 16.6	-0.4
VMT					Sn	17 14 59.5	-1.1
M15K	Kasigluk River	3.73	287		Pn	17 14 16.1	-1.1
K17K	Iditarod	3.74	323		Pn	17 14 16.6	-0.8
EYAK	Cordova Ski Ar	3.89	76	P	Pn	17 14 19.6	+0.2
EYAK	Cordova Ski Ar	3.89	76	S	Sn	17 15 04.0	-0.9
EYAK	Cordova Ski Ar	3.89	76		Pn	17 14 19.7	+0.3
EYAK					Sn	17 15 03.5	-1.4
EYAK	Cordova Ski Ar	3.89	76	IAML		17 15 05.7	
	comp=E,169nm,0.3s						
EYAK				IAML		17 15 06.4	
	comp=N,311nm,0.5s						
KTH	Kantishna Hill	3.92	17		Pn	17 14 19.4	-0.5
KTH	Kantishna Hill	3.92	17	IAML		17 15 05.8	
	comp=E,137nm,0.5s						
KTH				IAML		17 15 06.4	
	comp=N,141nm,0.5s						
TRF	Thorofare Moun	3.93	21		Pn	17 14 19.7	-0.3
TRF	Thorofare Moun	3.93	21	IAML		17 15 05.3	
	comp=N,291nm,0.4s						
TRF				IAML		17 15 07.0	
	comp=E,239nm,0.4s						
ANPB	Aniakchak Plen	3.97	222		Pn	17 14 20.2	-0.3
J18K	Innoko River	3.98	338		Pn	17 14 19.7	-0.8
DIV	Divide	4.00	68		Pn	17 14 20.5	-0.4
DIV					Sn	17 15 06.3	-1.3
DIV	Divide	4.00	68	IAML		17 15 08.4	
	comp=E,252nm,0.5s						
KLU	Klutina	4.05	62		Pn	17 14 21.2	-0.3
KLU					Sn	17 15 06.5	-2.1
CHUM	Lake Minchumin	4.10	7		Pn	17 14 22.1	0.0
N14K	Kuskokwak Cree	4.17	275		Pn	17 14 23.4	+0.3
N14K	Kuskokwak Cree	4.17	275	IAML		17 15 28.2	
	comp=E,36nm,1.1s						
N14K				IAML		17 15 30.7	
	comp=N,30nm,1.1s						
CHIR	Chirikof Islan	4.19	197		Pn	17 14 21.5	-1.8
CHIR	Chirikof Islan	4.19	197	IAML		17 15 08.7	
	comp=N,124nm,0.6s						
CHIR				IAML		17 15 09.0	
	comp=E,104nm,0.5s						
RND	Reindeer	4.20	29		Pn	17 14 22.9	-0.5
RND				IAML		17 15 13.1	
	comp=N,137nm,0.3s						
RND				IAML		17 15 13.7	
	comp=E,155nm,0.4s						
BPBCA	Veniaminof	4.20	222		Pn	17 14 23.0	-0.5
J19K	Poorman	4.31	347		Pn	17 14 23.8	-1.1
DHY	Denali Highway	4.36	39	IAML		17 15 16.3	
	comp=E,278nm,0.4s						
L15K	Ungalak Mounta	4.38	299		Pn	17 14 24.8	-0.9
J20K	Nowinta River	4.38	356		Pn	17 14 25.1	-0.6
J20K	Nowinta River	4.38	356	IAML		17 15 52.0	
	comp=E,24nm,0.7s						
J20K				IAML		17 15 53.0	
	comp=N,25nm,0.5s						
PS12	TAPS Pump St12	4.39	64		Pn	17 14 24.3	-1.6
PS12					Sn	17 15 17.1	+0.4
GOAT	Goat Mountain	4.40	76		Pn	17 14 26.1	0.0
GOAT					Sn	17 15 15.2	-1.7
RAGM	Ragged Mountai	4.41	79		Pn	17 14 26.2	0.0
CHGN	Chignik	4.42	219		Pn	17 14 25.4	-1.0
CHGN				IAML		17 15 17.0	
	comp=E,82nm,0.2s						
CHGN				IAML		17 15 17.2	
	comp=N,65nm,0.2s						
BPAW	Bear Paw Mtn.	4.44	14	IAML		17 15 15.1	
	comp=N,69nm,0.7s						
BPAW				IAML		17 15 15.9	
	comp=E,89nm,0.6s						
MCK	McKinley	4.46	27		Pn	17 14 26.3	-0.5

MCK				IAML		17 15 19.4	
	comp=N,138nm,0.4s						
MCK				IAML		17 15 20.1	
	comp=E,195nm,0.5s						
PS11	TAPS Pump St11	4.48	56		Pn	17 14 27.3	+0.2
BMRM	Bremner River	4.51	72		Pn	17 14 27.4	-0.3
BMRM					Sn	17 15 18.2	-1.5
KAIM	Kayak Island	4.53	85		Pn	17 14 28.6	+0.8
KAIM	Kayak Island	4.53	85		Sn	17 15 20.0	0.0
KAIM	Kayak Island	4.53	85	IAML		17 15 22.2	
	comp=E,143nm,0.7s						
KAIM				IAML		17 15 26.5	
	comp=N,171nm,0.4s						
N25K	Chitina, Valde	4.68	64		Pn	17 14 29.9	+0.1
N25K					Sn	17 15 22.3	-1.3
BWN	Browne	4.74	21		Pn	17 14 30.6	0.0
BWN	Browne	4.74	21	IAML		17 15 27.7	
	comp=E,92nm,0.5s						
BWN				IAML		17 15 30.2	
	comp=N,133nm,0.6s						
HARP	HAARP	4.76	54		Pn	17 14 30.9	+0.1
HARP					Sn	17 15 25.4	-0.1
VNSG	Veniaminof 6	4.78	222		Pn	17 14 30.7	-0.5
J16K	Anvik River	4.88	318		Pn	17 14 31.6	-0.8
BERG	Berg Lake	4.89	79		Pn	17 14 33.3	+0.7
BERG					Sn	17 15 25.9	-2.6
WACK	Wrangell Chich	4.93	60		Pn	17 14 33.1	-0.2
VNKR	Veniaminof 5	4.96	222		Pn	17 14 33.0	-0.4
WASW	Wrangell South	4.98	61		Pn	17 14 34.6	+0.7
WASW					Sn	17 15 30.6	-0.4
GLB	Gilahina Butte	5.00	67		Pn	17 14 34.5	+0.5
GLB					Sn	17 15 29.4	-1.7
GLB	Gilahina Butte	5.00	67	IAML		17 15 33.2	
	comp=E,118nm,0.4s						
M13K	Dall Lake	5.01	281		Pn	17 14 34.6	+0.6
I20K	Naaghedeneel	5.01	355		Pn	17 14 33.6	-0.5
I20K	Naaghedeneel	5.01	355	IAML		17 16 16.2	
	comp=N,65nm,0.9s						
I20K				IAML		17 16 26.3	
	comp=E,62nm,0.8s						
WAZA	Wrangell Mount	5.04	59		Pn	17 14 34.6	-0.2
WAZA					Sn	17 15 32.6	0.0
VRDI	Verde Repeater	5.12	70		Pn	17 14 35.5	-0.2
VRDI					Sn	17 15 32.1	-2.0
VRDI	Verde Repeater	5.12	70	IAML		17 15 33.7	
	comp=E,110nm,0.6s						
VRDI				IAML		17 15 35.6	
	comp=N,140nm,0.4s						
CRQM	Cirque	5.20	75		Pn	17 14 37.0	+0.2
CRQM					Sn	17 15 34.3	-1.7
NEA2	Nenana	5.20	21		Pn	17 14 35.6	-1.0
NEA2	Nenana	5.20	21	IAML		17 15 36.6	
	comp=N,35nm,0.7s						
NEA2				IAML		17 15 38.6	
	comp=E,41nm,0.5s						
WRH	Wood River Hil	5.29	26	IAML		17 15 36.1	
	comp=E,63nm,0.3s						
WRH				IAML		17 15 40.8	
	comp=N,49nm,0.4s						
TGL	Tana Glacier	5.35	75		Pn	17 14 38.8	+0.1
TGL					Sn	17 15 37.2	-2.3
MCARA	McCarthy VSAT	5.35	69		Pn	17 14 38.8	+0.1
MLY	Manley	5.37	12	IAML		17 15 37.4	
	comp=N,16nm,0.6s						
MLY				IAML		17 15 55.7	
	comp=E,15nm,0.6s						
K24K	Donnelly Dome	5.38	39		Pn	17 14 40.0	+0.9
BARK	Barkley Ridge	5.49	79		Pn	17 14 41.0	+0.4
BARK					Sn	17 15 41.5	-1.4
CCB	Clear Creek Bu	5.50	26		Pn	17 14 39.4	-1.2
HDA	Harding Lake	5.51	31		Pn	17 14 39.8	-0.9
PTPK	Patty Peak	5.58	71		Pn	17 14 42.1	+0.2
PTPK					Sn	17 15 43.4	-1.8
KIAG	Kiagna River	5.59	74		Pn	17 14 42.4	+0.3
KIAG					Sn	17 15 43.3	-2.2
BALM	Baldy	5.61	73		Pn	17 14 42.4	+0.1
BALM					Sn	17 15 43.5	-2.3
COLA	College	5.69	25	P	Pn	17 14 42.3	-0.7
COLA	College	5.69	25		Pn	17 14 42.5	-0.6
H20K	Anotleneega Mo	5.73	354		Pn	17 14 43.0	-0.6
H18K	Honhosa River	5.82	339		Pn	17 14 43.9	-1.0
ILAR	Eielson Array	5.82	29	P	Pn	17 14 43.8	-1.0
	comp=E,48nm,0.5s,baz=217,slow=13,SNR=447						
ILAR				S	Sn	17 15 47.6	-3.0
	comp=E,18nm,0.4s,baz=271,slow=11,SNR=21						
ILAR	Eielson Array	5.82	29		Pn	17 14 43.6	-1.3
H21K	Melozitna Rive	5.86	2		Pn	17 14 44.3	-1.1
YAH	Yahtse	5.86	80		Pn	17 14 46.8	+1.1
GRNC	Granite Creek	5.87	76		Pn	17 14 46.0	+0.2
GRNC					Sn	17 15 50.1	-2.1
SDPT	Sand Point	5.88	223	P	Pn	17 14 44.5	-1.2
SDPT	Sand Point	5.88	223		Pn	17 14 44.3	-1.4
BARN	Barnard Glacie	5.95	73		Pn	17 14 48.0	+1.2
BARN					Sn	17 15 51.7	-2.3
POKR	Poker Plat Res	5.99	25		Pn	17 14 46.5	-0.6
PS07	TAPS Pump Stn7	5.99	21		Pn	17 14 46.5	-0.6
CHNA	Chernabura Isl	6.02	216	P	Pn	17 14 47.3	-0.3
CNBA	Chernabura Isl	6.03	216		Pn	17 14 45.4	-2.3
SCRK	Sand Creek	6.09	43		Pn	17 14 47.8	-0.8
M27K	Edge Creek, AK	6.14	61		Pn	17 14 49.5	+0.2
H22K	Ishtalitna Cre	6.16	8		Pn	17 14 48.6	-0.8
IMAR	Indian Mountai	6.18	359		Pn	17 14 49.5	-0.2
IM01	Indian Mountai	6.20	359		Pn	17 14 49.3	-0.6
LOGN	Logan Glacier	6.25	75		Pn	17 14 51.4	+0.7
H23K	Yukon River	6.28	15		Pn	17 14 50.0	-1.0
BC01	Beaver Creek A	6.43	55		Pn	17 14 53.4	+0.3
L27K	Beaver Creek,	6.43	55		Pn	17 14 53.1	+0.1
BCAR	Beaver Creek A	6.45	55		Pn	17 14 53.4	+0.1
YUK2	White River	6.46	67		Pn	17 14 53.9	+0.4
DOL	Dolgoi Island	6.54	228		Pn	17 14 53.7	-0.8
G18K	Tagagawik	6.54	341		Pn	17 14 53.7	-0.8
G19K	Purcell Mounta	6.56	347		Pn	17 14 53.8	-0.9
PCA	Pinnacle	6.61	82		Pn	17 14 56.7	+1.2
YUK3	Moose Creek	6.63	67		Pn	17 14 56.5	+0.5
DTNA	Dutton South F	6.68	229		Pn	17 14 56.5	0.0
G21K	Allakaket	6.71	360		Pn	17 14 56.5	-0.4
DT1	Dutton Round H	6.72	229		Pn	17 14 56.5	-0.5
PRP	Porcupine Dome	6.76	29		Pn	17 14 56.9	-0.6
G16K	Koyuk River	6.94	327		Pn	17 14 58.8	-1.0
G23K	Bananza Creek	7.08	11		Pn	17 15 00.6	-1.1
PNL	Peninsula	7.08	85	P	Pn	17 15 03.4	+1.6
I26K	Coal Creek Min	7.25	36		Pn	17 15 03.4	-0.6
F19K	Shaleruckik Mo	7.30	346		Pn	17 15 04.0	-0.5
H25L	Birch Creek	7.32	25		Pn	17 15 04.1	-0.8
F20K	Avaraart Lake	7.32	353		Pn	17 15 04.4	-0.5
F21K	Alatna River	7.42	360		Pn	17 15 06.3	0.0
O29M	Mount Kennedy	7.44	80		Pn	17 15 07.1	+0.5
YUK6	Outpost Mounta	7.54	75		Pn	17 15 08.6	+0.5
COLD	Coldfoot	7.57	10		Pn	17 15 07.8	-0.4
M29M	Somme Creek	7.69	64		Pn	17 15 10.6	+0.6
G25K	Bearman Lake	7.70	22		Pn	17 15 08.8	-1.0
F22K	John River	7.73	4		Pn	17 15 10.2	-0.2
YUK5	Granite Creek	7.79	74		Pn	17 15 11.5	+0.1
I27K	Kandik River	7.92	38		Pn	17 15 12.8	-0.2
F24K	Squaw Lake	8.10	15		Pn	17 15 14.3	-1.0
N30M	Aishikik Lake	8.19	71		Pn	17 15 16.4	-0.1
E23K	Chandalar	8.43	10		Pn	17 15 19.1	-0.6
K29M	Barlow Dome	8.52	55		Pn	17 15 22.1	+1.1
E20K	Nigu River	8.55	353		Pn	17 15 22.0	+0.6
BMAR	Burnt Mountain	8.57	23		Pn	17 15 19.9	-1.7
BM01	Burnt Mountain	8.60	23		Pn	17 15 20.4	-1.6
G27K	Doyon Strip	8.76	32		Pn	17 15 22.5	-1.6
AKUT	Akutan	8.83	235	P	Pn	17 15 25.3	+0.2
F26K	Sheenjek River	8.89	23		Pn	17 15 23.9	-1.9
E25K	Arctic Village	9.00	19		Pn	17 15 26.1	-1.2
TOLK	Toolik Lake Re	9.00	9		Pn	17 15 27.4	0.0
SKAG	Skagway	9.16	84	P	Pn	17 15 32.5	+3.0
D23K	Nanushuk River	9.25	6		Pn	17 15 30.4	-0.2
MNAT	Makushin Natee	9.39	236		Pn	17 15 31.3	-1.2
MGOD	Makushin Gods	9.53	237		Pn	17 15 33.5	-1.0
SIT	Sitka	9.87	98	P	Pn	17 15 40.0	+1.1
JIS	Juneau Island	9.92	91	P	Pn	17 15 42.5	+3.0
S32K	Killisnoo	10.09	95		Pn	17 15 43.2	+1.4
N32M	Quiet Lake	10.11	74	Pn	Pn	17 15 41.9	-0.2
N32M				Sn	Sn	17 17 30.4	-3.4
C24K	Franklin Bluff	10.13	9		Pn	17 15 41.6	-0.6
P33M	Teslin, Yukon	10.31	79		Pn	17 15 46.7	+1.9
G30M	tAoh Zraii Nji	10.49	40		Pn	17 15 46.9	-0.3
H31M	Peel River	10.55	47		Pn	17 15 48.1	+0.3
B22K	Teshekpuk Lake	10.56	360	Pn	Pn	17 15 46.7	-1.2
C27K	Jago River	10.65	19		Pn	17 15 47.6	-1.6
Q32M	Nakina River	10.81	85		Pn	17 15 53.8	+2.3
F30M	Barrier River	11.00	37		Pn	17 15 54.5	+0.8
G31M	Satah River	11.11	42		Pn	17 15 54.7	-0.5
U33K	Whale Pass	11.38	100		Pn	17 15 59.4	+0.6
DLBC	Dease Lake	12.07	86	P	P	17 16 12.8	-1.7
	comp=E,4.8nm,0.3s,baz=53,slow=3.0,SNR=11						
DLBC				S	Sn	17 18 18.4	-2.8
	comp=E,1.4nm,0.3s,baz=103,slow=14,SNR=1.9						
INK	Inuvik	12.10	37	P	Pn	17 16 08.6	+0.5
	comp=E,9.6nm,0.6s,baz=250,slow=12,SNR=15						
INK				S	Sn	17 18 16.2	-5.3
	comp=E,1.6nm,0.6s,baz=322,slow=28,SNR=2.2						
INK	Inuvik	12.10	37		Pn	17 16 08.0	-0.1
V35K	Ketchikan	12.51	102	Pn	Pn	17 16 15.2	+1.7
ATKA	Atka Island	13.86	246	P	P	17 16 35.1	+0.8
YKA	Yellowknife Ar	18.71	65	P	P	17 17 29.4	+1.7
	comp=E,1.3nm,0.4s,baz=280,slow=9.9,SNR=9.6						
PETK	Petropavlovsk-	27.28	278	P	P	17 18 51.5	+0.4
	comp=E,1.5nm,0.6s,baz=70,slow=12,SNR=2.1						
	comp=E,1.5nm,0.6s						
MJAR	Matsushiro Arr	48.58	273	P	P	17 21 49.3	+0.2
	comp=E,1.0nm,0.9s,baz=4.7,slow=7.6,SNR=4.2						
	comp=E,1.0nm,0.9s						
MJAR	Matsushiro Arr	48.58	273	IAmb	IAmb	17 21 58.1	
	comp=Z,2.1nm,1.2s						
KSRS	Korea Array	53.02	282	P	P	17 22 23.0	+0.9
	comp=Z,1.4nm,0.5s,baz=38,slow=6.8,SNR=8.0						
	comp=Z,1.4nm,0.5s						
SONM	Songino Array	54.72	306	P	P	17 22 35.7	+1.0
	comp=Z,1.4nm,0.7s,baz=49,slow=6.6,SNR=6.7						
	comp=Z,1.4nm,0.7s						
SONM	Songino Array	54.72	306	IAmb	IAmb	17 22 36.8	
	comp=Z,1.6nm,0.9s						
JNU	Nakatsue	54.97	277	LR	LR	17 46 35.4	
	comp=Z,28nm,18.9s,baz=192,slow=36						
ZALV	Zalesovo Beam	57.39	323	P	P	17 22 54.0	+0.7
	comp=Z,1.7nm,0.4s,baz=37,slow=7.2,SNR=10						
	comp=Z,1.7nm,0.4s						
KURK	Kurchatov	62.05	325	P	P	17 23 26.4	+1.1
KURK	Kurchatov	62.05	325	IAmb	IAmb	17 23 26.5	
	comp=Z,1.1nm,0.7s						
BVAR	Borovoye Array	62.12	332	P	P	17 23 25.8	+0.1
	comp=Z,0.8nm,0.4s,baz=41,slow=10,SNR=5.0						
	comp=Z,0.8nm,0.4s						
KURBB	Kurchatov Arra	62.16	325	P	P	17 23 26.4	+0.4
	comp=Z,0.3nm,0.3s,baz=28,slow=6.3,SNR=3.1						
KURBB				LR	LR	17 54 28.8	
	comp=Z,33nm,19.1s,baz=176,slow=40						
	comp=Z,0.3nm,0.3s						
MKAR	Makanchi Array	64.44	321	P	P	17 23 40.9	-0.1
	comp=Z,0.2nm,0.4s,baz=16,slow=6.3,SNR=3.5						
	comp=Z,0.2nm,0.4s						
CMAR	Chiang Mai Arr	82.75	294	P	P	17 25 28.3	+0.1
	comp=Z,0.3nm,0.5s,baz=8.3,slow=5.4,SNR=4.7						
	comp=Z,0.3nm,0.5s						

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*TAP **16** 17:16:20.9, 25.°02N×121.°78E, h136^{km}, ML3.9, A*
*JMA **16** 17:16:21.2±0.2, 24.°9N±0.°8×121.°8E±0.°6, h129^{km}±1^{km},*
MV3.3/19, TAIWAN REGION
*IDC **16** 17:16:22.7±7.0, 25.°06N×122.°10E, h155^{km}±73^{km}, mb2.9/3,*
mbtmp3.4/4, Error ellipse: s-maj=63.6km s-min=19.7km
az=67.0
ISC 16 17:16:20.9±0.8**, 25.°01N**±0.°03×**121.°80E**±0.°02**, h136**^{km}±4^{km}**,**
n157, σ0.^{s}76/258**, mb3.3**/4**, 1C, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TIPB	Shuangxi	0.05	150	P	Pn	17 16 39.3	0.0
TIPB				*i* S	Sn	17 16 52.7	-0.5
WFSB	Wu-fen Shan	0.06	344	⇑P	Pn	17 16 39.1	-0.1
WFSB				S	Sn	17 16 53.6	+0.4
SXI1	Grass Mountain	0.11	41	*e*P	Pn	17 16 40.5	+1.1
TNOU	National Taiwa	0.14	350	*e*P	Pn	17 16 39.5	+0.2
TNOU				*e*S	Sn	17 16 53.5	+0.2
NTC	Toucheng	0.16	170	*e*P	Pn	17 16 40.0	+0.6
NTC				*e*S	Sn	17 16 53.8	+0.5
TWB1	Santiao Chiao	0.17	92	*i* P	Pn	17 16 39.3	-0.1
TWB1				S	Sn	17 16 54.6	+1.3
TWA	Mucha	0.20	260	P	Pn	17 16 39.7	+0.3
TWA				*i* S	Sn	17 16 52.6	-0.9
EGS		0.21	144	*e*P	Pn	17 16 39.5	0.0
EGS				*e*S	Sn	17 16 54.1	+0.6
NHY	Taipei	0.21	277	*e*P	Pn	17 16 39.8	+0.3
NHY				*e*S	Sn	17 16 53.5	0.0
YM01	YM01	0.25	302	*e*P	Pn	17 16 39.7	0.0
YM01				S	Sn	17 16 53.5	-0.3
ILA	Ilan	0.25	191	*e*P	Pn	17 16 39.7	+0.1
ILA				*e*S	Sn	17 16 54.2	+0.4
NHDH	Xindian Distri	0.25	259	*e*P	Pn	17 16 39.8	+0.3
NHDH				*e*S	Sn	17 16 53.0	-0.7
YM08	YM08	0.26	312	*e*P	Pn	17 16 39.6	-0.1
TAP	Taipei	0.27	276	*e*P	Pn	17 16 39.6	0.0
TAP				*i* S	Sn	17 16 53.2	-0.5
ZUZH	Zhuzihu	0.27	303	*e*P	Pn	17 16 40.0	+0.2
TATO	Taipei	0.28	262	P	Pn	17 16 39.4	-0.3
TATO	Taipei	0.28	262	S	Sn	17 16 52.9	-1.0
ANP	Anpu	0.31	304	P	Pn	17 16 39.9	+0.1
TWE	Neicheng	0.32	202	*i* P	Pn	17 16 39.8	0.0
TWE				*i* S	Sn	17 16 53.3	-0.8
TWY	Chenhua	0.32	325	*e*P	Pn	17 16 39.4	-0.4
TWY				*i* S	Sn	17 16 54.2	+0.1
FUSB	Fushanzhiwuyua	0.32	217	*i* P	Pn	17 16 39.6	-0.3
FUSB				S	Sn	17 16 52.8	-1.4
NTST	Danshui	0.35	295	*e*P	Pn	17 16 40.1	+0.2
NTST				*e*S	Sn	17 16 54.4	+0.1
TWS1	Kuangyinshan	0.36	284	*i* P	Pn	17 16 40.2	+0.2
TWS1				*i* S	Sn	17 16 53.9	-0.5
NWLT	Wulai	0.36	229	*i* P	Pn	17 16 39.6	-0.4
NDS	Dongshan	0.39	191	*e*P	Pn	17 16 40.3	+0.2
NDS				S	Sn	17 16 54.2	-0.4
ESAO	Su ao	0.44	175	P	Pn	17 16 40.7	+0.4
NDT	Datong Townshi	0.48	212	P	Pn	17 16 40.7	+0.1
YHNB	Yeheng	0.52	228	P	Pn	17 16 40.3	-0.5
YHNB	Yeheng	0.52	228	S	Sn	17 16 53.9	-2.0
YHNB	Yeheng	0.52	228	*i* P	Pn	17 16 40.5	-0.4
YHNB				S	Sn	17 16 54.4	-1.5
NSK	Sanguang	0.52	230	*i* P	Pn	17 16 40.5	-0.4
NSK				*i* S	Sn	17 16 53.6	-2.3
LATG	Datong	0.54	208	*i* P	Pn	17 16 41.1	+0.1
LATG				*e*S	Sn	17 16 55.8	-0.4
NCU	National Centr	0.56	266	*e*P	Pn	17 16 41.2	+0.3
NCU				S	Sn	17 16 55.8	-0.3
NCUH	Zhongli	0.56	265	*i* P	Pn	17 16 41.1	+0.1
NCUH				*i* S	Sn	17 16 55.8	-0.3
EWUT	Wuta	0.57	182	P	Pn	17 16 41.5	+0.5
EWUT				*i* S	Sn	17 16 56.2	0.0
ENA	Nanau	0.59	185	*e*P	Pn	17 16 39.5	-1.7
ENA				S	Sn	17 16 54.7	-1.8
KSHI	Guanxi Townshi	0.61	247	*i* P	Pn	17 16 41.4	+0.1
KSHI				S	Sn	17 16 56.6	-0.1
PCYT	Pengchaiyu	0.66	22	*e*P	Pn	17 16 42.2	+0.6
EAHA	Aohua	0.68	185	P	Pn	17 16 42.1	+0.3
EAHA				*e*S	Sn	17 16 58.8	+1.1
NNS	Nan Shan	0.69	214	*i* P	Pn	17 16 42.0	-0.1
NNS				*i* S	Sn	17 16 57.5	-0.5
NNSB	Datong	0.69	213	*i* P	Pn	17 16 42.0	0.0
NNSB				S	Sn	17 16 57.3	-0.7
EOS2	EOS2	0.71	146	*i* P	Pn	17 16 42.4	+0.6
EOS2				*i* S	Sn	17 16 58.0	+0.3
NFF	Wufeng Townshi	0.73	239	*i* P	Pn	17 16 41.9	-0.2
NFF				*i* S	Sn	17 16 56.9	-1.4
SBCB	Hsinchu	0.77	254	*e*P	Pn	17 16 42.8	+0.4
SBCB				*i* S	Sn	17 16 58.9	+0.2
HSN	Hsinchu	0.78	255	*i* P	Pn	17 16 42.3	-0.2
HSN				*i* S	Sn	17 16 57.0	-1.8
LIOB	Emei	0.80	243	*i* P	Pn	17 16 42.8	+0.1
LIOB				*i* S	Sn	17 16 57.8	-1.4
NSTT	Nanjuang	0.82	242	*i* P	Pn	17 16 42.8	0.0
NSTT				*i* S	Sn	17 16 58.0	-1.4
ETLH	Xiulin Townshi	0.85	200	*i* P	Pn	17 16 42.8	-0.5
NACB	Ninganchiao	0.86	193	P	Pn	17 16 42.0	-1.1
NACB	Ninganchiao	0.86	193	S	Sn	17 16 58.8	-1.2
NACB	Ninganchiao	0.86	193	*i* P	Pn	17 16 42.3	-0.8
NACB				*i* S	Sn	17 16 58.8	-1.2
EOS3	EOS3	0.86	147	*i* P	Pn	17 16 43.7	+0.7
ETL	Fush Village	0.87	191	P	Pn	17 16 42.4	-0.8
ETL				*e*S	Sn	17 16 58.7	-1.5
FUSS	Fushou	0.92	214	*i* P	Pn	17 16 44.3	+0.4
FUSS				*i* S	Sn	17 17 00.9	-0.4
TWT	Tachien	0.95	217	P	Pn	17 16 44.5	+0.4
TWT				*i* S	Sn	17 17 01.3	-0.4
TWD	Chiawan	0.95	191	P	Pn	17 16 43.0	-0.9
TWD				S	Sn	17 16 59.6	-1.7
TDCB	Techi	0.96	218	P	Pn	17 16 44.6	+0.4
TDCB				*e*S	Sn	17 17 01.2	-0.6
WHF	Hehuan Shan	0.99	209	*i* P	Pn	17 16 45.1	+0.3
WHF				*i* S	Sn	17 17 02.6	-0.3
EOS4	EOS4	1.01	152	P	Pn	17 16 44.0	0.0
EOS4				S	Sn	17 17 00.8	-0.8
LXIB	Xiulin Townshi	1.05	200	*e*P	Pn	17 16 44.4	-0.6
LXIB				*e*S	Sn	17 17 02.7	-0.6
ETM	Tongmen	1.08	195	*e*P	Pn	17 16 44.3	-0.8
ETM				S	Sn	17 17 02.7	-0.8
TWQ1	Liyutan	1.15	235	P	Pn	17 16 45.9	+0.2
TWQ1				*i* S	Sn	17 17 03.9	-0.7
TEYL	Yanliau Villag	1.16	189	P	Pn	17 16 45.7	-0.1
JYNG	Yonagunijimaku	1.18	118	*i* P	Pn	17 16 46.0	-0.1
JYNG				S	Sn	17 17 04.0	-1.2
WUSB	Renai	1.19	212	*e*P	Pn	17 16 46.8	+0.5
WUSB				S	Sn	17 17 05.3	-0.4
OWD	Renai	1.20	208	*e*P	Pn	17 16 46.9	+0.5
OWD				*i* S	Sn	17 17 05.4	-0.4
YOJ	Yonaguni jima	1.23	116	P	Pn	17 16 46.3	-0.2
YOJ	Yonaguni jima	1.23	116	*i* P	Pn	17 16 46.5	0.0
YOJ				S	Sn	17 17 05.1	-1.0
YOJ	Yonaguni jima	1.23	116	P	Pn	17 16 46.5	0.0
YOJ				S	Sn	17 17 04.8	-1.3
ESL	Shilin	1.24	196	*e*P	Pn	17 16 45.5	-1.1
SHUL	Shoufeng	1.24	190	P	Pn	17 16 46.5	-0.2
SHUL				S	Sn	17 17 06.1	-0.1
WCS	Beigang Elemen	1.25	221	*i* P	Pn	17 16 47.1	+0.3
WCS				S	Sn	17 17 05.7	-0.8
TEGC	Jichi Village	1.32	190	*e*P	Pn	17 16 48.4	+0.9
TCU	Taichung	1.34	230	*e*P	Pn	17 16 47.7	0.0
TCU				*e*S	Sn	17 17 07.2	-0.9
WARBT	Fenglin Townsh	1.34	196	P	Pn	17 16 46.4	-1.3
VWDT	VWDT	1.39	206	*i* P	Pn	17 16 49.1	+0.9
VWDT				*e*S	Sn	17 17 09.8	+0.8
SMLT	Sun Moon Lake	1.39	216	*i* P	Pn	17 16 48.6	+0.2
SMLT				*i* S	Sn	17 17 09.1	-0.2
TYC	Yuchr	1.40	218	*i* P	Pn	17 16 48.6	+0.3
TYC				*i* S	Sn	17 17 08.9	-0.3
SSLB	Suanglung	1.44	212	P	Pn	17 16 48.7	-0.2
SSLB	Suanglung	1.44	212	S	Sn	17 17 09.5	-0.7
SSLB	Suanglung	1.44	212	*i* P	Pn	17 16 49.1	+0.2
SSLB				*i* S	Sn	17 17 09.5	-0.7
WCHH	Zhanghua	1.46	231	*e*P	Pn	17 16 49.3	+0.3
WCHH				S	Sn	17 17 10.2	-0.2
WNT	Mingjian	1.52	222	*e*P	Pn	17 16 50.0	+0.4
WNT				*e*S	Sn	17 17 11.1	-0.4
WJS	Zhushan	1.54	220	*e*P	Pn	17 16 50.1	+0.3
HGSD	Ruisui	1.55	193	*e*P	Pn	17 16 49.9	-0.1
EHY	Hungye	1.56	196	*e*P	Pn	17 16 50.5	+0.3
WHYT	Xinyi Township	1.57	214	*e*P	Pn	17 16 50.6	+0.4
WHYT				*i* S	Sn	17 17 12.5	-0.2
YULB	Yu-li	1.68	196	P	Pn	17 16 50.1	-1.4
YULB	Yu-li	1.68	196	*e*P	Pn	17 16 50.1	-1.4
YUS	Yu-Shan	1.70	207	*e*P	Pn	17 16 53.3	+1.1
WRL	Guolierlin Hig	1.71	230	*i* P	Pn	17 16 51.8	+0.1
WRL				S	Sn	17 17 14.2	-1.0
EYUL	Yuli	1.72	195	*e*P	Pn	17 16 52.4	+0.5
TWF1	Yuli	1.72	196	*e*P	Pn	17 16 50.8	-1.1
ECBN	Changbin	1.72	191	*e*P	Pn	17 16 52.3	+0.4
ECBN				*e*S	Sn	17 17 15.3	-0.3
RLNB	Erlin	1.72	230	*e*P	Pn	17 16 52.3	+0.4
RLNB				*i* S	Sn	17 17 15.8	+0.2
WGK	Gukeng	1.74	221	*e*P	Pn	17 16 52.6	+0.5
WGK				*i* S	Sn	17 17 16.8	+0.8
CHN5	Tsauling	1.74	216	*e*P	Pn	17 16 52.4	+0.1
CHN5				S	Sn	17 17 16.0	-0.2
ALS	Alishan	1.75	211	*i* P	Pn	17 16 52.8	+0.2
ALS				*i* S	Sn	17 17 16.8	+0.1
WDLH	Douliu	1.75	221	*e*P	Pn	17 16 53.0	+0.8
WDLH				*i* S	Sn	17 17 15.7	-0.5
WTCT	Ta-ch'eng	1.80	231	*e*S	Sn	17 17 17.1	0.0
WTK	Tuku	1.84	225	P	Pn	17 16 53.3	0.0
WTK				*e*S	Sn	17 17 17.4	-0.7
CHKH	Chenggong	1.85	192	*e*P	Pn	17 16 53.4	-0.1
CHKH				*i* S	Sn	17 17 18.1	-0.2
FULB	Fuli	1.86	194	*e*P	Pn	17 16 53.4	-0.2
IRIF	Iriomote-Funau	1.88	111	P	Pn	17 16 53.4	-0.4
IRIF				S	Sn	17 17 18.0	-0.9
WCKO	Fanlu	1.91	215	*i* P	Pn	17 16 54.6	+0.5
WCKO				*i* S	Sn	17 17 19.5	-0.1
EHD	Haiduan	1.93	196	*e*P	Pn	17 16 56.1	+1.7
CHKT	Chengkung	1.95	192	*e*P	Pn	17 16 54.3	-0.2
CHKT				*i* S	Sn	17 17 19.2	-1.2
ELDTW	Lidau	1.95	202	*e*P	Pn	17 16 55.6	+0.8
ELDTW				S	Sn	17 17 20.9	+0.3
CHY	Chiayi	1.96	220	*e*P	Pn	17 16 55.2	+0.5
CHY				S	Sn	17 17 20.3	-0.3
WSF	Szhu	1.99	227	*e*S	Sn	17 17 21.0	-0.2
CHN4	Tsaushan	1.99	214	*e*P	Pn	17 16 55.4	+0.3
CHN4				S	Sn	17 17 21.8	+0.6
TPUB	Ta-pu	2.01	212	P	Pn	17 16 55.3	-0.1
TPUB	Ta-pu	2.01	212	S	Sn	17 17 21.3	-0.5
TPUB	Ta-pu	2.01	212	*i* P	Pn	17 16 55.6	+0.2
TPUB				*e*S	Sn	17 17 21.1	-0.7
MATB	Ma-tsu	2.02	304	*e*P	Pn	17 16 55.5	0.0
HATJ	Hateruma jima	2.06	117	*e*S	Sn	17 17 22.8	+0.1
WSL	Shuilin Townsh	2.06	224	*e*P	Pn	17 16 56.1	+0.1
WSL				*i* S	Sn	17 17 22.1	-0.7
WTP	Ta-pu	2.07	212	*e*P	Pn	17 16 56.1	0.0
WTP				*i* S	Sn	17 17 22.1	-0.9
EDH	Donghe	2.08	193	*e*P	Pn	17 16 56.5	+0.3
EDH				S	Sn	17 17 22.2	-1.0
TWK	Hsinying	2.11	215	*i* P	Pn	17 16 56.8	+0.2
TWK				*i* S	Sn	17 17 23.7	-0.3
VWUC	VWUC	2.13	270	*i* P	Pn	17 16 56.7	-0.1
VWUC				S	Sn	17 17 23.4	-0.9
ICHU	Yijhu	2.15	220	*e*P	Pn	17 16 58.0	+0.9
ICHU				S	Sn	17 17 23.8	-1.0
JKRS	Kuro-shima	2.15	111	*e*P	Pn	17 16 57.3	+0.2
JKRS				*e*S	Sn	17 17 24.7	-0.1
CHN1	Nanshi	2.16	213	*i* P	Pn	17 16 57.4	+0.2
CHN1				*i* S	Sn	17 17 24.3	-0.7
LONT	Longtian	2.19	196	*e*P	Pn	17 16 58.8	+1.3
CHN8	Yiju	2.21	221	*e*P	Pn	17 16 58.0	+0.3
CHN8				*i* S	Sn	17 17 26.3	+0.4
SGST	Jiashian	2.22	210	P	Pn	17 16 57.9	0.0
SGST				*i* S	Sn	17 17 24.6	-1.7
JIJ	Ishigaki jima	2.23	106	*i* P	Pn	17 16 57.8	-0.1
TWG	Pinlang	2.28	197	*e*P	Pn	17 16 58.3	-0.4
TWGBT	Beinan	2.28	197	*e*P	Pn	17 16 58.4	-0.3
JISG	Ishigakijimahi	2.32	100	*i* P	Pn	17 16 59.4	+0.3
JISG				*e*S	Sn	17 17 28.2	-0.2
LYJJ	Jianjiangzhen	2.39	310	*e*P	Pn	17 17 00.2	+0.3
XPSS	Dashiqiu	2.40	323	*i* P	Pn	17 17 00.2	+0.2
XPSS				*e*S	Sn	17 17 29.6	-0.6
TSCK	Chigu Township	2.43	220	*e*S	Sn	17 17 30.6	-0.2
PTMZ	Houxiangcun	2.43	271	*i* P	Pn	17 17 00.4	0.0
PTMZ				*i* S	Sn	17 17 29.1	-1.8
SCST	Cishan	2.43	210	P	Pn	17 17 01.5	+1.0
SCST				*e*S	Sn	17 17 31.7	+0.7
SSD	Sandimen	2.50	206	*e*P	Pn	17 17 02.6	+1.3
SSD				*e*S	Sn	17 17 32.6	+0.2
PNG	Penghu	2.50	235	*e*P	Pn	17 17 01.4	0.0
PNG				*e*S	Sn	17 17 31.1	-1.4
PHUB	P'eng-hu	2.52	234	*i* P	Pn	17 17 01.6	0.0
PHUB				*i* S	Sn	17 17 31.1	-1.9
ECL	Taimali	2.53	198	*e*S	Sn	17 17 31.7	-1.4
MASBT	Mashibuluo	2.62	204	*e*P	Pn	17 17 03.4	+0.6
MASBT				*i* S	Sn	17 17 35.0	-0.1
WDGT	Dungji	2.62	229	*e*P	Pn	17 17 02.9	+0.1
WDGT				*i* S	Sn	17 17 34.7	-0.4
JTJ	Tarama	2.66	97	P	Pn	17 17 04.1	+0.7
JTJ				*e*S	Sn	17 17 36.1	-0.1
MHZQ	Yeshan	2.73	294	*e*P	Pn	17 17 04.4	+0.3
VCHM	Qimei	2.81	231	*i* P	Pn	17 17 05.4	+0.1
VCHM				*i* S	Sn	17 17 38.5	-1.1
SCZT	Fangliau	2.84	203	*e*P	Pn	17 17 05.9	+0.1
SCZT				*i* S	Sn	17 17 39.2	-1.1
JIRJ	Irabujima	3.09	93	*e*P	Pn	17 17 09.6	+0.8
JIRJ				*e*S	Sn	17 17 46.2	+0.4
JIKM	Ikemajima	3.13	91	P	Pn	17 17 10.3	+1.0
JMJ	Miyako jima 2	3.18	93	P	Pn	17 17 11.7	+1.7
JMJ2	Miyako jima3	3.22	94	P	Pn	17 17 11.4	+0.9
JOGS	Gusukube	3.29	94	P	Pn	17 17 12.8	+1.4
JOW	Kunigami	6.11	71	P	Pn	17 17 47.4	-1.4
	4.3nm,0.3s,baz=115,slow=19,SNR=25						

JOW				S	Sn	17 18 53.8	-3.8
	4.0nm,0.2s,baz=109,slow=25,SNR=1.6						
JOW	Kunigami	6.11	71	P	Pn	17 17 47.8	-1.1
MKAR	Makanchi Array	38.14	315	P	P	17 23 27.9	+1.1
	0.3nm,0.5s,baz=102,slow=10,SNR=2.8						
	0.3nm,0.5s						
WRA	Warramunga Arr	46.32	164	P	P	17 24 32.8	-0.5
	0.4nm,0.7s,baz=347,slow=8.6,SNR=5.7						
	0.4nm,0.7s						
ASAR	Alice Springs	49.79	165	P	P	17 24 59.6	-0.3
	0.2nm,0.7s,baz=352,slow=6.5,SNR=5.4						
	0.2nm,0.7s						
FINES	FINESS Array B	71.02	330	P	P	17 27 24.1	+0.5
	18nm,1.4s,baz=90,slow=5.7,SNR=9.2						

IDC 16 17:26:25.9±31.0**, 14°.58N**×**55°.54E, h0**^{km}**, mb3.6**/4**, mbtmp3.6**/4**, MS3.3**/7**, Error ellipse: s-maj=775.1km s-min=40.1km az=161.0, Owen Fracture Zone region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EIL	Elat	24.21	312	LR	LR	17 42 15.1	
	comp=Z,64nm,18.1s,baz=102,slow=39						
GNI	Garni	27.17	342	LR	LR	17 44 15.8	
	comp=Z,41nm,18.1s,baz=137,slow=39						
MKAR	Makanchi Array	39.12	29	P	P	17 33 54.1	-1.0
	0.3nm,0.8s,baz=221,slow=5.2,SNR=2.8						
MKAR				LR	LR	17 51 40.9	
	comp=Z,26nm,19.0s,baz=146,slow=39						
	0.3nm,0.8s						
LSZ	Lusaka	40.14	223	LR	LR	17 50 21.4	
	comp=Z,58nm,19.4s,baz=90,slow=36						
KURBB	Kurchatov Arra	40.48	23	P	P	17 34 05.7	-0.6
	0.4nm,0.2s,baz=221,slow=8.4,SNR=4.1						
	0.4nm,0.2s						
OBN	Obninsk	43.04	344	LR	LR	17 55 25.2	
	comp=Z,56nm,21.9s,baz=214,slow=40						
ZALV	Zalesovo Beam	45.49	24	P	P	17 34 48.0	+1.2
	0.7nm,0.6s,baz=238,slow=8.3,SNR=4.3						
	0.7nm,0.6s						
LBTB	Lobatse	49.01	217	LR	LR	17 55 06.4	
	comp=Z,34nm,18.0s,baz=88,slow=35						
DAVOX	Davos/Dischmat	49.70	320	LR	LR	18 01 13.0	
	comp=Z,22nm,18.6s,baz=79,slow=42						
ESDC	Sonseca Array	57.43	308	P	P	17 36 16.6	-0.1
	0.6nm,0.8s,baz=85,slow=5.9,SNR=7.9						
	0.6nm,0.8s						

IDC ***16*** *18:00:43.5±0.7, 50°.24S×112°.48E, h0^{km}, mb4.4/8, mbtmp4.4/8, MS3.9/26, Error ellipse: s-maj=41.0km s-min=16.4km az=102.0*

NEIC ***16*** *18:00:45.2±2.1, 50°.25S±0°.03×112°.2E±0°.3, h10^{km}±1^{km}, mb4.7/21, Error ellipse: s-maj=29.9km s-min=3.4km az=279.0*

GCMT ***16*** *18:00:47.2±0.3, 50°.08S±0°.02×112°.04E±0°.05, h23^{km}±1^{km}, MW4.9/81, Moment Tensor Solution. s18,c18; s81,c102; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-2.11±.21; $M_{\theta\theta}$2.09±.14; $M_{\phi\phi}$0.01±.13; $M_{r\theta}$1.80±.17; $M_{\theta\phi}$-0.74±.07; $M_{\phi r}$1.36±.20; Best double couple: $M_0$3.11500×10^{16} NP1:ϕ_s129.00000°,δ34.00000°,λ-42.00000°. NP2: ϕ_s256.00000°,δ68.00000°,λ-116.00000°. Principal axes: T 2.7770, Plg19.0000°, Azm6.0000°; N 0.6750, Plg24.0000°, Azm267.0000°; P -3.4540, Plg58.0000°, Azm129.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 16 18:00:44.9±0.5**, 50°.29S**±0°.08×**112°.4E**±0°.2**, h10**^{km}**, n80, σ0**^{s}**.88**/60**, mb4.6**/18**, MS4.0**/25**, 5C-3D, Southeast Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
H01W2	Cape Leeuwin H	15.43	5	T	T	18 20 10.8	
	baz=183,slow=74,SNR=363						
H01W1	Cape Leeuwin H	15.44	6	T	T	18 20 04.9	
	baz=183,slow=74,SNR=320						
H01W3	Cape Leeuwin H	15.45	6	T	T	18 20 05.7	
	baz=183,slow=74,SNR=262						
CASY	Casey	16.07	183	Pn	Pn	18 04 29.1	-1.4
NWAO	Narrogin (SRO)	17.72	14	P	P	18 04 55.8	+3.3
	12nm,1.0s,baz=31,slow=15,SNR=1.5						
NWAO				LR	LR	18 10 06.1	
	comp=Z,707nm,19.2s,baz=186,slow=32						
NWAO	Narrogin (SRO)	17.72	14		Pn	18 04 51.2	-0.4
NWAO				IAmb	IAmb	18 05 05.2	
	comp=Z,88nm,1.5s						
STKA	Stephens Creek	28.43	61	LR	LR	18 15 46.3	
	comp=Z,128nm,21.9s,baz=210,slow=32						
MAW	Mawson	29.74	216	LR	LR	18 16 40.8	
	comp=Z,280nm,21.7s,baz=82,slow=32						
MAW	Mawson	29.74	216	P	P	18 06 51.7	+0.8
ASAR	Alice Springs	31.43	40	P	P	18 07 05.6	-0.7
	comp=Z,1.7nm,0.7s,baz=206,slow=8.7,SNR=33						
ASAR				PcP	PcP	18 09 58.9	-0.7
	comp=Z,0.7nm,0.8s,baz=197,slow=2.8,SNR=6.0						
ASAR				LR	LR	18 18 19.7	
	comp=Z,269nm,19.8s,baz=200,slow=34						
	comp=Z,1.7nm,0.7s						
ASAR	Alice Springs	31.43	40	P	P	18 07 05.0	-1.3
ASAR					PcP	18 09 58.3	-1.2
VNDA	Vanda	32.92	162	P	P	18 07 19.2	+0.4
	comp=Z,5.3nm,0.8s,baz=292,slow=8.3,SNR=42						
VNDA				LR	LR	18 19 38.2	
	comp=Z,350nm,20.6s,baz=306,slow=34						
	comp=Z,5.3nm,0.8s						
VNDA	Vanda	32.92	162	P	P	18 07 18.9	+0.1
FITZ	Fitzroy Crossi	33.83	23	LR	LR	18 20 30.1	
	comp=Z,421nm,18.4s,baz=186,slow=35						
FITZ	Fitzroy Crossi	33.83	23	P	P	18 07 28.4	+1.2
SBA	Scott Base	34.02	162	P	P	18 07 29.4	+1.1
SBA				IAmb	IAmb	18 07 41.8	
	comp=Z,7.5nm,1.0s						
WRA	Warramunga Arr	34.94	38	P	P	18 07 36.1	-0.8
	comp=Z,4.5nm,0.9s,baz=203,slow=10,SNR=17						
WRA				PcP	PcP	18 10 08.3	-1.1
	comp=Z,0.6nm,0.9s,baz=218,slow=2.6,SNR=2.2						
	comp=Z,4.5nm,0.9s						
WRA	Warramunga Arr	34.94	38	P	P	18 07 36.6	-0.3
WRA					PcP	18 10 07.8	-1.6
KNRA	Kununurra	36.99	27	P	P	18 07 53.3	-1.2
KNRA				IAmb	IAmb	18 08 02.5	
	comp=Z,16nm,1.4s						
QSPA	South Pole Qui	39.84	180	P	P	18 08 18.7	+0.5
	comp=Z,6.2nm,0.7s,baz=318,slow=1.3,SNR=55						
QSPA				LR	LR	18 24 04.3	
	comp=Z,262nm,19.3s,baz=339,slow=35						
	comp=Z,6.2nm,0.7s						
QSPA	South Pole Qui	39.84	180	P	P	18 08 18.5	+0.3
QSPA				IAmb	IAmb	18 08 25.4	
	comp=Z,11nm,0.8s						
CTA	Charters Tower	40.33	54	LR	LR	18 23 46.9	
	comp=Z,235nm,20.1s,baz=220,slow=34						
MTN	Manton Dam	40.38	29	P	P	18 08 23.3	+0.4
ELIB	Princess Elisa	42.92	207	*d*P	P	18 08 44.0	+0.7
	comp=Z,5.0nm,1.1s						
KAPI	Kappang	45.55	10	LR	LR	18 28 34.5	
	comp=Z,198nm,18.8s,baz=168,slow=37						
TROLL	Troll, Antarti	48.58	203	⇑P	P	18 09 28.9	+0.8
	comp=Z,236nm,0.8s						
PMG	Port Moresby	49.89	47	LR	LR	18 29 04.7	
	comp=Z,140nm,20.2s,baz=220,slow=34						
SNAA	Sanae	50.11	202	⇑P	P	18 09 40.9	+1.2
	comp=Z,166nm,0.7s						
SNAA	Sanae	50.11	202	P	P	18 09 40.2	+0.5
	comp=Z,8.9nm,0.8s,baz=142,slow=9.9,SNR=16						
SNAA				LR	LR	18 29 37.5	
	comp=Z,244nm,19.5s,baz=110,slow=35						
	comp=Z,8.9nm,0.8s						
SNAA	Sanae	50.11	202	P	P	18 09 39.8	+0.2
SNAA				IAmb	IAmb	18 09 47.7	
	comp=Z,12nm,0.9s						
BELA	Belgrano 2	50.50	189	P	P	18 09 42.2	-0.2
VNA2	Neumayer--Watz	51.70	201	⇑P	P	18 09 52.5	+1.0
	comp=Z,7.5nm,0.6s,baz=128,slow=7.5						
VNA3	Neumayer Olymp	51.99	200	⇑P	P	18 09 54.2	+0.5
	comp=Z,4.1nm,0.7s						
VNA3				⇓pP	pwP	18 09 59.7	-0.7
	comp=Z,3.7nm,0.8s						
VNA1	Neumayer--Stat	52.09	201	⇑P	P	18 09 55.7	+1.3
	comp=Z,11nm,0.9s						
VNA1				⇓pP	pwP	18 10 01.3	+0.2
	comp=Z,13nm,1.0s						
HNR	Honiara	56.51	61	LR	LR	18 32 00.6	
	comp=Z,81nm,21.3s,baz=318,slow=33						
KRVT	Keravat (AS076	56.66	50	LR	LR	18 33 40.9	
	comp=Z,87nm,19.2s,baz=158,slow=35						
DAV	Davao City (W)	58.27	15	LR	LR	18 37 37.5	
	comp=Z,60nm,18.0s,baz=197,slow=38						
PALK	Pallekele	63.56	324	LR	LR	18 32 35.3	
	comp=Z,125nm,20.6s,baz=131,slow=30						
PMSA	Palmer Station	65.24	182	LR	LR	18 38 33.1	
	comp=Z,127nm,21.0s,baz=137,slow=35						
SUR	Sutherland	66.78	247	LR	LR	18 35 43.3	
	comp=Z,58nm,19.1s,baz=151,slow=31						
BOSA	Boshof	66.80	253	LR	LR	18 33 56.1	
	comp=Z,52nm,21.6s,baz=176,slow=30						
LBTB	Lobatse	69.18	256	LR	LR	18 35 54.7	
	comp=Z,84nm,18.2s,baz=144,slow=30						
CM31	Chiang Mai Arr	69.46	346	P	P	18 11 51.7	-1.5
CM31				IAmb	IAmb	18 11 56.5	
	comp=Z,7.6nm,1.1s						
CMAR	Chiang Mai Arr	69.46	346	P	P	18 11 53.9	+0.6
	comp=Z,1.9nm,0.8s,baz=189,slow=5.5,SNR=16						
CMAR				LR	LR	18 38 02.5	
	comp=Z,98nm,20.8s,baz=165,slow=32						
	comp=Z,1.9nm,0.8s						
CMAR	Chiang Mai Arr	69.46	346	P	P	18 11 53.1	-0.1
GUMO	Guam	69.70	34	LR	LR	18 40 21.6	
	comp=Z,68nm,21.9s,baz=202,slow=34						
KHWEE	KHWEE	71.51	258	P	P	18 12 04.9	-1.1
MORE	Moreh	75.90	343	P	P	18 12 30.6	-0.8
MORE				IAmb	IAmb	18 12 38.1	
	comp=Z,5.5nm,0.9s						
SHL	Shillong	77.67	341	P	P	18 12 41.9	+0.3
EVN	Everest	81.13	337	P	P	18 13 00.8	-0.1
EVN				IAmb	IAmb	18 13 14.2	
	comp=Z,8.3nm,0.9s						
LSA	Lhasa	81.83	341	P	P	18 13 03.9	-0.5
LSA				IAmb	IAmb	18 13 12.7	
	comp=Z,12nm,1.4s						
JNU	Nakatsue	84.65	16	LR	LR	18 52 08.8	
	comp=Z,26nm,19.2s,baz=214,slow=36						
KSRS	Korea Array	88.44	12	LR	LR	18 56 39.9	
	comp=Z,17nm,18.0s,baz=220,slow=38						
PLCA	Paso Flores	89.32	178	P	P	18 13 41.8	+0.4
	comp=Z,2.9nm,0.9s,baz=136,slow=5.6,SNR=4.3						
PLCA				LR	LR	18 54 21.3	
	comp=Z,89nm,19.6s,baz=176,slow=36						
	comp=Z,2.9nm,0.9s						
MJAR	Matsushiro Arr	89.42	21	P	P	18 13 41.5	+0.1
	comp=Z,0.9nm,0.8s,baz=172,slow=4.7,SNR=2.3						
	comp=Z,0.9nm,0.8s						
MJAR	Matsushiro Arr	89.42	21	P	P	18 13 41.8	+0.4
MJAR				IAmb	IAmb	18 14 14.1	
	comp=Z,4.0nm,1.4s						
NIL	Nilore	90.45	328	P	P	18 13 46.6	+0.3
SONM	Songino Array	97.88	356	LR	LR	19 04 27.2	
	comp=Z,28nm,18.0s,baz=181,slow=39						
AAK	Ala-Archa	98.28	333	LR	LR	18 55 10.0	
	comp=Z,54nm,19.1s,baz=208,slow=33						
H10S2	ASCENSION HYDR	105.23	235	T	T	20 12 55.5	
	baz=18,slow=74,SNR=7.7						
H10S3	ASCENSION HYDR	105.25	235	T	T	20 12 54.8	
	baz=202,slow=74,SNR=9.9						
AKASG	Malin Array Be	122.91	311	PKP	PKPdf	18 19 39.3	-1.0
	comp=Z,0.8nm,0.5s,baz=89,slow=0.7,SNR=2.4						
MMPY	Sheldon Lake,	144.29	45	PKPdf	PKPbc	18 20 18.9	+0.7
GNW	Green Mountain	144.34	72	PKPdf	PKPab	18 20 19.0	+0.5
X16A	Lo Mia Camp, P	144.53	100	PKPdf	PKPbc	18 20 20.6	+0.6
LCMT	Little Creek M	144.99	95		PKPbc	18 20 21.5	+0.1
J08A	Circle Bar Ran	145.12	81		PKPbc	18 20 20.5	-1.0
CCUT	Cedar City	145.24	94		PKPbc	18 20 21.4	-0.9
U15A	North Rim	145.25	96		PKPbc	18 20 22.9	+0.5
KNB	Kanab	145.26	95		PKPbc	18 20 22.4	+0.1
MXC	Moxie City	145.47	75	PKPdf	PKPdf	18 20 21.8	-0.5
PSUT	Pine Spring	145.50	92	PKPdf	PKPdf	18 20 22.0	-0.9
LTY	Liberty	145.53	74	PKPdf	PKPdf	18 20 22.5	0.0
X18A	Snowflake	145.54	101	PKPdf	PKPdf	18 20 23.0	-0.1
G08A	Pilot Rock	145.73	78	PKPdf	PKPdf	18 20 23.7	+0.7
ELK	Elko	145.84	88	PKPdf	PKPdf	18 20 24.2	+0.7
HAWA	Hanford	145.87	76	PKPdf	PKPbc	18 20 24.0	+0.4
ANMO	Albuquerque	148.00	104	PKPbc	PKPbc	18 20 30.3	-0.1
	comp=Z,1.1nm,0.4s,baz=267,slow=3.4,SNR=3.5						
PDAR	Pinedale Array	150.52	88	PKPbc	PKPbc	18 20 36.7	+0.2
	comp=Z,2.1nm,0.9s,baz=212,slow=1.8,SNR=15						
YKA	Yellowknife Ar	151.97	46	PKPbc	PKPbc	18 20 38.7	-0.2
	comp=Z,2.3nm,0.7s,baz=275,slow=1.8,SNR=7.9						

CATAC ***16*** *18:14:09.4±0.3, 12°N±2°×8°8W±°, h40^{km}±8^{km}, M5.0/45, MLv5.0/45, Error ellipse: s-maj=5.8km s-min=1.8km az=26.7, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}1.94; $M_{\theta\theta}$-2.71; $M_{\phi\phi}$0.77; $M_{r\theta}$0.78; $M_{\theta\phi}$1.15; $M_{\phi r}$-0.00; Fault plane solution: $M_0$2.78876×10^{16} NP1: ϕ_s95.50455°,δ54.51975°,λ74.73746°. NP2:ϕ_s300.68356°, δ38.22430°,λ110.27026°. Principal axes: T 2.0988, Plg74.9987°, Azm319.5220°; N 1.0657, Plg12.3781°, Azm104.5042°; P -3.1645, Plg8.3418°, Azm196.3483°; confirmed*

GFZ ***16*** *18:14:09.6±0.3, 12°N±4°×8°8W±°, h53^{km}, M4.8/19, mb4.8/19, confirmed*

NEIC ***16*** *18:14:10.1±2.5, 12°.47N±0°.05×87°.75W±0°.06, h52^{km}±3^{km}, mb4.7/220, Error ellipse: s-maj=8.4km s-min=6.3km az=61.0*

SNET ***16*** *18:14:10.4±1.4, 12°.63N×87°.72W, h47^{km}, ML4.7, Presumed earthquake*

IDC ***16*** *18:14:10.2±1.4, 12°.60N×87°.59W, h63^{km}±14^{km}, mb3.9/19, mbtmp4.2/23, MS3.7/44, Error ellipse: s-maj=22.5km s-min=8.3km az=47.0*

GCMT ***16*** *18:14:12.1±0.5, 12°.27N±0°.03×87°.89W±0°.04, h50^{km}±1^{km}, MW4.9/48, Moment Tensor Solution. s41,c50; s48,c58; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}2.66±.14; $M_{\theta\theta}$-1.72±.09; $M_{\phi\phi}$-0.94±.10; $M_{r\theta}$0.12±.07; $M_{\theta\phi}$1.11±.07; $M_{\phi r}$-0.09±.08; Best double couple: $M_0$2.58800×10^{16} NP1:ϕ_s305.00000°,δ43.00000°,λ90.00000°. NP2: ϕ_s125.00000°,δ47.00000°,λ90.00000°. Principal axes: T 2.6640, Plg88.0000°, Azm36.0000°; N -0.1550, Plg0.0000°, Azm305.0000°; P -2.5120, Plg2.0000°, Azm215.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

RSNC ***16*** *18:14:13.9±0.7, 13°N±3°×8°8W±°, h41^{km}±7^{km}, M4.8, mB5.6, mb4.6, ML4.1, Mw(mB)5.1*

UCR ***16*** *18:14:14.6±1.4, 12°.40N×87°.37W, h30^{km}±13^{km}, MW4.1, Presumed earthquake*

ISC 16 18:14:09.6±0.6**, 12°.47N**±0°.04×**87°.78W**±0°.03**, h60**^{km}±5^{km}**, n367, σ1**^{s}**.13**/297**, mb4.7**/117**, MS3.7**/42**, 1D, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CRIN	San Cristobal	0.75	72		Pn	18 14 24.5	+0.1
CRIN	San Cristobal	0.75	72	P	Pn	18 14 24.6	+0.1
CRIN				S	Sn	18 14 36.6	+1.2
CRIN	San Cristobal	0.75	72	P	Pn	18 14 25.1	+0.6
CRIN				S	Sn	18 14 36.2	+0.8
CRIN	San Cristobal	0.75	72	P	Pn	18 14 24.8	+0.4
INTP	Intipuca	0.77	340	*e*P	Pn	18 14 24.1	-0.6
INTP				*e*S	Sn	18 14 34.2	-1.6
CNCH	Conchagua	0.80	356	*i* P	Pn	18 14 25.0	-0.3
CNCH	Conchagua	0.80	356	P	Pn	18 14 25.2	-0.1
CNCH				S	Sn	18 14 37.3	+0.6
JUCU	Jucuar¡n	0.90	330	*e*P	Pn	18 14 25.4	-1.1
JUCU				*e*S	Sn	18 14 36.8	-2.1
HERN	Volcan Telica	0.94	82		Pn	18 14 26.0	-0.9
HERN	Volcan Telica	0.94	82	P	Pn	18 14 26.3	-0.6
HERN				S	Sn	18 14 39.9	+0.3
HERN	Volcan Telica	0.94	82	*e*P	Pn	18 14 26.3	-0.6
PLRN	Geotermica Pol	0.99	83	P	Pn	18 14 27.0	-0.5
PLRN				S	Sn	18 14 40.2	-0.7
CNGN	Cerro Negro	1.06	88	P	Pn	18 14 27.8	-0.6
CNGN				S	Sn	18 14 40.5	-1.9
CNGN	Cerro Negro	1.06	88	P	Pn	18 14 27.8	-0.6
CNGN				S	Sn	18 14 41.8	-0.6
CNGN	Cerro Negro	1.06	88	P	Pn	18 14 27.7	-0.6
ILCN	San Idelfonso	1.06	84	P	Pn	18 14 27.4	-1.0
ILCN				S	Sn	18 14 41.4	-1.0
VSM	San Miguel	1.06	333	*e*P	Pn	18 14 28.2	-0.5
LCY	Lacayo	1.07	332	*e*P	Pn	18 14 28.3	-0.4
PACA	Pacayal	1.12	332	*e*P	Pn	18 14 29.2	-0.2
PACA	Pacayal	1.12	332	P	Pn	18 14 29.1	-0.3
PACA				S	Sn	18 14 44.0	-0.1
LEVN	Ruinas Leon Vi	1.14	93	P	Pn	18 14 30.3	+0.9
LEVN				S	Sn	18 14 44.2	0.0
ALJI	Alcalda de J	1.15	318	P	Pn	18 14 29.1	-0.4
COPN	Copaltepe	1.20	104	P	Pn	18 14 29.2	-1.0
COPN	Copaltepe	1.20	104	*e*P	Pn	18 14 29.0	-1.2
MOMN	Momotombo	1.21	93	P	Pn	18 14 30.2	-0.3
TECA	Tecapa	1.24	325	⇓*i*P	Pn	18 14 30.4	-0.5
TECA				*e*P		18 14 30.5	
TECA				*e*S	Sn	18 14 45.7	-1.2
MOM2	El Cardon	1.27	91	P	Pn	18 14 30.6	-0.5
MOM2				S	Sn	18 14 47.4	+0.1
AESN	El Sauce Leon	1.28	71	P	Pn	18 14 31.1	-0.2
AESN				S	Sn	18 14 48.0	+0.4
AMTN	Mateare	1.34	100	P	Pn	18 14 32.3	+0.2
AMTN				S	Sn	18 14 48.9	-0.1
PQSS	Presa 15 de Se	1.37	327	P	Pn	18 14 32.8	+0.2
PQSS				S	Sn	18 14 50.4	+0.6
TECO	Alcaldia de Te	1.44	317	P	Pn	18 14 33.0	-0.5
APQ2	Apoyeque	1.45	101	P	Pn	18 14 33.3	-0.3
APQ2				S	Sn	18 14 51.5	-0.1
ABCN	Banco Central	1.48	103	P	Pn	18 14 33.7	-0.3
ABCN				S	Sn	18 14 51.7	-0.7
LIMN	Finca el Limon	1.50	67	P	Pn	18 14 34.5	+0.1
LIMN				S	Sn	18 14 53.8	+0.8
ALLN	Telcor Managua	1.51	102	P	Pn	18 14 34.0	-0.3
ALLN				S	Sn	18 14 52.5	-0.5
TISN	Laguna Tiscapa	1.51	102	P	Pn	18 14 32.6	-1.8
USIM	UNAN	1.51	103	Pn	Pn	18 14 29.1	-5.3
UNAN	Cigeo UNAN	1.52	104	P	Pn	18 14 34.2	-0.3
UNAN				S	Sn	18 14 52.6	-0.7
MGAN	Managua	1.53	102		Pn	18 14 34.0	-0.7
MGAN	Managua	1.53	102	P	Pn	18 14 34.0	-0.7
MGAN				S	Sn	18 14 52.0	-1.7
MGAN	Managua	1.53	102	P	Pn	18 14 34.2	-0.4
MGAN				S	Sn	18 14 53.3	-0.3
MGAN	Managua	1.53	102	P	Pn	18 14 34.3	-0.4
WILN	Americas 2	1.59	101	P	Pn	18 14 35.2	-0.3
WILN				S	Sn	18 14 54.6	-0.4
AERN	Aeropuerto Man	1.61	102	P	Pn	18 14 35.3	-0.5
AERN				S	Sn	18 14 54.8	-0.7
MAS3	Al N del Volca	1.63	106	P	Pn	18 14 35.6	-0.4
TGUH	Tegucigalpa,Un	1.65	17		Pn	18 14 37.4	+0.9
TGUH	Tegucigalpa,Un	1.65	17	P	Pn	18 14 37.3	+0.9
TGUH				S	Sn	18 14 55.4	-1.3
TGUH	Tegucigalpa,Un	1.65	17	P	Pn	18 14 37.5	+1.0
SABN	Sabanita	1.66	108	P	Pn	18 14 36.2	-0.3
MASN	Masaya	1.66	107	P	Pn	18 14 36.2	-0.3
MASN				S	Sn	18 14 55.6	-1.3
PAVA	Las Pavas	1.67	318	P	Pn	18 14 36.7	0.0
PAVA				S	Sn	18 14 57.4	+0.2
NANN	Nandasmo	1.71	108	S	Sn	18 14 57.8	-0.1
OCON	Estacion meteo	1.71	48	P	Pn	18 14 37.7	+0.5
PANCS	Alcalda de	1.77	310	S	Sn	18 14 59.6	0.0
P5NO	Presa 5 de nov	1.78	328	P	Pn	18 14 38.5	+0.4
LOMA	Loma Larga	1.79	311	*e*P	Pn	18 14 37.8	-0.5
LOMA	Loma Larga	1.79	311	P	Pn	18 14 37.8	-0.5
LOMA				S	Sn	18 15 00.1	0.0
LALI	Alcalda de L	1.81	304	P	Pn	18 14 37.8	-0.6
NADN	Granada	1.85	113	P	Pn	18 14 38.0	-1.2
NADN				S	Sn	18 15 00.4	-1.1
NADN	Granada	1.85	113	*e*P	Pn	18 14 37.9	-1.2
RCFN	Al S de San Ju	1.86	55	P	Pn	18 14 40.1	+0.8
RCFN				S	Sn	18 15 03.1	+1.3
UESS	Universidad de	1.86	312	*e*P	Pn	18 14 40.1	+0.9
SEMO	Seminario San	1.86	311	P	Pn	18 14 39.5	+0.2
SEMO				S	Sn	18 15 01.5	-0.4
MATN	Matagalpa	1.87	76	P	Pn	18 14 39.1	-0.2
MATN				S	Sn	18 15 02.0	+0.1
RCVN	Varillal2	1.90	54	P	Pn	18 14 40.5	+0.7
RCVN				S	Sn	18 15 03.8	+1.0
PMON	Piamonte	1.94	310	*e*P	Pn	18 14 40.5	+0.2
PMON	Piamonte	1.94	310	P	Pn	18 14 40.2	-0.1
JAYA	Jayaque - finc	2.01	306	*e*P	Pn	18 14 40.8	-0.5
JAYA	Jayaque - finc	2.01	306	P	Pn	18 14 40.8	-0.5
LLGN	La Laguna	2.03	326	P	Pn	18 14 41.5	-0.1
BOAB	BOACO BROADBAN	2.06	90		Pn	18 14 41.3	-0.6
BOAB	BOACO BROADBAN	2.06	90	P	Pn	18 14 41.5	-0.5
BOAB	BOACO BROADBAN	2.06	90	P	Pn	18 14 41.6	-0.3
CEVE	Cerro Verde	2.25	307	P	Pn	18 14 44.8	+0.2
SBLS	San Blas	2.25	307	*e*P	Pn	18 14 45.2	+0.5
JAPN	Al SSO del Vol	2.26	114	*e*P	Pn	18 14 44.6	-0.1
MORN	Al O del Volca	2.28	114	P	Pn	18 14 44.9	0.0
UNIC	Universidad Ca	2.28	311	P	Pn	18 14 45.8	+0.8
MTO3	Montecristo	2.46	321		Pn	18 14 47.6	+0.1
RBDL	Robledal	2.47	312	*e*P	Pn	18 14 48.3	+0.6
LCRUZ	La Cruz	2.52	123	*e*P	Pn	18 14 48.1	0.0
CARN	Rivas	2.55	120		Pn	18 14 48.0	-0.6
CARN	Rivas	2.55	120	*e*P	Pn	18 14 48.0	-0.6
ESQI	Esquipulas	2.57	324		Pn	18 14 49.5	+0.5
ACON	Acoyapa	2.60	101	P	Pn	18 14 48.5	-0.7
ACON	Acoyapa	2.60	101	*e*P	Pn	18 14 48.3	-0.9
LAPC	Finca la Perla	2.86	126	*e*P	Pn	18 14 52.7	-0.1
BUAI	Buenos Aires	2.88	123	*e*P	Pn	18 14 54.0	+0.9
ALIBA	Liberia Airpor	2.88	130	*e*P	Pn	18 14 53.4	+0.4
PEJA	Penjamo Buenos	2.88	123	*e*P	Pn	18 14 54.0	+0.9
VORI	VORI	2.90	124	*e*P	Pn	18 14 54.8	+1.3
VRLE	La Escondida,	2.90	125	*e*P	Pn	18 14 53.5	+0.1
GPS2	Hotel Rincn d	2.93	125	*e*P	Pn	18 14 55.1	+1.2
CLARA	Aguas Claras	3.05	123	*e*P	Pn	18 14 55.4	-0.1
MESS	Mesas	3.06	124	*e*P	Pn	18 14 56.1	+0.5
VMAR	Armenia, Volca	3.09	122	*e*P	Pn	18 14 56.2	+0.3
HORNC	Hornillas	3.09	124	*e*P	Pn	18 14 56.3	+0.2
COLC	Colonia	3.10	125	*e*P	Pn	18 14 57.9	+1.8
CANAL	Canalete	3.13	121	*e*P	Pn	18 14 56.5	0.0
BAGA	Bagaces	3.13	128	*e*P	Pn	18 14 58.9	+2.3
CUI	Cuipilapa	3.13	125	*e*P	Pn	18 14 57.2	+0.6
JUD3	Juan Diaz 3	3.18	136		Pn	18 14 57.3	+0.1
JUD3	Juan Diaz 3	3.18	136	*e*P	Pn	18 14 57.6	+0.4
SIUN	Universidad Ur	3.18	67		Pn	18 14 58.2	+1.0
NICO	Nicoya	3.26	135	*e*P	Pn	18 14 58.8	+0.5
TENO	El Achiote	3.26	122	*e*P	Pn	18 14 58.7	+0.3
TIMP	Tierras Morena	3.29	124	*e*P	Pn	18 14 59.5	+0.7
LCHIL	Los Chiles	3.32	115	*e*P	Pn	18 14 60.0	+0.8
CMARA	Lajas Hojancha	3.36	136	*e*P	Pn	18 15 00.4	+0.7
COTE	Lago Cote	3.38	124	*e*P	Pn	18 14 58.9	-1.2
NYURE	Nandayure	3.49	135	*e*P	Pn	18 15 02.4	+0.9
JTS	Las Juntas de	3.52	128	P	Pn	18 15 00.9	-1.0
	29nm,0.3s,baz=307,slow=18,SNR=12						
JTS				S	Sn	18 15 42.0	-0.3
	174nm,0.5s,baz=353,slow=13,SNR=6.3						
JTS	Las Juntas de	3.52	128		Pn	18 15 02.3	+0.4
JTS	Las Juntas de	3.52	128	P	Pn	18 15 02.1	+0.2
JTS	Las Juntas de	3.52	128	*e*P	Pn	18 15 03.0	+1.2
JTS	Las Juntas de	3.52	128	P	Pn	18 15 02.3	+0.4
TABAC	Tabacon	3.55	123	*e*P	Pn	18 15 04.4	+2.1
CEDE	Laguna Cedeo	3.60	123	*e*P	Pn	18 15 04.2	+1.1
ARE1	Arenal 1	3.61	123	*e*P	Pn	18 15 04.7	+1.7
VARE2	V. Arenal	3.61	123	*e*P	Pn	18 15 04.9	+1.8
APG	El Apazote	3.62	314	P	Pn	18 15 04.0	+0.6
	1.5nm,0.6s,baz=121,slow=12,SNR=8.9						
APG				LR	LR	18 16 15.8	
	comp=Z,23nm,18.1s,baz=60,slow=34						
LAFE	Finca La Fe, P	3.87	133	*e*P	Pn	18 15 06.6	0.0
BLUN	Bluefields	3.94	96	P	Pn	18 15 14.9	+7.3
VPL2	V. Platanar	3.97	123	*e*P	Pn	18 15 10.4	+2.2
TRB2	Turrubares	4.14	128	*e*P	Pn	18 15 11.3	+0.9
VBV1	V. Barva	4.30	123	*e*P	Pn	18 15 14.3	+1.5
ACOS	Acosta	4.43	126	*e*P	Pn	18 15 17.6	+3.0
PICV	PH. Pirrs	4.51	128	*e*P	Pn	18 15 18.3	+2.8
BILN	Bilwi Airport	4.57	69		Pn	18 15 17.0	+0.8
BILN	Bilwi Airport	4.57	69	*e*P	Pn	18 15 15.2	-0.9
ABE2	San Pablo	4.58	127	*e*P	Pn	18 15 18.5	+2.0
VICA	Volcano Irazu	4.58	122	*e*P	Pn	18 15 19.1	+2.3
RAFA	San Farael, Vo	4.63	122		Pn	18 15 18.2	+0.9
CVTR	Volcan Turrial	4.64	121	*e*P	Pn	18 15 21.0	+3.5
CVTQ	Turrialba Volc	4.64	122	*e*P	Pn	18 15 21.1	+3.6
PIEC	Cerro El Cedra	4.70	127	*e*P	Pn	18 15 20.2	+1.9
LCOCO	El Coco	4.77	119	*e*P	Pn	18 15 18.7	-0.3
BUS1	Rivas	4.91	126	*e*P	Pn	18 15 23.4	+2.1
PIRO	Carate, Puerto	5.95	132		Pn	18 15 37.2	+2.0
PIRO	Carate, Puerto	5.95	132	*e*P	Pn	18 15 37.3	+2.1
BRU2	Volcan	6.20	126	*e*P	Pn	18 15 40.6	+1.9
PRVC	Isla de Provid	6.32	81	P	Pn	18 15 40.9	+0.7
	1µm65nm,0.7s						
PRVC				AML	AML		
TEIG	Tepich	7.72	357		Pn	18 16 00.5	+1.1
TEIG	Tepich	7.72	357	P	Pn	18 16 00.7	+1.3
	59nm,1.4s						
TEIG	Tepich	7.72	357	P	Pn	18 16 01.8	+2.3
	comp=Z,60nm,1.4s						

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CMIG   Matias Romero     8.26 305  P      Pn       18 16 07.2 +0.4
       comp=Z,1.8nm,0.3s,baz=172,slow=12,SNR=9.6
CMIG                               S      Sn       18 17 40.6 +1.9
       comp=Z,12nm,0.6s,baz=98,slow=20,SNR=3.6
BCIP   Isla Barro Col    8.47 112  P      Pn       18 16 08.2 -1.4
       comp=Z,30nm,1.4s
BCIP   Isla Barro Col    8.47 112  P      Pn       18 16 11.1 +1.5
       comp=Z,35nm,0.9s
CACAO  El Cacao, Vera    8.51 126  P      Pn       18 16 14.5 +4.3
       comp=Z,44nm,0.8s
AZU    Azuero            8.73 121  P      Pn       18 16 15.9 +2.7
       comp=Z,16nm,1.1s
SOR    Soroa            11.22  23         Pn       18 16 51.1 +3.8
MTDJ   Mount Denham     11.42  59         Pn       18 16 51.3 +1.3
MTDJ   Mount Denham     11.42  59  P      Pn       18 16 52.6 +2.6
       comp=Z,1µmcomp=Z,66nm,1.4s
TLIG   Tlapa            11.58 297         Pn       18 16 52.6 +0.3
SJCC   San Jacinto, C   12.62 100  P      Pn       18 17 07.0 +0.5
       comp=Z,3µmcomp=Z,28nm,0.8s
CAIB   Caibarien        12.73  37         Pn       18 17 09.0 +1.2
GUY2C  Guyana, Caldas   14.22 119  P      Pn       18 17 30.3 +1.9
       comp=Z,15nm,0.7s
GTBY   Guantanamo Bay   14.24  57  P      P        18 17 33.5 -0.4
GTBY   Guantanamo Bay   14.24  57  P      P        18 17 31.2 -2.7
       comp=Z,40nm,0.8s
NORC   Norcasia         14.48 117  P      P        18 17 38.3 +1.7
       comp=Z,7.2nm,1.5s
NMDO   Nuevo Mundo      14.66  55         Pn       18 17 35.6 +1.8
BBAC   Balboa, Cauca    14.72 134  P      P        18 17 38.8 -0.7
       comp=Z,29nm,0.8s
POPC   Popayan, Colom   14.78 131  P      Pn       18 17 37.4 +1.9
       comp=Z,23nm,0.7s
ORTC   Ortega, Tolima   15.04 123  P      P        18 17 43.4 +0.6
       comp=Z,20nm,0.7s
OTAV   Otavalo          15.28 142  Pn     Pn       18 17 43.1 +0.9
ROSC   El Rosal         15.31 119  P      Pn       18 17 42.3 -0.2
       comp=Z,4.2nm,0.4s,baz=59,slow=23,SNR=1.4
ROSC                               LR     LR       18 24 23.2
       comp=Z,161nm,18.1s,baz=271,slow=40
ROSC   El Rosal         15.31 119  Pn     Pn       18 17 43.5 +1.0
PRAC   Prado            15.44 123  P      Pn       18 17 44.9 +1.0
       comp=Z,7.9nm,0.6s
URIC   Uribia, Colomb   15.46  91  P      P        18 17 46.0 -1.4
       comp=Z,39nm,1.1s
PAMC   Pamplona, Colo   15.70 108  P      Pn       18 17 47.8 +0.1
SDV    Santo Domingo    17.22 100  P      Pn       18 18 05.9 -0.5
       comp=Z,5.4nm,0.4s,baz=290,slow=6.2,SNR=3.7
SDV                                LR     LR       18 25 24.3
       comp=Z,170nm,21.5s,baz=259,slow=40
SDV    Santo Domingo    17.22 100         Pn       18 18 06.5 +0.1
SDV                                IAmb   IAmb     18 18 28.6
       comp=Z,20nm,1.1s
SDV    Santo Domingo    17.22 100  P      P        18 18 07.1 -0.1
       comp=Z,111nm,1.4s
HBVL   Hebbronville     17.75 326         P        18 18 14.6 +1.9
833A   Chaparral WMA,   19.14 327  P      Pn       18 18 29.7 +0.3
HNVL   Huntsville, TX   19.54 340  P      Pn       18 18 34.1  0.0
HNVL                               IAmb   IAmb     18 19 12.7
       comp=Z,52nm,1.0s
HNDO   Hondo            20.06 330         P        18 18 39.0 +1.0
152A   Waverly Hall     20.30   7  IAmb   IAmb     18 19 01.8
       comp=Z,42nm,1.1s
LRAL   Lakeview Retre   20.48   2         Pn       18 18 45.9 +0.7
154A   Montrose         20.50  11  P      P        18 18 43.7 +1.0
CELP   Cerrillos        21.19  72  P      P        18 18 51.4 +1.1
GOGA   Godfrey          21.21  10  P      P        18 18 52.2 +1.8
GOGA                               IAmb   IAmb     18 18 53.6
       comp=Z,18nm,0.7s
GOGA   Godfrey          21.21  10  P      P        18 18 51.4 +1.0
       comp=Z,28nm,0.6s
Y49A   Blount Mountai   21.32   3         P        18 18 52.7 +1.0
Y49A                               IAmb   IAmb     18 19 14.3
       comp=Z,42nm,1.1s
BRDY   Brady            21.39 333         P        18 18 52.3 -0.1
TREL   Terrell          21.55 341  P      P        18 18 54.2 +0.2
TREL                               IAmb   IAmb     18 19 37.4
       comp=Z,38nm,0.9s
Y52A   Lilburn          21.56   8         P        18 18 56.6 +2.5
Y52A                               IAmb   IAmb     18 18 57.8
       comp=Z,31nm,0.7s
SJG    San Juan         21.60  72  P      P        18 18 55.4 +0.7
       comp=Z,14nm,0.3s,baz=307,slow=8.3,SNR=3.7
SJG                                LR     LR       18 27 24.0
       comp=Z,221nm,21.0s,baz=262,slow=37
SJG    San Juan         21.60  72  P      P        18 18 54.4 -0.2
ATAH   Atahualpa        21.60 154  LR     LR       18 26 24.5
       comp=Z,179nm,20.4s,baz=342,slow=34
OZNA   Ozona            22.12 328         P        18 19 02.0 +1.8
OZNA                               IAmb   IAmb     18 19 04.3
       comp=Z,14nm,0.6s
TXAR   Lajitas Array    22.35 321  P      P        18 19 03.9 +1.1
       comp=Z,11nm,0.8s,baz=146,slow=9.0,SNR=66
TXAR                               LR     LR       18 29 22.3
       comp=Z,60nm,18.2s,baz=129,slow=41
       comp=Z,11nm,0.8s
TXAR   Lajitas Array    22.35 321         P        18 19 03.7 +0.8
PLPT   Palo Pinto       22.43 336  IAmb   IAmb     18 19 34.3
       comp=Z,28nm,1.1s
MIAR   Mount Ida        22.60 347  IAmb   IAmb     18 19 23.1
       comp=Z,43nm,0.9s
MIAR   Mount Ida        22.60 347  P      P        18 19 06.0 +0.7
       comp=Z,52nm,0.9s
SGCY   Sterling City    22.92 330  IAmb   IAmb     18 19 11.0
       comp=Z,22nm,0.7s
CPCT   Cooper Cave      23.07   7  IAmb   IAmb     18 19 27.5
       comp=Z,46nm,1.4s
TMB01  Midkiff          23.20 328  IAmb   IAmb     18 19 13.4
       comp=Z,29nm,0.7s
KMSC   Kings Mountain   23.31  13  IAmb   IAmb     18 19 14.5
       comp=Z,19nm,0.6s
WTFS   Witchita Falls   23.33 337  IAmb   IAmb     18 19 15.0
       comp=Z,15nm,0.6s
TKL    Tuckaleechee C   23.37   8  P      P        18 19 13.7 +0.8
       comp=Z,17nm,0.7s,baz=175,slow=11,SNR=17
TKL                                LR     LR       18 28 50.1
       comp=Z,85nm,18.9s,baz=204,slow=38
       comp=Z,17nm,0.7s
TKL    Tuckaleechee C   23.37   8  IAmb   IAmb     18 19 15.8
       comp=Z,21nm,0.8s
V53A   Saluda           23.53  10  IAmb   IAmb     18 19 31.4
       comp=Z,24nm,1.0s
TPB01  Permian Basin    23.59 324  IAmb   IAmb     18 19 18.2
       comp=Z,36nm,1.5s
LCAR   Lake Charles     23.69 353  IAmb   IAmb     18 19 16.5
       comp=Z,10nm,0.5s
SN07   Snyder 07        23.77 332  IAmb   IAmb     18 19 19.8
       comp=Z,12nm,0.6s
TPB06  Permian Basin    23.80 326  IAmb   IAmb     18 19 18.8
       comp=Z,25nm,0.7s
129A   Stewart Farms,   23.86 329  IAmb   IAmb     18 19 19.5
       comp=Z,18nm,0.7s
W35A   Tecumseh         24.04 341  IAmb   IAmb     18 19 47.6
       comp=Z,21nm,1.2s
POST   Post             24.04 331  IAmb   IAmb     18 19 21.7
       comp=Z,22nm,0.8s
128A   Castleberry Fa   24.17 328  IAmb   IAmb     18 19 21.8
       comp=Z,16nm,0.6s
DKNS   Dickens          24.27 333  IAmb   IAmb     18 19 24.6
       comp=Z,25nm,0.7s
LPIG   La Paz           24.27 302  LR     LR       18 29 43.0
       comp=Z,103nm,20.8s,baz=131,slow=38
WMOK   Wichita Mounta   24.31 338  P      P        18 19 21.9 +0.2
       comp=Z,17nm,0.6s
PBMO   Poplar Bluff     24.32 355  IAmb   IAmb     18 19 44.4
       comp=Z,13nm,0.8s
V58A   Windy Hill, Pi   24.50  17  IAmb   IAmb     18 19 25.1
       comp=Z,26nm,0.7s
TPB28                   24.54 324  IAmb   IAmb     18 19 27.4
       comp=Z,15nm,1.4s
DEOK   Depew            24.57 343  IAmb   IAmb     18 19 48.8
       comp=Z,20nm,1.1s
U38A   Gravette         24.59 347  IAmb   IAmb     18 19 41.2
       comp=Z,18nm,1.0s
T42A   Van Buren        24.63 354  IAmb   IAmb     18 19 24.7
       comp=Z,11nm,0.6s
CZSB   Cruzeiro do Su   25.05 142  P      P        18 19 28.7 +0.2
CZSB                               IAmb   IAmb     18 19 41.0
       comp=Z,23nm,0.9s
MNTX   Cornudas Mount   25.07 323  P      P        18 19 29.4 +0.8
       comp=Z,13nm,2.5s
OK048  Pawnee Station   25.23 342  IAmb   IAmb     18 19 33.7
       comp=Z,22nm,0.7s
MSTX   Muleshoe         25.39 330  IAmb   IAmb     18 19 32.8
       comp=Z,28nm,0.7s
S39A   Bolivar          25.60 350  IAmb   IAmb     18 19 35.2
       comp=Z,13nm,0.6s
AMTX   Amarillo         25.63 333  IAmb   IAmb     18 19 38.1
       comp=Z,14nm,0.7s
CCM    Cathedral Cave   25.66 354         P        18 19 33.1 -0.7
CCM                                IAmb   IAmb     18 19 49.1
       comp=Z,15nm,0.8s
CCM    Cathedral Cave   25.66 354  P      P        18 19 33.8  0.0
       comp=Z,20nm,0.8s
CCM                                pP     pP       18 19 48.2 -0.3
WCI    Wyandotte Cave   25.68   3  P      P        18 19 34.2 +0.2
       comp=Z,24nm,0.8s
ELIS   Ellis County     25.73 338  IAmb   IAmb     18 19 39.0
       comp=Z,21nm,1.0s
R40A   Maddies Statio   26.02 352  IAmb   IAmb     18 19 37.2
       comp=Z,12nm,0.6s
Q51A   Peebles          26.74   8  IAmb   IAmb     18 19 45.6
       comp=Z,16nm,0.6s
Q54A   Coxs Mills       27.11  12  IAmb   IAmb     18 20 03.4
       comp=Z,26nm,1.3s
SRIG   Santa Rosalia    27.26 306  P      P        18 19 50.0 +1.7
       comp=Z,22nm,0.8s
RTBA   Rita Blanca      27.40 333  IAmb   IAmb     18 20 28.0
       comp=Z,16nm,1.2s
P53A   Whipple          27.50  11  IAmb   IAmb     18 19 52.3
       comp=Z,20nm,0.8s
P38A   Dawn             27.52 350  IAmb   IAmb     18 20 05.8
       comp=Z,14nm,1.0s
ANMO   Albuquerque      28.06 326  P      P        18 19 56.6 +1.0
       comp=Z,1.5nm,0.5s,baz=130,slow=7.7,SNR=3.3
ANMO                               LR     LR       18 33 00.6
       comp=Z,88nm,20.4s,baz=124,slow=40
       comp=Z,1.5nm,0.5s
ANMO   Albuquerque      28.06 326  P      P        18 19 55.1 -0.6
O53A   New Philadelph   28.27  11  IAmb   IAmb     18 20 16.9
       comp=Z,23nm,1.2s
M57A   Sunshine Farm,   30.23  16  IAmb   IAmb     18 20 15.9
       comp=Z,8.2nm,0.7s
X16A   Lo Mia Camp, P   30.65 319         P        18 20 17.7 -0.9
MVCO   Mesa Verde       30.84 327  P      P        18 20 21.1 +0.7
       comp=Z,9.8nm,1.2s
WUAZ   Wupatki          31.32 321  IAmb   IAmb     18 20 24.0
       comp=Z,13nm,1.1s
BINY   Binghamton       31.35  17  P      P        18 20 25.1 +0.7
       comp=Z,19nm,1.2s
ISCO   Idaho Springs    31.45 333  P      P        18 20 27.5 +1.8
ISCO                               pP     pP       18 20 39.2 -1.4
PV02   Paradox Valley   31.71 328  IAmb   IAmb     18 20 44.5
       comp=Z,16nm,0.9s
PV13   Radium Mtn., P   31.72 327  IAmb   IAmb     18 20 30.9
       comp=Z,6.5nm,0.6s
PV07   Paradox Valley   31.84 328  IAmb   IAmb     18 20 33.8
       comp=Z,7.9nm,1.0s
PV22   Blue Mesa, Par   31.98 328  IAmb   IAmb     18 20 47.0
       comp=Z,17nm,1.2s
ECSD   EROS Data Cent   32.07 348  IAmb   IAmb     18 20 32.6
       comp=Z,8.0nm,0.7s
ECSD   EROS Data Cent   32.07 348  P      P        18 20 29.9 -0.8
       comp=Z,11nm,0.7s
ECSD                               pP     pP       18 20 43.8 -1.8
PV21   Cone Mtn., Par   32.10 328  IAmb   IAmb     18 20 38.8
       comp=Z,7.8nm,0.7s
HMU    Henry Mountain   32.60 325  IAmb   IAmb     18 20 38.6
       comp=Z,5.6nm,0.7s
SADO   Sadowa           33.02  11  LR     LR       18 34 18.4
       comp=Z,113nm,19.1s,baz=317,slow=37
Q16A   Castle Valley    33.53 326  IAmb   IAmb     18 20 46.7
       comp=Z,5.2nm,0.6s
P18A   Preston Nutter   33.55 328  IAmb   IAmb     18 20 53.3
       comp=Z,8.7nm,0.8s
PFO    Pinyon Flats O   33.56 314  LR     LR       18 36 16.0
       comp=Z,103nm,19.6s,baz=134,slow=40
TMUT   Trail Mountain   33.82 326  IAmb   IAmb     18 20 48.7
       comp=Z,5.0nm,0.7s
RSSD   Black Hills      34.49 339         P        18 20 52.3 +0.1
RSSD                               IAmb   IAmb     18 20 54.8
       comp=Z,6.5nm,0.6s
RSSD   Black Hills      34.49 339  P      P        18 20 52.6 +0.5
       comp=Z,11nm,0.6s
LPAZ   La Paz           34.56 145  P      P        18 20 54.9 +1.4
       comp=Z,0.5nm,0.4s,baz=47,slow=4.1,SNR=3.6
LPAZ                               LR     LR       18 35 56.7
       comp=Z,99nm,19.7s,baz=320,slow=38
       comp=Z,0.5nm,0.4s
MDP    Montagnes des    35.46  99  LR     LR       18 36 19.6
       comp=Z,69nm,18.5s,baz=306,slow=38
PB16   IPOC Station P   35.53 149  P      P        18 21 02.6 +1.0
PB16                               IAmb   IAmb     18 21 13.0
       comp=Z,9.4nm,1.0s
PDAR   Pinedale Array   35.60 332  P      P        18 21 02.4 +0.7
       comp=Z,3.9nm,0.5s,baz=129,slow=10,SNR=43
PDAR                               PcP    PcP      18 23 29.0 -0.5
       comp=Z,0.5nm,0.7s,baz=187,slow=2.0,SNR=3.3
PDAR                               LR     LR       18 38 04.5
       comp=Z,56nm,18.8s,baz=123,slow=40
       comp=Z,3.9nm,0.5s
HWUT   Hardware Ranch   35.69 329  P      P        18 21 03.6 +1.2
       comp=Z,29nm,0.8s
SPUT   South Promonto   35.93 328  IAmb   IAmb     18 21 06.6
       comp=Z,7.8nm,0.7s
BGU    Big Grassy Mou   35.96 327  IAmb   IAmb     18 21 07.2
       comp=Z,14nm,1.4s
AHID   Auburn Hatcher   36.33 331  P      P        18 21 09.1 +1.2
       comp=Z,30nm,0.7s
AGMN   Agassiz Nation   36.35 351  P      P        18 21 06.2 -1.5
       comp=Z,16nm,0.8s
AGMN                               pP     pP       18 21 21.0 -1.8
HVU    Hansel Valley    36.44 328  IAmb   IAmb     18 21 13.0
       comp=Z,7.4nm,0.7s
FXWY   Fox Creek        36.95 332  IAmb   IAmb     18 21 15.0
       comp=Z,4.4nm,0.7s
ELK    Elko             37.06 324  LR     LR       18 37 03.5
       comp=Z,78nm,21.7s,baz=150,slow=37
YPP    Pitchstone Pla   37.34 332  IAmb   IAmb     18 21 42.2
       comp=Z,12nm,1.3s
RLMT   Red Lodge        37.35 335  IAmb   IAmb     18 21 18.0
       comp=Z,6.4nm,0.7s
NVAR   Mina Array Bea   37.47 319  P      P        18 21 19.8 +2.0
       comp=Z,2.0nm,0.8s,baz=137,slow=7.1,SNR=9.7
NVAR                               PcP    PcP      18 23 36.8 +1.6
       comp=Z,1.7nm,0.6s,baz=92,slow=3.6,SNR=4.3
NVAR                               LR     LR       18 37 36.4
       comp=Z,119nm,20.8s,baz=120,slow=38
       comp=Z,2.0nm,0.8s
YNE    Yellowstone No   37.57 334  IAmb   IAmb     18 21 19.8
       comp=Z,6.8nm,0.7s
KVN    Kaiserville      37.71 320         P        18 21 21.1 +1.4
YHB    Horse Butte      37.89 333  IAmb   IAmb     18 21 24.7
       comp=Z,6.9nm,0.6s
ULM    Lac du Bonnet    38.25 352  P      P        18 21 22.3 -1.5
       comp=Z,9.5nm,0.6s,baz=159,slow=9.0,SNR=13
ULM                                LR     LR       18 39 13.0
       comp=Z,57nm,20.1s,baz=165,slow=39
       comp=Z,9.5nm,0.6s
ULM    Lac du Bonnet    38.25 352  IAmb   IAmb     18 21 38.2
       comp=Z,8.3nm,0.8s
HLID   Hailey           38.55 328  P      P        18 21 28.1 +1.4
       comp=Z,7.2nm,1.0s
BCYI   Bear Canyon      38.59 330  IAmb   IAmb     18 21 29.6
       comp=Z,8.5nm,0.9s
PB09   IPOC Station P   38.61 152  P      P        18 21 29.4 +2.1
       comp=Z,23nm,1.9s
BOZ    Bozeman (W)      38.74 333  IAmb   IAmb     18 21 30.2
       comp=Z,9.7nm,0.7s
DLMT   Dillon           39.00 332  IAmb   IAmb     18 21 32.6
       comp=Z,13nm,0.8s
BEKR   Beckworth        39.61 319         P        18 21 36.6 +1.1
WVOR   Wild Horse Val   40.09 324  P      P        18 21 39.9 +0.4
WVOR                               IAmb   IAmb     18 21 41.6
       comp=Z,5.4nm,0.7s
PLID   Pearl Lake       40.44 329  IAmb   IAmb     18 21 43.4
       comp=Z,6.5nm,0.7s
MSO    Missoula         40.72 332         P        18 21 44.8 +0.3
MSO                                IAmb   IAmb     18 22 01.2
       comp=Z,14nm,1.1s
F10A   Beach Ranch, E   41.67 329  IAmb   IAmb     18 21 55.2
       comp=Z,11nm,0.8s
YBH    Yreka Blue Hor   42.13 320  P      P        18 21 55.6 -0.6
       comp=Z,1.0nm,0.5s,baz=124,slow=11,SNR=1.6
YBH                                LR     LR       18 40 56.6
       comp=Z,118nm,21.9s,baz=150,slow=38
       comp=Z,1.0nm,0.5s
HAWA   Hanford          43.14 328         P        18 22 04.1 -0.1
HAWA                               IAmb   IAmb     18 22 05.2
       comp=Z,7.7nm,0.8s
NEW    Newport          43.23 331  P      P        18 22 05.1 +0.1
       comp=Z,2.7nm,0.6s,baz=131,slow=12,SNR=3.8
NEW                                LR     LR       18 42 44.4
       comp=Z,50nm,20.9s,baz=121,slow=40
       comp=Z,2.7nm,0.6s
NEW    Newport          43.23 331  IAmb   IAmb     18 22 08.7
       comp=Z,7.3nm,1.2s
NEW    Newport          43.23 331  P      P        18 22 04.4 -0.6
       comp=Z,6.5nm,0.9s
D08A   Wollman Farm,    43.27 329  IAmb   IAmb     18 22 06.3
       comp=Z,14nm,0.7s
C09A   Chrisman Ranch   43.46 330  IAmb   IAmb     18 22 08.5
       comp=Z,11nm,0.6s
FFC    Flin Flon        43.61 348  P      P        18 22 07.6 -0.2
       comp=Z,12nm,2.7s
MXC    Moxie City       43.66 328  IAmb   IAmb     18 22 10.2
       comp=Z,14nm,0.8s
STD    Studebaker Rid   44.48 326  IAmb   IAmb     18 22 16.7
       comp=Z,6.2nm,0.7s
SCHQ   Schefferville    45.35  17  P      P        18 22 20.5 -1.3
       comp=Z,19nm,0.6s,baz=211,slow=7.0,SNR=29
SCHQ                               LR     LR       18 41 54.9
       comp=Z,188nm,20.1s,baz=190,slow=37
       comp=Z,19nm,0.6s
SCHQ   Schefferville    45.35  17  IAmb   IAmb     18 22 21.3
       comp=Z,17nm,0.6s
AQDB   Aquidauana       45.47 136  P      P        18 22 22.4 -0.7
       comp=Z,16nm,1.4s
GNW    Green Mountain   45.62 327  IAmb   IAmb     18 22 24.2
       comp=Z,8.2nm,0.7s
H03N2  Juan Fernandez   46.43 170  T      T        19 12 00.7
       baz=345,slow=74,SNR=4.7
H03N1  Juan Fernandez   46.43 170  T      T        19 12 02.4
       baz=277,slow=74,SNR=4.6
LLLB   Lillooet         47.10 331  IAmb   IAmb     18 22 36.9
       comp=Z,10nm,0.7s
BDFB   Brasilia         48.26 124  P      P        18 22 44.3 -0.8
       comp=Z,2.1nm,0.5s,baz=124,slow=12,SNR=1.5
BDFB                               LR     LR       18 43 54.6
       comp=Z,128nm,19.2s,baz=327,slow=37
       comp=Z,2.1nm,0.5s
BDFB   Brasilia         48.26 124  IAmb   IAmb     18 23 09.2
       comp=Z,8.7nm,1.1s
CPUP   Villa Florida    48.63 143  P      P        18 22 46.9 -0.8
       comp=Z,3.4nm,1.0s,baz=350,slow=12,SNR=5.5
       comp=Z,3.4nm,1.0s
CPUP   Villa Florida    48.63 143         P        18 22 47.5 -0.2
CPUP                               IAmb   IAmb     18 22 47.5
       comp=Z,9.1nm,1.3s
CPUP   Villa Florida    48.63 143  P      P        18 22 47.0 -0.6
       comp=Z,3.7nm,1.0s
MT08   Bocatoma Ro      48.70 160  P      P        18 22 50.1 +1.7
BBB    Bella Bella      51.13 329  LR     LR       18 47 18.4
       comp=Z,78nm,20.4s,baz=213,slow=39
FRB    Frobisher Bay    52.96  11  LR     LR       18 46 39.6
       comp=Z,185nm,20.1s,baz=177,slow=37
YKA    Yellowknife Ar   53.51 345  P      P        18 23 22.9 -0.8
       comp=Z,1.9nm,0.6s,baz=143,slow=7.4,SNR=9.5
YKA                                LR     LR       18 47 26.5
       comp=Z,62nm,21.9s,baz=118,slow=37
       comp=Z,1.9nm,0.6s
PLCA   Paso Flores      55.29 164  P      P        18 23 37.6 +0.6
       comp=Z,2.5nm,0.9s,baz=330,slow=9.6,SNR=3.5
       comp=Z,2.5nm,0.9s
DLBC   Dease Lake       55.75 335  LR     LR       18 51 12.7
       comp=Z,94nm,18.2s,baz=70,slow=40
TAOE   Nuku Hiva Isla   56.18 250  eLR    LR       18 39 53.0
       comp=Z,292nm,24.1s
Q32M   Nakina River     57.00 334  IAmb   IAmb     18 24 07.0
       comp=Z,4.7nm,0.9s
N32M   Quiet Lake       58.61 336  IAmb   IAmb     18 24 15.9
       comp=Z,5.2nm,0.8s
MMPY   Sheldon Lake,    58.81 338  IAmb   IAmb     18 24 02.9
       comp=Z,3.5nm,0.9s
SFJD   Kangerlussuaq    59.78  16  LR     LR       18 49 28.3
       comp=Z,58nm,20.8s,baz=202,slow=36
M29M   Somme Creek      61.46 336         P        18 24 19.7 -0.2
M29M                               IAmb   IAmb     18 24 35.7
       comp=Z,6.0nm,1.0s
GRNC   Granite Creek    62.02 333  IAmb   IAmb     18 24 34.7
       comp=Z,4.3nm,0.5s
RES    Resolute Bay     62.33 358  LR     LR       18 51 42.4
       comp=Z,71nm,20.2s,baz=200,slow=36
BCAR   Beaver Creek A   63.10 336  P      P        18 24 30.3 -0.4
L27K   Beaver Creek,    63.11 336  IAmb   IAmb     18 24 46.6
       comp=Z,4.4nm,1.0s
H27K   Steamboat Moun   64.51 339  IAmb   IAmb     18 24 55.8
       comp=Z,5.7nm,0.9s
J25K   Salcha River,    65.21 336  P      P        18 24 44.7 +0.2
ILAR   Eielson Array    65.87 336  P      P        18 24 47.6 -1.1
       comp=Z,1.4nm,0.8s,baz=106,slow=5.2,SNR=11
       comp=Z,1.4nm,0.8s
ILAR   Eielson Array    65.87 336  P      P        18 24 47.3 -1.5
RND    Reindeer         66.16 334  IAmb   IAmb     18 24 51.1
       comp=Z,7.4nm,0.8s
KDAK   Kodiak Island    66.17 328  LR     LR       18 55 31.1
       comp=Z,79nm,18.3s,baz=130,slow=38
PPT2   Papeete2         67.92 245  eLR    LR       18 45 24.4
       comp=Z,166nm,33.5s
PPT2                               eLR    LR       18 45 35.5
       comp=Z,228nm,24.0s
JMIC   Jan Mayen        74.79  19  LR     LR       18 57 38.9
       comp=Z,37nm,20.7s,baz=221,slow=35
EKA    Eskdalemuir Ar   76.80  36  LR     LR       18 55 20.2
       comp=Z,27nm,20.7s,baz=310,slow=32
ESDC   Sonseca Array    77.43  52  P      P        18 25 57.5 -1.3
       comp=Z,1.4nm,1.2s,baz=280,slow=6.3,SNR=2.4
ESDC                               LR     LR       18 55 50.4
       comp=Z,64nm,19.6s,baz=258,slow=32
       comp=Z,1.4nm,1.2s
ESDC   Sonseca Array    77.43  52  P      P        18 25 57.1 -1.7
ESDC                               IAmb   IAmb     18 26 42.0
       comp=Z,7.7nm,1.4s
MDT    Midelt           77.67  59  LR     LR       18 55 02.8
       comp=Z,61nm,20.3s,baz=254,slow=32
RAR    Rarotonga        78.20 245  LR     LR       18 52 18.0
       comp=Z,94nm,21.8s,baz=104,slow=29
SPITS  Spitsbergen Ar   80.75  12  LR     LR       19 03 04.7
       comp=Z,76nm,21.1s,baz=278,slow=36
DBIC   Dimbokro         81.70  85  LR     LR       18 59 22.9
       comp=Z,88nm,19.8s,baz=243,slow=33
NOA    NORSAR Array B   83.50  29  P      P        18 26 29.5 -1.4
       comp=Z,0.5nm,0.6s,baz=285,slow=5.1,SNR=1.6
NOA                                LR     LR       19 01 55.0
       comp=Z,29nm,20.5s,baz=285,slow=34
       comp=Z,0.5nm,0.6s
HFS    Hagfors          84.92  30  LR     LR       19 04 48.2
       comp=Z,30nm,18.6s,baz=18,slow=36
DAVOX  Davos/Dischmat   86.19  43  LR     LR       18 59 39.5
       comp=Z,58nm,20.6s,baz=258,slow=32
ARCES  ARCESS Array B   86.27  19  P      P        18 26 42.6 -1.9
       comp=Z,0.8nm,0.6s,baz=297,slow=4.0,SNR=4.4
ARCES                              LR     LR       19 05 10.9
       comp=Z,28nm,19.1s,baz=302,slow=36
       comp=Z,0.8nm,0.6s
ARCES  ARCESS Array B   86.27  19  P      P        18 26 42.4 -2.1
TORD   Torodi Ar. Bea   86.72  77  P      P        18 26 46.8 -1.0
       comp=Z,0.5nm,0.7s,baz=290,slow=6.5,SNR=2.3
       comp=Z,0.5nm,0.7s
CLL    Collm            87.00  38  LV              18 56 00.0
VRAC   Vranov           89.80  39  LR     LR       19 01 11.5
       comp=Z,65nm,20.8s,baz=290,slow=32
FINES  FINESS Array B   90.09  26  LR     LR       19 05 09.2
       comp=Z,33nm,21.2s,baz=12,slow=34
VAE    Valguarnera      91.95  51  LR     LR       19 05 10.6
       comp=Z,86nm,18.6s,baz=322,slow=33
MA2    Magadan          94.28 334  LR     LR       19 13 22.8
       comp=Z,22nm,21.8s,baz=178,slow=38
AKASG  Malin Array Be   96.69  35  LR     LR       19 10 48.9
       comp=Z,40nm,18.2s,baz=324,slow=35
MLR    Muntele Rosu     97.12  40  LR     LR       19 07 58.2
       comp=Z,36nm,19.2s,baz=358,slow=33
BOSA   Boshof          115.99 116  PKP    PKPdf    18 32 45.6 -0.9
       comp=Z,1.8nm,0.8s,baz=152,slow=13,SNR=1.6
BOSA   Boshof          115.99 116         PKPdf    18 32 45.2 -1.4
KSRS   Korea Array     120.08 328  PKP    PKPdf    18 32 53.4 -0.6
       comp=Z,1.3nm,0.7s,baz=18,slow=1.9,SNR=5.9
WRA    Warramunga Arr  138.97 254  PKhKP  PKPpre   18 33 21.8
       comp=Z,0.4nm,0.6s,baz=92,slow=3.1,SNR=4.9
WRA                                PKP    PKPdf    18 33 30.7 +0.5
       comp=Z,1.3nm,0.6s,baz=90,slow=2.7,SNR=19
ASAR   Alice Springs   138.98 248  PKhKP  PKPpre   18 33 21.9
       comp=Z,0.5nm,0.7s,baz=104,slow=3.5,SNR=5.7
ASAR                               PKP    PKPdf    18 33 30.3 +0.1
       comp=Z,1.3nm,0.8s,baz=100,slow=2.3,SNR=8.5
FITZ   Fitzroy Crossi  147.31 256  PKPbc  PKPbc    18 33 48.1 +0.7
       comp=Z,2.3nm,0.7s,baz=204,slow=2.0,SNR=7.4
FITZ   Fitzroy Crossi  147.31 256         PKPdf    18 33 44.1 -0.8
CMAR   Chiang Mai Arr  148.56 348  PKPbc  PKPbc    18 33 49.6 -1.1
       comp=Z,2.1nm,0.7s,baz=335,slow=3.0,SNR=16
CMAR   Chiang Mai Arr  148.56 348         PKPdf    18 33 46.3 -0.7
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JSN ***16*** *18:21:55.3±1.0, 18°.82N×77°.01W,* $h17^{km}\pm7^{km}$*, MD3.2,*

Presumed earthquake
SSNC ***16*** *18:21:55.3±1.1, 18°.91N×77°.07W, h25^{km}±10^{km}, MD2.7, ML2.1, Presumed earthquake*
ISC 16 18:21:51.3±1.3**, 18°.92N**±0°.03×**76°.96W**±0°.06**, h20**^{km}±6^{km}**, n10,** σ**0^{s}.54**/20**, 1C-5D, Jamaica region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STH	**Stony Hill**	**0.85**	**171**	⇓*i*P	**Pn**	**18 22 09.0**	**+0.7**
STH				⇓*i*P	**Pn**	**18 22 09.0**	**+0.7**
STH				*i* S	**Sn**	**18 22 19.7**	**-0.5**
GWJ	**Greenwich**	**0.87**	**166**	⇓*i*P	**Pn**	**18 22 09.5**	**+0.9**
MTDJ	**Mount Denham**	**0.88**	**219**	⇓*i*P	**Pn**	**18 22 08.9**	**+0.1**
MTDJ				⇓*i*S	**Sb**	**18 22 19.4**	**-0.1**
MTDJ	**Mount Denham**	**0.88**	**219**	*e*P	**Pn**	**18 22 08.9**	**+0.1**
MTDJ				*e*S	**Sb**	**18 22 19.1**	**-0.4**
MTDJ				IAML		18 22 20.1	
	comp=Z,142nm,0.2s						
MTDJ				IAML		18 22 20.2	
	157nm,0.1s						
HOJ	**Hope**	**0.93**	**168**	*i* P	**Pn**	**18 22 09.6**	**+0.2**
HOJ				*i* P	**Pg**	**18 22 10.1**	**+0.5**
PILO	**Pilon**	**1.07**	**337**	*e*P	**Pg**	**18 22 12.7**	**+0.5**
PILO				*e*S	**Sb**	**18 22 25.5**	**+0.7**
PILO				IAML		18 22 26.3	
	comp=N,68nm,0.1s						
PILO				IAML		18 22 26.3	
	comp=E,188nm,0.1s						
LMGC	**Las Mercedes**	**1.14**	**358**	*e*P	**Pg**	**18 22 13.8**	**+0.3**
LMGC				*e*S	**Sb**	**18 22 26.5**	**-0.3**
LMGC				*e*Sg	**Sg**	**18 22 27.6**	**-0.8**
LMGC				IAML		18 22 29.2	
	comp=N,8.6nm,0.1s						
LMGC				IAML		18 22 29.3	
	comp=E,7.9nm,0.1s						
PCJ	**Portland Cotta**	**1.19**	**189**	⇑*i*P	**Pg**	**18 22 14.2**	**-0.2**
PCJ				*i* S	**Sb**	**18 22 27.7**	**-0.5**
MCJ	**Malvern**	**1.21**	**215**	*i* P	**Pg**	**18 22 14.9**	**+0.1**
YAR	**Yar**	**1.55**	**21**	*e*P	**Pg**	**18 22 20.7**	**-0.5**
YAR				*e*S	**Sb**	**18 22 38.4**	**-0.1**

IDC ***16*** *18:24:06.9±3.8, 0°.08S×123°.54E, h75^{km}±37^{km}, mb3.5/10, mbtmp3.8/12, ML3.7/2, Error ellipse: s-maj=27.6km s-min=15.1km az=70.0*
NEIC ***16*** *18:24:10.0±1.6, 0°.17S±0°.07×123°.49E±0°.07, h106^{km}±8^{km}, mb4.1/11, Error ellipse: s-maj=11.0km s-min=8.3km az=131.0*
DJA ***16*** *18:24:11.1±0.2, 0°S±2°×12°4E±°, h64^{km}±8^{km}, M4.4/37, mB4.8/3, mb4.5/12, MLv4.4/37, Mw(mB)4.0/3*
ISC 16 18:24:08.9±0.5**, 0°.16S**±0°.05×**123°.55E**±0°.06**, h100**^{km}**, n51,** σ**1^{s}.52**/56**, mb4.0**/14**, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GTOI	**Gorontalo**	**0.96**	**326**	P	**Pn**	**18 24 30.9**	**+2.0**
GTOI				S	**Sn**	**18 24 46.0**	**+2.0**
LUWI	**Luwuk**	**1.17**	**222**		**Pn**	**18 24 31.8**	**+0.5**
LUWI	**Luwuk**	**1.17**	**222**	P	**Pn**	**18 24 32.2**	**+0.9**
LUWI				AML	AML		
APSI	**Ampana**	**2.04**	**249**	P	**Pn**	**18 24 45.2**	**+3.1**
APSI				AML	AML		
MNI	**Manado**	**2.05**	**39**	P	**Pn**	**18 24 43.5**	**+1.3**
TOLI2	**Tolitoli**	**3.05**	**295**		**Pn**	**18 24 55.5**	**+0.2**
SANI	**Sanana**	**3.07**	**128**	P	**Pn**	**18 24 55.6**	**0.0**
SANI				AML	AML		
PCI	**Palu**	**3.79**	**259**	P	**Pn**	**18 25 07.4**	**+2.1**
PCI				AML	AML		
KDI	**Kendari**	**3.88**	**194**	P	**Pn**	**18 25 08.1**	**+1.5**
TNTI	**Ternate**	**3.92**	**76**	Pn	**Pn**	**18 25 09.1**	**+2.0**
TNTI					**Sn**	**18 25 53.8**	**+1.6**
TNTI	**Ternate**	**3.92**	**76**	P	**Pn**	**18 25 09.5**	**+2.4**
TNTI				AML	AML		
KKSI	**Kolaka, Sulawe**	**4.41**	**205**	P	Pn	18 25 22.1	+8.4
NLAI	**Namlea**	**4.68**	**131**	P	**Pn**	**18 25 18.9**	**+1.6**
NLAI				AML	AML		
MMSI	**Mamuju**	**5.28**	**242**	P	**Pn**	**18 25 27.8**	**+2.4**
	0.2nm43nm,0.6s						
MMSI				AML	AML		
SPSI	**Sidrap Palu**	**5.34**	**225**	P	**Pn**	**18 25 29.0**	**+2.7**
	0.2nm983nm37nm,0.7s						
SPSI				AML	AML		
BBSI	**Bau Bau**	**5.38**	**190**	P	**Pn**	**18 25 29.2**	**+2.4**
BBSI				AML	AML		
PMSI	**Majene**	**5.70**	**234**	P	**Pn**	**18 25 34.2**	**+3.0**
	0.3nm65nm,0.9s						
PMSI				AML	AML		
KAPI	**Kappang**	**6.14**	**218**	P	**Pn**	**18 25 36.7**	**-0.4**
	3.6nm,0.3s,baz=290,slow=7.5,SNR=4.7						
KAPI				S	**Sn**	**18 26 44.4**	**-1.5**
	14nm,0.4s,baz=243,slow=23,SNR=3.6						
	7.7nm,0.4s						
KAPI				AML	AML		
KAPI	**Kappang**	**6.14**	**218**		**Pn**	**18 25 36.9**	**-0.2**
BSSI	**Bau Bau, Buton**	**6.68**	**207**	P	**Pn**	**18 25 47.5**	**+3.0**
EDFI	**Ende, Flores**	**8.73**	**192**	P	**Pn**	**18 26 15.1**	**+2.6**
FAKI	**Fak Fak**	**9.11**	**108**	Pn	**Pn**	**18 26 17.7**	**+0.1**
FAKI	**Fak Fak**	**9.11**	**108**	P	**Pn**	**18 26 17.9**	**+0.3**
KKM	**Kota Kinabalu**	**9.57**	**310**	Pn	**Pn**	**18 26 21.0**	**-3.0**
KNRA	**Kununurra**	**16.25**	**162**	Pn	**Pn**	**18 27 49.6**	**-1.7**
KNRA				IAmb	IAmb	18 28 15.3	
	comp=Z,9.1nm,1.1s						
FITZ	**Fitzroy Crossi**	**17.94**	**174**	P	**P**	**18 28 11.8**	**+0.6**
	comp=Z,0.1nm,0.3s,baz=358,slow=11,SNR=2.4						
	comp=Z,2.1nm,0.9s						
FITZ				AML	AML		
FITZ	**Fitzroy Crossi**	**17.94**	**174**	P	**P**	**18 28 11.6**	**+0.4**
WB0	**Warramunga Arr**	**22.19**	**152**	P	**P**	**18 28 57.5**	**+0.3**
WB0				IAmb	IAmb	18 29 36.9	
	comp=Z,12nm,1.3s						
WRA	**Warramunga Arr**	**22.32**	**152**	P	**P**	**18 28 59.3**	**+0.9**
	comp=Z,1.2nm,0.7s,baz=336,slow=10,SNR=8.8						
WRA				PcP	**PcP**	**18 32 51.7**	**+1.0**
	comp=Z,0.5nm,1.0s,baz=346,slow=2.1,SNR=1.5						
	comp=Z,1.2nm,0.7s						
WRA	**Warramunga Arr**	**22.32**	**152**	P	**P**	**18 28 57.6**	**-0.9**
WR8	**Warramunga Arr**	**22.40**	**152**	P	**P**	**18 29 00.1**	**+0.7**
WR8				IAmb	IAmb	18 29 13.7	
	comp=Z,11nm,1.3s						
ASAR	**Alice Springs**	**25.43**	**157**	P	**P**	**18 29 29.4**	**+1.9**
	comp=Z,0.4nm,0.8s,baz=337,slow=12,SNR=4.1						
ASAR				PcP	**PcP**	**18 32 58.8**	**+1.4**
	comp=Z,0.4nm,0.6s,baz=348,slow=2.5,SNR=6.7						
	comp=Z,0.4nm,0.8s						
CMAR	**Chiang Mai Arr**	**30.45**	**309**	P	**P**	**18 30 13.6**	**+1.3**
	comp=Z,1.0nm,0.6s,baz=135,slow=7.0,SNR=11						
	comp=Z,1.0nm,0.6s						
CMAR	**Chiang Mai Arr**	**30.45**	**309**	P	**P**	**18 30 12.2**	**-0.1**
MJAR	**Matsushiro Arr**	**38.97**	**19**	P	**P**	**18 31 24.8**	**-0.7**
	comp=Z,1.8nm,0.8s,baz=195,slow=9.0,SNR=7.8						
	comp=Z,1.8nm,0.8s						
MJAR	**Matsushiro Arr**	**38.97**	**19**	P	**P**	**18 31 24.2**	**-1.2**
MJAR				IAmb	IAmb	18 31 47.2	
	comp=Z,3.0nm,1.4s						
USA0B	**Ussuriysk Arra**	**44.80**	**9**	P	**P**	**18 32 13.6**	**+0.8**
USA0B				IAmb	IAmb	18 32 37.1	
	comp=Z,18nm,1.5s						
USRK	**Ussuriysk Ar.**	**44.80**	**9**	P	**P**	**18 32 12.6**	**-0.2**
	comp=Z,1.4nm,0.6s,baz=193,slow=7.0,SNR=4.4						
	comp=Z,1.4nm,0.6s						
USRK	**Ussuriysk Ar.**	**44.80**	**9**	P	**P**	**18 32 12.3**	**-0.5**
HILR	**Hailar Array B**	**49.63**	**357**	P	**P**	**18 32 50.5**	**+0.2**
	comp=Z,0.4nm,0.3s,baz=151,slow=9.5,SNR=3.6						
	comp=Z,0.4nm,0.3s						
SONM	**Songino Array**	**50.08**	**345**	P	**P**	**18 32 53.8**	**0.0**
	comp=Z,1.1nm,0.7s,baz=156,slow=8.7,SNR=7.2						
	comp=Z,1.1nm,0.7s						
SONM	**Songino Array**	**50.08**	**345**	P	**P**	**18 32 53.5**	**-0.3**
SONM				IAmb	IAmb	18 32 55.2	
	comp=Z,1.2nm,1.0s						
MKAR	**Makanchi Array**	**59.04**	**328**	P	**P**	**18 33 58.7**	**+0.2**
	comp=Z,0.9nm,0.5s,baz=122,slow=8.3,SNR=18						
MKAR				PcP	**PcP**	**18 34 46.0**	**-0.4**
	comp=Z,0.3nm,0.6s,baz=147,slow=3.4,SNR=2.4						
	comp=Z,0.9nm,0.5s						
MKAR	**Makanchi Array**	**59.04**	**328**	P	**P**	**18 33 58.5**	**+0.1**
MKAR	**Makanchi Array**	**59.04**	**328**		**PcP**	**18 34 46.0**	**-0.4**
YAK	**Yakutsk**	**62.21**	**3**	P	**P**	**18 34 18.7**	**-0.9**
ZALV	**Zalesovo Beam**	**62.69**	**335**	P	**P**	**18 34 22.4**	**-0.6**
	comp=Z,0.8nm,0.4s,baz=125,slow=4.7,SNR=4.8						
	comp=Z,0.8nm,0.4s						
ZALV	**Zalesovo Beam**	**62.69**	**335**	P	**P**	**18 34 22.0**	**-1.0**
RAO	**Raoul Island**	**62.77**	**123**	P	**P**	**18 34 21.9**	**-2.1**
KURBB	**Kurchatov Arra**	**63.38**	**330**	P	**P**	**18 34 27.0**	**-0.6**
	comp=Z,0.9nm,0.6s,baz=123,slow=6.9,SNR=6.4						
	comp=Z,0.9nm,0.6s						
KURK	**Kurchatov**	**63.39**	**330**	P	**P**	**18 34 26.7**	**-1.0**
KURK				IAmb	IAmb	18 34 29.6	
	comp=Z,3.2nm,0.6s						

IDC ***16*** *18:28:37.0±0.6, 50°.30S×112°.41E, h0^{km}, mb4.4/11, mbtmp4.4/12, ML1.7/1, MS3.7/15, Error ellipse: s-maj=31.6km s-min=14.2km az=108.0*
ISC 16 18:28:38.4±0.6**, 50°.3S**±0°.1×**112°.5E**±0°.2**, h10**^{km}**, n32,** σ**0^{s}.86**/22**, mb4.4**/14**, MS3.6**/14**, 5C, Southeast Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H01W2	**Cape Leeuwin H**	**15.43**	**5**	T	T	18 48 04.6	
	baz=183,slow=74,SNR=27						
H01W1	**Cape Leeuwin H**	**15.43**	**5**	T	T	18 48 03.8	
	baz=183,slow=74,SNR=95						
H01W3	**Cape Leeuwin H**	**15.44**	**5**	T	T	18 48 04.0	
	baz=183,slow=74,SNR=26						
NWAO	**Narrogin (SRO)**	**17.70**	**13**	P	**Pn**	**18 32 43.6**	**-1.3**
	0.1nm,0.3s,baz=199,slow=12,SNR=2.0						
NWAO				LR	LR	18 37 39.0	
	comp=Z,366nm,18.3s,baz=175,slow=31						
	20nm,1.1s						
NWAO				AML	AML		
STKA	**Stephens Creek**	**28.36**	**61**	LR	LR	18 43 06.4	
	comp=Z,101nm,21.9s,baz=193,slow=31						
MAW	**Mawson**	**29.79**	**216**	P	**P**	**18 34 43.6**	**-1.2**
	5.5nm,1.1s,baz=76,slow=8.5,SNR=6.8						
MAW				LR	LR	18 45 10.2	
	comp=Z,85nm,19.3s,baz=78,slow=33						
	5.5nm,1.1s						
ASAR	**Alice Springs**	**31.38**	**40**	P	**P**	**18 34 59.1**	**-0.2**
	1.5nm,0.9s,baz=215,slow=8.4,SNR=6.1						
ASAR				LR	LR	18 45 51.7	
	comp=Z,144nm,21.0s,baz=263,slow=33						
	1.5nm,0.9s						
VNDA	**Vanda**	**32.90**	**162**	P	**P**	**18 35 12.1**	**-0.1**
	6.5nm,0.8s,baz=294,slow=9.0,SNR=43						
VNDA				LR	LR	18 47 31.9	
	comp=Z,134nm,20.3s,baz=308,slow=34						
	6.5nm,0.8s						
FITZ	**Fitzroy Crossi**	**33.80**	**23**	P	**P**	**18 35 21.9**	**+1.4**
	15nm,1.1s,baz=191,slow=10,SNR=8.7						
FITZ				LR	LR	18 48 31.9	
	comp=Z,161nm,18.4s,baz=246,slow=35						
	15nm,1.1s						
WRA	**Warramunga Arr**	**34.90**	**38**	P	**P**	**18 35 30.2**	**+0.2**
	4.3nm,1.0s,baz=202,slow=8.0,SNR=8.6						
	4.3nm,1.0s						
QSPA	**South Pole Qui**	**39.84**	**180**	P	**P**	**18 36 12.0**	**+0.3**
	5.6nm,0.8s,baz=329,slow=2.4,SNR=27						
QSPA				LR	LR	18 51 57.1	
	comp=Z,125nm,18.7s,baz=14,slow=35						
	5.6nm,0.8s						
KAPI	**Kappang**	**45.53**	**10**	LR	LR	18 53 47.9	
	comp=Z,100nm,20.3s,baz=156,slow=33						
TROLL	**Troll, Antarti**	**48.61**	**203**	⇑P	**P**	**18 37 22.3**	**+0.6**
	comp=Z,236nm,0.9s						
PMG	**Port Moresby**	**49.83**	**47**	LR	LR	18 57 25.3	
	comp=Z,50nm,19.1s,baz=224,slow=35						
SNAA	**Sanae**	**50.14**	**202**	⇑P	**P**	**18 37 34.3**	**+0.9**
	comp=Z,228nm,0.9s						
SNAA	**Sanae**	**50.14**	**202**	P	**P**	**18 37 34.1**	**+0.8**
	comp=Z,9.2nm,0.9s,baz=145,slow=8.2,SNR=13						
SNAA				LR	LR	18 57 31.1	
	comp=Z,111nm,18.7s,baz=122,slow=35						
	comp=Z,9.2nm,0.9s						
VNA2	**Neumayer--Watz**	**51.72**	**201**	⇑P	**P**	**18 37 46.1**	**+0.9**
	comp=Z,6.7nm,0.8s,baz=134,slow=7.4						
VNA3	**Neumayer Olymp**	**52.01**	**200**	⇑P	**P**	**18 37 47.9**	**+0.6**
	comp=Z,4.1nm,0.8s						
VNA1	**Neumayer--Stat**	**52.12**	**201**	⇑P	**P**	**18 37 49.3**	**+1.1**
	comp=Z,13nm,0.9s						
DAV	**Davao City (W)**	**58.24**	**15**	LR	LR	19 04 18.7	
	comp=Z,23nm,18.8s,baz=194,slow=37						
PMSA	**Palmer Station**	**65.25**	**182**	LR	LR	19 06 25.1	
	comp=Z,42nm,20.4s,baz=186,slow=35						
BOSA	**Boshof**	**66.87**	**253**	P	**P**	**18 39 30.9**	**+0.2**
	comp=Z,1.8nm,0.8s,baz=112,slow=16,SNR=1.6						
	comp=Z,1.8nm,0.8s						
LBTB	**Lobatse**	**69.25**	**256**	LR	LR	19 04 25.8	
	comp=Z,27nm,18.2s,baz=150,slow=31						
CMAR	**Chiang Mai Arr**	**69.48**	**346**	P	**P**	**18 39 47.5**	**+0.7**
	comp=Z,2.7nm,1.0s,baz=188,slow=5.1,SNR=11						
	comp=Z,2.7nm,1.0s						
PLCA	**Paso Flores**	**89.32**	**178**	P	**P**	**18 41 34.2**	**-0.7**
	comp=Z,3.7nm,0.9s,baz=165,slow=6.3,SNR=4.3						
PLCA				LR	LR	19 21 11.1	
	comp=Z,43nm,18.1s,baz=180,slow=35						
	comp=Z,3.7nm,0.9s						
MJAR	**Matsushiro Arr**	**89.39**	**20**	P	**P**	**18 41 35.0**	**+0.2**
	comp=Z,2.0nm,1.1s,baz=196,slow=6.2,SNR=5.5						
	comp=Z,2.0nm,1.1s						
SONM	**Songino Array**	**97.88**	**356**	LR	LR	19 25 46.9	
	comp=Z,40nm,21.6s,baz=245,slow=35						
NVAR	**Mina Array Bea**	**142.51**	**88**	PKP	**PKPdf**	**18 48 11.5**	**+0.3**
	comp=Z,0.1nm,0.3s,baz=197,slow=4.6,SNR=3.9						
TXAR	**Lajitas Array**	**145.71**	**114**	PKPbc	**PKPab**	**18 48 17.7**	**0.0**
	comp=Z,1.2nm,0.8s,baz=194,slow=4.6,SNR=10						
ELK	**Elko**	**145.76**	**87**	PKPbc	**PKPab**	**18 48 18.6**	**+0.9**
	comp=Z,5.7nm,1.0s,baz=214,slow=4.0,SNR=10						
PDAR	**Pinedale Array**	**150.44**	**88**	PKPbc	**PKPbc**	**18 48 29.3**	**-0.5**
	comp=Z,2.5nm,1.0s,baz=222,slow=2.0,SNR=14						
YKA	**Yellowknife Ar**	**151.91**	**46**	PKPbc	**PKPbc**	**18 48 30.5**	**-1.7**
	comp=Z,0.6nm,0.6s,baz=186,slow=9.1,SNR=1.9						

IDC 16 18:28:41.4±1.9**, 6°.08N**×**121°.60E, h0**^{km}**, mb4.1**/3**, mbtmp4.1**/3**, MS3.5**/4**, Error ellipse: s-maj=243.3km s-min=26.1km az=62.0, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**28.74**	**154**	P	P	18 34 40.4	-0.4
	1.7nm,0.5s,baz=332,slow=11,SNR=28						
	1.7nm,0.5s						
ASAR	**Alice Springs**	**31.91**	**158**	P	P	18 35 09.3	+0.5
	1.8nm,0.3s,baz=342,slow=8.9,SNR=6.7						
	1.8nm,0.3s						
STKA	**Stephens Creek**	**42.29**	**154**	P	P	18 36 33.5	-3.4
	1.5nm,0.5s,baz=339,slow=9.3,SNR=4.3						
KLR	**Kul'dur**	**43.85**	**10**	LR	LR	18 53 56.2	
	comp=Z,48nm,21.7s,baz=220,slow=34						
MKAR	**Makanchi Array**	**52.76**	**327**	P	P	18 37 58.1	-0.1
	0.4nm,0.5s,baz=124,slow=7.9,SNR=6.0						
	0.4nm,0.5s						
PETK	**Petropavlovsk-**	**55.37**	**26**	LR	LR	19 02 56.4	
	comp=Z,24nm,19.9s,baz=167,slow=37						
MBAR	**Mbarara**	**90.92**	**269**	LR	LR	19 18 58.3	
	comp=Z,33nm,19.9s,baz=316,slow=33						
MATP	**Matopo**	**94.98**	**250**	LR	LR	19 21 51.5	
	comp=Z,32nm,20.2s,baz=262,slow=34						

MOS ***16*** *19:04:50.1±0.9, 41°.49N×140°.93E, h156^{km}, mb4.4/6, Error ellipse: s-maj=9.7km s-min=7.3km az=79.6*
NEIC ***16*** *19:04:50.9±1.9, 41°.68N±0°.07×140°.8E±0°.1, h133^{km}±8^{km}, mb4.3/19, Error ellipse: s-maj=13.8km s-min=7.5km az=125.0*
IDC ***16*** *19:04:51.1±1.2, 41°.58N×140°.91E, h143^{km}±10^{km}, mb3.7/16, mbtmp4.0/25, Error ellipse: s-maj=15.9km s-min=10.6km az=125.0*
JMA ***16*** *19:04:51.9±0.1, 41°.5N±0°.4×140°.8E±0°.7, h140^{km}, MV3.3/38, TSUGARU STRAIT REGION*
ISC 16 19:04:50.9±0.6**, 41°.56N**±0°.04×**140°.88E**±0°.04**, h145**^{km}±5^{km}**, n105,** σ**1^{s}.11**/119**, mb4.2**/30**, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JOT	**Ohata**	**0.22**	**143**	P	**Pn**	**19 05 11.2**	**+0.5**
JSR	**Shiriuchi**	**0.35**	**266**	*i* P	**Pn**	**19 05 11.3**	**+0.2**
JSR				S	**Sn**	**19 05 25.7**	**-0.6**
JKB	**Kayabe**	**0.35**	**19**	P	**Pn**	**19 05 11.8**	**+0.8**
JKB				*e*S	**Sn**	**19 05 26.8**	**+0.3**
JOMM	**Oshimamatsumae**	**0.65**	**268**	*i* P	**Pn**	**19 05 12.9**	**+0.3**
JOMM				S	**Sn**	**19 05 28.8**	**-0.3**
JYM2	**Yakumo 2**	**0.68**	**326**	P	**Pn**	**19 05 13.5**	**+0.7**
JYM2				S	**Sn**	**19 05 29.6**	**+0.2**
JTM	**Tenmabayashi**	**0.78**	**169**		**Pn**	**19 05 13.7**	**+0.2**
JTM				Sn	**Sn**	**19 05 29.9**	**-0.8**
JTM	**Tenmabayashi**	**0.78**	**169**	*i* P	**Pn**	**19 05 13.8**	**+0.3**
JTM				S	**Sn**	**19 05 30.2**	**-0.4**
JNB	**Noboribetsu**	**0.92**	**7**	P	**Pn**	**19 05 15.2**	**+0.6**
JHST	**Hiyamasetana**	**1.14**	**320**	P	**Pn**	**19 05 16.9**	**+0.4**
JHST				*e*S	**Sn**	**19 05 35.8**	**-0.3**
JIW	**Iwasaki**	**1.17**	**215**	*i* P	**Pn**	**19 05 17.1**	**+0.3**
JIW				S	**Sn**	**19 05 35.4**	**-1.1**
JOSM	**Okushiri--Mats**	**1.17**	**297**	*i* P	**Pn**	**19 05 16.8**	**0.0**
JOSM				S	**Sn**	**19 05 35.2**	**-1.4**
JSH	**Shimam**	**1.25**	**331**	P	**Pn**	**19 05 18.2**	**+0.7**
JANG	**Nango**	**1.28**	**158**	*i* P	**Pn**	**19 05 17.7**	**-0.2**
JANG				S	**Sn**	**19 05 37.3**	**-1.0**
JAH	**Hinai**	**1.38**	**188**	*i* P	**Pn**	**19 05 19.2**	**+0.4**
JAH				S	**Sn**	**19 05 40.1**	**-0.1**
JNBK	**Urakawa-nobuka**	**1.58**	**62**	*i* P	**Pn**	**19 05 22.1**	**+1.2**
ERM	**Erimo**	**1.77**	**74**	P	**Pn**	**19 05 24.1**	**+1.1**
ERM	**Erimo**	**1.77**	**74**		**Pn**	**19 05 24.1**	**+1.1**
JOM	**Ohasama**	**2.10**	**171**	*i* P	**Pn**	**19 05 26.9**	**-0.1**
JOM				S	**Sn**	**19 05 53.5**	**-1.2**
JCH	**Churui**	**2.13**	**59**	*i* P	**Pn**	**19 05 28.5**	**+1.2**
JCH				S	**Sn**	**19 05 55.2**	**0.0**
ASAJ	**Asahikawa**	**2.85**	**26**	P	**Pn**	**19 05 37.2**	**+1.0**
	65nm,0.3s,baz=215,slow=13,SNR=487						
ASAJ				S	**Sn**	**19 06 10.6**	**-0.6**
	36nm,0.5s,baz=0.0,slow=24,SNR=7.7						
JKA	**Kamikawa-asahi**	**2.85**	**26**		**Pn**	**19 05 36.9**	**+0.7**
JKA					**Sn**	**19 06 07.9**	**-3.3**
NMR	**Nemuro--Hokkai**	**4.02**	**62**	*e*P	**Pn**	**19 05 50.3**	**-0.9**
NMR				*e*S	**Sn**	**19 06 34.2**	**-3.9**
RUSJ	**Misakicho**	**4.10**	**50**	*e*P	**Pn**	**19 05 53.2**	**+0.9**
RUSJ				*e*S	**Sn**	**19 06 40.4**	**+0.4**
YUK	**Yuzh-Kuril'sk**	**4.43**	**54**	*e*P	**Pn**	**19 05 56.9**	**+0.3**
YUK				*e*S	**Sn**	**19 06 45.6**	**-2.1**
YUK				pmax	pmax		
	comp=N,112nm,0.2s						
YUK				pmax	pmax		
	comp=Z,573nm,0.2s						
YUK				pmax	pmax		
	comp=E,76nm,0.1s						
YUK				smax	smax		
	comp=E,295nm,0.4s						
YUK				smax	smax		
	comp=N,600nm,0.6s						
MJB9	**Matsu-Tunnel**	**5.42**	**203**		**Pn**	**19 06 11.3**	**+1.4**
MAJO	**Matsushiro**	**5.42**	**203**	P	**Pn**	**19 06 06.5**	**-3.4**
MAJO	**Matsushiro**	**5.42**	**203**		**Pn**	**19 06 06.5**	**-3.4**
MJAR	**Matsushiro Arr**	**5.42**	**203**	P	**Pn**	**19 06 10.8**	**+0.9**
	comp=N,1.9nm,0.5s,baz=10,slow=14,SNR=11						
MJAR	**Matsushiro Arr**	**5.42**	**203**		**Pn**	**19 06 08.2**	**-1.7**
YSS	**Yuzhno-Sakhali**	**5.56**	**13**	*e*P	**Pn**	**19 06 12.8**	**+1.2**
YSS				*e*S	**Sn**	**19 07 12.5**	**-2.2**
YSS				pmax	pmax		
	comp=Z,10.0nm,1.1s						
YSS				smax	smax		
	comp=N,20nm,1.2s						
YSS				smax	smax		
	comp=E,10.0nm,1.2s						
YSS	**Yuzhno-Sakhali**	**5.56**	**13**	Pn	**Pn**	**19 06 08.2**	**-3.5**
KUR	**Kuril'sk**	**6.28**	**52**	*e*P	**Pn**	**19 06 21.2**	**0.0**
KUR				*e*S	**Sn**	**19 07 31.4**	**-0.4**
KUR				pmax	pmax		
	comp=Z,43nm,0.6s						
KUR				pmax	pmax		
	comp=E,16nm,0.4s						
KUR				pmax	pmax		
	comp=N,11nm,0.3s						
KUR				smax	smax		
	comp=N,39nm,0.6s						
KUR				smax	smax		
	comp=E,18nm,0.4s						
JGF	**Kuroka**	**6.55**	**206**	Pn	**Pn**	**19 06 24.7**	**-0.4**
USRK	**Ussuriysk Ar.**	**7.04**	**295**	P	**Pn**	**19 06 31.5**	**+0.1**
	comp=E,5.5nm,0.7s,baz=94,slow=14,SNR=14						
USRK	**Ussuriysk Ar.**	**7.04**	**295**	Pn	**Pn**	**19 06 28.8**	**-2.7**
KLR	**Kul'dur**	**10.00**	**323**	P	**Pn**	**19 07 11.0**	**+0.2**
	comp=E,0.7nm,0.4s,baz=138,slow=11,SNR=2.5						
KLR	**Kul'dur**	**10.00**	**323**	P	**Pn**	**19 07 11.0**	**+0.2**
KSRS	**Korea Array**	**10.81**	**252**	P	**Pn**	**19 07 22.9**	**+1.2**
	comp=E,1.2nm,0.9s,baz=59,slow=14,SNR=3.4						
JNU	**Nakatsue**	**11.58**	**227**	P	**Pn**	**19 07 33.2**	**+1.4**
	comp=E,4.9nm,0.9s,baz=210,slow=20,SNR=1.7						
PETK	**Petropavlovsk-**	**16.19**	**39**	P	**Pn**	**19 08 30.0**	**0.0**
	comp=E,5.4nm,1.1s,baz=231,slow=9.1,SNR=1.9						
PETK	**Petropavlovsk-**	**16.19**	**39**	P	**Pn**	**19 08 30.0**	**0.0**
HILR	**Hailar Array B**	**16.78**	**306**	P	**P**	**19 08 35.5**	**-1.5**
	comp=E,1.6nm,0.5s,baz=101,slow=15,SNR=5.9						
JOW	**Kunigami**	**17.98**	**219**	P	**P**	**19 08 51.4**	**+1.2**
	comp=E,4.3nm,0.6s,baz=86,slow=21,SNR=1.3						
JOW	**Kunigami**	**17.98**	**219**	P	**P**	**19 08 51.1**	**+0.8**
JOW				IAmb	IAmb	19 09 23.7	
	comp=Z,21nm,1.2s						
YAK	**Yakutsk**	**21.58**	**346**	P	**P**	**19 09 26.6**	**-2.1**
	comp=Z,6.6nm,0.4s,baz=246,slow=2.8,SNR=5.4						
YAK	**Yakutsk**	**21.58**	**346**		**P**	**19 09 26.4**	**-2.3**
YAK				IAmb	IAmb	19 09 33.5	
	comp=Z,11nm,0.7s						
SEY	**Seymchan**	**22.47**	**14**	P	**P**	**19 09 36.8**	**-0.9**
	comp=Z,1.0nm,0.7s,baz=192,slow=20,SNR=2.2						
	comp=Z,1.0nm,0.7s						
SONM	**Songino Array**	**25.16**	**296**	P	**P**	**19 10 03.5**	**+0.9**
	comp=Z,1.1nm,0.4s,baz=90,slow=8.7,SNR=6.4						
	comp=Z,1.1nm,0.4s						
SONM	**Songino Array**	**25.16**	**296**	P	**P**	**19 10 02.8**	**+0.2**
H11N2	**WAKE ISLAND Hy**	**31.01**	**127**	T	T	19 43 06.7	
	baz=323,slow=75,SNR=22						
H11N1	**WAKE ISLAND Hy**	**31.02**	**127**	T	T	19 43 21.6	
	baz=323,slow=75,SNR=9.1						
H11N3	**WAKE ISLAND Hy**	**31.02**	**127**	T	T	19 43 08.1	
	baz=323,slow=75,SNR=20						
H11S1	**WAKE ISLAND Hy**	**31.83**	**128**	T	T	19 44 28.3	
	baz=324,slow=76,SNR=12						
H11S3	**WAKE ISLAND Hy**	**31.84**	**128**	T	T	19 44 12.0	
	baz=324,slow=76,SNR=6.7						
H11S2	**WAKE ISLAND Hy**	**31.85**	**128**	T	T	19 44 29.3	
	baz=324,slow=76,SNR=7.0						
ZAA0	**Zalesovo Array**	**38.67**	**308**		**P**	**19 12 00.0**	**-0.1**
ZAA0				IAmb	IAmb	19 12 01.2	
	comp=Z,5.5nm,0.8s						
ZALV	**Zalesovo Beam**	**38.67**	**308**	P	**P**	**19 12 00.5**	**+0.4**
	comp=Z,4.5nm,0.5s,baz=92,slow=8.4,SNR=26						
ZALV				PcP	**PcP**	**19 14 09.6**	**+0.6**
	comp=Z,0.7nm,0.4s,baz=64,slow=3.4,SNR=4.0						
	comp=Z,4.5nm,0.5s						
ZALV	**Zalesovo Beam**	**38.67**	**308**		**P**	**19 12 00.0**	**-0.1**
ZALV					**PcP**	**19 14 09.2**	**+0.3**
MKAR	**Makanchi Array**	**41.50**	**298**	P	**P**	**19 12 23.5**	**0.0**
	comp=Z,3.2nm,0.5s,baz=85,slow=9.8,SNR=61						
	comp=Z,3.2nm,0.5s						
MKAR	**Makanchi Array**	**41.50**	**298**	P	**P**	**19 12 23.9**	**+0.3**
MKAR	**Makanchi Array**	**41.50**	**298**		**P**	**19 12 23.9**	**+0.3**
MAKZ	**Makanchi**	**41.71**	**298**	P	**P**	**19 12 25.4**	**+0.2**
MAKZ				pmax	pmax		
	comp=Z,4.0nm,0.6s						
MAKZ	**Makanchi**	**41.71**	**298**		**P**	**19 12 25.4**	**+0.2**
MAKZ				IAmb	IAmb	19 12 26.1	
	comp=Z,4.0nm,0.6s						
KURK	**Kurchatov**	**42.93**	**304**	P	**P**	**19 12 36.0**	**+1.0**
KURK	**Kurchatov**	**42.93**	**304**		**P**	**19 12 34.8**	**-0.2**
KURBB	**Kurchatov Arra**	**43.00**	**304**	P	**P**	**19 12 36.0**	**+0.4**
	comp=Z,7.9nm,0.4s,baz=78,slow=8.6,SNR=36						
	comp=Z,7.9nm,0.4s						
PDGK	**Podgornoye**	**44.43**	**294**	P	**P**	**19 12 47.2**	**-0.1**
PDGK	**Podgornoye**	**44.43**	**294**		**P**	**19 12 47.2**	**-0.1**
WUS	**Wushi**	**45.37**	**291**	P	**P**	**19 12 55.2**	**+0.5**
WUS				IAmb	IAmb	19 12 56.4	
	comp=Z,3.4nm,0.8s						
ILAR	**Eielson Array**	**45.96**	**35**	P	**P**	**19 12 58.8**	**-0.1**
	comp=Z,0.5nm,0.7s,baz=278,slow=8.1,SNR=6.5						
	comp=Z,0.5nm,0.7s						
ILAR	**Eielson Array**	**45.96**	**35**	P	**P**	**19 12 58.5**	**-0.3**
TARG	**Taragay, Kyrgy**	**46.16**	**292**	P	**P**	**19 13 02.0**	**+0.7**
TARG				pmax	pmax		
	comp=Z,3.0nm,0.8s						
TARG	**Taragay, Kyrgy**	**46.16**	**292**		**P**	**19 13 02.0**	**+0.7**
BVAR	**Borovoye Array**	**47.31**	**309**	P	**P**	**19 13 10.1**	**+0.6**
	comp=Z,7.0nm,0.5s,baz=72,slow=9.1,SNR=32						
	comp=Z,7.0nm,0.5s						
BORK	**Borovoye**	**47.34**	**309**	P	**P**	**19 13 09.9**	**+0.1**
BORK				pmax	pmax		
	comp=Z,6.0nm,0.5s						
BORK	**Borovoye**	**47.34**	**309**		**P**	**19 13 09.9**	**+0.1**
ARSB	**Arslanbob**	**49.65**	**294**	P	**P**	**19 13 28.2**	**+0.4**
ARSB				pmax	pmax		
	comp=Z,7.0nm,0.6s						
ARSB	**Arslanbob**	**49.65**	**294**	P	**P**	**19 13 28.2**	**+0.4**
KK31	**Karatay Array**	**50.61**	**297**	IAmb	IAmb	19 13 35.7	
	comp=Z,3.9nm,0.7s						

KKAR	Karatay Array	50.61	297	P	P	19 13 34.6	-0.2
KKAR	Karatay Array	50.61	297		P	19 13 34.6	-0.2
ARTI	Arti	52.86	316	P	P	19 13 51.1	-0.2
ARTI				pmax	pmax		
	comp=Z,11nm,1.2s						
ARTI	Arti	52.86	316	P	P	19 13 51.1	-0.2
ARTI				IAmb	IAmb	19 13 52.3	
	comp=Z,11nm,1.2s						
AB31	Akbulak array	54.78	308	IAmb	IAmb	19 14 06.4	
	comp=Z,3.2nm,0.6s						
ABKAR	Akbulak array	54.78	308	P	P	19 14 04.5	-0.8
ARCES	ARCESS Array B	59.63	338	P	P	19 14 39.8	+0.7
	comp=Z,0.6nm,0.6s,baz=76,slow=3.8,SNR=1.3						
	comp=Z,0.6nm,0.6s						
ARCES	ARCESS Array B	59.63	338	P	P	19 14 39.5	+0.4
HRA	Herat	60.41	291	P	P	19 14 43.8	-1.4
HRA				IAmb	IAmb	19 15 27.1	
	comp=Z,3.5nm,1.2s						
WRA	Warramunga Arr	61.48	187	P	P	19 14 51.9	-0.3
	comp=Z,0.2nm,0.4s,baz=6.8,slow=6.3,SNR=9.9						
	comp=Z,0.2nm,0.4s						
FINES	FINESS Array B	64.64	331	P	P	19 15 12.8	+0.3
	comp=Z,2.3nm,0.6s,baz=46,slow=8.2,SNR=13						
	comp=Z,2.3nm,0.6s						
FINES	FINESS Array B	64.64	331	P	P	19 15 12.4	-0.1
KBZ	Khabaz	67.69	309	P	P	19 15 33.1	+0.9
	comp=Z,0.8nm,0.5s,baz=324,slow=16,SNR=1.9						
	comp=Z,0.8nm,0.5s						
YBH	Yreka Blue Hor	67.94	53	P	P	19 15 35.8	+1.8
YBH				pmax	pmax		
	comp=Z,10.0nm,1.5s						
YBH	Yreka Blue Hor	67.94	53	P	P	19 15 35.8	+1.8
YBH				IAmb	IAmb	19 15 37.5	
	comp=Z,9.7nm,1.5s						
HFS	Hagfors	69.81	335	P	P	19 15 45.1	0.0
	comp=Z,6.4nm,1.0s,baz=35,slow=5.4,SNR=4.1						
	comp=Z,6.4nm,1.0s						
NOA	NORSAR Array B	69.87	336	P	P	19 15 45.7	+0.2
	comp=Z,1.3nm,0.7s,baz=39,slow=6.3,SNR=3.9						
	comp=Z,1.3nm,0.7s						
AKASG	Malin Array Be	70.49	321	P	P	19 15 49.4	0.0
	comp=Z,0.9nm,0.5s,baz=46,slow=6.3,SNR=8.4						
	comp=Z,0.9nm,0.5s						
AKASG	Malin Array Be	70.49	321	P	P	19 15 49.3	-0.1
BUR08	Bucovina Ar. S	74.52	321	P	P	19 16 13.6	+0.2
BUR08				IAmb	IAmb	19 16 16.0	
	comp=Z,5.3nm,1.4s						
BURAR	Bucovina Array	74.53	321	P	P	19 16 13.3	-0.2
BURAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
BURAR	Bucovina Array	74.53	321	P	P	19 16 13.3	-0.2
PDAR	Pinedale Array	74.81	46	P	P	19 16 16.9	+1.4
	comp=Z,0.3nm,0.5s,baz=27,slow=0.3,SNR=4.0						
	comp=Z,0.3nm,0.5s						
PDAR	Pinedale Array	74.81	46	P	P	19 16 16.3	+0.9
BRTR	Keskin Array B	75.57	310	P	P	19 16 20.6	+0.9
	comp=Z,0.3nm,0.6s,baz=22,slow=4.7,SNR=1.8						
	comp=Z,0.3nm,0.6s						
BRTR	Keskin Array B	75.57	310	P	P	19 16 19.2	-0.5

*NOU **16** 19:44:15.0, 10°.85S×161°.54E, h15km, mb5.5/21, Solomon Islands*

*IDC **16** 19:44:16.4±2.4, 10°.68S×161°.55E, h76km±18km, mb3.8/17, mbtmp4.2/22, MS3.5/18, Error ellipse: s-maj=21.1km s-min=14.0km az=85.0*

*NEIC **16** 19:44:16.5±1.8, 10°.73S±0°.09×161°.61E±0°.09, h82km±7km, mb4.4/24, Error ellipse: s-maj=15.6km s-min=9.8km az=223.0*

ISC 16 19:44:13.3±0.4**, 10°.76S**±0°.06×**161°.57E**±0°.05**, h50**km**, n90, σ1s.85**/67**, mb4.3**/27**, MS3.6**/15**, Bougainville-Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HURO	Huro Makira	0.44	48	P	Pn	19 44 26.2	+2.2
HURO	Huro Makira	0.44	48	S	Sn	19 44 34.4	+2.9
NGOA	Tingoa Renbel	1.67	242	P	Pn	19 44 42.7	+2.5
NGOA	Tingoa Renbel	1.67	242	S	Sn	19 45 02.8	+2.3
HNR	Honiara	2.07	310	P	Pn	19 44 49.3	+3.6
	2µm,0.6s,baz=221,slow=23,SNR=95						
HNR				S	Sn	19 45 13.0	+2.6
	3µm,0.4s,baz=238,slow=23,SNR=22						
HNR				LR	LR	19 45 48.8	
	comp=Z,901nm,20.0s,baz=219,slow=46						
HNR	Honiara	2.07	310	P	Pn	19 44 49.2	+3.5
ALEG	Aligegeo Malai	2.17	337	P	Pn	19 44 52.2	+5.1
ALEG	Aligegeo Malai	2.17	337	S	Sn	19 45 19.6	+6.8
SAVO	Savo Central	2.36	313	P	Pn	19 44 53.9	+4.3
TATA	Tatamba Isabel	2.93	323	P	Pn	19 45 02.2	+4.7
TATA	Tatamba Isabel	2.93	323	S	Sn	19 45 38.4	+6.9
SANVU	Saraoutou	7.20	131	P	Pn	19 45 57.9	+1.8
SANVU	Saraoutou	7.20	131		Pn	19 45 57.8	+1.8
DVP	Devils Point	9.44	138	P	Pn	19 46 29.0	+2.3
KOUNC	Koumac, New Ca	10.08	165	P	Pn	19 46 39.4	+3.9
KOUNC	Koumac, New Ca	10.08	165		Pn	19 46 38.6	+3.1
KRVT	Keravat (AS076	11.43	303	P	Pn	19 46 56.5	+2.5
	20nm,0.4s,baz=242,slow=20,SNR=1.6						
NOUC	Port Laguerre	12.15	159	P	P	19 47 07.8	-7.3
MARNC	Mare, Loyalty	12.33	151	P	Pn	19 47 09.3	+3.0
MARNC	Mare, Loyalty	12.33	151	Pn	Pn	19 47 08.5	+2.2
YATNC	Mamie plateau,	12.34	156	P	Pn	19 47 08.9	+2.5
ONTNC	Ouen Toro	12.40	158	P	P	19 47 11.1	-6.7
ONTNC	Ouen Toro	12.40	158		Pn	19 47 10.2	+3.0
OUENC	Ouen Island, N	12.64	157	P	Pn	19 47 13.6	+3.1
OUENC	Ouen Island, N	12.64	157		P	19 47 14.2	-6.4
PMG	Port Moresby	14.25	274	P	P	19 47 34.4	-4.0
	13nm,0.9s,baz=195,slow=13,SNR=2.1						
PMG				LR	LR	19 53 01.7	
	comp=Z,355nm,18.9s,baz=137,slow=37						
MSVF	Nonsavu	17.41	115	P	P	19 48 15.2	+1.6
	20nm,1.0s,baz=241,slow=13,SNR=4.0						
MSVF	Nonsavu	17.41	115	P	P	19 48 12.9	-0.7
CTA	Charters Tower	17.42	236	P	P	19 48 16.1	+2.5
	6.6nm,0.8s,baz=57,slow=12,SNR=5.6						
CTA				LR	LR	19 53 55.9	
	comp=Z,113nm,18.2s,baz=41,slow=33						
EIDS	Eidsvold	17.60	213	P	P	19 48 16.0	+0.3
INKA	Innaminka	25.84	226	P	P	19 49 39.5	-0.8
INKA				IAmb	IAmb	19 50 18.5	
	comp=Z,6.6nm,0.8s						
AFI	Afiamalu	26.22	100	LR	LR	19 58 24.8	
	comp=Z,100nm,18.8s,baz=158,slow=32						
WR8	Warramunga Arr	27.62	247	P	P	19 49 56.0	-0.4
WR8				IAmb	IAmb	19 50 07.5	
	comp=Z,11nm,1.1s						
WB0	Warramunga Arr	27.67	248	P	P	19 49 56.4	-0.4
WB0				IAmb	IAmb	19 50 18.3	
	comp=Z,11nm,0.8s						
WRA	Warramunga Arr	27.76	248	P	P	19 49 58.5	+0.9
	comp=Z,1.2nm,0.6s,baz=76,slow=8.9,SNR=9.5						
	comp=Z,1.2nm,0.6s						
WRA	Warramunga Arr	27.76	248	P	P	19 49 56.6	-1.0
AS31	Alice Springs	29.30	240	P	P	19 50 09.7	-1.7
ASAR	Alice Springs	29.30	240	P	P	19 50 11.6	+0.2
	comp=Z,0.8nm,0.5s,baz=64,slow=10.0,SNR=14						
ASAR				LR	LR	20 01 41.1	
	comp=Z,114nm,18.2s,baz=68,slow=36						
	comp=Z,0.8nm,0.5s						
ASAR	Alice Springs	29.30	240	P	P	19 50 12.2	+0.9
GUMO	Guam	29.32	325	LR	LR	20 01 11.1	
	comp=Z,60nm,21.7s,baz=144,slow=35						
H11S2	WAKE ISLAND Hy	29.51	10	T	T	20 21 28.4	
	baz=188,slow=76,SNR=246						
H11S3	WAKE ISLAND Hy	29.51	10	T	T	20 21 29.1	
	baz=188,slow=76,SNR=194						
H11S1	WAKE ISLAND Hy	29.52	10	T	T	20 21 27.7	
	baz=188,slow=76,SNR=188						
H11N1	WAKE ISLAND Hy	30.73	10	T	T	20 23 00.8	
	baz=188,slow=76,SNR=40						
H11N3	WAKE ISLAND Hy	30.74	10	T	T	20 23 01.0	
	baz=188,slow=76,SNR=42						
H11N2	WAKE ISLAND Hy	30.75	10	T	T	20 23 00.0	
	baz=188,slow=76,SNR=33						
FITZ	Fitzroy Crossi	35.50	254	P	P	19 51 06.1	+0.5
	comp=Z,3.8nm,0.6s,baz=107,slow=7.3,SNR=6.1						
FITZ				LR	LR	20 03 35.9	
	comp=Z,117nm,22.0s,baz=15,slow=33						
	comp=Z,3.8nm,0.6s						
FITZ	Fitzroy Crossi	35.50	254	P	P	19 51 05.6	0.0
RAR	Rarotonga	38.49	111	LR	LR	20 07 02.7	
	comp=Z,97nm,18.4s,baz=107,slow=36						
LUWI	Luwuk	39.73	281	P	P	19 51 39.1	-2.3
XMAS	Kiritimati	42.72	75	P	P	19 52 04.6	-1.4
JHJ	Hachijo jima 2	48.33	335	LR	LR	20 13 11.3	
	comp=Z,39nm,19.6s,baz=336,slow=36						
MJAR	Matsushiro Arr	51.94	336	P	P	19 53 15.9	-1.4
	comp=Z,1.4nm,0.8s,baz=156,slow=7.2,SNR=5.5						
MJAR				LR	LR	20 12 47.6	
	comp=Z,22nm,21.3s,baz=164,slow=33						
	comp=Z,1.4nm,0.8s						
TNG	Tangerang	54.46	270	P	P	19 53 36.2	-0.1
	comp=Z,618nmcomp=Z,35nm,0.4s						
TNG				P	P	19 53 39.2	+2.9
ASAJ	Asahikawa	57.27	344	LR	LR	20 16 00.2	
	comp=Z,56nm,22.0s,baz=120,slow=33						
KSRS	Korea Array	57.41	328	P	P	19 53 57.5	+0.6
	comp=Z,2.3nm,1.0s,baz=157,slow=6.8,SNR=5.5						
KSRS				LR	LR	20 17 12.5	
	comp=Z,43nm,20.1s,baz=130,slow=34						
	comp=Z,2.3nm,1.0s						
KSAR	Wonju Array Be	57.42	328	P	P	19 53 56.8	-0.2
USRK	Ussuriysk Ar.	60.94	336	P	P	19 54 21.4	+0.3
	comp=Z,3.7nm,0.8s,baz=138,slow=7.8,SNR=9.0						
USRK				LR	LR	20 18 00.8	
	comp=Z,24nm,21.7s,baz=187,slow=33						
	comp=Z,3.7nm,0.8s						
USRK	Ussuriysk Ar.	60.94	336	P	P	19 54 20.4	-0.8
VNDA	Vanda	66.74	180	P	P	19 54 59.8	+0.8
	comp=Z,1.2nm,0.8s,baz=350,slow=6.5,SNR=6.7						
	comp=Z,1.2nm,0.8s						
VNDA	Vanda	66.74	180	P	P	19 54 59.3	+0.4
VNDA				IAmb	IAmb	19 55 21.2	
	comp=Z,4.7nm,1.4s						
CMAR	Chiang Mai Arr	68.25	295	P	P	19 55 09.8	+0.3
	comp=Z,1.5nm,0.7s,baz=127,slow=5.0,SNR=13						
	comp=Z,1.5nm,0.7s						
CMAR	Chiang Mai Arr	68.25	295	P	P	19 55 08.6	-0.9
HILR	Hailar Array B	70.36	333	P	P	19 55 22.1	+0.2
	comp=Z,0.2nm,0.2s,baz=126,slow=7.5,SNR=3.6						
	comp=Z,0.2nm,0.2s						
ULN	Ulaanbaatar	75.70	326	P	P	19 55 53.9	+0.2
ULN				IAmb	IAmb	19 55 55.4	
	comp=Z,5.3nm,0.9s						
ULN	Ulaanbaatar	75.70	326	P	P	19 55 54.7	+1.0
GTA2	Gaotai	76.01	315	eP	P	19 55 56.8	+1.2
GTA2				pmax	pmax		
	comp=Z,7.0nm,1.1s						
SONM	Songino Array	76.05	325	P	P	19 55 56.0	+0.3
	comp=Z,4.4nm,0.7s,baz=145,slow=6.1,SNR=31						
SONM				LR	LR	20 29 23.1	
	comp=Z,34nm,18.7s,baz=149,slow=36						
	comp=Z,4.4nm,0.7s						
SONM	Songino Array	76.05	325	P	P	19 55 54.9	-0.8
SONM				IAmb	IAmb	19 55 57.1	
	comp=Z,4.7nm,0.8s						
YAK	Yakutsk	76.72	345	P	P	19 55 58.3	-0.6
QSPA	South Pole Qui	79.24	180	P	P	19 56 13.5	+0.4
	comp=Z,0.8nm,0.8s,baz=358,slow=1.2,SNR=4.2						
	comp=Z,0.8nm,0.8s						
QSPA	South Pole Qui	79.24	180	P	P	19 56 13.0	-0.2
QSPA				IAmb	IAmb	19 56 35.2	
	comp=Z,7.8nm,1.4s						
L18K	Granite Mounta	79.65	18	P	P	19 56 16.1	+0.9
L18K				IAmb	IAmb	19 56 24.1	
	comp=Z,7.5nm,1.1s						
M19K	Big River Lodg	80.16	20	P	P	19 56 18.1	+0.1
M19K				IAmb	IAmb	19 56 46.2	
	comp=Z,8.3nm,1.2s						
J20K	Nowinta River	81.88	18	P	P	19 56 25.9	-1.1
J20K				IAmb	IAmb	19 56 56.5	
	comp=Z,7.3nm,1.4s						
MAW	Mawson	83.43	202	P	P	19 56 35.6	+0.5
	comp=Z,3.9nm,1.2s,baz=35,slow=7.0,SNR=3.8						
	comp=Z,3.9nm,1.2s						
MAW	Mawson	83.43	202	P	P	19 56 35.1	-0.1
ILAR	Eielson Array	84.59	20	P	P	19 56 40.9	-0.2
	comp=Z,0.5nm,0.9s,baz=259,slow=5.5,SNR=6.5						
ILAR				LR	LR	20 29 17.0	
	comp=Z,29nm,20.6s,baz=209,slow=32						
	comp=Z,0.5nm,0.9s						
ILAR	Eielson Array	84.59	20	P	P	19 56 40.1	-0.9
O28M	Mount Upton	84.71	25	P	P	19 56 42.6	+0.5
O28M				IAmb	IAmb	19 57 10.1	
	comp=Z,4.8nm,1.2s						
NVAR	Mina Array Bea	89.00	51	P	P	19 57 02.1	-1.2
	comp=Z,0.3nm,0.6s,baz=288,slow=4.5,SNR=2.2						
	comp=Z,0.3nm,0.6s						
NVAR	Mina Array Bea	89.00	51	P	P	19 56 59.6	-3.7
PFO	Pinyon Flats O	89.30	56	LR	LR	20 29 48.9	
	comp=Z,40nm,20.7s,baz=221,slow=31						
MKAR	Makanchi Array	90.53	318	P	P	19 57 08.5	-1.5
	comp=Z,1.0nm,0.5s,baz=97,slow=5.5,SNR=10						
	comp=Z,1.0nm,0.5s						
MKAR	Makanchi Array	90.53	318	P	P	19 57 08.1	-1.9
ZALV	Zalesovo Beam	90.95	325	P	P	19 57 10.3	-1.5
	comp=Z,0.3nm,0.4s,baz=111,slow=8.0,SNR=2.1						
ZALV				LR	LR	20 39 00.5	
	comp=Z,22nm,19.1s,baz=124,slow=36						
	comp=Z,0.3nm,0.4s						
ZALV	Zalesovo Beam	90.95	325	P	P	19 57 09.7	-2.0
KURK	Kurchatov	93.81	321	P	P	19 57 23.1	-2.0
KURBB	Kurchatov Arra	93.85	321	P	P	19 57 24.1	-1.2
	comp=Z,0.3nm,0.6s,baz=130,slow=5.0,SNR=1.6						
	comp=Z,0.3nm,0.6s						
NRIK	Noril'sk	94.44	340	LR	LR	20 39 53.2	
	comp=Z,40nm,20.8s,baz=108,slow=35						

*TRN **16** 19:48:31.7, 10°.26N×62°.09W, h14km, MD3.4, Gulf of Paria.*

*FUNV **16** 19:48:32.6, 10°.47N×62°.11W, h5km, MW3.2, Presumed earthquake*

ISC 16 19:48:29.5±3.6**, 10°.22N**±0°.09×**62°.05W**±0°.06**, h13**km±24km**, n10, σ1s.08**/19**, Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DMDM	Guralp CMG5TDE	0.68	46	eP	Pn	19 48 44.7	-0.1
DMDM				eS	Sn	19 48 55.2	-0.1
TRN	Trinidad (W)	0.76	56	eP	Pn	19 48 46.3	+0.3
TRN				eS	Sn	19 48 56.6	-0.8
TRN	Trinidad (W)	0.76	56	eP	Pn	19 48 46.9	+0.9
TRN				eS	Sn	19 48 58.0	+0.7
GRGR	Grenville	1.94	12	eP	Pn	19 49 03.0	+0.9
GRGR				eS	Sn	19 49 24.6	-1.8
GRGR	Grenville	1.94	12	eP	Pb	19 49 04.5	-0.2
GRGR				eS	Sb	19 49 28.3	-0.5
GRW	Mount Saint Ca	1.96	11	eP	Pb	19 49 04.5	-0.7
GRW				eS	Sn	19 49 28.4	+1.3
GRSS	Sisters	2.11	12	eP	Pb	19 49 06.9	-0.7
GRSS				eS	Sn	19 49 31.8	+1.2
TACV	Tcata	4.90	269	eP	Pn	19 49 44.2	+1.3
TACV				eS	Sn	19 50 38.5	-1.1
BENV	Beln	5.47	268	eP	Pn	19 49 51.5	+0.7
BENV				eS	Sn	19 50 52.4	-1.3
TURV	Turiamo	5.70	273	eP	Pn	19 49 55.3	+1.4

*ISU **16** 19:53:26, 41°.33N×70°.89E, h26km*

*KRNET **16** 19:53:27.3±0.1, 41°.18N×70°.99E, h11km, mb2.4*

*SOME **16** 19:53:27.8, 41°.32N×70°.93E, h10km*

*NNC **16** 19:53:28.8±2.3, 41°.30N×70°.89E, h0km, mb2.7, mpv2.7, Error ellipse: s-maj=17.1km s-min=8.3km az=11.0*

ISC 16 19:53:27.1±1.2**, 41°.23N**±0°.03×**70°.80E**±0°.03**, h4**km±10km**, n22, σ1s.06**/41**, 9C-8D, Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TRKS	Terek-Say	0.39	40	⇑iP	Pg	19 53 33.6	-1.1
TRKS				⇑iS	Sg	19 53 38.4	-1.5
KSNS	Kasansay	0.55	97	P	Pg	19 53 38.1	+0.5
KSNS				S	Sg	19 53 45.7	+1.0
CHMG	Chimgan	0.68	298	P	Pg	19 53 41.0	+1.0
CHMG				S	Sb	19 53 50.9	-0.4
CHRV	Charvak	0.76	303	P	Pb	19 53 42.6	-0.3
CHRV				S	Sb	19 53 53.8	+0.2
TVKS	Tavaksay	0.93	292	P	Pg	19 53 45.0	+0.1
TVKS				S	Sn	19 53 59.2	-1.6
IUG	Iuzhnay	1.08	328	P	Pg	19 53 48.2	+0.4
	5.2nm,0.1s						
IUG				S	Sb	19 54 03.1	+0.2
	25nm,0.3s						
IUG	Iuzhnay	1.08	328	eP	Pg	19 53 48.2	+0.4
	5.2nm,0.1s						
IUG				eS	Sb	19 54 03.1	+0.2
	25nm,0.3s						
FRG	Fergana	1.14	139	S	Sn	19 54 08.4	+2.6
BTK	Batken	1.17	179	⇑iP	Pb	19 53 48.8	-1.1
BTK				⇑iS	Sb	19 54 04.7	-0.8
TSTA	Tashata	1.43	117	P	Pn	19 53 53.5	-0.3
TSTA				S	Sg	19 54 13.7	+0.8
ARSB	Arslanbob	1.65	86	⇓iP	Pn	19 53 55.8	-1.1
ARSB				⇓iS	Sn	19 54 16.7	-1.9
OHH	Osh	1.66	115	⇓iP	Pn	19 53 55.2	-1.8
OHH				⇓iS	Sn	19 54 16.6	-2.3
KK31	Karatay Array	1.88	354	Pn	Pb	19 54 02.2	+0.2
	0.4nm,0.2s,baz=178,slow=12,SNR=8.1						
KK31				⇑Sn	Sb	19 54 26.4	+0.5
	4.8nm,0.3s,baz=173,slow=25						
DRK	Karamyk	1.91	156	⇑eP	Pn	19 54 01.2	+0.6
DRK				⇑eS	Sn	19 54 25.9	+0.6
BRLS	Borolday	1.94	339	P	Pn	19 54 00.8	0.0
	1.8nm,0.2s						
BRLS				S	Sn	19 54 24.9	-0.6
	21nm,0.2s						
BRLS	Borolday	1.94	339	eP	Pn	19 54 00.8	0.0
	1.8nm,0.2s						
BRLS				eS	Sn	19 54 24.9	-0.6
	21nm,0.2s						
SALK	Salom-Alik	2.31	98	⇑eP	Pn	19 54 06.6	+0.6
SALK				⇑eS	Sn	19 54 35.1	+0.1
MRKS	Merke	2.36	49	Pg	Pb	19 54 09.4	-0.7
	0.7nm,0.2s						
MRKS				Lg	Lg	19 54 39.5	
	12nm,0.4s						
MRKS	Merke	2.36	49	eP	Pb	19 54 09.4	-0.7
	0.7nm,0.2s						
MRKS				eS	Sb	19 54 39.5	-0.2
	12nm,0.4s						
SFK	Sufi-Kurgan	2.39	120	⇓iP	Pn	19 54 07.7	+0.5
SFK				⇓iS	Sn	19 54 37.5	+0.5
EKS2	Erkin-Say	2.64	56	⇓iP	Pn	19 54 12.1	+1.6
EKS2				⇓iS	Sn	19 54 44.8	+1.7
SGDS	Sogindy	3.60	51	Pg	Pb	19 54 32.5	+1.2
	0.5nm,0.1s						
SGDS				Lg	Lg	19 55 18.9	
	4.3nm,0.4s						

*MAN **16** 20:22:53.0, 5°.49N×126°.49E, h57km, MS4.0*

*IDC **16** 20:23:04.1±2.5, 5°.62N×126°.61E, h190km±18km, mb3.1/6, mbtmp3.6/6, Error ellipse: s-maj=160.8km s-min=12.7km az=67.0*

ISC 16 20:22:54.4±0.9**, 5°.65N**±0°.07×**126°.47E**±0°.09**, h100**km**, n16, σ2s.14**/21**, mb3.6**/6**, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	Don Marcelino,	0.88	301	i P	Pn	20 23 11.9	-1.6
DDMP				i S	Sn	20 23 25.6	-2.4
GSPH	General Santos	1.57	286	i P	Pn	20 23 19.5	-2.2
GSPH				i S	Sn	20 23 39.2	-3.2
DAV	Davao City (W)	1.67	328	P	Pn	20 23 39.6	+17
	245nm,0.4s,baz=219,slow=6.5,SNR=1.8						
DMPH	Davao City--Mi	1.72	326	eP	Pn	20 23 36.2	+13
KCP	Kidapawan	1.93	315	i P	Pn	20 23 25.6	-0.5
KCP				i S	Sn	20 23 49.4	-0.9
CDOP	Cateel, Davao	2.12	359	i P	Pn	20 23 26.2	-2.3
CDOP				i S	Sn	20 23 48.4	-6.3
BIPH	Bislig	2.52	358	eP	Pn	20 23 32.8	-1.0
BIPH				eS	Sn	20 24 04.6	+0.6
BUKP	Musuan	2.62	328	i P	Pn	20 23 36.3	+1.1
BUKP				i S	Sn	20 24 06.6	+0.2
CGP	Cagayan de Oro	3.30	328	eP	Pn	20 23 46.1	+1.9
CGP				i S	Sn	20 24 23.9	+1.3
WRA	Warramunga Arr	26.58	163	P	P	20 28 24.0	+0.6
	0.5nm,0.6s,baz=343,slow=10,SNR=13						
	0.5nm,0.6s						
ASAR	Alice Springs	30.03	166	P	P	20 28 54.9	+0.8
	0.4nm,0.4s,baz=340,slow=6.9,SNR=14						
	0.4nm,0.4s						
STKA	Stephens Creek	40.01	160	P	P	20 30 19.9	+0.3
	1.0nm,0.4s,baz=331,slow=10,SNR=3.9						
	1.0nm,0.4s						
SONM	Songino Array	45.41	341	P	P	20 31 04.5	+1.3
	0.1nm,0.4s,baz=147,slow=8.1,SNR=1.6						
	0.1nm,0.4s						
MKAR	Makanchi Array	55.85	325	P	P	20 32 22.5	+0.9
	0.4nm,0.4s,baz=116,slow=7.7,SNR=11						
	0.4nm,0.4s						
KURBB	Kurchatov Arra	60.00	327	P	P	20 32 51.0	+0.6
	0.5nm,0.6s,baz=128,slow=7.5,SNR=7.0						
	0.5nm,0.6s						
TORD	Torodi Ar. Bea	122.06	289	PKP	PKiKP	20 41 38.0	-0.5
	0.5nm,1.1s,baz=75,slow=0.7,SNR=1.3						

*GCG **16** 20:24:27.8±1.7, 14°.96N×93°.10W, h39km±208km, MD4.1, ML4.1, Presumed earthquake*

*MEX **16** 20:24:28.1±1.0, 14°.95N×93°.09W, h71km±27km, MD4.3, Presumed earthquake*

ISC 16 20:24:24.4±1.4**, 14°.80N**±0°.07×**93°.27W**±0°.05**, h48**km±55km**, n25, σ1s.88**/45**, Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THIG		0.98	83	eP	Pn	20 24 43.0	+1.3
THIG				eS	Sn	20 24 54.2	-0.4
THIG		0.98	83	i P	Pn	20 24 43.4	+1.7
PATR	El Naranjo	1.05	72	eP	Pn	20 24 43.1	+0.2
PATR				eS	Sn	20 24 55.4	-1.2
PAVE	Pavencul	1.13	69	eP	Pn	20 24 44.6	+0.6
PAVE				eS	Sn	20 24 57.2	-1.3
SMCA	Catarina	1.16	87	i P	Pn	20 24 45.1	+0.9
SMCA				i S	Sn	20 24 57.6	-1.3
CHUJ	Union Juarez	1.16	75	eP	Pn	20 24 44.8	+0.4
CHUJ				eS	Sn	20 24 57.8	-1.6
RTAL	Retalhuleu	1.55	100	eP	Pn	20 24 51.0	+1.5
RTAL				eS	Sn	20 25 07.5	-1.0
HUEH	Huehuetenango	1.78	73	eP	Pn	20 24 53.9	+0.9
HUEH				eS	Sn	20 25 15.1	+0.5
HUEH	Huehuetenango	1.78	73	i P	Pn	20 24 53.7	+0.7
HUEH				i S	Sn	20 25 15.9	+1.4
STG8	El Palmar, Qui	1.89	100	i P	Pn	20 24 52.0	-2.4
STG8				i S	Sn	20 25 08.8	-8.4
STG8				IAML		20 25 15.3	
	comp=E,3µm,0.2s						
TGIG		1.98	4	eP	Pn	20 24 56.1	+0.7
TGIG				eS	Sn	20 25 16.3	-2.8
TGIG		1.98	4	i P	Pn	20 24 56.6	+1.2
UXUV	UXUV	2.65	342	eP	Pn	20 25 07.2	+2.6
UXUV				eS	Sn	20 25 37.5	+2.0
APG	El Apazote	2.72	85	i P	Pn	20 25 08.2	+2.3
CMIG	Matias Romero	2.76	326	eP	Pn	20 25 08.7	+2.5
CMIG				eS	Sn	20 25 33.5	-4.9
HUIG	Huatulco	2.91	290	eP	Pn	20 25 11.0	+2.9
HUIG				eS	Sn	20 25 41.0	-0.9
NEUV	Arroyo Zacate	3.79	320	eP	Pn	20 25 17.4	-2.8
NEUV				eS	Sn	20 26 03.9	+0.4
PEIG	Puerto Escondi	3.93	288	eP	Pn	20 25 22.1	-0.2
PEIG				eS	Sn	20 26 04.6	-2.5
VHO	Vista Hermosa	4.03	305	eP	Pn	20 25 26.7	+2.9
VHO				eS	Sn	20 26 09.9	+0.1
YOIG	Yosondua	4.60	297	eP	Pn	20 25 33.4	+1.7
YOIG				eS	Sn	20 26 25.2	+1.2
TOIG	Toxpalan	4.90	313	eP	Pn	20 25 37.4	+1.7
TOIG				eS	Sn	20 26 29.8	-1.4
TXIG	Tlaxiaco	4.97	300	eP	Pn	20 25 36.0	-0.7
HLIG	Huajuapan de L	5.30	305	eP	Pn	20 25 38.7	-2.5
HLIG				eS	Sn	20 26 41.8	+0.7
FTIG	Fresnillo de T	5.60	304	eP	Pn	20 25 44.0	-1.3
FTIG				eS	Sn	20 26 49.8	+1.3
JAUV	Jalcomulco	5.66	324	eP	Pn	20 25 47.4	+1.3
JAUV				eS	Sn	20 26 46.7	-3.2

*THE **16** 20:26:18.6, 35°N±2°×2°4E±°, h11km±2km, M3.0/7, MLh3.0/7*

*ISK **16** 20:26:18.2, 34°.74N×24°.28E, h10km, ML2.7/7*

*ATH **16** 20:26:20.0, 34°.86N×24°.24E, h6km±1km, ML2.8/8, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*

*IDC **16** 20:26:25.6±1.7, 36°.11N×25°.06E, h0km, mb3.5/4, mbtmp3.5/4, Error ellipse: s-maj=343.9km s-min=28.0km az=140.0*

ISC 16 20:26:19.4±0.9**, 34°.82N**±0°.05×**24°.25E**±0°.03**, h16**km±6km**, n44, σ1s.08**/62**, mb3.4**/3**, Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GVD	Gavdhos	0.13	280	P	Pg	20 26 22.8	-0.4
GVD				S	Sg	20 26 26.1	+0.5

GVD				AML	AML		
GVD	**Gavdhos**	**0.13**	**280**	Pg	**Pg**	**20 26 22.5**	**-0.7**
GVD				Sg	**Sg**	**20 26 25.8**	**+0.2**
GVD	**Gavdhos**	**0.13**	**280**	P	**Pg**	**20 26 22.8**	**-0.4**
GVD				S	**Sg**	**20 26 25.3**	**-0.3**
GVDS	**Gavdos**	**0.15**	**279**	P	**Pg**	**20 26 22.8**	**-0.6**
GVDS				S	**Sg**	**20 26 26.3**	**+0.1**
GVDS				AML	AML		
GVDS	**Gavdos**	**0.15**	**279**	P	**Pg**	**20 26 22.9**	**-0.6**
SIVA	**Sivas**	**0.51**	**66**	P	**Pg**	**20 26 29.6**	**+0.2**
SIVA				S	**Sb**	**20 26 40.2**	**+3.1**
SIVA				AML	AML		
SIVA	**Sivas**	**0.51**	**66**	P	**Pg**	**20 26 29.7**	**+0.2**
SIVA				S	**Sb**	**20 26 37.0**	**-0.1**
SIVA				AML	AML		
RTHF	**Rethymno-Limin**	**0.58**	**20**	P	**Pg**	**20 26 30.6**	**-0.3**
RTHF				S	**Sg**	**20 26 38.2**	**-0.5**
RTHF				AML	AML		
VAM	**Vamos**	**0.59**	**356**	P	**Pb**	**20 26 32.8**	**+1.4**
VAM				S	**Sn**	**20 26 43.6**	**+1.1**
VAM				AML	AML		
VAM	**Vamos**	**0.59**	**356**	P	**Pb**	**20 26 32.2**	**+0.8**
VAM				S	**Sg**	**20 26 38.0**	**-0.9**
VAM				AML	AML		
IMMV	**Iera Moni Meta**	**0.68**	**342**	Pg	**Pb**	**20 26 33.3**	**+0.4**
IMMV				Sg	**Sb**	**20 26 44.1**	**+2.0**
IMMV				AML	AML		
IMMV	**Iera Moni Meta**	**0.68**	**342**	P	**Pg**	**20 26 31.4**	**-1.3**
IMMV				S	**Sg**	**20 26 41.2**	**-0.5**
IMMV				AML	AML		
CHNB	**Souda**	**0.69**	**348**	P	**Pb**	**20 26 33.1**	**+0.1**
CHNB				S	**Sg**	**20 26 40.7**	**-1.2**
CHNB				AML	AML		
IDI	**Anoyia**	**0.71**	**48**	Pg	**Pg**	**20 26 32.9**	**-0.4**
IDI				Sg	**Sb**	**20 26 43.9**	**+0.9**
IDI				AML	AML		
IDI	**Anoyia**	**0.71**	**48**	P	**Pg**	**20 26 32.4**	**-0.9**
IDI				S	**Sb**	**20 26 43.4**	**+0.4**
CHAN	**Chania**	**0.72**	**347**	P	**Pb**	**20 26 34.0**	**+0.4**
CHAN				S	**Sg**	**20 26 42.2**	**-0.8**
CHAN				AML	AML		
CH01	**Chania**	**0.72**	**345**	P	**Pg**	**20 26 33.1**	**-0.4**
CH01				S	**Sg**	**20 26 42.7**	**-0.4**
CH01				AML	AML		
NPS	**Neapolis**	**1.21**	**68**	P	**Pb**	**20 26 42.2**	**+0.3**
NPS				AML	AML		
NPS	**Neapolis**	**1.21**	**68**	P	**Pb**	**20 26 42.2**	**+0.3**
NPS				S	**Sn**	**20 26 59.0**	**+1.3**
NPS				AML	AML		
ANKY	**Antikythira Is**	**1.30**	**324**	P	**Pn**	**20 26 43.6**	**+0.6**
ANKY				AML	AML		
ANKY	**Antikythira Is**	**1.30**	**324**	P	**Pn**	**20 26 43.9**	**+1.0**
ANKY				S	**Sb**	**20 27 00.2**	**+0.2**
ZKR	**Zakros**	**1.65**	**79**	Pn	**Pn**	**20 26 47.6**	**-0.1**
ZKR				Sn	**Sn**	**20 27 09.3**	**+0.7**
ZKR				AML	AML		
ZKR	**Zakros**	**1.65**	**79**	P	**Pb**	**20 26 50.1**	**+0.7**
KTHA	**Kythira Island**	**1.73**	**326**	Pn	**Pn**	**20 26 50.1**	**+1.2**
KTHA				AML	AML		
KTHA	**Kythira Island**	**1.73**	**326**	P	**Pb**	**20 26 51.0**	**+0.1**
THR6	**Thira Island,**	**1.80**	**31**	P	**Pb**	**20 26 51.6**	**-0.4**
THR5	**Thira Island,**	**1.83**	**29**	Pn	**Pn**	**20 26 51.6**	**+1.3**
THR5	**Thira Island,**	**1.83**	**29**	P	**Pn**	**20 26 51.4**	**+1.1**
SNT5	**Nea Kammeni, S**	**1.84**	**30**	P	**Pb**	**20 26 52.7**	**0.0**
THERA	**Ancient Thera,**	**1.84**	**33**	P	**Pn**	**20 26 51.5**	**+1.1**
THERA	**Ancient Thera,**	**1.84**	**33**	P	**Pn**	**20 26 51.1**	**+0.7**
THR3	**Thira Island,**	**1.85**	**30**	P	**Pn**	**20 26 52.0**	**+1.5**
SAP3	**Santorini-Thir**	**1.85**	**29**	P	**Pn**	**20 26 51.9**	**+1.5**
MHLO	**Agia Marina, M**	**1.88**	**4**	P	**Pb**	**20 26 52.9**	**-0.3**
THR8	**Santorini-Mono**	**1.88**	**32**	P	**Pn**	**20 26 51.6**	**+0.7**
THR2	**Thira island,**	**1.90**	**30**	P	**Pn**	**20 26 52.5**	**+1.4**
CMBO	**Columbo, Santo**	**1.90**	**29**	P	**Pb**	**20 26 53.3**	**-0.5**
VLI	**Veliai**	**2.18**	**331**	P	**Pn**	**20 26 57.2**	**+2.2**
KARP	**Karpathos**	**2.50**	**72**	Pn	**Pn**	**20 26 58.9**	**-0.5**
KARP				AML	AML		
CAME	**Cameli-Denizli**	**4.62**	**61**	Pn	**Pn**	**20 27 30.5**	**+1.7**
TORD	**Torodi Ar. Bea**	**29.70**	**229**	P	P	20 32 45.3	+21
	0.4nm,0.8s,baz=41,slow=7.3,SNR=1.5						
	0.4nm,0.8s						
KURBB	**Kurchatov Arra**	**41.92**	**51**	P	**P**	**20 34 06.8**	**-2.2**
	0.2nm,0.5s,baz=269,slow=8.7,SNR=2.3						
	0.2nm,0.5s						
MKAR	**Makanchi Array**	**44.59**	**56**	P	**P**	**20 34 29.2**	**-1.6**
	0.2nm,0.4s,baz=266,slow=7.8,SNR=5.0						
	0.2nm,0.4s						
ZALV	**Zalesovo Beam**	**45.78**	**46**	P	**P**	**20 34 37.6**	**-2.5**
	0.9nm,0.4s,baz=268,slow=8.5,SNR=4.6						
	0.9nm,0.4s						

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*SJA **16** 20:29:19.7±0.8, 30°.24S×72°.27W, h10^{km}±4^{km}, ML3.6, MW3.7*

*GUC **16** 20:29:23.9±0.8, 30°.25S×71°.89W, h22^{km}±7^{km}, ML3.6*

ISC 16 20:29:21.9±1.6, 30°.25S±0°.02×72°.10W±0°.06, h15^{km}±10^{km}, n32, σ1^{s}.57/63, 1C-3D, Off coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CO06	**Fray Jorge**	**0.58**	**136**	⇓*i*P	**Pb**	**20 29 34.0**	**+0.3**
CO06				*i* S	**Sb**	**20 29 41.4**	**-0.5**
CO06				IAML		20 29 44.5	
	comp=E,5µm,0.3s						
GO04	**Tololo Observa**	**1.13**	**86**	*e*P	**Pg**	**20 29 44.1**	**+0.4**
GO04				*e*S	**Sn**	**20 30 01.7**	**+2.9**
GO04				IAML		20 30 07.1	
	comp=Z,1µm,0.6s						
GO04	**Tololo Observa**	**1.13**	**86**	⇓*i*P	**Pg**	**20 29 44.1**	**+0.4**
GO04				*i* S	**Sb**	**20 29 57.0**	**-0.8**
GO04				IAML		20 30 07.6	
	comp=N,6µm,0.3s						
CO02	**Combarbal**	**1.34**	**135**	*e*P	**Pb**	**20 29 46.6**	**-0.2**
CO02				IAML		20 30 07.3	
	comp=Z,1µm,0.5s						
CO02				*e*S	**Sg**	**20 30 07.3**	**+2.2**
CO02	**Combarbal**	**1.34**	**135**	*e*P	**Pb**	**20 29 46.5**	**-0.3**
CO02				*i* S	**Sg**	**20 30 04.4**	**-0.7**
CO02				IAML		20 30 07.0	
	comp=N,3µm,0.3s						
LCO	**Las Campanas**	**1.74**	**45**	*e*P	**Pb**	**20 29 53.6**	**0.0**
LCO				*e*S	**Sg**	**20 30 18.4**	**+0.6**
LCO				IAML		20 30 21.9	
	comp=Z,1µm,0.5s						
LCO	**Las Campanas**	**1.74**	**45**	*e*P	**Pb**	**20 29 53.4**	**-0.3**
LCO				*i* S	**Sb**	**20 30 15.6**	**+0.2**
CO01	**Juntas del Tor**	**1.76**	**82**	*e*P	**Pg**	**20 29 54.9**	**-0.8**
CO01				*e*S	**Sg**	**20 30 19.8**	**+1.2**
CO01				IAML		20 30 22.0	
	comp=Z,534nm,0.6s						
CO01	**Juntas del Tor**	**1.76**	**82**	*e*P	**Pg**	**20 29 54.6**	**-1.1**
CO01				*i* S	**Sg**	**20 30 18.0**	**-0.6**
CO04	**Los Peladeros**	**2.03**	**152**	*e*P	**Pn**	**20 29 56.8**	**+0.9**
CO04				*i* S	**Sn**	**20 30 20.5**	**-0.6**
CO04				IAML		20 30 30.1	
	comp=E,770nm,0.6s						
AC05	**El Transito**	**2.13**	**49**	*e*P	**Pb**	**20 29 59.5**	**-0.8**
AC05				*e*S	**Sn**	**20 30 22.1**	**-1.2**
AC05				IAML		20 30 34.5	
	comp=Z,286nm,0.8s						
AC05	**El Transito**	**2.13**	**49**	*e*P	**Pb**	**20 29 59.4**	**-0.8**
AC05				*i* S	**Sb**	**20 30 26.2**	**-0.3**
AC05				IAML		20 30 34.9	
	comp=E,393nm,0.6s						
AC04	**Llanos de Chal**	**2.23**	**24**	*e*P	**Pn**	**20 29 59.7**	**+1.4**
AC04				*e*S	**Sg**	**20 30 34.6**	**+1.1**
AC04				IAML		20 30 42.1	
	comp=Z,252nm,0.6s						
AC04	**Llanos de Chal**	**2.23**	**24**	*e*P	**Pn**	**20 29 59.0**	**+0.7**
AROD	**Rodeo**	**2.27**	**88**	*e*P	**Pb**	**20 30 03.5**	**+0.7**
AROD				*e*S	**Sg**	**20 30 35.5**	**+0.5**
ACCO	**Cerro Coronel**	**2.64**	**98**	*e*P	**Pb**	**20 30 09.4**	**+0.3**
ACCO				*e*S	**Sb**	**20 30 43.1**	**+1.6**
ACCO				*e*S	**Sg**	**20 30 46.6**	**-0.2**
ACCO				IAML		20 30 48.5	
	comp=Z,190nm,0.9s						
VA03	**San Esteban**	**2.83**	**153**	*e*P	**Pn**	**20 30 09.1**	**+2.4**
VA03				*e*S	**Sn**	**20 30 38.1**	**-2.5**
VA03				IAML		20 31 00.3	
	comp=Z,199nm,1.1s						
VA03	**San Esteban**	**2.83**	**153**	*e*P	**Pb**	**20 30 09.2**	**-3.0**
VA03				*i* S	**Sn**	**20 30 40.1**	**-0.5**
VA03				IAML		20 30 58.1	
	comp=E,472nm,0.6s						
RTLS	**Leoncito**	**2.86**	**123**	*e*P	**Pb**	**20 30 12.3**	**-0.5**
RTLS				*e*S	**Sb**	**20 30 48.6**	**+0.9**
RTLS				*e*S	**Sg**	**20 30 53.1**	**-0.6**
RTLS				IAML		20 30 59.0	
	comp=Z,628nm,0.7s						
ROCH	**El Roble**	**2.87**	**161**	*e*P	**Pn**	**20 30 08.0**	**+0.7**
ROCH				⇑*e*P	**Pn**	**20 30 08.1**	**+0.7**
ROCH				*i* S	**Sn**	**20 30 40.2**	**-1.5**
ROCH				IAML		20 30 57.7	
	comp=N,384nm,0.6s						
ROCH				IAML		20 30 57.7	
	comp=N,182nm,0.5s						
MT02	**Curacav**	**3.11**	**165**	*e*P	**Pn**	**20 30 12.0**	**+1.6**
MT02				*e*S	**Sb**	**20 30 55.6**	**+1.0**
MT02				IAML		20 31 07.5	
	comp=Z,105nm,0.8s						
GO03	**Copiapo**	**3.11**	**32**	*e*P	**Pn**	**20 30 12.6**	**+2.0**
GO03				*e*S	**Sb**	**20 30 53.1**	**-1.7**
GO03				IAML		20 31 12.3	
	comp=Z,124nm,0.7s						
GO03	**Copiapo**	**3.11**	**32**	*e*P	**Pn**	**20 30 11.9**	**+1.3**
RTLL	**Cerro Villicun**	**3.30**	**110**	*e*P	**Pb**	**20 30 17.4**	**-2.7**
RTLL				*e*S	**Sb**	**20 31 00.6**	**+0.5**
RTLL				IAML		20 31 15.2	
	comp=Z,111nm,0.5s						
MT04	**Ro Olivares**	**3.56**	**153**	*e*P	**Pn**	**20 30 19.4**	**+2.6**
MT04				*e*S	**Sb**	**20 31 03.5**	**-4.3**
MT04				IAML		20 31 14.7	
	comp=Z,89nm,1.9s						
CFA	**Coronel Fontan**	**3.58**	**113**	*e*P	**Pb**	**20 30 21.9**	**-3.1**
CFA				*e*S	**Sb**	**20 31 10.1**	**+1.8**
CFA				IAML		20 31 17.2	
	comp=Z,52nm,0.5s						
MT01	**Popeta**	**3.67**	**169**	*e*P	**Pn**	**20 30 19.4**	**+1.2**
MT01				*e*P	Pb	20 30 19.9	-6.6
MT01				*e*S	**Sn**	**20 31 00.6**	**-0.6**
MT01				IAML		20 31 19.7	
	comp=Z,70nm,0.7s						
MT01				*e*S	**Sg**	**20 31 21.1**	**+1.3**
VCA	**Vinchina**	**3.71**	**67**	*e*P	**Pb**	**20 30 25.0**	**-2.3**
VCA				IAML		20 31 30.0	
	comp=Z,206nm,1.4s						
VCA	**Vinchina**	**3.71**	**67**	⇓*e*P	**Pb**	**20 30 24.9**	**-2.5**
MT13	**San Alfonso**	**3.81**	**157**	*e*P	**Pn**	**20 30 22.2**	**+2.1**
MT13				*e*S	**Sn**	**20 31 06.9**	**+2.2**
MT13				IAML		20 31 24.9	
	comp=Z,67nm,0.7s						
BO01	**Tunca**	**4.21**	**169**	*e*P	**Pn**	**20 30 27.7**	**+2.1**
BO01				*e*S	**Sn**	**20 31 15.1**	**+0.5**
BO01				IAML		20 31 48.6	
	comp=Z,44nm,0.9s						
ACLC	**CERRO LA CRUZ**	**4.55**	**81**	*e*P	**Pn**	**20 30 29.1**	**-1.3**
ACLC				IAML		20 31 51.1	
	comp=Z,43nm,0.9s						

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*IDC **16** 20:30:02.5±0.7, 15°.07S×179°.77E, h0^{km}, mb3.7/10, mbtmp3.7/11, ML4.5/1, MS3.7/17, Error ellipse: s-maj=36.9km s-min=17.2km az=132.0*

*NOU **16** 20:30:05.8, 15°.40S×179°.99W, h0^{km}, MLv3.7/4, Fiji Islands Region*

ISC 16 20:30:07.7±0.7, 15°.3S±0°.1×180°.0E±0°.1, h35^{km}, n28, σ1^{s}.12/17, mb3.6/9, MS3.8/16, Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DGTI	**Dogotuki**	**1.02**	**192**	P	**Pn**	**20 30 23.5**	**-2.0**
TAVE	**Taveuni**	**1.41**	**175**	P	**Pn**	**20 30 30.2**	**-0.6**
MSVF	**Nonsavu**	**3.03**	**217**	Pn	**Pn**	**20 30 53.5**	**+0.2**
	2.4nm,0.3s,baz=87,slow=11,SNR=7.6						
MSVF				Sn	**Sn**	**20 31 29.4**	**+1.0**
	4.8nm,0.3s,baz=320,slow=23,SNR=4.6						
MSVF				LR	LR	20 32 07.9	
	comp=Z,1µm,18.6s,baz=49,slow=40						
	18nm,0.8s						
MSVF				AML	AML		
MSVF	**Nonsavu**	**3.03**	**217**	P	**Pn**	**20 30 54.4**	**+1.1**
LKBA	**Tubou, Lakemba**	**3.15**	**158**	P	**Pn**	**20 30 54.8**	**+0.1**
HNR	**Honiara**	**20.39**	**284**	LR	LR	20 41 09.8	
	comp=Z,380nm,20.9s,baz=176,slow=33						
URZ	**Urewera**	**23.01**	**186**	LR	LR	20 42 11.0	
	comp=Z,126nm,19.5s,baz=65,slow=31						
PPT	**Papeete**	**29.30**	**99**	LR	LR	20 45 09.7	
	comp=Z,126nm,18.9s,baz=8.0,slow=31						
WRA	**Warramunga Arr**	**43.62**	**257**	P	**P**	**20 38 07.8**	**-1.3**
	0.7nm,0.7s,baz=89,slow=8.8,SNR=7.1						
	0.7nm,0.7s						
ASAR	**Alice Springs**	**44.05**	**252**	P	**P**	**20 38 10.7**	**-1.8**
	1.0nm,0.9s,baz=84,slow=8.0,SNR=7.6						
	1.0nm,0.9s						
FITZ	**Fitzroy Crossi**	**51.95**	**259**	LR	LR	21 01 08.6	
	comp=Z,83nm,18.1s,baz=5.5,slow=36						
SHEM	**Shemya Is, Ala**	**67.94**	**356**	LR	LR	21 05 11.7	
	comp=Z,28nm,19.6s,baz=125,slow=31						
QSPA	**South Pole Qui**	**74.74**	**180**	P	**P**	**20 41 44.9**	**+1.0**
	1.0nm,1.0s,baz=26,slow=1.9,SNR=6.4						
	1.0nm,1.0s						
KDAK	**Kodiak Island**	**76.27**	**15**	LR	LR	21 06 56.2	
	comp=Z,31nm,20.4s,baz=175,slow=29						
YBH	**Yreka Blue Hor**	**77.53**	**40**	P	**P**	**20 42 00.1**	**0.0**
	0.4nm,0.4s,baz=306,slow=17,SNR=1.1						
YBH				LR	LR	21 07 59.9	
	comp=Z,43nm,19.8s,baz=205,slow=29						
	0.4nm,0.4s						
PFO	**Pinyon Flats O**	**77.66**	**50**	LR	LR	21 08 15.3	
	comp=Z,51nm,19.0s,baz=193,slow=30						
NVAR	**Mina Array Bea**	**78.67**	**45**	P	**P**	**20 42 07.3**	**+0.7**
	0.5nm,0.7s,baz=224,slow=8.3,SNR=5.6						
	0.5nm,0.7s						
BBB	**Bella Bella**	**80.81**	**29**	LR	LR	21 14 58.1	
	comp=Z,41nm,18.7s,baz=178,slow=33						
ELK	**Elko**	**81.86**	**44**	LR	LR	21 10 48.6	
	comp=Z,60nm,20.0s,baz=228,slow=30						
ILAR	**Eielson Array**	**83.72**	**14**	P	**P**	**20 42 31.1**	**-1.4**
	0.3nm,0.6s,baz=263,slow=7.7,SNR=4.9						
ILAR				LR	LR	21 15 34.7	
	comp=Z,22nm,19.4s,baz=81,slow=33						
	0.3nm,0.6s						
DLBC	**Dease Lake**	**84.08**	**24**	LR	LR	21 12 03.2	
	comp=Z,38nm,20.7s,baz=221,slow=30						
NEW	**Newport**	**84.35**	**37**	LR	LR	21 15 46.0	
	comp=Z,45nm,18.2s,baz=202,slow=33						
MAW	**Mawson**	**85.77**	**200**	P	**P**	**20 42 43.2**	**+0.3**
	2.8nm,1.2s,baz=136,slow=3.7,SNR=4.4						
	2.8nm,1.2s						
TXAR	**Lajitas Array**	**85.95**	**58**	P	**P**	**20 42 45.8**	**+1.1**
	baz=247,slow=4.8,SNR=1.1						
CMAR	**Chiang Mai Arr**	**86.53**	**290**	P	**P**	**20 42 48.3**	**+0.6**
	0.1nm,0.3s,baz=122,slow=6.7,SNR=1.7						
CMAR				LR	LR	21 20 48.2	
	comp=Z,25nm,18.8s,baz=165,slow=35						
	0.1nm,0.3s						
PDAR	**Pinedale Array**	**86.56**	**44**	P	**P**	**20 42 48.0**	**+0.4**
	0.2nm,0.6s,baz=267,slow=5.9,SNR=2.2						
PDAR				LR	LR	21 14 35.1	
	comp=Z,27nm,18.9s,baz=236,slow=31						
	0.2nm,0.6s						
ATAH	**Atahualpa**	**99.27**	**100**	LR	LR	21 20 30.4	
	comp=Z,43nm,18.7s,baz=34,slow=30						
HFS	**Hagfors**	**134.12**	**350**	PKP	**PKPdf**	**20 49 20.4**	**-0.8**
	7.0nm,1.0s,baz=210,slow=8.6,SNR=3.7						

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*IDC **16** 20:57:43.9±1.6, 35°.37N×101°.52E, h0^{km}, mb3.4/4, mbtmp3.5/6, ML3.1/2, MS2.9/1, Error ellipse: s-maj=26.3km s-min=15.2km az=2.0*

ISC 16 20:57:49.0±1.5, 35°.5N±0°.2×101°.7E±0°.1, h35^{km}, n8, σ1^{s}.20/7, mb3.4/4, Qinghai

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LZDM	**Lanzhou Array**	**1.73**	**74**	Pn	**Pn**	**20 58 15.7**	**-1.1**
	baz=252,slow=16						
LZDM				Lg	Lg	20 58 44.1	
	baz=226,slow=16						
SONM	**Songino Array**	**12.84**	**15**	Pn	**Pn**	**21 00 49.5**	**+0.5**
	0.1nm,0.3s,baz=193,slow=13,SNR=4.4						
	0.7nm,0.8s						
SONM				AML	AML		
MKAR	**Makanchi Array**	**18.40**	**314**	P	**P**	**21 01 59.9**	**-1.0**
	0.1nm,0.3s,baz=116,slow=13,SNR=4.0						
	0.6nm,0.6s						
MKAR				AML	AML		
KSRS	**Korea Array**	**21.20**	**77**	P	**P**	**21 02 32.1**	**+0.7**
	2.4nm,0.6s,baz=267,slow=8.9,SNR=13						
	2.4nm,0.6s						
ZALV	**Zalesovo Beam**	**21.90**	**333**	P	**P**	**21 02 40.0**	**+1.2**
	1.1nm,0.6s,baz=133,slow=12,SNR=5.5						
	1.1nm,0.6s						
KURBB	**Kurchatov Arra**	**22.55**	**319**	P	**P**	**21 02 44.9**	**-1.0**
	0.5nm,0.4s,baz=125,slow=11,SNR=5.9						
	0.5nm,0.4s						
GUMO	**Guam**	**44.50**	**108**	LR	LR	21 24 02.6	
	comp=Z,15nm,19.6s,baz=147,slow=35						
ASAR	**Alice Springs**	**66.28**	**148**	P	**P**	**21 08 34.3**	**+0.5**
	0.3nm,0.9s,baz=345,slow=8.0,SNR=1.6						
	0.3nm,0.9s						

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*IDC **16** 21:00:54.0±1.2, 46°.09N×53°.23E, h0^{km}, mb3.6/2, mbtmp3.7/11, ML3.4/8, Error ellipse: s-maj=19.2km s-min=9.1km az=154.0*

*NNC **16** 21:00:58.3±7.6, 46°.18N×53°.71E, h0^{km}, mb3.6, mpv3.2, Error ellipse: s-maj=61.4km s-min=53.7km az=105.0*

ISC 16 21:00:57.5±1.0, 46°.16N±0°.10×53°.17E±0°.06, h35^{km}, n14, σ1^{s}.29/21, 1C-2D, Western Kazakhstan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AKTO	**Aktyubinsk**	**5.37**	**35**	Pn	**Pn**	**21 02 15.9**	**+0.9**
	1.5nm,0.3s,baz=211,slow=4.6,SNR=14						
AKTO				Sn	**Sn**	**21 03 15.3**	**-0.2**
	0.6nm,0.3s,baz=17,slow=22,SNR=1.4						
AKTO				Lg	Lg	21 03 47.7	
	0.6nm,0.3s,baz=142,slow=22,SNR=4.6						
	3.1nm,0.3s						
AKTO				AML	AML		
AKTO	**Aktyubinsk**	**5.37**	**35**	⇑Pn	**Pn**	**21 02 16.3**	**+1.3**
	1.1nm,0.3s						
AKTO				⇓Sn	**Sn**	**21 03 16.8**	**+1.3**
	2.7nm,0.6s						
AB31	**Akbulak array**	**5.52**	**53**	Pn	**Pn**	**21 02 17.5**	**+0.4**
	1.2nm,0.3s,baz=231,slow=13,SNR=142						
AB31				⇓Sn	**Sn**	**21 03 19.8**	**+0.4**
	1.5nm,0.3s,baz=235,slow=25						
BELG	**Belogornoye**	**7.22**	**332**	Pn	**Pn**	**21 02 39.8**	**-0.6**
	0.6nm,0.3s,baz=135,slow=8.6,SNR=4.2						
BELG				Sn	**Sn**	**21 04 00.7**	**-0.4**
	2.1nm,0.3s,baz=313,slow=23,SNR=13						
	1.7nm,0.4s						
BELG				AML	AML		
KBZ	**Khabaz**	**7.68**	**255**	Pn	**Pn**	**21 02 48.0**	**+1.2**
	1.0nm,0.3s,baz=68,slow=6.8,SNR=21						
KBZ				Sn	**Sn**	**21 04 11.9**	**-0.6**
	1.1nm,0.3s,baz=1.6,slow=11,SNR=6.7						
KBZ				Lg	Lg	21 05 00.6	
	baz=58,slow=22						
	4.6nm,0.5s						
KBZ				AML	AML		
KVAR	**Kislovodsk Arr**	**7.74**	**257**	Pn	**Pn**	**21 02 48.3**	**+0.6**
	1.0nm,0.3s,baz=269,slow=18						
KVAR				Sn	**Sn**	**21 04 13.7**	**-0.4**
	baz=180,slow=2.3						
ARTI	**Arti**	**10.75**	**16**	Pn	**Pn**	**21 03 27.8**	**-1.0**
	0.5nm,0.3s,baz=204,slow=12,SNR=6.1						
ARTI				Sn	Sn	21 05 20.2	-7.5
	0.2nm,0.3s,baz=294,slow=19,SNR=1.7						
	1.4nm,0.4s						
ARTI				AML	AML		
BVA0	**Borovoye Array**	**13.10**	**52**	P	**Pn**	**21 04 01.0**	**+0.2**
	baz=259,slow=11,SNR=14						
BVA0				S	**Sn**	**21 06 25.3**	**+0.2**
	0.1nm,0.8s,baz=257,slow=27,SNR=4.1						
BVAR	**Borovoye Array**	**13.10**	**52**	Pn	**Pn**	**21 03 58.4**	**-2.5**
	0.1nm,0.3s,baz=245,slow=13,SNR=13						
BVAR				Sn	Sn	21 06 16.7	-8.5
	baz=245,slow=24,SNR=3.7						
	1.4nm,0.3s						
BVAR				AML	AML		
AAK	**Ala-Archa**	**15.63**	**95**	Pn	**Pn**	**21 04 33.2**	**-2.0**
	0.5nm,0.3s,baz=229,slow=5.5,SNR=4.9						
	1.3nm,0.4s						
AAK				AML	AML		
KURBB	**Kurchatov Arra**	**17.39**	**66**	Pn	**Pn**	**21 04 54.3**	**-2.8**
	0.1nm,0.3s,baz=270,slow=12,SNR=6.1						
	0.4nm,0.4s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**20.02**	**78**	P	**P**	**21 05 28.0**	**+0.8**
	baz=268,slow=13,SNR=1.9						
	0.3nm,0.5s						
ZALV	**Zalesovo Beam**	**21.62**	**57**	P	**P**	**21 05 45.5**	**+1.3**
	0.7nm,0.3s,baz=261,slow=11,SNR=5.4						
	0.7nm,0.3s						
FINES	**FINESS Array B**	**21.90**	**324**	P	**P**	**21 05 48.2**	**+1.0**
	1.2nm,0.3s,baz=128,slow=12,SNR=13						
	1.2nm,0.3s						

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*ISK **16** 21:09:16.7, 37°.27N×26°.78E, h3^{km}, ML2.4/14*

*AFAD **16** 21:09:17.3, 37°.28N×26°.81E, h7^{km}±3^{km}, ML2.3*

*ATH **16** 21:09:17.0, 37°.28N×26°.82E, h13^{km}±2^{km}, ML2.5/3, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*

*THE **16** 21:09:18.3, 37°N±4°×2°7E±°, h10^{km}±22^{km}, M2.2/6, MLh2.2/6*

ISC 16 21:09:17.2±1.0, 37°.28N±0°.02×26°.81E±0°.02, h13^{km}±8^{km}, n54, σ0^{s}.48/76, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KLNA	**Kalymnos**	**0.35**	**158**	P	**Pg**	**21 09 24.1**	**-0.1**
KLNA				S	**Sg**	**21 09 28.8**	**-0.1**
KLNA				AML	AML		
DIDI	**Didim-Aydin**	**0.36**	**74**	Pg	**Pb**	**21 09 24.9**	**-0.5**
DIDI				AML	AML		
DDIM	**Aydin, Didim**	**0.39**	**63**	P	**Pg**	**21 09 24.8**	**-0.1**
YKAV	**Yalikavak-Bodr**	**0.41**	**112**	Pg	**Pg**	**21 09 25.8**	**+0.5**
YKAV				Sg	**Sb**	**21 09 32.1**	**-0.3**
YKAV				AML	AML		
BODT	**Bodrum**	**0.46**	**118**	P	**Pb**	**21 09 26.9**	**-0.2**
BODT				S	**Sg**	**21 09 32.7**	**+0.5**
BODT				AML	AML		
BODT	**Bodrum**	**0.46**	**118**	Pg	**Pg**	**21 09 26.7**	**+0.5**
BODT				AML	AML		
GCAM	**G?zelcaml?**	**0.54**	**39**	Pg	**Pb**	**21 09 28.2**	**-0.3**
GCAM				Sg	**Sb**	**21 09 37.0**	**+0.8**
GCAM				AML	AML		
GCAM	**G?zelcaml?**	**0.54**	**39**	P	**Pg**	**21 09 27.3**	**-0.4**
BDRM	**Kayabasi**	**0.55**	**113**	P	**Pb**	**21 09 28.7**	**0.0**
BDRM				S	**Sb**	**21 09 36.0**	**-0.6**
BDRM				IAML		21 09 37.0	
	comp=N,327nm,0.4s						
BODA	**Bodrum-Mula**	**0.55**	**116**	Pg	**Pb**	**21 09 28.6**	**-0.1**
KUSD	**Kusadasi-Aydin**	**0.69**	**33**	Pg	**Pb**	**21 09 31.2**	**0.0**
KUSD				Sg	**Sb**	**21 09 41.4**	**+0.7**
KUSD				AML	AML		
MLSB	**Milas**	**0.77**	**89**	Pg	**Pb**	**21 09 32.5**	**0.0**
MLSB				AML	AML		
DGB	**zmir**	**0.77**	**4**	P	**Pg**	**21 09 32.3**	**+0.2**
DGB				S	**Sb**	**21 09 42.9**	**0.0**
YAZI	**Mula-Dat§a-**	**0.79**	**139**	P	**Pg**	**21 09 32.6**	**+0.2**
YAZI				S	**Sg**	**21 09 42.6**	**-0.2**
YAZI				IAML		21 09 46.0	
	comp=N,87nm,0.3s						
GMLD	**Gumuldur**	**0.80**	**6**	Pg	**Pg**	**21 09 32.8**	**+0.1**
GMLD				AML	AML		
ASTA	**Astypalaia**	**0.82**	**207**	P	**Pg**	**21 09 32.9**	**-0.1**
ASTA				S	**Sg**	**21 09 43.4**	**-0.3**
DAT	**Datca**	**0.82**	**132**	Pg	**Pg**	**21 09 33.3**	**+0.1**
DAT				AML	AML		
AYDN	**Tasoluk**	**0.93**	**66**	P	**Pg**	**21 09 35.1**	**-0.1**
AYDN				S	**Sb**	**21 09 48.5**	**+0.9**
AYDN				IAML		21 09 50.0	
	comp=N,104nm,0.4s						
ZEYE	**Izmir, Urla-Ze**	**0.99**	**346**	P	**Pg**	**21 09 36.2**	**0.0**
ZEYE				S	**Sg**	**21 09 48.2**	**-0.9**
ZEYE				IAML		21 09 51.0	
	comp=N,152nm,0.3s						
DUVT	**Torbali**	**1.07**	**28**	P	**Pb**	**21 09 37.9**	**+0.4**
BLCB	**Balcova**	**1.12**	**9**	P	**Pb**	**21 09 38.3**	**-0.1**
BLCB				S	**Sn**	**21 09 53.8**	**-0.1**
BLCB	**Balcova**	**1.12**	**9**	Pn	**Pn**	**21 09 38.9**	**+0.3**
BLCB				AML	AML		
YER	**Yerkesik**	**1.19**	**97**	P	**Pg**	**21 09 40.1**	**+0.1**
YER				S	**Sn**	**21 09 56.3**	**+0.7**
YER				AML	AML		
YER	**Yerkesik**	**1.19**	**97**	Pn	**Pg**	**21 09 40.6**	**+0.6**
YER				AML	AML		
IZMR	**zmir-demi**	**1.25**	**46**	P	**Pg**	**21 09 41.2**	**+0.1**
IZMR				S	**Sb**	**21 09 56.8**	**+0.2**
TURN	**Turunc**	**1.25**	**113**	Pn	**Pg**	**21 09 41.7**	**+0.4**

TURN				AML	AML		
TURN	Turunc	1.25	113	P	Pn	21 09 40.7	+0.3
TURN				S	Sb	21 09 56.8	+0.1
TURN				IAML		21 10 02.0	
	comp=N,50nm,0.3s						
CHOS	Chios island	1.26	332	P	Pn	21 09 40.3	-0.2
CHOS				S	Sn	21 09 58.8	+1.4
CHOS				AML	AML		
CHOS	Chios island	1.26	332	P	Pn	21 09 39.8	-0.7
CHOS				S	Sb	21 09 56.8	-0.1
CHOS				AML	AML		
ESEN	Aydn-Nazilli	1.33	67	P	Pg	21 09 42.6	-0.1
NAZL	Nazilli-Aydin	1.36	59	Pn	Pg	21 09 43.9	+0.6
NAZL				AML	AML		
THERA	Ancient Thera,	1.41	230	P	Pb	21 09 44.0	+0.7
THERA				AML	AML		
THERA	Ancient Thera,	1.41	230	P	Pn	21 09 42.9	+0.3
THERA				S	Sn	21 10 01.1	+0.1
THERA				AML	AML		
ODEM	Odemis-Izmir	1.41	45	Pn	Pg	21 09 44.4	+0.1
ODEM				AML	AML		
THR3	Thira Island,	1.43	233	P	Pn	21 09 43.6	+0.8
SAP3	Santorini-Thir	1.45	235	P	Pn	21 09 43.1	0.0
SAP3				S	Sn	21 10 02.7	+0.8
ARG	Arkhangelos	1.50	135	P	Pn	21 09 43.7	-0.1
ARG				AML	AML		
ARG	Arkhangelos	1.50	135	P	Pn	21 09 43.5	-0.3
ARG				S	Sn	21 10 03.0	-0.2
CAMT	Merkez	1.52	15	P	Pg	21 09 46.0	-0.4
DALY	Dalyan (Mula)	1.55	107	Pn	Pb	21 09 45.9	+0.2
DALY				AML	AML		
KIRA	zmir-Kiraz	1.56	54	P	Pb	21 09 46.2	+0.3
TAVA	DENIZLI_Tavas	1.69	83	P	Pg	21 09 49.0	-0.5
KTTT	Salihli	1.73	35	P	Pg	21 09 50.4	0.0
SULTU	Buldan	1.73	63	P	Pg	21 09 49.9	-0.6
KARP	Karpathos	1.75	171	P	Pn	21 09 46.8	-0.5
KARP	Karpathos	1.75	171	P	Pn	21 09 46.9	-0.5
KARP				S	Sn	21 10 08.4	-1.2
MANT	Manisa	1.84	48	P	Pg	21 09 52.6	+0.2
PRK	Paraskevi	2.01	348	P	Pn	21 09 50.9	+0.1
PRK				S	Sn	21 10 14.7	-1.1
KARY	Karystos	2.03	292	P	Pn	21 09 50.9	-0.2
ZKR	Zakros	2.21	193	P	Pn	21 09 53.5	-0.2
NPS	Neapolis	2.23	206	P	Pn	21 09 53.2	-0.7
DION	Dionisos Attik	2.42	290	P	Pn	21 09 56.7	+0.2
VLY	Voula,Athens	2.46	284	P	Pn	21 09 57.2	+0.1
IDI	Anoyia	2.52	219	P	Pn	21 09 57.0	-0.9

MOS ***16*** *21:31:05.9±0.9, 37°.30N×71°.66E, h119^{km}, mb4.5/12, Error ellipse: s-maj=6.8km s-min=4.0km az=85.7*

NEIC ***16*** *21:31:07.1±1.2, 37°.29N±0°.05×71°.66E±0°.09, h118^{km}±8^{km}, mb4.3/27, Error ellipse: s-maj=10.2km s-min=7.2km az=94.0*

NNC ***16*** *21:31:08.6±2.2, 37°.57N×71°.10E, h42^{km}±67^{km}, mb4.5, mpv4.3, Error ellipse: s-maj=17.7km s-min=15.3km az=18.0*

IDC ***16*** *21:31:10.3±3.4, 37°.67N×71°.49E, h120^{km}±29^{km}, mb3.6/18, mbtmp4.0/24, MS3.9/2, Error ellipse: s-maj=24.5km s-min=12.9km az=10.0*

ISC 16 21:31:06.3±0.4**, 37°.28N**±0°.04×**71°.61E**±0°.04**, h109**^{km}**, n214,** σ**1**^{s}**55**/235**, mb4.1**/37**, 21C-7D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DRK	Karamyk	2.20	4	PN	Pn	21 31 43.8	+1.7
DRK						21 32 10.4	
DRK	Karamyk	2.20	4		Pn	21 31 43.8	+1.7
DRK				Sn	Sn	21 32 10.4	+1.0
BTK	Batken	2.84	348	PN	Pn	21 31 52.1	+1.9
BTK				S	Sn	21 32 25.4	+1.4
BTK	Batken	2.84	348		Pn	21 31 52.1	+1.9
BTK				Sn	Sn	21 32 25.4	+1.4
KBL	Kabul	3.44	218	PN	Pn	21 31 59.7	+1.4
KBL						21 32 40.1	
KBL	Kabul	3.44	218		Pn	21 31 59.7	+1.4
KBL				Sn	Sn	21 32 40.1	+1.6
KSH2	Kashi	3.63	58	Pn	Pn	21 32 03.5	+2.7
KSH2				Sn	Sn	21 32 45.5	+2.6
KSH2				smax	smax		
	comp=N,1μm,0.6s						
KSH2				smax	smax		
	comp=E,510nm,0.8s						
NIL	Nilore	3.87	159	PN	Pn	21 32 05.2	+1.3
NIL	Nilore	3.87	159		Pn	21 32 05.2	+1.3
NIL				Sn	Sn	21 32 48.3	-0.1
ARSB	Arslanbob	4.17	14	PN	Pn	21 32 08.6	+0.5
ARSB	Arslanbob	4.17	14		Pn	21 32 08.6	+0.5
IUG	Iuzhnay	5.01	346	Pg	Pn	21 32 19.9	+0.6
	comp=E,52nm,0.3s						
IUG				Lg	Lg	21 33 13.3	
	comp=E,177nm,0.5s						
IUG	Iuzhnay	5.01	346	ePN	Pn	21 32 19.7	+0.4
IUG	Iuzhnay	5.01	346	eP	Pn	21 32 19.8	+0.6
IUG				eS	Sn	21 33 15.5	-0.5
JMU	Jammu	5.21	149	eP	Pn	21 32 24.1	+2.1
JMU				eS	Sn	21 33 18.6	-2.3
JMU				IAML		21 33 22.8	
	comp=E,511nm,0.3s						
JMU				IAML		21 33 23.1	
	comp=N,653nm,0.4s						
CHM	Chimkent	5.26	344	ePN	Pn	21 32 23.2	+0.6
CHM	Chimkent	5.26	344	eP	Pn	21 32 23.2	+0.6
CHM				eS	Sn	21 33 21.8	-0.2
NRN	Naryn	5.36	38	PN	Pn	21 32 24.4	+0.1
NRN	Naryn	5.36	38		Pn	21 32 24.4	+0.1
MRKS	Merke	5.59	12	Pg	Pn	21 32 28.3	+1.1
	comp=N,29nm,0.5s						
MRKS				Lg	Lg	21 33 27.9	
	comp=N,63nm,0.5s						
EKS2	Erkin-Say	5.62	17	P	Pn	21 32 28.9	+1.3
	SNR=36						
AAK	Ala-Archa	5.79	22	P	Pn	21 32 30.8	+0.9
	comp=N,20nm,0.3s,baz=188,slow=5.9,SNR=69						
AAK				S	Sn	21 33 32.1	-2.9
	comp=N,18nm,0.5s,baz=333,slow=24,SNR=7.0						
AAK	Ala-Archa	5.79	22	P	Pn	21 32 31.2	+1.4
	SNR=45						
AAK	Ala-Archa	5.79	22	⇓P	Pn	21 32 30.5	+0.6
	comp=N,4.1nm,0.4s						
AAK				⇑S	Sn	21 33 34.5	-0.5
	comp=N,66nm,1.2s						
AAK	Ala-Archa	5.79	22	c iPN	Pn	21 32 31.0	+1.1
TSSA	Tissa	5.79	139	eP	Pn	21 32 31.7	+1.7
TSSA				eS	Sn	21 33 32.2	-3.0
TSSA				IAML		21 33 35.2	
	comp=N,477nm,0.2s						
TSSA				IAML		21 33 35.4	
	comp=E,305nm,0.2s						
KK31	Karatay Array	5.87	352	P	Pn	21 32 28.7	-2.2
	comp=E,18nm,0.3s,baz=176,slow=12,SNR=206						
KK31				⇑S	Sn	21 33 32.2	-4.7
	comp=E,30nm,0.4s,baz=178,slow=23						
KK31	Karatay Array	5.87	352	PN	Pn	21 32 31.2	+0.3
KK31	Karatay Array	5.87	352		Pn	21 32 31.2	+0.3
KKAR	Karatay Array	5.87	352	PN	Pn	21 32 31.0	+0.1
KKAR	Karatay Array	5.87	352		Pn	21 32 31.0	+0.1
BRLS	Borolday	5.90	347	Pg	Pn	21 32 28.5	-2.7
	comp=E,12nm,0.1s						
BRLS				Lg	Lg	21 33 27.8	
	comp=E,51nm,0.9s						
BRLS	Borolday	5.90	347	ePN	Pn	21 32 28.5	-2.7
BRLS	Borolday	5.90	347	eP	Pn	21 32 28.6	-2.7
KBK	Karagaybulak	5.95	24	P	Pn	21 32 33.8	+1.7
	SNR=8.9						
FRU1	Bishkek	5.99	22	PN	Pn	21 32 33.4	+0.9
FRU1	Bishkek	5.99	22		Pn	21 32 33.4	+0.9
ULHL	Ulahol	6.11	34	P	Pn	21 32 36.1	+1.9
	SNR=6.1						
BOOM	Boomskoye usch	6.17	31	PN	Pn	21 32 35.5	+0.4
BOOM	Boomskoye usch	6.17	31		Pn	21 32 35.5	+0.4
CHMS	Chumysh	6.19	22	P	Pn	21 32 36.5	+1.2
	SNR=18						
USP	Ospenovka	6.37	19	P	Pn	21 32 38.7	+1.0
	SNR=15						
TKM2	Tokmak 2	6.41	27	P	Pn	21 32 40.1	+1.8
	SNR=6.6						
TLWR	Talawar	6.41	145	eS	Sn	21 33 45.9	-4.1
KDJ	Kajisay	6.47	40	PN	Pn	21 32 39.5	+0.4
KDJ	Kajisay	6.47	40	Pn	Pn	21 32 39.5	+0.4
TARG	Taragay, Kyrgy	6.53	45	PN	Pn	21 32 41.2	+1.0
TARG	Taragay, Kyrgy	6.53	45		Pn	21 32 41.2	+1.0
SGDS	Sogindy	6.58	20	P	Pn	21 32 41.0	+0.5
	comp=E,6.6nm,0.4s						
SGDS	Sogindy	6.58	20	eP	Pn	21 32 41.0	+0.5
KST	Kastek	6.65	29	Pg	Pn	21 32 45.6	+4.1
	comp=E,2.5nm,0.4s						
KST				Lg	Lg	21 33 57.0	
	comp=E,13nm,0.6s						
TNSS	Tian-Shan	7.05	34	ePN	Pn	21 32 47.7	+0.5
TNSS	Tian-Shan	7.05	34	eP	Pn	21 32 47.7	+0.5
BHK	Bhakra	7.08	145	IAML		21 34 06.0	
	comp=N,362nm,0.6s						
BHK				eS	Sn	21 34 07.0	+0.9
WUS	Wushi	7.08	54		Pn	21 32 48.2	+0.8
AAA	Alma-Ata	7.17	33	ePN	Pn	21 32 49.1	+0.6
AAA	Alma-Ata	7.17	33	eP	Pn	21 32 49.2	+0.6
MDOK	Medeo	7.20	34	Pg	Pn	21 32 51.4	+2.4
	comp=N,7.2nm,0.5s						
MDOK	Medeo	7.20	34	ePN	Pn	21 32 49.4	+0.5
MDOK	Medeo	7.20	34	eP	Pn	21 32 49.5	+0.5
MDOK				eS	Sn	21 34 09.0	-0.2
KOTS	Kotyrbulak	7.28	34	P	Pn	21 32 53.3	+3.2
	comp=N,9.9nm,0.3s						
PRZ	Przheval'sk	7.36	43	PN	Pn	21 32 52.0	+0.8
PRZ	Przheval'sk	7.36	43		Pn	21 32 52.0	+0.8
SMLA	Simla	7.67	142	eP	Pn	21 32 56.1	+0.8
SMLA				eS	Sn	21 34 18.7	-1.8
SMLA				IAML		21 34 19.1	
	comp=E,221nm,0.5s						
SMLA				IAML		21 34 19.8	
	comp=N,251nm,0.6s						
KLP	Kalpa	7.94	134	eP	Pn	21 32 59.5	+0.3
KLP				eS	Sn	21 34 24.0	-3.5
KLP				IAML		21 34 24.3	
	comp=N,164nm,0.4s						
KLP				IAML		21 34 26.6	
	comp=E,174nm,0.5s						
HRA	Herat	8.14	252		Pn	21 33 02.2	+0.4
UZB	Uzynbulak	8.15	42	ePN	Pn	21 33 02.4	+0.6
UZB	Uzynbulak	8.15	42	eP	Pn	21 33 02.5	+0.6
KPKS	Kokpek	8.20	39	ePN	Pn	21 33 03.0	+0.5
KPKS	Kokpek	8.20	39	eP	Pn	21 33 03.0	+0.5
SHLS	Shalkode	8.39	43	ePN	Pn	21 33 09.1	+4.0
SHLS	Shalkode	8.39	43	eP	Pn	21 33 09.1	+4.0
PDGK	Podgornoye	8.52	42	PN	Pn	21 33 07.0	+0.1
PDGK	Podgornoye	8.52	42		Pn	21 33 07.0	+0.1
TDK	Taldyqorghan	9.26	31	eP	Pn	21 33 17.1	+0.4
TDK	Taldyqorghan	9.26	31	eP	Pn	21 33 17.1	+0.4
AJM	Ajmer	11.13	166	eP	Pn	21 33 43.2	+1.0
MAKZ	Makanchi	12.23	36	P	Pn	21 33 59.9	+3.1
MK31	Makanchi Array	12.37	36	P	Pn	21 34 01.3	+2.8
	comp=E,1.8nm,0.8s,baz=216,slow=13,SNR=7.4						
MK31	Makanchi Array	12.37	36	eP	Pn	21 33 58.6	+0.1
MKAR	Makanchi Array	12.37	36	P	Pn	21 33 57.8	-0.8
	comp=E,2.0nm,0.9s,baz=216,slow=12,SNR=7.5						
MKAR	Makanchi Array	12.37	36	i P	Pn	21 33 59.5	+1.0
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
MKAR	Makanchi Array	12.37	36	Pn	Pn	21 33 57.0	-1.6
WMQ	Urumqi	13.85	57	eP	Pn	21 34 18.8	+0.9
WMQ				LR	LR		
	comp=Z,32nm,16.5s						
KURBB	Kurchatov Arra	14.23	18	P	Pn	21 34 21.7	-0.8
	comp=Z,0.6nm,0.2s,baz=207,slow=10,SNR=8.7						
KURBB	Kurchatov Arra	14.23	18	⇑P	P	21 34 25.5	-1.1
	comp=Z,2.8nm,0.8s						
KURBB	Kurchatov Arra	14.23	18	P	P	21 34 25.5	-1.1
KURK	Kurchatov	14.33	18	P	Pn	21 34 21.7	-2.2
AB31	Akbulak array	14.65	328	P	Pn	21 34 26.8	-1.2
	comp=Z,1.1nm,0.3s,baz=135,slow=14,SNR=62						
AB31	Akbulak array	14.65	328	P	Pn	21 34 26.8	-1.2
AB31	Akbulak array	14.65	328		Pn	21 34 26.1	-2.0
ABKAR	Akbulak array	14.65	328		Pn	21 34 26.0	-2.1
BHPL	Bhopal	14.86	159	eP	P	21 34 32.8	-1.1
BHPL				eS	Sn	21 37 15.7	+0.6
BVA0	Borovoye Array	15.76	357	P	Pn	21 34 42.9	+0.9
	baz=165,slow=13,SNR=9.7						
BVA0	Borovoye Array	15.76	357	P	Pn	21 34 42.9	+0.9
BVAR	Borovoye Array	15.76	357	P	Pn	21 34 41.0	-1.0
	comp=Z,1.9nm,0.6s,baz=164,slow=12,SNR=10						
BVAR	Borovoye Array	15.76	357	P	Pn	21 34 41.0	-1.0
BORK	Borovoye	15.79	357	⇓iP	Pn	21 34 43.0	+0.7
BORK				pmax	pmax		
	comp=Z,2.0nm,0.9s						
BORK	Borovoye	15.79	357	Pn	Pn	21 34 41.3	-1.0
EVN	Everest	15.81	122		Pn	21 34 39.2	-4.2
EVN				IAmb	IAmb	21 34 49.2	
	comp=Z,7.5nm,0.7s						
AKTO	Aktyubinsk	16.36	328	P	Pn	21 34 49.0	-0.4
	comp=Z,22nm,0.7s,baz=142,slow=9.3,SNR=34						
AKTO	Aktyubinsk	16.36	328	P	Pn	21 34 50.3	+0.9
AKTO	Aktyubinsk	16.36	328	P	Pn	21 34 50.3	+0.9
AKTO				S	Sn	21 37 46.5	-4.3
DGZ	Jazzator, Alta	16.86	38	eP	P	21 34 57.0	+1.0
DGZ				pmax	pmax		
	comp=Z,1.0nm,0.9s						
LSA	Lhasa	17.95	109	P	P	21 35 07.1	-1.3
LSA				pmax	pmax		
	comp=Z,4.0nm,0.6s						
LSA	Lhasa	17.95	109	P	P	21 35 07.1	-1.3
UOSS	Minazif	18.00	231	P	P	21 35 07.9	-0.7
LKRN	Lenkeran, Azer	18.05	282	P	P	21 35 06.0	-2.9
AKT	Akhty	18.91	290	eP	P	21 35 19.3	+0.8
AKT				eS	S	21 38 47.4	-0.2
AKT				pmax	pmax		
	comp=Z,6.0nm,0.6s						
ZAA0	Zalesovo Array	19.00	25	P	P	21 35 18.6	-0.6
ZALV	Zalesovo Beam	19.00	25	P	P	21 35 17.9	-1.2
	comp=Z,1.5nm,0.4s,baz=220,slow=10,SNR=12						
ZALV	Zalesovo Beam	19.00	25	i P	Pn	21 35 20.2	-0.9
ZALV				pmax	pmax		
	comp=Z,2.0nm,0.4s						
ZALV	Zalesovo Beam	19.00	25	P	P	21 35 18.4	-0.8
SEKA	Sheki	19.29	289	P	P	21 35 18.3	-4.3
MNGR	Mingechevir, A	19.35	288	P	P	21 35 19.3	-3.8
GANJ	Ganja	19.93	288	P	P	21 35 25.3	-4.1
SHL	Shillong	20.83	118	P	P	21 35 38.0	-1.4
SHL				pmax	pmax		
	comp=Z,13nm,0.7s						
SHL	Shillong	20.83	118	P	P	21 35 38.0	-1.4
SHL				IAmb	IAmb	21 35 41.4	
	comp=Z,13nm,0.7s						
ARTI	Arti	21.07	339	P	P	21 35 41.0	-0.5
	comp=Z,1.5nm,0.5s,baz=140,slow=13,SNR=3.7						
	comp=Z,1.5nm,0.5s						
ARTI	Arti	21.07	339	d iP	P	21 35 42.0	+0.5
ARTI						21 36 14.7	
ARTI				S	S	21 39 29.5	-0.3
ARTI				pmax	pmax		
	comp=Z,7.0nm,1.9s						
ARTI	Arti	21.07	339	P	P	21 35 41.5	0.0
ARTI				IAmb	IAmb	21 35 54.3	
	comp=Z,7.1nm,0.3s						
GNI	Garni	21.13	286	P	P	21 35 43.5	+1.0
	comp=Z,9.0nm,0.5s,baz=191,slow=4.8,SNR=6.4						
	comp=Z,9.0nm,0.5s						
GNI	Garni	21.13	286	eP	P	21 35 43.3	+0.8
GNI				pmax	pmax		
	comp=Z,10.0nm,0.9s						
GNI	Garni	21.13	286	P	P	21 35 42.3	-0.2
GNI				IAmb	IAmb	21 35 47.0	
	comp=Z,29nm,1.4s						
GTA2	Gaotai	22.14	76	eP	P	21 35 54.5	+1.3
GTA2				pP	pP	21 36 19.6	+4.4
GTA2				pmax	pmax		
	comp=Z,6.0nm,1.0s						
NCK	Nalchik	22.16	295	eP	P	21 35 54.5	+1.3
NCK				pmax	pmax		
	comp=Z,6.0nm,1.0s						
BELG	Belogornoye	22.60	320	P	P	21 35 55.6	-1.9
	comp=Z,7.5nm,0.8s,baz=225,slow=2.0,SNR=3.9						
	comp=Z,7.5nm,0.8s						
KBZ	Khabaz	22.69	295	P	P	21 35 58.4	-0.2
	comp=Z,1.4nm,0.7s,baz=137,slow=16,SNR=3.7						
	comp=Z,1.4nm,0.7s						
KBZ	Khabaz	22.69	295	eP	P	21 35 59.9	+1.3
KVAR	Kislovodsk Arr	22.86	296	P	P	21 36 01.6	+1.2
	comp=Z,2.0nm,0.8s,baz=236,slow=18,SNR=0.8						
	comp=Z,2.0nm,0.8s						
KIV	Kislovodsk	22.87	296	eP	P	21 36 02.8	+2.3
KIV				eS	S	21 40 03.0	+1.3
KIV				pmax	pmax		
	comp=Z,6.0nm,1.0s						
KIV	Kislovodsk	22.87	296	P	P	21 35 59.9	-0.6
KIV				IAmb	IAmb	21 36 13.0	
	comp=Z,11nm,0.5s						
KIRV	Kirov	25.76	333	eP	P	21 36 29.1	+2.6
LZH	Lanzhou	25.81	83	eP	P	21 36 29.1	+1.6
LZH				pP	pP	21 36 53.3	+0.8
LZH				sP	sP	21 37 06.4	+0.7
LZH				pmax	pmax		
	comp=Z,15nm,1.1s						
RAYN	Ar Rayn	26.26	246	P	P	21 36 31.8	+0.3
RAYN				pmax	pmax		
	comp=Z,3.0nm,0.6s						
RAYN	Ar Rayn	26.26	246	P	P	21 36 31.8	+0.3
RAYN				IAmb	IAmb	21 36 37.1	
	comp=Z,3.5nm,0.6s						
SONM	Songino Array	27.49	56	P	P	21 36 43.1	+0.8
	comp=Z,0.3nm,0.5s,baz=261,slow=8.3,SNR=3.6						
	comp=Z,0.3nm,0.5s						
BR131	Keskin Array S	29.67	287	eP	P	21 37 02.5	+0.7
BRTR	Keskin Array B	29.67	287	P	P	21 37 03.0	+1.2
	comp=Z,0.8nm,0.7s,baz=96,slow=9.1,SNR=4.6						
	comp=Z,0.8nm,0.7s						
BRTR	Keskin Array B	29.67	287	i P	P	21 37 03.2	+1.4
BRTR	Keskin Array B	29.67	287	P	P	21 37 01.5	-0.3
OBN	Obninsk	29.67	318	eP	P	21 37 01.3	-0.1
OBN				e*PP	pP	21 37 29.8	+3.2
OBN				e*SP	sP	21 37 44.7	+4.9
OBN				e		21 38 03.0	
OBN				e		21 40 03.3	
OBN				pmax	pmax		
	comp=Z,4.0nm,0.4s						
CMAR	Chiang Mai Arr	30.42	121	P	P	21 37 08.9	+0.5
	comp=Z,0.2nm,0.3s,baz=311,slow=9.2,SNR=4.3						
HHC	Hu-ho-hao-te	31.04	71	eP	P	21 37 15.9	+2.1
HHC				pmax	pmax		
	comp=Z,9.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,24nm,5.6s						
AKASG	Malin Array Be	32.84	308	P	P	21 37 29.7	+0.3
	comp=Z,0.5nm,0.5s,baz=84,slow=6.7,SNR=4.1						
	comp=Z,0.5nm,0.5s						
AKASG	Malin Array Be	32.84	308	ceP	P	21 37 30.0	+0.7
AKBB	Malin Array Si	32.84	308	⇑iP	P	21 37 29.2	-0.1
AKBB				pmax	pmax		
	comp=Z,6.0nm,1.3s						
ELL	Elmali	33.11	282	P	P	21 37 32.6	+0.6
ELL				pmax	pmax		
	comp=Z,11nm,1.2s						
ELL	Elmali	33.11	282	P	P	21 37 32.6	+0.6
NRIK	Noril'sk	33.27	10	⇑iP	P	21 37 33.5	+0.7
NRIK				pmax	pmax		
	comp=Z,11nm,2.5s						
TESR	Tescani	34.31	300	⇑P	P	21 37 43.4	+1.3
PLOR	Plostina	34.33	299	⇑P	P	21 37 44.3	+2.0
PLOR	Plostina	34.33	299	⇑P	P	21 37 44.3	+2.0
ISR	Istrita	34.43	298	P	P	21 37 45.1	+1.9
ISR	Istrita	34.43	298	⇑P	P	21 37 45.1	+1.9
COVR	Voineasa-Covas	34.64	299	⇓P	P	21 37 46.3	+1.3
TURR	Turia	34.76	299	⇓P	P	21 37 47.3	+1.2
MLR	Muntele Rosu	34.83	298	⇑P	P	21 37 48.8	+2.0
MLR	Muntele Rosu	34.83	298	P	P	21 37 47.2	+0.4
MLR				IAmb	IAmb	21 37 50.2	
	comp=Z,6.2nm,1.0s						
MLR	Muntele Rosu	34.83	298	⇑P	P	21 37 48.8	+2.0
BURAR	Bucovina Array	35.28	302	⇑P	P	21 37 51.6	+1.0
BURAR	Bucovina Array	35.28	302	P	P	21 37 50.7	+0.1
BURAR	Bucovina Array	35.28	302	⇑P	P	21 37 51.6	+1.0
BUR08	Bucovina Ar. S	35.29	302	P	P	21 37 50.1	-0.6
BUR08				IAmb	IAmb	21 38 03.9	
	comp=Z,6.7nm,1.5s						
VOIR		35.47	298	⇑P	P	21 37 53.3	+1.1
VOIR		35.47	298	⇑P	P	21 37 53.3	+1.1
KARP	Karpathos	35.57	281	P	P	21 37 52.9	-0.3
ARR	Arges	35.76	298	⇑P	P	21 37 56.1	+1.4
LOT	Lotru	36.36	298	⇓P	P	21 38 00.5	+0.6
PABE	Paberze	36.70	315	P	P	21 38 02.5	+0.1
DRGR		37.01	301	⇑P	P	21 38 06.3	+1.0
DRGR		37.01	301	⇑P	P	21 38 06.3	+1.0
FINES	FINESS Array B	37.11	325	P	P	21 38 06.2	+0.4
	comp=Z,2.5nm,0.8s,baz=103,slow=8.6,SNR=8.9						
	comp=Z,2.5nm,0.8s						
FINES	FINESS Array B	37.11	325	i P	P	21 38 05.1	-0.7
FINES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
FINES	FINESS Array B	37.11	325	P	P	21 38 05.9	0.0
VADS	Vadso	39.76	339	eP	P	21 38 28.6	+0.8
MORH	Mrgy, Hungar	39.86	300	⇑P	P	21 38 29.1	+0.1
MORC	Moravsky Berou	40.30	306	P	P	21 38 32.8	+0.1
MORC	Moravsky Berou	40.30	306	⇓P	P	21 38 32.8	+0.1
ARCES	ARCESS Array B	40.61	337	P	P	21 38 35.6	+0.7
	comp=Z,1.6nm,0.5s,baz=111,slow=8.3,SNR=20						
ARCES				LR	LR	21 56 06.3	
	comp=Z,38nm,18.2s,baz=22,slow=37						
	comp=Z,1.6nm,0.5s						
ARCES	ARCESS Array B	40.61	337	P	P	21 38 35.4	+0.5
ARCES				IAmb	IAmb	21 38 57.3	
	comp=Z,7.5nm,1.4s						
KTK1	Kautokeino	41.10	336	eP	P	21 38 39.5	+0.6
HAMF	Hammerfest	41.68	338	eP	P	21 38 44.7	+1.0
JETT	Jettan, Norway	42.24	336	eP	P	21 38 49.1	+0.8
TRO	Tromso	42.75	336	eP	P	21 38 53.1	+0.8
HFS	Hagfors	42.76	321	P	P	21 38 53.0	+0.5
	comp=Z,3.8nm,0.4s,baz=98,slow=11,SNR=26						
	comp=Z,3.8nm,0.4s						
HFS	Hagfors	42.76	321	P	P	21 38 53.0	+0.5
KHC	Kasperske Hory	42.93	305	eP	P	21 38 53.8	-0.3
KHC				pmax	pmax		
	comp=Z,3.0nm,1.2s						
KHC	Kasperske Hory	42.93	305	eP	P	21 38 47.0	-7.1
CUC	Castrocucco	43.06	291	P	P	21 38 55.6	+0.2
CUC				IAmb	IAmb	21 39 18.2	
	comp=Z,9.2nm,1.3s						
GSI	Gunungsitoli	43.07	140	P	P	21 38 55.3	-0.3
SABO	M.te Sabotino	43.37	301	P	P	21 38 57.8	+0.1
SABO				IAmb	IAmb	21 39 00.9	
	comp=Z,10nm,1.2s						
MOR8	Moi Rana	43.38	330	eP	P	21 38 57.2	-0.2
NC602	NORSAR Array S	43.87	322	eP	P	21 39 01.6	+0.2
NC602	NORSAR Array S	43.87	322	P	P	21 39 01.2	-0.2
VAGH	Vaagaholmen	43.96	331	eP	P	21 39 03.5	+1.5
KONS	Konsvik	43.97	330	eP	P	21 39 02.7	+0.6
NB2	NORSAR Subarra	44.05	323	P	P	21 39 03.1	+0.1
	comp=Z,1.4nm,0.5s,baz=94,slow=7.9						
NB2	NORSAR Subarra	44.05	323	P	P	21 39 03.1	+0.1
NOA	NORSAR Array B	44.05	323	P	P	21 39 03.2	+0.2
	comp=Z,2.9nm,0.7s,baz=94,slow=7.6,SNR=11						
	comp=Z,2.9nm,0.7s						
KONO	Kongsberg	44.79	320	P	P	21 39 08.1	-0.7
KONO				pmax	pmax		
	comp=Z,20nm,1.2s						
KONO	Kongsberg	44.79	320	eP	P	21 39 09.2	+0.5
KONO	Kongsberg	44.79	320	P	P	21 39 08.1	-0.7
LODK	Lodwar	47.32	233	P	P	21 39 28.5	-0.8
LODK				IAmb	IAmb	21 39 36.2	
	comp=Z,3.2nm,1.5s						
SENIN	Lac Senin/Sane	47.58	302	P	P	21 39 30.9	-0.2
KEST	Kesra	49.25	288	P	P	21 39 44.8	+0.8
	comp=Z,3.4nm,1.0s,baz=80,slow=6.0,SNR=4.2						
	comp=Z,3.4nm,1.0s						
EKA	Eskdalemuir Ar	52.07	316	P	P	21 40 04.5	-0.1
	comp=Z,1.8nm,0.7s,baz=82,slow=7.0,SNR=7.9						
	comp=Z,1.8nm,0.7s						
ESDC	Sonseca Array	57.53	298	P	P	21 40 44.5	+0.2
	comp=Z,1.0nm,0.7s,baz=52,slow=7.4,SNR=13						
	comp=Z,1.0nm,0.7s						
ESDC	Sonseca Array	57.53	298	P	P	21 40 43.6	-0.7
TORD	Torodi Ar. Bea	66.22	269	P	P	21 41 41.6	-1.3
	comp=Z,0.2nm,0.3s,baz=56,slow=5.1,SNR=4.2						
TORD				LR	LR	22 13 15.4	
	comp=Z,348nm,20.3s,baz=216,slow=38						
F21K	Alatna River	70.35	17	P	P	21 42 06.9	-0.9
F21K				IAmb	IAmb	21 42 12.8	
	comp=Z,6.7nm,1.4s						
YKA	Yellowknife Ar	80.44	3	P	P	21 43 05.3	-0.2
	comp=Z,0.5nm,0.5s,baz=352,slow=5.3,SNR=4.2						
	comp=Z,0.5nm,0.5s						
WRA	Warramunga Arr	81.99	122	P	P	21 43 18.6	+4.3
	comp=Z,0.4nm,0.7s,baz=309,slow=7.6,SNR=20						
	comp=Z,0.4nm,0.7s						
ASAR	Alice Springs	84.30	125	P	P	21 43 31.6	+5.4
	comp=Z,0.4nm,0.6s,baz=314,slow=4.7,SNR=5.7						
	comp=Z,0.4nm,0.6s						

DJA 16 21:49:52.8±0.3, 5°S±2°×10°2E±°, h10^{km}, M4.1/20, mB5.0/1, mb4.7/1, MLv3.8/20, Mw(mB)4.3/1, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
UBSI	**University, Be**	**0.83**	**12**	P	Pg	21 50 08.8	-0.1
UBSI				S	Sb	21 50 20.7	+0.1
UBSI				AML	AML		
MNAI	**Manna**	**0.88**	**76**	P	Pn	21 50 10.8	-0.5
MNAI				S	Sb	21 50 22.4	+0.4
MNAI				AML	AML		
KSI	**Kapahiang**	**1.04**	**28**	P	Pg	21 50 12.6	-0.3
KSI				S	Sg	21 50 26.2	-0.4
KSI				AML	AML		
MASI	**Maura Aman, Be**	**1.44**	**6**	P	Pn	21 50 18.9	-0.1
MASI				AML	AML		
LHSI	**Lahat**	**1.60**	**62**	P	Pn	21 50 21.2	0.0
LHSI				S	Sg	21 50 45.3	+0.8
LHSI				AML	AML		
MDSI	**Maura Dua**	**2.07**	**88**	P	Pn	21 50 27.1	-0.6
MDSI				AML	AML		
KASI	**Kota Agung**	**2.56**	**112**	P	Pn	21 50 35.1	+0.7
KASI				AML	AML		
SDSI	**Sungai Dareh**	**3.69**	**349**	P	Pn	21 50 50.8	+0.9
CGJI	**Cibinong**	**4.11**	**120**	P	Pn	21 50 55.0	-0.7
CGJI				AML	AML		
DSRI	**Dabo**	**4.77**	**31**	P	Pn	21 51 03.5	-1.3
DSRI				AML	AML		
TRSI	**Tarutung**	**7.27**	**334**	P	Pn	21 51 33.9	-5.4
SJI	**Sawahan**	**10.11**	**109**	P	Pn	21 52 15.7	-2.5

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*IDC **16** 22:04:17.5±0.7, 15°.10S×173°.75W, h0^{km}, mb3.8/9, mbtmp3.9/10, ML4.3/1, MS3.4/4, Error ellipse: s-maj=33.6km s-min=16.9km az=140.0*

*NEIC **16** 22:04:21.0±1.4, 14°.9S±0°.2×173°.4W±0°.1, h35^{km}±2^{km}, mb4.0/6, Error ellipse: s-maj=34.5km s-min=14.4km az=324.0*

ISC 16 22:04:21.5±0.7, 15°.1S±0°.1×173°.4W±0°.1, h30^{km}, n28, σ2^{s}.01/20, mb3.8/10, MS3.6/3, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	**1.93**	**52**	Pn	**Pn**	**22 04 52.2**	**-0.2**
	83nm,0.3s,baz=235,slow=12,SNR=24						
AFI				Sn	**Sn**	**22 05 12.0**	**-3.7**
	234nm,0.3s,baz=218,slow=19,SNR=19						
AFI				LR	LR	22 05 36.6	
	comp=Z,247nm,21.1s,baz=219,slow=35						
	175nm,0.3s						
AFI				AML	AML		
RAR	**Rarotonga**	**14.26**	**117**	Pn	**Pn**	**22 07 40.5**	**-0.9**
H11S2	**WAKE ISLAND Hy**	**38.73**	**329**	T	T	22 52 25.2	
	baz=146,slow=76,SNR=15						
H11S3	**WAKE ISLAND Hy**	**38.74**	**329**	T	T	22 52 26.2	
	baz=146,slow=76,SNR=15						
H11S1	**WAKE ISLAND Hy**	**38.75**	**329**	T	T	22 52 28.7	
	baz=146,slow=76,SNR=10						
PMG	**Port Moresby**	**38.96**	**274**	LR	LR	22 25 17.3	
	comp=Z,83nm,18.4s,baz=68,slow=33						
H11N3	**WAKE ISLAND Hy**	**39.67**	**330**	T	T	22 53 34.2	
	baz=148,slow=74,SNR=3.0						
H11N1	**WAKE ISLAND Hy**	**39.68**	**330**	T	T	22 53 34.4	
	baz=148,slow=74,SNR=3.2						
H11N2	**WAKE ISLAND Hy**	**39.69**	**330**	T	T	22 53 37.0	
	baz=148						
WB0	**Warramunga Arr**	**49.91**	**257**	P	**P**	**22 13 10.7**	**-2.2**
WRA	**Warramunga Arr**	**49.96**	**257**	P	**P**	**22 13 10.9**	**-2.3**
	0.3nm,0.3s,baz=94,slow=8.1,SNR=18						
	0.3nm,0.3s						
WRA	**Warramunga Arr**	**49.96**	**257**	P	**P**	**22 13 10.3**	**-2.8**
AS31	**Alice Springs**	**50.24**	**252**	P	**P**	**22 13 13.0**	**-2.3**
AS31				IAmb	IAmb	22 13 37.6	
	comp=Z,2.1nm,1.2s						
ASAR	**Alice Springs**	**50.25**	**252**	P	**P**	**22 13 13.3**	**-2.1**
	comp=Z,2.3nm,0.6s,baz=91,slow=7.7,SNR=35						
	comp=Z,2.3nm,0.6s						
ASAR	**Alice Springs**	**50.25**	**252**	P	**P**	**22 13 12.4**	**-2.9**
VNDA	**Vanda**	**63.68**	**186**	P	**P**	**22 14 49.6**	**0.0**
	comp=Z,0.6nm,0.8s,baz=6.4,slow=7.6,SNR=4.0						
	comp=Z,0.6nm,0.8s						
VNDA	**Vanda**	**63.68**	**186**	P	**P**	**22 14 49.5**	**0.0**
VNDA				IAmb	IAmb	22 14 51.6	
	comp=Z,0.9nm,0.9s						
SHEM	**Shemya Is, Ala**	**68.42**	**352**	LR	LR	22 39 17.1	
	comp=Z,20nm,21.8s,baz=235,slow=31						
NVAR	**Mina Array Bea**	**74.08**	**42**	P	**P**	**22 15 57.4**	**+2.3**
	comp=Z,0.6nm,0.7s,baz=238,slow=4.9,SNR=2.6						
	comp=Z,0.6nm,0.7s						
QSPA	**South Pole Qui**	**74.94**	**180**	P	**P**	**22 16 00.4**	**+0.8**
	comp=Z,3.1nm,0.8s,baz=28,slow=3.3,SNR=13						
	comp=Z,3.1nm,0.8s						
QSPA	**South Pole Qui**	**74.94**	**180**	P	**P**	**22 16 00.1**	**+0.4**
QSPA				IAmb	IAmb	22 16 01.4	
	comp=Z,3.3nm,0.8s						
TXAR	**Lajitas Array**	**80.41**	**56**	P	**P**	**22 16 33.7**	**+3.0**
	comp=Z,0.3nm,0.9s,baz=236,slow=2.5,SNR=2.9						
	comp=Z,0.3nm,0.9s						
PDAR	**Pinedale Array**	**82.01**	**42**	P	**P**	**22 16 40.7**	**+1.6**
	comp=Z,0.5nm,0.8s,baz=258,slow=6.1,SNR=5.4						
	comp=Z,0.5nm,0.8s						
ILAR	**Eielson Array**	**82.14**	**11**	P	**P**	**22 16 39.3**	**+0.3**
	comp=Z,0.1nm,0.4s,baz=208,slow=6.1,SNR=4.3						
	comp=Z,0.1nm,0.4s						
MAW	**Mawson**	**88.09**	**199**	P	**P**	**22 17 09.2**	**+0.4**
	comp=Z,1.2nm,0.6s,baz=128,slow=10,SNR=2.5						
	comp=Z,1.2nm,0.6s						
MAW	**Mawson**	**88.09**	**199**	P	**P**	**22 17 08.6**	**-0.3**
MAW				IAmb	IAmb	22 17 36.6	
	comp=Z,1.1nm,1.4s						
ULM	**Lac du Bonnet**	**93.67**	**39**	LR	LR	22 54 52.8	
	comp=Z,40nm,18.2s,baz=297,slow=32						
BRTR	**Keskin Array B**	**145.95**	**321**	PKPbc	**PKPdf**	**22 23 58.2**	**+0.2**
	comp=Z,0.7nm,0.7s,baz=48,slow=2.1,SNR=4.9						

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*IDC **16** 22:39:58.9±3.3, 34°.78N×27°.13E, h0^{km}, mb3.6/4, mbtmp3.6/7, ML2.7/3, Error ellipse: s-maj=102.9km s-min=24.3km az=165.0*

*ISK **16** 22:40:01.1, 35°.02N×27°.12E, h5^{km}, ML3.1/14*

*AFAD **16** 22:40:02.0, 34°.83N×27°.05E, h35^{km}, ML2.8*

*THE **16** 22:40:04.2, 35°N±29°×2°7E±5°4, h1^{km}±31^{km}, M2.9/7, MLh2.9/7*

*ATH **16** 22:40:04.5, 35°.14N×26°.95E, h5^{km}, ML2.9/7, Latitude uncertainty: 4 km; Longitude uncertainty: 3 km*

ISC 16 22:40:01.1±1.5, 34°.98N±0°.06×27°.10E±0°.03, h7^{km}±9^{km}, n64, σ1^{s}.05/78, mb3.6/4, Eastern Mediterranean Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KARP	**Karpathos**	**0.57**	**5**	P	**Pg**	**22 40 12.7**	**+0.5**
KARP				S	**Sb**	**22 40 20.9**	**-1.0**
KARP				AML	AML		
KARP	**Karpathos**	**0.57**	**5**	Pg	**Pg**	**22 40 12.6**	**+0.5**
KARP				Sg	**Sb**	**22 40 20.6**	**-1.2**
KARP				AML	AML		
KARP	**Karpathos**	**0.57**	**5**	P	**Pg**	**22 40 12.5**	**+0.4**
KARP				S	**Sg**	**22 40 19.3**	**-0.3**
KARP				AML	AML		
ZKR	**Zakros**	**0.73**	**281**	P	**Pb**	**22 40 16.4**	**+0.2**
ZKR	**Zakros**	**0.73**	**281**	Pg	**Pg**	**22 40 15.9**	**+0.7**
ZKR				Sg	**Sb**	**22 40 28.3**	**+1.8**
ZKR				AML	AML		
ZKR	**Zakros**	**0.73**	**281**	P	**Pb**	**22 40 16.2**	**-0.1**
ZKR				S	**Sg**	**22 40 24.3**	**-0.5**
SIT2	**Siteia**	**0.84**	**286**	P	**Pg**	**22 40 17.6**	**+0.4**
SIT2				S	**Sg**	**22 40 26.4**	**-1.8**
STIA	**Sitia Lasithi**	**0.85**	**285**	P	**Pg**	**22 40 18.1**	**+0.6**
STIA				S	**Sg**	**22 40 27.9**	**-0.7**
AGNA	**Agios Nikolaos**	**1.15**	**281**	P	**Pb**	**22 40 23.9**	**+0.6**
AGNA				AML	AML		
NPS	**Neapolis**	**1.25**	**284**	P	**Pn**	**22 40 26.1**	**+1.0**
NPS				S	**Sn**	**22 40 44.8**	**+2.7**
NPS				AML	AML		
NPS	**Neapolis**	**1.25**	**284**	P	**Pn**	**22 40 26.0**	**+1.0**
NPS				AML	AML		
ARG	**Arkhangelos**	**1.49**	**34**	P	**Pg**	**22 40 30.4**	**+0.7**
ARG				AML	AML		
ARG	**Arkhangelos**	**1.49**	**34**	Pn	**Pg**	**22 40 30.0**	**+0.3**
ARG				Sn	**Sg**	**22 40 50.2**	**+1.1**
ARG				AML	AML		
YAZI	**Mula-Dat§a-**	**1.72**	**10**	P	**Pb**	**22 40 33.2**	**+0.2**
YAZI				S	**Sn**	**22 40 54.2**	**+0.5**
DAT	**Datca**	**1.79**	**12**	Pn	**Pn**	**22 40 33.7**	**+1.2**
DAT				AML	AML		
DAT	**Datca**	**1.79**	**12**	S	**Sb**	**22 40 57.5**	**+0.6**
IDI	**Anoyia**	**1.83**	**280**	P	**Pg**	**22 40 36.5**	**+0.2**
IDI				AML	AML		
IDI	**Anoyia**	**1.83**	**280**	Pn	**Pb**	**22 40 35.5**	**+0.5**
IDI				AML	AML		
IDI	**Anoyia**	**1.83**	**280**	P	**Pb**	**22 40 35.9**	**+0.8**
IDI				AML	AML		
SIVA	**Sivas**	**1.88**	**272**	P	**Pg**	**22 40 37.3**	**+0.2**
SIVA				AML	AML		
SIVA	**Sivas**	**1.88**	**272**	P	**Pg**	**22 40 37.1**	**0.0**
SIVA				AML	AML		
THERA	**Ancient Thera,**	**1.91**	**317**	P	**Pb**	**22 40 36.0**	**-0.4**
THERA				AML	AML		
THERA	**Ancient Thera,**	**1.91**	**317**	P	**Pn**	**22 40 35.2**	**+1.0**
THERA				AML	AML		
THR8	**Santorini-Mono**	**1.94**	**318**	P	**Pb**	**22 40 36.6**	**-0.2**
THR8	**Santorini-Mono**	**1.94**	**318**	P	**Pb**	**22 40 36.3**	**-0.5**
THR6	**Thira Island,**	**1.95**	**315**	P	**Pb**	**22 40 36.5**	**-0.5**
THR6	**Thira Island,**	**1.95**	**315**	P	**Pb**	**22 40 36.4**	**-0.5**
SNT5	**Nea Kammeni, S**	**1.98**	**316**	P	**Pb**	**22 40 37.9**	**+0.3**
SNT5	**Nea Kammeni, S**	**1.98**	**316**	P	**Pb**	**22 40 36.9**	**-0.7**
THR3	**Thira Island,**	**1.99**	**316**	P	**Pb**	**22 40 37.2**	**-0.3**
THR3	**Thira Island,**	**1.99**	**316**	P	**Pn**	**22 40 36.4**	**+1.3**
THR2	**Thira island,**	**1.99**	**318**	P	**Pn**	**22 40 36.3**	**+1.1**
TURN	**Turunc**	**2.02**	**27**	Pn	**Pn**	**22 40 36.9**	**+1.3**
TURN				AML	AML		
TURN	**Turunc**	**2.02**	**27**	P	**Pn**	**22 40 36.8**	**+1.3**
THR5	**Thira Island,**	**2.02**	**316**	P	**Pn**	**22 40 36.8**	**+1.1**
BODT	**Bodrum**	**2.09**	**5**	Pn	**Pn**	**22 40 37.9**	**+1.4**
BODT				AML	AML		
BDRM	**Kayabasi**	**2.10**	**8**	P	**Pn**	**22 40 37.1**	**+0.4**
DALY	**Dalyan (Mula)**	**2.23**	**34**	Pn	**Pn**	**22 40 39.8**	**+1.4**
DALY				AML	AML		
DALY	**Dalyan (Mula)**	**2.23**	**34**	P	**Pn**	**22 40 39.0**	**+0.5**
DALY				S	**Sg**	**22 41 14.0**	**+1.4**
DALY				IAML		22 41 18.0	
	comp=N,42nm,1.1s						
DALY				IAML		22 41 20.0	
	comp=E,60nm,0.9s						
IZZE	**Mula-Seydike**	**2.26**	**49**	P	**Pn**	**22 40 39.0**	**0.0**
FETY	**Fethiye**	**2.31**	**44**	Pn	**Pn**	**22 40 40.9**	**+1.3**
FETY				AML	AML		
YER	**Yerkesik**	**2.36**	**24**	Pn	**Pn**	**22 40 41.7**	**+1.4**
YER				AML	AML		
MLSB	**Milas**	**2.38**	**13**	Pn	**Pn**	**22 40 41.9**	**+1.4**
MLSB				AML	AML		
SABU	**Mula-Dalaman**	**2.39**	**39**	P	**Pn**	**22 40 39.8**	**-0.8**
AKAS	**Kas**	**2.40**	**58**	Pn	**Pn**	**22 40 42.5**	**+1.6**
AKAS				AML	AML		
AKAS	**Kas**	**2.40**	**58**	P	**Pn**	**22 40 41.0**	**+0.2**
AKAS				S	**Sn**	**22 41 11.0**	**+0.4**
AKAS				IAML		22 41 19.0	
	comp=E,61nm,0.7s						
GVD	**Gavdhos**	**2.48**	**268**	P	**Pn**	**22 40 44.1**	**+2.2**
GVD				AML	AML		
CAME	**Cameli-Denizli**	**2.65**	**42**	Pn	**Pn**	**22 40 45.9**	**+1.4**
CAME				AML	AML		
GCAM	**G?zelcaml?**	**2.72**	**2**	Pn	**Pn**	**22 40 46.7**	**+1.5**
AYDN	**Tasoluk**	**2.75**	**13**	P	**Pn**	**22 40 45.8**	**+0.2**
CAEL	**Denizli, Camel**	**2.80**	**39**	P	**Pn**	**22 40 47.6**	**+1.2**
TAVA	**DENIZLI_Tavas**	**2.88**	**30**	P	**Pn**	**22 40 49.1**	**+1.6**
TAVA				S	**Sb**	**22 41 28.1**	**-0.3**
TAVA				IAML		22 41 47.0	
	comp=E,38nm,1.5s						
ESEN	**Aydn-Nazilli**	**2.99**	**19**	P	**Pn**	**22 40 49.5**	**+0.5**
ESEN				S	**Sn**	**22 41 26.6**	**+1.6**
GOLH	**Golhisar**	**3.01**	**41**	P	**Pn**	**22 40 50.6**	**+1.3**
DNIZ	**Denizli-Tavas-**	**3.07**	**30**	P	**Pn**	**22 40 50.3**	**+0.2**
IZMR	**zmir-demi**	**3.23**	**12**	P	**Pn**	**22 40 51.5**	**-0.6**
SULTU	**Buldan**	**3.35**	**23**	P	**Pn**	**22 40 53.0**	**-1.0**
BRTR	**Keskin Array B**	**7.04**	**46**	Pn	**Pn**	**22 41 46.4**	**+1.6**
	0.1nm,0.3s,baz=210,slow=16,SNR=3.8						
	0.5nm,0.7s						
BRTR				AML	AML		
KEST	**Kesra**	**14.51**	**278**	Pn	**Pn**	**22 43 24.5**	**-2.4**
	baz=86,slow=19,SNR=2.1						
	2.1nm,0.8s						
KBZ	**Khabaz**	**15.01**	**50**	Pn	**Pn**	**22 43 32.2**	**-1.3**
	0.1nm,0.3s,baz=243,slow=2.3,SNR=2.1						
	1.1nm,0.8s						
KBZ				AML	AML		
KURBB	**Kurchatov Arra**	**40.00**	**51**	P	**P**	**22 47 36.5**	**+0.1**
	0.8nm,0.8s,baz=278,slow=8.8,SNR=9.9						
	0.8nm,0.8s						
MKAR	**Makanchi Array**	**42.55**	**57**	P	**P**	**22 47 56.6**	**-0.8**
	1.0nm,0.7s,baz=279,slow=6.2,SNR=5.2						
	1.0nm,0.7s						
ZALV	**Zalesovo Beam**	**43.98**	**46**	P	**P**	**22 48 07.8**	**-1.0**
	0.8nm,0.6s,baz=266,slow=9.7,SNR=4.4						
	0.8nm,0.6s						
SONM	**Songino Array**	**58.37**	**51**	P	**P**	**22 49 57.1**	**-0.1**
	0.2nm,0.4s,baz=272,slow=6.8,SNR=1.2						
	0.2nm,0.4s						

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*NEIC **16** 22:41:30.5±1.2, 41°.87N±0°.05×143°.4E±0°.1, h38^{km}±6^{km}, mb4.3/8, Error ellipse: s-maj=12.5km s-min=7.7km az=86.0*

*IDC **16** 22:41:31.7±2.4, 41°.80N×143°.55E, h56^{km}±18^{km}, mb3.6/15, mbtmp3.8/19, ML3.3/3, MS3.2/5, Error ellipse: s-maj=20.8km s-min=14.3km az=108.0*

*JMA **16** 22:41:31.3±0.1, 41°.8N±0°.2×143°.4E±0°.4, h30^{km}±1^{km}, MV3.7/35, SE OFF ERIMOMISAKI*

JMA Felt I J1 at SE OFF ERIMOMISAKI .

*NIED **16** 22:41:31.3, 41°.83N×143°.41E, h30^{km}, MW3.8, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}3.94; $M_{\theta\theta}$-3.11; $M_{\phi\phi}$-0.84; $M_{r\theta}$0.32; $M_{\theta\phi}$-1.89; $M_{\phi r}$4.37; Fault plane solution: $M_0$5.84000×10^{14} NP1: ϕ_s260.00000°, δ33.00000°, λ138.00000°. NP2: ϕ_s27.00000°, δ69.00000°, λ65.00000°.*

ISC 16 22:41:29.5±0.8, 41°.78N±0°.06×143°.53E±0°.08, h36^{km}±1^{km}, n55, σ1^{s}.19/54, mb4.1/19, MS3.1/3, 6D, Hokkaido region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ERM	**Erimo**	**0.37**	**310**		**Pn**	**22 41 38.0**	**-0.2**
ERM				Sn	**Sn**	**22 41 43.4**	**-1.3**
JEM	**Erimo**	**0.37**	**310**	*i* P	**Pn**	**22 41 37.9**	**-0.2**
JEM				*e*S	**Sn**	**22 41 43.5**	**-1.1**
JTHR	**Tokachihiroo**	**0.54**	**341**	⇓*i*P	**Pn**	**22 41 40.9**	**+0.1**
JTHR				⇓S	**Sn**	**22 41 48.4**	**-0.2**
JNBK	**Urakawa-nobuka**	**0.77**	**311**	⇓*i*P	**Pn**	**22 41 44.2**	**+0.4**
JCH	**Churui**	**0.84**	**351**	⇓*i*P	**Pn**	**22 41 45.8**	**+0.9**
JCH				⇓S	**Sn**	**22 41 58.3**	**+2.2**
JSHD	**Hidakashinhida**	**1.01**	**309**	⇓*i*P	**Pn**	**22 41 48.4**	**+1.2**
JOB	**Onbets**	**1.15**	**11**	P	**Pn**	**22 41 50.9**	**+1.9**
JBT2	**Biratori 2**	**1.32**	**319**	*i* P	**Pn**	**22 41 53.0**	**+1.6**
JTM	**Tenmabayashi**	**2.11**	**243**		**Pn**	**22 42 03.5**	**+1.3**
JTM				Sn	**Sn**	**22 42 28.2**	**+1.1**
JKA	**Kamikawa-asahi**	**2.44**	**344**		**Pn**	**22 42 08.0**	**+1.3**
ASAJ	**Asahikawa**	**2.44**	**344**	P	**Pn**	**22 42 08.3**	**+1.6**
	12nm,0.3s,baz=163,slow=20,SNR=78						
ASAJ				S	**Sn**	**22 42 38.5**	**+3.2**
	49nm,0.6s,baz=150,slow=20,SNR=8.0						
	29nm,0.3s						
ASAJ				AML	AML		
MJAR	**Matsushiro Arr**	**6.67**	**220**	P	**Pn**	**22 43 06.9**	**+2.0**
	0.1nm,0.3s,baz=38,slow=14,SNR=9.1						
	2.3nm,0.6s						
MJAR				AML	AML		
MJAR	**Matsushiro Arr**	**6.67**	**220**		**Pn**	**22 43 06.0**	**+1.1**
JGF	**Kuroka**	**7.83**	**220**	Pn	**Pn**	**22 43 22.6**	**+1.6**
USRK	**Ussuriysk Ar.**	**8.80**	**290**	P	**Pn**	**22 43 35.6**	**+1.5**
	0.2nm,0.3s,baz=110,slow=12,SNR=7.3						
	3.1nm,0.8s						
USRK				AML	AML		
KSRS	**Korea Array**	**12.79**	**255**	P	**Pn**	**22 44 30.0**	**+1.3**
	0.5nm,0.4s,baz=64,slow=14,SNR=1.4						
KSRS				LR	LR	22 49 22.1	
	comp=Z,37nm,18.4s,baz=330,slow=37						
HILR	**Hailar Array B**	**18.30**	**303**	P	**P**	**22 45 37.0**	**-3.3**
	0.9nm,0.4s,baz=101,slow=15,SNR=1.9						
MA2	**Magadan**	**18.38**	**12**	LR	LR	22 53 16.6	
	comp=Z,45nm,18.5s,baz=232,slow=38						
SEY	**Seymchan**	**21.82**	**11**	P	**P**	**22 46 16.8**	**-1.5**
	3.1nm,0.2s,baz=198,slow=20,SNR=8.0						
	3.1nm,0.2s						
YAK	**Yakutsk**	**21.92**	**342**	LR	LR	22 56 19.6	
	comp=Z,36nm,19.1s,baz=275,slow=41						
SONM	**Songino Array**	**26.85**	**296**	P	**P**	**22 47 06.6**	**0.0**
	0.7nm,0.6s,baz=92,slow=10,SNR=3.1						
SONM				LR	LR	22 59 04.8	
	comp=Z,48nm,19.1s,baz=140,slow=39						
	0.7nm,0.6s						
H11N2	**WAKE ISLAND Hy**	**29.59**	**131**	T	T	23 18 59.8	
	baz=324,slow=75,SNR=305						
H11N1	**WAKE ISLAND Hy**	**29.60**	**131**	T	T	23 19 00.4	
	baz=324,slow=75,SNR=357						
H11N3	**WAKE ISLAND Hy**	**29.61**	**131**	T	T	23 19 01.2	
	baz=324,slow=75,SNR=251						
H11S1	**WAKE ISLAND Hy**	**30.46**	**133**	T	T	23 20 00.1	
	baz=325,slow=76,SNR=433						
H11S3	**WAKE ISLAND Hy**	**30.47**	**133**	T	T	23 20 00.5	
	baz=325,slow=76,SNR=367						
H11S2	**WAKE ISLAND Hy**	**30.48**	**133**	T	T	23 20 05.6	
	baz=325,slow=76,SNR=240						
ZAA0	**Zalesovo Array**	**40.09**	**308**	P	**P**	**22 49 00.7**	**-0.5**
ZALV	**Zalesovo Beam**	**40.09**	**308**	P	**P**	**22 49 01.8**	**+0.6**
	2.4nm,0.7s,baz=87,slow=7.6,SNR=11						
	2.4nm,0.7s						
ZALV	**Zalesovo Beam**	**40.09**	**308**	P	**P**	**22 49 01.2**	**-0.1**
E19K	**Redstone River**	**40.54**	**31**	P	**P**	**22 49 04.8**	**0.0**
E19K				IAmb	IAmb	22 49 21.7	
	comp=Z,5.5nm,1.2s						
G21K	**Allakaket**	**41.89**	**32**	P	**P**	**22 49 16.3**	**+0.4**
G21K				IAmb	IAmb	22 49 28.2	
	comp=Z,12nm,1.5s						
MKAR	**Makanchi Array**	**43.16**	**298**	P	**P**	**22 49 26.0**	**-0.5**
	comp=Z,1.2nm,0.8s,baz=80,slow=11,SNR=4.9						
MKAR				PcP	**PcP**	**22 51 14.6**	**-0.9**
	comp=Z,0.2nm,0.5s,baz=59,slow=5.2,SNR=0.9						
	comp=Z,1.2nm,0.8s						
MKAR	**Makanchi Array**	**43.16**	**298**	P	**P**	**22 49 26.1**	**-0.3**
KURK	**Kurchatov**	**44.44**	**305**	P	**P**	**22 49 36.2**	**-0.5**
KURBB	**Kurchatov Arra**	**44.52**	**305**	P	**P**	**22 49 37.5**	**+0.2**
	comp=Z,1.7nm,0.5s,baz=74,slow=8.9,SNR=18						
KURBB				PcP	**PcP**	**22 51 20.3**	**+0.3**
	comp=Z,0.2nm,0.5s,baz=108,slow=3.0,SNR=2.0						
	comp=Z,1.7nm,0.5s						
ILAR	**Eielson Array**	**44.64**	**35**	P	**P**	**22 49 38.6**	**+0.6**
	comp=Z,0.3nm,0.7s,baz=274,slow=9.0,SNR=5.1						
	comp=Z,0.3nm,0.7s						
D25K	**Kavik River**	**44.69**	**28**	P	**P**	**22 49 38.1**	**-0.3**
D25K				IAmb	IAmb	22 50 05.4	
	comp=Z,10nm,1.4s						
BCAR	**Beaver Creek A**	**47.08**	**37**	P	**P**	**22 49 57.6**	**+0.2**
BVAR	**Borovoye Array**	**48.70**	**310**	P	**P**	**22 50 10.7**	**+0.6**
	comp=Z,1.1nm,0.4s,baz=76,slow=7.5,SNR=10						
	comp=Z,1.1nm,0.4s						
KKAR	**Karatay Array**	**52.27**	**298**	P	**P**	**22 50 36.7**	**-0.5**
AB31	**Akbulak array**	**56.21**	**308**	P	**P**	**22 51 05.5**	**-0.1**
AB31				IAmb	IAmb	22 51 07.3	
	comp=Z,2.9nm,1.4s						
ABKAR	**Akbulak array**	**56.21**	**308**	P	**P**	**22 51 05.5**	**-0.1**
WRA	**Warramunga Arr**	**62.00**	**190**	P	**P**	**22 51 47.5**	**+1.6**
	comp=Z,0.7nm,1.1s,baz=4.5,slow=6.5,SNR=2.0						
	comp=Z,0.7nm,1.1s						
PALK	**Pallekele**	**65.02**	**257**	LR	LR	23 22 03.5	
	comp=Z,99nm,18.3s,baz=122,slow=37						
FIA1	**FINESS Array S**	**65.39**	**332**	P	**P**	**22 52 06.7**	**-1.2**
FINES	**FINESS Array B**	**65.39**	**332**	P	**P**	**22 52 07.4**	**-0.5**
	comp=Z,2.8nm,0.6s,baz=46,slow=6.5,SNR=15						
	comp=Z,2.8nm,0.6s						
FINES	**FINESS Array B**	**65.39**	**332**	P	**P**	**22 52 07.1**	**-0.7**
NB201	**NORSAR Array S**	**70.41**	**338**	P	**P**	**22 52 38.9**	**-0.6**
HFS	**Hagfors**	**70.44**	**336**	P	**P**	**22 52 39.7**	**0.0**
	comp=Z,2.2nm,0.8s,baz=46,slow=10,SNR=1.9						
	comp=Z,2.2nm,0.8s						
NOA	**NORSAR Array B**	**70.44**	**338**	P	**P**	**22 52 38.9**	**-0.8**
	comp=Z,1.2nm,0.9s,baz=30,slow=2.7,SNR=2.2						
	comp=Z,1.2nm,0.9s						
NVAR	**Mina Array Bea**	**70.89**	**55**	P	**P**	**22 52 43.0**	**-0.1**
	comp=Z,0.3nm,0.7s,baz=329,slow=11,SNR=2.7						
	comp=Z,0.3nm,0.7s						
AKASG	**Malin Array Be**	**71.55**	**322**	P	**P**	**22 52 45.2**	**-1.4**
	comp=Z,0.3nm,0.4s,baz=46,slow=6.6,SNR=1.9						
	comp=Z,0.3nm,0.4s						
PDAR	**Pinedale Array**	**73.21**	**47**	P	**P**	**22 52 56.5**	**-0.4**
	comp=Z,0.1nm,0.6s,baz=312,slow=6.7,SNR=1.7						
	comp=Z,0.1nm,0.6s						
EKA	**Eskdalemuir Ar**	**79.19**	**341**	P	**P**	**22 53 30.7**	**+0.4**
	comp=Z,1.5nm,0.8s,baz=16,slow=6.0,SNR=2.1						
	comp=Z,1.5nm,0.8s						

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*HLW **16** 22:43:45.9, 24°.25N×36°.54E, h19^{km}±21^{km}, Ml2.7*

*SGS **16** 22:43:50.6, 24°.39N×36°.55E, h6^{km}, Ml1.5*

ISC 16 22:43:45.3±1.1, 24°.26N±0°.07×36°.41E±0°.04, h10^{km}, n18, σ0^{s}.61/20, Red Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SUMJS	**Umluj**	**1.03**	**61**	P	**Pn**	**22 44 06.5**	**+0.6**
HAGS	**Hagol**	**1.30**	**276**	P	**Pn**	**22 44 09.5**	**-0.1**
LNY07	**LNY07**	**1.37**	**50**	P	**Pg**	**22 44 11.9**	**+0.3**
UMJ11	**UMJ11**	**1.51**	**24**	P	**Pb**	**22 44 13.2**	**-0.2**
UMJ11				S	**Sn**	**22 44 31.8**	**-0.5**
LNY16	**LNY16**	**1.54**	**45**	P	**Pb**	**22 44 13.8**	**-0.1**
LNY17	**LNY17**	**1.60**	**52**	P	**Pb**	**22 44 15.4**	**+0.3**
LNY15	**LNY15**	**1.61**	**51**	P	**Pg**	**22 44 15.6**	**-0.6**
LNYS	**LNYS**	**1.62**	**59**	P	**Pg**	**22 44 15.9**	**-0.5**
LNY10	**LNY10**	**1.66**	**52**	P	**Pb**	**22 44 16.4**	**+0.3**
LNY01	**LNY01**	**1.71**	**56**	P	**Pb**	**22 44 17.2**	**+0.3**
FGALY	**Al Ais**	**1.81**	**75**	P	**Pb**	**22 44 18.2**	**-0.3**
MURBA	**Al Muraba'a**	**2.03**	**55**	P	**Pb**	**22 44 21.9**	**-0.5**
NADB	**Abo Dabab**	**2.04**	**302**	P	**Pn**	**22 44 20.4**	**+0.7**
BADR	**Badr**	**2.09**	**100**	P	**Pn**	**22 44 21.6**	**+1.1**
BRNS	**Bernies**	**2.13**	**260**	P	**Pn**	**22 44 21.8**	**+0.8**
BRNS				S	**Sn**	**22 44 47.0**	**-0.5**
YOBS		**2.13**	**87**	P	**Pb**	**22 44 23.2**	**-0.9**
NSAFS	**Ar Rayis**	**2.34**	**109**	P	**Pn**	**22 44 24.3**	**+0.5**
KASR	**Kasr**	**3.10**	**259**	P	**Pn**	**22 44 35.3**	**+1.0**

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*NEIC **16** 22:44:24.7±0.9, 19°.35N±0°.07×65°.75W±0°.04, h10^{km}±2^{km}, ML2.6/31, Md3.5/9(RSPR), Error ellipse: s-maj=12.9km s-min=4.6km az=26.0*

*RSPR **16** 22:44:26.6, 19°.46N×65°.63W, h30^{km}±16^{km}, MD3.5/9*

ISC 16 22:44:24.0±2.9, 19°.4N±0°.1×65°.73W±0°.08, h16^{km}±10^{km}, n29, σ0^{s}.45/46, 9C-5D, Puerto Rico region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EMPR	**Esperanza - Ma**	**1.19**	**220**		**Pg**	**22 44 46.8**	**-0.1**
EMPR					**Sg**	**22 45 02.8**	**+0.3**
EMPR	**Esperanza - Ma**	**1.19**	**220**	⇑*e*P	**Pg**	**22 44 46.8**	**-0.1**
EMPR				*e*S	**Sg**	**22 45 02.8**	**+0.3**
ECPR	**Experimental S**	**1.23**	**209**		**Pn**	**22 44 46.5**	**-0.1**
ECPR					**Sn**	**22 45 02.9**	**+0.1**
ECPR	**Experimental S**	**1.23**	**209**	⇓*e*P	**Pb**	**22 44 47.2**	**+0.3**
HUMP	**Col San Antoni**	**1.25**	**185**		**Pn**	**22 44 46.7**	**-0.1**
HUMP					**Sn**	**22 45 03.4**	**0.0**
HUMP				IAML		22 45 04.9	
	93nm,0.2s						
HUMP				IAML		22 45 07.8	
	92nm,0.4s						
HUMP	**Col San Antoni**	**1.25**	**185**	⇑*e*P	**Pn**	**22 44 47.0**	**+0.1**
SJG	**San Juan**	**1.34**	**197**		**Pn**	**22 44 48.2**	**+0.1**
SJG				IAML		22 45 08.2	
	81nm,0.3s						
SJG				IAML		22 45 10.7	
	76nm,0.3s						
SJG	**San Juan**	**1.34**	**197**	⇓*e*P	**Pb**	**22 44 48.9**	**+0.1**
PDPR	**Patillas Dam,**	**1.40**	**191**		**Pn**	**22 44 49.2**	**+0.4**
PDPR					**Sn**	**22 45 06.8**	**-0.2**
PDPR	**Patillas Dam,**	**1.40**	**191**	⇓*e*P	**Pb**	**22 44 49.7**	**-0.1**
AOPR	**Arecibo Observ**	**1.43**	**223**		**Pb**	**22 44 49.9**	**-0.3**
AOPR					**Sb**	**22 45 08.1**	**-0.1**
AOPR	**Arecibo Observ**	**1.43**	**223**	⇑*e*P	**Pb**	**22 44 50.1**	**-0.1**
IGPR	**InterUniversit**	**1.47**	**194**		**Pb**	**22 44 50.8**	**-0.2**
IGPR					**Sb**	**22 45 09.5**	**+0.1**
IGPR	**InterUniversit**	**1.47**	**194**	⇑*e*P	**Pb**	**22 44 50.8**	**-0.2**
CELP	**Cerrillos**	**1.54**	**212**		**Pb**	**22 44 51.6**	**-0.6**
CELP					**Sn**	**22 45 10.2**	**-0.3**
CELP	**Cerrillos**	**1.54**	**212**	⇓*e*P	**Pb**	**22 44 51.9**	**-0.3**
OBIP	**Obispado Ponce**	**1.58**	**212**		**Pb**	**22 44 52.5**	**-0.4**
OBIP					**Sb**	**22 45 12.4**	**-0.3**
OBIP	**Obispado Ponce**	**1.58**	**212**	⇓*e*P	**Pb**	**22 44 52.7**	**-0.2**
OBIP				*e*S	**Sb**	**22 45 12.7**	**0.0**
AGPR	**Aguadilla, PR**	**1.60**	**235**		**Pn**	**22 44 52.2**	**+0.5**
AGPR					**Sn**	**22 45 11.3**	**-0.6**
AGPR				IAML		22 45 32.4	
	61nm,1.9s						
AGPR				IAML		22 45 35.5	
	59nm,1.2s						

AGPR	Aguadilla, PR	1.60	235⇑	*e*P	Pb	22 44 52.8	-0.4
LSP	Las Mesas	1.77	227		Pb	22 44 55.6	-0.5
LSP					Sb	22 45 17.9	-0.2
LSP	Las Mesas	1.77	227⇑	*e*P	Pb	22 44 55.6	-0.5
LSP				*e*S	Sb	22 45 17.9	-0.2
PRSN	Puerto Rico Se	1.78	229	Pn	Pn	22 44 54.9	+0.8
GBPR	Guanica, Bosqu	1.79	218		Pb	22 44 55.8	-0.6
GBPR					Sb	22 45 18.1	-0.4
GBPR	Guanica, Bosqu	1.79	218⇑	*e*P	Pb	22 44 55.8	-0.6
GBPR				*e*S	Sb	22 45 18.1	-0.4
MLPR	Magueyes Islan	1.89	221		Pn	22 44 56.1	+0.5
MLPR					Sn	22 45 19.5	+0.4
MLPR	Magueyes Islan	1.89	221⇑	*e*P	Pn	22 44 56.7	+1.1
CRPR	Cabo Rojo, PR	1.90	224		Pn	22 44 56.6	+0.8
CRPR					Sn	22 45 19.9	+0.5
CRPR				IAML		22 45 26.5	
	33nm,0.7s						
CRPR				IAML		22 45 32.7	
	35nm,0.5s						
CRPR	Cabo Rojo, PR	1.90	224⇑	*e*P	Pb	22 44 57.3	-1.1

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*NEIC **16** 22:56:00.8±0.6, 5°.8N±0°.1×123°.9E±0°.2, h534km±11km, mb4.0/12, Error ellipse: s-maj=23.6km s-min=16.8km az=62.0*

*IDC **16** 22:56:01.2±1.9, 5°.68N×123°.95E, h546km±18km, mb3.0/8, mbtmp4.0/8, Error ellipse: s-maj=68.9km s-min=9.2km az=64.0*

ISC 16 22:56:00.6±0.5**, 5°.76N**±0°.08×**124°.08E**±0°.10**, h550**km**, n30, σ1s.84**/40**, mb3.8**/14**, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	Don Marcelino,	1.66	78	*e*P	P	22 57 06.2	-2.7
DDMP				*e*S	S	22 57 57.8	-6.6
BIPH	Bislig	3.31	43	*e*P	P	22 57 16.8	-0.8
BIPH				*e*S	S	22 58 15.5	-4.8
TOLI2	Tolitoli	5.67	216	P	P	22 57 34.0	-2.4
KKM	Kota Kinabalu	7.83	272	P	P	22 57 54.5	-2.3
FAKI	Fak Fak	11.87	136	P	P	22 58 38.5	+0.6
JAGI	Jajag, Banyuwa	17.25	215	P	P	22 59 31.2	-0.6
TPUB	Ta-pu	17.75	350	P	P	22 59 36.0	-0.2
GSI	Gunungsitoli	26.81	261	P	P	23 00 56.0	-1.5
WB0	Warramunga Arr	27.32	158	P	P	23 01 02.3	+0.4
WB0				IAmb	IAmb	23 01 24.2	
	comp=Z,8.3nm,1.3s						
WRA	Warramunga Arr	27.46	159	P	P	23 01 03.6	+0.4
	comp=Z,1.9nm,0.6s,baz=337,slow=8.9,SNR=26						
WRA				S	S	23 05 05.0	-0.6
	comp=Z,0.3nm,0.6s,baz=340,slow=15,SNR=1.9						
WRA				ScP	ScP	23 06 54.9	+2.5
	comp=Z,0.4nm,0.6s,baz=340,slow=3.1,SNR=6.0						
	comp=Z,1.9nm,0.6s						
WRA	Warramunga Arr	27.46	159	P	P	23 01 02.9	-0.2
CMAR	Chiang Mai Arr	27.57	299	P	P	23 01 04.7	+0.5
	comp=Z,0.7nm,0.3s,baz=116,slow=8.1,SNR=4.1						
	comp=Z,0.7nm,0.3s						
AS31	Alice Springs	30.78	162	P	P	23 01 33.0	+1.1
AS31				IAmb	IAmb	23 01 35.5	
	comp=Z,1.1nm,0.5s						
ASAR	Alice Springs	30.78	162	P	P	23 01 33.6	+1.7
	comp=Z,1.9nm,0.5s,baz=342,slow=8.7,SNR=21						
ASAR				PcP	PcP	23 04 14.1	+1.9
	comp=Z,0.4nm,0.7s,baz=342,slow=5.9,SNR=1.9						
ASAR				S	S	23 05 55.8	-1.1
	comp=Z,1.4nm,0.9s,baz=348,slow=13,SNR=5.6						
ASAR				ScP	ScP	23 07 05.2	+2.1
	comp=Z,0.4nm,0.6s,baz=328,slow=3.3,SNR=2.5						
	comp=Z,1.9nm,0.5s						
MKAR	Makanchi Array	54.40	326	P	P	23 04 37.0	+0.8
	comp=Z,1.3nm,0.5s,baz=120,slow=6.4,SNR=24						
MKAR				PcP	PcP	23 05 31.3	0.0
	comp=Z,0.6nm,0.8s,baz=133,slow=3.9,SNR=2.7						
MKAR				ScP	ScP	23 08 37.9	+0.7
	comp=Z,0.7nm,0.9s,baz=126,slow=2.5,SNR=2.0						
	comp=Z,1.3nm,0.5s						
MKAR	Makanchi Array	54.40	326	P	P	23 04 36.6	+0.4
MKAR					PcP	23 05 31.6	+0.2
MAKZ	Makanchi	54.58	326	P	P	23 04 38.1	+0.6
MAKZ				IAmb	IAmb	23 04 57.3	
	comp=Z,17nm,1.4s						
ZALV	Zalesovo Beam	57.60	334	P	P	23 04 58.3	+0.2
	comp=Z,0.3nm,0.3s,baz=136,slow=8.9,SNR=2.2						
	comp=Z,0.3nm,0.3s						
KURBB	Kurchatov Arra	58.62	328	P	P	23 05 05.5	+0.4
	comp=Z,1.6nm,0.6s,baz=129,slow=6.2,SNR=23						
	comp=Z,1.6nm,0.6s						
KURK	Kurchatov	58.62	328	P	P	23 05 05.7	+0.6
KURK				IAmb	IAmb	23 05 06.5	
	comp=Z,3.1nm,0.6s						
KKAR	Karatay Array	59.96	317	P	P	23 05 14.4	+0.2
AB31	Akbulak array	68.92	321	P	P	23 06 10.9	+0.2
ABKAR	Akbulak array	68.92	321	P	P	23 06 10.8	+0.1
ARTI	Arti	71.90	328	P	P	23 06 28.4	+0.2
ARTI				IAmb	IAmb	23 06 30.4	
	comp=Z,4.2nm,1.0s						
RAYN	Ar Rayn	77.26	293	P	P	23 06 59.0	-0.1
BMAR	Burnt Mountain	85.24	23	P	P	23 07 41.2	+2.1
BMRM	Bremner River	85.65	29	P	P	23 07 43.4	+2.2
BMRM				IAmb	IAmb	23 08 10.0	
	comp=Z,7.2nm,1.1s						
VNDA	Vanda	85.77	172	P	P	23 07 43.0	+1.7
	comp=Z,0.1nm,0.4s,baz=313,slow=7.3,SNR=1.7						
	comp=Z,0.1nm,0.4s						
VNDA	Vanda	85.77	172	P	P	23 07 42.2	+0.8
BRTR	Keskin Array B	86.70	309	P	P	23 07 47.1	+0.3
	comp=Z,0.6nm,0.8s,baz=97,slow=3.6,SNR=2.2						
	comp=Z,0.6nm,0.8s						

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*IDC **16** 23:20:17.9±1.6, 59°.92N×153°.35W, h114km±28km, mb3.6/7, mbtmp3.9/11, Error ellipse: s-maj=40.8km s-min=11.1km az=109.0*

*NEIC **16** 23:20:19.8±0.8, 59°.87N±0°.04×153°.36W±0°.08, h136km±3km, mb4.1/6, ML3.4/172, ML3.3(AEIC), Error ellipse: s-maj=5.8km s-min=5.3km az=52.0*

*AEIC **16** 23:20:21.0±1.3, 59°.85N±0°.04×153°.33W±0°.08, h130km±3km, Error ellipse: s-maj=5.6km s-min=5.1km az=110.0*

ISC 16 23:20:19.7±0.6**, 59°.87N**±0°.03×**153°.32W**±0°.03**, h139**km±5km**, n215, σ0s.80**/238**, mb4.0**/9**, Southern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ILSW	Iliamna Southw	0.14	38		Pn	23 20 38.2	-0.4
ILSW				Sn	Sn	23 20 51.8	-1.2
ILSW				IAML		23 20 53.0	
	comp=E,414nm,1.2s						
ILSW				IAML		23 20 56.0	
	comp=N,350nm,0.6s						
ILS	Iliamna Low So	0.15	55		Pn	23 20 38.5	-0.1
ILS					Sn	23 20 52.4	-0.6
IVE	Iliamna Volcan	0.21	46		Pn	23 20 38.6	-0.2
IVE					Sn	23 20 52.7	-0.5
P19K	Oil Pt	0.22	169		Pn	23 20 38.7	0.0
P19K					Sn	23 20 52.7	-0.4
ILIM	Iliamna	0.28	41		Pn	23 20 38.7	-0.2
O20K	Slope Mountain	0.41	59		Pn	23 20 39.5	+0.1
O20K					Sn	23 20 54.2	-0.1
AUF	Augustine Flow	0.49	188		Pn	23 20 39.3	-0.4
AUF					Sn	23 20 54.4	-0.4
AUL	Augustine Lava	0.49	187		Pn	23 20 39.9	+0.1
AUL					Sn	23 20 54.4	-0.4
AU22	Augustine Moun	0.50	182		Pn	23 20 39.6	-0.2
AUW	Augustine West	0.51	189		Pn	23 20 39.8	0.0
AGU	Augustine-Summ	0.52	186		Pn	23 20 39.9	-0.1
AUJK	Augustine Jueg	0.53	185		Pn	23 20 39.9	+0.1
AUJK					Sn	23 20 54.4	-0.8
AUI	Augustine Isla	0.54	186		Pn	23 20 39.9	-0.1
O19K	Port Alsworth	0.60	303		Pn	23 20 39.7	-0.6
O19K				Sn	Sn	23 20 54.1	-1.8
O19K				IAML		23 20 55.5	
	comp=E,893nm,0.4s						
O19K				IAML		23 20 56.1	
	comp=N,732nm,0.4s						
RDSO	Redoubt South	0.65	26		Pn	23 20 40.8	0.0
RDSO					Sn	23 20 56.4	-0.6
REF	Redoubt East F	0.69	26		Pn	23 20 41.1	-0.1
REF					Sn	23 20 57.0	-0.4
NCT	North Crescent	0.72	15		Pn	23 20 41.2	0.0
NCT					Sn	23 20 57.1	-0.5
RDJH	Redoubt Jeurge	0.77	19		Pn	23 20 41.7	+0.1
DFR	Drift River	0.79	23		Pn	23 20 41.9	+0.2
DFR					Sn	23 20 58.1	-0.4
HOM	Homer	0.88	103		Pn	23 20 42.5	+0.3
HOM				Sn	Sn	23 20 59.6	+0.2
HOM				IAML		23 21 01.0	
	comp=E,884nm,0.5s						
HOM				IAML		23 21 02.1	
	comp=N,892nm,0.3s						
Q19K	Cape Douglas,	0.96	190		Pn	23 20 42.8	-0.3
Q19K				Sn	Sn	23 20 59.7	-1.2
Q19K				IAML		23 21 02.1	
	comp=E,1µm,0.7s						
P18K	Big Mountain,	1.08	244		Pn	23 20 43.3	-0.9
P18K					Sn	23 21 00.7	-2.1
N19K	Bonanza Creek	1.11	329		Pn	23 20 44.3	-0.2
N19K				Sn	Sn	23 21 01.4	-2.0
N19K				IAML		23 21 03.2	
	comp=N,368nm,0.7s						
N19K				IAML		23 21 03.5	
	comp=E,329nm,0.9s						
CNPM	China Poot	1.11	107		Pn	23 20 44.6	+0.1
CNPM				Sn	Sn	23 21 02.2	-1.1
CNPM				IAML		23 21 03.1	
	comp=E,589nm,0.3s						
CNPM				IAML		23 21 03.6	
	comp=N,566nm,0.5s						
BRLK	Bradley Lake	1.23	94		Pn	23 20 45.7	+0.1
BRLK					Sn	23 21 04.6	-0.8
BRLK				IAML		23 21 05.8	
	comp=E,725nm,0.2s						
BRSE	Bradley Lake S	1.31	95		Pn	23 20 46.6	+0.3
BRSE					Sn	23 21 05.9	-0.8
KAPH	Katmai Pasha	1.38	203		Pn	23 20 47.1	-0.1
KAPH					Sn	23 21 07.2	-1.0
CAPN	Captain Cook N	1.40	49		Pn	23 20 49.5	+2.3
SPWE	Spurr West	1.46	15		Pn	23 20 48.3	+0.3
Q18K	Katmai Hardscr	1.50	216		Pn	23 20 48.2	-0.3
Q18K					Sn	23 21 09.1	-1.4
N18K	Kilae Creek	1.52	303		Pn	23 20 48.3	-0.3
KAHG	Katmai Hook Gl	1.52	205		Sn	23 21 09.7	-1.0
SLKM	Skilak Lake	1.67	66		Pn	23 20 50.8	+0.4
SLKM	Skilak Lake	1.67	66		Sn	23 21 12.6	-1.2
P17K	Kvichak River	1.73	248		Pn	23 20 51.1	+0.2
P17K				IAML		23 21 15.7	
	comp=E,395nm,0.9s						
P17K				IAML		23 21 18.8	
	comp=N,244nm,0.9s						
STLK	Strandline Lak	1.79	23		Pn	23 20 52.2	+0.5
STLK				IAML		23 21 19.1	
	comp=N,100nm,0.6s						
STLK				IAML		23 21 19.4	
	comp=E,104nm,0.6s						
O22K	Cooper Landing	1.90	70		Pn	23 20 53.5	+0.7
O17K	Koliganek Bris	1.91	269		Pn	23 20 52.6	-0.4
O17K					Sn	23 21 17.7	-0.8
SEW	Seward	1.96	81		Sn	23 21 18.0	-1.5
SEW	Seward	1.96	81		Pn	23 20 54.1	+0.5
SEW	Seward	1.96	81	IAML		23 21 18.9	
	comp=N,441nm,0.4s						
SEW				IAML		23 21 20.6	
	comp=E,338nm,0.2s						
ACHA	Angle Creek He	1.96	213		Pn	23 20 53.5	-0.2
ANCK	Angle Creek	2.02	215		Pn	23 20 54.2	-0.2
M20K	Styx River	2.02	3		Pn	23 20 54.8	+0.4
SUA	Susitna One	2.04	37		Sn	23 21 21.9	+0.4
SUA	Susitna One	2.04	37		Pn	23 20 55.2	+0.6
SUA	Susitna One	2.04	37	IAML		23 21 23.1	
	comp=E,420nm,0.9s						
SUA				IAML		23 21 23.2	
	comp=N,453nm,0.7s						
M18K	Stony River	2.04	324		Pn	23 20 54.0	-0.5
N17K	Nushagak Hills	2.04	290		Pn	23 20 54.5	-0.1
Q17K	Contact Creek	2.09	221		Pn	23 20 55.0	-0.2
M19K	Big River Lodg	2.11	346		Pn	23 20 55.2	-0.1
KDAK	Kodiak Island	2.13	169	P	Pn	23 20 54.4	-1.3
	comp=N,45nm,0.3s,baz=345,slow=20,SNR=149						
KDAK				S	Sn	23 21 20.7	-2.5
	comp=N,209nm,0.4s,baz=323,slow=20,SNR=45						
KDAK	Kodiak Island	2.13	169		Pn	23 20 54.4	-1.3
KDAK				IAML		23 21 22.6	
	comp=N,303nm,0.3s						
KDAK				IAML		23 21 22.8	
	comp=N,431nm,0.4s						
RC01	Rabbit Creek A	2.15	54		Pn	23 20 55.8	-0.1
RC01	Rabbit Creek A	2.15	54		Sn	23 21 22.7	-1.1
RC01	Rabbit Creek A	2.15	54	IAML		23 21 23.6	
	comp=N,786nm,0.2s						
RC01				IAML		23 21 24.7	
	comp=E,873nm,0.5s						
KJL	Kejulik	2.16	214		Pn	23 20 56.3	+0.1
SKT	Skwentna	2.29	22		Pn	23 20 57.8	+0.2
SKT				IAML		23 21 28.9	
	comp=N,78nm,0.5s						
SKT				IAML		23 21 30.8	
	comp=E,87nm,0.5s						
O16K	Kokwok River B	2.43	266		Pn	23 20 59.4	+0.1
O16K				IAML		23 21 31.4	
	comp=E,42nm,0.8s						
L19K	White Mountain	2.44	343		Pn	23 20 59.3	-0.2
M22K	Willow	2.45	38		Pn	23 20 60.0	+0.4
P16K	Nushagak River	2.53	253	Pn	Pn	23 21 01.0	+0.5
P16K				IAML		23 21 34.4	
	comp=E,135nm,1.2s						
P16K				IAML		23 22 19.6	
	comp=N,53nm,1.0s						
M17K	Holitna River	2.54	309		Pn	23 21 00.9	+0.1
M17K				IAML		23 21 33.3	
	comp=E,44nm,0.7s						
M17K				IAML		23 22 19.1	
	comp=N,49nm,0.9s						
L20K	Farewell, AK	2.63	354		Pn	23 21 02.3	+0.4
L20K				IAML		23 21 36.4	
	comp=E,32nm,0.8s						
OHAK	Old Harbor	2.66	180		Pn	23 21 00.6	-1.6
OHAK				IAML		23 21 32.8	
	comp=N,161nm,0.4s						
OHAK				IAML		23 21 33.4	
	comp=E,119nm,0.4s						
PWL	Port Wells	2.67	66		Pn	23 21 01.7	-0.6
PWL				IAML		23 21 36.0	
	comp=E,292nm,0.4s						
PMR	Palmer	2.69	48		Pn	23 21 02.3	-0.1
PMR				IAML		23 21 34.5	
	comp=N,156nm,0.3s						
PMR				IAML		23 21 36.2	
	comp=E,130nm,0.4s						
PLK1	Peulik 1	2.69	221		Pn	23 21 02.8	+0.3
N16K	Nishlik Lake	2.79	285		Pn	23 21 03.6	-0.3
KNK	Knik Glacier	2.85	55		Pn	23 21 03.8	-0.8
KNK				IAML		23 21 40.0	
	comp=E,301nm,0.5s						
KNK				IAML		23 21 40.6	
	comp=N,278nm,0.5s						
L18K	Granite Mounta	2.87	327		Pn	23 21 04.6	-0.2
L18K				IAML		23 21 39.8	
	comp=N,31nm,1.0s						
GHO	Glory Hole Cre	2.88	47		Pn	23 21 04.3	-0.7
GHO				IAML		23 21 38.8	
	comp=E,301nm,0.3s						
GHO				IAML		23 21 39.1	
	comp=N,165nm,0.3s						
CUT	Chulitna	2.94	29		Pn	23 21 05.8	+0.1
CUT				IAML		23 21 43.8	
	comp=N,223nm,0.5s						
P23K	Montague Islan	2.98	85		Pn	23 21 06.9	+0.7
M16K	Timber Creek	3.02	295	Pn	Pn	23 21 07.2	+0.4
PPLA	Purkeypile	3.08	10		Pn	23 21 08.7	+1.0
PPLA				IAML		23 22 13.1	
	comp=N,31nm,1.2s						
PPLA				IAML		23 22 13.1	
	comp=E,33nm,1.1s						
SML	Sawmill	3.12	49		Pn	23 21 07.2	-0.9
SML				IAML		23 21 45.3	
	comp=N,150nm,0.5s						
SML				IAML		23 21 51.2	
	comp=E,169nm,0.5s						
R16K	Pilot Point	3.20	226	Pn	Pn	23 21 08.1	-1.0
R16K				IAML		23 22 37.5	
	comp=E,162nm,1.1s						
R16K				IAML		23 22 57.9	
	comp=N,129nm,1.0s						
GLI	Glacier Island	3.25	69		Pn	23 21 10.1	+0.3
GLI				IAML		23 21 49.4	
	comp=E,205nm,0.2s						
GLI				IAML		23 21 49.9	
	comp=N,190nm,0.7s						
L17K	Donlin	3.32	315		Pn	23 21 10.4	-0.3
M23K	Glacier View	3.35	52		Pn	23 21 10.2	-0.9
SII	Sitkinak Islan	3.35	188		Pn	23 21 09.8	-1.4
SII				IAML		23 21 50.0	
	comp=N,207nm,0.8s						
SII				IAML		23 21 58.0	
	comp=E,202nm,0.7s						
O15K	Ungalikthiuk R	3.39	261	Pn	Pn	23 21 12.2	+0.6
O15K				IAML		23 21 54.1	
	comp=N,29nm,1.1s						
N15K	Kwethluk River	3.41	278	Pn	Pn	23 21 12.5	+0.6
HIN	Hinchinbrook I	3.45	78	Pn	Pn	23 21 12.6	+0.2
HIN				IAML		23 21 54.1	
	comp=N,199nm,0.4s						
FID	Port Fidalgo	3.52	73	Pn	Pn	23 21 13.3	+0.1
K20K	Telida	3.52	354		Pn	23 21 13.3	+0.1
SCM	Sheep Creek Mo	3.53	54		Pn	23 21 12.9	-0.5
L16K	Owhat River	3.54	304	Pn	Pn	23 21 13.6	+0.2
CAST	Castle Rocks	3.61	9		Pn	23 21 14.8	+0.4
WAT7	Susitna Watana	3.67	34		Pn	23 21 15.3	0.0
K17K	Iditarod	3.73	322		Pn	23 21 16.0	0.0
K17K				IAML		23 22 01.7	
	comp=N,14nm,1.1s						
WAT1	Susitna Watana	3.75	36		Pn	23 21 16.1	-0.2
M15K	Kasigluk River	3.76	286		Pn	23 21 17.0	+0.6
EYAK	Cordova Ski Ar	3.84	77	Pn	Pn	23 21 17.7	+0.3
EYAK				IAML		23 22 01.2	
	comp=E,74nm,0.8s						
KTH	Kantishna Hill	3.87	16		Pn	23 21 17.7	-0.1
KTH				IAML		23 22 06.9	
	comp=E,26nm,0.8s						
KTH				IAML		23 22 07.9	
	comp=N,25nm,0.8s						
TRF	Thorofare Moun	3.87	21		Pn	23 21 17.9	-0.1
TRF				IAML		23 22 04.7	
	comp=E,39nm,0.5s						
TRF				IAML		23 22 05.6	
	comp=N,56nm,0.5s						
DIV	Divide	3.94	68		Pn	23 21 18.9	+0.1
DIV				IAML		23 22 05.4	
	comp=E,139nm,0.5s						
J18K	Innoko River	3.95	337		Pn	23 21 18.1	-0.8
KLU	Klutina	3.98	63		Pn	23 21 19.0	-0.4
O14K	Tigyukauivet M	4.09	265	Pn	Pn	23 21 22.0	+1.3
O14K				IAML		23 22 11.3	
	comp=N,14nm,1.2s						
RND	Reindeer	4.14	29		Pn	23 21 21.2	-0.2
RND				IAML		23 22 11.3	
	comp=E,40nm,0.4s						
RND				IAML		23 22 13.2	
	comp=N,28nm,0.4s						
BPBCA	Veniaminof	4.26	222		Pn	23 21 23.2	+0.1
J19K	Poorman	4.28	346		Pn	23 21 22.8	-0.3
DHY	Denali Highway	4.30	39		Pn	23 21 23.2	-0.4
DHY				IAML		23 22 14.0	
	comp=E,79nm,0.8s						
DHY				IAML		23 22 14.5	
	comp=N,66nm,0.3s						
J20K	Nowinta River	4.34	355		Pn	23 21 24.2	+0.2
GOAT	Goat Mountain	4.34	77		Pn	23 21 24.1	-0.1
BPAW	Bear Paw Mtn.	4.38	14		Pn	23 21 23.9	-0.7
BPAW				IAML		23 22 14.8	
	comp=N,12nm,1.0s						
BPAW				IAML		23 22 22.0	
	comp=E,12nm,0.7s						
M14K	Bethel	4.39	285	Pn	Pn	23 21 24.2	-0.4
M14K				IAML		23 23 15.9	
	comp=E,12nm,1.1s						
L15K	Ungalak Mounta	4.40	298		Pn	23 21 24.5	-0.2
MCK	McKinley	4.40	26		Pn	23 21 24.5	-0.2
MCK				IAML		23 22 17.8	
	comp=E,36nm,0.6s						
MCK				IAML		23 22 18.1	
	comp=N,22nm,0.3s						
BMRM	Bremner River	4.46	72		Pn	23 21 26.0	+0.3
J17K	VABM Dome	4.48	325	Pn	Pn	23 21 25.1	-0.7
KAIM	Kayak Island	4.48	85		Pn	23 21 26.8	+0.9
KAIM	Kayak Island	4.48	85	IAML		23 22 19.1	
	comp=E,82nm,0.7s						
KAIM				IAML		23 22 23.8	
	comp=N,72nm,0.9s						
CHGN	Chignik	4.49	219		Pn	23 21 25.2	-0.8
K15K	Wolf Creek Mou	4.67	305	Pn	Pn	23 21 28.6	+0.3
HARP	HAARP	4.70	54		Pn	23 21 28.5	-0.3
BERG	Berg Lake	4.84	80		Pn	23 21 31.0	+0.3
L14K	Kuka Creek	4.84	292		Pn	23 21 30.7	+0.1
L14K				IAML		23 23 40.4	
	comp=N,11nm,1.1s						
L14K				IAML		23 24 41.8	
	comp=E,8.4nm,1.1s						
WACK	Wrangell Chich	4.87	60		Pn	23 21 31.2	-0.1
J16K	Anvik River	4.88	318	Pn	Pn	23 21 30.8	-0.3
VNFG	Fog Glacier, M	4.89	225	Pn	Pn	23 21 30.8	-0.6
VNFG				IAML		23 22 41.7	
	comp=E,61nm,1.1s						
VNFG				IAML		23 23 56.8	
	comp=N,73nm,1.0s						
GLB	Gilahina Butte	4.94	67		Pn	23 21 31.8	-0.2
GLB				IAML		23 22 28.5	
	comp=E,48nm,0.3s						
I20K	Naaghedeneel	4.97	354		Pn	23 21 32.5	+0.2
I20K				IAML		23 22 24.9	
	comp=N,27nm,0.8s						
I20K				IAML		23 23 28.9	
	comp=E,26nm,1.1s						
VNKR	Veniaminof 5	5.02	223		Pn	23 21 32.8	-0.3
VRDI	Verde Repeater	5.06	70		Pn	23 21 33.9	+0.2
VRDI				IAML		23 22 30.7	
	comp=E,54nm,0.6s						
NEA2	Nenana	5.14	21		Pn	23 21 34.0	-0.6
NEA2				IAML		23 22 31.2	
	comp=N,5.8nm,1.0s						
NEA2				IAML		23 22 35.9	
	comp=E,8.0nm,0.6s						
CRQM	Cirque	5.14	76		Pn	23 21 34.9	+0.1
WRH	Wood River Hil	5.22	26		Pn	23 21 35.2	-0.5
WRH				IAML		23 22 34.9	
	comp=E,10nm,1.0s						
WRH				IAML		23 22 35.7	
	comp=N,8.9nm,0.6s						
TGL	Tana Glacier	5.29	76	Pn	Pn	23 21 37.0	+0.3
MCARA	McCarthy VSAT	5.29	69		Pn	23 21 36.9	+0.2
MLY	Manley	5.32	12		Pn	23 21 36.3	-0.7
K24K	Donnelly Dome	5.32	39		Pn	23 21 37.7	+0.7
I21K	Tanana	5.37	6		Pn	23 21 37.5	-0.1
I21K				IAML		23 23 38.2	
	comp=E,5.8nm,1.0s						
I21K				IAML		23 23 58.6	
	comp=N,5.4nm,1.0s						
BARK	Barkley Ridge	5.44	80		Pn	23 21 39.6	+0.9
CCB	Clear Creek Bu	5.44	26		Pn	23 21 38.0	-0.6
HDA	Harding Lake	5.45	31		Pn	23 21 37.8	-0.9
PTPK	Patty Peak	5.52	71		Pn	23 21 40.6	+0.7
KIAG	Kiagna River	5.54	74		Pn	23 21 40.7	+0.6
BALM	Baldy	5.56	73		Pn	23 21 40.6	+0.3
RIDG	Independent Ri	5.58	42		Pn	23 21 40.8	+0.2
PS08	TAPS Pump Stn8	5.59	30		Pn	23 21 40.1	-0.5
I23K	Minto, Yukon-K	5.60	17		Pn	23 21 40.4	-0.4
M26K	Nabesna, AK	5.61	59		Pn	23 21 41.2	+0.2
MDM	Murphy Dome	5.63	23		Pn	23 21 40.7	-0.4
COLA	College	5.63	25		Pn	23 21 40.5	-0.6
H20K	Anotleneega Mo	5.69	353		Pn	23 21 42.2	+0.3
IL31		5.76	29		Pn	23 21 42.3	-0.5
ILAR	Eielson Array	5.76	29	P	Pn	23 21 41.6	-1.3
	comp=N,25nm,0.5s,baz=216,slow=14,SNR=302						
ILAR				S	Sn	23 22 43.8	-4.0
	comp=N,2.3nm,0.4s,baz=215,slow=20,SNR=7.2						
ILAR	Eielson Array	5.76	29		Pn	23 21 42.4	-0.4
H18K	Honhosa River	5.79	338		Pn	23 21 43.2	-0.1
YAH	Yahtse	5.81	80		Pn	23 21 44.7	+0.9
H21K	Melozitna Rive	5.81	2		Pn	23 21 43.6	0.0
BARN	Barnard Glacie	5.89	73		Pn	23 21 44.9	+0.1
POKR	Poker Plat Res	5.93	25		Pn	23 21 44.3	-0.8
SCRK	Sand Creek	6.03	43		Pn	23 21 45.6	-1.1
J25K	Salcha River,	6.03	35		Pn	23 21 46.2	-0.4
M27K	Edge Creek, AK	6.08	61		Pn	23 21 47.9	+0.6
H22K	Ishtalitna Cre	6.11	8		Pn	23 21 47.5	-0.1
IMAR	Indian Mountai	6.14	358		Pn	23 21 48.3	+0.3
LOGN	Logan Glacier	6.19	76		Pn	23 21 49.8	+1.0
H23K	Yukon River	6.22	14		Pn	23 21 48.2	-0.9
L27K	Beaver Creek,	6.37	55		Pn	23 21 51.1	+0.1
BCAR	Beaver Creek A	6.39	55		Pn	23 21 51.1	-0.2

YUK2	White River	6.40	67		Pn	23 21 52.0	+0.4
H24K	Noodor Dome	6.48	20		Pn	23 21 52.2	-0.4
PCA	Pinnacle	6.56	82		Pn	23 21 54.4	+0.7
YUK3	Moose Creek	6.57	68		Pn	23 21 54.5	+0.5
G21K	Allakaket	6.67	359		Pn	23 21 54.9	-0.2
PRP	Porcupine Dome	6.70	29		Pn	23 21 54.9	-0.7
K27K	Chicken	6.74	47		Pn	23 21 55.7	-0.4
G23K	Bananza Creek	7.02	11		Pn	23 21 59.6	-0.2
PNL	Peninsula	7.04	86		Pn	23 22 00.6	+0.6
F19K	Shaleruckik Mo	7.27	346		Pn	23 22 03.7	+0.7
F20K	Avaraart Lake	7.29	353		Pn	23 22 03.0	-0.2
G24K	Hadweenzic Riv	7.34	18		Pn	23 22 03.6	-0.4
F21K	Alatna River	7.38	360		Pn	23 22 05.0	+0.3
M29M	Somme Creek	7.63	64		Pn	23 22 08.8	+0.7
G25K	Bearman Lake	7.64	22		Pn	23 22 07.3	-0.7
FYU	Fort Yukon	7.64	25		Pn	23 22 07.4	-0.6
I27K	Kandik River	7.86	38		Pn	23 22 11.3	+0.2
F24K	Squaw Lake	8.04	15		Pn	23 22 13.3	-0.2
I28M	Miner Creek	8.31	42		Pn	23 22 16.8	-0.3
H27K	Steamboat Moun	8.32	35		Pn	23 22 16.9	-0.3
F25K	Christian Rive	8.46	20		Pn	23 22 18.0	-1.1
BMAR	Burnt Mountain	8.51	23		Pn	23 22 18.5	-1.3
BM01	Burnt Mountain	8.54	23		Pn	23 22 18.7	-1.5
G27K	Doyon Strip	8.70	32		Pn	23 22 20.9	-1.4
F26K	Sheenjek River	8.83	23		Pn	23 22 22.9	-1.0
E25K	Arctic Village	8.95	19		Pn	23 22 25.0	-0.5
LVA	Lava Point	8.98	236	Pn	Pn	23 22 25.3	-0.9
J30M	Hart River	9.21	52		Pn	23 22 29.9	+0.7
E27K	Coleen River	9.78	27	Pn	Pn	23 22 36.0	-0.7
Q32M	Nakina River	10.76	86	Pn	Pn	23 22 52.7	+2.8
INK	Inuvik	12.04	37	P	Pn	23 23 06.1	-0.3
	comp=N,3.3nm,0.6s,baz=233,slow=14,SNR=7.0						
H02S1	DAWSON INLET T	13.26	111	P	Pn	23 23 25.3	+3.0
	SNR=20						
H02S1				S	Sn	23 25 46.7	-1.9
H02S2	DAWSON INLET T	13.26	111	P	P	23 23 25.7	-1.3
	SNR=14						
H02S2				S	Sn	23 25 46.7	-2.0
MOBC	Moresby Island	13.54	110	Pn	Pn	23 23 27.5	+1.6
YKAW3	Yellowknife Wh	18.64	65	P	P	23 24 26.5	+0.2
YKA	Yellowknife Ar	18.65	65	P	P	23 24 26.8	+0.4
	comp=N,0.8nm,0.6s,baz=280,slow=12,SNR=3.3						
BILL	Bilibino	19.18	312	P	P	23 24 31.7	-0.4
BILL				IAmb	IAmb	23 24 45.8	
	comp=Z,6.0nm,0.5s						
KSRS	Korea Array	53.05	282	P	P	23 29 21.9	-0.2
	comp=Z,0.7nm,0.5s,baz=19,slow=18,SNR=2.0						
	comp=Z,0.7nm,0.5s						
SONM	Songino Array	54.74	306	P	P	23 29 36.1	+1.7
	comp=Z,1.0nm,0.7s,baz=43,slow=2.6,SNR=5.9						
	comp=Z,1.0nm,0.7s						
SONM	Songino Array	54.74	306	P	P	23 29 35.4	+1.0
SONM				IAmb	IAmb	23 29 36.9	
	comp=Z,2.1nm,1.1s						
ZAA0	Zalesovo Array	57.38	323	P	P	23 29 53.8	+0.9
ZALV	Zalesovo Beam	57.38	323	P	P	23 29 53.7	+0.8
	comp=Z,2.0nm,0.5s,baz=32,slow=6.6,SNR=9.4						
	comp=Z,2.0nm,0.5s						
KURK	Kurchatov	62.05	325	P	P	23 30 24.9	+0.1
KURK				IAmb	IAmb	23 30 25.9	
	comp=Z,0.9nm,0.5s						
BORK	Borovoye	62.10	332	P	P	23 30 25.9	+0.7
BORK				IAmb	IAmb	23 30 26.7	
	comp=Z,2.0nm,0.8s						
BVAR	Borovoye Array	62.11	332	P	P	23 30 25.7	+0.5
	comp=Z,1.3nm,0.5s,baz=36,slow=7.0,SNR=6.1						
	comp=Z,1.3nm,0.5s						
KURBB	Kurchatov Arra	62.15	325	P	P	23 30 26.0	+0.5
	comp=Z,0.4nm,0.4s,baz=29,slow=6.7,SNR=5.0						
	comp=Z,0.4nm,0.4s						
MKAR	Makanchi Array	64.43	321	P	P	23 30 39.8	-0.9
	comp=Z,0.3nm,0.5s,baz=37,slow=8.6,SNR=4.0						
	comp=Z,0.3nm,0.5s						
MKAR	Makanchi Array	64.43	321	P	P	23 30 40.6	0.0
ABKAR	Akbulak array	67.92	337	P	P	23 31 03.1	+0.3
CMAR	Chiang Mai Arr	82.77	294	P	P	23 32 29.1	+1.1
	comp=Z,0.6nm,0.3s,baz=41,slow=5.7,SNR=2.2						
	comp=Z,0.6nm,0.3s						

HEL ***16*** *23:32:44.3±0.2, 67°.85N×20°.24E, h0^{km}, ML1.8, Suspected explosion*

IDC ***16*** *23:32:46.9±1.5, 67°.87N×20°.76E, h0^{km}, mbtmp3.0/4, ML2.0/4, Error ellipse: s-maj=20.7km s-min=10.3km az=119.0*

UPP ***16*** *23:32:48.3±0.0, 67°.85N×20°.22E, h0^{km}, ML2.4, Suspected explosion*

ISC 16 23:32:44.8±0.7, **67°.76N**±0°.03×**20°.49E**±0°.02, **h0**^{km}**, n34,** σ**1^{s}87**/47**, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUA	Kurravaara	0.21	344	P	Pg	23 32 50.8	+2.0
	baz=214						
KUA				S	Sg	23 32 52.5	+1.0
RATU	Laukkuluspa	0.35	281	P	Pb	23 32 53.1	-0.8
RATU				S	Sg	23 32 56.4	+0.4
NIKU	Nikkaluokta	0.56	282	P	Pb	23 32 56.8	-0.7
NIKU				S	Sg	23 33 03.1	+0.3
LANU	Lannavaara	0.64	62	P	Pn	23 33 01.6	+0.4
LANU				S	Sn	23 33 10.9	-1.2
LANU	Lannavaara	0.64	62	PG	Pg	23 32 57.0	-0.1
LANU				SG	Sg	23 33 05.1	-0.2
MASU	Masugnsbyn	0.65	117	P	Pn	23 33 03.0	+1.6
MASU				S	Sn	23 33 14.1	+1.8
SALU	Saltoluokta	0.85	244	P	Pn	23 33 03.5	-0.6
SALU				S	Sb	23 33 14.4	0.0
SALU	Saltoluokta	0.85	244	*e*P	Pg	23 32 58.7	-2.4
PAJU	Pajala	1.25	125	P	Pn	23 33 13.9	+4.2
PAJU	Pajala	1.25	125	PG	Pn	23 33 09.1	-0.5
	baz=303						
PAJU				SN	Sn	23 33 33.2	+6.0
HEF	Hetta	1.36	60	*e*P	Pg	23 33 09.4	-1.4
HEF	Hetta	1.36	60	PG	Pg	23 33 09.9	-0.9
HEF				smax	smax	23 33 26.6	
	comp=Z,8.6nm,0.2s						
HEF				SN	Sn	23 33 32.8	+3.1
ERTU	Ertsjaerv	1.38	150	P	Pb	23 33 15.8	+4.3
ERTU	Ertsjaerv	1.38	150	PG	Pb	23 33 11.4	-0.1
ERTU				SN	Sn	23 33 35.5	+5.3
KLF	Kolari	1.44	110	PG	Pb	23 33 12.3	-0.1
KLF				smax	smax	23 33 31.0	
	comp=Z,8.1nm,0.2s						
KTK1	Kautokeino	1.62	38	PG	Pn	23 33 13.5	-1.2
TRO	Tromso	1.97	344	PG	Pn	23 33 17.4	-1.9
TOF	Tornio	2.26	136	PB	Pb	23 33 25.8	-0.7
TOF				smax	smax	23 33 55.3	
	comp=Z,5.1nm,0.2s						
RNF	Rovaniemi	2.44	116	PB	Pb	23 33 28.7	-0.8
ARA0	ARCESS Array S	2.56	43	PB	Pn	23 33 28.0	+0.5
ARCES	ARCESS Array B	2.56	43	Pn	Pn	23 33 27.2	-0.4
	comp=Z,0.3nm,0.3s,baz=231,slow=14,SNR=26						
ARCES				Lg	Lg	23 34 00.3	
	comp=Z,1.4nm,0.3s,baz=228,slow=25,SNR=7.5						
	comp=Z,0.8nm,0.3s						
ARCES				AML	AML		
RAJF	Raja-Jooseppi	3.02	73	PB	Pb	23 33 37.3	-2.0
RANF	Ranua	3.04	122	PG	Pb	23 33 40.5	+0.8
RANF				SG	Sg	23 34 20.2	-2.1
KEV	Kevo	3.11	47	PN	Pn	23 33 35.7	+0.7
KEV				SB	Sb	23 34 17.8	-1.4
OUL	Oulu	3.45	138	PB	Pb	23 33 46.1	-0.6
OUL				SN	Sn	23 34 19.7	-1.5
VRF	Varrio	3.47	86	PG	Pb	23 33 46.3	-0.8
OBF0	Syolatti, Pyha	3.61	153	SB	Sb	23 34 33.4	-0.3
KU2	Taivalkoski	3.70	120	PB	Pb	23 33 49.3	-1.6
OLKF	Oulanka, Finla	3.78	108	PB	Pb	23 33 50.2	-2.1
MSF	Maaselka	3.85	115	PB	Pb	23 33 52.0	-1.6
KU1	Kurvinen	4.23	117	PB	Pb	23 33 57.2	-2.7
FINES	FINESS Array B	6.78	157	Pn	Pn	23 34 26.7	+1.3
	comp=Z,0.1nm,0.3s,baz=342,slow=13,SNR=1.7						
FINES				Sn	Sn	23 35 42.4	-0.8
	comp=Z,0.2nm,0.3s,baz=345,slow=22,SNR=5.1						
FINES				Lg	Lg	23 36 15.3	
	comp=Z,0.1nm,0.3s,baz=343,slow=23,SNR=2.2						
	comp=Z,3.5nm,1.0s						
FINES				AML	AML		
NOA	NORSAR Array B	7.84	215	Pn	Pn	23 34 41.5	+1.5
	baz=34,slow=11,SNR=3.4						
NOA				Lg	Lg	23 36 49.0	
	baz=25,slow=17,SNR=1.3						
	comp=Z,0.5nm,0.8s						
HFS	Hagfors	8.21	204	Pn	Pn	23 34 48.9	+3.8
	baz=26,slow=15,SNR=1.0						
HFS				Sn	Sn	23 36 18.1	-0.3
	comp=Z,0.1nm,0.3s,baz=35,slow=23,SNR=1.8						
HFS				Lg	Lg	23 37 05.4	
	comp=Z,0.2nm,0.3s,baz=22,slow=31,SNR=4.0						
	comp=Z,2.4nm,0.9s						

RSPR ***16*** *23:41:07.9, 19°.50N×64°.04W, h72^{km}±13^{km}, MD3.8/5*

NEIC ***16*** *23:41:13.3±1.0, 19°.2N±0°.2×64°.38W±0°.05, h35^{km}±23^{km}, ML3.5/51, Md3.8/5(RSPR), Error ellipse: s-maj=31.0km s-min=4.1km az=190.0*

ISC 16 23:41:11.3±3.1, **19°.3N**±0°.2×**64°.36W**±0°.04, **h24**^{km}±23^{km}**, n49,** σ**0^{s}93**/63**, 11C-3D, Virgin Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SMRT	St. Maarten	1.71	134		Pn	23 41 40.0	+0.4
SMRT				Sn	Sn	23 42 00.0	-0.6
SMRT				IAML		23 42 04.7	
	comp=N,822nm,0.4s						
SMRT				IAML		23 42 06.1	
	comp=E,917nm,0.5s						
SMRT	St. Maarten	1.71	134	*e*P	Pn	23 41 39.7	+0.1
SMRT				*e*S	Sn	23 41 59.8	-0.9
HUMP	Col San Antoni	1.79	232		Pn	23 41 40.1	-0.6
HUMP				Sn	Sn	23 42 00.3	-2.5
HUMP	Col San Antoni	1.79	232	⇑*e*P	Pn	23 41 41.2	+0.5
SABA	Saba	1.94	147		Pn	23 41 42.7	0.0
SABA				IAML		23 42 28.8	
	comp=N,459nm,0.6s						
SABA	Saba	1.94	147	*e*P	Pn	23 41 43.3	+0.6
PDPR	Patillas Dam,	2.00	232		Pn	23 41 43.3	-0.2
PDPR				Sn	Sn	23 42 06.2	-1.6
PDPR	Patillas Dam,	2.00	232	⇑*e*P	Pn	23 41 44.9	+1.3
SJG	San Juan	2.04	237		Pn	23 41 43.8	-0.3
SJG				Sn	Sn	23 42 08.5	-0.3
SJG	San Juan	2.04	237	*e*P	Pn	23 41 44.0	-0.2
SJG	San Juan	2.04	237	⇓*e*P	Pn	23 41 45.2	+1.0
IGPR	InterUniversit	2.10	233		Pn	23 41 45.6	+0.7
IGPR	InterUniversit	2.10	233	⇑*e*P	Pn	23 41 45.6	+0.7
ECPR	Experimental S	2.11	244		Pn	23 41 45.1	0.0
ECPR				Sn	Sn	23 42 09.2	-1.4
ECPR				IAML		23 42 17.9	
	comp=N,293nm,0.3s						
ECPR				IAML		23 42 23.3	
	comp=N,292nm,0.3s						
ECPR	Experimental S	2.11	244	⇑*e*P	Pn	23 41 45.5	+0.3
SEUS	St. Eustatius	2.19	143	Pn	Pn	23 41 46.4	+0.3
SEUS				IAML		23 43 10.6	
	comp=E,548nm,0.1s						
EMPR	Esperanza - Ma	2.19	250		Pn	23 41 46.8	+0.5
EMPR	Esperanza - Ma	2.19	250	⇑*e*P	Pn	23 41 46.8	+0.5
EMPR				*e*S	Sb	23 42 17.1	0.0
CELP	Cerrillos	2.41	241		Pn	23 41 49.3	+0.1
CELP					Sn	23 42 18.5	+0.6
CELP				IAML		23 42 24.4	
	comp=E,159nm,0.5s						
CELP	Cerrillos	2.41	241	⇑*e*P	Pn	23 41 49.5	+0.3
AOPR	Arecibo Observ	2.44	249		Pn	23 41 49.6	0.0
AOPR				IAML		23 42 37.4	
	comp=E,219nm,0.4s						
AOPR				IAML		23 42 42.1	
	comp=E,507nm,0.4s						
AOPR	Arecibo Observ	2.44	249	⇑*e*P	Pn	23 41 49.9	+0.3
OBIP	Obispado Ponce	2.45	241		Pn	23 41 49.9	+0.2
OBIP					Sn	23 42 18.3	-0.5
OBIP	Obispado Ponce	2.45	241	⇓*e*P	Pn	23 41 50.3	+0.6
OBIP				*e*S	Sb	23 42 23.4	-1.0
SKI	Saint Kitts	2.45	141	*e*P	Pn	23 41 51.8	+1.9
SKI				*e*S	Sn	23 42 20.7	+1.6
GBPR	Guanica, Bosqu	2.71	242		Pn	23 41 54.1	+0.8
GBPR	Guanica, Bosqu	2.71	242	⇑*e*P	Pn	23 41 54.1	+0.8
AGPR	Aguadilla, PR	2.72	254	Pn	Pn	23 41 53.7	+0.2
AGPR				IAML		23 42 40.3	
	comp=E,119nm,1.1s						
AGPR				IAML		23 42 50.7	
	comp=E,115nm,0.6s						
LSP	Las Mesas	2.80	248		Pn	23 41 55.8	+1.3
LSP	Las Mesas	2.80	248	⇑*e*P	Pn	23 41 55.8	+1.3
PRSN	Puerto Rico Se	2.83	249		Pn	23 41 55.6	+0.6
PRSN				IAML		23 42 38.1	
	comp=E,232nm,0.4s						
PRSN				IAML		23 42 53.1	
	comp=E,276nm,0.3s						
MLPR	Magueyes Islan	2.85	244		Pn	23 41 55.3	+0.1
MLPR					Sn	23 42 28.7	-0.1
MLPR	Magueyes Islan	2.85	244	⇓*e*P	Pn	23 41 55.9	+0.7
CRPR	Cabo Rojo, PR	2.89	245		Pn	23 41 56.3	+0.6
CRPR					Sn	23 42 31.2	+1.5
CRPR				IAML		23 42 39.5	
	comp=E,98nm,1.0s						
CRPR				IAML		23 42 40.6	
	comp=E,98nm,0.6s						
CRPR	Cabo Rojo, PR	2.89	245	⇑*e*P	Pn	23 41 56.7	+1.0
ANWB	Willy Bob	2.91	122	*e*P	Pn	23 41 55.6	-0.4
ANWB				x	Sn	23 42 28.0	-2.2
IDE	Isla Desecheo	3.07	254		Pn	23 41 58.8	+0.5
IDE	Isla Desecheo	3.07	254	⇑*e*P	Pn	23 41 58.8	+0.5
DHSZ	Broadband at M	3.86	140	x	Pn	23 42 09.0	-0.1
GDHS	Morne Mazeau,	3.86	140		Pn	23 42 09.1	-0.1
CBE	Ff, Capester	4.11	140		Pn	23 42 13.7	+1.0
TDBA	Terre de Bas,	4.27	142	Pn	Pn	23 42 15.2	+0.5
TDBA				IAML		23 43 27.4	
	comp=N,93nm,0.9s						
TDBA				IAML		23 45 04.3	
	comp=E,98nm,0.8s						
DSDZ	La Diserade, G	4.29	132	x	Pn	23 42 13.6	-1.4
MAGL	Barre de l'ile	4.41	138	Pn	Pn	23 42 16.7	+0.1
SVN	Savane Anatole	5.34	145	Pn	Pn	23 42 30.8	+1.2
FDFM	Morne la Roset	5.44	145	Pn	Pn	23 42 32.0	+1.1
BIM	Bigot	5.67	146	Pn	Pn	23 42 35.1	+1.1
BANI	BANI	5.75	262	Pn	Pn	23 42 36.6	+1.4
SDDR	Presa de Saban	6.56	269		Pn	23 42 47.1	+0.8

TAP ***17*** *00:11:02.2, 24°.74N×122°.33E, h15^{km}±1^{km}, ML2.8, C*

JMA ***17*** *00:11:03.2±0.1, 24°.6N±0°.8×122°.4E±0°.3, h36^{km}, MV2.0/6, TAIWAN REGION*

ISC 17 00:11:01.7±1.1, **24°.72N**±0°.03×**122°.38E**±0°.03, **h8**^{km}±11^{km}**, n35,** σ**0^{s}47**/62**, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EOS2	EOS2	0.33	204	P	Pb	00 11 09.9	+0.2
EOS2				*i* S	Sb	00 11 15.7	+0.6
EGS		0.42	287	P	Pg	00 11 10.2	+0.3
EGS				S	Sg	00 11 15.7	+0.2
EOS3	EOS3	0.44	187	*e*P	Pb	00 11 11.9	+0.3
EOS3				S	Sb	00 11 19.0	+0.8
TWB1	Santiao Chiao	0.45	309	P	Pg	00 11 10.8	+0.3
TWB1				S	Sg	00 11 16.4	-0.1
TIPB	Shuangxi	0.56	296	*e*P	Pb	00 11 13.4	-0.4
TIPB				*e*S	Sb	00 11 21.2	-0.6
JYNG	Yonagunijimaku	0.58	118	P	Pb	00 11 14.2	+0.1
JYNG				S	Sb	00 11 22.2	-0.4
SXI1	Grass Mountain	0.59	309	P	Pb	00 11 14.4	+0.1
SXI1				S	Sg	00 11 21.1	+0.3
EOS4	EOS4	0.60	185	*e*P	Pb	00 11 15.0	+0.8
NDS	Dongshan	0.61	262	P	Pg	00 11 13.7	+0.2
NDS				*e*S	Sb	00 11 22.8	-0.5
EWUT	Wuta	0.61	243	*e*P	Pb	00 11 14.2	-0.4
EWUT				*e*S	Sb	00 11 23.3	0.0
YOJ	Yonaguni jima	0.63	114	*i* P	Pb	00 11 15.3	+0.3
YOJ				S	Sb	00 11 23.4	-0.6
YOJ	Yonaguni jima	0.63	114	*e*P	Pb	00 11 15.0	+0.1
YOJ				S	Sb	00 11 23.3	-0.6
WFSB	Wu-fen Shan	0.64	303	*i* P	Pb	00 11 15.6	+0.5
WFSB				*e*S	Sb	00 11 24.6	+0.3
TWE	Neicheng	0.65	270	*e*P	Pg	00 11 14.1	-0.1
TWE				*e*S	Sb	00 11 24.0	-0.3
ENA	Nanau	0.65	243	*e*P	Pg	00 11 12.6	-1.6
ENA				*e*S	Sg	00 11 22.0	-0.8
TNOU	National Taiwa	0.69	308	*e*P	Pb	00 11 15.9	-0.1
TNOU				*e*S	Sb	00 11 25.2	-0.6
FUSB	Fushanzhiwuyua	0.72	273	*e*P	Pg	00 11 15.8	+0.2
FUSB				*e*S	Sg	00 11 25.5	+0.6
NDT	Datong Townshi	0.80	261	*e*P	Pb	00 11 17.4	-0.3
NDT				*e*S	Sb	00 11 29.1	+0.4
NWLT	Wulai	0.80	274	*i* P	Pg	00 11 17.2	+0.1
NWLT				*e*S	Sb	00 11 29.1	+0.4
YM01	YM01	0.84	300	*e*P	Pn	00 11 19.4	-0.5
YM01				*e*S	Sb	00 11 29.7	-0.4
YM08	YM08	0.85	303	*e*P	Pb	00 11 19.1	+0.3
YM08				*e*S	Sg	00 11 29.3	+0.1
TWY	Chenhua	0.89	308	*e*P	Pb	00 11 19.9	+0.5
TWY				*e*S	Sb	00 11 31.8	+0.3
NACB	Ninganchiao	0.90	233	*e*P	Pg	00 11 18.9	-0.1
NACB				*e*S	Sg	00 11 30.7	0.0
YHNB	Yeheng	0.91	267	*e*P	Pb	00 11 19.7	-0.1
YHNB				*e*S	Sb	00 11 31.9	-0.2
NSK	Sanguang	0.93	267	*e*P	Pb	00 11 19.8	-0.2
NSK				*e*S	Sb	00 11 32.1	-0.4
PCYT	Pengchaiyu	0.94	343	*e*P	Pn	00 11 20.9	-0.3
NNSB	Datong	0.95	252	*e*P	Pg	00 11 20.0	0.0
NNSB				*e*S	Sb	00 11 33.4	+0.1
NNS	Nan Shan	0.96	253	*e*P	Pg	00 11 19.6	-0.5
NNS				*e*S	Sg	00 11 32.8	+0.2
ETLH	Xiulin Townshi	0.96	238	*e*P	Pb	00 11 20.4	-0.3
ETLH				S	Sb	00 11 33.7	+0.1
KSHI	Guanxi Townshi	1.09	273	*e*P	Pn	00 11 24.6	+1.3
LXIB	Xiulin Townshi	1.12	232	*e*P	Pb	00 11 23.3	-0.1
NFF	Wufeng Townshi	1.15	266	*e*P	Pg	00 11 23.0	-0.8
WHF	Hehuan Shan	1.17	241	*e*P	Pn	00 11 24.7	0.0
OWD	Renai	1.34	235	*e*P	Pg	00 11 27.4	0.0
VWDT	VWDT	1.48	230	*e*P	Pg	00 11 29.9	-0.3

JMA ***17*** *00:17:59.2±0.1, 39°.3N±0°.2×142°.1E±0°.3, h48^{km}, MD4.5/40, MW4.6/40, E OFF IWATE PREF*

JMA Felt III J1 at E OFF IWATE PREF .

MOS ***17*** *00:17:59.4±0.9, 39°.40N×141°.98E, h64^{km}, mb5.0/44, Error ellipse: s-maj=6.6km s-min=4.4km az=117.9*

NIED ***17*** *00:17:59.2, 39°.33N×142°.09E, h48^{km}, MW4.6, Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M_{rr}4.77; $M_{\theta\theta}$-0.67; $M_{\phi\phi}$-4.10; $M_{r\theta}$2.73; $M_{\theta\phi}$-1.07; $M_{\phi r}$5.81; Fault plane solution: $M_0$7.89000×10^{15} NP1: ϕ_s190.00000°, δ18.00000°, λ78.00000°. NP2: ϕ_s23.00000°, δ72.00000°, λ94.00000°.*

IDC ***17*** *00:18:00.2±1.4, 39°.35N×142°.05E, h64^{km}±12^{km}, mb4.0/28, mbtmp4.3/37, MS3.7/46 Error ellipse: s-maj=13.5km s-min=8.2km az=106.0*

BJI ***17*** *00:18:00.7, 39°.30N×141°.81E, h68^{km}, mB4.8/12, mb4.7/49, Ms3.9/18, Ms7 3.8/19*

NEIC ***17*** *00:18:02.0±0.9, 39°.50N±0°.06×141°.88E±0°.09, h65^{km}±6^{km}, mb4.7/74, Error ellipse: s-maj=10.8km s-min=8.3km az=109.0*

GFZ ***17*** *00:18:03.3±0.4, 40°N±3°×14°2E±°, h62^{km}, M4.7/31, mb4.9/31, confirmed*

ISC 17 00:18:00.8±0.4, **39°.37N**±0°.03×**141°.98E**±0°.04, **h65**^{km}±3^{km}, **h64**^{km}**:pP-P, n466,** σ**1^{s}38**/474**, mb4.7**/151**, 33C-32D, Eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MIYJ	Miyakonagasawa	0.24	329	⇓*i*P	Pn	00 18 08.3	-2.7
MIYJ				A	A	00 18 08.3	
	comp=N,26nm,1.0s,comp=E,91nm,2.2s						
MIYJ				⇓S	Sn	00 18 14.5	-4.0
OFUJ	Ofunato	0.38	221	⇓P	Pn	00 18 09.4	-2.6
OFUJ				A	A	00 18 09.4	
	comp=N,46nm,1.6s,comp=E,80nm,2.2s						
OFUJ				⇓*e*S	Sn	00 18 16.3	-3.9
JOM	Ohasama	0.55	281	⇓P	Pn	00 18 11.9	-1.7
JOM				A	A	00 18 11.9	
	comp=N,17nm,0.3s,comp=E,52nm,0.9s						
JOM				⇓*e*S	Sn	00 18 21.3	-1.7
JTH	Tanohata	0.58	351	⇓P	Pn	00 18 11.9	-2.1
JTH				A	A	00 18 11.9	
	comp=N,30nm,0.8s,comp=E,37nm,2.0s						
JTH				⇓*e*S	Sn	00 18 20.7	-3.0
JKMT	Kesennumamotoy	0.68	216	⇓P	Pn	00 18 12.9	-2.2
JKMT				A	A	00 18 12.9	
	comp=N,21nm,2.8s,comp=E,35nm,2.0s						
JMK	Ichinoseki	0.72	235	⇓P	Pn	00 18 13.8	-1.8
JMK				A	A	00 18 13.8	
	comp=N,25nm,1.2s,comp=E,17nm,2.2s						
JMK				⇓*e*S	Sn	00 18 24.0	-2.4
JKZ	Kuzumaki	0.80	321	⇓P	Pn	00 18 15.6	-1.0
JKZ				A	A	00 18 15.6	
	comp=N,45nm,1.0s,comp=E,25nm,0.7s						
JKZ				⇓*e*S	Sn	00 18 27.3	-0.9
JKEN	Kujiedanarisaw	0.86	346	A	A	00 18 16.0	
	comp=N,28nm,2.0s,comp=E,38nm,1.0s						
JSZI	Iwateshizukuis	0.88	295	A	A	00 18 16.7	
	comp=N,40nm,2.1s,comp=E,46nm,1.7s						
JIO	Ouri	1.04	209	⇓P	Pn	00 18 17.4	-2.1
JIO				⇓*e*S	Sn	00 18 30.2	-3.1
JRG	Rokugo	1.05	272	⇓*e*P	Pn	00 18 18.6	-1.1
JRG				A	A	00 18 18.6	
	comp=N,12nm,1.1s,comp=E,24nm,1.6s						
JANG	Nango	1.07	340	⇓P	Pn	00 18 18.4	-1.5
JANG				A	A	00 18 18.4	
	comp=N,14nm,1.7s,comp=E,8.0nm,1.8s						
JANG				⇓*e*S	Sn	00 18 32.5	-1.7
JIKH	Ishinomakikobu	1.13	201	A	A	00 18 19.0	
	comp=N,9.0nm,4.3s,comp=E,11nm,1.9s						
JOFO	Osakifurukawao	1.13	228	A	A	00 18 19.6	
	comp=N,46nm,2.5s,comp=E,43nm,1.0s						
JAH	Hinai	1.32	309	⇓P	Pn	00 18 22.6	-0.6
JYK	Kaneyama	1.34	251	⇓P	Pn	00 18 22.7	-0.8
JYK				A	A	00 18 22.7	
	comp=N,8.0nm,1.5s,comp=E,9.0nm,1.7s						
JYW	Yuwa	1.39	278	A	A	00 18 23.9	
	comp=N,28nm,2.4s,comp=E,22nm,1.4s						
JOU	Okura	1.44	226	A	A	00 18 23.9	
	comp=N,9.0nm,4.0s,comp=E,9.0nm,3.4s						
JTM	Tenmabayashi	1.58	334		Pn	00 18 25.8	-0.9
JTM				Sn	Sn	00 18 38.8	-7.5
JTM	Tenmabayashi	1.58	334	P	Pn	00 18 26.1	-0.6
JTM				S	Sn	00 18 38.8	-7.5
JYYZ	Yamagatayuza	1.63	258	A	A	00 18 27.2	
	comp=N,19nm,1.8s,comp=E,14nm,1.7s						
JNTW	Noshirotokiwa	1.67	303	A	A	00 18 28.0	
	comp=N,21nm,4.0s,comp=E,22nm,2.1s						
JHHS	Hirosakihyakuz	1.79	316	A	A	00 18 29.6	
	comp=N,17nm,0.7s,comp=E,12nm,0.9s						
JMST	Minamisoumatoc	1.85	208	A	A	00 18 29.5	
	comp=N,6.0nm,1.0s,comp=E,8.0nm,0.8s						
JYA	Atsumi	1.93	247	A	A	00 18 31.4	
	comp=N,10.0nm,1.4s,comp=E,8.0nm,0.9s						
JIW	Iwasaki	1.95	310	A	A	00 18 32.1	
	comp=N,8.0nm,1.0s,comp=E,8.0nm,0.9s						
JAHD	Aomorihigashid	1.96	346	A	A	00 18 31.7	
	comp=N,12nm,1.9s,comp=E,12nm,0.5s						
JYAR	Yonezawaarcadi	2.05	225	A	A	00 18 32.6	
	comp=N,12nm,1.3s,comp=E,9.0nm,1.3s						
JOG3	Oga3	2.31	285	A	A	00 18 29.4	
	comp=N,6.0nm,1.1s,comp=E,7.0nm,2.3s						
ERM	Erimo	2.79	18	*e*P	Pn	00 18 42.2	-0.9
ERM	Erimo	2.79	18		Pn	00 18 42.1	-1.0
ERM				Sn	Sn	00 19 13.8	-1.8
ERM	Erimo	2.79	18	P	Pn	00 18 42.5	-0.6
MJAR	Matsushiro Arr	4.11	228	P	Pn	00 19 01.7	+0.6
	comp=E,56nm,0.9s,baz=41,slow=12,SNR=106						
MJAR				S	Sn	00 19 52.0	+4.2
	comp=E,24nm,0.6s,baz=46,slow=11,SNR=1.5						
MJAR				LR	LR	00 20 37.9	
	comp=E,332nm,21.2s,baz=50,slow=38						
MJAR	Matsushiro Arr	4.11	228	P	Pn	00 19 02.6	+1.5
MJAR	Matsushiro Arr	4.11	228		Pn	00 19 02.6	+1.5
MJB9	Matsu-Tunnel	4.11	228		Pn	00 19 03.6	+2.5
MAJO	Matsushiro	4.11	228	*c i*P	Pn	00 19 03.0	+1.9
MAJO	Matsushiro	4.11	228		Pn	00 19 02.6	+1.5
MAJO	Matsushiro	4.11	228	P	Pn	00 19 02.8	+1.7
ASAJ	Asahikawa	4.77	5	P	Pn	00 19 09.6	-0.5
	comp=E,22nm,0.6s,baz=190,slow=11,SNR=10						
ASAJ				S	Sn	00 20 03.3	-0.7
	comp=E,46nm,0.5s,baz=180,slow=20,SNR=4.0						
JKA	Kamikawa-asahi	4.77	5		Pn	00 19 09.4	-0.6
JKA	Kamikawa-asahi	4.77	5	P	Pn	00 19 09.6	-0.5
JGF	Kuroka	5.26	226		Pn	00 19 18.5	+1.6
JGF	Kuroka	5.26	226	P	Pn	00 19 18.9	+2.0
	comp=Z,119nm,0.8s						
YUK	Yuzh-Kuril'sk	5.49	31	*e*P	Pn	00 19 20.5	+0.5
YUK				pmax	pmax		
	comp=Z,3.0nm,1.2s						
JSG	Sagara	5.58	214	Pn	Pn	00 19 24.0	+2.8
JSG	Sagara	5.58	214	P	Pn	00 19 23.4	+2.1
	comp=Z,124nm,0.7s						
INU	Inuyama	5.63	226		Pn	00 19 23.3	+1.3
INU	Inuyama	5.63	226	P	Pn	00 19 23.7	+1.7
	comp=Z,106nm,1.2s						

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JHJ    Hachijo jima 2      6.48 197  P      Pn     00 19 31.5 -2.1
       comp=Z,43nm,0.3s,baz=60,slow=20,SNR=6.4
JHJ                                  S      Sn     00 20 40.4 -5.8
       comp=Z,140nm,0.4s,baz=38,slow=20,SNR=6.4
TEY    Ternei              6.93 327 eP      Pn     00 19 33.4 -6.2
TEY                                  pmax   pmax
       comp=N,50nm,0.9s
TEY                                  pmax   pmax
       comp=Z,60nm,0.8s
TEY                                  pmax   pmax
       comp=E,40nm,0.9s
KUR    Kuril'sk            7.30  35 eP      Pn     00 19 43.7 -1.1
KUR                                 i S     Sn     00 21 00.4 -5.7
KUR                                  pmax   pmax
       comp=Z,73nm,0.3s
KUR                                  smax   smax
       comp=N,191nm,0.5s
KUR                                  smax   smax
       comp=E,260nm,0.5s
YSS    Yuzhno-Sakhali      7.61   4 eP      Pn     00 19 49.3 +0.4
YSS                                 eS      Sn     00 21 09.8 -3.7
YSS                                  pmax   pmax
       comp=Z,20nm,0.6s
YSS                                  smax   smax
       comp=N,30nm,1.2s
YSS                                  smax   smax
       comp=E,20nm,1.4s
YSS                                  MLR    MLR
       comp=N,100nm,14.0s
YSS                                  MLR    MLR
       comp=E,100nm,15.0s
YSS    Yuzhno-Sakhali      7.61   4  Pn     Pn     00 19 46.2 -2.7
YSS    Yuzhno-Sakhali      7.61   4  P      Pn     00 19 49.4 +0.5
       comp=Z,32nm,0.8s
JMN    Monobe              8.61 232         Pn     00 20 02.7 -0.1
JMN    Monobe              8.61 232  P      Pn     00 20 04.9 +2.2
       comp=Z,32nm,1.1s
USA0B  Ussuriysk Arra      8.89 306⇑iP      Pn     00 20 09.5 +3.0
USA0B  Ussuriysk Arra      8.89 306         Pn     00 20 05.5 -0.9
USRK   Ussuriysk Ar.       8.89 306  P      Pn     00 20 07.3 +0.9
       comp=Z,39nm,0.9s,baz=118,slow=14,SNR=46
USRK                                 LR     LR     00 23 28.0
       comp=Z,591nm,19.0s,baz=119,slow=37
USRK   Ussuriysk Ar.       8.89 306         Pn     00 20 06.5  0.0
MDJ    Mudanjiang         10.61 304  P      Pn     00 20 31.1 +1.2
MDJ                                  sP            00 20 48.6
MDJ                                  S      Sn     00 22 24.1 -2.9
MDJ                                  pmax   pmax
       comp=Z,72nm,1.2s
MDJ                                  L      L
       comp=Z,400nm,20.6s
MDJ                                  L      L
       comp=Z,540nm,17.2s
MDJ                                  L      L
       comp=Z,870nm,18.5s
MDJ    Mudanjiang         10.61 304         Pn     00 20 29.9  0.0
JNU    Nakatsue           10.91 239  P      Pn     00 20 34.5 +0.2
       comp=Z,8.5nm,0.8s,baz=67,slow=7.7,SNR=4.5
JNU                                  LR     LR     00 25 03.0
       comp=Z,167nm,20.8s,baz=30,slow=39
KSRS   Korea Array        11.20 265  P      Pn     00 20 39.4 +1.4
       comp=Z,4.1nm,0.7s,baz=76,slow=14,SNR=14
KSRS                                 LR     LR     00 24 36.3
       comp=Z,244nm,20.3s,baz=75,slow=35
KS19   Wonju Array Si     11.23 265  Pn     Pn     00 20 38.1 -0.4
KSAR   Wonju Array Be     11.23 265  P      Pn     00 20 39.1 +0.6
KSAR   Wonju Array Be     11.23 265         Pn     00 20 39.0 +0.6
TJN    Taejon             11.93 260⇑eP      Pn     00 20 46.6 -1.5
JCJ    Chichijima         12.24 179  P      Pn     00 20 42.1  -10
       baz=0.0,slow=0.0
JCJ                                  S      Sn     00 22 46.8  -20
       baz=0.0,slow=0.0
KLR    Kul'dur            12.28 327  P      Pn     00 20 51.7 -0.9
       comp=Z,2.1nm,0.8s,baz=135,slow=12,SNR=8.4
KLR                                  LR     LR     00 25 38.3
       comp=Z,391nm,18.7s,baz=151,slow=37
KLR    Kul'dur            12.28 327 eP      Pn     00 20 52.5 -0.1
KLR                                  pmax   pmax
       comp=Z,2.0nm,1.2s
BNX    BinXian            12.49 305 ⇑P      Pn     00 20 57.4 +1.9
BNX                                  pmax   pmax
       comp=Z,41nm,1.1s
CN2    Changchun          13.14 295 eP      Pn     00 21 04.5  0.0
CN2                                 eS      Sn     00 23 26.8 -2.1
CN2                                  pmax   pmax
       comp=Z,10.0nm,0.6s
CN2                                  pmax   pmax
       comp=Z,100nm,3.0s
CN2                                  L      L
       comp=Z,200nm,11.0s
CN2                                  L      L
       comp=Z,300nm,11.0s
CN2                                  L      L
       comp=Z,200nm,10.0s
HEH    HeiHe              14.98 321 eP      P      00 21 31.3 -1.4
HEH                                  pmax   pmax
       comp=Z,4.0nm,0.7s
HEH                                  L      L
       comp=Z,210nm,15.7s
HEH                                  L      L
       comp=Z,290nm,16.7s
HEH                                  L      L
       comp=Z,390nm,18.4s
SKR    Severo-Kuril's     15.06  37 eP      P      00 21 33.7 +0.1
SKR                                 eS      Sn     00 24 21.7 +6.3
SKR                                  pmax   pmax
       comp=Z,100nm,3.1s
SKR                                  pmax   pmax
       comp=Z,49nm,1.0s
SKR                                  MLR    MLR
       comp=Z,100nm,19.0s
PETK   Petropavlovsk-     17.47  33  P      Pn     00 21 57.6 -2.3
       comp=Z,1.4nm,0.4s,baz=232,slow=7.1,SNR=1.7
PETK                                 LR     LR     00 29 37.8
       comp=Z,71nm,18.3s,baz=207,slow=40
ZEA    Zeya               17.53 330 eP      P      00 22 01.8 +0.9
HIA    Hailar             18.68 309  P      P      00 22 11.2 -2.4
HIA                                  pmax   pmax
       comp=Z,13nm,1.2s
HIA    Hailar             18.68 309  P      P      00 22 11.2 -2.4
HILR   Hailar Array B     18.79 310  P      P      00 22 13.1 -1.8
       comp=Z,14nm,0.7s,baz=116,slow=13,SNR=54
XLT    XiLinHaoTe         19.85 292 eP      P      00 22 24.6 -1.9
XLT                                  pP     pP     00 22 41.6 +1.3
XLT                                  sP     sP     00 22 51.5 +3.0
XLT                                  pmax   pmax
       comp=Z,7.0nm,0.9s
XLT                                  pmax   pmax
       comp=Z,70nm,5.8s
XLT                                  L      L
       comp=Z,250nm,17.9s
XLT                                  L      L
       comp=Z,140nm,17.3s
BJI2   Beijing            19.86 280  P      P      00 22 26.4 -0.1
BJI2                                 pmax   pmax
       comp=Z,7.0nm,1.1s
BJT    Baijiatuau         19.86 280  P      P      00 22 25.3 -1.2
BJT                                  pmax   pmax
       comp=Z,11nm,1.0s
BJT    Baijiatuau         19.86 280  P      P      00 22 25.3 -1.2
TIA    Tai'an             19.88 269  P      P      00 22 25.8 -1.0
TIA                                  pmax   pmax
       comp=Z,19nm,1.5s
TIA                                  pmax   pmax
       comp=Z,220nm,4.0s
TIA                                  L      L
       comp=Z,190nm,12.1s
TIA                                  L      L
       comp=Z,150nm,14.7s
TIA                                  L      L
       comp=Z,270nm,20.1s
NJ2    Nanjing            20.12 256 eP      P      00 22 30.0 +0.6
NJ2                                  pmax   pmax
       comp=Z,11nm,0.6s
MA2    Magadan            20.98  13  P      P      00 22 36.5 -2.0
       comp=Z,17nm,0.7s,baz=175,slow=13,SNR=5.9
MA2                                  LR     LR     00 31 03.0
       comp=Z,73nm,19.6s,baz=217,slow=37
       comp=Z,17nm,0.7s
MA2    Magadan            20.98  13⇑iP      P      00 22 38.3 -0.2
MA2    Magadan            20.98  13  P      P      00 22 37.7 -0.8
MA2                                  IAmb   IAmb   00 22 56.4
       comp=Z,21nm,0.8s
MA2    Magadan            20.98  13  P      P      00 22 38.4 -0.1
       comp=Z,41nm,0.8s
HNS    HongShan           21.45 273 ⇑P      P      00 22 46.0 +2.4
HNS                                  S      S      00 26 34.4 -3.6
HNS                                  L      L
       comp=Z,110nm,15.9s
HNS                                  L      L
       comp=Z,180nm,12.6s
HNS                                  L      L
       comp=Z,250nm,19.6s
HHC    Hu-ho-hao-te       23.26 283 eP      P      00 23 01.0 -1.8
HHC                                  pmax   pmax
       comp=Z,11nm,0.6s
HHC                                  pmax   pmax
       comp=Z,66nm,3.8s
HHC                                  L      L
       comp=Z,150nm,12.0s
HHC                                  L      L
       comp=Z,160nm,12.0s
HHC                                  L      L
       comp=Z,150nm,13.3s
YAK    Yakutsk            23.91 346  P      P      00 23 06.1 -2.2
       comp=Z,49nm,0.7s,baz=112,slow=0.8,SNR=3.1
YAK                                  S      S      00 27 17.2 -2.6
       comp=Z,19nm,0.4s,baz=135,slow=20,SNR=1.5
YAK                                  LR     LR     00 32 59.6
       comp=Z,126nm,18.9s,baz=145,slow=38
       comp=Z,49nm,0.7s
YAK    Yakutsk            23.91 346 eP      P      00 23 07.9 -0.4
YAK                                 e*PP    pP     00 23 24.4 +0.7
YAK                                 e              00 26 47.5
YAK                                 eS      S      00 27 20.0 +0.2
YAK                                 e*SS    Sn     00 27 49.9 +2.2
YAK                                 eSS     SnSn   00 28 08.4 +3.2
YAK                                 e              00 34 06.6
YAK                                  pmax   pmax
       comp=Z,42nm,1.0s
YAK                                  pmax   pmax
       comp=N,24nm,1.8s
YAK                                  pmax   pmax
       comp=E,6.0nm,1.0s
YAK                                  smax   smax
       comp=E,70nm,2.4s
YAK                                  smax   smax
       comp=N,66nm,2.7s
YAK    Yakutsk            23.91 346  P      P      00 23 05.9 -2.4
YAK    Yakutsk            23.91 346  P      P      00 23 07.5 -0.8
       comp=Z,66nm,0.8s
LYN    LuoYang            24.01 268  P      P      00 23 10.6 +1.0
LYN                                  pP     pP     00 23 25.9 +0.8
LYN                                  pmax   pmax
       comp=Z,23nm,0.6s
LYN                                  L      L
       comp=Z,240nm,7.9s
LYN                                  L      L
       comp=Z,370nm,17.9s
LYN                                  L      L
       comp=Z,370nm,21.3s
WHN    Wuhan              24.23 257  P      P      00 23 11.4 -0.1
WHN                                  pmax   pmax
       comp=Z,44nm,0.7s
SEY    Seymchan           24.42  12 eP      P      00 23 13.3 +0.4
SEY                                  pmax   pmax
       comp=Z,52nm,1.2s
SHEM   Shemya Is, Ala     25.74  48  LR     LR     00 33 18.9
       comp=Z,37nm,21.4s,baz=251,slow=36
GUMO   Guam               25.80 174  LR     LR     00 33 19.3
       comp=Z,45nm,21.9s,baz=334,slow=36
ULN    Ulaanbaatar        26.49 300 eP      P      00 23 30.7 -1.4
ULN    Ulaanbaatar        26.49 300  P      P      00 23 31.4 -0.8
SONM   Songino Array      26.93 300  P      P      00 23 35.2 -0.8
       comp=Z,0.8nm,0.7s,baz=90,slow=8.6,SNR=5.7
SONM                                 LR     LR     00 34 49.1
       comp=Z,199nm,18.2s,baz=102,slow=37
       comp=Z,0.8nm,0.7s
SONM   Songino Array      26.93 300  P      P      00 23 34.4 -1.6
ENH    Enshi              28.06 261  P      P      00 23 45.2 -1.0
ENH                                  IAmb   IAmb   00 23 46.9
       comp=Z,13nm,0.7s
ENH    Enshi              28.06 261  P      P      00 23 46.0 -0.1
       comp=Z,20nm,0.8s
H11N2  WAKE ISLAND Hy     29.04 125  T      T      00 54 16.6
       baz=318,slow=75,SNR=6100
H11N1  WAKE ISLAND Hy     29.05 125  T      T      00 54 18.5
       baz=318,slow=75,SNR=4307
H11N3  WAKE ISLAND Hy     29.06 125  T      T      00 54 20.1
       baz=318,slow=75,SNR=8631
ZAK    Zakamensk          29.24 305 eP      P      00 23 55.8 -0.7
ZAK                                  pmax   pmax
       comp=Z,4.0nm,1.3s
H11S1  WAKE ISLAND Hy     29.83 127  T      T      00 55 15.9
       baz=319,slow=76,SNR=425
H11S3  WAKE ISLAND Hy     29.83 127  T      T      00 55 16.7
       baz=319,slow=76,SNR=590
H11S2  WAKE ISLAND Hy     29.84 127  T      T      00 55 17.9
       baz=319,slow=76,SNR=468
LZH    Lanzhou            30.20 276 eP      P      00 24 06.9 +1.7
LZH                                  pmax   pmax
       comp=Z,24nm,0.8s
LZDM   Lanzhou Array      30.35 276  P      P      00 24 05.0 -1.8
       comp=Z,1.1nm,0.3s,baz=92,slow=12,SNR=3.8
LZDM                                 LR     LR     00 36 26.2
       comp=Z,145nm,21.6s,baz=80,slow=36
       comp=Z,1.1nm,0.3s
BILL   Bilibino           31.67  17 eP      P      00 24 19.3 +1.7
BILL                                 pmax   pmax
       comp=Z,3.0nm,1.1s
GTA2   Gaotai             32.40 284 eP      P      00 24 26.4 +1.9
GTA2                                 pmax   pmax
       comp=Z,4.0nm,1.1s
GTA2                                 L      L
       comp=Z,130nm,15.2s
GTA2                                 L      L
       comp=Z,230nm,17.5s
GTA2                                 L      L
       comp=Z,310nm,17.8s
TIXI   Tiksi              33.03 352  LR     LR     00 39 25.5
       comp=Z,83nm,18.8s,baz=166,slow=39
DAV    Davao City (W)     35.38 209  LR     LR     00 40 57.0
       comp=Z,62nm,18.5s,baz=122,slow=39
KMI2   Kunming            35.79 259  P      P      00 24 54.5 +0.3
KMI2                                 pP     pP     00 25 11.5 +1.3
KMI2                                 sP     sP     00 25 17.0 -0.8
KMI2                                 pmax   pmax
       comp=Z,18nm,1.1s
PZH    PanZhiHua          35.84 261  P      P      00 24 54.5  0.0
GOMU   GeErMu             37.09 280  P      P      00 25 05.8 +0.5
GOMU                                 pmax   pmax
       comp=Z,6.0nm,0.6s
TNCH   TengChong          39.09 262  P      P      00 25 23.5 +1.5
TNCH                                 pmax   pmax
       comp=Z,36nm,0.7s
DGZ    Jazzator, Alta     39.43 304c iP     P      00 25 25.8 +1.2
DGZ                                  pmax   pmax
       comp=Z,10.0nm,0.9s
WMQ    Urumqi             40.23 295 eP      P      00 25 32.6 +1.4
WMQ                                  pmax   pmax
       comp=Z,19nm,0.9s
WMQ                                  L      L
       comp=Z,130nm,24.3s
M14K   Bethel             40.28  39  P      P      00 25 31.9 +0.7
M14K                                 IAmb   IAmb   00 25 43.6
       comp=Z,12nm,1.0s
ZAA0   Zalesovo Array     40.71 310         P      00 25 34.7 -0.1
ZALV   Zalesovo Beam      40.71 310  P      P      00 25 34.9 +0.1
       comp=Z,6.6nm,0.7s,baz=89,slow=8.4,SNR=26
ZALV                                 PcP    PcP    00 27 34.0 -1.1
       comp=Z,1.6nm,0.6s,baz=82,slow=4.4,SNR=3.4
ZALV                                 LR     LR     00 43 17.8
       comp=Z,178nm,18.3s,baz=88,slow=37
       comp=Z,6.6nm,0.7s
ZALV   Zalesovo Beam      40.71 310 i P     P      00 25 35.4 +0.5
ZALV                                 pmax   pmax
       comp=Z,5.0nm,0.6s
ZALV   Zalesovo Beam      40.71 310         P      00 25 35.0 +0.1
O15K   Ungalikthiuk R     41.24  42  P      P      00 25 39.5 +0.4
NRIK   Noril'sk           41.35 334  LR     LR     00 43 51.6
       comp=Z,196nm,20.0s,baz=110,slow=38
NRIK   Noril'sk           41.35 334⇑iP      P      00 25 39.8 -0.1
NRIK                                 pmax   pmax
       comp=Z,4.0nm,1.1s
ZSN    Zaisan             41.45 301 eP      P      00 25 41.1 +0.1
ZSN                                  pmax   pmax
       comp=Z,21nm,1.6s
ZSN    Zaisan             41.45 301 eP      P      00 25 41.1 +0.1
       comp=Z,21nm,1.6s
L16K   Owhat River        41.57  38         P      00 25 42.5 +0.7
M16K   Timber Creek       41.77  39  P      P      00 25 44.2 +0.8
M16K                                 IAmb   IAmb   00 26 28.3
       comp=Z,19nm,1.4s
CMAR   Chiang Mai Arr     42.56 253  P      P      00 25 50.2 -0.2
       comp=Z,1.5nm,0.8s,baz=48,slow=6.2,SNR=7.1
CMAR                                 PcP    PcP    00 27 41.6 -0.3
       comp=Z,0.8nm,0.3s,baz=64,slow=4.7,SNR=2.2
CMAR                                 LR     LR     00 43 22.3
       comp=Z,28nm,19.8s,baz=60,slow=36
       comp=Z,1.5nm,0.8s
CMAR   Chiang Mai Arr     42.56 253 i P     P      00 25 51.2 +0.8
MORE   Moreh              42.75 264  P      P      00 25 51.4 -0.6
MORE                                 IAmb   IAmb   00 25 56.0
       comp=Z,8.8nm,0.4s
E19K   Redstone River     43.22  29         P      00 25 56.2 +1.0
E19K                                 IAmb   IAmb   00 26 15.7
       comp=Z,14nm,0.8s
MK31   Makanchi Array     43.30 300c iP     P      00 25 56.4 +0.3
MK31                                i *PP   pP     00 26 13.4 +0.9
MKAR   Makanchi Array     43.30 300  P      P      00 25 56.4 +0.3
       comp=Z,4.0nm,0.8s,baz=74,slow=8.1,SNR=20
MKAR                                 PcP    PcP    00 27 42.2 -1.7
       comp=Z,0.7nm,0.6s,baz=97,slow=5.8,SNR=1.5
MKAR                                 LR     LR     00 44 38.3
       comp=Z,146nm,21.0s,baz=74,slow=37
       comp=Z,4.0nm,0.8s
MKAR   Makanchi Array     43.30 300 i P     P      00 25 56.5 +0.4
MKAR                                 pmax   pmax
       comp=Z,4.0nm,0.8s
MKAR   Makanchi Array     43.30 300         P      00 25 56.0 -0.1
MAKZ   Makanchi           43.51 300  P      P      00 25 58.3 +0.5
MAKZ   Makanchi           43.51 300         P      00 25 57.2 -0.5
MAKZ                                 IAmb   IAmb   00 26 16.6
       comp=Z,22nm,1.0s
MAKZ   Makanchi           43.51 300  P      P      00 25 58.1 +0.4
       comp=Z,25nm,1.1s
SEM    Semipalatinsk      43.91 306 eP      P      00 26 00.9 -0.3
SEM                                  pmax   pmax
       comp=Z,10.0nm,1.1s
SEM    Semipalatinsk      43.91 306 eP      P      00 26 00.9 -0.3
       comp=Z,10nm,1.1s
K20K   Telida             44.16  36  P      P      00 26 03.3 +0.5
K20K                                 IAmb   IAmb   00 26 23.0
       comp=Z,12nm,1.4s
IMAR   Indian Mountai     44.43  32  P      P      00 26 05.6 +0.8
G21K   Allakaket          44.56  31         P      00 26 06.4 +0.5
G21K                                 IAmb   IAmb   00 26 34.4
       comp=Z,9.6nm,0.9s
KURK   Kurchatov          44.88 306c iP     P      00 26 08.6  0.0
KURK                                i *PP   pP     00 26 25.9 +0.7
KURK                                 pmax   pmax
       comp=Z,18nm,1.0s
KURK   Kurchatov          44.88 306         P      00 26 08.4 -0.2
KURK   Kurchatov          44.88 306  P      P      00 26 08.9 +0.3
       comp=Z,42nm,1.0s
KURBB  Kurchatov Arra     44.95 306  P      P      00 26 09.2 -0.1
       comp=Z,14nm,0.9s,baz=81,slow=8.4,SNR=75
KURBB                                LR     LR     00 45 35.7
       comp=Z,86nm,20.5s,baz=175,slow=37
       comp=Z,14nm,0.9s
KDAK   Kodiak Island      45.08  43  LR     LR     00 44 52.2
       comp=Z,76nm,20.7s,baz=221,slow=36
KDAK   Kodiak Island      45.08  43  P      P      00 26 10.6 +0.5
KDAK                                 pmax   pmax
       comp=Z,24nm,1.2s
KDAK   Kodiak Island      45.08  43  P      P      00 26 10.6 +0.5
KDAK                                 IAmb   IAmb   00 26 11.8
       comp=Z,24nm,1.2s
D22K   Ayikyak River      45.09  28         P      00 26 11.6 +1.6
D22K                                 IAmb   IAmb   00 26 12.8
       comp=Z,11nm,0.7s
C23K   Itkillik River     45.91  26         P      00 26 17.7 +1.3
C23K                                 IAmb   IAmb   00 26 37.2
       comp=Z,20nm,1.1s
PDGK   Podgornoye         46.12 296  P      P      00 26 19.0 +0.3
PDGK   Podgornoye         46.12 296         P      00 26 19.0 +0.3
SHLS   Shalkode           46.19 296 eP      P      00 26 16.8 -2.4
SHLS                                 pmax   pmax
       comp=Z,5.0nm,0.9s
SHLS   Shalkode           46.19 296 eP      P      00 26 16.9 -2.4
       comp=Z,5.3nm,0.9s
TDK    Taldyqorghan       46.38 299 eP      P      00 26 20.7 +0.2
TDK                                  pmax   pmax
       comp=Z,7.0nm,0.9s
TDK    Taldyqorghan       46.38 299 eP      P      00 26 20.8 +0.2
       comp=Z,6.8nm,0.9s
UZB    Uzynbulak          46.50 296 eP      P      00 26 21.6 -0.1
UZB                                  pmax   pmax
       comp=Z,6.0nm,1.0s
UZB    Uzynbulak          46.50 296 eP      P      00 26 21.6 -0.1
       comp=Z,5.7nm,1.0s
KPKS   Kokpek             46.63 297 eP      P      00 26 22.9 +0.2
KPKS   Kokpek             46.63 297 eP      P      00 26 22.9 +0.2
EVN    Everest            46.66 273  P      P      00 26 23.3 -0.4
EVN                                  IAmb   IAmb   00 26 28.6
       comp=Z,9.0nm,0.9s
EVN    Everest            46.66 273  P      P      00 26 24.9 +1.1
       comp=Z,11nm,1.1s
WUS    Wushi              46.98 293         P      00 26 25.4 -0.1
WUS    Wushi              46.98 293  P      P      00 26 26.7 +1.2
       comp=Z,36nm,1.0s
WUS                                  pP     pP     00 26 43.4 +1.2
PRZ    Przheval'sk        47.14 295  P      P      00 26 26.9 +0.1
PRZ                                  pmax   pmax
       comp=Z,25nm,0.9s
PRZ    Przheval'sk        47.14 295  P      P      00 26 26.9 +0.1
IL31                      47.30  33         P      00 26 27.5 +0.1
ILAR   Eielson Array      47.30  33  P      P      00 26 26.9 -0.5
       comp=Z,2.0nm,0.6s,baz=271,slow=7.6,SNR=24
       comp=Z,2.0nm,0.6s
ILAR   Eielson Array      47.30  33  P      P      00 26 27.8 +0.4
ILAR   Eielson Array      47.30  33  P      P      00 26 27.8 +0.4
TARG   Taragay, Kyrgy     47.81 295  P      P      00 26 32.1 -0.1
TARG                                 pmax   pmax
       comp=Z,23nm,0.8s
TARG   Taragay, Kyrgy     47.81 295  P      P      00 26 32.1 -0.1
TARG   Taragay, Kyrgy     47.81 295  P      P      00 26 33.5 +1.3
       comp=Z,33nm,0.9s
TARG                                 pP     pP     00 26 50.7 +1.9
MDOK   Medeo              47.86 297 eP      P      00 26 32.3  0.0
MDOK   Medeo              47.86 297 eP      P      00 26 32.4  0.0
AAA    Alma-Ata           47.94 297 eP      P      00 26 32.9 +0.1
AAA    Alma-Ata           47.94 297 eP      P      00 26 32.9 +0.1
TNSS   Tian-Shan          47.98 297 eP      P      00 26 33.0 -0.5
TNSS   Tian-Shan          47.98 297 eP      P      00 26 33.1 -0.5
BMAR   Burnt Mountain     48.08  30  P      P      00 26 34.0 +0.5
KDJ    Kajisay            48.11 295  P      P      00 26 33.9 -0.4
KDJ                                  pmax   pmax
       comp=Z,10.0nm,0.9s
KDJ    Kajisay            48.11 295  P      P      00 26 33.9 -0.4
KDJ                                  IAmb   IAmb   00 26 53.7
       comp=Z,10nm,0.9s
KUU    Kurty              48.12 298 eP      P      00 26 34.0 -0.1
KUU    Kurty              48.12 298 eP      P      00 26 34.1 -0.1
C27K   Jago River         48.30  27  P      P      00 26 36.4 +1.3
C27K                                 IAmb   IAmb   00 26 56.2
       comp=Z,12nm,1.1s
SCRK   Sand Creek         48.62  34         P      00 26 38.4 +0.5
BOOM   Boomskoye usch     48.86 296  P      P      00 26 39.9 -0.1
BOOM                                 pmax   pmax
       comp=Z,22nm,0.9s
BOOM   Boomskoye usch     48.86 296  P      P      00 26 39.9 -0.1
BOOM   Boomskoye usch     48.86 296  P      P      00 26 41.2 +1.2
       comp=Z,27nm,1.0s
ASAI   AK-SAY(Kyrgyzs     48.99 294  P      P      00 26 42.4 +1.1
       comp=Z,9.4nm,1.0s
NRN    Naryn              49.18 295  P      P      00 26 42.1 -0.6
NRN                                  pmax   pmax
       comp=Z,7.0nm,1.0s
NRN    Naryn              49.18 295  P      P      00 26 42.1 -0.6
NRN                                  IAmb   IAmb   00 27 02.7
       comp=Z,7.0nm,1.0s
BVAR   Borovoye Array     49.36 311  P      P      00 26 43.2 -0.3
       comp=Z,4.6nm,0.7s,baz=74,slow=8.2,SNR=15
BVAR                                 PcP    PcP    00 28 05.7 +0.6
       comp=Z,4.1nm,0.8s,baz=72,slow=4.7,SNR=4.9
       comp=Z,4.6nm,0.7s
BORK   Borovoye           49.40 311c iP     P      00 26 44.0 +0.3
BORK                                 pmax   pmax
       comp=Z,6.0nm,1.1s
BORK   Borovoye           49.40 311  P      P      00 26 43.4 -0.4
BORK                                 IAmb   IAmb   00 27 06.4
       comp=Z,7.0nm,1.1s
SGDS   Sogindy            49.44 298 eP      P      00 26 44.4 +0.1
BCAR   Beaver Creek A     49.73  35  P      P      00 26 47.1 +0.9
AAK    Ala-Archa          49.81 297  LR     LR     00 48 40.9
       comp=Z,68nm,19.3s,baz=92,slow=37
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AAK	Ala-Archa	49.81	297	⇓iP	P	00 26 48.2	+1.0
AAK				pmax	pmax		
	comp=Z,4.0nm,0.9s						
AAK	Ala-Archa	49.81	297		P	00 26 47.2	0.0
AAK				IAmb	IAmb	00 27 06.4	
	comp=Z,7.3nm,0.9s						
AAK	Ala-Archa	49.81	297	P	P	00 26 48.0	+0.8
	comp=Z,10nm,1.1s						
KSH2	Kashi	50.33	292	P	P	00 26 52.8	+1.6
KSH2				pmax	pmax		
	comp=Z,4.0nm,0.9s						
ARSB	Arslanbob	51.33	296	P	P	00 26 59.2	+0.5
ARSB				pmax	pmax		
	comp=Z,23nm,0.9s						
ARSB	Arslanbob	51.33	296	P	P	00 26 59.2	+0.5
HNR	Honiara	51.34	157	LR	LR	00 48 03.0	
	comp=Z,74nm,19.9s,baz=43,slow=35						
INK	Inuvik	52.11	28	P	P	00 27 04.2	+0.3
INK				pmax	pmax		
	comp=Z,7.0nm,1.0s						
INK	Inuvik	52.11	28	P	P	00 27 04.2	+0.3
INK				IAmb	IAmb	00 27 18.8	
	comp=Z,7.2nm,0.9s						
HYT	Haines Junctio	52.17	38		P	00 27 05.1	+0.5
KK31	Karatay Array	52.37	299	P	P	00 27 06.0	-0.3
KK31				pmax	pmax		
	comp=Z,13nm,1.1s						
KK31	Karatay Array	52.37	299		P	00 27 06.0	-0.3
KK31				IAmb	IAmb	00 27 25.3	
	comp=Z,13nm,1.1s						
KKAR	Karatay Array	52.37	299	P	P	00 27 06.0	-0.3
KKAR	Karatay Array	52.37	299	P	P	00 27 06.0	-0.3
TRKS	Terek-Say	52.54	297	P	P	00 27 08.5	+0.8
BRLS	Borolday	52.86	299	eP	P	00 27 11.4	+1.6
BRLS	Borolday	52.86	299	eP	P	00 27 11.5	+1.6
DRK	Karamyk	52.88	294	P	P	00 27 09.5	-0.9
DRK				pmax	pmax		
	comp=Z,9.0nm,0.7s						
DRK	Karamyk	52.88	294	P	P	00 27 09.5	-0.9
DRK				IAmb	IAmb	00 27 30.6	
	comp=Z,9.1nm,0.7s						
IUG	Iuzhnay	53.06	298	eP	P	00 27 11.5	0.0
IUG				pmax	pmax		
	comp=Z,10.0nm,1.2s						
IUG	Iuzhnay	53.06	298	eP	P	00 27 11.6	0.0
	comp=Z,9.9nm,1.2s						
CHM	Chimkent	53.29	298	eP	P	00 27 13.3	+0.3
CHM				pmax	pmax		
	comp=Z,6.0nm,0.7s						
CHM	Chimkent	53.29	298	eP	P	00 27 13.3	+0.3
	comp=Z,5.9nm,0.7s						
BTK	Batken	53.34	295	P	P	00 27 13.4	-0.1
BTK				pmax	pmax		
	comp=Z,9.0nm,1.2s						
BTK	Batken	53.34	295	P	P	00 27 13.4	-0.1
BTK				IAmb	IAmb	00 27 38.5	
	comp=Z,8.8nm,1.2s						
BTK	Batken	53.34	295	P	P	00 27 13.9	+0.4
	comp=Z,5.5nm,1.1s						
BTK				pP	pP	00 27 31.0	+0.5
SVE	Sverdlovsk	53.71	318	eP	P	00 27 17.0	+1.1
SVE				pmax	pmax		
	comp=Z,24nm,0.8s						
NIL	Nilore	54.34	287	P	P	00 27 20.9	0.0
NIL				pmax	pmax		
	comp=Z,20nm,0.8s						
NIL	Nilore	54.34	287	P	P	00 27 20.9	0.0
NIL	Nilore	54.34	287	P	P	00 27 22.3	+1.4
	comp=Z,30nm,1.2s						
ARTI	Arti	55.03	318	LR	LR	00 53 36.1	
	comp=Z,179nm,18.2s,baz=56,slow=39						
ARTI	Arti	55.03	318c	iP	P	00 27 26.0	+0.5
ARTI				*PP	pP	00 27 43.0	+0.5
ARTI						00 28 22.9	
ARTI						00 29 24.6	
ARTI				S	S	00 35 02.1	-0.6
ARTI				SS	SS	00 38 41.8	-4.8
ARTI				pmax	pmax		
	comp=Z,24nm,0.7s						
ARTI	Arti	55.03	318	P	P	00 27 25.2	-0.2
AB31	Akbulak array	56.80	309		P	00 27 37.9	-0.3
ABKAR	Akbulak array	56.80	309		P	00 27 38.0	-0.2
KBL	Kabul	57.02	290	P	P	00 27 40.0	-0.3
KBL				pmax	pmax		
	comp=Z,13nm,1.2s						
KBL	Kabul	57.02	290	P	P	00 27 40.0	-0.3
KBL				IAmb	IAmb	00 27 42.1	
	comp=Z,13nm,1.2s						
KBL	Kabul	57.02	290	P	P	00 27 40.4	+0.1
	comp=Z,10nm,1.0s						
AKTO	Aktyubinsk	57.47	311	LR	LR	00 53 43.6	
	comp=Z,67nm,20.2s,baz=280,slow=37						
SPITS	Spitsbergen Ar	58.33	349	P	P	00 27 49.0	+0.5
	comp=Z,13nm,1.0s,baz=74,slow=11,SNR=2.3						
	comp=Z,13nm,1.0s						
KIRV	Kirov	58.67	322	LR	LR	00 53 09.7	
	comp=Z,51nm,21.0s,baz=53,slow=36						
KIRV	Kirov	58.67	322c	iP	P	00 27 51.7	+0.6
FITZ	Fitzroy Crossi	59.17	198	P	P	00 27 54.5	-0.5
WB0	Warramunga Arr	59.25	188	P	P	00 27 54.3	-1.3
WB0				IAmb	IAmb	00 27 55.4	
	comp=Z,9.6nm,1.0s						
WRA	Warramunga Arr	59.43	188	P	P	00 27 55.3	-1.5
	comp=Z,2.6nm,0.7s,baz=9.4,slow=7.0,SNR=16						
	comp=Z,2.6nm,0.7s						
WRA	Warramunga Arr	59.43	188	i P	P	00 27 54.0	-2.8
WRA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
WRA	Warramunga Arr	59.43	188	P	P	00 27 55.6	-1.2
YKA	Yellowknife Ar	61.57	31	P	P	00 28 11.1	+0.2
	comp=Z,0.2nm,0.3s,baz=300,slow=6.7,SNR=1.3						
	comp=Z,0.2nm,0.3s						
ARCES	ARCESS Array B	61.98	339	P	P	00 28 13.2	-0.4
	comp=Z,2.3nm,0.9s,baz=55,slow=5.7,SNR=7.2						
ARCES				LR	LR	00 58 28.5	
	comp=Z,50nm,18.6s,baz=26,slow=39						
	comp=Z,2.3nm,0.9s						
ARCES	ARCESS Array B	61.98	339	P	P	00 28 13.4	-0.2
ARCES				pmax	pmax		
	comp=Z,8.0nm,1.2s						
ARCES	ARCESS Array B	61.98	339	P	P	00 28 13.4	-0.2
ARCES				IAmb	IAmb	00 28 16.0	
	comp=Z,7.7nm,1.2s						
HRA	Herat	62.01	293	P	P	00 28 13.4	-1.2
HRA				IAmb	IAmb	00 28 16.1	
	comp=Z,5.2nm,0.8s						
KLMR	Klimovskoe	62.03	327	eP	P	00 28 13.2	-0.8
KLMR				e*PP	pP	00 28 29.6	-1.7
KLMR				pmax	pmax		
	comp=Z,10.0nm,1.3s						
BELG	Belogornoye	62.41	316	⇑iP	P	00 28 16.6	-0.1
BELG				pmax	pmax		
	comp=Z,4.0nm,1.0s						
ASAR	Alice Springs	63.16	188	P	P	00 28 20.5	-1.4
	comp=Z,1.9nm,0.9s,baz=7.1,slow=6.1,SNR=10						
	comp=Z,1.9nm,0.9s						
ASAR	Alice Springs	63.16	188	P	P	00 28 21.5	-0.5
ASAR	Alice Springs	63.16	188	P	P	00 28 21.5	-0.5
MOS	Moscow	65.65	323	eP	P	00 28 37.9	0.0
MOS				e		00 28 55.8	
VRH	Novokhopyorsk	66.16	317	eP	P	00 28 41.3	+0.1
VRH				pmax	pmax		
	comp=Z,7.0nm,1.0s						
OBN	Obninsk	66.50	323	eP	P	00 28 44.0	+0.7
OBN				e*PP	pP	00 29 01.3	+0.5
OBN				e*SP	sP	00 29 09.1	+1.0
OBN				e		00 29 12.7	
OBN				ePPP	PPP	00 32 46.9	
OBN				pmax	pmax		
	comp=Z,11nm,1.1s						
OBN				MLR	MLR		
	comp=Z,89nm,17.0s						
OBN	Obninsk	66.50	323	P	P	00 28 43.8	+0.5
	comp=Z,16nm,0.5s						
LPSR	Galich'ya Gora	66.81	320	eP	P	00 28 45.3	-0.1
LPSR				pmax	pmax		
	comp=Z,11nm,1.1s						
FIA1	FINESS Array S	66.96	332	P	P	00 28 45.7	-0.5
FINES	FINESS Array B	66.97	332	P	P	00 28 46.3	+0.1
	comp=Z,6.4nm,0.6s,baz=43,slow=6.2,SNR=23						
FINES				LR	LR	00 59 47.1	
	comp=Z,102nm,21.3s,baz=60,slow=37						
	comp=Z,6.4nm,0.6s						
FINES	FINESS Array B	66.97	332	i P	P	00 28 46.7	+0.5
FINES				pmax	pmax		
	comp=Z,6.0nm,0.6s						
VSR	Storozhevoye	67.48	318	eP	P	00 28 49.1	-0.5
VSR				pmax	pmax		
	comp=Z,7.0nm,1.0s						
I04A	Tendick Farm,	67.61	51	P	P	00 28 51.6	+0.9
AKT	Akhty	68.06	306	eP	P	00 28 53.1	-0.5
AKT				e*PP	pP	00 29 10.4	-0.7
AKT				e		00 29 18.3	
AKT				pmax	pmax		
	comp=Z,11nm,0.8s						
AFI	Afiamalu	68.30	131	LR	LR	00 58 41.1	
	comp=Z,49nm,18.5s,baz=86,slow=36						
ARBE	Arbavere	68.32	330	P	P	00 28 57.1	+2.4
	comp=Z,213nm,1.1s						
SUMG	Summit	68.36	0	P	P	00 28 55.4	+0.1
SUMG				pmax	pmax		
	comp=Z,10.0nm,1.2s						
SUMG	Summit	68.36	0	P	P	00 28 55.4	+0.1
SUMG				IAmb	IAmb	00 29 09.7	
	comp=Z,9.8nm,1.2s						
PINE	Pine Mountain	68.50	51	P	P	00 28 58.0	+1.5
PINE				IAmb	IAmb	00 29 12.4	
	comp=Z,16nm,1.5s						
GOF	Gofitskoye	68.88	311c	eP	P	00 28 59.1	+0.5
KIV	Kislovodsk	69.73	311	eP	P	00 29 05.1	+1.2
KIV				pmax	pmax		
	comp=Z,23nm,1.1s						
KIV				MLR	MLR		
	comp=Z,37nm,17.0s						
KIV	Kislovodsk	69.73	311	P	P	00 29 04.1	+0.2
KIV	Kislovodsk	69.73	311	⇓P	P	00 29 05.8	+1.9
KIV	Kislovodsk	69.73	311	P	P	00 29 04.6	+0.7
	comp=Z,22nm,1.1s						
KIV	Kislovodsk	69.73	311	P	P	00 29 05.6	+1.7
	comp=Z,28nm,1.1s						
KBZ	Khabaz	69.73	310	P	P	00 29 04.8	+1.0
	comp=Z,6.0nm,0.9s,baz=62,slow=3.3,SNR=12						
KBZ				LR	LR	01 01 48.0	
	comp=Z,37nm,18.2s,baz=46,slow=38						
	comp=Z,6.0nm,0.9s						
GNI	Garni	70.68	306	LR	LR	01 03 20.1	
	comp=Z,69nm,18.7s,baz=71,slow=38						
MNK	Minsk	70.82	326	i P	P	00 29 10.6	+0.4
MNK				i *PP	pP	00 29 28.6	+0.7
MNK				i		00 31 48.8	
MNK				i PPP	PPP	00 33 30.7	
MNK				i S	S	00 38 21.9	+1.9
MNK				i *SS	sS	00 38 52.3	+2.5
MNK				i SS	SS	00 42 56.3	+3.9
MNK				pmax	pmax		
	comp=N,6.0nm,1.0s						
MNK				pmax	pmax		
	comp=Z,18nm,1.0s						
MNK				pmax	pmax		
	comp=E,28nm,1.0s						
MNK				MLR	MLR		
	comp=E,67nm,17.0s						
MNK				MLR	MLR		
	comp=Z,91nm,17.0s						
MNK				MLR	MLR		
	comp=N,56nm,17.0s						
MNK	Minsk	70.82	326	i P	P	00 29 10.6	+0.4
	comp=E,28nm,1.0s						
MNK				i P	P	00 29 10.6	+0.4
	comp=N,6.0nm,1.0s						
MNK				i P	P	00 29 10.6	+0.4
	comp=Z,18nm,1.0s,baz=48						
MNK				i pP	pP	00 29 28.6	+0.7
MNK				i PP	PP	00 31 48.8	+1.6
MNK				i PPP	PPP	00 33 30.7	
MNK				i S	S	00 38 21.9	+1.9
MNK				i sS	sS	00 38 52.4	+2.5
MNK				i SS	SS	00 42 56.4	+3.9
MNK				i SSS	SSS	00 46 16.0	
MNK				i LQ	LQ	00 55 16.2	
MNK				i LR	LR	01 00 21.2	
MNK				i LRM	MLR	01 03 00.8	
	comp=E,67nm,17.1s						
MNK				i LRM	MLR	01 03 00.8	
	comp=Z,91nm,17.2s						
MNK				i LRM	MLR	01 03 22.6	
	comp=N,56nm,16.7s						
STKA	Stephens Creek	70.88	180	LR	LR	01 01 39.6	
	comp=N,38nm,18.7s,baz=23,slow=37						
BEKR	Beckworth	71.10	54	P	P	00 29 13.2	+0.7
EPOS	Posof	71.13	308	P	P	00 29 14.2	+1.6
	comp=Z,15nm,1.3s						
UOSS	Minazif	71.53	287		P	00 29 14.7	-0.4
UOSS				IAmb	IAmb	00 29 16.6	
	comp=Z,6.3nm,0.8s						
OZAP	Van, Ozalp-Mer	72.02	305	⇑P	P	00 29 19.7	+1.6
HFS	Hagfors	72.15	336	P	P	00 29 18.0	-0.1
	comp=Z,5.6nm,0.9s,baz=41,slow=4.6,SNR=5.2						
HFS				LR	LR	01 04 00.5	
	comp=Z,69nm,18.1s,baz=57,slow=38						
	comp=Z,5.6nm,0.9s						
NC204	NORSAR Array S	72.16	338	P	P	00 29 18.5	+0.2
NB2	NORSAR Subarra	72.21	337	P	P	00 29 18.5	-0.1
	comp=Z,1.5nm,0.6s,baz=38,slow=6.2						
NOA	NORSAR Array B	72.21	337	P	P	00 29 18.1	-0.5
	comp=Z,2.2nm,0.7s,baz=38,slow=6.0,SNR=8.5						
NOA				LR	LR	01 03 44.5	
	comp=Z,49nm,21.9s,baz=35,slow=38						
	comp=Z,2.2nm,0.7s						
HOMI	Horasan	72.50	308	⇑P	P	00 29 22.5	+1.5
AKASG	Malin Array Be	72.73	322	P	P	00 29 21.3	-0.5
	comp=Z,3.3nm,0.6s,baz=46,slow=6.3,SNR=16						
AKASG				LR	LR	01 04 10.7	
	comp=Z,47nm,18.9s,baz=74,slow=38						
	comp=Z,3.3nm,0.6s						
AKASG	Malin Array Be	72.73	322	i P	P	00 29 21.8	0.0
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.5s						
AKASG	Malin Array Be	72.73	322	P	P	00 29 22.1	+0.4
AKBB	Malin Array Si	72.73	322	P	P	00 29 21.4	-0.4
AKBB				pmax	pmax		
	comp=Z,14nm,1.2s						
AKBB	Malin Array Si	72.73	322	P	P	00 29 21.4	-0.4
AKBB				IAmb	IAmb	00 29 22.8	
	comp=Z,14nm,1.1s						
AKBB	Malin Array Si	72.73	322	P	P	00 29 21.8	0.0
KIEV	Kiev	72.74	322	P	P	00 29 22.1	+0.3
KIEV	Kiev	72.74	322	⇓P	P	00 29 22.2	+0.3
KIEV	Kiev	72.74	322	P	P	00 29 21.2	-0.6
	comp=Z,45nm,1.0s						
KIEV	Kiev	72.74	322	P	P	00 29 22.0	+0.1
	comp=Z,11nm,1.0s						
BOZ	Bozeman (W)	72.76	45	P	P	00 29 23.1	+0.8
BOZ				pmax	pmax		
	comp=Z,8.0nm,1.5s						
BOZ	Bozeman (W)	72.76	45	P	P	00 29 23.1	+0.8
AK11	Malin Array Si	72.77	322	P	P	00 29 22.0	0.0
NVAR	Mina Array Bea	73.24	54	P	P	00 29 26.0	+0.6
	comp=Z,0.8nm,0.7s,baz=308,slow=7.1,SNR=2.0						
	comp=Z,0.8nm,0.7s						
SFJD	Kangerlussuaq	73.53	5	LR	LR	01 02 37.0	
	comp=Z,43nm,19.6s,baz=316,slow=36						
RNPP9	Sopachiv	73.80	324	P	P	00 29 28.4	+0.3
RNPP5	Staryi Chortor	73.93	324	P	P	00 29 29.2	+0.4
LUBAR	Lubar, Ukraine	73.95	322	P	P	00 29 29.1	+0.1
SORM	Soroca	74.88	321	P	P	00 29 34.5	+0.1
SORM	Soroca	74.88	321	⇑P	P	00 29 34.6	+0.1
SORM	Soroca	74.88	321	P	P	00 29 34.4	+0.1
	comp=Z,12nm,1.4s						
ARPR	Arapgir-MALATY	75.26	309	P	P	00 29 37.3	+0.3
ARPR				IAmb	IAmb	00 29 39.8	
	comp=Z,14nm,1.0s						
ARPR	Arapgir-MALATY	75.26	309	P	P	00 29 38.8	+1.8
	comp=Z,15nm,1.1s						
KMPD	K-Podol'skiy	75.50	322	P	P	00 29 37.8	-0.2
PDAR	Pinedale Array	75.72	46	P	P	00 29 40.0	+0.3
	comp=Z,0.5nm,0.6s,baz=309,slow=3.8,SNR=7.5						
	comp=Z,0.5nm,0.6s						
BZK	Bozkurt	75.98	313	P	P	00 29 41.1	+0.3
	comp=Z,70nm,1.1s						
KWP	Kalwaria Pacla	76.50	324	P	P	00 29 44.8	+1.2
VLDR	Vladesti	76.57	319	⇑P	P	00 29 45.3	+1.2
GIRR	Girov	76.60	321	⇓P	P	00 29 44.8	+0.5
TLCR		76.65	318	P	P	00 29 44.8	+0.3
TLCR		76.65	318	⇓P	P	00 29 44.8	+0.3
BUR08	Bucovina Ar. S	76.75	322	P	P	00 29 45.1	-0.1
BURAR	Bucovina Array	76.76	322	P	P	00 29 46.1	+0.8
BURAR	Bucovina Array	76.76	322		P	00 29 45.6	+0.3
BURAR	Bucovina Array	76.76	322	⇑P	P	00 29 46.1	+0.8
GHRR		76.77	319	⇑P	P	00 29 46.6	+1.4
BIZ	Bicaz	76.81	321	⇓P	P	00 29 46.7	+1.3
TESR	Tescani	76.83	320	⇓P	P	00 29 46.5	+0.9
TESR	Tescani	76.83	320	P	P	00 29 46.3	+0.7
	comp=Z,9.8nm,1.1s						
TPGR	Topolog	77.08	318	⇓P	P	00 29 47.9	+0.9
ONER	Baraj Valea Uz	77.08	320	⇑P	P	00 29 48.3	+1.3
RDMU	Red Mountain	77.15	48	P	P	00 29 48.6	+0.8
RDMU				IAmb	IAmb	00 30 03.3	
	comp=Z,7.2nm,1.0s						
VRI	Vrincioaia	77.24	320	P	P	00 29 49.6	+1.7
VRI	Vrincioaia	77.24	320	⇑P	P	00 29 49.6	+1.7
VRI	Vrincioaia	77.24	320	P	P	00 29 48.6	+0.7
	comp=Z,5.3nm,1.6s						
ULM	Lac du Bonnet	77.31	34	P	P	00 29 48.8	+0.6
	comp=Z,3.6nm,0.8s,baz=288,slow=6.4,SNR=3.3						
	comp=Z,3.6nm,0.8s						
OJC	Ojcow	77.36	326	P	P	00 29 48.9	+0.4
OJC	Ojcow	77.36	326		P	00 29 48.9	+0.4
OJC	Ojcow	77.36	326	P	P	00 29 48.8	+0.4
	comp=Z,13nm,1.1s						
OJC	Ojcow	77.36	326	P	P	00 29 49.5	+1.1
	comp=Z,13nm,1.1s						
SAHR	Sahastru	77.36	320	⇑P	P	00 29 50.8	+2.1
ANDN	Andirin	77.43	308	P	P	00 29 50.7	+1.5
	comp=Z,24nm,1.0s						
TURR	Turia	77.47	320	⇑P	P	00 29 50.2	+1.0
BISRR	Bisoca	77.47	319	⇓P	P	00 29 50.9	+1.6
TLBR	Topalu	77.48	318	⇑P	P	00 29 49.3	+0.1
OZUR		77.55	320	⇓P	P	00 29 51.4	+1.7
BRTR	Keskin Array B	77.64	311	P	P	00 29 50.2	-0.2
	comp=Z,0.7nm,0.6s,baz=70,slow=3.6,SNR=5.4						
BRTR				LR	LR	01 09 19.2	
	comp=Z,34nm,18.6s,baz=88,slow=40						
	comp=Z,0.7nm,0.6s						
BRTR	Keskin Array B	77.64	311	i P	P	00 29 51.0	+0.6
BRTR	Keskin Array B	77.64	311	P	P	00 29 49.9	-0.5
BR106	Keskin Array S	77.65	311	P	P	00 29 50.7	+0.2
	comp=Z,2.1nm,1.2s						
BR104	Keskin Array S	77.66	311	P	P	00 29 50.5	0.0
	comp=Z,2.2nm,1.1s						
TRPA	Tarpa	77.66	323	P	P	00 29 51.3	+1.2
	comp=Z,9.6nm,1.0s						
NIE	Niedzica	77.73	325	P	P	00 29 50.9	+0.3
	comp=Z,3.7nm,1.0s						
ISR	Istrita	77.86	319	P	P	00 29 52.8	+1.4
ISR	Istrita	77.86	319	⇑P	P	00 29 52.8	+1.4
ISR	Istrita	77.86	319	P	P	00 29 51.9	+0.5
	comp=Z,17nm,1.0s						
MLR	Muntele Rosu	77.90	320	LR	LR	01 07 21.1	
	comp=Z,109nm,18.7s,baz=1.0,slow=38						
KSP	Ksiaz	78.36	328	P	P	00 29 54.3	+0.3
	comp=Z,13nm,1.2s						
VOIR		78.38	320	P	P	00 29 56.0	+1.7
VOIR		78.38	320	⇑P	P	00 29 56.1	+1.7
VOIR		78.38	320	P	P	00 29 54.5	+0.2
	comp=Z,4.2nm,0.9s						
STEB	Steborice	78.44	327	eP	P	00 29 55.6	+1.2
ARR	Arges	78.64	320	⇑P	P	00 29 57.5	+1.7
ARR	Arges	78.64	320	P	P	00 29 57.5	+1.7
	comp=Z,10nm,1.2s						
MORC	Moravsky Berou	78.65	327	P	P	00 29 56.9	+1.2
MORC	Moravsky Berou	78.65	327	P	P	00 29 55.5	-0.2
MORC				IAmb	IAmb	00 29 57.8	
	comp=Z,7.0nm,1.1s						
MORC	Moravsky Berou	78.65	327	eP	P	00 29 56.6	+0.9
MORC	Moravsky Berou	78.65	327	⇑P	P	00 29 56.9	+1.2
DPC	Dobruska-Polom	78.72	328	eP	P	00 29 57.3	+1.2
DPC	Dobruska-Polom	78.72	328	eP	P	00 29 57.3	+1.2
DPC	Dobruska-Polom	78.72	328	P	P	00 29 56.4	+0.3
	comp=Z,5.5nm,2.6s						
UPC	Upice	78.73	328	eP	P	00 29 57.1	+1.1
UPC	Upice	78.73	328	eP	P	00 29 57.1	+1.1
KRLC	Kraliky	78.74	328	eP	P	00 29 56.9	+0.7
KRLC	Kraliky	78.74	328	eP	P	00 29 56.9	+0.7
JAVC	Velka Javorina	79.29	326	eP	P	00 30 01.0	+1.8
CLL	Collm	79.30	330	i P	P	00 30 00.0	+0.9
CLL				e*PP	pP	00 30 18.0	+1.1
CLL				pmax	pmax		
	comp=Z,11nm,1.2s						
CLL	Collm	79.30	330	P	P	00 29 59.1	0.0
CLL				IAmb	IAmb	00 30 00.4	
	comp=Z,7.3nm,0.9s						
CLL	Collm	79.30	330	P	P	00 29 59.1	0.0
	comp=Z,11nm,0.9s						
CLL	Collm	79.30	330	i P	P	00 30 00.0	+0.9
	comp=Z,11nm,1.2s						
CLL				ePcP	PcP	00 30 08.0	+0.8
CLL				epP	pP	00 30 18.0	+1.1
CLL				L	L	01 03 00.0	
VRAC	Vranov	79.41	327	LR	LR	01 08 13.6	
	comp=Z,86nm,18.1s,baz=26,slow=38						
VRAC	Vranov	79.41	327	P	P	00 30 01.0	+1.2
VRAC	Vranov	79.41	327	eP	P	00 30 00.9	+1.2
VRAC	Vranov	79.41	327	⇑P	P	00 30 01.0	+1.2
VRAC	Vranov	79.41	327	P	P	00 30 00.9	+1.2
	comp=Z,1.7nm,1.1s						
SIRR	Siria	79.43	322	⇑P	P	00 30 01.5	+1.5
GZR	Gura Zlata	79.53	321	P	P	00 30 01.4	+0.8
GZR	Gura Zlata	79.53	321	⇓P	P	00 30 01.4	+0.8
KRUC	Moravsky	79.68	327	eP	P	00 30 02.0	+0.7
PRU	Pruhonice	79.73	329	eP	P	00 30 02.7	+1.2
PRU	Pruhonice	79.73	329	eP	P	00 30 02.7	+1.2
	comp=Z,0.5nm,0.3s						
TREC	Trest	79.88	328	P	P	00 30 03.6	+1.2
TREC	Trest	79.88	328	P	P	00 30 03.6	+1.2
	comp=Z,8.5nm,1.3s						
RAYN	Ar Rayn	80.19	292	P	P	00 30 04.8	+0.3
RAYN	Ar Rayn	80.19	292	P	P	00 30 03.9	-0.6
RAYN	Ar Rayn	80.19	292	P	P	00 30 03.8	-0.7
	comp=Z,3.9nm,1.1s						
ASF	Jabal al Asfar	80.58	304	LR	LR	01 09 19.5	
	comp=Z,52nm,19.8s,baz=28,slow=38						
MPLH	Magyarpolny	80.64	325	P	P	00 30 06.9	+0.5
	comp=Z,10nm,1.0s						
CKRC	Cesky Krumlov	80.74	328	eP	P	00 30 07.9	+0.9
CKRC	Cesky Krumlov	80.74	328	eP	P	00 30 07.9	+0.9
RONA	Rosalia, Austr	80.77	326	i P	P	00 30 08.7	+1.5
	comp=Z,7.6nm,1.3s						
CONA	Conrad Observa	80.78	327	i P	P	00 30 08.8	+1.5
	comp=Z,6.4nm,1.2s						
KHC	Kasperske Hory	80.79	329	eP	P	00 30 08.0	+0.7
KHC				pmax	pmax		
	comp=Z,2.0nm,0.6s						
KHC	Kasperske Hory	80.79	329	eP	P	00 30 08.0	+0.7
	comp=Z,2.1nm,0.6s						
KHC	Kasperske Hory	80.79	329		P	00 30 07.9	+0.7
KHC	Kasperske Hory	80.79	329	P	P	00 30 07.8	+0.5
	comp=Z,7.4nm,1.3s						
KHC	Kasperske Hory	80.79	329	P	P	00 30 07.5	+0.2
	comp=Z,7.4nm,1.3s						
MORH	Mrgy, Hungar	80.86	324	P	P	00 30 08.0	+0.4
GERES	GERESS Array B	80.97	328	P	P	00 30 08.0	-0.3
	comp=Z,1.5nm,0.6s,baz=34,slow=3.7,SNR=13						
	comp=Z,1.5nm,0.6s						
MMAI	Mount Meron Ar	80.98	305	LR	LR	01 09 01.8	
	comp=Z,55nm,19.6s,baz=70,slow=38						
EKA	Eskdalemuir Ar	81.08	341	P	P	00 30 08.9	+0.2
	comp=Z,2.8nm,0.9s,baz=26,slow=5.5,SNR=2.8						
EKA				LR	LR	01 11 42.1	
	comp=Z,31nm,18.1s,baz=349,slow=40						
	comp=Z,2.8nm,0.9s						
GRF	Grafenberg Arr	81.28	330	eP	P	00 30 09.6	-0.2
	comp=Z,8.0nm,1.1s,baz=36,slow=4.4						
BOVS	Bovan	81.34	321	⇑P	P	00 30 10.4	+0.2
ARSA	Arzberg	81.45	326	i P	P	00 30 12.1	+1.3
	comp=Z,2.2nm,0.8s						
MOA	Molln	81.52	327	i P	P	00 30 13.3	+2.1
	comp=Z,6.3nm,1.5s						
BIOA	Bad Ischl, Aus	81.90	328	i P	P	00 30 14.1	+0.9
	comp=Z,2.8nm,0.6s						
SOKA	Soboth	82.11	326	i P	P	00 30 15.2	+0.8
	comp=Z,9.8nm,1.2s						
RJOB	Jochberg	82.21	328	P	P	00 30 15.7	+0.8
	comp=Z,5.4nm,0.9s						
OBKA	Obir	82.45	326	i P	P	00 30 15.9	-0.3
	comp=Z,3.2nm,1.0s						
KBA	Koelnbreinsper	82.51	327	P	P	00 30 16.8	+0.3
KBA	Koelnbreinsper	82.51	327	i P	P	00 30 18.1	+1.6
	comp=Z,5.6nm,1.0s						
KBA	Koelnbreinsper	82.51	327	P	P	00 30 16.8	+0.3
	comp=Z,9.2nm,1.0s						
LESA	Schwarzleotal	82.51	328	eP	P	00 30 17.5	+1.1
	comp=Z,6.1nm,0.9s						
MYKA	Terra Mystica	82.74	327	i P	P	00 30 17.7	+0.1
	comp=Z,7.4nm,1.6s						

ACOM	**Acomizza, Ital**	**82.86**	**327**	P	**P**	**00 30 18.4**	**+0.1**
	comp=Z,15nm,0.8s						
WATA	**Walderalm**	**83.03**	**329**	*e*P	**P**	**00 30 19.4**	**+0.2**
	comp=Z,4.2nm,0.6s						
WTTA	**Wattenberg**	**83.06**	**328**	*i* P	**P**	**00 30 19.8**	**+0.4**
	comp=Z,2.6nm,0.6s						
ABTA	**Abfaltersbach**	**83.12**	**328**	*i* P	**P**	**00 30 19.3**	**-0.3**
	comp=Z,3.4nm,0.9s						
MOTA	**Moosalm**	**83.22**	**329**	*i* P	**P**	**00 30 20.7**	**+0.6**
	comp=Z,8.8nm,1.1s						
RETA	**Reutte**	**83.24**	**329**	*i* P	**P**	**00 30 21.1**	**+0.9**
	comp=Z,9.5nm,1.1s						
SQTA	**Sankt Quirin**	**83.27**	**329**	*i* P	**P**	**00 30 21.1**	**+0.7**
	comp=Z,7.0nm,1.3s						
STAL	**STALIGIAL**	**83.43**	**327**	P	**P**	**00 30 20.4**	**-0.7**
STAL				IAmb	IAmb	00 30 21.1	
	comp=Z,5.7nm,0.6s						
PDG	**Podgorica**	**83.43**	**321**	P	**P**	**00 30 21.1**	**-0.1**
PDG				IAmb	IAmb	00 30 22.2	
	comp=Z,9.6nm,0.7s						
PDG	**Podgorica**	**83.43**	**321**	⇓P	**P**	**00 30 21.4**	**+0.2**
EIL	**Elat**	**83.48**	**303**	LR	LR	01 12 47.0	
	comp=Z,43nm,18.8s,baz=119,slow=39						
BFO	**Black Forest**	**83.49**	**331**	*i* P	**P**	**00 30 22.9**	**+1.5**
FETA	**Feichten**	**83.63**	**329**	*i* P	**P**	**00 30 23.3**	**+1.0**
	comp=Z,6.8nm,1.2s						
URZ	**Urewera**	**83.71**	**153**	LR	LR	01 04 28.9	
	comp=Z,104nm,19.2s,baz=260,slow=33						
DAVA	**Damuels**	**83.75**	**329**	*i* P	**P**	**00 30 23.8**	**+0.9**
	comp=Z,11nm,0.9s						
DAVA	**Damuels**	**83.75**	**329**	P	**P**	**00 30 23.7**	**+0.7**
	comp=Z,15nm,1.0s						
CTI	**Castel Tesino**	**84.04**	**328**	P	**P**	**00 30 23.6**	**-0.7**
CTI				pmax	pmax		
	comp=Z,4.0nm,0.7s						
CTI	**Castel Tesino**	**84.04**	**328**		**P**	**00 30 23.6**	**-0.7**
CTI				IAmb	IAmb	00 30 24.2	
	comp=Z,4.0nm,0.7s						
FUORN	**Ofenpass-Fuorn**	**84.14**	**329**	P	**P**	**00 30 25.3**	**+0.2**
FUORN	**Ofenpass-Fuorn**	**84.14**	**329**	P	**P**	**00 30 26.1**	**+1.0**
	comp=Z,18nm,0.9s						
DAVOX	**Davos/Dischmat**	**84.16**	**329**	LR	LR	01 11 53.9	
	comp=Z,77nm,18.1s,baz=58,slow=38						
TUE	**Stuetta**	**84.62**	**329**	P	**P**	**00 30 27.5**	**+0.1**
BNALP	**Bannalp**	**84.66**	**330**	P	**P**	**00 30 28.2**	**+0.6**
	comp=Z,7.7nm,1.0s						
TXAR	**Lajitas Array**	**88.35**	**53**	P	**P**	**00 30 45.7**	**-0.1**
	comp=Z,0.2nm,0.3s,baz=312,slow=7.8,SNR=2.3						
	comp=Z,0.2nm,0.3s						
VAE	**Valguarnera**	**89.61**	**321**	LR	LR	01 16 41.4	
	comp=Z,82nm,18.4s,baz=126,slow=39						
ESDC	**Sonseca Array**	**95.39**	**334**	P	**P**	**00 31 17.6**	**-0.6**
	comp=Z,0.4nm,0.7s,baz=12,slow=5.6,SNR=2.5						
ESDC				LR	LR	01 21 16.1	
	comp=Z,29nm,20.1s,baz=11,slow=40						
	comp=Z,0.4nm,0.7s						
QSPA	**South Pole Qui**	**129.10**	**180**	PKP	**PKPdf**	**00 36 58.0**	**-2.4**
	comp=Z,0.6nm,0.6s,baz=16,slow=7.4,SNR=1.6						

VIE 17 00:29:14.9±0.5**,47°.79N**×**16°.10E,h4**^{km}±12^{km}**,ml0.4**/3**,**
Error ellipse: s-maj=1.4km s-min=0.9km az=19.0 6 km SW of Bad Fischau, Austria

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RONA	**Rosalia, Austr**	**0.16**	**125**	*i* Pg	Pg	00 29 18.2	+0.1
	0.7nm,0.1s						
RONA				*i* Sg	Sg	00 29 20.5	+0.4
	4.3nm,0.1s						
CONA	**Conrad Observa**	**0.21**	**310**	*e*Pg	Pg	00 29 19.6	+0.5
	0.2nm,0.1s						
CONA				*i* Sg	Sg	00 29 22.4	+0.5
	0.3nm,0.1s						
WINA	**Alland / Wiene**	**0.32**	**356**	*e*Pg	Pg	00 29 21.0	0.0
WINA				*e*Sg	Sg	00 29 25.4	+0.2

TEH 17 00:38:32.4,31°.54N×**59°.98E,h8**^{km}±23^{km}**,ML3.9,**
Presumed earthquake, Northern and central Iran

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NHDN	**Nehbandan**	**0.16**	**157**	Pg	Pg	00 38 36.0	+0.1
IDAH	**Dahanechah**	**1.20**	**356**	Pg	Pn	00 38 55.8	+0.1
IKOO	**Kooshah**	**1.21**	**317**	Pg	Pb	00 38 55.7	0.0
IMON	**Monand**	**1.67**	**351**	Pg	Pg	00 39 04.3	-0.1
ITEG	**Tejag**	**1.71**	**323**	Pg	Pg	00 39 04.7	-0.5
AFRZ	**Afriz**	**2.05**	**337**	Pn	Pb	00 39 09.2	-0.8
SHRT	**Shahrakht**	**2.12**	**7**	Pn	Pb	00 39 10.2	-0.9
KRM1	**Kerman Provinc**	**2.54**	**247**	Pn	Pn	00 39 16.0	+1.8
CHMN	**Cheshme madani**	**2.68**	**232**	Pn	Pn	00 39 17.9	+1.6
KBAM	**BAM**	**2.73**	**209**	Pn	Pn	00 39 18.1	+1.4
TKDS	**Koohdasht(Taba**	**3.17**	**311**	Pn	Pn	00 39 25.0	+2.2
KHGB	**Koh Gabri**	**3.22**	**250**	Pn	Pn	00 39 26.1	+2.6
NGRK	**Negar Kerman**	**3.38**	**237**	Pn	Pn	00 39 28.3	+2.6
TSHB	**Tabas_ShorAb**	**3.66**	**307**	Pn	Pn	00 39 31.4	+2.0
TNSJ	**Nastanj**	**3.73**	**311**	Pn	Pn	00 39 32.4	+2.0
IBAF	**Bafgh**	**3.76**	**272**	Pn	Pn	00 39 33.2	+2.3
TAPT	**Tabas- Tapeh t**	**4.09**	**325**	Pn	Pn	00 39 37.4	+2.1
IMEH	**Mehriz**	**4.58**	**270**	Pn	Pn	00 39 44.9	+2.6
SRVN	**Saravan**	**4.63**	**152**	Pn	Pn	00 39 45.5	+2.7
DOBD	**Dorbid, Yazd**	**4.67**	**277**	Pn	Pn	00 39 46.0	+2.5
TAFT	**Taft - Yazd**	**4.95**	**274**	Pn	Pn	00 39 49.7	+2.3
ANAR	**Anarak**	**5.54**	**289**	Pn	Pn	00 39 57.1	+1.9
IDMV	**Damavand**	**7.76**	**303**	Pn	Pn	00 40 27.8	+1.9

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*NEIC **17** 00:39:44.0±1.9, 15°.74S±0°.09×168°.0E±0°.2, h230^{km}±6^{km}, mb4.0/12, Error ellipse: s-maj=22.9km s-min=9.7km az=65.0*

*IDC **17** 00:39:45.1±3.3, 15°.70S×167°.84E, h247^{km}±31^{km}, mb3.5/10, mbtmp4.1/11, Error ellipse: s-maj=26.8km s-min=16.8km az=82.0*

ISC 17 00:39:44.8±0.8**,15°.74S**±0°.07×**167°.9E**±0°.2**,h250**^{km}**,n32,**
σ**1**^{s}**69**/34**,mb3.9**/14**,Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SANVU	**Saraoutou**	**0.70**	**294**		**Pn**	**00 40 15.7**	**-2.6**
SANVU				Sn	**S**	**00 40 39.4**	**-5.3**
MARNC	**Mare, Loyalty**	**5.72**	**178**	Pn	**Pn**	**00 41 07.9**	**-1.5**
MARNC				Sn	**S**	**00 42 11.8**	**-5.2**
DZM	**Mont Dzumac**	**6.44**	**192**	P	**Pn**	**00 41 19.1**	**+0.6**
	13nm,0.5s,baz=24,slow=20,SNR=13						
ONTNC	**Ouen Toro**	**6.67**	**191**	Pn	**Pn**	**00 41 21.2**	**-0.1**
OUENC	**Ouen Island, N**	**6.72**	**188**	Pn	**Pn**	**00 41 21.7**	**-0.1**
EIDS	**Eidsvold**	**18.39**	**236**	P	**Pn**	**00 43 43.4**	**-1.6**
ARMA	**Armidale**	**20.85**	**223**	P	**P**	**00 44 09.1**	**+1.1**
INKA	**Innaminka**	**27.81**	**240**	P	**P**	**00 45 12.7**	**+1.6**
INKA				IAmb	IAmb	00 45 29.4	
	comp=Z,5.0nm,1.1s						
STKA	**Stephens Creek**	**28.80**	**231**	P	**P**	**00 45 21.4**	**+1.5**
	comp=Z,3.2nm,0.3s,baz=54,slow=8.7,SNR=4.3						
	comp=Z,3.2nm,0.3s						
WB0	**Warramunga Arr**	**32.09**	**258**	P	**P**	**00 45 48.6**	**-0.3**
WB0				IAmb	IAmb	00 45 52.0	
	comp=Z,6.8nm,1.3s						
WRA	**Warramunga Arr**	**32.15**	**258**	P	**P**	**00 45 49.5**	**0.0**
	comp=Z,0.2nm,0.3s,baz=85,slow=7.7,SNR=2.5						
	comp=Z,0.2nm,0.3s						
WRA	**Warramunga Arr**	**32.15**	**258**	P	**P**	**00 45 49.4**	**0.0**
AS31	**Alice Springs**	**32.86**	**251**	P	**P**	**00 45 56.3**	**+0.7**
AS31				IAmb	IAmb	00 46 11.2	
	comp=Z,2.9nm,1.2s						
ASAR	**Alice Springs**	**32.86**	**251**	P	**P**	**00 45 55.6**	**-0.1**
	comp=Z,1.8nm,0.4s,baz=83,slow=8.1,SNR=22						
	comp=Z,1.8nm,0.4s						
ASAR	**Alice Springs**	**32.86**	**251**	P	**P**	**00 45 56.2**	**+0.6**
BBOO	**Buckleboo**	**33.43**	**234**	P	**P**	**00 46 01.6**	**+1.2**
FITZ	**Fitzroy Crossi**	**40.40**	**260**	P	**P**	**00 46 60.0**	**+0.9**
MJAR	**Matsushiro Arr**	**59.06**	**332**	P	**P**	**00 49 19.0**	**+0.1**
	comp=Z,0.9nm,0.4s,baz=165,slow=4.9,SNR=4.4						
	comp=Z,0.9nm,0.4s						
VNDA	**Vanda**	**61.87**	**181**	P	**P**	**00 49 38.5**	**+1.2**
	comp=Z,0.6nm,0.6s,baz=7.9,slow=6.7,SNR=8.5						
	comp=Z,0.6nm,0.6s						
VNDA	**Vanda**	**61.87**	**181**	P	**P**	**00 49 38.3**	**+1.0**
SBA	**Scott Base**	**62.14**	**180**	P	**P**	**00 49 40.8**	**+1.8**
SBA				IAmb	IAmb	00 49 42.5	
	comp=Z,4.3nm,0.8s						
USRK	**Ussuriysk Ar.**	**68.04**	**333**	P	**P**	**00 50 18.2**	**+0.9**
	comp=Z,1.4nm,0.8s,baz=156,slow=7.3,SNR=2.5						
	comp=Z,1.4nm,0.8s						
PETK	**Petropavlovsk-**	**69.12**	**353**	P	**P**	**00 50 25.0**	**+1.2**
	comp=Z,1.9nm,0.8s,baz=158,slow=12,SNR=1.5						
	comp=Z,1.9nm,0.8s						
QSPA	**South Pole Qui**	**74.30**	**180**	P	**P**	**00 50 55.5**	**+0.8**
	comp=Z,1.7nm,0.5s,baz=10,slow=0.2,SNR=13						
	comp=Z,1.7nm,0.5s						
QSPA	**South Pole Qui**	**74.30**	**180**	P	**P**	**00 50 55.3**	**+0.6**
QSPA				IAmb	IAmb	00 51 13.0	
	comp=Z,3.7nm,1.2s						
SONM	**Songino Array**	**83.64**	**323**	P	**P**	**00 51 46.2**	**+0.8**
	comp=Z,1.3nm,0.9s,baz=113,slow=3.7,SNR=5.7						
	comp=Z,1.3nm,0.9s						
SONM	**Songino Array**	**83.64**	**323**	P	**P**	**00 51 46.0**	**+0.5**
SONM				IAmb	IAmb	00 51 47.2	
	comp=Z,4.0nm,1.2s						
ILAR	**Eielson Array**	**87.31**	**18**	P	**P**	**00 52 02.2**	**-0.7**
	comp=Z,0.2nm,0.5s,baz=248,slow=6.1,SNR=5.1						
	comp=Z,0.2nm,0.5s						
FUORN	**Ofenpass-Fuorn**	**143.99**	**333**	PKPdf	**PKPdf**	**00 58 50.6**	**-0.2**
SGRT	**San Giovanni R**	**144.66**	**323**	PKPbc	**PKPab**	**00 58 50.6**	**-0.8**
FDMO	**Fiordimonte**	**145.29**	**327**	PKPbc	**PKPab**	**00 58 53.6**	**0.0**
CUC	**Castrocucco**	**145.69**	**320**	PKPdf	**PKPbc**	**00 58 54.0**	**-0.6**

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*NEIC **17** 00:46:17.1±1.2, 19°.2N±0°.1×64°.38W±0°.04, h22^{km}±7^{km}, mb4.0/5, ML3.6/53, Mwr3.7/38, Md3.7/16(RSPR), Error ellipse: s-maj=15.7km s-min=5.2km az=192.0, Moment Tensor Solution. Moment tensor: Scale 10^{14}Nm; M_{rr}2.17; $M_{\theta\theta}$-2.31; $M_{\phi\phi}$0.14; $M_{r\theta}$3.62; $M_{\theta\phi}$0.35; $M_{\phi r}$-0.04; Fault plane solution: $M_0$4.27000×10^{14} NP1: ϕ_s285.24000°, δ16.33000°, λ103.06000°. NP2: ϕ_s91.65000°, δ74.11000°, λ86.21000°. Principal axes: T 4.1921, Plg61.0000°, Azm356.0000°; N 0.1611, Plg4.0000°, Azm93.0000°; P -4.3532, Plg29.0000°, Azm185.0000°;*

*NEIC **17** 00:46:18.5, 19°.16N×64°.38W, h38^{km}*

*RSPR **17** 00:46:19.2, 19°.27N×64°.41W, h41^{km}±20^{km}, MD3.7/16*

ISC 17 00:46:18.9±1.7**,19°.2N**±0°.1×**64°.45W**±0°.05**,h50**^{km}±30^{km}**,**
n56,σ**1**^{s}**46**/78**,7C-9D, Virgin Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HUMP	**Col San Antoni**	**1.69**	**232**		**Pn**	**00 46 45.4**	**-0.6**
HUMP					**Sn**	**00 47 06.4**	**0.0**
HUMP				IAML		00 47 16.2	
	401nm,0.2s						
HUMP	**Col San Antoni**	**1.69**	**232**	⇓*e*P	**Pn**	**00 46 46.3**	**+0.3**
SMRT	**St. Maarten**	**1.72**	**131**		**Pn**	**00 46 44.6**	**-1.9**
SMRT				Sn	**Sn**	**00 47 05.7**	**-1.6**
SMRT	**St. Maarten**	**1.72**	**131**	*e*P	**Pn**	**00 46 45.3**	**-1.1**
SMRT				*e*S	**Sn**	**00 47 06.2**	**-1.1**
PDPR	**Patillas Dam,**	**1.89**	**232**		**Pn**	**00 46 48.5**	**-0.3**
PDPR					**Sn**	**00 47 11.8**	**+0.4**
PDPR	**Patillas Dam,**	**1.89**	**232**	⇑*e*P	**Pn**	**00 46 49.5**	**+0.8**
SABA	**Saba**	**1.93**	**143**		**Pn**	**00 46 46.9**	**-2.5**
SABA				Sn	**Sn**	**00 47 09.7**	**-2.8**
SABA				IAML		00 47 32.0	
	comp=N,652nm,0.8s						
SABA	**Saba**	**1.93**	**143**	*e*P	**Pn**	**00 46 49.1**	**-0.2**
SJG	**San Juan**	**1.94**	**237**		**Pn**	**00 46 48.8**	**-0.5**
SJG				Sn	**Sn**	**00 47 12.9**	**+0.4**
SJG	**San Juan**	**1.94**	**237**	*e*P	**Pn**	**00 46 49.8**	**+0.4**
SJG	**San Juan**	**1.94**	**237**	⇑*e*P	**Pn**	**00 46 49.4**	**0.0**
IGPR	**InterUniversit**	**1.99**	**233**		**Pn**	**00 46 50.1**	**0.0**
IGPR					**Sn**	**00 47 14.8**	**+1.0**
IGPR	**InterUniversit**	**1.99**	**233**	⇓*e*P	**Pn**	**00 46 50.1**	**0.0**
ECPR	**Experimental S**	**2.01**	**245**		**Pn**	**00 46 49.9**	**-0.5**
ECPR					**Sn**	**00 47 14.6**	**+0.3**
ECPR				IAML		00 47 25.8	
	comp=N,447nm,0.2s						
ECPR				IAML		00 47 32.5	
	comp=N,446nm,0.3s						
ECPR	**Experimental S**	**2.01**	**245**	⇑*e*P	**Pn**	**00 46 50.4**	**0.0**
EMPR	**Esperanza - Ma**	**2.10**	**251**		**Pn**	**00 46 52.0**	**+0.5**
EMPR					**Sn**	**00 47 17.1**	**+0.7**
EMPR	**Esperanza - Ma**	**2.10**	**251**	⇓*e*P	**Pn**	**00 46 52.0**	**+0.5**
EMPR				*e*S	**Sn**	**00 47 17.1**	**+0.7**
SEUS	**St. Eustatius**	**2.18**	**140**	Pn	**Pn**	**00 46 52.1**	**-0.7**
SEUS				IAML		00 47 29.8	
	comp=E,471nm,0.5s						
SEUS				IAML		00 47 30.5	
	comp=N,563nm,0.6s						
CELP	**Cerrillos**	**2.30**	**242**		**Pn**	**00 46 54.4**	**0.0**
CELP					**Sn**	**00 47 22.4**	**+0.8**
CELP	**Cerrillos**	**2.30**	**242**	⇑*e*P	**Pn**	**00 46 54.7**	**+0.2**
AOPR	**Arecibo Observ**	**2.34**	**249**		**Pn**	**00 46 54.6**	**-0.3**
AOPR					**Sn**	**00 47 24.0**	**+1.5**
AOPR				IAML		00 47 34.9	
	comp=N,542nm,0.5s						
AOPR				IAML		00 47 46.0	
	comp=N,273nm,0.5s						
AOPR	**Arecibo Observ**	**2.34**	**249**	⇓*e*P	**Pn**	**00 46 54.9**	**0.0**
OBIP	**Obispado Ponce**	**2.34**	**241**		**Pn**	**00 46 54.8**	**-0.2**
OBIP				Sn	**Sn**	**00 47 23.6**	**+1.1**
SKI	**Saint Kitts**	**2.46**	**138**	*e*P	**Pn**	**00 46 57.2**	**+0.7**
SKI				x	**Sn**	**00 47 23.7**	**-1.6**
GBPR	**Guanica, Bosqu**	**2.60**	**243**		**Pn**	**00 46 59.6**	**+1.1**
GBPR					**Sn**	**00 47 31.1**	**+2.2**
GBPR	**Guanica, Bosqu**	**2.60**	**243**	⇑*e*P	**Pn**	**00 46 59.6**	**+1.1**
GBPR				*e*S	**Sn**	**00 47 31.1**	**+2.2**
AGPR	**Aguadilla, PR**	**2.62**	**255**		**Pn**	**00 46 58.5**	**-0.2**
AGPR				IAML		00 47 45.4	
	comp=N,187nm,0.5s						
AGPR	**Aguadilla, PR**	**2.62**	**255**	⇓*e*P	**Pn**	**00 46 59.0**	**+0.2**
LSP	**Las Mesas**	**2.69**	**249**		**Pn**	**00 47 00.5**	**+0.7**
LSP					**Sn**	**00 47 34.1**	**+2.8**
LSP	**Las Mesas**	**2.69**	**249**	⇑*e*P	**Pn**	**00 47 00.5**	**+0.7**
LSP				*e*S	**Sn**	**00 47 34.1**	**+2.8**
PRSN	**Puerto Rico Se**	**2.73**	**250**		**Pn**	**00 47 00.7**	**+0.4**
PRSN				IAML		00 47 54.2	
	comp=N,280nm,0.3s						
PRSN	**Puerto Rico Se**	**2.73**	**250**	⇓*e*P	**Pn**	**00 47 00.8**	**+0.6**
MLPR	**Magueyes Islan**	**2.74**	**244**		**Pn**	**00 47 00.5**	**+0.1**
MLPR	**Magueyes Islan**	**2.74**	**244**	⇓*e*P	**Pn**	**00 47 01.1**	**+0.6**
CRPR	**Cabo Rojo, PR**	**2.78**	**246**		**Pn**	**00 47 01.3**	**+0.3**
CRPR				IAML		00 47 46.8	
	comp=N,133nm,0.9s						
CRPR	**Cabo Rojo, PR**	**2.78**	**246**	⇓*e*P	**Pn**	**00 47 01.7**	**+0.7**
ANWB	**Willy Bob**	**2.94**	**120**	*e*P	**Pn**	**00 47 03.5**	**+0.3**
ANWB				x	x	00 47 44.3	
IDE	**Isla Desecheo**	**2.98**	**255**		**Pn**	**00 47 03.9**	**+0.2**
IDE					**Sn**	**00 47 39.1**	**+1.0**
IDE	**Isla Desecheo**	**2.98**	**255**	⇓*e*P	**Pn**	**00 47 03.9**	**+0.2**
IDE				*e*S	**Sn**	**00 47 39.1**	**+1.0**
PCDR	**Punta Cana, DR**	**3.79**	**260**		**Pn**	**00 47 15.0**	**+0.2**
PCDR				IAML		00 48 17.5	
	comp=N,136nm,1.5s						
PCDR				IAML		00 48 26.2	
	comp=E,64nm,2.0s						
PCDR	**Punta Cana, DR**	**3.79**	**260**	⇑*e*P	**Pn**	**00 47 15.0**	**+0.2**
PCDR				*e*S	**Sn**	**00 47 58.8**	**+0.8**
DHSZ	**Broadband at M**	**3.86**	**138**	*e*P	**Pn**	**00 47 14.3**	**-1.5**
GDHS	**Morne Mazeau,**	**3.86**	**138**	Pn	**Pn**	**00 47 13.8**	**-2.1**
CBE	**Ff, Capester**	**4.12**	**138**	Pn	**Pn**	**00 47 18.5**	**-0.8**
TDBA	**Terre de Bas,**	**4.27**	**141**	Pn	**Pn**	**00 47 19.9**	**-1.5**
TDBA				IAML		00 48 43.8	
	comp=N,125nm,0.9s						
GDSD	**La Dsirade Is**	**4.31**	**131**	Pn	**Pn**	**00 47 21.0**	**-0.9**
GDSD				IAML		00 48 24.6	
	comp=E,64nm,1.1s						
GDSD				IAML		00 48 36.6	
	comp=N,83nm,2.8s						
MAGL	**Barre de l'ile**	**4.41**	**136**	Pn	**Pn**	**00 47 21.9**	**-1.5**
FDFM	**Morne la Roset**	**5.43**	**144**	Pn	**Pn**	**00 47 37.0**	**-0.3**
FDFM				IAML		00 48 33.8	
	comp=N,50nm,1.9s						
BANI	**BANI**	**5.66**	**263**	Pn	**Pn**	**00 47 41.1**	**+0.6**
MPOM	**Morne Pois Mar**	**5.83**	**143**	Pn	**Pn**	**00 47 42.2**	**-0.6**
SDDR	**Presa de Saban**	**6.47**	**269**		**Pn**	**00 47 52.2**	**+0.5**
QMBU	**Quimbuelo**	**9.82**	**278**	*e*P	**Pn**	**00 48 33.4**	**-4.1**
QMBU				*e*		00 48 33.4	
	baz=190,slow=16						
QMBU				*e*S	**Sn**	**00 50 18.8**	**-7.6**
BOAV	**Boa Vista**	**17.12**	**167**		**Pn**	**00 50 15.0**	**+0.2**
HODGE	**Hodges**	**21.81**	**317**	P	**P**	**00 51 07.2**	**+0.4**
HODGE				IAmb	IAmb	00 51 35.7	
	comp=Z,4.0nm,0.9s						
BG3	**Lake Jocassee**	**22.71**	**318**	P	**P**	**00 51 17.1**	**+0.5**
BG3				IAmb	IAmb	00 51 38.1	
	comp=Z,5.3nm,0.7s						
NPNY	**Mohonk Preserv**	**23.96**	**342**	P	**P**	**00 51 27.7**	**-0.9**

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*TAP **17** 00:56:01.4, 24°.75N×122°.32E, h10^{km}, ML3.2, C*

*JMA **17** 00:56:02.2±0.1, 24°.7N±0°.7×122°.4E±0°.3, h36^{km}±2^{km}, MV2.8/8, TAIWAN REGION*

ISC 17 00:56:00.6±1.1**,24°.70N**±0°.03×**122°.41E**±0°.02**,h2**^{km}±11^{km}**,**
n72,σ**0**^{s}**53**/113**, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EOS2	**EOS2**	**0.33**	**210**	*i* P	**Pb**	**00 56 09.1**	**0.0**
EOS2				*i* S	**Sb**	**00 56 15.0**	**+0.2**
EOS3	**EOS3**	**0.42**	**192**	*e*P	**Pb**	**00 56 11.1**	**+0.3**
EOS3				S	**Sb**	**00 56 18.4**	**+0.8**
EGS		**0.46**	**288**	P	**Pg**	**00 56 09.6**	**+0.1**
EGS				S	**Sg**	**00 56 15.2**	**-0.2**
TWB1	**Santiao Chiao**	**0.49**	**308**	P	**Pg**	**00 56 10.1**	**0.0**
TWB1				*i* S	**Sg**	**00 56 15.6**	**-0.8**
ESAO	**Su ao**	**0.53**	**256**	*e*P	**Pg**	**00 56 11.1**	**+0.2**
JYNG	**Yonagunijimaku**	**0.55**	**117**	*i* P	**Pb**	**00 56 13.3**	**+0.4**
JYNG				S	**Sb**	**00 56 21.3**	**+0.1**
EOS4	**EOS4**	**0.59**	**189**	P	**Pb**	**00 56 14.0**	**+0.6**
EOS4				S	**Sb**	**00 56 23.0**	**+0.9**
YOJ	**Yonaguni jima**	**0.59**	**114**	P	**Pb**	**00 56 14.0**	**+0.3**
YOJ	**Yonaguni jima**	**0.59**	**114**	P	**Pb**	**00 56 14.3**	**+0.5**
YOJ				S	**Sb**	**00 56 22.3**	**-0.3**
YOJ	**Yonaguni jima**	**0.59**	**114**	P	**Pb**	**00 56 14.1**	**+0.3**
YOJ				S	**Sb**	**00 56 22.7**	**0.0**
TIPB	**Shuangxi**	**0.60**	**297**	*e*P	**Pg**	**00 56 12.1**	**0.0**
TIPB				S	**Sg**	**00 56 20.4**	**+0.5**
SXI1	**Grass Mountain**	**0.62**	**309**	P	**Pg**	**00 56 12.9**	**+0.3**
SXI1				S	**Sg**	**00 56 20.4**	**-0.3**
EWUT	**Wuta**	**0.63**	**246**	*e*P	**Pg**	**00 56 13.1**	**+0.3**
EWUT				*e*S	**Sg**	**00 56 21.8**	**+0.9**
NDS	**Dongshan**	**0.64**	**264**	P	**Pg**	**00 56 12.8**	**-0.1**
NDS				S	**Sg**	**00 56 21.0**	**-0.2**
ENA	**Nanau**	**0.67**	**246**	*e*P	**Pg**	**00 56 11.7**	**-1.8**
ENA				*e*S	**Sg**	**00 56 21.1**	**-1.1**
TWE	**Neicheng**	**0.68**	**272**	*i* P	**Pg**	**00 56 13.3**	**-0.3**
TWE				*e*S	**Sg**	**00 56 22.9**	**+0.4**
WFSB	**Wu-fen Shan**	**0.68**	**303**	P	**Pg**	**00 56 14.7**	**+0.9**
EAHA	**Aohua**	**0.72**	**239**	P	**Pg**	**00 56 14.4**	**0.0**
EAHA				*e*S	**Sg**	**00 56 23.8**	**+0.1**
FUSB	**Fushanzhiwuyua**	**0.75**	**274**	*i* P	**Pg**	**00 56 14.9**	**-0.1**
FUSB				S	**Sg**	**00 56 24.6**	**-0.2**
TWA	**Mucha**	**0.80**	**290**	*e*P	**Pg**	**00 56 16.8**	**+0.8**
TWA				*e*S	**Sg**	**00 56 26.9**	**+0.5**
LATG	**Datong**	**0.82**	**258**	*e*P	**Pg**	**00 56 16.6**	**+0.2**
LATG				*e*S	**Sg**	**00 56 27.1**	**0.0**
NDT	**Datong Townshi**	**0.82**	**263**	P	**Pg**	**00 56 16.7**	**+0.2**
NDT				S	**Sg**	**00 56 27.8**	**+0.6**
NWLT	**Wulai**	**0.83**	**275**	*e*P	**Pg**	**00 56 16.3**	**-0.3**
NWLT				S	**Sg**	**00 56 27.1**	**-0.2**
TATO	**Taipei**	**0.88**	**288**	P	**Pb**	**00 56 18.8**	**+0.1**
YM01	**YM01**	**0.88**	**300**	*e*P	**Pg**	**00 56 18.0**	**+0.4**
YM01				S	**Sg**	**00 56 29.1**	**+0.1**
YM08	**YM08**	**0.89**	**303**	*e*P	**Pg**	**00 56 17.8**	**+0.1**
YM08				*e*S	**Sg**	**00 56 28.5**	**-0.8**
ETL	**Fush Village**	**0.90**	**233**	*e*P	**Pg**	**00 56 18.1**	**+0.2**
ZUZH	**Zhuzihu**	**0.91**	**300**	*e*P	**Pg**	**00 56 18.4**	**+0.3**
ZUZH				*e*S	**Sg**	**00 56 29.5**	**-0.4**
NACB	**Ninganchiao**	**0.91**	**235**	P	**Pg**	**00 56 18.3**	**+0.1**
NACB	**Ninganchiao**	**0.91**	**235**	*e*P	**Pg**	**00 56 18.3**	**+0.1**
NACB				S	**Sb**	**00 56 31.0**	**-0.8**
TWY	**Chenhua**	**0.93**	**308**	*e*P	**Pg**	**00 56 18.6**	**+0.1**
TWY				*e*S	**Sg**	**00 56 30.9**	**+0.3**
ANP	**Anpu**	**0.94**	**301**	*e*P	**Pg**	**00 56 19.2**	**+0.4**
YHNB	**Yeheng**	**0.94**	**268**	P	**Pg**	**00 56 18.7**	**0.0**
YHNB	**Yeheng**	**0.94**	**268**	*i* P	**Pg**	**00 56 19.0**	**+0.2**
YHNB				S	**Sg**	**00 56 31.2**	**+0.2**
NSK	**Sanguang**	**0.96**	**269**	*e*P	**Pg**	**00 56 18.9**	**-0.2**
NSK				*e*S	**Sg**	**00 56 30.3**	**-1.2**
TWD	**Chiawan**	**0.97**	**230**	*e*P	**Pn**	**00 56 20.8**	**-0.4**
NNSB	**Datong**	**0.98**	**254**	*e*P	**Pg**	**00 56 19.0**	**-0.4**
NNSB				*i* S	**Sg**	**00 56 32.0**	**-0.1**
ETLH	**Xiulin Townshi**	**0.98**	**240**	*e*P	**Pg**	**00 56 19.6**	**+0.1**
ETLH				*i* S	**Sb**	**00 56 32.9**	**-1.0**
NNS	**Nan Shan**	**0.98**	**255**	*e*P	**Pg**	**00 56 19.5**	**0.0**
NNS				*e*S	**Sg**	**00 56 32.6**	**+0.4**
NTST	**Danshui**	**0.99**	**298**	*e*P	**Pb**	**00 56 20.9**	**+0.4**
ETM	**Tongmen**	**1.11**	**229**	*e*P	**Pn**	**00 56 23.2**	**-0.1**
ETM				*e*S	**Sn**	**00 56 39.2**	**-0.1**
LXIB	**Xiulin Townshi**	**1.14**	**234**	*e*P	**Pb**	**00 56 22.8**	**-0.3**
LXIB				*e*S	**Sn**	**00 56 40.6**	**+0.7**
FUSS	**Fushou**	**1.16**	**247**	*e*P	**Pg**	**00 56 22.9**	**0.0**
FUSS				*i* S	**Sb**	**00 56 38.4**	**-0.8**
NFF	**Wufeng Townshi**	**1.18**	**267**	*e*P	**Pg**	**00 56 23.1**	**-0.2**
NFF				*e*S	**Sg**	**00 56 38.4**	**-0.2**
WHF	**Hehuan Shan**	**1.19**	**242**	*e*P	**Pb**	**00 56 23.8**	**-0.3**
WHF				*e*S	**Sg**	**00 56 38.7**	**0.0**
SHUL	**Shoufeng**	**1.20**	**221**	*e*P	**Pn**	**00 56 24.4**	**0.0**
TWT	**Tachien**	**1.21**	**249**	*e*P	**Pn**	**00 56 25.0**	**+0.2**
TWT				*e*S	**Sb**	**00 56 40.1**	**-0.6**
TDCB	**Techi**	**1.23**	**249**	*e*P	**Pn**	**00 56 25.3**	**+0.3**
IRIF	**Iriomote-Funau**	**1.25**	**107**	*e*P	**Pg**	**00 56 23.8**	**-0.9**
IRIF				*e*S	**Sg**	**00 56 41.5**	**+0.5**
ESL	**Shilin**	**1.26**	**225**	*e*P	**Pb**	**00 56 25.2**	**+0.1**
LIOB	**Emei**	**1.27**	**268**	*e*P	**Pn**	**00 56 26.3**	**+0.8**
OWD	**Renai**	**1.35**	**237**	*e*P	**Pg**	**00 56 26.3**	**-0.3**
OWD				*e*S	**Sn**	**00 56 44.6**	**-0.7**
WARBT	**Fenglin Townsh**	**1.36**	**224**	*e*P	**Pg**	**00 56 26.4**	**-0.3**
WUSB	**Renai**	**1.38**	**239**	*e*P	**Pb**	**00 56 27.3**	**+0.1**
WHP	**Taichung City**	**1.40**	**253**	*e*P	**Pb**	**00 56 27.6**	**0.0**
VWDT	**VWDT**	**1.50**	**231**	*e*P	**Pg**	**00 56 29.5**	**+0.2**
HGSD	**Ruisui**	**1.51**	**217**	*e*P	**Pn**	**00 56 28.1**	**-0.6**
WCS	**Beigang Elemen**	**1.51**	**245**	*e*P	**Pb**	**00 56 29.4**	**0.0**
JKRS	**Kuro-shima**	**1.53**	**107**	*e*P	**Pn**	**00 56 28.1**	**-0.8**
TWQ1	**Liyutan**	**1.54**	**257**	*e*P	**Pg**	**00 56 31.0**	**+0.9**
SMLT	**Sun Moon Lake**	**1.60**	**240**	*e*P	**Pg**	**00 56 31.2**	**-0.2**
SMLT				*e*S	**Sg**	**00 56 53.1**	**+0.9**
SSLB	**Suanglung**	**1.61**	**236**	P	**Pg**	**00 56 31.5**	**-0.1**
SSLB	**Suanglung**	**1.61**	**236**	*e*P	**Pb**	**00 56 30.8**	**-0.4**
SSLB				*e*S	**Sg**	**00 56 52.0**	**-0.5**
TYC	**Yuchr**	**1.63**	**241**	*e*P	**Pg**	**00 56 31.8**	**0.0**
YULB	**Yu-li**	**1.66**	**218**	P	**Pg**	**00 56 32.7**	**+0.3**
TWF1	**Yuli**	**1.69**	**217**	*e*P	**Pn**	**00 56 31.1**	**-0.1**
WHYT	**Xinyi Township**	**1.74**	**235**	*e*P	**Pb**	**00 56 33.1**	**-0.3**
WHYT				*e*S	**Sg**	**00 56 58.4**	**+1.7**
ALS	**Alishan**	**1.89**	**231**	*e*P	**Pb**	**00 56 35.8**	**-0.3**
CHN5	**Tsauling**	**1.93**	**236**	*e*P	**Pg**	**00 56 38.2**	**+0.5**
TPUB	**Ta-pu**	**2.15**	**230**	P	**Pb**	**00 56 39.7**	**-0.6**
TPUB	**Ta-pu**	**2.15**	**230**	*e*P	**Pb**	**00 56 39.6**	**-0.6**
TWK	**Hsinying**	**2.27**	**231**	*e*P	**Pn**	**00 56 40.4**	**+1.2**

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*GFZ **17** 01:13:53.8±0.3, 15°N±3°×9°3W±°, h10^{km}, M5.2/24, mb5.5/24*

*SNET **17** 01:13:58.7±0.9, 15°.23N×92°.51W, h98^{km}, ML5.3, Presumed earthquake*

*IDC **17** 01:13:59.6±0.5, 15°.35N×92°.03W, h105^{km}±3^{km}, mb4.4/24, mbtmp4.8/26, MS3.9/41, Error ellipse: s-maj=13.9km s-min=8.6km az=64.0*

*CATAC **17** 01:13:59.2±0.2, 15°N±2°×9°3W±°, h85^{km}±3^{km}, M5.3/60, mb5.5/33, mB5.7/31, MLv5.5/60, Mw(mB)5.3/31, MwMwp4.7/4, Mwp5.1/4, Error ellipse: s-maj=5.2km s-min=2.4km az=38.3, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}0.45; $M_{\theta\theta}$-1.23; $M_{\phi\phi}$0.78; $M_{r\theta}$2.37; $M_{\theta\phi}$-0.81; $M_{\phi r}$-2.09; Fault plane solution: $M_0$3.43058×10^{17} NP1: ϕ_s123.65932°, δ87.84656°, λ111.79968°. NP2: ϕ_s219.02638°, δ21.90062°, λ5.78179°. Principal axes: T 3.7384, Plg43.0508°, Azm54.7195°; N -0.7347, Plg21.7835°, Azm302.7983°; P -3.0037, Plg39.0137°, Azm193.9067°; confirmed*

*MEX **17** 01:13:59.9±0.7, 15°.08N×92°.69W, h94^{km}±5^{km}, MD5.2, Presumed earthquake*

*NEIC **17** 01:13:59.4±2.1, 15°.26N±0°.05×92°.44W±0°.06, h96^{km}±3^{km}, mb5.3/596, Mwr5.1/10, Mww5.2/61, Md5.2/144(MEX), Error ellipse: s-maj=9.8km s-min=5.9km az=49.0, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}-6.68; $M_{\theta\theta}$3.48; $M_{\phi\phi}$3.20; $M_{r\theta}$1.00; $M_{\theta\phi}$-2.27; $M_{\phi r}$0.28; Fault plane solution: $M_0$6.30000×10^{16} NP1: ϕ_s139.46000°, δ42.84000°, λ-80.52000°. NP2: ϕ_s306.64000°, δ47.89000°, λ-98.68000°. Principal axes: T 5.6366, Plg3.0000°, Azm43.0000°; N 1.1698, Plg6.0000°, Azm312.0000°; P -6.8064, Plg83.0000°, Azm154.0000°;*

*GCMT **17** 01:14:00.4±0.2, 15°.20N±0°.01×92°.45W±0°.01, h92^{km}±1^{km},* *MW5.2/133,Moment Tensor Solution. s101,c162; s133,c235; Duration: 1^{s}0 Moment tensor: Scale 10^{16} Nm; M_{rr}-4.71±.13; $M_{\theta\theta}$1.23±.15; $M_{\phi\phi}$3.48±.16; $M_{r\theta}$5.26±.09; $M_{\theta\phi}$-4.72±.13; $M_{\phi r}$-3.19±.10; Best double couple: $M_0$8.69500×10^{16} NP1:ϕ_s168.00000°,δ27.00000°, λ-49.00000°. NP2:ϕ_s303.00000°,δ70.00000°, λ-109.00000°. Principal axes: T 9.5930, Plg22.0000°, Azm47.0000°; N -1.7960, Plg18.0000°, Azm310.0000°; P -7.7970, Plg61.0000°, Azm185.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*NEIC **17** 01:14:00.5, 15°.19N×92°.52W, h100^{km}, Moment Tensor Solution. Duration: 2^{s}0 Moment tensor: Scale 10^{16}Nm; M_{rr}-4.46; $M_{\theta\theta}$1.64; $M_{\phi\phi}$2.82; $M_{r\theta}$4.74; $M_{\theta\phi}$-2.88; $M_{\phi r}$-3.09; Fault plane solution: $M_0$7.46000×10^{16} NP1: ϕ_s156.89000°,δ22.43000°,λ-61.89000°. NP2: ϕ_s306.87000°,δ70.33000°,λ-101.01000°. Principal axes: T 7.6415, Plg25.0000°, Azm45.0000°; N -0.3869, Plg10.0000°, Azm311.0000°; P -7.2546, Plg63.0000°, Azm200.0000°;*

*NEIC **17** 01:14:00.3, 15°.28N×92°.33W, h96^{km}*

*NEIC **17** 01:14:00, 15°.29N×92°.32W, h94^{km}*

*GCG **17** 01:14:00.3±1.9, 15°.17N×92°.48W, h81^{km}±10^{km}, MD5.6, ML5.4, Presumed earthquake*

*BJI **17** 01:14:02.8, 15°.64N×91°.72W, h131^{km}, mB5.3/3*

*UCR **17** 01:15:29.6±0.6, 11°.73N×86°.64W, h23^{km}, MW4.2, Presumed earthquake*

ISC 17 01:13:59.0±0.3**, 15°.23N**±0°.03×**92°.50W**±0°.03**, h105**^{km}±2^{km}**, h105^{km}:pP-P, n1028,** σ**2^{s}09**/967**, mb5.2**/354**, 8C-16D, Mexico-Guatemala border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PATR	El Naranjo	0.28	113	⇓*e*P	Pn	01 14 13.2	-1.2
PATR				*e*S	Sn	01 14 24.4	-1.5
PATR	El Naranjo	0.28	113		Pn	01 14 13.2	-1.2
PATR					Sn	01 14 24.4	-1.5
PAVE	Pavencul	0.31	96	*e*P	Pn	01 14 14.1	-0.5
PAVE				*e*S	Sn	01 14 25.3	-0.9
PAVE	Pavencul	0.31	96		Pn	01 14 14.1	-0.5
PAVE					Sn	01 14 25.3	-0.9
THIG		0.39	144	⇓*e*P	Pn	01 14 13.4	-1.2
THIG				*e*S	Sn	01 14 24.4	-2.0
THIG		0.39	144		Pn	01 14 13.4	-1.2
THIG					Sn	01 14 24.4	-2.0
THIG		0.39	144	*i* P	Pn	01 14 13.5	-1.2
THIG				*i* S	Sn	01 14 22.2	-4.1
THIG				IAML		01 14 26.4	
	comp=N,880µm,0.7s						
CHUJ	Union Juarez	0.40	109	*e*P	Pn	01 14 14.2	-0.8
CHUJ				*e*S	Sn	01 14 25.8	-1.2
SMCA	Catarina	0.55	132	*i* P	Pn	01 14 14.4	-1.4
SMCA				IAML		01 14 28.5	
	comp=N,66µm,0.2s						
HUEH	Huehuetenango	0.97	84	⇓*e*P	Pn	01 14 20.6	+0.9
HUEH				*e*S	Sn	01 14 36.8	+1.5
HUEH	Huehuetenango	0.97	84		Sn	01 14 36.8	+1.5
HUEH	Huehuetenango	0.97	84		Pn	01 14 18.4	-1.3
HUEH	Huehuetenango	0.97	84	*i* P	Pn	01 14 20.9	+1.1
HUEH				*i* S	Sn	01 14 36.8	+1.5
HUEH				IAML		01 14 43.3	
	comp=E,203µm,0.8s						
HUEH	Huehuetenango	0.97	84	P	Pn	01 14 21.6	+1.9
HUEH				S	Sn	01 14 38.6	+3.3
RTAL	Retalhuleu	1.04	132	⇓*e*P	Pn	01 14 20.0	-0.3
RTAL				*e*S	Sn	01 14 35.3	-1.1
RTAL	Retalhuleu	1.04	132		Pn	01 14 19.6	-0.8
RTAL				Sn	Sn	01 14 33.7	-2.7
RTAL	Retalhuleu	1.04	132	*i* P	Pn	01 14 20.1	-0.3
RTAL				*e*S	Sn	01 14 35.6	-0.8
RTAL	Retalhuleu	1.04	132	P	Pn	01 14 20.6	+0.3
RTAL				S	Sn	01 14 35.8	-0.6
STG8	El Palmar, Qui	1.35	125	*i* P	Pn	01 14 19.6	-4.4
STG8				IAML		01 14 38.7	
	comp=N,54µm,0.2s						
TGIG		1.66	339	⇓*e*P	Pn	01 14 27.7	+0.2
TGIG				*e*S	Sn	01 14 48.1	-1.2
TGIG		1.66	339		Pn	01 14 27.7	+0.2
TGIG					Sn	01 14 48.1	-1.2
TGIG		1.66	339	*i* P	Pn	01 14 27.6	0.0
ESSG	Sabana Grande	1.82	117	*i* P	Pn	01 14 29.9	+0.3
ESSG				*i* S	Sn	01 14 51.4	-1.5
ESSG				IAML		01 14 56.8	
	comp=E,11µm,0.6s						
APG	El Apazote	1.98	96	P	Pn	01 14 33.0	+1.2
	comp=E,399nm,0.8s,baz=200,slow=13,SNR=1869						
APG				S	Sn	01 14 57.3	+0.6
	comp=E,2µm,0.9s,baz=223,slow=18,SNR=46						
APG	El Apazote	1.98	96	*i* P	Pn	01 14 33.2	+1.5
APG				*i* S	Sn	01 14 55.7	-1.0
GCG4	OSOP	2.00	108	*i* P	Pn	01 14 33.4	+1.3
FG16	Alotenango, Sa	2.14	116	*i* P	Pn	01 14 29.5	-4.4
FG16				*i* S	Sn	01 14 52.3	-8.2
PCG5	San Vicente Pa	2.29	116	*i* P	Pn	01 14 32.6	-3.0
UXUV	UXUV	2.61	323	⇓*e*P	Pn	01 14 40.2	+0.4
UXUV				*e*S	Sn	01 15 10.0	-1.2
UXUV	UXUV	2.61	323		Pn	01 14 40.2	+0.4
UXUV					Sn	01 15 10.0	-1.2
FAME	Alcaldia de Sa	2.77	119	P	Pn	01 14 42.3	+0.4
FAME				S	Sn	01 15 17.2	+2.3
JUAM	Asuncion Mita	2.84	108	*i* P	Pn	01 14 43.4	+0.5
JUAM				IAML		01 15 43.2	
	comp=E,7µm,1.1s						
SLOZ	Alcaldia de Sa	2.89	114	*e*P	Pn	01 14 44.0	+0.6
SLOZ	Alcaldia de Sa	2.89	114	P	Pn	01 14 44.1	+0.6
SLOZ				S	Sn	01 15 19.9	+2.2
LOAL	Lomas de Alarc	2.90	115	P	Pn	01 14 44.5	+0.8
LOAL				S	Sn	01 15 19.8	+1.7
RBDL	Robledal	2.94	112	*e*P	Pn	01 14 44.9	+0.7
NUBE	Las Nubes	2.94	116	*i* P	Pn	01 14 44.8	+0.4
NUBE	Las Nubes	2.94	116	P	Pn	01 14 44.5	+0.1
CMIG	Matias Romero	2.95	309	P	Pn	01 14 44.6	+0.3
	comp=E,671nm,0.3s,baz=135,slow=13,SNR=892						
CMIG				S	Sn	01 15 18.5	-0.6
	comp=E,4µm,0.4s,baz=260,slow=19,SNR=7.3						
CMIG				LR	LR	01 16 02.1	
	comp=E,2µm,21.4s,baz=76,slow=38						
CMIG	Matias Romero	2.95	309	⇓*e*P	Pn	01 14 43.7	-0.5
CMIG				*e*S	Sn	01 15 17.7	-1.4
CMIG	Matias Romero	2.95	309		Pn	01 14 43.7	-0.5
CMIG					Sn	01 15 17.7	-1.4
SNJE	San Jose	3.11	115	*e*P	Pn	01 14 46.4	-0.2
CEVE	Cerro Verde	3.11	116	*e*P	Pn	01 14 47.9	+1.3
CEVE	Cerro Verde	3.11	116	P	Pn	01 14 48.8	+2.1
CEVE				S	Sn	01 15 25.2	+1.9
ZAFR2	Estanzuela, Za	3.11	102	*i* P	Pn	01 14 43.9	-2.5
UNIC	Universidad Ca	3.11	113	P	Pn	01 14 47.8	+1.3
UNIC				S	Sn	01 15 25.8	+2.8
ESQI	Esquipulas	3.12	102		Pn	01 14 47.3	+0.6
ESQI				Sn	Sn	01 15 18.6	-4.8
ESQI	Esquipulas	3.12	102	*i* P	Pn	01 14 47.9	+1.2
ESQI	Esquipulas	3.12	102	P	Pn	01 14 48.4	+1.7
ESQI				S	Sn	01 15 26.9	+3.5
MTO3	Montecristo	3.14	105		Pn	01 14 47.8	+0.7
CEDA	San Andres	3.32	115	*e*P	Pn	01 14 49.9	+0.7
CEDA	San Andres	3.32	115	P	Pn	01 14 50.3	+1.0
CEDA				S	Sn	01 15 30.4	+2.4
JAYA	Jayaque - finc	3.34	117	*i* P	Pn	01 14 50.0	+0.3
JAYA				IAML		01 15 40.4	
	comp=N,8µm,0.3s						
JAYA	Jayaque - finc	3.34	117	P	Pn	01 14 50.4	+0.8
JAYA				S	Sn	01 15 31.3	+2.6
PMON	Piamonte	3.43	116	*e*P	Pn	01 14 51.7	+0.9
PMON	Piamonte	3.43	116	P	Pn	01 14 52.7	+1.9
PMON				S	Sn	01 15 33.2	+2.4
UEES	Universidad Ev	3.50	115	*e*P	Pn	01 14 52.1	+0.5
UEES	Universidad Ev	3.50	115	P	Pn	01 14 52.6	+0.9
UEES				S	Sn	01 15 34.4	+2.1
SEMO	Seminario San	3.51	115	P	Pn	01 14 53.2	+1.3
SEMO				S	Sn	01 15 35.9	+3.1
HUIG	Huatulco	3.52	279	⇑*e*P	Pn	01 14 49.2	-2.7
HUIG				*e*S	Sn	01 15 21.6	-11
HUIG	Huatulco	3.52	279		Pn	01 14 49.2	-2.7
HUIG					Sn	01 15 21.6	-11
LALI	Alcalda de L	3.53	119	*i* P	Pn	01 14 52.6	+0.5
LALI	Alcalda de L	3.53	119	P	Pn	01 14 53.4	+1.3
LALI				S	Sn	01 15 34.5	+1.5
LOMA	Loma Larga	3.59	116	*e*P	Pn	01 14 53.8	+0.9
LOMA	Loma Larga	3.59	116	P	Pn	01 14 54.7	+1.9
LOMA				S	Sn	01 15 37.0	+2.5
PANCS	Alcalda de	3.59	116	P	Pn	01 14 54.2	+1.3
PANCS				S	Sn	01 15 37.9	+3.3
LLGN	La Laguna	3.60	107	P	Pn	01 14 54.2	+1.2
LLGN				S	Sn	01 15 37.7	+2.9
SARH	Santa Rosa de	3.64	97	*i* P	Pn	01 14 55.4	+1.8
SARH	Santa Rosa de	3.64	97	P	Pn	01 14 55.1	+1.6
SARH				S	Sn	01 15 39.2	+3.4
LFRS	El Faro	3.69	115	*e*P	Pn	01 14 54.9	+0.6
PAVA	Las Pavas	3.76	113	P	Pn	01 14 56.5	+1.3
PAVA				S	Sn	01 15 41.6	+2.8
IZABA	Izabal, Puerto	3.81	82	*e*P	Pn	01 14 56.4	+0.7
IZABA				*e*S	Sn	01 15 41.7	+2.1
IZABA	Izabal, Puerto	3.81	82	P	Pn	01 14 57.3	+1.6
IZABA				S	Sn	01 15 42.7	+3.1
P5NO	Presa 5 de nov	3.83	108	*e*P	Pn	01 14 56.5	+0.5
P5NO	Presa 5 de nov	3.83	108	P	Pn	01 14 57.5	+1.6
P5NO				S	Sn	01 15 42.6	+2.5
COEG	Centro de Oper	3.85	114	*e*P	Pn	01 14 57.0	+0.6
COEG	Centro de Oper	3.85	114	P	Pn	01 14 58.7	+2.3
COEG				S	Sn	01 15 43.4	+2.5
SCIG	Sabancuy	3.93	18	*e*P	Pn	01 14 58.4	+1.0
SCIG				*e*S	Sn	01 15 36.8	-5.7
SCIG	Sabancuy	3.93	18		Pn	01 14 58.4	+1.0
SCIG					Sn	01 15 36.8	-5.7
SCIG	Sabancuy	3.93	18	*i* P	Pn	01 14 58.5	+1.2
SCIG	Sabancuy	3.93	18	P	Pn	01 14 58.8	+1.5
SCIG				S	Sn	01 15 45.3	+2.8
TECO	Alcaldia de Te	3.97	115	*e*P	Pn	01 14 58.3	+0.3
TECO	Alcaldia de Te	3.97	115	P	Pn	01 14 59.2	+1.2
NEUV	Arroyo Zacate	4.02	308	*e*P	Pn	01 14 57.8	-0.8
NEUV				*e*S	Sn	01 15 43.1	-1.7
NEUV	Arroyo Zacate	4.02	308		Pn	01 14 57.8	-0.8
NEUV					Sn	01 15 43.1	-1.7
PQSS	Presa 15 de Se	4.13	112	P	Pn	01 15 01.4	+1.2
PMUV	Sontecomapan	4.15	323	*e*P	Pn	01 14 59.7	-0.7
PMUV				*e*S	Sn	01 15 44.5	-3.5
PMUV	Sontecomapan	4.15	323		Pn	01 14 59.7	-0.7
PMUV					Sn	01 15 44.5	-3.5
TECA	Tecapa	4.24	113	*e*P	Pn	01 15 02.4	+0.6
ALJI	Alcalda de J	4.25	116	P	Pn	01 15 02.9	+1.2
ALJI				S	Sn	01 15 52.5	+2.2
PACA	Pacayal	4.41	113	*e*P	Pn	01 15 05.2	+1.3
PACA	Pacayal	4.41	113	P	Pn	01 15 05.1	+1.2
PACA				S	Sn	01 15 57.4	+3.1
LCY	Lacayo	4.45	113	*e*P	Pn	01 15 05.5	+0.9
RANC	El Ranchito	4.45	113	*e*P	Pn	01 15 05.0	+0.5
RANC	El Ranchito	4.45	113	P	Pn	01 15 06.1	+1.5
OXIG	Oaxaca	4.46	295		Pn	01 15 05.2	+0.4
OXIG					Sn	01 15 51.9	-3.9
VHO	Vista Hermosa	4.46	295	*e*P	Pn	01 15 05.2	+0.4
VHO				*e*S	Sn	01 15 51.9	-3.9
PEIG	Puerto Escondi	4.54	280	⇑*e*P	Pn	01 15 03.4	-2.3
PEIG				*e*S	Sn	01 15 47.9	-10
PEIG	Puerto Escondi	4.54	280		Pn	01 15 03.4	-2.3
PEIG					Sn	01 15 47.9	-10
JUCU	Jucuar¡n	4.56	115	*e*P	Pn	01 15 06.6	+0.6
INTP	Intipuca	4.76	115	*e*P	Pn	01 15 08.8	+0.2
LCND	La Caada	4.86	113	P	Pn	01 15 10.8	+0.9
CNCH	Conchagua	4.92	113	P	Pn	01 15 12.4	+1.5
CNCH				S	Sn	01 16 09.6	+2.8
YOIG	Yosondua	5.12	289	*e*P	Pn	01 15 13.0	-0.7
YOIG				*e*S	Sn	01 16 06.8	-4.9
YOIG	Yosondua	5.12	289		Pn	01 15 13.0	-0.7
YOIG					Sn	01 16 06.8	-4.9
TGUH	Tegucigalpa,Un	5.19	102		Pn	01 15 15.4	+0.9
TGUH	Tegucigalpa,Un	5.19	102	P	Pn	01 15 16.3	+1.8
	comp=N,6µmcomp=N,20µmcomp=N,1µm,1.2s						
TGUH				AML	AML		
TGUH	Tegucigalpa,Un	5.19	102	P	Pn	01 15 16.4	+1.9
TGUH				S	Sn	01 16 16.1	+2.8
TGUH	Tegucigalpa,Un	5.19	102	P	Pn	01 15 16.3	+1.8
	comp=Z,1µm,1.2s						
TOIG	Toxpalan	5.22	304	*e*P	Pn	01 15 14.1	-0.9
TOIG				*e*S	Sn	01 16 11.6	-2.5
TOIG	Toxpalan	5.22	304		Pn	01 15 14.1	-0.9
TOIG					Sn	01 16 11.6	-2.5
CSGN	Cosiguina Volc	5.29	114	P	Pn	01 15 17.0	+1.2
POTN	Potosi Cosigui	5.32	114	P	Pn	01 15 17.6	+1.3
TXIG	Tlaxiaco	5.45	292	*e*P	Pn	01 15 18.4	+0.2
TXIG				*e*S	Sn	01 16 13.8	-6.0
TXIG	Tlaxiaco	5.45	292		Pn	01 15 18.4	+0.2
TXIG					Sn	01 16 13.8	-6.0
HLIG	Huajuapan de L	5.71	298	*e*P	Pn	01 15 22.9	+1.3
HLIG				*e*S	Sn	01 16 24.2	-1.8
HLIG	Huajuapan de L	5.71	298		Pn	01 15 22.9	+1.3
HLIG					Sn	01 16 24.2	-1.8
JAUV	Jalcomulco	5.82	316	⇓*e*P	Pn	01 15 21.1	-1.9
JAUV				*e*S	Sn	01 16 24.6	-3.9
JAUV	Jalcomulco	5.82	316		Pn	01 15 21.1	-1.9
JAUV					Sn	01 16 24.6	-3.9
CRIN	San Cristobal	5.86	115		Pn	01 15 25.1	+1.6
CRIN	San Cristobal	5.86	115	P	Pn	01 15 26.3	+2.8
	comp=Z,12µmcomp=Z,719nm,0.6s						
CRIN				AML	AML		
CRIN	San Cristobal	5.86	115	P	Pn	01 15 25.4	+1.9
CRIN	San Cristobal	5.86	115	P	Pn	01 15 26.4	+2.8
	comp=Z,742nm,0.8s						
FTIG	Fresnillo de T	6.03	297	*e*P	Pn	01 15 26.6	+0.7
FTIG				*e*S	Sn	01 16 29.3	-4.3
FTIG	Fresnillo de T	6.03	297		Pn	01 15 26.6	+0.7
FTIG					Sn	01 16 29.3	-4.3
OCON	Estacion meteo	6.04	104	P	Pn	01 15 27.4	+1.4
OCON				S	Sn	01 16 37.0	+3.1
HERN	Volcan Telica	6.09	115		Pn	01 15 26.8	+0.1
HERN	Volcan Telica	6.09	115	P	Pn	01 15 27.7	+1.0
PLRN	Geotermica Pol	6.15	115	P	Pn	01 15 28.9	+1.4
PLRN				S	Sn	01 16 39.4	+2.8
ILCN	San Idelfonso	6.21	114	P	Pn	01 15 28.9	+0.6
ILCN				S	Sn	01 16 40.9	+2.9
MGIG	Malinaltepec	6.22	290	⇑*e*P	Pn	01 15 28.9	+0.3
MGIG				*e*S	Sn	01 16 33.0	-5.5
MGIG	Malinaltepec	6.22	290		Pn	01 15 28.9	+0.3
MGIG					Sn	01 16 33.0	-5.5
CNGN	Cerro Negro	6.25	115	P	Pn	01 15 30.6	+1.7
CNGN	Cerro Negro	6.25	115	P	Pn	01 15 29.6	+0.7
	comp=Z,3µm,1.0s						
TLIG	Tlapa	6.27	293	*e*P	Pn	01 15 28.2	-1.0
TLIG				*e*S	Sn	01 16 38.8	-0.8
TLIG	Tlapa	6.27	293		Sn	01 16 38.8	-0.8
TLIG	Tlapa	6.27	293		Pn	01 15 29.9	+0.7
TLIG	Tlapa	6.27	293	P	Pn	01 15 30.3	+1.2
RCVN	Varillal2	6.32	104	P	Pn	01 15 31.5	+1.6
LEVN	Ruinas Leon Vi	6.37	115	P	Pn	01 15 32.3	+1.9
LEVN				S	Sn	01 16 44.5	+2.9
TEIG	Tepich	6.40	38		Pn	01 15 30.5	-0.3
TEIG	Tepich	6.40	38	P	Pn	01 15 31.6	+0.8
	comp=Z,19µmcomp=Z,61µmcomp=Z,6µm,0.6s						
TEIG	Tepich	6.40	38	P	Pn	01 15 33.0	+2.2
TEIG				S	Sn	01 16 47.5	+5.1
TEIG	Tepich	6.40	38	P	Pn	01 15 31.4	+0.6
	comp=Z,6µm,0.6s						
MOMN	Momotombo	6.43	115	P	Pn	01 15 31.5	+0.2
COPN	Copaltepe	6.49	117	P	Pn	01 15 32.3	+0.2
CRIG	Cruz Grande	6.55	284	*e*P	Pn	01 15 31.8	-1.2
CRIG				*e*S	Sn	01 16 37.5	-8.7
CRIG	Cruz Grande	6.55	284		Pn	01 15 31.8	-1.2
CRIG					Sn	01 16 37.5	-8.7
SAPS	Ciudad Sandino	6.66	116	P	Pn	01 15 34.9	+0.6
APQ2	Apoyeque	6.71	116	P	Pn	01 15 37.4	+2.3
MATN	Matagalpa	6.77	109	P	Pn	01 15 37.6	+1.6
MATN				S	Sn	01 16 56.0	+4.2
TISN	Laguna Tiscapa	6.79	116	P	Pn	01 15 35.2	-0.9
UNAN	Cigeo UNAN	6.80	116	P	Pn	01 15 37.1	+0.9
UNAN				S	Sn	01 16 55.3	+3.1
MGAN	Managua	6.80	116	P	Pn	01 15 37.6	+1.3
	comp=Z,10µmcomp=Z,291nm,0.8s						
MGAN	Managua	6.80	116	P	Pn	01 15 37.1	+0.8
MGAN				S	Sn	01 16 54.5	+2.2
MGAN	Managua	6.80	116	P	Pn	01 15 37.6	+1.3
	comp=Z,304nm,0.7s						
WILN	Americas 2	6.85	116	P	Pn	01 15 38.8	+1.9
CXUV	Coxquihui	6.91	316	*e*P	Pn	01 15 36.6	-1.1
CXUV				*e*S	Sn	01 16 49.9	-5.0
CXUV	Coxquihui	6.91	316		Pn	01 15 36.6	-1.1
CXUV					Sn	01 16 49.9	-5.0
MAS3	Al N del Volca	6.92	117	P	Pn	01 15 38.6	+0.6
MASN	Masaya	6.96	117	P	Pn	01 15 39.8	+1.3
SABN	Sabanita	6.96	117	P	Pn	01 15 39.8	+1.3
PPM	Popocatepetl	6.99	304	*e*P	Pn	01 15 42.1	+2.8
PPM				*e*S	Sn	01 16 52.3	-5.4
PPIG	Popocatepetl	6.99	304		Pn	01 15 42.1	+2.7
PPIG					Sn	01 16 52.3	-5.4
NANN	Nandasmo	7.01	117	P	Pn	01 15 41.3	+2.1
DAIG	Los Arroyos	7.10	286	*e*P	Pn	01 15 39.8	-0.6
DAIG				*e*S	Sn	01 16 52.2	-7.3
DAIG	Los Arroyos	7.10	286		Pn	01 15 39.8	-0.6
DAIG					Sn	01 16 52.2	-7.3
AMVM	AMECAMECA	7.16	304	*e*P	Pn	01 15 42.1	+0.8
AMVM				*e*S	Sn	01 16 58.5	-2.8
AMVM	AMECAMECA	7.16	304		Pn	01 15 42.1	+0.8
AMVM					Sn	01 16 58.5	-2.8
NADN	Granada	7.18	118	P	Pn	01 15 40.1	-1.3
BOAB	BOACO BROADBAN	7.19	112	P	Pn	01 15 41.8	+0.2
BOAB	BOACO BROADBAN	7.19	112	P	Pn	01 15 42.4	+0.9
	comp=Z,307nm,0.9s						
YAIG	Yautepec	7.25	301	*e*P	Pn	01 15 44.3	+1.8
YAIG				*e*S	Sn	01 17 01.3	-2.0
YAIG	Yautepec	7.25	301		Pn	01 15 44.3	+1.8
YAIG					Sn	01 17 01.3	-2.0
MEIG	Mezcala	7.34	292	⇑*e*P	Pn	01 15 44.8	+1.2
MEIG				*e*S	Sn	01 17 00.5	-4.9
MEIG	Mezcala	7.34	292		Pn	01 15 44.8	+1.2
MEIG					Sn	01 17 00.5	-4.9
MPVM	San Francisco	7.37	303	*e*P	Pn	01 15 45.7	+1.4
MPVM				*e*S	Sn	01 17 03.8	-2.7
MPVM	San Francisco	7.37	303		Pn	01 15 45.7	+1.4
MPVM					Sn	01 17 03.8	-2.7
THVM	De Xico	7.40	304	*e*P	Pn	01 15 44.6	-0.1
THVM				*e*S	Sn	01 17 05.4	-1.8
THVM	De Xico	7.40	304		Pn	01 15 44.6	-0.1
THVM					Sn	01 17 05.4	-1.8
PLIG	Platanillo	7.41	296	*e*P	Pn	01 15 46.0	+1.3
PLIG				*e*S	Sn	01 17 03.6	-3.6
PLIG	Platanillo	7.41	296		Pn	01 15 46.0	+1.3
PLIG					Sn	01 17 03.6	-3.6
XCVM	Xochimilco	7.48	303	*e*P	Pn	01 15 44.2	-1.6
XCVM				*e*S	Sn	01 17 07.8	-1.4
XCVM	Xochimilco	7.48	303		Pn	01 15 44.2	-1.6
XCVM					Sn	01 17 07.8	-1.4
TLVM	San Miguel Top	7.49	303	*e*P	Pn	01 15 46.9	+0.9
TLVM				*e*S	Sn	01 17 08.2	-1.3
TLVM	San Miguel Top	7.49	303		Pn	01 15 46.9	+0.9
TLVM					Sn	01 17 08.2	-1.3
VTVM	Tizayuca	7.50	308	*e*P	Pn	01 15 46.6	+0.5
VTVM				*e*S	Sn	01 17 07.8	-1.9
VTVM	Tizayuca	7.50	308		Pn	01 15 46.6	+0.5
VTVM					Sn	01 17 07.8	-1.9
MZVM		7.54	302	*e*P	Pn	01 15 48.6	+2.3
MZVM				*e*S	Sn	01 17 10.3	0.0
MZVM		7.54	302		Pn	01 15 48.6	+2.3
MZVM					Sn	01 17 10.3	0.0
PBVM	Pinon	7.56	305	*e*P	Pn	01 15 48.4	+1.8
PBVM				*e*S	Sn	01 17 08.2	-2.4
PBVM	Pinon	7.56	305		Pn	01 15 48.4	+1.8
PBVM					Sn	01 17 08.2	-2.4
UNM	Universidad Na	7.57	304	*e*P	Pn	01 15 45.6	-1.4
UNM				*e*S	Sn	01 17 11.3	-0.2
JAPN	Al SSO del Vol	7.59	118	P	Pn	01 15 48.1	+1.1
MORN	Al O del Volca	7.60	118	P	Pn	01 15 47.8	+0.6
CTVM	Cuauhtemoc	7.62	304	*e*S	Sn	01 17 10.7	-2.0
CTVM	Cuauhtemoc	7.62	304		Sn	01 17 10.7	-2.0
SIUN	Universidad Ur	7.63	100		Pn	01 15 46.5	-1.1
SIUN	Universidad Ur	7.63	100	P	Pn	01 15 48.8	+1.2
MHVM	Bosque de Chap	7.64	304	*e*P	Pn	01 15 48.2	+0.3
MHVM				*e*S	Sn	01 17 11.5	-1.6
MHVM	Bosque de Chap	7.64	304		Pn	01 15 48.2	+0.3
MHVM					Sn	01 17 11.5	-1.6
MAVM	Malinalco, Edo	7.65	300	⇑*e*P	Pn	01 15 49.4	+1.4
MAVM				*e*S	Sn	01 17 09.5	-3.7
MAVM	Malinalco, Edo	7.65	300		Pn	01 15 49.4	+1.4
MAVM					Sn	01 17 09.5	-3.7
AOVM	Tlapan	7.66	303	*e*P	Pn	01 15 48.8	+0.4
AOVM				*e*S	Sn	01 17 09.2	-4.6
AOVM	Tlapan	7.66	303		Pn	01 15 48.8	+0.4
AOVM					Sn	01 17 09.2	-4.6
PTVM	Pico Tres Padr	7.66	305	*e*P	Pn	01 15 46.6	-1.6
PTVM				*e*S	Sn	01 17 06.6	-7.0
PTVM	Pico Tres Padr	7.66	305		Pn	01 15 46.6	-1.6
PTVM					Sn	01 17 06.6	-7.0
APVM	Azcapotzalco	7.68	304	*e*P	Pn	01 15 48.1	-0.4
APVM				*e*S	Sn	01 17 12.5	-1.6
APVM	Azcapotzalco	7.68	304		Pn	01 15 48.1	-0.4
APVM					Sn	01 17 12.5	-1.6
INVM	La Marquesa	7.72	303	*e*P	Pn	01 15 49.9	+0.8
INVM				*e*S	Sn	01 17 09.9	-5.3
INVM	La Marquesa	7.72	303		Pn	01 15 49.9	+0.8
INVM					Sn	01 17 09.9	-5.3
AZVM	Cuida Lopez Ma	7.79	305	*e*P	Pn	01 15 49.4	-0.6
AZVM				*e*S	Sn	01 17 15.8	-1.0
AZVM	Cuida Lopez Ma	7.79	305		Pn	01 15 49.4	-0.6
AZVM					Sn	01 17 15.8	-1.0
ACON	Acoyapa	7.82	114	P	Pn	01 15 51.2	+1.1
CARN	Rivas	7.89	120	P	Pn	01 15 51.5	+0.4
DHIG	Demacu	8.02	310		Pn	01 15 54.0	+1.0
DEIG	Demacu	8.02	310	*e*P	Pn	01 15 54.0	+1.0
ATVM	ATLACOMULCO	8.33	304	*e*S	Sn	01 17 31.1	+1.2
ATVM	ATLACOMULCO	8.33	304		Sn	01 17 31.1	+1.2
CTUV	Llano Grande	8.34	319	*e*P	Pn	01 15 55.6	-1.6
CTUV				*e*S	Sn	01 17 25.5	-4.1
CTUV	Llano Grande	8.34	319		Pn	01 15 55.6	-1.6
CTUV					Sn	01 17 25.5	-4.1
UPAL	Upala	8.47	120	P	Pn	01 16 00.0	+1.1
CMARA	Lajas Hojancha	8.63	126	P	Pn	01 16 01.5	+0.3
JTS	Las Juntas de	8.84	123	P	Pn	01 16 04.7	+0.6
	comp=Z,83nm,0.5s,baz=303,slow=6.9,SNR=39						
JTS	Las Juntas de	8.84	123	P	Pn	01 16 04.6	+0.6
JTS				S	Sn	01 17 45.1	+3.1
JTS	Las Juntas de	8.84	123	P	Pn	01 16 04.8	+0.6
	comp=Z,93nm,0.5s						
ZIIG	Zihuatanejo	8.92	287	*e*P	Pn	01 16 05.6	+0.5
ZIIG				*e*S	Sn	01 17 38.5	-5.4
ZIIG	Zihuatanejo	8.92	287		Pn	01 16 05.6	+0.5
ZIIG					Sn	01 17 38.5	-5.4
VPL1	V. Platanar	9.35	121	*e*P	Pn	01 16 11.1	0.0
MOIG	Morelia	9.40	299	*e*P	Pn	01 16 11.7	-0.1
MOIG				*e*S	Sn	01 17 54.5	-1.3
MOIG	Morelia	9.40	299		Pn	01 16 11.7	-0.1
MOIG					Sn	01 17 54.5	-1.3
VPS8	V Poas	9.49	121	*e*P	Pn	01 16 14.8	+1.6
VBV1	V. Barva	9.64	121	*e*P	Pn	01 16 15.9	+0.7
BELE	Belen	9.64	122	*e*P	Pn	01 16 15.9	+0.9
HDC	Heredia	9.69	121	*e*P	Pn	01 16 15.7	0.0
HDC	Heredia	9.69	121	P	Pn	01 16 16.6	+0.9
	comp=Z,141nm,0.5s						
RPIG	Rio Verde	9.71	314	*e*P	Pn	01 16 16.8	+0.9
RPIG				*e*S	Sn	01 17 58.9	-4.2
RPIG	Rio Verde	9.71	314		Pn	01 16 16.8	+0.9
RPIG					Sn	01 17 58.9	-4.2
CVIMO	Finca Echandi	9.82	121	*e*P	Pn	01 16 21.6	+4.0
PICV	PH. Pirrs	9.83	123	*e*P	Pn	01 16 18.8	+1.2
ABE2	San Pablo	9.90	123	*e*P	Pn	01 16 19.3	+0.6
VICA	Volcano Irazu	9.92	121	*e*P	Pn	01 16 19.8	+0.7
RAFA	San Farael, Vo	9.96	121	*e*P	Pn	01 16 21.3	+1.8
CVTQ	Turrialba Volc	9.98	120	*e*P	Pn	01 16 20.3	+0.6
PCAYA	Pacayas	9.99	121	*e*P	Pn	01 16 21.4	+1.6
PIEC	Cerro El Cedra	10.03	123	*e*P	Pn	01 16 21.3	+0.9
IGIG	Irapuato, Guan	10.04	304	*e*P	Pn	01 16 18.2	-2.3
IGIG	Irapuato, Guan	10.04	304		Pn	01 16 18.2	-2.3
LCOCO	El Coco	10.11	119	*e*P	Pn	01 16 21.7	+0.4
EDPE	Pejibaye, P	10.60	124	*e*P	Pn	01 16 29.3	+1.2
MMIG	Aquila	10.83	288	*e*P	Pn	01 16 30.2	-0.8
MMIG				*e*S	Sn	01 18 25.6	-4.5
MMIG	Aquila	10.83	288		Pn	01 16 30.2	-0.8
MMIG					Sn	01 18 25.6	-4.5
EDP2	Potrero Grande	11.01	123	*e*P	Pn	01 16 34.4	+1.0
PIRO	Carate, Puerto	11.24	126	*e*P	Pn	01 16 38.7	+2.1
INCO	Volcan de Coli	11.43	294	*e*P	Pn	01 16 41.7	+2.2
INCO				*e*S	Sn	01 18 42.6	-2.9
BRU2	Volcan	11.53	123	*e*P	Pn	01 16 41.1	+0.5
BRU2	Volcan	11.53	123	*e*P	Pn	01 16 40.9	+0.3
BRU2				*e*S	P	01 16 51.1	+1.3
CDAR	Ciudad de Arme	11.61	290	*e*P	Pn	01 16 41.8	+0.3
CDAR				*e*S	Sn	01 18 44.3	-4.9
CEGR	Campo Tres	11.61	293	*e*P	Pn	01 16 43.8	+2.1
CEGR				*e*S	Sn	01 18 46.1	-3.4
CEGR	Campo Tres	11.61	293		Pn	01 16 43.8	+2.1
CEGR					Sn	01 18 46.1	-3.4
CLLRA	Cordillera,	11.62	123	*e*P	Pn	01 16 42.5	+0.7

LNIG	Linares	11.63	327	eP	Pn	01 16 42.1	+0.3
LNIG				eS	Sn	01 18 41.8	-7.9
LNIG	Linares	11.63	327		Pn	01 16 42.1	+0.3
LNIG					Sn	01 18 41.8	-7.9
SOR	Soroa	11.71	49	eP	Pn	01 16 43.3	+0.5
SOR	Soroa	11.71	49	P	Pn	01 16 42.7	-0.1
	comp=Z,998nm,1.0s						
BQTLY	Boquete Panama	11.73	122	eP	Pn	01 16 43.7	+0.4
RBALA	Bur	11.92	121	eP	Pn	01 16 45.1	-0.5
BGUAL	Bijagual, Pana	11.98	123	eP	Pn	01 16 45.6	-0.8
ZAIG	Zacatecas	12.12	310	eP	Pn	01 16 50.9	+2.4
ZAIG	Zacatecas	12.12	310		Pn	01 16 50.9	+2.4
KKNTU	Kakintº	12.23	120	eP	Pn	01 16 48.3	-1.4
CIHU	Emiliano Zapat	12.36	291	eP	Pn	01 16 47.9	-3.5
CIHU				eS	Sn	01 19 03.1	-4.3
CIHU	Emiliano Zapat	12.36	291		Pn	01 16 47.9	-3.5
CIHU					Sn	01 19 03.1	-4.3
CJM	Chamela	12.71	291	eP	Pn	01 16 55.6	-0.4
CJM				eS	Sn	01 19 09.7	-6.1
ESTA	Talpa de Allen	12.83	295	eP	Pn	01 16 57.9	+0.1
ESTA	Talpa de Allen	12.83	295		Pn	01 16 57.9	+0.1
TOMAT	Tomatlan	13.03	293	eP	Pn	01 16 58.5	-1.6
TOMAT				eS	Sn	01 19 10.7	-13
CAMR	Camarioca	13.08	52	eP	Pn	01 17 02.7	+1.8
GMAL	Guarumal, Vera	13.29	123	P	P	01 17 11.6	+2.0
PNME	Penonome	13.66	118	P	Pn	01 17 08.4	-0.1
	comp=Z,9µmcomp=Z,31nm,0.9s						
MGV	Manicaragua	13.69	58	eP	Pn	01 17 08.6	-0.2
AZU	Azuero	14.07	120	P	P	01 17 16.2	-2.0
	comp=Z,64nm,0.8s						
CAIB	Caibarien	14.29	58	eP	Pn	01 17 16.8	+0.3
MCJ	Malvern	14.45	77	iP	P	01 17 24.7	+2.2
CVJ	Coleyville	14.64	76	⇓iP	Pn	01 17 22.4	+1.3
PCJ	Portland Cotta	14.93	78	iP	P	01 17 30.1	+2.5
HKT	Hockley	14.97	349	P	P	01 17 27.1	-1.0
	comp=Z,197nm,1.7s						
MLDN	Muldoon	15.09	345	Pn	Pn	01 17 27.5	+0.9
MCIG	Muzquiz	15.10	328	eP	P	01 17 28.8	-0.8
MCIG				eS	Sn	01 20 07.0	-6.7
MCIG	Muzquiz	15.10	328	P	P	01 17 28.8	-0.8
MCIG					Sn	01 20 07.0	-6.7
PILO	Pilon	15.12	70	eP	Pn	01 17 26.2	-1.1
CCCC	Cccc	15.20	65	eP	P	01 17 33.7	+3.0
STH	Stony Hill	15.30	77	⇑iP	P	01 17 30.7	-1.2
STH	Stony Hill	15.30	77	⇑iP	Pn	01 17 29.6	+0.2
GWJ	Greenwich	15.38	77	iP	P	01 17 31.8	-1.0
GWJ	Greenwich	15.38	77	iP	Pn	01 17 30.8	+0.3
441A	DeRidder	15.47	358	Pn	Pn	01 17 31.2	-0.2
LMGC	Las Mercedes	15.53	70	eP	P	01 17 36.2	+1.9
PDIG	Papasquiaro	15.54	311	eP	Pn	01 17 33.0	+0.4
PDIG	Papasquiaro	15.54	311		Pn	01 17 33.0	+0.4
HNDO	Hondo	15.55	337	P	Pn	01 17 33.5	+1.0
HNVL	Huntsville, TX	15.70	351		P	01 17 35.4	-0.8
PAYG	Puerto Ayora	15.95	172		P	01 17 39.2	+0.2
PAYG	Puerto Ayora	15.95	172	P	P	01 17 40.8	+1.8
	comp=Z,119nm,1.5s						
PAYG	Puerto Ayora	15.95	172	P	P	01 17 40.8	+1.8
	comp=Z,122nm,1.5s						
CHIV	Chivirico	16.04	71	Pn	Pn	01 17 38.0	-0.7
CHIV	Chivirico	16.04	71	eP	P	01 17 42.4	+2.4
435B	Jarrell	16.17	344		P	01 17 41.7	+0.3
YAR	Yar	16.19	69	eP	P	01 17 43.4	+1.7
060A	Indiantown	16.30	42		Pn	01 17 41.3	-0.5
346A	Big Creek Wild	16.33	9		P	01 17 42.7	-0.4
DWPF	Disney Wildern	16.42	37		Pn	01 17 42.8	-0.5
DWPF	Disney Wildern	16.42	37	P	P	01 17 45.3	+1.1
	comp=Z,796nm,1.3s						
MARVS	Santiago de Cu	16.52	71	eP	P	01 17 48.0	+2.7
NATX	Nacogdoches	16.58	354		P	01 17 45.8	-0.1
JCT	Junction City	16.60	337		P	01 17 46.8	+0.6
HLGC	Holguin	16.61	68	eP	Pn	01 17 45.2	-0.5
PINC	Pinares de May	16.74	69	eP	P	01 17 48.8	+1.1
656A	Willston	16.81	31		Pn	01 17 47.6	-0.4
HPIG		16.91	316	eP	P	01 17 53.2	+3.3
HPIG		16.91	316		P	01 17 52.0	+2.1
APAC	Apartado, Choc	17.20	113	P	Pn	01 17 54.1	+1.1
	comp=Z,39nm,1.0s						
GTBY	Guantanamo Bay	17.22	72	P	Pn	01 17 54.5	+1.4
	comp=Z,4µmcomp=Z,4µmcomp=Z,266nm,0.9s						
GTBY	Guantanamo Bay	17.22	72	eP	Pn	01 17 54.9	+1.7
GTBY	Guantanamo Bay	17.22	72	P	Pn	01 17 54.8	+1.7
	comp=Z,269nm,0.9s						
TXAR	Lajitas Array	17.42	326	P	Pn	01 17 58.7	+3.2
	comp=Z,40nm,0.9s,baz=148,slow=12,SNR=127						
TXAR				ScP	ScP	01 25 59.6	+2.9
	comp=Z,6.9nm,0.9s,baz=120,slow=4.5,SNR=8.9						
TXAR				LR	LR	01 26 33.8	
	comp=Z,92nm,18.7s,baz=123,slow=43						
TXAR	Lajitas Array	17.42	326	P	Pn	01 17 57.2	+1.6
TXAR					ScP	01 25 57.2	+0.5
MOAC	Moa	17.54	69	eP	Pn	01 17 57.7	+0.8
QMBU	Quimbuelo	17.56	71	eP	Pn	01 17 57.6	+0.3
UREC	San Jos de Ur	18.20	112	P	P	01 18 03.1	-0.8
	comp=Z,30nm,1.0s						
SLBS	Sierra La Lagu	18.46	300	P	Pn	01 18 09.5	+1.3
LPIG	La Paz	18.94	301	P	Pn	01 18 16.9	+3.2
	comp=Z,32nm,0.3s,baz=39,slow=1.5,SNR=5.5						
LPIG				LR	LR	01 25 48.3	
	comp=Z,149nm,19.0s,baz=118,slow=37						
LPIG	La Paz	18.94	301	eP	Pn	01 18 15.0	+1.3
LPIG	La Paz	18.94	301	P	Pn	01 18 15.0	+1.3
MIAR	Mount Ida	19.26	357	P	Pn	01 18 16.7	-0.7
	comp=Z,420nm,1.0s						
GUY2C	Guyana, Caldas	19.55	119	P	P	01 18 19.9	+0.7
	comp=Z,779nmcomp=Z,100nm,0.7s						
GOGA	Godfrey	19.87	23	P	Pn	01 18 24.3	-0.2
	comp=Z,354nm,0.9s						
BBAC	Balboa, Cauca	19.96	130	P	Pn	01 18 26.2	+0.2
	comp=Z,2µmcomp=Z,233nm,0.9s						
POPC	Popayan, Colom	20.06	127	P	Pn	01 18 26.5	-0.6
	comp=Z,1µmcomp=Z,179nm,1.2s						
MNTX	Cornudas Mount	20.18	327	P	Pn	01 18 27.6	-0.6
	comp=Z,106nm,0.7s						
WMOK	Wichita Mounta	20.24	345	P	P	01 18 26.3	+0.4
	comp=Z,109nm,1.5s						
CMBC	Cumbal	20.28	133	P	Pn	01 18 30.1	+0.2
CUSE	Cuicocha Este	20.34	136	P	Pn	01 18 30.2	-0.4
	comp=Z,1µmcomp=Z,118nm,0.8s						
OTAV	Otavalo	20.36	136	P	P	01 18 27.4	-0.4
OTAV	Otavalo	20.36	136	P	Pn	01 18 30.1	-0.7
	comp=Z,736nmcomp=Z,57nm,1.0s						
OTAV	Otavalo	20.36	136	eP	P	01 18 27.7	-0.2
OTAV	Otavalo	20.36	136	P	Pn	01 18 30.2	-0.6
	comp=Z,57nm,1.1s						
ORTC	Ortega, Tolima	20.37	122	P	Pn	01 18 29.1	-1.4
	comp=Z,2µmcomp=Z,190nm,0.9s						
TULM	Tulcn-Chalpat	20.47	133	P	Pn	01 18 32.4	+0.3
	comp=Z,2µmcomp=Z,219nm,1.1s						
SDDR	Presa de Saban	20.61	77	P	Pn	01 18 32.1	-1.2
	comp=Z,2µmcomp=Z,304nm,1.0s						
SDDR	Presa de Saban	20.61	77	⇑iP	Pn	01 18 32.0	-1.4
SDDR	Presa de Saban	20.61	77	P	Pn	01 18 32.1	-1.3
	comp=Z,308nm,1.0s						
INCA	Colegio Marist	20.64	137	P	Pn	01 18 42.6	+8.6
ROSC	El Rosal	20.64	118	P	P	01 18 31.4	+0.5
	comp=Z,26nm,0.9s,baz=149,slow=10,SNR=8.8						
ROSC				ScP	ScP	01 26 06.4	+1.8
	comp=Z,6.4nm,0.5s,baz=262,slow=3.0,SNR=4.9						
ROSC	El Rosal	20.64	118	P	P	01 18 29.7	-1.1
CGIG		20.71	319	eP	Pn	01 18 34.3	-0.3
CGIG		20.71	319	P	Pn	01 18 34.3	-0.3
PRAC	Prado	20.77	122	P	P	01 18 32.8	+0.9
	comp=Z,67nm,0.6s						
PAMC	Pamplona, Colo	20.92	110	P	P	01 18 32.5	-1.5
	comp=Z,6µmcomp=Z,72nm,0.9s						
GARC	Garzon, Huila	21.19	126	P	P	01 18 37.9	+1.3
	comp=Z,863nmcomp=Z,51nm,0.6s						
GRTK	Grand Turk	21.21	70	P	P	01 18 38.4	+2.0
	comp=Z,5µmcomp=Z,430nm,0.7s						
GRTK	Grand Turk	21.21	70	P	P	01 18 38.4	+2.0
	comp=Z,434nm,0.7s						
WVT	Waverly	21.23	10	P	P	01 18 36.5	0.0
WVT	Waverly	21.23	10	P	P	01 18 37.9	+1.3
	comp=Z,88nm,0.8s						
BANI	BANI	21.43	78	P	P	01 18 38.5	-0.4
NZIG	Nacozari, Sono	21.74	317	eP	P	01 18 45.8	+3.6
NZIG	Nacozari, Sono	21.74	317	P	P	01 18 45.8	+3.6
TKL	Tuckaleechee C	21.80	19	P	P	01 18 43.6	+1.0
	comp=Z,88nm,0.9s,baz=198,slow=11,SNR=71						
TKL				pP	pP	01 19 02.0	-1.2
	comp=Z,326nm,0.9s,baz=193,slow=13,SNR=26						
TKL				S	Sn	01 22 46.6	-7.7
	comp=Z,72nm,0.7s,baz=143,slow=12,SNR=4.6						
TKL	Tuckaleechee C	21.80	19	P	P	01 18 43.1	+0.5
TKL					pP	01 19 01.4	-1.7
HSIG		21.88	312	eP	P	01 18 53.7	+10
HSIG		21.88	312		pP	01 18 53.7	-10
SDV	Santo Domingo	22.28	104	P	P	01 18 44.2	-3.8
	comp=Z,28nm,0.5s,baz=292,slow=5.3,SNR=16						
SDV				ScP	ScP	01 26 11.0	+2.5
	comp=Z,16nm,0.7s,baz=7.9,slow=1.4,SNR=12						
SDV				LR	LR	01 28 12.5	
	comp=Z,208nm,20.3s,baz=290,slow=39						
	comp=Z,28nm,0.5s						
SDV	Santo Domingo	22.28	104	P	P	01 18 45.4	-2.7
MACC	Macarena, Meta	22.52	123	P	P	01 18 51.3	+0.9
	comp=Z,978nmcomp=Z,75nm,0.9s						
TZTN	Tazewell	22.68	19	P	P	01 18 52.8	+1.0
	comp=Z,565nm,0.9s						
CCM	Cathedral Cave	22.77	3	P	P	01 18 51.7	-0.9
CCM	Cathedral Cave	22.77	3	P	P	01 18 51.8	-0.7
	comp=Z,126nm,1.0s						
PTLC	Puerto Leguiza	23.01	129	P	P	01 18 59.4	+4.2
	comp=Z,1µmcomp=Z,82nm,1.2s						
MCRA	Macar, Loja	23.10	146	P	P	01 18 56.7	+0.7
	comp=Z,49nm,1.6s						
ANMO	Albuquerque	23.30	330	P	P	01 18 59.9	+1.9
	comp=Z,11nm,0.6s,baz=140,slow=11,SNR=49						
ANMO				PcP	PcP	01 22 43.2	+1.0
	comp=Z,5.7nm,0.7s,baz=142,slow=2.1,SNR=3.0						
	comp=Z,11nm,0.6s						
ANMO	Albuquerque	23.30	330	P	P	01 18 59.7	+1.7
ANMO	Albuquerque	23.30	330	P	P	01 19 00.3	+2.3
	comp=Z,28nm,1.1s						
WCI	Wyandotte Cave	23.56	12	P	P	01 19 00.3	+0.3
WCI	Wyandotte Cave	23.56	12	P	P	01 18 60.0	-0.1
	comp=Z,209nm,0.8s						
TUC	Tucson	23.80	319	P	P	01 19 04.2	+1.8
TUC	Tucson	23.80	319	P	P	01 19 05.4	+3.1
	comp=Z,48nm,1.3s						
CBKS	Cedar Bluff	24.35	346	P	P	01 19 07.3	+0.2
MLPR	Magueyes Islan	24.54	80	P	P	01 19 08.1	-1.0
AOPR	Arecibo Observ	24.84	79	P	P	01 19 11.6	-0.2
SJG	San Juan	25.40	80	LR	LR	01 29 03.7	
	comp=Z,162nm,18.9s,baz=255,slow=36						
SJG	San Juan	25.40	80	P	P	01 19 15.6	-1.3
Q54A	Coxs Mills	25.80	21	IAmb	IAmb	01 19 55.2	
	comp=Z,100nm,0.8s						
O49A	Covington	25.87	14	IAmb	IAmb	01 19 56.9	
	comp=Z,111nm,0.9s						
P53A	Whipple	26.06	20	P	P	01 19 22.6	0.0
R58B	Mineral	26.08	27	IAmb	IAmb	01 19 48.9	
	comp=Z,124nm,1.3s						
MVCO	Mesa Verde	26.10	330	IAmb	IAmb	01 19 27.2	
	comp=Z,90nm,0.8s						
MVCO	Mesa Verde	26.10	330	P	P	01 19 26.1	+2.7
	comp=Z,130nm,0.9s						
ATAH	Atahualpa	26.25	147	LR	LR	01 28 39.3	
	comp=Z,93nm,21.6s,baz=312,slow=34						
Q56A	Snyder Ridge,	26.45	24	IAmb	IAmb	01 20 08.4	
	comp=Z,80nm,0.9s						
BGNE	Belgrade	26.55	350	IAmb	IAmb	01 20 09.3	
	comp=Z,117nm,1.1s						
N49A	Columbus Grove	26.61	14	IAmb	IAmb	01 20 08.6	
	comp=Z,120nm,0.8s						
L40A	Anamosa	26.77	2	IAmb	IAmb	01 19 54.7	
	comp=Z,92nm,0.8s						
L42A	Oliver, Polo	26.80	5	IAmb	IAmb	01 19 54.6	
	comp=Z,121nm,1.1s						
PV13	Radium Mtn., P	27.01	331	IAmb	IAmb	01 19 35.5	
	comp=Z,130nm,1.0s						
O54A	Avella	27.02	21	IAmb	IAmb	01 20 06.5	
	comp=Z,68nm,0.8s						
ISCO	Idaho Springs	27.04	337	P	P	01 19 33.8	+2.0
	comp=Z,20nm,1.1s						
PV05	Paradox Valley	27.08	330	IAmb	IAmb	01 19 35.8	
	comp=Z,118nm,1.0s						
PV03	Paradox Valley	27.10	331	IAmb	IAmb	01 19 57.8	
	comp=Z,62nm,1.1s						
PV18	Skein Mesa, Pa	27.13	331	IAmb	IAmb	01 19 57.9	
	comp=Z,117nm,1.0s						
PV11	David Mesa, Pa	27.15	331	IAmb	IAmb	01 19 58.2	
	comp=Z,78nm,1.0s						
PV07	Paradox Valley	27.16	331	IAmb	IAmb	01 19 58.5	
	comp=Z,57nm,1.0s						
PV17	East Wray Mesa	27.18	331	IAmb	IAmb	01 19 58.3	
	comp=Z,122nm,1.0s						
PV16	Nyswonger Mesa	27.18	331	IAmb	IAmb	01 19 58.5	
	comp=Z,61nm,1.1s						
PV19	Morning Glory	27.21	331	IAmb	IAmb	01 19 58.6	
	comp=Z,100nm,1.0s						
PV20	West Nyswonger	27.23	331	IAmb	IAmb	01 19 58.7	
	comp=Z,107nm,1.0s						
PV04	Paradox Valley	27.24	331	IAmb	IAmb	01 19 59.0	
	comp=Z,127nm,1.0s						
PV10	Paradox Valley	27.29	331	IAmb	IAmb	01 20 16.5	
	comp=Z,95nm,1.0s						
P57A	Homestead Farm	27.30	25	IAmb	IAmb	01 19 36.1	
	comp=Z,64nm,0.8s						
PV22	Blue Mesa, Par	27.30	331	IAmb	IAmb	01 19 59.5	
	comp=Z,81nm,0.9s						
PV23	Carpenter Ridg	27.34	331	IAmb	IAmb	01 20 00.2	
	comp=Z,115nm,0.9s						
M50A	Fremont	27.34	16	IAmb	IAmb	01 20 18.7	
	comp=Z,50nm,0.7s						
PV21	Cone Mtn., Par	27.41	331	IAmb	IAmb	01 20 15.8	
	comp=Z,76nm,1.1s						
JFWS	Jewell Farm	27.66	4	IAmb	IAmb	01 20 09.4	
	comp=Z,76nm,0.8s						
BC3	Big Chuckawall	27.70	316	P	P	01 19 39.3	+1.7
BC3				IAmb	IAmb	01 20 15.2	
	comp=Z,57nm,1.0s						
HMU	Henry Mountain	27.79	328	IAmb	IAmb	01 19 42.5	
	comp=Z,137nm,1.5s						
IRM	Iron Mountain	27.79	317	P	P	01 19 40.8	+2.5
PAMR	Moraine State	27.80	20	IAmb	IAmb	01 20 24.6	
	comp=Z,76nm,0.8s						
M52A	Chesterland	27.94	18	IAmb	IAmb	01 20 38.1	
	comp=Z,97nm,0.8s						
K30B	Basset	28.03	349	IAmb	IAmb	01 20 35.0	
	comp=Z,110nm,1.1s						
PFO	Pinyon Flats O	28.36	314	LR	LR	01 31 51.1	
	comp=Z,268nm,20.5s,baz=128,slow=38						
PFO	Pinyon Flats O	28.36	314	P	P	01 19 44.9	+1.5
PFO	Pinyon Flats O	28.36	314	P	P	01 19 47.0	+3.5
	comp=Z,9.9nm,1.0s						
MVL	Millersville	28.43	27	IAmb	IAmb	01 19 45.7	
	comp=Z,50nm,0.7s						
PAGS	Pennsylvania G	28.46	26	IAmb	IAmb	01 20 40.1	
	comp=Z,72nm,1.1s						
ECSD	EROS Data Cent	28.63	354	IAmb	IAmb	01 20 10.3	
	comp=Z,52nm,1.1s						
I42A	Draeger Farm,	28.73	5	IAmb	IAmb	01 20 11.3	
	comp=Z,105nm,1.4s						
M57A	Sunshine Farm,	29.23	24	IAmb	IAmb	01 20 28.0	
	comp=Z,81nm,1.1s						
L56A	Greenwood	29.75	23	IAmb	IAmb	01 20 33.4	
	comp=Z,55nm,1.0s						
SPMN	Marine on St.	29.91	360	IAmb	IAmb	01 20 21.0	
	comp=Z,91nm,1.1s						
CZSB	Cruzeiro do Su	30.08	138	P	P	01 19 59.6	+0.8
CZSB				IAmb	IAmb	01 20 01.8	
	comp=Z,87nm,1.1s						
CZSB	Cruzeiro do Su	30.08	138	P	P	01 20 01.2	+2.5
CZSB	Cruzeiro do Su	30.08	138	eP	P	01 20 00.1	+1.4
PAL	Palisades	30.34	29	IAmb	IAmb	01 20 01.9	
	comp=Z,64nm,0.8s						
S11A	Rachel	30.37	322	IAmb	IAmb	01 20 07.5	
	comp=Z,47nm,0.9s						
RSSD	Black Hills	30.43	343	P	P	01 20 02.5	+0.7
BBSR	BB Station	30.50	51	P	P	01 20 02.0	-0.2
K57A	Scipio Center	30.66	23	IAmb	IAmb	01 20 04.7	
	comp=Z,46nm,0.8s						
F33A	5 Mile Ranch,	30.69	355	IAmb	IAmb	01 20 27.1	
	comp=Z,79nm,1.6s						
WSPT	Westport, CT	30.74	29	IAmb	IAmb	01 20 05.3	
	comp=Z,37nm,0.7s						
L59A	Walton	30.80	26	IAmb	IAmb	01 20 06.3	
	comp=Z,60nm,0.7s						
NPNY	Mohonk Preserv	30.83	27	IAmb	IAmb	01 20 30.9	
	comp=Z,70nm,1.4s						
GRAC	Grapevine Rang	30.95	319	IAmb	IAmb	01 20 11.0	
	comp=Z,40nm,0.8s						
PDAR	Pinedale Array	31.11	335	P	P	01 20 08.8	+1.0
	comp=Z,1.5nm,0.5s,baz=132,slow=9.2,SNR=17						
PDAR				pP	pP	01 20 31.6	+0.1
	comp=Z,3.7nm,0.8s,baz=116,slow=10,SNR=6.4						
PDAR				PcP	PcP	01 23 01.5	+0.7
	comp=Z,4.9nm,0.4s,baz=116,slow=5.3,SNR=28						
PDAR				ScP	ScP	01 26 35.5	+1.2
	comp=Z,3.5nm,0.9s,baz=143,slow=4.9,SNR=9.2						
PDAR				PKiKP	PKiKP	01 30 31.0	+0.3
	comp=Z,1.0nm,0.6s,baz=116,slow=3.4,SNR=7.0						
PDAR				LR	LR	01 37 10.5	
	comp=Z,66nm,18.5s,baz=129,slow=45						
	comp=Z,1.5nm,0.5s						
PDAR	Pinedale Array	31.11	335	P	P	01 20 08.6	+0.8
PDAR					pP	01 20 29.4	-2.1
PDAR					PcP	01 23 01.5	+0.7
PDAR					ScP	01 26 36.4	+2.1
VES	Vestal, Richgr	31.40	316	IAmb	IAmb	01 20 39.7	
	comp=Z,128nm,1.4s						
J57A	Williamstown	31.43	23	IAmb	IAmb	01 20 47.3	
	comp=Z,51nm,1.0s						
TIN	Tinemaha, Big	31.54	318	IAmb	IAmb	01 20 16.7	
	comp=Z,38nm,0.7s						
SADO	Sadowa	31.55	18	LR	LR	01 34 12.2	
	comp=Z,202nm,19.5s,baz=191,slow=39						
HVU	Hansel Valley	31.73	330	IAmb	IAmb	01 20 38.8	
	comp=Z,39nm,1.1s						
DELO	Deloro Mine	31.81	20	IAmb	IAmb	01 20 40.4	
	comp=Z,78nm,1.1s						
TRY	Troy	31.83	27	IAmb	IAmb	01 20 40.0	
	comp=Z,126nm,1.5s						
E28A	Huff	32.00	349	IAmb	IAmb	01 20 42.4	
	comp=Z,72nm,1.1s						
J59A	Piesco	32.07	25	IAmb	IAmb	01 20 42.6	
	comp=Z,42nm,0.9s						
SNOW	Snow King Moun	32.18	335	IAmb	IAmb	01 20 42.4	
	comp=Z,73nm,0.9s						
NV11	Mina Array Sit	32.33	321	IAmb	IAmb	01 20 23.2	
	comp=Z,60nm,0.9s						
NVAR	Mina Array Bea	32.42	320	P	P	01 20 23.1	+3.8
	comp=Z,74nm,0.7s,baz=133,slow=8.8,SNR=701						
NVAR				PcP	PcP	01 23 05.6	+1.2
	comp=Z,2.2nm,0.5s,baz=148,slow=2.9,SNR=7.0						
NVAR				ScP	ScP	01 26 41.6	+2.8
	comp=Z,3.9nm,1.0s,baz=135,slow=4.6,SNR=5.0						
NVAR				LR	LR	01 35 23.1	
	comp=Z,223nm,18.1s,baz=132,slow=40						
NVAR	Mina Array Bea	32.42	320	P	P	01 20 21.8	+2.4
NVAR					PcP	01 23 05.7	+1.3
NVAR					ScP	01 26 38.1	-0.7
MDPB	Devils Postpil	32.43	319	IAmb	IAmb	01 20 24.4	
	comp=Z,26nm,0.9s						
CFNY	Clifton-Fine,	32.44	24	IAmb	IAmb	01 20 46.0	
	comp=Z,93nm,1.4s						
PKD	Bear Valley Ra	32.45	315	P	P	01 20 21.9	+2.5
PKD				IAmb	IAmb	01 20 59.0	
	comp=Z,49nm,1.2s						
NCB	Newcomb	32.60	25	IAmb	IAmb	01 20 21.6	
	comp=Z,41nm,0.6s						
KVN	Kaiserville	32.69	321	IAmb	IAmb	01 20 26.5	
	comp=Z,35nm,0.8s						
PMPB	Monarch Peak	32.77	315	IAmb	IAmb	01 21 06.7	
	comp=Z,35nm,1.0s						
HULI	Fort Hunter Li	32.97	314	IAmb	IAmb	01 20 56.8	
	comp=Z,42nm,1.0s						
WBO	Williamsburg	33.06	23	IAmb	IAmb	01 20 25.6	
	comp=Z,32nm,0.7s						
BMN	Battle Mountai	33.08	324	IAmb	IAmb	01 20 29.2	
	comp=Z,45nm,0.9s						
BBGB	Big Mountain B	33.13	315	IAmb	IAmb	01 21 10.6	
	comp=Z,28nm,1.0s						
YERR	Yerington	33.34	320	IAmb	IAmb	01 20 31.7	
	comp=Z,40nm,0.6s						
LAO	LASA Array	33.40	343	IAmb	IAmb	01 21 45.1	
	comp=Z,67nm,1.8s						
YHL	Hebgen Lake	33.50	336	IAmb	IAmb	01 21 09.0	
	comp=Z,66nm,1.8s						
FLET	Fletcher	33.74	25	IAmb	IAmb	01 20 31.6	
	comp=Z,21nm,0.7s						
I62A	Tamworth	33.77	28	IAmb	IAmb	01 20 56.7	
	comp=Z,77nm,1.4s						
PAHR	Pah Rah Range	33.87	321	IAmb	IAmb	01 20 36.2	
	comp=Z,25nm,0.8s						
HLID	Hailey	33.88	331	IAmb	IAmb	01 20 37.8	
	comp=Z,25nm,0.8s						
BOAV	Boa Vista	34.00	109	eP	P	01 20 30.1	-3.0
MPK	Martis Peak	34.02	320	IAmb	IAmb	01 20 38.0	
	comp=Z,57nm,0.8s						
AFDM	Forest Hills D	34.40	319	P	P	01 20 38.7	+2.4
MFID	Camas Ranch	34.45	329	IAmb	IAmb	01 20 42.1	
	comp=Z,22nm,0.6s						
DLMT	Dillon	34.49	335	IAmb	IAmb	01 21 22.5	
	comp=Z,46nm,1.1s						
BEKR	Beckworth	34.56	321	IAmb	IAmb	01 20 42.2	
	comp=Z,42nm,0.8s						
CVS	Carmenet Viney	35.03	317	IAmb	IAmb	01 21 17.7	
	comp=Z,34nm,1.2s						
ULM	Lac du Bonnet	35.04	356	P	P	01 20 39.8	-1.7
	comp=Z,7.2nm,0.7s,baz=170,slow=11,SNR=14						
ULM				pP	pP	01 21 04.5	-1.0
	comp=Z,39nm,0.9s,baz=177,slow=8.3,SNR=12						
ULM				PcP	PcP	01 23 11.2	-0.1
	comp=Z,15nm,0.7s,baz=153,slow=5.3,SNR=3.0						
ULM				ScP	ScP	01 26 48.3	+0.9
	comp=Z,6.6nm,0.7s,baz=190,slow=4.8,SNR=5.2						
ULM				LR	LR	01 38 12.3	
	comp=Z,155nm,20.7s,baz=173,slow=42						
	comp=Z,7.2nm,0.7s						
ULM	Lac du Bonnet	35.04	356	P	P	01 20 40.0	-1.6
ULM					pP	01 21 04.2	-1.2
ULM				IAmb	IAmb	01 21 05.7	
	comp=Z,67nm,1.1s						
ULM					PcP	01 23 11.1	-0.2
ULM					ScP	01 26 49.1	+1.7
G62A	West of Eustis	35.18	27	P	P	01 20 42.7	-0.1
WVOR	Wild Horse Val	35.21	326	IAmb	IAmb	01 20 47.6	
	comp=Z,41nm,0.9s						
EGMT	Eagleton	35.68	340	IAmb	IAmb	01 21 52.0	
	comp=Z,46nm,1.2s						
O03E	Paynes Creek	35.71	320	IAmb	IAmb	01 20 54.1	
	comp=Z,30nm,0.8s						
PKME	Peaks-Kenny Pk	35.77	28	IAmb	IAmb	01 20 48.6	
	comp=Z,27nm,0.6s						
PLID	Pearl Lake	35.77	331	IAmb	IAmb	01 20 51.2	
	comp=Z,35nm,0.8s						
MOD	Modoc Plateau	35.80	323	IAmb	IAmb	01 20 52.8	
	comp=Z,24nm,0.8s						
HATC	Hat Creek Radi	35.81	321	IAmb	IAmb	01 20 52.4	
	comp=Z,41nm,0.8s						
O02D	Mt. Diablo Mer	36.26	319	IAmb	IAmb	01 20 55.4	
	comp=Z,22nm,0.8s						
MACA	Manacapuru-AM	36.41	118	P	P	01 20 53.2	-0.5
MACA				IAmb	IAmb	01 20 54.4	
	comp=Z,47nm,1.1s						
MACA	Manacapuru-AM	36.41	118	eP	P	01 20 53.0	-0.8
M03C	McCloud	36.48	321	IAmb	IAmb	01 20 57.0	
	comp=Z,36nm,0.7s						
KCPM	Cahto Peak	36.49	318	IAmb	IAmb	01 20 59.0	
	comp=Z,26nm,0.8s						
KHBM	Hayfork Bally	36.80	320	P	P	01 20 58.2	+1.2
KMRM	Mail Ridge	36.87	319	IAmb	IAmb	01 21 02.1	
	comp=Z,51nm,0.8s						
K04D	Chiloquin, OR	37.09	323	IAmb	IAmb	01 21 12.3	
	comp=Z,44nm,0.8s						
YBH	Yreka Blue Hor	37.11	321	LR	LR	01 37 37.2	
	comp=Z,133nm,18.6s,baz=146,slow=38						
L04D	Klamath Falls	37.16	322	IAmb	IAmb	01 21 03.1	
	comp=Z,48nm,1.0s						
KHMM	Horse Mountain	37.24	319	IAmb	IAmb	01 21 04.5	
	comp=Z,44nm,0.8s						
G08A	Pilot Rock	37.35	329	IAmb	IAmb	01 21 04.3	
	comp=Z,44nm,1.8s						
PINE	Pine Mountain	37.38	325	IAmb	IAmb	01 21 04.8	
	comp=Z,38nm,0.8s						
JCC	Jacoby Creek,	37.40	319	IAmb	IAmb	01 21 06.4	
	comp=Z,42nm,0.8s						
E09A	Wood Farm, Sta	37.84	331	IAmb	IAmb	01 21 08.6	
	comp=Z,18nm,0.6s						
YPT	Yellepit	37.89	330	IAmb	IAmb	01 21 07.4	
	comp=Z,12nm,0.5s						
I05D	Terrebonne, OR	37.95	326	IAmb	IAmb	01 21 12.1	
	comp=Z,24nm,0.7s						
WIFE	Three Sisters-	38.03	325	IAmb	IAmb	01 21 11.7	
	comp=Z,30nm,0.7s						
LDM	Libby Dam	38.09	335	IAmb	IAmb	01 22 02.2	
	comp=Z,26nm,1.1s						
I04A	Tendick Farm,	38.20	324	IAmb	IAmb	01 21 11.4	
	comp=Z,35nm,0.8s						
D08A	Wollman Farm,	38.60	331	IAmb	IAmb	01 21 15.7	
	comp=Z,33nm,1.4s						
NEW	Newport	38.69	334	LR	LR	01 41 22.3	
	comp=Z,109nm,18.3s,baz=140,slow=42						
E07A	Sunnyside	38.69	330	IAmb	IAmb	01 21 15.1	
	comp=Z,19nm,0.6s						
BATG	Bathurst New B	38.77	29	IAmb	IAmb	01 21 50.3	
	comp=Z,67nm,1.3s						

C09A	Chrisman Ranch	38.85	332	IAmb	IAmb	01 21 16.8	
	comp=Z,29nm,0.8s						
COR	Corvallis	39.19	325	P	P	01 21 18.5	+1.7
COR	Corvallis	39.19	325	P	P	01 21 19.3	+2.6
COR				pP	pP	01 21 43.9	+2.8
COR				PcP	PcP	01 23 26.5	+2.4
LPAZ	La Paz	39.49	141	P	P	01 21 20.1	-0.2
	comp=Z,10nm,0.8s,baz=332,slow=7.0,SNR=34						
LPAZ				PcP	PcP	01 23 26.3	+0.1
	comp=Z,2.7nm,0.4s,baz=348,slow=4.5,SNR=7.9						
LPAZ				ScP	ScP	01 27 06.5	+1.1
	comp=Z,3.1nm,0.7s,baz=253,slow=5.0,SNR=5.7						
	comp=Z,10nm,0.8s						
LPAZ	La Paz	39.49	141	P	P	01 21 19.2	-1.0
LPAZ					PcP	01 23 26.9	+0.8
LPAZ					ScP	01 27 03.2	-2.2
LPAZ	La Paz	39.49	141	*e*P	P	01 21 18.2	-2.0
LPAZ	La Paz	39.49	141	P	P	01 21 20.5	+0.2
LPAZ				pP	pP	01 21 44.7	+0.3
LPAZ				PcP	PcP	01 23 28.2	+2.0
LTY	Liberty	39.58	330	IAmb	IAmb	01 21 23.2	
	comp=Z,75nm,1.4s						
STD	Studebaker Rid	39.67	327	IAmb	IAmb	01 21 26.5	
	comp=Z,21nm,0.7s						
PB18	Visviri	39.73	144	P	P	01 21 21.6	-0.6
PB18				IAmb	IAmb	01 21 25.5	
	comp=Z,110nm,1.6s						
LON	Longmire	39.80	328	IAmb	IAmb	01 21 28.0	
	comp=Z,35nm,0.8s						
FFC	Flin Flon	40.10	351	P	P	01 21 24.1	0.0
D05A	Enumclaw	40.19	329	P	P	01 21 26.8	+1.8
D05A				IAmb	IAmb	01 21 28.1	
	comp=Z,50nm,1.0s						
PB16	IPOC Station P	40.31	145	P	P	01 21 27.3	+0.3
MDP	Montagnes des	40.43	100	LR	LR	01 41 02.0	
	comp=Z,72nm,18.1s,baz=289,slow=41						
GNW	Green Mountain	40.86	328	IAmb	IAmb	01 21 32.8	
	comp=Z,64nm,1.3s						
WISH	Wishkah	41.05	327	IAmb	IAmb	01 21 35.9	
	comp=Z,68nm,1.1s						
NLWA	Neilton Lookou	41.28	328	IAmb	IAmb	01 21 37.6	
	comp=Z,72nm,1.1s						
ITTB	Itaituba	41.29	115	*e*P	P	01 21 31.8	-2.7
EDM	Edmonton	41.33	341	IAmb	IAmb	01 22 13.9	
	comp=Z,62nm,1.4s						
PB11	IPOC Station P	41.39	146	IAmb	IAmb	01 21 37.1	
	comp=Z,62nm,1.0s						
A05A	Maple Falls	41.47	331	IAmb	IAmb	01 21 38.8	
	comp=Z,26nm,0.9s						
B04A	Port Angeles	41.53	329	IAmb	IAmb	01 21 39.3	
	comp=Z,79nm,1.3s						
GO01	Chusmiza	41.57	146	IAmb	IAmb	01 21 39.7	
	comp=Z,72nm,1.4s						
PGC	Sidney	41.90	329	IAmb	IAmb	01 21 42.0	
	comp=Z,73nm,1.0s						
C03A	Quillayute Air	42.00	328	IAmb	IAmb	01 21 44.0	
	comp=Z,69nm,1.0s						
CLRS	Cowichan Lake	42.35	329	IAmb	IAmb	01 21 45.9	
	comp=Z,39nm,1.1s						
VILB	Vilhena	42.49	130	P	P	01 21 44.1	-0.2
VILB	Vilhena	42.49	130	*e*P	P	01 21 43.9	-0.4
LLLB	Lillooet	42.52	332	IAmb	IAmb	01 21 47.0	
	comp=Z,19nm,0.7s						
PB02	IPOC Station P	42.56	148	IAmb	IAmb	01 21 46.7	
	comp=Z,57nm,0.9s						
PB07	IPOC Station P	42.90	148	IAmb	IAmb	01 21 49.5	
	comp=Z,35nm,0.8s						
PB03	IPOC Station P	43.24	148	IAmb	IAmb	01 21 51.7	
	comp=Z,23nm,0.8s						
PB09	IPOC Station P	43.29	148	IAmb	IAmb	01 22 17.4	
	comp=Z,73nm,1.3s						
PB05	IPOC Station P	43.69	150	P	P	01 21 54.5	+0.7
PB05				IAmb	IAmb	01 21 55.3	
	comp=Z,30nm,0.8s						
CBB	Campbell River	43.75	330	P	P	01 21 56.3	+2.3
CBB				IAmb	IAmb	01 21 57.5	
	comp=Z,48nm,0.7s						
SCHQ	Schefferville	44.25	21	P	P	01 21 56.8	-1.1
	comp=Z,13nm,0.7s,baz=219,slow=7.0,SNR=16						
SCHQ				pP	pP	01 22 22.2	-0.4
	comp=Z,30nm,0.9s,baz=211,slow=6.2,SNR=9.5						
SCHQ				PcP	PcP	01 23 39.4	-1.2
	comp=Z,7.5nm,0.8s,baz=243,slow=4.5,SNR=4.6						
SCHQ				LR	LR	01 42 37.5	
	comp=Z,380nm,18.7s,baz=218,slow=39						
	comp=Z,13nm,0.7s						
SCHQ	Schefferville	44.25	21	P	P	01 21 57.2	-0.7
SCHQ					pP	01 22 20.6	-2.0
SCHQ				IAmb	IAmb	01 22 23.5	
	comp=Z,51nm,1.0s						
SCHQ					PcP	01 23 40.0	-0.6
CLDB	Colider	44.66	123	*e*P	P	01 21 58.3	-3.3
PTLB	Pontes e Lacer	44.89	131	IAmb	IAmb	01 22 05.7	
	comp=Z,34nm,0.9s						
PTLB	Pontes e Lacer	44.89	131	*e*P	P	01 22 02.2	-1.2
PB14	IPOC Station P	45.10	151	P	P	01 22 05.9	+0.6
PB14				IAmb	IAmb	01 22 06.9	
	comp=Z,82nm,1.3s						
RPN	Rapa Nui	45.16	201	P	P	01 22 07.0	+1.7
	comp=Z,172nm,0.9s,baz=354,slow=5.4,SNR=7.6						
RPN	Rapa Nui	45.16	201	P	P	01 22 07.2	+1.8
BBB	Bella Bella	46.46	330	LR	LR	01 43 45.5	
	comp=Z,85nm,19.8s,baz=99,slow=38						
AC02	Maricunga	47.58	151	IAmb	IAmb	01 22 27.4	
	comp=Z,57nm,0.9s						
SALV	Santo Antonio	47.73	129	*e*P	P	01 22 23.8	-1.8
AC05	El Transito	48.79	154	IAmb	IAmb	01 23 59.6	
	comp=Z,31nm,0.9s						
RUBB	Prince Rupert	48.81	332	IAmb	IAmb	01 22 37.4	
	comp=Z,23nm,0.8s						
COIM	Forte Coimbra	48.83	135	*e*P	P	01 22 32.2	-1.8
MOBC	Moresby Island	48.91	329	IAmb	IAmb	01 22 38.6	
	comp=Z,35nm,0.8s						
SNDB	Serra Nova Dou	48.94	121	*e*P	P	01 22 32.0	-3.0
DIB	Dawson Inlet,	49.20	329	IAmb	IAmb	01 22 40.3	
	comp=Z,40nm,1.2s						
PP1B	Ponte de Pedra	49.39	130	*e*P	P	01 22 38.0	-0.4
YKAW1	Yellowknife Wh	49.69	347	IAmb	IAmb	01 22 41.0	
	comp=Z,34nm,0.7s						
YKA	Yellowknife Ar	49.73	347	P	P	01 22 40.6	+0.3
	comp=Z,22nm,0.6s,baz=153,slow=7.4,SNR=122						
YKA				pP	pP	01 23 05.9	+0.2
	comp=Z,16nm,0.8s,baz=152,slow=7.6,SNR=5.4						
YKA				PcP	PcP	01 24 00.4	+0.6
	comp=Z,9.8nm,0.7s,baz=152,slow=4.2,SNR=11						
YKA				ScP	ScP	01 27 46.9	+1.0
	comp=Z,3.5nm,1.0s,baz=151,slow=4.7,SNR=5.3						
YKA				LR	LR	01 48 03.9	
	comp=Z,83nm,19.3s,baz=145,slow=41						
	comp=Z,22nm,0.6s						
YKA	Yellowknife Ar	49.73	347	P	P	01 22 40.4	+0.1
YKA					pP	01 23 04.6	-1.1
YKA					PcP	01 24 00.8	+0.9
GO04	Tololo Observa	49.74	155	IAmb	IAmb	01 22 42.3	
	comp=Z,38nm,0.9s						
YKAW3	Yellowknife Wh	49.79	347	IAmb	IAmb	01 22 41.8	
	comp=Z,24nm,0.7s						
CO01	Juntas del Tor	49.86	154	IAmb	IAmb	01 22 45.5	
	comp=Z,24nm,1.2s						
V35K	Ketchikan	50.05	332	IAmb	IAmb	01 22 46.9	
	comp=Z,38nm,1.0s						
MURT	Porto Murtinho	50.15	136	*e*P	P	01 22 42.5	-1.5
T35M	Bob Quinn	50.48	334	IAmb	IAmb	01 22 50.5	
	comp=Z,31nm,0.9s						
SMTB	Santa Maria do	50.53	115	*e*P	P	01 22 44.6	-2.5
ARAG	Araguaiana, MT	50.59	126	*e*P	P	01 22 46.0	-1.5
AQDB	Aquidauana	50.66	133	IAmb	IAmb	01 22 48.0	
	comp=Z,19nm,0.8s						
AQDB	Aquidauana	50.66	133	*e*P	P	01 22 47.0	-0.9
CRAG	Craig	50.82	331	IAmb	IAmb	01 22 52.8	
	comp=Z,45nm,1.0s						
U33K	Whale Pass	51.20	332	IAmb	IAmb	01 22 55.4	
	comp=Z,35nm,1.2s						
FRB	Frobisher Bay	51.24	13	LR	LR	01 45 52.4	
	comp=Z,183nm,18.4s,baz=206,slow=38						
DLBC	Dease Lake	51.34	336	LR	LR	01 46 56.7	
	comp=Z,101nm,18.4s,baz=90,slow=38						
S34M	Telegraph Cree	51.45	335	IAmb	IAmb	01 22 57.5	
	comp=Z,24nm,0.8s						
C2SB	Chapadao do Su	51.64	130	*e*P	P	01 22 55.6	+0.3
ZON	Zonda	51.82	154	P	P	01 22 57.5	+1.0
ZON				IAmb	IAmb	01 22 58.6	
	comp=Z,48nm,1.0s						
WTLY	Watson Lake, Y	52.01	338	IAmb	IAmb	01 23 00.7	
	comp=Z,36nm,1.0s						
R33M	Jennings River	52.34	336	IAmb	IAmb	01 23 04.0	
	comp=Z,27nm,0.9s						
WRGLY	Wrigley	52.59	343	IAmb	IAmb	01 24 12.2	
	comp=Z,28nm,0.6s						
S32K	Killisnoo	52.65	333	IAmb	IAmb	01 23 06.2	
	comp=Z,33nm,1.4s						
MT16	CCHEN	52.73	157	IAmb	IAmb	01 23 04.4	
	comp=Z,35nm,0.8s						
MT01	Popeta	52.85	158	IAmb	IAmb	01 23 04.5	
	comp=Z,20nm,0.8s						
TAOE	Nuku Hiva Isla	52.93	246	*e*LR	LR	01 38 23.4	
	comp=Z,631nm,27.2s						
R32K	Eaglecrest	53.09	334	IAmb	IAmb	01 23 38.2	
	comp=Z,15nm,0.6s						
BESE	Bessie Mountai	53.42	334	IAmb	IAmb	01 23 11.6	
	comp=Z,24nm,1.2s						
SJPY	San Joaquin	53.46	138	*e*P	P	01 23 07.3	-1.3
P32M	Atlin	53.55	335	IAmb	IAmb	01 23 12.4	
	comp=Z,22nm,0.9s						
P33M	Teslin, Yukon	53.59	336	IAmb	IAmb	01 23 12.5	
	comp=Z,20nm,1.0s						
BDFB	Brasilia	53.59	123	P	P	01 23 08.3	-1.5
	comp=Z,9.4nm,0.5s,baz=279,slow=6.1,SNR=19						
	comp=Z,9.4nm,0.5s						
BDFB	Brasilia	53.59	123	IAmb	IAmb	01 23 10.4	
	comp=Z,30nm,1.1s						
CPUP	Villa Florida	53.63	140	P	P	01 23 08.9	-0.8
	comp=Z,10nm,0.8s,baz=326,slow=8.4,SNR=28						
CPUP				PcP	PcP	01 24 14.8	-0.2
	comp=Z,2.6nm,0.5s,baz=322,slow=2.3,SNR=3.3						
	comp=Z,10nm,0.8s						
CPUP	Villa Florida	53.63	140	P	P	01 23 09.4	-0.4
CPUP				IAmb	IAmb	01 23 09.8	
	comp=Z,21nm,1.1s						
CPUP					PcP	01 24 15.5	+0.5
CPUP	Villa Florida	53.63	140	*e*P	P	01 23 08.2	-1.6
S31K	Pelican	53.66	333	IAmb	IAmb	01 23 13.5	
	comp=Z,45nm,1.2s						
BO02	Sierra Bellavi	53.85	158	IAmb	IAmb	01 23 13.1	
	comp=Z,40nm,1.0s						
SKAG	Skagway	54.13	335	P	P	01 23 15.9	+2.9
N32M	Quiet Lake	54.28	337	IAmb	IAmb	01 23 17.6	
	comp=Z,38nm,0.8s						
TRCB	Terra Rica	54.32	133	*e*P	P	01 23 13.8	-1.1
SDBA	SAO DESIDERIO	54.53	118	*e*P	P	01 23 13.8	-2.8
MMPY	Sheldon Lake,	54.59	339	IAmb	IAmb	01 23 20.0	
	comp=Z,36nm,0.8s						
WHY	Whitehorse	54.67	336	IAmb	IAmb	01 23 20.0	
	comp=Z,37nm,1.0s						
IPMB	Ipameri, GO	54.72	126	*e*P	P	01 23 15.0	-2.9
M31M	Drury Creek, Y	55.43	338	IAmb	IAmb	01 23 26.3	
	comp=Z,22nm,1.1s						
N31M	Braeburn, Yuko	55.52	336	IAmb	IAmb	01 23 26.8	
	comp=Z,37nm,1.0s						
LDASE	Londrina, Braz	55.77	133	*e*P	P	01 23 24.2	-1.3
O29M	Mount Kennedy	55.96	334	IAmb	IAmb	01 23 29.8	
	comp=Z,24nm,1.1s						
PTGB	Pitanga	55.96	135	*e*P	P	01 23 25.5	-1.3
N30M	Aishikik Lake	56.01	336	IAmb	IAmb	01 23 30.2	
	comp=Z,33nm,1.1s						
BB19B	Bebedouro	56.25	129	*e*P	P	01 23 27.9	-1.0
JANB	Januaria	56.33	120	*e*P	P	01 23 28.1	-1.5
PMNB	Patos De Minas	56.42	125	*e*P	P	01 23 29.4	-0.8
NRS	Narsarsuaq	56.84	25	*i* P	P	01 23 31.2	-1.1
NRS				IAmb	IAmb	01 23 31.5	
	comp=Z,33nm,1.0s						
FRTB	Fartura	56.85	132	*e*P	P	01 23 32.3	-0.8
O28M	Mount Upton	56.89	334	IAmb	IAmb	01 24 29.9	
	comp=Z,18nm,0.8s						
PSAL	Palomas, Salto	56.96	144	*e*P	P	01 23 32.6	-1.0
LOGN	Logan Glacier	57.26	334	IAmb	IAmb	01 23 39.2	
	comp=Z,35nm,1.2s						
CANS	Sao Roque de M	57.43	127	*e*P	P	01 23 37.1	-0.2
K29M	Barlow Dome	57.56	338	IAmb	IAmb	01 24 31.7	
	comp=Z,21nm,0.8s						
J30M	Hart River	57.59	339	IAmb	IAmb	01 23 41.5	
	comp=Z,12nm,0.7s						
BARN	Barnard Glacie	57.65	334	IAmb	IAmb	01 23 42.0	
	comp=Z,23nm,1.0s						
H31M	Peel River	57.71	341	IAmb	IAmb	01 24 32.0	
	comp=Z,31nm,0.7s						
GO06	Curarrehue	57.95	161	P	P	01 23 41.5	+1.0
GO06				IAmb	IAmb	01 24 11.7	
	comp=Z,20nm,1.1s						
I30M	Mount Dempster	58.00	340	IAmb	IAmb	01 23 43.1	
	comp=Z,20nm,0.8s						
M27K	Edge Creek, AK	58.40	335	IAmb	IAmb	01 23 46.7	
	comp=Z,34nm,1.3s						
VRDI	Verde Repeater	58.49	334	IAmb	IAmb	01 23 47.5	
	comp=Z,32nm,1.0s						
SFJD	Kangerlussuaq	58.50	18	LR	LR	01 50 38.3	
	comp=Z,217nm,18.7s,baz=234,slow=38						
DIAM	Diamantina, MG	58.51	123	*e*P	P	01 23 44.2	-0.7
VAO	Valinhos	58.55	130	*e*P	P	01 23 44.3	-0.8
SPB	Sao Paulo	58.56	130	IAmb	IAmb	01 23 48.6	
	comp=Z,41nm,1.0s						
SPB	Sao Paulo	58.56	130	*e*P	P	01 23 44.7	-0.3
BCAR	Beaver Creek A	58.73	336	P	P	01 23 47.3	+1.6
I29M	Ogilvie Camp,	58.73	339	IAmb	IAmb	01 24 37.6	
	comp=Z,17nm,0.8s						
L27K	Beaver Creek,	58.74	336	IAmb	IAmb	01 23 48.8	
	comp=Z,35nm,1.1s						
EPYK	Eagle Plains	58.82	341	IAmb	IAmb	01 24 36.7	
	comp=Z,32nm,0.8s						
M26K	Nabesna, AK	58.87	335	IAmb	IAmb	01 23 49.8	
	comp=Z,25nm,1.1s						
CPSB	Cacapava Do Su	58.92	141	IAmb	IAmb	01 23 47.5	
	comp=Z,33nm,0.9s						
CPSB	Cacapava Do Su	58.92	141	*e*P	P	01 23 45.9	-1.5
G30M	tAoh Zraii Nji	59.05	342	IAmb	IAmb	01 23 54.1	
	comp=Z,34nm,1.6s						
BSCB	Bom Sucesso	59.08	126	*e*P	P	01 23 47.9	-0.9
PET01	Itanhaem-SP	59.09	131	*e*P	P	01 23 47.8	-0.9
INK	Inuvik	59.13	343	LR	LR	01 52 20.8	
	comp=Z,50nm,19.0s,baz=124,slow=39						
INK	Inuvik	59.13	343	IAmb	IAmb	01 24 30.4	
	comp=Z,19nm,0.8s						
ARCA	Ara§uai, MG	59.18	121	*e*P	P	01 23 48.7	-0.7
EYAK	Cordova Ski Ar	59.18	333	P	P	01 23 52.0	+3.3
ANCO	Parque Anchore	59.19	147	*e*P	P	01 23 48.9	-0.2
PLCA	Paso Flores	59.28	161	P	P	01 23 50.0	+0.3
	comp=Z,32nm,0.9s,baz=337,slow=8.7,SNR=28						
PLCA				pP	pP	01 24 15.8	+0.2
	comp=Z,15nm,1.1s,baz=329,slow=11,SNR=3.2						
	comp=Z,32nm,0.9s						
PLCA	Paso Flores	59.28	161	P	P	01 23 50.0	+0.3
PLCA	Paso Flores	59.28	161	*e*P	P	01 23 51.0	+1.2
PLCA	Paso Flores	59.28	161	P	P	01 23 49.9	+0.2
PLCA				pP	pP	01 24 15.7	+0.2
PLCA				sP	sP	01 24 28.9	+1.8
L26K	Log Cabin Wild	59.32	336	IAmb	IAmb	01 23 52.7	
	comp=Z,30nm,1.3s						
I28M	Miner Creek	59.34	339	IAmb	IAmb	01 24 07.8	
	comp=Z,20nm,1.5s						
MENT	Mentasta	59.43	336	IAmb	IAmb	01 24 43.9	
	comp=Z,12nm,0.9s						
RES	Resolute Bay	59.48	359	LR	LR	01 53 41.1	
	comp=Z,127nm,18.0s,baz=192,slow=40						
G29M	Pine Creek	59.56	341	IAmb	IAmb	01 24 39.0	
	comp=Z,24nm,0.8s						
STCH	Steam Cracks	59.66	284	P	P	01 23 54.0	+1.2
RSD	Rainshed	59.80	284	P	P	01 23 55.1	+1.2
UWE	Uwekahuna	59.81	284	P	P	01 23 55.5	+1.5
GLI	Glacier Island	59.92	333	IAmb	IAmb	01 23 57.3	
	comp=Z,28nm,0.8s						
A36M	Sachs Harbour	59.96	349	IAmb	IAmb	01 24 40.6	
	comp=Z,34nm,1.0s						
I27K	Kandik River	60.01	339	IAmb	IAmb	01 23 57.9	
	comp=Z,24nm,1.0s						
SCRK	Sand Creek	60.04	337	IAmb	IAmb	01 23 57.8	
	comp=Z,41nm,1.3s						
NBIT	Itapeh - BA	60.40	117	*e*P	P	01 23 56.0	-1.8
I26K	Coal Creek Min	60.40	338	IAmb	IAmb	01 24 00.1	
	comp=Z,20nm,0.8s						
E29M	Blow River	60.43	342	IAmb	IAmb	01 24 42.3	
	comp=Z,22nm,0.8s						
PWL	Port Wells	60.47	332	IAmb	IAmb	01 23 59.9	
	comp=Z,24nm,0.8s						
CMC01	Camacan, BA	60.52	118	*e*P	P	01 23 57.5	-1.1
G27K	Doyon Strip	60.68	340	IAmb	IAmb	01 24 01.2	
	comp=Z,24nm,1.2s						
SJMB	Sao Joao De Ma	60.74	122	*e*P	P	01 23 58.1	-2.0
GUA01	Guaratinga, BA	60.85	119	*e*P	P	01 23 59.4	-1.4
J25K	Salcha River,	60.88	337	IAmb	IAmb	01 24 03.2	
	comp=Z,40nm,1.2s						
E28M	Babbage River	61.04	342	IAmb	IAmb	01 24 03.6	
	comp=Z,22nm,1.0s						
BSFB	Barra de Sao F	61.08	122	*e*P	P	01 24 01.4	-1.0
LL02	Futaleuf	61.14	163	P	P	01 24 02.9	+0.6
LL02				IAmb	IAmb	01 24 03.9	
	comp=Z,60nm,1.4s						
PRP	Porcupine Dome	61.37	338	IAmb	IAmb	01 24 06.2	
	comp=Z,38nm,1.0s						
E27K	Coleen River	61.42	341	IAmb	IAmb	01 24 06.8	
	comp=Z,35nm,1.0s						
KDAK	Kodiak Island	61.43	328	P	P	01 24 06.0	+1.9
KDAK	Kodiak Island	61.43	328	P	P	01 24 06.1	+2.0
KDAK				PcP	PcP	01 24 45.9	+0.7
G26K	Porcupine Rive	61.47	340	IAmb	IAmb	01 24 07.3	
	comp=Z,31nm,1.2s						
ILAR	Eielson Array	61.53	337	P	P	01 24 05.6	+0.9
	comp=Z,15nm,0.7s,baz=124,slow=5.0,SNR=138						
ILAR				LR	LR	01 53 29.9	
	comp=Z,66nm,19.1s,baz=83,slow=38						
	comp=Z,15nm,0.7s						
ILAR	Eielson Array	61.53	337	P	P	01 24 05.7	+1.1
ISOG	Isortoq, Green	61.56	22	*i* P	P	01 24 03.5	-1.3
ISOG				IAmb	IAmb	01 24 04.5	
	comp=Z,57nm,0.5s						
OHAK	Old Harbor	61.62	327	P	P	01 24 07.9	+2.5
OHAK	Old Harbor	61.62	327	IAmb	IAmb	01 24 08.4	
	comp=Z,44nm,1.0s						
RIB01	Linhares ES	61.69	122	*e*P	P	01 24 05.7	-0.8
FYU	Fort Yukon	61.77	339	IAmb	IAmb	01 24 08.8	
	comp=Z,26nm,1.1s						
CCB	Clear Creek Bu	61.83	336	IAmb	IAmb	01 24 09.3	
	comp=Z,14nm,0.9s						
D27M	Malcolm River	61.84	342	IAmb	IAmb	01 24 48.8	
	comp=Z,18nm,0.7s						
WRH	Wood River Hil	61.86	336	IAmb	IAmb	01 24 48.9	
	comp=Z,20nm,0.9s						
MCK	McKinley	61.89	335	IAmb	IAmb	01 24 09.6	
	comp=Z,37nm,1.0s						
SII	Sitkinak Islan	61.91	326	P	P	01 24 10.3	+2.9
COLA	College	61.95	337	P	P	01 24 08.6	+1.1
COLA	College	61.95	337	P	P	01 24 08.5	+1.1
COLA				PcP	PcP	01 24 48.0	+0.8
CAM01	Campos-RJ	61.97	125	*e*P	P	01 24 07.2	-1.0
F26K	Sheenjek River	61.97	340	IAmb	IAmb	01 24 10.6	
	comp=Z,24nm,1.1s						
BMAR	Burnt Mountain	61.98	340	P	P	01 24 09.1	+1.4
STLK	Strandline Lak	62.28	332	IAmb	IAmb	01 24 12.4	
	comp=Z,30nm,0.9s						
NEA2	Nenana	62.30	336	IAmb	IAmb	01 24 50.1	
	comp=Z,17nm,0.8s						
H24K	Noodor Dome	62.38	338	IAmb	IAmb	01 24 12.9	
	comp=Z,30nm,0.8s						
F25K	Christian Rive	62.42	340	IAmb	IAmb	01 24 13.8	
	comp=Z,22nm,0.8s						
G24K	Hadweenzic Riv	62.62	338	IAmb	IAmb	01 24 14.8	
	comp=Z,27nm,0.9s						
KTH	Kantishna Hill	62.63	335	IAmb	IAmb	01 24 14.2	
	comp=Z,49nm,0.9s						
E25K	Arctic Village	62.66	340	IAmb	IAmb	01 24 15.2	
	comp=Z,33nm,1.1s						
C27K	Jago River	62.86	342	IAmb	IAmb	01 24 16.4	
	comp=Z,30nm,1.0s						
BPAW	Bear Paw Mtn.	62.87	335	IAmb	IAmb	01 24 15.8	
	comp=Z,43nm,0.9s						
PPLA	Purkeypile	62.93	334	IAmb	IAmb	01 24 16.3	
	comp=Z,71nm,1.2s						
ACHA	Angle Creek He	62.95	328	IAmb	IAmb	01 24 17.8	
	comp=Z,39nm,1.3s						
M20K	Styx River	62.99	332	IAmb	IAmb	01 24 16.9	
	comp=Z,38nm,0.8s						
H23K	Yukon River	62.99	337	IAmb	IAmb	01 24 16.8	
	comp=Z,46nm,1.5s						
CAST	Castle Rocks	63.07	334	IAmb	IAmb	01 24 16.7	
	comp=Z,38nm,0.8s						
COYC	Coyhaique	63.27	164	P	P	01 24 17.4	+1.0
COYC	Coyhaique	63.27	164	P	P	01 24 16.9	+0.5
COYC				pP	pP	01 24 44.0	+1.6
D25K	Kavik River	63.51	341	IAmb	IAmb	01 24 20.7	
	comp=Z,41nm,0.9s						
G23K	Bananza Creek	63.54	338	IAmb	IAmb	01 24 20.8	
	comp=Z,28nm,1.1s						
M19K	Big River Lodg	63.56	332	IAmb	IAmb	01 24 20.7	
	comp=Z,42nm,0.8s						
E24K	Your Creek	63.60	340	IAmb	IAmb	01 24 21.5	
	comp=Z,41nm,1.4s						
I21K	Tanana	63.67	336	IAmb	IAmb	01 24 21.1	
	comp=Z,32nm,1.1s						
H22K	Ishtalitna Cre	63.71	337	IAmb	IAmb	01 24 21.2	
	comp=Z,25nm,0.9s						
COLD	Coldfoot	63.82	338	IAmb	IAmb	01 24 23.2	
	comp=Z,54nm,1.4s						
L19K	White Mountain	63.86	332	IAmb	IAmb	01 24 22.3	
	comp=Z,33nm,1.0s						
N18K	Kilae Creek	63.90	331	IAmb	IAmb	01 24 22.6	
	comp=Z,45nm,0.8s						
E23K	Chandalar	63.97	339	IAmb	IAmb	01 24 24.3	
	comp=Z,70nm,1.2s						
H21K	Melozitna Rive	64.17	336	IAmb	IAmb	01 24 23.9	
	comp=Z,22nm,0.8s						
J20K	Nowinta River	64.19	335	IAmb	IAmb	01 24 24.2	
	comp=Z,42nm,1.0s						
D24K	Happy Valley	64.20	341	IAmb	IAmb	01 24 25.0	
	comp=Z,43nm,1.2s						
N17K	Nushagak Hills	64.47	330	IAmb	IAmb	01 24 26.7	
	comp=Z,60nm,1.0s						
IMAR	Indian Mountai	64.65	337	P	P	01 24 25.7	+0.4
O16K	Kokwok River B	64.69	329	IAmb	IAmb	01 24 27.7	
	comp=Z,30nm,0.8s						
L18K	Granite Mounta	64.69	332	IAmb	IAmb	01 24 27.8	
	comp=Z,51nm,1.1s						
D23K	Nanushuk River	64.72	340	IAmb	IAmb	01 24 29.8	
	comp=Z,63nm,1.4s						
J19K	Poorman	64.75	334	IAmb	IAmb	01 24 27.6	
	comp=Z,59nm,1.0s						
G21K	Allakaket	64.75	337	IAmb	IAmb	01 24 28.3	
	comp=Z,35nm,0.8s						
E22K	Anaktuvuk Pass	64.75	339	IAmb	IAmb	01 24 28.7	
	comp=Z,56nm,1.1s						
M17K	Holitna River	64.82	331	IAmb	IAmb	01 24 28.6	
	comp=Z,48nm,0.8s						
PPT2	Papeete2	65.04	242	*e*LR	LR	01 43 56.5	
	comp=Z,189nm,46.8s						
PPT2				*e*LR	LR	01 44 02.0	
	comp=Z,367nm,28.2s						
J18K	Innoko River	65.05	334	IAmb	IAmb	01 24 30.4	
	comp=Z,21nm,0.9s						
SUMG	Summit	65.19	16	*i* P	P	01 24 28.3	-0.8
SUMG				IAmb	IAmb	01 24 29.3	
	comp=Z,5.4nm,0.7s						
D22K	Ayikyak River	65.34	340	IAmb	IAmb	01 24 32.9	
	comp=Z,47nm,0.9s						
M16K	Timber Creek	65.44	331	IAmb	IAmb	01 24 32.9	
	comp=Z,43nm,0.8s						
K17K	Iditarod	65.55	332	IAmb	IAmb	01 24 32.8	
	comp=Z,45nm,0.8s						
NEEM	North Greenlan	65.61	9	*i* P	P	01 24 30.9	-0.8
NEEM				IAmb	IAmb	01 24 33.3	
	comp=Z,15nm,0.8s						
E21K	Killik River	65.61	339	IAmb	IAmb	01 24 34.1	
	comp=Z,62nm,1.1s						
L16K	Owhat River	65.84	331	P	P	01 24 34.3	+1.3
L16K				IAmb	IAmb	01 24 35.5	
	comp=Z,44nm,0.9s						
GO08	Villa O’Higgin	65.84	166	P	P	01 24 34.3	+1.2
GO08				IAmb	IAmb	01 24 35.2	
	comp=Z,29nm,0.8s						
G19K	Purcell Mounta	65.99	336	IAmb	IAmb	01 24 36.2	
	comp=Z,42nm,0.8s						
J17K	VABM Dome	66.06	333	IAmb	IAmb	01 24 36.4	
	comp=Z,22nm,0.9s						
H18K	Honhosa River	66.21	335	IAmb	IAmb	01 24 37.9	
	comp=Z,24nm,0.9s						
E19K	Redstone River	66.44	338	IAmb	IAmb	01 24 39.2	
	comp=Z,29nm,1.1s						
F19K	Shaleruckik Mo	66.46	337	IAmb	IAmb	01 24 39.4	
	comp=Z,38nm,0.8s						
G18K	Tagagawik	66.53	336	IAmb	IAmb	01 24 40.1	
	comp=Z,33nm,0.9s						
H17K	Granite Mounta	66.79	335	IAmb	IAmb	01 24 42.0	
	comp=Z,65nm,1.4s						
I17K	Unalakleet	66.88	333	IAmb	IAmb	01 24 42.7	
	comp=Z,31nm,0.7s						
D19K	Kuna River	67.07	339	IAmb	IAmb	01 24 43.3	
	comp=Z,34nm,0.8s						
L14K	Kuka Creek	67.27	331	IAmb	IAmb	01 24 45.3	
	comp=Z,40nm,0.7s						
G16K	Koyuk River	67.90	335	IAmb	IAmb	01 24 48.9	
	comp=Z,32nm,0.9s						
AKUT	Akutan	68.01	323	P	P	01 24 48.7	+1.8

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BORG  Borgarnes        68.32  26   LR       LR       01 53 38.7
      comp=Z,75nm,21.4s,baz=267,slow=35
RDOG  Red Dog Mine     68.68 338   IAmb     IAmb     01 24 53.8
      comp=Z,63nm,1.4s
F15K  North Star Dit   68.90 335   IAmb     IAmb     01 24 55.3
      comp=Z,63nm,0.9s
DAG   Danmarks Havn    71.59  13 i P        P        01 25 06.9  -1.5
DAG                                IAmb     IAmb     01 25 08.2
      comp=Z,7.8nm,0.5s
ATKA  Atka Island      73.05 320   P        P        01 25 18.9  +1.3
ATKA  Atka Island      73.05 320   IAmb     IAmb     01 25 19.7
      comp=Z,48nm,0.8s
VAL   Valentia         73.41  40   P        P        01 25 17.5  -2.2
JMIC  Jan Mayen        73.76  20   LR       LR       01 58 01.4
      comp=Z,186nm,20.5s,baz=248,slow=36
IGLA  Glengowla, Co    73.84  38   P        P        01 25 19.3  -2.9
ADK   Adak             74.61 320   P        P        01 25 27.8  +1.1
IDGL  Inch Island, C   74.81  36   P        P        01 25 25.8  -2.0
IWEX  Carrickbyrne,    75.50  39   P        P        01 25 29.5  -2.3
ILTH  Belurgan, Co L   75.59  37   P        P        01 25 30.0  -2.2
PTO   Porto            75.61  51 eP         P        01 25 30.2  -2.4
PTO                              i IAmb     IAmb     01 25 30.4
      comp=Z,38nm,1.3s
DSB   Dublin           75.65  38   P        P        01 25 31.9  -0.7
PSBE  So Bento         75.68  53 eP         P        01 25 31.2  -2.0
PGAV  Gavieira, Arco   75.74  50 eP         P        01 25 31.4  -2.1
PGAV                             epP        pP       01 25 58.6  -2.4
PCAS  Casmilo, Conde   75.83  52 eP         P        01 25 32.4  -1.6
PCAS                             epP        pP       01 26 00.7  -0.8
PCAB  Cabril           75.96  50 eP         P        01 25 32.3  -2.4
PFVI  Vila Bisbo       76.00  55 eP         P        01 25 33.4  -1.6
PFVI                             i IAmb     IAmb     01 25 34.1
      comp=Z,53nm,1.1s
PTEO  Sao Teotonio     76.02  55 eP         P        01 25 33.4  -1.7
PTEO                             epP        pP       01 26 00.2  -2.2
MORF  Marmelete        76.11  55 eP         P        01 25 34.0  -1.7
MORF                               IAmb     IAmb     01 25 35.3
      comp=Z,9.5nm,0.7s
MORF  Marmelete        76.11  55 eP         P        01 25 33.8  -1.8
PSARD Sardoal          76.16  52 eP         P        01 25 33.7  -2.1
PSARD                            i IAmb     IAmb     01 25 34.3
      comp=Z,22nm,0.9s
PSARD                            epP        pP       01 26 00.3  -3.1
MOE   Montemor         76.17  53 eP         P        01 25 33.9  -2.0
MOE                              i IAmb     IAmb     01 25 37.5
      comp=Z,24nm,1.9s
MOE                              epP        pP       01 26 01.9  -1.5
POLO  Lamas de Olo     76.18  51 eP         P        01 25 33.9  -2.2
POLO                             epP        pP       01 26 01.5  -2.0
PMTG  Montargil        76.18  53 eP         P        01 25 33.9  -2.1
PMTG                             i IAmb     IAmb     01 25 34.9
      comp=Z,26nm,1.9s
PMTG                             epP        pP       01 26 01.3  -2.2
PLOUS Minas do Lousa   76.19  54 eP         P        01 25 33.9  -2.1
PVIS  Viseu            76.20  51 eP         P        01 25 33.9  -2.2
PVIS                             epP        pP       01 25 59.9  -3.7
PVRL  Vila Real        76.25  51 eP         P        01 25 34.3  -2.1
PVRL                             epP        pP       01 26 02.2  -1.7
PARRA Arraiolos        76.36  53 eP         P        01 25 35.0  -2.0
PARRA                            i IAmb     IAmb     01 25 38.2
      comp=Z,19nm,2.0s
MESJ  Messejana        76.37  54 eP         P        01 25 35.4  -1.7
MESJ                               IAmb     IAmb     01 25 36.1
      comp=Z,8.0nm,0.6s
MESJ  Messejana        76.37  54 eP         P        01 25 35.4  -1.7
MESJ                             i IAmb     IAmb     01 25 37.1
      comp=Z,16nm,1.5s
EVO   Evora            76.43  53 eP         P        01 25 35.3  -2.1
EVO                              i IAmb     IAmb     01 25 37.3
      comp=Z,16nm,1.7s
EVO                              epP        pP       01 26 02.4  -2.5
MTE   Manteigas        76.51  51 eP         P        01 25 35.0  -2.9
MTE                              i IAmb     IAmb     01 25 36.3
      comp=Z,28nm,0.9s
MTE                              epP        pP       01 26 03.7  -1.7
PCVE  Castro Verde     76.55  54 eP         P        01 25 36.3  -1.7
PBEJ  Beja             76.62  54 eP         P        01 25 36.5  -1.9
PBEJ                             i IAmb     IAmb     01 25 40.6
      comp=Z,15nm,1.8s
PBEJ                             epP        pP       01 26 04.5  -1.6
PCBR  Castelo Branco   76.64  52 eP         P        01 25 36.6  -2.0
PCBR                             i IAmb     IAmb     01 25 37.6
      comp=Z,15nm,1.5s
PCBR                             epP        pP       01 26 03.9  -2.2
PBDV  Barranco-do-Ve   76.69  55 eP         P        01 25 37.5  -1.4
PBDV                             i IAmb     IAmb     01 25 38.2
      comp=Z,28nm,0.8s
PBDV                             epP        pP       01 26 05.4  -0.9
PESTR Estremoz         76.70  53 eP         P        01 25 37.1  -1.9
PESTR                            i IAmb     IAmb     01 25 40.3
      comp=Z,13nm,1.6s
PMRV  Marv??o          76.77  52 eP         P        01 25 36.9  -2.4
PMRV                             i IAmb     IAmb     01 25 37.8
      comp=Z,20nm,0.7s
PMRV                             epP        pP       01 26 04.2  -2.7
PVAQ  Vaqueiros        76.83  55 eP         P        01 25 38.1  -1.6
PVAQ                             i IAmb     IAmb     01 25 38.7
      comp=Z,17nm,0.9s
PBRG  Braganca         76.90  50 eP         P        01 25 38.2  -1.8
PBRG                             epP        pP       01 26 05.3  -2.3
PBAR  Barrancos        77.24  54 eP         P        01 25 40.1  -1.8
PBAR                             i IAmb     IAmb     01 25 42.7
      comp=Z,18nm,1.7s
PBAR                             epP        pP       01 26 07.9  -1.6
EKA   Eskdalemuir Ar   77.26  36   P        P        01 25 39.9  -1.8
      comp=Z,4.9nm,0.5s,baz=274,slow=5.5,SNR=37
EKA                                pP       pP       01 26 07.7  -1.5
      comp=Z,7.7nm,0.7s,baz=288,slow=6.4,SNR=6.4
EKA                                LR       LR       02 00 02.8
      comp=Z,65nm,18.4s,baz=246,slow=36
      comp=Z,4.9nm,0.5s
AVE   Averroes         77.77  59   IAmb     IAmb     01 25 44.3
      comp=Z,45nm,0.7s
SPA0  Spitsbergen Ar   78.99  11 eP         P        01 25 50.0  -0.9
SPITS Spitsbergen Ar   78.99  11   P        P        01 25 50.0  -0.9
      comp=Z,6.3nm,0.8s,baz=156,slow=2.3,SNR=7.4
SPITS                              LR       LR       02 02 30.1
      comp=Z,164nm,21.5s,baz=252,slow=37
      comp=Z,6.3nm,0.8s
PAB   San Pablo        79.07  52   P        P        01 25 50.6  -1.6
PAB   San Pablo        79.07  52   P        P        01 25 50.4  -1.7
PAB                                pP       pP       01 26 17.6  -2.2
ESDC  Sonseca Array    79.34  52   P        P        01 25 51.7  -1.9
      comp=Z,8.1nm,0.7s,baz=285,slow=6.1,SNR=103
ESDC                               pP       pP       01 26 18.8  -2.5
      comp=Z,10nm,1.0s,baz=291,slow=5.7,SNR=8.0
ESDC                               PKKPbc   PKKPbc   01 44 43.0  -0.5
      comp=Z,0.4nm,0.7s,baz=61,slow=1.4,SNR=4.7
      comp=Z,8.1nm,0.7s
ESDC  Sonseca Array    79.34  52   P        P        01 25 51.9  -1.7
ESDC                                        pP       01 26 18.0  -3.3
MD01  Midelt array s   80.04  59   P        P        01 25 56.0  -1.6
BILL  Bilibino         80.15 338   P        P        01 25 58.7  +1.4
BILL  Bilibino         80.15 338   P        P        01 25 59.2  +2.0
MDT   Midelt           80.17  59   LR       LR       01 54 17.7
      comp=Z,61nm,20.9s,baz=274,slow=30
AKN   Aaknes           81.04  28 eP         P        01 26 01.3  -0.8
MOL   Molde            81.18  27 eP         P        01 26 01.6  -1.2
LOF   Lofoten          81.83  21 eP         P        01 26 06.1  -0.1
DOMB  Dombas           82.01  28 eP         P        01 26 06.9  -0.4
SKAR  Skarslia         82.06  29 eP         P        01 26 06.9  -0.7
KONS  Konsvik          82.25  23 eP         P        01 26 07.7  -0.7
STOK  Stokkvaagen      82.27  23 eP         P        01 26 08.5   0.0
LEIR  Leirfjorden      82.38  23 eP         P        01 26 09.0  -0.1
NSS   Namsos           82.47  25 eP         P        01 26 08.5  -1.1
STEI  Steigen          82.50  21 eP         P        01 26 09.5  -0.2
RAUS  Rausandaksla     82.62  23 eP         P        01 26 10.0  -0.3
FAUS  Fauske           82.73  22 eP         P        01 26 09.5  -1.3
MOR8  Moi Rana         82.87  23 eP         P        01 26 10.3  -1.4
TRO   Tromso           83.05  19 eP         P        01 26 12.2  -0.3
NBO00 NORSAR Array S   83.11  29   P        P        01 26 12.9  -0.1
NBO00                              IAmb     IAmb     01 27 56.4
      comp=Z,29nm,1.2s
NB2   NORSAR Subarra   83.30  28   P        P        01 26 13.2  -0.8
      comp=Z,4.1nm,0.6s,baz=289,slow=5.3
NB2   NORSAR Subarra   83.30  28   P        P        01 26 13.2  -0.8
NOA   NORSAR Array B   83.30  28   P        P        01 26 13.6  -0.4
      comp=Z,4.7nm,0.6s,baz=290,slow=5.1,SNR=32
      comp=Z,4.7nm,0.6s
NC303 NORSAR Array S   83.31  28   P        P        01 26 13.6  -0.4
NC303                              IAmb     IAmb     01 26 14.1
      comp=Z,71nm,1.7s
OSL   Oslo             83.44  30 eP         P        01 26 14.3  -0.4
JETT  Jettan, Norway   83.55  19 eP         P        01 26 15.3  +0.2
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NC602 NORSAR Array S   83.56  29 eP         P        01 26 14.8  -0.5
KTK1  Kautokeino       84.70  19 eP         P        01 26 19.8  -1.1
HFS   Hagfors          84.77  29   P        P        01 26 20.3  -1.2
      comp=Z,5.5nm,0.6s,baz=346,slow=3.1,SNR=18
HFS                                LR       LR       02 01 55.3
      comp=Z,119nm,22.0s,baz=274,slow=34
      comp=Z,5.5nm,0.6s
ARA0  ARCESS Array S   85.13  18 eP         P        01 26 21.9  -1.2
ARCES ARCESS Array B   85.13  18   P        P        01 26 21.8  -1.3
      comp=Z,2.1nm,0.5s,baz=284,slow=4.6,SNR=25
ARCES                              LR       LR       02 04 26.6
      comp=Z,96nm,21.3s,baz=300,slow=36
      comp=Z,2.1nm,0.5s
ARCES ARCESS Array B   85.13  18   P        P        01 26 22.0  -1.0
ARCES                              IAmb     IAmb     01 27 07.2
      comp=Z,31nm,1.4s
DBIC  Dimbokro         86.01  84   P        P        01 26 26.1  -2.4
      comp=Z,5.4nm,0.8s,baz=289,slow=5.2,SNR=4.4
DBIC                               pP       pP       01 26 55.1  -1.3
      comp=Z,9.4nm,0.9s,baz=265,slow=4.4,SNR=3.1
      comp=Z,5.4nm,0.8s
DBIC  Dimbokro         86.01  84   P        P        01 26 27.6  -0.9
DBIC                                        pP       01 26 52.7  -3.8
DBIC                               IAmb     IAmb     01 27 16.0
      comp=Z,19nm,1.1s
DAVA  Damuels          87.12  42 i P        P        01 26 32.2  -1.3
      comp=Z,10.0nm,1.1s
DAVA                             i sP       sP       01 27 15.6  +2.5
      comp=Z,14nm,1.3s
SEY   Seymchan         87.44 336   LR       LR       02 09 14.6
      comp=Z,112nm,19.1s,baz=334,slow=38
RETA  Reutte           87.62  41 i P        P        01 26 34.3  -1.5
      comp=Z,3.6nm,0.6s
RETA                             i sP       sP       01 27 18.1  +2.6
      comp=Z,9.7nm,1.0s
CLL   Collm            87.64  37 esP        sP       01 27 12.0  -3.3
      comp=Z,7.0nm,0.8s
CLL                              ex         x        01 27 32.0
CLL                              eSKSac     SKSac    01 36 55.0  +0.9
CLL                              eS         ScS      01 37 14.0  -1.2
CLL                              ePS        PS       01 38 28.0  +3.8
CLL                              eSS        SS       01 43 18.0   +22
CLL                              eSSS       SSS      01 47 00.0
CLL                                LH                01 51 00.0
CLL                                LV                01 55 00.0
NKC   Novy Kostel      87.70  38 eP         P        01 26 34.5  -1.5
NKC                              ex         x        01 27 16.1
FETA  Feichten         87.75  42 i P        P        01 26 35.3  -1.2
      comp=Z,2.2nm,0.8s
FETA                             i sP       sP       01 27 20.3  +4.1
      comp=Z,4.8nm,0.9s
MOTA  Moosalm          87.88  41 i P        P        01 26 35.9  -1.3
      comp=Z,3.2nm,0.8s
MOTA                             i sP       sP       01 27 20.9  +4.0
      comp=Z,7.7nm,0.8s
SQTA  Sankt Quirin     87.99  42 i P        P        01 26 36.0  -1.7
      comp=Z,2.4nm,0.8s
SQTA                             i sP       sP       01 27 22.5  +5.2
      comp=Z,6.4nm,1.2s
WATA  Walderalm        88.19  41 i P        P        01 26 37.5  -1.0
      comp=Z,1.6nm,0.8s
WATA                             esP        sP       01 27 23.9  +5.7
      comp=Z,2.5nm,1.0s
WTTA  Wattenberg       88.25  41 i P        P        01 26 38.4  -0.6
      comp=Z,2.9nm,0.9s
WTTA                             i sP       sP       01 27 21.9  +3.3
      comp=Z,3.1nm,0.7s
KHC   Kasperske Hory   88.79  39 eP         P        01 26 39.6  -1.6
KHC                              ex         x        01 27 25.2
ZCCA  Zocca            88.83  44   IAmb     IAmb     01 27 53.9
      comp=Z,12nm,0.8s
LESA  Schwarzleotal    88.86  41 eP         P        01 26 40.5  -1.2
      comp=Z,1.8nm,0.9s
LESA                             i sP       sP       01 27 25.5  +4.1
      comp=Z,3.4nm,0.9s
TIXI  Tiksi            88.97 348   LR       LR       02 14 15.9
      comp=Z,90nm,18.2s,baz=17,slow=41
TIXI  Tiksi            88.97 348   P        P        01 26 41.7  +0.1
TIXI                               IAmb     IAmb     01 26 42.6
      comp=Z,26nm,0.7s
GERES GERESS Array B   88.97  39   P        P        01 26 40.6  -1.5
      comp=Z,1.2nm,0.6s,baz=282,slow=6.3,SNR=7.4
      comp=Z,1.2nm,0.6s
ABTA  Abfaltersbach    89.00  42 eP         P        01 26 40.9  -1.4
      comp=Z,3.5nm,0.8s
ABTA                             i sP       sP       01 27 25.7  +3.7
      comp=Z,12nm,0.9s
PRU   Pruhonice        89.04  38 eP         P        01 26 41.0  -1.3
PRU                              ex         x        01 27 25.0
ZVC   Zvikov           89.04  39 eP         P        01 26 40.9  -1.5
VSL   Villasalto       89.34  49   IAmb     IAmb     01 26 43.2
      comp=Z,13nm,0.7s
CKRC  Cesky Krumlov    89.35  39 eP         P        01 26 47.4  +3.5
CKRC                             ex         x        01 27 28.6
BIOA  Bad Ischl, Aus   89.36  40 eP         P        01 26 43.2  -0.7
      comp=Z,1.2nm,0.7s
BIOA                             esP        sP       01 27 27.8  +4.2
      comp=Z,8.6nm,1.4s
PETK  Petropavlovsk-   89.37 325   P        P        01 26 45.2  +1.4
      comp=Z,5.3nm,0.7s,baz=68,slow=11,SNR=9.3
PETK                               PP       PP       01 30 17.3  +1.6
      comp=Z,8.9nm,1.1s,baz=108,slow=9.5,SNR=4.1
      comp=Z,5.3nm,0.7s
PETK  Petropavlovsk-   89.37 325   P        P        01 26 45.0  +1.2
KBA   Koelnbreinsper   89.41  41 eP         P        01 26 43.0  -1.4
      comp=Z,3.3nm,0.5s
KBA                              i sP       sP       01 27 28.8  +4.7
      comp=Z,8.8nm,0.9s
FINES FINESS Array B   89.60  25   P        P        01 26 43.2  -1.5
      comp=Z,3.4nm,0.5s,baz=316,slow=2.4,SNR=54
FINES                              LR       LR       02 08 13.2
      comp=Z,60nm,18.4s,baz=276,slow=36
      comp=Z,3.4nm,0.5s
FINES FINESS Array B   89.60  25   P        P        01 26 42.3  -2.4
MOA   Molln            89.69  40 i P        P        01 26 44.0  -1.5
      comp=Z,3.0nm,0.9s
MOA                              i sP       sP       01 27 29.7  +4.5
      comp=Z,3.9nm,0.7s
CHVC  Chvalec          89.70  37 eP         P        01 26 44.3  -1.1
CHVC                             ex         x        01 27 15.2
UPC   Upice            89.70  37 eP         P        01 26 45.1  -0.4
MYKA  Terra Mystica    89.76  41 eP         P        01 26 43.9  -1.9
      comp=Z,2.8nm,1.0s
MYKA                             i sP       sP       01 27 29.7  +4.1
      comp=Z,3.4nm,0.9s
MA2   Magadan          89.79 333   P        P        01 26 47.0  +1.4
MA2                                IAmb     IAmb     01 26 48.1
      comp=Z,34nm,0.9s
MA2   Magadan          89.79 333   P        P        01 26 47.8  +2.2
OSTC  Ostas            89.80  37 eP         P        01 26 43.2  -2.7
DPC   Dobruska-Polom   89.95  37 eP         P        01 26 43.6  -3.1
DPC                              ex         x        01 27 15.1
KRLC  Kraliky          90.33  37 eP         P        01 26 46.4  -2.0
OBKA  Obir             90.39  41 eP         P        01 26 47.2  -1.7
      comp=Z,2.7nm,0.9s
OBKA                             i sP       sP       01 27 33.3  +4.8
      comp=Z,3.7nm,1.0s
KEST  Kesra            90.54  53   P        P        01 26 48.1  -1.6
      comp=Z,4.0nm,0.5s,baz=292,slow=0.8,SNR=15
      comp=Z,4.0nm,0.5s
TORD  Torodi Ar. Bea   90.56  76   P        P        01 26 48.4  -1.7
      comp=Z,0.6nm,0.5s,baz=292,slow=5.3,SNR=10
TORD                               PKKPbc   PKKPbc   01 44 17.5  +1.1
      comp=Z,1.2nm,0.8s,baz=64,slow=5.5,SNR=5.6
      comp=Z,0.6nm,0.5s
TORD  Torodi Ar. Bea   90.56  76   P        P        01 26 48.7  -1.4
SOKA  Soboth           90.63  41 eP         P        01 26 48.0  -2.0
      comp=Z,1.1nm,0.6s
SOKA                             i sP       sP       01 27 35.0  +5.3
      comp=Z,3.1nm,1.1s
CONA  Conrad Observa   90.65  40 i P        P        01 26 48.7  -1.3
      comp=Z,1.7nm,0.7s
CONA                             i sP       sP       01 27 35.0  +5.2
      comp=Z,2.7nm,0.9s
ARSA  Arzberg          90.71  40 ePcP       P        01 26 49.7  -0.5
      comp=Z,1.3nm,0.6s
ARSA                             i sP       sP       01 27 34.4  +4.5
      comp=Z,2.4nm,0.8s
STEB  Steborice        90.97  37 eP         P        01 26 49.9  -1.5
RONA  Rosalia, Austr   91.01  40 i P        P        01 26 50.2  -1.5
      comp=Z,2.4nm,0.6s
RONA                             i sP       sP       01 27 35.6  +4.2
      comp=Z,2.2nm,0.9s
MAUC  Maruska          91.25  38 eP         P        01 26 51.9  -0.8
VAE   Valguarnera      93.74  50   LR       LR       02 04 43.8
      comp=Z,109nm,18.4s,baz=304,slow=33
MSVF  Nonsavu          94.03 253   LR       LR       02 01 09.1
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      comp=Z,80nm,20.3s,baz=125,slow=30
NRIK  Noril'sk         95.66 360   LR       LR       02 15 22.8
      comp=Z,122nm,18.7s,baz=352,slow=39
YAK   Yakutsk          96.15 341   LR       LR       02 17 01.3
      comp=Z,35nm,20.0s,baz=12,slow=39
AKASG Malin Array Be   96.97  33   P        P        01 27 16.5  -2.3
      comp=Z,0.3nm,0.3s,baz=293,slow=4.2,SNR=2.9
AKASG                              LR       LR       02 10 04.7
      comp=Z,48nm,22.0s,baz=298,slow=35
      comp=Z,0.3nm,0.3s
AKASG Malin Array Be   96.97  33   P        P        01 27 17.4  -1.4
OBN   Obninsk          97.81  27   LR       LR       02 10 27.1
      comp=Z,86nm,21.5s,baz=360,slow=35
MLR   Muntele Rosu     97.93  39   LR       LR       02 12 07.9
      comp=Z,45nm,20.6s,baz=359,slow=36
KIRV  Kirov           100.12  19   LR       LR       02 14 39.8
      comp=Z,108nm,18.2s,baz=320,slow=36
VNA3  Neumayer Olymp  102.00 161 ⇓P         Pdif     01 27 40.8  +0.1
      comp=Z,4.9nm,0.8s
VNA1  Neumayer--Stat  102.34 160 ⇓P         Pdif     01 27 42.6  +0.4
      comp=Z,2.9nm,0.8s
VNA2  Neumayer--Watz  102.67 160 ⇓P         Pdif     01 27 44.6  +0.9
      comp=Z,2.4nm,0.8s,baz=290,slow=4.2
QSPA  South Pole Qui  105.17 180   Pdiff    Pdif     01 27 56.4  +1.3
      comp=Z,2.4nm,0.9s,baz=138,slow=2.9,SNR=5.6
QSPA  South Pole Qui  105.17 180   Pdif     Pdif     01 27 56.9  +1.9
BRTR  Keskin Array B  105.84  40   PKKPbc   PKKPbc   01 43 34.1  -1.0
      comp=Z,0.9nm,0.8s,baz=112,slow=5.5,SNR=5.1
BRTR                               PKPPKP            01 52 00.5
      comp=Z,0.9nm,0.8s,baz=104,slow=5.2,SNR=4.7
TROLL Troll, Antarti  105.92 161 ⇓P         Pdif     01 27 58.8  +0.5
      comp=Z,48nm,0.8s
VNDA  Vanda           108.14 193   PKiKP    PKiKP    01 32 15.1  +1.2
      comp=Z,0.5nm,0.6s,baz=17,slow=2.1,SNR=3.5
BVAR  Borovoye Array  110.44  11   PKiKP    PKiKP    01 32 19.0   0.0
      comp=Z,2.2nm,0.5s,baz=345,slow=1.0,SNR=12
ZALV  Zalesovo Beam   111.07   2   PKiKP    PKiKP    01 32 20.4  +0.2
      comp=Z,0.6nm,0.5s,baz=262,slow=3.2,SNR=3.8
ZALV                               PKKPbc   PKKPbc   01 43 19.2  +0.2
      comp=Z,0.6nm,0.6s,baz=117,slow=2.3,SNR=5.0
ELIB  Princess Elisa  112.28 162 dPKiKP     PKiKP    01 32 24.0  +2.0
ELIB                             dpPKiKP    pPKiKP   01 32 49.0  -1.9
ELIB                             dsPKiKP    PP       01 32 59.8  -8.9
KURBB Kurchatov Arra  113.97   6   PKiKP    PKiKP    01 32 25.5  -0.3
      comp=Z,1.9nm,0.4s,baz=348,slow=1.7,SNR=34
KURBB                              PKKPbc   PKKPbc   01 43 07.1  -2.2
      comp=Z,1.4nm,0.8s,baz=193,slow=3.2,SNR=11
SEM   Semipalatinsk   114.34   5 ePKP       PKPdf    01 32 27.8  +1.0
SONM  Songino Array   114.99 346   PKP      PKPdf    01 32 28.1  +0.1
      comp=Z,2.9nm,0.8s,baz=17,slow=0.7,SNR=13
SONM                               PKKPbc   PKKPbc   01 43 03.8  -2.1
      comp=Z,1.4nm,0.6s,baz=204,slow=3.2,SNR=6.6
KSRS  Korea Array     115.27 325   PKP      PKPdf    01 32 28.9  +0.3
      comp=Z,6.0nm,0.7s,baz=11,slow=1.7,SNR=25
KSAR  Wonju Array Be  115.30 325            PKPdf    01 32 29.7  +1.0
XLT   XiLinHaoTe      115.62 337 ePKP       PKPdf    01 32 29.8  +0.5
DL2   Dalian          117.40 330 ePKP       PKiKP    01 32 35.8  +3.1
ZSN   Zaisan          117.57   2 ePKP       PKiKP    01 32 33.9  +1.1
ZSN                              ePP        PP       01 33 47.2  +2.1
MKAR  Makanchi Array  118.09   4   PKP      PKPdf    01 32 33.0  -0.9
      comp=Z,1.4nm,0.6s,baz=314,slow=2.3,SNR=13
MKAR                               PKKPbc   PKKPbc   01 42 52.5  -2.4
      comp=Z,1.0nm,0.8s,baz=90,slow=1.2,SNR=5.0
MKAR  Makanchi Array  118.09   4            PKPdf    01 32 33.0  -0.9
TDK   Taldyqorghan    119.49   7 ePKP       PKiKP    01 32 37.6  +0.9
BRLS  Borolday        119.81  15 ePKP       PKiKP    01 32 38.4  +1.0
BRLS                             ePP        PP       01 34 03.6  +2.9
HHC   Hu-ho-hao-te    119.91 339 ePKP       PKPdf    01 32 37.0  -0.7
KUU   Kurty           120.29   9 ePKP       PKiKP    01 32 39.0  +0.8
CHM   Chimkent        120.41  15 ePKP       PKiKP    01 32 39.2  +0.7
SGDS  Sogindy         120.43  11 ePKP       PKiKP    01 32 39.3  +0.6
BTO2  Baotou          120.57 340 ePKP       PKPdf    01 32 32.8  -6.2
BTO2                               PP       PP       01 34 28.3   +22
BTO2                               SKS      SKSdf    01 39 15.3   -26
BTO2  Baotou          120.57 340   SS       SS       01 51 08.4   +41
BTO2  Baotou          120.57 340   LR       LR
      comp=Z,280nm,6.2s
BTO2  Baotou          120.57 340   LR       LR
      comp=E,170nm,7.4s
BTO2  Baotou          120.57 340   LR       LR
      comp=N,260nm,5.4s
BTO2  Baotou          120.57 340   pmax     pmax
      comp=Z,260nm,5.2s
BTO2  Baotou          120.57 340   pmax     pmax
      comp=Z,22nm,0.5s
IUG   Iuzhnay         120.68  15 ePKP       PKiKP    01 32 39.8  +0.6
KPKS  Kokpek          121.04   7 ePKP       PKiKP    01 32 40.5  +0.7
AAA   Alma-Ata        121.05   9 ePKP       PKiKP    01 32 40.5  +0.7
MDOK  Medeo           121.11   9 ePKP       PKiKP    01 32 40.6  +0.5
AAK   Ala-Archa       121.19  11            PKiKP    01 32 40.9  +0.6
TNSS  Tian-Shan       121.22   9 ePKP       PKiKP    01 32 40.9  +0.2
WMQ   Urumqi          121.24 360 ePKP       PKiKP    01 32 41.8  +1.6
WMQ                                L        L
      comp=Z,88nm,24.2s
BOSA  Boshof          121.30 114   PKP      PKPdf    01 32 40.3  -0.3
      comp=Z,9.6nm,0.8s,baz=277,slow=2.1,SNR=28
BOSA  Boshof          121.30 114            PKiKP    01 32 41.0  +0.2
UZB   Uzynbulak       121.40   7 ePKP       PKiKP    01 32 41.2  +0.5
UZB                              ePP        PP       01 34 13.4  +1.8
SHLS  Shalkode        121.44   7 ePKP       PKiKP    01 32 41.4  +0.7
LBTB  Lobatse         121.48 110            PKiKP    01 32 41.4  +0.3
TIA   Tai'an          121.68 332   PKP      PKiKP    01 32 41.5  +0.3
MBAR  Mbarara         122.13  81            PKiKP    01 32 42.9  +0.1
LSZ   Lusaka          122.94  99            PKPdf    01 32 44.1  +0.1
RAYN  Ar Rayn         123.71  48            PKPdf    01 32 44.4  -0.9
CTA   Charters Tower  124.04 256   PKP      PKiKP    01 32 46.5  +0.3
      comp=Z,2.4nm,0.6s,baz=40,slow=1.5,SNR=1.5
NJ2   Nanjing         124.21 328 ePKP       PKiKP    01 32 46.3   0.0
GTA2  Gaotai          124.38 349 ePKP       PKiKP    01 32 47.3  +0.7
TOO   Toolangi        124.41 235   P        PKPdf    01 32 43.4  -2.8
CMSA  Cobar Meteorol  124.77 242   P        PKiKP    01 32 47.2  -0.1
KSH2  Kashi           124.78  11   PKP      PKiKP    01 32 47.9  +0.4
LYN   LuoYang         125.10 335   PKP      PKiKP    01 32 48.6  +0.6
MAW   Mawson          125.26 169   P        PKiKP    01 32 47.7  +0.5
MAW   Mawson          125.26 169   PKP      PKiKP    01 32 47.5  +0.3
      comp=Z,8.6nm,0.7s,baz=211,slow=3.0,SNR=24
LZH   Lanzhou         126.68 343 ePKP       PKiKP    01 32 52.5  +1.2
CASY  Casey           126.73 191            PKiKP    01 32 50.7  +0.5
LZDM  Lanzhou Array   126.84 344   PKP      PKiKP    01 32 53.3  +1.4
      comp=Z,4.5nm,0.4s,baz=0.0,slow=3.0,SNR=9.2
XAN   Xi'an           126.93 338   PKP      PKiKP    01 32 52.3  +0.6
XAN                                PPMZ
      comp=Z,210nm,6.5s
KBL   Kabul           127.49  19            PKPdf    01 32 52.3  -0.2
STKA  Stephens Creek  128.23 241   PKP      PKiKP    01 32 54.5  +0.3
      comp=Z,18nm,0.7s,baz=92,slow=0.9,SNR=22
GOMU  GeErMu          128.39 352   PKP      PKiKP    01 32 55.3  +0.3
GOMU                               PPMZ
      comp=Z,200nm,5.1s
GOMU                               L        L
      comp=Z,130nm,13.4s
GOMU                               L        L
      comp=Z,63nm,13.0s
GOMU                               L        L
      comp=Z,150nm,13.3s
SSLB  Suanglung       129.28 319            PKiKP    01 32 56.6  -0.1
ENH   Enshi           130.05 335            PKiKP    01 32 58.4  +0.3
HNLY  HANLEY          131.58  10 eP         PKPdf    01 32 58.5  -2.3
SMLA  Simla           132.85  12 eP         PKPpre   01 32 53.9
JOSI  Joshimath       133.85  10 eP         PKPpre   01 32 52.3
PTH   Pithoragarh     134.90   9 eP         PKPpre   01 33 00.6
WRA   Warramunga Arr  135.21 257   PKP      PKPdf    01 33 07.9  +0.7
      comp=Z,5.1nm,0.6s,baz=93,slow=2.9,SNR=6.4
WRA                                SKPbc    SKPab    01 36 32.4  -0.5
      comp=Z,2.9nm,0.9s,baz=89,slow=2.1,SNR=4.5
WRA   Warramunga Arr  135.21 257   PKPdf    PKiKP    01 33 08.4  -0.3
NDI   New Delhi       135.23  13 eP         PKPpre   01 32 56.5
AS09  Alice Springs   135.57 252   P        PKiKP    01 33 09.1  -0.3
KUDL  Kundal          135.59  14 eP         PKiKP    01 33 08.7  -0.5
ASAR  Alice Springs   135.60 252   PKhKP    PKPpre   01 32 56.7
      comp=Z,2.4nm,0.7s,baz=105,slow=3.9,SNR=11
ASAR                               PKP      PKPdf    01 33 08.3  +0.5
      comp=Z,7.0nm,0.8s,baz=95,slow=1.5,SNR=4.6
PZH   PanZhiHua       136.27 341   PKP      PKPdf    01 33 10.0  +0.8
KMI2  Kunming         137.21 339   PKP      PKiKP    01 33 12.6  -0.4
JORH  JORHAT          137.77 351 eP         PKPpre   01 33 01.9
WRKA  Warakurna       140.60 249   P        PKPdf    01 33 14.7  -2.3
AZL   Aizawl          140.94 352 eP         PKPpre   01 33 12.1
BOK   Bokaro          141.19   2 eP         PKPpre   01 33 14.1
SAIH  SAIHA           142.13 352 eP         PKPpre   01 33 08.1
FITZ  Fitzroy Crossi  143.39 260   PKP      PKPdf    01 33 20.9  -1.1
      comp=Z,16nm,0.6s,baz=33,slow=3.4,SNR=4.3
SOEI  Soe             143.73 274            PKPdf    01 33 22.8  -0.1
CHTO  Chiang Mai      144.35 341            PKPbc    01 33 22.7  +0.4
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CMAR	Chiang Mai Arr	144.68	341	PKP	PKPdf	01 33 24.1	-0.2
	comp=Z,42nm,0.7s,baz=339,slow=3.7,SNR=149						
CMAR				SKPbc	SKiKP	01 36 55.3	+0.4
	comp=Z,2.9nm,0.6s,baz=352,slow=2.8,SNR=6.2						
KMBL	Kambalda	144.75	237	P	PKPbc	01 33 23.6	+0.3
RAGD	RAYAGADA	145.51	7	eP	PKPdf	01 33 23.0	-2.8
HYB	Hyderabad	146.39	16	ePKiKP	PKiKP	01 33 31.9	+0.2
KAPI	Kappang	146.72	284	PKPbc	PKPbc	01 33 30.4	+0.6
	comp=Z,32nm,0.7s,baz=115,slow=3.0,SNR=13						
KAPI	Kappang	146.72	284	PKPdf	PKPdf	01 33 28.2	+0.2
NWAO	Narrogin (SRO)	147.80	232	P	PKPbc	01 33 33.0	+0.8
NWAO	Narrogin (SRO)	147.80	232	P	PKPbc	01 33 33.0	+0.8
NWAO	Narrogin (SRO)	147.80	232	PKPbc	PKPbc	01 33 32.7	+0.5
	comp=Z,38nm,0.9s,baz=113,slow=3.3,SNR=9.5						
NWAO				pPKPbc	pPKPbc	01 34 01.0	+0.3
	comp=Z,27nm,1.0s,baz=109,slow=8.6,SNR=3.2						
NWAO	Narrogin (SRO)	147.80	232		PKPbc	01 33 32.1	-0.2
KLBR	Kellerberrin	147.96	234	P	PKPbc	01 33 33.2	+0.5
MBWA	Marble Bar	148.85	254	P	PKPbc	01 33 35.5	+0.3
MBWA	Marble Bar	148.85	254		PKPdf	01 33 33.1	+1.9
MEEK	Meekatharra	148.89	244	P	PKPbc	01 33 35.7	+0.4
MUN	Mundaring	148.99	232	P	PKiKP	01 33 36.2	-0.4
BLDU	Ballidu	149.17	235	P	PKiKP	01 33 36.5	-0.5
RER	Riviere de l'E	149.30	106		PKPbc	01 33 35.5	-1.0
MORW	Morawa	150.29	238	P	PKPbc	01 33 39.0	+0.4
MDRS	Chennai	150.99	15	eP	PKPdf	01 33 34.3	-0.5
SALM	Salem	151.73	20	eP	PKPdf	01 33 37.3	+1.3
PBA	Port Blair	152.79	349	eP	PKPbc	01 33 42.4	-2.3
KOD	Kodaikanal	152.82	22	eP	PKPdf	01 33 37.3	-0.7

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*TEH **17** 01:19:08.0,28°.12N×57°.19E,h10^{km}±75^{km},ML2.9, Presumed earthquake*

*OMAN **17** 01:19:12.8±1.8,27°.71N×57°.28E,h10^{km},ml2.9/15,Error ellipse: s-maj=13.9km s-min=10.7km az=19.0*

ISC 17 01:19:07.4±0.9,**28°.08N**±0°.04×**57°.21E**±0°.04,**h10**^{km}**,n29,** σ**1^{s}90**/44,**Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KHNJ	Kahnooj	0.45	106	Pg	Pg	01 19 18.0	+1.7
KHNJ				Sg	Sb	01 19 25.0	+0.6
IBND	Bandar-abas	0.86	224	Pg	Pb	01 19 25.4	+0.9
GENO	Geno	1.14	234	Pg	Pb	01 19 30.0	+0.7
BNDS	Bandar-Abbas	1.14	234	Pg	Pb	01 19 29.9	+0.5
KBAM	BAM	1.52	46	Pg	Pg	01 19 36.6	0.0
NGRK	Negar Kerman	1.62	345	Pg	Pg	01 19 38.1	-0.4
CHMN	Cheshme madani	1.80	9	Pg	Pb	01 19 41.1	+0.4
KRBR	Kerman	1.94	348	Pn	Pg	01 19 45.1	+0.5
SHME	Shamm	2.23	206	P	Pn	01 19 46.0	+1.5
	SNR=8.8						
SHME				S	Sb	01 20 15.4	-0.2
JASK	Jask - Hormozg	2.28	165	P	Pn	01 19 45.4	+0.3
BANOM	Banah	2.29	201	P	Pb	01 19 48.6	-0.3
MASF	Masafi	2.85	200	P	Pn	01 19 55.6	+2.5
MDH	Madha	2.88	197	P	Pn	01 19 55.3	+1.9
MDH				S	Sn	01 20 24.9	-3.3
UOSS	Minazif	3.25	196	P	Pn	01 20 00.6	+2.1
NAZ	Nazwa, Dubai	3.38	205	P	Pn	01 20 01.9	+1.7
NAZ				S	Sn	01 20 39.4	-0.9
ASHO	Ashiyiah	3.53	197	P	Pn	01 20 04.5	+2.1
IBAF	Bafgh	3.78	338	Pn	Pn	01 20 08.3	+2.4
ASUD	Al Ashush, Dub	3.83	207	P	Pn	01 20 08.1	+1.6
	SNR=11						
ASUD				S	Sn	01 20 51.9	+0.3
AJN	Ajban	4.03	210	P	Pn	01 20 10.1	+0.9
AJN				S	Sn	01 20 53.5	-2.9
HOQ	Hoqain	4.48	179	P	Pn	01 20 16.8	+1.5
HOQ				S	Sn	01 21 03.6	-3.9
ARQ	Araqi	4.76	188	P	Pn	01 20 21.5	+2.2
ARQ				S	Sn	01 21 16.4	+1.8
WSAR	Wadi Sarin	4.98	165	P	Pn	01 20 22.1	-0.2
	SNR=8.9						
WSAR				S	Sn	01 21 16.8	-3.3
SMDO	Samad	5.05	171	P	Pn	01 20 24.1	+0.7
SMDO				S	Sn	01 21 20.8	-1.1
MZWR	Madinat Zayed	5.24	216	P	Pn	01 20 25.7	-0.1
MZWR				S	Sn	01 21 24.0	-2.4
BSY	Bisya	5.31	180	P	Pn	01 20 28.8	+2.0
BSY				S	Sn	01 21 27.8	-0.3
GHWR	Ruwais	5.66	225	P	Pn	01 20 30.4	-1.1
WBK	Wadi Bani Khal	5.67	163	P	Pn	01 20 32.8	+1.0
	SNR=6.3						
WBK				S	Sn	01 21 34.2	-2.8
JLN	Jalan Bani Buh	6.23	161	P	Pn	01 20 38.7	-0.7
JLN				S	Sn	01 21 46.1	-4.5
MHTO	MHTO	7.09	174	P	Pn	01 20 52.8	+1.5
MHTO				S	Sn	01 22 09.3	-2.7

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*IDC **17** 01:27:06.6±1.6,6°.10S×129°.56E,h0^{km},mb3.7/2, mbtmp3.9/5,ML4.2/3,Error ellipse: s-maj=62.7km s-min=19.1km az=78.0*

*DJA **17** 01:27:20.6±1.4,7°S±3°×12°9E±°,h14^{km}±11^{km},M4.5/12, mB5.1/5,mb4.4/9,MLv4.5/12,Mw(mB)4.5/5*

*NEIC **17** 01:27:21.8±1.9,7°.05S±0°.09×129°.58E±0°.09,h168^{km}±8^{km}, mb4.5/8,Error ellipse: s-maj=13.4km s-min=11.9km az=129.0*

ISC 17 01:27:19.7±0.6,**7°.02S**±0°.05×**129°.53E**±0°.06,**h150**^{km}**,n43,** σ**2^{s}14**/46,**mb4.2**/5,**Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SAUI	Saumlaki	2.00	119	P	Pn	01 27 59.5	+4.7
SAUI	Saumlaki	2.00	119	Pn	Pn	01 27 59.1	+4.3
SAUI				Sn	Sn	01 28 23.8	+2.0
SAUI	Saumlaki	2.00	119	P	Pn	01 27 58.5	+3.7
SAUI				S	Sn	01 28 24.2	+2.4
SAUI				AML	AML		
MSAI	Masohi	3.70	351	P	Pn	01 28 19.1	+3.0
FAKI	Fak Fak	4.89	34	P	Pn	01 28 31.2	-0.5
FAKI	Fak Fak	4.89	34	S	Sn	01 29 24.7	-3.2
FAKI	Fak Fak	4.89	34	Pn	Pn	01 28 31.3	-0.5
FAKI	Fak Fak	4.89	34	P	Pn	01 28 31.7	0.0
FAKI				AML	AML		
KMPI	Kaimana, Papua	5.33	51	P	Pn	01 28 38.4	+0.9
DRS	Darwin Rock St	5.55	166	P	Pn	01 28 43.0	+2.6
SOEI	Soe	5.88	242	P	Pn	01 28 46.7	+1.8
SOEI	Soe	5.88	242	S	Sn	01 29 51.8	+0.3
SOEI	Soe	5.88	242		Pn	01 28 46.9	+2.0
SOEI	Soe	5.88	242	P	Pn	01 28 46.6	+1.7
	0.2nm29nm,0.5s						
SOEI				AML	AML		
MTN	Manton Dam	6.00	165		Pn	01 28 48.6	+2.1
SWI	Sorong	6.35	16	P	Pn	01 28 51.6	+0.4
	0.3nm2μm21nm,0.5s						
SWI				AML	AML		
EDFI	Ende, Flores	7.96	257	P	Pn	01 29 14.5	+1.8
KNRA	Kununurra	8.64	185		Pn	01 29 22.5	+0.8
FITZ	Fitzroy Crossi	11.65	199	Pn	Pn	01 30 01.7	+0.2
	1.3nm,0.3s,baz=26,slow=11,SNR=17						
FITZ				Sn	Sn	01 32 02.5	-7.8
	2.8nm,0.3s,baz=288,slow=23,SNR=6.5 3.0nm,0.3s						
FITZ				AML	AML		
FITZ	Fitzroy Crossi	11.65	199	P	Pn	01 30 03.2	+1.7
FITZ	Fitzroy Crossi	11.65	199		Pn	01 30 01.4	-0.1
PLAI	Plampang	11.78	260	P	Pn	01 30 03.9	+0.7
PLAI	Plampang	11.78	260	S	Sn	01 32 14.4	+0.8
WB0	Warramunga Arr	13.53	160	Pn	Pn	01 30 24.7	-1.0
WRA	Warramunga Arr	13.67	161	Pn	Pn	01 30 26.5	-1.1
	1.2nm,0.3s,baz=343,slow=13,SNR=23						
WRA				Sn	Sn	01 32 51.1	-7.9
	1.1nm,0.3s,baz=332,slow=23,SNR=5.3 2.5nm,0.5s						
WRA				AML	AML		
WRA	Warramunga Arr	13.67	161		Pn	01 30 25.7	-1.9
WB2	Warramunga Arr	13.67	160	Pn	Pn	01 30 26.2	-1.4
WR8	Warramunga Arr	13.74	160	Pn	Pn	01 30 27.4	-0.9
QIS	Mount Isa	16.63	145	P	Pn	01 31 05.6	+1.4
AS31	Alice Springs	17.08	166		P	01 31 09.7	+0.7
AS31				IAmb	IAmb	01 31 29.0	
	comp=Z,2.1nm,0.3s						
ASAR	Alice Springs	17.08	166	Pn	Pn	01 31 11.5	+1.8
	comp=Z,0.5nm,0.3s,baz=341,slow=8.8,SNR=16 comp=Z,2.0nm,0.7s						
ASAR				AML	AML		
AS01	Alice Springs	17.09	166	P	Pn	01 31 11.6	+1.8
MORW	Morawa	25.36	208	P	P	01 32 32.9	-0.1
MORW				IAmb	IAmb	01 32 41.8	
	comp=Z,7.2nm,1.1s						
TAU	Tasmania Unive	39.04	159	P	P	01 34 30.5	-1.3
ERM	Erimo	50.36	13	P	P	01 36 02.0	+0.6
ERM				IAmb	IAmb	01 36 12.2	
	comp=Z,29nm,1.1s						
MRZ	Mangatainoka R	52.92	137	P	P	01 36 20.1	-0.5
MRZ				IAmb	IAmb	01 36 37.7	
	comp=Z,26nm,1.1s						
MKAR	Makanchi Array	67.98	327	P	P	01 38 02.9	+0.2
	comp=Z,0.5nm,0.5s,baz=120,slow=8.0,SNR=6.6 comp=Z,0.5nm,0.5s						
KURBB	Kurchatov Arra	72.28	329	P	P	01 38 29.3	+0.7
	comp=Z,0.2nm,0.4s,baz=119,slow=5.3,SNR=4.1 comp=Z,0.2nm,0.4s						
KURK	Kurchatov	72.29	329	P	P	01 38 29.4	+0.8
AB31	Akbulak array	82.23	322	P	P	01 39 24.0	-0.2
ABKAR	Akbulak array	82.23	322	P	P	01 39 24.2	+0.1
QSPA	South Pole Qui	82.96	180	P	P	01 39 27.8	0.0
SDPT	Sand Point	84.59	33	P	P	01 39 36.7	+0.7

OMAN 17 01:32:28.6±0.1,**14°.47N**×**51°.08E,h10**^{km}**,ml3.5**/3,**Error ellipse: s-maj=4.0km s-min=2.5km az=339.0,Eastern Gulf of Aden**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RBK	Rabkut	4.26	44	P	Pn	01 33 34.0	+0.5
	SNR=8.6						
RBK				S	Sn	01 34 24.5	+1.2
WHFO	Wadi Hawf	4.29	37	P	Pn	01 33 34.7	+0.6
WHFO				S	Sn	01 34 25.5	+1.2
DMTO	DMTO	4.92	49	P	Pn	01 33 42.7	+0.1
	SNR=8.0						
DMTO				S	Sn	01 34 41.0	+1.2
SHAO	Shalim	5.62	50	P	Pn	01 33 51.8	-0.4
MHTO	MHTO	9.22	44	P	Pn	01 34 40.8	-0.9
MHTO				S	Sn	01 36 23.9	-1.7
GHWR	Ruwais	9.60	10	P	Pn	01 34 47.0	+0.2
BSY	Bisya	10.07	34	P	Pn	01 34 53.9	+0.5
JMDO	Jabal Madar	10.30	39	P	Pn	01 34 57.3	+0.8

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*IDC **17** 01:33:09.5±3.2,5°.92S×147°.89E,h0^{km},mb3.6/2, mbtmp3.6/4,ML3.6/1,MS3.0/2,Error ellipse: s-maj=73.1km s-min=25.9km az=90.0*

ISC 17 01:33:10.3±3.1,**5°.8S**±0°.2×**148°.3E**±0°.5,**h35**^{km}**,n6,**σ**1^{s}01**/6,**New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	3.75	197	Pn	Pn	01 34 06.4	+0.7
	17nm,0.3s,baz=15,slow=12,SNR=8.6						
PMG				Sn	Sn	01 34 47.7	-0.9
	28nm,0.3s,baz=192,slow=5.5,SNR=12						
PMG				LR	LR	01 35 03.0	
	comp=Z,87nm,20.5s,baz=175,slow=32						
WRA	Warramunga Arr	19.53	223	P	Pn	01 37 35.7	-0.6
	0.2nm,0.3s,baz=49,slow=11,SNR=5.2 0.6nm,0.5s						
WRA				AML	AML		
ASAR	Alice Springs	22.52	216	P	P	01 38 07.8	+0.6
	0.7nm,0.6s,baz=48,slow=9.9,SNR=2.7 0.7nm,0.6s						
FITZ	Fitzroy Crossi	25.26	239	P	P	01 38 33.9	+0.5
	4.0nm,1.1s,baz=68,slow=11,SNR=2.5 4.0nm,1.1s						
AFI	Afiamalu	40.11	105	LR	LR	01 55 05.5	
	comp=Z,55nm,18.3s,baz=99,slow=32						
TORD	Torodi Ar. Bea	146.28	285	PKPbc	PKiKP	01 52 50.5	-0.9
	0.9nm,1.1s,baz=62,slow=3.8,SNR=5.0						

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*IDC **17** 01:33:11.1±0.4,30°.31S×71°.38W,h0^{km},mb4.7/13, mbtmp4.7/18,ML4.5/5,MS3.9/25,Error ellipse: s-maj=18.0km s-min=12.3km az=90.0*

*VAO **17** 01:33:14.5±1.4,30°.29S×71°.33W,h16^{km}±9^{km},mb5.0, Presumed earthquake*

*GUC **17** 01:33:15.5±0.8,30°.34S×71°.51W,h38^{km}±2^{km},ML5.1*

*GFZ **17** 01:33:16.9±0.2,30°S±2°×7°2W±°,h46^{km}±6^{km},M5.2/12, mb5.2/12*

*SJA **17** 01:33:16.4±1.5,30°.34S×71°.47W,h38^{km}±5^{km},ML5.1, MW4.7*

*NEIC **17** 01:33:17.0±1.8,30°.32S±0°.03×71°.58W±0°.06,h35^{km}±1^{km}, mb5.0/256,Mwr4.8/69,Mwr4.8(GUC),Error ellipse: s-maj=8.6km s-min=5.5km az=287.0,Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}2.09; $M_{\theta\theta}$-0.07; $M_{\phi\phi}$-2.02; $M_{r\theta}$0.50; $M_{\theta\phi}$-0.00; $M_{\phi r}$-0.14; Fault plane solution: $M_0$2.12000×10^{16} NP1:ϕ_s11.99000°, δ44.38000°,λ107.79000°. NP2:ϕ_s167.82000°,δ48.24000°, λ73.36000°. Principal axes: T 2.2062, Plg78.0000°, Azm8.0000°; N -0.1779, Plg12.0000°, Azm179.0000°; P -2.0283, Plg2.0000°, Azm270.0000°;*

*NEIC **17** 01:33:17.4,30°.31S×71°.54W,h35^{km}*

*GCMT **17** 01:33:21.0±0.5,30°.20S±0°.03×71°.37W±0°.03,h40^{km}±1^{km}, MW5.0/54,Moment Tensor Solution. s36,c38; s54,c64; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}3.87±.26; $M_{\theta\theta}$0.16±.16; $M_{\phi\phi}$-4.03±.17; $M_{r\theta}$0.55±.13; $M_{\theta\phi}$0.47±.09; $M_{\phi r}$-1.06±.17; Best double couple: $M_0$4.15400×10^{16} NP1:ϕ_s0.00000°,δ38.00000°,λ100.00000°. NP2: ϕ_s167.00000°,δ53.00000°,λ82.00000°. Principal axes: T 4.0710, Plg80.0000°, Azm44.0000°; N 0.1620, Plg6.0000°, Azm172.0000°; P -4.2360, Plg8.0000°, Azm263.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 17 01:33:15.0±0.4,**30°.30S**±0°.03×**71°.63W**±0°.03,**h27**^{km}±2^{km}**, n437,**σ**1^{s}59**/368,**mb5.1**/120,**MS4.0**/21,**22C-8D,Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CO06	Fray Jorge	0.37	180	iP	Pn	01 33 25.2	+0.6
CO06				eS	Sn	01 33 31.5	+0.6
CO06	Fray Jorge	0.37	180		Pn	01 33 25.3	+0.8
CO06					Sn	01 33 31.1	+0.2
GO04	Tololo Observa	0.73	80	iP	Pn	01 33 29.9	+0.1
GO04				eS	Sb	01 33 39.4	+0.3
GO04				IAML		01 33 41.1	
	comp=Z,92μm,0.3s						
GO04	Tololo Observa	0.73	80	⇓eP	Pn	01 33 29.8	0.0
GO04				eS	Sn	01 33 39.8	-0.4
GO04	Tololo Observa	0.73	80		Pn	01 33 29.7	0.0
GO04				Sn	Sb	01 33 39.2	+0.1
GO04	Tololo Observa	0.73	80	P	Pn	01 33 29.7	0.0
CO02	Combarbal	1.05	149	iP	Pn	01 33 34.5	+0.5
CO02				iS	Sn	01 33 47.7	-0.2
CO02				IAML		01 33 48.6	
	comp=Z,33μm,0.7s						
CO02	Combarbal	1.05	149	⇓eP	Pn	01 33 34.4	+0.5
CO02				eS	Sn	01 33 48.0	+0.2
CO02	Combarbal	1.05	149		Pn	01 33 34.4	+0.5
CO02				Sn	Sn	01 33 47.4	-0.5
CO02	Combarbal	1.05	149	P	Pn	01 33 34.6	+0.5
CO01	Juntas del Tor	1.37	77	iP	Pb	01 33 39.7	-0.5
CO01				iS	Sn	01 33 56.2	+0.2
CO01				IAML		01 33 57.4	
	comp=Z,20μm,0.3s						
CO01	Juntas del Tor	1.37	77	⇓iP	Pb	01 33 39.6	-0.5
CO01				IAML		01 33 57.0	
	comp=N,46μm,0.5s						
CO01	Juntas del Tor	1.37	77		Pb	01 33 39.6	-0.5
CO01	Juntas del Tor	1.37	77	P	Pb	01 33 39.5	-0.6
LCO	Las Campanas	1.52	32	iP	Pb	01 33 41.9	-0.8
LCO				eS	Sb	01 34 00.9	-0.8
LCO				IAML		01 34 05.4	
	comp=Z,33μm,0.3s						
LCO	Las Campanas	1.52	32	eP	Pb	01 33 41.6	-1.0
LCO	Las Campanas	1.52	32		Pb	01 33 41.7	-1.0
CO04	Los Peladeros	1.82	162	⇑eP	Pn	01 33 46.2	+1.4
CO04				eS	Sn	01 34 09.4	+2.2
CO04				IAML		01 34 15.7	
	comp=N,23μm,0.2s						
CO04	Los Peladeros	1.82	162	Pn	Pn	01 33 46.1	+1.4
CO04	Los Peladeros	1.82	162	P	Pn	01 33 46.4	+1.6
AROD	Rodeo	1.87	86	iP	Pb	01 33 48.4	-0.3
AC05	El Transito	1.88	39	iP	Pb	01 33 47.6	-1.0
AC05				eS	Sb	01 34 11.0	-0.8
AC05				IAML		01 34 13.6	
	comp=Z,18μm,0.9s						
AC05	El Transito	1.88	39	⇑eP	Pb	01 33 47.5	-1.2
AC05				IAML		01 34 13.3	
	comp=E,39μm,0.8s						
AC05	El Transito	1.88	39		Pb	01 33 47.6	-1.0
AC05	El Transito	1.88	39	P	Pb	01 33 47.7	-1.0
AC04	Llanos de Chal	2.15	13	iP	Pn	01 33 50.5	+1.5
AC04				IAML		01 34 26.7	
	comp=Z,9μm,0.6s						
AC04	Llanos de Chal	2.15	13	⇑eP	Pn	01 33 50.5	+1.5
AC04	Llanos de Chal	2.15	13		Pn	01 33 50.5	+1.5
AC04	Llanos de Chal	2.15	13	P	Pn	01 33 50.6	+1.5
ACDV	Cuesta del Vie	2.18	87	eP	Pb	01 33 52.9	-0.9
ACDV				IAML		01 34 27.9	
	comp=Z,8μm,0.6s						
ACCO	Cerro Coronel	2.23	98	iP	Pb	01 33 54.1	-0.7
ACCO				IAML		01 34 28.8	
	comp=Z,5μm,0.6s						
RTLS	Leoncito	2.50	127	iP	Pb	01 33 57.4	-2.0
RTLS				IAML		01 34 44.5	
	comp=Z,12μm,0.6s						
VA03	San Esteban	2.62	160	iP	Pn	01 33 58.0	+2.3
VA03				IAML		01 34 45.7	
	comp=Z,7μm,0.6s						
VA03	San Esteban	2.62	160	⇓eP	Pn	01 33 57.5	+1.9
VA03				IAML		01 34 34.8	
	comp=E,13μm,0.6s						
VA03	San Esteban	2.62	160		Pn	01 33 57.7	+2.1
VA03	San Esteban	2.62	160	P	Pn	01 33 58.0	+2.3
VA01	Torpederas	2.71	180	iP	Pn	01 33 57.7	+0.9
VA01				IAML		01 34 43.1	
	comp=Z,2μm,1.6s						
VA01	Torpederas	2.71	180	eP	Pn	01 33 57.4	+0.7
VA01				IAML		01 34 39.1	
	comp=E,4μm,0.7s						
VA01	Torpederas	2.71	180		Pn	01 33 57.1	+0.4
VA01	Torpederas	2.71	180	P	Pn	01 33 58.1	+1.4
ROCH	El Roble	2.71	169	⇑eP	Pn	01 33 58.6	+1.6
ROCH				⇑eP		01 33 58.6	
ROCH				IAML		01 34 39.6	
	comp=N,7μm,0.6s						
ZON	Zonda	2.82	117	iP	Pn	01 34 01.4	+3.0
ZON				iS	Sb	01 34 38.1	-0.8
ZON				IAML		01 34 48.5	
	comp=Z,3μm,0.7s						
ZON	Zonda	2.82	117		Pn	01 34 01.4	+3.0
ZON	Zonda	2.82	117	P	Pn	01 34 01.8	+3.4
RTLL	Cerro Villicun	2.90	111	iP	Pn	01 34 01.9	+2.4
RTLL				IAML		01 34 53.6	
	comp=Z,7μm,0.5s						
PEL	Peldehue	2.94	164	⇑eP	Pn	01 34 01.9	+1.9
PEL				IAML		01 34 48.8	
	comp=E,6μm,0.4s						
PEL	Peldehue	2.94	164		Pn	01 34 01.6	+1.6
PEL	Peldehue	2.94	164	P	Pn	01 34 02.1	+2.1
GO03	Copiapo	2.96	25	iP	Pn	01 34 01.8	+1.5
GO03				IAML		01 34 57.1	
	comp=Z,11μm,0.8s						
GO03	Copiapo	2.96	25	⇑eP	Pn	01 34 01.8	+1.5
GO03				IAML		01 34 55.3	
	comp=N,11μm,0.3s						
GO03	Copiapo	2.96	25		Pn	01 34 02.0	+1.7
GO03	Copiapo	2.96	25	P	Pn	01 34 02.0	+1.7
MT02	Curacav	2.98	172	iP	Pn	01 34 01.6	+1.2
MT02				IAML		01 34 53.8	
	comp=Z,5μm,0.7s						
MT02	Curacav	2.98	172	⇑eP	Pn	01 34 01.3	+0.8
MT02	Curacav	2.98	172	Pn	Pn	01 34 01.5	+1.0
MT10	Hacienda Santa	3.10	163	⇑eP	Pn	01 34 04.4	+2.1
MT10				eS	Sn	01 34 43.2	+4.6
MT05	Renca	3.17	166	iP	Pn	01 34 05.1	+1.9
MT05				IAML		01 34 59.9	
	comp=Z,6μm,1.7s						
MT05	Renca	3.17	166	⇑eP	Pn	01 34 04.9	+1.7
MT05				eS	Sn	01 34 43.8	+3.7
MT05	Renca	3.17	166		Pn	01 34 04.7	+1.5
CFA	Coronel Fontan	3.19	115	Pn	Pn	01 34 06.1	+2.7
	comp=Z,143nm,0.3s,baz=249,slow=12,SNR=289						
CFA				Sn	Sn	01 34 40.1	-0.5
	comp=Z,101nm,0.3s,baz=306,slow=15,SNR=4.2						
CFA				Lg	Lg	01 34 45.7	
	comp=Z,293nm,0.3s,baz=36,slow=20,SNR=7.9						
MT16	CCHEN	3.25	163		Pn	01 34 06.1	+1.8
MT03	Universidad Ad	3.32	164	iP	Pn	01 34 07.5	+2.2
MT03				IAML		01 35 01.8	
	comp=Z,6μm,0.6s						
MT03	Universidad Ad	3.32	164	⇑eP	Pn	01 34 07.2	+2.0
MT03	Universidad Ad	3.32	164		Pn	01 34 07.0	+1.8
MT04	Ro Olivares	3.34	158	iP	Pn	01 34 09.2	+3.5
MT04				IAML		01 34 57.4	
	comp=Z,5μm,1.0s						
MT04	Ro Olivares	3.34	158	eP	Pn	01 34 09.1	+3.4
VCA	Vinchina	3.37	63	iP	Pb	01 34 10.7	-3.4
VCA				eS	Sn	01 34 44.3	-0.9
VCA				IAML		01 35 00.1	
	comp=Z,13μm,0.9s						
VCA	Vinchina	3.37	63	⇓eP	Pb	01 34 10.6	-3.4
MT08	Bocatoma Ro	3.42	157	iP	Pn	01 34 11.0	+4.2
MT08				IAML		01 35 05.1	
	comp=Z,4μm,0.8s						
MT08	Bocatoma Ro	3.42	157	eP	Pn	01 34 10.5	+3.8
MT08				IAML		01 35 00.2	
	comp=E,5μm,0.6s						
MT08	Bocatoma Ro	3.42	157		Pn	01 34 09.5	+2.7
ARCO	CERRO ARCO	3.42	138	iP	Pn	01 34 10.8	+4.1
ARCO				IAML		01 35 01.4	
	comp=Z,3μm,0.8s						
MT15	Las Vizcachas	3.42	164	⇑eP	Pn	01 34 08.7	+2.1
MT09	Talagante	3.51	171		Pn	01 34 09.4	+1.6
MT12	Pirque	3.54	165	⇑eP	Pn	01 34 10.0	+1.8
MT01	Popeta	3.56	175	iP	Pn	01 34 09.6	+1.1
MT01				IAML		01 35 01.9	
	comp=Z,2μm,0.7s						
MT01	Popeta	3.56	175	eP	Pn	01 34 09.7	+1.1
MT01				IAML		01 35 05.4	
	comp=E,3μm,0.6s						
MT01	Popeta	3.56	175		Pn	01 34 09.8	+1.3
MT13	San Alfonso	3.62	162	iP	Pn	01 34 12.2	+2.9
MT13				IAML		01 35 06.0	
	comp=Z,3μm,0.6s						
MT13	San Alfonso	3.62	162	eP	Pn	01 34 12.0	+2.6
MT13	San Alfonso	3.62	162		Pn	01 34 11.7	+2.3
AAGR	Agrelo	3.66	140	iP	Pn	01 34 14.1	+4.1
AAGR				IAML		01 35 25.3	
	comp=Z,2μm,1.2s						
LMEL	Las Melosas	3.74	161	⇑eP	Pn	01 34 13.7	+2.7
BO04	La Punta	3.78	167	⇑eP	Pn	01 34 13.0	+1.6
BO04				IAML		01 35 13.0	
	comp=N,2μm,0.5s						
BO04	La Punta	3.78	167		Pn	01 34 13.1	+1.6
AC02	Maricunga	4.10	33	iP	Pn	01 34 18.4	+2.1
AC02				IAML		01 35 27.9	
	comp=Z,4μm,0.6s						
AC02	Maricunga	4.10	33	⇑eP	Pn	01 34 18.2	+1.9
AC02	Maricunga	4.10	33		Pn	01 34 18.2	+1.9
AC02	Maricunga	4.10	33	P	Pn	01 34 18.4	+2.1
BO01	Tunca	4.10	174	iP	Pn	01 34 17.1	+1.2
BO01				IAML		01 35 23.6	
	comp=Z,1μm,0.8s						
BO01	Tunca	4.10	174	eP	Pn	01 34 17.4	+1.5
BO01				IAML		01 35 24.2	
	comp=N,1μm,0.5s						
BO01	Tunca	4.10	174		Pn	01 34 16.8	+0.9
BO01	Tunca	4.10	174	P	Pn	01 34 18.2	+2.3
AVIZ	Vizcacheras	4.12	141	iP	Pn	01 34 19.6	+3.4
ACLC	CERRO LA CRUZ	4.16	79	iP	Pn	01 34 19.4	+2.6
ACLC				IAML		01 35 16.9	
	comp=Z,2μm,1.5s						
BO03	Pichilemu	4.19	184	⇓eP	Pn	01 34 16.9	-0.2
BO03	Pichilemu	4.19	184	P	Pn	01 34 17.2	+0.1
TINO	Tinogasta	4.20	59	iP	Pn	01 34 20.4	+3.1
TINO				IAML		01 35 22.0	
	comp=Z,3μm,0.8s						
AC01	Pan de Azucar	4.24	13	iP	Pn	01 34 17.6	-0.2
AC01				IAML		01 35 33.6	
	comp=Z,2μm,0.4s						
AC01	Pan de Azucar	4.24	13	⇑eP	Pn	01 34 17.4	-0.4
AC01	Pan de Azucar	4.24	13		Pn	01 34 17.5	-0.4
AC01	Pan de Azucar	4.24	13	P	Pn	01 34 17.6	-0.2
ACAN	Cantantal	4.28	118	iP	Pn	01 34 20.4	+2.0
ACAN				IAML		01 35 24.8	
	comp=Z,6μm,0.8s						
ACAN				IAML		01 35 24.8	
	comp=Z,6μm,0.8s						

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BO02  Sierra Bellavi    4.53 171 i P      Pn      01 34 23.7 +1.8
BO02                             i P      Pn      01 34 23.7 +1.8
BO02                             i P      Pn      01 34 23.7 +1.8
BO02  Sierra Bellavi    4.53 171 eP       Pn      01 34 23.4 +1.5
BO02  Sierra Bellavi    4.53 171  P       Pn      01 34 23.4 +1.5
GO05  Hualane           4.70 183 i P      Pn      01 34 23.9 -0.2
GO05                              IAML            01 35 48.0
      comp=Z,1µm,1.1s
GO05                              IAML            01 35 48.0
      comp=Z,1µm,1.1s
GO05  Hualane           4.70 183⇓eP       Pn      01 34 23.8 -0.4
GO05  Hualane           4.70 183  P       Pn      01 34 24.2 +0.1
CYA   Choya             5.42  71 eP       Pn      01 34 35.6 +1.6
ML02  Panimavida        5.45 178  P       Pn      01 34 35.6 +1.2
      comp=Z,430nm,0.5s
PB14  IPOC Station P    5.76  11  P       Pn      01 34 37.6 -1.4
      comp=Z,376nm,0.8s
TCA   Tanti             6.14 101⇓eP       Pn      01 34 44.3 +0.3
BI02  San Fabin de      6.35 177  P       Pn      01 34 48.3 +1.4
      comp=Z,232nm,0.5s
AHML  Horco Molle       6.55  59 eP       Pn      01 34 50.2 +0.5
H03N1 Juan Fernandez    6.94 241  Pn      Pn      01 34 55.5 +0.9
      baz=53,slow=74
H03N1                             Sn      Sn      01 36 08.9 -3.6
      baz=37,slow=74
H03N1                             T       T       01 41 57.6
      baz=191,slow=74,SNR=1418
H03N2 Juan Fernandez    6.95 241  Pn      Pn      01 34 55.8 +1.0
      baz=209,slow=74
H03N2                             Sn      Sn      01 36 08.7 -4.2
      baz=225,slow=74
H03N2                             T       T       01 41 59.8
      baz=71,slow=74,SNR=1417
VA04  Juan Fernndez     6.96 240          Pn      01 34 55.2 +0.1
VA04  Juan Fernndez     6.96 240  P       Pn      01 34 54.8 -0.4
      comp=Z,545nm,0.8s
H03S3 Juan Fernandez    7.11 238  Pn      Pn      01 34 56.4 -0.5
      baz=57,slow=15
H03S3                             Sn      Sn      01 36 11.4 -5.2
      baz=7.7,slow=74
H03S1 Juan Fernandez    7.11 238  Pn      Pn      01 34 56.2 -0.8
      baz=57,slow=15
H03S1                             Sn      Sn      01 36 10.7 -6.0
H03S2 Juan Fernandez    7.12 238  Pn      Pn      01 34 56.4 -0.7
      baz=57,slow=15
H03S2                             Sn      Sn      01 36 10.8 -6.2
      baz=292,slow=74
PB05  IPOC Station P    7.53  10  P       Pn      01 35 00.0 -3.1
      comp=Z,276nm,1.1s
SALTA                   7.67  39  P       Pn      01 35 10.2 +4.8
      comp=Z,89nm,1.0s
GO06  Curarrehue        9.26 179  P       Pn      01 35 29.9 +3.1
      comp=Z,28nm,0.5s
PLCA  Paso Flores      10.44 175  Pn      Pn      01 35 43.8 +0.8
      comp=Z,0.6nm,0.3s,baz=328,slow=11,SNR=13
PLCA                              LR      LR      01 40 12.1
      comp=Z,1µm,20.7s,baz=345,slow=40
      comp=Z,2.4nm,0.4s
PLCA                              AML     AML
PLCA  Paso Flores      10.44 175          Pn      01 35 44.1 +1.1
PLCA  Paso Flores      10.44 175 eP       Pn      01 35 43.4 +0.4
PB11  IPOC Station P   10.65  10          Pn      01 35 49.0 +3.1
PB16  IPOC Station P   12.07  10          Pn      01 36 07.5 +1.8
PSAL  Palomas, Salto   12.10  97 eP       Pn      01 36 03.0 -2.6
PSAL                             eS       Sn      01 38 15.4 -4.2
ANCO  Parque Anchore   12.22 112 eP       Pn      01 36 05.1 -2.2
PB18  Visviri          12.81   9  P       Pn      01 36 20.1 +4.2
      comp=Z,341nm,0.8s
CPUP  Villa Florida    13.21  76  Pn      Pn      01 36 18.4 -2.3
      comp=Z,0.4nm,0.3s,baz=262,slow=11,SNR=9.0
CPUP                              LR      LR      01 42 03.3
      comp=Z,635nm,19.4s,baz=261,slow=41
      comp=Z,4.6nm,0.5s
CPUP                              AML     AML
CPUP  Villa Florida    13.21  76          Pn      01 36 19.2 -1.5
CPUP  Villa Florida    13.21  76 eP       Pn      01 36 17.4 -3.3
CPUP  Villa Florida    13.21  76  P       Pn      01 36 19.6 -1.2
      comp=Z,60nm,1.0s
LPAZ  La Paz           14.31  14  Pn      Pn      01 36 37.2 +0.7
      comp=Z,2.5nm,0.3s,baz=188,slow=7.8,SNR=62
LPAZ                              LR      LR      01 42 20.7
      comp=Z,611nm,21.3s,baz=187,slow=38
      comp=Z,29nm,0.8s
LPAZ                              AML     AML
LPAZ  La Paz           14.31  14          Pn      01 36 36.5  0.0
LPAZ  La Paz           14.31  14 eP       Pn      01 36 35.9 -0.6
LPAZ  La Paz           14.31  14  P       Pn      01 36 39.5 +3.1
      comp=Z,37nm,1.0s
SJPY  San Joaquin      14.74  73 eP       Pn      01 36 35.9 -5.7
COYC  Coyhaique        15.25 181  Pn      Pn      01 36 48.3  0.0
MURT  Porto Murtinho   15.26  59 eP       Pn      01 36 45.0 -3.6
CPSB  Cacapava Do Su   15.71  95 eP       Pn      01 36 52.0 -2.4
COIM  Forte Coimbra    16.24  54 eP       Pn      01 36 58.5 -2.8
SIV   San Ignacio      17.22  37  P       Pn      01 37 13.0 -0.7
      comp=Z,0.4nm,0.3s,baz=221,slow=8.1,SNR=99
      comp=Z,56nm,0.8s
SIV                               AML     AML
AQDB  Aquidauana       17.39  59  P       Pn      01 37 13.0 -2.7
AQDB  Aquidauana       17.39  59 eP       Pn      01 37 13.2 -2.5
AQDB  Aquidauana       17.39  59  P       Pn      01 37 13.8 -2.0
      comp=Z,37nm,1.1s
PTGB  Pitanga          18.22  77 eP       Pn      01 37 23.5 -2.5
TRCB  Terra Rica       18.55  71 eP       P       01 37 29.1 -0.7
TRCB  Terra Rica       18.55  71  P       Pn      01 37 30.9 +0.8
      comp=Z,63nm,0.6s
PTLB  Pontes e Lacer   18.71  41          P       01 37 30.5 -1.0
PTLB  Pontes e Lacer   18.71  41 eP       P       01 37 31.4 -0.1
NNA   Nana             18.86 344  P       Pn      01 37 35.4 +1.6
      comp=Z,0.7nm,0.3s,baz=197,slow=11,SNR=4.2
NNA                               LR      LR      01 43 14.6
      comp=Z,342nm,21.6s,baz=171,slow=32
      comp=Z,17nm,0.8s
NNA                               AML     AML
NNA   Nana             18.86 344  P       Pn      01 37 34.4 +0.6
LDASE Londrina, Braz   19.54  74 eP       P       01 37 39.1 -1.5
PP1B  Ponte de Pedra   19.82  54 eP       P       01 37 42.8 -0.9
VILB  Vilhena          20.25  34          P       01 37 47.6 -0.7
VILB                              IAmb    IAmb    01 37 54.0
      comp=Z,58nm,0.7s
VILB  Vilhena          20.25  34 eP       P       01 37 48.1 -0.1
SALV  Santo Antonio    20.47  49 eP       P       01 37 49.7 -0.9
C2SB  Chapadao do Su   20.56  60 eP       P       01 37 51.1 -0.6
C2SB  Chapadao do Su   20.56  60  P       P       01 37 52.2 +0.5
      comp=Z,56nm,1.4s
FRTB  Fartura          20.86  76 eP       P       01 37 53.9 -1.1
FRTB  Fartura          20.86  76  P       P       01 37 53.9 -1.1
      comp=Z,139nm,0.9s
PET01 Itanhaem-SP      22.44  80 eP       P       01 38 11.8  0.0
CZSB  Cruzeiro do Su   22.48 357  P       P       01 38 13.2 +0.9
CZSB  Cruzeiro do Su   22.48 357 eP       P       01 38 13.6 +1.3
SPB   Sao Paulo        22.56  79          P       01 38 12.7 -0.5
SPB                               IAmb    IAmb    01 38 24.3
      comp=Z,45nm,1.0s
SPB   Sao Paulo        22.56  79 eP       P       01 38 09.0 -4.2
SPB   Sao Paulo        22.56  79  P       P       01 38 13.7 +0.6
      comp=Z,46nm,1.1s
BB19B Bebedouro        22.73  72 eP       P       01 38 10.6 -4.4
VAO   Valinhos         23.18  78  P       P       01 38 18.1 -1.6
VAO                               IAmb    IAmb    01 38 19.8
      comp=Z,31nm,0.8s
VAO   Valinhos         23.18  78 eP       P       01 38 17.9 -1.9
ARAG  Araguaiana, MT   23.27  56 eP       P       01 38 17.5 -3.0
ATAH  Atahualpa        23.91 343  LR      LR      01 46 01.6
      comp=Z,225nm,21.5s,baz=184,slow=32
CLDB  Colider          24.30  41 eP       P       01 38 28.1 -2.2
IPMB  Ipameri, GO      24.58  65 eP       P       01 38 31.5 -1.4
CANS  Sao Roque de M   24.85  72 eP       P       01 38 34.2 -1.2
PMNB  Patos De Minas   25.69  69 eP       P       01 38 41.3 -1.7
BSCB  Bom Sucesso      25.87  75 eP       P       01 38 43.9 -0.8
BDFB  Brasilia         26.11  61  P       P       01 38 45.9 -1.0
      comp=Z,35nm,0.7s,baz=235,slow=8.0,SNR=66
BDFB                              LR      LR      01 51 00.9
      comp=Z,113nm,20.4s,baz=213,slow=41
      comp=Z,35nm,0.7s
BDFB  Brasilia         26.11  61          P       01 38 45.7 -1.2
BDFB                              IAmb    IAmb    01 38 46.8
      comp=Z,40nm,0.8s
SNDB  Serra Nova Dou   26.23  50 eP       P       01 38 46.9 -1.0
DIAM  Diamantina, MG   28.07  71 eP       P       01 39 03.6 -0.8
CAM01 Campos-RJ        28.15  80 eP       P       01 39 04.2 -0.9
MACA  Manacapuru-AM    28.92  23          P       01 39 11.7 -0.2
MACA                              IAmb    IAmb    01 39 15.8
      comp=Z,31nm,0.6s
MACA  Manacapuru-AM    28.92  23 eP       P       01 39 11.3 -0.6
JANB  Januaria         29.32  65 eP       P       01 39 14.4 -1.1
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ITTB  Itaituba         29.85  33 eP       P       01 39 18.7 -1.4
SJMB  Sao Joao De Ma   29.92  74 eP       P       01 39 19.2 -1.6
BSFB  Barra de Sao F   30.14  75 eP       P       01 39 21.5 -1.3
ARCA  Ara§uai, MG      30.21  70 eP       P       01 39 22.4 -1.0
RIB01 Linhares ES      30.30  76 eP       P       01 39 22.7 -1.4
SDBA  SAO DESIDERIO    30.48  60 eP       P       01 39 24.7 -1.2
SMTB  Santa Maria do   30.98  51 eP       P       01 39 29.9 -0.4
GUA01 Guaratinga, BA   32.11  72 eP       P       01 39 38.9 -1.2
CMC01 Camacan, BA      32.98  70 eP       P       01 39 46.7 -1.1
NBIT  Itapeh - BA      33.28  70 eP       P       01 39 49.8 -0.6
BOAV  Boa Vista        34.20  20          P       01 39 58.1 -0.2
BOAV                              IAmb    IAmb    01 39 59.1
      comp=Z,24nm,0.8s
BOAV  Boa Vista        34.20  20 eP       P       01 39 58.2 -0.2
ROSC  El Rosal         35.04 355  P       P       01 40 08.7 +2.7
      comp=Z,8.3nm,0.5s,baz=144,slow=19,SNR=4.3
ROSC  El Rosal         35.04 355  IAmb    IAmb    01 40 23.3
      comp=Z,23nm,1.1s
ORCD  Orcadas          35.29 157          P       01 40 06.3 -0.9
NBTA  Tacaratu-PE      37.75  63 eP       P       01 40 27.5 -1.4
NBMA  Muriti-CE        38.33  60 eP       P       01 40 32.9 -0.9
NBPS  Pedro II - PI    38.41  54 eP       P       01 40 33.9 -0.5
SDV   Santo Domingo    38.98   2  LR      LR      01 58 29.6
      comp=Z,142nm,18.1s,baz=158,slow=39
MDP   Montagnes des    39.62  31  LR      LR      01 57 56.8
      comp=Z,355nm,22.0s,baz=162,slow=38
NBPV  Pedro Velho      41.58  63 eP       P       01 41 00.2 -0.5
TGUH  Tegucigalpa,Un   46.60 339  P       P       01 41 42.2 +1.2
TGUH                              IAmb    IAmb    01 41 43.0
      comp=Z,17nm,0.6s
MLPR  Magueyes Islan   48.20   6  P       P       01 41 52.7 -0.5
PDPR  Patillas Dam,    48.34   7          P       01 41 53.6 -0.7
SJG   San Juan         48.42   7  P       P       01 41 54.2 -0.7
BELA  Belgrano 2       50.45 171          P       01 42 09.6 -0.2
BELA                              IAmb    IAmb    01 42 11.5
      comp=Z,29nm,1.2s
CMIG  Matias Romero    52.17 331  LR      LR      01 59 09.9
      comp=Z,78nm,21.8s,baz=173,slow=30
VNA3  Neumayer Olymp   52.66 159 ⇑P       P       01 42 26.4  0.0
      comp=Z,9.3nm,0.8s
TEIG  Tepich           52.73 340          P       01 42 27.6 +0.2
TEIG  Tepich           52.73 340  P       P       01 42 28.6 +1.1
TEIG                              pP      sP      01 42 39.1 +0.2
VNA1  Neumayer--Stat   52.95 158 ⇑P       P       01 42 28.7 +0.3
      comp=Z,7.8nm,0.8s
CAIB  Caibarien        53.03 351          P       01 42 29.8 +0.2
CAIB                              IAmb    IAmb    01 42 31.2
      comp=Z,19nm,0.9s
VNA2  Neumayer--Watz   53.29 158 ⇑P       P       01 42 31.0 -0.1
      comp=Z,12nm,0.5s,baz=282,slow=7.8
SNAA  Sanae            54.88 159 ⇑P       P       01 42 42.6 -0.1
      comp=Z,520nm,1.1s
SNAA  Sanae            54.88 159  P       P       01 42 42.6 -0.1
      comp=Z,24nm,1.0s,baz=278,slow=6.6,SNR=30
SNAA                              LR      LR      02 03 57.7
      comp=Z,118nm,21.9s,baz=267,slow=34
      comp=Z,24nm,1.0s
SNAA  Sanae            54.88 159          P       01 42 42.3 -0.4
TROLL Troll, Antarti   56.60 159 ⇑P       P       01 42 55.0 -0.1
      comp=Z,810nm,1.0s
QSPA  South Pole Qui   59.92 180  P       P       01 43 19.1 +0.6
      comp=Z,28nm,0.9s,baz=151,slow=1.9,SNR=110
QSPA                              LR      LR      02 08 58.7
      comp=Z,110nm,19.6s,baz=144,slow=36
      comp=Z,28nm,0.9s
QSPA  South Pole Qui   59.92 180          P       01 43 18.4  0.0
QSPA  South Pole Qui   59.92 180  P       P       01 43 19.0 +0.6
QSPA                              pP      sP      01 43 30.0 -0.2
HBVL  Hebbronville     62.63 333          P       01 43 37.9 +0.9
X48A  Hartselle        66.03 346  IAmb    IAmb    01 44 00.6
      comp=Z,19nm,0.9s
W50A  Signal Mountai   66.42 348  IAmb    IAmb    01 44 03.0
      comp=Z,15nm,0.9s
BRDY  Brady            66.54 335          P       01 44 03.0 +0.5
BRDY                              IAmb    IAmb    01 44 15.6
      comp=Z,19nm,1.2s
SWET  Sewanee          66.55 347  IAmb    IAmb    01 44 03.8
      comp=Z,15nm,0.8s
TXAR  Lajitas Array    66.70 330  P       P       01 44 05.0 +1.4
      comp=Z,3.8nm,0.9s,baz=150,slow=8.6,SNR=28
      comp=Z,3.8nm,0.9s
TXAR  Lajitas Array    66.70 330  P       P       01 44 04.5 +0.8
T59A  Double "B" Far   67.15 355  IAmb    IAmb    01 44 08.1
      comp=Z,16nm,1.1s
ALPN  Alpine           67.59 330  IAmb    IAmb    01 44 22.8
      comp=Z,14nm,1.2s
PLPT  Palo Pinto       67.67 336  IAmb    IAmb    01 44 22.7
      comp=Z,26nm,1.3s
U49A  Red Boiling Sp   67.78 348  IAmb    IAmb    01 44 22.5
      comp=Z,16nm,1.2s
VNDA  Vanda            67.78 191  P       P       01 44 11.1 +1.3
      comp=Z,2.2nm,1.0s,baz=134,slow=4.9,SNR=8.2
VNDA                              PKP2bc  P'P'bc  02 12 28.5  -10
      comp=Z,0.9nm,0.9s,baz=295,slow=5.0,SNR=6.0
      comp=Z,2.2nm,1.0s
VNDA  Vanda            67.78 191          P       01 44 11.0 +1.1
VNDA                              IAmb    IAmb    01 44 23.6
      comp=Z,17nm,1.4s
VNDA  Vanda            67.78 191  P       P       01 44 11.2 +1.3
WVT   Waverly          67.81 346          P       01 44 10.7 +0.3
WVT                               IAmb    IAmb    01 44 11.6
      comp=Z,20nm,1.1s
SGCY  Sterling City    67.91 333  IAmb    IAmb    01 44 24.1
      comp=Z,20nm,1.1s
TPB05 Hovey Rd         67.93 331  IAmb    IAmb    01 44 24.9
      comp=Z,16nm,1.1s
MNHN  Monahans         68.06 332  IAmb    IAmb    01 44 25.4
      comp=Z,18nm,0.9s
TMB01 Midkiff          68.07 332  IAmb    IAmb    01 44 25.5
      comp=Z,12nm,0.9s
TPB01 Permian Basin    68.15 330  IAmb    IAmb    01 44 26.4
      comp=Z,14nm,1.0s
R58B  Mineral          68.16 355  IAmb    IAmb    01 44 14.9
      comp=Z,16nm,1.1s
LCAR  Lake Charles     68.52 343  IAmb    IAmb    01 44 27.3
      comp=Z,20nm,1.2s
VHRN  Van Horn         68.53 329  IAmb    IAmb    01 44 28.3
      comp=Z,22nm,1.6s
WTFS  Witchita Falls   68.58 336  IAmb    IAmb    01 44 17.3
      comp=Z,14nm,0.8s
APMT  Aspermont        68.78 335  IAmb    IAmb    01 44 29.8
      comp=Z,23nm,1.1s
SN07  Snyder 07        68.86 334  IAmb    IAmb    01 44 30.0
      comp=Z,17nm,1.1s
PBMO  Poplar Bluff     69.02 344  IAmb    IAmb    01 44 30.3
      comp=Z,18nm,1.1s
128A  Castleberry Fa   69.07 332  IAmb    IAmb    01 44 31.6
      comp=Z,14nm,1.1s
TPB28                  69.08 330  IAmb    IAmb    01 44 32.5
      comp=Z,15nm,1.0s
HHAR  Hobbs            69.47 341  IAmb    IAmb    01 44 33.4
      comp=Z,19nm,1.1s
MNTX  Cornudas Mount   69.49 330  IAmb    IAmb    01 44 33.3
      comp=Z,11nm,0.9s
S44A  Carbondale       69.62 345  IAmb    IAmb    01 44 48.8
      comp=Z,13nm,0.8s
TUL3  Leonard          69.67 339  IAmb    IAmb    01 44 23.4
      comp=Z,21nm,0.9s
P57A  Homestead Farm   69.68 355  IAmb    IAmb    01 44 26.7
      comp=Z,17nm,1.1s
OK052 Battle Ridge R   70.06 338  IAmb    IAmb    01 44 36.9
      comp=Z,30nm,1.3s
OK029 Liberty Lake     70.09 338  IAmb    IAmb    01 44 26.2
      comp=Z,18nm,0.9s
FVM   French Village   70.17 344  IAmb    IAmb    01 44 47.6
      comp=Z,18nm,1.1s
CCM   Cathedral Cave   70.43 344  P       P       01 44 27.0 +0.3
CCM                               IAmb    IAmb    01 44 39.2
      comp=Z,33nm,1.4s
CCM   Cathedral Cave   70.43 344  P       P       01 44 27.2 +0.6
CCM                               pP      sP      01 44 38.2 -0.2
S39A  Bolivar          70.62 342  IAmb    IAmb    01 44 40.5
      comp=Z,17nm,1.1s
AMTX  Amarillo         70.75 334  IAmb    IAmb    01 44 42.0
      comp=Z,20nm,1.1s
T35A  Sooner Cattle    70.82 339  IAmb    IAmb    01 44 41.9
      comp=Z,19nm,1.2s
R40A  Maddies Statio   70.91 343  IAmb    IAmb    01 44 31.1
      comp=Z,24nm,1.1s
ACSO  Alum Creek Sta   70.96 351  IAmb    IAmb    01 44 30.8
      comp=Z,15nm,0.8s
PPT2  Papeete2         71.15 260 eLR      LR      02 06 07.4
      comp=Z,248nm,22.5s
PPT2                             eLR      LR      02 06 15.1
      comp=Z,185nm,23.2s
121A  Cookes Peak, D   71.27 328  IAmb    IAmb    01 44 46.3
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      comp=Z,26nm,1.1s
L61B  Northampton      72.40 359  IAmb    IAmb    01 44 40.5
      comp=Z,21nm,1.0s
P38A  Dawn             72.49 342  IAmb    IAmb    01 44 39.9
      comp=Z,14nm,1.1s
ALQ   Albuquerque      72.72 331  IAmb    IAmb    01 44 58.0
      comp=Z,7.8nm,1.1s
ANMO  Albuquerque      72.73 331  LR      LR      02 12 13.9
      comp=Z,88nm,20.6s,baz=175,slow=32
ANMO  Albuquerque      72.73 331          P       01 44 41.8 +1.0
TASM  ASL Pad, Albuq   72.73 331  IAmb    IAmb    01 46 16.1
      comp=Z,10nm,0.8s
CBKS  Cedar Bluff      73.59 337  P       P       01 44 46.2 +0.6
DBIC  Dimbokro         73.69  72  P       P       01 44 45.9 -0.8
      comp=Z,9.6nm,0.9s,baz=255,slow=8.3,SNR=5.8
DBIC                              LR      LR      02 14 56.4
      comp=Z,161nm,19.1s,baz=244,slow=34
      comp=Z,9.6nm,0.9s
DBIC  Dimbokro         73.69  72  P       P       01 44 45.7 -1.0
DBIC                              IAmb    IAmb    01 44 47.1
      comp=Z,28nm,1.1s
T25A  Trinidad         73.78 333  IAmb    IAmb    01 45 01.1
      comp=Z,19nm,0.9s
CCD   Concordia, Ant   74.41 184  P       P       01 44 50.8 +0.3
CCD                               pP      sP      01 45 02.5 +0.2
X16A  Lo Mia Camp, P   74.53 327  IAmb    IAmb    01 45 06.2
      comp=Z,20nm,1.1s
SADO  Sadowa           75.03 354  LR      LR      02 19 53.8
      comp=Z,68nm,20.4s,baz=158,slow=37
WUAZ  Wupatki          75.40 327  IAmb    IAmb    01 45 10.7
      comp=Z,28nm,1.1s
L34A  Svendsen Farm,   75.45 341  IAmb    IAmb    01 45 08.7
      comp=Z,32nm,1.2s
MVCO  Mesa Verde       75.52 330  IAmb    IAmb    01 45 11.0
      comp=Z,17nm,1.0s
Q24A  Divide           75.66 334  IAmb    IAmb    01 45 11.9
      comp=Z,24nm,1.0s
BC3   Big Chuckawall   75.91 323  IAmb    IAmb    01 45 13.3
      comp=Z,17nm,1.1s
W13A  Hualapai Mount   76.26 325          P       01 45 02.3 +0.9
PV01  Paradox Valley   76.33 331  P       P       01 45 02.9 +1.2
PV01                              IAmb    IAmb    01 45 15.9
      comp=Z,22nm,1.3s
SUR   Sutherland       76.33 120  LR      LR      02 12 23.0
      comp=Z,77nm,21.4s,baz=250,slow=31
PFO   Pinyon Flats O   76.39 323  LR      LR      02 11 37.5
      comp=Z,78nm,20.2s,baz=195,slow=30
PFO   Pinyon Flats O   76.39 323  P       P       01 45 02.4 +0.3
PV02  Paradox Valley   76.46 331  IAmb    IAmb    01 45 16.4
      comp=Z,26nm,1.0s
ISCO  Idaho Springs    76.56 334  IAmb    IAmb    01 45 17.0
      comp=Z,13nm,1.1s
U15A  North Rim        76.57 327  IAmb    IAmb    01 45 17.6
      comp=Z,16nm,1.1s
PV12  Saucer Basin,    76.58 331  IAmb    IAmb    01 45 17.0
      comp=Z,20nm,1.1s
PV17  East Wray Mesa   76.61 331  IAmb    IAmb    01 45 17.0
      comp=Z,18nm,0.9s
MAW   Mawson           76.62 164  P       P       01 45 02.7  0.0
      comp=Z,7.4nm,0.6s,baz=207,slow=6.5,SNR=43
MAW                               LR      LR      02 19 42.1
      comp=Z,138nm,19.2s,baz=226,slow=36
      comp=Z,7.4nm,0.6s
MAW   Mawson           76.62 164          P       01 45 03.1 +0.4
PV19  Morning Glory    76.65 331  IAmb    IAmb    01 45 16.6
      comp=Z,24nm,1.1s
PV10  Paradox Valley   76.73 331  IAmb    IAmb    01 45 17.3
      comp=Z,26nm,1.0s
PV22  Blue Mesa, Par   76.76 331  IAmb    IAmb    01 45 18.0
      comp=Z,20nm,1.2s
PV23  Carpenter Ridg   76.78 331  IAmb    IAmb    01 45 18.1
      comp=Z,19nm,1.1s
D62A  Allapoint, All   77.06   2          P       01 45 06.1 +0.9
D62A                              IAmb    IAmb    01 45 07.5
      comp=Z,16nm,0.9s
ECSD  EROS Data Cent   77.15 342  IAmb    IAmb    01 45 18.8
      comp=Z,28nm,1.1s
KNB   Kanab            77.29 327  IAmb    IAmb    01 45 21.6
      comp=Z,29nm,1.2s
HAYD  Hayden           77.82 333  IAmb    IAmb    01 45 24.5
      comp=Z,22nm,1.1s
O20A  White River Ci   77.88 332  IAmb    IAmb    01 45 24.3
      comp=Z,29nm,1.1s
SZCU  Shurtz Canyon    77.89 327  IAmb    IAmb    01 45 24.8
      comp=Z,13nm,1.1s
SRU   San Rafael Swe   77.98 330  IAmb    IAmb    01 45 24.4
      comp=Z,15nm,1.0s
SHPR  Sheep Range      78.00 325  IAmb    IAmb    01 45 25.3
      comp=Z,14nm,1.0s
Q16A  Castle Valley    78.10 330  IAmb    IAmb    01 45 25.6
      comp=Z,20nm,1.1s
P18A  Preston Nutter   78.29 331  IAmb    IAmb    01 45 27.5
      comp=Z,31nm,1.3s
CCCA  Chr Cany lake    78.35 323  IAmb    IAmb    01 45 27.2
      comp=Z,22nm,1.1s
P17A  Butcher Ranch,   78.37 330  IAmb    IAmb    01 45 26.8
      comp=Z,21nm,1.1s
PRN   Pahroc Range     78.67 326  IAmb    IAmb    01 45 29.7
      comp=Z,24nm,1.1s
FURC  Furnace Creek,   78.82 324  IAmb    IAmb    01 45 29.6
      comp=Z,17nm,1.1s
TPNV  Topopah Spring   78.89 325  IAmb    IAmb    01 45 30.3
      comp=Z,16nm,1.1s
WCT   Wildcat Mounta   78.96 325  IAmb    IAmb    01 45 30.7
      comp=Z,14nm,1.1s
ISA   Isabella, Lake   79.03 323  IAmb    IAmb    01 45 30.9
      comp=Z,16nm,1.1s
BSUT  Blindstream Ca   79.27 331  IAmb    IAmb    01 45 32.1
      comp=Z,23nm,1.1s
K22A  Casper           79.37 335  IAmb    IAmb    01 45 32.3
      comp=Z,21nm,1.1s
RSSD  Black Hills      79.77 337          P       01 45 21.2 +0.6
TSUM  Tsumeb           79.90 106  LR      LR      02 19 23.6
      comp=Z,82nm,18.2s,baz=268,slow=35
TSUM  Tsumeb           79.90 106          P       01 45 21.8 -0.2
TPH   Tonopah          80.25 325  IAmb    IAmb    01 45 37.4
      comp=Z,16nm,1.1s
HWUT  Hardware Ranch   80.49 331  IAmb    IAmb    01 45 37.9
      comp=Z,16nm,1.1s
SPUT  South Promonto   80.62 330  IAmb    IAmb    01 45 38.7
      comp=Z,15nm,1.0s
PDAR  Pinedale Array   80.64 333  P       P       01 45 26.1 +0.7
      comp=Z,1.0nm,0.7s,baz=142,slow=5.0,SNR=8.2
PDAR                              LR      LR      02 18 03.8
      comp=Z,44nm,20.8s,baz=164,slow=33
      comp=Z,1.0nm,0.7s
PDAR  Pinedale Array   80.64 333          P       01 45 25.9 +0.6
NVAR  Mina Array Bea   81.06 325  P       P       01 45 29.0 +1.3
      comp=Z,3.0nm,0.8s,baz=159,slow=6.5,SNR=21
      comp=Z,3.0nm,0.8s
NVAR  Mina Array Bea   81.06 325  P       P       01 45 28.2 +0.5
BOSA  Boshof           81.49 118  P       P       01 45 29.5 -0.8
      comp=Z,6.0nm,0.8s,baz=247,slow=5.2,SNR=9.5
BOSA                              LR      LR      02 15 31.8
      comp=Z,92nm,21.8s,baz=264,slow=31
      comp=Z,6.0nm,0.8s
BOSA  Boshof           81.49 118  IAmb    IAmb    01 45 41.6
      comp=Z,22nm,0.9s
WAKR  Walker           81.69 324  IAmb    IAmb    01 45 45.6
      comp=Z,18nm,1.3s
YERR  Yerington        81.96 324  IAmb    IAmb    01 45 46.5
      comp=Z,16nm,1.1s
PNTR  Pine Nut         82.22 324  IAmb    IAmb    01 45 48.0
      comp=Z,21nm,1.0s
TORD  Torodi Ar. Bea   82.63  70  P       P       01 45 35.3 -0.9
      comp=Z,12nm,0.8s,baz=278,slow=5.4,SNR=66
      comp=Z,12nm,0.8s
TORD  Torodi Ar. Bea   82.63  70  P       P       01 45 35.9 -0.4
ULM   Lac du Bonnet    83.03 345  P       P       01 45 38.9 +1.4
      comp=Z,3.2nm,0.8s,baz=129,slow=5.3,SNR=2.2
      comp=Z,3.2nm,0.8s
ULM   Lac du Bonnet    83.03 345  P       P       01 45 38.5 +1.1
ULM                               IAmb    IAmb    01 45 49.6
      comp=Z,18nm,1.1s
HLID  Hailey           83.30 330  IAmb    IAmb    01 45 53.2
      comp=Z,10nm,1.1s
ORV   Oroville         83.54 323  IAmb    IAmb    01 45 54.4
      comp=Z,19nm,1.1s
LBTB  Lobatse          83.55 115  LR      LR      02 18 55.6
      comp=Z,102nm,19.1s,baz=241,slow=33
LBTB  Lobatse          83.55 115          P       01 45 40.3 -0.8
LBTB  Lobatse          83.55 115  P       P       01 45 40.4 -0.8
LBTB                              pP      pP      01 45 51.8 +2.0
CASY  Casey            83.71 181  P       P       01 45 41.7 +0.8
CASY                              pP      sP      01 45 53.3 +0.4
DLMT  Dillon           84.01 332  IAmb    IAmb    01 45 56.5
      comp=Z,10nm,1.2s
O03E  Paynes Creek     84.25 324  IAmb    IAmb    01 45 56.7
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	comp=Z,11nm,1.1s						
DCMP	DeCamp, Califo	84.43	322	IAmb	IAmb	01 45 59.3	
	comp=Z,8.7nm,1.1s						
MOD	Modoc Plateau	84.70	326		P	01 45 47.5	+1.0
MOD				IAmb	IAmb	01 46 00.1	
	comp=Z,8.3nm,0.9s						
J08A	Circle Bar Ran	84.95	328		P	01 45 48.5	+0.9
M03C	McCloud	85.14	324	P	P	01 45 49.2	+0.7
M03C				IAmb	IAmb	01 46 01.5	
	comp=Z,19nm,1.5s						
KMRM	Mail Ridge	85.18	323		P	01 45 49.6	+0.8
KMRM				IAmb	IAmb	01 46 03.2	
	comp=Z,16nm,1.1s						
PLID	Pearl Lake	85.20	330		P	01 45 49.5	+0.5
K05A	Summer Lake	85.61	326		P	01 45 52.5	+1.5
YBH	Yreka Blue Hor	85.77	324	P	P	01 45 52.1	+0.4
URZ	Urewera	86.40	227	LR	LR	02 17 29.5	
	comp=Z,90nm,18.0s,baz=293,slow=31						
PINE	Pine Mountain	86.44	327		P	01 45 55.9	+0.8
PINE				IAmb	IAmb	01 45 57.7	
	comp=Z,9.7nm,0.8s						
G08A	Pilot Rock	86.66	329		P	01 45 56.7	+0.7
K02D	Willamette Mer	86.96	324	P	P	01 45 58.6	+1.1
K02D				IAmb	IAmb	01 46 11.5	
	comp=Z,9.8nm,1.0s						
I05D	Terrebonne, OR	87.04	327	P	P	01 45 58.6	+0.7
I05D				IAmb	IAmb	01 46 11.7	
	comp=Z,12nm,1.0s						
WIFE	Three Sisters-	87.06	326		P	01 45 58.9	+0.8
WIFE				IAmb	IAmb	01 46 00.5	
	comp=Z,6.1nm,0.9s						
NEW	Newport	88.19	332	LR	LR	02 21 40.0	
	comp=Z,68nm,20.7s,baz=145,slow=33						
G04A	Mulino	88.23	327	P	P	01 46 04.7	+1.3
STD	Studebaker Rid	88.87	328	P	P	01 46 07.3	+0.7
STD				IAmb	IAmb	01 46 20.4	
	comp=Z,8.4nm,0.9s						
LON	Longmire	89.06	328	P	P	01 46 07.3	-0.1
MDT	Midelt	89.23	51	LR	LR	02 25 44.1	
	comp=Z,30nm,18.8s,baz=227,slow=35						
PTEO	Sao Teotonio	89.52	45	eP	P	01 46 10.4	+0.8
PTEO				i IAML		01 46 11.5	
PCVE	Castro Verde	89.99	45	eP	P	01 46 12.4	+0.5
MESJ	Messejana	90.01	45	eP	P	01 46 11.8	-0.2
MESJ				IAmb	IAmb	01 46 14.7	
	comp=Z,11nm,1.1s						
MESJ	Messejana	90.01	45	eP	P	01 46 12.5	+0.5
PVAQ	Vaqueiros	90.05	46	eP	P	01 46 11.7	-0.4
MOE	Montemor	90.37	44	eP	P	01 46 13.8	+0.2
PARRA	Arraiolos	90.74	44	eP	P	01 46 15.4	+0.1
PMTG	Montargil	90.79	44	eP	P	01 46 15.8	+0.2
TAM	Tamanrasset	90.91	64	P	P	01 46 16.4	-0.4
PBAR	Barrancos	90.95	45	eP	P	01 46 16.4	+0.1
ESDC	Sonseca Array	93.76	46	P	P	01 46 29.3	-0.1
	comp=Z,1.6nm,0.9s,baz=255,slow=3.8,SNR=11						
ESDC				LR	LR	02 25 31.9	
	comp=Z,97nm,21.8s,baz=223,slow=34						
	comp=Z,1.6nm,0.9s						
ESDC	Sonseca Array	93.76	46		P	01 46 30.0	+0.6
AKASG	Malin Array Be	119.41	46	PKP	PKPdf	01 52 00.2	-1.2
	comp=Z,2.6nm,0.6s,baz=265,slow=2.6,SNR=11						
ASAR	Alice Springs	121.00	207	PKP	PKPdf	01 52 04.2	-1.4
	comp=Z,0.4nm,0.5s,baz=123,slow=1.6,SNR=2.2						
ASAR				PKKPbc	PKKPbc	02 02 07.8	-0.4
	comp=Z,0.7nm,0.9s,baz=342,slow=4.6,SNR=6.1						
WRA	Warramunga Arr	124.14	210	PKP	PKPdf	01 52 10.5	-1.1
	comp=Z,1.2nm,0.5s,baz=155,slow=1.7,SNR=14						
WRA				PKKPbc	PKKPbc	02 01 56.2	+0.3
	comp=Z,1.2nm,0.7s,baz=341,slow=4.0,SNR=7.5						
WRA	Warramunga Arr	124.14	210		PKPdf	01 52 10.4	-1.2
H11S2	WAKE ISLAND Hy	126.09	272	T	T	04 11 03.7	
	baz=115,slow=75,SNR=50						
H11S1	WAKE ISLAND Hy	126.10	272	T	T	04 10 58.5	
	baz=115,slow=75,SNR=76						
H11S3	WAKE ISLAND Hy	126.11	272	T	T	04 11 00.2	
	baz=115,slow=75,SNR=72						
H11N3	WAKE ISLAND Hy	126.41	273	T	T	04 11 24.1	
	baz=116,slow=75,SNR=20						
H11N1	WAKE ISLAND Hy	126.43	273	T	T	04 11 31.5	
	baz=116,slow=75,SNR=9.5						
H11N2	WAKE ISLAND Hy	126.43	273	T	T	04 11 28.4	
	baz=116,slow=75,SNR=28						
KBZ	Khabaz	127.31	56	PKP	PKPdf	01 52 17.1	+0.3
	comp=Z,3.0nm,0.9s,baz=247,slow=0.8,SNR=5.1						
SEY	Seymchan	136.97	332	PKP	PKPdf	01 52 35.1	+0.7
	comp=Z,5.8nm,0.8s,baz=132,slow=2.8,SNR=13						
AKTO	Aktyubinsk	137.63	47	PKP	PKPdf	01 52 36.1	0.0
	comp=Z,2.9nm,0.9s,baz=276,slow=1.6,SNR=7.3						
PETK	Petropavlovsk-	137.76	317	PKP	PKPdf	01 52 37.3	+1.0
	comp=Z,4.9nm,0.5s,baz=146,slow=2.8,SNR=4.4						
BVAR	Borovoye Array	144.28	40	PKP	PKPbc	01 52 47.1	+0.8
	comp=Z,9.1nm,0.6s,baz=295,slow=2.6,SNR=29						
YAK	Yakutsk	145.35	342	PKPbc	PKPab	01 52 49.8	+0.2
	comp=Z,36nm,0.4s,baz=200,slow=0.7,SNR=12						
YAK	Yakutsk	145.35	342		PKPab	01 52 50.0	+0.4
KK31	Karatay Array	147.34	56	PKPdf	PKPdf	01 52 53.6	+0.1
KKAR	Karatay Array	147.34	56	PKPdf	PKPdf	01 52 53.4	-0.2
BTK	Batken	148.00	62	PKPdf	PKPdf	01 52 54.6	-0.3
ARSB	Arslanbob	149.46	59	PKPdf	PKPdf	01 52 57.6	+0.4
EKS2	Erkin-Say	149.78	56	P	PKiKP	01 53 03.2	-0.2
	SNR=19						
KURBB	Kurchatov Arra	149.87	39	PKP	PKPdf	01 52 57.9	+0.5
	comp=Z,8.9nm,0.5s,baz=303,slow=3.1,SNR=14						
KURBB				PKPbc	PKPbc	01 53 02.5	+0.3
	comp=Z,9.2nm,0.5s,baz=304,slow=3.1,SNR=49						
KURK	Kurchatov	149.87	39		PKPdf	01 52 57.2	-0.2
NIL	Nilore	150.11	74	PKPdf	PKPdf	01 52 58.6	+0.2
USP	Ospenovka	150.16	55	P	PKPbc	01 53 03.5	+0.3
	SNR=18						
AAK	Ala-Archa	150.31	56	PKPbc	PKPbc	01 53 04.2	+0.4
	comp=Z,26nm,0.7s,baz=213,slow=2.6,SNR=65						
AAK	Ala-Archa	150.31	56	P	PKiKP	01 53 04.7	+0.1
	SNR=28						
AAK	Ala-Archa	150.31	56	PKPbc	PKPbc	01 53 03.8	0.0
CHMS	Chumysh	150.40	55	P	PKPbc	01 53 04.1	+0.2
	SNR=7.0						
KBK	Karagaybulak	150.63	56	P	PKiKP	01 53 05.2	-0.1
	SNR=6.4						
ZAA0	Zalesovo Array	150.88	29	PKPdf	PKPdf	01 52 58.4	-0.4
ZAA0				PKPbc	PKPbc	01 53 04.4	-0.1
ZALV	Zalesovo Beam	150.88	29	PKP	PKPdf	01 52 59.6	+0.7
	comp=Z,6.0nm,1.0s,baz=303,slow=2.6,SNR=6.6						
ZALV				PKPbc	PKPbc	01 53 04.8	+0.2
	comp=Z,6.3nm,1.0s,baz=299,slow=2.2,SNR=10						
ZALV	Zalesovo Beam	150.88	29	PKPdf	PKPdf	01 52 58.6	-0.3
ZALV				PKPbc	PKPbc	01 53 04.5	0.0
TKM2	Tokmak 2	151.02	55	P	PKPbc	01 53 05.8	+0.2
	SNR=18						
ULHL	Ulahol	151.66	56	P	PKiKP	01 53 07.9	+0.4
	SNR=6.2						
KSH2	Kashi	151.76	63	PKP	PKiKP	01 53 07.6	-0.1
KSH2				sPKP	sPKPdf	01 53 16.5	+3.5
MKAR	Makanchi Array	153.96	43	PKP	PKPdf	01 53 03.1	-0.6
	comp=Z,1.5nm,0.8s,baz=270,slow=0.2,SNR=7.3						
MKAR				PKPbc	PKPbc	01 53 11.3	-0.4
	comp=Z,3.8nm,0.8s,baz=321,slow=2.4,SNR=17						
MKAR	Makanchi Array	153.96	43		PKPdf	01 53 03.3	-0.4
MKAR					PKPbc	01 53 11.7	-0.1
KLR	Kul'dur	154.09	323	PKP	PKPdf	01 53 03.5	-0.3
	comp=Z,3.4nm,0.9s,baz=226,slow=2.5,SNR=6.1						
MJAR	Matsushiro Arr	154.39	292	PKP	PKPdf	01 53 04.5	-0.1
	comp=Z,1.2nm,0.5s,baz=64,slow=2.8,SNR=1.8						
MJAR				PKPbc	PKiKP	01 53 13.7	+0.7
	comp=Z,0.8nm,0.3s,baz=180,slow=0.4,SNR=4.7						
KSRS	Korea Array	162.28	299	PKP	PKPdf	01 53 14.3	+0.2
	comp=Z,1.5nm,0.8s,baz=50,slow=1.8,SNR=6.3						
SONM	Songino Array	162.43	4	PKP	PKPdf	01 53 14.0	-0.1
	comp=Z,0.7nm,0.7s,baz=305,slow=2.4,SNR=4.2						
SONM	Songino Array	162.43	4		PKPdf	01 53 13.7	-0.4
CMAR	Chiang Mai Arr	165.42	142	PKP	PKPdf	01 53 17.3	-0.3
	comp=Z,1.3nm,0.3s,baz=222,slow=1.7,SNR=4.2						
CMAR	Chiang Mai Arr	165.42	142		PKPdf	01 53 17.0	-0.6
HHC	Hu-ho-hao-te	169.16	347	eP	PKPdf	01 53 20.0	+0.2
NJ2	Nanjing	170.85	284	eP	PKPdf	01 53 22.8	+2.0
NJ2				pmax	pmax		
	comp=Z,11nm,0.5s						
PZH	PanZhiHua	173.04	121	PKP	PKPdf	01 53 23.3	+1.1
LZH	Lanzhou	173.10	32	eP	PKPdf	01 53 21.8	-0.2

JMA **17** *01:37:51.5±0.1, 23°.1N±0°.5×12°1E±°, h30^{km}±1^{km}, MV4.6/19, TAIWAN REGION*

NIED **17** *01:37:51.5, 23°.05N×121°.31E, h30^{km}, MW4.6, Moment Tensor Solution. s2 Moment tensor: Scale 10^{15}Nm; M_{rr}-3.82; $M_{\theta\theta}$-1.07; $M_{\phi\phi}$4.89; $M_{r\theta}$5.86; $M_{\theta\phi}$-1.88; $M_{\phi r}$5.61; Fault plane solution: $M_0$9.13000×10^{15} NP1: ϕ_s322.00000°, δ28.00000°, λ-155.00000°. NP2: ϕ_s210.00000°, δ79.00000°, λ-65.00000°.*

BJI **17** *01:37:51.5, 22°.99N×121°.39E, h16^{km}, mB4.5/8, mb4.4/32, ML4.6/9, Ms4.4/36, Ms7 4.3/32*

NEIC **17** *01:37:52.0±1.4, 23°.05N±0°.05×121°.36E±0°.05, h18^{km}±3^{km}, mb4.6/52, Mwr4.5/23, Error ellipse: s-maj=7.8km s-min=6.7km az=157.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}4.30; $M_{\theta\theta}$-0.01; $M_{\phi\phi}$-4.29; $M_{r\theta}$1.53; $M_{\theta\phi}$-1.69; $M_{\phi r}$5.05; Fault plane solution: $M_0$7.01000×10^{15} NP1: ϕ_s17.30000°, δ69.52000°, λ88.53000°. NP2: ϕ_s201.50000°, δ20.53000°, λ93.93000°. Principal axes: T 6.7111, Plg65.0000°, Azm285.0000°; N 0.5699, Plg1.0000°, Azm18.0000°; P -7.2810, Plg25.0000°, Azm108.0000°;*

NEIC **17** *01:37:52.2, 23°.07N×121°.35E, h14^{km}*

ASIES **17** *01:37:52.5, 23°.05N×121°.33E, h17^{km}, Mw4.5, Fault plane solution: NP1: ϕ_s206.00000°, δ29.00000°, λ91.00000°. NP2: ϕ_s25.00000°, δ61.00000°, λ89.00000°.*

TAP **17** *01:37:52.1, 23°.05N×121°.33E, h19^{km}, ML5.0, C*

GFZ **17** *01:37:52.5±0.2, 23°N±3°×12°1E±°, h10^{km}, M4.8/15, mb4.6/15*

IDC **17** *01:37:56.5±3.3, 22°.92N×121°.48E, h62^{km}±30^{km}, mb4.0/31, mbtmp4.3/33, ML3.9/2, MS4.0/18, Error ellipse: s-maj=17.1km s-min=9.7km az=70.0*

ISC 17 01:37:51.9±0.5**, 23°.03N**±0°.01×**121°.38E**±0°.02**, h18**^{km}±2^{km}**, n461, σ1^{s}13**/586**, mb4.5**/96**, MS4.1**/24**, 22C-40D, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CHKT	Chengkung	0.07	347	⇑iP	Pg	01 37 55.9	+0.6
CHKT				iS	Sg	01 37 59.0	+1.4
EDH	Donghe	0.09	232	⇑P	Pg	01 37 55.9	+0.4
EDH				S	Sg	01 37 58.9	+1.0
CHKH	Chenggong	0.16	4	⇑iP	Pg	01 37 56.9	+0.6
CHKH				S	Sg	01 38 00.5	+1.3
ECS	Chishang	0.16	294	⇑iP	Pg	01 37 56.8	+0.5
ECS				eS	Sg	01 38 00.7	+1.3
FULB	Fuli	0.19	334	⇑iP	Pg	01 37 56.9	+0.2
FULB				eS	Sg	01 38 01.3	+1.3
EHD	Haiduan	0.20	306	⇓iP	Pg	01 37 56.8	0.0
EHD				eS	Sg	01 38 00.5	+0.2
LONT	Longtian	0.26	242	⇓iP	Pg	01 37 58.0	+0.1
LONT				eS	Sb	01 38 02.7	+0.6
ECBN	Changbin	0.29	12	eP	Pb	01 37 59.4	+0.8
ECBN				eS	Sb	01 38 04.5	+1.5
EYUL	Yuli	0.32	350	⇓P	Pb	01 37 59.1	0.0
EYUL				eS	Sb	01 38 04.4	+0.4
TWF1	Yuli	0.33	346	⇓iP	Pb	01 37 59.1	-0.2
TWF1				iS	Sb	01 38 04.3	+0.1
TTN	Taitung	0.35	218	eP	Pb	01 38 00.2	+0.6
TTN				eS	Sb	01 38 06.4	+1.6
TWGBT	Beinan	0.35	233	P	Pg	01 37 59.3	0.0
TWGBT	Beinan	0.35	233	S	Sg	01 38 04.6	+0.3
TWGBT	Beinan	0.35	233	⇑iP	Pg	01 37 59.1	-0.2
TWGBT				S	Sg	01 38 04.6	+0.3
TWG	Pinlang	0.35	234		Pg	01 37 58.9	-0.5
TWG				Sg	Sg	01 38 04.1	-0.3
TWG	Pinlang	0.35	234	⇑iP	Pg	01 37 59.1	-0.2
TWG				iS	Sg	01 38 04.5	+0.1
TWG	Pinlang	0.35	234	P	Pg	01 37 59.2	-0.2
	comp=Z,50µm,0.5s						
LDUT	Ludao	0.36	167	P	Pb	01 38 00.4	+0.6
LDUT				eS	Sb	01 38 06.8	+1.6
YULB	Yu-li	0.37	348	P	Pg	01 37 59.6	-0.1
YULB	Yu-li	0.37	348	S	Sb	01 38 05.1	-0.3
YULB	Yu-li	0.37	348	Pg	Pg	01 37 58.9	-0.7
YULB				Sg	Sg	01 38 04.0	-0.9
YULB	Yu-li	0.37	348	⇓iP	Pg	01 37 59.5	-0.1
YULB				iS	Sb	01 38 04.9	-0.5
YULB	Yu-li	0.37	348	P	Pg	01 37 59.6	-0.1
	comp=Z,33µm,0.6s						
ELDTW	Lidau	0.37	295	⇓iP	Pg	01 37 58.9	-0.9
ELDTW				S	Sg	01 38 04.0	-1.0
HGSD	Ruisui	0.46	5	⇑P	Pb	01 38 01.6	+0.1
EHYH	Wanrong	0.46	356	eP	Pb	01 38 01.4	-0.2
EHYH				eS	Sb	01 38 07.9	-0.2
EHY	Hungye	0.48	353	eP	Pg	01 38 01.5	-0.1
EHY				eS	Sg	01 38 07.7	-0.4
STYH	Taoyuan	0.58	284	⇓iP	Pg	01 38 02.5	-0.9
STYH				iS	Sg	01 38 09.6	-1.5
ECL	Taimali	0.58	223	eP	Pg	01 38 02.3	-1.2
ECL				eS	Sg	01 38 09.7	-1.7
YUS	Yu-Shan	0.60	319	P	Pg	01 38 03.6	-0.5
YUS				S	Sg	01 38 11.4	-0.9
SLGT	Liugui	0.68	267	eP	Pb	01 38 04.7	-0.5
SLGT				S	Sb	01 38 13.7	-0.5
WARBT	Fenglin Townsh	0.69	0	P	Pb	01 38 04.3	-1.0
WARBT				eS	Sb	01 38 13.6	-0.8
TEGC	Jichi Village	0.69	12	eP	Pn	01 38 06.6	-0.1
TEGC				eS	Sn	01 38 17.7	+0.7
ALS	Alishan	0.71	312	⇓iP	Pg	01 38 05.6	-0.5
ALS				iS	Sg	01 38 14.9	-0.7
SGST	Jiashian	0.74	274	⇓iP	Pb	01 38 05.1	-1.1
SGST				iS	Sb	01 38 15.5	-0.5
WTP	Ta-pu	0.74	287	⇓iP	Pb	01 38 05.9	-0.4
WTP				eS	Sg	01 38 16.6	+0.3
TPUB	Ta-pu	0.74	291	P	Pb	01 38 06.1	-0.2
TPUB	Ta-pu	0.74	291	S	Sg	01 38 16.5	+0.1
TPUB	Ta-pu	0.74	291		Pb	01 38 05.9	-0.4
TPUB				Sg	Sb	01 38 15.1	-1.0
TPUB	Ta-pu	0.74	291	⇓iP	Pb	01 38 06.0	-0.4
TPUB				S	Sg	01 38 16.8	+0.4
TPUB	Ta-pu	0.74	291	P	Pb	01 38 06.1	-0.2
	comp=Z,34µm,0.7s						
SSD	Sandimen	0.75	248	P	Pb	01 38 05.4	-1.0
SSD				eS	Sb	01 38 14.2	-2.0
TSMG	Majia	0.75	245	eP	Pb	01 38 05.6	-0.8
TSMG				eS	Sb	01 38 14.8	-1.6
VWDT	VWDT	0.75	343	⇓eP	Pb	01 38 06.2	-0.3
VWDT				eS	Sb	01 38 16.0	-0.4
SHUL	Shoufeng	0.77	12	eP	Pg	01 38 07.1	0.0
SHUL				eS	Sn	01 38 19.6	+0.6
ESL	Shilin	0.78	3	eP	Pb	01 38 06.0	-0.9
CHN4	Tsaushan	0.79	294	eP	Pg	01 38 07.1	-0.3
CHN4				S	Sn	01 38 18.6	-0.9
CHN1	Nanshi	0.80	281	⇓iP	Pg	01 38 07.4	-0.2
CHN1				eS	Sn	01 38 19.2	-0.6
TAW	Tawu	0.81	214	eP	Pb	01 38 06.3	-1.0
TAW				eS	Sb	01 38 16.7	-1.2
MASBT	Mashibuluo	0.81	239	⇑iP	Pb	01 38 06.3	-1.0
MASBT				S	Sb	01 38 17.1	-0.8
EAST	Anshuo	0.81	218	eP	Pb	01 38 06.2	-1.2
WCKO	Fanlu	0.82	300	⇓P	Pg	01 38 07.8	-0.1
WCKO				eS	Sn	01 38 19.8	-0.5
WHYT	Xinyi Township	0.82	324	⇓iP	Pg	01 38 07.7	-0.3
WHYT				S	Sg	01 38 18.2	-0.7
SCST	Cishan	0.83	260	P	Pg	01 38 08.0	-0.1
SCST				eS	Sn	01 38 20.4	-0.1
SSLB	Suanglung	0.85	333	P	Pb	01 38 07.8	-0.3
SSLB	Suanglung	0.85	333	S	Sg	01 38 19.9	+0.1
SSLB	Suanglung	0.85	333		Pb	01 38 07.6	-0.6
SSLB				Sg	Sb	01 38 18.2	-1.0
SSLB	Suanglung	0.85	333	⇓iP	Pb	01 38 07.5	-0.6
SSLB				eS	Sg	01 38 19.1	-0.7
SSLB	Suanglung	0.85	333	P	Pb	01 38 07.7	-0.6
	comp=Z,10µm,0.8s						
TWK	Hsinying	0.86	286	⇓iP	Pb	01 38 08.1	-0.2
TWK				eS	Sn	01 38 21.8	+0.6
TEYL	Yanliau Villag	0.86	13	eP	Pn	01 38 09.1	0.0
TEYL				eS	Sn	01 38 22.6	+1.4
CHN5	Tsauling	0.86	311	⇓iP	Pg	01 38 08.4	-0.2
CHN5				eS	Sn	01 38 20.8	-0.5
SGLT	Jiouru	0.88	250	eP	Pn	01 38 10.1	+0.8
SGLT				eS	Sn	01 38 22.8	+1.3
TWM1	Shoushan	0.91	257	eP	Pn	01 38 10.3	+0.6
SSPT	Xinbi	0.93	234	eP	Pb	01 38 09.2	-0.2
ETM	Tongmen	0.94	6	eP	Pb	01 38 08.7	-0.9
CHN3	Shinhua	0.94	273	P	Pn	01 38 11.3	+1.1
CHN3				iS	Sn	01 38 25.9	+2.8
OWD	Renai	0.94	348	P	Pb	01 38 09.0	-0.7
OWD				eS	Sb	01 38 20.3	-1.6
SMLT	Sun Moon Lake	0.96	333	P	Pg	01 38 10.1	-0.4
SMLT				eS	Sg	01 38 22.4	-0.8
SCZT	Fangliau	0.96	227	P	Pb	01 38 09.1	-0.9
HWA	Hwalien	0.96	12	eP	Pb	01 38 09.7	-0.3
SLIU	Shizi	0.97	214	eP	Pb	01 38 08.8	-1.4
SLIU				eS	Sn	01 38 24.8	+0.9
LXIB	Xiulin Townshi	0.99	2	eP	Pb	01 38 09.2	-1.4
LXIB				eS	Sb	01 38 22.1	-1.2
WUSB	Renai	0.99	346	P	Pb	01 38 10.3	-0.2
WUSB				eS	Sb	01 38 22.3	-1.0
WJS	Zhushan	0.99	323	eP	Pg	01 38 11.6	+0.4
WJS				eS	Sn	01 38 26.4	+2.0
TYC	Yuchr	0.99	331	P	Pn	01 38 10.8	-0.1
TYC				eS	Sn	01 38 25.3	+0.8
CHY	Chiayi	1.00	298	⇓eP	Pg	01 38 11.2	0.0
CHY				iS	Sn	01 38 25.3	+0.7
LAY	Lan-yu	1.00	171	P	Pb	01 38 09.3	-1.3
LAY				eS	Sb	01 38 22.8	-0.7
SNJT	Kaohsiung City	1.00	254	eP	Pg	01 38 13.4	+2.0
SNJT				eS	Sn	01 38 28.8	+4.1
SSHA	Shanhua	1.01	276	eP	Pg	01 38 12.6	+1.0
SSHA				eS	Sn	01 38 27.7	+2.7
WDLH	Douliu	1.02	310	⇓iP	Pg	01 38 12.0	+0.4
WDLH				eS	Sn	01 38 26.4	+1.4
WDL	Douliou City	1.03	312	eP	Pg	01 38 12.7	+0.8
WDL				eS	Sn	01 38 26.6	+1.2
LYUB	Lan-yu	1.04	170	eP	Pb	01 38 08.9	-2.4
LYUB				eS	Sb	01 38 22.7	-1.9
WNT	Mingjian	1.06	323	P	Pg	01 38 12.8	+0.3
WNT				iS	Sg	01 38 27.2	+0.8
TAI1	Yung-k'ang	1.06	271	eS	Sg	01 38 28.4	+2.0
TWD	Chiawan	1.06	11	eP	Pb	01 38 10.4	-1.3
ICHU	Yijhu	1.07	288	P	Pg	01 38 12.3	-0.3
ICHU				iS	Sg	01 38 27.4	+0.8
SCLT	Jiali	1.10	278	P	Pg	01 38 13.4	+0.1
SCLT				iS	Sg	01 38 29.3	+1.5
WSSB	Gushan	1.10	250	eP	Pg	01 38 14.4	+1.2
WSSB				eS	Sg	01 38 30.5	+2.8
WCS	Beigang Elemen	1.11	337	eP	Pg	01 38 13.1	-0.3
WCS				eS	Sg	01 38 27.9	-0.1
WHF	Hehuan Shan	1.12	354	eP	Pb	01 38 12.5	-0.4
CHN8	Yiju	1.12	287	P	Pg	01 38 13.5	-0.1
CHN8				eS	Sg	01 38 29.2	+0.9
SMST	Manzhou Townsh	1.12	207	eP	Pn	01 38 11.7	-1.0
WTK	Tuku	1.12	306	⇓P	Pg	01 38 13.4	-0.3
WTK				S	Sg	01 38 29.4	+1.0
ETL	Fush Village	1.15	11	eP	Pn	01 38 12.2	-0.9
WLCH	Liuqiu	1.15	234	eP	Pg	01 38 16.3	+2.2
NACB	Ninganchiao	1.16	10	P	Pn	01 38 11.9	-1.2
NACB	Ninganchiao	1.16	10	Pn	Pn	01 38 11.2	-1.9
NACB	Ninganchiao	1.16	10	eP	Pn	01 38 11.6	-1.6
NACB	Ninganchiao	1.16	10	P	Pn	01 38 12.0	-1.1
	comp=Z,7µm,0.8s						
TWP	Hsiaoliuchiu	1.16	234	eP	Pg	01 38 16.2	+1.9
WSL	Shuilin Townsh	1.17	295	⇓P	Pg	01 38 14.1	-0.5
WSL				S	Sg	01 38 30.3	+0.4
ETLH	Xiulin Townshi	1.18	4	eP	Pn	01 38 12.2	-1.3
HEN	Hengchun	1.18	210	eP	Pg	01 38 14.8	0.0
TSCK	Chigu Township	1.20	276	eP	Pg	01 38 14.6	-0.5
TSCK				eS	Sg	01 38 31.0	+0.2
TWKBT	Hengchun	1.21	206	eP	Pn	01 38 12.9	-0.9
TWK1	Hengchun	1.21	206	eP	Pn	01 38 13.0	-0.8
TSEB	Hengchuen, Pin	1.21	202	eP	Pn	01 38 13.9	0.0
TSEB				eS	Sb	01 38 29.4	-0.1
FUSS	Fushou	1.22	354	eP	Pn	01 38 13.9	-0.4
FUSS				S	Sb	01 38 29.8	-0.3
WSF	Szhu	1.23	300	iP	Pg	01 38 15.0	-0.6
WSF				S	Sg	01 38 31.6	0.0
TWT	Tachien	1.23	351	eP	Pn	01 38 14.3	-0.1
TDCB	Techi	1.23	350	eP	Pb	01 38 14.5	-0.2
WRL	Guolierlin Hig	1.27	313	eP	Pg	01 38 16.1	-0.3
WRL				S	Sg	01 38 32.7	-0.2
RLNB	Erlin	1.27	313	eP	Pg	01 38 16.3	-0.1
RLNB				S	Sg	01 38 33.3	+0.2
TCU	Taichung	1.29	330	eP	Pg	01 38 17.2	+0.4
TCU				eS	Sg	01 38 33.8	+0.1
WCH1	Changhua City	1.29	324	eP	Pg	01 38 16.9	0.0
WCH1				eS	Sg	01 38 34.0	+0.3
WCHH	Zhanghua	1.29	324	eP	Pg	01 38 16.6	-0.2
WCHH				eS	Sg	01 38 34.2	+0.5
WHP	Taichung City	1.30	342	eP	Pb	01 38 16.3	+0.4
WTCT	Ta-ch'eng	1.31	310	eS	Sg	01 38 34.0	-0.3
EAHA	Aohua	1.33	14	eP	Pn	01 38 15.7	+0.1
EOS4	EOS4	1.38	38	eP	Pn	01 38 16.2	+0.2
EOS4				eS	Sn	01 38 33.5	-0.1
NNSB	Datong	1.39	0	eP	Pn	01 38 16.1	-0.4
NNS	Nan Shan	1.40	360	eP	Pn	01 38 16.7	0.0
EWUT	Wuta	1.46	14	eP	Pn	01 38 17.8	+0.6
WDJ	Dajia District	1.48	333	eP	Pg	01 38 20.0	-0.4
WDJ				eS	Sg	01 38 39.9	+0.2
LATG	Datong	1.50	5	eP	Pn	01 38 17.6	-0.5
EOS3	EOS3	1.52	34	eP	Pn	01 38 17.8	-0.1
EOS3				eS	Sn	01 38 36.5	-0.7
NDT	Datong Townshi	1.57	4	eP	Pn	01 38 18.9	0.0
EOS2	EOS2	1.59	29	eP	Pn	01 38 19.4	+0.5
NMLH	Miaoli	1.60	340	eP	Pb	01 38 21.3	+0.5
NMLH				eS	Sg	01 38 43.1	-0.3
WDGT	Dungji	1.60	279	eP	Pn	01 38 19.4	+0.1
WDGT				iS	Sn	01 38 39.4	-0.1
NFF	Wufeng Townshi	1.61	351	eP	Pb	01 38 21.0	-0.2
NDS	Dongshan	1.63	11	eP	Pn	01 38 19.4	-0.2
NSTT	Nanjuang	1.63	348	eP	Pb	01 38 21.3	-0.1
YHNB	Yeheng	1.63	360	P	Pn	01 38 20.6	+0.8
YHNB	Yeheng	1.63	360		Pn	01 38 19.6	-0.2
YHNB	Yeheng	1.63	360	eP	Pn	01 38 20.4	+0.6
YHNB	Yeheng	1.63	360	P	Pn	01 38 20.4	+0.6
	comp=Z,3µm,0.7s						
NSK	Sanguang	1.64	359	eP	Pn	01 38 20.4	+0.5
NSK				eS	Sn	01 38 40.7	+0.2
LIOB	Emei	1.64	348	P	Pb	01 38 21.8	+0.1
LIOB				iS	Sn	01 38 41.0	+0.4
TWE	Neicheng	1.70	9	eP	Pn	01 38 21.5	+0.8
FUSB	Fushanzhiwuyua	1.73	6	eP	Pn	01 38 21.0	-0.2
FUSB				eS	Sn	01 38 41.3	-1.5
PHUB	P'eng-hu	1.73	286	eP	Pn	01 38 21.6	+0.5
PHUB				eS	Sn	01 38 41.7	-1.0
NWLT	Wulai	1.74	4	eP	Pn	01 38 21.2	0.0
KSHI	Guanxi Townshi	1.75	354	eP	Pb	01 38 24.2	+0.8
KSHI				eS	Sg	01 38 47.1	-1.2
PNG	Penghu	1.76	288	eP	Pn	01 38 21.7	+0.2
PNG				eS	Sn	01 38 42.1	-1.4
HSN	Hsinchu	1.81	348	eS	Sb	01 38 47.8	+1.1
VCHM	Qimei	1.81	276	eP	Pn	01 38 22.1	0.0
VCHM				eS	Sn	01 38 44.2	-0.4
EGS		1.88	15	eP	Pb	01 38 25.1	-0.5
TATO	Taipei	1.94	3	P	Pn	01 38 25.0	+1.1
TATO	Taipei	1.94	3	S	Sb	01 38 49.2	-1.3
TATO	Taipei	1.94	3		Pn	01 38 24.6	+0.7
TATO	Taipei	1.94	3	P	Pb	01 38 25.5	-1.2
	comp=Z,2µm,0.8s						
TIPB	Shuangxi	1.98	12	eP	Pn	01 38 25.4	+1.0
TAP	Taipei	2.00	3	eS	Sb	01 38 51.5	-0.9
JYNG	Yonagunijimaku	2.01	45	eP	Pn	01 38 25.2	+0.3
JYNG				eS	Sn	01 38 49.8	+0.1
TWB1	Santiao Chiao	2.05	16	eP	Pn	01 38 26.7	+1.3
YOJ	Yonaguni jima	2.06	46	P	Pn	01 38 25.9	+0.3
YOJ	Yonaguni jima	2.06	46	S	Sn	01 38 51.7	+0.8
YOJ	Yonaguni jima	2.06	46		Pn	01 38 26.4	+0.7
YOJ	Yonaguni jima	2.06	46	P	Pn	01 38 26.6	+1.0
YOJ				S	Sn	01 38 51.9	+1.0
YOJ	Yonaguni jima	2.06	46	P	Pn	01 38 26.1	+0.5
	comp=Z,1µm,0.7s						
YOJ	Yonaguni jima	2.06	46	eP	Pn	01 38 26.3	+0.7
YOJ				eS	Sn	01 38 51.5	+0.7
WFSB	Wu-fen Shan	2.06	10	eP	Pn	01 38 26.3	+0.6
SXI1	Grass Mountain	2.10	12	eP	Pn	01 38 27.7	+1.4
YM01	YM01	2.11	5	eP	Pn	01 38 27.8	+1.5
ZUZH	Zhuzihu	2.13	4	eP	Pn	01 38 26.3	-0.3
YM08	YM08	2.16	5	eP	Pn	01 38 27.1	+0.1
TWY	Chenhua	2.25	5	eP	Pb	01 38 30.4	-1.5
HATJ	Hateruma jima	2.45	65	eP	Pn	01 38 31.1	+0.2
HATJ				eS	Sn	01 38 59.0	-1.4
IRIF	Iriomote-Funau	2.51	58	eP	Pn	01 38 32.3	+0.5
IRIF				eS	Sn	01 39 01.3	-0.7
VWUC	VWUC	2.63	318	P	Pn	01 38 33.6	+0.1
PCYT	Pengchaiyu	2.66	14	eP	Pn	01 38 35.1	+1.2
JKRS	Kuro-shima	2.69	63	eP	Pn	01 38 34.9	+0.6
JKRS				eS	Sn	01 39 06.7	+0.3
JIJ	Ishigaki jima	2.86	62	eP	Pn	01 38 36.5	-0.1
JIJ				eS	Sn	01 39 09.2	-1.2
PTMZ	Houxiangcun	2.88	315	iP	Pn	01 38 37.5	+0.7
PTMZ				eS	Sn	01 39 10.7	-0.3
KNM	Kinmen	3.04	298	eP	Pn	01 38 40.8	+1.8
KNM				eS	Sn	01 39 15.9	+1.0

KNMB	**Chin-men Tao**	**3.09**	**298**		**Pn**	**01 38 39.7**	**-0.1**
KNMB	**Chin-men Tao**	**3.09**	**298**	P	**Pn**	**01 38 40.0**	**+0.2**
JISG	**Ishigakijimahi**	**3.10**	**59**	*e*P	**Pn**	**01 38 39.9**	**+0.1**
JISG				*e*S	**Sn**	**01 39 14.0**	**-2.4**
QZH2	**Quanzhou**	**3.18**	**307**	Pn	**Pn**	**01 38 41.0**	**0.0**
QZH2				Sn	**Sn**	**01 39 17.3**	**-1.2**
QZH2				AML	AML		
	comp=Z,1µm,0.5s						
QZH2				AML	AML		
	comp=Z,3µm,0.6s						
QZH2				L	L		
	comp=Z,3µm,11.2s						
QZH2				L	L		
	comp=Z,2µm,7.5s						
QZH2				L	L		
	comp=Z,4µm,9.8s						
MATB	**Ma-tsu**	**3.37**	**337**	*e*P	**Pn**	**01 38 43.9**	**+0.2**
MATB				*e*S	**Sn**	**01 39 22.4**	**-0.8**
JTJ	**Tarama**	**3.44**	**62**	*e*P	**Pn**	**01 38 44.7**	**+0.2**
JTJ				*e*S	**Sn**	**01 39 22.1**	**-2.7**
ZPLA	**Ao Xicun**	**3.45**	**286**	*e*P	**Pn**	**01 38 45.2**	**+0.4**
ZPLA				*e*S	**Sn**	**01 39 24.6**	**-0.6**
AXDP	**Jialang**	**3.63**	**301**	*i* P	**Pn**	**01 38 47.5**	**+0.2**
AXDP				*e*S	**Sn**	**01 39 29.0**	**-0.7**
DSXP	**Dongshan**	**3.70**	**281**	P	**Pn**	**01 38 48.6**	**+0.5**
DSXP				*e*S	**Sn**	**01 39 30.9**	**-0.3**
MHZQ	**Yeshan**	**3.73**	**325**	*e*P	**Pn**	**01 38 49.2**	**+0.7**
MHZQ				*e*S	**Sn**	**01 39 31.3**	**-0.8**
LYJJ	**Jianjiangzhen**	**3.80**	**338**	*e*P	**Pn**	**01 38 50.0**	**+0.4**
LYJJ				S	**Sn**	**01 39 34.8**	**+1.0**
JIRJ	**Irabujima**	**3.92**	**62**	*e*P	**Pn**	**01 38 51.2**	**0.0**
JIRJ				*e*S	**Sn**	**01 39 35.3**	**-1.4**
JMJ2	**Miyako jima3**	**3.99**	**64**	*e*P	**Pn**	**01 38 52.9**	**+0.8**
JMJ2				*e*S	**Sn**	**01 39 38.6**	**+0.1**
JMJ	**Miyako jima 2**	**4.00**	**63**	P	**Pn**	**01 38 53.2**	**+1.0**
JMJ	**Miyako jima 2**	**4.00**	**63**	S	**Sn**	**01 39 38.9**	**+0.3**
JIKM	**Ikemajima**	**4.01**	**61**	*e*P	**Pn**	**01 38 52.4**	**0.0**
JOGS	**Gusukube**	**4.07**	**64**	*e*P	**Pn**	**01 38 54.1**	**+1.0**
JOGS				*e*S	**Sn**	**01 39 41.6**	**+1.3**
PACPP	**Pamplona Cagay**	**4.55**	**180**	*i* P	**Pn**	**01 39 00.4**	**+0.6**
PACPP				*i* S	**Sn**	**01 39 50.7**	**-1.5**
SXFK	**Yanhouchang**	**4.78**	**315**	*e*P	**Pn**	**01 39 02.6**	**-0.4**
CVP	**Callao Caves**	**5.32**	**175**	*e*P	**Pn**	**01 39 09.6**	**-0.7**
CVP				*e*S	**Sn**	**01 40 08.0**	**-3.1**
HKPS	**Hong Kong Po S**	**6.73**	**265**	P	**Pn**	**01 39 29.9**	**+0.1**
GZH2	**Guangzhou**	**7.13**	**277**	Pn	**Pn**	**01 39 36.6**	**+1.3**
GZH2				Sn	**Sn**	**01 40 56.8**	**+0.9**
GZH2				AML	AML		
	comp=Z,440nm,1.1s						
GZH2				AML	AML		
	comp=Z,290nm,1.0s						
JOW	**Kunigami**	**7.31**	**57**	P	**Pn**	**01 39 36.5**	**-1.3**
	comp=Z,28nm,0.2s,baz=131,slow=19,SNR=21						
JOW				S	**Sn**	**01 40 57.2**	**-3.1**
	comp=Z,7.7nm,0.3s,baz=128,slow=19,SNR=1.5						
JOW	**Kunigami**	**7.31**	**57**	P	**Pn**	**01 39 38.0**	**+0.2**
JOW	**Kunigami**	**7.31**	**57**		**Pn**	**01 39 37.5**	**-0.3**
SSE	**Sheshan**	**8.04**	**359**	P	**Pn**	**01 39 48.4**	**+0.7**
SSE				S	**Sn**	**01 41 20.8**	**+2.7**
SSE				AML	AML		
	comp=Z,46nm,1.2s						
SSE				AML	AML		
	comp=Z,54nm,0.9s						
SSE				L	L		
	comp=Z,490nm,13.1s						
SSE				L	L		
	comp=Z,630nm,13.4s						
CNSH	**ChangSha**	**9.19**	**306**	P	**Pn**	**01 40 01.0**	**-2.6**
CNSH				S	**Sn**	**01 41 40.3**	**-6.2**
CNSH				smax	smax		
	comp=N,240nm,1.1s						
CNSH				smax	smax		
	comp=E,270nm,1.3s						
NJ2	**Nanjing**	**9.26**	**347**	*e*P	**Pn**	**01 40 06.5**	**+2.0**
NJ2				S	**Sn**	**01 41 46.4**	**-1.9**
NJ2				pmax	pmax		
	comp=E,18nm,0.5s						
NJ2				SMN			
	comp=E,93nm,0.9s						
NJ2				SME			
	comp=E,150nm,1.2s						
NJ2				L	L		
	comp=E,2µm,12.1s						
NJ2				L	L		
	comp=E,610nm,13.7s						
NJ2				L	L		
	comp=E,1µm,11.8s						
JMZ	**Minamidaito 2**	**9.39**	**71**	P	**Pn**	**01 40 05.4**	**-0.9**
WHN	**Wuhan**	**9.77**	**321**	P	**Pn**	**01 40 12.5**	**+1.0**
WHN				S	**Sn**	**01 41 59.4**	**-1.3**
WHN				L	L		
	comp=E,4µm,8.5s						
WHN				L	L		
	comp=E,4µm,10.1s						
QIZ	**Qiongzhong**	**11.49**	**252**	P	**Pn**	**01 40 37.3**	**+2.2**
QIZ				S	**Sn**	**01 42 45.3**	**+2.3**
QIZ				L	L		
	comp=E,590nm,12.4s						
QIZ				L	L		
	comp=E,680nm,12.8s						
QIZ				L	L		
	comp=E,850nm,15.1s						
JNU	**Nakatsue**	**13.08**	**38**	LR	LR	01 46 46.5	
	comp=E,190nm,19.0s,baz=218,slow=40						
LYN	**LuoYang**	**13.88**	**328**	*e*P	**P**	**01 41 19.1**	**+3.3**
LYN				sP	Pn	01 41 26.3	+19
LYN				pmax	pmax		
	comp=Z,25nm,0.5s						
LYN				LR	LR		
	comp=N,3µm,10.6s						
LYN				LR	LR		
	comp=E,1µm,13.9s						
LYN				LR	LR		
	comp=Z,4µm,10.8s						
KSRS	**Korea Array**	**15.44**	**20**	P	**P**	**01 41 31.1**	**-2.0**
	comp=Z,1.1nm,0.3s,baz=196,slow=12,SNR=11						
	comp=Z,3.1nm,0.5s						
KSRS				AML	AML		
KMI2	**Kunming**	**17.15**	**281**	P	**P**	**01 41 56.3**	**+3.8**
KMI2				pmax	pmax		
	comp=Z,10.0nm,1.3s						
KMI2				L	L		
	comp=Z,410nm,7.8s						
KMI2				L	L		
	comp=Z,820nm,12.1s						
KMI2				L	L		
	comp=Z,860nm,14.2s						
BJI2	**Beijing**	**17.50**	**347**	P	**P**	**01 41 58.8**	**+2.8**
BJI2				pmax	pmax		
	comp=Z,6.0nm,0.8s						
CD2	**Chengdu**	**17.55**	**300**	P	**P**	**01 41 57.4**	**+0.7**
CD2				pmax	pmax		
	comp=Z,20nm,0.8s						
CD2				L	L		
	comp=Z,1µm,7.9s						
CD2				L	L		
	comp=Z,1µm,9.0s						
CD2				L	L		
	comp=Z,2µm,12.7s						
PZH	**PanZhiHua**	**18.17**	**285**	P	**P**	**01 42 05.6**	**+2.0**
INU	**Inuyama**	**18.33**	**44**		**P**	**01 42 06.1**	**+0.9**
INU	**Inuyama**	**18.33**	**44**	P	**P**	**01 42 08.4**	**+3.2**
	comp=Z,26nm,1.1s						
JGF	**Kuroka**	**18.70**	**44**	P	**P**	**01 42 08.5**	**-0.8**
JGF	**Kuroka**	**18.70**	**44**	P	**Pn**	**01 42 13.6**	**+3.8**
	comp=Z,15nm,1.7s						
MAJO	**Matsushiro**	**19.82**	**43**	P	**Pn**	**01 42 27.5**	**+4.3**
	comp=Z,20nm,0.8s						
MJAR	**Matsushiro Arr**	**19.82**	**43**	P	**Pn**	**01 42 23.7**	**+0.5**
	comp=Z,0.1nm,0.3s,baz=232,slow=7.2,SNR=9.5						
	comp=Z,2.6nm,0.6s						
MJAR				AML	AML		
MJAR	**Matsushiro Arr**	**19.82**	**43**		**P**	**01 42 20.6**	**-1.0**
LZH	**Lanzhou**	**20.01**	**314**	*e*P	**Pn**	**01 42 26.5**	**+0.9**
LZH				sP	sP	01 42 34.8	+4.0
LZH				S	**Sn**	**01 46 11.0**	**+0.7**
LZH				pmax	pmax		
	comp=Z,22nm,1.0s						
LZH				L	L		
	comp=Z,460nm,19.9s						
LZH				L	L		
	comp=Z,910nm,13.7s						
LZH				L	L		
	comp=Z,980nm,13.4s						
LZDM	**Lanzhou Array**	**20.03**	**314**	P	Pn	01 42 26.7	+0.7
	comp=Z,1.7nm,0.3s,baz=139,slow=14,SNR=4.2						
LZDM				LR	LR	01 50 41.4	
	comp=Z,306nm,20.1s,baz=155,slow=38						
	comp=Z,1.7nm,0.3s						
CN2	**Changchun**	**20.99**	**8**	*e*P	**P**	**01 42 34.1**	**0.0**
CN2				*e*S	**S**	**01 46 25.9**	**-1.3**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
CN2				pmax	pmax		
	comp=Z,100nm,4.0s						
CN2				L	L		
	comp=Z,200nm,15.0s						
CN2				L	L		
	comp=Z,300nm,15.0s						
CN2				L	L		
	comp=Z,300nm,15.0s						
XLT	**XiLinHaoTe**	**21.27**	**349**	*e*P	P	01 42 45.1	+7.8
XLT				sP	sP	01 42 52.1	+7.4
XLT				pmax	pmax		
	comp=Z,8.0nm,0.7s						
XLT				pmax	pmax		
	comp=Z,53nm,3.6s						
CHTO	**Chiang Mai**	**21.37**	**263**		**P**	**01 42 37.5**	**-0.9**
CHTO	**Chiang Mai**	**21.37**	**263**	P	**P**	**01 42 41.5**	**+3.0**
CHTO	**Chiang Mai**	**21.37**	**263**	P	**P**	**01 42 43.4**	**+4.9**
	comp=Z,18nm,0.9s						
CMAR	**Chiang Mai Arr**	**21.46**	**262**	P	**P**	**01 42 41.2**	**+1.7**
	comp=Z,3.6nm,0.7s,baz=61,slow=8.1,SNR=17						
CMAR				PcP	**PcP**	**01 46 41.4**	**-1.1**
	comp=Z,1.9nm,0.3s,baz=14,slow=1.2,SNR=5.5						
	comp=Z,3.6nm,0.7s						
CMAR	**Chiang Mai Arr**	**21.46**	**262**	P	**P**	**01 42 38.4**	**-1.2**
TOLI2	**Tolitoli**	**21.80**	**182**		**P**	**01 42 43.7**	**+0.7**
TOLI2				IAmb	IAmb	01 42 46.2	
	comp=Z,15nm,0.6s						
TOLI2	**Tolitoli**	**21.80**	**182**	P	**P**	**01 42 45.4**	**+2.4**
	comp=Z,21nm,0.7s						
GTOI	**Gorontalo**	**22.32**	**176**	P	**P**	**01 42 47.7**	**-0.9**
	comp=Z,45nm,0.9s,comp=Z,45nm,0.9s						
MPSI	**Mapaga**	**22.60**	**184**	P	**P**	**01 42 51.7**	**0.0**
USRK	**Ussuriysk Ar.**	**22.85**	**20**	P	**P**	**01 42 55.2**	**+1.2**
	comp=Z,1.6nm,0.2s,baz=203,slow=8.7,SNR=4.9						
	comp=Z,1.6nm,0.2s						
USRK	**Ussuriysk Ar.**	**22.85**	**20**	P	**P**	**01 42 54.0**	**0.0**
BNX	**BinXian**	**23.18**	**11**	⇑P	**P**	**01 42 57.9**	**+0.5**
BNX				S	**S**	**01 47 11.3**	**+3.0**
BNX				sS	**sS**	**01 47 16.6**	**-0.2**
BNX				pmax	pmax		
	comp=Z,4.0nm,1.1s						
BNX				pmax	pmax		
	comp=Z,110nm,5.4s						
BNX				L	L		
	comp=Z,280nm,14.4s						
BNX				L	L		
	comp=Z,120nm,12.2s						
BNX				L	L		
	comp=Z,260nm,14.1s						
APSI	**Ampana**	**23.80**	**179**	P	**P**	**01 43 03.8**	**+0.1**
	comp=Z,70nm,1.0s,comp=Z,70nm,1.0s						
LUWI	**Luwuk**	**23.96**	**177**	P	P	01 43 13.8	+8.5
LUWI	**Luwuk**	**23.96**	**177**	P	**P**	**01 43 04.9**	**-0.4**
	comp=Z,61nm,0.7s						
GUMO	**Guam**	**24.16**	**109**	LR	LR	01 50 27.7	
	comp=Z,49nm,21.0s,baz=262,slow=31						
GTA2	**Gaotai**	**24.62**	**317**	*e*P	**P**	**01 43 12.8**	**+1.5**
GTA2				pmax	pmax		
	comp=Z,4.0nm,1.1s						
GTA2				L	L		
	comp=Z,420nm,13.3s						
GTA2				L	L		
	comp=Z,500nm,15.5s						
GTA2				L	L		
	comp=Z,830nm,14.3s						
SANI	**Sanana**	**25.33**	**169**	P	**P**	**01 43 17.1**	**-0.6**
	comp=Z,26nm,0.7s,comp=Z,26nm,0.7s						
SANI	**Sanana**	**25.33**	**169**	P	**P**	**01 43 19.6**	**+1.8**
	comp=Z,26nm,0.7s						
ERM	**Erimo**	**26.24**	**39**	P	**P**	**01 43 26.8**	**+0.9**
GOMU	**GeErMu**	**26.47**	**306**	P	**P**	**01 43 30.0**	**+1.6**
GOMU				pP	pP	01 43 32.9	-1.1
GOMU				sP	sP	01 43 37.3	+1.7
GOMU				S	**S**	**01 47 55.5**	**-6.3**
GOMU				pmax	pmax		
	comp=Z,2.0nm,0.5s						
GOMU				L	L		
	comp=Z,150nm,12.3s						
GOMU				L	L		
	comp=Z,560nm,12.6s						
GOMU				L	L		
	comp=Z,750nm,12.8s						
HILR	**Hailar Array B**	**26.51**	**358**	P	**P**	**01 43 29.8**	**+1.5**
	comp=Z,0.4nm,0.2s,baz=191,slow=5.6,SNR=5.4						
	comp=Z,0.4nm,0.2s						
NLAI	**Namlea**	**26.70**	**167**	P	**P**	**01 43 32.3**	**+2.1**
	comp=Z,55nm,0.7s,comp=Z,55nm,0.7s						
SHL	**Shillong**	**26.98**	**281**	P	**P**	**01 43 31.5**	**-1.5**
ASAJ	**Asahikawa**	**27.33**	**35**	LR	LR	01 55 14.0	
	comp=Z,148nm,19.3s,baz=312,slow=38						
KLR	**Kul'dur**	**27.40**	**15**	LR	LR	01 54 43.7	
	comp=Z,162nm,19.1s,baz=204,slow=37						
SONM	**Songino Array**	**27.50**	**338**	P	**P**	**01 43 37.7**	**+0.5**
	comp=Z,1.3nm,0.5s,baz=151,slow=9.9,SNR=6.1						
SONM				LR	LR	01 56 04.7	
	comp=Z,460nm,19.3s,baz=150,slow=39						
	comp=Z,1.3nm,0.5s						
SONM	**Songino Array**	**27.50**	**338**	P	**P**	**01 43 36.1**	**-1.2**
KAPI	**Kappang**	**27.92**	**183**	P	**P**	**01 43 39.9**	**-1.2**
	comp=Z,3.8nm,0.4s,baz=264,slow=17,SNR=3.6						
	comp=Z,3.8nm,0.4s						
KAPI	**Kappang**	**27.92**	**183**	P	**P**	**01 43 40.0**	**-1.1**
KAPI				IAmb	IAmb	01 44 01.6	
	comp=Z,16nm,1.1s						
EVN	**Everest**	**31.52**	**286**		**P**	**01 44 12.5**	**-1.2**
EVN				IAmb	IAmb	01 44 20.3	
	comp=Z,14nm,1.0s						
EVN	**Everest**	**31.52**	**286**	P	**P**	**01 44 15.9**	**+2.1**
	comp=Z,14nm,1.1s						
EDFI	**Ende, Flores**	**31.59**	**179**	P	**P**	**01 44 11.2**	**-2.5**
	comp=Z,50nm,0.6s,comp=Z,50nm,0.6s						
WMQ	**Urumqi**	**34.59**	**315**	*e*P	**P**	**01 44 41.3**	**+1.5**
WMQ				L	L		
	comp=Z,320nm,14.7s						
WMQ				L	L		
	comp=Z,280nm,14.7s						
WMQ				L	L		
	comp=Z,150nm,19.7s						
ZSN	**Zaisan**	**37.98**	**319**	*e*P	**P**	**01 45 09.9**	**+1.2**
MKAR	**Makanchi Array**	**39.30**	**317**	P	**P**	**01 45 20.7**	**+1.0**
	comp=Z,3.7nm,0.8s,baz=111,slow=10,SNR=18						
MKAR				PcP	**PcP**	**01 47 27.3**	**-0.9**
	comp=Z,1.7nm,0.8s,baz=100,slow=5.0,SNR=4.4						
	comp=Z,3.7nm,0.8s						
MKAR	**Makanchi Array**	**39.30**	**317**		**P**	**01 45 19.2**	**-0.5**
MKAR					**PcP**	**01 47 27.7**	**-0.5**
SHLS	**Shalkode**	**39.94**	**310**	*e*P	**P**	**01 45 23.5**	**-1.7**
PDGK	**Podgornoye**	**39.97**	**311**		**P**	**01 45 25.3**	**-0.2**
UZB	**Uzynbulak**	**40.25**	**310**	*e*P	**P**	**01 45 28.7**	**+0.9**
KPKS	**Kokpek**	**40.57**	**311**	*e*P	**P**	**01 45 31.3**	**+0.8**
PETK	**Petropavlovsk-**	**40.72**	**33**	P	**P**	**01 45 31.0**	**-0.4**
	comp=Z,4.9nm,0.8s,baz=221,slow=4.2,SNR=5.0						
	comp=Z,4.9nm,0.8s						
PETK	**Petropavlovsk-**	**40.72**	**33**	P	**P**	**01 45 32.1**	**+0.7**
TARG	**Taragay, Kyrgy**	**40.76**	**308**		**P**	**01 45 33.6**	**+1.2**
TARG	**Taragay, Kyrgy**	**40.76**	**308**	P	**P**	**01 45 35.2**	**+2.8**
	comp=Z,5.0nm,1.1s						
FITZ	**Fitzroy Crossi**	**41.09**	**174**	P	**P**	**01 45 32.4**	**-2.3**
	comp=Z,7.2nm,1.0s,baz=7.8,slow=9.1,SNR=19						
FITZ				PcP	**PcP**	**01 47 33.2**	**-1.1**
	comp=Z,1.4nm,0.6s,baz=333,slow=4.8,SNR=2.0						
	comp=Z,7.2nm,1.0s						
FITZ	**Fitzroy Crossi**	**41.09**	**174**	P	**P**	**01 45 33.0**	**-1.6**
FITZ					**PcP**	**01 47 33.4**	**-0.8**
PET	**Petropavlovsk**	**41.16**	**34**	P	**P**	**01 45 35.0**	**0.0**
	comp=Z,31nm,1.0s						
TDK	**Taldyqorghan**	**41.21**	**313**	*e*P	**P**	**01 45 36.6**	**+1.1**
	comp=Z,8.4nm,1.1s						
ZAA0	**Zalesovo Array**	**41.31**	**328**		**P**	**01 45 36.1**	**-0.1**
ZAA0				IAmb	IAmb	01 45 43.6	
	comp=Z,14nm,1.2s						
ZALV	**Zalesovo Beam**	**41.31**	**328**	P	**P**	**01 45 36.2**	**0.0**
	comp=Z,6.1nm,0.5s,baz=116,slow=8.3,SNR=30						
ZALV				PcP	**PcP**	**01 47 33.7**	**-0.9**
	comp=Z,0.9nm,0.4s,baz=118,slow=5.4,SNR=2.8						
	comp=Z,6.1nm,0.5s						
ZALV	**Zalesovo Beam**	**41.31**	**328**		**P**	**01 45 35.4**	**-0.8**
ZALV					**PcP**	**01 47 33.9**	**-0.6**
ASAI	**AK-SAY(Kyrgyzs**	**41.53**	**306**	P	**P**	**01 45 41.2**	**+2.6**
	comp=Z,2.3nm,1.6s						
MDOK	**Medeo**	**41.64**	**310**	*e*P	**P**	**01 45 40.1**	**+0.8**
TNSS	**Tian-Shan**	**41.69**	**309**	*e*P	**P**	**01 45 40.4**	**+0.4**
AAA	**Alma-Ata**	**41.75**	**310**	*e*P	**P**	**01 45 41.0**	**+0.9**
KSH2	**Kashi**	**41.94**	**303**	P	**P**	**01 45 44.1**	**+2.3**
KSH2				pmax	pmax		
	comp=Z,5.0nm,0.9s						
NRN	**Naryn**	**42.02**	**307**		**P**	**01 45 42.1**	**-0.5**
NRN				IAmb	IAmb	01 45 54.0	
	comp=Z,6.8nm,0.9s						
SEM	**Semipalatinsk**	**42.02**	**321**	*e*P	**P**	**01 45 43.2**	**+0.9**
PALK	**Pallekele**	**42.10**	**255**	LR	LR	02 04 42.8	
	comp=Z,171nm,18.2s,baz=74,slow=38						
KUU	**Kurty**	**42.33**	**311**	*e*P	**P**	**01 45 45.6**	**+0.9**
H11N1	**WAKE ISLAND Hy**	**42.38**	**86**	T	T	02 30 57.3	
	baz=282,slow=74,SNR=600						
H11N2	**WAKE ISLAND Hy**	**42.38**	**86**	T	T	02 30 56.7	
	baz=282,slow=74,SNR=731						
H11N3	**WAKE ISLAND Hy**	**42.40**	**86**	T	T	02 30 57.8	
	baz=282,slow=74,SNR=737						
H11S3	**WAKE ISLAND Hy**	**42.48**	**87**	T	T	02 31 08.2	
	baz=284,slow=74,SNR=755						
H11S1	**WAKE ISLAND Hy**	**42.49**	**87**	T	T	02 31 07.2	
	baz=284,slow=74,SNR=393						
H11S2	**WAKE ISLAND Hy**	**42.49**	**87**	T	T	02 31 07.9	
	baz=284,slow=74,SNR=548						
KURK	**Kurchatov**	**43.09**	**321**		**P**	**01 45 50.6**	**-0.2**
KURK					**PcP**	**01 47 39.8**	**-0.7**
KURK	**Kurchatov**	**43.09**	**321**	P	**P**	**01 45 50.9**	**+0.1**
	comp=Z,7.1nm,0.7s						
KURBB	**Kurchatov Arra**	**43.11**	**321**	P	**P**	**01 45 51.4**	**+0.4**
	comp=Z,1.8nm,0.5s,baz=113,slow=7.8,SNR=21						
KURBB				PcP	**PcP**	**01 47 39.5**	**-1.0**
	comp=Z,0.4nm,0.3s,baz=112,slow=4.8,SNR=2.1						
	comp=Z,1.8nm,0.5s						
AAK	**Ala-Archa**	**43.35**	**308**	P	**P**	**01 45 54.2**	**+0.9**
	comp=Z,1.3nm,0.5s,baz=138,slow=8.6,SNR=3.7						
AAK				PcP	**PcP**	**01 47 41.0**	**-0.8**
	comp=Z,0.9nm,0.3s,baz=199,slow=7.2,SNR=5.4						
	comp=Z,1.3nm,0.5s						
AAK	**Ala-Archa**	**43.35**	**308**	P	**P**	**01 45 52.8**	**-0.5**
AAK					**PcP**	**01 47 40.4**	**-1.4**
SGDS	**Sogindy**	**43.43**	**309**	*e*P	**P**	**01 45 54.6**	**+0.9**
WB0	**Warramunga Arr**	**44.39**	**162**	P	**P**	**01 46 00.0**	**-1.5**
WB0				IAmb	IAmb	01 46 02.8	
	comp=Z,7.5nm,0.9s						
WRAB	**Tennant Creek**	**44.54**	**162**	P	**P**	**01 46 02.3**	**-0.4**
WRA	**Warramunga Arr**	**44.54**	**162**	P	**P**	**01 46 01.1**	**-1.7**
	comp=Z,3.8nm,0.6s,baz=345,slow=8.6,SNR=26						
WRA				PcP	**PcP**	**01 47 44.3**	**-1.6**
	comp=Z,1.3nm,0.6s,baz=348,slow=3.7,SNR=8.9						
	comp=Z,3.8nm,0.6s						
WRA	**Warramunga Arr**	**44.54**	**162**	P	**P**	**01 46 00.8**	**-1.9**
WRA					**PcP**	**01 47 44.7**	**-1.2**
WB2	**Warramunga Arr**	**44.55**	**162**	P	**P**	**01 46 01.2**	**-1.6**
WB2				IAmb	IAmb	01 46 08.7	
	comp=Z,11nm,1.1s						
WR8	**Warramunga Arr**	**44.60**	**162**	P	**P**	**01 46 01.8**	**-1.5**
WR8				IAmb	IAmb	01 46 04.6	
	comp=Z,6.2nm,0.7s						
GIRL	**Giralia**	**45.93**	**189**	P	**P**	**01 46 14.1**	**+0.4**
KK31	**Karatay Array**	**46.32**	**308**		**P**	**01 46 16.6**	**-0.1**
KK31				IAmb	IAmb	01 46 19.8	
	comp=Z,3.8nm,0.8s						
KK31				PcP	**PcP**	**01 47 50.6**	**-1.2**
KKAR	**Karatay Array**	**46.32**	**308**		**P**	**01 46 16.2**	**-0.5**
IUG	**Iuzhnay**	**46.53**	**307**	*e*P	**P**	**01 46 19.2**	**+0.7**
	comp=Z,6.4nm,0.9s						
MTSU	**Mount Surprise**	**46.65**	**149**	P	**P**	**01 46 19.6**	**+0.1**
BRLS	**Borolday**	**46.80**	**308**	*e*P	**P**	**01 46 21.8**	**+1.3**
QIS	**Mount Isa**	**46.83**	**156**	P	**P**	**01 46 20.2**	**-0.6**
QIS	**Mount Isa**	**46.83**	**156**	P	**P**	**01 46 19.5**	**-1.4**
	comp=Z,16nm,0.7s						
KBL	**Kabul**	**46.83**	**296**	P	**P**	**01 46 23.0**	**+2.0**
	comp=Z,8.3nm,1.0s						
CHM	**Chimkent**	**46.87**	**307**	*e*P	**P**	**01 46 22.1**	**+1.0**
ASAR	**Alice Springs**	**47.98**	**164**	P	**P**	**01 46 28.5**	**-1.3**
	comp=Z,2.1nm,0.5s,baz=342,slow=6.9,SNR=21						
ASAR				PcP	**PcP**	**01 47 56.2**	**-1.7**
	comp=Z,1.2nm,0.4s,baz=335,slow=3.5,SNR=5.5						
	comp=Z,2.1nm,0.5s						
ASAR	**Alice Springs**	**47.98**	**164**	P	**P**	**01 46 30.6**	**+0.8**
ASAR					**PcP**	**01 47 56.6**	**-1.3**
AS01	**Alice Springs**	**47.99**	**164**	P	**P**	**01 46 29.6**	**-0.3**
BVAR	**Borovoye Array**	**48.68**	**321**	P	**P**	**01 46 35.4**	**+0.5**
	comp=Z,0.7nm,0.3s,baz=82,slow=11,SNR=5.5						
BVAR				PcP	**PcP**	**01 47 58.4**	**-1.6**
	comp=Z,1.9nm,0.7s,baz=119,slow=5.2,SNR=4.6						
	comp=Z,0.7nm,0.3s						
MEEK	**Meekatharra**	**49.45**	**183**	P	**P**	**01 46 39.8**	**-1.2**
NRIK	**Noril'sk**	**50.56**	**345**	P	**P**	**01 46 48.6**	**-0.3**
	comp=Z,1.6nm,0.3s,baz=112,slow=11,SNR=2.4						
	comp=Z,1.6nm,0.3s						
NRIK	**Noril'sk**	**50.56**	**345**	P	**P**	**01 46 48.5**	**-0.5**
NRIK				IAmb	IAmb	01 46 59.4	
	comp=Z,13nm,1.5s						
AB31	**Akbulak array**	**54.38**	**315**		**P**	**01 47 17.2**	**-0.4**
AB31				IAmb	IAmb	01 47 22.3	
	comp=Z,4.2nm,0.8s						
ABKAR	**Akbulak array**	**54.38**	**315**		**P**	**01 47 17.8**	**+0.2**
KLBR	**Kellerberrin**	**54.42**	**184**	P	**P**	**01 47 17.2**	**-0.8**
AKTO	**Aktyubinsk**	**55.73**	**316**	P	**P**	**01 47 27.6**	**+0.3**
	comp=Z,2.0nm,0.8s,baz=81,slow=5.4,SNR=6.7						
AKTO				LR	LR	02 12 55.6	
	comp=Z,152nm,21.0s,baz=281,slow=38						
	comp=Z,2.0nm,0.8s						
ARTI	**Arti**	**56.23**	**323**	LR	LR	02 13 11.9	
	comp=Z,187nm,21.3s,baz=314,slow=38						
ARTI	**Arti**	**56.23**	**323**		**P**	**01 47 30.5**	**-0.3**
BBOO	**Buckleboo**	**57.27**	**165**	P	**P**	**01 47 38.0**	**-0.4**
STKA	**Stephens Creek**	**57.92**	**160**	P	**P**	**01 47 40.6**	**-2.4**
	comp=Z,2.2nm,0.4s,baz=311,slow=7.3,SNR=4.5						
	comp=Z,2.2nm,0.4s						
CMSA	**Cobar Meteorol**	**59.04**	**156**	P	**P**	**01 47 50.6**	**-0.2**
CMSA	**Cobar Meteorol**	**59.04**	**156**	P	**P**	**01 47 51.6**	**+0.8**
	comp=Z,16nm,1.1s						
GNI	**Garni**	**65.61**	**305**	P	**P**	**01 48 35.4**	**+0.3**
	comp=Z,6.7nm,1.0s,baz=271,slow=9.8,SNR=3.8						
GNI				LR	LR	02 20 46.6	
	comp=Z,66nm,19.5s,baz=348,slow=39						
	comp=Z,6.7nm,1.0s						
GNI	**Garni**	**65.61**	**305**	P	**P**	**01 48 34.2**	**-0.9**
GNI				IAmb	IAmb	01 49 11.0	
	comp=Z,7.5nm,0.9s						
KBZ	**Khabaz**	**66.34**	**309**	P	**P**	**01 48 39.8**	**+0.3**
	comp=Z,5.6nm,0.8s,baz=127,slow=5.5,SNR=8.6						
	comp=Z,5.6nm,0.8s						
KIV	**Kislovodsk**	**66.45**	**309**	P	**P**	**01 48 40.5**	**+0.1**
KIV	**Kislovodsk**	**66.45**	**309**	⇑P	**P**	**01 48 41.2**	**+0.9**
KIV	**Kislovodsk**	**66.45**	**309**	P	**P**	**01 48 40.9**	**+0.5**
	comp=Z,12nm,1.0s						
OZAP	**Van, Ozalp-Mer**	**66.45**	**304**	⇓P	**P**	**01 48 41.6**	**+0.9**
HOMI	**Horasan**	**67.76**	**305**	⇓P	**P**	**01 48 49.9**	**+1.0**
OHAK	**Old Harbor**	**68.46**	**36**	P	**P**	**01 48 52.8**	**+0.2**
RAYN	**Ar Rayn**	**68.86**	**287**		**P**	**01 48 55.0**	**-0.8**
RAYN				IAmb	IAmb	01 48 57.1	
	comp=Z,3.3nm,0.8s						
RAYN	**Ar Rayn**	**68.86**	**287**	P	**P**	**01 48 56.8**	**+0.9**
	comp=Z,6.0nm,1.4s						
RND	**Reindeer**	**69.57**	**29**	P	**P**	**01 48 59.5**	**0.0**
RND				IAmb	IAmb	01 49 09.9	
	comp=Z,7.8nm,1.0s						
ILAR	**Eielson Array**	**70.15**	**27**	P	**P**	**01 49 03.9**	**+0.9**
	comp=Z,0.5nm,0.6s,baz=304,slow=5.6,SNR=2.6						
	comp=Z,0.5nm,0.6s						
ILAR	**Eielson Array**	**70.15**	**27**	P	**P**	**01 49 02.7**	**-0.3**
ARCES	**ARCESS Array B**	**70.67**	**338**	P	**P**	**01 49 05.6**	**-0.5**
	comp=Z,3.0nm,0.7s,baz=61,slow=8.5,SNR=12						
	comp=Z,3.0nm,0.7s						
ARCES	**ARCESS Array B**	**70.67**	**338**	P	**P**	**01 49 06.3**	**+0.2**
ARCES				IAmb	IAmb	01 49 24.8	
	comp=Z,7.8nm,1.1s						
M26K	**Nabesna, AK**	**72.41**	**29**	P	**P**	**01 49 16.4**	**-0.4**
M26K				IAmb	IAmb	01 49 41.4	
	comp=Z,6.3nm,1.3s						
FINES	**FINESS Array B**	**72.53**	**330**	P	**P**	**01 49 17.1**	**-0.3**
	comp=Z,5.2nm,0.7s,baz=49,slow=5.6,SNR=36						
	comp=Z,5.2nm,0.7s						
AK09	**Malin Array Si**	**73.84**	**318**	P	**P**	**01 49 25.5**	**+0.1**
AKASG	**Malin Array Be**	**73.85**	**319**	P	**P**	**01 49 25.1**	**-0.3**
	comp=Z,0.6nm,0.3s,baz=62,slow=6.0,SNR=7.4						
	comp=Z,0.6nm,0.3s						
AKASG	**Malin Array Be**	**73.85**	**319**	P	**P**	**01 49 24.4**	**-1.0**
AKBB	**Malin Array Si**	**73.85**	**319**	P	**P**	**01 49 24.6**	**-0.8**
BRTR	**Keskin Array B**	**74.00**	**307**	P	**P**	**01 49 26.9**	**+0.1**
	comp=Z,0.9nm,0.6s,baz=151,slow=3.5,SNR=6.2						

	comp=Z,0.9nm,0.6s						
BRTR	Keskin Array B	74.00	307	P	P	01 49 25.6	-1.2
BR106	Keskin Array S	74.02	307	P	P	01 49 27.0	+0.2
	comp=Z,2.6nm,1.1s						
M29M	Somme Creek	74.41	28		P	01 49 28.9	+0.3
M29M				IAmb	IAmb	01 50 02.1	
	comp=Z,5.3nm,1.4s						
LUBAR	Lubar, Ukraine	74.98	318	P	P	01 49 31.0	-1.0
AFI	Afiamalu	74.99	112	LR	LR	02 17 11.7	
	comp=Z,123nm,20.0s,baz=101,slow=32						
SORM	Soroca	75.16	316	⇓P	P	01 49 32.7	-0.4
SORM	Soroca	75.16	316	P	P	01 49 31.8	-1.3
	comp=Z,7.6nm,0.9s						
N30M	Aishikik Lake	75.36	29	P	P	01 49 35.2	+1.1
PABE	Paberze	75.39	324	P	P	01 49 34.5	+0.3
RNPP9	Sopachiv	75.64	320	P	P	01 49 35.6	-0.2
TLCR		75.77	313	⇑P	P	01 49 36.6	0.0
VLDR	Vladesti	76.05	314	⇓P	P	01 49 38.7	+0.4
SCTR	Scanteiesti	76.16	314	⇑P	P	01 49 39.6	+0.7
VARL	Varlezi	76.19	314	⇑P	P	01 49 39.8	+0.8
CFR	Carcaliu	76.23	313	⇓P	P	01 49 39.5	+0.3
SUW	Suwalki	76.32	323	P	P	01 49 38.4	-1.2
PANC	Panciu	76.66	314	⇑P	P	01 49 43.2	+1.5
GIRR	Girov	76.72	315	⇓P	P	01 49 42.2	+0.2
TESR	Tescani	76.77	315	⇓P	P	01 49 42.3	-0.1
TESR	Tescani	76.77	315	P	P	01 49 41.4	-1.0
	comp=Z,14nm,0.8s						
VRI	Vrincioaia	76.94	314	⇓P	P	01 49 44.4	+1.1
VRI	Vrincioaia	76.94	314	P	P	01 49 43.8	+0.5
	comp=Z,12nm,0.9s						
VRI	Vrincioaia	76.94	314	P	P	01 49 44.1	+0.8
	comp=Z,12nm,0.9s						
BIZ	Bicaz	76.98	316	⇓P	P	01 49 44.0	+0.5
PLOR	Plostina	76.99	314	⇑P	P	01 49 43.9	+0.2
ONER	Baraj Valea Uz	77.00	315	⇓P	P	01 49 44.6	+0.9
SAHR	Sahastru	77.01	314	⇓P	P	01 49 44.7	+0.9
COVR	Voineasa-Covas	77.29	314	⇓P	P	01 49 45.8	+0.5
BUR08	Bucovina Ar. S	77.32	316		P	01 49 45.5	0.0
BUR08				IAmb	IAmb	01 49 46.6	
	comp=Z,3.4nm,0.8s						
BURAR	Bucovina Array	77.32	316	P	P	01 49 45.9	+0.4
BURAR				IAmb	IAmb	01 49 46.8	
	comp=Z,3.5nm,0.8s						
BURAR	Bucovina Array	77.32	316	⇓P	P	01 49 46.1	+0.5
TURR	Turia	77.34	315	⇓P	P	01 49 46.5	+0.9
OZUR		77.48	315	⇓P	P	01 49 47.3	+0.9
MLR	Muntele Rosu	77.58	314	P	P	01 49 47.7	+0.6
	comp=Z,4.7nm,0.7s,baz=91,slow=23,SNR=11						
	comp=Z,4.7nm,0.7s						
MLR	Muntele Rosu	77.58	314		P	01 49 47.5	+0.4
MLR				IAmb	IAmb	01 49 48.7	
	comp=Z,5.0nm,0.7s						
MLR	Muntele Rosu	77.58	314	⇑P	P	01 49 47.7	+0.6
MLR	Muntele Rosu	77.58	314	P	P	01 49 47.3	+0.2
	comp=Z,7.0nm,0.7s						
ELL	Elmali	77.72	305	P	P	01 49 47.8	-0.2
ELL				IAmb	IAmb	01 49 55.5	
	comp=Z,6.1nm,0.7s						
KWP	Kalwaria Pacla	78.16	319	P	P	01 49 50.3	+0.2
	comp=Z,14nm,0.8s						
ARR	Arges	78.49	314	⇓P	P	01 49 52.6	+0.6
HUMR	Humele	78.56	314	⇑P	P	01 49 52.6	+0.3
HFS	Hagfors	78.66	331	P	P	01 49 51.8	-0.7
	comp=Z,4.9nm,0.7s,baz=108,slow=8.0,SNR=9.0						
HFS				LR	LR	02 27 46.5	
	comp=Z,144nm,20.8s,baz=68,slow=38						
	comp=Z,4.9nm,0.7s						
KOLS	Kolonicke sedl	78.68	318	*e*P	P	01 49 52.8	-0.2
MARR	Marisel-Cluj	78.99	316	⇑P	P	01 49 55.2	+0.4
LOT	Lotru	79.03	315	⇑P	P	01 49 55.2	+0.2
NC405	NORSAR Array S	79.08	332	P	P	01 49 53.5	-1.4
NC303	NORSAR Array S	79.17	332	P	P	01 49 53.8	-1.6
DRGR		79.21	316	⇑P	P	01 49 56.1	+0.1
NB201	NORSAR Array S	79.29	332	P	P	01 49 55.5	-0.5
NB201				IAmb	IAmb	01 49 55.8	
	comp=Z,10nm,0.8s						
NB2	NORSAR Subarra	79.33	332	P	P	01 49 55.5	-0.8
	comp=Z,1.7nm,0.5s,baz=56,slow=5.9						
NOA	NORSAR Array B	79.33	332	P	P	01 49 55.5	-0.8
	comp=Z,4.2nm,0.7s,baz=62,slow=5.2,SNR=18						
NOA				LR	LR	02 29 07.1	
	comp=Z,102nm,19.2s,baz=255,slow=39						
	comp=Z,4.2nm,0.7s						
NC204	NORSAR Array S	79.41	333	P	P	01 49 55.8	-0.9
DEV	Deva	79.43	315	⇑P	P	01 49 58.1	+1.0
DEV	Deva	79.43	315	P	P	01 49 58.0	+0.9
	comp=Z,12nm,1.0s						
NAO01	NORSAR Array S	79.56	332	P	P	01 49 56.9	-0.7
OJC	Ojcow	79.67	320		P	01 49 57.9	-0.4
OJC	Ojcow	79.67	320	P	P	01 49 58.4	+0.1
	comp=Z,15nm,1.1s						
NIE	Niedzica	79.69	319	P	P	01 49 58.9	+0.4
SIRR	Siria	80.08	316	⇓P	P	01 50 00.8	+0.2
LBZ	Lake Benmore	80.57	147	P	P	01 50 03.1	0.0
VYHS	Vyhne	80.95	319	*e*P	P	01 50 06.1	+0.8
MORC	Moravsky Berou	81.18	320	*e*P	P	01 50 06.9	+0.4
JAVC	Velka Javorina	81.50	320	*e*P	P	01 50 09.4	+1.2
KRLC	Kraliky	81.50	321	*e*P	P	01 50 08.7	+0.5
DPC	Dobruska-Polom	81.64	321	*e*P	P	01 50 09.5	+0.5
UPC	Upice	81.75	322	*e*P	P	01 50 10.0	+0.5
MODS	Modra-Piesok	81.94	319	*e*P	P	01 50 10.8	+0.3
VRAC	Vranov	81.94	320	*e*P	P	01 50 11.1	+0.6
MORH	Mrgy, Hungar	82.02	317	⇓P	P	01 50 10.9	0.0
KRUC	Moravsky	82.17	320	*e*P	P	01 50 12.2	+0.5
RONA	Rosalia, Austr	82.83	319	*e*P	P	01 50 15.9	+0.6
	comp=Z,1.3nm,0.6s						
CONA	Conrad Observa	82.99	319	*i* P	P	01 50 16.5	+0.4
	comp=Z,4.2nm,1.2s						
CLL	Collm	83.08	323	*i* P	P	01 50 16.3	-0.1
	comp=Z,7.0nm,0.9s						
CLL				*i* pP	pP	01 50 22.4	+0.1
CLL				LH		02 15 00.0	
CLL				AMS	AMS	02 31 00.0	
	comp=Z,200nm,18.4s						
PDG	Podgorica	83.21	313	P	P	01 50 17.1	-0.1
ARSA	Arzberg	83.50	319	*e*P	P	01 50 18.5	-0.1
	comp=Z,5.4nm,1.5s						
ITM	Ithomi	83.50	308	P	P	01 50 18.0	-0.9
CKRC	Cesky Krumlov	83.50	321	*e*P	P	01 50 19.0	+0.3
KHC	Kasperske Hory	83.78	321	*e*P	P	01 50 20.2	+0.1
GEC2	GERESS Array S	83.85	321	P	P	01 50 20.5	+0.1
GEC2				IAmb	IAmb	01 50 21.3	
	comp=Z,3.9nm,0.8s						
GERES	GERESS Array B	83.85	321	P	P	01 50 20.6	+0.1
	comp=Z,3.7nm,0.7s,baz=67,slow=4.5,SNR=23						
	comp=Z,3.7nm,0.7s						
GERES	GERESS Array B	83.85	321	P	P	01 50 20.4	-0.1
YKA	Yellowknife Ar	83.96	23	P	P	01 50 19.4	-1.2
	comp=Z,0.8nm,0.6s,baz=314,slow=4.7,SNR=6.7						
	comp=Z,0.8nm,0.6s						
YKA	Yellowknife Ar	83.96	23	P	P	01 50 18.6	-2.0
MOA	Molln	83.98	320	*i* P	P	01 50 21.6	+0.5
	comp=Z,8.5nm,1.1s						
SOKA	Soboth	84.06	318	*i* P	P	01 50 21.5	-0.1
	comp=Z,3.5nm,0.9s						
BIOA	Bad Ischl, Aus	84.43	320	*e*P	P	01 50 23.1	-0.3
	comp=Z,1.6nm,0.7s						
OBKA	Obir	84.43	318	*i* P	P	01 50 23.3	-0.2
	comp=Z,7.9nm,1.6s						
KBA	Koelnbreinsper	84.89	319	*e*P	P	01 50 25.7	-0.3
	comp=Z,2.6nm,0.6s						
MYKA	Terra Mystica	84.93	319	*e*P	P	01 50 26.3	+0.3
	comp=Z,1.5nm,0.5s						
LESA	Schwarzleotal	85.13	320	*i* P	P	01 50 26.8	-0.2
	comp=Z,3.3nm,0.9s						
ABTA	Abfaltersbach	85.55	319	*i* P	P	01 50 28.0	-1.1
	comp=Z,4.0nm,1.1s						
WATA	Walderalm	85.82	320	*e*P	P	01 50 29.5	-1.1
	comp=Z,1.2nm,0.6s						
WTTA	Wattenberg	85.82	320	*i* P	P	01 50 29.6	-1.0
	comp=Z,5.0nm,0.8s						
MOTA	Moosalm	86.10	320	*e*P	P	01 50 31.7	-0.2
	comp=Z,3.9nm,1.1s						
SQTA	Sankt Quirin	86.10	320	*i* P	P	01 50 31.4	-0.5
	comp=Z,3.7nm,0.8s						
RETA	Reutte	86.23	320	*i* P	P	01 50 31.6	-0.9
	comp=Z,2.9nm,1.2s						
FETA	Feichten	86.48	320	*e*P	P	01 50 32.6	-1.3
	comp=Z,5.0nm,1.9s						
DAVA	Damuels	86.84	321	*i* P	P	01 50 34.9	-0.7
	comp=Z,3.6nm,1.0s						
FUORN	Ofenpass-Fuorn	86.96	320	P	P	01 50 35.8	-0.5
FUORN				IAmb	IAmb	01 50 46.5	
	comp=Z,3.4nm,0.8s						
FDMO	Fiordimonte	86.99	316	P	P	01 50 36.3	+0.1
DAVOX	Davos/Dischmat	87.11	320	LR	LR	02 30 16.6	
	comp=Z,158nm,22.0s,baz=254,slow=36						
BORG	Borgarnes	87.88	345	LR	LR	02 33 35.9	
	comp=Z,53nm,18.1s,baz=192,slow=38						
VAE	Valguarnera	88.75	310	LR	LR	02 38 15.2	
	comp=Z,238nm,18.6s,baz=82,slow=41						
EKA	Eskdalemuir Ar	88.81	332	P	P	01 50 43.9	-0.7
	comp=Z,0.8nm,0.6s,baz=36,slow=3.8,SNR=3.4						
EKA				LR	LR	02 34 47.8	
	comp=Z,138nm,18.4s,baz=360,slow=38						
	comp=Z,0.8nm,0.6s						
ELK	Elko	97.60	40	LR	LR	02 32 07.8	
	comp=Z,67nm,22.0s,baz=186,slow=33						
MG03	Isla Dawson	147.95	167	PKPdf	PKPdf	01 57 33.2	+0.5

FCIAR ***17*** *01:39:46.0, 79°.71N × 13°.87E, h10^{km}, station ZFI2 has station magnitude of 4.00 station OMEGA has station magnitude of 4.00*

KOLA ***17*** *01:40:05.2, 78°.25N × 12°.87E, h0^{km}, ML2.5, Error ellipse: s-maj=4.5km s-min=3.8km az=20.0, Spitsbergen,Greenland sea*

BER ***17*** *01:40:06.1±1.6, 78°.36N × 12°.80E, h1^{km}±9^{km}, ML2.6, Confirmed Earthquake*

ISC 17 01:40:01.6±1.0, **78°.50N**±0°.07×**12°.77E**±0°.05, **h10^{km}, n20,** σ**3^{s}.46**/25, **Svalbard region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BRBB	Barentsburg B	0.50	144	*e*P	Pb	01 40 12.7	+0.2
BRBB	Barentsburg B	0.50	144	P	Pg	01 40 12.2	+0.9
BRBB				S	Sg	01 40 17.2	-0.8
SPA0	Spitsbergen Ar	0.80	112	*e*P	Pg	01 40 15.9	-1.1
SPA0				*e*S	Sn	01 40 37.8	+6.9
SPA0	Spitsbergen Ar	0.80	112	*e*P	Pn	01 40 19.6	+0.7
SPA0				*e*S	Sb	01 40 29.7	+1.2
SPA0				IAML		01 40 39.4	
	comp=Z,323nm,0.7s						
SPITS	Spitsbergen Ar	0.80	112	P	Pb	01 40 19.3	+1.7
SPITS				S	Sb	01 40 29.9	+1.4
HOPEN	Hopen	3.32	121	*e*P	Pn	01 40 55.4	+1.9
HOPEN				*e*S	Sb	01 41 43.0	+2.2
HOPEN	Hopen	3.32	121	*e*P	Pn	01 40 55.8	+2.3
HOPEN				*e*S	Sn	01 41 33.2	+0.2
HOPEN				IAML		01 41 48.2	
	comp=Z,41nm,0.5s						
BEA1	Bear Island, N	4.28	157	*e*P	Pn	01 41 09.9	+3.3
BEA1				*e*		01 42 16.2	
BEA1				IAML		01 42 22.1	
	comp=Z,25nm,0.8s						
NOR	Nord	5.90	315	*e*P	Pn	01 41 36.4	+7.6
NOR	Nord	5.90	315	*e*P	Pn	01 41 36.1	+7.3
NOR	Nord	5.90	315	*i* P	Pn	01 41 36.6	+7.8
ZFI2	Zemlya Franca-	6.60	53	*e*P	Pn	01 41 44.5	+6.1
ZFI2				*e*S	Sn	01 42 51.6	-1.8
	comp=Z,75nm,1.2s						
ZFI2				AML	AML		
OMEGA	Omega	6.61	53	*e*P	Pn	01 41 44.5	+6.0
OMEGA				*e*S	Sn	01 42 51.6	-2.1
	comp=Z,69nm,1.0s						
OMEGA				AML	AML		
DAG	Danmarks Havn	6.90	271	*e*S	Sn	01 42 58.4	-2.5
DAG	Danmarks Havn	6.90	271	*i* P	Pn	01 41 49.6	+7.2
DAG				*i* S	Sn	01 43 00.3	-0.5
DAG				IAML		01 43 03.0	
	comp=Z,5.1nm,0.5s						
HAMF	Hammerfest	8.39	154	*e*P	Pn	01 42 03.4	+0.3
HAMF				*e*S	Sn	01 43 28.8	-8.8
DBG	Daneborg	8.70	258	*e*P	Pn	01 42 10.8	+3.5
DBG				*i* S	Sn	01 43 42.3	-2.9
DBG				IAML		01 43 51.0	
	comp=Z,7.4nm,1.0s						
VADS	Vadso	9.48	144	P	Pn	01 42 20.4	+2.5
VADS				S	Sn	01 43 57.8	-6.5
ARCES	ARCESS Array B	9.63	152	S	Sn	01 44 01.6	-6.4
TERR	Teriberka	11.09	135	S	Sn	01 44 36.2	-7.5

IDC ***17*** *02:02:53.8±1.4, 8°.13S × 117°.73E, h0^{km}, mb3.8/3, mbtmp3.8/6, ML3.6/3, MS3.7/2, Error ellipse: s-maj=29.4km s-min=15.0km az=75.0*

NEIC ***17*** *02:02:54.8±1.6, 8°.31S±0°.08 × 117°.6E±0°.1, h10^{km}±1^{km}, mb4.1/8, Error ellipse: s-maj=20.7km s-min=10.3km az=62.0*

ISC 17 02:02:54.3±0.8, **8°.36S**±0°.06×**117°.8E**±0°.1, **h10^{km}, n24,** σ**1^{s}.92**/26, **mb4.0**/4, **Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAPI	Kappang	3.84	30	Pn	Pn	02 03 54.9	+1.4
	4.7nm,0.3s,baz=216,slow=8.8,SNR=8.3						
KAPI				Sn	Sn	02 04 37.3	-1.4
	4.5nm,0.3s,baz=62,slow=22,SNR=7.3						
	10nm,0.2s						
KAPI				AML	AML		
KAPI	Kappang	3.84	30		Pn	02 03 54.5	+1.0
KAPI					Sn	02 04 37.7	-1.1
FITZ	Fitzroy Crossi	12.32	143	Pn	Pn	02 05 53.0	+3.1
	0.2nm,0.3s,baz=328,slow=15,SNR=1.5						
FITZ				Sn	Sn	02 08 02.9	-4.5
	0.1nm,0.3s,baz=353,slow=11,SNR=1.6						
	0.8nm,0.4s						
FITZ				AML	AML		
FITZ	Fitzroy Crossi	12.32	143		Pn	02 05 52.4	+2.4
MBWA	Marble Bar	12.86	172	Pn	Pn	02 05 58.5	+1.2
WB0	Warramunga Arr	19.66	127		P	02 07 24.6	+1.0
WRA	Warramunga Arr	19.71	127	P	P	02 07 26.3	+2.1
	0.2nm,0.3s,baz=302,slow=12,SNR=8.4						
WRA				S	S	02 11 04.4	-2.3
	0.6nm,0.8s,baz=306,slow=23,SNR=2.3						
	1.2nm,0.7s						
WRA				AML	AML		
WRA	Warramunga Arr	19.71	127	P	P	02 07 25.3	+1.2
WB2	Warramunga Arr	19.73	127	P	P	02 07 25.9	+1.6
WB2				IAmb	IAmb	02 07 34.5	
	comp=Z,8.1nm,1.2s						
WR8	Warramunga Arr	19.85	127	P	P	02 07 26.4	+0.8
WR8				IAmb	IAmb	02 07 37.2	
	comp=Z,15nm,1.4s						
ASAR	Alice Springs	21.67	136	P	P	02 07 48.7	+3.3
	comp=Z,2.0nm,0.5s,baz=315,slow=8.8,SNR=34						
	comp=Z,2.0nm,0.5s						
ASAR	Alice Springs	21.67	136	P	P	02 07 47.3	+2.0
KRVT	Keravat (AS076	34.24	85	LR	LR	02 28 18.9	
	comp=Z,77nm,18.3s,baz=134,slow=44						
ARMA	Armidale	38.48	129	P	P	02 10 15.7	-1.2
SONM	Songino Array	56.85	351	P	P	02 12 38.6	-0.6
	comp=Z,1.1nm,0.7s,baz=176,slow=8.0,SNR=5.7						
	comp=Z,1.1nm,0.7s						
SONM	Songino Array	56.85	351	P	P	02 12 37.7	-1.5
SONM				IAmb	IAmb	02 12 40.0	
	comp=Z,1.4nm,0.9s						
MKAR	Makanchi Array	63.35	333	P	P	02 13 23.0	-0.8
	comp=Z,0.7nm,0.7s,baz=153,slow=4.4,SNR=4.0						
	comp=Z,0.7nm,0.7s						
MKAR	Makanchi Array	63.35	333	P	P	02 13 22.1	-1.7
AAK	Ala-Archa	64.29	326	P	P	02 13 29.3	-0.9
ZALV	Zalesovo Beam	68.03	340	P	P	02 13 53.7	0.0
PETK	Petropavlovsk-	69.97	24	P	P	02 14 07.5	+1.7
ABKAR	Akbulak array	76.36	325	P	P	02 14 43.4	-0.4
AKTO	Aktyubinsk	78.03	326	LR	LR	02 53 26.2	
	comp=Z,54nm,19.9s,baz=220,slow=39						
QSPA	South Pole Qui	81.64	180	P	P	02 15 12.4	-0.2
QSPA				IAmb	IAmb	02 15 55.2	
	comp=Z,3.6nm,1.3s						

IDC ***17*** *02:25:26.0±1.3, 6°.30S × 131°.12E, h0^{km}, mb4.2/4, mbtmp4.4/7, ML4.6/3, Error ellipse: s-maj=47.2km s-min=14.8km az=88.0*

NEIC ***17*** *02:25:31.7±1.7, 6°.62S±0°.07 × 132°.2E±0°.1, h79^{km}±12^{km}, mb4.0/2, Error ellipse: s-maj=21.2km s-min=5.8km az=112.0*

ISC 17 02:25:29.9±0.9, **6°.71S**±0°.06×**132°.5E**±0°.1, **h50^{km}, n22,** σ**2^{s}.87**/23, **mb4.0**/6, **Tanimbar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SAUI	Saumlaki	1.73	223	Pn	Pn	02 25 58.4	+0.8
SAUI				Sn	Sn	02 26 19.9	+1.3
FAKI	Fak Fak	3.78	356	Pn	Pn	02 26 25.9	+0.2
MTN	Manton Dam	6.24	192	Pn	Pn	02 27 02.1	+2.6
KNRA	Kununurra	9.63	202	Pn	Pn	02 27 44.7	-1.3
WB0	Warramunga Arr	13.11	172		Pn	02 28 35.8	+2.3
FITZ	Fitzroy Crossi	13.14	210	Pn	Pn	02 28 27.4	-6.6
	6.4nm,0.3s,baz=32,slow=10.0,SNR=106						
FITZ				Sn	Sn	02 30 39.9	-19
	3.2nm,0.3s,baz=103,slow=21,SNR=11						
	13nm,0.3s						
FITZ				AML	AML		
FITZ	Fitzroy Crossi	13.14	210	Pn	Pn	02 28 26.8	-7.2
FITZ					Sn	02 30 42.2	-17
WRAB	Tennant Creek	13.26	172	Pn	Pn	02 28 37.5	+1.8
WRA	Warramunga Arr	13.27	172	Pn	Pn	02 28 38.0	+2.2
	1.9nm,0.3s,baz=344,slow=13,SNR=39						
WRA				Sn	Sn	02 30 58.9	-3.0
	3.6nm,0.3s,baz=346,slow=24,SNR=14						
	4.4nm,0.6s						
WRA				AML	AML		
WRA	Warramunga Arr	13.27	172		Pn	02 28 36.3	+0.5
WRA					Sn	02 31 00.1	-1.8
WR8	Warramunga Arr	13.31	172	Pn	Pn	02 28 38.8	+2.5
WR0	Warramunga Arr	13.32	172	Pn	Pn	02 28 39.6	+3.2
AS31	Alice Springs	16.91	176		Pn	02 29 26.0	+2.7
AS31				IAmb	IAmb	02 29 28.4	
	comp=Z,4.3nm,0.3s						
ASAR	Alice Springs	16.91	176	Pn	Pn	02 29 25.6	+2.4
	comp=Z,1.4nm,0.3s,baz=344,slow=8.3,SNR=39						
ASAR				Sn	Sn	02 32 26.1	-4.2
	comp=Z,0.8nm,0.3s,baz=356,slow=27,SNR=6.8						
	comp=Z,3.7nm,0.5s						
ASAR				AML	AML		
ASAR	Alice Springs	16.91	176		Pn	02 29 26.2	+3.0
HHC	Hu-ho-hao-te	51.09	340	*e*P	P	02 34 32.0	+4.3
HHC				pmax	pmax		
	comp=Z,10.0nm,0.7s						
HHC				pmax	pmax		
	comp=Z,37nm,4.6s						
MKAR	Makanchi Array	69.37	326	P	P	02 36 29.6	-3.0
	comp=Z,2.4nm,0.4s,baz=115,slow=7.3,SNR=23						
	comp=Z,2.4nm,0.4s						
ZALV	Zalesovo Beam	72.45	333	P	P	02 36 47.3	-3.6
	comp=Z,0.8nm,0.5s,baz=121,slow=5.4,SNR=4.0						
	comp=Z,0.8nm,0.5s						
KURBB	Kurchatov Arra	73.58	328	P	P	02 36 54.7	-3.1
	comp=Z,0.9nm,0.4s,baz=126,slow=4.9,SNR=16						
	comp=Z,0.9nm,0.4s						
KURK	Kurchatov	73.59	328	P	P	02 36 54.7	-3.1
KURK	Kurchatov	73.59	328	IAmb	IAmb	02 36 55.9	
	comp=Z,1.6nm,0.9s						
BVAR	Borovoye Array	79.16	327	P	P	02 37 26.0	-3.4
	comp=Z,0.8nm,0.5s,baz=107,slow=5.1,SNR=5.1						
	comp=Z,0.8nm,0.5s						

IDC 17 02:38:14.2±83.0, **41°.48N**×**177°.65E, h0^{km}, Error ellipse: s-maj=243.3km s-min=6.1km az=158.0, North Pacific Ocean**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H11N2	WAKE ISLAND Hy	23.54	206	H	H	03 07 38.5	
	baz=20,slow=76,SNR=36						
H11N3	WAKE ISLAND Hy	23.54	206	H	H	03 07 39.6	
	baz=20,slow=76,SNR=26						
H11N1	WAKE ISLAND Hy	23.55	206	H	H	03 07 40.5	
	baz=20,slow=76,SNR=34						
H11S1	WAKE ISLAND Hy	24.74	206	H	H	03 09 09.8	
	baz=19,slow=76,SNR=72						
H11S2	WAKE ISLAND Hy	24.76	205	H	H	03 09 11.1	
	baz=19,slow=76,SNR=97						
H11S3	WAKE ISLAND Hy	24.76	206	H	H	03 09 11.4	
	baz=19,slow=76,SNR=40						
H03N2	Juan Fernandez	120.51	109	H	H	05 08 53.4	
	baz=309						
H03N1	Juan Fernandez	120.53	109	H	H	05 08 54.8	
	baz=313						

IDC 17 02:40:01.9±85.0, **41°.54N**×**177°.63E, h0^{km}, Error ellipse: s-maj=246.9km s-min=6.1km az=158.0, North Pacific Ocean**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H11N2	WAKE ISLAND Hy	23.58	206	H	H	03 09 29.1	
	baz=20,slow=76,SNR=33						
H11N3	WAKE ISLAND Hy	23.58	206	H	H	03 09 30.7	
	baz=20,slow=76,SNR=23						
H11N1	WAKE ISLAND Hy	23.59	206	H	H	03 09 31.4	
	baz=20,slow=76,SNR=30						
H11S1	WAKE ISLAND Hy	24.78	205	H	H	03 11 00.5	
	baz=19,slow=76,SNR=86						
H11S2	WAKE ISLAND Hy	24.80	205	H	H	03 11 00.7	
	baz=19,slow=76,SNR=116						
H11S3	WAKE ISLAND Hy	24.80	205	H	H	03 11 02.1	
	baz=19,slow=76,SNR=73						
H03N2	Juan Fernandez	120.54	109	H	H	05 10 43.5	
	baz=301						
H03N1	Juan Fernandez	120.56	109	H	H	05 10 44.8	
	baz=320						

IDC 17 02:41:21.5±87.0, **42°.14N**×**177°.33E, h0^{km}, Error ellipse: s-maj=251.5km s-min=8.6km az=157.0, North Pacific Ocean**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H11N2	WAKE ISLAND Hy	24.02	205	H	H	03 11 24.6	
	baz=20,slow=76,SNR=35						
H11N3	WAKE ISLAND Hy	24.03	205	H	H	03 11 25.3	
	baz=20,slow=76,SNR=16						
H11N1	WAKE ISLAND Hy	24.04	205	H	H	03 11 26.3	
	baz=20,slow=76,SNR=24						
H11S1	WAKE ISLAND Hy	25.23	204	H	H	03 12 55.6	
	baz=19,slow=76,SNR=51						
H11S2	WAKE ISLAND Hy	25.25	204	H	H	03 12 56.6	
	baz=19,slow=76,SNR=81						
H11S3	WAKE ISLAND Hy	25.25	204	H	H	03 12 56.1	
	baz=19,slow=76,SNR=43						
H03N2	Juan Fernandez	120.95	109	H	H	05 12 34.3	
	baz=309						
H03N1	Juan Fernandez	120.97	109	H	H	05 12 35.7	
	baz=313						

IDC ***17*** *02:43:35.2±1.2, 7°.40S × 120°.43E, h0^{km}, mb3.8/3, mbtmp3.8/6, ML3.2/3, Error ellipse: s-maj=92.4km s-min=12.7km az=65.0*

NEIC ***17*** *02:43:35.6±2.1, 7°.5S±0°.1 × 120°.4E±0°.2, h10^{km}±1^{km}, mb4.2/10, Error ellipse: s-maj=41.5km s-min=9.3km az=248.0*

ISC 17 02:43:34.8±0.7, **7°.59S**±0°.09×**120°.3E**±0°.2, **h10^{km}, n21,** σ**1^{s}.85**/25, **mb4.1**/7, **Flores Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAPI	Kappang	2.62	348	Pn	Pn	02 44 16.3	-0.9
	2.3nm,0.3s,baz=200,slow=8.8,SNR=14						
KAPI				Sn	Sn	02 44 48.8	-0.3
	10nm,0.3s,baz=10,slow=21,SNR=7.4						
	19nm,0.6s						
KAPI				AML	AML		
KAPI	Kappang	2.62	348		Pn	02 44 15.9	-1.3
KAPI					Sn	02 44 47.1	-2.0
FITZ	Fitzroy Crossi	11.66	154	Pn	Pn	02 46 21.9	+0.5
	baz=315,slow=17,SNR=1.1						
FITZ				Sn	Sn	02 48 25.9	-6.0
	0.2nm,0.3s,baz=171,slow=21,SNR=6.5						
	1.3nm,1.0s						
FITZ	Fitzroy Crossi	11.66	154		Pn	02 46 21.4	-0.1
FITZ					Sn	02 48 31.1	-0.8
WB0	Warramunga Arr	18.25	133		P	02 47 50.8	+2.1
WRA	Warramunga Arr	18.33	133	P	P	02 47 52.0	+2.5
	0.2nm,0.3s,baz=306,slow=13,SNR=16						
	2.5nm,0.8s						
WRA				AML	AML		
WRA	Warramunga Arr	18.33	133	P	Pn	02 47 48.7	-0.6
WB2	Warramunga Arr	18.34	133		P	02 47 51.0	+1.5
WR8	Warramunga Arr	18.45	133		Pn	02 47 53.4	+2.5
WR8				IAmb	IAmb	02 47 56.2	
	comp=Z,7.0nm,0.9s						
ASAR	Alice Springs	20.64	142	P	P	02 48 16.4	+1.7
	comp=Z,2.2nm,0.7s,baz=310,slow=8.6,SNR=28						
	comp=Z,2.2nm,0.7s						
MORW	Morawa	21.73	190	P	P	02 48 26.9	+0.5
MORW				IAmb	IAmb	02 48 30.5	
	comp=Z,10.0nm,1.1s						

MKAR	**Makanchi Array**	**63.81**	**332**	P	**P**	**02 54 08.9**	**+1.6**
	comp=Z,0.8nm,0.6s,baz=144,slow=7.6,SNR=6.1						
	comp=Z,0.8nm,0.6s						
MKAR	**Makanchi Array**	**63.81**	**332**	P	**P**	**02 54 07.8**	**+0.4**
KK31	**Karatay Array**	**67.70**	**323**	P	**P**	**02 54 32.2**	**-0.3**
KK31				IAmb	IAmb	02 54 34.2	
	comp=Z,1.2nm,1.1s						
PEA0B	**Petropavlovsk-**	**68.28**	**23**	P	**P**	**02 54 36.0**	**+0.2**
KURBB	**Kurchatov Arra**	**68.30**	**333**	P	**P**	**02 54 38.1**	**+2.1**
	comp=Z,0.5nm,0.5s,baz=141,slow=6.4,SNR=5.8						
	comp=Z,0.5nm,0.5s						
KURK	**Kurchatov**	**68.32**	**333**	P	**P**	**02 54 36.5**	**+0.3**
KURK				IAmb	IAmb	02 54 51.7	
	comp=Z,1.2nm,0.9s						
ABKAR	**Akbulak array**	**77.17**	**324**	P	**P**	**02 55 29.2**	**+0.4**
J17K	**VABM Dome**	**92.55**	**26**	P	**P**	**02 56 46.4**	**+0.2**
N18K	**Kilae Creek**	**93.54**	**29**	P	**P**	**02 56 50.4**	**-0.4**
N18K				IAmb	IAmb	02 56 58.3	
	comp=Z,3.4nm,1.1s						
J18K	**Innoko River**	**93.61**	**27**	P	**P**	**02 56 50.2**	**-0.9**
J18K				IAmb	IAmb	02 57 02.1	
	comp=Z,1.2nm,0.8s						

IDC 17 02:43:36.5±90.0**,41°.74N×177°.62E,h0^{km},Error ellipse: s-maj=262.6km s-min=7.7km az=157.0,North Pacific Ocean**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H11N2	**WAKE ISLAND Hy**	**23.76**	**206**	H	H	03 13 19.1	
	baz=20,slow=76,SNR=44						
H11N3	**WAKE ISLAND Hy**	**23.76**	**206**	H	H	03 13 19.6	
	baz=20,slow=76,SNR=25						
H11N1	**WAKE ISLAND Hy**	**23.77**	**206**	H	H	03 13 20.7	
	baz=20,slow=76,SNR=21						
H11S1	**WAKE ISLAND Hy**	**24.96**	**205**	H	H	03 14 49.8	
	baz=20,slow=76,SNR=47						
H11S2	**WAKE ISLAND Hy**	**24.98**	**205**	H	H	03 14 51.0	
	baz=20,slow=76,SNR=89						
H11S3	**WAKE ISLAND Hy**	**24.98**	**205**	H	H	03 14 51.1	
	baz=20,slow=76,SNR=44						
H03N2	**Juan Fernandez**	**120.62**	**109**	H	H	05 14 23.8	
	baz=305						
H03N1	**Juan Fernandez**	**120.63**	**109**	H	H	05 14 25.1	
	baz=317						

CNRM ***17*** *02:51:59.8,34°.51N×16°.12W,h10^{km}*

MDD ***17*** *02:52:02.4±0.9,34°.44N×16°.05W,h0^{km},Mb4.3/7, M_mb3.7/7,Error ellipse: s-maj=9.7km s-min=3.9km az=113.0*

INMG ***17*** *02:52:06.9±1.1,34°.50N×16°.30W,h24^{km},ML2.6,Error ellipse: s-maj=7.2km s-min=1.7km az=118.0, #DIST_RANGE: LOCAL #IPMA_REGION: N Porto Santo (Madeira)*

ISC 17 02:52:03.4±1.4**,34°.47N**±0°.08×**16°.17W**±0°.07**,h35^{km},n66,** σ**1^{s}84**/64**,10C,Madeira Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMPST	**Porto Santo, M**	**1.39**	**186**	⇑*i*P	**Pn**	**02 52 27.1**	**+0.7**
PMPST				*e*S	**Sn**	**02 52 42.8**	**-0.6**
PMPST				*i* IAML		02 52 43.3	
PMPST				*i* IAML		02 52 43.5	
PMPST				*i* IAML		02 52 44.1	
PMPS	**Porto Santo**	**1.41**	**186**	⇑*i*P	**Pn**	**02 52 27.3**	**+0.7**
PMPS				*i* IAML		02 52 44.3	
PMAR	**Madeira**	**1.85**	**200**	⇑*i*P	**Pn**	**02 52 32.6**	**-0.1**
PMAR				*e*S	**Sn**	**02 52 52.9**	**-2.1**
PMAR				*i* IAML		02 52 55.1	
PMAR				*i* IAML		02 52 55.3	
PMAR				*i* IAML		02 52 56.9	
PMAR	**Madeira**	**1.85**	**200**	P	**Pn**	**02 52 32.1**	**-0.7**
PMAR				S	**Sn**	**02 52 55.6**	**+0.7**
PMOZ	**Porto Moniz, M**	**1.85**	**208**	Pn	**Pn**	**02 52 32.5**	**-0.3**
PMOZ				Sn	**Sn**	**02 53 00.8**	**+5.9**
PMOZ	**Porto Moniz, M**	**1.85**	**208**	*e*P	**Pn**	**02 52 32.9**	**+0.1**
PMOZ				*e*S	**Sn**	**02 52 52.7**	**-2.3**
PMOZ				*i* IAML		02 53 03.0	
PMOZ	**Porto Moniz, M**	**1.85**	**208**	P	**Pn**	**02 52 32.7**	**0.0**
PMOZ				S	**Sn**	**02 52 57.2**	**+2.2**
FUL	**Funchal**	**1.91**	**199**	⇑*e*P	**Pn**	**02 52 33.4**	**-0.1**
FUL				*e*S	**Sn**	**02 52 53.7**	**-2.6**
FUL				*i* IAML		02 52 55.9	
FUL				*i* IAML		02 52 56.0	
FUL				*i* IAML		02 52 56.3	
CDLV	**Cueva Verdes**	**5.77**	**156**	Pn	**Pn**	**02 53 27.7**	**+1.2**
CDLV				⇑IVmb_VC		02 53 32.3	
	368nm,SNR=1.1						
CDLV				Sn	Sn	02 54 27.7	-3.8
CFUE	**Fuerteventura**	**6.11**	**161**	Pn	**Pn**	**02 53 31.8**	**+0.7**
CFUE				⇑IVmb_VC		02 53 35.3	
	265nm,SNR=2.1						
CFUE				Sn	**Sn**	**02 54 36.1**	**-3.7**
CGIN	**Giniginamar, F**	**6.49**	**164**	Pn	**Pn**	**02 53 36.5**	**+0.1**
CGIN				Sn	Sn	02 54 44.1	-5.2
PFVI	**Vila Bisbo**	**6.53**	**64**	Pn	**Pn**	**02 53 38.6**	**+1.6**
PFVI				Sn	Sn	02 54 44.1	-6.1
PFVI	**Vila Bisbo**	**6.53**	**64**	*e*P	**Pn**	**02 53 38.7**	**+1.8**
PFVI				*e*S	Sn	02 54 44.4	-5.7
PFVI				*i* IAML		02 54 48.9	
PFVI				*i* IAML		02 54 49.0	
PFVI	**Vila Bisbo**	**6.53**	**64**	P	Pn	02 53 36.2	-0.7
PFVI				S	**Sn**	**02 54 49.3**	**-0.8**
MORF	**Marmelete**	**6.72**	**63**	*e*P	**Pn**	**02 53 41.4**	**+1.8**
MORF				*e*S	Sn	02 54 51.5	-3.4
MORF				*i* IAML		02 54 56.0	
MORF				*i* IAML		02 54 56.6	
MORF				*i* IAML		02 54 56.7	
PTEO	**Sao Teotonio**	**6.77**	**61**	*e*P	**Pn**	**02 53 42.5**	**+2.3**
PTEO				*e*S	Sn	02 54 52.1	-3.9
PTEO				*i* IAML		02 55 02.6	
PMAFR	**Mafra**	**7.11**	**49**	Pn	**Pn**	**02 53 46.1**	**+1.1**
PMAFR				Sn	Sn	02 54 56.9	-7.7
PMAFR	**Mafra**	**7.11**	**49**	*e*S	Sn	02 54 58.8	-5.7
PMAFR				*i* IAML		02 55 07.2	
PMAFR				*i* IAML		02 55 10.9	
PLOUS	**Minas do Lousa**	**7.20**	**58**	*e*P	**Pn**	**02 53 47.6**	**+1.5**
PLOUS				*e*S	Sn	02 55 01.8	-4.8
PLOUS				*i* IAML		02 55 06.2	
PLOUS				*i* IAML		02 55 08.2	
PLOUS				*i* IAML		02 55 18.8	
PBDV	**Barranco-do-Ve**	**7.24**	**65**	Pn	**Pn**	**02 53 48.6**	**+1.9**
PBDV				Sn	Sn	02 55 01.5	-6.1
PBDV	**Barranco-do-Ve**	**7.24**	**65**	*e*P	**Pn**	**02 53 48.9**	**+2.2**
PBDV				*e*S	Sn	02 55 02.8	-4.8
PBDV				*i* IAML		02 55 07.5	
PBDV				*i* IAML		02 55 09.6	
PBDV				*i* IAML		02 55 12.0	
MESJ	**Messejana**	**7.25**	**60**	*e*S	Sn	02 55 03.1	-4.9
PCVE	**Castro Verde**	**7.30**	**62**	Pn	**Pn**	**02 53 49.8**	**+2.4**
PCVE				Sn	Sn	02 55 03.0	-6.1
PCVE	**Castro Verde**	**7.30**	**62**	*e*P	**Pn**	**02 53 49.4**	**+1.9**
PCVE				*e*S	Sn	02 55 04.6	-4.5
PCVE				*i* IAML		02 55 05.6	
PCVE				*i* IAML		02 55 09.4	
PCVE				*i* IAML		02 55 11.8	
AVE	**Averroes**	**7.37**	**97**	Pn	Pn	02 53 53.9	+5.4
AVE				Sn	**Sn**	**02 55 08.7**	**-2.2**
PVAQ	**Vaqueiros**	**7.45**	**64**	*e*P	**Pn**	**02 53 51.8**	**+2.2**
PVAQ				*e*S	Sn	02 55 08.2	-4.6
PVAQ				*i* IAML		02 55 13.5	
PVAQ				*i* IAML		02 55 14.6	
PVAQ				*i* IAML		02 55 16.7	
PVAQ	**Vaqueiros**	**7.45**	**64**	P	**Pn**	**02 53 49.6**	**0.0**
PVAQ				S	**Sn**	**02 55 11.0**	**-1.8**
MOE	**Montemor**	**7.48**	**55**	*e*P	**Pn**	**02 53 50.7**	**+0.7**
MOE				*e*S	Sn	02 55 08.8	-4.7
MOE				*i* IAML		02 55 11.2	
MOE				*i* IAML		02 55 12.2	
MOE				*i* IAML		02 55 15.7	
EGRO	**El Granado**	**7.67**	**64**	Pn	**Pn**	**02 53 55.2**	**+2.6**
EGRO				Sn	Sn	02 55 12.0	-6.2
EGRO	**El Granado**	**7.67**	**64**	⇑IVmb_VC		02 53 52.6	
	77nm,SNR=1.1						
EGRO				Pn	**Pn**	**02 53 53.0**	**+0.4**
EGRO				Sn	Sn	02 55 13.5	-4.7
EVO	**Evora**	**7.72**	**56**	Pn	**Pn**	**02 53 54.3**	**+1.1**
EVO				Sn	Sn	02 55 10.9	-8.4
EVO	**Evora**	**7.72**	**56**	*e*S	Sn	02 55 13.2	-6.1
EVO				*i* IAML		02 55 14.5	
PARRA	**Arraiolos**	**7.84**	**54**	*e*P	**Pn**	**02 53 55.6**	**+0.7**
PARRA				*e*S	Sn	02 55 16.3	-6.1
PARRA				*i* IAML		02 55 18.7	
PARRA				*i* IAML		02 55 23.5	
PARRA				*i* IAML		02 55 24.1	
PMTG	**Montargil**	**7.85**	**52**	*e*P	**Pn**	**02 53 55.5**	**+0.4**
PMTG				*e*S	Sn	02 55 17.4	-5.3
PMTG				*i* IAML		02 55 20.2	
PMTG				*i* IAML		02 55 21.4	
PMTG				*i* IAML		02 55 22.4	
ZHG	**ZHG**	**7.98**	**95**	P	Pn	02 53 53.3	-3.6
ZHG				S	**Sn**	**02 55 24.5**	**-1.5**
PESTR	**Estremoz**	**8.17**	**55**	*e*S	Sn	02 55 23.8	-6.7
PESTR	**Estremoz**	**8.17**	**55**	P	Pn	02 53 58.4	-1.0
PESTR				S	Sn	02 55 26.8	-3.7
PSARD	**Sardoal**	**8.20**	**49**	*e*P	**Pn**	**02 54 01.0**	**+1.2**
PSARD				*e*S	Sn	02 55 25.4	-5.7
PSARD				*i* IAML		02 55 31.3	
PSARD				*i* IAML		02 55 32.0	
PSARD				*i* IAML		02 55 33.5	
PBAR	**Barrancos**	**8.24**	**61**	Pn	**Pn**	**02 54 01.5**	**+1.0**
PBAR				Sn	Sn	02 55 24.6	-7.7
PBAR	**Barrancos**	**8.24**	**61**	*e*P	**Pn**	**02 54 02.6**	**+2.2**
PBAR				*e*S	Sn	02 55 27.3	-5.0
PBAR				*i* IAML		02 55 28.6	
PBAR				*i* IAML		02 55 33.0	
PBAR				*i* IAML		02 55 33.5	
PCAS	**Casmilo, Conde**	**8.27**	**45**	*e*P	**Pn**	**02 54 01.6**	**+0.8**
PCAS				*e*S	Sn	02 55 27.5	-5.5
PCAS				*i* IAML		02 55 38.8	
TIO	**Tiouine**	**8.29**	**113**	Pn	Pn	02 54 06.2	+4.9
TIO				Sn	**Sn**	**02 55 32.6**	**-1.1**
TIO	**Tiouine**	**8.29**	**113**	P	Pn	02 54 01.1	-0.1
TIO				S	**Sn**	**02 55 34.0**	**+0.2**
EMIN	**Mina Concepcio**	**8.36**	**64**	Pn	**Pn**	**02 54 04.5**	**+2.5**
EMIN				Sn	Sn	02 55 27.8	-7.3
EMIN	**Mina Concepcio**	**8.36**	**64**	Sn	**Sn**	**02 55 33.1**	**-2.0**
EBAD	**Badajoz**	**8.51**	**57**	Pn	**Pn**	**02 54 06.5**	**+2.4**
EBAD				Sn	Sn	02 55 29.9	-9.0
EBAD	**Badajoz**	**8.51**	**57**	Pn	**Pn**	**02 54 05.6**	**+1.5**
EBAD				⇑IVmb_VC		02 54 14.8	
	97nm,SNR=2.0						
EBAD				Sn	Sn	02 55 33.5	-5.4
PMRV	**Marv??o**	**8.59**	**52**	*e*P	**Pn**	**02 54 05.8**	**+0.5**
PMRV				*e*S	Sn	02 55 34.5	-6.4
PMRV				*i* IAML		02 55 41.4	
PMRV				*i* IAML		02 55 42.5	
TISM	**Timmit**	**8.61**	**106**	P	Pn	02 54 04.5	-0.9
TISM				S	**Sn**	**02 55 41.6**	**+0.4**
OUZM	**OUZ**	**8.68**	**112**	P	Pn	02 54 05.0	-1.7
OUZM				S	**Sn**	**02 55 42.7**	**-0.7**
ESPR	**Espera**	**8.72**	**71**	Pn	**Pn**	**02 54 10.3**	**+3.3**
ESPR				Sn	Sn	02 55 37.4	-6.8
ESPR	**Espera**	**8.72**	**71**	Pn	**Pn**	**02 54 07.2**	**+0.1**
ESPR				⇑IVmb_VC		02 54 14.6	
	83nm,SNR=1.4						
ESPR				Sn	Sn	02 55 37.6	-6.5
PVIS	**Viseu**	**9.05**	**44**	*e*S	Sn	02 55 44.4	-7.9
MTE	**Manteigas**	**9.06**	**47**	*e*S	Sn	02 55 45.7	-6.7
MTE				*i* IAML		02 55 48.2	
MTE				*i* IAML		02 55 50.0	
IFR	**Ifrane**	**9.21**	**93**	Pn	**Pn**	**02 54 17.2**	**+3.3**
IFR				Sn	Sn	02 55 52.6	-3.9
ECAB	**El Cabril**	**9.39**	**64**	Pn	**Pn**	**02 54 18.3**	**+2.1**
ECAB				Sn	Sn	02 55 54.4	-6.2
ECAB	**El Cabril**	**9.39**	**64**	Pn	**Pn**	**02 54 17.8**	**+1.6**
ECAB				Sn	Sn	02 55 54.5	-6.1
LCRM	**LCR**	**9.41**	**92**	P	Pn	02 54 15.0	-1.6
LCRM				S	**Sn**	**02 56 00.6**	**-0.7**
POLO	**Lamas de Olo**	**9.55**	**41**	*e*S	Sn	02 55 56.9	-7.6
POLO				*i* IAML		02 55 58.4	
POLO				*i* IAML		02 56 00.5	
MD31	**MD31**	**9.64**	**96**	P	Pn	02 54 19.2	-0.5
MD31				S	**Sn**	**02 56 07.3**	**+0.5**
PGAV	**Gavieira, Arco**	**9.72**	**37**	*e*S	Sn	02 56 01.2	-7.6
MDT	**Midelt**	**9.78**	**96**	P	Pn	02 54 20.9	-0.7
CIBOR	**Castaar de Ib**	**10.01**	**56**	Sn	Sn	02 56 09.5	-6.3
EADA	**Adamuz**	**10.05**	**65**	Pn	**Pn**	**02 54 27.5**	**+2.2**
EADA				Sn	Sn	02 56 10.4	-6.4
EADA	**Adamuz**	**10.05**	**65**	Pn	**Pn**	**02 54 27.6**	**+2.3**
EADA				⇑IVmb_VC		02 54 29.3	
	58nm,SNR=1.2						
EADA				Sn	Sn	02 56 10.7	-6.1
AKLM	**AKL**	**10.15**	**86**	P	Pn	02 54 24.6	-2.1
AKLM				S	**Sn**	**02 56 17.1**	**-2.3**

BJI ***17*** *03:00:12.4,7°.60N×37°.00W,h10^{km},mB5.6/2,Ms5.5/12, Ms7 5.3/12*

IPGP ***17*** *03:00:15.0,7°.98N×37°.01W,h19^{km},Mw5.8,Fault plane solution: NP1:φ$_s$1.00000°,δ80.00000°,λ13.00000°. NP2:φ$_s$268.00000°,δ77.00000°,λ170.00000°.*

CATAC ***17*** *03:00:16.0±0.4,8°N±7°×3°7W±°,h1^{km},M5.3/8,mb5.3/8, mB5.7/6,Mw(mB)5.2/6,MwMwp5.4/4,Mwp5.6/4,Error ellipse: s-maj=14.9km s-min=11.2km az=174.3,confirmed*

NEIC ***17*** *03:00:17.4,7°.89N×37°.09W,h10^{km}*

IDC ***17*** *03:00:18.4±0.4,7°.69N×37°.03W,h0^{km},mb4.8/35, mbtmp4.8/36,ML4.7/1,MS5.0/77,Error ellipse: s-maj=14.2km s-min=9.9km az=138.0*

NEIC ***17*** *03:00:18.3±1.9,7°.78N±0°.09×37°.09W±0°.09,h10^{km}±1^{km}, mb5.4/124,Ms_20 5.3/623,Mwb5.7/119,Mww5.7/58,Error ellipse: s-maj=16.1km s-min=13.6km az=145.0,Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.27; M$_{\theta\theta}$0.11; M$_{\phi\phi}$0.17; M$_{r\theta}$-0.17; M$_{\theta\phi}$-3.83; M$_{\phi r}$1.07; Fault plane solution: M$_0$3.99000×10^{17} NP1: φ$_s$270.01000°,δ74.53000°,λ179.33000°. NP2:φ$_s$0.18000°, δ89.36000°,λ15.47000°. Principal axes: T 4.1416, Plg11.0000°, Azm226.0000°; N -0.3308, Plg75.0000°, Azm2.0000°; P -3.8108, Plg10.0000°, Azm134.0000°;*

NEIC ***17*** *03:00:18.3,7°.79N×37°.10W,h10^{km}*

MOS ***17*** *03:00:18.5±1.0,7°.59N×36°.92W,h10^{km},mb5.5/56, MS4.9/12,Error ellipse: s-maj=7.7km s-min=3.5km az=53.2*

GFZ ***17*** *03:00:20.7,7°.58N×37°.00W,h13^{km},Mw5.7/59,Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.31; M$_{\theta\theta}$-0.24; M$_{\phi\phi}$0.55; M$_{r\theta}$0.66; M$_{\theta\phi}$-3.84; M$_{\phi r}$1.50; Fault plane solution: M$_0$4.20295×10^{17} NP1: φ$_s$274.60679°,δ68.57772°,λ-171.39384°. NP2: φ$_s$181.44285°,δ81.99245°,λ-21.64379°. Principal axes: T 4.1279, Plg9.1930°, Azm229.6988°; N 0.1463, Plg66.9893°, Azm342.0989°; P -4.2742, Plg20.9017°, Azm136.1554°;*

GFZ ***17*** *03:00:20.7±0.1,8°N±2°×3°7W±°,h10^{km},M5.2/187, mb5.2/187*

INMG ***17*** *03:00:21.0±3.7,7°.67N×37°.23W,h10^{km},mb5.2,Ms4.9, MW5.3,#DIST_RANGE: DISTANT*

NEIC ***17*** *03:00:24.8,7°.69N×37°.00W,h20^{km},Moment Tensor Solution. Duration: 3^{s}8 Moment tensor: Scale 10^{17}Nm; M$_{rr}$0.30; M$_{\theta\theta}$-0.73; M$_{\phi\phi}$0.42; M$_{r\theta}$-1.28; M$_{\theta\phi}$-4.66; M$_{\phi r}$1.47; Fault plane solution: M$_0$5.09000×10^{17} NP1: φ$_s$271.48000°,δ75.02000°,λ164.67000°. NP2:φ$_s$5.54000°, δ75.20000°,λ15.51000°. Principal axes: T 5.3044, Plg21.0000°, Azm229.0000°; N -0.4574, Plg69.0000°, Azm48.0000°; P -4.8469, Plg0.0000°, Azm138.0000°;*

GCMT ***17*** *03:00:24.3±0.1,7°.80N±0°.01×37°.14W,h18^{km},MW5.8/169, Moment Tensor Solution. s145,c278; s169,c359; Duration: 1^{s}9 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.67±.05; M$_{\theta\theta}$-0.25±.05; M$_{\phi\phi}$0.92±.05; M$_{r\theta}$0.89±.12; M$_{\theta\phi}$-6.00±.05; M$_{\phi r}$0.21±.12; Best double couple: M$_0$6.10500×10^{17} NP1:φ$_s$183.00000°,δ81.00000°, λ-4.00000°. NP2:φ$_s$273.00000°,δ86.00000°, λ-171.00000°. Principal axes: T 6.3940, Plg4.0000°, Azm48.0000°; N -0.5770, Plg80.0000°, Azm296.0000°; P -5.8160, Plg9.0000°, Azm138.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 17 03:00:20.9±0.2**,7°.69N**±0°.04×**37°.14W**±0°.04**,h20^{km},n1240,** σ**1^{s}88**/947**,mb5.2**/413**,MS5.2**/397**,25C-42D,Central Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NBMO	**Morrinhos-CE**	**11.30**	**195**	*e*P	**Pn**	**03 02 59.6**	**-1.7**
NBPS	**Pedro II - PI**	**12.74**	**200**	*e*P	**Pn**	**03 03 19.9**	**-1.3**
RCBR	**Riachuelo**	**13.48**	**175**	Pn	**Pn**	**03 03 30.4**	**-0.9**
	2.6nm,0.3s,baz=2.5,slow=20,SNR=31						
RCBR				Sn	Sn	03 05 48.5	-12
	2.6nm,0.3s,baz=240,slow=23,SNR=4.6						
RCBR				LR	LR	03 07 25.2	
	comp=Z,4µm,20.3s,baz=360,slow=32						
RCBR	**Riachuelo**	**13.48**	**175**	P	**Pn**	**03 03 31.1**	**-0.1**
RCBR	**Riachuelo**	**13.48**	**175**		**Pn**	**03 03 31.1**	**-0.1**
RCBR	**Riachuelo**	**13.48**	**175**	P	**Pn**	**03 03 31.9**	**+0.7**
RCBR	**Riachuelo**	**13.48**	**175**	*e*P	**Pn**	**03 03 30.3**	**-0.9**
RCBR	**Riachuelo**	**13.48**	**175**	P	**Pn**	**03 03 30.8**	**-0.4**
	comp=Z,79nm,0.9s						
NBPV	**Pedro Velho**	**14.13**	**172**	*e*P	**Pn**	**03 03 40.8**	**+0.7**
NBMA	**Muriti-CE**	**15.04**	**186**	*e*P	**Pn**	**03 03 53.0**	**+0.5**
SACV	**Santiago Islan**	**15.11**	**60**	Pn	**Pn**	**03 03 46.7**	**-6.7**
SACV	**Santiago Islan**	**15.11**	**60**	P	Pn	03 03 46.1	-7.3
SACV	**Santiago Islan**	**15.11**	**60**	P	**Pn**	**03 03 46.6**	**-6.7**
	comp=Z,394nm,1.0s						
MDP	**Montagnes des**	**15.62**	**261**	Pn	**Pn**	**03 03 57.2**	**-2.9**
	comp=Z,3.1nm,0.3s,baz=67,slow=14,SNR=20						
MDP				Sn	Sn	03 06 36.8	-16
	comp=Z,1.2nm,0.3s,baz=358,slow=8.8,SNR=4.3						
MDP				LR	LR	03 08 41.1	
	comp=Z,7µm,21.8s,baz=69,slow=32						
	comp=Z,45nm,0.9s						
MDP				AML	AML		
NBTA	**Tacaratu-PE**	**16.72**	**183**	*e*P	**P**	**03 04 14.9**	**-1.4**
SMTB	**Santa Maria do**	**19.46**	**213**	*e*P	**Pn**	**03 04 47.2**	**-0.7**
SDBA	**SAO DESIDERIO**	**21.40**	**201**	*e*P	**P**	**03 05 08.0**	**+0.3**
ITTB	**Itaituba**	**22.08**	**238**	*e*P	**P**	**03 05 14.5**	**-0.4**
NBIT	**Itapeh - BA**	**22.58**	**186**	*e*P	**P**	**03 05 20.9**	**+0.6**
NBIT				*e*S	**S**	**03 09 29.0**	**+2.0**
BBGH	**Gun Hill**	**22.70**	**286**	IAMs_20	IAMs_20	03 14 32.5	
	comp=Z,8µm,18.0s						
CMC01	**Camacan, BA**	**23.02**	**186**	*e*P	**P**	**03 05 25.5**	**+0.7**
CMC01				*e*S	**S**	**03 09 36.9**	**+2.2**
JANB	**Januaria**	**23.69**	**197**	*e*P	**P**	**03 05 31.6**	**0.0**
JANB				*e*S	**S**	**03 09 47.0**	**+1.2**
BOAV	**Boa Vista**	**23.87**	**258**		**P**	**03 05 30.9**	**-2.5**
BOAV	**Boa Vista**	**23.87**	**258**	P	**P**	**03 05 33.1**	**-0.3**
	comp=Z,5µmcomp=Z,4µmcomp=Z,269nm,1.2s						
BOAV	**Boa Vista**	**23.87**	**258**	*e*P	**P**	**03 05 33.4**	**0.0**
BOAV				*e*S	**S**	**03 09 50.2**	**+1.5**
SNDB	**Serra Nova Dou**	**24.07**	**216**	*e*P	**P**	**03 05 35.4**	**+0.2**
SNDB				*e*S	**S**	**03 09 53.5**	**+1.7**
H05S1	**Guadeloupe/Mar**	**24.19**	**288**	T	T	03 30 30.9	
	SNR=178						
GUA01	**Guaratinga, BA**	**24.26**	**186**	*e*P	**P**	**03 05 37.9**	**+1.1**
GUA01				*e*S	**S**	**03 09 57.1**	**+2.5**
BIM	**Bigot**	**24.43**	**288**	P	**P**	**03 05 42.2**	**+3.6**
	comp=Z,151nm,1.1s						
FDFM	**Morne la Roset**	**24.57**	**289**		**P**	**03 05 37.0**	**-2.8**
CXM	**Morne La Croix**	**24.59**	**289**	P	**P**	**03 05 35.6**	**-4.6**
ARCA	**Ara§uai, MG**	**24.84**	**191**	*e*P	**P**	**03 05 43.1**	**+0.9**
H05N1	**Guadeloupe/Mar**	**24.89**	**292**	T	T	03 31 18.1	
	SNR=33						
GDSD	**La Dsirade Is**	**24.90**	**292**	P	**P**	**03 05 45.7**	**+2.9**
	comp=Z,81nm,1.2s						
MC01	**Montes Claros**	**25.15**	**195**	*e*P	**P**	**03 05 45.5**	**+0.5**
MC01				*e*S	**S**	**03 10 11.4**	**+2.1**
TDBA	**Terre de Bas,**	**25.30**	**291**	P	**P**	**03 05 42.6**	**-3.7**
TDBA	**Terre de Bas,**	**25.30**	**291**	P	**P**	**03 05 50.6**	**+4.3**
	comp=Z,132nm,1.1s						
CBE	**Ff, Capester**	**25.33**	**291**	P	**P**	**03 05 43.7**	**-3.0**
CBE	**Ff, Capester**	**25.33**	**291**	P	**P**	**03 05 49.3**	**+2.6**
	comp=Z,166nm,1.1s						
GDHS	**Morne Mazeau,**	**25.53**	**292**	P	**P**	**03 05 50.4**	**+1.8**
	comp=Z,101nm,1.3s						
BDFB	**Brasilia**	**25.56**	**205**	P	**P**	**03 05 49.8**	**+1.0**
	comp=Z,59nm,0.9s,baz=28,slow=12,SNR=36						
BDFB				LR	LR	03 14 48.2	
	comp=Z,6µm,21.2s,baz=23,slow=34						
	comp=Z,59nm,0.9s						
BDFB	**Brasilia**	**25.56**	**205**		**P**	**03 05 47.4**	**-1.4**
BDFB				IAmb	IAmb	03 06 00.9	
	comp=Z,132nm,1.1s						
MACA	**Manacapuru-AM**	**25.84**	**246**		**P**	**03 05 49.5**	**-1.9**
MACA	**Manacapuru-AM**	**25.84**	**246**	*e*P	**P**	**03 05 51.3**	**0.0**
MACA				*e*S	**S**	**03 10 21.6**	**+1.3**
CLDB	**Colider**	**26.17**	**225**	*e*P	**P**	**03 05 54.1**	**-0.1**
CLDB	**Colider**	**26.17**	**225**	P	**P**	**03 05 54.4**	**+0.2**
	comp=Z,93nm,1.2s						
SJMB	**Sao Joao De Ma**	**26.52**	**189**	*e*P	**P**	**03 05 58.5**	**+1.1**
SJMB				*e*S	**S**	**03 10 32.9**	**+2.1**
BSFB	**Barra de Sao F**	**26.60**	**188**	*e*P	**P**	**03 05 59.3**	**+1.2**
BSFB	**Barra de Sao F**	**26.60**	**188**	P	**P**	**03 05 59.5**	**+1.5**
	comp=Z,71nm,1.3s						
DIAM	**Diamantina, MG**	**26.61**	**194**	*e*P	**P**	**03 05 59.1**	**+0.8**
DIAM				*e*S	**S**	**03 10 34.2**	**+1.8**
RIB01	**Linhares ES**	**27.02**	**187**	*e*P	**P**	**03 06 03.0**	**+1.1**
RIB01				*e*S	**S**	**03 10 40.9**	**+2.3**
H10N3	**ASCENSION HYDR**	**27.34**	**124**	T	T	03 35 01.9	
	baz=304,slow=76,SNR=224						
H10N2	**ASCENSION HYDR**	**27.34**	**124**	T	T	03 35 20.8	
	baz=304,slow=76,SNR=185						
H10N1	**ASCENSION HYDR**	**27.36**	**124**	T	T	03 35 03.4	
	baz=304,slow=76,SNR=255						
ARAG	**Araguaiana, MT**	**27.41**	**212**	*e*P	**P**	**03 06 06.4**	**+1.0**
ARAG				*e*S	**S**	**03 10 46.5**	**+1.6**
PMNB	**Patos De Minas**	**27.62**	**199**	*e*P	**P**	**03 06 07.1**	**-0.3**
PMNB				*e*S	**S**	**03 10 50.3**	**+1.9**
PMNB	**Patos De Minas**	**27.62**	**199**	P	**P**	**03 06 08.4**	**+1.0**
	comp=Z,39nm,1.6s						
IPMB	**Ipameri, GO**	**27.75**	**203**	*e*P	**P**	**03 06 09.1**	**+0.6**
H10S3	**ASCENSION HYDR**	**27.83**	**126**	T	T	03 35 32.3	
	baz=304,slow=74,SNR=459						
H10S2	**ASCENSION HYDR**	**27.85**	**126**	T	T	03 35 33.7	
	baz=276,slow=74,SNR=486						
CANS	**Sao Roque de M**	**29.25**	**198**	*e*P	**P**	**03 06 23.2**	**+1.3**
CANS				*e*S	**S**	**03 11 15.7**	**+1.7**
BSCB	**Bom Sucesso**	**29.47**	**195**	*e*P	**P**	**03 06 24.8**	**+0.9**
BSCB	**Bom Sucesso**	**29.47**	**195**	P	**P**	**03 06 25.0**	**+1.2**
	comp=Z,29nm,1.9s						
SALV	**Santo Antonio**	**29.78**	**218**	*e*P	**P**	**03 06 27.2**	**+0.6**
HUMP	**Col San Antoni**	**29.81**	**293**		**P**	**03 06 22.7**	**-4.1**
HUMP				IAmb	IAmb	03 06 36.7	
	comp=Z,59nm,1.1s						
SJG	**San Juan**	**30.07**	**293**	LR	LR	03 16 27.8	
	comp=Z,5µm,20.0s,baz=104,slow=32						
SJG	**San Juan**	**30.07**	**293**	P	**P**	**03 06 32.1**	**+3.0**
SJG	**San Juan**	**30.07**	**293**	P	**P**	**03 06 26.2**	**-2.9**
SJG	**San Juan**	**30.07**	**293**	IAMs_20	IAMs_20	03 16 07.4	
	comp=Z,5µm,21.0s						
SJG	**San Juan**	**30.07**	**293**	P	**P**	**03 06 29.6**	**+0.5**
	comp=Z,896nmcomp=Z,51nm,1.4s						
SJG	**San Juan**	**30.07**	**293**	P	**P**	**03 06 27.5**	**-1.7**
SJG	**San Juan**	**30.07**	**293**	P	**P**	**03 06 30.5**	**+1.4**
	comp=Z,51nm,1.4s						
ECPR	**Experimental S**	**30.32**	**293**	P	**P**	**03 06 28.1**	**-3.3**
ECPR				IAmb	IAmb	03 06 43.0	
	comp=Z,96nm,1.1s						
CELP	**Cerrillos**	**30.45**	**293**	P	**P**	**03 06 28.0**	**-4.5**
OBIP	**Obispado Ponce**	**30.47**	**293**	P	**P**	**03 06 30.2**	**-2.5**
OBIP				IAmb	IAmb	03 06 42.7	
	comp=Z,97nm,1.2s						
C2SB	**Chapadao do Su**	**30.51**	**210**	*e*P	**P**	**03 06 33.8**	**+0.8**
C2SB				*e*S	**S**	**03 11 35.2**	**+1.7**
PP1B	**Ponte de Pedra**	**30.63**	**215**	*e*P	**P**	**03 06 34.4**	**+0.3**
PP1B				*e*S	**S**	**03 11 37.1**	**+1.5**
BB19B	**Bebedouro**	**30.68**	**201**	*e*P	**P**	**03 06 35.1**	**+0.6**
VILB	**Vilhena**	**30.75**	**228**		**P**	**03 06 32.9**	**-2.2**
VILB	**Vilhena**	**30.75**	**228**	*e*P	**P**	**03 06 34.9**	**-0.3**
VILB				*e*S	**S**	**03 11 38.8**	**+1.3**
PMOZ	**Porto Moniz, M**	**31.11**	**34**	*e*LR	LR	03 14 17.8	
PMOZ				*i* IAMs_20	IAMs_20	03 16 02.4	
	comp=Z,2µm,22.0s						
PMOZ				T	T	03 38 48.1	
FUL	**Funchal**	**31.15**	**34**	*e*tx	tx	03 38 48.8	
PMAR	**Madeira**	**31.19**	**34**	*e*tx	tx	03 38 49.8	
PTLB	**Pontes e Lacer**	**31.68**	**223**	P	**P**	**03 06 40.3**	**-3.0**
PTLB	**Pontes e Lacer**	**31.68**	**223**	*e*P	**P**	**03 06 43.9**	**+0.6**
PTLB				*e*S	**S**	**03 11 53.3**	**+1.4**
DBIC	**Dimbokro**	**32.04**	**90**	P	**P**	**03 06 45.7**	**-0.9**
	comp=Z,10nm,0.9s,baz=285,slow=11,SNR=4.8						
DBIC				LR	LR	03 17 32.0	
	comp=Z,1µm,19.1s,baz=274,slow=32						
	comp=Z,10nm,0.9s						
DBIC	**Dimbokro**	**32.04**	**90**	P	**P**	**03 06 46.1**	**-0.5**
DBIC	**Dimbokro**	**32.04**	**90**	P	**P**	**03 06 45.2**	**-1.4**
DBIC				IAmb	IAmb	03 07 36.3	
	comp=Z,113nm,1.9s						
SPB	**Sao Paulo**	**32.67**	**198**	IAMs_20	IAMs_20	03 19 29.7	

	comp=Z,5µm,18.0s						
SPB	Sao Paulo	32.67	198	*e*P	P	03 06 52.5	+0.6
SPB				*e*S	S	03 12 09.3	+2.0
FRTB	Fartura	33.15	201	*e*P	P	03 06 57.5	+1.3
FRTB				*e*S	S	03 12 16.6	+1.8
FRTB	Fartura	33.15	201	P	P	03 06 57.6	+1.5
	comp=Z,84nm,1.4s						
SDV	Santo Domingo	33.16	274	LR	LR	03 21 26.4	
	comp=Z,2µm,18.8s,baz=82,slow=38						
SDV	Santo Domingo	33.16	274	P	P	03 06 54.0	-2.6
SDV				IAmb	IAmb	03 07 09.8	
	comp=Z,74nm,1.6s						
SDV	Santo Domingo	33.16	274	P	P	03 06 56.9	+0.3
	comp=Z,171nm,1.4s						
SDV	Santo Domingo	33.16	274	P	P	03 06 58.1	+1.4
	comp=Z,171nm,1.7s						
PET01	Itanhaem-SP	33.28	197	*e*P	P	03 06 58.6	+1.4
SIV	San Ignacio	33.39	225	P	P	03 07 00.1	+1.7
	comp=Z,36nm,0.9s,baz=58,slow=9.1,SNR=128						
	comp=Z,36nm,0.9s						
AQDB	Aquidauana	33.41	213	P	P	03 06 57.0	-1.4
AQDB	Aquidauana	33.41	213	*e*P	P	03 06 58.7	+0.3
AQDB				*e*S	S	03 12 20.3	+1.5
AQDB	Aquidauana	33.41	213	P	P	03 06 59.9	+1.5
	comp=Z,25nm,1.2s						
LDASE	Londrina, Braz	33.78	204	*e*P	P	03 07 02.0	+0.3
LDASE				*e*S	S	03 12 26.2	+1.7
TRCB	Terra Rica	33.88	206	P	P	03 07 01.9	-0.6
TRCB				IAmb	IAmb	03 07 05.0	
	comp=Z,47nm,0.7s						
TRCB	Terra Rica	33.88	206	*e*P	P	03 07 03.0	+0.5
TRCB				*e*S	S	03 12 27.7	+1.6
TRCB	Terra Rica	33.88	206	P	P	03 07 04.3	+1.7
	comp=Z,83nm,1.2s						
COIM	Forte Coimbra	34.13	216	*e*P	P	03 07 04.9	+0.1
COIM				*e*S	S	03 12 31.5	+1.5
URI	Uribia	34.57	279	P	P	03 07 05.9	-2.7
URIC	Uribia, Colomb	34.57	279	P	P	03 07 07.7	-1.0
	comp=Z,882nmcomp=Z,85nm,1.2s						
SDDR	Presa de Saban	35.00	292	P	P	03 07 10.5	-1.9
SDDR	Presa de Saban	35.00	292	P	P	03 07 14.4	+2.0
	comp=Z,82nm,1.3s						
SDDR	Presa de Saban	35.00	292	P	P	03 07 14.4	+2.0
SDDR	Presa de Saban	35.00	292	P	P	03 07 14.8	+2.4
	comp=Z,84nm,1.3s						
PAMC	Pamplona, Colo	35.25	272	P	P	03 07 16.9	+1.8
PTGB	Pitanga	35.34	204	*e*P	P	03 07 15.5	+0.3
PTGB				*e*S	S	03 12 49.9	+1.2
MURT	Porto Murtinho	35.41	214	*e*P	P	03 07 15.8	+0.1
MURT				*e*S	S	03 12 51.3	+1.6
RUSC	La Rusia	35.73	269	P	P	03 07 20.5	+1.3
	comp=Z,2µmcomp=Z,973nmcomp=Z,65nm,1.3s						
RUSC	La Rusia	35.73	269	P	P	03 07 21.8	+2.6
BARC	Barichara	35.77	271	P	P	03 07 20.6	+1.3
	comp=Z,1µmcomp=Z,85nm,1.0s						
OCAC	Ocana	35.83	273	P	P	03 07 18.7	-1.0
	comp=Z,59nm,1.3s						
TIO	Tiouine	36.25	46	P	P	03 07 23.1	0.0
TIO	Tiouine	36.25	46	P	P	03 07 23.9	+0.8
	comp=Z,76nm,1.4s						
BRJC	Barrancabermej	36.31	271	P	P	03 07 23.1	-0.5
	comp=Z,2µmcomp=Z,1µmcomp=Z,73nm,1.4s						
CHIC	Chingaza	36.50	267	P	P	03 07 25.1	-0.6
	comp=Z,2µmcomp=Z,35nm,1.2s						
VILC	Villavicencio,	36.52	267	P	P	03 07 25.6	0.0
SPBC	San Pablo de B	36.73	269	P	P	03 07 26.5	-0.9
	comp=Z,2µmcomp=Z,503nmcomp=Z,27nm,1.1s						
CVER	Cruz Verde, Cu	36.85	267	P	P	03 07 29.1	+0.3
MACC	Macarena, Meta	36.97	263	P	P	03 07 29.3	0.0
	comp=Z,1µmcomp=Z,72nm,0.9s						
PTBC	PUERTO BERRIO,	37.04	271	P	P	03 07 27.2	-2.7
ROSC	El Rosal	37.06	268	P	P	03 07 32.4	+1.9
	comp=Z,20nm,0.6s,baz=60,slow=3.5,SNR=25						
	comp=Z,20nm,0.6s						
ROSC	El Rosal	37.06	268	P	P	03 07 29.4	-1.0
ROSC				IAmb	IAmb	03 07 44.0	
	comp=Z,67nm,1.1s						
ROSC	El Rosal	37.06	268	P	P	03 07 31.8	+1.3
	comp=Z,1µmcomp=Z,72nm,1.3s						
SJPY	San Joaquin	37.37	209	*e*P	P	03 07 32.7	+0.2
AVE	Averroes	37.49	43	P	P	03 07 33.4	0.0
AVE	Averroes	37.49	43	P	P	03 07 30.3	-3.2
AVE				IAmb	IAmb	03 07 36.0	
	comp=Z,106nm,1.2s						
AVE	Averroes	37.49	43	P	P	03 07 34.7	+1.2
	comp=Z,76nm,1.0s						
NORC	Norcasia	37.53	269	P	P	03 07 33.0	-1.1
	comp=Z,692nmcomp=Z,49nm,1.2s						
SJCC	San Jacinto, C	37.65	276	P	P	03 07 33.0	-2.1
PRAC	Prado	37.76	266	P	P	03 07 35.9	-0.1
	comp=Z,4µmcomp=Z,43nm,1.3s						
PRAC	Prado	37.76	266	P	P	03 07 36.5	+0.5
UREC	San Jos de Ur	38.04	273	P	P	03 07 36.8	-1.5
	comp=Z,13nm,1.1s						
GUY2C	Guyana, Caldas	38.05	269	P	P	03 07 38.5	-0.5
	comp=Z,3µmcomp=Z,526nmcomp=Z,39nm,1.1s						
ORTC	Ortega, Tolima	38.09	267	P	P	03 07 38.7	-0.1
	comp=Z,3µmcomp=Z,1µmcomp=Z,79nm,1.3s						
PTLC	Puerto Leguiza	38.27	261	P	P	03 07 40.7	+0.3
	comp=Z,4µmcomp=Z,1µmcomp=Z,75nm,1.4s						
QMBU	Quimbuelo	38.52	293	*e*P	P	03 07 45.5	+3.1
TORD	Torodi Ar. Bea	38.55	79	P	P	03 07 41.5	-1.0
	comp=Z,8.3nm,1.0s,baz=271,slow=8.9,SNR=36						
TORD				LR	LR	03 21 24.7	
	comp=Z,4µm,20.6s,baz=264,slow=33						
	comp=Z,8.3nm,1.0s						
TORD	Torodi Ar. Bea	38.55	79	P	P	03 07 39.1	-3.5
GARC	Garzon, Huila	38.58	264	P	P	03 07 42.4	-0.8
	comp=Z,18nm,1.6s						
CZSB	Cruzeiro do Su	38.62	247	P	P	03 07 41.0	-2.3
CZSB	Cruzeiro do Su	38.62	247	P	P	03 07 42.3	-1.0
	comp=Z,9µmcomp=Z,2µmcomp=Z,185nm,1.4s						
CZSB	Cruzeiro do Su	38.62	247	*e*P	P	03 07 43.2	-0.1
CBOC	Ciudad Bolivar	38.63	270	P	P	03 07 43.0	-0.6
	comp=Z,680nmcomp=Z,59nm,1.1s						
GTBY	Guantanamo Bay	38.73	292	P	P	03 07 48.4	+4.4
	comp=Z,48nm,1.0s						
LPAZ	La Paz	38.84	232	P	P	03 07 47.3	+1.6
	comp=Z,53nm,0.9s,baz=48,slow=6.5,SNR=112						
LPAZ				LR	LR	03 22 56.9	
	comp=Z,4µm,21.6s,baz=42,slow=35						
	comp=Z,53nm,0.9s						
LPAZ	La Paz	38.84	232	P	P	03 07 44.5	-1.2
LPAZ				IAmb	IAmb	03 07 48.4	
	comp=Z,78nm,0.9s						
LPAZ	La Paz	38.84	232	P	P	03 07 46.1	+0.4
	comp=Z,8µmcomp=Z,104nm,1.3s						
LPAZ	La Paz	38.84	232	*e*P	P	03 07 45.2	-0.5
LPAZ				*e*S	S	03 13 43.2	0.0
LPAZ	La Paz	38.84	232	P	P	03 07 47.1	+1.4
	comp=Z,103nm,1.3s						
APAC	Apartado, Choc	39.07	273	P	P	03 07 46.7	-0.3
	comp=Z,35nm,1.0s						
CPUP	Villa Florida	39.09	209	P	P	03 07 48.0	+1.2
	comp=Z,5.2nm,0.8s,baz=23,slow=11,SNR=10						
CPUP				LR	LR	03 23 27.6	
	comp=Z,4µm,19.3s,baz=36,slow=36						
	comp=Z,5.2nm,0.8s						
CPUP	Villa Florida	39.09	209	P	P	03 07 46.2	-0.6
CPUP	Villa Florida	39.09	209	*e*P	P	03 07 48.1	+1.2
CPUP				*e*S	S	03 13 47.3	+1.7
CPUP	Villa Florida	39.09	209	P	P	03 07 48.6	+1.8
	comp=Z,14nm,2.0s						
MD31	MD31	39.09	46	P	P	03 07 43.4	-3.7
MD01	Midelt array s	39.09	46	P	P	03 07 43.6	-3.5
MDT	Midelt	39.17	46	LR	LR	03 23 52.4	
	comp=Z,2µm,18.1s,baz=242,slow=36						
IFR	Ifrane	39.18	45	P	P	03 07 47.6	-0.3
IFR	Ifrane	39.18	45	P	P	03 07 49.2	+1.3
	comp=Z,4.8nm,1.1s						
MORF	Marmelete	39.21	37	*e*P	P	03 07 48.9	+1.0
MORF				IAmb	IAmb	03 08 14.4	
	comp=Z,31nm,1.1s						
MORF				*e*S	S	03 13 50.3	+2.9
MORF	Marmelete	39.21	37	*e*P	P	03 07 49.0	+1.0
MORF				*i* IAmb	IAmb	03 08 05.6	
	comp=Z,53nm,1.4s						
MORF	Marmelete	39.21	37	*e*P	P	03 07 48.9	+1.0
MORF				*e*S	S	03 13 50.3	+2.9
PTEO	Sao Teotonio	39.33	37	*e*P	P	03 07 52.8	+4.0
PTEO				*i* IAmb	IAmb	03 07 57.6	
	comp=Z,98nm,1.6s						
PBDV	Barranco-do-Ve	39.61	38	P	P	03 07 51.9	+0.7
PBDV	Barranco-do-Ve	39.61	38	*e*P	P	03 07 52.6	+1.4
PBDV				*i* IAmb	IAmb	03 08 09.6	
	comp=Z,66nm,1.3s						
POPC	Popayan, Colom	39.69	265	P	P	03 07 53.1	+0.6
	comp=Z,463nmcomp=Z,29nm,1.2s						
PCVE	Castro Verde	39.80	37	*e*P	P	03 07 54.6	+1.9
PCVE				*i* IAmb	IAmb	03 08 12.0	
	comp=Z,46nm,1.5s						
HLGC	Holguin	39.81	293	*e*P	P	03 07 58.4	+5.2
MESJ	Messejana	39.83	37	*e*P	P	03 07 54.0	+1.0
MESJ				IAmb	IAmb	03 08 11.6	
	comp=Z,113nm,2.0s						
MESJ				*e*S	S	03 13 59.4	+2.9
MESJ	Messejana	39.83	37	*e*P	P	03 07 54.0	+1.0
MESJ				*i* IAmb	IAmb	03 08 12.9	
	comp=Z,51nm,1.4s						
MESJ	Messejana	39.83	37	*e*P	P	03 07 54.0	+1.0
MESJ				*e*S	S	03 13 59.4	+2.9
MESJ	Messejana	39.83	37	P	P	03 07 48.7	-4.3
PLOUS	Minas do Lousa	39.83	36	*e*P	P	03 07 53.4	+0.4
PLOUS				*i* IAmb	IAmb	03 07 57.4	
	comp=Z,54nm,1.6s						
PVAQ	Vaqueiros	39.84	38	*e*P	P	03 07 52.9	-0.2
PVAQ				*i* IAmb	IAmb	03 08 11.0	
	comp=Z,62nm,1.4s						
PVAQ				*e*S	S	03 13 54.7	-2.0
PVAQ				*e*LR	LR	03 18 19.7	
PVAQ				*i* IAMs_20	IAMs_20	03 20 45.2	
	comp=Z,2µm,22.0s						
PVAQ	Vaqueiros	39.84	38	P	P	03 07 54.3	+1.2
	comp=Z,25nm,1.3s						
CHIV	Chivirico	39.94	292	P	P	03 07 51.4	-2.7
PMAFR	Mafra	39.97	35	P	P	03 07 54.1	0.0
PMAFR	Mafra	39.97	35	*e*P	P	03 07 55.1	+1.0
YAR	Yar	39.97	293	*e*P	P	03 07 56.5	+2.0
EGRO	El Granado	40.07	38	P	P	03 07 55.4	+0.5
PBEJ	Beja	40.16	37	*e*P	P	03 07 57.0	+1.2
PBEJ				*i* IAmb	IAmb	03 08 00.1	
	comp=Z,25nm,2.2s						
SFS	San Fernando	40.19	40	IAMs_20	IAMs_20	03 21 01.9	
	comp=Z,4µm,22.0s						
MOE	Montemor	40.20	36	*e*P	P	03 07 57.6	+1.5
MOE				*i* IAmb	IAmb	03 08 11.6	
	comp=Z,74nm,1.8s						
BBAC	Balboa, Cauca	40.34	264	P	P	03 07 57.0	-0.8
	comp=Z,2µmcomp=Z,16nm,1.1s						
ECEU	Ceuta	40.38	41	P	P	03 07 59.3	+1.6
EVO	Evora	40.41	36	P	P	03 07 58.4	+0.6
EVO	Evora	40.41	36	*e*P	P	03 07 59.0	+1.2
EVO				*i* IAmb	IAmb	03 08 06.8	
	comp=Z,63nm,1.3s						
EVO	Evora	40.41	36	P	P	03 07 59.2	+1.4
	comp=Z,13nm,1.2s						
LMGC	Las Mercedes	40.50	292	*e*P	P	03 08 00.1	+1.3
PARRA	Arraiolos	40.58	36	*e*P	P	03 08 00.4	+1.2
PARRA				*i* IAmb	IAmb	03 08 19.1	
	comp=Z,64nm,1.3s						
PSBE	So Bento	40.63	34	*e*P	P	03 08 03.9	+4.3
PSBE				*i* IAmb	IAmb	03 08 14.3	
	comp=Z,85nm,1.8s						
PB18	Visviri	40.64	232	P	P	03 07 57.9	-2.6
PB18				IAmb	IAmb	03 08 29.6	
	comp=Z,165nm,1.3s						
PB18				IAMs_20	IAMs_20	03 23 51.0	
	comp=Z,5µm,22.0s						
PB18	Visviri	40.64	232	P	P	03 08 01.2	+0.6
	comp=Z,109nm,1.5s						
PMTG	Montargil	40.64	35	*e*P	P	03 08 00.7	+0.9
PMTG				*i* IAmb	IAmb	03 08 08.6	
	comp=Z,73nm,1.4s						
MTDJ	Mount Denham	40.65	289	IAMs_20	IAMs_20	03 21 34.9	
	comp=Z,3µm,20.0s						
ESPR	Espera	40.66	40	P	P	03 07 59.6	-0.3
EMIN	Mina Concepcio	40.71	38	P	P	03 08 01.8	+1.5
PBAR	Barrancos	40.75	37	P	P	03 08 01.3	+0.6
PBAR	Barrancos	40.75	37	*e*P	P	03 08 01.7	+1.0
PBAR				*i* IAmb	IAmb	03 08 15.9	
	comp=Z,54nm,1.6s						
PILO	Pilon	40.83	292	*e*P	P	03 08 01.8	+0.1
CPSB	Cacapava Do Su	40.98	202	P	P	03 08 01.5	-1.0
CPSB	Cacapava Do Su	40.98	202	*e*P	P	03 08 03.1	+0.5
CPSB				*e*S	S	03 14 15.6	+1.9
CPSB	Cacapava Do Su	40.98	202	P	P	03 08 04.6	+2.0
	comp=Z,26nm,1.4s						
PSARD	Sardoal	41.04	35	*e*P	P	03 08 04.1	+1.0
PSARD				*i* IAmb	IAmb	03 08 25.6	
	comp=Z,73nm,1.3s						
CMBC	Cumbal	41.09	263	P	P	03 08 07.0	+2.7
PB16	IPOC Station P	41.09	231	P	P	03 08 02.4	-2.0
PB16				IAMs_20	IAMs_20	03 24 31.1	
	comp=Z,5µm,20.0s						
PB16	IPOC Station P	41.09	231	P	P	03 08 03.9	-0.4
	comp=Z,39nm,1.6s						
TULM	Tulcn-Chalpat	41.10	262	P	P	03 08 05.9	+1.5
	comp=Z,1µmcomp=Z,117nm,1.6s						
EBAD	Badajoz	41.14	37	P	P	03 08 04.4	+0.5
PCAS	Casmilo, Conde	41.16	34	*e*P	P	03 08 04.6	+0.5
PCAS				*i* IAmb	IAmb	03 08 12.4	
	comp=Z,78nm,1.1s						
EMIJ	Mijas	41.17	41	P	P	03 08 04.7	+0.5
PMRV	Marv??o	41.37	36	*e*P	P	03 08 07.2	+1.4
PMRV				*i* IAmb	IAmb	03 08 14.8	
	comp=Z,112nm,1.3s						
PMRV				*e*S	S	03 14 30.2	+11
PMRV				*e*LR	LR	03 19 14.9	
PMRV				*i* IAMs_20	IAMs_20	03 21 28.1	
	comp=Z,2µm,22.0s						
CCCC	Cccc	41.44	293	*e*P	P	03 08 05.3	-1.2
EMAL	Malaga-Limoner	41.51	41	P	P	03 08 08.1	+1.2
EMAL	Malaga-Limoner	41.51	41	P	P	03 08 09.3	+2.5
	comp=Z,21nm,1.3s						
PCBR	Castelo Branco	41.59	35	*e*P	P	03 08 08.9	+1.3
PCBR				*i* IAmb	IAmb	03 08 11.8	
	comp=Z,31nm,2.2s						
GO01	Chusmiza	41.66	229	P	P	03 08 06.3	-2.5
ECAB	El Cabril	41.67	39	P	P	03 08 08.8	+0.5
OTAV	Otavalo	41.84	262	P	P	03 08 12.0	+1.5
OTAV	Otavalo	41.84	262	P	P	03 08 07.3	-3.2
OTAV	Otavalo	41.84	262	P	P	03 08 11.2	+0.7
	comp=Z,36nm,1.6s						
OTAV	Otavalo	41.84	262	*e*P	P	03 08 10.0	-0.4
OTAV				*e*S	S	03 14 28.0	0.0
OTAV	Otavalo	41.84	262	P	P	03 08 11.4	+0.9
	comp=Z,36nm,1.6s						
PTO	Porto	41.87	33	*e*P	P	03 08 10.7	+0.9
PB12	IPOC Station P	41.89	231	IAMs_20	IAMs_20	03 24 34.1	
	comp=Z,4µm,22.0s						
PB08	IPOC Station P	41.91	228	P	P	03 08 10.3	-0.5
EGOR	Sierra Gorda,	41.92	41	P	P	03 08 11.1	+0.6
MTE	Manteigas	41.93	34	*e*P	P	03 08 11.0	+0.6
MTE				*i* IAmb	IAmb	03 08 21.8	
	comp=Z,70nm,1.4s						
MTE				*e*S	S	03 14 31.1	+3.2
MTE				*e*LR	LR	03 19 31.9	
MTE				*i* IAMs_20	IAMs_20	03 21 54.9	
	comp=Z,3µm,22.0s						
MTE	Manteigas	41.93	34	P	P	03 08 05.7	-4.7
MTE				IAMs_20	IAMs_20	03 21 09.8	
	comp=Z,3µm,21.0s						
MTE	Manteigas	41.93	34	P	P	03 08 11.6	+1.2
	comp=Z,38nm,1.0s						
PVIS	Viseu	41.95	34	*e*P	P	03 08 11.6	+1.1
EALB	Alboran	41.96	43	P	P	03 08 10.9	+0.3
PB11	IPOC Station P	42.06	229	P	P	03 08 10.8	-1.0
PB11				IAMs_20	IAMs_20	03 25 15.6	
	comp=Z,4µm,20.0s						
PB11	IPOC Station P	42.06	229	P	P	03 08 11.7	-0.1
	comp=Z,21nm,1.3s						
SLOR	San Lorenzo -	42.08	260	P	P	03 08 10.0	-2.5
ELGU	Los Guajares,	42.09	41	P	P	03 08 11.5	-0.3
PAC1	Pacto, Paraso	42.17	262	P	P	03 08 13.8	+1.0
	comp=Z,2µmcomp=Z,140nm,1.6s						
BCIP	Isla Barro Col	42.25	275	P	P	03 08 16.2	+2.9
BCIP	Isla Barro Col	42.25	275	P	P	03 08 16.2	+2.9
	comp=Z,34nm,1.3s						
PSGCX	Pisagua	42.31	230	IAMs_20	IAMs_20	03 25 25.3	
	comp=Z,3µm,19.0s						
EQTA	Presa de Quent	42.41	41	P	P	03 08 14.7	+0.4
PVRL	Vila Real	42.44	33	*e*P	P	03 08 14.6	+0.1
PVRL				*i* IAmb	IAmb	03 08 24.9	
	comp=Z,51nm,1.6s						
POLO	Lamas de Olo	42.46	33	*e*P	P	03 08 15.8	+1.0
EBER	Berja	42.59	42	P	P	03 08 15.3	-0.7
PGAV	Gavieira, Arco	42.62	32	*e*P	P	03 08 17.3	+1.3
PGAV				*i* IAmb	IAmb	03 08 24.8	
	comp=Z,60nm,1.2s						
PGAV				*e*S	S	03 14 45.8	+7.6
PGAV				*e*LR	LR	03 19 31.9	
PGAV				*i* IAMs_20	IAMs_20	03 21 37.6	
	comp=Z,2µm,22.0s						
SALTA		42.63	221	P	P	03 08 17.3	+0.4
	comp=Z,12nm,1.1s						
AZU	Azuero	42.73	273	P	P	03 08 19.9	+2.7
TA01	Diego Aracena	42.93	229	P	P	03 08 18.2	-0.5
TA01				IAMs_20	IAMs_20	03 25 53.9	
	comp=Z,4µm,19.0s						
CBCY	The Bluff, Cay	42.98	291	*e*P	P	03 08 22.7	+3.6
AF01	San Pedro de A	43.01	224	P	P	03 08 18.3	-1.4
AF01				IAmb	IAmb	03 08 36.0	
	comp=Z,53nm,1.0s						
PB09	IPOC Station P	43.01	226	P	P	03 08 18.4	-1.1
PB09	IPOC Station P	43.01	226	P	P	03 08 19.6	+0.1
	comp=Z,49nm,1.7s						
ENIJ	Nijar	43.09	42	P	P	03 08 19.7	-0.1
PB02	IPOC Station P	43.19	227	P	P	03 08 19.7	-1.2
PB02				IAmb	IAmb	03 08 50.8	
	comp=Z,114nm,1.8s						
PB02				IAMs_20	IAMs_20	03 26 12.6	
	comp=Z,5µm,20.0s						
PAB	San Pablo	43.24	38	P	P	03 08 21.5	+0.4
PAB	San Pablo	43.24	38	P	P	03 08 21.6	+0.5
	comp=Z,15nm,1.3s						
PSAL	Palomas, Salto	43.25	206	*e*P	P	03 08 20.9	-0.2
PSAL				*e*S	S	03 14 49.0	+1.8
CAIB	Caibarien	43.27	295	*e*P	P	03 08 30.7	+9.2
PBRG	Braganca	43.33	33	*e*P	P	03 08 22.6	+0.9
ECAL	Calabor	43.43	33	P	P	03 08 21.7	-0.9
ECAL	Calabor	43.43	33	P	P	03 08 24.0	+1.5
	comp=Z,55nm,1.0s						
PB07	IPOC Station P	43.43	227	P	P	03 08 22.1	-0.9
PB07				IAMs_20	IAMs_20	03 25 33.1	
	comp=Z,3µm,22.0s						
PB07	IPOC Station P	43.43	227	P	P	03 08 22.9	0.0
	comp=Z,32nm,0.8s						
PB03	IPOC Station P	43.54	227	P	P	03 08 22.8	-1.0
PB03				IAMs_20	IAMs_20	03 25 50.9	
	comp=Z,3µm,21.0s						
PB03	IPOC Station P	43.54	227	P	P	03 08 23.7	-0.1
	comp=Z,44nm,0.9s						
ESDC	Sonseca Array	43.55	38	P	P	03 08 24.0	+0.4
	comp=Z,4.8nm,1.0s,baz=243,slow=8.4,SNR=24						
ESDC				LR	LR	03 23 25.6	
	comp=Z,2µm,19.5s,baz=230,slow=32						
	comp=Z,4.8nm,1.0s						
ESDC	Sonseca Array	43.55	38	P	P	03 08 22.2	-1.4
ESDC				IAmb	IAmb	03 08 43.5	
	comp=Z,121nm,1.6s						
TAM	Tamanrasset	43.63	65	P	P	03 08 26.7	+2.1
TAM	Tamanrasset	43.63	65	P	P	03 08 25.7	+1.1
	comp=Z,21nm,1.1s						
MGV	Manicaragua	43.64	294	*e*P	P	03 08 26.3	+1.8
GMAL	Guarumal, Vera	43.68	273	P	P	03 08 27.0	+2.1
	comp=Z,8µmcomp=Z,33nm,1.4s						
ATAH	Atahualpa	43.70	251	LR	LR	03 28 22.0	
	comp=Z,3µm,18.1s,baz=68,slow=38						
PB06	IPOC Station P	43.82	226	P	P	03 08 26.2	+0.2
	comp=Z,36nm,1.4s						
NNA	Nana	44.05	244	LR	LR	03 26 45.8	
	comp=Z,5µm,21.6s,baz=66,slow=36						
NNA	Nana	44.05	244	IAMs_20	IAMs_20	03 26 44.9	
	comp=Z,4µm,21.0s						
EMUR	La Murta	44.21	42	P	P	03 08 27.9	-0.9
CART	Cartagena	44.23	42	P	P	03 08 28.9	0.0
PB05	IPOC Station P	44.36	226	P	P	03 08 29.0	-1.3
PB05				IAmb	IAmb	03 08 31.2	
	comp=Z,52nm,0.8s						
PB05				IAMs_20	IAMs_20	03 26 51.9	
	comp=Z,5µm,21.0s						
PB05	IPOC Station P	44.36	226	P	P	03 08 30.2	-0.1
	comp=Z,78nm,1.2s						
MCRA	Macar, Loja	44.37	256	P	P	03 08 30.0	-0.5
	comp=Z,70nm,1.4s						
UCM	Universidad Co	44.38	38	P	P	03 08 30.6	+0.5
UCM	Universidad Co	44.38	38	P	P	03 08 31.3	+1.1
	comp=Z,54nm,1.3s						
PB14	IPOC Station P	45.64	224	P	P	03 08 39.4	-1.3
PB14	IPOC Station P	45.64	224	P	P	03 08 38.3	-2.4
	comp=Z,71nm,1.4s						
WES	Weston	45.84	325	IAMs_20	IAMs_20	03 22 56.9	
	comp=Z,3µm,21.0s						
Y60A	Bolivia	46.00	311	IAMs_20	IAMs_20	03 23 05.2	
	comp=Z,3µm,21.0s						
HRV	Adam Dziewonsk	46.05	325	P	P	03 08 47.8	+4.4
HRV	Adam Dziewonsk	46.05	325	P	P	03 08 48.4	+5.0
	comp=Z,32nm,1.6s						
ANCO	Parque Anchore	46.16	204	*e*P	P	03 08 44.9	+0.7
ANCO				*e*S	S	03 15 31.4	+2.0
AC02	Maricunga	46.25	221	P	P	03 08 44.8	-0.9
AC02				IAmb	IAmb	03 08 48.1	
	comp=Z,73nm,1.1s						
AC02				IAMs_20	IAMs_20	03 28 46.1	
	comp=Z,4µm,20.0s						
AC02	Maricunga	46.25	221	P	P	03 08 47.3	+1.5
	comp=Z,74nm,2.1s						
HDC	Heredia	46.45	276	*e*P	P	03 08 46.8	-0.2
F64A	Sherman	46.58	330	IAMs_20	IAMs_20	03 23 38.2	
	comp=Z,3µm,20.0s						
L61B	Northampton	46.67	324	IAMs_20	IAMs_20	03 23 30.9	
	comp=Z,3µm,19.0s						
W59A	Clinton	46.67	312	IAMs_20	IAMs_20	03 23 55.8	
	comp=Z,3µm,20.0s						
AC01	Pan de Azucar	46.77	223	IAMs_20	IAMs_20	03 28 17.6	
	comp=Z,3µm,22.0s						
I62A	Tamworth	46.80	326	IAMs_20	IAMs_20	03 23 39.2	
	comp=Z,2µm,19.0s						
T59A	Double "B" Far	46.85	315	IAMs_20	IAMs_20	03 23 19.3	
	comp=Z,3µm,20.0s						
Y58A	Scranton	47.06	310	IAMs_20	IAMs_20	03 23 04.2	
	comp=Z,3µm,21.0s						
X58A	Rowland	47.08	311	IAMs_20	IAMs_20	03 23 36.6	
	comp=Z,3µm,21.0s						
NHSC	New Hope	47.14	309	IAMs_20	IAMs_20	03 23 31.4	
	comp=Z,4µm,22.0s						
H62A	Milan	47.15	327	IAMs_20	IAMs_20	03 23 49.5	
	comp=Z,2µm,20.0s						
HNH	Hanover	47.22	325	IAMs_20	IAMs_20	03 23 29.4	
	comp=Z,2µm,19.0s						
JTS	Las Juntas de	47.27	277	⇑*i*P	P	03 08 56.4	+3.1
JTS				pmax	pmax		
	comp=Z,21nm,1.3s						
SJPF	Ste Jean	47.29	36	*e*P	P	03 08 54.3	+1.2
SJPF				pmax	pmax		
	comp=Z,14nm,1.4s						
LBNH	Lisbon	47.36	326	IAMs_20	IAMs_20	03 23 56.0	
	comp=Z,3µm,20.0s						
257A	Skidaway Islan	47.38	307	IAMs_20	IAMs_20	03 23 41.0	
	comp=Z,4µm,22.0s						
TRY	Troy	47.42	323	IAMs_20	IAMs_20	03 23 53.8	
	comp=Z,2µm,20.0s						
V58A	Windy Hill, Pi	47.44	312	IAMs_20	IAMs_20	03 23 47.0	
	comp=Z,2µm,20.0s						
GO03	Copiapo	47.49	221	IAMs_20	IAMs_20	03 27 38.8	
	comp=Z,3µm,22.0s						
ETSF	Etsaut	47.55	36	*e*P	P	03 08 56.3	+1.1
ETSF				pmax	pmax		
	comp=Z,148nm,1.4s						
ATE	Arette	47.58	36	P	P	03 08 57.4	+2.0
	comp=Z,23nm,1.1s						
Y57A	Sumter	47.66	310	IAMs_20	IAMs_20	03 24 07.0	
	comp=Z,3µm,21.0s						
E62A	Clayton Lake	47.69	330	IAMs_20	IAMs_20	03 24 14.4	
	comp=Z,2µm,19.0s						
456A	Hilliard	47.76	305	IAMs_20	IAMs_20	03 25 24.0	
	comp=Z,3µm,18.0s						
BOAB	BOACO BROADBAN	47.96	280	P	P	03 08 57.2	-1.5
BOAB	BOACO BROADBAN	47.96	280	P	P	03 08 59.8	+1.1
	comp=Z,101nm,1.8s						
EPF	Esparros	48.16	37	*e*P	P	03 09 01.2	+1.3
EPF				pmax	pmax		
	comp=Z,123nm,1.1s						
AC05	El Transito	48.36	220	P	P	03 09 00.7	-1.0
AC05				IAmb	IAmb	03 09 03.2	
	comp=Z,24nm,0.8s						
AC05				IAMs_20	IAMs_20	03 30 52.9	
	comp=Z,4µm,19.0s						
AC05	El Transito	48.36	220	P	P	03 09 00.1	-1.6
	comp=Z,40nm,1.2s						
AC04	Llanos de Chal	48.45	221	IAMs_20	IAMs_20	03 29 47.2	
	comp=Z,4µm,21.0s						
AC04	Llanos de Chal	48.45	221	P	P	03 09 02.9	+0.7
	comp=Z,76nm,1.4s						
BINY	Binghamton	48.51	322	P	P	03 09 07.9	+5.3
	comp=Z,45nm,2.0s						

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U56A  King              48.60 312  IAMs_20  IAMs_20  03 24 22.9
      comp=Z,3µm,22.0s
KMSC  Kings Mountain    48.81 311  IAMs_20  IAMs_20  03 25 42.6
      comp=Z,2µm,20.0s
MAHO  Mahon             48.95  42  P        P        03 09 07.2 +1.4
      comp=Z,40nm,1.1s
CNGN  Cerro Negro       48.97 280  P        P        03 09 06.6 +0.1
      comp=Z,1µm,1.9s
BLA   Blacksburg        49.00 314  IAMs_20  IAMs_20  03 24 57.3
      comp=Z,2µm,21.0s
V55A  Taylorsville      49.01 312  IAMs_20  IAMs_20  03 25 16.7
      comp=Z,3µm,21.0s
CO01  Juntas del Tor    49.04 219  P        P        03 09 06.1 -0.9
CO01                               IAmb     IAmb     03 09 09.7
      comp=Z,52nm,1.1s
CO01                               IAMs_20  IAMs_20  03 30 56.8
      comp=Z,4µm,20.0s
CO01  Juntas del Tor    49.04 219  P        P        03 09 08.4 +1.4
      comp=Z,46nm,1.4s
CFA   Coronel Fontan    49.09 216  LR       LR       03 31 42.9
      comp=Z,1µm,18.7s,baz=45,slow=38
154A  Montrose          49.26 307  IAMs_20  IAMs_20  03 24 47.6
      comp=Z,4µm,22.0s
R55A  Marlinton         49.26 315  IAMs_20  IAMs_20  03 24 53.1
      comp=Z,2µm,22.0s
ZON   Zonda             49.30 216  P        P        03 09 08.2 -0.6
ZON                                pmax     pmax
      comp=Z,122nm,1.8s
ZON   Zonda             49.30 216  P        P        03 09 08.2 -0.6
ZON                                IAmb     IAmb     03 09 10.8
      comp=Z,122nm,1.8s
ZON   Zonda             49.30 216  P        P        03 09 10.2 +1.3
      comp=E,32nm,1.4s
EJON  La Jonquera       49.38  39  P        P        03 09 10.1 +0.9
      comp=Z,33nm,1.3s
SJAF  Saint Jean de     49.39  39  P        P        03 09 09.7 +0.3
      comp=Z,37nm,1.5s
MTLF  Montolieu         49.46  38 eP        P        03 09 10.1 +0.3
MTLF                               pmax     pmax
      comp=Z,26nm,1.0s
MTLF  Montolieu         49.46  38  P        P        03 09 10.5 +0.7
      comp=Z,31nm,1.2s
LFF   La Frestale       49.52  35 eP        P        03 09 10.9 +0.6
LFF                                pmax     pmax
      comp=Z,297nm,1.4s
TGUH  Tegucigalpa,Un    49.56 282  P        P        03 09 13.0 +1.8
TGUH  Tegucigalpa,Un    49.56 282  P        P        03 09 12.9 +1.8
      comp=Z,59nm,1.2s
GO04  Tololo Observa    49.61 219  P        P        03 09 10.1 -1.3
GO04  Tololo Observa    49.61 219  P        P        03 09 11.6 +0.1
      comp=Z,147nm,0.8s
U54A  Nelsons Funny     49.73 312  IAMs_20  IAMs_20  03 25 40.7
      comp=Z,3µm,20.0s
GOGA  Godfrey           49.81 308  P        P        03 09 16.5 +3.8
GOGA  Godfrey           49.81 308  P        P        03 09 16.7 +4.0
      comp=Z,31nm,1.8s
SGMF  Saint Gilles      49.90  30 eP        P        03 09 13.7 +0.7
SGMF                               pmax     pmax
      comp=Z,70nm,1.3s
MFF   Saint Martin d    50.06  33 eP        P        03 09 14.8 +0.5
MFF                                pmax     pmax
      comp=Z,41nm,0.9s
MFF   Saint Martin d    50.06  33  P        P        03 09 15.8 +1.5
      comp=Z,2.7nm,1.5s
Q54A  Coxs Mills        50.08 315  IAMs_20  IAMs_20  03 24 56.7
      comp=Z,3µm,22.0s
V53A  Saluda            50.13 311  IAMs_20  IAMs_20  03 26 53.5
      comp=Z,2µm,20.0s
RJF   Les Rejaudoux     50.18  35 eP        P        03 09 15.4 +0.1
RJF                                pmax     pmax
      comp=Z,57nm,1.0s
CAF   Calviac           50.27  36 eP        P        03 09 16.4 +0.4
CAF                                pmax     pmax
      comp=Z,17nm,1.0s
352A  Blakely           50.36 305  IAMs_20  IAMs_20  03 25 44.0
      comp=Z,3µm,21.0s
Y52A  Lilburn           50.44 308  IAMs_20  IAMs_20  03 26 04.8
      comp=Z,3µm,20.0s
CO02  Combarbal         50.45 218  P        P        03 09 17.1 -0.5
CO02                               IAMs_20  IAMs_20  03 30 42.3
      comp=Z,2µm,20.0s
CO02  Combarbal         50.45 218  P        P        03 09 18.1 +0.5
      comp=Z,111nm,1.5s
CO06  Fray Jorge        50.48 219  P        P        03 09 17.4 -0.3
CO06                               IAMs_20  IAMs_20  03 30 36.0
      comp=Z,3µm,22.0s
152A  Waverly Hall      50.56 306  IAMs_20  IAMs_20  03 25 39.1
      comp=Z,3µm,22.0s
P53A  Whipple           50.69 316  IAMs_20  IAMs_20  03 25 37.9
      comp=Z,3µm,22.0s
W52A  Murphy            50.76 310  IAMs_20  IAMs_20  03 25 30.3
      comp=Z,3µm,21.0s
KEST  Kesra             50.77  50  P        P        03 09 20.8 +0.9
      comp=Z,22nm,1.1s,baz=267,slow=7.9,SNR=9.3
KEST                               LR       LR       03 31 29.6
      comp=Z,3µm,19.1s,baz=240,slow=37
      comp=Z,22nm,1.1s
KEST  Kesra             50.77  50  P        P        03 09 19.5 -0.5
KEST                               IAmb     IAmb     03 09 33.2
      comp=Z,81nm,1.6s
TKL   Tuckaleechee C    50.85 310  LR       LR       03 26 17.2
      comp=Z,3µm,21.7s,baz=120,slow=31
TZTN  Tazewell          51.02 311  IAMs_20  IAMs_20  03 25 25.9
      comp=Z,3µm,22.0s
TZTN  Tazewell          51.02 311  P        P        03 09 25.4 +3.6
CO04  Los Peladeros     51.02 217  P        P        03 09 21.2 -0.9
CO04                               IAmb     IAmb     03 09 23.4
      comp=Z,49nm,0.9s
CO04                               IAMs_20  IAMs_20  03 29 58.4
      comp=Z,2µm,22.0s
CO04  Los Peladeros     51.02 217  P        P        03 09 22.9 +0.7
      comp=Z,73nm,1.2s
O52A  Adamsville        51.28 316  IAMs_20  IAMs_20  03 26 18.4
      comp=Z,2µm,20.0s
VA03  San Esteban       51.28 216  P        P        03 09 23.2 -0.6
VA03                               IAmb     IAmb     03 09 25.3
      comp=Z,48nm,0.9s
VA03                               IAMs_20  IAMs_20  03 31 20.2
      comp=Z,3µm,18.0s
VA03  San Esteban       51.28 216  P        P        03 09 24.9 +1.1
      comp=Z,68nm,1.0s
X51A  Calhoun           51.30 309  IAMs_20  IAMs_20  03 26 32.4
      comp=Z,2µm,22.0s
LDF   La Druitiere      51.34  31 eP        P        03 09 24.0 +0.1
LDF                                pmax     pmax
      comp=Z,47nm,1.3s
MT08  Bocatoma Ro       51.46 215  P        P        03 09 25.1 -0.2
MT08                               IAmb     IAmb     03 09 27.7
      comp=Z,46nm,0.9s
S51A  Beattyville       51.48 313  IAMs_20  IAMs_20  03 26 45.9
      comp=Z,2µm,20.0s
MTO3  Montecristo       51.60 282  P        P        03 09 25.1 -1.6
PEL   Peldehue          51.63 216  P        P        03 09 27.2 +0.8
PEL   Peldehue          51.63 216  P        P        03 09 25.4 -1.0
PEL                                IAmb     IAmb     03 09 39.5
      comp=Z,69nm,1.2s
PEL                                IAMs_20  IAMs_20  03 31 09.3
      comp=Z,2µm,21.0s
PEL   Peldehue          51.63 216  P        P        03 09 27.1 +0.8
      comp=Z,52nm,1.5s
BGF   Bois d'Agland     51.67  34 eP        P        03 09 26.9 +0.4
BGF                                pmax     pmax
      comp=Z,52nm,1.4s
MT16  CCHEN             51.74 216  P        P        03 09 27.4 +0.2
MT16                               IAmb     IAmb     03 09 28.8
      comp=Z,61nm,0.8s
MT16                               IAMs_20  IAMs_20  03 30 39.4
      comp=Z,3µm,22.0s
VIVF  Saint-Julien-l    51.77  37 eP        P        03 09 28.4 +1.1
VIVF                               pmax     pmax
      comp=Z,54nm,1.2s
MT03  Universidad Ad    51.78 216  P        P        03 09 28.1 +0.5
MT03                               IAmb     IAmb     03 09 31.2
      comp=Z,56nm,1.1s
MT03                               IAMs_20  IAMs_20  03 30 41.4
      comp=Z,3µm,21.0s
RUSF  Rustrel           51.78  39  P        P        03 09 29.6 +2.3
      comp=Z,16nm,1.1s
MT13  San Alfonso       51.83 215  P        P        03 09 26.9 -1.0
MT13                               IAmb     IAmb     03 09 40.9
      comp=Z,82nm,1.6s
MT05  Renca             51.84 216  P        P        03 09 27.0 -0.9
MT05                               IAMs_20  IAMs_20  03 29 44.0
      comp=Z,2µm,21.0s
SADO  Sadowa            51.84 323  P        P        03 09 29.1 +1.4
      comp=Z,20nm,0.9s,baz=159,slow=11,SNR=3.6
SADO                               LR       LR       03 27 10.1
      comp=Z,2µm,20.0s,baz=146,slow=31
      comp=Z,20nm,0.9s
SADO  Sadowa            51.84 323  P        P        03 09 26.8 -0.9
W50A  Signal Mountai    51.86 309  IAMs_20  IAMs_20  03 26 04.4
      comp=Z,2µm,21.0s
SSB   Saint Sauveur     51.92  37  P        P        03 09 30.3 +1.8
SSB   Saint Sauveur     51.92  37  IAMs_20  IAMs_20  03 27 58.3
      comp=Z,2µm,20.0s
SSB   Saint Sauveur     51.92  37  P        P        03 09 30.2 +1.8
      comp=Z,28nm,1.1s
MT02  Curacav           51.98 216  IAMs_20  IAMs_20  03 32 11.7
      comp=Z,3µm,18.0s
LMR   La Mourre         52.11  40 eP        P        03 09 29.9 +0.1
LMR                                pmax     pmax
      comp=Z,25nm,1.5s
ACSO  Alum Creek Sta    52.12 316  IAMs_20  IAMs_20  03 26 09.6
      comp=Z,3µm,22.0s
T50A  Nancy             52.16 311  IAMs_20  IAMs_20  03 26 13.0
      comp=Z,3µm,22.0s
BO04  La Punta          52.19 215  P        P        03 09 29.5 -1.1
MT09  Talagante         52.26 216  P        P        03 09 30.4 -0.8
MT09                               IAMs_20  IAMs_20  03 33 52.2
      comp=Z,2µm,18.0s
R50A  Paris             52.26 313  IAMs_20  IAMs_20  03 27 19.7
      comp=Z,2µm,20.0s
SMF   Signal de Mont    52.28  35 eP        P        03 09 32.2 +1.2
SMF                                pmax     pmax
      comp=Z,32nm,1.4s
MT01  Popeta            52.47 216  P        P        03 09 31.5 -1.1
MT01                               IAmb     IAmb     03 09 33.5
      comp=Z,49nm,0.8s
MT01                               IAMs_20  IAMs_20  03 34 05.9
      comp=Z,2µm,19.0s
LRAL  Lakeview Retre    52.50 306  IAMs_20  IAMs_20  03 26 49.5
      comp=Z,3µm,22.0s
ORIF  Oris-en-Rattie    52.53  38 eP        P        03 09 33.9 +0.9
ORIF  Oris-en-Rattie    52.53  38  P        P        03 09 34.7 +1.7
      comp=Z,8.2nm,1.7s
VA05  Santo Domingo     52.54 216  IAMs_20  IAMs_20  03 32 27.6
      comp=Z,2µm,19.0s
CALF  Calern            52.58  39  P        P        03 09 34.9 +1.5
      comp=Z,36nm,0.9s
LOR   Lormes            52.65  34 eP        P        03 09 33.9 +0.2
LOR                                pmax     pmax
      comp=Z,29nm,1.3s
LOR   Lormes            52.65  34  P        P        03 09 35.3 +1.5
      comp=Z,17nm,1.7s
SCHQ  Schefferville     52.66 339  P        P        03 09 34.4 +0.7
      comp=Z,8.0nm,0.7s,baz=107,slow=6.1,SNR=7.9
SCHQ                               LR       LR       03 28 21.3
      comp=Z,1µm,21.4s,baz=145,slow=32
      comp=Z,8.0nm,0.7s
SCHQ  Schefferville     52.66 339  P        P        03 09 33.1 -0.6
U49A  Red Boiling Sp    52.68 310  IAMs_20  IAMs_20  03 27 53.9
      comp=Z,2µm,20.0s
BO01  Tunca             52.75 215  P        P        03 09 33.8 -0.9
BO01                               IAmb     IAmb     03 09 35.8
      comp=Z,36nm,0.9s
BO01                               IAMs_20  IAMs_20  03 31 57.3
      comp=Z,2µm,22.0s
BO01  Tunca             52.75 215  P        P        03 09 35.2 +0.5
      comp=Z,61nm,2.2s
BO02  Sierra Bellavi    52.87 215  P        P        03 09 35.6  0.0
BO02                               IAmb     IAmb     03 09 38.3
      comp=Z,42nm,0.8s
BO02                               IAMs_20  IAMs_20  03 34 20.4
      comp=Z,2µm,20.0s
BO02  Sierra Bellavi    52.87 215  P        P        03 09 36.7 +1.1
      comp=Z,67nm,1.1s
ISO   Isola             52.87  39  P        P        03 09 36.4 +0.9
ISO   Isola             52.87  39  P        P        03 09 36.4 +0.9
      comp=Z,10.0nm,1.9s
R49A  Shelbyville       52.88 313  IAMs_20  IAMs_20  03 27 08.0
      comp=Z,2µm,21.0s
ESCA  l'Escarene        52.90  40  P        P        03 09 36.7 +1.0
      comp=Z,28nm,1.5s
SBF   Sospel            52.96  39 eP        P        03 09 36.6 +0.5
SBF                                pmax     pmax
      comp=Z,42nm,1.2s
X48A  Hartselle         52.97 308  IAMs_20  IAMs_20  03 27 24.7
      comp=Z,3µm,20.0s
MBDF  Montbardon        52.98  38 eP        P        03 09 37.3 +0.9
MBDF                               pmax     pmax
      comp=Z,30nm,1.4s
O49A  Covington         53.04 315  IAMs_20  IAMs_20  03 27 22.0
      comp=Z,2µm,20.0s
BNI   Bardonecchia      53.09  38  P        P        03 09 39.2 +2.0
BNI   Bardonecchia      53.09  38  P        P        03 09 39.2 +2.0
      comp=Z,18nm,1.1s
N49A  Columbus Grove    53.24 316  IAMs_20  IAMs_20  03 27 29.3
      comp=Z,2µm,20.0s
PGF   Pioggiola         53.34  42  P        P        03 09 37.1 -2.0
PGF   Pioggiola         53.34  42  P        P        03 09 37.1 -2.0
      comp=Z,19nm,1.4s
LPL   La Plagne         53.36  37 eP        P        03 09 40.2 +0.9
LPL                                pmax     pmax
      comp=Z,16nm,1.2s
LPG   La Plagne         53.36  37 eP        P        03 09 40.4 +1.1
LPG                                pmax     pmax
      comp=Z,18nm,1.3s
Z47A  Carrollton        53.41 306  IAMs_20  IAMs_20  03 27 29.5
      comp=Z,3µm,21.0s
AAM   Ann Arbor         53.48 318  P        P        03 09 42.5 +2.5
P48A  Milroy            53.51 314  IAMs_20  IAMs_20  03 27 26.7
      comp=Z,2µm,20.0s
WCI   Wyandotte Cave    53.67 312  P        P        03 09 43.6 +2.2
WCI   Wyandotte Cave    53.67 312  IAMs_20  IAMs_20  03 28 04.1
      comp=Z,2µm,20.0s
WCI   Wyandotte Cave    53.67 312  P        P        03 09 42.7 +1.3
      comp=Z,22nm,0.8s
GO05  Hualane           53.68 216  P        P        03 09 40.5 -1.0
GO05                               IAMs_20  IAMs_20  03 33 53.9
      comp=Z,3µm,19.0s
ML02  Panimavida        53.93 215  P        P        03 09 41.9 -1.4
ML02                               IAMs_20  IAMs_20  03 30 55.4
      comp=Z,3µm,20.0s
ML02  Panimavida        53.93 215  P        P        03 09 43.7 +0.5
      comp=Z,271nm,0.8s
146A  Union             54.05 305  IAMs_20  IAMs_20  03 27 37.6
      comp=Z,2µm,22.0s
346A  Big Creek Wild    54.06 303  IAMs_20  IAMs_20  03 27 02.2
      comp=Z,3µm,22.0s
WVT   Waverly           54.10 309  P        P        03 09 46.3 +1.7
WVT   Waverly           54.10 309  IAMs_20  IAMs_20  03 27 23.8
      comp=Z,3µm,22.0s
WVT   Waverly           54.10 309  P        P        03 09 46.1 +1.4
      comp=Z,30nm,0.8s
SENIN Lac Senin/Sane    54.13  37  IAMs_20  IAMs_20  03 28 55.8
      comp=Z,3µm,21.0s
HAU   Haudompre         54.45  35 eP        P        03 09 47.2 +0.2
HAU                                pmax     pmax
      comp=Z,40nm,1.3s
BAIF  Baives            54.47  32 eP        P        03 09 46.9 -0.1
BAIF                               pmax     pmax
      comp=Z,44nm,1.2s
BI02  San Fabin de      54.50 214  P        P        03 09 46.9 -0.7
BI02                               IAMs_20  IAMs_20  03 33 10.6
      comp=Z,2µm,18.0s
BI02  San Fabin de      54.50 214  P        P        03 09 48.2 +0.7
      comp=Z,121nm,1.7s
BOURR Bourrignon        54.63  36  P        P        03 09 50.1 +1.8
      comp=Z,32nm,1.2s
HINF  Hinteralfeld      54.64  35 eP        P        03 09 48.5 +0.1
HINF                               pmax     pmax
      comp=Z,36nm,1.4s
EKA   Eskdalemuir Ar    54.65  23  P        P        03 09 48.1 -0.1
      comp=Z,8.1nm,1.0s,baz=218,slow=5.6,SNR=7.0
EKA                                LR       LR       03 30 05.9
      comp=Z,630nm,18.6s,baz=231,slow=33
      comp=Z,8.1nm,1.0s
DOU   Dourbes           54.69  32 dP        P        03 09 48.3 -0.3
      comp=Z,18nm,1.0s
Y45A  Yeager Farm, C    54.77 306  IAMs_20  IAMs_20  03 28 32.7
      comp=Z,3µm,21.0s
GIVF  Givet             54.81  32 eP        P        03 09 49.4 -0.1
GIVF                               pmax     pmax
      comp=Z,33nm,1.0s
P46A  Rosedale          54.85 314  IAMs_20  IAMs_20  03 28 52.1
      comp=Z,2µm,19.0s
VLC   Villacollemand    54.98  40  P        P        03 09 50.6 -0.3
      comp=Z,18nm,1.1s
UCC   Uccle             54.99  31 dP        P        03 09 52.0 +1.3
T45A  Paducah           55.01 310  IAMs_20  IAMs_20  03 27 51.7
      comp=Z,2µm,21.0s
ECH   Echery            55.03  35  P        P        03 09 52.6 +1.5
ECH   Echery            55.03  35  P        P        03 09 52.0 +0.9
      comp=Z,24nm,1.1s
SFIN  Lafayette         55.05 314  IAMs_20  IAMs_20  03 28 24.4
      comp=Z,2µm,22.0s
RCHB  Rochefort         55.06  32 dP        P        03 09 51.1 -0.2
      comp=Z,9.9nm,1.0s
RCHB  Rochefort         55.06  32  P        P        03 09 51.9 +0.6
      comp=Z,14nm,1.4s
BNALP Bannalp           55.06  37  P        P        03 09 52.5 +1.0
      comp=Z,25nm,1.1s
VBMS  Vicksburg         55.14 304  IAMs_20  IAMs_20  03 29 03.5
      comp=Z,3µm,20.0s
VAE   Valguarnera       55.19  49  LR       LR       03 32 07.9
      comp=Z,3µm,21.0s,baz=288,slow=35
CDF   Champ du Feu      55.20  35 eP        P        03 09 52.5  0.0
CDF                                pmax     pmax
      comp=Z,39nm,1.4s
BCLA  Clavier           55.25  32 dP        P        03 09 52.7  0.0
      comp=Z,13nm,1.1s
WLF   Walferdange       55.27  33  P        P        03 09 53.6 +0.8
WLF   Walferdange       55.27  33 dP        P        03 09 53.2 +0.4
      comp=Z,8.0nm,1.2s
WLF   Walferdange       55.27  33  P        P        03 09 53.5 +0.8
      comp=Z,15nm,1.0s
TUE   Stuetta           55.41  38  IAMs_20  IAMs_20  03 29 42.7
      comp=Z,3µm,20.0s
TUE   Stuetta           55.41  38  P        P        03 09 55.4 +1.2
      comp=Z,2µmcomp=Z,43nm,1.9s
TUE   Stuetta           55.41  38  P        P        03 09 50.0 -4.2
      comp=Z,11nm,1.9s
SLE   Schleitheim       55.55  36  P        P        03 09 56.3 +1.3
SLE   Schleitheim       55.55  36  P        P        03 09 56.3 +1.3
      comp=Z,19nm,1.1s
BMOL  Mol               55.60  31 dP        P        03 09 54.3 -0.8
S44A  Carbondale        55.69 311  IAMs_20  IAMs_20  03 28 23.6
      comp=Z,3µm,22.0s
MEM   Membach           55.73  32  P        P        03 09 57.2 +1.1
MEM   Membach           55.73  32 dP        P        03 09 56.4 +0.3
      comp=Z,18nm,0.9s
MEM   Membach           55.73  32  P        P        03 09 57.2 +1.1
      comp=Z,34nm,0.9s
BFO   Black Forest      55.75  35 i P       P        03 09 57.3 +0.9
E46A  Sault Ste Mari    55.77 322  IAMs_20  IAMs_20  03 29 27.0
      comp=Z,2µm,19.0s
HGN   Heimansgroeve     55.78  32  P        P        03 09 57.8 +1.4
      comp=Z,18nm,1.2s
DAVOX Davos/Dischmat    55.88  37  LR       LR       03 30 08.4
      comp=Z,3µm,21.5s,baz=254,slow=32
143A  Socs Landing,     55.98 304  IAMs_20  IAMs_20  03 29 41.2
      comp=Z,2µm,22.0s
FUORN Ofenpass-Fuorn    56.04  38  P        P        03 09 59.6 +0.8
      comp=Z,15nm,1.3s
M44A  Midewin, Midew    56.10 315  IAMs_20  IAMs_20  03 29 47.0
      comp=Z,2µm,20.0s
DAVA  Damuels           56.13  37 i pP      P        03 09 59.3  0.0
      comp=Z,29nm,1.4s,SNR=10
DAVA  Damuels           56.13  37  P        P        03 09 59.7 +0.5
      comp=Z,33nm,1.3s
AQU   L'Aquila          56.22  44  P        P        03 10 00.8 +0.9
AQU   L'Aquila          56.22  44  P        P        03 10 00.8 +0.9
      comp=Z,29nm,1.0s
L44A  Lake County Fo    56.31 316  IAMs_20  IAMs_20  03 29 23.5
      comp=Z,3µm,22.0s
TEOL  Teolo             56.33  40  P        P        03 09 57.5 -3.0
TEOL                               IAmb     IAmb     03 10 13.7
      comp=Z,30nm,0.9s
UBR   Ueberruh          56.46  37  P        P        03 10 02.1 +0.6
      comp=Z,27nm,1.8s
STU   Stuttgart         56.47  35  P        P        03 10 02.2 +0.7
STU   Stuttgart         56.47  35  P        P        03 10 02.2 +0.7
      comp=Z,14nm,1.5s
FETA  Feichten          56.51  37 epP       P        03 10 02.2 +0.2
      comp=Z,21nm,1.1s,SNR=10
P43A  Skaggs, Pawnee    56.53 313  IAMs_20  IAMs_20  03 29 11.6
      comp=Z,2µm,20.0s
CEL   Celeste           56.55  49  IAMs_20  IAMs_20  03 32 54.7
      comp=Z,3µm,22.0s
CTI   Castel Tesino     56.62  39  P        P        03 10 00.5 -2.2
CGRP  Cima Grappa       56.64  39  P        P        03 10 02.8 -0.2
      comp=Z,32nm,0.9s
HDIL  Hopedale          56.68 314  IAMs_20  IAMs_20  03 29 04.5
      comp=Z,2µm,22.0s
RETA  Reutte            56.75  37 i pP      P        03 10 03.6  0.0
      comp=Z,19nm,1.2s,SNR=11
GO06  Curarrehue        56.76 211  P        P        03 10 02.8 -1.0
GO06                               IAmb     IAmb     03 10 05.3
      comp=Z,40nm,0.8s
GO06  Curarrehue        56.76 211  P        P        03 10 04.7 +1.0
      comp=Z,55nm,1.1s
K43A  Burlington        56.80 317  IAMs_20  IAMs_20  03 29 26.4
      comp=Z,2µm,21.0s
BUG   Bochum--Univer    56.85  32  P        P        03 10 06.1 +2.0
BUG   Bochum--Univer    56.85  32  P        P        03 10 06.1 +2.0
      comp=Z,24nm,1.2s
T42A  Van Buren         56.88 309  P        P        03 10 02.6 -2.0
T42A                               IAMs_20  IAMs_20  03 29 54.2
      comp=Z,2µm,21.0s
MOTA  Moosalm           56.89  37 i pP      P        03 10 03.9 -0.8
      comp=Z,22nm,1.0s,SNR=5.2
SQTA  Sankt Quirin      56.89  37 epP       P        03 10 03.9 -0.8
      comp=Z,36nm,1.1s,SNR=16
WTSB  Winterswijk       56.91  31  P        P        03 10 05.6 +1.1
      comp=Z,38nm,1.1s
CMIG  Matias Romero     57.00 285  LR       LR       03 33 36.5
      comp=Z,525nm,21.9s,baz=88,slow=35
441A  DeRidder          57.04 302  IAMs_20  IAMs_20  03 32 47.0
      comp=Z,2µm,18.0s
CUC   Castrocucco       57.06  47  P        P        03 10 06.0 +0.1
      comp=Z,16nm,1.1s
MARCO Tramutola         57.16  47  P        P        03 10 03.0 -3.6
      comp=Z,35nm,1.4s
PLCA  Paso Flores       57.16 210  P        P        03 10 07.2 +0.7
      comp=Z,20nm,1.0s,baz=23,slow=8.0,SNR=14
PLCA                               LR       LR       03 34 48.8
      comp=Z,4µm,18.5s,baz=42,slow=36
      comp=Z,20nm,1.0s
PLCA  Paso Flores       57.16 210  P        P        03 10 05.8 -0.7
PLCA                               IAmb     IAmb     03 10 08.3
      comp=Z,41nm,1.1s
PLCA  Paso Flores       57.16 210 eP        P        03 10 06.2 -0.3
PLCA  Paso Flores       57.16 210  P        P        03 10 06.5  0.0
      comp=Z,43nm,1.5s
WATA  Walderalm         57.17  37 i pP      P        03 10 06.0 -0.7
      comp=Z,22nm,1.4s,SNR=7.3
WTTA  Wattenberg        57.17  38  P        P        03 10 06.5 -0.2
WTTA  Wattenberg        57.17  38 i pP      P        03 10 06.3 -0.4
      comp=Z,16nm,0.9s,SNR=9.1
WTTA  Wattenberg        57.17  38  P        P        03 10 06.5 -0.2
      comp=Z,25nm,1.1s
CCM   Cathedral Cave    57.30 311  P        P        03 10 08.6 +1.1
CCM   Cathedral Cave    57.30 311  IAMs_20  IAMs_20  03 29 45.2
      comp=Z,2µm,21.0s
CCM   Cathedral Cave    57.30 311  P        P        03 10 08.8 +1.3
      comp=Z,27nm,1.5s
FUR   Furstenfeldbru    57.38  36  P        P        03 10 06.7 -1.3
FUR   Furstenfeldbru    57.38  36  P        P        03 10 06.7 -1.3
      comp=Z,34nm,1.2s
L42A  Oliver, Polo      57.45 315  IAMs_20  IAMs_20  03 29 24.9
      comp=Z,2µm,22.0s
ABTA  Abfaltersbach     57.47  38 epP       P        03 10 09.1 +0.3
      comp=Z,28nm,1.4s,SNR=12
TIP   Timpagrande       57.49  48  IAMs_20  IAMs_20  03 33 35.2
      comp=Z,2µm,22.0s
IBBN  Ibbenburen        57.59  31  P        P        03 10 09.9 +0.6
      comp=Z,22nm,1.0s
FUSE  Fusea             57.63  39  P        P        03 10 09.8  0.0
      comp=Z,19nm,1.1s
GRC2  Grafenberg Arr    57.77  36  P        P        03 10 10.5 -0.2
      comp=Z,34nm,1.1s
N41A  Harden Midland    57.85 314  IAMs_20  IAMs_20  03 30 02.5
      comp=Z,2µm,20.0s
ROBS  Robic             57.87  39 i P       P        03 10 11.3 -0.1
LESA  Schwarzleotal     57.87  38 epP       P        03 10 11.0 -0.5
      comp=Z,17nm,0.9s,SNR=11
GRC3  Grafenberg Arr    57.90  36  P        P        03 10 11.5 -0.1
      comp=Z,28nm,1.1s
GRC1  Grafenberg Arr    57.92  36  P        P        03 10 11.9 +0.2
      comp=Z,31nm,1.1s
DRE   Drenchia          57.93  39  P        P        03 10 11.8 -0.1
      comp=Z,35nm,0.9s
GRC4  Grafenberg Arr    57.96  36  P        P        03 10 12.2 +0.1
      comp=Z,25nm,0.9s
UBBA  Unterbreizbach    57.97  33  P        P        03 10 09.9 -2.0
      comp=Z,12nm,1.7s
PRED  Cave del Predi    57.99  39  P        P        03 10 13.9 +1.6
      comp=Z,13nm,1.4s
ACOM  Acomizza, Ital    58.01  39  P        P        03 10 13.2 +0.6
      comp=Z,24nm,1.1s
BORG  Borgarnes         58.06   8  LR       LR       03 27 15.6
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	comp=Z,321nm,19.6s,baz=198,slow=28						
GRB5	Grafenberg Arr	58.06	36	P	P	03 10 13.9	+1.2
	comp=Z,28nm,1.1s						
GRA1	Grafenberg Arr	58.08	35	P	P	03 10 11.0	-1.9
	comp=Z,39nm,1.4s						
RJOB	Jochberg	58.09	37	P	P	03 10 12.8	-0.2
	comp=Z,13nm,1.0s						
MYKA	Terra Mystica	58.12	39	i pP	P	03 10 13.6	+0.3
	comp=Z,31nm,1.3s,SNR=11						
KBA	Koelnbreinsper	58.13	38	P	P	03 10 13.2	-0.2
KBA	Koelnbreinsper	58.13	38	epP	P	03 10 13.4	0.0
	comp=Z,24nm,1.4s,SNR=7.4						
KBA	Koelnbreinsper	58.13	38	P	P	03 10 13.2	-0.2
	comp=Z,22nm,1.2s						
GRB2	Grafenberg Arr	58.13	35	P	P	03 10 15.0	+1.8
	comp=Z,29nm,0.9s						
R40A	Maddies Statio	58.14	311	IAMs_20	IAMs_20	03 30 12.4	
	comp=Z,2µm,21.0s						
GRA2	Grafenberg Arr	58.14	35	P	P	03 10 13.8	+0.5
	comp=Z,38nm,1.1s						
GRB4	Grafenberg Arr	58.17	35	P	P	03 10 14.7	+1.2
	comp=Z,30nm,1.2s						
GRA3	Grafenberg Arr	58.17	35	P	P	03 10 14.7	+1.2
	comp=Z,20nm,1.0s						
MIAR	Mount Ida	58.18	306	IAMs_20	IAMs_20	03 30 14.9	
	comp=Z,3µm,21.0s						
MIAR	Mount Ida	58.18	306	P	P	03 10 17.9	+4.1
	comp=Z,23nm,1.8s						
JFWS	Jewell Farm	58.18	316	IAMs_20	IAMs_20	03 29 57.1	
	comp=Z,2µm,21.0s						
CEY	Cerknica	58.24	40	eP	P	03 10 14.1	0.0
GTTG	Gottingen	58.33	33	P	P	03 10 15.8	+1.3
	comp=Z,30nm,1.1s						
P40A	Paris	58.34	312	IAMs_20	IAMs_20	03 30 18.7	
	comp=Z,2µm,21.0s						
LL03	Petrohue	58.39	211	IAMs_20	IAMs_20	03 35 48.5	
	comp=Z,2µm,20.0s						
LJU	Ljubljana	58.43	40	i P	P	03 10 15.5	+0.1
LJU				i		03 10 16.2	
NATX	Nacogdoches	58.47	303	IAMs_20	IAMs_20	03 31 34.9	
	comp=Z,2µm,21.0s						
L40A	Anamosa	58.56	315	IAMs_20	IAMs_20	03 30 32.2	
	comp=Z,2µm,21.0s						
BIOA	Bad Ischl, Aus	58.58	38	i pP	P	03 10 15.4	-1.0
	comp=Z,16nm,1.1s,SNR=8.3						
OBKA	Obir	58.64	39	i pP	P	03 10 17.6	+0.7
	comp=Z,35nm,1.1s,SNR=16						
OBKA	Obir	58.64	39	P	P	03 10 18.1	+1.2
	comp=Z,36nm,1.1s						
RETH	Rethem/Aller,	58.65	31	P	P	03 10 18.6	+1.9
	comp=Z,22nm,2.3s						
MOX	Moxa	58.77	34	P	P	03 10 18.7	+1.0
MOX	Moxa	58.77	34	P	P	03 10 18.7	+1.0
	comp=Z,8.5nm,1.4s						
S39A	Bolivar	58.77	310	P	P	03 10 15.7	-2.1
S39A				IAmb	IAmb	03 10 27.1	
	comp=Z,52nm,1.3s						
S39A				IAMs_20	IAMs_20	03 33 08.3	
	comp=Z,2µm,19.0s						
WET	Wettzell	58.77	36	P	P	03 10 18.5	+0.8
WET	Wettzell	58.77	36	P	P	03 10 18.5	+0.8
	comp=Z,11nm,1.5s						
SOKA	Soboth	59.01	39	i pP	P	03 10 19.7	+0.2
	comp=Z,16nm,1.0s,SNR=14						
MOA	Molln	59.03	38	i pP	P	03 10 19.4	-0.1
	comp=Z,22nm,1.1s,SNR=7.4						
MOA	Molln	59.03	38	P	P	03 10 19.6	+0.1
NKC	Novy Kostel	59.04	35	P	P	03 10 20.3	+0.8
NKC	Novy Kostel	59.04	35	P	P	03 10 20.3	+0.8
	comp=Z,17nm,1.2s						
Z38A	Mt. Pleasant	59.04	304	IAMs_20	IAMs_20	03 31 40.8	
	comp=Z,2µm,22.0s						
GEC2	GERESS Array S	59.12	37	P	P	03 10 21.0	+0.8
	comp=Z,8.7nm,1.8s						
GERES	GERESS Array B	59.12	37	P	P	03 10 20.4	+0.2
	comp=Z,3.5nm,1.0s,baz=242,slow=5.6,SNR=9.7						
	comp=Z,3.5nm,1.0s						
GERES	GERESS Array B	59.12	37	P	P	03 10 16.9	-3.3
TANN	Tannenbergstha	59.13	35	P	P	03 10 21.7	+1.5
	comp=Z,30nm,1.5s						
HKT	Hockley	59.14	300d	iP	P	03 10 23.8	+3.3
HKT				pmax	pmax		
	comp=Z,43nm,1.4s						
HKT	Hockley	59.14	300	P	P	03 10 24.3	+3.8
	comp=Z,25nm,1.6s						
WIMM	Wimmelburg	59.14	33	P	P	03 10 21.5	+1.3
	comp=Z,48nm,1.1s						
KHC	Kasperske Hory	59.18	36c	iP	P	03 10 20.8	+0.3
KHC				pmax	pmax		
	comp=Z,26nm,1.5s						
KHC	Kasperske Hory	59.18	36	eP	P	03 10 22.7	+2.2
	comp=Z,15nm,1.1s						
KHC				ex	x	03 10 51.5	
KHC				ex	x	03 11 36.0	
KHC				eS	S	03 18 33.7	+6.5
KHC				AMS	AMS	03 29 00.0	
	comp=Z,2µm,28.3s						
KHC	Kasperske Hory	59.18	36	P	P	03 10 20.6	+0.1
	comp=Z,12nm,1.3s						
KHC	Kasperske Hory	59.18	36	P	P	03 10 21.0	+0.5
	comp=Z,12nm,1.3s						
U38A	Gravette	59.27	308	IAMs_20	IAMs_20	03 30 34.7	
	comp=Z,3µm,22.0s						
PTJ	Puntijarka	59.30	40	P	P	03 10 23.3	+1.8
FLTG	Flechtingen	59.41	32	P	P	03 10 22.8	+0.8
	comp=Z,16nm,1.7s						
P38A	Dawn	59.46	312	IAMs_20	IAMs_20	03 31 16.4	
	comp=Z,3µm,21.0s						
CKRC	Cesky Krumlov	59.47	37	eP	P	03 10 23.1	+0.5
CKRC				eS	S	03 18 38.0	+7.0
CKRC	Cesky Krumlov	59.47	37	eP	P	03 10 23.1	+0.5
CKRC				eS	S	03 18 38.0	+7.0
ARSA	Arzberg	59.55	39	epP	P	03 10 23.0	-0.1
	comp=Z,8.1nm,1.5s						
ARSA	Arzberg	59.55	39	P	P	03 10 23.3	+0.1
	comp=Z,14nm,1.2s						
N38A	Joes South For	59.59	313	P	P	03 10 21.4	-2.0
N38A				IAmb	IAmb	03 10 27.9	
	comp=Z,34nm,1.0s						
N38A				IAMs_20	IAMs_20	03 31 48.6	
	comp=Z,2µm,20.0s						
LL02	Futaleuf	59.65	209	P	P	03 10 23.5	-0.3
LL02				IAmb	IAmb	03 10 26.7	
	comp=Z,61nm,1.5s						
BLY	Banja Luka	59.66	42	⇑P	P	03 10 23.7	-0.2
BLY	Banja Luka	59.66	42	P	P	03 10 25.0	+1.1
ZVC	Zvikov	59.68	36	eP	P	03 10 24.2	+0.3
ZVC				eS	S	03 18 36.9	+3.4
ZVC				AMS	AMS	03 29 50.0	
	comp=Z,2µm,24.1s						
HSKC	Hora Svate Kat	59.77	35	P	P	03 10 25.9	+1.3
	comp=Z,11nm,1.7s						
BSEG	Bad Segeberg	59.77	30	P	P	03 10 27.3	+2.9
BSEG	Bad Segeberg	59.77	30	P	P	03 10 27.3	+2.9
	comp=Z,51nm,1.3s						
CLL	Collm	59.86	34	i P	P	03 10 25.4	+0.3
CLL				i		03 10 34.4	
CLL				pmax	pmax		
	comp=Z,15nm,1.5s						
CLL				MLR	MLR		
	comp=Z,2µm,21.5s						
CLL	Collm	59.86	34	IAMs_20	IAMs_20	03 31 44.1	
	comp=Z,2µm,21.0s						
CLL	Collm	59.86	34	P	P	03 10 26.6	+1.5
	comp=Z,9.9nm,1.6s						
CLL	Collm	59.86	34	i P	P	03 10 25.4	+0.3
	comp=Z,15nm,1.5s						
CLL				i x	x	03 10 34.4	
CLL				i x	x	03 10 44.7	
CLL				ePP	PP	03 12 41.0	+3.7
CLL				eSS	SS	03 22 34.0	+1.9
CLL				eSSS	SSS	03 25 10.0	
CLL				L	L	03 28 00.0	
CLL				AMS	AMS	03 31 00.0	
	comp=N,1µm,20.8s						
CLL				AMS	AMS	03 31 00.0	
	comp=E,1µm,23.8s						
CLL				AMS	AMS	03 31 00.0	
	comp=Z,2µm,21.5s						
SFJD	Kangerlussuaq	59.94	354	P	P	03 10 26.6	+1.3
	comp=Z,9.1nm,0.7s,baz=203,slow=7.1,SNR=5.2						
SFJD				LR	LR	03 33 05.8	
	comp=Z,370nm,18.0s,baz=170,slow=33						
	comp=Z,9.1nm,0.7s						
SFJD	Kangerlussuaq	59.94	354	P	P	03 10 24.5	-0.8
CONA	Conrad Observa	60.04	38	i pP	P	03 10 26.7	+0.1
	comp=Z,20nm,1.4s,SNR=11						
SRN	Sarande	60.09	48	P	P	03 10 28.8	+1.9
	comp=Z,19nm,1.6s						
PRU	Pruhonice	60.12	36	eP	P	03 10 27.6	+0.6
PRU				eS	S	03 18 46.4	+7.2
PRU				MLR	MLR		
	comp=Z,2µm,25.1s						
PRU	Pruhonice	60.12	36	eP	P	03 10 27.6	+0.6
	comp=Z,1.4nm,0.3s						
PRU				eS	S	03 18 46.4	+7.2
PRU				AMS	AMS	03 30 10.0	
	comp=Z,2µm,25.1s						
PRU	Pruhonice	60.12	36	P	P	03 10 27.8	+0.8
	comp=Z,18nm,1.1s						
TSUM	Tsumeb	60.16	117	LR	LR	03 30 17.2	
	comp=Z,1µm,21.8s,baz=290,slow=30						
TSUM	Tsumeb	60.16	117	P	P	03 10 29.6	+1.7
	comp=Z,16nm,1.2s						
BRG	Berggiesshubel	60.18	35	P	P	03 10 28.8	+1.4
BRG	Berggiesshubel	60.18	35	P	P	03 10 28.8	+1.4
	comp=Z,9.8nm,1.2s						
BRG	Berggiesshubel	60.18	35	eP	P	03 10 28.5	+1.2
BRG				Amp		03 10 31.9	
	comp=Z,9.3nm,1.1s						
BRG	Berggiesshubel	60.18	35	S	S	03 18 46.0	+6.1
RONA	Rosalia, Austr	60.21	39	i pP	P	03 10 27.5	-0.2
	comp=Z,31nm,1.2s,SNR=16						
WINA	Alland / Wiene	60.24	38	pP	P	03 10 29.0	+1.2
	SNR=14						
TUL3	Leonard	60.26	307	IAMs_20	IAMs_20	03 31 04.8	
	comp=Z,2µm,22.0s						
PDG	Podgorica	60.30	45	⇓P	P	03 10 28.1	-0.2
PDG	Podgorica	60.30	45	P	P	03 10 27.9	-0.4
	comp=Z,25nm,1.2s						
FRB	Frobisher Bay	60.32	345	LR	LR	03 32 19.2	
	comp=Z,1µm,21.6s,baz=145,slow=32						
SOP	Sopron	60.37	39	P	P	03 10 29.8	+1.1
SOP	Sopron	60.37	39	P	P	03 10 29.0	+0.3
	comp=Z,26nm,1.2s						
TREC	Trest	60.38	37	eP	P	03 10 28.9	+0.1
TREC				eS	S	03 18 49.5	+6.9
TREC	Trest	60.38	37	eP	P	03 10 28.9	+0.1
TREC				eS	S	03 18 49.5	+6.9
TREC	Trest	60.38	37	P	P	03 10 29.1	+0.3
	comp=Z,19nm,0.9s						
KVTX	Kingsville	60.59	297	P	P	03 10 36.7	+6.2
	comp=Z,124nm,1.5s						
MPLH	Magyarpolny	60.78	40	P	P	03 10 32.3	+0.8
	comp=Z,1µmcomp=Z,69nm,1.1s						
MPLH	Magyarpolny	60.78	40	P	P	03 10 32.4	+0.8
	comp=Z,27nm,1.0s						
KRUC	Moravsky	60.82	37	eP	P	03 10 31.1	-0.7
KRUC	Moravsky	60.82	37	P	P	03 10 31.7	0.0
	comp=Z,13nm,1.2s						
RUE	Ruedersdorf	60.84	33	P	P	03 10 33.1	+1.4
	comp=Z,35nm,1.1s						
WHTX	Lake Whitney,	60.85	302	IAMs_20	IAMs_20	03 33 10.0	
	comp=Z,2µm,21.0s						
KBN	Korca	60.87	48	P	P	03 10 35.9	+3.5
KBN	Korca	60.87	48	P	P	03 10 35.9	+3.5
	comp=Z,30nm,1.4s						
ZST	Bratislava	60.91	38	P	P	03 10 34.4	+2.1
ZST	Bratislava	60.91	38	P	P	03 10 34.4	+2.1
	comp=Z,565nm,1.4s						
Z35A	Perchaven, San	60.91	304	IAMs_20	IAMs_20	03 32 38.5	
	comp=Z,2µm,22.0s						
PHP	Peshkopia	60.92	46	P	P	03 10 35.7	+3.1
PHP	Peshkopia	60.92	46	P	P	03 10 35.7	+3.1
	comp=Z,26nm,1.4s						
OHR	Ohrid	61.02	47	i P	P	03 10 39.4	+6.1
VRAC	Vranov	61.04	37	LR	LR	03 33 24.7	
	comp=Z,2µm,21.8s,baz=251,slow=33						
VRAC	Vranov	61.04	37	P	P	03 10 34.0	+0.7
VRAC	Vranov	61.04	37	eP	P	03 10 33.6	+0.3
VRAC	Vranov	61.04	37	⇓P	P	03 10 34.0	+0.7
VRAC	Vranov	61.04	37	P	P	03 10 34.6	+1.3
	comp=Z,4.2nm,1.2s						
T35A	Sooner Cattle	61.05	308	IAMs_20	IAMs_20	03 32 42.6	
	comp=Z,2µm,22.0s						
MODS	Modra-Piesok	61.08	38	eP	P	03 10 33.8	+0.2
MODS	Modra-Piesok	61.08	38	eP	P	03 10 33.8	+0.2
MODS	Modra-Piesok	61.08	38	P	P	03 10 34.1	+0.5
	comp=Z,32nm,1.1s						
MORH	Mrgy, Hungar	61.14	41	⇓P	P	03 10 34.6	+0.7
MORH	Mrgy, Hungar	61.14	41	P	P	03 10 34.7	+0.7
	comp=Z,13nm,1.3s						
MORH	Mrgy, Hungar	61.14	41	P	P	03 10 35.0	+1.0
	comp=Z,15nm,1.3s						
UPC	Upice	61.20	36	P	P	03 10 35.9	+1.6
UPC	Upice	61.20	36	P	P	03 10 35.9	+1.6
	comp=Z,20nm,1.4s						
CHVC	Chvalec	61.26	36	eP	P	03 10 35.7	+1.0
CHVC				eS	S	03 19 01.4	+7.6
CHVC				MLR	MLR		
	comp=Z,2µm,26.2s						
CHVC	Chvalec	61.26	36	eP	P	03 10 35.7	+1.0
CHVC				eS	S	03 19 01.4	+7.6
CHVC				AMS	AMS	03 29 30.0	
	comp=Z,2µm,26.2s						
OK048	Pawnee Station	61.27	307	IAMs_20	IAMs_20	03 31 44.7	
	comp=Z,2µm,22.0s						
DPC	Dobruska-Polom	61.31	36	eP	P	03 10 35.9	+0.8
DPC				eS	S	03 19 04.0	+9.5
DPC				MLR	MLR		
	comp=Z,1µm,22.5s						
DPC	Dobruska-Polom	61.31	36	eP	P	03 10 35.9	+0.8
DPC				eS	S	03 19 04.0	+9.5
DPC				AMS	AMS	03 30 40.0	
	comp=Z,1µm,22.5s						
DPC	Dobruska-Polom	61.31	36	P	P	03 10 36.3	+1.1
	comp=Z,10nm,1.4s						
DPC	Dobruska-Polom	61.31	36	P	P	03 10 36.3	+1.1
	comp=Z,10.0nm,1.4s						
OSTC	Ostas	61.34	36	eP	P	03 10 35.6	+0.3
OSTC				eS	S	03 19 03.7	+8.9
OSTC				MLR	MLR		
	comp=Z,1µm,24.7s						
OSTC	Ostas	61.34	36	eP	P	03 10 35.6	+0.3
OSTC				eS	S	03 19 03.7	+8.9
OSTC				AMS	AMS	03 30 40.0	
	comp=Z,1µm,24.7s						
KRLC	Kraliky	61.47	36	P	P	03 10 37.1	+0.9
KRLC	Kraliky	61.47	36	P	P	03 10 37.1	+0.9
	comp=Z,13nm,1.1s						
KSP	Ksiaz	61.50	35	P	P	03 10 38.0	+1.6
	comp=Z,19nm,1.8s						
SRO	Srobarova	61.51	39	P	P	03 10 39.6	+3.1
SRO	Srobarova	61.51	39	P	P	03 10 39.5	+3.1
	comp=Z,49nm,1.1s						
OK029	Liberty Lake	61.55	307	IAMs_20	IAMs_20	03 32 17.1	
	comp=Z,3µm,22.0s						
RGN	Rugen	61.60	31	IAMs_20	IAMs_20	03 33 11.1	
	comp=Z,2µm,21.0s						
AGG	Agios Georgios	61.61	50	P	P	03 10 39.2	+1.9
AGG	Agios Georgios	61.61	50	P	P	03 10 39.2	+1.9
	comp=Z,24nm,2.3s						
KSU1	Kansas State U	61.63	310	P	P	03 10 35.8	-1.6
KSU1				IAmb	IAmb	03 10 52.9	
	comp=Z,24nm,0.8s						
KSU1	Kansas State U	61.63	310	IAMs_20	IAMs_20	03 35 33.8	
	comp=Z,2µm,19.0s						
MORC	Moravsky Berou	61.80	37	P	P	03 10 39.1	+0.7
MORC	Moravsky Berou	61.80	37	eP	P	03 10 38.0	-0.4
MORC	Moravsky Berou	61.80	37	⇓P	P	03 10 39.1	+0.7
MORC	Moravsky Berou	61.80	37	P	P	03 10 39.5	+1.1
	comp=Z,12nm,1.2s						
MAUC	Maruska	61.80	37	eP	P	03 10 42.4	+3.9
BUD	Budapest	61.84	40	P	P	03 10 42.1	+3.4
LIT	Litokhoron	61.99	49	P	P	03 10 40.6	+0.7
LIT	Litokhoron	61.99	49	P	P	03 10 40.6	+0.7
	comp=Z,21nm,1.0s						
BRDY	Brady	62.04	301	P	P	03 10 38.6	-1.8
BRDY				IAmb	IAmb	03 10 55.4	
	comp=Z,34nm,1.0s						
VYHS	Vyhne	62.09	39	eP	P	03 10 41.2	+0.8
VYHS				pmax	pmax		
	comp=Z,17nm,1.5s						
VYHS	Vyhne	62.09	39	eP	P	03 10 41.2	+0.8
GVD	Gavdhos	62.10	55	P	P	03 10 41.4	+0.8
	comp=Z,54nm,1.0s						
IMMV	Iera Moni Meta	62.13	54	P	P	03 10 43.1	+2.2
	comp=Z,36nm,0.9s						
GRG	Griva	62.14	48	P	P	03 10 41.5	+0.6
GRG	Griva	62.14	48	P	P	03 10 41.5	+0.6
	comp=Z,83nm,1.1s						
OKC	Ostrava-Krasne	62.18	37	P	P	03 10 42.2	+1.3
OKC	Ostrava-Krasne	62.18	37	P	P	03 10 42.2	+1.3
	comp=Z,21nm,1.2s						
L34A	Svendsen Farm,	62.19	314	IAMs_20	IAMs_20	03 33 20.4	
	comp=Z,2µm,21.0s						
XOR	Xorichti	62.34	50	P	P	03 10 43.3	+1.0
	comp=Z,49nm,0.8s						
VAY	Valandovo	62.36	47	i P	P	03 10 43.1	+0.8
BOVS	Bovan	62.38	45	⇑P	P	03 10 42.9	+0.6
WMOK	Wichita Mounta	62.41	305	P	P	03 10 46.0	+3.2
WMOK	Wichita Mounta	62.41	305	P	P	03 10 40.6	-2.3
WMOK	Wichita Mounta	62.41	305	P	P	03 10 45.4	+2.5
	comp=Z,9.4nm,0.8s						
PSZ	Piszkesteto	62.54	39	P	P	03 10 44.3	+0.8
PSZ	Piszkesteto	62.54	39	⇓P	P	03 10 44.3	+0.8
PSZ	Piszkesteto	62.54	39	P	P	03 10 44.3	+0.8
	comp=Z,24nm,1.2s						
BSZH	Besenyszg	62.57	40	P	P	03 10 45.6	+2.0
	comp=Z,46nm,0.6s						
LANS	Liptovska Anna	62.72	38	eP	P	03 10 46.5	+1.9
LANS	Liptovska Anna	62.72	38	eP	P	03 10 46.5	+1.9
MDVR	Moldovita	62.72	43	⇓P	P	03 10 45.8	+1.1
ABTX	Abilene, Hawle	62.78	303	P	P	03 10 43.9	-1.4
ABTX				IAMs_20	IAMs_20	03 37 32.0	
	comp=Z,1µm,19.0s						
IDI	Anoyia	62.83	54	LR	LR	03 37 44.8	
	comp=Z,2µm,22.0s,baz=254,slow=36						
ECSD	EROS Data Cent	62.84	315	P	P	03 10 43.9	-1.7
ECSD				IAmb	IAmb	03 10 54.4	
	comp=Z,28nm,1.3s						
ECSD	EROS Data Cent	62.84	315	P	P	03 10 45.4	-0.1
	comp=Z,22nm,1.3s						
EPLO	Experimental L	62.90	322	P	P	03 10 43.6	-2.1
EPLO				IAmb	IAmb	03 11 08.2	
	comp=Z,27nm,1.1s						
BZS	Buzias	62.91	42	P	P	03 10 47.0	+1.2
BZS	Buzias	62.91	42	⇑P	P	03 10 47.1	+1.2
BZS	Buzias	62.91	42	P	P	03 10 47.1	+1.2
	comp=Z,11nm,1.0s						
SRS	Serrai	63.05	48	P	P	03 10 47.5	+0.5
SRS	Serrai	63.05	48	P	P	03 10 47.5	+0.5
	comp=Z,16nm,1.6s						
R32A	Long Quarter,	63.08	309	IAMs_20	IAMs_20	03 33 47.2	
	comp=Z,2µm,22.0s						
SIRR	Siria	63.14	42	⇑P	P	03 10 48.5	+1.1
HERR	Herculane	63.23	43	⇓P	P	03 10 48.3	+0.3
APMT	Aspermont	63.28	303	P	P	03 10 46.5	-2.1
OJC	Ojcow	63.31	37	P	P	03 10 50.9	+2.4
OJC	Ojcow	63.31	37	P	P	03 10 49.5	+1.0
	comp=Z,20nm,1.4s						
OJC	Ojcow	63.31	37	P	P	03 10 50.3	+1.9
	comp=Z,20nm,1.4s						
NIE	Niedzica	63.32	38	P	P	03 10 49.9	+1.3
	comp=Z,8.2nm,1.5s						
BGNE	Belgrade	63.33	313	IAMs_20	IAMs_20	03 33 46.7	
	comp=Z,2µm,20.0s						
THERA	Ancient Thera,	63.49	53	P	P	03 10 50.5	+0.6
	comp=Z,78nm,1.0s						
ABAH	Abaujker	63.52	39	P	P	03 10 51.4	+1.5
	comp=Z,8.3nm,1.3s						
GZR	Gura Zlata	63.62	43	P	P	03 10 50.9	+0.3
GZR	Gura Zlata	63.62	43	⇑P	P	03 10 51.0	+0.3
LTVH	Ltavrtes, Hu	63.64	41	⇓P	P	03 10 52.2	+1.6
LTVH	Ltavrtes, Hu	63.64	41	P	P	03 10 52.6	+1.9
	comp=Z,36nm,1.1s						
AGMN	Agassiz Nation	63.74	320	P	P	03 10 50.6	-0.7
	comp=Z,18nm,0.8s						
DEV	Deva	63.85	42	P	P	03 10 52.8	+0.8
DEV	Deva	63.85	42	⇑P	P	03 10 52.9	+0.8
DEV	Deva	63.85	42	P	P	03 10 53.5	+1.4
	comp=Z,19nm,1.1s						
ZKR	Zakros	63.87	55	P	P	03 10 54.3	+1.8
	comp=Z,63nm,1.0s						
NAO01	NORSAR Array S	63.87	24	P	P	03 10 52.5	+0.5
	comp=Z,12nm,1.1s						
CBKS	Cedar Bluff	63.94	309	IAMs_20	IAMs_20	03 34 15.2	
	comp=Z,2µm,21.0s						
DRGR		63.99	41	P	P	03 10 53.6	+0.5
DRGR		63.99	41	⇑P	P	03 10 53.7	+0.5
DRGR		63.99	41	P	P	03 10 53.9	+0.8
	comp=Z,18nm,0.9s						
NORES	NORESS Array B	64.07	24	P	P	03 10 57.8	+4.5
NORES				pmax	pmax		
	comp=Z,9.0nm,0.8s						
NB2	NORSAR Subarra	64.11	24	P	P	03 10 54.4	+0.8
	comp=Z,28nm,1.1s,baz=235,slow=6.9						
NB2	NORSAR Subarra	64.11	24	P	P	03 10 54.4	+0.8
NOA	NORSAR Array B	64.11	24	P	P	03 10 54.4	+0.8
	comp=Z,14nm,1.0s,baz=235,slow=6.8,SNR=13						
NOA				LR	LR	03 33 47.1	
	comp=Z,1µm,22.0s,baz=230,slow=31						
	comp=Z,14nm,1.0s						
MARR	Marisel-Cluj	64.22	42	⇓P	P	03 10 54.8	+0.2
MESR	Meseseni	64.25	41	⇓P	P	03 10 56.0	+1.3
TRPA	Tarpa	64.29	40	P	P	03 10 55.3	+0.3
	comp=Z,17nm,1.1s						
PLVB	Pleven	64.35	45	⇑P	P	03 10 56.2	+0.8
VLAD	Vladila	64.36	45	⇑P	P	03 10 56.6	+1.2
KOLS	Kolonicke sedl	64.38	39	eP	P	03 11 00.2	+4.7
KOLS	Kolonicke sedl	64.38	39	eP	P	03 11 00.2	+4.7
KOLS	Kolonicke sedl	64.38	39	P	P	03 10 57.6	+2.1
	comp=Z,11nm,0.9s						
ULM	Lac du Bonnet	64.40	323	P	P	03 10 55.5	-0.2
	comp=Z,11nm,1.0s,baz=118,slow=7.7,SNR=6.5						
ULM				LR	LR	03 34 24.2	
	comp=Z,1µm,21.0s,baz=110,slow=32						
	comp=Z,11nm,1.0s						
ULM	Lac du Bonnet	64.40	323	i P	P	03 10 55.7	+0.1
ULM	Lac du Bonnet	64.40	323	P	P	03 10 54.2	-1.4
ULM				IAmb	IAmb	03 11 10.2	
	comp=Z,29nm,1.1s						
CJR	Cluj-Napoca	64.55	42	P	P	03 10 59.2	+2.5
HFS	Hagfors	64.64	25	P	P	03 10 56.3	-0.7
	comp=Z,8.2nm,1.2s,baz=318,slow=6.4,SNR=6.9						
HFS				LR	LR	03 34 03.3	
	comp=Z,980nm,21.8s,baz=242,slow=31						
	comp=Z,8.2nm,1.2s						
SUSD	Miller	64.66	316	P	P	03 10 55.7	-1.8
SUSD				IAmb	IAmb	03 11 10.4	
	comp=Z,32nm,0.9s						
K30B	Basset	64.69	314	IAMs_20	IAMs_20	03 34 57.6	
	comp=Z,2µm,20.0s						
KARP	Karpathos	64.70	54	IAMs_20	IAMs_20	03 38 31.6	
	comp=Z,1µm,22.0s						
KARP	Karpathos	64.70	54	P	P	03 10 59.1	+1.2
	comp=Z,2µmcomp=Z,189nm,0.8s						
KARP	Karpathos	64.70	54	P	P	03 10 58.7	+0.8
	comp=Z,2µmcomp=Z,188nm,0.8s						
KARP	Karpathos	64.70	54	P	P	03 10 58.8	+0.8
	comp=Z,188nm,0.8s						
BMR	Baia Mare	64.76	41	P	P	03 10 58.8	+0.8
BMR	Baia Mare	64.76	41	⇓P	P	03 10 58.9	+0.8
BMR	Baia Mare	64.76	41	P	P	03 10 58.8	+0.8
	comp=Z,46nm,1.1s						
EZN	Ezine	64.80	50	P	P	03 10 59.8	+1.4
	comp=Z,45nm,1.2s						
SUMG	Summit	64.84	360	P	P	03 11 03.1	+4.5
SUMG	Summit	64.84	360	i P	P	03 11 00.3	+1.7
SUMG				IAmb	IAmb	03 11 04.9	
	comp=Z,72nm,1.2s						
SUMG	Summit	64.84	360	P	P	03 11 03.8	+5.3
	comp=Z,42nm,1.0s						
ARR	Arges	64.87	43	⇓P	P	03 10 59.9	+1.0
ARR	Arges	64.87	43	P	P	03 10 60.0	+1.0
	comp=Z,31nm,1.2s						
KWP	Kalwaria Pacla	64.87	38	P	P	03 11 01.4	+2.7
KWP	Kalwaria Pacla	64.87	38	P	P	03 11 00.1	+1.4
	comp=Z,943nmcomp=Z,48nm,1.2s						
HUMR	Humele	64.89	44	P	P	03 11 00.9	+1.9
	comp=Z,95nm,0.8s						
VOIR		65.17	43	P	P	03 11 00.8	-0.1
VOIR		65.17	43	⇓P	P	03 11 00.8	-0.1
VOIR		65.17	43	P	P	03 11 01.9	+1.0
	comp=Z,329nmcomp=Z,15nm,1.5s						
VOIR		65.17	43	P	P	03 11 02.6	+1.7
	comp=Z,15nm,1.2s						
MNHN	Monahans	65.24	301	P	P	03 10 59.4	-2.2
MNHN				IAmb	IAmb	03 11 16.2	
	comp=Z,69nm,1.8s						
DOPR	Dopca	65.54	43	⇑P	P	03 11 03.6	+0.5
MSTX	Muleshoe	65.56	304	IAMs_20	IAMs_20	03 35 58.6	
	comp=Z,2µm,21.0s						
ARG	Arkhangelos	65.57	54	P	P	03 11 04.5	+1.0
ARG	Arkhangelos	65.57	54	P	P	03 11 05.0	+1.5
	comp=Z,79nm,1.1s						
AYDN	Tasoluk	65.61	52	P	P	03 11 04.8	+1.0
	comp=Z,119nm,1.1s						

JMIC	Jan Mayen	65.76	10	LR	LR	03 32 11.4	
	comp=Z,615nm,20.1s,baz=217,slow=29						
BALY	Balya	65.77	50	P	P	03 11 05.5	+0.8
	comp=Z,126nm,1.1s						
MLR	Muntele Rosu	65.79	43	LR	LR	03 38 31.7	
	comp=Z,878nm,20.4s,baz=276,slow=35						
MLR	Muntele Rosu	65.79	43	P	P	03 11 05.6	+0.7
MLR	Muntele Rosu	65.79	43	⇓P	P	03 11 05.6	+0.7
MLR	Muntele Rosu	65.79	43	P	P	03 11 06.3	+1.3
	comp=Z,792nmcomp=Z,53nm,1.4s						
MLR	Muntele Rosu	65.79	43	P	P	03 11 05.9	+1.0
	comp=Z,52nm,1.4s						
SULR		65.81	44	P	P	03 11 05.9	+1.0
	comp=Z,86nm,1.2s						
TXAR	Lajitas Array	65.83	299	P	P	03 11 06.1	+0.7
	comp=Z,1.7nm,0.5s,baz=106,slow=6.5,SNR=19						
TXAR				LR	LR	03 39 29.0	
	comp=Z,384nm,21.8s,baz=80,slow=36						
	comp=Z,1.7nm,0.5s						
TXAR	Lajitas Array	65.83	299	P	P	03 11 05.1	-0.4
OZUR		65.84	43	⇑P	P	03 11 05.8	+0.7
BURAR	Bucovina Array	65.86	41	P	P	03 11 06.4	+1.1
BURAR	Bucovina Array	65.86	41	⇓P	P	03 11 06.5	+1.1
TURR	Turia	65.98	43	⇓P	P	03 11 06.6	+0.6
COVR	Voineasa-Covas	66.06	43	⇓P	P	03 11 07.8	+1.3
OGNE	Ogallala	66.09	311	IAMs_20	IAMs_20	03 35 11.9	
	comp=Z,2µm,22.0s						
ISR	Istrita	66.11	44	P	P	03 11 07.4	+0.5
ISR	Istrita	66.11	44	⇓P	P	03 11 07.4	+0.5
ISR	Istrita	66.11	44	P	P	03 11 07.9	+1.0
	comp=Z,44nm,1.0s						
KSCO	Kaye Shedlock'	66.19	309	IAMs_20	IAMs_20	03 35 55.8	
	comp=Z,2µm,20.0s						
BAND	Balkesir-Ban	66.24	49	⇓P	P	03 11 08.5	+0.7
BIZ	Bicaz	66.27	42	⇓P	P	03 11 08.8	+1.0
BISRR	Bisoca	66.33	44	P	P	03 11 09.4	+1.1
	comp=Z,40nm,1.2s						
SAHR	Sahastru	66.36	43	⇓P	P	03 11 08.7	+0.3
PLOR	Plostina	66.36	43	P	P	03 11 08.5	+0.1
PLOR	Plostina	66.36	43	⇓P	P	03 11 08.6	+0.1
E28A	Huff	66.38	318	IAMs_20	IAMs_20	03 34 23.9	
	comp=Z,2µm,22.0s						
TAVA	DENIZLI_Tavas	66.39	53	⇑P	P	03 11 09.3	+0.4
VRI	Vrincioaia	66.42	43	P	P	03 11 08.9	+0.1
VRI	Vrincioaia	66.42	43	⇑P	P	03 11 08.9	+0.1
VRI	Vrincioaia	66.42	43	P	P	03 11 09.9	+1.1
	comp=Z,20nm,1.0s						
VRI	Vrincioaia	66.42	43	P	P	03 11 09.7	+0.9
	comp=Z,20nm,1.0s						
TESR	Tescani	66.52	42	⇓P	P	03 11 09.7	+0.3
TESR	Tescani	66.52	42	P	P	03 11 10.4	+0.9
	comp=Z,580nmcomp=Z,24nm,1.6s						
TESR	Tescani	66.52	42	P	P	03 11 10.3	+0.9
	comp=Z,24nm,1.4s						
SUW	Suwalki	66.62	34	IAMs_20	IAMs_20	03 35 54.8	
	comp=Z,2µm,22.0s						
AKAS	Kas	66.76	54	P	P	03 11 15.4	+4.1
	comp=Z,176nm,1.0s						
TLBR	Topalu	67.03	45	⇑P	P	03 11 13.5	+0.8
RNPP5	Staryi Chortor	67.30	37	P	P	03 11 15.8	+1.6
RNPP8	Varash	67.31	37	P	P	03 11 15.4	+1.1
TPGR	Topolog	67.35	45	⇓P	P	03 11 14.1	-0.7
MNTX	Cornudas Mount	67.50	301	P	P	03 11 13.5	-2.5
MNTX	Cornudas Mount	67.50	301	P	P	03 11 16.9	+0.8
	comp=Z,12nm,1.8s						
PABE	Paberze	67.56	33	P	P	03 11 20.2	+4.4
	comp=Z,52nm,1.4s						
LEOM	Leova	67.58	43	P	P	03 11 15.7	-0.5
ISP	Isparta	67.70	52	*d i*P	P	03 11 18.7	+1.4
ISP				pmax	pmax		
	comp=Z,16nm,0.9s						
SUR	Sutherland	68.02	129	LR	LR	03 34 01.3	
	comp=Z,1µm,21.8s,baz=288,slow=30						
SORM	Soroca	68.03	41	P	P	03 11 18.4	-0.6
SORM	Soroca	68.03	41	⇑P	P	03 11 18.4	-0.6
Q24A	Divide	68.13	309	IAMs_20	IAMs_20	03 37 20.0	
	comp=Z,2µm,20.0s						
RSSD	Black Hills	68.14	314	P	P	03 11 23.0	+2.9
RSSD	Black Hills	68.14	314	IAMs_20	IAMs_20	03 36 21.9	
	comp=Z,2µm,21.0s						
RSSD	Black Hills	68.14	314	P	P	03 11 24.0	+3.9
	comp=Z,7.9nm,2.1s						
MBAR	Mbarara	68.17	94	LR	LR	03 38 52.0	
	comp=Z,349nm,21.6s,baz=286,slow=34						
SDCO	Great Sand Dun	68.24	307	IAMs_20	IAMs_20	03 37 22.2	
	comp=Z,2µm,21.0s						
KEPZ	Antalya-Kepez	68.44	53	⇑P	P	03 11 21.1	-0.7
ISCO	Idaho Springs	68.60	310	P	P	03 11 24.9	+1.8
ISCO	Idaho Springs	68.60	310	IAMs_20	IAMs_20	03 37 14.5	
	comp=Z,2µm,21.0s						
ISCO	Idaho Springs	68.60	310	P	P	03 11 27.4	+4.3
	comp=Z,18nm,1.4s						
LSZ	Lusaka	68.62	110	LR	LR	03 36 21.4	
	comp=Z,516nm,19.7s,baz=298,slow=32						
ALQ	Albuquerque	68.70	304	IAMs_20	IAMs_20	03 37 26.5	
	comp=Z,3µm,21.0s						
ANMO	Albuquerque	68.70	304	LR	LR	03 37 47.9	
	comp=Z,3µm,21.2s,baz=99,slow=33						
ANMO	Albuquerque	68.70	304	*d i*P	P	03 11 27.4	+3.7
ANMO				pmax	pmax		
	comp=Z,24nm,1.6s						
ANMO	Albuquerque	68.70	304	P	P	03 11 27.8	+4.1
	comp=Z,13nm,1.7s						
TASM	ASL Pad, Albuq	68.70	304	IAMs_20	IAMs_20	03 37 36.6	
	comp=Z,3µm,21.0s						
TASM	ASL Pad, Albuq	68.70	304	IAMs_20	IAMs_20	03 37 36.6	
	comp=Z,3µm,21.0s						
TASM	ASL Pad, Albuq	68.70	304	IAMs_20	IAMs_20	03 37 36.6	
	comp=Z,3µm,21.0s						
AK19	Malin Array Si	69.07	38	P	P	03 11 25.6	+0.2
LBTB	Lobatse	69.14	120	LR	LR	03 35 34.1	
	comp=Z,842nm,21.1s,baz=283,slow=31						
KIEV	Kiev	69.18	39	P	P	03 11 23.5	-2.6
KIEV				pmax	pmax		
	comp=Z,18nm,0.9s						
KIEV	Kiev	69.18	39	P	P	03 11 23.5	-2.6
KIEV				IAmb	IAmb	03 11 31.6	
	comp=Z,18nm,0.9s						
KIEV	Kiev	69.18	39	P	P	03 11 27.0	+0.9
	comp=Z,25nm,1.1s						
AKASG	Malin Array Be	69.19	39	P	P	03 11 25.9	-0.3
	comp=Z,21nm,1.0s,baz=261,slow=5.9,SNR=14						
AKASG				LR	LR	03 39 13.1	
	comp=Z,606nm,21.8s,baz=255,slow=34						
	comp=Z,21nm,1.0s						
AKASG	Malin Array Be	69.19	39	*i* P	P	03 11 26.7	+0.5
AKASG				pmax	pmax		
	comp=Z,22nm,1.0s						
AKASG	Malin Array Be	69.19	39	P	P	03 11 25.6	-0.5
AKBB	Malin Array Si	69.19	39	*c i*P	P	03 11 26.2	0.0
AKBB				*i* *PP	pP	03 11 29.7	-1.8
AKBB				pmax	pmax		
	comp=Z,24nm,1.0s						
AKBB	Malin Array Si	69.19	39	P	P	03 11 23.2	-2.9
AKBB				IAmb	IAmb	03 11 31.6	
	comp=Z,22nm,0.9s						
FFC	Flin Flon	69.35	326	*i* P	P	03 11 28.7	+1.6
FFC	Flin Flon	69.35	326	IAMs_20	IAMs_20	03 37 07.8	
	comp=Z,2µm,21.0s						
FFC	Flin Flon	69.35	326	P	P	03 11 28.4	+1.3
	comp=Z,33nm,1.2s						
MNK	Minsk	69.39	34	*i* P	P	03 11 28.3	+1.0
MNK				*i*		03 14 01.4	
MNK				*i* PPP	PPP	03 15 37.8	
MNK				*i* S	S	03 20 32.9	-0.3
MNK				*i* SS	SS	03 25 00.1	-0.3
MNK				pmax	pmax		
	comp=Z,43nm,0.9s						
MNK				pmax	pmax		
	comp=N,26nm,1.1s						
MNK				pmax	pmax		
	comp=E,17nm,0.9s						
MNK				MLR	MLR		
	comp=Z,287nm,17.0s						
MNK				MLR	MLR		
	comp=N,217nm,17.0s						
MNK	Minsk	69.39	34	*i* P	P	03 11 28.3	+1.0
	comp=E,17nm,0.9s						
MNK				*i* P	P	03 11 28.3	+1.0
	comp=N,26nm,1.1s						
MNK				*i* P	P	03 11 28.3	+1.0
	comp=Z,43nm,0.9s,baz=254						
MNK				*i* PP	PP	03 14 01.4	+0.7
MNK				*i* PPP	PPP	03 15 37.9	
MNK				*i* S	S	03 20 33.0	-0.3
MNK				*i* SS	SS	03 25 00.2	-0.3
MNK				*i* SSS	SSS	03 28 17.6	
MNK				*i* LRM	MLR	03 44 53.0	
	comp=Z,287nm,16.6s						
MNK				*i* LRM	MLR	03 45 39.6	
	comp=N,217nm,16.7s						
CSS	Mathiatis	69.64	56	P	P	03 11 31.0	+1.7
	comp=N,21nm,1.0s						
CSS	Mathiatis	69.64	56	P	P	03 11 31.1	+1.7
	comp=Z,21nm,1.0s						
KKUL	Konya-Kulu	69.73	51	P	P	03 11 30.9	+1.0
	comp=Z,35nm,1.1s						
DAG	Danmarks Havn	69.77	4	P	P	03 11 34.0	+4.7
DAG	Danmarks Havn	69.77	4	*i* P	P	03 11 29.5	+0.2
DAG				IAmb	IAmb	03 11 34.3	
	comp=Z,16nm,1.1s						
DAG	Danmarks Havn	69.77	4	P	P	03 11 34.0	+4.7
	comp=Z,17nm,1.1s						
HAYD	Hayden	69.95	310	IAMs_20	IAMs_20	03 38 00.2	
	comp=Z,1µm,21.0s						
VSU	Vasula	69.98	30	*i* P	P	03 11 32.2	+1.4
VSU				pmax	pmax		
	comp=Z,67nm,1.6s						
BOSA	Boshof	70.09	124	P	P	03 11 31.7	-0.6
	comp=Z,7.3nm,1.0s,baz=309,slow=8.2,SNR=6.0						
BOSA				LR	LR	03 36 09.8	
	comp=Z,344nm,20.9s,baz=294,slow=31						
	comp=Z,7.3nm,1.0s						
BOSA	Boshof	70.09	124	P	P	03 11 29.2	-3.0
BOSA				IAmb	IAmb	03 11 44.3	
	comp=Z,24nm,1.0s						
BOSA	Boshof	70.09	124	P	P	03 11 33.9	+1.6
	comp=Z,29nm,1.1s						
NEEM	North Greenlan	70.12	357	*i* P	P	03 11 32.6	+0.8
NEEM				IAmb	IAmb	03 11 37.6	
	comp=Z,25nm,0.9s						
KZIT	Kziot	70.26	60	P	P	03 11 35.4	+2.2
	comp=Z,51nm,1.0s						
KZIT	Kziot	70.26	60	P	P	03 11 35.5	+2.2
	comp=Z,51nm,1.0s						
MATP	Matopo	70.28	115	LR	LR	03 37 11.4	
	comp=Z,429nm,19.8s,baz=286,slow=32						
BR105	Keskin Array S	70.34	51	P	P	03 11 34.4	+0.8
	comp=Z,154nmcomp=Z,21nm,1.0s						
BR106	Keskin Array S	70.34	51	P	P	03 11 34.0	+0.4
	comp=Z,119nmcomp=Z,17nm,1.0s						
BR131	Keskin Array S	70.35	51	*c i*P	P	03 11 33.1	-0.6
BRTR	Keskin Array B	70.35	51	P	P	03 11 34.1	+0.3
	comp=Z,16nm,1.0s,baz=251,slow=5.0,SNR=26						
BRTR				LR	LR	03 42 22.8	
	comp=Z,758nm,21.8s,baz=242,slow=36						
	comp=Z,16nm,1.0s						
BRTR	Keskin Array B	70.35	51	*i* P	P	03 11 34.0	+0.3
BRTR				pmax	pmax		
	comp=Z,15nm,1.0s						
BRTR	Keskin Array B	70.35	51	P	P	03 11 30.0	-3.7
MVCO	Mesa Verde	70.55	307	IAMs_20	IAMs_20	03 37 41.3	
	comp=Z,1µm,22.0s						
MVCO	Mesa Verde	70.55	307	P	P	03 11 39.8	+4.6
	comp=Z,21nm,1.6s						
O20A	White River Ci	70.65	310	P	P	03 11 33.7	-1.9
O20A				IAmb	IAmb	03 11 51.7	
	comp=Z,34nm,1.1s						
O20A				IAMs_20	IAMs_20	03 38 22.6	
	comp=Z,2µm,21.0s						
FINES	FINESS Array B	70.66	27	P	P	03 11 35.7	+0.7
	comp=Z,13nm,0.9s,baz=248,slow=5.1,SNR=6.8						
FINES				LR	LR	03 39 19.1	
	comp=Z,1µm,20.9s,baz=248,slow=33						
	comp=Z,13nm,0.9s						
FINES	FINESS Array B	70.66	27	P	P	03 11 35.4	+0.4
FINES	FINESS Array B	70.66	27	P	P	03 11 35.4	+0.4
EIL	Elat	70.69	61	LR	LR	03 42 01.0	
	comp=Z,3µm,21.4s,baz=270,slow=36						
EIL	Elat	70.69	61	P	P	03 11 38.1	+2.3
	comp=Z,19nm,1.3s						
EIL	Elat	70.69	61	P	P	03 11 38.1	+2.3
	comp=Z,19nm,1.3s						
PRNI	Paran	70.76	61	P	P	03 11 38.6	+2.3
	comp=Z,2µmcomp=Z,185nm,1.1s						
AQBJ	Aqaba	70.78	61	P	P	03 11 38.5	+2.2
	comp=Z,63nm,1.5s						
HRFI	Mount Harif	70.78	61	P	P	03 11 38.6	+2.2
	comp=Z,46nm,1.2s						
HRFI	Mount Harif	70.78	61	P	P	03 11 38.6	+2.2
	comp=Z,46nm,1.2s						
SALP	Salfit	71.00	59	P	P	03 11 39.0	+1.3
	comp=Z,25nm,1.5s						
LISJ	El Lisan	71.21	60	P	P	03 11 41.5	+2.7
	comp=Z,2µmcomp=Z,23nm,1.0s						
MMLI	Mount Malkishu	71.21	58	P	P	03 11 41.9	+2.9
	comp=Z,35nm,1.6s						
MMAI	Mount Meron Ar	71.22	58	P	P	03 11 39.6	+0.5
	comp=Z,1.1nm,0.5s,baz=1.9,slow=7.7,SNR=6.2						
MMAI				LR	LR	03 42 51.4	
	comp=Z,586nm,22.0s,baz=264,slow=36						
	comp=Z,1.1nm,0.5s						
UJAP	Al Uja	71.22	59	P	P	03 11 41.7	+2.8
	comp=Z,21nm,1.1s						
UJAP	Al Uja	71.22	59	P	P	03 11 41.7	+2.8
	comp=Z,21nm,1.1s						
QRNJ	Al-Qirein	71.33	59	P	P	03 11 41.6	+2.0
	comp=Z,20µmcomp=Z,2µm,0.9s						
SIM	Simferopol'	71.36	45	*e*P	P	03 11 39.3	-0.2
SIM				*e*S	S	03 20 51.5	-5.1
SIM				pmax	pmax		
	comp=Z,39nm,1.4s						
GEM	Giv'at Ha'Em	71.45	58	P	P	03 11 42.7	+2.3
LPIG	La Paz	71.57	293	LR	LR	03 44 13.2	
	comp=Z,310nm,18.9s,baz=86,slow=37						
RDMU	Red Mountain	71.70	310	P	P	03 11 39.5	-2.6
RDMU				IAmb	IAmb	03 11 57.9	
	comp=Z,39nm,1.1s						
PDAR	Pinedale Array	71.92	312	P	P	03 11 43.8	+0.5
	comp=Z,12nm,1.3s,baz=87,slow=6.1,SNR=21						
PDAR				LR	LR	03 39 13.7	
	comp=Z,1µm,22.0s,baz=106,slow=32						
	comp=Z,12nm,1.3s						
PDAR	Pinedale Array	71.92	312	P	P	03 11 43.7	+0.3
RLMT	Red Lodge	71.99	315	IAMs_20	IAMs_20	03 40 02.7	
	comp=Z,1µm,18.0s						
TUC	Tucson	72.12	301	P	P	03 11 49.3	+4.8
TUC	Tucson	72.12	301	P	P	03 11 46.3	+1.8
	comp=Z,15nm,1.6s						
LODK	Lodwar	72.22	89	P	P	03 11 42.1	-3.3
LODK	Lodwar	72.22	89	P	P	03 11 47.6	+2.2
	comp=Z,26nm,1.0s						
ANDN	Andirin	72.27	53	P	P	03 11 46.5	+1.2
	comp=Z,116nm,1.3s						
EGMT	Eagleton	72.71	318	IAMs_20	IAMs_20	03 43 15.3	
	comp=Z,1µm,18.0s						
AHID	Auburn Hatcher	73.05	312	P	P	03 11 53.7	+3.7
	comp=Z,21nm,1.3s						
HWUT	Hardware Ranch	73.30	311	P	P	03 11 49.2	-2.3
HWUT	Hardware Ranch	73.30	311	P	P	03 11 52.3	+0.9
	comp=Z,80nm,0.9s						
MSF	Maaselka	73.42	23	P	P	03 11 52.0	+0.6
MSF	Maaselka	73.42	23	P	P	03 11 53.0	+1.6
	comp=Z,39nm,1.1s						
ARCES	ARCESS Array B	73.47	19	P	P	03 11 52.2	+0.4
	comp=Z,16nm,1.0s,baz=251,slow=6.0,SNR=16						
ARCES				LR	LR	03 39 53.4	
	comp=Z,901nm,19.9s,baz=248,slow=32						
	comp=Z,16nm,1.0s						
ARCES	ARCESS Array B	73.47	19	P	P	03 11 52.1	+0.4
ARCES				pmax	pmax		
	comp=Z,15nm,0.9s						
ARCES	ARCESS Array B	73.47	19	P	P	03 11 52.0	+0.4
ANN	Anapa	73.68	46	*e*P	P	03 11 55.3	+1.9
ANN				pmax	pmax		
	comp=Z,68nm,1.2s						
BOZ	Bozeman (W)	73.70	315	P	P	03 11 57.5	+3.8
BOZ	Bozeman (W)	73.70	315	IAMs_20	IAMs_20	03 41 05.9	
	comp=Z,2µm,19.0s						
ARPR	Arapgir-MALATY	73.93	52	P	P	03 11 56.5	+1.3
	comp=Z,32nm,1.3s						
KEV	Kevo	74.04	19	P	P	03 11 52.5	-2.5
KEV				pmax	pmax		
	comp=Z,33nm,0.9s						
KEV	Kevo	74.04	19	P	P	03 11 52.5	-2.5
KEV				IAmb	IAmb	03 12 00.5	
	comp=Z,33nm,0.9s						
KEV	Kevo	74.04	19	P	P	03 11 59.5	+4.5
	comp=Z,41nm,0.9s						
DUG	Dugway, Tooele	74.14	310	P	P	03 11 59.4	+3.0
DUG	Dugway, Tooele	74.14	310	IAMs_20	IAMs_20	03 40 49.1	
	comp=Z,2µm,21.0s						
DUG	Dugway, Tooele	74.14	310	P	P	03 11 59.4	+3.0
	comp=Z,31nm,1.6s						
RES	Resolute Bay	74.42	347	LR	LR	03 40 45.1	
	comp=Z,412nm,20.8s,baz=121,slow=33						
OBN	Obninsk	74.43	35	LR	LR	03 40 52.6	
	comp=Z,702nm,21.7s,baz=254,slow=33						
OBN	Obninsk	74.43	35	*e*P	P	03 11 58.5	+1.0
OBN				*e**PP	pP	03 12 01.8	-1.1
OBN				*e**SP	pwP	03 12 06.4	-1.2
OBN				*e*		03 12 12.7	
OBN				*e*		03 14 44.2	
OBN				*e*PPP	PPP	03 16 26.7	
OBN				pmax	pmax		
	comp=Z,9.0nm,1.3s						
OBN				MLR	MLR		
	comp=Z,648nm,19.0s						
NOR	Nord	74.46	3	*i* P	P	03 11 58.5	+1.3
NOR				IAmb	IAmb	03 12 02.5	
	comp=Z,24nm,1.1s						
KMBO	Kilima Mbogo	74.69	93	LR	LR	03 41 06.5	
	comp=Z,596nm,21.7s,baz=280,slow=33						
KELT	Kelkit	74.69	51	P	P	03 12 01.6	+2.0
	comp=Z,97nm,0.9s						
PMSA	Palmer Station	75.01	192	*e*P	P	03 12 02.2	+1.6
MOS	Moscow	75.12	34	*e*P	P	03 12 03.6	+2.1
MOS				pmax	pmax		
	comp=Z,58nm,1.1s						
SOC	Sochi	75.22	47	*e*P	P	03 12 05.4	+3.0
SOC				*e*PPP	PPP	03 16 33.1	
SOC				*e*S	S	03 21 45.4	+4.9
SOC				pmax	pmax		
	comp=Z,48nm,1.0s						
SOC				MLR	MLR		
	comp=Z,260nm,17.0s						
MSO	Missoula	75.41	316	IAMs_20	IAMs_20	03 40 26.9	
	comp=Z,1µm,21.0s						
SPITS	Spitsbergen Ar	75.43	10	P	P	03 12 05.6	+2.7
	comp=Z,26nm,1.0s,baz=155,slow=10,SNR=4.3						
SPITS				LR	LR	03 37 43.4	
	comp=Z,624nm,21.0s,baz=233,slow=30						
	comp=Z,26nm,1.0s						
VSR	Storozhevoye	75.47	39	*e*P	P	03 12 06.7	+3.1
VSR				pmax	pmax		
	comp=Z,13nm,0.9s						
LPSR	Galich'ya Gora	75.47	38	*e*P	P	03 12 04.8	+1.2
LPSR				pmax	pmax		
	comp=Z,10.0nm,1.1s						
HLID	Hailey	75.53	313	P	P	03 12 05.5	+1.1
	comp=Z,18nm,1.3s						
APA	Apatity	75.56	22	*e*P	P	03 12 04.8	+1.0
APA				*e*		03 12 14.0	
APA				*e*		03 14 52.4	
APA				*e*S	S	03 21 40.7	-2.7
APA				*e*		03 22 12.4	
APA				*e*SS	SS	03 26 37.6	+3.4
APA				pmax	pmax		
	comp=Z,13nm,1.1s						
IRM	Iron Mountain	75.82	303	IAMs_20	IAMs_20	03 43 16.1	
	comp=Z,2µm,20.0s						
ERBR	Yeremizino-Bor	75.90	45	*e*P	P	03 12 06.3	+0.1
ERBR				pmax	pmax		
	comp=Z,52nm,1.1s						
LABN	Labinsk	76.01	46	*e*P	P	03 12 07.6	+0.7
LABN				pmax	pmax		
	comp=Z,19nm,0.6s						
ELK	Elko	76.02	310	LR	LR	03 42 09.5	
	comp=Z,2µm,21.4s,baz=98,slow=33						
ELK	Elko	76.02	310	P	P	03 12 11.3	+4.0
BC3	Big Chuckawall	76.07	303	IAMs_20	IAMs_20	03 43 42.0	
	comp=Z,1µm,19.0s						
LVZ	Lovozero	76.10	22	*i* P	P	03 12 07.9	+0.9
LVZ				pmax	pmax		
	comp=Z,33nm,1.2s						
LVZ	Lovozero	76.10	22	IAMs_20	IAMs_20	03 39 02.9	
	comp=Z,1µm,22.0s						
BELC	Belle Mtn. Jos	76.52	303	IAMs_20	IAMs_20	03 43 56.9	
	comp=Z,2µm,19.0s						
TPNV	Topopah Spring	76.73	306	IAMs_20	IAMs_20	03 41 53.1	
	comp=Z,2µm,22.0s						
PLID	Pearl Lake	76.74	314	IAMs_20	IAMs_20	03 43 03.3	
	comp=Z,1µm,20.0s						
ADZR	Andozero	76.74	26	*e*P	P	03 12 12.1	+1.5
ADZR				pmax	pmax		
	comp=Z,31nm,0.8s						
KLMR	Klimovskoe	76.83	29	*e*P	P	03 12 11.1	-0.1
KLMR				pmax	pmax		
	comp=Z,79nm,1.2s						
PFO	Pinyon Flats O	76.91	303	LR	LR	03 43 21.7	
	comp=Z,979nm,20.6s,baz=100,slow=34						
PFO	Pinyon Flats O	76.91	303	*e*P	P	03 12 13.7	+1.3
PFO				pmax	pmax		
	comp=Z,37nm,1.8s						
PFO	Pinyon Flats O	76.91	303	IAMs_20	IAMs_20	03 45 49.1	
	comp=Z,1µm,20.0s						
PFO	Pinyon Flats O	76.91	303	P	P	03 12 16.1	+3.7
	comp=Z,6.9nm,1.6s						
VRH	Novokhopyorsk	77.07	39	*e*P	P	03 12 14.4	+1.7
VRH				pmax	pmax		
	comp=Z,19nm,1.1s						
SHA1	Shidzhatmaz	77.36	47	*d i*P	P	03 12 17.1	+2.2
EPOS	Posof	77.37	49	P	P	03 12 17.2	+2.4
	comp=Z,27nm,1.4s						
YKAW1	Yellowknife Wh	77.38	332	P	P	03 12 11.6	-2.7
YKAW1				IAmb	IAmb	03 12 31.4	
	comp=Z,33nm,1.3s						
KIV	Kislovodsk	77.39	47	*e*P	P	03 12 16.0	+1.2
KIV				*e*		03 15 10.5	
KIV				*e*PPP	PPP	03 16 58.8	
KIV				*e*S	S	03 22 05.3	+0.8
KIV				*e*SS	SS	03 27 03.1	0.0
KIV				pmax	pmax		
	comp=Z,34nm,1.1s						
KIV				MLR	MLR		
	comp=Z,364nm,19.0s						
KIV	Kislovodsk	77.39	47	P	P	03 12 11.9	-2.9
KIV				IAmb	IAmb	03 12 21.4	
	comp=Z,46nm,1.1s						
KIV	Kislovodsk	77.39	47	P	P	03 12 16.9	+2.1
	comp=Z,40nm,1.2s						
KVAR	Kislovodsk Arr	77.39	47	LR	LR	03 47 16.8	
	comp=Z,304nm,20.9s,baz=188,slow=36						
YKA	Yellowknife Ar	77.44	332	P	P	03 12 14.6	0.0
	comp=Z,4.1nm,0.6s,baz=105,slow=6.0,SNR=16						
YKA				LR	LR	03 42 21.4	
	comp=Z,2µm,21.1s,baz=93,slow=33						
	comp=Z,4.1nm,0.6s						
YKA	Yellowknife Ar	77.44	332	*i* P	P	03 12 17.7	+3.1
YKA				pmax	pmax		
	comp=Z,7.0nm,0.8s						
KBZ	Khabaz	77.54	47	P	P	03 12 16.6	+1.1
	comp=Z,18nm,0.9s,baz=329,slow=3.2,SNR=11						
KBZ				LR	LR	03 46 16.0	
	comp=Z,348nm,21.9s,baz=288,slow=36						
	comp=Z,18nm,0.9s						
KBZ	Khabaz	77.54	47	*e*P	P	03 12 14.8	-0.7
KBZ				*i* *PP	pP	03 12 20.5	-0.4
KBZ				pmax	pmax		
	comp=Z,25nm,0.9s						
NEW	Newport	77.64	318	LR	LR	03 43 40.5	
	comp=Z,625nm,20.0s,baz=104,slow=34						
NEW	Newport	77.64	318	P	P	03 12 18.9	+2.8
NEW	Newport	77.64	318	P	P	03 12 13.2	-2.9
NEW	Newport	77.64	318	IAMs_20	IAMs_20	03 39 01.9	
	comp=Z,1µm,21.0s						
NEW	Newport	77.64	318	P	P	03 12 19.1	+3.1
	comp=Z,9.0nm,1.2s						
BMO	Blue Mountains	77.66	314	P	P	03 12 18.8	+2.5
GOF	Gofitskoye	77.67	46	*ce*P	P	03 12 18.0	+1.7
RPN	Rapa Nui	77.89	240	LR	LR	03 42 38.7	
	comp=Z,1µm,21.4s,baz=132,slow=33						
LRMC	Laurel Mtn Rad	77.90	305	IAMs_20	IAMs_20	03 43 01.1	
	comp=Z,2µm,21.0s						
NCK	Nalchik	78.04	47	⇓*i*P	P	03 12 20.4	+2.0
NCK				pmax	pmax		
	comp=Z,14nm,0.9s						
HAKT	HAKKARI	78.11	53	P	P	03 12 21.4	+2.2
	comp=Z,35nm,1.7s						
CWC	Cottonwood Cre	78.21	306	IAMs_20	IAMs_20	03 42 40.1	
	comp=Z,2µm,22.0s						
TIN	Tinemaha, Big	78.32	306	IAMs_20	IAMs_20	03 43 07.0	
	comp=Z,2µm,22.0s						
PASC	Pasadena Art C	78.34	303	IAMs_20	IAMs_20	03 45 03.9	
	comp=Z,2µm,20.0s						
NVAR	Mina Array Bea	78.36	308	P	P	03 12 21.8	+1.3
	comp=Z,2.1nm,0.8s,baz=93,slow=5.1,SNR=18						
NVAR				LR	LR	03 45 35.0	
	comp=Z,604nm,18.9s,baz=94,slow=35						

	comp=Z,2.1nm,0.8s						
SMAI	**San Martin Ant**	**78.55**	**191**	P	**P**	**03 12 20.2**	**-0.3**
WVOR	**Wild Horse Val**	**78.59**	**312**	P	P	03 12 26.0	+4.4
WVOR	**Wild Horse Val**	**78.59**	**312**	P	P	03 12 26.1	+4.4
	comp=Z,23nm,1.4s						
ATD	**Arta Tunnel**	**78.74**	**80**	LR	LR	03 44 59.1	
	comp=Z,32nm,21.6s,baz=272,slow=34						
ATD	**Arta Tunnel**	**78.74**	**80**	P	P	03 12 27.4	+4.6
	comp=Z,23nm,1.2s						
OSI	**Osito Audit: C**	**78.77**	**304**	IAMs_20	IAMs_20	03 45 08.3	
	comp=Z,1µm,20.0s						
GNI	**Garni**	**78.89**	**51**	LR	LR	03 47 59.6	
	comp=Z,624nm,21.7s,baz=287,slow=36						
GNI	**Garni**	**78.89**	**51**	*e*P	**P**	**03 12 23.0**	**-0.4**
GNI				pmax	pmax		
	comp=Z,24nm,1.2s						
HAWA	**Hanford**	**79.24**	**316**	IAMs_20	IAMs_20	03 42 35.4	
	comp=Z,1µm,21.0s						
MOD	**Modoc Plateau**	**79.84**	**311**	IAMs_20	IAMs_20	03 44 20.7	
	comp=Z,2µm,20.0s						
PKD	**Bear Valley Ra**	**80.21**	**305**	IAMs_20	IAMs_20	03 44 35.3	
	comp=Z,2µm,20.0s						
RAYN	**Ar Rayn**	**80.26**	**67**	P	**P**	**03 12 33.3**	**+2.3**
RAYN	**Ar Rayn**	**80.26**	**67**	IAMs_20	IAMs_20	03 48 57.9	
	comp=Z,845nm,18.0s						
RAYN	**Ar Rayn**	**80.26**	**67**	P	**P**	**03 12 33.3**	**+2.3**
	comp=Z,6.3nm,1.3s						
VNA1	**Neumayer--Stat**	**80.56**	**171**	⇓P	**P**	**03 12 32.8**	**+1.4**
	comp=Z,16nm,0.9s						
HATC	**Hat Creek Radi**	**80.74**	**310**	IAMs_20	IAMs_20	03 45 09.7	
	comp=Z,1µm,21.0s						
BELG	**Belogornoye**	**80.77**	**38**	LR	LR	03 46 44.7	
	comp=Z,464nm,19.8s,baz=281,slow=34						
BELG	**Belogornoye**	**80.77**	**38**	*e*P	**P**	**03 12 33.3**	**+0.3**
BELG				pmax	pmax		
	comp=Z,5.0nm,0.9s						
HULI	**Fort Hunter Li**	**80.77**	**305**	IAMs_20	IAMs_20	03 45 53.0	
	comp=Z,1µm,20.0s						
ORV	**Oroville**	**80.82**	**309**	IAMs_20	IAMs_20	03 46 29.0	
	comp=Z,1µm,19.0s						
VNA3	**Neumayer Olymp**	**80.86**	**171**	⇓P	**P**	**03 12 34.1**	**+1.0**
	comp=Z,7.5nm,0.7s						
VNA3	**Neumayer Olymp**	**80.86**	**171**	P	**P**	**03 12 34.7**	**+1.6**
	comp=Z,31nm,0.9s						
WIFE	**Three Sisters-**	**80.89**	**313**	P	**P**	**03 12 32.1**	**-2.1**
WIFE				IAmb	IAmb	03 12 51.9	
	comp=Z,39nm,1.4s						
MAK	**Makhachkala**	**80.90**	**48***c*	*i*P	P	03 12 28.4	-5.5
MAK				*e*		03 15 32.7	
MAK				*e*S	**S**	**03 22 32.9**	**-8.8**
MAK				*e*SS	**SS**	**03 27 52.1**	**-3.5**
MAK				*e*SSS	SSS	03 31 13.4	
MAK				pmax	pmax		
	comp=Z,190nm,0.9s						
MAK				MLR	MLR		
	comp=Z,353nm,15.0s						
VNA2	**Neumayer--Watz**	**80.94**	**170**	⇓P	**P**	**03 12 33.4**	**-0.1**
	comp=Z,9.1nm,1.0s,baz=336,slow=5.6						
VNA2	**Neumayer--Watz**	**80.94**	**170**	P	**P**	**03 12 34.9**	**+1.4**
	comp=Z,18nm,1.2s						
O03E	**Paynes Creek**	**81.02**	**310**	IAMs_20	IAMs_20	03 44 49.2	
	comp=Z,1µm,19.0s						
MHC	**Mount Hamilton**	**81.03**	**307**	IAMs_20	IAMs_20	03 44 31.8	
	comp=Z,1µm,22.0s						
SUTB	**Sutter Butte**	**81.06**	**308**	IAMs_20	IAMs_20	03 46 46.2	
	comp=Z,962nm,19.0s						
AKT	**Akhty**	**81.13**	**49**	*e*P	**P**	**03 12 34.9**	**-0.4**
AKT				*e*		03 12 41.6	
AKT				*e*		03 15 38.6	
AKT				*e*S	**S**	**03 22 43.3**	**-1.1**
AKT				*e*SS	**SS**	**03 27 58.4**	**-0.9**
AKT				pmax	pmax		
	comp=Z,8.0nm,1.2s						
AKT				MLR	MLR		
	comp=Z,1µm,23.0s						
AONC	**Vina, CA USA**	**81.23**	**309**	IAMs_20	IAMs_20	03 45 04.4	
	comp=Z,973nm,21.0s						
JRSC	**Jasper Ridge**	**81.50**	**307**	IAMs_20	IAMs_20	03 44 36.3	
	comp=Z,1µm,22.0s						
BBOR	**Butler Butte**	**81.56**	**312**	P	**P**	**03 12 34.7**	**-3.0**
YBH	**Yreka Blue Hor**	**81.64**	**311**	LR	LR	03 44 59.7	
	comp=Z,1µm,21.9s,baz=98,slow=33						
KIRV	**Kirov**	**81.70**	**32**	LR	LR	03 45 26.2	
	comp=Z,1µm,21.9s,baz=274,slow=33						
KIRV	**Kirov**	**81.70**	**32**	⇑*i*P	**P**	**03 12 37.6**	**-0.2**
M02C	**Callahan**	**81.77**	**311**	IAMs_20	IAMs_20	03 45 34.8	
	comp=Z,2µm,21.0s						
C36M	**Paulatuk**	**81.78**	**339**	IAMs_20	IAMs_20	03 44 01.3	
	comp=Z,2µm,22.0s						
O02D	**Mt. Diablo Mer**	**81.78**	**309**	IAMs_20	IAMs_20	03 45 12.3	
	comp=Z,1µm,21.0s						
MCCM	**Marconi Confer**	**81.97**	**307**	IAMs_20	IAMs_20	03 44 50.5	
	comp=Z,1µm,22.0s						
KHBM	**Hayfork Bally**	**82.08**	**310**	IAMs_20	IAMs_20	03 45 23.2	
	comp=Z,1µm,22.0s						
FARB	**Farallon Islan**	**82.09**	**307**	IAMs_20	IAMs_20	03 45 17.8	
	comp=Z,1µm,22.0s						
A36M	**Sachs Harbour**	**82.16**	**342**	IAMs_20	IAMs_20	03 44 53.2	
	comp=Z,1µm,21.0s						
NLWA	**Neilton Lookou**	**82.19**	**317**	IAMs_20	IAMs_20	03 52 10.3	
	comp=Z,1µm,19.0s						
SNAA	**Sanae**	**82.36**	**170**	⇓P	**P**	**03 12 42.0**	**+0.9**
	comp=Z,147nm,0.7s						
SNAA	**Sanae**	**82.36**	**170**	P	**P**	**03 12 41.6**	**+0.6**
	comp=Z,7.2nm,0.9s,baz=323,slow=10,SNR=5.1						
SNAA				LR	LR	03 41 12.7	
	comp=Z,595nm,21.1s,baz=328,slow=30						
	comp=Z,7.2nm,0.9s						
SNAA	**Sanae**	**82.36**	**170**	P	**P**	**03 12 40.4**	**-0.6**
SNAA				IAmb	IAmb	03 13 00.1	
	comp=Z,20nm,0.9s						
SNAA	**Sanae**	**82.36**	**170**	P	**P**	**03 12 42.9**	**+1.8**
	comp=Z,25nm,1.0s						
KCPM	**Cahto Peak**	**82.42**	**309**	IAMs_20	IAMs_20	03 45 54.3	
	comp=Z,2µm,21.0s						
KHMM	**Horse Mountain**	**82.46**	**310**	IAMs_20	IAMs_20	03 45 35.2	
	comp=Z,2µm,20.0s						
JCC	**Jacoby Creek,**	**82.69**	**310**	IAMs_20	IAMs_20	03 51 04.2	
	comp=Z,1µm,18.0s						
CBB	**Campbell River**	**83.03**	**320**	P	**P**	**03 12 42.5**	**-2.5**
TROLL	**Troll, Antarti**	**83.64**	**168**	⇓P	**P**	**03 12 47.9**	**+0.1**
	comp=Z,479nm,0.8s						
BBB	**Bella Bella**	**84.59**	**322**	LR	LR	03 47 44.7	
	comp=Z,774nm,19.8s,baz=79,slow=34						
NVL	**N'lazarevskaya**	**84.82**	**165**	*e*P	P	03 13 04.7	+11
NVL				*e*S	**S**	**03 23 28.4**	**+8.0**
NVL				pmax	pmax		
	comp=Z,9.0nm,0.9s						
DLBC	**Dease Lake**	**85.03**	**328**	LR	LR	03 46 41.0	
	comp=Z,1µm,21.2s,baz=64,slow=33						
INK	**Inuvik**	**85.28**	**338**	LR	LR	03 48 17.6	
	comp=Z,2µm,19.6s,baz=88,slow=34						
INK	**Inuvik**	**85.28**	**338**	P	P	03 13 00.2	+4.2
INK	**Inuvik**	**85.28**	**338**	P	**P**	**03 12 53.7**	**-2.3**
INK				IAmb	IAmb	03 13 18.0	
	comp=Z,30nm,1.2s						
INK	**Inuvik**	**85.28**	**338**	P	P	03 13 00.2	+4.2
	comp=Z,24nm,1.4s						
T35M	**Bob Quinn**	**85.31**	**327**	IAMs_20	IAMs_20	03 46 56.8	
	comp=Z,1µm,19.0s						
R33M	**Jennings River**	**85.39**	**329**	P	**P**	**03 12 54.5**	**-2.5**
R33M				IAMs_20	IAMs_20	03 47 22.7	
	comp=Z,1µm,19.0s						
F31M	**Tsiigehtchic**	**85.49**	**337**	P	**P**	**03 12 54.5**	**-2.6**
F31M				IAmb	IAmb	03 13 16.0	
	comp=Z,49nm,1.1s						
S34M	**Telegraph Cree**	**85.67**	**328**	IAMs_20	IAMs_20	03 46 51.2	
	comp=Z,1µm,21.0s						
G31M	**Satah River**	**85.78**	**337**	P	**P**	**03 12 56.3**	**-2.2**
G31M				IAmb	IAmb	03 13 11.9	
	comp=Z,40nm,1.1s						
Q32M	**Nakina River**	**86.12**	**329**	IAMs_20	IAMs_20	03 46 49.9	
	comp=Z,1µm,21.0s						
N32M	**Quiet Lake**	**86.19**	**331**	IAMs_20	IAMs_20	03 47 22.6	
	comp=Z,2µm,20.0s						
P33M	**Teslin, Yukon**	**86.21**	**330**	IAMs_20	IAMs_20	03 48 28.1	
	comp=Z,1µm,21.0s						
V35K	**Ketchikan**	**86.28**	**325**	IAMs_20	IAMs_20	03 48 34.7	
	comp=Z,1µm,20.0s						
WRAK	**Wrangell Islan**	**86.53**	**326**	IAMs_20	IAMs_20	03 47 45.2	
	comp=Z,1µm,19.0s						
ARTI	**Arti**	**86.71**	**34**	LR	LR	03 48 42.3	
	comp=Z,996nm,21.5s,baz=272,slow=34						
ARTI	**Arti**	**86.71**	**34***c*	*i*P	**P**	**03 13 04.9**	**+1.5**
ARTI				S	**SKSac**	**03 23 30.7**	**+1.6**
ARTI				pmax	pmax		
	comp=Z,12nm,0.8s						
ARTI	**Arti**	**86.71**	**34**	P	**P**	**03 13 01.1**	**-2.3**
ARTI				IAmb	IAmb	03 13 12.3	
	comp=Z,17nm,0.9s						
ARTI				IAMs_20	IAMs_20	03 48 30.2	
	comp=Z,1µm,20.0s						
P32M	**Atlin**	**86.75**	**330**	IAMs_20	IAMs_20	03 48 13.6	
	comp=Z,1µm,20.0s						
I30M	**Mount Dempster**	**86.94**	**335**	IAMs_20	IAMs_20	03 47 35.9	
	comp=Z,1µm,22.0s						
U33K	**Whale Pass**	**87.01**	**326**	IAMs_20	IAMs_20	03 51 18.7	
	comp=Z,1µm,18.0s						
J30M	**Hart River**	**87.05**	**335**	IAMs_20	IAMs_20	03 48 18.9	
	comp=Z,2µm,21.0s						
R32K	**Eaglecrest**	**87.39**	**328**	IAMs_20	IAMs_20	03 47 40.6	
	comp=Z,1µm,21.0s						
AKTO	**Aktyubinsk**	**87.41**	**40**	LR	LR	03 51 10.7	
	comp=Z,481nm,20.1s,baz=255,slow=35						
N31M	**Braeburn, Yuko**	**87.42**	**332**	IAMs_20	IAMs_20	03 48 00.9	
	comp=Z,1µm,20.0s						
BESE	**Bessie Mountai**	**87.51**	**329**	IAMs_20	IAMs_20	03 48 57.7	
	comp=Z,1µm,20.0s						
S32K	**Killisnoo**	**87.57**	**328**	IAMs_20	IAMs_20	03 48 47.3	
	comp=Z,1µm,18.0s						
D27M	**Malcolm River**	**87.73**	**340**	IAMs_20	IAMs_20	03 49 18.4	
	comp=Z,1µm,22.0s						
J29N	**Klondike Camp**	**87.87**	**335**	IAMs_20	IAMs_20	03 48 55.7	
	comp=Z,1µm,21.0s						
N30M	**Aishikik Lake**	**88.04**	**332**	IAMs_20	IAMs_20	03 48 10.3	
	comp=Z,2µm,21.0s						
L29M	**L29M**	**88.14**	**333**	IAMs_20	IAMs_20	03 52 17.0	
	comp=Z,1µm,18.0s						
S31K	**Pelican**	**88.34**	**328**	IAMs_20	IAMs_20	03 48 21.8	
	comp=Z,1µm,20.0s						
M29M	**Somme Creek**	**88.45**	**333**	IAMs_20	IAMs_20	03 49 51.1	
	comp=Z,1µm,20.0s						
ELIB	**Princess Elisa**	**88.51**	**164**	*d*P	**P**	**03 13 13.5**	**+1.7**
	comp=Z,7.2nm,1.2s						
C27K	**Jago River**	**88.54**	**340**	IAMs_20	IAMs_20	03 49 03.0	
	comp=Z,1µm,22.0s						
AB31	**Akbulak array**	**88.84**	**41**	P	**P**	**03 13 09.8**	**-3.9**
ABKAR	**Akbulak array**	**88.84**	**41**	P	**P**	**03 13 11.8**	**-1.9**
O29M	**Mount Kennedy**	**89.01**	**331**	IAMs_20	IAMs_20	03 51 15.0	
	comp=Z,1µm,19.0s						
D25K	**Kavik River**	**89.53**	**340**	IAMs_20	IAMs_20	03 51 10.1	
	comp=Z,1µm,21.0s						
K27K	**Chicken**	**89.61**	**335**	IAMs_20	IAMs_20	03 48 23.6	
	comp=Z,1µm,22.0s						
E25K	**Arctic Village**	**89.67**	**339**	IAMs_20	IAMs_20	03 51 09.9	
	comp=Z,1µm,21.0s						
BCAR	**Beaver Creek A**	**89.76**	**334**	P	**P**	**03 13 15.4**	**-2.4**
L27K	**Beaver Creek,**	**89.78**	**334**	IAMs_20	IAMs_20	03 49 32.3	
	comp=Z,2µm,22.0s						
UOSS	**Minazif**	**89.81**	**65**	IAMs_20	IAMs_20	03 57 37.8	
	comp=Z,902nm,20.0s						
M27K	**Edge Creek, AK**	**90.01**	**333**	IAMs_20	IAMs_20	03 50 21.2	
	comp=Z,1µm,19.0s						
C24K	**Franklin Bluff**	**90.14**	**341**	IAMs_20	IAMs_20	03 51 49.2	
	comp=Z,1µm,21.0s						
BARN	**Barnard Glacie**	**90.28**	**332**	IAMs_20	IAMs_20	03 49 43.5	
	comp=Z,1µm,20.0s						
D24K	**Happy Valley**	**90.40**	**341**	IAMs_20	IAMs_20	03 53 13.1	
	comp=Z,920nm,19.0s						
SCRK	**Sand Creek**	**90.43**	**335**	IAMs_20	IAMs_20	03 51 39.3	
	comp=Z,1µm,21.0s						
M26K	**Nabesna, AK**	**90.49**	**333**	IAMs_20	IAMs_20	03 50 44.0	
	comp=Z,1µm,21.0s						
C23K	**Itkillik River**	**90.70**	**341**	IAMs_20	IAMs_20	03 52 20.0	
	comp=Z,1µm,22.0s						
E24K	**Your Creek**	**90.71**	**340**	IAMs_20	IAMs_20	03 52 26.3	
	comp=Z,1µm,20.0s						
J25K	**Salcha River,**	**90.79**	**336**	IAMs_20	IAMs_20	03 50 52.7	
	comp=Z,1µm,20.0s						
MCARA	**McCarthy VSAT**	**90.81**	**332**	IAMs_20	IAMs_20	03 50 32.6	
	comp=Z,1µm,22.0s						
RIDG	**Independent Ri**	**90.87**	**335**	IAMs_20	IAMs_20	03 50 48.8	
	comp=Z,1µm,20.0s						
VRDI	**Verde Repeater**	**91.06**	**332**	IAMs_20	IAMs_20	03 50 50.1	
	comp=Z,1µm,21.0s						
GLB	**Gilahina Butte**	**91.15**	**333**	IAMs_20	IAMs_20	03 50 52.7	
	comp=Z,1µm,22.0s						
K24K	**Donnelly Dome**	**91.23**	**335**	IAMs_20	IAMs_20	03 50 58.6	
	comp=Z,1µm,20.0s						
ILAR	**Eielson Array**	**91.35**	**336**	P	**P**	**03 13 27.4**	**+2.3**
	comp=Z,3.4nm,1.0s,baz=69,slow=4.2,SNR=15						
ILAR				PP	**PP**	**03 17 02.6**	**+0.4**
	comp=Z,0.8nm,0.9s,baz=72,slow=6.5,SNR=4.3						
ILAR				LR	LR	03 51 30.0	
	comp=Z,1µm,20.2s,baz=64,slow=34						
	comp=Z,3.4nm,1.0s						
ILAR	**Eielson Array**	**91.35**	**336**	P	**P**	**03 13 23.2**	**-1.9**
ILAR	**Eielson Array**	**91.35**	**336**	P	**P**	**03 13 23.2**	**-1.9**
HARP	**HAARP**	**91.45**	**334**	IAMs_20	IAMs_20	03 50 24.3	
	comp=Z,1µm,22.0s						
KLU	**Klutina**	**92.09**	**333**	IAMs_20	IAMs_20	03 51 29.5	
	comp=Z,829nm,19.0s						
DIV	**Divide**	**92.15**	**333**	IAMs_20	IAMs_20	03 51 34.1	
	comp=Z,1µm,20.0s						
DHY	**Denali Highway**	**92.17**	**335**	IAMs_20	IAMs_20	03 51 30.2	
	comp=Z,1µm,20.0s						
NEA2	**Nenana**	**92.28**	**336**	IAMs_20	IAMs_20	03 51 28.1	
	comp=Z,1µm,20.0s						
E21K	**Killik River**	**92.40**	**341**	IAMs_20	IAMs_20	03 53 50.9	
	comp=Z,1µm,20.0s						
SCM	**Sheep Creek Mo**	**92.60**	**334**	IAMs_20	IAMs_20	03 50 48.8	
	comp=Z,1µm,22.0s						
BWN	**Browne**	**92.61**	**336**	IAMs_20	IAMs_20	03 51 18.0	
	comp=Z,1µm,20.0s						
B20K	**Meade River**	**92.62**	**343**	IAMs_20	IAMs_20	03 52 36.7	
	comp=Z,954nm,22.0s						
F21K	**Alatna River**	**92.80**	**340**	IAMs_20	IAMs_20	03 53 39.6	
	comp=Z,1µm,20.0s						
GLI	**Glacier Island**	**92.84**	**333**	IAMs_20	IAMs_20	03 50 22.3	
	comp=Z,968nm,21.0s						
SML	**Sawmill**	**93.05**	**334**	IAMs_20	IAMs_20	03 51 24.7	
	comp=Z,1µm,22.0s						
TRF	**Thorofare Moun**	**93.23**	**336**	IAMs_20	IAMs_20	03 52 20.4	
	comp=Z,928nm,20.0s						
BPAW	**Bear Paw Mtn.**	**93.25**	**336**	IAMs_20	IAMs_20	03 51 48.6	
	comp=Z,1µm,21.0s						
KNK	**Knik Glacier**	**93.26**	**333**	IAMs_20	IAMs_20	03 51 44.2	
	comp=Z,861nm,20.0s						
GHO	**Glory Hole Cre**	**93.33**	**334**	IAMs_20	IAMs_20	03 55 44.0	
	comp=Z,868nm,20.0s						
PWL	**Port Wells**	**93.41**	**333**	IAMs_20	IAMs_20	03 51 43.4	
	comp=Z,1µm,22.0s						
CUT	**Chulitna**	**93.66**	**335**	IAMs_20	IAMs_20	03 52 27.5	
	comp=Z,1µm,20.0s						
F20K	**Avaraart Lake**	**93.66**	**340**	IAMs_20	IAMs_20	03 54 28.2	
	comp=Z,1µm,20.0s						
D19K	**Kuna River**	**93.70**	**342**	IAMs_20	IAMs_20	03 53 32.3	
	comp=Z,1µm,21.0s						
C19K	**Lookout Ridge**	**93.83**	**342**	IAMs_20	IAMs_20	03 55 07.5	
	comp=Z,1µm,20.0s						
M22K	**Willow**	**93.86**	**334**	IAMs_20	IAMs_20	03 51 47.9	
	comp=Z,1µm,22.0s						
RC01	**Rabbit Creek A**	**93.95**	**333**	IAMs_20	IAMs_20	03 53 06.7	
	comp=Z,965nm,22.0s						
CAST	**Castle Rocks**	**93.98**	**336**	IAMs_20	IAMs_20	03 52 40.0	
	comp=Z,855nm,18.0s						
SEW	**Seward**	**94.22**	**332**	IAMs_20	IAMs_20	03 52 49.7	
	comp=Z,1µm,22.0s						
BORK	**Borovoye**	**94.22**	**35**	IAMs_20	IAMs_20	03 57 21.0	
	comp=Z,726nm,19.0s						
SUA	**Susitna One**	**94.25**	**334**	IAMs_20	IAMs_20	03 51 02.3	
	comp=Z,1µm,22.0s						
BVAR	**Borovoye Array**	**94.27**	**35**	P	**P**	**03 13 38.5**	**-0.3**
	comp=Z,0.2nm,0.3s,baz=243,slow=2.3,SNR=3.9						
	comp=Z,0.2nm,0.3s						
NRIK	**Noril'sk**	**94.36**	**17**	LR	LR	03 53 48.0	
	comp=Z,383nm,21.8s,baz=301,slow=34						
SKT	**Skwentna**	**94.37**	**334**	IAMs_20	IAMs_20	03 54 52.5	
	comp=Z,1µm,20.0s						
SLKM	**Skilak Lake**	**94.41**	**333**	IAMs_20	IAMs_20	03 52 13.6	
	comp=Z,810nm,21.0s						
F19K	**Shaleruckik Mo**	**94.46**	**340**	IAMs_20	IAMs_20	03 53 37.4	
	comp=Z,982nm,20.0s						
G19K	**Purcell Mounta**	**94.58**	**339**	IAMs_20	IAMs_20	03 54 10.6	
	comp=Z,1µm,20.0s						
K20K	**Telida**	**94.81**	**336**	IAMs_20	IAMs_20	03 53 05.9	
	comp=Z,1µm,20.0s						
BRLK	**Bradley Lake**	**95.02**	**332**	IAMs_20	IAMs_20	03 53 38.1	
	comp=Z,1µm,20.0s						
M20K	**Styx River**	**95.09**	**335**	IAMs_20	IAMs_20	03 54 02.6	
	comp=Z,1µm,21.0s						
G18K	**Tagagawik**	**95.26**	**339**	IAMs_20	IAMs_20	03 54 40.5	
	comp=Z,1µm,20.0s						
HOM	**Homer**	**95.41**	**332**	IAMs_20	IAMs_20	03 54 01.3	
	comp=Z,1µm,20.0s						
RDOG	**Red Dog Mine**	**95.43**	**342**	IAMs_20	IAMs_20	03 55 39.9	
	comp=Z,752nm,20.0s						
F17K	**Baldwin Pennin**	**95.84**	**340**	IAMs_20	IAMs_20	03 55 02.8	
	comp=Z,946nm,20.0s						
C16K	**Lisburne Hills**	**96.02**	**343**	IAMs_20	IAMs_20	03 55 48.4	
	comp=Z,1µm,20.0s						
N19K	**Bonanza Creek**	**96.16**	**334**	IAMs_20	IAMs_20	03 57 38.9	
	comp=Z,1µm,20.0s						
O19K	**Port Alsworth**	**96.38**	**333**	IAMs_20	IAMs_20	03 56 21.7	
	comp=Z,1µm,20.0s						
L18K	**Granite Mounta**	**96.41**	**336**	IAMs_20	IAMs_20	03 53 49.3	
	comp=Z,945nm,21.0s						
Q19K	**Cape Douglas,**	**96.65**	**332**	IAMs_20	IAMs_20	03 54 28.0	
	comp=Z,1µm,20.0s						
KDAK	**Kodiak Island**	**96.66**	**331**	LR	LR	03 54 11.3	
	comp=Z,1µm,21.9s,baz=56,slow=33						
G16K	**Koyuk River**	**96.81**	**340**	IAMs_20	IAMs_20	03 56 11.6	
	comp=Z,938nm,20.0s						
M17K	**Holitna River**	**97.13**	**335**	IAMs_20	IAMs_20	03 54 25.4	
	comp=Z,1µm,20.0s						
F15K	**North Star Dit**	**97.39**	**341**	IAMs_20	IAMs_20	03 56 01.9	
	comp=Z,875nm,20.0s						
QSPA	**South Pole Qui**	**97.71**	**180**	P	Pdif	03 13 54.6	+0.3
	comp=Z,0.5nm,0.7s,baz=223,slow=2.7,SNR=1.0						
QSPA				LR	LR	03 56 17.8	
	comp=Z,381nm,18.1s,baz=182,slow=34						
	comp=Z,0.5nm,0.7s						
QSPA	**South Pole Qui**	**97.71**	**180**	P	Pdif	03 13 53.9	-0.4
QSPA				IAmb	IAmb	03 14 18.1	
	comp=Z,17nm,1.7s						
P17K	**Kvichak River**	**97.80**	**333**	IAMs_20	IAMs_20	03 54 17.3	
	comp=Z,1µm,21.0s						
L16K	**Owhat River**	**97.80**	**336**	IAMs_20	IAMs_20	03 55 58.1	
	comp=Z,918nm,20.0s						
K15K	**Wolf Creek Mou**	**98.29**	**337**	IAMs_20	IAMs_20	03 56 17.9	
	comp=Z,1µm,20.0s						
O16K	**Kokwok River B**	**98.33**	**334**	IAMs_20	IAMs_20	03 55 09.3	
	comp=Z,1µm,20.0s						
ANM	**Nome**	**98.34**	**340**	IAMs_20	IAMs_20	03 57 28.0	
	comp=Z,1µm,20.0s						
P16K	**Nushagak River**	**98.58**	**333**	IAMs_20	IAMs_20	03 55 58.8	
	comp=Z,771nm,20.0s						
L14K	**Kuka Creek**	**99.29**	**337**	IAMs_20	IAMs_20	03 58 05.2	
	comp=Z,783nm,19.0s						
M14K	**Bethel**	**99.34**	**336**	IAMs_20	IAMs_20	03 55 36.6	
	comp=Z,887nm,20.0s						
KURBB	**Kurchatov Arra**	**99.85**	**36**	P	**Pdif**	**03 14 04.8**	**+0.7**
	comp=Z,0.1nm,0.3s,baz=318,slow=3.7,SNR=1.1						
KURBB				PP	**PP**	**03 18 08.1**	**-0.3**
	comp=Z,0.8nm,0.9s,baz=296,slow=7.9,SNR=4.9						
KURBB				LR	LR	03 58 05.2	
	comp=Z,531nm,20.9s,baz=330,slow=35						
	comp=Z,0.1nm,0.3s						
KURK	**Kurchatov**	**99.86**	**36**	P	**Pdif**	**03 14 04.8**	**+0.6**
KURK	**Kurchatov**	**99.86**	**36**		**Pdif**	**03 14 02.7**	**-1.4**
GAMB	**Gambell**	**100.95**	**341**	IAMs_20	IAMs_20	03 59 07.8	
	comp=Z,720nm,18.0s						
NIL	**Nilore**	**102.40**	**53**	IAMs_20	IAMs_20	04 03 38.0	
	comp=Z,658nm,20.0s						
MAKZ	**Makanchi**	**103.58**	**38**	IAMs_20	IAMs_20	03 59 08.7	
	comp=Z,992nm,21.0s						
TAOE	**Nuku Hiva Isla**	**103.93**	**263**	*e*S		03 26 10.8	
	comp=Z,256nm,25.7s						
TAOE				*e*SS	**SS**	**03 33 23.8**	**-4.4**
	comp=Z,266nm,23.9s						
TAOE				*e*LR	LR	03 48 27.5	
	comp=Z,601nm,27.4s						
SPIA	**Saint Paul Isl**	**104.92**	**336**	IAMs_20	IAMs_20	04 02 27.3	
	comp=Z,966nm,20.0s						
ATKA	**Atka Island**	**109.99**	**334**	IAMs_20	IAMs_20	04 03 32.2	
	comp=Z,953nm,19.0s						
HYB	**Hyderabad**	**111.76**	**68**	*e*PKiKP	**PKiKP**	**03 18 52.8**	**-2.5**
HYB				*e*PP	**PP**	**03 19 34.7**	**-3.0**
HYB				*e*SKSac	**SKSac**	**03 25 34.0**	**-2.5**
HYB				⇑*e*SKKS	**SKKSac**	**03 26 35.6**	**-4.3**
HYB				IAMs_20	IAMs_20	03 41 59.4	
	comp=Z,13µm,67.4s						
PPT2	**Papeete2**	**113.62**	**254**	*e*S		03 26 40.0	
	comp=Z,317nm,27.2s						
PPT2				*e*SS	**SS**	**03 35 41.1**	**+2.4**
	comp=Z,462nm,29.8s						
PPT2				*e*LQ	LQ	03 47 02.7	
	comp=Z,2µm,28.5s						
PPT2				*e*LR	LR	03 52 56.5	
	comp=Z,1µm,27.2s						
PPT2				*e*LR	LR	03 52 57.7	
	comp=Z,1µm,28.8s						
SONM	**Songino Array**	**116.03**	**26**	PKP	**PKPdf**	**03 19 06.0**	**+3.2**
	comp=Z,0.5nm,0.5s,baz=172,slow=2.9,SNR=2.1						
MORE	**Moreh**	**123.00**	**55**	IAMs_20	IAMs_20	04 11 44.4	
	comp=Z,533nm,22.0s						
BTO2	**Baotou**	**123.05**	**30**	*e*PKP	**PKPdf**	**03 19 13.4**	**-3.2**
BTO2				PP	**PP**	**03 20 55.8**	**+0.9**
BTO2				SS	SS	03 37 41.1	+3.2
BTO2				L	L		
	comp=Z,1µm,19.6s						
BTO2				L	L		
	comp=Z,560nm,14.6s						
BTO2				L	L		
	comp=Z,910nm,19.4s						
LZH	**Lanzhou**	**123.08**	**37**	*e*PKP	PKPdf	03 19 07.4	-9.4
LZH				L	L		
	comp=Z,510nm,21.3s						
LZH				L	L		
	comp=Z,450nm,21.8s						
LZH				L	L		
	comp=Z,860nm,22.0s						
HHC	**Hu-ho-hao-te**	**123.77**	**28**	*e*P	PKPdf	03 19 07.4	-11
HHC				LR	LR		
	comp=N,940nm,17.5s						
HHC				LR	LR		
	comp=E,620nm,17.3s						
HHC				LR	LR		
	comp=Z,1µm,17.6s						
CN2	**Changchun**	**126.38**	**16**	*e*PKP	**PKPdf**	**03 19 17.8**	**-4.9**
CN2				PP	**PP**	**03 21 17.3**	**+0.6**
CN2				SS	SS	03 38 19.8	+0.9
CN2				PPMZ			
	comp=Z,100nm,7.0s						
CN2				L	L		
	comp=Z,600nm,25.0s						
CN2				L	L		
	comp=Z,600nm,25.0s						
CN2				L	L		
	comp=Z,200nm,17.1s						
BJT	**Baijiatuau**	**126.51**	**25**	IAMs_20	IAMs_20	04 17 41.0	
	comp=Z,591nm,21.0s						
XAN	**Xi'an**	**127.50**	**36**	PKP	PKiKP	03 19 34.8	+9.0
PZH	**PanZhiHua**	**127.60**	**48**	PKP	**PKPdf**	**03 19 20.3**	**-5.4**
SNY	**Shenyang**	**127.66**	**18**	PKP	**PKPdf**	**03 19 21.8**	**-3.4**
SNY				PP	**PP**	**03 21 28.1**	**+3.0**
SNY				PPMZ			
	comp=Z,90nm,14.9s						
SNY				L	L		
	comp=Z,330nm,19.6s						
SNY				L	L		
	comp=Z,340nm,19.8s						
SNY				L	L		
	comp=Z,500nm,25.3s						
CMAR	**Chiang Mai Arr**	**129.48**	**59**	PKP	**PKiKP**	**03 19 31.1**	**+1.0**
	comp=Z,2.1nm,0.6s,baz=282,slow=3.4,SNR=6.7						
CMAR	**Chiang Mai Arr**	**129.48**	**59**	PKIKP	**PKiKP**	**03 19 30.4**	**+0.4**
CMAR	**Chiang Mai Arr**	**129.48**	**59**		**PKiKP**	**03 19 30.4**	**+0.4**
ENH	**Enshi**	**130.50**	**39**	IAMs_20	IAMs_20	04 16 25.5	
	comp=Z,606nm,20.0s						
INCN	**Inchon**	**132.57**	**18**	IAMs_20	IAMs_20	04 25 31.9	
	comp=Z,472nm,20.0s						
NJ2	**Nanjing**	**134.32**	**29**	*e*PKP	**PKPdf**	**03 19 32.4**	**-5.7**
MJAR	**Matsushiro Arr**	**135.79**	**5**	PKP	**PKiKP**	**03 19 43.3**	**+0.9**
	comp=Z,0.5nm,0.4s,baz=13,slow=2.9,SNR=1.9						
SSE	**Sheshan**	**136.21**	**27**	PKP	**PKiKP**	**03 19 44.3**	**+1.0**
SSE				PP	**PP**	**03 22 27.0**	**+6.5**
IPM	**Ipoh**	**136.55**	**75**	IAMs_20	IAMs_20	04 27 57.9	
	comp=Z,526nm,19.0s						
MLZ	**Mavora Lakes**	**136.56**	**206**	PKPdf	**PKPdf**	**03 19 39.9**	**-2.0**
QIZ	**Qiongzhong**	**138.00**	**50**	PKP	**PKPdf**	**03 19 38.1**	**-7.2**
QIZ				PP	**PP**	**03 22 26.4**	**-6.3**
QIZ				SS	SS	03 40 35.3	-7.5
QIZ				L	L		
	comp=Z,320nm,27.5s						
QIZ				L	L		
	comp=Z,310nm,22.0s						
QIZ				L	L		
	comp=Z,570nm,24.1s						
TPUB	**Ta-pu**	**142.30**	**35**	IAMs_20	IAMs_20	04 27 20.5	
	comp=Z,661nm,20.0s						
TWG	**Pinlang**	**142.93**	**35**	IAMs_20	IAMs_20	04 25 59.3	

	comp=Z,626nm,19.0s						
MORW	Morawa	146.99	134	PKPdf	PKPdf	03 19 58.2	-2.7
KKM	Kota Kinabalu	150.12	64	IAMs_20	IAMs_20	04 29 06.5	
	comp=Z,420nm,21.0s						
TOO	Toolangi	150.15	184	P	PKPab	03 20 17.4	+0.6
TOO	Toolangi	150.15	184	PKIKP	PKPdf	03 20 02.8	-3.1
TOO	Toolangi	150.15	184	PKPdf	PKPdf	03 20 02.8	-3.1
ARPS	Mount Arapiles	151.03	178	P	PKPab	03 20 18.9	-1.5
CAN	Canberra	151.92	191	P	PKiKP	03 20 17.2	+1.7

*IDC **17** 03:08:38.6±0.8, 4°.53S×131°.22E, h0^{km}, mb4.1/9, mbtmp4.2/11, ML4.2/2, Error ellipse: s-maj=44.9km s-min=15.8km az=79.0*

*DJA **17** 03:08:49.4±0.3, 5°S±2°×13°1E±°, h78^{km}±7^{km}, M4.7/20, mB5.5/3, mb4.6/7, MLv4.7/20, Mw(mB)5.0/3*

*NEIC **17** 03:08:49.3±1.0, 4°.70S±0°.07×130°.72E±0°.10, h74^{km}±6^{km}, mb4.5/21, Error ellipse: s-maj=14.0km s-min=10.3km az=98.0*

ISC 17 03:08:48.6±0.4**, 4°.69S**±0°.05×**130°.73E**±0°.04**, h74**^{km}**, n76, **σ**1^{s}97**/79**, mb4.3**/19**, 2D, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BNDI	Bandanaira	0.84	281	P	Pn	03 09 07.1	+1.8
BNDI	Bandanaira	0.84	281	P	Pn	03 09 07.1	+1.8
BNDI				S	Sn	03 09 20.7	+2.9
BNDI				AML	AML		
MSAI	Masohi	2.24	307	P	Pn	03 09 24.2	+0.7
MSAI				S	Sn	03 09 49.8	-0.5
MSAI				AML	AML		
FAKI	Fak Fak	2.32	41	P	Pn	03 09 25.1	+0.4
FAKI	Fak Fak	2.32	41	S	Sn	03 09 51.3	-1.0
FAKI	Fak Fak	2.32	41	Pn	Pn	03 09 24.7	+0.1
FAKI	Fak Fak	2.32	41	P	Pn	03 09 25.0	+0.4
FAKI				S	Sn	03 09 51.4	-0.9
FAKI				AML	AML		
AAI	Ambon	2.72	291	P	Pn	03 09 31.5	+1.5
AAI				S	Sn	03 10 02.1	+0.2
AAI				AML	AML		
KMPI	Kaimana, Papua	3.14	71	P	Pn	03 09 37.4	+1.7
KMPI				AML	AML		
SAUI	Saumlaki	3.32	170	P	Pn	03 09 40.2	+2.0
SAUI	Saumlaki	3.32	170	Pn	Pn	03 09 39.6	+1.4
SAUI	Saumlaki	3.32	170	P	Pn	03 09 39.9	+1.7
SAUI				AML	AML		
SWI	Sorong	3.84	8	P	Pn	03 09 44.8	-0.5
NLAI	Namlea	3.90	292	P	Pn	03 09 48.7	+2.6
NLAI				AML	AML		
LBMI	Labuha	5.16	321	P	Pn	03 10 02.1	-1.2
SANI	Sanana	5.41	299	P	Pn	03 10 06.0	-0.7
SANI	Sanana	5.41	299	S	Sn	03 11 04.1	-3.6
SANI	Sanana	5.41	299	P	Pn	03 10 06.1	-0.7
	0.4nm3μm75nm,0.5s						
SANI				AML	AML		
BAKI	Biak	6.39	57	P	Pn	03 10 21.4	+1.2
	0.2nm36nm,0.5s						
BAKI				AML	AML		
DRS	Darwin Rock St	7.70	179	P	Pn	03 10 38.9	+0.9
MTN	Manton Dam	8.11	177		Pn	03 10 42.6	-1.1
SOEI	Soe	8.15	232	Pn	Pn	03 10 45.9	+1.6
KNRA	Kununurra	11.09	190		Pn	03 11 21.2	-3.1
FITZ	Fitzroy Crossi	14.23	200	Pn	Pn	03 12 01.6	-4.9
	0.4nm,0.3s,baz=36,slow=9.0,SNR=12						
FITZ				Sn	Sn	03 14 28.7	-14
	1.7nm,0.3s,baz=322,slow=24,SNR=4.1						
	1.3nm,0.4s						
FITZ				AML	AML		
FITZ	Fitzroy Crossi	14.23	200	Pn	Pn	03 12 02.6	-3.9
WB0	Warramunga Arr	15.41	167		Pn	03 12 16.2	-5.5
WRAB	Tennant Creek	15.56	167		Pn	03 12 17.6	-6.0
WRAB				IAmb	IAmb	03 12 35.5	
	comp=Z,18nm,1.4s						
WRA	Warramunga Arr	15.56	167	Pn	Pn	03 12 17.4	-6.4
	comp=Z,1.4nm,0.3s,baz=351,slow=13,SNR=25						
WRA				Sn	Sn	03 14 58.6	-17
	comp=Z,2.1nm,0.3s,baz=348,slow=24,SNR=9.4						
WRA	Warramunga Arr	15.56	167		Pn	03 12 17.4	-6.4
WR8	Warramunga Arr	15.61	167		Pn	03 12 19.4	-5.0
WR8				IAmb	IAmb	03 12 43.1	
	comp=Z,9.0nm,0.7s						
QIS	Mount Isa	17.98	152	P	P	03 12 52.6	-0.7
MTSU	Mount Surprise	18.84	136	P	Pn	03 13 04.2	+0.1
AS31	Alice Springs	19.11	171		P	03 13 05.4	-0.3
ASAR	Alice Springs	19.11	171	P	P	03 13 06.2	+0.5
	comp=Z,2.0nm,0.3s,baz=349,slow=10,SNR=142						
ASAR				S	S	03 16 25.4	-13
	comp=Z,2.7nm,0.5s,baz=358,slow=27,SNR=7.7						
	comp=Z,10nm,0.5s						
ASAR				AML	AML		
AS01	Alice Springs	19.12	171	P	Pn	03 13 07.7	+0.4
MBWA	Marble Bar	19.55	212	P	P	03 13 09.6	-0.9
MBWA				IAmb	IAmb	03 13 20.2	
	comp=Z,35nm,1.5s						
MEEK	Meekatharra	24.71	207	P	P	03 14 01.8	-1.2
FORT	Forrest	26.07	185	P	P	03 14 15.1	-0.1
BBOO	Buckleboo	28.42	171	P	P	03 14 37.1	+0.8
BBOO	Buckleboo	28.42	171	P	P	03 14 36.4	+0.1
BBOO				IAmb	IAmb	03 14 37.0	
	comp=Z,42nm,1.4s						
STKA	Stephens Creek	28.90	161	P	P	03 14 40.5	-0.1
	comp=Z,2.4nm,0.3s,baz=5.7,slow=10,SNR=3.0						
	comp=Z,2.4nm,0.3s						
BLDU	Ballidu	28.98	206	P	P	03 14 40.3	-1.0
KLBR	Kellerberrin	29.41	203	P	P	03 14 44.7	-0.4
NWAO	Narrogin (SRO)	30.79	203	P	P	03 14 57.1	-0.1
NJ2	Nanjing	38.25	344	*e*P	P	03 16 04.1	+2.5
NJ2				pmax	pmax		
	comp=Z,11nm,0.5s						
LZH	Lanzhou	47.74	330	*e*P	P	03 17 19.3	+0.8
LZH				sP	sP	03 18 00.4	+17
LZH				pmax	pmax		
	comp=Z,29nm,1.3s						
HHC	Hu-ho-hao-te	48.60	341	*e*P	P	03 17 28.6	+3.7
HHC				pmax	pmax		
	comp=Z,14nm,0.7s						
HHC				pmax	pmax		
	comp=Z,65nm,4.7s						
HHC				LR	LR		
	comp=N,160nm,12.1s						
HHC				LR	LR		
	comp=E,150nm,12.5s						
HHC				LR	LR		
	comp=Z,250nm,14.9s						
EVN	Everest	53.33	310	P	P	03 18 00.7	-0.5
EVN				IAmb	IAmb	03 18 04.3	
	comp=Z,3.8nm,0.6s						
MKAR	Makanchi Array	66.72	326	P	P	03 19 33.0	+1.2
	comp=Z,1.6nm,0.6s,baz=119,slow=8.1,SNR=12						
	comp=Z,1.6nm,0.6s						
MKAR	Makanchi Array	66.72	326	P	P	03 19 32.7	+0.8
ZALV	Zalesovo Beam	69.85	333	P	P	03 19 51.7	+0.4
	comp=Z,0.8nm,0.5s,baz=121,slow=5.0,SNR=2.8						
	comp=Z,0.8nm,0.5s						
ZALV	Zalesovo Beam	69.85	333	P	P	03 19 52.0	+0.7
KURBB	Kurchatov Arra	70.94	328	P	P	03 19 58.8	+0.8
	comp=Z,1.4nm,0.6s,baz=130,slow=5.3,SNR=14						
	comp=Z,1.4nm,0.6s						
KURK	Kurchatov	70.95	328	P	P	03 19 58.6	+0.6
KURK				IAmb	IAmb	03 20 23.4	
	comp=Z,4.7nm,1.1s						
VNDA	Vanda	74.64	173	P	P	03 20 19.9	+0.5
	comp=Z,1.1nm,0.6s,baz=317,slow=6.9,SNR=14						
	comp=Z,1.1nm,0.6s						
VNDA	Vanda	74.64	173	P	P	03 20 19.8	+0.4
VNDA				IAmb	IAmb	03 20 21.5	
	comp=Z,2.1nm,0.9s						
BVAR	Borovoye Array	76.52	327	P	P	03 20 31.4	+0.9
	comp=Z,0.4nm,0.3s,baz=117,slow=5.0,SNR=2.4						
	comp=Z,0.4nm,0.3s						
MAW	Mawson	77.35	201	P	P	03 20 35.4	+0.4
	comp=Z,1.6nm,0.9s,baz=63,slow=7.7,SNR=3.2						
	comp=Z,1.6nm,0.9s						
MAW	Mawson	77.35	201	P	P	03 20 35.1	+0.1
AB31	Akbulak array	81.17	321	P	P	03 20 56.2	+0.1
ABKAR	Akbulak array	81.17	321	P	P	03 20 56.2	+0.1
VOI	Vohitsoka	82.65	249	P	P	03 21 04.4	-0.3
VOI				IAmb	IAmb	03 21 28.9	
	comp=Z,15nm,1.5s						
N14K	Kuskokwak Cree	83.03	28	P	P	03 21 06.2	+0.6
L14K	Kuka Creek	83.12	26	P	P	03 21 06.6	+0.6
J16K	Anvik River	84.75	25	P	P	03 21 15.3	+1.0
J16K				IAmb	IAmb	03 21 54.8	
	comp=Z,9.9nm,1.2s						
QSPA	South Pole Qui	85.27	180	P	P	03 21 16.4	-0.7
	comp=Z,1.3nm,0.5s,baz=267,slow=2.3,SNR=8.4						
	comp=Z,1.3nm,0.5s						
QSPA	South Pole Qui	85.27	180	P	P	03 21 17.0	-0.1
QSPA				IAmb	IAmb	03 21 17.2	
	comp=Z,4.0nm,1.1s						
J17K	VABM Dome	85.44	25	P	P	03 21 18.6	+0.8
J17K				IAmb	IAmb	03 21 27.7	
	comp=Z,13nm,1.3s						
K17K	Iditarod	85.54	26	P	P	03 21 18.6	+0.3
ELIB	Princess Elisa	90.90	197	*d*P	P	03 21 44.7	+0.8
	comp=Z,1.5nm,0.8s						
ILAR	Eielson Array	90.96	25	P	P	03 21 43.3	-0.8
	comp=Z,0.3nm,0.6s,baz=256,slow=5.0,SNR=4.6						
	comp=Z,0.3nm,0.6s						
BMRD	Maredsous	115.95	325	*d*PKPdf	PKiKP	03 27 22.1	-0.9
CPUP	Villa Florida	148.19	166	PKPbc	PKPbc	03 28 26.9	0.0
	comp=Z,1.2nm,0.7s,baz=234,slow=4.0,SNR=4.3						
CPUP	Villa Florida	148.19	166		PKPbc	03 28 26.3	-0.6
LPAZ	La Paz	152.03	139	PKPbc	PKPbc	03 28 36.8	-0.4
	comp=Z,1.0nm,0.5s,baz=314,slow=2.3,SNR=7.6						
LPAZ	La Paz	152.03	139		PKPbc	03 28 35.7	-1.5

*IDC **17** 03:25:49.8±0.9, 62°.27S×57°.95W, h0^{km}, mb4.1/6, mbtmp4.1/7, ML3.3/1, MS4.3/2, Error ellipse: s-maj=24.0km s-min=15.3km az=108.0*

*NEIC **17** 03:25:49.8±1.5, 62°.23S±0°.10×58°.47W±0°.09, h10^{km}±1^{km}, mb4.5/10, Error ellipse: s-maj=16.6km s-min=7.1km az=351.0*

ISC 17 03:25:50.2±0.6**, 62°.28S**±0°.07×**58°.27W**±0°.08**, h10**^{km}**, n39, **σ**1^{s}28**/35**, mb4.2**/11**, 4C-1D, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ESPZ	Base Esperanza	1.27	153	Pn	Pn	03 26 11.5	-2.4
PMSA	Palmer Station	3.60	223	Pn	Pn	03 26 45.2	-0.8
	2.5nm,0.3s,baz=43,slow=9.8,SNR=12						
PMSA				Sn	Sn	03 27 27.5	-1.0
	1.7nm,0.3s,baz=323,slow=20,SNR=1.8						
PMSA				LR	LR	03 28 03.2	
	comp=Z,1μm,20.6s,baz=13,slow=36						
	13nm,0.4s						
PMSA				AML	AML		
PMSA	Palmer Station	3.60	223		Pn	03 26 45.1	-0.9
PMSA					Sn	03 27 28.4	-0.2
SMAI	San Martin Ant	6.95	208		Pn	03 27 31.6	-0.3
VNA3	Neumayer Olymp	20.54	136	⇑P	P	03 30 30.6	+2.2
	comp=Z,7.5nm,0.8s						
VNA1	Neumayer--Stat	21.00	135	⇑P	P	03 30 35.9	+2.5
	comp=Z,9.9nm,0.9s						
VNA2	Neumayer--Watz	21.28	135	⇑P	P	03 30 38.5	+2.1
	comp=Z,2.4nm,0.5s,baz=277,slow=10						
SNAA	Sanae	22.71	138	⇑P	P	03 30 52.6	+0.9
	comp=Z,87nm,0.5s						
SNAA	Sanae	22.71	138	P	P	03 30 52.3	+0.6
	comp=Z,7.2nm,0.9s,baz=262,slow=9.9,SNR=12						
	comp=Z,7.2nm,0.9s						
SNAA	Sanae	22.71	138	P	P	03 30 52.0	+0.3
SNAA				IAmb	IAmb	03 30 55.6	
	comp=Z,13nm,1.0s						
PLCA	Paso Flores	22.81	335	P	P	03 30 55.0	+2.0
	comp=Z,10nm,1.0s,baz=158,slow=4.6,SNR=7.2						
	comp=Z,10nm,1.0s						
PLCA	Paso Flores	22.81	335	P	P	03 30 51.9	-1.1
PLCA				IAmb	IAmb	03 30 58.0	
	comp=Z,24nm,1.2s						
GO06	Curarrehue	24.10	334	P	P	03 31 04.6	-1.3
GO06				IAmb	IAmb	03 31 10.8	
	comp=Z,33nm,0.9s						
TROLL	Troll, Antarti	24.35	139	⇓P	P	03 31 09.7	+1.8
	comp=Z,146nm,0.8s						
QSPA	South Pole Qui	27.95	180	P	P	03 31 41.4	+0.9
	comp=Z,2.4nm,1.0s,baz=160,slow=2.5,SNR=5.6						
	comp=Z,2.4nm,1.0s						
QSPA	South Pole Qui	27.95	180	P	P	03 31 40.4	-0.1
QSPA				IAmb	IAmb	03 31 54.4	
	comp=Z,6.3nm,1.1s						
GO05	Hualane	28.62	336	P	P	03 31 44.7	-1.8
GO05				IAmb	IAmb	03 31 47.7	
	comp=Z,19nm,1.1s						
CPUP	Villa Florida	35.95	1	P	P	03 32 51.6	+0.9
	comp=Z,0.9nm,0.6s,baz=184,slow=6.2,SNR=4.1						
	comp=Z,0.9nm,0.6s						
CPUP	Villa Florida	35.95	1	P	P	03 32 50.3	-0.4
MAW	Mawson	43.63	152	P	P	03 33 54.3	+0.2
	comp=Z,1.6nm,0.9s,baz=216,slow=14,SNR=2.9						
	comp=Z,1.6nm,0.9s						
MAW	Mawson	43.63	152	P	P	03 33 54.0	-0.1
LPAZ	La Paz	46.46	347	P	P	03 34 15.9	-2.0
LPAZ				IAmb	IAmb	03 34 23.1	
	comp=Z,2.9nm,1.1s						
BDFB	Brasilia	47.14	14	P	P	03 34 23.3	+0.7
	comp=Z,3.8nm,0.8s,baz=174,slow=0.9,SNR=6.2						
	comp=Z,3.8nm,0.8s						
SUR	Sutherland	56.90	97	P	P	03 35 34.3	-1.0
H10S2	ASCENSION HYDR	61.89	51	T	T	04 43 42.1	
	baz=17,slow=74,SNR=17						
H10S3	ASCENSION HYDR	61.89	51	T	T	04 43 36.0	
	baz=203,slow=74,SNR=13						
H10N3	ASCENSION HYDR	62.97	50	T	T	04 44 41.1	
	baz=202,slow=75,SNR=35						
H10N1	ASCENSION HYDR	62.98	50	T	T	04 44 41.4	
	baz=202,slow=75,SNR=31						
H10N2	ASCENSION HYDR	62.99	50	T	T	04 44 42.4	
	baz=202,slow=75,SNR=32						
LBTB	Lobatse	65.35	97	P	P	03 36 31.7	-0.8
RAR	Rarotonga	76.65	250	LR	LR	04 04 56.4	
	comp=Z,501nm,18.3s,baz=96,slow=31						
ILAR	Eielson Array	142.54	315	PKP	PKPdf	03 45 22.5	+1.0
	comp=Z,0.2nm,0.5s,baz=144,slow=3.2,SNR=1.9						
ARCES	ARCESS Array B	144.06	37	PKP	PKPab	03 45 22.7	+1.0
	comp=Z,2.7nm,0.8s,baz=222,slow=1.6,SNR=6.3						
ARCES	ARCESS Array B	144.06	37		PKPab	03 45 22.4	+0.7
AB31	Akbulak array	144.35	82	PKPdf	PKPab	03 45 24.0	+0.6
C24K	Franklin Bluff	146.07	321	PKPdf	PKPdf	03 45 28.4	+0.9
E22K	Anaktuvuk Pass	146.14	318	PKPdf	PKPdf	03 45 28.7	+0.8
ADK	Adak	146.26	281	PKPdf	PKPdf	03 45 28.8	+0.4
BVAR	Borovoye Array	151.75	85	PKPbc	PKiKP	03 45 44.7	+0.7
	comp=Z,2.7nm,0.6s,baz=236,slow=2.7,SNR=9.6						

*BJI **17** 03:27:31.1, 6°.06S×155°.31E, h59^{km}, mB5.1/16, mb5.2/67, Ms5.0/33, Ms7 4.8/31*

*GFZ **17** 03:27:35.6±0.1, 6°S±2°×15°5E±°, h67^{km}, M5.2/60, mb5.4/60, confirmed*

*GCMT **17** 03:27:35.7±0.2, 6°.27S±0°.02×154°.76E±0°.02, h60^{km}±1^{km}, MW5.2/93, Moment Tensor Solution. s64,c77; s93,c124; Duration: 1^{s}0 Moment tensor: Scale 10^{16}Nm; M_{rr}5.88±.26; $M_{\theta\theta}$-2.21±.25; $M_{\phi\phi}$-3.67±.22; $M_{r\theta}$-0.70±.17; $M_{\theta\phi}$6.05±.20; $M_{\phi r}$0.85±.17; Best double couple: $M_0$7.53800×10^{16} NP1:ϕ_s138.00000°, δ41.00000°, λ89.00000°. NP2:ϕ_s319.00000°, δ49.00000°, λ91.00000°. Principal axes: T 5.9620, Plg86.0000°, Azm239.0000°; N 3.1530, Plg1.0000°, Azm139.0000°; P -9.1150, Plg4.0000°, Azm48.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*NEIC **17** 03:27:36.2±1.9, 6°.22S±0°.07×154°.87E±0°.08, h72^{km}±5^{km}, mb5.1/403, Mww5.0/10 Error ellipse: s-maj=12.1km s-min=9.8km az=49.0*

*IDC **17** 03:27:37.7±1.5, 6°.27S×154°.84E, h92^{km}±13^{km}, mb4.9/26, mbtmp5.3/29, MS4.3/21, Error ellipse: s-maj=10.8km s-min=8.7km az=97.0*

*GFZ **17** 03:27:37.8, 6°.25S×154°.84E, h71^{km}, Mw5.1/15, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}5.35; $M_{\theta\theta}$-3.20; $M_{\phi\phi}$-2.14; $M_{r\theta}$-1.59; $M_{\theta\phi}$2.01; $M_{\phi r}$0.85; Fault plane solution: $M_0$5.38337×10^{16} NP1: ϕ_s130.05754°, δ35.36748°, λ94.36835°. NP2: ϕ_s304.70582°, δ54.75058°, λ86.90532°. Principal axes: T 5.6629, Plg79.9685°, Azm202.0466°; N -0.6111, Plg2.5269°, Azm306.4930°; P -5.0517, Plg9.7016°, Azm36.9253°;*

*DJA **17** 03:27:38.8±0.5, 6°S±3°×15°5E±°, h109^{km}±5^{km}, M5.7/102, mB6.0/41, mB6.0/41, mb5.4/102, mb5.4/102, MLv6.1/2, MLv6.1/2, Mw(mB)5.7/41, Mw(mB)5.7/41, MwMwp4.8/1, MwMwp4.8/1, Mwp5.1/1, Mwp5.1/1*

ISC 17 03:27:34.6±0.4**, 6°.23S**±0°.04×**154°.84E**±0°.04**, h66**^{km}±3^{km}**, h66**^{km}**:pP-P, n748, **σ**1^{s}27**/587**, mb5.2**/323**, 6C-3D, Bougainville-Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RABL	Rabaul	3.35	307		Pn	03 28 26.3	+1.8
KRVT	Keravat (AS076	3.39	304	P	Pn	03 28 34.0	+8.9
	347nm,0.3s,baz=274,slow=7.5,SNR=14						
KRVT				S	Sn	03 29 16.5	+12
	3μm,0.5s,baz=268,slow=22,SNR=13						
TATA	Tatamba Isabel	5.37	114	P	Pn	03 28 52.8	+0.5
TATA	Tatamba Isabel	5.37	114	S	Sn	03 29 55.9	+3.1
SAVO	Savo Central	5.72	121	P	Pn	03 28 59.5	+2.4
SAVO	Savo Central	5.72	121	S	Sn	03 30 04.2	+2.8
HNR	Honiara	5.98	123	P	Pn	03 29 03.2	+2.6
	2μm,0.8s,baz=296,slow=10,SNR=17						
HNR				S	Sn	03 30 10.6	+3.0
	2μm,1.0s,baz=53,slow=20,SNR=14						
HNR				LR	LR	03 31 20.2	
	comp=Z,2μm,22.0s,baz=19,slow=37						
HNR	Honiara	5.98	123	P	Pn	03 29 03.2	+2.6
HNR	Honiara	5.98	123	Pn	Pn	03 29 01.6	+1.0
HNR	Honiara	5.98	123	P	Pn	03 29 04.1	+3.5
HNR				AML	AML		
HNR	Honiara	5.98	123	P	Pn	03 29 02.8	+2.2
	comp=Z,2μm,0.9s						
HURO	Huro Makira	8.16	122	P	Pn	03 29 32.7	+2.3
HURO	Huro Makira	8.16	122	S	Sn	03 31 03.6	+2.4
PMG	Port Moresby	8.24	247	P	Pn	03 29 34.2	+2.7
	comp=Z,661nm,0.7s,baz=50,slow=9.0,SNR=46						
PMG				S	Sn	03 31 06.3	+3.1
	comp=Z,307nm,0.8s,baz=170,slow=23,SNR=8.9						
PMG				LR	LR	03 32 39.1	
	comp=Z,2μm,21.6s,baz=50,slow=37						
PMG	Port Moresby	8.24	247	P	Pn	03 29 32.9	+1.4
PMG	Port Moresby	8.24	247	S	Sn	03 31 04.6	+1.4
PMG	Port Moresby	8.24	247	P	Pn	03 29 33.4	+1.9
PMG	Port Moresby	8.24	247	S	Sn	03 31 04.8	+1.6
PMG	Port Moresby	8.24	247	Pn	Pn	03 29 33.5	+1.9
PMG	Port Moresby	8.24	247	P	Pn	03 29 33.4	+1.9
	comp=Z,3μmcomp=Z,3μmcomp=Z,7μmcomp=Z,7μm						
	comp=Z,1μm,0.8s,comp=Z,1μm,0.8s						
PMG	Port Moresby	8.24	247	P	Pn	03 29 34.3	+2.8
	comp=Z,1μm,0.8s						
PATS	Pohnpei	13.43	15	P	Pn	03 30 43.6	+1.2
	comp=Z,263nm,0.8s						
PATS	Pohnpei	13.43	15	P	Pn	03 30 43.8	+1.4
PATS	Pohnpei	13.43	15	Pn	Pn	03 30 42.2	-0.2
PATS	Pohnpei	13.43	15	P	Pn	03 30 42.7	+0.3
	comp=Z,264nm,0.8s						
SANVU	Saraoutou	15.20	128	P	P	03 31 07.9	-1.3
SANVU	Saraoutou	15.20	128	P	P	03 31 08.5	-0.7
SANVU				IAmb	IAmb	03 31 11.9	
	comp=Z,111nm,0.8s						
MTSU	Mount Surprise	15.67	220	P	P	03 31 14.6	+0.2
MTSU	Mount Surprise	15.67	220	P	P	03 31 14.2	-0.2
	comp=Z,15nm,0.9s						
MTSU	Mount Surprise	15.67	220	P	Pn	03 31 12.6	+1.1
MTSU	Mount Surprise	15.67	220	P	P	03 31 14.6	+0.2
	comp=Z,15nm,0.9s						
CTA	Charters Tower	16.11	210	P	P	03 31 24.4	+5.1
	comp=Z,12nm,0.8s						
CTA	Charters Tower	16.11	210	P	Pn	03 31 18.1	+1.0
	comp=Z,6.1nm,0.7s,baz=39,slow=14,SNR=3.9						
CTA				LR	LR	03 36 55.1	
	comp=Z,947nm,20.0s,baz=40,slow=35						
CTAO	Charters Tower	16.11	210	P	P	03 31 18.2	-1.0
CTAO	Charters Tower	16.11	210	Pn	Pn	03 31 16.8	-0.3
NOUC	Port Laguerre	19.28	146	P	Pn	03 31 55.2	-0.6
DZM	Mont Dzumac	19.34	146	P	P	03 31 55.6	+0.7
	comp=Z,133nm,0.7s,baz=262,slow=9.2,SNR=85						
BAKI	Biak	19.35	284	P	Pn	03 31 57.3	+0.7
	comp=Z,136nm,0.9s,comp=Z,136nm,0.9s						
EIDS	Eidsvold	19.37	190	P	Pn	03 31 56.2	-0.6
	comp=Z,35nm,1.0s						
EIDS	Eidsvold	19.37	190	P	Pn	03 31 56.0	-0.8
	comp=Z,35nm,1.0s						
EIDS	Eidsvold	19.37	190	P	Pn	03 31 56.4	-0.4
EIDS	Eidsvold	19.37	190	P	P	03 31 55.9	+0.8
EIDS	Eidsvold	19.37	190	P	Pn	03 31 56.4	-0.4
	comp=Z,35nm,1.0s						
ONTNC	Ouen Toro	19.53	146	P	P	03 31 56.9	0.0
ONTNC	Ouen Toro	19.53	146	P	P	03 31 56.8	-0.1
TARA	Tarawa	19.56	68	P	Pn	03 32 00.1	+0.9
TARA	Tarawa	19.56	68	P	Pn	03 32 00.1	+0.9
	comp=Z,417nm,1.3s						
YATNC	Mamie plateau,	19.58	145	P	P	03 31 58.0	+0.6
MARNC	Mare, Loyalty	19.82	141	P	P	03 32 00.8	+0.7
MARNC	Mare, Loyalty	19.82	141	P	P	03 32 00.2	+0.2
OUENC	Ouen Island, N	19.83	145	P	P	03 32 00.9	+0.7
OUENC	Ouen Island, N	19.83	145	P	P	03 32 00.3	+0.1
QIS	Mount Isa	20.53	225	P	Pn	03 32 11.8	+1.3
	comp=Z,40nm,0.7s						
QIS	Mount Isa	20.53	225	P	Pn	03 32 10.6	0.0
	comp=Z,40nm,0.7s						
QIS	Mount Isa	20.53	225	P	P	03 32 09.0	+1.2
RMQ	Roma	20.96	195	P	P	03 32 11.6	-0.8
	comp=Z,78nm,1.2s						
RMQ	Roma	20.96	195	P	P	03 32 10.8	-1.6
	comp=Z,78nm,1.2s						
RMQ	Roma	20.96	195	P	P	03 32 13.5	+1.1
RMQ	Roma	20.96	195	P	P	03 32 10.7	-1.8
	comp=Z,78nm,1.2s						
GC1S	Gold Coast 1 S	21.85	183	P	P	03 32 23.0	+1.2
GUMO	Guam	22.04	333	P	P	03 32 25.3	+1.4
	comp=Z,52nm,0.8s,baz=194,slow=8.3,SNR=6.6						
GUMO				LR	LR	03 40 30.5	
	comp=Z,154nm,20.5s,baz=158,slow=35						
	comp=Z,52nm,0.8s						
GUMO	Guam	22.04	333	P	P	03 32 24.6	+0.7
GUMO				IAmb	IAmb	03 32 38.1	
	comp=Z,169nm,1.4s						
QLP	Quilpie	22.63	205	P	P	03 32 31.0	+0.7
	comp=Z,146nm,0.7s						
QLP	Quilpie	22.63	205	P	P	03 32 31.3	+1.1
QLP	Quilpie	22.63	205	P	P	03 32 30.5	+0.3
	comp=Z,146nm,0.7s						
FAKI	Fak Fak	22.75	277	P	P	03 32 33.2	+1.5
FAKI	Fak Fak	22.75	277	P	P	03 32 32.2	+0.5
FAKI				IAmb	IAmb	03 32 34.7	
	comp=Z,112nm,0.9s						
FAKI	Fak Fak	22.75	277	P	P	03 32 31.6	-0.1
	comp=Z,161nm,1.0s,comp=Z,161nm,1.0s						
FAKI	Fak Fak	22.75	277	P	P	03 32 33.0	+1.3
	comp=Z,161nm,1.0s						
KDU	Kakadu	22.97	252	P	P	03 32 35.0	+1.1
	comp=Z,24nm,0.7s						
KDU	Kakadu	22.97	252	P	P	03 32 34.7	+0.8
	comp=Z,24nm,0.7s						
AULRC	Lightning Ridg	23.97	195	P	P	03 32 44.4	+1.4
WR0	Warramunga Arr	23.98	233	P	P	03 32 44.4	+1.1
WB0	Warramunga Arr	24.00	234	P	P	03 32 44.2	+0.8
WR8	Warramunga Arr	24.01	233	P	P	03 32 44.8	+1.2
WR7	Warramunga Arr	24.03	233	P	P	03 32 44.8	+1.0
WB7	Warramunga Arr	24.05	234	P	P	03 32 44.2	+0.3
WR4	Warramunga Arr	24.08	234	P	P	03 32 45.1	+0.9
WRAB	Tennant Creek	24.12	234	P	P	03 32 45.7	+1.2
WRAB	Tennant Creek	24.12	234	P	P	03 32 45.7	+1.2
WRAB				IAmb	IAmb	03 32 46.8	
	comp=Z,84nm,0.8s						
WRAB	Tennant Creek	24.12	234	P	P	03 32 45.8	+1.2
	comp=Z,145nm,1.3s						
SWI	Sorong	24.12	282	P	P	03 32 43.7	-0.9
	comp=Z,128nm,1.1s,comp=Z,128nm,1.1s						
WR1	Warramunga Arr	24.13	234	P	P	03 32 45.6	+1.0
WRA	Warramunga Arr	24.13	234	P	P	03 32 45.7	+1.0
	comp=Z,102nm,1.0s,baz=58,slow=9.4,SNR=148						
WRA				PcP	PcP	03 36 24.4	0.0
	comp=Z,6.2nm,0.6s,baz=61,slow=2.4,SNR=7.5						
WRA				S	S	03 36 57.2	-0.9
	comp=Z,13nm,1.1s,baz=53,slow=17,SNR=7.9						
WRA				ScP	ScP	03 39 55.5	-2.0
	comp=Z,1.6nm,0.8s,baz=63,slow=3.0,SNR=4.6						
WRA				LR	LR	03 42 10.9	
	comp=Z,625nm,19.9s,baz=90,slow=36						
	comp=Z,102nm,1.0s						
WRA	Warramunga Arr	24.13	234	P	P	03 32 44.7	0.0
WRA					PcP	03 36 23.2	-1.3
WC4	Warramunga Arr	24.14	234	P	P	03 32 46.0	+1.3
ARMA	Armidale	24.25	187	P	P	03 32 46.7	+1.0
	comp=Z,100nm,1.1s						
ARMA	Armidale	24.25	187	P	P	03 32 45.7	0.0
	comp=Z,100nm,1.1s						
ARMA	Armidale	24.25	187	P	P	03 32 46.5	+0.8
ARMA	Armidale	24.25	187	P	P	03 32 47.1	+1.4
ARMA				IAmb	IAmb	03 32 47.7	
	comp=Z,80nm,0.9s						

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ARMA  Armidale          24.25 187  P      P      03 32 46.6 +0.9
      comp=Z,100nm,1.1s
ARMA                               pP     pwP    03 33 03.4 -1.0
MTN   Manton Dam        24.27 253  P      P      03 32 47.5 +1.5
      comp=Z,49nm,1.0s
MTN   Manton Dam        24.27 253  P      P      03 32 47.0 +1.1
DRS   Darwin Rock St    24.40 254  P      P      03 32 48.2 +1.1
INKA  Innaminka         25.24 210  P      P      03 32 54.8 +0.2
MSVF  Nonsavu           25.38 119  LR     LR     03 42 01.6
      comp=Z,658nm,21.1s,baz=343,slow=34
MSVF  Nonsavu           25.38 119  P      P      03 32 54.9 -1.3
LHI   Lord Howe Isla    25.47 172  P      P      03 32 57.2 +0.6
LHI                                IAmb   IAmb   03 32 58.9
      comp=Z,97nm,1.6s
AS17  Alice Springs     26.51 227  P      P      03 33 06.9 +0.7
      comp=Z,37nm,0.8s
AS17  Alice Springs     26.51 227  P      P      03 33 06.6 +0.4
      comp=Z,37nm,0.8s
AUDCS Dubbo College     26.51 192  P      P      03 33 07.0 +0.9
AS05  Alice Springs     26.53 227  P      P      03 33 07.0 +0.6
      comp=Z,32nm,0.8s
AS01  Alice Springs     26.54 227  P      P      03 33 07.1 +0.6
      comp=Z,38nm,0.8s
AS01  Alice Springs     26.54 227  P      P      03 33 07.5 +1.0
AS15  Alice Springs     26.55 227  P      P      03 33 07.3 +0.8
      comp=Z,39nm,0.7s
AS02  Alice Springs     26.55 227  P      P      03 33 07.1 +0.5
      comp=Z,28nm,0.6s
AS09  Alice Springs     26.56 227  P      P      03 33 07.5 +0.7
      comp=Z,40nm,0.7s
AS31  Alice Springs     26.57 227  P      P      03 33 16.9  +10
AS31  Alice Springs     26.57 227         P      03 33 07.9 +1.1
ASAR  Alice Springs     26.57 227  P      P      03 33 07.0 +0.2
      comp=Z,19nm,0.7s,baz=58,slow=8.6,SNR=144
ASAR                               PcP    PcP    03 36 29.9  0.0
      comp=Z,8.3nm,0.8s,baz=60,slow=2.4,SNR=12
ASAR                               LR     LR     03 43 14.7
      comp=Z,731nm,20.2s,baz=102,slow=35
      comp=Z,19nm,0.7s
ASAR  Alice Springs     26.57 227  P      P      03 33 08.0 +1.2
ASAR                                      PcP    03 36 28.9 -1.0
CMSA  Cobar Meteorol    26.60 198  P      P      03 33 07.3 +0.4
      comp=Z,30nm,1.2s
CMSA  Cobar Meteorol    26.60 198  P      P      03 33 07.0 +0.1
      comp=Z,30nm,1.2s
CMSA  Cobar Meteorol    26.60 198  P      P      03 33 07.2 +0.4
CMSA  Cobar Meteorol    26.60 198  P      P      03 33 07.3 +0.4
      comp=Z,30nm,1.2s
CMSA                               pP     pwP    03 33 24.9 -1.1
MGCD  Mangrove Creek    27.07 187  P      P      03 33 12.3 +1.2
      comp=Z,53nm,1.0s
MGCD  Mangrove Creek    27.07 187  P      P      03 33 12.0 +0.9
      comp=Z,46nm,0.9s
MGCD  Mangrove Creek    27.07 187  P      P      03 33 12.3 +1.2
MGCD  Mangrove Creek    27.07 187  P      P      03 33 12.3 +1.2
      comp=Z,53nm,1.0s
H11S3 WAKE ISLAND Hy    27.20  25  T      T      04 01 27.4
      baz=206,slow=74,SNR=332
H11S2 WAKE ISLAND Hy    27.21  25  T      T      04 01 27.0
      baz=206,slow=74,SNR=319
H11S1 WAKE ISLAND Hy    27.22  25  T      T      04 01 30.6
      baz=206,slow=74,SNR=179
KNRA  Kununurra         27.24 248  P      P      03 33 14.1 +1.3
      comp=Z,15nm,1.3s
KNRA  Kununurra         27.24 248  P      P      03 33 13.8 +1.0
      comp=Z,15nm,1.3s
KNRA  Kununurra         27.24 248  P      P      03 33 13.7 +0.9
NLAI  Namlea            27.80 275  P      P      03 33 19.2 +1.4
      comp=Z,60nm,0.6s,comp=Z,60nm,0.6s
STKA  Stephens Creek    28.36 204  P      P      03 33 22.9 +0.2
      comp=Z,97nm,1.8s
STKA  Stephens Creek    28.36 204  P      P      03 33 22.6 -0.1
      comp=Z,14nm,1.0s,baz=11,slow=7.7,SNR=8.5
STKA                               PcP    PcP    03 36 33.0 -1.0
      comp=Z,4.0nm,0.7s,baz=30,slow=4.1,SNR=2.8
STKA                               LR     LR     03 44 42.7
      comp=Z,686nm,19.8s,baz=28,slow=36
      comp=Z,14nm,1.0s
STKA  Stephens Creek    28.36 204  P      P      03 33 22.9 +0.2
H11N1 WAKE ISLAND Hy    28.38  24  T      T      04 02 49.6
      baz=204,slow=76,SNR=13
H11N3 WAKE ISLAND Hy    28.39  24  T      T      04 03 05.9
      baz=204,slow=76,SNR=34
H11N2 WAKE ISLAND Hy    28.39  24  T      T      04 03 04.5
      baz=204,slow=76,SNR=6.8
SANI  Sanana            29.07 277  P      P      03 33 30.0 +0.9
SANI  Sanana            29.07 277  P      P      03 33 28.9 -0.2
SANI  Sanana            29.07 277  P      P      03 33 30.1 +0.9
      comp=Z,89nm,1.0s
CNB   Canberra Magne    29.38 189  P      P      03 33 32.1 +0.3
      comp=Z,0.7nm,0.9s
CNB   Canberra Magne    29.38 189  P      P      03 33 32.3 +0.6
      comp=Z,0.7nm,0.9s
CAN   Canberra          29.45 190  P      P      03 33 34.0 +1.6
      comp=Z,33nm,1.5s
CAN   Canberra          29.45 190  P      P      03 33 31.5 -0.8
CAN                                IAmb   IAmb   03 33 34.0
      comp=Z,36nm,1.1s
SOEI  Soe               30.47 261  P      P      03 33 42.5 +0.8
SOEI  Soe               30.47 261         P      03 33 42.5 +0.8
SOEI                               IAmb   IAmb   03 34 34.9
      comp=Z,44nm,0.9s
SOEI  Soe               30.47 261  P      P      03 33 41.3 -0.4
      comp=Z,46nm,0.9s,comp=Z,46nm,0.9s
SOEI  Soe               30.47 261  P      P      03 33 43.7 +2.0
      comp=Z,47nm,0.9s
FITZ  Fitzroy Crossi    30.83 245  P      P      03 33 45.0 +0.3
FITZ  Fitzroy Crossi    30.83 245  LR     LR     03 46 46.5
      comp=Z,814nm,20.5s,baz=93,slow=37
FITZ  Fitzroy Crossi    30.83 245  P      P      03 33 44.2 -0.5
FITZ  Fitzroy Crossi    30.83 245  P      P      03 33 44.9 +0.3
      comp=Z,10nm,0.8s
HTT   Hallett           30.84 207  P      P      03 33 45.2 +0.6
      comp=Z,14nm,2.3s
HTT   Hallett           30.84 207  P      P      03 33 45.9 +1.2
      comp=Z,33nm,2.3s
HTT   Hallett           30.84 207  P      P      03 33 44.9 +0.2
      comp=Z,14nm,1.2s
HTT   Hallett           30.84 207  P      P      03 33 45.2 +0.6
MILA  Mila              31.12 189  P      P      03 33 48.4 +1.4
WRKA  Warakurna         31.56 231  P      P      03 33 51.1  0.0
      comp=Z,33nm,0.9s
WRKA  Warakurna         31.56 231  P      P      03 33 51.0  0.0
      comp=Z,33nm,0.9s
BBOO  Buckleboo         31.71 211  P      P      03 33 52.2  0.0
      comp=Z,37nm,0.5s
BBOO  Buckleboo         31.71 211  P      P      03 33 51.8 -0.4
      comp=Z,37nm,0.5s
DAV   Davao City (W)    32.04 294  LR     LR     03 47 48.7
      comp=Z,107nm,18.3s,baz=99,slow=38
TOO   Toolangi          32.34 194  P      P      03 33 58.7 +0.9
      comp=Z,14nm,1.4s
TOO   Toolangi          32.34 194  P      P      03 33 58.3 +0.6
      comp=Z,14nm,1.4s
TOO   Toolangi          32.34 194  P      P      03 33 58.9 +1.1
LUWI  Luwuk             32.40 278  P      P      03 34 00.0 +1.4
LUWI  Luwuk             32.40 278  P      P      03 33 59.8 +1.2
      comp=Z,194nm,1.1s,comp=Z,194nm,1.1s
LUWI  Luwuk             32.40 278  P      P      03 34 00.6 +2.0
      comp=Z,196nm,1.1s
ARPS  Mount Arapiles    32.64 200  P      P      03 34 00.8 +0.5
      comp=Z,21nm,1.0s
ARPS  Mount Arapiles    32.64 200  P      P      03 34 00.5 +0.2
      comp=Z,21nm,1.0s
BRAT  Ballarat          32.72 196  P      P      03 34 02.0 +1.0
EDFI  Ende, Flores      32.95 264  P      P      03 34 02.4 -1.1
      comp=Z,1µmcomp=Z,1µmcomp=Z,150nm,1.0s,comp=Z,150nm,1.0s
APSI  Ampana            33.53 278  P      P      03 34 07.9 -0.5
      comp=Z,1µmcomp=Z,1µmcomp=Z,95nm,0.8s,comp=Z,95nm,0.8s
OUZ   Omahuta           33.63 152  P      P      03 34 10.1 +1.1
OUZ   Omahuta           33.63 152  P      P      03 34 10.4 +1.5
      comp=Z,50nm,0.9s
BSSI  Bau Bau, Buton    34.15 268  P      P      03 34 14.3 +0.5
      comp=Z,1µmcomp=Z,1µmcomp=Z,101nm,1.4s,comp=Z,101nm,1.4s
WSI   Waingapu          34.37 262  P      P      03 34 21.8 +6.1
LBFI  Labuhan Bajo,     34.73 264  P      P      03 34 19.5 +0.7
TOLI2 Tolitoli          34.77 281  P      P      03 34 19.9 +0.7
TOLI2 Tolitoli          34.77 281  P      P      03 34 19.1 -0.1
TOLI2 Tolitoli          34.77 281  P      P      03 34 19.3 +0.1
      comp=Z,46nm,0.6s
KAPI  Kappang           34.94 270  P      P      03 34 21.9 +1.3
KAPI  Kappang           34.94 270  P      P      03 34 21.1 +0.5
KAPI                               IAmb   IAmb   03 34 38.3
      comp=Z,16nm,0.8s
KAPI  Kappang           34.94 270  P      P      03 34 21.9 +1.3
      comp=Z,27nm,0.7s
SPSI  Sidrap Palu       35.00 272  P      P      03 34 21.4 +0.3
      comp=Z,1µmcomp=Z,1µmcomp=Z,20nm,0.8s,comp=Z,20nm,0.8s
FORT  Forrest           35.04 222  P      P      03 34 21.8 +0.5
      comp=Z,40nm,0.7s
FORT  Forrest           35.04 222  P      P      03 34 22.1 +0.8
FORT                               IAmb   IAmb   03 34 30.5
      comp=Z,26nm,0.6s
GLAD  Gladstone         35.14 189  P      P      03 34 22.9 +0.9
PCI   Palu              35.32 277  P      P      03 34 25.1 +1.2
      comp=Z,126nm,0.9s,comp=Z,126nm,0.9s
MPSI  Mapaga            35.48 279  P      P      03 34 25.6 +0.3
      comp=Z,1µmcomp=Z,1µmcomp=Z,117nm,0.8s,comp=Z,117nm,0.8s
DBNI  Kabupaten Domp    36.29 264  P      P      03 34 30.1 -2.1
      comp=Z,33nm,0.8s,comp=Z,33nm,0.8s
TOZ   Tahuroa Road      36.56 152  P      P      03 34 34.7 +0.6
TOZ   Tahuroa Road      36.56 152  P      P      03 34 35.2 +1.0
MOO   Moorlands         36.70 189  P      P      03 34 37.1 +1.9
PLAI  Plampang          36.82 264  P      P      03 34 36.5 -0.2
PLAI  Plampang          36.82 264  P      P      03 34 35.4 -1.3
PLAI  Plampang          36.82 264  P      P      03 34 36.4 -0.4
      comp=Z,222nm,0.8s
MBWA  Marble Bar        37.08 243  P      P      03 34 39.2 +0.4
      comp=Z,41nm,0.7s
MBWA  Marble Bar        37.08 243  P      P      03 34 38.9 +0.1
      comp=Z,41nm,0.7s
MBWA  Marble Bar        37.08 243  P      P      03 34 39.0 +0.1
MBWA  Marble Bar        37.08 243  P      P      03 34 38.9 +0.1
MBWA  Marble Bar        37.08 243  P      P      03 34 38.3 -0.5
      comp=Z,41nm,0.7s
MBWA  Marble Bar        37.08 243  P      P      03 34 38.9 +0.1
MBWA                               PcP    PcP    03 36 58.4 +0.1
TAU   Tasmania Unive    37.13 189  P      P      03 34 40.1 +1.2
TAU   Tasmania Unive    37.13 189  P      P      03 34 40.1 +1.2
TAU   Tasmania Unive    37.13 189  P      P      03 34 40.4 +1.5
HAZ   Te Kaha           37.69 150  P      P      03 34 44.4 +0.7
TWSI  Taliwang, Sumb    37.71 264  P      P      03 34 40.9 -3.3
      comp=Z,62nm,0.9s,comp=Z,62nm,0.9s
URZ   Urewera           37.75 151  P      P      03 34 45.0 +0.8
URZ   Urewera           37.75 151  P      P      03 34 44.9 +0.7
      comp=Z,88nm,1.0s
MUGZ  Murupara          37.76 151  P      P      03 34 45.6 +1.3
MXZ   Matakaoa Point    37.80 149  P      P      03 34 45.2 +0.5
MXZ   Matakaoa Point    37.80 149  P      P      03 34 45.5 +0.8
MWZ   Matawai           38.01 150  P      P      03 34 47.7 +1.2
RAGZ  Rawiri            38.08 151  P      P      03 34 48.9 +1.8
MTHZ  Maungataniwha     38.09 152  P      P      03 34 48.9 +1.7
BKZ   Black Stump Fm    38.18 152  P      P      03 34 48.7 +0.8
BKZ   Black Stump Fm    38.18 152  P      P      03 34 47.8 -0.1
RAHZ  Arahi             38.26 152  P      P      03 34 49.7 +1.1
RIGZ  Rimuhau           38.41 151  P      P      03 34 50.5 +0.7
MRNZ  Matariki Terra    38.50 158  P      P      03 34 51.3 +0.8
KNZ   Kokohu            38.62 151  P      P      03 34 51.4 -0.1
PRGZ  Paritu Road       38.64 151  P      P      03 34 52.1 +0.3
PNHZ  Pukenui           38.65 153  P      P      03 34 51.7 -0.1
TSZ   Takapari Road     38.66 154  P      P      03 34 51.9 -0.1
MHGZ  Mahia Peninsul    38.83 151  P      P      03 34 53.6 +0.3
THZ   Tophouse          38.87 158  P      P      03 34 53.0 -0.6
WPHZ  Waipukurau        38.88 153  P      P      03 34 53.9 +0.2
TCW   Tory Channel      38.92 156  P      P      03 34 54.5 +0.5
KHKI  Kahang-Kahang     38.96 264  P      P      03 34 54.9 +0.2
      comp=Z,47nm,0.8s,comp=Z,47nm,0.8s
MRZ   Mangatainoka R    38.99 155  P      P      03 34 53.6 -1.1
BFZ   Birch Farm        39.30 154  P      P      03 34 57.0 -0.2
BFZ   Birch Farm        39.30 154  P      P      03 34 57.1  0.0
PLWZ  Palliser          39.61 156  P      P      03 34 59.1 -0.7
KMBL  Kambalda          39.70 227  P      P      03 35 01.4 +0.7
      comp=Z,25nm,0.7s
MEEK  Meekatharra       40.01 235  P      P      03 35 04.3 +0.8
      comp=Z,116nm,1.0s
MEEK  Meekatharra       40.01 235  P      P      03 35 03.8 +0.4
      comp=Z,116nm,1.1s
MEEK  Meekatharra       40.01 235  P      P      03 35 03.8 +0.4
MEEK  Meekatharra       40.01 235  P      P      03 35 03.8 +0.4
      comp=Z,116nm,1.1s
JAGI  Jajag, Banyuwa    40.40 264  P      P      03 35 06.9 +0.1
JAGI  Jajag, Banyuwa    40.40 264  P      P      03 35 06.2 -0.6
JAGI  Jajag, Banyuwa    40.40 264  P      P      03 35 05.4 -1.4
      comp=Z,91nm,1.3s,comp=Z,91nm,1.3s
JAGI  Jajag, Banyuwa    40.40 264  P      P      03 35 05.8 -1.0
      comp=Z,91nm,1.2s
KKM   Kota Kinabalu     40.43 287  P      P      03 35 08.3 +1.2
KKM   Kota Kinabalu     40.43 287  P      P      03 35 07.0 -0.1
KKM   Kota Kinabalu     40.43 287  P      P      03 35 08.5 +1.4
      comp=Z,106nm,0.9s
MLZ   Mavora Lakes      40.66 166  P      P      03 35 08.0 -0.5
JOW   Kunigami          41.74 323  P      P      03 35 19.2 +1.7
JOW   Kunigami          41.74 323  P      P      03 35 19.2 +1.7
      comp=Z,45nm,0.8s
GIRL  Giralia           42.39 243  P      P      03 35 24.1 +1.2
SNJI  Sawahan-Nganju    42.77 265  P      P      03 35 26.8 +0.4
      comp=Z,67nm,1.7s,comp=Z,67nm,1.7s
KLBR  Kellerberrin      42.86 229  P      P      03 35 26.7 +0.1
      comp=Z,208nm,0.9s
KLBR  Kellerberrin      42.86 229  P      P      03 35 26.3 -0.3
      comp=Z,208nm,0.9s
KLBR  Kellerberrin      42.86 229  P      P      03 35 26.5 -0.1
KLBR  Kellerberrin      42.86 229  P      P      03 35 26.6 -0.1
      comp=Z,208nm,0.9s
MORW  Morawa            43.08 233  P      P      03 35 28.9 +0.5
      comp=Z,54nm,1.1s
MORW  Morawa            43.08 233  P      P      03 35 28.8 +0.3
      comp=Z,54nm,1.1s
MORW  Morawa            43.08 233  P      P      03 35 29.0 +0.5
MORW  Morawa            43.08 233  P      P      03 35 28.6 +0.2
MORW                               IAmb   IAmb   03 35 29.4
      comp=Z,36nm,0.8s
PCJI  Pacitan           43.35 265  P      P      03 35 30.5 -0.3
SBUM  Sibu              43.42 280  P      P      03 35 32.9 +1.5
SBUM  Sibu              43.42 280  IAmb   IAmb   03 35 34.4
      comp=Z,35nm,1.3s
SBUM  Sibu              43.42 280  P      P      03 35 33.8 +2.4
      comp=Z,24nm,1.6s
WOJI  Wonogiri, Jawa    43.60 265  P      P      03 35 31.8 -1.0
      comp=Z,105nm,2.2s,comp=Z,105nm,2.2s
NWAO  Narrogin (SRO)    43.89 228  P      P      03 35 34.8 -0.1
NWAO                               IAmb   IAmb   03 35 35.7
      comp=Z,51nm,1.0s
UGM   Wanagama          44.00 265  P      P      03 35 35.8 -0.3
      comp=Z,100nm,0.5s,comp=Z,100nm,0.5s
YULB  Yu-li             44.05 313  P      P      03 35 38.1 +1.9
YULB  Yu-li             44.05 313  IAmb   IAmb   03 35 41.4
      comp=Z,24nm,0.7s
YULB  Yu-li             44.05 313  P      P      03 35 37.1 +0.9
      comp=Z,41nm,1.0s
YULB                               pP     pP     03 35 51.2 -1.5
MUN   Mundaring         44.21 230  P      P      03 35 37.3 -0.2
      comp=Z,72nm,1.7s
MUN   Mundaring         44.21 230  P      P      03 35 37.2 -0.2
      comp=Z,72nm,1.7s
MUN   Mundaring         44.21 230  P      P      03 35 38.0 +0.5
NACB  Ninganchiao       44.31 314  P      P      03 35 40.2 +1.8
NACB  Ninganchiao       44.31 314  P      P      03 35 39.9 +1.5
      comp=Z,65nm,0.8s
TPUB  Ta-pu             44.48 312  P      P      03 35 41.6 +1.9
TPUB  Ta-pu             44.48 312  P      P      03 35 40.4 +0.7
      comp=Z,62nm,0.7s
SSLB  Suanglung         44.54 313  P      P      03 35 41.1 +0.9
SSLB  Suanglung         44.54 313  P      P      03 35 40.8 +0.6
      comp=Z,27nm,0.8s
JGF   Kuroka            44.74 340  P      P      03 35 43.4 +1.8
JGF   Kuroka            44.74 340  P      P      03 35 43.6 +2.0
YHNB  Yeheng            44.78 315  P      P      03 35 43.6 +1.4
YHNB  Yeheng            44.78 315  IAmb   IAmb   03 35 44.4
      comp=Z,34nm,0.9s
YHNB  Yeheng            44.78 315  P      P      03 35 43.0 +0.8
      comp=Z,43nm,0.8s
CTZ   Chatham Island    44.99 151  P      P      03 35 44.7 +1.3
CTZ   Chatham Island    44.99 151  P      P      03 35 43.9 +0.4
MJAR  Matsushiro Arr    45.31 341  P      P      03 35 46.5 +0.4
      comp=Z,2.3nm,0.5s,baz=168,slow=7.6,SNR=7.2
MJAR                               PcP    PcP    03 37 24.3 -0.6
      comp=Z,2.0nm,0.7s,baz=176,slow=4.0,SNR=4.9
MJAR  Matsushiro Arr    45.31 341  P      P      03 35 45.8 -0.3
MJAR                                      PcP    03 37 24.1 -0.8
MAJO  Matsushiro        45.31 341  P      P      03 35 47.9 +1.8
KPJI  Karang Pucung     45.59 266  P      P      03 35 47.9 -0.7
      comp=Z,149nm,0.8s,comp=Z,149nm,0.8s
CMJI  Cimerak           46.05 265  P      P      03 35 51.3 -1.0
      comp=Z,187nm,0.8s,comp=Z,187nm,0.8s
BBJI  Bungbulang        46.85 266  P      P      03 35 58.8 +0.1
BBJI  Bungbulang        46.85 266  P      P      03 35 57.5 -1.2
BBJI  Bungbulang        46.85 266  P      P      03 35 57.9 -0.8
      comp=Z,72nm,0.9s,comp=Z,72nm,0.9s
BBJI  Bungbulang        46.85 266  P      P      03 35 58.7  0.0
      comp=Z,71nm,1.0s
QZH2  Quanzhou          46.95 313  eP     P      03 36 00.6 +1.5
TPI   Tanjungpandan     47.15 272  P      P      03 36 00.3 -0.7
      comp=Z,41nm,1.1s,comp=Z,41nm,1.1s
CNJI  Cibinong          47.37 266  P      P      03 36 02.1 -0.6
CGJI  Cibinong          48.82 267  P      P      03 36 13.7 -0.2
TJN   Taejon            49.59 331  P      P      03 36 21.3 +2.0
TJN   Taejon            49.59 331  P      P      03 36 19.0 -0.3
KASI  Kota Agung        50.07 268  P      P      03 36 20.9 -2.4
      comp=Z,95nm,1.0s,comp=Z,95nm,1.0s
KSRS  Korea Array       50.19 332  P      P      03 36 24.1 +0.3
      comp=Z,8.5nm,0.7s,baz=146,slow=8.2,SNR=29
      comp=Z,8.5nm,0.7s
KSAR  Wonju Array Be    50.20 332  P      P      03 36 23.6 -0.3
KS19  Wonju Array Si    50.26 332  P      P      03 36 24.5 +0.1
KS19                               IAmb   IAmb   03 36 25.2
      comp=Z,18nm,1.0s
MDSI  Maura Dua         50.45 269  P      P      03 36 25.1 -1.2
      comp=Z,49nm,1.3s,comp=Z,49nm,1.3s
DSRI  Dabo              50.47 275  P      P      03 36 27.9 +1.5
INCN  Inchon            50.83 331  P      P      03 36 30.0 +1.3
INCN  Inchon            50.83 331  P      P      03 36 29.4 +0.8
INCN  Inchon            50.83 331  P      P      03 36 29.8 +1.1
      comp=Z,45nm,0.7s
QIZ   Qiongzhong        50.94 301  P      P      03 36 31.9 +2.1
QIZ                                S      S      03 43 39.3 -2.7
QIZ                                pmax   pmax
      comp=Z,44nm,0.8s
QIZ                                L      L
      comp=Z,230nm,19.7s
QIZ                                L      L
      comp=Z,220nm,13.9s
NJ2   Nanjing           51.23 320  eP     P      03 36 34.5 +2.8
NJ2                                pmax   pmax
      comp=Z,9.0nm,0.5s
MYKOM Kota Tinggi       51.53 277  P      P      03 36 35.8 +1.5
MYKOM Kota Tinggi       51.53 277         P      03 36 34.6 +0.3
MYKOM Kota Tinggi       51.53 277  P      P      03 36 35.1 +0.8
      comp=Z,60nm,1.0s
WHN   Wuhan             53.29 316  P      P      03 36 48.0 +1.0
WHN                                pP     pP     03 37 04.3 +0.3
WHN                                pmax   pmax
      comp=Z,52nm,0.8s
SDSI  Sungai Dareh      53.54 273  P      P      03 36 48.3 -0.9
      comp=Z,1µmcomp=Z,1µmcomp=Z,148nm,0.7s,comp=Z,148nm,0.7s
USRK  Ussuriysk Ar.     54.26 340  P      P      03 36 54.5 +0.6
      comp=Z,4.3nm,0.6s,baz=194,slow=6.2,SNR=8.1
      comp=Z,4.3nm,0.6s
USRK  Ussuriysk Ar.     54.26 340  P      P      03 36 54.3 +0.4
DL2   Dalian            54.44 328  eP     P      03 36 55.8 +0.5
DL2                                pmax   pmax
      comp=Z,49nm,0.9s
PDSI  Padang            54.50 273  P      P      03 36 54.6 -1.7
      comp=Z,5µmcomp=Z,5µmcomp=Z,123nm,0.8s,comp=Z,123nm,0.8s
PPI   Padang Panjang    54.62 274  P      P      03 36 56.2 -0.9
IPM   Ipoh              54.77 280  P      P      03 36 59.7 +1.5
IPM   Ipoh              54.77 280  P      P      03 36 58.3  0.0
IPM   Ipoh              54.77 280  P      P      03 36 58.5 +0.2
      comp=Z,34nm,0.7s
MDJ   Mudanjiang        55.48 338  P      P      03 37 03.1 +0.4
MDJ                                pmax   pmax
      comp=Z,14nm,1.0s
MNSI  Mandailing Nat    55.60 275  P      P      03 37 03.3 -0.8
      comp=Z,102nm,0.8s,comp=Z,102nm,0.8s
SISI  Saibi             55.82 273  P      P      03 37 04.6 -1.1
      comp=Z,109nm,0.7s,comp=Z,109nm,0.7s
TRSI  Tarutung          56.39 277  P      P      03 37 11.0 +1.0
CN2   Changchun         56.44 335  eP     P      03 37 09.5 -0.1
CN2                                eS     S      03 44 48.5 -7.1
CN2                                pmax   pmax
      comp=Z,10.0nm,0.5s
CN2                                pmax   pmax
      comp=Z,100nm,5.0s
CN2                                L      L
      comp=Z,600nm,25.0s
CN2                                L      L
      comp=Z,600nm,25.0s
CN2                                L      L
      comp=Z,200nm,18.1s
RPSI  Rantau Prapat     56.53 277  P      P      03 37 10.5 -0.3
      comp=Z,9.5nm,0.8s
PSI   Prapat            56.55 277  P      P      03 37 11.8 +0.7
ENH   Enshi             56.61 313  P      P      03 37 10.3 -0.8
ENH                                IAmb   IAmb   03 37 12.5
      comp=Z,31nm,1.1s
ENH   Enshi             56.61 313  P      P      03 37 11.6 +0.5
      comp=Z,17nm,0.8s
LYN   LuoYang           56.95 318  P      P      03 37 13.6 +0.2
LYN                                pmax   pmax
      comp=Z,32nm,0.7s
LYN                                L      L
      comp=Z,620nm,24.0s
LYN                                L      L
      comp=Z,800nm,24.0s
LYN                                L      L
      comp=Z,320nm,16.3s
SLVN  Son La            56.97 300  P      P      03 37 15.2 +1.4
SLVN  Son La            56.97 300  P      P      03 37 14.7 +0.8
SLVN                               IAmb   IAmb   03 37 16.5
      comp=Z,26nm,1.0s
SLVN  Son La            56.97 300  P      P      03 37 15.5 +1.7
      comp=Z,30nm,1.1s
BNX   BinXian           57.25 337 ⇓P      P      03 37 13.8 -1.5
BNX                                pmax   pmax
      comp=Z,18nm,1.0s
HNS   HongShan          57.30 322 ⇓P      P      03 37 16.8 +1.0
HNS                                pmax   pmax
      comp=Z,22nm,1.2s
HNS                                L      L
      comp=Z,690nm,21.6s
HNS                                L      L
      comp=Z,460nm,20.1s
HNS                                L      L
      comp=Z,920nm,22.8s
GSI   Gunungsitoli      57.65 275  P      P      03 37 19.6 +0.8
GSI   Gunungsitoli      57.65 275         P      03 37 18.5 -0.3
GSI   Gunungsitoli      57.65 275  P      P      03 37 17.0 -1.8
      comp=Z,73nm,0.8s,comp=Z,73nm,0.8s
GSI   Gunungsitoli      57.65 275  P      P      03 37 18.0 -0.8
      comp=Z,73nm,0.8s
BJI2  Beijing           58.19 326  P      P      03 37 25.1 +3.1
BJI2                               pP     pP     03 37 39.3 +0.1
BJI2                               pmax   pmax
      comp=Z,7.0nm,0.7s
BJI2                               pmax   pmax
      comp=Z,53nm,3.0s
BJI2                               L      L
      comp=Z,350nm,24.7s
BJI2                               L      L
      comp=Z,340nm,22.9s
BJI2                               L      L
      comp=Z,460nm,23.5s
XAN   Xi'an             59.05 316 ⇑P      P      03 37 28.3 +0.1
XAN                                pmax   pmax
      comp=Z,33nm,0.8s
PET   Petropavlovsk     59.11   3  P      P      03 37 30.2 +2.1
PET   Petropavlovsk     59.11   3  P      P      03 37 28.5 +0.4
PET   Petropavlovsk     59.11   3  P      P      03 37 29.1 +1.0
      comp=Z,81nm,0.7s
PET   Petropavlovsk     59.11   3  P      P      03 37 29.7 +1.6
      comp=Z,86nm,0.7s
PEA0B Petropavlovsk-    59.16   2  P      P      03 37 30.4 +2.0
PETK  Petropavlovsk-    59.16   2  P      P      03 37 29.9 +1.5
      comp=Z,71nm,0.7s,baz=164,slow=5.9,SNR=69
      comp=Z,71nm,0.7s
PETK  Petropavlovsk-    59.16   2  P      P      03 37 29.6 +1.2
KMI2  Kunming           59.47 304 ⇑P      P      03 37 33.1 +1.7
KMI2                               pmax   pmax
      comp=Z,32nm,1.1s
KMI2                               L      L
      comp=Z,330nm,18.7s
KMI2                               L      L
      comp=Z,240nm,21.1s
KMI2                               L      L
      comp=Z,370nm,22.5s
CM31  Chiang Mai Arr    60.32 295  P      P      03 37 38.5 +1.4
CMAR  Chiang Mai Arr    60.32 295  P      P      03 37 38.9 +1.8
      comp=Z,81nm,0.8s,baz=120,slow=5.2,SNR=217
      comp=Z,81nm,0.8s
CMAR  Chiang Mai Arr    60.32 295  P      P      03 37 38.6 +1.5
CHTO  Chiang Mai        60.43 296  P      P      03 37 39.4 +1.5
CHTO  Chiang Mai        60.43 296  P      P      03 37 38.7 +0.8
CHTO  Chiang Mai        60.43 296  P      P      03 37 38.6 +0.7
      comp=Z,625nmcomp=Z,625nmcomp=Z,79nm,1.1s,comp=Z,79nm,1.1s
CHTO  Chiang Mai        60.43 296  P      P      03 37 39.2 +1.4
      comp=Z,79nm,1.1s
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CHTO	Chiang Mai	60.43	296	P	P	03 37 39.3	+1.5
PZH	PanZhiHua	60.85	305	P	P	03 37 44.4	+3.7
XLT	XiLinHaoTe	60.92	329	*e*P	P	03 37 41.3	+0.4
XLT				sS	sS	03 46 23.0	+0.8
XLT				pmax	pmax		
	comp=Z,43nm,0.8s						
XLT				pmax	pmax		
	comp=Z,120nm,6.5s						
XLT				L	L		
	comp=Z,560nm,22.0s						
XLT				L	L		
	comp=Z,500nm,23.1s						
HEH	HeiHe	61.06	340	*e*P	P	03 37 41.3	-0.2
HEH				pmax	pmax		
	comp=Z,7.0nm,0.8s						
HEH				L	L		
	comp=Z,460nm,18.1s						
HEH				L	L		
	comp=Z,480nm,23.5s						
HEH				L	L		
	comp=Z,430nm,18.8s						
AMKA	Amchitka	61.11	17	P	P	03 37 43.2	+1.4
CD2	Chengdu	61.20	310	P	P	03 37 43.4	+0.4
CD2				pmax	pmax		
	comp=Z,30nm,0.7s						
HHC	Hu-ho-hao-te	61.39	324	*e*P	P	03 37 48.3	+4.2
HHC				pmax	pmax		
	comp=Z,12nm,0.7s						
HHC				pmax	pmax		
	comp=Z,57nm,4.5s						
BTO2	Baotou	62.33	323	*e*P	P	03 37 53.8	+3.4
BTO2				S	S	03 46 18.4	+6.3
BTO2				pmax	pmax		
	comp=Z,11nm,0.8s						
BTO2				pmax	pmax		
	comp=Z,160nm,3.9s						
BTO2				L	L		
	comp=Z,730nm,16.7s						
BTO2				L	L		
	comp=Z,880nm,15.7s						
BTO2				L	L		
	comp=Z,2µm,21.8s						
KIWB	Kanaga Island	62.62	19	P	P	03 37 52.1	+0.2
ADK	Adak	62.80	19	P	P	03 37 55.3	+2.2
ADK	Adak	62.80	19	P	P	03 37 54.5	+1.3
ADK	Adak	62.80	19	P	P	03 37 54.9	+1.8
	comp=Z,97nm,0.8s						
ADK	Adak	62.80	19	P	P	03 37 54.7	+1.6
HIA	Hailar	63.17	335	IAmb	IAmb	03 37 57.1	
	comp=Z,22nm,0.8s						
HIA	Hailar	63.17	335	P	P	03 37 56.4	+0.7
	comp=Z,30nm,0.9s						
HIA	Hailar	63.17	335	P	P	03 37 56.4	+0.7
NPW	Naypyitaw	63.25	296	P	P	03 37 58.7	+1.9
	comp=Z,208nm,1.0s						
HILR	Hailar Array B	63.38	335	P	P	03 37 57.8	+0.6
	comp=Z,10nm,0.7s,baz=134,slow=8.5,SNR=30						
	comp=Z,10nm,0.7s						
LZH	Lanzhou	63.66	315	*e*P	P	03 38 01.3	+1.9
LZH				pP	sP	03 38 20.8	-3.4
LZH				pmax	pmax		
	comp=Z,36nm,1.4s						
LZH				L	L		
	comp=Z,410nm,21.0s						
LZH				L	L		
	comp=Z,470nm,21.0s						
LZH				L	L		
	comp=Z,690nm,21.8s						
LZDM	Lanzhou Array	63.70	315	P	P	03 38 01.2	+1.3
	comp=Z,24nm,0.8s,baz=116,slow=6.8,SNR=9.4						
	comp=Z,24nm,0.8s						
MA2	Magadan	65.67	358	P	P	03 38 12.5	+0.8
	comp=Z,60nm,0.7s,baz=161,slow=5.7,SNR=26						
	comp=Z,60nm,0.7s						
MA2	Magadan	65.67	358	P	P	03 38 13.9	+2.1
MA2	Magadan	65.67	358	P	P	03 38 12.4	+0.6
MA2	Magadan	65.67	358	P	P	03 38 12.6	+0.8
	comp=Z,97nm,0.7s						
MA2	Magadan	65.67	358	P	P	03 38 12.7	+0.9
	comp=Z,88nm,0.7s						
MA2	Magadan	65.67	358	P	P	03 38 12.7	+0.9
CASY	Casey	67.27	198	P	P	03 38 21.4	-0.6
CASY	Casey	67.27	198	P	P	03 38 21.9	-0.1
	comp=Z,26nm,0.9s						
GTA2	Gaotai	68.15	317	*e*P	P	03 38 29.0	+0.8
GTA2				pmax	pmax		
	comp=Z,32nm,0.9s						
ULN	Ulaanbaatar	68.28	328	P	P	03 38 29.1	+0.3
ULN				IAmb	IAmb	03 38 30.8	
	comp=Z,18nm,0.9s						
ULN	Ulaanbaatar	68.28	328	P	P	03 38 26.9	-1.9
	comp=Z,22nm,1.0s,comp=Z,22nm,1.0s						
ULN	Ulaanbaatar	68.28	328	P	P	03 38 30.0	+1.1
	comp=Z,22nm,1.0s						
ULN	Ulaanbaatar	68.28	328	P	P	03 38 29.8	+1.0
ULN				pP	pP	03 38 43.9	-2.5
SONM	Songino Array	68.61	327	P	P	03 38 31.7	+0.8
	comp=Z,15nm,0.8s,baz=131,slow=5.9,SNR=54						
SONM				LR	LR	04 06 41.1	
	comp=Z,1µm,21.9s,baz=331,slow=34						
SONM				PKP2bc	P'P'bc	04 06 45.6	-0.1
	comp=Z,1.7nm,1.0s,baz=277,slow=2.9,SNR=5.1						
	comp=Z,15nm,0.8s						
SONM	Songino Array	68.61	327	P	P	03 38 30.9	+0.1
SONM				IAmb	IAmb	03 38 32.7	
	comp=Z,22nm,1.0s						
SEY	Seymchan	68.99	359	P	P	03 38 33.3	+0.6
	comp=Z,17nm,0.7s,baz=167,slow=4.3,SNR=33						
	comp=Z,17nm,0.7s						
CCD	Concordia, Ant	71.14	188	P	P	03 38 46.4	+0.1
CCD				pP	pP	03 39 00.6	-3.2
VNDA	Vanda	71.35	178	P	P	03 38 47.2	+0.2
	comp=Z,4.8nm,0.7s,baz=327,slow=6.5,SNR=47						
	comp=Z,4.8nm,0.7s						
VNDA	Vanda	71.35	178	P	P	03 38 46.9	-0.1
VNDA	Vanda	71.35	178	P	P	03 38 47.5	+0.5
	comp=Z,18nm,1.7s						
VNDA	Vanda	71.35	178	P	P	03 38 47.0	0.0
VNDA				pP	pP	03 39 02.4	-2.3
SBA	Scott Base	71.86	177	P	P	03 38 51.1	+1.0
SBA				IAmb	IAmb	03 38 52.9	
	comp=Z,42nm,1.5s						
SBA	Scott Base	71.86	177	P	P	03 38 51.6	+1.5
	comp=Z,19nm,1.2s						
EVN	Everest	73.81	301	P	P	03 39 03.1	-0.2
EVN				IAmb	IAmb	03 39 22.4	
	comp=Z,22nm,0.8s						
EVN	Everest	73.81	301	P	P	03 39 04.0	+0.7
	comp=Z,28nm,0.7s						
EVN				pP	pP	03 39 20.3	-0.8
BILL	Bilibino	74.53	4	P	P	03 39 06.8	+1.0
BILL	Bilibino	74.53	4	P	P	03 39 07.0	+1.1
BILI	Bilibino, Chuk	74.56	4	P	P	03 39 07.1	+1.0
	comp=Z,52nm,0.9s						
K13K	Kusilvak Mount	74.78	19	IAmb	IAmb	03 39 10.1	
	comp=Z,24nm,0.8s						
L14K	Kuka Creek	74.98	20	IAmb	IAmb	03 39 11.3	
	comp=Z,30nm,0.8s						
N15K	Kwethluk River	75.06	21	IAmb	IAmb	03 39 12.6	
	comp=Z,29nm,0.9s						
PALK	Pallekele	75.17	279		P	03 39 10.1	-0.7
PALK	Pallekele	75.17	279	P	P	03 39 11.7	+1.0
	comp=Z,61nm,1.0s						
PALK	Pallekele	75.17	279	P	P	03 39 11.9	+1.1
PALK				pP	pP	03 39 26.4	-1.9
MALK	Mahakanadarawa	75.49	280	P	P	03 39 13.8	+1.3
	comp=Z,84nm,0.9s						
MALK				pP	pP	03 39 30.6	+0.5
ACHA	Angle Creek He	75.64	25	IAmb	IAmb	03 39 14.9	
	comp=Z,13nm,0.7s						
J14K	Nanvaranak Lak	75.73	18	IAmb	IAmb	03 39 15.9	
	comp=Z,36nm,0.9s						
L16K	Owhat River	76.34	21	IAmb	IAmb	03 39 18.6	
	comp=Z,17nm,0.8s						
KDAK	Kodiak Island	76.55	26	P	P	03 39 18.8	+1.2
	comp=Z,15nm,0.7s,baz=242,slow=6.0,SNR=9.4						
	comp=Z,15nm,0.7s						
KDAK	Kodiak Island	76.55	26	P	P	03 39 17.6	0.0
KDAK				IAmb	IAmb	03 39 20.0	
	comp=Z,33nm,1.0s						
M17K	Holitna River	76.86	21	IAmb	IAmb	03 39 22.4	
	comp=Z,25nm,0.9s						
N18K	Kilae Creek	76.97	23	IAmb	IAmb	03 39 22.8	
	comp=Z,34nm,1.0s						
J16K	Anvik River	77.05	19	IAmb	IAmb	03 39 23.4	
	comp=Z,55nm,1.5s						
K17K	Iditarod	77.43	20	IAmb	IAmb	03 39 25.3	
	comp=Z,32nm,1.1s						
I17K	Unalakleet	77.45	19	IAmb	IAmb	03 39 25.6	
	comp=Z,30nm,1.0s						
F15K	North Star Dit	77.61	16	IAmb	IAmb	03 39 25.9	
	comp=Z,33nm,1.1s						
J17K	VABM Dome	77.63	19	IAmb	IAmb	03 39 26.5	
	comp=Z,23nm,0.8s						
L18K	Granite Mounta	77.67	21	IAmb	IAmb	03 39 26.8	
	comp=Z,28nm,1.0s						
G16K	Koyuk River	78.02	17	IAmb	IAmb	03 39 28.2	
	comp=Z,28nm,0.8s						
WMQ	Urumqi	78.16	317	*e*P	P	03 39 28.4	+1.3
WMQ				PcP	PcP	03 39 37.5	+1.1
WMQ				pmax	pmax		
	comp=Z,15nm,1.1s						
WMQ				pmax	pmax		
	comp=Z,200nm,5.3s						
WMQ				L	L		
	comp=Z,1µm,22.3s						
WMQ				L	L		
	comp=Z,710nm,16.7s						
WMQ				L	L		
	comp=Z,1µm,24.1s						
L19K	White Mountain	78.30	22	IAmb	IAmb	03 39 30.5	
	comp=Z,36nm,1.1s						
H17K	Granite Mounta	78.42	18	IAmb	IAmb	03 39 30.5	
	comp=Z,13nm,0.7s						
HYB	Hyderabad	78.88	289	*e*P	P	03 39 31.1	-0.4
HYB				*e*PcP	PcP	03 39 39.9	-0.1
HYB				*e*PP	PP	03 42 30.8	-0.2
HYB				*e*S	S	03 49 24.7	-0.4
HYB				*e*ScS	ScS	03 49 46.9	-1.4
SLKM	Skilak Lake	79.11	24	IAmb	IAmb	03 39 34.3	
	comp=Z,29nm,0.7s						
RC01	Rabbit Creek A	79.63	24	IAmb	IAmb	03 40 03.3	
	comp=Z,34nm,1.2s						
J20K	Nowinta River	79.80	20	IAmb	IAmb	03 39 38.0	
	comp=Z,19nm,1.0s						
RDOG	Red Dog Mine	79.82	15	IAmb	IAmb	03 39 37.9	
	comp=Z,23nm,0.7s						
I20K	Naaghedeneel	80.08	20	IAmb	IAmb	03 39 39.6	
	comp=Z,29nm,1.0s						
G19K	Purcell Mounta	80.11	18	IAmb	IAmb	03 39 39.5	
	comp=Z,21nm,0.9s						
PMR	Palmer	80.15	24	P	P	03 39 39.6	+2.2
KNK	Knik Glacier	80.33	24	IAmb	IAmb	03 39 47.6	
	comp=Z,16nm,0.8s						
GHO	Glory Hole Cre	80.33	24	IAmb	IAmb	03 39 40.7	
	comp=Z,19nm,1.0s						
KTH	Kantishna Hill	80.57	22	IAmb	IAmb	03 39 40.5	
	comp=Z,25nm,1.4s						
SML	Sawmill	80.59	24	IAmb	IAmb	03 39 41.8	
	comp=Z,49nm,1.3s						
FID	Port Fidalgo	80.80	25	IAmb	IAmb	03 39 43.5	
	comp=Z,20nm,0.8s						
E19K	Redstone River	80.94	17	IAmb	IAmb	03 39 44.0	
	comp=Z,25nm,0.8s						
SCM	Sheep Creek Mo	81.01	24	IAmb	IAmb	03 40 10.9	
	comp=Z,24nm,1.0s						
ZSN	Zaisan	81.26	320	*e*P	P	03 39 44.3	+0.6
DIV	Divide	81.29	25	IAmb	IAmb	03 39 45.8	
	comp=Z,36nm,1.3s						
D19K	Kuna River	81.39	16	IAmb	IAmb	03 39 48.0	
	comp=Z,26nm,1.1s						
MCK	McKinley	81.41	22	IAmb	IAmb	03 40 12.4	
	comp=Z,24nm,1.0s						
KLU	Klutina	81.41	25	IAmb	IAmb	03 39 46.6	
	comp=Z,36nm,1.2s						
BERG	Berg Lake	81.82	26	IAmb	IAmb	03 39 48.6	
	comp=Z,34nm,1.2s						
D20K	Etivluk River	81.95	16	IAmb	IAmb	03 39 49.5	
	comp=Z,16nm,0.9s						
CRQM	Cirque	82.23	26	IAmb	IAmb	03 39 51.4	
	comp=Z,21nm,0.9s						
GLB	Gilahina Butte	82.27	25	IAmb	IAmb	03 39 50.8	
	comp=Z,40nm,1.3s						
VRDI	Verde Repeater	82.32	25	IAmb	IAmb	03 39 51.7	
	comp=Z,16nm,1.0s						
TGL	Tana Glacier	82.37	26	IAmb	IAmb	03 39 52.4	
	comp=Z,15nm,0.9s						
COLA	College	82.42	21	P	P	03 39 49.8	+0.4
COLA	College	82.42	21	P	P	03 39 49.0	-0.4
	comp=Z,16nm,1.1s						
HDA	Harding Lake	82.51	22	IAmb	IAmb	03 39 55.1	
	comp=Z,52nm,2.0s						
E21K	Killik River	82.52	17	IAmb	IAmb	03 39 52.0	
	comp=Z,19nm,1.0s						
MCARA	McCarthy VSAT	82.57	25	IAmb	IAmb	03 39 53.5	
	comp=Z,22nm,0.9s						
ILAR	Eielson Array	82.72	22	P	P	03 39 50.1	-0.8
	comp=Z,4.5nm,0.7s,baz=256,slow=5.2,SNR=36						
ILAR				PKKPbc	PKKPdf	03 58 11.1	+2.2
	comp=Z,0.3nm,0.7s,baz=360,slow=1.4,SNR=4.2						
ILAR				LR	LR	04 13 32.1	
	comp=Z,288nm,19.9s,baz=160,slow=33						
	comp=Z,4.5nm,0.7s						
ILAR	Eielson Array	82.72	22		P	03 39 50.4	-0.6
MKAR	Makanchi Array	82.73	319	P	P	03 39 51.8	+0.3
	comp=Z,34nm,0.7s,baz=100,slow=4.9,SNR=179						
	comp=Z,34nm,0.7s						
MKAR	Makanchi Array	82.73	319	P	P	03 39 51.0	-0.5
MAKZ	Makanchi	82.94	319		P	03 39 51.9	-0.6
MAKZ	Makanchi	82.94	319	P	P	03 39 52.5	0.0
	comp=Z,70nm,0.9s						
MAKZ	Makanchi	82.94	319	P	P	03 39 52.9	+0.4
RIDG	Independent Ri	82.96	23	IAmb	IAmb	03 39 54.1	
	comp=Z,30nm,1.4s						
BARN	Barnard Glacie	83.02	26	IAmb	IAmb	03 39 56.0	
	comp=Z,17nm,0.8s						
MENT	Mentasta	83.02	24	P	P	03 39 54.2	+1.6
D22K	Ayikyak River	83.16	17	IAmb	IAmb	03 39 55.8	
	comp=Z,17nm,0.8s						
J25K	Salcha River,	83.20	22	IAmb	IAmb	03 40 23.2	
	comp=Z,17nm,1.0s						
LOGN	Logan Glacier	83.20	26	IAmb	IAmb	03 39 57.3	
	comp=Z,24nm,1.2s						
WUS	Wushi	83.36	313	IAmb	IAmb	03 39 59.9	
	comp=Z,20nm,0.6s						
WUS	Wushi	83.36	313	P	P	03 39 55.9	+0.9
	comp=Z,30nm,0.7s						
ZAA0	Zalesovo Array	83.46	326	IAmb	IAmb	03 39 55.3	
	comp=Z,30nm,0.8s						
ZALV	Zalesovo Beam	83.46	326	P	P	03 39 54.2	-0.8
	comp=Z,32nm,0.8s,baz=112,slow=5.6,SNR=103						
	comp=Z,32nm,0.8s						
ZALV	Zalesovo Beam	83.46	326		P	03 39 53.9	-1.1
M27K	Edge Creek, AK	83.50	25	IAmb	IAmb	03 40 25.1	
	comp=Z,23nm,1.0s						
O28M	Mount Upton	83.54	27	IAmb	IAmb	03 39 59.2	
	comp=Z,24nm,1.0s						
G24K	Hadweenzic Riv	83.54	20	IAmb	IAmb	03 40 29.9	
	comp=Z,37nm,1.8s						
E23K	Chandalar	83.60	18	IAmb	IAmb	03 39 59.4	
	comp=Z,15nm,1.0s						
SHLS	Shalkode	83.67	315	*e*P	P	03 39 55.3	-1.2
QSPA	South Pole Qui	83.74	180	P	P	03 39 56.4	-0.1
	comp=Z,69nm,0.8s,baz=350,slow=0.9,SNR=263						
	comp=Z,69nm,0.8s						
QSPA	South Pole Qui	83.74	180	P	P	03 39 56.6	+0.2
QSPA	South Pole Qui	83.74	180	P	P	03 39 56.7	+0.3
QSPA				pP	pP	03 40 11.9	-2.7
F24K	Squaw Lake	83.84	19	IAmb	IAmb	03 39 59.2	
	comp=Z,16nm,1.0s						
BCAR	Beaver Creek A	83.86	24	P	P	03 39 57.3	+0.4
UZB	Uzynbulak	83.98	314	*e*P	P	03 39 58.3	+0.2
O29M	Mount Kennedy	84.07	27	IAmb	IAmb	03 40 00.1	
	comp=Z,18nm,1.2s						
K27K	Chicken	84.18	23	IAmb	IAmb	03 40 01.3	
	comp=Z,17nm,1.2s						
FYU	Fort Yukon	84.23	20	IAmb	IAmb	03 40 04.9	
	comp=Z,42nm,1.7s						
KPKS	Kokpek	84.30	315	*e*P	P	03 39 59.9	+0.2
C23K	Itkillik River	84.33	16	IAmb	IAmb	03 40 01.5	
	comp=Z,35nm,1.1s						
SIT	Sitka	84.43	31	P	P	03 40 01.7	+1.9
SIT	Sitka	84.43	31	IAmb	IAmb	03 40 03.0	
	comp=Z,11nm,0.8s						
D24K	Happy Valley	84.45	17	IAmb	IAmb	03 40 03.7	
	comp=Z,16nm,0.8s						
TARG	Taragay, Kyrgy	84.52	313	IAmb	IAmb	03 40 13.4	
	comp=Z,13nm,0.8s						
TARG	Taragay, Kyrgy	84.52	313	P	P	03 40 02.3	+1.1
	comp=Z,17nm,0.7s						
DIB	Dawson Inlet,	84.72	35	IAmb	IAmb	03 40 03.5	
	comp=Z,25nm,1.2s						
HYT	Haines Junctio	84.76	27	IAmb	IAmb	03 40 05.5	
	comp=Z,43nm,1.4s						
C24K	Franklin Bluff	84.81	17	IAmb	IAmb	03 40 03.8	
	comp=Z,24nm,0.8s						
TDK	Taldyqorghan	84.86	316	*e*P	P	03 40 02.7	+0.4
	comp=Z,28nm,1.3s						
BMAR	Burnt Mountain	84.89	20		P	03 40 03.4	+1.3
G26K	Porcupine Rive	84.92	20	IAmb	IAmb	03 40 04.8	
	comp=Z,30nm,1.0s						
MOBC	Moresby Island	85.00	35	IAmb	IAmb	03 40 05.2	
	comp=Z,25nm,1.0s						
MAW	Mawson	85.04	203	P	P	03 40 03.1	+0.4
	comp=Z,13nm,1.7s						
MAW	Mawson	85.04	203	P	P	03 40 03.0	+0.2
	comp=Z,36nm,0.6s,baz=91,slow=6.1,SNR=203						
	comp=Z,36nm,0.6s						
MAW	Mawson	85.04	203		P	03 40 03.1	+0.4
MAW	Mawson	85.04	203	P	P	03 40 03.1	+0.4
	comp=Z,13nm,1.7s						
KDJ	Kajisay	85.06	313	P	P	03 40 03.8	+0.2
	comp=Z,56nm,0.8s						
I27K	Kandik River	85.07	22	IAmb	IAmb	03 40 05.3	
	comp=Z,12nm,0.9s						
BESE	Bessie Mountai	85.20	30	IAmb	IAmb	03 40 06.2	
	comp=Z,19nm,1.2s						
HG4B	Hotspring	85.20	36	IAmb	IAmb	03 40 07.4	
	comp=Z,22nm,0.7s						
DAWY	Dawson	85.26	24	IAmb	IAmb	03 40 30.5	
	comp=Z,30nm,1.9s						
U33K	Whale Pass	85.27	32	IAmb	IAmb	03 40 07.2	
	comp=Z,18nm,0.8s						
SKAG	Skagway	85.27	29	P	P	03 40 06.3	+2.3
D25K	Kavik River	85.28	18	IAmb	IAmb	03 40 05.7	
	comp=Z,12nm,0.9s						
ASAI	AK-SAY(Kyrgyzs	85.28	312	P	P	03 40 05.8	+0.8
	comp=Z,6.6nm,1.4s						
L29M	L29M	85.39	25	IAmb	IAmb	03 40 07.4	
	comp=Z,37nm,1.6s						
MDOK	Medeo	85.39	314	*e*P	P	03 40 05.4	+0.1
TNSS	Tian-Shan	85.43	314	*e*P	P	03 40 05.7	-0.1
AAA	Alma-Ata	85.50	314	*e*P	P	03 40 05.7	+0.1
	comp=Z,15nm,0.4s						
KSH2	Kashi	85.63	310	P	P	03 40 06.9	+0.4
KSH2				pmax	pmax		
	comp=Z,24nm,0.8s						
KSH2				L	L		
	comp=Z,390nm,17.1s						
KSH2				L	L		
	comp=Z,590nm,21.0s						
KSH2				L	L		
	comp=Z,640nm,19.0s						
WRAK	Wrangell Islan	85.78	32	IAmb	IAmb	03 40 09.0	
	comp=Z,28nm,1.2s						
N31M	Braeburn, Yuko	85.79	27	IAmb	IAmb	03 40 09.3	
	comp=Z,34nm,1.2s						
V35K	Ketchikan	85.84	33	IAmb	IAmb	03 40 09.1	
	comp=Z,22nm,0.9s						
J29N	Klondike Camp	85.89	24	IAmb	IAmb	03 40 11.4	
	comp=Z,15nm,0.7s						
WHY	Whitehorse	85.90	28	IAmb	IAmb	03 40 09.5	
	comp=Z,14nm,0.9s						
K29M	Barlow Dome	85.93	24	IAmb	IAmb	03 40 10.1	
	comp=Z,27nm,1.1s						
BOOM	Boomskoye usch	86.04	313	IAmb	IAmb	03 40 13.5	
	comp=Z,13nm,0.6s						
BOOM	Boomskoye usch	86.04	313	P	P	03 40 08.6	+0.1
	comp=Z,18nm,0.6s						
KUU	Kurty	86.05	315	*e*P	P	03 40 08.6	+0.3
KURK	Kurchatov	86.14	322	P	P	03 40 07.4	-1.1
KURK	Kurchatov	86.14	322	P	P	03 40 07.6	-0.9
	comp=Z,19nm,0.5s						
KURK	Kurchatov	86.14	322	P	P	03 40 08.1	-0.4
KURK				PcP	PcP	03 40 11.3	+0.2
KURBB	Kurchatov Arra	86.17	322	P	P	03 40 08.1	-0.6
	comp=Z,9.2nm,0.5s,baz=102,slow=4.5,SNR=31						
	comp=Z,9.2nm,0.5s						
I29M	Ogilvie Camp,	86.22	23	IAmb	IAmb	03 40 12.4	
	comp=Z,12nm,1.0s						
C27K	Jago River	86.25	18	IAmb	IAmb	03 40 11.0	
	comp=Z,17nm,0.8s						
E27K	Coleen River	86.25	20	IAmb	IAmb	03 40 11.2	
	comp=Z,26nm,0.9s						
RUBB	Prince Rupert	86.31	35	IAmb	IAmb	03 40 12.9	
	comp=Z,17nm,0.9s						
NIL	Nilore	86.45	304	P	P	03 40 11.0	+0.4
	comp=Z,18nm,0.7s						
F28M	Old Crow	86.58	20	IAmb	IAmb	03 40 12.6	
	comp=Z,13nm,0.9s						
J30M	Hart River	86.69	24	IAmb	IAmb	03 40 13.7	
	comp=Z,19nm,1.0s						
S34M	Telegraph Cree	86.85	31	IAmb	IAmb	03 40 15.5	
	comp=Z,21nm,0.8s						
I30M	Mount Dempster	86.91	23	IAmb	IAmb	03 40 14.2	
	comp=Z,14nm,1.1s						
D27M	Malcolm River	86.93	19	IAmb	IAmb	03 40 14.6	
	comp=Z,12nm,0.9s						
G29M	Pine Creek	86.94	21	IAmb	IAmb	03 40 14.3	
	comp=Z,21nm,0.9s						
BBB	Bella Bella	87.00	37	LR	LR	04 12 09.8	
	comp=Z,162nm,21.2s,baz=237,slow=31						
T35M	Bob Quinn	87.05	32	IAmb	IAmb	03 40 15.4	
	comp=Z,18nm,1.1s						
AAK	Ala-Archa	87.12	313	P	P	03 40 13.7	0.0
AAK				IAmb	IAmb	03 40 15.0	
	comp=Z,7.7nm,0.7s						
AAK	Ala-Archa	87.12	313	P	P	03 40 14.1	+0.3
	comp=Z,12nm,0.8s						
E28M	Babbage River	87.12	20	IAmb	IAmb	03 40 15.4	
	comp=Z,24nm,1.4s						
SGDS	Sogindy	87.18	314	*e*P	P	03 40 13.8	-0.1
KMPM	Mount Pierce	87.21	49	IAmb	IAmb	03 40 20.3	
	comp=Z,8.6nm,0.8s						
R33M	Jennings River	87.36	30	IAmb	IAmb	03 40 17.1	
	comp=Z,41nm,1.8s						
KCPM	Cahto Peak	87.49	50	IAmb	IAmb	03 40 18.1	
	comp=Z,12nm,1.0s						
DLBC	Dease Lake	87.56	31	LR	LR	04 13 07.0	
	comp=Z,145nm,21.1s,baz=286,slow=31						
G30M	tAoh Zraii Nji	87.62	22	IAmb	IAmb	03 40 17.1	
	comp=Z,16nm,1.2s						
J01E	Myrtle Point	87.85	46	IAmb	IAmb	03 40 20.6	
	comp=Z,15nm,0.9s						
H31M	Peel River	87.91	23	IAmb	IAmb	03 40 20.5	
	comp=Z,16nm,0.7s						
NRIK	Noril'sk	87.97	341	P	P	03 40 16.1	-0.9
	comp=Z,15nm,0.8s,baz=108,slow=6.8,SNR=9.9						
	comp=Z,15nm,0.8s						
NRIK	Noril'sk	87.97	341	IAmb	IAmb	03 40 17.3	
	comp=Z,27nm,1.1s						
ARSB	Arslanbob	87.98	312	IAmb	IAmb	03 40 20.6	
	comp=Z,14nm,1.2s						
F30M	Barrier River	88.02	21	IAmb	IAmb	03 40 19.7	
	comp=Z,29nm,1.2s						
O02D	Mt. Diablo Mer	88.17	49	IAmb	IAmb	03 40 22.1	
	comp=Z,8.3nm,0.8s						
CBB	Campbell River	88.21	39	IAmb	IAmb	03 40 20.7	
	comp=Z,20nm,1.0s						
G31M	Satah River	88.32	22	IAmb	IAmb	03 40 20.5	
	comp=Z,15nm,1.0s						
YBH	Yreka Blue Hor	88.49	48	LR	LR	04 13 26.3	
	comp=Z,310nm,20.9s,baz=292,slow=31						
DRK	Karamyk	88.57	310	P	P	03 40 21.4	+0.5
	comp=Z,15nm,0.6s						
F31M	Tsiigehtchic	88.69	21	IAmb	IAmb	03 40 22.1	
	comp=Z,25nm,1.4s						
SUTB	Sutter Butte	88.78	51	IAmb	IAmb	03 40 23.4	
	comp=Z,12nm,0.8s						
M03C	McCloud	88.85	48	IAmb	IAmb	03 40 27.0	
	comp=Z,17nm,0.9s						
O03E	Paynes Creek	88.94	49	IAmb	IAmb	03 40 26.4	
	comp=Z,15nm,1.0s						
H04D	Lebanon	88.94	45	IAmb	IAmb	03 40 25.5	
	comp=Z,13nm,1.1s						
B04A	Port Angeles	89.03	42	IAmb	IAmb	03 40 26.3	
	comp=Z,33nm,1.7s						
ORV	Oroville	89.05	50	IAmb	IAmb	03 40 26.8	
	comp=Z,7.8nm,0.9s						
INK	Inuvik	89.06	21	LR	LR	04 16 25.1	
	comp=Z,274nm,21.4s,baz=238,slow=33						
PKD	Bear Valley Ra	89.27	54	IAmb	IAmb	03 40 26.5	
	comp=Z,11nm,0.8s						
HATC	Hat Creek Radi	89.28	49	P	P	03 40 24.4	+0.5
HATC				IAmb	IAmb	03 40 27.9	
	comp=Z,9.5nm,0.8s						
AFDM	Forest Hills D	89.37	51	IAmb	IAmb	03 40 27.5	
	comp=Z,11nm,0.8s						
GNW	Green Mountain	89.40	42	IAmb	IAmb	03 40 25.7	
	comp=Z,6.7nm,0.8s						
BTK	Batken	89.40	310	IAmb	IAmb	03 40 25.7	

	comp=Z,16nm,1.2s						
BTK	Batken	89.40	310	P	P	03 40 24.2	-0.3
	comp=Z,13nm,1.2s						
DZA	Taraz	89.45	313	eP	P	03 40 24.6	-0.1
	comp=Z,4.7nm,0.5s						
STD	Studebaker Rid	89.58	44	IAmb	IAmb	03 40 28.9	
	comp=Z,11nm,0.9s						
HOOD	Mount Hood Mea	89.83	45	IAmb	IAmb	03 40 27.8	
	comp=Z,11nm,1.1s						
G05A	Wamic	90.05	45	IAmb	IAmb	03 43 15.5	
	comp=Z,29nm,1.6s						
KKAR	Karatay Array	90.08	313		P	03 40 26.8	-0.8
IUG	Iuzhnay	90.30	312	eP	P	03 40 28.5	-0.2
PNTR	Pine Nut	90.45	51	IAmb	IAmb	03 40 31.9	
	comp=Z,15nm,0.9s						
WAKR	Walker	90.50	51	IAmb	IAmb	03 40 32.1	
	comp=Z,6.9nm,0.7s						
LLLB	Lillooet	90.51	39	IAmb	IAmb	03 40 31.6	
	comp=Z,7.2nm,1.0s						
CHM	Chimkent	90.63	312	eP	P	03 40 30.2	+0.1
MDPB	Devils Postpil	90.66	52	IAmb	IAmb	03 40 32.8	
	comp=Z,8.2nm,0.9s						
PAHR	Pah Rah Range	90.69	50	IAmb	IAmb	03 40 32.7	
	comp=Z,6.8nm,0.9s						
YERR	Yerington	90.71	51	IAmb	IAmb	03 40 32.8	
	comp=Z,8.7nm,0.8s						
E07A	Sunnyside	91.25	43	IAmb	IAmb	03 40 36.1	
	comp=Z,7.7nm,0.9s						
CWC	Cottonwood Cre	91.31	54	IAmb	IAmb	03 40 35.9	
	comp=Z,7.8nm,1.0s						
NVAR	Mina Array Bea	91.37	52	P	P	03 40 35.1	+1.2
	comp=Z,17nm,0.9s,baz=253,slow=5.9,SNR=84						
NVAR				PKKPbc	PKKPdf	03 57 50.8	-2.6
	comp=Z,0.5nm,0.8s,baz=21,slow=2.2,SNR=4.0						
NVAR				LR	LR	04 15 46.6	
	comp=Z,117nm,20.0s,baz=258,slow=32						
	comp=Z,17nm,0.9s						
NVAR	Mina Array Bea	91.37	52	P	P	03 40 34.5	+0.5
BFSC	Mount Baldy Ra	91.40	56	IAmb	IAmb	03 40 36.2	
	comp=Z,12nm,1.0s						
HAWA	Hanford	91.45	44	IAmb	IAmb	03 40 35.3	
	comp=Z,7.5nm,0.9s						
EPH	Ephrata	91.53	43	IAmb	IAmb	03 40 35.3	
	comp=Z,15nm,1.0s						
WVOR	Wild Horse Val	91.59	48	P	P	03 40 34.4	-0.3
	comp=Z,7.9nm,2.0s						
BVAR	Borovoye Array	91.59	323	P	P	03 40 33.0	-1.3
	comp=Z,26nm,0.9s,baz=100,slow=5.3,SNR=50						
	comp=Z,26nm,0.9s						
KVN	Kaiserville	91.60	51	IAmb	IAmb	03 40 37.0	
	comp=Z,8.9nm,0.8s						
CLC	China Lake	91.63	54	IAmb	IAmb	03 40 37.9	
	comp=Z,13nm,0.9s						
BORK	Borovoye	91.64	323		P	03 40 33.0	-1.5
MPMC	Manual Prospec	91.74	54	IAmb	IAmb	03 40 39.0	
	comp=Z,11nm,0.9s						
J08A	Circle Bar Ran	91.82	47	IAmb	IAmb	03 40 38.1	
	comp=Z,4.5nm,0.7s						
GRAC	Grapevine Rang	91.94	53	IAmb	IAmb	03 40 38.8	
	comp=Z,11nm,1.1s						
D08A	Wollman Farm,	91.95	43	IAmb	IAmb	03 40 37.4	
	comp=Z,7.5nm,1.1s						
FURC	Furnace Creek,	92.29	54	P	P	03 40 38.5	+0.6
PFO	Pinyon Flats O	92.33	57	LR	LR	04 17 48.5	
	comp=Z,124nm,18.0s,baz=286,slow=33						
PFO	Pinyon Flats O	92.33	57	P	P	03 40 39.3	+1.0
PFO				IAmb	IAmb	03 40 40.7	
	comp=Z,13nm,1.2s						
PFO	Pinyon Flats O	92.33	57	P	P	03 40 39.5	+1.2
PFO				pP	pP	03 40 56.4	-0.3
GWY	Greenwater Val	92.42	54	IAmb	IAmb	03 40 40.8	
	comp=Z,9.8nm,0.9s						
BMN	Battle Mountai	92.42	50	IAmb	IAmb	03 40 41.3	
	comp=Z,11nm,0.9s						
C09A	Chrisman Ranch	92.47	42	IAmb	IAmb	03 40 39.5	
	comp=Z,4.8nm,0.8s						
BELC	Belle Mtn. Jos	92.75	56	P	P	03 40 41.4	+1.1
F10A	Beach Ranch, E	92.99	44	IAmb	IAmb	03 40 42.9	
	comp=Z,6.8nm,0.9s						
BC3	Big Chuckawall	93.16	57	IAmb	IAmb	03 40 44.8	
	comp=Z,9.6nm,1.0s						
MTPC	Mountain Pass	93.25	55	IAmb	IAmb	03 40 44.9	
	comp=Z,6.2nm,0.9s						
NEW	Newport	93.29	42	LR	LR	04 15 58.1	
	comp=Z,431nm,21.5s,baz=258,slow=31						
NEW	Newport	93.29	42	IAmb	IAmb	03 40 43.3	
	comp=Z,6.7nm,1.0s						
NEW	Newport	93.29	42	P	P	03 40 41.8	-0.6
	comp=Z,8.9nm,1.1s						
S11A	Rachel	93.29	53	IAmb	IAmb	03 40 45.2	
	comp=Z,8.4nm,1.0s						
BLYC	Blythe	93.94	57	IAmb	IAmb	03 40 48.3	
	comp=Z,5.6nm,0.8s						
ELK	Elko	93.96	50	IAmb	IAmb	03 40 47.7	
	comp=Z,6.0nm,1.1s						
W13A	Hualapai Mount	94.58	55	IAmb	IAmb	03 40 51.7	
	comp=Z,11nm,0.9s						
HLID	Hailey	94.78	47	IAmb	IAmb	03 40 54.0	
	comp=Z,3.3nm,1.1s						
PSUT	Pine Spring	94.85	52	IAmb	IAmb	03 40 52.2	
	comp=Z,10nm,1.2s						
LCMT	Little Creek M	95.23	53	IAmb	IAmb	03 40 54.2	
	comp=Z,5.7nm,1.0s						
BCYI	Bear Canyon	95.56	46	IAmb	IAmb	03 42 22.2	
	comp=Z,14nm,1.9s						
KNB	Kanab	95.57	53	IAmb	IAmb	03 40 56.0	
	comp=Z,10nm,1.1s						
YKA	Yellowknife Ar	95.73	28	P	P	03 40 53.8	+0.7
	comp=Z,6.1nm,0.6s,baz=269,slow=4.6,SNR=57						
YKA				PKKPbc	PKKPbc	03 57 41.0	-4.6
	comp=Z,0.2nm,0.4s,baz=86,slow=2.6,SNR=6.6						
	comp=Z,6.1nm,0.6s						
YKA	Yellowknife Ar	95.73	28		P	03 40 53.0	-0.1
YKAW3	Yellowknife Wh	95.73	28	IAmb	IAmb	03 40 54.6	
	comp=Z,8.1nm,0.8s						
HVU	Hansel Valley	95.88	49	IAmb	IAmb	03 40 57.0	
	comp=Z,6.4nm,0.9s						
ELIB	Princess Elisa	95.91	194	dP	P	03 40 53.3	-0.7
	comp=Z,12nm,0.9s						
U15A	North Rim	95.96	54	IAmb	IAmb	03 40 58.7	
	comp=Z,6.8nm,0.8s						
WUAZ	Wupatki	96.65	55	IAmb	IAmb	03 41 06.7	
	comp=Z,4.1nm,0.9s						
BOZ	Bozeman (W)	96.88	45	IAmb	IAmb	03 44 01.0	
	comp=Z,8.2nm,1.6s						
LPIG	La Paz	96.93	67	LR	LR	04 16 32.4	
	comp=Z,143nm,21.5s,baz=273,slow=30						
TMUT	Trail Mountain	96.96	51	IAmb	IAmb	03 41 01.8	
	comp=Z,6.8nm,0.8s						
HMU	Henry Mountain	97.27	53	IAmb	IAmb	03 41 03.2	
	comp=Z,7.2nm,0.9s						
P17A	Butcher Ranch,	97.33	51	IAmb	IAmb	03 41 03.0	
	comp=Z,4.5nm,0.9s						
YFT	Old Faithful	97.41	46	IAmb	IAmb	03 41 05.6	
	comp=Z,6.5nm,1.0s						
SRU	San Rafael Swe	97.48	51	IAmb	IAmb	03 41 03.4	
	comp=Z,4.2nm,0.9s						
P18A	Preston Nutter	97.71	51	IAmb	IAmb	03 41 06.5	
	comp=Z,4.0nm,0.9s						
PD31	Pinedale Array	98.30	48	IAmb	IAmb	03 44 08.8	
	comp=Z,17nm,2.0s						
PDAR	Pinedale Array	98.30	48	P	P	03 41 05.2	-0.3
	comp=Z,2.3nm,0.9s,baz=240,slow=2.0,SNR=16						
PDAR				LR	LR	04 21 14.3	
	comp=Z,56nm,19.1s,baz=294,slow=33						
	comp=Z,2.3nm,0.9s						
PDAR	Pinedale Array	98.30	48	P	P	03 41 04.3	-1.2
PV10	Paradox Valley	98.62	52	IAmb	IAmb	03 41 11.4	
	comp=Z,7.3nm,1.0s						
PV21	Cone Mtn., Par	98.68	52	IAmb	IAmb	03 41 10.8	
	comp=Z,7.6nm,0.8s						
ARTI	Arti	98.73	326	P	Pdif	03 41 07.1	+0.3
PV12	Saucer Basin,	98.81	52	IAmb	IAmb	03 41 10.0	
	comp=Z,9.1nm,1.0s						
PV22	Blue Mesa, Par	98.82	52	IAmb	IAmb	03 41 09.7	
	comp=Z,6.0nm,0.8s						
PV02	Paradox Valley	98.86	52	IAmb	IAmb	03 41 10.1	
	comp=Z,8.3nm,1.1s						
O20A	White River Ci	99.27	50	IAmb	IAmb	03 41 11.5	
	comp=Z,6.0nm,1.0s						
TROLL	Troll, Antarti	99.86	188	⇑P	Pdif	03 41 11.1	-0.6
	comp=Z,353nm,0.8s						
SNAA	Sanae	100.88	187	P	Pdif	03 41 14.2	-2.0
	comp=Z,1.3nm,0.5s,baz=254,slow=7.4,SNR=5.0						
VNA3	Neumayer Olymp	102.00	185	⇑P	Pdif	03 41 20.0	-1.1
	comp=Z,4.7nm,0.9s						
VNA3	Neumayer Olymp	102.00	185	P	Pdif	03 41 20.6	-0.6
	comp=Z,6.3nm,0.8s						
VNA2	Neumayer--Watz	102.09	186	⇑P	Pdif	03 41 20.7	-0.8
	comp=Z,3.7nm,0.6s,baz=160,slow=3.0						
VNA2	Neumayer--Watz	102.09	186	P	Pdif	03 41 21.3	-0.3
	comp=Z,8.1nm,0.7s						
VNA1	Neumayer--Stat	102.44	186	⇑P	Pdif	03 41 22.4	-0.7
	comp=Z,4.5nm,1.0s						
TXAR	Lajitas Array	103.03	61	PKiKP	PKiKP	03 45 44.5	-2.0
	comp=Z,0.5nm,0.8s,baz=284,slow=2.3,SNR=4.1						
TXAR				PKKPbc	PKKPbc	03 57 21.9	-2.0
	comp=Z,1.1nm,0.7s,baz=102,slow=3.6,SNR=5.6						
FINES	FINESS Array B	113.18	336	PKiKP	PKiKP	03 46 03.1	-1.2
	comp=Z,2.3nm,0.8s,baz=342,slow=0.6,SNR=3.4						
FINES				PKKPbc	PKKPbc	03 56 48.9	-3.9
	comp=Z,1.3nm,0.7s,baz=216,slow=1.2,SNR=3.4						
WCI	Wyandotte Cave	116.39	50		PKPdf	03 46 10.7	-0.5
AKASG	Malin Array Be	116.83	325	PKP	PKPdf	03 46 10.6	-1.1
	comp=Z,1.3nm,0.6s,baz=61,slow=1.9,SNR=6.0						
BRTR	Keskin Array B	117.76	312	PKP	PKPdf	03 46 12.9	-1.2
	comp=Z,0.9nm,0.6s,baz=129,slow=4.2,SNR=5.8						
BRTR	Keskin Array B	117.76	312		PKPdf	03 46 12.3	-1.8
NB2	NORSAR Subarra	118.93	341	PKPdf	PKPdf	03 46 14.2	-1.3
	comp=Z,2.7nm,0.8s,baz=44,slow=1.9						
NOA	NORSAR Array B	118.93	341	PKP	PKPdf	03 46 14.5	-1.0
	comp=Z,1.6nm,0.8s,baz=46,slow=1.9,SNR=5.9						
BOSA	Boshof	120.37	232	PKP	PKPdf	03 46 19.2	-0.2
	comp=Z,4.8nm,0.6s,baz=138,slow=2.2,SNR=19						
BOSA				PKKPbc	PKKPbc	03 56 26.1	-0.5
	comp=Z,2.8nm,0.9s,baz=273,slow=4.7,SNR=3.7						
SCHQ	Schefferville	121.17	27	PKP	PKPdf	03 46 19.6	-0.4
	comp=Z,1.7nm,0.4s,baz=31,slow=5.9,SNR=1.8						
SCHQ	Schefferville	121.17	27		PKPdf	03 46 19.2	-0.8
FLET	Fletcher	123.48	39		PKPdf	03 46 24.4	-0.3
STEB	Steborice	123.55	328	ePKPDF	PKPdf	03 46 24.1	-0.6
MAUC	Maruska	123.85	328	ePKPDF	PKiKP	03 46 25.5	-0.1
DPC	Dobruska-Polom	124.05	329	ePKPDF	PKiKP	03 46 27.6	+1.6
CLL	Collm	125.07	332	i PKPdf	PKPdf	03 46 27.5	0.0
	comp=Z,6.0nm,0.9s						
CLL				LV		04 32 00.0	
HSKC	Hora Svate Kat	125.32	331	ePKPDF	PKPdf	03 46 27.1	-1.0
LKGWB	Lokgwabe	125.66	234		PKPdf	03 46 28.6	-1.1
ZVC	Zvikov	125.69	329	ePKPDF	PKPdf	03 46 28.8	0.0
CONA	Conrad Observa	125.75	327	ePKP	PKPdf	03 46 28.6	-0.5
	comp=Z,2.7nm,0.9s						
BCIP	Isla Barro Col	125.78	83		PKPdf	03 46 28.9	-1.0
CKRC	Cesky Krumlov	126.02	329	ePKPDF	PKPdf	03 46 29.1	-0.4
KHC	Kasperske Hory	126.20	329	ePKPDF	PKPdf	03 46 29.8	0.0
KHC	Kasperske Hory	126.20	329		PKiKP	03 46 30.2	-0.1
GERES	GERESS Array B	126.32	329	PKP	PKPdf	03 46 30.2	0.0
	comp=Z,3.2nm,0.6s,baz=75,slow=1.1,SNR=6.5						
GRTLG	Ghanzi	126.89	238		PKPdf	03 46 31.6	-0.5
SOKA	Soboth	126.94	326	ePKP	PKPdf	03 46 31.0	-0.4
	comp=Z,4.3nm,1.2s						
BIOA	Bad Ischl, Aus	127.08	328	ePKP	PKPdf	03 46 31.0	-0.6
	comp=Z,1.8nm,0.6s						
KBA	Koelnbreinsper	127.62	328	ePKP	PKPdf	03 46 32.6	-0.2
	comp=Z,4.5nm,1.2s						
LESA	Schwarzleotal	127.75	328	i PKP	PKPdf	03 46 32.3	-0.6
	comp=Z,2.5nm,0.6s						
EKA	Eskdalemuir Ar	127.96	344	PKP	PKPdf	03 46 32.6	-0.4
	comp=Z,0.5nm,0.5s,baz=4.2,slow=2.7,SNR=5.0						
ABTA	Abfaltersbach	128.27	328	i PKP	PKPdf	03 46 33.0	-0.9
	comp=Z,4.5nm,0.9s						
WATA	Walderalm	128.38	329	i PKP	PKPdf	03 46 34.1	-0.1
	comp=Z,8.6nm,1.1s						
WTTA	Wattenberg	128.40	329	i PKP	PKPdf	03 46 34.1	-0.2
	comp=Z,12nm,1.0s						
MOTA	Moosalm	128.62	329	i PKP	PKPdf	03 46 34.3	-0.4
	comp=Z,3.9nm,0.6s						
SQTA	Sankt Quirin	128.65	329	ePKP	PKPdf	03 46 34.6	-0.1
	comp=Z,6.4nm,0.9s						
RETA	Reutte	128.70	329	i PKP	PKPdf	03 46 34.3	-0.5
	comp=Z,6.5nm,1.1s						
FETA	Feichten	129.02	329	i PKP	PKPdf	03 46 35.4	-0.1
	comp=Z,5.3nm,0.9s						
DAVA	Damuels	129.28	330	ePKiKP	PKPdf	03 46 36.0	+0.1
	comp=Z,5.2nm,1.0s						
ROSC	El Rosal	131.06	89	PKP	PKPdf	03 46 40.5	0.0
	comp=Z,27nm,0.5s,baz=98,slow=5.4,SNR=17						
LPAZ	La Paz	131.96	118	PKP	PKPdf	03 46 42.4	-0.1
	comp=Z,3.9nm,0.9s,baz=329,slow=1.4,SNR=8.0						
SDV	Santo Domingo	134.87	84		PKPdf	03 46 47.4	0.0
CPUP	Villa Florida	135.05	137	PKP	PKPdf	03 46 46.9	-0.3
	comp=Z,1.9nm,0.8s,baz=306,slow=4.6,SNR=7.4						
SJG	San Juan	138.33	70		PKPdf	03 46 53.1	-0.3
PTLB	Pontes e Lacer	140.04	123		PKPdf	03 46 56.1	-0.6
SMRT	St. Maarten	141.21	69		PKPdf	03 46 58.0	-0.7
ESDC	Sonseca Array	141.62	333	PKP	PKPdf	03 46 58.8	-0.1
	comp=Z,0.4nm,0.6s,baz=33,slow=4.4,SNR=4.8						
POLO	Lamas de Olo	141.73	339	ePKP	PKPdf	03 46 53.8	-5.4
PVIS	Viseu	142.34	338	ePKP	PKPdf	03 46 58.5	-1.7
PCBR	Castelo Branco	142.94	337	ePKP	PKPdf	03 46 58.0	-3.2
PMRV	Marv??o	143.27	337	ePKP	PKPbc	03 46 59.9	+1.0
MACA	Manacapuru-AM	143.32	104	eP	PKPab	03 46 58.0	-0.6
BIM	Bigot	143.77	74		PKPbc	03 47 01.6	+0.5
PARRA	Arraiolos	144.05	337	ePKP	PKPbc	03 47 01.3	0.0
PBAR	Barrancos	144.19	335	ePKP	PKPab	03 47 01.0	-0.3
EVO	Evora	144.28	337	ePKP	PKPbc	03 47 01.9	-0.1
BOAV	Boa Vista	144.54	95		PKPab	03 47 03.1	-0.2
PBEJ	Beja	144.66	336	ePKP	PKPab	03 47 02.6	-0.4
EDA	Edea	144.74	268		PKPab	03 47 03.8	-0.3
PLOUS	Minas do Lousa	144.88	337	ePKP	PKPab	03 47 03.3	-0.5
MESJ	Messejana	144.96	336	ePKP	PKPab	03 47 04.1	-0.1
MESJ	Messejana	144.96	336	ePKP	PKPbc	03 47 04.4	+0.2
PCVE	Castro Verde	145.07	336	ePKP	PKPbc	03 47 03.6	-0.9
PVAQ	Vaqueiros	145.13	335	ePKP	PKPdf	03 47 05.0	-0.2
PTEO	Sao Teotonio	145.42	337	ePKP	PKPab	03 47 06.3	+0.5
MORF	Marmelete	145.60	336	ePKP	PKPdf	03 47 06.0	0.0
MORF	Marmelete	145.60	336	ePKP	PKPab	03 47 07.6	+1.1
MD01	Midelt array s	147.39	327	PKPdf	PKPdf	03 47 09.1	-0.2
ITTB	Itaituba	147.71	108	eP	PKPdf	03 47 10.0	-0.1
CAM01	Campos-RJ	147.77	150	eP	PKPdf	03 47 00.8	-9.3
BDFB	Brasilia	148.62	134	PKP	PKPdf	03 47 11.1	-0.6
	comp=Z,7.1nm,0.7s,baz=39,slow=2.0,SNR=11						
BDFB	Brasilia	148.62	134	PKPdf	PKPdf	03 47 10.8	-1.0
RIB01	Linhares ES	150.52	150	eP	PKPbc	03 47 18.5	-1.4
SJMB	Sao Joao De Ma	150.62	148	eP	PKPdf	03 47 14.6	-0.1
BSFB	Barra de Sao F	150.69	148	eP	PKPbc	03 47 17.8	-2.5
ARCA	Ara§uai, MG	151.69	144	eP	PKPdf	03 47 19.4	+3.0
TORD	Torodi Ar. Bea	152.67	287	PKP	PKPdf	03 47 16.0	-1.9
	comp=Z,2.6nm,0.9s,baz=67,slow=3.2,SNR=9.8						
TORD				PKPbc	PKPbc	03 47 23.9	-1.1
	comp=Z,8.9nm,0.8s,baz=24,slow=2.7,SNR=30						
SDBA	SAO DESIDERIO	153.02	133	eP	PKPdf	03 47 18.1	-0.3
GUA01	Guaratinga, BA	153.10	148	eP	PKPab	03 47 34.2	-3.1
CMC01	Camacan, BA	154.26	147	eP	PKPab	03 47 41.8	-0.5
NBIT	Itapeh - BA	154.66	146	eP	PKPab	03 47 44.0	0.0
DBIC	Dimbokro	159.82	272	PKPab	PKPab	03 48 06.4	-0.1
	comp=Z,21nm,1.0s,baz=112,slow=5.0,SNR=5.6						

IDC ***17*** *03:29:25.9±1.2, 52°.47N×177°.86E, h149^{km}±10^{km}, mb3.8/21, mbtmp4.3/24, Error ellipse: s-maj=13.6km s-min=10.4km az=165.0*

AEIC ***17*** *03:29:25.7±4.1, 52°.15N±0°.10×177°.76E±0°.09, h177^{km}±4^{km}, Error ellipse: s-maj=14.5km s-min=7.5km az=188.0*

NEIC ***17*** *03:29:26.6±1.7, 52°.34N±0°.10×177°.80E±0°.09, h156^{km}±3^{km}, mb4.2/64, ML3.8/14, ML3.5(AEIC), Error ellipse: s-maj=14.2km s-min=7.3km az=189.0*

ISC 17 03:29:26.7±0.6**, 52°.39N**±0°.08×**177°.84E**±0°.03**, h157**^{km}±5^{km}**, n150,** σ**0^{s}.83**/166**, mb4.2**/48**, 1C-9D, Rat Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LSNW	Little Sitkin	0.59	135		Pn	03 29 49.4	+0.1
LSSA	Little Sitkin	0.60	136		Pn	03 29 49.5	+0.1
LSSA					Sn	03 30 06.1	-0.6
LSPA	Little Sitkin	0.63	133		Pn	03 29 49.4	-0.1
LSPA					Sn	03 30 06.6	-0.3
LSSE	Little Sitkin	0.64	135		Pn	03 29 49.8	+0.2
CESW	Semis' Southwe	1.17	114		Pn	03 29 53.3	-0.3
CESW					Sn	03 30 14.3	+0.2
CEPE	Semis' Perret	1.19	110		Pn	03 29 54.4	+0.6
CERB	Semis' Cerberu	1.20	112		Pn	03 29 53.9	+0.1
CERB					Sn	03 30 13.9	-0.7
AMKA	Amchitka	1.36	137		Pn	03 29 54.2	-1.1
AMKA				Sn	Sn	03 30 15.6	-1.7
AMKA				IAML		03 30 16.9	
	comp=E,1µm,0.7s						
GASW	Gareloi Southw	2.13	105		Pn	03 30 03.2	-0.5
GASW					Sn	03 30 31.7	-0.6
GANO	Gareloi North	2.15	104		Pn	03 30 03.5	-0.5
GANO					Sn	03 30 32.5	-0.1
GANE	Gareloi Northe	2.17	104		Pn	03 30 03.5	-0.7
GANE					Sn	03 30 32.5	-0.5
GALAA	Gareloi Lava P	2.19	105		Pn	03 30 03.7	-0.7
GALAA					Sn	03 30 33.7	+0.3
GAEA	Gareloi East	2.19	105		Pn	03 30 04.2	-0.3
GAEA					Sn	03 30 33.2	-0.4
GAKI	Gareloi-Kavalg	2.23	111		Pn	03 30 03.9	-1.0
GAKI					Sn	03 30 32.8	-1.6
SHEM	Shemya Is, Ala	2.31	280	P	Pn	03 30 04.7	-1.1
	comp=E,232nm,0.5s,baz=41,slow=3.8,SNR=74						
SHEM				S	Sn	03 30 34.6	-1.3
	comp=E,188nm,0.3s,baz=100,slow=7.1,SNR=5.1						
SHEM	Shemya Is, Ala	2.31	280	Pn	Pn	03 30 04.6	-1.1
SHEM				IAML		03 30 36.6	
	comp=N,342nm,0.7s						
SHEM				IAML		03 30 37.5	
	comp=E,403nm,0.3s						
SMY	Shemya	2.31	280		Pn	03 30 04.5	-1.2
SMY	Shemya	2.31	280		Sn	03 30 35.2	-0.6
SMY	Shemya	2.31	280	IAML		03 30 36.2	
	comp=N,532nm,0.8s						
SMY				IAML		03 30 37.5	
	comp=E,894nm,0.7s						
TACS	Tanaga Cape Sa	2.54	100		Pn	03 30 07.8	-0.8
TACS					Sn	03 30 41.5	+0.5
TASE	Tanaga Southea	2.60	101		Pn	03 30 08.6	-0.8
TASE					Sn	03 30 43.1	+0.7
TAFP	Tanaga Falls P	2.62	99		Pn	03 30 08.8	-0.8
KIMD	Kanaga Island	3.11	100		Pn	03 30 14.2	-1.4
KIMD					Sn	03 30 52.6	-0.9
KIKV	Kanaga Island	3.12	97		Pn	03 30 15.3	-0.5
KIKV					Sn	03 30 54.0	+0.1
KIWB	Kanaga Island	3.14	98		Pn	03 30 15.2	-0.8
KIWB	Kanaga Island	3.14	98		Sn	03 30 53.8	-0.4
KIWB	Kanaga Island	3.14	98	IAML		03 30 55.6	
	comp=N,154nm,1.0s						
KIWB				IAML		03 30 56.7	
	comp=E,122nm,1.2s						
ADK	Adak	3.42	96	Pn	Pn	03 30 18.7	-0.8
ADK	Adak	3.42	96		Sn	03 30 59.4	-1.1
ETKA	Kagalaska Isla	3.59	96		Pn	03 30 20.9	-0.9
ETKA					Sn	03 31 03.2	-1.3
GSCK	Great Sitkin C	3.71	93		Pn	03 30 22.8	-0.6
GSCK					Sn	03 31 06.9	-0.5
GSTR	Great Sitkin T	3.77	92	Pn	Pn	03 30 23.6	-0.4
GSTR				IAML		03 31 17.5	
	comp=E,175nm,1.8s						
GSMY	Great Sitkin M	3.77	93		Pn	03 30 23.4	-0.7
GSIG	Igitkin Island	3.86	93		Pn	03 30 24.3	-1.0
ATKA	Atka Island	4.89	89	Pn	Pn	03 30 38.1	-0.6
ATKA				IAML		03 32 00.1	
	comp=E,54nm,2.7s						
ATKA				IAML		03 33 08.5	
	comp=N,42nm,3.9s						
KOFP	Korovin Flat P	4.95	88		Pn	03 30 39.5	0.0
UNV	Unalaska Valle	9.53	75	Pn	Pn	03 31 41.2	+1.0
LVA	Lava Point	9.83	73	Pn	Pn	03 31 45.4	+1.2
PEA0B	Petropavlovsk-	12.22	281		Pn	03 32 15.9	+0.4
PETK	Petropavlovsk-	12.22	281	P	Pn	03 32 16.1	+0.6
	comp=N,26nm,0.8s,baz=89,slow=20,SNR=19						
PETK	Petropavlovsk-	12.22	281		Pn	03 32 15.6	+0.2
K13K	Kusilvak Mount	13.43	38	Pn	Pn	03 32 31.5	+0.7
M17K	Holitna River	16.15	46		Pn	03 33 04.2	-0.4
M17K				IAmb	IAmb	03 33 07.0	
	comp=Z,23nm,1.1s						
O19K	Port Alsworth	17.21	52	P	Pn	03 33 20.3	+2.9
N19K	Bonanza Creek	17.30	50		Pn	03 33 19.3	+0.7
KDAK	Kodiak Island	17.68	61	P	P	03 33 21.0	-0.6
	comp=Z,13nm,0.6s,baz=224,slow=3.5,SNR=23						
KDAK	Kodiak Island	17.68	61	P	P	03 33 20.6	-1.0
KDAK				IAmb	IAmb	03 33 22.3	
	comp=Z,12nm,0.7s						
M20K	Styx River	18.24	47	P	Pn	03 33 29.9	+0.2
M20K				IAmb	IAmb	03 33 39.9	
	comp=Z,7.0nm,0.8s						
K20K	Telida	18.37	42		Pn	03 33 30.7	-0.4
J20K	Nowinta River	18.68	40	P	P	03 33 33.2	+0.7
STLK	Strandline Lak	18.73	49	P	Pn	03 33 34.4	-0.9
STLK				IAmb	IAmb	03 33 36.6	
	comp=Z,7.5nm,0.9s						
H21K	Melozitna Rive	19.86	37	P	P	03 33 46.7	+1.4
H21K				IAmb	IAmb	03 33 50.6	
	comp=Z,6.6nm,0.9s						
I21K	Tanana	19.96	38	P	P	03 33 47.9	+1.6
I21K				IAmb	IAmb	03 33 51.7	
	comp=Z,7.9nm,1.1s						
F21K	Alatna River	20.42	32	P	P	03 33 52.3	+1.1
F21K				IAmb	IAmb	03 33 55.6	
	comp=Z,12nm,0.8s						
SML	Sawmill	20.42	49	P	P	03 33 52.7	+1.3
SML				IAmb	IAmb	03 33 54.9	
	comp=Z,11nm,0.8s						
DHY	Denali Highway	21.14	46	P	P	03 33 59.1	-0.1
DHY				IAmb	IAmb	03 34 01.7	
	comp=Z,3.9nm,0.5s						
G23K	Bananza Creek	21.35	36	P	P	03 34 01.3	+0.1
E22K	Anaktuvuk Pass	21.45	31	P	P	03 34 02.8	+0.6
E22K				IAmb	IAmb	03 34 05.3	
	comp=Z,7.1nm,0.8s						
H24K	Noodor Dome	21.79	39		P	03 34 07.1	+1.3
H24K				IAmb	IAmb	03 34 09.6	
	comp=Z,6.2nm,0.9s						
IL31		21.82	42		P	03 34 05.6	-0.5
ILAR	Eielson Array	21.82	42	P	P	03 34 05.3	-0.8
	comp=Z,1.0nm,0.5s,baz=248,slow=8.3,SNR=16						
	comp=Z,1.0nm,0.5s						
ILAR	Eielson Array	21.82	42	P	P	03 34 05.8	-0.3
E23K	Chandalar	22.12	32		P	03 34 09.6	+0.4
E23K				IAmb	IAmb	03 34 46.6	
	comp=Z,8.5nm,1.2s						
BERG	Berg Lake	22.46	54	P	P	03 34 12.9	+0.4
GLB	Gilahina Butte	22.50	51		P	03 34 13.1	+0.3
VRDI	Verde Repeater	22.64	52	P	P	03 34 14.9	+0.5
VRDI				IAmb	IAmb	03 34 18.1	
	comp=Z,5.8nm,0.8s						
MENT	Mentasta	22.75	47	P	P	03 34 16.4	+1.3
SCRK	Sand Creek	22.83	45	P	P	03 34 16.1	+0.1
SCRK				IAmb	IAmb	03 34 25.4	
	comp=Z,3.1nm,0.4s						
L26K	Log Cabin Wild	22.93	47	P	P	03 34 17.5	+0.7
F25K	Christian Rive	23.27	35	P	P	03 34 20.8	+0.8
YAH	Yahtse	23.43	54	P	P	03 34 22.8	+1.2
GRNC	Granite Creek	23.44	53	P	P	03 34 22.5	+0.8
BARN	Barnard Glacie	23.50	52	P	P	03 34 22.3	0.0
BARN				IAmb	IAmb	03 34 25.3	
	comp=Z,11nm,0.7s						
M27K	Edge Creek, AK	23.51	49	P	P	03 34 22.9	+0.7
L27K	Beaver Creek,	23.62	47		P	03 34 23.3	+0.2
L27K				IAmb	IAmb	03 34 26.7	
	comp=Z,5.1nm,0.8s						
G26K	Porcupine Rive	23.72	37	P	P	03 34 25.1	+1.1
G26K				IAmb	IAmb	03 34 25.7	
	comp=Z,5.5nm,0.5s						
D25K	Kavik River	23.76	31	P	P	03 34 24.9	+0.6
D25K				IAmb	IAmb	03 34 25.7	
	comp=Z,6.3nm,0.8s						
LOGN	Logan Glacier	23.81	53	P	P	03 34 25.5	+0.5
LOGN				IAmb	IAmb	03 34 30.2	
	comp=Z,5.5nm,0.8s						
F26K	Sheenjek River	23.84	36	P	P	03 34 26.1	+1.0
F26K				IAmb	IAmb	03 34 27.1	
	comp=Z,5.0nm,0.7s						
PCA	Pinnacle	24.17	55	P	P	03 34 29.7	+1.6
O28M	Mount Upton	24.20	53	P	P	03 34 29.1	+0.4
G27K	Doyon Strip	24.48	38	P	P	03 34 31.8	+0.9
I28M	Miner Creek	24.84	42		P	03 34 34.2	0.0
I28M				IAmb	IAmb	03 35 12.9	
	comp=Z,13nm,1.4s						
DAWY	Dawson	24.84	45	P	P	03 34 35.1	+1.0
DAWY				IAmb	IAmb	03 34 35.8	
	comp=Z,4.4nm,0.6s						
E27K	Coleen River	24.92	35		P	03 34 36.1	+1.2
E27K				IAmb	IAmb	03 34 36.9	
	comp=Z,6.0nm,0.7s						
M29M	Somme Creek	25.10	49	P	P	03 34 36.7	+0.1
F28M	Old Crow	25.37	37	P	P	03 34 40.1	+1.2
I29M	Ogilvie Camp,	25.49	42	P	P	03 34 39.9	-0.2
HYT	Haines Junctio	25.52	53		P	03 34 41.4	+0.9
K29M	Barlow Dome	25.63	46		P	03 34 41.8	+0.4
K29M				IAmb	IAmb	03 34 43.2	
	comp=Z,6.5nm,1.4s						
G31M	Satah River	27.36	40		P	03 34 57.4	+0.8
P33M	Teslin, Yukon	27.87	54		P	03 35 03.4	+1.9

P33M				IAmb	IAmb	03 35 06.3	
	comp=Z,2.9nm,0.6s						
YKA	Yellowknife Ar	36.05	47	P	P	03 36 11.7	-0.9
	comp=Z,1.2nm,0.3s,baz=283,slow=9.5,SNR=38						
	comp=Z,1.2nm,0.3s						
YKA	Yellowknife Ar	36.05	47	P	P	03 36 12.2	-0.4
BUT	Butte	44.31	69	P	P	03 37 20.3	-0.6
SONM	Songino Array	44.33	294	P	P	03 37 20.7	-0.2
	comp=Z,0.8nm,0.4s,baz=54,slow=7.7,SNR=3.6						
	comp=Z,0.8nm,0.4s						
SONM	Songino Array	44.33	294	P	P	03 37 20.5	-0.4
HHC	Hu-ho-hao-te	45.42	283	*e*P	P	03 37 30.5	+0.9
HHC				pmax	pmax		
	comp=Z,12nm,0.6s						
HHC				pmax	pmax		
	comp=Z,59nm,5.0s						
NVAR	Mina Array Bea	45.48	81	P	P	03 37 30.0	-0.3
	comp=Z,0.7nm,0.8s,baz=285,slow=7.1,SNR=6.4						
	comp=Z,0.7nm,0.8s						
NVAR	Mina Array Bea	45.48	81	P	P	03 37 29.8	-0.5
CCCA	Chr Cany lake	47.94	84	P	P	03 37 49.3	+0.1
CCCA				IAmb	IAmb	03 37 50.3	
	comp=Z,4.5nm,0.7s						
PDAR	Pinedale Array	47.97	71	P	P	03 37 48.9	-0.7
	comp=Z,0.6nm,0.6s,baz=292,slow=5.0,SNR=7.2						
	comp=Z,0.6nm,0.6s						
SPITS	Spitsbergen Ar	49.20	355	P	P	03 37 57.9	-0.4
	comp=Z,5.1nm,0.5s,baz=50,slow=6.8,SNR=20						
	comp=Z,5.1nm,0.5s						
ULM	Lac du Bonnet	50.85	56	P	P	03 38 10.3	-0.7
	comp=Z,1.6nm,0.4s,baz=311,slow=9.1,SNR=1.4						
	comp=Z,1.6nm,0.4s						
ULM	Lac du Bonnet	50.85	56	P	P	03 38 10.5	-0.5
LZH	Lanzhou	53.11	283	*e*P	P	03 38 30.1	+2.0
LZH				pmax	pmax		
	comp=Z,24nm,1.0s						
ARCES	ARCESS Array B	56.72	349	P	P	03 38 52.5	-0.8
	comp=Z,3.6nm,0.7s,baz=34,slow=5.7,SNR=14						
	comp=Z,3.6nm,0.7s						
ARCES	ARCESS Array B	56.72	349	P	P	03 38 52.8	-0.5
KURK	Kurchatov	56.80	311	P	P	03 38 54.1	-0.1
KURK				IAmb	IAmb	03 38 54.6	
	comp=Z,5.2nm,1.1s						
KURBB	Kurchatov Arra	56.91	311	P	P	03 38 54.4	-0.5
	comp=Z,2.5nm,0.2s,baz=43,slow=6.5,SNR=8.0						
	comp=Z,2.5nm,0.2s						
WMQ	Urumqi	57.04	300	*e*P	P	03 38 58.3	+2.3
WMQ				LR	LR		
	comp=N,1µm,17.1s						
WMQ				LR	LR		
	comp=E,670nm,23.9s						
WMQ				LR	LR		
	comp=Z,830nm,23.9s						
MKAR	Makanchi Array	57.76	306	P	P	03 39 00.1	-0.9
	comp=Z,0.9nm,0.5s,baz=55,slow=6.6,SNR=8.1						
	comp=Z,0.9nm,0.5s						
BVAR	Borovoye Array	58.75	318	P	P	03 39 07.6	-0.1
	comp=Z,4.6nm,0.6s,baz=56,slow=6.6,SNR=15						
	comp=Z,4.6nm,0.6s						
TXAR	Lajitas Array	60.54	79	P	P	03 39 20.2	-0.2
	comp=Z,0.8nm,0.6s,baz=304,slow=5.0,SNR=18						
	comp=Z,0.8nm,0.6s						
TXAR	Lajitas Array	60.54	79	P	P	03 39 20.0	-0.4
HNR	Honiara	63.46	200	P	P	03 39 41.3	+1.6
	comp=Z,174nm,0.3s,baz=292,slow=7.0,SNR=6.9						
FINES	FINESS Array B	64.31	345	P	P	03 39 44.1	-0.7
	comp=Z,2.4nm,0.4s,baz=18,slow=7.6,SNR=19						
	comp=Z,2.4nm,0.4s						
NB2	NORSAR Subarra	66.42	353	P	P	03 39 57.9	-0.5
	comp=Z,2.6nm,0.7s,baz=7.9,slow=6.2						
NB2				pP	pwP	03 40 39.9	+0.3
	comp=Z,3.3nm,0.8s,baz=7.8,slow=6.5						
NOA	NORSAR Array B	66.42	353	P	P	03 39 58.1	-0.3
	comp=Z,2.3nm,0.8s,baz=9.1,slow=6.4,SNR=9.4						
	comp=Z,2.3nm,0.8s						
HFS	Hagfors	67.11	351	P	P	03 40 01.6	-1.1
	comp=Z,1.7nm,0.6s,baz=25,slow=4.9,SNR=6.2						
	comp=Z,1.7nm,0.6s						
AKASG	Malin Array Be	73.91	340	P	P	03 40 43.9	-0.2
	comp=Z,4.3nm,0.5s,baz=23,slow=6.3,SNR=11						
	comp=Z,4.3nm,0.5s						
AKBB	Malin Array Si	73.91	340	P	P	03 40 43.9	-0.1
AKBB				IAmb	IAmb	03 40 44.2	
	comp=Z,5.0nm,0.6s						
KIEV	Kiev	73.92	340	P	P	03 40 43.9	-0.2
KIEV				IAmb	IAmb	03 40 44.2	
	comp=Z,4.5nm,0.6s						
KIEV	Kiev	73.92	340	⇓P	P	03 40 43.8	-0.4
OUENC	Ouen Island, N	75.10	191	P	P	03 40 50.7	-0.4
SORM	Soroca	76.53	340	⇓P	P	03 40 59.1	0.0
KBZ	Khabaz	76.68	328	P	P	03 41 00.8	+0.9
	comp=Z,1.3nm,0.6s,baz=135,slow=3.2,SNR=3.9						
	comp=Z,1.3nm,0.6s						
BUR08	Bucovina Ar. S	77.64	341	P	P	03 41 05.7	+0.2
BUR08				IAmb	IAmb	03 41 06.8	
	comp=Z,5.6nm,0.7s						
BURAR	Bucovina Array	77.66	341	P	P	03 41 06.2	+0.5
BURAR	Bucovina Array	77.66	341	⇓P	P	03 41 06.1	+0.5
BIZ	Bicaz	78.13	341	⇓P	P	03 41 09.1	+1.0
DRGR		78.93	343	⇓P	P	03 41 12.9	+0.4
COVR	Voineasa-Covas	79.16	340	⇓P	P	03 41 14.9	+1.2
MLR	Muntele Rosu	79.55	340	P	P	03 41 17.2	+1.2
MLR				IAmb	IAmb	03 41 50.3	
	comp=Z,3.5nm,1.0s						
MLR	Muntele Rosu	79.55	340	⇓P	P	03 41 17.0	+1.0
GZR	Gura Zlata	80.27	342	⇓P	P	03 41 20.1	+0.3
FUORN	Ofenpass-Fuorn	80.80	351	P	P	03 41 21.6	-1.2
HERR	Herculane	80.83	343	⇓P	P	03 41 23.0	+0.3
WB0	Warramunga Arr	81.17	221	P	P	03 41 23.0	-1.7
WB0				IAmb	IAmb	03 41 44.2	
	comp=Z,12nm,1.4s						
WR8	Warramunga Arr	81.30	221	P	P	03 41 24.6	-0.7
WRA	Warramunga Arr	81.35	221	P	P	03 41 25.0	-0.6
	comp=Z,1.8nm,0.7s,baz=33,slow=6.2,SNR=10						
	comp=Z,1.8nm,0.7s						
WRA	Warramunga Arr	81.35	221	P	P	03 41 24.5	-1.1
BOVS	Bovan	82.16	343	⇑P	P	03 41 29.5	-0.2
BRTR	Keskin Array B	83.13	333	P	P	03 41 35.1	+0.2
	comp=Z,0.7nm,0.6s,baz=31,slow=3.4,SNR=4.5						
	comp=Z,0.7nm,0.6s						
ASAR	Alice Springs	84.88	220	P	P	03 41 43.7	+0.1
	comp=Z,0.8nm,0.5s,baz=24,slow=5.6,SNR=4.5						
	comp=Z,0.8nm,0.5s						
STKA	Stephens Creek	89.70	210	P	P	03 42 06.7	+0.2
	comp=Z,2.1nm,0.3s,baz=0.2,slow=10,SNR=2.8						
	comp=Z,2.1nm,0.3s						
QSPA	South Pole Qui	142.14	180	PKhKP	PKPpre	03 48 33.9	
	comp=Z,0.7nm,0.4s,baz=89,slow=0.5,SNR=6.8						
MAW	Mawson	145.99	218	PKPbc	PKPbc	03 48 46.1	-0.3
	comp=Z,3.7nm,0.5s,baz=96,slow=4.4,SNR=20						
MAW	Mawson	145.99	218		PKPbc	03 48 46.3	-0.1
BOSA	Boshof	148.74	309	PKPbc	PKPbc	03 48 55.1	-0.2
	comp=Z,1.5nm,0.4s,baz=20,slow=2.4,SNR=13						

JMA ***17*** *03:34:34.7±0.4, 26°N±2°×12°5E±°, h185^{km}, MV2.9/19, NW OFF MIYAKOJIMA ISLAND*

ISC 17 03:34:32.0±2.1**, 26°.5N**±0°.2×**125°.0E**±0°.2**, h198**^{km}±31^{km}**, n18, σ1^{s}.77**/29**, Northeast of Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JIKM	Ikemajima	1.56	171	*e*S	S	03 35 31.7	-0.9
JKE	Kume jima 2	1.64	95	*e*P	Pn	03 35 08.6	+1.8
JKE				*e*S	S	03 35 33.5	-0.1
JIRJ	Irabujima	1.65	173	*e*P	Pn	03 35 08.2	+1.3
JIRJ				*e*S	S	03 35 32.4	-1.5
JOGS	Gusukube	1.75	167	*e*S	S	03 35 34.9	-0.9
JMJ2	Miyako jima3	1.76	169	*e*P	Pn	03 35 09.6	+1.7
JMJ2				*e*S	S	03 35 34.9	-0.9
JTJ	Tarama	1.84	188	*e*P	Pn	03 35 10.3	+1.5
JISG	Ishigakijimahi	1.97	198	*e*P	Pn	03 35 11.3	+1.2
JISG				*e*S	S	03 35 37.9	-1.8
JAGN	Aguni-jima	2.04	86	P	Pn	03 35 12.5	+1.7
JAGN				*e*S	S	03 35 40.6	-0.2
JIJ	Ishigaki jima	2.23	200	*e*P	Pn	03 35 13.4	+0.6
JIJ				*e*S	S	03 35 41.7	-2.9
JKRS	Kuro-shima	2.39	201	*e*P	Pn	03 35 15.3	+0.8
JJT3	Tamagusuku3	2.55	97	*e*P	Pn	03 35 18.2	+1.9
JNTH	Nagotoyohara	2.74	88	*e*P	Pn	03 35 20.2	+1.7
JNTH				*e*S	S	03 35 52.6	-2.1
JOW	Kunigami	2.98	82	*e*P	Pn	03 35 22.8	+1.5
JOW				*e*S	S	03 35 57.8	-2.0
JYRO	Yoronjima	3.16	79	*e*P	Pn	03 35 25.1	+1.6
JYRO				*e*S	S	03 36 01.1	-2.5
JOKE	Okinoerabujima	3.34	74	*e*P	Pn	03 35 27.0	+1.4
JOKE				*e*S	S	03 36 05.5	-1.9
JTK	Tokunoshima	3.78	69	*e*P	Pn	03 35 32.2	+1.2
JTK				*e*S	S	03 36 15.2	-2.1
JAMN	Amaminishikomi	4.14	64	*e*S	S	03 36 22.6	-2.6
SSLB	Suanglung	4.51	235	P	Pn	03 35 41.9	+1.6

KRSC ***17*** *03:59:29.4±2.3, 50°.96N×158°.09E, h55^{km}±23^{km}, Mc3.5, Ml4.6*

MOS ***17*** *03:59:30.5±0.9, 50°.96N×157°.79E, h69^{km}, mb4.2/9, Error ellipse: s-maj=11.2km s-min=3.3km az=81.3*

NEIC ***17*** *03:59:32.7±0.8, 51°.1N±0°.1×157°.8E±0°.2, h62^{km}±8^{km}, mb4.3/14, Error ellipse: s-maj=16.1km s-min=13.2km az=133.0*

IDC ***17*** *03:59:34.3±2.7, 51°.17N×157°.76E, h80^{km}±24^{km}, mb3.5/10, mbtmp3.9/12, Error ellipse: s-maj=28.7km s-min=15.8km az=156.0*

ISC 17 03:59:30.9±1.0**, 50°.95N**±0°.06×**157°.94E**±0°.05**, h55**^{km}±9^{km}**, n146, σ1^{s}.55**/166**, mb4.1**/25**, 1C-6D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KDTR	Khodutka, Kamc	0.87	6	PN	Pn	03 59 46.8	-0.1
KDTR				S	Sn	03 59 58.1	-0.6
KDTR	Khodutka, Kamc	0.87	6	*e*P	Pn	03 59 46.9	-0.1
KDTR				*e*S	Sn	03 59 58.1	-0.6
PAU	Pauzhetka	0.88	307	PN	Pn	03 59 47.3	+0.2
PAU				S	Sn	03 59 58.8	-0.2
PAU	Pauzhetka	0.88	307	*e*P	Pn	03 59 47.3	+0.2
PAU				*e*S	Sn	03 59 58.8	-0.2
SKR	Severo-Kuril's	1.18	258	⇓*i*PN	Pn	03 59 51.6	+0.4
SKR				*e*S	Sn	04 00 06.3	+0.1
SKR				pmax	pmax		
	comp=Z,302nm,0.2s						
SKR				smax	smax		
	comp=E,2µm,0.3s						
SKR				smax	smax		
	comp=N,5µm,0.2s						
SKR	Severo-Kuril's	1.18	258	*e*P	Pn	03 59 51.5	+0.3
SKR				*e*S	Sn	04 00 06.3	+0.1
ASAK	Asacha	1.44	359	PN	Pn	03 59 54.7	+0.1
ASAK	Asacha	1.44	359	*e*P	Pn	03 59 54.8	+0.1
MIPR	Malaya Ipel'ka	1.52	332	PN	Pn	03 59 55.9	+0.2
MIPR	Malaya Ipel'ka	1.52	332	*e*P	Pn	03 59 56.0	+0.2
RUS	Russkaya	1.53	13	PN	Pn	03 59 55.5	-0.3
RUS				S	Sn	04 00 13.8	-0.8
RUS	Russkaya	1.53	13	*e*P	Pn	03 59 55.5	-0.3
RUS				*e*S	Sn	04 00 13.9	-0.8
MTVR	Mutnovka	1.54	6	PN	Pn	03 59 56.4	+0.2
MTVR				S	Sn	04 00 14.8	-0.4
MTVR	Mutnovka	1.54	6	*i* P	Pn	03 59 56.5	+0.2
MTVR				*e*S	Sn	04 00 14.8	-0.4
GRL	Gorelyy	1.61	3	PN	Pn	03 59 57.5	+0.5
GRL				S	Sn	04 00 16.6	-0.1
GRL	Gorelyy	1.61	3	*e*P	Pn	03 59 57.6	+0.5
GRL				*e*S	Sn	04 00 16.6	-0.1
KRMR	Karymshinskiy	1.89	4	PN	Pn	04 00 01.5	+0.8
KRMR				S	Sn	04 00 25.1	+1.8
KRMR	Karymshinskiy	1.89	4	*i* P	Pn	04 00 01.5	+0.8
KRMR				*e*S	Sn	04 00 25.2	+1.8
APC	Apacha	2.04	347	PN	Pn	04 00 03.1	+0.4
APC	Apacha	2.04	347	*e*P	Pn	04 00 03.1	+0.4
PET	Petropavlovsk	2.12	12	κ *i*PN	Pn	04 00 04.5	+0.5
PET				*e*S	Sn	04 00 29.0	-0.1
PET				pmax	pmax		
	comp=Z,253nm,0.5s						
PET				smax	smax		
	comp=E,596nm,0.6s						
PET				smax	smax		
	comp=N,741nm,0.6s						
PET	Petropavlovsk	2.12	12		Pn	04 00 04.6	+0.7
PET				Sn	Sn	04 00 28.6	-0.5
PET	Petropavlovsk	2.12	12	*i* P	Pn	04 00 04.4	+0.5
PET				*e*S	Sn	04 00 29.1	0.0
DALK	Dalny	2.15	13	PN	Pn	04 00 04.8	+0.6
DALK	Dalny	2.15	13	*e*P	Pn	04 00 04.9	+0.6
INSR	Institute	2.16	11	PN	Pn	04 00 05.2	+0.8
INSR				S	Sn	04 00 30.8	+0.8
INSR	Institute	2.16	11	*e*P	Pn	04 00 05.3	+0.8
INSR				*e*S	Sn	04 00 30.8	+0.8
PEA0B	Petropavlovsk-	2.17	356	*d* *i*PN	Pn	04 00 05.2	+0.6
PEA0B				*i* S	Sn	04 00 28.8	-1.4
PEA0B	Petropavlovsk-	2.17	356		Pn	04 00 05.2	+0.6
PETK	Petropavlovsk-	2.17	356	P	Pn	04 00 05.6	+1.0
	comp=N,140nm,0.8s,baz=187,slow=14,SNR=54						
PETK	Petropavlovsk-	2.17	356	PN	Pn	04 00 05.3	+0.7
PETK	Petropavlovsk-	2.17	356		Pn	04 00 05.3	+0.7
UGLR	Uglovaya	2.33	13	PN	Pn	04 00 08.3	+1.4
UGLR	Uglovaya	2.33	13	*e*P	Pn	04 00 08.3	+1.4
AVH	Avacha	2.37	12	PN	Pn	04 00 09.1	+1.7
AVH	Avacha	2.37	12	*e*P	Pn	04 00 09.1	+1.7
SMAR	Somma	2.38	13	PN	Pn	04 00 09.4	+1.8
SMAR	Somma	2.38	13	*e*P	Pn	04 00 09.4	+1.8
KOK	Koryaka	2.39	10	PN	Pn	04 00 09.4	+1.8
KOK	Koryaka	2.39	10	*e*P	Pn	04 00 09.5	+1.8
NLC	Nalytchevo	2.39	21	PN	Pn	04 00 06.8	-0.7
NLC				S	Sn	04 00 34.1	-1.5
NLC	Nalytchevo	2.39	21	*e*P	Pn	04 00 06.8	-0.7
NLC				*e*S	Sn	04 00 34.1	-1.5
SDLR	Sedlovina	2.41	14	PN	Pn	04 00 08.7	+0.8
SDLR	Sedlovina	2.41	14	*e*P	Pn	04 00 08.7	+0.8
KRER	Koryakskii	2.41	12	PN	Pn	04 00 09.5	+1.4
KRER	Koryakskii	2.41	12	*e*P	Pn	04 00 09.5	+1.4
KRX	Arik	2.45	10	PN	Pn	04 00 10.2	+1.6
KRX	Arik	2.45	10	*e*P	Pn	04 00 10.2	+1.6
SPN	Mys Shipunski	2.51	30	PN	Pn	04 00 10.9	+1.7
SPN				S	Sn	04 00 40.1	+1.5
SPN	Mys Shipunski	2.51	30	*e*P	Pn	04 00 11.0	+1.7
SPN				*e*S	Sn	04 00 40.1	+1.5
GNL	Ganaly	2.75	0	PN	Pn	04 00 13.8	+1.2
GNL	Ganaly	2.75	0	*e*P	Pn	04 00 13.8	+1.2
KII	Karymskiy	3.23	16	PN	Pn	04 00 20.9	+1.8
KII	Karymskiy	3.23	16	*e*P	Pn	04 00 21.0	+1.8
MKZ	Mys Kozlova	4.29	31	PN	Pn	04 00 34.0	+0.6
MKZ				S	Sn	04 01 21.2	-0.9
MKZ	Mys Kozlova	4.29	31	*e*P	Pn	04 00 34.1	+0.6
MKZ				*e*S	Sn	04 01 21.3	-0.9
TUMR	Tumrok	4.54	16	PN	Pn	04 00 39.8	+2.7
TUMR	Tumrok	4.54	16	*e*P	Pn	04 00 39.9	+2.7
ESO	Esso	5.01	5	PN	Pn	04 00 45.5	+2.1
ESO	Esso	5.01	5	*e*P	Pn	04 00 45.5	+2.1
KMNR	Kamenistaya	5.01	15	PN	Pn	04 00 46.6	+3.1
KMNR	Kamenistaya	5.01	15	*e*P	Pn	04 00 46.7	+3.1
KPT	Kopyto	5.21	14	PN	Pn	04 00 48.0	+1.8
KPT	Kopyto	5.21	14	*e*P	Pn	04 00 48.1	+1.8
KIRR	Kirishev	5.22	15	PN	Pn	04 00 48.6	+2.2
KIRR	Kirishev	5.22	15	*e*P	Pn	04 00 48.7	+2.2
BZMR	Bezymyannaya	5.22	16	PN	Pn	04 00 49.3	+2.8
BZMR	Bezymyannaya	5.22	16	*e*P	Pn	04 00 49.4	+2.8
KOZ	Kozyrevsk	5.25	12	PN	Pn	04 00 49.4	+2.7
KOZ	Kozyrevsk	5.25	12	*e*P	Pn	04 00 49.4	+2.7
BZWR	Bezymyannyi-We	5.25	16	PN	Pn	04 00 49.3	+2.4
BZWR	Bezymyannyi-We	5.25	16	*e*P	Pn	04 00 49.3	+2.4
BZGR	Bezymyannyi-Gr	5.27	17	PN	Pn	04 00 49.9	+2.9
BZGR	Bezymyannyi-Gr	5.27	17	*e*P	Pn	04 00 50.0	+2.9
ZLN	Zelenaya	5.36	18	PN	Pn	04 00 50.9	+2.6
ZLN	Zelenaya	5.36	18	*e*P	Pn	04 00 51.0	+2.6
CIRR	Tsirk	5.44	17	PN	Pn	04 00 53.1	+3.7
CIRR	Tsirk	5.44	17	*e*P	Pn	04 00 53.2	+3.7
SRDR	Sredinnyy	5.48	10	PN	Pn	04 00 50.1	+0.2
SRDR	Sredinnyy	5.48	10	*e*P	Pn	04 00 50.2	+0.2
KBTR	Krutoberegovo	6.02	27	PN	Pn	04 00 58.3	+1.1
KBTR	Krutoberegovo	6.02	27	*e*P	Pn	04 00 58.4	+1.1
BKI	Bering	6.45	46	PN	Pn	04 01 03.6	+0.5
BKI	Bering	6.45	46	*e*P	Pn	04 01 03.6	+0.5
BKI				*e*S	Sn	04 02 09.7	-5.6
SHEM	Shemya Is, Ala	10.16	74	P	Pn	04 01 56.8	+2.9
	comp=N,9.0nm,0.7s,baz=274,slow=18,SNR=1.4						
SHEM				S	Sn	04 03 40.8	-5.5
	comp=N,11nm,0.5s,baz=256,slow=15,SNR=5.7						
SMY	Shemya	10.16	74	PN	Pn	04 01 56.9	+3.0
SMY	Shemya	10.16	74	Pn	Pn	04 01 56.9	+3.0
SEY	Seymchan	12.38	348	*e*PN	Pn	04 02 24.9	+0.7
ERM	Erimo	13.53	234	⇓*i*PN	Pn	04 02 39.5	-0.3
KLR	Kul'dur	16.86	274	P	P	04 03 24.1	-0.3
	comp=N,2.2nm,0.9s,baz=26,slow=5.6,SNR=4.2						
KLR	Kul'dur	16.86	274	*i* P	Pn	04 03 22.5	-0.5
BILL	Bilibino	17.63	10	*e*P	P	04 03 33.2	+0.6
BILL				pmax	pmax		
	comp=Z,4.0nm,1.1s						
MAJO	Matsushiro	20.17	232	*e*P	P	04 04 02.1	+1.4
HIA	Hailar	24.37	281	*e*P	P	04 04 42.1	-1.6
TIXI	Tiksi	24.53	338	*e*P	P	04 04 43.7	-1.1
TIXI				pmax	pmax		
	comp=Z,5.0nm,0.9s						
TJN	Taejon	26.25	248	*e*P	P	04 04 58.9	-1.8
J20K	Nowinta River	28.12	44	P	P	04 05 18.2	+1.0
KDAK	Kodiak Island	29.05	57	*i* P	P	04 05 24.9	-0.7
KDAK				pmax	pmax		
	comp=Z,18nm,1.3s						
COLA	College	30.87	42	⇑*i*P	P	04 05 42.8	+1.3
COLA				pmax	pmax		
	comp=Z,3.0nm,0.8s						
ILAR	Eielson Array	31.29	43	P	P	04 05 44.6	-0.6
	comp=Z,1.3nm,0.8s,baz=262,slow=8.7,SNR=16						
	comp=Z,1.3nm,0.8s						
D25K	Kavik River	31.72	34	P	P	04 05 49.3	+0.3
D25K				IAmb	IAmb	04 06 15.2	
	comp=Z,4.9nm,1.1s						
PRP	Porcupine Dome	31.86	41	P	P	04 05 51.0	+0.7
H11N2	WAKE ISLAND Hy	31.95	164	T	T	04 39 50.0	
	baz=349,slow=76,SNR=164						
H11N3	WAKE ISLAND Hy	31.96	164	T	T	04 39 56.1	
	baz=349,slow=76,SNR=124						
H11N1	WAKE ISLAND Hy	31.96	164	T	T	04 39 55.5	
	baz=349,slow=76,SNR=91						
ULN	Ulaanbaatar	32.72	285	*e*P	P	04 05 56.7	-1.5
H11S1	WAKE ISLAND Hy	33.11	165	T	T	04 41 09.0	
	baz=349,slow=76,SNR=57						
H11S3	WAKE ISLAND Hy	33.12	165	T	T	04 41 09.8	
	baz=349,slow=76,SNR=99						
H11S2	WAKE ISLAND Hy	33.13	165	T	T	04 41 09.7	
	baz=349,slow=76,SNR=46						
K27K	Chicken	33.42	44	P	P	04 06 04.3	+0.5
K27K				IAmb	IAmb	04 06 05.6	
	comp=Z,3.8nm,1.0s						
L27K	Beaver Creek,	33.64	46	P	P	04 06 07.1	+1.2
L27K				IAmb	IAmb	04 06 08.0	
	comp=Z,4.7nm,1.0s						
NRIK	Noril'sk	36.92	326	*e*P	P	04 06 33.4	-0.5
NRIK				pmax	pmax		
	comp=Z,4.0nm,1.6s						
P33M	Teslin, Yukon	38.47	49	P	P	04 06 48.7	+1.5
P33M				IAmb	IAmb	04 06 50.4	
	comp=Z,4.5nm,1.2s						
DGZ	Jazzator, Alta	43.44	297	*e*P	P	04 07 27.2	-1.0
DGZ				pmax	pmax		
	comp=Z,1.0nm,1.1s						
YKA	Yellowknife Ar	45.66	40	P	P	04 07 45.3	-0.2
	comp=Z,2.1nm,0.8s,baz=303,slow=7.7,SNR=6.6						
	comp=Z,2.1nm,0.8s						
YKA	Yellowknife Ar	45.66	40	*i* P	P	04 07 46.0	+0.5
YKA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
YKA	Yellowknife Ar	45.66	40	P	P	04 07 46.8	+1.3
KURK	Kurchatov	47.75	302	*e*P	P	04 08 00.2	-1.8
KURK				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MK31	Makanchi Array	47.89	296	⇓*i*P	P	04 08 02.1	-1.2
MKAR	Makanchi Array	47.89	296	P	P	04 08 03.3	+0.1
	comp=Z,0.2nm,0.5s,baz=77,slow=9.0,SNR=1.9						
	comp=Z,0.2nm,0.5s						
MKAR	Makanchi Array	47.89	296	P	P	04 08 03.0	-0.3
ARTI	Arti	54.17	317	*e*P	P	04 08 48.6	-1.6
ARTI				pmax	pmax		
	comp=Z,1.0nm,0.6s						
O03E	Paynes Creek	54.50	68	P	P	04 08 54.3	+1.4
AAK	Ala-Archa	54.83	296	*e*P	P	04 08 55.4	0.0
AAK				pmax	pmax		
	comp=Z,1.0nm,1.0s						
WVOR	Wild Horse Val	54.95	64	P	P	04 08 57.8	+1.6
WVOR				pmax	pmax		
	comp=Z,3.0nm,0.9s						
WVOR	Wild Horse Val	54.95	64	P	P	04 08 57.8	+1.6
WVOR				IAmb	IAmb	04 08 59.2	
	comp=Z,2.8nm,0.8s						
CMAR	Chiang Mai Arr	56.42	258	P	P	04 09 07.4	+0.6
	comp=Z,1.3nm,0.3s,baz=32,slow=6.3,SNR=4.5						
	comp=Z,1.3nm,0.3s						
CMAR	Chiang Mai Arr	56.42	258	P	P	04 09 07.1	+0.2
NVAR	Mina Array Bea	57.77	67	P	P	04 09 17.6	+1.2
	comp=Z,1.0nm,0.6s,baz=296,slow=7.3,SNR=11						
	comp=Z,1.0nm,0.6s						
NVAR	Mina Array Bea	57.77	67	P	P	04 09 17.1	+0.8
ABKAR	Akbulak array	58.16	310	P	P	04 09 18.7	0.0
PDAR	Pinedale Array	59.76	58	P	P	04 09 31.3	+1.1
	comp=Z,1.2nm,0.9s,baz=336,slow=3.3,SNR=6.8						
	comp=Z,1.2nm,0.9s						
PDAR	Pinedale Array	59.76	58	P	P	04 09 30.4	+0.1
FURC	Furnace Creek,	59.94	68	P	P	04 09 32.0	+0.8
HMU	Henry Mountain	62.44	63	P	P	04 09 50.0	+1.5
HMU				IAmb	IAmb	04 09 51.0	
	comp=Z,3.0nm,0.8s						
PV05	Paradox Valley	63.27	62	P	P	04 09 55.1	+1.2
PV05				IAmb	IAmb	04 10 13.9	
	comp=Z,9.1nm,1.5s						
TXAR	Lajitas Array	72.73	65	P	P	04 10 54.5	+1.2
	comp=Z,1.4nm,0.7s,baz=296,slow=4.1,SNR=23						
	comp=Z,1.4nm,0.7s						
TXAR	Lajitas Array	72.73	65	P	P	04 10 54.3	+1.1
EKA	Eskdalemuir Ar	72.92	349	P	P	04 10 51.9	-1.9
	comp=Z,0.2nm,0.3s,baz=19,slow=5.1,SNR=5.9						
	comp=Z,0.2nm,0.3s						
WB0	Warramunga Arr	73.39	203	P	P	04 10 57.5	+0.6
WRA	Warramunga Arr	73.58	203	P	P	04 10 58.7	+0.7
	comp=Z,0.6nm,1.0s,baz=20,slow=6.2,SNR=2.5						
	comp=Z,0.6nm,1.0s						
WRA	Warramunga Arr	73.58	203	P	P	04 10 58.0	+0.1
ASAR	Alice Springs	77.26	203	P	P	04 11 20.5	+1.4
	comp=Z,0.4nm,0.7s,baz=23,slow=5.0,SNR=2.1						
	comp=Z,0.4nm,0.7s						
ASAR	Alice Springs	77.26	203	P	P	04 11 19.9	+0.8
H03N2	Juan Fernandez	135.55	89	T	T	06 49 23.3	
	baz=313,slow=76,SNR=233						
H03N1	Juan Fernandez	135.57	89	T	T	06 49 24.8	
	baz=309,slow=76,SNR=222						

IDC ***17*** *04:21:08.8±1.0, 17°.95S×174°.78W, h0^{km}, mb4.3/5, mbtmp4.4/6, ML5.2/1, Error ellipse: s-maj=37.9km s-min=18.7km az=134.0*

NEIC ***17*** *04:21:19.9±1.2, 17°.2S±0°.1×174°.3W±0°.2, h131^{km}±5^{km}, mb4.4/17, Error ellipse: s-maj=29.9km s-min=12.4km az=120.0*

ISC 17 04:21:20.8±0.6**, 17°.1S**±0°.1×**174°.3W**±0°.1**, h150**^{km}**, n35, σ1^{s}.19**/35**, mb4.3**/14**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	3.94	38	Pn	Pn	04 22 20.0	-0.4
	89nm,0.3s,baz=232,slow=12,SNR=34						
AFI				Sn	Sn	04 23 03.2	-3.5
	143nm,0.3s,baz=56,slow=18,SNR=13						
	243nm,0.4s						
AFI				AML	AML		
AFI	Afiamalu	3.94	38		Pn	04 22 19.8	-0.6
WCZ	Waipu Caves	21.36	206	P	P	04 25 55.8	-0.4
HAZ	Te Kaha	21.77	197	P	P	04 26 00.6	0.0
HAZ				AML	AML		
RUGZ	Raukumara Rang	22.00	197	P	P	04 26 03.7	+0.6
MKAZ	Moumakai	22.05	203	P	P	04 26 02.5	-0.9
MKAZ				AML	AML		
MWZ	Matawai	22.39	197	P	P	04 26 04.7	-2.0
URZ	Urewera	22.44	198	P	P	04 26 06.0	-1.2
URZ				AML	AML		
TOZ	Tahuroa Road	22.48	202	P	P	04 26 07.2	-0.4
TOZ				IAmb	IAmb	04 26 10.2	
	comp=Z,18nm,1.1s						
MUGZ	Murupara	22.74	198	P	P	04 26 10.5	+0.4
MUGZ				AML	AML		
MUGZ				AML	AML		
KNZ	Kokohu	22.99	196	P	P	04 26 14.7	+2.4
KNZ				AML	AML		
BKZ	Black Stump Fm	23.46	198	P	P	04 26 16.8	+0.1
BKZ				AML	AML		
QRZ	Quartz Range	26.29	203	P	P	04 26 44.0	+1.7
MRNZ	Matariki Terra	26.71	202	P	P	04 26 45.8	-0.2
ARMA	Armidale	33.80	241	P	P	04 27 48.7	-0.1
ARMA				IAmb	IAmb	04 27 58.1	
	comp=Z,3.1nm,0.8s						
CAN	Canberra	37.38	234	P	P	04 28 17.7	-1.4
CAN				IAmb	IAmb	04 28 50.8	
	comp=Z,8.7nm,1.1s						
CTAO	Charters Tower	37.49	259	P	P	04 28 19.6	-0.7
CTAO				IAmb	IAmb	04 28 20.6	

	comp=Z,8.8nm,0.9s						
TAU	Tasmania Unive	41.55	224	P	P	04 28 53.6	+0.1
STKA	Stephens Creek	42.51	241	P	P	04 28 59.1	-2.4
	comp=Z,6.1nm,0.8s,baz=75,slow=7.6,SNR=5.3						
	comp=Z,6.1nm,0.8s						
BBOO	Buckleboo	47.28	241	P	P	04 29 38.6	-0.6
BBOO				IAmb	IAmb	04 29 40.1	
	comp=Z,21nm,1.1s						
WR8	Warramunga Arr	48.53	258	P	P	04 29 48.0	-1.0
WR8				IAmb	IAmb	04 30 12.4	
	comp=Z,5.9nm,1.1s						
WB0	Warramunga Arr	48.65	258	P	P	04 29 49.2	-0.7
WRA	Warramunga Arr	48.68	258	P	P	04 29 49.6	-0.5
	comp=Z,2.4nm,0.6s,baz=96,slow=7.3,SNR=39						
	comp=Z,2.4nm,0.6s						
WRA	Warramunga Arr	48.68	258	P	P	04 29 49.8	-0.4
AS31	Alice Springs	48.83	253	P	P	04 29 51.4	+0.1
AS31				IAmb	IAmb	04 29 52.0	
	comp=Z,4.1nm,0.6s						
ASAR	Alice Springs	48.83	253	P	P	04 29 51.0	-0.2
	comp=Z,13nm,0.6s,baz=88,slow=8.6,SNR=169						
	comp=Z,13nm,0.6s						
ASAR	Alice Springs	48.83	253	P	P	04 29 50.9	-0.4
VNDA	Vanda	61.65	186	P	P	04 31 22.6	+0.4
	comp=Z,0.4nm,0.6s,baz=3.4,slow=7.0,SNR=2.4						
	comp=Z,0.4nm,0.6s						
VNDA	Vanda	61.65	186	P	P	04 31 22.6	+0.4
CASY	Casey	68.56	205	P	P	04 32 06.3	-0.6
CASY				IAmb	IAmb	04 32 38.4	
	comp=Z,4.2nm,1.1s						
ATKA	Atka Island	68.97	0	P	P	04 32 11.9	+2.5
CNBA	Chernabura Isl	72.68	9	P	P	04 32 33.5	+1.7
HULI	Fort Hunter Li	72.80	43	P	P	04 32 34.2	+1.2
HULI				IAmb	IAmb	04 32 34.7	
	comp=Z,19nm,1.1s						
QSPA	South Pole Qui	72.99	180	P	P	04 32 34.2	+0.3
	comp=Z,1.2nm,0.8s,baz=98,slow=0.3,SNR=5.4						
	comp=Z,1.2nm,0.8s						
QSPA	South Pole Qui	72.99	180	P	P	04 32 33.9	0.0

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*IDC **17** 04:29:04.0±1.3, 28°.57N×52°.00E, h0^{km}, mb3.9/8, mbtmp3.8/9, ML3.3/1, Error ellipse: s-maj=36.0km s-min=20.7km az=152.0*
*NEIC **17** 04:29:05.8±0.8, 28°.65N±0°.09×52°.1E±0°.1, h10^{km}±1^{km}, mb4.4/13, Error ellipse: s-maj=16.0km s-min=14.5km az=89.0*
*TEH **17** 04:29:05.2, 28°.63N×51°.99E, h11^{km}±10^{km}, ML3.5, Presumed earthquake*
*OMAN **17** 04:29:10.5±0.7, 28°.36N×52°.23E, h10^{km}, mb3.3/8, ml3.7/9, Error ellipse: s-maj=6.7km s-min=4.1km az=12.0*
ISC 17 04:29:05.9±0.5, **28°.60N**±0°.04×**52°.04E**±0°.04, **h15**^{km}, **n72**, σ**1^{s}29**/88, **mb4.2**/14, **Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DSBU	Dashti - Bushe	0.73	251	Pg	Pg	04 29 19.0	-1.1
KAZ2	Kazeron-Fars-I	1.06	342	Pg	Pb	04 29 24.5	-1.5
SHI	Shiraz	1.11	22	Pg	Pb	04 29 26.8	-0.2
JHRM	Jahrom	1.35	94	Pg	Pg	04 29 32.1	+0.1
KHL1	Khalili_Fars	1.47	131	Pg	Pg	04 29 34.2	0.0
LMD1	Lamerd	1.60	141	Pg	Pg	04 29 36.6	-0.2
KLNJ	Kolanjah	2.43	351	Pn	Pn	04 29 46.6	+1.2
SAKB	Bahrain	2.94	207	P	Pn	04 29 54.8	+2.8
SAKB				S	Sn	04 30 31.3	+4.2
IMEH	Mehriz	3.56	38	Pn	Pn	04 30 03.0	+2.2
TAFT	Taft - Yazd	3.62	30	Pn	Pn	04 30 03.2	+1.6
AMIS	Naft Sefid	3.87	323	Pn	Pn	04 30 06.2	+1.2
DOBD	Dorbid, Yazd	4.00	32	Pn	Pn	04 30 08.3	+1.5
ICHK	Chekchek	4.17	29	Pn	Pn	04 30 11.0	+1.9
NGRK	Negar Kerman	4.23	75	Pn	Pn	04 30 12.2	+2.0
KHGB	Koh Gabri	4.25	64	Pn	Pn	04 30 12.3	+1.9
IBAF	Bafgh	4.27	45	Pn	Pn	04 30 12.6	+2.1
IZEF	Zefreh	4.29	3	Pn	Pn	04 30 12.4	+1.5
KRBR	Kerman	4.34	70	Pn	Pn	04 30 14.1	+2.4
SHME	Shamm	4.45	124	P	Pn	04 30 14.6	+1.8
BANOM	Banah	4.63	124	P	Pn	04 30 16.9	+1.4
BANOM				S	Sn	04 31 09.9	+0.9
NAZ	Nazwa, Dubai	4.84	137	P	Pn	04 30 20.2	+2.0
	SNR=6.2						
NAZ				S	Sn	04 31 15.3	+1.3
MASF	Masafi	4.88	130	P	Pn	04 30 20.1	+1.2
MASF				S	Sn	04 31 15.8	+0.6
ASUD	Al Ashush, Dub	4.93	143	P	Pn	04 30 22.4	+2.9
FAQ	Al Faqa, Dubai	4.99	140	P	Pn	04 30 21.0	+0.8
FAQ				S	Sn	04 31 16.5	-1.1
MDH	Madha	5.03	130	P	Pn	04 30 21.8	+1.0
UOSS	Minazif	5.21	133	P	Pn	04 30 24.2	+0.9
UOSS				S	Sn	04 31 22.4	-0.7
UOSS	Minazif	5.21	133		Pn	04 30 23.8	+0.5
HATD	Hatta, Dubai	5.25	135	P	Pn	04 30 24.6	+0.8
HATD				S	Sn	04 31 23.7	-0.4
ASHO	Ashiyiah	5.31	136	P	Pn	04 30 26.0	+1.3
	SNR=13						
ASHO				S	Sn	04 31 24.5	-1.1
KBAM	BAM	5.65	83	Pn	Pn	04 30 31.4	+2.0
JASK	Jask - Hormozg	5.86	116	P	Pn	04 30 33.7	+1.5
SOHO	SOHO	6.00	137	P	Pn	04 30 35.2	+1.0
SOHO				S	Sn	04 31 42.3	-0.4
UMZA	Um Al Zommool	6.50	154	P	Pn	04 30 42.2	+1.1
UMZA				S	Sn	04 31 54.0	-1.0
ARQ	Araqi	6.61	141	P	Pn	04 30 43.8	+1.1
ARQ				S	Sn	04 31 58.2	+0.4
HOQ	Hoqain	6.89	135	P	Pn	04 30 47.7	+1.3
HOQ				S	Sn	04 32 03.0	-1.5
BSY	Bisya	7.46	140	P	Pn	04 30 55.1	+0.8
	SNR=16						
BSY				S	Sn	04 32 17.6	-1.1
SMDO	Samad	7.73	134	P	Pn	04 30 58.6	+0.6
	SNR=7.8						
SMDO				S	Sn	04 32 23.8	-1.6
RAYN	Ar Rayn	7.75	231		Pn	04 30 59.3	+0.9
WSAR	Wadi Sarin	7.98	131	P	Pn	04 31 02.5	+1.1
WSAR				S	Sn	04 32 30.2	-1.2
SNJK	Sanadaj _Korde	8.00	330	Pn	Pn	04 31 03.3	+1.4
JMDO	Jabal Madar	8.28	137	P	Pn	04 31 07.0	+1.5
WBK	Wadi Bani Khal	8.64	132	P	Pn	04 31 10.6	+0.1
WBK				S	Sn	04 32 47.2	-0.6
MHTO	MHTO	9.30	143	P	Pn	04 31 20.0	+0.6
	SNR=17						
BRTR	Keskin Array B	18.80	311	P	Pn	04 33 26.1	+0.6
	0.1nm,0.3s,baz=142,slow=12,SNR=5.4						
	0.4nm,0.5s						
BRTR				AML	AML		
BRTR	Keskin Array B	18.80	311	P	P	04 33 25.2	+0.2
KKAR	Karatay Array	20.75	41	P	P	04 33 44.7	-1.4
AB31	Akbulak array	21.50	14	P	P	04 33 53.8	-0.2
ABKAR	Akbulak array	21.50	14	P	P	04 33 53.3	-0.7
KDJ	Kajisay	24.43	50	P	P	04 34 23.6	-0.6
KDJ				IAmb	IAmb	04 34 24.4	
	comp=Z,6.2nm,1.0s						
TIRR	Tirgusor	24.59	316	P	P	04 34 24.4	-1.0
TIRR				IAmb	IAmb	04 34 27.0	
	comp=Z,13nm,1.1s						
KURBB	Kurchatov Arra	29.72	35	P	P	04 35 12.2	+0.8
	comp=Z,0.4nm,0.6s,baz=237,slow=9.7,SNR=4.1						
	comp=Z,0.4nm,0.6s						
MKAR	Makanchi Array	29.78	44	P	P	04 35 13.2	+1.2
	comp=Z,0.2nm,0.4s,baz=231,slow=6.6,SNR=4.3						
	comp=Z,0.2nm,0.4s						
MKAR	Makanchi Array	29.78	44	P	P	04 35 12.6	+0.6
KURK	Kurchatov	29.82	35	P	P	04 35 11.7	-0.5
ZALV	Zalesovo Beam	34.80	34	P	P	04 35 56.2	+0.4
	comp=Z,0.9nm,0.5s,baz=258,slow=7.4,SNR=4.2						
	comp=Z,0.9nm,0.5s						
ZALV	Zalesovo Beam	34.80	34	P	P	04 35 54.7	-1.1
STAL	STALIGIAL	35.42	311	P	P	04 36 01.2	-0.2
STAL				IAmb	IAmb	04 36 11.7	
	comp=Z,5.0nm,1.1s						
MBAR	Mbarara	35.49	219	P	P	04 35 59.7	-2.6
MBAR				IAmb	IAmb	04 36 00.3	
	comp=Z,6.2nm,1.1s						
FINES	FINESS Array B	37.10	340	P	P	04 36 15.7	+0.3
	comp=Z,0.9nm,0.6s,baz=142,slow=6.8,SNR=3.5						
	comp=Z,0.9nm,0.6s						
FINES	FINESS Array B	37.10	340	P	P	04 36 15.8	+0.4
SENIN	Lac Senin/Sane	39.10	309	P	P	04 36 32.3	-0.4
NOA	NORSAR Array B	42.28	332	P	P	04 36 58.8	+0.2
	comp=Z,0.2nm,0.4s,baz=124,slow=8.2,SNR=1.2						
	comp=Z,0.2nm,0.4s						
TORD	Torodi Ar. Bea	49.14	263	P	P	04 37 53.3	0.0
	comp=Z,1.5nm,0.5s,baz=61,slow=7.9,SNR=14						
	comp=Z,1.5nm,0.5s						
DBIC	Dimbokro	57.86	259	P	P	04 38 57.5	+0.1
	comp=Z,3.6nm,0.5s,baz=70,slow=5.6,SNR=8.8						
	comp=Z,3.6nm,0.5s						
DBIC	Dimbokro	57.86	259	P	P	04 38 57.5	+0.1
SCO	Scoresbysund	57.99	338	P	P	04 38 57.5	0.0
LBTB	Lobatse	59.07	208	P	P	04 39 06.3	+0.7
LBTB				IAmb	IAmb	04 39 07.0	
	comp=Z,5.2nm,1.1s						
K29M	Barlow Dome	87.56	4	P	P	04 41 52.8	-0.4
K29M				IAmb	IAmb	04 42 09.1	
	comp=Z,1.9nm,1.1s						
N19K	Bonanza Creek	88.31	13	P	P	04 41 57.3	+0.5
WB0	Warramunga Arr	92.86	111	P	P	04 42 18.6	+0.1
WB0				IAmb	IAmb	04 42 30.6	
	comp=Z,2.7nm,1.1s						
ASAR	Alice Springs	94.36	114	P	P	04 42 26.1	+0.8
	comp=Z,0.4nm,0.5s,baz=308,slow=4.5,SNR=2.1						
	comp=Z,0.4nm,0.5s						
ASAR	Alice Springs	94.36	114	P	P	04 42 25.6	+0.2

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*KRSC **17** 04:29:18.2±2.1, 58°.94N×158°.58E, h37^{km}±16^{km}, Ml4.1*
*IDC **17** 04:29:20.8±0.8, 58°.66N×159°.15E, h0^{km}, mb3.6/7, mbtmp3.6/10, ML4.0/2, MS2.8/1, Error ellipse: s-maj=21.7km s-min=14.5km az=169.0*
*MOS **17** 04:29:20.5±1.0, 58°.76N×159°.09E, h37^{km}, mb4.1/2, Error ellipse: s-maj=18.3km s-min=5.3km az=91.2*
*NEIC **17** 04:29:22.6±1.1, 58°.70N±0°.06×159°.2E±0°.2, h10^{km}±1^{km}, mb4.1/11, Error ellipse: s-maj=17.3km s-min=4.7km az=53.0*
*NERS **17** 04:29:28.8, 58°.85N×157°.98E, h8^{km}*
ISC 17 04:29:22.3±0.5, **58°.68N**±0°.03×**159°.14E**±0°.03, **h10**^{km}, **n75**, σ**1^{s}63**/93, **mb4.0**/15, **Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALN	Palana	0.59	46	PN	Pg	04 29 33.1	-0.6
PALN				S	Sb	04 29 42.2	-0.9
PALN	Palana	0.59	46	*e*P	Pg	04 29 33.1	-0.6
PALN				*e*S	Sb	04 29 42.2	-0.9
TIGL	Tigil	0.96	195	PN	Pg	04 29 40.1	-0.5
TIGL				S	Sb	04 29 55.3	+1.8
TIGL	Tigil	0.96	195	*e*P	Pg	04 29 40.1	-0.5
TIGL				*e*S	Sb	04 29 55.4	+1.8
OSSR	Ossora	2.11	73	PN	Pn	04 29 57.0	-0.5
OSSR				S	Sn	04 30 24.7	+1.0
OSSR	Ossora	2.11	73	*e*P	Pn	04 29 57.1	-0.5
OSSR				*e*S	Sn	04 30 24.8	+1.0
SRDR	Sredinnyy	2.39	172	PN	Pn	04 30 01.6	+0.1
SRDR	Sredinnyy	2.39	172	*e*P	Pn	04 30 01.7	+0.1
SMKR	Semkarok	2.45	148	PN	Pn	04 30 03.4	+1.0
SMKR	Semkarok	2.45	148	*e*P	Pn	04 30 03.4	+1.0
KOZ	Kozyrevsk	2.66	171	PN	Pn	04 30 06.2	+1.0
KOZ	Kozyrevsk	2.66	171	*e*P	Pn	04 30 06.3	+1.0
CIRR	Tsirk	2.72	161	PN	Pn	04 30 07.3	+1.2
CIRR	Tsirk	2.72	161	*e*P	Pn	04 30 07.4	+1.2
ESO	Esso	2.78	185	PN	Pn	04 30 06.6	-0.2
ESO	Esso	2.78	185	*e*P	Pn	04 30 06.6	-0.2
KPT	Kopyto	2.79	167	PN	Pn	04 30 08.3	+1.3
KPT	Kopyto	2.79	167	*e*P	Pn	04 30 08.4	+1.3
KIRR	Kirishev	2.81	166	PN	Pn	04 30 07.1	-0.3
KIRR	Kirishev	2.81	166	*e*P	Pn	04 30 07.1	-0.3
ZLN	Zelenaya	2.82	161	PN	Pn	04 30 09.2	+1.8
ZLN	Zelenaya	2.82	161	*e*P	Pn	04 30 09.3	+1.8
BZWR	Bezymyannyi-We	2.83	164	PN	Pb	04 30 11.2	-1.6
BZWR	Bezymyannyi-We	2.83	164	*e*P	Pb	04 30 11.3	-1.6
BZMR	Bezymyannaya	2.85	165	PN	Pn	04 30 09.4	+1.5
BZMR	Bezymyannaya	2.85	165	*e*P	Pn	04 30 09.5	+1.5
BZGR	Bezymyannyi-Gr	2.88	162	PN	Pn	04 30 10.2	+2.0
BZGR	Bezymyannyi-Gr	2.88	162	*e*P	Pn	04 30 10.2	+2.0
KMNR	Kamenistaya	3.00	168	PN	Pn	04 30 12.1	+2.2
KMNR	Kamenistaya	3.00	168	*e*P	Pn	04 30 12.1	+2.2
GADL	Gadlja	4.14	287	*e*P	Pn	04 30 24.7	-0.8
GADL				*e*Pg	Pb	04 30 35.0	-0.2
GADL				Pgmax		04 30 35.7	
	80nm,0.8s						
GADL				*e*Sg	Sb	04 31 21.5	-3.8
GADL				Sgmax		04 31 45.3	
	410nm,0.9s						
TLAR	Talaya	4.19	309	*e*P	Pn	04 30 26.9	+0.7
TLAR				*e*Pg	Pb	04 30 36.5	+0.5
TLAR				Pgmax		04 30 42.0	
	40nm,0.9s						
TLAR				*e*S	Sn	04 31 10.7	-4.5
TLAR				Smax		04 31 11.4	
	160nm,0.5s						
TLAR				*e*Sg	Sb	04 31 26.2	-0.4
TLAR				Sgmax		04 31 36.9	
	170nm,0.6s						
MA2	Magadan	4.41	285	Pn	Pn	04 30 30.5	+1.4
	1.1nm,0.3s,baz=27,slow=19,SNR=1.4						
MA2				Sn	Sn	04 31 24.6	+4.2
	6.8nm,0.3s,baz=344,slow=22,SNR=7.7						
MA2				LR	LR	04 32 26.0	
	comp=Z,113nm,18.2s,baz=264,slow=42						
	3.3nm,0.3s						
MA2				AML	AML		
MA2	Magadan	4.41	285		Pn	04 30 29.6	+0.5
MA2					Sn	04 31 21.4	+0.9
MA2	Magadan	4.41	285	*e*P	Pn	04 30 28.4	-0.7
MA2				*e*Pg	Pb	04 30 38.1	-1.6
MA2				Pgmax		04 30 45.1	
	20nm,0.7s						
MA2				*e*Sg	Sb	04 31 29.8	-3.0
MA2				Sgmax		04 31 43.4	
	120nm,0.7s						
MGD	Magadan 1	4.51	291	*e*P	Pn	04 30 29.9	-0.7
MGD				*e*Sg	Sb	04 31 33.3	-2.6
MGD				Sgmax		04 31 44.4	
	100nm,0.4s						
GNL	Ganaly	5.05	188	PN	Pn	04 30 37.9	-0.1
GNL	Ganaly	5.05	188	*e*P	Pn	04 30 37.9	-0.1
KRX	Arik	5.35	183	PN	Pn	04 30 44.1	+1.9
KRX	Arik	5.35	183	*e*P	Pn	04 30 44.1	+1.9
SEY	Seymchan	5.39	325	Pn	Pb	04 30 56.0	-0.5
	0.8nm,0.3s,baz=133,slow=15,SNR=10.0						
SEY				Sn	Sb	04 32 01.5	+0.3
	1.0nm,0.3s,baz=161,slow=14,SNR=4.3						
SEY	Seymchan	5.39	325	*e*Pg	Pb	04 31 00.1	+3.6
SEY				Pgmax		04 31 07.3	
	10.0nm,0.6s						
SEY				*e*Sg	Sb	04 32 05.8	+4.6
SEY				Sgmax		04 32 23.4	
	30nm,0.4s						
TLON	Talon	5.49	286	*e*Sg	Sb	04 32 05.0	+1.0
TLON				Sgmax		04 32 25.9	
	160nm,0.7s						
PEA0B	Petropavlovsk-	5.65	189	PN	Pn	04 30 47.0	+0.8
PEA0B	Petropavlovsk-	5.65	189	Pn	Pn	04 30 47.0	+0.8
PETK	Petropavlovsk-	5.65	189	Pn	Pn	04 30 48.7	+2.5
	1.2nm,0.6s,baz=356,slow=14,SNR=2.4						
PETK	Petropavlovsk-	5.65	189		Pn	04 30 47.5	+1.3
SUUS	Susuman	6.76	312	*e*Pg	Pb	04 31 24.9	+5.1
SUUS				Pgmax		04 31 36.3	
SUUS				*e*Sg	Sb	04 32 47.5	+6.9
SUUS				Sgmax		04 33 12.8	
	70nm,1.0s						
KLR	Kul'dur	18.56	251	P	P	04 33 38.8	-0.2
	0.2nm,0.3s,baz=8.1,slow=7.1,SNR=2.9						
	0.7nm,0.3s						
KLR				AML	AML		
G21K	Allakaket	22.62	50	P	P	04 34 23.1	+0.3
G21K				IAmb	IAmb	04 34 24.1	
	comp=Z,4.8nm,0.7s						
H22K	Ishtalitna Cre	23.52	51	P	P	04 34 32.4	+0.2
H22K				IAmb	IAmb	04 34 35.1	
	comp=Z,9.1nm,1.5s						
ILSW	Iliamna Southw	23.96	66	P	P	04 34 35.8	-0.7
E23K	Chandalar	24.06	46	P	P	04 34 36.4	-0.9
E23K				IAmb	IAmb	04 34 38.5	
	comp=Z,8.8nm,1.1s						
E24K	Your Creek	24.48	46	P	P	04 34 40.7	-0.5
E24K				IAmb	IAmb	04 34 42.2	
	comp=Z,4.8nm,0.9s						
D25K	Kavik River	25.19	43	P	P	04 34 47.3	-0.1
D25K				IAmb	IAmb	04 34 48.9	
	comp=Z,4.9nm,0.8s						
ILAR	Eielson Array	25.56	53	P	P	04 34 50.5	-0.4
	comp=Z,1.0nm,0.7s,baz=270,slow=9.1,SNR=11						
	comp=Z,1.0nm,0.7s						
E25K	Arctic Village	25.57	46	P	P	04 34 51.9	+1.0
PRP	Porcupine Dome	25.97	51	P	P	04 34 54.5	-0.3
PRP				IAmb	IAmb	04 34 57.4	
	comp=Z,2.4nm,0.7s						
MJAR	Matsushiro Arr	26.05	221	P	P	04 34 55.4	-0.2
	comp=Z,0.8nm,0.5s,baz=12,slow=8.7,SNR=4.2						
	comp=Z,0.8nm,0.5s						
MJAR	Matsushiro Arr	26.05	221	P	P	04 34 56.2	+0.7
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MJAR	Matsushiro Arr	26.05	221	P	P	04 34 56.2	+0.7
KURK	Kurchatov	44.52	297	P	P	04 37 33.5	-0.1
KURK				pmax	pmax		
	comp=Z,2.0nm,0.8s						
KURK	Kurchatov	44.52	297	P	P	04 37 33.5	-0.1
KURBB	Kurchatov Arra	44.63	297	P	P	04 37 33.5	-0.9
	comp=Z,1.1nm,0.8s,baz=52,slow=8.3,SNR=7.7						
	comp=Z,1.1nm,0.8s						
AB31	Akbulak array	53.88	307	P	P	04 38 45.5	+0.4
AB31				IAmb	IAmb	04 38 52.5	
	comp=Z,3.7nm,1.5s						
ABKAR	Akbulak array	53.88	307	P	P	04 38 44.4	-0.8
NVAR	Mina Array Bea	54.48	73	P	P	04 38 50.4	+0.4
	comp=Z,0.3nm,0.5s,baz=304,slow=7.7,SNR=4.0						
	comp=Z,0.3nm,0.5s						
NVAR	Mina Array Bea	54.48	73	P	P	04 38 49.9	-0.1
PDAR	Pinedale Array	55.38	63	P	P	04 38 56.6	+0.2
	comp=Z,0.4nm,0.6s,baz=5.2,slow=3.3,SNR=5.3						
	comp=Z,0.4nm,0.6s						
TXAR	Lajitas Array	68.99	68	P	P	04 40 28.4	+0.7
	comp=Z,0.4nm,0.9s,baz=319,slow=4.6,SNR=1.9						
	comp=Z,0.4nm,0.9s						
TXAR	Lajitas Array	68.99	68	P	P	04 40 27.7	-0.1
TXAR	Lajitas Array	68.99	68	P	P	04 40 27.7	-0.1
ASAR	Alice Springs	84.67	203	P	P	04 41 55.8	-0.1
	comp=Z,0.3nm,0.5s,baz=12,slow=4.5,SNR=4.5						
	comp=Z,0.3nm,0.5s						
ASAR	Alice Springs	84.67	203	P	P	04 41 55.0	-0.9
ASAR	Alice Springs	84.67	203	P	P	04 41 55.0	-0.9

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*IDC **17** 04:56:05.3±0.7, 15°.10S×173°.81W, h0^{km}, mb4.0/8, mbtmp4.0/9, ML4.8/1, MS3.5/4, Error ellipse: s-maj=34.2km s-min=17.0km az=138.0*
*NEIC **17** 04:56:08.0±1.4, 15°.1S±0°.1×173°.46W±0°.10, h20^{km}±4^{km}, mb4.7/11, Error ellipse: s-maj=16.2km s-min=12.0km az=139.0*
ISC 17 04:56:09.1±0.6, **15°.1S**±0°.1×**173°.4W**±0°.1, **h30**^{km}, **n34**, σ**1^{s}48**/28, **mb4.4**/13, **MS3.5**/3, **Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	1.93	54	Pn	Pn	04 56 40.7	+0.6
	246nm,0.3s,baz=254,slow=7.4,SNR=63						
AFI				Sn	Sn	04 57 00.8	-2.7
	671nm,0.3s,baz=34,slow=9.3,SNR=34						
AFI				LR	LR	04 57 37.4	
	comp=Z,361nm,20.7s,baz=228,slow=40						
	716nm,0.4s						
AFI				AML	AML		
AFI	Afiamalu	1.93	54		Pn	04 56 40.4	+0.3
AFI				Sn	Sn	04 57 01.3	-2.1
TOZ	Tahuroa Road	24.64	201	P	P	05 01 26.8	-0.3
TOZ				IAmb	IAmb	05 01 33.6	
	comp=Z,33nm,0.8s						
CMWZ	Cape Campbell	28.68	200	P	P	05 02 03.0	-0.4
H11S2	WAKE ISLAND Hy	38.67	329	T	T	05 44 16.4	
	baz=148,slow=76,SNR=9.5						
H11S3	WAKE ISLAND Hy	38.69	329	T	T	05 44 30.5	
	baz=148,slow=76,SNR=9.4						
H11S1	WAKE ISLAND Hy	38.69	329	T	T	05 44 27.4	
	baz=148,slow=76,SNR=7.6						
H11N3	WAKE ISLAND Hy	39.62	330	T	T	05 45 22.8	
	baz=147,slow=76,SNR=6.0						
H11N1	WAKE ISLAND Hy	39.62	330	T	T	05 45 51.8	
	baz=147,slow=76,SNR=4.8						
H11N2	WAKE ISLAND Hy	39.63	330	T	T	05 45 28.6	
	baz=147,slow=76,SNR=5.1						
WR8	Warramunga Arr	49.78	256	P	P	05 04 58.0	-1.5
WR8				IAmb	IAmb	05 05 28.6	
	comp=Z,10.0nm,1.4s						
WB0	Warramunga Arr	49.89	257	P	P	05 04 58.4	-1.9
WB0				IAmb	IAmb	05 05 21.5	
	comp=Z,6.5nm,1.4s						
WB2	Warramunga Arr	49.92	256	P	P	05 04 58.6	-1.9
WB2				IAmb	IAmb	05 05 14.8	
	comp=Z,10.0nm,1.4s						
WRA	Warramunga Arr	49.93	256	P	P	05 04 58.1	-2.5
	comp=Z,0.9nm,0.9s,baz=92,slow=7.3,SNR=8.6						
	comp=Z,0.9nm,0.9s						
WRA	Warramunga Arr	49.93	256	P	P	05 04 58.7	-1.9
ASAR	Alice Springs	50.23	252	P	P	05 05 00.6	-2.3
	comp=Z,2.7nm,0.6s,baz=86,slow=8.2,SNR=20						
	comp=Z,2.7nm,0.6s						
ASAR	Alice Springs	50.23	252	P	P	05 05 01.8	-1.1
FORT	Forrest	55.58	243	P	P	05 05 42.8	+0.5
FORT				IAmb	IAmb	05 05 44.6	
	comp=Z,51nm,1.4s						
FITZ	Fitzroy Crossi	58.29	258	LR	LR	05 30 09.8	
	comp=Z,124nm,18.5s,baz=358,slow=35						
VNDA	Vanda	63.72	186	P	P	05 06 38.4	+0.9
	comp=Z,0.9nm,0.8s,baz=358,slow=8.0,SNR=4.0						
	comp=Z,0.9nm,0.8s						
VNDA	Vanda	63.72	186	P	P	05 06 38.0	+0.6
VNDA				IAmb	IAmb	05 06 56.9	
	comp=Z,3.7nm,1.4s						
GSTR	Great Sitkin T	66.91	358	P	P	05 06 58.3	-0.1
SHEM	Shemya Is, Ala	68.36	352	LR	LR	05 31 23.6	
	comp=Z,28nm,21.8s,baz=204,slow=31						
CHGN	Chignik	72.19	9	P	P	05 07 31.5	+0.7
YBH	Yreka Blue Hor	73.32	37	P	P	05 07 40.3	+2.2
	comp=Z,1.4nm,0.9s,baz=220,slow=3.6,SNR=5.6						
	comp=Z,1.4nm,0.9s						
NVAR	Mina Array Bea	74.07	42	P	P	05 07 45.1	+2.4
	comp=Z,0.6nm,0.7s,baz=240,slow=9.1,SNR=6.4						
	comp=Z,0.6nm,0.7s						
NVAR	Mina Array Bea	74.07	42	P	P	05 07 42.1	-0.6
QSPA	South Pole Qui	74.99	180	P	P	05 07 47.9	+0.4
	comp=Z,3.6nm,0.9s,baz=324,slow=1.2,SNR=9.3						
	comp=Z,3.6nm,0.9s						
QSPA	South Pole Qui	74.99	180	P	P	05 07 47.5	0.0
QSPA				IAmb	IAmb	05 07 52.0	
	comp=Z,9.3nm,1.4s						
ILAR	Eielson Array	82.11	11	P	P	05 08 28.0	+1.6
	comp=Z,0.3nm,0.7s,baz=233,slow=6.8,SNR=5.1						
	comp=Z,0.3nm,0.7s						
MAW	Mawson	88.12	199	P	P	05 08 56.2	-0.4
	comp=Z,1.1nm,0.6s,baz=128,slow=8.7,SNR=2.9						
MAW				LR	LR	05 47 11.5	
	comp=Z,18nm,18.5s,baz=347,slow=35						
	comp=Z,1.1nm,0.6s						
MAW	Mawson	88.12	199	P	P	05 08 56.5	-0.1
BRTR	Keskin Array B	145.89	321	PKPbc	PKPab	05 15 46.5	-0.1
	comp=Z,0.8nm,0.6s,baz=96,slow=3.2,SNR=3.8						
BRTR	Keskin Array B	145.89	321	PKPdf	PKPdf	05 15 44.8	-0.7

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*JMA **17** 05:00:36.2±0.1, 36°.5N±0°.2×140°.6E±0°.4, h55^{km}, MD4.3/40, MV4.4/40, NORTHERN IBARAKI PREF*
JMA Felt III J1 at NORTHERN IBARAKI PREF .
*NIED **17** 05:00:36.2, 36°.46N×140°.61E, h55^{km}, MW4.4, Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M$_{rr}$2.73; M$_{\theta\theta}$-0.11; M$_{\phi\phi}$-2.63; M$_{r\theta}$0.92; M$_{\theta\phi}$-0.26; M$_{\phi r}$2.55; Fault plane solution: M$_{0}$3.82000×10^{15} NP1: φ$_{s}$177.00000°, δ23.00000°, λ73.00000°. NP2: φ$_{s}$15.00000°, δ68.00000°, λ97.00000°.*
*GFZ **17** 05:00:37.5±0.3, 37°N±5°×14°0E±°, h54^{km}, M4.6/19, mb4.6/19, confirmed*
*MOS **17** 05:00:37.5±0.9, 36°.77N×140°.39E, h66^{km}, mb4.7/36, Error ellipse: s-maj=8.8km s-min=5.8km az=115.5*
*NEIC **17** 05:00:38.8±1.3, 36°.53N±0°.06×140°.46E±0°.05, h68^{km}±5^{km}, mb4.6/70, Error ellipse: s-maj=9.8km s-min=5.8km az=161.0*
*IDC **17** 05:00:38.5±1.5, 36°.36N×140°.47E, h78^{km}±13^{km}, mb4.0/23, mbtmp4.3/27, MS3.4/8, Error ellipse: s-maj=14.5km s-min=8.9km az=64.0*
ISC 17 05:00:36.7±0.5, **36°.51N**±0°.04×**140°.51E**±0°.04, **h55**^{km}±3^{km}, **n309**, σ**1^{s}24**/298, **mb4.6**/92, **MS3.6**/10, **9C-14D**, **Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHO	Hitachi	0.11	26	*i* P	Pn	05 00 44.9	-0.3
JHO				A	A	05 00 44.9	
	comp=N,35nm,1.0s,comp=E,113nm,0.9s						

JHO				S	Sn	05 00 50.9	-0.5
JHYU	Hitachinakayam	0.18	159	iP	Pn	05 00 44.8	-0.7
JHYU				A	A	05 00 44.8	
	comp=N,157nm,0.3s,comp=E,194nm,0.7s						
JHYU				iS	Sn	05 00 50.7	-1.0
JYT	Yasato	0.38	222	⇓iP	Pn	05 00 46.8	-0.2
JYT				A	A	05 00 46.8	
	comp=N,78nm,0.4s,comp=E,146nm,0.4s						
JYT				⇓S	Sn	05 00 54.2	-0.3
JIHU	Itakohorinouch	0.54	178	A	A	05 00 47.8	
	comp=N,51nm,1.6s,comp=E,82nm,2.2s						
JFFD	Fukushimafurud	0.58	4	A	A	05 00 49.4	
	comp=N,21nm,0.9s,comp=E,37nm,1.3s						
ONAJ	Iwakimizuishiy	0.64	21	iP	Pn	05 00 49.2	-0.7
ONAJ				A	A	05 00 49.2	
	comp=N,25nm,5.7s,comp=E,49nm,3.1s						
ONAJ				S	Sn	05 00 58.9	-0.7
JSB	Shiboa	0.66	314	A	A	05 00 51.0	
	comp=N,20nm,0.7s,comp=E,16nm,1.1s						
JCAJ	Choshiashikaji	0.83	160	A	A	05 00 51.1	
	comp=N,35nm,0.2s,comp=E,32nm,0.3s						
JAG	Ashikaga	0.85	265	⇓iP	Pn	05 00 53.3	+0.7
JAG				A	A	05 00 53.3	
	comp=N,9.0nm,0.9s,comp=E,15nm,0.8s						
JAG				⇓S	Sn	05 01 05.3	+0.9
JSMT	Sammumatsuo	0.86	183	A	A	05 00 51.9	
	comp=N,16nm,1.4s,comp=E,30nm,0.3s						
JFK	Kawauchi	0.91	19	iP	Pn	05 00 52.5	-0.9
JFK				A	A	05 00 52.5	
	comp=N,5.0nm,1.6s,comp=E,7.0nm,0.9s						
TOK	Tokyo	1.02	217	A	A	05 00 54.7	
	comp=N,26nm,0.8s,comp=E,34nm,1.2s						
JKT	Katashina	1.04	285	⇓iP	Pn	05 00 56.3	+1.1
JKT				A	A	05 00 56.3	
	comp=N,9.0nm,0.6s,comp=E,10.0nm,0.2s						
JKT				⇓S	Sn	05 01 11.7	+2.8
JOTO	OTAMA OYAMA	1.06	352	iP	Pn	05 00 55.9	+0.5
JOTO				A	A	05 00 55.9	
	comp=N,16nm,0.7s,comp=E,18nm,1.2s						
JOTO				S	Sn	05 01 10.8	+1.6
JFY	Yanaizu	1.10	325	⇓iP	Pn	05 00 57.0	+1.0
JFY				A	A	05 00 57.0	
	comp=N,5.0nm,2.6s,comp=E,6.0nm,2.1s						
JCCN	Chibachonan	1.14	191	A	A	05 00 55.9	
	comp=N,15nm,2.0s,comp=E,13nm,3.1s						
JMST	Minamisoumatoc	1.25	14	A	A	05 00 58.2	
	comp=N,6.0nm,0.5s,comp=E,7.0nm,0.6s						
JMM	Marumori	1.37	9	⇓iP	Pn	05 00 59.7	+0.1
JMM				A	A	05 00 59.7	
	comp=N,19nm,0.6s,comp=E,12nm,0.6s						
JMM				⇓S	Sn	05 01 16.8	+0.1
JSGW	Sagamiharawaka	1.39	230	A	A	05 01 00.2	
	comp=N,8.0nm,1.1s,comp=E,8.0nm,1.7s						
JYAR	Yonezawaarcadi	1.43	348	A	A	05 01 01.2	
	comp=N,8.0nm,1.0s,comp=E,14nm,1.2s						
JYO	Yokosk	1.45	208	A	A	05 01 00.6	
	comp=N,9.0nm,3.0s,comp=E,9.0nm,5.3s						
JGK	Kuni	1.51	273	A	A	05 01 02.6	
	comp=N,5.0nm,3.9s,comp=E,6.0nm,2.5s						
TATJ	Tateyama 2	1.56	199	A	A	05 01 01.8	
	comp=N,13nm,1.6s,comp=E,15nm,4.2s						
JOD2	Odawara 2	1.69	223	A	A	05 01 04.4	
	comp=N,9.0nm,1.7s,comp=E,7.0nm,1.8s						
JIZZ	Izumozaki	1.77	306	A	A	05 01 06.4	
	comp=N,6.0nm,2.0s,comp=E,8.0nm,7.0s						
MJA0	Matsu Arr-Jizo	1.82	272	eP	Pn	05 01 07.0	+1.3
MJA0				pmax	pmax		
	comp=Z,16nm,0.3s						
MJAR	Matsushiro Arr	1.85	272	P	Pn	05 01 07.2	+1.1
	comp=Z,313nm,0.6s,baz=98,slow=9.3,SNR=678						
MJAR				S	Sn	05 01 30.5	+2.1
	comp=Z,168nm,0.5s,baz=79,slow=41,SNR=3.7						
MJAR	Matsushiro Arr	1.85	272		Pn	05 01 07.0	+1.0
MAJO	Matsushiro	1.85	272	d iP	Pn	05 01 06.7	+0.6
MAJO	Matsushiro	1.85	272		Pn	05 01 07.8	+1.7
MAJO	Matsushiro	1.85	272	P	Pn	05 01 07.9	+1.8
MAJO				S	Sn	05 01 22.1	-6.3
MJB9	Matsu-Tunnel	1.86	272		Pn	05 01 08.9	+2.8
JOU	Okura	1.86	4	A	A	05 01 07.0	
	comp=N,6.0nm,0.7s,comp=E,5.0nm,0.6s						
JHTM	Izuhatsuma	1.97	219	A	A	05 01 08.2	
	comp=N,10.0nm,1.3s,comp=E,11nm,1.9s						
JJN	Nakama	1.97	288	A	A	05 01 09.3	
	comp=N,3.0nm,6.6s,comp=E,4.0nm,2.6s						
JFNN	Fujinakano	1.98	229	A	A	05 01 08.5	
	comp=N,6.0nm,0.8s,comp=E,5.0nm,3.8s						
JIM2	Oshima 3	1.99	206	A	A	05 01 08.2	
	comp=N,6.0nm,2.5s,comp=E,7.0nm,1.1s						
JOFO	Osakifurukawao	2.12	9	A	A	05 01 10.5	
	comp=N,11nm,3.8s,comp=E,14nm,5.0s						
JYA	Atsumi	2.17	343	A	A	05 01 11.9	
	comp=N,4.0nm,1.0s,comp=E,7.0nm,0.9s						
JIZS	Izushimoda	2.23	217	A	A	05 01 11.7	
	comp=N,2.0nm,0.8s,comp=E,2.0nm,2.9s						
SHZ3	Shizuoka 3	2.36	233	A	A	05 01 14.1	
	comp=N,5.0nm,1.0s,comp=E,5.0nm,0.8s						
JNY	Yasuok	2.44	243	A	A	05 01 15.3	
	comp=N,4.0nm,2.7s,comp=E,3.0nm,1.2s						
JSG	Sagara	2.63	227		Pn	05 01 19.5	+2.8
JGF	Kuroka	2.71	251		Pn	05 01 20.0	+2.2
INU	Inuyama	3.06	249		Pn	05 01 24.5	+1.9
INU	Inuyama	3.06	249	P	Pn	05 01 24.8	+2.2
JHJ	Hachijo jima 2	3.43	190	P	Pn	05 01 27.9	+0.2
	comp=E,96nm,0.3s,baz=34,slow=3.6,SNR=10.0						
JHJ				S	Sn	05 02 05.0	-2.1
	comp=E,210nm,0.3s,baz=46,slow=23,SNR=7.7						
JHJ2	Mitsune	3.44	190	Pn	Pn	05 01 28.6	+0.9
JTM	Tenmabayashi	4.29	6		Pn	05 01 40.8	+1.3
JTM	Tenmabayashi	4.29	6	P	Pn	05 01 41.2	+1.7
ERM	Erimo	5.87	20	ceP	Pn	05 02 00.2	-0.8
ERM				pmax	pmax		
	comp=Z,72nm,1.0s						
ERM	Erimo	5.87	20		Pn	05 02 00.3	-0.8
ERM	Erimo	5.87	20	P	Pn	05 02 00.2	-0.8
	comp=Z,80nm,1.1s						
JMN	Monobe	6.10	245		Pn	05 02 05.0	+0.8
ASAJ	Asahikawa	7.76	11	P	Pn	05 02 25.9	-1.1
	comp=Z,6.8nm,0.3s,baz=200,slow=9.5,SNR=9.2						
ASAJ				S	Sn	05 03 51.4	-2.1
	comp=Z,12nm,0.5s,baz=54,slow=33,SNR=4.1						
ASAJ	Asahikawa	7.76	11	P	Pn	05 02 25.8	-1.2
JKA	Kamikawa-asahi	7.76	11		Pn	05 02 25.8	-1.2
JNU	Nakatsue	8.61	250	P	Pn	05 02 40.0	+1.4
	comp=Z,4.2nm,0.7s,baz=68,slow=15,SNR=4.4						
JNU				LR	LR	05 06 08.2	
	comp=Z,141nm,21.7s,baz=71,slow=39						
TEY	Ternei	9.02	342	eP	Pn	05 02 34.5	-10
USA0B	Ussuriysk Arra	10.06	322	eP	Pn	05 02 56.2	-2.2
USA0B	Ussuriysk Arra	10.06	322	Pn	Pn	05 02 56.8	-1.5
USRK	Ussuriysk Ar.	10.06	322	P	Pn	05 03 01.8	+3.5
	comp=Z,9.6nm,0.8s,baz=138,slow=13,SNR=17						
USRK				LR	LR	05 06 50.8	
	comp=Z,135nm,18.6s,baz=183,slow=37						
USRK	Ussuriysk Ar.	10.06	322	Pn	Pn	05 02 56.8	-1.5
KSRS	Korea Array	10.11	279	P	Pn	05 03 02.7	+3.6
	comp=Z,8.2nm,0.8s,baz=95,slow=14,SNR=19						
KSRS				LR	LR	05 06 47.3	
	comp=Z,157nm,20.7s,baz=90,slow=36						
KSAR	Wonju Array Be	10.14	279	P	Pn	05 02 56.5	-3.0
KSAR	Wonju Array Be	10.14	279	Pn	Pn	05 02 56.5	-3.0
YSS	Yuzhno-Sakhali	10.57	8	iP	Pn	05 03 04.3	-1.0
MDJ	Mudanjiang	11.59	318	P	Pn	05 03 22.6	+3.3
MDJ				pmax	pmax		
	comp=Z,26nm,1.0s						
CN2	Changchun	13.62	307	eP	Pn	05 03 48.5	+1.6
CN2				pmax	pmax		
	comp=Z,10.0nm,0.8s						
KLR	Kul'dur	14.23	336	P	P	05 04 00.3	-0.6
	comp=Z,1.2nm,0.5s,baz=128,slow=14,SNR=6.6						
KLR	Kul'dur	14.23	336	eP	P	05 04 01.1	+0.2
KLR				pmax	pmax		
	comp=Z,2.0nm,1.3s						
NJ2	Nanjing	18.43	262	eP	Pn	05 04 47.8	-0.3
NJ2				pmax	pmax		
	comp=Z,11nm,0.6s						
BJT	Baijiatuau	19.41	288	P	P	05 04 57.5	-0.7
BJT				pmax	pmax		
	comp=Z,5.0nm,0.5s						
BJT	Baijiatuau	19.41	288	P	P	05 04 57.5	-0.7
ZEA	Zeya	19.55	336	eP	P	05 04 58.5	-1.1
ZEA				pmax	pmax		
	comp=Z,10.0nm,0.6s						
HILR	Hailar Array B	19.92	317	P	P	05 05 00.6	-3.2
	comp=Z,0.6nm,0.3s,baz=108,slow=14,SNR=4.1						
XLT	XiLinHaoTe	20.02	299	eP	P	05 05 05.5	+0.6
XLT				pmax	pmax		
	comp=Z,9.0nm,0.9s						
XLT				pmax	pmax		
	comp=Z,62nm,3.5s						
PETK	Petropavlovsk-	20.51	31	P	Pn	05 05 12.2	-0.4
	comp=Z,1.4nm,0.4s,baz=245,slow=21,SNR=4.5						
	comp=Z,1.4nm,0.4s						
HNS	HongShan	20.62	280	⇑P	Pn	05 05 12.4	-1.7
HNS				pmax	pmax		
	comp=Z,15nm,0.7s						
HNS				LR	LR		
	comp=N,91nm,8.9s						
HNS				LR	LR		
	comp=E,170nm,16.5s						
HNS				LR	LR		
	comp=Z,110nm,19.0s						
PET	Petropavlovsk	20.84	32	iP	P	05 05 15.1	+1.5
PET				pmax	pmax		
	comp=Z,23nm,0.9s						
HHC	Hu-ho-hao-te	22.96	290	eP	P	05 05 38.1	+1.7
HHC				pmax	pmax		
	comp=Z,10.0nm,0.7s						
HHC				pmax	pmax		
	comp=Z,100nm,5.2s						
HHC				LR	LR		
	comp=N,110nm,6.6s						
HHC				LR	LR		
	comp=E,100nm,7.1s						
HHC				LR	LR		
	comp=Z,68nm,12.6s						
MA2	Magadan	24.02	13	⇑iP	P	05 05 48.3	+2.2
MA2				pmax	pmax		
	comp=Z,9.0nm,1.0s						
XAN	Xi'an	25.85	274	P	P	05 05 58.6	-4.4
XAN				pmax	pmax		
	comp=Z,10.0nm,0.6s						
YAK	Yakutsk	26.43	349	eP	P	05 06 07.2	-0.7
YAK				pmax	pmax		
	comp=Z,25nm,1.4s						
YAK				pmax	pmax		
	comp=N,8.0nm,1.1s						
YAK				pmax	pmax		
	comp=E,4.0nm,1.3s						
YAK	Yakutsk	26.43	349	P	P	05 06 06.6	-1.3
	comp=Z,32nm,0.5s						
ENH	Enshi	26.57	266		P	05 06 08.8	-0.7
ENH				IAmb	IAmb	05 06 10.8	
	comp=Z,11nm,0.6s						
ENH	Enshi	26.57	266	P	P	05 06 09.0	-0.6
	comp=Z,17nm,0.9s						
ULN	Ulaanbaatar	27.06	305	ceP	P	05 06 11.7	-2.2
ULN				pmax	pmax		
	comp=Z,3.0nm,0.8s						
ULN	Ulaanbaatar	27.06	305	P	P	05 06 13.5	-0.4
	comp=Z,5.0nm,0.7s						
SEY	Seymchan	27.45	12	P	P	05 06 19.5	+2.5
	comp=Z,4.5nm,0.9s,baz=221,slow=10,SNR=8.2						
	comp=Z,4.5nm,0.9s						
SEY	Seymchan	27.45	12	⇓iP	P	05 06 19.7	+2.7
SEY				pmax	pmax		
	comp=Z,6.0nm,0.9s						
SONM	Songino Array	27.48	305	P	P	05 06 17.4	-0.3
	comp=Z,3.1nm,0.7s,baz=107,slow=9.5,SNR=11						
	comp=Z,3.1nm,0.7s						
SONM	Songino Array	27.48	305	P	P	05 06 17.4	-0.3
H11N2	WAKE ISLAND Hy	28.52	119	T	T	05 36 32.9	
	baz=313,slow=75,SNR=128						
H11N1	WAKE ISLAND Hy	28.53	119	T	T	05 36 27.3	
	baz=313,slow=75,SNR=93						
H11N3	WAKE ISLAND Hy	28.54	119	T	T	05 36 23.5	
	baz=313,slow=75,SNR=134						
H11S1	WAKE ISLAND Hy	29.20	121	T	T	05 37 17.3	
	baz=314,slow=76,SNR=416						
H11S3	WAKE ISLAND Hy	29.20	121	T	T	05 37 17.4	
	baz=314,slow=76,SNR=278						
H11S2	WAKE ISLAND Hy	29.22	121	T	T	05 37 18.6	
	baz=314,slow=76,SNR=309						
LZH	Lanzhou	29.44	280	eP	P	05 06 37.1	+1.8
LZH				pP	pP	05 06 52.8	+3.5
LZH				pmax	pmax		
	comp=Z,19nm,0.8s						
LZH				LR	LR		
	comp=N,150nm,21.3s						
LZH				LR	LR		
	comp=E,210nm,18.2s						
LZH				LR	LR		
	comp=Z,180nm,21.6s						
PZH	PanZhiHua	34.33	264	P	P	05 07 21.8	+3.6
TIXI	Tiksi	35.73	354	P	P	05 07 28.9	-0.7
	comp=Z,4.3nm,0.5s,baz=211,slow=5.1,SNR=2.4						
	comp=Z,4.3nm,0.5s						
TIXI	Tiksi	35.73	354	P	P	05 07 29.1	-0.4
TIXI				pmax	pmax		
	comp=Z,7.0nm,0.9s						
TIXI	Tiksi	35.73	354	P	P	05 07 29.1	-0.4
TIXI				IAmb	IAmb	05 07 33.0	
	comp=Z,7.0nm,0.8s						
GOMU	GeErMu	36.53	284	P	P	05 07 38.1	+0.8
GOMU				pP	pP	05 07 41.5	-10
GOMU				sP	sP	05 07 45.4	-13
GOMU				pmax	pmax		
	comp=Z,2.0nm,0.4s						
DGZ	Jazzator, Alta	40.11	306	⇓iP	P	05 08 07.5	+0.5
DGZ				pmax	pmax		
	comp=Z,15nm,0.8s						
WMQ	Urumqi	40.43	297	eP	P	05 08 13.9	+4.3
WMQ				pmax	pmax		
	comp=Z,18nm,1.1s						
CMAR	Chiang Mai Arr	40.66	255	LR	LR	05 24 52.2	
	comp=Z,47nm,18.4s,baz=180,slow=36						
TNA	Tin City	41.67	29	P	P	05 08 19.8	+0.5
ZAA0	Zalesovo Array	41.73	313		P	05 08 20.0	0.0
ZAA0				IAmb	IAmb	05 08 21.1	
	comp=Z,9.8nm,0.7s						
ZALV	Zalesovo Beam	41.73	313	P	P	05 08 20.1	0.0
	comp=Z,8.1nm,0.6s,baz=90,slow=6.9,SNR=32						
	comp=Z,8.1nm,0.6s						
M14K	Bethel	43.25	37	P	P	05 08 33.6	+1.4
M14K				IAmb	IAmb	05 08 58.7	
	comp=Z,16nm,1.4s						
NRIK	Noril'sk	43.44	336	PcP	PcP	05 10 20.9	0.0
	comp=Z,3.2nm,0.4s,baz=118,slow=2.1,SNR=4.5						
MK31	Makanchi Array	43.78	302	c iP	P	05 08 36.6	-0.2
MKAR	Makanchi Array	43.78	302	P	P	05 08 37.0	+0.2
	comp=Z,4.3nm,0.8s,baz=89,slow=9.9,SNR=26						
MKAR				LR	LR	05 27 09.4	
	comp=Z,56nm,20.1s,baz=100,slow=36						
	comp=Z,4.3nm,0.8s						
MKAR	Makanchi Array	43.78	302		P	05 08 36.9	+0.1
MAKZ	Makanchi	43.99	302	P	P	05 08 38.6	+0.1
MAKZ				pmax	pmax		
	comp=Z,9.0nm,1.2s						
MAKZ	Makanchi	43.99	302		P	05 08 38.6	+0.1
MAKZ				IAmb	IAmb	05 08 39.7	
	comp=Z,8.6nm,1.2s						
MAKZ	Makanchi	43.99	302	P	P	05 08 39.0	+0.5
	comp=Z,6.2nm,1.1s						
L16K	Owhat River	44.55	36	P	P	05 08 43.8	+1.1
KURK	Kurchatov	45.69	308	P	P	05 08 51.9	+0.1
KURK	Kurchatov	45.69	308		P	05 08 51.8	0.0
KURK				IAmb	IAmb	05 08 53.5	
	comp=Z,5.0nm,0.7s						
KURK	Kurchatov	45.69	308	P	P	05 08 51.5	-0.3
	comp=Z,8.0nm,0.9s						
EVN	Everest	45.71	275		P	05 08 53.8	+0.7
EVN				IAmb	IAmb	05 09 14.3	
	comp=Z,7.8nm,0.9s						
EVN	Everest	45.71	275	P	P	05 08 53.6	+0.5
	comp=Z,8.7nm,1.1s						
KURBB	Kurchatov Arra	45.75	308	P	P	05 08 51.9	-0.4
	comp=Z,3.8nm,0.5s,baz=82,slow=8.0,SNR=25						
	comp=Z,3.8nm,0.5s						
G19K	Purcell Mounta	46.14	30	P	P	05 08 55.8	+0.7
G19K				IAmb	IAmb	05 08 59.7	
	comp=Z,8.4nm,1.4s						
PDGK	Podgornoye	46.38	298	P	P	05 08 57.9	+0.3
PDGK	Podgornoye	46.38	298		P	05 08 57.9	+0.3
WUS	Wushi	47.10	295	P	P	05 09 04.5	+1.3
	comp=Z,6.0nm,1.0s						
J20K	Nowinta River	47.18	33	P	P	05 09 04.8	+1.5
KDAK	Kodiak Island	47.97	42	iP	P	05 09 11.0	+1.4
KDAK				pmax	pmax		
	comp=Z,34nm,1.5s						
KDAK	Kodiak Island	47.97	42	P	P	05 09 10.0	+0.4
TARG	Taragay, Kyrgy	47.98	296	P	P	05 09 10.5	+0.1
TARG				pmax	pmax		
	comp=Z,6.0nm,1.0s						
TARG	Taragay, Kyrgy	47.98	296		P	05 09 10.5	+0.1
TARG				IAmb	IAmb	05 09 12.2	
	comp=Z,5.8nm,1.0s						
TARG	Taragay, Kyrgy	47.98	296	P	P	05 09 11.8	+1.4
	comp=Z,5.4nm,0.7s						
KDJ	Kajisay	48.32	297	P	P	05 09 12.2	-0.6
KDJ				pmax	pmax		
	comp=Z,4.0nm,0.6s						
KDJ	Kajisay	48.32	297	P	P	05 09 12.2	-0.6
KDJ				IAmb	IAmb	05 09 16.4	
	comp=Z,4.0nm,0.6s						
BOOM	Boomskoye usch	49.11	298	P	P	05 09 18.6	-0.2
BOOM				pmax	pmax		
	comp=Z,3.0nm,1.0s						
BOOM	Boomskoye usch	49.11	298	P	P	05 09 18.6	-0.2
ASAI	AK-SAY(Kyrgyzs	49.14	296	P	P	05 09 20.1	+0.9
	comp=Z,5.3nm,1.1s						
H24K	Noodor Dome	49.88	31	P	P	05 09 25.7	+1.6
AAK	Ala-Archa	50.10	298	⇑iP	P	05 09 26.3	0.0
AAK				pmax	pmax		
	comp=Z,3.0nm,1.1s						
IL31		50.33	32		P	05 09 27.5	+0.1
ILAR	Eielson Array	50.33	32	P	P	05 09 27.4	0.0
	comp=Z,1.7nm,0.7s,baz=268,slow=5.6,SNR=22						
	comp=Z,1.7nm,0.7s						
KSH2	Kashi	50.37	294	P	P	05 09 27.3	-1.1
KSH2				pmax	pmax		
	comp=Z,5.0nm,0.9s						
BVAR	Borovoye Array	50.39	312	P	P	05 09 27.9	-0.2
	comp=Z,1.7nm,0.4s,baz=91,slow=6.4,SNR=4.8						
	comp=Z,1.7nm,0.4s						
BORK	Borovoye	50.43	313	⇑iP	P	05 09 28.1	-0.3
BORK				pmax	pmax		
	comp=Z,2.0nm,0.9s						
BMAR	Burnt Mountain	51.14	29	P	P	05 09 34.9	+1.3
D27M	Malcolm River	52.37	26	P	P	05 09 43.7	+0.9
D27M				IAmb	IAmb	05 10 00.6	
	comp=Z,5.2nm,1.2s						
BCAR	Beaver Creek A	52.74	34	P	P	05 09 46.7	+1.2
KKAR	Karatay Array	52.76	300	P	P	05 09 46.1	+0.1
KKAR	Karatay Array	52.76	300		P	05 09 46.1	+0.1
MDSI	Maura Dua	53.05	228	P	P	05 09 47.3	-1.1
	comp=Z,17nm,1.0s						
EPYK	Eagle Plains	54.34	29	P	P	05 09 57.9	+0.7
EPYK				IAmb	IAmb	05 10 11.2	
	comp=Z,13nm,1.4s						
I30M	Mount Dempster	54.70	31		P	05 10 01.6	+1.6
I30M				IAmb	IAmb	05 10 01.8	
	comp=Z,5.2nm,0.8s						
FITZ	Fitzroy Crossi	56.10	197	P	P	05 10 11.3	+1.0
FITZ	Fitzroy Crossi	56.10	197	P	P	05 10 11.0	+0.7
ARTI	Arti	56.38	319	d iP	P	05 10 11.5	-0.5
ARTI				*PP	pP	05 10 25.5	-1.5
ARTI						05 11 08.0	
ARTI				S	S	05 17 56.7	-1.5
ARTI				SS	SS	05 21 38.5	-6.8
ARTI				pmax	pmax		
	comp=Z,8.0nm,0.8s						
ARTI	Arti	56.38	319	P	P	05 10 11.8	-0.2
WRAB	Tennant Creek	56.44	187	P	P	05 10 11.2	-1.5
	comp=Z,7.0nm,0.8s						
WR8	Warramunga Arr	56.44	187	P	P	05 10 11.7	-1.1
WRA	Warramunga Arr	56.45	187	P	P	05 10 11.3	-1.5
	comp=Z,3.6nm,0.6s,baz=4.3,slow=7.4,SNR=47						
	comp=Z,3.6nm,0.6s						
WRA	Warramunga Arr	56.45	187	P	P	05 10 11.9	-0.9
WRA	Warramunga Arr	56.45	187	P	P	05 10 11.8	-0.9
MMPY	Sheldon Lake,	57.54	33	P	P	05 10 21.2	+1.1
MMPY				IAmb	IAmb	05 10 33.5	
	comp=Z,3.2nm,1.2s						
AB31	Akbulak array	57.72	310		P	05 10 21.1	-0.4
AB31				IAmb	IAmb	05 10 21.9	
	comp=Z,3.8nm,0.7s						
ABKAR	Akbulak array	57.72	310		P	05 10 21.0	-0.5
ASAR	Alice Springs	60.17	187	P	P	05 10 37.7	-1.1
	comp=Z,2.4nm,0.8s,baz=18,slow=5.8,SNR=6.8						
	comp=Z,2.4nm,0.8s						
ASAR	Alice Springs	60.17	187	P	P	05 10 37.3	-1.4
KIRV	Kirov	60.23	323	c iP	P	05 10 38.5	-0.2
SPB2	Spitsbergen Ar	60.90	349	P	P	05 10 43.0	0.0
SPITS	Spitsbergen Ar	60.90	349	P	P	05 10 44.3	+1.2
SPITS				pmax	pmax		
	comp=Z,54nm,1.5s						
OUENC	Ouen Island, N	63.67	153	P	P	05 11 03.9	+1.7
BELG	Belogornoye	63.69	317	c iP	P	05 11 01.4	-0.6
BELG				pmax	pmax		
	comp=Z,3.0nm,0.9s						
ARCES	ARCESS Array B	64.23	339	P	P	05 11 04.8	-0.6
	comp=Z,2.3nm,0.8s,baz=45,slow=8.9,SNR=6.4						
	comp=Z,2.3nm,0.8s						
ARCES	ARCESS Array B	64.23	339	eP	P	05 11 05.4	0.0
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ARCES	ARCESS Array B	64.23	339	P	P	05 11 05.5	0.0
ARCES				IAmb	IAmb	05 11 19.1	
	comp=Z,12nm,1.4s						
YKA	Yellowknife Ar	64.62	30	P	P	05 11 07.8	-0.2
	comp=Z,0.6nm,0.8s,baz=303,slow=6.8,SNR=2.6						
	comp=Z,0.6nm,0.8s						
SGF	Sodankyl	65.16	337	P	P	05 11 11.2	-0.2
SGF	Sodankyl	65.16	337	P	P	05 11 11.2	-0.2
	comp=Z,13nm,2.2s						
NEEM	North Greenlan	66.09	3	iP	P	05 11 17.7	+0.1
NEEM				IAmb	IAmb	05 11 19.1	
	comp=Z,13nm,0.9s						
DAG	Danmarks Havn	66.23	355	iP	P	05 11 17.9	-0.3
DAG				IAmb	IAmb	05 11 18.6	
	comp=Z,4.4nm,0.5s						
DAG	Danmarks Havn	66.23	355	P	P	05 11 17.3	-0.9
	comp=Z,6.4nm,0.7s						
VRH	Novokhopyorsk	67.48	318	eP	P	05 11 24.0	-2.5
VRH				pmax	pmax		
	comp=Z,7.0nm,0.8s						
NLWA	Neilton Lookou	67.61	47	P	P	05 11 28.8	+1.3
NLWA				IAmb	IAmb	05 11 29.4	
	comp=Z,6.4nm,1.2s						
FORT	Forrest	67.95	192	P	P	05 11 29.1	-0.4
OBN	Obninsk	68.08	323	eP	P	05 11 29.6	-0.6
OBN				e*PP	pP	05 11 45.3	-0.3
OBN				e*SP	sP	05 11 51.9	0.0
OBN				e		05 11 55.7	
OBN				e		05 14 01.4	
OBN				ePPP	PPP	05 15 37.9	
OBN				pmax	pmax		
	comp=Z,9.0nm,1.0s						
OBN				MLR	MLR		
	comp=Z,45nm,22.0s						
LPSR	Galich'ya Gora	68.24	320	eP	P	05 11 30.4	-0.9
LPSR				pmax	pmax		
	comp=Z,12nm,0.8s						
AKT	Akhty	68.81	306	eP	P	05 11 34.4	-0.8
AKT				pmax	pmax		
	comp=Z,6.0nm,0.6s						
VSR	Storozhevoye	68.85	319	eP	P	05 11 33.6	-1.5
VSR				pmax	pmax		
	comp=Z,8.0nm,0.8s						
FIA1	FINESS Array S	68.94	332	P	P	05 11 35.5	0.0
FINES	FINESS Array B	68.94	332	P	P	05 11 34.9	-0.5
	comp=Z,6.4nm,0.8s,baz=61,slow=6.2,SNR=13						
	comp=Z,6.4nm,0.8s						
FINES	FINESS Array B	68.94	332	eP	P	05 11 35.2	-0.3
FINES				pmax	pmax		
	comp=Z,6.0nm,0.9s						
FINES	FINESS Array B	68.94	332	P	P	05 11 35.5	0.0
BLKN	Baker Lake	70.16	23	P	P	05 11 43.1	+0.2
E07A	Sunnyside	70.39	46	P	P	05 11 45.3	+0.6
KBZ	Khabaz	70.69	310	P	P	05 11 46.8	+0.3
	comp=Z,4.2nm,0.8s,baz=64,slow=3.0,SNR=8.7						
	comp=Z,4.2nm,0.8s						
KBZ	Khabaz	70.69	310	eP	P	05 11 45.5	-1.0
KBZ				pmax	pmax		
	comp=Z,4.0nm,0.8s						
KIV	Kislovodsk	70.70	311	eP	P	05 11 47.7	+0.9
KIV				pmax	pmax		
	comp=Z,13nm,1.0s						
SUMG	Summit	71.21	360	P	P	05 11 50.2	+0.5
SUMG				pmax	pmax		
	comp=Z,6.0nm,1.2s						
SUMG	Summit	71.21	360	P	P	05 11 50.2	+0.5
SUMG				IAmb	IAmb	05 12 00.6	
	comp=Z,6.3nm,1.2s						
SUMG	Summit	71.21	360	iP	P	05 11 51.1	+1.4
SUMG				IAmb	IAmb	05 11 51.8	
	comp=Z,6.5nm,0.7s						
SUMG	Summit	71.21	360	P	P	05 11 50.5	+0.8

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             comp=Z,19nm,2.9s
O02D  Mt. Diablo Mer    72.03  53    P       P        05 11 55.7 +0.9
NWAO  Narrogin (SRO)    72.42 200    LR      LR       05 45 47.4
             comp=Z,23nm,19.1s,baz=270,slow=38
MNK   Minsk             72.52 326  i P       P        05 11 55.7 -1.6
MNK                                i *PP     PcP      05 12 12.3 -2.5
MNK                                i                  05 14 39.4
MNK                                i PPP     PPP      05 16 22.5
MNK                                i S       S        05 21 15.8 -1.5
MNK                                i *SS     sS       05 21 44.1 +0.7
MNK                                i SS      SS       05 25 56.5 +0.6
MNK                                  pmax    pmax
             comp=E,21nm,0.7s
MNK                                  pmax    pmax
             comp=N,23nm,0.8s
MNK                                  pmax    pmax
             comp=Z,32nm,0.7s
MNK                                  MLR     MLR
             comp=N,543nm,19.0s
MNK                                  MLR     MLR
             comp=E,589nm,18.0s
MNK                                  MLR     MLR
             comp=Z,79nm,22.0s
MNK   Minsk             72.52 326  i P       P        05 11 55.8 -1.6
             comp=E,21nm,0.7s
MNK                                i P       P        05 11 55.8 -1.6
             comp=N,23nm,0.8s
MNK                                i P       P        05 11 55.8 -1.6
             comp=Z,32nm,0.7s,baz=51
MNK                                i pP      PcP      05 12 12.4 -2.5
MNK                                i PP      PP       05 14 39.5 +0.9
MNK                                i PPP     PPP      05 16 22.5
MNK                                i S       S        05 21 15.8 -1.5
MNK                                i sS      sS       05 21 44.1 +0.7
MNK                                i SS      SS       05 25 56.6 +0.6
MNK                                i SSS     SSS      05 29 16.4
MNK                                i LQ      LQ       05 38 26.7
MNK                                i LRM     MLR      05 44 49.8
             comp=Z,79nm,22.1s
NC405 NORSAR Array S    74.17 337    P       P        05 12 07.2 +0.2
NC405                                IAmb    IAmb     05 12 07.8
             comp=Z,8.1nm,0.8s
AK03  Malin Array Si    74.25 322    P       P        05 12 06.8 -0.8
HFS   Hagfors           74.26 335    P       P        05 12 07.3 -0.3
             comp=Z,2.5nm,0.7s,baz=65,slow=12,SNR=4.7
             comp=Z,2.5nm,0.7s
AKASG Malin Array Be    74.27 322    P       P        05 12 07.1 -0.6
             comp=Z,5.0nm,0.6s,baz=48,slow=6.0,SNR=25
             comp=Z,5.0nm,0.6s
AKASG Malin Array Be    74.27 322    P       P        05 12 07.7  0.0
AKASG                                pmax    pmax
             comp=Z,3.0nm,1.1s
AKASG Malin Array Be    74.27 322    P       P        05 12 07.7  0.0
AKBB  Malin Array Si    74.27 322d iP        P        05 12 07.2 -0.5
AKBB                                 pmax    pmax
             comp=Z,9.0nm,0.9s
AKBB  Malin Array Si    74.27 322            P        05 12 07.3 -0.5
AKBB                                 IAmb    IAmb     05 12 07.9
             comp=Z,7.5nm,0.8s
AKBB  Malin Array Si    74.27 322    P       P        05 12 06.8 -0.9
AK23  Malin Array Si    74.28 322    P       P        05 12 07.0 -0.8
AK01  Malin Array Si    74.28 322    P       P        05 12 07.0 -0.8
KIEV  Kiev              74.28 322    P       P        05 12 07.2 -0.6
KIEV                                 pmax    pmax
             comp=Z,7.0nm,0.8s
KIEV  Kiev              74.28 322            P        05 12 07.2 -0.6
KIEV                                 IAmb    IAmb     05 12 07.8
             comp=Z,6.8nm,0.8s
KIEV  Kiev              74.28 322    P       P        05 12 06.8 -1.0
KIEV  Kiev              74.28 322    P       P        05 12 07.1 -0.6
             comp=Z,10nm,0.8s
AK04  Malin Array Si    74.28 322    P       P        05 12 07.0 -0.8
AK09  Malin Array Si    74.29 322    P       P        05 12 07.0 -0.8
AK08  Malin Array Si    74.29 322    P       P        05 12 07.0 -0.9
AK02  Malin Array Si    74.30 322    P       P        05 12 07.1 -0.8
AK22  Malin Array Si    74.30 322    P       P        05 12 07.1 -0.8
AK11  Malin Array Si    74.31 322    P       P        05 12 07.1 -0.8
AK21  Malin Array Si    74.31 322    P       P        05 12 07.1 -0.9
AK10  Malin Array Si    74.32 322    P       P        05 12 07.5 -0.5
AK15  Malin Array Si    74.32 322    P       P        05 12 07.3 -0.7
AK05  Malin Array Si    74.33 322    P       P        05 12 07.3 -0.8
AK18  Malin Array Si    74.33 322    P       P        05 12 07.3 -0.8
AK12  Malin Array Si    74.33 322    P       P        05 12 07.4 -0.7
AK16  Malin Array Si    74.34 322    P       P        05 12 07.4 -0.8
AK20  Malin Array Si    74.34 322    P       P        05 12 07.4 -0.8
NC204 NORSAR Array S    74.35 337    P       P        05 12 08.2 +0.1
AK06  Malin Array Si    74.35 322    P       P        05 12 07.4 -0.8
NB201 NORSAR Array S    74.35 337    P       P        05 12 07.7 -0.4
AK19  Malin Array Si    74.36 322    P       P        05 12 07.5 -0.7
AK17  Malin Array Si    74.36 322    P       P        05 12 07.5 -0.7
AK14  Malin Array Si    74.37 322    P       P        05 12 07.5 -0.8
AK07  Malin Array Si    74.37 322    P       P        05 12 07.6 -0.7
NB2   NORSAR Subarra    74.39 337    P       P        05 12 07.8 -0.5
             comp=Z,6.3nm,0.8s,baz=39,slow=6.2
NB2   NORSAR Subarra    74.39 337    P       P        05 12 07.6 -0.7
NB2                                  pmax    pmax
             comp=Z,2.0nm,0.7s
NOA   NORSAR Array B    74.39 337    P       P        05 12 08.0 -0.3
             comp=Z,4.6nm,0.7s,baz=38,slow=5.7,SNR=20
             comp=Z,4.6nm,0.7s
AK13  Malin Array Si    74.40 322    P       P        05 12 07.7 -0.8
NBO00 NORSAR Array S    74.53 337    P       P        05 12 09.0 -0.1
DLMT  Dillon            75.22  44    P       P        05 12 14.2 +0.6
DLMT                                 IAmb    IAmb     05 12 15.5
             comp=Z,8.1nm,1.4s
RNPP9 Sopachiv          75.43 324    P       P        05 12 13.9 -0.5
LUBAR Lubar, Ukraine    75.49 322    P       P        05 12 14.2 -0.6
KVN   Kaiserville       75.66  52    P       P        05 12 16.9 +0.7
KVN                                  pmax    pmax
             comp=Z,2.0nm,1.2s
KVN   Kaiserville       75.66  52    P       P        05 12 16.9 +0.7
LHV   Little Huntoon    75.86  53    P       P        05 12 18.5 +1.4
NVAR  Mina Array Bea    75.88  53    P       P        05 12 18.1 +0.5
             comp=Z,0.5nm,0.7s,baz=298,slow=5.3,SNR=7.7
             comp=Z,0.5nm,0.7s
ARPR  Arapgir-MALATY    76.12 308    P       P        05 12 19.2 +0.4
ARPR                                 IAmb    IAmb     05 12 20.4
             comp=Z,7.2nm,0.9s
ARPR  Arapgir-MALATY    76.12 308    P       P        05 12 18.8  0.0
             comp=Z,7.9nm,0.8s
ILGA  Ilgaz             77.79 312    P       P        05 12 29.2 +0.9
ILGA                                 IAmb    IAmb     05 12 57.5
             comp=Z,11nm,1.1s
BORG  Borgarnes         78.07 352    P       P        05 12 29.6 +0.5
BORG                                 pmax    pmax
             comp=Z,78nm,1.3s
BORG  Borgarnes         78.07 352    P       P        05 12 29.6 +0.5
BUR08 Bucovina Ar. S    78.26 321    P       P        05 12 30.6  0.0
BUR08                                IAmb    IAmb     05 12 31.5
             comp=Z,6.0nm,1.0s
BURAR Bucovina Array    78.27 321    P       P        05 12 31.1 +0.5
BURAR                                pmax    pmax
             comp=Z,3.0nm,0.7s
BURAR Bucovina Array    78.27 321    P       P        05 12 31.1 +0.5
BURAR                                IAmb    IAmb     05 12 31.4
             comp=Z,3.0nm,0.7s
ANDN  Andirin           78.28 308    P       P        05 12 31.7 +0.8
             comp=Z,39nm,0.9s
PDAR  Pinedale Array    78.55  45    P       P        05 12 32.0 -0.4
             comp=Z,0.4nm,0.6s,baz=285,slow=1.9,SNR=5.6
             comp=Z,0.4nm,0.6s
BR131 Keskin Array S    78.65 311    P       P        05 12 33.4 +0.5
BR131                                pmax    pmax
             comp=Z,5.0nm,1.1s
BR131 Keskin Array S    78.65 311    P       P        05 12 33.4 +0.5
BR131                                IAmb    IAmb     05 12 37.0
             comp=Z,5.2nm,1.1s
BRTR  Keskin Array B    78.65 311    P       P        05 12 33.0  0.0
             comp=Z,2.5nm,0.9s,baz=116,slow=2.9,SNR=7.9
             comp=Z,2.5nm,0.9s
BRTR  Keskin Array B    78.65 311   eP       P        05 12 33.5 +0.5
BRTR                                 pmax    pmax
             comp=Z,2.0nm,0.9s
BRTR  Keskin Array B    78.65 311    P       P        05 12 32.6 -0.3
KKUL  Konya-Kulu        79.43 311    P       P        05 12 37.7 +0.5
             comp=Z,11nm,0.8s
RAYN  Ar Rayn           80.18 292    P       P        05 12 41.3 -0.1
RAYN                                 pmax    pmax
             comp=Z,3.0nm,0.7s
RAYN  Ar Rayn           80.18 292            P        05 12 41.3 -0.1
RAYN                                 IAmb    IAmb     05 12 42.0
             comp=Z,2.9nm,0.7s
RAYN  Ar Rayn           80.18 292    P       P        05 12 41.6 +0.2
             comp=Z,6.9nm,1.3s
SRU   San Rafael Swe    80.30  48    P       P        05 12 42.5 +0.5
SRU                                  pmax    pmax
             comp=Z,2.0nm,0.8s
SRU   San Rafael Swe    80.30  48    P       P        05 12 42.5 +0.5
MORC  Moravsky Berou    80.40 327    P       P        05 12 42.4 +0.3
MORC                                 pmax    pmax
             comp=Z,5.0nm,1.0s
MORC  Moravsky Berou    80.40 327    P       P        05 12 42.4 +0.3
MORC                                 IAmb    IAmb     05 12 43.7
             comp=Z,4.8nm,1.0s
MORC  Moravsky Berou    80.40 327    P       P        05 12 42.2 +0.1
             comp=Z,6.7nm,2.0s
RAR   Rarotonga         80.45 125    LR      LR       05 45 17.4
             comp=Z,54nm,20.2s,baz=76,slow=33
DPC   Dobruska-Polom    80.51 328    P       P        05 12 43.2 +0.5
DPC   Dobruska-Polom    80.51 328    P       P        05 12 43.2 +0.5
             comp=Z,5.4nm,1.5s
HMU   Henry Mountain    80.92  49    P       P        05 12 45.6 +0.2
CLL   Collm             81.19 330  i P       P        05 12 45.9 -0.3
CLL                                  pmax    pmax
             comp=Z,10.0nm,1.1s
CLL   Collm             81.19 330    P       P        05 12 46.2  0.0
CLL                                  IAmb    IAmb     05 12 46.7
             comp=Z,7.3nm,0.9s
CLL   Collm             81.19 330    P       P        05 12 45.9 -0.3
             comp=Z,8.8nm,0.9s
CLL   Collm             81.19 330  i P       P        05 12 45.9 -0.3
             comp=Z,10.0nm,1.1s
CY606 RAF Akrotiri,     81.43 306    P       P        05 12 47.9 +0.4
HSKC  Hora Svate Kat    81.54 329    P       P        05 12 48.2 +0.1
             comp=Z,9.6nm,1.1s
PV10  Paradox Valley    81.67  48    P       P        05 12 49.9 +0.5
PV10                                 IAmb    IAmb     05 12 50.8
             comp=Z,7.6nm,0.8s
PV05  Paradox Valley    81.82  48    P       P        05 12 51.0 +0.8
PV05                                 IAmb    IAmb     05 13 10.4
             comp=Z,13nm,1.2s
GERES GERESS Array B    82.77 328    P       P        05 12 54.4 -0.3
             comp=Z,2.1nm,0.5s,baz=47,slow=5.9,SNR=3.0
EKA   Eskdalemuir Ar    83.38 340    P       P        05 12 57.5 -0.1
             comp=Z,1.3nm,0.6s,baz=50,slow=5.5,SNR=5.3
             comp=Z,1.3nm,0.6s
ECH   Echery            85.96 331    P       P        05 13 10.5 -0.3
ECH                                  pmax    pmax
             comp=Z,3.0nm,0.7s
ECH   Echery            85.96 331    P       P        05 13 10.5 -0.3
ECH                                  IAmb    IAmb     05 13 11.0
             comp=Z,3.3nm,0.7s
FUORN Ofenpass-Fuorn    85.96 328    P       P        05 13 11.2 +0.1
FUORN                                IAmb    IAmb     05 13 11.3
             comp=Z,4.4nm,0.8s
FDMO  Fiordimonte       87.49 324    P       P        05 13 18.4 +0.1
FDMO                                 IAmb    IAmb     05 13 19.1
             comp=Z,5.1nm,0.7s
NRCA  Norcia            87.63 324    P       P        05 13 19.3 +0.2
NRCA                                 IAmb    IAmb     05 13 45.9
             comp=Z,3.8nm,0.9s
KSU1  Kansas State U    88.18  41    P       P        05 13 21.9 +0.2
LPIG  La Paz            90.08  60    LR      LR       05 51 21.0
             comp=Z,29nm,18.3s,baz=214,slow=34
TXAR  Lajitas Array     91.02  52    P       P        05 13 35.2 -0.1
             comp=Z,0.5nm,0.7s,baz=294,slow=2.8,SNR=7.5
             comp=Z,0.5nm,0.7s
TXAR  Lajitas Array     91.02  52   eP       P        05 13 35.1 -0.2
TXAR  Lajitas Array     91.02  52    P       P        05 13 35.4 +0.1
LMN   Caledonia Moun    94.90  17    P       P        05 13 53.4 +0.7
QSPA  South Pole Qui   126.25 180    PKP     PKPdf    05 19 31.5 -0.5
             comp=Z,1.0nm,0.9s,baz=353,slow=0.4,SNR=2.2
QSPA  South Pole Qui   126.25 180            PKiKP    05 19 32.3 -0.1
LPAZ  La Paz           147.59  59    PKPbc   PKPbc    05 20 15.1 -0.9
             comp=Z,1.0nm,0.6s,baz=289,slow=2.3,SNR=4.7
LPAZ  La Paz           147.59  59            PKPbc    05 20 15.5 -0.5
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*IDC **17** 05:22:40.0±0.9, 8°.18N×141°.70E, h0^{km}, mb4.2/15, mbtmp4.1/15, MS3.2/12, Error ellipse: s-maj=25.2km s-min=22.3km az=28.0*

*NEIC **17** 05:22:42.1±1.0, 8°.15N±0°.10×141°.7E±0°.1, h10^{km}±1^{km}, mb4.6/40, Error ellipse: s-maj=22.3km s-min=15.0km az=110.0*

ISC 17 05:22:41.3±0.6**, 8°.13N**±0°.09×**141°.7E**±0°.1**, h10**^{km}**, n83,** σ**0**^{s}**.71**/64**, mb4.5**/35**, MS3.2**/8**, Western Caroline Islands**

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Code  Station Name          Δ°  AZ°    Phase ID          Time     Res
                                     Op      ISC      h  m  s     ISC
GUMO  Guam               6.24  29    LR      LR       05 27 27.0
             comp=Z,46nm,18.7s,baz=230,slow=46
GUMO  Guam               6.24  29    Pn      Pn       05 24 14.0 +0.4
GUMO                                 Sn      Sn       05 25 23.1 -2.0
DAV   Davao City (W)    16.04 267    LR      LR       05 31 51.7
             comp=Z,73nm,18.9s,baz=156,slow=34
KRVT  Keravat (AS076    16.07 140    LR      LR       05 31 35.5
             comp=Z,125nm,21.8s,baz=94,slow=33
PMG   Port Moresby      18.25 163    LR      LR       05 33 34.1
             comp=Z,93nm,18.8s,baz=343,slow=36
JMZ   Minamidaito 2     20.23 332    P       P        05 27 16.5 -0.2
JHJ   Hachijo jima 2    24.93 356    LR      LR       05 36 39.4
             comp=Z,43nm,19.5s,baz=132,slow=34
TPUB  Ta-pu             25.24 309    P       P        05 28 07.9 +0.2
H11S3 WAKE ISLAND Hy    26.35  64    T       T        05 56 05.0
             baz=250,slow=75,SNR=55
H11S2 WAKE ISLAND Hy    26.36  64    T       T        05 55 58.7
             baz=250,slow=75,SNR=73
H11S1 WAKE ISLAND Hy    26.37  64    T       T        05 55 59.7
             baz=250,slow=75,SNR=75
BKB   Balikpapan        26.45 250    P       P        05 28 18.0 -0.8
JMN   Monobe            26.48 345    P       P        05 28 18.6 -0.3
JMN                                  IAmb    IAmb     05 28 31.3
             comp=Z,27nm,1.3s
JNU   Nakatsue          26.82 340    LR      LR       05 37 56.1
             comp=Z,71nm,19.6s,baz=194,slow=34
H11N1 WAKE ISLAND Hy    26.96  62    T       T        05 56 41.8
             baz=248,slow=75,SNR=427
H11N2 WAKE ISLAND Hy    26.97  62    T       T        05 56 45.4
             baz=248,slow=75,SNR=318
H11N3 WAKE ISLAND Hy    26.98  62    T       T        05 56 44.0
             baz=248,slow=75,SNR=466
MJAR  Matsushiro Arr    28.46 354    LR      LR       05 40 20.2
             comp=Z,28nm,18.0s,baz=188,slow=37
WR8   Warramunga Arr    28.80 194    P       P        05 28 40.3 +0.5
WR8                                  IAmb    IAmb     05 29 03.4
             comp=Z,16nm,1.5s
WRA   Warramunga Arr    28.83 195    P       P        05 28 40.4 +0.3
             comp=Z,0.4nm,0.6s,baz=18,slow=9.9,SNR=6.7
             comp=Z,0.4nm,0.6s
WRA   Warramunga Arr    28.83 195    P       P        05 28 38.6 -1.4
FITZ  Fitzroy Crossi    30.52 211    P       P        05 28 55.9 +0.9
KSRS  Korea Array       31.76 339    LR      LR       05 40 59.2
             comp=Z,55nm,19.1s,baz=195,slow=35
KS19  Wonju Array Si    31.82 339    P       P        05 29 06.0 -0.3
KS19                                 IAmb    IAmb     05 29 21.2
             comp=Z,25nm,1.5s
EIDS  Eidsvold          34.52 165    P       P        05 29 29.7 -0.3
EIDS                                 IAmb    IAmb     05 30 07.6
             comp=Z,10.0nm,1.3s
ASAJ  Asahikawa         35.85   1    LR      LR       05 46 25.5
             comp=Z,13nm,19.1s,baz=206,slow=40
USRK  Ussuriysk Ar.     36.92 348    P       P        05 29 50.2 -0.2
             comp=Z,4.3nm,0.8s,baz=178,slow=9.1,SNR=8.7
             comp=Z,4.3nm,0.8s
USA0B Ussuriysk Arra    36.92 348    P       P        05 29 50.9 +0.5
USA0B                                IAmb    IAmb     05 30 16.9
             comp=Z,21nm,1.5s
ENH   Enshi             37.35 310    P       P        05 29 54.8 +0.5
ENH                                  IAmb    IAmb     05 30 11.1
             comp=Z,8.7nm,1.1s
CMAR  Chiang Mai Arr    42.78 288    P       P        05 30 39.8 +0.2
             comp=Z,0.6nm,0.3s,baz=96,slow=7.7,SNR=8.5
             comp=Z,0.6nm,0.3s
CMAR  Chiang Mai Arr    42.78 288    P       P        05 30 39.5  0.0
LZDM  Lanzhou Array     44.36 314    LR      LR       05 48 36.5
             comp=Z,64nm,21.1s,baz=185,slow=35
GSI   Gunungsitoli      44.49 264    P       P        05 30 51.9 -1.4
ULN   Ulaanbaatar       49.29 330    P       P        05 31 31.3 +0.7
SONM  Songino Array     49.60 329    P       P        05 31 33.2 +0.2
             comp=Z,1.4nm,0.7s,baz=140,slow=7.3,SNR=7.8
SONM                                 LR      LR       05 53 33.5
             comp=Z,41nm,18.7s,baz=88,slow=37
             comp=Z,1.4nm,0.7s
SONM  Songino Array     49.60 329    P       P        05 31 33.7 +0.7
PALK  Pallekele         60.43 274    LR      LR       06 01 31.4
             comp=Z,43nm,18.0s,baz=60,slow=39
MKAR  Makanchi Array    63.38 319    P       P        05 33 11.3 +0.2
             comp=Z,2.2nm,0.8s,baz=93,slow=8.6,SNR=15
             comp=Z,2.2nm,0.8s
MAKZ  Makanchi          63.59 319    P       P        05 33 12.7 +0.2
MAKZ                                 IAmb    IAmb     05 33 13.4
             comp=Z,3.2nm,0.9s
ZAA0  Zalesovo Array    64.35 327    P       P        05 33 16.4 -0.9
ZALV  Zalesovo Beam     64.35 327    P       P        05 33 16.8 -0.5
             comp=Z,0.7nm,0.5s,baz=119,slow=5.2,SNR=5.5
             comp=Z,0.7nm,0.5s
PRZ   Przheval'sk       64.95 313    P       P        05 33 21.6 -0.1
BOOM  Boomskoye usch    66.74 313    P       P        05 33 33.2  0.0
BOOM                                 IAmb    IAmb     05 33 42.8
             comp=Z,3.0nm,1.0s
KURK  Kurchatov         66.84 322            P        05 33 33.2 -0.2
KURK                                 IAmb    IAmb     05 33 33.9
             comp=Z,4.5nm,0.8s
KURBB Kurchatov Arra    66.87 322    P       P        05 33 32.9 -0.7
             comp=Z,2.8nm,1.0s,baz=107,slow=6.7,SNR=11
             comp=Z,2.8nm,1.0s
K15K  Wolf Creek Mou    67.79  25    P       P        05 33 40.2 +1.0
O16K  Kokwok River B    68.20  28    P       P        05 33 41.9 +0.1
L16K  Owhat River       68.42  26    P       P        05 33 43.9 +0.7
L16K                                 IAmb    IAmb     05 34 24.8
             comp=Z,7.4nm,1.2s
H18K  Honhosa River     70.30  23    P       P        05 33 55.3 +0.5
H18K                                 IAmb    IAmb     05 34 29.1
             comp=Z,14nm,1.5s
CNPM  China Poot        71.47  30    P       P        05 34 02.5 +0.4
BVAR  Borovoye Array    72.34 323    P       P        05 34 07.3  0.0
             comp=Z,2.5nm,0.6s,baz=111,slow=8.1,SNR=12
             comp=Z,2.5nm,0.6s
B20K  Meade River       72.76  18    P       P        05 34 10.5 +1.0
PMR   Palmer            73.02  28    P       P        05 34 11.4 +0.2
PMR                                  IAmb    IAmb     05 34 47.8
             comp=Z,10nm,1.4s
E23K  Chandalar         74.60  21    P       P        05 34 21.0 +0.5
E23K                                 IAmb    IAmb     05 34 26.1
             comp=Z,6.7nm,1.0s
HDA   Harding Lake      74.68  25    P       P        05 34 21.0 +0.1
HDA                                  IAmb    IAmb     05 34 22.6
             comp=Z,4.1nm,1.0s
IL31                    74.79  25    P       P        05 34 21.0 -0.5
ILAR  Eielson Array     74.79  25    P       P        05 34 21.1 -0.5
             comp=Z,2.1nm,0.6s,baz=250,slow=5.6,SNR=32
             comp=Z,2.1nm,0.6s
J25K  Salcha River,     75.39  25    P       P        05 34 25.3 +0.2
BMAR  Burnt Mountain    76.30  22    P       P        05 34 32.0 +1.8
YAH   Yahtse            76.32  30    P       P        05 34 30.5 -0.1
YAH                                  IAmb    IAmb     05 35 01.0
             comp=Z,14nm,1.4s
GRNC  Granite Creek     76.36  29    P       P        05 34 31.5 +0.5
GRNC                                 IAmb    IAmb     05 35 02.9
             comp=Z,5.2nm,1.1s
BCAR  Beaver Creek A    76.68  27    P       P        05 34 33.7 +1.2
HYT   Haines Junctio    78.45  30    P       P        05 34 43.2 +0.7
HYT                                  IAmb    IAmb     05 34 44.9
             comp=Z,4.2nm,0.9s
AB31  Akbulak array     78.53 319    P       P        05 34 42.6 -0.4
ABKAR Akbulak array     78.53 319    P       P        05 34 42.6 -0.4
G30M  tAoh Zraii Nji    79.45  23    P       P        05 34 47.5 -0.3
G30M                                 IAmb    IAmb     05 34 58.1
             comp=Z,7.9nm,1.1s
G31M  Satah River       80.22  23    P       P        05 34 52.6 +0.8
G31M                                 IAmb    IAmb     05 34 53.4
             comp=Z,11nm,1.0s
H02S1 DAWSON INLET T    81.03  37    T       T        07 04 36.2
             SNR=196
H02S2 DAWSON INLET T    81.03  37    T       T        07 04 36.2
             SNR=193
DLBC  Dease Lake        82.22  32    P       P        05 35 02.9 +0.1
             comp=Z,1.4nm,0.9s,baz=172,slow=4.7,SNR=4.5
             comp=Z,1.4nm,0.9s
YBH   Yreka Blue Hor    88.78  48    P       P        05 35 37.0 +1.2
             comp=Z,1.8nm,0.9s,baz=308,slow=2.9,SNR=5.6
             comp=Z,1.8nm,0.9s
YKA   Yellowknife Ar    89.09  27    P       P        05 35 37.9 +1.2
             comp=Z,1.0nm,0.9s,baz=285,slow=4.5,SNR=3.6
             comp=Z,1.0nm,0.9s
BEKR  Beckworth         90.87  50    P       P        05 35 44.7 -1.1
BEKR                                 IAmb    IAmb     05 35 47.5
             comp=Z,2.0nm,0.8s
BBGB  Big Mountain B    90.97  53    P       P        05 35 45.3 -0.9
NEW   Newport           91.34  41    P       P        05 35 47.1 -0.5
             comp=Z,1.7nm,0.8s,baz=148,slow=5.0,SNR=3.9
             comp=Z,1.7nm,0.8s
NVAR  Mina Array Bea    92.73  51    P       P        05 35 54.1 -0.4
             comp=Z,0.8nm,0.7s,baz=257,slow=5.4,SNR=7.4
             comp=Z,0.8nm,0.7s
NVAR  Mina Array Bea    92.73  51    P       P        05 35 54.5  0.0
ELK   Elko              94.49  48    P       P        05 36 03.2 +0.6
             comp=Z,0.6nm,0.7s,baz=270,slow=8.1,SNR=3.9
             comp=Z,0.6nm,0.7s
ELK   Elko              94.49  48    P       P        05 36 01.6 -1.0
FIA1  FINESS Array S    94.74 334    P       P        05 36 03.0 +0.2
FINES FINESS Array B    94.74 334    P       P        05 36 03.3 +0.4
H03N3 Juan Fernandez   134.84 130    T       T        08 11 55.2
             SNR=377
LPAZ  La Paz           149.75 108    PKPbc   PKPbc    05 42 33.6 +0.3
             comp=Z,1.0nm,0.9s,baz=202,slow=4.8,SNR=2.5
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*NOU **17** 05:31:54.2, 41°.45S×175°.01E, h1^{km}, MLv3.6/15, North Island, New Zealand*

*WEL **17** 05:31:55.5±0.4, 41°S±2°×17°5E±°, h4^{km}±1^{km}, M3.5/17, ML3.5/16, MLv3.5/17, Error ellipse: s-maj=2.9km s-min=2.2km az=6.7, confirmed*

ISC 17 05:31:54.8±0.8**, 41°.40S**±0°.02×**174°.96E**±0°.02**, h11**^{km}±5^{km}**, n103,** σ**0**^{s}**.89**/115**, Cook Strait**

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Code  Station Name          Δ°  AZ°    Phase ID          Time     Res
                                     Op      ISC      h  m  s     ISC
BHW   Baring Head        0.07 259    P       Pg       05 31 57.6 +0.5
BHW                                  S       Sg       05 31 59.2 +0.3
BHW                                  AML     AML
BHW                                  AML     AML
SEAW  Seatoun School     0.12 306    P       Pg       05 31 57.7  0.0
SEAW                                 S       Sg       05 31 59.4 -0.4
WDAS  Wainuiomata Bu     0.14 356    P       Pg       05 31 57.5 -0.5
WDAS                                 S       Sg       05 31 59.3 -1.0
WEL   Wellington         0.18 307    P       Pg       05 31 58.8  0.0
WEL                                  AML     AML
WEL                                  AML     AML
SNZO  South Karori       0.21 294    P       Pg       05 31 59.1 -0.1
SNZO  South Karori       0.21 294    S       Sg       05 32 02.8 +0.5
MSWZ  Moikau Station     0.22  96    P       Pb       05 32 00.2 -0.5
MSWZ                                 S       Sg       05 32 04.3 +1.7
MSWZ                                 AML     AML
MSWZ                                 AML     AML
PLWZ  Palliser           0.28 128    P       Pb       05 32 01.9 +0.1
PLWZ                                 S       Sb       05 32 07.1 +0.5
PLWZ                                 AML     AML
PLWZ                                 AML     AML
NWFS  Ngawi Fire Sta     0.28 134    P       Pb       05 32 01.4 -0.4
NWFS                                 S       Sb       05 32 07.0 +0.4
CAW   Cannon Point       0.30  15    P       Pg       05 32 00.3 -0.5
CAW                                  S       Sg       05 32 03.8 -1.0
CAW                                  AML     AML
CAW                                  AML     AML
PAWZ  Paruwai Farm       0.35  88    P       Pb       05 32 02.5 -0.5
PAWZ                                 S       Sb       05 32 08.3 -0.3
PAWZ                                 AML     AML
PAWZ                                 AML     AML
MTW   Mount Morrison     0.47  60    P       Pg       05 32 04.3 +0.3
MTW                                  AML     AML
MTW                                  AML     AML
KIW   Kapiti Island      0.54 356    P       Pg       05 32 04.7 -0.5
KIW                                  AML     AML
KIW                                  AML     AML
TRWZ  Traveller          0.55  91    P       Pb       05 32 06.7 +0.3
TRWZ                                 AML     AML
TRWZ                                 AML     AML
TCW   Tory Channel       0.55 289    P       Pg       05 32 05.6 +0.2
TCW                                  S       Sg       05 32 12.5 -0.2
TCW                                  AML     AML
TCW                                  AML     AML
OGWZ  Otaki Gorge        0.60  15    P       Pg       05 32 05.6 -0.8
OGWZ                                 AML     AML
OGWZ                                 AML     AML
HOWZ  Holdsworth Sta     0.65  40    P       Pb       05 32 08.0 -0.2
HOWZ                                 AML     AML
HOWZ                                 AML     AML
CMWZ  Cape Campbell      0.66 237    P       Pn       05 32 09.8 -0.4
CMWZ                                 AML     AML
CMWZ                                 AML     AML
TMWZ  Te Maipa           0.76  68    P       Pb       05 32 09.8 -0.1
TMWZ                                 AML     AML
TMWZ                                 AML     AML
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TUWZ	**Tuamarina**	**0.77**	**267**	P	**Pg**	**05 32 09.5**	**-0.1**
TUWZ				AML	AML		
MRZ	**Mangatainoka R**	**0.87**	**33**	P	**Pg**	**05 32 10.7**	**-0.8**
MRZ				AML	AML		
MRZ				AML	AML		
BSWZ	**Blackbirch Sta**	**0.88**	**248**	P	**Pb**	**05 32 12.5**	**+0.5**
BSWZ				AML	AML		
BSWZ				AML	AML		
TIWZ	**Tintock**	**0.93**	**49**	P	**Pb**	**05 32 13.4**	**+0.4**
TIWZ				AML	AML		
TIWZ				AML	AML		
DUWZ	**D'Urville Isla**	**0.98**	**307**	P	**Pg**	**05 32 13.4**	**-0.4**
DUWZ				AML	AML		
DUWZ				AML	AML		
CPWZ	**Castlepoint**	**1.05**	**63**	P	**Pn**	**05 32 16.8**	**+1.4**
PRWZ	**Pori Road**	**1.14**	**43**	P	**Pb**	**05 32 16.1**	**-0.3**
POWZ	**Post Office Ro**	**1.17**	**32**	P	**Pb**	**05 32 16.7**	**-0.3**
BFZ	**Birch Farm**	**1.21**	**54**	P	**Pn**	**05 32 16.0**	**-1.5**
BFZ	**Birch Farm**	**1.21**	**54**	S	**Sg**	**05 32 33.4**	**-0.2**
BFZ	**Birch Farm**	**1.21**	**54**	P	**Pn**	**05 32 16.4**	**-1.1**
NNZ	**Nelson**	**1.21**	**278**	P	**Pn**	**05 32 17.4**	**-0.1**
OHWZ	**Ohakea**	**1.22**	**13**	P	**Pg**	**05 32 18.7**	**+0.5**
DVHZ	**Dannevirke**	**1.43**	**40**	P	**Pn**	**05 32 19.6**	**-1.0**
KHZ	**Kahutara**	**1.47**	**226**	P	**Pn**	**05 32 21.0**	**-0.2**
KHZ	**Kahutara**	**1.47**	**226**	S	**Sn**	**05 32 40.8**	**+0.4**
KHZ	**Kahutara**	**1.47**	**226**	P	**Pn**	**05 32 21.3**	**+0.1**
TSZ	**Takapari Road**	**1.54**	**30**	P	**Pn**	**05 32 21.6**	**-0.5**
TKNZ	**Takaka Hill**	**1.55**	**283**	P	**Pb**	**05 32 23.3**	**-0.2**
TKNZ				S	**Sg**	**05 32 44.2**	**-0.4**
TKNZ				AML	AML		
TKNZ				AML	AML		
THZ	**Tophouse**	**1.59**	**256**	P	**Pn**	**05 32 23.1**	**+0.2**
WAZ	**Wanganui**	**1.64**	**1**	P	**Pb**	**05 32 25.3**	**+0.3**
WAZ				S	**Sb**	**05 32 45.4**	**-0.3**
MRNZ	**Matariki Terra**	**1.66**	**269**	P	**Pn**	**05 32 24.6**	**+0.9**
PRHZ	**Porangahau**	**1.70**	**49**	P	**Pn**	**05 32 24.7**	**+0.4**
WPHZ	**Waipukurau**	**1.74**	**41**	P	**Pn**	**05 32 24.0**	**-0.9**
PNHZ	**Pukenui**	**1.75**	**33**	P	**Pn**	**05 32 24.3**	**-0.8**
QRZ	**Quartz Range**	**1.92**	**286**	P	**Pn**	**05 32 28.6**	**+1.2**
QRZ	**Quartz Range**	**1.92**	**286**	P	**Sb**	**05 32 54.3**	**+0.5**
QRZ	**Quartz Range**	**1.92**	**286**	P	**Pb**	**05 32 28.8**	**-1.0**
QRZ				S	**Sb**	**05 32 54.9**	**+1.1**
QRZ				AML	AML		
QRZ				AML	AML		
LREZ	**Lake Rotokare**	**1.98**	**347**	P	**Pb**	**05 32 30.3**	**-0.5**
PXZ	**Pawanui**	**1.99**	**47**	P	**Pn**	**05 32 27.2**	**-1.1**
KRHZ	**Kereru**	**2.05**	**32**	P	**Pn**	**05 32 28.2**	**-1.0**
MOVZ	**Moawhango**	**2.08**	**17**	P	**Pn**	**05 32 29.6**	**0.0**
BHHZ	**Black Hill Sta**	**2.08**	**24**	P	**Pb**	**05 32 32.2**	**-0.4**
WNVZ	**Wahianoa**	**2.12**	**13**	P	**Pn**	**05 32 30.9**	**+0.6**
PKVZ	**Pokaka**	**2.12**	**8**	P	**Pb**	**05 32 33.5**	**+0.2**
GVZ	**Greta Valley S**	**2.13**	**222**	P	**Pn**	**05 32 29.9**	**-0.3**
PREZ	**Palmer Road**	**2.14**	**343**	P	**Pb**	**05 32 33.1**	**-0.4**
TRVZ	**Turoa**	**2.14**	**12**	P	**Pn**	**05 32 31.5**	**+0.8**
NMEZ	**Namu Road**	**2.15**	**337**	P	**Pb**	**05 32 33.3**	**-0.3**
WHVZ	**Whangaehu Hut**	**2.16**	**13**	P	**Pn**	**05 32 31.7**	**+0.8**
MAVZ	**Matarangi**	**2.17**	**12**	P	**Pn**	**05 32 31.9**	**+0.8**
FWVZ	**Far West T-bar**	**2.19**	**12**	P	**Pn**	**05 32 31.9**	**+0.7**
TUVZ	**Tukino**	**2.19**	**14**	P	**Pn**	**05 32 32.5**	**+1.2**
KHEZ	**Kahui Hut**	**2.22**	**341**	P	**Pb**	**05 32 33.8**	**-1.1**
KHEZ	**Kahui Hut**	**2.22**	**341**	P	**Sb**	**05 33 02.7**	**+0.3**
KHEZ	**Kahui Hut**	**2.22**	**341**	P	**Pb**	**05 32 33.9**	**-1.0**
COVZ	**Chateau Observ**	**2.24**	**12**	P	**Pn**	**05 32 33.0**	**+1.1**
KWHZ	**Kaweka Forest**	**2.26**	**30**	P	**Pn**	**05 32 31.5**	**-0.6**
SNVZ	**South Ngauruho**	**2.27**	**13**	P	**Pb**	**05 32 35.6**	**-0.2**
NGZ	**Ngauruhoe**	**2.27**	**13**	P	**Pn**	**05 32 33.2**	**+0.8**
VRZ	**Vera Road**	**2.27**	**356**	P	**Pb**	**05 32 34.5**	**-1.3**
NBEZ	**Newall Road No**	**2.28**	**338**	P	**Pb**	**05 32 35.2**	**-0.8**
OTVZ	**Oturere**	**2.29**	**14**	P	**Pn**	**05 32 33.5**	**+0.9**
PKE	**Pukeiti**	**2.32**	**341**	P	**Pb**	**05 32 36.0**	**-0.7**
WTVZ	**West Tongariro**	**2.33**	**12**	P	**Pn**	**05 32 34.0**	**+0.9**
ETVZ	**East Tongariro**	**2.33**	**15**	P	**Pn**	**05 32 33.9**	**+0.8**
TMVZ	**Te Maari**	**2.35**	**14**	P	**Pn**	**05 32 33.8**	**+0.5**
TWVZ	**Taurewa**	**2.35**	**9**	P	**Pn**	**05 32 34.0**	**+0.7**
KRVZ	**Karewarewa**	**2.36**	**13**	P	**Pn**	**05 32 35.2**	**+1.8**
NTVZ	**North Tongarir**	**2.36**	**14**	P	**Pn**	**05 32 34.2**	**+0.6**
DSZ	**Denniston Nort**	**2.39**	**261**	P	**Pn**	**05 32 34.5**	**+0.6**
LTZ	**Lake Taylor**	**2.44**	**234**	P	**Pn**	**05 32 34.2**	**-0.3**
KATZ	**Kakaramea**	**2.48**	**13**	P	**Pb**	**05 32 38.9**	**-0.6**
RITZ	**Rihia Road**	**2.51**	**16**	P	**Pb**	**05 32 39.2**	**-0.6**
BKZ	**Black Stump Fm**	**2.52**	**28**	P	**Pn**	**05 32 37.1**	**+1.5**
BKZ	**Black Stump Fm**	**2.52**	**28**	P	**Pn**	**05 32 37.7**	**+2.1**
RATZ	**Rangitukua**	**2.60**	**14**	P	**Pb**	**05 32 42.7**	**+1.2**
OKCZ	**Okains Bay**	**2.72**	**210**	P	**Pn**	**05 32 37.4**	**-1.0**
MQZ	**McQueen's Vall**	**2.87**	**216**	P	**Pn**	**05 32 38.7**	**-1.8**
HIZ	**Hauiti**	**2.88**	**358**	P	**Pn**	**05 32 41.5**	**+0.9**
HIZ	**Hauiti**	**2.88**	**358**	P	**Sb**	**05 33 18.8**	**-2.6**
HIZ	**Hauiti**	**2.88**	**358**	P	**Pn**	**05 32 41.9**	**+1.3**
AKCZ	**Akaroa Harbour**	**2.90**	**211**	P	**Pn**	**05 32 39.8**	**-1.1**
TLZ	**Tolley Road**	**3.09**	**8**	P	**Pb**	**05 32 49.4**	**-0.4**
WACZ	**Wakanui South**	**3.43**	**221**	P	**Pn**	**05 32 46.9**	**-1.3**
URZ	**Urewera**	**3.54**	**29**	P	**Pn**	**05 32 49.9**	**+0.2**
URZ	**Urewera**	**3.54**	**29**	P	**Sn**	**05 33 34.0**	**+2.5**
RPZ	**Rata Peaks**	**3.70**	**230**	P	**Pn**	**05 32 51.2**	**-0.7**
ARCZ	**Arundel**	**3.78**	**226**	P	**Pn**	**05 32 52.0**	**-1.0**
TMZ	**Timaru**	**4.17**	**223**	P	**Pn**	**05 32 57.1**	**-1.2**
WMGZ	**Waiomatatini S**	**4.46**	**38**	P	**Pn**	**05 33 04.5**	**+2.3**
LBZ	**Lake Benmore**	**4.61**	**228**	P	**Pn**	**05 33 03.9**	**-0.4**
ODZ	**Otahua Downs**	**4.82**	**219**	P	**Pn**	**05 33 05.7**	**-1.5**
EAZ	**Earnscleugh**	**5.63**	**225**	P	**Pn**	**05 33 17.4**	**-1.0**

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*IDC **17** 05:50:49.1±2.1, 24°.37S×67°.79W, h118^{km}±19^{km}, mb3.4/4, mbtmp3.7/8, Error ellipse: s-maj=26.4km s-min=15.9km az=92.0*

*SJA **17** 05:50:49.8±0.5, 24°.38S×67°.98W, h146^{km}±4^{km}, ML3.6, MW3.6*

*NEIC **17** 05:50:49.8±1.5, 24°.41S±0°.05×67°.98W±0°.05, h142^{km}±8^{km}, mb4.3/16, ML3.9(GUC), Error ellipse: s-maj=8.0km s-min=4.9km az=218.0*

*GUC **17** 05:50:50.5±0.7, 24°.38S×68°.19W, h168^{km}±7^{km}, ML3.9*

ISC 17 05:50:49.3±0.7**, 24°.40S**±0°.03×**67°.99W**±0°.04**, h140**^{km}±7^{km}**, n100, σ1^{s}55**/127**, mb4.2**/9**, 5C-1D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AF01	**San Pedro de A**	**1.46**	**353**	*e*P	**Pn**	**05 51 19.3**	**+1.3**
AF01				*e*S	**Sn**	**05 51 41.3**	**+1.5**
AF01				IAML		05 51 49.1	
	comp=Z,356nm,0.4s						
AF01	**San Pedro de A**	**1.46**	**353**	*e*P	**Pn**	**05 51 19.0**	**+1.1**
AF01				*e*S	**Sn**	**05 51 40.7**	**+1.0**
AF01				IAML		05 51 42.4	
	comp=N,813nm,0.5s						
AF01	**San Pedro de A**	**1.46**	**353**		**Pn**	**05 51 19.2**	**+1.3**
AF01				Sn	**Sn**	**05 51 41.0**	**+1.2**
SALTA		**1.52**	**84**	*e*P	**Pn**	**05 51 19.6**	**+0.9**
PB14	**IPOC Station P**	**2.21**	**264**	*e*P	**Pn**	**05 51 28.5**	**+1.9**
PB14				*e*S	**Sn**	**05 51 57.3**	**+2.1**
PB14				IAML		05 51 59.2	
	comp=Z,200nm,0.3s						
PB14	**IPOC Station P**	**2.21**	**264**	*e*P	**Pn**	**05 51 27.6**	**+1.0**
PB14				*e*S	**Sn**	**05 51 55.8**	**+0.5**
PB14	**IPOC Station P**	**2.21**	**264**		**Pn**	**05 51 27.9**	**+1.3**
PB14				Sn	**Sn**	**05 51 56.1**	**+0.9**
PB06	**IPOC Station P**	**2.23**	**319**	*e*P	**Pn**	**05 51 28.3**	**+1.6**
PB06				*e*S	**Sn**	**05 51 56.8**	**+1.3**
PB06				IAML		05 52 01.9	
	comp=Z,507nm,0.1s						
PB06	**IPOC Station P**	**2.23**	**319**⇑	*e*P	**Pn**	**05 51 28.1**	**+1.4**
PB06				*e*S	**Sn**	**05 51 55.9**	**+0.5**
PB06				IAML		05 51 57.4	
	comp=E,878nm,0.3s						
PB06	**IPOC Station P**	**2.23**	**319**		**Pn**	**05 51 27.9**	**+1.2**
PB06				Sn	**Sn**	**05 51 55.9**	**+0.5**
SLA	**San Lorenzo**	**2.29**	**98**	*e*P	**Pn**	**05 51 29.3**	**+1.9**
FSA	**Cafayete**	**2.49**	**133**	*e*P	**Pn**	**05 51 31.9**	**+2.0**
PB05	**IPOC Station P**	**2.55**	**307**	*e*P	**Pn**	**05 51 32.0**	**+1.4**
PB05				*e*S	**Sn**	**05 52 03.7**	**+1.2**
PB05				IAML		05 52 05.1	
	comp=Z,251nm,0.5s						
PB05	**IPOC Station P**	**2.55**	**307**	*e*P	**Pn**	**05 51 31.8**	**+1.2**
PB05				*e*S	**Sn**	**05 52 02.2**	**-0.2**
PB05				IAML		05 52 06.1	
	comp=E,369nm,0.4s						
PB05	**IPOC Station P**	**2.55**	**307**		**Pn**	**05 51 31.5**	**+0.8**
PB05				Sn	**Sn**	**05 52 02.3**	**-0.2**
AC02	**Maricunga**	**2.63**	**203**	*e*P	**Pn**	**05 51 34.2**	**+2.3**
AC02				*e*S	**Sn**	**05 52 06.8**	**+1.9**
AC02				IAML		05 52 13.0	
	comp=Z,96nm,0.3s						
AC02	**Maricunga**	**2.63**	**203**⇑	*e*P	**Pn**	**05 51 34.2**	**+2.3**
AC02				*e*S	**Sn**	**05 52 07.2**	**+2.4**
AC02				IAML		05 52 18.0	
	comp=E,203nm,0.2s						
AC02	**Maricunga**	**2.63**	**203**		**Pn**	**05 51 34.3**	**+2.3**
HJA	**Humahuaca**	**2.65**	**64**	*e*P	**Pn**	**05 51 34.2**	**+2.1**
PB09	**IPOC Station P**	**2.84**	**336**	*e*P	**Pn**	**05 51 36.2**	**+1.8**
PB09				*e*S	**Sn**	**05 52 10.3**	**+1.1**
PB09				IAML		05 52 16.6	
	comp=Z,154nm,0.5s						
PB09	**IPOC Station P**	**2.84**	**336**	*e*P	**Pn**	**05 51 35.7**	**+1.3**
PB09				*e*S	**Sn**	**05 52 08.2**	**-1.0**
PB09				IAML		05 52 15.3	
	comp=E,157nm,0.7s						
PB09	**IPOC Station P**	**2.84**	**336**		**Pn**	**05 51 36.1**	**+1.8**
PB03	**IPOC Station P**	**2.85**	**325**	*e*P	**Pn**	**05 51 35.8**	**+1.3**
PB03				IAML		05 52 14.4	
	comp=Z,230nm,0.2s						
PB03	**IPOC Station P**	**2.85**	**325**⇓	*e*P	**Pn**	**05 51 35.5**	**+1.0**
PB03				*e*S	**Sn**	**05 52 09.2**	**-0.2**
PB03				IAML		05 52 10.2	
	comp=E,382nm,0.2s						
PB03	**IPOC Station P**	**2.85**	**325**		**Pn**	**05 51 35.4**	**+1.0**
AC01	**Pan de Azucar**	**2.93**	**233**	*e*P	**Pn**	**05 51 36.0**	**+0.7**
AC01				*e*S	**Sn**	**05 52 11.2**	**+0.2**
AC01				IAML		05 52 14.2	
	comp=Z,103nm,0.3s						
AC01	**Pan de Azucar**	**2.93**	**233**⇑	*e*P	**Pn**	**05 51 36.0**	**+0.7**
AC01				*e*S	**Sn**	**05 52 10.7**	**-0.2**
AC01				IAML		05 52 11.9	
	comp=N,286nm,0.7s						
AC01	**Pan de Azucar**	**2.93**	**233**	Pn	**Pn**	**05 51 36.0**	**+0.7**
YJA	**Yavi**	**3.18**	**46**	*e*P	**Pn**	**05 51 41.1**	**+2.1**
PB07	**IPOC Station P**	**3.19**	**326**	*e*P	**Pn**	**05 51 39.7**	**+0.9**
PB07				IAML		05 52 19.1	
	comp=Z,130nm,0.1s						
PB07	**IPOC Station P**	**3.19**	**326**⇑	*e*P	**Pn**	**05 51 39.4**	**+0.6**
PB07				*e*S	**Sn**	**05 52 15.9**	**-1.1**
PB07				IAML		05 52 24.0	
	comp=N,177nm,0.4s						
PB07	**IPOC Station P**	**3.19**	**326**		**Pn**	**05 51 39.4**	**+0.6**
AHML	**Horco Molle**	**3.37**	**135**	*e*P	**Pn**	**05 51 42.7**	**+1.6**
AHML				*e*S	**Sn**	**05 52 22.0**	**+0.9**
PB02	**IPOC Station P**	**3.54**	**330**	*e*P	**Pn**	**05 51 44.4**	**+1.0**
PB02				IAML		05 52 28.2	
	comp=Z,256nm,0.4s						
PB02	**IPOC Station P**	**3.54**	**330**	*e*P	**Pn**	**05 51 43.7**	**+0.4**
PB02				*e*S	**Sn**	**05 52 24.6**	**-0.5**
PB02	**IPOC Station P**	**3.54**	**330**		**Pn**	**05 51 43.7**	**+0.4**
TINO	**Tinogasta**	**3.66**	**174**	*e*P	**Pn**	**05 51 47.0**	**+2.1**
GO03	**Copiapo**	**3.76**	**212**	*e*P	**Pn**	**05 51 46.9**	**+0.7**
GO03				*e*S	**Sn**	**05 52 31.3**	**+0.9**
GO03				IAML		05 52 39.8	
	comp=Z,107nm,0.3s						
GO03	**Copiapo**	**3.76**	**212**⇑	*e*P	**Pn**	**05 51 46.4**	**+0.2**
GO03				*e*S	**Sn**	**05 52 29.8**	**-0.6**
GO03	**Copiapo**	**3.76**	**212**		**Pn**	**05 51 46.3**	**+0.1**
VCA	**Vinchina**	**4.32**	**183**	*e*P	**Pn**	**05 51 56.1**	**+2.5**
VCA				*e*S	**Sn**	**05 52 46.2**	**+2.7**
TA01	**Diego Aracena**	**4.32**	**332**	Pn	**Pn**	**05 51 53.1**	**-0.5**
PB08	**IPOC Station P**	**4.38**	**346**	*e*P	**Pn**	**05 51 56.1**	**+1.5**
PB08				IAML		05 53 21.3	
	comp=Z,24nm,0.4s						
PB08	**IPOC Station P**	**4.38**	**346**	Pn	**Pn**	**05 51 55.2**	**+0.6**
AC04	**Llanos de Chal**	**4.69**	**216**	*e*P	Pn	05 51 40.4	-18
AC04				*e*S	**Sn**	**05 52 48.8**	**-3.4**
AC04				IAML		05 52 59.2	
	comp=Z,60nm,0.8s						
AC04	**Llanos de Chal**	**4.69**	**216**		**Pn**	**05 51 57.6**	**-0.7**
GO01	**Chusmiza**	**4.84**	**346**	*e*P	**Pn**	**05 52 02.7**	**+1.8**
GO01				*e*S	Sn	05 52 40.7	-16
GO01				IAML		05 53 20.2	
	comp=Z,18nm,0.5s						
GO01	**Chusmiza**	**4.84**	**346**		**Pn**	**05 52 01.2**	**+0.3**
AC05	**El Transito**	**4.86**	**204**	*e*P	**Pn**	**05 52 00.8**	**+0.1**
AC05				*e*S	**Sn**	**05 52 56.6**	**+0.1**
AC05				IAML		05 53 01.4	
	comp=Z,51nm,0.8s						
AC05	**El Transito**	**4.86**	**204**		**Pn**	**05 52 01.2**	**+0.4**
PB11	**IPOC Station P**	**4.87**	**341**	*e*P	**Pn**	**05 52 01.4**	**+0.4**
PB11				IAML		05 53 36.2	
	comp=Z,38nm,1.0s						
PB11	**IPOC Station P**	**4.87**	**341**	Pn	**Pn**	**05 52 01.1**	**+0.1**
ACLC	**CERRO LA CRUZ**	**5.09**	**170**	*e*P	**Pn**	**05 52 05.6**	**+1.8**
PSGCX	**Pisagua**	**5.18**	**337**	*e*P	**Pn**	**05 52 04.1**	**-0.9**
PSGCX				IAML		05 53 05.9	
	comp=Z,18nm,1.2s						
PSGCX	**Pisagua**	**5.18**	**337**	Pn	**Pn**	**05 52 08.6**	**+3.6**
LCO	**Las Campanas**	**5.19**	**207**		**Pn**	**05 52 04.6**	**-0.7**
CO01	**Juntas del Tor**	**5.86**	**198**	Pn	**Pn**	**05 52 14.0**	**-0.2**
PB12	**IPOC Station P**	**6.16**	**339**	Pn	**Pn**	**05 52 17.7**	**-0.4**
PB16	**IPOC Station P**	**6.20**	**347**	Pn	**Pn**	**05 52 20.1**	**+0.9**
GO04	**Tololo Observa**	**6.26**	**203**	Pn	**Pn**	**05 52 18.2**	**-1.5**
CO06	**Fray Jorge**	**7.03**	**207**	Pn	**Pn**	**05 52 28.2**	**-1.4**
ZON	**Zonda**	**7.14**	**185**	Pn	**Pn**	**05 52 30.1**	**-1.1**
CFA	**Coronel Fontan**	**7.18**	**182**	P	**Pn**	**05 52 31.5**	**-0.2**
	comp=Z,0.9nm,0.3s,baz=27,slow=16,SNR=36						
CFA				S	**Sn**	**05 53 46.7**	**-5.1**
	comp=Z,1.7nm,0.3s,baz=232,slow=14,SNR=10.0						
CO04	**Los Peladeros**	**8.05**	**198**	Pn	**Pn**	**05 52 41.0**	**-2.6**
LPAZ	**La Paz**	**8.08**	**359**	P	**Pn**	**05 52 45.7**	**+1.3**
	comp=Z,0.8nm,0.3s,baz=180,slow=4.4,SNR=11						
LPAZ				S	**Sn**	**05 54 13.2**	**-1.3**
	comp=Z,1.6nm,0.9s,baz=82,slow=20,SNR=2.3						
LPAZ	**La Paz**	**8.08**	**359**		**Pn**	**05 52 43.5**	**-0.8**
VA03	**San Esteban**	**8.63**	**195**	Pn	**Pn**	**05 52 49.4**	**-1.7**
MT02	**Curacav**	**9.24**	**197**	Pn	**Pn**	**05 52 56.5**	**-2.8**
MT03	**Universidad Ad**	**9.32**	**193**	Pn	**Pn**	**05 52 59.5**	**-0.9**
MT09	**Talagante**	**9.70**	**195**	Pn	Pn	05 53 01.3	-4.2
CPUP	**Villa Florida**	**9.83**	**103**	P	**Pn**	**05 53 06.1**	**-1.1**
	comp=Z,1.1nm,0.8s,baz=292,slow=14,SNR=3.8						
CPUP	**Villa Florida**	**9.83**	**103**	Pn	**Pn**	**05 53 06.5**	**-0.6**
MT01	**Popeta**	**9.85**	**196**	Pn	Pn	05 53 02.9	-4.5
SIV	**San Ignacio**	**10.59**	**39**	P	**Pn**	**05 53 14.1**	**-3.3**
	comp=Z,6.6nm,0.5s,baz=233,slow=8.8,SNR=35						
SIV				S	**Sn**	**05 55 09.1**	**-5.3**
	comp=Z,0.8nm,0.6s,baz=302,slow=12,SNR=3.8						
GO05	**Hualane**	**11.11**	**197**	Pn	**Pn**	**05 53 20.9**	**-3.2**
PTLB	**Pontes e Lacer**	**12.19**	**45**	Pn	**Pn**	**05 53 37.1**	**-1.3**
VA04	**Juan Fernndez**	**13.21**	**223**	P	**Pn**	**05 53 52.8**	**+1.4**
NNA	**Nana**	**14.93**	**324**	P	**Pn**	**05 54 14.4**	**+0.9**
GO06	**Curarrehue**	**15.42**	**190**	P	**Pn**	**05 54 19.4**	**0.0**
GO06				IAmb	IAmb	05 54 20.8	
	comp=Z,24nm,1.5s						
PLCA	**Paso Flores**	**16.42**	**187**	P	**Pn**	**05 54 31.1**	**-0.6**
BDFB	**Brasilia**	**20.68**	**69**	P	**P**	**05 55 17.8**	**-0.7**
	comp=Z,2.9nm,0.5s,baz=250,slow=11,SNR=7.8						
	comp=Z,2.9nm,0.5s						
BDFB	**Brasilia**	**20.68**	**69**	P	**P**	**05 55 17.8**	**-0.7**
MACA	**Manacapuru-AM**	**22.27**	**20**	P	**P**	**05 55 34.6**	**-0.5**
MACA				IAmb	IAmb	05 55 43.9	
	comp=Z,9.4nm,0.8s						
BOAV	**Boa Vista**	**27.61**	**16**	P	**P**	**05 56 23.2**	**-0.5**
BOAV				IAmb	IAmb	05 56 42.4	
	comp=Z,6.3nm,1.3s						
TEIG	**Tepich**	**48.56**	**334**	P	**P**	**05 59 17.9**	**-0.7**
SNAA	**Sanae**	**59.27**	**160**	P	**P**	**06 00 35.7**	**-0.1**
SNAA				IAmb	IAmb	06 00 39.7	
	comp=Z,2.6nm,1.0s						
TKL	**Tuckaleechee C**	**61.58**	**345**	P	**P**	**06 00 52.2**	**+0.5**
SWET	**Sewanee**	**61.69**	**343**	P	**P**	**06 00 52.6**	**+0.1**
SWET				IAmb	IAmb	06 00 54.5	
	comp=Z,4.0nm,0.8s						
TXAR	**Lajitas Array**	**63.49**	**325**	P	**P**	**06 01 07.2**	**+2.5**
	comp=Z,0.2nm,0.7s,baz=134,slow=6.1,SNR=2.0						
	comp=Z,0.2nm,0.7s						
APMT	**Aspermont**	**65.06**	**331**	P	**P**	**06 01 14.8**	**+0.1**
QSPA	**South Pole Qui**	**65.80**	**180**	P	**P**	**06 01 21.6**	**+2.3**
	comp=Z,1.4nm,0.5s,baz=309,slow=0.2,SNR=17						
	comp=Z,1.4nm,0.5s						
QSPA	**South Pole Qui**	**65.80**	**180**	P	**P**	**06 01 21.9**	**+2.6**
HRV	**Adam Dziewonsk**	**66.66**	**357**	P	**P**	**06 01 25.4**	**+0.6**
N49A	**Columbus Grove**	**66.71**	**347**	P	**P**	**06 01 25.8**	**+0.7**
L56A	**Greenwood**	**66.80**	**352**	P	**P**	**06 01 26.2**	**+0.6**
L56A				IAmb	IAmb	06 01 33.2	
	comp=Z,11nm,1.1s						
P38A	**Dawn**	**68.02**	**339**	P	**P**	**06 01 34.4**	**+1.1**
P38A				IAmb	IAmb	06 01 54.5	
	comp=Z,4.2nm,1.1s						
I42A	**Draeger Farm,**	**70.62**	**344**	P	**P**	**06 01 49.9**	**+0.6**
I42A				IAmb	IAmb	06 02 07.8	
	comp=Z,15nm,1.1s						
TORD	**Torodi Ar. Bea**	**77.56**	**69**	P	**P**	**06 02 31.4**	**+1.1**
	comp=Z,0.4nm,0.4s,baz=269,slow=7.3,SNR=6.3						
	comp=Z,0.4nm,0.4s						
ZALV	**Zalesovo Beam**	**144.17**	**27**	PKP	**PKiKP**	**06 10 09.8**	**-1.9**
	comp=Z,0.7nm,0.4s,baz=338,slow=3.5,SNR=4.5						
MKAR	**Makanchi Array**	**147.41**	**39**	PKPbc	**PKiKP**	**06 10 18.4**	**-0.2**
	comp=Z,1.2nm,0.8s,baz=298,slow=2.7,SNR=8.9						

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*IDC **17** 05:53:28.8±1.7, 37°.13S×179°.72E, h0^{km}, mb4.2/3, mbtmp4.1/4, ML3.8/1, Error ellipse: s-maj=45.4km s-min=24.7km az=144.0*

*WEL **17** 05:53:33.1±1.1, 38°S±10°×18°0E±°, h33^{km}, M3.8/12, ML3.9/12, MLv3.8/12, Error ellipse: s-maj=13.0km s-min=7.9km az=14.7, confirmed*

ISC 17 05:53:29.1±2.0**, 37°.72S**±0°.09×**179°.91E**±0°.07**, h10**^{km}±11^{km}**, n27, σ1^{s}47**/31**, mb4.2**/3**, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WMGZ	**Waiomatatini S**	**1.18**	**265**	P	**Pg**	**05 53 52.2**	**+0.3**
WMGZ				AML	AML		
WMGZ				AML	AML		
MXZ	**Matakaoa Point**	**1.28**	**277**	P	**Pg**	**05 53 53.3**	**-0.4**
MXZ				S	**Sb**	**05 54 08.9**	**-0.8**
MXZ				AML	AML		
MXZ				AML	AML		
PUZ	**Puketiti**	**1.35**	**255**	P	**Pg**	**05 53 54.6**	**-0.4**
PUZ				S	**Sn**	**05 54 11.6**	**-0.5**
PUZ				AML	AML		
PUZ				AML	AML		
TBAS	**Tolaga Bay Are**	**1.42**	**242**	P	**Pg**	**05 53 57.7**	**+1.3**
PKGZ	**Pakihiroa**	**1.45**	**264**	P	**Pb**	**05 53 55.8**	**-0.4**
PKGZ				AML	AML		
PKGZ				AML	AML		
CNGZ	**Carnagh Statio**	**1.54**	**240**	P	**Pg**	**05 53 58.5**	**-0.2**
CNGZ				AML	AML		
CNGZ				AML	AML		
TWGZ	**Tauwhareparae**	**1.59**	**253**	P	**Pb**	**05 53 58.6**	**0.0**
TWGZ				S	**Sn**	**05 54 18.1**	**+0.2**
TWGZ				AML	AML		
TWGZ				AML	AML		
HAZ	**Te Kaha**	**1.68**	**268**	P	**Pb**	**05 53 59.4**	**-0.8**
HAZ				AML	AML		
HAZ				AML	AML		
TKGZ	**Te Karaka**	**1.77**	**246**	P	**Pb**	**05 54 00.9**	**-0.9**
TKGZ				AML	AML		
TKGZ				AML	AML		
RUGZ	**Raukumara Rang**	**1.78**	**262**	P	**Pn**	**05 54 00.6**	**+0.5**
RUGZ				AML	AML		
RUGZ				AML	AML		
RIGZ	**Rimuhau**	**1.95**	**239**	P	**Pb**	**05 54 03.5**	**-1.3**
RIGZ				S	**Sn**	**05 54 26.7**	**-0.2**
RIGZ				AML	AML		
RIGZ				AML	AML		
MWZ	**Matawai**	**1.97**	**251**	P	**Pn**	**05 54 03.0**	**+0.3**
MWZ				S	**Sn**	**05 54 26.3**	**-1.2**
MWZ				AML	AML		
MWZ				AML	AML		
PRGZ	**Paritu Road**	**1.99**	**232**	P	**Pb**	**05 54 04.1**	**-1.4**
PRGZ				AML	AML		
PRGZ				AML	AML		
RAGZ	**Rawiri**	**2.11**	**248**	P	**Pb**	**05 54 06.6**	**-1.0**
RAGZ				AML	AML		
RAGZ				AML	AML		
MHGZ	**Mahia Peninsul**	**2.12**	**227**	P	**Pn**	**05 54 05.9**	**+1.2**
MHGZ				AML	AML		
MHGZ				AML	AML		
KNZ	**Kokohu**	**2.18**	**233**	P	**Pn**	**05 54 06.3**	**+0.8**
KNZ				AML	AML		
KNZ				AML	AML		
URZ	**Urewera**	**2.27**	**256**	Pn	**Pn**	**05 54 08.0**	**+1.3**
	23nm,0.3s,baz=241,slow=2.5,SNR=117						
URZ				Sn	**Sn**	**05 54 33.7**	**-1.1**
	85nm,0.3s,baz=18,slow=12,SNR=9.2						
	49nm,0.3s						
URZ				AML	AML		
WHRZ	**Whale Island**	**2.33**	**266**	P	**Pb**	**05 54 09.5**	**-1.7**
WHRZ				AML	AML		
WHRZ				AML	AML		
CTZ	**Chatham Island**	**6.56**	**157**	P	**Pn**	**05 55 07.3**	**+1.7**
CTZ				S	**Sn**	**05 56 15.9**	**-4.6**
ASAR	**Alice Springs**	**41.56**	**276**	P	**P**	**06 01 16.4**	**-0.7**
	2.5nm,0.5s,baz=124,slow=8.2,SNR=40						
	2.5nm,0.5s						
WRA	**Warramunga Arr**	**43.21**	**281**	P	**P**	**06 01 29.6**	**-1.0**
	2.2nm,0.5s,baz=121,slow=7.8,SNR=32						
	2.2nm,0.5s						
MAW	**Mawson**	**64.87**	**202**	P	**P**	**06 04 11.7**	**+3.7**
	1.4nm,0.8s,baz=84,slow=10,SNR=2.6						
	1.4nm,0.8s						
H03S2	**Juan Fernandez**	**77.89**	**123**	T	T	07 31 32.4	
	baz=231,slow=74,SNR=6.9						
H03S1	**Juan Fernandez**	**77.90**	**123**	T	T	07 31 36.3	
	baz=231,slow=74,SNR=5.9						
H03S3	**Juan Fernandez**	**77.90**	**123**	T	T	07 31 24.0	
	baz=231,slow=74,SNR=7.5						
ARCES	**ARCESS Array B**	**145.27**	**345**	PKP	**PKPdf**	**06 13 05.4**	**-0.5**
	1.7nm,0.6s,baz=44,slow=2.8,SNR=9.7						
FINES	**FINESS Array B**	**151.20**	**334**	PKPbc	**PKiKP**	**06 13 21.8**	**-0.5**
	5.9nm,1.0s,baz=31,slow=3.2,SNR=3.6						

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*IDC **17** 05:59:13.9±9.6, 19°.94S×175°.97W, h160^{km}±88^{km}, mb3.6/7, mbtmp4.1/8, MS4.1/1, Error ellipse: s-maj=26.5km s-min=24.6km az=160.0*

ISC 17 05:59:20.7±1.0**, 20°.1S**±0°.2×**175°.9W**±0°.2**, h222**^{km}**, n9, σ1^{s}17**/9**, mb3.7**/7**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	**16.57**	**260**	P	**Pn**	**06 03 02.4**	**+1.4**
	18nm,0.6s,baz=76,slow=18,SNR=14						
URZ	**Urewera**	**19.12**	**197**	P	**P**	**06 03 25.4**	**-1.6**
	10.0nm,0.5s,baz=10,slow=2.6,SNR=10.0						
ASAR	**Alice Springs**	**46.51**	**256**	P	**P**	**06 07 25.9**	**-0.4**
	2.4nm,0.4s,baz=84,slow=8.7,SNR=46						
	2.4nm,0.4s						
WRA	**Warramunga Arr**	**46.58**	**261**	P	**P**	**06 07 25.4**	**-1.4**
	1.5nm,0.3s,baz=96,slow=7.4,SNR=78						
WRA				LR	LR	06 26 31.0	
	comp=Z,186nm,18.7s,baz=90,slow=35						
	1.5nm,0.3s						
VNDA	**Vanda**	**58.53**	**186**	P	**P**	**06 08 54.5**	**+1.1**
	0.5nm,0.7s,baz=0.9,slow=8.2,SNR=3.9						
	0.5nm,0.7s						
QSPA	**South Pole Qui**	**70.01**	**180**	P	**P**	**06 10 08.6**	**+0.4**
	1.6nm,0.8s,baz=282,slow=1.4,SNR=6.8						
	1.6nm,0.8s						
NVAR	**Mina Array Bea**	**79.38**	**42**	P	**P**	**06 11 02.0**	**-0.3**
	0.7nm,0.7s,baz=217,slow=9.3,SNR=9.0						
	0.7nm,0.7s						
MAW	**Mawson**	**82.63**	**199**	P	**P**	**06 11 18.8**	**0.0**
	0.7nm,0.5s,baz=252,slow=4.0,SNR=2.5						
	0.7nm,0.5s						
TXAR	**Lajitas Array**	**85.19**	**57**	P	**P**	**06 11 32.7**	**+0.2**
	0.7nm,0.8s,baz=210,slow=8.6,SNR=8.0						
	0.7nm,0.8s						

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*IDC **17** 06:11:33.4±0.6, 35°.62N×94°.50E, h0^{km}, mb4.3/20, mbtmp4.3/27, ML3.9/6, MS3.8/56, Error ellipse: s-maj=14.3km s-min=10.7km az=37.0*

*BJI **17** 06:11:33.8, 35°.62N×94°.46E, h7^{km}, mB4.8/9, mb4.5/26, ML4.1/10, Ms4.2/32, Ms7 4.2/30*

*MOS **17** 06:11:33.6±0.8, 35°.67N×94°.54E, h11^{km}, mb4.8/22, Error ellipse: s-maj=6.7km s-min=3.9km az=124.7*

*NEIC **17** 06:11:36.0±1.3, 35°.69N±0°.07×94°.58E±0°.09, h10^{km}±1^{km}, mb4.8/136, Error ellipse: s-maj=12.3km s-min=11.7km az=166.0*

*GFZ **17** 06:11:35.3±0.2, 36°N±2°×9°5E±°, h10^{km}, M4.5/27, mb4.6/27, confirmed*

ISC 17 06:11:35.4±0.3**, 35°.67N**±0°.04×**94°.47E**±0°.04**, h10**^{km}**, n383, σ1^{s}17**/330**, mb4.7**/121**, MS3.9**/58**, 10C-11D, Qinghai**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GOMU	**GeErMu**	**0.60**	**28**	Pg	**Pg**	**06 11 45.3**	**-1.8**
GOMU				Sg	**Sg**	**06 11 53.8**	**-1.2**
GOMU				AML	AML		
	2µm,0.5s						

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GOMU                            AML    AML
      9µm,0.8s
GTA2  Gaotai              5.67  46 ePn    Pn     06 13 01.8 +2.0
GTA2                            L      L
      comp=N,2µm,13.6s
GTA2                            L      L
      comp=Z,5µm,11.7s
LSA   Lhasa               6.58 206  P     Pn     06 13 14.8 +2.1
LSA   Lhasa               6.58 206        Pn     06 13 14.8 +2.1
LZDM  Lanzhou Array       7.50  85  Pn    Pn     06 13 24.4 -0.7
      1.5nm,0.3s,baz=298,slow=16,SNR=1.5
LZDM                            Pg     Pg     06 13 51.9 -7.2
      baz=289,slow=19
LZDM                            Lg     Lg     06 15 30.9
      baz=261,slow=29
LZH   Lanzhou             7.62  84 ePn    Pn     06 13 26.5 -0.1
LZH                             Sn     Sn     06 14 51.8 -1.3
LZH                             AML    AML
      38nm,0.9s
LZH                             AML    AML
      35nm,1.0s
LZH                             L      L
      comp=N,2µm,10.0s
LZH                             L      L
      comp=Z,2µm,11.7s
TEZP  TEZPUR              9.14 189 eP     Pn     06 13 43.3 -4.0
TEZP                           eS     Sn     06 15 19.0  -11
TEZP                            IAML          06 15 31.9
      comp=E,379nm,0.2s
TEZP                            IAML          06 15 32.0
      comp=N,335nm,0.1s
MOKO  MOKOCHONG           9.32 180 eS     Sn     06 15 23.5  -11
MOKO                            IAML          06 18 11.0
      comp=N,357nm,5.6s
MOKO                            IAML          06 18 11.3
      comp=E,382nm,0.0s
WMQ   Urumqi              9.66 329  P     Pn     06 13 59.6 +5.0
WMQ                             S      Sn     06 15 44.8 +1.6
EVN   Everest            10.07 222        Pn     06 14 02.0 +1.2
EVN   Everest            10.07 222  P     Pn     06 14 02.2 +1.5
      comp=Z,47nm,1.0s
SHL   Shillong           10.31 193  P     Pn     06 14 03.1 -0.5
SHL   Shillong           10.31 193  Pn    Pn     06 14 03.1 -0.5
IMP   Imphal             10.81 183 eP     Pn     06 14 06.0 -4.3
MORE  Moreh              11.40 181        Pn     06 14 16.4 -1.9
AZL   Aizawl             11.99 188 eP     Pn     06 14 22.6 -4.0
AZL                            eS     Sn     06 16 24.4  -16
AZL                             IAML          06 16 31.7
      comp=E,276nm,0.1s
AZL                             IAML          06 16 31.9
      comp=N,262nm,0.0s
BTO2  Baotou             13.13  63 eP     Pn     06 14 42.5 +0.5
BTO2                            S      Sn     06 17 11.3 +3.2
BTO2                            pmax   pmax
      comp=N,46nm,0.7s
BTO2                            pmax   pmax
      comp=N,270nm,4.6s
BTO2                            L      L
      comp=N,1µm,9.0s
BTO2                            L      L
      comp=N,2µm,10.0s
BTO2                            L      L
      comp=N,3µm,9.8s
WUS   Wushi              13.17 299        Pn     06 14 42.6 +0.1
WUS   Wushi              13.17 299  P     Pn     06 14 43.8 +1.3
      comp=Z,29nm,0.9s
BRDH  Bariadhala         13.18 192  Pn    Pn     06 14 40.0 -2.6
      comp=Z,22nm,0.3s,baz=73,slow=19,SNR=4.6
BRDH                            LR     LR     06 20 28.9
      comp=Z,461nm,18.7s,baz=226,slow=41
SAIH  SAIHA              13.20 186 eP     Pn     06 14 38.9 -4.1
SAIH                           eS     Sn     06 16 54.5  -15
SAIH                            IAML          06 17 11.8
      comp=E,210nm,0.2s
SAIH                            IAML          06 17 12.2
      comp=N,213nm,0.0s
ENH   Enshi              13.70 109  Pn    Pn     06 14 48.1 -1.7
ZSN   Zaisan             13.78 332 eP     Pn     06 14 51.3 +0.6
ZSN                            eS     Sn     06 17 25.6 +1.8
ZSN   Zaisan             13.78 332 eP     Pn     06 14 51.4 +0.6
ZSN                            eS     Sn     06 17 25.7 +1.8
SHLS  Shalkode           13.79 307 eP     Pn     06 14 48.1 -2.9
SHLS                           eS     Sn     06 17 20.1 -4.2
SHLS  Shalkode           13.79 307 eP     Pn     06 14 48.1 -2.9
SHLS                           eS     Sn     06 17 20.2 -4.2
PDGK  Podgornoye         13.86 308  P     Pn     06 14 51.2 -0.7
PDGK  Podgornoye         13.86 308        Pn     06 14 51.2 -0.7
BOK   Bokaro             13.98 214 eS     Sn     06 17 14.4  -15
UZB   Uzynbulak          14.07 307 eP     Pn     06 14 55.5 +0.6
UZB   Uzynbulak          14.07 307 eP     Pn     06 14 55.6 +0.6
PRZ   Przheval'sk        14.21 303  P     Pn     06 14 56.4 -0.4
PRZ   Przheval'sk        14.21 303        Pn     06 14 56.4 -0.4
PRZ   Przheval'sk        14.21 303  P     Pn     06 15 00.0 +3.2
      comp=Z,42nm,1.7s
TARG  Taragay, Kyrgy     14.34 300  P     Pn     06 14 58.7 -0.2
TARG  Taragay, Kyrgy     14.34 300        Pn     06 14 58.7 -0.2
TARG  Taragay, Kyrgy     14.34 300  P     Pn     06 14 59.3 +0.4
      comp=Z,22nm,1.0s
MK31  Makanchi Array     14.38 324d iP    Pn     06 14 57.0 -2.1
MK31  Makanchi Array     14.38 324  Pn    Pn     06 14 57.8 -1.3
MKAR  Makanchi Array     14.38 324  Pn    Pn     06 14 57.2 -1.8
      comp=Z,2.5nm,0.3s,baz=138,slow=13,SNR=100
MKAR                            Sn     Sn     06 17 33.3 -5.3
      comp=Z,0.3nm,0.3s,baz=137,slow=26,SNR=2.5
      comp=Z,23nm,0.6s
MKAR                            AML    AML
MKAR  Makanchi Array     14.38 324  P     Pn     06 14 57.5 -1.6
MKAR  Makanchi Array     14.38 324        Pn     06 14 57.5 -1.6
KPKS  Kokpek             14.44 307 eP     Pn     06 15 00.5 +0.6
KPKS  Kokpek             14.44 307 eP     Pn     06 15 00.5 +0.6
SATY  Saty               14.44 306 eP     Pn     06 15 00.6 +0.7
SATY  Saty               14.44 306 eP     Pn     06 15 00.7 +0.7
MAKZ  Makanchi           14.54 324  P     Pn     06 15 00.9 -0.3
MAKZ  Makanchi           14.54 324        Pn     06 15 00.9 -0.3
MAKZ  Makanchi           14.54 324  P     Pn     06 15 00.1 -1.2
      comp=Z,65nm,1.1s
LYN   LuoYang            14.78  89 eP     P      06 15 10.4 -0.1
LYN                             pmax   pmax
      comp=Z,15nm,0.6s
LYN                             L      L
      comp=Z,680nm,14.1s
LYN                             L      L
      comp=Z,1µm,11.4s
LYN                             L      L
      comp=Z,1µm,12.9s
KDJ   Kajisay            14.92 301  P     Pn     06 15 05.8 -0.7
KDJ   Kajisay            14.92 301        Pn     06 15 05.8 -0.7
KDJ   Kajisay            14.92 301  P     Pn     06 15 06.0 -0.5
      comp=Z,39nm,1.5s
DGZ   Jazzator, Alta     14.94 342⇓iP    Pn     06 15 05.9 -0.8
ASAI  AK-SAY(Kyrgyzs     15.03 296  P     Pn     06 15 07.5 -0.6
      comp=Z,20nm,0.9s
SONM  Songino Array      15.04  32  Pn    Pn     06 15 08.4 +0.3
      comp=Z,0.3nm,0.3s,baz=219,slow=15,SNR=54
SONM                            Lg     Lg     06 19 27.6
      baz=231,slow=28,SNR=4.0
SONM                            LR     LR     06 21 21.4
      comp=Z,1µm,19.1s,baz=226,slow=39
      comp=Z,10nm,0.9s
SONM                            AML    AML
SONM  Songino Array      15.04  32        Pn     06 15 06.9 -1.2
ULN   Ulaanbaatar        15.36  34d iP    Pn     06 15 11.8 -0.4
ULN                             pmax   pmax
      comp=Z,14nm,1.1s
ULN   Ulaanbaatar        15.36  34        Pn     06 15 11.3 -1.0
ULN   Ulaanbaatar        15.36  34  P     Pn     06 15 13.4 +1.2
      comp=Z,28nm,1.4s
TDK   Taldyqorghan       15.37 312 eP     Pn     06 15 13.1 +0.8
TDK   Taldyqorghan       15.37 312 eP     Pn     06 15 13.1 +0.8
MDOK  Medeo              15.39 304 eP     Pn     06 15 13.5 +0.8
MDOK                           eS     Sn     06 18 05.5 +2.3
MDOK  Medeo              15.39 304 eP     Pn     06 15 13.6 +0.8
MDOK                           eS     Sn     06 18 05.6 +2.3
TNSS  Tian-Shan          15.41 304 eP     Pn     06 15 13.6 +0.4
TNSS  Tian-Shan          15.41 304 eP     Pn     06 15 13.7 +0.4
KSH2  Kashi              15.42 289  P     Pn     06 15 13.8 +0.7
KSH2                            pmax   pmax
      comp=Z,11nm,1.5s
AAA   Alma-Ata           15.50 304 eP     Pn     06 15 14.9 +0.9
AAA   Alma-Ata           15.50 304 eP     Pn     06 15 14.9 +0.9
NRN   Naryn              15.54 297  P     Pn     06 15 16.5 +1.6
NRN                             pmax   pmax
      comp=Z,21nm,0.9s
NRN   Naryn              15.54 297        Pn     06 15 16.5 +1.6
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NPW   Naypyitaw          15.90 174  P     Pn     06 15 18.7 -0.6
      comp=Z,13nm,0.8s
BOOM  Boomskoye usch     15.90 301  P     Pn     06 15 20.8 +1.3
BOOM                            pmax   pmax
      comp=Z,16nm,1.0s
BOOM  Boomskoye usch     15.90 301  Pn    Pn     06 15 20.8 +1.3
BOOM  Boomskoye usch     15.90 301  P     Pn     06 15 21.4 +2.0
      comp=Z,17nm,1.0s
ZAK   Zakamensk          16.03  21 eP     Pn     06 15 22.7 +1.7
ZAK                             pmax   pmax
      comp=Z,28nm,1.0s
KUU   Kurty              16.16 306 eP     Pn     06 15 23.3 +0.8
KUU   Kurty              16.16 306 eP     Pn     06 15 23.4 +0.8
HNS   HongShan           16.36  78⇑P     P      06 15 29.1 +1.1
HNS                             S      Sn     06 18 27.3 +0.7
HNS                             pmax   pmax
      comp=Z,22nm,1.1s
HNS                             L      L
      comp=Z,250nm,10.1s
HNS                             L      L
      comp=Z,870nm,11.9s
HNS                             L      L
      comp=Z,1µm,13.1s
SLVN  Son La             16.50 147  Pn    Pn     06 15 26.9 -0.2
AAK   Ala-Archa          16.96 300  Pn    Pn     06 15 32.8 -0.2
      comp=Z,0.3nm,0.3s,baz=164,slow=9.4,SNR=11
AAK                             LR     LR     06 22 44.9
      comp=Z,168nm,19.4s,baz=112,slow=40
      comp=Z,2.9nm,0.6s
AAK                             AML    AML
AAK   Ala-Archa          16.96 300⇓iP    Pn     06 15 34.5 +1.5
AAK                             pmax   pmax
      comp=Z,7.0nm,0.8s
AAK   Ala-Archa          16.96 300  Pn    Pn     06 15 32.5 -0.5
AAK   Ala-Archa          16.96 300  P     P      06 15 36.4 +1.5
SGDS  Sogindy            17.14 303 eP     Pn     06 15 35.9 +0.9
CHTO  Chiang Mai         17.25 166  P     Pn     06 15 35.4 -1.1
CHTO                            pmax   pmax
      comp=Z,21nm,1.4s
CHTO  Chiang Mai         17.25 166        Pn     06 15 35.4 -1.1
CHTO  Chiang Mai         17.25 166  P     Pn     06 15 35.4 -1.1
      comp=Z,11nm,1.4s
TLY   Talaya             17.30  19  Pn    Pn     06 15 36.3 -0.7
NIL   Nilore             17.57 270  P     Pn     06 15 40.9 +0.4
NIL                             pmax   pmax
      comp=Z,15nm,0.8s
NIL   Nilore             17.57 270  Pn    Pn     06 15 40.9 +0.4
NIL   Nilore             17.57 270  P     Pn     06 15 41.1 +0.6
      comp=Z,20nm,0.8s
CMAR  Chiang Mai Arr     17.60 166  P     Pn     06 15 39.6 -1.2
      comp=Z,0.4nm,0.3s,baz=342,slow=10,SNR=27
CMAR                            LR     LR     06 23 02.8
      comp=Z,323nm,21.4s,baz=345,slow=39
      comp=Z,9.3nm,1.0s
CMAR                            AML    AML
CMAR  Chiang Mai Arr     17.60 166ceP    Pn     06 15 41.5 +0.7
CMAR                            pmax   pmax
      comp=Z,11nm,1.0s
CMAR  Chiang Mai Arr     17.60 166  Pn    Pn     06 15 39.5 -1.3
BJT   Baijiatuau         17.67  69  P     Pn     06 15 39.9 -1.6
BJT                             pmax   pmax
      comp=Z,16nm,1.3s
BJT   Baijiatuau         17.67  69  Pn    Pn     06 15 39.9 -1.6
BJT   Baijiatuau         17.67  69  P     Pn     06 15 41.3 -0.2
      comp=Z,14nm,2.4s
BJI2  Beijing            17.67  69  P     P      06 15 41.9 -0.6
BJI2                            pmax   pmax
      comp=Z,7.0nm,1.7s
BJI2                            pmax   pmax
      comp=Z,120nm,4.7s
BJI2                            L      L
      comp=Z,230nm,10.2s
BJI2                            L      L
      comp=Z,680nm,11.7s
SEM   Semipalatinsk      17.98 329 eP     Pn     06 15 45.9 +0.3
SEM   Semipalatinsk      17.98 329 eP     Pn     06 15 45.9 +0.3
TIA   Tai'an             18.35  82  P     P      06 15 49.8 -0.2
TIA                             pmax   pmax
      comp=Z,13nm,1.1s
TIA                             L      L
      comp=Z,250nm,9.3s
TIA                             L      L
      comp=Z,750nm,12.8s
TIA                             L      L
      comp=Z,1µm,12.7s
XLT   XiLinHaoTe         18.49  57 eP     Pn     06 15 53.0 +1.2
XLT                             pmax   pmax
      comp=Z,4.0nm,0.5s
XLT                             pmax   pmax
      comp=Z,100nm,6.8s
XLT                             L      L
      comp=Z,660nm,11.9s
XLT                             L      L
      comp=Z,620nm,11.7s
KURBB Kurchatov Arra     18.88 327  P     P      06 15 54.1 -1.6
      comp=Z,0.1nm,0.3s,baz=132,slow=12,SNR=47
KURBB                           S      Sn     06 19 21.8 -5.6
      comp=Z,0.7nm,1.0s,baz=126,slow=26,SNR=1.5
KURBB                           LR     LR     06 24 09.4
      comp=Z,838nm,18.1s,baz=155,slow=40
      comp=Z,32nm,1.0s
KURBB                           AML    AML
KURK  Kurchatov          18.90 328⇑iP    P      06 15 54.8 -1.2
KURK                            pmax   pmax
      comp=Z,38nm,1.0s
KURK  Kurchatov          18.90 328        P      06 15 56.0  0.0
KURK  Kurchatov          18.90 328  P     P      06 15 55.8 -0.2
      comp=Z,36nm,1.2s
BTK   Batken             19.16 290  P     Pn     06 16 02.2 +2.3
DZA   Taraz              19.27 299 eP     P      06 16 01.0 +0.8
DZA   Taraz              19.27 299 eP     P      06 16 01.1 +0.8
ZAA0  Zalesovo Array     19.48 343  P     P      06 16 02.6 +0.3
ZALV  Zalesovo Beam      19.48 343  P     Pn     06 16 03.9 +0.4
      comp=Z,0.5nm,0.3s,baz=138,slow=12,SNR=12
      comp=Z,13nm,0.9s
ZALV                            AML    AML
ZALV  Zalesovo Beam      19.48 343  P     P      06 16 02.8 +0.5
KK31  Karatay Array      19.91 299 i P    P      06 16 08.4 +1.2
KK31  Karatay Array      19.91 299        P      06 16 08.3 +1.2
KKAR  Karatay Array      19.91 299  P     P      06 16 08.3 +1.2
KKAR  Karatay Array      19.91 299        P      06 16 08.3 +1.2
IUG   Iuzhnay            20.05 296 eP     P      06 16 09.5 +0.7
IUG   Iuzhnay            20.05 296 eP     P      06 16 09.5 +0.7
BRLS  Borolday           20.38 299 eP     P      06 16 13.6 +1.4
BRLS  Borolday           20.38 299 eP     P      06 16 13.7 +1.4
CHM   Chimkent           20.40 297 eP     P      06 16 13.3 +0.9
CHM                             pmax   pmax
      comp=Z,11nm,0.5s
CHM   Chimkent           20.40 297 eP     P      06 16 13.4 +0.9
      comp=Z,11nm,0.5s
KBL   Kabul              20.82 274  P     P      06 16 18.9 +1.6
KBL                             pmax   pmax
      comp=Z,22nm,1.0s
KBL   Kabul              20.82 274  P     P      06 16 18.9 +1.6
KBL   Kabul              20.82 274  P     Pn     06 16 20.2 +0.4
      comp=Z,24nm,1.0s
QIZ   Qiongzhong         21.43 137  P     P      06 16 23.5 -0.2
QIZ                             S      S      06 20 21.6 +0.1
QIZ                             pmax   pmax
      comp=Z,370nm,3.6s
QIZ                             L      L
      comp=Z,310nm,9.1s
QIZ                             L      L
      comp=Z,300nm,10.8s
DL2   Dalian             21.82  73 eP     P      06 16 18.3 -9.4
DL2                            eS     S      06 20 15.8  -13
DL2                             pmax   pmax
      comp=Z,67nm,0.8s
DL2                             LR     LR
      comp=N,330nm,14.4s
DL2                             LR     LR
      comp=E,1µm,14.0s
DL2                             LR     LR
      comp=Z,870nm,16.1s
HYB   Hyderabad          23.04 222 eP     P      06 16 41.8 +1.0
HYB                            eS     S      06 20 54.1 +2.4
HILR  Hailar Array B     23.07  45  P     P      06 16 40.4 -0.6
      comp=Z,0.5nm,0.2s,baz=198,slow=8.9,SNR=4.3
HILR                            LR     LR     06 27 12.1
      comp=Z,186nm,18.9s,baz=120,slow=41
      comp=Z,0.5nm,0.2s
SNY   Shenyang           23.45  66  P     P      06 16 41.9 -3.0
SNY                             S      S      06 21 01.8 +3.6
SNY                             pmax   pmax
      comp=Z,7.0nm,0.6s
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SNY                             pmax   pmax
      comp=Z,81nm,3.5s
SNY                             L      L
      comp=Z,230nm,12.2s
SNY                             L      L
      comp=Z,500nm,11.6s
BVAR  Borovoye Array     24.26 323  P     P      06 16 52.4 -0.2
      comp=Z,8.8nm,0.7s,baz=116,slow=10,SNR=15
      comp=Z,8.8nm,0.7s
BORK  Borovoye           24.31 323⇓iP    P      06 16 53.7 +0.8
BORK                            pmax   pmax
      comp=Z,12nm,0.9s
BORK  Borovoye           24.31 323        P      06 16 53.8 +0.9
BORK                            IAmb   IAmb   06 16 56.0
      comp=Z,13nm,0.9s
CN2   Changchun          25.06  62 eP     P      06 16 59.3 -0.5
CN2                            epP    pP     06 17 03.6 -0.6
CN2                             PP     PnPn   06 17 37.4 +4.3
CN2                             pmax   pmax
      comp=Z,10.0nm,0.7s
CN2                             pmax   pmax
      comp=Z,100nm,4.0s
CN2                             L      L
      comp=Z,200nm,15.0s
CN2                             L      L
      comp=Z,300nm,15.0s
CN2                             L      L
      comp=Z,500nm,17.0s
BNX   BinXian            26.75  58 ⇓P    P      06 17 15.5 +0.4
BNX                             pmax   pmax
      comp=Z,7.0nm,0.9s
KS19  Wonju Array Si     26.80  76  P     P      06 17 15.5 -0.2
KS19                            IAmb   IAmb   06 17 17.2
      comp=Z,32nm,1.5s
KSAR  Wonju Array Be     26.82  76  P     P      06 17 15.1 -0.7
KSAR  Wonju Array Be     26.82  76  P     P      06 17 15.1 -0.7
KSRS  Korea Array        26.85  76  P     P      06 17 15.2 -0.9
      comp=Z,4.3nm,0.8s,baz=271,slow=9.3,SNR=14
KSRS                            LR     LR     06 28 59.2
      comp=Z,202nm,19.0s,baz=265,slow=39
      comp=Z,4.3nm,0.8s
AB31  Akbulak array      28.59 309 i P    P      06 17 32.4 +0.9
AB31  Akbulak array      28.59 309  P     P      06 17 31.5  0.0
ABKAR Akbulak array      28.59 309  P     P      06 17 31.8 +0.2
ZEA   Zeya               29.11  41 eP     P      06 17 36.1  0.0
ZEA                             pmax   pmax
      comp=Z,10.0nm,0.8s
ZEA                             MLR    MLR
      comp=E,600nm,11.0s
ZEA                             MLR    MLR
      comp=Z,700nm,12.0s
USRK  Ussuriysk Ar.      29.79  62  LR    LR     06 30 38.3
      comp=Z,568nm,18.3s,baz=266,slow=38
USRK  Ussuriysk Ar.      29.79  62  P     P      06 17 40.9 -1.3
USRK  Ussuriysk Ar.      29.79  62  P     P      06 17 40.9 -1.3
JNU   Nakatsue           30.04  84  LR    LR     06 30 03.9
      comp=Z,142nm,19.4s,baz=280,slow=37
AKTO  Aktyubinsk         30.10 311  P     P      06 17 45.5 +0.5
      comp=Z,2.7nm,0.7s,baz=106,slow=8.1,SNR=6.7
AKTO                            LR     LR     06 30 41.6
      comp=Z,122nm,18.2s,baz=144,slow=38
      comp=Z,2.7nm,0.7s
KLR   Kul'dur            30.33  52  P     P      06 17 46.3 -0.7
      comp=Z,1.6nm,0.8s,baz=246,slow=10.0,SNR=2.5
      comp=Z,1.6nm,0.8s
KLR   Kul'dur            30.33  52⇓iP    P      06 17 46.2 -0.8
KLR                             pmax   pmax
      comp=Z,2.0nm,1.0s
IPM   Ipoh               31.62 167  P     P      06 17 58.5 -0.1
IPM                             IAmb   IAmb   06 18 17.6
      comp=Z,11nm,1.1s
ARTI  Arti               31.96 322  P     P      06 18 01.5 +0.3
      comp=Z,1.8nm,0.2s,baz=164,slow=9.4,SNR=3.6
ARTI                            LR     LR     06 32 17.6
      comp=Z,179nm,18.9s,baz=148,slow=39
      comp=Z,1.8nm,0.2s
ARTI  Arti               31.96 322d iP    P      06 18 01.7 +0.4
ARTI                                          06 19 02.8
ARTI                                          06 20 46.3
ARTI                            S      S      06 23 13.5 +1.1
ARTI                            pmax   pmax
      comp=Z,7.0nm,1.2s
ARTI  Arti               31.96 322        P      06 18 01.7 +0.4
ARTI                            IAmb   IAmb   06 18 08.2
      comp=Z,11nm,1.0s
NRIK  Noril'sk           33.94 356  P     P      06 18 18.2 -0.2
      comp=Z,10nm,0.9s,baz=162,slow=6.6,SNR=7.6
NRIK                            LR     LR     06 32 25.8
      comp=Z,136nm,18.3s,baz=170,slow=37
      comp=Z,10nm,0.9s
NRIK  Noril'sk           33.94 356d iP    P      06 18 19.1 +0.7
NRIK                            pmax   pmax
      comp=Z,12nm,1.0s
NRIK  Noril'sk           33.94 356        P      06 18 18.8 +0.4
NRIK                            IAmb   IAmb   06 18 20.3
      comp=Z,12nm,1.0s
YAK   Yakutsk            34.35  29  LR    LR     06 33 13.9
      comp=Z,559nm,18.9s,baz=233,slow=38
YAK   Yakutsk            34.35  29 eP     P      06 18 22.9 +0.9
YAK                             pmax   pmax
      comp=Z,13nm,1.2s
UOSS  Minazif            34.53 263  P     P      06 18 25.1 +1.0
UOSS                            IAmb   IAmb   06 18 36.5
      comp=Z,15nm,1.4s
MJB9  Matsu-Tunnel       35.12  75  P     P      06 18 27.5 -1.5
MAJO  Matsushiro         35.12  75  P     P      06 18 28.0 -1.1
MAJO                            pmax   pmax
      comp=Z,9.0nm,1.2s
MAJO  Matsushiro         35.12  75  P     P      06 18 28.0 -1.1
MJAR  Matsushiro Arr     35.12  75  LR    LR     06 33 51.3
      comp=Z,146nm,19.0s,baz=276,slow=38
MJAR  Matsushiro Arr     35.12  75  P     P      06 18 27.8 -1.3
MJAR                            pmax   pmax
      comp=Z,5.0nm,1.5s
MJAR  Matsushiro Arr     35.12  75  P     P      06 18 27.8 -1.3
MAK   Makhachkala        36.67 296c iP    P      06 18 38.8 -3.4
MAK                            eS     S      06 24 22.0 -3.3
MAK                            eSS    SnSn   06 26 54.3 -1.0
MAK                             pmax   pmax
      comp=Z,165nm,1.4s
JYT   Yasato             36.75  75  P     P      06 18 42.9 -0.1
BELG  Belogornoye        36.87 312 eP     P      06 18 44.7 +1.0
BELG                            pmax   pmax
      comp=Z,1.0nm,0.9s
KIRV  Kirov              37.27 322  LR    LR     06 35 44.0
      comp=Z,143nm,19.4s,baz=105,slow=39
KIRV  Kirov              37.27 322⇑iP    P      06 18 48.0 +0.9
ASAJ  Asahikawa          37.42  62  LR    LR     06 35 32.1
      comp=Z,320nm,18.2s,baz=259,slow=38
GNI   Garni              39.08 292  LR    LR     06 38 04.2
      comp=Z,30nm,19.6s,baz=102,slow=41
GNI   Garni              39.08 292 eP     P      06 19 04.7 +1.9
GNI                             pmax   pmax
      comp=Z,12nm,0.7s
KBZ   Khabaz             39.94 298  LR    LR     06 39 11.0
      comp=Z,58nm,21.3s,baz=70,slow=42
KBZ   Khabaz             39.94 298 eP     P      06 19 10.6 +0.9
KBZ                             pmax   pmax
      comp=Z,3.0nm,0.9s
KIV   Kislovodsk         40.06 298 eP     P      06 19 11.3 +0.4
KIV                             pmax   pmax
      comp=Z,9.0nm,1.1s
KIV                             MLR    MLR
      comp=Z,45nm,16.0s
TIXI  Tiksi              40.23  16  LR    LR     06 36 25.7
      comp=Z,212nm,19.0s,baz=184,slow=37
TIXI  Tiksi              40.23  16 eP     P      06 19 12.6 +0.8
TIXI                            pmax   pmax
      comp=Z,7.0nm,0.9s
TIXI  Tiksi              40.23  16  P     P      06 19 12.1 +0.4
KLMR  Klimovskoe         42.68 324 eP     P      06 19 31.3 -0.7
KLMR                            pmax   pmax
      comp=Z,15nm,0.9s
MOS   Moscow             43.06 316 eP     P      06 19 35.4 +0.2
MOS                             pmax   pmax
      comp=Z,31nm,0.8s
MA2   Magadan            43.14  38  LR    LR     06 39 05.2
      comp=Z,510nm,18.3s,baz=262,slow=38
MA2   Magadan            43.14  38  P     P      06 19 35.4 -0.4
MA2                             pmax   pmax
      comp=Z,35nm,1.5s
MA2   Magadan            43.14  38  P     P      06 19 35.4 -0.4
MA2                             IAmb   IAmb   06 19 40.9
      comp=Z,35nm,1.5s
OBN   Obninsk            43.64 315⇑iP    P      06 19 40.2 +0.4
OBN                            e*PP   pP     06 19 42.8 -1.6
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OBN				*e**SP	sP	06 19 46.3	+0.1
OBN				pmax	pmax		
	comp=Z,10.0nm,0.9s						
OBN				MLR	MLR		
	comp=Z,91nm,17.0s						
SEY	Seymchan	44.43	34	LR	LR	06 39 52.0	
	comp=Z,362nm,18.3s,baz=318,slow=38						
SEY	Seymchan	44.43	34	*e*P	P	06 19 45.0	-1.1
SEY				pmax	pmax		
	comp=Z,5.0nm,1.2s						
LUWI	Luwuk	45.06	138	P	P	06 19 50.9	-0.8
PETK	Petropavlovsk-	46.82	48	LR	LR	06 41 55.0	
	comp=Z,161nm,19.4s,baz=274,slow=39						
ASF	Jabal al Asfar	47.32	283	LR	LR	06 44 01.0	
	comp=Z,48nm,18.2s,baz=44,slow=41						
BR131	Keskin Array S	47.50	294	⇑*i*P	P	06 20 11.0	+0.1
BR131	Keskin Array S	47.50	294	P	P	06 20 11.1	+0.3
BRTR	Keskin Array B	47.50	294	P	P	06 20 10.9	+0.1
	comp=Z,2.5nm,1.0s,baz=94,slow=5.0,SNR=7.7						
BRTR				LR	LR	06 43 01.4	
	comp=Z,28nm,19.2s,baz=82,slow=40						
	comp=Z,2.5nm,1.0s						
BRTR	Keskin Array B	47.50	294	*ce*P	P	06 20 12.3	+1.5
BRTR				pmax	pmax		
	comp=Z,3.0nm,1.0s						
BRTR	Keskin Array B	47.50	294		P	06 20 11.2	+0.4
BR104	Keskin Array S	47.50	294	P	P	06 20 10.5	-0.3
	comp=Z,2.3nm,1.1s						
BR105	Keskin Array S	47.52	294	P	P	06 20 11.6	+0.6
	comp=Z,3.7nm,1.0s						
BSSI	Bau Bau, Buton	48.25	144	P	P	06 20 14.9	-1.7
	comp=Z,27nm,0.8s						
AKASG	Malin Array Be	48.33	309	P	P	06 20 16.6	-0.2
	comp=Z,0.3nm,0.3s,baz=76,slow=6.1,SNR=6.7						
AKASG				LR	LR	06 42 02.7	
	comp=Z,68nm,21.0s,baz=73,slow=38						
	comp=Z,0.3nm,0.3s						
AKBB	Malin Array Si	48.33	309	*c i*P	P	06 20 17.0	+0.1
AKBB				pmax	pmax		
	comp=Z,5.0nm,1.0s						
AKBB	Malin Array Si	48.33	309	P	P	06 20 17.0	+0.1
AKBB				IAmb	IAmb	06 20 17.7	
	comp=Z,7.2nm,1.1s						
AK01	Malin Array Si	48.34	309	P	P	06 20 17.2	+0.2
KIEV	Kiev	48.34	309	P	P	06 20 16.9	-0.1
KIEV				pmax	pmax		
	comp=Z,6.0nm,1.1s						
KIEV	Kiev	48.34	309	P	P	06 20 16.9	-0.1
KIEV				IAmb	IAmb	06 20 17.6	
	comp=Z,6.4nm,1.1s						
KIEV	Kiev	48.34	309	P	P	06 20 16.7	-0.3
	comp=Z,6.0nm,1.0s						
AK02	Malin Array Si	48.35	309	P	P	06 20 16.9	-0.1
AK05	Malin Array Si	48.35	309	P	P	06 20 17.5	+0.4
AK06	Malin Array Si	48.36	309	P	P	06 20 17.3	+0.1
AK11	Malin Array Si	48.37	309	P	P	06 20 17.6	+0.4
AK12	Malin Array Si	48.38	309	P	P	06 20 17.8	+0.5
CY604	RAF Akrotiri,	48.45	287	P	P	06 20 18.5	+0.8
CY604				IAmb	IAmb	06 20 22.6	
	comp=Z,18nm,1.4s						
AK20	Malin Array Si	48.46	309	P	P	06 20 17.6	-0.3
AK19	Malin Array Si	48.46	309	P	P	06 20 17.7	-0.2
SGF	Sodankyl	49.19	332	P	P	06 20 24.1	+0.9
	comp=Z,14nm,0.8s						
FIA1	FINESS Array S	49.22	324	P	P	06 20 23.8	+0.2
FIA1				PcP	PcP	06 21 44.9	-1.5
FINES	FINESS Array B	49.22	324	P	P	06 20 23.2	-0.3
	comp=Z,8.2nm,0.9s,baz=90,slow=9.5,SNR=8.2						
FINES				LR	LR	06 43 01.0	
	comp=Z,149nm,18.3s,baz=60,slow=38						
	comp=Z,8.2nm,0.9s						
FINES	FINESS Array B	49.22	324	P	P	06 20 24.3	+0.8
FINES						06 21 46.2	
FINES	FINESS Array B	49.22	324	P	P	06 20 24.3	+0.8
FINES				PcP	PcP	06 21 46.2	-0.3
LUBAR	Lubar, Ukraine	49.38	309	P	P	06 20 25.1	+0.1
ARCES	ARCESS Array B	49.74	335	P	P	06 20 27.3	-0.2
	comp=Z,1.7nm,0.5s,baz=78,slow=7.4,SNR=13						
ARCES				LR	LR	06 43 21.7	
	comp=Z,139nm,18.6s,baz=85,slow=38						
	comp=Z,1.7nm,0.5s						
ARCES	ARCESS Array B	49.74	335	P	P	06 20 27.8	+0.3
ARCES				IAmb	IAmb	06 20 34.2	
	comp=Z,19nm,1.5s						
ARCES				PcP	PcP	06 21 48.5	+0.1
EIL	Elat	49.81	281	LR	LR	06 43 11.7	
	comp=Z,70nm,18.4s,baz=91,slow=38						
GUMO	Guam	50.19	103	LR	LR	06 40 05.6	
	comp=Z,29nm,20.9s,baz=43,slow=34						
RNPP9	Sopachiv	50.30	311	P	P	06 20 32.3	+0.4
ISP	Isparta	50.38	293	P	P	06 20 33.0	+0.1
ISP				pmax	pmax		
	comp=Z,8.0nm,0.6s						
ISP	Isparta	50.38	293	P	P	06 20 33.0	+0.1
ISP				IAmb	IAmb	06 20 34.7	
	comp=Z,8.3nm,0.6s						
BILL	Bilibino	50.69	28	⇑*i*P	P	06 20 35.6	+1.0
BILL				pmax	pmax		
	comp=Z,13nm,1.0s						
BURAR	Bucovina Array	51.49	306	P	P	06 20 41.3	+0.2
BUR08	Bucovina Ar. S	51.50	306	P	P	06 20 41.0	-0.2
MLR	Muntele Rosu	51.52	303	LR	LR	06 46 52.2	
	comp=Z,94nm,18.5s,baz=1.0,slow=41						
KWP	Kalwaria Pacla	52.65	309	P	P	06 20 50.3	+0.7
	comp=Z,13nm,0.7s						
OJC	Ojcow	54.33	310	P	P	06 21 02.4	+0.5
HFS	Hagfors	55.40	323	P	P	06 21 09.7	+0.2
	comp=Z,7.1nm,1.0s,baz=68,slow=13,SNR=2.9						
HFS				LR	LR	06 45 44.2	
	comp=Z,102nm,18.3s,baz=74,slow=37						
	comp=Z,7.1nm,1.0s						
VYHS	Vyhne	55.40	308	P	P	06 21 10.9	+1.2
	comp=Z,2.0nm,1.2s						
MORC	Moravsky Berou	55.85	310	P	P	06 21 13.3	+0.4
MORC				pmax	pmax		
	comp=Z,5.0nm,1.0s						
MORC	Moravsky Berou	55.85	310	P	P	06 21 13.3	+0.4
MORC				IAmb	IAmb	06 21 14.6	
	comp=Z,5.4nm,1.0s						
MORC	Moravsky Berou	55.85	310	P	P	06 21 13.7	+0.8
	comp=Z,6.4nm,1.1s						
NC405	NORSAR Array S	56.13	325	P	P	06 21 15.3	+0.6
NC405				IAmb	IAmb	06 21 18.5	
	comp=Z,9.5nm,0.9s						
KRLC	Kraliky	56.23	311	P	P	06 21 15.8	+0.1
	comp=Z,4.5nm,1.1s						
NC602	NORSAR Array S	56.30	324	P	P	06 21 16.2	+0.3
NORES	NORESS Array B	56.30	324	P	P	06 21 16.3	+0.4
NB201	NORSAR Array S	56.34	325	P	P	06 21 16.7	+0.5
NB2	NORSAR Subarra	56.38	325	P	P	06 21 16.4	-0.1
	comp=Z,1.2nm,0.5s,baz=75,slow=6.9						
NB2	NORSAR Subarra	56.38	325	P	P	06 21 16.4	-0.1
NOA	NORSAR Array B	56.38	325	P	P	06 21 16.5	-0.1
	comp=Z,4.4nm,0.9s,baz=76,slow=7.0,SNR=8.0						
NOA				LR	LR	06 47 12.5	
	comp=Z,131nm,18.5s,baz=90,slow=38						
	comp=Z,4.4nm,0.9s						
DPC	Dobruska-Polom	56.44	311	P	P	06 21 18.3	+1.2
	comp=Z,6.7nm,0.9s						
VRAC	Vranov	56.58	310	LR	LR	06 45 18.2	
	comp=Z,55nm,18.0s,baz=66,slow=36						
UPC	Upice	56.58	311	P	P	06 21 19.1	+0.9
	comp=Z,12nm,1.0s						
NAO01	NORSAR Array S	56.58	324	P	P	06 21 17.9	-0.1
NAO01	NORSAR Array S	56.58	324	P	P	06 21 17.6	-0.3
	comp=Z,7.9nm,1.0s						
SHEM	Shemya Is, Ala	56.63	46	LR	LR	06 48 38.4	
	comp=Z,43nm,18.3s,baz=186,slow=39						
KONO	Kongsberg	57.52	323	P	P	06 21 25.2	+0.6
KONO				pmax	pmax		
	comp=Z,16nm,1.1s						
KONO	Kongsberg	57.52	323	P	P	06 21 25.2	+0.6
CLL	Collm	58.15	313	*i* P	P	06 21 29.7	+0.6
CLL	Collm	58.15	313	P	P	06 21 29.8	+0.7
CLL				IAmb	IAmb	06 21 30.4	
	comp=Z,4.8nm,0.8s						
CLL	Collm	58.15	313	*i* P	P	06 21 29.7	+0.6
CLL				LV		06 47 00.0	
KHC	Kasperske Hory	58.51	310	*e*P	P	06 21 32.1	+0.3
KHC	Kasperske Hory	58.51	310	P	P	06 21 32.2	+0.5
GEC2	GERESS Array S	58.53	310	P	P	06 21 32.4	+0.4
GERES	GERESS Array B	58.53	310	P	P	06 21 32.4	+0.4
	comp=Z,1.8nm,1.0s,baz=70,slow=6.1,SNR=3.9						
GERES	GERESS Array B	58.53	310	P	P	06 21 32.1	+0.2
NKC	Novy Kostel	58.83	312	P	P	06 21 34.5	+0.5
	comp=Z,5.8nm,0.7s						
DAG	Danmarks Havn	60.58	346	P	P	06 21 45.4	-0.1
FUORN	Ofenpass-Fuorn	61.49	309	P	P	06 21 52.9	+0.4
FUORN				IAmb	IAmb	06 22 02.1	
	comp=Z,4.3nm,0.9s						
DAVOX	Davos/Dischmat	61.68	309	LR	LR	06 50 03.3	
	comp=Z,56nm,18.4s,baz=75,slow=37						
BFO	Black Forest	62.04	311	P	P	06 21 56.0	+0.1
TUE	Stuetta	62.13	309	P	P	06 21 57.4	+0.5
TUE				IAmb	IAmb	06 22 01.3	
	comp=Z,4.8nm,0.8s						
TUE	Stuetta	62.13	309	P	P	06 21 56.9	+0.1
	comp=Z,6.9nm,0.8s						
SLE	Schleitheim	62.16	310	P	P	06 21 57.0	+0.2
	comp=Z,9.0nm,1.3s						
VAE	Valguarnera	62.38	298	LR	LR	06 54 10.2	
	comp=Z,38nm,18.0s,baz=256,slow=41						
C19K	Lookout Ridge	62.51	23	P	P	06 21 59.5	+0.8
C19K				IAmb	IAmb	06 22 19.5	
	comp=Z,6.1nm,1.1s						
MEM	Membach	62.52	314	*d*PP	PP	06 24 15.9	-0.4
B20K	Meade River	62.81	22	P	P	06 22 01.3	+0.6
BMRD	Maredsous	63.38	314	*d*P	P	06 22 05.7	+0.9
SENIN	Lac Senin/Sane	63.47	309	P	P	06 22 06.5	+0.7
SENIN				IAmb	IAmb	06 22 10.3	
	comp=Z,4.0nm,1.1s						
D20K	Etivluk River	63.64	23		P	06 22 07.2	+0.9
E21K	Killik River	64.61	22	P	P	06 22 13.4	+0.8
J16K	Anvik River	64.97	29	P	P	06 22 15.8	+0.8
E22K	Anaktuvuk Pass	65.44	22	IAmb	IAmb	06 22 25.2	
	comp=Z,9.1nm,1.1s						
EKA	Eskdalemuir Ar	65.50	322	P	P	06 22 18.5	-0.1
	comp=Z,5.4nm,0.8s,baz=60,slow=6.8,SNR=10						
EKA				LR	LR	06 53 05.9	
	comp=Z,50nm,18.6s,baz=38,slow=38						
	comp=Z,5.4nm,0.8s						
G21K	Allakaket	65.83	24		P	06 22 21.3	+0.8
G21K				IAmb	IAmb	06 22 21.8	
	comp=Z,6.9nm,0.9s						
IMAR	Indian Mountai	66.04	25	P	P	06 22 22.6	+0.6
E23K	Chandalar	66.16	22	IAmb	IAmb	06 22 26.7	
	comp=Z,6.7nm,1.0s						
K17K	Iditarod	66.17	29	P	P	06 22 23.2	+0.5
J18K	Innoko River	66.38	28	IAmb	IAmb	06 22 33.0	
	comp=Z,14nm,1.4s						
E24K	Your Creek	66.48	21	P	P	06 22 25.6	+0.8
E24K				IAmb	IAmb	06 22 26.6	
	comp=Z,7.7nm,0.9s						
J19K	Poorman	66.49	27	IAmb	IAmb	06 22 31.9	
	comp=Z,10nm,1.2s						
H21K	Melozitna Rive	66.55	25	IAmb	IAmb	06 22 26.9	
	comp=Z,8.6nm,1.0s						
G23K	Bananza Creek	66.84	23	IAmb	IAmb	06 22 28.1	
	comp=Z,4.5nm,1.1s						
J20K	Nowinta River	66.93	26	IAmb	IAmb	06 22 29.5	
	comp=Z,7.7nm,0.9s						
WRAB	Tennant Creek	66.97	139	*e*P	P	06 22 25.9	-2.5
WRAB				pmax	pmax		
	comp=Z,5.0nm,1.1s						
WRA	Warramunga Arr	66.98	139	P	P	06 22 27.5	-1.0
	comp=Z,1.3nm,0.8s,baz=340,slow=6.4,SNR=7.9						
	comp=Z,1.3nm,0.8s						
WR8	Warramunga Arr	67.07	139	P	P	06 22 28.4	-0.6
WR8				IAmb	IAmb	06 22 54.1	
	comp=Z,14nm,1.5s						
SUMG	Summit	67.26	346	P	P	06 22 29.9	-0.2
	comp=Z,15nm,2.1s						
MLY	Manley	67.62	25	IAmb	IAmb	06 22 38.5	
	comp=Z,4.9nm,0.8s						
F25K	Christian Rive	67.63	21	IAmb	IAmb	06 22 38.7	
	comp=Z,5.9nm,1.2s						
G24K	Hadweenzic Riv	67.65	22	IAmb	IAmb	06 22 34.5	
	comp=Z,9.8nm,1.0s						
D27M	Malcolm River	67.81	18	IAmb	IAmb	06 22 34.8	
	comp=Z,7.7nm,0.8s						
BMAR	Burnt Mountain	68.04	21		P	06 22 35.8	+1.1
CAST	Castle Rocks	68.12	26	P	P	06 22 35.4	+0.3
CAST				IAmb	IAmb	06 22 36.4	
	comp=Z,6.2nm,1.1s						
BORG	Borgarnes	68.14	335	LR	LR	06 53 43.0	
	comp=Z,44nm,19.9s,baz=354,slow=37						
E27K	Coleen River	68.37	19	IAmb	IAmb	06 22 38.3	
	comp=Z,9.4nm,1.0s						
PPLA	Purkeypile	68.39	27	P	P	06 22 37.9	+0.9
E28M	Babbage River	68.63	19	IAmb	IAmb	06 22 39.8	
	comp=Z,4.7nm,0.8s						
COLA	College	68.69	24	P	P	06 22 39.4	+0.8
COLA				pmax	pmax		
	comp=Z,15nm,1.0s						
COLA	College	68.69	24	P	P	06 22 39.4	+0.8
COLA	College	68.69	24	P	P	06 22 39.0	+0.4
	comp=Z,17nm,1.0s						
IL31		69.07	24		P	06 22 41.1	+0.1
IL31				IAmb	IAmb	06 22 41.4	
	comp=Z,6.3nm,0.9s						
ILAR	Eielson Array	69.07	24	P	P	06 22 40.6	-0.5
	comp=Z,3.8nm,0.9s,baz=296,slow=5.5,SNR=34						
ILAR				PP	PP	06 25 12.5	-0.6
	comp=Z,0.8nm,0.9s,baz=309,slow=9.2,SNR=4.8						
ILAR				LR	LR	06 56 01.7	
	comp=Z,90nm,19.3s,baz=272,slow=39						
	comp=Z,3.8nm,0.9s						
SKT	Skwentna	69.19	27	P	P	06 22 42.0	+0.2
E29M	Blow River	69.20	18	IAmb	IAmb	06 22 43.5	
	comp=Z,7.8nm,0.9s						
F28M	Old Crow	69.24	19	IAmb	IAmb	06 22 43.7	
	comp=Z,6.3nm,0.9s						
G27K	Doyon Strip	69.31	21	IAmb	IAmb	06 22 44.5	
	comp=Z,4.2nm,1.1s						
RES	Resolute Bay	69.75	3	LR	LR	06 54 21.0	
	comp=Z,66nm,19.8s,baz=360,slow=37						
H27K	Steamboat Moun	69.75	21	IAmb	IAmb	06 22 47.3	
	comp=Z,7.2nm,0.9s						
AS31	Alice Springs	69.82	142	P	P	06 22 46.2	0.0
ASAR	Alice Springs	69.82	142	P	P	06 22 45.4	-0.8
	comp=Z,1.9nm,0.7s,baz=330,slow=6.3,SNR=24						
	comp=Z,1.9nm,0.7s						
ASAR	Alice Springs	69.82	142	P	P	06 22 46.2	-0.1
ASAR	Alice Springs	69.82	142	P	P	06 22 46.2	-0.1
I26K	Coal Creek Min	69.90	22	IAmb	IAmb	06 22 47.8	
	comp=Z,6.2nm,1.0s						
OPO	Ambohidratompo	70.11	228	LR	LR	06 50 32.0	
	comp=Z,89nm,20.9s,baz=92,slow=33						
INK	Inuvik	70.35	17	P	P	06 22 49.4	+0.6
INK				pmax	pmax		
	comp=Z,7.0nm,0.9s						
INK	Inuvik	70.35	17		P	06 22 49.4	+0.6
INK				IAmb	IAmb	06 22 50.0	
	comp=Z,6.5nm,0.9s						
SCRK	Sand Creek	70.54	23	IAmb	IAmb	06 22 51.0	
	comp=Z,10nm,1.0s						
H29M	Whitestone	70.66	20	IAmb	IAmb	06 22 52.0	
	comp=Z,7.2nm,0.8s						
G30M	tAoh Zraii Nji	70.68	19	IAmb	IAmb	06 22 52.0	
	comp=Z,6.1nm,0.9s						
I28M	Miner Creek	70.77	21	IAmb	IAmb	06 22 52.9	
	comp=Z,4.2nm,0.8s						
G31M	Satah River	71.22	18	IAmb	IAmb	06 22 54.9	
	comp=Z,8.3nm,0.8s						
KDAK	Kodiak Island	71.33	31	LR	LR	06 56 19.4	
	comp=Z,201nm,20.9s,baz=304,slow=38						
KDAK	Kodiak Island	71.33	31	P	P	06 22 55.2	+0.2
KDAK				pmax	pmax		
	comp=Z,28nm,1.3s						
KDAK	Kodiak Island	71.33	31	P	P	06 22 55.2	+0.2
L27K	Beaver Creek,	71.88	23	IAmb	IAmb	06 23 00.2	
	comp=Z,7.5nm,1.0s						
BCAR	Beaver Creek A	71.89	23		P	06 22 59.4	+1.0
DAWY	Dawson	71.93	22	P	P	06 22 59.3	+0.7
I30M	Mount Dempster	71.95	20	IAmb	IAmb	06 22 59.5	
	comp=Z,8.8nm,0.8s						
M26K	Nabesna, AK	71.95	24	IAmb	IAmb	06 23 05.6	
	comp=Z,6.0nm,1.2s						
H31M	Peel River	72.06	19	IAmb	IAmb	06 23 00.7	
	comp=Z,7.4nm,1.1s						
M27K	Edge Creek, AK	72.36	24	IAmb	IAmb	06 23 03.4	
	comp=Z,9.3nm,1.1s						
BMRM	Bremner River	72.38	26	P	P	06 23 02.5	+1.1
MCARA	McCarthy VSAT	72.65	25	P	P	06 23 03.8	+0.9
MCARA				IAmb	IAmb	06 23 04.6	
	comp=Z,10nm,0.8s						
K29M	Barlow Dome	72.65	21	IAmb	IAmb	06 23 04.4	
	comp=Z,6.5nm,0.9s						
L29M	L29M	73.01	22	IAmb	IAmb	06 23 06.8	
	comp=Z,9.3nm,1.2s						
BARN	Barnard Glacie	73.35	25	IAmb	IAmb	06 23 09.3	
	comp=Z,10nm,1.0s						
M29M	Somme Creek	73.40	23	IAmb	IAmb	06 23 09.4	
	comp=Z,5.8nm,1.1s						
LOGN	Logan Glacier	73.74	25	IAmb	IAmb	06 23 16.8	
	comp=Z,10nm,1.0s						
ESDC	Sonseca Array	73.92	307	P	P	06 23 10.7	-0.2
	comp=Z,1.2nm,0.7s,baz=47,slow=5.4,SNR=11						
ESDC				LR	LR	07 00 19.4	
	comp=Z,34nm,19.3s,baz=314,slow=40						
	comp=Z,1.2nm,0.7s						
SFJD	Kangerlussuaq	74.25	346	LR	LR	06 59 20.3	
	comp=Z,70nm,18.3s,baz=13,slow=39						
SFJD	Kangerlussuaq	74.25	346	P	P	06 23 12.3	+0.1
SFJD				pmax	pmax		
	comp=Z,22nm,1.2s						
SFJD	Kangerlussuaq	74.25	346	P	P	06 23 12.3	+0.1
M31M	Drury Creek, Y	74.83	21	P	P	06 23 16.4	+0.7
M31M				IAmb	IAmb	06 23 17.0	
	comp=Z,8.3nm,1.2s						
HYT	Haines Junctio	74.91	24		P	06 23 17.4	+1.1
HYT				IAmb	IAmb	06 23 18.0	
	comp=Z,6.2nm,0.9s						
N31M	Braeburn, Yuko	74.96	22		P	06 23 17.4	+0.9
N31M				IAmb	IAmb	06 23 18.0	
	comp=Z,8.9nm,1.0s						
MMPY	Sheldon Lake,	75.40	20		P	06 23 20.3	+1.2
MMPY				IAmb	IAmb	06 23 20.9	
	comp=Z,6.2nm,1.1s						
WHY	Whitehorse	75.88	23	P	P	06 23 21.7	-0.2
WHY				IAmb	IAmb	06 23 22.7	
	comp=Z,6.0nm,0.7s						
N32M	Quiet Lake	76.04	22	P	P	06 23 23.1	+0.4
N32M				IAmb	IAmb	06 23 23.7	
	comp=Z,7.2nm,1.0s						
R33M	Jennings River	78.08	22		P	06 23 35.2	+0.9
R33M				IAmb	IAmb	06 23 36.3	
	comp=Z,8.4nm,1.3s						
MD01	Midelt array s	78.25	302	P	P	06 23 36.0	+0.3
DLBC	Dease Lake	79.15	22	LR	LR	07 02 30.5	
	comp=Z,111nm,18.1s,baz=290,slow=39						
S34M	Telegraph Cree	79.23	23		P	06 23 41.7	+1.2
YKA	Yellowknife Ar	79.41	13	P	P	06 23 41.3	-0.1
	comp=Z,2.6nm,1.0s,baz=344,slow=5.0,SNR=6.0						
YKA				LR	LR	06 59 58.4	
	comp=Z,45nm,21.8s,baz=340,slow=36						
	comp=Z,2.6nm,1.0s						
YKAW1	Yellowknife Wh	79.44	13	P	P	06 23 41.6	+0.1
YKAW1				IAmb	IAmb	06 23 49.4	
	comp=Z,6.7nm,1.1s						
FRB	Frobisher Bay	80.00	352	LR	LR	07 02 41.1	
	comp=Z,68nm,18.0s,baz=332,slow=38						
T35M	Bob Quinn	80.27	23		P	06 23 46.8	+0.6
MATP	Matopo	83.71	240	LR	LR	06 59 13.6	
	comp=Z,56nm,20.7s,baz=296,slow=34						
TORD	Torodi Ar. Bea	84.68	282	P	P	06 24 09.0	-0.8
	comp=Z,2.0nm,1.1s,baz=46,slow=4.2,SNR=4.3						
	comp=Z,2.0nm,1.1s						
BBB	Bella Bella	84.93	25	LR	LR	07 03 31.9	
	comp=Z,73nm,18.9s,baz=249,slow=37						
EDM	Edmonton	88.23	16	P	P	06 24 27.1	+0.4
EDM				pmax	pmax		
	comp=Z,10.0nm,0.9s						
EDM	Edmonton	88.23	16		P	06 24 27.1	+0.4
SCHQ	Schefferville	88.44	349	LR	LR	07 07 17.4	
	comp=Z,60nm,19.5s,baz=334,slow=38						
LBTB	Lobatse	88.73	238	LR	LR	07 00 45.5	
	comp=Z,47nm,21.5s,baz=63,slow=33						
KEKH	Kekaha	89.42	63	P	P	06 24 32.6	-0.2
A04D	Lummi Island	89.69	24	P	P	06 24 33.9	+0.4
B08A	Colville Reser	91.07	22	IAmb	IAmb	06 24 41.6	
	comp=Z,4.0nm,1.0s						
BOSA	Boshof	91.29	235	LR	LR	07 03 58.1	
	comp=Z,58nm,18.4s,baz=24,slow=34						
JTMT	Jette	93.06	19		P	06 24 49.9	+0.5
ULM	Lac du Bonnet	93.96	7	LR	LR	07 09 32.3	
	comp=Z,38nm,18.2s,baz=14,slow=37						
PLID	Pearl Lake	95.01	21	P	P	06 24 58.8	+0.2
K04D	Chiloquin, OR	95.34	26	P	P	06 25 00.6	+0.6
YBH	Yreka Blue Hor	95.77	27	LR	LR	07 08 57.8	
	comp=Z,71nm,20.6s,baz=314,slow=36						
SUR	Sutherland	96.64	235	LR	LR	07 07 28.4	
	comp=Z,39nm,18.4s,baz=89,slow=35						
SADO	Sadowa	99.73	355	LR	LR	07 13 14.7	
	comp=Z,52nm,18.6s,baz=18,slow=37						

JMA ***17*** *06:18:00.5±0.4, 33°N±2°×13°8E±°, h356^{km}±3^{km}, MV3.7/40, FAR S OFF TOKAI DISTRICT*

IDC ***17*** *06:18:01.4±0.6, 32°.61N×137°.97E, h348^{km}±6^{km}, mb3.5/19, mbtmp4.2/24, Error ellipse: s-maj=16.2km s-min=9.7km az=69.0*

ISC 17 06:18:00.7±0.6**, 32°.54N**±0°.07×**138°.10E**±0°.06**, h350**^{km}**, n50,** σ**1^{s}.36**/59**, mb3.8**/19**, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
JAOM	Aogashimamukai	1.41	93	P	Pn	06 18 49.8	+1.4
TTO3	TONANKAI O.B.S	1.45	336	P	Pn	06 18 49.4	+1.2
TTO3				*e*S	S	06 19 28.2	+1.7
TTO2	TONANKAI O.B.S	1.49	323	P	Pn	06 18 49.4	+1.0
JHCJ	Hachijojimakas	1.53	69	P	Pn	06 18 50.4	+1.5
JHJ	Hachijo jima 2	1.54	67	P	Pn	06 18 50.5	+1.5
	157nm,0.3s,baz=63,slow=4.4,SNR=21						
JHJ				S	S	06 19 29.4	+1.6
	98nm,0.3s,baz=25,slow=24,SNR=9.0						
TTO4	TONANKAI O.B.S	1.54	342	P	Pn	06 18 49.6	+0.9
TTO4				S	S	06 19 27.9	+0.7
TTO1	TONANKAI O.B.S	1.54	315	P	Pn	06 18 49.2	+0.6
JHJ2	Mitsune	1.56	68	P	Pn	06 18 50.2	+1.1
JMKN	Mikurajimanish	1.84	42	P	Pn	06 18 51.8	+1.0
JIE	Ise	2.18	328	P	Pn	06 18 53.4	+0.2
JIE				*e*S	S	06 19 34.0	-1.5
JTNC	Tanabenakahech	2.44	302	P	Pn	06 18 54.8	-0.5
JWY	Kouya	2.68	309	P	Pn	06 18 57.3	0.0
JOD2	Odawara 2	2.84	17	*e*P	Pn	06 18 59.0	+0.5
JYN	Shimob	2.98	7	P	Pn	06 19 00.8	+1.0
BSO1	Boso 1	3.20	48	P	Pn	06 19 00.4	-0.8
BSO1				*e*S	S	06 19 47.5	-2.5
JYTA	Yamagatataniai	3.25	340	P	Pn	06 19 02.2	0.0
JAI	Aioi	3.30	293	P	Pn	06 19 02.1	-0.6
JRY	Ryogami san	3.53	11	P	Pn	06 19 05.4	+0.4
JRY				*e*S	S	06 19 55.5	-1.3
JWT	Wachi	3.54	321	P	Pn	06 19 04.8	-0.2
JMN	Monobe	3.73	290	P	Pn	06 19 06.6	-0.4
MJAR	Matsushiro Arr	4.00	1	P	Pn	06 19 09.4	-0.2
	32nm,0.7s,baz=183,slow=10,SNR=57						
MJAR				S	S	06 20 03.7	-1.5
	2.6nm,0.4s,baz=347,slow=15,SNR=4.9						
JAG	Ashikaga	4.04	16	P	Pn	06 19 08.8	-1.1
JAG				*e*S	S	06 20 01.5	-4.4
JTO	Tosashimizu	4.47	276	P	Pn	06 19 13.9	-0.7
JHS	Saijyo	4.82	302	P	Pn	06 19 17.8	-0.5
JOI	OKI	5.48	314	*e*P	Pn	06 19 24.6	-1.0
JNU	Nakatsue	6.10	277	P	Pn	06 19 32.4	-0.3
	22nm,0.7s,baz=112,slow=3.8,SNR=20						
CBIJ	Chichi jima	6.48	146	*e*S	S	06 20 49.3	-6.1
KSRS	Korea Array	9.68	303	P	P	06 20 15.1	-1.3
	3.3nm,0.8s,baz=115,slow=11,SNR=9.3						
USRK	Ussuriysk Ar.	12.58	339	P	Pn	06 20 48.9	-0.3
	6.6nm,0.5s,baz=152,slow=10,SNR=14						
KLR	Kul'dur	17.34	346	P	P	06 21 39.6	-0.8
	3.6nm,0.6s,baz=160,slow=11						
HILR	Hailar Array B	21.82	327	P	P	06 22 25.2	+0.1
	1.3nm,0.4s,baz=126,slow=9.7,SNR=8.5						
	1.3nm,0.4s						
SONM	Songino Array	28.39	312	P	P	06 23 24.0	0.0
	2.0nm,0.6s,baz=132,slow=9.2,SNR=5.0						
	2.0nm,0.6s						
ZALV	Zalesovo Beam	43.09	316	P	P	06 25 26.9	-0.3
	1.2nm,0.3s,baz=82,slow=9.7,SNR=6.1						
	1.2nm,0.3s						
MKAR	Makanchi Array	44.35	306	P	P	06 25 37.3	0.0
	1.5nm,0.5s,baz=83,slow=10.0,SNR=16						
	1.5nm,0.5s						
NRIK	Noril'sk	46.29	338	P	P	06 25 52.3	+0.2
	5.8nm,0.4s,baz=102,slow=8.0,SNR=4.8						
	5.8nm,0.4s						
KURBB	Kurchatov Arra	46.75	311	P	P	06 25 55.4	-0.5
	1.6nm,0.3s,baz=91,slow=7.5,SNR=23						
	1.6nm,0.3s						
BVAR	Borovoye Array	51.67	315	P	P	06 26 32.8	0.0
	5.3nm,0.6s,baz=96,slow=7.3,SNR=13						
BVAR				PcP	PcP	06 27 41.3	+0.5
	1.3nm,0.4s,baz=83,slow=3.6,SNR=3.7						
	5.3nm,0.6s						
WRA	Warramunga Arr	52.31	184	P	P	06 26 38.6	+0.9
	0.8nm,0.3s,baz=0.7,slow=7.7,SNR=34						
	0.8nm,0.3s						

ILAR	Eielson Array	54.74	30	P	P	06 26 55.7	+1.0
	0.5nm,0.7s,baz=268,slow=5.6,SNR=5.9						
	0.5nm,0.7s						
ASAR	Alice Springs	56.03	185	P	P	06 27 05.6	+1.3
	1.0nm,0.7s,baz=16,slow=12,SNR=11						
	1.0nm,0.7s						
AKTO	Aktyubinsk	59.70	313	P	P	06 27 29.2	0.0
	4.7nm,0.6s,baz=77,slow=5.7,SNR=15						
	4.7nm,0.6s						
ARCES	ARCESS Array B	67.23	339	P	P	06 28 18.4	+0.6
	1.0nm,0.5s,baz=66,slow=8.4,SNR=17						
	1.0nm,0.5s						
YKA	Yellowknife Ar	69.05	28	P	P	06 28 30.6	+1.5
	0.5nm,0.8s,baz=300,slow=5.9,SNR=1.9						
	0.5nm,0.8s						
FINES	FINESS Array B	71.50	332	P	P	06 28 43.9	+0.2
	2.5nm,0.6s,baz=68,slow=5.0,SNR=12						
	2.5nm,0.6s						
KBZ	Khabaz	71.75	311	P	P	06 28 46.2	+0.6
	4.1nm,0.7s,baz=78,slow=5.5,SNR=9.0						
	4.1nm,0.7s						
AKASG	Malin Array Be	76.15	322	P	P	06 29 10.8	0.0
	1.8nm,0.4s,baz=52,slow=6.0,SNR=11						
	1.8nm,0.4s						
HFS	Hagfors	77.02	335	P	P	06 29 15.6	+0.2
	1.4nm,0.4s,baz=95,slow=3.4,SNR=7.6						
	1.4nm,0.4s						
NB2	NORSAR Subarra	77.24	336	P	P	06 29 17.0	+0.4
	comp=Z,0.9nm,0.5s,baz=44,slow=5.6						
NOA	NORSAR Array B	77.24	336	P	P	06 29 17.0	+0.4
	comp=Z,1.7nm,0.7s,baz=45,slow=5.6,SNR=6.2						
	comp=Z,1.7nm,0.7s						
BRTR	Keskin Array B	79.74	311	P	P	06 29 31.4	+0.7
	comp=Z,2.1nm,0.7s,baz=102,slow=3.9,SNR=8.5						
	comp=Z,2.1nm,0.7s						

IDC 17 06:19:48.0±1.2, 26°.59N×103°.57E, h0^{km}, mb3.7/6, mbtmp3.7/6, MS3.4/3, Error ellipse: s-maj=90.7km s-min=20.1km az=63.0

ISC 17 06:19:53.2±1.3**, 26°.6N**±0°.3×**103°.6E**±0°.5**, h35**^{km}**, n8, σ0**^{s}**.25**/6**, mb3.6**/6**, MS3.2**/3**, Yunnan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	21.27	5	P	P	06 24 36.5	0.0
	2.8nm,1.1s,baz=183,slow=10,SNR=3.2						
	2.8nm,1.1s						
MKAR	Makanchi Array	26.26	326	P	P	06 25 25.0	-0.1
	0.3nm,0.6s,baz=140,slow=12,SNR=4.1						
	0.3nm,0.6s						
DAV	Davao City (W)	28.54	129	LR	LR	06 35 51.4	
	comp=Z,72nm,21.8s,baz=336,slow=34						
ZALV	Zalesovo Beam	30.63	338	P	P	06 26 03.9	0.0
	0.8nm,0.4s,baz=134,slow=8.3,SNR=2.1						
ZALV				LR	LR	06 39 15.0	
	comp=Z,44nm,18.5s,baz=240,slow=38						
	0.8nm,0.4s						
WRA	Warramunga Arr	55.05	144	P	P	06 29 21.4	-0.3
	0.5nm,0.6s,baz=335,slow=8.4,SNR=8.6						
	0.5nm,0.6s						
KRVT	Keravat (AS076	55.98	116	LR	LR	06 50 25.9	
	comp=Z,86nm,21.7s,baz=123,slow=33						
ASAR	Alice Springs	57.94	147	P	P	06 29 42.5	+0.3
	0.3nm,0.6s,baz=326,slow=6.4,SNR=5.7						
	0.3nm,0.6s						
ARCES	ARCESS Array B	61.17	337	P	P	06 30 03.9	+0.1
	2.8nm,1.0s,baz=100,slow=6.2,SNR=2.1						
	2.8nm,1.0s						

SJA 17 06:47:22.4±0.7, 21°.37S×69°.89W, h53^{km}±6^{km}, ML3.7, MW3.7

GUC 17 06:47:24.2±0.8, 21°.38S×69°.81W, h47^{km}±3^{km}, ML3.8

ISC 17 06:47:23.8±1.2**, 21°.38S**±0°.02×**69°.96W**±0°.06**, h47**^{km}±7^{km}**, n33, σ1**^{s}**.10**/50**, 4D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PB02	IPOC Station P	0.08	43	*e*P	Pn	06 47 31.4	+0.1
PB02				IAML		06 47 38.7	
	comp=Z,10µm,0.1s						
PB02	IPOC Station P	0.08	43	⇓*i*P	Pn	06 47 31.5	+0.1
PB02				*e*S	Sn	06 47 36.9	+0.4
PB02				IAML		06 47 37.4	
	comp=E,27µm,0.1s						
PB07	IPOC Station P	0.35	170	*e*P	Pn	06 47 33.2	-0.2
PB07				IAML		06 47 41.0	
	comp=Z,3µm,0.1s						
PB07	IPOC Station P	0.35	170	*e*P	Pn	06 47 33.2	-0.2
PB07				*e*S	Sn	06 47 40.3	+0.2
PB07				IAML		06 47 40.7	
	comp=E,10µm,0.1s						
PB03	IPOC Station P	0.69	164	*e*P	Pn	06 47 37.0	-0.5
PB03				*e*S	Sn	06 47 47.1	-0.2
PB03				IAML		06 47 48.1	
	comp=Z,6µm,0.2s						
PB03	IPOC Station P	0.69	164	⇓*i*P	Pn	06 47 37.2	-0.3
PB03				*e*S	Sn	06 47 46.9	-0.5
PB03				IAML		06 47 48.2	
	comp=E,11µm,0.1s						
PB09	IPOC Station P	0.78	122	*e*P	Pn	06 47 37.8	-0.9
PB09				IAML		06 47 53.2	
	comp=Z,2µm,0.4s						
PB09	IPOC Station P	0.78	122	⇓*i*P	Pn	06 47 37.7	-0.9
PB09				*e*S	Sn	06 47 47.3	-2.1
PB09				IAML		06 47 48.7	
	comp=N,6µm,0.4s						
TA01	Diego Aracena	0.84	345	*e*P	Pn	06 47 39.2	0.0
TA01				*e*S	Sn	06 47 50.8	+0.4
TA01				IAML		06 47 54.6	
	comp=Z,956nm,0.2s						
TA01	Diego Aracena	0.84	345	*e*P	Pn	06 47 39.0	-0.2
TA02	Huaiquique	1.11	351	*e*P	Pn	06 47 43.3	+0.3
TA02				*e*S	Sn	06 47 59.5	+2.2
TA02				IAML		06 48 00.6	
	comp=Z,2µm,0.5s						
TA02	Huaiquique	1.11	351	*e*P	Pn	06 47 43.0	0.0
PB06	IPOC Station P	1.37	165	*e*P	Pn	06 47 46.3	-0.3
PB06				*e*S	Sn	06 48 05.2	+1.6
PB06				IAML		06 48 06.2	
	comp=Z,633nm,0.2s						
PB06	IPOC Station P	1.37	165	*i* P	Pn	06 47 46.1	-0.5
PB06				*e*S	Sn	06 48 04.0	+0.3
PB06				IAML		06 48 07.6	
	comp=E,1µm,0.2s						
PB08	IPOC Station P	1.44	31	*e*P	Pn	06 47 47.7	-0.1
PB08				*e*S	Sn	06 48 05.6	-0.1
PB08				IAML		06 48 06.2	
	comp=Z,2µm,0.5s						
PB08	IPOC Station P	1.44	31	⇓*e*P	Pn	06 47 47.5	-0.3
PB08				*e*S	Sn	06 48 05.2	-0.6
PB08				IAML		06 48 06.4	
	comp=E,3µm,0.2s						
PB05	IPOC Station P	1.48	189	*e*P	Pn	06 47 48.7	+0.6
PB05				*e*S	Sn	06 47 55.7	-11
PB05				IAML		06 48 09.5	
	comp=Z,599nm,0.6s						
PB05	IPOC Station P	1.48	189	*e*P	Pn	06 47 48.6	+0.4
PB05				*e*S	Sn	06 48 07.5	+1.0
PB05				IAML		06 48 10.2	
	comp=N,841nm,0.3s						
PB11	IPOC Station P	1.63	10	*e*P	Pn	06 47 50.2	0.0
PB11				*e*S	Sn	06 48 10.6	+0.5
PB11				IAML		06 48 11.9	
	comp=Z,1µm,0.3s						
PB11	IPOC Station P	1.63	10	*i* P	Pn	06 47 50.2	0.0
PB11				*e*S	Sn	06 48 10.1	-0.1
PB11				IAML		06 48 11.8	
	comp=N,2µm,0.2s						
PSGCX	Pisagua	1.78	355	*e*P	Pn	06 47 52.4	+0.2
PSGCX				*e*S	Sn	06 48 12.4	-1.2
PSGCX				IAML		06 48 18.1	
	comp=Z,392nm,0.4s						
PSGCX	Pisagua	1.78	355	*e*P	Pn	06 47 52.3	+0.1
GO01	Chusmiza	1.84	23	*e*P	Pn	06 47 53.7	+0.3
GO01				*e*S	Sn	06 48 16.4	+0.6
GO01				IAML		06 48 18.2	
	comp=Z,780nm,0.8s						
GO01	Chusmiza	1.84	23	*e*P	Pn	06 47 53.5	0.0
GO01				*e*S	Sn	06 48 16.1	+0.3
GO01				IAML		06 48 18.5	
	comp=N,4µm,0.1s						
AF01	San Pedro de A	2.27	134	*e*P	Pn	06 48 01.1	+2.0
AF01				*e*S	Sn	06 48 07.2	-19
AF01				IAML		06 48 48.0	
	comp=Z,769nm,0.5s						
AF01	San Pedro de A	2.27	134	*e*P	Pn	06 48 01.0	+1.9
PB12	IPOC Station P	2.77	353	*e*P	Pn	06 48 06.2	+0.4
PB12				*e*S	Sn	06 48 33.5	-4.6
PB12				IAML		06 48 51.8	
	comp=Z,172nm,0.2s						
PB12	IPOC Station P	2.77	353	*e*P	Pn	06 48 05.3	-0.5
PB12				IAML		06 48 54.2	
	comp=N,306nm,0.2s						
AP01	Chacalluta	3.01	353	*e*S	Sn	06 48 57.4	+13
AP01				IAML		06 49 05.6	
	comp=Z,318nm,0.3s						
PB16	IPOC Station P	3.06	8	*e*P	Pn	06 48 12.0	+1.9
PB16				*e*S	Sn	06 48 56.8	+11
PB16				IAML		06 49 03.8	
	comp=Z,94nm,0.5s						
PB16	IPOC Station P	3.06	8	*e*P	Pn	06 48 11.3	+1.2
PB16				IAML		06 49 05.9	
	comp=N,138nm,0.7s						
PB14	IPOC Station P	3.26	187	*e*P	Pn	06 48 12.8	+0.2
PB14				*e*S	Sn	06 49 01.9	+11
PB14				IAML		06 49 11.0	
	comp=Z,117nm,0.5s						
AC01	Pan de Azucar	4.78	187	*e*P	Pn	06 48 31.9	-1.5
AC01				IAML		06 49 56.6	
	comp=Z,44nm,0.9s						

IDC 17 07:07:00.9±2.7**, 17°.44S×178°.43W, h597**^{km}±22^{km}**, mb2.7**/4**, mbtmp3.6**/5**, Error ellipse: s-maj=109.2km s-min=24.2km az=151.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	Nonsavu	3.37	264	P	P	07 08 22.1	0.0
	9.0nm,0.6s,baz=166,slow=12,SNR=4.9						
WRA	Warramunga Arr	44.70	259	P	P	07 14 22.2	-0.3
	0.4nm,0.3s,baz=96,slow=7.1,SNR=12						
	0.4nm,0.3s						
ASAR	Alice Springs	44.90	254	P	P	07 14 24.1	0.0
	2.0nm,0.6s,baz=87,slow=8.7,SNR=30						
ASAR				PcP	PcP	07 15 52.2	-0.3
	0.3nm,0.6s,baz=94,slow=4.1,SNR=4.1						
	2.0nm,0.6s						
ILAR	Eielson Array	85.43	13	P	P	07 18 35.8	-0.2
	0.1nm,0.3s,baz=224,slow=4.9,SNR=5.1						
	0.1nm,0.3s						
TXAR	Lajitas Array	85.76	58	P	P	07 18 38.5	0.0
	0.2nm,0.6s,baz=216,slow=6.2,SNR=3.7						
	0.2nm,0.6s						

TEH 17 07:39:40.3, 32°.83N×48°.20E, h8^{km}±26^{km}**, ML3.8, Presumed earthquake, Western Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IKFM	Kafar-mosalman	0.76	337	Pg	Pb	07 39 56.0	+0.3
IDOB	Doab	0.96	359	Pg	Pb	07 39 59.3	+0.1
AMIS	Naft Sefid	1.48	141	Pg	Pg	07 40 09.5	+0.8
AHWZ	Ahwaz	1.54	166	Pg	Pg	07 40 10.6	+0.8
IBZA	Bozab	1.66	350	Pg	Pg	07 40 12.9	+0.7
KCHF	Cheshme Sefid,	1.74	326	Pg	Pg	07 40 13.6	-0.1
ILBA	Ilam Banvizeh	1.85	296	Pn	Pb	07 40 14.9	+0.5
IGHG	Ghaleghazi	2.03	318	Pn	Pb	07 40 17.5	+0.1
SNQR	Sonqor, Kerman	2.08	347	Pn	Pb	07 40 18.9	+0.5
JHBN	Jahan bin	2.16	105	Pn	Pb	07 40 19.7	-0.2
IPIR	Pirpir	2.27	93	Pn	Pb	07 40 21.2	-0.4
HGHA	Hamedan- Ghaye	2.71	11	Pn	Pb	07 40 27.9	-1.2
IBRJ	Brojen	2.74	109	Pn	Pn	07 40 27.2	+2.4
SNJK	Sanadaj _Korde	2.76	341	Pn	Pb	07 40 28.3	-1.6
QAMS	Qamsar	2.82	70	Pn	Pb	07 40 29.2	-1.9
IKLH	Kolahrood	2.88	79	Pn	Pb	07 40 29.8	-2.2
IQOM	Qom	3.12	49	Pn	Pb	07 40 33.1	-3.0
IGAR	Gharneh	3.27	96	Pn	Pn	07 40 34.3	+2.3
IVRN	Varamin	3.64	53	Pn	Pn	07 40 40.1	+3.1
ISFB	Sefidab	3.70	65	Pn	Pn	07 40 40.4	+2.7
IGZV	Ghazvin	3.92	25	Pn	Pn	07 40 44.0	+3.0
ILAS	Lasjerd	4.70	56	Pn	Pn	07 40 54.4	+2.8
ISHM	Shahmirzad	5.15	53	Pn	Pn	07 41 00.7	+2.8
GRMI	Germi	5.97	358	Pn	Pn	07 41 12.2	+3.2

IDC 17 07:51:35.2±0.9, 54°.86N×160°.81W, h0^{km}, mb3.9/9, mbtmp3.8/14, ML3.7/5, MS3.2/13, Error ellipse: s-maj=26.2km s-min=13.9km az=166.0

AEIC 17 07:51:39.3±2.2, 54°.75N±0°.05×160°.67W±0°.05, h21^{km}±3^{km}, Error ellipse: s-maj=6.9km s-min=4.4km az=191.0

NEIC 17 07:51:40.7±2.0, 54°.81N±0°.06×160°.67W±0°.04, h35^{km}±1^{km}, mb4.3/82, ML4.2/38, ML4.0(AEIC), Error ellipse: s-maj=10.8km s-min=4.2km az=180.0

ISC 17 07:51:39.5±1.1**, 54°.79N**±0°.05×**160°.67W**±0°.03**, h29**^{km}±8^{km}**, n226, σ1**^{s}**.09**/221**, mb4.3**/41**, MS3.2**/8**, Alaska Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SDPT	Sand Point	0.57	11	P	Pn	07 51 51.4	-0.2
SDPT	Sand Point	0.57	11	S	Sn	07 52 00.3	+0.3
SDPT	Sand Point	0.57	11		Pn	07 51 51.6	0.0
SDPT					Sn	07 52 00.2	+0.2
SDPT				IAML		07 52 00.6	
	comp=N,22µm,0.3s						
CHNA	Chernabura Isl	0.62	86	P	Pb	07 51 51.0	-0.9
CNBA	Chernabura Isl	0.62	87		Sn	07 52 01.6	+0.3
CNBA	Chernabura Isl	0.62	87		Pb	07 51 51.3	-0.6
DOL	Dolgoi Island	0.78	298		Pb	07 51 54.3	-0.2
DOL					Sn	07 52 05.3	+0.1
PVV	Pavlof Volcano	0.87	312		Pn	07 51 56.0	+0.2
PS4A	Pavlof South-4	0.88	309		Pn	07 51 56.1	+0.2
PS4A					Sn	07 52 08.5	+0.8
PS1A	Pavlof South-1	0.88	316		Pn	07 51 56.3	+0.4
PS1A					Sn	07 52 08.6	+0.8
DTNA	Dutton South F	0.98	292		Pb	07 51 57.3	-0.6
DT1	Dutton Round H	0.98	289		Pb	07 51 57.1	-0.8
DT1					Sb	07 52 10.3	-0.2
PN7A	Pavlof North-7	1.00	310		Pn	07 51 58.1	+0.5
VNKR	Veniaminof 5	1.45	30		Pn	07 52 04.6	+0.9
VNSS	Veniaminof 8	1.59	25		Pb	07 52 08.3	-0.1
VNSG	Veniaminof 6	1.61	33		Pn	07 52 07.1	+1.1
VNFG	Fog Glacier, M	1.62	22		Pb	07 52 08.0	-0.8
VNFG				IAML		07 52 42.3	
	comp=E,5µm,0.7s						
VNFG	Fog Glacier, M	1.62	22		Pb	07 52 08.0	-0.8
ISNN	Isanotski Nort	1.80	273		Pn	07 52 09.4	+0.8
ISNN					Sb	07 52 34.4	+0.4
CHGN	Chignik	1.98	39		Pn	07 52 12.3	+1.3
CHGN				IAML		07 52 40.8	
	comp=E,3µm,0.5s						
CHGN				IAML		07 52 42.6	
	comp=N,2µm,0.5s						
CHGN	Chignik	1.98	39		Sb	07 52 37.8	-1.2
BPBCA	Veniaminof	2.19	34		Pn	07 52 15.3	+1.4
ANPB	Aniakchak Plen	2.42	33		Pn	07 52 18.5	+1.4
AKUT	Akutan	3.05	260	P	Pn	07 52 27.2	+1.5
AKUT	Akutan	3.05	260	S	Sn	07 53 03.8	+2.6
AKUT	Akutan	3.05	260		Pn	07 52 26.7	+1.0
AKUT				IAML		07 53 14.8	
	comp=E,527nm,0.6s						
AKUT				IAML		07 53 15.8	
	comp=N,514nm,0.6s						
CHIR	Chirikof Islan	3.06	68	P	Pn	07 52 26.2	+0.4
CHIR	Chirikof Islan	3.06	68	S	Sn	07 53 01.6	+0.2
CHIR	Chirikof Islan	3.06	68		Pn	07 52 26.2	+0.4
CHIR				IAML		07 53 18.7	
	comp=N,875nm,1.0s						
CHIR				IAML		07 53 22.5	
	comp=E,980nm,1.0s						
CHIR	Chirikof Islan	3.06	68		Sn	07 53 01.1	-0.4
AKGG	Akutan Green G	3.16	261		Pn	07 52 28.5	+1.3
AKV	Akutan Volcano	3.16	260		Pn	07 52 28.9	+1.6
LVA	Lava Point	3.20	261		Pn	07 52 29.1	+1.4
LVA				IAML		07 53 23.8	
	comp=E,557nm,0.6s						
AKRB	Akutan Reef Bi	3.22	260		Pn	07 52 29.4	+1.4
R16K	Pilot Point	3.27	31		Sn	07 53 09.1	+2.4
R16K	Pilot Point	3.27	31	Pn	Pn	07 52 30.2	+1.5
R16K				IAML		07 53 14.3	
	comp=N,713nm,1.1s						
R16K				IAML		07 53 46.2	
	comp=E,689nm,1.5s						
UNV	Unalaska Valle	3.55	257	P	Pn	07 52 33.1	+0.6
UNV	Unalaska Valle	3.55	257	S	Sn	07 53 15.9	+2.5
UNV	Unalaska Valle	3.55	257		Pn	07 52 33.6	+1.1
MSW	Makushin Switc	3.69	259		Pn	07 52 35.4	+1.0
MGOD	Makushin Gods	3.77	257		Pn	07 52 36.4	+0.7
SII	Sitkinak Islan	4.07	62	P	Pn	07 52 40.3	+0.5
SII	Sitkinak Islan	4.07	62	S	Sn	07 53 28.0	+1.6
SII	Sitkinak Islan	4.07	62	Pn	Pn	07 52 40.6	+0.8
KJL	Kejulik	4.32	39		Pn	07 52 44.6	+1.4
Q17K	Contact Creek	4.37	35		Pn	07 52 45.4	+1.5
O15K	Ungalikthiuk R	4.42	6		Pn	07 52 45.6	+1.1
O15K				IAML		07 53 38.1	
	comp=E,158nm,0.4s						
O15K				IAML		07 54 16.4	
	comp=N,174nm,0.7s						
ANCK	Angle Creek	4.46	38		Pn	07 52 46.4	+1.4
O14K	Tigyukauivet M	4.49	356		Pn	07 52 45.6	+0.2
O14K				IAML		07 54 09.5	
	comp=N,171nm,1.5s						
P16K	Nushagak River	4.50	18	Pn	Pn	07 52 45.7	+0.2
P16K				IAML		07 54 09.6	
	comp=N,366nm,1.2s						
P16K				IAML		07 54 43.5	
	comp=E,430nm,1.7s						
ACHA	Angle Creek He	4.53	39		Pn	07 52 47.7	+1.7
OKTU	Okmok Mt. Tuli	4.57	255		Pn	07 52 48.0	+1.4
OKWE	Okmok W’ng Wal	4.65	257		Pn	07 52 48.6	+1.0
OHAK	Old Harbor	4.80	57	P	Pn	07 52 49.2	-0.5
OHAK	Old Harbor	4.80	57	S	Sn	07 53 46.2	+1.9
OHAK	Old Harbor	4.80	57		Pn	07 52 49.5	-0.3
OHAK				IAML		07 54 11.1	
	comp=E,117nm,1.0s						
OHAK				IAML		07 54 13.5	
	comp=N,139nm,0.6s						
KAWH	Katmai	4.84	40		Pn	07 52 51.4	+1.1
KARR	Katmai Rainbow	4.96	39		Pn	07 52 53.1	+1.1
Q18K	Katmai Hardscr	4.96	37		Pn	07 52 53.6	+1.6
P17K	Kvichak River	4.98	26		Pn	07 52 54.6	+2.5
O16K	Kokwok River B	5.01	15		Pn	07 52 53.6	+0.9
N14K	Kuskokwak Cree	5.17	354		Pn	07 52 55.9	+1.0
N15K	Kwethluk River	5.40	3		Pn	07 52 59.8	+1.8
N15K				IAML		07 54 45.3	
	comp=E,146nm,0.8s						
N15K				IAML		07 54 56.0	
	comp=N,105nm,0.9s						
KDAK	Kodiak Island	5.41	53	Pn	Pn	07 52 57.5	-0.5
	comp=N,4.2nm,0.3s,baz=202,slow=5.5,SNR=64						
KDAK				Sn	Sn	07 53 56.8	-2.4
	comp=N,5.3nm,0.3s,baz=310,slow=19,SNR=1.3						
KDAK				Lg	Lg	07 54 21.3	
	comp=N,13nm,0.3s,baz=302,slow=22,SNR=8.0						
KDAK				LR	LR	07 55 21.6	
	comp=N,240nm,20.8s,baz=233,slow=42						
	comp=N,13nm,0.4s						
KDAK				AML	AML		
Q19K	Cape Douglas,	5.66	40		Pn	07 53 02.6	+1.1
CLCO	Concord Point,	5.73	253		Pn	07 53 03.8	+1.3
N16K	Nishlik Lake	5.79	9		Pn	07 53 04.8	+1.6
M13K	Dall Lake	5.82	347		Pn	07 53 05.0	+1.3
SPIA	Saint Paul Isl	5.88	298	P	Pn	07 53 06.1	+1.5
SPIA	Saint Paul Isl	5.88	298		Pn	07 53 05.8	+1.2
M15K	Kasigluk River	5.92	360		Pn	07 53 05.6	+0.6
N17K	Nushagak Hills	6.04	17		Pn	07 53 07.5	+0.7
M11K	Mekoryuk	6.35	334		Pn	07 53 11.7	+0.8
N18K	Kilae Creek	6.43	21		Pn	07 53 13.3	+1.2
IVE	Iliamna Volcan	6.67	35		Pn	07 53 17.4	+2.0
M17K	Holitna River	6.84	13		Pn	07 53 18.9	+1.2
N19K	Bonanza Creek	6.88	26		Pn	07 53 19.9	+1.6
L15K	Ungalak Mounta	6.92	357		Pn	07 53 18.9	+0.2
L16K	Owhat River	6.97	5		Pn	07 53 20.3	+0.8
L17K	Donlin	7.47	9		Pn	07 53 26.9	+0.6
L18K	Granite Mounta	7.73	14		Pn	07 53 31.1	+1.1
L19K	White Mountain	8.01	20		Pn	07 53 34.6	+0.9
K17K	Iditarod	8.04	8		Pn	07 53 34.7	+0.6
SEW	Seward	8.05	44		Pn	07 53 35.0	+0.7
J14K	Nanvaranak Lak	8.12	351		Pn	07 53 35.9	+0.7
M20K	Styx River	8.13	26		Pn	07 53 38.5	+3.0
KOFP	Korovin Flat P	8.39	258		Pn	07 53 40.6	+1.6
ATKA	Atka Island	8.47	258	P	Pn	07 53 41.0	+0.9
ATKA	Atka Island	8.47	258		Pn	07 53 40.6	+0.5
L20K	Farewell, AK	8.48	22		Pn	07 53 41.5	+1.4
J17K	VABM Dome	8.67	5		Pn	07 53 42.8	0.0
J18K	Innoko River	8.93	11		Pn	07 53 46.8	+0.5
PWL	Port Wells	8.95	42		Pn	07 53 46.9	+0.2
PMR	Palmer	9.13	37	P	Pn	07 53 51.4	+2.4
PMR	Palmer	9.13	37	S	Sn	07 55 33.8	+3.1
K20K	Telida	9.23	19		Pn	07 53 51.3	+0.8
HIN	Hinchinbrook I	9.44	48		Pn	07 53 52.7	-0.7
GSIG	Igitkin Island	9.54	259		Pn	07 53 55.2	+0.5
SML	Sawmill	9.56	38		Pn	07 53 54.8	-0.1
J19K	Poorman	9.58	13		Pn	07 53 55.8	+0.6
FID	Port Fidalgo	9.63	46		Pn	07 53 54.9	-1.1
GSCK	Great Sitkin C	9.66	260		Pn	07 53 57.6	+1.1
EYAK	Cordova Ski Ar	9.84	48	P	Pn	07 53 57.9	-0.9
EYAK	Cordova Ski Ar	9.84	48		Pn	07 53 57.7	-1.1
SCM	Sheep Creek Mo	9.94	39		Pn	07 53 59.9	-0.3
ADK	Adak	10.01	260	P	Pn	07 54 01.4	+0.2
ILAR	Eielson Array	12.14	29	Pn	Pn	07 54 27.9	-2.3
	comp=N,0.3nm,0.3s,baz=222,slow=13,SNR=9.5						
ILAR				LR	LR	07 59 40.4	
	comp=N,100nm,18.8s,baz=234,slow=40						
	comp=N,0.5nm,0.4s						
ILAR				AML	AML		
SIT	Sitka	14.36	71	P	Pn	07 54 58.8	-1.7
JIS	Juneau Island	14.87	66	P	Pn	07 55 08.7	+1.3
SHEM	Shemya Is, Ala	15.04	272	LR	LR	08 00 07.3	
	comp=N,60nm,21.1s,baz=117,slow=34						
E25K	Arctic Village	15.12	22	Pn	Pn	07 55 11.9	+1.1
I29M	Ogilvie Camp,	15.28	37	Pn	Pn	07 55 13.9	+1.2
I29M				IAmb	IAmb	07 55 28.5	
	comp=Z,14nm,1.1s						
P32M	Atlin	15.32	61	Pn	Pn	07 55 14.9	+1.6
M31M	Drury Creek, Y	15.52	51	Pn	Pn	07 55 17.4	+1.4
M31M				IAmb	IAmb	07 55 36.5	
	comp=Z,15nm,0.9s						
J30M	Hart River	15.60	41	Pn	Pn	07 55 18.9	+1.7
J30M				IAmb	IAmb	07 55 33.3	
	comp=Z,25nm,0.7s						
CRAG	Craig	15.73	76	P	Pn	07 55 18.8	+0.1
CRAG	Craig	15.73	76	Pn	Pn	07 55 19.0	+0.3
C23K	Itkillik River	15.76	13	Pn	Pn	07 55 19.5	+0.5
C23K				IAmb	IAmb	07 55 30.4	
	comp=Z,11nm,0.9s						
C24K	Franklin Bluff	15.93	15	Pn	Pn	07 55 21.5	+0.3
D25K	Kavik River	15.97	19	Pn	Pn	07 55 23.1	+1.3
Q32M	Nakina River	16.01	63		Pn	07 55 23.7	+1.2
WRAK	Wrangell Islan	16.04	73		Pn	07 55 23.7	+1.0
F28M	Old Crow	16.17	29	Pn	Pn	07 55 25.0	+0.7
V35K	Ketchikan	16.60	76		Pn	07 55 31.1	+1.3
R33M	Jennings River	16.70	62		Pn	07 55 32.3	+1.2
MOBC	Moresby Island	16.91	84		Pn	07 55 34.9	+1.1
MOBC				IAmb	IAmb	07 55 59.4	
	comp=Z,21nm,1.1s						
MMPY	Sheldon Lake,	17.03	51		Pn	07 55 36.5	+1.2
D27M	Malcolm River	17.05	24		Pn	07 55 36.5	+1.1
DLBC	Dease Lake	17.17	65	P	Pn	07 55 37.5	+0.5
	comp=Z,0.1nm,0.3s,baz=267,slow=12,SNR=4.0						
DLBC				LR	LR	08 01 07.2	
	comp=Z,59nm,21.0s,baz=224,slow=33						
	comp=Z,1.0nm,0.6s						
DLBC				AML	AML		
E29M	Blow River	17.24	29		Pn	07 55 38.5	+0.7
INK	Inuvik	18.48	32	P	P	07 55 53.1	+0.4
	comp=Z,0.3nm,0.3s,baz=224,slow=11,SNR=9.8						
	comp=Z,1.6nm,0.5s						
INK				AML	AML		
INK	Inuvik	18.48	32	P	Pn	07 55 53.5	+0.5
BBB	Bella Bella	19.45	84	P	P	07 56 04.4	+1.0
	comp=Z,0.1nm,0.3s,baz=295,slow=15,SNR=2.0						
BBB				LR	LR	08 01 49.0	
	comp=Z,50nm,20.2s,baz=232,slow=31						
	comp=Z,6.6nm,1.1s						
BBB				AML	AML		
BBB	Bella Bella	19.45	84	P	P	07 56 04.4	+1.0
BBB				IAmb	IAmb	07 56 14.0	
	comp=Z,19nm,1.4s						
HOLB	Holberg	20.03	89	P	P	07 56 10.2	+0.4
HOLB				IAmb	IAmb	07 56 38.4	
	comp=Z,36nm,1.3s						
CLRS	Cowichan Lake	23.17	90	P	P	07 56 44.3	+0.9
CLRS				IAmb	IAmb	07 57 01.3	
	comp=Z,17nm,1.3s						
PGC	Sidney	23.65	90	P	P	07 56 48.8	+0.9
PEA0B	Petropavlovsk-	24.30	283	P	P	07 56 53.7	-0.5
PEA0B				IAmb	IAmb	07 57 35.4	
	comp=Z,25nm,1.4s						

PETK	Petropavlovsk-	24.30	283	P	P	07 56 53.5	-0.7
	comp=Z,5.2nm,0.5s,baz=79,slow=14,SNR=14						
PETK				LR	LR	08 05 39.6	
	comp=Z,47nm,20.6s,baz=77,slow=35						
	comp=Z,5.2nm,0.5s						
PETK	Petropavlovsk-	24.30	283	P	P	07 56 53.7	-0.4
YKAW3	Yellowknife Wh	24.68	53	P	P	07 56 57.6	+0.2
YKAW3				IAmb	IAmb	07 57 38.1	
	comp=Z,4.3nm,0.8s						
YKA	Yellowknife Ar	24.68	53	P	P	07 56 57.5	+0.1
	comp=Z,1.1nm,0.6s,baz=272,slow=8.7,SNR=5.9						
	comp=Z,1.1nm,0.6s						
YKA	Yellowknife Ar	24.68	53	P	P	07 56 57.8	+0.3
MA2	Magadan	26.26	300	LR	LR	08 08 08.9	
	comp=Z,31nm,18.1s,baz=102,slow=38						
EPH	Ephrata	26.54	89	P	P	07 57 14.3	-0.1
WAH2	Wahluke Slope	26.87	90	P	P	07 57 18.8	+1.4
WAH2				IAmb	IAmb	07 57 19.1	
	comp=Z,5.6nm,0.5s						
EDM	Edmonton	27.44	74	P	P	07 57 23.6	+1.1
EDM				IAmb	IAmb	07 57 49.6	
	comp=Z,7.0nm,1.2s						
G08A	Pilot Rock	28.04	92	P	P	07 57 27.3	-0.7
YBH	Yreka Blue Hor	28.07	102	LR	LR	08 06 09.0	
	comp=Z,75nm,20.4s,baz=266,slow=31						
MFID	Camas Ranch	30.96	93	P	P	07 57 55.0	+1.1
LYMT	Lyon Mountain	30.96	84	P	P	07 57 54.6	+0.6
BCYI	Bear Canyon	31.82	89	P	P	07 58 01.7	+0.1
MCMT	McKenzie Canyo	31.84	88	P	P	07 58 02.5	+0.6
SAO	San Andreas Ge	32.21	108	P	P	07 58 05.3	+0.6
SAO				IAmb	IAmb	07 58 30.1	
	comp=Z,3.5nm,0.9s						
NVAR	Mina Array Bea	32.78	102	P	P	07 58 11.3	+1.2
	comp=Z,0.4nm,0.6s,baz=310,slow=6.7,SNR=4.0						
	comp=Z,0.4nm,0.6s						
ELK	Elko	32.98	96	P	P	07 58 13.1	+1.3
ELK				IAmb	IAmb	07 58 14.3	
	comp=Z,1.9nm,0.9s						
PDAR	Pinedale Array	34.98	89	P	P	07 58 30.0	+0.8
	comp=Z,0.1nm,0.5s,baz=332,slow=7.6,SNR=2.4						
	comp=Z,0.1nm,0.5s						
PDAR	Pinedale Array	34.98	89	P	P	07 58 30.1	+0.8
YAK	Yakutsk	35.52	310	LR	LR	08 14 02.0	
	comp=Z,52nm,20.4s,baz=81,slow=38						
SRU	San Rafael Swe	36.78	94	P	P	07 58 45.8	+1.3
SRU				IAmb	IAmb	07 58 46.4	
	comp=Z,3.5nm,0.7s						
PKCU	Pink Cliffs	36.88	98	P	P	07 58 47.0	+1.4
PKCU				IAmb	IAmb	07 58 47.4	
	comp=Z,1.9nm,0.7s						
KNB	Kanab	36.89	99	P	P	07 58 46.7	+1.2
KNB				IAmb	IAmb	07 58 59.4	
	comp=Z,3.7nm,1.3s						
RSSD	Black Hills	37.34	83	P	P	07 58 49.6	+0.3
RSSD				IAmb	IAmb	07 58 50.4	
	comp=Z,2.7nm,0.6s						
O20A	White River Ci	37.42	91	P	P	07 58 50.5	+0.5
O20A				IAmb	IAmb	07 59 05.2	
	comp=Z,3.0nm,0.9s						
HMU	Henry Mountain	37.45	96	P	P	07 58 51.5	+1.2
HMU				IAmb	IAmb	07 58 52.0	
	comp=Z,4.0nm,0.7s						
DPP	Dos Picos Cty	37.48	107	P	P	07 58 51.6	+1.3
DPP				IAmb	IAmb	07 59 34.8	
	comp=Z,12nm,1.3s						
IRM	Iron Mountain	37.62	104		P	07 58 52.8	+1.3
IRM				IAmb	IAmb	07 58 53.7	
	comp=Z,2.7nm,0.9s						
MDND	Maddock	37.69	75	P	P	07 58 52.2	+0.2
E28A	Huff	37.80	77	P	P	07 58 53.1	+0.2
E28A				IAmb	IAmb	07 58 54.2	
	comp=Z,7.3nm,0.9s						
PV23	Carpenter Ridg	38.10	94	P	P	07 58 55.1	-0.7
PV23				IAmb	IAmb	07 59 24.0	
	comp=Z,9.4nm,1.4s						
ULM	Lac du Bonnet	38.42	69	P	P	07 58 57.8	-0.3
	comp=Z,2.5nm,0.4s,baz=310,slow=8.5,SNR=7.2						
ULM				LR	LR	08 13 03.0	
	comp=Z,42nm,19.6s,baz=278,slow=34						
	comp=Z,2.5nm,0.4s						
ULM	Lac du Bonnet	38.42	69	P	P	07 58 58.0	-0.1
ULM				IAmb	IAmb	07 59 05.7	
	comp=Z,11nm,1.3s						
AGMN	Agassiz Nation	39.51	72	P	P	07 59 07.3	+0.1
AGMN				IAmb	IAmb	07 59 07.7	
	comp=Z,5.6nm,0.7s						
EPLO	Experimental L	39.90	69	P	P	07 59 10.2	-0.3
KLR	Kul'dur	40.50	291	LR	LR	08 16 50.3	
	comp=Z,33nm,18.6s,baz=166,slow=38						
ECSD	EROS Data Cent	41.82	78	P	P	07 59 26.0	-0.3
ECSD				IAmb	IAmb	07 59 58.9	
	comp=Z,8.6nm,1.5s						
EYMN	Ely	42.10	70	P	P	07 59 28.6	0.0
EYMN				IAmb	IAmb	07 59 28.9	
	comp=Z,6.8nm,0.6s						
LENM	Lemitar	42.26	97	P	P	07 59 30.4	+0.1
H11N2	WAKE ISLAND Hy	42.78	228	T	T	08 44 27.2	
	baz=27,slow=76,SNR=14						
H11N3	WAKE ISLAND Hy	42.78	228	T	T	08 44 26.6	
	baz=27,slow=76,SNR=15						
H11N1	WAKE ISLAND Hy	42.79	228	T	T	08 44 39.5	
	baz=27,slow=76,SNR=9.8						
E38A	The Farm, Brul	42.87	71	P	P	07 59 34.9	+0.1
E38A				IAmb	IAmb	08 00 06.0	
	comp=Z,10nm,1.0s						
121A	Cookes Peak, D	42.98	99	P	P	07 59 36.9	+0.8
121A				IAmb	IAmb	07 59 58.5	
	comp=Z,3.8nm,1.3s						
H11S1	WAKE ISLAND Hy	43.94	228	T	T	08 45 51.9	
	baz=27,slow=75,SNR=16						
H11S2	WAKE ISLAND Hy	43.96	227	T	T	08 45 53.0	
	baz=27,slow=75,SNR=5.9						
H11S3	WAKE ISLAND Hy	43.96	228	T	T	08 46 01.5	
	baz=27,slow=75,SNR=5.7						
I40A	Norwalk	45.08	74	P	P	07 59 52.6	0.0
128A	Castleberry Fa	45.97	94	P	P	07 59 59.8	-0.1
128A				IAmb	IAmb	08 00 00.5	
	comp=Z,2.1nm,0.9s						
I42A	Draeger Farm,	46.03	73	P	P	07 59 59.7	-0.3
P38A	Dawn	46.24	80	P	P	08 00 01.0	-0.8
E46A	Sault Ste Mari	46.94	67	P	P	08 00 06.9	-0.3
P40A	Paris	47.15	79	P	P	08 00 07.8	-1.1
P40A				IAmb	IAmb	08 00 13.1	
	comp=Z,8.9nm,1.2s						
TXAR	Lajitas Array	47.72	98	P	P	08 00 13.9	+0.3
	comp=Z,0.7nm,0.6s,baz=301,slow=5.7,SNR=9.3						
	comp=Z,0.7nm,0.6s						
TXAR	Lajitas Array	47.72	98	P	P	08 00 14.2	+0.6
TXAR				PcP	PcP	08 01 42.4	-0.1
HDIL	Hopedale	48.01	76	P	P	08 00 15.1	-0.5
FCAR	Ozark Folk Cen	49.62	83	P	P	08 00 26.2	-1.8
FCAR				IAmb	IAmb	08 00 26.5	
	comp=Z,5.7nm,1.1s						
KSRS	Korea Array	50.16	281	P	P	08 00 31.6	-0.5
	comp=Z,1.4nm,0.7s,baz=47,slow=7.0,SNR=6.4						
KSRS				LR	LR	08 24 04.9	
	comp=Z,7.2nm,18.0s,baz=90,slow=39						
	comp=Z,1.4nm,0.7s						
SADO	Sadowa	50.73	66	P	P	08 00 35.3	-1.0
WVT	Waverly	51.91	79	P	P	08 00 44.7	-0.5
WVT				IAmb	IAmb	08 00 45.4	
	comp=Z,8.3nm,1.1s						
PAOC	Oil Creek Stat	52.66	69	P	P	08 00 49.8	-0.9
U49A	Red Boiling Sp	52.80	78	P	P	08 00 50.9	-0.9
U49A				IAmb	IAmb	08 01 18.9	
	comp=Z,5.8nm,1.1s						
CFNY	Clifton-Fine,	53.28	64	P	P	08 00 54.9	-0.4
J57A	Williamstown	53.31	65	P	P	08 00 55.2	-0.3
L56A	Greenwood	53.37	67	P	P	08 00 55.7	-0.3
TZTN	Tazewell	54.03	76	P	P	08 01 00.2	-0.7
FPAL	Fort Paine	54.31	79	P	P	08 01 01.7	-1.3
FPAL				IAmb	IAmb	08 01 07.9	
	comp=Z,9.2nm,1.4s						
TKL	Tuckaleechee C	54.54	77	LR	LR	08 22 50.2	
	comp=Z,40nm,18.6s,baz=26,slow=34						
N58A	Sunbury	54.73	68	P	P	08 01 04.8	-1.0
N58A				IAmb	IAmb	08 01 15.1	
	comp=Z,9.3nm,1.2s						
BATG	Bathurst New B	55.57	55	P	P	08 01 11.1	-0.8
BRNJ	Basking Ridge	55.99	66	P	P	08 01 14.8	-0.1
HHC	Hu-ho-hao-te	56.75	295	*e*P	P	08 01 23.1	+2.6
HHC				pmax	pmax		
	comp=Z,14nm,0.7s						
HHC				pmax	pmax		
	comp=Z,37nm,3.8s						
FIA1	FINESS Array S	63.98	356	P	P	08 02 07.2	-2.2
FINES	FINESS Array B	63.98	356	P	P	08 02 07.2	-2.2
NC204	NORSAR Array S	64.08	5	P	P	08 02 09.5	-0.7
EKA	Eskdalemuir Ar	68.70	14	P	P	08 02 40.2	+0.5
	comp=Z,0.5nm,0.5s,baz=336,slow=7.0,SNR=1.5						
	comp=Z,0.5nm,0.5s						
AB31	Akbulak array	70.86	333	P	P	08 02 52.2	-1.0
AB31				IAmb	IAmb	08 03 28.8	
	comp=Z,0.8nm,0.7s						
ABKAR	Akbulak array	70.86	333	P	P	08 02 52.1	-1.0
JUD3	Juan Diaz 3	73.18	96	P	P	08 03 06.0	-1.6
JUD3				IAmb	IAmb	08 03 09.4	
	comp=Z,8.0nm,1.0s						
KK31	Karatay Array	73.19	323	P	P	08 03 06.4	-0.8
KKAR	Karatay Array	73.19	323	P	P	08 03 06.3	-1.0
CMAR	Chiang Mai Arr	80.94	289	P	P	08 03 50.0	-1.1
	comp=Z,0.9nm,0.4s,baz=66,slow=9.0,SNR=1.2						
	comp=Z,0.9nm,0.4s						
WR8	Warramunga Arr	92.58	238	P	P	08 04 47.2	-0.7
MBWA	Marble Bar	101.25	249	Pdif	Pdif	08 05 25.9	-1.2
TSUM	Tsumeb	144.45	3	PKPdf	PKPab	08 11 11.8	+0.7
QSPA	South Pole Qui	144.57	180	PKP	PKPbc	08 11 11.7	+1.4
	comp=Z,0.9nm,0.6s,baz=214,slow=2.5,SNR=9.1						
QSPA	South Pole Qui	144.57	180		PKPdf	08 11 12.8	+1.3

IDC 17 08:03:37.4±2.3**, 30°.72S**×**66°.11W, h77**^{km}±21^{km}**,**
mbtmp3.5/4**, Error ellipse: s-maj=57.6km s-min=24.2km**
az=141.0, La Rioja Province

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CFA	Coronel Fontan	2.02	244	P	Pn	08 04 09.1	-0.4
	3.0nm,0.3s,baz=29,slow=16,SNR=23						
CPUP	Villa Florida	8.88	63	P	Pn	08 05 43.3	+0.4
	4.4nm,0.6s,baz=238,slow=13,SNR=23						
LPAZ	La Paz	14.49	352	P	Pn	08 07 00.6	+1.5
	0.4nm,0.4s,baz=174,slow=10,SNR=6.0						
SIV	San Ignacio	15.37	19	P	Pn	08 07 08.5	-1.5
	0.5nm,0.3s,baz=188,slow=11,SNR=5.0						
WRA	Warramunga Arr	125.92	204	PKP	PKiKP	08 22 31.7	+0.2
	0.5nm,1.1s,baz=148,slow=1.9,SNR=2.2						
KURBB	Kurchatov Arra	147.06	43	PKPbc	PKPbc	08 23 10.0	-1.0
	1.0nm,0.6s,baz=289,slow=3.4,SNR=8.5						
ZALV	Zalesovo Beam	148.75	34	PKPbc	PKPbc	08 23 15.0	-0.4
	0.7nm,0.3s,baz=325,slow=1.8,SNR=2.3						
MKAR	Makanchi Array	150.85	48	PKPbc	PKPbc	08 23 19.8	-1.0
	0.5nm,0.6s,baz=282,slow=2.4,SNR=4.0						

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*SNET **17** 08:05:41.8±1.2, 13°.05N×89°.58W, h30^{km}, ML3.4,*
Presumed earthquake
*CATAC **17** 08:05:41.7±0.5, 13°N±3°×9°0W±°, h22^{km}±2^{km}, M3.6/22,*
MLv3.6/22, Error ellipse: s-maj=5.9km s-min=3.3km
az=30.3, confirmed
*GCG **17** 08:05:44.0±0.9, 13°.17N×89°.66W, h27^{km}±10^{km}, MD4.0,*
ML4.1, Presumed earthquake
ISC 17 08:05:41.6±1.8**, 13°.04N**±0°.07×**89°.58W**±0°.05**, h27**^{km}±12^{km}**,**
n44, σ0^{s}.41/78**, El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LALI	Alcalda de L	0.51	30	*i* P	Pn	08 05 53.3	+0.1
LALI				*i* S	Sb	08 05 60.0	+0.7
LALI	Alcalda de L	0.51	30	P	Pn	08 05 53.3	+0.1
LALI				S	Sn	08 06 00.9	-0.3
JAYA	Jayaque - finc	0.62	12	*i* P	Pn	08 05 54.8	-0.2
JAYA				*i* S	Sb	08 06 03.2	+0.5
JAYA				IAML		08 06 06.6	
	comp=N,11µm,0.3s						
JAYA	Jayaque - finc	0.62	12	P	Pn	08 05 54.8	-0.2
JAYA				S	Sn	08 06 03.8	-0.3
PANCS	Alcalda de	0.69	35	*e*P	Pb	08 05 55.3	+0.1
PMON	Piamonte	0.72	21	P	Pn	08 05 56.1	0.0
PMON				S	Sn	08 06 06.2	-0.1
LOMA	Loma Larga	0.72	34	*e*P	Pn	08 05 56.1	-0.2
LOMA				*e*S	Sn	08 06 06.2	-0.3
LOMA	Loma Larga	0.72	34	P	Pn	08 05 56.2	0.0
LOMA				S	Sn	08 06 06.5	0.0
SEMO	Seminario San	0.75	28	P	Pn	08 05 56.6	0.0
SEMO				S	Sn	08 06 07.0	0.0
BOQS	Boqueron	0.75	23	*e*P	Pn	08 05 56.6	-0.2
BOQS				*e*S	Sn	08 06 07.2	-0.1
UEES	Universidad Ev	0.75	26	P	Pn	08 05 56.6	0.0
UEES				S	Sn	08 06 06.9	-0.2
UESS	Universidad de	0.77	29	*e*P	Pn	08 05 56.8	-0.1
UESS				*e*S	Sn	08 06 08.0	+0.4
CEVE	Cerro Verde	0.78	357	*e*P	Pn	08 05 57.1	-0.1
CEVE	Cerro Verde	0.78	357	P	Pn	08 05 57.3	+0.1
CEVE				S	Sn	08 06 08.9	+0.7
SBLS	San Blas	0.80	357	*e*P	Pn	08 05 57.4	0.0
SJTE	Alcalda de S	0.80	44	*e*P	Pb	08 05 57.0	-0.1
SJTE				*e*S	Sn	08 06 08.1	-0.3
SNJE	San Jose	0.82	358	*e*P	Pb	08 05 57.5	0.0
LFU	La Fuente	0.84	33	*e*P	Pn	08 05 58.1	+0.3
NUBE	Las Nubes	0.88	347	*i* P	Pb	08 05 58.3	-0.1
NUBE				*i* S	Sb	08 06 09.1	-0.7
NUBE	Las Nubes	0.88	347	*e*P	Pb	08 05 58.0	-0.4
NUBE				*e*S	Sb	08 06 09.9	+0.1
NUBE	Las Nubes	0.88	347	P	Pb	08 05 58.4	-0.1
NUBE				S	Sn	08 06 10.3	-0.1
COEG	Centro de Oper	0.89	50	*e*P	Pn	08 05 58.1	-0.4
COEG				*e*S	Sb	08 06 09.8	-0.4
COEG	Centro de Oper	0.89	50	P	Pn	08 05 58.5	-0.1
COEG				S	Sn	08 06 10.7	+0.1
FAME	Alcaldia de Sa	0.90	332	P	Pn	08 05 58.5	-0.1
FAME				S	Sn	08 06 10.6	-0.2
PAVA	Las Pavas	0.92	43	P	Pb	08 05 59.3	+0.2
PAVA				S	Sn	08 06 12.2	+0.9
TECO	Alcaldia de Te	0.92	58	P	Pn	08 05 58.6	-0.4
TECO				S	Sb	08 06 10.8	-0.2
UNIC	Universidad Ca	0.94	2	P	Pb	08 05 59.5	+0.1
UNIC				S	Sn	08 06 11.8	0.0
SLOZ	Alcaldia de Sa	1.00	349	P	Pb	08 06 00.2	-0.2
SLOZ				S	Sn	08 06 14.3	+1.0
ALJI	Alcalda de J	1.03	74	P	Pn	08 06 00.3	0.0
ALJI				S	Sn	08 06 12.9	-0.9
TECA	Tecapa	1.15	67	*e*P	Pn	08 06 01.7	-0.5
P5NO	Presa 5 de nov	1.23	40	P	Pn	08 06 03.6	+0.4
P5NO				S	Sb	08 06 19.4	-0.5
JUAM	Asuncion Mita	1.29	355	*i* P	Pn	08 06 04.5	+0.5
PACA	Pacayal	1.30	71	*e*P	Pn	08 06 04.3	+0.1
PACA	Pacayal	1.30	71	P	Pn	08 06 04.3	+0.1
PACA				S	Sb	08 06 21.5	-0.3
LCY	Lacayo	1.31	73	*e*P	Pn	08 06 04.6	+0.3
RANC	El Ranchito	1.32	73	P	Pn	08 06 04.8	+0.3
RANC				S	Sb	08 06 22.0	-0.4
INTP	Intipuca	1.50	84	*e*P	Pn	08 06 06.7	0.0
INTP				*e*S	Sn	08 06 25.0	-0.4
ESQI	Esquipulas	1.53	9	*e*P	Pn	08 06 07.9	+0.6
ESQI				*e*S	Sb	08 06 27.8	-0.6
ESQI	Esquipulas	1.53	9	P	Pn	08 06 07.7	+0.3
ESQI				S	Sb	08 06 28.0	-0.4
LCND	La Caada	1.67	81	P	Pn	08 06 09.6	+0.4
LCND				S	Sn	08 06 31.0	+1.3
CNCH	Conchagua	1.72	82	P	Pn	08 06 10.0	0.0
CNCH				S	Sn	08 06 32.2	+1.1
RCFN	Al S de San Ju	3.32	81	P	Pn	08 06 32.0	0.0
RCFN				S	Sn	08 07 11.5	+0.9
RCVN	Varillal2	3.34	80	P	Pn	08 06 32.3	0.0
MATN	Matagalpa	3.57	91	P	Pn	08 06 35.1	-0.2
MATN				S	Sn	08 07 16.5	-0.2

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*CATAC **17** 08:17:19.3±0.3, 15°N±2°×9°4W±°, h1^{km}, M4.7/25,*
mb5.0/15, mB5.2/7, MLv4.7/25, Mw(mB)4.5/7, Error ellipse:
s-maj=6.3km s-min=2.8km az=35.7, confirmed
*MEX **17** 08:17:20.2±0.7, 15°.07N×94°.45W, h27^{km}±30^{km}, MD4.4,*
Presumed earthquake
*NEIC **17** 08:17:22.3±1.3, 15°.23N±0°.08×94°.31W±0°.05, h30^{km}±9^{km},*
mb4.2/97, Md4.4/89(MEX), Error ellipse: s-maj=12.2km
s-min=6.0km az=202.0
ISC 17 08:17:20.0±0.6**, 15°.07N**±0°.05×**94°.43W**±0°.03**, h28**^{km}**, n210,**
σ2^{s}.06/291**, mb4.3**/11**, Near coast of Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HUIG	Huatulco	1.76	293	*e*P	Pn	08 17 47.2	-1.5
HUIG				*e*S	Sn	08 18 06.3	-4.0
HUIG	Huatulco	1.76	293		Pn	08 17 47.2	-1.5
HUIG					Sn	08 18 06.3	-4.0
CMIG	Matias Romero	2.05	348	*e*P	Pn	08 17 51.2	-1.5
CMIG				*e*S	Sn	08 18 13.8	-3.6
CMIG	Matias Romero	2.05	348		Pn	08 17 51.2	-1.5
CMIG					Sn	08 18 13.8	-3.6
THIG		2.09	94	*e*P	Pn	08 17 51.5	-1.8
THIG				*e*S	Sn	08 18 15.5	-2.9
THIG		2.09	94		Pn	08 17 51.5	-1.8
THIG					Sn	08 18 15.5	-2.9
TGIG		2.11	36	*e*P	Pn	08 17 52.4	-1.1
TGIG				*e*S	Sn	08 18 17.0	-1.9
TGIG		2.11	36		Pn	08 17 52.4	-1.1
TGIG					Sn	08 18 17.0	-1.9
PATR	El Naranjo	2.12	89	*e*P	Pn	08 17 51.9	-1.9
PATR				*e*S	Sn	08 18 16.6	-2.7
PATR	El Naranjo	2.12	89		Pn	08 17 51.9	-1.9
PATR					Sn	08 18 16.6	-2.7
PAVE	Pavencul	2.17	87	*e*P	Pn	08 17 52.9	-1.7
PAVE				*e*S	Sn	08 18 18.1	-2.6
PAVE	Pavencul	2.17	87		Pn	08 17 52.9	-1.7
PAVE					Sn	08 18 18.1	-2.6
CHUJ	Union Juarez	2.24	89	*e*P	Pn	08 17 53.8	-1.7
CHUJ				*e*S	Sb	08 18 23.8	-3.5
RTAL	Retalhuleu	2.70	101	*e*P	Pn	08 18 00.3	-1.3
RTAL				*e*S	Sn	08 18 32.6	-0.7
RTAL	Retalhuleu	2.70	101		Pn	08 18 00.8	-0.7
RTAL				Sn	Sn	08 18 33.0	-0.3
RTAL	Retalhuleu	2.70	101	P	Pn	08 18 01.8	+0.2
RTAL				S	Sn	08 18 34.5	+1.1
PEIG	Puerto Escondi	2.78	290	*e*P	Pn	08 18 01.9	-0.8
PEIG				*e*S	Sn	08 18 29.5	-5.9
PEIG	Puerto Escondi	2.78	290		Pn	08 18 01.9	-0.8
HUEH	Huehuetenango	2.83	85	*e*P	Pn	08 18 04.1	+0.5
HUEH				*e*S	Sn	08 18 38.9	+1.8
HUEH	Huehuetenango	2.83	85		Pn	08 18 04.2	+0.5
HUEH	Huehuetenango	2.83	85	P	Pn	08 18 04.5	+0.9
HUEH				S	Sn	08 18 38.8	+1.8
NEUV	Arroyo Zacate	2.94	333	*e*P	Pn	08 18 03.6	-1.3
NEUV				*e*S	Sn	08 18 36.6	-2.6
NEUV	Arroyo Zacate	2.94	333		Pn	08 18 03.6	-1.3
NEUV					Sn	08 18 36.6	-2.6
OXLC	Oaxaca	2.95	312	*e*P	Pn	08 18 05.9	+0.6
OXLC				*e*S	Sn	08 18 38.2	-1.7
OXLC	Oaxaca	2.95	312		Pn	08 18 05.9	+0.6
OXLC					Sn	08 18 38.2	-1.7
OXIG	Oaxaca	2.98	312		Pn	08 18 06.7	+1.1
OXIG					Sn	08 18 39.4	-1.2
VHO	Vista Hermosa	2.98	312	*e*P	Pn	08 18 06.7	+1.1
VHO				*e*S	Sn	08 18 39.4	-1.2
YOIG	Yosondua	3.48	301	*e*P	Pn	08 18 14.1	+1.4
YOIG				*e*S	Sn	08 18 51.0	-2.2
YOIG	Yosondua	3.48	301		Pn	08 18 14.1	+1.4
TXIG	Tlaxiaco	3.87	304	*e*P	Pn	08 18 19.6	+1.6
TXIG				*e*S	Sn	08 18 59.9	-2.9
TXIG	Tlaxiaco	3.87	304		Pn	08 18 19.6	+1.6
TOIG	Toxpalan	3.93	320	*e*P	Pn	08 18 21.0	+2.4
TOIG				*e*S	Sn	08 19 06.1	+2.2
TOIG	Toxpalan	3.93	320		Pn	08 18 21.0	+2.4
TOIG					Sn	08 19 06.1	+2.2
HLIG	Huajuapan de L	4.24	311	*e*P	Pn	08 18 24.9	+1.9
HLIG				*e*S	Sn	08 19 11.1	-0.7
HLIG	Huajuapan de L	4.24	311		Pn	08 18 24.9	+1.9
HLIG					Sn	08 19 11.1	-0.7
FAME	Alcaldia de Sa	4.45	105	P	Pn	08 18 26.7	+1.1
FAME				S	Sn	08 19 18.4	+2.0
FTIG	Fresnillo de T	4.54	309	*e*P	Pn	08 18 29.5	+2.5
FTIG				*e*S	Sn	08 19 15.4	-3.5
FTIG	Fresnillo de T	4.54	309		Pn	08 18 29.5	+2.5
MGIG	Malinaltepec	4.58	299	*e*P	Pn	08 18 29.3	+1.7
MGIG				*e*S	Sn	08 19 16.6	-3.4
MGIG	Malinaltepec	4.58	299		Pn	08 18 29.3	+1.7
SLOZ	Alcaldia de Sa	4.61	102	P	Pn	08 18 30.1	+2.2
NUBE	Las Nubes	4.65	104	P	Pn	08 18 29.6	+1.1
NUBE				S	Sn	08 19 25.6	+3.9
TLIG	Tlapa	4.68	302	*e*P	Pn	08 18 31.0	+2.0
TLIG				*e*S	Sn	08 19 20.0	-2.5
TLIG	Tlapa	4.68	302		Pn	08 18 31.1	+2.0
TLIG				Sn	Sn	08 19 25.0	+2.5
TLIG	Tlapa	4.68	302	P	Pn	08 18 31.0	+2.0
TLIG				S	Sn	08 19 26.2	+3.7
CEVE	Cerro Verde	4.81	104	P	Pn	08 18 33.8	+2.9
CEVE				S	Sn	08 19 29.7	+3.8
CRIG	Cruz Grande	4.82	291	*e*P	Pn	08 18 31.2	+0.4
CRIG				*e*S	Sn	08 19 19.2	-6.5
CRIG	Cruz Grande	4.82	291		Pn	08 18 31.2	+0.4
JAUV	Jalcomulco	4.83	332	*e*P	Pn	08 18 28.0	-3.0
JAUV				*e*S	Sn	08 19 21.0	-5.1
ESQI	Esquipulas	4.94	95		Pn	08 18 33.2	+0.7
ESQI	Esquipulas	4.94	95	P	Pn	08 18 35.3	+2.7
MTO3	Montecristo	4.95	97		Pn	08 18 33.7	+1.0
SCIG	Sabancuy	4.96	38	*e*P	Pn	08 18 32.4	-0.3
SCIG				*e*S	Sn	08 19 24.3	-4.8
SCIG	Sabancuy	4.96	38		Pn	08 18 32.4	-0.3
SCIG					Sn	08 19 24.3	-4.8
SCIG	Sabancuy	4.96	38	P	Pn	08 18 32.3	-0.3
SCIG				S	Sn	08 19 27.6	-1.5
JAYA	Jayaque - finc	5.03	106	P	Pn	08 18 35.2	+1.5
CEDA	San Andres	5.04	104	P	Pn	08 18 35.4	+1.6
CEDA				S	Sn	08 19 35.4	+4.3
PMON	Piamonte	5.13	105	P	Pn	08 18 36.8	+1.6
PMON				S	Sn	08 19 37.2	+3.5
LALI	Alcalda de L	5.19	107	P	Pn	08 18 37.9	+2.0
LALI				S	Sn	08 19 39.1	+4.2
UEES	Universidad Ev	5.20	104	P	Pn	08 18 37.5	+1.3
UEES				S	Sn	08 19 39.0	+3.7
LOMA	Loma Larga	5.29	105	P	Pn	08 18 38.8	+1.5
LOMA				S	Sn	08 19 41.3	+3.9
DAIG	Los Arroyos	5.38	292	*e*P	Pn	08 18 38.7	+0.2
DAIG				*e*S	Sn	08 19 35.1	-4.5
DAIG	Los Arroyos	5.38	292		Pn	08 18 38.7	+0.2
PPAX	Atlixo	5.41	316	*e*P	Pn	08 18 38.0	-1.1
PPAX				*e*S	Sn	08 19 35.0	-5.6
PPAX	Atlixo	5.41	316		Pn	08 18 38.0	-1.1
PAVA	Las Pavas	5.49	104	P	Pn	08 18 41.5	+1.4
PAVA				S	Sb	08 19 50.7	-10
PPCL	Tochimilco	5.54	314	*e*P	Pn	08 18 40.0	-0.9
PPCL				*e*S	Sn	08 19 42.3	-1.5
PPCL	Tochimilco	5.54	314		Pn	08 18 40.0	-0.9
PPCL					Sn	08 19 42.3	-1.5
PBCV	Popocatepetl	5.55	315	*e*P	Pn	08 18 41.5	+0.4
PBCV				*e*S	Sn	08 19 44.9	+0.8
COEG	Centro de Oper	5.56	104	P	Pn	08 18 42.0	+0.9
COEG				S	Sn	08 19 48.1	+3.9
PPPT	Popocatepetl	5.58	315	*e*P	Pn	08 18 42.9	+1.2
PPPT				*e*S	Sn	08 19 43.6	-1.6
PPPT	Popocatepetl	5.58	315		Pn	08 18 42.9	+1.2
PPPT					Sn	08 19 43.6	-1.6
P5NO	Presa 5 de nov	5.59	100	P	Pn	08 18 46.1	+4.7
PPM	Popocatepetl	5.65	315	*e*P	Pn	08 18 44.6	+2.0
PPM				*e*S	Sn	08 19 44.1	-2.7
PPIG	Popocatepetl	5.65	315		Pn	08 18 44.6	+2.0
PPIG					Sn	08 19 44.1	-2.7
MEIG	Mezcala	5.73	300	*e*P	Pn	08 18 46.3	+2.9
MEIG				*e*S	Sn	08 19 43.5	-4.8
MEIG	Mezcala	5.73	300		Pn	08 18 46.3	+2.9
YAIG	Yautepec	5.82	311	*e*P	Pn	08 18 46.4	+1.7
YAIG				*e*S	Sn	08 19 47.4	-3.3
YAIG	Yautepec	5.82	311		Pn	08 18 46.4	+1.7
PLIG	Platanillo	5.88	305	*e*P	Pn	08 18 48.5	+3.1
PLIG				*e*S	Sn	08 19 47.4	-4.6
PLIG	Platanillo	5.88	305		Pn	08 18 48.5	+3.1
CXUV	Coxquihui	5.90	330	*e*P	Pn	08 18 43.4	-2.3
CXUV				*e*S	Sn	08 19 48.6	-3.8
CXUV				*e*S	Sn	08 19 48.9	-3.5
CXUV	Coxquihui	5.90	330		Pn	08 18 43.4	-2.3
CXUV					Sn	08 19 48.6	-3.8
CAIG	El Cayaco	5.95	290	*e*P	Pn	08 18 47.3	+1.0
CAIG				*e*S	Sn	08 19 47.6	-5.9
CAIG	El Cayaco	5.95	290		Pn	08 18 47.3	+1.0
MPVM	San Francisco	6.00	314	*e*P	Pn	08 18 49.1	+1.8
MPVM				*e*S	Sn	08 19 55.5	+0.3
MPVM	San Francisco	6.00	314		Pn	08 18 49.1	+1.8
MPVM					Sn	08 19 55.5	+0.3
THVM	De Xico	6.05	315	*e*P	Pn	08 18 52.4	+4.5
THVM				*e*S	Sn	08 19 55.5	-0.9
THVM	De Xico	6.05	315		Pn	08 18 52.4	+4.5
THVM					Sn	08 19 55.5	-0.9
TLVM	San Miguel Top	6.11	313	*e*P	Pn	08 18 52.4	+3.6
TLVM				*e*S	Sn	08 20 00.7	+2.6
TLVM	San Miguel Top	6.11	313		Pn	08 18 52.4	+3.6
TLVM					Sn	08 20 00.7	+2.6

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PACA  Pacayal            6.13 104  P     Pn      08 18 49.9 +1.0
PACA                               S     Sn      08 20 02.0 +3.9
MAVM  Malinalco, Edo     6.20 309 eP     Pn      08 18 50.9 +0.9
MAVM                              eS     Sn      08 19 54.6 -5.3
MAVM  Malinalco, Edo     6.20 309        Pn      08 18 50.9 +0.9
AOVM  Tlapan             6.27 312 eP     Pn      08 18 51.1  0.0
AOVM                              eS     Sn      08 19 59.5 -2.5
AOVM  Tlapan             6.27 312        Pn      08 18 51.1  0.0
CNCH  Conchagua          6.64 105  P     Pn      08 18 58.1 +2.2
DHIG  Demacu             6.80 320        Pn      08 18 59.4 +1.1
DHIG                                     Sn      08 20 16.4 +1.4
DEIG  Demacu             6.81 320 eP     Pn      08 18 59.4 +1.1
DEIG                              eS     Sn      08 20 16.4 +1.4
TGUH  Tegucigalpa,Un     7.00  97  Pn    Pn      08 19 00.7 -0.2
TGUH  Tegucigalpa,Un     7.00  97  P     Pn      08 19 01.9 +1.1
ZIIG  Zihuatanejo        7.21 291 eP     Pn      08 19 05.7 +2.0
ZIIG                              eS     Sn      08 20 24.0 -0.6
ZIIG  Zihuatanejo        7.21 291        Pn      08 19 05.7 +2.0
ZIIG                                     Sn      08 20 24.0 -0.6
CRIN  San Cristobal      7.54 107  Pn    Pn      08 19 07.9 -0.3
TEL3  Telica 3           7.77 108  P     Pn      08 19 13.5 +2.1
TEIG  Tepich             7.79  48        Pn      08 19 10.3 -1.2
TEIG  Tepich             7.79  48  P     Pn      08 19 11.0 -0.5
MOIG  Morelia            7.91 306 eP     Pn      08 19 15.8 +2.3
MOIG                              eS     Sn      08 20 46.0 +3.6
MOIG  Morelia            7.91 306        Pn      08 19 15.9 +2.3
MOIG  Morelia            7.91 306  P     Pn      08 19 16.8 +3.2
CNGN  Cerro Negro        7.93 108  P     Pn      08 19 15.2 +1.6
USIM  UNAN               8.45 109  Pn    Pn      08 19 21.3 +0.6
MGAN  Managua            8.47 109  Pn    Pn      08 19 21.8 +0.9
MATN  Matagalpa          8.52 103  P     Pn      08 19 22.9 +1.1
RPIG  Rio Verde          8.58 323 eP     Pn      08 19 20.0 -2.5
RPIG                              eS     Sn      08 21 00.6 +2.0
RPIG  Rio Verde          8.58 323        Pn      08 19 20.0 -2.5
RPIG                                     Sn      08 21 00.6 +2.0
BOAB  BOACO BROADBAN8.90 106             Pn      08 19 26.7 -0.2
SIUN  Universidad Ur     9.45  97  Pn    Pn      08 19 34.8 +0.4
JUD3  Juan Diaz 3        9.95 118  Pn    Pn      08 19 43.3 +2.0
JTS   Las Juntas de     10.39 116  Pn    Pn      08 19 48.6 +1.2
ZAIG  Zacatecas         10.86 316  Pn    Pn      08 19 54.4 +0.5
RAFA  San Farael, Vo    11.54 115  Pn    Pn      08 20 03.1 -0.3
PIRO  Carate, Puerto    12.72 120  Pn    Pn      08 20 19.6 +0.5
SOR   Soroa             13.25  53  Pn    Pn      08 20 24.4 -2.0
833A  Chaparral WMA,    13.97 342  Pn    Pn      08 20 35.4 -0.7
735A  Kenedy            14.07 348  Pn    Pn      08 20 37.0 -0.5
EF04  Eagle Ford 04     14.41 348  Pn    Pn      08 20 42.2  0.0
MLDN  Muldoon           14.84 351  Pn    Pn      08 20 47.8 -0.3
HNDO  Hondo             15.07 344  Pn    Pn      08 20 51.2 +0.1
HNVL  Huntsville, TX    15.64 357  Pn    Pn      08 20 57.4 -1.1
HNVL                               IAmb  IAmb    08 21 09.6
      comp=Z,12nm,0.8s
441A  DeRidder          15.64   4  Pn    Pn      08 20 57.8 -0.8
HPIG                    15.78 320  Pn    Pn      08 21 01.6 +1.0
CAIB  Caibarien         15.96  60  Pn    Pn      08 21 00.9 -1.7
CAIB                               IAmb  IAmb    08 21 07.9
      comp=Z,14nm,0.9s
JCT   Junction City     16.11 343  Pn    Pn      08 21 05.3 +0.7
PAYG  Puerto Ayora      16.17 165  Pn    P       08 21 08.5 +0.1
SNAG  San Augustine     16.37   1  Pn    Pn      08 21 06.5 -1.4
SNAG                               IAmb  IAmb    08 21 22.9
      comp=Z,20nm,0.9s
SAND  Sanderson         16.42 336  Pn    Pn      08 21 08.8 +0.2
TXAR  Lajitas Array     16.56 331  Pn    P       08 21 11.5 -1.2
TX31  Lajitas Ar. Si    16.56 331  Pn    P       08 21 11.6 -1.2
BRDY  Brady             16.67 346        P       08 21 12.8 -1.1
OZNA  Ozona             16.93 340        P       08 21 16.1 -0.7
WHTX  Lake Whitney,     17.07 351  Pn    Pn      08 21 16.6 -0.1
WHTX                               IAmb  IAmb    08 21 20.7
      comp=Z,9.6nm,0.7s
FW13  Cleburne          17.42 351        Pn      08 21 21.1 +0.1
FW13                               IAmb  IAmb    08 21 28.8
      comp=Z,11nm,0.5s
ALPN  Alpine            17.42 332        P       08 21 22.7 +0.3
VBMS  Vicksburg         17.43  11  Pn    Pn      08 21 20.2 -1.1
VBMS                               IAmb  IAmb    08 21 23.7
      comp=Z,21nm,1.1s
SGCY  Sterling City     17.84 341        P       08 21 27.0 +0.1
SGCY                               IAmb  IAmb    08 21 33.6
      comp=Z,14nm,0.8s
MNHN  Monahans          17.90 336        P       08 21 27.8 +0.2
MNHN                               IAmb  IAmb    08 21 33.8
      comp=Z,11nm,0.9s
TMB01 Midkiff           17.94 338        P       08 21 28.3 +0.4
PLPT  Palo Pinto        18.01 349        Pn      08 21 27.9 -0.5
FW06  Azle              18.05 351        P       08 21 28.7 -0.4
ABTX  Abilene, Hawle    18.11 346        P       08 21 30.8 +1.0
229A  Bryant Ranch,     18.12 339        P       08 21 30.8 +0.9
PECS  Pecos             18.38 334        Pn      08 21 33.0 +0.1
VHRN  Van Horn          18.40 330        Pn      08 21 33.4 +0.1
ODSA  Odessa            18.52 338        Pn      08 21 34.7 +0.1
ODSA                               IAmb  IAmb    08 21 41.9
      comp=Z,17nm,1.1s
WLAR  White Oak Lake    18.57   3        P       08 21 34.4 -0.4
WLAR                               IAmb  IAmb    08 21 43.6
      comp=Z,7.9nm,0.6s
129A  Stewart Farms,    18.74 340  P     Pn      08 21 37.4  0.0
SN07  Snyder 07         18.87 343  P     Pn      08 21 39.2 +0.3
APMT  Aspermont         18.89 345  P     Pn      08 21 39.0 -0.1
Z47A  Carrollton        18.94  17  P     Pn      08 21 38.9 -0.8
Z47A                               IAmb  IAmb    08 21 59.2
      comp=Z,22nm,1.3s
128A  Castleberry Fa    18.95 339  P     Pn      08 21 39.5 -0.4
WTFS  Witchita Falls    18.97 350  P     Pn      08 21 40.1 +0.1
WTFS                               IAmb  IAmb    08 21 53.6
      comp=Z,8.8nm,0.6s
LOOK  Love County       19.00 353  P     P       08 21 39.3 -0.2
LOOK                               IAmb  IAmb    08 21 53.9
      comp=Z,16nm,0.6s
POST  Post              19.03 342  P     Pn      08 21 40.6 -0.2
CLNB  Carlsbad          19.16 335  P     Pn      08 21 42.1 -0.3
Y45A  Yeager Farm, C    19.22  12  P     P       08 21 40.8 -1.2
Y45A                               IAmb  IAmb    08 22 21.8
      comp=Z,19nm,0.9s
GDL2  Guadalupe Moun    19.31 334  P     P       08 21 43.5 +0.4
MIAR  Mount Ida         19.40   2        P       08 21 44.0  0.0
MIAR                               IAmb  IAmb    08 21 50.8
      comp=Z,6.8nm,0.8s
DKNS  Dickens           19.42 344  P     Pn      08 21 45.1 -0.5
DKNS                               IAmb  IAmb    08 21 47.1
      comp=Z,16nm,1.1s
X34A  Smith Ranch, M    19.68 352  P     P       08 21 47.1 +0.1
X34A                               IAmb  IAmb    08 22 03.5
      comp=Z,17nm,0.7s
UALR  University of     19.71   5  P     P       08 21 46.9 -0.3
UALR                               IAmb  IAmb    08 21 48.2
      comp=Z,19nm,1.4s
W35A  Tecumseh          20.11 354  P     P       08 21 51.6 -0.1
W35A                               IAmb  IAmb    08 21 57.5
      comp=Z,19nm,1.2s
MSTX  Muleshoe          20.27 340  P     P       08 21 54.1 +0.5
MSTX                               IAmb  IAmb    08 21 58.0
      comp=Z,5.8nm,0.8s
OKCSW OKLAHOMA CITY     20.43 353  P     P       08 21 55.3 +0.2
SMWD  Samnorwood        20.62 346  P     P       08 21 58.0 +0.7
SMWD                               IAmb  IAmb    08 22 00.3
      comp=Z,13nm,1.0s
DEOK  Depew             20.77 355  P     P       08 21 58.4 -0.4
DEOK                               IAmb  IAmb    08 22 03.3
      comp=Z,12nm,0.8s
AMTX  Amarillo          20.78 343  P     P       08 21 59.7 +0.6
AMTX                               IAmb  IAmb    08 22 04.4
      comp=Z,14nm,0.8s
TUL3  Leonard           20.79 357  P     P       08 21 58.3 -0.7
TUL3                               IAmb  IAmb    08 22 02.5
      comp=Z,7.1nm,0.8s
OK029 Liberty Lake      20.81 353  P     P       08 21 59.3  0.0
OK029                              IAmb  IAmb    08 22 03.6
      comp=Z,25nm,1.1s
FCAR  Ozark Folk Cen    20.83   5  P     P       08 21 58.3 -1.2
FCAR                               IAmb  IAmb    08 22 03.6
      comp=Z,5.7nm,0.6s
OK052 Battle Ridge R    20.94 355  P     P       08 22 00.7  0.0
OK052                              IAmb  IAmb    08 22 04.8
      comp=Z,11nm,0.8s
QUOK  Quay              21.11 355  P     P       08 22 02.5  0.0
LCAR  Lake Charles      21.11   7  P     P       08 22 02.1 -0.3
LCAR                               IAmb  IAmb    08 22 28.2
      comp=Z,8.3nm,1.4s
HHAR  Hobbs             21.12   1        P       08 22 02.5 -0.1
HHAR                               IAmb  IAmb    08 22 05.7
      comp=Z,5.9nm,0.5s
GNAR  Gosnell           21.18  10  P     P       08 22 02.0 -1.1
121A  Cookes Peak, D    21.21 327        P       08 22 05.7 +1.9
121A                               IAmb  IAmb    08 22 20.5
      comp=Z,5.5nm,0.8s
PH02  Texas Public H    21.33 343  P     P       08 22 05.9 +1.0
OK051 E0350 and S346    21.45 355  P     P       08 22 06.4 +0.3
OK051                              IAmb  IAmb    08 22 09.3
      comp=Z,14nm,0.8s
CROK  Carrier           21.58 352  P     P       08 22 08.0 +0.5
BLOK  Blackwell         21.74 354  P     P       08 22 09.3 +0.1
BLOK                               IAmb  IAmb    08 22 12.1
      comp=Z,16nm,0.8s
CRNM  Carthage          21.84 332  P     P       08 22 11.5 +0.9
LENM  Lemitar           22.13 331  P     P       08 22 14.4 +0.8
KAN01 Argonia South     22.19 353  P     P       08 22 13.9 -0.2
KAN08 Anthony NE Sta    22.29 353  P     P       08 22 14.9 -0.3
RTBA  Rita Blanca       22.53 342        P       08 22 18.6 +0.8
RTBA                               IAmb  IAmb    08 22 24.0
      comp=Z,8.2nm,0.8s
S39A  Bolivar           22.55   2  P     P       08 22 17.6 -0.3
TASM  ASL Pad, Albuq    22.55 333  P     P       08 22 18.9 +0.7
U49A  Red Boiling Sp    22.70  18  P     P       08 22 18.0 -1.6
U49A                               IAmb  IAmb    08 22 59.7
      comp=Z,15nm,1.5s
Y58A  Scranton          23.01  33  P     P       08 22 22.3 -0.4
R32A  Long Quarter,     23.56 352        P       08 22 28.4 +0.1
T25A  Trinidad          23.70 340  P     P       08 22 31.0 +1.2
T25A                               IAmb  IAmb    08 22 41.6
      comp=Z,7.0nm,1.1s
KSU1  Kansas State U    24.01 356  P     P       08 22 31.8 -0.7
KSU1                               IAmb  IAmb    08 23 13.2
      comp=Z,4.8nm,0.8s
CBKS  Cedar Bluff       24.11 350  P     P       08 22 34.1 +0.7
CBKS                               IAmb  IAmb    08 22 36.3
      comp=Z,16nm,1.0s
SDCO  Great Sand Dun    24.62 339  P     P       08 22 38.7 +0.3
X16A  Lo Mia Camp, P    24.62 325  P     P       08 22 39.1 +0.8
N38A  Joes South For    25.65   2  P     P       08 22 46.6 -0.7
SPMN  Marine on St.     30.09   2        P       08 23 26.2 -0.8
SNOW  Snow King Moun    31.55 337  P     P       08 23 41.7 +1.4
SNOW                               IAmb  IAmb    08 23 52.0
      comp=Z,4.4nm,0.9s
CBE   Ff, Capester      31.61  84  P     P       08 23 41.4 +0.6
E28A  Huff              31.84 352  P     P       08 23 43.0 +0.5
```

IDC 17 08:27:05.8±49.0**, 17.°03S**×**177.°59W, h0**km**, mb4.0**/3**,**
mbtmp4.0/3**, Error ellipse: s-maj=911.3km**
s-min=164.2km az=78.0, Fiji Islands region

```
Code  Station Name       Δ°  AZ°   Phase ID        Time    Res
                                   Op    ISC      h  m  s  ISC
STKA  Stephens Creek    39.74 240  P     P       08 34 41.0 +0.7
      2.0nm,0.6s,baz=101,slow=10,SNR=3.4
      2.0nm,0.6s
WRA   Warramunga Arr    45.56 259  P     P       08 35 27.7 -0.2
      0.5nm,0.5s,baz=96,slow=7.2,SNR=20
      0.5nm,0.5s
ASAR  Alice Springs     45.79 253  P     P       08 35 29.1 -0.6
      3.1nm,0.6s,baz=87,slow=8.7,SNR=46
      3.1nm,0.6s
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*NEIC **17** 08:40:00.6±0.7, 22.°8S±0.°1×179.°2W±0.°2, h512km±11km,*
mb4.3/11, Error ellipse: s-maj=23.3km s-min=17.7km
az=97.0
*IDC **17** 08:40:04.7±2.2, 22.°85S×179.°45W, h560km±24km, mb3.1/6,*
mbtmp4.1/8, Error ellipse: s-maj=28.3km s-min=22.2km
az=90.0
ISC 17 08:40:01.0±0.8**, 22.°78S**±0.°10×**179.°3W**±0.°1**, h526**km**, n31,**
σ**0ˢ83**/29**, mb4.1**/12**, South of Fiji Islands**

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Code  Station Name       Δ°  AZ°   Phase ID        Time    Res
                                   Op    ISC      h  m  s  ISC
MSVF  Nonsavu            5.62 333  P     P       08 41 41.0 +5.8
      3.2nm,0.4s,baz=254,slow=23,SNR=5.3
MSVF  Nonsavu            5.62 333  P     P       08 41 34.1 -1.1
RAO   Raoul Island       6.55 170  P     P       08 41 42.0 -1.5
FUTU  Fugatoga           8.50   7  P     P       08 42 01.9 -1.3
OUENC Ouen Island, N    12.85 269  P     P       08 42 48.3 -0.1
ONTNC Ouen Toro         13.21 269  P     P       08 42 50.4 -1.8
URZ   Urewera           15.74 191  P     P       08 43 17.8 -0.4
      8.9nm,0.8s,baz=266,slow=2.2,SNR=11
TCW   Tory Channel      19.16 195  P     P       08 43 50.3 -0.1
PLWZ  Palliser          19.29 193  P     P       08 43 50.8 -0.8
CAN   Canberra          30.30 239  P     P       08 45 29.7 +0.3
CAN                                IAmb  IAmb    08 46 03.0
      comp=Z,16nm,1.1s
CTAO  Charters Tower    32.17 268  P     P       08 45 46.2 +0.6
CTAO                               IAmb  IAmb    08 46 05.4
      comp=Z,23nm,1.4s
TOO   Toolangi          33.63 236  P     P       08 45 58.1 +0.3
TOO                                IAmb  IAmb    08 46 16.1
      comp=Z,6.3nm,1.2s
STKA  Stephens Creek    35.78 247  P     P       08 46 15.8 +0.1
      comp=Z,2.0nm,0.7s,baz=38,slow=3.7,SNR=3.1
      comp=Z,2.0nm,0.7s
BBOO  Buckleboo         40.52 246  P     P       08 46 54.4 +0.1
AS31  Alice Springs     42.90 259  P     P       08 47 13.8 +0.5
ASAR  Alice Springs     42.90 259  P     P       08 47 13.3  0.0
      comp=Z,0.4nm,0.6s,baz=92,slow=6.8,SNR=8.0
      comp=Z,0.4nm,0.6s
ASAR  Alice Springs     42.90 259  P     P       08 47 13.8 +0.5
WR8   Warramunga Arr    43.03 265  P     P       08 47 14.0 -0.3
WR8                                IAmb  IAmb    08 47 38.7
      comp=Z,18nm,1.4s
WB0   Warramunga Arr    43.16 265  P     P       08 47 15.0 -0.4
WB0                                IAmb  IAmb    08 47 55.4
      comp=Z,12nm,1.5s
WRA   Warramunga Arr    43.18 265  P     P       08 47 15.0 -0.5
      comp=Z,1.1nm,0.5s,baz=90,slow=5.9,SNR=41
      comp=Z,1.1nm,0.5s
WRA   Warramunga Arr    43.18 265  P     P       08 47 15.4 -0.1
KNRA  Kununurra         49.39 269  P     P       08 48 02.9 +0.3
KNRA                               IAmb  IAmb    08 48 29.1
      comp=Z,13nm,1.5s
FITZ  Fitzroy Crossi    51.61 264  P     P       08 48 19.4 +0.6
QSPA  South Pole Qui    67.30 180  P     P       08 50 04.3 +1.2
      comp=Z,1.8nm,1.0s,baz=292,slow=0.2,SNR=6.7
      comp=Z,1.8nm,1.0s
QSPA  South Pole Qui    67.30 180  P     P       08 50 04.8 +1.7
QSPA                               IAmb  IAmb    08 50 06.8
      comp=Z,9.4nm,1.4s
ADK   Adak              74.38   2  P     P       08 50 45.4 +0.8
PETK  Petropavlovsk-    78.18 346  P     P       08 51 06.0 +0.5
      comp=Z,1.8nm,0.9s,baz=96,slow=9.9,SNR=4.4
      comp=Z,1.8nm,0.9s
CMAR  Chiang Mai Arr    89.78 290  P     P       08 52 04.7 +0.9
      comp=Z,1.2nm,0.3s,baz=140,slow=3.3,SNR=4.4
      comp=Z,1.2nm,0.3s
CMAR  Chiang Mai Arr    89.78 290  P     P       08 52 04.3 +0.5
ARCES ARCESS Array B   130.93 349  PKP   PKPdf   08 58 11.7 -0.1
      comp=Z,3.7nm,1.0s,baz=323,slow=1.8,SNR=4.1
AKASG Malin Array Be   144.39 329  PKP   PKPbc   08 58 35.5 -1.3
      comp=Z,0.5nm,0.3s,baz=45,slow=4.2,SNR=6.8
```

IDC 17 09:02:28.4±14.0**, 15.°14S**×**173.°54W, h319**km±60km**,**
mb2.9/3**, mbtmp3.7**/4**, Error ellipse: s-maj=385.6km**
s-min=35.3km az=137.0, Tonga Islands

```
Code  Station Name       Δ°  AZ°   Phase ID        Time    Res
                                   Op    ISC      h  m  s  ISC
MSVF  Nonsavu            8.47 251  P     Pn      09 04 28.0  0.0
      5.6nm,0.5s,baz=36,slow=19,SNR=7.2
WRA   Warramunga Arr    49.77 257  P     P       09 10 48.8 -0.9
      0.3nm,0.8s,baz=96,slow=8.5,SNR=6.4
      0.3nm,0.8s
ASAR  Alice Springs     50.06 252  P     P       09 10 52.3 +0.4
      1.9nm,0.5s,baz=88,slow=7.7,SNR=48
      1.9nm,0.5s
ILAR  Eielson Array     82.22  11  P     P       09 14 13.8 -0.1
      0.2nm,0.6s,baz=200,slow=7.3,SNR=2.1
      0.2nm,0.6s
```

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*MAN **17** 09:38:11.0, 15.°32N×122.°05E, h1km, MS4.0*
*NEIC **17** 09:38:12.6±2.4, 15.°06N±0.°04×122.°0E±0.°1, h10km±1km,*
mb4.5/17, Error ellipse: s-maj=23.3km s-min=4.7km
az=258.0
*IDC **17** 09:38:22.6±3.8, 15.°07N×121.°99E, h102km±38km,*
mb3.7/14, mbtmp4.1/15, MS3.1/3, Error ellipse:
s-maj=30.0km s-min=12.7km az=65.0
ISC 17 09:38:17.3±1.2**, 15.°28N**±0.°04×**122.°08E**±0.°07**, h46**km±12km**,**
n58, σ**1ˢ52**/56**, mb4.4**/23**, Philippine Islands region**

```
Code  Station Name       Δ°  AZ°   Phase ID        Time    Res
                                   Op    ISC      h  m  s  ISC
LQP   Lukban             1.27 205 eP     Pn      09 38 36.7 -2.1
LQP                               eS     Sn      09 38 54.8  0.0
TGY   Tagaytay City      1.61 224 eP     Pn      09 38 43.2 -0.1
TGY                               eS     Sn      09 39 06.1 +3.2
PALP  Palanan            1.81  10 i P    Pn      09 38 44.4 -1.6
PALP                              eS     Sn      09 39 06.8 -0.9
BOAC  Boac               1.82 187 eP     Pn      09 38 46.8 +0.6
BOAC                              eS     Sn      09 39 10.7 +2.6
LUBP  Lubang             2.35 230 eP     Pn      09 38 51.8 -1.6
LUBP                              eS     Sn      09 39 21.9 +0.9
BOLP  Bolinao            2.36 298 i P    Pn      09 38 53.2 -0.4
BOLP                              i S    Sn      09 39 18.5 -2.8
CVP   Callao Caves       2.43 354 i P    Pn      09 38 53.5 -1.0
CVP                               eS     Sn      09 39 23.9 +1.0
SZP   Santa              2.75 326  Pn    Pn      09 38 59.4 +0.5
SZP                                Sn    Sn      09 39 34.3 +3.4
PACPP Pamplona Cagay     3.24 348 eP     Pn      09 39 05.0 -0.7
PACPP                             i S    Sn      09 39 42.9 -0.2
PLP   Palo               4.96 145 eP     Pn      09 39 33.7 +4.3
TPUB  Ta-pu              8.10 350  Pn    Pn      09 40 11.5 -0.9
YULB  Yu-li              8.11 355  Pn    Pn      09 40 13.3 +0.8
SSLB  Suanglung          8.54 353  Pn    Pn      09 40 19.1 +0.8
DAV   Davao City (W)     8.85 157  P     Pn      09 40 26.8 +4.2
      258nm,0.5s,baz=189,slow=1.4,SNR=3.8
DAV                                LR    LR      09 44 48.7
      comp=Z,242nm,18.2s,baz=0.0,slow=44
CMAR  Chiang Mai Arr    22.37 281  P     P       09 43 11.9 +0.1
      0.8nm,0.3s,baz=90,slow=8.6,SNR=8.4
CMAR                               LR    LR      09 52 17.1
      comp=Z,29nm,19.0s,baz=180,slow=37
      0.8nm,0.3s
CMAR  Chiang Mai Arr    22.37 281  P     P       09 43 09.0 -2.8
KSRS  Korea Array       22.69  12  P     P       09 43 18.4 +3.4
      0.4nm,0.4s,baz=192,slow=10,SNR=2.0
      0.4nm,0.4s
FITZ  Fitzroy Crossi    33.35 174  P     P       09 44 49.7 -1.5
ASAJ  Asahikawa         33.62  27  LR    LR      10 01 28.8
      comp=Z,24nm,18.2s,baz=100,slow=41
SONM  Songino Array     34.97 341  P     P       09 45 04.9 -0.2
      0.6nm,0.5s,baz=166,slow=7.4,SNR=2.9
      0.6nm,0.5s
WB0   Warramunga Arr    36.87 160  P     P       09 45 19.9 -1.6
WB0                                IAmb  IAmb    09 45 32.9
      comp=Z,11nm,1.3s
WRAB  Tennant Creek     37.01 161  P     P       09 45 20.1 -2.7
WRAB                               IAmb  IAmb    09 45 46.3
      comp=Z,8.8nm,1.5s
WRA   Warramunga Arr    37.01 161  P     P       09 45 20.2 -2.6
      comp=Z,0.7nm,0.6s,baz=344,slow=8.9,SNR=8.2
      comp=Z,0.7nm,0.6s
WR8   Warramunga Arr    37.08 160  P     P       09 45 20.9 -2.5
WR8                                IAmb  IAmb    09 45 45.1
      comp=Z,12nm,1.4s
AS31  Alice Springs     40.39 163  P     P       09 45 49.8 -1.3
ASAR  Alice Springs     40.39 163  P     P       09 45 49.3 -1.8
      comp=Z,0.4nm,0.3s,baz=341,slow=7.2,SNR=18
      comp=Z,0.4nm,0.3s
H11S3 WAKE ISLAND Hy 42.72  79     T     T       10 33 01.5
      baz=274,slow=74
H11S1 WAKE ISLAND Hy 42.73  79     T     T       10 32 58.6
      baz=274
H11S2 WAKE ISLAND Hy 42.74  79     T     T       10 32 58.2
      baz=274,slow=74
H11N1 WAKE ISLAND Hy 42.87  77     T     T       10 32 27.3
      baz=266,slow=74,SNR=12
H11N2 WAKE ISLAND Hy 42.88  77     T     T       10 32 18.2
      baz=266,slow=74,SNR=6.3
H11N3 WAKE ISLAND Hy 42.89  77     T     T       10 32 30.8
      baz=266,slow=74,SNR=5.2
MKAR  Makanchi Array    45.59 322  P     P       09 46 33.7 +0.7
      comp=Z,1.9nm,0.7s,baz=119,slow=9.9,SNR=14
      comp=Z,1.9nm,0.7s
PDGK  Podgornoye        45.77 316  P     P       09 46 34.9 +0.3
PETK  Petropavlovsk-    47.01  29  P     P       09 46 44.7 +0.7
      comp=Z,1.7nm,0.8s,baz=190,slow=7.3,SNR=2.1
      comp=Z,1.7nm,0.8s
KSH2  Kashi             47.07 310  P     P       09 46 46.3 +1.4
KSH2                               pmax  pmax
      comp=Z,5.0nm,0.8s
NRN   Naryn             47.47 313  P     P       09 46 48.8 +0.6
NRN                                IAmb  IAmb    09 46 50.1
      comp=Z,4.8nm,1.0s
ZAA0  Zalesovo Array    48.30 331  P     P       09 46 53.8 -0.1
ZAA0                               IAmb  IAmb    09 46 55.0
      comp=Z,4.7nm,1.1s
ZALV  Zalesovo Beam     48.30 331  P     P       09 46 53.9 -0.1
      comp=Z,0.8nm,0.4s,baz=111,slow=8.1,SNR=6.3
      comp=Z,0.8nm,0.4s
KURK  Kurchatov         49.65 325  P     P       09 47 04.9 +0.6
KURK  Kurchatov         49.65 325  IAmb  IAmb    09 47 05.9
      comp=Z,15nm,1.1s
KURBB Kurchatov Arra    49.66 325  P     P       09 47 04.9 +0.6
      comp=Z,5.4nm,0.8s,baz=121,slow=8.3,SNR=23
      comp=Z,5.4nm,0.8s
STKA  Stephens Creek    50.48 158  P     P       09 47 09.4 -1.4
      comp=Z,8.1nm,1.2s,baz=330,slow=8.0,SNR=8.3
      comp=Z,8.1nm,1.2s
AB31  Akbulak array     60.44 318  P     P       09 48 20.7 -1.5
ABKAR Akbulak array     60.44 318  P     P       09 48 21.7 -0.5
CHGN  Chignik           71.62  35  P     P       09 49 34.3 +0.5
D20K  Etivluk River     72.72  22  P     P       09 49 41.3 +1.0
D20K                               IAmb  IAmb    09 50 09.8
      comp=Z,8.2nm,1.3s
CAST  Castle Rocks      74.61  28  P     P       09 49 53.0 +1.5
CAST                               IAmb  IAmb    09 50 14.1
      comp=Z,6.5nm,1.5s
C24K  Franklin Bluff    75.52  21  P     P       09 49 57.4 +0.8
C24K                               IAmb  IAmb    09 50 41.1
      comp=Z,8.5nm,1.4s
BMAR  Burnt Mountain    77.30  23  P     P       09 50 09.0 +2.3
ARCES ARCESS Array B    78.10 339  P     P       09 50 11.8 +0.7
      comp=Z,1.8nm,0.8s,baz=70,slow=5.8,SNR=4.0
      comp=Z,1.8nm,0.8s
ARCES ARCESS Array B    78.10 339  IAmb  IAmb    09 50 45.8
      comp=Z,5.2nm,1.1s
FINES FINESS Array B    79.57 331  P     P       09 50 19.4 +0.1
      comp=Z,4.8nm,1.0s,baz=86,slow=5.0,SNR=2.0
      comp=Z,4.8nm,1.0s
HFS   Hagfors           85.74 332  P     P       09 50 51.1 -0.3
      comp=Z,2.4nm,0.6s,baz=79,slow=2.3,SNR=4.7
      comp=Z,2.4nm,0.6s
NC405 NORSAR Array S    86.23 333  P     P       09 50 53.8  0.0
NB2   NORSAR Subarra    86.48 333  P     P       09 50 54.7 -0.4
      comp=Z,1.8nm,0.7s,baz=66,slow=4.8
NOA   NORSAR Array B    86.48 333  P     P       09 50 55.0 -0.1
      comp=Z,1.0nm,0.5s,baz=66,slow=5.0,SNR=6.6
      comp=Z,1.0nm,0.5s
NC204 NORSAR Array S    86.58 333  P     P       09 50 55.7 +0.1
```

IDC 17 09:42:26.4±7.8**, 18.°53S**×**175.°36W, h0**km**, mb3.5**/3**,**
mbtmp3.5/3**, Error ellipse: s-maj=338.3km**
s-min=41.9km az=142.0, Tonga Islands

```
Code  Station Name       Δ°  AZ°   Phase ID        Time    Res
                                   Op    ISC      h  m  s  ISC
WRA   Warramunga Arr    47.37 260  P     P       09 51 01.4 -1.3
      0.3nm,0.6s,baz=98,slow=8.0,SNR=5.2
      0.3nm,0.6s
ASAR  Alice Springs     47.42 255  P     P       09 51 03.9 +0.8
      0.8nm,0.5s,baz=90,slow=7.8,SNR=18
      0.8nm,0.5s
ILAR  Eielson Array     85.86  12  P     P       09 55 07.6  0.0
      0.3nm,0.9s,baz=200,slow=4.9,SNR=2.0
      0.3nm,0.9s
```

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*NNC **17** 09:52:32.1±1.6, 41.°86N×79.°05E, h0km, mb3.4, mpv3.2,*
Error ellipse: s-maj=11.3km s-min=7.1km az=161.0
*KRNET **17** 09:52:32.8±0.1, 41.°87N×79.°04E, h11km, mb3.2*
*SOME **17** 09:52:32.4, 41.°92N×79.°07E, h15km*
ISC 17 09:52:33.5±1.7**, 41.°92N**±0.°05×**79.°10E**±0.°07**, h10**km**, n27,**
σ**1ˢ69**/46**, 12C-16D, Kyrgyzstan-Xinjiang border region**

```
Code  Station Name       Δ°  AZ°   Phase ID        Time    Res
                                   Op    ISC      h  m  s  ISC
PRZ   Przheval'sk        0.77 318⇓iP     Pb      09 52 48.0 -1.0
PRZ                               ⇓iS    Sb      09 52 59.0 -0.6
TARG  Taragay, Kyrgy     0.99 259⇓iP     Pg      09 52 50.8 -1.7
TARG                              ⇓iS    Sg      09 53 04.0 -1.4
ANVS  Anan'yevo          1.37 310⇑iP     Pg      09 52 58.9 -0.8
ANVS                              ⇑iS    Sg      09 53 17.8 +0.3
PDGK  Podgornoye         1.44  11 ⇑Pg    Pb      09 52 59.1 -1.3
      2.6nm,0.3s
```

PDGK				⇓Lg	Lg	09 53 21.2	
	28nm,0.6s						
KDJ	Kajisay	1.45	279	⇑iP	Pn	09 52 59.3	-0.6
KDJ				⇑iS	Sn	09 53 18.4	-0.6
KURS	Kuram	1.71	337	P	Pg	09 53 04.9	-1.4
	4.2nm,0.3s						
KURS				S	Sg	09 53 28.0	-0.5
	28nm,0.5s						
KURS	Kuram	1.71	337	eP	Pb	09 53 04.3	-0.7
	4.4nm,0.2s						
KURS				eS	Sg	09 53 26.9	-1.5
	27nm,0.4s						
MDOK	Medeo	1.96	310	Pg	Pb	09 53 08.8	-0.5
	19nm,0.6s						
MDOK				Lg	Lg	09 53 34.7	
	44nm,0.5s						
MDOK	Medeo	1.96	310	eP	Pb	09 53 08.8	-0.5
	19nm,0.6s						
MDOK				eS	Sg	09 53 34.7	-1.8
	44nm,0.5s						
KOTS	Kotyrbulak	1.97	312	Pg	Pb	09 53 09.4	-0.1
	42nm,0.3s						
KOTS				Lg	Lg	09 53 36.0	
	45nm,0.3s						
KOTS	Kotyrbulak	1.97	312	eP	Pb	09 53 09.4	-0.1
	42nm,0.3s						
KOTS				eS	Sg	09 53 36.0	-0.8
	45nm,0.3s						
ULHL	Ulahol	2.15	280	⇓iP	Pb	09 53 11.4	-1.2
ULHL				⇓iS	Sb	09 53 39.9	+0.4
BLB	Baldybastay	2.22	348	Pg	Pb	09 53 13.8	0.0
	24nm,0.4s						
BLB				Lg	Lg	09 53 43.4	
	42nm,0.3s						
NRN	Naryn	2.37	259	⇓iP	Pb	09 53 14.8	-1.7
NRN				⇓iS	Sb	09 53 45.3	-0.6
BOOM	Boomskoye usch	2.41	285	⇓iP	Pb	09 53 15.2	-1.9
BOOM				⇓iS	Sb	09 53 46.3	-0.7
KNOS	Konyrlen	2.44	1	Pg	Pb	09 53 17.0	-0.5
	2.9nm,0.1s						
KNOS				Lg	Lg	09 53 48.9	
	62nm,0.5s						
KST	Kastek	2.58	297	Pg	Pb	09 53 18.6	-1.3
	5.2nm,0.5s						
KST				Lg	Lg	09 53 51.4	
	12nm,0.5s						
KST	Kastek	2.58	297	eP	Pb	09 53 18.6	-1.3
	5.2nm,0.5s						
KST				eS	Sb	09 53 51.4	-0.2
	12nm,0.5s						
TKM2	Tokmak 2	2.78	292	⇓iP	Pb	09 53 20.3	-3.0
TKM2				⇓iS	Sb	09 53 55.2	-2.3
KRBS	Karabastau	3.08	306	Pg	Pb	09 53 28.7	+0.3
	3.3nm,0.5s						
KRBS				Lg	Lg	09 54 09.3	
	9.6nm,0.5s						
KRBS	Karabastau	3.08	306	eP	Pb	09 53 28.7	+0.3
	3.3nm,0.5s						
KRBS				eS	Sg	09 54 09.3	-3.2
	9.6nm,0.5s						
KBK	Karagaybulak	3.17	285	⇓iP	Pn	09 53 25.7	+2.2
KBK				⇓iS	Sn	09 54 04.3	+2.9
UCH	Uchtor	3.43	277	⇑iP	Pn	09 53 29.5	+2.1
UCH				⇑iS	Sn	09 54 10.8	+2.5
AAK	Ala-Archa	3.49	283	⇓Pg	Pb	09 53 34.9	-0.6
	0.6nm,0.4s						
AAK				⇑Lg	Lg	09 54 22.8	
	2.3nm,0.6s						
AAK	Ala-Archa	3.49	283	⇑iP	Pn	09 53 30.2	+2.2
AAK				⇑iS	Sn	09 54 11.9	+2.5
SALK	Salom-Alik	4.10	257	⇑iP	Pn	09 53 38.2	+1.8
SALK				⇑iS	Sn	09 54 26.2	+1.7
MRKS	Merke	4.43	283	eP	Pb	09 53 52.7	+1.3
	1.5nm,0.3s						
MRKS				eS	Sb	09 54 49.8	+4.9
	4.8nm,0.2s						

HEL 17 09:59:33.0±0.4**, 67°.84N×20°.37E, h0km, ML0.9,**
Suspected explosion, Sweden

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LANU	Lannavaara	0.65	71	PG	Pg	09 59 44.1	-1.2
LANU				SG	Sg	09 59 52.8	-0.9
HEF	Hetta	1.36	64	smax	smax	10 00 14.0	
	comp=Z,0.8nm,0.2s						
HEF				SB	Sg	10 00 15.2	-1.3
ERTU	Ertsjaerv	1.48	150	PG	Pn	09 59 59.2	-1.5
ERTU				SG	Sg	10 00 19.2	-1.1
KLF	Kolari	1.51	112	PG	Pn	10 00 00.3	-0.9
KLF				smax	smax	10 00 18.4	
	comp=Z,1.0nm,0.2s						
KLF				SN	Sg	10 00 20.7	-0.7
KTK1	Kautokeino	1.58	41	PN	Pn	10 00 02.2	-0.1
KTK1				SN	Sg	10 00 24.3	+0.5
TOF	Tornio	2.36	137	PG	Pb	10 00 14.7	-1.5
TOF				SN	Sn	10 00 42.5	+0.1
RNF	Rovaniemi	2.52	117	PB	Pn	10 00 16.3	+1.1
RNF				SN	Sn	10 00 43.5	-2.9
ARA0	ARCESS Array S	2.53	45	SG	Sb	10 00 49.9	-1.0
RAJF	Raja-Jooseppi	3.04	74	SN	Sn	10 00 54.7	-4.5
KEV	Kevo	3.08	48	SN	Sn	10 01 00.4	+0.1

HEL 17 10:00:13.9±0.0**, 66°.15N×22°.04E, h10km, ML0.8,**
Confirmed Earthquake, Sweden

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ERTU	Ertsjaerv	0.41	9	eP	Pg	10 00 21.4	-0.6
ERTU				eS	Sg	10 00 26.8	-0.5
TOF	Tornio	0.94	93	eP	Pg	10 00 30.8	-1.1
KLF	Kolari	1.33	34	eP	Pn	10 00 37.3	-1.2
KLF				eS	Sb	10 00 54.5	-1.5
BURU	Burvik	1.60	190	eS	Sn	10 01 02.1	-0.7
BURU				smax	smax	10 01 02.9	
	comp=Z,0.4nm,0.1s						
RNF	Rovaniemi	1.67	72	eS	Sn	10 01 04.0	-0.5
RNF				smax	smax	10 01 04.9	
	comp=Z,0.7nm,0.1s						

HEL ***17*** *10:00:12.3±0.3, 64°.78N×30°.85E, h0km, ML2.2, Explosion*
IDC ***17*** *10:00:14.2±2.5, 64°.74N×30°.88E, h0km, mbtmp3.1/4, ML2.4/4, Error ellipse: s-maj=28.9km s-min=11.0km az=103.0*
KOLA ***17*** *10:00:14.5, 64°.76N×31°.00E, h0km, ML2.3, Error ellipse: s-maj=15.4km s-min=7.9km az=170.0, Kostomuksha, Karelia*
ISC 17 10:00:13.9±0.9**, 64°.80N**±0°.02×**30°.62E**±0°.05**, h0km, n40,**
σ1s.84/59**, Finland-Karelia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RMF	Romuvaara	0.66	207	PB	Pg	10 00 25.2	-1.1
RMF				smax	smax	10 00 34.1	
	comp=Z,31nm,0.2s						
RMF				SG	Sg	10 00 34.7	-0.1
KU1	Kurvinen	0.89	330	PB	Pg	10 00 30.4	-0.5
KU1				SB	Sb	10 00 46.4	+1.9
MSF	Maaselka	1.30	330	PN	Pg	10 00 37.8	-0.9
MSF				SN	Sn	10 00 58.1	+0.8
OLKF	Oulanka, Finla	1.61	342	PN	Pn	10 00 43.4	-0.1
OLKF				smax	smax	10 01 02.1	
	comp=Z,14nm,0.2s						
NIF	Nilsia	1.88	222	PG	Pn	10 00 47.2	0.0
NIF				smax	smax	10 01 09.8	
	comp=Z,18nm,0.2s						
NIF				SG	Sn	10 01 12.4	+0.9
JOF	Joensuu	1.91	170	eP	Pn	10 00 47.8	+0.2
JOF	Joensuu	1.91	170	PG	Pn	10 00 46.0	-1.7
JOF				SG	Sn	10 01 12.2	-0.2
OUL	Oulu	2.03	280	PG	Pn	10 00 50.3	+1.1
	baz=100						
OUL				SG	Sb	10 01 18.3	+1.0
KVDA	Kovda	2.12	25	P	Pn	10 00 50.5	+0.1
KVDA				S	Sn	10 01 17.0	-0.4
OBF4	Vikkela, Lumij	2.36	273	smax	smax	10 01 25.1	
	comp=Z,24nm,0.2s						
OBF4				SG	Sb	10 01 28.4	+1.6
OUF	Merijarvi	2.58	263	PB	Pn	10 00 57.9	+1.1
	baz=81						
OUF				smax	smax	10 01 31.1	
	comp=Z,24nm,0.2s						
OUF				SG	Sb	10 01 33.5	+0.5
RNF	Rovaniemi	2.63	316	PG	Pb	10 01 00.4	-1.4
RNF				SG	Sb	10 01 36.1	+1.5
OBF0	Syolatti, Pyha	2.76	267	PB	Pn	10 01 01.1	+1.8
	baz=77						
OBF0				smax	smax	10 01 36.5	
	comp=Z,16nm,0.2s						
OBF0				SG	Sb	10 01 39.5	+1.1
SUF	Sumiainen	2.88	226	eP	Pn	10 01 03.1	+2.1
SUF	Sumiainen	2.88	226	PB	Pn	10 01 02.2	+1.2
	baz=41						
SUF				smax	smax	10 01 38.8	
	comp=Z,7.1nm,0.2s						
SUF				SG	Sb	10 01 41.8	0.0
TOF	Tornio	2.93	299	smax	smax	10 01 41.2	
	comp=Z,3.7nm,0.2s						
TOF				SG	Sb	10 01 44.4	+1.3
APA0	Apatity Array	2.98	18	P	Pn	10 01 03.1	+0.8
APA0				S	Sn	10 01 38.8	+0.1
VRF	Varrio	2.99	353	PB	Pn	10 01 03.3	+0.8
VRF				smax	smax	10 01 41.2	
	comp=Z,3.3nm,0.2s						
KAF	Kangasniemi	3.32	218	PB	Pb	10 01 10.7	-2.8
	baz=39						
KAF				SB	Sn	10 01 49.7	+2.7
LVZ	Lovozero	3.51	26	S	Sn	10 01 50.4	-1.4
LVZ	Lovozero	3.51	26	PG	Pn	10 01 12.3	+2.7
KEF	Keuruu	3.69	227	eP	Pn	10 01 14.1	+2.1
KEF	Keuruu	3.69	227	PB	Pn	10 01 14.7	+2.7
	baz=45						
KEF				SG	Sb	10 02 07.5	+2.4
RAJF	Raja-Jooseppi	3.80	347	PN	Pn	10 01 14.0	+0.4
ERTU	Ertsjaerv	3.91	301	PB	Pn	10 01 18.2	+3.1
VAF	Ylistaro	3.93	247	eP	Pn	10 01 16.4	+1.1
VAF	Ylistaro	3.93	247	PN	Pn	10 01 16.5	+1.2
VAF				SG	Sb	10 02 16.7	+4.8
FIA0	FINESS Array S	3.95	214	SG	Sb	10 02 14.7	+2.2
FINES	FINESS Array B	3.95	214	Pn	Pn	10 01 15.3	-0.3
	comp=Z,0.2nm,0.3s,baz=32,slow=13,SNR=7.0						
FINES				Pg	Pb	10 01 24.6	+0.4
	comp=Z,0.5nm,0.3s,baz=28,slow=16,SNR=6.9						
FINES				Lg	Lg	10 02 15.5	
	comp=Z,1.3nm,0.3s,baz=35,slow=29,SNR=10						
	comp=Z,0.8nm,0.3s						
FINES				AML	AML		
UMAU	Umeaa	4.42	262	SN	Sn	10 02 13.3	-0.8
VJF	Virojoki	4.50	200	SG	Sb	10 02 32.2	+3.8
HEF	Hetta	4.56	326	eP	Pn	10 01 26.1	+2.1
TERR	Teriberka	4.76	20	P	Pn	10 01 25.9	-0.8
ARA0	ARCESS Array S	5.15	340	eP	Pn	10 01 30.9	-1.2
ARCES	ARCESS Array B	5.15	340	Pn	Pn	10 01 32.3	+0.1
	comp=Z,0.5nm,0.3s,baz=156,slow=13,SNR=32						
ARCES				Sn	Sn	10 02 27.4	-4.8
	comp=Z,0.5nm,0.3s,baz=156,slow=25,SNR=6.2						
ARCES				Lg	Lg	10 02 52.4	
	comp=Z,1.0nm,0.3s,baz=154,slow=31,SNR=7.7						
	comp=Z,1.1nm,0.3s						
ARCES				AML	AML		
ARCES	ARCESS Array B	5.15	340	P	Pn	10 01 32.0	-0.1
ARCES				S	Sn	10 02 31.6	-0.6
VADS	Vadso	5.37	355	P	Pn	10 01 34.0	-1.0
FAUS	Fauske	6.74	299	S	Sn	10 03 11.3	0.0
HFS	Hagfors	9.11	247	Pn	Pn	10 02 26.8	+0.3
	comp=Z,0.3nm,0.3s,baz=52,slow=12,SNR=5.0						
HFS				Sn	Sn	10 04 04.6	-5.0
	comp=Z,0.2nm,0.3s,baz=54,slow=24,SNR=1.3						
HFS				Lg	Lg	10 04 55.4	
	comp=Z,0.3nm,0.3s,baz=56,slow=32,SNR=6.1						
	comp=Z,0.7nm,0.3s						
HFS				AML	AML		
NOA	NORSAR Array B	9.60	256	Pn	Pn	10 02 31.9	-1.2
	baz=65,slow=21,SNR=1.7						
	comp=Z,0.1nm,0.3s						

SJA ***17*** *10:02:55.6±0.6, 17°.51S×69°.52W, h187km±3km, ML4.2, MW4.0*
SCB ***17*** *10:02:56.3±1.1, 17°.51S×69°.33W, h172km±11km, MB5.4, ML4.2/2, Error ellipse: s-maj=8.0km s-min=6.5km az=2.0*
VAO ***17*** *10:02:58.4±0.4, 17°.34S×69°.02W, h165km±2km, mb4.5, Presumed earthquake*
GFZ ***17*** *10:02:58.0±0.2, 18°S±2°×6°9W±°, h153km, M4.6/17, mb4.6/17, confirmed*
NEIC ***17*** *10:02:58.0±2.4, 17°.59S±0°.06×69°.22W±0°.08, h152km±5km, mb4.5/25, ML4.0(GUC), Error ellipse: s-maj=11.5km s-min=7.9km az=117.0*
IDC ***17*** *10:02:58.9±1.1, 17°.46S×69°.04W, h159km±9km, mb3.6/12, mbtmp4.1/12, Error ellipse: s-maj=19.8km s-min=14.5km az=80.0*
GUC ***17*** *10:02:58.9±0.8, 17°.58S×69°.35W, h158km±5km, ML4.0*
ISC 17 10:02:57.0±0.5**, 17°.51S**±0°.03×**69°.20W**±0°.04**, h154**km±4km**,**
n180, σ1s.55/206**, mb4.2**/16**, 4C-3D, Peru-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PB18	Visviri	0.28	253	⇑iP	Pn	10 03 20.5	+1.9
PB18	Visviri	0.28	253		Pn	10 03 20.3	+1.8
PB18	Visviri	0.28	253	P	Pn	10 03 20.7	+2.1
PB18				S	Sn	10 03 37.7	+2.8
PB16	IPOC Station P	0.88	200	eP	Pn	10 03 23.6	+1.8
PB16				eS	Sn	10 03 45.2	+4.4
PB16	IPOC Station P	0.88	200	⇑iP	Pn	10 03 23.4	+1.6
PB16				eS	Sn	10 03 42.0	+1.2
PB16				IAML		10 03 46.7	
	comp=E,830nm,0.5s						
PB16	IPOC Station P	0.88	200		Pn	10 03 23.4	+1.6
PB16	IPOC Station P	0.88	200	P	Pn	10 03 23.4	+1.6
PB16	IPOC Station P	0.88	200	P	Pn	10 03 23.8	+1.9
PB16				S	Sn	10 03 42.3	+1.5
BBOD	La Paz, Gloria	1.04	34	P	Pn	10 03 25.0	+1.9
BBOJ	La Paz, Jacaqu	1.09	61	P	Pn	10 03 26.0	+2.5
SOEJ	Jacaque	1.09	61	P	Pn	10 03 26.1	+2.6
AP01	Chacalluta	1.39	232	eP	Pn	10 03 26.0	+0.3
AP01				eS	Sn	10 03 48.9	+1.2
AP01				IAML		10 03 53.1	
	comp=Z,3µm,0.2s						
AP01	Chacalluta	1.39	232	⇑iP	Pn	10 03 25.7	0.0
AP01				eS	Sn	10 03 46.6	-1.1
AP01	Chacalluta	1.39	232		Pn	10 03 25.8	0.0
AP01	Chacalluta	1.39	232	P	Pn	10 03 25.9	+0.2
AP01				S	Sn	10 03 46.8	-0.9
PB12	IPOC Station P	1.54	224	eP	Pn	10 03 27.0	-0.3
PB12				eS	Sn	10 03 50.2	-0.4
PB12				IAML		10 03 50.7	
	comp=Z,2µm,0.4s						
PB12	IPOC Station P	1.54	224	⇑iP	Pn	10 03 27.0	-0.3
PB12				IAML		10 03 50.5	
	comp=E,4µm,0.3s						
PB12	IPOC Station P	1.54	224		Pn	10 03 27.2	-0.1
PB12	IPOC Station P	1.54	224	P	Pn	10 03 27.2	-0.1
PB12				S	Sn	10 03 48.9	-1.8
LPAZ	La Paz	1.58	40	P	Pn	10 03 30.1	+1.7
	comp=E,662nm,0.3s,baz=215,slow=6.8,SNR=1584						
LPAZ				S	Sn	10 03 52.8	+0.4
	comp=E,353nm,0.5s,baz=348,slow=18,SNR=23						
LPAZ	La Paz	1.58	40	⇓iP	Pn	10 03 30.5	+2.2
LPAZ	La Paz	1.58	40		Pn	10 03 30.3	+1.9
LPAZ	La Paz	1.58	40	P	Pn	10 03 30.6	+2.2
LPAZ	La Paz	1.58	40	eP	Pn	10 03 28.4	0.0
LPAZ				eS	Sn	10 03 52.1	-0.3
LPAZ	La Paz	1.58	40	P	Pn	10 03 30.6	+2.2
LPAZ				S	Sn	10 03 53.0	+0.6
SOEO	Opoqueri	1.63	130	P	Pn	10 03 31.4	+2.7
BBOB	La Paz, Bander	1.70	37	P	Pn	10 03 31.7	+2.2
GO01	Chusmiza	2.15	180	eP	Pn	10 03 36.4	+1.8
GO01				eS	Sn	10 04 06.1	+2.6
GO01	Chusmiza	2.15	180	i P	Pn	10 03 36.1	+1.4
GO01				IAML		10 04 15.7	
	comp=E,736nm,0.2s						
GO01	Chusmiza	2.15	180		Pn	10 03 35.9	+1.3
GO01	Chusmiza	2.15	180	P	Pn	10 03 36.0	+1.4
GO01	Chusmiza	2.15	180	P	Pn	10 03 36.2	+1.6
PSGCX	Pisagua	2.26	203	eP	Pn	10 03 35.5	0.0
PSGCX				IAML		10 04 03.5	
	comp=Z,825nm,0.4s						
PSGCX				eS	Sn	10 04 03.5	-1.7
PSGCX	Pisagua	2.26	203	⇓iP	Pn	10 03 35.1	-0.4
PSGCX	Pisagua	2.26	203		Pn	10 03 35.1	-0.4
PSGCX	Pisagua	2.26	203	P	Pn	10 03 35.4	-0.1
PSGCX				S	Sn	10 04 02.9	-2.3
PB11	IPOC Station P	2.29	191	eP	Pn	10 03 36.4	+0.5
PB11				eS	Sn	10 04 06.9	+1.0
PB11				IAML		10 04 10.1	
	comp=Z,504nm,0.6s						
PB11	IPOC Station P	2.29	191	eP	Pn	10 03 36.0	+0.2
PB11				IAML		10 04 09.3	
	comp=N,865nm,0.5s						
PB11	IPOC Station P	2.29	191		Pn	10 03 36.1	+0.2
PB11	IPOC Station P	2.29	191	P	Pn	10 03 36.2	+0.4
PB11				S	Sn	10 04 06.2	+0.3
PB11				IAML		10 04 07.7	
	comp=N,632nm,0.2s						
PB11	IPOC Station P	2.29	191	P	Pn	10 03 36.2	+0.4
PB08	IPOC Station P	2.62	179	eP	Pn	10 03 41.4	+1.3
PB08				eS	Sn	10 04 15.5	+2.0
PB08	IPOC Station P	2.62	179	⇓iP	Pn	10 03 41.3	+1.1
PB08				IAML		10 04 17.4	
	comp=E,375nm,0.3s						
PB08	IPOC Station P	2.62	179		Pn	10 03 41.2	+1.1
PB08	IPOC Station P	2.62	179	P	Pn	10 03 41.3	+1.1
PB08	IPOC Station P	2.62	179	P	Pn	10 03 41.5	+1.3
TA02	Huaiquique	2.89	198	eP	Pn	10 03 43.2	+0.1
TA02				eS	Sn	10 04 18.2	-0.6
TA02				IAML		10 04 26.4	
	comp=Z,413nm,0.3s						
TA02	Huaiquique	2.89	198	eP	Pn	10 03 42.7	-0.3
TA01	Diego Aracena	3.18	197	eP	Pn	10 03 46.3	-0.5
TA01				eS	Sn	10 04 23.3	-2.2
TA01				IAML		10 04 33.1	
	comp=Z,330nm,0.6s						
TA01	Diego Aracena	3.18	197	eP	Pn	10 03 46.0	-0.8
TA01				IAML		10 04 35.6	
	comp=N,571nm,0.4s						
TA01	Diego Aracena	3.18	197		Pn	10 03 46.1	-0.7
TA01	Diego Aracena	3.18	197	P	Pn	10 03 46.8	0.0
SOET	ToroToro	3.28	101	P	Pn	10 03 50.3	+1.9
AOEA	Aiquile	3.83	101	P	Pn	10 03 57.8	+2.4
PB02	IPOC Station P	3.85	190	eP	Pn	10 03 55.4	-0.1
PB02				eS	Sn	10 04 42.8	+1.8
PB02				IAML		10 04 52.1	
	comp=Z,536nm,0.4s						
PB02	IPOC Station P	3.85	190	eP	Pn	10 03 55.1	-0.4
PB02	IPOC Station P	3.85	190		Pn	10 03 55.2	-0.3
PB02	IPOC Station P	3.85	190	P	Pn	10 03 55.6	+0.1
PB02				S	Sn	10 04 40.4	-0.6
PB02				IAML		10 04 53.5	
	comp=Z,450nm,0.4s						
PB02	IPOC Station P	3.85	190	P	Pn	10 03 56.5	+1.0
PB07	IPOC Station P	4.25	189	eP	Pn	10 04 00.5	-0.3
PB07				eS	Sn	10 04 48.7	-1.7
PB07				IAML		10 05 02.0	
	comp=Z,319nm,0.5s						
PB07	IPOC Station P	4.25	189	eP	Pn	10 04 00.4	-0.3
PB07	IPOC Station P	4.25	189		Pn	10 04 00.5	-0.3
PB07	IPOC Station P	4.25	189	P	Pn	10 04 01.0	+0.3
PB09	IPOC Station P	4.27	181	eP	Pn	10 04 01.6	+0.6
PB09				eS	Sn	10 04 49.2	-1.7
PB09				IAML		10 05 00.2	
	comp=Z,178nm,0.5s						
PB09	IPOC Station P	4.27	181	eP	Pn	10 04 01.5	+0.6
PB09	IPOC Station P	4.27	181		Pn	10 04 00.8	-0.2
PB09	IPOC Station P	4.27	181	P	Pn	10 04 01.7	+0.7
PB09	IPOC Station P	4.27	181	P	Pn	10 04 01.9	+1.0
PB03	IPOC Station P	4.55	187	eP	Pn	10 04 04.7	0.0
PB03				eS	Sn	10 04 54.8	-2.6
PB03				IAML		10 04 58.0	
	comp=Z,300nm,0.9s						
PB03	IPOC Station P	4.55	187	eP	Pn	10 04 04.2	-0.4
PB03	IPOC Station P	4.55	187		Pn	10 04 04.3	-0.4
PB03	IPOC Station P	4.55	187	P	Pn	10 04 04.6	-0.1
MOCB	Mochara	5.01	139	P	Pn	10 04 13.1	+2.0
PB06	IPOC Station P	5.18	184	eP	Pn	10 04 12.9	-0.2
PB06				eS	Sn	10 05 11.2	-1.3
PB06				IAML		10 05 19.9	
	comp=Z,154nm,0.8s						
PB06	IPOC Station P	5.18	184		Pn	10 04 12.4	-0.7
PB06	IPOC Station P	5.18	184	P	Pn	10 04 12.5	-0.5
PB06	IPOC Station P	5.18	184	P	Pn	10 04 12.6	-0.4
	comp=Z,234nm,0.7s						
PB05	IPOC Station P	5.40	190		Pn	10 04 14.8	-1.0
PB05	IPOC Station P	5.40	190	P	Pn	10 04 14.9	-1.0
	comp=Z,410nm,0.7s						
AF01	San Pedro de A	5.50	170		Pn	10 04 17.5	+0.1
PB14	IPOC Station P	7.17	189	P	Pn	10 04 37.2	-2.4
	comp=Z,110nm,0.4s						
SALTA		7.20	159	P	Pn	10 04 41.5	+1.4
	comp=Z,13nm,0.8s						
SIV	San Ignacio	7.93	80	P	Pn	10 04 48.1	-1.4
	comp=Z,105nm,0.4s,baz=267,slow=8.7,SNR=159						
SIV	San Ignacio	7.93	80	P	Pn	10 04 48.9	-0.6
AC01	Pan de Azucar	8.70	188		Pn	10 04 56.6	-3.1
AC01	Pan de Azucar	8.70	188	S	Pn	10 04 56.2	-3.4
NNA	Nana	9.21	306	P	Pn	10 05 05.7	-0.9
	comp=Z,13nm,0.3s,baz=116,slow=12,SNR=7.8						
NNA				S	Sn	10 06 41.1	-7.8
	comp=Z,24nm,0.4s,baz=39,slow=19,SNR=8.6						
NNA	Nana	9.21	306	Pn	Pn	10 05 06.7	+0.1
AC02	Maricunga	9.29	180		Pn	10 05 06.5	-1.4
AC02	Maricunga	9.29	180	P	Pn	10 05 06.8	-1.1
	comp=Z,59nm,0.6s						
VILB	Vilhena	9.79	64		Pn	10 05 13.7	-0.5
VILB	Vilhena	9.79	64	eP	Pn	10 05 13.3	-0.9
PTLB	Pontes e Lacer	9.86	79		Pn	10 05 14.6	-0.6
PTLB	Pontes e Lacer	9.86	79	eP	Pn	10 05 13.9	-1.3
CZSB	Cruzeiro do Su	10.30	340		Pn	10 05 20.3	-0.8
CZSB	Cruzeiro do Su	10.30	340	eP	Pn	10 05 19.5	-1.5
COIM	Forte Coimbra	11.07	104	eP	Pn	10 05 29.0	-2.0
AC05	El Transito	11.32	185		Pn	10 05 31.4	-3.0
LCO	Las Campanas	11.54	187	Pn	Pn	10 05 33.6	-3.7
MURT	Porto Murtinho	11.67	113	eP	Pn	10 05 38.2	-0.7
CO01	Juntas del Tor	12.44	184	P	Pn	10 05 47.5	-1.6
CO01	Juntas del Tor	12.44	184	P	Pn	10 05 50.8	+1.7
	comp=Z,31nm,1.0s						
SALV	Santo Antonio	13.03	85	eP	Pn	10 05 55.3	-1.3
SALV				eS	Sn	10 08 19.6	-1.4
AQDB	Aquidauana	13.10	105	eP	Pn	10 05 56.8	-0.6
AQDB				eS	Sn	10 08 22.0	-0.5
AQDB	Aquidauana	13.10	105	P	Pn	10 05 57.1	-0.3
	comp=Z,12nm,0.5s						
CO06	Fray Jorge	13.30	189	Pn	Pn	10 05 59.5	-0.3
CFA	Coronel Fontan	14.06	177	P	Pn	10 06 07.0	-2.5
	comp=Z,10.0nm,0.8s,baz=355,slow=14,SNR=23						
CLDB	Colider	14.56	65	eP	Pn	10 06 13.2	-2.8
CLDB				eS	Sn	10 08 51.7	-6.0
CLDB	Colider	14.56	65	P	Pn	10 06 16.4	+0.5
	comp=Z,19nm,0.8s						
CO04	Los Peladeros	14.56	186	Pn	Pn	10 06 15.4	-0.7
VA03	San Esteban	15.24	184	P	P	10 06 25.2	-0.5
VA03	San Esteban	15.24	184	P	Pn	10 06 22.7	-1.6
	comp=Z,43nm,1.4s						
MT02	Curacav	15.78	186		Pn	10 06 28.9	-2.0
MT02				IAmb	IAmb	10 06 32.4	
	comp=Z,20nm,0.8s						
MT08	Bocatoma Ro	15.89	183	P	P	10 06 33.1	+0.2
MT08				IAmb	IAmb	10 06 39.4	
	comp=Z,27nm,1.1s						
MT03	Universidad Ad	15.96	184	P	Pn	10 06 31.0	-2.1
MT13	San Alfonso	16.20	183	P	Pn	10 06 34.9	-1.2
MT13				IAmb	IAmb	10 06 41.5	
	comp=Z,36nm,1.1s						
MT09	Talagante	16.28	185	P	Pn	10 06 37.0	-0.1
MT09				IAmb	IAmb	10 06 41.4	
	comp=Z,32nm,0.9s						
MT01	Popeta	16.39	186	P	Pn	10 06 36.6	-1.7
BO04	La Punta	16.46	184	P	Pn	10 06 39.4	+0.2
BO04				IAmb	IAmb	10 06 43.3	
	comp=Z,23nm,0.7s						
ARAG	Araguaiana, MT	16.76	86	eP	P	10 06 41.1	-1.4
BO01	Tunca	16.90	185		Pn	10 06 44.9	+0.5
BO01	Tunca	16.90	185	P	Pn	10 06 45.5	+1.1
	comp=Z,58nm,0.9s						
BO03	Pichilemu	17.10	188	S	Pn	10 06 46.6	-0.1
	comp=Z,31nm,1.2s						
BO02	Sierra Bellavi	17.27	184	P	Pn	10 06 49.6	+0.7
BO02				IAmb	IAmb	10 06 54.0	
	comp=Z,24nm,0.7s						
BO02	Sierra Bellavi	17.27	184	P	Pn	10 06 50.0	+1.0
	comp=Z,38nm,0.9s						
PTGB	Pitanga	17.51	117	eP	Pn	10 06 52.0	+0.1
LDASE	Londrina, Braz	17.92	112	eP	P	10 06 55.4	+0.2
LDASE				eS	S	10 10 10.9	-2.2
H03N1	Juan Fernandez	18.11	207	P	Pn	10 07 06.5	+7.9

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      baz=49,slow=74,SNR=13
H03N2 Juan Fernandez     18.12 207  P       Pn      10 07 06.4 +7.7
      baz=212,slow=74,SNR=7.5
SNDB  Serra Nova Dou     18.16  75  eP      P       10 06 56.7 -1.1
ML02  Panimavida         18.29 186  P       Pn      10 07 01.4 +0.5
      comp=Z,62nm,1.0s
H03S3 Juan Fernandez     18.44 206  P       Pn      10 07 11.5 +9.1
      baz=91,slow=28,SNR=20
H03S1 Juan Fernandez     18.45 206  P       Pn      10 07 11.5 +8.9
      baz=91,slow=28,SNR=7.2
H03S2 Juan Fernandez     18.46 206  P       Pn      10 07 11.5 +8.9
      baz=91,slow=28,SNR=15
ITTB  Itaituba           18.56  47  eP      P       10 07 01.8 -0.4
ITTB                                eS      S       10 10 21.7 -4.2
SLOR  San Lorenzo -      19.02 330  P       Pn      10 07 09.7 -0.5
SLOR                                IAmb    IAmb    10 07 19.9
      comp=Z,13nm,0.7s
BI02  San Fabin de       19.17 185          Pn      10 07 11.0 -0.3
CPSB  Cacapava Do Su     19.26 135          P       10 07 10.7 +0.9
CPSB                                IAmb    IAmb    10 07 14.2
      comp=Z,12nm,0.6s
CPSB  Cacapava Do Su     19.26 135  eP      P       10 07 09.8 +0.1
CPSB                                epP     pP      10 07 37.7 +0.2
CPSB  Cacapava Do Su     19.26 135  P       Pn      10 07 11.5 -0.9
      comp=Z,17nm,0.8s
FRTB  Fartura            19.29 111  P       P       10 07 10.3 +0.2
BB19B Bebedouro          19.82 104  eP      P       10 07 15.3 -0.7
OTAV  Otavalo            19.85 332  P       Pn      10 07 18.8 -1.1
      comp=Z,4.9nm,0.9s
IPMB  Ipameri, GO        19.99  95  eP      P       10 07 16.3 -1.5
BDFB  Brasilia           20.39  88  P       P       10 07 22.2 +0.2
      comp=Z,12nm,0.4s,baz=258,slow=14,SNR=15
      comp=Z,12nm,0.4s
BDFB  Brasilia           20.39  88          P       10 07 22.6 +0.5
BDFB                                IAmb    IAmb    10 07 26.2
      comp=Z,15nm,0.5s
SPB   Sao Paulo          21.25 110  P       P       10 07 30.4 -0.6
      comp=Z,28nm,0.9s
BOAV  Boa Vista          21.55  24  P       P       10 07 36.7 +2.4
BOAV  Boa Vista          21.55  24  eP      P       10 07 32.8 -1.5
BOAV                                epP     pP      10 08 00.7 -2.3
PMNB  Patos De Minas     21.66  96  eP      P       10 07 35.5 -0.2
PMNB  Patos De Minas     21.66  96  P       P       10 07 35.3 -0.4
      comp=Z,29nm,0.8s
CANS  Sao Roque de M     21.75 101  eP      P       10 07 36.0 -0.5
GO06  Curarrehue         22.09 185          P       10 07 41.1 +1.2
GO06                                IAmb    IAmb    10 07 42.6
      comp=Z,17nm,1.0s
SMTB  Santa Maria do     22.70  71  eP      P       10 07 45.6 -0.3
PLCA  Paso Flores        23.18 183  P       P       10 07 50.8 +0.7
      comp=Z,3.6nm,0.7s,baz=346,slow=9.8,SNR=4.9
      comp=Z,3.6nm,0.7s
PLCA  Paso Flores        23.18 183  P       P       10 07 49.6 -0.4
PLCA                                IAmb    IAmb    10 07 54.0
      comp=Z,15nm,1.3s
BSCB  Bom Sucesso        23.31 102  P       P       10 07 52.2 +0.7
      comp=Z,15nm,2.0s
JANB  Januaria           24.00  88  eP      P       10 07 56.5 -1.3
JANB                                epP     pP      10 08 28.0 -1.4
DIAM  Diamantina, MG     24.30  96  eP      P       10 07 59.8 -0.8
TEIG  Tepich             41.91 333  P       P       10 10 34.0 +1.5
      comp=Z,15nm,2.2s
TXAR  Lajitas Array      57.23 324  P       P       10 12 29.5 +1.0
      comp=Z,0.3nm,0.8s,baz=140,slow=8.2,SNR=3.7
      comp=Z,0.3nm,0.8s
SNAA  Sanae              66.13 162  P       P       10 13 28.7 +1.3
      comp=Z,1.6nm,0.5s,baz=281,slow=6.2,SNR=4.3
      comp=Z,1.6nm,0.5s
SNAA  Sanae              66.13 162  IAmb    IAmb    10 13 30.0
      comp=Z,2.7nm,0.6s
DBIC  Dimbokro           67.92  75  P       P       10 13 40.2 +0.6
      comp=Z,5.3nm,0.6s,baz=254,slow=5.1,SNR=5.2
      comp=Z,5.3nm,0.6s
DBIC  Dimbokro           67.92  75  P       P       10 13 40.2 +0.6
      comp=Z,20nm,1.4s
PDAR  Pinedale Array     70.54 330  P       P       10 13 56.7 +1.3
      comp=Z,0.1nm,0.5s,baz=118,slow=7.4,SNR=1.7
      comp=Z,0.1nm,0.5s
ULM   Lac du Bonnet      71.45 342  P       P       10 14 01.1 +0.7
      comp=Z,2.0nm,0.4s,baz=143,slow=7.1,SNR=7.8
      comp=Z,2.0nm,0.4s
ULM   Lac du Bonnet      71.45 342  IAmb    IAmb    10 14 28.2
      comp=Z,16nm,1.3s
QSPA  South Pole Qui     72.66 180  P       P       10 14 09.4 +1.7
      comp=Z,1.4nm,0.6s,baz=148,slow=2.9,SNR=14
      comp=Z,1.4nm,0.6s
TORD  Torodi Ar. Bea     76.31  71  P       P       10 14 29.6 +0.1
      comp=Z,10nm,0.5s,baz=256,slow=5.5,SNR=83
TORD  Torodi Ar. Bea     76.31  71  IAmb    IAmb    10 14 38.9
      comp=Z,40nm,0.6s
VNDA  Vanda              80.72 190  P       P       10 14 54.6 +2.1
      comp=Z,0.3nm,0.7s,baz=139,slow=3.9,SNR=1.8
      comp=Z,0.3nm,0.7s
ESDC  Sonseca Array      83.20  45  P       P       10 15 06.9 +0.7
      comp=Z,1.3nm,0.9s,baz=251,slow=4.5,SNR=5.8
      comp=Z,1.3nm,0.9s
ESDC  Sonseca Array      83.20  45  IAmb    IAmb    10 15 08.1
      comp=Z,3.7nm,1.0s
YKA   Yellowknife Ar     87.35 341  P       P       10 15 27.7 +1.6
      comp=Z,0.5nm,0.6s,baz=138,slow=4.7,SNR=4.4
      comp=Z,0.5nm,0.6s
MAW   Mawson             88.21 163  P       P       10 15 32.0 +1.7
      comp=Z,1.7nm,0.7s,baz=247,slow=7.7,SNR=10
      comp=Z,1.7nm,0.7s
ASAR  Alice Springs     133.27 210  PKP     PKiKP   10 21 56.7  0.0
      comp=Z,0.4nm,1.0s,baz=135,slow=1.7,SNR=1.6
WRA   Warramunga Arr    136.19 213  PKP     PKiKP   10 22 03.3 +0.7
      comp=Z,0.3nm,0.7s,baz=130,slow=2.0,SNR=2.2
HILR  Hailar Array B    147.22 349  PKPbc   PKPab   10 22 24.0 -0.2
      comp=Z,0.5nm,0.2s,baz=21,slow=4.9,SNR=1.2
SONM  Songino Array     149.54   6  PKPbc   PKiKP   10 22 29.8 +0.5
      comp=Z,0.7nm,0.5s,baz=5.2,slow=3.1,SNR=4.3
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*CATAC **17** 10:32:14.2±2.5, 6°S±8°×13°0E±1°6, h48^{km}±19^{km}, M5.8/6, mb5.8/6, mB6.2/2, Mw(mB)5.9/2, Error ellipse: s-maj=35.6km s-min=17.5km az=79.1, confirmed*

*BJI **17** 10:32:24.2, 6°.89S×129°.55E, h209^{km}, mB5.5/64, mb5.4/86*

*IPGP **17** 10:32:25.0, 6°.78S×129°.36E, h186^{km}, Mw5.6, Fault plane solution: NP1:ϕ_s193.00000°, δ25.00000°, λ36.00000°. NP2:ϕ_s70.00000°, δ76.00000°, λ111.00000°.*

*NEIC **17** 10:32:25.9±2.2, 6°.76S±0°.06×129°.37E±0°.07, h185^{km}±1^{km}, mb5.6/311, Mwb5.6/47, Mww5.5/16, Error ellipse: s-maj=11.1km s-min=10.6km az=253.0, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}1.53; $M_{\theta\theta}$-0.16; $M_{\phi\phi}$-1.36; $M_{r\theta}$2.41; $M_{\theta\phi}$-0.33; $M_{\phi r}$0.99; Fault plane solution: $M_0$3.00000×10^{17} NP1:ϕ_s57.35000°, δ77.32000°, λ105.28000°. NP2:ϕ_s186.13000°, δ19.75000°, λ40.49000°. Principal axes: T 3.3152, Plg55.0000°, Azm346.0000°; N -0.8014, Plg15.0000°, Azm234.0000°; P -2.5138, Plg31.0000°, Azm135.0000°;*

*NEIC **17** 10:32:25.6, 6°.77S×129°.40E, h181^{km}*

*NEIC **17** 10:32:25.9, 6°.97S×129°.70E, h200^{km}, Moment Tensor Solution. Duration: 2^{s}6 Moment tensor: Scale 10^{17}Nm; M_{rr}0.05; $M_{\theta\theta}$-0.95; $M_{\phi\phi}$0.90; $M_{r\theta}$1.51; $M_{\theta\phi}$-1.21; $M_{\phi r}$-0.18; Fault plane solution: $M_0$2.16000×10^{17} NP1: ϕ_s196.09000°, δ45.57000°, λ-0.95000°. NP2:ϕ_s286.75000°, δ89.32000°, λ-135.57000°. Principal axes: T 1.9756, Plg29.0000°, Azm52.0000°; N 0.3260, Plg46.0000°, Azm287.0000°; P -2.3016, Plg30.0000°, Azm161.0000°;*

*DJA **17** 10:32:26.5±0.1, 7°S±1°×12°9E±°, h200^{km}±1^{km}, M5.3/156, mB5.8/100, mb5.5/156, MLv6.2/22, Mw5.6/123, Mw(mB)5.4/100, MwMwp5.2/49, Mwp5.4/49*

*IDC **17** 10:32:26.7±0.9, 6°.78S×129°.40E, h200^{km}±7^{km}, mb5.2/37, mbtmp5.6/40, MS4.2/31, Error ellipse: s-maj=9.5km s-min=5.7km az=60.0*

*MOS **17** 10:32:26.2±1.0, 6°.77S×129°.36E, h210^{km}, mb5.6/61, Error ellipse: s-maj=7.9km s-min=4.3km az=112.6*

*GFZ **17** 10:32:26.8, 6°.85S×129°.38E, h203^{km}, Mw5.6/126, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}-0.11; $M_{\theta\theta}$0.09; $M_{\phi\phi}$0.03; $M_{r\theta}$2.41; $M_{\theta\phi}$-1.18; $M_{\phi r}$0.37; Fault plane solution: $M_0$2.71525×10^{17} NP1: ϕ_s174.28314°, δ25.80982°, λ-1.37870°. NP2:ϕ_s265.52435°, δ89.39978°, λ-115.80332°. Principal axes: T 2.5568, Plg38.9883°, Azm18.8520°; N 0.2931, Plg25.8018°, Azm265.8145°; P -2.8499, Plg40.0890°, Azm151.8012°;*

*GFZ **17** 10:32:26.8±0.2, 7°S±2°×12°9E±°, h198^{km}±2^{km}, M5.3/107, mB5.8/60, mb5.5/107, Mw(mB)5.3/60*

*NEIC **17** 10:32:26.1, 6°.81S×129°.38E, h188^{km}*

*GCMT **17** 10:32:29.0±0.1, 6°.84S±0°.01×129°.44E±0°.01, h195^{km}, MW5.7/156, Moment Tensor Solution. s141, c249; s156, c340; Duration: 1^{s}6 Moment tensor: Scale 10^{17} Nm; M_{rr}0.30±.03; $M_{\theta\theta}$0.10±.04; $M_{\phi\phi}$-0.40±.04; $M_{r\theta}$3.36±.03; $M_{\theta\phi}$-1.70±.03; $M_{\phi r}$0.57±.03; Best double couple: $M_0$3.82300×10^{17} NP1:ϕ_s177.00000°, δ26.00000°, λ6.00000°. NP2:ϕ_s81.00000°, δ87.00000°, λ116.00000°. Principal axes: T 3.7230, Plg42.0000°, Azm16.0000°; N 0.1980, Plg26.0000°, Azm259.0000°; P -3.9220, Plg37.0000°, Azm148.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 17 10:32:26.6±0.2**, 6°.83S**±0°.03×**129°.38E**±0°.03**, h201**^{km}±1^{km}**, h202**^{km}**:pP-P, n1270, σ1^{s}48**/1314**, mb5.5**/353**, 51C-21D, Banda Sea**

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Code  Station Name        Δ°    AZ°   Phase ID          Time      Res
                                    Op      ISC      h  m  s    ISC
SAUI  Saumlaki           2.23 121   P       Pn      10 33 06.2 -1.4
SAUI  Saumlaki           2.23 121           Pn      10 33 06.4 -1.2
SAUI  Saumlaki           2.23 121   P       Pn      10 33 05.9 -1.7
SAUI                                S       S       10 33 37.2 -1.7
SAUI                                AML     AML
SAUI  Saumlaki           2.23 121   P       Pn      10 33 06.6 -1.0
BNDI  Bandanaira         2.35  13   P       Pn      10 33 09.1 +0.1
BNDI  Bandanaira         2.35  13   P       Pn      10 33 09.2 +0.2
BNDI                                S       S       10 33 44.1 +2.6
BNDI                                AML     AML
BNDI  Bandanaira         2.35  13   P       Pn      10 33 09.4 +0.4
MSAI  Masohi             3.49 353   P       Pn      10 33 23.4 +1.2
MSAI                                S       S       10 34 08.0 +2.8
MSAI                                AML     AML
NLAI  Namlea             4.23 327   P       Pn      10 33 33.4 +2.1
NLAI                                AML     AML
FAKI  Fak Fak            4.83  37   P       Pn      10 33 37.0 -1.9
FAKI  Fak Fak            4.83  37           Pn      10 33 35.8 -3.1
FAKI  Fak Fak            4.83  37   P       Pn      10 33 35.8 -3.1
DRS   Darwin Rock St     5.76 165   P       Pn      10 33 49.5 -1.4
SANI  Sanana             5.83 324   P       Pn      10 33 51.8 +0.1
SANI  Sanana             5.83 324   P       Pn      10 33 53.0 +1.3
SANI                                AML     AML
SANI  Sanana             5.83 324   P       Pn      10 33 53.3 +1.6
      comp=Z,22µmcomp=Z,3µm,0.9s
SOEI  Soe                5.83 240   P       Pn      10 33 50.7 -1.1
SOEI  Soe                5.83 240           Pn      10 33 51.6 -0.3
SOEI  Soe                5.83 240   P       Pn      10 33 51.6 -0.3
SOEI                                AML     AML
SOEI  Soe                5.83 240   P       Pn      10 33 51.9 +0.1
      comp=Z,69µmcomp=Z,5µm,0.6s
SWI   Sorong             6.22  18   P       Pn      10 33 55.0 -1.7
MTN   Manton Dam         6.22 164   P       Pn      10 33 54.5 -2.2
      comp=Z,1µm,0.5s,comp=Z,0.0nm
MTN   Manton Dam         6.22 164           Pn      10 33 54.5 -2.2
KDU   Kakadu             6.57 153   P       Pn      10 33 58.7 -2.5
BBSI  Bau Bau            6.90 281   P       Pn      10 34 07.4 +1.9
      comp=Z,8.8nmcomp=Z,8µmcomp=Z,32µmcomp=Z,3µm,1.2s
BBSI                                AML     AML
MMRI  Maumere            7.30 255   P       Pn      10 34 10.1 -0.7
MMRI  Maumere            7.30 255           Pn      10 34 10.7 -0.1
MMRI  Maumere            7.30 255   P       Pn      10 34 11.1 +0.3
      comp=Z,3.4nmcomp=Z,8µmcomp=Z,9µmcomp=Z,558nm,0.5s
MMRI                                AML     AML
MMRI  Maumere            7.30 255   P       Pn      10 34 12.1 +1.4
      comp=Z,8µmcomp=Z,564nm,0.5s
KDI   Kendari            7.31 293   P       Pn      10 34 13.4 +2.5
      comp=Z,10µmcomp=Z,7µmcomp=Z,258nm,0.9s
MWPI  Manokwari, Pap     7.48  39   P       Pn      10 34 12.9 -0.3
TNTI  Ternate            7.81 345   P       Pn      10 34 17.6 +0.1
TNTI  Ternate            7.81 345           Pn      10 34 17.2 -0.3
TNTI  Ternate            7.81 345   P       Pn      10 34 18.6 +1.1
      comp=Z,2.4nmcomp=Z,15µmcomp=Z,6µmcomp=Z,738nm,0.8s
TNTI                                AML     AML
TNTI  Ternate            7.81 345   P       Pn      10 34 18.3 +0.8
      comp=Z,6µmcomp=Z,731nm,0.8s
EDFI  Ende, Flores       7.85 255   P       Pn      10 34 18.3 +0.3
      comp=Z,1.5nmcomp=Z,7µmcomp=Z,6µmcomp=Z,380nm,0.6s
EDFI                                AML     AML
KKSI  Kolaka, Sulawe     8.13 289   P       Pn      10 34 22.5 +0.9
      comp=Z,5µmcomp=Z,250nm,0.9s
BAKI  Biak               8.74  50   P       Pn      10 34 30.1 +0.5
LUWI  Luwuk              8.74 311   P       Pn      10 34 29.2 -0.4
LUWI  Luwuk              8.74 311           Pn      10 34 28.5 -1.1
LUWI  Luwuk              8.74 311   P       Pn      10 34 31.5 +1.9
LUWI  Luwuk              8.74 311   P       Pn      10 34 32.4 +2.8
      comp=Z,31µmcomp=Z,3µm,1.3s,comp=Z,31µm
KNRA  Kununurra          8.81 184   P       Pn      10 34 28.6 -1.9
      comp=Z,840nm,1.0s,comp=Z,0.0nm
KNRA  Kununurra          8.81 184           Pn      10 34 28.3 -2.1
BSSI  Bau Bau, Buton     8.86 274   P       Pn      10 34 31.9 +0.9
      comp=Z,5µmcomp=Z,446nm,1.2s
MNI   Manado             9.38 331   P       Pn      10 34 39.4 +1.5
WSI   Waingapu           9.42 252   P       Pn      10 34 36.4 -1.9
LBFI  Labuhan Bajo,      9.54 260   P       Pn      10 34 39.2 -0.8
APSI  Ampana             9.69 307   P       Pn      10 34 44.1 +2.2
      comp=Z,13µmcomp=Z,1µm,1.6s
KAPI  Kappang            9.74 280   P       Pn      10 34 43.0 +0.5
      comp=Z,27nm,0.3s,baz=118,slow=7.2,SNR=24
KAPI                                S       S       10 36 33.5 +1.8
      comp=Z,25nm,0.5s,baz=94,slow=20,SNR=1.3
KAPI  Kappang            9.74 280   P       Pn      10 34 43.6 +1.0
KAPI                                S       S       10 36 28.2 -3.5
KAPI  Kappang            9.74 280c iP       Pn      10 34 44.0 +1.5
KAPI  Kappang            9.74 280           Pn      10 34 41.8 -0.8
KAPI  Kappang            9.74 280   P       Pn      10 34 43.7 +1.2
KAPI  Kappang            9.74 280   P       Pn      10 34 44.6 +2.1
      comp=Z,2µmcomp=Z,137nm,0.8s,comp=Z,2µm
WAMI  Wamena             9.74  73   P       Pn      10 34 44.1 +1.5
      comp=Z,13µmcomp=Z,996nm,0.6s
SPSI  Sidrap Palu        9.98 286   P       Pn      10 34 46.7 +1.1
      comp=Z,3µmcomp=Z,307nm,0.7s
MKS   Makassar           9.98 279   P       Pn      10 34 46.6 +1.0
      comp=Z,4µmcomp=Z,159nm,0.9s
PMSI  Majene            10.93 287   P       Pn      10 35 00.3 +2.4
      comp=Z,3µmcomp=Z,4µmcomp=Z,342nm,0.8s
MMPI  Merauke           11.03  99   P       Pn      10 34 58.5 -0.7
DBNI  Kabupaten Domp    11.09 261   P       Pn      10 34 59.8 -0.1
      comp=Z,4µmcomp=Z,263nm,0.6s
PCI   Palu              11.19 301   P       Pn      10 35 02.5 +1.3
      comp=Z,5µmcomp=Z,13µmcomp=Z,1µm,1.1s
GENI  Genyem            11.55  69   P       Pn      10 35 06.2 +0.4
GENI  Genyem            11.55  69   P       Pn      10 35 07.3 +1.5
      comp=Z,4µmcomp=Z,10µmcomp=Z,381nm,0.8s
GENI  Genyem            11.55  69   P       Pn      10 35 06.5 +0.7
      comp=Z,5µmcomp=Z,384nm,1.0s,comp=Z,5µm
TOLI2 Tolitoli          11.65 312   P       Pn      10 35 07.9 +0.8
TOLI2 Tolitoli          11.65 312           Pn      10 35 08.6 +1.4
TOLI2 Tolitoli          11.65 312   P       Pn      10 35 09.1 +2.0
      comp=Z,5µmcomp=Z,315nm,0.7s,comp=Z,5µm
PLAI  Plampang          11.66 259   P       Pn      10 35 06.2 -1.0
PLAI  Plampang          11.66 259   P       Pn      10 35 04.9 -2.3
      comp=Z,6µmcomp=Z,669nm,0.7s
PLAI  Plampang          11.66 259   P       Pn      10 35 05.3 -2.0
      comp=Z,6µmcomp=Z,671nm,0.7s,comp=Z,6µm
FITZ  Fitzroy Crossi    11.78 198   P       Pn      10 35 05.7 -3.0
      comp=Z,158nm,0.8s
FITZ  Fitzroy Crossi    11.78 198   P       Pn      10 35 05.0 -3.7
      comp=Z,565nm,0.4s,baz=24,slow=10,SNR=543
FITZ                                S       S       10 37 10.4  -10
      comp=Z,629nm,0.5s,baz=274,slow=23,SNR=8.7
FITZ                                LR      LR      10 39 53.4
      comp=Z,2µm,21.9s,baz=14,slow=38
FITZ  Fitzroy Crossi    11.78 198   P       Pn      10 35 07.0 -1.6
FITZ  Fitzroy Crossi    11.78 198           Pn      10 35 06.5 -2.1
FITZ  Fitzroy Crossi    11.78 198   P       Pn      10 35 05.9 -2.7
      comp=Z,2µmcomp=Z,158nm,0.8s,comp=Z,2µm
TWSI  Taliwang, Sumb    12.52 260   P       Pn      10 35 16.5 -1.6
      comp=Z,3µmcomp=Z,213nm,0.5s
DDMP  Don Marcelino,    13.36 344   eP      Pn      10 35 27.4 -1.3
DDMP                                eS      S       10 37 40.0  -17
GSPH  General Santos    13.57 341   i P     P       10 35 58.0  +24
BKB   Balikpapan        13.62 293   P       P       10 35 33.8 -0.4
BKB   Balikpapan        13.62 293   P       P       10 35 37.2 +3.0
      comp=Z,8µmcomp=Z,637nm,1.0s,comp=Z,8µm
KHKI  Kahang-Kahang     13.73 263   P       Pn      10 35 32.8 -0.5
WB0   Warramunga Arr    13.75 160           Pn      10 35 29.8 -3.6
WB9   Warramunga Arr    13.77 160   P       Pn      10 35 29.9 -3.8
I07AU WARRAMUNGA INF13.89 160   P       Pn      10 35 35.0 -0.1
      baz=331,slow=13,SNR=3.9
WRAB  Tennant Creek     13.89 160   P       Pn      10 35 34.0 -1.2
WRAB  Tennant Creek     13.89 160d iP       Pn      10 35 31.0 -4.2
WRAB                                pmax    pmax
      comp=Z,2µm,1.4s
WRAB  Tennant Creek     13.89 160           Pn      10 35 31.8 -3.4
WRAB  Tennant Creek     13.89 160   P       Pn      10 35 31.5 -3.7
      comp=Z,16µmcomp=Z,1µm,1.0s,comp=Z,16µm
WR1   Warramunga Arr    13.90 160   P       Pn      10 35 31.4 -3.9
WRA   Warramunga Arr    13.90 160   P       Pn      10 35 31.3 -4.0
      comp=Z,109nm,0.5s,baz=338,slow=13,SNR=160
WRA                                 S       S       10 38 00.8 -9.2
      comp=Z,275nm,0.6s,baz=337,slow=21,SNR=9.6
WRA                                 P3KPbc          11 11 02.6
      comp=Z,0.6nm,1.1s,baz=161,slow=3.7,SNR=1.8
WRA   Warramunga Arr    13.90 160   i P     Pn      10 35 30.8 -4.5
WRA                                 pmax    pmax
      comp=Z,109nm,0.5s
WRA   Warramunga Arr    13.90 160   Pn      Pn      10 35 32.0 -3.2
WB2   Warramunga Arr    13.90 160   P       Pn      10 35 31.5 -3.8
WB1   Warramunga Ar.    13.91 160   P       Pn      10 35 33.3 -2.2
WR8   Warramunga Arr    13.96 160           Pn      10 35 32.2 -3.9
WR0   Warramunga Arr    13.98 159   P       Pn      10 35 32.8 -3.6
SRBI  Singaraja         14.10 264   P       Pn      10 35 37.2 -0.6
IGBI  Denpasar          14.24 261   P       Pn      10 35 40.1 +0.6
      comp=Z,8µmcomp=Z,288nm,0.5s
DAV   Davao City (W)    14.32 345   P       P       10 35 42.0 +0.1
      comp=Z,334nm,0.7s,baz=104,slow=2.4,SNR=9.4
DAV                                 S       S       10 38 22.0 +2.2
      comp=Z,256nm,0.6s,baz=232,slow=22,SNR=1.8
DAV   Davao City (W)    14.32 345   P       Pn      10 35 39.6 -0.9
DAV                                 S       S       10 38 14.9 -4.8
DAV   Davao City (W)    14.32 345   P       P       10 35 41.5 -0.4
DAV   Davao City (W)    14.32 345   P       P       10 35 42.0 +0.1
      comp=Z,7µmcomp=Z,21µmcomp=Z,2µm,1.1s
DAV   Davao City (W)    14.32 345   P       P       10 35 43.0 +1.1
      comp=Z,21µmcomp=Z,2µm,1.1s,comp=Z,21µm
DAV   Davao City (W)    14.32 345   P       Pn      10 35 40.0 -0.5
DMPH  Davao City--Mi    14.35 344   eP      P       10 35 42.4 +0.1
DMPH                                i S     S       10 38 20.5  0.0
KCP   Kidapawan         14.40 343   eP      Pn      10 35 41.6  0.0
CDOP  Cateel, Davao     14.81 349   i P     Pn      10 35 45.4 -1.2
CDOP                                i S     S       10 38 32.0 +1.0
BBKI  Banjar Baru       14.86 282   P       P       10 35 50.0 +2.1
ABJI  Asem Bagus        15.05 265   P       Pn      10 35 49.6 +0.1
      comp=Z,306nm,0.8s
JAGI  Jajag, Banyuwa    15.18 263   P       Pn      10 35 49.9 -1.1
JAGI  Jajag, Banyuwa    15.18 263   P       Pn      10 35 48.6 -2.4
JAGI  Jajag, Banyuwa    15.18 263   P       Pn      10 35 49.1 -1.9
      comp=Z,3µmcomp=Z,178nm,0.7s,comp=Z,3µm
BUKP  Musuan            15.23 344   i P     P       10 35 54.5 +2.4
KMMI  Kalianget         15.30 268   P       P       10 35 53.8 +1.0
      comp=Z,279nm,0.8s
COEN  Coen              15.30 119   P       P       10 35 52.9 +0.1
      comp=Z,469nm,0.7s
COEN  Coen              15.30 119   P       Pn      10 35 52.0 -0.5
COEN                                IAmb    IAmb    10 35 56.4
      comp=Z,314nm,0.8s
ZCP   Zamboanga City    15.49 332   eP      P       10 35 56.8 +1.9
TARAI Tarakan           15.51 310   P       P       10 35 57.0 +1.8
      comp=Z,7µmcomp=Z,816nm,0.7s
PAGZ  Pagadian          15.76 338   eP      Pn      10 35 58.3 +0.3
CGP   Cagayan de Oro    15.88 343   eP      Pn      10 36 01.0 +1.4
PKKI  Palangkaraya      16.01 286   P       Pn      10 36 02.8 +1.6
      comp=Z,6µmcomp=Z,18µmcomp=Z,2µm,0.9s
DCPH  Dipolog City      16.45 338   i P     Pn      10 36 09.1 +2.8
LSIP  Lazi, Siquijor    16.86 340   i P     P       10 36 10.5 +0.5
QIS   Mount Isa         16.87 145   P       P       10 36 10.2 +0.1
      comp=Z,2µm,0.7s,comp=Z,0.0nm
QIS   Mount Isa         16.87 145   P       P       10 36 10.5 +0.4
QIS   Mount Isa         16.87 145   P       P       10 36 10.2 +0.1
      comp=Z,18µmcomp=Z,2µm,0.7s
MBWA  Marble Bar        17.03 212   P       P       10 36 12.0 +0.2
      comp=Z,217nm,0.8s
MBWA  Marble Bar        17.03 212   P       P       10 36 12.2 +0.4
MBWA  Marble Bar        17.03 212   P       P       10 36 11.6 -0.2
MBWA  Marble Bar        17.03 212   P       P       10 36 11.9 +0.2
MBWA                                IAmb    IAmb    10 36 21.1
      comp=Z,159nm,0.7s
MBWA  Marble Bar        17.03 212   P       P       10 36 12.1 +0.4
      comp=Z,217nm,0.8s
SNPH  Sibulan           17.19 339   eP      Pn      10 36 15.2 -0.1
AS15  Alice Springs     17.27 166   P       P       10 36 15.1 +0.6
      comp=Z,2µm,0.5s
AS31  Alice Springs     17.30 166   P       P       10 36 15.3 +0.6
      comp=Z,611nm,0.5s,comp=Z,0.0nm
AS31  Alice Springs     17.30 166   P       P       10 36 14.9 +0.1
ASAR  Alice Springs     17.30 166   P       P       10 36 15.1 +0.3
      comp=Z,885nm,0.4s,baz=334,slow=8.4,SNR=1597
ASAR                                S       S       10 39 22.2 -2.2
      comp=Z,208nm,1.0s,baz=341,slow=21,SNR=9.5
ASAR                                P3KPbc          11 10 53.1
      comp=Z,0.3nm,0.8s,baz=172,slow=2.8,SNR=4.7
AS01  Alice Springs     17.31 166   P       P       10 36 15.2 +0.3
TBP   Tagbilaran        17.31 341   eP      Pn      10 36 16.0 -0.5
TBP                                 i S     S       10 39 25.6 +1.0
AS17  Alice Springs     17.32 166   P       P       10 36 15.5 +0.5
      comp=Z,1µm,0.5s
AS09  Alice Springs     17.34 166   P       P       10 36 15.8 +0.6
      comp=Z,2µm,1.0s
SJI   Sawahan           17.49 266   P       Pn      10 36 19.2 +0.4
      comp=Z,18µmcomp=Z,451nm,0.8s
SNJI  Sawahan-Nganju    17.50 266   P       P       10 36 16.4 -0.8
      comp=Z,3µmcomp=Z,418nm,0.8s
NGJI  Ngawi             17.79 267   P       Pn      10 36 22.7 +0.5
      comp=Z,396nm,0.9s
PMG   Port Moresby      17.79  99   P       P       10 36 20.1 -0.1
      comp=Z,107nm,0.7s,baz=284,slow=8.9,SNR=80
PMG                                 S       S       10 39 35.2 +0.9
      comp=Z,32nm,0.5s,baz=184,slow=20,SNR=7.1
PMG                                 LR      LR      10 44 47.2
      comp=Z,1µm,18.8s,baz=265,slow=42
PMG   Port Moresby      17.79  99   P       P       10 36 20.5 +0.4
PMG   Port Moresby      17.79  99   P       P       10 36 20.6 +0.4
PMG   Port Moresby      17.79  99d iP       Pn      10 36 22.8 +0.6
PMG                                 pmax    pmax
      comp=Z,403nm,0.8s
PMG   Port Moresby      17.79  99   P       Pn      10 36 22.1 -0.2
PMG   Port Moresby      17.79  99   P       Pn      10 36 24.3 +2.1
      comp=Z,4µmcomp=Z,573nm,0.8s
LLP   Lapu-Lapu         17.87 342   eP      P       10 36 21.6 +0.6
LLP                                 eS      S       10 39 38.1 +2.3
WRKA  Warakurna         18.14 183   P       P       10 36 24.4 +0.6
      comp=Z,310nm,0.9s
WOJI  Wonogiri, Jawa    18.33 266   P       P       10 36 24.8 -1.2
KKM   Kota Kinabalu     18.33 314   P       P       10 36 26.8 +0.6
KKM   Kota Kinabalu     18.33 314   P       Pn      10 36 27.5 -1.2
      comp=Z,9µmcomp=Z,5µmcomp=Z,549nm,1.1s
KKM   Kota Kinabalu     18.33 314   P       P       10 36 26.9 +0.7
      comp=Z,5µmcomp=Z,549nm,1.1s
MTSU  Mount Surprise    18.39 129   P       P       10 36 27.1 +0.3
      comp=Z,457nm,0.8s
MTSU  Mount Surprise    18.39 129   P       P       10 36 26.8  0.0
MTSU  Mount Surprise    18.39 129   P       P       10 36 27.3 +0.5
      comp=Z,5µmcomp=Z,457nm,0.8s
PLP   Palo              18.41 346   eP      P       10 36 27.6 +0.8
MANU  Manus Island      18.55  76   P       Pn      10 36 30.2 -1.0
MANU                                IAmb    IAmb    10 36 33.9
      comp=Z,204nm,0.9s
GUIM  Jordan            18.61 339   i P     P       10 36 30.3 +1.2
UGM   Wanagama          18.73 266   P       P       10 36 30.7 +0.3
UGM   Wanagama          18.73 266   P       P       10 36 31.2 +0.8
      comp=Z,138nm,0.8s
SMRI  Semarang          18.80 268   P       Pn      10 36 33.9 -0.2
STKI  Sintang           19.12 290   P       Pn      10 36 36.7 -1.3
      comp=Z,5µmcomp=Z,261nm,1.1s
SBUM  Sibu              19.45 298   P       P       10 36 39.3 +1.2
SBUM  Sibu              19.45 298   P       P       10 36 38.1  0.0
SBUM  Sibu              19.45 298   P       Pn      10 36 41.1 -0.7
SBUM  Sibu              19.45 298   P       Pn      10 36 40.1 -1.7
      comp=Z,1µmcomp=Z,101nm,0.9s
PPR   Puerto Princes    19.61 327   eP      P       10 36 40.9 +1.0
IBAJ  Ibajay, Aklan     19.86 339   eP      P       10 36 43.1 +0.5
CTJI  Waduk Cacaban     20.05 268   P       P       10 36 43.5 -1.1
      comp=Z,157nm,0.8s
KSM   Kuching           20.74 293   P       P       10 36 54.8 +2.8
      comp=Z,0.4nm,0.7s
TV1H  Townsville Har    20.96 128   P       P       10 36 54.9 +0.7
CTA   Charters Tower    21.02 130   P       P       10 36 55.1 +0.2
      comp=Z,180nm,0.7s,baz=312,slow=11,SNR=90
      comp=Z,180nm,0.7s
CTAO  Charters Tower    21.02 130   P       P       10 36 55.5 +0.6
CTAO  Charters Tower    21.02 130   P       P       10 36 54.8 -0.1
CTAO                                pmax    pmax
      comp=Z,177nm,0.8s
CTAO  Charters Tower    21.02 130   P       P       10 36 54.8 -0.1
CTAO                                IAmb    IAmb    10 36 57.8
      comp=Z,177nm,0.8s
CTAO  Charters Tower    21.02 130   P       P       10 36 55.3 +0.4
      comp=Z,4µmcomp=Z,264nm,1.0s,comp=Z,4µm
GIRL  Giralia           21.45 221   P       P       10 36 60.0 +0.7
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	comp=Z,215nm,0.9s						
GIRL	**Giralia**	**21.45**	**221**	P	**P**	**10 36 59.3**	**0.0**
GIRL				IAmb	IAmb	10 37 02.1	
	comp=Z,137nm,0.8s						
BOAC	**Boac**	**21.50**	**340**	*e*P	**P**	**10 37 00.8**	**+1.0**
BBJI	**Bungbulang**	**21.57**	**267**	P	**P**	**10 36 59.6**	**-1.1**
BBJI	**Bungbulang**	**21.57**	**267**	P	**P**	**10 36 58.5**	**-2.2**
BBJI				IAmb	IAmb	10 37 10.7	
	comp=Z,156nm,0.7s						
BBJI	**Bungbulang**	**21.57**	**267**	P	**P**	**10 36 59.5**	**-1.1**
	comp=Z,220nm,0.8s						
BBJI	**Bungbulang**	**21.57**	**267**	P	**P**	**10 36 58.7**	**-2.0**
	comp=Z,2µmcomp=Z,217nm,0.9s						
TPI	**Tanjungpandan**	**22.02**	**280**	P	**P**	**10 37 05.1**	**+0.1**
	comp=Z,110nm,0.8s						
CNJI	**Cibinong**	**22.08**	**267**	P	**P**	**10 37 04.3**	**-1.4**
MEEK	**Meekatharra**	**22.20**	**206**	P	**P**	**10 37 06.1**	**-0.7**
	comp=Z,180nm,1.0s						
MEEK	**Meekatharra**	**22.20**	**206**	P	**P**	**10 37 06.2**	**-0.5**
MEEK	**Meekatharra**	**22.20**	**206**	P	**P**	**10 37 06.3**	**-0.5**
	comp=Z,180nm,1.0s						
LQP	**Lukban**	**22.21**	**340**	*e*P	**P**	**10 37 06.3**	**-0.7**
LUBP	**Lubang**	**22.35**	**336**	*e*P	**P**	**10 37 07.5**	**-0.6**
LUBP				*e*S	S	10 40 47.4	-11
CBJI	**Citeko**	**22.38**	**270**	P	**P**	**10 37 07.1**	**-1.3**
	comp=Z,11µmcomp=Z,536nm,0.9s						
SKJI	**Sukabumi**	**22.65**	**268**	P	**P**	**10 37 10.7**	**-0.2**
	comp=Z,4µmcomp=Z,625nm,0.8s						
RABL	**Rabaul**	**22.83**	**85**	P	**P**	**10 37 14.4**	**+1.8**
RABL				IAmb	IAmb	10 37 17.0	
	comp=Z,135nm,0.8s						
INKA	**Innaminka**	**23.43**	**154**	P	**P**	**10 37 17.8**	**0.0**
CGJI	**Cibinong**	**23.52**	**269**	P	**P**	**10 37 16.9**	**-1.8**
	comp=Z,5µmcomp=Z,416nm,0.8s						
FORT	**Forrest**	**23.86**	**183**	P	**P**	**10 37 21.8**	**+0.2**
	comp=Z,390nm,0.6s						
FORT	**Forrest**	**23.86**	**183**	P	**P**	**10 37 21.5**	**-0.1**
QLP	**Quilpie**	**24.21**	**146**	P	**P**	**10 37 25.1**	**+0.2**
	comp=Z,915nm,0.7s,comp=Z,0.0nm						
QLP	**Quilpie**	**24.21**	**146**	P	**P**	**10 37 24.9**	**0.0**
QLP	**Quilpie**	**24.21**	**146**	P	**P**	**10 37 25.1**	**+0.2**
	comp=Z,11µmcomp=Z,915nm,0.7s,comp=Z,11µm						
KASI	**Kota Agung**	**24.77**	**272**	P	**P**	**10 37 28.9**	**-1.2**
BOLP	**Bolinao**	**24.89**	**338**	*i* P	**P**	**10 37 30.5**	**-0.6**
KMBL	**Kambalda**	**25.40**	**195**	P	**P**	**10 37 35.5**	**-0.1**
	comp=Z,148nm,0.6s						
MORW	**Morawa**	**25.45**	**208**	P	**P**	**10 37 35.8**	**-0.3**
	comp=Z,62nm,1.8s						
MORW	**Morawa**	**25.45**	**208**	P	**P**	**10 37 35.9**	**-0.1**
MORW	**Morawa**	**25.45**	**208**	P	**P**	**10 37 35.4**	**-0.7**
MORW				IAmb	IAmb	10 38 17.9	
	comp=Z,92nm,0.7s						
MORW	**Morawa**	**25.45**	**208**	P	**P**	**10 37 36.0**	**-0.1**
	comp=Z,62nm,1.8s						
GUMO	**Guam**	**25.46**	**37**	P	**P**	**10 37 35.6**	**-0.7**
	comp=Z,512nm,0.9s,baz=196,slow=9.6,SNR=32						
GUMO				LR	LR	10 47 39.5	
	comp=Z,666nm,20.5s,baz=234,slow=36						
	comp=Z,512nm,0.9s						
GUMO	**Guam**	**25.46**	**37**	P	**P**	**10 37 36.8**	**+0.5**
GUMO	**Guam**	**25.46**	**37**	P	**P**	**10 37 35.5**	**-0.8**
GUMO	**Guam**	**25.46**	**37**	P	**P**	**10 37 36.3**	**+0.1**
	comp=Z,11µmcomp=Z,1µm,1.2s,comp=Z,11µm						
CVP	**Callao Caves**	**25.49**	**343**	*e*P	**P**	**10 37 34.9**	**-1.6**
DSRI	**Dabo**	**25.53**	**283**	P	**P**	**10 37 38.3**	**+1.4**
	comp=Z,69nm,0.8s						
LHSI	**Lahat**	**25.91**	**275**	P	**P**	**10 37 41.5**	**+1.1**
	comp=Z,81nm,0.7s						
TPRI	**Tanjung Pinang**	**25.96**	**286**	P	**P**	**10 37 43.6**	**+2.7**
	comp=Z,2µmcomp=Z,126nm,0.9s						
BLDU	**Ballidu**	**26.48**	**205**	P	**P**	**10 37 45.1**	**-0.1**
	comp=Z,72nm,1.3s						
BLDU	**Ballidu**	**26.48**	**205**	P	**P**	**10 37 45.2**	**-0.1**
BLDU	**Ballidu**	**26.48**	**205**	P	**P**	**10 37 45.2**	**-0.1**
	comp=Z,72nm,1.3s						
BBOO	**Buckleboo**	**26.59**	**167**	P	**P**	**10 37 45.7**	**-0.6**
	comp=Z,205nm,0.8s						
BBOO	**Buckleboo**	**26.59**	**167**	P	**P**	**10 37 45.8**	**-0.4**
BBOO	**Buckleboo**	**26.59**	**167**	P	**P**	**10 37 45.5**	**-0.8**
BBOO	**Buckleboo**	**26.59**	**167**	P	**P**	**10 37 46.3**	**0.0**
	comp=Z,206nm,0.8s						
MYKOM	**Kota Tinggi**	**26.88**	**288**	P	**P**	**10 37 51.0**	**+2.0**
	comp=Z,81nm,1.0s						
MYKOM	**Kota Tinggi**	**26.88**	**288**	P	**P**	**10 37 50.1**	**+1.0**
	comp=Z,81nm,1.0s						
KLBR	**Kellerberrin**	**26.92**	**202**	P	**P**	**10 37 49.3**	**0.0**
	comp=Z,439nm,0.6s						
KLBR	**Kellerberrin**	**26.92**	**202**	P	**P**	**10 37 49.4**	**+0.1**
KLBR	**Kellerberrin**	**26.92**	**202**	P	**P**	**10 37 49.4**	**+0.1**
	comp=Z,4µmcomp=Z,439nm,0.6s,comp=Z,4µm						
MASI	**Maura Aman, Be**	**27.27**	**276**	P	**P**	**10 37 53.5**	**+0.8**
	comp=Z,109nm,0.8s						
DPSS	**Saipan**	**27.30**	**36**	P	**P**	**10 37 50.7**	**-2.1**
PTPS	**Port Pirie**	**27.41**	**164**	P	**P**	**10 37 54.6**	**+1.1**
STKA	**Stephens Creek**	**27.41**	**157**	P	**P**	**10 37 53.4**	**-0.2**
	comp=Z,870nm,0.7s						
STKA	**Stephens Creek**	**27.41**	**157**	P	**P**	**10 37 53.4**	**-0.2**
	comp=Z,134nm,0.7s,baz=334,slow=8.3,SNR=104						
	comp=Z,134nm,0.7s						
STKA	**Stephens Creek**	**27.41**	**157**	P	**P**	**10 37 53.4**	**-0.2**
STKA	**Stephens Creek**	**27.41**	**157**	P	**P**	**10 37 53.6**	**+0.1**
	comp=Z,12µmcomp=Z,870nm,0.7s,comp=Z,12µm						
EIDS	**Eidsvold**	**27.75**	**134**	P	**P**	**10 37 55.6**	**-1.1**
	comp=Z,32nm,1.1s						
EIDS	**Eidsvold**	**27.75**	**134**	P	**P**	**10 37 57.8**	**+1.1**
EIDS	**Eidsvold**	**27.75**	**134**	IAmb	IAmb	10 38 53.2	
	comp=Z,288nm,1.6s						
EIDS	**Eidsvold**	**27.75**	**134**	P	**P**	**10 37 56.0**	**-0.6**
	comp=Z,32nm,1.1s						
MUN	**Mundaring**	**27.88**	**204**	P	**P**	**10 37 57.8**	**+0.1**
	comp=Z,79nm,0.7s						
MUN	**Mundaring**	**27.88**	**204**	P	**P**	**10 37 57.8**	**+0.1**
MUN	**Mundaring**	**27.88**	**204**	P	**P**	**10 37 57.8**	**+0.1**
HTT	**Hallett**	**27.91**	**163**	P	**P**	**10 37 58.7**	**+0.6**
	comp=Z,39nm,0.8s						
HTT	**Hallett**	**27.91**	**163**	P	**P**	**10 37 58.4**	**+0.3**
HTT	**Hallett**	**27.91**	**163**	P	**P**	**10 37 58.6**	**+0.6**
DLV	**Lat**	**27.92**	**312**	P	**P**	**10 37 59.0**	**+0.5**
	comp=Z,32nm,0.9s						
NWAO	**Narrogin (SRO)**	**28.31**	**202**	P	**P**	**10 38 01.5**	**-0.1**
	comp=Z,90nm,0.7s						
NWAO	**Narrogin (SRO)**	**28.31**	**202**	P	**P**	**10 38 01.4**	**-0.2**
	comp=Z,142nm,0.7s						
NWAO	**Narrogin (SRO)**	**28.31**	**202**	P	**P**	**10 38 01.6**	**-0.1**
NWAO	**Narrogin (SRO)**	**28.31**	**202**	P	**P**	**10 38 01.5**	**-0.1**
NWAO	**Narrogin (SRO)**	**28.31**	**202**	P	**P**	**10 38 02.5**	**+0.9**
NWAO				S	**S**	**10 42 41.1**	**+8.1**
NWAO	**Narrogin (SRO)**	**28.31**	**202**	P	**P**	**10 38 01.5**	**-0.1**
NWAO				pmax	pmax		
	comp=Z,100nm,0.8s						
NWAO	**Narrogin (SRO)**	**28.31**	**202**	P	**P**	**10 38 01.4**	**-0.1**
NWAO				IAmb	IAmb	10 38 54.1	
	comp=Z,100nm,0.8s						
NWAO	**Narrogin (SRO)**	**28.31**	**202**	P	**P**	**10 38 02.1**	**+0.5**
	comp=Z,83nm,0.7s						
SDSI	**Sungai Dareh**	**28.48**	**281**	P	**P**	**10 38 04.1**	**+0.8**
	comp=Z,102nm,1.2s						
CMSA	**Cobar Meteorol**	**28.93**	**150**	P	**P**	**10 38 07.4**	**+0.4**
	comp=Z,227nm,0.8s						
CMSA	**Cobar Meteorol**	**28.93**	**150**	P	**P**	**10 38 07.4**	**+0.4**
CMSA	**Cobar Meteorol**	**28.93**	**150**	P	**P**	**10 38 07.4**	**+0.4**
	comp=Z,227nm,0.8s						
BKNI	**Bangkinang**	**29.15**	**283**	P	**P**	**10 38 07.7**	**-1.5**
	comp=Z,200nm,0.9s						
PDSI	**Padang**	**29.43**	**280**	P	**P**	**10 38 12.3**	**+0.6**
PPI	**Padang Panjang**	**29.59**	**281**	P	**P**	**10 38 14.3**	**+1.2**
	comp=Z,2µmcomp=Z,153nm,1.2s						
RKGY	**Rocky Gully**	**29.92**	**201**	P	**P**	**10 38 16.6**	**+0.9**
	comp=Z,56nm,1.1s						
TATA	**Tatamba Isabel**	**30.20**	**95**	P	**P**	**10 38 19.6**	**+1.1**
HNR	**Honiara**	**30.37**	**97**	P	**P**	**10 38 19.4**	**-0.6**
	comp=Z,237nm,0.8s,baz=274,slow=8.6,SNR=2.5						
HNR				LR	LR	10 53 09.9	
	comp=Z,225nm,18.2s,baz=3.0,slow=41						
	comp=Z,237nm,0.8s						
HNR	**Honiara**	**30.37**	**97**	IAmb	IAmb	10 38 28.8	
	comp=Z,340nm,1.0s						
IPM	**Ipoh**	**30.45**	**291**	P	**P**	**10 38 21.5**	**+0.8**
IPM	**Ipoh**	**30.45**	**291**	P	**P**	**10 38 22.8**	**+2.1**
	comp=Z,70nm,0.7s						
IPM	**Ipoh**	**30.45**	**291**	P	**P**	**10 38 21.9**	**+1.2**
	comp=Z,69nm,0.7s						
TWG	**Pinlang**	**30.57**	**345**	P	**P**	**10 38 19.8**	**-1.8**
	comp=Z,36nm,0.8s						
NGOA	**Tingoa Renbel**	**30.64**	**101**	P	**P**	**10 38 23.1**	**+0.8**
MNSI	**Mandailing Nat**	**30.68**	**283**	P	**P**	**10 38 22.1**	**-0.6**
	comp=Z,205nm,1.0s						
YULB	**Yu-li**	**31.06**	**346**	P	**P**	**10 38 26.1**	**+0.2**
YULB	**Yu-li**	**31.06**	**346**	P	**P**	**10 38 24.2**	**-1.7**
YULB	**Yu-li**	**31.06**	**346**	P	**P**	**10 38 23.6**	**-2.3**
	comp=Z,23nm,0.7s						
KULM	**Kulim**	**31.09**	**292**	P	**P**	**10 38 26.9**	**+0.6**
KULM	**Kulim**	**31.09**	**292**	P	**P**	**10 38 25.2**	**-1.2**
KULM	**Kulim**	**31.09**	**292**	P	**P**	**10 38 27.3**	**+0.9**
	comp=Z,59nm,0.8s						
KULM	**Kulim**	**31.09**	**292**	P	**P**	**10 38 27.2**	**+0.9**
	comp=Z,59nm,0.8s						
TPUB	**Ta-pu**	**31.14**	**344**	P	**P**	**10 38 25.3**	**-1.3**
ARMA	**Armidale**	**31.42**	**141**	P	**P**	**10 38 29.5**	**+0.5**
	comp=Z,123nm,0.8s						
ARMA	**Armidale**	**31.42**	**141**	P	**P**	**10 38 29.6**	**+0.5**
ARMA	**Armidale**	**31.42**	**141**	IAmb	IAmb	10 38 33.8	
	comp=Z,79nm,0.7s						
ARMA	**Armidale**	**31.42**	**141**	P	**P**	**10 38 30.2**	**+1.1**
	comp=Z,123nm,0.8s						
SSLB	**Suanglung**	**31.52**	**345**	P	**P**	**10 38 30.0**	**0.0**
SSLB	**Suanglung**	**31.52**	**345**	P	**P**	**10 38 27.3**	**-2.6**
SSLB	**Suanglung**	**31.52**	**345**	P	**P**	**10 38 27.6**	**-2.4**
	comp=Z,54nm,0.7s						
YOJ	**Yonaguni jima**	**31.71**	**349**	P	**P**	**10 38 32.3**	**+0.7**
YOJ	**Yonaguni jima**	**31.71**	**349**	P	**P**	**10 38 30.2**	**-1.4**
YOJ				pmax	pmax		
	comp=Z,196nm,1.0s						
YOJ	**Yonaguni jima**	**31.71**	**349**	P	**P**	**10 38 30.2**	**-1.4**
YOJ				IAmb	IAmb	10 38 33.4	
	comp=Z,196nm,1.0s						
NACB	**Ninganchiao**	**31.74**	**346**	P	**P**	**10 38 31.5**	**-0.3**
NACB	**Ninganchiao**	**31.74**	**346**	P	**P**	**10 38 29.6**	**-2.2**
	comp=Z,35nm,0.9s						
RPSI	**Rantau Prapat**	**31.84**	**286**	P	**P**	**10 38 31.6**	**-1.3**
RPSI	**Rantau Prapat**	**31.84**	**286**	P	**P**	**10 38 32.1**	**-0.8**
	comp=Z,1µmcomp=Z,74nm,0.9s						
PSI	**Prapat**	**31.87**	**286**	P	**P**	**10 38 31.6**	**-1.7**
PSI				pmax	pmax		
	comp=Z,58nm,0.8s						
PSI	**Prapat**	**31.87**	**286**	P	**P**	**10 38 32.0**	**-1.3**
	comp=Z,1µmcomp=Z,74nm,0.9s						
ARPS	**Mount Arapiles**	**31.90**	**161**	P	**P**	**10 38 34.1**	**+1.0**
	comp=Z,67nm,0.5s						
PATS	**Pohnpei**	**31.90**	**65**	P	**P**	**10 38 33.7**	**+0.3**
	comp=Z,162nm,1.1s						
PATS	**Pohnpei**	**31.90**	**65**	P	**P**	**10 38 33.1**	**-0.2**
PATS				IAmb	IAmb	10 38 36.4	
	comp=Z,188nm,1.1s						
PATS	**Pohnpei**	**31.90**	**65**	P	**P**	**10 38 33.5**	**+0.1**
	comp=Z,162nm,1.1s						
QIZ	**Qiongzhong**	**32.11**	**323**	P	**P**	**10 38 35.0**	**-0.1**
QIZ				pP	**pP**	**10 39 13.4**	**-1.6**
QIZ				S	**S**	**10 43 31.5**	**-1.1**
QIZ				pmax	pmax		
	comp=Z,57nm,1.2s						
QIZ				L	L		
	comp=Z,870nm,12.7s						
QIZ				L	L		
	comp=Z,890nm,17.6s						
QIZ				L	L		
	comp=Z,1µm,15.3s						
QIZ	**Qiongzhong**	**32.11**	**323**	P	**P**	**10 38 35.2**	**+0.1**
	comp=Z,61nm,1.4s						
YHNB	**Yeheng**	**32.27**	**346**	P	**P**	**10 38 36.4**	**-0.1**
YHNB	**Yeheng**	**32.27**	**346**	IAmb	IAmb	10 38 37.1	
	comp=Z,79nm,0.8s						
YHNB	**Yeheng**	**32.27**	**346**	P	**P**	**10 38 35.3**	**-1.2**
	comp=Z,107nm,0.7s						
MGBR	**Mount Gambier**	**32.40**	**163**	P	**P**	**10 38 38.8**	**+1.4**
JMZ	**Minamidaito 2**	**32.50**	**3**	P	**P**	**10 38 39.0**	**+0.6**
JMZ	**Minamidaito 2**	**32.50**	**3**	P	**P**	**10 38 38.9**	**+0.4**
	comp=Z,251nm,1.1s						
GSI	**Gunungsitoli**	**32.75**	**283**	IAmb	IAmb	10 38 43.0	
	comp=Z,76nm,0.8s						
GSI	**Gunungsitoli**	**32.75**	**283**	P	**P**	**10 38 41.0**	**+0.2**
	comp=Z,99nm,0.9s						
GSI	**Gunungsitoli**	**32.75**	**283**	P	**P**	**10 38 38.9**	**-1.9**
	comp=Z,98nm,1.0s						
MGCD	**Mangrove Creek**	**33.10**	**145**	P	**P**	**10 38 45.8**	**+2.2**
	comp=Z,69nm,0.7s						
MGCD	**Mangrove Creek**	**33.10**	**145**	P	**P**	**10 38 44.6**	**+1.0**
MGCD	**Mangrove Creek**	**33.10**	**145**	P	**P**	**10 38 46.0**	**+2.4**
	comp=Z,2µmcomp=Z,69nm,0.7s						
KCSI	**Kotacane, Aceh**	**33.18**	**287**	P	**P**	**10 38 44.7**	**+0.1**
	comp=Z,31nm,0.7s						
QZH2	**Quanzhou**	**33.28**	**342**	⇑*i*P	**P**	**10 38 44.4**	**-0.8**
QZH2				sP	**sP**	**10 39 48.9**	**+1.2**
QZH2				S	**S**	**10 43 46.6**	**-4.0**
QZH2				sS	**sS**	**10 45 05.0**	**+1.7**
QZH2				pmax	pmax		
	comp=Z,230nm,0.7s						
QZH2				pmax	pmax		
	comp=Z,710nm,4.2s						
QZH2				L	L		
	comp=Z,840nm,16.9s						
QZH2				L	L		
	comp=Z,730nm,17.5s						
QZH2				L	L		
	comp=Z,890nm,13.6s						
BRAT	**Ballarat**	**33.32**	**159**	P	**P**	**10 38 46.5**	**+1.1**
JOW	**Kunigami**	**33.48**	**358**	P	**P**	**10 38 46.7**	**-0.2**
	comp=Z,256nm,0.8s,baz=188,slow=8.1,SNR=71						
JOW				ScP	**ScP**	**10 44 48.5**	**-0.2**
	comp=Z,26nm,0.9s,baz=173,slow=5.6,SNR=5.9						
	comp=Z,256nm,0.8s						
JOW	**Kunigami**	**33.48**	**358**	P	**P**	**10 38 48.0**	**+1.1**
JOW	**Kunigami**	**33.48**	**358**	P	**P**	**10 38 47.4**	**+0.5**
	comp=Z,4µmcomp=Z,427nm,0.9s,comp=Z,4µm						
CAN	**Canberra**	**33.61**	**150**	P	**P**	**10 38 49.2**	**+1.2**
	comp=Z,266nm,0.8s						
CAN	**Canberra**	**33.61**	**150**	P	**P**	**10 38 48.7**	**+0.7**
CAN	**Canberra**	**33.61**	**150**	P	**P**	**10 38 49.2**	**+1.2**
CAN	**Canberra**	**33.61**	**150**	P	**P**	**10 38 49.6**	**+1.6**
CAN	**Canberra**	**33.61**	**150**	P	**P**	**10 38 49.8**	**+1.7**
	comp=Z,4µmcomp=Z,266nm,0.8s						
CAN	**Canberra**	**33.61**	**150**	P	**P**	**10 38 49.2**	**+1.2**
CAN				pP	**pP**	**10 39 28.6**	**-0.7**
CNB	**Canberra Magne**	**33.78**	**150**	P	**P**	**10 38 50.9**	**+1.4**
	comp=Z,3.4nm,0.9s						
TOO	**Toolangi**	**33.93**	**157**	P	**P**	**10 38 52.4**	**+1.6**
	comp=Z,42nm,2.0s						
TOO	**Toolangi**	**33.93**	**157**	P	**P**	**10 38 52.3**	**+1.6**
MLSI	**Meulaboh, Aceh**	**34.71**	**288**	P	**P**	**10 38 58.2**	**+0.5**
	comp=Z,165nm,0.6s						
MILA	**Mila**	**35.07**	**152**	P	**P**	**10 39 01.2**	**+0.6**
	comp=Z,22nm,1.0s						
MILA	**Mila**	**35.07**	**152**	P	**P**	**10 39 01.5**	**+0.9**
SLVN	**Son La**	**37.53**	**319**	P	**P**	**10 39 22.1**	**+0.6**
	comp=Z,746nmcomp=Z,54nm,1.3s						
GLAD	**Gladstone**	**37.86**	**157**	P	**P**	**10 39 25.0**	**+1.0**
SANVU	**Saraoutou**	**38.04**	**106**	P	**P**	**10 39 27.4**	**+1.6**
SANVU	**Saraoutou**	**38.04**	**106**	P	**P**	**10 39 26.3**	**+0.5**
SANVU	**Saraoutou**	**38.04**	**106**	P	**P**	**10 39 27.1**	**+1.2**
	comp=Z,3µmcomp=Z,300nm,0.8s						
SANVU	**Saraoutou**	**38.04**	**106**	P	**P**	**10 39 27.0**	**+1.2**
JSU	**Suzuyama**	**38.13**	**1**	P	**P**	**10 39 26.8**	**+0.3**
JSU	**Suzuyama**	**38.13**	**1**	P	**P**	**10 39 25.8**	**-0.7**
JSU	**Suzuyama**	**38.13**	**1**	P	**P**	**10 39 26.7**	**+0.3**
	comp=Z,3µmcomp=Z,262nm,1.1s,comp=Z,3µm						
CNSH	**ChangSha**	**38.26**	**336**	P	**P**	**10 39 27.3**	**-0.2**
SSE	**Sheshan**	**38.52**	**349**	P	**P**	**10 39 31.3**	**+1.8**
SSE				S	**S**	**10 45 14.5**	**+4.5**
SSE				pmax	pmax		
	comp=Z,74nm,0.9s						
SSE				pmax	pmax		
	comp=Z,350nm,6.3s						
SSE				L	L		
	comp=Z,100nm,14.4s						
SSE				L	L		
	comp=Z,190nm,14.8s						
NOUC	**Port Laguerre**	**38.71**	**117**	P	**P**	**10 39 32.1**	**+0.8**
NOUC	**Port Laguerre**	**38.71**	**117**	P	**P**	**10 39 31.4**	**+0.1**
MOO	**Moorlands**	**38.81**	**159**	P	**P**	**10 39 33.8**	**+1.9**
	comp=Z,112nm,0.8s						
MOO	**Moorlands**	**38.81**	**159**	P	**P**	**10 39 32.9**	**+1.0**
MOO	**Moorlands**	**38.81**	**159**	P	**P**	**10 39 33.3**	**+1.4**
MOO	**Moorlands**	**38.81**	**159**	P	**P**	**10 39 34.3**	**+2.4**
	comp=Z,112nm,0.8s						
DZM	**Mont Dzumac**	**38.82**	**117**	P	**P**	**10 39 32.6**	**+0.2**
	comp=Z,68nm,0.6s,baz=279,slow=7.8,SNR=43						
	comp=Z,68nm,0.6s						
ONTNC	**Ouen Toro**	**38.90**	**117**	P	**P**	**10 39 33.7**	**+0.7**
ONTNC	**Ouen Toro**	**38.90**	**117**	P	**P**	**10 39 32.2**	**-0.7**
ONTNC				IAmb	IAmb	10 39 36.5	
	comp=Z,99nm,0.7s						
CM31	**Chiang Mai Arr**	**39.15**	**310**	P	**P**	**10 39 35.8**	**+0.7**
	SNR=38						
CM31	**Chiang Mai Arr**	**39.15**	**310**	IAmb	IAmb	10 39 36.5	
	comp=Z,128nm,0.8s						
CMAR	**Chiang Mai Arr**	**39.15**	**310**	P	**P**	**10 39 35.1**	**+0.1**
	comp=Z,86nm,0.7s,baz=137,slow=7.2,SNR=531						
CMAR				PcP	**PcP**	**10 41 41.5**	**+1.0**
	comp=Z,13nm,0.9s,baz=155,slow=4.1,SNR=5.2						
CMAR				ScP	**ScP**	**10 45 10.3**	**+0.4**
	comp=Z,12nm,0.9s,baz=155,slow=3.3,SNR=11						
	comp=Z,86nm,0.7s						
CMAR	**Chiang Mai Arr**	**39.15**	**310**	*i* P	**P**	**10 39 35.5**	**+0.5**
CMAR				pmax	pmax		
	comp=Z,94nm,0.6s						
YATNC	**Mamie plateau,**	**39.22**	**117**	P	**P**	**10 39 37.1**	**+1.5**
TAU	**Tasmania Unive**	**39.27**	**159**	P	**P**	**10 39 37.0**	**+1.3**
TAU	**Tasmania Unive**	**39.27**	**159**	P	**P**	**10 39 36.8**	**+1.1**
TAU				pmax	pmax		
	comp=Z,50nm,1.1s						
TAU	**Tasmania Unive**	**39.27**	**159**	P	**P**	**10 39 36.8**	**+1.1**
OUENC	**Ouen Island, N**	**39.28**	**117**	P	**P**	**10 39 37.5**	**+1.4**
OUENC	**Ouen Island, N**	**39.28**	**117**	P	**P**	**10 39 36.8**	**+0.8**
CHTO	**Chiang Mai**	**39.36**	**311**	P	**P**	**10 39 37.4**	**+0.5**
CHTO	**Chiang Mai**	**39.36**	**311**	P	**P**	**10 39 36.6**	**-0.2**
CHTO				S	**S**	**10 45 23.4**	**+0.2**
CHTO	**Chiang Mai**	**39.36**	**311**	P	**P**	**10 39 36.9**	**+0.1**
CHTO				pmax	pmax		
	comp=Z,184nm,0.8s						
CHTO	**Chiang Mai**	**39.36**	**311**	P	**P**	**10 39 36.9**	**+0.1**
CHTO	**Chiang Mai**	**39.36**	**311**	P	**P**	**10 39 36.7**	**-0.1**
	comp=Z,2µmcomp=Z,262nm,0.7s						
CHTO	**Chiang Mai**	**39.36**	**311**	P	**P**	**10 39 37.3**	**+0.5**
	comp=Z,2µmcomp=Z,261nm,0.7s						
CHTO	**Chiang Mai**	**39.36**	**311**	P	**P**	**10 39 37.3**	**+0.5**
CHTO				pP	**pP**	**10 40 18.3**	**+0.5**
GYA	**Guiyang**	**39.76**	**327**	⇑P	**P**	**10 39 39.6**	**-0.5**
GYA				S	**S**	**10 45 27.4**	**-1.6**
GYA				pmax	pmax		
	comp=Z,28nm,1.2s						
GYA				L	L		
	comp=Z,1µm,16.4s						
GYA				L	L		
	comp=Z,970nm,21.8s						
GYA				L	L		
	comp=Z,630nm,22.1s						
JNU	**Nakatsue**	**39.76**	**2**	P	**P**	**10 39 39.2**	**-0.6**
	comp=Z,151nm,1.0s,baz=161,slow=3.0,SNR=37						
JNU				LR	LR	10 56 03.2	
	comp=Z,515nm,19.1s,baz=190,slow=36						
	comp=Z,151nm,1.0s						
WHN	**Wuhan**	**39.86**	**340**	P	**P**	**10 39 41.3**	**+0.6**
WHN				pP	**pP**	**10 40 23.0**	**+1.2**
WHN				PP	**PnPn**	**10 41 24.3**	**+2.1**
WHN				PcP	**PcP**	**10 41 45.0**	**+2.6**
WHN				ScP	**ScP**	**10 45 13.5**	**+1.2**
WHN				S	**S**	**10 45 28.5**	**-1.6**
WHN				sS	**sS**	**10 46 49.3**	**+5.0**
NJ2	**Nanjing**	**39.95**	**346**	⇑*i*P	**P**	**10 39 41.6**	**+0.2**
NJ2				pP	**pP**	**10 40 22.3**	**-0.3**
NJ2				ScP	**ScP**	**10 45 13.1**	**+0.5**
NJ2				S	**S**	**10 45 30.8**	**-0.6**
NJ2				pmax	pmax		
	comp=Z,78nm,0.8s						
MARNC	**Mare, Loyalty**	**40.07**	**115**	P	**P**	**10 39 43.5**	**+0.9**
MARNC	**Mare, Loyalty**	**40.07**	**115**	P	**P**	**10 39 43.5**	**+0.9**
JMN	**Monobe**	**40.56**	**6**	P	**P**	**10 39 47.0**	**+0.5**
JMN	**Monobe**	**40.56**	**6**	P	**P**	**10 39 46.9**	**+0.4**
	comp=Z,3µmcomp=Z,363nm,1.0s,comp=Z,3µm						
JHJ	**Hachijo jima 2**	**40.94**	**13**	P	**P**	**10 39 47.4**	**-2.1**
	comp=Z,95nm,0.8s,baz=169,slow=10,SNR=3.9						
JHJ				LR	LR	10 54 52.7	
	comp=Z,791nm,18.7s,baz=152,slow=33						
	comp=Z,95nm,0.8s						
KMI2	**Kunming**	**41.01**	**322**	⇑P	**P**	**10 39 51.0**	**+0.5**
KMI2				pP	pP	10 40 32.8	+0.9
KMI2				sP	sP	10 40 54.9	+0.8
KMI2				S	**S**	**10 45 47.1**	**-0.8**
KMI2				sS	sS	10 47 10.0	+7.6
KMI2				pmax	pmax		
	comp=Z,62nm,1.3s						
KMI2				pmax	pmax		
	comp=Z,380nm,8.1s						
KMI2				L	L		
	comp=Z,310nm,16.4s						
KMI2				L	L		
	comp=Z,470nm,16.9s						
KMI2				L	L		
	comp=Z,670nm,17.3s						
JTU	**Tsushima**	**41.13**	**0**	P	**P**	**10 39 51.7**	**+0.7**
JTU	**Tsushima**	**41.13**	**0**	P	**P**	**10 39 51.5**	**+0.5**
	comp=Z,2µmcomp=Z,162nm,1.4s,comp=Z,2µm						
ENH	**Enshi**	**41.53**	**334**	P	**P**	**10 39 54.8**	**+0.3**
ENH	**Enshi**	**41.53**	**334**	P	**P**	**10 39 53.9**	**-0.6**
	comp=Z,1µmcomp=Z,102nm,0.8s						
ENH	**Enshi**	**41.53**	**334**	P	**P**	**10 39 53.6**	**-0.9**
ENH				pP	**pP**	**10 40 35.9**	**0.0**
NPW	**Naypyitaw**	**42.06**	**310**	P	**P**	**10 39 59.5**	**+0.7**
	comp=Z,324nm,0.7s						
JSG	**Sagara**	**42.11**	**11**	P	**P**	**10 39 58.5**	**-0.4**
	comp=Z,3µmcomp=Z,280nm,1.1s						
INU	**Inuyama**	**42.57**	**9**	P	**P**	**10 40 03.6**	**+1.0**
INU	**Inuyama**	**42.57**	**9**	P	**P**	**10 40 02.0**	**-0.6**
INU				IAmb	IAmb	10 40 04.7	
	comp=Z,137nm,1.0s						
INU	**Inuyama**	**42.57**	**9**	P	**P**	**10 40 02.2**	**-0.5**
INU	**Inuyama**	**42.57**	**9**	P	**P**	**10 40 02.4**	**-0.2**
	comp=Z,2µmcomp=Z,157nm,1.1s						
PZH	**PanZhiHua**	**42.62**	**322**	P	**P**	**10 40 04.5**	**+1.1**
PZH				S	**S**	**10 46 08.5**	**-2.7**
PZH				pmax	pmax		
	comp=Z,50nm,1.1s						
PZH				pmax	pmax		
	comp=Z,410nm,5.1s						
JGF	**Kuroka**	**42.87**	**10**	P	**P**	**10 40 05.5**	**+0.4**
JGF	**Kuroka**	**42.87**	**10**	P	**P**	**10 40 04.5**	**-0.6**
	comp=Z,2µmcomp=Z,145nm,1.3s,comp=Z,2µm						
TJN	**Taejon**	**43.02**	**358**	P	**P**	**10 40 07.1**	**+0.8**
TJN	**Taejon**	**43.02**	**358**	*c* *i*P	**P**	**10 40 06.2**	**-0.1**
TJN	**Taejon**	**43.02**	**358**	P	**P**	**10 40 06.8**	**+0.5**
	comp=Z,13µmcomp=Z,1µm,1.0s						
TNCH	**TengChong**	**43.65**	**318**	*e*P	**P**	**10 40 11.8**	**+0.1**
TNCH				pP	pP	10 40 54.9	+1.4
TNCH				sP	sP	10 41 16.9	+1.3
TNCH				S	**S**	**10 46 26.6**	**+0.2**
TNCH				sS	sS	10 47 40.0	-1.5
TNCH				ScS	**SS**	**10 49 48.5**	**-0.8**
TNCH				pmax	pmax		
	comp=Z,440nm,3.2s						
TNCH				L	L		
	comp=Z,870nm,21.9s						
MJAR	**Matsushiro Arr**	**43.93**	**10**	P	**P**	**10 40 12.0**	**-1.6**
	comp=Z,186nm,0.9s,baz=185,slow=8.8,SNR=198						
MJAR				ScP	**ScP**	**10 45 28.3**	**-0.2**
	comp=Z,8.9nm,0.8s,baz=187,slow=4.4,SNR=8.5						
	comp=Z,186nm,0.9s						
MJAR	**Matsushiro Arr**	**43.93**	**10**	P	**P**	**10 40 12.0**	**-1.6**
MJAR	**Matsushiro Arr**	**43.93**	**10**	P	**P**	**10 40 11.9**	**-1.6**
MJAR				IAmb	IAmb	10 40 15.1	
	comp=Z,202nm,0.9s						
MAJO	**Matsushiro**	**43.93**	**10**	P	**P**	**10 40 12.4**	**-1.2**
MAJO	**Matsushiro**	**43.93**	**10**	*c* *i*P	**P**	**10 40 12.1**	**-1.5**
MAJO				pmax	pmax		
	comp=Z,303nm,0.9s						
MAJO	**Matsushiro**	**43.93**	**10**	P	**P**	**10 40 12.3**	**-1.3**
MAJO				IAmb	IAmb	10 40 14.8	
	comp=Z,207nm,0.8s						
MAJO	**Matsushiro**	**43.93**	**10**	P	**P**	**10 40 12.3**	**-1.2**
	comp=Z,3µmcomp=Z,374nm,0.9s,comp=Z,3µm						
MAJO	**Matsushiro**	**43.93**	**10**	P	**P**	**10 40 12.4**	**-1.2**
KSAR	**Wonju Array Be**	**44.06**	**358**	P	**P**	**10 40 15.0**	**+0.4**
KSAR	**Wonju Array Be**	**44.06**	**358**	P	**P**	**10 40 15.0**	**+0.4**
KSRS	**Korea Array**	**44.07**	**358**	P	**P**	**10 40 14.8**	**+0.2**
	comp=Z,43nm,0.7s,baz=171,slow=8.2,SNR=125						
KSRS				PcP	**PcP**	**10 41 55.5**	**-0.8**
	comp=Z,5.9nm,0.6s,baz=185,slow=2.9,SNR=5.0						
KSRS				ScP	**ScP**	**10 45 29.2**	**+0.1**
	comp=Z,5.9nm,0.8s,baz=180,slow=3.6,SNR=11						
KSRS				LR	LR	10 56 54.8	
	comp=Z,252nm,21.1s,baz=180,slow=33						
	comp=Z,43nm,0.7s						
KS19	**Wonju Array Si**	**44.12**	**358**	IAmb	IAmb	10 40 17.5	
	comp=Z,429nm,1.6s						
LYN	**LuoYang**	**44.15**	**340**	⇑P	**P**	**10 40 15.1**	**-0.2**
LYN				pP	pP	10 40 58.3	+0.9
LYN				PP	**PcP**	**10 41 59.4**	**+2.8**
LYN				ScP	**ScP**	**10 45 31.3**	**+1.8**

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LYN                                S      S      10 46 30.8  -2.2
LYN                                pmax   pmax
       comp=Z,160nm,0.8s
LYN                                pmax   pmax
       comp=Z,1µm,3.7s
INCN  Inchon             44.16 357  P      P      10 40 14.5  -0.9
INCN                               S      S      10 46 34.8  +1.7
INCN  Inchon             44.16 357  P      P      10 40 15.8  +0.5
INCN                               pmax   pmax
       comp=Z,137nm,1.1s
INCN  Inchon             44.16 357  P      P      10 40 15.8  +0.5
INCN                               IAmb   IAmb   10 40 18.1
       comp=Z,136nm,1.1s
INCN  Inchon             44.16 357  P      P      10 40 16.2  +0.8
       comp=Z,2µmcomp=Z,139nm,1.3s
TIA   Tai'an             44.33 346  P      P      10 40 15.9  -0.9
TIA                                pP     pP     10 40 58.4  -0.4
TIA                                S      S      10 46 31.3  -4.3
TIA                                SS     ScS    10 49 53.4   0.0
TIA                                pmax   pmax
       comp=Z,94nm,1.0s
TIA                                pmax   pmax
       comp=Z,800nm,4.8s
TIA                                L      L
       comp=Z,390nm,20.1s
TIA                                L      L
       comp=Z,500nm,20.6s
TIA                                L      L
       comp=Z,530nm,23.5s
HJU   Haeju              44.77 356  P      P      10 40 20.0  -0.2
HJU                                pP     pP     10 41 01.4  -0.8
HJU                                S      S      10 46 42.8  +1.0
HJU                                AmB
       comp=Z,1µm,3.6s
CD2   Chengdu            44.83 328  P      P      10 40 19.5  -1.4
CD2                                S      S      10 46 44.8  +1.8
CD2                                pmax   pmax
       comp=Z,40nm,0.5s
CD2                                pmax   pmax
       comp=Z,850nm,3.9s
CD2                                L      L
       comp=Z,1µm,15.2s
CD2                                L      L
       comp=Z,1µm,11.4s
CD2                                L      L
       comp=Z,1µm,15.2s
WAKE  Wake Island        44.96  54  P      P      10 40 23.3  +1.3
WAKE  Wake Island        44.96  54  P      P      10 40 20.2  -1.8
WAKE  Wake Island        44.96  54  P      P      10 40 21.3  -0.7
       comp=Z,484nm,1.3s
XAN   Xi'an              45.03 336 ⇑P      P      10 40 21.3  -1.1
XAN                                pP     pP     10 41 02.1  -2.3
XAN                                S      S      10 46 42.8  -3.0
XAN                                pmax   pmax
       comp=Z,210nm,0.8s
XAN                                pmax   pmax
       comp=Z,810nm,4.0s
XAN                                L      L
       comp=Z,550nm,9.6s
XAN                                L      L
       comp=Z,450nm,13.5s
XAN                                L      L
       comp=Z,570nm,19.9s
XAN   Xi'an              45.03 336  P      P      10 40 21.5  -0.9
XAN                                pP     pP     10 41 04.3  -0.1
PYAG  Pyongyang          45.77 356  P      P      10 40 28.1  +0.1
PYAG                               S      S      10 46 57.7  +1.7
PYAG                               AmB
       comp=Z,168nm,1.1s
SAIH  SAIHA              46.02 310 eP      P      10 40 28.0  -2.5
SAIH                               IAmb   IAmb   10 40 31.1
       comp=Z,903nm,1.3s
DL2   Dalian             46.07 352  P      P      10 40 30.9  +0.6
DL2                                pP     pP     10 41 13.8  +1.2
DL2                                sP     sP     10 41 35.4  +0.8
DL2                                S      S      10 47 00.0  -0.3
DL2                                sS     sS     10 48 18.8  +2.6
DL2                                pmax   pmax
       comp=Z,130nm,0.9s
DL2                                pmax   pmax
       comp=Z,830nm,4.8s
MORE  Moreh              46.08 313  IAmb   IAmb   10 40 32.1
       comp=Z,175nm,1.2s
HNS   HongShan           46.09 344 ⇑P      P      10 40 30.3  -0.2
HNS                                pP     pP     10 41 12.8  -0.2
HNS                                PcP    PcP    10 42 06.4  +3.1
HNS                                PP     PP     10 42 20.8  -1.2
HNS                                ScP    ScP    10 45 38.6  +1.2
HNS                                S      S      10 46 58.0  -2.6
HNS                                sS     sS     10 48 16.3  -0.1
HNS                                pmax   pmax
       comp=Z,230nm,1.1s
HNS                                pmax   pmax
       comp=Z,900nm,5.6s
HNS                                L      L
       comp=Z,180nm,13.9s
HNS                                L      L
       comp=Z,430nm,17.7s
HNS                                L      L
       comp=Z,410nm,16.7s
HHU   Hamhung            46.55 358  P      P      10 40 34.1   0.0
HHU                                AmB
       comp=Z,475nm,1.1s
IMP   Imphal             46.70 314 eP      P      10 40 32.8  -2.8
IMP                                IAmb   IAmb   10 40 35.5
       comp=Z,95nm,1.4s
SUJ   Sinuiju            46.91 355  P      P      10 40 37.6  +0.7
AZL   Aizawl             46.97 311 eP      P      10 40 35.3  -2.5
AZL                                IAmb   IAmb   10 40 38.4
       comp=Z,173nm,1.1s
TIY   Taiyuan            47.05 342 eP      P      10 40 37.8  -0.3
TIY                                PP     PP     10 42 31.9  +1.0
TIY                                S      S      10 47 12.6  -1.9
TIY                                pmax   pmax
       comp=Z,190nm,0.8s
TIY                                pmax   pmax
       comp=Z,700nm,4.8s
KOHI  KOHIMA             47.13 315 eP      P      10 40 36.5  -2.5
KOHI                               IAmb   IAmb   10 40 40.4
       comp=Z,313nm,1.2s
MOKO  MOKOCHONG          47.22 316 eP      P      10 40 37.9  -1.8
MOKO                               IAmb   IAmb   10 40 47.2
SILR  SILCHAR            47.50 313 eP      P      10 40 39.6  -2.0
SILR                               IAmb   IAmb   10 40 42.6
       comp=Z,255nm,0.2s
JORH  JORHAT             47.67 316 eP      P      10 40 40.5  -2.4
JORH                               IAmb   IAmb   10 40 42.8
       comp=Z,143nm,0.4s
AGT   Agartala           48.13 311 eP      P      10 40 44.4  -2.1
AGT                                IAmb   IAmb   10 40 48.4
       comp=Z,453nm,0.2s
BJI2  Beijing            48.18 346  P      P      10 40 46.6  -0.1
BJI2                               pP     pP     10 41 28.8  -0.6
BJI2                               PcP    PcP    10 42 11.9  +1.2
BJI2                               S      S      10 47 28.4  -1.8
BJI2                               sS     sS     10 48 47.0  +0.4
BJI2                               pmax   pmax
       comp=Z,130nm,1.0s
BJI2                               L      L
       comp=Z,150nm,14.7s
BJI2                               L      L
       comp=Z,190nm,16.1s
BJI2                               L      L
       comp=Z,280nm,18.6s
BJT   Baijiatuau         48.18 346  P      P      10 40 46.9  +0.2
BJT   Baijiatuau         48.18 346  IAmb   IAmb   10 40 48.8
       comp=Z,334nm,1.3s
BJT   Baijiatuau         48.18 346  P      P      10 40 46.7   0.0
       comp=Z,3µmcomp=Z,237nm,1.0s
BJT   Baijiatuau         48.18 346  P      P      10 40 46.6   0.0
BJT                                pP     pP     10 41 28.5  -0.8
BJT                                sP     sP     10 41 50.3  -1.1
JTM   Tenmabayashi       48.59  12  P      P      10 40 50.0  +0.2
JTM   Tenmabayashi       48.59  12  P      P      10 40 49.9  +0.2
       comp=Z,4µmcomp=Z,505nm,1.1s
TEZP  TEZPUR             48.61 315 eP      P      10 40 48.4  -1.8
TEZP                               IAmb   IAmb   10 40 49.9
       comp=Z,22nm,0.8s
SHL   Shillong           48.63 313  P      P      10 40 50.2  -0.4
       SNR=24
SHL   Shillong           48.63 313  P      P      10 40 49.9  -0.7
SHL   Shillong           48.63 313  P      P      10 40 49.9  -0.7
SHL   Shillong           48.63 313 eP      P      10 40 47.4  -3.1
SHL                                IAmb   IAmb   10 40 51.0
       comp=Z,166nm,1.7s
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MSVF  Nonsavu            48.65 108  P      P      10 40 51.4  +0.7
       comp=Z,32nm,0.8s,baz=264,slow=8.0,SNR=7.6
       comp=Z,32nm,0.8s
MSVF  Nonsavu            48.65 108  P      P      10 40 52.3  +1.6
SNY   Shenyang           48.71 354  P      P      10 40 50.1  -0.5
SNY                                pP     pwP    10 41 40.0  +0.5
SNY                                S      S      10 47 37.0  -0.5
SNY                                pmax   pmax
       comp=Z,110nm,1.0s
SNY                                pmax   pmax
       comp=Z,600nm,3.6s
SNY                                L      L
       comp=Z,560nm,13.3s
SNY                                L      L
       comp=Z,500nm,15.7s
SNY                                L      L
       comp=Z,570nm,17.6s
LZDM  Lanzhou Array      48.93 332  P      P      10 40 52.9   0.0
       comp=Z,35nm,0.6s,baz=157,slow=8.0,SNR=24
       comp=Z,35nm,0.6s
LZH   Lanzhou            48.97 332  P      P      10 40 53.3  +0.4
LZH                                pP     pP     10 41 34.4  -1.3
LZH                                ScP    ScP    10 45 51.1  +1.3
LZH                                S      S      10 47 39.6  -2.1
LZH                                sS     sS     10 49 00.3  +2.0
LZH                                pmax   pmax
       comp=Z,200nm,1.0s
LZH                                pmax   pmax
       comp=Z,700nm,9.3s
LZH                                L      L
       comp=Z,640nm,17.9s
LZH                                L      L
       comp=Z,510nm,18.5s
LZH                                L      L
       comp=Z,810nm,21.3s
PSTR  Posyet             49.26   1c iP     P      10 40 54.8   0.0
OUZ   Omahuta            49.42 131  P      P      10 40 56.7  +0.5
OUZ   Omahuta            49.42 131  P      P      10 40 58.5  +2.3
VLA   Vladivostok        49.77   2d iP     P      10 40 59.0  +0.4
VLA                                pmax   pmax
       comp=Z,440nm,1.2s
TAWA  Tawang             49.86 315 eP      P      10 40 57.2  -2.8
TAWA                               IAmb   IAmb   10 41 01.2
       comp=Z,54nm,0.9s
HHC   Hu-ho-hao-te       50.19 342 eP      P      10 41 01.9  -0.1
HHC                                S      S      10 47 53.3  -5.1
HHC                                pmax   pmax
       comp=Z,43nm,1.0s
HHC                                pmax   pmax
       comp=Z,780nm,5.1s
ERM   Erimo              50.22  13  P      P      10 41 02.7  +0.7
ERM   Erimo              50.22  13deP     P      10 41 02.6  +0.6
ERM   Erimo              50.22  13  P      P      10 41 02.5  +0.6
ERM                                IAmb   IAmb   10 41 07.3
       comp=Z,96nm,0.8s
ERM   Erimo              50.22  13  P      P      10 41 03.2  +1.2
       comp=Z,2µmcomp=Z,135nm,1.1s
ERM   Erimo              50.22  13  P      P      10 41 02.3  +0.3
JEM   Erimo              50.22  13  P      P      10 41 02.6  +0.6
HALK  Hakmana            50.26 284  P      P      10 41 03.0  +0.1
       comp=Z,82nm,0.9s
DCZ   Deep Cove          50.49 146  P      P      10 41 05.2  +1.2
CN2   Changchun          50.52 356 eP      P      10 41 03.5  -0.8
CN2                               epP     pP     10 41 50.1  +2.7
CN2                               eS      S      10 48 00.1  -2.5
CN2                                pmax   pmax
       comp=Z,20nm,0.7s
CN2                                pmax   pmax
       comp=Z,100nm,4.0s
CN2                                L      L
       comp=Z,200nm,18.0s
CN2                                L      L
       comp=Z,400nm,18.0s
CN2                                L      L
       comp=Z,300nm,17.0s
PALK  Pallekele          50.53 285  LR     LR     11 03 10.1
       comp=Z,310nm,20.0s,baz=104,slow=36
PALK  Pallekele          50.53 285 i P     P      10 41 04.5  -0.5
PALK  Pallekele          50.53 285  P      P      10 41 04.5  -0.5
BWNR  Bhubaneshwar       50.58 303 eP      P      10 41 02.6  -2.5
JCZ   Jackson Bay        50.59 144  P      P      10 41 06.0  +1.0
JCZ   Jackson Bay        50.59 144  P      P      10 41 06.1  +1.0
BTO2  Baotou             50.62 341 eP      P      10 41 04.8  -0.5
BTO2                               pP     pP     10 41 45.8  -2.6
BTO2                               sP     sP     10 42 08.3  -1.8
BTO2                               S      S      10 48 02.9  -1.5
BTO2                               pmax   pmax
       comp=Z,77nm,0.9s
BTO2                               pmax   pmax
       comp=Z,1µm,8.0s
BTO2                               L      L
       comp=Z,620nm,13.6s
BTO2                               L      L
       comp=Z,770nm,18.6s
BTO2                               L      L
       comp=Z,560nm,16.3s
USA0B Ussuriysk Arra     50.85   2c iP     P      10 41 06.8  +0.1
USA0B Ussuriysk Arra     50.85   2  IAmb   IAmb   10 41 09.2
       comp=Z,190nm,1.0s
USRK  Ussuriysk Ar.      50.85   2  P      P      10 41 06.8  +0.1
       comp=Z,120nm,0.9s,baz=183,slow=6.9,SNR=154
       comp=Z,120nm,0.9s
FOZ   Fox Glacier        50.90 143  P      P      10 41 08.1  +1.0
MLZ   Mavora Lakes       50.97 145  P      P      10 41 08.9  +1.2
MALK  Mahakanadarawa     50.98 287  P      P      10 41 07.7  -0.6
       comp=Z,74nm,1.1s
WHZ   Wether Hill Ro     51.19 146  IAmb   IAmb   10 41 11.4
       comp=Z,104nm,0.7s
WHZ   Wether Hill Ro     51.19 146  P      P      10 41 09.4  +0.1
QRZ   Quartz Range       51.20 138  P      P      10 41 10.3  +0.9
QRZ   Quartz Range       51.20 138  IAmb   IAmb   10 41 13.1
       comp=Z,87nm,0.7s
QRZ   Quartz Range       51.20 138  P      P      10 41 11.6  +2.1
MDJ   Mudanjiang         51.21   0  P      P      10 41 09.8  +0.4
MDJ                                pP     pP     10 41 50.6  -2.0
MDJ                                S      S      10 48 13.3  +1.3
MDJ                                pmax   pmax
       comp=Z,190nm,1.1s
MDJ                                pmax   pmax
       comp=Z,1µm,5.5s
MDJ   Mudanjiang         51.21   0  P      P      10 41 10.1  +0.7
MDJ   Mudanjiang         51.21   0  IAmb   IAmb   10 41 12.2
       comp=Z,226nm,1.2s
MDJ   Mudanjiang         51.21   0  P      P      10 41 09.9  +0.4
       comp=Z,2µmcomp=Z,185nm,1.3s
MDJ   Mudanjiang         51.21   0  P      P      10 41 09.6  +0.2
EAZ   Earnscleugh        51.56 145  P      P      10 41 12.4  +0.3
LBZ   Lake Benmore       51.59 143  P      P      10 41 12.9  +0.5
VIS   Vishakhapatnam     51.60 299 eP      P      10 41 09.6  -3.2
SHBG  Sahibganj          51.61 310 eP      P      10 41 10.3  -2.4
MRNZ  Matariki Terra     51.63 139  P      P      10 41 14.2  +1.5
LSA   Lhasa              51.65 317  P      P      10 41 14.2  +0.7
LSA   Lhasa              51.65 317  P      P      10 41 14.3  +0.7
       comp=Z,1µmcomp=Z,70nm,1.3s
HIZ   Hauiti             51.72 135  P      P      10 41 14.2  +0.8
HIZ   Hauiti             51.72 135  P      P      10 41 15.1  +1.7
RPZ   Rata Peaks         51.75 142  LR     LR     11 03 35.4
       comp=Z,130nm,21.2s,baz=4.0,slow=36
RPZ   Rata Peaks         51.75 142  P      P      10 41 14.5  +1.0
RPZ   Rata Peaks         51.75 142  IAmb   IAmb   10 41 15.9
       comp=Z,113nm,0.9s
RPZ   Rata Peaks         51.75 142  P      P      10 41 14.4  +1.0
APZ   The Paps           51.78 147  P      P      10 41 14.4  +0.7
LREZ  Lake Rotokare      51.82 136  P      P      10 41 17.3  +3.2
TOZ   Tahuroa Road       51.85 133  P      P      10 41 16.5  +2.1
THZ   Tophouse           51.90 139  P      P      10 41 16.5  +1.7
THZ                                IAmb   IAmb   10 42 29.3
       comp=Z,125nm,1.4s
THZ   Tophouse           51.90 139  P      P      10 41 16.0  +1.3
XLT   XiLinHaoTe         51.91 348 eP      P      10 41 14.8  +0.1
XLT                                pP     pP     10 41 57.0  -1.1
XLT                                PcP    sP     10 42 18.5  -1.4
XLT                                S      S      10 48 14.1  -7.7
XLT                                sS     sS     10 49 36.8  -2.4
XLT                                pmax   pmax
       comp=Z,180nm,1.2s
XLT                                pmax   pmax
       comp=Z,830nm,7.8s
XLT                                L      L
       comp=Z,31nm,15.6s
XLT                                L      L
       comp=Z,280nm,14.0s
XLT                                L      L
       comp=Z,380nm,20.4s
NNZ   Nelson             51.95 138  P      P      10 41 17.1  +2.1
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LTZ   Lake Taylor        52.01 141  P      P      10 41 17.2  +1.7
TEY   Ternei             52.04   6⇓eP      P      10 41 06.2  -9.3
TEY                                pmax   pmax
       comp=Z,60nm,0.8s
TEY                                pmax   pmax
       comp=N,30nm,0.7s
TEY                                pmax   pmax
       comp=E,10.0nm,1.0s
TEY                                pmax   pmax
       comp=N,160nm,1.6s
TEY                                pmax   pmax
       comp=Z,340nm,1.5s
TEY                                pmax   pmax
       comp=E,30nm,1.8s
TMZ   Timaru             52.08 143  P      P      10 41 17.2  +1.3
ASAJ  Asahikawa          52.10  12  LR     LR     11 02 50.5
       comp=E,507nm,20.5s,baz=199,slow=35
ASAJ  Asahikawa          52.10  12  P      P      10 41 16.3  +0.3
JKA   Kamikawa-asahi     52.10  12  P      P      10 41 16.2  +0.3
       comp=Z,3µmcomp=Z,260nm,1.0s
RAGD  RAYAGADA           52.12 301 eP      P      10 41 14.6  -2.0
OXZ   Oxford             52.15 141  IAmb   IAmb   10 41 45.5
       comp=Z,122nm,1.4s
OXZ   Oxford             52.15 141  P      P      10 41 18.3  +1.8
TUZ   Tuapeka            52.17 145  P      P      10 41 16.9  +0.4
BOK   Bokaro             52.23 307 eP      P      10 41 15.7  -1.7
ODZ   Otahua Downs       52.23 144  P      P      10 41 17.3  +0.3
ODZ   Otahua Downs       52.23 144  P      P      10 41 17.5  +0.5
SYZ   Scrubby Hill       52.24 146  P      P      10 41 18.1  +1.1
BNX   BinXian            52.36 358 ⇑P      P      10 41 17.0  -0.9
BNX                                sP     sP     10 42 21.9  -1.0
BNX                                PP     PP     10 43 17.9  -1.0
BNX                                S      S      10 48 25.4  -2.3
BNX                                SS     SS     10 52 07.8  -0.8
BNX                                pmax   pmax
       comp=Z,100nm,0.9s
BNX                                pmax   pmax
       comp=Z,680nm,4.3s
BNX                                L      L
       comp=Z,540nm,16.8s
BNX                                L      L
       comp=Z,890nm,20.8s
BNX                                L      L
       comp=Z,700nm,20.6s
COVZ  Chateau Observ     52.50 135  P      P      10 41 21.2  +1.9
FWVZ  Far West T-bar     52.53 135  P      P      10 41 22.0  +2.3
NGZ   Ngauruhoe          52.53 135  P      P      10 41 21.8  +2.2
TCW   Tory Channel       52.54 138  P      P      10 41 19.3   0.0
TMVZ  Te Maari           52.58 135  P      P      10 41 21.5  +1.6
KHZ   Kahutara           52.63 140  P      P      10 41 20.0   0.0
KHZ   Kahutara           52.63 140  P      P      10 41 20.8  +0.8
MDRS  Chennai            52.66 292 eP      P      10 41 17.9  -2.7
MOVZ  Moawhango          52.74 135  P      P      10 41 21.8  +0.8
YUK   Yuzh-Kuril'sk      52.78  15⇓eP      P      10 41 22.2  +1.3
SNZO  South Karori       52.87 138  P      P      10 41 21.8   0.0
JHSG  JHARSUGUGA         52.97 304 eP      P      10 41 20.3  -2.5
BHHZ  Black Hill Sta     52.99 135  P      P      10 41 23.1  +0.3
BHW   Baring Head        53.03 138  P      P      10 41 22.7  -0.2
MCQ   Macquarie Isla     53.15 159  P      P      10 41 25.6  +2.0
       comp=Z,101nm,0.7s
MCQ   Macquarie Isla     53.15 159  IAmb   IAmb   10 41 26.1
       comp=Z,84nm,1.0s
URZ   Urewera            53.23 133  P      P      10 41 24.3  -0.2
       comp=Z,26nm,0.4s,baz=291,slow=7.0,SNR=42
       comp=Z,26nm,0.4s
URZ   Urewera            53.23 133  P      P      10 41 24.1  -0.4
URZ   Urewera            53.23 133  P      P      10 41 24.8  +0.4
       comp=Z,53nm,1.4s
GTA2  Gaotai             53.61 332  P      P      10 41 27.5  +0.2
GTA2                               pP     pP     10 42 09.0  -1.9
GTA2                               ScP    ScP    10 46 11.3  +1.5
GTA2                               S      S      10 48 42.9  -2.3
GTA2                               sS     sS     10 50 06.6  +3.6
GTA2                               ScS    ScS    10 50 56.3  +0.1
GTA2                               pmax   pmax
       comp=Z,59nm,0.8s
GTA2                               pmax   pmax
       comp=Z,590nm,8.3s
GTA2                               L      L
       comp=Z,480nm,16.8s
GTA2                               L      L
       comp=Z,360nm,16.5s
GTA2                               L      L
       comp=Z,760nm,19.4s
GOMU  GeErMu             53.70 325  P      P      10 41 28.5  +0.2
GOMU                               S      S      10 48 45.0  -2.0
GOMU                               pmax   pmax
       comp=Z,10.0nm,0.6s
GOMU                               L      L
       comp=Z,420nm,14.4s
GOMU                               L      L
       comp=Z,340nm,14.2s
GOMU                               L      L
       comp=Z,230nm,14.7s
EVN   Everest            53.71 312  P      P      10 41 28.9  +0.1
EVN                                IAmb   IAmb   10 41 31.5
       comp=Z,90nm,0.9s
EVN   Everest            53.71 312  P      P      10 41 29.2  +0.4
       comp=Z,2µmcomp=Z,111nm,1.2s
MXZ   Matakaoa Point     53.83 132  P      P      10 41 29.3  +0.4
MXZ   Matakaoa Point     53.83 132  P      P      10 41 29.8  +0.9
MXZ                                IAmb   IAmb   10 41 31.3
       comp=Z,107nm,0.6s
SALM  Salem              54.16 290 eP      P      10 41 29.3  -2.2
RAO   Raoul Island       54.32 121  LR     LR     11 02 23.3
       comp=Z,410nm,21.6s,baz=290,slow=33
KOD   Kodaikanal         54.40 288 eP      P      10 41 31.3  -2.4
KUR   Kuril'sk           54.42  16 eP      P      10 41 32.4  -0.4
KUR                               e                  10 42 36.2
KUR                               e                  10 50 59.2
KUR                                pmax   pmax
       comp=Z,390nm,1.4s
KUR                                pmax   pmax
       comp=Z,1µm,4.6s
YSS   Yuzhno-Sakhali     54.85  11  P      P      10 41 36.9  +1.0
YSS   Yuzhno-Sakhali     54.85  11 eP      P      10 41 35.7  -0.2
YSS                               e*PP    pP     10 42 18.9  -1.0
YSS                               e*SP    sP     10 42 40.6  -0.9
YSS                               e                  10 43 37.4
YSS                               eS      S      10 48 56.9  -4.2
YSS                               e*SS    sS     10 50 14.3  -5.0
YSS                                                  10 55 02.0
YSS                                pmax   pmax
       comp=Z,150nm,1.0s
YSS                                pmax   pmax
       comp=N,90nm,0.8s
YSS                                pmax   pmax
       comp=E,70nm,0.7s
YSS                                pmax   pmax
       comp=Z,700nm,4.9s
YSS                                pmax   pmax
       comp=N,400nm,5.0s
YSS                                pmax   pmax
       comp=E,200nm,4.0s
YSS                                smax   smax
       comp=N,200nm,11.4s
YSS                                smax   smax
       comp=E,400nm,12.5s
YSS   Yuzhno-Sakhali     54.85  11  P      P      10 41 35.9   0.0
YSS                                IAmb   IAmb   10 41 38.1
       comp=Z,135nm,0.9s
YSS   Yuzhno-Sakhali     54.85  11  P      P      10 41 36.0   0.0
       comp=Z,2µmcomp=Z,182nm,0.9s
YSS   Yuzhno-Sakhali     54.85  11  P      P      10 41 35.9   0.0
HYB   Hyderabad          55.68 296 eP      P      10 41 40.2  -2.2
HYB   Hyderabad          55.68 296 eP      P      10 41 41.9  -0.6
HYB                               epP     pP     10 42 24.5  -1.8
HYB                               ePcP    PcP    10 42 39.6  +0.1
HYB                               ePP     PP     10 43 48.8  -0.3
HYB                               eS      S      10 49 14.6  +1.3
HYB                               eScS    ScS    10 51 12.6  +0.9
KLR   Kul'dur            55.86   2c iP     P      10 41 43.1   0.0
KLR                                pmax   pmax
       comp=Z,256nm,1.0s
HIA   Hailar             56.49 352  P      P      10 41 48.0  +0.3
       comp=Z,914nmcomp=Z,41nm,1.6s
NGP   Nagpur             56.68 301 eP      P      10 41 47.2  -2.3
UGL   Uglegorsk          56.77  10 eP      P      10 41 51.1  +1.6
UGL                               eS      S      10 49 23.8  -2.6
UGL                                pmax   pmax
       comp=Z,1µm,1.2s
UGL                                pmax   pmax
       comp=Z,700nm,0.9s
HILR  Hailar Array B     56.78 353  P      P      10 41 49.6   0.0
       comp=Z,32nm,0.6s,baz=161,slow=9.4,SNR=58
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HILR                                 PcP     PcP      10 42 43.3 +0.3
        comp=Z,11nm,0.5s,baz=158,slow=4.8,SNR=5.5
        comp=Z,32nm,0.6s
HEH     HeiHe              56.87 358 eP      P        10 41 49.6 -0.6
HEH                                  pP      pP       10 42 35.0 +0.7
HEH                                  PcP     pwP      10 42 40.0 -0.5
HEH                                  ScP     ScP      10 46 23.8 +0.1
HEH                                  S       S        10 49 26.8 -1.0
HEH                                  pmax    pmax
        comp=Z,310nm,1.1s
HEH                                  pmax    pmax
        comp=Z,1µm,5.9s
GRNR    Gornyy             57.69   5⇑iP      P        10 41 56.4 +0.5
GRNR                                 pmax    pmax
        comp=Z,40nm,0.7s
LATR    Latur              57.83 297 eP      P        10 41 52.9 -4.7
ULN     Ulaanbaatar        57.91 342 P       P        10 41 58.4 +0.7
ULN                                  S       S        10 49 44.0 +2.2
ULN     Ulaanbaatar        57.91 342c iP     P        10 41 58.6 +0.8
ULN                                  pmax    pmax
        comp=Z,177nm,0.9s
ULN     Ulaanbaatar        57.91 342 P       P        10 41 58.7 +1.0
ULN     Ulaanbaatar        57.91 342 P       P        10 41 58.2 +0.4
ULN     Ulaanbaatar        57.91 342 P       P        10 41 58.8 +1.0
        comp=Z,2µmcomp=Z,211nm,0.8s
ULN     Ulaanbaatar        57.91 342 P       P        10 41 58.8 +1.0
ULN                                  pP      pP       10 42 42.8 +0.7
SONM    Songino Array      58.09 342 P       P        10 41 59.6 +0.7
        comp=Z,62nm,0.8s,baz=157,slow=6.5,SNR=110
SONM                                 S       S        10 49 44.1 +0.1
        comp=Z,0.7nm,0.6s,baz=159,slow=6.3,SNR=3.7
SONM                                 LR      LR       11 10 59.5
        comp=Z,249nm,18.4s,baz=148,slow=40
SONM                                 PKP2bc  P'P'bc   11 11 50.1 +1.4
        comp=Z,1.7nm,0.8s,baz=314,slow=3.7,SNR=8.2
        comp=Z,62nm,0.8s
SONM    Songino Array      58.09 342 IAmb    IAmb     10 42 02.3
        comp=Z,110nm,1.0s
AFI     Afiamalu           58.19 102 P       P        10 42 01.5 +1.3
        comp=Z,43nm,0.9s,baz=268,slow=6.4,SNR=3.7
AFI                                  LR      LR       11 07 28.6
        comp=Z,156nm,18.2s,baz=278,slow=36
        comp=Z,43nm,0.9s
AKL     Akola              58.25 299 eP      P        10 41 58.1 -2.3
TYV     Tymovskoe          58.60  10 eP      P        10 42 02.7 +0.5
TYV                                  eS      S        10 49 46.3 -3.8
TYV                                  pmax    pmax
        comp=Z,900nm,3.4s
TYV                                  pmax    pmax
        comp=Z,95nm,0.9s
TYV                                  smax    smax
        comp=N,800nm,10.7s
TYV                                  smax    smax
        comp=E,900nm,10.7s
JHNI    Jhansi             58.85 305 eP      P        10 42 02.2 -2.3
BHPL    Bhopal             58.90 302 eP      P        10 42 02.3 -2.6
PTH     Pithoragarh        59.51 310 eP      P        10 42 06.3 -2.8
GUNA    GUNA               59.55 304 eP      P        10 42 07.2 -2.1
KAD     Karad              59.57 295 eP      P        10 42 07.0 -2.5
CIT     Chita              60.17 349 eP      P        10 42 13.8 +0.8
CIT                                  e                10 42 58.4
CIT                                  e                10 43 24.6
CIT                                  e                10 44 25.0
CIT                                  e                10 50 24.0
CIT                                  pmax    pmax
        comp=Z,251nm,1.9s
DRV     Dumont d'Urvil     60.19 175 P       P        10 42 13.3 +0.4
DRV     Dumont d'Urvil     60.19 175 P       P        10 42 13.1 +0.3
POO     Poona              60.27 296 eP      P        10 42 09.1 -5.3
ZEA     Zeya               60.37 359 eP      P        10 42 14.5 +0.3
ZEA                                  e                10 43 00.3
ZEA                                  pmax    pmax
        comp=N,200nm,1.5s
ZEA                                  pmax    pmax
        comp=Z,500nm,1.3s
ZEA                                  pmax    pmax
        comp=E,30nm,0.8s
ZEA                                  pmax    pmax
        comp=N,100nm,0.9s
ZEA                                  pmax    pmax
        comp=Z,290nm,0.9s
JOSI    Joshimath          60.47 311 eP      P        10 42 13.1 -2.6
CASY    Casey              60.77 189 P       P        10 42 17.2 +0.4
CASY    Casey              60.77 189 P       P        10 42 16.7 -0.2
        comp=Z,34nm,0.9s
ZAK     Zakamensk          61.30 341 eP      P        10 42 20.7 -0.1
ZAK                                  pmax    pmax
        comp=Z,68nm,1.8s
AYAN    Aya Nagar          61.37 308 eP      P        10 42 19.4 -2.2
UTK     UTTARKASHI         61.39 310 eP      P        10 42 19.0 -2.8
NDI     New Delhi          61.39 308 eP      P        10 42 19.6 -2.1
NPLP    NPLP New Delhi     61.41 308 eP      P        10 42 19.5 -2.3
KUDL    Kundal             61.73 307 eP      P        10 42 22.1 -1.8
SKR     Severo-Kuril's     61.77  19 eP      P        10 42 20.8 -2.9
SKR                                  eS      S        10 50 34.4 +3.9
SKR                                  pmax    pmax
        comp=Z,300nm,7.9s
SKR                                  MLR     MLR
        comp=Z,200nm,16.0s
KLP     Kalpa              61.92 311 eP      P        10 42 23.2 -2.4
HNLY    HANLEY             62.00 313 eP      P        10 42 23.5 -2.8
MIDW    Midway             62.05  53 P       P        10 42 26.8 +0.7
MIDW                                 IAmb    IAmb     10 42 28.8
        comp=Z,69nm,0.8s
MIDW    Midway             62.05  53 P       P        10 42 26.8 +0.7
        comp=Z,109nm,1.5s
TLY     Talaya             62.32 342 P       P        10 42 28.8 +1.3
TLY                                  S       S        10 50 40.4 +2.9
TLY     Talaya             62.32 342 P       P        10 42 28.4 +1.0
TLY                                  IAmb    IAmb     10 42 30.9
        comp=Z,76nm,0.9s
TLY     Talaya             62.32 342 P       P        10 42 28.4 +1.0
TLY                                  pP      pP       10 43 11.7 -0.8
AJM     Ajmer              62.51 304 eP      P        10 42 27.1 -2.1
UDPR    Udaipur            62.54 302 eP      P        10 42 27.4 -2.1
SMLA    Simla              62.55 310 eP      P        10 42 27.1 -2.2
IRK     Irkutsk            62.63 343 eP      P        10 42 29.0 -0.4
IRK                                  pmax    pmax
        comp=Z,299nm,1.8s
BHV     Bhavnagar          62.86 299 eP      P        10 42 29.6 -2.0
WMQ     Urumqi             62.92 327 ⇑P      P        10 42 32.1 +0.5
WMQ                                  sP      sP       10 43 37.9 +0.2
WMQ                                  PP      PP       10 44 49.9 -2.8
WMQ                                  S       S        10 50 45.8 +0.5
WMQ                                  ScS     SKSac    10 52 02.0 -2.5
WMQ                                  SS      SS       10 54 53.4 -1.3
WMQ                                  pmax    pmax
        comp=Z,48nm,1.1s
WMQ                                  pmax    pmax
        comp=Z,530nm,4.5s
WMQ                                  L       L
        comp=Z,310nm,20.5s
WMQ                                  L       L
        comp=Z,270nm,21.7s
WMQ                                  L       L
        comp=Z,240nm,20.5s
MOY     Mondy              63.15 341 eP      P        10 42 34.1 +1.1
MOY                                  pmax    pmax
        comp=Z,341nm,1.8s
KNGR    Kungurtug, Tuv     63.49 338⇑iP      P        10 42 37.3 +2.0
KNGR                                 pmax    pmax
        comp=Z,71nm,1.0s
DHRM    DHARAMSHALA        63.72 311 eP      P        10 42 35.1 -2.2
TSSA    Tissa              64.11 311 eP      P        10 42 37.2 -2.5
THN     Thein Dam          64.22 311 eP      P        10 42 37.9 -2.4
PEA0B   Petropavlovsk-     64.36  18c iP     P        10 42 41.3 +0.6
PETK    Petropavlovsk-     64.36  18 P       P        10 42 41.0 +0.3
        comp=Z,143nm,0.9s,baz=181,slow=4.4,SNR=109
PETK                                 PcP     PcP      10 43 15.0 +1.5
        comp=Z,18nm,0.5s,baz=177,slow=1.5,SNR=10
PETK                                 LR      LR       11 15 07.3
        comp=Z,38nm,18.0s,baz=199,slow=40
        comp=Z,143nm,0.9s
PETK    Petropavlovsk-     64.36  18 P       P        10 42 41.3 +0.6
PETK    Petropavlovsk-     64.36  18 P       P        10 42 41.3 +0.6
PET     Petropavlovsk      64.59  19 eP      P        10 42 42.4 +0.3
PET                                  e                10 43 14.9
PET                                  i S     S        10 51 07.5 +2.1
PET                                  e                10 52 17.6
PET                                  pmax    pmax
        comp=Z,700nm,6.8s
PET                                  pmax    pmax
        comp=Z,173nm,1.3s
PET                                  pmax    pmax
        comp=Z,300nm,8.8s
PET                                  MLR     MLR
        comp=Z,200nm,17.0s
PET     Petropavlovsk      64.59  19 P       P        10 42 42.5 +0.3
        comp=Z,2µmcomp=Z,155nm,1.2s
PET     Petropavlovsk      64.59  19 P       P        10 42 43.1 +0.9
        comp=Z,2µmcomp=Z,164nm,1.2s
JMU     Jammu              65.07 311 eP      P        10 42 44.2 -1.6
WUS     Wushi              66.26 321 P       P        10 42 54.2 +0.8
        comp=Z,843nmcomp=Z,47nm,0.7s
NIL     Nilore             66.64 311 P       P        10 42 56.1 +0.3
NIL     Nilore             66.64 311 P       P        10 42 55.1 -0.7
NIL                                  pmax    pmax
        comp=Z,51nm,0.7s
NIL     Nilore             66.64 311 P       P        10 42 55.1 -0.7
NIL                                  IAmb    IAmb     10 42 57.6
        comp=Z,51nm,0.7s
NIL     Nilore             66.64 311 P       P        10 42 56.1 +0.3
        comp=Z,1µmcomp=Z,74nm,0.6s
ZSN     Zaisan             66.81 329 eP      P        10 42 57.0 +0.5
ZSN                                  eS      S        10 51 34.8 +2.3
ZSN     Zaisan             66.81 329 eP      P        10 42 57.1 +0.5
ZSN                                  eS      S        10 51 34.9 +2.3
DGZ     Jazzator, Alta     67.06 332c iP     P        10 42 58.8 +0.5
DGZ                                  pmax    pmax
        comp=Z,194nm,1.3s
SHLS    Shalkode           67.21 323c iP     P        10 42 58.1 -1.2
SHLS    Shalkode           67.21 323⇑iP      P        10 42 58.2 -1.2
TARG    Taragay, Kyrgy     67.44 321 P       P        10 43 02.2 +1.1
        comp=Z,803nmcomp=Z,32nm,0.9s
UZB     Uzynbulak          67.47 322c iP     P        10 43 01.4 +0.4
UZB                                  eS      S        10 51 42.7 +1.8
UZB     Uzynbulak          67.47 322⇑iP      P        10 43 01.4 +0.4
UZB                                  eS      S        10 51 42.8 +1.8
PRZ     Przheval'sk        67.48 322 P       P        10 43 02.8 +1.7
        comp=Z,52nm,0.7s
KSH2    Kashi              67.56 317 P       P        10 43 02.1 +0.4
KSH2                                 PcP     PcP      10 43 29.0 +1.7
KSH2                                 S       S        10 51 41.6 -0.6
KSH2                                 ScS     SKiKP    10 52 37.3 -1.3
KSH2                                 pmax    pmax
        comp=Z,40nm,0.7s
KSH2                                 L       L
        comp=Z,380nm,21.3s
KSH2                                 L       L
        comp=Z,410nm,18.1s
KSH2                                 L       L
        comp=Z,420nm,15.6s
MK31    Makanchi Array     67.75 327c iP     P        10 43 02.9 +0.4
MKAR    Makanchi Array     67.75 327 P       P        10 43 03.0 +0.5
        comp=Z,84nm,0.5s,baz=125,slow=7.2,SNR=315
MKAR                                 S       S        10 51 43.2 -0.6
        comp=Z,1.2nm,0.8s,baz=121,slow=12,SNR=4.6
        comp=Z,84nm,0.5s
MKAR    Makanchi Array     67.75 327 P       P        10 43 03.7 +1.2
MKAR    Makanchi Array     67.75 327 P       P        10 43 03.7 +1.2
SATY    Saty               67.79 322c iP     P        10 43 03.5 +0.5
SATY    Saty               67.79 322⇑iP      P        10 43 03.5 +0.5
ASAI    AK-SAY(Kyrgyzs     67.83 319 P       P        10 43 04.3 +0.7
        comp=Z,475nmcomp=Z,24nm,1.5s
KPKS    Kokpek             67.85 323 eP      P        10 43 03.8 +0.5
KPKS    Kokpek             67.85 323 eP      P        10 43 03.8 +0.5
MAKZ    Makanchi           67.92 327 P       P        10 43 04.3 +0.7
MAKZ                                 pmax    pmax
        comp=Z,241nm,1.5s
MAKZ    Makanchi           67.92 327 P       P        10 43 04.3 +0.7
MAKZ                                 IAmb    IAmb     10 43 06.6
        comp=Z,241nm,1.4s
MAKZ    Makanchi           67.92 327 P       P        10 43 04.1 +0.5
        comp=Z,2µmcomp=Z,122nm,0.9s
MAKZ    Makanchi           67.92 327 P       P        10 43 03.9 +0.4
KDJ     Kajisay            68.05 321 P       P        10 43 05.7 +1.0
        comp=Z,857nmcomp=Z,64nm,0.9s
CCD     Concordia, Ant     68.31 182 P       P        10 43 06.7 +0.6
MA2     Magadan            68.36  12 LR      LR       11 12 25.2
        comp=Z,183nm,21.0s,baz=214,slow=35
MA2     Magadan            68.36  12 P       P        10 43 07.0 +1.1
MA2     Magadan            68.36  12c iP     P        10 43 06.5 +0.6
MA2                                  pmax    pmax
        comp=Z,307nm,1.1s
MA2     Magadan            68.36  12 P       P        10 43 06.5 +0.6
MA2     Magadan            68.36  12 P       P        10 43 06.6 +0.6
        comp=Z,3µmcomp=Z,276nm,1.2s
MA2     Magadan            68.36  12 P       P        10 43 06.9 +0.9
        comp=Z,3µmcomp=Z,251nm,1.2s
MA2     Magadan            68.36  12 P       P        10 43 06.8 +0.9
YAK     Yakutsk            68.66   0 eP      P        10 43 08.1 +0.3
YAK                                  e                10 43 30.7
YAK                                  e*PP    pwP      10 43 58.6 -0.9
YAK                                  e                10 45 42.1
YAK                                  ePPP    PPP      10 47 24.1
YAK                                  eS      S        10 51 55.4 +1.6
YAK                                  e                10 52 47.2
YAK                                  eSS     SS       10 56 24.9 +2.1
YAK                                  pmax    pmax
        comp=Z,330nm,1.0s
YAK                                  pmax    pmax
        comp=N,194nm,1.6s
YAK                                  pmax    pmax
        comp=E,67nm,1.6s
YAK                                  pmax    pmax
        comp=Z,140nm,3.4s
YAK                                  pmax    pmax
        comp=N,137nm,5.8s
YAK                                  pmax    pmax
        comp=E,51nm,2.4s
YAK                                  smax    smax
        comp=E,251nm,1.7s
YAK                                  smax    smax
        comp=N,79nm,1.8s
YAK     Yakutsk            68.66   0 P       P        10 43 07.9 +0.2
YAK     Yakutsk            68.66   0 P       P        10 43 08.0 +0.2
        comp=Z,7µmcomp=Z,991nm,0.9s
YAK     Yakutsk            68.66   0 P       P        10 43 08.0 +0.3
MDOK    Medeo              68.68 322 eP      P        10 43 09.0 +0.5
MDOK                                 eS      S        10 51 57.1 +1.8
MDOK    Medeo              68.68 322 eP      P        10 43 09.1 +0.5
MDOK                                 eS      S        10 51 57.2 +1.8
ULHL    Ulahol             68.70 320 P       P        10 43 09.8 +1.1
        SNR=6.9
AAA     Alma-Ata           68.79 322 eP      P        10 43 09.6 +0.5
AAA                                  pmax    pmax
        comp=Z,55nm,0.7s
AAA     Alma-Ata           68.79 322 eP      P        10 43 09.6 +0.5
        comp=Z,55nm,0.7s
TDK     Taldyqorghan       68.88 324 eP      P        10 43 10.1 +0.6
TDK                                  pmax    pmax
        comp=Z,182nm,1.3s
TDK     Taldyqorghan       68.88 324 eP      P        10 43 10.2 +0.7
        comp=Z,182nm,1.3s
BOOM    Boomskoye usch     69.02 320 P       P        10 43 12.0 +1.4
        comp=Z,880nmcomp=Z,80nm,1.0s
TKM2    Tokmak 2           69.46 321 P       P        10 43 14.1 +0.7
        SNR=44
KBK     Karagaybulak       69.73 320 P       P        10 43 16.5 +1.4
        SNR=15
AAK     Ala-Archa          70.01 320 P       P        10 43 17.8 +1.1
        SNR=40
AAK     Ala-Archa          70.01 320 P       P        10 43 17.0 +0.3
AAK                                  S       S        10 52 12.9 +2.0
AAK     Ala-Archa          70.01 320c iP     P        10 43 17.6 +0.9
AAK                                  pmax    pmax
        comp=Z,47nm,1.0s
AAK     Ala-Archa          70.01 320 P       P        10 43 17.3 +0.6
AAK     Ala-Archa          70.01 320 i P     P        10 43 17.9 +1.1
        SNR=41
AAK     Ala-Archa          70.01 320 P       P        10 43 17.9 +1.1
        comp=Z,937nmcomp=Z,69nm,1.3s,comp=Z,937nm
AAK     Ala-Archa          70.01 320 P       P        10 43 18.0 +1.3
CHMS    Chumysh            70.03 320 P       P        10 43 17.3 +0.6
        SNR=7.1
OHH     Osh                70.10 317 P       P        10 43 16.5 -0.7
        comp=Z,6µmcomp=Z,62nm,1.3s
KBL     Kabul              70.18 310 P       P        10 43 18.4 +0.4
        SNR=15
KBL                                  S       S        10 52 11.5 -1.8
KBL     Kabul              70.18 310 P       P        10 43 18.2 +0.2
KBL                                  pmax    pmax
        comp=Z,22nm,0.8s
KBL     Kabul              70.18 310 P       P        10 43 18.2 +0.2
KBL     Kabul              70.18 310 P       P        10 43 18.2 +0.2
        comp=Z,670nmcomp=Z,33nm,0.8s
USP     Ospenovka          70.33 321 P       P        10 43 19.4 +0.9
        SNR=45
SGDS    Sogindy            70.34 321⇑iP      P        10 43 19.0 +0.4
SGDS                                 eS      S        10 52 16.4 +1.9
ARSB    Arslanbob          70.35 318 IAmb    IAmb     10 43 23.1
        comp=Z,107nm,0.7s
SHEM    Shemya Is, Ala     70.41  27 LR      LR       11 12 19.3
        comp=Z,158nm,19.6s,baz=200,slow=34
SMY     Shemya             70.41  27 P       P        10 43 19.6 +1.0
EKS2    Erkin-Say          70.48 320 P       P        10 43 20.8 +1.3
        SNR=65
SEM     Semipalatinsk      71.03 329 eP      P        10 43 22.7 -0.1
SEM                                  pmax    pmax
        comp=Z,89nm,1.1s
SEM     Semipalatinsk      71.03 329 eP      P        10 43 22.7 -0.1
        comp=Z,89nm,1.1s
ZALV    Zalesovo Beam      71.16 334 P       P        10 43 22.8 -0.4
        comp=Z,65nm,0.6s,baz=126,slow=5.4,SNR=289
ZALV                                 S       S        10 52 22.6 -0.7
        comp=Z,3.5nm,0.8s,baz=138,slow=14,SNR=4.9
ZALV                                 PKPPKP  P'P'df   11 11 17.6 +1.8
        comp=Z,0.4nm,0.4s,baz=323,slow=4.7,SNR=3.6
        comp=Z,65nm,0.6s
ZALV    Zalesovo Beam      71.16 334 P       P        10 43 23.0 -0.2
BTK     Batken             71.23 316 IAmb    IAmb     10 43 27.4
        comp=Z,157nm,1.6s
BTK     Batken             71.23 316 P       P        10 43 24.7 +0.7
        comp=Z,1µmcomp=Z,58nm,1.7s
SEY     Seymchan           71.75  11c iP     P        10 43 27.4 +0.9
SEY                                  pmax    pmax
        comp=Z,365nm,0.9s
AMKA    Amchitka           72.03  30 IAmb    IAmb     10 43 31.1
        comp=Z,61nm,0.8s
KURBB   Kurchatov Arra     72.04 329 P       P        10 43 28.6 +0.1
        comp=Z,67nm,0.7s,baz=129,slow=4.8,SNR=620
KURBB                                S       S        10 52 33.8 +0.2
        comp=Z,2.6nm,0.9s,baz=126,slow=12,SNR=8.0
        comp=Z,67nm,0.7s
KURK    Kurchatov          72.05 329 P       P        10 43 28.8 +0.2
KURK                                 S       S        10 52 33.2 -0.5
KURK    Kurchatov          72.05 329c iP     P        10 43 28.9 +0.3
KURK                                 pmax    pmax
        comp=Z,247nm,1.0s
KURK    Kurchatov          72.05 329 P       P        10 43 28.8 +0.2
KURK                                 IAmb    IAmb     10 43 31.3
        comp=Z,134nm,0.9s
KURK    Kurchatov          72.05 329 P       P        10 43 29.1 +0.5
        comp=Z,2µmcomp=Z,221nm,1.2s
KURK    Kurchatov          72.05 329 P       P        10 43 28.9 +0.3
KURK                                 pP      pP       10 44 13.9 -0.9
DZA     Taraz              72.17 319 eP      P        10 43 29.9 +0.4
DZA     Taraz              72.17 319 eP      P        10 43 29.9 +0.4
IUG     Iuzhnay            72.69 318c iP     P        10 43 33.1 +0.4
IUG                                  pmax    pmax
        comp=Z,65nm,0.9s
IUG     Iuzhnay            72.69 318⇑iP      P        10 43 33.1 +0.4
        comp=Z,65nm,0.9s
VNDA    Vanda              72.69 173 P       P        10 43 32.0  0.0
        comp=Z,18nm,0.7s,baz=317,slow=6.3,SNR=116
VNDA                                 LR      LR       11 14 42.8
        comp=Z,416nm,20.0s,baz=340,slow=35
        comp=Z,18nm,0.7s
VNDA    Vanda              72.69 173 P       P        10 43 32.2 +0.3
VNDA                                 pmax    pmax
        comp=Z,28nm,1.1s
VNDA    Vanda              72.69 173 P       P        10 43 32.2 +0.3
VNDA    Vanda              72.69 173 P       P        10 43 32.2 +0.3
        comp=Z,29nm,0.9s
VNDA    Vanda              72.69 173 P       P        10 43 32.1 +0.2
KK31    Karatay Array      72.81 319 i P     P        10 43 33.5 +0.3
KKAR    Karatay Array      72.81 319 P       P        10 43 33.7 +0.5
KKAR    Karatay Array      72.81 319 P       P        10 43 33.7 +0.5
CHM     Chimkent           73.05 318 eP      P        10 43 35.2 +0.5
CHM     Chimkent           73.05 318 eP      P        10 43 35.3 +0.5
BRLS    Borolday           73.21 319c iP     P        10 43 36.1 +0.5
BRLS    Borolday           73.21 319⇑iP      P        10 43 36.2 +0.5
NGCH    Negor - Chabah     73.58 299 P       P        10 43 39.2 +1.1
SBA     Scott Base         73.58 172 P       P        10 43 38.3 +1.2
SBA                                  pmax    pmax
        comp=Z,21nm,0.7s
SBA     Scott Base         73.58 172 P       P        10 43 38.3 +1.2
SBA     Scott Base         73.58 172 P       P        10 43 38.5 +1.3
        comp=Z,32nm,1.6s
SBA     Scott Base         73.58 172 P       P        10 43 38.4 +1.2
JLN     Jalan Bani Buh     74.27 295 P       P        10 43 42.4 +0.2
        SNR=5.1
ADK     Adak               74.36  31 P       P        10 43 42.4 +0.4
ADK     Adak               74.36  31 P       P        10 43 42.6 +0.6
ADK                                  pmax    pmax
        comp=Z,149nm,1.2s
ADK     Adak               74.36  31 P       P        10 43 42.6 +0.6
ADK                                  IAmb    IAmb     10 43 44.7
        comp=Z,149nm,1.1s
ADK     Adak               74.36  31 P       P        10 43 43.6 +1.5
        comp=Z,2µmcomp=Z,124nm,1.4s,comp=Z,2µm
WBK     Wadi Bani Khal     74.78 296 P       P        10 43 45.9 +0.8
        SNR=5.0
MAW     Mawson             74.88 201 P       P        10 43 45.8 +1.0
        comp=Z,7.9nm,0.9s
MAW     Mawson             74.88 201 P       P        10 43 45.2 +0.5
        comp=Z,36nm,0.8s,baz=78,slow=6.1,SNR=65
        comp=Z,36nm,0.8s
MAW     Mawson             74.88 201 P       P        10 43 45.8 +1.0
MAW     Mawson             74.88 201 P       P        10 43 45.8 +1.0
MAW     Mawson             74.88 201 P       P        10 43 45.9 +1.0
        comp=Z,7.9nm,0.9s
WSAR    Wadi Sarin         75.23 296 P       P        10 43 48.0 +0.3
MHTO    MHTO               75.30 294 P       P        10 43 47.9 -0.2
        SNR=10
JMDO    Jabal Madar        75.50 295 P       P        10 43 49.1 -0.1
        SNR=5.5
SMDO    Samad              75.71 296 P       P        10 43 51.1 +0.5
        SNR=8.8
BIDO    Bidbid             75.75 296 P       P        10 43 51.5 +0.9
        SNR=17
ATKA    Atka Island        75.83  32 P       P        10 43 51.5 +1.1
BSY     Bisya              76.40 295 P       P        10 43 54.4 +0.1
        SNR=6.1
HON     Honolulu           76.48  66 P       P        10 43 56.0 +1.2
        comp=Z,286nm,0.9s
HOQ     Hoqain             76.49 296 P       P        10 43 55.5 +0.7
        SNR=15
ARQ     Araqi              77.14 296 P       P        10 44 00.0 +1.6
        SNR=7.9
SOHO    SOHO               77.31 297 i P     P        10 43 59.4  0.0
        SNR=13
BVA0    Borovoye Array     77.59 328 i P     P        10 44 00.7 +0.4
BVAR    Borovoye Array     77.59 328 P       P        10 44 00.3  0.0
        comp=Z,93nm,0.8s,baz=123,slow=7.3,SNR=201
        comp=Z,93nm,0.8s
BORK    Borovoye           77.64 328c iP     P        10 44 00.7 +0.2
BORK                                 pmax    pmax
        comp=Z,167nm,0.9s
BORK    Borovoye           77.64 328 P       P        10 44 00.9 +0.4
BORK                                 IAmb    IAmb     10 44 03.2
        comp=Z,109nm,0.9s
UOSS    Minazif            77.79 297 P       P        10 44 01.9 -0.1
UOSS    Minazif            77.79 297 i P     P        10 44 01.8 -0.1
        SNR=5.4
UOSS    Minazif            77.79 297 P       P        10 44 02.0 -0.1
        comp=Z,499nmcomp=Z,42nm,0.9s
KHLH    Kahului Airpor     77.82  67 IAmb    IAmb     10 44 07.1
        comp=Z,150nm,1.0s
KHLH    Kahului Airpor     77.82  67 P       P        10 44 04.3 +2.1
        comp=Z,169nm,1.0s
HATD    Hatta, Dubai       77.83 297 P       P        10 44 03.6 +1.3
        SNR=15
HATD    Hatta, Dubai       77.83 297 i P     P        10 44 02.3  0.0
        SNR=15
ASHO    Ashiyiah           77.86 297 P       P        10 44 04.0 +1.5
        SNR=12
ASHO    Ashiyiah           77.86 297 i P     P        10 44 02.8 +0.3
        SNR=13
MSFE    Esma-Masafi        77.93 298 i P     P        10 44 03.5 +0.6
        SNR=10
MASF    Masafi             77.93 298 P       P        10 44 04.1 +1.3
        SNR=19
BANOM   Banah              77.94 298 i P     P        10 44 03.8 +0.9
        SNR=12
ALNE    Al Ain             77.99 296 P       P        10 44 03.5 +0.3
        SNR=8.8
KHLU    Kahalu`u           78.04  68 P       P        10 44 04.5 +0.8
KHLU                                 IAmb    IAmb     10 44 07.8
        comp=Z,184nm,1.1s
KHLU    Kahalu`u           78.04  68 P       P        10 44 06.9 +3.2
        comp=Z,169nm,1.1s
SHME    Shamm              78.11 298 P       P        10 44 04.6 +0.9
        SNR=14
SHME    Shamm              78.11 298 i P     P        10 44 04.4 +0.7
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	SNR=23						
NAZ	Nazwa, Dubai	78.28	297	P	P	10 44 05.5	+0.7
	SNR=10						
NAZ	Nazwa, Dubai	78.28	297	iP	P	10 44 04.9	+0.2
	SNR=9.7						
FAQ	Al Faqa, Dubai	78.29	297	P	P	10 44 05.3	+0.5
	SNR=8.1						
FAQ	Al Faqa, Dubai	78.29	297	iP	P	10 44 05.1	+0.3
	SNR=14						
TIXI	Tiksi	78.32	360	LR	LR	11 19 36.6	
	comp=Z,262nm,19.4s,baz=182,slow=36						
TIXI	Tiksi	78.32	360	ceP	P	10 44 03.7	-0.2
TIXI				pmax	pmax		
	comp=Z,124nm,1.0s						
TIXI	Tiksi	78.32	360	P	P	10 44 03.2	-0.6
TIXI				IAmb	IAmb	10 44 06.5	
	comp=Z,102nm,0.9s						
MLH	Mauna Loa	78.49	69	P	P	10 44 07.8	+1.6
ASUD	Al Ashush, Dub	78.50	297	P	P	10 44 07.1	+1.2
	SNR=5.9						
ASUD	Al Ashush, Dub	78.50	297	iP	P	10 44 06.7	+0.8
	SNR=9.0						
BILL	Bilibino	79.09	13	d iP	P	10 44 08.7	+0.5
BILL				pmax	pmax		
	comp=Z,49nm,1.5s						
BILI	Bilibino, Chuk	79.15	13	P	P	10 44 09.4	+0.9
	comp=Z,616nmcomp=Z,16nm,0.4s						
PPT2	Papeete2	79.46	107	eP	P	10 44 13.9	+2.5
	comp=Z,117nm,26.8s						
PPT2				eS	S	10 53 52.4	-3.9
	comp=Z,235nm,26.2s						
PPT2				eSS	SS	10 59 02.7	-5.9
	comp=Z,122nm,25.8s						
PPT2				eLQ	LQ	11 05 46.5	
	comp=Z,976nm,31.0s						
PPT2				eLR	LR	11 09 11.4	
	comp=Z,180nm,26.0s						
PPT2				eLR	LR	11 09 19.2	
	comp=Z,168nm,35.2s						
PPT	Papeete	79.47	107	P	P	10 44 12.3	+0.9
	comp=Z,26nm,0.7s,baz=266,slow=2.9,SNR=5.3						
	comp=Z,26nm,0.7s						
PPTF	Pamatai, Papee	79.47	107	P	P	10 44 17.1	+5.7
MZR	Muzera	79.80	295	P	P	10 44 13.5	+0.5
	SNR=6.4						
MZR	Muzera	79.80	295	iP	P	10 44 13.6	+0.5
	SNR=9.1						
AVY	Angavokely	79.93	252	P	P	10 44 15.1	+1.1
ABM	Ambohimiarambe	80.23	251	P	P	10 44 17.0	+1.4
SPIA	Saint Paul Isl	80.31	29	P	P	10 44 16.6	+1.7
ABPO	Ambohimpanom	80.41	252	P	P	10 44 16.9	+0.3
OPO	Ambohidratompo	80.48	252	P	P	10 44 18.1	+1.2
MDSM	Mandiavato	80.59	252	P	P	10 44 19.5	+1.9
VOI	Vohitsoka	80.63	249	P	P	10 44 18.4	+0.8
VOI	Vohitsoka	80.63	249	P	P	10 44 18.9	+1.2
	comp=Z,49nm,2.5s						
UNV	Unalaska Valle	80.70	33	P	P	10 44 18.4	+1.4
UNV	Unalaska Valle	80.70	33	IAmb	IAmb	10 44 19.6	
	comp=Z,62nm,0.7s						
FIRM	Firavahana	80.76	252	P	P	10 44 19.0	+0.5
DGRM	Ambatolahisoa	81.15	252	P	P	10 44 21.4	+0.9
NRIK	Noril'sk	81.25	346	P	P	10 44 19.8	+0.1
	comp=Z,122nm,1.0s,baz=130,slow=5.4,SNR=55						
NRIK				S	S	10 54 11.8	-0.8
	comp=Z,1.1nm,0.3s,baz=144,slow=14,SNR=12						
NRIK				LR	LR	11 24 06.7	
	comp=Z,190nm,19.9s,baz=137,slow=38						
	comp=Z,122nm,1.0s						
NRIK	Noril'sk	81.25	346	c iP	P	10 44 20.1	+0.4
NRIK				pmax	pmax		
	comp=Z,199nm,1.0s						
NRIK	Noril'sk	81.25	346	IAmb	IAmb	10 44 23.4	
	comp=Z,222nm,1.2s						
ATG	Ambohiby	81.40	252	P	P	10 44 24.0	+2.2
AB31	Akbulak array	81.99	322	iP	P	10 44 23.8	-0.2
AB31	Akbulak array	81.99	322	IAmb	IAmb	10 44 26.6	
	comp=Z,98nm,0.8s						
ABKAR	Akbulak array	81.99	322	P	P	10 44 24.2	+0.2
GAMB	Gambell	83.00	23	IAmb	IAmb	10 44 32.2	
	comp=Z,188nm,1.4s						
QSPA	South Pole Qui	83.14	180	P	P	10 44 29.5	-0.4
	comp=Z,39nm,0.6s,baz=346,slow=4.7,SNR=158						
QSPA				S	S	10 54 28.5	-4.0
	comp=Z,2.1nm,0.9s,baz=287,slow=22,SNR=8.6						
QSPA				PKKPbc	PKKPbc	11 02 50.1	-3.2
	comp=Z,1.2nm,0.5s,baz=305,slow=1.2,SNR=9.6						
QSPA				LR	LR	11 22 46.0	
	comp=Z,369nm,18.2s,baz=348,slow=36						
	comp=Z,39nm,0.6s						
QSPA	South Pole Qui	83.14	180	P	P	10 44 29.4	-0.4
QSPA	South Pole Qui	83.14	180	P	P	10 44 29.6	-0.4
AKTO	Aktyubinsk	83.56	322	S	SKSac	10 54 34.4	-1.0
	comp=Z,0.9nm,0.6s,baz=104,slow=8.3,SNR=14						
SYO	Syowa Base	83.59	201	⇓eP	P	10 44 32.5	+0.6
SVE	Sverdlovsk	84.30	329	deP	P	10 44 36.1	+0.5
SVE				eS	SKSac	10 54 39.5	-0.3
SVE				pmax	pmax		
	comp=Z,417nm,1.6s						
SDPT	Sand Point	84.51	33	P	P	10 44 37.9	+1.2
CHNA	Chernabura Isl	84.82	33	P	P	10 44 39.3	+1.1
M13K	Dall Lake	84.96	27	IAmb	IAmb	10 44 42.5	
	comp=Z,104nm,1.1s						
K13K	Kusilvak Mount	85.00	26	IAmb	IAmb	10 44 42.6	
	comp=Z,154nm,0.9s						
ARTI	Arti	85.31	328	S	SKSac	10 54 42.7	-3.5
	comp=Z,1.4nm,0.5s,baz=106,slow=6.5,SNR=3.9						
ARTI				LR	LR	11 25 26.8	
	comp=Z,167nm,21.6s,baz=107,slow=37						
ARTI	Arti	85.31	328	c iP	P	10 44 39.5	-1.2
ARTI				*PP	pP	10 45 28.3	-0.1
ARTI						10 47 59.2	
ARTI				S	SKSac	10 54 44.2	-2.1
ARTI				*SS	sS	10 56 09.7	-9.1
ARTI				pmax	pmax		
	comp=Z,151nm,0.9s						
ARTI	Arti	85.31	328	P	P	10 44 38.9	-1.8
ARTI	Arti	85.31	328	P	P	10 44 40.5	-0.3
O14K	Tigyukauivet M	85.50	29	IAmb	IAmb	10 44 45.0	
	comp=Z,101nm,0.9s						
N14K	Kuskokwak Cree	85.55	28	IAmb	IAmb	10 44 44.7	
	comp=Z,106nm,0.9s						
J14K	Nanvaranak Lak	85.80	25	IAmb	IAmb	10 44 46.4	
	comp=Z,130nm,1.1s						
O15K	Ungalikthiuk R	86.17	29	P	P	10 44 45.5	+0.7
O15K				IAmb	IAmb	10 44 47.8	
	comp=Z,63nm,0.8s						
N15K	Kwethluk River	86.38	28	IAmb	IAmb	10 44 49.1	
	comp=Z,120nm,0.8s						
RAYN	Ar Rayn	87.11	294	P	P	10 44 50.8	+0.5
RAYN				pmax	pmax		
	comp=Z,38nm,0.8s						
RAYN	Ar Rayn	87.11	294	P	P	10 44 50.8	+0.5
RAYN	Ar Rayn	87.11	294	iP	P	10 44 50.7	+0.5
	SNR=39						
RAYN	Ar Rayn	87.11	294	P	P	10 44 50.6	+0.3
	comp=Z,501nmcomp=Z,65nm,1.5s						
RAYN	Ar Rayn	87.11	294	P	P	10 44 50.7	+0.5
O16K	Kokwok River B	87.14	29	IAmb	IAmb	10 44 52.5	
	comp=Z,77nm,1.1s						
L16K	Owhat River	87.19	27	IAmb	IAmb	10 44 52.9	
	comp=Z,146nm,1.2s						
G16K	Koyuk River	87.33	23	IAmb	IAmb	10 44 53.3	
	comp=Z,51nm,0.8s						
C16K	Lisburne Hills	87.42	20	IAmb	IAmb	10 44 53.0	
	comp=Z,79nm,0.9s						
I17K	Unalakleet	87.43	25	IAmb	IAmb	10 44 54.8	
	comp=Z,65nm,0.9s						
N17K	Nushagak Hills	87.86	28	IAmb	IAmb	10 44 56.6	
	comp=Z,95nm,1.2s						
J17K	VABM Dome	87.94	25	IAmb	IAmb	10 44 57.6	
	comp=Z,118nm,1.0s						
ATD	Arta Tunnel	87.97	282	P	P	10 44 54.6	0.0
	comp=Z,0.3nm,0.5s,baz=102,slow=4.6,SNR=5.0						
M17K	Holitna River	88.02	27	IAmb	IAmb	10 44 58.0	
	comp=Z,68nm,1.1s						
H17K	Granite Mounta	88.12	24	IAmb	IAmb	10 44 57.2	
	comp=Z,58nm,0.8s						
RDOG	Red Dog Mine	88.16	20	IAmb	IAmb	10 44 56.7	
	comp=Z,48nm,0.8s						
AKT	Akhty	88.25	312	eP	P	10 44 55.6	+0.2
AKT				e*PP	pP	10 45 45.0	+1.5
AKT				e*SP	sP	10 46 06.2	+2.1
AKT				e		10 48 25.3	
AKT				eS	SKSac	10 55 06.3	+1.1
AKT				e*SS	pS	10 56 32.2	+8.2
AKT				pmax	pmax		
	comp=Z,68nm,0.9s						
ELIB	Princess Elisa	88.47	197	dP	P	10 44 56.7	+0.8
	comp=Z,14nm,0.8s						
N18K	Kilae Creek	88.52	28	IAmb	IAmb	10 44 59.5	
	comp=Z,114nm,1.5s						
L18K	Granite Mounta	88.60	27	IAmb	IAmb	10 45 00.6	
	comp=Z,54nm,1.0s						
MAK	Makhachkala	88.69	313	eP	P	10 44 54.8	-2.4
MAK				e*PP	pP	10 45 45.4	0.0
MAK				e*SP	sP	10 46 06.4	+0.5
MAK				e		10 48 35.0	
MAK				ePPP	PPP	10 50 25.6	
MAK				e		10 55 03.6	
MAK				e*SS	sS	10 56 36.5	-15
MAK				eSS	SS	11 01 24.6	+1.2
MAK				eSSS	SSS	11 05 01.1	
MAK				pmax	pmax		
	comp=Z,168nm,1.1s						
J18K	Innoko River	88.97	26	IAmb	IAmb	10 45 00.9	
	comp=Z,66nm,1.1s						
N19K	Bonanza Creek	89.22	28	IAmb	IAmb	10 45 03.3	
	comp=Z,45nm,0.8s						
KDAK	Kodiak Island	89.40	32	P	P	10 45 00.5	+0.3
	comp=Z,34nm,0.8s,baz=236,slow=3.5,SNR=6.0						
KDAK				LR	LR	11 21 36.5	
	comp=Z,148nm,20.2s,baz=243,slow=33						
	comp=Z,34nm,0.8s						
KDAK	Kodiak Island	89.40	32	P	P	10 45 01.7	+1.5
KDAK				IAmb	IAmb	10 45 03.6	
	comp=Z,92nm,1.2s						
KDAK	Kodiak Island	89.40	32	P	P	10 45 02.5	+2.3
KDAK	Kodiak Island	89.40	32	P	P	10 45 01.4	+1.2
	comp=Z,70nm,1.3s						
L19K	White Mountain	89.42	27	IAmb	IAmb	10 45 03.2	
	comp=Z,47nm,1.0s						
TAOE	Nuku Hiva Isla	89.43	99	eLR	LR	11 13 53.9	
	comp=Z,286nm,26.1s						
J19K	Poorman	89.58	25	IAmb	IAmb	10 45 04.3	
	comp=Z,75nm,1.3s						
G19K	Purcell Mounta	89.63	23	IAmb	IAmb	10 45 04.2	
	comp=Z,89nm,1.2s						
L20K	Farewell, AK	89.93	27	IAmb	IAmb	10 45 05.5	
	comp=Z,42nm,1.0s						
E19K	Redstone River	89.98	22	IAmb	IAmb	10 45 05.2	
	comp=Z,63nm,0.8s						
D19K	Kuna River	89.99	21	IAmb	IAmb	10 45 05.1	
	comp=Z,60nm,0.8s						
K20K	Telida	90.08	26	IAmb	IAmb	10 45 06.2	
	comp=Z,43nm,0.9s						
M20K	Styx River	90.12	28	IAmb	IAmb	10 45 06.4	
	comp=Z,57nm,1.2s						
J20K	Nowinta River	90.26	25	IAmb	IAmb	10 45 07.7	
	comp=Z,46nm,1.0s						
GNI	Garni	90.27	310	⇑eP	P	10 45 02.5	-2.4
GNI				pmax	pmax		
	comp=Z,82nm,1.3s						
I20K	Naaghedeneel	90.28	25	IAmb	IAmb	10 45 06.9	
	comp=Z,48nm,0.8s						
BELG	Belogornoye	90.35	323	S	SKSac	10 55 14.6	-2.0
	comp=Z,4.7nm,0.9s,baz=99,slow=24,SNR=10						
BELG				LR	LR	11 29 46.1	
	comp=Z,92nm,18.5s,baz=95,slow=38						
BELG	Belogornoye	90.35	323	deP	P	10 45 03.0	-1.7
BELG				pmax	pmax		
	comp=Z,10.0nm,0.7s						
F20K	Avaraart Lake	90.41	22	IAmb	IAmb	10 45 07.3	
	comp=Z,35nm,0.8s						
KIRV	Kirov	90.57	329	c iP	P	10 45 04.0	-1.6
B20K	Meade River	90.79	19	IAmb	IAmb	10 45 08.8	
	comp=Z,50nm,0.8s						
SKT	Skwentna	90.88	28	IAmb	IAmb	10 45 08.7	
	comp=Z,27nm,0.6s						
IMAR	Indian Mountai	90.89	23	P	P	10 45 07.1	+0.1
KIBK	Kibwezi	91.05	268	P	P	10 45 09.2	+0.2
KIBK	Kibwezi	91.05	268	P	P	10 45 07.9	-1.1
	comp=Z,8.9nm,1.1s						
SUA	Susitna One	91.14	28	IAmb	IAmb	10 45 11.4	
	comp=Z,33nm,0.8s						
H21K	Melozitna Rive	91.18	24	IAmb	IAmb	10 48 47.4	
	comp=Z,58nm,1.5s						
GEVA	Gevas	91.30	308	IAmb	IAmb	10 45 13.2	
	comp=Z,46nm,0.8s						
RC01	Rabbit Creek A	91.54	29	IAmb	IAmb	10 45 12.4	
	comp=Z,35nm,0.9s						
CUT	Chulitna	91.55	27	IAmb	IAmb	10 45 12.1	
	comp=Z,68nm,1.1s						
NCK	Nalchik	91.60	313	⇑eP	P	10 45 13.1	+2.3
NCK				pmax	pmax		
	comp=Z,46nm,0.6s						
TRF	Thorofare Moun	91.75	26	IAmb	IAmb	10 45 12.7	
	comp=Z,54nm,1.3s						
MLY	Manley	91.89	25	IAmb	IAmb	10 45 15.0	
	comp=Z,53nm,1.1s						
PMR	Palmer	91.92	28	P	P	10 45 11.7	-0.1
PMR	Palmer	91.92	28	IAmb	IAmb	10 45 13.4	
	comp=Z,82nm,1.4s						
EPOS	Posof	91.97	311	P	P	10 45 13.9	+1.1
	comp=Z,30nm,1.6s						
KMBO	Kilima Mbogo	91.98	269	P	P	10 45 14.4	+0.9
	baz=108,slow=5.0						
KMBO				LR	LR	11 21 45.5	
	comp=Z,84nm,21.1s,baz=98,slow=32						
D22K	Ayikyak River	92.00	21	IAmb	IAmb	10 45 14.8	
	comp=Z,48nm,1.2s						
KBZ	Khabaz	92.13	314	P	P	10 45 12.8	-0.4
	comp=Z,8.2nm,0.7s,baz=102,slow=4.8,SNR=19						
	comp=Z,8.2nm,0.7s						
KBZ	Khabaz	92.13	314	c iP	P	10 45 12.9	-0.3
KBZ				pmax	pmax		
	comp=Z,16nm,0.9s						
E22K	Anaktuvuk Pass	92.14	22	IAmb	IAmb	10 45 15.3	
	comp=Z,46nm,1.0s						
NEUR	Neytrino	92.21	313	⇑eP	P	10 45 14.3	+0.4
NEUR				pmax	pmax		
	comp=Z,26nm,1.9s						
SHA1	Shidzhatmaz	92.30	314	⇓iP	P	10 45 14.3	0.0
KIV	Kislovodsk	92.31	314	eP	P	10 45 16.1	+1.9
KIV				e		10 55 29.7	
KIV				pmax	pmax		
	comp=Z,13nm,1.0s						
MCK	McKinley	92.40	26	IAmb	IAmb	10 45 15.5	
	comp=Z,63nm,0.9s						
NEA2	Nenana	92.50	25	IAmb	IAmb	10 45 17.2	
	comp=Z,26nm,0.8s						
G23K	Bananza Creek	92.52	23	IAmb	IAmb	10 45 17.8	
	comp=Z,55nm,0.9s						
H23K	Yukon River	92.54	24	IAmb	IAmb	10 45 17.1	
	comp=Z,38nm,0.9s						
COLD	Coldfoot	92.55	23	IAmb	IAmb	10 45 17.3	
	comp=Z,38nm,0.8s						
D23K	Nanushuk River	92.73	21	IAmb	IAmb	10 45 18.4	
	comp=Z,77nm,1.1s						
C23K	Itkillik River	92.93	20	IAmb	IAmb	10 45 18.6	
	comp=Z,36nm,0.7s						
E23K	Chandalar	92.93	22	IAmb	IAmb	10 45 19.2	
	comp=Z,56nm,1.1s						
COLA	College	93.07	25	P	P	10 45 17.3	+0.3
COLA	College	93.07	25	ceP	P	10 45 15.4	-1.6
COLA				pmax	pmax		
	comp=Z,36nm,0.9s						
COLA	College	93.07	25	P	P	10 45 16.0	-1.0
COLA				IAmb	IAmb	10 45 18.8	
	comp=Z,30nm,0.8s						
COLA	College	93.07	25	P	P	10 45 17.0	0.0
COLA	College	93.07	25	P	P	10 45 15.9	-1.1
	comp=Z,35nm,0.9s						
HDA	Harding Lake	93.38	26	IAmb	IAmb	10 45 19.4	
	comp=Z,46nm,0.7s						
D24K	Happy Valley	93.42	21	IAmb	IAmb	10 45 21.3	
	comp=Z,62nm,1.3s						
IL31		93.46	25	IAmb	IAmb	10 45 19.9	
	comp=Z,27nm,0.8s						
ILAR	Eielson Array	93.46	25	P	P	10 45 17.1	-1.8
	comp=Z,26nm,0.9s,baz=273,slow=4.3,SNR=94						
ILAR				PP	PP	10 49 00.3	-5.7
	comp=Z,12nm,1.1s,baz=258,slow=6.1,SNR=11						
ILAR				PKKPbc	PKKPdf	11 02 25.6	+0.1
	comp=Z,0.7nm,0.8s,baz=19,slow=3.4,SNR=7.6						
ILAR				SKKP	SKKPdf	11 05 41.3	+0.1
	comp=Z,0.3nm,0.7s,baz=345,slow=1.0,SNR=4.6						
ILAR				LR	LR	11 23 54.6	
	comp=Z,72nm,19.7s,baz=264,slow=33						
	comp=Z,26nm,0.9s						
ILAR	Eielson Array	93.46	25	P	P	10 45 16.8	-2.1
KOPT	Kop Dagi	93.48	310	IAmb	IAmb	10 45 25.7	
	comp=Z,27nm,0.7s						
F24K	Squaw Lake	93.48	22	IAmb	IAmb	10 45 21.8	
	comp=Z,63nm,1.1s						
G24K	Hadweenzic Riv	93.51	23	IAmb	IAmb	10 45 21.8	
	comp=Z,56nm,0.9s						
C24K	Franklin Bluff	93.56	20	IAmb	IAmb	10 45 21.5	
	comp=Z,79nm,1.3s						
LABN	Labinsk	93.79	314	eP	P	10 45 21.1	+0.3
LABN				pmax	pmax		
	comp=Z,35nm,1.2s						
VRH	Novokhopyorsk	93.80	321	eP	P	10 45 19.2	-1.5
VRH				pmax	pmax		
	comp=Z,22nm,0.8s						
HARP	HAARP	93.90	28	IAmb	IAmb	10 45 24.1	
	comp=Z,69nm,1.3s						
BMRM	Bremner River	93.98	29	IAmb	IAmb	10 45 24.2	
	comp=Z,50nm,0.9s						
ERBR	Yeremizino-Bor	94.06	315	eP	P	10 45 21.6	-0.5
ERBR				pmax	pmax		
	comp=Z,51nm,1.5s						
J25K	Salcha River,	94.08	26	IAmb	IAmb	10 45 23.0	
	comp=Z,30nm,0.9s						
VSLR	Vesyoloye	94.17	313	⇓eP	P	10 45 20.2	-2.4
VSLR				pmax	pmax		
	comp=Z,31nm,1.0s						
TROLL	Troll, Antarti	94.17	194	⇓P	P	10 45 23.1	+0.8
	comp=Z,945nm,1.0s						
TROLL				⇑SKSac	SKSac	10 55 36.8	-0.9
	comp=N,262nm,0.9s						
SOC	Sochi	94.41	313	eP	P	10 45 21.5	-2.2
SOC				ePPP	PPP	10 51 14.0	
SOC				eS	SKSac	10 55 36.7	-2.9
SOC				eSS	SS	11 02 41.1	-4.3
SOC				eSSS	SSS	11 06 24.3	
GLB	Gilahina Butte	94.42	29	IAmb	IAmb	10 45 26.2	
	comp=Z,36nm,1.0s						
E25K	Arctic Village	94.44	22	IAmb	IAmb	10 45 26.1	
	comp=Z,53nm,1.1s						
KELT	Kelkit	94.44	310	P	P	10 45 24.8	+0.6
	comp=Z,53nm,1.0s						
SCRK	Sand Creek	94.61	26	IAmb	IAmb	10 45 26.3	
	comp=Z,29nm,1.1s						
MENT	Mentasta	94.62	27	IAmb	IAmb	10 45 26.6	
	comp=Z,45nm,1.2s						
CRQM	Cirque	94.68	29	IAmb	IAmb	10 45 27.8	
	comp=Z,47nm,0.9s						
BMAR	Burnt Mountain	94.73	23	P	P	10 45 25.3	+0.6
MCARA	McCarthy VSAT	94.79	29	IAmb	IAmb	10 45 37.3	
	comp=Z,24nm,0.9s						
L26K	Log Cabin Wild	94.80	27	IAmb	IAmb	10 45 27.5	
	comp=Z,38nm,1.1s						
TGL	Tana Glacier	94.83	30	IAmb	IAmb	10 45 28.4	
	comp=Z,48nm,1.0s						
M26K	Nabesna, AK	94.90	28	IAmb	IAmb	10 45 28.0	
	comp=Z,30nm,1.3s						
F26K	Sheenjek River	94.93	22	IAmb	IAmb	10 45 28.6	
	comp=Z,36nm,1.1s						
ARPR	Arapgir-MALATY	95.06	309	IAmb	IAmb	10 45 30.4	
	comp=Z,31nm,1.4s						
ARPR	Arapgir-MALATY	95.06	309	P	P	10 45 28.4	+1.4
	comp=Z,16nm,1.5s						
I26K	Coal Creek Min	95.09	25	IAmb	IAmb	10 45 28.8	
	comp=Z,42nm,1.1s						
C27K	Jago River	95.28	21	IAmb	IAmb	10 45 29.7	
	comp=Z,29nm,0.8s						
VORD	Divnogorie	95.30	321	eP	P	10 45 24.8	-2.8
VORD				pmax	pmax		
	comp=Z,30nm,0.9s						
GRNC	Granite Creek	95.35	30	IAmb	IAmb	10 45 30.6	
	comp=Z,28nm,0.9s						
VSR	Storozhevoye	95.40	321	eP	P	10 45 26.8	-1.2
VSR				pmax	pmax		
	comp=Z,25nm,0.9s						
VORR	Voronezh	95.41	321	eP	P	10 45 26.0	-2.1
VORR				pmax	pmax		
	comp=Z,30nm,0.7s						
M27K	Edge Creek, AK	95.42	28	IAmb	IAmb	10 45 30.6	
	comp=Z,28nm,1.0s						
BARN	Barnard Glacie	95.42	29	IAmb	IAmb	10 45 31.0	
	comp=Z,29nm,0.9s						
BCAR	Beaver Creek A	95.51	27	P	P	10 45 28.6	+0.2
LPSR	Galich'ya Gora	95.64	322	eP	P	10 45 27.3	-1.8
LPSR				pmax	pmax		
	comp=Z,32nm,1.2s						
ASF	Jabal al Asfar	95.68	302	P	P	10 45 30.3	+0.4
	comp=Z,9.3nm,0.8s,baz=102,slow=3.5,SNR=15						
ASF				LR	LR	11 34 20.8	
	comp=Z,62nm,19.6s,baz=53,slow=39						
	comp=Z,9.3nm,0.8s						
SNAA	Sanae	95.68	194	P	P	10 45 29.6	+0.5
	comp=Z,160nm,0.7s						
SNAA	Sanae	95.68	194	P	P	10 45 30.1	+1.0
	comp=Z,6.6nm,0.7s,baz=129,slow=4.7,SNR=10						
SNAA				PP	PP	10 49 22.6	-0.2
	comp=Z,1.0nm,0.4s,baz=232,slow=5.3,SNR=3.6						
	comp=Z,6.6nm,0.7s						
SNAA	Sanae	95.68	194	P	P	10 45 30.2	+1.0
	comp=Z,13nm,1.0s						
LOGN	Logan Glacier	95.73	30	IAmb	IAmb	10 45 33.3	
	comp=Z,74nm,1.9s						
G27K	Doyon Strip	95.82	23	IAmb	IAmb	10 45 32.6	
	comp=Z,30nm,1.2s						
KLMR	Klimovskoe	95.84	331	eP	P	10 45 26.3	-3.5
KLMR				e		10 49 21.7	
KLMR				pmax	pmax		
	comp=Z,72nm,1.2s						
E27K	Coleen River	95.93	22	IAmb	IAmb	10 45 32.7	
	comp=Z,30nm,0.9s						
PCA	Pinnacle	96.05	30	IAmb	IAmb	10 45 40.4	
	comp=Z,28nm,1.2s						
D27M	Malcolm River	96.22	21	IAmb	IAmb	10 45 33.8	
	comp=Z,23nm,0.9s						
ANDN	Andirin	96.51	307	P	P	10 45 33.1	-0.5
	comp=Z,30nm,1.3s						
F28M	Old Crow	96.55	23	IAmb	IAmb	10 45 35.3	
	comp=Z,40nm,1.2s						
ADZR	Andozero	96.56	334	eP	P	10 45 30.2	-2.8
ADZR				pmax	pmax		
	comp=Z,56nm,1.1s						
MOS	Moscow	96.58	325	eP	P	10 45 31.8	-1.5
MOS				pmax	pmax		
	comp=Z,34nm,0.8s						
E28M	Babbage River	96.71	22	IAmb	IAmb	10 45 36.0	
	comp=Z,24nm,0.8s						
MMLI	Mount Malkishu	96.95	302	P	P	10 45 36.1	+0.5
	comp=Z,15nm,1.1s						
MMAI	Mount Meron Ar	97.00	302	P	P	10 45 35.9	+0.1
	comp=Z,2.7nm,0.5s,baz=81,slow=10,SNR=6.6						
MMAI				LR	LR	11 36 14.1	
	comp=Z,78nm,18.7s,baz=88,slow=40						
	comp=Z,2.7nm,0.5s						
M29M	Somme Creek	97.01	28	IAmb	IAmb	10 45 38.1	
	comp=Z,26nm,1.1s						
H29M	Whitestone	97.11	24	IAmb	IAmb	10 45 37.0	
	comp=Z,75nm,1.9s						
OBN	Obninsk	97.16	325	P	P	10 45 34.4	-1.4
	comp=Z,27nm,0.5s,baz=90,slow=5.1,SNR=8.0						
OBN				LR	LR	11 33 33.9	
	comp=Z,145nm,19.9s,baz=104,slow=38						
	comp=Z,27nm,0.5s						
OBN	Obninsk	97.16	325	deP	P	10 45 34.7	-1.2
OBN				e*PP	pP	10 46 24.3	0.0
OBN				e*SP	sP	10 46 45.5	+0.7
OBN				e		10 49 34.7	
OBN				ePPP	PPP	10 51 40.9	
OBN				eS	SKSac	10 55 53.3	-0.2
OBN				pmax	pmax		
	comp=Z,35nm,0.6s						
OBN				MLR	MLR		
	comp=Z,190nm,20.0s						
OBN	Obninsk	97.16	325	P	P	10 45 34.7	-1.2
OBN	Obninsk	97.16	325	P	P	10 45 35.0	-0.9
	comp=Z,57nm,0.8s						
VNA2	Neumayer--Watz	97.25	193	⇓P	Pdif	10 45 36.3	+0.1
	comp=Z,5.5nm,0.7s,baz=122,slow=4.1						
VNA2				⇑SKSac	SKSac	10 55 52.2	-1.4
	comp=N,7.2nm,1.0s						
VNA2	Neumayer--Watz	97.25	193	P	Pdif	10 45 37.0	+0.8
	comp=Z,7.7nm,0.7s						
E29M	Blow River	97.31	22	IAmb	IAmb	10 45 38.3	
	comp=Z,47nm,1.6s						
VNA3	Neumayer Olymp	97.52	192	⇓P	P	10 45 37.2	-0.2
	comp=Z,3.8nm,0.5s						
VNA3	Neumayer Olymp	97.52	192	P	P	10 45 37.1	-0.2
	comp=Z,9.9nm,0.8s						
VNA1	Neumayer--Stat	97.65	193	P	Pdif	10 45 38.1	+0.2
	comp=Z,6.1nm,0.8s						
VNA1				⇑SKSac	S	10 56 22.0	-23
	comp=N,8.7nm,0.6s						

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EPYK  Eagle Plains       97.78  24   IAmb      IAmb      10 45 41.2
      comp=Z,44nm,1.2s
I30M  Mount Dempster     97.94  25   IAmb      IAmb      10 45 41.6
      comp=Z,20nm,1.0s
G30M  tAoh Zraii Nji     97.97  23   IAmb      IAmb      10 45 41.0
      comp=Z,37nm,1.1s
LVZ   Lovozero           98.06 338⇑eP          P         10 45 39.3 -0.5
LVZ                                  pmax      pmax
      comp=Z,41nm,1.9s
F30M  Barrier River      98.12  23   IAmb      IAmb      10 45 42.0
      comp=Z,32nm,1.0s
SKAG  Skagway            98.53  31   IAmb      IAmb      10 45 44.7
      comp=Z,15nm,0.9s
APA   Apatity            98.55 337⇓eP          P         10 45 41.1 -0.8
APA                                  pmax      pmax
      comp=Z,8.0nm,1.2s
BR131 Keskin Array S     98.73 309⇓eP          P         10 45 42.7 -0.8
BRTR  Keskin Array B     98.73 309   P         P         10 45 42.4 -1.1
      comp=Z,3.1nm,0.7s,baz=87,slow=5.1,SNR=18
BRTR                                 PP        PP        10 49 46.4 -1.1
      comp=Z,0.9nm,0.7s,baz=104,slow=6.1,SNR=3.6
BRTR                                 PKKPbc    PKKPbc    11 02 11.8 -0.6
      comp=Z,0.9nm,0.8s,baz=165,slow=5.1,SNR=3.8
      comp=Z,3.1nm,0.7s
BRTR  Keskin Array B     98.73 309 i P         P         10 45 42.7 -0.8
BRTR                                 pmax      pmax
      comp=Z,3.0nm,0.7s
BRTR  Keskin Array B     98.73 309   P         P         10 45 42.2 -1.3
WHY   Whitehorse         98.73  30   IAmb      IAmb      10 45 45.5
      comp=Z,29nm,0.9s
G31M  Satah River        98.74  23   IAmb      IAmb      10 45 44.4
      comp=Z,29nm,1.1s
H31M  Peel River         98.77  24   IAmb      IAmb      10 49 46.0
      comp=Z,45nm,1.6s
BESE  Bessie Mountai     98.80  32   IAmb      IAmb      10 45 46.6
      comp=Z,27nm,1.1s
F31M  Tsiigehtchic       98.91  23   IAmb      IAmb      10 45 45.0
      comp=Z,33nm,1.1s
LSZ   Lusaka             98.92 253   P         Pdif      10 45 45.0 +0.1
LSZ                                  pmax      pmax
      comp=Z,7.0nm,1.0s
LSZ   Lusaka             98.92 253   P         Pdif      10 45 45.0 +0.2
LSZ   Lusaka             98.92 253   P         Pdif      10 45 45.0 +0.1
      comp=Z,8.7nm,1.0s
INK   Inuvik             98.93  22   LR        LR        11 28 07.7
      comp=Z,85nm,21.6s,baz=252,slow=34
INK   Inuvik             98.93  22   IAmb      IAmb      10 45 45.2
      comp=Z,14nm,0.9s
INK   Inuvik             98.93  22   P         Pdif      10 45 44.4 +0.9
      comp=Z,18nm,1.6s
BOSA  Boshof             99.02 240   P         Pdif      10 45 45.4 +0.3
      comp=Z,1.5nm,0.6s,baz=93,slow=4.0,SNR=5.3
BOSA                                 LR        LR        11 24 50.9
      comp=Z,114nm,21.4s,baz=91,slow=32
      comp=Z,1.5nm,0.6s
BOSA  Boshof             99.02 240   IAmb      IAmb      10 49 43.0
      comp=Z,61nm,1.9s
JIS   Juneau Island      99.05  32   P         Pdif      10 45 45.9 +1.6
KKUL  Konya-Kulu         99.27 308   P         Pdif      10 45 45.9  0.0
      comp=Z,20nm,1.1s
LBTB  Lobatse            99.49 243   LR        LR        11 26 01.4
      comp=Z,72nm,21.0s,baz=106,slow=32
ARCES ARCESS Array B    101.20 340   P         Pdif      10 45 52.9 -0.8
      comp=Z,19nm,1.0s,baz=74,slow=4.4,SNR=15
SPITS Spitsbergen Ar    101.28 349   P         Pdif      10 45 53.9 -0.1
      comp=Z,15nm,0.8s,baz=78,slow=7.8,SNR=12
SPITS                                SKKPbc    SKKPbc    11 05 28.7 -0.6
      comp=Z,9.1nm,0.8s,baz=83,slow=4.5,SNR=5.2
DLBC  Dease Lake        101.33  32   PP        PP        10 50 04.6 -1.8
      comp=Z,4.7nm,1.1s,baz=270,slow=4.5,SNR=4.7
AK09  Malin Array Si    101.65 320   P         Pdif      10 45 55.1 -0.9
AK08  Malin Array Si    101.67 320   P         Pdif      10 45 55.3 -0.8
AK10  Malin Array Si    101.67 320   P         Pdif      10 45 55.4 -0.7
AKASG Malin Array Be    101.68 320   P         Pdif      10 45 55.2 -1.0
      comp=Z,5.6nm,0.8s,baz=74,slow=4.1,SNR=12
AKASG                                PKiKP     PP        10 50 13.7 +4.5
      comp=Z,0.7nm,0.5s,baz=76,slow=2.2,SNR=4.1
AKBB  Malin Array Si    101.68 320ceP          Pdif      10 45 54.8 -1.4
AKBB                                 pmax      pmax
      comp=Z,10.0nm,0.9s
AKBB  Malin Array Si    101.68 320   P         Pdif      10 45 55.4 -0.8
KIEV  Kiev              101.69 320   P         Pdif      10 45 56.2  0.0
KIEV  Kiev              101.69 320   P         Pdif      10 45 55.4 -0.8
      comp=Z,38nm,0.7s
KIEV  Kiev              101.69 320   P         Pdif      10 45 55.0 -1.3
      comp=Z,9.6nm,0.7s
AK02  Malin Array Si    101.70 320   P         Pdif      10 45 55.5 -0.7
AK05  Malin Array Si    101.70 320   P         Pdif      10 45 55.5 -0.8
AK07  Malin Array Si    101.70 320   P         Pdif      10 45 55.5 -0.8
AK06  Malin Array Si    101.70 320   P         Pdif      10 45 55.5 -0.8
AK11  Malin Array Si    101.72 320   P         Pdif      10 45 55.7 -0.6
OUL   Oulu              101.83 335   P         Pdif      10 45 55.2 -1.3
      comp=Z,30nm,1.1s
MNK   Minsk             102.20 324 i P         Pdif      10 45 58.3 -0.1
MNK                                i                     10 50 14.4
MNK                                i PPP       PPP       10 52 25.7
MNK                                i S         SKSac     10 56 18.2 -0.1
MNK                                i SS        SS        11 04 38.3 +4.7
MNK                                i SSS       SSS       11 08 33.4
MNK                                  pmax      pmax
      comp=Z,32nm,0.8s
MNK                                  pmax      pmax
      comp=N,21nm,0.9s
MNK                                  pmax      pmax
      comp=E,27nm,0.8s
MNK                                  MLR       MLR
      comp=E,2µm,21.0s
MNK                                  MLR       MLR
      comp=N,1µm,21.0s
MNK                                  MLR       MLR
      comp=Z,259nm,21.0s
MNK   Minsk             102.20 324 i P         Pdif      10 45 58.4 -0.1
      comp=E,27nm,0.8s
MNK                                i P         Pdif      10 45 58.4 -0.1
      comp=N,21nm,0.9s
MNK                                i P         Pdif      10 45 58.4 -0.1
      comp=Z,32nm,0.8s,baz=85
MNK                                i pP        pPdif     10 46 48.1 +1.2
MNK                                i PP        PP        10 50 14.4 +1.5
MNK                                i PPP       PPP       10 52 25.8
MNK                                i S         SKSac     10 56 18.3 -0.1
MNK                                i S         SKSac     10 56 18.3 -0.1
MNK                                i sS        pS        10 57 50.6  -37
MNK                                i SS        SS        11 04 38.4 +4.7
MNK                                i SSS       SSS       11 08 33.4
MNK                                i LRM       MLR       11 33 28.4
      comp=E,2µm,21.2s
MNK                                i LRM       MLR       11 33 33.4
      comp=N,1µm,20.6s
FINES FINESS Array B    102.32 331   P         Pdif      10 45 57.5 -1.2
      comp=N,4.2nm,0.8s,baz=78,slow=4.6,SNR=8.9
FINES                                PKiKP     PKiKP     10 50 19.2 -0.2
      comp=N,2.3nm,0.4s,baz=159,slow=4.3,SNR=9.9
KMPD  K-Podol'skiy      103.64 318   P         Pdif      10 46 03.4 -1.5
VRI   Vrincioaia        103.68 315   P         Pdif      10 46 04.3 -0.9
      comp=Z,12nm,1.1s
TESR  Tescani           103.68 316   P         Pdif      10 46 05.4 +0.2
      comp=Z,15nm,1.0s
MLR   Muntele Rosu      104.25 315   Pdiff     Pdif      10 46 07.2 -0.8
      comp=Z,4.3nm,0.7s,baz=74,slow=7.4,SNR=3.3
MLR   Muntele Rosu      104.25 315   P         Pdif      10 46 08.5 +0.6
      comp=Z,10nm,1.6s
COR   Corvallis         107.09  46   P         Pdif      10 46 22.2 +1.8
YKA   Yellowknife Ar    107.87  26   Pdiff     Pdif      10 46 22.7 -0.8
      comp=Z,1.3nm,0.7s,baz=292,slow=4.7,SNR=4.2
YKA                                  PKiKP     PKiKP     10 50 29.6  0.0
      comp=Z,3.0nm,0.6s,baz=297,slow=1.6,SNR=18
YKA                                  PKKPbc    PKKPbc    11 01 42.9 -3.0
      comp=Z,1.3nm,0.8s,baz=110,slow=3.2,SNR=4.6
HFS   Hagfors           108.52 332   Pdiff     Pdif      10 46 25.1 -1.3
      comp=Z,1.7nm,0.5s,baz=177,slow=3.0,SNR=4.7
NB2   NORSAR Subarra109.35 333   P         Pdif      10 46 28.5 -1.6
      comp=Z,11nm,1.2s,baz=69,slow=4.6
NB2                                  PKP       PKiKP     10 50 32.3 -0.3
      comp=Z,1.5nm,0.8s,baz=78,slow=3.0
NB2   NORSAR Subarra109.35 333   P         Pdif      10 46 28.5 -1.6
NOA   NORSAR Array B    109.35 333   Pdiff     Pdif      10 46 29.0 -1.2
      comp=Z,4.0nm,0.9s,baz=68,slow=4.6,SNR=10
NOA                                  PKiKP     PKiKP     10 50 31.8 -0.7
      comp=Z,3.2nm,0.8s,baz=58,slow=2.2,SNR=5.0
KRLC  Kraliky           109.64 321 ePKP        PKiKP     10 50 33.0 -0.5
DPC   Dobruska-Polom    109.87 321 ePKP        PKiKP     10 50 36.6 +2.7
OSTC  Ostas             109.88 321 ePKP        PKiKP     10 50 34.7 +0.8
ARSA  Arzberg           111.10 318 ePKiKP      PKiKP     10 50 36.8 +0.5
      comp=Z,3.4nm,1.0s
BRG   Berggiesshubel    111.20 322 ePP         PP        10 51 27.0 +8.2
ZVC   Zvikov            111.43 321 ePKP        PKiKP     10 50 37.7 +0.9
CKRC  Cesky Krumlov     111.51 320 ePKIKP      PKiKP     10 50 38.0 +1.0
CKRC  Cesky Krumlov     111.51 320 ePKP        PKiKP     10 50 38.0 +1.0
SOKA  Soboth            111.56 318 i PKiKP     PKiKP     10 50 39.1 +1.9
      comp=Z,5.2nm,1.1s
CLL   Collm             111.64 323 i PKIKP     PKiKP     10 50 37.4 +0.3
CLL                                  pmax      pmax
      comp=Z,7.0nm,0.9s
CLL   Collm             111.64 323 ePdif       Pdif      10 46 40.0 -0.5
CLL                                i PKiKP     PKiKP     10 50 37.4 +0.3
      comp=Z,7.0nm,0.9s
CLL                                ePP         PP        10 51 23.0 +1.1
CLL                                e(sPP)                10 52 31.0
CLL                                eSP         SP        11 00 31.0 -2.0
CLL                                ePS         PS        11 01 02.0 +4.7
CLL                                ePPS        PPS       11 02 00.0
CLL                                ex          x         11 03 03.0
CLL                                eSS         SS        11 06 42.0 +0.7
CLL                                esSS                  11 07 54.0
CLL                                eSSS        SSS       11 10 54.0
CLL                                ex          x         11 18 00.0
CLL                                  LH                  11 21 00.0
CLL                                  LV                  11 26 00.0
CLL                                  AMS       AMS       11 34 00.0
      comp=N,300nm,27.6s
CLL                                  AMS       AMS       11 34 00.0
      comp=E,300nm,26.3s
CLL                                  AMS       AMS       11 39 00.0
      comp=Z,200nm,21.8s
NVAR  Mina Array Bea    111.67  51   Pdiff     Pdif      10 46 41.8 +0.6
      comp=Z,1.1nm,0.9s,baz=255,slow=6.7,SNR=6.9
NVAR                                 PKiKP     PKiKP     10 50 38.7 +0.8
      comp=Z,1.9nm,0.7s,baz=247,slow=2.1,SNR=11
NVAR                                 PP        PP        10 51 21.5 -1.5
      comp=Z,2.6nm,1.0s,baz=266,slow=8.8,SNR=5.5
GERES GERESS Array B    111.89 320   Pdiff     Pdif      10 46 42.8 +1.0
      comp=Z,0.9nm,0.2s,baz=95,slow=8.2,SNR=4.9
GERES                                PKiKP     PKiKP     10 50 38.0 +0.1
      comp=Z,6.1nm,0.5s,baz=90,slow=1.3,SNR=26
GERES GERESS Array B    111.89 320 i PKIKP     PKiKP     10 50 38.0 +0.1
KHC   Kasperske Hory    111.90 320 ePKIKP      PKiKP     10 50 38.3 +0.6
KHC   Kasperske Hory    111.90 320 ePKP        PKiKP     10 50 38.3 +0.6
OBKA  Obir              111.92 317 ePKiKP      PKiKP     10 50 39.6 +1.7
      comp=Z,5.4nm,0.9s
BIOA  Bad Ischl, Aus    112.24 319 ePKiKP      PKiKP     10 50 39.5 +1.0
      comp=Z,3.5nm,0.6s
MYKA  Terra Mystica     112.50 318 i PKiKP     PKiKP     10 50 39.3 +0.3
      comp=Z,2.5nm,0.5s
KBA   Koelnbreinsper    112.59 318 i PKiKP     PKiKP     10 50 40.0 +0.7
      comp=Z,8.0nm,0.6s
LESA  Schwarzleotal     112.93 319 ePKiKP      PKiKP     10 50 39.7 -0.1
      comp=Z,4.4nm,0.7s
ABTA  Abfaltersbach     113.22 318 i PKiKP     PKiKP     10 50 40.2 -0.2
      comp=Z,5.7nm,0.7s
WTTA  Wattenberg        113.66 319   PKP       PKiKP     10 50 41.6 +0.2
      comp=Z,24nm,0.5s,SNR=14
WATA  Walderalm         113.68 319 i PKP       PKiKP     10 50 41.5 +0.2
      comp=Z,6.6nm,0.7s
SQTA  Sankt Quirin      113.95 319 ePKiKP      PKiKP     10 50 42.5 +0.7
      comp=Z,3.5nm,0.5s
RPN   Rapa Nui          113.96 124   P         Pdif      10 46 54.1 +2.7
MOTA  Moosalm           113.98 319   PKP       PKiKP     10 50 41.6 -0.3
      comp=Z,11nm,0.9s,SNR=6.3
RETA  Reutte            114.16 319 i PKP       PKiKP     10 50 42.3 +0.1
      comp=Z,3.4nm,0.6s
FETA  Feichten          114.32 319 i PKP       PKiKP     10 50 42.8 +0.1
      comp=Z,5.3nm,0.5s
DAVA  Damuels           114.80 319   PKP       PKiKP     10 50 43.8 +0.3
      comp=Z,14nm,0.5s,SNR=6.3
DAVOX Davos/Dischmat    114.95 319   PKP       PKiKP     10 50 43.8 -0.1
      comp=Z,16nm,0.6s,baz=79,slow=2.2,SNR=25
BCLA  Clavier           116.53 324 dPKPdf      PKiKP     10 50 48.2 +1.7
BMRD  Maredsous         116.89 324 dPKPdf      PKPdf     10 50 47.1 -0.1
PDAR  Pinedale Array    117.21  45   PKP       PKPdf     10 50 48.4  0.0
      comp=Z,2.6nm,0.6s,baz=244,slow=0.8,SNR=18
PDAR                                 PKKPbc    PKKPbc    11 01 14.3 -0.1
      comp=Z,0.9nm,0.7s,baz=111,slow=6.5,SNR=7.3
KEST  Kesra             118.23 307   PKP       PKiKP     10 50 50.9 +0.5
      comp=Z,14nm,0.9s,baz=82,slow=2.0,SNR=7.8
EKA   Eskdalemuir Ar    118.72 331   PKP       PKPdf     10 50 50.0 -0.6
      comp=Z,3.1nm,0.4s,baz=34,slow=1.6,SNR=24
SFJD  Kangerlussuaq     119.93 360   P         PKiKP     10 50 54.2 +1.6
RSSD  Black Hills       120.55  42   PKIKP     PKPdf     10 50 54.6 -0.2
RSSD  Black Hills       120.55  42             PKPdf     10 50 54.6 -0.2
ANMO  Albuquerque       121.70  53   PKIKP     PKiKP     10 50 58.2 +0.8
ANMO  Albuquerque       121.70  53             PKiKP     10 50 58.2 +0.8
ULM   Lac du Bonnet     122.64  33   PKP       PKPdf     10 50 58.0 -0.3
      comp=Z,9.8nm,0.6s,baz=298,slow=2.1,SNR=23
ULM                                  PKKPbc    PKKPab    11 00 48.9 -4.2
      comp=Z,5.3nm,1.1s,baz=102,slow=9.3,SNR=3.4
ULM   Lac du Bonnet     122.64  33             PKPdf     10 50 57.2 -1.1
HPIG                    124.14  62   P         PKiKP     10 51 04.2 +1.8
TXAR  Lajitas Array     125.37  59   PKP       PKiKP     10 51 04.6 -0.1
      comp=Z,6.5nm,0.8s,baz=220,slow=1.7,SNR=35
TXAR                                 PP        PP        10 52 55.3 -2.1
      comp=Z,3.0nm,1.0s,baz=288,slow=6.9,SNR=7.3
TXAR                                 SKPbc     SKPbc     10 54 00.8
      comp=Z,0.8nm,0.6s,baz=232,slow=3.6,SNR=3.9
TXAR                                 PKKPab    PKKPbc    11 00 44.0 +0.8
      comp=Z,0.4nm,0.7s,baz=117,slow=6.3,SNR=4.8
NRS   Narsarsuaq        125.65 357   PKIKP     PKiKP     10 51 04.1  0.0
NRS   Narsarsuaq        125.65 357             PKiKP     10 51 04.1  0.0
ESDC  Sonseca Array     126.95 315   PKP       PKiKP     10 51 07.3 -0.2
      comp=Z,2.4nm,0.9s,baz=54,slow=2.5,SNR=11
ESDC                                 SKPbc               10 53 00.5
      comp=Z,0.5nm,0.5s,baz=50,slow=8.9,SNR=4.5
PAB   San Pablo         127.27 315   PKIKP     PKPdf     10 51 07.8 +0.2
PAB   San Pablo         127.27 315             PKPdf     10 51 07.8 +0.2
ZAIG  Zacatecas         127.62  67   P         PKiKP     10 51 12.9 +3.4
ZAIG                                 P         PKiKP     10 51 12.9 +3.4
PBRG  Braganca          127.85 319 ePKPdf      PKiKP     10 51 09.8 +0.6
TORD  Torodi Ar. Bea    128.17 281   PKP       PKPdf     10 51 10.1 +0.3
      comp=Z,11nm,0.6s,baz=71,slow=2.1,SNR=31
TORD                                 SKPbc     PKPbc     10 54 09.9
      comp=Z,10nm,0.8s,baz=79,slow=4.1,SNR=11
PCAB  Cabril            128.73 319 ex          x         10 54 14.1
PVRL  Vila Real         128.74 319 ePKPdf      PKiKP     10 51 12.3 +1.3
POLO  Lamas de Olo      128.75 319 ePKPdf      PKiKP     10 51 11.6 +0.5
POLO                               ex          x         10 54 14.1
PGAV  Gavieira, Arco    128.75 320 ePKPdf      PKiKP     10 51 11.5 +0.5
PGAV                               ex          x         10 54 14.3
MTE   Manteigas         129.06 318 ePKPdf      PKiKP     10 51 12.4 +0.7
MTE                                ex          x         10 54 13.8
PVIS  Viseu             129.14 318 ePKPdf      PKiKP     10 51 13.0 +1.1
PVIS                               ex          x         10 54 14.1
PLCA  Paso Flores       129.25 160   PKP       PKiKP     10 51 13.0 +0.9
      baz=212,slow=2.0,SNR=4.3
PLCA                                 SKPbc     SKPbc     10 54 13.7  0.0
      comp=Z,10.0nm,0.8s,baz=237,slow=2.3,SNR=8.9
PCBR  Castelo Branco    129.29 317 ePKPdf      PKiKP     10 51 12.6 +0.6
PCBR                               ex          x         10 54 14.3
PMRV  Marv??o           129.43 317 ex          x         10 54 14.7
PBAR  Barrancos         129.76 315 ePKPdf      PKiKP     10 51 13.8 +0.8
PBAR                               ex          x         10 54 15.8
PESTR Estremoz          129.83 316 ex          x         10 54 16.6
PSARD Sardoal           129.87 317 ex          x         10 54 16.4
PCAS  Casmilo, Conde    129.87 318 ex          x         10 54 16.6
PARRA Arraiolos         130.16 316 ePKPdf      PKiKP     10 51 14.3 +0.4
PARRA                              ex          x         10 54 16.9
PMTG  Montargil         130.16 317 ex          x         10 54 17.3
MD01  Midelt array s    130.22 308             PKiKP     10 51 14.4  0.0
EVO   Evora             130.28 316 ex          x         10 54 18.1
SCHQ  Schefferville     130.39  12   PKP       PKiKP     10 51 15.1 +1.3
      comp=Z,5.3nm,0.6s,baz=337,slow=0.8,SNR=6.6
SCHQ                                 SKPbc     SKPab     10 54 17.8 +0.3
      comp=Z,32nm,0.8s,baz=338,slow=3.9,SNR=13
PBEJ  Beja              130.41 315 ex          x         10 54 18.8
MOE   Montemor          130.51 316 ePKPdf      PKiKP     10 51 14.8 +0.2
MOE                                ex          x         10 54 18.9
PVAQ  Vaqueiros         130.59 314 ex          x         10 54 19.0
PCVE  Castro Verde      130.71 315 ex          x         10 54 19.5
MESJ  Messejana         130.74 315 ePKPdf      PKiKP     10 51 15.8 +0.8
MESJ                               ex          x         10 54 19.5
PLOUS Minas do Lousa    130.79 316 ex          x         10 54 20.1
PBDV  Barranco-do-Ve    130.82 314 ePKPdf      PKiKP     10 51 16.1 +0.9
PBDV                               ex          x         10 54 20.4
PTEO  Sao Teotonio      131.24 315 ex          x         10 54 23.2
MORF  Marmelete         131.30 315 ePKPdf      PKiKP     10 51 16.8 +0.6
MORF                               ex          x         10 54 23.8
MORF  Marmelete         131.30 315 ePKIKP      PKiKP     10 51 16.8 +0.6
PFVI  Vila Bisbo        131.50 315 ex          x         10 54 23.3
CCM   Cathedral Cave    131.88  44   PKIKP     PKPdf     10 51 15.8 -0.5
CCM   Cathedral Cave    131.88  44             PKPdf     10 51 15.8 -0.5
DBIC  Dimbokro          134.56 273   PKhKP     PKPpre    10 51 11.8
      comp=Z,5.7nm,0.7s,baz=5.4,slow=0.3,SNR=4.5
DBIC                                 PKP       PKiKP     10 51 23.9 +0.4
      comp=Z,14nm,0.6s,baz=114,slow=2.5,SNR=11
DBIC                                 SKPbc     SKPbc     10 54 32.4 -0.7
      comp=Z,45nm,0.7s,baz=108,slow=4.0,SNR=24
AC05  El Transito       139.80 153             PKPpre    10 51 25.6
PSAL  Palomas, Salto    141.72 170 eP          PKPdf     10 51 31.5 -3.2
CRIN  San Cristobal     143.66  78   P         PKPdf     10 51 39.6 +1.0
TEL3  Telica 3          143.87  78   P         PKPdf     10 51 40.5 +1.6
DWPF  Disney Wildern    143.97  50             PKPdf     10 51 38.0 -0.8
DWPF  Disney Wildern    143.97  50 eP          PKPdf     10 51 38.5 -0.2
CNGN  Cerro Negro       144.02  78   P         PKPdf     10 51 40.6 +1.4
LEVN  Ruinas Leon Vi    144.11  78   P         PKPdf     10 51 40.9 +1.6
OCON  Estacion meteo    144.11  76   P         PKPdf     10 51 40.4 +1.0
RCVN  Varillal2         144.39  76   P         PKPdf     10 51 41.8 +1.8
UNAN  Cigeo UNAN        144.47  79   P         PKiKP     10 51 42.0 -1.7
MGAN  Managua           144.49  79   P         PKPdf     10 51 41.4 +1.5
WILN  Americas 2        144.55  79   P         PKPdf     10 51 41.7 +1.7
SABN  Sabanita          144.59  79   P         PKiKP     10 51 46.9 +3.0
NANN  Nandasmo          144.63  79   P         PKiKP     10 51 43.3 -0.7
SOR   Soroa             145.02  60 eP          PKPdf     10 51 42.2 +1.5
BOAB  BOACO BROADBAN145.03  78   P         PKiKP     10 51 44.2 -0.6
JAPN  Al SSO del Vol    145.10  80   P         PKiKP     10 51 44.3 -0.7
LCRUZ La Cruz           145.18  80 eP          PKPbc     10 51 41.3  0.0
SACU  Santa Cruz        145.27  82 eP          PKPab     10 51 42.8 +1.0
CARN  Rivas             145.28  80   P         PKiKP     10 51 44.7 -0.6
ALIBA Liberia Airpor    145.29  81 eP          PKPab     10 51 42.5 +0.6
JUD3  Juan Diaz 3       145.32  82 eP          PKPab     10 51 43.0 +0.9
LAPC  Finca la Perla    145.39  81 eP          PKPab     10 51 42.2 -0.1
VRLE  La Escondida,     145.46  81 eP          PKPab     10 51 43.4 +0.7
BUAI  Buenos Aires      145.49  81 eP          PKPab     10 51 42.8 +0.1
PEJA  Penjamo Buenos    145.50  81 eP          PKPab     10 51 43.2 +0.4
MESS  Mesas             145.63  81 eP          PKPbc     10 51 42.9 +0.2
CLARA Aguas Claras      145.65  81 eP          PKPab     10 51 43.3  0.0
CUI   Cuipilapa         145.66  81 eP          PKPbc     10 51 42.5 -0.2
VMAR  Armenia, Volca    145.70  81 eP          PKPab     10 51 43.4 -0.2
CANAL Canalete          145.76  81 eP          PKPbc     10 51 43.1 +0.1
TENO  El Achiote        145.84  81 eP          PKPab     10 51 44.0 -0.1
JTS   Las Juntas de     145.89  82 eP          PKPab     10 51 44.2 -0.1
COTE  Lago Cote         145.91  81 eP          PKPbc     10 51 43.4 -0.2
ARE1  Arenal 1          146.11  81 eP          PKPab     10 51 44.8 -0.3
VARE2 V. Arenal         146.11  81 eP          PKPab     10 51 44.9 -0.3
CAMR  Camarioca         146.31  58 eP          PKiKP     10 51 46.7 -0.5
CPUP  Villa Florida     146.40 169   PKPbc     PKPbc     10 51 44.8 +0.2
      comp=Z,21nm,0.8s,baz=196,slow=2.0,SNR=46
CPUP                                 SKPbc     SKiKP     10 55 05.3 +0.8
      comp=Z,13nm,0.8s,baz=184,slow=2.0,SNR=5.2
CPUP  Villa Florida     146.40 169   PKP2      PKPbc     10 51 45.0 +0.4
CPUP  Villa Florida     146.40 169             PKPbc     10 51 45.0 +0.4
CPUP  Villa Florida     146.40 169 eP          PKPdf     10 51 40.3 -2.6
ACOS  Acosta            146.69  83 eP          PKiKP     10 51 48.5 +0.1
HDC   Heredia           146.73  82 eP          PKPdf     10 51 40.2 -3.8
VBV1  V. Barva          146.74  82 eP          PKiKP     10 51 48.7 -0.1
ABE2  San Pablo         146.80  83 eP          PKPbc     10 51 46.6 +0.3
CVIMO Finca Echandi     146.90  82 eP          PKiKP     10 51 51.8 +2.8
BLUN  Bluefields        146.91  79   P         PKiKP     10 51 49.5 +0.8
BILN  Bilwi Airport     147.03  75   P         PKiKP     10 51 49.5 +0.6
CVTQ  Turrialba Volc    147.07  82 eP          PKPbc     10 51 48.1 +0.9
CVTR  Volcan Turrial    147.08  82 eP          PKPbc     10 51 48.1 +0.8
VTCV  VTCV, Calle Va    147.11  82 eP          PKPbc     10 51 48.2 +1.0
LCOCO El Coco           147.28  82 eP          PKPbc     10 51 48.2 +0.9
FSCY  Frank Sound, G    147.82  64 eP          PKiKP     10 51 50.1 -0.3
MGV   Manicaragua       147.87  59 eP          PKiKP     10 51 50.4  0.0
NNA   Nana              147.92 126   PKP2      PKiKP     10 51 50.2 -0.6
NNA   Nana              147.92 126             PKiKP     10 51 50.2 -0.6
NNA   Nana              147.92 126   P         PKPab     10 51 52.2  0.0
SJPY  San Joaquin       147.92 171 eP          PKPdf     10 51 44.6 -1.0
CDITO Canoas            148.00  85   P         PKPab     10 51 53.3 +0.8
CAIB  Caibarien         148.14  58   P         PKPab     10 51 52.0 -0.9
PTGB  Pitanga           148.61 177 eP          PKPdf     10 51 45.8 -1.0
MCRA  Macar, Loja       148.68 110   P         PKPbc     10 51 49.4 -1.7
      comp=Z,537nmcomp=Z,61nm,0.7s
LCCY  Blossom Villag    148.69  63 eP          PKiKP     10 51 51.9 -0.2
PET01 Itanhaem-SP       148.90 186 eP          PKPdf     10 51 44.6 -2.5
CBCY  The Bluff, Cay    148.95  63 eP          PKiKP     10 51 52.3 -0.4
PRVC  Isla de Provid    149.07  75   P         PKiKP     10 51 54.9 +1.8
GMAL  Guarumal, Vera    149.63  86 eP          PKPbc     10 51 53.0 -0.4
LDASE Londrina, Braz    149.96 179 eP          PKPdf     10 51 45.7 -3.2
CACAO El Cacao, Vera    149.99  87 eP          PKiKP     10 51 55.7 +0.6
CCCC  Cccc              150.12  59 eP          PKiKP     10 51 56.3 +1.2
CAM01 Campos-RJ         150.19 197 eP          PKPdf     10 51 44.3 -4.9
CHIT3 Chitre            150.44  86 eP          PKPbc     10 51 53.8 -1.6
TRCB  Terra Rica        150.49 176 eP          PKPdf     10 51 46.2 -3.6
PNME  Penonome          150.52  85   P         PKPdf     10 51 52.0 +2.0
      comp=Z,71nm,1.0s
AZU   Azuero            150.58  86 eP          PKiKP     10 51 56.8 +0.6
AZU                                eS                    10 52 14.8
MURT  Porto Murtinho    150.87 167 eP          PKPdf     10 51 47.1 -3.2
PILO  Pilon             150.94  61   P         PKiKP     10 51 58.2 +1.3
PILO  Pilon             150.94  61 eP          PKiKP     10 51 58.0 +1.1
BCIP  Isla Barro Col    150.98  83   P         PKPdf     10 51 53.1 +2.4
      comp=Z,1µmcomp=Z,147nm,0.8s
BCIP  Isla Barro Col    150.98  83   P         PKiKP     10 51 58.5 +1.4
CHOR3 La Chorrera       151.06  84 eP          PKPbc     10 51 56.5 -0.3
FRIJ  El Hiral          151.09  83 eP          PKPbc     10 51 56.5 -0.4
GAMB1 Gamboa            151.11  84 eP          PKPbc     10 51 56.1 -0.8
PAC1  Pacto, Paraso     151.16 102   P         PKPdf     10 51 53.8 +2.6
LMGC  Las Mercedes      151.23  60 eP          PKiKP     10 51 57.6 +0.2
LPAZ  La Paz            151.23 143   PKP       PKPdf     10 51 52.1 +0.3
      comp=Z,5.1nm,0.8s,baz=209,slow=3.2,SNR=15
LPAZ                                 PKPbc     PKiKP     10 51 58.7 +0.4
      comp=Z,9.7nm,0.6s,baz=194,slow=1.8,SNR=20
LPAZ  La Paz            151.23 143 eP          PKPdf     10 51 47.5 -4.2
UPA   Univ. de Panam    151.29  84   P         PKPdf     10 51 52.5 +1.4
      comp=Z,110nm,0.9s
UPA   Univ. de Panam    151.29  84 eP          PKPbc     10 51 56.9 -0.4
BBSR  BB Station        151.41  25   P         PKiKP     10 52 00.0 +2.5
MTDJ  Mount Denham      151.44  64   P         PKiKP     10 51 59.8 +1.7
MTDJ  Mount Denham      151.44  64 eP          PKPbc     10 51 57.8 +0.1
OTAV  Otavalo           151.48 102   PKIKP     PKPbc     10 51 55.7 -2.7
OTAV  Otavalo           151.48 102             PKPbc     10 51 55.6 -2.7
OTAV  Otavalo           151.48 102   P         PKPbc     10 51 55.8 -2.7
      comp=Z,17nm,1.0s
OTAV  Otavalo           151.48 102   P         PKiKP     10 52 02.0 +3.3
OTAV  Otavalo           151.48 102 eP          PKPdf     10 51 47.7 -4.4
YAR   Yar               151.66  59 eP          PKPbc     10 51 57.8 -0.2
HLGC  Holguin           151.69  58 eP          PKiKP     10 52 00.1 +1.7
CHIV  Chivirico         151.77  60   P         PKiKP     10 52 00.1 +1.5
CHIV  Chivirico         151.77  60 eP          PKiKP     10 52 00.2 +1.7
PINC  Pinares de May    152.09  58 eP          PKiKP     10 51 59.8 +0.6
MARVS Santiago de Cu    152.20  59 eP          PKPbc     10 51 59.2  0.0
CMBC  Cumbal            152.25 101   P         PKPbc     10 51 58.4 -1.7
SACV  Santiago Islan    152.29 289   P         PKiKP     10 52 02.3 +2.5
AQDB  Aquidauana        152.41 170 eP          PKPdf     10 51 50.0 -2.7
COIM  Forte Coimbra     152.51 165 eP          PKPdf     10 51 52.2 -0.6
MOAC  Moa               152.71  57 eP          PKPdf     10 51 53.7 +0.6
CANS  Sao Roque de M    152.73 189 eP          PKPdf     10 51 49.8 -3.5
BSFB  Barra de Sao F    152.74 201 eP          PKPdf     10 51 51.3 -1.8
NMDO  Nuevo Mundo       152.74  58   P         PKiKP     10 52 03.2 +2.7
NMDO  Nuevo Mundo       152.74  58 eP          PKPbc     10 51 57.8 -2.6
GTBY  Guantanamo Bay152.91  59   P         PKiKP     10 52 02.8 +1.9
GTBY  Guantanamo Bay152.91  59 eP          PKiKP     10 52 01.3 +0.4
SJMB  Sao Joao De Ma    152.97 200 eP          PKPdf     10 51 50.0 -3.6
BBAC  Balboa, Cauca     153.04  99   P         PKPdf     10 51 57.7 +3.6
      comp=Z,33nm,0.7s
QMBU  Quimbuelo         153.04  58   P         PKiKP     10 52 03.8 +2.6
QMBU  Quimbuelo         153.04  58 eP          PKiKP     10 52 01.9 +0.6
CZSB  Cruzeiro do Su    153.65 123 eP          PKPdf     10 51 53.3 -1.4
POPC  Popayan, Colom    153.69  98   P         PKPdf     10 51 58.1 +3.1
      comp=Z,422nmcomp=Z,34nm,1.1s
APAC  Apartado, Choc    154.24  86   P         PKiKP     10 52 07.7 +3.8
GRTK  Grand Turk        155.38  52 eP          PKPdf     10 51 53.7 -3.1
PTLB  Pontes e Lacer    156.31 159 eP          PKPdf     10 51 56.5 -1.7
ROSC  El Rosal          156.35  94   PKIKP     PKPdf     10 51 58.1 -0.7
ROSC  El Rosal          156.35  94   PKPdf     PKPdf     10 51 58.1 -0.7
SDDR  Presa de Saban    156.55  57   P         PKPab     10 52 28.9 +0.6
SALV  Santo Antonio     156.86 168 eP          PKPdf     10 51 56.9 -2.0
JANB  Januaria          157.37 196 eP          PKPdf     10 51 57.9 -1.7
BDFB  Brasilia          157.53 187   PKP       PKPdf     10 52 01.1 +1.2
      comp=Z,1.4nm,0.3s,baz=171,slow=6.7,SNR=3.6
ARAG  Araguaiana, MT    157.58 177 eP          PKPdf     10 51 57.6 -2.2
RUSC  La Rusia          157.66  91   P         PKPdf     10 52 02.5 +1.9
VILB  Vilhena           158.16 154 eP          PKPdf     10 51 58.3 -2.3
NBPN  Ponto Novo - B    159.60 211 eP          PKPdf     10 52 01.7 -0.6
MLPR  Magueyes Islan    160.53  54   PKPdf     PKPdf     10 52 03.6 +0.4
SJG   San Juan          161.16  52   P         PKPab     10 52 48.8 +0.5
SJG   San Juan          161.16  52   P         PKPdf     10 52 04.8 +0.9
PDPR  Patillas Dam,     161.32  52   PKPdf     PKPdf     10 52 03.9 -0.1
PDPR                                           PKPab     10 52 49.3 +0.3
CLDB  Colider           161.68 164 eP          PKPdf     10 52 03.3 -1.2
ITTB  Itaituba          167.76 155 eP          PKPdf     10 52 10.0 +0.2
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BOAV	**Boa Vista**	**169.20**	**114**	*e*P	**PKPdf**	**10 52 10.0**	**-0.8**

IDC 17 10:37:52.7±4.0, 18°.05S×178°.39W, h611^{km}±28^{km}, mb3.3/4, mbtmp4.2/5, Error ellipse: s-maj=218.8km s-min=25.3km az=155.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**3.41**	**275**	P	P	10 39 15.3	0.0
	64nm,0.6s,baz=111,slow=7.0,SNR=46						
WRA	**Warramunga Arr**	**44.62**	**260**	P	P	10 45 12.7	-0.1
	5.2nm,0.6s,baz=96,slow=8.1,SNR=1.3						
	5.2nm,0.6s						
ASAR	**Alice Springs**	**44.77**	**254**	P	P	10 45 13.9	0.0
	9.8nm,0.5s,baz=87,slow=7.5,SNR=3.1						
	9.8nm,0.5s						
NVAR	**Mina Array Bea**	**79.51**	**44**	P	P	10 48 57.1	-0.6
	0.4nm,0.5s,baz=259,slow=6.5,SNR=4.0						
	0.4nm,0.5s						
TXAR	**Lajitas Array**	**86.05**	**58**	P	P	10 49 30.9	+0.6
	0.5nm,0.6s,baz=239,slow=5.7,SNR=8.0						
	0.5nm,0.6s						

TEH 17 11:21:37.4, 31°.55N×59°.96E, h8^{km}±16^{km}, ML4.1, Presumed earthquake, Northern and central Iran

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NHDN	**Nehbandan**	**0.18**	**153**	Pg	Pg	11 21 41.0	-0.1
BSRN	**Basiran**	**0.82**	**300**	Pg	Pb	11 21 54.3	+0.2
IDAH	**Dahanechah**	**1.19**	**356**	Pg	Pn	11 22 00.8	+0.2
IKOO	**Kooshah**	**1.19**	**317**	Pg	Pg	11 22 00.2	-0.1
IMON	**Monand**	**1.66**	**352**	Pg	Pg	11 22 09.6	+0.4
AFRZ	**Afriz**	**2.03**	**337**	Pn	Pb	11 22 14.3	-0.4
SHRT	**Shahrakht**	**2.11**	**8**	Pn	Pb	11 22 15.5	-0.4
KRM1	**Kerman Provinc**	**2.53**	**246**	Pn	Pb	11 22 21.3	-1.9
CHMN	**Cheshme madani**	**2.68**	**232**	Pn	Pn	11 22 23.3	+2.1
KBAM	**BAM**	**2.74**	**209**	Pn	Pn	11 22 23.3	+1.5
TPRV	**Parvadeh(Tabas**	**3.14**	**299**	Pn	Pn	11 22 29.5	+2.1
KHGB	**Koh Gabri**	**3.21**	**250**	Pn	Pn	11 22 31.2	+2.7
NGRK	**Negar Kerman**	**3.37**	**236**	Pn	Pn	11 22 33.6	+2.9
IBAF	**Bafgh**	**3.75**	**272**	Pn	Pn	11 22 38.5	+2.8
IMEH	**Mehriz**	**4.57**	**269**	Pn	Pn	11 22 49.5	+2.4
SRVN	**Saravan**	**4.65**	**152**	Pn	Pn	11 22 51.1	+3.0
DOBD	**Dorbid, Yazd**	**4.66**	**277**	Pn	Pn	11 22 50.8	+2.5
ANAR	**Anarak**	**5.52**	**289**	Pn	Pn	11 23 02.4	+2.3

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*TEH **17** 11:28:29.1, 27°.29N×58°.00E, h13^{km}±48^{km}, ML3.1, Presumed earthquake*

*OMAN **17** 11:28:34.5±0.2, 27°.12N×58°.25E, h28^{km}±7^{km}, ml2.9/11, Error ellipse: s-maj=9.9km s-min=1.5km az=23.0*

ISC 17 11:28:29.2±1.1, 27°.30N±0°.03×58°.14E±0°.07, h10^{km}, n20, σ1^{s}.40/26, Southern Iran

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KHNJ	**Kahnooj**	**0.76**	**329**	Pg	**Pg**	**11 28 43.7**	**-0.1**
KHNJ				Sg	**Sb**	**11 28 54.5**	**-0.4**
IBND	**Bandar-abas**	**1.43**	**276**	Pg	**Pn**	**11 28 55.4**	**+0.2**
JASK	**Jask - Hormozg**	**1.44**	**190**	P	**Pg**	**11 28 56.7**	**-0.2**
	SNR=16						
JASK				S	**Sn**	**11 29 13.7**	**-0.8**
JASK	**Jask - Hormozg**	**1.44**	**190**	Pg	**Pg**	**11 28 56.4**	**-0.5**
GENO	**Geno**	**1.75**	**274**	Pg	**Pn**	**11 29 00.8**	**+1.0**
KBAM	**BAM**	**1.85**	**8**	Pn	**Pg**	**11 29 04.3**	**-0.4**
BANOM	**Banah**	**2.14**	**231**	P	**Pb**	**11 29 07.7**	**-0.4**
BANOM				S	**Sb**	**11 29 34.4**	**-0.3**
SHME	**Shamm**	**2.18**	**236**	P	**Pb**	**11 29 07.7**	**-0.9**
MASF	**Masafi**	**2.61**	**223**	P	**Pb**	**11 29 14.3**	**-1.9**
NGRK	**Negar Kerman**	**2.65**	**332**	Pn	**Pn**	**11 29 14.1**	**+1.8**
UOSS	**Minazif**	**2.92**	**217**	P	**Pn**	**11 29 18.1**	**+2.5**
ASHO	**Ashiyiah**	**3.21**	**216**	P	**Pn**	**11 29 22.6**	**+2.9**
HOQ	**Hoqain**	**3.77**	**192**	P	**Pn**	**11 29 27.4**	**-0.1**
HOQ				S	**Sn**	**11 30 11.1**	**-0.8**
WSAR	**Wadi Sarin**	**4.06**	**174**	P	**Pn**	**11 29 32.9**	**+1.4**
	SNR=5.2						
WSAR				S	**Sn**	**11 30 18.0**	**-1.1**
SMDO	**Samad**	**4.22**	**181**	P	**Pn**	**11 29 34.3**	**+0.6**
BSY	**Bisya**	**4.61**	**191**	P	**Pn**	**11 29 41.3**	**+2.3**
BSY				S	**Sn**	**11 30 34.3**	**+1.7**
WBK	**Wadi Bani Khal**	**4.73**	**171**	P	**Pn**	**11 29 41.4**	**+0.8**
	SNR=16						
JMDO	**Jabal Madar**	**4.90**	**180**	P	**Pn**	**11 29 44.6**	**+1.6**
	SNR=5.6						
JLN	**Jalan Bani Buh**	**5.25**	**167**	P	**Pn**	**11 29 48.7**	**+0.9**
MHTO	**MHTO**	**6.28**	**181**	P	**Pn**	**11 30 04.0**	**+2.0**

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*IDC **17** 11:41:49.6±0.5, 54°.81N×168°.28E, h0^{km}, mb4.2/31, mbtmp4.2/35, ML3.9/4, MS3.7/43, Error ellipse: s-maj=14.4km s-min=9.3km az=168.0*

*KRSC **17** 11:41:49.2±2.4, 54°.54N×168°.15E, h31^{km}±30^{km}, Mc4.7, Ml5.0*

*MOS **17** 11:41:50.0±0.9, 54°.60N×168°.31E, h31^{km}, mb4.7/23, MS3.7/10, Error ellipse: s-maj=5.9km s-min=4.6km az=30.3*

*NEIC **17** 11:41:50.9±2.3, 54°.60N±0°.09×168°.23E±0°.09, h10^{km}±1^{km}, mb4.5/116, Error ellipse: s-maj=14.7km s-min=8.8km az=180.0*

ISC 17 11:41:52.5±0.4, 54°.59N±0°.05×168°.31E±0°.04, h24^{km}, n309, σ1^{s}.42/267, mb4.5/97, MS3.7/46, 9C-13D, Komandorsky Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BKI	**Bering**	**1.48**	**296**	PN	**Pn**	**11 42 14.7**	**-2.9**
BKI				S	**Sn**	**11 42 32.5**	**-3.7**
BKI	**Bering**	**1.48**	**296**	*e*P	**Pn**	**11 42 14.8**	**-2.9**
BKI				*e*S	**Sn**	**11 42 32.5**	**-3.7**
KBTR	**Krutoberegovo**	**3.53**	**300**	PN	**Pn**	**11 42 43.7**	**-2.0**
KBTR	**Krutoberegovo**	**3.53**	**300**	*e*P	**Pn**	**11 42 43.7**	**-2.0**
KBTR				*e*S	**Sn**	**11 43 23.3**	**-3.3**
KBG	**Krutoberegovo**	**3.60**	**300**	PN	**Pn**	**11 42 45.2**	**-1.5**
KBG				S	**Sn**	**11 43 28.0**	**-0.5**
KBG	**Krutoberegovo**	**3.60**	**300**	*e*P	**Pn**	**11 42 45.3**	**-1.5**
KBG				*e*S	**Sn**	**11 43 28.1**	**-0.5**
MKZ	**Mys Kozlova**	**3.83**	**272**	PN	**Pn**	**11 42 48.9**	**-0.9**
MKZ	**Mys Kozlova**	**3.83**	**272**	*e*P	**Pn**	**11 42 48.9**	**-0.9**
MKZ				*e*S	**Sn**	**11 43 31.0**	**-3.0**
SHEM	**Shemya Is, Ala**	**3.92**	**116**	Pn	**Pn**	**11 42 50.7**	**-0.3**
	190nm,0.3s,baz=53,slow=2.3,SNR=181						
SHEM				Sn	**Sn**	**11 43 36.6**	**+0.4**
	64nm,0.3s,baz=343,slow=22,SNR=6.8						
SHEM				LR	LR	11 44 15.0	
	comp=Z,412nm,19.8s,baz=339,slow=36						
SHEM	**Shemya Is, Ala**	**3.92**	**116**		**Pn**	**11 42 49.5**	**-1.6**
SMY	**Shemya**	**3.92**	**116**	PN	**Pn**	**11 42 49.5**	**-1.6**
SMY	**Shemya**	**3.92**	**116**		**Pn**	**11 42 49.5**	**-1.6**
SMKR	**Semkarok**	**4.37**	**300**	PN	**Pn**	**11 42 56.7**	**-0.6**
SMKR	**Semkarok**	**4.37**	**300**	*e*P	**Pn**	**11 42 56.7**	**-0.6**
BDR	**Baidarnaya**	**4.49**	**299**	*e*S	**Sn**	**11 43 52.0**	**+1.5**
ZLN	**Zelenaya**	**4.52**	**292**	PN	**Pn**	**11 42 59.3**	**-0.2**
ZLN				S	**Sn**	**11 43 52.9**	**+1.6**
ZLN	**Zelenaya**	**4.52**	**292**	*e*P	**Pn**	**11 42 59.3**	**-0.2**
ZLN				*e*S	**Sn**	**11 43 52.9**	**+1.6**
BZGR	**Bezymyannyi-Gr**	**4.56**	**290**	PN	**Pn**	**11 43 00.3**	**+0.3**
BZGR	**Bezymyannyi-Gr**	**4.56**	**290**	*e*P	**Pn**	**11 43 00.3**	**+0.3**
BZGR				*e*S	**Sn**	**11 43 52.0**	**-0.2**
CIRR	**Tsirk**	**4.58**	**293**	PN	**Pn**	**11 43 01.1**	**+0.8**
CIRR	**Tsirk**	**4.58**	**293**	*e*P	**Pn**	**11 43 01.1**	**+0.8**
LGNR	**Loginova**	**4.60**	**292**	PN	**Pn**	**11 43 01.4**	**+0.7**
LGNR	**Loginova**	**4.60**	**292**	*e*P	**Pn**	**11 43 01.4**	**+0.7**
BZP	**Bezymyannyi-Pe**	**4.64**	**290**	PN	**Pn**	**11 43 01.2**	**0.0**
BZP	**Bezymyannyi-Pe**	**4.64**	**290**	*e*P	**Pn**	**11 43 01.2**	**0.0**
BZMR	**Bezymyannaya**	**4.67**	**290**	PN	**Pn**	**11 43 02.1**	**+0.5**
BZMR	**Bezymyannaya**	**4.67**	**290**	*e*P	**Pn**	**11 43 02.2**	**+0.5**
BZWR	**Bezymyannyi-We**	**4.67**	**290**	PN	**Pn**	**11 43 02.8**	**+1.2**
BZWR	**Bezymyannyi-We**	**4.67**	**290**	*e*P	**Pn**	**11 43 02.9**	**+1.2**
KLY	**Klyuchi**	**4.69**	**295**	PN	**Pn**	**11 43 00.4**	**-1.3**
KLY				S	**Sn**	**11 43 54.1**	**-1.1**
KLY	**Klyuchi**	**4.69**	**295**	*e*P	**Pn**	**11 43 00.4**	**-1.3**
KLY				*e*S	**Sn**	**11 43 54.1**	**-1.1**
KIRR	**Kirishev**	**4.76**	**290**	PN	**Pn**	**11 43 03.7**	**+0.9**
KIRR	**Kirishev**	**4.76**	**290**	*e*P	**Pn**	**11 43 03.7**	**+0.9**
KIRR				*e*S	**Sn**	**11 43 57.5**	**+0.4**
TUMR	**Tumrok**	**4.76**	**282**	PN	**Pn**	**11 43 02.6**	**-0.1**
TUMR	**Tumrok**	**4.76**	**282**	*e*P	**Pn**	**11 43 02.6**	**-0.1**
KMNR	**Kamenistaya**	**4.77**	**288**	PN	**Pn**	**11 43 03.8**	**+0.9**
KMNR	**Kamenistaya**	**4.77**	**288**	*e*P	**Pn**	**11 43 03.8**	**+0.9**
KPT	**Kopyto**	**4.83**	**290**	PN	**Pn**	**11 43 03.8**	**+0.2**
KPT	**Kopyto**	**4.83**	**290**	*e*P	**Pn**	**11 43 03.9**	**+0.2**
KOZ	**Kozyrevsk**	**5.04**	**290**	PN	**Pn**	**11 43 07.9**	**+1.4**
KOZ	**Kozyrevsk**	**5.04**	**290**	*e*P	**Pn**	**11 43 07.9**	**+1.4**
KOZ				*e*S	**Sn**	**11 44 05.0**	**+1.1**
SPN	**Mys Shipunski**	**5.13**	**256**	PN	**Pn**	**11 43 06.9**	**-0.8**
SPN	**Mys Shipunski**	**5.13**	**256**	*e*P	**Pn**	**11 43 07.0**	**-0.8**
SPN				*e*S	**Sn**	**11 44 02.8**	**-3.2**
SRDR	**Sredinnyy**	**5.19**	**293**	PN	**Pn**	**11 43 09.1**	**+0.5**
SRDR	**Sredinnyy**	**5.19**	**293**	*e*P	**Pn**	**11 43 09.2**	**+0.5**
KII	**Karymskiy**	**5.21**	**268**	PN	**Pn**	**11 43 08.9**	**-0.1**
KII	**Karymskiy**	**5.21**	**268**	*e*P	**Pn**	**11 43 08.9**	**-0.1**
NLC	**Nalytchevo**	**5.49**	**259**	PN	**Pn**	**11 43 12.0**	**-0.6**
NLC	**Nalytchevo**	**5.49**	**259**	*e*P	**Pn**	**11 43 12.0**	**-0.6**
NLC				*e*S	**Sn**	**11 44 10.8**	**-4.1**
OSSR	**Ossora**	**5.49**	**331**	PN	**Pn**	**11 43 11.0**	**-1.6**
OSSR	**Ossora**	**5.49**	**331**	*e*P	**Pn**	**11 43 11.1**	**-1.6**
ESO	**Esso**	**5.66**	**288**	PN	**Pn**	**11 43 15.4**	**+0.4**
ESO	**Esso**	**5.66**	**288**	*e*P	**Pn**	**11 43 15.4**	**+0.4**
SDLR	**Sedlovina**	**5.72**	**261**	PN	**Pn**	**11 43 15.5**	**-0.5**
SDLR	**Sedlovina**	**5.72**	**261**	*e*P	**Pn**	**11 43 15.5**	**-0.5**
SMAR	**Somma**	**5.77**	**261**	PN	**Pn**	**11 43 16.3**	**-0.5**
SMAR	**Somma**	**5.77**	**261**	*e*P	**Pn**	**11 43 16.3**	**-0.5**
UGLR	**Uglovaya**	**5.77**	**260**	PN	**Pn**	**11 43 16.7**	**0.0**
UGLR	**Uglovaya**	**5.77**	**260**	*e*P	**Pn**	**11 43 16.8**	**0.0**
KRER	**Koryakskii**	**5.79**	**261**	PN	**Pn**	**11 43 16.9**	**-0.1**
KRER	**Koryakskii**	**5.79**	**261**	*e*P	**Pn**	**11 43 16.9**	**-0.1**
AVH	**Avacha**	**5.81**	**261**	PN	**Pn**	**11 43 17.2**	**+0.1**
AVH	**Avacha**	**5.81**	**261**	*e*P	**Pn**	**11 43 17.2**	**+0.1**
KRX	**Arik**	**5.83**	**262**	PN	**Pn**	**11 43 17.1**	**-0.4**
KRX	**Arik**	**5.83**	**262**	*e*P	**Pn**	**11 43 17.1**	**-0.4**
KOK	**Koryaka**	**5.86**	**261**	PN	**Pn**	**11 43 17.5**	**-0.3**
KOK	**Koryaka**	**5.86**	**261**	*e*P	**Pn**	**11 43 17.6**	**-0.3**
DALK	**Dalny**	**5.87**	**259**	PN	**Pn**	**11 43 16.9**	**-1.0**
DALK	**Dalny**	**5.87**	**259**	*e*P	**Pn**	**11 43 17.0**	**-1.0**
DALK				*e*S	**Sn**	**11 44 20.2**	**-4.2**
PET	**Petropavlovsk**	**5.93**	**259**	*e*PN	**Pn**	**11 43 18.0**	**-0.7**
PET				pmax	pmax		
	comp=Z,121nm,0.6s						
PET				MLR	MLR		
	comp=Z,400nm,12.0s						
PET				MLR	MLR		
	comp=Z,500nm,16.0s						
PET	**Petropavlovsk**	**5.93**	**259**		**Pn**	**11 43 18.0**	**-0.7**
INSR	**Institute**	**5.94**	**259**	*e*S	**Sn**	**11 44 23.5**	**-2.6**
TILK	**Tilichiki**	**5.99**	**350**	PN	**Pn**	**11 43 19.0**	**-0.5**
TILK	**Tilichiki**	**5.99**	**350**	*e*P	**Pn**	**11 43 19.1**	**-0.5**
GNL	**Ganaly**	**6.16**	**266**	PN	**Pn**	**11 43 22.3**	**+0.4**
GNL	**Ganaly**	**6.16**	**266**	*e*P	**Pn**	**11 43 22.4**	**+0.4**
RUS	**Russkaya**	**6.23**	**254**	PN	**Pn**	**11 43 22.0**	**-0.8**
RUS	**Russkaya**	**6.23**	**254**	*e*P	**Pn**	**11 43 22.1**	**-0.8**
TIGL	**Tigil**	**6.25**	**305**	PN	**Pn**	**11 43 23.7**	**+0.6**
TIGL	**Tigil**	**6.25**	**305**	*e*P	**Pn**	**11 43 23.7**	**+0.6**
KRMR	**Karymshinskiy**	**6.29**	**258**	PN	**Pn**	**11 43 23.5**	**-0.2**
KRMR	**Karymshinskiy**	**6.29**	**258**	*e*P	**Pn**	**11 43 23.5**	**-0.2**
KRMR				*e*S	**Sn**	**11 44 33.7**	**-1.1**
MTVR	**Mutnovka**	**6.39**	**255**	PN	**Pn**	**11 43 25.7**	**+0.5**
MTVR	**Mutnovka**	**6.39**	**255**	*e*P	**Pn**	**11 43 25.7**	**+0.5**
PALN	**Palana**	**6.42**	**318**	PN	**Pn**	**11 43 26.4**	**+0.9**
PALN	**Palana**	**6.42**	**318**	*e*P	**Pn**	**11 43 26.4**	**+0.9**
GRL	**Gorelyy**	**6.43**	**256**	PN	**Pn**	**11 43 25.8**	**+0.2**
GRL	**Gorelyy**	**6.43**	**256**	*e*P	**Pn**	**11 43 25.9**	**+0.2**
PEA0B	**Petropavlovsk-**	**6.45**	**261**	*d* *i*PN	**Pn**	**11 43 26.7**	**+0.8**
PEA0B	**Petropavlovsk-**	**6.45**	**261**		**Pn**	**11 43 25.4**	**-0.5**
PETK	**Petropavlovsk-**	**6.45**	**261**	Pn	**Pn**	**11 43 26.0**	**+0.1**
	comp=Z,7.7nm,0.3s,baz=83,slow=19,SNR=73						
PETK				Sn	**Sn**	**11 44 33.2**	**-5.5**
	comp=Z,3.9nm,0.3s,baz=86,slow=22,SNR=1.2						
PETK				LR	LR	11 46 13.1	
	comp=Z,396nm,19.2s,baz=75,slow=41						
	comp=Z,31nm,0.5s						
PETK				AML	AML		
PETK	**Petropavlovsk-**	**6.45**	**261**	PN	**Pn**	**11 43 25.6**	**-0.3**
PETK	**Petropavlovsk-**	**6.45**	**261**		**Pn**	**11 43 25.6**	**-0.3**
ASAK	**Asacha**	**6.59**	**255**	PN	**Pn**	**11 43 28.5**	**+0.6**
ASAK	**Asacha**	**6.59**	**255**	*e*P	**Pn**	**11 43 28.5**	**+0.6**
KDTR	**Khodutka, Kamc**	**6.75**	**250**	PN	**Pn**	**11 43 29.0**	**-0.9**
KDTR	**Khodutka, Kamc**	**6.75**	**250**	*e*P	**Pn**	**11 43 29.0**	**-0.9**
KDTR				*e*S	**Sn**	**11 44 40.8**	**-5.0**
APC	**Apacha**	**6.82**	**260**	PN	**Pn**	**11 43 32.1**	**+1.2**
APC	**Apacha**	**6.82**	**260**	*e*P	**Pn**	**11 43 32.2**	**+1.2**
AMKA	**Amchitka**	**7.37**	**111**		**Pn**	**11 43 38.0**	**-0.5**
PAU	**Pauzhetka**	**7.60**	**250**	PN	**Pn**	**11 43 42.3**	**+0.6**
PAU	**Pauzhetka**	**7.60**	**250**	*e*P	**Pn**	**11 43 42.3**	**+0.6**
SKR	**Severo-Kuril's**	**8.38**	**247**	*e*PN	**Pn**	**11 43 51.3**	**-1.0**
SKR				pmax	pmax		
	comp=Z,200nm,2.2s						
SKR				pmax	pmax		
	comp=Z,72nm,0.6s						
SKR				MLR	MLR		
	comp=Z,400nm,12.0s						
SKR				MLR	MLR		
	comp=N,400nm,14.0s						
SKR				MLR	MLR		
	comp=E,800nm,14.0s						
SKR	**Severo-Kuril's**	**8.38**	**247**	*e*P	**Pn**	**11 43 51.9**	**-0.4**
KIWB	**Kanaga Island**	**9.14**	**101**	Pn	**Pn**	**11 44 02.1**	**-0.7**
ADK	**Adak**	**9.40**	**101**	PN	**Pn**	**11 44 05.5**	**-0.8**
ADK	**Adak**	**9.40**	**101**	Pn	**Pn**	**11 44 05.5**	**-0.8**
GSTR	**Great Sitkin T**	**9.68**	**99**	Pn	**Pn**	**11 44 10.0**	**-0.2**
ATKA	**Atka Island**	**10.72**	**96**	Pn	**Pn**	**11 44 24.0**	**-0.3**
MA2	**Magadan**	**10.76**	**305**	Pn	**Pn**	**11 44 23.6**	**-1.3**
	comp=E,0.6nm,0.3s,baz=90,slow=19,SNR=3.9						
MA2				LR	LR	11 48 29.8	
	comp=E,367nm,18.3s,baz=108,slow=38						
	comp=E,1.9nm,0.3s						
MA2				AML	AML		
SEY	**Seymchan**	**11.73**	**322**	Pn	**Pn**	**11 44 38.3**	**+0.2**
	comp=E,0.3nm,0.3s,baz=125,slow=12,SNR=15						
	comp=E,6.1nm,0.8s						
SEY				AML	AML		
SEY	**Seymchan**	**11.73**	**322**	*e*PN	**Pn**	**11 44 39.7**	**+1.6**
SEY				pmax	pmax		
	comp=Z,14nm,1.1s						
BILL	**Bilibino**	**13.54**	**357**	⇓*e*P	**Pn**	**11 45 01.9**	**-0.8**
BILL				pmax	pmax		
	comp=Z,39nm,1.3s						
BILL				MLR	MLR		
	comp=Z,286nm,12.0s						
UNV	**Unalaska Valle**	**14.73**	**83**	Pn	**Pn**	**11 45 19.1**	**0.0**
K13K	**Kusilvak Mount**	**15.92**	**52**	Pn	**Pn**	**11 45 35.1**	**+0.4**
TYV	**Tymovskoe**	**15.94**	**267**	*e*P	**P**	**11 45 38.9**	**+0.5**
TYV				*e*S	**Sn**	**11 48 35.1**	**+4.2**
TYV				pmax	pmax		
	comp=Z,21nm,1.4s						
TYV				pmax	pmax		
	comp=Z,100nm,3.8s						
TYV				smax	smax		
	comp=N,300nm,7.4s						
TYV				smax	smax		
	comp=E,200nm,7.4s						
M13K	**Dall Lake**	**16.23**	**57**		**P**	**11 45 40.4**	**-1.1**
N14K	**Kuskokwak Cree**	**16.99**	**60**	Pn	**P**	**11 45 48.7**	**-1.3**
N14K				IAmb	IAmb	11 46 17.6	
	comp=Z,66nm,1.2s						
K15K	**Wolf Creek Mou**	**17.43**	**52**		**P**	**11 45 55.6**	**+0.8**
YSS	**Yuzhno-Sakhali**	**17.80**	**255**	*e*P	**P**	**11 46 03.0**	**+4.0**
YSS				*e*S	**Sn**	**11 49 18.3**	**+2.4**
YSS				pmax	pmax		
	comp=Z,10.0nm,1.0s						
YSS				pmax	pmax		
	comp=Z,100nm,6.9s						
YSS				smax	smax		
	comp=N,100nm,6.1s						
YSS				smax	smax		
	comp=E,100nm,5.5s						
YSS				MLR	MLR		
	comp=Z,200nm,16.0s						
YSS				MLR	MLR		
	comp=E,200nm,16.0s						
L16K	**Owhat River**	**18.28**	**54**	P	**P**	**11 46 07.1**	**+2.9**
L16K				IAmb	IAmb	11 46 19.7	
	comp=Z,47nm,1.4s						
J17K	**VABM Dome**	**18.77**	**49**		**Pn**	**11 46 11.6**	**+1.4**
O16K	**Kokwok River B**	**18.79**	**61**	P	**Pn**	**11 46 10.9**	**+0.5**
O16K				IAmb	IAmb	11 46 33.2	
	comp=Z,27nm,1.2s						
CHGN	**Chignik**	**18.86**	**71**	P	**Pn**	**11 46 11.8**	**+0.6**
GRNR	**Gornyy**	**19.61**	**272**	⇑*i*P	**Pn**	**11 46 20.1**	**-0.2**
GRNR				pmax	pmax		
	comp=Z,10.0nm,0.9s						
GRNR				MLR	MLR		
	comp=E,90nm,16.0s						
GRNR				MLR	MLR		
	comp=Z,160nm,11.0s						
JKA	**Kamikawa-asahi**	**19.64**	**248**	P	**Pn**	**11 46 19.6**	**-1.0**
JKA				IAmb	IAmb	11 46 30.7	
	comp=Z,32nm,1.4s						
ASAJ	**Asahikawa**	**19.64**	**248**	P	**Pn**	**11 46 20.4**	**-0.3**
	comp=Z,0.2nm,0.3s,baz=79,slow=6.3,SNR=5.5						
ASAJ				LR	LR	11 54 03.5	
	comp=Z,114nm,20.8s,baz=74,slow=37						
	comp=Z,8.2nm,0.8s						
ASAJ				AML	AML		
ASAJ	**Asahikawa**	**19.64**	**248**	P	**Pn**	**11 46 19.7**	**-1.0**
ASAJ				pmax	pmax		
	comp=Z,32nm,1.4s						
G18K	**Tagagawik**	**19.64**	**42**	P	**Pn**	**11 46 20.5**	**-0.1**
J18K	**Innoko River**	**19.83**	**49**		**Pn**	**11 46 22.5**	**-0.3**
J18K				IAmb	IAmb	11 46 24.0	
	comp=Z,19nm,0.8s						
J19K	**Poorman**	**20.40**	**48**		Pn	11 46 28.6	-1.0
J19K				IAmb	IAmb	11 46 33.1	
	comp=Z,14nm,0.7s						
L19K	**White Mountain**	**20.50**	**53**	P	Pn	11 46 30.3	-0.5
L19K				IAmb	IAmb	11 46 31.2	
	comp=Z,16nm,0.9s						
C19K	**Lookout Ridge**	**20.63**	**33**		Pn	11 46 31.2	-1.0
C19K				IAmb	IAmb	11 46 41.6	
	comp=Z,20nm,0.6s						
J20K	**Nowinta River**	**21.07**	**48**		**P**	**11 46 35.6**	**+1.0**
F20K	**Avaraart Lake**	**21.13**	**40**	P	**P**	**11 46 35.9**	**+0.7**
YAK	**Yakutsk**	**21.33**	**306**	P	**P**	**11 46 35.5**	**-1.8**
	comp=Z,21nm,0.4s,baz=102,slow=9.1,SNR=9.2						
YAK				LR	LR	11 55 00.0	
	comp=Z,217nm,18.3s,baz=96,slow=37						
	comp=Z,21nm,0.4s						
YAK	**Yakutsk**	**21.33**	**306**	*e*P	**P**	**11 46 39.9**	**+2.5**
YAK				*e**PP	**sP**	**11 46 45.7**	**-1.3**
YAK				*e*		11 46 59.0	
YAK				*e*S	**S**	**11 50 33.8**	**+1.0**
YAK				*e**SS	**pS**	**11 50 45.8**	**+3.1**
YAK				*e*		11 50 46.2	
YAK				*e*SSS	SSS	11 51 09.8	
YAK				*e*		11 58 03.8	
YAK				pmax	pmax		
	comp=N,5.0nm,1.3s						
YAK				pmax	pmax		
	comp=Z,33nm,0.8s						
YAK				pmax	pmax		
	comp=E,10.0nm,0.8s						
YAK				pmax	pmax		
	comp=Z,238nm,4.7s						
YAK				pmax	pmax		
	comp=N,52nm,2.8s						
YAK				pmax	pmax		
	comp=E,53nm,1.9s						
YAK				smax	smax		
	comp=N,155nm,5.8s						
YAK				smax	smax		
	comp=E,103nm,5.7s						
YAK				MLR	MLR		
	comp=E,122nm,16.0s						
YAK				MLR	MLR		
	comp=Z,259nm,19.0s						
YAK				MLR	MLR		
	comp=N,163nm,19.0s						
YAK	**Yakutsk**	**21.33**	**306**	IAmb	IAmb	11 46 44.0	
	comp=Z,42nm,0.6s						
IMAR	**Indian Mountai**	**21.60**	**43**		**P**	**11 46 40.7**	**+0.5**
KDAK	**Kodiak Island**	**21.79**	**66**	P	**P**	**11 46 42.3**	**0.0**
	comp=Z,15nm,0.9s,baz=7.6,slow=3.0,SNR=14						
	comp=Z,15nm,0.9s						
KDAK	**Kodiak Island**	**21.79**	**66**	P	**P**	**11 46 42.2**	**-0.1**
KDAK				pmax	pmax		
	comp=Z,73nm,1.5s						
KDAK	**Kodiak Island**	**21.79**	**66**	P	**P**	**11 46 42.2**	**-0.1**
B20K	**Meade River**	**21.81**	**32**		**P**	**11 46 44.3**	**+1.9**
B20K				IAmb	IAmb	11 47 00.8	
	comp=Z,22nm,0.8s						
F21K	**Alatna River**	**22.02**	**40**		**P**	**11 46 45.0**	**+0.2**
H22K	**Ishtalitna Cre**	**22.53**	**44**	P	**P**	**11 46 51.2**	**+0.9**
MLY	**Manley**	**22.66**	**46**	P	**P**	**11 46 52.7**	**+1.1**
MLY				IAmb	IAmb	11 47 02.0	
	comp=Z,19nm,1.5s						
D22K	**Ayikyak River**	**22.81**	**36**	IAmb	IAmb	11 47 20.6	
	comp=Z,26nm,1.3s						
KLR	**Kul'dur**	**22.99**	**272**	P	**P**	**11 46 55.0**	**-0.2**
	comp=Z,6.5nm,0.9s,baz=56,slow=12,SNR=9.1						
KLR				LR	LR	11 55 48.6	
	comp=Z,178nm,20.7s,baz=59,slow=36						
	comp=Z,6.5nm,0.9s						
KLR	**Kul'dur**	**22.99**	**272**	*e*P	**P**	**11 46 54.6**	**-0.6**
KLR				pmax	pmax		
	comp=Z,3.0nm,1.3s						
RND	**Reindeer**	**23.33**	**51**	IAmb	IAmb	11 46 60.0	
	comp=Z,8.8nm,0.8s						
E23K	**Chandalar**	**23.67**	**39**		**P**	**11 47 02.6**	**+0.8**
ZEA	**Zeya**	**23.82**	**285**	*e*P	P	11 47 17.4	+14
ZEA				*e*		11 47 25.8	
ZEA				pmax	pmax		
	comp=Z,10.0nm,1.2s						
C23K	**Itkillik River**	**23.82**	**34**		**P**	**11 47 03.9**	**+0.8**
C23K				IAmb	IAmb	11 47 22.5	
	comp=Z,12nm,0.9s						
COLA	**College**	**23.86**	**47**	*c* *i*P	**P**	**11 47 03.7**	**+0.1**
COLA				pmax	pmax		
	comp=Z,10.0nm,0.6s						
COLA	**College**	**23.86**	**47**	P	**P**	**11 47 04.6**	**+1.1**
COLA				IAmb	IAmb	11 47 04.7	
	comp=Z,12nm,0.7s						
CCB	**Clear Creek Bu**	**23.86**	**48**	IAmb	IAmb	11 47 05.3	
	comp=Z,9.1nm,0.7s						
H24K	**Noodor Dome**	**23.95**	**45**		**P**	**11 47 05.0**	**+0.6**
TIXI	**Tiksi**	**23.98**	**330**	LR	LR	11 55 57.6	
	comp=Z,128nm,19.8s,baz=158,slow=36						
TIXI	**Tiksi**	**23.98**	**330**	⇓*i*P	**P**	**11 47 04.1**	**-0.6**
TIXI				pmax	pmax		
	comp=Z,36nm,1.4s						
TIXI				MLR	MLR		
	comp=Z,114nm,17.0s						
TIXI	**Tiksi**	**23.98**	**330**	P	**P**	**11 47 04.4**	**-0.3**
E24K	**Your Creek**	**24.08**	**39**	IAmb	IAmb	11 47 07.9	
	comp=Z,7.7nm,0.7s						
IL31		**24.26**	**47**	IAmb	IAmb	11 47 23.5	
	comp=Z,7.4nm,0.7s						
ILAR	**Eielson Array**	**24.26**	**47**	P	**P**	**11 47 06.7**	**-0.7**
	comp=Z,3.7nm,0.6s,baz=252,slow=7.7,SNR=41						
ILAR				LR	LR	11 56 24.1	
	comp=Z,119nm,20.4s,baz=251,slow=36						
	comp=Z,3.7nm,0.6s						
ILAR	**Eielson Array**	**24.26**	**47**		**P**	**11 47 07.3**	**0.0**
HEH	**HeiHe**	**25.05**	**277**	*e*P	**P**	**11 47 13.5**	**-1.1**
HEH				pmax	pmax		
	comp=Z,16nm,1.2s						
HEH				LR	LR		
	comp=N,490nm,15.7s						
HEH				LR	LR		
	comp=E,350nm,17.4s						
HEH				LR	LR		
	comp=Z,360nm,16.5s						
F25K	**Christian Rive**	**25.06**	**41**	IAmb	IAmb	11 47 45.0	
	comp=Z,9.7nm,1.1s						
D25K	**Kavik River**	**25.11**	**37**	IAmb	IAmb	11 47 26.3	
	comp=Z,6.7nm,0.7s						
BMAR	**Burnt Mountain**	**25.44**	**41**	P	**P**	**11 47 19.0**	**+0.9**
SCRK	**Sand Creek**	**25.51**	**49**	IAmb	IAmb	11 47 28.5	
	comp=Z,5.2nm,0.6s						
USRK	**Ussuriysk Ar.**	**25.54**	**261**	P	**P**	**11 47 20.2**	**+1.1**
	comp=Z,1.3nm,0.7s,baz=52,slow=12,SNR=5.2						
	comp=Z,1.3nm,0.7s						
G26K	**Porcupine Rive**	**25.70**	**42**	IAmb	IAmb	11 47 25.2	
	comp=Z,23nm,1.4s						
L26K	**Log Cabin Wild**	**25.83**	**51**	IAmb	IAmb	11 47 27.9	
	comp=Z,6.8nm,0.9s						
C27K	**Jago River**	**26.09**	**36**	IAmb	IAmb	11 47 25.1	
	comp=Z,5.7nm,0.8s						
BCAR	**Beaver Creek A**	**26.54**	**51**		**P**	**11 47 28.9**	**+0.9**
BNX	**BinXian**	**27.31**	**268**	⇓P	**P**	**11 47 35.5**	**+0.5**
BNX				pmax	pmax		
	comp=Z,10.0nm,0.9s						
MAJO	**Matsushiro**	**27.43**	**241**	*d* *i*P	**P**	**11 47 37.7**	**+1.5**
MAJO				pmax	pmax		
	comp=Z,14nm,0.7s						
MAJO	**Matsushiro**	**27.43**	**241**	P	**P**	**11 47 36.6**	**+0.5**
MAJO				IAmb	IAmb	11 47 42.2	
	comp=Z,10nm,0.7s						
MJAR	**Matsushiro Arr**	**27.43**	**241**	P	**P**	**11 47 38.1**	**+1.9**

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      comp=Z,3.3nm,0.6s,baz=30,slow=7.4,SNR=9.4
      comp=Z,3.3nm,0.6s
MJB9  Matsu-Tunnel      27.43 241            P        11 47 37.0 +0.9
DAWY  Dawson            27.52  49    IAmb    IAmb     11 47 41.6
      comp=Z,8.1nm,0.8s
G29M  Pine Creek        27.97  43    IAmb    IAmb     11 47 52.2
      comp=Z,8.3nm,0.6s
L29M  L29M              28.19  51    IAmb    IAmb     11 47 54.2
      comp=Z,4.5nm,0.7s
K29M  Barlow Dome       28.37  49    IAmb    IAmb     11 47 57.9
      comp=Z,5.8nm,0.9s
EPYK  Eagle Plains      28.50  44    IAmb    IAmb     11 47 47.0
      comp=Z,6.8nm,0.7s
M31M  Drury Creek, Y    30.04  52    IAmb    IAmb     11 48 01.4
      comp=Z,5.9nm,0.8s
P33M  Teslin, Yukon     31.27  55    IAmb    IAmb     11 48 23.8
      comp=Z,4.5nm,0.9s
MMPY  Sheldon Lake,     31.37  51    IAmb    IAmb     11 48 24.9
      comp=Z,8.3nm,1.4s
KSRS  Korea Array       32.30 255    P       P        11 48 20.1 +0.8
      comp=Z,1.0nm,0.7s,baz=42,slow=9.4,SNR=4.1
KSRS                                 LR      LR       12 02 01.7
      comp=Z,70nm,18.2s,baz=50,slow=37
      comp=Z,1.0nm,0.7s
WRAK  Wrangell Islan    32.76  62    IAmb    IAmb     11 48 26.1
      comp=Z,5.0nm,0.9s
DLBC  Dease Lake        33.19  58    LR      LR       12 02 23.7
      comp=Z,126nm,20.9s,baz=282,slow=37
H11N2 WAKE ISLAND Hy    34.81 182    T       T        12 25 24.7
      baz=1.5,slow=76,SNR=7044
H11N3 WAKE ISLAND Hy    34.82 182    T       T        12 25 26.1
      baz=1.5,slow=76,SNR=8894
H11N1 WAKE ISLAND Hy    34.83 182    T       T        12 25 26.5
      baz=1.5,slow=76,SNR=8021
H11S1 WAKE ISLAND Hy    36.03 183    T       T        12 26 53.5
      baz=1.4,slow=76,SNR=888
H11S3 WAKE ISLAND Hy    36.05 183    T       T        12 26 55.0
      baz=1.4,slow=76,SNR=323
H11S2 WAKE ISLAND Hy    36.05 183    T       T        12 26 58.3
      baz=1.4,slow=76,SNR=884
BBB   Bella Bella       36.85  67    LR      LR       12 02 33.1
      comp=Z,143nm,19.8s,baz=274,slow=34
NRIK  Noril'sk          37.49 325    P       P        11 49 02.5 -1.2
      comp=Z,1.3nm,0.3s,baz=0.0,slow=1.0,SNR=1.9
NRIK                                 LR      LR       12 05 27.6
      comp=Z,187nm,18.1s,baz=84,slow=38
      comp=Z,1.3nm,0.3s
NRIK  Noril'sk          37.49 325    IAmb    IAmb     11 49 28.8
      comp=Z,13nm,1.4s
ULN   Ulaanbaatar       37.84 286⇑eP    P        11 49 07.1 -0.1
ULN                                  pmax    pmax
      comp=Z,11nm,1.4s
SONM  Songino Array     38.23 286    P       P        11 49 10.8 +0.4
      comp=Z,2.6nm,0.4s,baz=62,slow=7.8,SNR=7.5
SONM                                 LR      LR       12 05 17.9
      comp=Z,95nm,19.1s,baz=63,slow=37
      comp=Z,2.6nm,0.4s
SONM  Songino Array     38.23 286    IAmb    IAmb     11 49 12.1
      comp=Z,2.1nm,0.6s
ZAK   Zakamensk         38.56 291   eP       P        11 49 09.4 -3.7
ZAK                                  pmax    pmax
      comp=Z,3.0nm,1.2s
YKA   Yellowknife Ar    38.69  46    P       P        11 49 13.4 -0.5
      comp=Z,1.0nm,0.6s,baz=296,slow=8.1,SNR=5.0
      comp=Z,1.0nm,0.6s
HHC   Hu-ho-hao-te      39.47 274   eP       P        11 49 20.9 +0.1
HHC                                  pmax    pmax
      comp=Z,12nm,0.6s
HHC                                  pmax    pmax
      comp=Z,37nm,3.6s
HHC                                  LR      LR
      comp=N,180nm,12.7s
HHC                                  LR      LR
      comp=E,160nm,13.1s
HHC                                  LR      LR
      comp=Z,140nm,13.7s
HNS   HongShan          39.93 267  ⇑P       P        11 49 29.5 +5.0
HNS                                  S       S        11 55 28.0 +0.1
HNS                                  LR      LR
      comp=N,160nm,16.3s
HNS                                  LR      LR
      comp=E,240nm,17.5s
HNS                                  LR      LR
      comp=Z,210nm,14.5s
KNGR  Kungurtug, Tuv    41.52 295⇑eP    P        11 49 37.7 +0.1
KNGR                                 pmax    pmax
      comp=Z,3.0nm,0.4s
NEW   Newport           44.89  66    LR      LR       12 06 42.5
      comp=Z,114nm,21.8s,baz=316,slow=33
YBH   Yreka Blue Hor    45.94  76    LR      LR       12 06 13.3
      comp=Z,88nm,19.7s,baz=334,slow=32
ZALV  Zalesovo Beam     45.98 305    P       P        11 50 11.8 -1.4
      comp=Z,1.6nm,0.8s,baz=52,slow=8.7,SNR=4.3
      comp=Z,1.6nm,0.8s
ZALV  Zalesovo Beam     45.98 305  i P       P        11 50 17.1 +3.8
ZALV                                 pmax    pmax
      comp=Z,2.0nm,0.6s
SPITS Spitsbergen Ar    46.39 352    P       P        11 50 15.8 -0.5
      comp=Z,4.1nm,0.5s,baz=23,slow=8.6,SNR=15
SPITS                                LR      LR       12 09 26.7
      comp=Z,52nm,18.8s,baz=326,slow=36
      comp=Z,4.1nm,0.5s
LZH   Lanzhou           47.15 274   eP       P        11 50 24.3 +1.4
LZH                                  sP      sP       11 50 38.5 +5.6
LZH                                  pmax    pmax
      comp=Z,17nm,1.8s
LZH                                  LR      LR
      comp=N,260nm,17.2s
LZH                                  LR      LR
      comp=E,250nm,17.5s
LZH                                  LR      LR
      comp=Z,260nm,19.2s
MOD   Modoc Plateau     47.18  75    P       P        11 50 23.5 +0.4
MOD                                  IAmb    IAmb     11 51 04.7
      comp=Z,4.5nm,1.4s
DGZ   Jazzator, Alta    47.28 299deP     P        11 50 23.4 -0.4
DGZ                                  pmax    pmax
      comp=Z,4.0nm,0.6s
PNTR  Pine Nut          49.47  77    IAmb    IAmb     11 51 01.7
      comp=Z,4.7nm,0.7s
WAKR  Walker            49.96  77    P       P        11 50 45.8 +1.3
NVAR  Mina Array Bea    50.65  77    P       P        11 50 50.3 +0.5
      comp=Z,0.8nm,0.7s,baz=295,slow=7.4,SNR=7.9
      comp=Z,0.8nm,0.7s
WMQ   Urumqi            50.97 293   eP       P        11 50 54.6 +2.7
WMQ                                  LR      LR
      comp=N,580nm,15.9s
WMQ                                  LR      LR
      comp=E,530nm,21.3s
WMQ                                  LR      LR
      comp=Z,170nm,24.3s
KURK  Kurchatov         50.97 305d iP       P        11 50 50.7 -1.0
KURK                                 pmax    pmax
      comp=Z,7.0nm,0.8s
KURK  Kurchatov         50.97 305            P        11 50 50.7 -1.0
KURK                                 IAmb    IAmb     11 51 01.4
      comp=Z,6.9nm,0.8s
RLMT  Red Lodge         51.05  64    IAmb    IAmb     11 50 54.2
      comp=Z,3.4nm,0.6s
KURBB Kurchatov Arra    51.08 305    P       P        11 50 51.4 -1.1
      comp=Z,4.9nm,0.7s,baz=54,slow=7.7,SNR=31
KURBB                                LR      LR       12 14 37.5
      comp=Z,126nm,18.3s,baz=176,slow=39
      comp=Z,4.9nm,0.7s
MK31  Makanchi Array    51.78 299⇓eP    P        11 50 56.4 -1.6
MKAR  Makanchi Array    51.78 299    P       P        11 50 56.6 -1.4
      comp=Z,2.0nm,0.6s,baz=52,slow=7.7,SNR=10
      comp=Z,2.0nm,0.6s
MKAR  Makanchi Array    51.78 299            P        11 50 56.7 -1.2
GOMU  GeErMu            52.27 281    P       P        11 51 02.6 +0.5
GOMU                                 pP      pP       11 51 05.8 -3.6
GOMU                                 sP      sP       11 51 10.5 -1.1
GOMU                                 S       S        11 58 31.6 +5.7
GOMU                                 pmax    pmax
      comp=Z,4.0nm,0.7s
GOMU                                 LR      LR
      comp=N,180nm,10.7s
GOMU                                 LR      LR
      comp=E,100nm,10.3s
GOMU                                 LR      LR
      comp=Z,200nm,10.6s
PD31  Pinedale Array    52.50  67    P       P        11 51 03.5 -0.1
PDAR  Pinedale Array    52.50  67    P       P        11 51 03.6 -0.1
      comp=Z,0.8nm,0.4s,baz=354,slow=1.4,SNR=20
PDAR                                 LR      LR       12 15 03.2
      comp=Z,32nm,18.5s,baz=326,slow=38
      comp=Z,0.8nm,0.4s
PDAR  Pinedale Array    52.50  67    P       P        11 51 03.7 +0.1
TPNV  Topopah Spring    52.85  77    IAmb    IAmb     11 51 19.6
      comp=Z,6.6nm,1.4s
BVAR  Borovoye Array    53.16 312    P       P        11 51 07.5 -0.5
      comp=Z,10nm,0.5s,baz=62,slow=7.3,SNR=36
      comp=Z,10nm,0.5s
BORK  Borovoye          53.17 312d iP       P        11 51 07.6 -0.5
BORK                                 pmax    pmax
      comp=Z,12nm,0.6s
BORK  Borovoye          53.17 312            P        11 51 07.9 -0.2
ARCES ARCESS Array B    53.26 345    P       P        11 51 07.6 -1.0
      comp=Z,3.0nm,0.9s,baz=27,slow=11,SNR=7.9
ARCES                                LR      LR       12 13 35.0
      comp=Z,34nm,21.6s,baz=340,slow=36
      comp=Z,3.0nm,0.9s
TMUT  Trail Mountain    54.02  71    IAmb    IAmb     11 51 51.7
      comp=Z,2.8nm,0.8s
ULM   Lac du Bonnet     54.16  52    P       P        11 51 15.4 +0.1
      comp=Z,3.5nm,0.9s,baz=0.0,slow=5.1,SNR=3.1
      comp=Z,3.5nm,0.9s
P18A  Preston Nutter    54.31  70    IAmb    IAmb     11 51 26.8
      comp=Z,3.2nm,0.7s
RSSD  Black Hills       54.46  62    P       P        11 51 18.5 +0.6
RSSD                                 pmax    pmax
      comp=Z,5.0nm,0.6s
RSSD  Black Hills       54.46  62    P       P        11 51 18.5 +0.6
LCMT  Little Creek M    54.50  74    IAmb    IAmb     11 51 39.7
      comp=Z,5.0nm,1.3s
SRU   San Rafael Swe    54.52  71    P       P        11 51 19.2 +0.8
SRU                                  pmax    pmax
      comp=Z,6.0nm,0.8s
SRU   San Rafael Swe    54.52  71    P       P        11 51 19.2 +0.8
SRU                                  IAmb    IAmb     11 51 40.4
      comp=Z,5.5nm,0.8s
PFO   Pinyon Flats O    55.12  80    LR      LR       12 10 40.6
      comp=Z,90nm,21.1s,baz=320,slow=31
SFJD  Kangerlussuaq     55.27  17    LR      LR       12 16 42.9
      comp=Z,50nm,19.4s,baz=1.0,slow=38
ARTI  Arti              55.56 321d iP       P        11 51 24.8 -0.6
ARTI                                                  11 52 23.5
ARTI                                                  11 53 26.2
ARTI                                 S       S        11 59 08.7 -0.4
ARTI                                 SS      SS       12 02 46.9 -6.5
ARTI                                 pmax    pmax
      comp=Z,4.0nm,0.6s
ARTI  Arti              55.56 321            P        11 51 24.5 -0.9
PV21  Cone Mtn., Par    55.76  70    IAmb    IAmb     11 51 30.5
      comp=Z,5.4nm,0.9s
PV10  Paradox Valley    55.86  70    IAmb    IAmb     11 52 08.4
      comp=Z,6.2nm,0.9s
PV22  Blue Mesa, Par    55.88  70    P       P        11 51 29.0 +0.7
PV19  Morning Glory     55.94  70    IAmb    IAmb     11 51 31.2
      comp=Z,7.0nm,0.9s
PV16  Nyswonger Mesa    55.97  70    IAmb    IAmb     11 52 02.0
      comp=Z,11nm,1.5s
PV03  Paradox Valley    56.05  70    IAmb    IAmb     11 52 11.9
      comp=Z,3.5nm,0.9s
KIRV  Kirov             56.95 327    LR      LR       12 17 17.0
      comp=Z,90nm,20.5s,baz=32,slow=38
KIRV  Kirov             56.95 327⇑eP    P        11 51 34.5 -0.7
KLMR  Klimovskoe        57.96 333   eP       P        11 51 40.0 -2.3
KLMR                                e*PP     pwP      11 51 51.1 +1.4
KLMR                                 pmax    pmax
      comp=Z,20nm,1.5s
AAK   Ala-Archa         58.65 300    LR      LR       12 17 31.0
      comp=Z,130nm,18.5s,baz=20,slow=37
AAK   Ala-Archa         58.65 300⇓eP    P        11 51 47.2 -0.5
AAK                                  pmax    pmax
      comp=Z,4.0nm,0.9s
AAK                                  MLR     MLR
      comp=Z,112nm,17.0s
AAK   Ala-Archa         58.65 300    P       P        11 51 47.1 -0.5
AAK                                  IAmb    IAmb     11 52 04.0
      comp=Z,4.0nm,0.9s
ANMO  Albuquerque       59.78  71    LR      LR       12 16 49.2
      comp=Z,96nm,18.7s,baz=328,slow=35
ANMO  Albuquerque       59.78  71⇓iP    P        11 51 56.9 +1.3
ANMO                                 pmax    pmax
      comp=Z,6.0nm,2.8s
KRVT  Keravat (AS076    60.23 199    LR      LR       12 13 18.5
      comp=Z,58nm,20.2s,baz=90,slow=31
KKAR  Karatay Array     60.28 303    P       P        11 51 57.2 -1.5
KKAR  Karatay Array     60.28 303            P        11 51 57.2 -1.5
AB31  Akbulak array     60.39 314            P        11 51 58.4 -0.9
AB31                                 IAmb    IAmb     11 51 59.2
      comp=Z,3.2nm,0.7s
ABKAR Akbulak array     60.39 314            P        11 51 57.6 -1.7
CBKS  Cedar Bluff       60.52  64    P       P        11 51 59.9 -0.6
CBKS                                 pmax    pmax
      comp=Z,11nm,0.8s
CBKS  Cedar Bluff       60.52  64    P       P        11 51 59.9 -0.6
FINES FINESS Array B    60.53 340    P       P        11 51 59.1 -1.0
      comp=Z,3.7nm,0.8s,baz=51,slow=10.0,SNR=4.5
FINES                                LR      LR       12 24 25.6
      comp=Z,56nm,18.5s,baz=246,slow=42
      comp=Z,3.7nm,0.8s
KSH2  Kashi             60.69 297    P       P        11 52 02.1 +0.4
KSH2                                 pmax    pmax
      comp=Z,6.0nm,0.8s
BORG  Borgarnes         60.77   5    LR      LR       12 20 28.0
      comp=Z,40nm,18.1s,baz=320,slow=38
BELG  Belogornoye       62.58 324ceP     P        11 52 14.4 +0.4
BELG                                 pmax    pmax
      comp=Z,2.0nm,0.9s
MNTX  Cornudas Mount    62.80  73            P        11 52 16.8 +0.9
MNTX                                 IAmb    IAmb     11 52 43.3
      comp=Z,4.6nm,1.3s
CMAR  Chiang Mai Arr    63.22 264    P       P        11 52 19.5 +0.8
      comp=Z,2.2nm,0.8s,baz=24,slow=6.6,SNR=9.1
CMAR                                 LR      LR       12 21 12.9
      comp=Z,41nm,19.4s,baz=190,slow=37
      comp=Z,2.2nm,0.8s
NB2   NORSAR Subarra    63.30 348    P       P        11 52 18.4 -0.4
      comp=Z,3.3nm,0.8s,baz=16,slow=6.9
NOA   NORSAR Array B    63.30 348    P       P        11 52 18.1 -0.6
      comp=Z,1.6nm,0.7s,baz=17,slow=6.7,SNR=5.8
NOA                                  LR      LR       12 19 22.4
      comp=Z,26nm,21.3s,baz=280,slow=36
      comp=Z,1.6nm,0.7s
TPB28                   63.31  72    IAmb    IAmb     11 52 35.2
      comp=Z,2.1nm,1.0s
OBN   Obninsk           63.71 331   eP       P        11 52 22.0 +0.5
OBN                                 e                 11 52 59.0
OBN                                 e                 11 54 40.5
OBN                                  pmax    pmax
      comp=Z,4.0nm,0.9s
HFS   Hagfors           63.85 346    P       P        11 52 21.6 -0.7
      comp=Z,1.9nm,0.5s,baz=31,slow=3.8,SNR=4.4
HFS                                  LR      LR       12 22 07.9
      comp=Z,42nm,18.3s,baz=358,slow=38
      comp=Z,1.9nm,0.5s
WMOK  Wichita Mounta    64.09  66    IAmb    IAmb     11 52 25.8
      comp=Z,3.6nm,0.8s
HNR   Honiara           64.16 189    LR      LR       12 15 28.3
      comp=Z,60nm,20.9s,baz=147,slow=31
MNHN  Monahans          64.52  71    IAmb    IAmb     11 52 29.5
      comp=Z,3.0nm,0.6s
TX31  Lajitas Ar. Si    65.56  73    IAmb    IAmb     11 52 35.4
      comp=Z,3.2nm,0.7s
TXAR  Lajitas Array     65.56  73    P       P        11 52 34.5 +0.4
      comp=Z,3.4nm,0.8s,baz=301,slow=4.3,SNR=40
      comp=Z,3.4nm,0.8s
TXAR  Lajitas Array     65.56  73    P       P        11 52 34.1  0.0
TXAR  Lajitas Array     65.56  73            P        11 52 34.1  0.0
LPIG  La Paz            65.80  82    LR      LR       12 17 45.4
      comp=Z,44nm,19.6s,baz=322,slow=33
AKASG Malin Array Be    69.64 334    P       P        11 52 58.9 -0.6
      comp=Z,1.7nm,0.5s,baz=29,slow=6.6,SNR=6.8
AKASG                                LR      LR       12 27 04.5
      comp=Z,94nm,18.0s,baz=55,slow=39
      comp=Z,1.7nm,0.5s
AKASG Malin Array Be    69.64 334    IAmb    IAmb     11 53 36.1
      comp=Z,1.9nm,0.7s
AKBB  Malin Array Si    69.64 334⇑iP    P        11 53 00.6 +1.2
AKBB                                 pmax    pmax
      comp=Z,10.0nm,1.8s
EKA   Eskdalemuir Ar    70.22 355    P       P        11 53 02.9  0.0
      comp=Z,0.9nm,0.5s,baz=356,slow=4.2,SNR=4.8
EKA                                  LR      LR       12 20 28.8
      comp=Z,32nm,21.6s,baz=218,slow=33
      comp=Z,0.9nm,0.5s
KIV   Kislovodsk        71.48 322   eP       P        11 53 11.1 +0.2
KIV                                  pmax    pmax
      comp=Z,7.0nm,1.1s
KIV                                  MLR     MLR
      comp=Z,39nm,18.0s
KBZ   Khabaz            71.60 321    P       P        11 53 11.5 +0.1
      comp=Z,1.7nm,0.8s,baz=31,slow=6.3,SNR=4.0
KBZ                                  LR      LR       12 29 00.9
      comp=Z,89nm,18.6s,baz=26,slow=40
      comp=Z,1.7nm,0.8s
KBZ   Khabaz            71.60 321⇑eP    P        11 53 12.1 +0.7
KBZ                                  pmax    pmax
      comp=Z,5.0nm,1.1s
KBZ                                  MLR     MLR
      comp=Z,83nm,18.0s
VRAC  Vranov            73.78 341    LR      LR       12 30 30.9
      comp=Z,66nm,18.4s,baz=5.0,slow=40
GNI   Garni             74.00 318    LR      LR       12 30 09.4
      comp=Z,101nm,18.7s,baz=22,slow=39
MLR   Muntele Rosu      75.30 334    LR      LR       12 30 02.9
      comp=Z,85nm,18.5s,baz=340,slow=38
BR131 Keskin Array S    78.34 326⇓iP    P        11 53 52.4 +1.7
BRTR  Keskin Array B    78.34 326    P       P        11 53 50.6 -0.1
      comp=Z,0.7nm,0.5s,baz=15,slow=3.4,SNR=2.5
BRTR                                 LR      LR       12 34 01.0
      comp=Z,36nm,18.6s,baz=40,slow=40
      comp=Z,0.7nm,0.5s
WRA   Warramunga Arr    79.72 212    P       P        11 54 00.0 +2.0
      comp=Z,1.1nm,0.7s,baz=25,slow=6.1,SNR=8.9
      comp=Z,1.1nm,0.7s
PALK  Pallekele         82.74 272    LR      LR       12 35 41.9
      comp=Z,35nm,19.8s,baz=44,slow=39
ASAR  Alice Springs     83.35 211    P       P        11 54 20.4 +3.1
      comp=Z,2.8nm,0.9s,baz=20,slow=6.0,SNR=25
      comp=Z,2.8nm,0.9s
MMAI  Mount Meron Ar    83.80 322    LR      LR       12 35 04.1
      comp=Z,30nm,19.4s,baz=52,slow=38
ASF   Jabal al Asfar    84.01 320    LR      LR       12 35 40.9
      comp=Z,45nm,18.6s,baz=48,slow=38
ESDC  Sonseca Array     85.88 354    P       P        11 54 30.2 +0.2
      comp=Z,0.5nm,0.8s,baz=354,slow=5.2,SNR=5.4
      comp=Z,0.5nm,0.8s
ESDC  Sonseca Array     85.88 354    IAmb    IAmb     11 54 37.3
      comp=Z,5.8nm,1.4s
EIL   Elat              86.98 321    LR      LR       12 38 59.5
      comp=Z,43nm,19.9s,baz=91,slow=40
MAW   Mawson           144.14 219    PKP     PKPdf    12 01 24.1 -0.3
      comp=Z,1.9nm,0.9s,baz=101,slow=2.6,SNR=3.0
QSPA  South Pole Qui   144.34 180    PKP     PKPdf    12 01 24.6 -0.4
      comp=Z,3.0nm,0.8s,baz=27,slow=1.9,SNR=7.5
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*MAN **17** 11:50:10.0, 3°.20N×126°.81E, h33^{km}, MS4.2*
*IDC **17** 11:50:14.4±1.5, 4°.35N×127°.12E, h0^{km}, mb3.8/6, mbtmp3.8/6, MS3.7/2, Error ellipse: s-maj=92.8km s-min=18.6km az=61.0*
ISC 17 11:50:16.3±0.9**, 4°.25N**±0°.08×**126°.8E**±0°.1**, h10^{km}, n12, σ0^{s}.77**/14**, mb3.9**/7**, Talaud Islands**

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Code  Station Name       Δ°   AZ°    Phase ID          Time      Res
                                     Op      ISC      h  m  s    ISC
DDMP  Don Marcelino,     2.14 329   eP       Pb       11 50 55.5 +0.3
DDMP                                eS       Sg       11 51 38.2  +13
GSPH  General Santos     2.60 315   i P      Pg       11 51 06.1 -0.2
GSPH                                i S      Sn       11 51 29.2 -1.2
KCP   Kidapawan          3.23 328   eP       Pg       11 51 17.3 -1.0
CTBH  Cotabato--PC H     3.90 319   i P      Pb       11 51 25.0 -0.2
GLSP  General Luna,      5.54 353   eP       Pb       11 51 52.7 -0.5
GLSP                                eS       Sb       11 53 00.9 +1.1
WRA   Warramunga Arr    25.15 163    P       P        11 55 41.2 -0.7
      1.5nm,0.7s,baz=345,slow=10,SNR=14
WRA                                  LR      LR       12 06 38.4
      comp=Z,171nm,19.4s,baz=176,slow=39
      1.5nm,0.7s
ASAR  Alice Springs     28.59 166    P       P        11 56 13.1 +0.2
      0.2nm,0.4s,baz=344,slow=7.3,SNR=5.9
      0.2nm,0.4s
CMAR  Chiang Mai Arr    30.68 300    P       P        11 56 32.6 +1.1
      0.5nm,0.3s,baz=122,slow=8.0,SNR=4.9
      0.5nm,0.3s
STKA  Stephens Creek    38.58 160    P       P        11 57 39.2 -0.4
      2.8nm,0.7s,baz=337,slow=8.3,SNR=3.7
STKA                                 LR      LR       12 15 59.4
      comp=Z,82nm,18.8s,baz=6.2,slow=40
      2.8nm,0.7s
XLT   XiLinHaoTe        40.61 348   eP       P        11 57 56.4  0.0
XLT                                  pmax    pmax
      comp=Z,10.0nm,0.4s
XLT                                  pmax    pmax
      comp=Z,78nm,7.5s
MKAR  Makanchi Array    57.18 325    P       P        12 00 04.3 +0.8
      comp=Z,0.6nm,0.5s,baz=119,slow=7.3,SNR=6.2
      comp=Z,0.6nm,0.5s
KURBB Kurchatov Arra    61.35 327    P       P        12 00 32.3  0.0
      comp=Z,1.0nm,0.8s,baz=129,slow=5.9,SNR=4.4
      comp=Z,1.0nm,0.8s
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*UPP **17** 12:30:17.2±0.2, 67°.42N×23°.34E, h0^{km}, ML1.9, Suspected explosion*
*IDC **17** 12:30:18.4±2.2, 67°.44N×23°.65E, h0^{km}, mbtmp2.6/2, ML1.9/2, Error ellipse: s-maj=38.6km s-min=15.6km az=98.0*
*HEL **17** 12:30:18.4±0.3, 67°.44N×23°.41E, h0^{km}, ML1.5, Explosion*
ISC 17 12:30:17.2±0.8**, 67°.43N**±0°.02×**23°.33E**±0°.02**, h0^{km}, n30, σ0^{s}.76**/44**, Sweden**

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Code  Station Name       Δ°   AZ°    Phase ID          Time      Res
                                     Op      ISC      h  m  s    ISC
KLF   Kolari             0.31 128    PG      Pg       12 30 23.2  0.0
      baz=313
KLF                                  SG      Sg       12 30 27.4 +0.2
KLF                                  smax    smax     12 30 28.8
      comp=Z,20nm,0.2s
PAJU  Pajala             0.41 192    P       Pg       12 30 25.1 +0.1
PAJU                                 S       Sg       12 30 30.7 +0.3
MASU  Masugnsbyn         0.51 274    P       Pg       12 30 27.1 +0.1
MASU                                 S       Sg       12 30 34.4 +0.8
LANU  Lannavaara         0.80 321    P       Pg       12 30 32.4 -0.1
LANU  Lannavaara         0.80 321   eP       Pg       12 30 32.3 -0.2
LANU  Lannavaara         0.80 321    PG      Pg       12 30 32.2 -0.4
LANU                                 SB      Sb       12 30 45.8 +0.4
ERTU  Ertsjaerv          0.98 208    P       Pg       12 30 35.3 -0.6
ERTU  Ertsjaerv          0.98 208    PG      Pg       12 30 35.4 -0.6
ERTU                                 SB      Sb       12 30 51.4 +0.8
HEF   Hetta              0.99   7   eP       Pg       12 30 35.5 -0.7
HEF   Hetta              0.99   7    PB      Pg       12 30 35.7 -0.4
      baz=188
HEF                                  smax    smax     12 30 48.2
      comp=Z,6.0nm,0.2s
HEF                                  SB      Sb       12 30 50.8 -0.1
KUA   Kurravaara         1.26 296    P       Pg       12 30 40.6 -0.6
RNF   Rovaniemi          1.34 127    PG      Pg       12 30 41.5 -1.2
RNF                                  SB      Sg       12 31 00.0  0.0
TOF   Tornio             1.41 163    PG      Pn       12 30 43.3 -0.7
TOF                                  smax    smax     12 31 00.9
      comp=Z,3.4nm,0.2s
TOF                                  SN      Sn       12 31 03.4 +0.2
RATU  Laukkuluspa        1.48 287    P       Pn       12 30 44.6 -0.5
KTK1  Kautokeino         1.59 359   eP       Pn       12 30 46.4 -0.2
KTK1  Kautokeino         1.59 359    PG      Pn       12 30 46.1 -0.5
KTK1                                 SN      Sg       12 31 09.8 +1.5
NIKU  Nikkaluokta        1.70 287    P       Pb       12 30 48.5 -0.8
RANF  Ranua              1.98 134    PG      Pb       12 30 52.9 -1.0
      baz=316
RANF                                 SG      Sb       12 31 19.3 +0.3
SJUU  Sjulsmark          2.05 201   eP       Pn       12 30 52.9 +0.2
RAJF  Raja-Jooseppi      2.15  58    PG      Pn       12 30 54.8 +0.5
RAJF                                 SG      Sb       12 31 24.8 +0.6
ARA0  ARCESS Array S     2.27  20    PB      Pn       12 30 56.3 +0.5
ARA0                                 SG      Sb       12 31 26.8 -0.6
ARCES ARCESS Array B     2.27  20    Pn      Pn       12 30 56.2 +0.4
      comp=Z,0.2nm,0.3s,baz=200,slow=14,SNR=28
ARCES                                Lg      Lg       12 31 25.4
      comp=Z,0.6nm,0.3s,baz=197,slow=29,SNR=12
      comp=Z,0.7nm,0.3s
ARCES                                AML     AML
I37NO I37NO              2.41 315    I       I        12 46 40.0
      comp=Z,0.1nm,0.6s,baz=132,slow=321,SNR=14
VRF   Varrio             2.43  79    PG      Pn       12 30 59.6 +1.5
VRF                                  smax    smax     12 31 29.1
      comp=Z,2.6nm,0.2s
VRF                                  SG      Sb       12 31 32.6 +0.5
OUL   Oulu               2.57 155    SG      Sb       12 31 37.8 +1.6
OLKF  Oulanka, Finla     2.64 112    PB      Pn       12 31 01.9 +0.9
OLKF                                 smax    smax     12 31 35.6
      comp=Z,1.6nm,0.2s
KEV   Kevo               2.70  28    PB      Pn       12 31 02.5 +0.7
KEV                                  SG      Sb       12 31 41.0 +1.2
MSF   Maaselka           2.74 121    PG      Pb       12 31 05.4 -1.5
MSF                                  SG      Sb       12 31 41.0 +0.1
VAF   Ylistaro           4.41 184   eP       Pn       12 31 26.6 +1.4
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FINES	FINESS Array B	6.12	168	Pn	Pn	12 31 49.1	+0.4
	comp=Z,0.1nm,0.3s,baz=348,slow=14,SNR=3.6						
	comp=Z,0.9nm,0.4s						
FINES				AML	AML		

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*IDC **17** 12:38:10.5±1.9, 6°.49S×152°.22E, h0^{km}, mb3.4/3, mbtmp3.6/5, ML1.8/1, Error ellipse: s-maj=48.4km s-min=16.1km az=111.0*

ISC 17 12:38:16.3±1.7**, 6°.4S**±0°.2×**151°.9E**±0°.2**, h37^{km}, n6, σ1^{s}.75**/8**, mb3.4**/3**, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRVT	Keravat (AS076	2.04	4	Pn	Pn	12 38 47.3	-0.8
	199nm,0.4s,baz=22,slow=4.8,SNR=8.2						
KRVT				Sn	Sn	12 39 14.1	+1.8
	165nm,0.3s,baz=308,slow=22,SNR=6.6						
PMG	Port Moresby	5.58	237	Pn	Pn	12 39 38.3	+1.6
	1.9nm,0.3s,baz=63,slow=14,SNR=5.9						
PMG				Sn	Sn	12 40 37.4	-2.2
	1.7nm,0.3s,baz=343,slow=21,SNR=2.6						
	7.2nm,0.5s						
PMG				AML	AML		
WRA	Warramunga Arr	21.75	230	P	P	12 43 04.5	-0.2
	0.6nm,0.4s,baz=54,slow=11,SNR=11						
	0.6nm,0.4s						
ASAR	Alice Springs	24.40	223	P	P	12 43 32.8	+1.4
	0.6nm,0.6s,baz=53,slow=8.6,SNR=7.2						
	0.6nm,0.6s						
ILAR	Eielson Array	83.94	22	P	P	12 50 42.0	-0.1
	0.3nm,0.6s,baz=256,slow=3.6,SNR=2.6						
	0.3nm,0.6s						
TORD	Torodi Ar. Bea	149.88	285	PKPbc	PKiKP	12 58 03.2	-1.4
	0.4nm,0.5s,baz=76,slow=2.5,SNR=2.4						

NOU 17 12:38:23.3, 15°.77S×167°.35E, h20^{km}, MLv4.2/8**, Vanuatu Islands, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SANVU	Saraoutou	0.35	336	P	Pn	12 38 33.1	-0.2
SANVU	Saraoutou	0.35	336	S	Sb	12 38 37.7	+1.8
YATNC	Mamie plateau,	6.27	184	P	Pn	12 39 54.8	+0.1
OUENC	Ouen Island, N	6.63	184	P	Pn	12 40 00.1	+0.4

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*IDC **17** 13:20:59.5±1.2, 6°.74N×72°.89W, h172^{km}±14^{km}, mb3.1/5, mbtmp3.7/7, Error ellipse: s-maj=32.8km s-min=14.2km az=128.0*
*RSNC **17** 13:20:59.9±0.0, 7°N±1°×7°3W±°, h149^{km}±1^{km}, M3.7, mB4.7, mb4.2, ML3.3, MLv4.0, Mw(mB)3.9*
*FUNV **17** 13:20:59.1, 7°.24N×73°.28W, h7^{km}, MW3.3, Presumed earthquake*

ISC 17 13:20:58.6±0.8**, 6°.85N**±0°.03×**73°.12W**±0°.04**, h152^{km}**±6^{km}**, n46, σ1^{s}.82**/79**, mb3.4**/5**, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BARC	Barichara	0.26	194	P	Pn	13 21 20.1	+0.5
BARC				S	Sn	13 21 35.4	-0.2
BARC				AML	AML		
BARC				AML	AML		
BRJC	Barrancabermej	0.64	281	P	Pn	13 21 21.7	+0.8
BRJC				S	Sn	13 21 37.0	-0.9
BRJC				AML	AML		
BRJC				AML	AML		
PAMC	Pamplona, Colo	0.64	40	P	Pn	13 21 22.9	+1.4
PAMC				S	Sn	13 21 39.9	+0.9
PAMC				AML	AML		
PAMC				AML	AML		
RUSC	La Rusia	0.95	178	P	Pn	13 21 23.9	+0.1
RUSC				S	Sn	13 21 43.1	+0.2
RUSC				AML	AML		
RUSC				AML	AML		
RUSC	La Rusia	0.95	178	*e*P	Pn	13 21 23.5	-0.2
RUSC				*e*S	Sn	13 21 41.7	-1.2
PTBC	PUERTO BERRIO,	1.37	257	P	Pn	13 21 26.5	-0.5
PTBC				S	Sn	13 21 47.6	-1.1
PTBC				AML	AML		
PTBC				AML	AML		
OCAC	Ocana	1.39	352	P	Pn	13 21 28.2	+0.8
OCAC				S	Sn	13 21 50.1	+0.6
OCAC				AML	AML		
OCAC				AML	AML		
SPBC	San Pablo de B	1.52	219	P	Pn	13 21 28.8	+0.1
SPBC				S	Sn	13 21 51.0	-0.7
SPBC				AML	AML		
SPBC				AML	AML		
NORC	Norcasia	2.16	234	P	Pn	13 21 35.8	0.0
NORC				S	Sn	13 22 03.1	-1.3
NORC				AML	AML		
NORC				AML	AML		
CHIC	Chingaza	2.29	196	P	Pn	13 21 38.0	+0.3
CHIC				S	Sn	13 22 07.4	-0.4
CHIC				AML	AML		
CHIC				AML	AML		
ROSC	El Rosal	2.33	211	P	Pn	13 21 40.3	+2.2
	150nm,0.3s,baz=71,slow=23,SNR=48						
ROSC				S	Sn	13 22 06.7	-1.9
	534nm,0.4s,baz=126,slow=18,SNR=9.4						
ROSC	El Rosal	2.33	211	P	Pn	13 21 39.9	+1.7
ROSC				S	Sn	13 22 08.9	+0.3
ROSC				AML	AML		
ROSC				AML	AML		
HELC	Santa Helena	2.48	255	P	Pn	13 21 40.3	+0.3
HELC				S	Sn	13 22 11.6	-0.3
HELC				AML	AML		
HELC				AML	AML		
HELC	Santa Helena	2.48	255	*e*P	Pn	13 21 38.8	-1.2
HELC				*e*S	Sn	13 22 09.3	-2.5
CVER	Cruz Verde, Cu	2.50	202	P	Pn	13 21 41.3	+0.9
CVER				S	Sn	13 22 12.5	0.0
CVER				AML	AML		
CVER				AML	AML		
UREC	San Jos de Ur	2.56	291	P	Pn	13 21 39.7	-0.9
UREC				S	Sn	13 22 10.8	-2.1
UREC				AML	AML		
UREC				AML	AML		
GUY2C	Guyana, Caldas	2.76	234	P	Pn	13 21 43.9	+0.4
GUY2C				S	Sn	13 22 18.5	+0.4
GUY2C				AML	AML		
GUY2C				AML	AML		
VILC	Villavicencio,	2.78	192	P	Pn	13 21 42.9	-0.6
VILC				S	Sn	13 22 17.7	-0.4
VILC				AML	AML		
VILC				AML	AML		
CBOC	Ciudad Bolivar	3.04	251	P	Pn	13 21 47.9	+1.1
CBOC				S	Sn	13 22 24.9	+0.9
CBOC				AML	AML		
CBOC				AML	AML		
SDV	Santo Domingo	3.19	50	P	Pn	13 21 49.4	+0.8
	89nm,0.3s,baz=231,slow=12,SNR=38						
SDV				S	Sn	13 22 27.9	+0.6
	118nm,0.5s,baz=107,slow=23,SNR=17						
SDV	Santo Domingo	3.19	50	P	Pn	13 21 49.6	+1.0
SDV				S	Sn	13 22 26.9	-0.4
SDV				AML	AML		
SDV				AML	AML		
ARMEC	Armenia, Quind	3.41	228	P	Pn	13 21 55.0	+3.5
ARMEC				S	Sn	13 22 37.9	+5.5
PRAC	Prado	3.58	210	P	Pn	13 21 53.7	+0.1
PRAC				S	Sn	13 22 35.3	-0.9
PRAC				AML	AML		
PRAC				AML	AML		
APAC	Apartado, Choc	3.59	287	P	Pn	13 21 53.9	+0.3
APAC				S	Sn	13 22 34.8	-1.5
APAC				AML	AML		
APAC				AML	AML		
ORTC	Ortega, Tolima	3.61	216	P	Pn	13 21 54.3	+0.4
ORTC				S	Sn	13 22 36.8	-0.1
ORTC				AML	AML		
ORTC				AML	AML		
SJCC	San Jacinto, C	3.65	326	P	Pn	13 21 53.7	-0.8
SJCC				S	Sn	13 22 35.3	-2.6
SJCC				AML	AML		
SJCC				AML	AML		
SJCC	San Jacinto, C	3.65	326	*e*P	Pn	13 21 49.6	-4.9
SJCC				*e*S	Sn	13 22 26.6	-11
LCBC	Los crdobas,	3.79	302	P	Pn	13 21 56.4	+0.2
LCBC				S	Sn	13 22 42.3	+1.4
LCBC				AML	AML		
LCBC				AML	AML		
GUVC	San Jose del G	4.30	173	P	Pn	13 21 59.9	-3.1
GUVC				S	Sn	13 22 50.9	-2.2
SMRC	Santa Marta, M	4.42	346	P	Pn	13 22 04.4	-0.1
SMRC				S	Sn	13 22 53.1	-2.8
SMRC				AML	AML		
SMRC				AML	AML		
MACC	Macarena, Meta	4.73	189	P	Pn	13 22 06.6	-2.0
MACC				S	Sn	13 22 57.5	-5.6
BETC	Betania	4.75	209	P	Pn	13 22 07.9	-0.9
BETC				S	Sn	13 22 58.0	-5.5
BETC				AML	AML		
BETC				AML	AML		
URIC	Uribia, Colomb	4.95	13	P	Pn	13 22 10.3	-1.1
URIC				S	Sn	13 23 05.0	-3.2
URIC				AML	AML		
URIC				AML	AML		
URIC	Uribia, Colomb	4.95	13	*e*P	Pn	13 22 08.1	-3.3
URIC				*e*S	Sn	13 22 58.2	-10
GARC	Garzon, Huila	5.20	207	P	Pn	13 22 13.6	-1.5
GARC				S	Sn	13 23 11.0	-3.7
GARC				AML	AML		
GARC				AML	AML		
POPC	Popayan, Colom	5.56	220	P	Pn	13 22 19.3	-0.5
	21nm,0.7s						
POPC				S	Sn	13 23 22.5	-0.6
	21nm,0.7s						
POPC				AML	AML		
BBAC	Balboa, Cauca	6.32	221	P	Pn	13 22 29.8	-0.1
CRUC	La Cruz	6.49	216	P	Pn	13 22 35.6	+3.3
JTS	Las Juntas de	12.19	287	P	P	13 23 55.6	+2.0
	4.4nm,0.6s,baz=114,slow=20,SNR=2.4						
TXAR	Lajitas Array	36.45	312	P	P	13 27 50.0	+0.9
	0.6nm,0.7s,baz=132,slow=9.4,SNR=6.1						
	0.6nm,0.7s						
ULM	Lac du Bonnet	47.26	340	P	P	13 29 16.0	-0.4
	1.1nm,0.4s,baz=144,slow=10,SNR=1.3						
	1.1nm,0.4s						
PDAR	Pinedale Array	48.06	324	P	P	13 29 23.2	+0.2
	0.2nm,0.5s,baz=126,slow=4.9,SNR=2.9						
	0.2nm,0.5s						
NVAR	Mina Array Bea	51.47	315	P	P	13 29 50.2	+1.4
	0.2nm,0.6s,baz=122,slow=7.6,SNR=2.3						
	0.2nm,0.6s						
YKA	Yellowknife Ar	63.24	340	P	P	13 31 10.0	-0.5
	0.9nm,0.6s,baz=132,slow=6.5,SNR=6.7						
	0.9nm,0.6s						
ASAR	Alice Springs	149.13	234	PKPbc	PKPbc	13 40 28.3	-1.7
	0.3nm,0.5s,baz=120,slow=3.2,SNR=5.6						
WRA	Warramunga Arr	150.35	241	PKPbc	PKPbc	13 40 31.5	-1.5
	0.2nm,0.3s,baz=107,slow=2.9,SNR=6.5						

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*IDC **17** 13:45:54.4±1.9, 15°.08N×93°.98W, h0^{km}, mb3.8/5, mbtmp3.6/6, ML3.2/2, MS2.7/3, Error ellipse: s-maj=38.2km s-min=13.4km az=35.0*
*MEX **17** 13:45:54.9±1.0, 14°.64N×94°.03W, h10^{km}, MD4.3, Presumed earthquake*

ISC 17 13:45:55.0±3.5**, 14°.9N**±0°.1×**93°.81W**±0°.08**, h14^{km}**±17^{km}**, n17, σ1^{s}.52**/22**, mb3.8**/5**, Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
THIG		1.49	89	*e*S	Sb	13 46 42.4	+1.2
PATR	El Naranjo	1.54	81	*e*P	Pn	13 46 22.8	+0.6
PATR				*e*S	Sb	13 46 43.6	+0.8
PAVE	Pavencul	1.60	79	*e*P	Pn	13 46 24.0	+0.9
PAVE				*e*S	Sb	13 46 45.0	+0.2
CHUJ	Union Juarez	1.65	83	*e*P	Pn	13 46 24.4	+0.5
CHUJ				*e*S	Sb	13 46 46.3	+0.1
TGIG		1.99	19	*e*P	Pg	13 46 32.0	-1.2
TGIG				*e*S	Sg	13 47 00.2	+1.2
RTAL	Retalhuleu	2.08	100	*e*P	Pn	13 46 28.3	-1.1
RTAL				*e*S	Sn	13 46 52.2	-2.9
HUIG	Huatulco	2.39	292	*e*P	Pn	13 46 29.1	-4.6
HUIG				*e*S	Sn	13 46 52.4	-10
CMIG	Matias Romero	2.42	335	Pg	Pn	13 46 34.8	+0.7
	9.4nm,0.3s,baz=164,slow=11,SNR=71						
CMIG				Lg	Lg	13 47 03.5	
	10.0nm,0.3s,baz=132,slow=11,SNR=6.4						
CMIG				LR	LR	13 47 06.2	
	comp=Z,42nm,19.2s,baz=205,slow=33						
CMIG	Matias Romero	2.42	335	*e*P	Pn	13 46 35.1	+0.9
CMIG				*e*S	Sn	13 47 00.5	-3.1
APG	El Apazote	3.23	88	Pn	Pn	13 46 48.2	+2.7
	0.5nm,0.3s,baz=182,slow=10,SNR=14						
APG				Sn	Sb	13 47 29.5	-2.2
	0.7nm,0.3s,baz=220,slow=18,SNR=3.6						
APG				AML	AML		
TXAR	Lajitas Array	17.01	329	Pn	Pn	13 49 52.1	-0.6
	0.1nm,0.3s,baz=138,slow=10,SNR=5.0						
	0.2nm,0.7s						
TXAR				AML	AML		
TKL	Tuckaleechee C	22.55	22	LR	LR	14 01 11.4	
	comp=Z,28nm,18.7s,baz=125,slow=41						
NVAR	Mina Array Bea	31.89	322	P	P	13 52 19.7	-0.5
	1.0nm,0.8s,baz=128,slow=9.7,SNR=4.9						
	1.0nm,0.8s						
YKA	Yellowknife Ar	49.77	348	P	P	13 54 47.3	+0.4
	1.5nm,0.8s,baz=159,slow=7.3,SNR=3.8						
	1.5nm,0.8s						
ILAR	Eielson Array	61.34	337	P	P	13 56 10.6	+0.5
	0.5nm,0.7s,baz=121,slow=7.3,SNR=5.7						
	0.5nm,0.7s						
EKA	Eskdalemuir Ar	78.27	36	P	P	13 57 55.1	+0.7
	0.3nm,0.5s,baz=290,slow=8.2,SNR=5.0						
	0.3nm,0.5s						
NOA	NORSAR Array B	84.19	28	P	P	13 58 26.9	+1.0
	1.1nm,0.8s,baz=293,slow=5.2,SNR=3.8						
NOA				LR	LR	14 34 59.1	
	comp=Z,13nm,18.7s,baz=245,slow=35						
	1.1nm,0.8s						

AUST 17 14:28:46.5±1.2**, 18°S**±5°×**12°0E**±°**, h20^{km}**±10^{km}**, mb4.3**/10**, ML3.2**/6**, Error ellipse: s-maj=12.7km s-min=4.9km az=150.5, confirmed, Western Australia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAAN	Eighty Mile Be	1.84	132	P	Pn	14 29 18.0	+1.1
CAAN				S	Sn	14 29 39.0	-0.6
CAAN				AML	AML		
AUBRM	Broome Senior	2.07	88	P	Pb	14 29 23.1	-0.3
AUBRM				S	Sb	14 29 47.7	-1.0
FITZ	Fitzroy Crossi	5.31	91	P	Pn	14 30 04.7	0.0
	comp=Z,2.7nm,2.7s,comp=Z,0.0nm						
FITZ				S	Sn	14 30 58.8	-6.6
FITZ				AML	AML		
GIRL	Giralia	7.13	229	P	Pn	14 30 34.4	+4.8
GIRL				S	Sn	14 31 50.8	+0.7
MEEK	Meekatharra	8.66	189	P	Pn	14 30 52.2	+1.5
MEEK				S	Sn	14 32 21.6	-6.1
MEEK				AML	AML		
KNRA	Kununurra	8.66	76	P	Pn	14 30 50.8	+0.1
	comp=Z,6.6nm,1.7s,comp=Z,0.0nm						
KNRA				S	Sn	14 32 21.9	-5.9
KNRA				AML	AML		
WRKA	Warakurna	10.35	134	P	Pn	14 31 14.5	+0.6
WRKA				S	Sn	14 32 58.0	-11
WRKA				AML	AML		
MORW	Morawa	11.58	198	P	Pn	14 31 31.5	+0.9
	comp=Z,20nm,2.4s						
MORW				S	Sn	14 33 29.2	-10
MTN	Manton Dam	11.86	66	P	Pn	14 31 33.2	-1.4
	comp=Z,4.4nm,1.5s						
MTN				S	Sn	14 33 39.4	-7.1
BLDU	Ballidu	12.88	193	P	Pn	14 31 48.8	+0.4
	comp=Z,21nm,1.9s						
BLDU				S	Sn	14 33 59.6	-12
KORDA	Koorda, Wester	12.99	190	P	Pn	14 31 50.5	+0.6
	comp=Z,45nm,2.4s						
KMBL	Kambalda	13.37	173	P	Pn	14 31 53.2	-1.9
	comp=Z,16nm,1.2s						
KMBL				S	Sn	14 34 13.5	-10
KLBR	Kellerberrin	13.65	188	P	Pn	14 31 58.8	-0.2
	comp=Z,26nm,1.7s						
KLBR				S	Sn	14 34 17.3	-13
WB2	Warramunga Arr	13.65	100	P	Pn	14 31 58.5	-0.6
WB2				S	Sn	14 34 16.9	-13
MUN	Mundaring	14.31	193	P	Pn	14 32 08.1	+0.2
MUN				S	Sn	14 34 35.1	-11
NWAO	Narrogin (SRO)	15.04	189	P	Pn	14 32 16.9	-0.9
	comp=Z,65nm,0.5s						
NWAO				S	Sn	14 34 51.4	-12

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*CNRM **17** 14:38:28.2, 35°.67N×3°.75W, h14^{km}, ML1.9*
*MDD **17** 14:38:28.6±0.5, 35°.48N×3°.75W, h0^{km}, mb_Lg1.9/12, Error ellipse: s-maj=4.8km s-min=2.4km az=30.0*
*SFS **17** 14:38:29.1, 35°.40N×3°.70W, h14^{km}, ML2.5/6, ML2.5/6, MLv2.4/6*

ISC 17 14:38:28.1±1.0**, 35°.60N**±0°.02×**3°.69W**±0°.02**, h14^{km}**±9^{km}**, n25, σ1^{s}.50**/54**, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALE	Palemas	0.43	208	P	Pg	14 38 37.7	+0.9
PALE				S	Sg	14 38 44.0	+1.4
EALB	Alboran	0.63	57	P	Pn	14 38 43.4	+0.7
EALB				S	Sn	14 38 52.9	+0.3
EALB	Alboran	0.63	57	Pg	Pn	14 38 43.3	+0.6
EALB				Pg	Pn	14 38 43.4	+0.7
EALB				Sg	Sn	14 38 52.8	+0.3
EALB				Sg	Sn	14 38 53.0	+0.3
EALB				IVmb_Lg		14 38 57.9	
WMELI	Melilla	0.66	115	P	Pg	14 38 41.0	-0.1
WMELI				S	Sg	14 38 48.2	-1.6
EMEL	Melilla	0.67	116	Pg	Pg	14 38 41.2	+0.1
EMEL				Pg	Pg	14 38 41.3	+0.1
EMEL				Sg	Sg	14 38 48.9	-1.0
EMEL				Sg	Sb	14 38 49.3	-1.4
EMLI	Melilla	0.67	116	P	Pg	14 38 40.7	-0.5
EMLI				S	Sg	14 38 48.8	-1.3
AKLM	AKL	1.10	188	P	Pb	14 38 49.1	+0.2
AKLM				S	Sb	14 39 03.7	+0.6
ELGU	Los Guajares,	1.27	2	P	Pg	14 38 53.5	+0.9
ELGU				S	Sg	14 39 10.6	+1.6
ELGU	Los Guajares,	1.27	2	Pg	Pg	14 38 54.7	+2.1
ELGU				Sg	Sg	14 39 10.3	+1.2
ELGU				IVmb_Lg		14 39 15.3	
EMIJ	Mijas	1.30	318	P	Pg	14 38 53.5	+0.2
EMIJ				S	Sg	14 39 11.8	+1.5
EMIJ	Mijas	1.30	318	Pg	Pg	14 38 53.9	+0.7
EMIJ				Pg	Pb	14 38 54.5	+2.1
EMIJ				Sg	Sg	14 39 11.5	+1.3
EMIJ				Sg	Sn	14 39 12.0	+2.7
EMIJ				IVmb_Lg		14 39 14.0	
SMIR	Smir Dam	1.38	274	P	Pb	14 38 53.2	-0.6
SMIR				S	Sg	14 39 11.1	-1.6
ECEU	Ceuta	1.41	283	P	Pg	14 38 54.2	-1.0
ECEU				S	Sg	14 39 11.5	-1.9
ECEU	Ceuta	1.41	283	Pg	Pg	14 38 54.7	-0.5
ECEU				Sg	Sg	14 39 11.6	-1.9
ECEU				IVmb_Lg		14 39 19.3	
EBER	Berja	1.45	26	P	Pg	14 38 57.0	+1.0
EBER				S	Sg	14 39 17.0	+2.2
EBER	Berja	1.45	26	Pn	Pg	14 38 56.7	+0.7
EBER				Sn	Sg	14 39 16.5	+1.6
EBER				IVmb_Lg		14 39 20.0	
EGOR	Sierra Gorda,	1.55	347	Pn	Pb	14 38 55.9	-0.7
EGOR				Sn	Sg	14 39 19.7	+1.7
EGOR				IVmb_Lg		14 39 23.7	
JBK	JBK	1.56	144	P	Pn	14 38 56.0	+0.3
JBK				S	Sb	14 39 18.6	+2.0
EQUE	Quentar	1.61	7	Sn	Sg	14 39 20.2	0.0
EQUE				IVmb_Lg		14 39 25.6	
EQTA	Presa de Quent	1.62	7	S	Sg	14 39 21.4	+1.2
EQES	Quesada	2.25	13	Pn	Pb	14 39 07.5	-1.2
EQES				Pg	Pg	14 39 10.9	-0.5
EQES				Sn	Sg	14 39 38.5	-2.2
EQES				IVmb_Lg		14 39 46.6	
EADA	Adamuz	2.66	345	P	Pb	14 39 13.3	-2.3
EADA				S	Sb	14 39 47.5	-0.6
EADA	Adamuz	2.66	345	Pn	Pb	14 39 12.9	-2.7
EADA				Sn	Sb	14 39 46.6	-1.6
EADA				IVmb_Lg		14 39 59.4	
ECAB	El Cabril	2.83	331	Pn	Pb	14 39 15.2	-3.4
ECAB				Sn	Sb	14 39 50.0	-3.2
ECAB				IVmb_Lg		14 39 59.0	
MDT	Midelt	2.88	196	P	Pn	14 39 14.7	+0.9

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*TEH **17** 14:39:39.8, 34°.61N×46°.16E, h8^{km}±24^{km}, ML2.9, Presumed earthquake*
*ISN **17** 14:39:43.0±1.2, 34°.67N×46°.17E, h4^{km}±16^{km}, ML2.6, Presumed earthquake*

ISC 17 14:39:41.2±1.2**, 34°.67N**±0°.04×**46°.22E**±0°.04**, h12^{km}**±10^{km}**, n8, σ1^{s}.30**/12**, Western Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IDHR	Dehrash	0.14	76	Pg	Pg	14 39 44.4	-0.4
IDHR				Sg	Sg	14 39 48.1	+0.7
IGHG	Ghaleghazi	0.44	140	Pg	Pg	14 39 48.9	-1.1
KCHF	Cheshme Sefid,	0.78	120	Pg	Pg	14 39 55.4	-0.9
KCHF				Sg	Sg	14 40 07.2	+0.5
SNJK	Sanadaj _Korde	1.04	43	Pg	Pg	14 40 00.8	-0.5
ILBA	Ilam Banvizeh	1.04	181	Pg	Pg	14 39 58.8	-2.4
IBZA	Bozab	1.37	98	Pg	Pn	14 40 06.7	+0.3
IBDR	Badra	1.57	189	*i* P	Pg	14 40 12.8	+1.3
	baz=7.1						
IBDR				*i* S	Sg	14 40 33.0	+1.1
IBDR				IAML		14 40 34.0	
	comp=N,100nm,0.5s						
IBDR				IAML		14 40 34.4	
	comp=E,97nm,0.6s						
IKRK	Kirkuk	1.71	296	*i* P	Pg	14 40 13.1	-0.9
IKRK				*i* S	Sg	14 40 36.6	+0.4
IKRK				IAML		14 40 41.1	
	comp=E,94nm,0.2s						
IKRK				IAML		14 40 41.1	
	comp=N,95nm,0.5s						

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*IDC **17** 14:43:10.5±2.1, 20°.10S×170°.02E, h0^{km}, mb3.4/3, mbtmp3.5/4, ML3.9/1, MS3.1/3, Error ellipse: s-maj=51.0km s-min=28.0km az=156.0*

ISC 17 14:43:13.7±1.5**, 21°.1S**±0°.4×**170°.4E**±0°.1**, h35^{km}, n10, σ0^{s}.50**/8**, mb3.6**/5**, 3C, Southeast of Loyalty Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	Mont Dzumac	3.82	254	Pn	Pn	14 44 10.8	+0.7
	8.1nm,0.3s,baz=60,slow=20,SNR=250						
DZM				LR	LR	14 44 50.1	
	comp=Z,75nm,21.0s,baz=1.5,slow=26						
DZM				Sn	Sn	14 44 53.1	-0.7
	8.5nm,0.3s,baz=317,slow=22,SNR=12						
	25nm,0.4s						
DZM				AML	AML		
RPZ	Rata Peaks	22.60	179	LR	LR	14 55 22.1	
	comp=Z,28nm,18.3s,baz=59,slow=31						
WRA	Warramunga Arr	33.75	265	P	P	14 49 52.4	+0.1
	0.4nm,0.7s,baz=98,slow=8.1,SNR=1.6						
	0.4nm,0.7s						
ASAR	Alice Springs	33.80	259	P	P	14 49 52.6	-0.1
	0.5nm,0.7s,baz=79,slow=9.6,SNR=11						
	0.5nm,0.7s						
VNDA	Vanda	56.66	182	P	P	14 53 01.7	+8.7
	0.4nm,0.9s,baz=338,slow=5.4,SNR=1.7						
	0.4nm,0.9s						
JNU	Nakatsue	65.77	324	LR	LR	15 17 32.4	
	comp=Z,95nm,21.9s,baz=180,slow=32						
TROLL	Troll, Antarti	86.80	184	⇑P	P	14 55 54.3	0.0
	comp=Z,116nm,0.9s						
VNA3	Neumayer Olymp	87.94	180	⇑P	P	14 55 59.2	-0.4
	comp=Z,2.3nm,0.8s						
VNA2	Neumayer--Watz	88.25	181	⇑P	P	14 56 01.2	+0.1
	comp=Z,1.8nm,0.7s,baz=185,slow=5.5						
EKA	Eskdalemuir Ar	145.44	354	PKP	PKPab	15 02 47.6	-0.3
	comp=Z,0.3nm,0.4s,baz=25,slow=3.2,SNR=3.8						

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*TAP **17** 15:18:11.9, 24°.87N×122°.27E, h117^{km}±1^{km}, ML3.2, B*
*JMA **17** 15:18:12.3±0.2, 25°N±1°×122°.2E±0°.3, h117^{km}±1^{km}, MV2.3/12, TAIWAN REGION*

ISC 17 15:18:12.9±1.5**, 24°.85N**±0°.04×**122°.26E**±0°.03**, h111^{km}**±8^{km}**, n88, σ0^{s}.63**/152**, 8C, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TWB1	Santiao Chiao	0.29	303	P	Pn	15 18 28.6	-0.1
EGS		0.29	269	*i* P	Pn	15 18 29.0	+0.3
TIPB	Shuangxi	0.41	287	⇑*i*P	Pn	15 18 29.2	-0.1

EOS2	**EOS2**	**0.43**	**183**	*e*P	**Pn**	**15 18 29.8**	**+0.5**
EOS2				S	**Sn**	**15 18 43.0**	**+1.5**
TWC	**Suao**	**0.44**	**237**	*i* P	**Pn**	**15 18 29.1**	**-0.4**
TWC				*i* S	**Sn**	**15 18 41.9**	**0.0**
ESAO	**Su ao**	**0.46**	**234**	P	**Pn**	**15 18 29.4**	**-0.2**
ESAO				S	**Sn**	**15 18 42.1**	**0.0**
ILA	**Ilan**	**0.47**	**260**	*e*P	**Pn**	**15 18 29.7**	**+0.1**
NWF	**Wu-fen Shan**	**0.48**	**297**	⇑*i*P	**Pn**	**15 18 29.8**	**-0.1**
NWF				*e*S	**Sn**	**15 18 42.5**	**-0.1**
WFSB	**Wu-fen Shan**	**0.48**	**297**	P	**Pn**	**15 18 29.8**	**+0.1**
WFSB				*i* S	**Sn**	**15 18 42.7**	**+0.3**
TNOU	**National Taiwa**	**0.53**	**304**	P	**Pn**	**15 18 29.9**	**-0.2**
TNOU				S	**Sn**	**15 18 42.6**	**-0.4**
NDS	**Dongshan**	**0.54**	**246**	P	**Pn**	**15 18 30.2**	**+0.1**
NDS				*i* S	**Sn**	**15 18 44.1**	**+1.0**
TWE	**Neicheng**	**0.55**	**257**	*i* P	**Pn**	**15 18 30.0**	**-0.2**
EOS3	**EOS3**	**0.56**	**174**	*e*P	**Pn**	**15 18 30.6**	**+0.5**
EOS3				S	**Sn**	**15 18 44.2**	**+1.2**
FUSB	**Fushanzhiwuyua**	**0.61**	**262**	P	**Pn**	**15 18 30.3**	**-0.4**
FUSB				*i* S	**Sn**	**15 18 44.8**	**+0.6**
TWA	**Mucha**	**0.62**	**282**	⇑*i*P	**Pn**	**15 18 30.3**	**-0.5**
TWA				*e*S	**Sn**	**15 18 43.7**	**-0.5**
NHDH	**Xindian Distri**	**0.67**	**280**	*e*P	**Pn**	**15 18 30.8**	**-0.3**
NHDH				S	**Sn**	**15 18 46.4**	**+1.6**
NWLT	**Wulai**	**0.69**	**264**	P	**Pn**	**15 18 30.9**	**-0.4**
NWLT				*e*S	**Sn**	**15 18 45.1**	**0.0**
YM01	**YM01**	**0.69**	**296**	⇑P	**Pn**	**15 18 31.0**	**-0.3**
YM01				S	**Sn**	**15 18 44.1**	**-1.1**
YM08	**YM08**	**0.69**	**299**	*e*P	**Pn**	**15 18 31.0**	**-0.3**
YM08				*e*S	**Sn**	**15 18 44.3**	**-0.9**
EAHA	**Aohua**	**0.70**	**222**	P	**Pn**	**15 18 31.3**	**-0.1**
EAHA				*e*S	**Sn**	**15 18 45.6**	**+0.4**
ZUZH	**Zhuzihu**	**0.72**	**296**	*i* P	**Pn**	**15 18 31.2**	**-0.3**
ZUZH				*e*S	**Sn**	**15 18 44.2**	**-1.3**
NDT	**Datong Townshi**	**0.72**	**250**	*e*P	**Pn**	**15 18 31.9**	**+0.4**
NDT				S	**Sn**	**15 18 46.4**	**+0.9**
EOS4	**EOS4**	**0.73**	**176**	*e*P	**Pn**	**15 18 31.2**	**0.0**
EOS4				*i* S	**Sn**	**15 18 45.2**	**+0.3**
TWY	**Chenhua**	**0.73**	**306**	P	**Pn**	**15 18 31.5**	**-0.1**
TWY				S	**Sn**	**15 18 45.6**	**0.0**
LATG	**Datong**	**0.73**	**245**	P	**Pn**	**15 18 32.0**	**+0.3**
LATG				*i* S	**Sn**	**15 18 46.8**	**+0.8**
JYNG	**Yonagunijimaku**	**0.74**	**122**	P	**Pn**	**15 18 31.5**	**-0.2**
JYNG				S	**Sn**	**15 18 45.7**	**-0.2**
YOJ	**Yonaguni jima**	**0.79**	**119**	*i* P	**Pn**	**15 18 32.0**	**-0.1**
YOJ				*i* S	**Sn**	**15 18 46.5**	**0.0**
YOJ	**Yonaguni jima**	**0.79**	**119**	P	**Pn**	**15 18 31.9**	**-0.2**
YOJ				S	**Sn**	**15 18 46.4**	**-0.2**
PCYT	**Pengchaiyu**	**0.79**	**348**	*i* P	**Pn**	**15 18 32.5**	**+0.3**
PCYT				*i* S	**Sn**	**15 18 45.6**	**-1.1**
NTST	**Danshui**	**0.80**	**293**	*e*S	**Sn**	**15 18 48.2**	**+1.6**
TWS1	**Kuangyinshan**	**0.80**	**288**	*e*P	**Pn**	**15 18 32.0**	**-0.2**
TWS1				*i* S	**Sn**	**15 18 48.0**	**+1.3**
YHNB	**Yeheng**	**0.82**	**258**	⇑P	**Pn**	**15 18 32.3**	**-0.2**
YHNB				*i* S	**Sn**	**15 18 46.7**	**-0.5**
NSK	**Sanguang**	**0.83**	**258**	P	**Pn**	**15 18 32.3**	**-0.3**
NSK				*e*S	**Sn**	**15 18 46.2**	**-1.3**
ETL	**Fush Village**	**0.90**	**220**	*e*P	**Pn**	**15 18 32.8**	**-0.5**
ETL				*e*S	**Sn**	**15 18 48.0**	**-0.5**
NNSB	**Datong**	**0.90**	**242**	⇑P	**Pn**	**15 18 33.4**	**+0.1**
NNSB				*i* S	**Sn**	**15 18 48.7**	**0.0**
NNS	**Nan Shan**	**0.90**	**243**	⇑P	**Pn**	**15 18 33.5**	**+0.2**
NNS				*i* S	**Sn**	**15 18 48.8**	**0.0**
NACB	**Ninganchiao**	**0.90**	**222**	⇑P	**Pn**	**15 18 32.5**	**-0.7**
NACB				*i* S	**Sn**	**15 18 48.2**	**-0.3**
ETLH	**Xiulin Townshi**	**0.95**	**228**	P	**Pn**	**15 18 33.5**	**-0.3**
ETLH				*i* S	**Sn**	**15 18 48.9**	**-0.7**
NCUH	**Zhongli**	**0.98**	**277**	*e*P	**Pn**	**15 18 34.1**	**+0.1**
NCUH				*i* S	**Sn**	**15 18 50.5**	**+0.6**
KSHI	**Guanxi Townshi**	**0.98**	**266**	*e*P	**Pn**	**15 18 34.0**	**0.0**
KSHI				*i* S	**Sn**	**15 18 50.2**	**+0.3**
NFF	**Wufeng Townshi**	**1.06**	**258**	*i* P	**Pn**	**15 18 34.1**	**-0.8**
NFF				*i* S	**Sn**	**15 18 50.6**	**-0.8**
ETM	**Tongmen**	**1.12**	**218**	P	**Pn**	**15 18 34.6**	**-0.9**
ETM				*e*S	**Sn**	**15 18 52.1**	**-0.5**
LXIB	**Xiulin Townshi**	**1.13**	**223**	*i* P	**Pn**	**15 18 34.9**	**-0.9**
LXIB				S	**Sn**	**15 18 52.8**	**-0.1**
WHF	**Hehuan Shan**	**1.14**	**232**	*i* P	**Pn**	**15 18 36.2**	**+0.1**
WHF				*e*S	**Sn**	**15 18 53.6**	**-0.1**
LIOB	**Emei**	**1.15**	**260**	*i* P	**Pn**	**15 18 35.5**	**-0.3**
LIOB				*e*S	**Sn**	**15 18 52.6**	**-0.4**
TEYL	**Yanliau Villag**	**1.15**	**212**	*e*P	**Pn**	**15 18 34.5**	**-1.2**
TEYL				*e*S	**Sn**	**15 18 52.5**	**-0.5**
TWT	**Tachien**	**1.15**	**239**	*e*P	**Pn**	**15 18 36.7**	**+0.8**
TWT				S	**Sn**	**15 18 53.8**	**+0.4**
NSTT	**Nanjuang**	**1.16**	**259**	*i* P	**Pn**	**15 18 35.5**	**-0.4**
NSTT				*e*S	**Sn**	**15 18 52.7**	**-0.5**
TDCB	**Techi**	**1.16**	**239**	*i* P	**Pn**	**15 18 36.6**	**+0.6**
TDCB				*i* S	**Sn**	**15 18 53.8**	**+0.3**
HSN	**Hsinchu**	**1.17**	**268**	*e*P	**Pn**	**15 18 35.4**	**-0.6**
HSN				*e*S	**Sn**	**15 18 52.3**	**-1.1**
SHUL	**Shoufeng**	**1.23**	**211**	*i* P	**Pn**	**15 18 36.3**	**-0.4**
SHUL				*e*S	**Sn**	**15 18 54.4**	**-0.3**
ESL	**Shilin**	**1.28**	**216**	*i* P	**Pn**	**15 18 35.8**	**-1.4**
TEGC	**Jichi Village**	**1.31**	**210**	*e*S	**Sn**	**15 18 54.9**	**-1.3**
WHP	**Taichung City**	**1.32**	**245**	*e*P	**Pn**	**15 18 38.0**	**+0.3**
WHP				*e*S	**Sn**	**15 18 56.7**	**+0.1**
OWD	**Renai**	**1.33**	**228**	*i* P	**Pn**	**15 18 37.8**	**-0.1**
OWD				*i* S	**Sn**	**15 18 57.4**	**+0.6**
WUSB	**Renai**	**1.34**	**231**	P	**Pn**	**15 18 38.2**	**+0.1**
WUSB				S	**Sn**	**15 18 57.3**	**+0.2**
NMLH	**Miaoli**	**1.37**	**257**	*e*P	**Pn**	**15 18 38.5**	**+0.3**
NMLH				*e*S	**Sn**	**15 18 56.9**	**-0.5**
WARBT	**Fenglin Townsh**	**1.38**	**215**	P	**Pn**	**15 18 36.9**	**-1.5**
IRIF	**Iriomote-Funau**	**1.44**	**111**	P	**Pn**	**15 18 38.4**	**-0.6**
TWQ1	**Liyutan**	**1.44**	**250**	*i* P	**Pn**	**15 18 38.7**	**-0.4**
TWQ1				*e*S	**Sn**	**15 18 58.7**	**-0.3**
WCS	**Beigang Elemen**	**1.46**	**237**	*i* P	**Pn**	**15 18 39.7**	**+0.4**
WCS				S	**Sn**	**15 18 58.9**	**-0.4**
VWDT	**VWDT**	**1.49**	**223**	*i* P	**Pn**	**15 18 39.8**	**+0.1**
VWDT				S	**Sn**	**15 18 59.7**	**-0.3**
HGSD	**Ruisui**	**1.55**	**210**	*e*P	**Pn**	**15 18 39.9**	**-0.5**
HGSD				*e*S	**Sn**	**15 19 01.2**	**-0.1**
WDJ	**Dajia District**	**1.55**	**252**	*e*S	**Sn**	**15 19 01.4**	**+0.1**
SMLT	**Sun Moon Lake**	**1.57**	**232**	*i* P	**Pn**	**15 18 41.0**	**+0.3**
SMLT				S	**Sn**	**15 19 02.9**	**+1.1**
TYC	**Yuchr**	**1.58**	**234**	*e*P	**Pn**	**15 18 41.3**	**+0.5**
TYC				*i* S	**Sn**	**15 19 02.9**	**+0.9**
EHYH	**Wanrong**	**1.59**	**212**	*e*P	**Pn**	**15 18 40.2**	**-0.7**
SSLB	**Suanglung**	**1.59**	**229**	P	**Pn**	**15 18 41.4**	**+0.5**
SSLB				*i* S	**Sn**	**15 19 02.7**	**+0.6**
TCU	**Taichung**	**1.60**	**244**	*e*S	**Sn**	**15 19 02.2**	**-0.1**
YULB	**Yu-li**	**1.69**	**211**	*e*P	**Pn**	**15 18 40.9**	**-1.3**
YULB				*e*S	**Sn**	**15 19 04.3**	**-0.1**
JKRS	**Kuro-shima**	**1.71**	**111**	P	**Pn**	**15 18 42.2**	**-0.1**
WHYT	**Xinyi Township**	**1.72**	**228**	*e*P	**Pn**	**15 18 43.2**	**+0.7**
WHYT				S	**Sn**	**15 19 05.6**	**+0.6**
TWF1	**Yuli**	**1.73**	**211**	*e*P	**Pn**	**15 18 41.3**	**-1.3**
TWF1				S	**Sn**	**15 19 05.1**	**-0.1**
WJS	**Zhushan**	**1.73**	**234**	*e*S	**Sn**	**15 19 05.9**	**+0.7**
WNT	**Mingjian**	**1.73**	**236**	S	**Sn**	**15 19 05.8**	**+0.7**
JIJ	**Ishigaki jima**	**1.79**	**105**	P	**Pn**	**15 18 42.9**	**-0.4**
JIJ				*e*S	**Sn**	**15 19 06.3**	**0.0**
YUS	**Yu-Shan**	**1.80**	**222**	*e*P	**Pn**	**15 18 45.0**	**+1.1**
FULB	**Fuli**	**1.86**	**208**	*e*P	**Pn**	**15 18 44.0**	**-0.3**
FULB				*i* S	**Sn**	**15 19 07.5**	**-0.7**
ALS	**Alishan**	**1.88**	**225**	*i* P	**Pn**	**15 18 45.2**	**+0.4**
ALS				*i* S	**Sn**	**15 19 09.8**	**+0.9**
JISG	**Ishigakijimahi**	**1.89**	**98**	P	**Pn**	**15 18 44.4**	**-0.1**
EHD	**Haiduan**	**1.95**	**210**	*e*P	**Pn**	**15 18 44.4**	**-0.9**
ELDTW	**Lidau**	**2.00**	**215**	P	**Pn**	**15 18 45.2**	**-1.0**
WCKO	**Fanlu**	**2.06**	**227**	*e*P	**Pn**	**15 18 46.5**	**-0.2**
CHN4	**Tsaushan**	**2.13**	**226**	*e*P	**Pn**	**15 18 47.5**	**-0.1**
TPUB	**Ta-pu**	**2.14**	**224**	*e*P	**Pn**	**15 18 47.7**	**-0.1**
STYH	**Taoyuan**	**2.15**	**219**	*e*P	**Pn**	**15 18 48.9**	**+1.0**
STYH				*e*S	**Sn**	**15 19 15.7**	**+1.1**
WTP	**Ta-pu**	**2.19**	**224**	P	**Pn**	**15 18 49.8**	**+1.3**
JIRJ	**Irabujima**	**2.67**	**90**	P	**Pn**	**15 18 55.0**	**+0.5**
JIRJ				*e*S	**Sn**	**15 19 27.1**	**+0.4**

*NOU **17** 15:40:46.7, 22°.40S×170°.28E, h0^{km}, ML5.1/17, Southeast of Loyalty Islands*

*IDC **17** 15:40:51.7±2.4, 21°.95S×170°.22E, h47^{km}±20^{km}, mb4.1/15, mbtmp4.3/17, ML5.0/2, MS3.6/16, Error ellipse: s-maj=18.2km s-min=16.7km az=143.0*

*NEIC **17** 15:40:51.1±2.0, 22°.20S±0°.09×170°.28E±0°.08, h44^{km}±6^{km}, mb4.8/32, Error ellipse: s-maj=12.5km s-min=10.2km az=176.0*

ISC 17 15:40:48.8±0.9, 22°.26S±0°.06×170°.31E±0°.05, h29^{km}±6^{km}, n120, σ1^{s}.46/127, mb4.7/27, MS3.7/11, 14C-1D, Southeast of Loyalty Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MARNC	**Mare, Loyalty**	**2.25**	**290**	P	**Pn**	**15 41 24.7**	**+0.6**
MARNC	**Mare, Loyalty**	**2.25**	**290**	S	**Sb**	**15 41 54.7**	**-1.6**
MARNC	**Mare, Loyalty**	**2.25**	**290**		**Pn**	**15 41 24.5**	**+0.3**
MARNC				Sn	**Sn**	**15 41 53.0**	**+2.0**
YATNC	**Mamie plateau,**	**3.18**	**273**	P	**Pn**	**15 41 36.8**	**0.0**
YATNC	**Mamie plateau,**	**3.18**	**273**	S	**Sn**	**15 42 16.6**	**+2.8**
OUENC	**Ouen Island, N**	**3.22**	**267**	P	**Pn**	**15 41 38.0**	**+0.6**
OUENC	**Ouen Island, N**	**3.22**	**267**	S	**Sn**	**15 42 17.2**	**+2.5**
OUENC	**Ouen Island, N**	**3.22**	**267**		**Pn**	**15 41 37.7**	**+0.3**
OUENC				Sn	**Sn**	**15 42 16.0**	**+1.2**
ONTNC	**Ouen Toro**	**3.57**	**269**	P	**Pn**	**15 41 42.5**	**+0.2**
ONTNC	**Ouen Toro**	**3.57**	**269**	S	**Sn**	**15 42 26.0**	**+2.5**
ONTNC	**Ouen Toro**	**3.57**	**269**		**Pn**	**15 41 42.5**	**+0.2**
ONTNC				Sn	**Sn**	**15 42 23.7**	**+0.1**
DZM	**Mont Dzumac**	**3.59**	**272**	P	**Pn**	**15 41 43.7**	**+1.1**
	58nm,0.3s,baz=114,slow=9.5,SNR=862						
DZM				S	**Sn**	**15 42 24.3**	**+0.2**
	254nm,0.5s,baz=78,slow=9.7,SNR=9.5						
DZM				LR	LR	15 42 36.0	
	comp=Z,228nm,18.6s,baz=106,slow=30						
	166nm,0.3s						
DZM				AML	AML		
NOUC	**Port Laguerre**	**3.72**	**272**	P	**Pn**	**15 41 45.1**	**+0.8**
NOUC	**Port Laguerre**	**3.72**	**272**	S	**Sn**	**15 42 29.9**	**+2.8**
RTV	**Rentapao**	**4.78**	**338**	P	**Pn**	**15 42 01.8**	**+2.9**
DVP	**Devils Point**	**4.93**	**336**	P	**Pn**	**15 42 03.6**	**+2.6**
KOUNC	**Koumac, New Ca**	**5.87**	**286**	P	**Pn**	**15 42 16.2**	**+2.4**
KOUNC	**Koumac, New Ca**	**5.87**	**286**	Pn	**Pn**	**15 42 15.6**	**+1.8**
KOUNC				Sn	**Sn**	**15 43 19.4**	**-0.7**
SANVU	**Saraoutou**	**7.39**	**336**	Pn	**Pn**	**15 42 35.4**	**+0.7**
MSVF	**Nonsavu**	**8.56**	**60**	P	**Pn**	**15 42 52.2**	**+1.3**
	0.9nm,0.3s,baz=229,slow=3.5,SNR=3.7						
	13nm,0.9s						
MSVF				AML	AML		
RAO	**Raoul Island**	**12.68**	**126**	LR	LR	15 47 34.9	
	comp=Z,462nm,19.9s,baz=326,slow=31						
HNR	**Honiara**	**16.18**	**320**	LR	LR	15 50 01.5	
	comp=Z,249nm,20.0s,baz=214,slow=35						
URZ	**Urewera**	**16.98**	**161**	LR	LR	15 50 05.6	
	comp=Z,505nm,18.9s,baz=332,slow=32						
RTZ	**Ruatahuna**	**17.28**	**162**	P	**Pn**	**15 44 47.1**	**-0.8**
MRZ	**Mangatainoka R**	**18.88**	**168**	P	**P**	**15 45 04.4**	**-2.4**
MRZ				IAmb	IAmb	15 45 16.2	
	comp=Z,55nm,1.3s						
AFI	**Afiamalu**	**18.93**	**67**	LR	LR	15 51 01.6	
	comp=Z,141nm,20.9s,baz=120,slow=32						
TCW	**Tory Channel**	**19.19**	**171**	P	**P**	**15 45 08.5**	**-1.6**
RPZ	**Rata Peaks**	**21.41**	**179**	LR	LR	15 51 57.6	
	comp=Z,85nm,20.0s,baz=32,slow=31						
CTA	**Charters Tower**	**22.53**	**271**	P	**P**	**15 45 47.5**	**+1.0**
	comp=Z,6.1nm,0.7s,baz=105,slow=8.9,SNR=7.2						
CTA				LR	LR	15 54 24.0	
	comp=Z,222nm,18.2s,baz=72,slow=36						
	comp=Z,6.1nm,0.7s						
CTAO	**Charters Tower**	**22.53**	**271**	P	**P**	**15 45 44.9**	**-1.7**
CTAO				IAmb	IAmb	15 45 57.9	
	comp=Z,63nm,1.9s						
PMG	**Port Moresby**	**25.63**	**296**	P	**P**	**15 46 16.9**	**+0.9**
	comp=Z,28nm,1.1s,baz=126,slow=8.7,SNR=3.3						
PMG				LR	LR	15 55 10.2	
	comp=Z,219nm,19.8s,baz=160,slow=34						
	comp=Z,28nm,1.1s						
PMG	**Port Moresby**	**25.63**	**296**	P	**P**	**15 46 15.7**	**-0.3**
PMG				IAmb	IAmb	15 46 18.2	
	comp=Z,38nm,1.1s						
STKA	**Stephens Creek**	**27.24**	**243**	P	**P**	**15 46 30.9**	**+0.5**
	comp=Z,3.6nm,0.8s,baz=97,slow=7.6,SNR=3.3						
STKA				LR	LR	15 55 53.3	
	comp=Z,60nm,20.6s,baz=31,slow=33						
	comp=Z,3.6nm,0.8s						
RAR	**Rarotonga**	**27.79**	**94**	LR	LR	15 57 23.2	
	comp=Z,62nm,18.3s,baz=180,slow=36						
WR8	**Warramunga Arr**	**33.44**	**267**	P	**P**	**15 47 24.0**	**-1.4**
WR8				IAmb	IAmb	15 47 58.1	
	comp=Z,28nm,1.6s						
AS31	**Alice Springs**	**33.49**	**260**	P	**P**	**15 47 25.8**	**-0.1**
ASAR	**Alice Springs**	**33.50**	**260**	P	**P**	**15 47 25.7**	**-0.2**
	comp=Z,3.5nm,0.7s,baz=75,slow=9.5,SNR=46						
ASAR				PcP	**PcP**	**15 50 05.1**	**-1.5**
	comp=Z,0.8nm,0.9s,baz=77,slow=2.1,SNR=2.9						
	comp=Z,3.5nm,0.7s						
ASAR	**Alice Springs**	**33.50**	**260**	P	**P**	**15 47 25.4**	**-0.5**
WRA	**Warramunga Arr**	**33.59**	**267**	P	**P**	**15 47 25.8**	**-1.0**
	comp=Z,2.1nm,0.8s,baz=97,slow=8.5,SNR=14						
WRA				PcP	**PcP**	**15 50 05.8**	**-1.1**
	comp=Z,0.4nm,0.7s,baz=95,slow=3.4,SNR=4.8						
	comp=Z,2.1nm,0.8s						
WRA	**Warramunga Arr**	**33.59**	**267**	P	**P**	**15 47 25.6**	**-1.1**
MTN	**Manton Dam**	**38.41**	**277**	P	**P**	**15 48 07.7**	**-0.3**
KNRA	**Kununurra**	**39.74**	**272**	P	**P**	**15 48 19.2**	**+0.1**
KNRA				IAmb	IAmb	15 49 16.7	
	comp=Z,21nm,1.5s						
FAKI	**Fak Fak**	**41.63**	**292**	P	**P**	**15 48 35.0**	**+0.2**
FITZ	**Fitzroy Crossi**	**42.02**	**267**	P	**P**	**15 48 38.6**	**+0.6**
MBWA	**Marble Bar**	**46.83**	**261**	P	**P**	**15 49 16.6**	**+0.3**
NWAO	**Narrogin (SRO)**	**47.80**	**245**	P	**P**	**15 49 23.4**	**-0.4**
MORW	**Morawa**	**49.03**	**250**	P	**P**	**15 49 32.8**	**-0.6**
TOLI2	**Tolitoli**	**53.57**	**289**	P	**P**	**15 50 06.8**	**-0.7**
TOLI2				IAmb	IAmb	15 50 14.2	
	comp=Z,11nm,0.8s						
VNDA	**Vanda**	**55.46**	**182**	P	**P**	**15 50 23.5**	**+3.2**
	comp=Z,0.6nm,0.8s,baz=12,slow=7.2,SNR=2.5						
VNDA				LR	LR	16 11 40.5	
	comp=Z,87nm,18.3s,baz=2.0,slow=33						
	comp=Z,0.6nm,0.8s						
VNDA	**Vanda**	**55.46**	**182**	P	**P**	**15 50 21.4**	**+1.1**
JGF	**Kuroka**	**65.47**	**331**	P	**P**	**15 51 28.2**	**-1.0**
MJAR	**Matsushiro Arr**	**65.88**	**332**	P	**P**	**15 51 30.3**	**-1.5**
	comp=Z,3.7nm,1.0s,baz=169,slow=6.9,SNR=7.1						
	comp=Z,3.7nm,1.0s						
MJAR	**Matsushiro Arr**	**65.88**	**332**	P	**P**	**15 51 30.2**	**-1.6**
MJAR				IAmb	IAmb	15 51 32.5	
	comp=Z,8.8nm,1.6s						
MAJO	**Matsushiro**	**65.88**	**332**	P	**P**	**15 51 30.9**	**-0.9**
MAJO				IAmb	IAmb	15 51 33.5	
	comp=Z,19nm,1.8s						
MJB9	**Matsu-Tunnel**	**65.88**	**332**	P	**P**	**15 51 32.0**	**+0.2**
TPUB	**Ta-pu**	**66.24**	**310**	P	**P**	**15 51 33.5**	**-0.9**
SSLB	**Suanglung**	**66.32**	**311**	P	**P**	**15 51 34.4**	**-0.6**
SSLB				IAmb	IAmb	15 51 34.7	
	comp=Z,12nm,0.9s						
YHNB	**Yeheng**	**66.59**	**312**	P	**P**	**15 51 36.4**	**-0.3**
QSPA	**South Pole Qui**	**67.81**	**180**	P	**P**	**15 51 46.6**	**+2.7**
	comp=Z,3.7nm,0.9s,baz=19,slow=2.4,SNR=4.1						
	comp=Z,3.7nm,0.9s						
QSPA	**South Pole Qui**	**67.81**	**180**	P	**P**	**15 51 45.9**	**+1.9**
QSPA				IAmb	IAmb	15 51 54.4	
	comp=Z,9.1nm,1.0s						
KSRS	**Korea Array**	**71.55**	**326**	P	**P**	**15 52 06.4**	**-0.7**
	comp=Z,2.4nm,0.9s,baz=137,slow=6.4,SNR=6.6						
	comp=Z,2.4nm,0.9s						
KIWB	**Kanaga Island**	**74.61**	**8**	P	**P**	**15 52 23.2**	**-1.6**
PETK	**Petropavlovsk-**	**75.85**	**352**	P	**P**	**15 52 31.2**	**-0.8**
	comp=Z,2.3nm,0.8s,baz=138,slow=8.0,SNR=8.7						
	comp=Z,2.3nm,0.8s						
MAW	**Mawson**	**76.03**	**202**	P	**P**	**15 52 37.0**	**+4.1**
	comp=Z,2.5nm,0.7s,baz=102,slow=6.7,SNR=5.3						
	comp=Z,2.5nm,0.7s						
MAW	**Mawson**	**76.03**	**202**	P	**P**	**15 52 35.2**	**+2.2**
BELA	**Belgrano 2**	**79.02**	**175**	P	**P**	**15 52 50.4**	**+0.8**
BELA				IAmb	IAmb	15 52 52.6	
	comp=Z,12nm,0.8s						
CMAR	**Chiang Mai Arr**	**80.65**	**294**	P	**P**	**15 53 00.9**	**+1.5**
	comp=Z,4.4nm,0.9s,baz=135,slow=4.3,SNR=21						
	comp=Z,4.4nm,0.9s						
CMAR	**Chiang Mai Arr**	**80.65**	**294**	P	**P**	**15 52 59.8**	**+0.4**
CM31	**Chiang Mai Arr**	**80.65**	**294**	P	**P**	**15 52 59.3**	**-0.1**
CM31				IAmb	IAmb	15 53 02.5	
	comp=Z,14nm,1.1s						
CHTO	**Chiang Mai**	**80.81**	**295**	P	**P**	**15 53 01.0**	**+0.7**
CHTO				IAmb	IAmb	15 53 03.0	
	comp=Z,11nm,1.0s						
MA2	**Magadan**	**83.10**	**350**	LR	LR	16 24 29.9	
	comp=Z,80nm,21.4s,baz=192,slow=32						
TROLL	**Troll, Antarti**	**85.61**	**184**	⇑P	**P**	**15 53 22.0**	**-2.3**
	comp=Z,302nm,1.0s						
TROLL				⇑pP	**PcP**	**15 53 27.3**	**+0.1**
	comp=Z,700nm,0.6s						
TROLL				⇑sP	**pP**	**15 53 31.1**	**-0.8**
	comp=Z,694nm,0.8s						
SNAA	**Sanae**	**86.20**	**182**	⇑pP	**P**	**15 53 28.8**	**+1.7**
	comp=Z,206nm,1.2s						
SNAA				⇑sP	**pP**	**15 53 34.8**	**+0.1**
	comp=Z,116nm,0.6s						
SNAA	**Sanae**	**86.20**	**182**	P	**P**	**15 53 29.3**	**+2.2**
	comp=Z,6.1nm,0.9s,baz=172,slow=4.9,SNR=8.0						
SNAA				LR	LR	16 31 21.3	
	comp=Z,44nm,18.0s,baz=231,slow=35						
	comp=Z,6.1nm,0.9s						
SNAA	**Sanae**	**86.20**	**182**	P	**P**	**15 53 28.2**	**+1.1**
VNA3	**Neumayer Olymp**	**86.75**	**180**	⇑P	**P**	**15 53 25.8**	**-3.9**
	comp=Z,5.9nm,0.7s						
VNA3				⇑pP	**PcP**	**15 53 32.2**	**+0.2**
	comp=Z,16nm,0.7s						
VNA3				⇑sP	**pP**	**15 53 37.5**	**-0.1**
	comp=Z,19nm,0.8s						
VNA2	**Neumayer--Watz**	**87.06**	**181**	⇑P	**P**	**15 53 28.6**	**-2.7**
	comp=Z,5.7nm,0.7s,baz=166,slow=4.8						
VNA2				⇑pP	**PcP**	**15 53 34.1**	**+0.7**
	comp=Z,17nm,0.6s,baz=170,slow=4.5						
VNA2				⇑sP	**pP**	**15 53 39.3**	**+0.3**
	comp=Z,17nm,0.7s,baz=164,slow=4.1						
VNA1	**Neumayer--Stat**	**87.34**	**180**	⇑P	**P**	**15 53 30.2**	**-2.4**
	comp=Z,5.4nm,1.1s						
VNA1				⇑pP	**PcP**	**15 53 35.2**	**+0.5**
	comp=Z,16nm,1.0s						
VNA1				⇑sP	**pP**	**15 53 40.8**	**+0.4**
	comp=Z,13nm,0.9s						
YAK	**Yakutsk**	**90.04**	**342**	LR	LR	16 28 02.3	
	comp=Z,26nm,21.9s,baz=160,slow=32						
SONM	**Songino Array**	**90.22**	**323**	P	**P**	**15 53 45.3**	**-1.3**
	comp=Z,3.0nm,0.9s,baz=139,slow=5.2,SNR=14						
	comp=Z,3.0nm,0.9s						
SONM	**Songino Array**	**90.22**	**323**	P	**P**	**15 53 45.5**	**-1.1**
SONM				IAmb	IAmb	15 53 47.4	
	comp=Z,5.2nm,1.1s						
E19K	**Redstone River**	**92.64**	**12**	P	**P**	**15 53 56.6**	**-0.6**
E19K				IAmb	IAmb	15 53 59.9	
	comp=Z,5.2nm,1.0s						
ILAR	**Eielson Array**	**92.81**	**17**	P	**P**	**15 53 55.5**	**-2.5**
	comp=Z,0.3nm,0.7s,baz=220,slow=8.3,SNR=2.2						
	comp=Z,0.3nm,0.7s						
DLBC	**Dease Lake**	**94.25**	**27**	LR	LR	16 32 10.4	
	comp=Z,31nm,19.0s,baz=220,slow=33						
TIXI	**Tiksi**	**97.89**	**348**	LR	LR	16 34 32.2	
	comp=Z,24nm,19.7s,baz=164,slow=33						
FINES	**FINESS Array B**	**133.75**	**337**	PKP	**PKiKP**	**16 00 03.7**	**+0.2**
	comp=Z,18nm,1.3s,baz=18,slow=0.4,SNR=2.1						
STEB	**Steborice**	**144.94**	**329**	*e*PKP	**PKPab**	**16 00 21.9**	**-0.3**
MORC	**Moravsky Berou**	**145.16**	**329**	*e*PKP	**PKPbc**	**16 00 22.0**	**-1.0**
OSTC	**Ostas**	**145.24**	**331**	*e*PKP	**PKPbc**	**16 00 23.2**	**0.0**
CHVC	**Chvalec**	**145.29**	**331**	*e*PKP	**PKPbc**	**16 00 23.3**	**-0.1**
KRLC	**Kraliky**	**145.32**	**330**	*e*PKP	**PKPbc**	**16 00 23.1**	**-0.4**
DPC	**Dobruska-Polom**	**145.34**	**330**	*e*PKP	**PKPbc**	**16 00 23.5**	**-0.1**
UPC	**Upice**	**145.37**	**331**	*e*PKP	**PKPbc**	**16 00 23.4**	**-0.2**
JAVC	**Velka Javorina**	**145.71**	**327**	*e*PKP	**PKPab**	**16 00 25.1**	**-0.1**
VRAC	**Vranov**	**145.93**	**329**	*e*PKP	**PKPdf**	**16 00 24.8**	**+0.1**
BRG	**Berggiesshubel**	**146.01**	**333**	⇓*i*P	**PKPbc**	**16 00 25.3**	**-0.3**
BRG				Amp		16 00 25.9	
	comp=Z,7.3nm,0.6s						
BRG	**Berggiesshubel**	**146.01**	**333**	P	**PKiKP**	**16 00 35.0**	**+6.1**
BRG				Amp		16 00 35.7	
	comp=Z,4.5nm,0.7s						
CLL	**Collm**	**146.06**	**334**	*i* PKPbc	**PKPdf**	**16 00 24.7**	**-0.1**
	comp=Z,11nm,0.9s						
CLL				*i* PKiKP	**PKiKP**	**16 00 28.1**	**-0.9**
CLL				LH		16 56 00.0	
CLL				LV		16 58 00.0	
KRUC	**Moravsky**	**146.20**	**329**	*e*PKP	**PKPdf**	**16 00 25.2**	**0.0**
EKA	**Eskdalemuir Ar**	**146.61**	**353**	PKPbc	**PKPdf**	**16 00 24.9**	**-0.7**
	comp=Z,6.1nm,0.6s,baz=353,slow=2.5,SNR=25						
ZVC	**Zvikov**	**146.96**	**331**	*e*PKP	**PKPbc**	**16 00 28.2**	**-0.2**
RONA	**Rosalia, Austr**	**147.16**	**327**	*i* PKP	**PKPbc**	**16 00 28.8**	**-0.3**
	comp=Z,8.0nm,1.0s						
CONA	**Conrad Observa**	**147.23**	**328**	*i* PKP	**PKPbc**	**16 00 29.2**	**-0.2**
	comp=Z,4.3nm,0.8s						
CKRC	**Cesky Krumlov**	**147.35**	**330**	*e*PKP	**PKPbc**	**16 00 28.4**	**-1.2**
KHC	**Kasperske Hory**	**147.46**	**331**	*e*PKP	**PKPbc**	**16 00 29.5**	**-0.4**
GERES	**GERESS Array B**	**147.61**	**331**	PKPbc	**PKPbc**	**16 00 29.1**	**-1.3**
	comp=Z,6.8nm,0.8s,baz=40,slow=2.3,SNR=23						
GERES	**GERESS Array B**	**147.61**	**331**		**PKPdf**	**16 00 28.9**	**+1.3**
MOA	**Molln**	**148.06**	**329**	*i* PKP	**PKPab**	**16 00 34.2**	**-0.1**
	comp=Z,7.1nm,1.4s						
OBKA	**Obir**	**148.84**	**327**	*i* PKiKP	**PKiKP**	**16 00 35.9**	**+0.8**
	comp=Z,5.6nm,1.1s						
KBA	**Koelnbreinsper**	**149.05**	**329**	*i* PKiKP	**PKiKP**	**16 00 36.6**	**+1.0**
	comp=Z,4.1nm,0.7s						
LESA	**Schwarzleotal**	**149.11**	**330**	*i* PKP	**PKPbc**	**16 00 33.5**	**-0.8**
	comp=Z,3.5nm,0.5s						
ABTA	**Abfaltersbach**	**149.68**	**329**	*i* PKP	**PKPdf**	**16 00 32.7**	**+1.6**
	comp=Z,9.5nm,1.3s						
WATA	**Walderalm**	**149.69**	**331**	*e*PKP	**PKPbc**	**16 00 34.8**	**-1.1**
	comp=Z,3.4nm,0.5s						
WTTA	**Wattenberg**	**149.71**	**331**	*i* PKP	**PKPbc**	**16 00 34.7**	**-1.3**
	comp=Z,8.0nm,1.0s						
MOTA	**Moosalm**	**149.89**	**331**	*e*PKP	**PKPbc**	**16 00 35.4**	**-0.9**
	comp=Z,11nm,1.1s						
RETA	**Reutte**	**149.93**	**332**	*i* PKP	**PKPbc**	**16 00 34.8**	**-1.5**
	comp=Z,4.6nm,1.0s						
SQTA	**Sankt Quirin**	**149.94**	**331**	*e*PKP	**PKPbc**	**16 00 35.8**	**-0.6**
	comp=Z,3.2nm,0.5s						
FETA	**Feichten**	**150.30**	**331**	*i* PKP	**PKPbc**	**16 00 36.5**	**-0.9**
	comp=Z,12nm,1.2s						
DAVA	**Damuels**	**150.47**	**332**	*i* PKP	**PKPbc**	**16 00 37.2**	**-0.6**
	comp=Z,2.3nm,0.5s						
TORD	**Torodi Ar. Bea**	**165.88**	**232**	PKP	**PKPdf**	**16 00 49.7**	**-2.0**
	comp=Z,0.9nm,0.9s,baz=108,slow=0.9,SNR=3.3						

HEL 17 15:58:10.2±0.4, 67°.84N×20°.26E, h0^{km}, ML0.9, Suspected explosion, Sweden

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LANU	**Lannavaara**	**0.69**	**71**	PG	Pg	15 58 22.5	-0.9
LANU				SG	Sg	15 58 31.4	-0.8
PAJU	**Pajala**	**1.37**	**125**	PG	Pg	15 58 34.3	-2.1
	baz=305						
PAJU				SB	Sg	15 58 53.3	-0.8
HEF	**Hetta**	**1.40**	**64**	PG	Pn	15 58 35.0	-1.9
HEF				smax	smax	15 58 52.2	
	comp=Z,1.1nm,0.2s						
HEF				SG	Sg	15 58 53.8	-1.3
ERTU	**Ertsjaerv**	**1.49**	**149**	PG	Pn	15 58 37.1	-1.1
ERTU				SG	Sg	15 58 57.3	-0.7
KLF	**Kolari**	**1.54**	**111**	PG	Pn	15 58 38.4	-0.5
KLF				SG	Sn	15 58 55.0	-4.7
KLF				smax	smax	15 58 56.6	
	comp=Z,0.9nm,0.2s						
KTK1	**Kautokeino**	**1.61**	**42**	PN	Pn	15 58 40.0	0.0
KTK1				SN	Sg	15 59 02.1	+0.1
TRO	**Tromso**	**1.87**	**346**	SG	Sb	15 59 09.3	+0.2
TOF	**Tornio**	**2.38**	**136**	PB	Pn	15 58 51.2	+0.8
TOF				smax	smax	15 59 20.7	
	comp=Z,0.3nm,0.2s						
TOF				SG	Sb	15 59 23.4	-0.3
ARA0	**ARCESS Array S**	**2.57**	**46**	PB	Pn	15 58 54.0	+1.1
	baz=227						
ARA0				SG	Sb	15 59 28.8	-0.3
ARA0	**ARCESS Array S**	**2.57**	**46**	SG	Sb	15 59 28.8	-0.3

HEL 17 15:58:34.5±0.6, 69°.38N×30°.67E, h0^{km}, ML1.3, Suspected explosion, Norway-Murmansk border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAJF	**Raja-Jooseppi**	**1.25**	**224**	PN	Pg	15 58 58.3	0.0
RAJF	**Raja-Jooseppi**	**1.25**	**224**	PG	Pg	15 58 57.0	-1.3
RAJF				SG	Sg	15 59 13.4	-1.1
KEV	**Kevo**	**1.34**	**288**	PN	Pg	15 58 58.7	-1.4
KEV	**Kevo**	**1.34**	**288**	PG	Pg	15 58 58.7	-1.4
	baz=107						
KEV				SG	Sg	15 59 16.3	-1.1
VRF	**Varrio**	**1.69**	**194**	PN	Pn	15 59 05.0	-0.2
VRF	**Varrio**	**1.69**	**194**	PG	Pn	15 59 05.0	-0.2
VRF				smax	smax	15 59 24.8	
	comp=Z,1.6nm,0.2s						
VRF				SG	Sn	15 59 26.8	-0.6
ARA0	**ARCESS Array S**	**1.83**	**277**	PG	Pn	15 59 07.9	+0.7
KTK1	**Kautokeino**	**2.68**	**266**	SG	Sb	15 59 55.9	-0.7
HEF	**Hetta**	**2.72**	**252**	smax	smax	15 59 54.6	
	comp=Z,1.0nm,0.2s						
HEF				SG	Sb	15 59 56.4	-1.4

RNF	Rovaniemi	3.29	214	SG	Pn	15 59 28.2	+1.0
RNF	Rovaniemi	3.29	214	PN	Pn	15 59 28.2	+1.0

IDC ***17*** *16:01:10.3±0.7, 2°.46S×139°.33E, h0^{km}, mb4.3/15, mbtmp4.3/17, ML4.2/2, MS3.8/21, Error ellipse: s-maj=23.5km s-min=9.9km az=95.0*

DJA ***17*** *16:01:12.2±0.4, 2°S±3°×14°0E±°, h10^{km}, M4.7/42, mb4.7/42, mB5.2/16, MLv4.9/11, Mw(mB)4.6/16*

BJI ***17*** *16:01:12.9, 2°.57S×139°.98E, h42^{km}, mB5.0/7, mb4.6/33, Ms4.4/5, Ms7 4.1/5*

GFZ ***17*** *16:01:12.2±0.3, 2°S±4°×14°0E±°, h10^{km}, M4.8/26, mb4.8/26, Mw4.7/7, confirmed*

NEIC ***17*** *16:01:15.1±1.2, 2°.37S±0°.08×139°.84E±0°.07, h35^{km}±1^{km}, mb4.9/81, Error ellipse: s-maj=13.7km s-min=11.5km az=178.0*

ISC 17 16:01:13.3±0.3**, 2°.40S**±0°.04×**139°.88E**±0°.04**, h25**^{km}**, n227,** σ1^{s}**77**/200**, mb4.8**/72**, MS3.8**/19**, 1C-2D, Near north coast of Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GENI	Genyem	0.34	123	P	Pb	16 01 19.7	-1.3
GENI				S	Sn	16 01 27.4	-1.5
GENI	Genyem	0.34	123	P	Pb	16 01 20.0	-1.1
WAMI	Wamena	1.88	218	P	Pb	16 01 48.2	+1.3
WAMI				AML	AML		
BAKI	Biak	3.96	288	P	Pn	16 02 12.8	+0.3
MWPI	Manokwari, Pap	6.02	284	P	Pn	16 02 41.6	+0.8
	0.4nm1µm69nm,0.9s						
MWPI				AML	AML		
MWPI	Manokwari, Pap	6.02	284	P	Pn	16 02 40.4	-0.4
	comp=Z,922nm,0.9s						
MMPI	Merauke	6.04	175	P	Pn	16 02 45.1	+3.9
MANU	Manus Island	7.49	87	Pn	Pn	16 03 01.1	0.0
FAKI	Fak Fak	7.64	266	P	Pn	16 03 11.0	+7.9
FAKI	Fak Fak	7.64	266		Pn	16 03 02.5	-0.6
FAKI				Sn	Sn	16 04 25.7	-3.2
FAKI	Fak Fak	7.64	266	P	Pn	16 03 02.2	-0.9
	comp=Z,0.2nmcomp=Z,55nm,0.8s						
FAKI				AML	AML		
FAKI	Fak Fak	7.64	266	P	Pn	16 03 04.6	+1.5
	comp=Z,54nm,0.8s						
SWI	Sorong	8.75	280	P	Pn	16 03 22.8	+4.4
	comp=Z,787nmcomp=Z,25nm,0.6s						
SWI	Sorong	8.75	280	P	Pn	16 03 19.6	+1.3
	comp=Z,23nm,0.7s						
PMG	Port Moresby	10.04	134	LR	LR	16 08 34.4	
	comp=Z,936nm,21.4s,baz=320,slow=43						
PMG	Port Moresby	10.04	134	Pn	Pn	16 03 37.3	+1.3
SAUI	Saumlaki	10.18	237	Pn	Pn	16 03 39.4	+1.4
KRVT	Keravat (AS076	12.27	99	LR	LR	16 08 06.7	
	comp=Z,751nm,21.1s,baz=264,slow=32						
NLAI	Namlea	12.79	266	P	Pn	16 04 15.2	+1.5
	comp=Z,50nm,1.3s						
NLAI	Namlea	12.79	266	P	Pn	16 04 14.8	+1.1
	comp=Z,22nm,1.5s						
TNTI	Ternate	12.90	284	P	P	16 04 23.2	-2.5
TNTI	Ternate	12.90	284	S	Sn	16 06 43.2	+5.1
TNTI	Ternate	12.90	284		Pn	16 04 15.5	+0.3
TNTI	Ternate	12.90	284	P	Pn	16 04 17.7	+2.5
	comp=Z,532nmcomp=Z,28nm,1.2s						
TNTI	Ternate	12.90	284	P	Pn	16 04 17.9	+2.6
	comp=Z,28nm,1.2s						
MTN	Manton Dam	13.51	219		Pn	16 04 22.0	-1.6
SANI	Sanana	13.88	271	P	Pn	16 04 32.9	+4.2
SANI	Sanana	13.88	271	P	Pn	16 04 29.6	+0.9
	comp=Z,33nm,1.0s						
MTSU	Mount Surprise	16.23	165	P	P	16 05 05.6	+2.9
MTSU	Mount Surprise	16.23	165	P	P	16 05 04.7	+2.0
	comp=Z,20nm,0.9s						
GUMO	Guam	16.64	17	LR	LR	16 10 09.4	
	comp=Z,186nm,20.2s,baz=206,slow=32						
GTOI	Gorontalo	17.13	280	P	P	16 05 16.1	+3.3
	comp=Z,705nmcomp=Z,83nm,0.9s						
KNRA	Kununurra	17.14	219		Pn	16 05 11.2	-0.2
SOEI	Soe	17.14	244	P	P	16 05 15.0	+1.9
SOEI	Soe	17.14	244	S	Sn	16 08 23.0	+1.3
SOEI	Soe	17.14	244		P	16 05 13.1	0.0
SOEI	Soe	17.14	244	P	P	16 05 14.7	+1.6
SOEI	Soe	17.14	244	P	P	16 05 14.5	+1.4
	comp=Z,205nm,1.1s						
LUWI	Luwuk	17.15	274	P	P	16 05 15.9	+2.9
LUWI	Luwuk	17.15	274	S	Sn	16 08 25.2	+3.5
LUWI	Luwuk	17.15	274		P	16 05 12.9	-0.1
LUWI	Luwuk	17.15	274	P	P	16 05 13.1	+0.1
	comp=Z,2µmcomp=Z,85nm,1.3s						
LUWI	Luwuk	17.15	274	P	P	16 05 13.4	+0.4
	comp=Z,86nm,1.3s						
BBSI	Bau Bau	17.53	259	P	P	16 05 20.4	+3.2
	comp=Z,1µmcomp=Z,95nm,1.4s						
QIS	Mount Isa	18.05	181	P	P	16 05 24.7	+1.9
QIS	Mount Isa	18.05	181	S	S	16 08 47.3	-1.4
QIS	Mount Isa	18.05	181	P	P	16 05 24.5	+1.7
	comp=Z,29nm,1.0s						
WB0	Warramunga Arr	18.07	197		Pn	16 05 21.6	-1.3
WR8	Warramunga Arr	18.22	196		Pn	16 05 23.3	-1.4
WRAB	Tennant Creek	18.24	197	P	P	16 05 25.8	+0.8
WRAB	Tennant Creek	18.24	197	S	Sn	16 08 48.7	+0.7
WRAB	Tennant Creek	18.24	197	P	P	16 05 27.3	+2.3
	comp=Z,57nm,0.9s						
WRA	Warramunga Arr	18.25	197	P	Pn	16 05 24.3	-0.8
	comp=Z,1.8nm,0.3s,baz=19,slow=12,SNR=38						
WRA				S	Sn	16 08 40.8	-7.5
	comp=Z,1.1nm,0.6s,baz=153,slow=44,SNR=5.4						
	comp=Z,45nm,1.1s						
WRA				AML	AML		
WRA	Warramunga Arr	18.25	197		Pn	16 05 22.5	-2.6
KKSI	Kolaka, Sulawe	18.28	264	P	Pn	16 05 26.6	+1.1
	comp=Z,8.8nm,0.9s						
APSI	Ampana	18.28	274	P	P	16 05 26.0	+0.5
	comp=Z,987nmcomp=Z,108nm,1.1s						
APSI	Ampana	18.28	274	P	Pn	16 05 26.6	+1.1
	comp=Z,107nm,1.1s						
MMRI	Maumere	18.61	250	P	P	16 05 28.7	-0.4
MMRI	Maumere	18.61	250	P	Pn	16 05 32.9	+3.4
	comp=Z,33nm,0.7s						
CTA	Charters Tower	18.65	161	P	Pn	16 05 32.1	+2.2
	comp=Z,0.1nm,0.3s,baz=341,slow=16,SNR=1.7						
CTA				LR	LR	16 12 54.3	
	comp=Z,377nm,20.5s,baz=338,slow=38						
	comp=Z,7.1nm,1.0s						
CTA				AML	AML		
CTAO	Charters Tower	18.65	161	P	Pn	16 05 31.1	+1.3
TOLI2	Tolitoli	19.41	280	P	P	16 05 38.8	+0.9
TOLI2	Tolitoli	19.41	280	S	S	16 09 15.0	-1.1
TOLI2	Tolitoli	19.41	280		P	16 05 37.6	-0.3
TOLI2				IAmb	IAmb	16 05 44.2	
	comp=Z,63nm,1.2s						
TOLI2	Tolitoli	19.41	280	P	P	16 05 38.2	+0.3
	comp=Z,44nm,1.2s						
BSSI	Bau Bau, Buton	19.68	259	P	Pn	16 05 44.7	+2.3
	comp=Z,58nm,1.7s						
PCI	Palu	20.09	274	P	Pn	16 05 47.7	+0.5
SPSI	Sidrap Palu	20.14	265	P	P	16 05 47.1	+1.3
FITZ	Fitzroy Crossi	20.93	221	P	P	16 05 52.3	-2.1
	comp=Z,22nm,0.9s,baz=44,slow=9.6,SNR=22						
FITZ				S	S	16 09 40.1	-6.6
	comp=Z,16nm,1.0s,baz=106,slow=13,SNR=5.1						
FITZ				LR	LR	16 15 00.0	
	comp=Z,188nm,18.6s,baz=38,slow=40						
	comp=Z,22nm,0.9s						
FITZ	Fitzroy Crossi	20.93	221		P	16 05 54.6	+0.2
FITZ					S	16 09 42.9	-3.8
FITZ	Fitzroy Crossi	20.93	221	P	P	16 05 55.2	+0.8
	comp=Z,6.2nm,1.0s						
HNR	Honiara	21.14	110	LR	LR	16 15 28.3	
	comp=Z,250nm,18.2s,baz=16,slow=40						
AS01	Alice Springs	21.90	195	P	P	16 06 05.7	+0.9
AS31	Alice Springs	21.91	195		P	16 06 05.1	+0.2
ASAR	Alice Springs	21.91	195	P	P	16 06 04.8	-0.1
	comp=Z,25nm,0.9s,baz=26,slow=10,SNR=74						
ASAR				S	S	16 10 06.0	0.0
	comp=Z,2.1nm,1.0s,baz=3.6,slow=30,SNR=1.1						
	comp=Z,25nm,0.9s						
AUALC	St Philip's Co	21.94	195	P	P	16 06 06.2	+1.0
AUALC	St Philip's Co	21.94	195	S	S	16 09 59.5	-7.0
QLP	Quilpie	24.40	171	P	P	16 06 32.1	+2.2
QLP	Quilpie	24.40	171	P	P	16 06 31.4	+1.5
	comp=Z,30nm,1.1s						
KKM	Kota Kinabalu	25.08	290	P	P	16 06 35.5	-0.8
KKM				IAmb	IAmb	16 06 40.0	
	comp=Z,49nm,1.2s						
INKA	Innaminka	25.21	178	P	P	16 06 37.7	+0.6
EIDS	Eidsvold	25.25	156	P	P	16 06 42.0	+4.4
EIDS	Eidsvold	25.25	156		P	16 06 38.5	+0.8
EIDS				IAmb	IAmb	16 06 43.4	
	comp=Z,32nm,0.8s						
EIDS	Eidsvold	25.25	156	P	P	16 06 41.6	+3.9
	comp=Z,43nm,1.0s						
MBWA	Marble Bar	27.07	225	P	P	16 06 53.7	-0.4
MBWA				IAmb	IAmb	16 06 59.1	
	comp=Z,91nm,1.9s						
AULRC	Lightning Ridg	27.96	165	P	P	16 07 04.7	+2.7
STKA	Stephens Creek	29.36	177	P	P	16 07 15.5	+1.1
	comp=Z,7.7nm,1.1s,baz=334,slow=11,SNR=2.8						
STKA				LR	LR	16 21 34.7	
	comp=Z,324nm,20.8s,baz=354,slow=42						
	comp=Z,7.7nm,1.1s						
CMSA	Cobar Meteorol	29.49	170	P	P	16 07 18.6	+3.0
FORT	Forrest	30.36	200	P	P	16 07 22.1	-1.2
BBOO	Buckleboo	30.46	186	P	P	16 07 23.5	-0.7
GIRL	Giralia	32.00	229	P	P	16 07 38.0	+0.2
H11N1	WAKE ISLAND Hy	34.45	49	T	T	16 44 18.1	
	baz=233,slow=75,SNR=43						
H11N2	WAKE ISLAND Hy	34.47	49	T	T	16 44 19.2	
	baz=233,slow=75,SNR=41						
H11N3	WAKE ISLAND Hy	34.47	49	T	T	16 44 19.6	
	baz=233,slow=75,SNR=31						
MORW	Morawa	34.90	218	P	P	16 08 02.6	-0.5
NWAO	Narrogin (SRO)	37.05	213	LR	LR	16 25 17.3	
	comp=Z,202nm,21.4s,baz=316,slow=39						
NWAO	Narrogin (SRO)	37.05	213	P	P	16 08 21.3	-0.2
SDSI	Sungai Dareh	38.46	272	P	P	16 08 32.5	-1.1
	comp=Z,14nm,1.4s						
MJAR	Matsushiro Arr	38.78	358	P	P	16 08 35.0	-1.0
	comp=Z,1.3nm,0.8s,baz=180,slow=8.5,SNR=4.5						
	comp=Z,1.3nm,0.8s						
MAJO	Matsushiro	38.78	358	P	P	16 08 34.1	-1.9
NJ2	Nanjing	39.65	331	*e*P	P	16 08 44.5	+1.2
NJ2				pmax	pmax		
	comp=Z,8.0nm,0.6s						
MSVF	Nonsavu	40.43	115	LR	LR	16 24 22.1	
	comp=Z,173nm,21.6s,baz=249,slow=34						
KSRS	Korea Array	41.18	346	P	P	16 08 54.4	-1.5
	comp=Z,0.8nm,0.7s,baz=160,slow=7.8,SNR=4.2						
	comp=Z,0.8nm,0.7s						
RPSI	Rantau Prapat	41.25	277		P	16 08 55.4	-1.4
RPSI				IAmb	IAmb	16 08 56.7	
	comp=Z,26nm,1.1s						
RPSI	Rantau Prapat	41.25	277	P	P	16 08 56.2	-0.7
	comp=Z,26nm,1.5s						
PSI	Prapat	41.27	277	P	P	16 08 56.8	-0.3
SLVN	Son La	42.37	306	P	P	16 09 08.8	+2.8
SLVN	Son La	42.37	306	P	P	16 09 04.0	-2.0
GSI	Gunungsitoli	42.45	275	P	P	16 09 04.9	-1.8
GSI				IAmb	IAmb	16 09 22.6	
	comp=Z,38nm,1.3s						
LYN	LuoYang	44.88	327	P	P	16 09 26.4	+0.5
LYN				pmax	pmax		
	comp=Z,13nm,0.9s						
CM31	Chiang Mai Arr	45.30	299	P	P	16 09 27.8	-1.8
CM31				IAmb	IAmb	16 09 30.9	
	comp=Z,25nm,1.4s						
CMAR	Chiang Mai Arr	45.30	299	P	P	16 09 28.0	-1.6
	comp=Z,3.2nm,0.9s,baz=119,slow=6.2,SNR=20						
	comp=Z,3.2nm,0.9s						
CMAR	Chiang Mai Arr	45.30	299		P	16 09 28.4	-1.2
CHTO	Chiang Mai	45.44	299	P	P	16 09 31.3	+0.6
CHTO	Chiang Mai	45.44	299		P	16 09 29.3	-1.3
CHTO				IAmb	IAmb	16 09 31.7	
	comp=Z,27nm,1.6s						
CHTO	Chiang Mai	45.44	299	P	P	16 09 30.2	-0.5
	comp=Z,8.8nm,1.6s						
CHTO	Chiang Mai	45.44	299	P	P	16 09 30.9	+0.2
	comp=Z,8.9nm,1.6s						
HNS	HongShan	45.98	332	⇑P	P	16 09 36.5	+2.0
HNS				S	S	16 16 14.8	-3.3
HNS				pmax	pmax		
	comp=Z,11nm,0.9s						
HNS				L	L		
	comp=Z,80nm,11.0s						
HNS				L	L		
	comp=Z,140nm,14.1s						
HNS				L	L		
	comp=Z,190nm,15.9s						
XAN	Xi'an	46.51	324	P	P	16 09 38.1	-0.8
XAN				pmax	pmax		
	comp=Z,8.0nm,0.6s						
PZH	PanZhiHua	46.71	311	P	P	16 09 42.5	+1.8
USA0B	Ussuriysk Arra	46.93	352	P	P	16 09 41.9	-0.1
USA0B				IAmb	IAmb	16 11 04.2	
	comp=Z,22nm,1.5s						
USRK	Ussuriysk Ar.	46.93	352	P	P	16 09 42.5	+0.5
	comp=Z,4.6nm,1.0s,baz=178,slow=11,SNR=5.6						
	comp=Z,4.6nm,1.0s						
USRK	Ussuriysk Ar.	46.93	352	P	P	16 09 41.6	-0.3
RAO	Raoul Island	48.16	128	LR	LR	16 28 31.2	
	comp=Z,103nm,22.0s,baz=276,slow=34						
NPW	Naypyitaw	48.26	299	P	P	16 09 53.4	+0.7
	comp=Z,14nm,1.7s						
AFI	Afiamalu	49.10	106	LR	LR	16 29 46.7	
	comp=Z,99nm,18.6s,baz=128,slow=35						
BNX	BinXian	49.20	348	⇓P	P	16 09 59.3	-0.1
BNX				pmax	pmax		
	comp=Z,9.0nm,1.3s						
YSS	Yuzhno-Sakhali	49.22	3	P	P	16 09 58.3	-1.3
YSS				IAmb	IAmb	16 10 00.5	
	comp=Z,11nm,0.9s						
URZ	Urewera	49.31	141	LR	LR	16 30 49.8	
	comp=Z,171nm,19.4s,baz=316,slow=36						
RPZ	Rata Peaks	49.57	150	LR	LR	16 31 03.7	
	comp=Z,51nm,19.2s,baz=283,slow=36						
HHC	Hu-ho-hao-te	50.20	332	*e*P	P	16 10 11.1	+3.8
HHC				pmax	pmax		
	comp=Z,33nm,0.6s						
HHC				pmax	pmax		
	comp=Z,60nm,6.1s						
HHC				L	L		
	comp=Z,79nm,12.1s						
HHC				L	L		
	comp=Z,110nm,12.2s						
HHC				L	L		
	comp=Z,48nm,15.7s						
LZH	Lanzhou	50.95	322	*e*P	P	16 10 12.9	-0.2
LZH				pP	sP	16 10 23.3	-0.4
LZH				pmax	pmax		
	comp=Z,18nm,0.9s						
MORE	Moreh	51.58	304		P	16 10 16.2	-1.7
MORE				IAmb	IAmb	16 10 21.7	
	comp=Z,19nm,1.2s						
SHL	Shillong	54.12	304	P	P	16 10 36.1	-0.8
GTA2	Gaotai	55.61	323	*e*P	P	16 10 48.8	+1.5
GTA2				pmax	pmax		
	comp=Z,4.0nm,0.9s						
PEA0B	Petropavlovsk-	57.30	13	P	P	16 10 59.4	+0.4
PETK	Petropavlovsk-	57.30	13	LR	LR	16 38 52.9	
	comp=Z,18nm,18.0s,baz=199,slow=39						
PETK	Petropavlovsk-	57.30	13	P	P	16 10 59.0	+0.1
SONM	Songino Array	57.95	334	P	P	16 11 01.4	-2.4
	comp=Z,0.3nm,0.3s,baz=174,slow=5.8,SNR=3.8						
SONM				LR	LR	16 34 26.2	
	comp=Z,90nm,21.9s,baz=139,slow=35						
	comp=Z,0.3nm,0.3s						
SONM	Songino Array	57.95	334	P	P	16 11 03.4	-0.4
EVN	Everest	59.22	305		P	16 11 13.1	-0.6
EVN				IAmb	IAmb	16 11 19.8	
	comp=Z,9.2nm,0.9s						
EVN	Everest	59.22	305	P	P	16 11 14.6	+1.0
	comp=Z,11nm,1.2s						
SHEM	Shemya Is, Ala	62.01	23	LR	LR	16 33 56.9	
	comp=Z,56nm,22.0s,baz=338,slow=32						
YAK	Yakutsk	64.73	355	P	P	16 11 49.4	+0.3
YAK				IAmb	IAmb	16 12 10.7	
	comp=Z,6.4nm,0.8s						
CASY	Casey	67.02	192	P	P	16 12 03.3	-0.5
CASY				IAmb	IAmb	16 14 04.5	
	comp=Z,22nm,1.7s						
ZSN	Zaisan	69.01	323	*e*P	P	16 12 17.6	+0.8
	comp=Z,9.8nm,1.5s						
WUS	Wushi	70.00	316	P	P	16 12 24.4	+1.2
	comp=Z,4.9nm,1.0s						
MKAR	Makanchi Array	70.26	322	P	P	16 12 25.2	+0.6
	comp=Z,9.2nm,1.0s,baz=113,slow=8.0,SNR=33						
	comp=Z,9.2nm,1.0s						
MKAR	Makanchi Array	70.26	322		P	16 12 24.2	-0.4
MAKZ	Makanchi	70.46	322		P	16 12 25.4	-0.4
MAKZ				IAmb	IAmb	16 12 27.2	
	comp=Z,19nm,1.2s						
MAKZ	Makanchi	70.46	322	P	P	16 12 26.3	+0.5
	comp=Z,12nm,1.3s						
SHLS	Shalkode	70.58	318	*e*P	P	16 12 25.8	-0.9
	comp=Z,7.0nm,1.3s						
PPT2	Papeete2	70.74	108	*e*LR	LR	16 33 59.6	
	comp=Z,125nm,27.8s						
PPT2				*e*LR	LR	16 34 06.1	
	comp=Z,117nm,23.8s						
UZB	Uzynbulak	70.87	317	*e*P	P	16 12 29.1	+0.5
	comp=Z,5.2nm,0.9s						
TARG	Taragay, Kyrgy	71.18	316		P	16 12 29.8	-1.0
TARG				IAmb	IAmb	16 12 47.0	
	comp=Z,18nm,1.7s						
TARG	Taragay, Kyrgy	71.18	316	P	P	16 12 31.5	+0.8
	comp=Z,5.2nm,1.1s						
KPKS	Kokpek	71.22	318	*e*P	P	16 12 31.3	+0.7
SATY	Saty	71.25	317	*e*P	P	16 12 31.6	+0.8
	comp=Z,8.2nm,0.9s						
ASAI	AK-SAY(Kyrgyzs	71.80	315	P	P	16 12 35.5	+1.1
	comp=Z,7.6nm,0.7s						
TDK	Taldyqorghan	71.99	319	*e*P	P	16 12 35.1	0.0
	comp=Z,11nm,1.1s						
NIL	Nilore	72.08	306	P	P	16 12 34.8	-1.1
NIL				IAmb	IAmb	16 13 58.9	
	comp=Z,11nm,0.7s						
NIL	Nilore	72.08	306	P	P	16 12 36.7	+0.8
	comp=Z,16nm,0.9s						
MDOK	Medeo	72.22	317	*e*P	P	16 12 37.5	+0.9
ZAA0	Zalesovo Array	72.26	329	P	P	16 12 35.1	-1.3
ZALV	Zalesovo Beam	72.26	329	P	P	16 12 36.0	-0.4
	comp=Z,2.2nm,0.8s,baz=101,slow=4.7,SNR=8.7						
	comp=Z,2.2nm,0.8s						
ZALV	Zalesovo Beam	72.26	329		P	16 12 35.1	-1.3
NRN	Naryn	72.34	315	IAmb	IAmb	16 13 32.7	
	comp=Z,9.1nm,0.8s						
BOOM	Boomskoye usch	72.74	316	P	P	16 12 37.7	-2.1
BOOM				IAmb	IAmb	16 12 43.6	
	comp=Z,19nm,1.4s						
AAK	Ala-Archa	73.80	316		P	16 12 46.0	-0.1
AAK	Ala-Archa	73.80	316	P	P	16 12 45.7	-0.3
	comp=Z,2.9nm,0.7s						
SGDS	Sogindy	73.97	317	*e*P	P	16 12 47.8	+0.8
KURK	Kurchatov	74.14	325		P	16 12 47.3	-0.3
KURK	Kurchatov	74.14	325	P	P	16 12 48.0	+0.4
	comp=Z,9.1nm,1.1s						
KURBB	Kurchatov Arra	74.16	324	P	P	16 12 48.0	+0.3
	comp=Z,5.6nm,1.0s,baz=111,slow=5.5,SNR=22						
	comp=Z,5.6nm,1.0s						
OHH	Osh	74.37	313	P	P	16 12 48.5	-0.8
	comp=Z,17nm,0.5s						
VNDA	Vanda	75.98	175	P	P	16 12 59.7	+1.9
	comp=Z,0.6nm,0.7s,baz=317,slow=7.0,SNR=4.3						
VNDA				LR	LR	16 46 53.1	
	comp=Z,88nm,18.3s,baz=344,slow=36						
	comp=Z,0.6nm,0.7s						
VNDA	Vanda	75.98	175	P	P	16 12 57.7	-0.1
DZA	Taraz	76.10	315	*e*P	P	16 13 00.0	+0.9
KK31	Karatay Array	76.73	315	P	P	16 13 01.8	-0.9
KKAR	Karatay Array	76.73	315	P	P	16 13 01.6	-1.1
IUG	Iuzhnay	76.81	314	*e*P	P	16 13 04.1	+0.8
	comp=Z,16nm,1.4s						
M14K	Bethel	77.14	25	P	P	16 13 04.7	+0.1
CHM	Chimkent	77.17	314	*e*P	P	16 13 06.1	+0.9
	comp=Z,9.1nm,0.8s						
BRLS	Borolday	77.19	315	*e*P	P	16 13 06.1	+0.8
K17K	Iditarod	79.60	24	P	P	16 13 18.5	+0.3
TAOE	Nuku Hiva Isla	79.73	99	*e*LR	LR	16 38 11.0	
	comp=Z,81nm,21.6s						
BVAR	Borovoye Array	79.73	325	P	P	16 13 19.5	+0.4
	comp=Z,11nm,0.9s,baz=115,slow=5.7,SNR=30						
	comp=Z,11nm,0.9s						
NRIK	Noril'sk	79.76	343	P	P	16 13 19.2	+0.3
	comp=Z,2.8nm,0.4s,baz=124,slow=4.8,SNR=5.5						
	comp=Z,2.8nm,0.4s						
NRIK	Noril'sk	79.76	343		P	16 13 18.7	-0.2
NRIK				IAmb	IAmb	16 13 20.6	
	comp=Z,8.9nm,1.1s						
BORK	Borovoye	79.78	325		P	16 13 19.4	0.0
BORK				IAmb	IAmb	16 13 21.1	
	comp=Z,9.8nm,0.9s						
KDAK	Kodiak Island	80.25	30	LR	LR	16 44 08.7	
	comp=Z,43nm,21.4s,baz=228,slow=32						
J20K	Nowinta River	81.91	24	P	P	16 13 30.5	0.0
J20K				IAmb	IAmb	16 15 44.4	
	comp=Z,28nm,1.7s						
C19K	Lookout Ridge	82.10	18	P	P	16 13 31.6	+0.1
E19K	Redstone River	82.12	20	P	P	16 13 31.9	+0.4
E19K				IAmb	IAmb	16 13 36.1	
	comp=Z,12nm,1.1s						
D19K	Kuna River	82.29	19	P	P	16 13 32.8	+0.3
CCB	Clear Creek Bu	84.66	24	P	P	16 13 43.9	-0.8
H24K	Noodor Dome	84.98	23	P	P	16 13 46.8	+0.5
E23K	Chandalar	85.03	21	IAmb	IAmb	16 13 55.1	
	comp=Z,7.8nm,1.1s						
ILAR	Eielson Array	85.07	24	P	P	16 13 45.6	-1.1
	comp=Z,2.6nm,1.0s,baz=265,slow=4.6,SNR=13						
ILAR	Eielson Array	85.07	24		P	16 13 45.5	-1.3
AB31	Akbulak array	85.24	320		P	16 13 47.4	-0.5
AB31				IAmb	IAmb	16 13 49.5	
	comp=Z,6.2nm,1.1s						
ABKAR	Akbulak array	85.24	320	P	P	16 13 47.3	-0.6
E25K	Arctic Village	86.50	21	IAmb	IAmb	16 13 56.8	
	comp=Z,13nm,1.4s						
BMAR	Burnt Mountain	86.68	22	P	P	16 13 55.5	+0.8
G26K	Porcupine Rive	86.87	23	P	P	16 13 55.9	+0.3
G26K				IAmb	IAmb	16 13 58.6	
	comp=Z,12nm,1.2s						
F26K	Sheenjek River	86.91	22		P	16 13 56.5	+0.7
F26K				IAmb	IAmb	16 13 59.0	
	comp=Z,8.7nm,1.0s						
I27K	Kandik River	87.43	24	IAmb	IAmb	16 14 01.5	
	comp=Z,9.2nm,1.1s						
QSPA	South Pole Qui	87.54	180	P	P	16 13 58.4	-0.6
	comp=Z,1.4nm,0.8s,baz=300,slow=2.0,SNR=11						
	comp=Z,1.4nm,0.8s						
QSPA	South Pole Qui	87.54	180	IAmb	IAmb	16 14 26.6	
	comp=Z,11nm,1.6s						
H27K	Steamboat Moun	87.59	23	IAmb	IAmb	16 14 02.1	
	comp=Z,10nm,1.1s						
G27K	Doyon Strip	87.66	23	IAmb	IAmb	16 14 10.5	
	comp=Z,5.8nm,1.3s						
HYT	Haines Junctio	88.48	29	P	P	16 14 04.0	+0.4
HYT				IAmb	IAmb	16 14 29.1	
	comp=Z,9.4nm,1.2s						
K29M	Barlow Dome	88.87	26	IAmb	IAmb	16 14 08.4	
	comp=Z,6.8nm,1.1s						
I30M	Mount Dempster	89.54	25	P	P	16 14 09.2	+0.8
I30M				IAmb	IAmb	16 14 17.1	
	comp=Z,5.5nm,1.1s						
H02S1	DAWSON INLET T	90.49	37	T	T	17 53 16.7	
	SNR=74						
H02S2	DAWSON INLET T	90.49	37	T	T	17 53 16.8	
	SNR=90						
N32M	Quiet Lake	90.66	29	IAmb	IAmb	16 14 21.9	
	comp=Z,8.1nm,1.1s						
INK	Inuvik	90.95	22	LR	LR	16 52 28.3	
	comp=Z,24nm,20.0s,baz=276,slow=34						
GNI	Garni	95.47	310	LR	LR	17 03 11.1	
	comp=Z,50nm,20.3s,baz=128,slow=39						
ELIB	Princess Elisa	95.71	196	*d*P	P	16 14 39.8	+2.9
	comp=Z,1.2nm,1.6s						
KVAR	Kislovodsk Arr	96.84	314	LR	LR	17 02 35.2	
	comp=Z,38nm,20.7s,baz=352,slow=38						
TORD	Torodi Ar. Bea	137.29	287	PKP	PKPdf	16 20 35.4	-0.3
	comp=Z,0.6nm,0.8s,baz=76,slow=0.9,SNR=2.7						
DBIC	Dimbokro	144.60	278	PKP	PKPab	16 20 47.5	+0.1
	comp=Z,13nm,0.5s,baz=98,slow=3.9,SNR=20						
LPAZ	La Paz	146.67	125	PKPbc	PKPab	16 20 55.7	-0.2
	comp=Z,1.9nm,0.7s,baz=229,slow=5.8,SNR=5.6						
LPAZ	La Paz	146.67	125		PKPdf	16 20 52.3	-0.8
CPUP	Villa Florida	146.94	151	PKPbc	PKPbc	16 20 55.1	+0.6
	comp=Z,4.8nm,0.9s,baz=217,slow=4.7,SNR=12						
CPUP	Villa Florida	146.94	151		PKPbc	16 20 54.8	+0.3

SSNC ***17*** *16:07:21.1±1.2, 19°.20N×72°.60W, h9^{km}±13^{km}, MD3.0, ML2.2, Presumed earthquake*

SDD ***17*** *16:07:21.6±2.2, 19°.65N×72°.24W, h27^{km}±7^{km}, MD2.7, ML2.5, MW2.3, Presumed earthquake*

ISC 17 16:07:19.8±1.3**, 19°.77N**±0°.06×**72°.49W**±0°.03**, h21**^{km}±6^{km}**, n13,** σ1^{s}**87**/23**, 1C, Haiti region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MCDR	Montecristi	0.79	81	*i* P	Pb	16 07 34.7	-0.2
MCDR				*i* S	Sb	16 07 45.1	+0.1

MCDR				IAML		16 07 45.6	
	comp=N,222nm,0.6s						
REDR	Restauracion	1.19	120	i P	Pn	16 07 35.4	-5.8
REDR				i S	Sn	16 07 46.0	-11
REDR				IAML		16 07 46.9	
	comp=N,244nm,0.1s						
MADR	Mao Valverde	1.32	99	i P	Pb	16 07 43.1	-0.8
MADR				i S	Sb	16 08 00.5	+0.2
MADR				IAML		16 08 11.9	
	comp=N,232nm,0.3s						
JIDR	Jimani	1.41	155	i P	Pn	16 07 44.6	+0.5
JIDR				i S	Sn	16 08 01.8	-0.3
LUDR	Luperon	1.45	85	i P	Pn	16 07 44.6	-0.1
LUDR				i S	Sn	16 08 02.4	-0.6
NEDR	Neiba UASD	1.63	142	i P	Pb	16 07 48.7	-0.5
NEDR				i S	Sn	16 08 06.7	-0.9
NEDR				IAML		16 08 36.7	
	comp=N,62nm,0.1s						
PODR	Polo	1.96	144	i P	Pb	16 07 54.7	-0.3
PODR				i S	Sn	16 08 17.0	+0.9
ABDR	Alto Bandera	2.00	118	i P	Pn	16 07 53.4	+0.7
ABDR				i S	Sn	16 08 17.9	+0.7
ABDR				IAML		16 08 27.7	
	comp=N,17nm,0.2s						
QMBU	Quimbuelo	2.23	281	eP	Pn	16 07 56.8	+1.3
QMBU				⇑eS	Sn	16 08 23.4	+1.0
QMBU				eSg	Sb	16 08 27.4	+0.9
QMBU				IAML		16 08 28.7	
	comp=N,8.8nm,0.3s						
QMBU				IAML		16 08 29.6	
	comp=E,17nm,0.4s						
GTBY	Guantanamo Bay	2.48	274	eP	Pn	16 08 00.0	+1.2
GTBY				eS	Sn	16 08 29.5	+1.0
GTBY				IAML		16 08 36.1	
	comp=E,8.3nm,0.6s						
GTBY				IAML		16 08 39.4	
	comp=E,10nm,1.1s						
RCC	Rio Carpintero	3.03	275	eP	Pn	16 08 06.2	-0.3
RCC				eS	Sn	16 08 38.8	-3.4
PINC	Pinares de May	3.19	283	eS	Sn	16 08 49.2	+3.2
LMGC	Las Mercedes	4.26	275	eS	Sn	16 09 06.7	-5.9

WEL ***17*** *16:12:34.9±0.4, 43°S±2°×17°2E±°, h5km, M3.7/4, ML3.5/4, MLv3.7/4, Error ellipse: s-maj=3.1km s-min=2.8km az=157.2, confirmed*

NOU ***17*** *16:12:36.2, 42°.89S×172°.57E, h27km, MLv3.8/16, South Island, New Zealand*

ISC 17 16:12:34.8±0.9**, 42°.82S**±0°.02×**172°.49E**±0°.02**, h13**km±6km**, n74,** σ**0.74**/84**, South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LTZ	Lake Taylor	0.16	282	P	Pg	16 12 38.2	-0.4
LTZ				S	Sg	16 12 40.9	-0.5
LTZ				AML	AML		
LTZ				AML	AML		
WAKC	Waikari	0.22	133	P	Pg	16 12 39.8	+0.3
WAKC				S	Sb	16 12 43.9	-0.6
CULC	Culverden Airl	0.24	76	P	Pg	16 12 39.7	-0.1
CULC				S	Sg	16 12 43.9	+0.6
WIGC	Waiau Gorge	0.26	63	P	Pg	16 12 40.1	0.0
WIGC				S	Sg	16 12 44.3	+0.4
SCAC	Scargill	0.34	111	P	Pg	16 12 42.2	+0.5
SCAC				S	Sb	16 12 48.5	+0.4
AMCZ	Amberley	0.38	162	P	Pb	16 12 43.7	+0.3
AMCZ				S	Sb	16 12 50.5	+1.3
AMCZ				AML	AML		
AMCZ				AML	AML		
AMBC	Amberley HDC	0.38	152	P	Pb	16 12 43.7	+0.2
AMBC				S	Sn	16 12 51.2	-2.1
HSES	Hanmer Springs	0.39	41	P	Pg	16 12 42.3	-0.3
GVZ	Greta Valley S	0.43	111	P	Pg	16 12 43.9	+0.6
GVZ				S	Sb	16 12 51.0	+0.3
GVZ				AML	AML		
GVZ				AML	AML		
SMHS	Summerhill	0.46	194	P	Pb	16 12 45.2	+0.4
ASHY	Ashley	0.47	170	P	Pb	16 12 45.3	+0.5
ASHY				S	Sn	16 12 53.4	-1.9
CECS	Cheviot Emerge	0.58	90	P	Pg	16 12 46.7	+0.6
CECS				S	Sb	16 12 55.9	+1.0
OXZ	Oxford	0.61	213	P	Pg	16 12 47.4	+0.8
OXZ				AML	AML		
OXZ				AML	AML		
OHSS	Ouruhia School	0.64	169	P	Pb	16 12 48.9	+1.1
SPRS	Springfield Vo	0.66	218	P	Pg	16 12 48.4	+0.8
CACS	Harewood	0.67	177	P	Pb	16 12 49.2	+0.9
PPHS	Papanui	0.68	173	P	Pb	16 12 49.6	+1.0
APPS	Arthurs Pass P	0.69	259	P	Pg	16 12 48.6	+0.4
CSHS	Castle Hill	0.70	233	P	Pg	16 12 49.0	+0.7
SAGC	St Andrews Col	0.70	172	P	Pn	16 12 49.9	-0.5
NNBS	New Brighton	0.70	166	P	Pb	16 12 49.8	+1.0
STAS	St Albans Chri	0.71	171	P	Pn	16 12 50.0	-0.5
DALS	Dallington	0.71	169	P	Pn	16 12 50.0	-0.5
INZ	Inchbonnie	0.77	276	P	Pb	16 12 49.8	-0.3
KHZ	Kahutara	0.87	63	P	Pb	16 12 51.9	+0.1
KHZ	Kahutara	0.87	63	S	Sn	16 13 04.9	-0.4
KHZ	Kahutara	0.87	63	P	Pb	16 12 51.7	0.0
MQZ	McQueen's Vall	0.90	172	P	Pb	16 12 51.9	-0.3
RACZ	Rakaia	0.94	196	P	Pb	16 12 53.1	+0.1
MHCZ	Mount Hutt	0.98	223	P	Pb	16 12 53.8	+0.1
OKCZ	Okains Bay	1.00	155	P	Pb	16 12 53.9	-0.1
THZ	Tophouse	1.10	17	P	Pb	16 12 54.4	-1.3
AKCZ	Akaroa Harbour	1.10	164	P	Pb	16 12 55.3	-0.4
DSZ	Denniston Nort	1.19	334	P	Pn	16 12 57.1	0.0
WACZ	Wakanui South	1.22	203	P	Pn	16 12 56.8	-0.7
WVZ	Waitaha Valley	1.31	258	P	Pn	16 12 59.5	+0.7
RPZ	Rata Peaks	1.38	229	P	Pn	16 12 59.5	-0.3
RPZ	Rata Peaks	1.38	229	S	Sn	16 13 17.8	-0.1
RPZ	Rata Peaks	1.38	229	P	Pn	16 12 59.4	-0.4
MRNZ	Matariki Terra	1.43	8	P	Pn	16 13 00.6	+0.2
ARCZ	Arundel	1.48	220	P	Pn	16 13 00.6	-0.6
BSWZ	Blackbirch Sta	1.51	44	P	Pn	16 13 02.3	+0.8
CMWZ	Cape Campbell	1.67	51	P	Pb	16 13 06.2	+0.9
NNZ	Nelson	1.73	23	P	Pn	16 13 05.2	+0.7
TUWZ	Tuamarina	1.76	38	P	Pn	16 13 05.7	+0.8
TKNZ	Takaka Hill	1.82	11	P	Pn	16 13 06.8	+1.0
TMZ	Timaru	1.90	214	P	Pn	16 13 06.5	-0.4
QRZ	Quartz Range	1.99	1	P	Pn	16 13 08.5	+0.4
QRZ	Quartz Range	1.99	1	S	Sb	16 13 34.8	-0.7
QRZ	Quartz Range	1.99	1	P	Pn	16 13 08.5	+0.4
FOZ	Fox Glacier	2.08	249	P	Pn	16 13 10.5	+1.1
TCW	Tory Channel	2.09	40	P	Pn	16 13 09.6	+0.1
SNZO	South Karori	2.23	48	P	Pn	16 13 11.5	0.0
SNZO	South Karori	2.23	48	S	Sn	16 13 39.2	+0.3
BHW	Baring Head	2.26	52	P	Pn	16 13 11.7	-0.2
DUWZ	D'Urville Isla	2.28	29	P	Pn	16 13 13.7	+1.5
WEL	Wellington	2.29	49	P	Pn	16 13 12.3	+0.1
LBZ	Lake Benmore	2.29	226	P	Pn	16 13 12.1	-0.3
PLWZ	Palliser	2.40	60	P	Pn	16 13 12.9	-1.0
MSWZ	Moikau Station	2.48	57	P	Pn	16 13 13.8	-1.2
ODZ	Otahua Downs	2.59	210	P	Pn	16 13 15.6	-0.9
ODZ	Otahua Downs	2.59	210	S	Sn	16 13 47.4	-0.5
ODZ	Otahua Downs	2.59	210	P	Pn	16 13 15.8	-0.7
PAWZ	Paruwai Farm	2.62	58	P	Pn	16 13 15.2	-1.6
KIW	Kapiti Island	2.66	44	P	Pn	16 13 17.7	+0.3
MTW	Mount Morrison	2.79	55	P	Pn	16 13 18.1	-1.0
OGWZ	Otaki Gorge	2.83	46	P	Pn	16 13 19.1	-0.6
JCZ	Jackson Bay	2.98	244	P	Pn	16 13 22.2	+0.4
JCZ	Jackson Bay	2.98	244	S	Sn	16 13 57.8	+0.4
JCZ	Jackson Bay	2.98	244	P	Pn	16 13 22.2	+0.4
SYZ	Scrubby Hill	4.42	212	P	Pn	16 13 41.0	-0.5
SYZ	Scrubby Hill	4.42	212	S	Sn	16 14 31.1	-1.7
HIZ	Hauiti	4.66	24	P	Pn	16 13 45.6	+0.7
HIZ	Hauiti	4.66	24	S	Sn	16 14 38.7	-0.1

MOS ***17*** *16:42:32.7±1.1, 29°.82N×68°.40E, h13km, mb4.8/35, Error ellipse: s-maj=5.1km s-min=3.3km az=94.1*

IDC ***17*** *16:42:32.2±0.6, 29°.73N×68°.28E, h0km, mb4.3/30, mbtmp4.3/31, ML4.5/1, MS3.9/30, Error ellipse: s-maj=15.6km s-min=11.1km az=12.0*

BJI ***17*** *16:42:34.4, 29°.98N×68°.39E, h9km, mB4.7/7, mb4.5/32, Ms4.3/26, Ms7 4.0/25*

GFZ ***17*** *16:42:35.6±0.2, 30°N±3°×6°8E±°, h10km, M4.5/37, mb4.8/37, confirmed*

NEIC ***17*** *16:42:36.2±1.2, 29°.79N±0°.08×68°.31E±0°.08, h24km±5km, mb4.8/111, Error ellipse: s-maj=12.0km s-min=10.5km az=193.0*

NNC ***17*** *16:42:42.9±5.2, 30°.23N×68°.57E, h44km±38km, mb4.3, Error ellipse: s-maj=41.9km s-min=24.2km az=179.0*

ISC 17 16:42:35.4±0.3**, 29°.78N**±0°.04×**68°.36E**±0°.04**, h20**km**, n531,** σ**1.39**/517**, mb4.7**/151**, MS3.9**/38**, 35C-23D, Pakistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BKNR	BIKANER	4.66	111	eP	Pn	16 43 49.2	+4.6
KBL	Kabul	4.78	7	P	Pn	16 43 47.4	+0.9
KBL						16 44 42.5	
KBL	Kabul	4.78	7		Pn	16 43 47.4	+0.9
KBL				Sn	Sn	16 44 42.5	+1.0
KBL	Kabul	4.78	7	P	Pn	16 43 50.1	+3.6
NIL	Nilore	5.68	46	P	Pn	16 44 00.2	+1.5
NIL				S	Sn	16 45 02.4	-0.9
NIL	Nilore	5.68	46		Pn	16 43 59.6	+0.9
NIL					Sn	16 45 02.4	-0.9
NIL	Nilore	5.68	46	P	Pn	16 44 02.8	+4.1
	comp=Z,144nm,0.7s						
JMU	Jammu	6.29	60	eP	Pn	16 44 12.3	+5.2
JMU				eS	Sn	16 45 19.1	+0.6
JMU				IAML		16 45 22.6	
	comp=E,2µm,0.8s						
JMU				IAML		16 45 22.9	
	comp=N,1µm,0.0s						
AJM	Ajmer	6.47	120	eP	Pn	16 44 14.7	+5.1
AJM				eS	Sn	16 45 23.2	+0.4
AJM				IAML		16 46 23.2	
	comp=N,998nm,3.2s						
AJM				IAML		16 46 30.2	
	comp=E,940nm,0.6s						
BHUJ	Bhuj	6.60	170	eP	Pn	16 44 16.3	+4.9
BHUJ				eS	Sn	16 45 26.5	+0.4
BHUJ				IAML		16 45 26.7	
	comp=E,617nm,0.4s						
BHUJ				IAML		16 45 27.3	
	comp=N,626nm,0.1s						
THN	Thein Dam	6.88	65	eP	Pn	16 44 20.8	+5.7
THN				eS	Sn	16 45 33.2	+0.4
THN				IAML		16 45 39.2	
	comp=E,422nm,0.7s						
THN				IAML		16 45 41.3	
	comp=N,469nm,0.0s						
HRA	Herat	6.93	313		Pn	16 44 16.1	+0.1
DHRM	DHARAMSHALA	7.25	68	eP	Pn	16 44 23.8	+3.3
DHRM				eS	Sn	16 45 41.7	-0.6
DHRM				IAML		16 45 47.6	
	comp=N,447nm,0.9s						
DHRM				IAML		16 45 48.3	
	comp=E,475nm,0.7s						
TSSA	Tissa	7.33	63	eP	Pn	16 44 26.6	+5.1
TSSA				eS	Sn	16 45 43.2	-1.1
TSSA				IAML		16 46 43.7	
	comp=E,212nm,0.9s						
TSSA				IAML		16 46 51.8	
	comp=N,293nm,0.6s						
SMLA	Simla	7.72	78	eP	Pn	16 44 30.8	+4.1
SMLA				eS	Sn	16 45 52.8	-0.7
SMLA				IAML		16 45 57.6	
	comp=E,275nm,0.4s						
SMLA				IAML		16 45 58.0	
	comp=N,260nm,0.7s						
NGCH	Negor - Chabah	7.78	237	P	Pn	16 44 27.5	0.0
	SNR=13						
KLP	Kalpa	8.70	76	eP	Pn	16 44 45.3	+4.9
KLP				eS	Sn	16 46 15.6	-2.4
KLP				IAML		16 46 24.4	
	comp=N,459nm,1.4s						
KLP				IAML		16 46 49.1	
	comp=E,359nm,0.8s						
ALCI	Alchi Leh	8.70	57	eP	Pn	16 44 45.7	+5.2
ALCI				eS	Sn	16 46 15.6	-2.6
ALCI				IAML		16 47 58.9	
	comp=E,434nm,2.2s						
ALCI				IAML		16 48 01.4	
	comp=N,483nm,0.7s						
BHPL	Bhopal	10.41	127	eP	Pn	16 45 08.6	+5.0
BHPL				eS	Sn	16 46 54.3	-5.3
BTK	Batken	10.45	10	P	Pn	16 45 02.9	-1.3
BTK	Batken	10.45	10	Pn	Pn	16 45 02.9	-1.3
BTK	Batken	10.45	10	P	Pn	16 45 06.9	+2.8
	comp=Z,51nm,0.8s						
WSAR	Wadi Sarin	10.88	235	P	Pn	16 45 07.9	-2.1
WSAR				S	Sn	16 46 58.4	-13
WBK	Wadi Bani Khal	11.04	232	P	Pn	16 45 09.8	-2.5
	SNR=30						
WBK				S	Sn	16 47 01.9	-13
JLN	Jalan Bani Buh	11.06	229	P	Pn	16 45 09.8	-2.8
	SNR=23						
JLN				S	Sn	16 47 03.7	-12
KSH2	Kashi	11.07	31	P	Pn	16 45 15.4	+2.7
KSH2				S	Sn	16 47 13.6	-2.4
KSH2				L	L		
	comp=Z,1µm,9.6s						
KSH2				L	L		
	comp=Z,1µm,11.2s						
KSH2				L	L		
	comp=Z,820nm,11.2s						
BIDO	Bidbid	11.07	238	P	Pn	16 45 12.1	-0.6
BIDO				S	Sn	16 47 03.3	-13
OHH	Osh	11.31	17	P	Pn	16 45 20.7	+4.7
	comp=Z,27nm,0.7s						
BANOM	Banah	11.34	253	P	Pn	16 45 15.7	-0.7
BANOM	Banah	11.34	253	P	Pn	16 45 14.8	-1.6
SMDO	Samad	11.40	236	P	Pn	16 45 16.0	-1.4
	SNR=8.6						
SMDO				S	Sn	16 47 13.3	-11
SHME	Shamm	11.43	254	P	Pn	16 45 16.7	-0.9
SHME	Shamm	11.43	254	i P	Pn	16 45 16.6	-0.9
	SNR=7.2						
MDH	Madha	11.59	250	P	Pn	16 45 17.6	-2.2
MDH				S	Sn	16 47 14.3	-14
MASF	Masafi	11.68	251	P	Pn	16 45 22.4	+1.3
	SNR=6.1						
MSFE	Esma-Masafi	11.68	251	i P	Pn	16 45 19.9	-1.2
	SNR=18						
JMDO	Jabal Madar	11.80	234	P	Pn	16 45 21.5	-1.2
UOSS	Minazif	11.82	249	P	Pn	16 45 21.2	-1.7
UOSS	Minazif	11.82	249		Pn	16 45 19.9	-3.1
UOSS	Minazif	11.82	249	P	Pn	16 45 19.7	-3.3
UOSS	Minazif	11.82	249	P	Pn	16 45 21.0	-2.0
	comp=Z,33nm,1.0s						
HATD	Hatta, Dubai	11.94	248	P	Pn	16 45 22.9	-1.7
	SNR=6.7						
HATD	Hatta, Dubai	11.94	248	P	Pn	16 45 21.8	-2.7
TRKS	Terek-Say	11.94	10	P	Pn	16 45 25.1	+0.5
SOHO	SOHO	11.95	245	P	Pn	16 45 22.2	-2.5
SOHO	SOHO	11.95	245	i P	Pn	16 45 21.7	-3.0
	SNR=9.9						
ASHO	Ashiyiah	12.06	248	P	Pn	16 45 24.9	-1.4
	SNR=8.9						
ASHO	Ashiyiah	12.06	248	i P	Pn	16 45 24.7	-1.5
	SNR=14						
ARSB	Arslanbob	12.11	17	P	Pn	16 45 26.2	-0.8
ARSB	Arslanbob	12.11	17		Pn	16 45 26.2	-0.8
BSY	Bisya	12.22	238	P	Pn	16 45 28.4	0.0
	SNR=13						
NAZ	Nazwa, Dubai	12.25	250	P	Pn	16 45 28.2	-0.5
ARK	Arkit	12.34	13	P	Pn	16 45 30.9	+0.8
ARK	Arkit	12.34	13	P	Pn	16 45 30.9	+0.8
	comp=Z,37nm,0.8s						
ARQ	Araqi	12.38	242	P	Pn	16 45 31.1	+0.5
	SNR=110						
FAQ	Al Faqa, Dubai	12.41	249	P	Pn	16 45 31.0	0.0
IUG	Iuzhnay	12.41	6	eP	Pn	16 45 30.9	-0.1
IUG	Iuzhnay	12.41	6	eP	Pn	16 45 31.0	-0.1
CHM	Chimkent	12.55	4	eP	Pn	16 45 32.9	0.0
CHM	Chimkent	12.55	4	eP	Pn	16 45 32.9	0.0
ALNE	Al Ain	12.61	246	i P	Pn	16 45 33.4	-0.3
	SNR=6.5						
ASUD	Al Ashush, Dub	12.68	249	P	Pn	16 45 35.3	+0.6
ASUD	Al Ashush, Dub	12.68	249	P	Pn	16 45 34.2	-0.5
MHTO	MHTO	12.83	229	P	Pn	16 45 35.8	-1.0
ASAI	AK-SAY(Kyrgyzs	12.95	29	P	Pn	16 45 38.9	+0.3
	comp=Z,40nm,0.8s						
NRN	Naryn	13.18	26	P	Pn	16 45 40.1	-1.6
NRN	Naryn	13.18	26		Pn	16 45 40.1	-1.6
BRLS	Borolday	13.28	5	eP	Pn	16 45 46.5	+3.8
BRLS	Borolday	13.28	5	eP	Pn	16 45 39.2	-3.6
DZA	Taraz	13.30	10	eP	Pn	16 45 42.7	-0.3
DZA	Taraz	13.30	10	eP	Pn	16 45 42.8	-0.3
KK31	Karatay Array	13.41	7	P	Pn	16 45 43.8	-0.7
	comp=Z,6.0nm,0.5s,baz=186,slow=13,SNR=61						
KK31				S	Sn	16 48 05.6	-7.3
	comp=Z,5.1nm,0.4s,baz=186,slow=22,SNR=8.6						
KK31	Karatay Array	13.41	7	P	Pn	16 45 43.8	-0.7
KK31						16 48 05.0	
KK31	Karatay Array	13.41	7		Pn	16 45 43.7	-0.9
KKAR	Karatay Array	13.41	7	P	Pn	16 45 42.8	-1.8
KKAR	Karatay Array	13.41	7		Pn	16 45 42.8	-1.8
AAK	Ala-Archa	13.75	19	Pn	Pn	16 45 49.3	+0.1
	comp=Z,2.5nm,0.3s,baz=202,slow=7.5,SNR=23						
AAK				Sn	Sn	16 48 16.4	-5.1
	baz=332,slow=17,SNR=3.7						
AAK				LR	LR	16 51 59.5	
	comp=Z,769nm,19.8s,baz=212,slow=41						
	comp=Z,9.3nm,0.4s						
AAK				AML	AML		
AAK	Ala-Archa	13.75	19	⇑P	Pn	16 45 49.1	-0.2
	comp=Z,8.8nm,0.7s						
AAK				⇑S	Sn	16 48 17.4	-4.1
	comp=Z,21nm,1.0s						
AAK	Ala-Archa	13.75	19	ceP	Pn	16 45 49.0	-0.2
AAK	Ala-Archa	13.75	19		Pn	16 45 48.5	-0.8
AAK	Ala-Archa	13.75	19	i P	Pn	16 45 49.4	+0.1
	SNR=18						
AAK	Ala-Archa	13.75	19	P	Pn	16 45 49.2	-0.1
	comp=Z,31nm,1.1s						
FRU1	Bishkek	13.94	19	P	Pn	16 45 51.1	-0.8
FRU1	Bishkek	13.94	19		Pn	16 45 51.1	-0.8
BOOM	Boomskoye usch	14.07	24	P	Pn	16 45 51.8	-2.0
BOOM	Boomskoye usch	14.07	24		Pn	16 45 51.8	-2.0
BOOM	Boomskoye usch	14.07	24	P	Pn	16 45 54.3	+0.5
	comp=Z,36nm,0.8s						
TARG	Taragay, Kyrgy	14.16	30	P	Pn	16 45 54.0	-1.3
TARG	Taragay, Kyrgy	14.16	30		Pn	16 45 54.0	-1.3
TARG	Taragay, Kyrgy	14.16	30	P	P	16 46 00.3	-2.4
	comp=Z,35nm,0.9s						
KDJ	Kajisay	14.23	28	P	Pn	16 45 54.8	-1.1
KDJ	Kajisay	14.23	28	Pn	Pn	16 45 54.8	-1.1
WUS	Wushi	14.41	35	P	Pn	16 45 58.0	-0.3
	comp=Z,57nm,1.0s						
SGDS	Sogindy	14.54	18	eP	Pn	16 45 59.8	-0.2
PRZ	Przheval'sk	15.03	30	P	Pn	16 46 06.9	0.0
PRZ				pmax	pmax		
	comp=Z,45nm,1.3s						
PRZ	Przheval'sk	15.03	30	Pn	Pn	16 46 06.9	0.0
PRZ				IAmb	IAmb	16 46 10.7	
	comp=Z,45nm,1.3s						
MDOK	Medeo	15.06	25	eP	Pn	16 46 06.4	-0.8
MDOK	Medeo	15.06	25	eP	Pn	16 46 06.4	-0.8
HYB	Hyderabad	15.44	141	eP	P	16 46 16.9	+0.2
HYB				eS	S	16 49 19.3	+0.8
KUU	Kurty	15.45	22	eP	Pn	16 46 11.9	-0.3
KUU	Kurty	15.45	22	eP	Pn	16 46 12.0	-0.3
SATY	Saty	15.51	29	eP	Pn	16 46 12.5	-0.5
SATY	Saty	15.51	29	eP	Pn	16 46 12.5	-0.5
UZB	Uzynbulak	15.84	30	eP	Pn	16 46 16.5	-0.8
UZB	Uzynbulak	15.84	30	eP	Pn	16 46 16.6	-0.8
KPKS	Kokpek	15.96	28	eP	Pn	16 46 18.0	-0.8
KPKS	Kokpek	15.96	28	eP	Pn	16 46 18.0	-0.8
SHLS	Shalkode	16.04	31	eP	P	16 46 21.7	-1.5
SHLS	Shalkode	16.04	31	eP	P	16 46 21.8	-1.5
PDGK	Podgornoye	16.19	30	⇑P	Pn	16 46 20.7	-1.1
	comp=Z,15nm,0.7s						
PDGK	Podgornoye	16.19	30	P	Pn	16 46 19.6	-2.2
PDGK	Podgornoye	16.19	30		Pn	16 46 19.6	-2.2
EVN	Everest	16.27	92		Pn	16 46 19.4	-4.1
EVN	Everest	16.27	92	P	Pn	16 46 23.5	0.0
	comp=Z,58nm,0.7s						
BOK	Bokaro	16.74	107	eP	P	16 46 33.8	+2.8
TDK	Taldyqorghan	17.14	25	eP	Pn	16 46 33.3	-0.4
TDK	Taldyqorghan	17.14	25	eP	Pn	16 46 33.3	-0.4
WHFO	Wadi Hawf	17.80	232	P	Pn	16 46 42.3	+0.2
MAKZ	Makanchi	20.03	28	P	P	16 47 07.6	+0.6
MAKZ	Makanchi	20.03	28	P	P	16 47 05.8	-1.2
MAKZ	Makanchi	20.03	28	P	P	16 47 07.9	+0.8
	comp=Z,24nm,0.8s						
MK31	Makanchi Array	20.15	29	P	P	16 47 08.4	+0.1
	comp=Z,5.8nm,0.6s,baz=206,slow=11,SNR=70						
MK31	Makanchi Array	20.15	29	d iP	P	16 47 08.4	+0.1
MKAR	Makanchi Array	20.15	29	P	P	16 47 08.8	+0.5
	comp=Z,4.2nm,0.6s,baz=210,slow=11,SNR=26						
MKAR				LR	LR	16 56 15.2	
	comp=Z,206nm,18.5s,baz=210,slow=41						
	comp=Z,4.2nm,0.6s						
MKAR	Makanchi Array	20.15	29	P	P	16 47 08.0	-0.3
AKT	Akhty	20.37	311	eP	P	16 47 11.4	+0.5
AKT				e		16 47 28.4	
AKT				pmax	pmax		
	comp=Z,21nm,0.9s						
AB31	Akbulak array	20.48	344	P	P	16 47 12.6	+0.8
	comp=Z,15nm,0.6s,baz=152,slow=11,SNR=145						
AB31	Akbulak array	20.48	344	i P	P	16 47 12.6	+0.8
AB31	Akbulak array	20.48	344	P	P	16 47 12.1	+0.3
AB31				IAmb	IAmb	16 47 17.6	
	comp=Z,21nm,0.7s						
ABKAR	Akbulak array	20.48	344	P	P	16 47 12.2	+0.4
MNGR	Mingechevir, A	20.49	308	P	Pn	16 47 13.8	-0.4
SEKA	Sheki	20.60	309	P	P	16 47 14.1	+0.7
WMQ	Urumqi	20.81	42	eP	Pn	16 47 19.4	+1.3
WMQ				L	L		
	comp=Z,770nm,20.7s						
WMQ				L	L		
	comp=Z,450nm,15.5s						
WMQ				L	L		
	comp=Z,190nm,18.9s						
GANJ	Ganja	20.96	307	P	Pn	16 47 19.0	-0.8
NAX	Nakhchivan	21.00	303	P	P	16 47 20.3	+2.6
SHL	Shillong	21.24	96	P	P	16 47 20.1	-0.4
SHL	Shillong	21.24	96	P	P	16 47 20.1	-0.4
MAK	Makhachkala	21.26	314	eP	P	16 47 20.3	0.0
MAK				eS	S	16 51 17.1	+1.5
MAK				pmax	pmax		
	comp=Z,328nm,1.3s						
MAK				MLR	MLR		
	comp=Z,159nm,12.0s						
RAYN	Ar Rayn	21.34	258	P	P	16 47 21.3	-0.1
RAYN	Ar Rayn	21.34	258	P	P	16 47 21.3	-0.1
RAYN	Ar Rayn	21.34	258	P	P	16 47 20.5	-0.9
RAYN				IAmb	IAmb	16 47 22.6	
	comp=Z,30nm,1.0s						
RAYN	Ar Rayn	21.34	258	i P	P	16 47 21.1	-0.3
	SNR=35						
RAYN	Ar Rayn	21.34	258	P	P	16 47 21.3	-0.1
	comp=Z,36nm,1.1s						
ZSN	Zaisan	21.77	31	eP	P	16 47 25.4	-0.4
ZSN	Zaisan	21.77	31	eP	P	16 47 25.4	-0.4
GNI	Garni	21.88	305	P	P	16 47 27.0	-0.3
	comp=Z,5.6nm,0.5s,baz=90,slow=1.0,SNR=5.7						
	comp=Z,5.6nm,0.5s						
GNI	Garni	21.88	305	ceP	P	16 47 29.8	+2.5
GNI				pmax	pmax		
	comp=Z,74nm,1.3s						
GNI	Garni	21.88	305	P	P	16 47 27.1	-0.2
GNI				IAmb	IAmb	16 47 44.3	
	comp=Z,21nm,0.8s						
GNI	Garni	21.88	305	P	P	16 47 28.9	+1.6
GNI	Garni	21.88	305	P	P	16 47 27.1	-0.2
	comp=Z,498nmcomp=Z,51nm,1.2s						
GNI	Garni	21.88	305	P	P	16 47 30.4	+3.1
	comp=Z,51nm,1.2s						
HAKT	HAKKARI	21.89	297	P	P	16 47 28.1	+0.6
	comp=Z,74nm,0.8s						
BRDH	Bariadhala	22.03	103	LR	LR	16 58 13.4	
	comp=Z,305nm,18.4s,baz=317,slow=43						
AKTO	Aktyubinsk	22.05	342	LR	LR	16 57 33.3	
	comp=Z,336nm,18.3s,baz=204,slow=41						
AKTO	Aktyubinsk	22.05	342	⇑P	P	16 47 29.6	+0.8
	comp=Z,12nm,0.7s						
KURBB	Kurchatov Arra	22.18	17	P	P	16 47 29.9	-0.2
	comp=Z,12nm,0.9s,baz=209,slow=9.9,SNR=21						
KURBB				LR	LR	16 57 32.8	
	comp=Z,360nm,19.4s,baz=175,slow=40						
	comp=Z,12nm,0.9s						
KURBB	Kurchatov Arra	22.18	17	⇑P	P	16 47 30.1	0.0
	comp=Z,14nm,0.7s						
KURBB	Kurchatov Arra	22.18	17	P	P	16 47 30.0	-0.2
KURK	Kurchatov	22.29	17	⇓P	P	16 47 30.8	-0.5
	comp=Z,2.8nm,0.7s						
KURK	Kurchatov	22.29	17	d iP	P	16 47 30.8	-0.5
KURK				i *PP	pP	16 47 35.8	-1.5
KURK				pmax	pmax		
	comp=Z,18nm,1.0s						
KURK	Kurchatov	22.29	17	P	P	16 47 30.5	-0.8
KURK	Kurchatov	22.29	17	P	P	16 47 31.2	-0.1
	comp=Z,20nm,0.8s						
GEVA	Gevas	22.57	299	P	P	16 47 33.1	-1.5
GOMU	GeErMu	23.05	67	P	P	16 47 43.0	+3.0

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GOMU                                pP     pP     16 47 46.6 +0.6
GOMU                                sP     sP     16 47 50.5 +1.8
GOMU                                S      S      16 51 44.9 -5.2
GOMU                                pmax   pmax
       comp=Z,4.0nm,0.5s
GOMU                                L      L
       comp=Z,650nm,13.3s
GOMU                                L      L
       comp=Z,120nm,13.3s
GOMU                                L      L
       comp=Z,310nm,13.5s
BVA0   Borovoye Array    23.27   3  i P    P      16 47 49.4 +7.8
BVAR   Borovoye Array    23.27   3    P    P      16 47 41.5  0.0
       comp=Z,5.7nm,0.6s,baz=170,slow=9.0,SNR=16
       comp=Z,5.7nm,0.6s
BORK   Borovoye          23.29   3c iP     P      16 47 42.8 +1.1
BORK                                pmax   pmax
       comp=Z,25nm,1.4s
BORK   Borovoye          23.29   3    P    P      16 47 41.7 -0.1
BORK                                IAmb   IAmb   16 47 54.2
       comp=Z,48nm,1.4s
MORE   Moreh             23.74  97    P    P      16 47 46.5  0.0
MORE                                IAmb   IAmb   16 48 07.8
       comp=Z,17nm,1.0s
EPOS   Posof             23.80 306    P    P      16 47 49.2 +2.2
       comp=Z,24nm,1.2s
NCK    Nalchik           24.02 312⇓iP      P      16 47 50.6 +1.7
NCK                                 pmax   pmax
       comp=Z,13nm,0.4s
NEUR   Neytrino          24.50 310c iP     P      16 47 56.5 +2.9
NEUR                                pmax   pmax
       comp=Z,13nm,1.2s
KBZ    Khabaz            24.57 311    P    P      16 47 54.0  0.0
       comp=Z,6.2nm,0.8s,baz=134,slow=8.1,SNR=16
       comp=Z,6.2nm,0.8s
KBZ    Khabaz            24.57 311c iP     P      16 47 55.1 +1.2
KBZ                                 pmax   pmax
       comp=Z,6.0nm,0.9s
DGZ    Jazzator, Alta    24.59  31⇓eP      P      16 47 56.3 +2.1
DGZ                                 pmax   pmax
       comp=Z,12nm,0.6s
SHA1   Shidzhatmaz       24.73 311c iP     P      16 47 57.4 +1.7
KIV    Kislovodsk        24.81 312  eP     P      16 47 57.6 +1.4
KIV                                 pmax   pmax
       comp=Z,17nm,1.1s
KIV    Kislovodsk        24.81 312    P    P      16 47 56.2  0.0
KIV    Kislovodsk        24.81 312    P    P      16 47 56.6 +0.3
KIV    Kislovodsk        24.81 312  ⇑P     P      16 47 57.9 +1.6
KIV    Kislovodsk        24.81 312    P    P      16 47 56.2  0.0
       comp=Z,15nm,0.8s
KIV    Kislovodsk        24.81 312    P    P      16 47 58.6 +2.3
       comp=Z,19nm,0.8s
KOPT   Kop Dagi          24.94 302    P    P      16 47 57.3 -0.3
PALK   Pallekele         25.22 150    LR   LR     16 59 34.4
       comp=Z,503nm,18.1s,baz=334,slow=41
KELT   Kelkit            25.89 301    P    P      16 48 08.3 +2.1
       comp=Z,40nm,0.9s
ARPR   Arapgir-MALATY    26.35 299    P    P      16 48 12.1 +1.8
       comp=Z,12nm,1.1s
VSLR   Vesyoloye         26.37 309⇑iP      P      16 48 12.7 +2.4
VSLR                                pmax   pmax
       comp=Z,35nm,1.1s
SOC    Sochi             26.63 309  eP     P      16 48 11.5 -1.1
SOC                                 e             16 48 54.9
SOC                                 ePPP   PPP    16 49 02.5
SOC                                 eS     S      16 52 44.9 -1.6
SOC                                 eSS    SnSn   16 53 54.6 +5.1
SOC                                 eSSS   SSS    16 54 12.3
GAZ    Gaziantep         26.92 294    P    P      16 48 14.1 -1.3
GAZ                                 IAmb   IAmb   16 48 21.5
       comp=Z,18nm,1.4s
ZAA0   Zalesovo Array    26.95  22    P    P      16 48 14.7 -0.6
ZAA0                                IAmb   IAmb   16 48 49.8
       comp=Z,15nm,0.8s
ZALV   Zalesovo Beam     26.95  22    P    P      16 48 15.4 +0.1
       comp=Z,1.7nm,0.4s,baz=214,slow=9.5,SNR=8.4
ZALV                                LR     LR     16 59 53.0
       comp=Z,302nm,18.2s,baz=214,slow=38
       comp=Z,1.7nm,0.4s
ZALV   Zalesovo Beam     26.95  22  i P    P      16 48 18.7 +3.4
ZALV                                pmax   pmax
       comp=Z,2.0nm,0.3s
ZALV   Zalesovo Beam     26.95  22    P    P      16 48 14.6 -0.7
NPW    Naypyitaw         27.05 105    P    P      16 48 18.1 +1.5
       comp=Z,20nm,1.0s
TNCH   TengChong         27.15  93  eP     P      16 48 18.8 +1.1
TNCH                                pmax   pmax
       comp=Z,15nm,0.4s
BELG   Belogornoye       27.28 332d iP     P      16 48 18.5 +0.2
BELG                                pmax   pmax
       comp=Z,4.0nm,0.8s
GTA2   Gaotai            27.47  61  eP     P      16 48 23.6 +3.2
GTA2                                pmax   pmax
       comp=Z,5.0nm,1.0s
ARTI   Arti              27.51 348    LR   LR     17 00 33.6
       comp=Z,298nm,18.2s,baz=170,slow=39
ARTI   Arti              27.51 348c iP     P      16 48 20.9 +0.5
ARTI                                              16 49 04.4
ARTI                                  S    S      16 53 01.4 +1.2
ARTI                                  SS   SnSn   16 54 11.2 +0.2
ARTI                                pmax   pmax
       comp=Z,9.0nm,1.8s
ARTI   Arti              27.51 348    P    P      16 48 19.1 -1.3
ANDN   Andirin           27.65 295    P    P      16 48 24.2 +2.2
       comp=Z,29nm,1.0s
BNN    Bunyan            28.22 297    P    P      16 48 24.9 -2.1
MMAI   Mount Meron Ar    28.25 285    LR   LR     17 01 17.6
       comp=Z,154nm,19.1s,baz=87,slow=40
EIL    Elat              28.96 278    LR   LR     17 01 42.6
       comp=Z,131nm,22.0s,baz=91,slow=40
KAAM   Kaadhehdhoo       29.46 171    P    P      16 48 37.7 -0.3
PZH    PanZhiHua         29.56  88    P    P      16 48 40.4 +1.3
CHTO   Chiang Mai        29.85 104    P    P      16 48 41.0 -0.6
CHTO                                pmax   pmax
       comp=Z,10.0nm,1.0s
CHTO   Chiang Mai        29.85 104    P    P      16 48 41.0 -0.6
CHTO                                IAmb   IAmb   16 49 01.8
       comp=Z,9.7nm,0.9s
CHTO   Chiang Mai        29.85 104    P    P      16 48 43.6 +2.0
       comp=Z,16nm,2.1s
ATD    Arta Tunnel       29.88 238    LR   LR     17 03 02.9
       comp=Z,7.9nm,19.0s,baz=70,slow=41
ATD    Arta Tunnel       29.88 238    P    P      16 48 41.4 -0.5
ATD                                 IAmb   IAmb   16 49 24.9
       comp=Z,16nm,1.1s
CM31   Chiang Mai Arr    30.01 105    P    P      16 48 43.1  0.0
CM31                                IAmb   IAmb   16 48 54.1
       comp=Z,9.8nm,1.1s
CMAR   Chiang Mai Arr    30.01 105    P    P      16 48 43.7 +0.6
       comp=Z,1.3nm,0.5s,baz=308,slow=8.4,SNR=11
CMAR                                LR     LR     17 03 34.4
       comp=Z,97nm,18.7s,baz=300,slow=42
       comp=Z,1.3nm,0.5s
CMAR   Chiang Mai Arr    30.01 105ceP      P      16 48 44.5 +1.5
CMAR   Chiang Mai Arr    30.01 105    P    P      16 48 43.3 +0.3
BR104  Keskin Array S    30.04 299    P    P      16 48 42.2 -1.0
       comp=Z,1.9nm,0.8s
BR131  Keskin Array S    30.04 299⇓eP      P      16 48 42.9 -0.3
BR131  Keskin Array S    30.04 299    P    P      16 48 41.5 -1.8
BRTR   Keskin Array B    30.04 299    P    P      16 48 43.0 -0.3
       comp=Z,1.3nm,0.7s,baz=108,slow=7.9,SNR=7.5
BRTR                                LR     LR     17 02 37.2
       comp=Z,105nm,18.3s,baz=116,slow=40
       comp=Z,1.3nm,0.7s
BRTR   Keskin Array B    30.04 299ceP      P      16 48 47.7 +4.5
BRTR   Keskin Array B    30.04 299    P    P      16 48 41.9 -1.3
BR105  Keskin Array S    30.06 299    P    P      16 48 42.3 -1.1
       comp=Z,3.2nm,1.2s
BR106  Keskin Array S    30.06 299    P    P      16 48 42.3 -1.1
       comp=Z,2.5nm,0.9s
BR106                               pP     pP     16 48 50.0 +0.3
       comp=Z,2.5nm,0.9s
KNGR   Kungurtug, Tuv    30.16  38⇓eP      P      16 48 46.1 +2.0
KNGR                                pmax   pmax
       comp=Z,4.0nm,0.8s
BZK    Bozkurt           30.18 303    P    P      16 48 43.7 -0.5
LZH    Lanzhou           30.32  69  eP     P      16 48 47.1 +1.3
LZH                                 sP     sP     16 49 02.3 +7.5
LZH                                 pmax   pmax
       comp=Z,22nm,1.3s
LZH                                 L      L
       comp=Z,270nm,18.9s
LZH                                 L      L
       comp=Z,200nm,17.2s
LZH                                 L      L
       comp=Z,200nm,18.5s
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KMI2   Kunming           30.79  90    P    P      16 48 53.5 +3.4
KMI2                                pP     sP     16 48 59.8 +0.7
KMI2                                pmax   pmax
       comp=Z,16nm,1.1s
KMI2                                L      L
       comp=Z,430nm,17.8s
KMI2                                L      L
       comp=Z,230nm,17.8s
KMI2                                L      L
       comp=Z,220nm,14.3s
KEPZ   Antalya-Kepez     31.37 293  ⇑P     P      16 48 54.8 -0.1
KIRV   Kirov             31.61 341    LR   LR     17 03 48.5
       comp=Z,172nm,18.7s,baz=148,slow=40
KIRV   Kirov             31.61 341d iP     P      16 48 57.3 +0.7
MOS    Moscow            33.88 329  eP     P      16 49 20.3 +3.7
OBN    Obninsk           34.00 327    LR   LR     17 06 22.1
       comp=Z,165nm,18.1s,baz=173,slow=42
OBN    Obninsk           34.00 327deP      P      16 49 18.2 +0.6
OBN                                 e*PP   pP     16 49 23.8 -0.2
OBN                                 e             16 50 31.0
OBN                                 ePPP   PPP    16 50 45.7
OBN                                 e             16 51 54.9
OBN                                 pmax   pmax
       comp=Z,32nm,1.6s
OBN                                 MLR    MLR
       comp=Z,142nm,17.0s
OBN    Obninsk           34.00 327    P    P      16 49 17.1 -0.5
ARG    Arkhangelos       34.16 292    P    P      16 49 18.5 -0.8
ARG                                 pmax   pmax
       comp=Z,33nm,1.3s
ARG    Arkhangelos       34.16 292    P    P      16 49 18.5 -0.8
PURM   Purcari           34.17 310    P    P      16 49 19.0 -0.2
       comp=Z,6µmcomp=Z,109nm,0.6s
SONM   Songino Array     34.26  48    P    P      16 49 21.0 +0.9
       comp=Z,1.9nm,0.7s,baz=246,slow=8.4,SNR=13
SONM                                LR     LR     17 06 06.6
       comp=Z,393nm,19.3s,baz=250,slow=41
       comp=Z,1.9nm,0.7s
SONM   Songino Array     34.26  48    P    P      16 49 21.0 +0.9
SONM   Songino Array     34.26  48    P    P      16 49 19.7 -0.5
TLCR                     34.56 307    P    P      16 49 23.1 +0.5
TLCR                     34.56 307  ⇓P     P      16 49 23.2 +0.5
ULN    Ulaanbaatar       34.69  48⇑eP      P      16 49 25.7 +1.8
ULN    Ulaanbaatar       34.69  48    P    P      16 49 24.1 +0.2
ULN                                 IAmb   IAmb   16 50 18.4
       comp=Z,14nm,1.8s
TIRR   Tirgusor          34.69 306    P    P      16 49 24.3 +0.6
TIRR   Tirgusor          34.69 306    P    P      16 49 23.3 -0.4
TIRR                                IAmb   IAmb   16 49 25.2
       comp=Z,24nm,1.3s
TIRR   Tirgusor          34.69 306  ⇑P     P      16 49 24.3 +0.6
TPGR   Topolog           34.77 307  ⇑P     P      16 49 24.7 +0.3
KARP   Karpathos         34.97 290    P    P      16 49 25.4 -0.9
KARP   Karpathos         34.97 290    P    P      16 49 26.2 -0.1
       comp=Z,43nm,1.2s
CFR    Carcaliu          35.03 307    P    P      16 49 26.9 +0.3
CFR    Carcaliu          35.03 307  ⇓P     P      16 49 26.9 +0.3
ICOR   Ion Corvin        35.06 305  ⇑P     P      16 49 27.9 +1.0
HARR   Harsova           35.08 306    P    P      16 49 27.7 +0.7
HARR   Harsova           35.08 306  ⇓P     P      16 49 27.7 +0.7
VLDR   Vladesti          35.21 308  ⇓P     P      16 49 29.5 +1.3
ENH    Enshi             35.48  79    P    P      16 49 35.8 +5.1
       comp=Z,13nm,0.7s
AK09   Malin Array Si    35.82 317    P    P      16 49 32.6 -0.7
AK10   Malin Array Si    35.83 317    P    P      16 49 32.6 -0.9
AK08   Malin Array Si    35.84 317    P    P      16 49 32.7 -0.8
AK07   Malin Array Si    35.84 317    P    P      16 49 32.7 -0.9
AK06   Malin Array Si    35.86 317    P    P      16 49 32.8 -0.9
AK05   Malin Array Si    35.87 317    P    P      16 49 32.9 -0.9
AK02   Malin Array Si    35.88 317    P    P      16 49 33.0 -0.9
AKASG  Malin Array Be    35.88 317    P    P      16 49 33.5 -0.4
       comp=Z,2.6nm,0.7s,baz=101,slow=7.2,SNR=12
AKASG                               LR     LR     17 07 04.0
       comp=Z,92nm,21.0s,baz=68,slow=41
       comp=Z,2.6nm,0.7s
AKASG  Malin Array Be    35.88 317  i P    P      16 49 34.0 +0.1
AKASG                               pmax   pmax
       comp=Z,3.0nm,0.7s
AKBB   Malin Array Si    35.88 317⇑eP      P      16 49 33.8 -0.1
AKBB                                pmax   pmax
       comp=Z,11nm,0.9s
AKBB   Malin Array Si    35.88 317    P    P      16 49 33.3 -0.6
AK01   Malin Array Si    35.89 317    P    P      16 49 33.3 -0.6
KIEV   Kiev              35.89 317    P    P      16 49 33.0 -1.0
KIEV                                pmax   pmax
       comp=Z,8.0nm,0.9s
KIEV   Kiev              35.89 317    P    P      16 49 33.0 -1.0
KIEV                                IAmb   IAmb   16 49 34.7
       comp=Z,8.2nm,0.8s
KIEV   Kiev              35.89 317    P    P      16 49 33.3 -0.7
       comp=Z,40nm,0.9s
AK03   Malin Array Si    35.89 317    P    P      16 49 33.4 -0.6
AK11   Malin Array Si    35.91 317    P    P      16 49 33.5 -0.6
AK04   Malin Array Si    35.93 317    P    P      16 49 33.6 -0.7
AK14   Malin Array Si    35.93 317    P    P      16 49 33.7 -0.6
AK17   Malin Array Si    35.98 317    P    P      16 49 34.1 -0.6
AK18   Malin Array Si    35.98 317    P    P      16 49 34.1 -0.7
AK19   Malin Array Si    36.02 317    P    P      16 49 34.4 -0.7
AK21   Malin Array Si    36.02 317    P    P      16 49 34.4 -0.7
AK20   Malin Array Si    36.03 317    P    P      16 49 34.5 -0.6
ISR    Istrita           36.12 307    P    P      16 49 37.8 +1.7
ISR    Istrita           36.12 307  ⇑P     P      16 49 37.8 +1.7
VRI    Vrincioaia        36.14 308    P    P      16 49 37.6 +1.4
VRI    Vrincioaia        36.14 308  ⇓P     P      16 49 37.7 +1.4
PLOR   Plostina          36.19 308    P    P      16 49 38.3 +1.6
PLOR   Plostina          36.19 308  ⇑P     P      16 49 38.4 +1.6
COVR   Voineasa-Covas    36.50 308  ⇓P     P      16 49 40.8 +1.5
LUBAR  Lubar, Ukraine    36.51 315    P    P      16 49 38.4 -0.9
KLMR   Klimovskoe        36.51 337  eP     P      16 49 37.3 -1.9
KLMR                                e             16 51 01.0
KLMR                                pmax   pmax
       comp=Z,21nm,1.5s
KLMR                                MLR    MLR
       comp=Z,177nm,14.0s
MI30   MI30,Zelenitsa    36.52 316    P    P      16 49 38.9 -0.4
       comp=Z,19nm,0.8s
MLR    Muntele Rosu      36.61 307    LR   LR     17 09 09.2
       comp=Z,76nm,20.4s,baz=170,slow=44
MLR    Muntele Rosu      36.61 307    P    P      16 49 39.4 -1.0
MLR                                 pmax   pmax
       comp=Z,17nm,0.8s
MLR    Muntele Rosu      36.61 307    P    P      16 49 39.4 -1.0
MLR                                 IAmb   IAmb   16 49 44.2
       comp=Z,17nm,0.8s
MLR    Muntele Rosu      36.61 307    P    P      16 49 43.0 +2.6
       comp=Z,23nm,1.3s
HHC    Hu-ho-hao-te      36.61  61  eP     P      16 49 42.1 +1.7
HHC                                 pmax   pmax
       comp=Z,12nm,0.6s
HHC                                 pmax   pmax
       comp=Z,59nm,5.1s
HHC                                 L      L
       comp=Z,200nm,13.7s
HHC                                 L      L
       comp=Z,160nm,13.9s
HHC                                 L      L
       comp=Z,110nm,13.1s
TURR   Turia             36.66 308  ⇑P     P      16 49 41.5 +0.8
BIZ    Bicaz             36.79 310  ⇑P     P      16 49 43.1 +1.4
IDI    Anoyia            36.84 290    P    P      16 49 40.9 -1.5
IDI                                 IAmb   IAmb   16 50 43.2
       comp=Z,40nm,1.7s
KMPD   K-Podol'skiy      36.94 312    P    P      16 49 41.7 -1.3
DOPR   Dopca             37.08 308  ⇑P     P      16 49 45.3 +1.1
VOIR                     37.22 307    P    P      16 49 46.0 +0.6
VOIR                     37.22 307  ⇓P     P      16 49 46.1 +0.6
VOIR                     37.22 307    P    P      16 49 46.4 +0.9
ARR    Arges             37.50 307  ⇑P     P      16 49 49.1 +1.2
ARR    Arges             37.50 307    P    P      16 49 49.1 +1.2
       comp=Z,19nm,1.0s
BURAR  Bucovina Array    37.52 311    P    P      16 49 48.7 +0.6
BURAR  Bucovina Array    37.52 311    P    P      16 49 47.2 -0.9
BURAR  Bucovina Array    37.52 311  ⇑P     P      16 49 48.8 +0.6
BUR08  Bucovina Ar. S    37.54 311    P    P      16 49 46.3 -2.0
RNPP5  Staryi Chortor    38.05 316    P    P      16 49 51.9 -0.4
MNK    Minsk             38.08 322  i P    P      16 49 52.7 +0.2
MNK                                 i             16 51 19.1
MNK                                 i S    S      16 55 44.9 +0.8
MNK                                 i SS   SnSn   16 58 29.2 +1.8
MNK                                 pmax   pmax
       comp=Z,11nm,0.8s
MNK                                 pmax   pmax
       comp=N,23nm,0.8s
MNK                                 pmax   pmax
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       comp=E,13nm,0.7s
MNK    Minsk             38.08 322  i P    P      16 49 52.8 +0.2
       comp=E,13nm,0.7s
MNK                                 i P    P      16 49 52.8 +0.2
       comp=N,23nm,0.8s
MNK                                 i P    P      16 49 52.8 +0.2
       comp=Z,11nm,0.8s,baz=113
MNK                                 i PP   PP     16 51 19.1 -0.5
MNK                                 i PPP  PPP    16 51 35.4
MNK                                 i S    S      16 55 44.9 +0.8
MNK                                 i SS   SnSn   16 58 29.2 +1.8
MNK                                 i SSS  SSS    16 58 46.4
MNK                                 i LQ   LQ     17 03 46.9
MNK                                 i LR   LR     17 06 47.6
RNPP8  Varash            38.10 317    P    P      16 49 52.1 -0.7
RNPP9  Sopachiv          38.10 317    P    P      16 49 51.9 -0.9
LOT    Lotru             38.11 307  ⇓P     P      16 49 53.6 +0.5
LOT    Lotru             38.11 307    P    P      16 49 54.1 +1.0
       comp=Z,14nm,1.0s
LIT    Litokhoron        38.61 298    P    P      16 49 55.7 -1.6
LIT                                 pmax   pmax
       comp=Z,67nm,1.9s
LIT    Litokhoron        38.61 298    P    P      16 49 55.7 -1.6
LIT                                 IAmb   IAmb   16 51 01.5
       comp=Z,67nm,1.9s
SURR   Surduc            39.30 307  ⇑P     P      16 50 04.5 +1.6
BOVS   Bovan             39.37 304  ⇑P     P      16 50 04.5 +1.0
BZS    Buzias            39.63 307    P    P      16 50 07.2 +1.5
BZS    Buzias            39.63 307  ⇑P     P      16 50 07.3 +1.5
BZS    Buzias            39.63 307    P    P      16 50 06.7 +1.0
       comp=Z,18nm,1.0s
UZHM   Uzhgorod          39.65 312    P    P      16 50 04.9 -0.9
GSI    Gunungsitoli      39.67 130    P    P      16 50 05.0 -1.3
GSI                                 IAmb   IAmb   16 50 14.7
       comp=Z,45nm,1.4s
KOLS   Kolonicke sedl    39.72 312  eP     P      16 50 07.3 +0.8
KOLS                                pmax   pmax
       comp=Z,2.0nm,0.5s
KOLS   Kolonicke sedl    39.72 312  eP     P      16 50 07.2 +0.8
KOLS   Kolonicke sedl    39.72 312    P    P      16 50 06.7 +0.2
       comp=Z,8.0nm,0.8s
ABAH   Abaujker          40.28 311    P    P      16 50 12.5 +1.5
       comp=Z,12nm,1.2s
PDG    Podgorica         41.10 302    P    P      16 50 16.6 -1.2
PDG                                 IAmb   IAmb   16 50 40.9
       comp=Z,28nm,1.5s
PSZ    Piszkesteto       41.11 310    P    P      16 50 19.5 +1.5
PSZ    Piszkesteto       41.11 310    P    P      16 50 16.4 -1.6
PSZ                                 IAmb   IAmb   16 50 24.4
       comp=Z,22nm,1.1s
PSZ    Piszkesteto       41.11 310  ⇓P     P      16 50 19.5 +1.5
PSZ    Piszkesteto       41.11 310    P    P      16 50 19.6 +1.5
       comp=Z,15nm,0.9s
NRIK   Noril'sk          41.11  10    P    P      16 50 17.9 +0.3
       comp=Z,5.3nm,0.8s,baz=195,slow=4.8,SNR=4.6
NRIK                                LR     LR     17 10 11.5
       comp=Z,521nm,18.7s,baz=202,slow=40
       comp=Z,5.3nm,0.8s
NRIK   Noril'sk          41.11  10⇓eP      P      16 50 19.2 +1.6
NRIK                                pmax   pmax
       comp=Z,9.0nm,1.1s
NRIK   Noril'sk          41.11  10    P    P      16 50 16.9 -0.7
MORH   Mrgy, Hungar      41.76 307    P    P      16 50 22.3 -0.9
       comp=Z,9.3nm,1.2s
MORH   Mrgy, Hungar      41.76 307    P    P      16 50 23.5 +0.3
       comp=Z,10nm,1.2s
VYHS   Vyhne             41.89 311  eP     P      16 50 25.5 +1.2
VYHS   Vyhne             41.89 311  eP     P      16 50 25.5 +1.2
FINES  FINESS Array B    42.06 331    P    P      16 50 25.0 -0.5
       comp=Z,2.7nm,0.7s,baz=118,slow=2.8,SNR=4.0
FINES                               LR     LR     17 11 24.3
       comp=Z,316nm,19.6s,baz=90,slow=41
       comp=Z,2.7nm,0.7s
FINES  FINESS Array B    42.06 331  i P    P      16 50 26.6 +1.2
FINES                               pmax   pmax
       comp=Z,7.0nm,1.0s
MAUC   Maruska           42.67 312  eP     P      16 50 39.4 +8.7
BLY    Banja Luka        42.68 305    P    P      16 50 29.6 -1.2
BLY                                 IAmb   IAmb   16 50 32.9
       comp=Z,9.3nm,0.8s
BLY    Banja Luka        42.68 305  ⇓P     P      16 50 32.2 +1.4
STEB   Steborice         42.79 313  eP     P      16 50 23.9 -7.7
MODS   Modra-Piesok      42.91 310  eP     P      16 50 34.4 +1.8
MODS                                pmax   pmax
       comp=Z,11nm,1.1s
MODS   Modra-Piesok      42.91 310  eP     P      16 50 34.4 +1.8
MORC   Moravsky Berou    42.91 312    P    P      16 50 31.6 -1.1
MORC                                pmax   pmax
       comp=Z,4.0nm,0.7s
MORC   Moravsky Berou    42.91 312    P    P      16 50 31.6 -1.1
NJ2    Nanjing           43.06  74  eP     P      16 50 34.3 +0.3
NJ2                                 pmax   pmax
       comp=Z,7.0nm,0.6s
KOGS   Kog               43.43 307  i P    P      16 50 37.2 +0.3
KRLC   Kraliky           43.44 313  eP     P      16 50 36.3 -0.6
KRLC   Kraliky           43.44 313  eP     P      16 50 36.3 -0.6
VRAC   Vranov            43.47 312    P    P      16 50 41.0 +3.9
VRAC   Vranov            43.47 312    P    P      16 50 42.0 +4.9
       comp=Z,3.7nm,0.4s
RONA   Rosalia, Austr    43.49 309  eP     P      16 50 37.5 +0.1
       comp=Z,5.5nm,1.1s
SGRT   San Giovanni R    43.71 301    P    P      16 50 38.3 -1.0
SGRT                                IAmb   IAmb   16 50 40.1
       comp=Z,34nm,1.0s
CUC    Castrocucco       43.73 298    P    P      16 50 38.1 -1.3
CUC    Castrocucco       43.73 298    P    P      16 50 40.6 +1.2
       comp=Z,43nm,0.7s
DPC    Dobruska-Polom    43.77 313  eP     P      16 50 41.0 +1.4
DPC    Dobruska-Polom    43.77 313  eP     P      16 50 41.0 +1.4
CEL    Celeste           43.80 296    P    P      16 50 38.1 -1.9
CEL    Celeste           43.80 296    P    P      16 50 38.7 -1.3
       comp=Z,29nm,1.2s
CONA   Conrad Observa    43.81 310  eP     P      16 50 40.6 +0.7
       comp=Z,1.8nm,0.6s
KSP    Ksiaz             43.86 314    P    P      16 50 39.5 -0.7
       comp=Z,8.0nm,0.9s
CRES   Cresnjevec Ost    43.95 307  i P    P      16 50 41.5 +0.5
CHVC   Chvalec           43.98 313  eP     P      16 50 41.4 +0.2
CHVC   Chvalec           43.98 313  eP     P      16 50 41.4 +0.2
ARSA   Arzberg           43.98 309    P    P      16 50 41.1 -0.1
ARSA                                IAmb   IAmb   16 50 43.8
       comp=Z,8.1nm,0.9s
ARSA   Arzberg           43.98 309  i P    P      16 50 41.8 +0.5
       comp=Z,8.5nm,0.9s
ARSA   Arzberg           43.98 309    P    P      16 50 42.4 +1.1
       comp=Z,11nm,1.0s
UPC    Upice             43.99 313  eP     P      16 50 42.1 +0.8
UPC                                 e             16 50 42.6
UPC    Upice             43.99 313  eP     P      16 50 42.1 +0.8
UPC    Upice             43.99 313    P    P      16 50 42.0 +0.7
       comp=Z,8.8nm,1.3s
MOA    Molln             44.87 309  i P    P      16 50 48.5 +0.1
       comp=Z,4.0nm,0.7s
MOA    Molln             44.87 309    P    P      16 50 48.2 -0.2
       comp=Z,17nm,0.9s
CKRC   Cesky Krumlov     44.91 311  eP     P      16 50 47.9 -0.8
CKRC   Cesky Krumlov     44.91 311  eP     P      16 50 47.9 -0.8
ZVC    Zvikov            45.04 312  eP     P      16 51 02.3  +13
CADS   Cadrg             45.16 307  i P    P      16 50 50.9 +0.1
DRE    Drenchia          45.22 307    P    P      16 50 51.8 +0.6
       comp=Z,26nm,0.8s
MYKA   Terra Mystica     45.24 308  eP     P      16 50 52.0 +0.6
       comp=Z,0.5nm,0.4s
PRED   Cave del Predi    45.28 307    P    P      16 50 51.2 -0.5
GEC2   GERESS Array S    45.31 311    P    P      16 50 51.3 -0.7
GERES  GERESS Array B    45.31 311    P    P      16 50 51.5 -0.5
       comp=Z,1.9nm,0.5s,baz=102,slow=6.2,SNR=15
       comp=Z,1.9nm,0.5s
GERES  GERESS Array B    45.31 311    P    P      16 50 51.7 -0.3
GERES  GERESS Array B    45.31 311    P    P      16 50 51.7 -0.3
BRG    Berggiesshubel    45.34 314  eP     P      16 50 53.1 +1.1
BRG                                 Amp           16 50 53.6
       comp=Z,3.4nm,0.7s
KHC    Kasperske Hory    45.42 311⇓eP      P      16 50 52.2 -0.6
KHC                                 pmax   pmax
       comp=Z,8.0nm,2.3s
KHC    Kasperske Hory    45.42 311    P    P      16 50 52.1 -0.6
AQU    L'Aquila          45.43 302    P    P      16 50 52.8 -0.1
AQU                                 pmax   pmax
       comp=Z,23nm,1.0s
AQU    L'Aquila          45.43 302    P    P      16 50 52.8 -0.1
AQU                                 IAmb   IAmb   16 51 01.1
       comp=Z,23nm,1.0s
GUMA   Gualdo di Mace    45.46 303    P    P      16 50 52.9 -0.2
KBA    Koelnbreinsper    45.46 308    P    P      16 50 53.8 +0.6
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KBA	**Koelnbreinsper**	**45.46**	**308**	iP	**P**	**16 50 53.7**	**+0.4**
	comp=Z,6.3nm,0.7s						
KBA	**Koelnbreinsper**	**45.46**	**308**	P	**P**	**16 50 53.8**	**+0.6**
	comp=Z,14nm,1.1s						
NRCA	**Norcia**	**45.63**	**302**	P	**P**	**16 50 53.8**	**-0.7**
NRCA				IAmb	IAmb	16 50 57.7	
	comp=Z,35nm,1.5s						
FDMO	**Fiordimonte**	**45.64**	**303**	P	**P**	**16 50 53.9**	**-0.7**
FDMO				IAmb	IAmb	16 50 56.3	
	comp=Z,25nm,1.2s						
LESA	**Schwarzleotal**	**45.92**	**309**	iP	**P**	**16 50 56.8**	**0.0**
	comp=Z,13nm,1.0s						
CLL	**Collm**	**45.98**	**314**	eP	**P**	**16 50 57.0**	**-0.1**
CLL	**Collm**	**45.98**	**314**	eP	**P**	**16 50 57.0**	**-0.1**
CLL				eSS	SS	17 01 25.0	+19
CLL				AMS	AMS	17 11 00.0	
	comp=N,100nm,23.3s						
CLL				AMS	AMS	17 13 00.0	
	comp=Z,100nm,19.1s						
CLL				AMS	AMS	17 24 00.0	
	comp=Z,100nm,16.2s						
ABTA	**Abfaltersbach**	**46.02**	**308**	iP	**P**	**16 50 57.1**	**-0.5**
	comp=Z,6.8nm,1.0s						
CESX	**Cesi**	**46.03**	**302**	P	**P**	**16 50 56.6**	**-1.0**
MURB	**Monte Urbino**	**46.04**	**303**	P	**P**	**16 50 57.2**	**-0.6**
CIMO	**Cimolais**	**46.06**	**307**	IAmb	IAmb	16 51 10.9	
	comp=Z,14nm,1.4s						
CTI	**Castel Tesino**	**46.61**	**307**	P	**P**	**16 51 01.7**	**-0.6**
CTI				pmax	pmax		
	comp=Z,7.0nm,1.0s						
CTI	**Castel Tesino**	**46.61**	**307**	P	**P**	**16 51 01.7**	**-0.6**
CTI				IAmb	IAmb	16 51 03.8	
	comp=Z,6.8nm,1.0s						
ARCES	**ARCESS Array B**	**46.62**	**341**	P	**P**	**16 51 02.3**	**+0.3**
	comp=Z,5.1nm,0.7s,baz=128,slow=7.9,SNR=23						
ARCES				LR	LR	17 11 35.2	
	comp=Z,117nm,19.7s,baz=104,slow=37						
	comp=Z,5.1nm,0.7s						
ARCES	**ARCESS Array B**	**46.62**	**341**	P	**P**	**16 51 01.7**	**-0.2**
WTTA	**Wattenberg**	**46.63**	**308**	iP	**P**	**16 51 01.7**	**-0.8**
	comp=Z,13nm,1.3s						
WATA	**Walderalm**	**46.67**	**309**	eP	**P**	**16 51 02.2**	**-0.5**
	comp=Z,3.6nm,0.7s						
MBAR	**Mbarara**	**46.89**	**237**	LR	LR	17 14 10.7	
	comp=Z,148nm,18.8s,baz=36,slow=41						
SQTA	**Sankt Quirin**	**46.92**	**308**	iP	**P**	**16 51 03.9**	**-0.8**
	comp=Z,3.0nm,0.5s						
GRA1	**Grafenberg Arr**	**46.99**	**312**	P	**P**	**16 51 03.8**	**-1.2**
GRA1				IAmb	IAmb	16 51 32.9	
	comp=Z,12nm,1.0s						
GRF	**Grafenberg Arr**	**46.99**	**312**	P	**P**	**16 51 03.8**	**-1.2**
GRF				pmax	pmax		
	comp=Z,12nm,1.0s						
MOTA	**Moosalm**	**46.99**	**309**	iP	**P**	**16 51 04.1**	**-1.2**
	comp=Z,4.4nm,0.8s						
HFS	**Hagfors**	**47.20**	**326**	P	**P**	**16 51 06.2**	**-0.2**
	comp=Z,2.2nm,0.4s,baz=153,slow=4.6,SNR=12						
HFS				LR	LR	17 14 00.3	
	comp=Z,122nm,19.0s,baz=93,slow=40						
	comp=Z,2.2nm,0.4s						
RETA	**Reutte**	**47.23**	**309**	eP	**P**	**16 51 06.2**	**-0.8**
	comp=Z,2.1nm,0.7s						
FETA	**Feichten**	**47.24**	**308**	iP	**P**	**16 51 06.8**	**-0.5**
	comp=Z,5.9nm,0.9s						
FUORN	**Ofenpass-Fuorn**	**47.57**	**308**	IAmb	IAmb	16 51 25.0	
	comp=Z,4.5nm,0.8s						
DAVA	**Damuels**	**47.82**	**308**	iP	**P**	**16 51 10.9**	**-0.9**
	comp=Z,6.1nm,0.5s						
DAVA	**Damuels**	**47.82**	**308**	P	**P**	**16 51 11.6**	**-0.2**
	comp=Z,16nm,1.0s						
DAVOX	**Davos/Dischmat**	**47.83**	**308**	LR	LR	17 15 53.8	
	comp=Z,90nm,18.3s,baz=74,slow=42						
BNX	**BinXian**	**48.25**	**54**	⇑P	**P**	**16 51 16.6**	**+1.8**
BNX				pmax	pmax		
	comp=Z,6.0nm,0.9s						
HEH	**HeiHe**	**48.25**	**48**	eP	**P**	**16 51 16.4**	**+1.6**
HEH				pmax	pmax		
	comp=Z,4.0nm,0.9s						
NORES	**NORESS Array B**	**48.38**	**327**	P	**P**	**16 51 15.5**	**-0.1**
NC405	**NORSAR Array S**	**48.38**	**327**	P	**P**	**16 51 14.7**	**-1.0**
NB2	**NORSAR Subarra**	**48.60**	**327**	P	**P**	**16 51 16.5**	**-0.9**
	comp=Z,2.1nm,0.6s,baz=104,slow=7.9						
NB2	**NORSAR Subarra**	**48.60**	**327**	P	**P**	**16 51 17.2**	**-0.2**
NOA	**NORSAR Array B**	**48.60**	**327**	P	**P**	**16 51 16.7**	**-0.8**
	comp=Z,4.1nm,0.8s,baz=106,slow=7.6,SNR=14						
NOA				LR	LR	17 14 41.6	
	comp=Z,178nm,18.5s,baz=100,slow=40						
	comp=Z,4.1nm,0.8s						
VSL	**Villasalto**	**48.72**	**298**	P	**P**	**16 51 17.3**	**-1.4**
NBO00	**NORSAR Array S**	**48.81**	**327**	P	**P**	**16 51 18.2**	**-0.8**
BNALP	**Bannalp**	**48.83**	**308**	P	**P**	**16 51 19.4**	**-0.1**
	comp=Z,11nm,1.3s						
KEST	**Kesra**	**49.35**	**293**	P	**P**	**16 51 24.4**	**+0.8**
	comp=Z,20nm,0.6s,baz=122,slow=1.0,SNR=19						
	comp=Z,20nm,0.6s						
KEST	**Kesra**	**49.35**	**293**	P	**P**	**16 51 23.0**	**-0.6**
KS19	**Wonju Array Si**	**49.43**	**64**	P	**P**	**16 51 23.8**	**-0.3**
KSAR	**Wonju Array Be**	**49.45**	**65**	P	**P**	**16 51 23.6**	**-0.6**
KSAR	**Wonju Array Be**	**49.45**	**65**	P	**P**	**16 51 23.6**	**-0.6**
KSRS	**Korea Array**	**49.48**	**65**	P	**P**	**16 51 24.9**	**+0.5**
	comp=Z,2.9nm,0.6s,baz=274,slow=7.6,SNR=12						
KSRS				LR	LR	17 14 29.0	
	comp=Z,66nm,18.6s,baz=245,slow=39						
	comp=Z,2.9nm,0.6s						
SENIN	**Lac Senin/Sane**	**49.62**	**307**	P	**P**	**16 51 24.3**	**-1.4**
ESCA	**l'Escarene**	**49.74**	**304**	P	**P**	**16 51 26.2**	**-0.2**
	comp=Z,12nm,1.0s						
COCO	**West Island**	**49.95**	**142**	P	**P**	**16 51 27.2**	**-0.9**
COCO				pmax	pmax		
	comp=Z,211nm,1.3s						
COCO	**West Island**	**49.95**	**142**	P	**P**	**16 51 27.2**	**-0.9**
BNI	**Bardonecchia**	**50.14**	**306**	P	**P**	**16 51 28.3**	**-1.2**
BNI				pmax	pmax		
	comp=Z,20nm,1.0s						
BNI	**Bardonecchia**	**50.14**	**306**	P	**P**	**16 51 28.3**	**-1.2**
YAK	**Yakutsk**	**50.77**	**32**	LR	LR	17 15 06.9	
	comp=Z,168nm,18.7s,baz=254,slow=38						
YAK	**Yakutsk**	**50.77**	**32**	eP	**P**	**16 51 33.3**	**-0.5**
YAK				pmax	pmax		
	comp=Z,5.0nm,0.5s						
YAK	**Yakutsk**	**50.77**	**32**	P	**P**	**16 51 32.1**	**-1.6**
YAK				IAmb	IAmb	16 51 49.7	
	comp=Z,9.8nm,0.7s						
YAK	**Yakutsk**	**50.77**	**32**	P	**P**	**16 51 33.5**	**-0.3**
	comp=Z,14nm,0.7s						
KLR	**Kul'dur**	**51.06**	**49**	⇑eP	**P**	**16 51 37.0**	**+0.7**
KLR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
USRK	**Ussuriysk Ar.**	**51.61**	**55**	P	**P**	**16 51 41.9**	**+1.5**
	comp=Z,1.2nm,0.7s,baz=211,slow=6.0,SNR=4.6						
	comp=Z,1.2nm,0.7s						
USRK	**Ussuriysk Ar.**	**51.61**	**55**	P	**P**	**16 51 40.2**	**-0.2**
SSB	**Saint Sauveur**	**51.62**	**306**	P	**P**	**16 51 38.7**	**-1.9**
SSB				pmax	pmax		
	comp=Z,5.0nm,1.0s						
SSB	**Saint Sauveur**	**51.62**	**306**	P	**P**	**16 51 38.7**	**-1.9**
JOW	**Kunigami**	**52.32**	**78**	P	**P**	**16 51 46.0**	**0.0**
	comp=Z,5.7nm,0.5s,baz=41,slow=18,SNR=1.6						
	comp=Z,5.7nm,0.5s						
JOW	**Kunigami**	**52.32**	**78**	IAmb	IAmb	16 51 54.0	
	comp=Z,43nm,1.3s						
MAHO	**Mahon**	**52.56**	**299**	P	**P**	**16 51 45.9**	**-1.6**
MAHO				IAmb	IAmb	16 51 48.5	
	comp=Z,19nm,0.8s						
JNU	**Nakatsue**	**52.74**	**69**	P	**P**	**16 51 48.6**	**-0.5**
	comp=Z,11nm,1.0s,baz=179,slow=5.3,SNR=2.5						
	comp=Z,11nm,1.0s						
TIXI	**Tiksi**	**52.82**	**20**	LR	LR	17 16 21.4	
	comp=Z,162nm,18.6s,baz=200,slow=38						
TIXI	**Tiksi**	**52.82**	**20**	⇑eP	**P**	**16 51 51.3**	**+2.3**
TIXI				pmax	pmax		
	comp=Z,8.0nm,0.9s						
SPITS	**Spitsbergen Ar**	**53.56**	**348**	LR	LR	17 17 41.4	
	comp=Z,91nm,20.1s,baz=80,slow=39						
CORI	**Orista**	**53.86**	**302**	P	**P**	**16 51 56.5**	**-0.6**
CORI				IAmb	IAmb	16 51 58.8	
	comp=Z,6.8nm,0.8s						
EKA	**Eskdalemuir Ar**	**55.73**	**319**	P	**P**	**16 52 10.0**	**-0.4**
	comp=Z,0.7nm,0.5s,baz=99,slow=8.0,SNR=7.1						
	comp=Z,0.7nm,0.5s						
MJAR	**Matsushiro Arr**	**57.72**	**63**	P	**P**	**16 52 25.8**	**+0.9**
	comp=Z,1.1nm,0.7s,baz=291,slow=12,SNR=4.9						
	comp=Z,1.1nm,0.7s						
MJAR	**Matsushiro Arr**	**57.72**	**63**	IAmb	IAmb	16 53 43.2	
	comp=Z,11nm,1.8s						
YSS	**Yuzhno-Sakhali**	**58.65**	**51**	eP	P	16 52 24.0	-7.2
YSS				pmax	pmax		
	comp=Z,10.0nm,0.9s						
ESBB	**Sonseca Array**	**58.80**	**301**	P	**P**	**16 52 32.0**	**-0.5**
ESDC	**Sonseca Array**	**58.80**	**301**	P	**P**	**16 52 32.5**	**0.0**
	comp=Z,5.1nm,0.7s,baz=64,slow=7.2,SNR=36						
	comp=Z,5.1nm,0.7s						
ESDC	**Sonseca Array**	**58.80**	**301**	P	**P**	**16 52 31.6**	**-0.8**
PAB	**San Pablo**	**59.12**	**301**	P	**P**	**16 52 34.1**	**-0.6**
PAB				pmax	pmax		
	comp=Z,7.0nm,0.7s						
PAB	**San Pablo**	**59.12**	**301**	P	**P**	**16 52 34.1**	**-0.6**
PAB				IAmb	IAmb	16 52 35.3	
	comp=Z,6.5nm,0.7s						
ASAJ	**Asahikawa**	**59.14**	**54**	P	**P**	**16 52 34.3**	**-0.4**
ASAJ				pmax	pmax		
	comp=Z,49nm,1.8s						
JKA	**Kamikawa-asahi**	**59.15**	**54**	P	**P**	**16 52 34.3**	**-0.4**
SEY	**Seymchan**	**61.26**	**31**	⇓eP	**P**	**16 52 49.5**	**+0.7**
SEY				pmax	pmax		
	comp=Z,16nm,2.8s						
PCAB	**Cabril**	**61.26**	**304**	eP	**P**	**16 52 49.3**	**0.0**
PGAV	**Gavieira, Arco**	**61.37**	**304**	eP	**P**	**16 52 50.7**	**+0.6**
PCBR	**Castelo Branco**	**61.37**	**302**	eP	**P**	**16 52 50.6**	**+0.6**
PMRV	**Marv??o**	**61.42**	**301**	eP	**P**	**16 52 50.8**	**+0.4**
PBAR	**Barrancos**	**61.52**	**300**	eP	**P**	**16 52 50.9**	**-0.1**
PSARD	**Sardoal**	**61.95**	**302**	eP	**P**	**16 52 54.6**	**+0.7**
PARRA	**Arraiolos**	**62.08**	**301**	eP	**P**	**16 52 54.7**	**-0.2**
EVO	**Evora**	**62.14**	**300**	eP	**P**	**16 52 55.6**	**+0.4**
PMTG	**Montargil**	**62.15**	**301**	eP	**P**	**16 52 55.4**	**+0.1**
PBEJ	**Beja**	**62.18**	**300**	eP	**P**	**16 52 55.8**	**+0.3**
PVAQ	**Vaqueiros**	**62.26**	**299**	eP	**P**	**16 52 56.4**	**+0.4**
MOE	**Montemor**	**62.40**	**301**	eP	**P**	**16 52 57.6**	**+0.6**
MESJ	**Messejana**	**62.51**	**300**	eP	**P**	**16 52 59.0**	**+1.3**
PLOUS	**Minas do Lousa**	**62.60**	**300**	eP	**P**	**16 52 58.7**	**+0.4**
BORG	**Borgarnes**	**63.35**	**331**	LR	LR	17 23 18.3	
	comp=Z,144nm,18.2s,baz=114,slow=39						
TORD	**Torodi Ar. Bea**	**63.44**	**270**	P	**P**	**16 53 03.7**	**-0.5**
	comp=Z,11nm,1.0s,baz=62,slow=6.0,SNR=27						
	comp=Z,11nm,1.0s						
SUMG	**Summit**	**66.70**	**342**	P	**P**	**16 53 25.7**	**+0.7**
SUMG				pmax	pmax		
	comp=Z,11nm,0.9s						
SUMG	**Summit**	**66.70**	**342**	P	**P**	**16 53 25.7**	**+0.7**
SUMG				IAmb	IAmb	16 53 28.4	
	comp=Z,11nm,0.9s						
SUMG	**Summit**	**66.70**	**342**	iP	**P**	**16 53 26.7**	**+1.7**
NEEM	**North Greenlan**	**67.12**	**348**	iP	**P**	**16 53 28.4**	**+1.0**
TSUM	**Tsumeb**	**69.02**	**232**	LR	LR	17 24 21.1	
	comp=Z,109nm,18.4s,baz=25,slow=36						
SAUI	**Saumlaki**	**71.12**	**111**	P	**P**	**16 53 53.1**	**+0.3**
BOSA	**Boshof**	**71.18**	**219**	P	**P**	**16 53 52.2**	**-0.8**
	comp=Z,1.5nm,0.9s,baz=41,slow=7.0,SNR=3.6						
	comp=Z,1.5nm,0.9s						
BOSA	**Boshof**	**71.18**	**219**	P	**P**	**16 53 53.0**	**0.0**
BOSA				pmax	pmax		
	comp=Z,40nm,1.8s						
BOSA	**Boshof**	**71.18**	**219**	P	**P**	**16 53 53.0**	**0.0**
FITZ	**Fitzroy Crossi**	**72.88**	**123**	P	**P**	**16 54 02.3**	**-1.0**
KNRA	**Kununurra**	**73.69**	**119**	P	**P**	**16 54 07.6**	**-0.4**
KNRA				IAmb	IAmb	16 54 33.1	
	comp=Z,23nm,1.6s						
C19K	**Lookout Ridge**	**75.38**	**16**	P	**P**	**16 54 16.9**	**-0.4**
D19K	**Kuna River**	**76.20**	**16**	P	**P**	**16 54 22.1**	**+0.2**
D19K				IAmb	IAmb	16 54 38.9	
	comp=Z,23nm,1.4s						
D20K	**Etivluk River**	**76.38**	**15**	P	**P**	**16 54 22.4**	**-0.5**
C23K	**Itkillik River**	**76.75**	**13**	IAmb	IAmb	16 54 34.0	
	comp=Z,21nm,1.2s						
E21K	**Killik River**	**77.19**	**15**	P	**P**	**16 54 27.3**	**-0.3**
E21K				IAmb	IAmb	16 54 47.8	
	comp=Z,26nm,1.8s						
D25K	**Kavik River**	**77.98**	**12**	IAmb	IAmb	16 55 12.0	
	comp=Z,9.2nm,1.1s						
BMAR	**Burnt Mountain**	**79.97**	**12**	P	**P**	**16 54 43.3**	**+0.5**
WB0	**Warramunga Arr**	**80.42**	**119**	P	**P**	**16 54 45.8**	**-0.1**
WB0				IAmb	IAmb	16 55 33.1	
	comp=Z,16nm,1.4s						
WRA	**Warramunga Arr**	**80.48**	**119**	P	**P**	**16 54 46.8**	**+0.5**
	comp=Z,1.7nm,0.7s,baz=322,slow=4.7,SNR=18						
	comp=Z,1.7nm,0.7s						
WRA	**Warramunga Arr**	**80.48**	**119**	P	**P**	**16 54 46.3**	**0.0**
WR8	**Warramunga Arr**	**80.61**	**119**	P	**P**	**16 54 47.2**	**+0.2**
WR8				IAmb	IAmb	16 57 05.2	
	comp=Z,41nm,2.0s						
K20K	**Telida**	**81.27**	**18**	P	**P**	**16 54 50.6**	**+0.7**
H27K	**Steamboat Moun**	**81.59**	**12**	IAmb	IAmb	16 55 35.1	
	comp=Z,20nm,1.7s						
CAST	**Castle Rocks**	**81.74**	**17**	IAmb	IAmb	16 55 00.1	
	comp=Z,7.8nm,0.9s						
ILAR	**Eielson Array**	**81.82**	**14**	P	**P**	**16 54 52.6**	**-0.1**
	comp=Z,1.0nm,1.0s,baz=311,slow=6.5,SNR=5.6						
	comp=Z,1.0nm,1.0s						
H29M	**Whitestone**	**82.13**	**11**	P	**P**	**16 54 54.6**	**+0.3**
ASAR	**Alice Springs**	**82.37**	**123**	P	**P**	**16 54 56.6**	**+0.4**
	comp=Z,2.8nm,0.6s,baz=305,slow=5.2,SNR=48						
	comp=Z,2.8nm,0.6s						
AS31	**Alice Springs**	**82.37**	**123**	P	**P**	**16 54 55.6**	**-0.7**
I28M	**Miner Creek**	**82.58**	**12**	IAmb	IAmb	16 55 04.9	
	comp=Z,5.3nm,0.8s						
I30M	**Mount Dempster**	**83.37**	**10**	IAmb	IAmb	16 55 15.8	
	comp=Z,4.7nm,0.8s						
K29M	**Barlow Dome**	**84.47**	**11**		**P**	**16 55 07.4**	**+0.8**
K29M				IAmb	IAmb	16 55 22.0	
	comp=Z,5.9nm,0.8s						
BLKN	**Baker Lake**	**85.41**	**353**	P	**P**	**16 55 10.3**	**-0.7**
M29M	**Somme Creek**	**85.60**	**12**	IAmb	IAmb	16 55 20.9	
	comp=Z,5.0nm,0.9s						
YKA	**Yellowknife Ar**	**88.02**	**1**	P	**P**	**16 55 24.1**	**+0.2**
	comp=Z,2.2nm,0.8s,baz=351,slow=5.4,SNR=7.0						
	comp=Z,2.2nm,0.8s						
YKA	**Yellowknife Ar**	**88.02**	**1**	iP	**P**	**16 55 24.7**	**+0.8**
YKA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
P33M	**Teslin, Yukon**	**88.66**	**10**	IAmb	IAmb	16 56 07.5	
	comp=Z,12nm,1.5s						
S34M	**Telegraph Cree**	**91.12**	**10**	IAmb	IAmb	16 58 23.9	
	comp=Z,17nm,1.8s						

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*IDC **17** 16:50:30.6±1.3, 23°.53N×140°.42E, h0km, mb3.4/3, mbtmp3.5/4, MS2.6/1, Error ellipse: s-maj=54.7km s-min=20.2km az=104.0*

*JMA **17** 16:50:44.7±0.2, 24°N±2°×14°1E±°, h172km, MV4.7/7, IOTO ISLANDS REGION*

ISC 17 16:50:42.1±1.7**, 24°.0N**±0°.1×**142°.0E**±0°.5**, h150**km**, n7, σ2^{s}.05**/8**, mb3.2**/3**, Volcano Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHH2	**Haha-jima-NKT2**	**2.61**	**4**	P	**Pn**	**16 51 26.4**	**+1.8**
JHH2				S	**Sn**	**16 51 58.5**	**+1.1**
CBIJ	**Chichi jima**	**3.07**	**3**	P	**Pn**	**16 51 31.8**	**+1.4**
CBIJ				S	**Sn**	**16 52 08.3**	**+0.4**
JCJ	**Chichijima**	**3.07**	**3**	Pn	**Pn**	**16 51 29.1**	**-1.3**
	17nm,0.3s						
JCJ				Sn	**Sn**	**16 52 04.2**	**-3.6**
JHJ	**Hachijo jima 2**	**9.27**	**348**	LR	LR	16 55 31.7	
	comp=Z,37nm,19.1s,baz=142,slow=32						
WRA	**Warramunga Arr**	**44.32**	**190**	P	**P**	**16 58 36.9**	**-0.5**
	1.1nm,0.6s,baz=8.4,slow=8.0,SNR=7.0						
	1.1nm,0.6s						
ASAR	**Alice Springs**	**48.04**	**190**	P	P	16 59 05.8	-0.5
	0.2nm,0.6s,baz=9.3,slow=6.4,SNR=4.4						
	0.2nm,0.6s						
MKAR	**Makanchi Array**	**52.33**	**311**	P	**P**	**16 59 38.6**	**+0.2**
	0.2nm,0.4s,baz=81,slow=9.3,SNR=1.9						
	0.2nm,0.4s						

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*VAO **17** 16:57:38.3±0.8, 7°.36S×76°.72W, h23km±2km, mb4.4, Presumed earthquake*

*IDC **17** 16:57:47.5±0.7, 7°.51S×75°.66W, h0km, mb3.9/7, mbtmp4.0/13, ML3.6/6, MS3.2/7, Error ellipse: s-maj=17.0km s-min=11.1km az=76.0*

ISC 17 16:57:51.6±0.6**, 7°.52S**±0°.06×**75°.52W**±0°.06**, h35**km**, n31, σ1^{s}.75**/33**, mb3.7**/6**, MS3.1**/4**, Northern Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CZSB	**Cruzeiro do Su**	**2.79**	**94**	eP	Pn	16 58 38.1	+4.3
CZSB				eS	Sn	16 59 25.7	+19
ATAH	**Atahualpa**	**2.88**	**277**	Pn	**Pn**	**16 58 35.3**	**-0.2**
	8.0nm,0.3s,baz=30,slow=7.8,SNR=28						
ATAH				Sn	**Sn**	**16 59 07.1**	**-2.0**
	90nm,0.3s,baz=140,slow=7.5,SNR=11						
	36nm,0.3s						
ATAH				AML	AML		
NNA	**Nana**	**4.63**	**196**	Pn	**Pn**	**16 58 59.5**	**+0.4**
	9.2nm,0.3s,baz=18,slow=8.5,SNR=18						
NNA				Sn	**Sn**	**16 59 50.3**	**-1.4**
	57nm,0.3s,baz=183,slow=15,SNR=16						
	24nm,0.3s						
NNA				AML	AML		
SGC2	**Sao Gabriel da**	**11.23**	**50**	eP	**Pn**	**17 00 29.4**	**-0.4**
SGC2				epP		17 00 34.3	
LPAZ	**La Paz**	**11.32**	**141**	Pn	**Pn**	**17 00 33.7**	**+2.2**
	0.2nm,0.3s,baz=308,slow=23,SNR=3.6						
LPAZ				Lg	Lg	17 03 51.2	
	0.2nm,0.3s,baz=178,slow=23,SNR=1.6						
LPAZ				LR	LR	17 05 59.7	
	comp=Z,72nm,20.5s,baz=324,slow=43						
	1.1nm,0.6s						
LPAZ				AML	AML		
ROSC	**El Rosal**	**12.34**	**6**	Pn	**Pn**	**17 00 47.5**	**+2.2**
	1.7nm,0.3s,baz=128,slow=19,SNR=1.6						
ROSC				Lg	Lg	17 04 17.6	
	2.1nm,0.3s,baz=209,slow=22,SNR=1.3						
ROSC				LR	LR	17 06 26.7	
	comp=Z,150nm,18.2s,baz=234,slow=42						
	4.8nm,0.3s						
ROSC				AML	AML		
MACA	**Manacapuru-AM**	**15.39**	**74**	eP	**Pn**	**17 01 26.5**	**+0.3**
MACA				epP	**P**	**17 01 33.8**	**+3.3**
VILB	**Vilhena**	**16.00**	**111**	eP	**P**	**17 01 36.0**	**-1.4**
VILB				epP	**pP**	**17 01 41.7**	**-5.0**
SIV	**San Ignacio**	**16.45**	**122**	Pn	**P**	**17 01 41.0**	**-1.3**
	0.1nm,0.3s,baz=292,slow=12,SNR=32						
SIV				Lg	Lg	17 06 35.4	
	0.1nm,0.3s,baz=26,slow=23,SNR=3.5						
	5.4nm,0.6s						
SIV				AML	AML		
SDV	**Santo Domingo**	**17.01**	**17**	Pn	**Pn**	**17 01 47.6**	**+0.4**
	1.1nm,0.3s,baz=30,slow=13,SNR=1.6						
SDV				Lg	Lg	17 06 48.8	
	1.0nm,0.3s,baz=329,slow=15,SNR=1.3						
SDV				LR	LR	17 09 41.4	
	comp=Z,84nm,18.6s,baz=234,slow=42						
	3.5nm,0.4s						
SDV				AML	AML		
PTLB	**Pontes e Lacer**	**17.87**	**118**	eP	**P**	**17 01 58.8**	**+0.7**
BOAV	**Boa Vista**	**17.91**	**57**	eP	**Pn**	**17 01 56.5**	**-1.7**
BOAV				epP	**pP**	**17 02 03.6**	**-4.1**
CLDB	**Colider**	**19.75**	**101**	eP	**Pn**	**17 02 20.0**	**-0.3**
ITTB	**Itaituba**	**19.92**	**82**	eP	**Pn**	**17 02 21.5**	**-0.9**
JTS	**Las Juntas de**	**20.03**	**332**	LR	LR	17 08 43.4	
	comp=Z,64nm,20.0s,baz=309,slow=33						
COIM	**Forte Coimbra**	**21.14**	**127**	eP	**P**	**17 02 33.5**	**-0.3**
MURT	**Porto Murtinho**	**22.27**	**131**	eP	**P**	**17 02 45.0**	**-0.9**
SNDB	**Serra Nova Dou**	**24.27**	**102**	eP	**P**	**17 03 05.2**	**-0.7**
ARAG	**Araguaiana, MT**	**24.58**	**111**	eP	**P**	**17 03 07.5**	**-1.1**
CPUP	**Villa Florida**	**25.48**	**139**	P	**P**	**17 03 18.5**	**+1.8**
	1.2nm,0.7s,baz=0.5,slow=12,SNR=3.4						
CPUP				LR	LR	17 15 22.9	
	comp=Z,71nm,20.4s,baz=260,slow=41						
	1.2nm,0.7s						
MDP	**Montagnes des**	**26.04**	**62**	LR	LR	17 12 54.2	
	comp=Z,43nm,18.9s,baz=52,slow=35						
BDFB	**Brasilia**	**28.10**	**109**	LR	LR	17 15 31.6	
	comp=Z,74nm,21.8s,baz=246,slow=38						
PTGB	**Pitanga**	**28.20**	**130**	eP	**P**	**17 03 39.2**	**-2.1**
TXAR	**Lajitas Array**	**45.58**	**325**	P	**P**	**17 06 09.5**	**+1.0**
	0.6nm,0.5s,baz=151,slow=8.6,SNR=7.3						
	0.6nm,0.5s						
PDAR	**Pinedale Array**	**58.87**	**331**	P	**P**	**17 07 47.6**	**+0.3**
	0.2nm,0.7s,baz=148,slow=4.2,SNR=1.8						
PDAR				PcP	**PcP**	**17 08 36.8**	**+0.3**
	0.5nm,0.6s,baz=124,slow=3.7,SNR=4.5						
	0.2nm,0.7s						
NVAR	**Mina Array Bea**	**60.59**	**322**	P	**P**	**17 07 59.7**	**+0.4**
	0.2nm,0.3s,baz=89,slow=1.8,SNR=2.7						
	0.2nm,0.3s						
TORD	**Torodi Ar. Bea**	**79.37**	**75**	P	**P**	**17 09 56.2**	**+1.5**
	1.6nm,0.4s,baz=253,slow=4.5,SNR=22						
	1.6nm,0.4s						
QSPA	**South Pole Qui**	**82.58**	**180**	P	**P**	**17 10 11.9**	**+0.9**
	2.3nm,0.7s,baz=175,slow=1.7,SNR=14						
	2.3nm,0.7s						
ILAR	**Eielson Array**	**88.95**	**336**	P	**P**	**17 10 41.6**	**-0.8**
	0.8nm,0.8s,baz=115,slow=6.0,SNR=4.8						
	0.8nm,0.8s						
ASAR	**Alice Springs**	**137.73**	**222**	PKP	**PKPdf**	**17 17 13.2**	**0.0**
	0.5nm,0.5s,baz=124,slow=1.3,SNR=7.2						
WRA	**Warramunga Arr**	**139.90**	**227**	PKP	**PKPdf**	**17 17 17.1**	**-0.1**
	1.1nm,0.7s,baz=118,slow=2.0,SNR=7.1						

IDC 17 16:59:10.8±2.8**, 5°.90S**×**131°.89E, h0**km**, mb3.5**/1**, mbtmp3.3**/3**, ML3.3**/2**, Error ellipse: s-maj=165.5km s-min=22.1km az=74.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**14.17**	**171**	Pn	Pn	17 02 28.4	-4.4
	0.1nm,0.3s,baz=352,slow=13,SNR=4.8						
WRA				Sn	Sn	17 04 55.6	-15
	0.1nm,0.3s,baz=349,slow=24,SNR=1.9						
	0.2nm,0.3s						
WRA				AML	AML		
ASAR	**Alice Springs**	**17.78**	**174**	P	Pn	17 03 18.4	-1.4
	0.1nm,0.3s,baz=360,slow=14,SNR=11						
ASAR				S	Sn	17 06 29.1	-10
	0.3nm,0.5s,baz=1.9,slow=28,SNR=5.3						
	0.2nm,0.5s						
ASAR				AML	AML		
MKAR	**Makanchi Array**	**68.35**	**326**	P	P	17 10 14.1	0.0
	0.2nm,0.3s,baz=119,slow=7.9,SNR=4.4						
	0.2nm,0.3s						

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*IDC **17** 17:01:30.9±0.5, 16°.83S×177°.19W, h0km, mb4.6/20, mbtmp4.6/23, ML5.4/2, MS4.8/59, Error ellipse: s-maj=17.6km s-min=12.6km az=133.0*

*NEIC **17** 17:01:32.0±1.7, 16°.52S±0°.07×177°.26W±0°.07, h10km±1km, mb5.1/231, Ms_20 5.1/325, Mwb5.4/24, Mww5.5/12, Error ellipse: s-maj=13.0km s-min=11.0km az=129.0, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}0.43; $M_{\theta\theta}$-1.52; $M_{\phi\phi}$1.09; $M_{r\theta}$0.23; $M_{\theta\phi}$-0.34; $M_{\phi r}$0.14; Fault plane solution: $M_0$1.43000×10^{17} NP1:ϕ_s38.17000°, δ88.43000°, λ11.36000°. NP2:ϕ_s307.85000°, δ78.64000°, λ178.39000°. Principal axes: T 1.1547, Plg9.0000°, Azm264.0000°; N 0.4398, Plg79.0000°, Azm46.0000°; P -1.5945, Plg7.0000°, Azm172.0000°;*

*NEIC **17** 17:01:32, 16°.50S×177°.26W, h10km*

*MOS **17** 17:01:32.9±1.8, 16°.88S×177°.24W, h10km, mb5.5/25, MS5.0/14, Error ellipse: s-maj=9.7km s-min=9.0km az=73.7*

*BJI **17** 17:01:33.1, 16°.42S×176°.95W, h9km, mB5.4/21, mb5.1/46, Ms5.1/36, Ms7 4.8/38*

*GFZ **17** 17:01:34.0, 16°.71S×177°.15W, h19km, Mw5.5/61, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}-0.12; $M_{\theta\theta}$-1.88; $M_{\phi\phi}$2.01; $M_{r\theta}$0.37; $M_{\theta\phi}$-0.12; $M_{\phi r}$0.38; Fault plane solution: $M_0$2.02318×10^{17} NP1: ϕ_s313.29617°, δ74.61367°, λ-178.52450°. NP2: ϕ_s222.90460°, δ88.57739°, λ-15.39119°. Principal axes: T 2.0740, Plg9.7912°, Azm269.1299°; N -0.1059, Plg74.5448°, Azm37.7512°; P -1.9682, Plg11.8394°, Azm177.0567°;*

*GFZ **17** 17:01:34.1±0.2, 17°S±3°×17°7W±°, h10km, M5.3/38, mb5.1/38*

*GCMT **17** 17:01:36.0±0.1, 16°.68S±0°.01×177°.16W±0°.01, h12km, MW5.4/165, Moment Tensor Solution. s123, c227; s165, c340; Duration: 1^{s}.3 Moment tensor: Scale 10^{17} Nm; M_{rr}0.05±.02; $M_{\theta\theta}$-1.84±.02; $M_{\phi\phi}$1.79±.01; $M_{r\theta}$0.27±.04; $M_{\theta\phi}$-0.02±.02; $M_{\phi r}$0.18±.04; Best double couple: $M_0$1.84300×10^{17} NP1:ϕ_s315.00000°, δ80.00000°, λ-178.00000°. NP2:ϕ_s225.00000°, δ88.00000°, λ-10.00000°. Principal axes: T 1.8080, Plg6.0000°, Azm270.0000°; N 0.0730, Plg80.0000°, Azm36.0000°; P -1.8790, Plg8.0000°, Azm179.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 17 17:01:35.9±0.3**, 16°.74S**±0°.05×**177°.11W**±0°.04**, h35**km**, n733, σ2^{s}.01**/453**, mb5.1**/206**, MS5.1**/238**, 60C-43D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC

FUTU	Fugatoga	2.60	338	Pn	Pn	17 02 08.7	-6.8
FUTU	Fugatoga	2.60	338	P	Pn	17 02 10.5	-5.0
FUTU				S	Sn	17 02 44.0	-2.0
FUTU				AML	AML		
FUTU				AML	AML		
FUTU	Fugatoga	2.60	338	P	Pn	17 02 10.4	-5.2
MSVF	Nonsavu	4.73	257	Pn	Pn	17 02 40.9	-4.1
	24nm,0.3s,baz=102,slow=9.7,SNR=53						
MSVF				Sn	Sn	17 03 33.4	-5.2
	13nm,0.3s,baz=184,slow=21,SNR=6.6						
MSVF				LR	LR	17 04 16.9	
	comp=Z,42µm,19.3s,baz=63,slow=36						
	80nm,0.5s						
MSVF				AML	AML		
MSVF	Nonsavu	4.73	257	c iP	Pn	17 02 42.5	-2.4
MSVF	Nonsavu	4.73	257		Pn	17 02 40.6	-4.3
MSVF	Nonsavu	4.73	257	P	Pn	17 02 42.3	-2.6
MSVF				S	Sn	17 03 34.5	-4.2
MSVF				AML	AML		
MSVF				AML	AML		
MSVF	Nonsavu	4.73	257	P	Pn	17 02 42.7	-2.3
AFI	Afiamalu	5.86	62	Pn	Pn	17 02 57.3	-3.1
	10nm,0.3s,baz=70,slow=10,SNR=8.6						
AFI				LR	LR	17 04 49.8	
	comp=Z,12µm,19.7s,baz=244,slow=33						
	98nm,0.8s						
AFI				AML	AML		
AFI	Afiamalu	5.86	62		Pn	17 02 56.8	-3.6
FUNA	Funafuti	8.92	336	Pn	Pn	17 03 37.4	-5.0
RAO	Raoul Island	12.48	183	LR	LR	17 08 34.1	
	comp=Z,11µm,20.7s,baz=20,slow=34						
SANVU	Saraoutou	15.13	273	Pn	Pn	17 04 59.6	-7.6
SANVU	Saraoutou	15.13	273	P	Pn	17 05 07.0	-0.2
OUENC	Ouen Island, N	16.14	247		Pn	17 05 18.4	-1.8
OUENC				IAmb	IAmb	17 05 25.7	
	comp=Z,320nm,1.9s						
DZM	Mont Dzumac	16.40	249	Pn	Pn	17 05 20.0	-3.6
	comp=Z,14nm,1.0s,baz=109,slow=20,SNR=1.7						
DZM				LR	LR	17 10 48.3	
	comp=Z,5µm,20.2s,baz=254,slow=34						
ONTNC	Ouen Toro	16.45	248	Pn	Pn	17 05 17.4	-6.8
NOUC	Port Laguerre	16.53	249	P	P	17 05 29.9	+2.5
RAR	Rarotonga	16.98	108	LR	LR	17 10 32.1	
	comp=Z,4µm,19.3s,baz=289,slow=32						
KOUNC	Koumac, New Ca	18.04	255		Pn	17 05 40.1	-3.8
OUZ	Omahuta	20.20	203	P	Pn	17 06 10.4	+0.7
OUZ	Omahuta	20.20	203	P	Pn	17 06 11.7	+2.0
	comp=Z,78nm,1.1s						
WCZ	Waipu Caves	20.58	200	P	Pn	17 06 15.0	+0.8
HAZ	Te Kaha	21.42	191	P	P	17 06 20.6	-0.2
PUZ	Puketiti	21.64	190	P	P	17 06 25.5	+2.3
TOZ	Tahuroa Road	21.91	196		P	17 06 27.0	+0.9
TOZ				IAMs_20	IAMs_20	17 13 34.3	
	comp=Z,10µm,20.0s						
TOZ	Tahuroa Road	21.91	196	P	P	17 06 27.5	+1.5
MWZ	Matawai	22.03	191	P	P	17 06 27.8	+0.4
URZ	Urewera	22.04	192	P	P	17 06 24.4	-3.0
	comp=Z,82nm,1.0s,baz=324,slow=3.4,SNR=14						
URZ				LR	LR	17 13 30.2	
	comp=Z,6µm,18.6s,baz=30,slow=33						
	comp=Z,82nm,1.0s						
URZ	Urewera	22.04	192	P	P	17 06 27.3	-0.2
URZ	Urewera	22.04	192	P	P	17 06 27.5	+0.1
	comp=Z,89nm,0.9s						
RTZ	Ruatahuna	22.41	192		P	17 06 28.8	-2.7
RTZ				IAmb	IAmb	17 06 45.9	
	comp=Z,67nm,1.0s						
HIZ	Hauiti	22.81	196		P	17 06 36.8	+1.1
HIZ				IAMs_20	IAMs_20	17 14 04.8	
	comp=Z,7µm,20.0s						
HIZ	Hauiti	22.81	196	P	P	17 06 39.2	+3.4
HIZ	Hauiti	22.81	196	P	P	17 06 37.7	+2.0
	comp=Z,227nm,1.4s						
VRZ	Vera Road	23.41	196	P	P	17 06 43.7	+1.9
HNR	Honiara	23.48	285	LR	LR	17 14 22.6	
	comp=Z,6µm,20.1s,baz=194,slow=33						
HNR	Honiara	23.48	285	IAMs_20	IAMs_20	17 14 02.1	
	comp=Z,6µm,20.0s						
PXZ	Pawanui	23.80	192	P	P	17 06 46.0	+0.6
BFZ	Birch Farm	24.55	192	IAMs_20	IAMs_20	17 15 11.8	
	comp=Z,6µm,21.0s						
BFZ	Birch Farm	24.55	192	P	P	17 06 53.1	+0.8
MRZ	Mangatainoka R	24.67	193	IAMs_20	IAMs_20	17 15 44.9	
	comp=Z,7µm,20.0s						
QRZ	Quartz Range	25.62	198	IAMs_20	IAMs_20	17 15 46.0	
	comp=Z,6µm,20.0s						
NNZ	Nelson	25.74	197	IAMs_20	IAMs_20	17 16 25.3	
	comp=Z,7µm,20.0s						
PPT2	Papeete2	26.31	96	eP	P	17 07 04.4	-4.3
	comp=Z,296nm,25.2s						
PPT2				eS	S	17 11 41.5	+2.1
	comp=Z,818nm,27.8s						
PPT2				eLQ	LQ	17 12 32.6	
	comp=Z,2µm,29.2s						
PPT2				eLR	LR	17 13 37.4	
	comp=Z,5µm,26.2s						
PPT2				eLR	LR	17 13 44.4	
	comp=Z,6µm,24.0s						
PPT	Papeete	26.31	96	LR	LR	17 14 58.8	
	comp=Z,2µm,20.9s,baz=266,slow=31						
DSZ	Denniston Nort	26.69	199	IAMs_20	IAMs_20	17 17 56.1	
	comp=Z,6µm,19.0s						
KHZ	Kahutara	26.82	195	IAMs_20	IAMs_20	17 16 43.9	
	comp=Z,7µm,20.0s						
GVZ	Greta Valley S	27.46	196	IAMs_20	IAMs_20	17 17 14.0	
	comp=Z,6µm,19.0s						
LTZ	Lake Taylor	27.50	197	P	P	17 07 19.4	+0.4
INZ	Inchbonnie	27.69	198		P	17 07 21.3	+0.7
OXZ	Oxford	28.07	197	P	P	17 07 23.1	-1.0
OXZ	Oxford	28.07	197	P	P	17 07 23.1	-1.0
FOZ	Fox Glacier	28.93	200	IAMs_20	IAMs_20	17 19 35.3	
	comp=Z,4µm,18.0s						
LBZ	Lake Benmore	29.58	199	IAMs_20	IAMs_20	17 17 43.6	
	comp=Z,6µm,22.0s						
WKZ	Wanaka	30.34	200	IAMs_20	IAMs_20	17 20 19.7	
	comp=Z,4µm,18.0s						
EIDS	Eidsvold	30.84	248	P	P	17 07 51.3	+2.4
	comp=Z,34nm,1.1s						
EIDS	Eidsvold	30.84	248	P	P	17 07 49.1	+0.1
	comp=Z,34nm,1.2s						
EIDS	Eidsvold	30.84	248		P	17 07 47.0	-1.9
EIDS				IAmb	IAmb	17 07 53.2	
	comp=Z,32nm,1.0s						
EIDS	Eidsvold	30.84	248	P	P	17 07 49.3	+0.4
	comp=Z,34nm,1.2s						
MLZ	Mavora Lakes	31.12	200	P	P	17 07 52.6	+1.5
DCZ	Deep Cove	31.53	201	IAMs_20	IAMs_20	17 20 19.0	
	comp=Z,3µm,20.0s						
ARMA	Armidale	31.61	239	P	P	17 07 57.1	+1.4
	comp=Z,49nm,1.1s						
ARMA	Armidale	31.61	239	P	P	17 07 56.8	+1.1
	comp=Z,49nm,1.1s						
ARMA	Armidale	31.61	239	P	P	17 07 55.0	-0.7
ARMA				IAmb	IAmb	17 08 01.0	
	comp=Z,38nm,0.9s						
ARMA	Armidale	31.61	239	P	P	17 07 57.1	+1.4
	comp=Z,49nm,1.1s						
WHZ	Wether Hill Ro	31.64	200	P	P	17 07 56.0	+0.3
WHZ	Wether Hill Ro	31.64	200	P	P	17 07 56.1	+0.4
KRVT	Keravat (AS076	32.70	289	LR	LR	17 20 06.0	
	comp=Z,3µm,20.0s,baz=114,slow=34						
CTA	Charters Tower	34.88	259	P	P	17 08 24.8	+0.6
	comp=Z,35nm,1.3s						
CTA	Charters Tower	34.88	259	P	P	17 08 24.9	+0.6
	comp=Z,35nm,1.3s						
CTA	Charters Tower	34.88	259	LR	LR	17 20 53.3	
	comp=Z,3µm,18.5s,baz=76,slow=33						
CTA	Charters Tower	34.88	259	P	P	17 08 24.9	+0.6
CTAO	Charters Tower	34.88	259	P	P	17 08 20.9	-3.4
CTAO				pmax	pmax		
	comp=Z,93nm,1.1s						
CTAO				MLR	MLR		
	comp=Z,3µm,18.0s						
CTAO	Charters Tower	34.88	259	P	P	17 08 20.9	-3.4
CTAO	Charters Tower	34.88	259	IAMs_20	IAMs_20	17 20 41.7	
	comp=Z,3µm,18.0s						
CTAO	Charters Tower	34.88	259	P	P	17 08 24.8	+0.6
CNB	Canberra Magne	35.12	232	P	P	17 08 26.6	+0.3
	comp=Z,0.8nm,1.8s						
CNB	Canberra Magne	35.12	232	P	P	17 08 31.1	+4.8
	comp=Z,0.8nm,1.8s						
CAN	Canberra	35.40	232	P	P	17 08 29.8	+1.1
	comp=Z,30nm,1.8s						
CAN	Canberra	35.40	232	P	P	17 08 27.5	-1.2
CAN				pmax	pmax		
	comp=Z,31nm,1.1s						
CAN				MLR	MLR		
	comp=Z,2µm,19.0s						
CAN	Canberra	35.40	232	P	P	17 08 27.5	-1.2
CAN				IAmb	IAmb	17 08 35.1	
	comp=Z,31nm,1.1s						
YNG	Young	35.48	234	P	P	17 08 30.1	+0.8
	comp=Z,6.2nm,1.9s						
PMG	Port Moresby	35.52	277	LR	LR	17 22 05.2	
	comp=Z,1µm,19.5s,baz=99,slow=35						
MTSU	Mount Surprise	36.79	262	P	P	17 08 41.0	+0.3
	comp=Z,36nm,0.9s						
MTSU	Mount Surprise	36.79	262	P	P	17 08 41.1	+0.3
	comp=Z,36nm,0.9s						
MTSU	Mount Surprise	36.79	262	P	P	17 08 41.0	+0.3
	comp=Z,36nm,0.9s						
CMSA	Cobar Meteorol	36.81	240	P	P	17 08 40.9	+0.2
	comp=Z,102nm,1.1s						
CMSA	Cobar Meteorol	36.81	240	P	P	17 08 40.9	+0.2
	comp=Z,102nm,1.1s						
CMSA	Cobar Meteorol	36.81	240	P	P	17 08 40.9	+0.2
	comp=Z,102nm,1.1s						
TAOE	Nuku Hiva Isla	36.83	82	eS	S	17 14 18.6	-5.0
	comp=Z,413nm,26.3s						
TAOE				eLR	LR	17 18 31.5	
	comp=Z,5µm,25.7s						
QLP	Quilpie	37.12	248	P	P	17 08 43.3	-0.1
	comp=Z,150nm,1.6s						
QLP	Quilpie	37.12	248	P	P	17 08 43.5	+0.1
	comp=Z,150nm,1.6s						
QLP	Quilpie	37.12	248	P	P	17 08 43.3	-0.1
	comp=Z,150nm,1.6s						
TOO	Toolangi	38.87	230	P	P	17 08 58.2	+0.2
	comp=Z,21nm,1.3s						
TOO	Toolangi	38.87	230	P	P	17 08 56.2	-1.9
	comp=Z,21nm,1.3s						
TOO	Toolangi	38.87	230	P	P	17 08 57.0	-1.1
TOO				pmax	pmax		
	comp=Z,13nm,0.9s						
TOO	Toolangi	38.87	230	P	P	17 08 57.0	-1.1
STKA	Stephens Creek	40.28	240	P	P	17 09 09.1	-0.8
	comp=Z,58nm,0.9s,baz=90,slow=9.1,SNR=31						
STKA				LR	LR	17 25 17.2	
	comp=Z,955nm,18.4s,baz=74,slow=36						
	comp=Z,58nm,0.9s						
STKA	Stephens Creek	40.28	240	P	P	17 09 10.4	+0.6
	comp=Z,395nm,1.2s						
INKA	Innaminka	40.34	247	P	P	17 09 06.5	-3.9
INKA				IAmb	IAmb	17 09 15.5	
	comp=Z,58nm,1.3s						
QIS	Mount Isa	41.11	258	P	P	17 09 18.4	+1.6
	comp=Z,7.6nm,1.2s						
QIS	Mount Isa	41.11	258	P	P	17 09 18.5	+1.6
	comp=Z,7.6nm,1.2s						
HTT	Hallett	42.81	239	P	P	17 09 33.4	+2.8
	comp=Z,24nm,1.5s						
HTT	Hallett	42.81	239	P	P	17 09 33.4	+2.8
GENI	Genyem	44.27	284	P	P	17 09 43.9	+1.3
	comp=Z,3µmcomp=Z,3µmcomp=Z,107nm,1.9s,comp=Z,107nm,1.9s						
GENI	Genyem	44.27	284	P	P	17 09 44.3	+1.8
	comp=Z,105nm,1.9s						
BBOO	Buckleboo	45.06	240	P	P	17 09 48.7	0.0
	comp=Z,77nm,1.6s						
BBOO	Buckleboo	45.06	240	P	P	17 09 47.5	-1.2
BBOO	Buckleboo	45.06	240	P	P	17 09 48.3	-0.4
	comp=Z,77nm,1.6s						
WRAB	Tennant Creek	46.07	258	d iP	P	17 09 57.7	+0.9
WRAB				pmax	pmax		
	comp=Z,50nm,1.7s						
WRAB	Tennant Creek	46.07	258	P	P	17 09 56.9	+0.1
	comp=Z,26nm,1.8s						
WRA	Warramunga Arr	46.08	258	P	P	17 09 55.2	-1.7
	comp=Z,5.9nm,1.0s,baz=93,slow=7.9,SNR=21						
WRA				PcP	PcP	17 11 33.2	+0.3
	comp=Z,9.0nm,1.1s,baz=99,slow=3.0,SNR=7.0						
WRA				LR	LR	17 28 32.8	
	comp=Z,1µm,18.5s,baz=91,slow=35						
	comp=Z,5.9nm,1.0s						
WRA	Warramunga Arr	46.08	258	P	P	17 09 54.8	-2.1
AS17	Alice Springs	46.23	253	P	P	17 09 57.2	-0.8
	comp=Z,40nm,0.8s						
AS09	Alice Springs	46.28	253	P	P	17 09 58.0	-0.4
	comp=Z,51nm,0.9s						
AS15	Alice Springs	46.31	253	P	P	17 09 58.1	-0.5
	comp=Z,45nm,0.8s						
AS31	Alice Springs	46.31	253	P	P	17 09 59.1	+0.4
	comp=Z,17nm,1.1s						
AS31	Alice Springs	46.31	253	P	P	17 09 56.9	-1.8
ASAR	Alice Springs	46.31	253	P	P	17 09 57.6	-1.1
	comp=Z,32nm,0.9s,baz=86,slow=7.9,SNR=126						
ASAR				PcP	PcP	17 11 33.9	+0.2
	comp=Z,3.1nm,0.9s,baz=88,slow=3.1,SNR=1.3						
ASAR				LR	LR	17 28 35.0	
	comp=Z,4µm,18.1s,baz=97,slow=35						
	comp=Z,32nm,0.9s						
ASAR	Alice Springs	46.31	253		P	17 09 56.5	-2.2
KDU	Kakadu	48.84	268	P	P	17 10 18.2	-0.1
	comp=Z,16nm,1.1s						
MTN	Manton Dam	50.09	267	P	P	17 10 27.8	-0.1
	comp=Z,24nm,1.0s						
MTN	Manton Dam	50.09	267	P	P	17 10 26.1	-1.8
MTN				IAmb	IAmb	17 10 31.9	
	comp=Z,25nm,1.1s						
WRKA	Warakurna	51.39	251	P	P	17 10 38.5	+0.8
	comp=Z,16nm,1.2s						
KNRA	Kununurra	51.85	263	P	P	17 10 42.8	+1.6
	comp=Z,15nm,1.5s						
SWI	Sorong	53.21	282	P	P	17 10 52.8	+1.6
FITZ	Fitzroy Crossi	54.45	259	P	P	17 11 02.6	+2.3
	comp=Z,7.2nm,1.9s						
FITZ	Fitzroy Crossi	54.45	259	LR	LR	17 32 43.3	
	comp=Z,3µm,20.2s,baz=101,slow=34						
FITZ	Fitzroy Crossi	54.45	259	P	P	17 11 02.0	+1.7
	comp=Z,7.2nm,1.9s						
NLAI	Namlea	56.37	277	P	P	17 11 14.8	+0.7
	comp=Z,1µmcomp=Z,1µmcomp=Z,94nm,1.8s,comp=Z,94nm,1.8s						
DRV	Dumont d'Urvil	57.17	199	P	P	17 11 20.1	+1.1
DRV	Dumont d'Urvil	57.17	199	P	P	17 11 20.1	+1.1
SOEI	Soe	57.32	269	IAMs_20	IAMs_20	17 36 58.4	
	comp=Z,1µm,19.0s						
SOEI	Soe	57.32	269	P	P	17 11 20.4	-0.7
SOEI	Soe	57.32	269	P	P	17 11 22.6	+1.5
	comp=Z,167nm,1.0s						
TNTI	Ternate	57.42	282	P	P	17 11 18.0	-3.6
TNTI	Ternate	57.42	282	P	P	17 11 23.8	+2.2
	comp=Z,981nmcomp=Z,981nmcomp=Z,42nm,1.4s,comp=Z,42nm,1.4s						
TNTI	Ternate	57.42	282	P	P	17 11 24.0	+2.4
	comp=Z,42nm,1.4s						
SANI	Sanana	57.79	278	P	P	17 11 26.0	+1.8
	comp=Z,952nmcomp=Z,952nmcomp=Z,79nm,1.2s,comp=Z,79nm,1.2s						
SANI	Sanana	57.79	278	P	P	17 11 26.8	+2.6
	comp=Z,80nm,1.2s						
MMRI	Maumere	59.54	270	P	P	17 11 36.0	-0.4
	comp=Z,1µmcomp=Z,1µmcomp=Z,65nm,1.9s,comp=Z,65nm,1.9s						
MEEK	Meekatharra	60.01	249	P	P	17 11 41.0	+1.5
	comp=Z,26nm,1.6s						
EDFI	Ende, Flores	60.03	269	P	P	17 11 36.0	-3.9
	comp=Z,43nm,1.1s,comp=Z,43nm,1.1s						
KLBR	Kellerberrin	60.47	243	P	P	17 11 41.2	-1.3
	comp=Z,91nm,1.3s						
KLBR	Kellerberrin	60.47	243	P	P	17 11 41.3	-1.3
	comp=Z,91nm,1.3s						
NWAO	Narrogin (SRO)	60.86	241	P	P	17 11 48.7	+3.6
	comp=Z,47nm,1.5s						
NWAO	Narrogin (SRO)	60.86	241	P	P	17 11 48.8	+3.6
NWAO	Narrogin (SRO)	60.86	241	LR	LR	17 36 55.4	
	comp=Z,738nm,18.8s,baz=102,slow=35						
LUWI	Luwuk	61.16	278	P	P	17 11 50.6	+3.2
LUWI	Luwuk	61.16	278	P	P	17 11 49.4	+1.9
	comp=Z,965nmcomp=Z,965nmcomp=Z,82nm,1.5s,comp=Z,82nm,1.5s						
LUWI	Luwuk	61.16	278	P	P	17 11 50.8	+3.3
	comp=Z,82nm,1.5s						
BLDU	Ballidu	61.41	244	P	P	17 11 48.4	-0.6
	comp=Z,32nm,1.6s						
DAV	Davao City (W)	61.41	288	LR	LR	17 36 10.3	
	comp=Z,162nm,18.6s,baz=118,slow=34						
SBA	Scott Base	61.66	184	P	P	17 11 51.0	+1.1
SBA				pmax	pmax		
	comp=Z,47nm,1.6s						
SBA	Scott Base	61.66	184	P	P	17 11 51.0	+1.1
SBA	Scott Base	61.66	184	P	P	17 11 56.1	+6.3
	comp=Z,19nm,1.6s						
VNDA	Vanda	61.71	185	P	P	17 11 51.5	+1.3
	comp=Z,0.5nm,0.6s,baz=350,slow=7.7,SNR=6.5						
VNDA				LR	LR	17 34 15.1	
	comp=Z,537nm,20.7s,baz=18,slow=32						
	comp=Z,0.5nm,0.6s						
VNDA	Vanda	61.71	185	P	P	17 11 50.8	+0.6
VNDA				IAmb	IAmb	17 12 14.9	
	comp=Z,29nm,1.9s						
VNDA	Vanda	61.71	185	P	P	17 11 53.7	+3.5
	comp=Z,7.7nm,1.4s						
LBFI	Labuhan Bajo,	61.82	269	P	P	17 11 51.1	-0.9
KAPI	Kappang	62.86	273	LR	LR	17 40 05.5	
	comp=Z,228nm,18.0s,baz=89,slow=37						
DBNI	Kabupaten Domp	63.33	269	P	P	17 12 00.0	-2.0
	comp=Z,88nm,0.9s,comp=Z,88nm,0.9s						
PLAI	Plampang	63.76	268	P	P	17 12 05.6	+0.7
	comp=Z,71nm,1.7s,comp=Z,71nm,1.7s						
PLAI	Plampang	63.76	268	P	P	17 12 07.1	+2.2
	comp=Z,71nm,1.4s						
PCI	Palu	63.99	277	P	P	17 12 07.3	+0.9
	comp=Z,2µmcomp=Z,2µmcomp=Z,97nm,1.8s,comp=Z,97nm,1.8s						
JHJ	Hachijo jima 2	64.44	321	LR	LR	17 39 18.1	
	comp=Z,317nm,18.1s,baz=36,slow=35						
TWSI	Taliwang, Sumb	64.64	268	P	P	17 12 12.3	+1.6
	comp=Z,108nm,1.2s,comp=Z,108nm,1.2s						
JAGI	Jajag, Banyuwa	67.32	268	P	P	17 12 23.5	-4.5
JAGI	Jajag, Banyuwa	67.32	268	P	P	17 12 28.5	+0.6
	comp=Z,54nm,1.0s,comp=Z,54nm,1.0s						
JAGI	Jajag, Banyuwa	67.32	268	P	P	17 12 24.3	-3.7
	comp=Z,54nm,1.0s						
CASY	Casey	67.72	205	P	P	17 12 29.8	+0.3
CASY	Casey	67.72	205	P	P	17 12 30.4	+0.9
	comp=Z,32nm,1.2s						
MJAR	Matsushiro Arr	67.73	322	P	P	17 12 30.5	+0.5
	comp=Z,12nm,0.9s,baz=154,slow=6.3,SNR=19						
MJAR				LR	LR	17 36 05.9	
	comp=Z,422nm,21.7s,baz=128,slow=31						
	comp=Z,12nm,0.9s						
MJAR	Matsushiro Arr	67.73	322	P	P	17 12 27.1	-2.9
MJAR					pP	17 12 32.8	-7.6
MAJO	Matsushiro	67.73	322	ce P	P	17 12 32.1	+2.1
MAJO				pmax	pmax		
	comp=Z,15nm,0.9s						
MAJO	Matsushiro	67.73	322	P	P	17 12 32.4	+2.4
	comp=Z,17nm,1.2s						
MJB9	Matsu-Tunnel	67.74	322	P	P	17 12 34.0	+4.0
MJB9				IAmb	IAmb	17 12 36.2	
	comp=Z,14nm,0.9s						
JOW	Kunigami	68.45	308	LR	LR	17 39 29.1	
	comp=Z,176nm,18.7s,baz=46,slow=33						
ATKA	Atka Island	68.69	2	IAMs_20	IAMs_20	17 35 26.9	
	comp=Z,2µm,21.0s						
ERM	Erimo	69.01	329	IAMs_20	IAMs_20	17 36 43.9	
	comp=Z,2µm,20.0s						
SHEM	Shemya Is, Ala	69.59	354	LR	LR	17 36 35.9	
	comp=Z,1µm,21.7s,baz=150,slow=30						
SNJI	Sawahan-Nganju	69.79	268	P	P	17 12 43.5	0.0
	comp=Z,1µmcomp=Z,1µmcomp=Z,63nm,1.0s,comp=Z,63nm,1.0s						
JNU	Nakatsue	70.17	315	LR	LR	17 38 18.5	
	comp=Z,226nm,21.9s,baz=100,slow=32						
PCJI	Pacitan	70.24	267	P	P	17 12 46.3	+0.2
ASAJ	Asahikawa	70.86	330	LR	LR	17 37 51.7	
	comp=Z,1µm,21.5s,baz=138,slow=31						
SKR	Severo-Kuril's	71.13	342	eP	P	17 12 48.0	-2.6
SKR				eS	S	17 22 14.4	+10
SKR				pmax	pmax		
	comp=Z,100nm,5.1s						
SKR				MLR	MLR		
	comp=Z,200nm,20.0s						
CTJI	Waduk Cacaban	72.45	268	P	P	17 13 01.4	+1.9
	comp=Z,48nm,1.3s,comp=Z,48nm,1.3s						
PEA0B	Petropavlovsk-	72.88	344	⇓ iP	P	17 13 04.4	+3.3
PETK	Petropavlovsk-	72.88	344	P	P	17 13 02.7	+1.5
	comp=Z,12nm,1.0s,baz=109,slow=6.1,SNR=10						
PETK				LR	LR	17 40 34.4	
	comp=Z,747nm,19.7s,baz=151,slow=32						
	comp=Z,12nm,1.0s						
PETK	Petropavlovsk-	72.88	344	P	P	17 13 03.6	+2.5
YSS	Yuzhno-Sakhali	72.94	332	eP	P	17 13 04.4	+2.8
YSS				eS	SKiKP	17 22 29.0	-3.1
YSS				e		17 23 10.7	
YSS				eSS	SS	17 27 07.3	+0.1
YSS				pmax	pmax		
	comp=Z,20nm,1.1s						
YSS				pmax	pmax		
	comp=Z,300nm,3.5s						
YSS				smax	smax		
	comp=N,100nm,5.6s						
YSS				smax	smax		
	comp=E,100nm,7.4s						
YSS	Yuzhno-Sakhali	72.94	332	P	P	17 13 05.1	+3.5
YSS				IAmb	IAmb	17 13 07.8	
	comp=Z,30nm,1.1s						
YSS	Yuzhno-Sakhali	72.94	332	P	P	17 13 05.3	+3.7
	comp=Z,26nm,1.1s						
QSPA	South Pole Qui	73.31	180	P	P	17 13 04.5	+0.7
	comp=Z,6.9nm,0.9s,baz=345,slow=1.6,SNR=20						
QSPA				LR	LR	17 40 50.0	
	comp=Z,387nm,21.6s,baz=38,slow=32						
	comp=Z,6.9nm,0.9s						
QSPA	South Pole Qui	73.31	180		P	17 13 04.3	+0.5
QSPA				IAmb	IAmb	17 13 19.8	
	comp=Z,21nm,1.0s						
QSPA	South Pole Qui	73.31	180	IAMs_20	IAMs_20	17 39 09.9	
	comp=Z,1µm,22.0s						
QSPA	South Pole Qui	73.31	180	P	P	17 13 05.4	+1.6
	comp=Z,29nm,1.0s						
KSRS	Korea Array	74.67	317	P	P	17 13 13.3	+1.3
	comp=Z,10nm,1.0s,baz=128,slow=6.3,SNR=17						
KSRS				LR	LR	17 40 23.0	
	comp=Z,262nm,21.6s,baz=115,slow=31						
	comp=Z,10nm,1.0s						
KSAR	Wonju Array Be	74.69	317	P	P	17 13 14.9	+2.8
KSAR	Wonju Array Be	74.69	317	P	P	17 13 14.9	+2.8
CBJI	Citeko	74.84	268	P	P	17 13 17.0	+3.5
MHC	Mount Hamilton	74.92	43	P	P	17 13 12.0	-1.6
MHC				pmax	pmax		
	comp=Z,12nm,0.5s						
MHC	Mount Hamilton	74.92	43	P	P	17 13 12.0	-1.6
MHC				IAmb	IAmb	17 15 55.7	
	comp=Z,11nm,0.5s						
KMRM	Mail Ridge	75.32	39	P	P	17 13 14.3	-1.5
KMRM				IAmb	IAmb	17 13 23.5	
	comp=Z,30nm,1.2s						
VLA	Vladivostok	75.73	324	⇑ eP	P	17 13 20.5	+2.6
VLA				pmax	pmax		
	comp=Z,68nm,1.6s						
VTX	Valle De La Tr	75.83	51	IAmb	IAmb	17 13 21.8	
	comp=Z,26nm,1.4s						
TPO	Tropico Hills	75.86	47	P	P	17 13 18.8	-0.2
TPO				IAmb	IAmb	17 13 26.5	
	comp=Z,49nm,1.9s						
KHBM	Hayfork Bally	75.89	39	P	P	17 13 18.8	-0.4
TYV	Tymovskoe	75.99	335	eP	P	17 13 23.7	+4.5
TYV				pmax	pmax		
	comp=Z,13nm,1.2s						
TYV				pmax	pmax		
	comp=Z,200nm,3.4s						
PSTR	Posyet	76.05	323	⇓ eP	P	17 13 23.2	+3.5
YUH	Yuha Desert	76.35	50	IAmb	IAmb	17 13 24.6	
	comp=Z,23nm,1.5s						
USA0B	Ussuriysk Arra	76.36	325	P	P	17 13 26.1	+4.6
USA0B				pmax	pmax		
	comp=Z,18nm,1.2s						
USA0B	Ussuriysk Arra	76.36	325	P	P	17 13 26.1	+4.6
USA0B				IAmb	IAmb	17 13 28.4	
	comp=Z,18nm,1.1s						
USRK	Ussuriysk Ar.	76.36	325	P	P	17 13 22.8	+1.3
	comp=Z,11nm,1.0s,baz=159,slow=6.4,SNR=9.5						
USRK				LR	LR	17 43 09.2	
	comp=Z,385nm,18.6s,baz=130,slow=33						
	comp=Z,11nm,1.0s						
PFO	Pinyon Flats O	76.45	48	⇓ eP	P	17 13 23.9	+1.5
PFO				pmax	pmax		
	comp=Z,15nm,1.5s						
O03E	Paynes Creek	76.54	40	IAmb	IAmb	17 13 30.4	
	comp=Z,35nm,1.4s						
M02C	Callahan	76.55	39	IAmb	IAmb	17 14 05.2	
	comp=Z,27nm,1.6s						
SRIG	Santa Rosalia	76.62	56	P	P	17 13 25.4	+2.0
	comp=Z,24nm,1.3s						
LPIG	La Paz	76.78	60	LR	LR	17 38 42.6	
	comp=Z,457nm,21.3s,baz=240,slow=29						
YBH	Yreka Blue Hor	76.84	39	LR	LR	17 40 13.0	
	comp=Z,249nm,20.1s,baz=234,slow=30						
K02D	Willamette Mer	76.86	37	IAmb	IAmb	17 13 49.6	
	comp=Z,46nm,1.8s						
SLBS	Sierra La Lagu	76.90	60	P	P	17 13 23.9	-1.2
SLBS				IAmb	IAmb	17 13 33.7	
	comp=Z,34nm,1.4s						
SLBS	Sierra La Lagu	76.90	60	P	P	17 13 27.5	+2.4
	comp=Z,20nm,1.5s						
KDAK	Kodiak Island	76.98	13	LR	LR	17 40 14.8	

	comp=Z,1µm,21.9s,baz=209,slow=30						
KDAK	**Kodiak Island**	**76.98**	**13**	IAMs_20	IAMs_20	17 40 35.1	
	comp=Z,1µm,20.0s						
MPMC	**Manual Prospec**	**77.00**	**46**	IAmb	IAmb	17 13 33.1	
	comp=Z,27nm,1.8s						
WAKR	**Walker**	**77.02**	**43**	IAmb	IAmb	17 13 28.6	
	comp=Z,34nm,1.8s						
MPK	**Martis Peak**	**77.08**	**42**	IAmb	IAmb	17 13 57.0	
	comp=Z,26nm,1.2s						
P16K	**Nushagak River**	**77.10**	**10**	IAMs_20	IAMs_20	17 41 40.1	
	comp=Z,1µm,20.0s						
BEKR	**Beckworth**	**77.19**	**41**	IAmb	IAmb	17 13 29.1	
	comp=Z,28nm,1.8s						
PNTR	**Pine Nut**	**77.24**	**42**	IAmb	IAmb	17 13 29.5	
	comp=Z,31nm,1.5s						
PNTR					**PcP**	**17 13 34.0**	**-3.5**
KASI	**Kota Agung**	**77.34**	**268**	P	**P**	**17 13 29.8**	**+2.1**
	comp=Z,57nm,1.1s,comp=Z,57nm,1.1s						
L04D	**Klamath Falls**	**77.37**	**38**	IAmb	IAmb	17 13 59.9	
	comp=Z,21nm,1.3s						
QSM	**Queen of Sheba**	**77.38**	**46**	IAmb	IAmb	17 13 34.6	
	comp=Z,32nm,1.9s						
YERR	**Yerington**	**77.41**	**43**	IAmb	IAmb	17 13 35.0	
	comp=Z,38nm,1.8s						
LHV	**Little Huntoon**	**77.49**	**44**	IAmb	IAmb	17 13 47.6	
	comp=Z,29nm,1.5s						
P17K	**Kvichak River**	**77.53**	**11**	IAMs_20	IAMs_20	17 46 13.4	
	comp=Z,934nm,19.0s						
GRAC	**Grapevine Rang**	**77.58**	**45**	IAmb	IAmb	17 13 58.2	
	comp=Z,33nm,1.6s						
O16K	**Kokwok River B**	**77.62**	**10**	IAMs_20	IAMs_20	17 42 26.2	
	comp=Z,1µm,20.0s						
FURC	**Furnace Creek,**	**77.64**	**46**	IAmb	IAmb	17 13 31.7	
	comp=Z,20nm,1.4s						
IRM	**Iron Mountain**	**77.67**	**49**	IAmb	IAmb	17 13 36.9	
	comp=Z,31nm,1.5s						
NVAR	**Mina Array Bea**	**77.72**	**43**	P	**P**	**17 13 30.2**	**+0.6**
	comp=Z,3.7nm,1.0s,baz=225,slow=8.6,SNR=15						
NVAR				LR	LR	17 42 53.1	
	comp=Z,320nm,18.5s,baz=242,slow=32						
	comp=Z,3.7nm,1.0s						
NVAR	**Mina Array Bea**	**77.72**	**43**	P	**P**	**17 13 28.8**	**-0.8**
NV11	**Mina Array Sit**	**77.82**	**43**	IAmb	IAmb	17 13 32.8	
	comp=Z,30nm,1.6s						
N15K	**Kwethluk River**	**77.86**	**9**	IAMs_20	IAMs_20	17 40 54.6	
	comp=Z,1µm,21.0s						
MDSI	**Maura Dua**	**77.93**	**269**	P	**P**	**17 13 34.4**	**+3.4**
MDJ	**Mudanjiang**	**77.96**	**324**	P	**P**	**17 13 33.4**	**+2.9**
MDJ				S	**S**	**17 23 27.0**	**+5.5**
MDJ				pmax	pmax		
	comp=Z,11nm,1.4s						
MDJ				L	L		
	comp=Z,410nm,19.2s						
MDJ				L	L		
	comp=Z,440nm,18.6s						
MDJ				L	L		
	comp=Z,740nm,17.9s						
113A	**Mohawk Valley,**	**77.99**	**50**	IAmb	IAmb	17 13 39.3	
	comp=Z,20nm,1.4s						
NJ2	**Nanjing**	**78.17**	**309**	*e*P	**P**	**17 13 34.0**	**+2.1**
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
NJ2				L	L		
	comp=Z,540nm,20.8s						
NJ2				L	L		
	comp=Z,260nm,17.1s						
NJ2				L	L		
	comp=Z,290nm,18.0s						
TPH	**Tonopah**	**78.25**	**44**	IAmb	IAmb	17 13 39.8	
	comp=Z,22nm,1.4s						
I04A	**Tendick Farm,**	**78.25**	**37**	IAmb	IAmb	17 13 51.0	
	comp=Z,42nm,2.0s						
K05A	**Summer Lake**	**78.51**	**39**	IAmb	IAmb	17 13 41.3	
	comp=Z,33nm,1.4s						
GRNR	**Gornyy**	**78.58**	**332**	⇑*i*P	**P**	**17 13 34.8**	**+1.0**
GRNR				pmax	pmax		
	comp=Z,5.0nm,0.9s						
N17K	**Nushagak Hills**	**78.65**	**10**	IAMs_20	IAMs_20	17 41 55.6	
	comp=Z,1µm,22.0s						
L14K	**Kuka Creek**	**78.66**	**7**	IAMs_20	IAMs_20	17 42 14.5	
	comp=Z,991nm,20.0s						
M16K	**Timber Creek**	**78.85**	**9**	IAMs_20	IAMs_20	17 39 36.6	
	comp=Z,1µm,22.0s						
O19K	**Port Alsworth**	**78.85**	**11**	IAMs_20	IAMs_20	17 39 21.9	
	comp=Z,914nm,22.0s						
N18K	**Kilae Creek**	**79.02**	**10**	IAMs_20	IAMs_20	17 47 26.3	
	comp=Z,843nm,19.0s						
PINE	**Pine Mountain**	**79.11**	**38**	IAmb	IAmb	17 13 44.6	
	comp=Z,28nm,1.4s						
N19K	**Bonanza Creek**	**79.39**	**11**	IAMs_20	IAMs_20	17 47 20.3	
	comp=Z,861nm,19.0s						
L16K	**Owhat River**	**79.43**	**8**	IAMs_20	IAMs_20	17 40 19.1	
	comp=Z,926nm,22.0s						
M17K	**Holitna River**	**79.44**	**9**	IAMs_20	IAMs_20	17 43 45.3	
	comp=Z,1µm,21.0s						
DL2	**Dalian**	**79.61**	**316**	*e*P	P	17 13 44.3	+4.7
DL2				S	S	17 23 47.9	+8.6
DL2				pmax	pmax		
	comp=Z,55nm,1.4s						
DL2				pmax	pmax		
	comp=Z,500nm,6.1s						
DL2				L	L		
	comp=Z,650nm,17.4s						
DL2				L	L		
	comp=Z,450nm,17.9s						
DL2				L	L		
	comp=Z,450nm,17.6s						
WVOR	**Wild Horse Val**	**79.71**	**40**	P	**P**	**17 13 42.0**	**+1.7**
WVOR	**Wild Horse Val**	**79.71**	**40**	P	**P**	**17 13 42.2**	**+1.9**
	comp=Z,8.4nm,1.3s						
KLR	**Kul'dur**	**79.75**	**329**	LR	LR	17 43 12.4	
	comp=Z,963nm,21.9s,baz=136,slow=31						
KLR	**Kul'dur**	**79.75**	**329**	*e*P	**P**	**17 13 42.6**	**+2.4**
KLR				pmax	pmax		
	comp=Z,2.0nm,1.5s						
STD	**Studebaker Rid**	**79.83**	**35**	IAmb	IAmb	17 13 48.3	
	comp=Z,31nm,1.4s						
CN2	**Changchun**	**79.87**	**322**	*e*P	P	17 13 44.8	+3.8
CN2				pmax	pmax		
	comp=Z,10.0nm,0.9s						
CN2				pmax	pmax		
	comp=Z,100nm,5.0s						
CN2				L	L		
	comp=Z,200nm,19.0s						
CN2				L	L		
	comp=Z,200nm,19.0s						
CN2				L	L		
	comp=Z,300nm,19.0s						
BNX	**BinXian**	**79.87**	**324**	⇑P	**P**	**17 13 43.9**	**+3.0**
BNX				pP	**PcP**	**17 13 47.4**	**-1.0**
BNX				sP	**pP**	**17 13 48.8**	**-2.3**
BNX				PP	**PP**	**17 16 43.4**	**+0.4**
BNX				S	S	17 23 49.5	+7.7
BNX				pmax	pmax		
	comp=Z,19nm,0.9s						
BNX				pmax	pmax		
	comp=Z,190nm,4.3s						
BNX				L	L		
	comp=Z,280nm,16.3s						
BNX				L	L		
	comp=Z,340nm,20.1s						
BNX				L	L		
	comp=Z,490nm,17.1s						
SLKM	**Skilak Lake**	**79.97**	**13**	IAMs_20	IAMs_20	17 43 20.8	
	comp=Z,964nm,21.0s						
TUC	**Tucson**	**80.00**	**52**	P	**P**	**17 13 41.3**	**-0.8**
TUC				pmax	pmax		
	comp=Z,27nm,1.4s						
TUC				MLR	MLR		
	comp=Z,400nm,22.0s						
TUC	**Tucson**	**80.00**	**52**	P	**P**	**17 13 41.3**	**-0.8**
TUC				IAmb	IAmb	17 13 51.0	
	comp=Z,27nm,1.4s						
TUC	**Tucson**	**80.00**	**52**	P	**P**	**17 13 44.1**	**+2.1**
	comp=Z,13nm,1.5s						
O22K	**Cooper Landing**	**80.06**	**13**	IAMs_20	IAMs_20	17 42 52.0	
	comp=Z,1µm,20.0s						
QIZ	**Qiongzhong**	**80.12**	**293**	P	**P**	**17 13 41.3**	**-1.6**
QIZ				S	**S**	**17 23 44.3**	**-1.3**
QIZ				L	L		
	comp=Z,620nm,21.4s						
QIZ				L	L		
	comp=Z,610nm,20.4s						
QIZ				L	L		
	comp=Z,720nm,25.6s						
L18K	**Granite Mounta**	**80.33**	**10**	IAMs_20	IAMs_20	17 44 00.9	
	comp=Z,1µm,19.0s						
GAMB	**Gambell**	**80.36**	**2**	IAMs_20	IAMs_20	17 42 01.1	
	comp=Z,1µm,22.0s						
MA2	**Magadan**	**80.41**	**344**	LR	LR	17 46 17.4	
	comp=Z,569nm,19.5s,baz=150,slow=33						
K17K	**Iditarod**	**80.56**	**9**	IAmb	IAmb	17 13 50.5	
	comp=Z,24nm,1.1s						
K17K				IAMs_20	IAMs_20	17 42 37.9	
	comp=Z,1µm,21.0s						
RC01	**Rabbit Creek A**	**80.60**	**13**	IAMs_20	IAMs_20	17 41 02.4	
	comp=Z,1µm,22.0s						
M20K	**Styx River**	**80.63**	**11**	IAMs_20	IAMs_20	17 46 30.2	
	comp=Z,839nm,20.0s						
PWL	**Port Wells**	**80.70**	**14**	IAMs_20	IAMs_20	17 41 32.2	
	comp=Z,991nm,21.0s						
ELK	**Elko**	**80.96**	**43**	P	**P**	**17 13 48.3**	**+1.1**
GLI	**Glacier Island**	**81.01**	**14**	IAMs_20	IAMs_20	17 43 33.4	
	comp=Z,982nm,20.0s						
SKT	**Skwentna**	**81.03**	**12**	IAMs_20	IAMs_20	17 46 15.7	
	comp=Z,922nm,19.0s						
J17K	**VABM Dome**	**81.10**	**8**	IAMs_20	IAMs_20	17 48 15.2	
	comp=Z,831nm,19.0s						
KNK	**Knik Glacier**	**81.17**	**13**	IAMs_20	IAMs_20	17 43 14.5	
	comp=Z,971nm,21.0s						
I17K	**Unalakleet**	**81.37**	**7**	IAMs_20	IAMs_20	17 43 59.1	
	comp=Z,889nm,21.0s						
U33K	**Whale Pass**	**81.43**	**23**	IAMs_20	IAMs_20	17 40 34.5	
	comp=Z,1µm,22.0s						
HAWA	**Hanford**	**81.43**	**36**	IAmb	IAmb	17 13 56.4	
	comp=Z,26nm,1.4s						
V35K	**Ketchikan**	**81.43**	**24**	IAMs_20	IAMs_20	17 40 57.7	
	comp=Z,780nm,21.0s						
J18K	**Innoko River**	**81.51**	**9**	IAMs_20	IAMs_20	17 48 52.0	
	comp=Z,792nm,19.0s						
ANM	**Nome**	**81.55**	**5**	IAMs_20	IAMs_20	17 44 25.7	
	comp=Z,1µm,20.0s						
SML	**Sawmill**	**81.55**	**13**	IAMs_20	IAMs_20	17 43 26.5	
	comp=Z,755nm,19.0s						
DIV	**Divide**	**81.55**	**15**	IAMs_20	IAMs_20	17 43 08.7	
	comp=Z,1µm,20.0s						
BMRM	**Bremner River**	**81.70**	**15**	IAMs_20	IAMs_20	17 42 50.8	
	comp=Z,1µm,21.0s						
HPIG		**81.76**	**59**	P	**P**	**17 13 53.7**	**+2.0**
	comp=Z,7.1nm,1.2s						
SMAI	**San Martin Ant**	**81.80**	**159**	P	**P**	**17 13 52.0**	**+1.0**
KLU	**Klutina**	**81.83**	**15**	IAMs_20	IAMs_20	17 46 50.0	
	comp=Z,1µm,19.0s						
BMO	**Blue Mountains**	**81.86**	**38**	P	**P**	**17 13 52.3**	**+0.6**
WRAK	**Wrangell Islan**	**81.94**	**23**	IAMs_20	IAMs_20	17 42 59.1	
	comp=Z,988nm,20.0s						
EPH	**Ephrata**	**81.95**	**35**	IAmb	IAmb	17 13 58.8	
	comp=Z,35nm,1.7s						
YAH	**Yahtse**	**81.95**	**17**	IAMs_20	IAMs_20	17 43 56.3	
	comp=Z,1µm,20.0s						
TGL	**Tana Glacier**	**81.98**	**16**	IAMs_20	IAMs_20	17 43 17.3	
	comp=Z,1µm,20.0s						
D08A	**Wollman Farm,**	**82.15**	**36**	IAmb	IAmb	17 14 00.2	
	comp=Z,25nm,1.5s						
PCA	**Pinnacle**	**82.15**	**18**	IAMs_20	IAMs_20	17 43 55.1	
	comp=Z,1µm,20.0s						
J19K	**Poorman**	**82.17**	**9**	IAMs_20	IAMs_20	17 43 03.6	
	comp=Z,842nm,21.0s						
VRDI	**Verde Repeater**	**82.22**	**16**	IAMs_20	IAMs_20	17 42 55.5	
	comp=Z,791nm,20.0s						
CAST	**Castle Rocks**	**82.24**	**11**	IAMs_20	IAMs_20	17 49 29.5	
	comp=Z,951nm,19.0s						
GRNC	**Granite Creek**	**82.25**	**17**	IAMs_20	IAMs_20	17 42 54.6	
	comp=Z,1µm,20.0s						
GLB	**Gilahina Butte**	**82.31**	**15**	IAMs_20	IAMs_20	17 43 09.8	
	comp=Z,730nm,20.0s						
MCARA	**McCarthy VSAT**	**82.46**	**16**	IAMs_20	IAMs_20	17 43 13.0	
	comp=Z,911nm,21.0s						
H17K	**Granite Mounta**	**82.47**	**7**	IAMs_20	IAMs_20	17 44 23.4	
	comp=Z,733nm,20.0s						
F10A	**Beach Ranch, E**	**82.52**	**37**	IAmb	IAmb	17 14 01.0	
	comp=Z,15nm,1.1s						
LOGN	**Logan Glacier**	**82.54**	**17**	IAMs_20	IAMs_20	17 42 22.1	
	comp=Z,1µm,21.0s						
BARN	**Barnard Glacie**	**82.55**	**17**	IAMs_20	IAMs_20	17 43 15.5	
	comp=Z,1µm,21.0s						
J20K	**Nowinta River**	**82.58**	**10**	IAMs_20	IAMs_20	17 44 59.4	
	comp=Z,846nm,21.0s						
HEH	**HeiHe**	**82.58**	**328**	*e*P	**P**	**17 13 55.3**	**+0.1**
HEH				pP	**pP**	**17 14 02.3**	**-3.2**
HEH				S	**SKSac**	**17 24 17.8**	**+4.2**
HEH				pmax	pmax		
	comp=Z,7.0nm,0.8s						
HEH				L	L		
	comp=Z,390nm,16.4s						
HEH				L	L		
	comp=Z,530nm,22.8s						
HEH				L	L		
	comp=Z,970nm,23.6s						
B08A	**Colville Reser**	**82.67**	**35**	IAmb	IAmb	17 14 02.2	
	comp=Z,18nm,1.4s						
O28M	**Mount Upton**	**82.72**	**17**	IAMs_20	IAMs_20	17 42 29.1	
	comp=Z,1µm,22.0s						
F15K	**North Star Dit**	**82.73**	**5**	IAMs_20	IAMs_20	17 46 04.0	
	comp=Z,1µm,20.0s						
PLID	**Pearl Lake**	**82.76**	**39**	IAmb	IAmb	17 14 21.7	
	comp=Z,19nm,1.6s						
SEY	**Seymchan**	**82.93**	**346**	LR	LR	17 44 40.2	
	comp=Z,941nm,21.6s,baz=148,slow=31						
SEY	**Seymchan**	**82.93**	**346**	*e*P	**P**	**17 13 55.7**	**-1.0**
SEY				pmax	pmax		
	comp=Z,17nm,1.1s						
TMUT	**Trail Mountain**	**82.93**	**46**	IAmb	IAmb	17 14 19.9	
	comp=Z,21nm,1.2s						
HLID	**Hailey**	**82.93**	**41**	IAmb	IAmb	17 14 04.9	
	comp=Z,37nm,1.9s						
HLID	**Hailey**	**82.93**	**41**	P	**P**	**17 13 59.0**	**+1.5**
	comp=Z,9.7nm,1.6s						
HVU	**Hansel Valley**	**83.08**	**43**	IAmb	IAmb	17 14 05.4	
	comp=Z,18nm,1.4s						
I20K	**Naaghedeneel**	**83.10**	**10**	IAMs_20	IAMs_20	17 57 32.3	
	comp=Z,918nm,21.0s						
T35M	**Bob Quinn**	**83.15**	**24**	IAMs_20	IAMs_20	17 42 25.1	
	comp=Z,1µm,22.0s						
SRU	**San Rafael Swe**	**83.31**	**46**	IAmb	IAmb	17 14 08.2	
	comp=Z,15nm,1.1s						
M26K	**Nabesna, AK**	**83.33**	**15**	IAMs_20	IAMs_20	17 43 02.7	
	comp=Z,916nm,21.0s						
IPM	**Ipoh**	**83.52**	**277**	P	P	17 14 05.9	+4.9
IPM	**Ipoh**	**83.52**	**277**	P	P	17 14 05.3	+4.4
	comp=Z,32nm,1.4s						
HYT	**Haines Junctio**	**83.56**	**18**	IAmb	IAmb	17 14 02.0	
	comp=Z,19nm,1.5s						
M27K	**Edge Creek, AK**	**83.58**	**16**	IAmb	IAmb	17 14 38.4	
	comp=Z,20nm,1.2s						
M27K				IAMs_20	IAMs_20	17 44 41.4	
	comp=Z,723nm,20.0s						
Y22A	**Socorro**	**83.59**	**52**	IAmb	IAmb	17 14 08.2	
	comp=Z,21nm,1.4s						
L26K	**Log Cabin Wild**	**83.77**	**15**	IAMs_20	IAMs_20	17 45 51.3	
	comp=Z,1µm,20.0s						
HWUT	**Hardware Ranch**	**83.79**	**43**	P	**P**	**17 14 02.2**	**+0.3**
	comp=Z,11nm,1.8s						
BSUT	**Blindstream Ca**	**83.82**	**45**	IAmb	IAmb	17 14 08.9	
	comp=Z,16nm,1.2s						
BJI2	**Beijing**	**83.83**	**315**	P	**P**	**17 14 05.3**	**+3.4**
BJI2				S	**S**	**17 24 29.6**	**+6.7**
BJI2				pmax	pmax		
	comp=Z,7.0nm,1.3s						
BJI2				pmax	pmax		
	comp=Z,130nm,4.8s						
BJI2				L	L		
	comp=Z,220nm,18.2s						
BJI2				L	L		
	comp=Z,140nm,17.1s						
BJI2				L	L		
	comp=Z,190nm,20.6s						
NEW	**Newport**	**83.84**	**36**	LR	LR	17 44 53.5	
	comp=Z,326nm,20.4s,baz=232,slow=31						
I21K	**Tanana**	**83.87**	**10**	IAMs_20	IAMs_20	17 46 31.7	
	comp=Z,730nm,20.0s						
MNTX	**Cornudas Mount**	**83.89**	**54**	P	**P**	**17 14 04.9**	**+2.4**
	comp=Z,18nm,1.3s						
BCYI	**Bear Canyon**	**83.94**	**40**	IAmb	IAmb	17 14 10.1	
	comp=Z,32nm,1.7s						
MLY	**Manley**	**83.96**	**11**	IAmb	IAmb	17 14 06.7	
	comp=Z,17nm,1.2s						
MLY				IAMs_20	IAMs_20	17 49 53.9	
	comp=Z,661nm,19.0s						
RIDG	**Independent Ri**	**84.02**	**14**	IAMs_20	IAMs_20	17 44 41.0	
	comp=Z,963nm,20.0s						
LYN	**LuoYang**	**84.06**	**309**	P	P	17 14 08.6	+5.4
LYN				S	S	17 24 37.3	+12
LYN				SS	**SS**	**17 29 59.0**	**+4.0**
LYN				pmax	pmax		
	comp=Z,19nm,0.8s						
LYN				L	L		
	comp=Z,360nm,18.4s						
LYN				L	L		
	comp=Z,360nm,16.5s						
LYN				L	L		
	comp=Z,610nm,19.9s						
PV03	**Paradox Valley**	**84.09**	**47**	IAmb	IAmb	17 14 11.4	
	comp=Z,14nm,1.2s						
PV04	**Paradox Valley**	**84.11**	**47**	IAmb	IAmb	17 14 16.5	
	comp=Z,18nm,1.0s						
PV02	**Paradox Valley**	**84.15**	**47**	IAmb	IAmb	17 14 12.4	
	comp=Z,22nm,1.1s						
L27K	**Beaver Creek,**	**84.18**	**15**	IAmb	IAmb	17 14 09.2	
	comp=Z,24nm,1.6s						
L27K				IAMs_20	IAMs_20	17 45 04.2	
	comp=Z,974nm,21.0s						
CCB	**Clear Creek Bu**	**84.18**	**12**	IAmb	IAmb	17 14 09.2	
	comp=Z,19nm,1.0s						
N30M	**Aishikik Lake**	**84.18**	**18**	IAMs_20	IAMs_20	17 44 08.5	
	comp=Z,1µm,20.0s						
BCAR	**Beaver Creek A**	**84.19**	**15**	P	**P**	**17 14 02.3**	**-1.0**
DLBC	**Dease Lake**	**84.27**	**23**	LR	LR	17 44 53.3	
	comp=Z,1µm,20.0s,baz=220,slow=31						
I23K	**Minto, Yukon-K**	**84.32**	**11**	IAMs_20	IAMs_20	17 45 15.5	
	comp=Z,1µm,21.0s						
TXAR	**Lajitas Array**	**84.32**	**57**	P	**P**	**17 14 06.8**	**+2.0**
	comp=Z,6.9nm,1.1s,baz=240,slow=4.0,SNR=22						
TXAR				LR	LR	17 43 40.8	
	comp=Z,336nm,20.2s,baz=238,slow=30						
	comp=Z,6.9nm,1.1s						
TXAR	**Lajitas Array**	**84.32**	**57**	P	**P**	**17 14 05.2**	**+0.3**
IMAR	**Indian Mountai**	**84.32**	**9**	P	**P**	**17 14 01.6**	**-2.2**
COLA	**College**	**84.37**	**12**	*ce*P	P	17 14 07.8	+3.8
COLA				pmax	pmax		
	comp=Z,24nm,0.9s						
COLA	**College**	**84.37**	**12**	P	**P**	**17 14 04.2**	**+0.2**
	comp=Z,30nm,0.9s						
PMSA	**Palmer Station**	**84.39**	**157**	LR	LR	17 46 13.9	
	comp=Z,213nm,18.6s,baz=248,slow=32						
TASM	**ASL Pad, Albuq**	**84.39**	**51**	IAmb	IAmb	17 14 12.7	
	comp=Z,20nm,1.4s						
TASM	**ASL Pad, Albuq**	**84.39**	**51**	IAmb	IAmb	17 14 12.7	
	comp=Z,21nm,1.4s						
ALQ	**Albuquerque**	**84.40**	**51**	IAmb	IAmb	17 14 12.7	
	comp=Z,20nm,1.4s						
ALQ	**Albuquerque**	**84.40**	**51**	IAmb	IAmb	17 14 12.7	
	comp=Z,20nm,1.4s						
ANMO	**Albuquerque**	**84.40**	**51**	LR	LR	17 43 36.9	
	comp=Z,247nm,21.6s,baz=244,slow=30						
ANMO	**Albuquerque**	**84.40**	**51**	*c i*P	**P**	**17 14 06.5**	**+1.3**
ANMO				pmax	pmax		
	comp=Z,18nm,1.4s						
ANMO	**Albuquerque**	**84.40**	**51**	P	**P**	**17 14 04.5**	**-0.7**
ANMO				IAmb	IAmb	17 14 12.6	
	comp=Z,15nm,1.2s						
ANMO	**Albuquerque**	**84.40**	**51**	P	**P**	**17 14 06.5**	**+1.3**
	comp=Z,12nm,1.4s						
SCRK	**Sand Creek**	**84.42**	**14**	IAMs_20	IAMs_20	17 44 00.6	
	comp=Z,878nm,22.0s						
ILAR	**Eielson Array**	**84.47**	**13**	P	**P**	**17 14 04.3**	**-0.3**
	comp=Z,17nm,1.1s,baz=227,slow=5.5,SNR=24						
ILAR				LR	LR	17 44 45.8	
	comp=Z,805nm,21.9s,baz=219,slow=31						
	comp=Z,17nm,1.1s						
ILAR	**Eielson Array**	**84.47**	**13**	P	**P**	**17 14 03.7**	**-0.9**
UNM	**Universidad Na**	**84.55**	**68**	IAMs_20	IAMs_20	17 43 04.8	
	comp=Z,1µm,20.0s						
F19K	**Shaleruckik Mo**	**84.56**	**8**	IAmb	IAmb	17 14 10.3	
	comp=Z,13nm,1.0s						
F19K				IAMs_20	IAMs_20	17 45 16.4	
	comp=Z,736nm,21.0s						
M29M	**Somme Creek**	**84.57**	**17**	IAMs_20	IAMs_20	17 44 21.7	
	comp=Z,1µm,21.0s						
N31M	**Braeburn, Yuko**	**84.60**	**19**	IAmb	IAmb	17 14 07.7	
	comp=Z,32nm,1.6s						
R33M	**Jennings River**	**84.62**	**22**	IAmb	IAmb	17 14 33.3	
	comp=Z,28nm,1.9s						
H22K	**Ishtalitna Cre**	**84.63**	**10**	IAmb	IAmb	17 14 10.9	
	comp=Z,13nm,0.9s						
H22K				IAMs_20	IAMs_20	17 47 12.7	
	comp=Z,676nm,20.0s						
AHID	**Auburn Hatcher**	**84.65**	**43**	P	**P**	**17 14 08.2**	**+1.9**
	comp=Z,11nm,1.3s						
J25K	**Salcha River,**	**84.66**	**13**	IAmb	IAmb	17 14 10.4	
	comp=Z,18nm,1.0s						
G21K	**Allakaket**	**84.86**	**9**	IAmb	IAmb	17 14 13.5	
	comp=Z,26nm,1.4s						
G21K				IAMs_20	IAMs_20	17 46 10.5	
	comp=Z,806nm,20.0s						
H23K	**Yukon River**	**84.89**	**11**	IAMs_20	IAMs_20	17 48 16.6	
	comp=Z,687nm,20.0s						
MSO	**Missoula**	**84.90**	**38**	IAmb	IAmb	17 14 28.9	
	comp=Z,34nm,1.9s						
K27K	**Chicken**	**84.92**	**15**	IAmb	IAmb	17 14 14.1	
	comp=Z,25nm,1.5s						
K27K				IAMs_20	IAMs_20	17 44 04.7	
	comp=Z,945nm,22.0s						
LDM	**Libby Dam**	**84.95**	**36**	IAmb	IAmb	17 14 20.1	
	comp=Z,14nm,1.2s						
RPSI	**Rantau Prapat**	**85.00**	**274**	P	**P**	**17 14 10.4**	**+1.9**
	comp=Z,14nm,1.9s						
F20K	**Avaraart Lake**	**85.03**	**8**	IAmb	IAmb	17 14 12.4	
	comp=Z,16nm,1.2s						
F20K				IAMs_20	IAMs_20	17 50 47.0	
	comp=Z,777nm,19.0s						
PSI	**Prapat**	**85.03**	**274**	P	**P**	**17 14 10.4**	**+1.6**
FXWY	**Fox Creek**	**85.11**	**42**	IAmb	IAmb	17 14 16.8	
	comp=Z,13nm,1.2s						
N32M	**Quiet Lake**	**85.19**	**20**	P	**P**	**17 14 07.5**	**-0.9**
N32M				IAmb	IAmb	17 14 12.0	
	comp=Z,15nm,1.3s						
L29M	**L29M**	**85.19**	**17**	IAmb	IAmb	17 14 13.3	
	comp=Z,20nm,1.1s						
L29M				IAMs_20	IAMs_20	17 45 22.2	
	comp=Z,1µm,20.0s						
E19K	**Redstone River**	**85.22**	**8**	IAmb	IAmb	17 14 15.0	
	comp=Z,22nm,1.4s						
O20A	**White River Ci**	**85.35**	**46**	IAmb	IAmb	17 14 31.4	
	comp=Z,27nm,1.4s						
MAW	**Mawson**	**85.38**	**199**	P	**P**	**17 14 08.4**	**-0.9**
	comp=Z,0.8nm,0.5s,baz=116,slow=8.4,SNR=4.4						
MAW				LR	LR	17 48 53.6	
	comp=Z,1µm,21.6s,baz=104,slow=33						
	comp=Z,0.8nm,0.5s						
BILI	**Bilibino, Chuk**	**85.40**	**354**	P	**P**	**17 14 09.5**	**+0.3**
	comp=Z,18nm,1.2s						
BILL	**Bilibino**	**85.40**	**354**	⇑*e*P	**P**	**17 14 11.9**	**+2.7**
BILL				pmax	pmax		
	comp=Z,15nm,1.0s						
PRP	**Porcupine Dome**	**85.41**	**13**	IAmb	IAmb	17 14 15.2	
	comp=Z,17nm,1.0s						
F21K	**Alatna River**	**85.51**	**9**	IAmb	IAmb	17 14 21.0	
	comp=Z,22nm,1.6s						
F21K				IAMs_20	IAMs_20	17 48 21.9	
	comp=Z,1µm,20.0s						
DAWY	**Dawson**	**85.63**	**16**	IAmb	IAmb	17 14 16.0	
	comp=Z,12nm,1.0s						
PDAR	**Pinedale Array**	**85.65**	**43**	P	**P**	**17 14 11.5**	**+0.2**
	comp=Z,3.9nm,1.0s,baz=209,slow=2.7,SNR=14						
PDAR				LR	LR	17 49 05.4	
	comp=Z,124nm,18.0s,baz=238,slow=33						
	comp=Z,3.9nm,1.0s						
PDAR	**Pinedale Array**	**85.65**	**43**	P	**P**	**17 14 10.8**	**-0.5**
BOZ	**Bozeman (W)**	**85.67**	**40**	IAmb	IAmb	17 14 18.7	
	comp=Z,21nm,1.3s						
XLT	**XiLinHaoTe**	**85.70**	**318**	*e*P	P	17 14 16.9	+5.5
XLT				S	S	17 24 52.3	+11
XLT				pmax	pmax		
	comp=Z,13nm,0.8s						
XLT				pmax	pmax		
	comp=Z,170nm,6.3s						
XLT				L	L		
	comp=Z,34nm,15.9s						
XLT				L	L		
	comp=Z,330nm,22.2s						
XLT				L	L		
	comp=Z,320nm,22.6s						
I26K	**Coal Creek Min**	**85.75**	**14**	IAmb	IAmb	17 14 22.5	
	comp=Z,21nm,1.3s						
SAND	**Sanderson**	**85.80**	**57**	IAmb	IAmb	17 14 20.4	
	comp=Z,32nm,1.5s						
MNHN	**Monahans**	**85.81**	**56**	IAmb	IAmb	17 14 19.6	
	comp=Z,34nm,1.7s						
K29M	**Barlow Dome**	**85.94**	**16**	IAmb	IAmb	17 14 14.7	
	comp=Z,32nm,1.7s						
K29M				IAMs_20	IAMs_20	17 46 44.0	
	comp=Z,939nm,19.0s						

COLD	**Coldfoot**	86.04	10	IAMs_20	IAMs_20	17 48 45.8	
	comp=Z,753nm,20.0s						
G24K	**Hadweenzic Riv**	86.06	11	IAMs_20	IAMs_20	17 46 49.5	
	comp=Z,1µm,20.0s						
D19K	**Kuna River**	86.10	7	IAMs_20	IAMs_20	17 47 23.1	
	comp=Z,1µm,20.0s						
SLVN	**Son La**	86.15	293	P	P	17 14 20.1	+6.0
SLVN				IAmb	IAmb	17 14 20.6	
	comp=Z,26nm,1.5s						
SLVN	**Son La**	86.15	293	P	P	17 14 18.5	+4.4
	comp=Z,9.2nm,1.1s						
J29N	**Klondike Camp**	86.24	16	IAMs_20	IAMs_20	17 45 35.9	
	comp=Z,840nm,22.0s						
HILR	**Hailar Array B**	86.29	324	P	**P**	**17 14 14.2**	**+0.1**
	comp=Z,0.7nm,0.3s,baz=128,slow=9.6,SNR=8.8						
	comp=Z,0.7nm,0.3s						
I27K	**Kandik River**	86.35	14	IAmb	IAmb	17 14 20.7	
	comp=Z,16nm,1.3s						
I27K				IAMs_20	IAMs_20	17 48 50.4	
	comp=Z,807nm,19.0s						
FYU	**Fort Yukon**	86.38	12	IAMs_20	IAMs_20	17 45 54.1	
	comp=Z,1µm,20.0s						
YNE	**Yellowstone No**	86.40	41	IAmb	IAmb	17 14 28.3	
	comp=Z,12nm,1.0s						
D20K	**Etivluk River**	86.48	7	IAMs_20	IAMs_20	17 46 41.4	
	comp=Z,766nm,20.0s						
XAN	**Xi'an**	86.55	307	P	P	17 14 21.3	+5.6
XAN				pmax	pmax		
	comp=Z,21nm,1.0s						
E21K	**Killik River**	86.58	8	IAMs_20	IAMs_20	17 46 59.7	
	comp=Z,823nm,21.0s						
E22K	**Anaktuvuk Pass**	86.61	9	IAMs_20	IAMs_20	17 47 17.7	
	comp=Z,689nm,20.0s						
I28M	**Miner Creek**	86.62	15	IAmb	IAmb	17 14 55.6	
	comp=Z,30nm,1.8s						
F24K	**Squaw Lake**	86.71	11	IAmb	IAmb	17 15 11.8	
	comp=Z,28nm,1.9s						
F24K				IAMs_20	IAMs_20	17 49 21.6	
	comp=Z,730nm,20.0s						
J30M	**Hart River**	86.84	16	IAMs_20	IAMs_20	17 50 10.8	
	comp=Z,744nm,19.0s						
MMPY	**Sheldon Lake,**	86.86	19	IAmb	IAmb	17 14 23.7	
	comp=Z,13nm,1.2s						
E23K	**Chandalar**	86.89	10	IAmb	IAmb	17 14 59.4	
	comp=Z,33nm,2.0s						
H27K	**Steamboat Moun**	86.89	14	IAmb	IAmb	17 14 23.5	
	comp=Z,14nm,1.4s						
H27K				IAMs_20	IAMs_20	17 47 31.8	
	comp=Z,666nm,20.0s						
RLMT	**Red Lodge**	86.92	41	IAmb	IAmb	17 14 26.3	
	comp=Z,13nm,1.1s						
I29M	**Ogilvie Camp,**	86.95	15	IAmb	IAmb	17 14 22.7	
	comp=Z,17nm,1.3s						
I29M				IAMs_20	IAMs_20	17 47 29.5	
	comp=Z,829nm,20.0s						
OZNA	**Ozona**	86.95	57	IAmb	IAmb	17 14 25.2	
	comp=Z,26nm,1.4s						
G26K	**Porcupine Rive**	87.01	13	IAMs_20	IAMs_20	17 45 51.7	
	comp=Z,919nm,21.0s						
D22K	**Ayikyak River**	87.17	9	IAMs_20	IAMs_20	17 49 27.5	
	comp=Z,859nm,20.0s						
BMAR	**Burnt Mountain**	87.26	12	P	**P**	**17 14 18.2**	**-0.2**
I30M	**Mount Dempster**	87.34	16	IAMs_20	IAMs_20	17 46 19.8	
	comp=Z,762nm,22.0s						
G27K	**Doyon Strip**	87.34	13	IAmb	IAmb	17 14 25.8	
	comp=Z,20nm,1.7s						
G27K				IAMs_20	IAMs_20	17 49 02.7	
	comp=Z,678nm,19.0s						
HHC	**Hu-ho-hao-te**	87.35	314	*e*P	**P**	**17 14 18.9**	**-0.7**
HHC				S	**S**	**17 24 55.0**	**-2.7**
HHC				pmax	pmax		
	comp=Z,13nm,0.6s						
HHC				pmax	pmax		
	comp=Z,99nm,3.8s						
HHC				L	L		
	comp=Z,140nm,16.2s						
HHC				L	L		
	comp=Z,160nm,16.5s						
HHC				L	L		
	comp=Z,200nm,16.3s						
H03S2	**Juan Fernandez**	87.41	124	T	T	18 51 02.0	
	baz=250,slow=75,SNR=23						
H03S1	**Juan Fernandez**	87.43	124	T	T	18 51 03.0	
	baz=250,slow=75,SNR=21						
H03S3	**Juan Fernandez**	87.43	124	T	T	18 51 01.3	
	baz=250,slow=75,SNR=19						
H29M	**Whitestone**	87.62	15	IAmb	IAmb	17 14 25.6	
	comp=Z,17nm,1.2s						
H29M				IAMs_20	IAMs_20	17 46 43.2	
	comp=Z,1µm,21.0s						
B20K	**Meade River**	87.65	7	IAMs_20	IAMs_20	17 48 34.0	
	comp=Z,1µm,21.0s						
CMIG	**Matias Romero**	87.68	72	LR	LR	17 45 11.3	
	comp=Z,900nm,19.6s,baz=248,slow=30						
ESPZ	**Base Esperanza**	87.76	157	P	**P**	**17 14 20.7**	**-0.3**
D24K	**Happy Valley**	88.00	10	IAMs_20	IAMs_20	17 48 22.7	
	comp=Z,849nm,21.0s						
EPYK	**Eagle Plains**	88.15	15	IAMs_20	IAMs_20	17 46 05.2	
	comp=Z,858nm,22.0s						
G29M	**Pine Creek**	88.26	14	IAMs_20	IAMs_20	17 47 22.1	
	comp=Z,1µm,21.0s						
H31M	**Peel River**	88.33	16	IAMs_20	IAMs_20	17 47 02.1	
	comp=Z,839nm,21.0s						
C23K	**Itkillik River**	88.34	9	IAMs_20	IAMs_20	17 50 26.6	
	comp=Z,915nm,20.0s						
F28M	**Old Crow**	88.40	13	IAMs_20	IAMs_20	17 50 52.7	
	comp=Z,829nm,20.0s						
B22K	**Teshekpuk Lake**	88.41	8	IAMs_20	IAMs_20	17 52 07.4	
	comp=Z,862nm,19.0s						
KMI2	**Kunming**	88.42	297	P	P	17 14 29.9	+4.7
KMI2				pmax	pmax		
	comp=Z,15nm,1.2s						
KMI2				L	L		
	comp=Z,270nm,18.4s						
KMI2				L	L		
	comp=Z,300nm,27.2s						
KMI2				L	L		
	comp=Z,370nm,20.7s						
BTO2	**Baotou**	88.48	313	*e*P	P	17 14 31.0	+6.0
BTO2				pmax	pmax		
	comp=Z,42nm,0.6s						
BTO2				L	L		
	comp=Z,390nm,12.3s						
BTO2				L	L		
	comp=Z,320nm,11.9s						
BTO2				L	L		
	comp=Z,610nm,20.0s						
E27K	**Coleen River**	88.51	13	IAMs_20	IAMs_20	17 47 10.3	
	comp=Z,849nm,21.0s						
C24K	**Franklin Bluff**	88.53	10	IAMs_20	IAMs_20	17 48 38.6	
	comp=Z,880nm,20.0s						
D25K	**Kavik River**	88.57	10	IAMs_20	IAMs_20	17 47 21.7	
	comp=Z,641nm,20.0s						
G30M	**tAoh Zraii Nji**	88.75	15	IAmb	IAmb	17 14 33.2	
	comp=Z,14nm,1.1s						
G30M				IAMs_20	IAMs_20	17 47 26.1	
	comp=Z,958nm,20.0s						
YAK	**Yakutsk**	88.96	338	LR	LR	17 56 33.7	
	comp=Z,202nm,18.1s,baz=118,slow=37						
YAK	**Yakutsk**	88.96	338	*e*P	**P**	**17 14 28.8**	**+2.3**
YAK				pmax	pmax		
	comp=Z,10.0nm,0.8s						
YAK				pmax	pmax		
	comp=N,2.0nm,1.3s						
YAK				pmax	pmax		
	comp=E,3.0nm,1.1s						
YAK	**Yakutsk**	88.96	338	P	**P**	**17 14 25.1**	**-1.4**
YAK				IAmb	IAmb	17 14 31.1	
	comp=Z,11nm,0.9s						
YAK	**Yakutsk**	88.96	338	P	**P**	**17 14 28.6**	**+2.0**
	comp=Z,14nm,1.0s						
G31M	**Satah River**	89.20	16	IAmb	IAmb	17 14 35.0	
	comp=Z,14nm,1.1s						
G31M				IAMs_20	IAMs_20	17 46 25.0	
	comp=Z,1µm,22.0s						
E28M	**Babbage River**	89.29	13	IAmb	IAmb	17 14 33.7	
	comp=Z,11nm,1.2s						
E28M				IAMs_20	IAMs_20	17 46 50.0	
	comp=Z,644nm,21.0s						
F30M	**Barrier River**	89.35	15	IAMs_20	IAMs_20	17 48 05.9	
	comp=Z,1µm,21.0s						
E29M	**Blow River**	89.47	14	IAMs_20	IAMs_20	17 50 59.0	
	comp=Z,804nm,20.0s						
CD2	**Chengdu**	89.49	302	*e*P	**P**	**17 14 29.8**	**-0.1**
D27M	**Malcolm River**	89.52	12	IAMs_20	IAMs_20	17 47 22.0	
	comp=Z,951nm,22.0s						
CMAR	**Chiang Mai Arr**	89.67	289	P	**P**	**17 14 31.9**	**+1.0**
	comp=Z,1.3nm,0.8s,baz=113,slow=3.5,SNR=8.2						
CMAR				LR	LR	17 51 57.8	
	comp=Z,195nm,20.2s,baz=115,slow=34						
	comp=Z,1.3nm,0.8s						
CMAR	**Chiang Mai Arr**	89.67	289	*i* P	P	17 14 34.5	+3.6
CMAR	**Chiang Mai Arr**	89.67	289	P	P	17 14 36.1	+5.2
PZH	**PanZhiHua**	89.71	298	P	**P**	**17 14 30.5**	**-0.6**
F31M	**Tsiigehtchic**	89.73	15	IAMs_20	IAMs_20	17 47 13.9	
	comp=Z,737nm,21.0s						
INK	**Inuvik**	90.44	15	P	**P**	**17 14 34.2**	**+0.9**
INK	**Inuvik**	90.44	15	P	**P**	**17 14 34.2**	**+0.9**
	comp=Z,7.0nm,1.1s						
ELIB	**Princess Elisa**	90.46	186	*d*P	**P**	**17 14 33.3**	**-0.5**
	comp=Z,8.0nm,1.1s						
APG	**El Apazote**	91.11	75	LR	LR	17 47 45.5	
	comp=Z,48nm,20.2s,baz=174,slow=30						
LZH	**Lanzhou**	91.17	307	*e*P	**P**	**17 14 34.4**	**-3.3**
LZH				sP	pP	17 14 43.8	-4.3
LZH	**Lanzhou**	91.17	307	sS	sS	17 25 45.4	-5.8
LZH	**Lanzhou**	91.17	307	SS	SS	17 31 41.5	+2.4
LZH				LR	LR		
	comp=N,250nm,21.3s						
LZH				LR	LR		
	comp=E,350nm,21.0s						
LZH				LR	LR		
	comp=Z,360nm,21.4s						
PLCA	**Paso Flores**	91.23	133	LR	LR	17 50 07.4	
	comp=Z,215nm,18.9s,baz=246,slow=32						
LZDM	**Lanzhou Array**	91.24	307	LR	LR	17 56 51.1	
	comp=Z,83nm,18.2s,baz=105,slow=36						
TROLL	**Troll, Antarti**	91.47	180	⇑P	**P**	**17 14 38.5**	**0.0**
	comp=Z,153nm,0.6s						
SNAA	**Sanae**	91.73	178	P	**P**	**17 14 39.1**	**-0.5**
	comp=Z,1.1nm,0.5s,baz=270,slow=5.6,SNR=3.1						
SNAA				LR	LR	17 54 38.9	
	comp=Z,448nm,18.8s,baz=200,slow=35						
	comp=Z,1.1nm,0.5s						
SNAA	**Sanae**	91.73	178	⇓*i*P	**P**	**17 14 42.9**	**+3.3**
SNAA				pmax	pmax		
	comp=Z,8.0nm,1.3s						
SNAA	**Sanae**	91.73	178	IAMs_20	IAMs_20	17 54 08.8	
	comp=Z,642nm,19.0s						
VNA3	**Neumayer Olymp**	91.82	176	⇑P	**P**	**17 14 40.0**	**0.0**
	comp=Z,7.9nm,0.8s						
VNA3	**Neumayer Olymp**	91.82	176	P	**P**	**17 14 40.1**	**+0.1**
	comp=Z,15nm,0.8s						
VNA2	**Neumayer--Watz**	92.27	177	⇑P	**P**	**17 14 42.1**	**+0.1**
	comp=Z,4.0nm,0.6s,baz=174,slow=4.0						
VNA2	**Neumayer--Watz**	92.27	177	P	**P**	**17 14 42.8**	**+0.8**
	comp=Z,9.8nm,0.9s						
VNA1	**Neumayer--Stat**	92.49	176	⇑P	**P**	**17 14 44.1**	**+1.0**
	comp=Z,11nm,1.0s						
NVL	**N'lazarevskaya**	92.50	183	*e*P	**P**	**17 14 44.8**	**+1.7**
NVL				pmax	pmax		
	comp=Z,7.0nm,1.0s						
NVL				MLR	MLR		
	comp=Z,501nm,16.0s						
NPW	**Naypyitaw**	92.59	290	P	P	17 14 48.8	+4.3
	comp=Z,10nm,1.4s						
Z38A	**Mt. Pleasant**	92.65	56	IAMs_20	IAMs_20	17 48 56.5	
	comp=Z,611nm,20.0s						
YKA	**Yellowknife Ar**	92.75	24	P	**P**	**17 14 44.8**	**+0.6**
	comp=Z,1.3nm,0.9s,baz=258,slow=3.5,SNR=4.8						
YKA				LR	LR	17 48 26.3	
	comp=Z,905nm,22.0s,baz=248,slow=30						
	comp=Z,1.3nm,0.9s						
ULN	**Ulaanbaatar**	93.08	319	⇑*i*P	**P**	**17 14 49.0**	**+2.7**
ULN				pmax	pmax		
	comp=Z,8.0nm,1.1s						
ULN	**Ulaanbaatar**	93.08	319	P	P	17 14 51.6	+5.3
ULN				IAmb	IAmb	17 14 51.8	
	comp=Z,8.6nm,1.2s						
ULN	**Ulaanbaatar**	93.08	319	P	P	17 14 51.2	+4.9
ULN	**Ulaanbaatar**	93.08	319	P	**P**	**17 14 49.2**	**+2.9**
	comp=Z,6.2nm,1.8s						
VA01	**Torpederas**	93.40	126	IAMs_20	IAMs_20	17 44 59.7	
	comp=Z,788nm,20.0s						
SONM	**Songino Array**	93.48	319	P	**P**	**17 14 49.6**	**+1.5**
	comp=Z,1.5nm,1.0s,baz=118,slow=3.0,SNR=6.5						
SONM				LR	LR	17 54 01.6	
	comp=Z,165nm,19.7s,baz=114,slow=34						
	comp=Z,1.5nm,1.0s						
SONM	**Songino Array**	93.48	319	IAmb	IAmb	17 14 53.4	
	comp=Z,3.0nm,1.1s						
TEIG	**Tepich**	94.59	70	IAMs_20	IAMs_20	17 48 14.1	
	comp=Z,608nm,22.0s						
JTS	**Las Juntas de**	94.95	81	LR	LR	17 47 20.0	
	comp=Z,810nm,21.1s,baz=241,slow=29						
JTS	**Las Juntas de**	94.95	81	IAMs_20	IAMs_20	17 47 08.0	
	comp=Z,837nm,20.0s						
S39A	**Bolivar**	95.28	52	IAmb	IAmb	17 15 09.1	
	comp=Z,13nm,1.3s						
GTA2	**Gaotai**	95.31	309	*e*P	**P**	**17 15 00.1**	**+3.4**
GTA2				pmax	pmax		
	comp=Z,6.0nm,1.0s						
GTA2				L	L		
	comp=Z,280nm,20.6s						
GTA2				L	L		
	comp=Z,170nm,18.1s						
GTA2				L	L		
	comp=Z,370nm,21.6s						
TIXI	**Tiksi**	95.35	345	LR	LR	17 54 19.6	
	comp=Z,935nm,20.1s,baz=138,slow=33						
HDC	**Heredia**	95.66	81	IAMs_20	IAMs_20	17 47 19.1	
	comp=Z,618nm,21.0s						
LCO	**Las Campanas**	95.68	122	P	**P**	**17 14 57.3**	**-1.6**
AC05	**El Transito**	96.09	122	IAMs_20	IAMs_20	17 46 29.6	
	comp=Z,869nm,22.0s						
NNA	**Nana**	96.20	104	LR	LR	17 50 23.6	
	comp=Z,268nm,19.0s,baz=252,slow=30						
ATAH	**Atahualpa**	96.24	99	LR	LR	17 47 44.6	
	comp=Z,994nm,21.8s,baz=248,slow=29						
ULM	**Lac du Bonnet**	97.22	40	LR	LR	17 52 29.3	
	comp=Z,177nm,19.7s,baz=266,slow=31						
BRDH	**Bariadhala**	97.41	291	LR	LR	17 55 16.0	
	comp=Z,183nm,21.5s,baz=153,slow=33						
P48A	**Milroy**	101.71	52	IAMs_20	IAMs_20	18 04 36.6	
	comp=Z,462nm,19.0s						
MTDJ	**Mount Denham**	103.91	75	IAMs_20	IAMs_20	17 52 33.8	
	comp=Z,511nm,20.0s						
ZALV	**Zalesovo Beam**	108.08	322	PKiKP	**PKiKP**	**17 20 00.2**	**+0.3**
	comp=Z,1.2nm,0.7s,baz=132,slow=2.1,SNR=5.0						
HYB	**Hyderabad**	108.16	283	*e*PKiKP	**PKiKP**	**17 19 59.6**	**-1.5**
HYB				*e*SKSac	**SKSac**	**17 26 32.4**	**0.0**
HYB				*e*SKKSac	**SKKSac**	**17 27 23.9**	**-2.2**
MKAR	**Makanchi Array**	109.21	314	PKiKP	**PKiKP**	**17 20 02.2**	**-0.1**
	comp=Z,1.4nm,0.9s,baz=66,slow=1.1,SNR=6.2						
KURK	**Kurchatov**	111.78	318	⇑*i*PKIKP	**PKiKP**	**17 20 10.6**	**+3.7**
BCX	**Boston College**	112.77	51	IAMs_20	IAMs_20	18 16 17.3	
	comp=Z,732nm,21.0s						
WVL	**Waterville**	113.92	48	IAMs_20	IAMs_20	18 02 40.1	
	comp=Z,413nm,20.0s						
BVAR	**Borovoye Array**	116.72	321	PKP	**PKiKP**	**17 20 16.8**	**+0.4**
	comp=Z,4.5nm,0.8s,baz=79,slow=3.1,SNR=12						
BORK	**Borovoye**	116.76	321	PKIKP	**PKiKP**	**17 20 19.0**	**+2.6**
BORK				MLR	MLR		
	comp=Z,300nm,20.0s						
BORK	**Borovoye**	116.76	321		**PKiKP**	**17 20 19.0**	**+2.6**
ARTI	**Arti**	122.67	327	*i* PKIKP	**PKiKP**	**17 20 32.0**	**+4.1**
ARTI						17 22 09.8	
ARTI						17 27 43.7	
ARTI				SS	SS	17 38 47.0	+2.1
ARTI				MLR	MLR		
	comp=Z,682nm,25.0s						
ARTI	**Arti**	122.67	327		**PKiKP**	**17 20 29.7**	**+1.8**
ARTI				IAMs_20	IAMs_20	18 10 20.5	
	comp=Z,528nm,22.0s						
AB31	**Akbulak array**	123.89	319		**PKiKP**	**17 20 31.6**	**+1.1**
ABKAR	**Akbulak array**	123.89	319		**PKiKP**	**17 20 29.6**	**-0.9**
KEV	**Kevo**	124.94	350	IAMs_20	IAMs_20	18 08 11.2	
	comp=Z,545nm,22.0s						
ARCES	**ARCESS Array B**	125.38	350	PKP	**PKiKP**	**17 20 31.9**	**-1.0**
	comp=Z,3.7nm,0.8s,baz=3.5,slow=1.5,SNR=5.5						
KIRV	**Kirov**	126.09	332	*ce*PKIKP	**PKiKP**	**17 20 38.2**	**+3.6**
KLMR	**Klimovskoe**	128.76	338	*e*PKIKP	**PKiKP**	**17 20 41.4**	**+1.6**
KLMR				pmax	pmax		
	comp=Z,27nm,1.3s						
KLMR				MLR	MLR		
	comp=Z,464nm,16.0s						
BELG	**Belogornoye**	130.04	326	⇓*e*PKIKP	**PKiKP**	**17 20 43.2**	**+0.5**
OBN	**Obninsk**	133.82	334	*e*PKIKP	**PKiKP**	**17 20 52.4**	**+2.2**
OBN				*e*		17 23 20.6	
OBN				*e*PPP	PPP	17 26 15.4	
OBN				pmax	pmax		
	comp=Z,9.0nm,1.0s						
OBN	**Obninsk**	133.82	334	IAMs_20	IAMs_20	18 20 49.8	
	comp=Z,477nm,20.0s						
MAK	**Makhachkala**	134.03	314	*e*P	**Pdif**	**17 17 48.7**	**-0.2**
MAK				*e*PPP	PPP	17 26 18.8	
MAK				*e*		17 27 57.7	
MAK				*e*PS	PS	17 33 36.9	-3.8
MAK				*e*SS	SS	17 41 07.1	+0.7
MAK				*e*SSS	SSS	17 46 04.4	
MAK				pmax	pmax		
	comp=Z,291nm,1.2s						
NCK	**Nalchik**	136.46	316	⇑*i*PKIKP	**PKiKP**	**17 21 00.9**	**+4.9**
KBZ	**Khabaz**	136.82	317	⇑*i*PKIKP	**PKiKP**	**17 20 59.4**	**+2.7**
KIV	**Kislovodsk**	136.86	317	*i* PKIKP	**PKiKP**	**17 20 59.4**	**+2.5**
KIV				pmax	pmax		
	comp=Z,8.0nm,1.1s						
KIV	**Kislovodsk**	136.86	317	IAMs_20	IAMs_20	18 24 59.9	
	comp=Z,483nm,20.0s						
SHA1	**Shidzhatmaz**	136.97	317	⇑*e*PKIKP	**PKiKP**	**17 20 59.6**	**+2.3**
NEUR	**Neytrino**	137.15	317	⇑*e*PKIKP	**PKiKP**	**17 20 59.8**	**+2.1**
ERBR	**Yeremizino-Bor**	137.41	321	*i* PKIKP	**PKiKP**	**17 21 02.7**	**+4.8**
ERBR				pmax	pmax		
	comp=Z,22nm,0.9s						
ERBR				MLR	MLR		
	comp=Z,400nm,20.0s						
MNK	**Minsk**	137.65	339	*i* PKIKP	**PKiKP**	**17 20 57.8**	**-0.2**
MNK				*i*		17 23 41.9	
MNK				*i* PPP	PPP	17 26 44.5	
MNK				*i*		17 28 09.5	
MNK				*i* SS	SS	17 41 56.3	+8.2
MNK				*i* SSS	SSS	17 47 02.7	
MNK				pmax	pmax		
	comp=Z,10.0nm,0.9s						
MNK				MLR	MLR		
	comp=N,2µm,21.0s						
MNK				MLR	MLR		
	comp=E,2µm,21.0s						
MNK	**Minsk**	137.65	339	*i* PKP	**PKiKP**	**17 20 57.9**	**-0.2**
	comp=Z,10.0nm,0.9s,baz=217						
MNK				*i* PP	**PP**	**17 23 42.0**	**-0.3**
MNK				*i* PPP	PPP	17 26 44.6	
MNK				*i* SKS	**SKSdf**	**17 28 09.5**	**+5.4**
MNK				*i* SKKS	**SKKSdf**	**17 37 43.1**	**+1.4**
MNK				*i* SS	**SS**	**17 41 56.3**	**+8.2**
MNK				*i* SSS	SSS	17 47 02.7	
MNK				*i* LRM	MLR	18 21 05.2	
	comp=E,2µm,20.9s						
MNK				*i* LRM	MLR	18 21 05.2	
	comp=N,2µm,21.1s						
LABN	**Labinsk**	137.79	319	*i* PKIKP	**PKiKP**	**17 20 59.9**	**+1.2**
LABN				pmax	pmax		
	comp=Z,31nm,0.7s						
RAYN	**Ar Rayn**	139.54	287	PKIKP	**PKiKP**	**17 21 04.3**	**+1.4**
SUW	**Suwalki**	139.59	342	IAMs_20	IAMs_20	18 22 34.1	
	comp=Z,390nm,20.0s						
AK03	**Malin Array Si**	140.06	334	PKP	**PKPdf**	**17 21 00.1**	**-0.5**
AKASG	**Malin Array Be**	140.08	334	PKP	**PKPdf**	**17 21 00.5**	**-0.2**
	comp=Z,2.2nm,0.7s,baz=38,slow=2.2,SNR=6.6						
AKBB	**Malin Array Si**	140.08	334	⇑*i*PKIKP	**PKiKP**	**17 21 03.3**	**+0.2**
AKBB	**Malin Array Si**	140.08	334	PKP	**PKPdf**	**17 21 00.1**	**-0.6**
AK01	**Malin Array Si**	140.09	334	PKP	**PKPdf**	**17 20 59.7**	**-1.0**
KIEV	**Kiev**	140.09	334	PKP	**PKPdf**	**17 21 00.1**	**-0.6**
KIBK	**Kibwezi**	140.46	245	IAMs_20	IAMs_20	18 18 18.9	
	comp=Z,445nm,20.0s						
EKA	**Eskdalemuir Ar**	141.20	6	PKP	**PKPdf**	**17 21 01.7**	**-0.9**
	comp=Z,3.3nm,1.1s,baz=108,slow=2.7,SNR=3.6						
LUBAR	**Lubar, Ukraine**	141.29	334	PKP	**PKPdf**	**17 21 01.9**	**-1.0**
RGN	**Rugen**	141.41	350	IAMs_20	IAMs_20	18 24 56.6	
	comp=Z,503nm,21.0s						
KMPD	**K-Podol'skiy**	142.88	334	PKP	**PKPdf**	**17 21 04.7**	**-1.0**
BNN	**Bunyan**	143.76	314		PKPbc	17 21 04.6	-0.8
BURAR	**Bucovina Array**	144.14	334		**PKiKP**	**17 21 11.8**	**+0.1**
BURAR	**Bucovina Array**	144.14	334	⇑P	**PKiKP**	**17 21 11.0**	**-0.8**
STHS	**Stebnicka Huta**	144.16	339	*e*PKIKP	**PKiKP**	**17 21 08.9**	**-2.7**
STHS	**Stebnicka Huta**	144.16	339	*e*PKP	**PKiKP**	**17 21 08.9**	**-2.7**
KOLS	**Kolonicke sedl**	144.21	338	PKIKP	**PKiKP**	**17 21 10.1**	**-1.6**
TLCR		144.27	328	⇓PKIKP	**PKiKP**	**17 21 09.2**	**-2.7**
TLCR		144.27	328	⇓P	**PKiKP**	**17 21 09.2**	**-2.7**
BIZ	**Bicaz**	144.28	332	⇑P	**PKiKP**	**17 21 10.0**	**-1.9**
GHRR		144.34	330	⇑P	**PKiKP**	**17 21 13.5**	**+1.5**
UZHM	**Uzhgorod**	144.46	338	PKP	**PKPdf**	**17 21 06.9**	**-1.6**
CLL	**Collm**	144.58	349	*i* PKIKP	**PKPdf**	**17 21 07.4**	**-1.3**
CLL				*i*		17 21 09.5	
CLL				*i*		17 21 13.4	
CLL	**Collm**	144.58	349	IAMs_20	IAMs_20	18 29 19.4	
	comp=Z,290nm,20.0s						
CLL	**Collm**	144.58	349	*i* PKPpre	PKPpre	17 21 07.4	
CLL				*i* PKPdf	**PKiKP**	**17 21 09.5**	**-2.8**
	comp=Z,6.0nm,1.0s						
CLL				*i* x	x	17 21 11.1	
	comp=Z,8.0nm,1.0s						
CLL				*i* PKiKP	pPKPdf	17 21 13.4	-6.1
	comp=Z,11nm,0.9s						
CLL				*i* x	x	17 21 21.0	
CLL				*e*PSPS		17 44 12.0	
CLL				*e*SSS	SSS	17 48 24.0	
CLL				L	L	18 09 00.0	
CLL				AMS	AMS	18 20 00.0	
	comp=N,500nm,26.0s						
CLL				AMS	AMS	18 20 00.0	
	comp=E,100nm,27.5s						
CLL				AMS	AMS	18 20 00.0	
	comp=Z,500nm,25.5s						
OSTC	**Ostas**	144.60	345	*e*PKIKP	**PKPdf**	**17 21 09.3**	**+0.5**
OSTC	**Ostas**	144.60	345	⇑*e*PKP	**PKPdf**	**17 21 09.3**	**+0.5**
ONER	**Baraj Valea Uz**	144.60	332	⇑P	**PKiKP**	**17 21 10.8**	**-1.8**
CHVC	**Chvalec**	144.61	345	*e*PKIKP	**PKiKP**	**17 21 13.0**	**+0.5**
CHVC	**Chvalec**	144.61	345	⇑*e*PKP	**PKiKP**	**17 21 13.0**	**+0.5**
CFR	**Carcaliu**	144.62	329	⇑P	**PKiKP**	**17 21 10.8**	**-1.8**
UPC	**Upice**	144.70	345	PKIKP	**PKPdf**	**17 21 09.3**	**+0.4**
TPGR	**Topolog**	144.70	328	⇑P	**PKPdf**	**17 21 08.6**	**-0.5**
OKC	**Ostrava-Krasne**	144.75	343	PKIKP	**PKiKP**	**17 21 11.2**	**-1.6**
OKC	**Ostrava-Krasne**	144.75	343	AMS	AMS	18 23 20.0	
	comp=Z,600nm,20.8s						
DPC	**Dobruska-Polom**	144.77	345	*e*PKIKP	**PKPdf**	**17 21 09.4**	**+0.3**
DPC				MLR	MLR		
	comp=Z,300nm,20.0s						
DPC	**Dobruska-Polom**	144.77	345	⇑*e*PKP	**PKPdf**	**17 21 09.4**	**+0.3**
DPC				AMS	AMS	18 23 10.0	
	comp=Z,300nm,20.0s						
STEB	**Steborice**	144.77	343	⇑*e*PKP	**PKPdf**	**17 21 08.9**	**-0.2**
BMR	**Baia Mare**	144.79	336	PKIKP	**PKiKP**	**17 21 11.5**	**-1.4**
VRI	**Vrincioaia**	144.80	331	PKHKP	PKPpre	17 21 07.1	
VRI	**Vrincioaia**	144.80	331	⇓P	**PKPab**	**17 21 06.4**	**-1.8**
BRG	**Berggiesshubel**	144.81	348	*e*PKP	**PKiKP**	**17 21 12.0**	**-0.9**
BRG				Amp		17 21 13.7	
	comp=Z,4.3nm,0.8s						
BRG	**Berggiesshubel**	144.81	348	P	PKiKP	17 21 19.7	+6.8
BRG				Amp		17 21 20.3	
	comp=Z,6.8nm,1.0s						
BR131	**Keskin Array S**	144.81	317	*ce*PKIKP	**PKPdf**	**17 21 09.4**	**-0.3**
BRTR	**Keskin Array B**	144.81	317	PKP	**PKPdf**	**17 21 09.9**	**+0.3**
	comp=Z,24nm,0.9s,baz=71,slow=2.1,SNR=39						
BRTR	**Keskin Array B**	144.81	317	PKIKP	**PKPdf**	**17 21 10.0**	**+0.3**
BRTR	**Keskin Array B**	144.81	317		PKPbc	17 21 07.9	-0.8
PLOR	**Plostina**	144.85	331	⇑PKHKP	PKPpre	17 21 06.4	
PLOR	**Plostina**	144.85	331	⇑P	**PKPab**	**17 21 06.4**	**-2.0**
KRLC	**Kraliky**	144.90	344	*e*PKP2	**PKPdf**	**17 21 09.7**	**+0.3**
KRLC	**Kraliky**	144.90	344	⇑*e*PKP	**PKPdf**	**17 21 09.7**	**+0.3**
KIRS	**Kirsehir-Merke**	144.94	316	⇑P	**PKiKP**	**17 21 11.0**	**-2.7**
MORC	**Moravsky Berou**	144.97	343	⇓PKIKP	**PKiKP**	**17 21 12.9**	**-0.4**
MORC	**Moravsky Berou**	144.97	343	*e*PKP	**PKPdf**	**17 21 09.5**	**0.0**
MORC	**Moravsky Berou**	144.97	343	⇓P	**PKiKP**	**17 21 12.9**	**-0.4**
TIRR	**Tirgusor**	144.98	327	⇓P	**PKPab**	**17 21 06.4**	**-2.4**
TURR	**Turia**	144.99	332	⇓P	**PKiKP**	**17 21 10.8**	**-2.7**
BISRR	**Bisoca**	145.04	330	⇓P	**PKPdf**	**17 21 09.6**	**-0.2**
COVR	**Voineasa-Covas**	145.06	331	⇑P	**PKiKP**	**17 21 10.6**	**-3.0**
OZUR		145.06	332	⇑P	**PKiKP**	**17 21 10.8**	**-2.8**
HARR	**Harsova**	145.07	328	⇓PKIKP	**PKiKP**	**17 21 10.6**	**-3.0**
HARR	**Harsova**	145.07	328	⇓P	**PKiKP**	**17 21 10.6**	**-3.0**
TLBR	**Topalu**	145.11	328	⇓P	**PKiKP**	**17 21 11.5**	**-2.1**
MFTR	**Murfatlar**	145.17	327	⇓P	**PKiKP**	**17 21 11.2**	**-2.6**
MAUC	**Maruska**	145.27	343	⇑*e*PKP	**PKiKP**	**17 21 15.2**	**+1.3**
DOPR	**Dopca**	145.34	332	⇓P	**PKiKP**	**17 21 11.5**	**-2.6**
ISR	**Istrita**	145.44	330	⇑PKP2	**PKPab**	**17 21 10.4**	**-0.3**
ISR	**Istrita**	145.44	330	⇑P	**PKPab**	**17 21 10.4**	**-0.3**
MLR	**Muntele Rosu**	145.45	331	⇑PKIKP	**PKiKP**	**17 21 12.1**	**-2.4**
MLR	**Muntele Rosu**	145.45	331	⇑P	**PKiKP**	**17 21 12.1**	**-2.4**
MOX	**Moxa**	145.46	350	PKP2	**PKPab**	**17 21 10.1**	**-0.3**
LODK	**Lodwar**	145.48	251		**PKiKP**	**17 21 12.7**	**-2.8**
LODK				IAMs_20	IAMs_20	18 23 54.0	
	comp=Z,453nm,20.0s						
PRU	**Pruhonice**	145.52	347	*e*PKIKP	**PKiKP**	**17 21 11.7**	**-2.6**
PRU				MLR	MLR		
	comp=Z,700nm,27.0s						
PRU	**Pruhonice**	145.52	347	⇑*e*PKP	**PKiKP**	**17 21 11.7**	**-2.6**
PRU				AMS	AMS	18 16 30.0	

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                      comp=Z,700nm,27.8s
BMOL   Mol                 145.56 358  dPKP      PKiKP    17 21 12.1 -2.2
BOST   Ostende             145.58 360  dPKP      PKiKP    17 21 15.3 +0.9
VRAC   Vranov              145.66 344  ⇑PKIKP    PKiKP    17 21 11.9 -2.8
VRAC   Vranov              145.66 344  ePKP      PKPab    17 21 11.6 +0.4
VRAC   Vranov              145.66 344  ⇑P        PKiKP    17 21 11.9 -2.8
NKC    Novy Kostel         145.71 349   PKIKP    PKPab    17 21 11.0 -0.4
VYHS   Vyhne               145.75 341  ePKP2     PKiKP    17 21 16.0 +1.1
VYHS   Vyhne               145.75 341  ePKP      PKiKP    17 21 16.0 +1.1
MARR   Marisel-Cluj        145.75 335  ⇑P        PKPab    17 21 12.1 +0.3
JAVC   Velka Javorina      145.77 343  ePKP      PKiKP    17 21 12.8 -2.2
DRGR                       145.82 336   PKIKP    PKPab    17 21 12.0  0.0
VOIR                       145.90 332  ⇑PKP2     PKiKP    17 21 13.9 -1.5
VOIR                       145.90 332  ⇑P        PKiKP    17 21 13.9 -1.5
PSZ    Piszkesteto         145.91 339   PKP2     PKiKP    17 21 13.7 -1.6
PSZ    Piszkesteto         145.91 339  ⇑P        PKiKP    17 21 16.1 +0.8
KRUC   Moravsky            145.93 344  ePKP      PKPab    17 21 12.3  0.0
SAHE   Sakarya_HENDEK145.94 321  ⇓P        PKiKP    17 21 13.3 -2.2
TREC   Trest               145.95 345   PKP2     PKiKP    17 21 12.9 -2.4
ZVC    Zvikov              146.12 347⇑ ePKP      PKPab    17 21 12.8 -0.1
ZVC                                     AMS      AMS      18 16 40.0
                      comp=Z,500nm,27.0s
MEM    Membach             146.12 356   PKIKP    PKiKP    17 21 13.1 -2.4
MEM    Membach             146.12 356  dPKP      PKPab    17 21 12.2 -0.7
ARR    Arges               146.14 332  ⇑P        PKPab    17 21 11.8 -1.5
TNS    Taunus Mts          146.30 354   PKP2     PKiKP    17 21 14.1 -1.9
MODS   Modra-Piesok        146.32 343  ePKP2     PKiKP    17 21 17.7 +1.6
MODS   Modra-Piesok        146.32 343  ePKP      PKiKP    17 21 17.7 +1.6
BCLA   Clavier             146.34 357  dPKP      PKiKP    17 21 14.3 -1.7
GRA1   Grafenberg Arr      146.44 350   IAMs_20  IAMs_20  18 33 41.7
                      comp=Z,317nm,19.0s
GRF    Grafenberg Arr      146.44 350   PKP2     PKiKP    17 21 15.4 -0.9
GRFO   Grafenberg          146.44 350   IAMs_20  IAMs_20  18 33 40.7
                      comp=Z,320nm,19.0s
LOT    Lotru               146.46 333  ⇑P        PKiKP    17 21 16.1 -0.5
DEV    Deva                146.48 334  ⇓PKP2     PKiKP    17 21 17.6 +1.2
DEV    Deva                146.48 334  ⇓P        PKiKP    17 21 17.6 +1.2
BMRD   Maredsous           146.48 358  dPKP      PKiKP    17 21 19.2 +3.0
SRO    Srobarova           146.51 341  ePKP2     PKiKP    17 21 18.6 +2.1
SRO    Srobarova           146.51 341  ePKP      PKiKP    17 21 18.5 +2.1
MMAI   Mount Meron Ar      146.52 305   PKPbc    PKPab    17 21 14.4 -0.8
                      comp=Z,21nm,0.9s,baz=58,slow=5.6,SNR=12
KHC    Kasperske Hory      146.54 347  ePKP2     PKiKP    17 21 14.9 -1.6
KHC                                     MLR      MLR
                      comp=Z,500nm,25.3s
KHC    Kasperske Hory      146.54 347⇑ ePKP      PKiKP    17 21 14.9 -1.6
KHC                                    ex        x        17 21 19.0
KHC                                     AMS      AMS      18 16 30.0
                      comp=Z,500nm,25.3s
KHC    Kasperske Hory      146.54 347   IAMs_20  IAMs_20  18 27 31.3
                      comp=Z,336nm,21.0s
RAZG   Razgrad             146.59 328  ⇓P        PKiKP    17 21 14.7 -2.1
SIRR   Siria               146.67 336  ⇑P        PKiKP    17 21 15.1 -1.8
WET    Wettzell            146.67 348   PKP2     PKiKP    17 21 16.2 -0.6
CKRC   Cesky Krumlov       146.67 346  ePKP2     PKiKP    17 21 15.7 -1.1
CKRC                                    MLR      MLR
                      comp=Z,600nm,26.1s
CKRC   Cesky Krumlov       146.67 346⇑ ePKP      PKiKP    17 21 15.7 -1.1
CKRC                                    AMS      AMS      18 16 50.0
                      comp=Z,600nm,26.1s
DOU    Dourbes             146.69 358  dPKP      PKiKP    17 21 15.0 -1.8
GERES  GERESS Array B      146.78 347   PKPbc    PKPab    17 21 15.1 -0.5
                      comp=Z,8.3nm,0.8s,baz=8.5,slow=2.7,SNR=23
SURR   Surduc              146.91 335  ⇓P        PKiKP    17 21 15.7 -1.6
GZR    Gura Zlata          146.93 334  ⇑PKP2     PKiKP    17 21 16.3 -1.2
GZR    Gura Zlata          146.93 334  ⇑P        PKiKP    17 21 16.3 -1.2
WLF    Walferdange         147.05 356  dPKP      PKiKP    17 21 16.8 -0.7
ZIMR                       147.09 329  ⇓PKP2     PKiKP    17 21 17.4 -0.3
ZIMR                       147.09 329  ⇓P        PKiKP    17 21 17.4 -0.3
CONA   Conrad Observa      147.12 344  i PKiKP   PKiKP    17 21 17.0 -0.9
                      comp=Z,18nm,0.9s,SNR=9.8
RONA   Rosalia, Austr      147.21 343  i PKiKP   PKiKP    17 21 17.3 -0.7
                      comp=Z,23nm,1.2s,SNR=6.3
BZS    Buzias              147.22 335   PKP2     PKiKP    17 21 16.9 -1.1
BZS    Buzias              147.22 335  ⇓P        PKPbc    17 21 15.1 -0.5
HERR   Herculane           147.49 334  ⇓P        PKPab    17 21 16.7 -1.8
MOA    Molln               147.59 346  i PKiKP   PKiKP    17 21 18.1 -0.6
                      comp=Z,14nm,0.8s,SNR=5.8
STU    Stuttgart           147.64 352   IAMs_20  IAMs_20  18 30 54.3
                      comp=Z,366nm,20.0s
KEPZ   Antalya-Kepez       147.65 314  ⇑P        PKPbc    17 21 16.7 -0.5
PLVB   Pleven              147.65 330  ⇓P        PKiKP    17 21 17.1 -1.9
MORH   Mrgy, Hungar        147.81 339  ⇓P        PKPab    17 21 18.4 -1.2
ARSA   Arzberg             147.83 344  i PKiKP   PKPab    17 21 18.8 -0.9
                      comp=Z,10nm,1.1s
BIOA   Bad Ischl, Aus      147.88 346  i PKiKP   PKiKP    17 21 18.4 -0.9
                      comp=Z,17nm,1.1s
ISP    Isparta             147.89 316   IAMs_20  IAMs_20  18 25 42.9
                      comp=Z,393nm,22.0s
BAND   Balkesir-Ban        147.90 322  ⇓P        PKiKP    17 21 18.6 -1.0
BFO    Black Forest        148.18 353   PKP2     PKPab    17 21 21.2 +0.1
BFO                                     MLR      MLR
                      comp=Z,400nm,19.0s
BFO    Black Forest        148.18 353            PKPab    17 21 21.2 +0.1
BFO                                     IAMs_20  IAMs_20  18 28 12.7
                      comp=Z,400nm,19.0s
SESA   Seetaler Alpe,      148.21 345   PKP      PKPab    17 21 24.0 +2.5
                      SNR=7.6
LESA   Schwarzleotal       148.35 347  i PKP     PKPab    17 21 20.9 -1.0
                      comp=Z,21nm,1.2s,SNR=5.8
ECH    Echery              148.41 355   IAMs_20  IAMs_20  18 25 36.9
                      comp=Z,364nm,19.0s
SOKA   Soboth              148.49 344  ePKP      PKPab    17 21 21.4 -1.1
                      comp=Z,15nm,1.0s
KBA    Koelnbreinsper      148.53 346  i PKP     PKPab    17 21 20.9 -1.9
                      comp=Z,19nm,1.3s
WATA   Walderalm           148.65 349  i PKP     PKPab    17 21 21.4 -1.8
                      comp=Z,16nm,1.1s,SNR=5.3
RETA   Reutte              148.65 350  i PKP     PKPab    17 21 22.5 -0.6
                      comp=Z,13nm,1.1s
WTTA   Wattenberg          148.71 349  i PKP     PKPab    17 21 21.4 -2.1
                      comp=Z,23nm,1.4s,SNR=5.6
MOTA   Moosalm             148.73 349  ePKP      PKPab    17 21 21.4 -2.1
                      comp=Z,17nm,1.2s
OBKA   Obir                148.77 344  ePKP      PKPab    17 21 21.7 -1.9
                      comp=Z,9.3nm,1.4s
CAVK   Edirne/Enez-Ca      148.78 325  ⇓P        PKiKP    17 21 20.8 -0.5
BOVS   Bovan               148.79 333  ⇓P        PKiKP    17 21 21.0 -0.3
SQTA   Sankt Quirin        148.83 349  i PKP     PKPab    17 21 21.8 -2.1
                      comp=Z,11nm,0.8s
MYKA   Terra Mystica       148.88 346  i PKP     PKPab    17 21 22.2 -1.9
                      comp=Z,12nm,0.8s
DAVA   Damuels             148.99 351  i PKP     PKPab    17 21 23.2 -1.4
                      comp=Z,20nm,1.0s,SNR=5.4
ABTA   Abfaltersbach       149.03 347  i PKP     PKiKP    17 21 21.9 +0.1
                      comp=Z,16nm,0.9s
FETA   Feichten            149.11 350  i PKP     PKPab    17 21 23.1 -2.0
                      comp=Z,22nm,1.1s,SNR=5.8
TAVA   DENIZLI_Tavas       149.15 317  ⇓P        PKiKP    17 21 21.8 -0.6
FUORN  Ofenpass-Fuorn      149.58 350   IAMs_20  IAMs_20  18 24 59.7
                      comp=Z,461nm,22.0s
BLY    Banja Luka          149.59 340            PKiKP    17 21 22.8 -0.1
BLY    Banja Luka          149.59 340  ⇓P        PKPab    17 21 24.1 -2.7
TUE    Stuetta             149.87 351            PKiKP    17 21 22.6 -1.1
TUE                                     IAMs_20  IAMs_20  18 27 32.3
                      comp=Z,353nm,21.0s
CTI    Castel Tesino       149.87 348   PKP2     PKPab    17 21 25.9 -2.2
CTI    Castel Tesino       149.87 348            PKPab    17 21 25.9 -2.2
SENIN  Lac Senin/Sane      150.23 354            PKiKP    17 21 23.5 -0.9
BDRM   Kayabasi            150.33 318  ⇑P        PKiKP    17 21 25.7 +1.0
ARG    Arkhangelos         150.37 316   PKIKP    PKiKP    17 21 25.2 +0.4
ARG    Arkhangelos         150.37 316            PKiKP    17 21 25.2 +0.4
PDG    Podgorica           150.81 335  ⇑P        PKiKP    17 21 25.5  0.0
SSB    Saint Sauveur       151.51 358   IAMs_20  IAMs_20  18 25 14.0
                      comp=Z,448nm,22.0s
BNI    Bardonecchia        151.59 354   IAMs_20  IAMs_20  18 29 45.0
                      comp=Z,432nm,20.0s
CEST   Esterri de Car      154.19   3            PKPab    17 21 50.3 +4.1
CUC    Castrocucco         154.25 337   IAMs_20  IAMs_20  18 30 58.1
                      comp=Z,430nm,22.0s
ESDC   Sonseca Array       156.38  13   PKP      PKPdf    17 21 28.8 +1.4
                      comp=Z,0.6nm,0.9s,baz=23,slow=1.1,SNR=5.2
VSL    Villasalto          156.63 347   IAMs_20  IAMs_20  18 29 56.2
                      comp=Z,390nm,21.0s
MAHO   Mahon               156.89 357   IAMs_20  IAMs_20  18 27 57.4
                      comp=Z,328nm,22.0s
KEST   Kesra               160.23 344   PKPab    PKPab    17 22 12.2 -0.3
                      comp=Z,5.2nm,0.9s,baz=12,slow=1.0,SNR=4.7
MD31   MD31                162.51  22            PKPab    17 22 28.5 +6.0
TORD   Torodi Ar. Bea      176.25 162   PKP      PKPdf    17 21 42.8 -0.6
                      comp=Z,3.3nm,1.1s,baz=204,slow=3.2,SNR=8.6
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*ISK **17** 17:22:36.6, 38°.66N×43°.62E, h5^{km}, ML2.5/9*

*AFAD **17** 17:22:37.2, 38°.69N×43°.58E, h7^{km}±4^{km}, ML2.3*

ISC 17 17:22:37.4±1.0, **38°.69N**±0°.03×**43°.59E**±0°.03, **h11**^{km}±8^{km}, **n24**, σ**0^{s}.84**/40, **Turkey**

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Code   Station Name       Δ°   AZ°    Phase ID          Time       Res
                                      Op       ISC      h  m  s    ISC
VANB   Van                0.18 241    Pg       Pg       17 22 42.1 +0.6
VANB                                  AML      AML
TVAN   Van                0.21 223    P        Pg       17 22 42.0  0.0
TVAN                                  S        Sg       17 22 46.0 +0.8
TVAN                                  IAML              17 22 52.0
                   comp=N,1μm,0.4s
TVAN                                  IAML              17 22 52.0
                   comp=E,812nm,0.3s
OZAP   Van, Ozalp-Mer     0.31  94    P        Pg       17 22 43.2 -0.6
OZAP                                  S        Sb       17 22 49.7 -0.7
OZAP                                  IAML              17 22 57.0
                   comp=E,529nm,0.7s
CLDR   Caldiran           0.52  29    Pg       Pb       17 22 48.3 -0.4
CLDR                                  AML      AML
CLDR   Caldiran           0.52  29    P        Pg       17 22 47.4 -0.3
CLDR                                  S        Sb       17 22 57.3 +0.9
CLDR                                  IAML              17 23 01.0
                   comp=E,196nm,0.4s
GEVA   Gevas              0.56 229    P        Pg       17 22 47.9 -0.5
GEVA                                  S        Sb       17 22 57.5 +0.1
AKDM   Akdamar-Van        0.60 234    Pg       Pg       17 22 48.8 -0.3
AKDM                                  Sg       Sb       17 22 59.4 +0.9
AKDM                                  AML      AML
ADCV   BITLIS_Adilcev     0.69 280    P        Pb       17 22 51.0 -0.6
ADCV                                  S        Sb       17 23 01.2 +0.1
DYDN   Diyadin            0.86   5    P        Pg       17 22 53.5 -0.6
DYDN                                  S        Sb       17 23 06.0 -0.2
MLAZ   Malazgirt-MUS      0.93 300    Pg       Pb       17 22 56.0 +0.3
MLAZ                                  Sg       Sn       17 23 10.8 +0.7
MLAZ                                  AML      AML
DORK   Agr/Tutak/Do       0.94 318    P        Pg       17 22 55.2 -0.4
DORK                                  S        Sg       17 23 08.2 +0.2
AGRB   Hanur-Agry         1.00 332    Pg       Pn       17 22 57.5 -0.1
AGRB                                  Sg       Sn       17 23 13.2 +1.3
AGRB                                  AML      AML
PERV   Siirt/Pervari-     1.11 229    P        Pn       17 23 00.6 +1.6
PERV                                  S        Sn       17 23 15.1 +0.8
PERV                                  IAML              17 23 24.0
                   comp=N,74nm,0.5s
PERV                                  IAML              17 23 25.0
                   comp=E,83nm,0.5s
HAKT   HAKKARI            1.13 175    P        Pg       17 22 57.8 -1.3
HAKT                                  S        Sb       17 23 13.7 -0.1
HAKT                                  IAML              17 23 19.0
                   comp=N,52nm,0.7s
HAKT                                  IAML              17 23 23.0
                   comp=E,50nm,0.6s
KOTA   Agri, Merkez-K     1.16 345    P        Pg       17 22 58.7 -0.9
BLIS   Bitlis-Merkez      1.19 257    P        Pg       17 22 59.6 -0.7
BLIS                                  S        Sg       17 23 13.4 -2.4
BLIS                                  IAML              17 23 18.0
                   comp=N,58nm,0.3s
IGDI   IGDIR              1.24  18    P        Pn       17 23 01.9 +1.2
IGDI                                  S        Sn       17 23 18.6 +1.1
CUKT   Cukurca            1.44 180    Pn       Pg       17 23 04.7 -0.3
CUKT                                  AML      AML
EATA   Eleskirt           1.45 324    P        Pn       17 23 04.0 +0.1
EATA                                  IAML              17 23 29.0
                   comp=E,38nm,0.6s
SRTM   Siirt_Merkez       1.48 243    P        Pg       17 23 05.3 -0.7
SRTM                                  S        Sg       17 23 25.2  0.0
MUSM   Mu-Merkez          1.63 272    P        Pn       17 23 06.4 +0.2
MUSM                                  S        Sn       17 23 26.9 -0.3
GNI    Garni              1.71  31    Pn       Pb       17 23 08.7 -0.3
GNI                                   AML      AML
KOPR   Koprukoy-ERZUR     1.88 315    Pn       Pb       17 23 11.5 -0.3
BNGB   Bingl              2.30 279    Pn       Pb       17 23 17.4 -1.5
BNGB                                  AML      AML
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ASRS 17 17:32:35.8±0.3, **51°N**±2°×**9°8E**±°, **h9**^{km}, **MLh3.9**/7, **1C,**
Error ellipse: s-maj=4.5km s-min=2.5km az=11.4,
confirmed, Tuva-Buryatia-Mongolia border region

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Code   Station Name       Δ°   AZ°    Phase ID          Time       Res
                                      Op       ISC      h  m  s    ISC
KNGR   Kungurtug, Tuv     0.76 211    Pg       Pn       17 32 52.5 -0.4
KNGR                                  Sg       Sb       17 33 01.8  0.0
KNGR                                  AML      AML
TDJR   Todzha             1.71 313    Pg       Pg       17 33 14.3 +5.8
TDJR                                  Sg       Sg       17 33 38.3 +7.6
TDJR                                  AML      AML
MOY    Mondy              1.83  76   ⇑Pg       Pg       17 33 13.7 +2.8
MOY                                   Sg       Sg       17 33 39.3 +4.6
MOY                                   AML      AML
KZLR   Kyzyl              2.35 282    Pg       Pg       17 33 21.3 +0.5
KZLR                                  Sg       Sg       17 33 52.7 +1.5
KZLR                                  AML      AML
ZAK    Zakamensk          3.38 103    Pg       Pg       17 33 38.9 -1.6
ZAK                                   Sg       Sg       17 34 23.7 -0.5
ZAK                                   AML      AML
IRK    Irkutsk            3.94  73    Sg       Sg       17 34 43.2 +1.0
MINR   Mina               4.35 328    Pg       Pg       17 34 01.3 +2.1
MINR                                  Sg       Sg       17 35 00.2 +4.6
MINR                                  AML      AML
CERR   Cheremushki        4.45 294    Pg       Pg       17 34 01.8 +0.9
CERR                                  Sg       Sg       17 34 59.3 +0.8
CERR                                  AML      AML
DJO    Djoy, Khakassi     4.54 292    Pg       Pg       17 34 02.2 -0.6
DJO                                   Sg       Sg       17 35 00.3 -1.1
DJO                                   AML      AML
TEL    Teeli              5.00 270    Pg       Pn       17 33 57.3 +6.1
TEL                                   Sg       Sg       17 35 12.1 -4.3
VEH    Verkhnyaya Baz     5.20 296    Pg       Pg       17 34 16.5 +1.1
VEH                                   Sg       Sg       17 35 22.8  0.0
VEH                                   AML      AML
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*ATH **17** 17:55:55.8, 36°.24N×29°.19E, h11^{km}±2^{km}, ML2.9/7,*
Latitude uncertainty: 2 km; Longitude uncertainty: 0 km
*ISK **17** 17:55:56.8, 36°.44N×29°.09E, h26^{km}, ML2.9/19*
*AFAD **17** 17:55:57.9, 36°.47N×29°.08E, h35^{km}, ML2.7*
*THE **17** 17:55:58.0, 36°N±5°×2°9E±°, h21^{km}±13^{km}, M2.5/5,*
MLh2.5/5
*GII **17** 17:55:59.1±0.0, 35°.949N±0°.003×29°.446E±0°.001, h0^{km},*
Mws3.0, confirmed

ISC 17 17:55:56.9±1.0, **36°.43N**±0°.02×**29°.14E**±0°.02, **h34**^{km}±2^{km},
n85, σ**1^{s}.53**/137, **Turkey**

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Code   Station Name       Δ°   AZ°    Phase ID          Time       Res
                                      Op       ISC      h  m  s    ISC
IZZE   Mula-Seydike       0.07  82    P        Pb       17 56 03.2 +0.5
IZZE                                  S        Sb       17 56 08.3 +1.6
FETY   Fethiye            0.21 347    Pg       Pn       17 56 03.7 +0.9
FETY                                  AML      AML
FETY   Fethiye            0.21 347    P        Pb       17 56 04.9 +1.1
FETY                                  S        Sb       17 56 09.1 +0.6
SABU   Mula-Dalaman       0.42 341    P        Pb       17 56 05.9 -0.5
SABU                                  S        Sb       17 56 11.7 -1.3
AKAS   Kas                0.42 117    Pg       Pb       17 56 07.3 +0.8
AKAS                                  AML      AML
AKAS   Kas                0.42 117    P        Pn       17 56 07.8 +1.0
AKAS                                  S        Sn       17 56 15.8 +2.6
AKAS                                  IAML              17 56 18.0
                   comp=E,861nm,0.2s
CAME   Cameli-Denizli     0.53  14    Pg       Pn       17 56 08.0 -0.2
CAME                                  Sg       Sb       17 56 16.7 +0.8
CAME                                  AML      AML
KNIK   Mula-Seydike       0.54  40    P        Pn       17 56 08.7 +0.4
KNIK                                  S        Sb       17 56 16.4 +0.2
KNIK                                  IAML              17 56 18.0
                   comp=E,333nm,0.3s
DALY   Dalyan (Mula)      0.55 315    Pg       Pn       17 56 07.9 -0.4
DALY                                  Sg       Sb       17 56 16.1 -0.2
DALY                                  AML      AML
DALY   Dalyan (Mula)      0.55 315    P        Pn       17 56 07.6 -0.7
DALY                                  S        Sb       17 56 15.2 -1.1
DALY                                  IAML              17 56 16.0
                   comp=E,898nm,0.4s
DALY                                  IAML              17 56 18.0
                   comp=N,520nm,0.2s
DEMR   Demre-Antalya      0.65 107    Pg       Pb       17 56 10.9 +1.0
DEMR                                  AML      AML
ELL    Elmali             0.69  62    Pg       Pn       17 56 11.1 +0.7
ELL                                   AML      AML
ELL    Elmali             0.69  62    P        Pn       17 56 11.3 +0.9
ELL                                   S        Sb       17 56 21.3 +1.1
ELL                                   AML      AML
CAEL   Denizli, Camel     0.71  12    P        Pn       17 56 10.9 +0.2
CAEL                                  IAML              17 56 23.0
                   comp=N,298nm,0.4s
CAEL                                  IAML              17 56 33.0
                   comp=E,349nm,0.6s
RDI1   Rhodes Town Ha     0.74 272    P        Pn       17 56 11.3 +0.4
RDI1                                  S        Sb       17 56 22.9 +1.5
RDI1                                  AML      AML
RODB   Rodos              0.74 272    P        Pn       17 56 10.8 -0.2
RODB                                  S        Sb       17 56 22.1 +0.7
RODB                                  AML      AML
TURN   Turunc             0.80 296    Pg       Pn       17 56 11.9 +0.2
TURN                                  Sg       Sn       17 56 23.3 +0.8
TURN                                  AML      AML
TURN   Turunc             0.80 296    P        Pn       17 56 12.0 +0.2
TURN                                  S        Sn       17 56 22.4 -0.1
TURN                                  IAML              17 56 23.0
                   comp=N,231nm,0.1s
TURN                                  IAML              17 56 25.0
                   comp=E,273nm,0.3s
ARG    Arkhangelos        0.85 256    P        Pn       17 56 12.5  0.0
ARG                                   S        Sn       17 56 23.8 +0.1
ARG                                   AML      AML
ARG    Arkhangelos        0.85 256    Pg       Pn       17 56 12.4  0.0
ARG                                   AML      AML
ARG    Arkhangelos        0.85 256    P        Pn       17 56 12.3 -0.1
ARG                                   S        Sn       17 56 24.4 +0.8
GOLH   Golhisar           0.88  22    P        Pn       17 56 13.2 +0.3
GOLH                                  IAML              17 56 27.0
                   comp=E,360nm,0.5s
GOLH                                  IAML              17 56 28.0
                   comp=N,440nm,0.4s
AKUM   Antalya-Kumluc     0.97  96    P        Pb       17 56 15.6 +0.2
AKUM                                  S        Sb       17 56 28.5 +0.6
AKUM                                  IAML              17 56 32.0
                   comp=N,163nm,0.3s
AKUM                                  IAML              17 56 32.0
                   comp=E,172nm,0.3s
YER    Yerkesik           0.99 316    P        Pn       17 56 15.5 +1.1
YER                                   S        Sb       17 56 28.9 +0.5
YER                                   AML      AML
YER    Yerkesik           0.99 316    Pg       Pn       17 56 14.9 +0.5
YER                                   AML      AML
APMY   Acipayam-Deniz     1.05   7    Pg       Pn       17 56 16.2 +0.9
APMY                                  Sg       Sn       17 56 30.2 +1.4
APMY                                  AML      AML
TAVA   DENIZLI_Tavas      1.05 350    P        Pn       17 56 15.4  0.0
TAVA                                  S        Sn       17 56 29.3 +0.4
TAVA                                  IAML              17 56 31.0
                   comp=N,245nm,0.5s
TAVA                                  IAML              17 56 32.0
                   comp=E,183nm,0.4s
MULA   Mugla, Merkez-     1.06 322    P        Pn       17 56 15.9 +0.5
MULA                                  S        Sn       17 56 29.5 +0.5
MULA                                  IAML              17 56 31.0
                   comp=N,197nm,0.5s
MULA                                  IAML              17 56 31.0
                   comp=E,368nm,0.3s
KORT   Korkueli           1.13  59    Pn       Pb       17 56 18.3 +0.3
KORT                                  AML      AML
KORT   Korkueli           1.13  59    P        Pn       17 56 17.9 +1.5
KORT                                  S        Sb       17 56 33.4 +0.9
KORT                                  IAML              17 56 37.0
                   comp=E,145nm,0.4s
DNIZ   Denizli-Tavas-     1.20 356    P        Pn       17 56 17.6 +0.2
DATC   Datca-Mugla        1.24 286    Pn       Pn       17 56 18.6 +0.8
DATC                                  AML      AML
DAT    Datca              1.29 284    P        Pn       17 56 19.6 +0.9
DAT                                   S        Sn       17 56 36.4 +1.5
DAT                                   AML      AML
DAT    Datca              1.29 284    Pn       Pn       17 56 19.3 +0.6
DAT                                   AML      AML
DAT    Datca              1.29 284    P        Pn       17 56 18.7  0.0
DAT                                   S        Sn       17 56 34.2 -0.7
DAT                                   IAML              17 56 40.0
                   comp=N,186nm,0.3s
DAT                                   IAML              17 56 40.0
                   comp=E,123nm,0.3s
ANTB   Antalya            1.30  68    Pn       Pn       17 56 20.3 +1.6
ANTB                                  AML      AML
INCE   Denizli-Bozkur     1.32  15    P        Pn       17 56 19.3 +0.2
INCE                                  S        Sn       17 56 36.7 +1.1
INCE                                  IAML              17 56 40.0
                   comp=N,191nm,0.4s
INCE                                  IAML              17 56 41.0
                   comp=E,196nm,0.6s
YAZI   Mula-Dat§a-        1.38 281    P        Pn       17 56 20.1 +0.3
YAZI                                  S        Sn       17 56 35.1 -1.8
MLSB   Milas              1.40 309    Pn       Pn       17 56 20.7 +0.7
MLSB                                  AML      AML
BUCA   Burdur, Bucak-     1.45  51    P        Pn       17 56 22.5 +1.7
BUCA                                  S        Sn       17 56 40.9 +2.2
BRDR   BURDUR-Merkez      1.46  30    P        Pn       17 56 21.9 +0.9
BRDR                                  S        Sn       17 56 39.6 +0.6
BRDR                                  IAML              17 56 43.0
                   comp=E,173nm,1.1s
BRDR                                  IAML              17 56 46.0
                   comp=N,103nm,0.5s
BDRM   Kayabasi           1.50 296    P        Pn       17 56 21.6 +0.1
BDRM                                  S        Sn       17 56 40.0 +0.1
BDRM                                  IAML              17 56 44.0
                   comp=E,101nm,0.3s
BDRM                                  IAML              17 56 46.0
                   comp=N,134nm,0.7s
ESEN   Aydn-Nazilli       1.51 335    P        Pn       17 56 21.4 -0.1
BCK    Bucak              1.55  48    Pn       Pn       17 56 23.7 +1.5
BCK                                   AML      AML
AYDN   Tasoluk            1.59 321    P        Pn       17 56 23.9 +1.2
AYDN                                  IAML              17 56 47.0
                   comp=E,155nm,0.6s
AYDN                                  IAML              17 56 48.0
                   comp=N,125nm,0.4s
BODT   Bodrum             1.60 294    P        Pn       17 56 23.4 +0.6
BODT                                  S        Sn       17 56 43.7 +1.4
BODT                                  AML      AML
BODT   Bodrum             1.60 294    Pn       Pn       17 56 23.5 +0.6
BODT                                  AML      AML
SULTU  Buldan             1.65 350    P        Pn       17 56 23.0 -0.6
SULTU                                 S        Sn       17 56 42.3 -1.4
BASM   Basmaki-Afyon      1.66  26    Pn       Pn       17 56 25.1 +1.5
BASM                                  AML      AML
NAZL   Nazilli-Aydin      1.68 336    Pn       Pn       17 56 25.2 +1.3
NAZL                                  AML      AML
ISP    Isparta            1.78  38    P        Pb       17 56 28.8 -0.1
ISP                                   S        Sb       17 56 53.0 +2.1
KLNA   Kalymnos           1.82 287    P        Pb       17 56 29.4 -0.2
KLNA                                  AML      AML
KARP   Karpathos          1.83 242    P        Pn       17 56 26.5 +0.5
KARP                                  S        Sn       17 56 49.1 +1.0
KARP   Karpathos          1.83 242    P        Pn       17 56 26.5 +0.5
KARP                                  S        Sn       17 56 49.2 +1.2
KARP                                  AML      AML
DDIM   Aydin, Didim       1.84 305    P        Pn       17 56 27.5 +1.5
DDIM                                  S        Sn       17 56 48.0 -0.1
DDIM                                  IAML              17 56 58.0
                   comp=E,160nm,0.5s
DDIM                                  IAML              17 57 04.0
                   comp=N,141nm,0.5s
KIRA   zmir-Kiraz         1.86 342    P        Pn       17 56 25.8 -0.7
HARTU  Esme               1.93 352    P        Pn       17 56 26.9 -0.5
PASA   Karahalli, USA     1.94   8    P        Pn       17 56 27.0 -0.5
PASA                                  S        Sn       17 56 49.7 -1.0
IZMR   zmir-demi          1.95 331    P        Pn       17 56 28.0 +0.3
GCAM   G?zelcaml?         1.99 310    P        Pn       17 56 28.2 +0.1
GCAM                                  IAML              17 56 57.0
                   comp=E,105nm,0.6s
GCAM                                  IAML              17 57 02.0
                   comp=N,92nm,0.8s
KZIL   AFYON_Kizioren     1.99  23    P        Pn       17 56 30.2 +1.9
KZIL                                  S        Sn       17 56 50.8 -1.4
KEPZ   Antalya-Kepez      2.04  76    P        Pn       17 56 30.3 +1.5
KEPZ                                  S        Sn       17 56 55.3 +2.2
MANT   Manisa             2.11 347    P        Pn       17 56 29.1 -1.0
MANT                                  S        Sn       17 56 50.6 -4.6
USAK   Uak-Merkez         2.29 358    P        Pn       17 56 31.4 -0.9
USAK                                  S        Sn       17 56 53.9 -5.4
BNAZ   Uak-Banaz          2.32  14    P        Pn       17 56 33.4 +0.5
BNAZ                                  S        Sn       17 56 59.3 -1.0
BNAZ                                  IAML              17 57 17.0
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	comp=E,36nm,0.6s						
BNAZ				IAML		17 57 22.0	
	comp=N,44nm,0.6s						
SEDI	**Konya, Seydise**	**2.33**	**63**	P	**Pn**	**17 56 34.7**	**+1.8**
SEDI				S	**Sn**	**17 57 00.1**	**-0.3**
KTTT	**Salihli**	**2.41**	**340**	P	**Pn**	**17 56 32.3**	**-1.6**
KTTT				S	**Sn**	**17 56 59.2**	**-3.0**
DGB	**zmir**	**2.42**	**313**	P	**Pn**	**17 56 34.2**	**+0.1**
DGB				S	**Sn**	**17 56 59.7**	**-2.9**
YVAC	**Isparta, Yalva**	**2.48**	**42**	P	**Pn**	**17 56 35.9**	**+0.8**
YVAC				S	**Sn**	**17 57 02.8**	**-1.5**
ZKR	**Zakros**	**2.72**	**242**	P	**Pn**	**17 56 39.3**	**+1.1**
ZKR				S	**Sn**	**17 57 11.3**	**+1.4**
ZKR	**Zakros**	**2.72**	**242**	P	**Pn**	**17 56 39.2**	**+1.1**
CAMT	**Merkez**	**2.73**	**328**	P	**Pn**	**17 56 39.6**	**+1.2**
CAMT				IAML		17 57 31.0	
	comp=E,28nm,1.2s						
CAMT				IAML		17 57 33.0	
	comp=N,34nm,1.1s						
ZEYE	**Izmir, Urla-Ze**	**2.77**	**311**	P	**Pn**	**17 56 39.1**	**+0.2**
AKMS	**Akamas**	**2.95**	**118**	P	**Pn**	**17 56 41.5**	**0.0**
AKMS				S	**Sn**	**17 57 15.4**	**-0.3**
AKMS				AML	AML		
ALFC	**Alefka**	**3.08**	**113**	P	**Pn**	**17 56 43.3**	**+0.1**
ALFC				S	**Sn**	**17 57 18.1**	**-0.8**
ALFC				AML	AML		
NATA	**Nata**	**3.24**	**120**	P	**Pn**	**17 56 45.2**	**-0.2**
CSS	**Mathiatis**	**3.71**	**112**	P	**Pn**	**17 56 52.0**	**+0.1**
CSS	**Mathiatis**	**3.71**	**112**	P	**Pn**	**17 56 51.9**	**+0.1**
CSS				S	**Sn**	**17 57 31.0**	**-3.4**
IMMV	**Iera Moni Meta**	**4.30**	**259**	P	**Pn**	**17 57 01.7**	**+1.8**
DION	**Dionisos Attik**	**4.47**	**293**	P	**Pn**	**17 57 05.2**	**+2.9**
MMA0B	**Mount Meron ar**	**6.18**	**122**	P	**Pn**	**17 57 24.6**	**-1.1**
MMA0B				S	**Sn**	**17 58 31.4**	**-3.8**
GEM	**Giv'at Ha'Em**	**6.25**	**119**	P	**Pn**	**17 57 25.9**	**-0.8**
GEM				S	**Sn**	**17 58 32.9**	**-4.1**
KZIT	**Kziot**	**7.04**	**140**	P	**Pn**	**17 57 35.8**	**-1.7**
KZIT				S	**Sn**	**17 58 50.4**	**-5.9**
RMNI	**Mount Ramon**	**7.47**	**140**	P	**Pn**	**17 57 41.6**	**-2.0**
RMNI				S	**Sn**	**17 59 01.5**	**-5.7**
HRFI	**Mount Harif**	**8.06**	**141**	P	**Pn**	**17 57 49.6**	**-2.0**

SJA ***17*** *18:24:27.4±0.8, 22°.34S×67°.56W, h190^{km}, ML3.7, MW3.8*
IDC ***17*** *18:24:27.5±1.9, 22°.39S×67°.27W, h150^{km}±20^{km}, mb3.9/2, mbtmp4.2/7, Error ellipse: s-maj=27.5km s-min=15.6km az=109.0*
VAO ***17*** *18:24:28.3±0.7, 22°.49S×67°.40W, h187^{km}, mb4.0, Presumed earthquake*
SCB ***17*** *18:24:28.0±1.1, 22°.51S×67°.62W, h157^{km}, MB5.2, ML4.2/3, Error ellipse: s-maj=23.3km s-min=22.8km az=0.0*
NEIC ***17*** *18:24:29.1±1.8, 22°.43S±0°.06×67°.6W±0°.1, h168^{km}±8^{km}, mb4.1/2, ML4.2(GUC), Error ellipse: s-maj=14.7km s-min=8.1km az=75.0*
GUC ***17*** *18:24:30.5±0.6, 22°.39S×67°.71W, h182^{km}±4^{km}, ML4.2*
ISC 17 18:24:27.7±0.6**, 22°.42S**±0°.04×**67°.52W**±0°.04**, h172**^{km}±6^{km}**, n116, σ1^{s}.65**/149**, mb4.2**/4**, 11C-3D, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AF01	**San Pedro de A**	**0.81**	**229**	*e*P	Pn	18 25 07.2	+14
AF01				*e*S	**Sn**	**18 25 12.2**	**-1.4**
AF01				IAML		18 25 36.4	
	comp=Z,378nm,1.1s						
AF01	**San Pedro de A**	**0.81**	**229**	*e*P	**Pn**	**18 24 55.4**	**+1.8**
AF01				*e*S	**Sn**	**18 25 16.5**	**+2.9**
AF01	**San Pedro de A**	**0.81**	**229**		**Pn**	**18 24 55.0**	**+1.4**
PB09	**IPOC Station P**	**1.72**	**291**	*e*P	**Pn**	**18 25 03.3**	**+2.0**
PB09				*e*S	**Sn**	**18 25 29.0**	**+1.7**
PB09				IAML		18 25 29.5	
	comp=Z,376nm,0.6s						
PB09	**IPOC Station P**	**1.72**	**291**	⇑*e*P	**Pn**	**18 25 03.1**	**+1.7**
PB09				*e*S	**Sn**	**18 25 27.9**	**+0.7**
PB09	**IPOC Station P**	**1.72**	**291**		**Pn**	**18 25 02.7**	**+1.4**
PB09				Sn	**Sn**	**18 25 28.4**	**+1.1**
PB09	**IPOC Station P**	**1.72**	**291**	P	**Pn**	**18 25 00.3**	**-1.0**
YJA	**Yavi**	**1.87**	**83**	*e*P	**Pn**	**18 25 05.9**	**+2.7**
YJA				*e*S	**Sn**	**18 25 26.9**	**-3.7**
YJA	**Yavi**	**1.87**	**83**	*e*P	**Pn**	**18 25 05.6**	**+2.4**
YJA	**Yavi**	**1.87**	**83**	P	**Pn**	**18 25 04.9**	**+1.7**
PB06	**IPOC Station P**	**1.92**	**261**	*e*P	**Pn**	**18 25 04.8**	**+1.3**
PB06				*e*S	**Sn**	**18 25 33.0**	**+1.8**
PB06				IAML		18 25 34.2	
	comp=Z,365nm,0.1s						
PB06	**IPOC Station P**	**1.92**	**261**	⇓*e*P	**Pn**	**18 25 04.8**	**+1.3**
PB06				*e*S	**Sn**	**18 25 31.2**	**0.0**
PB06				IAML		18 25 35.1	
	comp=E,691nm,0.1s						
PB06	**IPOC Station P**	**1.92**	**261**		**Pn**	**18 25 04.6**	**+1.1**
PB06	**IPOC Station P**	**1.92**	**261**	P	**Pn**	**18 25 03.0**	**-0.5**
MOCB	**Mochara**	**2.10**	**57**	P	**Pn**	**18 25 07.7**	**+2.0**
MOCB				S	**Sn**	**18 25 36.4**	**+1.3**
MOCB				IAML		18 25 40.8	
	comp=E,795nm,0.4s						
HJA	**Humahuaca**	**2.10**	**112**	*e*P	**Pn**	**18 25 08.2**	**+2.5**
HJA				IAML		18 26 07.7	
	comp=Z,207nm,3.1s						
SALTA		**2.10**	**149**	*e*P	**Pn**	**18 25 08.6**	**+2.8**
PB03	**IPOC Station P**	**2.10**	**280**	*e*P	**Pn**	**18 25 06.6**	**+1.1**
PB03				*e*S	**Sn**	**18 25 34.3**	**-0.5**
PB03				IAML		18 25 35.5	
	comp=Z,888nm,0.5s						
PB03	**IPOC Station P**	**2.10**	**280**	⇑*e*P	**Pn**	**18 25 06.4**	**+0.8**
PB03				*e*S	**Sn**	**18 25 34.2**	**-0.6**
PB03				IAML		18 25 35.1	
	comp=N,1μm,0.2s						
PB03	**IPOC Station P**	**2.10**	**280**		**Pn**	**18 25 06.3**	**+0.8**
PB03				Sn	**Sn**	**18 25 33.4**	**-1.4**
PB07	**IPOC Station P**	**2.30**	**287**	*e*P	**Pn**	**18 25 08.6**	**+0.9**
PB07				*e*S	**Sn**	**18 25 37.1**	**-1.7**
PB07				IAML		18 25 39.5	
	comp=Z,446nm,0.2s						
PB07	**IPOC Station P**	**2.30**	**287**	⇑*e*P	**Pn**	**18 25 08.7**	**+0.9**
PB07				*e*S	**Sn**	**18 25 37.9**	**-1.0**
PB07	**IPOC Station P**	**2.30**	**287**		**Pn**	**18 25 08.7**	**+0.9**
PB02	**IPOC Station P**	**2.47**	**296**	*e*P	**Pn**	**18 25 09.7**	**0.0**
PB02				*e*S	**Sn**	**18 25 41.0**	**-1.2**
PB02				IAML		18 25 42.5	
	comp=Z,899nm,0.3s						
PB02	**IPOC Station P**	**2.47**	**296**	*e*P	**Pn**	**18 25 10.4**	**+0.8**
PB02				*e*S	**Sn**	**18 25 40.8**	**-1.3**
PB02				IAML		18 25 44.4	
	comp=E,1μm,0.2s						
PB02	**IPOC Station P**	**2.47**	**296**		**Pn**	**18 25 10.2**	**+0.6**
PB02	**IPOC Station P**	**2.47**	**296**	P	**Pn**	**18 25 09.6**	**0.0**
PB02				S	**Sn**	**18 25 40.2**	**-2.0**
PB02				IAML		18 25 44.3	
	comp=E,1μm,0.2s						
PB05	**IPOC Station P**	**2.52**	**260**	*e*P	**Pn**	**18 25 11.0**	**+0.7**
PB05				*e*S	**Sn**	**18 25 42.8**	**-0.5**
PB05				IAML		18 25 43.7	
	comp=Z,381nm,0.9s						
PB05	**IPOC Station P**	**2.52**	**260**	⇑*e*P	**Pn**	**18 25 10.9**	**+0.7**
PB05				*e*S	**Sn**	**18 25 41.8**	**-1.5**
PB05				IAML		18 25 43.5	
	comp=N,634nm,0.8s						
PB05	**IPOC Station P**	**2.52**	**260**		**Pn**	**18 25 10.6**	**+0.4**
PB08	**IPOC Station P**	**2.73**	**326**		**Pn**	**18 25 14.6**	**+1.5**
SLA	**San Lorenzo**	**2.94**	**142**	*e*P	**Pn**	**18 25 18.2**	**+2.8**
SLA	**San Lorenzo**	**2.94**	**142**	*e*P	**Pn**	**18 25 17.9**	**+2.5**
TA01	**Diego Aracena**	**3.09**	**306**		**Pn**	**18 25 17.2**	**+0.1**
GO01	**Chusmiza**	**3.15**	**330**	*e*P	**Pn**	**18 25 19.7**	**+1.4**
GO01				*e*S	**Sn**	**18 25 58.1**	**+0.4**
GO01				IAML		18 25 59.9	
	comp=Z,115nm,0.2s						
GO01	**Chusmiza**	**3.15**	**330**	⇓*e*P	**Pn**	**18 25 19.5**	**+1.2**
GO01				*e*S	**Sn**	**18 25 57.6**	**-0.1**
GO01				IAML		18 26 03.0	
	comp=N,501nm,0.2s						
GO01	**Chusmiza**	**3.15**	**330**		**Pn**	**18 25 19.1**	**+0.7**
GO01	**Chusmiza**	**3.15**	**330**	P	**Pn**	**18 25 19.9**	**+1.6**
TA02	**Huaiquique**	**3.24**	**311**	*e*P	**Pn**	**18 25 18.8**	**-0.1**
TA02				*e*S	**Sn**	**18 25 57.2**	**-1.6**
TA02				IAML		18 25 58.6	
	comp=Z,156nm,0.1s						
PB11	**IPOC Station P**	**3.31**	**323**	*e*P	**Pn**	**18 25 20.2**	**+0.2**
PB11				*e*S	**Sn**	**18 25 59.8**	**-1.0**
PB11				IAML		18 26 01.4	
	comp=Z,227nm,0.2s						
PB11	**IPOC Station P**	**3.31**	**323**	⇑*e*P	**Pn**	**18 25 20.0**	**0.0**
PB11				*e*S	**Sn**	**18 25 59.2**	**-1.6**
PB11	**IPOC Station P**	**3.31**	**323**		**Pn**	**18 25 19.8**	**-0.2**
PB11	**IPOC Station P**	**3.31**	**323**	P	**Pn**	**18 25 21.0**	**+1.0**
PB11				S	**Sn**	**18 25 59.7**	**-1.0**
PB11				IAML		18 26 00.9	
	comp=Z,450nm,0.3s						
PB14	**IPOC Station P**	**3.44**	**230**	*e*P	**Pn**	**18 25 22.7**	**+0.9**
PB14				*e*S	**Sn**	**18 26 03.1**	**-0.8**
PB14				IAML		18 26 06.4	
	comp=Z,80nm,0.4s						
PB14	**IPOC Station P**	**3.44**	**230**	⇑*e*P	**Pn**	**18 25 22.3**	**+0.6**
PB14	**IPOC Station P**	**3.44**	**230**		**Pn**	**18 25 21.9**	**+0.1**
PB14	**IPOC Station P**	**3.44**	**230**	P	**Pn**	**18 25 19.9**	**-1.9**
PSGCX	**Pisagua**	**3.71**	**319**	*e*P	**Pn**	**18 25 24.4**	**-0.6**
PSGCX				*e*S	**Sn**	**18 26 06.8**	**-3.0**
PSGCX				IAML		18 26 08.6	
	comp=Z,98nm,0.3s						
PSGCX	**Pisagua**	**3.71**	**319**	⇓*e*P	**Pn**	**18 25 24.2**	**-0.8**
PSGCX	**Pisagua**	**3.71**	**319**		**Pn**	**18 25 24.1**	**-1.0**
PSGCX				Sn	**Sn**	**18 26 06.9**	**-2.9**
SOEO	**Opoqueri**	**3.85**	**355**	P	**Pn**	**18 25 28.7**	**+1.6**
FSA	**Cafayete**	**3.94**	**159**	*e*P	**Pn**	**18 25 30.7**	**+2.8**
PB16	**IPOC Station P**	**4.47**	**335**	*e*P	**Pn**	**18 25 36.5**	**+1.3**
PB16				*e*S	**Sn**	**18 26 27.5**	**-0.4**
PB16				IAML		18 26 30.3	
	comp=Z,36nm,0.6s						
PB16	**IPOC Station P**	**4.47**	**335**	*e*P	**Pn**	**18 25 36.0**	**+0.8**
PB16	**IPOC Station P**	**4.47**	**335**		**Pn**	**18 25 35.8**	**+0.7**
PB16	**IPOC Station P**	**4.47**	**335**	P	**Pn**	**18 25 35.9**	**+0.8**
SOET	**ToroToro**	**4.57**	**21**	P	**Pn**	**18 25 38.2**	**+1.9**
PB12	**IPOC Station P**	**4.61**	**325**	*e*P	**Pn**	**18 25 36.0**	**-0.6**
PB12				*e*S	**Sn**	**18 26 31.0**	**+0.5**
PB12				IAML		18 26 31.9	
	comp=Z,45nm,0.3s						
PB12	**IPOC Station P**	**4.61**	**325**		**Pn**	**18 25 34.7**	**-1.8**
AC02	**Maricunga**	**4.64**	**198**	*e*P	**Pn**	**18 25 38.8**	**+1.6**
AC02				*e*S	**Sn**	**18 26 32.8**	**+1.1**
AC02				IAML		18 26 39.6	
	comp=Z,28nm,0.6s						
AC02	**Maricunga**	**4.64**	**198**	⇑*e*P	**Pn**	**18 25 38.2**	**+1.0**
AC02	**Maricunga**	**4.64**	**198**		**Pn**	**18 25 38.1**	**+0.9**
AC01	**Pan de Azucar**	**4.66**	**217**	*e*P	**Pn**	**18 25 36.6**	**-0.4**
AC01				*e*S	**Sn**	**18 26 29.4**	**-2.0**
AC01				IAML		18 26 30.3	
	comp=Z,45nm,0.2s						
AC01	**Pan de Azucar**	**4.66**	**217**	*e*P	**Pn**	**18 25 36.4**	**-0.7**
AC01	**Pan de Azucar**	**4.66**	**217**		**Pn**	**18 25 36.5**	**-0.5**
AOEA	**Aiquile**	**4.73**	**27**	P	**Pn**	**18 25 40.1**	**+1.8**
PB18	**Visviri**	**5.14**	**339**	*e*P	**Pn**	**18 25 46.2**	**+2.3**
BBOJ	**La Paz, Jacaqu**	**5.45**	**353**	P	**Pn**	**18 25 49.3**	**+1.4**
SOEJ	**Jacaque**	**5.45**	**353**	P	**Pn**	**18 25 49.2**	**+1.3**
AC06	**Mina Casimiro**	**5.55**	**207**	*e*P	**Pn**	**18 25 47.0**	**-1.7**
BBOD	**La Paz, Gloria**	**5.84**	**350**	P	**Pn**	**18 25 54.3**	**+1.3**
LPAZ	**La Paz**	**6.12**	**354**	P	**Pn**	**18 25 58.5**	**+1.6**
	comp=Z,8.3nm,0.3s,baz=167,slow=12,SNR=69						
LPAZ				S	**Sn**	**18 27 05.5**	**-1.3**
	comp=Z,3.8nm,0.6s,baz=314,slow=19,SNR=3.6						
LPAZ	**La Paz**	**6.12**	**354**		**Pn**	**18 25 58.6**	**+1.7**
LPAZ	**La Paz**	**6.12**	**354**	P	**Pn**	**18 25 58.4**	**+1.6**
LPAZ	**La Paz**	**6.12**	**354**	*e*P	**Pn**	**18 25 57.4**	**+0.5**
BBOB	**La Paz, Bander**	**6.27**	**355**	P	**Pn**	**18 26 00.1**	**+1.4**
AC05	**El Transito**	**6.86**	**201**		**Pn**	**18 26 04.8**	**-1.2**
LCO	**Las Campanas**	**7.17**	**203**	Pn	**Pn**	**18 26 08.2**	**-2.0**
GO04	**Tololo Observa**	**8.27**	**200**	Pn	**Pn**	**18 26 22.4**	**-2.3**
SIV	**San Ignacio**	**8.82**	**45**	P	**Pn**	**18 26 29.8**	**-2.2**
	comp=Z,19nm,0.3s,baz=221,slow=11,SNR=81						
SIV				S	**Sn**	**18 28 03.9**	**-6.6**
	comp=Z,9.0nm,0.4s,baz=137,slow=23,SNR=12						
SIV	**San Ignacio**	**8.82**	**45**	P	**Pn**	**18 26 30.5**	**-1.5**
CFA	**Coronel Fontan**	**9.17**	**184**	P	**Pn**	**18 26 36.4**	**-0.1**
	comp=Z,2.2nm,0.3s,baz=356,slow=13,SNR=12						
CFA				S	**Sn**	**18 28 12.5**	**-6.2**
	comp=Z,1.7nm,0.4s,baz=251,slow=22,SNR=2.6						
MURT	**Porto Murtinho**	**9.22**	**87**	*e*P	**Pn**	**18 26 36.2**	**-0.9**
COIM	**Forte Coimbra**	**9.41**	**76**	*e*P	Pn	18 26 35.7	-4.0
CPUP	**Villa Florida**	**10.07**	**115**	*e*P	**Pn**	**18 26 46.1**	**-2.1**
BDQN	**Bodoquena, MS**	**10.22**	**81**	*e*P	**Pn**	**18 26 50.4**	**+0.2**
PTLB	**Pontes e Lacer**	**10.53**	**50**		**Pn**	**18 26 52.4**	**-1.9**
PTLB	**Pontes e Lacer**	**10.53**	**50**	*e*P	**Pn**	**18 26 52.1**	**-2.2**
VILB	**Vilhena**	**11.71**	**38**		**Pn**	**18 27 09.2**	**-0.5**
VILB	**Vilhena**	**11.71**	**38**	*e*P	**Pn**	**18 27 08.8**	**-0.8**
ANCO	**Parque Anchore**	**14.49**	**147**	*e*P	**Pn**	**18 27 42.4**	**-2.3**
CLDB	**Colider**	**16.04**	**46**	*e*P	**Pn**	**18 28 04.4**	**+0.4**
ARAG	**Araguaiana, MT**	**16.27**	**69**	*e*P	**P**	**18 28 06.8**	**+0.2**
PLCA	**Paso Flores**	**18.44**	**187**	P	**Pn**	**18 28 31.6**	**-0.8**
	comp=Z,1.5nm,0.7s,baz=6.3,slow=9.2,SNR=3.7						
SNDB	**Serra Nova Dou**	**18.64**	**59**	*e*P	**P**	**18 28 32.4**	**0.0**
IPMB	**Ipameri, GO**	**18.64**	**80**	*e*P	**P**	**18 28 31.6**	**-1.0**
BDFB	**Brasilia**	**19.62**	**73**	P	**P**	**18 28 43.1**	**-0.1**
	comp=Z,3.0nm,0.5s,baz=234,slow=14,SNR=4.2						
BDFB	**Brasilia**	**19.62**	**73**	P	**P**	**18 28 43.9**	**+0.7**
BDFB				IAmb	IAmb	18 28 44.5	
	comp=Z,4.7nm,0.7s						
MACA	**Manacapuru-AM**	**20.26**	**20**	*e*P	**P**	**18 28 49.7**	**-0.2**
ITTB	**Itaituba**	**21.26**	**34**	*e*P	**P**	**18 28 59.7**	**-0.9**
SGC2	**Sao Gabriel da**	**22.14**	**1**	*e*P	**P**	**18 29 09.1**	**-0.5**
DIAM	**Diamantina, MG**	**22.72**	**84**	*e*P	**P**	**18 29 14.7**	**-0.5**
JANB	**Januaria**	**23.14**	**76**	*e*P	**P**	**18 29 18.0**	**-1.0**
SMTB	**Santa Maria do**	**23.41**	**58**	*e*P	**P**	**18 29 21.2**	**-0.1**
SDBA	**SAO DESIDERIO**	**23.73**	**69**	*e*P	**P**	**18 29 23.9**	**-0.4**
BOAV	**Boa Vista**	**25.59**	**16**	*e*P	**P**	**18 29 41.3**	**+0.2**
VNA3	**Neumayer Olymp**	**58.80**	**161**	⇑P	**P**	**18 34 09.9**	**+2.4**
	comp=Z,2.5nm,0.8s						
VNA1	**Neumayer--Stat**	**58.99**	**160**	⇑P	**P**	**18 34 11.6**	**+2.9**
	comp=Z,2.2nm,0.8s						
VNA2	**Neumayer--Watz**	**59.36**	**161**	⇑P	**P**	**18 34 13.8**	**+2.5**
	comp=Z,2.6nm,0.7s,baz=290,slow=6.3						
TROLL	**Troll, Antarti**	**62.71**	**161**	⇑P	**P**	**18 34 36.6**	**+2.6**
	comp=Z,86nm,0.6s						
QSPA	**South Pole Qui**	**67.78**	**180**	P	**P**	**18 35 09.3**	**+2.6**
	comp=Z,3.2nm,0.5s,baz=110,slow=0.5,SNR=35						
	comp=Z,3.2nm,0.5s						
QSPA	**South Pole Qui**	**67.78**	**180**	P	**P**	**18 35 09.4**	**+2.7**
QSPA				IAmb	IAmb	18 35 10.0	
	comp=Z,3.1nm,0.7s						
TORD	**Torodi Ar. Bea**	**76.45**	**70**	P	**P**	**18 36 00.0**	**+1.1**
	comp=Z,0.8nm,0.5s,baz=255,slow=4.8,SNR=5.1						
	comp=Z,0.8nm,0.5s						
ASAR	**Alice Springs**	**129.68**	**206**	PKP	**PKiKP**	**18 43 18.6**	**+0.8**
	comp=Z,0.4nm,0.7s,baz=142,slow=1.6,SNR=5.7						
ASAR	**Alice Springs**	**129.68**	**206**		**PKiKP**	**18 43 17.9**	**+0.1**
WRA	**Warramunga Arr**	**132.80**	**209**	PKP	**PKiKP**	**18 43 24.7**	**+0.5**
	comp=Z,0.4nm,0.6s,baz=153,slow=2.1,SNR=5.6						

VIE ***17*** *18:26:30.2±0.5, 49°.92N×18°.52E, h0^{km}, mb2.2/3, ml2.5/3, Error ellipse: s-maj=4.6km s-min=3.0km az=162.0 21 km ENE of Ostrava Suspected Mining induced.*
IPEC ***17*** *18:26:30.5±0.3, 49°.82N×18°.56E, h1^{km}, ML2.4/6, Error ellipse: s-maj=1.8km s-min=1.4km az=72.0*
ISC 17 18:26:29.7±0.8**, 49°.85N**±0°.03×**18°.51E**±0°.02**, h0**^{km}**, n34, σ0^{s}.84**/66**, Czech and Slovak Republics**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OKC	**Ostrava-Krasne**	**0.23**	**268**	*e*PG	**Pg**	**18 26 36.1**	**+1.9**
OKC				*e*SG	**Sg**	**18 26 38.8**	**+1.6**
	comp=Z,80nm,0.5s						
OKC				AML	AML		
STEB	**Steborice**	**0.48**	**281**	*e*PG	**Pb**	**18 26 40.0**	**-1.1**
STEB				*e*SG	**Sg**	**18 26 46.6**	**+1.4**
	comp=Z,73nm,0.4s						
STEB				AML	AML		
MORC	**Moravsky Berou**	**0.63**	**264**	*e*Pg	**Pb**	**18 26 43.1**	**-0.5**
	baz=86						
MORC				*e*Sg	**Sg**	**18 26 51.2**	**+1.3**
	47nm,0.2s,baz=86						
MORC				AML	AML		
MAUC	**Maruska**	**0.65**	**223**	*e*PG	**Pb**	**18 26 43.6**	**-0.4**
MAUC				*e*SG	**Sg**	**18 26 51.2**	**+0.5**
	comp=Z,116nm,0.5s						
MAUC				AML	AML		
ANAC	**Anensky vrch**	**0.76**	**288**	*e*Pg	**Pb**	**18 26 45.8**	**-0.2**
	baz=108						
ANAC				*e*Sg	**Sb**	**18 26 55.8**	**-1.1**
	67nm,0.3s,baz=108						
ANAC				AML	AML		
LOSC	**Losov**	**0.77**	**254**	*e*Pg	**Pb**	**18 26 45.8**	**-0.2**
	baz=76						
LOSC				*e*Sg	**Sg**	**18 26 55.4**	**+1.0**
	62nm,0.3s,baz=76						
LOSC				AML	AML		
OJC	**Ojcow**	**0.91**	**65**	*e*Pg	**Pg**	**18 26 47.2**	**0.0**
OJC				*e*Sg	**Sg**	**18 26 59.4**	**+0.3**
LANS	**Liptovska Anna**	**0.94**	**138**	*e*PG	**Pg**	**18 26 47.7**	**0.0**
LANS				*e*SG	**Sb**	**18 27 02.5**	**+0.7**
LANS				*e*LG	Lg	18 27 05.0	
JAVC	**Velka Javorina**	**1.13**	**209**	*e*Pg	**Pb**	**18 26 51.9**	**-0.2**
	baz=31						
KRLC	**Kraliky**	**1.14**	**282**	*e*PG	**Pg**	**18 26 51.6**	**+0.1**
KRLC				*e*SG	**Sb**	**18 27 07.9**	**+0.2**
	comp=Z,49nm,0.7s						
KRLC				AML	AML		
NIE	**Niedzica**	**1.24**	**109**	*e*Pg	**Pb**	**18 26 53.6**	**-0.5**
NIE				*e*Sg	**Sn**	**18 27 10.9**	**-0.9**
VRAC	**Vranov**	**1.36**	**247**	*e*Pg	**Pb**	**18 26 56.2**	**+0.2**
	baz=68						
VRAC				*e*Sg	**Sg**	**18 27 13.6**	**+0.3**
	57nm,0.3s,baz=68						
VRAC				AML	AML		
VYHS	**Vyhne**	**1.37**	**171**	*e*PG	**Pg**	**18 26 55.6**	**-0.4**
VYHS				*e*SG	**Sb**	**18 27 14.3**	**0.0**
DPC	**Dobruska-Polom**	**1.50**	**291**	*e*PG	**Pg**	**18 26 58.2**	**-0.2**
DPC				*e*SG	**Sn**	**18 27 18.7**	**+0.6**
	comp=Z,37nm,0.5s						
DPC				AML	AML		
KRUC	**Moravsky**	**1.58**	**241**	*e*Pg	**Pb**	**18 26 59.7**	**-0.2**
	baz=61						
KRUC				*e*Sg	**Sb**	**18 27 20.7**	**+0.2**
	48nm,0.4s,baz=61						
KRUC				AML	AML		
OSTC	**Ostas**	**1.64**	**297**	*e*PG	**Pg**	**18 27 00.9**	**-0.2**
OSTC				*e*SG	**Sg**	**18 27 23.3**	**+1.0**
	comp=Z,19nm,0.5s						
OSTC				AML	AML		
MODS	**Modra-Piesok**	**1.68**	**209**	*e*PG	**Pn**	**18 27 00.5**	**+0.1**
MODS				*e*SG	**Sn**	**18 27 23.0**	**+0.4**
UPC	**Upice**	**1.74**	**293**	*e*PG	**Pb**	**18 27 01.9**	**-0.6**
UPC				*e*SG	**Sg**	**18 27 26.7**	**+1.2**
	comp=Z,28nm,1.0s						
UPC				AML	AML		
CHVC	**Chvalec**	**1.74**	**296**	*e*PG	**Pg**	**18 27 02.9**	**-0.2**
CHVC				*e*SG	**Sg**	**18 27 26.1**	**+0.4**
	comp=Z,16nm,0.3s						
CHVC				AML	AML		
STHS	**Stebnicka Huta**	**1.83**	**102**	*e*PG	**Pg**	**18 27 04.5**	**-0.3**
STHS				*e*SG	**Sg**	**18 27 30.9**	**+2.4**
KECS	**Kecovo**	**1.88**	**136**	*e*PG	**Pn**	**18 27 02.7**	**-0.5**
KECS				*e*SG	**Sn**	**18 27 27.0**	**-0.6**
TREC	**Trest**	**2.04**	**256**	*e*PG	**Pb**	**18 27 07.7**	**0.0**
TREC				*e*SG	**Sb**	**18 27 34.3**	**+0.7**
	comp=Z,23nm,0.4s						
TREC				AML	AML		
PRU	**Pruhonice**	**2.57**	**275**	*e*PG	**Pg**	**18 27 18.1**	**-0.8**
PRU				*e*SG	**Sg**	**18 27 51.3**	**-0.9**
	comp=Z,4.8nm,0.7s						
PRU				AML	AML		
CONA	**Conrad Observa**	**2.59**	**223**	*i* Pn	**Pn**	**18 27 13.4**	**+0.4**
	0.5nm,0.2s						
CONA				*i* Sn	**Sn**	**18 27 44.2**	**-1.1**
	10nm,0.5s						
RONA	**Rosalia, Austr**	**2.60**	**215**	*i* Pn	**Pn**	**18 27 13.7**	**+0.7**
	0.7nm,0.1s						
RONA				*e*Sn	**Sn**	**18 27 45.0**	**-0.3**
	3.2nm,0.2s						
ZVC	**Zvikov**	**2.83**	**263**	*e*PG	**Pb**	**18 27 21.0**	**-0.2**
ZVC				*e*SG	**Sg**	**18 27 59.6**	**-1.1**
	comp=Z,13nm,0.7s						
ZVC				AML	AML		
RICC	**Richard**	**2.92**	**286**	*e*SG	**Sg**	**18 28 03.3**	**-0.2**
CKRC	**Cesky Krumlov**	**2.93**	**251**	*e*PG	**Pg**	**18 27 24.6**	**-1.3**
CKRC				*e*SG	**Sg**	**18 28 02.6**	**-1.2**
	comp=Z,11nm,0.6s						
CKRC				AML	AML		
BRG	**Berggiesshubel**	**3.10**	**291**	Pg	**Pg**	**18 27 27.7**	**-1.4**
BRG				Sg	**Sg**	**18 28 08.6**	**-0.7**
BRG				Amp		18 28 14.3	
	comp=Z,6.0nm,0.5s						
KHC	**Kasperske Hory**	**3.29**	**259**	*e*PN	**Pn**	**18 27 23.4**	**+0.8**
KHC				*e*PG	**Pb**	**18 27 30.5**	**+1.5**
KHC				*e*SG	**Sg**	**18 28 15.3**	**-0.1**
	comp=Z,12nm,0.4s						
KHC				AML	AML		
HSKC	**Hora Svate Kat**	**3.35**	**285**	*e*PG	**Pb**	**18 27 31.4**	**+1.4**
HSKC				*e*SG	**Sg**	**18 28 16.5**	**-0.7**
	comp=Z,4.4nm,0.4s						
HSKC				AML	AML		
MOA	**Molln**	**3.44**	**236**	*e*Pn	**Pn**	**18 27 24.9**	**+0.3**
	comp=Z,0.1nm,0.1s						
MOA				*i* Sn	**Sn**	**18 28 05.7**	**-0.4**
	comp=Z,1.0nm,0.2s						
CLL	**Collm**	**3.80**	**295**	*e*Pg	**Pg**	**18 27 42.0**	**-0.6**
CLL				*e*Sg	**Sg**	**18 28 31.0**	**-0.8**
	comp=Z,7.0nm,0.5s						
NKC	**Novy Kostel**	**3.92**	**278**	*e*SG	**Sg**	**18 28 34.8**	**-1.0**
	comp=Z,5.9nm,0.4s						
NKC				AML	AML		

IDC ***17*** *18:44:46.2±0.7, 31°.09S×73°.15W, h0^{km}, mb4.2/5, mbtmp4.1/9, ML4.0/4, MS3.1/2, Error ellipse: s-maj=18.6km s-min=16.3km az=73.0*
NEIC ***17*** *18:44:46.9±2.0, 31°.10S±0°.05×72°.87W±0°.07, h10^{km}±2^{km}, mb4.4/7, ML4.0(GUC), Error ellipse: s-maj=8.8km s-min=7.3km az=100.0*
SJA ***17*** *18:44:47.2±0.7, 31°.13S×72°.84W, h30^{km}, ML3.8, MW4.0*
GUC ***17*** *18:44:50.1±0.7, 31°.20S×72°.66W, h38^{km}±3^{km}, ML4.0*
ISC 17 18:44:48.6±0.9**, 31°.17S**±0°.03×**72°.91W**±0°.05**, h23**^{km}±5^{km}**, n110, σ1^{s}.68**/152**, mb4.2**/9**, 8C-1D, Off coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CO06	**Fray Jorge**	**1.20**	**66**	⇑*e*P	**Pn**	**18 45 08.5**	**-1.5**
CO06				*i* S	**Sn**	**18 45 22.7**	**-2.9**
CO06				IAML		18 45 23.9	
	comp=N,4μm,0.3s						
CO06	**Fray Jorge**	**1.20**	**66**		**Pn**	**18 45 08.3**	**-1.6**
CO06				Sn	**Sn**	**18 45 22.0**	**-3.6**
CO02	**Combarbal**	**1.64**	**92**	*e*P	**Pn**	**18 45 15.6**	**-0.5**
CO02				*e*S	**Sn**	**18 45 34.8**	**-1.7**
CO02	**Combarbal**	**1.64**	**92**	*e*P	**Pn**	**18 45 15.2**	**-0.8**
CO02				*i* S	**Sn**	**18 45 34.9**	**-1.6**
CO02	**Combarbal**	**1.64**	**92**		**Pn**	**18 45 15.5**	**-0.6**
CO02				Sn	**Sn**	**18 45 34.1**	**-2.4**
CO04	**Los Peladeros**	**1.87**	**118**		**Pn**	**18 45 18.3**	**-1.1**
GO04	**Tololo Observa**	**2.07**	**62**	*e*P	**Pn**	**18 45 21.6**	**-0.6**
GO04				*e*S	**Sn**	**18 45 46.5**	**-0.9**
GO04				IAML		18 45 49.4	
	comp=Z,2μm,0.2s						
GO04	**Tololo Observa**	**2.07**	**62**	⇓*e*P	**Pn**	**18 45 21.6**	**-0.6**
GO04				*e*S	**Sn**	**18 45 46.1**	**-1.2**
GO04	**Tololo Observa**	**2.07**	**62**		**Pn**	**18 45 21.2**	**-1.0**
VA01	**Torpederas**	**2.14**	**150**	*e*P	**Pn**	**18 45 22.9**	**+0.1**
VA01				*e*S	**Sn**	**18 45 48.2**	**-0.4**
VA01	**Torpederas**	**2.14**	**150**		**Pn**	**18 45 22.2**	**-0.6**
ROCH	**El Roble**	**2.41**	**139**	*e*P	Pb	18 45 27.0	-4.5
ROCH				⇑*e*P	**Pn**	**18 45 26.8**	**-0.1**
ROCH				*i* S	**Sn**	**18 45 54.6**	**-1.2**
ROCH				IAML		18 45 59.1	
	comp=N,2μm,0.4s						
VA03	**San Esteban**	**2.56**	**129**	*e*P	**Pn**	**18 45 29.2**	**+0.4**
VA03				*e*S	**Sn**	**18 45 59.8**	**+0.6**
VA03				IAML		18 46 06.4	
	comp=Z,1μm,0.6s						
VA03	**San Esteban**	**2.56**	**129**	*e*P	**Pn**	**18 45 29.1**	**+0.4**
VA03				*e*S	**Sn**	**18 45 57.9**	**-1.3**
VA03				IAML		18 46 03.2	
	comp=E,2μm,0.4s						
VA03	**San Esteban**	**2.56**	**129**		**Pn**	**18 45 28.9**	**+0.1**
MT02	**Curacav**	**2.57**	**145**	*e*P	**Pn**	**18 45 29.0**	**+0.2**
MT02				*e*S	**Sn**	**18 45 58.5**	**-0.8**
MT02				IAML		18 46 09.0	
	comp=Z,232nm,0.8s						
MT02	**Curacav**	**2.57**	**145**	*e*P	**Pn**	**18 45 28.6**	**-0.2**
MT02				*i* S	**Sn**	**18 45 57.9**	**-1.4**
MT02	**Curacav**	**2.57**	**145**		**Pn**	**18 45 28.6**	**-0.2**
CO01	**Juntas del Tor**	**2.70**	**65**	*e*P	**Pn**	**18 45 31.1**	**+0.3**
CO01				*e*S	**Sn**	**18 46 02.7**	**-0.3**
CO01				IAML		18 46 05.8	
	comp=Z,407nm,0.2s						
CO01	**Juntas del Tor**	**2.70**	**65**	*e*P	**Pn**	**18 45 31.1**	**+0.3**
CO01				*i* S	**Sn**	**18 46 01.8**	**-1.2**
CO01				IAML		18 46 04.3	

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             comp=E,861nm,0.2s
CO01  Juntas del Tor     2.70  65         Pn      18 45 31.0 +0.1
VA05  Santo Domingo      2.71 157  eP     Pn      18 45 30.3 -0.4
VA05                                IAML          18 46 01.7
             comp=E,536nm,0.4s
VA05  Santo Domingo      2.71 157         Pn      18 45 30.1 -0.6
PEL   Peldehue           2.73 137  eP     Pn      18 45 31.6 +0.6
PEL                                eS     Sn      18 45 57.8 -5.5
PEL                                 IAML          18 46 07.2
             comp=Z,356nm,0.6s
PEL   Peldehue           2.73 137  eP     Pn      18 45 31.0  0.0
PEL                                i S    Sn      18 46 01.4 -1.9
PEL                                 IAML          18 46 07.7
             comp=E,476nm,0.6s
PEL   Peldehue           2.73 137         Pn      18 45 31.2 +0.2
LCO   Las Campanas       2.88  42  eP     Pn      18 45 32.8 -0.5
LCO                                eS     Sn      18 46 06.5 -0.9
LCO                                 IAML          18 46 07.5
             comp=Z,583nm,0.3s
LCO   Las Campanas       2.88  42         Pn      18 45 32.3 -1.0
MT05  Renca              2.88 141  eP     Pn      18 45 34.2 +1.0
MT05                                IAML          18 46 28.2
             comp=Z,201nm,1.1s
MT05  Renca              2.88 141         Pn      18 45 33.5 +0.4
MT10  Hacienda Santa     2.91 137  eP     Pn      18 45 34.1 +0.5
MT10                               eS     Sn      18 46 06.6 -1.2
MT10                                IAML          18 46 15.3
             comp=E,1µm,0.5s
MT14  Cerro Cal¡n        3.00 138  eP     Pn      18 45 34.5 -0.2
MT14                               i S    Sn      18 46 07.8 -2.1
MT14                                IAML          18 46 21.3
             comp=E,865nm,0.5s
MT16  CCHEN              3.03 139⥣eP     Pn      18 45 35.8 +0.7
MT16                               eS     Sn      18 46 09.2 -1.5
MT16  CCHEN              3.03 139         Pn      18 45 35.4 +0.2
MT01  Popeta             3.03 153  eP     Pn      18 45 35.1 -0.1
MT01                               eS     Sn      18 46 09.5 -1.2
MT01                                IAML          18 46 10.2
             comp=Z,249nm,0.6s
MT01  Popeta             3.03 153⥣eP     Pn      18 45 34.8 -0.3
MT01                                IAML          18 46 11.5
             comp=E,156nm,0.5s
MT01  Popeta             3.03 153         Pn      18 45 34.8 -0.3
MT09  Talagante          3.06 149  eP     Pn      18 45 36.0 +0.2
MT09                               i S    Sn      18 46 10.5 -1.3
MT09                                IAML          18 46 15.9
             comp=N,344nm,0.6s
MT09  Talagante          3.06 149         Pn      18 45 36.0 +0.2
MT03  Universidad Ad     3.08 139  eP     Pn      18 45 36.9 +1.0
MT03                               eS     Sn      18 46 12.9 +0.8
MT03                                IAML          18 46 14.4
             comp=Z,327nm,0.5s
MT03  Universidad Ad     3.08 139  eP     Pn      18 45 35.8 -0.1
MT03                               eS     Sn      18 46 10.4 -1.7
MT03  Universidad Ad     3.08 139         Pn      18 45 36.5 +0.6
AROD  Rodeo              3.12  72  eP     Pn      18 45 39.1 +2.4
AROD                               eS     Sn      18 46 16.6 +3.1
RTLS  Leoncito           3.15 102  eP     Pn      18 45 40.2 +3.2
RTLS                               eS     Sb      18 46 17.9 -4.2
MT15  Las Vizcachas      3.16 141  eP     Pn      18 45 38.0 +1.0
MT15                               i S    Sn      18 46 12.5 -1.6
MT15                                IAML          18 46 16.5
             comp=N,598nm,0.4s
MT04  Ro Olivares        3.24 134  eP     Pn      18 45 39.4 +1.2
MT04                               eS     Sn      18 46 17.6 +1.4
MT04                                IAML          18 46 27.5
             comp=Z,194nm,0.8s
MT04  Ro Olivares        3.24 134  eP     Pn      18 45 39.1 +0.9
MT04                               i S    Sn      18 46 14.4 -1.8
MT04                                IAML          18 46 26.4
             comp=N,298nm,0.5s
MT12  Pirque             3.24 143  eP     Pn      18 45 38.7 +0.6
MT12                               i S    Sn      18 46 14.3 -1.7
MT12                                IAML          18 46 19.6
             comp=N,715nm,0.4s
AC05  El Transito        3.26  45  eP     Pn      18 45 38.5 +0.1
AC05                               eS     Sn      18 46 16.1 -0.5
AC05                                IAML          18 46 20.8
             comp=Z,179nm,0.5s
AC05  El Transito        3.26  45  eP     Pn      18 45 38.5 +0.1
AC05                               i S    Sn      18 46 15.6 -1.0
AC05                                IAML          18 46 18.1
             comp=N,666nm,0.2s
AC05  El Transito        3.26  45         Pn      18 45 38.3 -0.1
MT08  Bocatoma Ro        3.34 134  eP     Pn      18 45 36.9 -2.7
MT08                               eP     Pb      18 45 41.3 -5.9
MT08                               eS     Sn      18 46 09.5 -9.2
MT08                               eS     Sb      18 46 19.1 -8.5
MT08                                IAML          18 46 37.5
             comp=Z,201nm,0.6s
MT08  Bocatoma Ro        3.34 134   IAML          18 46 25.0
             comp=N,249nm,0.5s
ACCO  Cerro Coronel      3.35  81  eP     Pn      18 45 42.9 +3.0
ACCO                               eS     Sn      18 46 19.2  0.0
ACCO                                IAML          18 46 25.3
             comp=Z,286nm,0.5s
AC04  Llanos de Chal     3.36  29  eP     Pn      18 45 38.3 -1.4
AC04                               eS     Sn      18 46 16.9 -2.0
AC04                                IAML          18 46 19.5
             comp=Z,143nm,0.3s
MT13  San Alfonso        3.39 140  eP     Pn      18 45 41.7 +1.5
MT13                               eS     Sn      18 46 20.3 +0.4
MT13                                IAML          18 46 32.0
             comp=Z,211nm,0.5s
MT13  San Alfonso        3.39 140  eP     Pn      18 45 40.9 +0.6
MT13                               i S    Sn      18 46 19.5 -0.3
MT13                                IAML          18 46 21.7
             comp=N,267nm,0.4s
MT13  San Alfonso        3.39 140         Pn      18 45 40.9 +0.6
ACDV  Cuesta del Vie     3.41  74  eP     Pn      18 45 22.4  -18
ACDV                               eS     Sb      18 46 26.0 -3.6
ACDV                                IAML          18 46 32.6
             comp=Z,180nm,0.5s
BO03  Pichilemu          3.41 167  eP     Pn      18 45 39.2 -1.2
BO03                               i S    Sn      18 46 16.3 -3.8
BO03                                IAML          18 46 18.8
             comp=E,206nm,0.3s
BO04  La Punta           3.42 146  eP     Pn      18 45 41.2 +0.7
BO04                               i S    Sn      18 46 18.8 -1.5
BO04                                IAML          18 46 22.8
             comp=N,249nm,0.6s
LMEL  Las Melosas        3.52 140  eP     Pn      18 45 42.9 +1.0
LMEL                               i S    Sn      18 46 22.8 -0.2
LMEL                                IAML          18 46 25.5
             comp=E,463nm,0.2s
BO01  Tunca              3.56 155  eP     Pn      18 45 43.3 +0.9
BO01                                IAML          18 46 57.5
             comp=Z,74nm,1.1s
BO01  Tunca              3.56 155         Pn      18 45 42.4 -0.1
ZON   Zonda              3.64  97  eP     Pn      18 45 43.5 -0.1
ZON                                 IAML          18 46 50.1
             comp=Z,173nm,0.9s
ZON   Zonda              3.64  97         Pn      18 45 46.6 +3.0
RTLL  Cerro Villicun     3.80  94  eP     Pn      18 45 34.5  -11
RTLL                                IAML          18 46 56.8
             comp=Z,182nm,1.0s
GO05  Hualane            3.92 168  eP     Pn      18 45 47.8 +0.4
GO05  Hualane            3.92 168         Pn      18 45 45.6 -1.7
CFA   Coronel Fontan     4.02  97   Pn    Pn      18 45 51.3 +2.6
             comp=Z,2.6nm,0.3s,baz=275,slow=11,SNR=22
CFA                                 Sn    Sn      18 46 37.0 +1.8
             comp=Z,11nm,0.3s,baz=292,slow=9.3,SNR=4.4
CFA                                 LR    LR      18 47 36.4
             comp=Z,178nm,21.5s,baz=323,slow=40
             comp=Z,9.3nm,0.5s
CFA                                 AML   AML
CFA   Coronel Fontan     4.02  97  eP     Pn      18 45 51.5 +2.7
BO02  Sierra Bellavi     4.03 154  eP     Pn      18 45 49.5 +0.5
BO02                               i S    Sn      18 46 34.0 -1.6
GO03  Copiapo            4.26  34   IAML          18 47 02.7
             comp=Z,91nm,0.7s
AC06  Mina Casimiro      4.41  31         Pn      18 45 53.1 -1.0
ML02  Panimavida         4.75 165         Pn      18 45 58.9 +0.1
AC01  Pan de Azucar      5.40  23   Pn    Pn      18 46 05.6 -2.1
AC02  Maricunga          5.44  38         Pn      18 46 06.7 -2.0
H03N1 Juan Fernandez     5.56 244   Pn    Pn      18 46 08.9 -0.8
             baz=52,slow=74
H03N1                               Sn    Sn      18 47 04.2 -8.6
             baz=19,slow=74
H03N2 Juan Fernandez     5.58 244   Pn    Pn      18 46 09.0 -0.9
             baz=210,slow=74
H03N2                               Sn    Sn      18 47 04.3 -8.9
             baz=242,slow=74
BI02  San Fabin de       5.65 167         Pn      18 46 11.7 +0.5
H03S3 Juan Fernandez     5.72 241   Pn    Pn      18 46 10.3 -1.6
             baz=209,slow=72
H03S3                               Sn    Sn      18 47 06.3  -10
H03S1 Juan Fernandez     5.72 241   Pn    Pn      18 46 10.0 -1.9
             baz=209,slow=72
H03S1                               Sn    Sn      18 47 06.2  -10
             baz=148,slow=74
H03S2 Juan Fernandez     5.74 241   Pn    Pn      18 46 10.2 -1.8
             baz=209,slow=72
H03S2                               Sn    Sn      18 47 06.6  -10
             baz=272,slow=74
PLCA  Paso Flores        9.73 169   Pn    Pn      18 47 07.8 +0.6
             comp=Z,0.5nm,0.3s,baz=335,slow=9.5,SNR=5.5
             comp=Z,3.3nm,0.7s
PLCA                                AML   AML
LPAZ  La Paz            15.44  17   Pn    Pn      18 48 24.9 -0.7
             comp=Z,0.2nm,0.3s,baz=169,slow=10,SNR=5.7
             comp=Z,0.9nm,0.4s
LPAZ                                AML   AML
LPAZ  La Paz            15.44  17   P     P       18 48 28.2 -1.8
SIV   San Ignacio       18.58  38   P     Pn      18 49 04.6 +0.2
             comp=Z,0.1nm,0.3s,baz=226,slow=9.8,SNR=40
             comp=Z,8.0nm,0.7s
SIV                                 AML   AML
PTLB  Pontes e Lacer    20.09  42   P     P       18 49 20.4 -0.1
PTLB                                IAmb  IAmb    18 49 26.2
             comp=Z,8.8nm,1.1s
VILB  Vilhena           21.58  36   P     P       18 49 34.2 -2.6
VILB                                IAmb  IAmb    18 49 42.5
             comp=Z,26nm,1.0s
BDFB  Brasilia          27.49  61   P     P       18 50 34.8 +1.4
             comp=Z,1.8nm,0.4s,baz=243,slow=7.6,SNR=3.1
             comp=Z,1.8nm,0.4s
BDFB  Brasilia          27.49  61   P     P       18 50 32.5 -1.0
BDFB                                IAmb  IAmb    18 51 12.8
             comp=Z,11nm,1.3s
VNA3  Neumayer Olymp    52.25 159 ⥣P     P       18 53 59.7 +2.1
             comp=Z,2.4nm,0.7s
VNA1  Neumayer--Stat    52.56 158 ⥣P     P       18 54 02.2 +2.4
             comp=Z,2.2nm,1.0s
VNA2  Neumayer--Watz    52.90 158 ⥣P     P       18 54 03.9 +1.6
             comp=Z,2.9nm,0.6s,baz=283,slow=7.7
SNAA  Sanae             54.48 159   P     P       18 54 15.4 +1.4
             comp=Z,3.6nm,0.7s,baz=277,slow=6.6,SNR=6.3
             comp=Z,3.6nm,0.7s
SNAA  Sanae             54.48 159   P     P       18 54 15.1 +1.2
SNAA                                IAmb  IAmb    18 54 16.7
             comp=Z,4.7nm,0.9s
TROLL Troll, Antarti    56.19 159 ⥣P     P       18 54 27.9 +1.6
             comp=Z,197nm,0.6s
QSPA  South Pole Qui    59.06 180   P     P       18 54 48.3 +1.7
             comp=Z,4.2nm,0.8s,baz=154,slow=1.4,SNR=18
             comp=Z,4.2nm,0.8s
QSPA  South Pole Qui    59.06 180   P     P       18 54 48.9 +2.3
TXAR  Lajitas Array     66.91 331   P     P       18 55 39.2 +0.1
             comp=Z,0.7nm,0.6s,baz=152,slow=9.2,SNR=9.8
             comp=Z,0.7nm,0.6s
TXAR  Lajitas Array     66.91 331   P     P       18 55 39.7 +0.6
TX31  Lajitas Ar. Si    66.91 331   P     P       18 55 37.6 -1.5
TX31                                IAmb  IAmb    18 55 45.6
             comp=Z,2.3nm,1.1s
TORD  Torodi Ar. Bea    83.96  71   P     P       18 57 17.7 +0.4
             comp=Z,0.6nm,0.6s,baz=268,slow=4.4,SNR=3.8
             comp=Z,0.6nm,0.6s
LBTB  Lobatse           84.17 116   LR    LR      19 32 03.8
             comp=Z,18nm,21.9s,baz=338,slow=34
WRA   Warramunga Arr   122.84 211   PKP   PKPdf   19 03 43.6 +0.2
             comp=Z,0.5nm,0.7s,baz=159,slow=1.5,SNR=4.7
BVAR  Borovoye Array   145.65  40   PKPbc PKPab   19 04 26.2 +1.0
             comp=Z,0.8nm,0.6s,baz=289,slow=4.5,SNR=5.1
KURK  Kurchatov        151.23  39         PKPbc   19 04 38.1 -1.6
KURBB Kurchatov Arra   151.23  39   PKPbc PKiKP   19 04 41.6 +1.4
             comp=Z,2.0nm,0.7s,baz=300,slow=2.9,SNR=17
KURBB                               PKPab sPKPbc  19 04 49.8 +1.9
             comp=Z,1.3nm,0.7s,baz=300,slow=2.9,SNR=7.3
ZALV  Zalesovo Beam    152.16  29   PKP   PKPdf   19 04 36.7 +1.7
             comp=Z,0.7nm,0.6s,baz=248,slow=1.6,SNR=3.6
ZALV                                PKPbc pPKPdf  19 04 43.3 +2.2
             comp=Z,6.7nm,0.6s,baz=309,slow=3.1,SNR=30
ZALV                                PKPab sPKPbc  19 04 52.4 +2.5
             comp=Z,3.6nm,0.6s,baz=305,slow=3.5,SNR=7.2
ZALV  Zalesovo Beam    152.16  29         PKiKP   19 04 43.2 +1.2
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*IDC **17** 18:49:54.4±3.1, 6.°48N×125.°81E, h0^{km}, mb3.3/3, mbtmp3.3/3, Error ellipse: s-maj=279.3km s-min=29.1km az=65.0*

*MAN **17** 18:49:57.0, 6.°47N×126.°44E, h75^{km}, MS3.9*

ISC 17 18:50:00.1±1.4**, 6.°53N**±0.°06×**126.°39E**±0.°09**, h48**^{km}±17^{km}**, n13, **σ**1.^{s}55**/21**, mb3.2**/3**, Mindanao**

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Code  Station Name        Δ°   AZ°   Phase ID          Time      Res
                                    Op     ISC       h  m  s    ISC
DDMP  Don Marcelino,     0.79 238  eP     Pn      18 50 15.5 +0.5
DDMP                               eS     Sn      18 50 26.6 +0.8
DMPH  Davao City--Mi     1.03 302  i P    Pn      18 50 18.5 +0.3
DMPH                               i S    Sn      18 50 33.6 +2.0
CDOP  Cateel, Davao      1.25   2  i P    Pn      18 50 20.2 -0.9
CDOP                               i S    Sn      18 50 36.0 -0.8
KCP   Kidapawan          1.37 290  eP     Pn      18 50 22.6 -0.2
KCP                                i S    Sn      18 50 39.8 -0.2
GSPH  General Santos     1.49 253  i P    Pn      18 50 23.2 -1.4
GSPH                               i S    Sn      18 50 39.8 -3.3
BIPH  Bislig             1.64 359  i P    Pn      18 50 25.4 -1.1
BIPH                               i S    Sn      18 50 45.7 -0.8
CTBH  Cotabato--PC H     2.23 288  i P    Pn      18 50 34.4 -0.2
CGP   Cagayan de Oro     2.54 319  eP     Pn      18 50 39.4 +0.5
CGP                                i S    Sn      18 51 07.9 -0.8
GLSP  General Luna,      3.24 355  eP     Pn      18 50 48.3 -0.2
GLSP                               eS     Sn      18 51 24.9 -1.0
PLP   Palo               4.81 343  eP     Pn      18 51 13.2 +3.2
WRA   Warramunga Arr    27.45 164   P     P       18 55 44.0 +2.4
             0.3nm,0.8s,baz=343,slow=9.5,SNR=1.9
             0.3nm,0.8s
ASAR  Alice Springs     30.90 166   P     P       18 56 13.1 +0.7
             0.4nm,0.8s,baz=344,slow=6.7,SNR=4.8
             0.4nm,0.8s
MKAR  Makanchi Array    55.08 324   P     P       18 59 26.1 -1.2
             0.3nm,0.7s,baz=127,slow=7.3,SNR=4.1
             0.3nm,0.7s
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*ATH **17** 19:02:38.9, 38.°15N×20.°35E, h17^{km}±1^{km}, ML2.5/8, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*

*THE **17** 19:02:40.1, 38.°2N±0.°9×2°0E±°, h15^{km}±1^{km}, M2.4/11, MLh2.4/11*

ISC 17 19:02:39.7±1.1**, 38.°16N**±0.°03×**20.°39E**±0.°06**, h17**^{km}±5^{km}**, n24, **σ**0.^{s}39**/41**, Greece**

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Code  Station Name        Δ°   AZ°   Phase ID          Time      Res
                                    Op     ISC       h  m  s    ISC
LXR1  Lixouri, Cepha     0.05  47   P     Pg      19 02 42.8 -0.1
LXR1                                S     Sg      19 02 45.3 +0.3
DMLN  Damoulianata-K     0.07 351   P     Pg      19 02 42.9 -0.2
DMLN                                S     Sg      19 02 45.5 +0.1
DMLN                                AML   AML
DMLN  Damoulianata-K     0.07 351   P     Pg      19 02 42.5 -0.6
DMLN                                S     Sg      19 02 45.3 -0.1
DMLN                                AML   AML
VLS   Valsamata          0.16  85   P     Pg      19 02 43.8 -0.2
VLS                                 S     Sg      19 02 47.0  0.0
VLS                                 AML   AML
VLS   Valsamata          0.16  85   P     Pg      19 02 43.6 -0.4
VLS                                 S     Sg      19 02 46.9  0.0
VLS                                 AML   AML
FSK   Fiskardo           0.33  25   P     Pg      19 02 46.4 -0.2
FSK                                 S     Sg      19 02 51.0 -0.4
FSK                                 AML   AML
FSK   Fiskardo           0.33  25   P     Pg      19 02 46.3 -0.4
ORTH  Orthonies,Zaky     0.40 142   P     Pg      19 02 47.3 -0.6
ORTH                                S     Sg      19 02 53.2 -0.1
ORTH                                AML   AML
EVGI  Lefkada island     0.50  25   P     Pg      19 02 49.5 -0.3
EVGI                                S     Sb      19 02 56.8 -0.4
EVGI                                AML   AML
EVGI  Lefkada island     0.50  25   P     Pg      19 02 49.5 -0.3
EVGI                                S     Sb      19 02 57.0 -0.1
EVGI                                AML   AML
DRAG  Dragano-Lefkad     0.54  16   P     Pg      19 02 50.1 -0.4
DRAG                                S     Sg      19 02 57.8  0.0
DRAG                                AML   AML
DRAG  Dragano-Lefkad     0.54  16   P     Pg      19 02 50.1 -0.4
LTHK  Lithakia           0.58 142   P     Pb      19 02 51.8 +0.5
LTHK                                S     Sb      19 02 59.7 +0.5
LTHK                                AML   AML
LTHK  Lithakia           0.58 142   P     Pg      19 02 50.5 -0.7
LTHK                                S     Sg      19 02 58.7 -0.1
LTHK                                AML   AML
NYDR  Nydri-Lefkada      0.60  24   P     Pg      19 02 51.1 -0.6
NYDR                                S     Sb      19 03 00.0 +0.1
NYDR                                AML   AML
NYDR  Nydri-Lefkada      0.60  24   P     Pg      19 02 51.1 -0.6
LKD2  Lefkada island     0.66  19   P     Pg      19 02 52.6 -0.2
LKD2                                S     Sb      19 03 02.3 +0.6
LKD2                                AML   AML
LKD2  Lefkada island     0.66  19   P     Pg      19 02 52.5 -0.2
LKD2                                AML   AML
TSLK  Tsoukalades, L     0.69  18   P     Pg      19 02 53.0 -0.3
TSLK                                S     Sb      19 03 03.2 +0.6
TSLK                                AML   AML
TSLK  Tsoukalades, L     0.69  18   P     Pg      19 02 53.1 -0.3
PDO   Prodromos          0.76  55   P     Pb      19 02 54.5  0.0
PDO                                 S     Sb      19 03 05.5 +0.9
PDO                                 AML   AML
PDO   Prodromos          0.76  55   P     Pb      19 02 54.4  0.0
PDO                                 AML   AML
DRO   Drossia            1.06 101   P     Pb      19 02 59.8 +0.1
DRO                                 AML   AML
IGT   Igoumenitsa        1.37 358   P     Pn      19 03 04.1  0.0
IGT                                 S     Sb      19 03 22.2 +0.2
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*IDC **17** 19:29:56.2±1.1, 55.°61N×163.°15E, h0^{km}, mb3.7/7, mbtmp3.7/7, ML2.4/1, MS3.4/1, Error ellipse: s-maj=32.1km s-min=16.6km az=139.0*

*KRSC **17** 19:29:57.0±0.9, 55.°29N×163.°45E, h20^{km}±29^{km}, Ml4.1*

*MOS **17** 19:29:57.6±0.6, 55.°39N×163.°48E, h19^{km}, mb3.7/1, Error ellipse: s-maj=7.2km s-min=6.0km az=65.9*

ISC 17 19:29:59.4±1.6**, 55.°42N**±0.°04×**163.°51E**±0.°03**, h31**^{km}±13^{km}**, n85, **σ**1.^{s}02**/97**, mb3.8**/7**, Off east coast of Kamchatka Peninsula**

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Code  Station Name        Δ°   AZ°   Phase ID          Time      Res
                                    Op     ISC       h  m  s    ISC
KBTR  Krutoberegovo      0.88 334   PN    Pn      19 30 14.1 -1.6
KBTR                                S     Sn      19 30 27.0 -0.5
KBTR  Krutoberegovo      0.88 334  eP     Pn      19 30 14.2 -1.6
KBTR                               eS     Sn      19 30 27.0 -0.5
KBG   Krutoberegovo      0.95 332   PN    Pn      19 30 15.3 -1.4
KBG   Krutoberegovo      0.95 332  eP     Pn      19 30 15.4 -1.4
MKZ   Mys Kozlova        1.34 231   PN    Pn      19 30 20.3 -1.7
MKZ                                 S     Sn      19 30 37.2 -1.5
MKZ   Mys Kozlova        1.34 231  eP     Pn      19 30 20.4 -1.7
MKZ                                eS     Sn      19 30 37.2 -1.5
BKI   Bering             1.42  98   PN    Pn      19 30 23.9 +0.8
BKI                                 S     Sb      19 30 43.0  0.0
BKI   Bering             1.42  98  eP     Pn      19 30 24.0 +0.8
BKI                                eS     Sb      19 30 43.0  0.0
SMKR  Semkarok           1.64 316   PN    Pn      19 30 26.5 +0.3
SMKR                                S     Sb      19 30 49.6 +0.4
SMKR  Semkarok           1.64 316  eP     Pn      19 30 26.5 +0.3
SMKR                               eS     Sb      19 30 49.7 +0.4
ZLN   Zelenaya           1.65 293   PN    Pn      19 30 26.3  0.0
ZLN   Zelenaya           1.65 293  eP     Pn      19 30 26.3  0.0
CIRR  Tsirk              1.71 295   PN    Pn      19 30 27.2  0.0
CIRR  Tsirk              1.71 295  eP     Pn      19 30 27.2  0.0
LGNR  Loginova           1.73 294   PN    Pn      19 30 27.7 +0.1
LGNR  Loginova           1.73 294  eP     Pn      19 30 27.8 +0.1
BZP   Bezymyannyi-Pe     1.75 288   PN    Pn      19 30 27.5 -0.4
BZP   Bezymyannyi-Pe     1.75 288  eP     Pn      19 30 27.5 -0.4
BZMR  Bezymyannaya       1.79 288   PN    Pn      19 30 28.3  0.0
BZMR  Bezymyannaya       1.79 288  eP     Pn      19 30 28.3  0.0
BZWR  Bezymyannyi-We     1.79 289   PN    Pn      19 30 28.5 +0.1
BZWR  Bezymyannyi-We     1.79 289  eP     Pn      19 30 28.5 +0.1
KLY   Klyuchi            1.84 300   PN    Pn      19 30 27.2 -1.7
KLY                                 S     Sn      19 30 50.2 -0.9
KLY   Klyuchi            1.84 300  eP     Pn      19 30 27.3 -1.7
KLY                                eS     Sn      19 30 50.3 -0.9
KIRR  Kirishev           1.87 288   PN    Pn      19 30 29.8 +0.3
KIRR                                S     Sn      19 30 54.4 +2.3
KIRR  Kirishev           1.87 288  eP     Pn      19 30 29.8 +0.3
KIRR                               eS     Sn      19 30 54.5 +2.3
KMNR  Kamenistaya        1.89 282   PN    Pn      19 30 29.9 +0.3
KMNR  Kamenistaya        1.89 282  eP     Pn      19 30 30.0 +0.3
TUMR  Tumrok             1.93 267   PN    Pn      19 30 30.3 +0.1
TUMR  Tumrok             1.93 267  eP     Pn      19 30 30.3 +0.1
KPT   Kopyto             1.94 288   PN    Pn      19 30 30.8 +0.4
KPT                                 S     Sn      19 30 55.9 +2.2
KPT   Kopyto             1.94 288  eP     Pn      19 30 30.8 +0.4
KPT                                eS     Sn      19 30 55.9 +2.2
KOZ   Kozyrevsk          2.15 289   PN    Pn      19 30 34.3 +1.1
KOZ                                 S     Sb      19 31 03.3 -0.7
KOZ   Kozyrevsk          2.15 289  eP     Pn      19 30 34.4 +1.1
KOZ                                eS     Sb      19 31 03.4 -0.7
SRDR  Sredinnyy          2.32 294   PN    Pn      19 30 36.5 +1.0
SRDR  Sredinnyy          2.32 294  eP     Pn      19 30 36.6 +1.0
ESO   Esso               2.77 283   PN    Pn      19 30 42.5 +0.8
ESO   Esso               2.77 283  eP     Pn      19 30 42.5 +0.8
SPN   Mys Shipunski      3.10 223   PN    Pn      19 30 45.2 -0.9
SPN   Mys Shipunski      3.10 223  eP     Pn      19 30 45.3 -0.9
NLC   Nalytchevo         3.32 229  eS     Sn      19 31 25.6 -1.9
SDLR  Sedlovina          3.45 234   PN    Pn      19 30 51.5 +0.4
SDLR  Sedlovina          3.45 234  eP     Pn      19 30 51.6 +0.4
KRER  Koryakskii         3.50 235   PN    Pn      19 30 52.8 +0.9
KRER  Koryakskii         3.50 235  eP     Pn      19 30 52.8 +0.9
SMAR  Somma              3.50 234   PN    Pn      19 30 52.5 +0.6
SMAR  Somma              3.50 234  eP     Pn      19 30 52.5 +0.6
KRX   Arik               3.51 236   PN    Pn      19 30 52.7 +0.7
KRX   Arik               3.51 236  eP     Pn      19 30 52.7 +0.7
UGLR  Uglovaya           3.52 233   PN    Pn      19 30 52.7 +0.6
UGLR  Uglovaya           3.52 233  eP     Pn      19 30 52.7 +0.6
AVH   Avacha             3.53 234   PN    Pn      19 30 52.7 +0.5
AVH   Avacha             3.53 234  eP     Pn      19 30 52.7 +0.5
KOK   Koryaka            3.56 235   PN    Pn      19 30 53.4 +0.8
KOK   Koryaka            3.56 235  eP     Pn      19 30 53.5 +0.8
GNL   Ganaly             3.67 244   PN    Pn      19 30 55.1 +1.0
GNL   Ganaly             3.67 244  eP     Pn      19 30 55.2 +1.0
PET   Petropavlovsk      3.73 232  ePN    Pn      19 30 55.2 +0.4
PET                                 pmax  pmax
             comp=Z,55nm,0.9s
PET                                 MLR   MLR
             comp=Z,200nm,9.0s
PET                                 MLR   MLR
             comp=Z,200nm,9.0s
PEA0B Petropavlovsk-     4.12 238   PN    Pn      19 31 00.5 +0.3
PETK  Petropavlovsk-     4.12 238   Pn    Pn      19 31 00.5 +0.3
             comp=Z,1.1nm,0.3s,baz=69,slow=17,SNR=13
PETK                                Sn    Sn      19 31 48.8 +1.5
             comp=Z,1.7nm,0.3s,baz=40,slow=19,SNR=5.3
PETK                                AML   AML
RUS   Russkaya           4.20 227   PN    Pn      19 31 00.4 -0.9
RUS   Russkaya           4.20 227  eP     Pn      19 31 00.5 -0.9
GRL   Gorelyy            4.30 230   PN    Pn      19 31 05.0 +2.2
GRL   Gorelyy            4.30 230  eP     Pn      19 31 05.1 +2.2
MTVR  Mutnovka           4.30 229   PN    Pn      19 31 03.5 +0.6
MTVR  Mutnovka           4.30 229  eP     Pn      19 31 03.6 +0.6
APC   Apacha             4.49 239   PN    Pn      19 31 06.5 +1.2
APC   Apacha             4.49 239  eP     Pn      19 31 06.5 +1.2
ASAK  Asacha             4.50 230   PN    Pn      19 31 06.5 +1.0
ASAK  Asacha             4.50 230  eP     Pn      19 31 06.5 +1.0
KDTR  Khodutka, Kamc     4.85 224   PN    Pn      19 31 10.5 +0.3
KDTR  Khodutka, Kamc     4.85 224  eP     Pn      19 31 10.5 +0.3
MJAR  Matsushiro Arr    25.56 233   P     P       19 35 26.3 +0.9
             comp=Z,1.2nm,0.6s,baz=35,slow=8.8,SNR=2.6
             comp=Z,1.2nm,0.6s
INK   Inuvik            30.80  40   LR    LR      19 48 33.8
             comp=Z,60nm,18.7s,baz=254,slow=36
H11N2 WAKE ISLAND Hy    35.72 175   T     T       20 16 09.2
             baz=358,slow=76,SNR=11
H11N3 WAKE ISLAND Hy    35.73 175   T     T       20 16 19.3
             baz=358,slow=76,SNR=14
H11N1 WAKE ISLAND Hy    35.74 175   T     T       20 16 14.6
             baz=358,slow=76,SNR=13
KURK  Kurchatov         48.21 302   P     P       19 38 36.3 -0.4
KURBB Kurchatov Arra    48.31 302   P     P       19 38 36.2 -1.2
             comp=Z,0.5nm,0.5s,baz=57,slow=7.6,SNR=5.8
             comp=Z,0.5nm,0.5s
MKAR  Makanchi Array    48.95 296   P     P       19 38 41.4 -1.1
             comp=Z,0.3nm,0.7s,baz=46,slow=6.4,SNR=1.9
             comp=Z,0.3nm,0.7s
BVAR  Borovoye Array    50.51 309   P     P       19 38 53.0 -1.2
             comp=Z,0.6nm,0.5s,baz=59,slow=7.6,SNR=3.7
             comp=Z,0.6nm,0.5s
FINES FINESS Array B    58.76 338   P     P       19 39 54.1 +0.2
             comp=Z,3.6nm,1.0s,baz=14,slow=13,SNR=4.3
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	comp=Z,3.6nm,1.0s						
TXAR	Lajitas Array	67.92	70	P	P	19 40 58.6	+3.4
	comp=Z,0.3nm,0.5s,baz=305,slow=4.4,SNR=4.6						
	comp=Z,0.3nm,0.5s						
EKA	Eskdalemuir Ar	69.07	352	P	P	19 41 02.8	+1.0
	comp=Z,0.8nm,0.7s,baz=32,slow=3.4,SNR=2.5						
	comp=Z,0.8nm,0.7s						
LPAZ	La Paz	124.67	66	PKP	PKPdf	19 48 56.7	+0.2
	comp=Z,3.7nm,0.6s,baz=46,slow=3.7,SNR=13						

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*KRSC **17** 19:32:22.3±2.2, 58°.91N×158°.37E, h28km±18km, Ml4.0*
*NERS **17** 19:32:30.3, 58°.65N×158°.16E, h33km*
ISC 17 19:32:22.7±0.9**, 58°.96N**±0°.05×**158°.53E**±0°.04**, h10**km**, n12, σ3ˢ.29**/15**, Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALN	Palana	0.75	79	eP	Pg	19 32 38.4	+1.1
PALN				eS	Sg	19 32 49.0	+1.9
TIGL	Tigil	1.20	176	eP	Pb	19 32 43.9	-1.6
TIGL				eS	Sn	19 33 00.2	-1.7
OSSR	Ossora	2.35	81	eP	Pn	19 33 04.1	+2.7
SRDR	Sredinnyy	2.72	166	eP	Pn	19 33 05.3	-1.2
ESO	Esso	3.04	178	eP	Pn	19 33 10.9	0.0
GADL	Gadlja	3.76	284	ePg	Pg	19 33 38.8	+4.0
GADL				eSg	Sg	19 34 28.8	+5.3
GADL				Sgmax		19 34 54.4	
	170nm,0.7s						
TLAR	Talaya	3.77	308	eP	Pb	19 33 28.5	-0.8
TLAR				ePg	Pg	19 33 42.8	+7.9
TLAR				Pgmax		19 33 44.8	
	20nm,0.7s						
TLAR				eS	Sb	19 34 11.5	-3.5
TLAR				eSg	Sg	19 34 33.9	+10
TLAR				Sgmax		19 34 49.2	
	60nm,0.8s						
MA2	Magadan	4.03	282	ePg	Pg	19 33 44.7	+4.8
MA2				Pgmax		19 33 46.8	
MA2				eSg	Sg	19 34 35.1	+3.0
MA2				Sgmax		19 34 47.2	
	30nm,0.6s						
MGD	Magadan 1	4.12	289	eSg	Sg	19 34 39.0	+4.0
MGD				Sgmax		19 34 50.5	
	30nm,0.7s						
SEY	Seymchan	4.99	326	eP	Pb	19 33 45.7	-4.3
SEY				ePg	Pg	19 34 05.3	+7.1
SEY				Pgmax		19 34 09.5	
SEY				eSg	Sg	19 35 16.5	+14
SEY				Sgmax		19 35 25.5	
	10.0nm,0.7s						
TLON	Talon	5.12	283	e	Sb	19 34 55.6	+2.0
SUUS	Susuman	6.34	312	e	Pb	19 34 08.5	-4.7
SUUS				eSg	Sg	19 35 56.2	+10
SUUS				Sgmax		19 36 10.3	
	10.0nm,0.8s						
SUUS				Sgmax		19 36 10.3	
	10.0nm,0.8s						

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*IDC **17** 19:44:40.6±1.0, 53°.67N×158°.34W, h0km, mb3.9/12, mbtmp3.9/15, ML3.7/3, MS3.0/3, Error ellipse: s-maj=22.9km s-min=15.9km az=161.0*
*NEIC **17** 19:44:42.7±1.5, 53°.92N±0°.05×158°.14W±0°.07, h10km±1km, mb3.9/19, ML3.6/24, ML3.6(AEIC), Error ellipse: s-maj=9.8km s-min=4.4km az=219.0*
*AEIC **17** 19:44:45.2±2.4, 53°.86N±0°.07×158°.22W±0°.09, h23km±5km, Error ellipse: s-maj=10.6km s-min=7.2km az=169.0*
ISC 17 19:44:41.2±2.4**, 53°.93N**±0°.06×**158°.17W**±0°.04**, h3**km±14km**, n93, σ1ˢ.56**/90**, mb4.0**/12**, South of Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CNBA	Chernabura Isl	1.22	318		Pn	19 45 05.4	+0.3
CNBA	Chernabura Isl	1.22	318	IAML		19 45 24.1	
	comp=E,1µm,0.3s						
CNBA	Chernabura Isl	1.22	318		Sb	19 45 22.3	+1.3
CNBA					Sg	19 45 22.6	+2.3
SDPT	Sand Point	1.96	318		Sn	19 45 40.5	+0.3
SDPT	Sand Point	1.96	318	Pn	Pn	19 45 16.0	+0.8
SDPT	Sand Point	1.96	318	IAML		19 45 42.1	
	comp=E,309nm,0.8s						
SDPT				IAML		19 45 44.5	
	comp=N,340nm,0.9s						
VNSG	Veniaminof 6	2.27	347		Pn	19 45 20.7	+1.1
VNHG	Veniaminof 1	2.37	346		Pn	19 45 22.5	+1.5
CHGN	Chignik	2.38	357	Pn	Pn	19 45 22.1	+1.0
CHGN					Sn	19 45 50.8	+0.1
CHIR	Chirikof Islan	2.40	37	Pn	Pn	19 45 21.7	+0.3
DOL	Dolgoi Island	2.47	301		Pn	19 45 22.8	+0.4
DOL					Pb	19 45 23.6	-2.6
DOL					Sn	19 45 51.4	-1.7
DOL					Sb	19 45 51.9	-5.2
VNFG	Fog Glacier, M	2.49	342	Pn	Pn	19 45 23.7	+1.0
PVV	Pavlof Volcano	2.55	306		Pn	19 45 24.0	+0.6
PVV					Sn	19 45 55.6	+0.7
PS1A	Pavlof South-1	2.56	307		Pn	19 45 24.2	+0.7
PS1A					Pb	19 45 25.1	-2.6
PS1A					Sn	19 45 55.8	+0.7
PS1A					Sb	19 45 56.5	-3.0
PS4A	Pavlof South-4	2.57	305		Pn	19 45 24.4	+0.8
PS4A					Sn	19 45 56.0	+0.6
PS4A					Sb	19 45 56.2	-3.6
DT1	Dutton Round H	2.67	298		Pn	19 45 25.3	+0.3
DT1					Sn	19 45 56.8	-1.0
DTNA	Dutton South F	2.67	299		Pn	19 45 25.8	+0.7
DTNA					Sn	19 45 58.0	0.0
PN7A	Pavlof North-7	2.69	306		Pn	19 45 25.9	+0.6
PN7A					Pb	19 45 27.8	-2.1
SII	Sitkinak Islan	3.49	39	Pn	Pn	19 45 35.0	-1.3
SII				IAML		19 46 20.4	
	comp=E,137nm,1.0s						
SII				IAML		19 47 00.1	
	comp=N,142nm,1.2s						
SSLS	Shishaldin Sou	3.50	285		Pn	19 45 37.6	+1.0
SSLS					Sn	19 46 18.2	-0.3
R17L	Mt. Peulik Vol	3.85	15		Pn	19 45 44.5	+3.2
OHAK	Old Harbor	4.31	38		Pn	19 45 47.6	+0.1
OHAK	Old Harbor	4.31	38	IAML		19 46 40.8	
	comp=E,37nm,0.8s						
OHAK				IAML		19 46 50.5	
	comp=N,71nm,1.1s						
AKUT	Akutan	4.49	276	Pn	Pn	19 45 50.6	+0.6
AKUT				IAML		19 46 42.8	
	comp=E,84nm,1.1s						
AKUT				IAML		19 46 48.7	
	comp=N,59nm,1.1s						
AKBBA	Akutan Broad B	4.58	275		Pn	19 45 51.5	+0.2
AKBBA					Pb	19 45 51.9	-10
AKLV	Akutan Long Va	4.59	276		Pn	19 45 52.0	+0.5
AKGG	Akutan Green G	4.62	277		Pn	19 45 52.3	+0.6
AKGG					Pb	19 45 52.5	-10
AKGG					Sn	19 46 43.8	-2.0
LVA	Lava Point	4.64	276	Pn	Pn	19 45 51.3	-0.8
UNV	Unalaska Valle	4.93	272		Pn	19 45 56.4	+0.3
UNV	Unalaska Valle	4.93	272	IAML		19 46 55.1	
	comp=E,48nm,0.8s						
UNV				IAML		19 46 59.2	
	comp=N,46nm,0.9s						
KDAK	Kodiak Island	4.98	37	Pn	Pn	19 45 57.4	+0.6
	comp=N,1.3nm,0.3s,baz=211,slow=6.8,SNR=8.5						
KDAK				Sn	Sn	19 46 50.6	-4.2
	comp=N,1.3nm,0.3s,baz=165,slow=22,SNR=1.9						
KDAK				LR	LR	19 48 11.2	
	comp=N,89nm,18.4s,baz=90,slow=40						
	comp=N,7.9nm,0.5s						
KDAK				AML	AML		
KDAK	Kodiak Island	4.98	37	Pn	Pn	19 45 56.8	0.0
MNAT	Makushin Natee	5.03	273		Pn	19 45 57.8	+0.3
MSW	Makushin Switc	5.09	273		Pn	19 45 58.6	+0.3
MAPS	Pakushin South	5.19	272		Pn	19 46 00.2	+0.5
O15K	Ungalikthiuk R	5.34	351	Pn	Pn	19 46 03.7	+2.0
O15K				IAML		19 47 08.6	
	comp=N,21nm,1.0s						
O14K	Tigyukauivet M	5.61	344		Pn	19 46 06.9	+1.5
Q19K	Cape Douglas,	5.61	25	Pn	Pn	19 46 06.6	+1.2
O16K	Kokwok River B	5.68	0	Pn	Pn	19 46 08.4	+2.0
OKFG	Magazine Ridge	5.81	269		Pn	19 46 08.8	+0.6
N15K	Kwethluk River	6.34	351	Pn	Pn	19 46 17.7	+2.2
N17K	Nushagak Hills	6.64	4	Pn	Pn	19 46 21.2	+1.6
BRLK	Bradley Lake	7.08	31	Pn	Pn	19 46 24.6	-1.0
M14K	Bethel	7.14	345		Pn	19 46 28.6	+2.3
L19K	White Mountain	8.46	11		Pn	19 46 45.2	+0.7
PWL	Port Wells	8.74	33	Pn	Pn	19 46 49.1	+0.8
J16K	Anvik River	9.47	353	Pn	Pn	19 47 00.6	+2.3
KAIM	Kayak Island	9.62	46	Pn	Pn	19 47 00.4	+0.1
SCM	Sheep Creek Mo	9.79	32		Pn	19 47 03.9	+1.1
ILAR	Eielson Array	12.28	23	Pn	Pn	19 47 35.5	-1.2
	comp=N,0.2nm,0.3s,baz=218,slow=13,SNR=4.2						
ILAR				Sn	Sn	19 49 49.5	-4.4
	comp=N,0.2nm,0.3s,baz=200,slow=23,SNR=2.4						
	comp=N,0.5nm,0.5s						
ILAR				AML	AML		
J25K	Salcha River,	12.52	26		Pn	19 47 39.8	-0.3
M29M	Somme Creek	13.40	43		Pn	19 47 52.4	+0.4
S32K	Killisnoo	13.74	66	Pn	Pn	19 47 56.6	-0.1
D19K	Kuna River	14.62	0		Pn	19 48 09.5	+0.8
I29M	Ogilvie Camp,	15.14	33	IAmb	IAmb	19 48 31.3	
	comp=Z,9.9nm,1.4s						
G27K	Doyon Strip	15.20	25	IAmb	IAmb	19 48 26.4	
	comp=Z,9.5nm,0.7s						
H29M	Whitestone	15.69	31	IAmb	IAmb	19 48 41.1	
	comp=Z,9.2nm,0.8s						
I30M	Mount Dempster	15.70	35	IAmb	IAmb	19 48 52.7	
	comp=Z,4.7nm,0.8s						
G29M	Pine Creek	16.26	29	IAmb	IAmb	19 48 58.4	
	comp=Z,11nm,1.1s						
F28M	Old Crow	16.27	25	IAmb	IAmb	19 48 39.0	
	comp=Z,9.0nm,1.3s						
EPYK	Eagle Plains	16.29	32	IAmb	IAmb	19 48 56.2	
	comp=Z,9.5nm,0.9s						
C23K	Itkillik River	16.34	9	P	Pn	19 48 33.8	+2.6
B22K	Teshekpuk Lake	16.61	6	P	P	19 48 38.1	+0.9
H31M	Peel River	16.73	35		Pn	19 48 36.4	+0.1
H31M				IAmb	IAmb	19 48 57.9	
	comp=Z,19nm,1.4s						
G30M	tAoh Zraii Nji	16.84	30	IAmb	IAmb	19 48 53.8	
	comp=Z,5.4nm,0.7s						
E29M	Blow River	17.35	26		Pn	19 48 43.6	-0.4
INK	Inuvik	18.48	29	P	Pn	19 48 59.5	+1.6
	comp=Z,0.5nm,0.3s,baz=214,slow=14,SNR=9.0						
	comp=Z,3.6nm,0.7s						
INK				AML	AML		
INK	Inuvik	18.48	29	IAmb	IAmb	19 49 14.2	
	comp=Z,5.2nm,0.9s						
PEA0B	Petropavlovsk-	25.94	286	P	P	19 50 14.9	+0.5
PETK	Petropavlovsk-	25.94	286	P	P	19 50 14.5	+0.1
	comp=Z,3.5nm,0.6s,baz=80,slow=13,SNR=7.6						
PETK				LR	LR	20 01 23.6	
	comp=Z,21nm,19.2s,baz=247,slow=39						
	comp=Z,3.5nm,0.6s						
PETK	Petropavlovsk-	25.94	286	P	P	19 50 15.0	+0.6
LYMT	Lyon Mountain	29.59	85	P	P	19 50 48.6	+1.1
YHH	Holmes Hill	31.61	87	P	P	19 51 06.9	+1.6
PDAR	Pinedale Array	33.54	89	P	P	19 51 22.4	+0.2
	comp=Z,0.4nm,0.5s,baz=312,slow=4.0,SNR=5.8						
	comp=Z,0.4nm,0.5s						
TIXI	Tiksi	34.94	328	LR	LR	20 08 28.5	
	comp=Z,39nm,18.5s,baz=128,slow=41						
H11N2	WAKE ISLAND Hy	43.33	232	T	T	20 40 16.3	
	baz=28,slow=76,SNR=18						
H11N3	WAKE ISLAND Hy	43.34	232	T	T	20 40 16.8	
	baz=28,slow=76,SNR=12						
H11N1	WAKE ISLAND Hy	43.35	232	T	T	20 40 17.7	
	baz=28,slow=76,SNR=14						
H11S1	WAKE ISLAND Hy	44.49	231	T	T	20 41 39.9	
	baz=28,slow=76,SNR=10						
H11S2	WAKE ISLAND Hy	44.50	231	T	T	20 41 39.0	
	baz=28,slow=76,SNR=7.3						
H11S3	WAKE ISLAND Hy	44.50	231	T	T	20 41 37.4	
	baz=28,slow=76,SNR=4.5						
TXAR	Lajitas Array	46.14	100	P	P	19 53 07.8	+1.0
	comp=Z,1.2nm,0.8s,baz=276,slow=3.8,SNR=9.4						
	comp=Z,1.2nm,0.8s						
SONM	Songino Array	56.07	306	P	P	19 54 22.1	+0.8
	comp=Z,0.4nm,0.4s,baz=46,slow=6.7,SNR=3.1						
	comp=Z,0.4nm,0.4s						
SONM	Songino Array	56.07	306	IAmb	IAmb	19 54 32.9	
	comp=Z,1.8nm,1.4s						
ZALV	Zalesovo Beam	60.55	323	P	P	19 54 53.4	+1.1
	comp=Z,0.8nm,0.4s,baz=34,slow=7.1,SNR=6.4						
	comp=Z,0.8nm,0.4s						
KURK	Kurchatov	65.38	324	P	P	19 55 25.9	+1.5
KURBB	Kurchatov Arra	65.49	324	P	P	19 55 26.0	+0.8
	comp=Z,0.3nm,0.3s,baz=20,slow=6.2,SNR=4.9						
	comp=Z,0.3nm,0.3s						
BVAR	Borovoye Array	66.03	330	P	P	19 55 29.9	+1.2
	comp=Z,2.1nm,0.8s,baz=46,slow=6.4,SNR=7.3						
	comp=Z,2.1nm,0.8s						
MKAR	Makanchi Array	67.32	320	P	P	19 55 37.7	+0.7
	comp=Z,1.0nm,0.7s,baz=48,slow=7.9,SNR=10						
	comp=Z,1.0nm,0.7s						
CMAR	Chiang Mai Arr	82.61	291	P	P	19 57 05.2	-0.6
	comp=Z,0.8nm,0.7s,baz=20,slow=5.3,SNR=5.8						
	comp=Z,0.8nm,0.7s						
ESDC	Sonseca Array	84.16	20	P	P	19 57 14.5	+1.0
	comp=Z,0.6nm,0.8s,baz=323,slow=3.1,SNR=3.5						
	comp=Z,0.6nm,0.8s						
BRTR	Keskin Array B	86.17	351	P	P	19 57 24.9	+1.3
	comp=Z,0.9nm,0.9s,baz=270,slow=1.2,SNR=4.4						
	comp=Z,0.9nm,0.9s						
WRA	Warramunga Arr	93.46	241	P	P	19 57 56.4	-1.6
	comp=Z,0.4nm,0.7s,baz=32,slow=4.9,SNR=2.7						
	comp=Z,0.4nm,0.7s						

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*SDD **17** 19:51:14.9±3.2, 18°.13N×70°.69W, h27km±7km, MD3.0, ML2.8, MW2.9, Presumed earthquake*
*OSPL **17** 19:51:17.2±0.4, 18°.03N×70°.71W, h7km±3km, ML2.2, Presumed earthquake*
ISC 17 19:51:15.5±1.2**, 18°.04N**±0°.04×**70°.67W**±0°.03**, h15**km±10km**, n20, σ1ˢ.25**/37**, 1C-3D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BANI	BANI	0.46	40	⇓iP	Pb	19 51 25.8	+0.3
BANI				iS	Sb	19 51 33.5	+1.4
BANI				IAML		19 51 34.5	
	comp=N,842nm,0.1s						
PODR	Polo	0.59	283	iP	Pg	19 51 26.9	-0.3
PODR				iS	Sb	19 51 35.9	-0.1
LOVI	El Cajuil, Ovi	0.70	251	iP	Pg	19 51 29.1	-0.2
LOVI				eS	Sg	19 51 38.2	-0.3
LOVI				IAML		19 51 42.0	
	comp=Z,87nm,2.6s						
ABDR	Alto Bandera	0.77	3	⇓iP	Pg	19 51 30.3	-0.4
ABDR				iS	Sb	19 51 41.0	-0.4
ABDR				IAML		19 51 42.1	
	comp=N,420nm,0.3s						
LODU1	El Espartillar	0.83	293	iP	Pg	19 51 31.5	-0.1
LODU1				IAML		19 51 48.5	
	comp=Z,76nm,0.4s						
SDD	Santo Domingo	0.83	60	iP	Pn	19 51 33.0	+0.3
SDD				eS	Sn	19 51 44.4	-0.3
SDD				IAML		19 51 47.5	
	comp=Z,69nm,0.3s						
NEDR	Neiba UASD	0.84	302	iP	Pn	19 51 34.5	+1.7
NEDR				IAML		19 52 00.3	
	comp=N,39nm,0.4s						
LOBH	Bahia de las A	0.94	260	iP	Pb	19 51 33.0	-0.4
LOBH				eS	Sb	19 51 45.4	-0.3
LOBH				IAML		19 51 48.7	
	comp=Z,63nm,0.6s						
DR08	Loma La Naviza	1.11	34	iP	Pb	19 51 35.6	-0.8
DR08				iS	Sb	19 51 50.0	-0.7
DR08				IAML		19 51 51.9	
	comp=N,3µm,0.2s						
JIDR	Jimani	1.21	292	iP	Pg	19 51 38.7	-0.1
JIDR				iS	Sg	19 51 54.3	-0.4
REDR	Restauracion	1.32	329	⇑iP	Pg	19 51 43.0	+2.2
REDR				iS	Sg	19 52 02.7	+4.7
REDR				IAML		19 52 03.3	
	comp=N,218nm,0.1s						
SC01	Santiago de lo	1.39	358	iP	Pb	19 51 41.0	-0.1
SC01				eS	Sg	19 51 58.9	-1.3
SC01				IAML		19 52 03.7	
	comp=Z,102nm,0.4s						
SC01	Santiago de lo	1.39	358	⇓iP	Pb	19 51 40.8	-0.3
SC01				iS	Sg	19 51 59.5	-0.7
SC01				IAML		19 52 00.5	
	comp=N,99nm,0.3s						
HATOM	Hato Mayor del	1.44	58	iP	Pb	19 51 42.0	0.0
HATOM				iS	Sg	19 52 01.5	-0.3
HATOM				IAML		19 52 01.9	
	comp=N,188nm,0.2s						
CADR	Cabrera	1.76	23	iP	Pn	19 51 44.5	-1.0
CADR				iS	Sb	19 52 08.8	-0.7
CADR				IAML		19 52 23.2	
	comp=N,175nm,0.9s						
MIDR	Miches	1.80	58	iP	Pn	19 51 45.1	-1.0
MIDR				iS	Sb	19 52 10.3	-0.4
MIDR				IAML		19 52 12.1	
	comp=N,40nm,0.6s						
LUDR	Luperon	1.87	352	iP	Pn	19 51 45.9	-1.0
SMDR	Samana, DR	1.88	48	iP	Pb	19 51 48.8	-0.7
SMDR				iS	Sn	19 52 11.3	+0.7
SMDR				IAML		19 52 11.6	
	comp=N,219nm,0.6s						
HIDR	Higuey Centro	1.94	73	iP	Pn	19 51 49.4	+1.5
HIDR				iS	Sn	19 52 13.0	+1.0
HIDR				IAML		19 52 45.6	
	comp=N,68nm,0.1s						
MCDR	Montecristi	2.07	333	iP	Pb	19 51 51.5	-1.3
MCDR				iS	Sb	19 52 16.0	-2.3
MCDR				IAML		19 52 25.4	
	comp=N,54nm,1.1s						

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*CATAC **17** 19:57:18.3±0.2, 12°N±1°×8°4W±°, h10km, M4.3/18, MLv4.3/18, Error ellipse: s-maj=3.2km s-min=2.6km az=68.9, confirmed*
*UCR **17** 19:57:20.7±1.7, 12°.49N×83°.97W, h43km±157km, MW3.9, Presumed earthquake*
ISC 17 19:57:15.9±1.1**, 12°.48N**±0°.03×**83°.87W**±0°.03**, h15**km±11km**, n68, σ1ˢ.15**/103**, 4C-5D, Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BLUN	Bluefields	0.48	169	⇓P	Pn	19 57 27.4	-0.8
BLUN				S	Sg	19 57 32.2	+0.3
ACON	Acoyapa	1.38	248	P	Pb	19 57 41.5	+0.1
ACON				S	Sb	19 57 59.1	+0.3
ACON	Acoyapa	1.38	248	eP	Pb	19 57 41.3	0.0
ACON				eS	Sn	19 57 58.1	-0.4
SIUN	Universidad Ur	1.52	324	P	Pg	19 57 45.0	-0.1
SIUN				S	Sg	19 58 05.4	+0.6
BILN	Bilwi Airport	1.63	17	P	Pg	19 57 48.1	+0.7
BILN				S	Sg	19 58 11.2	+2.7
BILN	Bilwi Airport	1.63	17	eP	Pg	19 57 47.2	-0.1
LCHIL	Los Chiles	1.66	210	eP	Pb	19 57 46.1	-0.1
LCHIL				eS	Sb	19 58 06.8	0.0
BOAB	BOACO BROADBAN	1.76	269	⇑P	Pb	19 57 47.4	-0.4
BOAB				S	Sb	19 58 10.0	+0.2
COVE	Coope Vega, Sa	1.82	197	⇓P	Pb	19 57 49.0	0.0
COVE				S	Sb	19 58 12.7	+1.0
UPAL	Upala	1.93	216	P	Pb	19 57 51.3	+0.5
UPAL				S	Sb	19 58 15.1	+0.3
MORN	Al O del Volca	1.97	242	⇑P	Pb	19 57 51.3	-0.3
MORN				S	Sb	19 58 17.1	+1.2
OMEN	Al SSO del Vol	1.97	241	⇓P	Pb	19 57 51.3	-0.2
OMEN				S	Sb	19 58 17.2	+1.3
CANAL	Canalete	2.01	216	eP	Pb	19 57 51.2	-0.9
JAPN	Al SSO del Vol	2.01	242	⇓P	Pb	19 57 52.4	+0.2
JAPN				S	Sg	19 58 19.7	-0.9
JAPN	Al SSO del Vol	2.01	242	eP	Pb	19 57 52.1	-0.1
VMAR	Armenia, Volca	2.06	217	eP	Pb	19 57 52.2	-0.8
MATN	Matagalpa	2.06	283	⇑P	Pb	19 57 52.2	-0.8
MATN				S	Sg	19 58 20.0	-2.2
CARN	Rivas	2.07	232	P	Pb	19 57 53.5	+0.3
CARN				S	Sb	19 58 19.1	+0.5
TENO	El Achiote	2.07	212	eP	Pb	19 57 53.7	+0.4
QUEB	Quebradon, Cot	2.10	209	eP	Pb	19 57 53.0	-0.8
CLARA	Aguas Claras	2.12	217	eP	Pb	19 57 53.3	-0.7
CEDE	Laguna Cedeo	2.14	203	eP	Pb	19 57 54.2	-0.2
VACR	Volcan Arenal	2.15	202	eP	Pb	19 57 54.3	-0.2
COTE	Lago Cote	2.15	209	eP	Pb	19 57 54.1	-0.6
TABAC	Tabacon	2.16	204	eP	Pb	19 57 54.3	-0.4
VPL3	V. Platanar	2.16	192	eP	Pb	19 57 54.6	-0.2
MESS	Mesas	2.16	217	eP	Pb	19 57 54.0	-0.8
ARE1	Arenal 1	2.17	203	eP	Pb	19 57 54.5	-0.4
VARE2	V. Arenal	2.17	203	eP	Pb	19 57 54.5	-0.5
TIMP	Tierras Morena	2.20	211	eP	Pb	19 57 54.7	-0.7
LCRUZ	La Cruz	2.22	231	eP	Pb	19 57 55.2	-0.5
VPL2	V. Platanar	2.22	193	eP	Pb	19 57 55.5	-0.3
NADN	Granada	2.24	251	P	Pb	19 57 55.9	-0.2
NADN				S	Sb	19 58 23.8	+0.2
NANN	Nandasmo	2.27	257	P	Pb	19 57 57.1	+0.5
NANN				S	Sb	19 58 25.4	+0.9
MASN	Masaya	2.29	258	S	Sb	19 58 25.0	-0.1
WILN	Americas 2	2.29	262	P	Pb	19 57 57.1	+0.2
WILN				S	Sb	19 58 26.5	+1.4
MAS3	Al N del Volca	2.30	259	P	Pb	19 57 56.7	-0.5
MAS3				S	Sb	19 58 25.7	+0.2
VPS5	V. Poas	2.30	189	eP	Pb	19 57 57.1	-0.2
SABN	Sabanita	2.30	257	P	Pb	19 57 56.7	-0.4
VPS8	V Poas	2.31	189	eP	Pb	19 57 57.2	-0.3
MGAN	Managua	2.35	262	P	Pb	19 57 57.3	-0.7
MGAN				S	Sb	19 58 28.0	+1.2
TISN	Laguna Tiscapa	2.37	262	P	Pn	19 57 55.7	+1.4
ALLN	Telcor Managua	2.37	262	P	Pb	19 57 57.8	-0.6
ALLN				S	Sb	19 58 27.6	+0.1
UNAN	Cigeo UNAN	2.38	261	P	Pb	19 57 56.9	-1.5
UNAN				S	Sb	19 58 29.0	+1.4
RCPN	Sur Rio San Ju	2.41	296	⇓P	Pb	19 57 57.3	-1.7
ABCN	Banco Central	2.41	262	P	Pb	19 57 57.7	-1.4
ABCN				S	Sb	19 58 29.8	+1.2
APQ2	Apoyeque	2.42	264	P	Pb	19 57 58.4	-0.7
APQ2				S	Sb	19 58 30.7	+1.9
JTS	Las Juntas de	2.42	206	P	Pb	19 57 58.1	-1.1
JTS				S	Sb	19 58 28.1	-0.7
CVTR	Volcan Turrial	2.44	178	eP	Pb	19 57 59.2	-0.7
VTR0	Volcan Turrial	2.45	178	eP	Pb	19 57 59.2	-0.7
HDC	Heredia	2.47	186	P	Pb	19 57 58.0	-2.1
HDC				S	Sb	19 58 29.5	-1.0
LIMN	Finca el Limon	2.51	284	⇑P	Pb	19 57 58.7	-2.0
LIMN				S	Sb	19 58 32.7	+1.3
RCFN	Al S de San Ju	2.51	295	P	Pb	19 58 00.3	-0.5
RCFN				S	Sb	19 58 31.9	+0.2
RCVN	Varillal2	2.52	296	P	Pb	19 57 58.6	-2.4
RCVN				S	Sb	19 58 31.3	-0.5
MOM2	El Cardon	2.56	269	P	Pb	19 58 00.8	-0.7
MOM2				S	Sb	19 58 34.3	+1.5
PRVC	Isla de Provid	2.60	70	P	Pb	19 58 00.3	-1.9
MOMN	Momotombo	2.61	269	P	Pb	19 58 00.1	-2.4
MOMN				S	Sb	19 58 34.7	+0.3
TRB2	Turrubares	2.61	193	P	Pb	19 58 00.0	-2.4
TRB2				S	Sb	19 58 34.4	0.0
AESN	El Sauce Leon	2.64	279	S	Sb	19 58 34.4	-0.8
COPN	Copaltepe	2.68	264	P	Pb	19 58 02.0	-1.6
LEVN	Ruinas Leon Vi	2.69	269	S	Sb	19 58 35.3	-1.2
CNGN	Cerro Negro	2.77	271	P	Pb	19 58 04.2	-0.9
CNGN				S	Sb	19 58 37.2	-1.6
ILCN	San Idelfonso	2.77	272	P	Pb	19 58 03.0	-2.1
ILCN				S	Sb	19 58 37.5	-1.4
CNGA	Al SSO del Vol	2.77	271	P	Pb	19 58 04.0	-1.1
PLRN	Geotermica Pol	2.83	272	P	Pb	19 58 05.1	-1.1
PLRN				S	Sb	19 58 39.9	-0.9
CMARA	Lajas Hojancha	2.88	212	P	Pb	19 58 04.2	-2.9
CMARA				S	Sb	19 58 39.3	-2.9
BUS1	Rivas	2.91	178	eP	Pn	19 58 04.1	+2.0
SAJE	San Jernim	3.13	174	eP	Pn	19 58 07.0	+2.1

WEL 17 20:02:54.2±0.7**, 46°S**±6°×**16°6E**±°**, h12**km**, ML4.1**/19**, MLv4.0**/9**, Error ellipse: s-maj=8.2km s-min=5.4km az=5.7, confirmed, Off west coast of South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYZ	Puysegur Point	0.53	73	P	Pb	20 03 06.0	+0.6
PYZ				S	Sb	20 03 13.9	+0.8
PYZ				AML	AML		
PYZ				AML	AML		
RLNS	Resolution Isl	0.82	39	P	Pg	20 03 10.1	+0.1
RRKS	Rarakau	1.07	81	P	Pb	20 03 14.5	-0.1
DCZ	Deep Cove	1.20	45	P	Pn	20 03 14.9	-1.9
DCZ				S	Sb	20 03 28.3	-4.0
DCZ				AML	AML		
DCZ				AML	AML		
WHZ	Wether Hill Ro	1.46	74	P	Pn	20 03 20.4	+0.1
WHZ				S	Sn	20 03 39.1	-0.2
WHZ				AML	AML		
WHZ				AML	AML		
APZ	The Paps	1.50	111	P	Pn	20 03 20.3	-0.6
APZ				S	Sn	20 03 38.5	-2.0
APZ				AML	AML		
APZ				AML	AML		
MLZ	Mavora Lakes	1.79	59	P	Pb	20 03 26.0	-1.0

MLZ				AML	AML		
MLZ				AML	AML		
MSZ	**Milford Sound**	**2.16**	**41**	P	Pn	20 03 30.3	+0.4
MSZ				AML	AML		
MSZ				AML	AML		
SYZ	**Scrubby Hill**	**2.22**	**97**	P	Pn	20 03 31.2	+0.5
SYZ				AML	AML		
SYZ				AML	AML		
TUZ	**Tuapeka**	**2.59**	**83**	P	Pn	20 03 36.0	+0.2
TUZ				AML	AML		
TUZ				AML	AML		
EAZ	**Earnscleugh**	**2.59**	**66**	P	Pn	20 03 36.9	+1.0
EAZ				AML	AML		
EAZ				AML	AML		
WKZ	**Wanaka**	**2.62**	**56**	P	Pn	20 03 38.2	+1.8
WKZ				AML	AML		
WKZ				AML	AML		
JCZ	**Jackson Bay**	**3.01**	**43**	P	Pn	20 03 43.5	+1.7
JCZ				AML	AML		
JCZ				AML	AML		
HHSZ	**Highcliff Hill**	**3.27**	**84**	P	Pn	20 03 45.3	+0.1
HHSZ				AML	AML		
ODZ	**Otahua Downs**	**3.53**	**70**	P	Pn	20 03 47.9	-0.9
ODZ				AML	AML		
LBZ	**Lake Benmore**	**3.56**	**59**	P	Pn	20 03 48.9	-0.4
LBZ				AML	AML		
FOZ	**Fox Glacier**	**3.92**	**46**	P	Pn	20 03 55.0	+1.0
FOZ				AML	AML		
TMZ	**Timaru**	**4.06**	**63**	P	Pn	20 03 55.0	-1.1
TMZ				AML	AML		
ARCZ	**Arundel**	**4.40**	**59**	P	Pn	20 03 59.3	-1.5
ARCZ				AML	AML		
ARCZ				AML	AML		
WVZ	**Waitaha Valley**	**4.71**	**48**	P	Pn	20 04 05.6	+0.6
WVZ				AML	AML		
MHCZ	**Mount Hutt**	**4.87**	**57**	P	Pn	20 04 08.2	+0.9
MHCZ				AML	AML		
MHCZ				AML	AML		
OXZ	**Oxford**	**5.27**	**58**	P	Pn	20 04 11.7	-1.0
OXZ				AML	AML		
INZ	**Inchbonnie**	**5.33**	**50**	P	Pn	20 04 13.1	-0.4
INZ				AML	AML		
LTZ	**Lake Taylor**	**5.74**	**54**	P	Pn	20 04 18.4	-0.9
LTZ				AML	AML		
DSZ	**Denniston Nort**	**6.22**	**45**	P	Pn	20 04 26.4	+0.6
DSZ				AML	AML		
THZ	**Tophouse**	**6.77**	**50**	P	Pn	20 04 34.8	+1.4
THZ				AML	AML		
MRNZ	**Matariki Terra**	**6.96**	**47**	P	Pn	20 04 38.6	+2.7
MRNZ				AML	AML		
MOO	**Moorlands**	**13.96**	**279**	P	Pn	20 06 10.4	-1.3
MILA	**Mila**	**15.56**	**301**	P	Pn	20 06 32.0	-1.4

*CNRM **17** 20:07:53.0, 35°.63N×8°.56W, h88^{km}, ML2.4*
*SFS **17** 20:07:55.5, 35°.71N×8°.39W, h15^{km}, ML2.9/11, ML3.1/11, MLv2.9/11*
*MDD **17** 20:07:56.6±1.2, 35°.68N×8°.42W, h35^{km}, mb_Lg2.2/6, Error ellipse: s-maj=9.7km s-min=6.5km az=24.0*
*INMG **17** 20:07:58.1±1.7, 35°.75N×8°.38W, h23^{km}±10^{km}, ML1.5, Error ellipse: s-maj=6.3km s-min=5.4km az=86.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Mar de Marrocos*

ISC 17 20:07:55.2±1.3**, 35°.66N**±0°.03×**8°.39W**±0°.05**, h54**^{km}±45^{km}**, n40,** σ**1^{s}12**/76**, West of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PFVI	**Vila Bisbo**	**1.52**	**347**	P	**Pn**	**20 08 20.2**	**+0.1**
PFVI				S	**Sn**	**20 08 37.6**	**-1.0**
PFVI	**Vila Bisbo**	**1.52**	**347**	*e*P	**Pn**	**20 08 21.1**	**+1.1**
PFVI				*e*S	**Sn**	**20 08 38.1**	**-0.6**
PFVI				*i* IAML		20 08 38.3	
PFVI				*i* IAML		20 08 39.6	
PFVI				*i* IAML		20 08 44.5	
PFVI	**Vila Bisbo**	**1.52**	**347**	P	**Pn**	**20 08 19.0**	**-1.0**
PFVI				S	**Sn**	**20 08 38.9**	**+0.2**
PBDV	**Barranco-do-Ve**	**1.63**	**13**	S	**Sn**	**20 08 41.9**	**+0.5**
MORF	**Marmelete**	**1.66**	**353**	*e*P	**Pn**	**20 08 22.5**	**+0.4**
MORF				*e*S	**Sn**	**20 08 41.4**	**-0.9**
MORF				*i* IAML		20 08 44.5	
MORF				*i* IAML		20 08 45.9	
MORF				*i* IAML		20 08 46.0	
PVAQ	**Vaqueiros**	**1.82**	**17**	*e*P	**Pn**	**20 08 25.6**	**+1.4**
PVAQ				*e*S	**Sn**	**20 08 45.2**	**-1.0**
PVAQ				*i* IAML		20 08 51.5	
PVAQ				*i* IAML		20 08 51.6	
PVAQ				*i* IAML		20 08 51.8	
PVAQ	**Vaqueiros**	**1.82**	**17**	P	**Pn**	**20 08 23.5**	**-0.7**
PVAQ				S	**Sn**	**20 08 47.5**	**+1.3**
PTEO	**Sao Teotonio**	**1.91**	**352**	*e*P	**Pn**	**20 08 26.0**	**+0.7**
PTEO				*e*S	**Sn**	**20 08 47.3**	**-0.8**
PTEO				*i* IAML		20 08 50.8	
PTEO				*i* IAML		20 08 54.9	
PTEO				*i* IAML		20 08 56.7	
PCVE	**Castro Verde**	**1.99**	**8**	P	**Pn**	**20 08 27.4**	**+0.9**
PCVE				S	**Sn**	**20 08 49.3**	**-1.0**
PCVE	**Castro Verde**	**1.99**	**8**	*e*P	**Pn**	**20 08 27.8**	**+1.3**
PCVE				*e*S	**Sn**	**20 08 49.6**	**-0.7**
PCVE				*i* IAML		20 08 49.8	
PCVE				*i* IAML		20 08 53.5	
PCVE				*i* IAML		20 08 56.0	
EGRO	**El Granado**	**2.01**	**21**	P	**Pn**	**20 08 27.1**	**+0.4**
EGRO				S	**Sn**	**20 08 50.8**	**+0.1**
EGRO	**El Granado**	**2.01**	**21**	Pn	**Pn**	**20 08 27.4**	**+0.6**
EGRO				Sn	**Sn**	**20 08 50.1**	**-0.7**
EGRO				IVmb_Lg		20 08 55.5	
PLOUS	**Minas do Lousa**	**2.37**	**359**	*e*P	**Pn**	**20 08 33.4**	**+1.7**
PLOUS				*e*S	**Sn**	**20 09 00.3**	**+0.7**
PLOUS				*i* IAML		20 09 05.2	
PLOUS				*i* IAML		20 09 05.7	
PLOUS				*i* IAML		20 09 09.5	
ESPR	**Espera**	**2.38**	**59**	P	**Pn**	**20 08 31.4**	**-0.3**
ESPR				S	**Sn**	**20 08 59.5**	**-0.2**
ESPR	**Espera**	**2.38**	**59**	Pn	**Pn**	**20 08 32.8**	**+1.1**
ESPR				Sn	**Sn**	**20 08 59.1**	**-0.6**
ESPR				IVmb_Lg		20 09 01.7	
EMIN	**Mina Concepcio**	**2.52**	**33**	Pn	**Pn**	**20 08 33.9**	**+0.2**
EMIN				Sn	**Sn**	**20 09 02.8**	**-0.4**
PBAR	**Barrancos**	**2.74**	**23**	P	**Pn**	**20 08 37.4**	**+0.7**
PBAR				S	**Sn**	**20 09 08.9**	**+0.3**
PBAR	**Barrancos**	**2.74**	**23**	*e*P	**Pn**	**20 08 37.1**	**+0.4**
PBAR				*e*S	**Sn**	**20 09 08.2**	**-0.4**
PBAR				*i* IAML		20 09 09.7	
PBAR				*i* IAML		20 09 13.2	
PBAR				*i* IAML		20 09 21.3	
MOE	**Montemor**	**2.86**	**1**	*e*P	**Pn**	**20 08 40.5**	**+2.1**
MOE				*e*S	**Sn**	**20 09 10.9**	**-0.7**
MOE				*i* IAML		20 09 12.0	
MOE				*i* IAML		20 09 13.2	
MOE				*i* IAML		20 09 14.1	
EVO	**Evora**	**2.89**	**6**	P	**Pn**	**20 08 39.3**	**+0.6**
EVO				S	**Sn**	**20 09 10.9**	**-1.4**
EVO	**Evora**	**2.89**	**6**	*e*P	**Pn**	**20 08 40.9**	**+2.2**
EVO				*e*S	**Sn**	**20 09 10.9**	**-1.4**
EVO				*i* IAML		20 09 11.2	
EVO				*i* IAML		20 09 12.5	
EVO				*i* IAML		20 09 12.6	
EMIJ	**Mijas**	**3.06**	**72**	P	**Pn**	**20 08 41.8**	**+0.6**
PARRA	**Arraiolos**	**3.17**	**5**	*e*P	**Pn**	**20 08 43.6**	**+1.0**
PARRA				*e*S	**Sn**	**20 09 18.0**	**-1.1**
PARRA				*i* IAML		20 09 18.7	
PARRA				*i* IAML		20 09 20.4	
PARRA				*i* IAML		20 09 21.2	
PESTR	**Estremoz**	**3.27**	**11**	P	**Pn**	**20 08 43.5**	**-0.5**
PESTR				S	**Sn**	**20 09 21.4**	**-0.3**
EBAD	**Badajoz**	**3.28**	**19**	P	**Pn**	**20 08 44.8**	**+0.6**
EBAD				S	**Sn**	**20 09 21.4**	**-0.6**
EBAD	**Badajoz**	**3.28**	**19**	Pn	**Pn**	**20 08 44.9**	**+0.8**
EBAD				Sn	**Sn**	**20 09 20.5**	**-1.4**
EBAD				IVmb_Lg		20 09 23.9	
PMAFR	**Mafra**	**3.37**	**348**	P	**Pn**	**20 08 45.9**	**+0.5**
PMAFR				S	**Sn**	**20 09 23.5**	**-0.6**
ECAB	**El Cabril**	**3.39**	**44**	P	**Pn**	**20 08 47.0**	**+1.4**
ECAB				S	**Sn**	**20 09 23.5**	**-1.2**
ECAB	**El Cabril**	**3.39**	**44**	Pn	**Pn**	**20 08 46.5**	**+0.8**
ECAB				Sn	**Sn**	**20 09 23.7**	**-1.0**
ECAB				IVmb_Lg		20 09 24.3	
PMTG	**Montargil**	**3.41**	**2**	*e*P	**Pn**	**20 08 47.6**	**+1.7**
PMTG				*e*S	**Sn**	**20 09 23.6**	**-1.5**
PMTG				*i* IAML		20 09 25.1	
PMTG				*i* IAML		20 09 25.5	
PMTG				*i* IAML		20 09 27.2	
PMRV	**Marv??o**	**3.85**	**12**	*e*P	**Pn**	**20 08 53.2**	**+1.2**
PMRV				*e*S	**Sn**	**20 09 32.5**	**-3.4**
PMRV				*i* IAML		20 09 36.5	
PMRV				*i* IAML		20 09 36.6	
PMRV				*i* IAML		20 09 36.9	
PSARD	**Sardoal**	**3.94**	**3**	*e*P	**Pn**	**20 08 55.0**	**+1.7**
PSARD				*e*S	**Sn**	**20 09 36.6**	**-1.6**
PSARD				*i* IAML		20 09 37.2	
PSARD				*i* IAML		20 09 37.5	
PSARD				*i* IAML		20 09 37.7	
EADA	**Adamuz**	**3.95**	**49**	P	**Pn**	**20 08 54.8**	**+1.5**
EADA				S	**Sn**	**20 09 37.4**	**-1.0**
EADA	**Adamuz**	**3.95**	**49**	Pn	**Pn**	**20 08 54.5**	**+1.2**
EADA				Sn	**Sn**	**20 09 36.5**	**-1.9**
EADA				IVmb_Lg		20 09 40.6	
MD31	**MD31**	**4.09**	**132**	P	**Pn**	**20 08 54.0**	**-1.4**
MD31				S	**Sn**	**20 09 42.7**	**+0.6**
MDT	**Midelt**	**4.22**	**131**	P	**Pn**	**20 08 56.6**	**-0.5**
MDT				S	**Sn**	**20 09 46.8**	**+1.5**
CIBOR	**Castaar de Ib**	**4.61**	**30**	Pn	**Pn**	**20 09 03.7**	**+1.2**
CIBOR				Sn	**Sn**	**20 09 53.3**	**-1.5**
TIO	**Tiouine**	**4.81**	**168**	S	**Sn**	**20 09 59.9**	**+0.1**
OUZM	**OUZ**	**4.93**	**164**	P	**Pn**	**20 09 06.4**	**-0.5**
OUZM				S	**Sn**	**20 10 02.9**	**+0.3**
ETOB	**Tobarra**	**6.22**	**59**	P	**Pn**	**20 09 25.6**	**+1.1**

LJU 17 20:39:54.0, 46°.39N×15°.07E, h0^{km}, Confirmed Rockburst, Northwestern Balkan Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAVS	**Zavodnje**	**0.05**	**325**	*i* Pg	Pg	20 39 54.0	-1.1
ZAVS				IAML		20 39 56.3	
	comp=Z,57nm,0.1s						

JMA 17 20:40:33.3±0.2**, 24°.3N**±0°.3×**123°.8E**±0°.5**, h16**^{km}±1^{km}**, MV0.6**/6**, NEAR ISHIGAKIJIMA ISLAND, Southwestern Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IRIF	**Iriomote-Funau**	**0.09**	**330**	P	Pg	20 40 36.7	0.0
IRIF				*e*S	Sg	20 40 38.8	-0.1
HATJ	**Hateruma jima**	**0.20**	**173**	P	Pg	20 40 38.0	-0.2
HATJ				*e*S	Sg	20 40 41.5	0.0
JKRS	**Kuro-shima**	**0.21**	**96**	P	Pg	20 40 38.3	0.0
JKRS				*e*S	Sb	20 40 42.1	-0.4
JIJ	**Ishigaki jima**	**0.35**	**73**	P	Pg	20 40 40.4	-0.2
JIJ				*e*S	Sg	20 40 45.2	-0.4
JISG	**Ishigakijimahi**	**0.59**	**56**	*e*P	Pg	20 40 44.9	0.0
JISG				*e*S	Sb	20 40 53.2	0.0

*PRU **17** 20:40:45.4, 44°.97N×15°.09E, h0^{km}*
*RHSSO **17** 20:40:58.0±0.9, 45°.16N×16°.24E, h6^{km}, ML1.7/3*

ISC 17 20:40:44.0±1.1**, 44°.97N**±0°.02×**15°.29E**±0°.02**, h7**^{km}±9^{km}**, n30,** σ**1^{s}15**/58**, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RABC	**Rab**	**0.43**	**239**	*e*Pg	**Pg**	**20 40 52.1**	**-0.1**
RABC				Sg	**Sg**	**20 40 58.6**	**+0.8**
NVLJ	**Novalja**	**0.51**	**217**	*i* Pg	**Pg**	**20 40 53.7**	**-0.1**
NVLJ				Sg	**Sg**	**20 41 01.2**	**+0.8**
UDBI	**Udbina**	**0.56**	**143**	*e*Pg	**Pg**	**20 40 54.2**	**-0.5**
UDBI				Sg	**Sg**	**20 41 01.7**	**-0.3**
OZLJ	**Ozalj**	**0.65**	**11**	*i* Pg	**Pg**	**20 40 56.2**	**-0.3**
OZLJ				Sg	**Sg**	**20 41 05.0**	**0.0**
RIY	**Rijeka**	**0.67**	**302**	*i* Pg	**Pg**	**20 40 56.2**	**-0.7**
RIY				Sg	**Sb**	**20 41 06.3**	**-1.3**
VIRC	**Vir**	**0.70**	**194**	*e*Pg	**Pg**	**20 40 57.2**	**-0.3**
VIRC				Sg	**Sb**	**20 41 07.8**	**-0.6**
DUGI	**Dugi Otok**	**1.00**	**190**	*e*Pg	**Pg**	**20 41 02.4**	**-0.7**
DUGI				Sg	**Sb**	**20 41 17.6**	**+0.8**
PTJ	**Puntijarka**	**1.05**	**27**	*e*Pg	**Pg**	**20 41 03.9**	**-0.1**
PTJ				Sg	**Sg**	**20 41 17.6**	**0.0**
MORI	**Morici**	**1.15**	**165**	*e*Pg	**Pg**	**20 41 05.1**	**-0.8**
MORI				Sg	**Sg**	**20 41 20.4**	**-0.4**
KIJV	**Kijevo**	**1.25**	**140**	*e*Pg	**Pg**	**20 41 06.6**	**-1.3**
KIJV				Sg	**Sn**	**20 41 25.2**	**+0.2**
ZIRJ	**Zirje**	**1.34**	**169**	*e*Pg	**Pn**	**20 41 09.3**	**+0.2**
ZIRJ				Sg	**Sb**	**20 41 26.8**	**0.0**
BLY	**Banja Luka**	**1.36**	**99**	*e*Pg	**Pg**	**20 41 11.7**	**+1.6**
BLY				*e*Sg	**Sb**	**20 41 23.4**	**-4.0**
OBKA	**Obir**	**1.62**	**341**	*i* Pn	**Pb**	**20 41 13.8**	**-0.4**
	1.7nm,0.2s,SNR=12						
OBKA				*i* Sn	**Sn**	**20 41 33.8**	**-0.5**
	14nm,0.4s						
SOKA	**Soboth**	**1.71**	**354**	*e*Pn	**Pb**	**20 41 15.3**	**-0.6**
	1.9nm,0.3s,SNR=9.2						
SOKA				*i* Sn	**Sn**	**20 41 36.4**	**-0.1**
	2.5nm,0.4s						
BEHE	**Becsehely**	**1.82**	**34**	*e*Pg	**Pg**	**20 41 22.4**	**+3.5**
BEHE				*e*Sg	**Sg**	**20 41 41.5**	**-1.0**
HVAR	**Hvar**	**1.98**	**155**	*e*Pn	**Pn**	**20 41 18.3**	**+0.4**
HVAR				Sn	**Sn**	**20 41 44.0**	**+1.1**
RICI	**Ricice**	**1.98**	**138**	*e*Pn	**Pn**	**20 41 18.6**	**+0.7**
RICI				Sn	**Sb**	**20 41 44.5**	**-0.8**
MYKA	**Terra Mystica**	**2.02**	**326**	*e*PG	**Pb**	**20 41 20.8**	**-0.3**
MYKA				*e*SG	**Sb**	**20 41 46.4**	**0.0**
MYKA	**Terra Mystica**	**2.02**	**326**	*i* Pn	**Pn**	**20 41 19.5**	**+1.0**
	3.3nm,0.4s						
MYKA				*e*Sn	**Sb**	**20 41 45.3**	**-1.1**
	8.1nm,0.4s						
MAKA	**Makarska**	**2.09**	**143**	*e*Pn	**Pn**	**20 41 19.9**	**+0.5**
MAKA				Sn	**Sn**	**20 41 46.3**	**+0.6**
SESA	**Seetaler Alpe,**	**2.20**	**347**	*e*Pn	**Pn**	**20 41 22.1**	**+1.0**
	3.0nm,0.3s						
SESA				*e*Sn	**Sn**	**20 41 49.4**	**+0.7**
ARSA	**Arzberg**	**2.28**	**4**	*e*Pn	**Pn**	**20 41 23.0**	**+0.9**
	0.7nm,0.3s						
ARSA				*e*Sn	**Sn**	**20 41 51.1**	**+0.6**
	0.5nm,0.3s						
LSTV	**Lastovo**	**2.49**	**152**	*e*Pn	**Pn**	**20 41 25.9**	**+1.0**
LSTV				Sn	**Sn**	**20 41 57.5**	**+2.0**
KBA	**Koelnbreinsper**	**2.51**	**328**	*e*Pn	**Pn**	**20 41 26.4**	**+1.1**
	0.2nm,0.2s						
KBA				*e*Sn	**Sn**	**20 41 56.1**	**-0.1**
	1.7nm,0.5s						
ABTA	**Abfaltersbach**	**2.63**	**313**	*e*Pn	**Pn**	**20 41 28.4**	**+1.4**
	0.3nm,0.2s						
ABTA				*e*Sn	**Sn**	**20 41 59.5**	**+0.3**
	5.5nm,0.6s						
MORH	**Mrgy, Hungar**	**2.66**	**61**	*e*Pn	**Pb**	**20 41 31.9**	**0.0**
MORH				*e*Sn	**Sn**	**20 41 57.4**	**-2.3**
STON	**Ston**	**2.73**	**140**	*i* Pn	**Pn**	**20 41 28.3**	**+0.1**
MOA	**Molln**	**2.96**	**346**	*e*Pn	**Pn**	**20 41 32.3**	**+0.9**
	0.6nm,0.2s						
MOA				*e*Sn	**Sn**	**20 42 05.4**	**-1.8**
	1.5nm,0.3s						
TREB	**Trebinje**	**3.16**	**135**	*e*Pn	**Pg**	**20 41 45.1**	**+0.7**
TREB				*e*Sn	**Sb**	**20 42 19.1**	**0.0**
KHC	**Kasperske Hory**	**4.32**	**345**	*e*SN	**Sn**	**20 42 38.8**	**-2.0**

TAP 17 20:41:25.1, 24°.50N×121°.88E, h10^{km}±1^{km}**, ML1.5, 1C, B, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ESAO	**Su ao**	**0.09**	**341**	*e*P	Pg	20 41 28.1	+0.6
ESAO				S	Sg	20 41 30.2	+1.0
EWUT	**Wuta**	**0.10**	**241**	P	Pg	20 41 29.0	+1.3
TWC	**Suao**	**0.12**	**348**	⇑*i*P	Pg	20 41 28.7	+0.8
TWC				*i* S	Sg	20 41 30.7	+0.8
ENA	**Nanau**	**0.14**	**241**	*e*S	Sg	20 41 31.7	+1.2
NDS	**Dongshan**	**0.20**	**314**	P	Pg	20 41 30.7	+1.4
NDS				*e*S	Sg	20 41 33.8	+1.7
EAHA	**Aohua**	**0.21**	**217**	*e*P	Pg	20 41 30.1	+0.6
EAHA				*e*S	Sg	20 41 33.4	+1.1
LATG	**Datong**	**0.32**	**277**	*e*P	Pb	20 41 33.6	+0.6
LATG				S	Sb	20 41 37.6	-0.7
EOS2	**EOS2**	**0.33**	**103**	*e*P	Pb	20 41 32.7	-0.4
EOS2				*e*S	Sg	20 41 36.7	+0.5
NACB	**Ninganchiao**	**0.41**	**219**	*e*P	Pb	20 41 34.2	-0.3
NACB				*i* S	Sb	20 41 40.8	+0.1
NWLT	**Wulai**	**0.44**	**310**	*e*S	Sb	20 41 41.6	-0.1
NNSB	**Datong**	**0.45**	**262**	*e*S	Sb	20 41 42.1	0.0
ETLH	**Xiulin Townshi**	**0.46**	**231**	*i* P	Pb	20 41 35.5	+0.1
ETLH				S	Sb	20 41 41.7	-0.6

*NNC **17** 20:57:40.1±1.8, 41°.62N×79°.09E, h0^{km}, mb3.7, mpv3.6, Error ellipse: s-maj=12.4km s-min=8.2km az=167.0*
*SOME **17** 20:57:40.6, 41°.70N×79°.05E, h5^{km}*
*KRNET **17** 20:57:41.9±0.1, 41°.68N×78°.98E, h12^{km}, mb3.1*

ISC 17 20:57:40.8±2.4**, 41°.66N**±0°.08×**79°.04E**±0°.06**, h4**^{km}±16^{km}**, n24,** σ**1^{s}37**/39**, 14C-5D, Kyrgyzstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TARG	**Taragay, Kyrgy**	**0.92**	**274**	⇑*e*P	**Pg**	**20 57 58.9**	**+0.4**
TARG				⇑*e*S	**Sb**	**20 58 11.3**	**-1.2**
PRZ	**Przheval'sk**	**0.95**	**330**	⇓*e*P	**Pg**	**20 57 59.7**	**+0.8**
PRZ				⇓*e*S	**Sb**	**20 58 12.6**	**-0.3**
KDJ	**Kajisay**	**1.46**	**289**	⇑*e*P	**Pb**	**20 58 08.4**	**-0.3**
KDJ				⇑*e*S	**Sg**	**20 58 27.8**	**0.0**
PDGK	**Podgornoye**	**1.70**	**11**	⇓Pn	**Pn**	**20 58 10.2**	**-1.2**
	0.9nm,0.2s						
PDGK				⇑Pg	**Pb**	**20 58 13.0**	**+0.3**
	5.4nm,0.3s						
PDGK				⇑Lg	Lg	20 58 35.3	
	57nm,0.6s						
KURS	**Kuram**	**1.93**	**341**	Pg	**Pb**	**20 58 17.4**	**+0.8**
	18nm,0.2s						
KURS				Lg	Lg	20 58 44.2	
	82nm,0.3s						
KURS	**Kuram**	**1.93**	**341**	*e*P	**Pb**	**20 58 16.4**	**-0.2**
	18nm,0.2s						
KURS				*e*S	**Sg**	**20 58 42.3**	**-0.6**
	82nm,0.3s						
MDOK	**Medeo**	**2.10**	**316**	Pg	**Pb**	**20 58 20.1**	**+0.5**
	26nm,0.2s						
MDOK				Lg	Lg	20 58 49.2	
	97nm,0.4s						
MDOK	**Medeo**	**2.10**	**316**	*e*P	**Pb**	**20 58 20.1**	**+0.5**
	26nm,0.2s						
MDOK				*e*S	**Sg**	**20 58 49.2**	**+1.0**
	97nm,0.4s						
KOTS	**Kotyrbulak**	**2.12**	**318**	Pg	**Pb**	**20 58 20.7**	**+0.8**
	38nm,0.1s						
KOTS				Lg	Lg	20 58 50.1	
	109nm,0.2s						
KOTS	**Kotyrbulak**	**2.12**	**318**	*e*P	**Pb**	**20 58 20.7**	**+0.8**
	38nm,0.1s						
KOTS				*e*S	**Sg**	**20 58 50.1**	**+1.2**
	109nm,0.2s						
ULHL	**Ulahol**	**2.16**	**287**	⇑*e*P	**Pb**	**20 58 20.5**	**-0.2**
ULHL				⇑*e*S	**Sg**	**20 58 48.7**	**-1.6**
KNDC	**Almaty**	**2.18**	**316**	⇑Pg	**Pb**	**20 58 21.9**	**+1.0**
	23nm,0.6s						
KNDC				⇑Lg	Lg	20 58 52.2	
	201nm,0.7s						
NRN	**Naryn**	**2.29**	**265**	⇑*e*P	**Pb**	**20 58 22.7**	**-0.2**
NRN				⇑*e*S	**Sb**	**20 58 52.5**	**+0.8**
BOOM	**Boomskoye usch**	**2.45**	**291**	⇓*e*P	**Pb**	**20 58 24.4**	**-1.1**
BOOM				⇓*e*S	**Sb**	**20 58 55.5**	**-0.6**
KST	**Kastek**	**2.66**	**302**	Pg	**Pb**	**20 58 28.6**	**-0.5**
	3.7nm,0.2s						
KST				Lg	Lg	20 59 03.4	
	102nm,0.5s						
KST	**Kastek**	**2.66**	**302**	*e*P	**Pb**	**20 58 29.5**	**+0.4**
	3.7nm,0.2s						
KST				*e*S	**Sg**	**20 59 04.7**	**-1.6**
	102nm,0.5s						
KNOS	**Konyrlen**	**2.70**	**2**	Pg	**Pb**	**20 58 30.2**	**+0.4**
	4.5nm,0.1s						
KNOS				Lg	Lg	20 59 06.1	
	46nm,0.2s						
KUU	**Kurty**	**2.98**	**319**	Pg	**Pb**	**20 58 35.6**	**+1.0**
	1.7nm,0.1s						
KUU				Lg	Lg	20 59 15.2	
	38nm,0.2s						
KUU	**Kurty**	**2.98**	**319**	*e*P	**Pb**	**20 58 35.6**	**+1.0**
	1.7nm,0.1s						
KUU				*e*S	**Sg**	**20 59 15.2**	**-1.4**
	38nm,0.2s						
KBK	**Karagaybulak**	**3.20**	**289**	⇑*e*P	**Pn**	**20 58 34.8**	**+2.8**
KBK				⇑*e*S	**Sb**	**20 59 13.6**	**-4.1**
TDK	**Taldyqorghan**	**3.37**	**352**	Pg	**Pb**	**20 58 42.9**	**+1.8**
	3.9nm,0.1s						
TDK				Lg	Lg	20 59 27.8	
	64nm,0.2s						
TDK	**Taldyqorghan**	**3.37**	**352**	*e*P	**Pb**	**20 58 42.9**	**+1.8**
	3.9nm,0.1s						
TDK				*e*S	**Sg**	**20 59 27.8**	**-1.2**
	64nm,0.2s						
KAPS	**Kapalarasan**	**3.63**	**4**	Pg	**Pb**	**20 58 46.4**	**+0.9**
	1.9nm,0.1s						
KAPS				Lg	Lg	20 59 34.2	
	43nm,0.2s						
KAPS	**Kapalarasan**	**3.63**	**4**	*e*P	**Pb**	**20 58 46.4**	**+0.9**
	1.9nm,0.1s						
KAPS				*e*S	**Sg**	**20 59 34.1**	**-3.1**
	43nm,0.2s						

*KRNET **17** 20:58:35.6±0.1, 41°.66N×79°.04E, h16^{km}, mb3.1*

ISC 17 20:58:37.2±2.9**, 41°.7N**±0°.1×**78°.95E**±0°.09**, h16**^{km}±15^{km}**, n9,** σ**1^{s}22**/16**, 12C-5D, Kyrgyzstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TARG	**Taragay, Kyrgy**	**0.86**	**271**	⇓*e*P	**Pb**	**20 58 53.3**	**-0.7**
TARG				⇓*e*S	**Sg**	**20 59 06.1**	**+0.7**
PRZ	**Przheval'sk**	**0.87**	**332**	⇑*e*P	**Pb**	**20 58 53.9**	**-0.1**
PRZ				⇑*e*S	**Sn**	**20 59 07.4**	**+0.1**
KDJ	**Kajisay**	**1.38**	**288**	⇑*e*P	**Pb**	**20 59 02.7**	**-0.1**
KDJ				⇑*e*S	**Sg**	**20 59 22.4**	**+0.4**
PDGK	**Podgornoye**	**1.66**	**14**	⇓Pn	**Pb**	**20 59 07.4**	**-0.1**
	7.8nm,0.3s						
PDGK				⇑Sn	**Sg**	**20 59 30.6**	**-0.1**
	43nm,0.6s						
ULHL	**Ulahol**	**2.09**	**286**	⇑*e*P	**Pb**	**20 59 14.3**	**-0.5**
ULHL				⇑*e*S	**Sb**	**20 59 42.6**	**+2.0**
NRN	**Naryn**	**2.23**	**264**	⇓*i*P	**Pb**	**20 59 16.4**	**-0.9**
NRN				⇓*e*S	**Sb**	**20 59 46.2**	**+1.4**
BOOM	**Boomskoye usch**	**2.37**	**290**	⇑*e*P	**Pb**	**20 59 18.2**	**-1.4**
BOOM				⇑*e*S	**Sb**	**20 59 49.4**	**+0.8**
TKM2	**Tokmak 2**	**2.76**	**297**	⇑*e*P	**Pb**	**20 59 23.9**	**-2.4**
TKM2				⇑*e*S	**Sb**	**20 59 59.0**	**-1.0**
MK31	**Makanchi Array**	**5.61**	**24**	⇑Lg	Lg	21 01 31.2	
	0.5nm,0.3s,baz=212,slow=28						

IDC 17 21:01:28.1±999.0**, 52°.51N×3°.47E, h0**^{km}**, Error ellipse: s-maj=460.6km s-min=185.7km az=99.0, North Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I26DE	**FREYUNG INFRAS**	**7.46**	**115**	I	I	21 42 15.9	
	baz=305,slow=326,SNR=1.5						
I43RU	**DUBNA INFRASON**	**19.86**	**64**	I	I	23 06 59.7	
	baz=275,slow=334,SNR=1.6						

*IDC **17** 21:13:01.6±0.9, 35°.41N×31°.22E, h0^{km}, mb3.8/2, mbtmp3.7/8, ML3.1/3, MS2.3/1, Error ellipse: s-maj=14.4km s-min=10.0km az=43.0*
*GRAL **17** 21:13:03.8±0.3, 35°.63N×31°.03E, h34^{km}±255^{km}, MD3.9*
*ISK **17** 21:13:04.8, 35°.53N×31°.44E, h4^{km}, ML3.5/33*
*NIC **17** 21:13:04.9, 35°.44N×31°.22E, h15^{km}±1^{km}, Ml3.6/12*
*AFAD **17** 21:13:06.7, 35°.62N×31°.38E, h15^{km}±1^{km}, MW3.7*
*GII **17** 21:13:07.7±0.0, 35°.210N±0°.002×31°.361E±0°.001, h0^{km}, Mws3.6, confirmed*

ISC 17 21:13:06.0±0.9**, 35°.45N**±0°.02×**31°.24E**±0°.02**, h40**^{km}±9^{km}**, n139,** σ**1^{s}80**/208**, mb4.0**/3**, Cyprus region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AKMS	**Akamas**	**1.00**	**116**	P	**Pn**	**21 13 23.4**	**-0.1**
AKMS				S	**Sn**	**21 13 38.1**	**+1.8**
AKMS				AML	AML	21 13 42.2	
	8.6nm,0.3s						
AKMS				AML	AML	21 13 42.7	
	6.4nm,0.2s						
POL7C	**Prodromi**	**1.05**	**114**	P	**Pn**	**21 13 25.3**	**+1.1**
AKUM	**Antalya-Kumluc**	**1.13**	**320**	P	**Pn**	**21 13 24.9**	**-0.5**
AKUM				S	**Sn**	**21 13 40.4**	**+0.8**
ALFC	**Alefka**	**1.15**	**105**	P	**Pn**	**21 13 26.0**	**+0.3**

ALFC				S	Sn	21 13 42.8	+2.6
ALFC				AML	AML	21 13 49.4	
	6.7nm,0.3s						
ALFC				AML	AML	21 13 52.8	
	5.4nm,0.5s						
GAZI	Gazipasa	1.17	48	Pg	Pn	21 13 24.4	-1.5
GAZI				Sg	Sn	21 13 38.9	-1.8
GAZI				AML	AML		
GAZI	Gazipasa	1.17	48	P	Pn	21 13 24.4	-1.5
GAZI				S	Sn	21 13 36.1	-4.5
GAZI	Gazipasa	1.17	48	P	Pn	21 13 24.2	-1.7
GAZI				S	Sn	21 13 36.6	-4.1
ALAN	Alanya-ANTALYA	1.27	30	Pn	Pn	21 13 27.2	-0.1
ALAN				Sn	Sn	21 13 42.8	-0.4
ALAN				AML	AML		
KEMT	Kemer-ANTALYA	1.27	334	Pn	Pn	21 13 30.2	+2.9
KEMT				AML	AML		
NATA	Nata	1.28	121	P	Pn	21 13 28.3	+0.9
NATA				S	Sn	21 13 46.5	+3.1
NATA				AML	AML	21 14 00.4	
	11nm,0.5s						
NATA				AML	AML	21 14 02.0	
	9.7nm,0.6s						
MNVG	Manavgat-Antal	1.34	6	Pn	Pn	21 13 29.8	+1.6
MNVG				Sn	Sn	21 13 47.0	+2.1
MNVG				AML	AML		
AKDN	Akdeniz- Kıbrı	1.42	96	Pn	Pn	21 13 29.6	+0.3
AKDN				AML	AML		
TROD	Troodos	1.42	110	P	Pn	21 13 30.1	+0.5
TROD				S	Sn	21 13 50.6	+3.4
TROD				AML	AML	21 14 07.6	
	2.1nm,0.7s						
TROD				AML	AML	21 14 07.8	
	2.3nm,0.6s						
KEPZ	Antalya-Kepez	1.47	11	P	Pn	21 13 29.5	-0.6
KEPZ				S	Sn	21 13 45.5	-2.7
AKAS	Kas	1.54	301	Pn	Pn	21 13 35.4	+4.3
AKAS				AML	AML		
AKAS	Kas	1.54	301	P	Pn	21 13 33.7	+2.6
XYLS	Xyliatos	1.54	106	P	Pn	21 13 31.1	0.0
XYLS				S	Sn	21 13 53.6	+3.7
XYLS				AML	AML	21 14 00.3	
	1.6nm,0.7s						
XYLS				AML	AML	21 14 03.6	
	1.5nm,0.4s						
ELL	Elmali	1.68	321	Pn	Pn	21 13 36.4	+3.4
ELL				AML	AML		
ELL	Elmali	1.68	321	P	Pn	21 13 34.9	+1.8
ELL				S	Sn	21 13 57.7	+4.2
KORT	Korkueli	1.70	335	Pn	Pn	21 13 36.2	+2.9
KORT				AML	AML		
KORT	Korkueli	1.70	335	P	Pn	21 13 34.8	+1.5
ASGA	Asgata	1.77	111	P	Pn	21 13 34.8	+0.6
ASGA				S	Sn	21 13 58.0	+2.4
ASGA				AML	AML	21 14 11.2	
	1.8nm,0.5s						
ASGA				AML	AML	21 14 16.6	
	2.2nm,0.8s						
CSS	Mathiatis	1.78	105	Pn	Pn	21 13 34.6	+0.3
CSS				AML	AML		
CSS	Mathiatis	1.78	105	P	Pn	21 13 34.9	+0.6
CSS				S	Sn	21 13 57.5	+1.8
CSS				AML	AML	21 14 11.3	
	1.1nm,0.6s						
CSS				AML	AML	21 14 11.8	
	1.1nm,0.6s						
CSS	Mathiatis	1.78	105	P	Pn	21 13 35.2	+0.9
CSS				AML	AML		
CSS	Mathiatis	1.78	105	P	Pn	21 13 34.8	+0.5
CSS				S	Sn	21 13 56.1	+0.4
ATHAL	Athalassa	1.79	99	P	Pn	21 13 35.2	+0.8
ATHAL				S	Sn	21 14 01.8	+5.9
ERMK	Ermenek	1.80	48	P	Pn	21 13 37.4	+2.7
ERMK				S	Sn	21 14 00.0	+3.6
HDMB	Hadim	1.81	33	Pn	Pn	21 13 35.6	+0.7
HDMB				AML	AML		
BERE	Bereket-Mersin	1.84	60	Pn	Pn	21 13 34.9	-0.3
BERE				Sn	Sn	21 13 58.3	+1.0
BERE				AML	AML		
LFK	Lefkose	1.88	95	Pn	Pn	21 13 36.2	+0.5
LFK				AML	AML		
YORU	Yoruktepe-Mers	1.89	68	Pn	Pn	21 13 36.2	+0.4
YORU				Sn	Sn	21 13 59.6	+1.1
YORU				AML	AML		
KNIK	Mula-Seydike	1.94	316	P	Pn	21 13 37.8	+1.3
BUCA	Burdur, Bucak-	1.95	344	P	Pn	21 13 40.0	+3.3
BUCA				S	Sn	21 14 03.4	+3.5
OSC1	CSNet OBS 1	1.95	179	P	Pn	21 13 36.3	-0.3
OSC1				S	Sn	21 14 02.5	+2.7
OSC1				AML	AML	21 14 12.0	
	0.1nm,0.4s						
OSC1				AML	AML	21 14 14.6	
	0.1nm,0.1s						
OREN	Orenkoy-Mersin	1.95	67	Pn	Pn	21 13 37.1	+0.5
OREN				AML	AML		
AKK1	Akkuyu-Mersin	1.99	69	Pn	Pn	21 13 37.8	+0.7
AKK1				AML	AML		
AKK2	Akkuyu-Mersin	2.00	69	Pn	Pn	21 13 37.9	+0.7
AKK2				AML	AML		
MVOU	Mavrovouni	2.01	102	P	Pn	21 13 37.7	+0.4
MVOU				S	Sn	21 14 03.2	+2.0
MVOU				AML	AML	21 14 17.0	
	0.9nm,0.5s						
MVOU				AML	AML	21 14 18.1	
	1.0nm,0.8s						
SEYD	Seydisehir-KON	2.01	14	Pn	Pn	21 13 39.1	+1.6
SEYD				AML	AML		
GULN	MERSIN_Gulnar	2.01	68	P	Pn	21 13 37.4	0.0
GULN				S	Sn	21 14 00.8	-0.4
BECE	Buyukeceli-Mer	2.01	69	Pn	Pn	21 13 37.7	+0.3
BECE				Sn	Sn	21 14 02.2	+0.9
BECE				AML	AML		
TEPK	Tepekoy-MERSIN	2.02	67	Pn	Pn	21 13 38.0	+0.4
SEDI	Konya, Seydise	2.04	12	P	Pn	21 13 38.8	+1.0
SEDI				S	Sn	21 14 01.3	-0.9
TEVE	Tevekalti-Mers	2.04	61	Pn	Pn	21 13 38.6	+0.7
TEVE				AML	AML		
BCK	Bucak	2.07	345	Pn	Pn	21 13 41.1	+2.8
BCK				AML	AML		
YESI	Yesilovacik-Me	2.09	69	Pn	Pn	21 13 39.0	+0.6
YESI				AML	AML		
TISA	Tisan-Mersin	2.10	70	Pn	Pn	21 13 39.5	+0.8
TISA				AML	AML		
IKL	Isikli	2.13	68	Pn	Pn	21 13 39.8	+0.7
IKL				AML	AML		
KARG	Kargicak-Mersi	2.14	69	Pn	Pn	21 13 39.9	+0.7
KARG				AML	AML		
KKBE	Karaman, Kazim	2.23	37	P	Pn	21 13 42.1	+1.5
KKBE				S	Sn	21 14 08.0	+1.0
GOLH	Golhisar	2.24	323	P	Pn	21 13 42.0	+1.4
KEBE	Keben-Mersin	2.24	63	Pn	Pn	21 13 41.2	+0.6
KEBE				AML	AML		
CAEL	Denizli, Camel	2.28	318	P	Pn	21 13 44.3	+3.0
SABU	Mula-Dalaman	2.29	307	P	Pn	21 13 40.1	-1.2
SILI	Silifke-Mersin	2.36	67	Pn	Pn	21 13 42.8	+0.6
SILI				AML	AML		
KRMN	Karaman	2.37	43	Pn	Pn	21 13 43.6	+1.1
KRMN				AML	AML		
SLFK	Silifke-Mersin	2.39	66	Pn	Pn	21 13 43.3	+0.7
SLFK				AML	AML		
EREN	Erenkoy	2.39	87	Pn	Pn	21 13 43.8	+1.2
EREN				AML	AML		
EREN	Erenkoy	2.39	87	P	Pn	21 13 43.4	+0.7
EREN				S	Sn	21 14 08.4	-2.3
BRDR	BURDUR-Merkez	2.43	337	P	Pn	21 13 45.4	+2.1
ISP	Isparta	2.43	346	Pn	Pn	21 13 46.2	+2.9
KMER	Konya-Meram	2.48	21	P	Pn	21 13 44.7	+0.7
KMER				S	Sn	21 14 12.8	-0.4
DALY	Dalyan (Mula)	2.50	304	P	Pn	21 13 44.1	+0.1
DALY				S	Sn	21 14 08.8	-4.5
OSC2	CSNet OBS 4	2.52	160	P	Pn	21 13 46.1	+1.7
OSC2				S	Sn	21 14 16.9	+3.0
OSC2				AML	AML	21 14 24.7	
	0.4nm,0.4s						
OSC2				AML	AML	21 14 28.9	
	0.2nm,0.5s						
BAGO	Egridir - ISPA	2.56	352	P	Pn	21 13 46.0	+0.9
BAGO				S	Sn	21 14 15.3	+0.3
INCE	Denizli-Bozkur	2.62	330	P	Pn	21 13 48.4	+2.5
ARG	Arkhangelos	2.64	288	P	Pn	21 13 46.9	+0.8
ARG				S	Sn	21 14 13.8	-3.1
ARG				AML	AML	21 14 17.5	
	0.2nm,0.2s						
ARG				AML	AML	21 14 17.6	
	0.2nm,0.3s						
KONT	Konya--Tatoy	2.64	20	P	Pn	21 13 47.9	+1.7
KONT				S	Sn	21 14 17.4	+0.4
DOGA	KONYA_Doganhis	2.67	7	P	Pn	21 13 48.5	+1.9
DOGA				S	Sn	21 14 16.5	-1.3
TAVA	DENIZLI_Tavas	2.75	318	P	Pn	21 13 49.0	+1.4
DNIZ	Denizli-Tavas-	2.80	321	P	Pn	21 13 49.2	+0.9
YVAC	Isparta, Yalva	2.81	360	P	Pn	21 13 49.6	+1.0
YVAC				S	Sn	21 14 18.6	-2.6
LADK	Ladik-KONYA	2.88	18	Pn	Pn	21 13 51.4	+1.8
LADK				AML	AML		
KZIL	AFYON_Kizioren	2.93	343	P	Pn	21 13 51.0	+0.8
KERG	Konya-Eregli	3.04	49	P	Pn	21 13 53.4	+1.7
KERG				S	Sn	21 14 24.4	-2.5
YESY	Yesilyurt	3.08	40	Pn	Pn	21 13 53.4	+1.2
YESY				AML	AML		
ALIN	Konya, Altinte	3.13	24	P	Pn	21 13 54.1	+1.2
KDHN	Kadinhani	3.14	13	P	Pn	21 13 54.2	+1.1
UCKU	Afyonkarahisar	3.18	3	P	Pn	21 13 55.1	+1.5
UCKU				S	Sn	21 14 26.3	-4.0
KURO	Afyon-Bolvadin	3.28	356	P	Pn	21 13 56.2	+1.2
KURO				S	Sn	21 14 29.7	-3.2
KARP	Karpathos	3.33	273	P	Pn	21 13 55.5	-0.1
KARP				S	Sn	21 14 31.6	-2.3
KARP				AML	AML	21 14 37.1	
	0.3nm,0.3s						
KARP				AML	AML	21 14 38.0	
	0.4nm,0.2s						
CBEY	Konya-Cihanbey	3.46	20	P	Pn	21 13 54.2	-3.2
BYAT	Afyon-Bayat	3.49	357	P	Pn	21 14 00.4	+2.5
CAYT	Sariam	3.71	61	P	Pn	21 14 02.4	+1.6
BSIR	Belisirma, Guz	3.73	40	P	Pn	21 14 02.4	+1.3
KKUL	Konya-Kulu	3.94	19	P	Pn	21 14 05.1	+1.0
BHL	Bhannes	3.95	112	*e*P	Pn	21 14 04.3	+0.1
DQRL	Deir Qamar	3.98	115	*e*P	Pn	21 14 04.5	0.0
HWQ	Hawqa	4.04	106	*e*P	Pn	21 14 05.5	0.0
HWQ				*e*S	Sn	21 14 51.0	-0.7
QRWL	Qaraoun	4.13	116	*e*P	Pn	21 14 06.8	+0.1
ZAHL	Zahle	4.15	111	*e*P	Pn	21 14 06.9	0.0
BEIL	Beino	4.16	101	*e*P	Pn	21 14 06.8	-0.1
BEIL				*e*S	Sn	21 14 53.2	-1.1
OFRI	`Ofer	4.20	131	P	Pn	21 14 07.8	+0.2
OFRI				S	Sn	21 14 53.8	-1.6
MMA0B	Mount Meron ar	4.22	124	P	Pn	21 14 08.1	+0.2
MMA0B				S	Sn	21 14 55.5	-0.5
MMAI	Mount Meron Ar	4.22	124	Pn	Pn	21 14 07.9	+0.1
	5.8nm,0.3s,baz=315,slow=14,SNR=70						
MMAI				Sn	Sn	21 14 54.8	-1.1
	47nm,0.3s,baz=317,slow=27,SNR=15						
YAHY	KAYSERI_Yahyal	4.23	50	P	Pn	21 14 10.0	+1.9
RCY	Rachaya	4.27	116	*e*P	Pn	21 14 08.7	+0.1
RCY				*e*S	Sn	21 14 56.6	-0.6
SHBL	Chebaa	4.27	118	*e*P	Pn	21 14 08.7	0.0
SHBL				*e*S	Sn	21 14 57.1	-0.3
GEM	Giv'at Ha'Em	4.29	120	P	Pn	21 14 10.5	+1.8
GEM	Giv'at Ha'Em	4.29	120	P	Pn	21 14 09.1	+0.4
GEM				S	Sn	21 14 56.8	-0.7
NATI	Neve Ativ	4.31	119	P	Pn	21 14 09.7	+0.6
NATI				S	Sn	21 14 56.8	-1.3
KNHM	Kefar Nahum	4.42	124	P	Pn	21 14 10.8	+0.3
KNHM				S	Sn	21 14 59.8	-0.9
KSHT	Keshet	4.52	122	P	Pn	21 14 12.8	+0.8
KSHT				S	Sn	21 15 02.1	-1.1
MMLI	Mount Malkishu	4.60	130	P	Pn	21 14 13.1	+0.1
MMLI				S	Sn	21 15 03.8	-1.3
BRTR	Keskin Array B	4.67	23	Pn	Pn	21 14 15.2	+1.1
	0.9nm,0.3s,baz=194,slow=16,SNR=18						
BRTR				Sn	Sn	21 15 11.1	+4.0
	1.3nm,0.3s,baz=208,slow=27,SNR=8.4						
BRTR				LR	LR	21 16 39.5	
	comp=Z,29nm,18.2s,baz=188,slow=46						
	2.0nm,0.4s						
BRTR				AML	AML		
SALP	Salfit	4.71	135	P	Pn	21 14 16.4	+1.8
	0.4nm2µm31nm,0.6s						
SALP				AML	AML		
QRNJ	Al-Qirein	4.76	130	P	Pn	21 14 16.8	+1.6
	53nm215µm4µm,0.7s						
QRNJ				AML	AML		
RGMN	Argaman	4.84	131	P	Pn	21 14 16.5	+0.2
RGMN				S	Sn	21 15 09.8	-1.3
JER	Jerusalem	4.94	137	P	Pn	21 14 17.8	0.0
JER				S	Sn	21 15 12.1	-1.5
YITV	Yitav	4.94	134	P	Pn	21 14 18.1	+0.5
YITV				S	Sn	21 15 11.1	-2.3
AMAZ	Amatzia	4.97	141	P	Pn	21 14 19.9	+1.8
	0.4nm2µm30nm,1.7s						
AMAZ				AML	AML		
AMAZ	Amatzia	4.97	141	P	Pn	21 14 17.9	-0.3
AMAZ				S	Sn	21 15 12.1	-2.3
ALMO	Almog	5.07	135	P	Pn	21 14 19.3	-0.2
ALMO				S	Sn	21 15 15.5	-1.4
IDI	Anoyia	5.19	270	Pn	Pn	21 14 20.4	-0.8
	5.3nm,0.2s,baz=78,slow=5.6,SNR=33						
IDI				Sn	Sn	21 15 19.0	-0.9
	3.1nm,0.3s,baz=10,slow=5.8,SNR=6.3						
MZS	Mizpe Shalem	5.20	137	P	Pn	21 14 21.4	+0.1
MZS				S	Sn	21 15 18.5	-1.6
KZIT	Kziot	5.25	149	P	Pn	21 14 22.9	+0.9
	0.2nm1µm26nm,0.7s						
KZIT				AML	AML		
KZIT	Kziot	5.25	149	P	Pn	21 14 22.1	+0.1
KZIT				S	Sn	21 15 19.5	-1.8
MSBI	Mazada	5.38	139	P	Pn	21 14 26.5	+2.9
	0.0nm4.5nm,0.9s						
MSBI				AML	AML		
MSBI	Mazada	5.38	139	P	Pn	21 14 23.5	-0.1
MSBI				S	Sn	21 15 22.8	-1.5
GHAJ	Ghor Haditha	5.50	138	P	Pn	21 14 29.0	+3.7
GHAJ				AML	AML		
GHAJ	Ghor Haditha	5.50	138	P	Pn	21 14 26.1	+0.8
GHAJ				S	Sn	21 15 25.5	-1.8
LISJ	El Lisan	5.50	139	P	Pn	21 14 29.6	+4.3
RMNI	Mount Ramon	5.67	148	P	Pn	21 14 27.8	-0.1
RMNI				S	Sn	21 15 29.2	-2.7
IDAN	Idan	5.72	143	P	Pn	21 14 28.1	-0.2
IDAN				S	Sn	21 15 29.8	-2.9
ASF	Jabal al Asfar	5.73	123	Pn	Pn	21 14 26.9	-1.8
	1.1nm,0.3s,baz=295,slow=23,SNR=9.7						
ASF				Sn	Sn	21 15 33.6	+0.4
	1.5nm,0.3s,baz=33,slow=17,SNR=1.9						
	1.8nm,0.4s						
ASF				AML	AML		
ZFRI	Zfri	5.90	145	P	Pn	21 14 30.8	-0.1
ZFRI				S	Sn	21 15 34.5	-2.7
PRNI	Paran	5.99	147	P	Pn	21 14 32.9	+0.7
	0.4nm1µm31nm,0.5s						
PRNI				AML	AML		
HRFI	Mount Harif	6.28	148	P	Pn	21 14 37.0	+0.9
	0.1nm20nm,0.6s						
HRFI				AML	AML		
HRFI	Mount Harif	6.28	148	P	Pn	21 14 36.1	0.0
HRFI				S	Sn	21 15 44.5	-2.1
AQBJ	Aqaba	6.55	150	P	Pn	21 14 44.3	+4.5
AQBJ				AML	AML		
EIL	Elat	6.56	150	Pn	Pn	21 14 38.9	-1.1
	14nm,0.4s,baz=329,slow=3.3,SNR=97						
EIL				Sn	Sn	21 15 49.9	-3.7
	2.8nm,0.3s,baz=134,slow=18,SNR=7.4						
EIL	Elat	6.56	150	P	Pn	21 14 40.4	+0.4
	0.1nm21nm,0.6s						
EIL				AML	AML		
EIL	Elat	6.56	150	P	Pn	21 14 40.1	+0.1
EIL				S	Sn	21 15 51.5	-2.0
GERES	GERESS Array B	18.60	321	P	Pn	21 17 21.4	+1.0
	baz=152,slow=8.9,SNR=4.0						
	0.5nm,0.4s						
KHC	Kasperske Hory	18.84	322	*e*P	P	21 17 22.5	0.0
FINES	FINESS Array B	26.22	354	P	P	21 18 35.7	-1.1
	6.5nm,1.1s,baz=180,slow=7.4,SNR=1.7						
ARCES	ARCESS Array B	34.28	356	P	P	21 19 49.1	+1.1
	1.5nm,0.8s,baz=173,slow=8.0,SNR=3.8						
	1.5nm,0.8s						
MKAR	Makanchi Array	39.45	57	P	P	21 20 32.1	-0.1
	0.8nm,0.6s,baz=280,slow=6.8,SNR=6.3						
	0.8nm,0.6s						

IDC ***17*** *21:16:51.9±1.1, 38.°47N×21.°73E, h0*^{km}*, mb3.7/6,*
mbtmp3.6/8, ML3.5/1, MS3.3/1, Error ellipse: s-maj=23.9km s-min=16.2km az=56.0

THE ***17*** *21:16:52.8, 38.°4N±0.°6×21.°8E±0.°4, h9*^{km}*±1*^{km}*, M3.3/28, MLh3.3/28*

ATH ***17*** *21:16:52.8, 38.°38N×21.°78E, h7*^{km}*, ML3.2/39, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*

ISC 17 21:16:52.8±0.7, **38.°37N**±0.°01×**21.°79E**±0.°01, **h8**^{km}±4^{km}, **n107**, σ**0.ˢ73**/151, **mb3.9**/5, **Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VVK	Vomvokou	0.05	23	P	Pg	21 16 54.4	-0.2
VVK				S	Sg	21 16 56.1	+0.2
VVK				AML	AML		
AGRP	Agrapidokambos	0.05	295	P	Pg	21 16 54.1	-0.4
AGRP				S	Sg	21 16 55.6	-0.2
AGRP				AML	AML		
RIOA	Rio	0.08	176	P	Pg	21 16 54.7	-0.1
RIOA				S	Sg	21 16 56.5	+0.3
PATC	Patra C	0.11	191	P	Pg	21 16 55.2	0.0
PATC				S	Sg	21 16 57.4	+0.5
EFP	Efpalio	0.11	61	P	Pg	21 16 55.5	+0.2
EFP				S	Sg	21 16 57.6	+0.6
EFP				AML	AML		
EFP	Efpalio	0.11	61	P	Pg	21 16 55.3	0.0
EFP				S	Sg	21 16 57.4	+0.4
EFP				AML	AML		
MG00	Magoula, Dorid	0.13	72	P	Pg	21 16 55.8	+0.1
MG00				S	Sg	21 16 58.1	+0.4
PATG	Patra B	0.14	199	P	Pg	21 16 55.9	+0.1
PATG				S	Sg	21 16 58.0	+0.1
PYRG	Pyrgos, Dorida	0.19	78	P	Pg	21 16 56.8	+0.1
LAKA	Lakka	0.20	131	P	Pg	21 16 56.7	-0.2
LAKA				S	Sg	21 16 60.0	+0.3
SERG	Sergoula	0.22	79	P	Pg	21 16 57.4	+0.2
SERG				S	Sg	21 17 00.6	+0.4
SERG				AML	AML		
SERG	Sergoula	0.22	79	P	Pg	21 16 57.4	+0.2
SERG				AML	AML		
TRIZ	Trizonia	0.23	92	P	Pg	21 16 57.5	+0.1
AGEO	AgiosGiorgios,	0.24	116	P	Pg	21 16 57.6	0.0
ANX	Ano Chora	0.24	26	P	Pg	21 16 57.9	+0.2
ANX				S	Sg	21 17 01.8	+0.7
ANX				AML	AML		
ANX	Ano Chora	0.24	26	P	Pg	21 16 57.7	0.0
ANX				S	Sg	21 17 01.1	+0.1
ANX				AML	AML		
KALE	Kalithea	0.28	86	P	Pg	21 16 58.5	+0.1
KALE				S	Sg	21 17 02.5	+0.4
KALE				AML	AML		
KALE	Kalithea	0.28	86	P	Pg	21 16 58.3	-0.1
KALE				S	Sg	21 17 02.5	+0.4
KALE				AML	AML		
TEME	Temeni, Aigial	0.30	118	P	Pg	21 16 58.8	+0.1
PVO	Paravola	0.32	320	P	Pg	21 16 59.2	+0.1
PVO				S	Sg	21 17 04.0	+0.7
PVO				AML	AML		
PVO	Paravola	0.32	320	P	Pg	21 16 59.0	-0.1
PVO				AML	AML		
AXS	Araxos	0.37	241	P	Pg	21 16 59.5	-0.4
RLS	Riolos of Patr	0.40	219	P	Pg	21 17 00.7	+0.1
RLS				S	Sg	21 17 06.1	+0.2
RLS				AML	AML		
RLS	Riolos of Patr	0.40	219	P	Pg	21 17 00.5	-0.1
RLS				S	Sg	21 17 06.5	+0.5
RLS				AML	AML		
DRO	Drossia	0.42	188	P	Pg	21 17 00.9	-0.2
DRO				S	Sg	21 17 06.8	+0.1
DRO				AML	AML		
DRO	Drossia	0.42	188	P	Pg	21 17 00.7	-0.4
DRO				S	Sg	21 17 07.2	+0.5
DRO				AML	AML		
KLV1	Kalavrita	0.42	143	P	Pg	21 17 00.5	-0.6
KLV	Kalavryta, Ach	0.44	139	P	Pg	21 17 00.9	-0.5
KLV				S	Sg	21 17 07.1	0.0
KLV				AML	AML		
KLV	Kalavryta, Ach	0.44	139	P	Pg	21 17 00.7	-0.6
KLV				S	Sg	21 17 07.6	+0.5
PDO	Prodromos	0.52	296	P	Pg	21 17 02.8	-0.1
PDO				S	Sb	21 17 10.8	-1.2
PDO				AML	AML		
PDO	Prodromos	0.52	296	P	Pg	21 17 02.2	-0.7
PDO				AML	AML		
EVR	Evrytania	0.54	2	P	Pg	21 17 03.4	+0.1
EVR				S	Sg	21 17 11.3	+0.8
EVR				AML	AML		
EVR	Evrytania	0.54	2	P	Pg	21 17 02.8	-0.6
EVR				AML	AML		
DLFA	Delphi	0.57	79	P	Pg	21 17 03.0	-0.8
DLFA				AML	AML		
AST1	Astakos	0.57	287	P	Pg	21 17 03.6	-0.2
AST1				S	Sg	21 17 12.0	+0.7
LCHA	Lechaina	0.60	224	P	Pg	21 17 04.6	+0.2
GUR	Goura	0.62	135	P	Pg	21 17 04.0	-0.8
GUR				S	Sg	21 17 13.1	+0.2
GUR				AML	AML		
AMPL	Ampelaki	0.71	321	P	Pg	21 17 06.4	-0.1
AMPL				S	Sb	21 17 16.6	-0.8
AMPL				AML	AML		
AMPL	Ampelaki	0.71	321	P	Pg	21 17 05.7	-0.8
AMPL				AML	AML		
LAM2	Lamia	0.73	44	P	Pg	21 17 06.4	-0.6
LAM2				AML	AML		
THAL	Thalero	0.77	116	P	Pg	21 17 06.7	-0.9
THAL				AML	AML		
AGG	Agios Georgios	0.78	33	P	Pg	21 17 07.5	-0.3
AGG				S	Sb	21 17 18.6	-0.7
AGG				AML	AML		
AGG	Agios Georgios	0.78	33	P	Pg	21 17 06.5	-1.3
AGG				AML	AML		
AXAR	Agios Charalam	0.79	60	P	Pg	21 17 07.5	-0.5
AXAR				S	Sg	21 17 18.9	+0.6
AXAR				AML	AML		
AXAR	Agios Charalam	0.79	60	P	Pg	21 17 07.1	-0.9
AMT	Artemida-Makis	0.84	184	P	Pg	21 17 08.8	-0.2
AMT				S	Sg	21 17 20.3	+0.4
AMT				AML	AML		
AMT	Artemida-Makis	0.84	184	P	Pg	21 17 08.4	-0.6
AMT				AML	AML		
ZARO	Zacharo	0.89	187	P	Pg	21 17 09.8	-0.1
NYDR	Nydri-Lefkada	0.92	292	P	Pg	21 17 10.4	0.0
NYDR				S	Sb	21 17 23.6	+0.2
NYDR				AML	AML		
NYDR	Nydri-Lefkada	0.92	292	P	Pg	21 17 09.9	-0.5
EVGI	Lefkada island	0.92	286	P	Pg	21 17 10.5	0.0
EVGI				S	Sb	21 17 23.7	+0.3
EVGI				AML	AML		
EVGI	Lefkada island	0.92	286	P	Pg	21 17 10.5	0.0
EVGI				AML	AML		
VLS	Valsamata	0.96	259	P	Pg	21 17 10.7	-0.6
VLS				S	Sb	21 17 24.9	+0.3
VLS				AML	AML		
VLS	Valsamata	0.96	259	P	Pg	21 17 10.2	-1.1
VLS				AML	AML		
FSK	Fiskardo	0.96	275	P	Pg	21 17 10.4	-1.0
FSK				AML	AML		
LKD2	Lefkada island	0.98	296	P	Pg	21 17 11.2	-0.4
LKD2				S	Sb	21 17 25.3	+0.2
LKD2				AML	AML		
LKD2	Lefkada island	0.98	296	P	Pg	21 17 11.0	-0.6
LKD2				AML	AML		
ART2	Arta	0.99	322	P	Pg	21 17 11.9	0.0
LKR	Lokris	0.99	73	P	Pg	21 17 11.6	-0.3
LKR				S	Sb	21 17 25.6	0.0
LKR				AML	AML		
LKR	Lokris	0.99	73	P	Pg	21 17 11.2	-0.7
LKR				AML	AML		
TSLK	Tsoukalades, L	0.99	297	P	Pb	21 17 12.4	0.0
TSLK				S	Sb	21 17 25.8	+0.3
TSLK	Tsoukalades, L	0.99	297	P	Pg	21 17 11.8	-0.1
LTK	Loutraki	0.99	110	P	Pg	21 17 11.7	-0.2
LTK				S	Sg	21 17 25.3	+0.4
LTK				AML	AML		
LTK	Loutraki	0.99	110	P	Pg	21 17 11.6	-0.4
LTK				AML	AML		
DRAG	Dragano-Lefkad	1.00	288	P	Pg	21 17 11.8	-0.2
DRAG				S	Sb	21 17 26.1	+0.4
DRAG				AML	AML		
DRAG	Dragano-Lefkad	1.00	288	P	Pb	21 17 12.1	-0.3

LTHK	Lithakia	1.00	229	P	Pg	21 17 11.5	-0.5
LTHK				S	Sb	21 17 25.7	0.0
LTHK				AML	AML		
LTHK	Lithakia	1.00	229	P	Pg	21 17 11.3	-0.7
ORTH	Orthonies,Zaky	1.00	239	P	Pg	21 17 11.6	-0.5
LOUT	Loutraki	1.01	112	P	Pg	21 17 12.3	0.0
LOUT				AML	AML		
ATAL	Atalanti	1.02	71	P	Pg	21 17 12.0	-0.5
ATAL				S	Sb	21 17 26.3	-0.1
ATAL				AML	AML		
ATAL	Atalanti	1.02	71	P	Pg	21 17 11.1	-1.4
ATAL				AML	AML		
TETR	Tetrakomo, Epi	1.05	338	P	Pb	21 17 13.2	-0.1
TETR				S	Sb	21 17 27.5	+0.2
TETR				AML	AML		
TETR	Tetrakomo, Epi	1.05	338	P	Pb	21 17 13.0	-0.3
TETR				AML	AML		
VIL2	Platees	1.18	97	P	Pn	21 17 15.8	+0.1
VIL2				AML	AML		
ITM	Ithomi	1.20	175	P	Pg	21 17 14.8	-1.0
ITM				S	Sg	21 17 31.1	-0.3
ITM				AML	AML		
ITM	Ithomi	1.20	175	P	Pg	21 17 14.9	-0.8
ITM				AML	AML		
THL	Klokotos Trika	1.20	8	P	Pg	21 17 15.7	-0.2
THL				S	Sb	21 17 31.5	-0.1
THL	Klokotos Trika	1.20	8	P	Pg	21 17 15.7	-0.2
THL				AML	AML		
VALY	Valyra	1.22	173	P	Pb	21 17 15.2	-0.9
VALY				S	Sg	21 17 31.8	-0.2
VALY				AML	AML		
VILL	Villia	1.22	99	P	Pb	21 17 15.8	-0.4
VILL				S	Sg	21 17 31.9	-0.1
VILL				AML	AML		
PRMD	Pramanda	1.27	335	P	Pg	21 17 17.4	+0.1
PRMD				AML	AML		
AAMF	Ano Amfeia	1.28	170	P	Pn	21 17 16.3	-0.8
TYRN	Tyrnavos	1.38	14	P	Pb	21 17 18.7	-0.2
TYRN				AML	AML		
MET3	Ano Fanari,Met	1.39	124	P	Pn	21 17 18.4	-0.1
STFN	Stefani	1.40	98	P	Pn	21 17 18.8	+0.1
STFN				AML	AML		
MET2	Kameni Chora,	1.44	121	P	Pn	21 17 19.4	+0.2
MET5	Makryloggos,Me	1.45	121	P	Pb	21 17 20.0	-0.2
PYL	PYLOS	1.48	181	P	Pn	21 17 19.8	+0.1
PYL				AML	AML		
ATHU	Athens Univers	1.63	104	P	Pn	21 17 22.2	+0.3
ATHU				AML	AML		
VLY	Voula,Athens	1.67	108	P	Pn	21 17 22.3	-0.1
VLY				AML	AML		
DION	Dionisos Attik	1.72	99	P	Pn	21 17 23.5	+0.4
DION				AML	AML		
KYMI	Kymi, Euboea I	1.83	81	P	Pn	21 17 24.4	-0.3
KYMI				AML	AML		
KARY	Karystos	2.12	98	P	Pn	21 17 28.8	+0.2
KARY				AML	AML		
OHR	Ohrid	2.84	345	ePn	Pb	21 17 42.5	-1.3
VAY	Valandovo	3.01	11	ePn	Pn	21 17 42.9	+2.1
PEHC	Pehcevo	3.51	14	ePn	Pb	21 17 52.3	-2.9
SKO	Skopje	3.60	356	ePn	Pb	21 17 53.9	-3.0
IDI	Anoyia	3.96	140	Pn	Pn	21 17 56.0	+2.0
	4.2nm,0.4s,baz=99,slow=16,SNR=3.3						
IDI				Sn	Sn	21 18 45.3	+4.6
	2.0nm,0.3s,baz=286,slow=23,SNR=2.4						
ESDC	Sonseca Array	20.03	282	P	P	21 21 27.0	+0.7
	baz=78,slow=11,SNR=5.6 0.3nm,0.6s						
FINES	FINESS Array B	23.25	5	P	P	21 21 59.6	-0.7
	4.4nm,0.9s,baz=133,slow=16,SNR=1.8 4.4nm,0.9s						
NOA	NORSAR Array B	23.64	347	P	P	21 22 04.1	-0.3
	0.9nm,0.9s,baz=158,slow=9.7,SNR=1.9 0.9nm,0.9s						
EKA	Eskdalemuir Ar	23.85	323	P	P	21 22 05.7	-0.7
	0.8nm,0.6s,baz=116,slow=9.4,SNR=4.1 0.8nm,0.6s						
TORD	Torodi Ar. Bea	30.82	221	P	P	21 23 08.9	-0.5
	0.6nm,0.8s,baz=31,slow=10,SNR=2.6 0.6nm,0.8s						
MKAR	Makanchi Array	44.35	59	P	P	21 25 03.4	-0.1
	1.3nm,0.5s,baz=274,slow=7.7,SNR=28 1.3nm,0.5s						
ZALV	Zalesovo Beam	44.82	48	P	P	21 25 06.8	-0.3
	0.9nm,0.5s,baz=272,slow=8.7,SNR=5.2 0.9nm,0.5s						
SONM	Songino Array	59.56	51	LR	LR	21 54 41.5	
	comp=Z,23nm,18.8s,baz=274,slow=38						

*IDC **17** 22:05:07.6±2.0, 5°.02N×122°.46E, h0^{km}, mb3.3/3, mbtmp3.3/3, Error ellipse: s-maj=253.5km s-min=27.8km az=63.0*
*MAN **17** 22:05:11.0, 6°.45N×125°.96E, h46^{km}, MS3.3*
ISC 17 22:05:12.1±1.0, **6°.44N**±0°.05×**125°.90E**±0°.07, **h66**^{km}±9^{km}, **n11**, σ**1^{s}.85**/19, **mb3.2**/3, **Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	Don Marcelino,	0.39	209	eP	Pn	22 05 23.3	-0.2
DDMP				eS	Sn	22 05 32.1	+0.3
DMPH	Davao City--Mi	0.75	329	i P	Pn	22 05 27.2	-0.1
DMPH				i S	Sn	22 05 38.9	+0.4
KCP	Kidapawan	0.98	305	i P	Pn	22 05 30.2	-0.1
KCP				i S	Sn	22 05 44.2	+0.5
GSPH	General Santos	1.01	250	i P	Pn	22 05 30.0	-0.6
GSPH				i S	Sn	22 05 44.2	-0.2
CDOP	Cateel, Davao	1.44	22	i P	Pn	22 05 35.4	-0.7
CDOP				i S	Sn	22 05 55.8	+1.7
BIPH	Bislig	1.79	15	eP	Pn	22 05 39.5	-1.3
BIPH				eS	Sn	22 05 59.3	-3.4
CGP	Cagayan de Oro	2.33	329	eP	Pn	22 05 48.1	-0.1
CGP				eS	Sn	22 06 15.9	+0.1
GLSP	General Luna,	3.33	4	eP	Pn	22 06 01.4	-0.4
GLSP				eS	Sn	22 06 45.0	+4.8
WRA	Warramunga Arr	27.50	163	P	P	22 10 55.3	+2.7
	0.2nm,0.7s,baz=332,slow=10,SNR=2.1 0.2nm,0.7s						
ASAR	Alice Springs	30.93	166	P	P	22 11 23.6	+0.6
	0.3nm,0.5s,baz=343,slow=7.2,SNR=6.3 0.3nm,0.5s						
MKAR	Makanchi Array	54.88	325	P	P	22 14 34.3	-1.7
	0.2nm,0.5s,baz=120,slow=8.3,SNR=4.9 0.2nm,0.5s						

*SSNC **17** 22:47:42.2±1.4, 18°.74N×70°.26W, h20^{km}±19^{km}, ML3.7, Presumed earthquake*
*SDD **17** 22:47:45.3±3.5, 18°.72N×70°.75W, h38^{km}±34^{km}, MD3.2, ML3.4, MW3.8, Presumed earthquake*
*OSPL **17** 22:47:48.5±0.7, 18°.71N×70°.78W, h9^{km}±3^{km}, ML3.1, Presumed earthquake*
ISC 17 22:47:44.7±1.3, **18°.60N**±0°.03×**70°.78W**±0°.02, **h5**^{km}±11^{km}, **n43**, σ**1^{s}.74**/65, **26C-7D**, **Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BANI	BANI	0.45	118	⇓ePg	Pn	22 47 58.3	+0.3
BANI				⇓eSg	Sb	22 48 06.8	+4.4
BANI				IAML		22 48 07.9	
	comp=N,6µm,0.3s						
SDDR	Presa de Saban	0.61	308	eP	Pb	22 47 57.8	-0.2
SDDR				eS	Sg	22 48 05.9	+1.4
SDDR				IAML		22 48 08.1	
	comp=N,3µm,0.6s						
SDDR				IAML		22 48 10.2	
	comp=N,2µm,0.5s						
SDDR	Presa de Saban	0.61	308	i P	Pb	22 47 58.0	0.0
SDDR				eS	Sb	22 48 06.1	-0.8
SDDR				IAML		22 48 10.1	
	comp=Z,1µm,0.4s						
NEDR	Neiba UASD	0.62	259	⇑ePg	Pn	22 47 59.9	-0.3
NEDR				⇑eSg	Sn	22 48 10.2	-0.3
NEDR				IAML		22 48 36.6	
	comp=N,781nm,0.5s						
PODR	Polo	0.65	228	⇑ePg	Pn	22 48 01.3	+0.5
LOSC1	San Cristbal	0.67	107	i P	Pn	22 48 01.4	+0.5
LOSC1				IAML		22 48 15.6	
	comp=Z,3µm,0.5s						
LODU1	El Espartillar	0.71	249	i P	Pn	22 48 01.9	+0.5
LODU1				IAML		22 48 16.6	
	comp=Z,1µm,3.0s						
DR08	Loma La Naviza	0.80	63	⇑ePg	Pb	22 48 01.7	+0.6
DR08				⇓eSg	Sb	22 48 12.8	+0.5
DR08				IAML		22 48 13.3	
	comp=N,8µm,0.6s						
REDR	Restauracion	0.81	314	ePg	Pn	22 48 06.5	+3.7
REDR				⇑eSg	Sn	22 48 19.1	+3.9
REDR				IAML		22 48 23.7	
	comp=N,2µm,0.2s						
SC01	Santiago de lo	0.82	3	i P	Pb	22 48 01.4	-0.1
SC01				eS	Sg	22 48 10.9	-0.2
SC01				IAML		22 48 14.6	
	comp=Z,918nm,0.3s						
SC01	Santiago de lo	0.82	3	⇑ePg	Pb	22 48 01.7	+0.2
SC01				IAML		22 48 17.8	
	comp=N,1µm,1.1s						
SD01	Santo Domingo	0.83	100	⇑ePg	Pn	22 48 03.9	+0.8
SDD	Santo Domingo	0.83	100	i P	Pn	22 48 03.5	+0.3
SDD				eS	Sn	22 48 15.4	-0.4
SDD				IAML		22 48 17.8	
	comp=Z,587nm,0.3s						
SDD	Santo Domingo	0.83	100	⇑ePg	Pn	22 48 03.6	+0.5
SDD				⇑eSg	Sn	22 48 14.7	-1.1
SDD				IAML		22 48 16.4	
	comp=N,696nm,1.1s						
LOVI	El Cajuil, Ovi	0.98	215	i P	Pn	22 48 07.1	+2.0
LOVI				eS	Sn	22 48 21.2	+1.8
LOVI				IAML		22 48 25.0	
	comp=Z,223nm,0.3s						
MADR	Mao Valverde	1.00	342	⇑ePg	Pg	22 48 03.7	-0.3
MADR				⇓eSg	Sg	22 48 16.5	-0.6
MADR				IAML		22 48 20.4	
	comp=N,1µm,0.6s						
JIDR	Jimani	1.02	264	⇑ePg	Pn	22 48 06.8	+1.0
JIDR				IAML		22 48 22.8	
	comp=N,1µm,0.5s						
LOBH	Bahia de las A	1.10	228	i P	Pn	22 48 09.2	+2.3
LOBH				IAML		22 48 33.7	
	comp=Z,299nm,0.5s						
NAG1	Nagua	1.14	49	ePg	Pn	22 48 07.4	0.0
NADR	Nagua	1.15	49	⇑ePg	Pn	22 48 07.7	+0.2
NADR				⇑eSg	Sg	22 48 20.5	-1.1
NADR				IAML		22 48 25.1	
	comp=N,1µm,0.3s						
SODR	Sosua Marina B	1.16	9	⇑ePg	Pn	22 48 08.3	+0.7
SODR				IAML		22 48 26.1	
	comp=N,3µm,0.8s						
LUDR	Luperon	1.29	353	ePg	Pg	22 48 10.1	+0.5
LOPP1	Punta Rusia, P	1.30	342	i P	Pb	22 48 09.8	0.0
LOPP1				IAML		22 48 33.8	
	comp=Z,299nm,1.0s						
HATOM	Hato Mayor del	1.34	82	⇑ePg	Pg	22 48 11.6	+1.2
HATOM				⇑eSg	Sn	22 48 28.2	-0.1
HATOM				IAML		22 48 32.1	
	comp=N,577nm,0.6s						
MCDR	Montecristi	1.53	327	⇓ePg	Pb	22 48 13.7	+0.2
MCDR				IAML		22 48 39.5	
	comp=N,496nm,0.3s						
SMDR	Samana, DR	1.65	65	⇑ePg	Pb	22 48 16.0	+0.4
SMDR				⇓eSg	Sn	22 48 35.3	-0.7
SMDR				IAML		22 48 46.3	
	comp=N,400nm,0.7s						
MIDR	Miches	1.68	77	⇑ePg	Pb	22 48 16.4	+0.3
MIDR				⇑ePg	Pg	22 48 16.6	-0.4
MIDR				IAML		22 48 40.8	
	comp=N,173nm,0.6s						
MIDR				IAML		22 48 41.1	
	comp=N,120nm,1.4s						
HIDR	Higuey Centro	1.96	90	⇑ePg	Pb	22 48 21.4	+0.6
HIDR				⇑eSg	Sn	22 48 43.9	+0.3
HIDR				IAML		22 48 51.5	
	comp=N,590nm,0.3s						
PCDR	Punta Cana, DR	2.27	92	⇑ePg	Pb	22 48 26.4	+0.1
PCDR				IAML		22 49 06.2	
	comp=N,300nm,0.6s						
GRTK	Grand Turk	2.91	353	⇑ePg	Pn	22 48 33.9	+2.2
GRTK				IAML		22 49 31.4	
	comp=N,138nm,0.1s						
AGPR	Aguadilla, PR	3.48	92	⇑ePg	Pb	22 48 45.2	-1.7
AGPR				IAML		22 49 46.6	
	comp=N,61nm,0.6s						
CRPR	Cabo Rojo, PR	3.54	99	ePg	Pb	22 48 46.8	-1.0
CRPR				IAML		22 49 50.1	
	comp=N,76nm,1.1s						
MLPR	Magueyes Islan	3.60	100	⇓ePg	Pb	22 48 46.1	-2.9
MLPR				IAML		22 49 46.7	
	comp=N,12nm,0.5s						
AOPR	Arecibo Observ	3.83	93	⇑ePg	Pb	22 48 50.1	-2.7
AOPR				IAML		22 49 50.7	
	comp=N,100nm,0.5s						
CELP	Cerrillos	4.02	97	⇑ePg	Pb	22 48 53.9	-2.2
CELP				IAML		22 50 00.7	
	comp=N,17nm,0.8s						
QMBU	Quimbuelo	4.12	293	eP	Pn	22 48 48.5	0.0
QMBU				eS	Sn	22 49 35.1	-2.1
QMBU				eSg	Sb	22 49 40.8	-7.3
GTBY	Guantanamo Bay	4.30	289	eP	Pn	22 48 50.5	-0.4
GTBY				eS	Sn	22 49 42.0	+0.6
NMDO	Nuevo Mundo	4.42	297	eP	Pn	22 48 53.5	+1.1
NMDO				eS	Sn	22 49 45.0	+0.7
MOAC	Moa	4.44	298	eP	Pn	22 48 52.2	-0.5
MOAC				eS	Sn	22 49 46.9	+2.0
RCC	Rio Carpintero	4.85	287	eP	Pn	22 48 59.7	+1.4
RCC				eS	Sn	22 49 55.2	+0.3
MARVS	Santiago de Cu	5.03	287	eP	Pn	22 49 02.7	+1.8
MARVS				eS	Sn	22 49 56.2	-3.3
YAR	Yar	5.55	289	eS	Pb	22 49 15.7	-6.5
CCCC	Cccc	7.06	293	eP	Pn	22 49 29.8	+1.0
CCCC				eS	Sn	22 50 40.5	-9.1

*SDD **17** 22:50:02.3±3.0, 18°.75N×70°.75W, h30^{km}±999^{km}, MD3.1, ML3.1, MW3.6, Presumed earthquake*
*OSPL **17** 22:50:04.9±1.0, 18°.70N×70°.79W, h9^{km}±6^{km}, ML2.8, Presumed earthquake*
*SSNC **17** 22:50:10.3±2.5, 18°.65N×71°.31W, h7^{km}±456^{km}, MD3.3, ML3.0, Presumed earthquake*
ISC 17 22:50:03.9±0.9, **18°.71N**±0°.03×**70°.73W**±0°.02, **h22**^{km}±8^{km}, **n33**, σ**1^{s}.65**/47, **18C-7D**, **Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BANI	BANI	0.47	132	ePg	Pb	22 50 14.7	+1.1
BANI				⇑eSg	Sb	22 50 22.9	+2.7
BANI				IAML		22 50 25.4	
	comp=N,2µm,0.3s						
SDDR	Presa de Saban	0.59	297	eP	Pb	22 50 14.9	-0.8
SDDR				eS	Sb	22 50 22.1	-1.7
SDDR				IAML		22 50 24.5	
	comp=N,1µm,0.7s						
SDDR				IAML		22 50 26.5	
	comp=N,1µm,0.4s						
SDDR	Presa de Saban	0.59	297	i P	Pb	22 50 14.6	-1.1
SDDR				eS	Sb	22 50 22.3	-1.5
SDDR				IAML		22 50 26.5	
	comp=Z,960nm,0.3s						
NEDR	Neiba UASD	0.69	251	⇑ePg	Pb	22 50 17.2	-0.1
NEDR				IAML		22 50 44.3	
	comp=N,281nm,0.5s						
SC01	Santiago de lo	0.71	0	i P	Pn	22 50 17.9	-0.8
SC01				eS	Sn	22 50 28.6	-0.4
SC01				IAML		22 50 31.0	
	comp=Z,494nm,0.3s						
SC01	Santiago de lo	0.71	0	⇑ePg	Pn	22 50 18.1	-0.6
SC01				⇑eSg	Sn	22 50 28.9	-0.2
SC01				IAML		22 50 29.8	
	comp=N,639nm,0.2s						
DR08	Loma La Naviza	0.72	69	⇓ePg	Pb	22 50 18.2	+0.4
DR08				⇓eSg	Sn	22 50 29.1	0.0
DR08				IAML		22 50 29.6	
	comp=N,3µm,0.7s						
PODR	Polo	0.75	224	⇓ePg	Pb	22 50 17.7	-0.7
REDR	Restauracion	0.78	306	⇑ePg	Pn	22 50 23.7	+4.1
REDR				⇓eSg	Sn	22 50 37.8	+7.3
REDR				IAML		22 50 40.0	
	comp=N,2µm,0.1s						
LODU1	El Espartillar	0.79	243	i P	Pn	22 50 18.3	-1.4
LODU1				IAML		22 50 37.4	
	comp=Z,553nm,1.1s						
SD01	Santo Domingo	0.81	107	⇑ePg	Pb	22 50 20.4	+1.1
SDD	Santo Domingo	0.81	108	i P	Pn	22 50 20.0	-0.1
SDD				eS	Sn	22 50 31.7	+0.3
SDD				IAML		22 50 34.0	
	comp=Z,277nm,0.4s						
SDD	Santo Domingo	0.81	108	ePg	Pn	22 50 20.2	+0.1
SDD				⇑eSg	Sn	22 50 32.1	+0.7
SDD				IAML		22 50 32.7	
	comp=N,253nm,0.8s						
SODR	Sosua Marina B	1.05	8	⇑ePg	Pn	22 50 21.9	-1.4
SODR				⇑eSg	Sb	22 50 37.1	+0.4
SODR				IAML		22 50 42.4	
	comp=N,1µm,0.8s						
JIDR	Jimani	1.08	259	⇑ePg	Pn	22 50 23.2	-0.6
JIDR				IAML		22 50 39.2	
	comp=N,513nm,0.5s						
LOVI	El Cajuil, Ovi	1.09	214	i P	Pn	22 50 23.4	-0.5
LOVI				eS	Sn	22 50 37.8	-0.5
LOVI				IAML		22 50 41.3	
	comp=Z,114nm,0.3s						
LUDR	Luperon	1.20	350	⇑ePg	Pb	22 50 26.4	+0.5
LOBH	Bahia de las A	1.21	226	i P	Pn	22 50 25.6	+0.1
LOBH				IAML		22 50 50.0	
	comp=Z,145nm,0.5s						
LOPP1	Punta Rusia, P	1.22	339	i P	Pb	22 50 26.2	-0.2
LOPP1				IAML		22 50 47.4	
	comp=Z,170nm,0.4s						
HATOM	Hato Mayor del	1.28	86	⇑ePg	Pb	22 50 28.1	+0.7
HATOM				⇓eSg	Sn	22 50 43.1	+0.1
HATOM				IAML		22 50 48.4	
	comp=N,149nm,0.6s						
MCDR	Montecristi	1.47	324	⇑ePg	Pb	22 50 30.2	-0.3
MCDR				⇑eSg	Sb	22 50 47.5	-1.2
MCDR				IAML		22 50 55.8	
	comp=N,320nm,0.3s						
SMDR	Samana, DR	1.57	68	⇑ePg	Pb	22 50 32.2	0.0
SMDR				IAML		22 51 01.8	
	comp=N,140nm,0.7s						
MIDR	Miches	1.61	80	⇓ePg	Pb	22 50 33.0	0.0
MIDR				IAML		22 50 55.2	
	comp=N,87nm,0.3s						
HIDR	Higuey Centro	1.91	93	⇑ePg	Pb	22 50 37.8	-0.3
HIDR				IAML		22 51 07.8	
	comp=N,180nm,0.3s						
PCDR	Punta Cana, DR	2.23	95	⇑ePg	Pb	22 50 43.3	-0.3
PCDR				IAML		22 51 22.5	
	comp=N,120nm,0.6s						
AOPR	Arecibo Observ	3.79	95	⇓ePg	Pb	22 51 08.7	-1.5
AOPR				IAML		22 52 08.3	
	comp=N,45nm,0.4s						
CELP	Cerrillos	3.99	98	⇑ePg	Pb	22 51 10.0	-3.5
CELP				IAML		22 52 17.4	
	comp=N,7.6nm,0.9s						
QMBU	Quimbuelo	4.13	292	eP	Pn	22 51 06.3	+0.6
QMBU				eS	Sn	22 51 54.8	+1.5
QMBU				IAML		22 52 00.7	
	comp=N,26nm,0.2s						
QMBU				IAML		22 52 04.7	
	comp=E,35nm,0.6s						
GTBY	Guantanamo Bay	4.31	287	eP	Pn	22 51 09.9	+1.7
GTBY				eS	Sn	22 51 57.5	-0.3
GTBY				IAML		22 52 05.7	
	comp=E,8.0nm,0.7s						
GTBY				IAML		22 52 09.0	
	comp=E,14nm,0.2s						
NMDO	Nuevo Mundo	4.41	295	eP	Pn	22 51 09.3	-0.2
RCC	Rio Carpintero	4.86	286	eP	Pn	22 51 15.6	-0.2
MARVS	Santiago de Cu	5.05	286	eP	Pn	22 51 12.9	-5.4
MARVS				eS	Sn	22 52 05.8	-10
YAR	Yar	5.56	288	eP	Pn	22 51 25.0	-0.4

*SDD **17** 23:22:19.9±4.1, 18°.80N×70°.76W, h32^{km}±18^{km}, MD2.8, ML2.4, MW3.1, Presumed earthquake*
*OSPL **17** 23:22:23.1±1.7, 18°.71N×70°.70W, h7^{km}±9^{km}, ML2.0, Presumed earthquake*
ISC 17 23:22:22.6±1.0, **18°.71N**±0°.05×**70°.73W**±0°.03, **h25**^{km}±8^{km}, **n13**, σ**0^{s}.82**/20, **8C-2D**, **Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ABDR	Alto Bandera	0.14	45	ePg	Pb	23 22 28.1	+0.2
ABDR				⇓eSg	Sb	23 22 31.6	0.0
ABDR				IAML		23 22 31.6	
	comp=N,2µm,0.2s						
BANI	BANI	0.48	132	ePg	Pn	23 22 34.2	+0.3
BANI				⇑eSg	Sn	23 22 42.3	+0.7
BANI				IAML		23 22 43.7	
	comp=N,288nm,0.6s						
SDDR	Presa de Saban	0.59	297	i P	Pb	23 22 34.0	-0.4
SDDR				eS	Sb	23 22 42.0	-0.4
SDDR				IAML		23 22 46.3	
	comp=Z,91nm,0.8s						
NEDR	Neiba UASD	0.69	251	ePg	Pb	23 22 34.5	-1.5
NEDR				⇓eSg	Sb	23 22 45.7	+0.6
NEDR				IAML		23 22 48.0	
	comp=N,48nm,0.7s						
SC01	Santiago de lo	0.71	0	i P	Pn	23 22 37.4	+0.3
SC01				IAML		23 22 50.4	
	comp=Z,37nm,0.4s						
PODR	Polo	0.75	224	⇑ePg	Pb	23 22 37.3	+0.2
LODU1	El Espartillar	0.79	243	i P	Pn	23 22 38.3	+0.2
LODU1				IAML		23 22 55.6	
	comp=Z,86nm,0.3s						
SDD	Santo Domingo	0.82	108	i P	Pb	23 22 36.2	-1.9
SDD				IAML		23 22 52.3	
	comp=Z,63nm,0.8s						
JIDR	Jimani	1.08	258	⇑ePg	Pb	23 22 42.9	+0.3
JIDR				⇑eSg	Sb	23 22 55.0	-1.3
JIDR				IAML		23 22 58.8	
	comp=N,73nm,0.6s						
LOVI	El Cajuil, Ovi	1.09	214	i P	Pb	23 22 42.9	+0.1
LOVI				IAML		23 22 59.9	
	comp=Z,27nm,1.2s						
LOBH	Bahia de las A	1.21	226	i P	Pb	23 22 45.2	+0.4
LOBH				IAML		23 23 11.9	
	comp=Z,23nm,1.3s						
HATOM	Hato Mayor del	1.28	86	⇑ePg	Pb	23 22 46.9	+0.8
HATOM				⇑eSg	Sn	23 23 01.7	+0.4
HATOM				IAML		23 23 08.1	
	comp=N,47nm,0.6s						
HIDR	Higuey Centro	1.91	93	⇑ePg	Pb	23 22 56.6	-0.2
HIDR				⇑eSg	Sb	23 23 19.5	-0.8
HIDR				IAML		23 23 25.3	
	comp=N,52nm,0.8s						

*HEL **17** 23:29:22.5±0.3, 67°.79N×20°.14E, h0^{km}, ML1.8, Suspected explosion*
UPP 17 23:29:23.1±0.0, **67°.85N**×**20°.20E**, **h0**^{km}, **ML2.1**, **Suspected explosion**, **Sweden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUA	Kurravaara	0.12	25	P	Pg	23 29 25.6	+0.2
KUA				S	Sg	23 29 27.4	+0.5
RATU	Laukkuluspa	0.23	265	P	Pg	23 29 27.7	+0.2
NIKU	Nikkaluokta	0.44	273	P	Pg	23 29 31.6	0.0
NIKU				S	Sg	23 29 37.7	+0.4
LANU	Lannavaara	0.71	73	P	Pg	23 29 36.4	-0.2
LANU				S	Sg	23 29 46.3	+0.6
LANU	Lannavaara	0.71	73	PG	Pg	23 29 36.3	-0.3
LANU				SB	Sg	23 29 46.1	+0.3
MASU	Masugnsbyn	0.79	119	P	Pg	23 29 38.0	-0.2
SALU	Saltoluokta	0.80	235	P	Pg	23 29 38.1	-0.3
SALU	Saltoluokta	0.80	235	eP	Pg	23 29 37.6	-0.8
PAJU	Pajala	1.39	125	P	Pg	23 29 48.5	-1.3
PAJU	Pajala	1.39	125	PN	Pg	23 29 48.4	-1.4
	baz=302						
PAJU				SN	Sn	23 30 10.2	+1.4
HEF	Hetta	1.41	65	eP	Pn	23 29 48.1	-1.9
HEF	Hetta	1.41	65	PG	Pn	23 29 49.0	-1.0
	baz=244						
HEF				smax	smax	23 30 06.3	
	comp=Z,12nm,0.2s						
HEF				SN	Sn	23 30 10.2	+0.9
ERTU	Ertsjaerv	1.51	148	P	Pn	23 29 50.8	-0.6
ERTU	Ertsjaerv	1.51	148	PN	Pn	23 29 50.5	-0.9
ERTU				SN	Sn	23 30 12.1	+0.3
KLF	Kolari	1.57	111	PN	Pn	23 29 51.8	-0.4
KLF				smax	smax	23 30 09.7	
	comp=Z,4.2nm,0.2s						
KTK1	Kautokeino	1.62	42	PG	Pn	23 29 52.8	-0.1
KTK1				SN	Sg	23 30 17.0	+1.9
TRO	Tromso	1.85	346	PG	Pb	23 29 57.0	-0.8
TRO				SG	Sb	23 30 21.6	+0.1
TOF	Tornio	2.40	136	PG	Pn	23 30 04.9	+1.3
TOF				smax	smax	23 30 33.0	
	comp=Z,3.7nm,0.2s						

ARA0	ARCESS Array S	2.57	46	PB	Pn	23 30 07.0	+1.1
ARA0				SB	Sb	23 30 41.5	-0.8
RNF	Rovaniemi	2.58	116	PG	Pn	23 30 08.0	+1.9
RNF				SG	Sb	23 30 42.8	+0.5
RAJF	Raja-Jooseppi	3.10	75	PB	Pn	23 30 14.8	+1.7
RAJF				SG	Sb	23 30 56.7	-0.5
KEV	Kevo	3.13	49	PB	Pn	23 30 15.9	+2.4
KEV				SB	Sb	23 30 55.0	-3.1
RANF	Ranua	3.18	122	PB	Pn	23 30 16.7	+2.4
	baz=308						
BURU	Burvik	3.31	171	PG	Pn	23 30 18.7	+2.6
BURU				SG	Sb	23 31 01.3	-2.1
VRF	Varrio	3.57	87	PG	Pb	23 30 27.3	+0.3
OLKF	Oulanka, Finla	3.91	109	PN	Pn	23 30 25.4	+1.1
OUF	Merijarvi	3.95	150	SB	Sb	23 31 17.0	-4.7
UMAU	Umeaa	3.99	177	SB	Sn	23 31 15.4	+2.7

UPP 17 23:29:25.9±0.0, 67°.85N×20°.21E, h0^{km}, ML2.4, Suspected explosion, Sweden

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUA	Kurravaara	0.12	24	P	Pg	23 29 28.5	+0.3
	baz=184						
KUA				S	Sg	23 29 30.1	+0.3
RATU	Laukkuluspa	0.23	265	P	Pg	23 29 30.7	+0.3
RATU				S	Sg	23 29 33.7	+0.3
RATU	Laukkuluspa	0.23	265	S	Pg	23 29 30.7	+0.3
NIKU	Nikkaluokta	0.45	273	P	Pg	23 29 34.4	0.0
NIKU				S	Sg	23 29 40.8	+0.6
LANU	Lannavaara	0.70	72	P	Pg	23 29 39.1	-0.2
MASU	Masugnsbyn	0.79	119	P	Pg	23 29 40.8	-0.2
SALU	Saltoluokta	0.80	235	P	Pg	23 29 41.1	-0.2
PAJU	Pajala	1.39	125	P	Pg	23 29 51.4	-1.1
ERTU	Ertsjaerv	1.51	148	P	Pn	23 29 53.4	-0.7

*MED_RC **17** 23:32:51.0, 35°.74N×22°.09E, h10^{km}, Mw4.2, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}1.34±.19; $M_{\theta\theta}$-1.87±.18; $M_{\phi\phi}$0.00±.13; $M_{r\theta}$-0.11±.56; $M_{\theta\phi}$1.51±.13; $M_{\phi r}$-0.75±.41; Fault plane solution: $M_0$2.32000×10^{15} NP1:ϕ_s261.00000°, δ56.00000°, λ35.00000°. NP2:ϕ_s150.00000°, δ62.00000°, λ141.00000°. Principal axes: T 2.0200, Plg47.0000°, Azm113.0000°; N 0.5900, Plg43.0000°, Azm300.0000°; P -2.6100, Plg3.0000°, Azm206.0000°;*

*MCSM **17** 23:32:52.2±0.7, 36°N±5°×2°2E±°, h11^{km}±4^{km}, mb4.5, mB4.8, MLv4.3, Mw(mB)4.1*

*PDG **17** 23:32:52.8±1.3, 35°.78N×22°.06E, h25^{km}±4^{km}, ML4.4/10, Error ellipse: s-maj=3.5km s-min=3.4km az=90.0*

*NAO **17** 23:32:52.9, 35°.74N×22°.09E, h10^{km}, MB4.1*

*GFZ **17** 23:32:53.9±0.5, 36°N±4°×2°2E±°, h10^{km}, M4.4/24, mb4.5/24*

*THE **17** 23:32:54.8, 36°N±2°×2°2E±°, h5^{km}±2^{km}, M4.0/21, MLh4.0/21*

*ATH **17** 23:32:54.7, 35°.85N×22°.18E, h11^{km}±2^{km}, ML4.1/17, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*

*MOS **17** 23:32:55.6±1.0, 35°.93N×22°.17E, h52^{km}, mb4.6/28, Error ellipse: s-maj=5.6km s-min=3.0km az=76.0*

*AFAD **17** 23:32:55.0, 35°.97N×22°.20E, h18^{km}, MW4.3*

*NEIC **17** 23:32:56.2±1.8, 35°.93N±0°.07×22°.18E±0°.05, h39^{km}±7^{km}, mb4.3/54, Error ellipse: s-maj=10.8km s-min=6.4km az=184.0*

*IDC **17** 23:32:57.5±1.2, 35°.88N×22°.16E, h59^{km}±11^{km}, mb4.1/23, mbtmp4.2/34, MS3.4/27, Error ellipse: s-maj=12.0km s-min=8.3km az=15.0*

ISC 17 23:32:55.6±0.8, 35°.87N±0°.03×22°.17E±0°.03, h40^{km}±7^{km}, n567, σ1^{s}.92/625, mb4.4/59, MS3.5/19, 43C-33D, Central Mediterranean Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KTHA	Kythira Island	0.82	62	P	Pn	23 33 10.6	-0.2
KTHA				S	Sn	23 33 23.2	+1.4
KTHA				AML	AML		
KTHA	Kythira Island	0.82	62	P	Pn	23 33 10.4	-0.4
KTHA				S	Sn	23 33 21.8	+0.1
KTHA				AML	AML		
KTHA	Kythira Island	0.82	62	P	Pn	23 33 10.8	+0.1
ANKY	Antikythira Is	0.92	90	P	Pn	23 33 12.3	+0.2
ANKY				S	Sn	23 33 26.7	+2.5
ANKY				AML	AML		
ANKY	Antikythira Is	0.92	90	P	Pn	23 33 12.4	+0.3
ANKY				S	Sn	23 33 24.8	+0.7
ANKY				AML	AML		
NPS1	Neapolis Lacon	0.97	48	P	Pn	23 33 13.3	+0.6
MTHA	Methoni	1.02	339	P	Pn	23 33 15.1	+1.7
MTHA				S	Sn	23 33 28.5	+2.0
VLI	Veliai	1.05	36	P	Pn	23 33 14.7	+0.8
VLI				S	Sn	23 33 31.0	+3.6
VLI				AML	AML		
VLI	Veliai	1.05	36	P	Pn	23 33 15.0	+1.1
VLI				S	Sn	23 33 29.2	+1.8
MNVA	Monemvasia	1.08	41	P	Pn	23 33 15.3	+1.1
MNVA				AML	AML		
PYL	PYLOS	1.08	342	P	Pn	23 33 14.9	+0.6
PYL				S	Sn	23 33 30.2	+2.2
PYL				AML	AML		
PYL	PYLOS	1.08	342	P	Pn	23 33 15.7	+1.4
PYL				S	Sn	23 33 30.5	+2.5
PYL				AML	AML		
PYL1	Pylos	1.11	340	P	Pn	23 33 15.7	+1.0
PYL1				S	Sn	23 33 31.3	+2.6
PYL1				AML	AML		
AAMF	Ano Amfeia	1.24	356	P	Pn	23 33 18.5	+2.0
VALY	Valyra	1.30	354	P	Pn	23 33 18.9	+1.7
VALY				S	Sn	23 33 36.8	+3.3
VALY				AML	AML		
VALY	Valyra	1.30	354	P	Pn	23 33 19.0	+1.7
VALY				AML	AML		
ITM	Ithomi	1.32	352	P	Pn	23 33 19.2	+1.5
ITM				S	Sn	23 33 37.3	+3.3
ITM				AML	AML		
ITM	Ithomi	1.32	352		Pn	23 33 18.5	+0.9
ITM				Sn	Sn	23 33 40.6	+6.6
ITM	Ithomi	1.32	352	P	Pn	23 33 19.7	+2.1
ITM				S	Sn	23 33 37.1	+3.1
ITM				AML	AML		
ITM	Ithomi	1.32	352	P	Pn	23 33 19.7	+2.1
KNDR	Palaiochora Ch	1.35	118	P	Pn	23 33 19.1	+1.2
KNDR				S	Sn	23 33 39.0	+4.4
KNDR				AML	AML		
KNDR	Palaiochora Ch	1.35	118	P	Pn	23 33 19.2	+1.2
KNDR				S	Sn	23 33 36.5	+1.9
KNDR				AML	AML		
VLX	Vlachokerasia	1.51	7	P	Pn	23 33 22.3	+2.1
VLX				S	Sn	23 33 42.9	+4.2
VLX				AML	AML		
IMMV	Iera Moni Meta	1.53	105	P	Pn	23 33 22.0	+1.5
IMMV				S	Sn	23 33 43.7	+4.4
IMMV				AML	AML		
IMMV	Iera Moni Meta	1.53	105	P	Pn	23 33 21.6	+1.1
IMMV				S	Sn	23 33 41.7	+2.5
IMMV				AML	AML		
IMMV	Iera Moni Meta	1.53	105	P	Pn	23 33 22.1	+1.6
CH01	Chania	1.55	103	P	Pn	23 33 22.4	+1.7
CH01				AML	AML		
CHAN	Chania	1.57	102	P	Pn	23 33 22.5	+1.5
CHNB	Souda	1.59	103	P	Pn	23 33 23.0	+1.7
ZARO	Zacharo	1.67	346	P	Pn	23 33 24.9	+2.6
VAM	Vamos	1.72	105	P	Pn	23 33 25.2	+2.1
VAM				S	Sn	23 33 47.9	+4.1
VAM				AML	AML		
VAM	Vamos	1.72	105	P	Pn	23 33 25.0	+1.9
VAM				S	Sn	23 33 46.0	+2.2
VAM	Vamos	1.72	105	P	Pn	23 33 25.5	+2.4
VAM				S	Sn	23 33 46.8	+3.0
VAM				AML	AML		
GVDS	Gavdos	1.86	123	P	Pn	23 33 26.6	+1.7
GVDS				S	Sn	23 33 51.8	+4.6
GVDS				AML	AML		
GVD	Gavdhos	1.88	123	P	Pn	23 33 27.7	+2.5
GVD				S	Sn	23 33 52.9	+5.2
GVD				AML	AML		
GVD	Gavdhos	1.88	123	P	Pn	23 33 26.6	+1.3
GVD				AML	AML		
MHLO	Agia Marina, M	1.98	65	P	Pn	23 33 28.8	+2.2
MHLO				S	Sn	23 33 55.2	+4.8
MHLO				AML	AML		
MHLO	Agia Marina, M	1.98	65	P	Pn	23 33 28.5	+1.8
MILOS	Milos	2.02	64	P	Pn	23 33 28.3	+1.0
GUR	Goura	2.07	4	P	Pn	23 33 30.8	+2.9
GUR				AML	AML		
DRO	Drossia	2.11	350	P	Pn	23 33 30.3	+1.9
DRO				S	Sn	23 33 57.9	+4.4
DRO				AML	AML		
LTHK	Lithakia	2.12	330	P	Pn	23 33 31.0	+2.4
LTHK				S	Sn	23 33 58.5	+4.8
LTHK				AML	AML		
KLV	Kalavryta, Ach	2.17	360	P	Pn	23 33 31.4	+2.1
RLS	Riolos of Patr	2.25	346	P	Pn	23 33 34.2	+3.8
RLS				S	Sn	23 34 01.5	+4.5
IDI	Anoyia	2.30	104	P	Pn	23 33 32.0	+0.9
	28nm,0.4s,baz=278,slow=14,SNR=148						
IDI				S	Sn	23 34 01.6	+3.5
	245nm,0.6s,baz=88,slow=16,SNR=7.6						
IDI				LR	LR	23 34 51.0	
	comp=Z,718nm,18.3s,baz=296,slow=49						
IDI	Anoyia	2.30	104	P	Pn	23 33 32.4	+1.4
IDI				S	Sn	23 34 03.0	+4.9
IDI				AML	AML		
IDI	Anoyia	2.30	104		Pn	23 33 31.0	0.0
IDI	Anoyia	2.30	104	P	Pn	23 33 31.9	+0.9
SIVA	Sivas	2.32	111	P	Pn	23 33 33.4	+2.1
SIVA				S	Sn	23 34 03.4	+4.8
SIVA				AML	AML		
VLY	Voula,Athens	2.37	33	P	Pn	23 33 34.7	+2.7
VLY				S	Sn	23 34 04.5	+4.7
VLY				AML	AML		
VLY	Voula,Athens	2.37	33	P	Pn	23 33 33.7	+1.7
VLY				AML	AML		
ATH	Athens Observa	2.44	30	P	Pn	23 33 35.7	+2.8
ATH				S	Sn	23 34 06.3	+4.8
ATH				AML	AML		
ATH	Athens Observa	2.44	30	P	Pn	23 33 35.0	+2.1
ATH	Athens Observa	2.44	30	P	Pn	23 33 35.5	+2.5
ATH				AML	AML		
ATHU	Athens Univers	2.46	31	P	Pn	23 33 35.8	+2.5
ATHU				S	Sn	23 34 06.9	+4.8
ATHU				AML	AML		
VILL	Villia	2.47	22	P	Pn	23 33 36.7	+3.3
VILL				S	Sn	23 34 07.1	+4.8
THERA	Ancient Thera,	2.73	79	P	Pn	23 33 38.0	+1.1
AGG	Agios Georgios	3.15	2	P	Pn	23 33 47.4	+4.6
XOR	Xorichti	3.58	13	P	Pn	23 33 51.9	+3.2
IGT	Igoumenitsa	3.94	339	P	Pn	23 33 55.1	+1.6
CHOS	Chios island	4.00	50	P	Pn	23 33 58.1	+3.7
KARP	Karpathos	4.08	93		Pn	23 33 55.3	-0.2
KARP	Karpathos	4.08	93	P	Pn	23 33 54.8	-0.7
KARP				AML	AML		
KARP	Karpathos	4.08	93	P	Pn	23 33 58.4	+2.9
ZEYE	Izmir, Urla-Ze	4.20	54	P	Pn	23 33 56.5	-0.6
ZEYE				S	Sn	23 34 36.3	-8.6
PAIG	Paliouri	4.22	16	P	Pn	23 33 59.9	+2.5
PAIG	Paliouri	4.22	16	P	Pn	23 33 59.9	+2.5
LIT	Litokhoron	4.23	3	P	Pn	23 33 57.3	-0.3
LIT	Litokhoron	4.23	3		Pn	23 33 57.3	-0.3
LIT	Litokhoron	4.23	3	P	Pn	23 34 00.3	+2.7
KEK	Kerkira	4.27	335		Pn	23 33 57.9	-0.2
YAZI	Mula-Dat§a-	4.35	78	P	Pn	23 34 00.4	+1.2
YAZI				S	Sn	23 34 50.8	+2.2
SRN	Sarande	4.35	337	P	Pn	23 34 02.1	+2.8
DGB	zmir	4.36	59	P	Pn	23 34 00.4	+1.1
DDIM	Aydin, Didim	4.38	67	P	Pn	23 34 00.9	+1.3
KARB	zmir-Karabur	4.39	49	P	Pn	23 34 01.7	+2.0
BDRM	Kayabasi	4.42	73	P	Pn	23 34 01.4	+1.2
BDRM	Kayabasi	4.42	73	⇑P	Pn	23 34 01.6	+1.5
DAT	Datca	4.46	77	P	Pn	23 34 01.1	+0.4
GCAM	G?zelcaml?	4.46	64	P	Pn	23 34 00.9	+0.2
BAGT	Foa	4.66	52	P	Pn	23 34 04.0	+0.6
THE	Thessaloniki	4.80	7	P	Pn	23 34 07.0	+1.7
THE	Thessaloniki	4.80	7	P	Pn	23 34 07.0	+1.7
	comp=Z,35nm,0.5s						
KOCA	Canakkale, Ayv	4.80	40	P	Pn	23 34 03.5	-1.9
KOCA				S	Sn	23 35 08.8	+9.0
ARG	Arkhangelos	4.84	84	P	Pn	23 34 05.2	-0.7
ARG	Arkhangelos	4.84	84		Pn	23 34 05.2	-0.7
ARG	Arkhangelos	4.84	84	P	Pn	23 34 08.8	+2.8
KBN	Korca	4.87	348	P	Pn	23 34 09.8	+3.4
KBN	Korca	4.87	348	P	Pn	23 34 09.8	+3.4
	comp=Z,66nm,0.6s						
AYDN	Tasoluk	4.92	67	P	Pn	23 34 10.3	+3.2
	comp=Z,92nm,0.8s						
AYVA	Ayvalik	4.97	45	P	Pn	23 34 10.8	+3.1
ZEDA	zmir-Bergama	4.98	50	P	Pn	23 34 10.3	+2.4
TURN	Turunc	4.99	78	P	Pn	23 34 09.2	+1.2
CAMT	Merkez	5.01	53	P	Pn	23 34 08.7	+0.5
SOH	Sokhos	5.03	10	P	Pn	23 34 11.0	+2.4
SOH	Sokhos	5.03	10	P	Pn	23 34 11.0	+2.4
	comp=Z,58nm,0.5s						
GRG	Griva	5.08	2	P	Pn	23 34 11.4	+2.1
GRG	Griva	5.08	2	P	Pn	23 34 11.4	+2.1
	comp=Z,201nm,0.5s						
EZN	Ezine	5.14	39	P	Pn	23 34 09.2	-0.8
	comp=Z,0.1nmcomp=Z,23nm,0.7s						
EZN				AML	AML		
MULA	Mugla, Merkez-	5.14	73	P	Pn	23 34 09.5	-0.7
IZMR	zmir-demi	5.16	62	P	Pn	23 34 11.6	+1.3
KNT	Kendrikon	5.32	6	P	Pn	23 34 19.7	+7.2
	comp=Z,44nm,0.4s						
ESEN	Aydn-Nazilli	5.32	67	P	Pn	23 34 14.2	+1.7
BUHA	Balikesir, Bur	5.32	46	P	Pn	23 34 14.7	+2.2
DALY	Dalyan (Mula)	5.32	78	P	Pn	23 34 15.2	+2.7
OHR	Ohrid	5.34	349	*i* Pg	Pn	23 34 15.2	+2.3
OHR				*e*Sn	Sn	23 35 13.8	+0.7
TIP	Timpagrande	5.42	309		Pn	23 34 12.6	-1.3
TIP	Timpagrande	5.42	309	⇑P	Pn	23 34 13.9	0.0
TIP	Timpagrande	5.42	309	P	Pn	23 34 13.3	-0.6
	comp=Z,0.2nmcomp=Z,31nm,0.5s						
TIP				AML	AML		
VAY	Valandovo	5.45	3	*i* Pg	Pn	23 34 16.0	+1.7
VAY				*e*Sn	Sn	23 35 14.2	-1.5
KTTT	Salihli	5.50	57	P	Pn	23 34 17.0	+2.0
KIRA	zmir-Kiraz	5.50	63	P	Pn	23 34 18.1	+2.9
CEL	Celeste	5.55	297		Pn	23 34 14.4	-1.4
CEL	Celeste	5.55	297	P	Pn	23 34 15.1	-0.7
	comp=Z,0.3nmcomp=Z,1µmcomp=Z,67nm,0.8s						
CEL				AML	AML		
CEL	Celeste	5.55	297	P	Pn	23 34 18.3	+2.5
	comp=Z,67nm,0.8s						
SABU	Mula-Dalaman	5.57	78	P	Pn	23 34 16.5	+0.5
STEP	BALIKESIR_Sava	5.63	50	P	Pn	23 34 18.6	+1.8
STEP				S	Sn	23 35 15.8	-4.4
TAVA	DENIZLI_Tavas	5.65	72	P	Pn	23 34 19.1	+1.9
TAVA	DENIZLI_Tavas	5.65	72	⇓P	Pn	23 34 20.3	+3.1
SULTU	Buldan	5.72	66	P	Pn	23 34 18.9	+0.7
MANT	Manisa	5.74	61	P	Pn	23 34 22.5	+4.1
MANT	Manisa	5.74	61	Pn	Pn	23 34 18.2	-0.3
IZZE	Mula-Seydike	5.74	82	P	Pn	23 34 19.1	+0.8
IZZE				S	Sn	23 35 08.6	-14
DNIZ	Denizli-Tavas-	5.79	70	P	Pn	23 34 20.1	+1.1
BALY	Balya	5.79	47	P	Pn	23 34 20.9	+1.9
BALY	Balya	5.79	47	P	Pn	23 34 23.7	+4.6
	comp=Z,74nm,0.7s						
MMB	Musomishta	5.80	12	P	Pn	23 34 21.3	+2.1
HARTU	Esme	5.85	63	P	Pn	23 34 21.7	+1.9
ALN	Alexandroupoli	5.87	30	P	Pn	23 34 19.1	-1.0
ALN	Alexandroupoli	5.87	30		Pn	23 34 19.1	-1.0
ALN	Alexandroupoli	5.87	30	P	Pn	23 34 23.9	+3.9
	comp=Z,25nm,1.3s						
BALB	Balikesir	5.89	49	Pn	Pn	23 34 18.1	-2.1
CAEL	Denizli, Camel	5.90	76	P	Pn	23 34 22.0	+1.4
PEHC	Pehcevo	5.93	5	*i* Pg	Pn	23 34 22.5	+1.5
PHP	Peshkopia	5.96	347	P	Pn	23 34 22.7	+1.3
PHP	Peshkopia	5.96	347	P	Pn	23 34 22.7	+1.3
KKB	Krupnik	6.01	7	P	Pn	23 34 24.3	+2.3
AKAS	Kas	6.04	84	P	Pn	23 34 21.5	-1.1
AKAS				S	Sn	23 35 19.2	-11
AKAS	Kas	6.04	84		Pn	23 34 21.1	-1.4
AKAS	Kas	6.04	84	P	Pn	23 34 24.4	+1.9
	comp=Z,310nm,0.7s						
KNIK	Mula-Seydike	6.06	79	P	Pn	23 34 23.3	+0.5
SKO	Skopje	6.12	355	*i* Pg	Pn	23 34 25.0	+1.5
USAK	Uak-Merkez	6.16	61	P	Pn	23 34 25.9	+1.8
INCE	Denizli-Bozkur	6.22	71	P	Pn	23 34 27.2	+2.2
INCE				S	Sn	23 35 23.7	-11
DURS	Dursunbey	6.23	51	P	Pn	23 34 26.7	+1.5
KDZ	Kurdzhali	6.26	22	P	Pn	23 34 27.4	+1.9
ELL	Elmali	6.31	80	P	Pn	23 34 24.6	-1.7
ELL	Elmali	6.31	80		Pn	23 34 24.6	-1.7
PASA	Karahalli, USA	6.35	65	P	Pn	23 34 30.0	+3.3
MATE	Matera	6.42	320	⇓P	Pn	23 34 27.6	0.0
RAFF	Raffo Rosso	6.42	284	Pn	Pn	23 34 26.2	-1.5
VAE	Valguarnera	6.43	287	P	Pn	23 34 30.1	+2.2
	comp=Z,7.1nm,0.4s,baz=13,slow=12,SNR=6.7						
CUC	Castrocucco	6.49	311		Pn	23 34 28.5	-0.1
CUC	Castrocucco	6.49	311	P	Pn	23 34 30.3	+1.7
	comp=Z,50nm,0.9s						
ULC	Ulcinj	6.50	340	⇑*i*Pn	Pn	23 34 28.5	-0.2
ULC				*i* Sn	Sn	23 35 40.5	-1.0
ULC				AML	AML		
AKUM	Antalya-Kumluc	6.64	84	P	Pn	23 34 30.6	0.0
AKUM				S	Sn	23 35 33.8	-11
GDZ	Gediz	6.65	59	P	Pn	23 34 30.6	-0.3
GDZ				S	Sn	23 35 43.4	-2.0
PLNA	Plana	6.67	8	P	Pn	23 34 34.2	+3.1
MARCO	Tramutola	6.68	313	P	Pn	23 34 33.6	+2.3
	comp=Z,44nm,0.7s						
KORT	Korkueli	6.70	78	P	Pn	23 34 33.4	+1.9
DRME	Dracevica, Mon	6.72	341	*e*Pn	Pn	23 34 31.8	+0.1
DRME	Dracevica, Mon	6.72	341	⇓*i*Pn	Pn	23 34 31.6	-0.1
DRME				*i* Sn	Sn	23 35 46.2	-0.8
DRME				AML	AML		
BNAZ	Uak-Banaz	6.76	63	P	Pn	23 34 35.5	+3.1
VTS	Vitosha	6.79	7	P	Pn	23 34 35.4	+2.6
KZIL	AFYON_Kizioren	6.81	67	P	Pn	23 34 32.9	-0.1
BUCA	Burdur, Bucak-	6.91	75	P	Pn	23 34 34.0	-0.4
PDG	Podgorica	6.93	342		Pn	23 34 34.2	-0.4
PDG	Podgorica	6.93	342	⇓P	Pn	23 34 34.1	-0.5
PDG	Podgorica	6.93	342	*e*Pn	Pn	23 34 33.8	-0.8
PDG	Podgorica	6.93	342	⇑*i*Pn	Pn	23 34 34.4	-0.2
PDG				*i* Sn	Sn	23 35 51.1	-1.0
PDG				AML	AML		
ISP	Isparta	6.98	71	*de*P	Pn	23 34 37.5	+2.1
ISP	Isparta	6.98	71		Pn	23 34 35.8	+0.4
CEME	Cevo	7.13	340	⇑*i*Pn	Pn	23 34 36.9	-0.5
CEME				*i* Sn	Sn	23 35 55.7	-1.4
CEME				AML	AML		
HCY	Herceg Novi	7.16	338	*e*Pn	Pn	23 34 35.9	-1.9
HCY	Herceg Novi	7.16	338	⇑*i*Pn	Pn	23 34 37.7	-0.1
HCY				*i* Sn	Sn	23 35 56.5	-1.3
HCY				AML	AML		
IVA	Berane	7.21	347	⇑*i*Pn	Pn	23 34 39.4	+0.9
IVA				*i* Sn	Sn	23 35 58.4	-0.8
IVA				AML	AML		
BAGO	Egridir - ISPA	7.22	70	P	Pn	23 34 38.1	-0.6
KOME	Kolasin	7.27	344	⇑*i*Pn	Pn	23 34 39.8	+0.5
KOME				*i* Sn	Sn	23 35 59.5	-1.0
KOME				AML	AML		
NKME	Niksic	7.32	341	⇑*i*Pn	Pn	23 34 39.6	-0.4
NKME				*i* Sn	Sn	23 36 00.8	-1.1
NKME				AML	AML		
TREB	Trebinje	7.45	338	*e*Pn	Pn	23 34 40.3	-1.4
BRY	Bratogost	7.56	339	*e*Pn	Pn	23 34 43.0	-0.4
BRY	Bratogost	7.56	339	⇑*i*Pn	Pn	23 34 43.6	+0.2
BRY				*i* Sn	Sn	23 36 06.3	-1.6
BRY				AML	AML		
SJES	Sjenica	7.57	348	*e*Pn	Pn	23 34 43.0	-0.5
MPEP	Malo Peshtene	7.58	9	P	Pn	23 34 45.3	+1.9
BORA	Eskisehir	7.68	56		Pn	23 34 44.8	-0.2
KEPZ	Antalya-Kepez	7.68	80	⇑P	Pn	23 34 46.4	+1.4
SGRT	San Giovanni R	7.72	321		Pn	23 34 44.9	-0.6
PLVB	Pleven	7.74	13	⇓P	Pn	23 34 48.0	+2.2
UPM	Unac-Piva	7.74	342	*e*Pn	Pn	23 34 46.2	+0.3
PLE	Pljevlja	7.75	345	⇓*i*Pn	Pn	23 34 46.3	+0.3
PLE				*i* Sn	Sn	23 36 11.2	-1.3
PLE				AML	AML		
BOVS	Bovan	7.76	358	⇓P	Pn	23 34 46.5	+0.5
KLINJ	Klinje	7.80	340	*e*Pn	Pn	23 34 46.3	-0.3
PAOL	Paolisi	7.88	313		Pn	23 34 47.3	-0.3
BBLS	Lazi&#263i	8.26	346	*e*Pn	Pn	23 34 51.8	-1.1
INTR	Introdacqua	8.89	316		Pn	23 35 01.0	-0.5
TEKS	Tekeris	8.90	348	*e*Pn	Pn	23 35 00.2	-1.4
MDVR	Moldovita	8.91	358	⇓P	Pn	23 35 01.5	-0.3
HUMR	Humele	8.91	13	⇓P	Pn	23 35 02.5	+0.7
HERR	Herculane	9.00	1	⇑P	Pn	23 35 03.9	+0.9
KKUL	Konya-Kulu	9.15	66	P	Pn	23 35 09.5	+4.3
	comp=Z,35nm,1.0s						
CSS	Mathiatis	9.16	92		Pn	23 35 04.9	-0.3
CSS	Mathiatis	9.16	92	P	Pn	23 35 04.1	-1.1
	comp=Z,18nm,0.9s						
CSS	Mathiatis	9.16	92	P	Pn	23 35 02.2	-3.0
	comp=Z,18nm,0.9s						
CSS	Mathiatis	9.16	92	P	Pn	23 35 04.3	-0.9
	comp=Z,18nm,0.9s						
ICOR	Ion Corvin	9.30	26	⇑P	Pn	23 35 07.4	+0.3
FRGS	Fruska Gora	9.45	350	*e*Pn	Pn	23 35 07.5	-1.6
GZR	Gura Zlata	9.53	3	⇓P	Pn	23 35 10.9	+0.7
GZR	Gura Zlata	9.53	3	⇓P	Pn	23 35 10.9	+0.7
LOT	Lotru	9.65	7	⇑P	Pn	23 35 13.1	+1.2
LOT	Lotru	9.65	7	P	Pn	23 35 13.7	+1.8
	comp=Z,12nm,0.6s						
BLY	Banja Luka	9.65	338		Pn	23 35 12.2	+0.4
BLY	Banja Luka	9.65	338	⇓P	Pn	23 35 11.0	-0.8
BLY	Banja Luka	9.65	338	*e*Pn	Pn	23 35 10.6	-1.2
ARR	Arges	9.67	10	⇓P	Pn	23 35 13.7	+1.5
ARR	Arges	9.67	10	P	Pn	23 35 13.7	+1.5
	comp=Z,6.2nm,0.7s						
BZS	Buzias	9.75	358	⇓P	Pn	23 35 12.6	-0.6
BZS	Buzias	9.75	358	⇓P	Pn	23 35 12.6	-0.6
TLBR	Topalu	9.76	26	⇑P	Pn	23 35 14.8	+1.4
VOIR		9.80	12	⇑P	Pn	23 35 15.8	+1.7
VOIR		9.80	12	⇑P	Pn	23 35 15.8	+1.7
BR105	Keskin Array S	9.84	64	P	Pn	23 35 14.9	+0.2
	comp=Z,66nmcomp=Z,10nm,0.9s						
HARR	Harsova	9.85	25	⇑P	Pn	23 35 15.1	+0.6
HARR	Harsova	9.85	25	⇑P	Pn	23 35 15.1	+0.6
BR131	Keskin Array S	9.86	64	*de*P	Pn	23 35 18.2	+3.3
BR131	Keskin Array S	9.86	64		Pn	23 35 15.1	+0.1
BRTR	Keskin Array B	9.86	64	P	Pn	23 35 17.3	+2.4
	comp=Z,7.8nm,0.9s,baz=241,slow=13,SNR=38						
BRTR				LR	LR	23 39 45.2	
	comp=Z,196nm,20.4s,baz=254,slow=41						
BRTR	Keskin Array B	9.86	64	*i* P	Pn	23 35 18.3	+3.3
BRTR				pmax	pmax		
	comp=Z,8.0nm,0.9s						
BRTR	Keskin Array B	9.86	64		Pn	23 35 15.2	+0.3
NRCA	Norcia	9.87	318		Pn	23 35 15.9	+1.0
SURR	Surduc	9.88	360	⇓P	Pn	23 35 14.9	0.0
KIRS	Kirsehir-Merke	9.89	67	⇓P	Pn	23 35 18.0	+2.7
GUMA	Gualdo di Mace	9.90	319	Pn	Pn	23 35 15.5	+0.1
DEV	Deva	10.02	3	⇓P	Pn	23 35 18.7	+1.8
DEV	Deva	10.02	3	⇓P	Pn	23 35 18.7	+1.8
DEV	Deva	10.02	3	P	Pn	23 35 19.4	+2.4
	comp=Z,11nm,1.1s						
FDMO	Fiordimonte	10.02	318		Pn	23 35 17.7	+0.8
MLR	Muntele Rosu	10.03	15	P	Pn	23 35 19.3	+2.1
	comp=Z,2.1nm,0.9s,baz=289,slow=24,SNR=3.2						
MLR	Muntele Rosu	10.03	15		Pn	23 35 18.1	+0.9
MLR	Muntele Rosu	10.03	15	⇑P	Pn	23 35 19.2	+2.1
MLR	Muntele Rosu	10.03	15	P	Pn	23 35 23.7	+6.5
	comp=Z,7.0nm,1.1s						
CFR	Carcaliu	10.35	24	⇓P	Pn	23 35 22.8	+1.4
CFR	Carcaliu	10.35	24	⇓P	Pn	23 35 22.8	+1.4
DOPR	Dopca	10.38	13	⇑P	Pn	23 35 23.0	+1.2
KEST	Kesra	10.41	273	P	Pn	23 35 24.1	+1.7
	comp=Z,1.8nm,0.7s,baz=144,slow=13,SNR=2.3						
KEST				S	Sn	23 37 21.8	+3.9
	comp=Z,1.2nm,0.6s,baz=304,slow=24,SNR=1.7						
KEST				LR	LR	23 40 15.2	
	comp=Z,60nm,18.9s,baz=151,slow=42						
KEST	Kesra	10.41	273	Pn	Pn	23 35 23.5	+1.0
ILGA	Ilgaz	10.43	57		Pn	23 35 22.7	-0.1
MURB	Monte Urbino	10.48	318	Pn	Pn	23 35 22.9	-0.3
BOSR	Bodos	10.53	13	⇓P	Pn	23 35 24.7	+0.8
PLOR	Plostina	10.53	17	⇓P	Pn	23 35 24.8	+0.8
PLOR	Plostina	10.53	17	⇓P	Pn	23 35 24.8	+0.8
VRI	Vrincioaia	10.56	18	⇑P	Pn	23 35 25.5	+1.1
VRI	Vrincioaia	10.56	18	⇑P	Pn	23 35 25.5	+1.1
TURR	Turia	10.58	15	⇑P	Pn	23 35 26.3	+1.6
MORH	Mrgy, Hungar	10.67	347	⇑P	Pn	23 35 25.0	-0.8
MORH	Mrgy, Hungar	10.67	347	*e*Pn	Pn	23 35 23.7	-2.1
MORH	Mrgy, Hungar	10.67	347	P	Pn	23 35 24.3	-1.5
VSL	Villasalto	10.76	293	Pn	Pn	23 35 25.5	-1.6
DRGR		10.92	2	⇑P	Pn	23 35 30.2	+0.9
DRGR		10.92	2	⇑P	Pn	23 35 30.2	+0.9
MMAI	Mount Meron Ar	11.29	101	P	Pn	23 35 30.1	-4.4
	comp=Z,0.4nm,0.3s,baz=288,slow=9.6,SNR=6.0						

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MMAI                            S       Sn      23 37 38.7 -0.7
      comp=Z,0.7nm,0.3s,baz=5.0,slow=21,SNR=2.9
KZIT  Kziot            11.36 112  P       Pn      23 35 31.6 -3.7
      comp=Z,22nm,0.8s
GEM   Giv'at Ha'Em     11.44 100  P       Pn      23 35 33.0 -3.5
      comp=Z,0.1nm,2.5s
SALP  Salfit           11.46 106  P       Pn      23 35 33.0 -3.7
      comp=Z,248µmcomp=Z,2µmcomp=Z,26nm,0.8s
AMAZ  Amatzia          11.46 109  P       Pn      23 35 36.2 -0.6
QRNJ  Al-Qirein        11.66 104  P       Pn      23 35 35.5 -3.9
      comp=Z,15µmcomp=Z,1µm,0.7s
MPLH  Magyarpolny      11.81 344  P       Pn      23 35 40.6 -0.8
      comp=Z,701nmcomp=Z,27nm,1.0s
BMR   Baia Mare        11.84   4  P       Pn      23 35 44.0 +2.3
BMR   Baia Mare        11.84   4  P       Pn      23 35 44.0 +2.3
      comp=Z,15nm,1.1s
BUD   Budapest         11.84 350  P       Pn      23 35 45.6 +3.8
BUD                               pmax    pmax
      comp=Z,16nm,0.6s
BUD   Budapest         11.84 350  P       Pn      23 35 40.9 -0.8
      comp=Z,16nm,0.6s
MSBI  Mazada           11.90 109  P       Pn      23 35 41.4 -1.3
      comp=Z,5.1nm,1.4s
BURAR Bucovina Array   11.95  10  P       Pn      23 35 43.7 +0.2
BURAR Bucovina Array   11.95  10  Pn      Pn      23 35 43.7 +0.2
BUR08 Bucovina Ar. S   11.98  10  Pn      Pn      23 35 43.7 -0.1
SABO  M.te Sabotino    11.99 330  Pn      Pn      23 35 43.2 -0.7
LISJ  El Lisan         12.03 109  P       Pn      23 35 43.4 -1.0
      comp=Z,1µmcomp=Z,18nm,0.7s
ZCCA  Zocca            12.04 318  Pn      Pn      23 35 41.6 -2.9
SOKA  Soboth           12.05 336 i Pn     Pn      23 35 43.7 -1.0
      comp=Z,2.3nm,0.5s
SOKA                             eSn      Sn      23 37 52.1 -5.7
      comp=Z,2.4nm,0.5s
GHAJ  Ghor Haditha     12.06 108  Pn      Pn      23 35 42.1 -2.8
GHAJ  Ghor Haditha     12.06 108  P       Pn      23 35 43.7 -1.2
      comp=Z,33nm,0.6s
OBKA  Obir             12.07 334 i Pn     Pn      23 35 45.0 -0.1
      comp=Z,0.8nm,0.2s
OBKA                             eSn      Sn      23 37 54.9 -3.5
      comp=Z,8.2nm,0.6s
PRNI  Paran            12.09 113  P       Pn      23 35 43.3 -2.0
      comp=Z,39nm,0.9s
PSZ   Piszkesteto      12.16 353 ⇑P       Pn      23 35 46.1 -0.1
PSZ   Piszkesteto      12.16 353          Pn      23 35 45.7 -0.5
PSZ   Piszkesteto      12.16 353 ⇑P       Pn      23 35 46.1 -0.1
PSZ   Piszkesteto      12.16 353  P       Pn      23 35 46.3 +0.1
      comp=Z,11nm,0.8s
GAZ   Gaziantep        12.18  79          Pn      23 35 47.1 +0.5
HRFI  Mount Harif      12.27 115  P       Pn      23 35 45.1 -2.7
      comp=Z,24nm,0.9s
TEOL  Teolo            12.38 323  Pn      Pn      23 35 48.9 -0.2
ARSA  Arzberg          12.40 338          Pn      23 35 48.4 -1.2
ARSA  Arzberg          12.40 338 i Pn     Pn      23 35 48.3 -1.2
      comp=Z,1.9nm,0.4s
ARSA                             i Sn     Sn      23 38 04.6 -1.8
      comp=Z,1.3nm,0.5s
EIL   Elat             12.40 116  P       Pn      23 35 47.2 -2.4
      comp=Z,3.2nm,0.4s,baz=355,slow=1.4,SNR=14
EIL                               S       Sn      23 38 03.9 -2.6
      comp=Z,9.9nm,0.8s,baz=21,slow=15,SNR=3.8
EIL   Elat             12.40 116  P       Pn      23 35 48.1 -1.5
      comp=Z,11nm,0.7s
MYKA  Terra Mystica    12.51 332 ePn      Pn      23 35 50.6 -0.4
      comp=Z,1.8nm,0.4s
MYKA                             eSn      Sn      23 38 04.4 -4.6
      comp=Z,3.3nm,0.8s
STAL  STALIGIAL        12.58 328  Pn      Pn      23 35 52.0  0.0
RONA  Rosalia, Austr   12.60 342 ePn      Pn      23 35 51.8 -0.5
      comp=Z,1.2nm,0.4s
RONA                             eSn      Sn      23 38 12.0 +0.9
      comp=Z,0.8nm,0.3s
ASF   Jabal al Asfar   12.77 103  P       Pn      23 35 50.0 -4.6
      comp=Z,0.9nm,0.4s,baz=296,slow=23,SNR=2.8
ASF                               LR      LR      23 43 32.1
      comp=Z,61nm,18.0s,baz=194,slow=50
ASF   Jabal al Asfar   12.77 103  P       Pn      23 35 50.0 -4.6
CTI   Castel Tesino    12.89 325  P       Pn      23 35 55.4 -0.9
CTI   Castel Tesino    12.89 325          Pn      23 35 55.4 -0.9
CONA  Conrad Observa   12.93 341 i Pn     Pn      23 35 56.9 +0.2
      comp=Z,1.4nm,0.6s
KBA   Koelnbreinsper   12.99 332 i Pn     Pn      23 35 58.0 +0.3
      comp=Z,1.2nm,0.4s
KBA                              eSn      Sn      23 38 13.3 -7.7
      comp=Z,4.1nm,0.8s
ABTA  Abfaltersbach    13.05 329 ePn      Pn      23 35 58.8 +0.3
      comp=Z,0.8nm,0.2s
ABTA                             eSn      Sn      23 38 15.3 -7.0
      comp=Z,9.7nm,0.7s
KOLS  Kolonicke sedl   13.06   0  P       Pn      23 35 59.8 +1.4
KOLS  Kolonicke sedl   13.06   0  P       Pn      23 35 59.8 +1.4
      comp=Z,5.2nm,0.7s
SALO  Salr             13.13 321  Pn      Pn      23 35 58.0 -1.4
MOA   Molln            13.33 336 i Pn     Pn      23 36 00.7 -1.5
      comp=Z,1.8nm,0.3s
MOA                              eSn      Sn      23 38 23.1 -5.8
      comp=Z,1.7nm,0.3s
BIOA  Bad Ischl, Aus   13.40 334 i Pn     Pn      23 36 02.0 -1.2
      comp=Z,1.6nm,0.3s
BIOA                             i Sn     Sn      23 38 25.4 -5.3
      comp=Z,5.8nm,0.8s
LESA  Schwarzleotal    13.54 331 i Pn     Pn      23 36 06.0 +0.9
      comp=Z,1.7nm,0.4s
WTTA  Wattenberg       13.83 329 ePn      Pn      23 36 08.9 -0.3
      comp=Z,0.7nm,0.3s
KRUC  Moravsky         13.85 344 eP       P       23 36 17.9 +1.1
WATA  Walderalm        13.91 329 ePn      Pn      23 36 10.5 +0.2
      comp=Z,2.2nm,0.4s
FUORN Ofenpass-Fuorn   13.96 324  Pn      Pn      23 36 10.8 -0.3
SQTA  Sankt Quirin     13.98 328 ePn      Pn      23 36 11.3 +0.1
      comp=Z,0.8nm,0.3s
SQTA                             eSn      Sn      23 38 40.4 -4.5
      comp=Z,3.1nm,0.5s
VRAC  Vranov           14.04 345  P       Pn      23 36 13.7 +2.0
      comp=Z,1.6nm,0.6s,baz=145,slow=10,SNR=6.5
VRAC                              LR      LR      23 43 23.7
      comp=Z,111nm,19.4s,baz=160,slow=45
VRAC  Vranov           14.04 345 eP       P       23 36 18.2 -0.7
FETA  Feichten         14.04 326 ePn      Pn      23 36 11.6 -0.4
      comp=Z,0.6nm,0.5s
FETA                             eSn      Sn      23 38 41.6 -4.9
      comp=Z,1.1nm,0.6s
MOTA  Moosalm          14.12 328 ePn      Pn      23 36 13.2 +0.1
      comp=Z,0.5nm,0.3s
MOTA                             eSn      Sn      23 38 43.8 -4.7
      comp=Z,1.7nm,0.8s
KELT  Kelkit           14.13  67  P       P       23 36 16.6 -3.6
      comp=Z,36nm,0.9s
CKRC  Cesky Krumlov    14.17 338 eP       P       23 36 23.7 +3.3
DAVOX Davos/Dischmat   14.26 324  P       Pn      23 36 16.2 +1.2
      comp=Z,0.6nm,0.3s,baz=150,slow=13,SNR=3.6
DAVOX                             S       Sn      23 38 51.3 -0.6
      comp=Z,2.5nm,0.6s,baz=303,slow=18,SNR=4.4
TREC  Trest            14.28 342 eP       P       23 36 20.6 -1.0
TREC  Trest            14.28 342 eP       P       23 36 20.6 -1.0
MORC  Moravsky Berou   14.30 348  P       P       23 36 22.6 +0.7
MORC  Moravsky Berou   14.30 348  P       P       23 36 22.6 +0.7
MORC  Moravsky Berou   14.30 348 eP       P       23 36 22.9 +1.0
TUE   Stuetta          14.31 322          Pn      23 36 17.1 +1.4
RETA  Reutte           14.38 327 i Pn     Pn      23 36 17.4 +0.9
      comp=Z,1.7nm,0.5s
RETA                             i Sn     Sn      23 38 48.9 -5.7
      comp=Z,2.9nm,0.6s
GEC2  GERESS Array S   14.38 337  Pn      Pn      23 36 16.8 +0.2
GERES GERESS Array B   14.38 337  P       Pn      23 36 16.8 +0.2
      comp=Z,0.8nm,0.4s,baz=156,slow=13,SNR=6.9
GERES                             S       Sn      23 38 49.1 -5.6
      comp=Z,1.3nm,0.5s,baz=154,slow=22,SNR=6.1
GERES GERESS Array B   14.38 337  Pn      Pn      23 36 16.1 -0.5
OJC   Ojcow            14.45 354  P       Pn      23 36 18.9 +1.6
OJC   Ojcow            14.45 354  Pn      Pn      23 36 18.9 +1.6
LUBAR Lubar, Ukraine   14.62  14  P       Pn      23 36 19.0 -0.7
DAVA  Damuels          14.63 325 ePn      Pn      23 36 20.2 +0.3
      comp=Z,0.5nm,0.2s
DAVA                             i Sn     Sn      23 38 52.5 -8.2
      comp=Z,2.3nm,0.5s
ANN   Anapa            14.65  48 eP       P       23 36 24.3 -1.4
ANN                               pmax    pmax
      comp=Z,27nm,0.8s
KHC   Kasperske Hory   14.67 337 eP       Pn      23 36 21.4 +1.0
KHC   Kasperske Hory   14.67 337 eP       Pn      23 36 21.4 +1.0
KHC                              ex       x       23 36 30.5
KHC   Kasperske Hory   14.67 337          Pn      23 36 20.3 -0.1
KRLC  Kraliky          14.73 346 eP       P       23 36 24.6 -2.0
KRLC  Kraliky          14.73 346 eP       P       23 36 24.6 -2.0
KRLC  Kraliky          14.73 346  P       P       23 36 26.2 -0.4
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      comp=Z,8.5nm,0.8s
ZVC   Zvikov           14.76 339 eP       Pn      23 36 23.3 +1.8
KOPT  Kop Dagi         15.04  69          P       23 36 27.8 -2.6
KOPT                              IAmb    IAmb    23 36 45.5
      comp=Z,22nm,0.9s
DPC   Dobruska-Polom   15.08 345 eP       P       23 36 31.7 +1.2
DPC   Dobruska-Polom   15.08 345 eP       P       23 36 31.7 +1.2
DPC   Dobruska-Polom   15.08 345  P       P       23 36 32.3 +1.8
      comp=Z,5.6nm,1.0s
PRU   Pruhonice        15.16 341 eP       P       23 36 32.2 +0.8
PRU   Pruhonice        15.16 341 eP       P       23 36 32.2 +0.8
UPC   Upice            15.29 345 eP       P       23 36 34.1 +1.3
UPC   Upice            15.29 345 eP       P       23 36 34.1 +1.3
UPC   Upice            15.29 345  P       P       23 36 36.3 +3.4
      comp=Z,8.7nm,0.9s
OSTC  Ostas            15.30 345 eP       P       23 36 32.2 -0.7
OSTC  Ostas            15.30 345 eP       P       23 36 32.2 -0.7
SENIN Lac Senin/Sane   15.32 318  P       P       23 36 31.9 -1.4
CHVC  Chvalec          15.36 345 eP       P       23 36 33.4 -0.2
CHVC  Chvalec          15.36 345 eP       P       23 36 33.4 -0.2
SOC   Sochi            15.53  55 eP       P       23 36 33.2 -2.3
SOC                              e                23 39 28.2
SOC                               MLR     MLR
      comp=Z,42nm,15.0s
AK07  Malin Array Si   15.53  17  P       Pn      23 36 31.2 -0.4
KSP   Ksiaz            15.55 346  P       Pn      23 36 31.4 -0.5
      comp=Z,8.1nm,0.8s
AK13  Malin Array Si   15.56  17  P       Pn      23 36 31.5 -0.4
AK06  Malin Array Si   15.56  17  P       Pn      23 36 31.6 -0.4
AK14  Malin Array Si   15.59  17  P       Pn      23 36 31.8 -0.5
AK10  Malin Array Si   15.59  17  P       Pn      23 36 31.9 -0.5
AK05  Malin Array Si   15.60  17  P       Pn      23 36 32.0 -0.5
AK12  Malin Array Si   15.61  17  P       Pn      23 36 32.1 -0.5
AK09  Malin Array Si   15.61  17  P       Pn      23 36 32.2 -0.5
AK09                              pP      P       23 36 34.8 -1.5
AK16  Malin Array Si   15.62  17  P       Pn      23 36 32.3 -0.5
AK08  Malin Array Si   15.62  17  P       Pn      23 36 32.3 -0.5
AK17  Malin Array Si   15.62  16  P       Pn      23 36 32.3 -0.5
AK02  Malin Array Si   15.63  17  P       Pn      23 36 32.5 -0.4
AK11  Malin Array Si   15.64  17  P       Pn      23 36 32.6 -0.4
AK15  Malin Array Si   15.65  17  P       Pn      23 36 32.7 -0.4
AK01  Malin Array Si   15.67  17  P       Pn      23 36 32.9 -0.4
KIEV  Kiev             15.67  17  P       Pn      23 36 32.0 -1.3
KIEV                              pmax    pmax
      comp=Z,7.0nm,0.9s
KIEV  Kiev             15.67  17          Pn      23 36 32.0 -1.3
KIEV  Kiev             15.67  17  P       Pn      23 36 32.4 -1.0
      comp=Z,35nm,1.0s
AKASG Malin Array Be   15.68  17  P       Pn      23 36 32.7 -0.8
      comp=Z,0.7nm,0.4s,baz=218,slow=11,SNR=6.8
AKASG                             LR      LR      23 43 11.8
      comp=Z,130nm,18.0s,baz=218,slow=39
AKASG Malin Array Be   15.68  17ceP       Pn      23 36 32.4 -1.1
AKASG                             pmax    pmax
      comp=Z,2.0nm,0.5s
AKASG Malin Array Be   15.68  17  P       P       23 36 35.4 -1.7
AKBB  Malin Array Si   15.68  17  P       Pn      23 36 32.2 -1.3
AKBB                              pmax    pmax
      comp=Z,7.0nm,0.9s
AKBB  Malin Array Si   15.68  17          Pn      23 36 32.2 -1.3
AKBB  Malin Array Si   15.68  17  P       Pn      23 36 32.4 -1.1
AK04  Malin Array Si   15.69  17  P       Pn      23 36 32.5 -1.1
AK21  Malin Array Si   15.71  16  P       Pn      23 36 33.4 -0.5
ECH   Echery           16.59 323  P       Pn      23 36 44.7 -0.4
ECH                               pmax    pmax
      comp=Z,4.0nm,1.0s
ECH   Echery           16.59 323  Pn      Pn      23 36 44.7 -0.4
LABN  Labinsk          16.63  53 eP       P       23 36 46.9 -0.8
LABN                              pmax    pmax
      comp=Z,16nm,0.7s
CLL   Collm            16.78 340 eP       P       23 36 52.0 +2.8
CLL                              eS       S       23 40 00.0 -2.1
CLL                               pmax    pmax
      comp=Z,3.0nm,0.7s
CLL   Collm            16.78 340 ePx      Px      23 36 52.0
      comp=Z,3.0nm,0.7s
CLL                              i (sP)   sP      23 37 04.9 +2.1
CLL                              i x      x       23 37 49.8
CLL                              eS       S       23 40 00.0 -2.1
CLL                              eSSS     SSS     23 40 26.0
CLL                               L       L       23 42 00.0
CLL                               AMS     AMS     23 44 00.0
      comp=N,100nm,20.0s
CLL                               AMS     AMS     23 44 00.0
      comp=E,100nm,17.0s
CLL                               AMS     AMS     23 44 00.0
      comp=Z,200nm,17.8s
ERBR  Yeremizino-Bor   16.97  49 eP       P       23 36 51.7 +0.3
ERBR                             eS       S       23 40 04.7 -1.5
ERBR                              pmax    pmax
      comp=Z,33nm,0.9s
EPOS  Posof            17.00  64  P       P       23 36 53.4 +1.5
      comp=Z,18nm,1.3s
HAKT  HAKKARI          17.35  78  P       P       23 36 56.1 +0.1
      comp=Z,65nm,0.9s
KHAM  Kharkiv          17.44  32  P       Pn      23 36 55.5 -0.3
NEUR  Neytrino         17.45  59⇑eP       P       23 36 58.2 +1.3
CEST  Esterri de Car   17.52 299  Pn      Pn      23 36 55.3 -1.5
SHA1  Shidzhatmaz      17.57  57⇑eP       P       23 36 58.8 +0.5
KIV   Kislovodsk       17.66  57 eP       P       23 37 00.1 +0.9
KIV                               pmax    pmax
      comp=Z,9.0nm,1.1s
KIV                               MLR     MLR
      comp=Z,30nm,14.0s
KIV   Kislovodsk       17.66  57          P       23 36 59.6 +0.4
KIV   Kislovodsk       17.66  57  P       Pn      23 36 58.2 -0.4
      comp=Z,11nm,1.0s
KVAR  Kislovodsk Arr   17.67  57  LR      LR      23 44 41.4
      comp=Z,85nm,21.2s,baz=117,slow=40
KBZ   Khabaz           17.73  57  P       P       23 36 59.3 -0.5
      comp=Z,4.7nm,0.8s,baz=245,slow=12,SNR=10
KBZ                               LR      LR      23 45 09.3
      comp=Z,99nm,20.1s,baz=252,slow=41
KBZ   Khabaz           17.73  57deP       P       23 37 00.9 +1.1
KBZ                               pmax    pmax
      comp=Z,10.0nm,0.8s
NCK   Nalchik          18.14  59⇑eP       P       23 37 05.3 +0.9
SUW   Suwalki          18.16   2  P       Pn      23 37 03.4 -1.0
SUW   Suwalki          18.16   2  P       Pn      23 37 03.4 -1.0
GNI   Garni            18.28  70  P       Pn      23 37 06.8 +0.5
      comp=Z,11nm,0.6s,baz=282,slow=2.9,SNR=10.0
GNI                               LR      LR      23 45 46.4
      comp=Z,96nm,19.4s,baz=274,slow=42
GNI   Garni            18.28  70⇓eP       Pn      23 37 07.0 +0.7
GNI                               pmax    pmax
      comp=Z,15nm,0.8s
GNI   Garni            18.28  70          Pn      23 37 06.6 +0.3
GNI                               IAmb    IAmb    23 37 20.3
      comp=Z,16nm,0.8s
GNI   Garni            18.28  70  P       P       23 37 05.8 -0.4
      comp=Z,19nm,0.9s
GNI   Garni            18.28  70  P       Pn      23 37 08.5 +2.2
      comp=Z,19nm,0.9s
NAX   Nakhchivan       18.79  73  P       Pn      23 37 12.4 +0.1
NACGM Naroch           19.30   8⇑iP       P       23 37 17.3 +0.3
      comp=Z,46nm,0.9s,baz=191
GANJ  Ganja            19.54  69  P       Pn      23 37 20.8 -0.5
VSR   Storozhevoye     19.60  33 eP       P       23 37 20.2 -0.1
VSR                               pmax    pmax
      comp=Z,5.0nm,0.7s
BSEG  Bad Segeberg     19.87 339  P       Pn      23 37 24.4 -0.6
BSEG  Bad Segeberg     19.87 339  P       Pn      23 37 24.4 -0.6
      comp=Z,14nm,0.7s
BSD   Bornholm Skovb   19.88 348 i P      P       23 37 22.8 -0.5
VORR  Voronezh         19.95  32 eP       Pn      23 37 25.1 -0.8
VORR                              pmax    pmax
      comp=Z,9.0nm,0.6s
MNGR  Mingechevir, A   20.13  68  P       Pn      23 37 27.6 -0.6
SEKA  Sheki            20.26  67  P       Pn      23 37 29.4 -0.5
LPSR  Galich'ya Gora   20.51  30 eP       P       23 37 31.0 +0.9
LPSR                              pmax    pmax
      comp=Z,20nm,0.8s
LUNU  Lund             20.65 346 i P      P       23 37 32.1 +0.5
AKT   Akhty            20.70  67 eP       P       23 37 32.9 +0.5
AKT                              e                23 37 50.9
AKT                              ePPP     PPP     23 37 59.8
AKT                               pmax    pmax
      comp=Z,14nm,0.7s
VRH   Novokhopyorsk    20.78  36 eP       P       23 37 32.8 -0.3
VRH                               pmax    pmax
      comp=Z,16nm,0.9s
BLEU  Blekinge         20.89 350 i P      P       23 37 33.6 -0.6
ESBB  Sonseca Array    20.97 288  P       P       23 37 35.7 +0.4
ESDC  Sonseca Array    20.97 288  P       P       23 37 35.9 +0.5
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      comp=Z,2.7nm,0.8s,baz=86,slow=10,SNR=17
      comp=Z,2.7nm,0.8s
ESDC  Sonseca Array    20.97 288  P       P       23 37 35.4  0.0
PAB   San Pablo        21.27 288  P       P       23 37 39.3 +0.8
PAB                               pmax    pmax
      comp=Z,9.0nm,1.2s
PAB   San Pablo        21.27 288  P       P       23 37 39.3 +0.8
LKRN  Lenkeran, Azer   21.34  74  P       P       23 37 40.1 +0.9
DEL   Delary           21.36 347 i P      P       23 37 40.3 +1.1
OBN   Obninsk          21.65  23⇓eP       P       23 37 43.7 +1.3
OBN                              e                23 38 04.7
OBN                              ePPP     PPP     23 38 13.4
OBN                              e                23 41 43.4
OBN                               pmax    pmax
      comp=Z,21nm,0.6s
OBN                               MLR     MLR
      comp=Z,87nm,16.0s
FABU  Falkenberg       22.08 346 i P      P       23 37 48.0 +1.1
MDT   Midelt           22.29 270  LR      LR      23 48 47.2
      comp=Z,77nm,18.4s,baz=86,slow=43
MOS   Moscow           22.51  23 eP       P       23 37 51.9 +0.3
MOS                              eS       S       23 41 58.5 +2.8
MOS                              eSS      SnSn    23 42 35.5 +9.0
MOS                               pmax    pmax
      comp=Z,22nm,0.7s
VSU   Vasula           22.80   6⇑eP       P       23 37 55.3 +0.6
VSU                               pmax    pmax
      comp=Z,54nm,1.6s
RAYN  Ar Rayn          23.65 115  P       P       23 38 04.3 +0.9
RAYN                              pmax    pmax
      comp=Z,3.0nm,0.9s
RAYN  Ar Rayn          23.65 115  P       P       23 38 04.3 +0.9
RAYN  Ar Rayn          23.65 115  P       P       23 38 03.0 -0.5
      comp=Z,4.9nm,0.8s
MTE   Manteigas        23.74 290  P       P       23 38 03.7 -0.5
MTE                               IAmb    IAmb    23 38 06.5
      comp=Z,5.4nm,0.8s
BELG  Belogornoye      24.44  40ceP       P       23 38 10.1 -0.3
BELG                              pmax    pmax
      comp=Z,9.0nm,0.9s
HFS   Hagfors          24.89 350  P       P       23 38 14.7 +0.3
      comp=Z,6.3nm,0.4s,baz=146,slow=11,SNR=41
HFS                               LR      LR      23 49 50.3
      comp=Z,56nm,19.1s,baz=151,slow=41
      comp=Z,6.3nm,0.4s
KONO  Kongsberg        25.16 345  P       P       23 38 16.2 -0.7
KONO                              pmax    pmax
      comp=Z,11nm,1.0s
KONO  Kongsberg        25.16 345  P       P       23 38 16.2 -0.7
KONO                              IAmb    IAmb    23 38 30.9
      comp=Z,11nm,1.0s
OSL   Oslo             25.20 346 eP       P       23 38 17.3 +0.1
FINES FINESS Array B   25.71   4  P       P       23 38 21.4 -0.5
      comp=Z,1.2nm,0.3s,baz=159,slow=10,SNR=12
FINES                             LR      LR      23 49 43.3
      comp=Z,134nm,19.3s,baz=209,slow=39
      comp=Z,1.2nm,0.3s
FINES FINESS Array B   25.71   4 i P      P       23 38 22.7 +0.9
FINES                             pmax    pmax
      comp=Z,1.0nm,0.3s
FINES FINESS Array B   25.71   4  P       P       23 38 21.0 -0.9
FIA1  FINESS Array S   25.72   4  P       P       23 38 22.3 +0.5
NC602 NORSAR Array S   25.80 348 eP       P       23 38 22.5 -0.2
NC602 NORSAR Array S   25.80 348  P       P       23 38 21.9 -0.7
NC602                             IAmb    IAmb    23 38 28.1
      comp=Z,7.9nm,0.9s
NORES NORESS Array B   25.80 348  P       P       23 38 24.3 +1.7
NAO01 NORSAR Array S   26.02 347  P       P       23 38 23.8 -0.8
NAO01                             IAmb    IAmb    23 38 32.2
      comp=Z,14nm,1.1s
EKA   Eskdalemuir Ar   26.07 326  P       P       23 38 25.7 +0.6
      comp=Z,4.3nm,0.4s,baz=128,slow=8.0,SNR=41
      comp=Z,4.3nm,0.4s
EKA   Eskdalemuir Ar   26.07 326  P       P       23 38 25.8 +0.6
EKA                               pmax    pmax
      comp=Z,8.0nm,1.2s
ESK   Eskdalemuir      26.08 326  P       P       23 38 25.5 +0.2
ESK                               pmax    pmax
      comp=Z,6.0nm,0.8s
ESK   Eskdalemuir      26.08 326  P       P       23 38 25.5 +0.2
ESK                               IAmb    IAmb    23 38 43.7
      comp=Z,6.3nm,0.8s
EKB   Eskdalemuir      26.09 326  P       P       23 38 26.1 +0.8
NC405 NORSAR Array S   26.13 348  P       P       23 38 24.9 -0.7
NC405                             IAmb    IAmb    23 38 39.6
      comp=Z,6.2nm,0.8s
NB201 NORSAR Array S   26.14 348  P       P       23 38 25.8 +0.1
NB201                             IAmb    IAmb    23 38 28.9
      comp=Z,12nm,0.9s
NB2   NORSAR Subarra   26.14 348  P       P       23 38 26.3 +0.5
      comp=Z,3.1nm,0.9s,baz=160,slow=9.3
NB2   NORSAR Subarra   26.14 348  P       P       23 38 26.3 +0.5
NOA   NORSAR Array B   26.14 348  P       P       23 38 26.2 +0.5
      comp=Z,1.1nm,0.7s,baz=160,slow=9.9,SNR=8.7
      comp=Z,1.1nm,0.7s
NBO00 NORSAR Array S   26.21 347  P       P       23 38 27.0 +0.6
NBO00                             IAmb    IAmb    23 38 27.7
      comp=Z,14nm,1.1s
NC303 NORSAR Array S   26.29 348  P       P       23 38 27.8 +0.8
NC303                             IAmb    IAmb    23 38 29.4
      comp=Z,11nm,1.0s
SKAR  Skarslia         26.37 345 eP       P       23 38 29.4 +1.5
NC204 NORSAR Array S   26.44 348  P       P       23 38 28.9 +0.4
NC204                             IAmb    IAmb    23 38 33.0
      comp=Z,8.5nm,1.1s
DSB   Dublin           26.48 320  P       P       23 38 29.4 +0.5
DSB                               IAmb    IAmb    23 38 31.9
      comp=Z,10nm,1.0s
DOMB  Dombas           27.46 347 eP       P       23 38 38.4 +0.8
KIRV  Kirov            28.94  30  P       P       23 38 49.6 -1.1
      comp=Z,6.8nm,0.5s,baz=181,slow=4.6,SNR=4.2
KIRV                              LR      LR      23 51 03.6
      comp=Z,47nm,18.7s,baz=221,slow=38
      comp=Z,6.8nm,0.5s
TORD  Torodi Ar. Bea   29.18 224  P       P       23 38 52.6 -0.8
      comp=Z,2.0nm,0.6s,baz=37,slow=8.9,SNR=12
      comp=Z,2.0nm,0.6s
NSS   Namsos           29.35 351 eP       P       23 38 54.9 +0.5
AKTO  Aktyubinsk       29.60  49  LR      LR      23 54 26.6
      comp=Z,41nm,18.7s,baz=314,slow=44
AB31  Akbulak array    30.54  52  P       P       23 39 03.9 -1.1
ABKAR Akbulak array    30.54  52  P       P       23 39 04.0 -1.0
ATD   Arta Tunnel      30.62 137  P       P       23 39 07.1 +0.9
ATD                               IAmb    IAmb    23 39 24.3
      comp=Z,5.8nm,1.0s
UOSS  Minazif          31.17 101  P       P       23 39 10.5 -0.4
UOSS                              IAmb    IAmb    23 39 12.0
      comp=Z,5.4nm,0.8s
VAGH  Vaagaholmen      31.33 353 eP       P       23 39 13.6 +1.7
ARTI  Arti             31.87  38  LR      LR      23 54 05.9
      comp=Z,48nm,19.5s,baz=204,slow=40
ARTI  Arti             31.87  38c iP      P       23 39 16.0 -0.7
ARTI                                              23 40 18.3
ARTI                              S       S       23 44 29.7 +5.1
ARTI                              SS      SnSn    23 46 16.0 +1.2
ARTI                              pmax    pmax
      comp=Z,13nm,1.1s
ARTI  Arti             31.87  38  P       P       23 39 15.8 -0.9
KTK1  Kautokeino       33.20   1 eP       P       23 39 28.9 +0.7
JETT  Jettan, Norway   33.76 359 eP       P       23 39 33.8 +0.7
ARA0  ARCESS Array S   33.77   2 eP       P       23 39 33.3 +0.1
ARCES ARCESS Array B   33.77   2  P       P       23 39 32.8 -0.3
      comp=Z,6.2nm,0.5s,baz=185,slow=9.3,SNR=50
ARCES                             PcP     PcP     23 42 11.8 +0.1
      comp=Z,2.3nm,0.8s,baz=147,slow=5.2,SNR=1.6
ARCES                             LR      LR      23 54 34.1
      comp=Z,92nm,18.6s,baz=206,slow=38
      comp=Z,6.2nm,0.5s
ARCES ARCESS Array B   33.77   2  P       P       23 39 33.2  0.0
ARCES                             pmax    pmax
      comp=Z,6.0nm,0.6s
ARCES ARCESS Array B   33.77   2  P       P       23 39 33.2  0.0
TRO   Tromso           33.87 358 eP       P       23 39 34.3 +0.4
KEV   Kevo             34.05   3  P       P       23 39 35.8 +0.3
KEV                               pmax    pmax
      comp=Z,11nm,1.0s
KEV   Kevo             34.05   3  P       P       23 39 35.8 +0.3
VADS  Vadso            34.53   4 eP       P       23 39 40.6 +0.9
HAMF  Hammerfest       34.84   1 eP       P       23 39 43.2 +0.8
KK31  Karatay Array    37.58  64  P       P       23 40 06.4 +0.2
KK31                              pmax    pmax
      comp=Z,2.0nm,0.6s
KK31  Karatay Array    37.58  64  P       P       23 40 06.4 +0.2
KK31                              IAmb    IAmb    23 40 07.6
      comp=Z,1.9nm,0.6s
```

KKAR	**Karatay Array**	**37.58**	**64**	P	**P**	**23 40 06.2**	**0.0**
KKAR	**Karatay Array**	**37.58**	**64**	P	**P**	**23 40 06.2**	**0.0**
BORK	**Borovoye**	**37.61**	**47**	⇓*e*P	**P**	**23 40 06.9**	**+0.6**
BORK				pmax	pmax		
	comp=Z,2.0nm,0.8s						
BORK	**Borovoye**	**37.61**	**47**	P	**P**	**23 40 06.6**	**+0.3**
BORK				IAmb	IAmb	23 40 23.6	
	comp=Z,2.0nm,0.6s						
BVAR	**Borovoye Array**	**37.65**	**48**	P	**P**	**23 40 06.2**	**-0.5**
	comp=Z,1.7nm,0.6s,baz=264,slow=9.1,SNR=8.5						
	comp=Z,1.7nm,0.6s						
DBIC	**Dimbokro**	**38.18**	**227**	P	**P**	**23 40 11.3**	**-0.1**
	comp=Z,5.0nm,0.6s,baz=36,slow=8.8,SNR=7.3						
	comp=Z,5.0nm,0.6s						
DBIC	**Dimbokro**	**38.18**	**227**	P	**P**	**23 40 11.2**	**-0.3**
BTK	**Batken**	**38.21**	**69**	P	**P**	**23 40 12.7**	**+1.1**
BTK				pmax	pmax		
	comp=Z,3.0nm,1.1s						
BTK	**Batken**	**38.21**	**69**	P	**P**	**23 40 12.7**	**+1.1**
BTK				IAmb	IAmb	23 40 15.3	
	comp=Z,3.0nm,1.1s						
ARSB	**Arslanbob**	**39.62**	**66**	P	**P**	**23 40 24.3**	**+0.8**
ARSB				pmax	pmax		
	comp=Z,8.0nm,1.2s						
ARSB	**Arslanbob**	**39.62**	**66**	P	**P**	**23 40 24.3**	**+0.8**
ARSB				IAmb	IAmb	23 40 33.4	
	comp=Z,8.1nm,1.2s						
AAK	**Ala-Archa**	**40.54**	**64**	LR	LR	00 01 07.2	
	comp=Z,49nm,18.1s,baz=268,slow=42						
BOOM	**Boomskoye usch**	**41.62**	**64**	P	**P**	**23 40 40.7**	**+0.7**
BOOM				pmax	pmax		
	comp=Z,11nm,1.1s						
BOOM	**Boomskoye usch**	**41.62**	**64**	P	**P**	**23 40 40.7**	**+0.7**
BOOM				IAmb	IAmb	23 40 46.3	
	comp=Z,11nm,1.1s						
KSH2	**Kashi**	**41.98**	**69**	P	**P**	**23 40 43.5**	**+0.5**
KSH2				pmax	pmax		
	comp=Z,4.0nm,0.6s						
SPB2	**Spitsbergen Ar**	**42.48**	**358**	P	**P**	**23 40 47.4**	**+1.0**
SPA0	**Spitsbergen Ar**	**42.49**	**358**	*e*P	**P**	**23 40 47.5**	**+1.1**
SPITS	**Spitsbergen Ar**	**42.49**	**358**	P	**P**	**23 40 46.8**	**+0.4**
	comp=Z,52nm,1.3s,baz=143,slow=11,SNR=5.9						
	comp=Z,52nm,1.3s						
KURBB	**Kurchatov Arra**	**42.59**	**52**	P	**P**	**23 40 47.2**	**-0.3**
	comp=Z,2.0nm,0.4s,baz=274,slow=8.7,SNR=30						
KURBB				PcP	**PcP**	**23 42 40.4**	**+1.2**
	comp=Z,0.3nm,0.5s,baz=267,slow=1.9,SNR=2.8						
KURBB				LR	LR	00 03 37.1	
	comp=Z,43nm,18.4s,baz=196,slow=43						
	comp=Z,2.0nm,0.4s						
KURK	**Kurchatov**	**42.64**	**51**	⇓*e*P	**P**	**23 40 48.2**	**+0.2**
KURK				pmax	pmax		
	comp=Z,5.0nm,1.5s						
PDGK	**Podgornoye**	**44.04**	**62**	P	**P**	**23 41 00.1**	**+0.5**
PDGK	**Podgornoye**	**44.04**	**62**	P	**P**	**23 41 00.1**	**+0.5**
MK31	**Makanchi Array**	**45.43**	**57**	*c i*P	**P**	**23 41 09.9**	**-0.5**
MK31	**Makanchi Array**	**45.43**	**57**	P	**P**	**23 41 10.7**	**+0.3**
MKAR	**Makanchi Array**	**45.43**	**57**	P	**P**	**23 41 10.1**	**-0.3**
	comp=Z,7.5nm,0.5s,baz=269,slow=7.8,SNR=122						
MKAR				PcP	**PcP**	**23 42 49.6**	**+0.6**
	comp=Z,1.1nm,0.6s,baz=273,slow=3.0,SNR=1.8						
	comp=Z,7.5nm,0.5s						
MKAR	**Makanchi Array**	**45.43**	**57**	P	**P**	**23 41 10.3**	**-0.1**
MKAR	**Makanchi Array**	**45.43**	**57**	P	**P**	**23 41 10.3**	**-0.1**
ZAA0	**Zalesovo Array**	**46.28**	**47**	P	**P**	**23 41 16.6**	**-0.4**
ZAA0				IAmb	IAmb	23 41 21.4	
	comp=Z,2.5nm,0.6s						
ZALV	**Zalesovo Beam**	**46.28**	**47**	P	**P**	**23 41 15.9**	**-1.1**
	comp=Z,2.4nm,0.4s,baz=264,slow=9.7,SNR=17						
	comp=Z,2.4nm,0.4s						
ZALV	**Zalesovo Beam**	**46.28**	**47**	*i* P	**P**	**23 41 16.2**	**-0.8**
ZALV				pmax	pmax		
	comp=Z,2.0nm,0.4s						
ZALV	**Zalesovo Beam**	**46.28**	**47**	P	**P**	**23 41 16.7**	**-0.3**
NRIK	**Noril'sk**	**48.28**	**26**	LR	LR	00 04 34.4	
	comp=Z,50nm,18.8s,baz=328,slow=39						
DGZ	**Jazzator, Alta**	**48.37**	**52**	⇓*i*P	**P**	**23 41 34.0**	**+0.5**
DGZ				pmax	pmax		
	comp=Z,2.0nm,0.6s						
WMQ	**Urumqi**	**49.76**	**60**	*e*P	**P**	**23 41 45.0**	**+0.9**
WMQ				sP	sP	23 41 57.0	-1.5
WMQ				PcP	**PcP**	**23 43 07.8**	**+3.2**
WMQ				pmax	pmax		
	comp=Z,11nm,0.9s						
KNGR	**Kungurtug, Tuv**	**54.52**	**49**	⇑*i*P	**P**	**23 42 20.5**	**+1.1**
KNGR				pmax	pmax		
	comp=Z,6.0nm,1.1s						
EVN	**Everest**	**54.58**	**79**	P	**P**	**23 42 20.9**	**+0.1**
TSUM	**Tsumeb**	**54.94**	**185**	LR	LR	00 07 42.2	
	comp=Z,48nm,18.1s,baz=353,slow=38						
GRTLG	**Ghanzi**	**56.93**	**181**	P	**P**	**23 42 37.3**	**+0.4**
GRTLG				IAmb	IAmb	23 42 38.9	
	comp=Z,1.9nm,0.8s						
DRLN	**Deer Lake**	**57.58**	**310**	P	**P**	**23 42 39.7**	**-1.5**
GTA2	**Gaotai**	**59.70**	**61**	*e*P	**P**	**23 42 56.8**	**+0.5**
GTA2				pmax	pmax		
	comp=Z,7.0nm,0.6s						
SONM	**Songino Array**	**60.92**	**50**	P	**P**	**23 43 04.4**	**0.0**
	comp=Z,1.9nm,0.6s,baz=288,slow=9.2,SNR=11						
SONM				LR	LR	00 12 03.2	
	comp=Z,28nm,20.0s,baz=329,slow=38						
	comp=Z,1.9nm,0.6s						
SONM	**Songino Array**	**60.92**	**50**	P	**P**	**23 43 04.3**	**-0.2**
SONM				IAmb	IAmb	23 43 05.5	
	comp=Z,3.2nm,1.1s						
ULN	**Ulaanbaatar**	**61.31**	**50**	*ce*P	**P**	**23 43 07.4**	**+0.2**
ULN				pmax	pmax		
	comp=Z,5.0nm,0.9s						
ULN	**Ulaanbaatar**	**61.31**	**50**	P	**P**	**23 43 05.3**	**-1.9**
TIXI	**Tiksi**	**61.35**	**20**	LR	LR	00 13 31.8	
	comp=Z,98nm,18.4s,baz=354,slow=40						
LZDM	**Lanzhou Array**	**64.02**	**63**	P	**P**	**23 43 25.3**	**-0.3**
	comp=Z,1.6nm,0.3s,baz=312,slow=9.4,SNR=1.9						
	comp=Z,1.6nm,0.3s						
LZH	**Lanzhou**	**64.07**	**63**	*e*P	**P**	**23 43 24.3**	**-1.4**
LZH				pP	pP	23 43 32.8	-3.3
LZH				pmax	pmax		
	comp=Z,24nm,1.1s						
BOSA	**Boshof**	**64.20**	**177**	P	**P**	**23 43 25.9**	**-0.6**
	comp=Z,1.4nm,0.6s,baz=18,slow=8.3,SNR=5.2						
BOSA				LR	LR	00 14 12.2	
	comp=Z,40nm,18.9s,baz=355,slow=38						
	comp=Z,1.4nm,0.6s						
BOSA	**Boshof**	**64.20**	**177**	P	**P**	**23 43 26.1**	**-0.3**
BOSA	**Boshof**	**64.20**	**177**	P	**P**	**23 43 26.1**	**-0.3**
YAK	**Yakutsk**	**66.47**	**29**	LR	LR	00 14 56.5	
	comp=Z,32nm,19.2s,baz=292,slow=38						
YAK	**Yakutsk**	**66.47**	**29**	⇓*e*P	**P**	**23 43 40.5**	**-0.1**
YAK				pmax	pmax		
	comp=Z,14nm,0.6s						
SUR	**Sutherland**	**67.91**	**181**	LR	LR	00 16 05.4	
	comp=Z,81nm,19.6s,baz=352,slow=38						
HILR	**Hailar Array B**	**68.11**	**44**	P	**P**	**23 43 51.0**	**-0.3**
	comp=Z,0.5nm,0.3s,baz=301,slow=6.2,SNR=2.4						
	comp=Z,0.5nm,0.3s						
CMAR	**Chiang Mai Arr**	**68.91**	**82**	P	**P**	**23 43 56.0**	**-0.6**
	comp=Z,1.0nm,0.3s,baz=306,slow=7.5,SNR=6.9						
	comp=Z,1.0nm,0.3s						
CMAR	**Chiang Mai Arr**	**68.91**	**82**	*ce*P	**P**	**23 43 56.7**	**0.0**
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
KLR	**Kul'dur**	**74.81**	**40**	LR	LR	00 19 30.5	
	comp=Z,48nm,18.1s,baz=5.0,slow=37						
KLR	**Kul'dur**	**74.81**	**40**	⇑*e*P	**P**	**23 44 31.9**	**+0.3**
KLR				pmax	pmax		
	comp=Z,8.0nm,1.8s						
MA2	**Magadan**	**75.86**	**24**	LR	LR	00 22 12.3	
	comp=Z,38nm,18.4s,baz=279,slow=39						
USRK	**Ussuriysk Ar.**	**78.04**	**44**	P	**P**	**23 44 49.8**	**-0.3**
	comp=Z,2.3nm,0.7s,baz=321,slow=3.7,SNR=3.5						
	comp=Z,2.3nm,0.7s						
I28M	**Miner Creek**	**78.05**	**352**	P	**P**	**23 44 50.9**	**+1.1**
ULM	**Lac du Bonnet**	**78.34**	**325**	P	**P**	**23 44 50.9**	**-0.7**
	comp=Z,2.3nm,0.4s,baz=31,slow=7.0,SNR=4.2						
	comp=Z,2.3nm,0.4s						
ULM	**Lac du Bonnet**	**78.34**	**325**	P	**P**	**23 44 51.6**	**+0.1**
ULM				pmax	pmax		
	comp=Z,4.0nm,0.9s						
ULM	**Lac du Bonnet**	**78.34**	**325**	P	**P**	**23 44 51.6**	**+0.1**
ULM				IAmb	IAmb	23 44 53.4	
	comp=Z,3.6nm,0.9s						
ILAR	**Eielson Array**	**79.32**	**355**	P	**P**	**23 44 56.8**	**+0.2**
	comp=Z,0.2nm,0.6s,baz=17,slow=2.4,SNR=1.9						
	comp=Z,0.2nm,0.6s						
KSRS	**Korea Array**	**79.76**	**51**	P	**P**	**23 44 58.9**	**-0.7**
	comp=Z,2.0nm,0.6s,baz=301,slow=5.6,SNR=5.5						
	comp=Z,2.0nm,0.6s						
PEA0B	**Petropavlovsk-**	**83.34**	**25**	*ce*P	**P**	**23 45 17.4**	**-0.8**
WRA	**Warramunga Arr**	**119.09**	**94**	PKP	**PKPdf**	**23 51 40.0**	**-0.5**
	comp=Z,0.3nm,0.6s,baz=319,slow=1.8,SNR=2.5						
WRA	**Warramunga Arr**	**119.09**	**94**	PKIKP	**PKPdf**	**23 51 40.0**	**-0.5**
ASAR	**Alice Springs**	**120.58**	**98**	PKP	**PKPdf**	**23 51 43.0**	**-0.3**
	comp=Z,0.4nm,0.6s,baz=285,slow=2.2,SNR=2.0						
ASAR	**Alice Springs**	**120.58**	**98**	PKIKP	**PKPdf**	**23 51 43.0**	**-0.3**

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*SSNC **18** 00:10:48.4±1.4, 19°.12N×80°.46W, h7^{km}±9^{km}, MD3.9, ML3.1, Presumed earthquake*

*JSN **18** 00:10:49.5±0.9, 18°.43N×80°.25W, h1^{km}±40^{km}, MD4.1, Presumed earthquake*

ISC 18 00:10:44.8±1.5**, 18°.98N**±0°.05×**80°.44W**±0°.04**, h11**^{km}±11^{km}**,**
n21, σ1^{s}.**97**/36**, 5C-4D, North of Honduras**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
FSCY	**Frank Sound, G**	**0.78**	**295**	⇑*i*P	**Pg**	**00 11 00.4**	**+0.4**
FSCY				*i* S	**Sg**	**00 11 09.3**	**-0.9**
FSCY				IAML		00 11 09.8	
	comp=E,2μm,0.5s						
FSCY				IAML		00 11 10.5	
	comp=N,980nm,0.3s						
CBCY	**The Bluff, Cay**	**0.99**	**40**	⇓*i*P	**Pg**	**00 11 04.2**	**+0.3**
CBCY				⇓*e*S	**Sg**	**00 11 14.4**	**-2.4**
CBCY				IAML		00 11 17.6	
	comp=E,328nm,0.4s						
CBCY				IAML		00 11 17.6	
	comp=N,332nm,0.1s						
MCJ	**Malvern**	**2.81**	**111**	*i* P	**Pn**	**00 11 30.5**	**+0.7**
CVJ	**Coleyville**	**2.85**	**105**	⇑*i*P	**Pn**	**00 11 31.3**	**+0.9**
CVJ				⇑*i*S	**Sn**	**00 12 02.7**	**-2.1**
CVJ				*i* S	Sb	00 12 02.9	-7.8
MTDJ	**Mount Denham**	**2.85**	**105**	*e*P	**Pn**	**00 11 31.2**	**+0.8**
MTDJ				*e*S	**Sn**	**00 12 02.8**	**-2.0**
MTDJ				IAML		00 12 05.7	
	comp=N,115nm,0.8s						
MTDJ				IAML		00 12 06.2	
	comp=N,53nm,0.7s						
PILO	**Pilon**	**3.01**	**72**	*e*P	**Pn**	**00 11 33.6**	**+1.1**
PILO				*e*S	**Sn**	**00 12 07.0**	**-1.5**
PILO				IAML		00 12 09.7	
	comp=N,459nm,0.7s						
PILO				IAML		00 12 10.4	
	comp=E,554nm,0.7s						
MGV	**Manicaragua**	**3.15**	**8**	*e*P	**Pn**	**00 11 34.0**	**-0.4**
MGV				*e*S	**Sn**	**00 12 08.8**	**-3.1**
MGV				IAML		00 12 11.0	
	comp=E,117nm,0.8s						
MGV				IAML		00 12 12.6	
	comp=N,140nm,0.2s						
CCCC	**Cccc**	**3.34**	**48**	*e*P	Pn	00 11 42.2	+5.2
CCCC				*e*S	**Sb**	**00 12 24.9**	**0.0**
CCCC				IAML		00 12 27.3	
	comp=N,7.0nm,0.4s						
CCCC				IAML		00 12 30.1	
	comp=E,10nm,0.9s						
PCJ	**Portland Cotta**	**3.35**	**111**	*i* P	**Pn**	**00 11 38.1**	**+1.0**
LMGC	**Las Mercedes**	**3.41**	**71**	*e*P	**Pn**	**00 11 40.0**	**+2.1**
LMGC				*e*S	**Sn**	**00 12 17.6**	**-0.9**
LMGC				IAML		00 12 20.2	
	comp=E,17nm,0.1s						
LMGC				IAML		00 12 20.7	
	comp=N,13nm,0.1s						
STH	**Stony Hill**	**3.56**	**104**	*i* P	**Pn**	**00 11 40.8**	**+0.8**
STH				*i* P	Pb	00 11 40.9	-6.9
STH				⇓*i*S	**Sn**	**00 12 20.3**	**-1.7**
CAIB	**Caibarien**	**3.61**	**14**	*e*P	**Pn**	**00 11 42.2**	**+1.5**
CAIB				*e*S	**Sn**	**00 12 23.1**	**-0.2**
CAIB				IAML		00 12 26.0	
	comp=E,31nm,0.1s						
CAIB				IAML		00 12 27.2	
	comp=N,18nm,0.3s						
GWJ	**Greenwich**	**3.63**	**104**	⇑*i*P	**Pn**	**00 11 42.2**	**+1.0**
GWJ				⇑*i*P	Pb	00 11 42.2	-6.9
CHIV	**Chivirico**	**3.92**	**75**	*e*P	**Pn**	**00 11 46.9**	**+1.9**
CHIV				*e*S	**Sn**	**00 12 29.8**	**-1.2**
CHIV				IAML		00 12 33.0	
	comp=N,5.1nm,0.2s						
CHIV				IAML		00 12 33.1	
	comp=E,4.8nm,0.1s						
YAR	**Yar**	**4.08**	**69**	*e*P	**Pn**	**00 11 50.0**	**+2.8**
YAR				*e*S	**Sn**	**00 12 35.6**	**+0.6**
YAR				IAML		00 12 45.3	
	comp=E,20nm,1.1s						
YAR				IAML		00 12 45.5	
	comp=N,15nm,2.2s						
MARVS	**Santiago de Cu**	**4.40**	**76**	*e*P	**Pn**	**00 11 54.6**	**+3.1**
MARVS				*e*S	**Sn**	**00 12 39.0**	**-3.8**
MARVS				IAML		00 12 40.4	
	comp=N,3.0nm,0.4s						
MARVS				IAML		00 12 42.7	
	comp=E,2.4nm,0.3s						
SOR	**Soroa**	**4.49**	**328**	*i* P	**Pn**	**00 11 54.4**	**+1.5**
SOR				*e*S	**Sn**	**00 12 44.1**	**-1.0**
SOR				IAML		00 12 47.7	
	comp=E,11nm,0.2s						
SOR				IAML		00 12 49.7	
	comp=N,13nm,1.3s						
HLGC	**Holguin**	**4.54**	**64**	*e*P	**Pn**	**00 11 55.7**	**+2.3**
HLGC				*e*S	**Sn**	**00 12 47.8**	**+1.5**
HLGC				IAML		00 12 53.6	
	comp=N,9.1nm,1.0s						
HLGC				IAML		00 12 57.5	
	comp=E,10nm,0.9s						
PINC	**Pinares de May**	**4.63**	**70**	*e*P	**Pn**	**00 11 57.0**	**+2.3**
PINC				*e*S	**Sn**	**00 12 48.8**	**+0.4**
PINC				IAML		00 12 53.6	
	comp=N,7.8nm,0.9s						
PINC				IAML		00 12 57.0	
	comp=E,7.1nm,0.3s						
GTBY	**Guantanamo Bay**	**5.11**	**78**	⇓*i*P	**Pn**	**00 12 06.0**	**+4.6**
QMBU	**Quimbuelo**	**5.44**	**76**	*e*S	**Sn**	**00 13 06.0**	**-2.5**
QMBU				IAML		00 13 12.5	
	comp=N,4.4nm,0.7s						
QMBU				IAML		00 13 14.1	
	comp=E,5.2nm,1.1s						

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*TIF **18** 00:15:09.8, 38°.69N×41°.98E, h5^{km}±1^{km}*

*ISK **18** 00:15:09.3, 38°.67N×41°.96E, h5^{km}, ML4.0/16*

*IDC **18** 00:15:09.7±0.6, 38°.59N×42°.19E, h0^{km}, mb3.8/15, mbtmp3.7/25, ML3.2/9, MS3.0/12, Error ellipse: s-maj=13.0km s-min=7.0km az=136.0*

*AFAD **18** 00:15:10.5, 38°.69N×41°.99E, h13^{km}±2^{km}, MW4.2*

*MCSM **18** 00:15:13.7±0.4, 39°N±6°×4°2E±°, h5^{km}, mb3.9, mB4.6, MLv3.8, Mw(mB)3.8*

*NEIC **18** 00:15:13.7±2.6, 38°.77N±0°.05×42°.21E±0°.05, h10^{km}±1^{km}, mb4.0/25, Error ellipse: s-maj=10.0km s-min=5.7km az=210.0*

ISC 18 00:15:10.8±1.1**, 38°.74N**±0°.02×**42°.05E**±0°.02**, h1**^{km}±8^{km}**,**
n171, σ1^{s}.**93**/191**, mb4.0**/37**, MS3.1**/6**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
BLIS	**Bitlis-Merkez**	**0.33**	**171**	P	**Pg**	**00 15 17.0**	**-0.1**
BLIS				S	**Sg**	**00 15 20.7**	**-0.6**
MUSM	**Mu-Merkez**	**0.42**	**268**	P	**Pg**	**00 15 18.0**	**-0.9**
MUSM				S	**Sg**	**00 15 23.4**	**-1.0**
ADCV	**BITLIS_Adilcev**	**0.53**	**82**	P	**Pb**	**00 15 22.2**	**-0.8**
ADCV				S	**Sb**	**00 15 30.2**	**-1.1**
MLAZ	**Malazgirt-MUS**	**0.56**	**44**	Pg	**Pb**	**00 15 23.2**	**-0.3**
MLAZ				Sg	**Sn**	**00 15 33.2**	**-2.9**
MLAZ				AML	AML		
VRTB	**Varto-Mus**	**0.63**	**312**	Pg	**Pg**	**00 15 22.8**	**0.0**
VRTB				AML	AML		
VRTB	**Varto-Mus**	**0.63**	**312**	P	**Pg**	**00 15 22.8**	**0.0**
VRTB				S	**Sg**	**00 15 28.9**	**-2.0**
SRTM	**Siirt_Merkez**	**0.75**	**188**	P	**Pg**	**00 15 25.2**	**-0.1**
SRTM				S	**Sg**	**00 15 35.5**	**+0.4**
SLHN	**Bingol, Solhan**	**0.83**	**285**	P	**Pg**	**00 15 25.5**	**-1.3**
AKDM	**Akdamar-Van**	**0.84**	**119**	Pg	**Pg**	**00 15 27.3**	**+0.5**
AKDM				AML	AML		
DORK	**Agr/Tutak/Do**	**0.86**	**41**	P	**Pg**	**00 15 27.9**	**+0.6**
DORK				S	**Sg**	**00 15 38.4**	**-0.1**
PERV	**Siirt/Pervari-**	**0.88**	**154**	P	**Pg**	**00 15 27.7**	**+0.1**
PERV				S	**Sg**	**00 15 38.7**	**-0.4**
GEVA	**Gevas**	**0.90**	**118**	P	**Pg**	**00 15 28.5**	**+0.4**
GEVA	**Gevas**	**0.90**	**118**		**Pg**	**00 15 28.4**	**+0.4**
GEVA				Sg	**Sb**	**00 15 40.8**	**-1.1**
KARO	**Karliova-Bingo**	**0.96**	**306**	Pg	**Pb**	**00 15 28.8**	**-1.7**
KARO				Sg	**Sb**	**00 15 43.3**	**-0.5**
KARO				AML	AML		
ERCV	**ERCIS-VAN**	**1.04**	**74**	Pn	**Pn**	**00 15 32.2**	**-0.6**
ERCV				AML	AML		
ERCV	**ERCIS-VAN**	**1.04**	**74**	P	**Pn**	**00 15 31.7**	**-1.1**
ERCV				S	**Sn**	**00 15 45.1**	**-3.0**
BTMN	**Batman**	**1.05**	**216**	P	**Pb**	**00 15 31.1**	**-0.7**
BTMN				S	**Sb**	**00 15 43.5**	**-2.6**
VANB	**Van**	**1.06**	**97**	Pn	**Pn**	**00 15 32.2**	**-0.7**
VANB				Sn	**Sn**	**00 15 49.0**	**+0.6**
VANB				AML	AML		
TVAN	**Van**	**1.08**	**101**	P	**Pn**	**00 15 32.1**	**-1.3**
TVAN				S	**Sb**	**00 15 44.6**	**-2.6**
BNGB	**Bingl**	**1.10**	**284**	Pg	**Pb**	**00 15 30.4**	**-2.3**
BNGB				AML	AML		
AGRB	**Hanur-Agry**	**1.11**	**41**	Pn	**Pn**	**00 15 33.7**	**0.0**
AGRB				AML	AML		
EATA	**Eleskirt**	**1.17**	**17**	P	**Pg**	**00 15 34.4**	**+1.1**
EATA				S	**Sn**	**00 15 50.1**	**-1.4**
ECAT	**Cat-ERZURUM**	**1.20**	**316**	P	**Pn**	**00 15 33.4**	**-1.6**
ECAT				S	**Sb**	**00 15 48.8**	**-2.0**
EJDE	**Erzurum, Palan**	**1.24**	**332**	P	**Pn**	**00 15 34.3**	**-1.3**
KOPR	**Koprukoy-ERZUR**	**1.26**	**353**	Pn	**Pb**	**00 15 35.4**	**-0.1**
KOPR				AML	AML		
ETEKE	**Tekederesi - E**	**1.27**	**326**	P	**Pn**	**00 15 34.8**	**-1.1**
ETEKE				S	**Sb**	**00 15 50.8**	**-1.9**
SIRN	**Sırnak**	**1.27**	**167**	P	**Pb**	**00 15 35.3**	**-0.3**
SIRN				S	**Sb**	**00 15 51.4**	**-1.2**
ERZM	**Erzurum**	**1.28**	**336**	P	**Pn**	**00 15 35.4**	**-0.7**
ERZM				S	**Sb**	**00 15 52.3**	**-0.7**
HOMI	**Horasan**	**1.31**	**355**	P	**Pn**	**00 15 36.0**	**-0.5**
ATA5	**Erzurum, Merke**	**1.32**	**332**	Pn	**Pn**	**00 15 36.3**	**-0.3**
YEDI	**Yedisu-Bingol**	**1.36**	**301**	Pn	**Pn**	**00 15 35.9**	**-1.3**
YEDI				AML	AML		
KOTA	**Agri, Merkez-K**	**1.39**	**40**	P	**Pg**	**00 15 38.0**	**+0.6**
KOTA				S	**Sg**	**00 15 56.1**	**+0.6**
MIDY	**Mardin/Midyat-**	**1.43**	**201**	P	**Pn**	**00 15 37.1**	**-0.9**
MIDY				S	**Sn**	**00 15 54.2**	**-3.2**
AKDA	**Akdag**	**1.46**	**339**	P	**Pb**	**00 15 38.8**	**-0.1**
DYDN	**Diyadin**	**1.50**	**57**	P	**Pg**	**00 15 39.9**	**+0.2**
DYDN				S	**Sb**	**00 15 57.9**	**-1.5**
CLDR	**Caldiran**	**1.51**	**74**	Pn	**Pg**	**00 15 39.7**	**0.0**
CLDR				AML	AML		
CLDR	**Caldiran**	**1.51**	**74**	P	**Pb**	**00 15 39.5**	**-0.3**
OZAP	**Van, Ozalp-Mer**	**1.52**	**92**	P	**Pg**	**00 15 40.6**	**+0.7**
EMRE	**Erzurum,Aziziy**	**1.53**	**327**	P	**Pb**	**00 15 39.9**	**-0.3**
DYBB	**Diyarbakir**	**1.70**	**243**	Pn	**Pn**	**00 15 40.5**	**-1.2**
DYBB				Sn	**Sn**	**00 16 02.6**	**-1.5**
DYBB				AML	AML		
DIYA	**Diyarbakir**	**1.72**	**242**	P	**Pb**	**00 15 44.1**	**+0.8**
DIYA				S	**Sn**	**00 16 03.7**	**-1.0**
KOVA	**Elazig, Kovanc**	**1.75**	**270**	P	**Pn**	**00 15 42.4**	**0.0**
KOVA				S	**Sn**	**00 16 03.5**	**-1.9**
KOPT	**Kop Dagi**	**1.75**	**317**	P	**Pb**	**00 15 44.0**	**-0.1**
KOPT	**Kop Dagi**	**1.75**	**317**	Pn	**Pb**	**00 15 43.9**	**-0.1**
HAKT	**HAKKARI**	**1.76**	**132**	P	**Pb**	**00 15 44.1**	**+0.1**
HAKT				S	**Sg**	**00 16 07.4**	**0.0**
EOLT	**Oltu**	**1.80**	**358**	P	**Pb**	**00 15 44.8**	**+0.1**
KRIK	**Erzurum-spir**	**1.82**	**332**	P	**Pb**	**00 15 44.8**	**-0.2**
SENK	**Senkaya-Erzuru**	**1.83**	**7**	Pn	**Pb**	**00 15 44.7**	**-0.6**
SENK				AML	AML		
MDNT	**Maden**	**1.89**	**260**	P	**Pn**	**00 15 44.1**	**-0.3**
MDNT				S	**Sn**	**00 16 04.6**	**-4.2**
IGDI	**IGDIR**	**1.94**	**54**	P	**Pb**	**00 15 46.0**	**-0.9**
BOZK	**Kars-Merkez-Bo**	**1.98**	**21**	P	**Pb**	**00 15 47.0**	**-0.8**
TNCL	**Tunceli-Merkez**	**1.99**	**282**	P	**Pn**	**00 15 45.9**	**+0.1**
KARS	**Kars**	**2.04**	**22**	Pn	**Pb**	**00 15 47.7**	**-1.2**
KARS				AML	AML		
BAYB	**BAYBURT**	**2.06**	**318**	P	**Pb**	**00 15 48.5**	**-0.6**
EUZM	**Uzumlu**	**2.07**	**299**	P	**Pn**	**00 15 47.0**	**+0.2**
TASB	**TASBURUN-IGDIR**	**2.10**	**53**	Pn	**Pb**	**00 15 48.6**	**-1.2**
TASB				AML	AML		
YOVA	**Hakkari_Yksek**	**2.11**	**122**	P	**Pb**	**00 15 49.5**	**-0.4**
GOLE	**Ardahan-G¶le**	**2.14**	**11**	P	**Pb**	**00 15 49.0**	**-1.4**
DDEM	**Demirkent**	**2.16**	**354**	P	**Pb**	**00 15 49.3**	**-1.5**
CNGT	**ngs**	**2.22**	**257**	P	**Pn**	**00 15 48.6**	**-0.3**
CNGT				S	**Sn**	**00 16 16.4**	**-0.7**
ELZ	**Elazig**	**2.23**	**270**	P	**Pn**	**00 15 49.5**	**+0.5**
EAK	**Akyaka**	**2.28**	**31**	P	**Pb**	**00 15 52.1**	**-0.8**
ELZG	**Elazig**	**2.41**	**265**	P	**Pn**	**00 15 51.9**	**+0.3**
GNI	**Garni**	**2.51**	**55**	Pn	**Pb**	**00 15 54.9**	**-1.9**
	13nm,0.3s,baz=265,slow=4.4,SNR=63						
GNI				Lg	Lg	00 16 34.2	
	9.7nm,0.3s,baz=197,slow=19,SNR=8.4						
GNI				LR	LR	00 16 58.4	
	comp=Z,100nm,21.9s,baz=206,slow=43						
	149nm,0.7s						
GNI				AML	AML		
GNI	**Garni**	**2.51**	**55**	Pn	**Pb**	**00 15 54.6**	**-2.3**
GNI				AML	AML		
GNI	**Garni**	**2.51**	**55**		**Pn**	**00 15 54.0**	**+1.0**
GNI	**Garni**	**2.51**	**55**	P	**Pb**	**00 15 54.2**	**-2.7**
GNI				AML	AML		
AKH	**Akhalkalaki**	**2.89**	**22**	P	**Pb**	**00 16 00.4**	**-2.8**
ARPR	**Arapgir-MALATY**	**2.92**	**278**		**Pb**	**00 16 03.0**	**-0.8**
DGRG	**David-gareji**	**3.72**	**42**	P	**Pn**	**00 16 12.5**	**+3.0**
DGRG				S	Sg	00 17 22.0	+12
DDFL	**Dedoflistskaro**	**4.13**	**48**	P	**Pb**	**00 16 20.2**	**-4.1**
DDFL				S	Sg	00 17 36.1	+13
GAZ	**Gaziantep**	**4.13**	**249**		Pb	00 16 19.9	-4.5
VSHL	**Vashlovani**	**4.17**	**52**	P	Pb	00 16 19.5	-5.4
CHRG	**Chargali**	**4.20**	**31**	P	**Pn**	**00 16 18.8**	**+2.7**
CHRG				S	Sg	00 17 35.6	+10
TOKA	**Tokat**	**4.59**	**292**		**Pn**	**00 16 24.4**	**+3.0**
BNN	**Bunyan**	**4.85**	**273**		**Pn**	**00 16 28.1**	**+3.0**
KBZ	**Khabaz**	**5.03**	**7**	Pn	**Pn**	**00 16 28.3**	**+1.0**
	0.3nm,0.3s,baz=191,slow=16,SNR=5.7						
	1.7nm,0.9s						
KBZ				AML	AML		
KIV	**Kislovodsk**	**5.23**	**5**		**Pn**	**00 16 30.9**	**+0.6**
KVAR	**Kislovodsk Arr**	**5.23**	**5**	Pn	**Pn**	**00 16 32.6**	**+2.2**
	baz=163,slow=19						
	4.7nm,1.0s						
BEIL	**Beino**	**6.31**	**230**	*e*P	**Pn**	**00 16 46.5**	**+1.4**
BR131	**Keskin Array S**	**6.60**	**281**	Pn	**Pn**	**00 16 51.4**	**+2.2**
BRTR	**Keskin Array B**	**6.60**	**281**	Pn	**Pn**	**00 16 51.6**	**+2.4**
	0.1nm,0.3s,baz=106,slow=14,SNR=7.5						
BRTR				Lg	Lg	00 18 46.4	
	baz=110,slow=33,SNR=1.4						
BRTR				LR	LR	00 19 15.1	
	comp=Z,56nm,18.5s,baz=112,slow=36						
	1.3nm,0.8s						
BRTR				AML	AML		
BR106	**Keskin Array S**	**6.62**	**281**	P	**Pn**	**00 16 53.3**	**+3.9**
	0.0nm37nm4.4nm,0.9s						
BR106				AML	AML		
HWQ	**Hawqa**	**6.63**	**230**	*e*P	**Pn**	**00 16 49.0**	**-0.5**
DQRL	**Deir Qamar**	**7.26**	**228**	*e*P	**Pn**	**00 16 59.6**	**+1.6**
SHBL	**Chebaa**	**7.42**	**225**	*e*P	**Pn**	**00 17 01.8**	**+1.4**
ASF	**Jabal al Asfar**	**7.78**	**214**	Pn	**Pn**	**00 17 04.7**	**-0.7**
	0.7nm,0.3s,baz=13,slow=14,SNR=11						
ASF				Lg	Lg	00 19 20.7	
	0.9nm,0.3s,baz=32,slow=19,SNR=7.7						
ASF				LR	LR	00 20 29.1	
	comp=Z,141nm,18.2s,baz=8.3,slow=41						
	3.6nm,0.6s						
ASF				AML	AML		
MMAI	**Mount Meron Ar**	**7.86**	**225**	Pn	**Pn**	**00 17 06.3**	**0.0**
	1.0nm,0.3s,baz=45,slow=19,SNR=6.5						
MMAI				Sn	**Sn**	**00 18 35.1**	**-0.8**
	baz=32,slow=22						
MMAI				Lg	Lg	00 19 22.0	
	1.5nm,0.3s,baz=40,slow=23,SNR=2.1						
MMAI				LR	LR	00 19 57.8	
	comp=Z,48nm,18.8s,baz=32,slow=37						
	0.9nm,0.5s						
MMAI				AML	AML		
CSS	**Mathiatis**	**7.94**	**244**	Pn	**Pn**	**00 17 09.8**	**+2.3**
EIL	**Elat**	**10.78**	**215**	Pn	**Pn**	**00 17 47.1**	**+0.7**
	0.1nm,0.3s,baz=37,slow=20,SNR=1.2						
EIL				Sn	**Sn**	**00 19 45.9**	**-1.9**
	0.1nm,0.3s,baz=356,slow=19,SNR=4.1						
EIL				Lg	Lg	00 20 54.2	
	0.2nm,0.3s,baz=30,slow=20,SNR=1.7						
EIL				LR	LR	00 22 22.9	
	comp=Z,134nm,19.2s,baz=90,slow=40						
	1.7nm,0.6s						
EIL				AML	AML		
MLR	**Muntele Rosu**	**13.72**	**305**	Pn	**P**	**00 18 30.8**	**-4.7**
	4.3nm,1.1s,baz=94,slow=19						
MLR				LR	LR	00 24 34.0	
	comp=Z,45nm,18.3s,baz=184,slow=41						

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MLR    Muntele Rosu      13.72 305          P        00 18 31.2 -4.3
VOIR                     14.28 303  P       P        00 18 38.7 -2.9
       11nm,1.2s
AK09   Malin Array Si    14.92 327  P       P        00 18 46.9 -1.7
AK06   Malin Array Si    14.94 327  P       P        00 18 46.4 -2.4
AK05   Malin Array Si    14.96 327  P       P        00 18 46.7 -2.4
AK02   Malin Array Si    14.98 327  P       P        00 18 47.1 -2.3
AK12   Malin Array Si    15.00 327  P       P        00 18 47.2 -2.3
AKASG  Malin Array Be    15.01 327  Pn      Pn       00 18 43.7 -0.3
       0.4nm,0.3s,baz=139,slow=11,SNR=10
       0.3nm,0.3s
AKASG                               AML     AML
AKASG  Malin Array Be    15.01 327          Pn       00 18 44.8 +0.8
AKBB   Malin Array Si    15.01 327          Pn       00 18 45.7 +1.7
KIEV   Kiev              15.01 327          Pn       00 18 46.0 +2.0
KIEV                                IAmb    IAmb     00 18 56.5
       comp=Z,9.6nm,0.9s
BURAR  Bucovina Array    15.12 311          P        00 18 51.7 +0.6
RAYN   Ar Rayn           15.45 168  P       P        00 18 55.6 +0.8
MI30   MI30,Zelenitsa    15.49 325  P       P        00 18 54.1 -0.9
       comp=Z,3µmcomp=Z,27nm,1.1s
AKTO   Aktyubinsk        16.27  39  Pn      Pn       00 18 59.0 -1.5
       comp=Z,0.1nm,0.3s,baz=229,slow=10,SNR=5.9
       comp=Z,2.0nm,0.8s
AKTO                                AML     AML
AB31   Akbulak array     16.58  45  Pn      Pn       00 19 03.3 -1.1
ABKAR  Akbulak array     16.58  45  Pn      Pn       00 19 04.0 -0.4
RNPP5  Staryi Chortor    16.88 323  P       P        00 19 11.7 +1.3
RNPP8  Varash            16.97 323  P       P        00 19 12.7 +1.3
UOSS   Minazif           18.24 135  P       P        00 19 25.2 -0.3
UOSS                                IAmb    IAmb     00 19 31.7
       comp=Z,10.0nm,0.9s
VYHS   Vyhne             19.36 308  ePN     Pn       00 19 41.7 +2.9
SUW    Suwalki           19.97 326  P       Pn       00 19 48.1 +2.1
ZST    Bratislava        20.35 306  ePN     Pn       00 19 54.2 +3.7
KIRV   Kirov             20.42  11  P       P        00 19 49.0 -0.2
       comp=Z,6.1nm,0.7s,baz=176,slow=6.4,SNR=4.0
       comp=Z,6.1nm,0.7s
CEL    Celeste           20.46 277  P       Pn       00 19 52.5 +0.5
CEL                                 IAmb    IAmb     00 20 00.4
       comp=Z,20nm,1.1s
PABE   Paberze           20.69 330  P       Pn       00 19 54.3 -0.1
ARTI   Arti              20.72  26  P       Pn       00 19 52.7 -2.0
       comp=Z,1.9nm,0.5s,baz=234,slow=8.7,SNR=5.5
ARTI                                LR      LR       00 30 32.1
       comp=Z,50nm,20.0s,baz=294,slow=44
       comp=Z,1.9nm,0.5s
ARTI   Arti              20.72  26  P       P        00 19 50.7 -1.8
ARTI                                IAmb    IAmb     00 20 04.4
       comp=Z,5.0nm,0.9s
CONA   Conrad Observa    21.06 304  eP      P        00 20 01.0 +4.6
       comp=Z,9.1nm,1.2s
ARSA   Arzberg           21.11 302  epP     P        00 20 03.5 +6.7
       comp=Z,7.9nm,1.8s
DPC    Dobruska-Polom    21.59 311  P       P        00 20 06.6 +4.7
       comp=Z,4.5nm,2.1s
SESA   Seetaler Alpe,    21.71 302  epP     P        00 20 09.1 +5.7
       comp=Z,10nm,0.9s
KSP    Ksiaz             21.80 312  P       P        00 20 07.7 +3.6
       comp=Z,4.9nm,1.2s
KK31   Karatay Array     21.89  69  P       P        00 20 06.6 +1.4
KK31                                IAmb    IAmb     00 20 17.0
       comp=Z,5.2nm,0.9s
KKAR   Karatay Array     21.89  69  P       P        00 20 06.8 +1.6
AQU    L'Aquila          22.02 289  P       P        00 20 10.2 +3.5
       comp=Z,13nm,1.1s
KBL    Kabul             22.03  93          P        00 20 07.9 +0.9
MOA    Molln             22.08 303  epP     P        00 20 13.0 +5.7
       comp=Z,4.3nm,0.9s
BTK    Batken            22.23  77  P       P        00 20 08.8 -0.2
BIOA   Bad Ischl, Aus    22.45 303  epP     P        00 20 14.7 +3.5
       comp=Z,6.2nm,1.1s
KBA    Koelnbreinsper    22.52 301  epP     P        00 20 15.6 +3.5
       comp=Z,7.7nm,1.3s
GERES  GERESS Array B    22.70 306  P       P        00 20 14.5 +0.5
       comp=Z,0.9nm,0.5s,baz=102,slow=9.5,SNR=7.5
       comp=Z,0.9nm,0.5s
GERES  GERESS Array B    22.70 306  P       P        00 20 16.1 +2.2
KHC    Kasperske Hory    22.86 306  P       P        00 20 18.4 +2.9
       comp=Z,3.0nm,1.3s
DRK    Karamyk           23.05  79  P       P        00 20 17.9  0.0
DRK                                 IAmb    IAmb     00 20 21.6
       comp=Z,5.8nm,1.1s
TEOL   Teolo             23.42 296  P       P        00 20 23.3 +2.0
CTI    Castel Tesino     23.51 298  P       P        00 20 23.8 +1.5
CTI                                 IAmb    IAmb     00 20 28.9
       comp=Z,5.8nm,1.0s
WTTA   Wattenberg        23.70 301  epP     P        00 20 30.2 +6.0
       comp=Z,10nm,1.2s
WATA   Walderalm         23.75 301  epP     P        00 20 28.1 +3.4
       comp=Z,7.5nm,1.1s
ARSB   Arslanbob         23.76  74  P       P        00 20 26.8 +1.9
ARSB                                IAmb    IAmb     00 20 27.3
       comp=Z,5.9nm,1.2s
CLL    Collm             23.89 311  ePx     Px       00 20 27.0
CLL                                 LH               00 29 00.0
CLL                                 LV               00 31 00.0
SQTA   Sankt Quirin      23.98 301  epP     P        00 20 30.4 +3.5
       comp=Z,3.2nm,0.7s
MOTA   Moosalm           24.07 301  epP     P        00 20 31.2 +3.4
       comp=Z,9.6nm,1.0s
BVAR   Borovoye Array    24.15  44  P       P        00 20 28.1 -0.2
       comp=Z,0.5nm,0.5s,baz=251,slow=9.0,SNR=2.4
       comp=Z,0.5nm,0.5s
FETA   Feichten          24.27 300  epP     P        00 20 34.6 +4.9
       comp=Z,14nm,1.3s
PRMA   PARMA             24.33 295  P       P        00 20 31.8 +1.8
GRA1   Grafenberg Arr    24.49 307          P        00 20 33.4 +1.9
FUORN  Ofenpass-Fuorn    24.53 299  P       P        00 20 34.0 +1.9
FUORN                               IAmb    IAmb     00 20 45.4
       comp=Z,4.0nm,1.0s
FINES  FINESS Array B    24.79 342  P       P        00 20 34.8 +0.8
       comp=Z,3.3nm,0.8s,baz=149,slow=9.3,SNR=3.7
FINES                               LR      LR       00 30 51.5
       comp=Z,63nm,19.1s,baz=54,slow=38
       comp=Z,3.3nm,0.8s
FINES  FINESS Array B    24.79 342  P       P        00 20 34.3 +0.3
AAK    Ala-Archa         24.82  71  LR      LR       00 32 11.5
       comp=Z,73nm,19.0s,baz=283,slow=41
TUE    Stuetta           25.14 298  P       P        00 20 39.9 +2.3
TUE                                 IAmb    IAmb     00 20 56.1
       comp=Z,3.0nm,1.0s
KEST   Kesra             26.14 274  P       P        00 20 46.9 +0.3
       comp=Z,2.5nm,0.9s,baz=81,slow=19,SNR=7.0
       comp=Z,2.5nm,0.9s
KEST   Kesra             26.14 274          P        00 20 49.9 +3.4
SENIN  Lac Senin/Sane    26.55 298  P       P        00 20 50.1 -0.2
SENIN                               IAmb    IAmb     00 21 08.3
       comp=Z,3.1nm,0.9s
KURBB  Kurchatov Arra    28.24  53  P       P        00 21 05.4 +0.2
       comp=Z,1.6nm,0.9s,baz=264,slow=9.0,SNR=8.1
       comp=Z,1.6nm,0.9s
KURK   Kurchatov         28.31  53  P       P        00 21 05.8 -0.1
KURK                                IAmb    IAmb     00 21 08.4
       comp=Z,3.4nm,1.0s
NOA    NORSAR Array B    29.40 329  P       P        00 21 14.8 -0.7
       comp=Z,0.9nm,0.9s,baz=121,slow=22,SNR=1.5
NOA                                 LR      LR       00 33 23.3
       comp=Z,22nm,18.8s,baz=305,slow=37
       comp=Z,0.9nm,0.9s
MAKZ   Makanchi          30.13  61  P       P        00 21 23.2 +1.1
MAKZ                                IAmb    IAmb     00 21 23.9
       comp=Z,2.4nm,0.9s
MKAR   Makanchi Array    30.35  61  P       P        00 21 21.9 -2.1
       comp=Z,1.8nm,0.8s,baz=262,slow=5.3,SNR=8.8
MKAR                                LR      LR       00 35 13.9
       comp=Z,35nm,20.2s,baz=236,slow=40
       comp=Z,1.8nm,0.8s
MKAR   Makanchi Array    30.35  61  P       P        00 21 25.5 +1.5
ZALV   Zalesovo Beam     32.64  48  P       P        00 21 42.9 -1.2
       comp=Z,0.4nm,0.4s,baz=266,slow=10.0,SNR=1.7
       comp=Z,0.4nm,0.4s
EKA    Eskdalemuir Ar    34.28 314  P       P        00 21 58.1 -0.2
       comp=Z,2.2nm,0.8s,baz=95,slow=7.5,SNR=4.0
       comp=Z,2.2nm,0.8s
ESDC   Sonseca Array     35.37 286  P       P        00 22 09.4 +1.4
       comp=Z,0.6nm,1.0s,baz=60,slow=10,SNR=4.4
       comp=Z,0.6nm,1.0s
MBAR   Mbarara           40.51 198  LR      LR       00 39 36.5
       comp=Z,51nm,18.8s,baz=18,slow=36
TORD   Torodi Ar. Bea    43.83 246  P       P        00 23 17.6 -1.1
       comp=Z,0.6nm,1.0s,baz=39,slow=8.6,SNR=1.8
       comp=Z,0.6nm,1.0s
PZH    PanZhiHua         50.93  85  P       P        00 24 15.8 +1.8
HHC    Hu-ho-hao-te      52.14  64  eP      P        00 24 23.8 +0.9
HHC                                 pmax    pmax
       comp=Z,11nm,0.5s
HHC                                 pmax    pmax
       comp=Z,77nm,5.0s
KSRS   Korea Array       65.03  61  P       P        00 25 51.0 -1.6
       comp=Z,0.8nm,0.5s,baz=308,slow=6.0,SNR=4.2
       comp=Z,0.8nm,0.5s
BOSA   Boshof            68.82 196  P       P        00 26 14.5 -2.3
       comp=Z,4.4nm,1.1s,baz=9.5,slow=12,SNR=3.2
       comp=Z,4.4nm,1.1s
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ISK ***18*** *00:47:49.6, 38.°72N×38.°13E, h1^{km}, ML3.9/16*

AFAD ***18*** *00:47:50.2, 38.°71N×38.°07E, h15^{km}, MW4.1*

IDC ***18*** *00:47:51.7±0.6, 38.°68N×37.°87E, h0^{km}, mb3.6/10, mbtmp3.5/21, ML3.0/9, MS3.2/13, Error ellipse: s-maj=10.1km s-min=7.9km az=125.0*

ISC 18 00:47:51.9±0.5**, 38.°71N**±0.°02×**38.°10E**±0.°02**, h10^{km}, n100,** σ**1.^{s}78**/120**, mb3.6**/12**, MS3.3**/5**, Turkey**

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Code   Station Name       Δ°   AZ°   Phase ID          Time      Res
                                    Op      ISC      h  m  s    ISC
HEKM   Malatya_Hekimh     0.20 328  P       Pg       00 47 54.8 -1.4
HEKM                                S       Sg       00 47 58.1 -1.1
ARPR   Arapgir-MALATY     0.43  26  Pg      Pg       00 47 58.8 -1.5
AKCD   Akcadag            0.43 199  P       Pg       00 47 58.9 -1.6
AKCD                                S       Sb       00 48 06.2 -2.1
MAYA   Malatya/Merkez     0.46 146  P       Pg       00 47 59.6 -1.3
MAYA                                S       Sg       00 48 06.6 -0.4
CUGUR  Gurin_SVAS         0.65 272  P       Pg       00 48 02.4 -2.0
CUGUR                               S       Sg       00 48 11.2 -1.7
ELZG   Elazig             0.73 107  P       Pg       00 48 04.3 -1.6
ELZG                                S       Sg       00 48 13.8 -1.6
ESGZ   Sivrice-Elazig     0.81 110  Pg      Pg       00 48 05.6 -1.8
ESGZ                                Sg      Sb       00 48 17.8 -1.3
ILIC   ilic-Erzincan      0.83  26  Pg      Pg       00 48 05.9 -2.0
ILIC                                Sg      Sb       00 48 18.3 -1.4
ILIC                                AML     AML
MDYL   Doganyol-Malat     0.84 118  Pg      Pg       00 48 06.4 -1.6
MDYL                                Sg      Sb       00 48 18.9 -1.0
MDYL                                AML     AML
ELBS   KAHRAMANMARAS0.85 243        P       Pg       00 48 05.8 -2.4
ELBS                                S       Sb       00 48 17.9 -2.3
ELZ    Elazig             0.87  91  P       Pg       00 48 06.9 -1.7
ELZ                                 S       Sg       00 48 18.7 -1.3
AZEY   Adyaman-Merk       0.90 172  P       Pb       00 48 08.1 -1.5
AZEY                                S       Sg       00 48 18.8 -2.2
MILC   Ilic               0.95  26  P       Pg       00 48 08.6 -1.6
MILC                                S       Sn       00 48 23.7 -1.4
AKCA   Adyaman/G¶l        0.97 200  P       Pg       00 48 08.6 -1.9
AKCA                                S       Sg       00 48 20.4 -2.7
NARI   Adyaman-Kaht       0.97 147  P       Pb       00 48 09.5 -1.4
ESIJ   Sivrice-Elazig     0.99 105  Pg      Pg       00 48 09.2 -1.6
ESIJ                                AML     AML
SVRC   Sivrice-ELAZID     1.00 109  Pg      Pg       00 48 09.1 -2.1
SVRC                                AML     AML
CNGT   ngs                1.06 117  P       Pg       00 48 10.3 -2.0
CNGT                                S       Sg       00 48 24.6 -1.6
CUAYA  Sivas-Altinyay     1.19 298  P       Pb       00 48 11.7 -2.9
CUAYA                               S       Sn       00 48 29.5 -1.5
TNCL   Tunceli-Merkez     1.20  70  P       Pb       00 48 12.4 -2.3
TNCL                                S       Sb       00 48 28.9 -1.4
ATAB   Bozova             1.25 173  P       Pg       00 48 14.4 -1.4
ATAB                                S       Sn       00 48 32.0 -0.3
MDNT   Maden              1.28 104  P       Pn       00 48 14.7 -1.2
MDNT                                S       Sb       00 48 31.5 -1.2
HANM   anlurfa/Hi         1.28 151  P       Pg       00 48 15.4 -1.1
HANM                                S       Sg       00 48 32.0 -1.2
KOVA   Elazig, Kovanc     1.34  90  P       Pn       00 48 15.4 -1.3
KOVA                                S       Sb       00 48 32.1 -2.4
SARI   SarD1z-Kayseri     1.35 258  Pn      Pg       00 48 16.9 -0.9
SARI                                Sn      Sg       00 48 36.1 +0.7
SARI                                AML     AML
SCER   sogukcermik        1.38 327  P       Pg       00 48 16.1 -2.1
SCER                                S       Sg       00 48 34.3 -1.8
GZT    Gaziantep          1.42 197  P       Pg       00 48 17.1 -1.9
GZT                                 S       Sg       00 48 36.8 -0.6
KAHM   Kahramanmaras,     1.48 217  P       Pg       00 48 18.7 -1.6
SVSK   Karacayir          1.48 325  Pn      Pg       00 48 18.7 -1.5
SVSK                                AML     AML
SUSE   Susehri            1.50   3  P       Pg       00 48 18.8 -1.9
SUSE                                S       Sg       00 48 38.1 -2.1
KHMN   Narli-Kahraman     1.51 210  Pn      Pg       00 48 19.0 -1.8
KHMN   Narli-Kahraman     1.51 210  P       Pg       00 48 19.4 -1.5
KMRS   Kahramanmaras      1.53 219  Pn      Pg       00 48 19.4 -1.8
KMRS                                Sn      Sg       00 48 40.7 -0.3
KMRS                                AML     AML
ERZN   Erzincan           1.54  55  Pn      Pb       00 48 18.9 -1.6
ERZN                                AML     AML
EUZM   Uzumlu             1.59  51  P       Pb       00 48 20.5 -1.0
EUZM                                S       Sb       00 48 41.2 -0.5
KHMR   Kahramanmara       1.66 215  P       Pb       00 48 20.7 -1.7
KHMR                                S       Sb       00 48 41.2 -2.2
GAZ    Gaziantep          1.69 205  Pn      Pb       00 48 21.4 -1.6
GAZ                                 AML     AML
SANL   SANLIURFA_Merk     1.69 155  P       Pg       00 48 22.4 -1.9
KELT   Kelkit             1.69  32  P       Pb       00 48 22.1 -1.2
NZIP   Nizip/Gaziante     1.70 192  P       Pb       00 48 21.5 -1.6
NZIP                                S       Sb       00 48 42.4 -2.2
ALUC   Giresun/Alucra     1.71  17  P       Pg       00 48 23.0 -1.8
BNN    Bunyan             1.77 275  Pn      Pb       00 48 22.9 -1.5
BNN                                 AML     AML
DIYA   Diyarbakir         1.77 116  P       Pg       00 48 25.9  0.0
DIYA                                S       Sg       00 48 47.8 -1.1
DYBB   Diyarbakir         1.77 115  Pn      Pn       00 48 22.2 -0.5
DYBB                                AML     AML
ANDN   Andirin            1.78 231  P       Pb       00 48 23.1 -1.6
SURC   SANLIURFA_SURC 1.87 167      P       Pb       00 48 24.4 -1.7
KAMA   Osmaniye           1.89 217  P       Pb       00 48 24.8 -1.8
TOKT   Tokat              2.01 324  Pn      Pb       00 48 26.1 -2.4
TOKT                                AML     AML
BNGB   Bingl              2.04  81  Pn      Pn       00 48 26.1 -0.2
BNGB                                AML     AML
YEDI   Yedisu-Bingol      2.04  68  Pn      Pn       00 48 26.0 -0.4
YEDI                                AML     AML
KOPT   Kop Dagi           2.27  54  P       Pb       00 48 30.8 -2.4
BAYB   BAYBURT            2.28  47  P       Pb       00 48 30.4 -2.8
BAYB                                S       Sb       00 49 01.0 -0.6
SLHN   Bingol, Solhan     2.30  83  P       Pb       00 48 33.0 -0.5
KARO   Karliova-Bingo     2.38  74  Pn      Pn       00 48 30.9 -0.2
KARO                                AML     AML
ECAT   Cat-ERZURUM        2.41  67  P       Pb       00 48 33.1 -2.4
EMRE   Erzurum,Aziziy     2.59  58  P       Pg       00 48 38.7 -2.8
ETEKE  Tekederesi - E     2.60  64  P       Pb       00 48 35.9 -2.7
KTUT   Trabzon            2.61  29  Pn      Pn       00 48 34.5 +0.4
KTUT                                AML     AML
BTMN   Batman             2.63 107  P       Pb       00 48 35.8 -3.3
VRTB   Varto-Mus          2.66  79  P       Pb       00 48 37.5 -2.2
MUSM   Mu-Merkez          2.67  89  P       Pb       00 48 37.7 -2.1
EJDE   Erzurum, Palan     2.73  65  P       Pb       00 48 37.7 -3.3
MIDY   Mardin/Midyat-     2.91 115  P       Pn       00 48 37.9 -0.4
BRTR   Keskin Array B     3.61 288  Pn      Pn       00 48 47.7 -0.3
       0.6nm,0.3s,baz=113,slow=14,SNR=35
BRTR                                Lg      Lg       00 49 44.8
       2.9nm,0.3s,baz=107,slow=30,SNR=6.4
       4.7nm,0.8s
BRTR                                AML     AML
BEIL   Beino              4.43 201  eP      Pn       00 48 59.8 +0.5
HWQ    Hawqa              4.75 202  eP      Pn       00 49 04.5 +0.9
ZAHL   Zahle              5.16 201  eP      Pn       00 49 11.1 +1.8
BHL    Bhannes            5.18 203  eP      Pn       00 49 10.6 +1.0
GNI    Garni              5.34  72  Pn      Pb       00 49 17.6 -7.8
       0.4nm,0.3s,baz=223,slow=19,SNR=1.8
GNI                                 Lg      Lg       00 50 53.5
       baz=233,slow=20,SNR=0.5
       0.8nm,0.4s
GNI                                 AML     AML
DQRL   Deir Qamar         5.39 203  eP      Pn       00 49 14.4 +1.9
SHBL   Chebaa             5.68 200  eP      Pn       00 49 18.2 +1.8
MMAI   Mount Meron Ar     6.09 202  Pn      Pn       00 49 22.8 +0.8
       0.9nm,0.3s,baz=20,slow=14,SNR=6.2
MMAI                                Lg      Lg       00 51 03.2
       0.6nm,0.3s,baz=9.5,slow=31,SNR=1.9
MMAI                                LR      LR       00 51 04.1
       comp=Z,16nm,21.0s,baz=352,slow=32
       1.4nm,0.8s
MMAI                                AML     AML
KBZ    Khabaz             6.18  34  Pn      Pn       00 49 25.5 +2.4
       0.1nm,0.3s,baz=212,slow=19,SNR=1.6
KBZ                                 LR      LR       00 52 21.9
       comp=Z,78nm,20.6s,baz=237,slow=43
       1.2nm,0.9s
KBZ                                 AML     AML
KVAR   Kislovodsk Arr     6.28  32  Pn      Pn       00 49 27.5 +2.9
       baz=254,slow=15
KVAR                                LR      LR       00 51 55.1
       comp=Z,71nm,20.3s,baz=102,slow=38
       2.6nm,0.8s
ASF    Jabal al Asfar     6.59 189  Pn      Pn       00 49 29.4 +0.4
       0.5nm,0.3s,baz=336,slow=10,SNR=14
ASF                                 Lg      Lg       00 51 21.7
       1.3nm,0.3s,baz=343,slow=19,SNR=5.8
ASF                                 LR      LR       00 52 17.5
       comp=Z,126nm,19.2s,baz=13,slow=41
       4.7nm,0.7s
ASF                                 AML     AML
EIL    Elat               9.38 197  Pn      Pn       00 50 09.0 +1.9
       0.1nm,0.3s,baz=18,slow=16,SNR=2.4
EIL                                 Lg      Lg       00 52 47.5
       baz=16,slow=11
EIL                                 LR      LR       00 54 05.5
       comp=Z,136nm,19.0s,baz=79,slow=40
       3.2nm,0.8s
EIL                                 AML     AML
IDI    Anoyia            11.10 256  Pn      Pn       00 50 29.1 -1.6
       2.5nm,0.9s,baz=55,slow=12,SNR=1.7
MLR    Muntele Rosu      11.28 311  Pn      Pn       00 50 33.3 +0.1
       0.8nm,0.6s,baz=102,slow=20
MLR                                 LR      LR       00 55 58.9
       comp=Z,100nm,19.0s,baz=172,slow=44
AKASG  Malin Array Be    13.54 335  Pn      Pn       00 51 03.3 -0.5
       0.3nm,0.3s,baz=151,slow=12,SNR=5.8
       0.1nm,0.3s
AKASG                               AML     AML
OBN    Obninsk           16.45 357  LR      LR       00 59 51.1
       comp=Z,100nm,19.6s,baz=222,slow=44
AKTO   Aktyubinsk        18.34  44  P       P        00 52 09.0 +2.7
       0.1nm,0.3s,baz=250,slow=12,SNR=3.8
AKTO                                LR      LR       01 01 03.2
       comp=Z,64nm,19.1s,baz=107,slow=43
       0.8nm,0.6s
AKTO                                AML     AML
CONA   Conrad Observa    18.57 307  P       Pn       00 52 16.7 +7.6
       9.1nm,1.8s
VRAC   Vranov            18.68 312  LR      LR       01 00 12.9
       comp=Z,45nm,18.8s,baz=99,slow=40
GERES  GERESS Array B    20.24 308  P       Pn       00 52 27.8 -1.3
       1.2nm,0.7s,baz=104,slow=9.7,SNR=6.5
       1.2nm,0.7s
MOTA   Moosalm           21.45 302  eP      P        00 52 40.3  0.0
       1.8nm,0.6s
CLL    Collm             21.63 314  e(PP)   P        00 52 48.0 +5.9
       comp=Z,8.0nm,1.2s
CLL                                 LV               01 00 00.0
RETA   Reutte            21.71 303  i pP    P        00 52 46.7 +3.7
       comp=Z,1.2nm,0.5s
DAVA   Damuels           22.25 302  epP     P        00 52 52.0 +3.1
       comp=Z,0.8nm,0.3s
KEST   Kesra             23.05 272  P       P        00 52 57.3 -0.1
       comp=Z,2.3nm,0.9s,baz=78,slow=10,SNR=5.1
       comp=Z,2.3nm,0.9s
FINES  FINESS Array B    23.95 346  P       P        00 53 08.4 +2.5
       comp=Z,4.9nm,0.9s,baz=157,slow=15,SNR=4.4
       comp=Z,4.9nm,0.9s
BVAR   Borovoye Array    26.38  47  P       P        00 53 30.3 +2.1
       comp=Z,0.4nm,0.6s,baz=274,slow=5.6,SNR=2.2
       comp=Z,0.4nm,0.6s
HFS    Hagfors           26.39 332  P       P        00 53 30.7 +2.5
       comp=Z,4.3nm,1.1s,baz=116,slow=15,SNR=1.6
       comp=Z,4.3nm,1.1s
KURBB  Kurchatov Arra    30.75  54  P       P        00 54 09.7 +2.7
       comp=Z,0.3nm,0.6s,baz=272,slow=9.3,SNR=4.2
KURBB                               LR      LR       01 09 02.3
       comp=Z,53nm,18.1s,baz=171,slow=41
       comp=Z,0.3nm,0.6s
ESDC   Sonseca Array     32.40 285  P       P        00 54 20.6 -1.2
       comp=Z,0.4nm,0.7s,baz=77,slow=8.5,SNR=2.6
       comp=Z,0.4nm,0.7s
MKAR   Makanchi Array    33.08  61  P       P        00 54 31.3 +3.7
       comp=Z,0.4nm,0.7s,baz=273,slow=11,SNR=2.4
       comp=Z,0.4nm,0.7s
ZALV   Zalesovo Beam     34.98  49  P       P        00 54 46.4 +2.4
       comp=Z,0.3nm,0.3s,baz=284,slow=7.3,SNR=1.5
ZALV                                LR      LR       01 11 07.5
       comp=Z,23nm,19.4s,baz=116,slow=40
       comp=Z,0.3nm,0.3s
TORD   Torodi Ar. Bea    41.05 242  P       P        00 55 35.5 -0.1
       comp=Z,1.2nm,0.9s,baz=41,slow=8.5,SNR=4.8
       comp=Z,1.2nm,0.9s
KSRS   Korea Array       67.73  59  LR      LR       01 32 45.0
       comp=Z,18nm,19.2s,baz=225,slow=40
ASAJ   Asahikawa         73.08  47  LR      LR       01 36 18.4
       comp=Z,54nm,18.5s,baz=70,slow=40
MJAR   Matsushiro Arr    75.01  55  LR      LR       01 33 34.9
       comp=Z,31nm,19.7s,baz=245,slow=36
```

IDC ***18*** *01:09:27.2±2.2, 27.°09S×177.°84W, h176^{km}±17^{km}, mb3.7/3, mbtmp4.2/4, Error ellipse: s-maj=109.8km s-min=24.9km az=86.0*

ISC 18 01:09:29.9±1.0**, 27.°3S**±0.°1×**178.°0W**±0.°7**, h200^{km}, n20,** σ**0.^{s}99**/20**, mb3.8**/5**, 2C, Kermadec Islands region**

```
Code   Station Name       Δ°   AZ°   Phase ID          Time      Res
                                    Op      ISC      h  m  s    ISC
RAO    Raoul Island       1.95 178  P       Pn       01 10 06.7 -1.1
       264nm,0.4s,baz=18,slow=19,SNR=1.8
RAO                                 S       Sn       01 10 35.6 -1.9
       775nm,0.4s,baz=17,slow=19,SNR=4.2
WRA    Warramunga Arr    44.06 269  PcP     PcP      01 18 59.7 -0.3
       1.1nm,0.9s,baz=115,slow=3.0,SNR=2.9
QSPA   South Pole Qui    62.80 180  P       P        01 19 35.3 +1.4
       0.9nm,0.6s,baz=54,slow=8.0,SNR=6.8
       0.9nm,0.6s
MAW    Mawson            75.20 200  P       P        01 20 50.8 +0.9
       1.0nm,0.5s,baz=215,slow=5.7,SNR=1.8
       1.0nm,0.5s
TROLL  Troll, Antarti    80.96 180  P       P        01 21 23.0 +1.3
       comp=Z,155nm,0.7s
VNA3   Neumayer Olymp    81.39 176  ⇑P      P        01 21 24.0 +0.1
       comp=Z,0.9nm,0.4s
VNA2   Neumayer--Watz    81.82 177  ⇑P      P        01 21 27.4 +1.3
       comp=Z,1.7nm,0.8s,baz=185,slow=6.0
PETK   Petropavlovsk-    82.82 346  P       P        01 21 31.4 +0.1
       comp=Z,2.5nm,0.8s,baz=162,slow=5.6,SNR=3.8
       comp=Z,2.5nm,0.8s
MKAR   Makanchi Array   115.76 311  PKP     PKPdf    01 27 47.6 -0.7
       comp=Z,0.3nm,0.6s,baz=90,slow=5.8,SNR=2.3
KURBB  Kurchatov Arra   118.93 315  PKP     PKPdf    01 27 53.2 -0.9
       comp=Z,0.5nm,0.7s,baz=116,slow=1.8,SNR=5.5
BVAR   Borovoye Array   124.16 317  PKP     PKPdf    01 28 03.5 -0.7
       comp=Z,1.1nm,0.6s,baz=89,slow=1.9,SNR=3.8
ARCES  ARCESS Array B 135.57 348    PKP     PKPdf    01 28 25.0 -0.4
       comp=Z,3.3nm,0.9s,baz=25,slow=1.5,SNR=5.9
FINES  FINESS Array B   142.23 341  PKhKP   PKPpre   01 28 32.5
       comp=Z,2.2nm,0.9s,baz=46,slow=4.0,SNR=3.7
NB2    NORSAR Subarra145.69 352     PKP     PKPab    01 28 45.1 -0.1
       comp=Z,0.6nm,0.6s,baz=10,slow=3.7
NOA    NORSAR Array B145.69 352     PKPbc   PKPdf    01 28 42.9 -0.9
       comp=Z,1.0nm,0.8s,baz=43,slow=2.4,SNR=3.5
HFS    Hagfors          146.21 349  PKPbc   PKPdf    01 28 44.2 -0.4
       comp=Z,1.1nm,0.4s,baz=58,slow=3.6,SNR=10
AKASG  Malin Array Be   148.79 326  PKPbc   PKPbc    01 28 52.7 -0.6
       comp=Z,1.8nm,0.4s,baz=46,slow=4.0,SNR=13
MMAI   Mount Meron Ar   150.64 289  PKPbc   PKiKP    01 28 59.4 +0.3
       comp=Z,1.7nm,0.5s,baz=57,slow=5.3,SNR=11
BRTR   Keskin Array B   151.01 303  PKPbc   PKPbc    01 28 58.9 -0.3
       comp=Z,0.6nm,0.6s,baz=96,slow=2.1,SNR=4.7
TORD   Torodi Ar. Bea   165.92 179  PKPab   PKPab    01 30 13.6 +1.5
       comp=Z,0.4nm,0.7s,baz=174,slow=4.1,SNR=4.1
```

NEIC ***18*** *01:09:50.9±0.8, 18.°9S±0.°1×178.°1W±0.°1, h607^{km}±8^{km}, mb4.3/18, Error ellipse: s-maj=18.5km s-min=14.3km az=51.0*

IDC ***18*** *01:09:53.8±1.1, 18.°75S×178.°28W, h651^{km}±11^{km}, mb3.3/8, mbtmp4.3/10, Error ellipse: s-maj=22.3km s-min=13.6km az=167.0*

ISC 18 01:09:50.0±0.6**, 19.°0S**±0.°1×**178.°03W**±0.°09**, h600^{km}, n40,** σ**1.^{s}96**/42**, mb4.2**/21**, 2D, Fiji Islands region**

```
Code   Station Name       Δ°   AZ°   Phase ID          Time      Res
                                    Op      ISC      h  m  s    ISC
MSVF   Nonsavu            3.93 288  P       P        01 11 19.1 +3.9
       53nm,0.7s,baz=113,slow=14,SNR=17
MSVF                                S       S        01 12 32.6 +8.1
       2.7nm,0.5s,baz=128,slow=19,SNR=0.8
MSVF   Nonsavu            3.93 288          P        01 11 14.7 -0.5
FUTU   Fugatoga           4.67 359  P       P        01 11 21.1 +0.6
SANVU  Saraoutou         14.54 282  P       P        01 12 54.5 +0.3
DZM    Mont Dzumac       14.86 255  P       P        01 12 57.2 +0.1
```

	11nm,0.8s,baz=68,slow=18,SNR=10						
FOZ	Fox Glacier	26.52	200	P	P	01 14 42.6	+1.2
ARMA	Armidale	29.73	242	P	P	01 15 10.5	+0.9
ARMA				IAmb	IAmb	01 15 11.4	
	comp=Z,9.5nm,0.7s						
CTAO	Charters Tower	33.64	262	P	P	01 15 42.3	-0.6
CTAO				IAmb	IAmb	01 15 43.7	
	comp=Z,13nm,0.8s						
TOO	Toolangi	36.78	232	P	P	01 16 09.1	+0.5
TOO				IAmb	IAmb	01 16 10.3	
	comp=Z,5.2nm,0.8s						
STKA	Stephens Creek	38.44	242	P	P	01 16 22.9	+0.8
	comp=Z,7.3nm,0.5s,baz=79,slow=8.8,SNR=21						
	comp=Z,7.3nm,0.5s						
INKA	Innaminka	38.69	249	P	P	01 16 25.1	+1.1
INKA				IAmb	IAmb	01 16 26.0	
	comp=Z,6.8nm,0.8s						
BBOO	Buckleboo	43.21	242	P	P	01 16 59.8	0.0
WR8	Warramunga Arr	44.65	261		P	01 17 10.2	-0.9
WR8				IAmb	IAmb	01 17 17.6	
	comp=Z,4.8nm,0.7s						
WB0	Warramunga Arr	44.77	261		P	01 17 10.9	-1.0
WRA	Warramunga Arr	44.80	261	P	P	01 17 10.8	-1.4
	comp=Z,8.7nm,0.4s,baz=98,slow=8.1,SNR=155						
WRA				S	S	01 23 02.1	-5.1
	comp=Z,0.5nm,0.7s,baz=99,slow=14,SNR=3.4						
	comp=Z,8.7nm,0.4s						
AS31	Alice Springs	44.85	255		P	01 17 12.3	-0.3
ASAR	Alice Springs	44.85	255	P	P	01 17 12.2	-0.4
	comp=Z,23nm,0.8s,baz=93,slow=7.7,SNR=147						
ASAR				S	S	01 23 04.4	-3.5
	comp=Z,1.6nm,0.7s,baz=93,slow=13,SNR=12						
	comp=Z,23nm,0.8s						
ASAR	Alice Springs	44.85	255		P	01 17 11.7	-0.9
MTN	Manton Dam	49.14	269		P	01 17 43.6	-1.1
MTN				IAmb	IAmb	01 17 44.2	
	comp=Z,4.4nm,0.7s						
FORT	Forrest	49.88	245	P	P	01 17 48.8	-1.1
FORT				IAmb	IAmb	01 18 04.9	
	comp=Z,20nm,1.1s						
KNRA	Kununurra	50.75	265	P	P	01 17 55.7	-0.7
KNRA				IAmb	IAmb	01 17 56.4	
	comp=Z,6.0nm,0.7s						
FITZ	Fitzroy Crossi	53.21	261	P	P	01 18 13.7	-0.4
VNDA	Vanda	59.40	185	P	P	01 18 57.2	+1.7
	comp=Z,0.5nm,0.5s,baz=6.9,slow=6.6,SNR=6.2						
	comp=Z,0.5nm,0.5s						
VNDA	Vanda	59.40	185	P	P	01 18 57.0	+1.6
UGM	Wanagama	69.97	268	P	P	01 20 00.6	-2.5
QSPA	South Pole Qui	71.06	180	P	P	01 20 09.4	+0.8
	comp=Z,4.0nm,0.7s,baz=26,slow=2.0,SNR=16						
	comp=Z,4.0nm,0.7s						
QSPA	South Pole Qui	71.06	180	P	P	01 20 09.4	+0.8
K15K	Wolf Creek Mou	82.07	8	P	P	01 21 07.6	-0.6
L18K	Granite Mounta	82.70	10	P	P	01 21 10.9	-0.5
L18K				IAmb	IAmb	01 21 13.6	
	comp=Z,17nm,1.5s						
TXAR	Lajitas Array	86.27	57	P	P	01 21 30.1	+0.4
	comp=Z,0.7nm,0.9s,baz=249,slow=4.4,SNR=7.6						
	comp=Z,0.7nm,0.9s						
TXAR	Lajitas Array	86.27	57	P	P	01 21 30.0	+0.3
ILAR	Eielson Array	86.86	13	P	P	01 21 30.0	-1.5
	comp=Z,0.4nm,0.7s,baz=198,slow=4.0,SNR=2.4						
	comp=Z,0.4nm,0.7s						
PDAR	Pinedale Array	87.89	43	P	P	01 21 36.5	-0.7
	comp=Z,0.3nm,0.7s,baz=269,slow=5.9,SNR=2.8						
	comp=Z,0.3nm,0.7s						
PDAR	Pinedale Array	87.89	43	P	P	01 21 36.9	-0.3
ELIB	Princess Elisa	88.12	187	*d*P	P	01 21 37.2	-0.5
	comp=Z,2.4nm,0.7s						
TROLL	Troll, Antarti	89.22	180	P	P	01 21 41.7	-1.1
	comp=Z,67nm,0.4s						
VNA3	Neumayer Olymp	89.63	176	⇓P	P	01 21 44.1	-0.5
	comp=Z,2.6nm,0.4s						
VNA2	Neumayer--Watz	90.08	177	P	P	01 21 46.0	-0.5
	comp=Z,2.6nm,0.6s,baz=179,slow=4.8						
VNA1	Neumayer--Stat	90.30	177	P	P	01 21 47.5	-0.1
	comp=Z,2.8nm,0.9s						
EKA	Eskdalemuir Ar	143.52	5	PKP	PKPab	01 28 14.0	-1.9
	comp=Z,0.6nm,0.5s,baz=344,slow=3.2,SNR=4.4						

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*CATAC **18** 01:14:54.3±0.5, 19˚N±2˚×7˚1W±˚, h5^{km}±3^{km}, M4.3/9, mb4.2/6, mB4.3/2, MLv4.4/9, Mw(mB)3.5/2, Error ellipse: s-maj=4.3km s-min=3.2km az=58.1, confirmed*

*SDD **18** 01:14:54.0±3.2, 18.˚73N×70.˚77W, h33^{km}±84^{km}, MD3.4, ML4.0, MW4.2, Presumed earthquake*

*SSNC **18** 01:14:56.7±1.3, 18.˚68N×70.˚78W, h7^{km}±7^{km}, MD4.5, ML4.2, Presumed earthquake*

*OSPL **18** 01:14:57.2±1.1, 18.˚70N×70.˚79W, h14^{km}±4^{km}, ML3.8, Presumed earthquake*

ISC 18 01:14:55.7±0.9**, 18.˚66N**±0.˚02×**70.˚77W**±0.˚02**, h31**^{km}±9^{km}**, n64, σ1.^{s}75**/102**, 34C-10D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BANI	BANI	0.47	125	⇑*e*Pg	Pb	01 15 06.7	+0.8
BANI				⇓*e*Sg	Sn	01 15 15.9	+2.1
BANI				IAML		01 15 17.4	
	comp=N,13µm,0.2s						
BAN1	Bani Escuela	0.56	133	*e*Pg	Pb	01 15 07.8	+0.6
BAN1				IAML		01 15 21.7	
	comp=N,4µm,0.3s						
SDDR	Presa de Saban	0.59	303	*e*P	Pb	01 15 06.4	-1.3
SDDR				*e*S	Sb	01 15 14.2	-1.7
SDDR				IAML		01 15 18.6	
	comp=N,10µm,0.3s						
SDDR				IAML		01 15 18.6	
	comp=N,13µm,0.6s						
SDDR	Presa de Saban	0.59	303	⇑*i*P	Pb	01 15 06.6	-1.1
SDDR				*e*S	Sb	01 15 14.7	-1.2
SDDR				IAML		01 15 18.8	
	comp=Z,9µm,0.4s						
NEDR	Neiba UASD	0.64	254	⇑*e*Pg	Pb	01 15 08.5	-0.1
NEDR				⇑*e*Sg	Sn	01 15 19.0	+1.0
NEDR				IAML		01 15 36.5	
	comp=N,3µm,0.5s						
LONE3	El Aguacate, B	0.66	265	⇓*i*P	Pb	01 15 08.3	-0.6
LONE3				*e*S	Sb	01 15 17.8	-0.1
LONE3				IAML		01 15 19.3	
	comp=Z,3µm,0.5s						
LOSC1	San Cristbal	0.67	112	⇓*i*P	Pn	01 15 10.0	+0.8
LOSC1				IAML		01 15 24.0	
	comp=Z,6µm,0.7s						
PODR	Polo	0.69	225	⇓*e*Pg	Pb	01 15 09.9	+0.4
LODU1	El Espartillar	0.74	246	⇑*i*P	Pn	01 15 10.5	+0.4
LODU1				IAML		01 15 28.1	
	comp=Z,5µm,0.3s						
SC01	Santiago de lo	0.76	3	P	Pb	01 15 10.4	-0.2
SC01				S	Sn	01 15 21.5	+0.6
SC01	Santiago de lo	0.76	3	⇓*i*P	Pb	01 15 09.9	-0.7
SC01				*e*S	Sb	01 15 20.2	-0.5
SC01				IAML		01 15 23.2	
	comp=Z,4µm,0.3s						
SC01	Santiago de lo	0.76	3	⇑*e*Pg	Pb	01 15 10.3	-0.2
SC01				⇑*e*Sg	Sb	01 15 19.4	-1.3
SC01				IAML		01 15 22.0	
	comp=N,5µm,0.2s						
DR08	Loma La Naviza	0.77	67	⇑*e*Pg	Pb	01 15 10.3	-0.3
DR08				⇓*e*Sg	Sb	01 15 20.9	+0.1
DR08				IAML		01 15 21.4	
	comp=N,27µm,0.5s						
REDR	Restauracion	0.78	310	⇑*e*Pg	Pn	01 15 15.3	+4.6
REDR				⇑*e*Sg	Sn	01 15 27.4	+6.1
REDR				IAML		01 15 32.3	
	comp=N,12µm,0.1s						
SD01	Santo Domingo	0.83	104	⇑*e*Pg	Pn	01 15 12.3	+1.0
SDD	Santo Domingo	0.83	104	P	Pb	01 15 11.2	-0.6
SDD				S	Sn	01 15 24.2	+1.6
SDD	Santo Domingo	0.83	104	⇑*i*P	Pb	01 15 11.7	0.0
SDD				*e*S	Sn	01 15 23.9	+1.2
SDD				IAML		01 15 30.2	
	comp=Z,3µm,0.8s						
SDD	Santo Domingo	0.83	104	⇑*e*Pg	Pb	01 15 12.1	+0.4
SDD				⇑*e*Sg	Sb	01 15 22.7	+0.1
SDD				IAML		01 15 25.4	
	comp=N,3µm,1.1s						
MADR	Mao Valverde	0.95	341	⇑*e*Pg	Pb	01 15 12.8	-1.0
MADR				⇑*e*Sg	Sb	01 15 25.4	-0.7
MADR				IAML		01 15 29.0	
	comp=N,9µm,0.6s						
LOVI	El Cajuil, Ovi	1.03	214	⇑*i*P	Pb	01 15 15.4	+0.3
LOVI				*e*S	Sn	01 15 29.0	+1.4
LOVI				IAML		01 15 37.6	
	comp=Z,1µm,0.3s						
JIDR	Jimani	1.04	261	⇓*e*Pg	Pb	01 15 15.5	+0.2
JIDR				⇓*e*Sg	Sn	01 15 30.5	+2.7
JIDR				IAML		01 15 31.4	
	comp=N,6µm,0.4s						
SODR	Sosua Marina B	1.10	9	⇑*e*Pg	Pb	01 15 16.9	+0.6
SODR				IAML		01 15 34.6	
	comp=N,14µm,0.8s						
NADR	Nagua	1.10	51	*e*Pg	Pn	01 15 15.9	+0.8
NADR				⇑*e*Sg	Sn	01 15 31.8	+2.5
NADR				IAML		01 15 41.9	
	comp=N,5µm,0.3s						
LOBH	Bahia de las A	1.15	226	⇑*i*P	Pb	01 15 17.8	+0.8
LOBH				IAML		01 15 47.6	
	comp=Z,2µm,1.0s						
LUDR	Luperon	1.24	352	⇑*e*Pg	Pb	01 15 18.8	+0.2
LOPP1	Punta Rusia, P	1.26	341	*i* P	Pb	01 15 18.3	-0.6
LOPP1				IAML		01 15 39.6	
	comp=Z,2µm,0.4s						
CADR	Cabrera	1.27	38	*e*Pg	Pb	01 15 18.6	-0.5
CADR				⇑*e*Sg	Sb	01 15 34.4	-0.7
CADR				IAML		01 15 43.9	
	comp=N,7µm,0.5s						
HATOM	Hato Mayor del	1.32	84	⇑*e*Pg	Pb	01 15 20.1	+0.2
HATOM				⇓*e*Sg	Sn	01 15 36.1	+1.4
HATOM				IAML		01 15 40.6	
	comp=N,2µm,0.7s						
MCDR	Montecristi	1.49	326	⇑*e*Pg	Pb	01 15 22.5	-0.3
MCDR				⇓*e*Sg	Sb	01 15 39.7	-1.6
MCDR				IAML		01 15 48.1	
	comp=N,3µm,0.3s						
SMDR	Samana, DR	1.62	67	⇑*e*Pg	Pn	01 15 23.7	+1.5
SMDR				IAML		01 15 54.8	
	comp=N,2µm,0.7s						
MIDR	Miches	1.66	79	⇑*e*Pg	Pb	01 15 25.1	-0.5
MIDR				⇑*e*Pg	Pn	01 15 25.4	+2.7
MIDR				IAML		01 15 49.8	
	comp=N,383nm,1.3s						
MIDR				IAML		01 15 49.8	
	comp=N,810nm,1.3s						
HGY1	Higuey	1.94	92	⇑*e*Pg	Pb	01 15 30.1	-0.5
HGY1				IAML		01 16 03.9	
	comp=N,413nm,0.3s						
HIDR	Higuey Centro	1.94	92	⇑*e*Pg	Pb	01 15 29.9	-0.6
HIDR				⇑*e*Sg	Sb	01 15 54.1	-0.2
HIDR				IAML		01 16 00.0	
	comp=N,1µm,0.3s						
PCDR	Punta Cana, DR	2.27	93	⇑*e*Pg	Pb	01 15 34.5	-1.5
PCDR				IAML		01 16 14.8	
	comp=N,946nm,0.6s						
GRTK	Grand Turk	2.86	353	P	Pn	01 15 40.1	+0.9
GRTK				S	Sb	01 16 16.9	-3.8
GRTK	Grand Turk	2.86	353	⇑*e*Pg	Pn	01 15 42.1	+2.9
GRTK				IAML		01 16 36.5	
	comp=N,293nm,0.3s						
PRSN	Puerto Rico Se	3.46	97	⇑*e*Pg	Pb	01 15 55.6	-0.8
PRSN				IAML		01 17 00.2	
	comp=N,231nm,0.3s						
AGPR	Aguadilla, PR	3.47	93	⇑*e*Pg	Pb	01 15 54.0	-2.5
AGPR				IAML		01 16 50.5	
	comp=N,228nm,0.7s						
CRPR	Cabo Rojo, PR	3.53	100	*e*Pg	Pb	01 15 54.5	-3.1
CRPR				IAML		01 16 58.3	
	comp=N,267nm,0.6s						
MLPR	Magueyes Islan	3.60	100	*e*Pg	Pn	01 15 54.9	+5.4
MLPR				IAML		01 16 55.2	
	comp=N,45nm,0.6s						
AOPR	Arecibo Observ	3.82	94	*e*Pg	Pb	01 16 00.7	-1.8
AOPR				IAML		01 16 59.3	
	comp=N,410nm,0.4s						
QMBU	Quimbuelo	4.11	292	P	Pn	01 15 57.7	+1.1
QMBU				S	Sn	01 16 45.8	+2.1
QMBU	Quimbuelo	4.11	292	*e*P	Pn	01 15 57.6	+1.0
QMBU				*e*S	Sn	01 16 42.6	-1.1
QMBU				IAML		01 16 52.6	
	comp=N,245nm,0.5s						
QMBU				IAML		01 16 56.1	
	comp=E,282nm,0.4s						
GTBY	Guantanamo Bay	4.29	288	P	Pn	01 16 00.4	+1.4
GTBY				S	Sn	01 16 48.8	+0.7
GTBY	Guantanamo Bay	4.29	288	*e*P	Pn	01 16 00.4	+1.4
GTBY				*e*S	Sn	01 16 47.7	-0.4
GTBY				*e*Sg	Sb	01 16 58.3	-3.7
NMDO	Nuevo Mundo	4.40	296	P	Pn	01 16 00.9	+0.4
NMDO				S	Sn	01 16 53.6	+2.8
NMDO	Nuevo Mundo	4.40	296	*e*P	Pn	01 16 01.6	+1.1
SJG	San Juan	4.42	96	P	Pn	01 16 05.7	+5.0
SJG				S	Sb	01 16 59.9	-5.5
MOAC	Moa	4.42	297	*e*P	Pn	01 16 02.6	+1.8
MOAC				*e*S	Sn	01 16 51.3	0.0
RCC	Rio Carpintero	4.84	287	*e*P	Pn	01 16 07.2	+0.7
RCC				*e*S	Sn	01 16 59.8	-1.8
MARVS	Santiago de Cu	5.03	286	*e*P	Pn	01 16 10.7	+1.6
MARVS				*e*S	Sn	01 17 02.6	-3.6
PINC	Pinares de May	5.08	292	*e*P	Pn	01 16 10.6	+0.9
PINC				*e*S	Sn	01 17 08.2	+0.8
HLGC	Holguin	5.46	295	*e*P	Pn	01 16 18.6	+3.6
HLGC				*e*S	Sn	01 17 18.6	+1.8
CHIV	Chivirico	5.49	285	P	Pn	01 16 16.3	+0.8
CHIV				S	Sn	01 17 18.3	+0.6
CHIV	Chivirico	5.49	285	*e*P	Pn	01 16 16.1	+0.6
CHIV				*e*S	Sn	01 17 19.9	+2.2
YAR	Yar	5.54	289	*e*P	Pn	01 16 18.2	+2.0
PILO	Pilon	6.39	282	P	Pn	01 16 29.1	+1.1
PILO				S	Sn	01 17 37.7	-2.2
PILO	Pilon	6.39	282	*e*P	Pn	01 16 29.0	+1.1
PILO				*e*S	Sn	01 17 37.9	-2.0
URI	Uribia	7.02	190	P	Pn	01 16 37.3	+0.8
URI				S	Sn	01 17 55.3	-0.1
CCCC	Cccc	7.05	292	*e*P	Pn	01 16 32.7	-4.2
CCCC				*e*S	Sn	01 17 47.1	-9.0
SJCC	San Jacinto, C	9.71	207	S	Sn	01 19 01.0	-0.5
RUSC	La Rusia	12.89	190	P	Pn	01 17 57.4	0.0
BCIP	Isla Barro Col	12.90	224	P	Pn	01 17 57.7	+0.5
BCIP				S	Sn	01 20 17.5	-2.2
HELC	Santa Helena	13.23	201	P	Pn	01 18 03.5	+1.5

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*IDC **18** 01:16:41.6±1.7, 38.˚12N×16.˚51E, h0^{km}, mb3.7/5, mbtmp3.5/8, ML3.1/3, MS2.6/1, Error ellipse: s-maj=38.2km s-min=15.5km az=144.0*

*ROM **18** 01:16:45.3±0.2, 37.˚912N±0.˚010×16.˚46E±0.˚01, h35^{km}, ML3.3/164, Error ellipse: s-maj=1.5km s-min=0.5km az=312.0*

*BEO **18** 01:16:48.6±2.0, 38.˚17N×16.˚48E, h45^{km}±3^{km}, ML3.6/11*

ISC 18 01:16:45.2±1.1**, 37.˚95N**±0.˚05×**16.˚53E**±0.˚04**, h40**^{km}±12^{km}**, n165, σ1.^{s}54**/191**, mb3.9**/5**, 32C-9D, Ionian Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SOI	Samo	0.40	288	⇓P	Pn	01 16 54.2	-0.4
SOI				S	Sn	01 17 00.3	-0.9
SOI				AML	AML		
	comp=E,8275µm,0.4s						
SOI				AML	AML		
	comp=N,10485µm,0.4s						
SOI				AML	AML		
	comp=E,8275µm,1.6s						
SOI				AML	AML		
	comp=N,10485µm,1.6s						
PLAC	Placanica	0.50	351	⇑P	Pn	01 16 57.2	+1.1
PLAC				S	Sn	01 17 05.8	+2.1
PLAC				AML	AML		
	comp=N,5865µm,1.4s						
PLAC				AML	AML		
	comp=E,6170µm,0.3s						
PLAC				AML	AML		
	comp=E,3790µm,0.5s						
PLAC				AML	AML		
	comp=N,5870µm,1.4s						
PLAC				AML	AML		
	comp=N,4015µm,0.5s						
PLAC				AML	AML		
	comp=E,6170µm,1.7s						
PLAC				AML	AML		
	comp=N,5870µm,0.6s						
PLAC				AML	AML		
	comp=E,6173µm,0.3s						
PLAC				AML	AML		
	comp=N,3900µm,0.4s						
PLAC				AML	AML		
	comp=E,3763µm,0.4s						
PLAC				AML	AML		
	comp=N,5839µm,0.4s						
CEL	Celeste	0.59	301	⇓P	Pn	01 16 56.9	-0.3
CEL				S	Sn	01 17 05.4	-0.4
CEL				AML	AML		
	comp=E,6935µm,1.6s						
CEL				AML	AML		
	comp=N,7230µm,0.4s						
CEL				AML	AML		
	comp=E,6915µm,0.4s						
CEL				AML	AML		
	comp=N,7180µm,0.4s						
CEL				AML	AML		
	comp=N,7235µm,0.4s						
CEL				AML	AML		
	comp=E,6935µm,0.4s						
CEL				AML	AML		
	comp=N,7184µm,0.4s						
CEL				AML	AML		
	comp=E,6878µm,0.4s						
FERC	Galatro	0.59	328	⇑P	Pn	01 16 57.8	+0.6
GMB	Gambarie	0.60	291	⇓P	Pn	01 16 56.9	-0.5
GMB				S	Sn	01 17 05.1	-0.9
GMB				AML	AML		
	comp=N,36500µm,1.5s						
GMB				AML	AML		
	comp=N,36500µm,0.5s						
GMB				AML	AML		
	comp=N,32864µm,0.2s						
GMB				AML	AML		
	comp=E,47300µm,0.2s						
MTTG	Motta San Giov	0.67	275	⇓P	Pn	01 16 58.2	0.0
MTTG				S	Sn	01 17 06.9	-0.6
MTTG				AML	AML		
	comp=N,9935µm,0.9s						
MTTG				AML	AML		
	comp=E,6880µm,0.7s						
MTTG				AML	AML		
	comp=N,9935µm,1.1s						
MTTG				AML	AML		
	comp=N,9928µm,0.9s						
JOPP	Joppolo	0.83	322	⇑P	Pn	01 17 00.6	+0.2
JOPP				S	Sn	01 17 12.5	+1.0
JOPP				AML	AML		
	comp=E,2460µm,0.5s						
JOPP				AML	AML		
	comp=N,2925µm,0.6s						
GRI	Girifalco	0.87	354	P	Pn	01 17 02.0	+0.9
GRI				AML	AML		
	comp=E,2125µm,1.4s						
GRI				AML	AML		
	comp=N,1685µm,0.5s						
GRI				AML	AML		
	comp=E,2125µm,0.6s						
GRI				AML	AML		
	comp=E,2071µm,0.4s						
MPNC	Port Mandanici	0.95	282	⇓P	Pn	01 17 02.4	+0.3
MPNC				S	Sn	01 17 14.6	+0.1
MPNC				AML	AML		
	comp=E,3870µm,0.5s						
MPNC				AML	AML		
	comp=N,4795µm,0.3s						
MPNC				AML	AML		
	comp=N,4798µm,0.3s						
AIO	Antillo	1.03	271	⇑P	Pn	01 17 03.8	+0.6
AIO				S	Sn	01 17 16.6	+0.1
AIO				AML	AML		
	comp=E,1295µm,0.9s						
AIO				AML	AML		
	comp=N,1535µm,1.4s						
AIO				AML	AML		
	comp=N,1446µm,0.3s						
AIO				AML	AML		
	comp=E,1201µm,0.3s						
GIZZ	Gizzeria	1.06	346	P	Pn	01 17 04.8	+1.2
ALB1	ALBI	1.07	3	⇑P	Pn	01 17 05.6	+1.8
NOV	Novara	1.11	274	P	Pn	01 17 04.9	+0.7
NOV				S	Sn	01 17 19.4	+1.0
NOV				AML	AML		
	comp=E,4775µm,1.6s						
NOV				AML	AML		
	comp=N,3680µm,0.4s						
NOV				AML	AML		
	comp=E,4775µm,0.4s						
NOV				AML	AML		
	comp=N,3677µm,0.4s						
NOV				AML	AML		
	comp=E,4586µm,0.4s						
ECTS	Castiglione	1.12	267	⇑P	Pn	01 17 04.9	+0.5
ECTS				S	Sn	01 17 19.1	+0.4
ECTS				AML	AML		
	comp=N,2385µm,0.8s						
ECTS				AML	AML		
	comp=E,2375µm,0.6s						
EVRN	Santa Venerina	1.14	257	⇑P	Pn	01 17 04.9	+0.2
EVRN				AML	AML		
	comp=E,2175µm,0.5s						
EVRN				AML	AML		
	comp=N,2260µm,0.2s						
EVRN				AML	AML		
	comp=E,2105µm,0.4s						
EVRN				AML	AML		
	comp=N,2235µm,0.2s						
EVRN				AML	AML		
	comp=E,2170µm,0.5s						
EPOZ	Pozzillo	1.23	250	⇑P	Pn	01 17 04.5	-1.5
EPOZ				S	Sn	01 17 17.8	-3.5
EPOZ				AML	AML		
	comp=E,471µm,1.6s						
EPOZ				AML	AML		
	comp=E,1240µm,1.6s						
EPOZ				AML	AML		
	comp=E,471µm,1.6s						
EPOZ				AML	AML		
	comp=N,1275µm,0.3s						
EPOZ				AML	AML		
	comp=N,488µm,0.3s						
EPOZ				AML	AML		
	comp=E,1130µm,0.3s						
TIP	Timpagrande	1.24	8	⇑P	Pn	01 17 07.6	+1.6
TIP				AML	AML		
	comp=N,462µm,0.8s						
TIP				AML	AML		
	comp=N,432µm,0.8s						
TIP				AML	AML		
	comp=E,375µm,0.7s						
TIP				AML	AML		
	comp=E,398µm,0.8s						
TIP	Timpagrande	1.24	8	⇑P	Pn	01 17 07.7	+1.6
ENIC	Nicolosi	1.24	255	P	Pn	01 17 06.2	+0.1
ENIC				AML	AML		
	comp=N,1930µm,1.2s						
ENIC				AML	AML		
	comp=E,2455µm,0.2s						
ENIC				AML	AML		
	comp=E,2315µm,0.2s						
ENIC				AML	AML		
	comp=N,1930µm,0.8s						
ENIC				AML	AML		
	comp=N,1869µm,0.4s						
ENIC				AML	AML		
	comp=N,1995µm,0.3s						
AGST	Augusta-Monte	1.25	237	⇑P	Pn	01 17 05.4	-0.7
AGST				S	Sn	01 17 19.2	-2.5
AGST				AML	AML		
	comp=E,1535µm,1.3s						
AGST				AML	AML		
	comp=N,1510µm,0.8s						
AGST				AML	AML		
	comp=N,1510µm,1.2s						
AGST				AML	AML		
	comp=E,1535µm,0.7s						
AGST				AML	AML		
	comp=N,1474µm,0.1s						
AGST				AML	AML		
	comp=E,1476µm,0.1s						
EMSG	Monte Spagnolo	1.26	265	P	Pn	01 17 07.2	+0.8
EMSG				AML	AML		
	comp=E,3045µm,0.5s						
EMSG				AML	AML		
	comp=N,2820µm,0.5s						
EMSG				AML	AML		
	comp=E,3042µm,0.5s						
HAGA	Augusta	1.28	239	P	Pn	01 17 05.7	-0.9
HAGA				S	Sn	01 17 20.3	-2.3
HAGA				AML	AML		
	comp=N,825µm,0.1s						
HAGA				AML	AML		

	comp=E,585μm,0.3s						
HAGA				AML	AML		
	comp=E,585μm,1.7s						
VPL	**Vulcano Piano**	**1.29**	**290**	P	**Pn**	**01 17 06.6**	**-0.2**
VPL				AML	AML		
	comp=E,2305μm,0.5s						
VPL				AML	AML		
	comp=N,1975μm,0.7s						
MUCR	**Ucria**	**1.31**	**274**	P	**Pn**	**01 17 07.9**	**+0.7**
MUCR				AML	AML		
	comp=E,650μm,0.9s						
MUCR				AML	AML		
	comp=N,940μm,0.6s						
MUCR				AML	AML		
	comp=E,650μm,1.1s						
MUCR				AML	AML		
	comp=N,940μm,1.4s						
CAR1	**CAROLEI**	**1.32**	**349**	P	**Pn**	**01 17 08.2**	**+0.9**
CAR1				AML	AML		
	comp=E,1870μm,0.5s						
CAR1				AML	AML		
	comp=N,1310μm,0.6s						
CAR1				AML	AML		
	comp=E,1740μm,0.5s						
CAR1				AML	AML		
	comp=N,1250μm,0.7s						
CAR1				AML	AML		
	comp=N,1250μm,1.3s						
CAR1				AML	AML		
	comp=N,1310μm,1.4s						
CAR1				AML	AML		
	comp=E,1740μm,1.5s						
CAR1				AML	AML		
	comp=N,1307μm,0.6s						
CAR1				AML	AML		
	comp=E,1870μm,1.5s						
CAR1				AML	AML		
	comp=E,1743μm,0.5s						
IST3	**Stromboli F**	**1.33**	**310**	P	**Pn**	**01 17 07.0**	**-0.2**
IST3				AML	AML		
	comp=E,1675μm,0.6s						
IST3				AML	AML		
	comp=N,2595μm,0.7s						
IST3				AML	AML		
	comp=N,1926μm,0.2s						
IST3				AML	AML		
	comp=E,1629μm,0.2s						
EPZF	**Pizzo Felice**	**1.33**	**265**	⇑P	**Pn**	**01 17 08.1**	**+0.7**
EPZF				AML	AML		
	comp=N,1515μm,0.5s						
EPZF				AML	AML		
	comp=N,1515μm,1.5s						
EPZF				AML	AML		
	comp=E,1265μm,0.5s						
EPZF				AML	AML		
	comp=N,1512μm,0.5s						
SPS2	**Spezzano della**	**1.35**	**354**	P	**Pn**	**01 17 09.1**	**+1.5**
SPS2				AML	AML		
	comp=N,316μm,0.8s						
SPS2				AML	AML		
	comp=E,254μm,0.3s						
SPS2				AML	AML		
	comp=N,289μm,0.4s						
ESML	**S. M. di Licod**	**1.35**	**256**	P	**Pn**	**01 17 07.6**	**0.0**
ESML				AML	AML		
	comp=E,843μm,0.9s						
ESML				AML	AML		
	comp=N,773μm,1.4s						
ESML				AML	AML		
	comp=N,773μm,0.6s						
ESML				AML	AML		
	comp=E,843μm,1.1s						
ESML				AML	AML		
	comp=N,761μm,0.3s						
ESML				AML	AML		
	comp=E,793μm,0.2s						
LADO	**San Nicola del**	**1.38**	**15**	P	**Pn**	**01 17 10.3**	**+2.4**
LADO				AML	AML		
	comp=E,1062μm,1.5s						
LADO				AML	AML		
	comp=N,693μm,0.8s						
LADO				AML	AML		
	comp=E,1062μm,0.5s						
LADO				AML	AML		
	comp=E,1001μm,0.2s						
LADO				AML	AML		
	comp=N,650μm,0.3s						
SSY	**Sortino**	**1.41**	**236**	⇑P	**Pn**	**01 17 07.7**	**-0.7**
SSY				S	**Sn**	**01 17 23.6**	**-2.2**
SSY				AML	AML		
	comp=E,2980μm,0.2s						
CELI	**Celico**	**1.45**	**359**	⇑P	**Pn**	**01 17 10.9**	**+1.8**
CELI				AML	AML		
	comp=E,272μm,0.6s						
CELI				AML	AML		
	comp=E,283μm,0.6s						
CELI				AML	AML		
	comp=N,560μm,0.8s						
CELI				AML	AML		
	comp=E,272μm,1.4s						
CELI				AML	AML		
	comp=E,283μm,1.4s						
CELI				AML	AML		
	comp=N,560μm,0.8s						
HLNI	**Lentini**	**1.45**	**246**	⇑P	**Pn**	**01 17 08.2**	**-0.7**
HLNI				S	**Sn**	**01 17 24.9**	**-1.8**
HLNI				AML	AML		
	comp=E,856μm,0.9s						
HLNI				AML	AML		
	comp=N,997μm,1.6s						
HLNI				AML	AML		
	comp=E,856μm,1.1s						
HLNI				AML	AML		
	comp=N,874μm,0.1s						
HAVL	**Avola**	**1.50**	**229**	⇑P	**Pn**	**01 17 09.1**	**-0.5**
MSFR	**San Fratello**	**1.54**	**274**	⇑P	**Pn**	**01 17 11.3**	**+1.1**
MSFR				AML	AML		
	comp=E,479μm,0.6s						
MSFR				AML	AML		
	comp=N,288μm,0.6s						
MSFR				AML	AML		
	comp=E,479μm,1.4s						
CET2	**Cetraro**	**1.64**	**344**	P	**Pn**	**01 17 11.6**	**0.0**
CET2				AML	AML		
	comp=E,846μm,0.6s						
CET2				AML	AML		
	comp=N,1465μm,0.7s						
CET2				AML	AML		
	comp=N,1369μm,0.3s						
HVZN	**Vizzini**	**1.64**	**242**	⇑P	**Pn**	**01 17 11.2**	**-0.4**
HVZN				S	**Sn**	**01 17 29.9**	**-1.6**
IFIL	**Filicudi I Eol**	**1.67**	**292**	P	**Pn**	**01 17 11.9**	**0.0**
IFIL				AML	AML		
	comp=E,1855μm,0.6s						
IFIL				AML	AML		
	comp=N,946μm,0.2s						
IFIL				AML	AML		
	comp=N,948μm,0.2s						
IFIL				AML	AML		
	comp=E,1849μm,0.3s						
HPAC	**Pachino**	**1.69**	**223**	⇑P	**Pn**	**01 17 12.8**	**+0.6**
HPAC				AML	AML		
	comp=N,1850μm,0.3s						
HPAC				AML	AML		
	comp=E,1500μm,0.6s						
HPAC				AML	AML		
	comp=E,1483μm,0.4s						
HPAC				AML	AML		
	comp=N,1850μm,1.7s						
HMDC	**Modica**	**1.71**	**235**	⇑P	**Pn**	**01 17 12.3**	**-0.2**
HMDC				S	**Sn**	**01 17 31.3**	**-1.9**
TDS	**Terranova Siba**	**1.71**	**355**	P	**Pn**	**01 17 14.7**	**+2.2**
TDS				AML	AML		
	comp=N,163μm,1.3s						
TDS				AML	AML		
	comp=E,157μm,0.7s						
TDS				AML	AML		
	comp=N,163μm,0.7s						
ISPIC	**ISPICA**	**1.75**	**228**	P	**Pn**	**01 17 13.2**	**+0.2**
ACATE	**Acate (RG)**	**1.86**	**241**	P	**Pn**	**01 17 14.4**	**-0.2**
ACATE				AML	AML		
	comp=E,808μm,1.1s						
ACATE				AML	AML		
	comp=E,727μm,1.4s						
ACATE				AML	AML		
	comp=E,808μm,0.9s						
ACATE				AML	AML		
	comp=N,718μm,0.4s						
ACATE				AML	AML		
	comp=N,692μm,0.4s						
ACATE				AML	AML		
	comp=E,581μm,0.4s						
ACATE				AML	AML		
	comp=E,665μm,0.3s						
RAFF	**Raffo Rosso**	**1.87**	**248**	⇑P	**Pn**	**01 17 15.1**	**+0.3**
RAFF				S	**Sn**	**01 17 37.1**	**0.0**
RAFF				AML	AML		
	comp=E,596μm,0.6s						
RAFF				AML	AML		
	comp=N,626μm,0.5s						
RAFF				AML	AML		
	comp=E,523μm,0.3s						
PETRA	**Petralia Sopra**	**1.92**	**267**	P	**Pn**	**01 17 17.0**	**+1.5**
PETRA				AML	AML		
	comp=E,426μm,0.8s						
PETRA				AML	AML		
	comp=N,666μm,0.7s						
PETRA				AML	AML		
	comp=E,426μm,1.2s						
PETRA				AML	AML		
	comp=N,377μm,0.5s						
PETRA				AML	AML		
	comp=E,285μm,0.6s						
CROCE	**Santa Croce Ca**	**1.94**	**236**	P	**Pn**	**01 17 15.7**	**0.0**
CROCE				S	**Sn**	**01 17 37.1**	**-1.8**
CROCE				AML	AML		
	comp=E,506μm,0.9s						
CROCE				AML	AML		
	comp=E,370μm,1.2s						
CROCE				AML	AML		
	comp=E,370μm,0.8s						
CROCE				AML	AML		
	comp=E,506μm,1.1s						
CROCE				AML	AML		
	comp=N,513μm,1.2s						
CROCE				AML	AML		
	comp=N,374μm,1.2s						
CROCE				AML	AML		
	comp=E,395μm,0.3s						
CROCE				AML	AML		
	comp=E,306μm,0.2s						
CROCE				AML	AML		
	comp=N,440μm,0.2s						
CROCE				AML	AML		
	comp=N,347μm,0.2s						
CSLB	**Castelbuono**	**1.96**	**270**	P	**Pn**	**01 17 16.8**	**+0.9**
CSLB				AML	AML		
	comp=N,128μm,0.8s						
CSLB				AML	AML		
	comp=E,125μm,0.8s						
CPTP	**Pietraperzia**	**1.96**	**255**	P	**Pn**	**01 17 17.8**	**+1.9**
CPTP				AML	AML		
	comp=E,284μm,0.7s						
CPTP				AML	AML		
	comp=N,358μm,1.6s						
CPTP				AML	AML		
	comp=N,358μm,0.4s						
CPTP				AML	AML		
	comp=E,284μm,1.3s						
MMN	**Mormanno**	**1.98**	**348**	P	**Pn**	**01 17 17.5**	**+1.3**
MMN				AML	AML		
	comp=E,403μm,0.9s						
MMN				AML	AML		
	comp=N,564μm,1.3s						
MMN				AML	AML		
	comp=N,564μm,0.7s						
MMN				AML	AML		
	comp=E,363μm,0.2s						
MMN				AML	AML		
	comp=N,513μm,0.2s						
RESU	**Resuttano**	**1.98**	**262**	P	**Pn**	**01 17 18.0**	**+1.6**
CUC	**Castrocucco**	**2.11**	**345**	P	**Pn**	**01 17 18.5**	**+0.4**
CUC				AML	AML		
	comp=N,326μm,0.7s						
CUC				AML	AML		
	comp=E,390μm,0.6s						
CUC				AML	AML		
	comp=N,326μm,1.3s						
CLTA	**Licata**	**2.19**	**250**	⇑P	**Pn**	**01 17 20.6**	**+1.5**
CLTA				AML	AML		
	comp=E,418μm,1.0s						
CLTA				AML	AML		
	comp=N,377μm,0.3s						
CLTA				AML	AML		
	comp=N,377μm,1.7s						
CLTA				AML	AML		
	comp=E,418μm,1.0s						
SIRI	**Monte Sirino -**	**2.29**	**347**	P	**Pn**	**01 17 21.0**	**+0.5**
SIRI				AML	AML		
	comp=E,300μm,0.4s						
SIRI				AML	AML		
	comp=N,224μm,0.3s						
SIRI				AML	AML		
	comp=E,279μm,0.4s						
SIRI				AML	AML		
	comp=N,206μm,0.3s						
BULG	**Bulgheria - Ca**	**2.31**	**337**	P	**Pn**	**01 17 21.0**	**+0.2**
BULG				AML	AML		
	comp=E,187μm,0.4s						
BULG				AML	AML		
	comp=N,352μm,1.6s						
BULG				AML	AML		
	comp=E,200μm,0.4s						
BULG				AML	AML		
	comp=N,380μm,1.5s						
BULG				AML	AML		
	comp=N,352μm,0.4s						
BULG				AML	AML		
	comp=N,380μm,0.5s						
BULG				AML	AML		
	comp=E,187μm,1.6s						
BULG				AML	AML		
	comp=N,365μm,0.3s						
BULG				AML	AML		
	comp=E,200μm,1.6s						
BULG				AML	AML		
	comp=N,343μm,0.4s						
MGR	**Morigerati**	**2.31**	**341**	P	**Pn**	**01 17 21.1**	**+0.3**
MGR				AML	AML		
	comp=N,207μm,1.6s						
MGR				AML	AML		
	comp=E,210μm,0.3s						
MGR				AML	AML		
	comp=E,203μm,0.3s						
MGR				AML	AML		
	comp=N,207μm,0.4s						
MGR				AML	AML		
	comp=N,236μm,1.0s						
CRAC	**Craco**	**2.41**	**358**	P	**Pn**	**01 17 24.6**	**+2.5**
CRAC				AML	AML		
	comp=E,382μm,0.6s						
CRAC				AML	AML		
	comp=N,349μm,1.3s						
CRAC				AML	AML		
	comp=N,349μm,0.7s						
CRAC				AML	AML		
	comp=E,382μm,1.4s						
CRAC				AML	AML		
	comp=N,290μm,0.2s						
CRAC				AML	AML		
	comp=E,331μm,0.4s						
SLCN	**Sala Consilina**	**2.53**	**344**	P	**Pn**	**01 17 24.9**	**+1.0**
SLCN				AML	AML		
	comp=E,330μm,0.5s						
SLCN				AML	AML		
	comp=N,218μm,1.4s						
SLCN				AML	AML		
	comp=E,330μm,1.5s						
SLCN				AML	AML		
	comp=E,342μm,0.9s						
SLCN				AML	AML		
	comp=N,202μm,0.6s						
SLCN				AML	AML		
	comp=N,341μm,0.8s						
PTRP	**Pietrapertosa**	**2.59**	**352**	P	**Pn**	**01 17 27.6**	**+2.9**
PTRP				AML	AML		
	comp=E,250μm,1.6s						
PTRP				AML	AML		
	comp=N,238μm,1.5s						
PTRP				AML	AML		
	comp=N,238μm,0.5s						
PTRP				AML	AML		
	comp=N,194μm,1.1s						
PTRP				AML	AML		
	comp=E,188μm,0.4s						
PTRP				AML	AML		
	comp=E,250μm,0.4s						
TAR1	**Taranto**	**2.63**	**13**	⇑P	**Pn**	**01 17 25.7**	**+0.5**
TAR1				AML	AML		
	comp=E,301μm,0.2s						
TAR1				AML	AML		
	comp=N,273μm,1.3s						
TAR1				AML	AML		
	comp=N,273μm,0.7s						
MIGL	**Miglionico**	**2.65**	**358**	P	**Pn**	**01 17 26.9**	**+1.5**
MIGL				AML	AML		
	comp=E,652μm,1.6s						
MIGL				AML	AML		
	comp=N,832μm,1.6s						
MIGL				AML	AML		
	comp=N,832μm,0.4s						
MIGL				AML	AML		
	comp=E,652μm,0.4s						
MATE	**Matera**	**2.70**	**3**	P	**Pn**	**01 17 26.6**	**+0.6**
MATE				AML	AML		
	comp=E,229μm,1.2s						
MATE				AML	AML		
	comp=E,229μm,0.8s						
MATE				AML	AML		
	comp=N,231μm,1.1s						
MATE	**Matera**	**2.70**	**3**	⇑P	**Pn**	**01 17 26.7**	**+0.6**
PZUN	**Potenza**	**2.75**	**348**	P	**Pn**	**01 17 29.7**	**+3.0**
PZUN				AML	AML		
	comp=E,185μm,1.1s						
PZUN				AML	AML		
	comp=N,159μm,0.4s						
SCIAC	**Sciacca**	**2.75**	**262**	P	**Pn**	**01 17 27.6**	**+0.7**
SCIAC				AML	AML		
	comp=N,71μm,0.9s						
SCIAC				AML	AML		
	comp=E,49μm,0.6s						
SCIAC				AML	AML		
	comp=E,43μm,0.5s						
MESG	**Mesagne**	**2.82**	**21**	P	**Pn**	**01 17 28.7**	**+0.9**
MESG				AML	AML		
	comp=E,502μm,0.3s						
MESG				AML	AML		
	comp=N,531μm,0.3s						
MESG				AML	AML		
	comp=N,526μm,0.1s						
MESG				AML	AML		
	comp=E,377μm,0.1s						
NOCI	**Noci**	**2.86**	**8**	⇑P	**Pn**	**01 17 28.6**	**+0.2**
NOCI				AML	AML		
	comp=E,412μm,0.8s						
NOCI				AML	AML		
	comp=N,594μm,0.1s						
MRLC	**Muro Lucano**	**2.92**	**344**	P	**Pn**	**01 17 31.4**	**+2.2**
MRLC				AML	AML		
	comp=N,88μm,1.4s						
MRLC				AML	AML		
	comp=N,88μm,0.6s						
MRLC				AML	AML		
	comp=E,99μm,1.5s						
MRLC				AML	AML		
	comp=E,86μm,0.4s						
MRLC				AML	AML		
	comp=E,40μm,0.4s						
MRLC				AML	AML		
	comp=N,84μm,0.6s						
AMUR	**Altamura**	**2.95**	**1**	⇑P	**Pn**	**01 17 30.0**	**+0.5**
AMUR				AML	AML		
	comp=E,306μm,1.5s						
AMUR				AML	AML		
	comp=N,250μm,0.5s						
AMUR				AML	AML		
	comp=N,250μm,1.5s						
AMUR				AML	AML		
	comp=E,306μm,0.5s						
AMUR				AML	AML		
	comp=E,290μm,0.2s						
PALZ	**Palazzo San Ge**	**3.02**	**352**	P	**Pn**	**01 17 31.6**	**+1.1**
VULT	**Monte Vulture**	**3.08**	**347**	P	**Pn**	**01 17 32.9**	**+1.4**
VULT				AML	AML		
	comp=N,190μm,1.1s						
VULT				AML	AML		
	comp=N,190μm,0.9s						
VULT				AML	AML		
	comp=E,130μm,1.5s						
VULT				AML	AML		
	comp=N,174μm,0.3s						
VULT				AML	AML		
	comp=E,169μm,0.8s						
KEK	**Kerkira**	**3.10**	**54**	P	**Pn**	**01 17 31.9**	**+0.3**
KEK				AML	AML		
	comp=N,581μm,0.5s						
KEK				AML	AML		
	comp=N,581μm,1.5s						
KEK				AML	AML		
	comp=E,780μm,0.3s						
KEK				AML	AML		
	comp=N,490μm,0.2s						
KEK				AML	AML		
	comp=E,602μm,0.2s						
SNAL	**S. Angelo Dei**	**3.14**	**341**	P	**Pn**	**01 17 34.2**	**+2.0**
SNAL				AML	AML		
	comp=N,136μm,1.9s						
CAPA	**Cerignola FG**	**3.25**	**350**	P	**Pn**	**01 17 34.5**	**+0.9**
CAPA				AML	AML		
	comp=N,96μm,0.6s						
IGT	**Igoumenitsa**	**3.36**	**61**	*e*Pn	**Pn**	**01 17 36.9**	**+1.7**
IGT				*e*Sn	**Sn**	**01 18 13.6**	**-0.3**
VLO	**Vlora**	**3.41**	**42**	P	**Pn**	**01 17 38.1**	**+2.4**
VLO				AML	AML		
	comp=E,662μm,0.3s						
VLO				AML	AML		
	comp=N,928μm,0.8s						
VLO				AML	AML		
	comp=N,848μm,0.3s						
VITU	**Vitulano (BN)**	**3.55**	**336**	P	**Pn**	**01 17 39.6**	**+1.8**
VITU				AML	AML		
	comp=N,86μm,0.6s						
VITU				AML	AML		
	comp=E,74μm,0.6s						
VITU				AML	AML		
	comp=E,2058μm,1.8s						
VITU				AML	AML		
	comp=N,164μm,0.6s						
LINA	**Linosa Island**	**3.60**	**236**	P	**Pn**	**01 17 38.7**	**+0.3**
LINA				AML	AML		
	comp=E,309μm,0.8s						
LINA				AML	AML		
	comp=N,273μm,0.9s						
OT11	**Lucera (FG) It**	**3.68**	**346**	P	**Pn**	**01 17 41.0**	**+1.5**
OT11				AML	AML		
	comp=N,117μm,0.9s						
OT11				AML	AML		
	comp=E,90μm,0.8s						
MSAG	**Monte S. Angel**	**3.79**	**353**	P	**Pn**	**01 17 41.4**	**+0.3**
MSAG				AML	AML		
	comp=E,67μm,1.6s						
MSAG				AML	AML		
	comp=N,140μm,1.3s						
MSAG				AML	AML		
	comp=E,67μm,0.4s						
MSAG				AML	AML		
	comp=N,140μm,0.7s						
MSAG				AML	AML		
	comp=E,110μm,0.3s						
MSAG				AML	AML		
	comp=E,46μm,0.2s						
MSAG				AML	AML		
	comp=N,122μm,0.2s						
MSAG				AML	AML		
	comp=N,282μm,0.2s						
SGRT	**San Giovanni R**	**3.85**	**351**	P	**Pn**	**01 17 41.9**	**-0.1**
SGRT				AML	AML		
	comp=N,113μm,0.9s						
SGRT				AML	AML		
	comp=N,113μm,1.1s						
SGRT				AML	AML		
	comp=E,144μm,0.2s						
SGRT				AML	AML		
	comp=N,101μm,0.3s						
APRC	**Apricena**	**3.88**	**349**	P	**Pn**	**01 17 42.5**	**+0.2**
APRC				AML	AML		
	comp=E,177μm,0.6s						
APRC				AML	AML		
	comp=N,234μm,0.7s						
APRC				AML	AML		
	comp=E,177μm,1.4s						
APRC				AML	AML		

	comp=N,231µm,0.2s						
APRC				AML	AML		
	comp=E,145µm,0.2s						
APRC				AML	AML		
	comp=E,148µm,0.2s						
MELA	**Melanico ??? S**	**3.90**	**344**	P	**Pn**	**01 17 43.9**	**+1.3**
MELA				AML	AML		
	comp=N,200µm,0.9s						
OT13	**Castello Viest**	**3.93**	**356**	P	**Pn**	**01 17 43.2**	**+0.2**
OT13				AML	AML		
	comp=E,208µm,0.4s						
OT13				AML	AML		
	comp=N,378µm,1.2s						
OT13				AML	AML		
	comp=N,378µm,0.8s						
OT13				AML	AML		
	comp=N,324µm,0.3s						
OT13				AML	AML		
	comp=E,189µm,0.2s						
CERA	**Filignano**	**4.12**	**333**	P	**Pn**	**01 17 47.1**	**+1.4**
CERA				AML	AML		
	comp=E,67µm,1.5s						
CERA				AML	AML		
	comp=N,58µm,1.3s						
CERA				AML	AML		
	comp=E,67µm,0.5s						
CERA				AML	AML		
	comp=N,58µm,0.7s						
CERA				AML	AML		
	comp=N,63µm,0.9s						
CERA				AML	AML		
	comp=N,48µm,0.4s						
CERA				AML	AML		
	comp=E,46µm,0.5s						
CERA				AML	AML		
	comp=E,65µm,0.7s						
TIR	**Tirane**	**4.25**	**36**	P	**Pn**	**01 17 49.4**	**+1.9**
TIR				AML	AML		
	comp=E,214µm,0.6s						
TIR				AML	AML		
	comp=N,194µm,1.4s						
TIR				AML	AML		
	comp=E,174µm,0.2s						
TIR				AML	AML		
	comp=N,185µm,0.2s						
ITM	**Ithomi**	**4.35**	**99**	P	**Pn**	**01 17 52.5**	**+3.6**
KLV	**Kalavryta, Ach**	**4.44**	**87**	P	**Pn**	**01 17 53.4**	**+3.3**
OHR	**Ohrid**	**4.56**	**45**	*e*Pn	**Pn**	**01 17 54.5**	**+2.8**
DRME	**Dracevica, Mon**	**4.69**	**25**	*e*Pn	**Pn**	**01 17 52.8**	**-0.7**
HCY	**Herceg Novi**	**4.73**	**18**	*e*Pn	**Pn**	**01 17 52.8**	**-1.2**
PDG	**Podgorica**	**4.93**	**24**	*e*Pn	**Pn**	**01 17 56.6**	**-0.2**
PDG	**Podgorica**	**4.93**	**24**	P	**Pn**	**01 17 57.0**	**+0.2**
PDG	**Podgorica**	**4.93**	**24**	⇑P	**Pn**	**01 17 57.0**	**+0.2**
PDG	**Podgorica**	**4.93**	**24**	*e*Pn	**Pn**	**01 17 56.3**	**-0.5**
TREB	**Trebinje**	**4.96**	**16**	*e*Pn	**Pn**	**01 17 56.2**	**-0.9**
TREB				*e*Sn	**Sn**	**01 18 48.5**	**-4.7**
TREB	**Trebinje**	**4.96**	**16**	*e*Pn	**Pn**	**01 17 55.9**	**-1.2**
STON	**Ston**	**4.99**	**10**	*e*Pn	**Pn**	**01 17 57.0**	**-0.6**
STON				*e*Sn	**Sn**	**01 18 49.8**	**-4.2**
STON	**Ston**	**4.99**	**10**	P	**Pn**	**01 17 57.2**	**-0.4**
AQU	**L'Aquila**	**5.01**	**332**	*e*Pn	**Pn**	**01 18 00.7**	**+2.8**
BRY	**Bratogost**	**5.17**	**17**	*e*Pn	**Pn**	**01 17 59.8**	**-0.4**
KLINJ	**Klinje**	**5.44**	**16**	*e*Pn	**Pn**	**01 18 02.0**	**-1.8**
KLINJ				*e*Pn	Pn	01 18 03.6	-0.2
SKO	**Skopje**	**5.51**	**42**	*e*Pn	**Pn**	**01 18 07.2**	**+2.6**
UPM	**Unac-Piva**	**5.55**	**18**	*e*Pn	**Pn**	**01 18 03.7**	**-1.7**
VAY	**Valandovo**	**5.75**	**52**	*e*Pn	**Pn**	**01 18 10.1**	**+2.1**
SJES	**Sjenica**	**5.91**	**25**	*e*Pn	**Pn**	**01 18 11.3**	**+1.0**
SJES				*e*Sn	**Sn**	**01 19 10.7**	**-6.1**
SJES	**Sjenica**	**5.91**	**25**	*e*Pn	**Pn**	**01 18 11.7**	**+1.4**
KEST	**Kesra**	**6.17**	**251**	Pn	**Pn**	**01 18 14.8**	**+0.8**
	comp=N,0.2nm,0.3s,baz=70,slow=15,SNR=9.9						
KEST				Sn	**Sn**	**01 19 26.0**	**+2.7**
	comp=N,0.1nm,0.3s,baz=60,slow=20,SNR=1.5						
	comp=N,0.8nm,0.5s						
KEST				AML	AML		
IVAS	**Ivanjica**	**6.25**	**25**	*e*Pn	**Pn**	**01 18 14.7**	**-0.2**
BBLS	**Lazi&#263i**	**6.29**	**19**	*e*Pn	**Pn**	**01 18 15.8**	**+0.3**
BBLS	**Lazi&#263i**	**6.29**	**19**	*e*Pn	**Pn**	**01 18 16.2**	**+0.7**
SRS	**Serrai**	**6.30**	**58**	*e*Pn	**Pn**	**01 18 17.3**	**+1.7**
BARS	**Barje**	**6.31**	**38**	*e*Pn	**Pn**	**01 18 15.8**	**+0.1**
SELS	**Selova**	**6.31**	**32**	*e*Pn	**Pn**	**01 18 16.5**	**+0.8**
SELS				*e*Sn	**Sn**	**01 19 21.5**	**-5.1**
BOSS	**Bosilegrad**	**6.42**	**43**	*e*Pn	**Pn**	**01 18 17.6**	**+0.3**
GOCS	**Kraljevo Serbi**	**6.50**	**29**	*e*Pn	**Pn**	**01 18 17.8**	**-0.6**
DIVS	**Divibare**	**6.67**	**22**	*e*Pn	**Pn**	**01 18 20.4**	**-0.3**
GRUS	**Gruza**	**6.72**	**27**	*e*Pn	**Pn**	**01 18 21.5**	**+0.2**
BLY	**Banja Luka**	**6.81**	**4**	*e*Pn	**Pn**	**01 18 23.3**	**+0.8**
BLY	**Banja Luka**	**6.81**	**4**	P	**Pn**	**01 18 23.3**	**+0.8**
BLY	**Banja Luka**	**6.81**	**4**	⇑P	**Pn**	**01 18 23.4**	**+0.9**
BLY	**Banja Luka**	**6.81**	**4**	*e*Pn	**Pn**	**01 18 23.3**	**+0.8**
BOVS	**Bovan**	**6.90**	**33**	*e*Pn	**Pn**	**01 18 24.0**	**+0.3**
BOVS				*e*Sn	**Sn**	**01 19 35.8**	**-5.1**
BOVS	**Bovan**	**6.90**	**33**	⇓P	**Pn**	**01 18 24.8**	**+1.1**
TRUS	**Trudelj**	**6.91**	**24**	*e*Pn	**Pn**	**01 18 23.4**	**-0.5**
VTS	**Vitosha**	**6.92**	**46**	*e*Pn	**Pn**	**01 18 25.2**	**+1.0**
TEKS	**Tekeris**	**6.97**	**18**	*e*Pn	**Pn**	**01 18 23.7**	**-1.0**
TEKS	**Tekeris**	**6.97**	**18**	*e*Pn	**Pn**	**01 18 24.0**	**-0.7**
ZAPS	**Zavoj**	**7.05**	**39**	*e*Pn	**Pn**	**01 18 27.3**	**+1.4**
ZAGS	**Zajecar**	**7.27**	**35**	*e*Pn	**Pn**	**01 18 29.8**	**+0.9**
AVAS	**Avala Beograd**	**7.37**	**23**	*e*Pn	**Pn**	**01 18 28.6**	**-1.6**
BORS2	**Bor- Borsko je**	**7.40**	**32**	*e*Pn	**Pn**	**01 18 29.6**	**-1.0**
KUBS	**Kucevo**	**7.53**	**29**	*e*Pn	**Pn**	**01 18 31.1**	**-1.3**
BOJS	**Bojanci**	**7.61**	**353**	P	**Pn**	**01 18 34.4**	**+1.0**
FRGS	**Fruska Gora**	**7.61**	**18**	*e*Pn	**Pn**	**01 18 32.2**	**-1.2**
FRGS	**Fruska Gora**	**7.61**	**18**	*e*Pn	**Pn**	**01 18 32.3**	**-1.2**
MDVR	**Moldovita**	**7.85**	**28**	⇑P	**Pn**	**01 18 37.2**	**+0.4**
VRSS	**Vrsac**	**8.01**	**25**	*e*Pn	**Pn**	**01 18 38.4**	**-0.6**
HERR	**Herculane**	**8.21**	**31**	⇓P	**Pn**	**01 18 42.3**	**+0.6**
LJU	**Ljubljana**	**8.22**	**350**	P	**Pn**	**01 18 43.0**	**+1.1**
MORH	**Mrgy, Hungar**	**8.40**	**10**	⇑P	**Pn**	**01 18 43.9**	**-0.4**
MORH	**Mrgy, Hungar**	**8.40**	**10**	*e*Pn	**Pn**	**01 18 43.1**	**-1.2**
BEHE	**Becsehely**	**8.51**	**1**	*e*Pn	**Pn**	**01 18 41.9**	**-4.0**
BZS	**Buzias**	**8.55**	**25**	⇓P	**Pn**	**01 18 45.8**	**-0.5**
OBKA	**Obir**	**8.68**	**351**	*e*Pn	**Pn**	**01 18 49.1**	**+0.9**
	comp=N,2.2nm,0.2s						
SOKA	**Soboth**	**8.79**	**353**	*i* Pn	**Pn**	**01 18 50.0**	**+0.2**
	comp=N,1.9nm,0.5s						
SURR	**Surduc**	**8.84**	**26**	⇑P	**Pn**	**01 18 49.9**	**-0.4**
LOT	**Lotru**	**9.24**	**34**	⇓P	**Pn**	**01 18 57.3**	**+1.4**
SESA	**Seetaler Alpe,**	**9.27**	**352**	*i* Pn	**Pn**	**01 18 57.2**	**+0.8**
	comp=N,1.3nm,0.3s						
ARSA	**Arzberg**	**9.32**	**356**	*i* Pn	**Pn**	**01 18 57.3**	**+0.3**
	comp=N,3.4nm,0.7s						
LESA	**Schwarzleotal**	**9.88**	**345**	*i* Pn	**Pn**	**01 19 07.0**	**+2.3**
	comp=N,0.9nm,0.4s						
SRO	**Srobarova**	**9.94**	**7**	*e*PN	**Pn**	**01 19 07.2**	**+1.8**
BIOA	**Bad Ischl, Aus**	**9.96**	**349**	*i* Pn	**Pn**	**01 19 07.9**	**+2.2**
	comp=N,1.1nm,0.2s						
CONA	**Conrad Observa**	**9.98**	**357**	*i* Pn	**Pn**	**01 19 06.6**	**+0.6**
	comp=N,1.3nm,0.3s						
MOA	**Molln**	**10.03**	**351**	*e*Pn	**Pn**	**01 19 07.9**	**+1.2**
	comp=N,4.4nm,0.6s						
MLR	**Muntele Rosu**	**10.30**	**40**	⇑P	**Pn**	**01 19 10.4**	**0.0**
MODS	**Modra-Piesok**	**10.43**	**3**	*e*PN	**Pn**	**01 19 12.4**	**+0.3**
VYHS	**Vyhne**	**10.67**	**8**	*e*PN	**Pn**	**01 19 15.7**	**+0.3**
GERES	**GERESS Array B**	**11.08**	**350**	Pn	**Pn**	**01 19 19.3**	**-1.8**
	baz=169,slow=16,SNR=4.4						
	comp=N,0.4nm,0.3s						
MAUC	**Maruska**	**11.45**	**4**	*e*P	**Pn**	**01 19 27.4**	**+1.4**
AKASG	**Malin Array Be**	**15.62**	**31**	Pn	**Pn**	**01 20 21.3**	**-1.0**
	comp=N,0.4nm,0.3s,baz=225,slow=9.9,SNR=4.4						
	comp=N,0.2nm,0.3s						
AKASG				AML	AML		
NOA	**NORSAR Array B**	**23.35**	**353**	P	**P**	**01 21 49.8**	**+0.1**
	comp=N,0.6nm,0.8s,baz=170,slow=8.1,SNR=1.4						
NOA				LR	LR	01 32 06.9	
	comp=N,13nm,19.3s,baz=290,slow=40						
	comp=N,0.6nm,0.8s						
FINES	**FINESS Array B**	**24.26**	**11**	P	**P**	**01 21 58.1**	**0.0**
	comp=N,4.4nm,1.0s,baz=189,slow=8.5,SNR=8.6						
	comp=N,4.4nm,1.0s						
ARCES	**ARCESS Array B**	**32.01**	**6**	P	**P**	**01 23 07.1**	**-0.2**
	comp=N,3.1nm,1.0s,baz=197,slow=8.5,SNR=4.1						
	comp=N,3.1nm,1.0s						
MKAR	**Makanchi Array**	**48.09**	**57**	P	**P**	**01 25 22.2**	**+1.4**
	comp=N,0.2nm,0.5s,baz=286,slow=5.7,SNR=1.8						
	comp=N,0.2nm,0.5s						
ZALV	**Zalesovo Beam**	**48.17**	**47**	P	**P**	**01 25 22.1**	**+0.9**
	comp=N,0.4nm,0.3s,baz=270,slow=7.2,SNR=2.4						
	comp=N,0.4nm,0.3s						

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*IDC **18** 01:30:25.4±1.3, 59.°91N×152.°96W, h80km±18km, mb3.6/9, mbtmp4.0/15, Error ellipse: s-maj=18.8km s-min=9.8km az=113.0*

*NEIC **18** 01:30:27.8±1.3, 59.°88N±0.°04×152.°91W±0.°07, h107km±3km, ML3.6/142, ML3.5(AEIC), Error ellipse: s-maj=6.1km s-min=5.0km az=178.0*

*AEIC **18** 01:30:28.7±0.9, 59.°84N±0.°04×152.°86W±0.°03, h104km±4km, Error ellipse: s-maj=5.8km s-min=2.5km az=172.0*

ISC 18 01:30:27.5±0.6, **59.°82N**±0.°04×**152.°79W**±0.°03, **h110**km±5km, **n184**, σ**1.″11**/173, **mb3.9**/9, **Southern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ILS	**Iliamna Low So**	**0.20**	**314**		**Pn**	**01 30 42.5**	**-0.4**
ILS					**Sn**	**01 30 53.5**	**-1.1**
IVE	**Iliamna Volcan**	**0.23**	**330**		**Pn**	**01 30 42.5**	**-0.6**
IVE					**Sn**	**01 30 53.8**	**-1.0**
ILSW	**Iliamna Southw**	**0.24**	**312**		**Pn**	**01 30 42.3**	**-0.8**
ILSW				Sn	**Sn**	**01 30 54.0**	**-0.9**
ILSW				IAML		01 30 54.4	
	comp=N,2µm,0.4s						
ILSW				IAML		01 30 55.1	
	comp=E,2µm,0.4s						
O20K	**Slope Mountain**	**0.27**	**17**		**Pn**	**01 30 43.1**	**-0.1**
O20K					**Sn**	**01 30 54.7**	**-0.3**
ILIM	**Iliamna**	**0.28**	**342**		**Pn**	**01 30 42.8**	**-0.4**
ILIM					**Sn**	**01 30 54.2**	**-0.8**
P19K	**Oil Pt**	**0.28**	**234**		**Pn**	**01 30 42.9**	**-0.3**
P19K					**Sn**	**01 30 54.5**	**-0.4**
AU22	**Augustine Moun**	**0.54**	**213**		**Pn**	**01 30 44.4**	**-0.1**
AU22					**Sn**	**01 30 56.9**	**-0.4**
AUF	**Augustine Flow**	**0.55**	**219**		**Sn**	**01 30 57.2**	**-0.3**
AUJK	**Augustine Jueg**	**0.57**	**214**		**Sn**	**01 30 57.5**	**-0.3**
AUCH	**Augustine Cone**	**0.57**	**216**		**Pn**	**01 30 44.8**	**-0.1**
HOM	**Homer**	**0.60**	**105**		**Pn**	**01 30 45.5**	**+0.5**
HOM				Sn	**Sn**	**01 30 59.9**	**+1.7**
HOM				IAML		01 31 01.1	
	comp=E,3µm,0.5s						
RDT	**Redoubt**	**0.78**	**14**		**Sn**	**01 30 59.8**	**-1.2**
CNPM	**China Poot**	**0.84**	**110**		**Pn**	**01 30 47.5**	**+0.5**
CNPM				Sn	**Sn**	**01 31 02.1**	**+0.2**
O19K	**Port Alsworth**	**0.86**	**297**		**Pn**	**01 30 46.6**	**-0.5**
O19K				Sn	**Sn**	**01 30 60.0**	**-2.1**
O19K				IAML		01 31 01.1	
	comp=N,995nm,0.4s						
O19K				IAML		01 31 06.7	
	comp=E,1µm,0.5s						
Q19K	**Cape Douglas,**	**1.00**	**207**		**Pn**	**01 30 48.4**	**-0.3**
Q19K				IAML		01 31 08.1	
	comp=N,943nm,0.7s						
Q19K				IAML		01 31 08.2	
	comp=E,1µm,0.7s						
BRSE	**Bradley Lake S**	**1.04**	**93**		**Sn**	**01 31 05.7**	**+0.4**
CAPN	**Captain Cook N**	**1.25**	**40**		**Pn**	**01 30 53.2**	**+1.9**
N19K	**Bonanza Creek**	**1.31**	**320**		**Pn**	**01 30 51.5**	**-0.5**
N19K				IAML		01 31 10.0	
	comp=N,380nm,0.7s						
P18K	**Big Mountain,**	**1.31**	**252**		**Pn**	**01 30 51.4**	**-0.7**
P18K					**Sn**	**01 31 08.9**	**-1.8**
SLKM	**Skilak Lake**	**1.46**	**61**		**Pn**	**01 30 53.8**	**0.0**
KAPH	**Katmai Pasha**	**1.47**	**214**		**Pn**	**01 30 54.2**	**+0.3**
O22K	**Cooper Landing**	**1.67**	**65**		**Pn**	**01 30 56.8**	**+0.6**
SEW	**Seward**	**1.70**	**79**		**Sn**	**01 31 18.8**	**0.0**
SEW	**Seward**	**1.70**	**79**		**Pn**	**01 30 56.9**	**+0.3**
SEW				IAML		01 31 22.9	
	comp=E,613nm,0.3s						
SEW				IAML		01 31 23.6	
	comp=N,354nm,0.6s						
STLK	**Strandline Lak**	**1.75**	**15**		**Pn**	**01 30 57.4**	**+0.1**
STLK				IAML		01 31 20.5	
	comp=E,272nm,0.5s						
STLK				IAML		01 31 22.4	
	comp=N,439nm,0.5s						
N18K	**Kilae Creek**	**1.77**	**300**		**Sn**	**01 31 18.6**	**-1.9**
N18K	**Kilae Creek**	**1.77**	**300**		**Pn**	**01 30 56.9**	**-0.7**
N18K	**Kilae Creek**	**1.77**	**300**	IAML		01 31 19.2	
	comp=E,142nm,0.7s						
N18K				IAML		01 31 19.4	
	comp=N,111nm,0.7s						
SUA	**Susitna One**	**1.93**	**30**		**Pn**	**01 31 00.2**	**+0.6**
SUA	**Susitna One**	**1.93**	**30**	IAML		01 31 26.7	
	comp=N,1µm,0.9s						
P17K	**Kvichak River**	**1.97**	**253**		**Pn**	**01 30 59.9**	**-0.1**
P17K				IAML		01 31 29.4	
	comp=N,517nm,1.1s						
P17K				IAML		01 31 29.5	
	comp=E,433nm,1.1s						
RC01	**Rabbit Creek A**	**1.98**	**49**		**Pn**	**01 31 00.5**	**+0.4**
KDAK	**Kodiak Island**	**2.05**	**177**	P	**Pn**	**01 31 00.3**	**-0.6**
	comp=E,184nm,0.3s,baz=350,slow=10.0,SNR=225						
KDAK				S	**Sn**	**01 31 25.1**	**-1.5**
	comp=E,142nm,0.3s,baz=342,slow=20,SNR=13						
KDAK	**Kodiak Island**	**2.05**	**177**		**Pn**	**01 31 00.5**	**-0.5**
KDAK				IAML		01 31 27.9	
	comp=E,276nm,0.2s						
KDAK				IAML		01 31 34.4	
	comp=E,316nm,0.3s						
M20K	**Styx River**	**2.08**	**355**		**Pn**	**01 31 01.6**	**+0.1**
ACHA	**Angle Creek He**	**2.08**	**220**		**Pn**	**01 31 01.9**	**+0.3**
O17K	**Koliganek Bris**	**2.18**	**271**		**Pn**	**01 31 02.1**	**-0.5**
Q17K	**Contact Creek**	**2.24**	**227**		**Pn**	**01 31 03.6**	**+0.1**
SKT	**Skwentna**	**2.25**	**15**		**Pn**	**01 31 03.7**	**+0.1**
SKT				IAML		01 31 34.4	
	comp=N,218nm,0.4s						
SKT				IAML		01 31 38.8	
	comp=E,159nm,0.5s						
N17K	**Nushagak Hills**	**2.31**	**290**		**Pn**	**01 31 03.9**	**-0.5**
M22K	**Willow**	**2.34**	**33**		**Pn**	**01 31 05.3**	**+0.6**
PWL	**Port Wells**	**2.45**	**63**		**Pn**	**01 31 06.3**	**+0.2**
PMR	**Palmer**	**2.53**	**44**	P	**Pn**	**01 31 06.6**	**-0.5**
PMR	**Palmer**	**2.53**	**44**	S	**Sn**	**01 31 35.8**	**-1.8**
PMR	**Palmer**	**2.53**	**44**		**Pn**	**01 31 06.7**	**-0.4**
PMR				IAML		01 31 36.5	
	comp=E,227nm,0.2s						
PMR				IAML		01 31 36.7	
	comp=N,266nm,0.2s						
L19K	**White Mountain**	**2.58**	**338**		**Pn**	**01 31 07.5**	**-0.3**
OHAK	**Old Harbor**	**2.62**	**186**		**Pn**	**01 31 07.7**	**-0.6**
OHAK	**Old Harbor**	**2.62**	**186**	IAML		01 31 39.2	
	comp=N,243nm,0.3s						
OHAK				IAML		01 31 39.9	
	comp=E,170nm,0.6s						
KNK	**Knik Glacier**	**2.67**	**51**	IAML		01 31 41.9	
	comp=N,516nm,0.4s						
P23K	**Montague Islan**	**2.72**	**84**		**Pn**	**01 31 10.6**	**+0.9**
P23K				IAML		01 31 44.0	
	comp=N,475nm,0.4s						
P23K				IAML		01 31 46.2	
	comp=E,440nm,0.3s						
GHO	**Glory Hole Cre**	**2.72**	**42**	IAML		01 31 45.6	
	comp=N,377nm,0.4s						
GHO				IAML		01 31 46.9	
	comp=E,425nm,0.6s						
M17K	**Holitna River**	**2.79**	**307**		**Pn**	**01 31 10.1**	**-0.5**
M17K				IAML		01 32 10.9	
	comp=E,76nm,1.1s						
M17K				IAML		01 32 13.8	
	comp=N,81nm,0.9s						
PLK5	**Peulik 5**	**2.80**	**231**		**Pn**	**01 31 10.9**	**+0.2**
PLK1	**Peulik 1**	**2.84**	**226**		**Pn**	**01 31 11.7**	**+0.5**
CUT	**Chulitna**	**2.87**	**24**		**Pn**	**01 31 12.7**	**+1.1**
CUT	**Chulitna**	**2.87**	**24**	IAML		01 31 52.6	
	comp=N,365nm,0.4s						
CUT				IAML		01 31 58.0	
	comp=E,384nm,0.8s						
R17L	**Mt. Peulik Vol**	**2.88**	**222**		**Pn**	**01 31 12.6**	**+0.7**
SML	**Sawmill**	**2.96**	**46**	IAML		01 31 47.6	
	comp=E,255nm,0.7s						
SML				IAML		01 31 55.4	
	comp=N,300nm,0.6s						
N16K	**Nishlik Lake**	**3.06**	**285**		**Pn**	**01 31 14.2**	**-0.1**
L18K	**Granite Mounta**	**3.07**	**323**		**Pn**	**01 31 13.6**	**-0.7**
M23K	**Glacier View**	**3.17**	**49**		**Pn**	**01 31 15.5**	**-0.2**
HIN	**Hinchinbrook I**	**3.20**	**77**	Pn	**Pn**	**01 31 16.0**	**0.0**
MID	**Middleton Isla**	**3.30**	**94**		**Pn**	**01 31 17.9**	**+0.6**
MID	**Middleton Isla**	**3.30**	**94**	IAML		01 32 03.7	
	comp=E,311nm,1.2s						
SCM	**Sheep Creek Mo**	**3.35**	**51**		**Pn**	**01 31 18.0**	**-0.1**
SCM	**Sheep Creek Mo**	**3.35**	**51**	IAML		01 31 59.2	
	comp=E,280nm,0.8s						
SCM				IAML		01 31 59.6	
	comp=N,286nm,0.6s						
SII	**Sitkinak Islan**	**3.35**	**193**	P	**Pn**	**01 31 16.8**	**-1.3**
SII	**Sitkinak Islan**	**3.35**	**193**	S	**Sn**	**01 31 54.9**	**-2.3**
SII	**Sitkinak Islan**	**3.35**	**193**		**Pn**	**01 31 17.4**	**-0.7**
WAT7	**Susitna Watana**	**3.57**	**30**		**Pn**	**01 31 21.3**	**+0.3**
EYAK	**Cordova Ski Ar**	**3.59**	**75**	P	**Pn**	**01 31 20.7**	**-0.5**
EYAK	**Cordova Ski Ar**	**3.59**	**75**	S	**Sn**	**01 32 01.3**	**-1.5**
EYAK	**Cordova Ski Ar**	**3.59**	**75**	IAML		01 32 02.2	
	comp=E,81nm,0.6s						
EYAK				IAML		01 32 04.3	
	comp=N,84nm,0.4s						
K20K	**Telida**	**3.60**	**351**		**Pn**	**01 31 21.6**	**+0.2**
CAST	**Castle Rocks**	**3.63**	**5**		**Pn**	**01 31 21.7**	**0.0**
N15K	**Kwethluk River**	**3.69**	**279**	Pn	**Pn**	**01 31 23.2**	**+0.7**
N15K				IAML		01 32 53.3	
	comp=E,36nm,1.0s						
DIV	**Divide**	**3.71**	**66**	IAML		01 32 06.2	
	comp=E,117nm,0.8s						
DIV				IAML		01 32 07.0	
	comp=N,226nm,0.8s						
KTH	**Kantishna Hill**	**3.85**	**13**		**Pn**	**01 31 24.4**	**-0.3**
KTH	**Kantishna Hill**	**3.85**	**13**	IAML		01 32 43.7	
	comp=E,57nm,1.1s						
KTH				IAML		01 32 48.1	
	comp=N,45nm,1.0s						
K17K	**Iditarod**	**3.94**	**320**		**Pn**	**01 31 25.3**	**-0.6**
K17K	**Iditarod**	**3.94**	**320**	IAML		01 32 28.0	
	comp=E,50nm,0.9s						
M15K	**Kasigluk River**	**4.03**	**286**		**Pn**	**01 31 27.3**	**+0.1**
RND	**Reindeer**	**4.06**	**26**	IAML		01 32 14.4	
	comp=E,56nm,0.3s						
RND				IAML		01 32 15.1	
	comp=N,59nm,0.9s						
GOAT	**Goat Mountain**	**4.09**	**76**		**Pn**	**01 31 28.2**	**+0.1**
J18K	**Innoko River**	**4.11**	**335**		**Pn**	**01 31 27.7**	**-0.5**
DHY	**Denali Highway**	**4.17**	**36**	IAML		01 32 18.2	
	comp=E,142nm,0.3s						
DHY				IAML		01 32 20.3	
	comp=N,110nm,0.3s						
BMRM	**Bremner River**	**4.22**	**71**		**Pn**	**01 31 29.6**	**-0.1**
BMRM				IAML		01 32 18.1	
	comp=E,115nm,0.4s						
BMRM				IAML		01 32 18.2	
	comp=N,121nm,0.4s						
KAIM	**Kayak Island**	**4.22**	**85**		**Pn**	**01 31 30.5**	**+0.8**
KAIM	**Kayak Island**	**4.22**	**85**	IAML		01 32 22.8	
	comp=N,148nm,0.9s						
KAIM				IAML		01 32 54.3	
	comp=E,91nm,1.0s						
CHIR	**Chirikof Islan**	**4.29**	**202**	P	**Pn**	**01 31 29.6**	**-1.0**
MCK	**McKinley**	**4.33**	**23**	IAML		01 32 43.1	
	comp=N,44nm,0.8s						
MCK				IAML		01 32 44.2	
	comp=E,39nm,0.7s						
BPAW	**Bear Paw Mtn.**	**4.38**	**10**		**Pn**	**01 31 30.9**	**-1.0**
BPAW				IAML		01 32 41.0	
	comp=E,22nm,0.6s						
BPAW				IAML		01 32 54.8	
	comp=N,21nm,0.6s						
N25K	**Chitina, Valde**	**4.40**	**62**		**Pn**	**01 31 32.1**	**-0.1**
HARP	**HAARP**	**4.51**	**52**		**Pn**	**01 31 33.8**	**+0.2**
BWN	**Browne**	**4.64**	**18**		**Pn**	**01 31 35.8**	**+0.5**
BWN	**Browne**	**4.64**	**18**	IAML		01 33 56.6	
	comp=E,62nm,1.1s						
WACK	**Wrangell Chich**	**4.67**	**59**		**Pn**	**01 31 36.8**	**+0.9**
J17K	**VABM Dome**	**4.68**	**323**		**Pn**	**01 31 35.1**	**-0.7**
GLB	**Gilahina Butte**	**4.71**	**66**	IAML		01 32 31.1	
	comp=E,110nm,0.6s						
VRDI	**Verde Repeater**	**4.82**	**69**		**Pn**	**01 31 38.5**	**+0.5**
VRDI	**Verde Repeater**	**4.82**	**69**	IAML		01 32 32.1	
	comp=N,55nm,0.6s						
VRDI				IAML		01 32 35.8	
	comp=E,28nm,0.5s						
PS10	**TAPS Pump St10**	**4.93**	**40**		**Pn**	**01 31 39.4**	**+0.2**
TGL	**Tana Glacier**	**5.04**	**75**		**Pn**	**01 31 41.5**	**+0.6**
TGL	**Tana Glacier**	**5.04**	**75**	IAML		01 34 55.3	
	comp=N,82nm,1.1s						
I20K	**Naaghedeneel**	**5.06**	**352**		**Pn**	**01 31 40.6**	**-0.3**
I20K	**Naaghedeneel**	**5.06**	**352**	IAML		01 32 26.6	
	comp=N,64nm,0.7s						
I20K				IAML		01 32 35.9	
	comp=E,51nm,1.2s						
MCARA	**McCarthy VSAT**	**5.06**	**68**		**Pn**	**01 31 41.1**	**+0.1**
MCARA	**McCarthy VSAT**	**5.06**	**68**	IAML		01 32 41.8	
	comp=E,84nm,0.4s						
J16K	**Anvik River**	**5.10**	**316**		**Pn**	**01 31 40.8**	**-0.7**
WRH	**Wood River Hil**	**5.16**	**23**		**Pn**	**01 31 41.8**	**-0.5**
WRH	**Wood River Hil**	**5.16**	**23**	IAML		01 32 41.7	
	comp=N,17nm,0.6s						
WRH				IAML		01 33 05.1	
	comp=E,18nm,0.8s						
KIAG	**Kiagna River**	**5.29**	**73**		**Pn**	**01 31 45.1**	**+0.9**
GCSA	**Galena City Sc**	**5.30**	**341**		**Pn**	**01 31 43.8**	**-0.4**
BALM	**Baldy**	**5.31**	**72**		**Pn**	**01 31 45.4**	**+0.8**
HDA	**Harding Lake**	**5.36**	**28**	IAML		01 32 44.6	
	comp=N,65nm,0.5s						
CCB	**Clear Creek Bu**	**5.37**	**24**	IAML		01 32 47.1	
	comp=N,17nm,0.6s						
CCB				IAML		01 32 47.3	
	comp=E,17nm,0.4s						
I21K	**Tanana**	**5.39**	**4**		**Pn**	**01 31 45.1**	**-0.4**
I21K	**Tanana**	**5.39**	**4**	IAML		01 33 29.2	
	comp=E,17nm,0.8s						
I21K				IAML		01 33 35.4	
	comp=N,13nm,0.7s						
M26K	**Nabesna, AK**	**5.41**	**57**		**Pn**	**01 31 46.7**	**+1.0**
RIDG	**Independent Ri**	**5.44**	**40**		**Pn**	**01 31 46.3**	**+0.1**
YAH	**Yahtse**	**5.55**	**80**		**Pn**	**01 31 48.7**	**+0.9**
COLA	**College**	**5.57**	**22**	P	**Pn**	**01 31 47.3**	**-0.5**
COLA	**College**	**5.57**	**22**	S	**Sn**	**01 32 50.8**	**+0.4**
COLA	**College**	**5.57**	**22**		**Pn**	**01 31 47.6**	**-0.2**
ILAR	**Eielson Array**	**5.68**	**26**	P	**Pn**	**01 31 48.5**	**-0.8**
	comp=N,11nm,0.3s,baz=217,slow=14,SNR=116						
ILAR				S	**Sn**	**01 32 48.2**	**-4.9**
	comp=N,4.0nm,0.4s,baz=218,slow=23,SNR=5.9						
SCRK	**Sand Creek**	**5.89**	**41**		**Pn**	**01 31 52.3**	**+0.1**
H18K	**Honhosa River**	**5.94**	**337**		**Pn**	**01 31 52.4**	**-0.5**
LOGN	**Logan Glacier**	**5.94**	**75**		**Pn**	**01 31 53.8**	**+0.8**
SAMH	**Samovar Hills**	**6.04**	**82**		**Pn**	**01 31 55.2**	**+0.9**
YUK2	**White River**	**6.17**	**66**		**Pn**	**01 31 56.8**	**+0.7**
BC01	**Beaver Creek A**	**6.18**	**54**		**Pn**	**01 31 56.1**	**0.0**
L27K	**Beaver Creek,**	**6.18**	**54**		**Pn**	**01 31 56.5**	**+0.3**
IM04	**Indian Mountai**	**6.20**	**356**		**Pn**	**01 31 56.3**	**0.0**
IMAR	**Indian Mountai**	**6.20**	**356**		**Pn**	**01 31 55.8**	**-0.6**
H23K	**Yukon River**	**6.21**	**12**		**Pn**	**01 31 56.5**	**0.0**
PS06	**TAPS Pump Stn6**	**6.22**	**12**		**Pn**	**01 31 56.6**	**0.0**
PCA	**Pinnacle**	**6.30**	**82**		**Pn**	**01 31 59.2**	**+1.4**
O28M	**Mount Upton**	**6.33**	**76**		**Pn**	**01 31 59.9**	**+1.5**
PNL	**Peninsula**	**6.77**	**86**	P	**Pn**	**01 32 04.2**	**+0.1**
G23K	**Bananza Creek**	**7.03**	**9**		**Pn**	**01 32 07.3**	**-0.3**
O29M	**Mount Kennedy**	**7.13**	**80**		**Pn**	**01 32 09.9**	**+0.8**
H25L	**Birch Creek**	**7.20**	**23**		**Pn**	**01 32 09.2**	**-0.6**
F20K	**Avaraart Lake**	**7.38**	**351**		**Pn**	**01 32 12.2**	**-0.1**
M29M	**Somme Creek**	**7.41**	**63**		**Pn**	**01 32 14.0**	**+1.1**
F21K	**Alatna River**	**7.44**	**358**		**Pn**	**01 32 12.7**	**-0.4**
F22K	**John River**	**7.72**	**2**		**Pn**	**01 32 17.5**	**+0.5**
I27K	**Kandik River**	**7.74**	**37**		**Pn**	**01 32 16.7**	**-0.5**
N30M	**Aishikik Lake**	**7.89**	**71**		**Pn**	**01 32 18.8**	**-0.5**
P30M	**Million Dollar**	**7.95**	**81**		**Pn**	**01 32 20.9**	**+0.8**
F24K	**Squaw Lake**	**8.03**	**14**		**Pn**	**01 32 20.6**	**-0.5**
PLBC	**Pleasant Camp**	**8.33**	**85**		**Pn**	**01 32 26.5**	**+1.3**
F25K	**Christian Rive**	**8.41**	**19**		**Pn**	**01 32 25.4**	**-1.0**
BMAR	**Burnt Mountain**	**8.46**	**22**		**Pn**	**01 32 25.5**	**-1.5**
E20K	**Nigu River**	**8.60**	**351**		**Pn**	**01 32 29.4**	**+0.5**
S31K	**Pelican**	**8.77**	**95**		**Pn**	**01 32 31.3**	**+0.1**
F26K	**Sheenjek River**	**8.77**	**22**		**Pn**	**01 32 30.4**	**-0.8**
SKAG	**Skagway**	**8.85**	**85**		**Pn**	**01 32 34.1**	**+1.9**
BESE	**Bessie Mountai**	**9.28**	**90**		**Pn**	**01 32 40.0**	**+1.8**
C21K	**Knifeblade Rid**	**9.41**	**356**		**Pn**	**01 32 40.1**	**+0.3**
F28M	**Old Crow**	**9.67**	**31**		**Pn**	**01 32 42.5**	**-0.8**
S32K	**Killisnoo**	**9.78**	**96**		**Pn**	**01 32 45.5**	**+0.7**
C23K	**Itkillik River**	**10.10**	**4**		**Pn**	**01 32 49.4**	**+0.3**
C27K	**Jago River**	**10.56**	**18**		**Pn**	**01 32 53.1**	**-2.3**
R33M	**Jennings River**	**11.05**	**83**		**Pn**	**01 33 04.2**	**+2.0**
U33K	**Whale Pass**	**11.07**	**101**		**Pn**	**01 33 01.9**	**-0.4**
S34M	**Telegraph Cree**	**11.36**	**90**		**Pn**	**01 33 08.7**	**+2.5**
CRAG	**Craig**	**11.38**	**104**	P	**Pn**	**01 33 07.0**	**+0.5**
DLBC	**Dease Lake**	**11.76**	**87**	P	**Pn**	**01 33 12.6**	**+1.1**
	comp=N,3.2nm,0.4s,baz=288,slow=20,SNR=10						
DLBC				S	**Sn**	**01 35 18.9**	**-1.8**
	comp=N,1.0nm,0.7s,baz=252,slow=20,SNR=1.1						
INK	**Inuvik**	**11.92**	**36**	P	**Pn**	**01 33 13.0**	**-0.5**
	comp=N,1.6nm,0.5s,baz=237,slow=14,SNR=7.5						
H02S1	**DAWSON INLET T**	**12.99**	**112**	P	**Pn**	**01 33 29.2**	**+1.5**
	SNR=116						
H02S1				S	**Sn**	**01 35 44.7**	**-5.7**
	SNR=12						

H02S2	**DAWSON INLET T**	**12.99**	**112**	P	**Pn**	**01 33 29.2**	**+1.6**
	SNR=113						
H02S2				S	**Sn**	**01 35 44.7**	**-5.7**
	SNR=12						
ADK	**Adak**	**15.52**	**250**	P	**P**	**01 34 02.7**	**+0.7**
YKA	**Yellowknife Ar**	**18.43**	**65**	P	**Pn**	**01 34 35.7**	**+0.4**
	comp=N,1.5nm,0.4s,baz=282,slow=11,SNR=14						
SHEM	**Shemya Is, Ala**	**19.54**	**263**	P	**P**	**01 34 45.9**	**-0.2**
	comp=N,17nm,0.7s,baz=200,slow=10.0,SNR=9.3						
PETK	**Petropavlovsk-**	**27.59**	**278**	P	**P**	**01 36 04.3**	**+0.4**
	comp=N,0.7nm,0.5s,baz=59,slow=8.6,SNR=1.9						
	comp=N,0.7nm,0.5s						
SPITS	**Spitsbergen Ar**	**42.09**	**3**	P	**P**	**01 38 08.8**	**+1.0**
	comp=N,17nm,1.1s,baz=333,slow=15,SNR=2.2						
	comp=N,17nm,1.1s						
TXAR	**Lajitas Array**	**44.82**	**111**	P	**P**	**01 38 32.4**	**+2.0**
	comp=N,0.2nm,0.7s,baz=337,slow=15,SNR=2.5						
	comp=N,0.2nm,0.7s						
KSRS	**Korea Array**	**53.32**	**283**	P	**P**	**01 39 35.2**	**+0.3**
	comp=N,0.9nm,0.6s,baz=46,slow=7.1,SNR=2.2						
	comp=N,0.9nm,0.6s						
SONM	**Songino Array**	**54.98**	**306**	P	**P**	**01 39 47.8**	**+0.8**
	comp=N,1.0nm,0.6s,baz=46,slow=7.0,SNR=4.7						
	comp=N,1.0nm,0.6s						
ZALV	**Zalesovo Beam**	**57.58**	**324**	P	**P**	**01 40 05.2**	**+0.1**
	comp=N,1.5nm,0.5s,baz=32,slow=7.7,SNR=5.9						
	comp=N,1.5nm,0.5s						
KURK	**Kurchatov**	**62.24**	**326**	P	**P**	**01 40 37.7**	**+0.7**
BVAR	**Borovoye Array**	**62.28**	**332**	P	**P**	**01 40 37.5**	**+0.2**
	comp=N,1.1nm,0.5s,baz=25,slow=6.1,SNR=6.1						
	comp=N,1.1nm,0.5s						
KURBB	**Kurchatov Arra**	**62.35**	**326**	P	**P**	**01 40 37.7**	**-0.1**
	comp=N,0.6nm,0.5s,baz=28,slow=6.7,SNR=6.1						
	comp=N,0.6nm,0.5s						
MKAR	**Makanchi Array**	**64.64**	**321**	P	**P**	**01 40 52.4**	**-0.6**
	comp=N,0.8nm,0.6s,baz=28,slow=7.4,SNR=8.5						
	comp=N,0.8nm,0.6s						

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*SJA **18** 01:46:51.9±0.6, 30°.04S×71°.80W, h9km±2km, ML3.7, MW3.3*

*GUC **18** 01:46:54.8±0.8, 30°.03S×71°.64W, h35km±2km, ML4.1*

ISC 18 01:46:52.2±1.4**, 29°.98S**±0°.02×**71°.74W**±0°.05**, h5**km±10km**,**
n56, σ1^s**41**/85**, 2C-5D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CO06	**Fray Jorge**	**0.70**	**172**	⇑*i*P	**Pg**	**01 47 07.0**	**+1.3**
CO06				*i* S	**Sg**	**01 47 15.7**	**+0.9**
CO06				IAML		01 47 16.6	
	comp=N,7μm,0.2s						
GO04	**Tololo Observa**	**0.84**	**104**	*e*P	**Pb**	**01 47 09.0**	**-0.4**
GO04				*e*S	**Sn**	**01 47 22.3**	**-1.5**
GO04				IAML		01 47 23.7	
	comp=Z,3μm,0.2s						
GO04	**Tololo Observa**	**0.84**	**104**	*i* P	**Pb**	**01 47 09.3**	**-0.2**
GO04				*i* S	**Sg**	**01 47 18.9**	**-0.5**
GO04				IAML		01 47 22.4	
	comp=N,10μm,0.6s						
LCO	**Las Campanas**	**1.32**	**44**	*e*P	**Pn**	**01 47 18.0**	**+0.4**
LCO				*e*S	**Sn**	**01 47 35.9**	**+0.2**
LCO				IAML		01 47 39.5	
	comp=Z,2μm,0.3s						
LCO	**Las Campanas**	**1.32**	**44**	⇓*i*P	**Pn**	**01 47 17.7**	**+0.1**
LCO				*i* S	**Sn**	**01 47 35.0**	**-0.7**
CO02	**Combarbal**	**1.38**	**153**	*e*P	**Pn**	**01 47 17.8**	**-0.5**
CO02				*e*S	**Sb**	**01 47 36.2**	**-0.4**
CO02				IAML		01 47 37.2	
	comp=Z,2μm,0.2s						
CO02	**Combarbal**	**1.38**	**153**	⇓*i*P	**Pn**	**01 47 17.6**	**-0.7**
CO02				*i* S	**Sb**	**01 47 34.7**	**-1.8**
CO02				IAML		01 47 37.0	
	comp=N,7μm,0.3s						
CO01	**Juntas del Tor**	**1.43**	**90**	*e*P	**Pn**	**01 47 18.8**	**-0.3**
CO01				*e*S	Sg	01 47 26.8	-11
CO01				IAML		01 47 36.9	
	comp=Z,385nm,0.6s						
CO01	**Juntas del Tor**	**1.43**	**90**	⇓*i*P	**Pn**	**01 47 18.6**	**-0.4**
CO01				*i* S	**Sg**	**01 47 36.0**	**-2.3**
AC05	**El Transito**	**1.71**	**49**	*e*P	**Pb**	**01 47 23.8**	**-0.5**
AC05				*e*S	Sn	01 47 34.2	-11
AC05				IAML		01 47 49.1	
	comp=Z,427nm,0.7s						
AC05	**El Transito**	**1.71**	**49**	⇓*i*P	**Pb**	**01 47 23.8**	**-0.5**
AC05				*i* S	**Sb**	**01 47 45.5**	**-0.6**
AC04	**Llanos de Chal**	**1.86**	**18**	*e*P	**Pn**	**01 47 24.9**	**+0.2**
AC04				*e*S	**Sg**	**01 47 53.3**	**+1.3**
AC04				IAML		01 47 57.7	
	comp=Z,313nm,0.5s						
AC04	**Llanos de Chal**	**1.86**	**18**	*i* P	**Pn**	**01 47 25.1**	**+0.3**
AC04				*i* S	**Sb**	**01 47 49.5**	**-0.7**
AROD	**Rodeo**	**1.98**	**96**	*e*P	**Pb**	**01 47 28.2**	**-0.6**
AROD				*e*S	**Sg**	**01 47 54.9**	**-0.9**
CO04	**Los Peladeros**	**2.16**	**162**	*e*P	**Pn**	**01 47 29.4**	**+0.2**
CO04				*e*S	**Sn**	**01 47 55.9**	**-0.5**
CO04				IAML		01 48 04.1	
	comp=N,1μm,0.2s						
ACDV	**Cuesta del Vie**	**2.28**	**96**	*e*P	**Pb**	**01 47 33.0**	**-1.0**
ACCO	**Cerro Coronel**	**2.40**	**105**	*e*P	**Pb**	**01 47 35.2**	**-0.9**
ACCO				IAML		01 48 09.8	
	comp=Z,231nm,0.6s						
GO03	**Copiapo**	**2.72**	**30**	*e*P	**Pn**	**01 47 37.8**	**+1.2**
GO03				*e*S	**Sn**	**01 48 11.0**	**+1.1**
GO03				IAML		01 48 22.9	
	comp=Z,182nm,0.4s						
GO03	**Copiapo**	**2.72**	**30**	*e*P	**Pn**	**01 47 37.3**	**+0.7**
RTLS	**Leoncito**	**2.78**	**131**	*e*P	**Pn**	**01 47 40.0**	**+2.4**
RTLS				*e*S	**Sn**	**01 48 13.5**	**+1.8**
RTLS				IAML		01 48 23.1	
	comp=Z,493nm,1.3s						
AC06	**Mina Casimiro**	**2.88**	**25**	*i* P	**Pn**	**01 47 39.5**	**+0.7**
VA03	**San Esteban**	**2.96**	**160**	*e*P	**Pn**	**01 47 41.1**	**+1.2**
VA03				*e*S	**Sn**	**01 48 17.7**	**+1.8**
VA03				IAML		01 48 29.6	
	comp=Z,433nm,0.5s						
VA03	**San Esteban**	**2.96**	**160**	*i* P	**Pn**	**01 47 40.8**	**+0.9**
VA03				*i* S	**Sn**	**01 48 15.1**	**-0.8**
VA03				IAML		01 48 28.4	
	comp=E,453nm,0.2s						
ROCH	**El Roble**	**3.05**	**168**	*e*P	**Pn**	**01 47 41.4**	**+0.1**
ROCH				*e*P	**Pn**	**01 47 41.4**	**+0.1**
ZON	**Zonda**	**3.07**	**121**	*e*P	**Pb**	**01 47 44.8**	**-2.5**
ZON				*e*S	**Sb**	**01 48 23.6**	**-1.4**
ZON				IAML		01 48 32.1	
	comp=Z,92nm,1.0s						
RTLL	**Cerro Villicun**	**3.12**	**116**	*e*P	**Pn**	**01 47 44.8**	**+2.7**
RTLL				*e*S	**Sn**	**01 48 21.3**	**+1.4**
RTLL				IAML		01 48 37.2	
	comp=Z,217nm,0.3s						
PEL	**Peldehue**	**3.28**	**164**	*e*P	**Pn**	**01 47 45.7**	**+1.3**
PEL				*e*S	**Sb**	**01 48 30.4**	**-0.8**
PEL				IAML		01 48 36.5	
	comp=Z,123nm,0.5s						
MT02	**Curacav**	**3.31**	**171**	*e*P	**Pn**	**01 47 45.0**	**+0.3**
MT02				*e*S	**Sn**	**01 48 26.1**	**+1.7**
MT02				IAML		01 48 37.6	
	comp=Z,106nm,0.4s						
MT02	**Curacav**	**3.31**	**171**	*e*P	**Pn**	**01 47 45.2**	**+0.4**
VCA	**Vinchina**	**3.33**	**69**	*e*P	**Pb**	**01 47 49.2**	**-2.6**
VCA				*e*S	**Sn**	**01 48 27.9**	**+2.9**
VCA				IAML		01 48 42.9	
	comp=Z,329nm,1.1s						
CFA	**Coronel Fontan**	**3.42**	**119**	*e*P	**Pn**	**01 47 48.4**	**+2.1**
CFA				*e*S	**Sn**	**01 48 30.1**	**+2.8**
MT10	**Hacienda Santa**	**3.44**	**163**	*i* P	**Pn**	**01 47 47.2**	**+0.5**
MT10				*i* S	**Sn**	**01 48 26.9**	**-1.0**
MT10				IAML		01 48 45.1	
	comp=N,609nm,0.4s						
MT05	**Renca**	**3.51**	**166**	*e*P	**Pn**	**01 47 49.0**	**+1.5**
MT05				*e*S	**Sn**	**01 48 30.9**	**+1.4**
MT05				IAML		01 48 44.3	
	comp=Z,218nm,0.6s						
MT05	**Renca**	**3.51**	**166**	*e*P	**Pn**	**01 47 49.3**	**+1.8**
MT14	**Cerro Cal¡n**	**3.56**	**164**	*e*P	**Pn**	**01 47 49.9**	**+1.7**
MT14				*e*S	**Sn**	**01 48 29.7**	**-1.0**
MT14				IAML		01 48 47.6	
	comp=E,426nm,0.6s						
MT03	**Universidad Ad**	**3.66**	**164**	*e*P	**Pn**	**01 47 51.2**	**+1.6**
MT03				*e*S	**Sn**	**01 48 35.0**	**+1.8**
MT03				IAML		01 48 49.6	
	comp=Z,157nm,0.2s						
MT03	**Universidad Ad**	**3.66**	**164**	*e*P	**Pn**	**01 47 50.5**	**+0.9**
MT04	**Ro Olivares**	**3.68**	**159**	*e*P	**Pn**	**01 47 52.3**	**+2.3**
MT04				*e*S	**Sn**	**01 48 36.2**	**+2.3**
MT04				*e*S	**Sb**	**01 48 41.1**	**-1.8**
MT04	**Ro Olivares**	**3.68**	**159**	⇓*e*P	**Pn**	**01 47 52.1**	**+2.1**
ARCO	**CERRO ARCO**	**3.73**	**141**	*e*S	**Sn**	**01 48 37.1**	**+2.1**
MT08	**Bocatoma Ro**	**3.76**	**157**	⇑*e*P	**Pn**	**01 47 53.9**	**+2.9**
MT15	**Las Vizcachas**	**3.76**	**164**	*e*P	**Pn**	**01 47 51.8**	**+0.9**
MT15				*i* S	**Sn**	**01 48 34.1**	**-1.5**
MT09	**Talagante**	**3.84**	**171**	*e*P	**Pn**	**01 47 52.4**	**+0.3**
MT12	**Pirque**	**3.88**	**165**	*i* P	**Pn**	**01 47 52.8**	**+0.2**
MT12				*i* S	**Sn**	**01 48 37.2**	**-1.3**
AC02	**Maricunga**	**3.88**	**37**	IAML		01 48 57.2	
	comp=Z,94nm,0.8s						
AC02				IAML		01 48 57.2	
	comp=Z,94nm,0.8s						
AC02	**Maricunga**	**3.88**	**37**	*e*P	**Pn**	**01 47 54.5**	**+1.4**
MT01	**Popeta**	**3.90**	**174**	*e*P	**Pn**	**01 47 52.5**	**-0.2**
AC01	**Pan de Azucar**	**3.95**	**15**	*e*P	**Pn**	**01 47 52.3**	**-1.2**
MT13	**San Alfonso**	**3.96**	**162**	*e*P	**Pn**	**01 47 55.6**	**+1.9**
MT13				*i* S	**Sn**	**01 48 39.2**	**-1.3**
LMEL	**Las Melosas**	**4.08**	**162**	*e*P	**Pn**	**01 47 56.9**	**+1.6**
TINO	**Tinogasta**	**4.12**	**63**	IAML		01 49 00.1	
	comp=Z,99nm,1.1s						
ACLC	**CERRO LA CRUZ**	**4.20**	**84**	IAML		01 49 00.8	
	comp=Z,62nm,0.3s						
ACLC				IAML		01 49 00.8	
	comp=Z,62nm,0.3s						
BO01	**Tunca**	**4.44**	**173**	IAML		01 49 13.0	
	comp=Z,35nm,0.8s						
ACAN	**Cantantal**	**4.53**	**122**	*e*P	**Pn**	**01 48 03.4**	**+1.9**
ACAN				IAML		01 49 16.0	
	comp=Z,234nm,1.4s						
ACAN				IAML		01 49 16.0	
	comp=Z,234nm,1.4s						
CYA	**Choya**	**5.41**	**75**	*e*P	**Pn**	**01 48 14.7**	**+1.1**
TCA	**Tanti**	**6.30**	**104**	*e*P	**Pn**	**01 48 25.8**	**-0.2**

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*SJA **18** 01:56:39.7±0.6, 23°.06S×69°.25W, h78km±2km, ML3.4, MW3.6*

*GUC **18** 01:56:40.4±0.7, 23°.10S×69°.29W, h85km±4km, ML3.4*

ISC 18 01:56:41.4±1.3**, 23°.07S**±0°.03×**69°.32W**±0°.04**, h75**km±9km**,**
n28, σ1^s**66**/44**, 2C-4D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PB06	**IPOC Station P**	**0.43**	**327**	*e*P	**Pn**	**01 56 53.9**	**-0.4**
PB06				*e*S	**Sn**	**01 57 02.4**	**-1.3**
PB06				IAML		01 57 06.4	
	comp=Z,2μm,0.2s						
PB06	**IPOC Station P**	**0.43**	**327**	⇓*i*P	**Pn**	**01 56 54.0**	**-0.3**
PB06				*i* S	**Sn**	**01 57 04.3**	**+0.6**
PB06				IAML		01 57 04.9	
	comp=E,3μm,0.3s						
PB05	**IPOC Station P**	**0.84**	**284**	*e*P	**Pn**	**01 56 58.2**	**-0.3**
PB05				*e*S	**Sn**	**01 57 12.8**	**+1.7**
PB05				IAML		01 57 12.8	
	comp=Z,362nm,0.5s						
PB05	**IPOC Station P**	**0.84**	**284**	⇑*i*P	**Pn**	**01 56 58.1**	**-0.3**
PB05				*i* S	**Sn**	**01 57 11.9**	**+0.9**
PB05				IAML		01 57 16.4	
	comp=E,731nm,0.3s						
AF01	**San Pedro de A**	**1.06**	**84**	*e*P	**Pn**	**01 57 00.2**	**-1.0**
AF01				*e*S	**Sn**	**01 57 14.9**	**-1.0**
AF01				IAML		01 57 22.6	
	comp=Z,1μm,0.2s						
AF01	**San Pedro de A**	**1.06**	**84**	⇓*i*P	**Pn**	**01 56 60.0**	**-1.2**
AF01				*i* S	**Sn**	**01 57 15.4**	**-0.4**
AF01				IAML		01 57 16.3	
	comp=E,3μm,0.6s						
PB03	**IPOC Station P**	**1.09**	**338**	*e*P	**Pn**	**01 57 01.4**	**-0.1**
PB03				*e*S	**Sn**	**01 57 17.3**	**+0.9**
PB03				IAML		01 57 17.6	
	comp=Z,982nm,0.2s						
PB03	**IPOC Station P**	**1.09**	**338**	⇓*i*P	**Pn**	**01 57 01.4**	**-0.1**
PB03				*i* S	**Sn**	**01 57 17.2**	**+0.8**
PB03				IAML		01 57 17.9	
	comp=N,1μm,0.3s						
PB09	**IPOC Station P**	**1.27**	**3**	*e*P	**Pn**	**01 57 03.9**	**+0.2**
PB09				*e*S	**Sn**	**01 57 22.8**	**+2.4**
PB09				IAML		01 57 26.1	
	comp=Z,380nm,0.5s						
PB09	**IPOC Station P**	**1.27**	**3**	⇓*i*P	**Pn**	**01 57 04.0**	**+0.2**
PB07	**IPOC Station P**	**1.43**	**338**	*e*P	**Pn**	**01 57 06.0**	**+0.1**
PB07				*e*S	**Sn**	**01 57 23.2**	**-1.1**
PB07				IAML		01 57 29.5	
	comp=Z,531nm,0.3s						
PB07	**IPOC Station P**	**1.43**	**338**	⇑*i*P	**Pn**	**01 57 05.8**	**-0.1**
PB07				IAML		01 57 29.1	
	comp=E,612nm,0.3s						
PB02	**IPOC Station P**	**1.82**	**343**	*e*P	**Pn**	**01 57 09.8**	**-1.0**
PB02				IAML		01 57 41.3	
	comp=Z,530nm,0.4s						
PB02	**IPOC Station P**	**1.82**	**343**	*e*P	**Pn**	**01 57 11.1**	**+0.2**
PB02				*i* S	**Sn**	**01 57 35.6**	**+2.4**
PB02				IAML		01 57 43.2	
	comp=E,592nm,0.1s						
PB14	**IPOC Station P**	**1.84**	**212**	*e*P	**Pn**	**01 57 11.6**	**+0.2**
PB14				*e*S	**Sn**	**01 57 36.3**	**+2.1**
PB14				IAML		01 57 39.2	
	comp=Z,423nm,0.4s						
PB14	**IPOC Station P**	**1.84**	**212**	*e*P	**Pn**	**01 57 10.8**	**-0.6**
PB14				*i* S	**Sn**	**01 57 34.5**	**+0.3**
PB14				IAML		01 57 39.7	
	comp=N,236nm,0.4s						
TA01	**Diego Aracena**	**2.61**	**342**	*e*P	**Pn**	**01 57 22.0**	**+0.6**
TA01				*e*S	**Sn**	**01 57 44.7**	**-7.5**
TA01				IAML		01 58 03.7	
	comp=Z,139nm,1.0s						
TA01	**Diego Aracena**	**2.61**	**342**	IAML		01 58 02.6	
	comp=N,182nm,0.5s						
TA02	**Huaiquique**	**2.88**	**345**	*e*P	**Pn**	**01 57 23.7**	**-1.4**
TA02				*e*S	**Sn**	**01 58 00.7**	**+2.0**
TA02				IAML		01 58 10.8	
	comp=Z,104nm,0.6s						
PB08	**IPOC Station P**	**2.91**	**3**	*e*P	**Pn**	**01 57 25.9**	**0.0**
PB08				*e*S	Sn	01 57 49.9	-10
PB08				IAML		01 58 21.9	
	comp=Z,48nm,0.5s						
AC01	**Pan de Azucar**	**3.28**	**201**	*e*P	**Pn**	**01 57 28.4**	**-2.2**
AC01				*e*S	**Sn**	**01 58 09.2**	**+0.6**
AC01				IAML		01 58 19.9	
	comp=Z,141nm,0.6s						
PB11	**IPOC Station P**	**3.30**	**354**	*e*P	**Pn**	**01 57 30.1**	**-0.9**
PB11				*e*S	Sn	01 58 19.7	+10
PB11				IAML		01 58 34.5	
	comp=Z,73nm,0.6s						
GO01	**Chusmiza**	**3.38**	**2**	*e*P	**Pn**	**01 57 32.5**	**+0.1**
GO01				IAML		01 58 36.0	
	comp=Z,33nm,0.7s						
PSGCX	**Pisagua**	**3.53**	**348**	*e*P	**Pn**	**01 57 32.7**	**-1.4**
PSGCX				IAML		01 58 32.1	
	comp=Z,50nm,0.4s						
HJA	**Humahuaca**	**3.60**	**93**	*e*P	**Pn**	**01 57 36.4**	**+1.2**
AC02	**Maricunga**	**3.76**	**177**	*e*P	**Pn**	**01 57 37.4**	**-0.1**
AC02				*e*S	**Sn**	**01 58 19.2**	**-1.6**
AC02				IAML		01 58 47.8	
	comp=Z,67nm,0.6s						
FSA	**Cafayete**	**4.29**	**136**	*e*P	**Pn**	**01 57 46.3**	**+1.8**
PB16	**IPOC Station P**	**4.71**	**358**	*e*P	**Pn**	**01 57 52.3**	**+1.7**
PB16				IAML		01 59 27.9	
	comp=Z,15nm,0.8s						

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*IDC **18** 03:01:24.8±11.0, 4°.94S×103°.53E, h121km±108km, mb3.7/11, mbtmp4.0/11, Error ellipse: s-maj=63.8km s-min=16.4km az=56.0*

*DJA **18** 03:01:27.3±0.4, 5°S±7°×10°4E±°, h105km±5km, M3.9/20, MLv3.9/20*

ISC 18 03:01:21.6±1.1**, 5°.2S**±0°.1×**103°.2E**±0°.1**, h100**km**, n31,**
σ1^s**62**/21**, mb4.1**/11**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MNAI	**Manna**	**0.86**	**343**	P	Pn	03 01 48.0	+7.5
LWLI	**Liwa**	**0.87**	**79**	P	**Pn**	**03 01 44.1**	**+3.4**
LWLI				S	**Sn**	**03 01 57.2**	**+2.1**
LWLI				AML	AML		
MDSI	**Maura Dua**	**1.19**	**54**	P	**Pn**	**03 01 45.6**	**+1.4**
MDSI				S	**Sn**	**03 02 00.1**	**-1.1**
MDSI				AML	AML		
KASI	**Kota Agung**	**1.33**	**105**	P	**Pn**	**03 01 48.3**	**+2.6**
KASI				AML	AML		
LHSI	**Lahat**	**1.39**	**13**	P	**Pn**	**03 01 49.8**	**+3.3**
KLI	**Kotabumi**	**1.68**	**79**	P	**Pn**	**03 01 50.9**	**+0.9**
KLI				AML	AML		
UBSI	**University, Be**	**1.69**	**327**	P	Pn	03 01 58.7	+8.4
UBSI				AML	AML		
BLSI	**Bandar Lampung**	**2.04**	**95**	P	**Pn**	**03 01 55.2**	**+0.5**
BLSI				AML	AML		
MASI	**Maura Aman, Be**	**2.25**	**335**	P	Pn	03 02 04.9	+7.5
MASI				AML	AML		
CGJI	**Cibinong**	**2.85**	**120**	P	**Pn**	**03 02 06.9**	**+1.5**
CGJI				AML	AML		
CMAR	**Chiang Mai Arr**	**23.87**	**350**	P	**P**	**03 06 26.0**	**0.0**
	1.6nm,0.6s,baz=182,slow=9.4,SNR=7.6						
	1.6nm,0.6s						
FITZ	**Fitzroy Crossi**	**25.40**	**122**	P	**P**	**03 06 39.5**	**-0.5**
	1.2nm,0.6s,baz=336,slow=12,SNR=1.7						
	1.2nm,0.6s						
H08S2	**Diego Garcia H**	**30.61**	**264**	T	T	03 39 00.9	
	baz=88						
H08S3	**Diego Garcia H**	**30.62**	**264**	T	T	03 39 03.2	
	baz=88,SNR=3.2						
H08S1	**Diego Carcia H**	**30.63**	**264**	T	T	03 38 54.9	
	baz=88						
WRA	**Warramunga Arr**	**33.65**	**119**	P	**P**	**03 07 52.8**	**-0.3**
	0.8nm,0.5s,baz=297,slow=12,SNR=14						
	0.8nm,0.5s						
ASAR	**Alice Springs**	**34.81**	**125**	P	**P**	**03 08 03.5**	**+0.4**
	0.7nm,0.3s,baz=292,slow=7.7,SNR=9.8						
	0.7nm,0.3s						
SONM	**Songino Array**	**52.87**	**3**	P	**P**	**03 10 27.1**	**-0.1**
	1.5nm,0.7s,baz=182,slow=8.8,SNR=9.0						
	1.5nm,0.7s						
MKAR	**Makanchi Array**	**54.97**	**343**	P	**P**	**03 10 42.0**	**-0.3**
	0.9nm,0.5s,baz=152,slow=8.6,SNR=11						
	0.9nm,0.5s						
USRK	**Ussuriysk Ar.**	**55.57**	**25**	P	**P**	**03 10 44.8**	**-1.8**
	2.8nm,0.7s,baz=208,slow=6.1,SNR=4.9						
	2.8nm,0.7s						
HILR	**Hailar Array B**	**56.38**	**13**	P	**P**	**03 10 50.7**	**-1.7**
	1.9nm,0.5s,baz=180,slow=10,SNR=4.7						
	1.9nm,0.5s						
KURBB	**Kurchatov Arra**	**59.52**	**342**	P	**P**	**03 11 14.4**	**+0.1**
	1.1nm,0.6s,baz=158,slow=6.6,SNR=5.6						
	1.1nm,0.6s						
H04N2	**CROZET ISLANDS**	**60.24**	**219**	T	T	04 17 50.3	
	baz=64,slow=74,SNR=24						
H04N1	**CROZET ISLANDS**	**60.25**	**219**	T	T	04 17 50.6	
	baz=64,slow=74,SNR=13						
H04N3	**CROZET ISLANDS**	**60.26**	**219**	T	T	04 17 49.2	
	baz=64,slow=74,SNR=20						
H04S1	**CROZET ISLANDS**	**60.47**	**218**	T	T	04 18 03.9	
	baz=64,slow=76,SNR=4.9						
H04S3	**CROZET ISLANDS**	**60.49**	**218**	T	T	04 18 05.8	
	baz=64,slow=76,SNR=12						
H04S2	**CROZET ISLANDS**	**60.49**	**218**	T	T	04 18 04.1	
	baz=64,slow=76,SNR=7.9						
ZALV	**Zalesovo Beam**	**60.91**	**348**	P	**P**	**03 11 23.4**	**-0.3**
	1.9nm,0.4s,baz=162,slow=5.6,SNR=11						
	1.9nm,0.4s						
BVAR	**Borovoye Array**	**64.28**	**339**	P	**P**	**03 11 46.3**	**+0.2**
	1.1nm,0.5s,baz=139,slow=9.9,SNR=3.7						
	1.1nm,0.5s						
TXAR	**Lajitas Array**	**145.03**	**44**	PKP	**PKPab**	**03 20 47.8**	**+0.1**
	0.3nm,0.5s,baz=250,slow=1.1,SNR=11						

IDC 18 03:08:29.6±8.8**, 18°.11S**×**174°.35W, h0**km**, mb3.8**/2**,**
mbtmp3.8/2**, Error ellipse: s-maj=418.7km**
s-min=68.8km az=145.0, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**48.39**	**259**	P	P	03 17 13.5	-0.3
	0.4nm,0.4s,baz=97,slow=8.1,SNR=8.9						
	0.4nm,0.4s						
ASAR	**Alice Springs**	**48.45**	**254**	P	P	03 17 14.2	0.0
	0.6nm,0.5s,baz=86,slow=8.6,SNR=8.5						
	0.6nm,0.5s						
BRTR	**Keskin Array B**	**147.61**	**317**	PKPbc	PKPbc	03 28 15.6	-0.8
	0.3nm,0.6s,baz=46,slow=4.2,SNR=1.9						

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*RSNC **18** 03:50:10.7±0.5, 5°N±2°×8°3W±°, h0km, M4.1, mb4.0, ML3.0*

*UCR **18** 03:50:14.3±0.8, 4°.92N×82°.76W, h15km, MW4.2, Presumed earthquake*

*UPA **18** 03:50:14.2±1.8, 4°.92N×82°.59W, h10km, MW4.4, Presumed earthquake*

ISC 18 03:50:10.7±2.0**, 4°.7N**±0°.1×**82°.65W**±0°.08**, h10**km**, n61,**
σ1^s**77**/88**, 5C, South of Panama**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GMAL	**Guarumal, Vera**	**3.33**	**25**	P	**Pn**	**03 51 03.8**	**+0.9**
GMAL				S	**Sn**	**03 51 41.0**	**-1.6**
GMAL	**Guarumal, Vera**	**3.33**	**25**	*e*P	**Pn**	**03 51 03.3**	**+0.4**
GMAL				*e*S	**Sn**	**03 51 41.2**	**-1.4**
LMNES	**Limones**	**3.36**	**356**	⇑*e*P	**Pn**	**03 51 03.0**	**-0.3**
LMNES				*e*S	**Sn**	**03 51 43.4**	**+0.1**
LIMO3	**Limones**	**3.36**	**356**	*e*P	**Pn**	**03 51 03.2**	**-0.1**
LIMO3				*e*S	**Sn**	**03 51 40.7**	**-2.6**
DVD	**David**	**3.69**	**3**	*e*P	**Pn**	**03 51 07.3**	**-0.6**
DVD				*e*S	**Sn**	**03 51 47.8**	**-3.7**
PIRO	**Carate, Puerto**	**3.72**	**349**	*e*P	**Pn**	**03 51 07.9**	**-0.3**
PIRO				*e*S	**Sn**	**03 51 50.3**	**-1.8**
PIRO	**Carate, Puerto**	**3.72**	**349**	*e*P	**Pn**	**03 51 08.1**	**-0.1**
PIRO				*e*S	**Sn**	**03 51 50.7**	**-1.4**
BGUAL	**Bijagual, Pana**	**3.77**	**5**	⇑*e*P	**Pn**	**03 51 09.7**	**+0.7**
AZU	**Azuero**	**3.85**	**38**	P	**Pn**	**03 51 10.2**	**+0.1**
AZU				S	**Sn**	**03 51 53.8**	**-1.7**
AZU	**Azuero**	**3.85**	**38**	*e*P	**Pn**	**03 51 09.9**	**-0.2**
AZU				*e*S	**Sn**	**03 51 52.6**	**-2.9**
CHIT3	**Chitre**	**3.90**	**35**	*e*P	**Pn**	**03 51 10.7**	**-0.1**
CHIT3				*e*S	**Sn**	**03 51 54.1**	**-2.6**
NELY	**Ciudad Neily**	**3.91**	**356**	*e*P	**Pn**	**03 51 11.1**	**+0.3**
NELY	**Ciudad Neily**	**3.91**	**356**	*e*P	**Pn**	**03 51 11.0**	**+0.1**
NELY				*e*S	**Sn**	**03 51 59.0**	**+2.1**
CLLRA	**Cordillera,**	**3.99**	**0**	⇑*e*P	**Pn**	**03 51 12.8**	**+0.7**
BQSF3	**Alto Boquete,**	**4.00**	**3**	*e*P	**Pn**	**03 51 12.9**	**+0.7**
BQSF3				*e*S	**Sn**	**03 51 56.6**	**-2.6**
BQTLY	**Boquete Panama**	**4.01**	**3**	⇑*e*P	**Pn**	**03 51 13.5**	**+1.1**
BQTLY				*e*S	**Sn**	**03 52 01.3**	**+1.7**
BRU2	**Volcan**	**4.04**	**359**	*e*P	**Pn**	**03 51 12.8**	**-0.1**
BRU2				*e*S	**Sn**	**03 51 59.5**	**-0.9**
BRU2	**Volcan**	**4.04**	**359**	*e*P	**Pn**	**03 51 13.6**	**+0.7**
BRU2				*e*S	**Sn**	**03 52 00.6**	**+0.2**
BRU2	**Volcan**	**4.04**	**359**	*e*S	**Sn**	**03 52 00.6**	**+0.2**
LNBQ3	**Los Naranjos,**	**4.05**	**3**	*e*P	**Pn**	**03 51 13.7**	**+0.9**
LNBQ3				*e*S	**Sn**	**03 51 58.0**	**-2.5**
MLIR3	**Monte Lirio, C**	**4.05**	**358**	*e*P	**Pn**	**03 51 14.2**	**+1.4**
MLIR3				*e*S	**Sn**	**03 51 57.5**	**-2.8**
VITO	**San Vito**	**4.08**	**356**	*e*P	**Pn**	**03 51 15.7**	**+2.4**
SCLRA	**Santa Clara, W**	**4.08**	**358**	*e*P	**Pn**	**03 51 14.3**	**+0.9**
SCLRA				*e*S	**Sn**	**03 52 02.7**	**+1.3**
SCLRA	**Santa Clara, W**	**4.08**	**358**	*e*S	**Sn**	**03 52 02.6**	**+1.3**
RBALA	**Bur**	**4.16**	**7**	*e*P	**Pn**	**03 51 15.9**	**+1.6**
RBALA				*e*S	**Sn**	**03 52 05.0**	**+2.1**
RBALA	**Bur**	**4.16**	**7**	*e*S	**Sn**	**03 52 05.7**	**+2.8**
KKNTU	**Kakintº**	**4.17**	**12**	*e*P	**Pn**	**03 51 16.2**	**+1.7**
KKNTU	**Kakintº**	**4.17**	**12**	*e*S	**Sn**	**03 52 04.4**	**+1.0**
CHGR2	**Aguacate**	**4.22**	**7**	*e*P	**Pn**	**03 51 15.2**	**+0.1**
CHGR2				*e*S	**Sn**	**03 52 02.0**	**-2.4**
PNME	**Penonome**	**4.39**	**32**	*e*P	**Pn**	**03 51 20.7**	**+3.2**
EDPE	**Pejibaye, P**	**4.50**	**348**	*e*P	**Pn**	**03 51 19.1**	**+0.1**
DRK0	**Durika**	**4.55**	**353**	*e*P	Pn	03 51 06.5	-13
DRK0				*e*S	Sn	03 51 59.1	-14
SAJE	**San Jernim**	**4.67**	**350**	*e*P	**Pn**	**03 51 21.8**	**+0.3**
CNI2	**El Empalme, Bo**	**4.67**	**2**	*e*P	**Pn**	**03 51 21.9**	**+0.5**
CNI2				*e*S	**Sn**	**03 52 12.6**	**-3.1**
BUS1	**Rivas**	**4.92**	**347**	*e*P	**Pn**	**03 51 25.0**	**-0.2**
ZANG	**Zanguenga, Cho**	**5.03**	**33**	⇑*i*P	**Pn**	**03 51 29.1**	**+2.9**
ZANG				*e*S	**Sn**	**03 52 25.0**	**+0.5**
PIEC	**Cerro El Cedra**	**5.04**	**345**	*e*P	**Pn**	**03 51 26.7**	**+0.1**
ABE2	**San Pablo**	**5.14**	**344**	*e*P	**Pn**	**03 51 28.2**	**+0.2**
REPA	**Paraso**	**5.21**	**347**	*e*P	**Pn**	**03 51 29.5**	**+0.6**
BCIP	**Isla Barro Col**	**5.22**	**32**	P	**Pn**	**03 51 30.5**	**+1.6**
	23nm,1.0s						
BCIP				S	**Sn**	**03 52 29.1**	**-0.1**
	23nm,1.0s						
BCIP				AML	AML		
BCIP	**Isla Barro Col**	**5.22**	**32**	*e*P	**Pn**	**03 51 28.9**	**0.0**
BCIP				*e*S	**Sn**	**03 52 25.9**	**-3.3**
UPA	**Univ. de Panam**	**5.24**	**36**	*e*P	**Pn**	**03 51 31.9**	**+2.7**
GAMB1	**Gamboa**	**5.25**	**34**	*e*P	**Pn**	**03 51 30.8**	**+1.5**
GAMB1				*e*S	**Sn**	**03 52 26.6**	**-3.4**
PCAYA	**Pacayas**	**5.29**	**347**	*e*P	**Pn**	**03 51 30.8**	**+0.7**
RAFA	**San Farael, Vo**	**5.33**	**348**	*e*P	**Pn**	**03 51 31.5**	**+0.8**

VTCV	VTCV, Calle Va	5.33	349	*e*P	Pn	03 51 31.8	+1.2
VICA	Volcano Irazu	5.36	347	*e*P	Pn	03 51 32.2	+1.0
VTR0	Volcan Turrial	5.37	348	*e*P	Pn	03 51 32.6	+1.3
HDC	Heredia	5.44	345	*e*P	Pn	03 51 32.7	+0.7
VBV1	V. Barva	5.54	345	*e*P	Pn	03 51 34.4	+0.8
JTS	Las Juntas de	5.98	338	P	Pn	03 51 39.5	+0.1
JTS				S	Sn	03 52 47.2	-0.9
JTS	Las Juntas de	5.98	338	*e*P	Pn	03 51 39.8	+0.4
JTS				*e*S	Sn	03 52 44.5	-3.5
BBAC	Balboa, Cauca	6.02	116	P	Pn	03 51 41.4	+1.3
	7.2nm,0.5s						
BBAC				AML	AML		
CUSE	Cuicocha Este	6.11	136	P	Pn	03 51 41.7	+0.2
JUD3	Juan Diaz 3	6.12	332	*e*P	Pn	03 51 41.7	+0.4
OTAV	Otavalo	6.12	137	P	Pn	03 51 42.3	+0.6
	3.5nm,1.0s						
OTAV				AML	AML		
POPC	Popayan, Colom	6.34	110	P	Pn	03 51 44.2	-0.4
	5.0nm,1.8s						
POPC				S	Sn	03 52 52.4	-4.9
	5.0nm,1.8s						
APAC	Apartado, Choc	6.81	62	P	Pn	03 51 56.5	+5.8
GUY2C	Guyana, Caldas	7.27	86	P	Pn	03 52 00.7	+3.1
	14nm,0.7s						
ORTC	Ortega, Tolima	7.43	96	P	Pn	03 52 03.7	+4.4
	12nm,0.9s						
ORTC				S	Sn	03 53 25.2	+1.5
	12nm,0.9s						
PRAC	Prado	7.81	97	P	Pn	03 52 07.1	+2.6

*IDC **18** 03:50:14.3±1.7, 5.°81S×151.°13E, h44^{km}±15^{km}, mb3.8/11, mbtmp4.1/13, ML3.2/2, MS3.5/13, Error ellipse: s-maj=27.8km s-min=11.9km az=120.0*

*NEIC **18** 03:50:15.1±2.3, 5.°87S±0.°08×151.°33E±0.°09, h52^{km}±7^{km}, mb4.7/26, Error ellipse: s-maj=14.7km s-min=9.2km az=126.0*

ISC 18 03:50:14.6±0.5**, 5.°91S**±0.°07×**151.°27E**±0.°08**, h50^{km}, n60, σ1.^{s}21**/48**, mb4.5**/24**, MS3.5**/10**, 1D, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRVT	Keravat (AS076	1.76	25	P	Pn	03 50 42.5	-0.1
	1μm,0.5s,baz=342,slow=4.6,SNR=31						
KRVT				S	Sn	03 51 06.5	+2.7
	3μm,0.5s,baz=273,slow=21,SNR=12						
KRVT				LR	LR	03 51 11.4	
	comp=Z,770nm,18.5s,baz=211,slow=33						
RABL	Rabaul	1.92	28		Pn	03 50 44.1	-0.8
PMG	Port Moresby	5.36	229	P	Pn	03 51 32.0	-0.1
	11nm,0.3s,baz=42,slow=12,SNR=12						
PMG				S	Sn	03 52 32.2	-0.3
	219nm,0.8s,baz=132,slow=19,SNR=10.0						
PMG				LR	LR	03 53 24.9	
	comp=Z,118nm,20.5s,baz=358,slow=36 31nm,0.4s						
PMG				AML	AML		
PMG	Port Moresby	5.36	229		Pn	03 51 33.3	+1.3
HNR	Honiara	9.28	113	LR	LR	03 55 31.8	
	comp=Z,184nm,21.0s,baz=326,slow=34						
HNR	Honiara	9.28	113	Pn	Pn	03 52 25.3	-0.6
CTA	Charters Tower	14.92	199	P	Pn	03 53 43.4	+0.9
	0.3nm,0.3s,baz=63,slow=11,SNR=2.6						
CTA				LR	LR	03 59 34.6	
	comp=Z,133nm,18.5s,baz=36,slow=37 4.8nm,0.7s						
CTA				AML	AML		
CTAO	Charters Tower	14.92	199		P	03 53 46.2	-1.0
GUMO	Guam	20.38	342	LR	LR	04 01 16.9	
	comp=Z,60nm,21.1s,baz=146,slow=33						
WR8	Warramunga Arr	21.47	228		P	03 54 58.2	-0.8
WR8				IAmb	IAmb	03 55 04.0	
	comp=Z,27nm,1.2s						
WRA	Warramunga Arr	21.58	228	P	P	03 54 58.5	-1.7
	comp=Z,4.0nm,0.7s,baz=54,slow=11,SNR=25						
WRA				PcP	PcP	03 59 01.4	+0.3
	comp=Z,1.1nm,0.9s,baz=41,slow=1.6,SNR=5.0						
WRA				ScP	ScP	04 02 35.4	+1.1
	comp=Z,1.2nm,0.9s,baz=47,slow=2.7,SNR=5.9 comp=Z,4.0nm,0.7s						
WRA	Warramunga Arr	21.58	228		P	03 54 57.9	-2.3
DZM	Mont Dzumac	21.76	139	LR	LR	04 01 15.8	
	comp=Z,256nm,18.9s,baz=354,slow=30						
KNRA	Kununurra	24.12	244	P	P	03 55 27.1	+1.1
AS31	Alice Springs	24.31	222		P	03 55 28.6	+0.8
ASAR	Alice Springs	24.32	222	P	P	03 55 27.3	-0.4
	comp=Z,3.7nm,0.7s,baz=53,slow=9.5,SNR=26						
ASAR				LR	LR	04 05 07.9	
	comp=Z,127nm,18.1s,baz=104,slow=37 comp=Z,3.7nm,0.7s						
ASAR	Alice Springs	24.32	222		P	03 55 28.6	+0.9
STKA	Stephens Creek	27.38	198	P	P	03 55 55.9	+0.5
	comp=Z,4.6nm,0.9s,baz=272,slow=16,SNR=3.7						
STKA				LR	LR	04 06 13.3	
	comp=Z,124nm,20.4s,baz=25,slow=35 comp=Z,4.6nm,0.9s						
FITZ	Fitzroy Crossi	27.80	242		P	03 55 59.2	0.0
DAV	Davao City (W)	28.69	296	LR	LR	04 07 38.9	
	comp=Z,48nm,18.6s,baz=148,slow=37						
KAPI	Kappang	31.39	270	LR	LR	04 10 49.9	
	comp=Z,72nm,18.3s,baz=74,slow=40						
JAGI	Jajag, Banyuwa	36.91	264	P	P	03 57 17.5	-1.4
JOW	Kunigami	39.44	327	LR	LR	04 12 47.5	
	comp=Z,67nm,18.8s,baz=205,slow=34						
BBJI	Bungbulang	43.34	265	P	P	03 58 11.9	-0.4
RAR	Rarotonga	49.74	113	P	P	03 59 00.9	-1.4
PPT2	Papeete2	58.85	107	*e*LR	LR	04 17 21.8	
	comp=Z,83nm,26.8s						
PPT2				*e*LR	LR	04 17 28.6	
	comp=Z,55nm,27.5s						
PETK	Petropavlovsk-	59.04	5	P	P	04 00 08.3	-1.0
	comp=Z,0.9nm,0.5s,baz=149,slow=12,SNR=4.6 comp=Z,0.9nm,0.5s						
SONM	Songino Array	66.46	329	P	P	04 00 58.7	-0.3
	comp=Z,1.0nm,0.6s,baz=140,slow=6.3,SNR=5.5 comp=Z,1.0nm,0.6s						
SONM	Songino Array	66.46	329	P	P	04 00 59.6	+0.6
VNDA	Vanda	71.79	178	P	P	04 01 33.7	+2.3
	comp=Z,0.3nm,0.5s,baz=323,slow=7.5,SNR=4.5 comp=Z,0.3nm,0.5s						
K15K	Wolf Creek Mou	76.96	21	P	P	04 02 02.2	+0.6
K15K				IAmb	IAmb	04 02 36.1	
	comp=Z,22nm,1.3s						
MKAR	Makanchi Array	80.16	319	P	P	04 02 19.7	+0.1
	comp=Z,0.4nm,0.7s,baz=110,slow=7.2,SNR=2.3 comp=Z,0.4nm,0.7s						
F19K	Shaleruckik Mo	81.14	18	P	P	04 02 24.8	+0.4
F19K				IAmb	IAmb	04 03 05.6	
	comp=Z,9.2nm,1.5s						
ZALV	Zalesovo Beam	81.23	327	P	P	04 02 24.0	-1.1
	comp=Z,0.6nm,0.3s,baz=118,slow=4.6,SNR=1.5 comp=Z,0.6nm,0.3s						
ZALV	Zalesovo Beam	81.23	327	P	P	04 02 23.0	-2.2
IMAR	Indian Mountai	81.93	20	P	P	04 02 28.5	-0.1
NEA2	Nenana	82.84	22	IAmb	IAmb	04 02 34.5	
	comp=Z,17nm,1.4s						
IL31		83.75	22	P	P	04 02 36.1	-1.8
ILAR	Eielson Array	83.75	22	P	P	04 02 36.8	-1.3
	comp=Z,2.2nm,0.6s,baz=252,slow=4.5,SNR=14						
ILAR				LR	LR	04 36 07.5	
	comp=Z,23nm,19.5s,baz=144,slow=33 comp=Z,2.2nm,0.6s						
ILAR	Eielson Array	83.75	22	P	P	04 02 36.9	-1.1
QSPA	South Pole Qui	84.06	180	P	P	04 02 39.5	-0.3
	comp=Z,2.6nm,1.1s,baz=299,slow=3.1,SNR=5.3 comp=Z,2.6nm,1.1s						
QSPA	South Pole Qui	84.06	180	P	P	04 02 39.2	-0.6
QSPA				IAmb	IAmb	04 02 41.7	
	comp=Z,6.7nm,1.4s						
J25K	Salcha River,	84.26	23	P	P	04 02 40.3	-0.5
J25K				IAmb	IAmb	04 02 42.2	
	comp=Z,6.1nm,0.9s						
D23K	Nanushuk River	84.56	18	IAmb	IAmb	04 02 44.9	
	comp=Z,6.2nm,0.7s						
G26K	Porcupine Rive	85.87	21	IAmb	IAmb	04 02 51.2	
	comp=Z,4.5nm,0.8s						
DIB	Dawson Inlet,	86.53	36	P	P	04 02 53.3	+1.2
DIB				IAmb	IAmb	04 02 54.3	
	comp=Z,8.4nm,1.0s						
K29M	Barlow Dome	87.11	25	IAmb	IAmb	04 02 57.4	
	comp=Z,6.3nm,0.8s						
I29M	Ogilvie Camp,	87.31	23	IAmb	IAmb	04 03 08.6	
	comp=Z,3.6nm,0.7s						
F28M	Old Crow	87.53	21	IAmb	IAmb	04 03 00.4	
	comp=Z,4.5nm,1.1s						
J30M	Hart River	87.84	24	IAmb	IAmb	04 03 00.8	
	comp=Z,4.9nm,0.7s						
S34M	Telegraph Cree	88.42	31	IAmb	IAmb	04 03 03.8	
	comp=Z,4.3nm,0.8s						
NVAR	Mina Array Bea	93.96	52	P	P	04 03 29.0	+1.3
	comp=Z,1.1nm,0.8s,baz=257,slow=6.3,SNR=8.6						
NVAR				LR	LR	04 42 09.0	
	comp=Z,34nm,18.3s,baz=270,slow=33 comp=Z,1.1nm,0.8s						
NEW	Newport	95.43	42	LR	LR	04 40 00.6	
	comp=Z,38nm,19.0s,baz=4.0,slow=31						
CLL	Collm	123.06	330	*i* PKPdf	PKiKP	04 09 06.2	+0.4
	comp=Z,4.0nm,0.8s						
GERES	GERESS Array B	124.18	327	PKP	PKiKP	04 09 08.7	+0.4
	comp=Z,2.3nm,0.6s,baz=45,slow=0.9,SNR=14						
EKA	Eskdalemuir Ar	126.63	342	PKP	PKPdf	04 09 12.4	+0.1
	comp=Z,0.5nm,0.5s,baz=28,slow=3.8,SNR=3.5						
BMRD	Maredsous	127.62	333	*d*PKPdf	PKPdf	04 09 10.8	-3.6
TORD	Torodi Ar. Bea	149.17	286	PKPbc	PKPbc	04 09 58.8	+0.1
	comp=Z,4.4nm,0.6s,baz=59,slow=2.9,SNR=37						
BDFB	Brasilia	151.31	138	PKPbc	PKPbc	04 10 04.0	+0.1
	comp=Z,4.1nm,0.6s,baz=197,slow=3.2,SNR=7.7						
BDFB	Brasilia	151.31	138		PKPbc	04 10 03.5	-0.4

UPA 18 03:51:40.7±4.6**, 8.°40N**×**82.°47W, h65^{km}**±83^{km}**, MW2.7, Presumed earthquake, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BQTLY	Boquete Panama	0.36	1	*e*P	Pn	03 51 53.8	+1.8
BQTLY				*e*S	Sn	03 52 02.3	+2.2
CLLRA	Cordillera,	0.37	337	*e*P	Pn	03 51 51.0	-1.1
CLLRA				*e*S	Sn	03 52 00.0	-0.4
BRU2	Volcan	0.45	330	*e*P	Pn	03 51 54.3	+1.5

*SDD **18** 03:57:21.7±3.7, 18.°66N×70.°83W, h15^{km}±203^{km}, MD2.8, ML2.1, MW2.6, Presumed earthquake*

*OSPL **18** 03:57:25.4±0.8, 18.°69N×70.°80W, h8^{km}±7^{km}, ML1.8, Presumed earthquake*

ISC 18 03:57:23.6±1.2**, 18.°63N**±0.°04×**70.°81W**±0.°03**, h9^{km}**±12^{km}**, n12, σ1.^{s}15**/18**, 7C-3D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ABDR	Alto Bandera	0.25	44	⇓*e*Pg	Pg	03 57 29.0	+0.1
ABDR				⇑*e*Sg	Sg	03 57 32.2	-0.2
ABDR				IAML		03 57 32.6	
	comp=N,897nm,0.4s						
BANI	BANI	0.49	118	⇑*e*Pg	Pb	03 57 35.0	+0.6
BANI				⇑*e*Sg	Sb	03 57 41.4	-0.4
BANI				IAML		03 57 45.6	
	comp=N,126nm,0.2s						
SDDR	Presa de Saban	0.57	308	*i* P	Pb	03 57 35.3	-0.5
SDDR				IAML		03 57 47.9	
	comp=Z,44nm,0.3s						
SDDR	Presa de Saban	0.57	308	⇑*e*Pg	Pb	03 57 35.0	-0.8
SDDR				⇓*e*Sg	Sb	03 57 44.2	0.0
SDDR				IAML		03 57 57.2	
	comp=N,36nm,0.7s						
PODR	Polo	0.64	224	⇑*e*Pg	Pn	03 57 38.3	-0.8
LODU1	El Espartillar	0.69	247	*i* P	Pn	03 57 38.8	-0.7
LODU1				IAML		03 57 56.6	
	comp=Z,47nm,0.3s						
REDR	Restauracion	0.77	314	⇑*e*Pg	Pn	03 57 43.9	+3.3
REDR				IAML		03 58 00.4	
	comp=N,83nm,0.2s						
SC01	Santiago de lo	0.80	6	*i* P	Pb	03 57 38.7	-1.0
SC01				*e*S	Sb	03 57 48.8	-1.9
SC01				IAML		03 57 50.5	
	comp=Z,22nm,1.7s						
SDD	Santo Domingo	0.87	101	*i* P	Pg	03 57 40.3	-0.1
SDD				*e*S	Sb	03 57 52.6	0.0
SDD				IAML		03 57 55.4	
	comp=Z,48nm,1.6s						
LOVI	El Cajuil, Ovi	0.98	213	*i* P	Pn	03 57 43.6	+0.1
LOVI				IAML		03 58 00.7	
	comp=Z,34nm,1.7s						
JIDR	Jimani	1.00	262	⇑*e*Pg	Pn	03 57 43.8	+0.1
JIDR				⇓*e*Sg	Sb	03 57 56.5	+0.3
JIDR				IAML		03 58 04.8	
	comp=N,33nm,0.9s						
LOBH	Bahia de las A	1.09	226	*i* P	Pg	03 57 45.3	+0.7
LOBH				IAML		03 58 08.0	
	comp=Z,12nm,0.8s						

*KRSC **18** 04:09:00.4±0.4, 55.°67N×161.°58E, h81^{km}±8^{km}, Mc4.4, Ml5.0, Felt [IV] at kordon Kronoki; Felt at Ust-Kamchatsk.*

*BJI **18** 04:09:00.5, 55.°73N×160.°83E, h58^{km}, mB4.8/6, mb4.8/29*

*MOS **18** 04:09:01.2±0.9, 55.°73N×161.°46E, h86^{km}, mb4.5/28, Error ellipse: s-maj=7.1km s-min=3.6km az=80.9*

*IDC **18** 04:09:03.2±1.3, 55.°73N×161.°44E, h90^{km}±13^{km}, mb4.1/34, mbtmp4.5/40, MS3.2/14, Error ellipse: s-maj=11.6km s-min=8.3km az=159.0*

*NEIC **18** 04:09:03.1±1.7, 55.°71N±0.°08×161.°39E±0.°05, h86^{km}±6^{km}, mb4.6/74, Error ellipse: s-maj=12.7km s-min=2.4km az=163.0*

*GFZ **18** 04:09:03.8±0.2, 56°N±4°×16°1E±°, h88^{km}, M5.0/26, mb4.9/26, confirmed*

ISC 18 04:09:02.0±0.5**, 55.°69N**±0.°03×**161.°51E**±0.°03**, h78^{km}**±4^{km}**, n332, σ1.^{s}13**/345**, mb4.7**/106**, 10C-19D, Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BZGR	Bezymyannyi-Gr	0.52	299	PN	Pn	04 09 16.2	+0.3
BZGR				S	Sn	04 09 26.9	+0.8
BZGR	Bezymyannyi-Gr	0.52	299	*e*P	Pn	04 09 16.2	+0.3
BZGR				*e*S	Sn	04 09 26.9	+0.8
BZP	Bezymyannyi-Pe	0.59	292	PN	Pn	04 09 16.5	0.0
BZP				S	Sn	04 09 27.1	-0.2
BZP	Bezymyannyi-Pe	0.59	292	*e*P	Pn	04 09 16.5	0.0
BZP				*e*S	Sn	04 09 27.2	-0.2
BZMR	Bezymyannaya	0.62	293	PN	Pn	04 09 16.9	+0.1
BZMR	Bezymyannaya	0.62	293	*e*P	Pn	04 09 17.0	+0.1
BZWR	Bezymyannyi-We	0.63	296	PN	Pn	04 09 17.2	+0.2
BZWR	Bezymyannyi-We	0.63	296	*e*P	Pn	04 09 17.2	+0.2
KIRR	Kirishev	0.71	292	PN	Pn	04 09 17.8	+0.1
KIRR				S	Sn	04 09 29.8	+0.4
KIRR	Kirishev	0.71	292	*e*P	Pn	04 09 17.9	+0.1
KIRR				*e*S	Sn	04 09 29.9	+0.4
KMNR	Kamenistaya	0.72	275	PN	Pn	04 09 18.5	+0.7
KMNR	Kamenistaya	0.72	275	*e*P	Pn	04 09 18.5	+0.7
KPT	Kopyto	0.78	291	PN	Pn	04 09 18.6	+0.2
KPT				S	Sn	04 09 31.3	+0.7
KPT	Kopyto	0.78	291	*e*P	Pn	04 09 18.7	+0.2
KPT				*e*S	Sn	04 09 31.4	+0.7
KLY	Klyuchi	0.79	322	PN	Pn	04 09 18.2	-0.2
KLY				S	Sn	04 09 31.1	+0.5
KLY	Klyuchi	0.79	322	*e*P	Pn	04 09 18.2	-0.2
KLY				*e*S	Sn	04 09 31.1	+0.5
TUMR	Tumrok	0.88	243	PN	Pn	04 09 20.1	+0.5
TUMR				S	Sn	04 09 33.5	+0.8
TUMR	Tumrok	0.88	243	*e*P	Pn	04 09 20.1	+0.5
TUMR				*e*S	Sn	04 09 33.5	+0.8
KOZ	Kozyrevsk	0.99	292	PN	Pn	04 09 21.5	+0.7
KOZ				S	Sn	04 09 36.2	+1.3
KOZ	Kozyrevsk	0.99	292	*e*P	Pn	04 09 21.5	+0.7
KOZ				*e*S	Sn	04 09 36.2	+1.3
MKZ	Mys Kozlova	1.15	174	PN	Pn	04 09 21.9	-0.8
MKZ	Mys Kozlova	1.15	174	*e*P	Pn	04 09 21.9	-0.8
SRDR	Sredinnyy	1.19	303	PN	Pn	04 09 23.5	+0.3
SRDR				S	Sn	04 09 40.0	+0.8
SRDR	Sredinnyy	1.19	303	*e*P	Pn	04 09 23.6	+0.3
SRDR				*e*S	Sn	04 09 40.0	+0.8
ESO	Esso	1.60	279	PN	Pn	04 09 28.6	0.0
ESO				S	Sn	04 09 48.5	-0.2
ESO	Esso	1.60	279	*e*P	Pn	04 09 28.6	0.0
ESO				*e*S	Sn	04 09 48.6	-0.2
KII	Karymskiy	2.04	217	PN	Pn	04 09 35.0	+0.6
KII	Karymskiy	2.04	217	*e*P	Pn	04 09 35.1	+0.6
BKI	Bering	2.59	99	PN	Pn	04 09 41.5	-0.1
BKI				S	Sn	04 10 11.4	-0.7
BKI	Bering	2.59	99	*e*P	Pn	04 09 41.5	-0.1
BKI				*e*S	Sn	04 10 11.5	-0.7
TIGL	Tigil	2.60	324	PN	Pn	04 09 42.4	+0.6
TIGL	Tigil	2.60	324	*e*P	Pn	04 09 42.5	+0.6
SPN	Mys Shipunski	2.74	199	PN	Pn	04 09 43.4	-0.4
SPN	Mys Shipunski	2.74	199	*e*P	Pn	04 09 43.4	-0.4
NLC	Nalytchevo	2.83	207	PN	Pn	04 09 44.9	0.0
NLC	Nalytchevo	2.83	207	*e*P	Pn	04 09 44.9	0.0
SDLR	Sedlovina	2.87	213	PN	Pn	04 09 46.2	+0.7
SDLR	Sedlovina	2.87	213	*e*P	Pn	04 09 46.2	+0.7
KRX	Arik	2.87	217	PN	Pn	04 09 46.7	+1.1
KRX	Arik	2.87	217	*e*P	Pn	04 09 46.8	+1.1
GNL	Ganaly	2.88	227	PN	Pn	04 09 46.5	+0.7
GNL	Ganaly	2.88	227	*e*P	Pn	04 09 46.5	+0.7
KRER	Koryakskii	2.89	215	PN	Pn	04 09 47.3	+1.4
KRER	Koryakskii	2.89	215	*e*P	Pn	04 09 47.3	+1.4
SMAR	Somma	2.90	214	PN	Pn	04 09 47.0	+0.8
SMAR	Somma	2.90	214	*e*P	Pn	04 09 47.0	+0.8
AVH	Avacha	2.92	215	PN	Pn	04 09 47.5	+1.2
AVH	Avacha	2.92	215	*e*P	Pn	04 09 47.6	+1.2
KOK	Koryaka	2.93	216	PN	Pn	04 09 47.5	+1.1
KOK	Koryaka	2.93	216	*e*P	Pn	04 09 47.6	+1.1
UGLR	Uglovaya	2.94	213	PN	Pn	04 09 47.3	+0.7
UGLR	Uglovaya	2.94	213	*e*P	Pn	04 09 47.3	+0.7
DALK	Dalny	3.12	212	PN	Pn	04 09 49.3	+0.5
DALK	Dalny	3.12	212	*e*P	Pn	04 09 49.4	+0.5
INSR	Institute	3.13	214	PN	Pn	04 09 50.3	+1.3
INSR	Institute	3.13	214	*e*P	Pn	04 09 50.4	+1.3
PET	Petropavlovsk	3.15	213	*e*PN	Pn	04 09 49.9	+0.6
PET				*e*S	Sn	04 10 26.7	+0.8
PET				pmax	pmax		
	comp=Z,100nm,1.3s						
PET				pmax	pmax		
	comp=Z,1μm,0.9s						
PET				smax	smax		
	comp=N,2μm,0.7s						
PET				smax	smax		
	comp=E,2μm,0.6s						
PET				MLR	MLR		
	comp=Z,300nm,3.0s						
PET				MLR	MLR		
	comp=Z,1μm,6.0s						
PET	Petropavlovsk	3.15	213		Pn	04 09 50.0	+0.6
PET	Petropavlovsk	3.15	213	P	Pn	04 09 50.3	+0.9
PEA0B	Petropavlovsk-	3.42	222	*c i*PN	Pn	04 09 53.6	+0.7
PEA0B	Petropavlovsk-	3.42	222		Pn	04 09 53.6	+0.7
PETK	Petropavlovsk-	3.42	222	P	Pn	04 09 53.6	+0.7
	comp=Z,100nm,0.5s,baz=60,slow=18,SNR=420						
PETK				S	Sn	04 10 36.0	+3.7
	comp=Z,109nm,0.8s,baz=53,slow=22,SNR=4.0						
KRMR	Karymshinskiy	3.49	216	PN	Pn	04 09 55.0	+1.2
KRMR	Karymshinskiy	3.49	216	*e*P	Pn	04 09 55.1	+1.2
PALN	Palana	3.51	347	PN	Pn	04 09 56.4	+2.3
PALN	Palana	3.51	347	*e*P	Pn	04 09 56.4	+2.3
OSSR	Ossora	3.66	13	PN	Pn	04 09 56.6	+0.4
OSSR	Ossora	3.66	13	*e*P	Pn	04 09 56.7	+0.4
RUS	Russkaya	3.71	210	PN	Pn	04 09 57.8	+0.9
RUS	Russkaya	3.71	210	*e*P	Pn	04 09 57.8	+0.9
GRL	Gorelyy	3.74	214	PN	Pn	04 09 59.6	+2.1
GRL	Gorelyy	3.74	214	*e*P	Pn	04 09 59.6	+2.1
MTVR	Mutnovka	3.77	213	PN	Pn	04 09 59.2	+1.4
MTVR	Mutnovka	3.77	213	*e*P	Pn	04 09 59.2	+1.4
APC	Apacha	3.77	224	PN	Pn	04 09 59.0	+1.4
APC	Apacha	3.77	224	*e*P	Pn	04 09 59.0	+1.4
ASAK	Asacha	3.94	214	PN	Pn	04 10 01.8	+1.7
ASAK	Asacha	3.94	214	*e*P	Pn	04 10 01.9	+1.7
KDTR	Khodutka, Kamc	4.39	209	PN	Pn	04 10 06.3	+0.1
KDTR	Khodutka, Kamc	4.39	209	*e*P	Pn	04 10 06.3	+0.1
MIPR	Malaya Ipel'ka	4.43	221	PN	Pn	04 10 08.9	+2.3
MIPR	Malaya Ipel'ka	4.43	221	*e*P	Pn	04 10 08.9	+2.3
PAU	Pauzhetka	5.08	215	PN	Pn	04 10 16.9	+1.4
PAU	Pauzhetka	5.08	215	*e*P	Pn	04 10 17.0	+1.4
TILK	Tilichiki	5.36	25	PN	Pn	04 10 20.9	+1.6
TILK	Tilichiki	5.36	25	*e*P	Pn	04 10 21.0	+1.6
SKR	Severo-Kuril's	5.97	215	⇓*e*PN	Pn	04 10 28.5	+0.8
MA2	Magadan	6.96	308	P	Pn	04 10 41.2	+0.1
	comp=Z,5.4nm,0.3s,baz=106,slow=13,SNR=4.6						
MA2	Magadan	6.96	308	⇑*e*PN	Pn	04 10 43.8	+2.7
MA2	Magadan	6.96	308	P	Pn	04 10 40.8	-0.3
	comp=Z,17nm,0.8s						
SHEM	Shemya Is, Ala	7.95	107	P	Pn	04 10 57.0	+2.3
	comp=Z,25nm,0.3s,baz=245,slow=2.8,SNR=9.8						
SHEM				S	Sn	04 12 20.8	-2.2
	comp=Z,74nm,0.7s,baz=223,slow=21,SNR=12						
SMY	Shemya	7.95	107	PN	Pn	04 10 55.0	+0.3
SMY	Shemya	7.95	107	Pn	Pn	04 10 55.0	+0.3
BILL	Bilibino	12.59	8	*de*PN	Pn	04 11 57.0	-0.7
BILL				MLR	MLR		
	comp=Z,23nm,8.0s						
KIWB	Kanaga Island	13.18	98	Pn	Pn	04 12 05.8	+0.1
GSTR	Great Sitkin T	13.69	96	Pn	Pn	04 12 14.8	+2.4
YSS	Yuzhno-Sakhali	14.59	241	*e*P	P	04 12 27.0	-1.5
YSS				pmax	pmax		
	comp=Z,20nm,0.5s						
YSS	Yuzhno-Sakhali	14.59	241	P	P	04 12 27.4	-1.2
	comp=Z,21nm,0.6s						
ATKA	Atka Island	14.70	94		P	04 12 27.8	-1.9
YUK	Yuzh-Kuril'sk	15.38	227	⇓*e*P	Pn	04 12 33.6	-0.7
GRNR	Gornyy	15.77	262	⇓*i*P	P	04 12 42.6	+1.0
GRNR				pmax	pmax		
	comp=N,4.0nm,0.6s						
GRNR				pmax	pmax		
	comp=Z,20nm,0.7s						
JKA	Kamikawa-asahi	16.75	234		P	04 12 52.7	+0.2
JKA				IAmb	IAmb	04 12 55.7	
	comp=Z,31nm,0.7s						
JKA	Kamikawa-asahi	16.75	234	P	P	04 12 54.3	+1.8
	comp=Z,47nm,0.8s						
ASAJ	Asahikawa	16.75	234	P	Pn	04 12 51.4	-0.1
	comp=Z,27nm,0.7s,baz=31,slow=8.9,SNR=16						
YAK	Yakutsk	17.50	304	P	P	04 13 00.8	+0.2
	comp=Z,72nm,0.6s,baz=270,slow=3.2,SNR=14						
YAK				LR	LR	04 19 47.8	
	comp=Z,48nm,19.6s,baz=127,slow=37						
YAK	Yakutsk	17.50	304	*e*P	P	04 13 01.0	+0.4
YAK				*e*S	S	04 16 17.3	-0.3
YAK				pmax	pmax		
	comp=Z,97nm,0.9s						
YAK				pmax	pmax		
	comp=E,27nm,1.3s						
YAK				pmax	pmax		
	comp=N,6.0nm,1.0s						
YAK				smax	smax		
	comp=N,52nm,2.1s						
YAK				smax	smax		
	comp=E,42nm,2.3s						
YAK	Yakutsk	17.50	304		Pn	04 12 59.6	-0.9
YAK	Yakutsk	17.50	304	P	P	04 13 01.3	+0.6
	comp=Z,140nm,0.8s						
ERM	Erimo	18.17	229	P	P	04 13 05.6	-2.6
ERM				pmax	pmax		
	comp=Z,205nm,1.5s						
ERM	Erimo	18.17	229	P	P	04 13 05.6	-2.6
ERM	Erimo	18.17	229	P	Pn	04 13 09.5	+0.6
	comp=Z,92nm,1.1s						
UNV	Unalaska Valle	18.46	82	P	Pn	04 13 14.8	+2.6
UNV				IAmb	IAmb	04 13 46.4	
	comp=Z,94nm,1.5s						
KLR	Kul'dur	19.15	263	P	P	04 13 19.1	+0.3
	comp=Z,9.9nm,0.8s,baz=50,slow=11,SNR=26						
KLR	Kul'dur	19.15	263	*c i*P	P	04 13 19.5	+0.7
KLR				pmax	pmax		
	comp=Z,16nm,0.9s						
KLR				MLR	MLR		
	comp=Z,32nm,10.0s						
C16K	Lisburne Hills	19.69	37	P	P	04 13 25.4	+0.9
C16K				IAmb	IAmb	04 13 55.8	
	comp=Z,47nm,1.4s						
ZEA	Zeya	19.77	279	*e*P	P	04 13 24.6	-0.9
ZEA				pmax	pmax		
	comp=Z,10.0nm,0.9s						
K15K	Wolf Creek Mou	19.92	56	P	Pn	04 13 29.9	+0.4
K15K				IAmb	IAmb	04 13 39.8	
	comp=Z,50nm,1.5s						
HEH	HeiHe	21.09	269	*e*P	P	04 13 38.0	-1.8
HEH				pmax	pmax		
	comp=Z,43nm,0.6s						
TIXI	Tiksi	21.12	332	P	P	04 13 40.7	+0.8
	comp=Z,15nm,0.4s,baz=117,slow=10,SNR=17						
TIXI				LR	LR	04 22 33.4	
	comp=Z,39nm,19.1s,baz=328,slow=38 comp=Z,15nm,0.4s						
TIXI	Tiksi	21.12	332	⇑*e*P	P	04 13 41.5	+1.6
TIXI				pmax	pmax		
	comp=Z,15nm,0.6s						
TIXI				MLR	MLR		
	comp=Z,43nm,19.0s						
TIXI	Tiksi	21.12	332		P	04 13 41.9	+2.0
TIXI				IAmb	IAmb	04 13 45.3	
	comp=Z,20nm,0.6s						

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USRK  Ussuriysk Ar.     22.02 251   P        P         04 13 49.4  -0.4
            comp=Z,5.1nm,0.6s,baz=52,slow=13,SNR=8.2
            comp=Z,5.1nm,0.6s
F19K  Shaleruckik Mo    22.06  43            P         04 13 50.3 +0.3
D20K  Etivluk River     22.88  39            P         04 13 59.3 +0.6
BNX   BinXian           23.55 259 ⇓P         P         04 14 02.0  -3.2
BNX                                 pmax     pmax
            comp=Z,7.0nm,0.7s
PSTR  Posyet            23.71 250⇓eP         P         04 14 06.5  -0.1
F21K  Alatna River      23.78  43            P         04 14 07.0  -0.1
D22K  Ayikyak River     24.32  39            P         04 14 12.1 +0.3
H22K  Ishtalitna Cre    24.52  46            P         04 14 14.8 +1.0
MAJO  Matsushiro        24.85 229⇑eP         P         04 14 17.3 +0.3
MAJO                                pmax     pmax
            comp=Z,12nm,0.9s
MAJO  Matsushiro        24.85 229   P        P         04 14 16.1  -0.9
MAJO                                IAmb     IAmb      04 14 20.4
            comp=Z,8.9nm,0.6s
MAJO  Matsushiro        24.85 229   P        P         04 14 17.2 +0.2
            comp=Z,14nm,0.9s
MJAR  Matsushiro Arr    24.85 229   P        P         04 14 16.7  -0.2
            comp=Z,2.4nm,0.4s,baz=38,slow=7.7,SNR=8.1
MJAR                                LR       LR        04 24 54.6
            comp=Z,37nm,19.0s,baz=52,slow=38
            comp=Z,2.4nm,0.4s
KDAK  Kodiak Island     24.89  66   P        P         04 14 17.6 +0.4
E23K  Chandalar         25.34  41   P        P         04 14 21.8 +0.6
E23K                                IAmb     IAmb      04 14 48.9
            comp=Z,12nm,1.1s
HILR  Hailar Array B    25.77 274   P        P         04 14 24.8  -0.4
            comp=Z,4.4nm,0.4s,baz=64,slow=10,SNR=11
            comp=Z,4.4nm,0.4s
HIA   Hailar            25.92 273   P        P         04 14 24.9  -1.7
HIA                                 pmax     pmax
            comp=Z,11nm,0.8s
HIA   Hailar            25.92 273            P         04 14 24.9  -1.7
HIA                                 IAmb     IAmb      04 14 28.1
            comp=Z,11nm,0.8s
HIA   Hailar            25.92 273   P        P         04 14 27.2 +0.6
            comp=Z,16nm,1.1s
JGF   Kuroka            26.01 230   P        P         04 14 29.4 +1.8
            comp=Z,12nm,1.8s
ILAR  Eielson Array     26.43  49   P        P         04 14 31.8 +0.7
            comp=Z,0.8nm,0.7s,baz=274,slow=9.2,SNR=10
            comp=Z,0.8nm,0.7s
C27K  Jago River        27.57  38   P        P         04 14 42.1 +0.9
KSRS  Korea Array       29.02 245   P        P         04 14 53.5  -0.8
            comp=Z,1.7nm,0.6s,baz=34,slow=9.3,SNR=7.3
KSRS                                PcP      PcP       04 18 01.0 +0.2
            comp=Z,1.2nm,0.6s,baz=355,slow=3.0,SNR=4.1
KSRS                                LR       LR        04 27 06.6
            comp=Z,22nm,18.2s,baz=30,slow=37
            comp=Z,1.7nm,0.6s
DL2   Dalian            31.29 254  eP        P         04 15 14.3  -0.1
DL2                                 pmax     pmax
            comp=Z,29nm,0.9s
INK   Inuvik            31.32  40   P        P         04 15 14.7 +0.4
INK   Inuvik            31.32  40   P        P         04 15 14.7 +0.4
ULN   Ulaanbaatar       33.80 280⇓eP         P         04 15 36.2  -0.2
ULN                                 pmax     pmax
            comp=Z,2.0nm,0.5s
SONM  Songino Array     34.18 280   P        P         04 15 39.5  -0.2
            comp=Z,3.8nm,0.7s,baz=64,slow=9.4,SNR=15
SONM                                PP       PP        04 16 57.6  -0.6
            comp=Z,0.2nm,0.3s,baz=54,slow=10.0,SNR=3.6
SONM                                PcP      PcP       04 18 13.7  -1.1
            comp=Z,1.9nm,0.7s,baz=85,slow=1.1,SNR=8.5
SONM                                ScP      ScP       04 21 51.5  -1.0
            comp=Z,2.1nm,1.1s,baz=48,slow=2.2,SNR=6.1
            comp=Z,3.8nm,0.7s
SONM  Songino Array     34.18 280   IAmb     IAmb      04 15 42.5
            comp=Z,2.7nm,0.8s
NRIK  Noril'sk          34.30 323   LR       LR        04 30 40.2
            comp=Z,48nm,21.0s,baz=96,slow=38
ZAK   Zakamensk         34.51 286  eP        P         04 15 41.0  -1.5
ZAK                                 pmax     pmax
            comp=Z,3.0nm,0.9s
HHC   Hu-ho-hao-te      35.57 267  eP        P         04 15 51.8 +0.1
HHC                                 pmax     pmax
            comp=Z,10.0nm,0.5s
HHC                                 pmax     pmax
            comp=Z,120nm,4.8s
TIA   Tai'an            35.70 256   P        P         04 15 50.3  -2.4
TIA                                 pmax     pmax
            comp=Z,9.0nm,0.5s
KNGR  Kungurtug, Tuv    37.49 290⇑eP         P         04 16 06.5  -1.4
KNGR                                pmax     pmax
            comp=Z,1.0nm,0.3s
JOW   Kunigami          37.51 234   P        P         04 16 08.5 +0.3
            comp=Z,13nm,1.1s
NJ2   Nanjing           37.92 249  eP        P         04 16 11.8 +0.3
NJ2                                 pmax     pmax
            comp=Z,9.0nm,0.7s
YKA   Yellowknife Ar    40.71  45   P        P         04 16 34.0  -0.4
            comp=Z,0.7nm,0.5s,baz=304,slow=8.1,SNR=4.0
            comp=Z,0.7nm,0.5s
ZALV  Zalesovo Beam     42.11 301   P        P         04 16 45.0  -1.0
            comp=Z,1.5nm,0.6s,baz=59,slow=6.3,SNR=6.5
ZALV                                PP       PP        04 18 23.4  -1.1
            comp=Z,2.8nm,0.9s,baz=51,slow=12,SNR=6.9
ZALV                                LR       LR        04 37 52.7
            comp=Z,26nm,18.2s,baz=57,slow=41
            comp=Z,1.5nm,0.6s
ZALV  Zalesovo Beam     42.11 301  i P       P         04 16 45.0  -1.0
ZALV                                pmax     pmax
            comp=Z,2.0nm,0.5s
ZALV  Zalesovo Beam     42.11 301   P        P         04 16 43.4  -2.5
GTA2  Gaotai            43.16 275  eP        P         04 16 56.0 +1.1
GTA2                                pmax     pmax
            comp=Z,17nm,0.9s
DGZ   Jazzator, Alta    43.30 294d iP        P         04 16 55.8  -0.1
DGZ                                 pmax     pmax
            comp=Z,21nm,0.6s
SPITS Spitsbergen Ar    44.70 350   P        P         04 17 07.1 +0.5
            comp=Z,12nm,0.5s,baz=52,slow=6.8,SNR=34
            comp=Z,12nm,0.5s
SPB2  Spitsbergen Ar    44.71 350   P        P         04 17 06.4  -0.2
STD   Studebaker Rid    46.63  68   IAmb     IAmb      04 17 27.3
            comp=Z,5.8nm,1.0s
WMQ   Urumqi            46.92 288  eP        P         04 17 26.0 +1.4
WMQ                                 pmax     pmax
            comp=Z,46nm,0.9s
KURK  Kurchatov         47.09 301ceP         P         04 17 24.0  -1.6
KURK                                pmax     pmax
            comp=Z,26nm,0.7s
KURK                                MLR      MLR
            comp=Z,36nm,18.0s
KURK  Kurchatov         47.09 301            PcP       04 18 55.8  -0.5
KURK  Kurchatov         47.09 301            P         04 17 24.5  -1.1
KURK  Kurchatov         47.09 301   P        P         04 17 24.3  -1.4
            comp=Z,38nm,0.7s
KURBB Kurchatov Arra    47.20 300   P        P         04 17 25.2  -1.2
            comp=Z,17nm,0.6s,baz=54,slow=7.7,SNR=100
KURBB                               PcP      PcP       04 18 55.8  -0.9
            comp=Z,3.5nm,0.8s,baz=49,slow=3.4,SNR=8.4
            comp=Z,17nm,0.6s
KURBB Kurchatov Arra    47.20 300   P        P         04 17 24.7  -1.8
MK31  Makanchi Array    47.80 294deP         P         04 17 29.9  -1.4
MKAR  Makanchi Array    47.80 294   P        P         04 17 29.9  -1.4
            comp=Z,9.5nm,0.6s,baz=58,slow=6.4,SNR=63
MKAR                                LR       LR        04 37 10.5
            comp=Z,43nm,20.3s,baz=26,slow=35
            comp=Z,9.5nm,0.6s
MKAR  Makanchi Array    47.80 294   P        P         04 17 30.0  -1.3
MKAR  Makanchi Array    47.80 294   P        P         04 17 30.0  -1.3
MAKZ  Makanchi          47.96 295   P        P         04 17 31.5  -1.0
MAKZ                                pmax     pmax
            comp=Z,8.0nm,0.8s
MAKZ  Makanchi          47.96 295            P         04 17 31.5  -1.0
MAKZ                                IAmb     IAmb      04 17 33.7
            comp=Z,7.5nm,0.8s
MAKZ  Makanchi          47.96 295   P        P         04 17 31.7  -0.8
            comp=Z,10nm,1.1s
GOMU  GeErMu            48.25 275   P        P         04 17 35.1  -0.2
GOMU                                pmax     pmax
            comp=Z,6.0nm,0.5s
BVAR  Borovoye Array    49.44 307   P        P         04 17 42.9  -0.9
            comp=Z,17nm,0.6s,baz=59,slow=8.4,SNR=57
BVAR                                PcP      PcP       04 19 04.1  -0.6
            comp=Z,2.3nm,0.6s,baz=66,slow=5.0,SNR=4.0
            comp=Z,17nm,0.6s
BORK  Borovoye          49.46 307d iP        P         04 17 42.8  -1.0
BORK                                pmax     pmax
            comp=Z,10.0nm,0.6s
BORK  Borovoye          49.46 307   P        P         04 17 43.2  -0.6
BMO   Blue Mountains    50.12  66   P        P         04 17 50.3 +1.1
BMO                                 pmax     pmax
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            comp=Z,2.0nm,1.1s
BMO   Blue Mountains    50.12  66   P        P         04 17 50.2 +1.1
MOD   Modoc Plateau     50.58  71   P        P         04 17 54.7 +2.0
MOD                                 IAmb     IAmb      04 17 57.3
            comp=Z,4.2nm,1.1s
ARCES ARCESS Array B    51.07 342   P        P         04 17 55.2  -0.5
            comp=Z,3.7nm,1.0s,baz=37,slow=8.4,SNR=8.4
            comp=Z,3.7nm,1.0s
ARCES ARCESS Array B    51.07 342  eP        P         04 17 57.3 +1.5
ARCES ARCESS Array B    51.07 342   IAmb     IAmb      04 18 34.3
            comp=Z,14nm,1.4s
WVOR  Wild Horse Val    51.10  69   P        P         04 17 59.6 +3.1
WVOR  Wild Horse Val    51.10  69   P        P         04 17 59.6 +3.1
SUMG  Summit            51.27   8   P        P         04 17 58.0 +0.3
SUMG                                pmax     pmax
            comp=Z,20nm,1.4s
SUMG  Summit            51.27   8   P        P         04 17 58.0 +0.3
SUMG  Summit            51.27   8   P        P         04 17 58.5 +0.8
            comp=Z,16nm,1.3s
PZH   PanZhiHua         51.59 261   P        P         04 18 01.8 +1.5
ARTI  Arti              52.16 317   P        P         04 18 03.2  -0.9
            comp=Z,7.9nm,0.5s,baz=49,slow=5.3,SNR=12
ARTI                                LR       LR        04 41 33.8
            comp=Z,45nm,21.9s,baz=59,slow=37
            comp=Z,7.9nm,0.5s
ARTI  Arti              52.16 317c iP        P         04 18 03.0  -1.0
ARTI                                *PP      pP        04 18 21.5  -2.0
ARTI                                                   04 19 11.0
ARTI                                S        S         04 25 21.6  -0.5
ARTI                                SS       SS        04 28 55.7  -3.8
ARTI                                pmax     pmax
            comp=Z,13nm,1.0s
ARTI  Arti              52.16 317   P        P         04 18 03.1  -0.9
WUS   Wushi             53.26 291   P        P         04 18 12.7 +0.1
            comp=Z,31nm,0.8s
WAKR  Walker            53.46  73   IAmb     IAmb      04 18 25.6
            comp=Z,2.3nm,0.6s
MSF   Maaselka          53.51 338   P        P         04 18 12.0  -1.8
MSF   Maaselka          53.51 338   P        P         04 18 13.0  -0.9
            comp=Z,20nm,2.5s
TARG  Taragay, Kyrgy    53.63 292   P        P         04 18 16.6 +1.0
TARG  Taragay, Kyrgy    53.63 292   P        P         04 18 16.6 +1.0
            comp=Z,25nm,2.2s
KIRV  Kirov             53.80 323   P        P         04 18 15.9  -0.1
            comp=Z,9.1nm,0.5s,baz=158,slow=3.9,SNR=4.4
            comp=Z,9.1nm,0.5s
KIRV  Kirov             53.80 323d iP        P         04 18 15.5  -0.5
TKM2  Tokmak 2          53.92 295   P        P         04 18 16.7  -0.7
            SNR=5.7
RLMT  Red Lodge         54.02  61   IAmb     IAmb      04 18 22.8
            comp=Z,5.0nm,0.9s
BOOM  Boomskoye usch    54.05 294   P        P         04 18 18.0  -0.4
BOOM  Boomskoye usch    54.05 294   P        P         04 18 18.0  -0.4
            comp=Z,21nm,1.4s
ELK   Elko              54.09  69   IAmb     IAmb      04 18 51.2
            comp=Z,3.6nm,1.2s
NVAR  Mina Array Bea    54.12  73   P        P         04 18 19.8 +0.8
            comp=Z,1.2nm,0.7s,baz=296,slow=7.5,SNR=8.6
            comp=Z,1.2nm,0.7s
FXWY  Fox Creek         54.20  63   IAmb     IAmb      04 18 24.2
            comp=Z,2.6nm,0.8s
USP   Ospenovka         54.23 296   P        P         04 18 19.3  -0.2
            SNR=11
KBK   Karagaybulak      54.44 295   P        P         04 18 21.8 +0.6
            SNR=6.9
AAK   Ala-Archa         54.69 295   P        P         04 18 22.8  -0.2
            SNR=10
AAK   Ala-Archa         54.69 295d iP        P         04 18 23.4 +0.4
AAK                                 pmax     pmax
            comp=Z,18nm,0.9s
AAK   Ala-Archa         54.69 295   P        P         04 18 22.9   0.0
AAK   Ala-Archa         54.69 295   P        P         04 18 23.6 +0.6
            comp=Z,21nm,0.9s
NRN   Naryn             54.78 293   IAmb     IAmb      04 18 25.3
            comp=Z,8.0nm,0.9s
ASAI  AK-SAY(Kyrgyzs    54.88 293   P        P         04 18 25.4 +0.8
            comp=Z,38nm,0.8s
EKS2  Erkin-Say         55.04 296   P        P         04 18 25.5 +0.1
            SNR=12
HWUT  Hardware Ranch    55.38  65   IAmb     IAmb      04 18 32.9
            comp=Z,3.4nm,1.0s
PDAR  Pinedale Array    55.57  63   P        P         04 18 30.5 +1.1
            comp=Z,1.1nm,0.7s,baz=329,slow=2.8,SNR=11
            comp=Z,1.1nm,0.7s
PDAR  Pinedale Array    55.57  63   P        P         04 18 30.9 +1.6
NLU   North Lily Min    56.33  67   IAmb     IAmb      04 18 39.7
            comp=Z,3.4nm,1.0s
FURC  Furnace Creek,    56.34  73   IAmb     IAmb      04 18 58.0
            comp=Z,3.6nm,0.7s
KK31  Karatay Array     56.36 298  eP        P         04 18 33.3  -1.5
KK31  Karatay Array     56.36 298   P        P         04 18 34.1  -0.7
KKAR  Karatay Array     56.36 298   P        P         04 18 33.5  -1.3
KKAR  Karatay Array     56.36 298   P        P         04 18 33.5  -1.3
ULM   Lac du Bonnet     56.45  49   P        P         04 18 35.9 +0.6
            comp=Z,1.8nm,0.4s,baz=310,slow=8.4,SNR=7.1
            comp=Z,1.8nm,0.4s
ULM   Lac du Bonnet     56.45  49   IAmb     IAmb      04 18 49.1
            comp=Z,6.0nm,1.1s
BSUT  Blindstream Ca    56.58  66   IAmb     IAmb      04 18 41.6
            comp=Z,6.5nm,1.2s
KSH2  Kashi             56.68 292   P        P         04 18 38.1 +0.9
KSH2                                pmax     pmax
            comp=Z,12nm,0.9s
AKTO  Aktyubinsk        56.69 312   P        P         04 18 35.6  -1.4
AB31  Akbulak array     56.75 310  i P       P         04 18 36.5  -0.9
AB31  Akbulak array     56.75 310   P        P         04 18 36.1  -1.3
ABKAR Akbulak array     56.75 310   P        P         04 18 36.1  -1.3
TRKS  Terek-Say         57.20 297   P        P         04 18 41.4 +0.5
RSSD  Black Hills       57.30  59   P        P         04 18 43.3 +1.6
RSSD                                pmax     pmax
            comp=Z,5.0nm,1.1s
RSSD  Black Hills       57.30  59   P        P         04 18 43.3 +1.6
RSSD                                IAmb     IAmb      04 18 45.9
            comp=Z,5.3nm,1.1s
FINES FINESS Array B    58.06 337   P        P         04 18 46.2  -0.2
            comp=Z,3.7nm,0.4s,baz=31,slow=7.9,SNR=51
            comp=Z,3.7nm,0.4s
O20A  White River Ci    58.17  64   IAmb     IAmb      04 18 58.5
            comp=Z,5.8nm,1.0s
BTK   Batken            58.46 296   P        P         04 18 48.8  -0.8
BTK   Batken            58.46 296   P        P         04 18 48.8  -0.8
            comp=Z,36nm,0.7s
HMU   Henry Mountain    58.52  68   IAmb     IAmb      04 19 15.3
            comp=Z,6.2nm,0.8s
EVN   Everest           58.90 275   P        P         04 18 54.3 +0.8
EVN   Everest           58.90 275   P        P         04 18 54.4 +0.9
            comp=Z,16nm,0.7s
PV10  Paradox Valley    59.08  66   IAmb     IAmb      04 18 59.2
            comp=Z,8.5nm,1.1s
PV22  Blue Mesa, Par    59.09  66   IAmb     IAmb      04 19 17.1
            comp=Z,4.1nm,0.7s
PV05  Paradox Valley    59.27  67   IAmb     IAmb      04 19 32.6
            comp=Z,6.8nm,0.8s
BELG  Belogornoye       59.28 319   P        P         04 18 54.4  -0.6
            comp=Z,26nm,0.9s,baz=52,slow=2.1,SNR=4.9
            comp=Z,26nm,0.9s
BELG  Belogornoye       59.28 319d iP        P         04 18 54.3  -0.6
BELG                                pmax     pmax
            comp=Z,4.0nm,0.8s
PV15  Paradox Valley    59.39  66   IAmb     IAmb      04 19 23.7
            comp=Z,6.5nm,0.9s
CMAR  Chiang Mai Arr    59.54 258   P        P         04 18 56.5  -0.8
            comp=Z,1.0nm,0.3s,baz=32,slow=6.5,SNR=5.9
CMAR                                PcP      PcP       04 19 43.2  -0.7
            comp=Z,2.1nm,0.5s,baz=10,slow=3.6,SNR=6.1
CMAR                                LR       LR        04 45 25.2
            comp=Z,10nm,18.7s,baz=235,slow=37
            comp=Z,1.0nm,0.3s
EYMN  Ely               60.07  48   P        P         04 19 00.6   0.0
            comp=Z,11nm,2.1s
VSU   Vasula            60.55 335deP         P         04 19 02.8  -0.8
VSU                                 pmax     pmax
            comp=Z,30nm,1.3s
ECSD  EROS Data Cent    61.09  54   P        P         04 19 08.5 +0.9
NB2   NORSAR Subarra    61.27 344   P        P         04 19 07.8  -0.7
            comp=Z,12nm,1.1s,baz=19,slow=6.9
NB2   NORSAR Subarra    61.27 344   P        P         04 19 08.5   0.0
NB2                                 pmax     pmax
            comp=Z,2.0nm,0.6s
NOA   NORSAR Array B    61.27 344   P        P         04 19 07.5  -1.0
            comp=Z,4.3nm,0.7s,baz=19,slow=6.8,SNR=16
            comp=Z,4.3nm,0.7s
NORES NORESS Array B    61.51 344   P        P         04 19 13.3 +3.3
HFS   Hagfors           61.72 342   P        P         04 19 10.8  -0.7
            comp=Z,2.3nm,0.6s,baz=29,slow=3.4,SNR=11
            comp=Z,2.3nm,0.6s
LPSR  Galich'ya Gora    62.15 324  eP        P         04 19 13.2  -1.2
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LPSR                                pmax     pmax
            comp=Z,14nm,0.8s
VRH   Novokhopyorsk     62.37 322  eP        P         04 19 12.9  -3.1
VRH                                 pmax     pmax
            comp=Z,8.0nm,0.6s
SCHQ  Schefferville     62.96  29   P        P         04 19 20.4 +0.5
            comp=Z,3.3nm,0.6s,baz=338,slow=7.1,SNR=4.9
            comp=Z,3.3nm,0.6s
VSR   Storozhevoye      63.24 323  eP        P         04 19 19.9  -1.8
VSR                                 pmax     pmax
            comp=Z,6.0nm,0.8s
KBL   Kabul             63.57 293   P        P         04 19 23.9  -0.5
KBL                                 pmax     pmax
            comp=Z,8.0nm,0.8s
KBL   Kabul             63.57 293   P        P         04 19 23.9  -0.5
KBL                                 IAmb     IAmb      04 19 24.3
            comp=Z,8.3nm,0.8s
KBL   Kabul             63.57 293   P        P         04 19 24.0  -0.5
            comp=Z,12nm,0.9s
TOLI2 Tolitoli          63.59 227   P        P         04 19 24.6 +0.1
TOLI2 Tolitoli          63.59 227   P        P         04 19 24.2  -0.3
            comp=Z,20nm,0.8s
SANI  Sanana            64.45 220   P        P         04 19 29.4  -0.7
            comp=Z,10nm,1.0s
MPSI  Mapaga            64.65 227   P        P         04 19 31.4   0.0
            comp=Z,11nm,0.9s
SBUM  Sibu              66.17 236   P        P         04 19 42.0 +0.7
SBUM  Sibu              66.17 236   P        P         04 19 42.3 +1.0
SBUM  Sibu              66.17 236   P        P         04 19 42.3 +1.0
            comp=Z,28nm,1.0s
AKASG Malin Array Be    66.80 329   P        P         04 19 43.9  -1.0
            comp=Z,3.1nm,0.4s,baz=30,slow=7.0,SNR=17
            comp=Z,3.1nm,0.4s
AKASG Malin Array Be    66.80 329  i P       P         04 19 44.9 +0.1
AKASG                               pmax     pmax
            comp=Z,3.0nm,0.4s
AKBB  Malin Array Si    66.80 329⇓eP         P         04 19 44.8   0.0
WMOK  Wichita Mounta    67.11  62   P        P         04 19 48.2 +1.1
WMOK                                pmax     pmax
            comp=Z,5.0nm,1.1s
WMOK  Wichita Mounta    67.11  62   P        P         04 19 48.2 +1.1
WMOK                                IAmb     IAmb      04 20 09.1
            comp=Z,4.5nm,1.1s
AKT   Akhty             68.14 312  eP        P         04 19 52.7  -0.9
AKT                                e*PP      pP        04 20 13.9  -0.1
AKT                                e                   04 20 18.1
AKT                                e                   04 22 24.6
AKT                                ePPP      PPP       04 24 03.1
AKT                                eS        S         04 28 47.9 +0.6
AKT                                e                   04 29 42.9
AKT                                 pmax     pmax
            comp=Z,16nm,0.7s
KBZ   Khabaz            68.21 317   P        P         04 19 53.6  -0.2
            comp=Z,5.9nm,0.6s,baz=94,slow=6.0,SNR=14
KBZ                                 LR       LR        04 52 44.1
            comp=Z,35nm,18.9s,baz=10,slow=38
            comp=Z,5.9nm,0.6s
KBZ   Khabaz            68.21 317⇑iP         P         04 19 54.3 +0.5
KBZ                                 pmax     pmax
            comp=Z,5.0nm,0.6s
SHA1  Shidzhatmaz       68.30 317deP         P         04 19 55.6 +0.9
SPSI  Sidrap Palu       68.60 226   P        P         04 19 57.0 +0.5
            comp=Z,23nm,1.5s
EKA   Eskdalemuir Ar    68.63 351   P        P         04 19 56.1  -0.1
            comp=Z,2.9nm,0.6s,baz=14,slow=5.0,SNR=18
            comp=Z,2.9nm,0.6s
EKA   Eskdalemuir Ar    68.63 351   P        P         04 19 56.2   0.0
EKA                                 pmax     pmax
            comp=Z,3.0nm,0.7s
TX31  Lajitas Ar. Si    68.89  69   P        P         04 20 00.1 +1.7
TXAR  Lajitas Array     68.89  69   P        P         04 19 57.0  -1.3
            comp=Z,0.6nm,0.6s,baz=316,slow=31,SNR=7.2
            comp=Z,0.6nm,0.6s
TXAR  Lajitas Array     68.89  69   P        P         04 19 59.9 +1.5
STHS  Stebnicka Huta    70.13 334  eP        P         04 20 07.2 +1.6
STHS  Stebnicka Huta    70.13 334  eP        P         04 20 07.2 +1.6
CLL   Collm             70.21 340  i P       P         04 20 05.4  -0.6
CLL   Collm             70.21 340  i P       P         04 20 05.4  -0.6
KOLS  Kolonicke sedl    70.32 333  eP        P         04 20 08.5 +1.7
KOLS  Kolonicke sedl    70.32 333  eP        P         04 20 08.5 +1.7
GNI   Garni             70.49 313   LR       LR        04 55 49.1
            comp=Z,18nm,18.5s,baz=32,slow=40
BURAR Bucovina Array    70.73 330   P        P         04 20 09.0  -0.4
BURAR                               pmax     pmax
            comp=Z,2.0nm,0.8s
BURAR Bucovina Array    70.73 330   P        P         04 20 09.0  -0.4
VYHS  Vyhne             71.58 335  eP        P         04 20 15.1 +0.7
VYHS  Vyhne             71.58 335  eP        P         04 20 15.1 +0.7
MODS  Modra-Piesok      72.06 336  eP        P         04 20 17.9 +0.6
MODS  Modra-Piesok      72.06 336  eP        P         04 20 17.9 +0.6
KHC   Kasperske Hory    72.16 339⇓eP         P         04 20 18.3 +0.4
KHC                                 pmax     pmax
            comp=Z,5.0nm,1.2s
KOPT  Kop Dagi          72.31 316   P        P         04 20 22.5 +3.3
KOPT                                IAmb     IAmb      04 20 24.4
            comp=Z,8.2nm,0.8s
GERES GERESS Array B    72.41 338   P        P         04 20 18.1  -1.3
            comp=Z,0.6nm,0.3s,baz=335,slow=1.9,SNR=6.9
            comp=Z,0.6nm,0.3s
GERES GERESS Array B    72.41 338  eP        P         04 20 20.6 +1.1
LBFI  Labuhan Bajo,     72.67 223   P        P         04 20 21.6 +0.4
            comp=Z,31nm,0.8s
PLAI  Plampang          73.82 225   P        P         04 20 26.9  -1.1
            comp=Z,22nm,0.8s
GSI   Gunungsitoli      74.49 249   P        P         04 20 34.1 +2.0
            comp=Z,46nm,0.5s
BNN   Bunyan            75.10 319   P        P         04 20 35.8 +0.4
BNN                                 IAmb     IAmb      04 20 37.2
            comp=Z,4.8nm,0.7s
BR131 Keskin Array S    75.13 321⇑eP         P         04 20 35.2  -0.4
BR131 Keskin Array S    75.13 321   P        P         04 20 35.5  -0.1
BR131                               IAmb     IAmb      04 20 37.0
            comp=Z,2.9nm,0.6s
BRTR  Keskin Array B    75.13 321   P        P         04 20 35.2  -0.4
            comp=Z,2.1nm,0.6s,baz=45,slow=3.6,SNR=15
BRTR                                LR       LR        04 56 39.5
            comp=Z,12nm,19.8s,baz=339,slow=38
            comp=Z,2.1nm,0.6s
BRTR  Keskin Array B    75.13 321   P        P         04 20 35.1  -0.5
NRCA  Norcia            78.25 337   IAmb     IAmb      04 20 54.4
            comp=Z,14nm,0.9s
ASF   Jabal al Asfar    80.56 315   LR       LR        05 02 40.5
            comp=Z,27nm,18.1s,baz=24,slow=40
ASAR  Alice Springs     82.47 205   P        P         04 21 16.2 +0.6
            comp=Z,1.7nm,0.6s,baz=22,slow=6.1,SNR=5.0
            comp=Z,1.7nm,0.6s
EIL   Elat              83.55 315   LR       LR        05 04 46.4
            comp=Z,26nm,19.0s,baz=275,slow=40
ESDC  Sonseca Array     84.20 349   P        P         04 21 23.7  -0.9
            comp=Z,3.1nm,0.8s,baz=357,slow=4.3,SNR=17
            comp=Z,3.1nm,0.8s
ESDC  Sonseca Array     84.20 349   P        P         04 21 25.2 +0.6
RAYN  Ar Rayn           84.31 304   P        P         04 21 24.4  -1.0
RAYN                                pmax     pmax
            comp=Z,6.0nm,0.7s
RAYN  Ar Rayn           84.31 304   P        P         04 21 24.4  -1.0
RAYN                                IAmb     IAmb      04 21 25.4
            comp=Z,6.1nm,0.7s
KEST  Kesra             85.88 338   P        P         04 21 32.0  -1.1
            comp=Z,1.4nm,0.4s,baz=64,slow=0.5,SNR=9.4
            comp=Z,1.4nm,0.4s
KEST  Kesra             85.88 338   P        P         04 21 32.2  -0.9
KEST                                IAmb     IAmb      04 21 42.8
            comp=Z,5.8nm,1.3s
QSPA  South Pole Qui   145.44 180   PKPbc    PKPdf     04 28 28.7  -0.7
            comp=Z,3.5nm,0.6s,baz=317,slow=0.3,SNR=31
QSPA  South Pole Qui   145.44 180            PKPdf     04 28 28.9  -0.5
TROLL Troll, Antarti   161.39 200 ⇓PKPab     PKPab     04 29 36.2  -0.6
            comp=Z,90nm,0.6s
VNA3  Neumayer Olymp   163.93 190 ⇓PKPab     PKPab     04 29 47.8   0.0
            comp=Z,1.7nm,0.8s
```

IDC ***18*** *04:10:14.1±2.3, 16.°58S×177.°69W, h380^{km}±24^{km}, mb3.2/8, mbtmp4.0/10, Error ellipse: s-maj=23.2km s-min=15.4km az=138.0*

NEIC ***18*** *04:10:14.4±1.8, 16.°7S±0.°1×177.°6W±0.°2, h376^{km}±7^{km}, mb4.2/14, Error ellipse: s-maj=24.4km s-min=17.4km az=131.0*

ISC 18 04:10:15.6±0.5**, 16.°7S**±0.°1×**177.°6W**±0.°1**, h400^{km}, n39, σ1.^{s}15**/38**, mb4.0**/18**, 1D, Fiji Islands region**

```
Code  Station Name       Δ°   AZ°    Phase ID             Time      Res
                                    Op       ISC        h  m  s    ISC
MSVF  Nonsavu            4.33 255   P        Pn        04 11 32.8 +1.8
```

	11nm,0.5s,baz=45,slow=23,SNR=11						
MSVF	**Nonsavu**	**4.33**	**255**		Pn	04 11 34.4	+3.4
AFI	**Afiamalu**	**6.21**	**64**	P	**Pn**	**04 11 49.3**	**-1.5**
	48nm,0.8s,baz=330,slow=23,SNR=2.4						
RAO	**Raoul Island**	**12.52**	**181**	P	**Pn**	**04 13 01.1**	**-1.6**
	367nm,0.4s,baz=249,slow=23,SNR=2.7						
MARNC	**Mare, Loyalty**	**14.44**	**248**	P	**P**	**04 13 21.9**	**-0.1**
DZM	**Mont Dzumac**	**16.02**	**248**	P	**P**	**04 13 37.8**	**-1.5**
	5.9nm,1.0s,baz=1.1,slow=14,SNR=1.7						
LBZ	**Lake Benmore**	**29.50**	**198**	P	**P**	**04 15 45.4**	**+0.6**
WR8	**Warramunga Arr**	**45.52**	**258**	P	**P**	**04 17 56.4**	**-1.2**
WR8				IAmb	IAmb	04 18 40.4	
	comp=Z,11nm,0.7s						
WB0	**Warramunga Arr**	**45.63**	**258**	P	**P**	**04 17 57.9**	**-0.6**
WB0				IAmb	IAmb	04 18 29.6	
	comp=Z,14nm,0.8s						
WRA	**Warramunga Arr**	**45.67**	**258**	P	**P**	**04 17 58.0**	**-0.9**
	comp=Z,0.2nm,0.3s,baz=93,slow=7.4,SNR=7.0						
	comp=Z,0.2nm,0.3s						
ASAR	**Alice Springs**	**45.92**	**253**	P	**P**	**04 18 00.2**	**-0.5**
	comp=Z,2.2nm,0.5s,baz=86,slow=7.9,SNR=25						
	comp=Z,2.2nm,0.5s						
ASAR	**Alice Springs**	**45.92**	**253**	P	**P**	**04 17 59.9**	**-0.9**
VNDA	**Vanda**	**61.73**	**185**	P	**P**	**04 19 54.0**	**+1.3**
	comp=Z,0.2nm,0.4s,baz=28,slow=4.0,SNR=1.5						
	comp=Z,0.2nm,0.4s						
VNDA	**Vanda**	**61.73**	**185**	P	**P**	**04 19 53.5**	**+0.8**
PETK	**Petropavlovsk-**	**72.71**	**345**	P	**P**	**04 21 01.0**	**-0.1**
	comp=Z,1.2nm,0.7s,baz=202,slow=6.9,SNR=2.3						
	comp=Z,1.2nm,0.7s						
QSPA	**South Pole Qui**	**73.37**	**180**	P	**P**	**04 21 05.7**	**+0.8**
	comp=Z,1.8nm,0.7s,baz=289,slow=1.1,SNR=11						
	comp=Z,1.8nm,0.7s						
QSPA	**South Pole Qui**	**73.37**	**180**	P	**P**	**04 21 05.8**	**+0.8**
KMRM	**Mail Ridge**	**75.55**	**40**	P	**P**	**04 21 18.4**	**+0.7**
NVAR	**Mina Array Bea**	**77.98**	**44**	P	**P**	**04 21 32.3**	**+1.0**
	comp=Z,0.5nm,0.6s,baz=222,slow=9.5,SNR=5.0						
	comp=Z,0.5nm,0.6s						
L18K	**Granite Mounta**	**80.35**	**10**	P	**P**	**04 21 43.4**	**+0.3**
J20K	**Nowinta River**	**82.60**	**10**	P	**P**	**04 21 55.1**	**+0.3**
J20K				IAmb	IAmb	04 21 55.6	
	comp=Z,4.6nm,1.0s						
BELA	**Belgrano 2**	**83.27**	**173**	P	**P**	**04 21 58.3**	**+0.1**
G19K	**Purcell Mounta**	**84.00**	**8**	P	**P**	**04 22 02.0**	**+0.2**
G19K				IAmb	IAmb	04 22 17.4	
	comp=Z,11nm,1.4s						
WRH	**Wood River Hil**	**84.00**	**12**	P	**P**	**04 22 01.3**	**-0.5**
WRH				IAmb	IAmb	04 22 19.7	
	comp=Z,3.1nm,1.1s						
VHRN	**Van Horn**	**84.16**	**56**		**P**	**04 22 05.3**	**+1.7**
VHRN				IAmb	IAmb	04 22 05.8	
	comp=Z,2.4nm,1.0s						
IMAR	**Indian Mountai**	**84.34**	**10**	P	**P**	**04 22 02.8**	**-0.7**
IL31		**84.52**	**13**	P	**P**	**04 22 03.6**	**-0.7**
IL31				IAmb	IAmb	04 22 04.1	
	comp=Z,8.4nm,1.2s						
ILAR	**Eielson Array**	**84.52**	**13**	P	**P**	**04 22 03.7**	**-0.7**
	comp=Z,1.2nm,0.5s,baz=225,slow=5.3,SNR=22						
	comp=Z,1.2nm,0.5s						
ILAR	**Eielson Array**	**84.52**	**13**	P	**P**	**04 22 03.6**	**-0.8**
TX31	**Lajitas Ar. Si**	**84.65**	**57**	P	**P**	**04 22 08.0**	**+2.0**
TX31				IAmb	IAmb	04 22 21.8	
	comp=Z,5.5nm,1.4s						
TXAR	**Lajitas Array**	**84.65**	**57**	P	**P**	**04 22 07.8**	**+1.8**
	comp=Z,0.6nm,0.8s,baz=242,slow=4.8,SNR=3.3						
	comp=Z,0.6nm,0.8s						
TXAR	**Lajitas Array**	**84.65**	**57**	P	**P**	**04 22 08.0**	**+2.0**
ELIB	**Princess Elisa**	**90.47**	**186**	*d*P	**P**	**04 22 32.3**	**-0.5**
TROLL	**Troll, Antarti**	**91.53**	**180**	P	**P**	**04 22 37.4**	**-0.4**
	comp=Z,33nm,0.4s						
VNA3	**Neumayer Olymp**	**91.90**	**176**	P	**P**	**04 22 39.1**	**-0.2**
	comp=Z,0.8nm,0.4s						
VNA2	**Neumayer--Watz**	**92.35**	**177**	P	**P**	**04 22 41.7**	**+0.3**
	comp=Z,1.1nm,0.6s,baz=185,slow=5.7						
BURAR	**Bucovina Array**	**143.90**	**334**	PKPdf	**PKiKP**	**04 29 04.9**	**-3.0**
BRTR	**Keskin Array B**	**144.48**	**317**	PKP	**PKPdf**	**04 29 05.3**	**-0.2**
	comp=Z,0.7nm,0.6s,baz=203,slow=0.9,SNR=4.7						
FUORN	**Ofenpass-Fuorn**	**149.45**	**349**	PKPbc	**PKiKP**	**04 29 18.6**	**-1.0**

*TEH **18** 04:14:22.8, 29°.22N×49°.60E, h19^{km}±74^{km}, ML3.5, Presumed earthquake*

*DSN **18** 04:14:33.5±0.9, 29°.03N×50°.31E, h15^{km}, ML3.5/10, Error ellipse: s-maj=31.6km s-min=9.1km az=32.0*

ISC 18 04:14:25.8±2.6**, 29°.22N**±0°.08×**49°.8E**±0°.2**, h10^{km}, n19,** σ1^{s}.**35**/20**, Persian Gulf**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DSBU	**Dashti - Bushe**	**1.52**	**124**	Pg	**Pg**	**04 14 55.7**	**+0.6**
KAZ2	**Kazeron-Fars-I**	**1.65**	**76**	Pn	**Pb**	**04 14 56.5**	**+0.1**
KLNJ	**Kolanjah**	**2.35**	**40**	Pn	**Pn**	**04 15 05.5**	**+0.7**
AMIS	**Naft Sefid**	**2.48**	**349**	Pn	**Pn**	**04 15 04.5**	**-1.8**
IBRJ	**Brojen**	**2.95**	**24**	Pn	**Pn**	**04 15 12.8**	**-0.2**
JHBN	**Jahan bin**	**3.08**	**13**	Pn	**Pn**	**04 15 15.2**	**+0.3**
IGAR	**Gharneh**	**3.70**	**30**	Pn	**Pn**	**04 15 24.2**	**+0.9**
IMEH	**Mehriz**	**4.67**	**61**	Pn	**Pn**	**04 15 37.8**	**+1.2**
ANAR	**Anarak**	**5.18**	**39**	Pn	**Pn**	**04 15 44.0**	**+0.4**
KHGB	**Koh Gabri**	**5.89**	**77**	Pn	**Pn**	**04 15 55.0**	**+1.6**
SHME	**Shamm**	**6.43**	**118**	P	**Pn**	**04 16 01.3**	**+0.7**
BANOM	**Banah**	**6.62**	**118**	P	**Pn**	**04 16 04.2**	**+1.0**
NAZ	**Nazwa, Dubai**	**6.70**	**128**	P	**Pn**	**04 16 06.0**	**+1.7**
MSFE	**Esma-Masafi**	**6.82**	**123**	P	**Pn**	**04 16 06.9**	**+0.8**
MSFE				S	**Sn**	**04 17 20.2**	**-3.7**
MDH	**Madha**	**6.96**	**123**	P	**Pn**	**04 16 08.6**	**+0.7**
UOSS	**Minazif**	**7.10**	**125**	P	**Pn**	**04 16 10.9**	**+1.0**
HATD	**Hatta, Dubai**	**7.13**	**126**	P	**Pn**	**04 16 11.6**	**+1.4**
ASHO	**Ashiyiah**	**7.17**	**128**	P	**Pn**	**04 16 11.3**	**+0.5**
SOHO	**SOHO**	**7.85**	**129**	P	**Pn**	**04 16 20.5**	**+0.3**

*IDC **18** 04:15:09.9±1.3, 6°.33S×129°.91E, h0^{km}, mb4.0/3, mbtmp4.2/6, ML4.6/3, Error ellipse: s-maj=53.8km s-min=15.5km az=77.0*

*DJA **18** 04:15:23.3±0.3, 7°S±3°×13°0E±°, h150^{km}±11^{km}, M4.4/13, mB4.9/5, mb4.4/8, MLv4.4/13, Mw(mB)4.2/5*

ISC 18 04:15:22.9±0.9**, 7°.26S**±0°.06×**129°.77E**±0°.09**, h150^{km}, n16,** σ1^{s}.**75**/18**, mb3.8**/3**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SAUI	**Saumlaki**	**1.68**	**115**	P	**Pn**	**04 15 54.2**	**-0.2**
SAUI				AML	AML		
BNDI	**Bandanaira**	**2.72**	**3**	P	**Pn**	**04 16 07.3**	**+0.5**
BNDI				AML	AML		
AAI	**Ambon**	**3.88**	**336**	P	**Pn**	**04 16 20.3**	**-1.3**
AAI				AML	AML		
MSAI	**Masohi**	**3.98**	**348**	P	**Pn**	**04 16 22.2**	**-0.7**
MSAI				AML	AML		
KMPI	**Kaimana, Papua**	**5.30**	**48**	P	**Pn**	**04 16 39.7**	**-0.7**
	1.6nm59nm,0.8s						
KMPI				AML	AML		
SOEI	**Soe**	**5.98**	**245**	P	**Pn**	**04 16 51.6**	**+2.1**
	0.3nm33nm,0.9s						
SOEI				AML	AML		
SANI	**Sanana**	**6.40**	**324**	P	**Pn**	**04 16 55.9**	**+0.9**
SWI	**Sorong**	**6.53**	**13**	P	**Pn**	**04 16 53.2**	**-3.5**
	0.4nm1µm18nm,0.4s						
SWI				AML	AML		
MWPI	**Manokwari, Pap**	**7.59**	**34**	P	**Pn**	**04 17 10.8**	**-0.2**
BAKI	**Biak**	**8.73**	**47**	P	**Pn**	**04 17 27.7**	**+1.5**
	1µm86nm,0.9s						
FITZ	**Fitzroy Crossi**	**11.50**	**200**	Pn	**Pn**	**04 18 03.2**	**+0.5**
	4.0nm,0.3s,baz=25,slow=7.8,SNR=58						
FITZ				Sn	**Sn**	**04 20 07.6**	**-2.3**
	0.7nm,0.3s,baz=104,slow=13,SNR=4.5						
	8.4nm,0.3s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**13.37**	**161**	Pn	**Pn**	**04 18 26.8**	**-0.1**
	2.8nm,0.3s,baz=341,slow=10,SNR=30						
WRA				Sn	**Sn**	**04 20 51.9**	**-3.0**
	2.5nm,0.3s,baz=343,slow=21,SNR=8.7						
	5.8nm,0.5s						
WRA				AML	AML		
ASAR	**Alice Springs**	**16.79**	**167**	Pn	**Pn**	**04 19 11.9**	**+2.5**
	1.6nm,0.3s,baz=344,slow=9.6,SNR=38						
	2.1nm,0.4s						
ASAR				AML	AML		
MKAR	**Makanchi Array**	**68.31**	**327**	P	**P**	**04 26 09.4**	**+1.6**
	1.1nm,0.4s,baz=109,slow=7.9,SNR=18						
	1.1nm,0.4s						
ZALV	**Zalesovo Beam**	**71.71**	**334**	P	**P**	**04 26 28.2**	**-0.2**
	0.5nm,0.3s,baz=122,slow=5.2,SNR=1.8						
	0.5nm,0.3s						
KURBB	**Kurchatov Arra**	**72.61**	**329**	P	**P**	**04 26 34.2**	**+0.4**
	0.3nm,0.4s,baz=136,slow=4.8,SNR=4.6						
	0.3nm,0.4s						

*IDC **18** 04:25:23.8±2.4, 29°.37N×49°.68E, h0^{km}, mb3.7/5, mbtmp3.8/6, ML3.2/1, MS2.7/2, Error ellipse: s-maj=47.2km s-min=30.7km az=145.0*

*TEH **18** 04:25:24.9, 29°.37N×49°.71E, h17^{km}±160^{km}, ML3.6, Presumed earthquake*

*DSN **18** 04:25:33.0±1.5, 28°.60N×49°.94E, h15^{km}, ML3.2/5, Error ellipse: s-maj=24.2km s-min=5.2km az=178.0*

ISC 18 04:25:25.0±0.9**, 29°.29N**±0°.07×**49°.78E**±0°.08**, h10^{km}, n29,** σ1^{s}.**72**/28**, mb3.5**/4**, Persian Gulf**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DSBU	**Dashti - Bushe**	**1.59**	**125**	Pg	**Pn**	**04 25 56.6**	**+3.3**
KAZ2	**Kazeron-Fars-I**	**1.67**	**78**	Pg	**Pn**	**04 25 56.8**	**+2.4**
KLNJ	**Kolanjah**	**2.32**	**42**	Pn	**Pn**	**04 26 05.3**	**+1.7**
AMIS	**Naft Sefid**	**2.41**	**350**	Pn	**Pn**	**04 26 05.1**	**+0.6**
SHI	**Shiraz**	**2.41**	**81**	Pn	**Pn**	**04 26 07.6**	**+3.0**
IBRJ	**Brojen**	**2.91**	**26**	Pn	**Pn**	**04 26 13.7**	**+2.2**
ZNGN	**Zangian**	**2.97**	**18**	Pn	**Pn**	**04 26 13.6**	**+1.1**
JHBN	**Jahan bin**	**3.03**	**14**	Pn	**Pn**	**04 26 14.7**	**+1.4**
IGAR	**Gharneh**	**3.66**	**31**	Pn	**Pn**	**04 26 24.1**	**+2.2**
IMEH	**Mehriz**	**4.67**	**62**	Pn	**Pn**	**04 26 37.8**	**+1.9**
KRSH	**Karshahi**	**5.08**	**23**	Pn	**Pn**	**04 26 42.7**	**+1.3**
ANAR	**Anarak**	**5.15**	**40**	Pn	**Pn**	**04 26 43.7**	**+1.4**
ILBA	**Ilam Banvizeh**	**5.29**	**326**	Pn	**Pn**	**04 26 44.7**	**+0.5**
IGHG	**Ghaleghazi**	**5.72**	**332**	Pn	**Pn**	**04 26 50.6**	**+0.4**
SNQR	**Sonqor, Kerman**	**5.85**	**342**	Pn	**Pn**	**04 26 52.7**	**+0.7**
MSFE	**Esma-Masafi**	**6.89**	**123**	P	**Pn**	**04 27 06.5**	**+0.3**
MSFE				S	**Sn**	**04 28 21.0**	**-3.7**
RAYN	**Ar Rayn**	**6.91**	**215**	P	**Pn**	**04 27 07.5**	**+1.2**
UOSS	**Minazif**	**7.17**	**126**	P	**Pn**	**04 27 10.7**	**+0.7**
HATD	**Hatta, Dubai**	**7.20**	**127**	P	**Pn**	**04 27 11.3**	**+0.9**
ASHO	**Ashiyiah**	**7.24**	**128**	P	**Pn**	**04 27 12.2**	**+1.3**
SOHO	**SOHO**	**7.92**	**129**	P	**Pn**	**04 27 19.8**	**-0.5**
EIL	**Elat**	**12.93**	**275**	LR	LR	04 33 11.8	
	comp=Z,28nm,20.2s,baz=276,slow=36						
KBZ	**Khabaz**	**15.43**	**341**	Pn	**Pn**	**04 29 03.6**	**+0.9**
	0.1nm,0.3s,baz=164,slow=8.2,SNR=4.5						
	2.5nm,0.6s						
KBZ				AML	AML		
AKTO	**Aktyubinsk**	**22.02**	**14**	P	**P**	**04 30 18.2**	**-1.2**
	1.0nm,0.5s,baz=219,slow=5.8,SNR=2.4						
	1.0nm,0.5s						
AAK	**Ala-Archa**	**23.93**	**50**	LR	LR	04 40 26.5	
	comp=Z,18nm,18.8s,baz=92,slow=38						
AKASG	**Malin Array Be**	**26.39**	**330**	P	**P**	**04 30 59.9**	**-1.6**
	0.2nm,0.3s,baz=133,slow=9.1,SNR=1.8						
	0.2nm,0.3s						
MKAR	**Makanchi Array**	**30.71**	**46**	P	**P**	**04 31 40.9**	**+0.8**
	0.4nm,0.5s,baz=246,slow=9.2,SNR=5.2						
	0.4nm,0.5s						
FINES	**FINESS Array B**	**35.79**	**341**	P	**P**	**04 32 23.1**	**-0.9**
	6.0nm,1.1s,baz=143,slow=7.9,SNR=9.8						
	6.0nm,1.1s						
TORD	**Torodi Ar. Bea**	**47.28**	**261**	P	**P**	**04 33 58.7**	**-0.2**
	0.8nm,0.7s,baz=57,slow=8.5,SNR=4.1						
	0.8nm,0.7s						

*SDD **18** 04:47:58.1±2.4, 18°.75N×70°.74W, h30^{km}±10^{km}, MD2.9, ML2.3, MW3.0, Presumed earthquake*

*OSPL **18** 04:48:01.0±0.9, 18°.70N×70°.76W, h8^{km}±3^{km}, ML1.9, Presumed earthquake*

ISC 18 04:48:00.0±1.1**, 18°.71N**±0°.03×**70°.75W**±0°.02**, h19^{km}**±3^{km}**, n16,** σ0^{s}.**50**/28**, 12C-4D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ABDR	**Alto Bandera**	**0.15**	**50**	⇑*e*Pg	**Pg**	**04 48 04.8**	**0.0**
ABDR				⇓*e*Sg	**Sg**	**04 48 08.3**	**+0.2**
ABDR				IAML		04 48 08.3	
	comp=N,1µm,0.2s						
BANI	**BANI**	**0.49**	**130**	⇑*e*Pg	**Pb**	**04 48 10.8**	**+0.7**
BANI				⇑*e*Sg	**Sn**	**04 48 19.4**	**-0.8**
BANI				IAML		04 48 21.9	
	comp=N,274nm,0.2s						
SDDR	**Presa de Saban**	**0.57**	**298**	*i* P	**Pb**	**04 48 11.1**	**-0.4**
SDDR				*e*S	**Sb**	**04 48 19.5**	**+0.3**
SDDR				IAML		04 48 23.9	
	comp=Z,84nm,0.4s						
SDDR	**Presa de Saban**	**0.57**	**298**	⇑*e*Pg	**Pb**	**04 48 10.9**	**-0.6**
SDDR				IAML		04 48 22.4	
	comp=N,80nm,1.1s						
NEDR	**Neiba UASD**	**0.67**	**250**	⇑*e*Pg	**Pb**	**04 48 12.9**	**-0.2**
NEDR				⇓*e*Sg	**Sg**	**04 48 23.1**	**+0.8**
NEDR				IAML		04 48 24.8	
	comp=N,38nm,0.6s						
SC01	**Santiago de lo**	**0.71**	**2**	*i* P	**Pg**	**04 48 14.4**	**+0.3**
SC01				*e*S	**Sg**	**04 48 24.1**	**+0.5**
SC01				IAML		04 48 30.5	
	comp=Z,47nm,0.8s						
DR08	**Loma La Naviza**	**0.73**	**70**	⇑*e*Pg	**Pg**	**04 48 14.4**	**-0.1**
DR08				⇑*e*Sg	**Sn**	**04 48 25.4**	**-0.9**
DR08				IAML		04 48 25.9	
	comp=N,599nm,0.4s						
PODR	**Polo**	**0.74**	**223**	⇑*e*Pg	**Pb**	**04 48 14.1**	**-0.4**
LODU1	**El Espartillar**	**0.77**	**243**	*i* P	**Pb**	**04 48 14.7**	**-0.2**
LODU1				*e*S	**Sb**	**04 48 25.4**	**+0.4**
LODU1				IAML		04 48 30.3	
	comp=Z,58nm,0.3s						
SDD	**Santo Domingo**	**0.83**	**107**	*i* P	**Pg**	**04 48 16.1**	**-0.3**
SDD				*e*S	**Sg**	**04 48 27.2**	**-0.3**
SDD				IAML		04 48 29.0	
	comp=Z,40nm,0.7s						
JIDR	**Jimani**	**1.06**	**258**	⇑*e*Pg	**Pb**	**04 48 19.5**	**-0.4**
JIDR				⇓*e*Sg	**Sg**	**04 48 35.3**	**+0.5**
JIDR				IAML		04 48 40.2	
	comp=N,45nm,0.7s						
LOVI	**El Cajuil, Ovi**	**1.08**	**213**	*i* P	**Pb**	**04 48 19.7**	**-0.4**
LOVI				IAML		04 48 39.4	
	comp=Z,19nm,0.9s						
LOBH	**Bahia de las A**	**1.19**	**225**	*i* P	**Pn**	**04 48 21.9**	**+0.2**
LOBH				IAML		04 48 44.7	
	comp=Z,15nm,0.9s						
LOPP1	**Punta Rusia, P**	**1.21**	**340**	*i* P	**Pb**	**04 48 22.7**	**+0.2**
LOPP1				*e*S	**Sg**	**04 48 38.8**	**-0.6**
LOPP1				IAML		04 48 44.6	
	comp=Z,40nm,2.4s						
HATOM	**Hato Mayor del**	**1.30**	**86**	⇑*e*Pg	**Pb**	**04 48 24.2**	**+0.2**
HATOM				⇑*e*Sg	**Sb**	**04 48 40.8**	**+0.5**
HATOM				IAML		04 48 44.7	
	comp=N,36nm,0.5s						
HIDR	**Higuey Centro**	**1.93**	**93**	⇑*e*Pg	**Pb**	**04 48 34.0**	**-0.6**
HIDR				⇓*e*Sg	**Sb**	**04 48 58.9**	**+0.4**
HIDR				IAML		04 49 04.3	
	comp=N,35nm,1.2s						

*IDC **18** 05:00:06.5±1.6, 54°.75N×83°.92E, h0^{km}, mb3.9/1, mbtmp4.1/6, ML3.7/5, MS3.0/12, Error ellipse: s-maj=15.6km s-min=12.6km az=178.0*

*NNC **18** 05:00:07.0±2.4, 54°.69N×83°.63E, h0^{km}, mb4.2, mpv4.0, Error ellipse: s-maj=21.1km s-min=7.4km az=11.0, Suspected Mining explosion.*

*ASRS **18** 05:00:06.0±1.3, 54°.67N×83°.62E, h0^{km}, M3.3(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

ISC 18 05:00:04.7±1.4**, 54°.8N**±0°.1×**83°.78E**±0°.06**, h0^{km}, n25,** σ2^{s}.**15**/24**, MS3.0**/8**, 11C-5D, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZAA0	**Zalesovo Array**	**1.05**	**145**	⇓P	**Pn**	**05 00 26.4**	**-0.3**
	22nm,0.3s						
ZAA0				⇑S	**Sn**	**05 00 40.1**	**-2.0**
	133nm,0.4s						
ZALV	**Zalesovo Beam**	**1.05**	**145**	Pg	**Pb**	**05 00 24.7**	**-1.1**
	8.8nm,0.3s,baz=325,slow=18,SNR=62						
ZALV				Lg	Lg	05 00 39.5	
	196nm,0.3s,baz=328,slow=27,SNR=64						
ZALV				Rg	Rg	05 00 43.5	
	651nm,0.8s,baz=321,slow=34,SNR=14						
KURK	**Kurchatov**	**5.16**	**219**	⇑Pn	**Pn**	**05 01 24.9**	**+1.8**
	21nm,0.8s						
KURK				⇓Sn	**Sn**	**05 02 21.7**	**-1.7**
	13nm,0.7s						
KURK				⇓Lg	Lg	05 02 47.3	
	106nm,0.9s						
KURBB	**Kurchatov Arra**	**5.27**	**219**	Pn	**Pn**	**05 01 26.9**	**+2.3**
	0.9nm,0.3s,baz=40,slow=14,SNR=67						
KURBB				Pg	**Pg**	**05 01 44.0**	**-1.6**
	1.1nm,0.3s,baz=40,slow=18,SNR=25						
KURBB				Lg	Lg	05 02 52.0	
	2.7nm,0.3s,baz=40,slow=30,SNR=9.2						
	8.5nm,0.4s						
KURBB				AML	AML		
KURBB	**Kurchatov Arra**	**5.27**	**219**	⇑Pn	**Pn**	**05 01 26.5**	**+1.9**
	31nm,0.8s						
KURBB				⇑Sn	**Sn**	**05 02 25.1**	**-0.9**
	47nm,0.6s						
KURBB				⇑Lg	Lg	05 02 52.2	
	338nm,0.7s						
MK31	**Makanchi Array**	**8.08**	**187**	⇑Pn	**Pn**	**05 02 04.9**	**+1.6**
	1.9nm,0.5s,baz=16,slow=13,SNR=50						
MK31				⇑Sn	**Sn**	**05 03 36.4**	**+1.1**
	1.5nm,0.5s,baz=304,slow=34,SNR=5.5						
MK31				⇑Lg	Lg	05 04 19.8	
	24nm,0.7s,baz=16,slow=29,SNR=6.9						
MKAR	**Makanchi Array**	**8.08**	**187**	Pn	**Pn**	**05 02 05.0**	**+1.7**
	1.5nm,0.3s,baz=14,slow=13,SNR=43						
MKAR				Sn	**Sn**	**05 03 35.4**	**+0.1**
	1.6nm,0.3s,baz=15,slow=24,SNR=7.1						
MKAR				Lg	Lg	05 04 18.1	
	1.8nm,0.3s,baz=8.4,slow=31,SNR=5.0						
MKAR				LR	LR	05 05 43.1	
	comp=Z,19nm,20.0s,baz=4.0,slow=42						
	5.4nm,0.5s						
MKAR				AML	AML		
BVA4	**Borovoye Array**	**8.10**	**263**	⇓Pn	**Pn**	**05 02 06.2**	**+2.6**
	15nm,0.6s						
BVA4				⇓Sn	**Sn**	**05 03 31.6**	**-4.2**
	9.1nm,0.6s						
BVAR	**Borovoye Array**	**8.11**	**263**	Pn	**Pn**	**05 02 06.1**	**+2.5**
	0.9nm,0.3s,baz=65,slow=14,SNR=68						
BVAR				Sn	**Sn**	**05 03 32.5**	**-3.5**
	0.6nm,0.3s,baz=68,slow=24,SNR=7.7						
	17nm,0.5s						
BVAR				AML	AML		
AAK	**Ala-Archa**	**13.62**	**210**	Pn	**Pn**	**05 03 20.5**	**+1.3**
	0.9nm,0.3s,baz=91,slow=6.5,SNR=7.2						
AAK				Lg	Lg	05 07 17.5	
	0.4nm,0.3s,baz=170,slow=22,SNR=4.9						
	3.1nm,0.5s						
AAK				AML	AML		
AAK	**Ala-Archa**	**13.62**	**210**	⇑Pn	**Pn**	**05 03 18.6**	**-0.5**
	10nm,1.3s						
AAK				⇑Sn	**Sn**	**05 05 55.8**	**+4.7**
	6.2nm,1.0s						
AAK				⇑Lg	Lg	05 07 18.3	
	58nm,1.4s						
ARTI	**Arti**	**14.42**	**287**	Sn	**Sn**	**05 06 10.5**	**+0.3**
	1.3nm,0.3s,baz=244,slow=23,SNR=15						
ARTI				LR	LR	05 09 54.7	
	comp=Z,85nm,18.1s,baz=41,slow=40						
KK31	**Karatay Array**	**14.57**	**222**	P	**Pn**	**05 03 32.5**	**+0.5**
	0.7nm,0.3s,baz=29,slow=13,SNR=10						
NRIK	**Noril'sk**	**14.69**	**5**	LR	LR	05 09 55.5	
	comp=Z,54nm,18.8s,baz=234,slow=40						
SONM	**Songino Array**	**15.72**	**107**	Lg	Lg	05 08 21.5	
	0.1nm,0.3s,baz=311,slow=26,SNR=3.6						
AKTO	**Aktyubinsk**	**16.20**	**265**	Pn	**Pn**	**05 03 53.9**	**+0.3**
	0.2nm,0.3s,baz=52,slow=12,SNR=3.7						
AKTO				LR	LR	05 10 36.3	
	comp=Z,65nm,20.5s,baz=244,slow=39						
	0.7nm,0.3s						
AKTO				AML	AML		
YAK	**Yakutsk**	**24.63**	**54**	LR	LR	05 15 40.0	
	comp=Z,29nm,20.1s,baz=282,slow=38						
TIXI	**Tiksi**	**25.46**	**31**	LR	LR	05 15 45.4	
	comp=Z,38nm,20.2s,baz=312,slow=37						
KSRS	**Korea Array**	**34.48**	**102**	LR	LR	05 22 08.1	
	comp=Z,20nm,19.8s,baz=150,slow=38						
HFS	**Hagfors**	**36.43**	**308**	LR	LR	05 23 05.1	
	comp=Z,48nm,18.2s,baz=292,slow=38						
NOA	**NORSAR Array B**	**37.18**	**310**	LR	LR	05 24 09.0	
	comp=Z,48nm,18.4s,baz=50,slow=39						
MLR	**Muntele Rosu**	**37.22**	**280**	LR	LR	05 23 09.2	
	comp=Z,31nm,18.2s,baz=356,slow=37						
MMAI	**Mount Meron Ar**	**40.07**	**257**	LR	LR	05 26 14.0	
	comp=Z,17nm,18.0s,baz=344,slow=39						
PALK	**Pallekele**	**47.47**	**184**	LR	LR	05 31 43.5	
	comp=Z,31nm,20.1s,baz=332,slow=40						
WRA	**Warramunga Arr**	**86.01**	**133**	P	**P**	**05 12 47.1**	**+0.3**
	0.7nm,0.8s,baz=342,slow=5.4,SNR=5.3						
	0.7nm,0.8s						

IDC 18 05:01:53.3±1.6**, 5°.79S**×**150°.75E, h0^{km}, mb3.2**/2**, mbtmp3.3**/2**, Error ellipse: s-maj=122.8km s-min=17.4km az=132.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRVT	**Keravat (AS076**	**1.95**	**41**	Pn	Pn	05 02 27.6	-0.1
	213nm,0.3s,baz=68,slow=12,SNR=4.6						
KRVT				Sn	Sn	05 02 52.6	-0.2
	264nm,0.3s,baz=271,slow=21,SNR=7.0						
WRA	**Warramunga Arr**	**21.27**	**227**	P	P	05 06 42.4	+0.9
	0.4nm,0.4s,baz=54,slow=11,SNR=5.2						
	0.4nm,0.4s						
ASAR	**Alice Springs**	**24.06**	**221**	P	P	05 07 11.1	+0.6
	0.7nm,0.6s,baz=55,slow=9.4,SNR=4.4						
	0.7nm,0.6s						
TORD	**Torodi Ar. Bea**	**148.64**	**286**	PKPbc	PKPdf	05 21 41.5	+1.6
	0.4nm,0.6s,baz=60,slow=2.6,SNR=5.0						

*SDD **18** 05:15:51.8±0.6, 18°.30N×71°.69W, h19^{km}±15^{km}, MD2.6, ML1.4, MW2.3, Presumed earthquake*

*OSPL **18** 05:15:52.4±0.8, 18°.47N×71°.71W, h0^{km}±999^{km}, ML1.6, Presumed earthquake*

ISC 18 05:15:54.6±1.3**, 18°.34N**±0°.04×**71°.64W**±0°.04**, h6^{km}**±15^{km}**, n6,** σ0^{s}.**68**/11**, 5C, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LODU1	**El Espartillar**	**0.16**	**87**	*i* P	**Pg**	**05 15 57.3**	**-0.5**
LODU1				*e*S	**Sg**	**05 16 00.0**	**0.0**
LODU1				IAML		05 16 03.6	
	comp=Z,151nm,0.2s						
JIDR	**Jimani**	**0.25**	**306**	⇑*e*Pg	**Pg**	**05 15 58.9**	**-0.6**
JIDR				⇑*e*Sg	**Sg**	**05 16 03.6**	**+0.8**
JIDR				IAML		05 16 06.3	
	comp=N,43nm,0.2s						
NEDR	**Neiba UASD**	**0.25**	**56**	⇑*e*Pg	**Pg**	**05 15 59.5**	**0.0**
NEDR				⇑*e*Sg	**Sb**	**05 16 06.1**	**-0.1**
NEDR				IAML		05 16 07.2	
	comp=N,47nm,0.4s						
PODR	**Polo**	**0.38**	**117**	⇑*e*Pg	**Pg**	**05 16 01.9**	**-0.2**
LOBH	**Bahia de las A**	**0.48**	**180**	*i* P	**Pg**	**05 16 03.2**	**-0.6**
LOBH				*e*S	**Sg**	**05 16 11.2**	**+1.2**
LOBH				IAML		05 16 14.5	
	comp=Z,24nm,2.1s						
LOVI	**El Cajuil, Ovi**	**0.60**	**154**	*i* P	**Pg**	**05 16 05.7**	**-0.4**
LOVI				*e*S	**Sb**	**05 16 16.1**	**-0.1**
LOVI				IAML		05 16 22.0	
	comp=Z,22nm,0.9s						

*ASRS **18** 05:25:15.0±0.9, 54°.68N×83°.63E, h0^{km}, M2.6(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 18 05:25:15.0±3.0**, 54°.72N**×**83°.69E, h0^{km}, mbtmp2.7**/2**, ML2.5**/2**, Error ellipse: s-maj=26.5km s-min=13.0km az=158.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	**1.02**	**139**	I	I	05 31 10.0	
	baz=321,slow=333,SNR=3.2						
ZALV	**Zalesovo Beam**	**1.02**	**139**	Pg	Pg	05 25 34.1	-0.5
	1.3nm,0.3s,baz=323,slow=18,SNR=7.3						
ZALV				Lg	Lg	05 25 49.2	
	11nm,0.3s,baz=317,slow=30,SNR=27						
KURBB	**Kurchatov Arra**	**5.17**	**219**	Pn	Pn	05 26 34.5	+1.0
	0.1nm,0.3s,baz=40,slow=14,SNR=7.6						
KURBB				Lg	Lg	05 27 59.1	
	0.1nm,0.3s,baz=41,slow=28,SNR=5.2						
	0.4nm,0.4s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**7.99**	**187**	Pn	Pn	05 27 12.8	+0.5
	0.1nm,0.3s,baz=13,slow=12,SNR=2.0						
	0.2nm,0.4s						
MKAR				AML	AML		

IDC 18 05:25:39.2±1.9**, 13°.08N**×**93°.21E, h0^{km}, mb3.9**/3,

mbtmp3.8/4, ML4.4/1, Error ellipse: s-maj=37.1km s-min=21.8km az=101.0, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	7.68	45	Pn	Pn	05 27 33.0	+0.6
	1.4nm,0.3s,baz=238,slow=15,SNR=8.5						
CMAR				Sn	Sn	05 28 58.1	-2.2
	0.4nm,0.3s,baz=232,slow=25,SNR=5.4						
	1.7nm,0.5s						
CMAR				AML	AML		
ZALV	Zalesovo Beam	41.30	352	P	P	05 33 27.1	+0.7
	0.9nm,0.4s,baz=185,slow=8.2,SNR=2.8						
	0.9nm,0.4s						
WRA	Warramunga Arr	52.11	128	P	P	05 34 51.3	-0.3
	0.3nm,0.4s,baz=301,slow=9.1,SNR=7.4						
	0.3nm,0.4s						
ASAR	Alice Springs	54.02	132	P	P	05 35 05.5	-0.1
	0.9nm,0.4s,baz=310,slow=6.8,SNR=7.2						
	0.9nm,0.4s						

IDC 18 06:15:13.8±1.5**, 2°.85N×129°.18E, h0^{km}, mb4.0**/6**, mbtmp4.0**/6**, Error ellipse: s-maj=93.1km s-min=17.1km az=71.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDMP	Don Marcelino,	4.73	313	*e*P	Pg	06 16 48.4	+3.8
FITZ	Fitzroy Crossi	21.10	189	P	P	06 20 00.0	-0.1
	1.5nm,0.6s,baz=18,slow=8.3,SNR=8.9						
	1.5nm,0.6s						
WRA	Warramunga Arr	23.21	168	P	P	06 20 23.3	+0.7
	1.7nm,0.4s,baz=346,slow=10,SNR=22						
	1.7nm,0.4s						
ASAR	Alice Springs	26.75	170	P	P	06 20 55.4	0.0
	1.0nm,0.5s,baz=355,slow=8.1,SNR=24						
	1.0nm,0.5s						
STKA	Stephens Creek	36.49	162	P	P	06 22 19.6	-1.2
	1.1nm,0.3s,baz=330,slow=8.1,SNR=6.2						
	1.1nm,0.3s						
MKAR	Makanchi Array	59.68	324	P	P	06 25 20.4	+0.3
	0.8nm,0.4s,baz=117,slow=7.8,SNR=14						
	0.8nm,0.4s						
KURBB	Kurchatov Arra	63.80	327	P	P	06 25 47.7	0.0
	1.7nm,0.4s,baz=126,slow=6.0,SNR=16						
	1.7nm,0.4s						

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*NEIC **18** 06:17:35.0±1.2, 12°.0S±0°.1×167°.3E±0°.1, h281^{km}±9^{km}, mb4.2/16, Error ellipse: s-maj=21.1km s-min=16.8km az=89.0*

*IDC **18** 06:17:37.1±29.0, 12°.08S×167°.14E, h302^{km}±287^{km}, mb3.3/6, mbtmp4.0/6, Error ellipse: s-maj=96.4km s-min=31.8km az=87.0*

ISC 18 06:17:36.4±0.8**, 12°.3S**±0°.1×**167°.3E**±0°.2**, h300^{km}, n25, σ1^s.08**/24**, mb4.1**/13**, Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SANVU	Saraoutou	3.18	182	Pn	Pn	06 18 31.3	-2.6
HNR	Honiara	7.76	290	Pn	Pn	06 19 18.3	-8.8
EIDS	Eidsvold	20.13	227	P	P	06 21 49.0	+0.3
CTAO	Charters Tower	21.66	246	P	P	06 22 04.1	+0.7
CTAO				IAmb	IAmb	06 22 38.7	
	comp=Z,13nm,1.1s						
ARMA	Armidale	23.19	216	P	P	06 22 19.6	+2.2
STKA	Stephens Creek	30.67	226	P	P	06 23 24.6	+0.8
	comp=Z,2.8nm,0.6s,baz=36,slow=8.7,SNR=4.6						
	comp=Z,2.8nm,0.6s						
WB0	Warramunga Arr	32.47	252	P	P	06 23 38.8	-0.8
WB0				IAmb	IAmb	06 23 48.7	
	comp=Z,11nm,1.5s						
WRA	Warramunga Arr	32.54	252	P	P	06 23 39.1	-1.1
	comp=Z,0.8nm,0.8s,baz=79,slow=8.5,SNR=4.3						
	comp=Z,0.8nm,0.8s						
WRA	Warramunga Arr	32.54	252	P	P	06 23 38.8	-1.5
AS31	Alice Springs	33.66	246	P	P	06 23 49.2	-0.6
ASAR	Alice Springs	33.66	246	P	P	06 23 48.9	-1.0
	comp=Z,1.0nm,0.8s,baz=74,slow=9.6,SNR=7.9						
	comp=Z,1.0nm,0.8s						
BBOO	Buckleboo	35.17	229	P	P	06 24 02.8	+0.2
FITZ	Fitzroy Crossi	40.57	256	P	P	06 24 47.9	+0.2
	comp=Z,1.5nm,0.4s,baz=56,slow=8.5,SNR=13						
	comp=Z,1.5nm,0.4s						
FITZ	Fitzroy Crossi	40.57	256	P	P	06 24 47.4	-0.2
SSLB	Suanglung	57.77	308	P	P	06 26 56.3	-0.7
SSLB				IAmb	IAmb	06 27 30.9	
	comp=Z,8.4nm,0.9s						
CASY	Casey	65.83	202	P	P	06 27 51.2	+1.5
QSPA	South Pole Qui	77.76	180	P	P	06 29 01.8	+1.4
	comp=Z,0.9nm,0.7s,baz=68,slow=2.5,SNR=8.5						
	comp=Z,0.9nm,0.7s						
QSPA	South Pole Qui	77.76	180	P	P	06 29 01.1	+0.7
QSPA				IAmb	IAmb	06 29 31.3	
	comp=Z,4.8nm,1.4s						
O02D	Mt. Diablo Mer	83.00	46	P	P	06 29 28.3	-0.3
CCB	Clear Creek Bu	83.81	18	P	P	06 29 31.9	-0.1
CCB				IAmb	IAmb	06 29 48.3	
	comp=Z,4.3nm,1.4s						
HDA	Harding Lake	83.89	18	P	P	06 29 32.3	-0.1
HDA				IAmb	IAmb	06 29 56.2	
	comp=Z,6.9nm,1.3s						
ILAR	Eielson Array	84.17	18	P	P	06 29 33.9	+0.1
	comp=Z,0.9nm,0.6s,baz=239,slow=4.4,SNR=12						
	comp=Z,0.9nm,0.6s						
ILAR	Eielson Array	84.17	18	P	P	06 29 34.3	+0.4
J25K	Salcha River,	84.53	19	P	P	06 29 36.4	+0.7
J25K				IAmb	IAmb	06 29 56.3	
	comp=Z,4.2nm,1.3s						
G26K	Porcupine Rive	86.61	17	P	P	06 29 45.7	0.0
G26K				IAmb	IAmb	06 30 03.7	
	comp=Z,3.8nm,1.4s						

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*TAP **18** 06:24:53.7, 24°.15N×121°.72E, h10^{km}, ML3.7, B*

*JMA **18** 06:24:54.1±0.1, 24°.1N±0°.3×121°.7E±0°.6, h9^{km}±1^{km}, MV2.8/9, TAIWAN REGION*

ISC 18 06:24:53.9±0.8**, 24°.15N**±0°.01×**121°.73E**±0°.02**, h8^{km}**±5^{km}**, n125, σ0^s.86**/194**, 5C-23D, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ETL	Fush Village	0.10	273	⇑*i*P	Pg	06 24 56.5	+0.3
ETL				S	Sg	06 24 58.1	+0.3
NACB	Ninganchiao	0.12	280	P	Pg	06 24 56.9	+0.3
NACB	Ninganchiao	0.12	280	S	Sg	06 24 58.5	0.0
NACB	Ninganchiao	0.12	280	⇓*i*P	Pg	06 24 56.8	+0.1
NACB				*i* S	Sg	06 24 58.5	0.0
TWD	Chiawan	0.14	239	⇑*i*P	Pg	06 24 57.1	+0.2
TWD				S	Sg	06 24 59.3	+0.4
EHP	Heping Village	0.16	4	⇓*i*P	Pg	06 24 57.5	+0.3
EHP				*e*S	Sg	06 25 00.0	+0.6
EAHA	Aohua	0.17	3	⇓*i*P	Pg	06 24 57.7	+0.2
EAHA				*e*S	Sg	06 25 00.5	+0.5
HWA	Hwalien	0.21	213	*e*P	Pg	06 24 58.9	+0.8
ETLH	Xiulin Townshi	0.23	283	⇓*i*P	Pg	06 24 58.7	+0.1
ETLH				*e*S	Sg	06 25 01.8	+0.1
ENA	Nanau	0.27	2	⇓*e*P	Pg	06 24 57.1	-2.2
ENA				*e*S	Sg	06 25 00.9	-2.1
ETM	Tongmen	0.28	229	⇑*i*P	Pg	06 24 59.6	+0.1
ETM				*e*S	Sg	06 25 03.6	+0.2
EWUT	Wuta	0.29	9	⇓*i*P	Pg	06 24 59.9	+0.1
EWUT				S	Sg	06 25 04.1	+0.4
TEYL	Yanliau Villag	0.31	203	*e*P	Pg	06 25 00.4	+0.5
SHUL	Shoufeng	0.39	203	*e*P	Pb	06 25 02.5	-0.7
NNSB	Datong	0.42	311	⇓*i*P	Pg	06 25 02.2	+0.2
NNSB				*e*S	Sg	06 25 07.9	+0.3
LATG	Datong	0.42	334	⇓*i*P	Pg	06 25 02.3	+0.1
LATG				S	Sg	06 25 08.3	+0.6
WHF	Hehuan Shan	0.42	269	⇓*i*P	Pg	06 25 02.3	0.0
WHF				*e*S	Sg	06 25 07.8	0.0
ESL	Shilin	0.43	219	*e*P	Pg	06 25 02.2	-0.1
ESL				*e*S	Sb	06 25 09.1	-1.4
NNS	Nan Shan	0.43	311	⇓*i*P	Pg	06 25 02.4	+0.1
NNS				*e*S	Sg	06 25 08.3	+0.3
ESAO	Su ao	0.43	14	*e*P	Pg	06 25 02.5	+0.2
ESAO				S	Sg	06 25 08.4	+0.3
FUSS	Fushou	0.45	282	⇓*i*P	Pg	06 25 03.1	+0.3
FUSS				S	Sg	06 25 09.0	+0.3
TWC	Suao	0.47	14	⇓P	Pg	06 25 03.2	+0.2
TWC				*e*S	Sg	06 25 08.6	-0.5
TEGC	Jichi Village	0.47	201	*e*P	Pb	06 25 04.6	0.0
TEGC				*e*S	Sb	06 25 14.8	+3.1
NDS	Dongshan	0.48	359	⇓*i*P	Pg	06 25 03.4	+0.3
NDS				*e*S	Sg	06 25 10.0	+0.6
NDT	Datong Townshi	0.49	336	⇓P	Pg	06 25 03.9	+0.5
NDT				S	Sg	06 25 10.6	+0.8
TWT	Tachien	0.51	281	⇓*i*P	Pb	06 25 04.6	-0.8
TWT				*i* S	Sb	06 25 11.4	-1.6
EOS2	EOS2	0.53	60	*e*P	Pb	06 25 05.9	+0.5
TDCB	Techi	0.53	281	⇓P	Pb	06 25 04.7	-0.9
TDCB				S	Sg	06 25 11.4	+0.2
WARBT	Fenglin Townsh	0.54	216	⇑*i*P	Pg	06 25 04.0	-0.2
EOS4	EOS4	0.54	93	*e*P	Pn	06 25 07.4	-0.2
OWD	Renai	0.54	249	⇓P	Pg	06 25 04.6	+0.2
OWD				*e*S	Sg	06 25 11.3	-0.2
TWE	Neicheng	0.57	354	⇓*i*P	Pg	06 25 05.3	+0.4
TWE				*e*S	Sg	06 25 12.8	+0.5
WUSB	Renai	0.58	254	P	Pb	06 25 05.7	-0.8
WUSB				*e*S	Sg	06 25 12.7	-0.1
YHNB	Yeheng	0.61	328	P	Pb	06 25 06.2	-0.6
YHNB	Yeheng	0.61	328	S	Sg	06 25 14.4	+0.8
YHNB	Yeheng	0.61	328	⇓*i*P	Pg	06 25 06.1	+0.5
YHNB				*e*S	Sg	06 25 13.7	+0.1
ILA	Ilan	0.61	2	*e*P	Pg	06 25 06.2	+0.6
ILA				*e*S	Sb	06 25 15.1	-0.5
FUSB	Fushanzhiwuyua	0.62	348	⇓*i*P	Pg	06 25 06.2	+0.3
FUSB				S	Sg	06 25 14.4	+0.5
NSK	Sanguang	0.62	327	⇓*i*P	Pg	06 25 06.2	+0.3
NSK				*i* S	Sg	06 25 14.4	+0.4
NWLT	Wulai	0.65	342	⇓*i*P	Pg	06 25 07.0	+0.5
NWLT				S	Sg	06 25 15.5	+0.4
VWDT	VWDT	0.67	234	*e*P	Pg	06 25 06.9	+0.1
VWDT				*e*S	Sb	06 25 16.7	-0.6
EGS		0.71	15	*e*P	Pg	06 25 08.1	+0.5
HGSD	Ruisui	0.71	203	*e*P	Pb	06 25 08.8	+0.2
WHP	Taichung City	0.72	280	*i* P	Pb	06 25 08.8	-0.1
WHP				*i* S	Sb	06 25 18.2	-0.9
NFF	Wufeng Townshi	0.73	311	*e*P	Pg	06 25 08.1	+0.1
NFF				*e*S	Sg	06 25 17.7	+0.1
EHY	Hungye	0.74	210	*e*P	Pg	06 25 08.3	0.0
EHYH	Wanrong	0.74	208	*e*P	Pg	06 25 08.1	-0.1
WCS	Beigang Elemen	0.75	263	*e*P	Pb	06 25 08.6	-0.7
WCS				*e*S	Sg	06 25 18.1	-0.1
SSLB	Suanglung	0.80	243	P	Pb	06 25 09.4	-0.7
SSLB	Suanglung	0.80	243	S	Sg	06 25 18.9	-0.7
SSLB	Suanglung	0.80	243	⇑*i*P	Pg	06 25 09.2	0.0
SSLB				S	Sg	06 25 19.7	+0.1
KSHI	Guanxi Townshi	0.80	321	*e*P	Pb	06 25 10.0	0.0
KSHI				*e*S	Sg	06 25 20.1	+0.4
SMLT	Sun Moon Lake	0.80	251	*e*P	Pb	06 25 10.0	-0.2
SMLT				*i* S	Sg	06 25 19.3	-0.5
LIOB	Emei	0.81	307	*e*P	Pb	06 25 10.4	0.0
LIOB				*i* S	Sb	06 25 20.9	-0.7
TIPB	Shuangxi	0.82	6	⇓*e*P	Pg	06 25 10.0	+0.3
NHDH	Xindian Distri	0.83	347	*e*P	Pb	06 25 10.6	+0.1
TWA	Mucha	0.83	351	*e*P	Pb	06 25 10.7	0.0
TYC	Yuchr	0.83	253	*e*P	Pb	06 25 10.2	-0.4
TYC				*i* S	Sg	06 25 20.3	-0.5
TATO	Taipei	0.85	345	P	Pg	06 25 10.4	+0.2
TATO	Taipei	0.85	345	S	Sg	06 25 21.2	0.0
YULB	Yu-li	0.85	208	P	Pg	06 25 10.2	-0.1
YULB	Yu-li	0.85	208	*e*P	Pg	06 25 10.0	-0.4
ECBN	Changbin	0.87	197	P	Pb	06 25 11.4	+0.2
TWB1	Santiao Chiao	0.88	15	*e*P	Pg	06 25 11.0	+0.1
TWB1				*e*S	Sg	06 25 23.0	+0.6
EYUL	Yuli	0.89	205	*e*P	Pb	06 25 11.5	-0.1
TWF1	Yuli	0.89	206	*e*P	Pg	06 25 10.1	-0.9
TWF1				*e*S	Sn	06 25 25.4	-0.5
TWQ1	Liyutan	0.89	283	*e*P	Pn	06 25 12.8	-0.1
NWF	Wu-fen Shan	0.92	3	*i* P	Pb	06 25 12.2	+0.1
NWF				S	Sg	06 25 23.4	0.0
WFSB	Wu-fen Shan	0.92	3	P	Pg	06 25 11.8	+0.3
WFSB				*e*S	Sg	06 25 23.6	+0.2
WHYT	Xinyi Township	0.92	241	*e*P	Pn	06 25 12.5	-0.8
WHYT				*e*S	Sb	06 25 24.8	+0.1
HSN	Hsinchu	0.95	313	*e*P	Pb	06 25 12.7	+0.1
HSN				*e*S	Sn	06 25 28.3	+1.0
NCUH	Zhongli	0.95	329	*e*P	Pn	06 25 13.3	-0.3
TCU	Taichung	0.96	270	*e*P	Pn	06 25 15.0	+1.2
YUS	Yu-Shan	0.97	227	*e*P	Pb	06 25 12.7	-0.6
WJS	Zhushan	0.97	250	*e*P	Pn	06 25 14.8	+0.9
WJS				*e*S	Sn	06 25 26.9	-1.0
TWS1	Kuangyinshan	0.98	343	*e*P	Pb	06 25 13.5	+0.2
TWS1				*e*S	Sn	06 25 28.3	+0.1
TNOU	National Taiwa	0.99	2	*e*P	Pg	06 25 13.2	+0.3
WNT	Mingjian	0.99	254	*e*P	Pn	06 25 14.2	0.0
WNT				*e*S	Sn	06 25 27.6	-0.9
YM01	YM01	1.00	352	*e*P	Pb	06 25 13.5	0.0
CHKH	Chenggong	1.00	198	*e*P	Pb	06 25 13.2	-0.3
CHKH				S	Sn	06 25 28.1	-0.6
ZUZH	Zhuzihu	1.02	351	*e*P	Pg	06 25 13.7	+0.2
ZUZH				*e*S	Sb	06 25 28.1	+0.7
FULB	Fuli	1.03	203	*e*P	Pb	06 25 13.9	-0.1
NTST	Danshui	1.04	346	*e*P	Pn	06 25 14.7	-0.1
NTST				*e*S	Sn	06 25 29.2	-0.3
YM08	YM08	1.04	353	P	Pb	06 25 14.3	+0.1
ANP	Anpu	1.05	350	*e*P	Pb	06 25 14.4	+0.1
ALS	Alishan	1.06	233	*e*P	Pb	06 25 14.5	-0.2
ALS				*e*S	Sn	06 25 30.4	-0.1
CHKT	Chengkung	1.10	198	*e*P	Pg	06 25 14.1	-0.9
CHKT				*e*S	Sn	06 25 30.8	-0.3
EHD	Haiduan	1.11	206	*e*P	Pg	06 25 14.3	-0.9
CHN5	Tsauling	1.11	240	P	Pn	06 25 16.0	+0.1
CHN5				S	Sn	06 25 31.9	+0.4
TWY	Chenhua	1.12	354	*e*P	Pn	06 25 16.3	+0.3
JYNG	Yonagunijimaku	1.15	75	*e*P	Pn	06 25 16.4	+0.1
ELDTW	Lidau	1.16	214	*e*P	Pg	06 25 14.1	-2.1
YOJ	Yonaguni jima	1.21	75	P	Pb	06 25 17.3	+0.2
YOJ	Yonaguni jima	1.21	75	S	Sn	06 25 33.9	+0.1
YOJ	Yonaguni jima	1.21	75	P	Pn	06 25 16.8	-0.3
YOJ				*e*S	Sn	06 25 34.2	+0.5
YOJ	Yonaguni jima	1.21	75	*e*P	Pn	06 25 17.1	-0.1
EDH	Donghe	1.24	198	*e*P	Pn	06 25 16.1	-1.5
WCKO	Fanlu	1.25	236	*e*S	Sn	06 25 38.5	+3.6
WRL	Guolierlin Hig	1.26	259	*e*P	Pg	06 25 18.5	+0.4
WRL				*e*S	Sn	06 25 35.7	+0.6
RLNB	Erlin	1.28	258	*e*S	Sn	06 25 37.1	+1.6
CHN4	Tsaushan	1.31	233	P	Pg	06 25 19.7	+0.6
CHN4				*e*S	Sn	06 25 40.0	+3.7
WTK	Tuku	1.31	250	*e*P	Pg	06 25 19.6	+0.6
WTK				*e*S	Sg	06 25 36.8	+0.7
STYH	Taoyuan	1.31	222	P	Pg	06 25 18.7	-0.3
STYH				S	Sg	06 25 37.0	+0.9
TPUB	Ta-pu	1.32	230	P	Pg	06 25 18.9	-0.3
TPUB	Ta-pu	1.32	230	*e*P	Pg	06 25 19.6	+0.5
TPUB				*e*S	Sg	06 25 39.1	+2.9
LONT	Longtian	1.36	204	*e*P	Pn	06 25 17.5	-1.7
CHY	Chiayi	1.36	242	*e*P	Pg	06 25 21.2	+1.2
CHY				*e*S	Sg	06 25 38.5	+0.9
WTP	Ta-pu	1.36	229	P	Pg	06 25 20.4	+0.4
WTP				*e*S	Sg	06 25 39.0	+1.2
TWK	Hsinying	1.44	232	P	Pg	06 25 21.2	-0.3
TWK				*e*S	Sg	06 25 41.6	+1.4
TWGBT	Beinan	1.46	204	P	Pb	06 25 20.8	-0.5
TWGBT	Beinan	1.46	204	*e*P	Pn	06 25 18.5	-2.1
CHN1	Nanshi	1.46	229	P	Pg	06 25 21.8	-0.2
CHN1				*e*S	Sg	06 25 42.5	+1.5
WSF	Szhu	1.47	250	*e*S	Sg	06 25 42.4	+1.1
SGST	Jiashian	1.50	225	*e*P	Pg	06 25 22.0	-0.6
SGST				*e*S	Sg	06 25 44.1	+2.1
PCYT	Pengchaiyu	1.50	12	*e*P	Pn	06 25 18.7	-2.5
WSL	Shuilin Townsh	1.51	246	*e*P	Pg	06 25 22.7	-0.2
WSL				*e*S	Sg	06 25 43.7	+1.2
SLGT	Liugui	1.52	221	*e*P	Pb	06 25 22.3	-0.1
SLGT				*e*S	Sg	06 25 44.4	+1.6
CHN8	Yiju	1.61	240	*e*S	Sg	06 25 47.5	+2.0
SSD	Sandimen	1.73	216	*e*P	Pb	06 25 25.3	-0.6
MASBT	Mashibuluo	1.83	213	*e*P	Pn	06 25 25.8	0.0
MASBT				*e*S	Sb	06 25 51.3	+0.4
IRIF	Iriomote-Funau	1.84	84	*e*P	Pn	06 25 25.8	0.0
EAST	Anshuo	1.94	205	*e*P	Pb	06 25 28.1	-1.4
WDGT	Dungji	2.09	245	*e*P	Pb	06 25 30.6	-1.6
WDGT				*e*S	Sb	06 25 57.0	-1.3
VWUC	VWUC	2.24	292	*e*P	Pn	06 25 30.8	-0.5
PTMZ	Houxiangcun	2.53	291	*e*P	Pn	06 25 35.1	-0.3

RSNC 18 06:33:04.2±0.0**, 8°N**±2°×**7°8W**±°**, h8^{km}**±4^{km}**, M2.2, ML1.7, Panama-Colombia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APAC	Apartado, Choc	0.99	68	P	Pg	06 33 22.0	-1.3
APAC				S	Sn	06 33 38.1	-0.6
UPD2	Meteti	1.13	334	P	Pg	06 33 22.2	-3.7
UPD2				S	Sg	06 33 38.9	-1.7
SOLC	Bahia Solano	1.30	176	P	Pn	06 33 26.4	-2.3
SOLC				S	Sb	06 33 44.4	-1.3
UREC	San Jos de Ur	1.97	83	P	Pn	06 33 36.4	-1.6
UREC				S	Sn	06 34 01.2	-1.7
CBOC	Ciudad Bolivar	2.23	138	P	Pn	06 33 38.2	-3.4
CBOC				S	Sn	06 34 06.3	-3.1
UPA	Univ. de Panam	2.47	306	P	Pn	06 33 43.0	-1.8
UPA				S	Sn	06 34 14.8	-0.3
GUY2C	Guyana, Caldas	3.13	137	P	Pn	06 33 52.9	-1.4
GUY2C				S	Sn	06 34 31.6	-0.5
PTBC	PUERTO BERRIO,	3.19	108	P	Pn	06 33 53.5	-1.2
PTBC				S	Sn	06 34 33.7	+0.8
SJCC	San Jacinto, C	3.29	44	P	Pn	06 33 55.7	-0.5
SJCC				S	Sn	06 34 32.6	-3.0
SPBC	San Pablo de B	3.89	118	P	Pn	06 34 07.4	+3.0

RSNC 18 06:33:55.4±0.0**, 7°N**±1°×**7°3W**±°**, h146^{km}**±2^{km}**, M1.5, ML1.4, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BARC	Barichara	0.24	181	P	Pn	06 34 15.3	-0.3
BARC				S	Sn	06 34 30.7	-0.3
PAMC	Pamplona, Colo	0.69	43	P	Pn	06 34 18.1	+0.1
PAMC				S	Sn	06 34 34.8	-0.4
RUSC	La Rusia	0.94	174	P	Pn	06 34 19.3	-0.6
RUSC				S	Sn	06 34 38.0	-0.4
PTBC	PUERTO BERRIO,	1.30	257	P	Pn	06 34 21.9	-0.7
PTBC				S	Sn	06 34 43.0	-0.4
SPBC	San Pablo de B	1.47	217	P	Pn	06 34 24.1	-0.4
SPBC	San Pablo de B	1.47	217	S	Sn	06 34 46.0	-0.6
SPBC	San Pablo de B	1.47	217	S	Sn	06 34 46.0	-0.6
CHIC	Chingaza	2.25	194	P	Pn	06 34 33.6	-0.2
CHIC				S	Sn	06 35 02.8	-0.4
GUY2C	Guyana, Caldas	2.70	234	P	Pn	06 34 40.6	+1.4

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*AZER **18** 06:40:18.6, 41°.53N×49°.32E, h45^{km}, ml2.2*

*DRS **18** 06:40:18.3, 41°.64N×49°.34E, h24^{km}*

*MOS **18** 06:40:20.3, 41°.62N×49°.06E, h6^{km}, MPVA3.5*

ISC 18 06:40:18.8±2.2**, 41°.66N**±0°.05×**49°.2E**±0°.1**, h5^{km}**±11^{km}**, n12, σ1^s.10**/24**, Caspian Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
QUBA	Quba, Azerbaij	0.62	241	P	Pn	06 40 33.0	-1.2
QUBA				S	Sb	06 40 44.0	+2.9
SIZA	Siyzn	0.63	202	P	Pg	06 40 31.6	+0.7
SIZA				S	Sb	06 40 41.3	0.0
QSAR	Qusar	0.73	259	P	Pn	06 40 35.0	-0.7
QSAR				S	Sn	06 40 47.1	-0.1
DRN	Derbent	0.76	300	*e*Pg	Pb	06 40 35.1	+0.7
DRN				*e*Sg	Sn	06 40 47.2	-0.7
ATGJ	Altiaghaj	0.82	195	P	Pg	06 40 34.7	+0.1
ATGJ				S	Sb	06 40 47.4	+0.4
XNQ	Khinaliq	0.94	239	P	Pb	06 40 37.7	0.0
XNQ				S	Sn	06 40 51.4	-1.3
AKT	Akhty	1.13	261	*e*Pg	Pn	06 40 41.1	-0.2
AKT				*e*Sg	Sn	06 40 57.5	+0.4
URKR	Urkarakh	1.28	294	*e*Pg	Pn	06 40 44.3	+0.9
URKR				*e*Sg	Sn	06 41 02.3	+1.2
KMKR	Kumukh	1.65	287	*e*Pg	Pg	06 40 50.6	+0.3
KMKR				*e*Sg	Sg	06 41 13.0	+1.2
ARKR	Arakani	1.90	300	*e*Pg	Pg	06 40 55.3	+0.1
ARKR				*e*Sg	Sg	06 41 18.8	-1.0
UNCR	Uncukul	2.08	301	*e*Pg	Pb	06 40 57.4	+0.3
UNCR				*e*Sg	Sg	06 41 23.7	-2.0
TLTR	Tlyarata	2.18	283	*e*Pg	Pb	06 40 58.0	-0.8
TLTR				*e*Sg	Sb	06 41 25.2	-1.0

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*RSNC **18** 06:45:06.9±0.0, 7°N±1°×7°3W±°, h150^{km}±2^{km}, M3.5, mB4.9, mb3.9, ML3.2, MLv3.9, Mw(mB)4.1*

*FUNV **18** 06:45:07.8, 7°.21N×72°.95W, h5^{km}, MW2.8, Presumed earthquake*

*IDC **18** 06:45:11.1±7.0, 4°.72N×76°.56W, h109^{km}±75^{km}, mb3.0/1, mbtmp3.6/2, ML2.8/1, Error ellipse: s-maj=100.8km s-min=36.5km az=42.0*

ISC 18 06:45:07.7±0.8**, 6°.82N**±0°.03×**73°.05W**±0°.05**, h144^{km}**±7^{km}**, n40, σ2^s.03**/71**, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BARC	Barichara	0.26	210	P	Pn	06 45 27.3	-0.5
BARC				S	Sn	06 45 42.4	-0.6
BARC				AML	AML		
BARC				AML	AML		
PAMC	Pamplona, Colo	0.63	34	P	Pn	06 45 29.7	0.0
PAMC				S	Sn	06 45 47.5	+1.0
PAMC				AML	AML		
PAMC				AML	AML		
BRJC	Barrancabermej	0.70	283	P	Pn	06 45 28.7	-0.9
BRJC				S	Sn	06 45 45.7	-0.5
BRJC				AML	AML		
BRJC				AML	AML		
RUSC	La Rusia	0.92	182	P	Pn	06 45 31.2	-0.6
RUSC				S	Sn	06 45 49.8	-0.4
RUSC				AML	AML		
RUSC				AML	AML		
RUSC	La Rusia	0.92	182	*e*P	Pn	06 45 31.3	-0.5
RUSC				*e*S	Sn	06 45 50.3	+0.2
PTBC	PUERTO BERRIO,	1.42	259	P	Pn	06 45 33.7	-2.3
PTBC				P		06 45 33.8	
PTBC				P		06 45 34.0	
PTBC				S	Sn	06 45 55.1	-2.5
PTBC				AML	AML		
PTBC				AML	AML		
OCAC	Ocana	1.44	349	P	Pn	06 45 35.5	-0.9
OCAC				S	Sn	06 45 57.3	-1.0
OCAC				AML	AML		
OCAC				AML	AML		
SPBC	San Pablo de B	1.54	221	P	Pn	06 45 36.2	-1.1
SPBC				S	Sn	06 45 58.3	-1.7
SPBC				S	Sn	06 45 58.3	-1.7
SPBC				AML	AML		
SPBC				AML	AML		
NORC	Norcasia	2.19	236	P	Pn	06 45 43.2	-1.6
NORC				S	Sn	06 46 11.0	-2.4
NORC				AML	AML		
NORC				AML	AML		
CHIC	Chingaza	2.27	197	P	Pn	06 45 45.3	-0.9
CHIC				S	Sn	06 46 13.5	-2.3
CHIC				AML	AML		
CHIC				AML	AML		
ROSC	El Rosal	2.33	213	P	Pn	06 45 47.1	+0.2
	52nm,0.3s,baz=126,slow=20,SNR=162						
ROSC				S	Sn	06 46 15.8	-1.2
	153nm,0.5s,baz=127,slow=18,SNR=12						
	86nm,0.3s						
ROSC				AML	AML		
ROSC	El Rosal	2.33	213	P	Pn	06 45 46.9	0.0
ROSC				S	Sn	06 46 15.3	-1.7
ROSC				AML	AML		
ROSC				AML	AML		
CVER	Cruz Verde, Cu	2.50	204	P	Pn	06 45 48.7	-0.3
CVER				S	Sn	06 46 20.0	-0.7
CVER				AML	AML		
CVER				AML	AML		
UREC	San Jos de Ur	2.63	291	P	Pn	06 45 47.1	-3.1
UREC				S	Sn	06 46 24.1	+1.2
UREC				AML	AML		
UREC				AML	AML		
VILC	Villavicencio,	2.76	193	P	Pn	06 45 51.0	-1.0
VILC				P	P	06 45 51.4	-0.6
VILC				P	P	06 45 51.4	-0.6
VILC				S	Sn	06 46 25.1	-1.0
VILC				AML	AML		
VILC				AML	AML		
GUY2C	Guyana, Caldas	2.79	236	P	Pn	06 45 51.5	-1.1
GUY2C				P	P	06 45 52.1	-0.5
GUY2C				P	P	06 45 52.1	-0.5
GUY2C				S	Sn	06 46 29.8	+2.6
GUY2C				S	Sn	06 46 29.8	+2.6
GUY2C				AML	AML		
GUY2C				AML	AML		
CBOC	Ciudad Bolivar	3.09	252	P	Pn	06 45 55.3	-0.8

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CBOC                                    P               06 45 55.4
CBOC                                    P               06 45 55.9
CBOC                                    S       Sn      06 46 32.9 -0.7
CBOC                                    S       Sn      06 46 32.9 -0.7
CBOC                                    AML     AML
CBOC                                    AML     AML
SDV    Santo Domingo       3.16  49     P       Pn      06 45 56.8 -0.3
SDV                                     AML     AML
SDV                                     AML     AML
PRAC   Prado               3.58 211     P       Pn      06 46 01.2 -1.2
PRAC                                    P               06 46 01.4
PRAC                                    S       Sn      06 46 43.5 -1.3
PRAC                                    AML     AML
PRAC                                    AML     AML
ORTC   Ortega, Tolima      3.62 217     P       Pn      06 46 01.8 -1.1
ORTC                                    P       Pn      06 46 01.8 -1.1
ORTC                                    P               06 46 01.9
ORTC                                    S       Sn      06 46 45.5 -0.1
ORTC                                    S       Sn      06 46 45.6 -0.1
ORTC                                    S       Sn      06 46 45.6 -0.1
ORTC                                    AML     AML
ORTC                                    AML     AML
APAC   Apartado, Choc      3.66 287     P       Pn      06 46 01.3 -2.1
APAC                                    AML     AML
APAC                                    AML     AML
SJCC   San Jacinto, C      3.71 326    eP       Pn      06 46 01.3 -2.8
SJCC                                   eS       Sn      06 46 42.7 -5.2
MACC   Macarena, Meta      4.71 190     P       Pn      06 46 14.3 -2.9
MACC                                    S       Sn      06 47 06.5 -4.8
MACC                                    AML     AML
MACC                                    AML     AML
BETC   Betania             4.75 210     P       Pn      06 46 15.0 -2.8
BETC                                    AML     AML
BETC                                    AML     AML
URIC   Uribia, Colomb      4.97  12     P       Pn      06 46 17.9 -2.7
URIC                                    AML     AML
URIC                                    AML     AML
GARC   Garzon, Huila       5.20 208     P       Pn      06 46 21.2 -2.8
GARC                                    AML     AML
GARC                                    AML     AML
POPC   Popayan, Colom      5.57 221     P       Pn      06 46 26.4 -2.5
       9.8nm,0.7s
POPC                                    AML     AML
BENV   Beln                6.24  60    eP       Pn      06 46 35.3 -2.3
BENV                                   eS       Sn      06 47 40.5 -7.4
BBAC   Balboa, Cauca       6.34 221     P       Pn      06 46 38.3 -0.8
GTBY   Guantanamo Bay     13.19 351    eP       Pn      06 48 10.7 +1.2
RCC    Rio Carpintero     13.35 349    eP       Pn      06 48 12.8 +1.2
MARVS  Santiago de Cu     13.39 348    eP       Pn      06 48 12.7 +0.5
LMGC   Las Mercedes       13.72 344    eP       Pn      06 48 17.3 +1.0
PINC   Pinares de May     13.85 349    eP       Pn      06 48 19.6 +1.7
YAR    Yar                13.85 347    eP       Pn      06 48 19.6 +1.6
HLGC   Holguin            14.29 349    eP       Pn      06 48 26.7 +3.1
FSCY   Frank Sound, G     14.72 328    eP       P       06 48 35.0 +3.7
TXAR   Lajitas Array      36.52 312     P       P       06 51 57.3 -2.1
       0.3nm,0.7s,baz=123,slow=9.1,SNR=4.5
       0.3nm,0.7s
ASAR   Alice Springs     149.16 234     PKPbc   PKPdf   07 04 35.9 +0.2
       0.6nm,0.5s,baz=124,slow=3.3,SNR=9.5
WRA    Warramunga Arr    150.39 241     PKPbc   PKPdf   07 04 39.0 +1.3
       0.5nm,0.5s,baz=108,slow=2.8,SNR=11
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IDC ***18*** *06:47:13.2±5.4, 37.°96N×75.°85E, h122^{km}±37^{km}, mb3.7/6, mbtmp3.9/10, Error ellipse: s-maj=56.0km s-min=35.1km az=140.0*

NEIC ***18*** *06:47:15.7±2.2, 38.°28N±0.°08×75.°60E±0.°07, h128^{km}±10^{km}, mb4.4/13, Error ellipse: s-maj=11.0km s-min=7.8km az=183.0*

NNC ***18*** *06:47:23.8±8.0, 39.°41N×73.°94E, h0^{km}, mb3.4, mpv3.4, Error ellipse: s-maj=58.5km s-min=30.7km az=156.0*

ISC 18 06:47:16.5±0.6, **38.°19N**±0.°05×**75.°60E**±0.°08, **h150^{km}, n54, σ1§90**/57, **mb4.2**/11, **3C, Southern Xinjiang**

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Code   Station Name          Δ°  AZ°     Phase ID           Time     Res
                                        Op      ISC      h  m  s    ISC
DRK    Karamyk             3.23 295             Pn      06 48 04.6 -2.4
NRN    Naryn               3.26   5             Pn      06 48 05.6 -1.8
ARSB   Arslanbob           3.72 328             Pn      06 48 10.8 -2.5
TARG   Taragay, Kyrgy      3.92  25     Pn      Pn      06 48 14.2 -1.8
WUS    Wushi               4.11  42             Pn      06 48 14.8 -3.4
BTK    Batken              4.16 298             Pn      06 48 16.7 -2.2
ALCI   Alchi Leh           4.17 162    eS       Sn      06 49 06.9 -1.2
ALCI                                    IAML            06 49 11.6
       comp=N,2µm,0.1s
ALCI                                    IAML            06 49 11.6
       comp=E,1µm,0.2s
AAK    Ala-Archa           4.52 350     P       Pn      06 48 23.3 -0.4
       comp=E,3.4nm,0.3s,baz=160,slow=8.1,SNR=5.6
AAK                                     S       Sn      06 49 04.1  -12
       comp=E,5.6nm,0.4s,baz=185,slow=14,SNR=7.0
AAK    Ala-Archa           4.52 350    ⇑Pg      Pn      06 48 23.3 -0.4
       comp=E,0.3nm,0.3s
AAK                                    ⇑Lg      Lg      06 49 08.5
       comp=E,4.5nm,0.8s
AAK    Ala-Archa           4.52 350             Pn      06 48 22.4 -1.4
KST    Kastek              4.86   3     Pg      Pn      06 48 29.9 +1.8
KST                                     Lg      Lg      06 49 24.7
MRKS   Merke               4.90 339     Pg      Pn      06 48 27.2 -1.4
       comp=E,4.3nm,0.4s
MRKS                                    Lg      Lg      06 49 21.0
       comp=E,11nm,0.5s
NIL    Nilore              4.91 203     Pn      Pn      06 48 29.9 +1.1
TSSA   Tissa               5.36 175    eP       Pn      06 48 36.5 +1.6
TSSA                                   eS       Sn      06 49 34.5 -1.6
TSSA                                    IAML            06 49 38.4
       comp=N,870nm,0.5s
TSSA                                    IAML            06 49 39.1
       comp=E,827nm,0.2s
JMU    Jammu               5.43 187    eS       Sn      06 49 36.2 -1.3
JMU                                     IAML            06 49 41.3
       comp=N,532nm,0.2s
JMU                                     IAML            06 49 43.1
       comp=E,662nm,0.3s
PDGK   Podgornoye          5.92  29             Pn      06 48 40.5 -1.8
DHRM   DHARAMSHALA         5.95 174    eP       Pn      06 48 45.0 +2.1
DHRM                                   eS       Sn      06 49 48.2 -2.0
DHRM                                    IAML            06 49 53.1
       comp=N,154nm,0.2s
DHRM                                    IAML            06 49 53.5
       comp=E,159nm,0.2s
KK31   Karatay Array       6.25 323     Pg      Pn      06 48 46.4 -0.1
       comp=E,1.4nm,0.2s,baz=125,slow=11,SNR=44
KK31                                   ⇑Lg      Lg      06 49 45.8
       comp=E,5.4nm,0.3s,baz=154,slow=26,SNR=6.8
KK31   Karatay Array       6.25 323             Pn      06 48 43.5 -2.9
KKAR   Karatay Array       6.25 323             Pn      06 48 43.9 -2.6
KBL    Kabul               6.42 237             Pn      06 48 47.7 -1.3
BRLS   Borolday            6.53 320     Pg      Pn      06 48 46.5 -3.6
       comp=E,14nm,0.2s
BRLS                                    Lg      Lg      06 49 53.3
       comp=E,12nm,0.4s
BHK    Bhakra              6.81 174    eS       Sn      06 50 09.9 -0.6
BHK                                     IAML            06 50 13.7
       comp=E,420nm,0.1s
BHK                                     IAML            06 50 14.0
       comp=N,481nm,0.3s
KLP    Kalpa               6.99 161    eS       Sn      06 50 12.9 -2.3
KLP                                     IAML            06 50 14.3
       comp=E,444nm,0.2s
KLP                                     IAML            06 50 14.4
       comp=N,56nm,0.3s
SMLA   Simla               7.16 169    eP       Pn      06 49 01.6 +2.9
SMLA                                   eS       Sn      06 50 15.7 -3.2
SMLA                                    IAML            06 50 19.3
       comp=N,106nm,0.1s
SMLA                                    IAML            06 50 20.1
       comp=E,136nm,0.4s
MKAR   Makanchi Array      9.91  28     P       Pn      06 49 33.9 -1.3
       comp=E,0.2nm,0.4s,baz=208,slow=15,SNR=2.0
KURBB  Kurchatov Arra     12.61   9     P       Pn      06 50 10.6 +0.2
       comp=E,0.2nm,0.5s,baz=198,slow=10,SNR=10
EVN    Everest            13.87 134             Pn      06 50 25.5 -1.9
BVAR   Borovoye Array     15.27 348     P       P       06 50 46.2 +0.7
       comp=E,1.0nm,0.4s,baz=162,slow=9.7,SNR=4.1
BORK   Borovoye           15.30 348     Pn      Pn      06 50 41.1 -3.4
AB31   Akbulak array      15.79 319     Pn      P       06 50 48.9 -2.3
ABKAR  Akbulak array      15.79 319             P       06 50 49.8 -1.4
ZAA0   Zalesovo Array     16.99  19     P       Pn      06 51 02.9 -2.1
ZALV   Zalesovo Beam      16.99  19     P       Pn      06 51 04.2 -0.7
       comp=E,0.8nm,0.3s,baz=209,slow=9.9,SNR=2.2
ZALV   Zalesovo Beam      16.99  19     P       Pn      06 51 03.5 -1.5
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LVZ    Lovozero           37.33 336     P       P       06 54 11.4 -2.5
FIA1   FINESS Array S     38.21 324     P       P       06 54 22.2 +1.0
FINES  FINESS Array B     38.21 324     P       P       06 54 23.1 +1.8
       comp=E,1.2nm,0.3s,baz=108,slow=9.4,SNR=16
       comp=E,1.2nm,0.3s
FINES  FINESS Array B     38.21 324     P       P       06 54 22.5 +1.2
ARCES  ARCESS Array B     41.05 336     P       P       06 54 46.7 +2.0
       comp=E,0.9nm,0.4s,baz=108,slow=9.1,SNR=13
       comp=E,0.9nm,0.4s
ARCES  ARCESS Array B     41.05 336     P       P       06 54 45.8 +1.1
ARCES                                   IAmb    IAmb    06 54 59.4
       comp=Z,14nm,1.2s
HFS    Hagfors            44.05 321     P       P       06 55 10.6 +1.6
       comp=Z,1.0nm,0.4s,baz=116,slow=9.8,SNR=6.7
       comp=Z,1.0nm,0.4s
NC303  NORSAR Array S     45.20 322     P       P       06 55 19.5 +1.4
NB2    NORSAR Subarra     45.28 322     P       P       06 55 19.9 +1.1
       comp=Z,0.5nm,0.4s,baz=90,slow=7.9
NOA    NORSAR Array B     45.28 322     P       P       06 55 20.2 +1.5
       comp=Z,0.5nm,0.4s,baz=82,slow=7.5,SNR=3.7
       comp=Z,0.5nm,0.4s
D19K   Kuna River         66.40  19     P       P       06 57 50.5 +1.6
D19K                                    IAmb    IAmb    06 58 25.8
       comp=Z,13nm,1.5s
TORD   Torodi Ar. Bea     69.39 271     P       P       06 58 09.6 +1.2
       comp=Z,0.9nm,0.4s,baz=48,slow=5.6,SNR=11
       comp=Z,0.9nm,0.4s
IMAR   Indian Mountai     69.41  19     P       P       06 58 08.7 +1.0
J19K   Poorman            70.43  21     P       P       06 58 16.0 +2.0
J19K                                    IAmb    IAmb    06 58 56.0
       comp=Z,8.9nm,1.5s
J20K   Nowinta River      70.70  21     P       P       06 58 17.8 +2.2
J20K                                    IAmb    IAmb    06 58 42.1
       comp=Z,4.8nm,1.3s
K20K   Telida             71.36  21     P       P       06 58 21.2 +1.6
K20K                                    IAmb    IAmb    06 58 25.0
       comp=Z,6.8nm,1.3s
F31M   Tsiigehtchic       72.36  11     P       P       06 58 26.5 +1.1
F31M                                    IAmb    IAmb    06 59 04.2
       comp=Z,9.0nm,1.4s
H29M   Whitestone         72.68  14     P       P       06 58 29.1 +1.7
H29M                                    IAmb    IAmb    06 58 42.3
       comp=Z,8.1nm,1.4s
YKA    Yellowknife Ar     79.33   5     P       P       06 59 06.1 +1.1
       comp=Z,1.1nm,0.6s,baz=355,slow=5.4,SNR=2.2
       comp=Z,1.1nm,0.6s
```

MCSM ***18*** *06:54:02.4±1.7, 39°N±11°×3°8E±°, h7^{km}±6^{km}, mb4.4, MLv4.6*

MOS ***18*** *06:54:03.9±1.0, 38.°75N×38.°04E, h7^{km}, mb4.3/11, Error ellipse: s-maj=7.1km s-min=4.8km az=87.3*

AFAD ***18*** *06:54:04.8, 38.°71N×38.°09E, h7^{km}±5^{km}, MW4.5*

IDC ***18*** *06:54:04.4±0.7, 38.°67N×37.°92E, h0^{km}, mb3.8/10, mbtmp3.8/17, ML3.6/7, MS3.5/30, Error ellipse: s-maj=12.0km s-min=9.4km az=110.0*

ISK ***18*** *06:54:04.3, 38.°68N×38.°11E, h5^{km}, ML4.4/32*

NEIC ***18*** *06:54:05.8±1.4, 38.°68N±0.°03×38.°04E±0.°05, h5^{km}±2^{km}, mb4.2/15, Mwr4.2/11, Error ellipse: s-maj=6.8km s-min=4.2km az=104.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M$_{rr}$-0.67; M$_{\theta\theta}$-0.98; M$_{\phi\phi}$1.66; M$_{r\theta}$1.34; M$_{\theta\phi}$1.80; M$_{\phi r}$0.37; Fault plane solution: M$_0$2.70000×10^{15} NP1:φ$_s$247.65000°, δ80.05000°, λ-34.74000°. NP2:φ$_s$344.48000°, δ55.86000°, λ-167.95000°. Principal axes: T 2.8408, Plg16.0000°, Azm300.0000°; N -0.3139, Plg54.0000°, Azm54.0000°; P -2.5269, Plg31.0000°, Azm200.0000°;*

NEIC ***18*** *06:54:05.2, 38.°66N×38.°04E, h1^{km}*

ISC 18 06:54:05.3±1.0, **38.°70N**±0.°02×**38.°09E**±0.°02, **h5^{km}**±7^{km}, **n222, σ1§38**/235, **mb4.1**/26, **MS3.5**/24, **6C, Turkey**

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Code   Station Name          Δ°  AZ°     Phase ID           Time     Res
                                        Op      ISC      h  m  s    ISC
HEKM   Malatya_Hekimh      0.21 330     P       Pg      06 54 08.8 -0.6
HEKM                                    S       Sg      06 54 13.2 +1.1
AKCD   Akcadag             0.42 198     P       Pg      06 54 08.5 -5.0
AKCD                                    S       Sb      06 54 21.1 -1.0
ARPR   Arapgir-MALATY      0.44  26     Pg      Pg      06 54 14.1 +0.3
ARPR                                    Sg      Sb      06 54 21.9 -0.7
ARPR                                    AML     AML
ARPR   Arapgir-MALATY      0.44  26     Pg      Pg      06 54 14.2 +0.4
ARPR                                    Sg      Sb      06 54 21.4 -1.2
MAYA   Malatya/Merkez      0.46 145     P       Pg      06 54 08.5 -5.6
MAYA                                    S       Sg      06 54 21.1 +1.1
CUGUR  Gurin_SVAS          0.64 272     P       Pg      06 54 14.1 -3.5
CUGUR                                   S       Sg      06 54 26.6 +0.7
ELZG   Elazig              0.73 106     P       Pg      06 54 17.9 -1.4
ELZG                                    S       Sb      06 54 29.9 -1.0
ESGZ   Sivrice-Elazig      0.81 109     Pg      Pg      06 54 20.4 -0.4
ESGZ                                    Sg      Sb      06 54 32.6 -0.6
ESGZ                                    AML     AML
MDYL   Doganyol-Malat      0.84 117     Pg      Pg      06 54 20.8 -0.5
MDYL                                    Sg      Sb      06 54 33.2 -0.8
MDYL                                    AML     AML
ELBS   KAHRAMANMARAS_0.84 244           P       Pg      06 54 20.5 -0.8
ELBS                                    S       Sg      06 54 33.1 +0.8
ILIC   ilic-Erzincan       0.84  26     Pg      Pg      06 54 21.7 +0.3
ILIC                                    AML     AML
ELZ    Elazig              0.87  90     P       Pg      06 54 21.2 -0.9
ELZ                                     S       Sg      06 54 34.0 +0.7
AZEY   Adyaman-Merk        0.90 172     P       Pg      06 54 21.8 -0.7
AZEY                                    S       Sb      06 54 35.4 -0.3
AKCA   Adyaman/G¶l         0.96 199     P       Pg      06 54 23.0 -0.7
AKCA                                    S       Sb      06 54 38.4 +1.0
MILC   Ilic                0.96  26     P       Pg      06 54 22.9 -0.8
MILC                                    S       Sn      06 54 39.6 -0.2
NARI   Adyaman-Kaht        0.97 147     P       Pn      06 54 26.3 +0.7
NARI                                    S       Sn      06 54 42.6 +2.8
SVRC   Sivrice-ELAZID      1.01 108     Pg      Pg      06 54 24.1 -0.5
SVRC                                    Sg      Sb      06 54 38.9  0.0
SVRC                                    AML     AML
CNGT   ngs                 1.07 117     P       Pg      06 54 25.8 +0.1
CNGT                                    S       Sb      06 54 40.0 -0.6
CUAYA  Sivas-Altinyay      1.19 299     P       Pg      06 54 26.9 -1.2
CUAYA                                   S       Sn      06 54 45.1 -0.3
TNCL   Tunceli-Merkez      1.21  69     P       Pg      06 54 26.8 -1.6
TNCL                                    S       Sb      06 54 44.7 +0.1
ATAB   Bozova              1.24 172     P       Pg      06 54 28.4 -0.6
ATAB                                    S       Sn      06 54 47.0 +0.6
MDNT   Maden               1.28 103     P       Pg      06 54 28.9 -1.0
MDNT                                    S       Sn      06 54 49.4 +1.7
SARI   SarD1z-Kayseri      1.34 258     Pn      Pn      06 54 31.0 +0.1
SARI                                    Sn      Sn      06 54 50.7 +1.5
SARI                                    AML     AML
URFA   Urfa                1.38 155     Pn      Pn      06 54 30.2 -1.1
URFA                                    AML     AML
GZT    Gaziantep           1.40 197     P       Pb      06 54 32.0 -0.1
GZT                                     S       Sn      06 54 53.1 +2.5
EZC    Erzincan            1.44  43     P       Pg      06 54 34.3 +1.4
KAHM   Kahramanmaras,      1.47 217     P       Pn      06 54 32.3 -0.1
KAHM                                    S       Sg      06 54 53.5 +1.2
SVSK   Karacayir           1.48 325     Pn      Pn      06 54 32.9 +0.3
SVSK                                    Sn      Sg      06 54 54.9 +2.0
SVSK                                    AML     AML
KHMN   Narli-Kahraman      1.50 210     Pn      Pb      06 54 33.8 +0.2
KHMN                                    AML     AML
KHMN   Narli-Kahraman      1.50 210     P       Pb      06 54 33.3 -0.3
KHMN                                    S       Sg      06 54 56.1 +2.7
KMRS   Kahramanmaras       1.52 219     Pn      Pn      06 54 33.6 +0.5
KMRS                                    AML     AML
ERZN   Erzincan            1.55  55     Pn      Pb      06 54 34.4 -0.1
ERZN                                    AML     AML
EUZM   Uzumlu              1.60  51     P       Pb      06 54 35.1 -0.4
EUZM                                    S       Sg      06 54 58.6 +1.8
KHMR   Kahramanmara        1.64 215     P       Pn      06 54 35.3 +0.4
KHMR                                    S       Sg      06 54 58.6 +0.5
GAZ    Gaziantep           1.68 205     Pn      Pb      06 54 36.4 -0.2
GAZ                                     AML     AML
GAZ    Gaziantep           1.68 205     Pn      Pn      06 54 34.7 -0.7
GAZ                                     Sn      Sn      06 54 56.7 -0.5
SANL   SANLIURFA_Merk      1.68 155     P       Pg      06 54 37.6 +0.1
SANL                                    S       Sg      06 54 59.1 -0.2
NZIP   Nizip/Gaziante      1.69 191     P       Pb      06 54 37.1 +0.3
NZIP                                    S       Sg      06 55 00.8 +1.4
ALUC   Giresun/Alucra      1.73  18     P       Pn      06 54 36.8 +0.7
ALUC                                    S       Sg      06 55 02.3 +1.6
BNN    Bunyan              1.76 276     Pn      Pn      06 54 36.6  0.0
BNN                                     AML     AML
BNN    Bunyan              1.76 276     Pn      Pn      06 54 35.8 -0.8
BNN                                     Sn      Sb      06 55 00.6  0.0
DYBB   Diyarbakir          1.77 114     Pn      Pb      06 54 37.7 -0.7
DYBB                                    AML     AML
BINT   Bingol              1.88  84     P       Pg      06 54 41.4  0.0
TOKT   Tokat               2.01 324     Pn      Pn      06 54 40.3 +0.3
TOKT                                    AML     AML
BNGB   Bingl               2.04  81     Pn      Pn      06 54 41.5 +1.0
BNGB                                    AML     AML
TOKA   Tokat               2.05 323     Pn      Pn      06 54 40.2 -0.3
YEDI   Yedisu-Bingol       2.05  68     Pn      Pn      06 54 40.5 -0.1
YEDI                                    AML     AML
GUMT   Gumushane           2.06  31     Pn      Pb      06 54 42.1 -1.2
GUMT                                    AML     AML
KOZT   Kozan               2.16 236     Pn      Pn      06 54 43.3 +1.3
KOZT                                    AML     AML
KOPT   Kop Dagi            2.28  54             Pn      06 54 44.8 +0.9
YOZ    Yozgat              2.35 294     Pn      Pn      06 54 46.3 +1.6
YOZ                                     AML     AML
KARO   Karliova-Bingo      2.38  74     Pn      Pn      06 54 46.5 +1.3
KARO                                    AML     AML
KOZK   Kozakli-Nevseh      2.56 282     Pn      Pn      06 54 49.5 +1.9
KOZK                                    AML     AML
KTUT   Trabzon             2.62  29     Pn      Pn      06 54 50.2 +1.9
KTUT                                    AML     AML
CMRD   Camardi-Nigde       2.65 248     Pn      Pn      06 54 49.5 +0.7
CMRD                                    AML     AML
KIZO   Buyukkizoglu-L      2.76 324     Pn      Pn      06 54 52.3 +2.1
KIZO                                    AML     AML
YARM   Yarimca-Ladik(      2.82 323     Pn      Pn      06 54 52.7 +1.5
YARM                                    AML     AML
KRTS   Karatas             3.02 226     Pn      Pn      06 54 54.9 +1.1
KRTS                                    AML     AML
GULA   Gulagac             3.04 265     Pn      Pn      06 54 55.6 +1.4
GULA                                    AML     AML
CHOM   Cayeli-Rize         3.16  40     Pn      Pn      06 54 56.3 +0.6
CHOM                                    AML     AML
KOPR   Koprukoy-ERZUR      3.19  65     Pn      Pn      06 54 57.3 +1.0
KOPR                                    AML     AML
KAMT   Kaman               3.47 282     Pn      Pn      06 55 02.1 +2.0
KAMT                                    AML     AML
BR104  Keskin Array S      3.60 288     Pn      Pn      06 54 58.7 -3.2
BR104                                   AML     AML
BR131  Keskin Array S      3.61 288    i P      Pn      06 55 00.6 -1.4
BR131  Keskin Array S      3.61 288             Pn      06 55 01.5 -0.5
BRTR   Keskin Array B      3.61 288     Pn      Pn      06 55 00.0 -2.0
       1.2nm,0.3s,baz=116,slow=13,SNR=24
BRTR                                    Lg      Lg      06 55 59.1
       8.4nm,0.3s,baz=112,slow=27,SNR=6.0
       23nm,0.9s
BRTR                                    AML     AML
BRTR   Keskin Array B      3.61 288     P       Pn      06 55 01.7 -0.3
BRTR   Keskin Array B      3.61 288             Pn      06 55 01.6 -0.3
SENK   Senkaya-Erzuru      3.78  59     Pn      Pn      06 55 05.9 +1.5
SENK                                    AML     AML
GEVA   Gevas               3.92  94     Pn      Pn      06 55 07.7 +1.4
SNOP   Sinop               3.98 327             Pn      06 55 07.7 +0.7
ILGA   Ilgaz               4.10 306             Pn      06 55 09.7 +0.8
BEIL   Beino               4.42 201    eP       Pn      06 55 14.1 +1.0
BZK    Bozkurt             4.51 318             Pn      06 55 14.8 +0.6
BZK    Bozkurt             4.51 318     Pn      Pn      06 55 11.7 -2.6
BZK                                     AML     AML
HWQ    Hawqa               4.74 202    eP       Pn      06 55 19.0 +1.5
VSLR   Vesyoloye           4.98  17    i P      Pn      06 55 20.2 -0.5
SOC    Sochi               5.03  14    eP       Pn      06 55 20.8 -0.6
SOC                                    e                06 56 20.0
SOC                                     pmax    pmax
       comp=Z,38nm,0.9s
SOC                                     MLR     MLR
       comp=Z,345nm,12.0s
ZAHL   Zahle               5.15 201    eP       Pn      06 55 24.8 +1.6
BHL    Bhannes             5.17 203    eP       Pn      06 55 25.4 +1.9
CY604  RAF Akrotiri,       5.22 215     Pn      Pn      06 55 23.9 +0.1
CSS    Mathiatis           5.34 227             Pn      06 55 23.6 -2.0
GNI    Garni               5.35  72    i P      Pn      06 55 24.9 -1.1
GNI    Garni               5.35  72     Pn      Pn      06 55 26.8 +0.8
DQRL   Deir Qamar          5.38 203    eP       Pn      06 55 28.7 +2.4
QRWL   Qaraoun             5.50 201    eP       Pn      06 55 29.9 +1.9
RCY    Rachaya             5.50 200    eP       Pn      06 55 30.6 +2.6
MDUB   Mudurnu             5.61 291             Pn      06 55 29.4 -0.1
NEUR   Neytrino            5.74  36    i P      Pn      06 55 30.9 -0.4
BORA   Eskisehir           6.04 284             Pn      06 55 34.9 -0.5
MMAI   Mount Meron Ar      6.08 202     Pn      Pn      06 55 34.2 -1.7
       comp=Z,2.5nm,0.3s,baz=113,slow=6.4,SNR=5.8
MMAI                                    Lg      Lg      06 57 16.2
       comp=Z,6.5nm,0.3s,baz=33,slow=32,SNR=2.7
MMAI                                    LR      LR      06 58 14.5
       comp=Z,365nm,18.6s,baz=342,slow=42
       comp=Z,0.7nm,0.3s
MMAI                                    AML     AML
SHA1   Shidzhatmaz         6.10  33    i P      Pn      06 55 35.1 -1.2
ANN    Anapa               6.12 356    eP       Pn      06 55 38.2 +1.9
ANN                                    eS       Sn      06 56 50.4 +3.8
ANN                                     pmax    pmax
       comp=Z,24nm,1.0s
ANN                                     MLR     MLR
       comp=Z,201nm,12.0s
KBZ    Khabaz              6.20  34     Pn      Pn      06 55 40.0 +2.6
       comp=Z,0.3nm,0.3s,baz=241,slow=14,SNR=5.0
KBZ                                     LR      LR      06 58 09.7
       comp=Z,273nm,21.7s,baz=236,slow=39
       comp=Z,1.5nm,0.5s
KBZ                                     AML     AML
KBZ    Khabaz              6.20  34    i P      Pn      06 55 37.1 -0.3
KIV    Kislovodsk          6.29  32    eP       Pn      06 55 37.8 -1.0
KIV                                     pmax    pmax
       comp=Z,10.0nm,1.0s
KIV                                     MLR     MLR
       comp=Z,70nm,11.0s
KIV    Kislovodsk          6.29  32     Pn      Pn      06 55 40.6 +1.8
KVAR   Kislovodsk Arr      6.29  32     LR      LR      06 58 18.0
       comp=Z,202nm,18.8s,baz=76,slow=40
NCK    Nalchik             6.34  39    i P      Pn      06 55 39.2 -0.3
ASF    Jabal al Asfar      6.58 189     Pn      Pn      06 55 43.0 +0.2
       comp=Z,1.0nm,0.3s,baz=80,slow=2.8,SNR=25
ASF                                     Lg      Lg      06 57 34.8
       comp=Z,8.8nm,0.3s,baz=6.9,slow=20,SNR=6.0
ASF                                     LR      LR      06 58 32.1
       comp=Z,404nm,18.5s,baz=2.8,slow=41
       comp=Z,15nm,0.7s
ASF                                     AML     AML
SIM    Simferopol'         6.91 336    eP       Pn      06 55 47.6 +0.3
SIM                                    eS       Sn      06 57 05.0 -1.3
SIM                                     pmax    pmax
       comp=Z,20nm,0.5s
SIM                                     smax    smax
       comp=N,66nm,1.1s
SIM                                     smax    smax
       comp=E,16nm,0.7s
YLV    Yalova              6.98 288     Pn      Pn      06 55 48.9 +0.6
       comp=E,0.2nmcomp=E,14nm,0.7s
YLV                                     AML     AML
ERBR   Yeremizino-Bor      7.23  13    eP       Pn      06 55 53.5 +1.9
ERBR                                   eS       Sn      06 57 16.6 +2.5
ERBR                                    pmax    pmax
       comp=Z,29nm,0.9s
MANT   Manisa              7.47 271     Pn      Pn      06 55 55.8 +0.6
GHAJ   Ghor Haditha        7.66 196     Pn      Pn      06 55 59.0 +1.4
MAK    Makhachkala         8.31  56c   iP       Pn      06 56 02.5 -3.9
MAK                                    eS       Sn      06 57 36.0 -4.6
MAK                                     pmax    pmax
       comp=Z,137nm,1.0s
MAK                                     MLR     MLR
       comp=Z,528nm,11.0s
EZN    Ezine               9.20 281     Pn      Pn      06 56 19.8 +1.2
       comp=Z,9.3nm,0.9s
TIRR   Tirgusor            9.25 312     Pn      Pn      06 56 19.7 +0.4
       comp=Z,41nm,1.0s
EIL    Elat                9.37 197     LR      LR      07 00 19.7
       comp=Z,405nm,18.9s,baz=84,slow=40
IDI    Anoyia             11.09 256     Pn      Pn      06 56 43.7 -0.9
MLR    Muntele Rosu       11.28 311     Pn      Pn      06 56 47.0 -0.2
       comp=Z,0.2nm,0.3s,baz=268,slow=20,SNR=3.2
MLR                                     LR      LR      07 02 14.2
       comp=Z,204nm,19.3s,baz=172,slow=44
       comp=Z,1.2nm,0.4s
MLR                                     AML     AML
TESR   Tescani            11.48 317     Pn      Pn      06 56 49.9  0.0
       comp=Z,15nm,0.7s
VSR    Storozhevoye       12.54   3    eP       Pn      06 57 12.3 +8.0
VSR                                     pmax    pmax
       comp=Z,10.0nm,0.9s
VRH    Novokhopyorsk      12.76  10    eP       Pn      06 57 12.3 +5.0
VRH                                     pmax    pmax
       comp=Z,10.0nm,0.9s
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BURAR	Bucovina Array	12.94	318	P	Pn	06 57 09.1	-0.7
BURAR	Bucovina Array	12.94	318	Pn	Pn	06 57 09.1	-0.7
BUR08	Bucovina Ar. S	12.96	318		Pn	06 57 08.6	-1.6
AKASG	Malin Array Be	13.54	335	Pn	Pn	06 57 17.6	-0.4
	comp=Z,0.6nm,0.3s,baz=148,slow=12,SNR=11						
	comp=Z,3.2nm,0.9s						
AKASG				AML	AML		
AKASG	Malin Array Be	13.54	335	ceP	Pn	06 57 18.2	+0.3
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.7s						
AKBB	Malin Array Si	13.54	335	ceP	Pn	06 57 18.2	+0.3
AKBB	Malin Array Si	13.54	335		Pn	06 57 18.2	+0.3
AKBB	Malin Array Si	13.54	335	Pn	Pn	06 57 17.9	0.0
KIEV	Kiev	13.54	335	P	Pn	06 57 17.9	-0.1
KIEV	Kiev	13.54	335		Pn	06 57 17.9	-0.1
KIEV	Kiev	13.54	335	Pn	Pn	06 57 18.1	+0.2
AK20	Malin Array Si	13.65	335	Pn	Pn	06 57 19.7	+0.3
KOLS	Kolonicke sedl	15.30	317	eP	Pn	06 57 40.4	-1.5
KOLS	Kolonicke sedl	15.30	317	ePN	Pn	06 57 40.4	-1.5
STHS	Stebnicka Huta	16.13	317	eP	P	06 57 56.1	+0.1
STHS	Stebnicka Huta	16.13	317	eP	P	06 57 56.1	+0.1
OBN	Obninsk	16.45	357	i P	Pn	06 57 56.6	-0.1
OBN				pmax	pmax		
	comp=Z,7.0nm,1.0s						
OBN				MLR	MLR		
	comp=Z,127nm,16.0s						
OBN	Obninsk	16.45	357	Pn	Pn	06 57 57.7	+1.0
VYHS	Vyhne	17.00	311	eP	P	06 58 08.2	+2.6
VYHS	Vyhne	17.00	311	eP	P	06 58 08.2	+2.6
MOS	Moscow	17.05	359	eP	Pn	06 58 03.4	-0.9
MOS				pmax	pmax		
	comp=Z,27nm,0.8s						
OJC	Ojcow	17.36	317	P	P	06 58 09.1	-0.5
OJC	Ojcow	17.36	317		P	06 58 09.1	-0.5
MODS	Modra-Piesok	17.87	309	eP	P	06 58 16.6	+1.3
MODS	Modra-Piesok	17.87	309	eP	P	06 58 16.6	+1.3
PAOL	Paolisi	18.20	285		Pn	06 58 18.4	-0.2
AKTO	Aktyubinsk	18.35	44	P	Pn	06 58 20.4	0.0
	comp=Z,0.1nm,0.3s,baz=242,slow=7.2,SNR=4.7						
AKTO				LR	LR	07 07 26.9	
	comp=Z,101nm,19.8s,baz=194,slow=44						
	comp=Z,2.3nm,0.8s						
AKTO				AML	AML		
MORC	Moravsky Berou	18.36	314	P	Pn	06 58 20.6	0.0
MORC				pmax	pmax		
	comp=Z,9.0nm,1.4s						
MORC	Moravsky Berou	18.36	314	P	Pn	06 58 20.6	0.0
MORC	Moravsky Berou	18.36	314	eP	P	06 58 21.5	+0.8
VRAC	Vranov	18.69	312	LR	LR	07 05 52.6	
	comp=Z,108nm,20.6s,baz=96,slow=38						
KRUC	Moravsky	18.70	311	eP	Pn	06 58 25.7	+1.1
AB31	Akbulak array	18.87	49	P	P	06 58 26.5	+0.2
ABKAR	Akbulak array	18.87	49	P	Pn	06 58 26.8	0.0
SESA	Seetaler Alpe,	19.12	304	eP	Pn	06 58 31.4	+1.4
	comp=Z,22nm,1.8s						
FDMO	Fiordimonte	19.37	291	P	P	06 58 32.1	+0.2
MOA	Molln	19.55	306	eP	Pn	06 58 36.4	+1.4
	comp=Z,14nm,1.6s						
MYKA	Terra Mystica	19.59	302	epP	Pn	06 58 41.9	+6.3
	comp=Z,7.4nm,0.9s						
KBA	Koelnbreinsper	19.91	303	Pn	Pn	06 58 40.1	+0.7
	comp=Z,7.5nm,0.9s						
GERES	GERESS Array B	20.24	308	P	P	06 58 38.9	-2.5
	comp=Z,1.6nm,0.5s,baz=128,slow=8.0,SNR=9.5						
	comp=Z,1.6nm,0.5s						
GERES	GERESS Array B	20.24	308	P	P	06 58 40.8	-0.6
GERES	GERESS Array B	20.24	308	P	P	06 58 40.8	-0.6
KHC	Kasperske Hory	20.42	309	ceP	P	06 58 41.4	-1.8
KHC				pmax	pmax		
	comp=Z,5.0nm,1.0s						
KHC	Kasperske Hory	20.42	309		P	06 58 43.5	+0.3
KHC				IAmb	IAmb	06 58 47.7	
	comp=Z,14nm,1.4s						
LESA	Schwarzleotal	20.44	303	epP	Pn	06 58 49.9	+4.3
	comp=Z,5.1nm,0.9s						
UOSS	Minazif	20.56	127	P	P	06 58 45.7	+0.8
UOSS				IAmb	IAmb	06 59 00.8	
	comp=Z,8.2nm,0.8s						
CTI	Castel Tesino	20.81	299	P	P	06 58 47.9	+0.4
CTI				pmax	pmax		
	comp=Z,11nm,0.8s						
CTI	Castel Tesino	20.81	299		P	06 58 47.9	+0.4
CTI				IAmb	IAmb	06 58 49.8	
	comp=Z,11nm,0.8s						
BRG	Berggiesshubel	20.91	313	eP	P	06 58 48.4	-0.1
BRG				Amp		06 58 54.8	
	comp=Z,4.6nm,1.1s						
WTTA	Wattenberg	21.08	302	epP	P	06 58 52.3	+1.7
	comp=Z,12nm,0.9s						
WATA	Walderalm	21.14	303	eP	P	06 58 56.0	+4.8
	comp=Z,10nm,0.8s						
KIRV	Kirov	21.20	17	LR	LR	07 07 15.7	
	comp=Z,92nm,21.5s,baz=209,slow=37						
KIRV	Kirov	21.20	17	ceP	P	06 58 53.4	+1.9
SQTA	Sankt Quirin	21.36	302	ePn	P	06 58 56.2	+2.8
	comp=Z,9.2nm,1.3s						
MOTA	Moosalm	21.45	302	epP	P	06 58 55.6	+1.1
	comp=Z,17nm,0.9s						
FETA	Feichten	21.63	301	eP	P	06 58 59.1	+2.7
	comp=Z,12nm,1.4s						
CLL	Collm	21.64	314	i P	P	06 58 57.4	+1.1
CLL				i		06 59 01.1	
CLL				pmax	pmax		
	comp=Z,38nm,1.9s						
CLL	Collm	21.64	314	P	P	06 58 56.4	+0.1
CLL				IAmb	IAmb	06 59 02.1	
	comp=Z,16nm,1.2s						
CLL	Collm	21.64	314	i P	P	06 58 57.4	+1.1
	comp=Z,38nm,1.9s						
CLL				i x	x	06 59 01.1	
CLL				ePPP	PPP	06 59 26.0	
CLL				AMS	AMS	07 07 00.0	
	comp=E,100nm,19.5s						
CLL				AMS	AMS	07 07 00.0	
	comp=Z,100nm,20.2s						
RETA	Reutte	21.71	303	epP	P	06 58 59.0	+1.8
	comp=Z,8.2nm,1.0s						
DAVOX	Davos/Dischmat	22.15	300	P	P	06 58 59.9	-2.1
	comp=Z,0.9nm,0.4s,baz=167,slow=7.3,SNR=3.7						
DAVOX				LR	LR	07 09 14.4	
	comp=Z,47nm,18.4s,baz=90,slow=41						
	comp=Z,0.9nm,0.4s						
ARTI	Arti	22.23	31	P	P	06 59 02.2	-0.5
	comp=Z,3.5nm,0.6s,baz=217,slow=6.2,SNR=4.8						
ARTI				LR	LR	07 08 38.7	
	comp=Z,84nm,19.1s,baz=196,slow=39						
	comp=Z,3.5nm,0.6s						
ARTI	Arti	22.23	31	c iP	P	06 59 02.7	+0.1
ARTI				S	S	07 03 08.5	+0.8
ARTI				pmax	pmax		
	comp=Z,7.0nm,0.8s						
ARTI	Arti	22.23	31	P	P	06 59 02.5	-0.2
DAVA	Damuels	22.25	302	i pP	P	06 59 04.2	+1.1
	comp=Z,15nm,1.3s						
KEST	Kesra	23.04	272	P	P	06 59 09.9	-1.6
	comp=Z,6.2nm,0.9s,baz=358,slow=5.1,SNR=4.8						
	comp=Z,6.2nm,0.9s						
KEST	Kesra	23.04	272		P	06 59 12.0	+0.5
KEST				IAmb	IAmb	06 59 29.8	
	comp=Z,12nm,1.1s						
SENIN	Lac Senin/Sane	23.84	299		P	06 59 19.5	0.0
SENIN				IAmb	IAmb	06 59 22.9	
	comp=Z,5.0nm,0.9s						
FINES	FINESS Array B	23.96	346	P	P	06 59 19.6	-0.6
	comp=Z,2.3nm,0.8s,baz=152,slow=9.8,SNR=9.6						
FINES				LR	LR	07 10 58.3	
	comp=Z,83nm,19.5s,baz=204,slow=42						
	comp=Z,2.3nm,0.8s						
BNI	Bardonecchia	24.14	295	P	P	06 59 22.6	+0.3
BNI				pmax	pmax		
	comp=Z,9.0nm,1.0s						
BNI	Bardonecchia	24.14	295		P	06 59 22.6	+0.3
BNI				IAmb	IAmb	06 59 29.4	
	comp=Z,9.1nm,0.9s						
ECH	Echery	24.24	303	P	P	06 59 23.4	+0.3
ECH				pmax	pmax		
	comp=Z,10.0nm,1.1s						
ECH	Echery	24.24	303	P	P	06 59 23.4	+0.3
ECH				IAmb	IAmb	06 59 32.9	
	comp=Z,10.0nm,1.1s						
KK31	Karatay Array	24.81	69	P	P	06 59 28.7	+0.4
KK31				pmax	pmax		
	comp=Z,4.0nm,0.9s						
KK31	Karatay Array	24.81	69	P	P	06 59 28.7	+0.4
KK31				IAmb	IAmb	06 59 49.6	
	comp=Z,4.2nm,0.9s						
KKAR	Karatay Array	24.81	69	P	P	06 59 29.5	+1.2
KKAR	Karatay Array	24.81	69	P	P	06 59 29.5	+1.2
BORK	Borovoye	26.36	46	i P	P	06 59 41.7	-0.5
BORK				pmax	pmax		
	comp=Z,3.0nm,0.9s						
BVAR	Borovoye Array	26.39	47	P	P	06 59 44.7	+2.2
	comp=Z,0.7nm,0.5s,baz=238,slow=4.7,SNR=4.3						
	comp=Z,0.7nm,0.5s						
HFS	Hagfors	26.40	332	LR	LR	07 10 49.5	
	comp=Z,101nm,19.1s,baz=168,slow=38						
AAK	Ala-Archa	27.75	70	LR	LR	07 12 47.6	
	comp=Z,118nm,21.2s,baz=284,slow=40						
NOA	NORSAR Array B	27.91	332	LR	LR	07 11 58.8	
	comp=Z,58nm,20.2s,baz=140,slow=38						
KURBB	Kurchatov Arra	30.76	54	P	P	07 00 22.1	+0.8
	comp=Z,0.7nm,0.7s,baz=269,slow=9.0,SNR=6.2						
	comp=Z,0.7nm,0.7s						
KURK	Kurchatov	30.82	54	i P	P	07 00 21.9	-0.1
KURK				pmax	pmax		
	comp=Z,1.0nm,0.9s						
ARCES	ARCESS Array B	31.63	352	LR	LR	07 15 18.4	
	comp=Z,117nm,20.7s,baz=199,slow=40						
ESDC	Sonseca Array	32.40	285	P	P	07 00 35.0	-1.0
	comp=Z,0.9nm,0.8s,baz=67,slow=9.7,SNR=5.7						
ESDC				LR	LR	07 15 38.3	
	comp=Z,35nm,19.0s,baz=356,slow=40						
	comp=Z,0.9nm,0.8s						
MK31	Makanchi Array	33.09	61	i P	P	07 00 42.1	+0.2
MKAR	Makanchi Array	33.09	61	P	P	07 00 44.3	+2.3
	comp=Z,0.8nm,0.9s,baz=263,slow=9.7,SNR=4.4						
MKAR				LR	LR	07 16 05.8	
	comp=Z,102nm,18.8s,baz=257,slow=40						
	comp=Z,0.8nm,0.9s						
DGZ	Jazzator, Alta	36.43	56	i P	P	07 01 10.1	-0.8
WMQ	Urumqi	37.19	66	eP	P	07 01 19.5	+2.1
WMQ				LR	LR		
	comp=Z,51nm,24.3s						
KMBO	Kilima Mbogo	39.64	181	LR	LR	07 17 49.1	
	comp=Z,59nm,18.3s,baz=99,slow=36						
NRIK	Noril'sk	40.30	25	LR	LR	07 19 55.8	
	comp=Z,39nm,19.1s,baz=268,slow=38						
NRIK	Noril'sk	40.30	25	i P	P	07 01 42.6	-0.5
NRIK				pmax	pmax		
	comp=Z,4.0nm,1.2s						
TORD	Torodi Ar. Bea	41.04	242	P	P	07 01 49.2	-0.5
	comp=Z,1.5nm,0.8s,baz=56,slow=8.7,SNR=7.5						
	comp=Z,1.5nm,0.8s						
KNGR	Kungurtug, Tuv	42.82	54	i P	P	07 02 02.1	-2.0
KNGR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
BORG	Borgarnes	42.84	327	LR	LR	07 21 04.1	
	comp=Z,39nm,18.8s,baz=278,slow=38						
SONM	Songino Array	49.08	56	LR	LR	07 26 17.2	
	comp=Z,120nm,18.9s,baz=284,slow=39						
DBIC	Dimbokro	50.15	242	LR	LR	07 27 16.1	
	comp=Z,65nm,18.6s,baz=241,slow=40						
PZH	PanZhiHua	54.02	83	P	P	07 03 32.1	+1.3
LSZ	Lusaka	54.49	192	LR	LR	07 25 40.8	
	comp=Z,76nm,18.5s,baz=157,slow=35						
HHC	Hu-ho-hao-te	54.93	63	eP	P	07 03 35.3	-1.9
HHC				pmax	pmax		
	comp=Z,21nm,0.5s						
HHC				pmax	pmax		
	comp=Z,110nm,5.0s						
LBTB	Lobatse	64.45	193	LR	LR	07 34 37.4	
	comp=Z,59nm,18.5s,baz=340,slow=38						
BILL	Bilibino	66.73	19	i P	P	07 04 55.8	-1.2
BILL				pmax	pmax		
	comp=Z,4.0nm,1.1s						
MA2	Magadan	67.51	31	LR	LR	07 39 38.4	
	comp=Z,48nm,18.1s,baz=291,slow=40						
KSRS	Korea Array	67.74	59	LR	LR	07 37 49.4	
	comp=Z,30nm,18.5s,baz=340,slow=39						
SUR	Sutherland	72.52	195	LR	LR	07 39 04.2	
	comp=Z,56nm,18.9s,baz=330,slow=37						
SADO	Sadowa	79.52	320	LR	LR	07 41 07.2	
	comp=Z,35nm,19.8s,baz=74,slow=36						
KDAK	Kodiak Island	83.46	6	LR	LR	07 48 46.7	
	comp=Z,25nm,19.0s,baz=80,slow=39						

CATAC ***18*** *06:56:36.2±0.3, 20°N±4°×7°6W±°, h14km±1km, M4.3/9, mb4.8/1, MLv4.1/9, Error ellipse: s-maj=9.2km s-min=2.7km az=1.1, confirmed*

JSN ***18*** *06:56:37.8±1.2, 19.°64N×76.°22W, h4km±11km, MD4.0, Presumed earthquake*

SSNC ***18*** *06:56:37.2±1.1, 19.°81N×76.°26W, h10km±4km, MD3.7, ML3.6, MW3.6, Presumed earthquake*

ISC 18 06:56:36.3±0.9**, 19.°84N**±0.°03×**76.°26W**±0.°02**, h23**km±7km**,**
n34, σ1.s40/59**, 4C-7D, Cuba region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHIV	Chivirico	0.20	314	P	Pb	06 56 41.9	+0.2
CHIV				S	Sb	06 56 45.3	-0.1
CHIV	Chivirico	0.20	314	⇑iP	Pb	06 56 41.9	+0.2
CHIV				i S	Sb	06 56 45.1	-0.2
MARVS	Santiago de Cu	0.38	65	⇓iP	Pb	06 56 44.3	-0.1
MARVS				i S	Sb	06 56 49.1	-0.8
RCC	Rio Carpintero	0.56	74	⇓iP	Pb	06 56 47.3	-0.1
RCC				i S	Sb	06 56 54.6	-0.4
RCC				IAML		06 56 56.7	
	comp=N,1µm,0.1s						
RCC				IAML		06 56 56.7	
	comp=E,1µm,0.2s						
LMGC	Las Mercedes	0.73	288	i P	Pb	06 56 50.4	0.0
PINC	Pinares de May	0.78	35	⇓iP	Pb	06 56 50.3	-1.0
HLGC	Holguin	1.06	10	i P	Pn	06 56 55.7	-0.1
HLGC				i S	Sb	06 57 11.0	+1.5
PILO	Pilon	1.08	274	S	Sb	06 57 11.4	+1.5
PILO	Pilon	1.08	274	i P	Pn	06 56 55.4	-0.6
PILO				i S	Sn	06 57 08.5	-1.7
GTBY	Guantanamo Bay	1.09	85	⇑iP	Pn	06 56 56.3	+0.1
GTBY	Guantanamo Bay	1.09	85	P	Pb	06 56 56.5	0.0
GTBY				S	Sb	06 57 11.7	+1.4
GTBY	Guantanamo Bay	1.09	85	i P	Pn	06 56 56.2	+0.1
GTBY				i S	Sb	06 57 11.1	+0.8
GTBY				IAML		06 57 13.3	
	comp=E,5µm,0.3s						
GTBY				IAML		06 57 13.8	
	comp=E,4µm,0.4s						
NMDO	Nuevo Mundo	1.40	59	P	Pn	06 56 59.4	-1.1
NMDO				S	Sn	06 57 17.6	-0.6
NMDO	Nuevo Mundo	1.40	59	i P	Pn	06 56 59.6	-0.9
NMDO				eS	Sn	06 57 17.2	-1.0
NMDO				IAML		06 57 21.6	
	comp=E,564nm,0.3s						
NMDO				IAML		06 57 26.5	
	comp=N,588nm,0.5s						
QMBU	Quimbuelo	1.41	75	P	Pn	06 56 59.9	-0.8
QMBU				S	Sn	06 57 17.9	-0.7
QMBU	Quimbuelo	1.41	75	⇑iP	Pn	06 56 59.7	-0.9
QMBU				i S	Sn	06 57 17.6	-1.0
QMBU				IAML		06 57 20.1	
	comp=N,2µm,0.3s						
QMBU				IAML		06 57 20.9	
	comp=E,1µm,0.5s						
MOAC	Moa	1.47	56	i P	Pn	06 57 00.9	-0.5
MOAC				i S	Sn	06 57 19.5	-0.5
MOAC				IAML		06 57 27.5	
	comp=E,592nm,0.5s						
MOAC				IAML		06 57 27.9	
	comp=N,486nm,0.3s						
GWJ	Greenwich	1.81	194	⇓iP	Pn	06 57 05.8	-0.5
GWJ				⇓iS	Sn	06 57 26.4	-2.1
STH	Stony Hill	1.83	196	i P	Pn	06 57 06.0	-0.3
STH				⇓iP	Pn	06 57 06.1	-0.3
STH				i S	Sn	06 57 26.6	-2.3
HOJ	Hope	1.88	194	i P	Pn	06 57 07.0	-0.1
CCCC	Cccc	1.95	314	eP	Pn	06 57 06.3	-1.7
CCCC				i S	Sn	06 57 28.7	-3.1
CVJ	Coleyville	2.01	217	⇓iP	Pn	06 57 08.7	-0.2
CVJ				i S	Sn	06 57 33.2	-0.1
PCJ	Portland Cotta	2.25	202	i P	Pn	06 57 12.6	+0.4
CBCY	The Bluff, Cay	3.29	269	P	Pn	06 57 27.1	+0.6
CBCY				S	Sn	06 58 09.1	+4.2
CBCY	The Bluff, Cay	3.29	269	eP	Pn	06 57 26.8	+0.3
CBCY				eS	Sn	06 58 03.4	-1.6
LGNH	Logne	3.70	110	P	Pn	06 57 33.5	+1.4
LGNH				S	Sn	06 58 17.7	+2.6
CAIB	Caibarien	3.99	312	P	Pn	06 57 37.0	+0.9
CAIB				S	Sn	06 58 23.6	+1.4
CAIB	Caibarien	3.99	312	eP	Pn	06 57 36.8	+0.7
CAIB				eS	Sn	06 58 22.2	0.0
FSCY	Frank Sound, G	4.67	264	P	Pn	06 57 44.9	-0.5
FSCY	Frank Sound, G	4.67	264	i P	Pn	06 57 44.9	-0.5
FSCY				i S	Sn	06 58 34.7	-4.2
SDDR	Presa de Saban	4.77	99	⇑iP	Pn	06 57 49.1	+2.2
GRTK	Grand Turk	5.08	70	P	Pn	06 57 51.8	+0.6
GRTK				S	Sn	06 58 49.1	0.0
CAMR	Camarioca	5.73	305	P	Pn	06 58 01.5	+1.5
CAMR	Camarioca	5.73	305	eP	Pn	06 58 02.7	+2.6

NEIC ***18*** *07:02:15.0±1.2, 44.°29N±0.°02×115.°18W±0.°03, h10km±2km, ML3.1/113, ML3.6/28(BUT), Error ellipse: s-maj=4.1km s-min=3.0km az=227.0*

BUT ***18*** *07:02:15.5±1.2, 44.°29N±0.°02×115.°17W±0.°03, h10km±8km, Error ellipse: s-maj=3.6km s-min=1.8km az=47.0*

ISC 18 07:02:15.1±0.9**, 44.°30N**±0.°03×**115.°20W**±0.°03**, h11**km**, n67,**
σ**1.s53**/70**, Western Idaho**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HLID	Hailey	0.93	142		Pg	07 02 32.2	-0.8
HLID				Sg	Sg	07 02 44.0	-1.2
HLID				IAML		07 02 46.5	
	433nm,0.2s						
HLID				IAML		07 02 49.4	
	495nm,0.2s						
PLID	Pearl Lake	0.97	324		Pg	07 02 34.0	+0.1
PLID	Pearl Lake	0.97	324		Sg	07 02 47.4	+0.8
MFID	Camas Ranch	0.99	207		Pg	07 02 34.0	-0.2
MFID				Sg	Sg	07 02 47.2	+0.1
BMO	Blue Mountains	1.60	291		Pn	07 02 43.8	+0.3
BMO					Sn	07 03 04.7	+0.5
BMO				IAML		07 03 08.9	
	245nm,0.3s						
BMO				IAML		07 03 11.4	
	157nm,0.2s						
MCMT	McKenzie Canyo	1.76	72		Pb	07 02 46.7	-0.8
DLMT	Dillon	2.14	59		Pn	07 02 51.3	+0.5
F10A	Beach Ranch, E	2.21	320	Pn	Pn	07 02 52.4	+0.7
BUT	Butte	2.53	46		Pn	07 02 56.9	+0.6
BUT				IAML		07 03 39.2	
	comp=E,107nm,0.3s						
BUT				IAML		07 03 39.5	
	comp=N,114nm,0.3s						
J08A	Circle Bar Ran	2.55	249		Pn	07 02 56.9	+0.4
J08A				IAML		07 03 38.8	
	comp=E,141nm,0.4s						
J08A				IAML		07 03 46.4	
	comp=N,113nm,0.6s						
MSO	Missoula	2.68	19		Pn	07 02 59.1	+0.8
MSO				IAML		07 03 42.1	
	comp=N,116nm,0.4s						
MSO				IAML		07 03 52.1	
	comp=N,116nm,1.0s						
LNOR	Lincton Mounta	2.69	307		Pn	07 02 59.7	+1.4
LNOR				IAML		07 03 48.9	
	comp=N,53nm,0.9s						
QLMT	Earthquake Lak	2.75	78		Pn	07 03 00.8	+1.6
BOZ	Bozeman (W)	2.85	62		Pn	07 03 00.9	+0.3
YHB	Horse Butte	2.90	80		Pn	07 03 03.4	+2.1
YHB				IAML		07 03 48.3	
	comp=E,77nm,0.6s						
YHB				IAML		07 03 50.3	
	comp=N,87nm,0.6s						
YHL	Hebgen Lake	2.92	78		Pn	07 03 03.1	+1.4
E09A	Wood Farm, Sta	3.04	318		Pn	07 03 04.5	+1.5
E09A				IAML		07 03 44.4	
	comp=N,60nm,0.5s						
E09A				IAML		07 03 54.1	
	comp=E,44nm,0.6s						
YMR	Madison River	3.05	82		Pn	07 03 05.5	+2.0
HVU	Hansel Valley	3.08	144		Pn	07 03 06.5	+2.7
FXWY	Fox Creek	3.08	101		Pn	07 03 05.5	+1.5
FXWY				IAML		07 03 52.6	
	comp=E,45nm,0.6s						
WVOR	Wild Horse Val	3.12	235		Pn	07 03 05.1	+0.7
YFT	Old Faithful	3.13	86		Pn	07 03 06.5	+1.9
YFT				IAML		07 04 06.0	
	comp=N,35nm,1.3s						
YHH	Holmes Hill	3.15	80		Pn	07 03 06.6	+1.8
YPP	Pitchstone Pla	3.16	89		Pn	07 03 07.0	+2.0
YPP				IAML		07 03 57.3	
	comp=E,54nm,0.5s						
YPP				IAML		07 03 58.5	
	comp=N,45nm,0.6s						
OVMT	Ovando	3.17	28		Pn	07 03 05.7	+0.7
YPT	Yellepit	3.18	305		Pn	07 03 05.9	+0.8
YNM	Yellowstone No	3.24	81		Pn	07 03 09.2	+3.1
BHMT	Big Hole Peak	3.29	2		Pn	07 03 07.7	+1.1
H17A	Grant Village	3.32	87		Pn	07 03 08.7	+1.6
SNOW	Snow King Moun	3.32	103		Pb	07 03 11.2	-3.0
SNOW				IAML		07 04 04.8	
	comp=N,79nm,0.6s						
SNOW				IAML		07 04 09.8	
	comp=N,68nm,1.4s						
LYMT	Lyon Mountain	3.36	36		Pn	07 03 08.2	+0.5
LOHW	Long Hollow	3.39	100		Pn	07 03 10.3	+2.2
LOHW				IAML		07 04 07.1	
	comp=N,40nm,0.6s						
LOHW				IAML		07 04 11.4	
	comp=N,32nm,0.8s						
E08A	Dider Farm, El	3.49	310		Pn	07 03 09.7	+0.4
JTMT	Jette	3.51	10		Pn	07 03 11.0	+1.4
ELK	Elko	3.55	180		Pn	07 03 12.1	+1.8
SPUT	South Promonto	3.61	145		Pn	07 03 12.3	+1.2
SPUT				IAML		07 04 13.2	
	comp=E,34nm,0.8s						
SPUT				IAML		07 04 17.5	
	comp=N,32nm,0.8s						
HAWA	Hanford	3.70	306		Pn	07 03 12.8	+0.6
F07A	Phinny Hill Vi	3.71	297		Pn	07 03 12.5	+0.2
F07A				IAML		07 04 15.2	
	comp=E,55nm,0.7s						
F07A				IAML		07 04 15.2	
	comp=N,41nm,0.8s						
BGU	Big Grassy Mou	3.73	154		Pn	07 03 13.8	+1.0
YNE	Yellowstone No	3.77	77		Pn	07 03 15.3	+1.9
YNE				IAML		07 04 23.4	
	comp=E,54nm,0.7s						
WAH2	Wahluke Slope	3.93	310		Pn	07 03 16.6	+1.3
E07A	Sunnyside	3.98	306		Pn	07 03 17.4	+1.4
E07A				IAML		07 04 06.3	
	comp=N,44nm,0.4s						
E07A				IAML		07 04 06.7	
	comp=E,40nm,0.5s						
BMN	Battle Mountai	4.14	202		Pn	07 03 20.5	+2.1
BMN				IAML		07 04 22.3	
	comp=E,32nm,0.8s						
BMN				IAML		07 04 22.3	
	comp=N,26nm,0.8s						
LDM	Libby Dam	4.16	359		Pn	07 03 19.2	+0.7
LDM				IAML		07 04 30.2	
	comp=N,26nm,0.4s						
LDM				IAML		07 04 43.0	
	comp=E,28nm,0.9s						
PINE	Pine Mountain	4.17	265		Pn	07 03 19.8	+1.0
PINE				IAML		07 04 54.6	
	comp=N,15nm,2.9s						
PINE				IAML		07 05 14.6	
	comp=E,16nm,4.4s						
NEW	Newport	4.18	342		Pn	07 03 19.6	+0.8
NEW				IAML		07 04 28.5	
	comp=E,33nm,0.4s						
NEW				IAML		07 05 02.1	
	comp=E,15nm,4.5s						
GCMT	Greycliff	4.20	67		Pn	07 03 20.7	+1.6
MXC	Moxie City	4.25	304		Pn	07 03 21.3	+1.6
RLMT	Red Lodge	4.31	77		Pn	07 03 23.9	+3.2
EPH	Ephrata	4.33	316		Pn	07 03 20.6	-0.3
EPH				IAML		07 04 34.6	
	comp=E,13nm,1.3s						
EPH				IAML		07 04 56.7	
	comp=N,14nm,1.0s						
BW06	Boulder Array	4.38	109	Pn	Pn	07 03 24.2	+2.5
PD31	Pinedale Array	4.38	109	Pn	Pn	07 03 25.5	+3.8
I05D	Terrebonne, OR	4.41	273		Pn	07 03 23.1	+1.2
I05D				IAML		07 04 38.6	
	comp=N,28nm,0.8s						
I05D				IAML		07 04 40.4	
	comp=E,23nm,1.7s						
K05A	Summer Lake	4.43	251		Pn	07 03 22.9	+0.6
K05A				IAML		07 04 02.0	
	comp=N,16nm,4.1s						

K05A				IAML		07 04 28.8	
	comp=E,13nm,3.7s						
MOD	Modoc Plateau	4.44	239		Pn	07 03 23.3	+0.8
MOD				IAML		07 04 38.2	
	comp=N,15nm,0.6s						
G05A	Wamic	4.46	284		Pn	07 03 24.0	+1.4
G05A				IAML		07 05 21.0	
	comp=N,29nm,3.9s						
DUG	Dugway, Tooele	4.47	156		Pn	07 03 24.0	+1.2
DUG				IAML		07 04 51.9	
	comp=N,15nm,1.4s						
HOOD	Mount Hood Mea	4.70	285		Pn	07 03 26.9	+0.8
HOOD				IAML		07 04 50.5	
	comp=E,27nm,0.8s						
WIFE	Three Sisters-	4.77	269		Pn	07 03 28.3	+1.3
WIFE				IAML		07 04 54.4	
	comp=E,21nm,4.1s						
WIFE				IAML		07 05 30.4	
	comp=N,16nm,4.4s						
LTY	Liberty	4.84	310		Pn	07 03 28.7	+0.8
LTY				IAML		07 05 03.0	
	comp=N,9.9nm,1.6s						
LTY				IAML		07 05 11.5	
	comp=E,10nm,2.1s						
NLU	North Lily Min	4.92	151		Pn	07 03 30.7	+1.5
BSUT	Blindstream Ca	4.99	137		Pn	07 03 34.0	+3.7
J04A	Umpqua Nationa	5.12	260		Pn	07 03 32.8	+1.0
LON	Longmire	5.25	300		Pn	07 03 34.1	+0.6
STD	Studebaker Rid	5.32	294	Pn	Pn	07 03 35.0	+0.5
STD				IAML		07 04 50.6	
	comp=N,9.0nm,3.0s						
STD				IAML		07 05 34.6	
	comp=E,12nm,1.6s						
H04D	Lebanon	5.41	275	Pn	Pn	07 03 36.1	+0.5
L04D	Klamath Falls	5.59	251	Pn	Pn	07 03 39.1	+0.9

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*IDC **18** 07:03:22.6±0.9, 21.°28N×45.°75W, h0^{km}, mb3.8/7, mbtmp3.8/7, MS3.3/20, Error ellipse: s-maj=30.1km s-min=25.7km az=126.0*

*NEIC **18** 07:03:22.8±1.4, 20.°8N±0.°2×45.°94W±0.°07, h10^{km}±1^{km}, mb4.6/15, Error ellipse: s-maj=31.7km s-min=4.4km az=162.0*

ISC 18 07:03:23.6±0.6, **21.°2N**±0.°1×**45.°99W**±0.°09, **h10^{km}, n47, σ1.^{s}80**/24, **mb3.9**/8, **MS3.3**/19, **Northern Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GDSD	La Dsirade Is	15.07	254	Pn	Pn	07 06 53.9	-2.9
GDSD				IAmb	IAmb	07 07 07.0	
	comp=Z,35nm,1.1s						
CBE	Ff, Capester	15.65	254	Pn	Pn	07 07 03.8	-0.5
CBE				IAmb	IAmb	07 07 28.7	
	comp=Z,29nm,0.7s						
MPOM	Morne Pois Mar	15.66	247	Pn	Pn	07 07 03.0	-1.4
MPOM				IAmb	IAmb	07 07 14.7	
	comp=Z,36nm,0.8s						
SVN	Savane Anatole	15.75	249	Pn	Pn	07 07 01.7	-3.9
TDBA	Terre de Bas,	15.75	253	Pn	Pn	07 07 03.3	-2.4
TDBA				IAmb	IAmb	07 07 28.2	
	comp=Z,48nm,1.0s						
BIM	Bigot	15.81	248	Pn	Pn	07 07 04.2	-2.2
BIM				IAmb	IAmb	07 07 15.6	
	comp=Z,24nm,1.0s						
SMRT	St. Maarten	16.39	262	Pn	Pn	07 07 12.5	-1.4
SEUS	St. Eustatius	16.45	260	Pn	Pn	07 07 13.1	-1.5
GRGR	Grenville	17.48	242		Pn	07 07 25.1	-2.5
GRGR				IAmb	IAmb	07 07 30.8	
	comp=Z,52nm,1.1s						
SJG	San Juan	19.23	264	LR	LR	07 13 34.5	
	comp=Z,124nm,21.8s,baz=98,slow=31						
CELP	Cerrillos	19.64	265	P	P	07 07 51.4	-1.2
BBSR	BB Station	20.05	308	P	P	07 07 56.7	-0.1
BBSR				IAmb	IAmb	07 08 14.3	
	comp=Z,18nm,1.0s						
SDV	Santo Domingo	26.70	246	LR	LR	07 17 59.9	
	comp=Z,29nm,21.2s,baz=230,slow=32						
ROSC	El Rosal	31.93	243	LR	LR	07 23 09.9	
	comp=Z,64nm,18.8s,baz=134,slow=37						
TKL	Tuckaleechee C	35.99	302	LR	LR	07 24 53.4	
	comp=Z,50nm,18.1s,baz=100,slow=36						
SADO	Sadowa	36.03	319	LR	LR	07 23 05.6	
	comp=Z,61nm,19.1s,baz=95,slow=33						
MDT	Midelt	38.43	64	LR	LR	07 23 54.2	
	comp=Z,51nm,19.8s,baz=260,slow=32						
JTS	Las Juntas de	38.93	260	LR	LR	07 29 19.2	
	comp=Z,32nm,18.2s,baz=69,slow=40						
H10N3	ASCENSION HYDR	42.28	130	T	T	07 56 08.7	
	baz=314,slow=75,SNR=84						
H10N2	ASCENSION HYDR	42.28	130	T	T	07 56 08.8	
	baz=314,slow=75,SNR=73						
DBIC	Dimbokro	42.30	104	P	P	07 11 17.5	-0.3
DBIC				IAmb	IAmb	07 11 19.5	
	comp=Z,14nm,1.1s						
H10N1	ASCENSION HYDR	42.30	130	T	T	07 56 07.4	
	baz=314,slow=75,SNR=86						
ATAH	Atahualpa	42.47	232	LR	LR	07 29 16.9	
	comp=Z,55nm,20.2s,baz=62,slow=36						
H10S3	ASCENSION HYDR	42.94	131	T	T	07 56 55.3	
	baz=312,slow=74,SNR=37						
H10S2	ASCENSION HYDR	42.95	131	T	T	07 57 00.7	
	baz=268,slow=74,SNR=31						
LPAZ	La Paz	43.11	212	P	P	07 11 27.1	+2.1
	comp=Z,1.6nm,0.8s,baz=27,slow=5.2,SNR=5.8						
LPAZ				LR	LR	07 28 02.4	
	comp=Z,43nm,20.9s,baz=141,slow=34						
	comp=Z,1.6nm,0.8s						
WLAR	White Oak Lake	43.30	297	P	P	07 11 26.4	+0.6
WLAR				IAmb	IAmb	07 11 33.0	
	comp=Z,7.8nm,0.6s						
TORD	Torodi Ar. Bea	46.12	92	P	P	07 11 46.4	-2.0
	comp=Z,1.0nm,0.7s,baz=296,slow=6.5,SNR=5.5						
	comp=Z,1.0nm,0.7s						
CMIG	Matias Romero	46.23	274	LR	LR	07 28 51.5	
	comp=Z,33nm,19.3s,baz=78,slow=33						
CPUP	Villa Florida	48.49	194	P	P	07 12 08.7	+2.1
	comp=Z,1.1nm,0.9s,baz=15,slow=12,SNR=2.9						
	comp=Z,1.1nm,0.9s						
ULM	Lac du Bonnet	48.59	319	LR	LR	07 31 29.1	
	comp=Z,25nm,19.7s,baz=72,slow=35						
ANMO	Albuquerque	54.36	298	LR	LR	07 33 45.4	
	comp=Z,30nm,21.7s,baz=82,slow=33						
GERES	GERESS Array B	54.49	44	P	P	07 12 51.2	-0.3
NOA	NORSAR Array B	55.96	30	LR	LR	07 32 14.9	
	comp=Z,34nm,20.0s,baz=260,slow=31						
PDAR	Pinedale Array	56.71	308	P	P	07 13 08.6	+0.8
	comp=Z,0.9nm,1.0s,baz=96,slow=11,SNR=4.1						
PDAR				LR	LR	07 35 02.7	
	comp=Z,17nm,20.4s,baz=28,slow=33						
	comp=Z,0.9nm,1.0s						
PDAR	Pinedale Array	56.71	308	P	P	07 13 08.2	+0.4
LPIG	La Paz	58.97	286	LR	LR	07 39 51.3	
	comp=Z,21nm,20.8s,baz=42,slow=37						
YKA	Yellowknife Ar	61.57	331	LR	LR	07 40 06.1	
	comp=Z,28nm,18.8s,baz=7.0,slow=36						
YBH	Yreka Blue Hor	66.51	307	LR	LR	07 42 18.8	
	comp=Z,28nm,19.1s,baz=49,slow=35						
BRTR	Keskin Array B	69.01	54	P	P	07 14 29.6	-0.1
	comp=Z,0.5nm,0.6s,baz=282,slow=7.2,SNR=2.1						
	comp=Z,0.5nm,0.6s						
BRTR	Keskin Array B	69.01	54	P	P	07 14 29.3	-0.4
INK	Inuvik	69.61	337	LR	LR	07 44 39.3	
	comp=Z,40nm,18.9s,baz=48,slow=36						
P32M	Atlin	70.85	327	P	P	07 14 42.3	+1.8
EIL	Elat	72.25	64	LR	LR	07 47 30.9	
	comp=Z,31nm,18.4s,baz=273,slow=37						
ILAR	Eielson Array	75.59	334	P	P	07 15 09.3	+1.0
	comp=Z,0.9nm,0.8s,baz=63,slow=4.8,SNR=8.5						
	comp=Z,0.9nm,0.8s						
AKTO	Aktyubinsk	82.43	39	P	P	07 15 45.8	-0.3
	comp=Z,1.5nm,0.7s,baz=312,slow=6.0,SNR=3.7						
	comp=Z,1.5nm,0.7s						
BOSA	Boshof	84.68	123	LR	LR	07 45 37.3	
	comp=Z,29nm,21.1s,baz=216,slow=30						

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*CRAAG **18** 07:06:39.7, 35.°25N×0.°40W, Ml3.5, Algrie 12km NE Belarbi*

*MDD **18** 07:06:41.2±1.1, 35.°17N×0.°47W, h26^{km}±24^{km}, Mb4.1/13, M_mb3.5/13, Error ellipse: s-maj=24.5km s-min=7.2km az=160.0*

*CNRM **18** 07:06:44.1, 35.°72N×1.°26W, h10^{km}, ML3.0*

ISC 18 07:06:40.1±1.3, **35.°35N**±0.°04×**0.°51W**±0.°04, **h12**^{km}±12^{km}, **n36, σ1.^{s}46**/54, **9C, Northern Algeria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ODJA	Bouhanifia	0.29	94	P	Pg	07 06 45.1	-1.0
USTO	Oran	0.39	355	P	Pb	07 06 50.5	+1.6
OSBL	Sidi Abdelli	0.59	243	P	Pb	07 06 52.9	+0.5
OBBL	Beni Bahdel	1.04	232	P	Pg	07 07 00.0	-0.2
EKMS	Oued Kramis	1.34	44	P	Pn	07 07 05.8	+1.1
TAF	Taforalt	1.65	252	P	Pn	07 07 07.2	-1.9
JBK	JBK	1.97	240	P	Pn	07 07 13.8	+0.2
JBK				S	Sn	07 07 39.9	+1.5
EBGR	Bougara	2.00	83	P	Pn	07 07 14.1	+0.2
ENIJ	Nijar	2.12	320	Pn	Pn	07 07 15.2	-0.3
ENIJ				Sn	Sn	07 07 39.8	-2.1
ENIJ	Nijar	2.12	320	P	Pn	07 07 15.6	0.0
ENIJ				⇑IVmb_VC		07 07 20.4	
	521nm,SNR=3.5						
ENIJ				S	Sn	07 07 41.3	-0.6
EARB	Arib	2.25	64	P	Pn	07 07 16.6	-0.7
CART	Cartagena	2.27	350	Pn	Pn	07 07 16.7	-0.7
CART				Sn	Sn	07 07 43.0	-2.4
CART	Cartagena	2.27	350	P	Pn	07 07 16.0	-1.5
EBER	Berja	2.47	309	Pn	Pn	07 07 20.4	-0.1
EBER				Sn	Sn	07 07 50.7	0.0
EBER	Berja	2.47	309	P	Pn	07 07 20.5	0.0
EBER				⇑IVmb_VC		07 07 25.8	
	341nm,SNR=2.4						
EBER				S	Sn	07 07 51.0	+0.3
TLOR	Lorca, Murcia	2.49	338	Pn	Pn	07 07 21.1	+0.6
EMUR	La Murta	2.56	347	Pn	Pn	07 07 22.0	+0.5
EMUR	La Murta	2.56	347	P	Pn	07 07 22.3	+0.7
EMUR				⇑IVmb_VC		07 07 26.0	
	298nm,SNR=1.5						
EMUR				S	Sn	07 07 52.6	0.0
EZAR	Zarzadilla de	2.70	340	P	Pn	07 07 24.0	+0.5
EZAR				⇑IVmb_VC		07 07 30.5	
	416nm,SNR=3.1						
EZAR				S	Sn	07 07 55.1	-1.1
AKLM	AKL	2.88	254	P	Pn	07 07 26.6	+0.6
AKLM				S	Sn	07 07 56.5	-4.2
ELGU	Los Guajares,	2.95	302	Pn	Pn	07 07 26.2	-0.6
ELGU				Sn	Sn	07 08 01.8	-0.5
ELGU	Los Guajares,	2.95	302	P	Pn	07 07 26.3	-0.6
ELGU				⇑IVmb_VC		07 07 29.5	
	228nm,SNR=3.1						
ELGU				S	Sn	07 08 00.3	-1.9
EQTA	Presa de Quent	3.01	309	Pn	Pn	07 07 29.0	+1.2
EQES	Quesada	3.20	321	P	Pn	07 07 31.2	+0.8
EQES				⇑IVmb_VC		07 07 39.3	
	412nm,SNR=4.2						
FIGM	Figuig	3.27	191	P	Pb	07 07 40.3	+2.1
FIGM				S	Sg	07 08 24.1	-1.0
ETOB	Tobarra	3.39	346	Pn	Pn	07 07 34.7	+1.7
ETOB				Sn	Sn	07 08 11.8	-1.5
ETOB	Tobarra	3.39	346	P	Pn	07 07 34.3	+1.2
ETOB				⇑IVmb_VC		07 07 37.1	
	242nm,SNR=1.4						
ETOB				S	Sn	07 08 13.7	+0.4
EGOR	Sierra Gorda,	3.40	302	Pn	Pn	07 07 34.6	+1.4
EIBI	Ibiza	3.96	21	Pn	Pn	07 07 41.6	+0.9
EIBI				Sn	Sn	07 08 26.6	-0.5
EIBI	Ibiza	3.96	21	P	Pn	07 07 41.6	+0.9
EIBI				⇑IVmb_VC		07 07 43.8	
	334nm,SNR=1.3						
EIBI				S	Sn	07 08 25.9	-1.1
MDT	Midelt	4.24	235	P	Pn	07 07 46.4	+1.7
ECHE	Chera	4.25	355	Pn	Pn	07 07 46.5	+1.7
ECHE				Sn	Sn	07 08 30.6	-3.8
MD31	MD31	4.31	236	P	Pn	07 07 46.7	+1.1
EADA	Adamuz	4.31	312	Pn	Pn	07 07 47.6	+2.0
EMOS	Mosqueruela	5.01	0	P	Pn	07 07 57.3	+2.0
EMOS				⇑IVmb_VC		07 08 00.5	
	139nm,SNR=0.9						
EMOS				S	Sn	07 08 50.7	-2.5
ZHG	ZHG	5.42	251	P	Pn	07 08 01.0	+0.2

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*SDD **18** 07:25:31.1±2.6, 18.°21N×71.°23W, h38^{km}±20^{km}, MD2.8, ML1.9, MW2.9, Presumed earthquake*

*OSPL **18** 07:25:36.7±0.6, 18.°25N×71.°36W, h8^{km}±2^{km}, ML1.7, Presumed earthquake*

ISC 18 07:25:32.8±1.2, **18.°21N**±0.°04×**71.°23W**±0.°05, **h25**^{km}±8^{km}, **n10, σ1.^{s}15**/16, **6C-3D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PODR	Polo	0.07	229	⇑ePg	Pb	07 25 38.5	+1.0
LODU1	El Espartillar	0.27	301	i P	Pb	07 25 39.5	0.0
LODU1				eS	Sb	07 25 42.0	-2.0
LODU1				IAML		07 25 45.8	
	comp=Z,337nm,1.2s						
NEDR	Neiba UASD	0.33	326	⇑ePg	Pn	07 25 41.8	-0.2
NEDR				⇓eSg	Sn	07 25 47.4	-0.5
NEDR				IAML		07 25 47.8	
	comp=N,219nm,0.2s						
LOVI	El Cajuil, Ovi	0.43	198	i P	Pn	07 25 44.4	+0.9
LOVI				eS	Sn	07 25 51.1	+0.5
LOVI				IAML		07 25 52.8	
	comp=Z,58nm,0.3s						
LOBH	Bahia de las A	0.53	229	i P	Pn	07 25 45.2	+0.4
LOBH				IAML		07 25 54.5	
	comp=Z,88nm,0.4s						
JIDR	Jimani	0.66	295	⇑ePg	Pn	07 25 46.4	-0.2
JIDR				⇓eSg	Sn	07 25 55.0	-1.1
JIDR				IAML		07 26 01.9	
	comp=N,46nm,0.8s						
SDDR	Presa de Saban	0.77	356	i P	Pn	07 25 50.0	+1.8
SDDR				eS	Sn	07 25 59.9	+0.9
SDDR				IAML		07 26 02.9	
	comp=Z,13nm,0.5s						
SDDR	Presa de Saban	0.77	356	⇑ePg	Pb	07 25 48.7	+1.1
SDDR				⇓eSg	Sn	07 25 59.0	0.0
SDDR				IAML		07 26 18.4	
	comp=N,18nm,1.3s						
ABDR	Alto Bandera	0.82	44	⇑ePg	Pb	07 25 49.1	+0.4
ABDR				IAML		07 26 15.1	
	comp=N,31nm,0.6s						
BANI	BANI	0.84	78	⇑ePg	Pb	07 25 47.2	-1.7
BANI				IAML		07 26 13.4	
	comp=N,53nm,1.8s						

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*CATAC **18** 07:40:49.9±0.6, 15°N±3°×9°3W±°, h63^{km}±5^{km}, M3.5/10, MLv3.5/10, Error ellipse: s-maj=10.8km s-min=4.2km az=53.6, confirmed*

*MEX **18** 07:40:50.0±0.9, 14.°96N×92.°79W, h93^{km}±11^{km}, MD4.1, Presumed earthquake*

*GCG **18** 07:40:50.4±1.4, 15.°08N×92.°72W, h77^{km}±10^{km}, MD4.3, Presumed earthquake*

ISC 18 07:40:48.0±1.3, **15.°00N**±0.°05×**92.°88W**±0.°04, **h84**^{km}±10^{km}, **n29, σ2.^{s}21**/48, **Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THIG		0.60	99	eP	Pn	07 41 03.7	+0.7
THIG				eS	Sn	07 41 14.8	+0.7
THIG		0.60	99	i P	Pn	07 41 04.0	+1.0
THIG				i S	Sn	07 41 13.5	-0.6
SMCA	Catarina	0.79	100	i P	Pn	07 41 05.2	+0.2
SMCA				i S	Sn	07 41 17.2	-0.4
RTAL	Retalhuleu	1.24	112	eP	Pn	07 41 10.8	+0.6
RTAL				eS	Sn	07 41 25.5	-1.4
RTAL	Retalhuleu	1.24	112	P	Pn	07 41 10.8	+0.6
RTAL				S	Sn	07 41 26.7	-0.2
HUEH	Huehuetenango	1.37	76	eP	Pn	07 41 12.8	+0.8
HUEH				eS	Sn	07 41 30.6	+0.5
HUEH	Huehuetenango	1.37	76	i P	Pn	07 41 13.0	+1.0
HUEH				i S	Sn	07 41 30.6	+0.5
HUEH	Huehuetenango	1.37	76	P	Pn	07 41 12.7	+0.7
HUEH				S	Sn	07 41 29.9	-0.1
STG8	El Palmar, Qui	1.58	110	i P	Pn	07 41 11.2	-3.5
STG8				i S	Sn	07 41 27.1	-7.8
TGIG		1.79	353	eP	Pn	07 41 18.3	+1.0
TGIG				eS	Sn	07 41 38.3	-1.1
TGIG		1.79	353	i P	Pn	07 41 18.7	+1.4
APG	El Apazote	2.33	90	i P	Pn	07 41 25.4	+0.8
FG16	Alotenango, Sa	2.40	107	i P	Pn	07 41 22.6	-3.0
FAME	Alcaldia de Sa	3.00	112	P	Pn	07 41 34.0	+0.6
FAME				S	Sn	07 42 09.0	+0.5
SLOZ	Alcaldia de Sa	3.15	107	P	Pn	07 41 36.7	+1.2
HUIG	Huatulco	3.21	284	eP	Pn	07 41 37.1	+0.9
HUIG				eS	Sn	07 42 08.9	-4.5
CEVE	Cerro Verde	3.36	110	S	Sn	07 42 18.9	+1.3
ZAFR2	Estanzuela, Za	3.44	97	eP	Pn	07 41 36.2	-3.1
ESQI	Esquipulas	3.45	97	P	Pn	07 41 40.1	+0.5
MTO3	Montecristo	3.46	99	P	Pn	07 41 39.9	+0.1
JAYA	Jayaque - finc	3.58	111	P	Pn	07 41 43.9	+2.4
JAYA				S	Sn	07 42 24.5	+1.7
PMON	Piamonte	3.68	110	P	Pn	07 41 44.5	+1.7
PMON				S	Sn	07 42 27.4	+2.1
NEUV	Arroyo Zacate	3.89	314	eP	Pn	07 41 48.7	+3.1
NEUV				eS	Sn	07 42 31.4	+1.3
SARH	Santa Rosa de	3.99	93	P	Pn	07 41 47.0	+0.1
COEG	Centro de Oper	4.11	109	S	Sn	07 42 38.1	+2.6
PEIG	Puerto Escondi	4.23	284	eP	Pn	07 41 52.2	+2.0
PEIG				eS	Sn	07 42 34.2	-4.3
VHO	Vista Hermosa	4.24	300	eP	Pn	07 41 52.5	+2.1
VHO				eS	Sn	07 42 38.2	-0.7
SCIG	Sabancuy	4.27	22	eP	Pn	07 41 50.4	-0.3
SCIG				eS	Sn	07 42 34.5	-4.7
SCIG	Sabancuy	4.27	22	P	Pn	07 41 51.2	+0.6
SCIG				S	Sn	07 42 37.7	-1.5

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*SKHL **18** 07:47:15.5±0.2, 43.°90N×148.°00E, h81^{km}±7^{km}, mb5.4/4, msh6.3/3*

SKHL Felt (II) at Gornyi.

*NIED **18** 07:47:15.9, 43.°74N×147.°87E, h73^{km}, MW4.0, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}0.32; $M_{\theta\theta}$2.39; $M_{\phi\phi}$-2.71; $M_{r\theta}$9.15; $M_{\theta\phi}$-2.27; $M_{\phi r}$0.94; Fault plane solution: $M_0$9.67000×10^{14} NP1: ϕ_s165.00000°, δ18.00000°, λ-4.00000°. NP2: ϕ_s259.00000°, δ89.00000°, λ-108.00000°.*

*MOS **18** 07:47:15.1±0.8, 43.°98N×147.°90E, h77^{km}, mb4.4/15 Error ellipse: s-maj=10.5km s-min=7.6km az=117.8*

*JMA **18** 07:47:15.9±0.5, 44°N±1°×14°8E±°, h73^{km}, MV4.2/34, E OFF HOKKAIDO*

*NEIC **18** 07:47:16.2±1.3, 44.°0N±0.°1×147.°9E±0.°2, h64^{km}±9^{km}, mb4.6/23, Error ellipse: s-maj=16.2km s-min=16.1km az=95.0*

*IDC **18** 07:47:18.1±2.5, 44.°27N×147.°93E, h74^{km}±21^{km}, mb3.9/18, mbtmp4.2/22, MS2.6/7, Error ellipse: s-maj=28.8km s-min=15.5km az=170.0*

ISC 18 07:47:15.2±1.0, **43.°87N**±0.°05×**147.°97E**±0.°06, **h67**^{km}±8^{km}, **n123, σ1.^{s}39**/123, **mb4.3**/39, **6C-2D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	Kuril'sk	1.36	357	d iPN	Pn	07 47 37.5	-0.7
KUR				i S	Sn	07 47 54.6	-0.9
KUR				pmax	pmax		
	comp=Z,535nm,0.3s						
KUR				pmax	pmax		
	comp=N,284nm,0.2s						
KUR				pmax	pmax		
	comp=E,200nm,0.2s						
KUR				smax	smax		
	comp=N,3μm,0.2s						
KUR				smax	smax		
	comp=E,2μm,0.2s						
KUR	Kuril'sk	1.36	357	i P	Pn	07 47 38.0	-0.2
KUR				AMB	AMB	07 47 41.5	
	comp=E,540nm,0.3s						
KUR				i S	Sn	07 47 54.6	-0.9
KUR				A	A	07 47 57.5	
	comp=E,3μm,0.2s						
KUR				A	A	07 47 57.5	
	comp=E,2μm,0.2s						
REI	Reidovoe	1.40	1	eP	Pn	07 47 38.5	-0.2
REI				AMB	AMB	07 47 38.9	
	comp=E,510nm,0.2s						
REI				eS	Sn	07 47 55.7	-0.6
REI				A	A	07 47 56.3	
	comp=E,1μm,0.2s						
REI				A	A	07 47 56.3	
	comp=E,1μm,0.2s						
YUK	Yuzh-Kuril'sk	1.53	277	i PN	Pn	07 47 40.1	-0.4
YUK	Yuzh-Kuril'sk	1.53	277	i P	Pn	07 47 40.1	-0.4
YUK				AMB	AMB	07 47 42.1	
	comp=E,900nm,0.2s						
YUK				i S	Sn	07 47 58.6	-1.0
YUK				A	A	07 47 59.7	
	comp=E,2μm,0.3s						
YUK				A	A	07 47 59.7	
	comp=E,7μm,0.3s						
NEM2	Nemuro 2	1.70	253	P	Pn	07 47 41.8	-0.9
NEM2				S	Sn	07 48 01.4	-2.0
NMR	Nemuro--Hokkai	1.71	254	⇑iPN	Pn	07 47 41.7	-1.1
NMR				i S	Sn	07 48 01.4	-2.3
NMR	Nemuro--Hokkai	1.71	254	i P	Pn	07 47 41.7	-1.1
NMR				i S	Sn	07 48 01.4	-2.3
RUSJ	Misakicho	1.98	278	⇓iPN	Pn	07 47 47.3	+0.8
RUSJ				i S	Sn	07 48 11.6	+1.3
JRA	Rausu	2.06	273	P	Pn	07 47 48.1	+0.5
JNSB	Nemuroshibetsu	2.15	268	P	Pn	07 47 49.3	+0.5
JNSB				eS	Sn	07 48 15.0	+0.6
JNK	Nakash	2.38	264	P	Pn	07 47 51.9	0.0
AKK	Akkeshi	2.44	251	eP	Pn	07 47 52.0	-0.6
JAK	Akkeshi	2.54	251	P	Pn	07 47 53.5	-0.6
JAK				S	Sn	07 48 22.2	-1.7
JTKR	Abashiri--Toko	2.94	273	P	Pn	07 48 00.6	+1.1
JAR	Ashorobuto	3.11	261	P	Pn	07 48 02.8	+1.0
JAR				S	Sn	07 48 39.3	+1.5
JOB	Onbets	3.17	254	P	Pn	07 48 02.9	+0.3
JCH	Churui	3.60	251	P	Pn	07 48 09.1	+0.6
JCH				S	Sn	07 48 47.9	-1.8
JKA	Kamikawa-asahi	3.89	275		Pn	07 48 13.2	+0.8
JKA	Kamikawa-asahi	3.89	275	eP	Pn	07 48 14.4	+2.0
ASAJ	Asahikawa	3.89	275	P	Pn	07 48 14.3	+1.9
	comp=E,3.1nm,0.3s,baz=68,slow=11,SNR=9.3						
ASAJ				S	Sn	07 49 06.4	+10
	comp=E,22nm,0.6s,baz=261,slow=9.2,SNR=4.4						
ERM	Erimo	3.99	244	i PN	Pn	07 48 15.3	+1.4
ERM	Erimo	3.99	244	Pn	Pn	07 48 15.1	+1.2
YSS	Yuzhno-Sakhali	4.80	312	ePN	Pn	07 48 26.4	+1.6
YSS				eS	Sn	07 49 21.8	+2.8
YSS				pmax	pmax		
	comp=Z,30nm,0.5s						
YSS				smax	smax		
	comp=N,30nm,0.5s						
YSS				smax	smax		
	comp=E,30nm,0.7s						
YSS	Yuzhno-Sakhali	4.80	312		Pn	07 48 23.6	-1.2
YSS	Yuzhno-Sakhali	4.80	312	eP	Pn	07 48 26.4	+1.6
JTM	Tenmabayashi	5.97	241	Pn	Pn	07 48 41.0	0.0
TYV	Tymovskoe	7.87	335	ePN	Pn	07 49 06.2	-0.6
TYV				pmax	pmax		
	comp=Z,7.0nm,1.2s						
TYV				pmax	pmax		
	comp=Z,100nm,2.3s						
TYV	Tymovskoe	7.87	335	eP	Pn	07 49 08.1	+1.3
TYV				eS	Sn	07 50 31.6	-2.7
TEY	Ternei	8.22	282	ePN	Pn	07 49 18.4	+6.8
MJAR	Matsushiro Arr	10.45	229	P	Pn	07 49 48.8	+6.6
	comp=Z,1.0nm,0.3s,baz=27,slow=14,SNR=4.2						
MJAR				LR	LR	07 54 27.8	
	comp=Z,35nm,19.0s,baz=48,slow=40						
PEA0B	Petropavlovsk-	11.26	31	cePN	Pn	07 50 01.5	+8.4
PEA0B	Petropavlovsk-	11.26	31	Pn	Pn	07 49 48.0	-5.1
PETK	Petropavlovsk-	11.26	31	P	Pn	07 49 50.9	-2.3
	comp=Z,2.2nm,0.5s,baz=195,slow=11,SNR=5.1						
PETK				LR	LR	07 53 57.1	
	comp=Z,36nm,21.0s,baz=210,slow=36						
PETK	Petropavlovsk-	11.26	31	Pn	Pn	07 49 48.7	-4.4
KLR	Kul'dur	12.38	301	LR	LR	07 55 14.2	
	comp=Z,39nm,19.1s,baz=176,slow=39						
MA2	Magadan	15.82	5	P	Pn	07 50 52.8	-0.7
	comp=Z,8.1nm,0.7s,baz=156,slow=8.8,SNR=5.0						
MA2				LR	LR	07 56 11.5	
	comp=Z,22nm,20.8s,baz=126,slow=35						
MA2	Magadan	15.82	5	ceP	Pn	07 50 53.0	-0.6
MA2				pmax	pmax		
	comp=Z,22nm,2.5s						
MA2	Magadan	15.82	5	eP	Pn	07 50 53.0	-0.6
KSRS	Korea Array	16.49	254	LR	LR	07 57 31.2	
	comp=Z,13nm,18.2s,baz=30,slow=37						
KSAR	Wonju Array Be	16.52	254	P	P	07 51 04.1	0.0
KSAR	Wonju Array Be	16.52	254		P	07 51 04.1	0.0
INCN	Inchon	17.38	256	P	P	07 51 14.4	+0.8
INCN				pmax	pmax		
	comp=Z,37nm,1.1s						
INCN	Inchon	17.38	256		P	07 51 14.4	+0.8

INCN				IAmb	IAmb	07 51 55.6	
	comp=Z,37nm,1.1s						
SEY	**Seymchan**	**19.27**	**6**	P	**P**	**07 51 33.4**	**-0.7**
	comp=Z,1.7nm,0.3s,baz=193,slow=8.8,SNR=6.0						
SEY	**Seymchan**	**19.27**	**6**	*ce*P	**Pn**	**07 51 36.2**	**+0.5**
SEY				pmax	pmax		
	comp=Z,4.0nm,1.3s						
SEY	**Seymchan**	**19.27**	**6**	*e*P	**Pn**	**07 51 36.2**	**+0.5**
YAK	**Yakutsk**	**21.13**	**336**	P	**P**	**07 51 51.3**	**-2.8**
	comp=Z,17nm,0.4s,baz=140,slow=1.2,SNR=5.4						
YAK				LR	LR	07 59 53.3	
	comp=Z,33nm,18.7s,baz=72,slow=36						
	comp=Z,17nm,0.4s						
YAK	**Yakutsk**	**21.13**	**336**	*e*P	**P**	**07 51 52.9**	**-1.3**
YAK				*e*S	**S**	**07 55 39.5**	**-5.7**
YAK				*e*		07 56 00.0	
YAK				*e**SS	**sS**	**07 56 11.1**	**+3.3**
YAK				*e*		08 03 09.6	
YAK				pmax	pmax		
	comp=Z,24nm,0.9s						
YAK				pmax	pmax		
	comp=N,3.0nm,1.1s						
YAK				pmax	pmax		
	comp=E,2.0nm,1.3s						
YAK				smax	smax		
	comp=E,34nm,2.0s						
YAK				smax	smax		
	comp=N,19nm,1.9s						
YAK	**Yakutsk**	**21.13**	**336**	P	**P**	**07 51 51.4**	**-2.7**
YAK				IAmb	IAmb	07 51 53.3	
	comp=Z,30nm,0.8s						
BILL	**Bilibino**	**26.08**	**16**	*i* P	**P**	**07 52 48.5**	**+6.4**
BILL				pmax	pmax		
	comp=Z,4.0nm,1.1s						
H11N2	**WAKE ISLAND Hy**	**28.81**	**141**	T	T	08 24 01.3	
	baz=331,slow=76,SNR=197						
H11N1	**WAKE ISLAND Hy**	**28.82**	**141**	T	T	08 23 57.9	
	baz=331,slow=76,SNR=155						
H11N3	**WAKE ISLAND Hy**	**28.83**	**141**	T	T	08 23 57.5	
	baz=331,slow=76,SNR=226						
SONM	**Songino Array**	**28.97**	**293**	P	**P**	**07 53 09.4**	**+1.0**
	comp=Z,1.2nm,0.5s,baz=89,slow=8.3,SNR=6.0						
	comp=Z,1.2nm,0.5s						
SONM	**Songino Array**	**28.97**	**293**	P	**P**	**07 53 09.2**	**+0.8**
H11S1	**WAKE ISLAND Hy**	**29.79**	**142**	T	T	08 25 06.9	
	baz=332,slow=76,SNR=182						
H11S3	**WAKE ISLAND Hy**	**29.80**	**142**	T	T	08 25 11.4	
	baz=332,slow=76,SNR=207						
H11S2	**WAKE ISLAND Hy**	**29.81**	**142**	T	T	08 25 08.2	
	baz=332,slow=76,SNR=157						
GUMO	**Guam**	**30.30**	**186**	LR	LR	08 04 54.2	
	comp=Z,8.8nm,19.2s,baz=317,slow=34						
F17K	**Baldwin Pennin**	**35.30**	**33**	P	**P**	**07 54 04.2**	**+1.0**
R16K	**Pilot Point**	**36.06**	**48**	P	**P**	**07 54 11.4**	**+1.4**
H18K	**Honhosa River**	**36.20**	**35**	P	**P**	**07 54 11.4**	**+0.4**
H18K				IAmb	IAmb	07 54 30.2	
	comp=Z,11nm,1.1s						
G18K	**Tagagawik**	**36.21**	**34**	P	**P**	**07 54 12.1**	**+1.0**
F19K	**Shaleruckik Mo**	**36.73**	**32**	P	**P**	**07 54 15.5**	**0.0**
F19K				IAmb	IAmb	07 54 17.1	
	comp=Z,5.8nm,0.7s						
E19K	**Redstone River**	**37.06**	**32**		**P**	**07 54 19.2**	**+0.8**
D20K	**Etivluk River**	**37.55**	**30**	P	**P**	**07 54 23.1**	**+0.6**
D20K				IAmb	IAmb	07 54 26.6	
	comp=Z,6.3nm,1.1s						
CAST	**Castle Rocks**	**38.76**	**38**	P	**P**	**07 54 34.4**	**+1.6**
E22K	**Anaktuvuk Pass**	**39.20**	**31**	P	**P**	**07 54 37.1**	**+0.7**
E22K				IAmb	IAmb	07 54 38.4	
	comp=Z,5.7nm,0.8s						
NRIK	**Noril'sk**	**39.43**	**331**	*i* P	**P**	**07 54 37.1**	**-1.1**
NRIK				pmax	pmax		
	comp=Z,3.0nm,1.1s						
E23K	**Chandalar**	**40.02**	**31**		**P**	**07 54 44.2**	**+1.0**
E23K				IAmb	IAmb	07 54 45.4	
	comp=Z,6.5nm,0.8s						
D24K	**Happy Valley**	**40.40**	**30**	P	**P**	**07 54 47.3**	**+1.1**
D24K				IAmb	IAmb	07 54 52.5	
	comp=Z,11nm,1.1s						
E24K	**Your Creek**	**40.44**	**31**	P	**P**	**07 54 47.3**	**+0.6**
E24K				IAmb	IAmb	07 54 49.0	
	comp=Z,6.8nm,0.7s						
F24K	**Squaw Lake**	**40.64**	**32**		**P**	**07 54 49.1**	**+0.8**
DGZ	**Jazzator, Alta**	**40.87**	**300**	*i* P	**P**	**07 54 50.0**	**-0.6**
DGZ				pmax	pmax		
	comp=Z,1.0nm,0.9s						
ILAR	**Eielson Array**	**41.04**	**36**	P	**P**	**07 54 51.5**	**-0.1**
	comp=Z,0.9nm,0.5s,baz=276,slow=7.9,SNR=4.3						
	comp=Z,0.9nm,0.5s						
ILAR	**Eielson Array**	**41.04**	**36**	*e*P	**P**	**07 54 54.4**	**+2.9**
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
E29M	**Blow River**	**44.38**	**31**	P	**P**	**07 55 20.0**	**+1.5**
E29M				IAmb	IAmb	07 55 21.4	
	comp=Z,7.6nm,0.8s						
MK31	**Makanchi Array**	**45.06**	**298**	*ce*P	**P**	**07 55 22.9**	**-1.4**
MKAR	**Makanchi Array**	**45.06**	**298**	P	**P**	**07 55 25.1**	**+0.8**
	comp=Z,1.2nm,0.5s,baz=80,slow=8.0,SNR=12						
	comp=Z,1.2nm,0.5s						
KURK	**Kurchatov**	**45.96**	**304**	*ce*P	**P**	**07 55 30.8**	**-0.4**
KURK				pmax	pmax		
	comp=Z,2.0nm,0.9s						
KURK	**Kurchatov**	**45.96**	**304**	*e*P	**P**	**07 55 30.8**	**-0.4**
KURBB	**Kurchatov Arra**	**46.04**	**304**	P	**P**	**07 55 31.6**	**-0.3**
	comp=Z,1.9nm,0.5s,baz=73,slow=9.1,SNR=5.5						
	comp=Z,1.9nm,0.5s						
BVAR	**Borovoye Array**	**49.89**	**310**	P	**P**	**07 56 02.5**	**+0.9**
	comp=Z,1.5nm,0.6s,baz=78,slow=6.8,SNR=5.5						
	comp=Z,1.5nm,0.6s						
BORK	**Borovoye**	**49.92**	**310**	*i* P	**P**	**07 56 01.2**	**-0.6**
BORK				pmax	pmax		
	comp=Z,2.0nm,1.0s						
AAK	**Ala-Archa**	**51.84**	**296**	*i* P	**P**	**07 56 15.7**	**-0.9**
AAK				pmax	pmax		
	comp=Z,1.0nm,1.2s						
AAK	**Ala-Archa**	**51.84**	**296**	*e*P	**P**	**07 56 15.7**	**-0.9**
ARTI	**Arti**	**54.77**	**317**	P	**P**	**07 56 36.9**	**-0.8**
	comp=Z,2.7nm,0.5s,baz=104,slow=16,SNR=3.6						
	comp=Z,2.7nm,0.5s						
ARTI	**Arti**	**54.77**	**317**	P	**P**	**07 56 35.5**	**-2.2**
AB31	**Akbulak array**	**57.45**	**309**	P	**P**	**07 56 57.5**	**+0.7**
ABKAR	**Akbulak array**	**57.45**	**309**	P	**P**	**07 56 57.3**	**+0.4**
AKTO	**Aktyubinsk**	**57.91**	**311**	P	**P**	**07 56 59.6**	**-0.5**
	comp=Z,0.8nm,0.3s,baz=69,slow=5.4,SNR=3.7						
	comp=Z,0.8nm,0.3s						
NEEM	**North Greenlan**	**58.38**	**5**	*i* P	**P**	**07 57 03.2**	**-0.1**
NLWA	**Neilton Lookou**	**58.50**	**53**	P	**P**	**07 57 05.1**	**+0.8**
NLWA				IAmb	IAmb	07 57 32.2	
	comp=Z,6.5nm,1.2s						
ARCES	**ARCESS Array B**	**59.34**	**340**	P	**P**	**07 57 08.4**	**-1.4**
	comp=Z,7.3nm,1.0s,baz=39,slow=7.3,SNR=9.0						
	comp=Z,7.3nm,1.0s						
BLKN	**Baker Lake**	**61.10**	**27**	P	**P**	**07 57 21.3**	**-0.4**
BELG	**Belogornoye**	**62.22**	**317**	*i* P	**P**	**07 57 29.5**	**0.0**
SUMG	**Summit**	**63.77**	**2**	P	**P**	**07 57 40.1**	**+0.1**
SUMG				pmax	pmax		
	comp=Z,4.0nm,0.7s						
SUMG	**Summit**	**63.77**	**2**	P	**P**	**07 57 40.1**	**+0.1**
SUMG				IAmb	IAmb	07 57 42.7	
	comp=Z,4.0nm,0.7s						
SUMG	**Summit**	**63.77**	**2**	*i* P	**P**	**07 57 40.9**	**+0.9**
FINES	**FINESS Array B**	**65.04**	**333**	P	**P**	**07 57 47.9**	**0.0**
	comp=Z,2.0nm,0.6s,baz=38,slow=9.6,SNR=7.8						
	comp=Z,2.0nm,0.6s						
OBN	**Obninsk**	**65.57**	**324**	*i* P	**P**	**07 57 52.4**	**+1.0**
OBN				pmax	pmax		
	comp=Z,3.0nm,0.8s						
OBN	**Obninsk**	**65.57**	**324**	*e*P	**P**	**07 57 52.4**	**+1.0**
KVN	**Kaiserville**	**66.75**	**58**	P	**P**	**07 57 59.7**	**+0.1**
KVN				pmax	pmax		
	comp=Z,3.0nm,1.0s						
KVN	**Kaiserville**	**66.75**	**58**	P	**P**	**07 57 59.7**	**+0.1**
NVAR	**Mina Array Bea**	**67.01**	**58**	P	**P**	**07 58 02.5**	**+1.2**
	comp=Z,0.8nm,0.5s,baz=303,slow=8.2,SNR=8.6						
	comp=Z,0.8nm,0.5s						
NVAR	**Mina Array Bea**	**67.01**	**58**	P	**P**	**07 58 01.8**	**+0.6**
PDAR	**Pinedale Array**	**69.38**	**50**	P	**P**	**07 58 16.6**	**+0.6**
	comp=Z,0.6nm,0.6s,baz=301,slow=3.0,SNR=6.2						
	comp=Z,0.6nm,0.6s						
NB2	**NORSAR Subarra**	**69.70**	**339**	P	**P**	**07 58 17.1**	**-0.4**
	comp=Z,2.0nm,0.5s,baz=32,slow=6.5						
NOA	**NORSAR Array B**	**69.70**	**339**	P	**P**	**07 58 17.9**	**+0.4**
	comp=Z,2.1nm,0.7s,baz=31,slow=6.2,SNR=11						
	comp=Z,2.1nm,0.7s						
HFS	**Hagfors**	**69.81**	**338**	P	**P**	**07 58 18.2**	**+0.1**
	comp=Z,1.3nm,0.3s,baz=34,slow=5.6,SNR=11						
	comp=Z,1.3nm,0.3s						
KIV	**Kislovodsk**	**70.12**	**312**	*e*P	**P**	**07 58 19.9**	**-0.5**
KIV				pmax	pmax		
	comp=Z,6.0nm,1.0s						
KIV	**Kislovodsk**	**70.12**	**312**	*e*P	**P**	**07 58 19.9**	**-0.5**
KBZ	**Khabaz**	**70.16**	**312**	*i* P	**P**	**07 58 20.0**	**-0.5**
KBZ				pmax	pmax		
	comp=Z,5.0nm,1.1s						
KBZ	**Khabaz**	**70.16**	**312**	*e*P	**P**	**07 58 20.0**	**-0.5**
AKASG	**Malin Array Be**	**71.83**	**324**	P	**P**	**07 58 30.7**	**+0.2**
	comp=Z,0.8nm,0.3s,baz=40,slow=6.1,SNR=7.6						
	comp=Z,0.8nm,0.3s						
PV17	**East Wray Mesa**	**72.70**	**53**	P	**P**	**07 58 36.7**	**+0.5**
PV17				IAmb	IAmb	07 58 58.9	
	comp=Z,7.9nm,1.4s						
CLL	**Collm**	**77.48**	**333**	*i* P	**P**	**07 59 03.8**	**+0.6**
EKA	**Eskdalemuir Ar**	**78.18**	**344**	P	**P**	**07 59 07.3**	**+0.3**
	comp=Z,0.7nm,0.5s,baz=21,slow=4.7,SNR=4.9						
	comp=Z,0.7nm,0.5s						
GERES	**GERESS Array B**	**79.34**	**331**	P	**P**	**07 59 12.8**	**-0.8**
	comp=Z,1.0nm,0.4s,baz=39,slow=4.6,SNR=3.1						
	comp=Z,1.0nm,0.4s						
TXAR	**Lajitas Array**	**82.08**	**57**	P	**P**	**07 59 29.2**	**+0.6**
	comp=Z,1.0nm,0.6s,baz=313,slow=4.6,SNR=4.8						
	comp=Z,1.0nm,0.6s						
H03N2	**Juan Fernandez**	**142.37**	**90**	T	T	10 45 51.5	
	baz=313,slow=76,SNR=16						
H03N1	**Juan Fernandez**	**142.38**	**90**	T	T	10 45 52.7	
	baz=309,slow=76,SNR=14						

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*SDD **18** 07:49:20.0±2.2, 18°.77N×70°.76W, h30^{km}±10^{km}, MD2.9, ML2.2, MW2.8, Presumed earthquake*

*OSPL **18** 07:49:23.3±1.2, 18°.69N×70°.78W, h15^{km}±6^{km}, ML1.8, Presumed earthquake*

ISC 18 07:49:22.4±0.9, **18°.71N**±0°.04×**70°.78W**±0°.02, **h15**^{km}±8^{km}, **n16**, σ**0^{s}.84**/25, **8C-7D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ABDR	**Alto Bandera**	**0.18**	**57**	⇑*e*Pg	**Pg**	**07 49 26.9**	**-0.1**
ABDR				⇓*e*Sg	**Sg**	**07 49 30.3**	**+0.3**
ABDR				IAML		07 49 30.4	
	comp=N,1μm,0.5s						
BANI	**BANI**	**0.52**	**128**	⇑*e*Pg	**Pg**	**07 49 33.0**	**+0.4**
BANI				⇓*e*Sg	**Sb**	**07 49 41.6**	**+1.0**
BANI				IAML		07 49 43.9	
	comp=N,130nm,0.5s						
SDDR	**Presa de Saban**	**0.55**	**299**	*i* P	**Pg**	**07 49 32.8**	**-0.5**
SDDR				*e*S	**Sg**	**07 49 41.1**	**+0.5**
SDDR				IAML		07 49 44.8	
	comp=Z,49nm,0.5s						
SDDR	**Presa de Saban**	**0.55**	**299**	⇓*e*Pg	**Pg**	**07 49 33.0**	**-0.2**
SDDR				⇓*e*Sg	**Sg**	**07 49 41.7**	**+1.2**
SDDR				IAML		07 49 44.2	
	comp=N,97nm,0.5s						
NEDR	**Neiba UASD**	**0.64**	**249**	⇑*e*Pg	**Pg**	**07 49 35.0**	**0.0**
NEDR				IAML		07 50 04.4	
	comp=N,26nm,0.3s						
SC01	**Santiago de lo**	**0.71**	**4**	*i* P	**Pg**	**07 49 36.3**	**0.0**
SC01				*e*S	**Sg**	**07 49 47.2**	**+1.5**
SC01				IAML		07 49 50.2	
	comp=Z,37nm,0.3s						
PODR	**Polo**	**0.72**	**221**	⇑*e*Pg	**Pg**	**07 49 36.1**	**-0.4**
LODU1	**El Espartillar**	**0.75**	**241**	*i* P	**Pg**	**07 49 36.8**	**-0.2**
LODU1				IAML		07 49 51.3	
	comp=Z,50nm,0.7s						
DR08	**Loma La Naviza**	**0.76**	**71**	⇑*e*Pg	**Pg**	**07 49 36.2**	**-1.0**
DR08				⇓*e*Sg	**Sg**	**07 49 47.1**	**-0.2**
DR08				IAML		07 49 55.2	
	comp=N,522nm,0.2s						
SDD	**Santo Domingo**	**0.86**	**107**	*i* P	**Pb**	**07 49 38.1**	**-1.0**
SDD				*e*S	**Sb**	**07 49 49.3**	**-1.2**
SDD				IAML		07 49 53.6	
	comp=Z,32nm,0.3s						
JIDR	**Jimani**	**1.04**	**258**	⇑*e*Pg	**Pb**	**07 49 41.5**	**-0.6**
JIDR				⇓*e*Sg	**Sb**	**07 49 56.0**	**+0.5**
JIDR				IAML		07 49 58.2	
	comp=N,43nm,0.2s						
LOVI	**El Cajuil, Ovi**	**1.07**	**211**	*i* P	**Pb**	**07 49 41.9**	**-0.7**
LOVI				IAML		07 50 03.0	
	comp=Z,22nm,2.0s						
LOBH	**Bahia de las A**	**1.17**	**224**	*i* P	**Pn**	**07 49 43.7**	**-0.6**
LOBH				IAML		07 50 08.2	
	comp=Z,20nm,1.2s						
LOPP1	**Punta Rusia, P**	**1.20**	**341**	*i* P	**Pn**	**07 49 43.9**	**-0.8**
LOPP1				IAML		07 50 05.3	
	comp=Z,28nm,1.0s						
HATOM	**Hato Mayor del**	**1.33**	**87**	⇑*e*Pg	**Pn**	**07 49 46.3**	**-0.2**
HATOM				IAML		07 50 06.8	
	comp=N,25nm,0.6s						
HIDR	**Higuey Centro**	**1.96**	**93**	⇑*e*Pg	**Pn**	**07 49 56.3**	**+1.1**
HIDR				⇓*e*Sg	**Sn**	**07 50 21.1**	**+1.6**
HIDR				IAML		07 50 25.1	
	comp=N,20nm,0.7s						

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*KRNET **18** 08:07:34.6±0.1, 43°.01N×76°.91E, h22^{km}, mb2.6*

*NNC **18** 08:07:34.4±0.4, 42°.97N×76°.91E, h0^{km}, mpv2.7, Error ellipse: s-maj=3.4km s-min=1.9km az=160.0*

*SOME **18** 08:07:34.8, 43°.00N×76°.87E, h10^{km}*

ISC 18 08:07:34.6±0.9, **42°.99N**±0°.03×**76°.91E**±0°.02, **h12**^{km}±8^{km}, **n21**, σ**0^{s}.36**/41, **8C-6D, Lake Issyk-Kul region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MDOK	**Medeo**	**0.20**	**30**	Pg	**Pg**	**08 07 38.9**	**-0.2**
	22nm,0.2s						
MDOK				Lg	Lg	08 07 41.7	
	29nm,0.1s						
MDOK	**Medeo**	**0.20**	**30**	*e*P	**Pg**	**08 07 38.9**	**-0.2**
	22nm,0.2s						
MDOK				*e*S	**Sg**	**08 07 41.6**	**-0.6**
	29nm,0.1s						
AAA	**Alma-Ata**	**0.22**	**1**	P	**Pg**	**08 07 39.6**	**+0.2**
	33nm,0.1s						
AAA				S	**Sg**	**08 07 43.0**	**+0.4**
	9.4nm,0.1s						
AAA	**Alma-Ata**	**0.22**	**1**	*e*P	**Pg**	**08 07 39.6**	**+0.2**
	33nm,0.1s						
AAA				*e*S	**Sg**	**08 07 43.0**	**+0.4**
	9.4nm,0.1s						
KOTS	**Kotyrbulak**	**0.29**	**31**	P	**Pg**	**08 07 40.7**	**+0.1**
	5.7nm,0.2s						
KOTS				S	**Sg**	**08 07 44.8**	**+0.2**
	45nm,0.3s						
KOTS	**Kotyrbulak**	**0.29**	**31**	*e*P	**Pg**	**08 07 40.7**	**+0.1**
KOTS				*e*S	**Sg**	**08 07 44.8**	**+0.2**
KOTS	**Kotyrbulak**	**0.29**	**31**	*e*P	**Pg**	**08 07 40.7**	**+0.1**
	5.7nm,0.2s						
KOTS				*e*S	**Sg**	**08 07 44.8**	**+0.2**
	45nm,0.3s						
ANVS	**Anan'yevo**	**0.59**	**110**	⇓*i*P	**Pg**	**08 07 45.9**	**-0.3**
ANVS				⇓*i*S	**Sg**	**08 07 54.4**	**+0.3**
KST	**Kastek**	**0.70**	**275**	P	**Pg**	**08 07 48.1**	**0.0**
	0.7nm,0.1s						
KST				S	**Sg**	**08 07 57.5**	**+0.2**
	6.0nm,0.4s						
KST	**Kastek**	**0.70**	**275**	*e*P	**Pg**	**08 07 48.1**	**0.0**
	0.7nm,0.1s						
KST				*e*S	**Sg**	**08 07 57.5**	**+0.2**
	6.0nm,0.4s						
BOOM	**Boomskoye usch**	**0.87**	**235**	⇑*e*P	**Pg**	**08 07 51.3**	**-0.2**
BOOM				⇑*e*S	**Sg**	**08 08 03.1**	**+0.2**
KDJ	**Kajisay**	**0.88**	**167**	⇑*i*P	**Pg**	**08 07 51.6**	**0.0**
KDJ				⇑*i*S	**Sg**	**08 08 03.8**	**+0.6**
TKM2	**Tokmak 2**	**0.97**	**266**	⇓*i*P	**Pg**	**08 07 52.9**	**-0.4**
TKM2				⇓*i*S	**Sb**	**08 08 06.2**	**0.0**
SATY	**Saty**	**1.10**	**86**	P	**Pg**	**08 07 55.7**	**-0.1**
	0.2nm,0.0s						
SATY				S	**Sb**	**08 08 10.4**	**+0.5**
	8.5nm,0.1s						
SATY	**Saty**	**1.10**	**86**	*e*P	**Pg**	**08 07 55.7**	**-0.1**
	0.2nm,0.0s						
SATY				*e*S	**Sb**	**08 08 10.4**	**+0.5**
	8.5nm,0.1s						
PRZ	**Przheval'sk**	**1.21**	**114**	⇑*e*P	**Pb**	**08 07 56.6**	**-0.9**
PRZ				⇑*e*S	**Sb**	**08 08 13.3**	**+0.2**
ARXS	**Arharly**	**1.39**	**28**	P	**Pn**	**08 08 00.2**	**+0.3**
	1.0nm,0.2s						
ARXS				S	**Sb**	**08 08 18.2**	**-0.2**
	6.0nm,0.3s						
ARXS	**Arharly**	**1.39**	**28**	*e*P	**Pn**	**08 08 00.2**	**+0.3**
	1.0nm,0.2s						
ARXS				*e*S	**Sb**	**08 08 18.2**	**-0.2**
	6.0nm,0.3s						
TARG	**Taragay, Kyrgy**	**1.42**	**152**	⇑*i*P	**Pn**	**08 08 01.1**	**+0.5**
TARG				⇑*i*S	**Sb**	**08 08 19.9**	**+0.4**
SGDS	**Sogindy**	**1.73**	**286**	P	**Pb**	**08 08 06.2**	**-0.2**
	1.1nm,0.2s						
SGDS				S	**Sb**	**08 08 28.7**	**+0.7**
	2.6nm,0.3s						
USP	**Ospenovka**	**1.79**	**280**	⇓*i*P	**Pb**	**08 08 06.5**	**-0.8**
USP				⇓*i*S	**Sb**	**08 08 29.4**	**-0.3**

IDC 18 08:08:39.3±11.0, **5°.69S**×**129°.01E**, **h373**^{km}±151^{km}, **mb2.9**/1, **mbtmp3.3**/3, **Error ellipse: s-maj=168.7km s-min=55.2km az=68.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**15.09**	**160**	P	P	08 11 52.2	-1.6
	0.4nm,0.9s,baz=341,slow=12,SNR=1.5						
WRA				S	S	08 14 33.9	-1.2
	0.1nm,0.3s,baz=341,slow=26,SNR=4.8						
ASAR	**Alice Springs**	**18.48**	**166**	P	P	08 12 31.2	+0.9
	0.3nm,0.6s,baz=353,slow=10,SNR=7.5						
MKAR	**Makanchi Array**	**66.60**	**327**	P	P	08 18 50.6	0.0
	0.2nm,0.3s,baz=116,slow=8.0,SNR=4.3						
	0.2nm,0.3s						

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*IDC **18** 08:19:14.3±3.5, 55°.20N×158°.17W, h0^{km}, mb3.3/3, mbtmp3.5/6, ML3.4/3, MS3.3/1, Error ellipse: s-maj=57.3km s-min=21.0km az=97.0*

*AEIC **18** 08:19:15.5±1.3, 55°.08N±0°.04×158°.52W±0°.06, h32^{km}±4^{km}, Error ellipse: s-maj=6.7km s-min=4.5km az=155.0*

*NEIC **18** 08:19:16.0±1.3, 55°.05N±0°.04×158°.47W±0°.05, h36^{km}±27^{km}, mb3.5/10, ML3.5/36, ML3.4(AEIC), Error ellipse: s-maj=5.7km s-min=3.6km az=201.0*

ISC 18 08:19:14.6±1.5, **55°.09N**±0°.05×**158°.45W**±0°.03, **h23**^{km}±14^{km}, **n96**, σ**1^{s}.16**/104, **mb3.4**/3, **Alaska Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CHNA	**Chernabura Isl**	**0.70**	**249**	P	**Pn**	**08 19 27.9**	**-1.2**
CHNA	**Chernabura Isl**	**0.70**	**249**	S	**Sb**	**08 19 36.5**	**-0.9**
CNBA	**Chernabura Isl**	**0.71**	**248**		**Pn**	**08 19 27.9**	**-1.3**
CNBA				Sn	**Sb**	**08 19 36.4**	**-1.1**
VNKR	**Veniaminof 5**	**1.08**	**332**		**Pn**	**08 19 34.5**	**+0.2**
VNSW	**Veniaminof 7**	**1.17**	**328**		**Pn**	**08 19 36.2**	**+0.6**
SDPT	**Sand Point**	**1.19**	**284**	P	**Pn**	**08 19 35.3**	**-0.5**
SDPT	**Sand Point**	**1.19**	**284**	S	**Sb**	**08 19 51.6**	**+0.3**
SDPT	**Sand Point**	**1.19**	**284**		**Pn**	**08 19 35.0**	**-0.7**
SDPT				Sn	**Sn**	**08 19 50.2**	**-1.0**
SDPT				IAML		08 19 57.0	
	comp=E,799nm,0.8s						
VNHG	**Veniaminof 1**	**1.21**	**341**		**Pn**	**08 19 37.0**	**+0.9**
CHGN	**Chignik**	**1.22**	**1**	Pn	**Pn**	**08 19 36.1**	**-0.1**
CHGN				Sn	**Sn**	**08 19 50.7**	**-1.2**
CHGN				IAML		08 19 54.2	
	comp=N,2μm,0.5s						
VNSS	**Veniaminof 8**	**1.28**	**334**		**Pn**	**08 19 38.0**	**+0.8**
VNFG	**Fog Glacier, M**	**1.35**	**333**		**Pn**	**08 19 39.1**	**+1.0**
VNFG	**Fog Glacier, M**	**1.35**	**333**		**Sn**	**08 19 55.9**	**+0.5**
VNFG	**Fog Glacier, M**	**1.35**	**333**		**Pb**	**08 19 39.7**	**+0.4**
BPBCA	**Veniaminof**	**1.51**	**360**		**Pn**	**08 19 40.9**	**+0.7**
ANPK	**Aniakchak Peak**	**1.77**	**6**		**Pn**	**08 19 45.2**	**+1.4**
CHIR	**Chirikof Islan**	**1.77**	**64**	P	**Pn**	**08 19 44.2**	**+0.5**
CHIR	**Chirikof Islan**	**1.77**	**64**	Pn	**Pn**	**08 19 44.3**	**+0.5**
CHIR				Sn	**Sn**	**08 20 04.6**	**-1.0**
CHIR				IAML		08 20 18.1	
	comp=E,776nm,0.7s						
CHIR				IAML		08 20 26.3	
	comp=N,461nm,0.6s						
PS1A	**Pavlof South-1**	**1.91**	**281**		**Pn**	**08 19 46.5**	**+0.8**
PS1A					**Sn**	**08 20 09.7**	**+0.6**
PVV	**Pavlof Volcano**	**1.93**	**280**		**Pn**	**08 19 46.8**	**+0.8**
DOL	**Dolgoi Island**	**1.96**	**273**		**Pn**	**08 19 46.8**	**+0.4**
PS4A	**Pavlof South-4**	**1.97**	**279**		**Pn**	**08 19 47.0**	**+0.5**
HAG	**Hague Volcano**	**1.99**	**278**		**Pn**	**08 19 47.3**	**+0.5**
PN7A	**Pavlof North-7**	**2.06**	**281**		**Pn**	**08 19 48.9**	**+1.1**
S12K	**Black Hills**	**2.15**	**288**		**Pn**	**08 19 49.1**	**+0.1**
S12K					**Sn**	**08 20 15.0**	**+0.1**
S12K	**Black Hills**	**2.15**	**288**	IAML		08 20 23.7	
	comp=N,626nm,0.5s						
DTNA	**Dutton South F**	**2.18**	**273**		**Pn**	**08 19 49.9**	**+0.4**
DTNA					**Sn**	**08 20 16.1**	**+0.4**
DT1	**Dutton Round H**	**2.20**	**272**		**Pn**	**08 19 50.2**	**+0.5**
R17L	**Mt. Peulik Vol**	**2.80**	**24**		**Pn**	**08 19 58.9**	**+0.9**
R17L					**Sn**	**08 20 33.4**	**+2.4**
SII	**Sitkinak Islan**	**2.82**	**57**	P	**Pn**	**08 19 59.8**	**+1.5**
SII	**Sitkinak Islan**	**2.82**	**57**	Pn	**Pn**	**08 19 58.9**	**+0.7**
KJL	**Kejulik**	**3.37**	**27**		**Pn**	**08 20 07.2**	**+1.3**
Q17K	**Contact Creek**	**3.48**	**23**		**Pn**	**08 20 08.7**	**+1.3**
ANCK	**Angle Creek**	**3.52**	**26**		**Pn**	**08 20 09.1**	**+1.2**
MGLS	**Mageik Landsli**	**3.56**	**29**		**Pn**	**08 20 09.6**	**+1.3**
ACHA	**Angle Creek He**	**3.58**	**28**	Pn	**Pn**	**08 20 09.3**	**+0.6**
OHAK	**Old Harbor**	**3.59**	**51**	P	**Pn**	**08 20 09.3**	**+0.5**
OHAK	**Old Harbor**	**3.59**	**51**		**Pn**	**08 20 09.0**	**+0.2**
OHAK				IAML		08 21 13.5	
	comp=N,54nm,0.9s						
P16K	**Nushagak River**	**3.96**	**3**	Pn	**Pn**	**08 20 13.8**	**0.0**
P16K				IAML		08 21 47.6	
	comp=N,129nm,1.4s						
KAHG	**Katmai Hook Gl**	**4.04**	**31**		**Pn**	**08 20 16.3**	**+1.4**
Q18K	**Katmai Hardscr**	**4.04**	**26**		**Pn**	**08 20 16.1**	**+1.1**
O15K	**Ungalikthiuk R**	**4.17**	**350**		**Pn**	**08 20 17.7**	**+1.0**
O15K				IAML		08 21 05.4	
	comp=N,49nm,0.3s						
O15K				IAML		08 21 05.6	
	comp=E,49nm,0.6s						
KDAK	**Kodiak Island**	**4.23**	**48**	Pn	**Pn**	**08 20 18.0**	**+0.5**
	comp=E,0.7nm,0.3s,baz=208,slow=1.0,SNR=29						
KDAK				Sn	**Sn**	**08 21 03.1**	**-3.1**
	comp=E,1.8nm,0.3s,baz=44,slow=14,SNR=5.8						
	comp=E,2.9nm,0.3s						
KDAK				AML	AML		
KDAK	**Kodiak Island**	**4.23**	**48**	Pn	**Pn**	**08 20 17.6**	**0.0**
KDAK				IAML		08 21 37.0	
	comp=E,45nm,1.4s						
KDAK				IAML		08 21 49.1	
	comp=E,48nm,1.5s						
AKUT	**Akutan**	**4.36**	**260**	Pn	**Pn**	**08 20 19.2**	**-0.1**
AKUT				IAML		08 21 35.2	
	comp=N,45nm,1.0s						
AKUT				IAML		08 23 15.2	
	comp=E,69nm,1.2s						
O14K	**Tigyukauivet M**	**4.45**	**341**		**Pn**	**08 20 21.1**	**+0.5**
O14K				IAML		08 21 17.0	
	comp=N,41nm,1.3s						
O14K				IAML		08 21 59.1	
	comp=E,34nm,1.5s						
O16K	**Kokwok River B**	**4.52**	**2**	Pn	**Pn**	**08 20 22.0**	**+0.4**
O16K				IAML		08 21 49.2	
	comp=E,27nm,0.8s						
O17K	**Koliganek Bris**	**4.76**	**8**		**Pn**	**08 20 26.0**	**+1.2**
UNV	**Unalaska Valle**	**4.86**	**258**	P	**Pn**	**08 20 27.4**	**+1.2**
UNV	**Unalaska Valle**	**4.86**	**258**	Pn	**Pn**	**08 20 25.1**	**-1.1**
MSW	**Makushin Switc**	**5.00**	**260**		**Pn**	**08 20 28.4**	**+0.3**
N14K	**Kuskokwak Cree**	**5.15**	**342**	Pn	**Pn**	**08 20 30.9**	**+0.7**
N15K	**Kwethluk River**	**5.17**	**351**		**Pn**	**08 20 31.2**	**+0.7**
N15K				IAML		08 22 11.4	
	comp=E,44nm,1.4s						
N15K				IAML		08 22 22.7	
	comp=N,32nm,1.4s						
N16K	**Nishlik Lake**	**5.41**	**358**		**Pn**	**08 20 35.0**	**+1.3**
N17K	**Nushagak Hills**	**5.50**	**7**	Pn	**Pn**	**08 20 35.4**	**+0.4**
M15K	**Kasigluk River**	**5.75**	**349**		**Pn**	**08 20 39.5**	**+1.1**
N18K	**Kilae Creek**	**5.77**	**13**	Pn	**Pn**	**08 20 40.7**	**+1.9**
M13K	**Dall Lake**	**5.95**	**336**		**Pn**	**08 20 42.2**	**+1.1**
M16K	**Timber Creek**	**5.96**	**358**		**Pn**	**08 20 42.5**	**+1.3**
M14K	**Bethel**	**5.98**	**343**		**Pn**	**08 20 42.1**	**+0.6**
N19K	**Bonanza Creek**	**6.12**	**19**	Pn	**Pn**	**08 20 44.2**	**+0.7**
M17K	**Holitna River**	**6.36**	**4**		**Pn**	**08 20 47.8**	**+1.1**
M18K	**Stony River**	**6.57**	**11**		**Pn**	**08 20 50.3**	**+0.6**
L16K	**Owhat River**	**6.67**	**356**		**Pn**	**08 20 51.2**	**+0.3**
M11K	**Mekoryuk**	**6.74**	**325**	Pn	**Pn**	**08 20 53.5**	**+1.6**
L15K	**Ungalak Mounta**	**6.80**	**348**		**Pn**	**08 20 52.8**	**0.0**
L17K	**Donlin**	**7.07**	**1**		**Pn**	**08 20 57.3**	**+0.8**
L18K	**Granite Mounta**	**7.21**	**7**	Pn	**Pn**	**08 20 59.0**	**+0.6**
M20K	**Styx River**	**7.36**	**20**		**Pn**	**08 21 01.6**	**+1.1**
K15K	**Wolf Creek Mou**	**7.40**	**349**	Pn	**Pn**	**08 21 01.6**	**+0.5**
K17K	**Iditarod**	**7.65**	**1**		**Pn**	**08 21 05.5**	**+1.0**
J14K	**Nanvaranak Lak**	**8.12**	**343**	Pn	**Pn**	**08 21 11.7**	**+0.8**
PMR	**Palmer**	**8.15**	**33**	P	**Pn**	**08 21 13.5**	**+2.2**
J16K	**Anvik River**	**8.30**	**353**		**Pn**	**08 21 14.1**	**+0.8**

HIN	Hinchinbrook I	8.31	45		Pn	08 21 13.9	+0.3
J17K	VABM Dome	8.34	358		Pn	08 21 13.9	0.0
I17K	Unalakleet	8.90	354	Pn	Pn	08 21 22.1	+0.6
J19K	Poorman	9.05	8	Pn	Pn	08 21 25.0	+1.4
PNL	Peninsula	11.25	58	P	Pn	08 21 55.4	+1.7
ILAR	Eielson Array	11.29	26	Pn	Pn	08 21 53.0	-1.3
	comp=N,0.2nm,0.3s,baz=216,slow=13,SNR=18						
ILAR				Sn	Sn	08 23 53.9	-5.6
	baz=216,slow=20						
	comp=N,1.5nm,0.7s						
ILAR				AML	AML		
SIT	Sitka	13.05	72	P	Pn	08 22 17.9	-0.4
G29M	Pine Creek	15.34	31	Pn	Pn	08 22 49.4	+0.1
G29M				IAmb	IAmb	08 22 56.0	
	comp=Z,4.0nm,0.9s						
R33M	Jennings River	15.43	63	Pn	Pn	08 22 51.2	+0.6
MOBC	Moresby Island	15.62	86	Pn	Pn	08 22 53.2	+0.2
MMPY	Sheldon Lake,	15.86	51		P	08 22 58.0	-1.6
G30M	tAoh Zraii Nji	15.94	33	Pn	Pn	08 22 56.9	-0.1
E29M	Blow River	16.38	27	Pn	Pn	08 23 01.8	-0.8
E29M				IAmb	IAmb	08 23 30.7	
	comp=Z,2.9nm,1.1s						
F30M	Barrier River	16.46	31	Pn	Pn	08 23 03.5	-0.1
F30M				IAmb	IAmb	08 23 42.3	
	comp=Z,4.3nm,1.1s						
G31M	Satah River	16.52	35	Pn	Pn	08 23 04.2	-0.2
G31M				IAmb	IAmb	08 23 22.5	
	comp=Z,6.0nm,1.1s						
F31M	Tsiigehtchic	16.99	34	Pn	Pn	08 23 08.8	-1.5
F31M				IAmb	IAmb	08 23 39.0	
	comp=Z,2.4nm,0.9s						
INK	Inuvik	17.56	31	P	Pn	08 23 16.6	-0.9
	comp=Z,0.2nm,0.3s,baz=214,slow=13,SNR=8.1						
	comp=Z,1.7nm,0.6s						
INK				AML	AML		
INK	Inuvik	17.56	31	Pn	Pn	08 23 16.5	-0.9
INK				IAmb	IAmb	08 23 45.7	
	comp=Z,2.5nm,0.9s						
YBH	Yreka Blue Hor	26.89	105	LR	LR	08 33 12.7	
	comp=Z,54nm,18.5s,baz=329,slow=31						
NVAR	Mina Array Bea	31.61	105	P	P	08 25 37.2	+1.5
	comp=Z,0.4nm,0.6s,baz=311,slow=8.4,SNR=3.5						
	comp=Z,0.4nm,0.6s						
PDAR	Pinedale Array	33.70	91	P	P	08 25 55.2	+1.2
	comp=Z,0.3nm,0.7s,baz=308,slow=4.9,SNR=4.3						
	comp=Z,0.3nm,0.7s						
TXAR	Lajitas Array	46.51	100	P	P	08 27 42.1	+2.1
	comp=Z,0.1nm,0.4s,baz=309,slow=6.3,SNR=6.0						
	comp=Z,0.1nm,0.4s						

*IDC **18** 08:23:58.7±0.7, 26°.16N×105°.33E, h0^{km}, mb4.1/16, mbtmp4.1/18, ML4.6/2, MS3.4/14, Error ellipse: s-maj=21.0km s-min=14.8km az=76.0*

*BJI **18** 08:24:00.8, 26°.20N×105°.47E, h12^{km}, mB4.7/3, mb4.5/25, ML4.2/14, Ms4.1/19, Ms7 3.9/20*

*NEIC **18** 08:24:01.6±0.9, 26°.20N±0°.07×105°.47E±0°.09, h10^{km}±1^{km}, mb4.6/26, Error ellipse: s-maj=15.0km s-min=9.9km az=118.0*

ISC 18 08:24:01.1±0.5, **26°.21N**±0°.05×**105°.47E**±0°.04, **h10**^{km}, **n80**, σ**1**^{s}.**14**/86, **mb4.4**/30, **MS3.3**/15, **2D**, **Southeastern China**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GYA	Guiyang	1.10	77	Pg	Pb	08 24 23.0	+0.8
KMI2	Kunming	2.68	247	⇓Pn	Pn	08 24 45.9	+1.5
KMI2				Sn	Sn	08 25 18.6	+1.5
KMI2				Sg	Sg	08 25 28.3	+1.2
KMI2				AML	AML		
	370nm,1.0s						
KMI2				AML	AML		
	220nm,1.1s						
PZH	PanZhiHua	3.36	276	Pg	Pn	08 24 55.6	+1.9
PZH				Sg	Sn	08 25 36.6	+2.9
PZH				AML	AML		
	230nm,1.2s						
PZH				AML	AML		
	260nm,0.9s						
PZH				L	L		
	comp=N,2µm,8.8s						
PZH				L	L		
	comp=E,2µm,6.3s						
PZH				L	L		
	comp=Z,2µm,6.9s						
SLVN	Son La	5.06	197		Pn	08 25 17.1	0.0
SLVN				Sn	Sn	08 26 16.0	+0.2
ENH	Enshi	5.38	40		Pn	08 25 21.9	+0.5
ENH				Sn	Sn	08 26 24.3	+0.9
TNCH	TengChong	6.38	261	Pn	Pn	08 25 32.3	-3.1
TNCH				Sn	Sn	08 26 49.1	+0.6
TNCH				Sg	Sg	08 27 26.9	+0.8
TNCH				L	L		
	comp=N,1µm,5.3s						
TNCH				L	L		
	comp=E,2µm,6.3s						
TNCH				L	L		
	comp=Z,1µm,8.6s						
CNSH	ChangSha	6.93	72	Pn	Pn	08 25 44.0	+1.4
CNSH				Sn	Sn	08 27 02.8	+1.3
CNSH				AML	AML		
	260nm,1.0s						
CNSH				AML	AML		
	63nm,0.6s						
CRAI	Chiangrai	7.58	219	Pn	Pn	08 25 52.0	+0.4
QIZ	Qiongzhong	8.21	150	P	Pn	08 26 00.3	0.0
QIZ				S	Sn	08 27 34.3	+1.1
QIZ				AML	AML		
	80nm,1.0s						
QIZ				AML	AML		
	86nm,0.8s						
QIZ				L	L		
	comp=N,1µm,4.9s						
QIZ				L	L		
	comp=E,1µm,5.7s						
QIZ				L	L		
	comp=Z,1µm,6.0s						
QIZ	Qiongzhong	8.21	150	Pn	Pn	08 25 59.4	-0.9
WHN	Wuhan	8.93	59	P	Pn	08 26 11.3	+1.2
WHN				S	Sn	08 27 50.8	0.0
WHN				AML	AML		
	260nm,1.2s						
WHN				AML	AML		
	94nm,0.9s						
CMAR	Chiang Mai Arr	9.80	219	Pn	Pn	08 26 19.6	-2.5
	0.9nm,0.3s,baz=34,slow=12,SNR=4.6						
CMAR				Lg	Lg	08 29 11.9	
	0.7nm,0.3s,baz=41,slow=29,SNR=4.2						
	1.1nm,0.3s						
CMAR				AML	AML		
LZDM	Lanzhou Array	9.83	352	Pn	Pn	08 26 23.8	+1.0
	baz=172,slow=12						
	17nm,0.5s						
LZH	Lanzhou	9.94	352	*e*P	Pn	08 26 24.1	0.0
LZH				pP		08 26 28.3	
LZH				pmax	pmax		
	comp=Z,26nm,1.1s						
LZH				L	L		
	comp=N,890nm,11.4s						
LZH				L	L		
	comp=E,840nm,9.5s						
LZH				L	L		
	comp=Z,740nm,11.7s						
LYN	LuoYang	10.27	34	P	Pn	08 26 28.3	-0.2
LYN				sP		08 26 36.3	
LYN				pmax	pmax		
	comp=Z,44nm,0.7s						
LYN				L	L		
	comp=N,260nm,5.2s						
LYN				L	L		
	comp=E,340nm,4.1s						
LYN				L	L		
	comp=Z,250nm,5.5s						
NJ2	Nanjing	13.06	60	*e*P	Pn	08 27 08.1	+1.4
NJ2				pmax	pmax		
	comp=Z,12nm,0.7s						
GTA2	Gaotai	14.07	342	*e*P	Pn	08 27 21.1	+0.5
GTA2				pmax	pmax		
	comp=Z,6.0nm,0.8s						
GTA2				L	L		
	comp=N,300nm,15.6s						
GTA2				L	L		
	comp=E,260nm,15.9s						
GTA2				L	L		
	comp=Z,390nm,14.9s						
TIA	Tai'an	14.09	42	P	Pn	08 27 20.0	-0.7
TIA				pmax	pmax		
	comp=Z,5.0nm,0.5s						
BTO2	Baotou	14.95	13	*e*P	Pn	08 27 31.1	-1.4
BTO2				pP	P	08 27 34.8	-3.4
BTO2				sP		08 27 38.1	
BTO2				PP	PnPn	08 27 43.4	+2.7
BTO2				pmax	pmax		
	comp=Z,34nm,0.8s						
BTO2				L	L		
	comp=N,410nm,9.5s						
BTO2				L	L		
	comp=E,520nm,13.9s						
BTO2				L	L		
	comp=Z,350nm,11.4s						
HHC	Hu-ho-hao-te	15.45	18	*e*P	Pn	08 27 39.3	+0.1
HHC				pmax	pmax		
	comp=Z,13nm,0.5s						
HHC				pmax	pmax		
	comp=Z,91nm,4.8s						
HHC				L	L		
	comp=N,190nm,9.6s						
HHC				L	L		
	comp=E,70nm,8.8s						
HHC				L	L		
	comp=Z,120nm,9.9s						
BJT	Baijiatuau	16.41	30	Pn	Pn	08 27 51.1	-0.3
EVN	Everest	16.71	280		Pn	08 27 55.3	-0.6
SONM	Songino Array	21.59	2	P	P	08 28 51.3	+0.2
	5.2nm,0.7s,baz=184,slow=11,SNR=18						
SONM				LR	LR	08 38 12.5	
	comp=Z,93nm,18.5s,baz=103,slow=39						
	5.2nm,0.7s						
SONM	Songino Array	21.59	2	P	P	08 28 51.1	0.0
ULN	Ulaanbaatar	21.65	3	P	P	08 28 51.3	-0.4
ULN				IAmb	IAmb	08 28 59.6	
	comp=Z,5.0nm,0.7s						
KSRS	Korea Array	22.07	54	P	P	08 28 56.0	-0.2
	comp=Z,3.9nm,0.7s,baz=248,slow=11,SNR=15						
KSRS				LR	LR	08 37 24.8	
	comp=Z,31nm,19.2s,baz=120,slow=36						
	comp=Z,3.9nm,0.7s						
WMQ	Urumqi	22.73	325	*e*P	P	08 29 05.0	+1.7
WMQ				L	L		
	comp=Z,79nm,21.9s						
JNU	Nakatsue	23.09	67	LR	LR	08 38 18.2	
	comp=Z,46nm,19.4s,baz=280,slow=37						
HIA	Hailar	25.55	22	P	P	08 29 29.7	-0.2
HIA				IAmb	IAmb	08 29 31.4	
	comp=Z,8.2nm,1.0s						
HILR	Hailar Array B	25.80	22	P	P	08 29 31.9	-0.4
	comp=Z,3.1nm,0.5s,baz=188,slow=9.9,SNR=10						
	comp=Z,3.1nm,0.5s						
BNX	BinXian	26.21	36	⇓P	P	08 29 36.1	+0.2
BNX				pmax	pmax		
	comp=Z,5.0nm,0.6s						
WUS	Wushi	26.33	311	P	P	08 29 38.1	+0.8
WUS				IAmb	IAmb	08 29 41.6	
	comp=Z,7.5nm,1.0s						
HYB	Hyderabad	26.44	256	*e*P	P	08 29 38.5	+0.2
HYB				*e*PcP	PcP	08 33 03.4	-0.3
HYB				*e*S	S	08 34 13.2	+1.0
DAV	Davao City (W)	27.01	131	LR	LR	08 42 00.9	
	comp=Z,156nm,18.3s,baz=348,slow=40						
PDGK	Podgornoye	27.17	316		P	08 29 45.1	+0.3
MKAR	Makanchi Array	27.55	324	P	P	08 29 48.4	+0.3
	comp=Z,1.9nm,0.9s,baz=130,slow=13,SNR=9.2						
MKAR				LR	LR	08 42 50.4	
	comp=Z,33nm,18.7s,baz=150,slow=41						
	comp=Z,1.9nm,0.9s						
MKAR	Makanchi Array	27.55	324	P	P	08 29 48.6	+0.5
BOOM	Boomskoye usch	29.10	311	P	P	08 30 02.7	+0.6
MJAR	Matsushiro Arr	29.66	62	LR	LR	08 43 00.0	
	comp=Z,56nm,20.8s,baz=238,slow=38						
AAK	Ala-Archa	30.14	311	LR	LR	08 43 52.8	
	comp=Z,67nm,19.4s,baz=133,slow=40						
ZAA0	Zalesovo Array	31.65	337		P	08 30 24.4	+0.2
ZAA0				IAmb	IAmb	08 30 25.3	
	comp=Z,5.7nm,0.7s						
ZALV	Zalesovo Beam	31.65	337	P	P	08 30 24.5	+0.2
	comp=Z,6.0nm,0.6s,baz=135,slow=8.2,SNR=25						
	comp=Z,6.0nm,0.6s						
KURBB	Kurchatov Arra	31.92	327	P	P	08 30 26.9	+0.2
	comp=Z,3.9nm,0.7s,baz=131,slow=9.8,SNR=32						
KURBB				LR	LR	08 44 44.3	
	comp=Z,116nm,19.0s,baz=175,slow=39						
	comp=Z,3.9nm,0.7s						
KURK	Kurchatov	31.94	327		P	08 30 26.6	-0.3
KURK				IAmb	IAmb	08 30 28.0	
	comp=Z,5.2nm,0.8s						
KK31	Karatay Array	33.03	310	P	P	08 30 36.6	0.0
KK31				IAmb	IAmb	08 30 46.4	
	comp=Z,5.0nm,1.3s						
KKAR	Karatay Array	33.03	310	P	P	08 30 36.5	-0.2
GUMO	Guam	38.96	101	LR	LR	08 47 43.2	
	comp=Z,30nm,19.6s,baz=253,slow=36						
AB31	Akbulak array	41.91	316	P	P	08 31 52.0	+0.4
ABKAR	Akbulak array	41.91	316	P	P	08 31 51.8	+0.1
NRIK	Noril'sk	44.43	351	P	P	08 32 11.5	-0.2
	comp=Z,6.3nm,0.6s,baz=138,slow=6.6,SNR=7.9						
	comp=Z,6.3nm,0.6s						
NRIK	Noril'sk	44.43	351		P	08 32 11.9	+0.1
NRIK				IAmb	IAmb	08 32 12.8	
	comp=Z,8.1nm,0.8s						
MA2	Magadan	45.59	30	P	P	08 32 21.6	+0.5
MA2				IAmb	IAmb	08 32 21.9	
	comp=Z,6.6nm,0.8s						
KBZ	Khabaz	52.95	306	LR	LR	08 58 30.9	
	comp=Z,36nm,20.6s,baz=32,slow=39						
WRA	Warramunga Arr	53.76	146	P	P	08 33 23.1	-0.6
	comp=Z,1.0nm,0.7s,baz=332,slow=8.5,SNR=11						
	comp=Z,1.0nm,0.7s						
WRA	Warramunga Arr	53.76	146	P	P	08 33 23.2	-0.6
WR8	Warramunga Arr	53.85	146	P	P	08 33 24.0	-0.5
WR8				IAmb	IAmb	08 33 54.3	
	comp=Z,7.2nm,1.4s						
AS31	Alice Springs	56.70	149	P	P	08 33 45.2	+0.1
ASAR	Alice Springs	56.70	149	P	P	08 33 45.5	+0.5
	comp=Z,0.7nm,0.7s,baz=337,slow=6.5,SNR=8.9						
	comp=Z,0.7nm,0.7s						
ASAR	Alice Springs	56.70	149	P	P	08 33 44.7	-0.3
BRTR	Keskin Array B	60.29	302	P	P	08 34 09.7	-0.4
	comp=Z,0.5nm,0.7s,baz=119,slow=5.4,SNR=2.9						
	comp=Z,0.5nm,0.7s						
AKASG	Malin Array Be	61.65	315	P	P	08 34 16.0	-2.9
	comp=Z,0.3nm,0.3s,baz=73,slow=5.9,SNR=3.3						
	comp=Z,0.3nm,0.3s						
ARCES	ARCESS Array B	62.20	337	P	P	08 34 20.3	-2.1
	comp=Z,3.7nm,1.0s,baz=56,slow=5.6,SNR=1.7						
	comp=Z,3.7nm,1.0s						
FINES	FINESS Array B	62.31	328	P	P	08 34 21.6	-1.7
	comp=Z,2.7nm,1.0s,baz=98,slow=5.8,SNR=7.0						
	comp=Z,2.7nm,1.0s						
FINES	FINESS Array B	62.31	328	P	P	08 34 22.2	-1.0
MLR	Muntele Rosu	64.71	310	LR	LR	09 05 56.1	
	comp=Z,44nm,18.2s,baz=10.0,slow=39						
C19K	Lookout Ridge	67.52	23	P	P	08 34 57.5	+0.4
B20K	Meade River	68.11	22	P	P	08 35 00.4	-0.3
H17K	Granite Mounta	68.49	27	P	P	08 35 03.6	+0.4
HFS	Hagfors	68.51	327	P	P	08 35 01.4	-2.0
	comp=Z,2.6nm,0.8s,baz=349,slow=6.8,SNR=3.6						
HFS				LR	LR	09 07 48.4	
	comp=Z,78nm,18.6s,baz=276,slow=38						
	comp=Z,2.6nm,0.8s						
J16K	Anvik River	68.65	29	P	P	08 35 05.4	+1.2
J17K	VABM Dome	69.28	29	P	P	08 35 08.7	+0.6
NB2	NORSAR Subarra	69.43	329	P	P	08 35 07.8	-1.4
	comp=Z,0.7nm,0.7s,baz=74,slow=6.2						
NOA	NORSAR Array B	69.43	329	P	P	08 35 07.2	-1.9
	comp=Z,1.1nm,0.7s,baz=75,slow=5.8,SNR=4.1						
NOA				LR	LR	09 08 23.8	
	comp=Z,28nm,18.1s,baz=260,slow=38						
	comp=Z,1.1nm,0.7s						
D22K	Ayikyak River	69.96	22	P	P	08 35 12.8	+0.4
D22K				IAmb	IAmb	08 35 19.1	
	comp=Z,9.5nm,1.4s						
J18K	Innoko River	70.27	28	P	P	08 35 14.9	+0.7
J18K				IAmb	IAmb	08 35 32.6	
	comp=Z,9.2nm,1.1s						
J20K	Nowinta River	71.09	27	P	P	08 35 19.5	+0.3
J20K				IAmb	IAmb	08 35 20.9	
	comp=Z,6.8nm,1.0s						
K20K	Telida	71.42	28	P	P	08 35 22.2	+0.9
K20K				IAmb	IAmb	08 35 41.4	
	comp=Z,7.5nm,1.3s						
L19K	White Mountain	71.51	29	P	P	08 35 22.6	+0.7
L19K				IAmb	IAmb	08 35 27.7	
	comp=Z,9.8nm,1.1s						
ILAR	Eielson Array	73.72	25	P	P	08 35 34.0	-0.9
	comp=Z,0.3nm,0.5s,baz=294,slow=4.4,SNR=4.7						
	comp=Z,0.3nm,0.5s						
DAVOX	Davos/Dischmat	74.99	315	LR	LR	09 11 24.2	
	comp=Z,77nm,18.1s,baz=244,slow=38						

*SNET **18** 08:28:35.5±2.2, 13°.28N×89°.93W, h30^{km}, ML2.8, Presumed earthquake*

*CATAC **18** 08:28:35.2±0.5, 13°N±2°×9°0W±°, h24^{km}±2^{km}, M2.9/22, MLv2.9/22, Error ellipse: s-maj=5.8km s-min=3.7km az=33.5, confirmed*

*GCG **18** 08:28:35.6±0.8, 13°.26N×89°.89W, h47^{km}±15^{km}, MD3.8, Presumed earthquake*

ISC 18 08:28:37.5±1.7, **13°.32N**±0°.07×**89°.83W**±0°.05, **h27**^{km}±12^{km}, **n43**, σ**0**^{s}.**94**/76, **El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAYA	Jayaque - finc	0.49	48	*i* P	Pn	08 28 47.8	-1.1
JAYA				*e*S	Sn	08 28 57.2	+0.5
JAYA	Jayaque - finc	0.49	48	*i* P	Pn	08 28 47.9	-1.1
JAYA				*e*S	Sn	08 28 57.8	+1.1
JAYA	Jayaque - finc	0.49	48	P	Pn	08 28 47.9	-1.1
JAYA				S	Sn	08 28 57.5	+0.8
LALI	Alcalda de L	0.52	71	*e*P	Pb	08 28 47.9	-0.2
LALI	Alcalda de L	0.52	71	P	Pn	08 28 48.4	-0.7
LALI				S	Sn	08 28 57.6	+0.6
CEVE	Cerro Verde	0.54	21	*i* P	Pb	08 28 48.4	-0.2
CEVE				*e*S	Sn	08 29 00.3	+2.3
CEVE	Cerro Verde	0.54	21	P	Pn	08 28 48.7	-1.0
CEVE				S	Sn	08 28 58.6	+0.6
FAME	Alcaldia de Sa	0.55	341	P	Pn	08 28 47.8	-1.8
FAME				S	Sn	08 28 56.9	-1.0
NUBE	Las Nubes	0.58	4	*i* P	Pb	08 28 48.7	-0.5
NUBE				*e*S	Sb	08 28 57.9	+0.6
NUBE	Las Nubes	0.58	4	*i* P	Pb	08 28 48.6	-0.6
NUBE				*e*S	Sn	08 28 58.4	-0.4
NUBE	Las Nubes	0.58	4	P	Pn	08 28 48.8	-1.3
NUBE				S	Sn	08 28 58.8	-0.1
PMON	Piamonte	0.63	52	P	Pn	08 28 50.0	-0.8
PMON				S	Sn	08 29 01.1	+1.1
CEDA	San Andres	0.64	41	P	Pn	08 28 50.0	-0.8
CEDA				S	Sn	08 29 01.0	+1.0
BOQS	Boqueron	0.67	52	*i* P	Pb	08 28 50.1	-0.7
PANCS	Alcalda de	0.69	65	P	Pn	08 28 50.6	-1.0
PANCS				S	Sn	08 29 01.4	0.0
UEES	Universidad Ev	0.69	55	*i* P	Pn	08 28 50.3	-1.3
UEES				*e*S	Sn	08 29 02.0	+0.5
UEES	Universidad Ev	0.69	55	P	Pn	08 28 50.7	-0.9
UEES				S	Sn	08 29 02.3	+0.8
SEMO	Seminario San	0.70	57	P	Pn	08 28 50.8	-0.9
SEMO				S	Sn	08 29 02.6	+0.9
SLOZ	Alcaldia de Sa	0.70	3	P	Pb	08 28 50.6	-0.6
UNIC	Universidad Ca	0.71	22	P	Pb	08 28 51.0	-0.4
LOMA	Loma Larga	0.71	63	*i* P	Pn	08 28 50.9	-1.1
LOMA	Loma Larga	0.71	63	P	Pn	08 28 50.8	-1.1
LOMA				S	Sn	08 29 03.0	+1.0
RBDL	Robledal	0.80	10	*i* P	Pn	08 28 52.0	-1.2
RBDL				*e*S	Sn	08 29 05.6	+1.3
SJTE	Alcalda de S	0.85	70	*i* P	Pn	08 28 52.4	-1.3
SJTE				*e*S	Sn	08 29 04.6	-0.7
PAVA	Las Pavas	0.95	65	*i* P	Pn	08 28 54.6	-0.5
PAVA				*e*S	Sb	08 29 08.8	+1.1
PAVA	Las Pavas	0.95	65	P	Pn	08 28 54.5	-0.6
PAVA				S	Sb	08 29 08.9	+1.3
COEG	Centro de Oper	0.97	72	*i* P	Pn	08 28 54.3	-1.1
COEG				*e*S	Sn	08 29 08.4	+0.1
COEG	Centro de Oper	0.97	72	P	Pn	08 28 54.4	-0.9
COEG				S	Sb	08 29 08.9	+0.8
JUAM	Asuncion Mita	1.02	7	*e*P	Pn	08 28 54.8	-1.2
JUAM				*e*S	Sb	08 29 09.6	+0.1
TECO	Alcaldia de Te	1.04	78	P	Pn	08 28 55.1	-1.2
TECO				S	Sn	08 29 10.2	+0.2
PCG5	San Vicente Pa	1.04	329	*e*P	Pb	08 28 57.6	+0.6
SCLA	Alcaldia de Sa	1.13	70	S	Sb	08 29 13.3	+0.5
FG16	Alotenango, Sa	1.16	325	*e*P	Pb	08 29 01.2	+2.2
MTO3	Montecristo	1.17	23	*e*P	Pn	08 28 57.0	-1.2
MTO3	Montecristo	1.17	23	P	Pn	08 28 57.3	-0.9
MTO3				S	Sb	08 29 14.3	+0.3
LLGN	La Laguna	1.20	45	P	Pn	08 28 57.7	-0.8
LLGN				S	Sb	08 29 15.0	+0.2
ALJI	Alcalda de J	1.22	89	P	Pn	08 28 57.4	-1.4
ALJI				S	Sn	08 29 14.5	+0.1
P5NO	Presa 5 de nov	1.23	57	P	Pn	08 28 58.3	-0.6
P5NO				S	Sb	08 29 16.0	+0.4
ESQI	Esquipulas	1.32	21	P	Pn	08 28 59.7	-0.6
ESQI				S	Sb	08 29 18.0	-0.2
PACA	Pacayal	1.47	84	P	Pn	08 29 01.6	-0.7
PACA				S	Sn	08 29 21.6	+0.8
SARH	Santa Rosa de	1.78	35	P	Pn	08 29 06.3	-0.3
SARH				S	Sn	08 29 29.4	+1.1
LCND	La Caada	1.88	90	P	Pn	08 29 07.2	-0.7
CNCH	Conchagua	1.94	91	P	Pn	08 29 07.8	-1.0
CNCH				S	Sn	08 29 32.8	+0.5

*NNC **18** 08:37:44.2±5.5, 36°.59N×70°.00E, h0^{km}, mb4.6, mpv4.8, Error ellipse: s-maj=50.3km s-min=44.4km az=148.0*

*IDC **18** 08:37:45.8±7.5, 36°.22N×70°.25E, h138^{km}±65^{km}, mb3.7/3, mbtmp4.1/8, Error ellipse: s-maj=58.2km s-min=39.3km az=49.0*

*NEIC **18** 08:37:46.3±1.7, 36°.27N±0°.07×70°.1E±0°.1, h167^{km}±10^{km}, mb4.5/11, Error ellipse: s-maj=17.3km s-min=10.7km az=84.0*

*GFZ **18** 08:37:47.9±0.4, 36°N±3°×7°0E±°, h136^{km}±5^{km}, M4.5/10, mb4.3/10, Error ellipse: s-maj=9.8km s-min=7.1km az=93.4, confirmed*

ISC 18 08:37:45.7±0.6, **36°.24N**±0°.05×**70°.16E**±0°.06, **h150**^{km}, **n79**, σ**2**^{s}.**05**/93, **mb4.5**/10, **5C-2D**, **Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBL	Kabul	1.93	209		Pn	08 38 21.5	+1.3
KBL	Kabul	1.93	209	P	Pn	08 38 21.8	+1.6
DRK	Karamyk	3.48	21		Pn	08 38 41.1	+1.6
DRK	Karamyk	3.48	21	P	Pn	08 38 41.4	+1.9
NIL	Nilore	3.62	135		Pn	08 38 43.1	+2.1
NIL	Nilore	3.62	135	P	Pn	08 38 43.7	+2.6
BTK	Batken	3.85	8		Pn	08 38 45.7	+1.7
BTK	Batken	3.85	8	P	Pn	08 38 46.1	+2.1
OHH	Osh	4.75	25	P	Pn	08 38 56.3	+0.5
JMU	Jammu	5.17	130	*e*P	Pn	08 39 02.5	+1.1
JMU				*e*S	Sn	08 39 58.2	-2.3
JMU				IAML		08 40 03.1	
	comp=N,2µm,0.4s						
JMU				IAML		08 40 04.6	
	comp=E,2µm,0.2s						
KSH2	Kashi	5.18	54	Pn	Pn	08 39 05.3	+3.8
KSH2				Sn	Sn	08 40 03.6	+2.9
KSH2				smax	smax		
	comp=N,310nm,0.7s						
KSH2				smax	smax		
	comp=E,160nm,0.6s						
ARSB	Arslanbob	5.53	23		Pn	08 39 06.6	+0.3
THN	Thein Dam	5.98	128	*e*P	Pn	08 39 13.0	+0.8
THN				*e*S	Sn	08 40 17.7	-2.1
THN				IAML		08 40 20.6	
	comp=E,1µm,0.4s						
THN				IAML		08 40 22.4	
	comp=N,1µm,0.3s						
TSSA	Tissa	6.00	123	*e*P	Pn	08 39 13.4	+0.9
TSSA				*e*S	Sn	08 40 18.2	-2.2
TSSA				IAML		08 40 19.8	
	comp=E,1µm,0.4s						
TSSA				IAML		08 40 20.3	
	comp=N,1µm,0.4s						
ALCI	Alchi Leh	6.09	107	*e*S	Sn	08 40 19.6	-3.3
ALCI				IAML		08 40 22.1	
	comp=E,672nm,0.1s						
ALCI				IAML		08 40 22.6	
	comp=N,604nm,0.0s						
DHRM	DHARAMSHALA	6.46	126	*e*P	Pn	08 39 19.6	+1.0
DHRM				*e*S	Sn	08 40 28.3	-3.2
DHRM				IAML		08 40 31.1	
	comp=E,205nm,0.0s						
DHRM				IAML		08 40 32.8	
	comp=N,385nm,0.5s						
ASAI	AK-SAY(Kyrgyzs	6.83	45	P	Pn	08 39 25.2	+1.5
	comp=Z,21nm,0.8s						

KK31	**Karatay Array**	**6.86**	**2**	P	**Pn**	**08 39 24.9**	**+1.0**
	comp=Z,18nm,0.3s,baz=189,slow=14,SNR=181						
KK31				⇑S	**Sn**	**08 40 37.6**	**-3.2**
	comp=Z,21nm,0.3s,baz=190,slow=22,SNR=14						
KK31	**Karatay Array**	**6.86**	**2**		**Pn**	**08 39 24.7**	**+0.9**
KKAR	**Karatay Array**	**6.86**	**2**		**Pn**	**08 39 24.8**	**+1.0**
NRN	**Naryn**	**6.90**	**40**		**Pn**	**08 39 24.6**	**-0.1**
EKS2	**Erkin-Say**	**7.00**	**22**	P	**Pn**	**08 39 26.9**	**+1.1**
	SNR=20						
AAK	**Ala-Archa**	**7.21**	**26**	P	**Pn**	**08 39 29.4**	**+0.8**
	comp=Z,14nm,0.4s,baz=213,slow=6.7,SNR=28						
AAK				S	**Sn**	**08 40 48.2**	**-1.3**
	comp=Z,10nm,0.5s,baz=202,slow=23,SNR=8.1						
AAK	**Ala-Archa**	**7.21**	**26**	P	**Pn**	**08 39 30.2**	**+1.5**
	SNR=20						
AAK	**Ala-Archa**	**7.21**	**26**	⇑P	**Pn**	**08 39 30.0**	**+1.3**
	comp=Z,42nm,0.4s						
AAK				⇓S	**Sn**	**08 40 47.7**	**-1.7**
	comp=Z,69nm,0.5s						
AAK	**Ala-Archa**	**7.21**	**26**	P	**Pn**	**08 39 30.2**	**+1.5**
	comp=Z,24nm,0.5s						
FRU1	**Bishkek**	**7.41**	**26**	P	**Pn**	**08 39 33.0**	**+1.8**
CHMS	**Chumysh**	**7.62**	**26**	P	**Pn**	**08 39 35.5**	**+1.5**
	SNR=10						
BOOM	**Boomskoye usch**	**7.68**	**34**	Pn	**Pn**	**08 39 35.8**	**+0.9**
BOOM	**Boomskoye usch**	**7.68**	**34**	P	**Pn**	**08 39 35.8**	**+0.9**
	comp=Z,16nm,1.4s						
SMLA	**Simla**	**7.75**	**129**	*e*P	**Pn**	**08 39 36.2**	**+0.5**
SMLA				*e*S	**Sn**	**08 40 57.1**	**-5.1**
SMLA				IAML		08 41 01.9	
	comp=N,76nm,0.4s						
SMLA				IAML		08 41 01.9	
	comp=E,86nm,0.3s						
USP	**Ospenovka**	**7.77**	**24**	P	**Pn**	**08 39 37.0**	**+1.0**
	SNR=24						
TKM2	**Tokmak 2**	**7.88**	**30**	P	**Pn**	**08 39 39.0**	**+1.4**
	SNR=5.9						
KDJ	**Kajisay**	**8.02**	**41**	Pn	**Pn**	**08 39 39.5**	**+0.1**
KDJ	**Kajisay**	**8.02**	**41**	P	**Pn**	**08 39 40.9**	**+1.5**
	comp=Z,21nm,0.9s						
HNLY	**HANLEY**	**8.05**	**113**	*e*P	**Pn**	**08 39 41.2**	**+1.0**
HNLY				*e*S	**Sn**	**08 41 04.7**	**-5.6**
HNLY				IAML		08 41 05.5	
	comp=N,77nm,0.0s						
HNLY				IAML		08 41 06.7	
	comp=E,50nm,0.2s						
TARG	**Taragay, Kyrgy**	**8.09**	**45**		**Pn**	**08 39 41.0**	**+0.4**
TARG	**Taragay, Kyrgy**	**8.09**	**45**	P	**Pn**	**08 39 42.2**	**+1.6**
	comp=Z,14nm,0.7s						
KLP	**Kalpa**	**8.20**	**123**	*e*P	**Pn**	**08 39 42.8**	**+0.7**
KLP				*e*S	**Sn**	**08 41 08.3**	**-5.2**
KLP				IAML		08 41 13.4	
	comp=N,383nm,1.3s						
KLP				IAML		08 41 17.1	
	comp=E,362nm,0.1s						
WUS	**Wushi**	**8.64**	**52**		**Pn**	**08 39 48.8**	**+1.2**
KUDL	**Kundal**	**9.69**	**145**	*e*P	**Pn**	**08 40 01.4**	**-0.2**
KUDL				*e*S	Sn	08 41 41.1	-7.8
KUDL				IAML		08 41 44.3	
	comp=N,276nm,0.3s						
KUDL				IAML		08 41 45.6	
	comp=E,384nm,0.4s						
PDGK	**Podgornoye**	**10.08**	**43**	⇑P	**Pn**	**08 40 07.1**	**+0.3**
	comp=E,12nm,0.8s						
PDGK	**Podgornoye**	**10.08**	**43**		**Pn**	**08 40 07.2**	**+0.4**
MAKZ	**Makanchi**	**13.76**	**36**		**Pn**	**08 40 54.7**	**+0.2**
MK31	**Makanchi Array**	**13.90**	**37**	P	**Pn**	**08 40 56.8**	**+0.5**
	comp=E,2.2nm,0.8s,baz=227,slow=15,SNR=18						
MKAR	**Makanchi Array**	**13.90**	**37**	P	**Pn**	**08 40 56.8**	**+0.6**
	comp=E,1.6nm,0.6s,baz=226,slow=16,SNR=13						
MKAR	**Makanchi Array**	**13.90**	**37**	P	**Pn**	**08 40 56.2**	**0.0**
AB31	**Akbulak array**	**15.00**	**333**	P	**P**	**08 41 11.0**	**-0.6**
	comp=E,2.5nm,0.4s,baz=149,slow=12,SNR=110						
AB31	**Akbulak array**	**15.00**	**333**		**Pn**	**08 41 09.6**	**-0.3**
ABKAR	**Akbulak array**	**15.00**	**333**		**Pn**	**08 41 10.0**	**+0.1**
WMQ	**Urumqi**	**15.40**	**55**	*e*P	**Pn**	**08 41 16.8**	**+1.8**
WMQ				pmax	pmax		
	comp=Z,15nm,0.7s						
KURBB	**Kurchatov Arra**	**15.59**	**20**	P	**Pn**	**08 41 16.3**	**-0.9**
	comp=Z,5.2nm,0.7s,baz=214,slow=12,SNR=30						
KURBB	**Kurchatov Arra**	**15.59**	**20**	⇑P	**P**	**08 41 21.1**	**+2.8**
	comp=Z,8.8nm,0.7s						
KURK	**Kurchatov**	**15.70**	**20**	P	**P**	**08 41 22.3**	**+2.8**
	comp=Z,7.7nm,0.9s						
EVN	**Everest**	**16.34**	**116**		**Pn**	**08 41 26.5**	**-0.7**
EVN	**Everest**	**16.34**	**116**	P	**P**	**08 41 31.7**	**+4.3**
	comp=Z,32nm,0.6s						
AKTO	**Aktyubinsk**	**16.68**	**332**	P	**Pn**	**08 41 31.2**	**+0.7**
	comp=Z,3.2nm,0.9s,baz=145,slow=12,SNR=6.0						
AKTO				S	**S**	**08 44 27.1**	**-8.7**
	comp=Z,3.1nm,0.6s,baz=179,slow=24,SNR=6.2						
AKTO	**Aktyubinsk**	**16.68**	**332**	⇑P	**Pn**	**08 41 31.7**	**+1.2**
	comp=Z,3.0nm,1.1s						
BVA0	**Borovoye Array**	**16.78**	**0**	⇓P	**P**	**08 41 30.1**	**-1.3**
	baz=166,slow=9.6,SNR=4.2						
BVAR	**Borovoye Array**	**16.78**	**0**	P	**Pn**	**08 41 32.3**	**+0.5**
	comp=Z,3.2nm,0.5s,baz=167,slow=14,SNR=15						
BORK	**Borovoye**	**16.80**	**0**	P	**P**	**08 41 30.8**	**-0.8**
LSA	**Lhasa**	**18.76**	**104**	P	**P**	**08 41 54.5**	**+0.8**
LSA				IAmb	IAmb	08 42 18.8	
	comp=Z,8.2nm,0.4s						
HYB	**Hyderabad**	**20.17**	**156**	*e*P	**P**	**08 42 08.0**	**-0.6**
HYB				*e*pP	**pP**	**08 42 37.1**	**+1.8**
HYB				*e*S	**S**	**08 45 46.9**	**0.0**
ZAA0	**Zalesovo Array**	**20.44**	**25**		**P**	**08 42 11.8**	**+0.8**
ZAA0				IAmb	IAmb	08 42 14.0	
	comp=Z,12nm,0.7s						
ZALV	**Zalesovo Beam**	**20.44**	**25**	P	**P**	**08 42 12.8**	**+1.8**
	comp=Z,15nm,0.6s,baz=221,slow=11,SNR=52						
	comp=Z,15nm,0.6s						
ZALV	**Zalesovo Beam**	**20.44**	**25**		**P**	**08 42 12.5**	**+1.5**
SHL	**Shillong**	**21.42**	**114**	P	**P**	**08 42 22.3**	**+0.3**
SHL				IAmb	IAmb	08 42 27.0	
	comp=Z,18nm,1.3s						
PZH	**PanZhiHua**	**28.55**	**101**	P	**P**	**08 43 29.3**	**+1.7**
BALY	**Balya**	**33.48**	**289**	P	**P**	**08 44 13.3**	**+2.7**
	comp=Z,33nm,0.6s						
LOT	**Lotru**	**35.85**	**300**	P	**P**	**08 44 32.2**	**+1.2**
	comp=Z,22nm,0.6s						
NJ2	**Nanjing**	**40.18**	**81**	*e*P	**P**	**08 45 07.9**	**+0.6**
NJ2				pmax	pmax		
	comp=Z,7.0nm,0.6s						
L20K	**Farewell, AK**	**75.45**	**19**	P	**P**	**08 49 10.9**	**-1.8**
L20K				IAmb	IAmb	08 49 21.3	
	comp=Z,18nm,1.5s						
RIDG	**Independent Ri**	**76.55**	**15**	P	**P**	**08 49 17.5**	**-1.5**
RIDG				IAmb	IAmb	08 49 27.6	
	comp=Z,20nm,1.4s						
N19K	**Bonanza Creek**	**76.64**	**21**	P	**P**	**08 49 17.9**	**-1.7**
N19K				IAmb	IAmb	08 49 40.6	
	comp=Z,11nm,1.1s						
WRA	**Warramunga Arr**	**82.43**	**121**	P	**P**	**08 49 52.3**	**+1.0**
	comp=Z,0.4nm,0.5s,baz=324,slow=4.9,SNR=14						
	comp=Z,0.4nm,0.5s						
WRA	**Warramunga Arr**	**82.43**	**121**	P	**P**	**08 49 51.7**	**+0.3**
WR8	**Warramunga Arr**	**82.55**	**121**	P	**P**	**08 49 51.3**	**-0.6**
WR8				IAmb	IAmb	08 50 16.9	
	comp=Z,3.5nm,1.1s						
R32K	**Eaglecrest**	**83.60**	**13**	P	**P**	**08 49 55.0**	**-1.8**
ASAR	**Alice Springs**	**84.67**	**124**	P	**P**	**08 50 03.7**	**+1.0**
	comp=Z,0.5nm,0.6s,baz=310,slow=5.3,SNR=9.7						
	comp=Z,0.5nm,0.6s						

IDC 18 08:54:07.7±5.0**,29°.64N×142°.16E,h0^{km},mb3.4**/3**, mbtmp3.4**/4**,ML2.7**/1**,MS3.7**/1**,Error ellipse: s-maj=187.2km s-min=27.5km az=76.0,Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MJAR	**Matsushiro Arr**	**7.64**	**335**	Pn	Pn	08 56 00.3	0.0
	0.1nm,0.3s,baz=158,slow=11,SNR=5.1						
	0.9nm,0.3s						
MJAR				AML	AML		
MKAR	**Makanchi Array**	**48.87**	**308**	P	P	09 02 54.8	-0.3
	0.2nm,0.5s,baz=95,slow=8.2,SNR=2.3						
	0.2nm,0.5s						
WRA	**Warramunga Arr**	**49.87**	**190**	P	P	09 03 02.6	-0.2
	0.2nm,0.4s,baz=7.7,slow=7.4,SNR=2.0						
	0.2nm,0.4s						
KURBB	**Kurchatov Arra**	**51.27**	**313**	P	P	09 03 13.6	+0.3
	0.6nm,0.6s,baz=91,slow=7.8,SNR=4.4						
	0.6nm,0.6s						
MSVF	**Nonsavu**	**58.45**	**139**	LR	LR	09 24 22.1	
	comp=Z,68nm,21.1s,baz=186,slow=31						

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*IDC **18** 08:54:38.1±2.2,17°.43S×178°.81W,h628^{km}±22^{km},mb3.1/7, mbtmp4.0/8,Error ellipse: s-maj=98.8km s-min=17.2km az=154.0*

ISC 18 08:54:39.4±2.0**,17°.5S**±0°.7×**178°.9W**±0°.4**,h650^{km},n9, σ1^{s}25**/9**,mb3.6**/7**,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**2.92**	**265**	P	**P**	**08 55 59.9**	**-2.6**
	12nm,0.9s,baz=163,slow=16,SNR=4.4						
CTA	**Charters Tower**	**33.06**	**260**	P	**P**	**09 00 25.5**	**+0.8**
	1.9nm,0.5s,baz=83,slow=9.5,SNR=1.4						
	1.9nm,0.5s						
WRA	**Warramunga Arr**	**44.25**	**259**	P	**P**	**09 01 54.8**	**+0.5**
	0.8nm,0.3s,baz=95,slow=7.5,SNR=29						
	0.8nm,0.3s						
ASAR	**Alice Springs**	**44.45**	**254**	P	**P**	**09 01 56.5**	**+0.8**
	4.1nm,0.5s,baz=86,slow=8.9,SNR=64						
	4.1nm,0.5s						
NVAR	**Mina Array Bea**	**79.46**	**44**	P	**P**	**09 05 40.3**	**-0.6**
	0.7nm,0.7s,baz=220,slow=7.4,SNR=6.2						
	0.7nm,0.7s						
ILAR	**Eielson Array**	**85.61**	**13**	P	**P**	**09 06 10.9**	**+0.2**
	0.5nm,0.4s,baz=220,slow=4.9,SNR=13						
	0.5nm,0.4s						
TXAR	**Lajitas Array**	**86.17**	**58**	P	**P**	**09 06 14.9**	**+0.6**
	0.9nm,0.8s,baz=219,slow=5.9,SNR=10						
	0.9nm,0.8s						
PDAR	**Pinedale Array**	**87.38**	**44**	P	**P**	**09 06 19.8**	**-0.1**
	0.5nm,0.6s,baz=231,slow=2.5,SNR=6.1						
	0.5nm,0.6s						
GERES	**GERESS Array B**	**147.11**	**345**	PKPbc	**PKPbc**	**09 13 12.0**	**+0.7**
	2.3nm,0.6s,baz=45,slow=3.2,SNR=4.1						

IDC 18 09:08:19.0±347.0**,54°.08N×42°.74E,h0^{km},Error ellipse: s-maj=148.8km s-min=86.4km az=137.0,Baltic States-Belarus-Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I43RU	**DUBNA INFRASON**	**4.11**	**312**	I	I	09 34 10.0	
	0.1nm,0.8s,baz=128,slow=324,SNR=3.5						
I31KZ	**AKTYUBINSK INF**	**10.07**	**105**	I	I	10 08 50.0	
	baz=298,slow=323,SNR=3.1						
I46RU	**ZALESOVO INFRA**	**24.47**	**73**	I	I	11 39 00.0	
	baz=288,slow=316,SNR=1.8						

KRSZO 18 09:08:30.6±1.0**,47°.42N×18°.78E,h0^{km},ML1.7**/8**,Error ellipse: s-maj=6.3km s-min=2.9km az=161.0,Suspected Explosion.,Hungary**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BUD	**Budapest**	**0.18**	**68**	Pg	Pg	09 08 35.3	+1.2
BUD				Lg	Lg	09 08 37.8	
BUD				AML	AML		
CSKK	**Cskako**	**0.36**	**261**	Pg	Pg	09 08 37.9	+0.4
CSKK				Lg	Lg	09 08 43.8	
CSKK				AML	AML		
MPLH	**Magyarpolny**	**0.88**	**254**	Lg	Lg	09 09 02.7	
PSZ	**Piszkesteto**	**0.90**	**56**	Pn	Pn	09 08 50.5	-0.2
PSZ				AML	AML		
VYHS	**Vyhne**	**1.08**	**2**	Pn	Pb	09 08 52.5	+0.3
VYHS				Lg	Lg	09 09 07.0	
VYHS				AML	AML		
VYHS	**Vyhne**	**1.08**	**2**	*e*PG	Pb	09 08 52.4	+0.2
VYHS				*e*SG	Sb	09 09 07.5	+0.7
VYHS				*e*LG	Lg	09 09 10.6	
MODS	**Modra-Piesok**	**1.39**	**314**	*e*SG	Sg	09 09 15.1	-0.3

VIE 18 09:08:56.1±0.4**,47°.77N×16°.10E,h6^{km}**±4^{km}**,ml0.5**/2**, Error ellipse: s-maj=2.6km s-min=1.3km az=12.0 6 km NNE of Neunkirchen,Austria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RONA	**Rosalia, Austr**	**0.15**	**117**	*i* Pg	Pg	09 08 59.1	0.0
	1.2nm,0.1s						
RONA				*e*Sg	Sg	09 09 01.5	+0.3
	1.7nm,0.1s						
CONA	**Conrad Observa**	**0.23**	**315**	*i* Pg	Pg	09 09 00.8	+0.2
	0.1nm,0.0s						
CONA				*e*Sg	Sg	09 09 03.7	+0.1
	1.8nm,0.2s						

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*SNET **18** 09:20:38.4±1.5,12°.95N×88°.94W,h33^{km},ML2.9, Presumed earthquake*

*CATAC **18** 09:20:38.0±0.3,13˚N±2˚×8˚9W±˚,h27^{km}±2^{km},M2.9/25, MLv2.9/25,Error ellipse: s-maj=5.0km s-min=2.2km az=27.6,confirmed*

*GCG **18** 09:20:39.3±0.7,13°.00N×89°.06W,h52^{km}±21^{km},MD4.0, Presumed earthquake*

ISC 18 09:20:38.1±1.4**,12°.92N**±0°.06×**88°.97W**±0°.03**,h31^{km}**±11^{km}**, n51,σ0^{s}41**/90**,Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ALJI	**Alcalda de J**	**0.56**	**44**	*i* P	**Pn**	**09 20 50.2**	**+0.2**
ALJI				*e*S	**Sn**	**09 20 58.9**	**+0.6**
ALJI	**Alcalda de J**	**0.56**	**44**	P	**Pn**	**09 20 50.2**	**+0.2**
ALJI				S	**Sn**	**09 20 59.0**	**+0.6**
TECO	**Alcaldia de Te**	**0.64**	**17**	P	**Pb**	**09 20 51.0**	**0.0**
TECO				S	**Sn**	**09 21 00.3**	**+0.1**
LALI	**Alcalda de L**	**0.66**	**329**	P	**Pb**	**09 20 51.3**	**+0.1**
LALI				S	**Sn**	**09 21 01.1**	**+0.5**
SJTE	**Alcalda de S**	**0.69**	**357**	*i* P	**Pn**	**09 20 51.5**	**-0.3**
SJTE				*e*S	**Sn**	**09 21 01.3**	**-0.2**
COEG	**Centro de Oper**	**0.70**	**7**	*i* P	**Pn**	**09 20 51.5**	**-0.5**
COEG				*e*S	**Sn**	**09 21 01.5**	**-0.3**
COEG	**Centro de Oper**	**0.70**	**7**	P	**Pn**	**09 20 51.7**	**-0.3**
COEG				S	**Sn**	**09 21 01.8**	**0.0**
PANCS	**Alcalda de**	**0.72**	**344**	P	**Pb**	**09 20 52.2**	**-0.1**
PANCS				S	**Sn**	**09 21 01.8**	**-0.4**
TECA	**Tecapa**	**0.73**	**39**	*i* P	**Pb**	**09 20 52.3**	**-0.3**
TECA				*e*S	**Sn**	**09 21 03.4**	**+0.7**
LOMA	**Loma Larga**	**0.75**	**345**	*i* P	**Pn**	**09 20 52.4**	**-0.2**
LOMA				*e*S	**Sb**	**09 21 02.8**	**+0.1**
LOMA	**Loma Larga**	**0.75**	**345**	P	**Pn**	**09 20 52.5**	**-0.2**
LOMA				S	**Sb**	**09 21 03.0**	**+0.2**
PAVA	**Las Pavas**	**0.79**	**3**	*i* P	**Pn**	**09 20 53.1**	**-0.1**
PAVA				*e*S	**Sb**	**09 21 04.0**	**0.0**
PAVA	**Las Pavas**	**0.79**	**3**	P	**Pn**	**09 20 53.1**	**-0.1**
PAVA				S	**Sb**	**09 21 04.4**	**+0.5**
PQSS	**Presa 15 de Se**	**0.81**	**30**	S	**Sb**	**09 21 04.8**	**+0.4**
SCLA	**Alcaldia de Sa**	**0.81**	**17**	S	**Sb**	**09 21 05.0**	**+0.5**
SEMO	**Seminario San**	**0.82**	**343**	S	**Sb**	**09 21 04.6**	**-0.1**
LCY	**Lacayo**	**0.83**	**53**	*i* P	**Pn**	**09 20 53.0**	**-0.7**
LCY				*e*S	**Sb**	**09 21 05.3**	**+0.2**
UEES	**Universidad Ev**	**0.83**	**342**	P	**Pn**	**09 20 53.8**	**0.0**
UEES				S	**Sb**	**09 21 05.2**	**+0.1**
PACA	**Pacayal**	**0.84**	**49**	P	**Pb**	**09 20 53.8**	**-0.5**
PACA				S	**Sb**	**09 21 05.7**	**+0.4**
RANC	**El Ranchito**	**0.84**	**52**	P	**Pn**	**09 20 53.8**	**-0.2**
RANC				S	**Sb**	**09 21 05.7**	**+0.2**
PMON	**Piamonte**	**0.85**	**337**	*i* P	**Pb**	**09 20 55.1**	**+0.5**
PMON				*e*S	**Sb**	**09 21 05.5**	**-0.3**
PMON	**Piamonte**	**0.85**	**337**	P	**Pn**	**09 20 54.0**	**-0.1**
PMON				S	**Sb**	**09 21 05.9**	**+0.1**
JAYA	**Jayaque - finc**	**0.86**	**328**	*e*P	**Pn**	**09 20 53.8**	**-0.5**
JAYA				*e*S	**Sn**	**09 21 05.1**	**-0.8**
JAYA	**Jayaque - finc**	**0.86**	**328**	*i* P	**Pn**	**09 20 54.0**	**-0.3**
JAYA				*e*S	**Sn**	**09 21 05.7**	**-0.3**
JAYA	**Jayaque - finc**	**0.86**	**328**	P	**Pn**	**09 20 54.0**	**-0.3**
JAYA				S	**Sb**	**09 21 06.1**	**0.0**
INTP	**Intipuca**	**0.94**	**73**	*i* P	**Pn**	**09 20 54.8**	**-0.4**
INTP				*e*S	**Sn**	**09 21 06.9**	**-0.7**
CEDA	**San Andres**	**0.97**	**335**	S	**Sb**	**09 21 08.7**	**-0.3**
P5NO	**Presa 5 de nov**	**1.08**	**11**	P	**Pn**	**09 20 56.8**	**-0.4**
P5NO				S	**Sn**	**09 21 10.8**	**-0.3**
CEVE	**Cerro Verde**	**1.10**	**325**	*i* P	**Pb**	**09 20 58.3**	**-0.5**
CEVE				*e*S	**Sb**	**09 21 14.7**	**+1.7**
CEVE	**Cerro Verde**	**1.10**	**325**	P	**Pn**	**09 20 58.0**	**+0.3**
CEVE				S	**Sb**	**09 21 12.4**	**-0.6**
LCND	**La Caada**	**1.12**	**70**	P	**Pn**	**09 20 57.9**	**+0.1**
CNCH	**Conchagua**	**1.17**	**72**	*i* P	**Pn**	**09 20 58.1**	**-0.3**
CNCH				*e*S	**Sb**	**09 21 14.3**	**-0.3**
CNCH	**Conchagua**	**1.17**	**72**	P	**Pn**	**09 20 58.0**	**-0.4**
CNCH				S	**Sn**	**09 21 13.5**	**+0.2**
UNIC	**Universidad Ca**	**1.19**	**332**	P	**Pn**	**09 20 59.0**	**+0.3**
UNIC				S	**Sb**	**09 21 14.5**	**-1.0**
LLGN	**La Laguna**	**1.24**	**1**	P	**Pn**	**09 20 59.2**	**-0.2**
LLGN				S	**Sn**	**09 21 15.2**	**+0.1**
NUBE	**Las Nubes**	**1.25**	**321**	*e*P	**Pn**	**09 20 59.5**	**-0.2**
NUBE				*e*S	**Sn**	**09 21 15.3**	**-0.3**
NUBE	**Las Nubes**	**1.25**	**321**	P	**Pn**	**09 20 59.7**	**0.0**
NUBE				S	**Sn**	**09 21 15.6**	**+0.1**
SLOZ	**Alcaldia de Sa**	**1.35**	**324**	P	**Pn**	**09 21 01.0**	**+0.1**
FAME	**Alcaldia de Sa**	**1.37**	**312**	P	**Pn**	**09 21 01.6**	**+0.5**
FAME				S	**Sn**	**09 21 18.5**	**+0.4**
CSGN	**Cosiguina Volc**	**1.38**	**88**	P	**Pn**	**09 21 01.4**	**+0.1**
CSGN				S	**Sn**	**09 21 19.0**	**+0.4**
MTO3	**Montecristo**	**1.52**	**346**	*e*P	**Pn**	**09 21 03.1**	**-0.3**
MTO3	**Montecristo**	**1.52**	**346**	P	**Pn**	**09 21 03.2**	**-0.1**
MTO3				S	**Sn**	**09 21 22.7**	**+0.5**
JUAM	**Asuncion Mita**	**1.58**	**333**	*e*P	**Pn**	**09 21 04.0**	**0.0**
ESQI	**Esquipulas**	**1.67**	**348**	P	**Pn**	**09 21 05.6**	**+0.3**
ESQI				S	**Sn**	**09 21 26.3**	**+0.6**
SARH	**Santa Rosa de**	**1.86**	**6**	*e*P	**Pn**	**09 21 08.3**	**+0.4**
SARH	**Santa Rosa de**	**1.86**	**6**	P	**Pn**	**09 21 07.8**	**-0.1**
SARH				S	**Sn**	**09 21 30.7**	**+0.3**
TGUH	**Tegucigalpa,Un**	**2.00**	**55**	P	**Pn**	**09 21 10.0**	**0.0**
TGUH				S	**Sn**	**09 21 33.8**	**-0.2**
TELN	**Telica**	**2.11**	**98**	P	**Pn**	**09 21 10.9**	**-0.5**
PLRN	**Geotermica Pol**	**2.18**	**99**	P	**Pn**	**09 21 12.5**	**+0.3**
CNGA	**Al SSO del Vol**	**2.26**	**101**	P	**Pn**	**09 21 13.4**	**+0.1**
CNGN	**Cerro Negro**	**2.26**	**100**	P	**Pn**	**09 21 13.5**	**+0.1**
CNGN				S	**Sn**	**09 21 40.6**	**+0.4**

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*IDC **18** 09:52:50.2±1.5,19°.87S×177°.52W,h536^{km}±19^{km},mb3.2/5, mbtmp4.3/7,Error ellipse: s-maj=28.3km s-min=17.0km az=159.0*

ISC 18 09:52:50.9±0.8**,19°.7S**±0°.2×**177°.5W**±0°.2**,h550^{km},n8, σ1^{s}08**/11**,mb3.8**/5**,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**4.62**	**295**	P	**P**	**09 54 17.6**	**-0.2**
	30nm,0.4s,baz=100,slow=12,SNR=62						
AFI	**Afiamalu**	**7.99**	**45**	P	**P**	**09 54 49.5**	**+0.7**
	25nm,0.3s,baz=158,slow=3.7,SNR=8.7						
AFI				S	**S**	**09 56 23.7**	**-1.6**
	20nm,0.4s,baz=198,slow=19,SNR=6.5						
ASAR	**Alice Springs**	**45.12**	**256**	P	**P**	**10 00 18.6**	**-0.3**
	6.2nm,0.8s,baz=98,slow=7.6,SNR=76						
ASAR				PcP	**PcP**	**10 01 49.2**	**+1.5**
	0.2nm,0.4s,baz=108,slow=3.6,SNR=4.2						
	6.2nm,0.8s						
WRA	**Warramunga Arr**	**45.14**	**261**	P	**P**	**10 00 18.4**	**-0.5**
	1.4nm,0.3s,baz=98,slow=8.1,SNR=65						
WRA				PcP	**PcP**	**10 01 49.1**	**+1.3**
	0.3nm,0.8s,baz=99,slow=5.7,SNR=1.4						
	1.4nm,0.3s						
QSPA	**South Pole Qui**	**70.34**	**180**	P	**P**	**10 03 08.9**	**-0.4**
	2.4nm,0.8s,baz=28,slow=1.8,SNR=18						
	2.4nm,0.8s						
MAW	**Mawson**	**82.44**	**200**	P	**P**	**10 04 14.8**	**-0.6**
	0.7nm,0.6s,baz=105,slow=16,SNR=1.2						
	0.7nm,0.6s						
TXAR	**Lajitas Array**	**86.28**	**57**	P	**P**	**10 04 36.0**	**+0.9**
	0.4nm,1.0s,baz=197,slow=3.9,SNR=4.5						
	0.4nm,1.0s						
ARCES	**ARCESS Array B**	**128.24**	**350**	PKP	**PKiKP**	**10 10 54.4**	**-0.7**
	2.6nm,0.9s,baz=30,slow=2.1,SNR=15						

HEL 18 09:53:34.5±0.1**,63°.57N×29°.17E,h0^{km},ML1.2, Explosion,Finland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NIF	**Nilsia**	**0.64**	**254**	PG	Pg	09 53 45.7	-1.0
	baz=76						
NIF				SG	Sg	09 53 53.5	-1.3
NIF				smax	smax	09 53 54.7	
	comp=Z,1.7nm,0.2s						
RMF	**Romuvaara**	**0.73**	**27**	PG	Pg	09 53 48.1	-0.5
RMF				SG	Sg	09 53 57.3	-0.7
RMF				smax	smax	09 53 57.6	
	comp=Z,1.5nm,0.2s						
JOF	**Joensuu**	**1.17**	**123**	PG	Pg	09 53 55.2	-1.6
JOF				SN	Sn	09 54 16.6	+2.0
SUF	**Sumiainen**	**1.61**	**240**	PN	Pn	09 54 04.0	-0.2
SUF				smax	smax	09 54 22.7	
	comp=Z,1.0nm,0.2s						
SUF				SN	Sn	09 54 24.6	-1.1
KAF	**Kangasniemi**	**1.96**	**223**	PG	Pn	09 54 09.9	+0.9
KAF				smax	smax	09 54 32.8	
	comp=Z,1.6nm,0.2s						
KU1	**Kurvinen**	**2.01**	**5**	PG	Pn	09 54 10.1	+0.4
KU1				SG	Sn	09 54 36.3	+0.8
OUF	**Merijarvi**	**2.12**	**294**	smax	smax	09 54 37.2	
	comp=Z,0.7nm,0.2s						
OUF				SG	Sb	09 54 41.3	+0.9
RUF	**Ruokolahti**	**2.15**	**183**	PG	Pb	09 54 13.4	-0.9
	baz=3.0						
RUF				smax	smax	09 54 38.2	
	comp=Z,1.0nm,0.2s						
RUF				SG	Sb	09 54 40.6	-0.8
OBF4	**Vikkela, Lumij**	**2.18**	**307**	PG	Pb	09 54 14.1	-0.6
OBF4				smax	smax	09 54 39.0	
	comp=Z,3.4nm,0.2s						
OBF4				SG	Sb	09 54 41.7	-0.5
KEF	**Keuruu**	**2.42**	**236**	PG	Pb	09 54 18.1	-0.8
KEF				smax	smax	09 54 46.0	
	comp=Z,1.1nm,0.2s						
KEF				SG	Sb	09 54 48.7	-0.5
FIA0	**FINESS Array S**	**2.57**	**215**	smax	smax	09 54 50.4	
	comp=Z,0.3nm,0.2s						
FIA0				SB	Sb	09 54 52.2	-1.3
RANF	**Ranua**	**2.66**	**339**	SG	Sb	09 54 56.0	-0.1
VAF	**Ylistaro**	**2.98**	**263**	smax	smax	09 55 02.1	
	comp=Z,0.5nm,0.2s						
VAF				SG	Sb	09 55 06.3	+1.0
HEL1	**Helsinki**	**3.96**	**213**	SG	Sb	09 55 37.2	+3.7
LAUT	**Lauttasaari He**	**3.99**	**213**	PN	Pn	09 54 38.4	+1.6
LAUT				SG	Sb	09 55 37.2	+3.0
ERTU	**Ertsjaerv**	**4.21**	**319**	SN	Sn	09 55 26.8	-2.8

HEL 18 09:55:00.0±0.2**,64°.51N×24°.36E,h0^{km},ML1.0, Explosion,Finland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OBF0	**Syolatti, Pyha**	**0.05**	**257**	PG	Pg	09 55 00.2	-0.8
OUF	**Merijarvi**	**0.22**	**131**	PG	Pg	09 55 03.6	-0.5
	baz=309						
OUF				SG	Sg	09 55 06.7	-0.2
OUF				smax	smax	09 55 08.1	
	comp=Z,2.6nm,0.2s						
OBF4	**Vikkela, Lumij**	**0.44**	**46**	PG	Pg	09 55 08.1	-0.3
OBF4				SG	Sg	09 55 14.0	-0.2
OBF4				smax	smax	09 55 14.5	
	comp=Z,1.2nm,0.2s						
BURU	**Burvik**	**1.29**	**275**	SG	Sg	09 55 41.1	-0.3
TOF	**Tornio**	**1.58**	**360**	SG	Sn	09 55 46.3	-4.0
TOF				smax	smax	09 55 47.2	
	comp=Z,2.9nm,0.2s						
VAF	**Ylistaro**	**1.65**	**208**	PG	Pn	09 55 30.1	-0.1
	baz=30						
VAF				smax	smax	09 55 49.2	
	comp=Z,1.3nm,0.2s						
VAF				SN	Sn	09 55 51.6	-0.4
UMAU	**Umeaa**	**1.73**	**250**	SG	Pn	09 55 30.8	-0.4
UMAU	**Umeaa**	**1.73**	**250**	PG	Pn	09 55 30.8	-0.4
KEF	**Keuruu**	**2.36**	**174**	smax	smax	09 56 10.0	
	comp=Z,0.7nm,0.2s						
KEF				SG	Sb	09 56 12.8	-0.2
HUSU	**Husum**	**2.56**	**245**	SB	Sb	09 56 18.1	-0.4
HEL1	**Helsinki**	**4.36**	**177**	SG	Sb	09 57 13.6	+3.2
LAUT	**Lauttasaari He**	**4.38**	**177**	SG	Sb	09 57 13.6	+2.6
TVF	**Tvarminne**	**4.71**	**187**	SN	Sn	09 57 05.1	-2.4

DJA 18 10:11:40.5±0.4**,1˚N**±6˚×**12˚6E**±˚**,h10^{km},M3.2**/6**,MLv3.2**/6**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TNTI	**Ternate**	**1.12**	**128**	P	Pb	10 12 01.2	-0.8
MNI	**Manado**	**1.64**	**269**	P	Pn	10 12 08.8	-0.6

*IDC **18** 10:14:13.1±1.0, 48°.02S×103°.77E, h0^{km}, mb4.2/6, mbtmp4.2/6, MS3.8/26, Error ellipse: s-maj=43.8km s-min=18.9km az=109.0*

*NEIC **18** 10:14:15.9±1.4, 48°.0S±0°.1×104°.1E±0°.1, h10^{km}±1^{km}, mb4.5/19, Error ellipse: s-maj=18.9km s-min=16.2km az=163.0*

ISC 18 10:14:15.1±0.5**, 48°.04S**±0°.09×**104°.1E**±0°.1**, h10^{km}, n67,** σ**0^s.68**/45**, mb4.5**/14**, MS3.9**/25**, Southeast Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H01W2	Cape Leeuwin H	15.12	33	T	T	10 33 21.2	
	baz=206,slow=73,SNR=524						
H01W1	Cape Leeuwin H	15.13	33	T	T	10 33 23.3	
	baz=206,slow=73,SNR=604						
H01W3	Cape Leeuwin H	15.13	33	T	T	10 33 23.5	
	baz=206,slow=73,SNR=603						
NWAO	Narrogin (SRO)	18.07	38	LR	LR	10 23 13.7	
	comp=Z,493nm,19.1s,baz=233,slow=30						
NWAO	Narrogin (SRO)	18.07	38		P	10 18 26.6	0.0
NWAO				IAmb	IAmb	10 18 51.4	
	comp=Z,47nm,1.5s						
CASY	Casey	18.60	172	P	Pn	10 18 32.5	+0.2
MORW	Morawa	21.08	30	P	P	10 18 59.5	+0.1
MORW				IAmb	IAmb	10 19 08.0	
	comp=Z,25nm,1.1s						
AIS	Amsterdam Isla	21.85	288	P	P	10 19 06.6	-1.0
BBOO	Buckleboo	28.45	69	P	P	10 20 10.2	+0.1
MAW	Mawson	28.57	212	LR	LR	10 29 27.1	
	comp=Z,324nm,18.5s,baz=68,slow=32						
STKA	Stephens Creek	32.59	74	LR	LR	10 31 19.1	
	comp=Z,201nm,21.6s,baz=208,slow=31						
ASAR	Alice Springs	33.93	55	P	P	10 20 59.0	+0.6
	comp=Z,4.5nm,1.1s,baz=213,slow=8.5,SNR=14						
ASAR				PcP	PcP	10 23 36.5	-0.1
	comp=Z,0.5nm,0.8s,baz=228,slow=1.2,SNR=5.8						
ASAR				LR	LR	10 33 11.8	
	comp=Z,230nm,19.3s,baz=246,slow=33						
	comp=Z,4.5nm,1.1s						
ASAR	Alice Springs	33.93	55	P	P	10 20 58.4	0.0
ASAR					PcP	10 23 36.0	-0.7
AS31	Alice Springs	33.93	55	P	P	10 20 59.0	+0.6
FITZ	Fitzroy Crossi	34.66	38	LR	LR	10 34 07.3	
	comp=Z,295nm,19.1s,baz=187,slow=34						
INKA	Innaminka	34.87	68	P	P	10 21 06.7	+0.2
INKA				IAmb	IAmb	10 21 44.2	
	comp=Z,2.1nm,0.8s						
VNDA	Vanda	36.73	162	P	P	10 21 22.1	+0.3
	comp=Z,1.6nm,0.8s,baz=289,slow=8.7,SNR=8.8						
VNDA				LR	LR	10 35 02.8	
	comp=Z,230nm,20.9s,baz=294,slow=34						
	comp=Z,1.6nm,0.8s						
VNDA	Vanda	36.73	162	P	P	10 21 22.2	+0.3
WRA	Warramunga Arr	37.18	52	P	P	10 21 26.6	+0.2
	comp=Z,4.4nm,0.9s,baz=211,slow=7.9,SNR=16						
	comp=Z,4.4nm,0.9s						
WRA	Warramunga Arr	37.18	52	P	P	10 21 27.3	+1.0
WRAB	Tennant Creek	37.20	52	P	P	10 21 25.5	-1.0
WRAB				IAmb	IAmb	10 21 28.2	
	comp=Z,13nm,1.2s						
WR8	Warramunga Arr	37.26	52	P	P	10 21 27.9	+0.9
WR8				IAmb	IAmb	10 21 34.3	
	comp=Z,17nm,1.4s						
QSPA	South Pole Qui	42.10	180	P	P	10 22 06.7	-0.3
	comp=Z,3.8nm,0.8s,baz=321,slow=5.9,SNR=14						
QSPA				LR	LR	10 38 27.9	
	comp=Z,151nm,20.5s,baz=324,slow=34						
	comp=Z,3.8nm,0.8s						
QSPA	South Pole Qui	42.10	180	P	P	10 22 07.3	+0.3
QSPA				IAmb	IAmb	10 22 08.8	
	comp=Z,4.3nm,0.8s						
CTA	Charters Tower	43.90	66	LR	LR	10 39 59.1	
	comp=Z,173nm,18.1s,baz=220,slow=35						
KAPI	Kappang	44.92	22	LR	LR	10 39 58.2	
	comp=Z,83nm,18.1s,baz=170,slow=34						
H08S2	Diego Garcia H	48.35	316	T	T	11 14 41.0	
	baz=152,slow=76,SNR=5.5						
H08S1	Diego Carcia H	48.35	316	T	T	11 14 42.1	
	baz=152,slow=76,SNR=4.5						
H08S3	Diego Garcia H	48.37	316	T	T	11 14 43.3	
	baz=152,slow=76,SNR=4.5						
SNAA	Sanae	50.10	203	P	P	10 23 07.7	-2.0
	comp=Z,3.7nm,0.9s,baz=125,slow=7.0,SNR=4.5						
SNAA				LR	LR	10 42 51.3	
	comp=Z,101nm,18.8s,baz=87,slow=34						
	comp=Z,3.7nm,0.9s						
SNAA	Sanae	50.10	203	P	P	10 23 11.0	+1.2
SNAA				IAmb	IAmb	10 23 12.3	
	comp=Z,11nm,1.2s						
TOLI2	Tolitoli	51.07	22	P	P	10 23 18.0	+0.4
TOLI2				IAmb	IAmb	10 23 47.7	
	comp=Z,13nm,1.0s						
BELA	Belgrano 2	51.83	190	P	P	10 23 22.3	-0.3
BELA				IAmb	IAmb	10 23 24.5	
	comp=Z,4.0nm,0.8s						
VOI	Vohitsoka	52.28	279	P	P	10 23 27.1	+0.3
VOI				IAmb	IAmb	10 23 55.4	
	comp=Z,9.6nm,1.1s						
PMG	Port Moresby	52.84	58	LR	LR	10 45 29.3	
	comp=Z,90nm,18.3s,baz=179,slow=35						
KOUNC	Koumac, New Ca	55.16	82	P	P	10 23 47.0	-0.8
PALK	Pallekele	58.81	333	LR	LR	10 43 20.7	
	comp=Z,112nm,22.0s,baz=152,slow=30						
HNR	Honiara	60.51	70	LR	LR	10 50 35.6	
	comp=Z,58nm,18.1s,baz=310,slow=36						
BOSA	Boshof	62.12	257	LR	LR	10 47 09.9	
	comp=Z,48nm,18.9s,baz=195,slow=32						
BOSA	Boshof	62.12	257	P	P	10 24 37.0	+0.6
BOSA				IAmb	IAmb	10 24 52.1	
	comp=Z,8.2nm,1.2s						
SUR	Sutherland	62.51	251	LR	LR	10 46 53.0	
	comp=Z,60nm,18.2s,baz=161,slow=32						
SUR	Sutherland	62.51	251	P	P	10 24 40.3	+1.3
LBTB	Lobatse	64.32	261	LR	LR	10 48 47.0	
	comp=Z,44nm,18.3s,baz=158,slow=32						
LBTB	Lobatse	64.32	261	P	P	10 24 51.2	+0.3
MATP	Matopo	65.55	266	LR	LR	10 47 09.1	
	comp=Z,79nm,21.7s,baz=116,slow=30						
CMAR	Chiang Mai Arr	66.35	355	P	P	10 25 03.4	-0.4
	comp=Z,1.1nm,0.6s,baz=196,slow=5.7,SNR=6.4						
CMAR				LR	LR	10 53 05.0	
	comp=Z,30nm,18.0s,baz=205,slow=35						
	comp=Z,1.1nm,0.6s						
PMSA	Palmer Station	67.14	185	LR	LR	10 54 07.4	
	comp=Z,143nm,19.1s,baz=216,slow=36						
BRDH	Bariadhala	71.27	348	LR	LR	10 53 21.1	
	comp=Z,56nm,18.2s,baz=184,slow=33						
GUMO	Guam	71.28	42	LR	LR	10 56 22.6	
	comp=Z,29nm,18.8s,baz=182,slow=35						
KSRS	Korea Array	87.73	19	LR	LR	11 09 59.4	
	comp=Z,8.9nm,18.8s,baz=230,slow=38						
MJAR	Matsushiro Arr	89.55	27	LR	LR	11 05 04.3	
	comp=Z,19nm,19.9s,baz=213,slow=34						
PLCA	Paso Flores	91.48	184	LR	LR	11 06 42.5	
	comp=Z,68nm,18.8s,baz=182,slow=34						
AAK	Ala-Archa	94.00	339	LR	LR	11 05 36.1	
	comp=Z,44nm,18.6s,baz=162,slow=33						
SONM	Songino Array	95.51	2	LR	LR	11 09 24.5	
	comp=Z,32nm,21.9s,baz=178,slow=35						
SRIG	Santa Rosalia	145.04	113	PKPbc	PKPbc	10 33 50.9	-0.9
G31M	Satah River	145.10	36	PKPbc	PKPdf	10 33 51.2	-0.1
DCMP	DeCamp, Califo	145.17	86	PKPbc	PKPbc	10 33 51.4	-0.5
CVS	Carmenet Viney	145.19	89	PKPbc	PKPbc	10 33 51.5	-0.5
BBGB	Big Mountain B	145.19	92	PKPbc	PKPbc	10 33 52.1	-0.1
INK	Inuvik	145.28	33	PKPbc	PKPdf	10 33 51.5	0.0
QSM	Queen of Sheba	147.64	97	PKPbc	PKPbc	10 33 59.9	+0.6
H04D	Lebanon	147.84	79	PKPbc	PKPbc	10 33 59.4	-0.2
GWY	Greenwater Val	147.90	96	PKPbc	PKiKP	10 34 01.5	-0.6
CBB	Campbell River	147.99	68	PKPdf	PKPdf	10 33 57.5	+0.9
CBB				PKPbc	PKPbc	10 34 00.2	+0.4
NVAR	Mina Array Bea	148.02	92	PKPbc	PKiKP	10 34 01.5	-0.9
	comp=Z,2.5nm,0.8s,baz=251,slow=3.8,SNR=17						
NVAR	Mina Array Bea	148.02	92	PKPdf	PKPdf	10 33 57.6	+0.2
NVAR					sPKPdf	10 34 01.3	+0.7
NVAR				PKPab	PKPab	10 34 03.9	+0.5
TXAR	Lajitas Array	151.63	121	PKPbc	PKPbc	10 34 09.2	-0.4
	comp=Z,1.8nm,1.1s,baz=183,slow=4.6,SNR=7.3						

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*DJA **18** 10:15:15.8±0.9, 5°N±3°×9°5E±°, h10^{km}, M4.6/24, mB5.4/3, mb4.7/8, MLv4.5/24, Mw(mB)4.9/3*

*NEIC **18** 10:15:20.6±1.7, 5°.20N±0°.07×94°.75E±0°.04, h76^{km}±6^{km}, mb4.5/34, Error ellipse: s-maj=10.8km s-min=4.0km az=157.0*

*IDC **18** 10:15:23.9±7.8, 5°.16N×94°.75E, h113^{km}±69^{km}, mb3.7/12, mbtmp4.1/13, MS3.3/3, Error ellipse: s-maj=45.9km s-min=12.9km az=58.0*

ISC 18 10:15:15.9±0.4**, 5°.08N**±0°.06×**94°.53E**±0°.05**, h43^{km}, n91,** σ**1^s.44**/86**, mb4.3**/30**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BSI	Banda Aceh	0.87	61	P	Pn	10 15 32.4	+0.7
BSI				AML	AML		
MLSI	Meulaboh, Aceh	2.03	113	P	Pn	10 15 49.2	+1.6
MLSI				AML	AML		
LHMI	Lhok Sumawe	2.41	86	Pn	Pn	10 15 55.4	+2.6
LHMI				Sn	Sn	10 16 22.5	+1.4
LHMI	Lhok Sumawe	2.41	86	P	Pn	10 15 55.1	+2.3
LHMI				AML	AML		
SNSI	Sinabang, Aceh	3.20	146	P	Pn	10 16 03.3	-0.3
SNSI				AML	AML		
TPTI		3.20	124	P	Pn	10 16 04.3	+0.7
TPTI				AML	AML		
KCSI	Kotacane, Aceh	3.58	115	P	Pn	10 16 11.4	+2.5
KCSI				AML	AML		
GSI	Gunungsitoli	4.82	141	Pn	Pn	10 16 29.3	+3.3
GSI	Gunungsitoli	4.82	141	P	Pn	10 16 25.8	-0.2
GSI				AML	AML		
PSI	Prapat	4.93	117	P	Pn	10 16 29.9	+2.3
RPSI	Rantau Prapat	4.98	118		Pn	10 16 30.4	+2.3
RPSI				Sn	Sn	10 17 27.0	+2.5
KULM	Kulim	6.09	88	Pn	Pn	10 16 46.0	+2.5
KULM	Kulim	6.09	88	P	Pn	10 16 44.7	+1.2
	0.3nm26nm,1.0s						
KULM				AML	AML		
PBSI	Pulau Batu	6.32	144	P	Pn	10 16 46.1	-0.5
	141nm,1.5s						
IPM	Ipoh	6.50	95		Pn	10 16 51.0	+2.0
IPM	Ipoh	6.50	95	P	Pn	10 16 50.4	+1.4
IPM				AML	AML		
MYKOM	Kota Tinggi	9.85	109	Pn	Pn	10 17 37.6	+2.5
PALK	Pallekele	13.92	280	Pn	P	10 18 37.0	-1.0
CMAR	Chiang Mai Arr	13.98	18	P	P	10 18 36.9	-1.6
	5.1nm,0.8s,baz=211,slow=13,SNR=2.0						
CMAR				LR	LR	10 23 53.0	
	comp=Z,50nm,18.1s,baz=210,slow=37						
CMAR	Chiang Mai Arr	13.98	18	Pn	Pn	10 18 32.7	+1.2
CHTO	Chiang Mai	14.32	17	Pn	Pn	10 18 37.1	+1.1
CHTO	Chiang Mai	14.32	17	P	P	10 18 42.0	-0.3
HYB	Hyderabad	19.88	309	*e*P	Pn	10 19 46.2	+0.6
HYB				*e*pP	sP	10 20 01.9	+3.3
HYB				*e*S	Sn	10 23 27.5	-0.9
KAAM	Kaadhehdhoo	21.98	259	P	P	10 20 10.2	+3.7
EVN	Everest	23.91	343	P	P	10 20 26.1	-0.4
H08S3	Diego Garcia H	25.36	240	T	T	10 46 42.6	
	baz=60,slow=75,SNR=210						
H08S2	Diego Garcia H	25.36	240	T	T	10 46 32.2	
	baz=60,slow=75,SNR=90						
H08S1	Diego Carcia H	25.38	240	T	T	10 46 40.0	
	baz=60,slow=75,SNR=41						
SZP	Santa	28.23	62	P	P	10 21 03.8	-1.3
LYN	LuoYang	33.71	27	*e*P	P	10 21 53.8	+0.7
LYN				pmax	pmax		
	comp=Z,16nm,0.5s						
LYN				pmax	pmax		
	comp=Z,280nm,3.8s						
KBL	Kabul	37.64	324	P	P	10 22 26.4	-0.7
KBL				IAmb	IAmb	10 22 29.7	
	comp=Z,5.5nm,1.4s						
FITZ	Fitzroy Crossi	38.36	128	P	P	10 22 32.6	-0.5
	comp=Z,1.2nm,0.5s,baz=316,slow=7.9,SNR=7.2						
	comp=Z,1.2nm,0.5s						
FITZ	Fitzroy Crossi	38.36	128	P	P	10 22 31.6	-1.5
WUS	Wushi	38.49	341	P	P	10 22 34.4	+0.3
WUS				IAmb	IAmb	10 22 49.5	
	comp=Z,7.2nm,0.6s						
FAKI	Fak Fak	38.51	101	P	P	10 22 32.9	-1.5
JOW	Kunigami	38.77	52	LR	LR	10 40 34.5	
	comp=Z,28nm,18.5s,baz=177,slow=39						
ROCAM	Rodrigues Isla	39.35	230	P	P	10 22 42.7	+1.3
TARG	Taragay, Kyrgy	39.44	340	P	P	10 22 41.0	-1.3
TARG				IAmb	IAmb	10 22 41.1	
	comp=Z,8.8nm,1.4s						
PDGK	Podgornoye	40.35	343	P	P	10 22 48.3	-1.3
MTN	Manton Dam	40.49	116	P	P	10 22 48.8	-2.1
MTN				IAmb	IAmb	10 23 02.6	
	comp=Z,7.2nm,1.4s						
ARSB	Arslanbob	40.92	335	P	P	10 22 52.9	-1.5
AAK	Ala-Archa	41.42	338	P	P	10 22 57.5	-1.0
HRA	Herat	41.77	318	P	P	10 23 01.7	+0.2
HRA				IAmb	IAmb	10 23 03.3	
	comp=Z,5.0nm,0.6s						
MK31	Makanchi Array	42.89	348	P	P	10 23 10.0	-0.2
MKAR	Makanchi Array	42.89	348	P	P	10 23 10.7	+0.5
	comp=Z,3.7nm,0.8s,baz=162,slow=8.1,SNR=23						
	comp=Z,3.7nm,0.8s						
MAKZ	Makanchi	42.97	347	P	P	10 23 10.4	-0.4
MAKZ				IAmb	IAmb	10 23 26.8	
	comp=Z,2.9nm,0.6s						
KKAR	Karatay Array	43.43	334	P	P	10 23 14.8	+0.2
INCN	Inchon	43.57	38	P	P	10 23 12.8	-3.0
SONM	Songino Array	43.80	12	P	P	10 23 16.9	-0.7
	comp=Z,2.2nm,0.8s,baz=188,slow=8.2,SNR=7.6						
SONM				PcP	PcP	10 25 03.5	-0.2
	comp=Z,0.6nm,0.4s,baz=172,slow=4.4,SNR=2.3						
	comp=Z,2.2nm,0.8s						
SONM	Songino Array	43.80	12	P	P	10 23 17.1	-0.6
KSRS	Korea Array	44.35	39	P	P	10 23 21.3	-0.7
	comp=Z,0.4nm,0.3s,baz=207,slow=8.3,SNR=1.9						
	comp=Z,0.4nm,0.3s						
WB0	Warramunga Arr	46.32	123	P	P	10 23 37.7	-0.3
WB0				IAmb	IAmb	10 23 38.7	
	comp=Z,6.0nm,0.6s						
WRA	Warramunga Arr	46.36	124	P	P	10 23 38.1	-0.1
	comp=Z,4.4nm,0.7s,baz=301,slow=9.4,SNR=52						
WRA				PcP	PcP	10 25 12.4	-0.5
	comp=Z,0.5nm,0.7s,baz=304,slow=3.5,SNR=2.3						
	comp=Z,4.4nm,0.7s						
WRA	Warramunga Arr	46.36	124	P	P	10 23 37.9	-0.3
WRAB	Tennant Creek	46.36	124	P	P	10 23 38.6	+0.3
WRAB				IAmb	IAmb	10 23 39.3	
	comp=Z,4.8nm,0.7s						
WR8	Warramunga Arr	46.50	124	P	P	10 23 39.2	-0.1
WR8				IAmb	IAmb	10 23 40.4	
	comp=Z,6.8nm,0.7s						
KURBB	Kurchatov Arra	47.34	346	P	P	10 23 46.2	+0.8
	comp=Z,1.4nm,0.6s,baz=169,slow=6.8,SNR=9.7						
	comp=Z,1.4nm,0.6s						
KURK	Kurchatov	47.40	346	P	P	10 23 46.6	+0.7
KURK				IAmb	IAmb	10 24 01.1	
	comp=Z,3.0nm,0.8s						
ASAR	Alice Springs	47.86	128	P	P	10 23 50.1	+0.2
	comp=Z,1.0nm,0.6s,baz=298,slow=8.0,SNR=28						
	comp=Z,1.0nm,0.6s						
ASAR	Alice Springs	47.86	128	P	P	10 23 49.5	-0.4
AS31	Alice Springs	47.86	128	P	P	10 23 50.3	+0.4
ZAA0	Zalesovo Array	49.36	352	P	P	10 24 00.4	-0.5
ZAA0				IAmb	IAmb	10 24 02.1	
	comp=Z,5.5nm,0.9s						
ZALV	Zalesovo Beam	49.36	352	P	P	10 24 01.4	+0.4
	comp=Z,1.3nm,0.3s,baz=180,slow=5.8,SNR=14						
	comp=Z,1.3nm,0.3s						
USRK	Ussuriysk Ar.	50.96	34	P	P	10 24 12.0	-1.2
	comp=Z,0.8nm,0.6s,baz=214,slow=14,SNR=1.9						
	comp=Z,0.8nm,0.6s						
USRK	Ussuriysk Ar.	50.96	34	P	P	10 24 11.5	-1.7
ATD	Arta Tunnel	51.49	281	P	P	10 24 19.4	+1.7
ATD				IAmb	IAmb	10 24 40.4	
	comp=Z,14nm,1.4s						
BVAR	Borovoye Array	51.75	342	P	P	10 24 19.0	0.0
	comp=Z,0.5nm,0.3s,baz=137,slow=7.4,SNR=3.7						
	comp=Z,0.5nm,0.3s						
BORK	Borovoye	51.79	342	P	P	10 24 19.8	+0.5
BORK				IAmb	IAmb	10 24 41.0	
	comp=Z,2.5nm,0.8s						
AB31	Akbulak array	52.87	332	P	P	10 24 27.4	+0.1
AB31				IAmb	IAmb	10 24 28.4	
	comp=Z,3.3nm,1.1s						
ABKAR	Akbulak array	52.87	332	P	P	10 24 27.1	-0.2
H04N2	CROZET ISLANDS	63.55	212	T	T	11 34 29.0	
	baz=49,slow=75,SNR=30						
H04N1	CROZET ISLANDS	63.56	212	T	T	11 34 24.6	
	baz=49,slow=75,SNR=44						
H04N3	CROZET ISLANDS	63.57	212	T	T	11 34 23.3	
	baz=49,slow=75,SNR=35						
H04S1	CROZET ISLANDS	63.94	211	T	T	11 34 37.7	
	baz=48						
H04S3	CROZET ISLANDS	63.95	211	T	T	11 34 42.8	
	baz=48,slow=74						
H04S2	CROZET ISLANDS	63.96	211	T	T	11 34 44.0	
	baz=48,slow=74						
BRTR	Keskin Array B	64.56	312	P	P	10 25 49.4	+0.4
PEA0B	Petropavlovsk-	70.05	35	P	P	10 26 21.1	-2.2
PETK	Petropavlovsk-	70.05	35	P	P	10 26 21.6	-1.7
AKBB	Malin Array Si	70.58	322	P	P	10 26 27.3	+0.7
AKBB				IAmb	IAmb	10 26 29.5	
	comp=Z,10nm,1.4s						
LHI	Lord Howe Isla	71.33	126	P	P	10 26 31.0	-0.5
OJC	Ojcow	76.36	320	P	P	10 27 00.9	+0.3
ARCES	ARCESS Array B	78.02	340	P	P	10 27 09.8	+0.3
	comp=Z,4.2nm,1.1s,baz=89,slow=8.2,SNR=1.7						
	comp=Z,4.2nm,1.1s						
ARCES	ARCESS Array B	78.02	340	P	P	10 27 10.3	+0.8
GERES	GERESS Array B	80.17	319	P	P	10 27 22.2	+0.4
	comp=Z,2.1nm,0.7s,baz=83,slow=3.1,SNR=7.5						
	comp=Z,2.1nm,0.7s						
STAL	STALIGIAL	80.70	316	P	P	10 27 26.3	+1.6
STAL				IAmb	IAmb	10 27 43.8	
	comp=Z,17nm,1.4s						
TUE	Stuetta	83.03	316	P	P	10 27 37.1	-0.1
TUE				IAmb	IAmb	10 27 44.1	
	comp=Z,7.1nm,1.4s						
DBIC	Dimbokro	98.70	278	LR	LR	11 12 38.8	
	comp=Z,29nm,18.0s,baz=156,slow=35						
TXAR	Lajitas Array	141.58	26	PKP	PKPdf	10 34 40.4	-2.9
	comp=Z,0.2nm,0.4s,baz=221,slow=1.3,SNR=4.7						
735A	Kenedy	144.24	19	PKPdf	PKPab	10 34 45.4	-0.3
656A	Willston	145.64	355	PKPdf	PKPdf	10 34 48.2	-2.1

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*SNET **18** 10:18:47.9±1.3, 13°.02N×88°.65W, h73^{km}, ML3.4, Presumed earthquake*

*CATAC **18** 10:18:49.6±0.2, 13°N±3°×8°9W±°, h50^{km}±3^{km}, M3.5/38, MLv3.5/38, Error ellipse: s-maj=5.9km s-min=1.7km az=26.0, confirmed*

*GCG **18** 10:18:50.7±1.1, 13°.19N×88°.68W, h60^{km}±18^{km}, MD4.3, Presumed earthquake*

ISC 18 10:18:49.3±1.3**, 13°.06N**±0°.05×**88°.66W**±0°.03**, h69^{km}**±7^{km}**, n67,** σ**0^s.40**/114**, El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ALJI	Alcalda de J	0.28	17	*i* P	Pn	10 18 59.8	-0.5
ALJI				*e*S	Sn	10 19 09.0	+0.8
ALJI	Alcalda de J	0.28	17	P	Pn	10 19 00.2	-0.1
ALJI				S	Sn	10 19 08.4	+0.2
JUCU	Jucuar¡n	0.44	64	*i* P	Pn	10 19 00.9	-0.7
JUCU				*e*S	Sn	10 19 11.0	+0.5
TECA	Tecapa	0.46	19	*i* P	Pn	10 19 01.2	-0.6
TECO	Alcaldia de Te	0.49	346	P	Pn	10 19 01.6	-0.4
TECO				S	Sn	10 19 11.5	+0.2
RANC	El Ranchito	0.52	44	P	Pn	10 19 02.4	+0.1
RANC				S	Sn	10 19 12.2	+0.3
PACA	Pacayal	0.52	38	*i* P	Pn	10 19 02.2	-0.2
PACA				*e*S	Sn	10 19 12.9	+1.0
PACA	Pacayal	0.52	38	P	Pn	10 19 02.2	-0.2
PACA				S	Sn	10 19 12.5	+0.6
PQSS	Presa 15 de Se	0.57	9	S	Sn	10 19 13.1	+0.5
COEG	Centro de Oper	0.60	338	*i* P	Pn	10 19 02.8	-0.3
COEG				*e*S	Sn	10 19 13.3	0.0
COEG	Centro de Oper	0.60	338	P	Pn	10 19 02.8	-0.3
COEG				S	Sn	10 19 13.8	+0.5
INTP	Intipuca	0.60	77	*i* P	Pn	10 19 02.4	-0.7
INTP				*e*S	Sn	10 19 13.3	+0.1
SCLA	Alcaldia de Sa	0.64	354	S	Sn	10 19 14.5	+0.5
SJTE	Alcalda de S	0.65	328	*i* P	Pn	10 19 03.1	-0.6
SJTE				*e*S	Sn	10 19 14.1	-0.2
PAVA	Las Pavas	0.70	337	*i* P	Pn	10 19 03.7	-0.7
PAVA				*e*S	Sn	10 19 15.4	0.0
PAVA	Las Pavas	0.70	337	P	Pn	10 19 04.0	-0.4
PAVA				S	Sn	10 19 15.7	+0.3
PANCS	Alcalda de	0.75	317	P	Pn	10 19 04.8	0.0
PANCS				S	Sn	10 19 16.3	+0.1
LOMA	Loma Larga	0.77	319	*i* P	Pn	10 19 04.8	-0.3
LOMA				*e*S	Sn	10 19 16.7	0.0
LOMA	Loma Larga	0.77	319	P	Pn	10 19 05.0	-0.1
LOMA				S	Sn	10 19 16.8	+0.1
LALI	Alcalda de L	0.78	303	*e*P	Pn	10 19 04.9	-0.1
LALI	Alcalda de L	0.78	303	P	Pn	10 19 05.1	+0.1
LALI				S	Sn	10 19 16.9	+0.3
LCND	La Caada	0.79	72	*i* P	Pn	10 19 04.8	-0.3
LCND				*e*S	Sn	10 19 17.6	+0.8
LCND	La Caada	0.79	72	P	Pn	10 19 05.1	0.0
IGN	Direccin Gen	0.82	322	P	Pn	10 19 05.7	+0.1
IGN				S	Sn	10 19 17.8	+0.1
CNCH	Conchagua	0.83	75	P	Pn	10 19 05.6	-0.2
CNCH				S	Sn	10 19 17.6	-0.4
SEMO	Seminario San	0.84	319	P	Pn	10 19 06.0	0.0
SEMO				S	Sn	10 19 18.3	+0.1
UEES	Universidad Ev	0.86	319	P	Pn	10 19 06.1	-0.1
UEES				S	Sn	10 19 19.0	+0.3
PMON	Piamonte	0.91	315	P	Pn	10 19 06.9	+0.1
PMON				S	Sn	10 19 19.7	0.0
P5NO	Presa 5 de nov	0.93	354	P	Pn	10 19 06.4	-0.5
P5NO				S	Sn	10 19 19.7	-0.1
JAYA	Jayaque - finc	0.97	307	*i* P	Pn	10 19 06.8	-0.8
JAYA				*e*S	Sn	10 19 20.5	-0.7
JAYA	Jayaque - finc	0.97	307	P	Pn	10 19 07.1	-0.5
JAYA				S	Sn	10 19 20.4	-0.7
CSGN	Cosiguina Volc	1.07	94	P	Pn	10 19 08.6	-0.1
CSGN				S	Sn	10 19 22.9	-0.3
LLGN	La Laguna	1.13	346	P	Pn	10 19 09.2	-0.4
CEVE	Cerro Verde	1.21	309	*i* P	Pn	10 19 10.7	-0.1
CEVE				*e*S	Sn	10 19 28.0	+1.3
CEVE	Cerro Verde	1.21	309	P	Pn	10 19 10.9	+0.2
CEVE				S	Sn	10 19 26.3	-0.4
UNIC	Universidad Ca	1.26	317	P	Pn	10 19 11.0	-0.2
UNIC				S	Sn	10 19 27.4	-0.2
RTR	El Retiro	1.27	311	*i* P	Pn	10 19 11.8	+0.3
RTR				*e*S	Sn	10 19 29.1	+1.1
NUBE	Las Nubes	1.38	308	*e*P	Pn	10 19 12.4	-0.4
NUBE				*e*S	Sn	10 19 30.8	+0.4
NUBE	Las Nubes	1.38	308	P	Pn	10 19 12.7	-0.1
NUBE				S	Sn	10 19 30.2	-0.2
SLOZ	Alcaldia de Sa	1.46	311	P	Pn	10 19 13.8	+0.1
MTO3	Montecristo	1.50	333	*e*P	Pn	10 19 14.0	-0.5
MTO3	Montecristo	1.50	333	P	Pn	10 19 14.1	-0.3
MTO3				S	Sn	10 19 32.9	-0.4
FAME	Alcaldia de Sa	1.54	301	P	Pn	10 19 14.7	-0.1
FAME				S	Sn	10 19 34.1	+0.1
JUAM	Asuncion Mita	1.63	321	*e*P	Pn	10 19 15.6	-0.4
ESQI	Esquipulas	1.63	336	P	Pn	10 19 16.1	0.0
ESQI				S	Sn	10 19 36.5	+0.1
TGUH	Tegucigalpa,Un	1.67	53	P	Pn	10 19 16.5	-0.1
TGUH				S	Sn	10 19 37.2	-0.1
SARH	Santa Rosa de	1.71	357	*e*P	Pn	10 19 17.4	+0.3
SARH	Santa Rosa de	1.71	357	P	Pn	10 19 17.4	+0.3
SARH				S	Sn	10 19 38.4	+0.2
TEL3	Telica 3	1.83	105	P	Pn	10 19 19.3	+0.6
PLRN	Geotermica Pol	1.90	104	P	Pn	10 19 19.6	-0.1
PLRN				S	Sn	10 19 42.7	0.0
ILCN	San Idelfonso	1.97	104	P	Pn	10 19 19.9	-0.6
ILCN				S	Sn	10 19 44.4	+0.1
CNGA	Al SSO del Vol	1.99	106	P	Pn	10 19 19.8	-1.0
CNGA				S	Sn	10 19 44.9	+0.1
CNGN	Cerro Negro	1.99	106	P	Pn	10 19 20.7	-0.2
CNGN				S	Sn	10 19 44.8	0.0
LEVN	Ruinas Leon Vi	2.09	108	S	Sn	10 19 47.7	+0.3
MOMN	Momotombo	2.16	107	P	Pn	10 19 23.3	+0.1
MOMN				S	Sn	10 19 49.0	-0.1
OCON	Estacion meteo	2.19	75	P	Pn	10 19 23.5	-0.2
COPN	Copaltepe	2.20	113	P	Pn	10 19 23.5	-0.1
RCFN	Al S de San Ju	2.42	79	P	Pn	10 19 26.5	-0.3
RCVN	Varillal2	2.45	77	P	Pn	10 19 26.9	-0.3
UNAN	Cigeo UNAN	2.51	112	P	Pn	10 19 27.9	0.0
UNAN				S	Sn	10 19 57.6	+0.1
WILN	Americas 2	2.57	110	P	Pn	10 19 28.8	+0.1
WILN				S	Sn	10 19 59.3	+0.4
MAS3	Al N del Volca	2.63	113	P	Pn	10 19 29.8	+0.3
MAS3				S	Sn	10 20 00.2	-0.2
MATN	Matagalpa	2.66	92	P	Pn	10 19 29.6	-0.5
MATN				S	Sn	10 20 01.5	+0.2
NANN	Nandasmo	2.71	114	P	Pn	10 19 30.8	+0.1
NANN				S	Sn	10 20 02.8	+0.4
STG8	El Palmar, Qui	2.96	298	*e*P	Pn	10 19 40.1	+5.9
BOAB	BOACO BROADBAN	2.98	101	P	Pn	10 19 33.9	-0.3
RTAL	Retalhuleu	3.29	297	S	Sn	10 20 17.0	+0.4

TAP 18 10:34:49.9, 24°.42N×121°.35E, h10^{km}, ML1.8, 2C, A, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNS	Nan Shan	0.04	47	*i* P	Pg	10 34 52.7	+0.7
NNSB	Datong	0.04	70	*i* P	Pg	10 34 52.6	+0.6
NNSH	Datong	0.04	70	*i* P	Pg	10 34 52.6	+0.6
FUSS	Fushou	0.19	209	*e*P	Pb	10 34 55.1	-0.6
FUSS				S	Sg	10 34 58.4	+1.4
LATG	Datong	0.20	54	⇑*i*P	Pg	10 34 55.0	+0.7
TWT	Tachien	0.22	224	*e*P	Pb	10 34 55.8	-0.4
TWT				*e*S	Sg	10 34 59.5	+1.6
TDCB	Techi	0.23	226	*i* P	Pg	10 34 55.5	+0.7
NDT	Datong Townshi	0.24	39	*e*P	Pb	10 34 55.7	-0.7
ETLH	Xiulin Townshi	0.24	149	P	Pb	10 34 56.3	-0.2
ETLH				*e*S	Sg	10 35 00.0	+1.7
YHNB	Yeheng	0.25	6	⇑*i*P	Pb	10 34 56.0	-0.7
YHNB				*e*S	Sg	10 34 59.5	+0.8
NSK	Sanguang	0.26	3	P	Pb	10 34 56.1	-0.6
WHF	Hehuan Shan	0.28	195	*e*P	Pb	10 34 56.8	-0.5
NFF	Wufeng Townshi	0.30	316	*e*P	Pb	10 34 57.2	-0.3
NFF				*e*S	Sb	10 35 02.4	0.0
NACB	Ninganchiao	0.33	137	P	Pb	10 34 57.8	-0.1
NACB				*e*S	Sb	10 35 02.2	-1.1
LIOB	Emei	0.38	307	*e*P	Pb	10 34 59.0	+0.3
LIOB				*e*S	Sb	10 35 04.3	-0.4
NSTT	Nanjuang	0.38	304	P	Pb	10 34 58.4	-0.3
NWLT	Wulai	0.39	22	*e*P	Pb	10 34 58.3	-0.6
KSHI	Guanxi Townshi	0.39	337	P	Pb	10 34 58.8	-0.1
KSHI				*e*S	Sb	10 35 05.6	+0.6
LXIB	Xiulin Townshi	0.40	171	*e*P	Pb	10 34 59.5	+0.3
LXIB				*e*S	Sb	10 35 04.3	-1.0
NDS	Dongshan	0.40	57	*e*P	Pb	10 34 58.6	-0.6
NDS				S	Sb	10 35 05.7	+0.3
FUSB	Fushanzhiwuyua	0.41	33	P	Pg	10 34 58.5	+0.5
FUSB				*e*S	Sb	10 35 05.3	-0.3
TWE	Neicheng	0.42	44	*e*P	Pb	10 34 59.3	-0.2
WUSB	Renai	0.47	206	P	Pg	10 34 59.5	+0.3
WUSB				*e*S	Sb	10 35 06.9	-0.6

TAP 18 10:34:51.1, 24°.41N×121°.35E, h9^{km}, ML1.7, A, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNSB	Datong	0.04	58	*e*P	Pg	10 34 53.7	+0.7
NNSB				*i* S	Sg	10 34 54.8	+0.4
NNSH	Datong	0.04	58	P	Pg	10 34 53.7	+0.7
NNSH				*i* S	Sg	10 34 54.8	+0.4
NNS	Nan Shan	0.04	37	*e*P	Pg	10 34 53.8	+0.8
NNS				S	Sg	10 34 55.0	+0.6
FUSS	Fushou	0.18	211	*e*P	Pg	10 34 56.1	+1.1
FUSS				*e*S	Sg	10 34 59.4	+1.5
LATG	Datong	0.21	52	*e*P	Pg	10 34 56.2	+0.8
LATG				*e*S	Sg	10 34 59.4	+1.0
TWT	Tachien	0.22	225	*e*P	Pg	10 34 56.8	+1.2
TWT				*e*S	Sg	10 35 00.0	+1.3
TDCB	Techi	0.23	228	P	Pg	10 34 56.8	+0.9
TDCB				*e*S	Sg	10 34 59.7	+0.6
ETLH	Xiulin Townshi	0.23	148	*e*P	Pg	10 34 57.5	+1.7
ETLH				S	Sg	10 35 00.9	+1.7
NDT	Datong Townshi	0.25	38	*e*P	Pg	10 34 56.8	+0.7
YHNB	Yeheng	0.26	6	P	Pg	10 34 57.1	+0.7
YHNB				*e*S	Sg	10 35 00.3	+0.3
NSK	Sanguang	0.27	2	*e*P	Pg	10 34 57.3	+0.8
WHF	Hehuan Shan	0.27	196	*e*P	Pb	10 34 58.2	-0.2
WHF				*e*S	Sg	10 35 01.5	+1.0
NFF	Wufeng Townshi	0.30	317	*e*P	Pb	10 34 58.2	-0.5
NACB	Ninganchiao	0.33	136	P	Pb	10 34 58.9	-0.1
NACB				*e*S	Sb	10 35 03.5	-0.9
ETL	Fush Village	0.35	134	*e*P	Pb	10 35 00.1	+0.6
LIOB	Emei	0.38	308	*e*P	Pb	10 35 00.2	+0.1
LIOB				*e*S	Sb	10 35 05.2	-0.9
NSTT	Nanjuang	0.39	305	*e*P	Pb	10 34 60.0	-0.1
NSTT				*e*S	Sg	10 35 04.7	+0.9
WHP	Taichung City	0.39	251	*e*P	Pb	10 34 60.0	-0.2
LXIB	Xiulin Townshi	0.39	171	*e*P	Pb	10 35 00.3	+0.1
LXIB				*e*S	Sb	10 35 05.5	-0.8
NDS	Dongshan	0.40	56	*e*P	Pg	10 34 59.7	+0.7
FUSB	Fushanzhiwuyua	0.41	32	*e*P	Pg	10 34 59.8	+0.6
ETM	Tongmen	0.46	163	*e*P	Pb	10 35 01.2	-0.1
WUSB	Renai	0.46	207	*e*P	Pg	10 35 00.7	+0.6
ESL	Shilin	0.60	172	*e*P	Pb	10 35 04.1	+0.5
WARBT	Fenglin Townsh	0.69	177	P	Pb	10 35 05.2	-0.1
YULB	Yu-li	1.01	183	*e*P	Pn	10 35 11.1	-0.3
YULB				*e*S	Sn	10 35 25.6	-0.2

*SOME **18** 10:44:49.6, 42°.05N×83°.55E, h20^{km}*
*IDC **18** 10:44:51.6±0.9, 42°.05N×83°.55E, h0^{km}, mb3.8/8, mbtmp3.8/13, ML3.1/5, Error ellipse: s-maj=17.4km s-min=10.5km az=75.0*
*NEIC **18** 10:44:51.5±1.4, 41°.93N±0°.04×83°.60E±0°.08, h10^{km}±1^{km}, mb4.6/32, Error ellipse: s-maj=12.1km s-min=2.9km az=120.0*
*NNC **18** 10:44:54.1±2.0, 42°.18N×83°.30E, h0^{km}, mb4.1, mpv3.8, Error ellipse: s-maj=17.4km s-min=10.7km az=166.0*
ISC 18 10:44:51.9±0.4, **42°.02N**±0°.04×**83°.56E**±0°.03, **h15^{km}, n99, σ1^{s}96**/115, **mb4.4**/22, **7C-4D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHLS	Shalkode	3.23	292	Pg	Pn	10 45 43.9	+1.7
	91nm,0.5s						
SHLS				Lg	Lg	10 46 24.3	
	471nm,0.7s						
SHLS	Shalkode	3.23	292	*e*P	Pn	10 45 44.5	+2.3
	91nm,0.5s						
SHLS				*e*S	Sb	10 46 24.3	-3.9
	471nm,0.7s						
PDGK	Podgornoye	3.27	295	⇑Pn	Pb	10 45 46.0	-3.7
	19nm,0.4s						
PDGK				⇓Lg	Lg	10 46 32.2	
	187nm,0.6s						
PDGK	Podgornoye	3.27	295	Pn	Pn	10 45 44.5	+1.7
WUS	Wushi	3.36	257	Pn	Pn	10 45 44.6	+0.7
WMQ	Urumqi	3.53	58	Pn	Pb	10 45 54.3	+0.2
WMQ				Sn	Sb	10 46 34.4	-2.4
WMQ				smax	smax		
	comp=N,130nm,1.9s						
WMQ				smax	smax		
	comp=E,160nm,1.3s						
UZB	Uzynbulak	3.53	290	Pg	Pb	10 45 53.0	-1.2
	comp=E,9.4nm,0.3s						
UZB				Lg	Lg	10 46 39.6	
	comp=E,56nm,0.5s						
UZB	Uzynbulak	3.53	290	*e*P	Pb	10 45 53.5	-0.7
	comp=E,9.4nm,0.3s						
UZB				*e*S	Sb	10 46 39.6	+2.7
	comp=E,56nm,0.5s						
DJR	Jarkent	3.59	311	Pg	Pb	10 45 53.4	-1.8
	comp=E,10nm,0.5s						
DJR				Lg	Lg	10 46 39.8	
	comp=E,41nm,0.6s						
DJR	Jarkent	3.59	311	*e*P	Pb	10 45 53.6	-1.6
	comp=E,10nm,0.5s						
DJR				*e*S	Sb	10 46 39.8	+1.2
	comp=E,41nm,0.6s						
PRZ	Przheval'sk	3.86	279	Pn	Pn	10 45 51.1	+0.3
KPKS	Kokpek	3.87	294	Pg	Pb	10 45 58.6	-1.2
	comp=E,0.2nm,0.1s						
KPKS				Lg	Lg	10 46 48.7	
	comp=E,89nm,0.6s						
KPKS	Kokpek	3.87	294	*e*P	Pb	10 45 58.8	-1.1
	comp=E,0.2nm,0.1s						
KPKS				*e*S	Sb	10 46 48.7	+2.2
	comp=E,89nm,0.6s						
SATY	Saty	3.94	287	Pg	Pb	10 46 01.3	+0.1
	comp=E,36nm,0.6s						
SATY				Lg	Lg	10 46 52.5	
	comp=E,79nm,0.5s						
SATY	Saty	3.94	287	*e*P	Pb	10 46 01.0	-0.2
	comp=E,36nm,0.6s						
SATY				*e*S	Sb	10 46 52.5	+3.7
	comp=E,79nm,0.5s						
KNOS	Konyrlen	3.96	308	Pg	Pb	10 46 02.2	+0.7
	comp=E,8.2nm,0.2s						
KNOS				Lg	Lg	10 46 55.4	
	comp=E,89nm,0.5s						
KURS	Kuram	4.23	292	Pg	Pb	10 46 05.3	-0.6
	comp=E,12nm,0.8s						
KURS				Lg	Lg	10 47 00.0	
	comp=E,24nm,1.2s						
KURS	Kuram	4.23	292	*e*P	Pb	10 46 05.4	-0.6
	comp=E,12nm,0.8s						
KURS				*e*S	Sb	10 47 00.0	+3.2
	comp=E,24nm,1.2s						
BLB	Baldybastay	4.26	301	Pg	Pb	10 46 04.7	-1.9
	comp=E,17nm,0.3s						
BLB				Lg	Lg	10 46 59.2	
	comp=E,98nm,0.5s						
TARG	Taragay, Kyrgy	4.31	268	Pn	Pn	10 45 58.2	+1.0
ARXS	Arharly	4.73	299	Pg	Pb	10 46 15.1	+0.6
	comp=E,5.0nm,0.1s						
ARXS				Lg	Lg	10 47 17.2	
	comp=E,85nm,0.5s						
ARXS	Arharly	4.73	299	*e*P	Pb	10 46 15.4	+0.8
	comp=E,6.7nm,0.3s						
ARXS				*e*S	Sg	10 47 17.2	-6.6
	comp=E,85nm,0.5s						
KDJ	Kajisay	4.75	273	Pn	Pn	10 46 03.4	+0.3
TDK	Taldyqorghan	4.79	310	*e*P	Pb	10 46 18.1	+2.7
	comp=E,49nm,0.3s						
TDK				*e*S	Sg	10 47 21.4	-4.1
	comp=E,208nm,0.7s						
MK31	Makanchi Array	4.86	350	Pn	Pn	10 46 06.9	+2.5
	comp=E,8.3nm,0.6s,baz=157,slow=13,SNR=37						
MK31				⇑Lg	Lg	10 47 22.7	
	comp=E,44nm,0.5s,baz=173,slow=28,SNR=14						
MK31	Makanchi Array	4.86	350	Pn	Pn	10 46 06.9	+2.5
MKAR	Makanchi Array	4.86	350	Pn	Pn	10 46 07.2	+2.8
	comp=E,2.1nm,0.3s,baz=178,slow=12,SNR=42						
MKAR				Pg	Pg	10 46 21.8	-3.1
	comp=E,6.7nm,0.3s,baz=172,slow=16,SNR=21						
MKAR				Sn	Sn	10 47 03.0	+2.6
	comp=E,7.3nm,0.3s,baz=156,slow=16,SNR=5.8						
MKAR				Lg	Lg	10 47 22.9	
	comp=E,17nm,0.3s,baz=170,slow=30,SNR=14						
	comp=E,3.6nm,0.4s						
MKAR				AML	AML		
MKAR	Makanchi Array	4.86	350	Pn	Pn	10 46 07.0	+2.6
MAKZ	Makanchi	4.92	347	Pn	Pn	10 46 06.1	+0.9
ZSN	Zaisan	5.51	9	Pg	Pb	10 46 31.4	+3.7
	comp=E,10nm,0.4s						
ZSN				Lg	Lg	10 47 45.4	
	comp=E,156nm,0.9s						
ZSN	Zaisan	5.51	9	*e*P	Pg	10 46 31.9	-5.4
	comp=E,10nm,0.4s						
ZSN				*e*S	Sg	10 47 45.4	-3.1
	comp=E,156nm,0.9s						
BOOM	Boomskoye usch	5.67	277	Pn	Pn	10 46 16.3	+0.5
KST	Kastek	5.70	283	*e*P	Pb	10 46 35.6	+4.4
	comp=E,2.5nm,0.4s						
KST				*e*S	Sg	10 47 51.8	-3.1
	comp=E,39nm,0.8s						
KSH2	Kashi	6.73	247	P	Pn	10 46 35.9	+5.7
KSH2				S	Sn	10 47 56.8	+10
AAK	Ala-Archa	6.75	278	Pn	Pn	10 46 32.0	+1.5
	comp=E,0.2nm,0.3s,baz=300,slow=18,SNR=3.8						
AAK				Sn	Sn	10 47 51.6	+4.5
	comp=E,0.9nm,0.3s,baz=100,slow=12,SNR=3.9						
AAK				Lg	Lg	10 48 22.8	
	comp=E,0.8nm,0.3s,baz=334,slow=23,SNR=3.9						
	comp=E,1.0nm,0.3s						
AAK				AML	AML		
AAK	Ala-Archa	6.75	278	⇑Pn	Pn	10 46 33.8	+3.3
	comp=E,1.7nm,0.8s						
AAK				⇑Lg	Lg	10 48 23.6	
	comp=E,8.0nm,0.8s						
AAK	Ala-Archa	6.75	278	Pn	Pn	10 46 31.1	+0.6
KURBB	Kurchatov Arra	9.28	340	Pn	Pn	10 47 06.8	+1.8
	comp=E,0.3nm,0.3s,baz=161,slow=12,SNR=10						
KURBB				Sn	Sn	10 48 50.4	+1.4
	comp=E,0.2nm,0.3s,baz=139,slow=30,SNR=5.2						
KURBB				Lg	Lg	10 49 38.4	
	comp=E,0.3nm,0.3s,baz=152,slow=36,SNR=8.0						
	comp=E,2.3nm,0.5s						
KURBB				AML	AML		
KURBB	Kurchatov Arra	9.28	340	⇑Pn	Pn	10 47 06.1	+1.1
	comp=E,4.1nm,0.5s						
KURBB				⇑Lg	Lg	10 49 42.8	
	comp=E,32nm,0.7s						
KURK	Kurchatov	9.34	340	⇓Pn	Pn	10 47 05.8	0.0
	comp=E,0.4nm,0.3s						
KURK				⇓Lg	Lg	10 49 43.0	
	comp=E,11nm,0.8s						
KURK	Kurchatov	9.34	340	Pn	Pn	10 47 07.1	+1.2
KK31	Karatay Array	9.69	281	⇑Pg	Pn	10 47 45.8	+35
	comp=E,1.0nm,0.3s						
KK31				⇓Lg	Lg	10 49 56.0	
	comp=E,1.9nm,0.5s,baz=78,slow=28,SNR=4.5						
KKAR	Karatay Array	9.69	281	Pn	Pn	10 47 11.0	+0.3
NIL	Nilore	11.66	228	Pn	Pn	10 47 37.2	-0.6
ZAA0	Zalesovo Array	11.96	4	Pn	Pn	10 47 42.0	+0.2
ZALV	Zalesovo Beam	11.96	4	Pn	Pn	10 47 41.9	+0.2
	comp=E,0.9nm,0.3s,baz=183,slow=14,SNR=16						
ZALV				Sn	Sn	10 49 52.0	-2.8
	comp=E,0.2nm,0.3s,baz=200,slow=27,SNR=2.7						
ZALV				Lg	Lg	10 51 02.3	
	baz=190,slow=23						
	comp=E,3.7nm,0.5s						
ZALV				AML	AML		
ZALV	Zalesovo Beam	11.96	4	Pn	Pn	10 47 42.1	+0.3
KBL	Kabul	13.62	241	Pn	Pn	10 48 02.2	-2.5
BVAR	Borovoye Array	14.13	326	Pn	Pn	10 48 13.1	+1.8
	baz=129,slow=12,SNR=4.4						
BVAR				Sn	Sn	10 50 42.6	-5.1
	baz=133,slow=10						
BVAR				Lg	Lg	10 52 05.6	
	baz=130,slow=25,SNR=1.7						
	comp=E,1.1nm,0.6s						
BORK	Borovoye	14.17	326	Pn	Pn	10 48 12.1	+0.2
EVN	Everest	14.28	168	Pn	Pn	10 48 12.1	-2.1
SONM	Songino Array	17.16	62	Pn	Pn	10 48 50.5	-0.5
AB31	Akbulak array	17.98	302		P	10 49 01.4	-0.2
ABKAR	Akbulak array	17.98	302		P	10 49 01.6	0.0
ARTI	Arti	21.67	320	P	P	10 49 42.7	+0.9
ENH	Enshi	23.90	111	P	P	10 50 05.0	-0.1
ENH				IAmb	IAmb	10 50 31.8	
	comp=Z,14nm,1.2s						
HYB	Hyderabad	24.89	191	*e*P	P	10 50 13.5	-0.7
HYB				*e*PcP	PcP	10 53 49.5	-0.4
HYB				*e*S	S	10 54 37.2	+0.3
CMAR	Chiang Mai Arr	26.90	146	P	P	10 50 31.4	-1.0
UOSS	Minazif	28.30	242	P	P	10 50 43.8	-1.1
UOSS				IAmb	IAmb	10 50 48.1	
	comp=Z,6.8nm,1.4s						
KSAR	Wonju Array Be	34.10	83	P	P	10 51 34.5	-1.3
PALK	Pallekele	34.70	185	P	P	10 51 40.2	-1.0
USA0B	Ussuriysk Arra	35.02	70	P	P	10 51 42.0	-1.7
USA0B				IAmb	IAmb	10 51 49.1	
	comp=Z,7.1nm,0.8s						
USRK	Ussuriysk Ar.	35.02	70	P	P	10 51 42.8	-0.9
YULB	Yu-li	36.42	109	P	P	10 51 55.4	-0.5
RAYN	Ar Rayn	36.56	252	P	P	10 51 56.7	-0.5
BR131	Keskin Array S	37.39	284	P	P	10 52 03.6	-0.6
BRTR	Keskin Array B	37.39	284	P	P	10 52 07.0	+2.9
	comp=Z,0.6nm,0.6s,baz=98,slow=9.2,SNR=4.2						
	comp=Z,0.6nm,0.6s						
BRTR	Keskin Array B	37.39	284	P	P	10 52 04.1	0.0
AKASG	Malin Array Be	37.72	302	P	P	10 52 06.9	+0.2
AKBB	Malin Array Si	37.72	302	P	P	10 52 06.7	0.0
AKBB				IAmb	IAmb	10 52 12.7	
	comp=Z,6.5nm,0.8s						
KIEV	Kiev	37.73	302	P	P	10 52 07.5	+0.8
KIEV				IAmb	IAmb	10 52 12.7	
	comp=Z,5.8nm,0.8s						
FIA1	FINESS Array S	38.98	320	P	P	10 52 18.9	+1.8
FINES	FINESS Array B	38.98	320	P	P	10 52 17.6	+0.5
	comp=Z,1.8nm,0.9s,baz=132,slow=8.0,SNR=3.6						
	comp=Z,1.8nm,0.9s						
FINES	FINESS Array B	38.98	320	P	P	10 52 18.2	+1.0
JMN	Monobe	40.09	85	P	P	10 52 27.0	+0.2
ARCES	ARCESS Array B	40.27	333	P	P	10 52 29.3	+1.5
	comp=Z,4.6nm,1.0s,baz=91,slow=8.1,SNR=5.8						
	comp=Z,4.6nm,1.0s						
ARCES	ARCESS Array B	40.27	333	P	P	10 52 29.5	+1.7
ARCES				IAmb	IAmb	10 52 51.3	
	comp=Z,26nm,1.4s						
HFS	Hagfors	45.11	318	P	P	10 53 09.4	+2.3
	comp=Z,1.2nm,0.6s,baz=96,slow=15,SNR=2.0						
	comp=Z,1.2nm,0.6s						
NC405	NORSAR Array S	45.91	320	P	P	10 53 14.8	+1.3
NC405				IAmb	IAmb	10 53 32.9	
	comp=Z,11nm,1.2s						
NOA	NORSAR Array B	46.16	320	P	P	10 53 16.8	+1.2
	comp=Z,0.6nm,0.4s,baz=81,slow=7.8,SNR=3.8						
	comp=Z,0.6nm,0.4s						
BNI	Bardonecchia	53.82	301	P	P	10 54 15.3	+1.3
BNI				IAmb	IAmb	10 54 40.2	
	comp=Z,12nm,1.5s						
C19K	Lookout Ridge	59.88	22	P	P	10 54 57.7	+1.1
D19K	Kuna River	60.69	22	P	P	10 55 03.5	+1.4
D19K				IAmb	IAmb	10 55 30.5	
	comp=Z,11nm,1.4s						
D20K	Etivluk River	60.95	21	P	P	10 55 04.6	+0.7
D20K				IAmb	IAmb	10 55 09.9	
	comp=Z,9.2nm,1.3s						
D23K	Nanushuk River	62.31	19	P	P	10 55 13.6	+0.7
D23K				IAmb	IAmb	10 55 25.0	
	comp=Z,7.2nm,1.1s						
F20K	Avaraart Lake	62.34	22	P	P	10 55 14.8	+1.7
F20K				IAmb	IAmb	10 55 15.8	
	comp=Z,4.9nm,1.3s						
E23K	Chandalar	63.24	20	P	P	10 55 20.3	+1.0
E23K				IAmb	IAmb	10 55 38.9	
	comp=Z,4.7nm,1.3s						
G21K	Allakaket	63.34	22	P	P	10 55 20.8	+0.9
KIWB	Kanaga Island	63.35	43	P	P	10 55 20.3	+0.2
E24K	Your Creek	63.51	19	P	P	10 55 22.3	+1.3
E24K				IAmb	IAmb	10 55 28.3	
	comp=Z,5.8nm,1.4s						
SOEI	Soe	63.61	134	P	P	10 55 22.4	0.0
IMAR	Indian Mountai	63.65	23	P	P	10 55 23.3	+1.4
E25K	Arctic Village	64.18	18	P	P	10 55 26.6	+1.2
POIN	Pond Inlet	64.85	354	P	P	10 55 31.3	+1.7
BMAR	Burnt Mountain	64.96	19	P	P	10 55 31.4	+0.9
G27K	Doyon Strip	66.14	18	P	P	10 55 39.7	+1.6
G27K				IAmb	IAmb	10 56 06.7	
	comp=Z,2.1nm,1.2s						
ILAR	Eielson Array	66.47	21	P	P	10 55 41.6	+1.4
	comp=Z,0.6nm,0.7s,baz=326,slow=5.3,SNR=4.1						
	comp=Z,0.6nm,0.7s						
WRA	Warramunga Arr	77.46	132	P	P	10 56 49.4	+2.7
	comp=Z,0.5nm,0.6s,baz=331,slow=5.4,SNR=7.5						
	comp=Z,0.5nm,0.6s						
ASAR	Alice Springs	80.23	134	P	P	10 57 04.3	+2.4
	comp=Z,0.3nm,0.7s,baz=322,slow=5.8,SNR=4.7						
	comp=Z,0.3nm,0.7s						

*GUC **18** 10:59:42.4±0.7, 28°.13S×71°.19W, h36^{km}±2^{km}, ML3.6*
*IDC **18** 10:59:53.4±4.6, 27°.36S×70°.15W, h88^{km}±37^{km}, mb3.5/3, mbtmp3.7/5, Error ellipse: s-maj=52.7km s-min=32.8km az=100.0*
ISC 18 10:59:40.1±0.8, **28°.08S**±0°.03×**71°.31W**±0°.07, **h20^{km}**±3^{km}, **n21, σ1^{s}94**/28, **2C-6D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.24	121	⇑*i*P	Pn	10 59 48.3	+2.3
AC04				*i* S	Sb	10 59 51.6	+1.4
AC04				IAML		10 59 52.3	
	comp=E,28μm,0.1s						
GO03	Copiapo	1.07	63	⇓*i*P	Pb	11 00 00.5	+0.6
GO03				*i* S	Sb	11 00 13.6	+0.1
GO03				IAML		11 00 18.5	
	comp=E,3μm,0.3s						
LCO	Las Campanas	1.07	150	*i* P	Pb	11 00 00.2	0.0
LCO				*i* S	Sb	11 00 13.4	-0.4
AC06	Mina Casimiro	1.11	50	⇓*i*P	Pb	11 00 01.4	+0.7
AC06				*i* S	Sb	11 00 14.3	-0.4
AC06				IAML		11 00 19.6	
	comp=E,2μm,0.4s						
AC05	El Transito	1.19	130	⇓*i*P	Pn	11 00 01.8	+0.2
AC05				*i* S	Sn	11 00 15.3	-2.0
AC01	Pan de Azucar	2.03	18	⇑*i*P	Pb	11 00 14.3	-2.0
AC01				*i* S	Sb	11 00 41.7	+0.7
AC01				IAML		11 00 49.9	
	comp=E,640nm,0.7s						
GO04	Tololo Observa	2.13	168	⇓*i*P	Pb	11 00 16.8	-1.4
GO04				*i* S	Sn	11 00 42.0	+1.2
CO01	Juntas del Tor	2.17	151	*i* P	Pb	11 00 17.6	-1.2
CO01				*i* S	Sn	11 00 43.2	+1.5
AC02	Maricunga	2.30	58	*i* P	Pb	11 00 20.2	-1.0
AC02				*i* S	Sn	11 00 48.0	+2.8
CO06	Fray Jorge	2.60	186	⇓*i*P	Pn	11 00 21.7	+0.8
CO02	Combarbal	3.12	175	⇓*i*P	Pn	11 00 29.7	+1.4
LPAZ	La Paz	12.10	15	P	Pn	11 02 31.1	-0.8
	comp=E,0.5nm,0.4s,baz=211,slow=15,SNR=2.5						
CPUP	Villa Florida	12.57	85	P	Pn	11 02 34.2	-3.6
	comp=E,0.5nm,0.4s,baz=32,slow=12,SNR=1.5						
QSPA	South Pole Qui	62.14	180	P	P	11 10 09.7	+10
	comp=E,1.6nm,1.1s,baz=46,slow=10,SNR=1.8						
	comp=E,1.6nm,1.1s						
TORD	Torodi Ar. Bea	81.62	70	P	P	11 11 56.4	-0.6
	comp=E,0.6nm,0.8s,baz=263,slow=4.2,SNR=2.0						
	comp=E,0.6nm,0.8s						
ESDC	Sonseca Array	92.01	45	P	P	11 12 47.3	-0.2
	comp=E,0.5nm,1.0s,baz=258,slow=6.5,SNR=1.9						
	comp=E,0.5nm,1.0s						
ASAR	Alice Springs	123.10	208	PKP	PKiKP	11 18 43.2	+7.2
	comp=E,0.6nm,1.1s,baz=126,slow=1.6,SNR=1.9						
WRA	Warramunga Arr	126.20	210	PKP	PKiKP	11 18 48.5	+6.3
	comp=E,0.2nm,0.5s,baz=142,slow=1.9,SNR=5.0						
KURBB	Kurchatov Arra	147.95	37	PKPbc	PKiKP	11 19 23.8	-1.6
	comp=E,0.3nm,0.5s,baz=309,slow=3.3,SNR=1.7						
ZALV	Zalesovo Beam	148.79	27	PKPbc	PKiKP	11 19 26.5	-0.6
	comp=E,0.8nm,0.6s,baz=298,slow=3.2,SNR=5.7						
MKAR	Makanchi Array	152.13	41	PKPbc	PKiKP	11 19 34.5	+0.3
	comp=E,0.5nm,0.7s,baz=318,slow=3.4,SNR=4.4						

WEL 18 12:03:23.2±1.6, **34°S**±32°×**17°9E**±4°2, **h249^{km}**±60^{km}, **M3.9**/2, **mB4.2**/1, **ML3.9**/8, **MLv3.9**/2, **Mw(mB)3.3**/1, **Error ellipse: s-maj=61.9km s-min=30.3km az=122.8, confirmed, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WMGZ	Waiomatatini S	4.37	190	P	Pn	12 04 31.5	+0.3
WMGZ				AML	AML		
WMGZ				AML	AML		
HAZ	Te Kaha	4.42	196	P	Pn	12 04 32.1	+0.2
HAZ				S	S	12 05 27.0	+0.5
HAZ				AML	AML		
PKGZ	Pakihiroa	4.47	193	P	Pn	12 04 32.8	+0.4
PKGZ				AML	AML		
PUZ	Puketiti	4.64	191	P	Pn	12 04 34.1	-0.4
PUZ				S	S	12 05 31.0	-0.3
PUZ				AML	AML		
RUGZ	Raukumara Rang	4.65	196	P	Pn	12 04 34.9	+0.2
RUGZ				S	S	12 05 30.9	-0.7
RUGZ				AML	AML		
MWZ	Matawai	5.03	196	P	Pn	12 04 39.3	0.0
MWZ				AML	AML		
TKGZ	Te Karaka	5.07	193	P	Pn	12 04 37.9	-1.7
TKGZ				S	S	12 05 42.0	+1.3
URZ	Urewera	5.07	200	P	Pn	12 04 39.6	-0.1
URZ				S	S	12 05 41.6	+0.8
URZ				AML	AML		
MUGZ	Murupara	5.38	202	P	Pn	12 04 43.9	+0.4
MUGZ				AML	AML		
MUGZ				AML	AML		
RTZ	Ruatahuna	5.44	200	P	Pn	12 04 43.5	-0.8
RTZ				AML	AML		
BKZ	Black Stump Fm	6.09	201	P	Pn	12 04 51.9	-0.5
BKZ				AML	AML		

*IDC **18** 12:04:29.3±1.6, 30°.03N×140°.98E, h67^{km}±13^{km}, mb3.7/15, mbtmp4.0/22, MS2.9/5, Error ellipse: s-maj=19.9km s-min=12.4km az=74.0*
*NIED **18** 12:04:29.8, 30°.24N×141°.35E, h74^{km}, MW4.0, Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M_{rr}0.17; $M_{\theta\theta}$0.47; $M_{\phi\phi}$-0.64; $M_{r\theta}$0.03; $M_{\theta\phi}$-0.76; $M_{\phi r}$0.89; Fault plane solution: $M_0$1.27000×10^{15} NP1: ϕ_s255.00000°, δ46.00000°, λ177.00000°. NP2: ϕ_s347.00000°, δ88.00000°, λ44.00000°.*
*JMA **18** 12:04:29.8±0.1, 30°.2N±0°.8×14°1E±°, h74^{km}, MV4.8/39, NEAR TORISHIMA IS*
*NEIC **18** 12:04:30.7±1.2, 30°.2N±0°.1×141°.0E±0°.1, h69^{km}±7^{km}, mb4.3/10, Error ellipse: s-maj=17.9km s-min=12.6km az=129.0*
ISC 18 12:04:30.8±0.5, **30°.18N**±0°.05×**141°.06E**±0°.09, **h78^{km}, n73, σ1^{s}27**/71, **mb4.0**/19, **Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC

JAOM	Aogashimamukai	2.53	334	*e*P	Pn	12 05 10.7	+0.9
JAOM				*e*S	Sn	12 05 41.0	+1.4
JHCJ	Hachijojimakas	3.08	340	P	Pn	12 05 17.5	+0.4
JHCJ				*e*S	Sn	12 05 50.6	-2.2
JHJ2	Mitsune	3.11	340	Pn	Pn	12 05 17.6	+0.1
JHJ2	Mitsune	3.11	340	*e*P	Pn	12 05 17.8	+0.3
JHJ2				*e*S	Sn	12 05 51.7	-1.9
JHJ	Hachijo jima 2	3.12	340	P	Pn	12 05 17.4	-0.3
	206nm,0.3s,baz=210,slow=18,SNR=30						
JHJ				S	Sn	12 05 52.1	-1.9
	422nm,0.3s,baz=50,slow=23,SNR=8.4						
CBIJ	Chichi jima	3.23	162	*e*P	Pn	12 05 19.3	0.0
CBIJ				*e*S	Sn	12 05 54.9	-1.7
JCJ	Chichijima	3.23	162	P	Pn	12 05 15.4	-3.9
	115nm,0.3s						
JCJ				S	Sn	12 05 47.8	-8.8
JMKN	Mikurajimanish	3.90	342	*e*S	Sn	12 06 10.8	-2.2
TTO1	TONANKAI O.B.S	5.00	314	*e*P	Pn	12 05 46.7	+3.8
JOD2	Odawara 2	5.33	342	*e*P	Pn	12 05 48.1	+0.3
JKN2	Miekihoku	5.73	316	*e*P	Pn	12 05 56.2	+3.0
JTNC	Tanabenakahech	5.88	310	*e*P	Pn	12 05 58.5	+3.2
JRY	Ryogami san	6.09	343	*e*P	Pn	12 05 59.1	+0.9
INU	Inuyama	6.17	328	Pn	Pn	12 05 59.7	+0.4
JGF	Kuroka	6.24	331	Pn	Pn	12 06 00.1	-0.1
JHO	Hitachi	6.43	356	*e*P	Pn	12 06 01.4	-1.3
MJAR	Matsushiro Arr	6.78	340	P	Pn	12 06 07.2	-0.3
	3.4nm,0.3s,baz=100,slow=22,SNR=38						
MJAR				S	Sn	12 07 21.4	-1.8
	4.4nm,0.4s,baz=143,slow=25,SNR=4.3						
MJAR	Matsushiro Arr	6.78	340	Pn	Pn	12 06 07.8	+0.3
MAJO	Matsushiro	6.78	340	Pn	Pn	12 06 08.6	+1.1
MJB9	Matsu-Tunnel	6.78	340	Pn	Pn	12 06 10.0	+2.4
JMN	Monobe	7.05	302	Pn	Pn	12 06 11.2	-0.2
JMK	Ichinoseki	8.75	1	*e*P	Pn	12 06 32.9	-1.6
JNU	Nakatsue	9.16	291	P	Pn	12 06 38.1	-2.0
	6.1nm,1.0s,baz=176,slow=2.4,SNR=6.7						
JNU				LR	LR	12 09 32.2	
	comp=Z,45nm,19.3s,baz=60,slow=33						
JTM	Tenmabayashi	10.58	0	Pn	Pn	12 06 58.3	-1.1
ERM	Erimo	11.93	8	Pn	Pn	12 07 16.8	-1.0
KSRS	Korea Array	13.10	307	P	Pn	12 07 31.8	-1.8
	0.3nm,0.4s,baz=117,slow=12,SNR=5.6						
ASAJ	Asahikawa	13.96	5	P	Pn	12 07 45.7	+0.8
	2.0nm,0.4s,baz=306,slow=14,SNR=6.2						
ASAJ				S	Sn	12 10 07.3	-11
	5.1nm,0.6s,baz=249,slow=13,SNR=4.1						
JKA	Kamikawa-asahi	13.96	5	Pn	Pn	12 07 43.4	-1.5
USRK	Ussuriysk Ar.	15.73	335	P	Pn	12 08 07.2	-0.4
	5.0nm,0.7s,baz=139,slow=15,SNR=4.0						
NACB	Ninganchiao	18.31	256	P	P	12 08 39.5	+0.8
NACB				IAmb	IAmb	12 08 42.1	
	comp=Z,17nm,0.7s						
KLR	Kul'dur	20.30	342	P	P	12 09 01.2	+1.1
	comp=Z,7.0nm,0.6s,baz=159,slow=8.1,SNR=17						
	comp=Z,7.0nm,0.6s						
H11N2	WAKE ISLAND Hy	25.58	108	T	T	12 37 43.3	
	baz=300,slow=75,SNR=14						
H11N1	WAKE ISLAND Hy	25.58	108	T	T	12 37 43.9	
	baz=300,slow=75,SNR=12						
H11N3	WAKE ISLAND Hy	25.59	108	T	T	12 37 44.9	
	baz=300,slow=75,SNR=14						
PETK	Petropavlovsk-	25.94	23	LR	LR	12 23 27.7	
	comp=Z,26nm,19.2s,baz=90,slow=44						
H11S3	WAKE ISLAND Hy	26.03	111	T	T	12 38 21.2	
	baz=301						
H11S1	WAKE ISLAND Hy	26.03	111	T	T	12 38 34.8	
	baz=301,slow=74						
H11S2	WAKE ISLAND Hy	26.04	111	T	T	12 38 24.4	
	baz=301,slow=74						
CMAR	Chiang Mai Arr	39.90	263	P	P	12 11 57.0	-0.4
	comp=Z,0.5nm,0.3s,baz=71,slow=5.1,SNR=5.3						
CMAR				LR	LR	12 28 48.9	
	comp=Z,15nm,19.4s,baz=195,slow=37						
	comp=Z,0.5nm,0.3s						
KAPI	Kappang	40.51	214	LR	LR	12 30 00.2	
	comp=Z,16nm,20.2s,baz=84,slow=38						
ZALV	Zalesovo Beam	46.53	317	P	P	12 12 50.7	+0.4
	comp=Z,0.9nm,0.6s,baz=120,slow=9.0,SNR=3.6						
	comp=Z,0.9nm,0.6s						
ZALV	Zalesovo Beam	46.53	317	P	P	12 12 49.9	-0.4
MK31	Makanchi Array	47.78	308	P	P	12 12 59.6	-0.5
MK31				IAmb	IAmb	12 13 39.3	
	comp=Z,3.3nm,1.5s						
MKAR	Makanchi Array	47.78	308	P	P	12 13 00.1	-0.1
	comp=Z,0.7nm,0.6s,baz=94,slow=9.6,SNR=8.6						
	comp=Z,0.7nm,0.6s						
MKAR	Makanchi Array	47.78	308	P	P	12 12 59.8	-0.4
KURBB	Kurchatov Arra	50.20	313	P	P	12 13 18.5	0.0
	comp=Z,1.1nm,0.5s,baz=90,slow=6.8,SNR=15						
	comp=Z,1.1nm,0.5s						
WRAB	Tennant Creek	50.24	188	P	P	12 13 18.8	-0.3
FITZ	Fitzroy Crossi	50.24	199	P	P	12 13 18.8	-0.3
	comp=Z,0.6nm,0.5s,baz=14,slow=8.3,SNR=1.6						
	comp=Z,0.6nm,0.5s						
FITZ	Fitzroy Crossi	50.24	199	P	P	12 13 19.6	+0.5
WR8	Warramunga Arr	50.24	188	P	P	12 13 18.4	-0.8
WRA	Warramunga Arr	50.25	188	P	P	12 13 17.1	-2.1
	comp=Z,0.7nm,0.5s,baz=5.5,slow=7.7,SNR=26						
WRA				ScP	ScP	12 18 24.6	-1.4
	comp=Z,0.5nm,0.7s,baz=7.4,slow=4.2,SNR=5.5						
	comp=Z,0.7nm,0.5s						
WRA	Warramunga Arr	50.25	188	P	P	12 13 19.0	-0.2
AAK	Ala-Archa	53.72	303	LR	LR	12 36 48.6	
	comp=Z,25nm,19.2s,baz=39,slow=36						
AS31	Alice Springs	53.98	188	P	P	12 13 47.3	+0.5
AS31				IAmb	IAmb	12 14 13.4	
	comp=Z,0.7nm,0.8s						
ASAR	Alice Springs	53.98	188	P	P	12 13 45.4	-1.5
	comp=Z,0.4nm,0.4s,baz=1.4,slow=5.4,SNR=17						
ASAR				ScP	ScP	12 18 41.1	-1.1
	comp=Z,0.3nm,0.9s,baz=355,slow=6.4,SNR=4.0						
	comp=Z,0.4nm,0.4s						
BVAR	Borovoye Array	55.12	316	P	P	12 13 56.0	+1.2
	comp=Z,3.5nm,0.6s,baz=86,slow=8.2,SNR=7.6						
	comp=Z,3.5nm,0.6s						
KK31	Karatay Array	56.51	304	P	P	12 14 04.8	-0.1
KK31				IAmb	IAmb	12 14 05.5	
	comp=Z,1.7nm,0.7s						
KKAR	Karatay Array	56.51	304	P	P	12 14 05.0	+0.1
BMAR	Burnt Mountain	56.53	26	P	P	12 14 06.5	+1.9
BCAR	Beaver Creek A	57.79	32	P	P	12 14 14.7	+1.0
G30M	tAoh Zraii Nji	59.80	27	P	P	12 14 28.2	+0.7
G30M				IAmb	IAmb	12 14 37.0	
	comp=Z,5.2nm,1.3s						
ABKAR	Akbulak array	62.26	313	P	P	12 14 44.7	+0.4
FINES	FINESS Array B	74.75	333	P	P	12 16 01.4	-0.6
	comp=Z,0.8nm,0.5s,baz=55,slow=7.2,SNR=8.7						
	comp=Z,0.8nm,0.5s						
KBZ	Khabaz	75.20	312	P	P	12 16 05.4	+0.6
	comp=Z,1.6nm,0.3s,baz=74,slow=3.4,SNR=5.3						
	comp=Z,1.6nm,0.3s						
NVAR	Mina Array Bea	79.39	52	P	P	12 16 29.9	+1.1
	comp=Z,0.6nm,0.5s,baz=294,slow=5.8,SNR=7.8						
	comp=Z,0.6nm,0.5s						
NVAR	Mina Array Bea	79.39	52	P	P	12 16 29.4	+0.6
PDAR	Pinedale Array	82.72	44	P	P	12 16 46.5	+0.2
	comp=Z,0.2nm,0.5s,baz=338,slow=3.5,SNR=2.5						
	comp=Z,0.2nm,0.5s						
RAYN	Ar Rayn	83.02	293	P	P	12 16 48.7	+0.7
RAYN				IAmb	IAmb	12 16 49.2	
	comp=Z,3.6nm,0.6s						
BRTR	Keskin Array B	83.19	312	P	P	12 16 48.6	-0.1
	comp=Z,1.2nm,0.6s,baz=82,slow=3.6,SNR=7.1						
	comp=Z,1.2nm,0.6s						
BRTR	Keskin Array B	83.19	312	P	P	12 16 49.0	+0.3
TXAR	Lajitas Array	94.53	52	P	P	12 17 43.8	+0.8
	comp=Z,1.0nm,0.8s,baz=301,slow=2.9,SNR=10						
	comp=Z,1.0nm,0.8s						
QSPA	South Pole Qui	119.94	180	PKP	PKPdf	12 23 10.8	-0.6
	comp=Z,0.7nm,0.8s,baz=261,slow=1.1,SNR=5.1						
LPAZ	La Paz	149.93	69	PKPbc	PKPbc	12 24 14.2	+0.7
	comp=Z,1.3nm,0.8s,baz=11,slow=5.2,SNR=4.6						

IDC 18 12:41:28.0±3.1**, 22°.85N**×**12°.37W, h0^{km}, mb3.8**/3**, mbtmp3.7**/4**, ML3.4**/1**, Error ellipse: s-maj=99.0km s-min=41.6km az=73.0, Mauritania**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TORD	Torodi Ar. Bea	16.48	123	Pn	Pn	12 45 17.1	-3.7
	0.2nm,0.3s,baz=311,slow=13,SNR=6.4						
	0.6nm,0.6s						
TORD				AML	AML		
FINES	FINESS Array B	46.70	24	P	P	12 49 58.7	+0.3
	1.9nm,0.8s,baz=244,slow=9.1,SNR=3.5						
	1.9nm,0.8s						
KURBB	Kurchatov Arra	73.23	42	P	P	12 53 01.1	+0.2
	0.4nm,0.5s,baz=283,slow=6.2,SNR=3.4						
	0.4nm,0.5s						
MKAR	Makanchi Array	76.75	45	P	P	12 53 20.8	-0.6
	0.4nm,0.6s,baz=302,slow=5.5,SNR=3.5						
	0.4nm,0.6s						
WRA	Warramunga Arr	148.90	91	PKPbc	PKPbc	13 01 17.7	-0.9
	0.2nm,0.9s,baz=288,slow=2.3,SNR=1.7						
ASAR	Alice Springs	149.04	98	PKPbc	PKPbc	13 01 18.6	-0.3
	0.3nm,0.7s,baz=285,slow=2.2,SNR=7.3						

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*TAP **18** 13:12:11.6, 24°.06N×122°.37E, h25^{km}, ML2.8, C*

*JMA **18** 13:12:11.3±0.1, 24°.0N±0°.9×122°.3E±0°.4, h33^{km}±3^{km}, MV1.9/11, TAIWAN REGION*

ISC 18 13:12:11.3±0.9**, 24°.02N**±0°.02×**122°.38E**±0°.02**, h27**^{km}±7^{km}**, n120, σ0^{s}.93**/229**, 1D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EOS4	EOS4	0.12	333	*i* P	Pb	13 12 15.8	-0.2
EOS4				S	Sb	13 12 19.2	+0.1
EOS3	EOS3	0.28	349	*i* P	Pn	13 12 18.3	-1.1
EOS3				S	Sn	13 12 23.4	-1.2
EOS2	EOS2	0.42	342	*i* P	Pn	13 12 20.9	-0.5
EOS2				S	Sn	13 12 27.2	-1.0
EHP	Heping Village	0.65	297	*e*P	Pb	13 12 24.0	-0.1
EHP				*e*S	Sn	13 12 33.4	-0.6
EAHA	Aohua	0.66	298	P	Pb	13 12 24.2	0.0
EAHA				S	Sn	13 12 34.2	-0.1
JYNG	Yonagunijimaku	0.68	50	P	Pn	13 12 25.2	+0.1
JYNG				*e*S	Sn	13 12 35.8	+1.1
EWUT	Wuta	0.69	308	*e*P	Pb	13 12 24.2	-0.6
EWUT				S	Sn	13 12 34.9	-0.3
ETL	Fush Village	0.70	282	P	Pb	13 12 25.0	0.0
ETL				S	Sn	13 12 35.4	-0.1
HWA	Hwalien	0.71	267	P	Pn	13 12 25.8	+0.3
HWA				S	Sn	13 12 35.9	+0.5
TWD	Chiawan	0.72	275	P	Pb	13 12 24.5	-0.7
TWD				S	Sb	13 12 34.5	-0.2
TEYL	Yanliau Villag	0.73	259	P	Pb	13 12 25.4	0.0
TEYL				S	Sb	13 12 35.5	+0.5
YOJ	Yonaguni jima	0.73	52	P	Pn	13 12 25.5	-0.3
YOJ				S	Sn	13 12 36.2	+0.2
YOJ	Yonaguni jima	0.73	52	*e*P	Pn	13 12 26.0	+0.2
YOJ				*e*S	Sn	13 12 36.4	+0.4
NACB	Ninganchiao	0.73	283	*i* P	Pb	13 12 24.9	-0.5
NACB				*e*S	Sb	13 12 35.2	+0.1
ESAO	Su ao	0.74	319	P	Pb	13 12 25.4	-0.2
ESAO				S	Sb	13 12 35.4	0.0
TWC	Suao	0.76	321	*e*P	Pb	13 12 25.3	-0.7
TWC				S	Sb	13 12 35.1	-0.9
SHUL	Shoufeng	0.78	253	P	Pb	13 12 25.5	-0.7
SHUL				*e*S	Sb	13 12 36.8	+0.3
ETM	Tongmen	0.81	267	*e*P	Pb	13 12 25.7	-1.0
ETM				S	Sb	13 12 36.5	-0.8
TEGC	Jichi Village	0.82	248	*e*P	Pn	13 12 28.1	+1.0
TEGC				S	Sn	13 12 38.3	0.0
ETLH	Xiulin Townshi	0.84	283	*i* P	Pb	13 12 26.6	-0.7
ETLH				*e*S	Sb	13 12 38.0	-0.3
NDS	Dongshan	0.86	316	*e*P	Pb	13 12 27.3	-0.3
NDS				S	Sn	13 12 38.9	-0.4
LXIB	Xiulin Townshi	0.88	271	*e*P	Pb	13 12 27.1	-0.9
LXIB				*e*S	Sb	13 12 38.8	-0.7
ESL	Shilin	0.89	257	*e*P	Pb	13 12 25.8	-2.3
ESL				S	Sb	13 12 38.9	-0.6
EGS		0.92	334	P	Pn	13 12 28.6	+0.2
EGS				*e*S	Sn	13 12 42.8	+2.1
LATG	Datong	0.93	304	*e*P	Pn	13 12 28.9	+0.2
LATG				S	Sn	13 12 41.4	+0.1
EGFH	Guangfu	0.93	249	*e*P	Pn	13 12 29.4	+0.8
EGFH				S	Sb	13 12 40.2	-0.7
ILA	Ilan	0.94	323	P	Pb	13 12 28.2	-0.8
ILA				S	Sb	13 12 40.9	-0.2
WARBT	Fenglin Townsh	0.95	252	*e*P	Pb	13 12 27.9	-1.3
WARBT				S	Sb	13 12 40.7	-0.8
TWE	Neicheng	0.95	318	*e*P	Pn	13 12 29.1	+0.2
TWE				S	Sn	13 12 41.6	0.0
NTC	Toucheng	0.97	329	P	Pb	13 12 28.9	-0.7
NTC				S	Sn	13 12 42.1	+0.1
NDT	Datong Townshi	0.98	307	P	Pn	13 12 30.0	+0.8
NDT				S	Sn	13 12 42.2	0.0
NNSB	Datong	1.00	295	*i* P	Pb	13 12 29.6	-0.4
NNSB				*e*S	Sb	13 12 42.7	-0.1
NNSH	Datong	1.00	295	P	Pb	13 12 29.5	-0.5
NNSH				S	Sn	13 12 43.1	+0.4
NNS	Nan Shan	1.01	295	P	Pn	13 12 30.0	+0.3
NNS				S	Sn	13 12 43.5	+0.4
HGSD	Ruisui	1.02	239	*e*P	Pb	13 12 30.5	+0.3
HGSD				*e*S	Sn	13 12 44.8	+1.7
WHF	Hehuan Shan	1.02	277	P	Pb	13 12 29.2	-1.4
WHF				S	Sb	13 12 43.0	-0.9
FUSB	Fushanzhiwuyua	1.03	316	*i* P	Pb	13 12 30.8	+0.2
FUSB				*e*S	Sn	13 12 44.8	+1.2
TWB1	Santiao Chiao	1.05	340	P	Pb	13 12 30.4	-0.4
TWB1				S	Sn	13 12 43.9	0.0
FUSS	Fushou	1.06	283	P	Pn	13 12 30.0	-0.6
FUSS				S	Sn	13 12 45.4	+0.9
TIPB	Shuangxi	1.08	332	*e*P	Pb	13 12 31.6	+0.3
TIPB				*e*S	Sn	13 12 45.3	+0.7
EHYH	Wanrong	1.08	241	P	Pn	13 12 30.8	+0.2
EHYH				*e*S	Sb	13 12 44.0	-0.9
EHY	Hungye	1.09	243	P	Pn	13 12 30.6	-0.1
EHY				S	Sb	13 12 45.1	-0.3
ECBN	Changbin	1.10	231	P	Pn	13 12 30.9	+0.1
ECBN				*e*S	Sn	13 12 45.8	+0.8
OWD	Renai	1.10	267	*e*P	Pn	13 12 30.6	-0.4
OWD				*e*S	Sb	13 12 44.1	-1.6
NWLT	Wulai	1.10	314	P	Pn	13 12 30.9	0.0
NWLT				*e*S	Sb	13 12 44.7	-1.0
YHNB	Yeheng	1.12	306	P	Pb	13 12 31.8	-0.3
YHNB				S	Sn	13 12 46.1	+0.3
TWT	Tachien	1.12	282	P	Pb	13 12 32.0	-0.1
TWT				S	Sn	13 12 46.9	+0.9
TDCB	Techi	1.14	282	P	Pn	13 12 31.3	-0.3
TDCB				S	Sn	13 12 46.6	+0.3
NSK	Sanguang	1.14	306	P	Pn	13 12 31.4	-0.1
NSK				S	Sb	13 12 46.1	-0.7
WUSB	Renai	1.15	269	P	Pn	13 12 31.7	0.0
WUSB				S	Sb	13 12 46.7	-0.5
VWDT	VWDT	1.16	257	P	Pn	13 12 31.1	-0.5
VWDT				S	Sn	13 12 46.2	-0.4
YULB	Yu-li	1.17	238	*i* P	Pn	13 12 31.2	-0.6
YULB				*e*S	Sn	13 12 45.5	-1.3
EYUL	Yuli	1.18	236	*e*P	Pn	13 12 30.6	-1.3
EYUL				*e*S	Sn	13 12 46.3	-0.7
NWF	Wu-fen Shan	1.18	333	P	Pb	13 12 32.5	-0.6
NWF				S	Sn	13 12 47.2	-0.1
WFSB	Wu-fen Shan	1.18	333	P	Pn	13 12 32.3	+0.3
WFSB				S	Sn	13 12 47.0	-0.2
TWF1	Yuli	1.19	237	P	Pn	13 12 31.3	-0.8
TWF1				*e*S	Sn	13 12 46.0	-1.4
TWA	Mucha	1.20	323	*e*P	Pn	13 12 32.0	-0.3
TWA				*e*S	Sn	13 12 47.4	-0.4
CHKH	Chenggong	1.22	228	*e*P	Pn	13 12 33.1	+0.6
CHKH				*e*S	Sn	13 12 44.8	-3.2
TATO	Taipei	1.25	320	P	Pn	13 12 32.9	0.0
TATO				S	Sb	13 12 49.9	-0.1
IRIF	Iriomote-Funau	1.28	75	*e*S	Sb	13 12 51.9	+1.2
FULB	Fuli	1.28	231	*e*P	Pb	13 12 34.2	-0.6
FULB				S	Sn	13 12 49.8	+0.1
WPL	Puli Township	1.30	270	P	Pb	13 12 34.6	-0.4
WPL				S	Sb	13 12 51.1	-0.2
CHKT	Chengkung	1.30	226	P	Pn	13 12 32.5	-1.1
NFF	Wufeng Townshi	1.30	298	P	Pb	13 12 35.2	+0.1
NFF				*e*S	Sb	13 12 53.5	+2.0
HATJ	Hateruma jima	1.31	88	*e*S	Sb	13 12 52.5	+0.9
SSLB	Suanglung	1.32	260	*e*P	Pb	13 12 35.5	0.0
SSLB				S	Sn	13 12 50.8	+0.1
DPDB	Guoxing	1.32	271	P	Pn	13 12 33.8	-0.2
DPDB				S	Sn	13 12 50.9	+0.1
KSHI	Guanxi Townshi	1.33	305	P	Pn	13 12 34.6	+0.5
KSHI				*e*S	Sn	13 12 51.1	+0.2
WHP	Taichung City	1.33	282	*e*P	Pb	13 12 36.4	+0.7
WHP				*e*S	Sb	13 12 53.6	+1.2
WCS	Beigang Elemen	1.34	272	P	Pb	13 12 35.1	-0.6
WCS				*e*S	Sb	13 12 52.5	0.0
YM01	YM01	1.34	327	*e*P	Pb	13 12 36.4	+0.5
YM01				S	Sn	13 12 51.7	+0.4
SMLT	Sun Moon Lake	1.36	265	P	Pn	13 12 34.5	-0.1
SMLT				*e*S	Sb	13 12 53.2	+0.1
YM08	YM08	1.37	329	P	Pb	13 12 35.4	-0.9
YM08				*e*S	Sn	13 12 52.0	+0.1
ZUZH	Zhuzihu	1.37	327	*e*P	Pb	13 12 36.2	-0.1
ZUZH				*e*S	Sb	13 12 53.6	+0.2
EHD	Haiduan	1.38	231	P	Pn	13 12 34.9	+0.1
EHD				*e*S	Sn	13 12 52.3	+0.3
LIOB	Emei	1.39	297	P	Pb	13 12 36.4	-0.2
LIOB				S	Sb	13 12 54.0	0.0
TYC	Yuchr	1.39	266	P	Pn	13 12 35.7	+0.8
TYC				S	Sn	13 12 53.2	+0.8
NSTT	Nanjuang	1.40	296	P	Pb	13 12 36.2	-0.5
NSTT				S	Sb	13 12 54.6	+0.5
ANP	Anpu	1.40	326	P	Pn	13 12 35.4	+0.3
ANP				*e*S	Sn	13 12 52.5	-0.3
ECS	Chishang	1.40	229	*e*P	Pb	13 12 36.5	-0.3
ECS				S	Sb	13 12 53.9	-0.4
YUS	Yu-Shan	1.41	248	P	Pb	13 12 36.4	-0.8
YUS				S	Sn	13 12 53.1	-0.3
NTST	Danshui	1.42	324	P	Pn	13 12 35.6	+0.3
NTST				*e*S	Sn	13 12 53.2	+0.1
EDH	Donghe	1.43	224	P	Pn	13 12 35.9	+0.5
EDH				*e*S	Sn	13 12 50.2	-3.2
WHYT	Xinyi Township	1.43	257	*e*P	Pn	13 12 36.2	+0.8
WHYT				*e*S	Sn	13 12 53.5	+0.1
NCUH	Zhongli	1.44	311	*e*P	Pn	13 12 35.4	-0.2
NCUH				*e*S	Sn	13 12 54.2	+0.6
NSM	Shimen	1.46	331	P	Pn	13 12 35.9	+0.1
SBCB	Hsinchu	1.48	302	*e*P	Pn	13 12 35.7	-0.4
ELDTW	Lidau	1.49	237	*e*P	Pn	13 12 35.9	-0.5
ELDTW				*e*S	Sn	13 12 53.4	-1.6
JKRS	Kuro-shima	1.51	81	*e*S	Sb	13 12 57.8	+0.4
ALS	Alishan	1.52	251	P	Pb	13 12 38.2	-0.9
ALS				*e*S	Sn	13 12 55.7	-0.4
NSY	Sanyi	1.53	285	P	Pn	13 12 37.6	+0.9
NSY				*e*S	Sn	13 12 56.7	+0.9
WWF	Wufeng	1.53	271	P	Pb	13 12 38.3	-0.8
WNT	Mingjian	1.55	265	P	Pn	13 12 38.0	+0.9
WNT				*e*S	Sb	13 12 57.7	-0.9
LONT	Longtian	1.59	226	*e*P	Pb	13 12 39.2	-0.8
LONT				*e*S	Sn	13 12 58.6	+1.3
TWGBT	Beinan	1.69	225	P	Pn	13 12 38.9	0.0
TWGBT				*e*S	Sn	13 12 58.1	-1.5
TWG	Pinlang	1.69	225	P	Pn	13 12 38.3	-0.7
STYH	Taoyuan	1.69	241	P	Pb	13 12 40.6	-1.1
STYH				S	Sn	13 13 00.1	+0.4
WGK	Gukeng	1.69	259	*e*P	Pn	13 12 39.8	+0.8
STYT	Tauyuan	1.71	241	P	Pb	13 12 40.9	-1.2
STYT				S	Sn	13 13 01.5	+1.2
WDLH	Douliu	1.71	259	P	Pb	13 12 41.6	-0.5
WDLH				*e*S	Sb	13 13 02.2	-1.1
WCKO	Fanlu	1.72	251	P	Pb	13 12 41.0	-1.3
WCKO				S	Sb	13 13 03.2	-0.3
TPUB	Ta-pu	1.75	246	P	Pn	13 12 41.4	+1.5
TPUB				S	Sn	13 13 02.8	+1.5
CHN4	Tsaushan	1.76	248	P	Pn	13 12 41.5	+1.5
CHN4				S	Sb	13 13 04.8	+0.2
WTP	Ta-pu	1.79	245	P	Pb	13 12 42.0	-1.4
WTP				S	Sb	13 13 04.7	-0.7
WRL	Guolierlin Hig	1.83	267	P	Pn	13 12 42.4	+1.4
WRL				*e*S	Sn	13 13 04.5	+1.2
WTK	Tuku	1.85	260	*e*P	Pn	13 12 42.0	+0.8
WTK				*e*S	Sn	13 13 05.0	+1.3
JISG	Ishigakijimahi	1.85	72	P	Pb	13 12 42.8	-1.7
JISG				*e*S	Sb	13 13 06.3	-1.0
TWK	Hsinying	1.89	247	*e*P	Pn	13 12 42.2	+0.5
TWK				S	Sb	13 13 07.4	-0.8
CHN1	Nanshi	1.89	244	P	Pb	13 12 43.8	-1.3
CHN1				S	Sb	13 13 07.8	-0.4
SLGT	Liugui	1.89	238	P	Pb	13 12 43.5	-1.5
SLGT				S	Sn	13 13 06.2	+1.7
SGST	Jiashian	1.89	241	P	Pn	13 12 43.1	+1.4
SGST				*e*S	Sn	13 13 06.5	+1.8
SNST	Tainan City	1.90	246	P	Pn	13 12 42.9	+1.1
ECL	Taimali	1.92	223⇓	*e*P	Pn	13 12 43.8	+1.6
SSD	Sandimen	2.04	232	P	Pn	13 12 45.6	+1.8
SSD				S	Sn	13 13 09.9	+1.6
TSMG	Majia	2.06	231	*e*P	Pb	13 12 46.1	-1.9
TSMG				*e*S	Sb	13 13 11.4	-1.7
MASBT	Mashibuluo	2.13	229	P	Pn	13 12 45.8	+0.8
MASBT				S	Sn	13 13 11.6	+1.1
TAWH	Dawu Township	2.16	220	*e*P	Pn	13 12 47.6	+2.2
TAWH				*e*S	Sn	13 13 13.7	+2.4
SLIU	Shizi	2.31	219	*e*P	Pn	13 12 49.5	+2.1
SLIU				*e*S	Sn	13 13 17.0	+2.0
HEN	Hengchun	2.51	217	*e*P	Pn	13 12 52.3	+2.1
HEN				*e*S	Sn	13 13 21.9	+2.1
PNG	Penghu	2.62	261	*e*P	Pn	13 12 53.6	+1.8
PNG				*e*S	Sn	13 13 23.4	+0.6

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*PRE **18** 13:25:41.4±0.8, 26°.00S×29°.07E, h0^{km}, ML2.2, Suspected explosion*

*BGSI **18** 13:25:49.1±1.5, 25°.51S×29°.08E, h257^{km}±63^{km}, ML2.7, Presumed earthquake*

*BUL **18** 13:25:53.7±1.4, 25°.71S×28°.94E, h10^{km}, MD3.2, Presumed earthquake*

ISC 18 13:25:41.8±0.9**, 25°.94S**±0°.04×**29°.06E**±0°.03**, h0^{km}, n17, σ1^{s}.71**/30**, South Africa**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RUST	Rust De Winter	0.85	325	*e*P	Pg	13 25 59.0	+1.0
RUST				*e*S	Sb	13 26 12.0	+0.5
RUST				IAML		13 26 16.2	
	comp=Z,36nm,0.7s						
CRLN	Carolina, Mapu	0.87	94	*e*P	Pg	13 25 57.7	-0.7
CRLN				*e*S	Sg	13 26 09.7	0.0
CRLN				IAML		13 26 19.7	
	comp=Z,64nm,0.8s						
TSWA	Tswaing Meteor	1.02	300	*e*P	Pg	13 26 02.0	+0.6
TSWA				*e*S	Sb	13 26 16.7	+0.2
TSWA				IAML		13 26 28.6	
	comp=Z,22nm,0.7s						
HRAO	HartRAO	1.24	272	*e*P	Pg	13 26 05.1	-0.5
HRAO				*e*S	Sb	13 26 22.8	+0.1
WTBG	Waterberg Wild	1.73	355	*e*P	Pn	13 26 13.7	+0.5
WTBG				*e*S	Sg	13 26 38.3	+1.0
WTBG				IAML		13 27 01.5	
	comp=Z,11nm,0.4s						
HOED	Hoedspruit, Li	2.28	49	*e*P	Pn	13 26 22.0	+1.3
HOED				*e*S	Sn	13 26 50.5	+1.0
HOED				IAML		13 26 57.7	
	comp=Z,22nm,0.6s						
MRCO	Marico , North	2.44	280	*e*P	Pn	13 26 24.3	+1.3
MRCO				*e*S	Sn	13 26 54.3	+0.6
MRCO				IAML		13 27 14.7	
	comp=Z,8.3nm,0.4s						
CRAIL	Swartwater, Li	3.21	346	*e*P	Pn	13 26 35.2	+1.7
CRAIL				*e*S	Sn	13 27 13.6	+1.1
CRAIL				IAML		13 27 28.9	
	comp=Z,694nm,0.5s						
LBTB	Lobatse	3.26	286	*i* P	Pb	13 26 41.1	+0.4
LBTB				*i* S	Sb	13 27 18.5	-2.5
LBTB	Lobatse	3.26	286	*e*P	Pn	13 26 35.5	+1.2
LBTB				*e*S	Sn	13 27 14.5	+0.6
LBTB				IAML		13 27 27.8	
	comp=Z,13nm,0.3s						
MREMI	Moremi	3.66	336	*i* P	Pb	13 26 44.6	-2.8
MREMI				*i* S	Sn	13 27 23.7	-0.1
MREMI				IAML		13 27 44.5	
	comp=N,58nm,0.3s						
MUSN	Musina, Limpop	3.71	12	*i* P	Pb	13 26 48.5	+0.4
MAKGR	Makgori	3.84	271	*i* P	Pb	13 26 49.5	-0.9
MAKGR				*i* S	Sb	13 27 36.2	-1.4
MAKGR				IAML		13 27 46.4	
	comp=N,51nm,0.5s						
BOSA	Boshof	4.31	231	*i* P	Pb	13 26 59.6	+1.1
BOSA				*i* S	Sb	13 27 48.9	-2.3
BROLN	Tlhalogang	5.07	341	*i* P	Pn	13 26 59.7	+0.5
BROLN				*i* S	Sn	13 27 52.1	-6.4
BROLN				IAML		13 28 22.9	
	comp=E,11nm,0.9s						
MATP	Matopo	5.51	355	*i* P	Pn	13 27 11.1	+5.8
MATP				*i* S	Sn	13 28 09.9	+0.5
BLWY	Bulawayo	5.79	356	*i* P	Pn	13 27 16.1	+7.1

IDC 18 14:59:07.0±2.5**, 4°.91N**×**123°.76E, h0^{km}, mb3.5**/3**, mbtmp3.5**/3**, Error ellipse: s-maj=308.7km**

s-min=26.1km az=63.0, Celebes Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	26.80	157	P	P	15 04 49.4	+0.3
	0.3nm,0.3s,baz=336,slow=9.7,SNR=8.7						
	0.3nm,0.3s						
ASAR	Alice Springs	30.08	161	P	P	15 05 18.0	-0.3
	0.4nm,1.0s,baz=339,slow=7.2,SNR=12						
	0.4nm,1.0s						
MKAR	Makanchi Array	54.92	326	P	P	15 08 39.6	-0.1
	0.2nm,0.3s,baz=121,slow=7.2,SNR=5.7						
	0.2nm,0.3s						

*DNK **18** 15:16:31.2±1.5, 51°.64N×16°.21E, h0^{km}, ML2.8, Suspected explosion*

*MCSM **18** 15:16:32.6±0.4, 52°N±2°×1°6E±°, h9^{km}±3^{km}, mb3.8, MLv3.6*

*IDC **18** 15:16:32.3±0.8, 51°.63N×15°.99E, h0^{km}, mb3.4/2, mbtmp3.4/11, ML3.1/8, Error ellipse: s-maj=14.9km s-min=8.0km az=114.0*

*IPEC **18** 15:16:32.8±0.2, 51°.60N×16°.12E, h1^{km}, ML3.0/7, Error ellipse: s-maj=2.0km s-min=1.2km az=70.0*

*BGR **18** 15:16:33.6±0.4, 51°.57N×16°.10E, h1^{km}, ML3.2/16, Error ellipse: s-maj=4.4km s-min=2.2km az=18.0*

*VIE **18** 15:16:34.8±0.6, 51°.44N×15°.93E, h0^{km}, mb2.9/17, ml3.1/16, ms3.3/1, Error ellipse: s-maj=6.1km s-min=3.4km az=61.0 84 km WNW of Wroclaw Suspected Mining induced.*

*GFZ **18** 15:16:34.8±0.4, 52°N±4°×1°6E±°, h10^{km}, M3.5/19*

ISC 18 15:16:31.2±0.6**, 51°.66N**±0°.02×**16°.08E**±0°.02**, h0^{km}, n131,** σ**1^{s}.34**/213**, Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSP	Ksiaz	0.83	171	i Pg	Pg	15 16 47.9	+0.8
KSP				eSg	Sg	15 16 58.3	+0.3
KSP	Ksiaz	0.83	171	ePg	Pg	15 16 47.9	+0.8
KSP				eSg	Sg	15 16 58.4	+0.5
KSP	Ksiaz	0.83	171	Pg	Pg	15 16 47.8	+0.6
KSP				Sg	Sg	15 16 58.3	+0.3
KSP				AML	AML		
CHVC	Chvalec	1.08	181	ePG	Pb	15 16 52.6	-0.2
CHVC				eSG	Sg	15 17 06.0	+0.2
	comp=Z,158nm,0.5s						
CHVC				AML	AML		
OSTC	Ostas	1.11	176	ePG	Pb	15 16 53.2	-0.1
OSTC				eSG	Sg	15 17 06.8	-0.1
UPC	Upice	1.16	182	ePG	Pg	15 16 53.9	+0.5
UPC				eSG	Sg	15 17 08.0	-0.4
UPC	Upice	1.16	182	P	Pg	15 16 54.0	+0.5
DPC	Dobruska-Polom	1.32	173	ePG	Pg	15 16 56.8	+0.2
DPC				eSG	Sg	15 17 12.7	-1.0
	comp=Z,77nm,0.3s						
DPC				AML	AML		
DPC	Dobruska-Polom	1.32	173	ePg	Pg	15 16 56.7	+0.2
DPC				eSg	Sg	15 17 12.8	-0.9
DPC	Dobruska-Polom	1.32	173	Sg	Sg	15 17 13.5	-0.2
DPC	Dobruska-Polom	1.32	173	P	Pg	15 16 56.8	+0.2
PIVO	Bartosovice	1.51	169	ePg	Pn	15 16 59.7	+0.2
	baz=350						
PIVO				eSg	Sg	15 17 17.9	-1.8
	284nm,0.4s,baz=350						
PIVO				AML	AML		
BRG	Berggiesshubel	1.56	240	ePg	Pg	15 17 01.7	+0.6
BRG				eSg	Sn	15 17 21.2	+0.1
BRG	Berggiesshubel	1.56	240	P	Pb	15 17 00.8	-0.2
BRG	Berggiesshubel	1.56	240	Pn	Pn	15 17 00.3	+0.1
BRG				Pg	Pg	15 17 02.2	+1.1
BRG				Sg	Sg	15 17 22.4	+1.1
BRG				Amp		15 17 23.2	
	comp=Z,261nm,0.4s						
RUE	Ruedersdorf	1.64	301	P	Pg	15 17 02.6	0.0
KRLC	Kraliky	1.65	164	ePG	Pn	15 17 01.8	+0.3
KRLC				eSG	Sn	15 17 22.9	-0.6
	comp=Z,146nm,0.5s						
KRLC				AML	AML		
KRLC	Kraliky	1.65	164	P	Pn	15 17 01.8	+0.3
ANAC	Anensky vrch	1.79	152	ePn	Pn	15 17 03.6	+0.1
	baz=333						
ANAC				eSg	Sn	15 17 26.9	0.0
	comp=Z,89nm,0.3s,baz=333						
ANAC				AML	AML		
RYBC	Ceska Rybna	1.86	180	ePn	Pn	15 17 04.7	+0.4
	baz=1.2						
RYBC				eSg	Sn	15 17 29.1	+0.6
	comp=Z,83nm,0.2s,baz=1.2						
RYBC				AML	AML		
FBE	Freiberg	1.87	248	ePn	Pn	15 17 04.9	+0.5
FBE				eSg	Sg	15 17 31.9	+0.7
PRU	Pruhonice	1.94	211	ePN	Pn	15 17 05.7	+0.3
PRU				ePG	Pb	15 17 07.7	+0.2
PRU				eSG	Sb	15 17 32.3	+0.1
	comp=Z,115nm,0.4s						
PRU				AML	AML		
PRU	Pruhonice	1.94	211	P	Pn	15 17 05.8	+0.3
CLL	Collm	1.96	261	ePn	Pn	15 17 06.3	+0.5
CLL	Collm	1.96	261	Pn	Pn	15 17 06.0	+0.3
CLL				AML	AML		
CLL	Collm	1.96	261	P	Pn	15 17 06.2	+0.5
CLL	Collm	1.96	261	i Pn	Pn	15 17 06.2	+0.5
CLL				i Pg	Pg	15 17 09.4	+0.7
CLL				i x	x	15 17 13.3	
CLL				eSg	Sg	15 17 35.0	+0.9
	comp=Z,74nm,0.8s						
HSKC	Hora Svate Kat	1.98	239	ePG	Pg	15 17 08.8	-0.3
HSKC				eSG	Sb	15 17 34.0	+0.7
	comp=Z,82nm,0.4s						
HSKC				AML	AML		
HSKC	Hora Svate Kat	1.98	239	P	Pb	15 17 07.6	-0.5
STEB	Steborice	2.04	148	ePG	Pg	15 17 09.8	-0.5
STEB				eSG	Sg	15 17 36.1	-0.5
	comp=Z,162nm,0.6s						
STEB				AML	AML		
MORC	Moravsky Berou	2.10	153	ePn	Pn	15 17 07.8	0.0
MORC				eSg	Sb	15 17 37.3	+0.4
MORC	Moravsky Berou	2.10	153	ePn	Pn	15 17 07.8	0.0
	baz=334						
MORC				eSg	Sb	15 17 36.8	-0.2
	comp=Z,78nm,0.5s,baz=334						
MORC				AML	AML		
MORC	Moravsky Berou	2.10	153	ePN	Pn	15 17 07.9	+0.2
MORC				eSG	Sb	15 17 36.9	-0.1
MORC	Moravsky Berou	2.10	153	P	Pn	15 17 08.0	+0.2
OKC	Ostrava-Krasne	2.25	144	ePG	Pg	15 17 13.9	-0.4
OKC				eSG	Sb	15 17 41.8	+0.7
	comp=Z,130nm,0.6s						
OKC				AML	AML		
OKC	Ostrava-Krasne	2.25	144	P	Pg	15 17 14.3	0.0
VRAC	Vranov	2.38	172	Pn	Pn	15 17 12.4	+0.9
	comp=Z,9.0nm,0.3s,baz=348,slow=14,SNR=32						
VRAC				Lg	Lg	15 17 45.3	
	comp=Z,8.8nm,0.3s,baz=78,slow=22,SNR=7.6						
	comp=Z,20nm,0.3s						
VRAC				AML	AML		
VRAC	Vranov	2.38	172	ePn	Pn	15 17 12.2	+0.7
	baz=353						
VRAC				eSg	Sb	15 17 45.3	+0.4
	baz=353						
VRAC	Vranov	2.38	172	ePN	Pn	15 17 12.3	+0.7
VRAC				eSG	Sb	15 17 45.4	+0.5
VRAC	Vranov	2.38	172	P	Pn	15 17 12.3	+0.7
TREC	Trest	2.40	189	eSG	Sb	15 17 46.6	+1.1
	comp=Z,80nm,0.6s						
TREC				AML	AML		
TREC	Trest	2.40	189	P	Pn	15 17 12.6	+0.7
ZVC	Zvikov	2.53	209	ePG	Pb	15 17 18.7	+1.1
ZVC				eSG	Sg	15 17 51.6	-1.0
TANN	Tannenbergstha	2.61	243	eSg	Sg	15 17 54.6	-0.3
TANN	Tannenbergstha	2.61	243	P	Pn	15 17 15.6	+1.0
KRUC	Moravsky	2.61	175	ePn	Pn	15 17 15.4	+0.7
	baz=356						
KRUC				eSg	Sb	15 17 52.7	+1.2
	comp=Z,71nm,0.7s,baz=356						
KRUC				AML	AML		
KRUC	Moravsky	2.61	175	P	Pn	15 17 15.8	+1.1
WERD	Werda	2.68	244	ePn	Pn	15 17 16.2	+0.6
WERD				eSg	Sg	15 17 57.4	+0.2
STAC	Stalkov	2.69	191	ePn	Pn	15 17 16.3	+0.6
	baz=11						
STAC				eSg	Sb	15 17 55.1	+1.5
	comp=Z,66nm,0.4s,baz=11						
STAC				AML	AML		
NKC	Novy Kostel	2.71	239	ePN	Pn	15 17 17.3	+1.3
NKC				ePG	Pg	15 17 24.0	+0.9
NKC				eSG	Sg	15 17 58.6	+0.4
	comp=Z,129nm,0.3s						
NKC				AML	AML		
NKC	Novy Kostel	2.71	239	P	Pn	15 17 17.2	+1.1
OJC	Ojcow	2.76	120	ePn	Pn	15 17 15.6	-1.1
OJC				ePg	Pg	15 17 23.6	-0.5
OJC				eSg	Sg	15 17 59.3	-0.5
OJC	Ojcow	2.76	120	ePn	Pn	15 17 15.2	-1.5
OJC				eSg	Sg	15 17 59.8	0.0
OJC	Ojcow	2.76	120	Pn	Pn	15 17 16.5	-0.2
OJC				AML	AML		
JAVC	Velka Javorina	2.99	159	ePn	Pn	15 17 20.6	+0.7
	baz=341						
MOX	Moxa	2.99	252	ePn	Pn	15 17 20.2	+0.3
MOX				eSg	Sg	15 18 08.5	+1.2
KHC	Kasperske Hory	3.00	213	ePN	Pn	15 17 20.5	+0.5
KHC				ePG	Pb	15 17 27.0	+1.5
KHC				eSG	Sb	15 18 05.3	+2.6
	comp=Z,37nm,0.4s						
KHC				AML	AML		
KHC	Kasperske Hory	3.00	213	Pn	Pn	15 17 20.6	+0.5
KHC				AML	AML		
KHC	Kasperske Hory	3.00	213	P	Pn	15 17 22.0	+1.9
CKRC	Cesky Krumlov	3.07	202	ePN	Pn	15 17 22.3	+1.4
CKRC				ePG	Pb	15 17 28.3	+1.6
CKRC				eSG	Sb	15 18 07.0	+2.4
	comp=Z,62nm,0.4s						
CKRC				AML	AML		
ROTZ	Rotzenmuhle	3.11	234	ePn	Pn	15 17 22.3	+0.8
ROTZ				eSg	Sg	15 18 11.2	+0.1
GEC2	GERESS Array S	3.21	209	ePn	Pn	15 17 24.5	+1.5
GEC2				ePg	Pb	15 17 30.7	+1.6
GEC2				eSn	Sn	15 17 58.4	-3.5
GEC2				eSg	Sg	15 18 13.0	-1.3
GERES	GERESS Array B	3.21	209	Pn	Pn	15 17 23.8	+0.8
	comp=Z,0.7nm,0.3s,baz=32,slow=13,SNR=53						
GERES				Pg	Pg	15 17 31.1	-1.6
	comp=Z,1.5nm,0.3s,baz=24,slow=18,SNR=40						
GERES				Lg	Lg	15 18 12.1	
	comp=Z,1.7nm,0.3s,baz=26,slow=29,SNR=5.1						
	comp=Z,8.4nm,0.3s						
GERES				AML	AML		
WET	Wettzell	3.25	220	ePn	Pn	15 17 24.3	+0.8
WET				eSg	Sg	15 18 13.4	-2.2
WET	Wettzell	3.25	220	P	Pn	15 17 24.5	+1.1
MODS	Modra-Piesok	3.38	166	ePN	Pn	15 17 26.5	+1.2
MODS				ePG	Pg	15 17 36.0	0.0
MODS				eSG	Sg	15 18 20.1	+0.2
NIE	Niedzica	3.51	128	ePg	Pg	15 17 38.5	+0.1
NIE				eSg	Sg	15 18 24.1	+0.3
NIE	Niedzica	3.51	128	Pn	Pn	15 17 27.6	+0.6
NIE				AML	AML		
BSD	Bornholm Skovb	3.53	349	i P	Pn	15 17 28.6	+1.4
BSD				i S	Sn	15 18 08.3	-1.3
BSD				IAML		15 18 36.4	
	comp=Z,5.9nm,0.4s						
ZST	Bratislava	3.53	169	eSG	Sg	15 18 24.6	-0.1
CLZ	Clausthal	3.55	275	ePn	Pn	15 17 30.0	+2.3
CLZ				ePg	Pg	15 17 39.6	+0.3
CLZ				eSg	Sg	15 18 28.5	+3.2
WINA	Alland / Wiene	3.56	180	i Pn	Pn	15 17 28.9	+1.1
	SNR=11						
GRA3	Grafenberg Arr	3.58	240	P	Pn	15 17 29.6	+1.6
GRB3	Grafenberg Arr	3.58	231	P	Pn	15 17 30.3	+2.2
GRA2	Grafenberg Arr	3.62	238	P	Pn	15 17 29.8	+1.3
GRB4	Grafenberg Arr	3.62	234	P	Pn	15 17 30.6	+1.9
GRB1	Grafenberg Arr	3.63	233	P	Pn	15 17 30.4	+1.7
VYHS	Vyhne	3.63	150	ePN	Pn	15 17 29.1	+0.3
VYHS				ePG	Pg	15 17 42.4	+1.5
VYHS				eSG	Sg	15 18 28.4	+0.4
GRA1	Grafenberg Arr	3.67	239	P	Pn	15 17 30.9	+1.7
GRF	Grafenberg Arr	3.67	239	ePn	Pn	15 17 30.6	+1.4
GRF				eSg	Sg	15 18 29.2	+0.2
GRB2	Grafenberg Arr	3.70	231	P	Pn	15 17 30.8	+1.2
CONA	Conrad Observa	3.74	182	ePn	Pn	15 17 31.2	+0.9
	comp=Z,7.7nm,0.5s,SNR=6.1						
CONA				eSg	Sg	15 18 28.6	-2.8
	comp=Z,32nm,0.4s						
RONA	Rosalia, Austr	3.97	178	i Pn	Pn	15 17 33.9	+0.5
	comp=Z,1.3nm,0.2s						
RONA				eSg	Sb	15 18 34.4	+3.8
	comp=Z,14nm,0.4s						
STHS	Stebnicka Huta	3.99	122	ePN	Pn	15 17 33.9	+0.3
STHS				ePG	Pg	15 17 48.4	+0.8
STHS				eSG	Sg	15 18 42.1	+2.9
MOA	Molln	4.00	198	i Pn	Pn	15 17 34.6	+0.9
	comp=Z,12nm,0.3s,SNR=28						
MOA				eSg	Sg	15 18 37.5	-2.1
	comp=Z,38nm,0.7s						
MOA	Molln	4.00	198	P	Pn	15 17 34.8	+1.1
KECS	Kecovo	4.26	137	ePN	Pn	15 17 37.8	+0.4
KECS				ePG	Pg	15 17 54.3	+1.4
LUNU	Lund	4.27	340	i P	Pn	15 17 37.8	+0.3
LUNU				i S	Sn	15 18 27.1	-0.8
RETH	Rethem/Aller,	4.27	287	P	Pn	15 17 40.5	+3.1
BIOA	Bad Ischl, Aus	4.28	203	i Pn	Pn	15 17 38.4	+0.7
	comp=Z,5.5nm,0.3s,SNR=5.0						
BIOA				eSg	Sg	15 18 48.1	-0.7
	comp=Z,59nm,0.5s						
LLD	Lille Linde	4.34	329	i P	Pn	15 17 38.6	+0.3
LLD				i S	Sn	15 18 30.1	+0.5
LLD				IAML		15 18 37.4	
	comp=Z,16nm,0.3s						
ARSA	Arzberg	4.43	185	i Pn	Pn	15 17 40.9	+1.2
	comp=Z,4.3nm,0.3s						
ARSA				eSg	Sg	15 18 51.5	-2.0
	comp=Z,42nm,0.8s						
MPLH	Magyarpolny	4.60	168	Pn	Pn	15 17 42.3	+0.3
MPLH				AML	AML		
BLEU	Blekinge	4.65	358	i P	Pn	15 17 44.2	+1.6
BLEU				i S	Sn	15 18 35.9	-1.4
SESA	Seetaler Alpe,	4.66	193	Pn	Pn	15 17 44.1	+1.0
	SNR=11						
ABAH	Abaujker	4.74	133	P	Pn	15 17 46.6	+2.7
LESA	Schwarzleotal	4.79	209	i Pn	Pn	15 17 45.1	+0.5
	comp=Z,1.1nm,0.2s,SNR=4.9						
LESA				eSg	Sg	15 19 03.3	-1.7
	comp=Z,8.9nm,0.4s						
KOLS	Kolonicke sedl	4.82	122	ePN	Pn	15 17 45.5	+0.5
KOLS				ePG	Pg	15 18 06.9	+3.4
KOLS				eSG	Sg	15 19 04.6	-1.3
KOLS	Kolonicke sedl	4.82	122	P	Pn	15 17 45.7	+0.7
KBA	Koelnbreinsper	4.93	202	i Pn	Pn	15 17 47.8	+1.2
	comp=Z,9.8nm,0.4s,SNR=14						
KBA				eSg	Sg	15 19 07.9	-1.5
	comp=Z,22nm,0.7s						
KBA	Koelnbreinsper	4.93	202	P	Pn	15 17 48.0	+1.4
DEL	Delary	4.99	346	i P	Pn	15 17 48.1	+0.8
DEL				i S	Sn	15 18 44.8	-0.8
UZHM	Uzhgorod	5.02	125	Pn	Pn	15 17 47.2	-0.5
SOKA	Soboth	5.04	188	i Pn	Pn	15 17 49.2	+1.1
	comp=Z,0.9nm,0.2s						
SOKA				eSg	Sg	15 19 11.8	-1.2
	comp=Z,6.3nm,0.5s						
TNS	Taunus Mts	5.04	256	P	Pn	15 17 49.3	+1.2
WTTA	Wattenberg	5.27	215	i Pn	Pn	15 17 50.9	-0.5
	comp=Z,1.9nm,0.4s						
WTTA				eSg	Sg	15 19 19.7	-0.9
	comp=Z,6.1nm,0.4s						
MYKA	Terra Mystica	5.29	199	i Sg	Sg	15 19 16.8	-4.2
	comp=Z,6.4nm,0.4s						
RETA	Reutte	5.43	222	ePn	Pn	15 17 53.9	+0.5
	comp=Z,1.2nm,0.3s						
RETA				eSg	Sg	15 19 22.6	-2.9
	comp=Z,16nm,0.7s						
ABTA	Abfaltersbach	5.45	207	i Pn	Pn	15 17 55.0	+1.3
	comp=Z,1.2nm,0.2s						
ABTA				eSg	Sg	15 19 22.6	-3.6
	comp=Z,11nm,0.6s						
SQTA	Sankt Quirin	5.47	217	i Pn	Pn	15 17 53.5	-0.6
	comp=Z,1.7nm,0.2s						
SQTA				eSg	Sg	15 19 24.5	-2.2
	comp=Z,10nm,0.5s						
FABU	Falkenberg	5.70	341	i P	Pn	15 17 57.9	+0.8
FABU				i S	Sn	15 19 01.9	-1.2
FETA	Feichten	5.82	219	i Pn	Pn	15 17 58.7	-0.1
	comp=Z,0.2nm,0.1s						
FETA				Sg	Sg	15 19 36.6	-1.3
	comp=Z,1.7nm,0.6s						
RNPP8	Varash	6.11	89	Pn	Pn	15 18 03.0	+0.3
DAVOX	Davos/Dischmat	6.36	222	Pn	Pn	15 18 06.8	+0.5
	comp=Z,0.3nm,0.3s,baz=357,slow=15,SNR=4.3						
DAVOX				Pg	Pg	15 18 32.2	-0.8
	comp=Z,0.7nm,0.3s,baz=17,slow=17,SNR=5.1						
DAVOX				Lg	Lg	15 19 47.9	
	comp=Z,0.3nm,0.3s,baz=41,slow=20,SNR=1.8						
	comp=Z,0.8nm,0.3s						
DAVOX				AML	AML		
KMPD	K-Podol'skiy	7.36	111	Pn	Pn	15 18 21.2	+1.4
AK19	Malin Array Si	8.18	92	Pn	Pn	15 18 30.9	-0.2
AK21	Malin Array Si	8.19	91	Pn	Pn	15 18 30.9	-0.3
AK22	Malin Array Si	8.21	91	Pn	Pn	15 18 31.8	+0.3
AK14	Malin Array Si	8.26	92	Pn	Pn	15 18 31.9	-0.3
AKASG	Malin Array Be	8.32	92	Pn	Pn	15 18 32.5	-0.4
	comp=Z,1.4nm,0.3s,baz=282,slow=12,SNR=5.9						
	comp=Z,1.5nm,0.5s						
AKASG				AML	AML		
AK05	Malin Array Si	8.32	92	Pn	Pn	15 18 32.3	-0.7
AK07	Malin Array Si	8.34	93	Pn	Pn	15 18 32.7	-0.5
HFS	Hagfors	8.59	352	Pn	Pn	15 18 37.7	+0.9
	comp=Z,0.2nm,0.3s,baz=168,slow=16,SNR=6.6						
	comp=Z,0.6nm,0.3s						
HFS				AML	AML		
NOA	NORSAR Array B	9.78	346	Pn	Pn	15 18 53.3	+0.4
	baz=159,slow=12,SNR=1.2						
	comp=Z,0.3nm,0.4s						
FINES	FINESS Array B	11.23	25	Pn	Pn	15 19 12.2	-0.6
	comp=Z,0.2nm,0.3s,baz=208,slow=12,SNR=7.8						
FINES				Sn	Sn	15 21 10.7	-8.1
	comp=Z,0.3nm,0.3s,baz=211,slow=19,SNR=5.0						
	comp=Z,0.6nm,0.3s						
FINES				AML	AML		
EKA	Eskdalemuir Ar	12.02	295	Pn	Pn	15 19 21.1	-2.6
	baz=105,slow=14						
	comp=Z,0.6nm,0.4s						
TIP	Timpagrande	12.50	178	Pn	Pn	15 19 29.6	-0.7
	comp=Z,12nm,1.5s						
BR104	Keskin Array S	17.08	128	P	Pn	15 20 30.0	-1.4
	comp=Z,1.5nm,0.8s						
ARCES	ARCESS Array B	18.47	10	P	Pn	15 20 49.0	+0.6
	comp=Z,0.8nm,0.4s,baz=200,slow=10,SNR=2.7						
BVAR	Borovoye Array	32.54	66	P	P	15 23 05.0	+1.4
	comp=Z,0.3nm,0.5s,baz=292,slow=7.6,SNR=2.6						
	comp=Z,0.3nm,0.5s						
MKAR	Makanchi Array	42.17	69	P	P	15 24 26.6	+1.3
	comp=Z,0.3nm,0.8s,baz=311,slow=9.3,SNR=5.2						
	comp=Z,0.3nm,0.8s						

*GII **18** 15:25:14.2±0.0, 33°.815N±0°.002×35°.951E±0°.001, h0^{km}, Mws1.9, confirmed*

*GRAL **18** 15:25:17.3±0.3, 33°.60N×36°.04E, h14^{km}±3^{km}, MD2.7*

ISC 18 15:25:16.9±1.6**, 33°.67N**±0°.04×**36°.03E**±0°.08**, h10^{km}**±9^{km}**,** **n15,** σ**0^{s}.84**/26**, Jordan-Syria region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZAHL	Zahle	0.22	328	eP	Pb	15 25 23.1	0.0
RCY	Rachaya	0.24	223	eP	Pg	15 25 21.4	-0.5
RCY				eS	Sg	15 25 24.8	-0.4
QRWL	Qaraoun	0.31	247	eP	Pg	15 25 23.2	0.0
DQRL	Deir Qamar	0.38	276	eP	Pg	15 25 24.9	+0.3
DQRL				eS	Sg	15 25 30.5	+0.8
BHL	Bhannes	0.39	307	eP	Pb	15 25 25.4	-0.6
BHL				eS	Sb	15 25 31.6	-0.4
SHBL	Chebaa	0.40	217	eP	Pg	15 25 24.1	-0.8
NATI	Neve Ativ	0.47	211	P	Pg	15 25 26.5	+0.3
NATI				S	Sb	15 25 35.9	+1.6
GEM	Giv'at Ha'Em	0.55	214	P	Pg	15 25 27.3	-0.3
GEM				S	Sb	15 25 38.0	+1.5
KIRY	Kiryat Shemona	0.60	220	P	Pg	15 25 28.4	-0.1
KIRY				S	Sb	15 25 38.9	+1.0
HWQ	Hawqa	0.61	354	eP	Pb	15 25 29.4	-0.3
KSHT	Keshet	0.71	195	P	Pg	15 25 31.0	+0.3
KSHT				S	Sn	15 25 43.8	-0.2
MMA0B	Mount Meron ar	0.84	219	P	Pb	15 25 32.5	-1.1
MMA0B				S	Sn	15 25 46.6	-0.5
MMLI	Mount Malkishu	1.33	203	P	Pn	15 25 41.5	-0.1
MMLI				S	Sg	15 26 01.6	+1.9
OFRI	\`Ofer	1.36	220	P	Pn	15 25 41.3	-0.7
OFRI				S	Sg	15 26 01.2	+0.4
GHAJ	Ghor Haditha	2.39	190	P	Pn	15 25 56.5	+0.4
GHAJ				S	Sb	15 26 28.4	-1.2

*BGSI **18** 15:30:29.3±1.8, 24°.59S×24°.45E, h108^{km}±29^{km}, ML2.3, Presumed earthquake*

PRE 18 15:30:36.8±0.7**, 24°.12S**×**25°.58E, h5^{km}, ML2.0, Presumed earthquake, Botswana**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPHEP	Lephephe	0.80	19	i P	Pn	15 31 01.2	+6.4
LPHEP	Lephephe	0.80	19	i P	Pn	15 30 58.6	+3.8
LBTB	Lobatse	0.89	179	eP	Pg	15 30 53.4	-0.4
LBTB				eS	Sb	15 31 06.7	-0.3
LBTB				IAML		15 31 20.3	
	comp=Z,39nm,0.5s						
MRCO	Marico , North	1.54	151	eP	Pb	15 31 05.6	-0.2
MRCO				eS	Sg	15 31 26.8	+0.6
MRCO				IAML		15 31 42.6	
	comp=Z,50nm,0.1s						
SKOMA	Sekoma	1.55	255	i P	Pn	15 30 44.1	-21
SKOMA				IAML		15 31 00.9	
	comp=E,107nm,0.8s						
SKOMA	Sekoma	1.55	255	i P	Pn	15 30 44.9	-20
SKOMA				IAML		15 31 00.9	
	comp=E,107nm,0.8s						
MAKGR	Makgori	1.82	203	i P	Pn	15 30 52.1	-17
MAKGR				IAML		15 31 16.6	
	comp=E,66nm,0.5s						
MAKGR	Makgori	1.82	203	i P	Pn	15 30 51.6	-17
MAKGR				IAML		15 31 16.6	
	comp=E,65nm,0.5s						
HRAO	HartRAO	2.60	133	eP	Pn	15 31 21.0	+1.3
HRAO				eS	Sn	15 31 52.3	+0.6
TSWA	Tswaing Meteor	2.62	120	eP	Pn	15 31 20.5	+0.6
TSWA				eS	Sn	15 31 52.3	+0.2
TSWA				IAML		15 32 31.2	
	comp=Z,4.2nm,0.3s						
CRAIL	Swartwater, Li	2.78	62	eP	Pn	15 31 23.1	+1.0
CRAIL				eS	Sn	15 31 56.5	+0.4
CRAIL				IAML		15 32 31.6	
	comp=Z,191nm,0.2s						
PHPEN	Phepeng	2.81	241	i P	Pn	15 30 58.4	-24
RUST	Rust De Winter	2.90	113	eP	Pn	15 31 24.2	+0.4
RUST				eS	Sn	15 31 59.1	0.0
RUST				IAML		15 32 42.4	
	comp=Z,2.9nm,0.4s						
BROLN	Tlhalogang	3.42	29	i P	Pb	15 31 37.0	-1.0
LKGWB	Lokgwabe	3.98	269	i P	Pn	15 31 13.2	-26
LKGWB				IAML		15 32 09.6	
	comp=N,16nm,0.6s						
LKGWB	Lokgwabe	3.98	269	i P	Pn	15 31 12.7	-26
BOSA	Boshof	4.48	184	eP	Pn	15 31 46.4	+0.9
BOSA				eS	Sn	15 32 36.8	-1.3
BOSA				IAML		15 33 02.1	
	comp=Z,2.3nm,0.2s						
HOED	Hoedspruit, Li	4.89	94	eP	Pn	15 31 51.7	+0.6
HOED				eS	Sn	15 32 46.8	-1.4
HOED				IAML		15 32 47.5	
	comp=Z,0.9nm,0.6s						

*SJA **18** 15:41:25.3±0.6, 27°.84S×71°.37W, h14^{km}±3^{km}, ML3.5, MW3.7*

*GUC **18** 15:41:28.6±0.7, 27°.92S×71°.08W, h36^{km}±2^{km}, ML3.1*

ISC 18 15:41:28.6±1.6**, 27°.86S**±0°.03×**71°.22W**±0°.06**, h6^{km}**±10^{km}**,** **n30,** σ**2^{s}.01**/43**, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC04	Llanos de Chal	0.37	160	eP	Pg	15 41 36.3	+0.5
AC04				IAML		15 41 44.8	
	comp=Z,3μm,0.1s						
AC04	Llanos de Chal	0.37	160	eP	Pg	15 41 36.5	+0.6
AC04				i S	Sg	15 41 43.1	+2.4
GO03	Copiapo	0.91	74	eP	Pg	15 41 45.0	-1.2
GO03				eS	Sg	15 41 58.0	+0.1
GO03				IAML		15 41 58.5	
	comp=Z,789nm,0.4s						
GO03	Copiapo	0.91	74	eP	Pg	15 41 44.9	-1.2
GO03				i S	Sg	15 41 56.8	-1.1
GO03				IAML		15 41 59.4	

	comp=E,1μm,0.2s						
AC06	**Mina Casimiro**	**0.92**	**57**	*e*P	**Pg**	**15 41 45.5**	**-0.7**
AC06				*i* S	**Sg**	**15 41 57.6**	**-0.4**
AC06				IAML		15 42 01.4	
	comp=E,713nm,0.1s						
LCO	**Las Campanas**	**1.24**	**158**	*e*P	Pn	15 41 50.2	-2.5
LCO				*e*S	**Sb**	**15 42 06.0**	**-2.9**
LCO	**Las Campanas**	**1.24**	**158**	*e*P	Pn	15 41 49.9	-2.8
LCO				*i* S	**Sb**	**15 42 05.7**	**-3.2**
AC05	**El Transito**	**1.29**	**140**	*e*P	Pn	15 41 50.4	-2.9
AC05				*e*S	**Sb**	**15 42 07.3**	**-2.8**
AC05				IAML		15 42 07.5	
	comp=Z,637nm,0.6s						
AC05	**El Transito**	**1.29**	**140**	*e*P	Pn	15 41 50.2	-3.0
AC05				*i* S	**Sb**	**15 42 06.6**	**-3.6**
AC05				IAML		15 42 09.0	
	comp=E,1μm,0.5s						
AC01	**Pan de Azucar**	**1.79**	**18**	*e*P	Pn	15 41 58.5	-1.5
AC01				*e*S	Sn	15 42 06.7	-16
AC01	**Pan de Azucar**	**1.79**	**18**	*e*P	Pn	15 41 59.6	-0.5
AC01				*i* S	**Sn**	**15 42 23.6**	**+0.5**
AC01				IAML		15 42 31.9	
	comp=E,193nm,0.4s						
AC02	**Maricunga**	**2.12**	**62**	*e*P	**Pn**	**15 42 05.1**	**+0.1**
AC02				*e*S	**Sn**	**15 42 33.9**	**+1.9**
AC02				IAML		15 42 47.4	
	comp=Z,218nm,0.8s						
AC02	**Maricunga**	**2.12**	**62**	*e*P	**Pn**	**15 42 05.0**	**-0.1**
AC02				*i* S	**Sn**	**15 42 32.4**	**+0.4**
CO01	**Juntas del Tor**	**2.33**	**155**	*e*P	**Pn**	**15 42 06.8**	**-0.9**
CO01				*e*S	**Sn**	**15 42 36.5**	**-0.5**
CO01				IAML		15 42 36.9	
	comp=Z,330nm,0.8s						
CO01	**Juntas del Tor**	**2.33**	**155**	*e*P	**Pn**	**15 42 08.0**	**+0.2**
CO01				*i* S	**Sn**	**15 42 35.9**	**-1.1**
GO04	**Tololo Observa**	**2.34**	**171**	*e*P	Pn	15 42 06.7	-1.1
GO04				*e*S	**Sn**	**15 42 33.0**	**-4.0**
GO04				IAML		15 42 47.5	
	comp=Z,466nm,0.4s						
GO04	**Tololo Observa**	**2.34**	**171**	*e*P	**Pn**	**15 42 07.4**	**-0.4**
GO04				*i* S	**Sn**	**15 42 36.3**	**-0.8**
AROD	**Rodeo**	**2.77**	**147**	*e*P	Pn	15 42 10.4	-3.4
AROD				*e*S	**Sb**	**15 42 51.4**	**-1.6**
VCA	**Vinchina**	**2.80**	**109**	*e*P	**Pn**	**15 42 16.9**	**+2.8**
VCA				*e*S	**Sn**	**15 42 50.9**	**+2.5**
VCA				IAML		15 43 03.9	
	comp=Z,157nm,0.5s						
CO06	**Fray Jorge**	**2.83**	**187**	*e*P	Pn	15 42 12.5	-1.9
CO06				*i* S	**Sn**	**15 42 48.4**	**-0.4**
ACDV	**Cuesta del Vie**	**2.95**	**142**	*e*P	**Pn**	**15 42 16.4**	**+0.2**
ACDV				IAML		15 43 13.5	
	comp=Z,108nm,0.7s						
TINO	**Tinogasta**	**3.24**	**95**	*e*P	**Pn**	**15 42 20.8**	**+0.7**
TINO				IAML		15 43 14.2	
	comp=Z,58nm,1.5s						
PB14	**IPOC Station P**	**3.30**	**13**	*e*P	Pn	15 42 19.7	-1.4
PB14				*e*S	**Sb**	**15 43 09.2**	**+0.9**
PB14				IAML		15 43 25.7	
	comp=Z,46nm,1.8s						
ACCO	**Cerro Coronel**	**3.31**	**146**	*e*P	**Pn**	**15 42 24.0**	**+2.7**
ACCO				*e*S	**Sn**	**15 43 05.4**	**+4.2**
ACCO				IAML		15 43 15.2	
	comp=Z,87nm,0.6s						
CO02	**Combarbal**	**3.34**	**177**	*e*P	Pn	15 42 20.5	-1.0
CO02				*e*S	**Sn**	**15 43 01.1**	**-0.6**
CO02				IAML		15 43 16.9	
	comp=Z,452nm,0.7s						
ACLC	**CERRO LA CRUZ**	**4.07**	**114**	*e*P	**Pn**	**15 42 32.4**	**+0.9**
ACLC				*e*S	**Sn**	**15 43 20.2**	**+0.6**
ACLC				IAML		15 43 26.3	
	comp=Z,60nm,0.9s						
RTLS	**Leoncito**	**4.27**	**157**	*e*P	**Pn**	**15 42 36.3**	**+1.8**
RTLS				*e*S	**Sn**	**15 43 30.4**	**+5.6**
CFA	**Coronel Fontan**	**4.55**	**146**	*e*P	**Pn**	**15 42 39.2**	**+1.2**
CFA				*e*S	**Sn**	**15 43 32.8**	**+1.5**
CFA				IAML		15 43 44.0	
	comp=Z,40nm,0.5s						
VA03	**San Esteban**	**4.93**	**173**	*e*P	**Pn**	**15 42 43.9**	**+0.6**
VA03				IAML		15 44 03.6	
	comp=Z,63nm,0.6s						
MT02	**Curacav**	**5.39**	**179**	*e*P	Pn	15 42 48.2	-1.3
MT02				*e*S	**Sb**	**15 44 07.7**	**-0.4**
MT02				IAML		15 44 16.8	
	comp=Z,51nm,1.3s						

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*PRU **18** 16:28:15.1, 49°.84N×18°.49E, h0^{km}, Mining Induced Event Darkov, E=2.5e+05*

IPEC 18 16:28:13.7±0.3**, 49°.85N×18°.55E, h1**^{km}**, ML1.9**/6**, Error ellipse: s-maj=1.8km s-min=1.5km az=69.0, Czech and Slovak Republics**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OKC	**Ostrava-Krasne**	**0.26**	**268**	*e*PG	Pg	16 28 19.5	+0.8
OKC				*e*SG	Sg	16 28 23.4	+1.3
	comp=Z,87nm,0.5s						
OKC				AML	AML		
STEB	**Steborice**	**0.51**	**280**	*e*PG	Pg	16 28 23.8	+0.3
STEB				*e*SG	Sg	16 28 30.3	+0.2
	comp=Z,21nm,0.4s						
STEB				AML	AML		
MORC	**Moravsky Berou**	**0.66**	**264**	*e*Pg	Pg	16 28 26.2	-0.1
	baz=84						
MORC				*e*Sg	Sg	16 28 34.3	-0.5
	24nm,0.5s,baz=84						
MORC				AML	AML		
ANAC	**Anensky vrch**	**0.79**	**287**	*e*Pg	Pg	16 28 28.4	-0.4
	baz=106						
ANAC				*e*Sg	Sg	16 28 38.7	-0.4
	20nm,0.3s,baz=106						
ANAC				AML	AML		
LOSC	**Losov**	**0.80**	**254**	*e*Pg	Pg	16 28 28.9	-0.1
	baz=73						
LOSC				*e*Sg	Sg	16 28 38.7	-0.6
	18nm,0.3s,baz=73						
LOSC				AML	AML		
OJC	**Ojcow**	**0.89**	**65**	*e*Pg	Pg	16 28 31.1	+0.4
OJC				*e*Sg	Sb	16 28 44.6	+0.4
JAVC	**Velka Javorina**	**1.14**	**211**	*e*Pg	Pg	16 28 35.9	+0.3
	baz=30						
KRLC	**Kraliky**	**1.17**	**282**	*e*PG	Pg	16 28 34.8	-1.2
KRLC				*e*SG	Sg	16 28 50.6	-0.5
	comp=Z,21nm,0.4s						
KRLC				AML	AML		
NIE	**Niedzica**	**1.22**	**110**	*e*Pg	Pb	16 28 37.6	+0.1
NIE				*e*Sg	Sn	16 28 56.8	+1.8
VYHS	**Vyhne**	**1.37**	**172**	*e*PG	Pg	16 28 39.5	-0.4
VYHS				*e*SG	Sn	16 28 58.8	+0.1
VYHS				*e*LG	Lg	16 29 08.2	
VRAC	**Vranov**	**1.38**	**248**	*e*Pg	Pn	16 28 39.6	-0.5
	baz=66						
VRAC				*e*Sg	Sg	16 28 57.1	-1.0
	14nm,0.5s,baz=66						
VRAC				AML	AML		
DPC	**Dobruska-Polom**	**1.52**	**290**	*e*PG	Pn	16 28 41.5	-0.6
DPC				*e*SG	Sb	16 29 02.1	-0.4
	comp=Z,17nm,0.6s						
DPC				AML	AML		
KRUC	**Moravsky**	**1.61**	**242**	*e*Pg	Pn	16 28 42.9	-0.4
	baz=60						
KRUC				*e*Sg	Sn	16 29 04.0	-0.7
	8.5nm,0.4s,baz=60						
KRUC				AML	AML		
OSTC	**Ostas**	**1.66**	**296**	*e*PG	Pn	16 28 44.2	+0.2
MODS	**Modra-Piesok**	**1.69**	**210**	*e*PG	Pn	16 28 44.5	+0.1
MODS				*e*SG	Sn	16 29 06.1	-0.7
UPC	**Upice**	**1.76**	**293**	*e*PG	Pn	16 28 46.0	+0.7
CHVC	**Chvalec**	**1.77**	**296**	*e*PG	Pb	16 28 46.9	0.0
STHS	**Stebnicka Huta**	**1.80**	**103**	*e*PG	Pg	16 28 48.1	-0.1
STHS				*e*SG	Sg	16 29 14.8	+3.2
STHS				*e*LG	Lg	16 29 16.9	
KECS	**Kecovo**	**1.86**	**136**	*e*PN	Pn	16 28 46.4	-0.3
KECS				*e*SN	Sb	16 29 12.6	+0.3
KECS				*e*LG	Lg	16 29 18.4	
KOLS	**Kolonicke sedl**	**2.60**	**109**	*e*PG	Pg	16 29 04.5	+1.0
BRG	**Berggiesshubel**	**3.12**	**291**	Pg	Pb	16 29 10.7	+0.7
BRG				Sg	Sg	16 29 53.7	-0.3
BRG				Amp		16 29 55.6	
	comp=Z,4.6nm,0.5s						
KHC	**Kasperske Hory**	**3.32**	**259**	*e*PG	Pb	16 29 13.4	0.0
KHC				*e*SG	Sg	16 29 58.2	-2.1
	comp=Z,6.3nm,0.5s						
KHC				AML	AML		

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*AFAD **18** 16:28:12.1, 34°.82N×25°.26E, h7^{km}±4^{km}, MW5.7*
*PTWC **18** 16:28:13, 34°.80N×25°.20E, h10^{km}, Mwp5.6/23*
*PDG **18** 16:28:14.5±0.3, 35°.03N×25°.44E, h52^{km}±11^{km}, MD5.9/2, ML5.8/13, Error ellipse: s-maj=2.3km s-min=4.0km az=0.0*
*MCSM **18** 16:28:15.9±0.5, 35°N±5°×2°5E±°, h46^{km}±4^{km}, mb5.5, mB5.9, MLv6.2, Mw(mB)5.5*
*BJI **18** 16:28:15.7, 34°.88N×24°.95E, h66^{km}, mB5.7/67, mb5.3/86, Ms5.6/86, Ms7 5.4/84*
*NEIC **18** 16:28:16.5, 35°.03N×25°.34E, h34^{km}*
*MOS **18** 16:28:16.8±1.2, 34°.95N×25°.27E, h54^{km}, mb5.8/48, MS5.2/52, Error ellipse: s-maj=3.7km s-min=2.1km az=91.3*
*NEIC **18** 16:28:17.6±1.6, 35°.04N±0°.07×25°.30E±0°.05, h44^{km}±1^{km}, mb5.5/390, Ms_20 5.3/534, Mwb5.8/146, Mww5.9/39, Error ellipse: s-maj=12.8km s-min=6.2km az=196.0, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}1.46; $M_{\theta\theta}$-0.72; $M_{\phi\phi}$-0.73; $M_{r\theta}$4.85; $M_{\theta\phi}$-0.68; $M_{\phi r}$-1.77; Fault plane solution: $M_0$5.36000×10^{17} NP1: ϕ_s235.89000°, δ7.98000°, λ38.73000°. NP2: ϕ_s107.43000°, δ85.02000°, λ96.24000°. Principal axes: T 5.8338, Plg50.0000°, Azm24.0000°; N -1.1404, Plg6.0000°, Azm287.0000°; P -4.6933, Plg40.0000°, Azm192.0000°;*
*IPGP **18** 16:28:17.0, 35°.00N×25°.33E, h49^{km}, Mw5.8, Fault plane solution: NP1: ϕ_s252.00000°, δ9.00000°, λ55.00000°. NP2: ϕ_s107.00000°, δ82.00000°, λ95.00000°.*
*NAO **18** 16:28:17.4, 35°.08N×24°.47E, h33^{km}, MB4.4*
*ISK **18** 16:28:17.9, 35°.01N×25°.29E, h68^{km}, ML5.8/40*
*NEIC **18** 16:28:17.5, 34°.98N×25°.25E, h48^{km}*
*GFZ **18** 16:28:17.9, 35°.03N×25°.28E, h51^{km}, Mw5.6/172, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}1.06; $M_{\theta\theta}$-0.10; $M_{\phi\phi}$-0.95; $M_{r\theta}$2.26; $M_{\theta\phi}$0.83; $M_{\phi r}$-1.27; Fault plane solution: $M_0$2.90469×10^{17} NP1: ϕ_s122.29073°, δ78.71747°, λ74.96813°. NP2: ϕ_s356.21577°, δ18.71660°, λ142.43173°. Principal axes: T 2.8820, Plg53.9065°, Azm14.1527°; N 0.0450, Plg14.7347°, Azm125.2983°; P -2.9269, Plg32.0980°, Azm224.7934°;*
*ISC-PP **18** 16:28:17, 35°.04N×25°.30E, h37^{km}, Mwppsm6.0, Moment Tensor Solution. s42 Moment tensor: Scale 10^{18}Nm; M_{rr}0.27±.13; $M_{\theta\theta}$-0.70±.27; $M_{\phi\phi}$0.24±.15; $M_{r\theta}$0.14±.19; $M_{\theta\phi}$-0.27±.15; $M_{\phi r}$-0.31±.20; Fault plane solution: $M_0$1.48000×10^{18} NP1: ϕ_s216.40000°, δ59.00000°, λ30.00000°. NP2: ϕ_s109.80000°, δ64.60000°, λ145.20000°.*
*ATH **18** 16:28:18.7, 34°.93N×25°.29E, h52^{km}, Mw5.7, Moment Tensor Solution. s13 Moment tensor: M_{rr}0.01; $M_{\theta\theta}$0.69; $M_{\phi\phi}$-0.70; $M_{r\theta}$3.94; $M_{\theta\phi}$0.80; $M_{\phi r}$-1.50; Fault plane solution: NP1: ϕ_s20.00000°, δ14.00000°, λ180.00000°. NP2: ϕ_s111.00000°, δ90.00000°, λ76.00000°.*
*MED_RC **18** 16:28:18.0, 34°.93N×25°.27E, h32^{km}, Mw5.9, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}-0.15±.22; $M_{\theta\theta}$-0.30±.15; $M_{\phi\phi}$0.00±.13; $M_{r\theta}$7.60±.14; $M_{\theta\phi}$0.15±.10; $M_{\phi r}$-3.34±.12; Fault plane solution: $M_0$8.30000×10^{17} NP1: ϕ_s214.00000°, δ1.00000°, λ10.00000°. NP2: ϕ_s114.00000°, δ90.00000°, λ91.00000°. Principal axes: T 8.0800, Plg45.0000°, Azm25.0000°; N 0.4400, Plg1.0000°, Azm294.0000°; P -8.5200, Plg45.0000°, Azm203.0000°;*
*GFZ **18** 16:28:19.0, 34°.91N×25°.34E, h40^{km}, MW5.6, Moment Tensor Solution. s123 Moment tensor: Scale 10^{17}Nm; M_{rr}1.33; $M_{\theta\theta}$-2.98; $M_{\phi\phi}$1.65; $M_{r\theta}$0.34; $M_{\theta\phi}$-0.84; $M_{\phi r}$-1.34; Fault plane solution: NP1: ϕ_s117.00000°, δ64.00000°, λ148.00000°. NP2: ϕ_s222.00000°, δ61.00000°, λ29.00000°. Principal axes: T 2.9700, Plg40.0000°, Azm79.0000°; N 0.1600, Plg49.0000°, Azm262.0000°; P -3.1300, Plg1.0000°, Azm170.0000°;*
*GFZ **18** 16:28:19.0±0.2, 35°N±2°×2°5E±°, h50^{km}±1^{km}, M5.4/203, mB5.8/162, mb5.4/203, Mw(mB)5.3/162, MwMwp5.5/138, Mwp5.7/138*
*IDC **18** 16:28:18.0±0.8, 35°.07N×25°.21E, h51^{km}±6^{km}, mb4.9/32, mbtmp5.2/41, MS5.2/82, Error ellipse: s-maj=10.6km s-min=8.4km az=136.0*
*THE **18** 16:28:19.5, 35°N±2°×2°5E±°, h44^{km}±3^{km}, M5.4/20, MLh5.4/20*
*GCMT **18** 16:28:19.6±0.1, 34°.89N±0°.01×25°.34E±0°.01, h15^{km}, MW6.1/153, Moment Tensor Solution. s148, c283; s153, c338; Duration: 2^{s}9 Moment tensor: Scale 10^{18} Nm; M_{rr}0.03±.01; $M_{\theta\theta}$-0.03±.00; $M_{\phi\phi}$0.00±.00; $M_{r\theta}$1.66±.01; $M_{\theta\phi}$0.03±.00; $M_{\phi r}$-0.55±.01; Best double couple: $M_0$1.75000×10^{18} NP1: ϕ_s324.00000°, δ1.00000°, λ126.00000°. NP2: ϕ_s108.00000°, δ89.00000°, λ90.00000°. Principal axes: T 1.7410, Plg46.0000°, Azm18.0000°; N 0.0170, Plg0.0000°, Azm108.0000°; P -1.7580, Plg44.0000°, Azm199.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s. Triangular moment-rate function*
*NEIC **18** 16:28:23.5, 34°.88N×25°.25E, h20^{km}, Moment Tensor Solution. Duration: 3^{s}5 Moment tensor: Scale 10^{17}Nm; M_{rr}-1.00; $M_{\theta\theta}$0.73; $M_{\phi\phi}$0.27; $M_{r\theta}$7.33; $M_{\theta\phi}$-0.30; $M_{\phi r}$-2.60; Fault plane solution: $M_0$7.84000×10^{17} NP1: ϕ_s120.14000°, δ3.47000°, λ-79.49000°. NP2: ϕ_s289.61000°, δ86.59000°, λ-90.63000°. Principal axes: T 7.7686, Plg42.0000°, Azm20.0000°; N 0.1319, Plg1.0000°, Azm290.0000°; P -7.9006, Plg48.0000°, Azm199.0000°;*
*BGR **18** 16:28:25.8±2.6, 36°.09N×25°.09E, h33^{km}, mb4.9 Error ellipse: s-maj=81.2km s-min=72.3km az=12.0*

ISC 18 16:28:18.3±0.2**, 35°.01N**±0°.02×**25°.28E**±0°.02**, h49**^{km}±1^{km}**, h49**^{km}**:pP-P, n2184, σ1^{s}85**/2104**, mb5.5**/406**, MS5.3**/392**, 145C-65D, Crete**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IACM	**Heraklion**	**0.34**	**330**	P	**Pn**	**16 28 28.6**	**+0.8**
IACM				S	**Sn**	**16 28 34.6**	**+0.1**
IACM				AML	AML		
IACM	**Heraklion**	**0.34**	**330**	P	**Pn**	**16 28 29.1**	**+1.3**
IACM				S	**Sn**	**16 28 36.7**	**+2.2**
NPS	**Neapolis**	**0.37**	**47**	P	**Pn**	**16 28 28.4**	**+0.3**
NPS				S	**Sn**	**16 28 36.8**	**+1.6**
NPS				AML	AML		
NPS	**Neapolis**	**0.37**	**47**	P	**Pn**	**16 28 28.4**	**+0.3**
NPS				S	**Sn**	**16 28 36.7**	**+1.6**
NPS	**Neapolis**	**0.37**	**47**	P	**Pn**	**16 28 28.9**	**+0.8**
NPS				S	**Sn**	**16 28 37.0**	**+1.8**
SIVA	**Sivas**	**0.39**	**271**	P	**Pn**	**16 28 28.1**	**-0.1**
SIVA				S	**Sn**	**16 28 36.3**	**+1.0**
SIVA				AML	AML		
SIVA	**Sivas**	**0.39**	**271**	P	**Pn**	**16 28 28.8**	**+0.6**
SIVA				S	**Sn**	**16 28 36.0**	**+0.7**
SIVA				AML	AML		
AGNA	**Agios Nikolaos**	**0.40**	**63**	P	**Pn**	**16 28 28.8**	**+0.4**
AGNA				S	**Sn**	**16 28 36.8**	**+1.2**
IDI	**Anoyia**	**0.42**	**311**	P	**Pn**	**16 28 29.0**	**+0.3**
	6μm,0.3s,baz=143,slow=16,SNR=1644						
IDI				S	**Sn**	**16 28 38.8**	**+2.6**
	33μm,0.4s,baz=86,slow=15,SNR=46						
IDI	**Anoyia**	**0.42**	**311**	P	**Pn**	**16 28 29.3**	**+0.6**
IDI	**Anoyia**	**0.42**	**311**	P	**Pn**	**16 28 29.2**	**+0.4**
IDI				S	**Sn**	**16 28 37.5**	**+1.4**
IDI				AML	AML		
IDI	**Anoyia**	**0.42**	**311**	Pg	**Pn**	**16 28 29.6**	**+0.9**
IDI				Sg	**Sn**	**16 28 39.6**	**+3.4**
IDI				AML	AML		
IDI	**Anoyia**	**0.42**	**311**		**Pn**	**16 28 29.0**	**+0.3**
IDI				Sn	**Sn**	**16 28 34.6**	**-1.5**
IDI	**Anoyia**	**0.42**	**311**	P	**Pn**	**16 28 30.9**	**+2.2**
IDI				S	**Sn**	**16 28 38.2**	**+2.1**
SIT2	**Siteia**	**0.71**	**74**	P	**Pn**	**16 28 33.4**	**+1.4**
SIT2				S	**Sn**	**16 28 43.0**	**+1.0**
RTHF	**Rethymno-Limin**	**0.74**	**299**	P	**Pn**	**16 28 34.5**	**+2.0**
RTHF				AML	AML		
ZKR	**Zakros**	**0.78**	**82**	P	**Pn**	**16 28 33.9**	**+0.8**
ZKR				S	**Sn**	**16 28 45.5**	**+1.7**
ZKR	**Zakros**	**0.78**	**82**	Pg	**Pn**	**16 28 34.1**	**+1.1**
ZKR				Sg	**Sn**	**16 28 46.1**	**+2.3**
ZKR				AML	AML		
ZKR	**Zakros**	**0.78**	**82**	P	**Pn**	**16 28 33.9**	**+0.8**
ZKR				S	**Sn**	**16 28 44.4**	**+0.6**
ZKR	**Zakros**	**0.78**	**82**	P	**Pn**	**16 28 33.9**	**+0.8**
	comp=Z,7935μmcomp=Z,749μm,0.8s						
VAM	**Vamos**	**0.97**	**294**	P	**Pn**	**16 28 36.0**	**+0.4**
VAM				S	**Sn**	**16 28 49.0**	**+0.7**
VAM	**Vamos**	**0.97**	**294**	P	**Pn**	**16 28 36.6**	**+1.0**
VAM				S	**Sn**	**16 28 49.5**	**+1.2**
VAM				AML	AML		
GVD	**Gavdhos**	**0.99**	**260**	P	**Pn**	**16 28 36.3**	**+0.3**
GVD				S	**Sn**	**16 28 49.4**	**+0.5**
GVD				AML	AML		
GVD	**Gavdhos**	**0.99**	**260**	Pg	**Pn**	**16 28 36.4**	**+0.5**
GVD				AML	AML		
GVD	**Gavdhos**	**0.99**	**260**	P	**Pn**	**16 28 37.1**	**+1.1**
GVD				S	**Sn**	**16 28 49.4**	**+0.5**
GVD				AML	AML		
GVD	**Gavdhos**	**0.99**	**260**	P	**Pn**	**16 28 36.2**	**+0.3**
	comp=Z,444μmcomp=Z,33μm,0.8s						
GVDS	**Gavdos**	**1.02**	**261**	P	**Pn**	**16 28 36.3**	**+0.1**
GVDS				S	**Sn**	**16 28 50.3**	**+0.8**
GVDS				AML	AML		
GVDS	**Gavdos**	**1.02**	**261**	P	**Pn**	**16 28 36.8**	**+0.6**
CHNB	**Souda**	**1.10**	**296**	P	**Pn**	**16 28 39.0**	**+1.6**
CHNB				S	**Sn**	**16 28 54.0**	**+2.5**
CHAN	**Chania**	**1.13**	**297**	P	**Pn**	**16 28 40.5**	**+2.7**
CHAN				S	**Sn**	**16 28 52.5**	**+0.2**
CHAN				AML	AML		
IMMV	**Iera Moni Meta**	**1.15**	**293**	P	**Pn**	**16 28 39.9**	**+1.8**
IMMV				S	**Sn**	**16 28 54.2**	**+1.4**
IMMV				AML	AML		
IMMV	**Iera Moni Meta**	**1.15**	**293**	Pn	**Pn**	**16 28 39.4**	**+1.3**
IMMV				AML	AML		
IMMV	**Iera Moni Meta**	**1.15**	**293**	P	**Pn**	**16 28 39.3**	**+1.2**
IMMV				S	**Sn**	**16 28 55.3**	**+2.5**
IMMV				AML	AML		
IMMV	**Iera Moni Meta**	**1.15**	**293**	P	**Pn**	**16 28 40.3**	**+2.2**
	comp=Z,707μmcomp=Z,84μm,1.0s						
THR6	**Thira Island,**	**1.35**	**4**	P	**Pn**	**16 28 42.3**	**+1.6**
THERA	**Ancient Thera,**	**1.36**	**7**	P	**Pn**	**16 28 42.1**	**+1.1**
THERA				S	**Sn**	**16 28 59.8**	**+1.9**
THERA				AML	AML		
THERA	**Ancient Thera,**	**1.36**	**7**	P	**Pn**	**16 28 43.3**	**+2.3**
THERA				AML	AML		
THERA	**Ancient Thera,**	**1.36**	**7**	P	**Pn**	**16 28 42.1**	**+1.1**
KNDR	**Palaiochora Ch**	**1.38**	**280**	P	**Pn**	**16 28 41.9**	**+0.8**
KNDR				S	**Sn**	**16 28 58.3**	**+0.1**
KNDR				AML	AML		
KNDR	**Palaiochora Ch**	**1.38**	**280**	P	**Pn**	**16 28 41.5**	**+0.4**
KNDR				S	**Sn**	**16 28 59.6**	**+1.5**
KNDR				AML	AML		
SNT5	**Nea Kammeni, S**	**1.39**	**4**	P	**Pn**	**16 28 43.6**	**+2.2**
SNT5				AML	AML		
THR3	**Thira Island,**	**1.40**	**4**	P	**Pn**	**16 28 42.5**	**+1.1**
THR8	**Santorini-Mono**	**1.40**	**7**	P	**Pn**	**16 28 42.5**	**+1.0**
THRA	**Thira**	**1.41**	**5**	P	**Pn**	**16 28 43.1**	**+1.5**
THRA				S	**Sn**	**16 29 01.0**	**+2.1**
THRA				AML	AML		
SFIR	**Foira Santorin**	**1.41**	**5**	P	**Pn**	**16 28 43.0**	**+1.3**
SAP3	**Santorini-Thir**	**1.42**	**2**	P	**Pn**	**16 28 43.2**	**+1.4**
SAP3				AML	AML		
THR2	**Thira island,**	**1.44**	**5**	P	**Pn**	**16 28 43.1**	**+1.1**
CMBO	**Columbo, Santo**	**1.46**	**4**	P	**Pn**	**16 28 43.9**	**+1.7**
CMBO				S	**Sn**	**16 29 01.2**	**+1.0**
CMBO				AML	AML		
KARP	**Karpathos**	**1.63**	**70**	P	**Pn**	**16 28 46.6**	**+1.9**
KARP				AML	AML		
KARP	**Karpathos**	**1.63**	**70**	Pn	**Pn**	**16 28 45.6**	**+1.0**
KARP				AML	AML		
KARP	**Karpathos**	**1.63**	**70**		**Pn**	**16 28 45.9**	**+1.3**
KARP				Sn	**Sn**	**16 29 02.7**	**-1.8**
KARP	**Karpathos**	**1.63**	**70**	*e*P	**Pn**	**16 28 47.1**	**+2.5**
KARP	**Karpathos**	**1.63**	**70**	⇑P	**Pn**	**16 28 46.1**	**+1.5**
KARP	**Karpathos**	**1.63**	**70**	Pn	**Pn**	**16 28 45.8**	**+1.2**
KARP				AML	AML		
KARP	**Karpathos**	**1.63**	**70**	P	**Pn**	**16 28 46.5**	**+1.9**
KARP				AML	AML		
KARP	**Karpathos**	**1.63**	**70**	P	**Pn**	**16 28 46.9**	**+2.2**
KARP	**Karpathos**	**1.63**	**70**	P	**Pn**	**16 28 46.5**	**+1.8**
MHLO	**Agia Marina, M**	**1.82**	**337**	P	**Pn**	**16 28 48.7**	**+1.5**
MHLO				AML	AML		
MHLO	**Agia Marina, M**	**1.82**	**337**	P	**Pn**	**16 28 49.0**	**+1.8**
ANKY	**Antikythira Is**	**1.83**	**298**	P	**Pn**	**16 28 49.2**	**+1.9**
ANKY				AML	AML		
ANKY	**Antikythira Is**	**1.83**	**298**	P	**Pn**	**16 28 49.2**	**+1.9**
ANKY				AML	AML		
APE	**Apeiranthos**	**2.06**	**6**	*i* P	**Pn**	**16 28 50.5**	**-0.1**
APE	**Apeiranthos**	**2.06**	**6**	*e*P	**Pn**	**16 28 52.6**	**+2.0**
APE	**Apeiranthos**	**2.06**	**6**	P	**Pn**	**16 28 53.9**	**+3.4**
KTHA	**Kythira Island**	**2.19**	**305**	P	**Pn**	**16 28 53.7**	**+1.4**
KTHA				AML	AML		
KTHA	**Kythira Island**	**2.19**	**305**	Pn	**Pn**	**16 28 53.9**	**+1.6**
KTHA				AML	AML		
KTHA	**Kythira Island**	**2.19**	**305**	P	**Pn**	**16 28 54.5**	**+2.2**
KLNA	**Kalymnos**	**2.38**	**35**	P	**Pn**	**16 28 56.1**	**+1.3**
KLNA				AML	AML		
TNSA	**Tinos**	**2.53**	**358**	P	**Pn**	**16 28 58.2**	**+1.3**
DAT	**Datca**	**2.54**	**47**	Pn	**Pn**	**16 28 57.9**	**+0.8**
DAT				AML	AML		
VLI	**Veliai**	**2.55**	**313**	P	**Pn**	**16 28 57.9**	**+0.7**
VLI				AML	AML		
VLI	**Veliai**	**2.55**	**313**	P	**Pn**	**16 28 58.2**	**+0.9**
VLI				AML	AML		
ARG	**Arkhangelos**	**2.61**	**62**	P	**Pn**	**16 28 59.4**	**+1.4**
ARG				AML	AML		
ARG	**Arkhangelos**	**2.61**	**62**	Pn	**Pn**	**16 28 59.7**	**+1.7**
ARG				AML	AML		
ARG	**Arkhangelos**	**2.61**	**62**	P	**Pn**	**16 28 59.0**	**+1.0**
ARG				S	**Sn**	**16 29 28.5**	**0.0**
ARG	**Arkhangelos**	**2.61**	**62**		**Pn**	**16 28 59.0**	**+1.0**
ARG				Sn	**Sn**	**16 29 27.8**	**-0.7**
ARG	**Arkhangelos**	**2.61**	**62**	⇑P	**Pn**	**16 28 59.2**	**+1.2**
ARG	**Arkhangelos**	**2.61**	**62**	P	**Pn**	**16 28 59.7**	**+1.7**
BODT	**Bodrum**	**2.63**	**38**	P	**Pn**	**16 28 59.8**	**+1.5**
BODT	**Bodrum**	**2.63**	**38**	Pn	**Pn**	**16 28 59.3**	**+1.0**
BODT				AML	AML		
YKAV	**Yalikavak-Bodr**	**2.66**	**37**	Pn	**Pn**	**16 29 00.3**	**+1.6**
YKAV				AML	AML		
BODA	**Bodrum-Mula**	**2.67**	**40**	Pn	**Pn**	**16 28 59.3**	**+0.5**
BDRM	**Kayabasi**	**2.70**	**40**	P	**Pn**	**16 29 00.3**	**+1.0**
DIDI	**Didim-Aydin**	**2.84**	**33**	Pn	**Pn**	**16 29 02.3**	**+1.1**
DIDI				AML	AML		
DDIM	**Aydin, Didim**	**2.91**	**32**	P	**Pn**	**16 29 04.2**	**+2.0**
TURN	**Turunc**	**2.98**	**53**	Pn	**Pn**	**16 29 04.3**	**+1.2**
TURN				AML	AML		
TURN	**Turunc**	**2.98**	**53**	P	**Pn**	**16 29 04.2**	**+1.1**
MLSB	**Milas**	**3.05**	**41**	Pn	**Pn**	**16 29 05.3**	**+1.3**
MLSB				AML	AML		
VLY	**Voula,Athens**	**3.08**	**338**	P	**Pn**	**16 29 05.8**	**+1.3**
VLY				AML	AML		
KARY	**Karystos**	**3.09**	**348**	P	**Pn**	**16 29 06.2**	**+1.7**
GCAM	**G?zelcaml?**	**3.11**	**30**	Pn	**Pn**	**16 29 06.2**	**+1.3**
GCAM				AML	AML		
GCAM	**G?zelcaml?**	**3.11**	**30**	P	**Pn**	**16 29 07.5**	**+2.6**
ATHU	**Athens Univers**	**3.19**	**338**	P	**Pn**	**16 29 07.8**	**+1.9**
ATH	**Athens Observa**	**3.21**	**337**	P	**Pn**	**16 29 07.0**	**+0.7**
ATH	**Athens Observa**	**3.21**	**337**	P	**Pn**	**16 29 07.8**	**+1.6**
ATH				AML	AML		
NOAC	**Athens-Thissio**	**3.21**	**337**	P	**Pn**	**16 29 07.7**	**+1.4**
NOAC				AML	AML		
ATHP	**Athens-Neo Psi**	**3.22**	**338**	P	**Sn**	**16 29 52.1**	**+8.6**
YER	**Yerkesik**	**3.23**	**48**	Pn	**Pn**	**16 29 07.9**	**+1.4**
YER				AML	AML		
YER	**Yerkesik**	**3.23**	**48**	P	**Pn**	**16 29 07.8**	**+1.3**
DION	**Dionisos Attik**	**3.25**	**341**	P	**Pn**	**16 29 08.4**	**+1.6**
DION				AML	AML		
KUSD	**Kusadasi-Aydin**	**3.27**	**29**	Pn	**Pn**	**16 29 08.1**	**+1.0**
KUSD				AML	AML		
DALY	**Dalyan (Mula)**	**3.28**	**56**	Pn	**Pn**	**16 29 08.5**	**+1.4**
DALY				AML	AML		
DALY	**Dalyan (Mula)**	**3.28**	**56**	P	**Pn**	**16 29 08.6**	**+1.4**
MULA	**Mugla, Merkez-**	**3.33**	**47**	P	**Pn**	**16 29 10.8**	**+2.8**
GMLD	**Gumuldur**	**3.33**	**23**	Pn	**Pn**	**16 29 09.3**	**+1.4**
GMLD				AML	AML		
CESE	**eme**	**3.41**	**14**	Pn	**Pn**	**16 29 10.8**	**+1.8**
CESE				AML	AML		
CHOS	**Chios island**	**3.43**	**10**	Pn	**Pn**	**16 29 10.8**	**+1.5**
CHOS				AML	AML		
CHOS	**Chios island**	**3.43**	**10**	P	**Pn**	**16 29 10.7**	**+1.5**
VALY	**Valyra**	**3.43**	**310**	P	**Pn**	**16 29 10.3**	**+1.2**

VALY				AML	AML		
PYL	PYLOS	3.43	304	P	Pn	16 29 09.9	+0.6
PYL				AML	AML		
STFN	Stefani	3.46	337	P	Pn	16 29 10.9	+1.3
STFN				AML	AML		
ACOR	Acrocorinthos	3.47	327	P	Pn	16 29 11.4	+1.6
ACOR				AML	AML		
ITM	Ithomi	3.47	310	Pn	Pn	16 29 11.7	+1.9
ITM				AML	AML		
ITM	Ithomi	3.47	310		Pn	16 29 10.6	+0.8
ITM	Ithomi	3.47	310	P	Pn	16 29 10.6	+0.8
ITM	Ithomi	3.47	310	⇓P	Pn	16 29 10.7	+0.8
ITM	Ithomi	3.47	310	P	Pn	16 29 13.0	+3.1
FETY	Fethiye	3.49	61	Pn	Pn	16 29 10.8	+0.7
FETY				AML	AML		
FETY	Fethiye	3.49	61	P	Pn	16 29 12.4	+2.3
SABU	Mula-Dalaman	3.50	58	P	Pn	16 29 10.8	+0.6
LOUT	Loutraki	3.50	329	P	Pn	16 29 12.4	+2.1
LOUT				AML	AML		
LTK	Loutraki	3.54	329	P	Pn	16 29 12.5	+1.7
LTK				AML	AML		
VIL2	Platees	3.58	334	P	Pn	16 29 12.1	+0.8
VIL2				AML	AML		
DUVT	Torbali	3.65	28	P	Pn	16 29 14.1	+1.8
BLCB	Balcova	3.65	22	Pn	Pn	16 29 13.9	+1.6
THAL	Thalero	3.68	326	P	Pn	16 29 14.0	+1.3
KRBN	Karaburun	3.72	16	Pn	Pn	16 29 15.1	+1.9
KRBN				AML	AML		
ESEN	Aydn-Nazilli	3.72	41	P	Pn	16 29 15.7	+2.5
AKAS	Kas	3.73	70	Pn	Pn	16 29 14.5	+1.0
AKAS				AML	AML		
AKAS	Kas	3.73	70		Pn	16 29 13.2	-0.2
AKAS				Sn	Sn	16 29 54.6	-1.6
AKAS	Kas	3.73	70	P	Pn	16 29 14.2	+0.8
KYMI	Kymi, Euboea I	3.74	346	P	Pn	16 29 15.1	+1.6
KYMI				AML	AML		
GUR	Goura	3.76	322	P	Pn	16 29 15.6	+1.7
GUR				AML	AML		
CAME	Cameli-Denizli	3.79	58	Pn	Pn	16 29 15.7	+1.4
CAME				AML	AML		
IZMR	zmir-demi	3.79	34	P	Pn	16 29 17.4	+3.2
IZMR				S	Sn	16 30 04.8	+7.3
IZMR				IAML		16 30 48.0	
	comp=Z,4µm,3.5s						
IZMR				IAML		16 31 02.0	
	comp=Z,4µm,2.6s						
NAZL	Nazilli-Aydin	3.82	39	Pn	Pn	16 29 15.9	+1.3
NAZL				AML	AML		
TAVA	DENIZLI_Tavas	3.83	49	P	Pn	16 29 17.4	+2.6
TAVA				S	Sn	16 29 59.3	+0.8
TAVA				IAML		16 30 36.0	
	comp=Z,6µm,1.3s						
TAVA				IAML		16 30 57.0	
	comp=Z,8µm,2.1s						
TAVA	DENIZLI_Tavas	3.83	49	⇑P	Pn	16 29 17.2	+2.4
FOCM	Foa	3.88	17	Pn	Pn	16 29 17.3	+2.0
FOCM				AML	AML		
CAEL	Denizli, Camel	3.89	56	P	Pn	16 29 17.4	+1.6
KNIK	Mula-Seydike	3.94	61	P	Pn	16 29 17.4	+1.1
KLV	Kalavryta, Ach	3.94	321	P	Pn	16 29 17.8	+1.5
KLV				AML	AML		
ODEM	Odemis-Izmir	3.96	34	Pn	Pn	16 29 17.9	+1.3
ODEM				AML	AML		
DEMR	Demre-Antalya	3.96	71	Pn	Pn	16 29 18.3	+1.8
DEMR				AML	AML		
DNIZ	Denizli-Tavas-	4.00	48	P	Pn	16 29 18.5	+1.3
KIRA	zmir-Kiraz	4.05	37	P	Pn	16 29 20.1	+2.3
KIRA				S	Sn	16 30 04.8	+0.7
KIRA				IAML		16 30 59.0	
	comp=Z,3µm,1.7s						
KIRA				IAML		16 31 06.0	
	comp=Z,5µm,1.5s						
CAMT	Merkez	4.07	23	P	Pn	16 29 20.1	+2.1
APMY	Acipayam-Deniz	4.08	52	Pn	Pn	16 29 19.9	+1.7
APMY				AML	AML		
DRO	Drossia	4.11	317	P	Pn	16 29 19.9	+1.3
DRO				AML	AML		
GOLH	Golhisar	4.12	56	P	Pn	16 29 21.2	+2.5
SULTU	Buldan	4.14	42	P	Pn	16 29 21.2	+2.2
SULTU				S	Sn	16 29 58.2	-8.0
SULTU				IAML		16 30 27.0	
	comp=Z,5µm,1.3s						
SULTU				IAML		16 30 32.0	
	comp=Z,6µm,1.2s						
ELL	Elmali	4.14	64	Pn	Pn	16 29 20.2	+1.1
ELL				AML	AML		
ELL	Elmali	4.14	64	P	Pn	16 29 20.1	+1.0
ELL	Elmali	4.14	64		Pn	16 29 20.1	+1.0
ELL	Elmali	4.14	64	⇑P	Pn	16 29 20.0	+1.0
ELL	Elmali	4.14	64	P	Pn	16 29 20.3	+1.1
LAKA	Lakka	4.18	321	P	Pn	16 29 21.4	+1.9
LAKA				AML	AML		
KALE	Kalithea	4.21	324	P	Pn	16 29 21.4	+1.3
KALE				AML	AML		
GOMA	Golmarmara-Man	4.25	29	Pn	Pn	16 29 22.5	+2.0
GOMA				AML	AML		
AXAR	Agios Charalam	4.30	332	P	Pn	16 29 22.5	+1.4
AXAR				AML	AML		
PRK	Paraskevi	4.30	10	P	Pn	16 29 22.0	+0.8
PRK	Paraskevi	4.30	10	P	Pn	16 29 22.4	+1.2
PRK				AML	AML		
KTTT	Salihli	4.31	31	P	Pn	16 29 22.9	+1.6
RLS	Riolos of Patr	4.32	316	P	Pn	16 29 22.9	+1.4
RLS				AML	AML		
EFP	Efpalio	4.36	323	P	Pn	16 29 22.5	+0.6
EFP				AML	AML		
MANT	Manisa	4.36	36	P	Pn	16 29 25.1	+2.9
MANT	Manisa	4.36	36		Pn	16 29 23.5	+1.3
HARTU	Esme	4.37	39	P	Pn	16 29 24.0	+1.9
HARTU				S	Sn	16 30 17.5	+5.7
HARTU				IAML		16 31 18.0	
	comp=Z,2µm,4.1s						
HARTU				IAML		16 31 19.0	
	comp=Z,3µm,2.9s						
INCE	Denizli-Bozkur	4.39	51	P	Pn	16 29 23.4	+0.9
INCE				S	Sn	16 30 18.6	+6.2
INCE				IAML		16 30 47.0	
	comp=Z,5µm,1.5s						
INCE				IAML		16 31 14.0	
	comp=Z,6µm,1.6s						
KULA	Kula-Manisa	4.43	37	Pn	Pn	16 29 24.7	+1.7
KULA				AML	AML		
AXS	Araxos	4.47	316	P	Pn	16 29 25.1	+1.6
AXS				AML	AML		
ANX	Ano Chora	4.48	324	P	Pn	16 29 24.5	+0.8
ANX				AML	AML		
EFSA	Agios Efstrati	4.53	357	P	Pn	16 29 25.2	+0.9
EFSA				AML	AML		
KORT	Korkueli	4.56	63	Pn	Pn	16 29 26.0	+1.1
KORT				AML	AML		
KEMT	Kemer-ANTALYA	4.57	68	Pn	Pn	16 29 26.6	+1.7
KEMT				AML	AML		
NEO	Neokhori	4.59	340	P	Pn	16 29 26.5	+1.3
XOR	Xorichti	4.66	340	P	Pn	16 29 27.6	+1.5
BRDR	BURDUR-Merkez	4.70	54	P	Pn	16 29 27.3	+0.6
PASA	Karahalli, USA	4.75	44	P	Pn	16 29 29.0	+1.6
ANTB	Antalya	4.75	65	Pn	Pn	16 29 29.0	+1.7
ANTB				AML	AML		
KHL	Karahalli	4.75	45	Pn	Pn	16 29 29.0	+1.6
KHL				AML	AML		
USAK	Uak-Merkez	4.76	38	P	Pn	16 29 30.1	+2.5
USAK				S	Sn	16 30 36.8	+15
USAK				IAML		16 31 21.0	
	comp=Z,2µm,4.2s						
EVR	Evrytania	4.79	326	P	Pn	16 29 28.8	+0.8
EVR				AML	AML		
BASM	Basmaki-Afyon	4.82	52	Pn	Pn	16 29 29.6	+1.2
BASM				AML	AML		
DEMI	Demirci	4.87	33	P	Pn	16 29 31.2	+2.0
EZN	Ezine	4.88	10	Pn	Pn	16 29 30.5	+1.4
	comp=Z,7.8nmcomp=Z,15µmcomp=Z,724nm,0.6s						
EZN				AML	AML		
LIA	Limnos Island	4.88	359	P	Pn	16 29 30.6	+1.5
VLS	Valsamata	4.92	311	P	Pn	16 29 29.0	-0.7
VLS	Valsamata	4.92	311	P	Pn	16 29 29.8	0.0
BCK	Bucak	4.94	59	Pn	Pn	16 29 31.6	+1.6
BCK				AML	AML		
BCK	Bucak	4.94	59	P	Pn	16 29 32.2	+2.2
BALB	Balikesir	5.07	23		Pn	16 29 31.0	-0.6
BALB	Balikesir	5.07	23	⇑P	Pn	16 29 33.5	+1.9
PAIG	Paliouri	5.07	346	P	Pn	16 29 35.0	+3.3
PAIG	Paliouri	5.07	346	P	Pn	16 29 35.0	+3.3
	comp=Z,349nm,0.8s,comp=Z,5µmcomp=Z,5µm						
ISP	Isparta	5.07	55	Pn	Pn	16 29 33.4	+1.5
ISP	Isparta	5.07	55	i P	Pn	16 29 32.0	+0.1
ISP	Isparta	5.07	55		Pn	16 29 31.6	-0.3
ISP	Isparta	5.07	55	P	Pn	16 29 33.0	+1.1
ISP	Isparta	5.07	55	*e*P	Pn	16 29 32.2	+0.3
ISP	Isparta	5.07	55	⇑P	Pn	16 29 32.4	+0.5
ISP	Isparta	5.07	55	P	Pn	16 29 32.6	+0.7
BALY	Balya	5.08	21	P	Pn	16 29 34.3	+2.4
	comp=Z,3µm,0.9s,comp=Z,65µmcomp=Z,180µm						
KZIL	AFYON_Kizioren	5.08	49	P	Pn	16 29 32.3	+0.3
AMPL	Ampelaki	5.08	321	P	Pn	16 29 33.3	+1.3
AMPL				AML	AML		
BNAZ	Uak-Banaz	5.20	44	P	Pn	16 29 35.6	+2.0
THL	Klokotos Trika	5.24	331	P	Pn	16 29 35.5	+1.5
GDZ	Gediz	5.28	38	P	Pn	16 29 36.1	+1.4
GDZ				S	Sn	16 30 53.9	+20
GDZ				IAML		16 31 26.0	
	comp=Z,3µm,1.7s						
GDZ				IAML		16 31 52.0	
	comp=Z,3µm,2.3s						
TETR	Tetrakomo, Epi	5.38	325	P	Pn	16 29 37.4	+1.4
TETR				AML	AML		
EMET	Ktahya-Emet	5.42	35	P	Pn	16 29 39.5	+2.8
SMTH	Samothraki Isl	5.46	2	P	Pn	16 29 38.7	+1.6
KEPZ	Antalya-Kepez	5.47	68	⇑P	Pn	16 29 38.4	+1.2
AFYO	Afyonkarahisar	5.51	45	P	Pn	16 29 39.5	+1.6
SHUT	Suhut-Afyon	5.51	49	Pn	Pn	16 29 38.9	+1.0
SHUT				AML	AML		
PRMD	Pramanda	5.61	325	P	Pn	16 29 40.3	+1.1
PRMD				AML	AML		
CAVK	Edirne/Enez-Ca	5.71	7	⇑P	Pn	16 29 43.6	+3.0
BAND	Balkesir-Ban	5.79	22	⇑P	Pn	16 29 45.4	+3.8
JAN	Janina	5.83	324	P	Pn	16 29 43.0	+0.9
JAN	Janina	5.83	324	P	Pn	16 29 43.4	+1.3
JAN				AML	AML		
THE	Thessaloniki	5.90	343	P	Pn	16 29 45.3	+2.1
THE	Thessaloniki	5.90	343	P	Pn	16 29 45.3	+2.1
	comp=Z,541nm,0.7s,comp=Z,11µmcomp=Z,11µm						
ALN	Alexandroupoli	5.91	6	P	Pn	16 29 44.1	+0.9
ALN	Alexandroupoli	5.91	6		Pn	16 29 44.1	+0.9
ALN	Alexandroupoli	5.91	6	⇑P	Pn	16 29 45.0	+1.8
ALN	Alexandroupoli	5.91	6	P	Pn	16 29 46.5	+3.2
	comp=Z,579nm,0.7s,comp=Z,14µmcomp=Z,47µm						
KZN	Kozani	5.97	333	P	Pn	16 29 45.3	+1.0
IGT	Igoumenitsa	5.99	320	P	Pn	16 29 45.7	+1.3
SOH	Sokhos	6.00	346	P	Pn	16 29 47.3	+2.8
SOH	Sokhos	6.00	346	P	Pn	16 29 47.3	+2.8
	comp=Z,444nm,0.8s,comp=Z,11µmcomp=Z,38µmcomp=Z,11µm						
PENT	Pentalofos	6.13	329	P	Pn	16 29 47.3	+0.9
SRS	Serrai	6.24	348	P	Pn	16 29 49.2	+1.4
SRS	Serrai	6.24	348	P	Pn	16 29 49.2	+1.4
	comp=Z,789nm,1.2s,comp=Z,9µmcomp=Z,35µm						
GRG	Griva	6.36	340	P	Pn	16 29 50.8	+1.4
GRG	Griva	6.36	340	P	Pn	16 29 50.8	+1.4
	comp=Z,2µm,1.1s,comp=Z,29µmcomp=Z,83µm						
BORA	Eskisehir	6.37	39		Pn	16 29 50.0	+0.3
KEK	Kerkira	6.41	319		Pn	16 29 48.3	-1.8
KEK	Kerkira	6.41	319	⇓P	Pn	16 29 48.2	-1.9
KEK	Kerkira	6.41	319	P	Pn	16 29 48.8	-1.3
	comp=Z,622nm,0.7s,comp=Z,7µmcomp=Z,24µm						
SRN	Sarande	6.42	321	P	Pn	16 29 52.2	+1.9
	comp=Z,6µmcomp=Z,191nm,0.5s						
YLV	Yalova	6.42	29	Pn	Pn	16 29 52.1	+1.7
	comp=Z,11nmcomp=Z,18µmcomp=Z,1µm,1.2s						
YLV				AML	AML		
CSS	Mathiatis	6.61	88		Pn	16 29 49.8	-3.1
CSS	Mathiatis	6.61	88	P	Pn	16 29 50.2	-2.6
CSS	Mathiatis	6.61	88	⇑P	Pn	16 29 49.4	-3.5
CSS	Mathiatis	6.61	88	Pn	Pn	16 29 50.8	-2.1
	comp=Z,24nmcomp=Z,12µmcomp=Z,1µm,0.8s						
CSS				AML	AML		
CSS	Mathiatis	6.61	88	P	Pn	16 29 50.7	-2.1
	comp=Z,16µmcomp=Z,12µmcomp=Z,1µm,0.8s,comp=Z,24nm						
CSS				AML	AML		
CSS	Mathiatis	6.61	88	P	Pn	16 29 50.3	-2.6
	comp=Z,1µm,0.8s,comp=Z,12µmcomp=Z,16µm						
KBN	Korca	6.64	329	P	Pn	16 29 59.6	+6.3
	comp=Z,8µmcomp=Z,700nm,1.0s,comp=Z,21µm						
MMB	Musomishta	6.64	350	P	Pn	16 29 55.9	+2.7
VAY	Valandovo	6.65	342	i Pn	Pn	16 29 55.6	+2.2
RZN	Rozhen	6.69	357	P	Pn	16 29 57.0	+2.9
CTYL	Yalikoy Yolu	6.88	19	Pn	Pn	16 29 58.4	+2.0
	comp=Z,3.9nmcomp=Z,13µmcomp=Z,568nm,0.7s						
CTYL				AML	AML		
KLYT	Kilyos	6.90	24	Pn	Pn	16 29 59.1	+2.3
	comp=Z,5.0nmcomp=Z,12µmcomp=Z,725nm,0.9s						
KLYT				AML	AML		
PEHC	Pehcevo	7.01	345	i Pn	Pn	16 30 01.1	+2.7
KKB	Krupnik	7.03	347	P	Pn	16 30 01.6	+3.0
KKB	Krupnik	7.03	347	i P	Pn	16 30 00.8	+2.2
DIM	Dimitrovgrad	7.03	2	P	Pn	16 30 01.2	+2.6
DIM	Dimitrovgrad	7.03	2	i P	Pn	16 30 02.5	+3.9
OHR	Ohrid	7.04	331	i Pn	Pn	16 30 00.2	+1.3
PLD	Plovdiv	7.14	357	P	Pn	16 30 02.4	+2.3
PLD				pmax	pmax		
	comp=Z,3µm,1.3s						
MDUB	Mudurnu	7.19	39		Pn	16 30 02.7	+1.8
MDUB	Mudurnu	7.19	39	⇑P	Pn	16 30 03.7	+2.8
SAHE	Sakarya_HENDEK	7.31	35	⇑P	Pn	16 30 05.5	+3.1
KKUL	Konya-Kulu	7.38	54	P	Pn	16 30 05.5	+1.9
	comp=Z,10µmcomp=Z,726nm,0.9s,comp=Z,35µm						
JMB	Yambol	7.53	7	P	Pn	16 30 08.2	+2.7
SKO	Skopje	7.57	338	i Pn	Pn	16 30 08.7	+2.6
PLNA	Plana	7.59	350	i P	Pn	16 30 08.5	+2.1
PHP	Peshkopia	7.67	332	P	Pn	16 30 10.6	+3.2
PHP	Peshkopia	7.67	332	P	Pn	16 30 10.6	+3.2
	comp=Z,5µmcomp=Z,194nm,1.0s,comp=Z,23µm						
VTS	Vitosha	7.76	349	P	Pn	16 30 11.1	+2.3
VTS	Vitosha	7.76	349	i P	Pn	16 30 10.9	+2.1
TIP	Timpagrande	7.98	304		Pn	16 30 10.1	-1.6
TIP	Timpagrande	7.98	304	P	Pn	16 30 09.8	-1.9
TIP	Timpagrande	7.98	304	⇑P	Pn	16 30 10.1	-1.6
TIP	Timpagrande	7.98	304	⇑P	Pn	16 30 11.1	-0.6
TIP	Timpagrande	7.98	304	Pn	Pn	16 30 10.6	-1.1
	comp=Z,4µmcomp=Z,231nm,0.8s						
TIP	Timpagrande	7.98	304	P	Pn	16 30 11.2	-0.6
	comp=Z,4µmcomp=Z,285nm,0.8s,comp=Z,9µm						
KIRS	Kirsehir-Merke	8.04	57	⇑P	Pn	16 30 13.2	+0.8
BR105	Keskin Array S	8.13	52	Pn	Pn	16 30 14.1	+0.3
	comp=Z,2µmcomp=Z,288nm,0.8s						
BR106	Keskin Array S	8.14	52	Pn	Pn	16 30 14.3	+0.3
	comp=Z,2µmcomp=Z,264nm,0.9s						
BR104	Keskin Array S	8.14	52	Pn	Pn	16 30 14.2	+0.2
	comp=Z,2µmcomp=Z,201nm,1.0s						
BR131	Keskin Array S	8.15	52	P	Pn	16 30 14.7	+0.6
	SNR=129						
BR131				S	Sn	16 31 45.2	+0.4
BR131	Keskin Array S	8.15	52	i P	Pn	16 30 14.1	0.0
BR131	Keskin Array S	8.15	52		Pn	16 30 13.3	-0.8
BR131	Keskin Array S	8.15	52	P	Pn	16 30 14.7	+0.6
BRTR	Keskin Array B	8.15	52	P	Pn	16 30 14.5	+0.4
	comp=Z,127nm,0.9s,baz=226,slow=15,SNR=200						
BRTR				S	Sn	16 31 45.5	+0.6
	comp=Z,38nm,0.5s,baz=218,slow=23,SNR=4.7						
BRTR				LR	LR	16 34 13.9	
	comp=Z,43µm,18.3s,baz=239,slow=44						
BRTR	Keskin Array B	8.15	52	i P	Pn	16 30 14.3	+0.2
BRTR				pmax	pmax		
	comp=Z,127nm,0.9s						
BRTR	Keskin Array B	8.15	52		Pn	16 30 13.6	-0.5
BR101	Keskin Array S	8.15	52	P	Pn	16 30 14.7	+0.6
CEL	Celeste	8.21	296		Pn	16 30 13.1	-1.7
CEL	Celeste	8.21	296	⇑P	Pn	16 30 13.9	-1.0
CEL	Celeste	8.21	296	Pn	Pn	16 30 14.2	-0.7
	comp=Z,10µmcomp=Z,342nm,0.6s						
CEL	Celeste	8.21	296	P	Pn	16 30 15.2	+0.3
	comp=Z,10µmcomp=Z,345nm,0.6s,comp=Z,5µm						
PRD	Provadia	8.30	11	P	Pn	16 30 19.5	+3.5
PRD	Provadia	8.30	11	i P	Pn	16 30 18.5	+2.5
PLVB	Pleven	8.38	357	⇑P	Pn	16 30 20.2	+3.1
ULC	Ulcinj	8.40	328	⇓iPn	Pn	16 30 15.0	-2.4
ULC				i Sn	Sn	16 31 43.8	-7.0
ULC				AML	AML		
LOZB	Loznitsa	8.41	7	⇑P	Pn	16 30 19.2	+1.7
MPEP	Malo Peshtene	8.42	352	i P	Pn	16 30 19.6	+2.0
RAZG	Razgrad	8.60	6	⇑P	Pn	16 30 21.8	+1.7
DRME	Dracevica, Mon	8.61	328	*e*Pn	Pn	16 30 17.3	-2.9
DRME	Dracevica, Mon	8.61	328	⇓iPn	Pn	16 30 17.7	-2.5
DRME				*e*Sn	Sn	16 31 48.3	-7.5
DRME				AML	AML		
DQRL	Deir Qamar	8.61	96	*e*P	Pn	16 30 16.5	-3.9
PVY	Plav	8.63	333	*e*Pn	Pn	16 30 18.2	-2.5
PVY				i Sn	Sn	16 31 49.0	-7.7
PVY				AML	AML		
ZIMR		8.64	0	P	Pn	16 30 22.8	+2.3
ZIMR		8.64	0	⇑P	Pn	16 30 22.9	+2.3
BHL	Bhannes	8.64	94	*e*P	Pn	16 30 17.4	-3.4
KZIT	Kziot	8.68	116	⇑P	Pn	16 30 16.6	-4.7
KZIT	Kziot	8.68	116	P	Pn	16 30 17.6	-3.7
	comp=Z,28nmcomp=Z,12µmcomp=Z,20µmcomp=Z,2µm,1.0s						
KZIT				AML	AML		
KZIT	Kziot	8.68	116	P	Pn	16 30 17.6	-3.7
	comp=Z,20µmcomp=Z,2µm,1.0s,comp=Z,12µm						
QRWL	Qaraoun	8.73	97	*e*P	Pn	16 30 18.2	-3.8
PDG	Podgorica	8.78	329		Pn	16 30 19.4	-3.1
PDG	Podgorica	8.78	329	P	Pn	16 30 19.2	-3.2
PDG	Podgorica	8.78	329	⇑P	Pn	16 30 19.7	-2.8
PDG	Podgorica	8.78	329	*e*Pn	Pn	16 30 19.4	-3.1
PDG	Podgorica	8.78	329	⇓iPn	Pn	16 30 19.3	-3.2
PDG				i Sn	Sn	16 31 53.5	-6.4
PDG				AML	AML		
SALP	Salfit	8.78	107	P	Pn	16 30 18.6	-4.0
	comp=Z,34nmcomp=Z,20µmcomp=Z,2µm,1.0s						
SALP				AML	AML		
AMAZ	Amatzia	8.78	111	P	Pn	16 30 18.9	-3.8
	comp=Z,30nmcomp=Z,5µmcomp=Z,39µmcomp=Z,2µm,0.5s						
AMAZ				AML	AML		
VALD	Valchedram	8.79	351	i P	Pn	16 30 25.9	+3.3
GEM	Giv'at Ha'Em	8.80	99	⇑P	Pn	16 30 16.9	-5.9
GEM	Giv'at Ha'Em	8.80	99	P	Pn	16 30 19.2	-3.6
MATE	Matera	8.81	312	*e*P	Pn	16 30 27.4	+4.4
MATE	Matera	8.81	312	⇑P	Pn	16 30 21.9	-1.0
MATE	Matera	8.81	312	⇑P	Pn	16 30 21.6	-1.4
WDD	Wied Dalam	8.82	278		Pn	16 30 20.9	-2.2
WDD	Wied Dalam	8.82	278	P	Pn	16 30 21.7	-1.4
WDD	Wied Dalam	8.82	278	⇓P	Pn	16 30 22.5	-0.6
WDD	Wied Dalam	8.82	278	P	Pn	16 30 22.8	-0.3
	comp=Z,10µmcomp=Z,698nm,0.8s,comp=Z,6µm						
HWQ	Hawqa	8.82	92	*e*P	Pn	16 30 19.1	-4.2
BUM	Brajici-Budva	8.82	327	*e*Pn	Pn	16 30 20.8	-2.5
BUM				*e*Sn	Sn	16 31 54.8	-6.5
BUM				AML	AML		
SHBL	Chebaa	8.83	98	*e*P	Pn	16 30 19.6	-3.8
MMLI	Mount Malkishu	8.83	104	P	Pn	16 30 19.4	-3.9
MMLI	Mount Malkishu	8.83	104	P	Pn	16 30 19.5	-3.9
	comp=Z,6µmcomp=Z,400nm,0.7s,comp=Z,3µm						
ZAHL	Zahle	8.84	94	*e*P	Pn	16 30 19.8	-3.8
RCY	Rachaya	8.87	97	*e*P	Pn	16 30 19.7	-4.3
IVA	Berane	8.90	334	*e*Pn	Pn	16 30 21.9	-2.4
IVA				*e*Sn	Sn	16 31 55.6	-7.5
IVA				AML	AML		
ILGA	Ilgaz	8.98	45		Pn	16 30 26.8	+1.2
BEIL	Beino	8.98	90	*e*P	Pn	16 30 21.7	-3.7
QRNJ	Al-Qirein	8.99	104	P	Pn	16 30 21.9	-3.5
	comp=Z,1µmcomp=Z,14µmcomp=Z,886µmcomp=Z,92µm,0.7s						
QRNJ				AML	AML		
VLAD	Vladila	9.00	356	⇑P	Pn	16 30 28.3	+2.7
CEME	Cevo	9.01	328	*e*Pn	Pn	16 30 22.8	-3.0
CEME				*e*Sn	Sn	16 31 59.2	-6.7
CEME				AML	AML		
CUC	Castrocucco	9.01	306		Pn	16 30 24.7	-1.1
CUC	Castrocucco	9.01	306	P	Pn	16 30 25.8	0.0
CUC	Castrocucco	9.01	306	⇑P	Pn	16 30 25.1	-0.7
CUC	Castrocucco	9.01	306	P	Pn	16 30 25.9	0.0
	comp=Z,6µmcomp=Z,484nm,0.6s,comp=Z,9µm						
KOME	Kolasin	9.02	332	*e*Pn	Pn	16 30 24.0	-2.0
KOME				*e*Sn	Sn	16 31 58.4	-7.8
KOME				AML	AML		
UJAP	Al Uja	9.04	107	P	Pn	16 30 22.4	-3.7
	comp=Z,18nmcomp=Z,17µmcomp=Z,1µm,0.8s						
UJAP				AML	AML		
UJAP	Al Uja	9.04	107	P	Pn	16 30 22.2	-3.8
	comp=Z,17µmcomp=Z,1µm,0.8s						
BOVS	Bovan	9.05	343	⇑P	Pn	16 30 27.1	+0.9
RAFF	Raffo Rosso	9.11	287		Pn	16 30 24.6	-2.4
COPA	Copaceanca	9.11	360	⇓P	Pn	16 30 28.8	+1.7
VAE	Valguarnera	9.12	289	P	Pn	16 30 28.4	+1.1
	comp=Z,215nm,0.6s,baz=161,slow=4.5,SNR=34						
VAE				S	Sn	16 32 04.9	-3.6
	comp=Z,248nm,0.7s,baz=149,slow=18,SNR=3.4						
VAE				LR	LR	16 34 45.4	
	comp=Z,7µm,19.5s,baz=112,slow=43						
CIDE	Kastamonu/Cide	9.12	39	⇑P	Pn	16 30 31.1	+3.9
HCY	Herceg Novi	9.12	327	*e*Pn	Pn	16 30 24.1	-3.1
HCY	Herceg Novi	9.12	327	*e*Pn	Pn	16 30 24.5	-2.7
HCY				*e*Sn	Sn	16 32 01.0	-7.5
HCY				AML	AML		
MANR	Mangalia	9.16	15	⇑P	Pn	16 30 30.5	+2.7
MARCO	Tramutola	9.18	308	P	Pn	16 30 28.1	0.0
	comp=Z,5µmcomp=Z,434nm,0.7s						
NKME	Niksic	9.18	329	*e*Pn	Pn	16 30 25.9	-2.2
NKME				i Sn	Sn	16 32 02.1	-7.8
NKME				AML	AML		
SJES	Sjenica	9.21	335	*e*Pn	Pn	16 30 26.3	-2.3
MSBI	Mazada	9.22	111	⇑P	Pn	16 30 23.6	-5.0
MSBI	Mazada	9.22	111	P	Pn	16 30 24.4	-4.2
	comp=Z,1µmcomp=Z,3µmcomp=Z,274nm,0.8s						
MSBI	Mazada	9.22	111	P	Pn	16 30 24.6	-3.9
	comp=Z,12µmcomp=Z,1µm,0.8s,comp=Z,4µm						
BNN	Bunyan	9.29	63	Pn	Pn	16 30 30.3	+0.7
ANDN	Andirin	9.29	71	P	Pn	16 30 28.8	-1.0
	comp=Z,9µmcomp=Z,875nm,0.8s,comp=Z,56µm						
ICOR	Ion Corvin	9.30	11	⇓P	Pn	16 30 32.3	+2.7
LISJ	El Lisan	9.34	111	P	Pn	16 30 26.8	-3.5
	comp=Z,4µmcomp=Z,11µmcomp=Z,841nm,0.8s						
GHAJ	Ghor Haditha	9.38	110		Pn	16 30 26.7	-4.1
GHAJ	Ghor Haditha	9.38	110	P	Pn	16 30 27.7	-3.1
	comp=Z,25µmcomp=Z,2µm,0.7s						
GHAJ	Ghor Haditha	9.38	110	P	Pn	16 30 27.5	-3.3
	comp=Z,25µmcomp=Z,2µm,0.7s						
TREB	Trebinje	9.40	327	*e*Pn	Pn	16 30 27.4	-3.6
PRNI	Paran	9.42	117	P	Pn	16 30 27.9	-3.5
	comp=Z,31µmcomp=Z,2µm,0.6s						
PUNG	Punghina	9.43	350	⇑P	Pn	16 30 32.5	+1.0
BRY	Bratogost	9.46	328	*e*Pn	Pn	16 30 28.8	-3.3
BRY	Bratogost	9.46	328	*e*Pn	Pn	16 30 30.3	-1.8
BRY				i Sn	Sn	16 32 08.9	-8.2
BRY				AML	AML		
MFTR	Murfatlar	9.47	14	⇑P	Pn	16 30 34.6	+2.6
PLE	Pljevlja	9.48	333	*e*Pn	Pn	16 30 29.8	-2.5
PLE				*e*Sn	Sn	16 32 10.2	-7.2
PLE				AML	AML		
HUMR	Humele	9.51	359	P	Pn	16 30 34.8	+2.2
	comp=Z,14µmcomp=Z,448nm,1.8s						
HSUJ	Al Zarqa	9.56	105	P	Pn	16 30 31.5	-1.8
	comp=Z,5µmcomp=Z,399nm,0.7s						
UPM	Unac-Piva	9.56	331	*e*Pn	Pn	16 30 31.9	-1.5
UPM	Unac-Piva	9.56	331	⇓iPn	Pn	16 30 31.6	-1.8
UPM				*e*Sn	Sn	16 32 11.5	-8.0
UPM				AML	AML		
HRFI	Mount Harif	9.61	118	P	Pn	16 30 31.3	-2.8
	comp=Z,8µmcomp=Z,9µmcomp=Z,694nm,0.7s						
HRFI	Mount Harif	9.61	118	P	Pn	16 30 31.1	-3.0
	comp=Z,9µmcomp=Z,694nm,0.7s,comp=Z,8µm						
SULR		9.69	4	P	Pn	16 30 38.3	+3.3
	comp=Z,24µmcomp=Z,818nm,1.3s						
BZK	Bozkurt	9.74	42		Pn	16 30 36.1	+0.4
BZK	Bozkurt	9.74	42	⇑P	Pn	16 30 37.5	+1.9
BZK	Bozkurt	9.74	42	⇓P	Pn	16 30 38.6	+2.9
TIRR	Tirgusor	9.74	13	P	Pn	16 30 37.9	+2.3
TIRR	Tirgusor	9.74	13		Pn	16 30 36.4	+0.8
TIRR	Tirgusor	9.74	13	⇑P	Pn	16 30 37.0	+1.3
TIRR	Tirgusor	9.74	13	⇑P	Pn	16 30 38.0	+2.3
TIRR	Tirgusor	9.74	13	Pn	Pn	16 30 37.4	+1.8
	comp=Z,9µmcomp=Z,305nm,1.8s						
TIRR	Tirgusor	9.74	13	P	Pn	16 30 40.6	+4.9
	comp=Z,9µmcomp=Z,305nm,1.8s,comp=Z,31µm						
TLBR	Topalu	9.76	12	⇑P	Pn	16 30 37.5	+1.6
EIL	Elat	9.76	120	P	Pn	16 30 32.8	-3.3
	comp=Z,154nm,0.5s,baz=226,slow=3.1,SNR=122						
EIL				S	Sn	16 32 13.0	-11
	comp=Z,632nm,0.3s,baz=218,slow=5.2,SNR=14						
EIL	Elat	9.76	120	P	Pn	16 30 32.2	-3.8
EIL	Elat	9.76	120	⇓P	Pn	16 30 30.1	-6.0
EIL	Elat	9.76	120	P	Pn	16 30 32.6	-3.4
	comp=Z,9µmcomp=Z,5µmcomp=Z,592nm,0.8s						
EIL	Elat	9.76	120	P	Pn	16 30 32.2	-3.8
	comp=Z,5µmcomp=Z,592nm,0.8s,comp=Z,9µm						
SRE	Strehaia	9.77	351	P	Pn	16 30 37.9	+1.8
SRE	Strehaia	9.77	351	⇑P	Pn	16 30 37.9	+1.8
SWQJ	Swaqa	9.79	110	P	Pn	16 30 33.5	-3.0
	comp=Z,2µmcomp=Z,127nm,0.6s						
AQBJ	Aqaba	9.79	120	P	Pn	16 30 34.3	-2.2
	comp=Z,18µmcomp=Z,24µmcomp=Z,1µm,0.7s						

HARR	Harsova	9.88	11	P	Pn	16 30 39.8	+2.2
HARR	Harsova	9.88	11	⇑P	Pn	16 30 39.8	+2.2
GAZ	Gaziantep	9.89	74		Pn	16 30 35.7	-2.2
GAZ	Gaziantep	9.89	74	⇑P	Pn	16 30 35.2	-2.7
BBLS	Lazi&#263i	9.94	335	*e*Pn	Pn	16 30 34.0	-4.5
HSNJ	Maan	9.97	115	P	Pn	16 30 37.2	-1.9
	comp=Z,23µmcomp=Z,2µm,0.7s						
SGRT	San Giovanni R	10.06	315		Pn	16 30 38.0	-2.2
CLTB	Caltabellotta	10.07	288	P	Pn	16 30 41.9	+1.6
CLTB	Caltabellotta	10.07	288	P	Pn	16 30 42.7	+2.4
	comp=Z,8µmcomp=Z,464nm,0.5s						
ASF	Jabal al Asfar	10.10	103	P	Pn	16 30 37.5	-3.3
	comp=Z,32nm,0.4s,baz=264,slow=4.6,SNR=60						
ASF				S	Sn	16 32 23.7	-8.9
	comp=Z,394nm,0.7s,baz=342,slow=24,SNR=9.0						
ASF				LR	LR	16 36 19.3	
	comp=Z,9µm,20.2s,baz=290,slow=47						
HERR	Herculane	10.10	348	⇑P	Pn	16 30 41.2	+0.6
TPGR	Topolog	10.12	13	⇑P	Pn	16 30 44.6	+3.6
JURR	Jurilovca	10.13	15	⇑P	Pn	16 30 42.5	+1.6
MDVR	Moldovita	10.13	345	⇑P	Pn	16 30 42.8	+1.7
ISR	Istrita	10.14	5	P	Pn	16 30 43.9	+2.6
ISR	Istrita	10.14	5	⇓P	Pn	16 30 43.9	+2.6
ISR	Istrita	10.14	5	Pn	Pn	16 30 43.8	+2.5
	comp=Z,28µmcomp=Z,731nm,1.7s						
TOKA	Tokat	10.34	56		Pn	16 30 44.0	0.0
ARR	Arges	10.36	357	⇑P	Pn	16 30 46.2	+2.0
ARR	Arges	10.36	357	P	Pn	16 30 47.2	+3.0
	comp=Z,4µmcomp=Z,113nm,1.4s,comp=Z,30µm						
PAOL	Paolisi	10.37	309		Pn	16 30 43.9	-0.4
CFR	Carcaliu	10.39	11	P	Pn	16 30 46.9	+2.4
CFR	Carcaliu	10.39	11	⇑P	Pn	16 30 46.9	+2.4
VOIR		10.42	359	P	Pn	16 30 47.1	+2.1
VOIR		10.42	359	⇑P	Pn	16 30 47.2	+2.1
VOIR		10.42	359	Pn	Pn	16 30 46.8	+1.8
	comp=Z,5µmcomp=Z,134nm,1.4s						
VOIR		10.42	359	P	Pn	16 30 46.3	+1.3
	comp=Z,5µmcomp=Z,135nm,1.5s,comp=Z,35µm						
NEHR	Nehoiu	10.43	4	⇑P	Pn	16 30 48.2	+3.0
SNOP	Sinop	10.46	45		Pn	16 30 44.0	-1.5
MLR	Muntele Rosu	10.48	3	P	Pn	16 30 46.5	+0.6
	comp=Z,53nm,1.1s,baz=145,slow=12,SNR=13						
MLR				LR	LR	16 35 38.2	
	comp=Z,32µm,18.4s,baz=192,slow=42						
MLR	Muntele Rosu	10.48	3	P	Pn	16 30 48.5	+2.6
MLR	Muntele Rosu	10.48	3	⇑P	Pn	16 30 48.6	+2.6
MLR	Muntele Rosu	10.48	3	Pn	Pn	16 30 47.5	+1.5
	comp=Z,9µmcomp=Z,290nm,1.1s						
MLR	Muntele Rosu	10.48	3	P	Pn	16 30 48.6	+2.7
	comp=Z,9µmcomp=Z,290nm,1.1s,comp=Z,36µm						
LOT	Lotru	10.49	354	⇑P	Pn	16 30 48.1	+2.1
LOT	Lotru	10.49	354	P	Pn	16 30 48.2	+2.1
	comp=Z,4µmcomp=Z,115nm,1.1s,comp=Z,28µm						
TEKS	Tekeris	10.50	337	*e*Pn	Pn	16 30 43.1	-3.0
TLCR		10.52	14	P	Pn	16 30 48.7	+2.5
TLCR		10.52	14	⇓P	Pn	16 30 48.8	+2.5
GZR	Gura Zlata	10.54	350	P	Pn	16 30 47.9	+1.1
GZR	Gura Zlata	10.54	350	⇓P	Pn	16 30 47.9	+1.1
TNR	Turnu Rosu	10.66	356	P	Pn	16 30 51.6	+3.4
TNR	Turnu Rosu	10.66	356	⇓P	Pn	16 30 51.6	+3.4
SAHR	Sahastru	10.76	5	⇓P	Pn	16 30 53.3	+3.6
TATR	Tatarca	10.78	10	⇑P	Pn	16 30 53.4	+3.5
PLOR	Plostina	10.88	5	P	Pn	16 30 54.8	+3.5
PLOR	Plostina	10.88	5	⇑P	Pn	16 30 54.9	+3.5
VRI	Vrincioaia	10.90	5	P	Pn	16 30 55.1	+3.6
VRI	Vrincioaia	10.90	5	⇑P	Pn	16 30 55.2	+3.6
VRI	Vrincioaia	10.90	5	Pn	Pn	16 30 53.1	+1.5
	comp=Z,14µmcomp=Z,430nm,1.6s						
VRI	Vrincioaia	10.90	5	P	Pn	16 30 55.1	+3.6
	comp=Z,14µmcomp=Z,430nm,1.6s,comp=Z,33µm						
DOPR	Dopca	10.95	0	⇑P	Pn	16 30 55.1	+2.9
BZS	Buzias	10.96	346	P	Pn	16 30 52.6	+0.3
BZS	Buzias	10.96	346	⇑P	Pn	16 30 52.6	+0.3
BZS	Buzias	10.96	346	⇑P	Pn	16 30 52.7	+0.3
BZS	Buzias	10.96	346	P	Pn	16 30 52.9	+0.6
	comp=Z,4µmcomp=Z,80nm,0.8s,comp=Z,15µm						
FRGS	Fruska Gora	10.96	339	*e*Pn	Pn	16 30 53.1	+0.7
SURR	Surduc	11.00	348	⇑P	Pn	16 30 53.3	+0.4
DEV	Deva	11.01	351	P	Pn	16 30 55.8	+2.8
DEV	Deva	11.01	351	⇓P	Pn	16 30 55.8	+2.8
DEV	Deva	11.01	351	P	Pn	16 30 56.9	+3.8
	comp=Z,8µmcomp=Z,225nm,0.8s,comp=Z,18µm						
TURR	Turia	11.05	3	⇑P	Pn	16 30 56.4	+2.8
OZUR		11.08	2	⇓P	Pn	16 30 57.2	+3.2
ARPR	Arapgir-MALATY	11.20	65		Pn	16 30 54.1	-1.7
ARPR	Arapgir-MALATY	11.20	65	P	Pn	16 30 57.5	+1.7
ARPR	Arapgir-MALATY	11.20	65	P	Pn	16 30 57.5	+1.7
	comp=Z,6µmcomp=Z,246nm,1.5s,comp=Z,19µm						
INTR	Introdacqua	11.32	312		Pn	16 30 56.3	-1.1
ONER	Baraj Valea Uz	11.34	4	⇓P	Pn	16 30 59.2	+1.5
BLY	Banja Luka	11.54	330		Pn	16 30 57.8	-2.5
BLY	Banja Luka	11.54	330	⇑P	Pn	16 30 59.5	-0.7
BLY	Banja Luka	11.54	330	⇓P	Pn	16 30 60.0	-0.2
BLY	Banja Luka	11.54	330	*e*Pn	Pn	16 30 55.8	-4.4
BLY	Banja Luka	11.54	330	P	Pn	16 31 00.4	+0.2
	comp=Z,2µmcomp=Z,72nm,0.8s,comp=Z,19µm						
TESR	Tescani	11.54	5	⇑P	Pn	16 31 03.7	+3.5
TESR	Tescani	11.54	5	Pn	Pn	16 31 02.5	+2.3
	comp=Z,17µmcomp=Z,263nm,1.9s						
TESR	Tescani	11.54	5	P	Pn	16 31 03.4	+3.2
	comp=Z,17µmcomp=Z,264nm,1.9s,comp=Z,27µm						
SIRR	Siria	11.57	347	⇑P	Pn	16 31 02.3	+1.5
CJR	Cluj-Napoca	11.76	354	P	Pn	16 31 08.1	+4.8
MARR	Marisel-Cluj	11.77	353	⇑P	Pn	16 31 05.2	+1.7
AQU	L'Aquila	11.82	312	P	Pn	16 31 04.2	0.0
AQU	L'Aquila	11.82	312	Pn	Pn	16 31 04.2	0.0
AQU	L'Aquila	11.82	312	*e*Pn	Pn	16 31 06.3	+2.1
DRGR		11.93	351	P	Pn	16 31 07.5	+1.9
DRGR		11.93	351	⇑P	Pn	16 31 07.6	+1.9
DRGR		11.93	351	P	Pn	16 31 07.1	+1.5
	comp=Z,5µmcomp=Z,63nm,1.2s						
BIZ	Bicaz	11.93	3	⇓P	Pn	16 31 07.4	+1.8
SIM	Simferopol'	12.01	32	*e*P	Pn	16 31 09.9	+3.2
SIM				*e*S	Sn	16 33 26.0	+6.9
SIM				pmax	pmax		
	comp=Z,58nm,0.8s						
KELT	Kelkit	12.21	61	P	Pn	16 31 12.4	+2.7
	comp=Z,60µmcomp=Z,25µmcomp=Z,2µm,1.1s						
MORH	Mrgy, Hungar	12.27	338	*e*Pn	Pn	16 31 06.5	-3.7
MORH	Mrgy, Hungar	12.27	338	P	P	16 31 16.4	-4.8
	comp=Z,2µmcomp=Z,99nm,1.5s,comp=Z,14µm						
NRCA	Norcia	12.27	313		Pn	16 31 09.1	-1.2
GUMA	Gualdo di Mace	12.27	314		Pn	16 31 08.6	-1.8
KOVH	Kovagotottos	12.33	336	⇑P	Pn	16 31 09.4	-1.7
FDMO	Fiordimonte	12.40	314		Pn	16 31 10.1	-2.0
CESX	Cesi	12.47	311		Pn	16 31 12.6	-0.3
BURAR	Bucovina Array	12.59	360	P	Pn	16 31 18.1	+3.4
BURAR	Bucovina Array	12.59	360		Pn	16 31 14.8	+0.1
BURAR	Bucovina Array	12.59	360	⇓P	Pn	16 31 18.2	+3.4
BUR08	Bucovina Ar. S	12.62	360		Pn	16 31 15.9	+0.8
BMR	Baia Mare	12.72	355	P	Pn	16 31 19.3	+2.9
BMR	Baia Mare	12.72	355	⇑P	Pn	16 31 19.3	+2.9
BMR	Baia Mare	12.72	355	P	Pn	16 31 18.2	+1.8
	comp=Z,7µmcomp=Z,260nm,1.6s						
MURB	Monte Urbino	12.87	314		Pn	16 31 19.5	+1.0
MGAB	Montegabbione	12.92	312	⇓P	Pn	16 31 22.5	+3.3
BOJS	Bojanci	12.97	327	*i* Pn	Pn	16 31 17.4	-2.4
KEST	Kesra	13.03	278	P	Pn	16 31 20.2	-0.5
	comp=Z,8.7nm,0.8s,baz=59,slow=3.6,SNR=9.9						
KEST				S	Sn	16 33 42.4	-1.8
	comp=Z,54nm,1.0s,baz=94,slow=13,SNR=1.4						
KEST	Kesra	13.03	278	P	Pn	16 31 21.9	+1.1
	SNR=15						
KEST				S	Sn	16 33 53.4	+9.2
KEST	Kesra	13.03	278		Pn	16 31 20.1	-0.6
KEST	Kesra	13.03	278	P	Pn	16 31 20.0	-0.7
KOPT	Kop Dagi	13.07	63		Pn	16 31 20.4	-1.1
BEHE	Becsehely	13.13	333	Pn	Pn	16 31 21.7	-0.3
BEHE	Becsehely	13.13	333	*e*Pn	P	16 31 28.6	-2.2
CRES	Cresnjevec Ost	13.13	328	*e*Pn	Pn	16 31 18.3	-3.7
TRPA	Tarpa	13.27	352	P	Pn	16 31 25.1	+1.2
	comp=Z,17µmcomp=Z,6µmcomp=Z,98nm,2.0s						
KOGS	Kog	13.31	332	*e*Pn	Pn	16 31 26.4	+2.0
SORM	Soroca	13.31	9	P	Pn	16 31 27.1	+2.7
SORM	Soroca	13.31	9	⇑P	Pn	16 31 27.1	+2.7
SORM	Soroca	13.31	9	Pn	Pn	16 31 25.1	+0.7
VSL	Villasalto	13.43	294		Pn	16 31 24.1	-2.1
VSL	Villasalto	13.43	294	⇑P	Pn	16 31 24.7	-1.5
VSL	Villasalto	13.43	294	P	Pn	16 31 28.0	+1.8
	comp=Z,2µmcomp=Z,1µmcomp=Z,132nm,1.0s						
MPLH	Magyarpolny	13.47	337	P	P	16 31 31.6	-2.9
	comp=Z,14µmcomp=Z,2µmcomp=Z,163nm,1.1s						
ANN	Anapa	13.50	40	*d i*P	Pn	16 31 26.5	-0.5
ANN				*e*S	Sn	16 33 53.5	-1.9
ANN				pmax	pmax		
	comp=Z,143nm,1.1s						
ANN				pmax	pmax		
	comp=Z,4µm,4.2s						
ANN				MLR	MLR		
	comp=N,5µm,12.0s						
PSZ	Piszkesteto	13.51	344	P	Pn	16 31 29.5	+2.3
PSZ	Piszkesteto	13.51	344		Pn	16 31 26.0	-1.3
PSZ	Piszkesteto	13.51	344	*e*P	P	16 31 32.6	-2.5
PSZ	Piszkesteto	13.51	344	⇓P	Pn	16 31 29.1	+1.8
PSZ	Piszkesteto	13.51	344	⇓P	Pn	16 31 29.5	+2.3
PSZ	Piszkesteto	13.51	344	P	Pn	16 31 30.7	+3.5
	comp=Z,110nm,1.1s						
KMPD	K-Podol'skiy	13.57	3	Pn	Pn	16 31 29.1	+1.1
ABAH	Abaujker	13.61	348	P	Pn	16 31 31.8	+3.3
	comp=Z,17µmcomp=Z,5µmcomp=Z,98nm,1.2s						
CASP	Castiglione de	13.64	309		Pn	16 31 29.4	+0.4
TRI	Trieste	13.81	324	P	Pn	16 31 27.8	-3.5
TRI	Trieste	13.81	324		Pn	16 31 27.8	-3.5
SOKA	Soboth	13.98	330	*e*Pn	Pn	16 31 32.0	-1.7
	comp=Z,44nm,0.8s						
SOKA				*i* ScP	ScP	16 40 22.9	+1.8
	comp=Z,14nm,1.0s						
OBKA	Obir	14.06	328	*e*Pn	Pn	16 31 33.5	-1.2
	comp=Z,22nm,0.9s						
OBKA				*i* ScP	ScP	16 40 22.9	+1.6
	comp=Z,13nm,1.4s						
SOC	Sochi	14.06	48	*e*P	Pn	16 31 33.7	-1.0
SOC				*e*		16 34 07.0	
SOC				pmax	pmax		
	comp=Z,140nm,0.9s						
SOC				MLR	MLR		
	comp=Z,7µm,13.0s						
KOLS	Kolonicke sedl	14.09	352	*e*P	Pn	16 31 38.1	+3.1
KOLS	Kolonicke sedl	14.09	352	*e*P	Pn	16 31 38.1	+3.1
KOLS	Kolonicke sedl	14.09	352	P	Pn	16 31 37.2	+2.2
	comp=Z,122nmcomp=Z,1µmcomp=Z,152nm,1.1s						
SABO	M.te Sabotino	14.09	325		Pn	16 31 31.6	-3.4
HOMI	Horasan	14.12	64	⇓P	Pn	16 31 37.5	+1.9
VSLR	Vesyoloye	14.20	49	*i* P	Pn	16 31 36.6	+0.1
DRE	Drenchia	14.21	325	P	P	16 31 41.3	-1.6
	comp=Z,2µmcomp=Z,202nm,0.8s,comp=Z,2µm						
SOP	Sopron	14.24	335	P	P	16 31 43.5	+0.4
SOP	Sopron	14.24	335	P	P	16 31 43.3	+0.2
	comp=Z,13µmcomp=Z,2µmcomp=Z,147nm,1.1s						
ARSA	Arzberg	14.25	332		Pn	16 31 34.5	-2.7
ARSA	Arzberg	14.25	332	⇓P	Pn	16 31 39.2	+1.9
ARSA	Arzberg	14.25	332	*e*Pn	Pn	16 31 36.2	-1.1
	comp=Z,28nm,0.8s						
ARSA				*e*ScP	ScP	16 40 22.9	+1.4
	comp=Z,16nm,1.4s						
ARSA	Arzberg	14.25	332	P	P	16 31 43.9	+0.6
	comp=Z,16µmcomp=Z,1µmcomp=Z,118nm,0.8s,comp=Z,1µm						
VYHS	Vyhne	14.30	342	*e*P	P	16 31 42.3	-1.5
VYHS	Vyhne	14.30	342	*e*P	P	16 31 42.3	-1.5
VYHS	Vyhne	14.30	342	P	P	16 31 41.1	-2.6
	comp=Z,829nmcomp=Z,18nm,1.3s						
PII	Pisa	14.33	312	P	P	16 31 44.9	+0.7
RONA	Rosalia, Austr	14.35	335	*e*Pn	Pn	16 31 38.8	+0.3
	comp=Z,51nm,0.8s						
CRHA	Rehia	14.41	278	P	Pn	16 31 40.6	+1.1
ZCCA	Zocca	14.41	315	P	Pn	16 31 37.0	-2.4
PRED	Cave del Predi	14.45	326		Pn	16 31 38.5	-1.4
PRED	Cave del Predi	14.45	326	P	P	16 31 45.5	0.0
	comp=Z,8µmcomp=Z,774nmcomp=Z,38nm,1.1s						
ZST	Bratislava	14.51	338	P	P	16 31 47.8	+1.7
ACOM	Acomizza, Ital	14.55	326	P	Pn	16 31 39.9	-1.4
MYKA	Terra Mystica	14.55	326	*e*Pn	Pn	16 31 40.0	-1.3
	comp=Z,6.5nm,0.4s						
MYKA				*i* ScP	ScP	16 40 22.4	+0.3
	comp=Z,9.1nm,0.9s						
CMAH	Djebel Manchou	14.58	282	P	P	16 31 45.7	-1.4
MODS	Modra-Piesok	14.62	338	*e*P	P	16 31 45.6	-1.7
MODS	Modra-Piesok	14.62	338	*e*P	P	16 31 45.6	-1.7
MODS	Modra-Piesok	14.62	338	P	P	16 31 48.1	+0.8
	comp=Z,23µmcomp=Z,3µmcomp=Z,144nm,0.8s						
CNGR	Negrine	14.62	273	P	P	16 31 54.1	+6.6
TEOL	Teolo	14.64	319		Pn	16 31 39.7	-2.7
GEVA	Gevas	14.65	72		Pn	16 31 38.8	-3.8
VLC	Villacollemand	14.66	313	P	Pn	16 31 40.7	-1.9
VLC	Villacollemand	14.66	313	⇑P	Pn	16 31 40.2	-2.4
FUSE	Fusea	14.69	325	P	P	16 31 47.5	-0.7
	comp=Z,2µmcomp=Z,209nm,0.9s,comp=Z,2µm						
CONA	Conrad Observa	14.69	334	*i* Pn	Pn	16 31 41.9	-1.2
	comp=Z,57nm,1.3s						
CONA				*e*ScP	ScP	16 40 23.1	+0.7
	comp=Z,4.5nm,1.0s						
SMOL	Smolenice	14.70	339	*e*P	P	16 31 48.6	+0.4
STHS	Stebnicka Huta	14.70	350	*e*P	P	16 31 49.0	+0.8
STHS	Stebnicka Huta	14.70	350	*e*P	P	16 31 49.0	+0.8
STAL	STALIGIAL	14.72	324		Pn	16 31 40.7	-2.7
KWP	Kalwaria Pacla	14.73	353	*e*P	P	16 31 46.9	-1.7
PGF	Pioggiola	14.75	306	P	P	16 31 49.0	+0.1
PGF	Pioggiola	14.75	306	P	P	16 31 48.7	-0.2
	comp=Z,5µmcomp=Z,2µmcomp=Z,106nm,1.1s,comp=Z,2µm						
CBBAR	Babar	14.82	276	P	Pn	16 31 47.0	+2.1
NIE	Niedzica	14.86	347	*e*P	Pn	16 31 46.7	+1.5
CGRP	Cima Grappa	14.92	321	P	Pn	16 31 46.0	-0.1
CGRP	Cima Grappa	14.92	321	P	P	16 31 51.4	+0.6
	comp=Z,8µmcomp=Z,2µmcomp=Z,182nm,0.9s,comp=Z,2µm						
JAVC	Velka Javorina	14.94	340	*e*PN	Pn	16 31 47.4	+1.1
JAVC				*e*SCS	ScS	16 44 02.7	+2.2
JAVC	Velka Javorina	14.94	340	P	P	16 31 49.8	-1.2
	comp=Z,13µmcomp=Z,2µmcomp=Z,39nm,1.2s						
LUBAR	Lubar, Ukraine	15.01	6	P	Pn	16 31 49.4	+2.2
KBA	Koelnbreinsper	15.03	327	P	P	16 31 50.4	-1.7
KBA	Koelnbreinsper	15.03	327	⇑P	Pn	16 31 46.0	-1.5
KBA	Koelnbreinsper	15.03	327	*e*Pn	Pn	16 31 45.8	-1.7
	comp=Z,19nm,0.5s						
KBA				*i* ScP	ScP	16 40 24.2	+1.1
	comp=Z,5.0nm,0.8s						
KBA	Koelnbreinsper	15.03	327	P	P	16 31 50.4	-1.7
	comp=Z,14µmcomp=Z,2µmcomp=Z,97nm,0.7s,comp=Z,2µm						
PRMA	PARMA	15.04	315	Pn	Pn	16 31 48.0	+0.4
HAKT	HAKKARI	15.08	75	P	Pn	16 31 49.4	+1.0
	comp=Z,25µmcomp=Z,15µmcomp=Z,1µm,1.9s,comp=Z,15µm						
CTI	Castel Tesino	15.11	321	P	Pn	16 31 46.5	-2.1
CTI				pmax	pmax		
	comp=Z,62nm,1.2s						
CTI	Castel Tesino	15.11	321	P	Pn	16 31 46.5	-2.1
EPOS	Posof	15.15	60	P	Pn	16 31 50.6	+1.4
	comp=Z,16µmcomp=Z,19µmcomp=Z,1µm,1.3s,comp=Z,19µm						
CSGS	Sigus	15.16	280	P	Pn	16 31 50.4	+1.2
ABTA	Abfaltersbach	15.16	324	*e*Pn	Pn	16 31 47.2	-2.1
	comp=Z,54nm,0.8s						
ABTA				*i* ScP	ScP	16 40 24.1	+0.8
	comp=Z,9.1nm,0.9s						
MOA	Molln	15.23	331	*e*Pn	Pn	16 31 50.3	+0.2
	comp=Z,11nm,0.5s						
MOA	Molln	15.23	331	P	P	16 31 53.1	-1.1
	comp=Z,2µmcomp=Z,140nm,1.1s						
LABN	Labinsk	15.25	46	*e*P	P	16 31 52.7	-1.7
LABN				*i* S	Sn	16 34 42.7	+4.6
LABN				pmax	pmax		
	comp=Z,1µm,1.0s						
LABN				pmax	pmax		
	comp=Z,4µm,2.0s						
LABN				MLR	MLR		
	comp=E,18µm,16.0s						
CTGD	Timgad	15.32	277	P	P	16 31 54.3	-1.1
MAUC	Maruska	15.36	341	*e*P	P	16 31 57.4	+1.8
BIOA	Bad Ischl, Aus	15.37	329	*e*Pn	Pn	16 31 51.3	-0.5
	comp=E,21nm,0.8s						
BIOA				*e*ScP	ScP	16 40 22.7	-0.7
	comp=E,12nm,1.6s						
CTEI	Djebel Teioual	15.40	279	P	Pn	16 31 53.8	+1.3
OZAP	Van, Ozalp-Mer	15.42	71	⇑P	P	16 31 55.9	-0.6
SALO	Salr	15.43	318		Pn	16 31 51.8	-0.9
SALO	Salr	15.43	318	⇓P	Pn	16 31 54.1	+1.4
CBOS	Bilal Ibnou Ra	15.47	282	P	P	16 31 59.6	+2.7
KRUC	Moravsky	15.50	338	P	P	16 31 57.2	+0.1
KRUC	Moravsky	15.50	338	*e*PN	Pn	16 31 54.7	+1.2
KRUC	Moravsky	15.50	338	*e*S	S	16 34 53.1	-4.5
KRUC				*e*SCS	ScS	16 44 03.6	+1.8
KRUC	Moravsky	15.50	338	P	P	16 31 55.5	-1.6
	comp=Z,11µmcomp=Z,2µmcomp=Z,97nm,1.1s						
COAT	Oued Athmania	15.50	280	P	P	16 31 55.9	-1.4
BOB	Bobbio (Coli)	15.55	314	P	P	16 31 59.0	+1.2
BOB	Bobbio (Coli)	15.55	314	⇓P	P	16 31 56.8	-1.0
LESA	Schwarzleotal	15.59	327	*e*Pn	Pn	16 31 54.8	+0.1
	comp=Z,19nm,0.4s						
LESA				*i* ScP	ScP	16 40 25.1	+1.1
	comp=Z,13nm,1.6s						
VRAC	Vranov	15.65	339	P	Pn	16 31 55.1	-0.4
	comp=Z,13nm,0.9s,baz=155,slow=11,SNR=41						
VRAC				LR	LR	16 38 34.2	
	comp=Z,9µm,21.8s,baz=163,slow=40						
VRAC	Vranov	15.65	339	P	P	16 31 57.5	-1.3
VRAC	Vranov	15.65	339	*e*PN	Pn	16 31 56.5	+1.0
VRAC	Vranov	15.65	339	*e*S	Sn	16 34 53.5	+5.7
VRAC	Vranov	15.65	339	⇓P	P	16 31 57.6	-1.3
VRAC	Vranov	15.65	339	P	P	16 31 57.8	-1.0
	comp=Z,3µmcomp=Z,580nmcomp=Z,32nm,1.1s,comp=Z,580nm						
OKC	Ostrava-Krasne	15.71	343	P	Pn	16 31 56.8	+0.6
OKC	Ostrava-Krasne	15.71	343	AMS	AMS	16 39 10.0	
	comp=Z,8µm,12.1s						
OKC	Ostrava-Krasne	15.71	343	P	P	16 31 59.2	-0.2
	comp=Z,9µmcomp=Z,3µmcomp=Z,76nm,1.2s						
OJC	Ojcow	15.72	347	*e*P	Pn	16 31 55.8	-0.5
OJC	Ojcow	15.72	347	P	Pn	16 31 53.8	-2.5
OJC	Ojcow	15.72	347		Pn	16 31 53.8	-2.5
OJC	Ojcow	15.72	347	P	Pn	16 31 57.1	+0.8
	comp=Z,15µmcomp=Z,4µmcomp=Z,52nm,1.4s,comp=Z,4µm						
ERBR	Yeremizino-Bor	15.74	43	*e*P	Pn	16 31 56.1	-0.5
ERBR				*i* S	Sn	16 34 50.0	+0.1
ERBR				pmax	pmax		
	comp=Z,1µm,0.9s						
ERBR				pmax	pmax		
	comp=Z,2µm,1.1s						
ERBR				MLR	MLR		
	comp=Z,5µm,13.0s						
RJOB	Jochberg	15.77	328	P	P	16 32 00.0	-0.1
	comp=Z,1µmcomp=Z,7µmcomp=Z,1µmcomp=Z,42nm,0.8s						
CJSR	Ain Djasser	15.78	279	P	P	16 32 00.4	0.0
AK07	Malin Array Si	15.79	9	P	Pn	16 31 58.5	+1.3
MORC	Moravsky Berou	15.81	341	P	P	16 31 59.1	-1.5
MORC	Moravsky Berou	15.81	341	*e*PN	Pn	16 31 57.6	+0.1
MORC				*e*SCS		16 44 05.4	
MORC	Moravsky Berou	15.81	341	⇑P	Pn	16 31 56.2	-1.3
MORC	Moravsky Berou	15.81	341	⇑P	P	16 31 59.2	-1.5
MORC	Moravsky Berou	15.81	341	P	P	16 31 59.0	-1.5
	comp=Z,14µmcomp=Z,3µmcomp=Z,82nm,1.0s						
NEUR	Neytrino	15.81	53	*c i*P	Pn	16 31 57.7	0.0
NEUR				MLR	MLR		
	comp=Z,10µm,13.0s						
DFRA	Djebel Bou Aff	15.82	281	P	P	16 32 01.6	+0.7
AK13	Malin Array Si	15.84	9	P	P	16 31 59.4	-1.4
AK14	Malin Array Si	15.86	9	P	Pn	16 31 59.5	+1.4
AK09	Malin Array Si	15.87	9	P	P	16 32 00.3	-0.8
AK12	Malin Array Si	15.88	9	P	P	16 31 59.9	-1.4
AK08	Malin Array Si	15.88	9	P	P	16 31 59.9	-1.4
STEB	Steborice	15.90	342	*e*P	Pn	16 31 58.2	-0.4
AK02	Malin Array Si	15.90	9	P	P	16 32 00.1	-1.4
AK16	Malin Array Si	15.90	9	P	Pn	16 31 59.9	+1.4
AK17	Malin Array Si	15.91	9	P	Pn	16 32 00.1	+1.4
AK11	Malin Array Si	15.91	9	P	Pn	16 32 00.2	+1.4
AK01	Malin Array Si	15.93	9	P	Pn	16 32 00.0	+1.0
KIEV	Kiev	15.93	9	P	P	16 32 01.2	-0.6
KIEV	Kiev	15.93	9		Pn	16 31 57.1	-1.9
KIEV				IAmb	IAmb	16 32 04.1	
	comp=Z,426nm,1.1s						
KIEV	Kiev	15.93	9	P	P	16 32 01.2	-0.6
KIEV	Kiev	15.93	9	⇑P	Pn	16 31 56.7	-2.3
KIEV	Kiev	15.93	9	*i* P	Pn	16 31 58.1	-1.0
	SNR=18						
KIEV	Kiev	15.93	9	⇓P	P	16 32 01.3	-0.6
KIEV	Kiev	15.93	9	P	P	16 32 00.8	-1.1
	comp=Z,31µmcomp=Z,2µm,0.8s						
KIEV	Kiev	15.93	9	P	Pn	16 31 58.9	-0.2
	comp=Z,17µmcomp=Z,8µmcomp=Z,495nm,0.8s						
AK19	Malin Array Si	15.94	9	P	P	16 32 00.7	-1.2
AK18	Malin Array Si	15.94	9	P	P	16 32 00.8	-1.2
AKASG	Malin Array Be	15.94	9	P	Pn	16 31 58.3	-0.8
	comp=Z,24nm,0.4s,baz=205,slow=11,SNR=149						
AKASG				S	S	16 35 03.8	-2.9
	comp=Z,69nm,0.9s,baz=195,slow=21,SNR=11						
AKASG				LR	LR	16 38 42.5	
	comp=Z,9µm,18.4s,baz=174,slow=39						
AKASG				ScP	ScP	16 40 22.9	-1.5
	comp=Z,3.6nm,0.8s,baz=228,slow=2.4,SNR=9.7						
AKASG	Malin Array Be	15.94	9	*i* P	Pn	16 31 57.7	-1.4
AKASG				pmax	pmax		
	comp=Z,97nm,0.4s						
AKASG	Malin Array Be	15.94	9	P	Pn	16 31 57.7	-1.4
AKASG				IAmb	IAmb	16 32 04.1	
	comp=Z,600nm,1.1s						
AKBB	Malin Array Si	15.94	9	*ce*P	Pn	16 31 56.8	-2.3
AKBB				pmax	pmax		
	comp=Z,543nm,1.0s						
AKBB				MLR	MLR		
	comp=Z,12µm,14.0s						
AKBB	Malin Array Si	15.94	9		Pn	16 31 57.1	-2.0
AKBB				IAmb	IAmb	16 32 04.1	
	comp=Z,476nm,1.1s						
AKBB	Malin Array Si	15.94	9	P	P	16 32 00.7	-1.3
WTTA	Wattenberg	15.95	324	P	P	16 32 01.8	-0.5
WTTA	Wattenberg	15.95	324	*e*Pn	Pn	16 31 58.5	-1.0
	comp=Z,25nm,0.5s						
WTTA				*e*Sn	Sn	16 35 00.3	+5.0
	comp=Z,1µm,2.8s						
WTTA				*i* ScP	ScP	16 40 26.2	+1.4
	comp=Z,13nm,0.9s						
WTTA	Wattenberg	15.95	324	P	P	16 32 01.8	-0.5
	comp=Z,9µmcomp=Z,3µmcomp=Z,198nm,1.1s,comp=Z,3µm						
AK20	Malin Array Si	15.96	9	P	Pn	16 32 00.7	+1.4
PCP	Piancastagn	15.98	312	P	P	16 32 04.1	+1.6
AK22	Malin Array Si	15.98	9	P	P	16 32 01.3	-1.1
AK23	Malin Array Si	15.99	9	P	P	16 32 01.5	-1.0
AK21	Malin Array Si	15.99	9	P	P	16 32 01.3	-1.2
SHA1	Shidzhatmaz	15.99	52	*c i*P	Pn	16 32 00.0	-0.1
TREC	Trest	15.99	336	*e*P	Pn	16 32 00.6	+0.8
TREC				MLR	MLR		
	comp=Z,7µm,14.9s						
TREC	Trest	15.99	336	*e*P	Pn	16 32 00.6	+0.8
TREC				AMS	AMS	16 40 00.0	
	comp=Z,7µm,14.9s						
TREC	Trest	15.99	336	P	P	16 32 01.8	-0.8
	comp=Z,11µmcomp=Z,2µmcomp=Z,65nm,1.1s,comp=Z,2µm						
CKRC	Cesky Krumlov	16.01	333	*e*P	Pn	16 32 00.9	+0.9
CKRC				MLR	MLR		
	comp=Z,11µm,12.4s						
CKRC	Cesky Krumlov	16.01	333	*e*P	Pn	16 32 00.9	+0.9
CKRC				*e*S	S	16 35 07.6	-0.5
CKRC				AMS	AMS	16 39 20.0	
	comp=Z,11µm,12.4s						
WATA	Walderalm	16.03	324	*e*Pn	Pn	16 31 59.3	-1.1
	comp=Z,39nm,0.6s						
WATA				Sn	Sn	16 35 00.8	+3.5
	comp=Z,2µm,5.0s						
WATA				*i* ScP	ScP	16 40 26.1	+1.2
	comp=Z,7.0nm,0.6s						
CKTS	El Kantara	16.04	276	P	P	16 32 02.7	-0.5
KIV	Kislovodsk	16.11	51	P	Pn	16 32 01.7	+0.3
KIV				S	Sn	16 35 03.4	+4.3
KIV	Kislovodsk	16.11	51	*e*P	Pn	16 32 00.5	-1.0
KIV				*e*S	Sn	16 34 57.9	-1.2
KIV				pmax	pmax		
	comp=Z,739nm,1.0s						
KIV				MLR	MLR		
	comp=Z,4µm,14.0s						
KIV	Kislovodsk	16.11	51		Pn	16 31 59.0	-2.4
KIV	Kislovodsk	16.11	51	P	P	16 32 05.0	+1.0
KIV	Kislovodsk	16.11	51	⇑P	Pn	16 32 01.2	-0.2
KIV	Kislovodsk	16.11	51	*i* P	Pn	16 32 01.3	-0.2
	SNR=108						
KIV	Kislovodsk	16.11	51	P	P	16 32 04.6	+0.5
	comp=Z,18µmcomp=Z,14µmcomp=Z,986nm,1.2s						
SQTA	Sankt Quirin	16.13	323	*e*Pn	Pn	16 32 00.7	-1.0
	comp=Z,33nm,0.7s						
SQTA				*i* ScP	ScP	16 40 26.5	+1.4
	comp=Z,12nm,0.8s						
KBZ	Khabaz	16.14	52	P	P	16 32 04.5	+0.3
	comp=Z,845nm,0.9s,baz=231,slow=12,SNR=159						
KBZ				S	Sn	16 35 03.4	+3.7
	comp=Z,22nm,0.8s,baz=30,slow=12,SNR=1.4						
KBZ				LR	LR	16 40 00.4	
	comp=Z,9µm,20.8s,baz=259,slow=44						
KBZ	Khabaz	16.14	52	*ce*P	Pn	16 32 02.3	+0.6
KBZ				MLR	MLR		
	comp=Z,5µm,13.0s						
FUORN	Ofenpass-Fuorn	16.21	320		P	16 32 04.5	-0.7
FUORN	Ofenpass-Fuorn	16.21	320	P	P	16 32 06.8	+1.5
	comp=Z,9µmcomp=Z,3µmcomp=Z,153nm,1.2s,comp=Z,3µm						
SET	Setif	16.21	280	P	P	16 32 09.0	+3.8
RNPP5	Staryi Chortor	16.22	1	P	Pn	16 32 03.8	+1.2
FETA	Feichten	16.23	322	*e*Pn	Pn	16 32 01.1	-1.9
	comp=Z,59nm,1.1s						
FETA				*e*Sn	Sn	16 35 01.4	-0.6

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      comp=Z,499nm,3.8s
FETA                             i ScP   ScP     16 40 26.3 +1.0
      comp=Z,9.3nm,1.0s
GNI   Garni            16.25  66 P       Pn      16 32 04.2 +0.9
      comp=Z,75nm,0.6s,baz=249,slow=5.9,SNR=41
GNI                              S       Sn      16 35 06.6 +4.0
      comp=Z,23nm,0.8s,baz=144,slow=19,SNR=1.2
GNI                              LR      LR      16 39 38.0
      comp=Z,34µm,19.5s,baz=272,slow=42
GNI   Garni            16.25  66 P       Pn      16 32 04.0 +0.7
GNI   Garni            16.25  66ceP      Pn      16 32 03.8 +0.5
GNI                              pmax    pmax
      comp=Z,567nm,1.7s
GNI                              MLR     MLR
      comp=Z,20µm,15.0s
GNI   Garni            16.25  66         Pn      16 32 03.5 +0.2
GNI                              IAmb    IAmb    16 32 07.1
      comp=Z,611nm,1.4s
GNI   Garni            16.25  66 P       P       16 32 05.5 -0.2
GNI   Garni            16.25  66 ⇑P      Pn      16 32 04.0 +0.7
GNI   Garni            16.25  66 P       Pn      16 32 03.9 +0.5
GNI   Garni            16.25  66 P       P       16 32 06.2 +0.5
      comp=Z,18µmcomp=Z,11µmcomp=Z,435nm,1.1s,comp=Z,11µm
GEC2  GERESS Array S   16.26 332 eP      Pn      16 32 04.3 +1.0
      comp=Z,59nm,0.8s,baz=139,slow=11
GEC2  GERESS Array S   16.26 332 P       P       16 32 05.5 -0.2
      comp=Z,2µmcomp=Z,111nm,0.9s
GERES GERESS Array B   16.26 332 P       Pn      16 32 01.9 -1.4
      comp=Z,17nm,0.5s,baz=152,slow=12,SNR=56
GERES                            ScP     ScP     16 40 24.4 -0.8
      comp=Z,4.4nm,0.8s,baz=172,slow=4.0,SNR=6.3
GERES GERESS Array B   16.26 332 P       Pn      16 32 02.1 -1.2
GERES GERESS Array B   16.26 332 P       Pn      16 32 02.1 -1.2
MOTA  Moosalm          16.27 324 ePn     Pn      16 32 02.7 -0.8
      comp=Z,19nm,1.0s
MOTA                             i ScP   ScP     16 40 26.6 +1.3
      comp=Z,7.7nm,0.9s
KRLC  Kraliky          16.29 340 AMS     AMS     16 38 00.0
      comp=Z,9µm,18.6s
KRLC  Kraliky          16.29 340 P       P       16 32 06.0 +0.2
      comp=Z,12µmcomp=Z,3µmcomp=Z,238nm,0.9s
RNPP2 Kostyukhnivka    16.32   1 P       P       16 32 05.0 -1.1
RNPP8 Varash           16.32   1 P       P       16 32 05.1 -1.1
SAOF  Saorge           16.33 309 P       P       16 32 07.2 +0.8
ESCA  l'Escarene       16.38 308 P       P       16 32 08.0 +1.1
      comp=Z,2µmcomp=Z,93nm,0.7s
RNPP9 Sopachiv         16.40   1 P       Pn      16 32 05.8 +0.9
CAZD  Ain Tagrout      16.41 280 P       P       16 32 07.4  0.0
NCK   Nalchik          16.50  54 i P     Pn      16 32 06.4 +0.1
NCK                              pmax    pmax
      comp=Z,1µm,1.3s
NCK                              MLR     MLR
      comp=Z,5µm,13.0s
DAVOX Davos/Dischmat   16.51 320 P       Pn      16 32 06.0 -0.6
      comp=Z,6.7nm,0.6s,baz=130,slow=14,SNR=14
DAVOX                            S       Sn      16 35 07.4 -1.5
      comp=Z,10nm,0.6s,baz=130,slow=7.7,SNR=1.5
DAVOX                            LR      LR      16 40 08.4
      comp=Z,13µm,20.8s,baz=110,slow=43
RETA  Reutte           16.53 323 i Pn    Pn      16 32 06.7  0.0
      comp=Z,11nm,0.4s
RETA                             i ScP   ScP     16 40 27.2 +1.4
      comp=Z,8.1nm,0.9s
KHC   Kasperske Hory   16.54 332ceP      Pn      16 32 07.1 +0.3
KHC                              pmax    pmax
      comp=Z,92nm,2.5s
KHC   Kasperske Hory   16.54 332 eP      Pn      16 32 06.5 -0.3
KHC                              eS      S       16 35 17.9 -1.1
KHC                              AMS     AMS     16 39 30.0
      comp=Z,13µm,13.3s
KHC   Kasperske Hory   16.54 332         Pn      16 32 07.3 +0.5
KHC   Kasperske Hory   16.54 332 ⇑P      Pn      16 32 04.5 -2.2
KHC   Kasperske Hory   16.54 332 P       P       16 32 09.4 +0.8
      comp=Z,10µmcomp=Z,2µmcomp=Z,71nm,0.9s,comp=Z,2µm
ZVC   Zvikov           16.57 334 eP      Pn      16 32 06.0 -1.0
ZVC                              AMS     AMS     16 40 20.0
      comp=Z,11µm,13.9s
CDCN  Doucen           16.57 274 P       P       16 32 09.5 +0.4
TUE   Stuetta          16.60 318 ⇑P      Pn      16 32 07.1 -0.7
TUE   Stuetta          16.60 318 P       P       16 32 10.1 +0.5
      comp=Z,9µmcomp=Z,2µmcomp=Z,123nm,1.1s,comp=Z,2µm
CALF  Calern           16.64 307 P       P       16 32 10.3 +0.4
      comp=Z,6µmcomp=Z,3µmcomp=Z,234nm,0.9s,comp=Z,3µm
NAX   Nakhchivan       16.65  70 P       P       16 32 10.9 +0.9
TBLG  Delisi           16.65  60 P       P       16 32 10.3 +0.3
DPC   Dobruska-Polom   16.66 340 eP      P       16 32 09.6 -0.5
DPC                              MLR     MLR
      comp=Z,8µm,17.0s
DPC   Dobruska-Polom   16.66 340 eP      P       16 32 09.6 -0.5
DPC                              AMS     AMS     16 38 20.0
      comp=Z,8µm,17.0s
DPC   Dobruska-Polom   16.66 340 P       P       16 32 09.5 -0.5
      comp=Z,3µmcomp=Z,101nm,0.8s
DPC   Dobruska-Polom   16.66 340 P       P       16 32 09.7 -0.3
      comp=Z,14µmcomp=Z,3µmcomp=Z,101nm,0.8s,comp=Z,3µm
ISO   Isola            16.74 309 P       P       16 32 10.9 -0.1
ISO   Isola            16.74 309 P       P       16 32 10.7 -0.3
      comp=Z,8µmcomp=Z,3µmcomp=Z,112nm,1.1s
FUR   Furstenfeldbru   16.77 326 P       P       16 32 12.5 +1.3
FUR   Furstenfeldbru   16.77 326 eP      P       16 32 12.7 +1.5
      comp=Z,104nm,0.9s,baz=139,slow=11
FUR   Furstenfeldbru   16.77 326 P       P       16 32 12.5 +1.3
      comp=Z,8µmcomp=Z,3µmcomp=Z,144nm,1.1s,comp=Z,3µm
CTCHA Tamokra          16.81 281 P       P       16 32 13.3 +1.5
WET   Wettzell         16.82 331 P       P       16 32 12.5 +0.7
WET   Wettzell         16.82 331 eP      P       16 32 12.4 +0.7
      comp=Z,50nm,0.9s,baz=139,slow=11
WET   Wettzell         16.82 331 P       P       16 32 12.5 +0.7
      comp=Z,10µmcomp=Z,2µmcomp=Z,58nm,0.8s,comp=Z,2µm
DAVA  Damuels          16.84 321 ⇑P      Pn      16 32 08.7 -1.9
DAVA  Damuels          16.84 321 ePn     Pn      16 32 11.0 +0.3
      comp=Z,26nm,0.6s
DAVA                             eSn     Sn      16 35 16.3 -0.5
      comp=Z,308nm,2.1s
DAVA                             i ScP   ScP     16 40 27.9 +1.4
      comp=Z,11nm,1.1s
DAVA  Damuels          16.84 321 P       P       16 32 12.7 +0.5
      comp=Z,13µmcomp=Z,4µmcomp=Z,148nm,0.9s,comp=Z,4µm
PZZ   Stroppo          16.85 310 P       P       16 32 11.9 -0.4
GOF   Gofitskoye       16.87  48c iP     Pn      16 32 09.9 -1.0
GOF                              eS      S       16 35 25.5 -0.2
OSTC  Ostas            16.88 340 eP      P       16 32 12.5 +0.1
OSTC                             MLR     MLR
      comp=Z,7µm,19.7s
OSTC  Ostas            16.88 340 eP      P       16 32 12.5 +0.1
OSTC                             AMS     AMS     16 38 50.0
      comp=Z,7µm,19.7s
UPC   Upice            16.89 339 eP      P       16 32 14.0 +1.5
UPC                              MLR     MLR
      comp=Z,8µm,18.3s
UPC   Upice            16.89 339 eP      P       16 32 14.0 +1.5
UPC                              AMS     AMS     16 38 50.0
      comp=Z,8µm,18.3s
UPC   Upice            16.89 339 P       P       16 32 13.8 +1.3
      comp=Z,13µmcomp=Z,3µmcomp=Z,112nm,1.2s
PRU   Pruhonice        16.91 336 eP      Pn      16 32 09.6 -1.7
PRU                              eS      S       16 35 22.5 -3.8
PRU                              MLR     MLR
      comp=Z,8µm,14.2s
PRU   Pruhonice        16.91 336 eP      Pn      16 32 09.6 -1.7
PRU                              eS      S       16 35 22.5 -3.8
PRU                              AMS     AMS     16 40 50.0
      comp=Z,8µm,14.2s
PRU   Pruhonice        16.91 336 P       P       16 32 13.1 +0.4
      comp=Z,11µmcomp=Z,2µmcomp=Z,86nm,1.0s,comp=Z,2µm
CHVC  Chvalec          16.95 339 eP      P       16 32 13.1 -0.1
CHVC                             MLR     MLR
      comp=Z,7µm,21.7s
CHVC  Chvalec          16.95 339 eP      P       16 32 13.1 -0.1
CHVC                             AMS     AMS     16 39 00.0
      comp=Z,7µm,21.7s
UBR   Ueberruh         16.99 323 eP      P       16 32 13.8 +0.1
      comp=Z,132nm,0.8s,baz=139,slow=11
UBR   Ueberruh         16.99 323 P       P       16 32 14.0 +0.3
      comp=Z,9µmcomp=Z,3µmcomp=Z,262nm,0.9s,comp=Z,3µm
LLS   Linth-Limmern    17.02 319 P       P       16 32 15.5 +1.3
KSP   Ksiaz            17.12 340 eP      P       16 32 15.6 +0.6
KSP   Ksiaz            17.12 340 P       P       16 32 15.6 +0.6
KSP   Ksiaz            17.12 340 ⇑P      Pn      16 32 11.3 -2.6
BEL   Belsk            17.13 351 eP      P       16 32 15.7 +0.6
BEL   Belsk            17.13 351 P       P       16 32 15.6 +0.5
BEL   Belsk            17.13 351 P       P       16 32 16.3 +1.3
      comp=Z,1578µmcomp=Z,640µmcomp=Z,19µm,0.9s,
      comp=Z,640µm
GRC3  Grafenberg Arr   17.17 328 P       Pn      16 32 14.8 +0.3
      comp=Z,8µmcomp=Z,1µmcomp=Z,73nm,0.7s,comp=Z,1µm
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ABSD  Ouled Sidi Bra   17.23 277 P       Pn      16 32 15.9 +0.4
ATKJ  Tikjda           17.24 281 P       P       16 32 18.6 +2.0
GRC2  Grafenberg Arr   17.24 328 P       P       16 32 16.3 -0.1
      comp=Z,8µmcomp=Z,2µmcomp=Z,99nm,1.0s,comp=Z,2µm
RRL   Rocca Remolon    17.25 311 P       P       16 32 19.4 +2.6
GRC1  Grafenberg Arr   17.28 328 P       Pn      16 32 16.1 +0.2
GRC1  Grafenberg Arr   17.28 328 P       Pn      16 32 16.1 +0.2
      comp=Z,8µmcomp=Z,2µmcomp=Z,98nm,1.0s
GRB5  Grafenberg Arr   17.30 329 P       P       16 32 16.8 -0.2
      comp=Z,9µmcomp=Z,2µmcomp=Z,104nm,0.8s
LSD   Lago del Serru   17.31 313 P       P       16 32 19.6 +2.2
GRC4  Grafenberg Arr   17.34 328 P       P       16 32 17.7 +0.2
      comp=Z,8µmcomp=Z,2µmcomp=Z,151nm,0.8s
BNALP Bannalp          17.35 318 P       P       16 32 19.1 +1.3
      comp=Z,13µmcomp=Z,6µmcomp=Z,208nm,1.3s,comp=Z,6µm
MAHO  Mahon            17.37 292 P       Pn      16 32 15.8 -1.3
MAHO  Mahon            17.37 292         Pn      16 32 17.5 +0.4
BNI   Bardonecchia     17.38 311         Pn      16 32 17.4 +0.1
BNI   Bardonecchia     17.38 311 ⇑P      P       16 32 17.9 -0.3
BNI   Bardonecchia     17.38 311 P       P       16 32 19.3 +1.1
      comp=Z,10µmcomp=Z,3µmcomp=Z,72nm,0.9s,comp=Z,3µm
GRB3  Grafenberg Arr   17.42 329 P       P       16 32 18.9 +0.6
      comp=Z,9µmcomp=Z,4µmcomp=Z,123nm,1.1s
GRB2  Grafenberg Arr   17.42 329 P       P       16 32 19.6 +1.2
      comp=Z,9µmcomp=Z,3µmcomp=Z,140nm,0.8s,comp=Z,3µm
AKET  Djebel Ketaf     17.45 280 P       P       16 32 21.7 +2.8
R9F13 Warsaw-Wawer     17.46 351 eP      P       16 32 18.6 -0.1
R9F13                            epP     Pn      16 32 23.0 +5.0
R9F13                            eS      S       16 35 37.3 -0.1
GRB1  Grafenberg Arr   17.52 329 P       P       16 32 19.9 +0.4
GRB1  Grafenberg Arr   17.52 329 P       P       16 32 19.9 +0.4
      comp=Z,10µmcomp=Z,4µmcomp=Z,228nm,0.8s
GANJ  Ganja            17.54  65 P       P       16 32 21.0 +1.3
ZUR   Degenried        17.57 320 P       P       16 32 21.5 +1.4
GRB4  Grafenberg Arr   17.62 329 P       P       16 32 20.6 +0.1
      comp=Z,10µmcomp=Z,4µmcomp=Z,212nm,1.0s,comp=Z,4µm
RUSF  Rustrel          17.66 306 P       P       16 32 22.2 +1.1
      comp=Z,10µmcomp=Z,5µmcomp=Z,101nm,1.0s,comp=Z,5µm
SENIN Lac Senin/Sane   17.69 315         Pn      16 32 20.8 -0.5
RSL   Roselend         17.73 313 P       P       16 32 22.5 +0.5
HSKC  Hora Svate Kat   17.81 335 AMS     AMS     16 41 10.0
      comp=Z,9µm,15.2s
HSKC  Hora Svate Kat   17.81 335 P       Pn      16 32 22.1 -0.4
      comp=Z,13µmcomp=Z,2µmcomp=Z,45nm,0.8s,comp=Z,2µm
ORIF  Oris-en-Rattie   17.82 310 P       P       16 32 24.3 +1.4
      comp=Z,8µmcomp=Z,3µmcomp=Z,50nm,1.0s
GRA2  Grafenberg Arr   17.84 329 P       P       16 32 24.0 +0.9
      comp=Z,11µmcomp=Z,4µmcomp=Z,172nm,0.7s,comp=Z,4µm
BRG   Berggiesshubel   17.86 336 P       Pn      16 32 22.0 -1.0
BRG   Berggiesshubel   17.86 336 eP      Pn      16 32 22.3 -0.8
      comp=Z,59nm,0.9s,baz=139,slow=11
BRG   Berggiesshubel   17.86 336 P       Pn      16 32 23.0 -0.1
      comp=Z,14µmcomp=Z,3µmcomp=Z,67nm,1.0s,comp=Z,3µm
BRG   Berggiesshubel   17.86 336 eP      Pn      16 32 22.5 -0.5
BRG                              Amp             16 32 25.8
      comp=Z,8.7nm,0.6s
BRG                              pP      pP      16 32 30.2 -4.4
BRG                              Amp             16 32 31.2
      comp=Z,15nm,0.8s
BRG   Berggiesshubel   17.86 336 S       S       16 35 44.0 -1.7
BRG                              Amp             16 36 06.3
      comp=Z,33nm,1.1s
NKC   Novy Kostel      17.86 332 eP      P       16 32 23.4 +0.1
NKC                              MLR     MLR
      comp=Z,14µm,13.3s
NKC   Novy Kostel      17.86 332 eP      P       16 32 23.4 +0.1
NKC                              AMS     AMS     16 40 20.0
      comp=Z,14µm,13.3s
NKC   Novy Kostel      17.86 332 P       P       16 32 24.6 +1.3
      comp=Z,12µmcomp=Z,3µmcomp=Z,62nm,0.8s,comp=Z,3µm
SLE   Schleitheim      17.87 321 P       Pn      16 32 21.8 -1.4
SLE   Schleitheim      17.87 321 P       Pn      16 32 22.6 -0.6
      comp=Z,10µmcomp=Z,3µmcomp=Z,151nm,1.1s,comp=Z,3µm
ADCK  Dar Chioukh      17.90 276 P       P       16 32 26.3 +2.4
GRFO  Grafenberg       17.93 329 P       Pn      16 32 23.1 -0.8
GRFO                             pmax    pmax
      comp=Z,58nm,1.0s
GRFO  Grafenberg       17.93 329 P       Pn      16 32 23.1 -0.8
GRA1  Grafenberg Arr   17.93 329         Pn      16 32 23.1 -0.8
GRA1  Grafenberg Arr   17.93 329 P       P       16 32 25.7 +1.7
      comp=Z,11µmcomp=Z,4µmcomp=Z,233nm,0.9s
GRF   Grafenberg Arr   17.93 329 P       Pn      16 32 23.1 -0.8
GRF                              pmax    pmax
      comp=Z,75nm,1.1s
GRF   Grafenberg Arr   17.93 329 eP      P       16 32 25.3 +1.3
      comp=Z,106nm,0.8s,baz=139,slow=11
GRA3  Grafenberg Arr   17.95 329 P       P       16 32 24.9 +0.7
      comp=Z,11µmcomp=Z,3µmcomp=Z,176nm,1.2s
TANN  Tannenbergstha   18.01 333 eP      Pn      16 32 25.8 +0.9
      comp=Z,63nm,0.9s,baz=139,slow=11
TANN  Tannenbergstha   18.01 333 P       Pn      16 32 25.6 +0.8
      comp=Z,24µmcomp=Z,6µmcomp=Z,213nm,1.2s,comp=Z,6µm
ABA   Alger-Bouzarea   18.11 282 P       Pn      16 32 27.1 +0.9
MNGR  Mingechevir, A   18.13  65 P       Pn      16 32 28.4 +2.0
STU   Stuttgart        18.18 324 P       P       16 32 26.6 -0.1
STU   Stuttgart        18.18 324 eP      Pn      16 32 27.1 +0.1
STU   Stuttgart        18.18 324 eP      P       16 32 25.8 -1.0
      comp=Z,144nm,0.7s,baz=139,slow=11
STU   Stuttgart        18.18 324 P       Pn      16 32 27.4 +0.4
      comp=Z,9µmcomp=Z,3µmcomp=Z,95nm,0.7s,comp=Z,3µm
SEKA  Sheki            18.30  64 P       Pn      16 32 31.4 +2.8
BFO   Black Forest     18.32 322ceP      Pn      16 32 30.3 +1.7
BFO   Black Forest     18.32 322         P       16 32 27.9 -0.4
BFO   Black Forest     18.32 322 ⇑P      P       16 32 27.2 -1.0
BFO   Black Forest     18.32 322 eP      Pn      16 32 28.6  0.0
      comp=Z,74nm,0.9s,baz=139,slow=11
BOURR Bourrignon       18.32 318 P       Pn      16 32 29.0 +0.3
      comp=Z,12µmcomp=Z,7µmcomp=Z,353nm,1.0s,comp=Z,7µm
GIMEL St. Georges /    18.38 315 P       P       16 32 28.2 -0.9
      comp=Z,10µmcomp=Z,4µmcomp=Z,138nm,1.0s,comp=Z,4µm
ETOS  Mallorca         18.46 292 P       Pn      16 32 31.7 +1.3
MOX   Moxa             18.51 332 P       Pn      16 32 30.8 -0.2
MOX   Moxa             18.51 332 eP      P       16 32 30.6 +0.2
      comp=Z,38nm,0.7s,baz=139,slow=11
MOX   Moxa             18.51 332 P       Pn      16 32 30.8 -0.2
      comp=Z,13µmcomp=Z,4µmcomp=Z,60nm,0.8s
CLL   Collm            18.55 335 i P     Pn      16 32 31.2 -0.1
CLL                              eS      S       16 36 00.0 +0.5
CLL                              pmax    pmax
      comp=Z,102nm,1.5s
CLL   Collm            18.55 335         P       16 32 29.1 -1.6
CLL   Collm            18.55 335 eP      P       16 32 29.8 -0.9
      comp=Z,60nm,0.8s,baz=139,slow=11
CLL   Collm            18.55 335 P       P       16 32 30.1 -0.6
      comp=Z,14µmcomp=Z,4µmcomp=Z,104nm,1.0s
CLL   Collm            18.55 335 i P     Pn      16 32 31.2 -0.1
      comp=Z,102nm,1.5s
CLL                              ePmax           16 32 36.0
      comp=Z,0.0nm,32.8s
CLL                              i pP    pP      16 32 41.2 -0.9
CLL                              i PP    PnPn    16 32 44.7 +0.5
CLL                              epPP            16 32 52.0
CLL                              eS      S       16 36 00.0 +0.5
CLL                              i sS    sS      16 36 12.7 -5.1
CLL                              i x     x       16 36 43.9
CLL                              L       L       16 37 00.0
CLL                              AMS     AMS     16 40 00.0
      comp=N,6µm,29.5s
CLL                              AMS     AMS     16 40 00.0
      comp=E,5µm,21.0s
CLL                              AMS     AMS     16 40 00.0
      comp=Z,7µm,24.8s
CLL                              eScP    ScP     16 40 31.0 +1.2
CLL                              ePcS    PcS     16 40 36.0 +1.1
CLL                              eAMS    AMS     16 41 37.0
      comp=Z,0.0nm,10.4s
CLL                              eScS    ScS     16 44 11.0 +0.4
AKT   Akhty            18.75  63c iP     P       16 32 33.4 +0.2
AKT                              eS      Sn      16 36 01.9 -1.2
AKT                              pmax    pmax
      comp=Z,254nm,1.1s
AKT                              MLR     MLR
      comp=Z,16µm,26.0s
SSB   Saint Sauveur    18.83 309 P       P       16 32 34.3 +0.3
SSB   Saint Sauveur    18.83 309 P       P       16 32 34.4 +0.3
      comp=Z,6µmcomp=Z,2µmcomp=Z,43nm,0.7s
ECH   Echery           18.85 320 P       Pn      16 32 35.7 +0.6
ECH                              pmax    pmax
      comp=Z,35nm,0.8s
ECH   Echery           18.85 320         Pn      16 32 35.7 +0.6
ECH   Echery           18.85 320 ⇑P      P       16 32 34.5 +0.4
ECH   Echery           18.85 320 P       Pn      16 32 35.6 +0.6
      comp=Z,12µmcomp=Z,4µmcomp=Z,102nm,0.9s
NEUB  Neuenburg        18.90 333 P       Pn      16 32 37.9 +2.2
      comp=Z,15µmcomp=Z,5µmcomp=Z,166nm,1.1s
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EJON  La Jonquera      18.95 300 P       P       16 32 33.5 -1.7
EJON  La Jonquera      18.95 300 P       P       16 32 35.4 +0.1
      comp=Z,7µmcomp=Z,5µmcomp=Z,194nm,1.1s
SJAF  Saint Jean de    18.96 300 P       P       16 32 35.5 +0.1
      comp=Z,6µmcomp=Z,5µmcomp=Z,107nm,1.0s
MAK   Makhachkala      18.98  59c iP     P       16 32 35.0 -0.5
MAK                              eS      Sn      16 36 07.9 -0.3
MAK                              pmax    pmax
      comp=Z,976nm,1.2s
MAK                              MLR     MLR
      comp=Z,5µm,14.0s
VSR   Storozhevoye     19.05  28 eP      P       16 32 35.8 -0.5
VSR                              eS      Sn      16 36 13.5 +3.6
VSR                              pmax    pmax
      comp=Z,161nm,1.0s
VSR                              MLR     MLR
      comp=Z,8µm,17.0s
SUW   Suwalki          19.06 356 eP      P       16 32 34.7 -1.6
SUW   Suwalki          19.06 356 P       P       16 32 34.1 -2.2
SUW   Suwalki          19.06 356 P       P       16 32 34.1 -2.2
SUW   Suwalki          19.06 356 eP      P       16 32 35.2 -1.1
SUW   Suwalki          19.06 356 ⇓P      P       16 32 34.8 -1.6
GKP   Gorka Klasztor   19.12 345 eP      Pn      16 32 38.4 +0.1
GKP   Gorka Klasztor   19.12 345 P       P       16 32 37.5 +0.5
GKP   Gorka Klasztor   19.12 345 eP      Pn      16 32 38.3 +0.1
LKRN  Lenkeran, Azer   19.15  72 P       Pn      16 32 38.9 +0.2
WIMM  Wimmelburg       19.26 333 P       Pn      16 32 39.5 -0.3
      comp=Z,38µmcomp=Z,11µmcomp=Z,172nm,1.2s
RUE   Ruedersdorf      19.30 338 eP      P       16 32 39.6 +0.7
RUE   Ruedersdorf      19.30 338 P       Pn      16 32 40.6 +0.3
      comp=Z,17µmcomp=Z,4µmcomp=Z,197nm,1.0s
UBBA  Unterbreizbach   19.30 330 eP      P       16 32 34.8 -4.0
      baz=139,slow=11
CORI  Orista           19.43 298         P       16 32 40.6  0.0
VORR  Voronezh         19.43  27 eP      P       16 32 40.9 +0.5
VORR                             eS      S       16 36 12.6 -4.8
VORR                             pmax    pmax
      comp=Z,152nm,0.8s
VORR                             MLR     MLR
      comp=Z,6µm,16.0s
EIBI  Ibiza            19.51 289 P       P       16 32 41.2 -0.2
TNS   Taunus Mts       19.54 326 eP      Pn      16 32 42.7 -0.6
      comp=Z,95nm,0.9s,baz=139,slow=11
TNS   Taunus Mts       19.54 326 P       Pn      16 32 42.8 -0.6
      comp=Z,14µmcomp=Z,5µmcomp=Z,114nm,0.7s,comp=Z,5µm
MNK   Minsk            19.57   5 i P     P       16 32 40.8 -1.1
MNK                              i S     S       16 36 19.2 -0.9
MNK                              pmax    pmax
      comp=E,223nm,0.9s
MNK                              pmax    pmax
      comp=Z,279nm,0.9s
MNK                              pmax    pmax
      comp=N,30nm,0.7s
MNK                              MLR     MLR
      comp=Z,10µm,20.0s
MNK                              MLR     MLR
      comp=N,5µm,17.0s
MNK                              MLR     MLR
      comp=E,3µm,13.0s
MNK   Minsk            19.57   5 i P     P       16 32 40.9 -1.1
      comp=E,223nm,0.9s
MNK                              i P     P       16 32 40.9 -1.1
      comp=N,30nm,0.7s
MNK                              i P     P       16 32 40.9 -1.1
      comp=Z,279nm,0.9s,baz=186
MNK                              i pP    pP      16 32 52.4 -0.8
MNK                              i S     S       16 36 19.2 -0.9
MNK                              i sS    sS      16 36 35.2 -3.4
MNK                              i LQ    LQ      16 38 37.1
MNK                              i LR    LR      16 39 33.6
MNK                              i LRM   MLR     16 40 48.3
      comp=Z,10µm,20.2s
MNK                              i LRM   MLR     16 40 54.6
      comp=N,5µm,16.7s
MNK                              i LRM   MLR     16 41 07.9
      comp=E,3µm,13.1s
MTLF  Montolieu        19.68 302 ⇑P      P       16 32 42.3 -0.9
MTLF  Montolieu        19.68 302 P       P       16 32 43.6 +0.4
      comp=Z,7µmcomp=Z,3µmcomp=Z,90nm,1.0s
GTTG  Gottingen        19.87 331 eP      P       16 32 46.1 +0.9
      comp=Z,124nm,0.9s,baz=139,slow=11
GTTG  Gottingen        19.87 331 P       P       16 32 46.0 +0.8
      comp=Z,20µmcomp=Z,6µmcomp=Z,268nm,1.1s
NACGM Naroch           19.92   3⇑iP      P       16 32 44.5 -1.1
      comp=Z,226nm,0.9s,baz=184
CLZ   Clausthal        19.94 332 eP      P       16 32 45.7 -0.3
      comp=Z,98nm,1.2s,baz=139,slow=11
CLZ   Clausthal        19.94 332 P       P       16 32 46.3 +0.3
      comp=Z,16µmcomp=Z,3µmcomp=Z,49nm,0.9s
FLTG  Flechtingen      20.01 334 ⇑P      P       16 32 46.0 -0.7
FLTG  Flechtingen      20.01 334 eP      P       16 32 45.9 -0.7
      comp=Z,63nm,0.9s,baz=139,slow=11
FLTG  Flechtingen      20.01 334 P       P       16 32 46.2 -0.5
      comp=Z,12µmcomp=Z,2µmcomp=Z,90nm,0.8s
ASSE  Asse, Remlinge   20.05 333 P       P       16 32 48.2 +1.1
      comp=Z,13µmcomp=Z,4µmcomp=Z,72nm,1.2s
LNIZ  Loecknitz        20.06 340 P       P       16 32 46.9 -0.4
      comp=Z,12µmcomp=Z,4µmcomp=Z,186nm,1.4s
VRH   Novokhopyorsk    20.07  31 eP      P       16 32 47.4  0.0
VRH                              eS      S       16 36 26.8 -3.3
VRH                              pmax    pmax
      comp=Z,346nm,0.9s
VRH                              MLR     MLR
      comp=Z,4µm,21.0s
LPSR  Galich'ya Gora   20.09  25 eP      P       16 32 46.5 -1.1
LPSR                             eS      S       16 36 29.7 -0.8
LPSR                             pmax    pmax
      comp=Z,135nm,1.0s
LPSR                             MLR     MLR
      comp=Z,9µm,23.0s
CEST  Esterri de Car   20.16 299 P       P       16 32 48.4 -0.2
LOR   Lormes           20.18 314 P       P       16 32 48.7 +0.1
LOR   Lormes           20.18 314 ⇓P      P       16 32 48.5 -0.1
LOR   Lormes           20.18 314 P       P       16 32 48.7 +0.1
      comp=Z,8µmcomp=Z,3µmcomp=Z,117nm,1.0s
KASTN Kahler Asten     20.25 328 eP      P       16 32 49.7 +0.3
      comp=Z,55nm,0.8s,baz=139,slow=11
WLF   Walferdange      20.27 322 P       P       16 32 50.0 +0.5
WLF   Walferdange      20.27 322         P       16 32 49.4 -0.2
WLF                              IAMs_20 IAMs_20 16 42 02.1
      comp=Z,11µm,19.0s
WLF   Walferdange      20.27 322 dP      P       16 32 50.7 +1.1
      comp=Z,122nm,0.9s
WLF   Walferdange      20.27 322 ⇑P      P       16 32 50.4 +0.8
WLF   Walferdange      20.27 322 eP      Pn      16 32 51.2 -0.6
      comp=Z,121nm,0.8s,baz=139,slow=11
WLF   Walferdange      20.27 322 P       Pn      16 32 51.1 -0.8
      comp=Z,11µmcomp=Z,3µmcomp=Z,201nm,0.8s
EBR   Ebro Roquetas    20.36 294 P       P       16 32 49.7 -0.9
EBR   Ebro Roquetas    20.36 294 P       P       16 32 49.7 -0.9
PABE  Paberze          20.52 358         P       16 32 49.9 -2.2
PABE                             IAmb    IAmb    16 32 59.5
      comp=Z,169nm,0.7s
PABE  Paberze          20.52 358 eP      P       16 32 50.3 -1.8
PABE  Paberze          20.52 358 P       P       16 32 50.5 -1.6
      comp=Z,49µmcomp=Z,284nm,0.7s
GORT1 Trebel           20.53 335 P       Pn      16 32 55.3 +0.5
      comp=Z,29nmcomp=Z,1.2nm,0.8s
ISAL  Salakas          20.57   1 eP      P       16 32 53.0 +0.3
BUG   Bochum--Univer   20.93 327 eP      Pn      16 32 58.2 -1.5
      comp=Z,82nm,0.9s,baz=139,slow=11
BUG   Bochum--Univer   20.93 327 P       Pn      16 32 58.3 -1.4
      comp=Z,10µmcomp=Z,2µmcomp=Z,108nm,1.1s
MEM   Membach          20.95 324 P       P       16 32 57.1 +0.2
MEM   Membach          20.95 324 dP      P       16 32 56.8 -0.1
      comp=Z,244nm,0.9s
MEM   Membach          20.95 324 P       P       16 32 57.1 +0.2
      comp=Z,3µmcomp=Z,377nm,0.9s
RAYN  Ar Rayn          20.99 118 P       P       16 32 58.3 +0.7
RAYN                             S       S       16 36 47.4 -1.3
RAYN  Ar Rayn          20.99 118 P       P       16 32 55.7 -1.9
RAYN                             pmax    pmax
      comp=Z,87nm,0.8s
RAYN  Ar Rayn          20.99 118 P       P       16 32 55.7 -1.9
RAYN  Ar Rayn          20.99 118 ⇑P      P       16 32 58.5 +1.0
RAYN  Ar Rayn          20.99 118 i P     P       16 32 58.4 +0.9
      SNR=81
RAYN  Ar Rayn          20.99 118 P       P       16 32 58.9 +1.3
      comp=Z,4µmcomp=Z,3µmcomp=Z,142nm,1.0s
VSVD  Vaisvydziai      20.99 358 eP      P       16 32 57.5 +0.2
RETH  Rethem/Aller,    21.03 332 P       P       16 32 57.2 -0.4
      comp=Z,11µmcomp=Z,3µmcomp=Z,195nm,1.7s
RCHB  Rochefort        21.05 322 dP      P       16 32 57.1 -0.8
      comp=Z,83nm,0.9s
RCHB  Rochefort        21.05 322 P       P       16 32 57.5 -0.4
      comp=Z,12µmcomp=Z,2µmcomp=Z,130nm,0.9s
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HGN   Heimansgroeve    21.09 324   P        P        16 33 00.0 +1.7
      comp=Z,11µmcomp=Z,3µmcomp=Z,178nm,0.9s
TAM   Tamanrasset      21.11 240   P        P        16 32 57.6 -1.3
TAM                                pmax     pmax
      comp=Z,612nm,1.6s
TAM                                MLR      MLR
      comp=Z,3µm,21.0s
TAM   Tamanrasset      21.11 240            P        16 32 57.6 -1.3
TAM   Tamanrasset      21.11 240  ⇓P        P        16 32 59.0  0.0
TAM   Tamanrasset      21.11 240   P        P        16 32 59.1 +0.2
      comp=Z,13µmcomp=Z,3µmcomp=Z,114nm,1.3s,comp=Z,3µm
PBUR  Paburge          21.14 355  eP        P        16 32 57.1 -1.7
PBUR  Paburge          21.14 355   P        P        16 32 57.3 -1.5
      comp=Z,13µmcomp=Z,8µmcomp=Z,668nm,1.0s,comp=Z,8µm
BCLA  Clavier          21.17 323  dP        P        16 32 59.3  0.0
      comp=Z,75nm,1.0s
RGN   Rugen            21.24 341   IAmb     IAmb     16 33 09.7
      comp=Z,506nm,1.8s
RGN   Rugen            21.24 341  eP        P        16 32 59.9  0.0
      comp=Z,74nm,0.8s,baz=139,slow=11
CART  Cartagena        21.32 285   P        P        16 32 57.1 -3.8
CART  Cartagena        21.32 285            P        16 33 00.2 -0.7
CART  Cartagena        21.32 285  ⇑P        P        16 33 03.1 +2.2
CART  Cartagena        21.32 285   P        P        16 33 03.1 +2.2
      comp=Z,2µmcomp=Z,124nm,0.9s
DOU   Dourbes          21.33 321   P        P        16 33 00.6 -0.4
DOU   Dourbes          21.33 321  dP        P        16 33 00.1 -0.8
      comp=Z,198nm,0.9s
ECHE  Chera            21.34 290   P        P        16 33 02.8 +1.5
IBBN  Ibbenburen       21.34 329  eP        P        16 33 01.1 +0.1
      comp=Z,37nm,0.8s,baz=139,slow=11
IBBN  Ibbenburen       21.34 329   P        P        16 33 00.6 -0.4
      comp=Z,11µmcomp=Z,2µmcomp=Z,112nm,0.8s
BSD   Bornholm Skovb   21.35 344   P        P        16 33 00.3 -0.8
BSD   Bornholm Skovb   21.35 344  eP        P        16 32 59.5 -1.6
BSD   Bornholm Skovb   21.35 344  i P       P        16 32 58.1 -3.0
BSD                                IAmb     IAmb     16 33 03.5
      comp=Z,24nm,0.4s
BSD   Bornholm Skovb   21.35 344   P        P        16 33 00.3 -0.8
      comp=Z,100µmcomp=Z,3µmcomp=Z,56nm,0.8s
BMRD  Maredsous        21.37 322  dP        P        16 33 00.9 -0.4
      comp=Z,76nm,0.8s
BOPT  Opiter           21.46 325  dP        P        16 33 02.5 +0.2
EMUR  La Murta         21.50 285   P        P        16 33 01.6 -1.3
EMUR  La Murta         21.50 285   P        P        16 33 04.5 +1.6
      comp=Z,6µmcomp=Z,2µmcomp=Z,90nm,0.9s
WTSB  Winterswijk      21.51 328   P        P        16 33 02.9 +0.1
      comp=Z,10µmcomp=Z,3µmcomp=Z,224nm,1.0s
OBN   Obninsk          21.57  18   P        P        16 33 02.7 -0.7
      comp=Z,176nm,0.3s,baz=204,slow=3.5,SNR=36
OBN                                S        S        16 36 57.8 -1.8
      comp=Z,36nm,0.6s,baz=139,slow=20,SNR=6.0
OBN                                LR       LR       16 42 02.8
      comp=Z,11µm,21.4s,baz=208,slow=38
      comp=Z,176nm,0.3s
OBN   Obninsk          21.57  18d iP        P        16 33 02.9 -0.6
OBN                               i                  16 33 25.0
OBN                               i                  16 33 38.1
OBN                               i S       S        16 36 57.8 -1.8
OBN                                pmax     pmax
      comp=Z,586nm,1.3s
OBN                                MLR      MLR
      comp=Z,16µm,24.0s
OBN   Obninsk          21.57  18   P        P        16 33 02.3 -1.2
OBN                                IAMs_20  IAMs_20  16 41 50.3
      comp=Z,11µm,20.0s
OBN   Obninsk          21.57  18  ⇑P        P        16 33 01.5 -2.0
OBN   Obninsk          21.57  18   P        P        16 33 03.2 -0.3
      comp=Z,18µmcomp=Z,7µmcomp=Z,485nm,1.1s
BSEG  Bad Segeberg     21.64 336  eP        P        16 33 03.8 -0.5
      comp=Z,68nm,0.7s,baz=139,slow=11
BSEG  Bad Segeberg     21.64 336   P        P        16 33 03.5 -0.7
      comp=Z,10µmcomp=Z,3µmcomp=Z,132nm,0.9s
ATE   Arette           21.67 300   P        P        16 33 05.8 +1.1
      comp=Z,6µmcomp=Z,3µmcomp=Z,76nm,0.7s
ETOB  Tobarra          21.75 287   P        P        16 33 04.6 -1.0
BMOL  Mol              21.79 324  dP        P        16 33 06.2 +0.5
      comp=Z,121nm,1.0s
UCC   Uccle            21.88 323   P        P        16 33 07.1 +0.3
UCC   Uccle            21.88 323   IAmb     IAmb     16 33 19.6
      comp=Z,184nm,1.0s
UCC   Uccle            21.88 323  dP        P        16 33 06.9 +0.1
      comp=Z,116nm,1.0s
UCC   Uccle            21.88 323   P        P        16 33 07.1 +0.3
      comp=Z,771nmcomp=Z,488nmcomp=Z,34nm,1.2s
BSKQ  Steenkerk        21.93 322  dP        P        16 33 06.9 -0.4
      comp=Z,147nm,0.9s
LUNU  Lund             22.18 342  i P       P        16 33 07.6 -2.3
BLEU  Blekinge         22.26 346  i P       P        16 33 07.6 -3.2
ENIJ  Nijar            22.30 283   P        P        16 33 10.9 -0.7
MFF   Saint Martin d   22.36 309  ⇑P        P        16 33 12.2 +0.2
MFF   Saint Martin d   22.36 309  ⇑P        P        16 33 12.2 +0.2
MFF   Saint Martin d   22.36 309   P        P        16 33 12.5 +0.5
      comp=Z,2µmcomp=Z,709nmcomp=Z,41nm,1.0s
MOS   Moscow           22.40  18  eP        P        16 33 11.3 -1.1
MOS                               e*PP      pP       16 33 23.4 -0.5
MOS                               eS        S        16 37 13.4 -1.7
MOS                               e*SS      sS       16 37 34.2 -0.7
MOS                               eSS       SnSn     16 37 48.6 +2.2
MOS                               e                  16 44 23.5
MOS                                pmax     pmax
      comp=Z,640nm,1.4s
MOS                                pmax     pmax
      comp=Z,400nm,1.1s
MOS                                pmax     pmax
      comp=N,188nm,1.0s
MOS                                pmax     pmax
      comp=E,153nm,1.0s
MOS                                smax     smax
      comp=N,2µm,2.7s
MOS                                smax     smax
      comp=E,3µm,2.3s
MOS                                MLR      MLR
      comp=Z,9µm,14.0s
MOS                                MLR      MLR
      comp=N,7µm,13.0s
MOS                                MLR      MLR
      comp=E,5µm,13.0s
SKMB  Sankelmark Bun   22.58 336   P        P        16 33 13.9 -0.4
      comp=Z,10µmcomp=Z,5µmcomp=Z,346nm,1.2s
SLIT  Slitere, Latvi   22.71 356  eP        P        16 33 14.9 -0.7
SLIT  Slitere, Latvi   22.71 356   P        P        16 33 15.3 -0.3
      comp=Z,32µmcomp=Z,11µmcomp=Z,704nm,1.0s
DEL   Delary           22.83 344  i P       P        16 33 14.4 -2.5
EBER  Berja            22.85 283   P        P        16 33 17.4 -0.1
EALB  Alboran          23.05 281   P        P        16 33 19.4 +0.1
UCM   Universidad Co   23.14 292   P        P        16 33 19.5 -0.7
UCM   Universidad Co   23.14 292   P        P        16 33 22.7 +2.5
      comp=Z,3µmcomp=Z,152nm,0.9s
SSRD  Sdr. Stenderup   23.14 337  i P       P        16 33 20.4 +0.4
SSRD                               IAmb     IAmb     16 33 25.2
      comp=Z,252nm,1.0s
EQTA  Presa de Quent   23.27 284   P        P        16 33 22.9 +1.3
ELGU  Los Guajares,    23.44 283   P        P        16 33 22.9 -0.3
VSU   Vasula           23.48   2ceP        P        16 33 21.7 -1.6
VSU                                pmax     pmax
      comp=Z,225nm,1.4s
VSU                                MLR      MLR
      comp=Z,12µm,23.0s
VSU   Vasula           23.48   2  eP        P        16 33 21.5 -1.8
VSU   Vasula           23.48   2  ⇑P        P        16 33 21.4 -1.9
VSU   Vasula           23.48   2   P        P        16 33 22.3 -1.0
      comp=Z,15µmcomp=Z,6µmcomp=Z,305nm,0.8s
SAKB  Bahrain          23.50 106   P        P        16 33 25.1 +1.3
SAKB                               S        S        16 37 33.4 -0.6
BELG  Belogornoye      23.57  36   S        S        16 37 32.5 -2.1
      comp=Z,137nm,0.9s,baz=340,slow=24,SNR=10
BELG                               LR       LR       16 44 23.7
      comp=Z,4µm,18.6s,baz=237,slow=41
BELG  Belogornoye      23.57  36  i P       P        16 33 22.3 -1.8
BELG                               pmax     pmax
      comp=Z,308nm,1.0s
FABU  Falkenberg       23.59 343  i P       P        16 33 22.7 -1.6
ESDC  Sonseca Array    23.66 290   P        P        16 33 24.4 -0.9
      comp=Z,26nm,0.7s,baz=79,slow=8.7,SNR=124
ESDC                               ScP      ScP      16 40 41.8 -0.8
      comp=Z,2.6nm,1.1s,baz=30,slow=4.7,SNR=4.4
ESDC                               LR       LR       16 43 35.9
      comp=Z,2µm,18.9s,baz=96,slow=39
      comp=Z,26nm,0.7s
ESDC  Sonseca Array    23.66 290   P        P        16 33 24.6 -0.7
MTSE  Matsula          23.73 358  eP        P        16 33 23.3 -2.3
MTSE  Matsula          23.73 358   P        P        16 33 25.1 -0.5
      comp=Z,12µmcomp=Z,790nm,1.0s
ELSH  Elham, Standar   23.74 320   P        P        16 33 28.4 +2.7
      comp=Z,3µmcomp=Z,2µmcomp=Z,111nm,0.9s
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GUD   Guadarrama       23.86 292   P        P        16 33 26.8 -0.4
PAB   San Pablo        23.95 290   P        P        16 33 28.3 +0.3
PAB   San Pablo        23.95 290   P        P        16 33 27.3 -0.7
PAB                                IAmb     IAmb     16 33 47.1
      comp=Z,235nm,1.4s
PAB   San Pablo        23.95 290  ⇑P        P        16 33 28.2 +0.2
PAB   San Pablo        23.95 290   P        P        16 33 29.1 +1.1
      comp=Z,4µmcomp=Z,2µmcomp=Z,124nm,1.7s
EMAL  Malaga-Limoner   24.09 283   P        P        16 33 28.6 -0.6
EMAL  Malaga-Limoner   24.09 283   P        P        16 33 32.1 +3.0
      comp=Z,2µmcomp=Z,1µmcomp=Z,71nm,1.5s
MUD   Monsted U'grnd   24.10 338  i P       P        16 33 27.0 -2.0
MUD                                IAmb     IAmb     16 33 31.7
      comp=Z,63nm,0.6s
ELMS  Elmsett, Ipswi   24.34 322  eP        P        16 33 30.0 -1.3
ELMS                               IAMs_20  IAMs_20  16 44 39.1
      comp=Z,9µm,22.1s
ARBE  Arbavere         24.44   1  eP        P        16 33 31.0 -1.1
ARBE  Arbavere         24.44   1   P        P        16 33 30.8 -1.3
      comp=Z,11µmcomp=Z,659nm,0.8s
TJOU  Tjoern           24.77 343  i P       P        16 33 33.3 -1.8
MDT   Midelt           24.86 274   LR       LR       16 45 31.6
      comp=Z,7µm,21.4s,baz=85,slow=42
MD01  Midelt array s   24.97 274   P        P        16 33 36.5 -0.9
MD31  MD31             24.97 274   P        P        16 33 36.5 -0.9
ROSF  Rostrenen        24.97 311  ⇓P        P        16 33 36.1 -1.0
ROSF  Rostrenen        24.97 311   P        P        16 33 36.7 -0.4
      comp=Z,6µmcomp=Z,74nm,1.0s
PUL   Pulkovo          24.99   6  i P       P        16 33 37.6 +0.5
PUL                                pmax     pmax
      comp=Z,479nm,1.0s
PUL                                MLR      MLR
      comp=Z,7µm,14.0s
PUL   Pulkovo          24.99   6  eP        P        16 33 38.0 +0.9
IFR   Ifrane           25.13 275   P        P        16 33 40.1 +1.2
IFR   Ifrane           25.13 275   P        P        16 33 40.9 +2.0
      comp=Z,411nmcomp=Z,20nm,0.8s
MEF   Metsahovi        25.23 359  eP        P        16 33 38.0 -1.2
UPP   Uppsala          25.36 351  eP        P        16 33 38.6 -1.8
SLWR  Sila             25.36 108   P        P        16 33 41.9 +1.1
SLWR                               S        S        16 38 02.1 -1.7
CNIL  Conil            25.43 282   P        P        16 33 41.4  0.0
STRU  Stroemstad       25.77 343  i P       P        16 33 42.5 -1.6
HOMB  Homborsund       25.82 339  eP        P        16 33 44.2 -0.4
HOMB                               IVmB_BB           16 34 04.2
      comp=Z,2µm,6.6s
HOMB                              eS        S        16 38 15.2 +4.9
HOMB                               IVMs_BB  IVMs_BB  16 46 18.1
      comp=Z,3µm,15.3s
JRN   Qarnain Island   25.83 105   P        P        16 33 45.5 +0.5
      SNR=14
JRN                                S        S        16 38 08.8 -2.4
CWF   Charnwood Fore   25.87 321  eP        P        16 33 43.7 -1.5
CWF                                IAMs_20  IAMs_20  16 45 29.1
      comp=Z,6µm,15.8s
CWF   Charnwood Fore   25.87 321   P        P        16 33 46.4 +1.2
      comp=Z,8µmcomp=Z,2µmcomp=Z,88nm,0.9s
PBRG  Braganca         25.89 295  eP        P        16 33 45.4 -0.2
PBRG                              i IAmb    IAmb     16 34 04.1
      comp=Z,312nm,1.4s
ECAL  Calabor          25.90 295   P        P        16 33 46.1 +0.5
      comp=Z,36µmcomp=Z,4µmcomp=Z,258nm,0.8s,comp=Z,4µm
PBAR  Barrancos        26.07 287  eP        P        16 33 47.0 -0.1
PBAR                              i IAmb    IAmb     16 34 06.0
      comp=Z,194nm,1.5s
RAF   Rauma            26.13 356  eP        P        16 33 45.9 -1.5
HFS   Hagfors          26.24 347   P        P        16 33 46.7 -1.8
      comp=Z,10nm,0.5s,baz=129,slow=12,SNR=14
HFS                                LR       LR       16 45 28.6
      comp=Z,6µm,21.3s,baz=168,slow=39
      comp=Z,10nm,0.5s
SNART Snartemo         26.25 338  eP        P        16 33 47.2 -1.3
SNART                              IVmB              16 33 51.6
      comp=Z,1µm,1.7s
SNART                             eS        S        16 38 19.4 +2.0
SNART                              IVMs_BB  IVMs_BB  16 45 20.7
      comp=Z,2µm,12.0s
SNART Snartemo         26.25 338  i P       P        16 33 48.1 -0.5
PMRV  Marv??o          26.30 289  eP        P        16 33 49.3  0.0
PMRV                              i IAmb    IAmb     16 34 15.2
      comp=Z,175nm,1.9s
PMRV                              eS        S        16 38 22.2 +3.6
PMRV                              eLR       LR       16 38 32.8
PMRV                              i IAMs_20 IAMs_20  16 44 58.1
      comp=Z,2µm,20.0s
GHWR  Ruwais           26.34 107   P        P        16 33 49.7  0.0
GHWR                               S        S        16 38 17.2 -2.2
PCBR  Castelo Branco   26.37 290  eP        P        16 33 50.8 +1.0
PCBR                              i IAmb    IAmb     16 34 15.7
      comp=Z,110nm,1.8s
MCH1  Michaelchurch    26.38 319  ⇓P        P        16 33 50.0 +0.2
MCH1  Michaelchurch    26.38 319  eP        P        16 33 49.5 -0.3
MCH1                               IAMs_20  IAMs_20  16 46 13.6
      comp=Z,7µm,14.5s
MTE   Manteigas        26.43 292  eP        P        16 33 50.5 +0.1
MTE                               i IAmb    IAmb     16 34 08.3
      comp=Z,126nm,1.8s
MTE                               eS        S        16 38 24.2 +3.6
MTE                               eLR       LR       16 38 40.6
MTE                               i IAMs_20 IAMs_20  16 45 34.7
      comp=Z,3µm,20.0s
MTE   Manteigas        26.43 292  eP        P        16 33 52.2 +1.8
MTE   Manteigas        26.43 292  ⇓P        P        16 33 52.3 +1.8
MTE   Manteigas        26.43 292   P        P        16 33 52.4 +2.0
      comp=Z,96nm,0.8s
FINES FINESS Array B   26.46   1   P        P        16 33 48.5 -1.8
      comp=Z,25nm,0.3s,baz=173,slow=8.7,SNR=200
FINES                              PcP      PcP      16 37 14.6 +0.3
      comp=Z,5.9nm,0.5s,baz=160,slow=4.4,SNR=1.6
FINES                              ScP      ScP      16 40 49.7 -0.3
      comp=Z,5.0nm,0.6s,baz=134,slow=4.0,SNR=3.5
FINES                              LR       LR       16 45 11.7
      comp=Z,9µm,18.9s,baz=182,slow=38
      comp=Z,25nm,0.3s
FINES FINESS Array B   26.46   1  i P       P        16 33 48.2 -2.1
FINES                              pmax     pmax
      comp=Z,25nm,0.3s
FINES FINESS Array B   26.46   1   P        P        16 33 48.0 -2.3
PESTR Estremoz         26.47 288  eP        P        16 33 52.5 +1.7
PESTR                             i IAmb    IAmb     16 34 17.9
      comp=Z,194nm,1.1s
PESTR Estremoz         26.47 288   P        P        16 33 50.2 -0.6
PESTR                              IAmb     IAmb     16 34 17.8
      comp=Z,150nm,1.1s
PESTR Estremoz         26.47 288  ⇑P        P        16 33 52.5 +1.7
PESTR Estremoz         26.47 288   P        P        16 33 52.0 +1.2
      comp=Z,4µmcomp=Z,134nm,1.0s
HLM1  Long Mynd        26.58 320  eP        P        16 33 50.1 -1.5
HLM1                               IAMs_20  IAMs_20  16 46 52.5
      comp=Z,5µm,16.5s
GDLE  Glaisdale, N Y   26.59 325  eP        P        16 33 49.9 -1.7
PVRL  Vila Real        26.59 293  eP        P        16 33 51.6 -0.2
POLO  Lamas de Olo     26.65 294  eP        P        16 33 52.5  0.0
PVAQ  Vaqueiros        26.66 285  eP        P        16 33 52.4 -0.1
PVAQ                              eS        S        16 38 27.1 +2.9
PVAQ                              eLR       LR       16 39 53.5
PVAQ                              i IAMs_20 IAMs_20  16 46 05.5
      comp=Z,1µm,18.0s
PVAQ  Vaqueiros        26.66 285   P        P        16 33 55.0 +2.5
      comp=Z,3µmcomp=Z,105nm,1.2s
OSL   Oslo             26.69 344  eP        P        16 33 51.8 -0.7
OSL                               eS        S        16 38 23.1 -1.0
OSL                                IVMs_BB  IVMs_BB  16 46 44.8
      comp=Z,4µm,13.3s
PVIS  Viseu            26.70 292  eP        P        16 33 53.0 +0.1
KONO  Kongsberg        26.70 342ceP        P        16 33 52.5 -0.1
KONO                               pmax     pmax
      comp=Z,44nm,1.2s
KONO                               MLR      MLR
      comp=Z,4µm,23.0s
KONO  Kongsberg        26.70 342  eP        P        16 33 52.7 +0.1
KONO                               IVmB_BB           16 34 05.8
      comp=Z,753nm,2.3s
KONO                              eS        S        16 38 23.9 -0.5
KONO                               IVMs_BB  IVMs_BB  16 48 09.8
      comp=Z,2µm,12.8s
KONO  Kongsberg        26.70 342   P        P        16 33 51.9 -0.7
KONO  Kongsberg        26.70 342  ⇑P        P        16 33 51.8 -0.8
KONO  Kongsberg        26.70 342   P        P        16 33 52.1 -0.5
      comp=Z,7µmcomp=Z,1µmcomp=Z,32nm,0.9s
PBEJ  Beja             26.73 286  eP        P        16 33 54.8 +1.7
PBEJ                              i IAmb    IAmb     16 34 20.8
      comp=Z,191nm,1.4s
EVO   Evora            26.82 287   P        P        16 33 53.9  0.0
EVO   Evora            26.82 287  eP        P        16 33 55.7 +1.8
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EVO                               i IAmb    IAmb     16 34 21.5
      comp=Z,137nm,1.9s
PARRA Arraiolos        26.82 288  eP        P        16 33 55.3 +1.3
PARRA                             i IAmb    IAmb     16 34 11.0
      comp=Z,86nm,2.4s
PBDV  Barranco-do-Ve   26.84 285  eP        P        16 33 54.7 +0.6
PCAB  Cabril           26.84 294  eP        P        16 33 54.3 +0.2
PCAB                              i IAmb    IAmb     16 34 19.7
      comp=Z,149nm,1.1s
PCVE  Castro Verde     26.89 285  eP        P        16 33 55.6 +1.0
PSARD Sardoal          26.90 290  eP        P        16 33 54.7 +0.1
FOEL  Foel Wylfa       26.93 320   P        P        16 34 00.1 +5.3
      comp=Z,3µmcomp=Z,38nm,1.0s
PMTG  Montargil        26.96 289  eP        P        16 33 57.1 +1.9
PMTG                              i IAmb    IAmb     16 34 18.3
      comp=Z,112nm,1.2s
MESJ  Messejana        27.02 286  eP        P        16 33 58.0 +2.3
MESJ                              i IAmb    IAmb     16 34 39.2
      comp=Z,132nm,1.5s
PGAV  Gavieira, Arco   27.04 295  eP        P        16 33 56.9 +0.9
PGAV                              i IAmb    IAmb     16 34 35.9
      comp=Z,98nm,1.9s
PGAV                              eS        S        16 38 34.5 +4.2
PGAV                              eLR       LR       16 38 52.6
PGAV                              i IAMs_20 IAMs_20  16 46 29.2
      comp=Z,2µm,20.0s
AVE   Averroes         27.05 276   P        P        16 33 55.7 -0.3
AVE   Averroes         27.05 276   IAmb     IAmb     16 34 24.9
      comp=Z,124nm,0.8s
AVE   Averroes         27.05 276  ⇑P        P        16 33 57.3 +1.3
AVE   Averroes         27.05 276   P        P        16 33 58.0 +2.0
      comp=Z,174nm,1.0s
MOE   Montemor         27.08 287  eP        P        16 33 58.2 +1.9
PLOUS Minas do Lousa   27.17 286  eP        P        16 34 00.4 +3.4
KEF   Keuruu           27.18 360  eP        P        16 33 55.2 -1.6
NC602 NORSAR Array S   27.22 345  eP        P        16 33 55.6 -1.7
NC602                              IVmB_BB           16 33 59.9
      comp=Z,2µm,3.8s
NC602                             eS        S        16 38 31.4 -1.2
NC602                              IVMs_BB  IVMs_BB  16 46 40.4
      comp=Z,4µm,16.5s
NORES NORESS Array B   27.22 345   P        P        16 33 58.2 +0.9
NORES                              pmax     pmax
      comp=Z,4.0nm,0.3s
MZWR  Madinat Zayed    27.23 107   P        P        16 33 57.8  0.0
MZWR                               S        S        16 38 31.1 -2.3
PTO   Porto            27.25 293  eP        P        16 33 58.9 +1.2
PTO                               i IAmb    IAmb     16 34 15.7
      comp=Z,144nm,1.4s
MZR   Muzera           27.32 108   P        P        16 33 59.0 +0.5
      SNR=14
MZR                                S        S        16 38 33.1 -1.7
MZR   Muzera           27.32 108  i P       P        16 33 58.5  0.0
      SNR=28
EDMD  Edmundbyers      27.37 325  eP        P        16 33 57.8 -0.8
EDMD                               IAMs_20  IAMs_20  16 45 34.9
      comp=Z,9µm,22.4s
EDMD  Edmundbyers      27.37 325   P        P        16 33 59.5 +0.9
      comp=Z,6µmcomp=Z,2µmcomp=Z,93nm,0.7s
BLS5  Blasjo           27.37 339  eP        P        16 33 57.6 -1.0
BLS5                               IVmB              16 34 00.3
      comp=Z,480nm,0.8s
BLS5                              eS        S        16 38 36.2 +1.2
BLS5                               IVMs_BB  IVMs_BB  16 47 15.9
      comp=Z,3µm,10.8s
KLMR  Klimovskoe       27.44  15  eP        P        16 33 56.2 -3.0
KLMR                               pmax     pmax
      comp=Z,268nm,0.9s
KLMR                               MLR      MLR
      comp=Z,10µm,13.0s
NAO01 NORSAR Array S   27.46 345   P        P        16 33 58.6 -0.8
      comp=Z,1µmcomp=Z,589nmcomp=Z,43nm,0.9s,comp=Z,589nm
TIO   Tiouine          27.54 271   P        P        16 34 00.3 -0.3
TIO   Tiouine          27.54 271   P        P        16 34 00.2 -0.3
      comp=Z,112nm,1.1s
KMY   Karmoy           27.57 338  eP        P        16 33 59.3 -1.0
KMY                                IVmB              16 34 23.1
      comp=Z,819nm,1.8s
KMY                               eS        S        16 38 39.6 +1.7
KMY                                IVMs_BB  IVMs_BB  16 48 08.1
      comp=Z,2µm,16.1s
NB2   NORSAR Subarra   27.57 345   P        P        16 33 58.7 -1.7
      comp=Z,2.6nm,0.4s,baz=156,slow=9.3
NB2   NORSAR Subarra   27.57 345   P        P        16 33 58.7 -1.7
NOA   NORSAR Array B   27.57 345   P        P        16 33 58.3 -2.1
      comp=Z,2.3nm,0.5s,baz=148,slow=9.9,SNR=31
NOA                                LR       LR       16 46 23.9
      comp=Z,3µm,18.8s,baz=155,slow=40
      comp=Z,2.3nm,0.5s
AJN   Ajban            27.71 104   P        P        16 34 03.2 +1.2
AJN                                S        S        16 38 39.1 -1.8
ODD1  Odda             27.72 340  eP        P        16 34 02.2 +0.4
ODD1                               IVmB              16 34 16.0
      comp=Z,730nm,2.1s
ODD1                              eS        S        16 38 41.4 +0.9
ODD1                               IVMs_BB  IVMs_BB  16 48 13.3
      comp=Z,3µm,15.8s
SUF   Sumiainen        27.74   1  eP        P        16 33 59.9 -1.9
UMQ   Umm Al-Quwin     27.80 102   P        P        16 34 04.3 +1.5
      SNR=8.2
UMQ                                S        S        16 38 41.1 -1.3
UMQ   Umm Al-Quwin     27.80 102   P        P        16 34 03.2 +0.4
SKAR  Skarslia         27.92 342  eP        P        16 34 04.0 +0.3
SKAR                               IVmB_BB           16 34 24.1
      comp=Z,1µm,6.2s
SKAR                              eS        S        16 38 45.4 +1.7
SKAR                               IVMs_BB  IVMs_BB  16 47 21.2
      comp=Z,2µm,7.0s
ASUD  Al Ashush, Dub   27.95 104   P        P        16 34 05.6 +1.4
ASUD                               S        S        16 38 44.0 -0.8
ASUD  Al Ashush, Dub   27.95 104  i P       P        16 34 03.6 -0.5
      SNR=9.9
SHME  Shamm            27.95 100   P        P        16 34 04.3 +0.1
      SNR=27
SHME                               S        S        16 38 41.2 -3.6
SHME  Shamm            27.95 100  i P       P        16 34 03.2 -1.0
      SNR=18
NAZ   Nazwa, Dubai     28.05 103   P        P        16 34 05.2 +0.2
      SNR=23
NAZ                                S        S        16 38 45.1 -1.2
NAZ   Nazwa, Dubai     28.05 103  i P       P        16 34 04.5 -0.5
      SNR=14
VAF   Ylistaro         28.10 357  eP        P        16 34 03.9 -1.2
FAQ   Al Faqa, Dubai   28.11 103   P        P        16 34 05.8 +0.2
      SNR=11
FAQ                                S        S        16 38 45.7 -1.6
FAQ   Al Faqa, Dubai   28.11 103  i P       P        16 34 04.5 -1.0
      SNR=10
BANOM Banah            28.14 100   P        P        16 34 05.9  0.0
BANOM                              S        S        16 38 44.4 -3.4
BANOM Banah            28.14 100  i P       P        16 34 05.5 -0.4
      SNR=10.0
JOF   Joensuu          28.19   6  eP        P        16 34 04.4 -1.4
EKA   Eskdalemuir Ar   28.22 325   P        P        16 34 05.2 -1.0
      comp=Z,6.6nm,0.3s,baz=131,slow=10,SNR=72
EKA                                ScP      ScP      16 40 55.8 +0.3
      comp=Z,2.2nm,0.8s,baz=130,slow=3.8,SNR=3.8
EKA                                LR       LR       16 47 05.2
      comp=Z,6µm,21.5s,baz=136,slow=40
      comp=Z,6.6nm,0.3s
ESK   Eskdalemuir      28.23 325ceP        P        16 34 08.2 +1.9
ESK   Eskdalemuir      28.23 325   P        P        16 34 05.2 -1.1
ESK                                IAmb     IAmb     16 34 27.4
      comp=Z,86nm,0.9s
ESK   Eskdalemuir      28.23 325  ⇓P        P        16 34 05.6 -0.7
ESK   Eskdalemuir      28.23 325  eP        P        16 34 05.4 -1.0
ESK                                IAMs_20  IAMs_20  16 46 47.5
      comp=Z,6µm,21.5s
ESK   Eskdalemuir      28.23 325   P        P        16 34 07.2 +0.9
      comp=Z,5µmcomp=Z,105nm,1.1s
ESK   Eskdalemuir      28.23 325   P        P        16 34 07.2 +0.9
      comp=Z,5µmcomp=Z,104nm,0.8s
MASF  Masafi           28.27 101   P        P        16 34 07.1 +0.1
      SNR=15
MASF                               S        S        16 38 47.7 -2.2
MSFE  Esma-Masafi      28.28 101  i P       P        16 34 06.7 -0.4
      SNR=11
AKTO  Aktyubinsk       28.28  47   S        S        16 38 49.5  0.0
      comp=Z,13nm,1.0s,baz=240,slow=22,SNR=1.8
AKTO                               LR       LR       16 49 13.6
      comp=Z,9µm,19.6s,baz=236,slow=44
ATD   Arta Tunnel      28.31 141   P        P        16 34 08.2 +0.7
ATD                                S        S        16 38 48.7 -1.9
MDH   Madha            28.42 101   P        P        16 34 08.6 +0.3
      SNR=10.0
```

MDH				S	**S**	**16 38 49.0**	**-3.1**
MDH	**Madha**	**28.42**	**101**	*i* P	**P**	**16 34 08.1**	**-0.2**
	SNR=10						
BER	**Bergen**	**28.48**	**339**	*e*P	**P**	**16 34 06.0**	**-2.5**
BER				IVmB		16 34 07.0	
	comp=Z,870nm,1.9s						
BER				*e*S	**S**	**16 38 54.6**	**+2.3**
BER				IVMs_BB	IVMs_BB	16 48 37.4	
	comp=Z,2µm,17.9s						
KIRV	**Kirov**	**28.49**	**27**	S	**S**	**16 38 49.4**	**-3.1**
	comp=Z,23nm,0.6s,baz=122,slow=22,SNR=5.8						
KIRV				LR	LR	16 46 44.0	
	comp=Z,4µm,18.9s,baz=232,slow=39						
KIRV	**Kirov**	**28.49**	**27**	*ce*P	**P**	**16 34 07.7**	**-0.9**
HATD	**Hatta, Dubai**	**28.50**	**102**	P	**P**	**16 34 08.8**	**-0.3**
	SNR=25						
HATD				S	**S**	**16 38 50.7**	**-2.7**
HATD	**Hatta, Dubai**	**28.50**	**102**	*i* P	**P**	**16 34 08.4**	**-0.7**
	SNR=11						
UOSS	**Minazif**	**28.50**	**102**	P	**P**	**16 34 09.5**	**+0.4**
UOSS				S	**S**	**16 38 51.0**	**-2.4**
UOSS	**Minazif**	**28.50**	**102**	P	**P**	**16 34 06.8**	**-2.3**
UOSS				IAmb	IAmb	16 34 57.8	
	comp=Z,110nm,0.9s						
UOSS	**Minazif**	**28.50**	**102**	⇑P	**P**	**16 34 08.4**	**-0.6**
UOSS	**Minazif**	**28.50**	**102**	*i* P	**P**	**16 34 08.5**	**-0.6**
	SNR=12						
UOSS	**Minazif**	**28.50**	**102**	P	**P**	**16 34 08.7**	**-0.4**
	comp=Z,2µmcomp=Z,1µmcomp=Z,102nm,1.0s						
ASHO	**Ashiyiah**	**28.51**	**103**	P	**P**	**16 34 08.7**	**-0.5**
	SNR=23						
ASHO				S	**S**	**16 38 51.4**	**-2.2**
ASHO	**Ashiyiah**	**28.51**	**103**	*i* P	**P**	**16 34 08.4**	**-0.7**
	SNR=12						
ALNE	**Al Ain**	**28.57**	**104**	P	**P**	**16 34 09.5**	**-0.1**
	SNR=16						
ALNE				S	**S**	**16 38 52.6**	**-1.9**
ALNE	**Al Ain**	**28.57**	**104**	*i* P	**P**	**16 34 09.1**	**-0.6**
	SNR=59						
EDI	**Edinburgh**	**28.57**	**326**	*e*P	**P**	**16 34 08.8**	**-0.4**
EDI				IAMs_20	IAMs_20	16 46 23.4	
	comp=Z,7µm,21.7s						
ASK	**Askoy**	**28.60**	**339**	*e*P	**P**	**16 34 08.1**	**-1.5**
ASK				IVmB_BB		16 34 11.7	
	comp=Z,1µm,2.1s						
ASK				*e*S	**S**	**16 38 54.6**	**+0.4**
ASK				IVMs_BB	IVMs_BB	16 48 47.8	
	comp=Z,3µm,15.2s						
NEWG	**New Galloway**	**28.61**	**324**	*e*P	**P**	**16 34 08.6**	**-1.1**
NEWG				IAMs_20	IAMs_20	16 46 13.0	
	comp=Z,6µm,23.2s						
IWEX	**Carrickbyrne,**	**28.63**	**317**	P	**P**	**16 34 10.7**	**+0.8**
GAL1	**Galloway**	**28.71**	**323**	*e*P	**P**	**16 34 09.8**	**-0.8**
FURI	**Furi**	**28.74**	**152**	IAMs_20	IAMs_20	16 47 02.2	
	comp=Z,7µm,19.0s						
UMZA	**Um Al Zommool**	**28.78**	**107**	P	**P**	**16 34 11.1**	**-0.5**
UMZA				S	**S**	**16 38 55.7**	**-2.1**
DSB	**Dublin**	**28.79**	**319**	P	**P**	**16 34 11.3**	**+0.1**
DSB	**Dublin**	**28.79**	**319**	P	**P**	**16 34 11.0**	**-0.3**
DRUM	**Mains of Drumt**	**28.84**	**328**	*e*P	**P**	**16 34 10.2**	**-1.5**
DRUM	**Mains of Drumt**	**28.84**	**328**	P	**P**	**16 34 15.0**	**+3.3**
	comp=Z,74nm,1.0s						
HYA	**Hoyanger**	**28.89**	**341**	*e*P	**P**	**16 34 09.7**	**-2.4**
HYA				IVmB_BB		16 34 22.6	
	comp=Z,1µm,3.8s						
HYA				*e*S	**S**	**16 39 00.7**	**+2.0**
HYA				IVMs_BB	IVMs_BB	16 48 57.5	
	comp=Z,2µm,16.5s						
DOMB	**Dombas**	**28.93**	**344**	*e*P	**P**	**16 34 11.7**	**-0.8**
DOMB				*e*S	**S**	**16 39 00.7**	**+1.1**
DOMB				IVMs_BB	IVMs_BB	16 44 54.3	
	comp=Z,3µm,31.8s						
AB31	**Akbulak array**	**29.09**	**50**	P	**P**	**16 34 13.4**	**-0.6**
AB31				IAmb	IAmb	16 34 58.2	
	comp=Z,77nm,0.8s						
ABKAR	**Akbulak array**	**29.09**	**50**	P	**P**	**16 34 12.7**	**-1.3**
ILTH	**Belurgan, Co L**	**29.12**	**321**	P	**P**	**16 34 17.0**	**+2.8**
SOHO	**SOHO**	**29.15**	**103**	P	**P**	**16 34 14.4**	**-0.4**
SOHO				S	**S**	**16 39 01.1**	**-2.5**
SOHO	**SOHO**	**29.15**	**103**	*i* P	**P**	**16 34 13.6**	**-1.2**
	SNR=47						
SUE	**Sulen**	**29.19**	**340**	*e*P	**P**	**16 34 12.9**	**-1.9**
SUE				IVmB_BB		16 34 16.7	
	comp=Z,304nm,1.2s						
SUE				*e*S	**S**	**16 39 03.6**	**+0.1**
SUE				IVMs_BB	IVMs_BB	16 49 05.3	
	comp=Z,3µm,17.6s						
INVG	**Invergeldie, C**	**29.25**	**326**	*e*P	**P**	**16 34 14.4**	**-1.0**
INVG				IAMs_20	IAMs_20	16 46 55.2	
	comp=Z,7µm,21.7s						
EAB	**Aberfoyle**	**29.25**	**326**	*e*P	**P**	**16 34 14.2**	**-1.1**
EAB				IAMs_20	IAMs_20	16 46 44.3	
	comp=Z,7µm,20.2s						
JASK	**Jask - Hormozg**	**29.43**	**99**	P	**P**	**16 34 18.0**	**+0.7**
	SNR=11						
JASK				S	**S**	**16 39 08.2**	**+0.2**
CLGH	**Cloghs, Cushen**	**29.52**	**323**	*e*P	**P**	**16 34 17.0**	**-0.8**
CLGH	**Cloghs, Cushen**	**29.52**	**323**	P	**P**	**16 34 19.2**	**+1.5**
	comp=Z,5µmcomp=Z,72nm,0.9s						
AKN	**Aaknes**	**29.53**	**343**	*e*P	**P**	**16 34 17.2**	**-0.7**
AKN				IVmB		16 34 23.0	
	comp=Z,485nm,1.6s						
AKN				*e*S	**S**	**16 39 10.4**	**+1.4**
AKN				IVMs_BB	IVMs_BB	16 48 24.3	
	comp=Z,4µm,10.9s						
ARQ	**Araqi**	**29.54**	**105**	P	**P**	**16 34 18.7**	**+0.4**
	SNR=13						
ARQ				S	**S**	**16 39 08.9**	**-0.9**
FOO	**Floro**	**29.56**	**340**	*e*P	**P**	**16 34 17.2**	**-0.8**
FOO				IVmB_BB		16 34 27.8	
	comp=Z,1µm,3.5s						
FOO				*e*S	**S**	**16 39 06.5**	**-2.7**
FOO				IVMs_BB	IVMs_BB	16 46 09.2	
	comp=Z,1µm,10.7s						
MCD	**Coleburn Disti**	**29.58**	**329**	*e*P	**P**	**16 34 17.0**	**-1.3**
MOL	**Molde**	**29.74**	**343**	*e*P	**P**	**16 34 18.9**	**-0.7**
MOL				*e*S	**S**	**16 39 12.3**	**+0.2**
MOL				IVMs_BB	IVMs_BB	16 48 41.1	
	comp=Z,3µm,17.2s						
LAWE	**Loch Awe, Argy**	**29.79**	**325**	*e*P	**P**	**16 34 19.1**	**-1.0**
LAWE				IAMs_20	IAMs_20	16 47 09.9	
	comp=Z,6µm,21.0s						
ADZR	**Andozero**	**30.03**	**11**	*e*P	**P**	**16 34 19.8**	**-2.3**
ADZR				*e*S	**S**	**16 39 13.5**	**-3.1**
ADZR				pmax	pmax		
	comp=Z,198nm,1.0s						
ADZR				MLR	MLR		
	comp=Z,7µm,14.0s						
HOQ	**Hoqain**	**30.04**	**104**	P	**P**	**16 34 22.5**	**-0.2**
	SNR=22						
HOQ				S	**S**	**16 39 16.1**	**-1.5**
IDGL	**Inch Island, C**	**30.22**	**322**	P	**P**	**16 34 23.5**	**-0.4**
HRA	**Herat**	**30.29**	**80**	P	**P**	**16 34 23.7**	**-1.3**
BSY	**Bisya**	**30.37**	**105**	P	**P**	**16 34 26.6**	**+0.9**
	SNR=12						
BSY				S	**S**	**16 39 22.2**	**-0.7**
BIGH	**Upper Bighouse**	**30.42**	**330**	*e*P	**P**	**16 34 25.5**	**-0.1**
LRW	**Lerwick**	**30.43**	**334**	⇓P	**P**	**16 34 23.7**	**-2.1**
VAL	**Valentia**	**30.45**	**315**	P	**P**	**16 34 25.3**	**-0.7**
VAL	**Valentia**	**30.45**	**315**	P	**P**	**16 34 25.5**	**-0.5**
VAL	**Valentia**	**30.45**	**315**	⇑P	**P**	**16 34 25.9**	**-0.1**
TORD	**Torodi Ar. Bea**	**30.47**	**230**	P	**P**	**16 34 25.5**	**-1.0**
	comp=Z,75nm,0.5s,baz=38,slow=8.6,SNR=172						
TORD				LR	LR	16 49 21.4	
	comp=Z,4µm,20.5s,baz=32,slow=42						
TORD				P3KPbc		17 06 16.0	
	comp=Z,0.7nm,0.8s,baz=188,slow=2.9,SNR=4.0						
	comp=Z,75nm,0.5s						
TORD	**Torodi Ar. Bea**	**30.47**	**230**	P	**P**	**16 34 25.5**	**-1.0**
IGLA	**Glengowla, Co**	**30.49**	**318**	P	**P**	**16 34 26.4**	**0.0**
KPL	**Plockton**	**30.49**	**327**	*e*P	**P**	**16 34 24.8**	**-1.5**
WHFO	**Wadi Hawf**	**30.51**	**117**	P	**P**	**16 34 27.7**	**+0.7**
WHFO				S	**S**	**16 39 22.9**	**-2.2**
SJUU	**Sjulsmark**	**30.61**	**357**	*e*P	**P**	**16 34 25.6**	**-1.6**
NSS	**Namsos**	**30.64**	**349**	*e*P	**P**	**16 34 26.4**	**-1.1**
NSS				IVMs_BB	IVMs_BB	16 48 18.3	
	comp=Z,4µm,20.9s						
BIDO	**Bidbid**	**30.72**	**103**	P	**P**	**16 34 30.1**	**+1.4**
BIDO				S	**S**	**16 39 27.1**	**-1.2**
SMDO	**Samad**	**30.89**	**104**	P	**P**	**16 34 31.3**	**+0.9**
	SNR=14						
SMDO				S	**S**	**16 39 29.5**	**-1.6**
ARTI	**Arti**	**31.01**	**36**	S	**S**	**16 39 32.4**	**+0.2**
	comp=Z,32nm,0.9s,baz=264,slow=8.7,SNR=4.7						
ARTI				LR	LR	16 50 14.7	
	comp=Z,3µm,18.9s,baz=257,slow=42						
ARTI	**Arti**	**31.01**	**36**	*c i*P	**P**	**16 34 30.7**	**-0.2**
ARTI				*PP	**pP**	**16 34 45.3**	**+1.3**
ARTI						16 35 33.2	
ARTI				S	**S**	**16 39 33.2**	**+1.0**
ARTI				*SS	**sS**	**16 39 54.8**	**+0.9**
ARTI				SS	**SnSn**	**16 41 16.7**	**+0.5**
ARTI				pmax	pmax		
	comp=Z,220nm,0.9s						
ARTI	**Arti**	**31.01**	**36**	P	**P**	**16 34 29.6**	**-1.4**
ARTI	**Arti**	**31.01**	**36**	⇑P	**P**	**16 34 29.6**	**-1.4**
ARTI	**Arti**	**31.01**	**36**	P	**P**	**16 34 30.3**	**-0.6**
ARTI				pP	**pP**	**16 34 42.9**	**-1.1**
MSF	**Maaselka**	**31.02**	**3**	P	**P**	**16 34 29.2**	**-1.7**
MSF	**Maaselka**	**31.02**	**3**	P	**P**	**16 34 29.2**	**-1.7**
	comp=Z,5µmcomp=Z,119nm,0.8s						
RBK	**Rabkut**	**31.09**	**117**	P	**P**	**16 34 32.7**	**+0.6**
	SNR=5.9						
RBK				S	**S**	**16 39 32.4**	**-1.8**
WSAR	**Wadi Sarin**	**31.27**	**103**	LR	LR	16 51 42.5	
	comp=Z,21nm,20.1s,baz=319,slow=45						
JMDO	**Jabal Madar**	**31.28**	**105**	P	**P**	**16 34 35.0**	**+1.3**
JMDO				S	**S**	**16 39 36.3**	**-0.8**
WBK	**Wadi Bani Khal**	**31.85**	**104**	P	**P**	**16 34 40.9**	**+2.2**
	SNR=5.6						
WBK				S	**S**	**16 39 46.9**	**+0.9**
MOR8	**Moi Rana**	**31.85**	**352**	*e*P	**P**	**16 34 38.3**	**+0.1**
MOR8				*e*S	**S**	**16 39 45.4**	**+0.3**
MOR8				IVMs_BB	IVMs_BB	16 49 07.7	
	comp=Z,4µm,6.3s						
MHTO	**MHTO**	**31.91**	**107**	P	**P**	**16 34 40.3**	**+1.1**
	SNR=11						
MHTO				S	**S**	**16 39 46.0**	**-0.8**
LEIR	**Leirfjorden**	**31.96**	**351**	*e*P	**P**	**16 34 38.6**	**-0.5**
LEIR				*e*S	**S**	**16 39 46.1**	**-0.6**
RAUS	**Rausandaksla**	**32.15**	**352**	*e*P	**P**	**16 34 40.2**	**-0.7**
RAUS				IVmB_BB		16 34 42.6	
	comp=Z,2µm,1.8s						
RAUS				IVMs_BB	IVMs_BB	16 48 26.7	
	comp=Z,3µm,5.7s						
STOK	**Stokkvaagen**	**32.18**	**351**	*e*P	**P**	**16 34 41.2**	**+0.1**
STOK				*e*S	**S**	**16 39 52.7**	**+2.5**
STOK				IVMs_BB	IVMs_BB	16 48 29.5	
	comp=Z,4µm,4.1s						
NGCH	**Negor - Chabah**	**32.31**	**97**	P	**P**	**16 34 43.9**	**+1.3**
NGCH				S	**S**	**16 39 54.5**	**+1.5**
SVE	**Sverdlovsk**	**32.31**	**37**	*de*P	**P**	**16 34 42.2**	**-0.2**
SVE				*e*S	**S**	**16 39 50.8**	**-1.7**
SVE				pmax	pmax		
	comp=Z,235nm,1.0s						
SVE				MLR	MLR		
	comp=Z,3µm,17.0s						
KONS	**Konsvik**	**32.33**	**351**	*e*P	**P**	**16 34 41.7**	**-0.7**
JLN	**Jalan Bani Buh**	**32.43**	**104**	P	**P**	**16 34 45.0**	**+1.2**
JLN				S	**S**	**16 39 55.4**	**+0.4**
SGF	**Sodankyl**	**32.48**	**1**	P	**P**	**16 34 42.7**	**-1.0**
SGF	**Sodankyl**	**32.48**	**1**	P	**P**	**16 34 42.7**	**-1.0**
	comp=Z,5µmcomp=Z,96nm,0.9s						
VAGH	**Vaagaholmen**	**32.53**	**351**	*e*P	**P**	**16 34 44.1**	**0.0**
VAGH				*e*S	**S**	**16 39 55.0**	**-0.6**
VAGH				IVMs_BB	IVMs_BB	16 48 20.4	
	comp=Z,5µm,22.1s						
LODK	**Lodwar**	**32.79**	**161**	P	**P**	**16 34 47.0**	**0.0**
	SNR=14						
LODK	**Lodwar**	**32.79**	**161**	P	**P**	**16 34 45.2**	**-1.8**
LODK	**Lodwar**	**32.79**	**161**	P	**P**	**16 34 46.9**	**-0.1**
	comp=Z,4µmcomp=Z,814nmcomp=Z,33nm,0.9s						
FAUS	**Fauske**	**32.93**	**353**	*e*P	**P**	**16 34 44.8**	**-2.7**
FAUS				IVmB_BB		16 35 00.5	
	comp=Z,3µm,3.8s						
FAUS				*e*S	**S**	**16 40 03.1**	**+1.4**
FAUS				IVMs_BB	IVMs_BB	16 49 43.4	
	comp=Z,6µm,15.8s						
APA	**Apatity**	**32.94**	**6**	*e*P	**P**	**16 34 45.6**	**-2.1**
APA				*e*		16 35 55.0	
APA				*e*		16 37 26.7	
APA				*e*S	**S**	**16 39 59.2**	**-2.7**
APA				pmax	pmax		
	comp=Z,82nm,0.8s						
LANU	**Lannavaara**	**33.14**	**358**	*e*P	**P**	**16 34 48.7**	**-0.7**
LVZ	**Lovozero**	**33.37**	**6**	*ce*P	**P**	**16 34 50.6**	**-0.9**
LVZ				pmax	pmax		
	comp=Z,91nm,0.9s						
LVZ				MLR	MLR		
	comp=Z,5µm,12.0s						
LVZ	**Lovozero**	**33.37**	**6**	P	**P**	**16 34 49.3**	**-2.2**
LVZ	**Lovozero**	**33.37**	**6**	⇑P	**P**	**16 34 49.8**	**-1.7**
LVZ	**Lovozero**	**33.37**	**6**	P	**P**	**16 34 49.0**	**-2.5**
	comp=Z,150nm,1.1s						
LVZ	**Lovozero**	**33.37**	**6**	P	**P**	**16 34 50.1**	**-1.4**
STEI	**Steigen**	**33.46**	**353**	*e*P	**P**	**16 34 50.9**	**-1.3**
STEI				IVMs_BB	IVMs_BB	16 50 02.4	
	comp=Z,6µm,13.9s						
LOF	**Lofoten**	**33.84**	**352**	*e*P	**P**	**16 34 55.3**	**-0.2**
LOF				*e*S	**S**	**16 40 15.5**	**-0.3**
LOF				IVMs_BB	IVMs_BB	16 50 19.5	
	comp=Z,4µm,4.6s						
KTK1	**Kautokeino**	**34.07**	**359**	*e*P	**P**	**16 34 55.8**	**-1.8**
KTK1				IVmB		16 34 58.5	
	comp=Z,969nm,0.3s						
KTK1				*e*S	**S**	**16 40 23.4**	**+3.9**
KTK1				IVMs_BB	IVMs_BB	16 49 18.0	
	comp=Z,4µm,18.7s						
EDA	**Edea**	**34.09**	**208**	P	**P**	**16 34 57.8**	**-0.5**
EDA				IAMs_20	IAMs_20	16 50 39.6	
	comp=Z,7µm,18.0s						
ARA0	**ARCESS Array S**	**34.58**	**0**	*e*P	**P**	**16 35 01.2**	**-0.7**
ARA0				*e*S	**S**	**16 40 28.7**	**+1.3**
ARA0				IVMs_BB	IVMs_BB	16 49 33.5	
	comp=Z,3µm,16.9s						
ARCES	**ARCESS Array B**	**34.58**	**0**	P	**P**	**16 34 59.9**	**-2.1**
	comp=Z,25nm,0.3s,baz=181,slow=8.5,SNR=321						
ARCES				LR	LR	16 49 54.5	
	comp=Z,9µm,20.9s,baz=174,slow=38						
	comp=Z,25nm,0.3s						
ARCES	**ARCESS Array B**	**34.58**	**0**	P	**P**	**16 34 59.9**	**-2.1**
ARCES				IAmb	IAmb	16 35 18.9	
	comp=Z,64nm,0.9s						
JETT	**Jettan, Norway**	**34.70**	**357**	*e*P	**P**	**16 34 58.6**	**-4.4**
KEV	**Kevo**	**34.81**	**1**	P	**P**	**16 35 03.0**	**-0.9**
KEV				pmax	pmax		
	comp=Z,79nm,1.1s						
KEV				MLR	MLR		
	comp=Z,3µm,19.0s						
KEV	**Kevo**	**34.81**	**1**	P	**P**	**16 35 03.0**	**-0.9**
KEV				IAmb	IAmb	16 35 41.6	
	comp=Z,79nm,1.1s						
KEV	**Kevo**	**34.81**	**1**	⇑P	**P**	**16 35 03.3**	**-0.6**
KEV	**Kevo**	**34.81**	**1**	P	**P**	**16 35 04.0**	**0.0**
	comp=Z,4µmcomp=Z,86nm,1.4s						
KEV	**Kevo**	**34.81**	**1**	P	**P**	**16 35 03.6**	**-0.3**
TRO	**Tromso**	**34.85**	**356**	*e*P	**P**	**16 35 02.7**	**-1.6**
PMAR	**Madeira**	**34.92**	**279**	*e*P	**P**	**16 35 06.7**	**+1.2**
CHM	**Chimkent**	**35.05**	**64**	*e*P	**P**	**16 35 06.8**	**+0.4**
CHM				*e*S	**S**	**16 40 36.3**	**+1.1**
CHM				pmax	pmax		
	comp=Z,58nm,1.4s						
CHM	**Chimkent**	**35.05**	**64**	*e*P	**P**	**16 35 06.8**	**+0.4**
	comp=Z,58nm,1.4s						
CHM				*e*S	**S**	**16 40 36.3**	**+1.1**
CHM				LR	LR	16 49 53.4	
PMOZ	**Porto Moniz, M**	**35.13**	**279**	*e*S	S	16 40 46.6	+10
BRLS	**Borolday**	**35.19**	**63**	*e*P	**P**	**16 35 06.9**	**-0.7**
BRLS				*e*S	**S**	**16 40 36.7**	**-0.7**
BRLS	**Borolday**	**35.19**	**63**	*e*P	**P**	**16 35 06.9**	**-0.7**
BRLS				*e*S	**S**	**16 40 36.8**	**-0.7**
VADS	**Vadso**	**35.24**	**2**	*e*P	**P**	**16 35 06.7**	**-0.9**
KK31	**Karatay Array**	**35.68**	**63**	P	**P**	**16 35 10.7**	**-1.1**
KK31				pmax	pmax		
	comp=Z,124nm,1.0s						
KK31	**Karatay Array**	**35.68**	**63**	P	**P**	**16 35 10.7**	**-1.1**
KKAR	**Karatay Array**	**35.68**	**63**	P	**P**	**16 35 11.5**	**-0.3**
KKAR	**Karatay Array**	**35.68**	**63**	P	**P**	**16 35 11.5**	**-0.3**
KBL	**Kabul**	**35.73**	**78**	P	**P**	**16 35 14.6**	**+2.0**
	SNR=20						
KBL				S	**S**	**16 40 44.5**	**-1.7**
KBL	**Kabul**	**35.73**	**78**	P	**P**	**16 35 11.5**	**-1.1**
KBL				pmax	pmax		
	comp=Z,37nm,1.0s						
KBL	**Kabul**	**35.73**	**78**	P	**P**	**16 35 11.5**	**-1.1**
KBL	**Kabul**	**35.73**	**78**	P	**P**	**16 35 14.4**	**+1.8**
	comp=Z,3µmcomp=Z,765nmcomp=Z,52nm,1.5s						
MBAR	**Mbarara**	**35.79**	**171**	LR	LR	16 51 49.4	
	comp=Z,5µm,18.7s,baz=356,slow=39						
MBAR	**Mbarara**	**35.79**	**171**	P	**P**	**16 35 13.1**	**0.0**
MBAR				S	**S**	**16 40 47.6**	**+0.3**
MBAR	**Mbarara**	**35.79**	**171**	*e*P	**P**	**16 35 13.5**	**+0.4**
MBAR				pmax	pmax		
	comp=Z,18nm,0.9s						
MBAR	**Mbarara**	**35.79**	**171**	IAMs_20	IAMs_20	16 51 38.9	
	comp=Z,6µm,20.0s						
MBAR	**Mbarara**	**35.79**	**171**	P	**P**	**16 35 13.7**	**+0.6**
	comp=Z,4µmcomp=Z,792nmcomp=Z,27nm,1.1s						
MBAR	**Mbarara**	**35.79**	**171**	P	**P**	**16 35 13.6**	**+0.5**
MBAR	**Mbarara**	**35.79**	**171**	P	**P**	**16 35 13.6**	**+0.5**
MBAR				pP	**pP**	**16 35 25.7**	**-0.1**
BTK	**Batken**	**36.16**	**68**	P	**P**	**16 35 17.8**	**+1.8**
BTK	**Batken**	**36.16**	**68**	IAmb	IAmb	16 36 00.9	
	comp=Z,77nm,1.0s						
TRKS	**Terek-Say**	**36.25**	**66**	P	**P**	**16 35 17.2**	**+0.4**
DZA	**Taraz**	**36.29**	**63**	*e*P	**P**	**16 35 17.4**	**+0.4**
DZA				*e*S	**S**	**16 40 55.3**	**+1.0**
DZA				pmax	pmax		
	comp=Z,37nm,0.9s						
DZA	**Taraz**	**36.29**	**63**	*e*P	**P**	**16 35 17.5**	**+0.4**
	comp=Z,37nm,0.9s						
DZA				*e*S	**S**	**16 40 55.3**	**+1.0**
BORK	**Borovoye**	**36.34**	**46**	*c i*P	**P**	**16 35 17.1**	**-0.2**
BORK				pmax	pmax		
	comp=Z,58nm,0.9s						
BORK	**Borovoye**	**36.34**	**46**	P	**P**	**16 35 16.4**	**-0.8**
BVAR	**Borovoye Array**	**36.38**	**46**	P	**P**	**16 35 17.4**	**-0.2**
	comp=Z,37nm,0.6s,baz=237,slow=5.1,SNR=83						
	comp=Z,37nm,0.6s						
ARK	**Arkit**	**36.84**	**65**	P	**P**	**16 35 23.9**	**+2.1**
ACRG	**Accra**	**37.51**	**225**	P	**P**	**16 35 26.0**	**-1.6**
ACRG	**Accra**	**37.51**	**225**	P	**P**	**16 35 27.2**	**-0.4**
	comp=Z,3µmcomp=Z,105nm,0.8s						
OHH	**Osh**	**37.59**	**67**	P	**P**	**16 35 28.2**	**0.0**
KMBO	**Kilima Mbogo**	**37.66**	**160**	P	**P**	**16 35 29.9**	**+0.9**
KMBO				LR	LR	16 53 42.9	
	comp=Z,3µm,18.3s,baz=356,slow=40						
KMBO	**Kilima Mbogo**	**37.66**	**160**	*d i*P	**P**	**16 35 29.6**	**+0.6**
EKS2	**Erkin-Say**	**38.11**	**64**	P	**P**	**16 35 33.1**	**+0.6**
	SNR=20						
USP	**Ospenovka**	**38.58**	**62**	P	**P**	**16 35 36.3**	**-0.1**
	SNR=13						
AAK	**Ala-Archa**	**38.64**	**63**	LR	LR	16 55 12.3	
	comp=Z,3µm,20.3s,baz=288,slow=42						
AAK	**Ala-Archa**	**38.64**	**63**	P	**P**	**16 35 38.4**	**+1.4**
	SNR=51						
AAK	**Ala-Archa**	**38.64**	**63**	P	**P**	**16 35 37.5**	**+0.5**
AAK				S	**S**	**16 41 30.5**	**+0.4**
AAK	**Ala-Archa**	**38.64**	**63**	*ce*P	**P**	**16 35 38.4**	**+1.4**
AAK				pmax	pmax		
	comp=Z,93nm,0.9s						
AAK				MLR	MLR		
	comp=Z,5µm,26.0s						
AAK	**Ala-Archa**	**38.64**	**63**	P	**P**	**16 35 36.5**	**-0.5**
AAK	**Ala-Archa**	**38.64**	**63**	⇑P	**P**	**16 35 37.5**	**+0.5**
AAK	**Ala-Archa**	**38.64**	**63**	*i* P	**P**	**16 35 37.3**	**+0.3**
	SNR=53						
AAK	**Ala-Archa**	**38.64**	**63**	P	**P**	**16 35 38.5**	**+1.4**
	comp=Z,5µmcomp=Z,2µmcomp=Z,77nm,0.9s						
AAK	**Ala-Archa**	**38.64**	**63**	P	**P**	**16 35 37.6**	**+0.5**
AAK				pP	**pP**	**16 35 50.3**	**-0.2**
SGDS	**Sogindy**	**38.66**	**62**	*e*P	**P**	**16 35 37.6**	**+0.4**
SGDS				*e*S	**S**	**16 41 31.4**	**+1.0**
CHMS	**Chumysh**	**38.79**	**63**	P	**P**	**16 35 38.5**	**+0.3**
	SNR=42						
KBK	**Karagaybulak**	**38.97**	**63**	P	**P**	**16 35 40.4**	**+0.6**
	SNR=33						
KIBK	**Kibwezi**	**39.04**	**159**	P	**P**	**16 35 41.1**	**+0.6**
KIBK	**Kibwezi**	**39.04**	**159**	P	**P**	**16 35 42.1**	**+1.6**
	SNR=6.0						
KIBK				S	**S**	**16 41 36.1**	**-0.2**
KIBK	**Kibwezi**	**39.04**	**159**	P	**P**	**16 35 38.9**	**-1.6**
KIBK	**Kibwezi**	**39.04**	**159**	P	**P**	**16 35 41.4**	**+0.9**
	comp=Z,3µmcomp=Z,898nmcomp=Z,44nm,1.5s						
NIL	**Nilore**	**39.34**	**78**	P	**P**	**16 35 43.8**	**+1.0**
NIL				S	**S**	**16 41 37.6**	**-3.0**
NIL	**Nilore**	**39.34**	**78**	P	**P**	**16 35 42.2**	**-0.7**
NIL				pmax	pmax		
	comp=Z,208nm,1.1s						
NIL				MLR	MLR		
	comp=Z,1µm,19.0s						
NIL	**Nilore**	**39.34**	**78**	P	**P**	**16 35 42.2**	**-0.7**
NIL	**Nilore**	**39.34**	**78**	⇑P	**P**	**16 35 43.0**	**+0.1**
NIL	**Nilore**	**39.34**	**78**	P	**P**	**16 35 43.1**	**+0.2**
	comp=Z,2µmcomp=Z,183nm,0.9s						
TKM2	**Tokmak 2**	**39.42**	**63**	P	**P**	**16 35 44.5**	**+1.0**
	SNR=30						
DBIC	**Dimbokro**	**39.55**	**232**	P	**P**	**16 35 43.1**	**-1.6**
	comp=Z,26nm,0.5s,baz=42,slow=8.7,SNR=40						
DBIC				LR	LR	16 55 23.0	
	comp=Z,4µm,18.8s,baz=44,slow=41						
	comp=Z,26nm,0.5s						
DBIC	**Dimbokro**	**39.55**	**232**	P	**P**	**16 35 45.0**	**+0.3**
DBIC	**Dimbokro**	**39.55**	**232**	⇓P	**P**	**16 35 42.8**	**-1.8**
DBIC	**Dimbokro**	**39.55**	**232**	P	**P**	**16 35 44.1**	**-0.6**
	comp=Z,1µmcomp=Z,66nm,1.0s						
DBIC	**Dimbokro**	**39.55**	**232**	P	**P**	**16 35 42.8**	**-1.8**
DBIC				pP	**pP**	**16 35 56.2**	**-1.2**
DBIC				sP	**sP**	**16 36 02.9**	**-0.3**
DBIC				pP	pP	16 36 03.0	+5.5
BJO1	**Bjornoya**	**39.69**	**357**	*e*P	**P**	**16 35 41.5**	**-3.6**
KUU	**Kurty**	**39.86**	**61**	*e*P	**P**	**16 35 47.5**	**+0.5**
KUU				*e*S	**S**	**16 41 49.3**	**+1.1**
KUU				pmax	pmax		
	comp=Z,133nm,1.3s						
KUU	**Kurty**	**39.86**	**61**	*e*P	**P**	**16 35 47.6**	**+0.5**
	comp=Z,134nm,1.3s						
KUU				*e*S	**S**	**16 41 49.4**	**+1.1**
KUU				LR	LR	16 52 52.9	
KSH2	**Kashi**	**39.92**	**69**	P	**P**	**16 35 48.8**	**+1.0**
KSH2				PP	**PP**	**16 37 20.4**	**+0.3**
KSH2				S	**S**	**16 41 50.4**	**+0.9**
KSH2				pmax	pmax		
	comp=Z,52nm,1.1s						
KSH2				pmax	pmax		
	comp=Z,840nm,6.5s						
KSH2				L	L		
	comp=Z,2µm,20.4s						
KSH2				L	L		
	comp=Z,2µm,22.7s						
KSH2				L	L		
	comp=Z,3µm,25.0s						
ULHL	**Ulahol**	**39.96**	**64**	P	**P**	**16 35 50.0**	**+1.8**
	SNR=11						
JMIC	**Jan Mayen**	**40.25**	**344**	LR	LR	16 53 20.2	
	comp=Z,3µm,21.9s,baz=130,slow=37						
AAA	**Alma-Ata**	**40.35**	**62**	*e*P	**P**	**16 35 51.4**	**+0.3**
AAA				pmax	pmax		
	comp=Z,103nm,1.0s						
AAA				MLR	MLR		
	comp=Z,7µm,13.0s						
AAA	**Alma-Ata**	**40.35**	**62**	*e*P	**P**	**16 35 51.5**	**+0.3**
	comp=Z,103nm,1.0s						
AAA				LR	LR	16 53 08.8	
	comp=Z,7µm,12.8s						
TNSS	**Tian-Shan**	**40.39**	**63**	*e*P	**P**	**16 35 51.9**	**+0.1**
TNSS	**Tian-Shan**	**40.39**	**63**	*e*P	**P**	**16 35 52.0**	**+0.1**
MDOK	**Medeo**	**40.45**	**62**	*e*P	**P**	**16 35 52.4**	**+0.3**
MDOK				*e*S	**S**	**16 41 58.1**	**+0.8**
MDOK	**Medeo**	**40.45**	**62**	*e*P	**P**	**16 35 52.5**	**+0.3**
MDOK				*e*S	**S**	**16 41 58.1**	**+0.8**
MDOK				LR	LR	16 53 23.9	
KDJ	**Kajisay**	**40.67**	**64**	P	**P**	**16 35 57.1**	**+3.1**
BORG	**Borgarnes**	**40.73**	**331**	LR	LR	16 55 47.5	
	comp=Z,3µm,18.6s,baz=114,slow=41						
JMU	**Jammu**	**40.85**	**79**	*e*P	**P**	**16 35 56.1**	**+0.7**
JMU				IAmb	IAmb	16 35 58.4	
	comp=Z,128nm,0.4s						
KURBB	**Kurchatov Arra**	**41.14**	**51**	P	**P**	**16 35 57.2**	**-0.2**
	comp=Z,60nm,0.5s,baz=271,slow=8.6,SNR=380						
KURBB				PP	**PP**	**16 37 34.6**	**+1.7**
	comp=Z,48nm,0.9s,baz=278,slow=11,SNR=4.7						
KURBB				ScP	**ScP**	**16 41 42.5**	**+0.8**
	comp=Z,5.2nm,1.0s,baz=265,slow=4.7,SNR=4.1						
KURBB				S	**S**	**16 42 07.4**	**+0.4**
	comp=Z,7.4nm,1.1s,baz=275,slow=9.9,SNR=3.5						
KURBB				LR	LR	16 57 20.9	
	comp=Z,5µm,21.7s,baz=280,slow=42						
	comp=Z,60nm,0.5s						
TARG	**Taragay, Kyrgy**	**41.19**	**64**	P	**P**	**16 36 01.8**	**+3.3**
TARG	**Taragay, Kyrgy**	**41.19**	**64**	IAmb	IAmb	16 36 16.7	
	comp=Z,84nm,0.9s						
TARG	**Taragay, Kyrgy**	**41.19**	**64**	P	**P**	**16 36 01.8**	**+3.3**
	comp=Z,4µmcomp=Z,2µmcomp=Z,108nm,1.0s						

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KURK  Kurchatov          41.20  51   P        P        16 35 58.0 +0.1
KURK                                 S        S        16 42 06.4 -1.5
KURK  Kurchatov          41.20  51ceP        P        16 35 57.4 -0.5
KURK                                 pmax     pmax
      comp=Z,158nm,1.3s
KURK                                 MLR      MLR
      comp=Z,6µm,22.0s
KURK  Kurchatov          41.20  51   P        P        16 35 57.4 -0.5
KURK                                 IAmb     IAmb     16 36 17.2
      comp=Z,116nm,0.8s
KURK  Kurchatov          41.20  51   P        P        16 35 57.8 -0.1
      comp=Z,6µmcomp=Z,3µmcomp=Z,147nm,0.8s
KURK  Kurchatov          41.20  51   P        P        16 35 57.6 -0.4
KURK                                 pP       pP       16 36 09.9 -1.3
KURK                                 sP       sP       16 36 16.7 -0.4
TDK   Taldyqorghan       41.24  59  eP        P        16 35 58.9 +0.5
TDK                                  pmax     pmax
      comp=Z,67nm,0.7s
TDK                                  MLR      MLR
      comp=Z,2µm,17.0s
TDK   Taldyqorghan       41.24  59  eP        P        16 35 59.0 +0.5
      comp=Z,67nm,0.7s
TDK                                  LR       LR       16 53 47.8
      comp=Z,2µm,17.4s
SATY  Saty               41.45  62  eP        P        16 36 00.8 +0.5
SATY                                eS        S        16 42 13.0 +1.0
SATY                                 pmax     pmax
      comp=Z,134nm,1.4s
SATY  Saty               41.45  62  eP        P        16 36 00.9 +0.5
      comp=Z,134nm,1.4s
SATY                                eS        S        16 42 13.1 +1.0
PRZ   Przheval'sk        41.52  63   P        P        16 36 04.4 +3.5
HOPEN Hopen              41.59 360  eP        P        16 35 59.4 -1.4
KPKS  Kokpek             41.60  62  eP        P        16 36 01.9 +0.5
KPKS  Kokpek             41.60  62  eP        P        16 36 02.0 +0.5
THN   Thein Dam          41.70  79  eP        P        16 36 01.4 -1.0
UZB   Uzynbulak          41.88  62  eP        P        16 36 04.0 +0.1
UZB                                 eS        S        16 42 19.1 +0.6
UZB   Uzynbulak          41.88  62  eP        P        16 36 04.0 +0.1
UZB                                 eS        S        16 42 19.1 +0.6
TSSA  Tissa              41.90  78  eP        P        16 36 03.5 -0.7
SHLS  Shalkode           42.20  62  eP        P        16 36 09.4 +3.0
SHLS  Shalkode           42.20  62  eP        P        16 36 09.5 +3.0
SEM   Semipalatinsk      42.23  51  eP        P        16 36 07.1 +0.4
SEM                                  pmax     pmax
      comp=Z,115nm,1.2s
SEM                                  MLR      MLR
      comp=Z,1µm,17.0s
SEM   Semipalatinsk      42.23  51  eP        P        16 36 07.2 +0.4
      comp=Z,115nm,1.2s
SEM                                  LR       LR       16 54 27.5
      comp=Z,1µm,16.7s
WUS   Wushi              42.32  65   P        P        16 36 07.8 +0.4
      comp=Z,5µmcomp=Z,3µmcomp=Z,240nm,1.0s
WUS   Wushi              42.32  65   P        P        16 36 07.9 +0.5
BHK   Bhakra             42.54  80  eP        P        16 36 09.4 +0.2
BHK                                  IAmb     IAmb     16 36 11.5
      comp=Z,123nm,0.4s
SOK   Sop, Niakhar       42.66 252   P        P        16 36 12.3 +2.1
SOK                                  pP       pP       16 36 25.7 +2.2
AJM   Ajmer              42.92  88  eP        P        16 36 12.0 -0.4
AJM                                  IAmb     IAmb     16 36 16.0
      comp=Z,120nm,0.5s
UDPR  Udaipur            42.94  90  eP        P        16 36 11.6 -0.9
CGRH  CHANDIGARH         43.08  81  eP        P        16 36 13.6 +0.1
CGRH                                 IAmb     IAmb     16 36 19.1
      comp=Z,133nm,0.6s
SPB2  Spitsbergen Ar     43.44 357   IAmb     IAmb     16 37 20.9
      comp=Z,87nm,1.0s
SPA0  Spitsbergen Ar     43.44 357  eP        P        16 36 16.9 +1.0
SPITS Spitsbergen Ar     43.44 357   P        P        16 36 14.8 -1.0
      comp=Z,12nm,0.4s,baz=152,slow=13,SNR=51
SPITS                                LR       LR       16 55 19.1
      comp=Z,7µm,21.6s,baz=166,slow=37
      comp=Z,12nm,0.4s
SCO   Scoresbysund       43.51 339   P        P        16 36 16.7 +0.2
SCO                                  IAmb     IAmb     16 36 46.3
      comp=Z,90nm,1.2s
SCO   Scoresbysund       43.51 339 ⇑P        P        16 36 17.3 +0.9
SCO   Scoresbysund       43.51 339 i P        P        16 36 17.5 +1.0
SCO                                  IAmb     IAmb     16 36 22.3
      comp=Z,27nm,0.7s
SCO   Scoresbysund       43.51 339   P        P        16 36 17.6 +1.2
      comp=Z,4µmcomp=Z,76nm,1.1s
MAKZ  Makanchi           43.56  56   P        P        16 36 16.8 -0.4
MAKZ                                 pmax     pmax
      comp=Z,68nm,0.9s
MAKZ                                 MLR      MLR
      comp=Z,2µm,22.0s
MAKZ  Makanchi           43.56  56   P        P        16 36 16.8 -0.4
MAKZ                                 IAmb     IAmb     16 36 49.9
      comp=Z,68nm,0.9s
MAKZ  Makanchi           43.56  56   P        P        16 36 17.4 +0.1
      comp=Z,5µmcomp=Z,2µmcomp=Z,82nm,0.9s
MAKZ  Makanchi           43.56  56   P        P        16 36 18.2 +1.0
MAKZ                                 sP       sP       16 36 37.6 +0.9
KUDL  Kundal             43.77  84  eP        P        16 36 19.9 +0.8
MK31  Makanchi Array     43.77  56ceP        P        16 36 18.9 -0.1
MKAR  Makanchi Array     43.77  56   P        P        16 36 18.9  0.0
      comp=Z,68nm,0.7s,baz=266,slow=8.2,SNR=275
MKAR                                 S        S        16 42 47.5 +1.6
      comp=Z,9.0nm,0.8s,baz=277,slow=12,SNR=6.1
MKAR                                 LR       LR       16 58 25.5
      comp=Z,2µm,19.2s,baz=266,slow=41
      comp=Z,68nm,0.7s
MKAR  Makanchi Array     43.77  56   P        P        16 36 19.0  0.0
KLP   Kalpa              44.00  79  eP        P        16 36 20.5 -0.8
KLP                                  IAmb     IAmb     16 36 23.8
NPLP  NPLP New Delhi     44.14  83  eP        P        16 36 21.2 -0.9
NDI   New Delhi          44.16  83  eP        P        16 36 21.6 -0.6
NDI                                  IAmb     IAmb     16 36 24.3
      comp=Z,49nm,0.1s
AYAN  Aya Nagar          44.16  84  eP        P        16 36 21.6 -0.7
AYAN                                 IAmb     IAmb     16 36 23.2
      comp=Z,50nm,0.4s
JMIU  JAMIA UNIVERSI     44.27  83  eP        P        16 36 22.4 -0.7
UTK   UTTARKASHI         44.43  80  eP        P        16 36 23.8 -0.7
ZAA0  Zalesovo Array     45.04  46   P        P        16 36 27.9 -1.0
ZAA0                                 IAmb     IAmb     16 36 47.8
      comp=Z,86nm,1.1s
ZALV  Zalesovo Beam      45.04  46   P        P        16 36 28.3 -0.6
      comp=Z,66nm,0.4s,baz=270,slow=8.6,SNR=239
ZALV                                 S        S        16 43 02.8 -1.1
      comp=Z,5.1nm,0.8s,baz=75,slow=29,SNR=5.8
ZALV                                 LR       LR       16 59 19.3
      comp=Z,2µm,19.6s,baz=269,slow=41
      comp=Z,66nm,0.4s
ZALV  Zalesovo Beam      45.04  46 i P        P        16 36 28.0 -0.9
ZALV                                 pmax     pmax
      comp=Z,66nm,0.4s
ZALV  Zalesovo Beam      45.04  46   P        P        16 36 27.4 -1.5
AGRA  Agra               45.31  85  eP        P        16 36 31.6 +0.2
JOSI  Joshimath          45.39  80  eP        P        16 36 31.7 -0.6
JOSI                                 IAmb     IAmb     16 36 38.3
      comp=Z,45nm,0.3s
ZSN   Zaisan             45.45  55  eP        P        16 36 33.0 +0.7
ZSN                                  pmax     pmax
      comp=Z,90nm,1.5s
ZSN   Zaisan             45.45  55  eP        P        16 36 33.1 +0.7
      comp=Z,90nm,1.5s
GUNA  GUNA               45.88  88  eP        P        16 36 36.1 +0.1
LGTI  Lohaghat           46.23  81  eP        P        16 36 35.2 -3.7
LGTI                                 IAmb     IAmb     16 36 44.2
      comp=Z,31nm,0.8s
PTH   Pithoragarh        46.26  81  eP        P        16 36 37.5 -1.6
PTH                                  IAmb     IAmb     16 36 41.2
JHNI  Jhansi             46.59  87  eP        P        16 36 41.0 -0.6
JHNI                                 IAmb     IAmb     16 36 44.2
      comp=Z,32nm,0.3s
OMEGA Omega              46.69   5  eP        P        16 36 38.8 -2.8
ZFI2  Zemlya Franca-     46.71   5  eP        P        16 36 38.8 -2.9
DGZ   Jazzator, Alta     46.90  52c iP        P        16 36 43.7 -0.1
DGZ                                  pmax     pmax
      comp=Z,25nm,0.4s
DGZ                                  MLR      MLR
      comp=Z,4µm,20.0s
AKL   Akola              47.42  93  eP        P        16 36 47.5 -0.6
AKL                                  IAmb     IAmb     16 36 50.4
      comp=Z,28nm,0.4s
ANGG  Ammassalik, Gr     47.57 330   IAMs_20  IAMs_20  16 57 34.6
      comp=Z,4µm,21.0s
NRIK  Noril'sk           47.97  25   P        P        16 36 51.5 -0.1
      comp=Z,42nm,0.4s,baz=215,slow=1.7,SNR=33
NRIK                                 LR       LR       16 58 50.7
      comp=Z,4µm,21.7s,baz=258,slow=38
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      comp=Z,42nm,0.4s
NRIK  Noril'sk           47.97  25c iP        P        16 36 51.6 -0.1
NRIK                                 pmax     pmax
      comp=Z,46nm,1.0s
NRIK                                 MLR      MLR
      comp=Z,5µm,27.0s
NRIK  Noril'sk           47.97  25   P        P        16 36 51.0 -0.7
WMQ   Urumqi             47.99  60 ⇑P        P        16 36 52.8 +0.5
WMQ                                  PcP      PcP      16 38 17.3 -2.5
WMQ                                  PP       PP       16 38 45.0 +0.5
WMQ                                  S        S        16 43 45.9 -0.9
WMQ                                  pmax     pmax
      comp=Z,14nm,0.7s
WMQ                                  pmax     pmax
      comp=Z,1µm,3.7s
WMQ                                  L        L
      comp=Z,2µm,24.5s
WMQ                                  L        L
      comp=Z,3µm,23.9s
WMQ                                  L        L
      comp=Z,3µm,24.0s
NGP   Nagpur             48.87  92  eP        P        16 36 58.6 -0.6
NOR   Nord               49.10 353  eP        P        16 36 58.8 -1.5
NOR   Nord               49.10 353   P        P        16 36 59.1 -1.1
NOR   Nord               49.10 353 ⇑P        P        16 36 57.2 -3.0
NOR   Nord               49.10 353 i P        P        16 36 58.2 -2.1
NOR                                  IAmb     IAmb     16 37 06.3
      comp=Z,16nm,0.8s
SUMG  Summit             49.15 339   P        P        16 37 01.0 -0.2
SUMG  Summit             49.15 339   P        P        16 37 01.2  0.0
SUMG                                 pmax     pmax
      comp=Z,55nm,0.9s
SUMG                                 MLR      MLR
      comp=Z,3µm,18.0s
SUMG  Summit             49.15 339   P        P        16 37 01.2  0.0
SUMG                                 IAmb     IAmb     16 37 20.9
      comp=Z,55nm,0.9s
SUMG                                 IAMs_20  IAMs_20  17 00 00.2
      comp=Z,3µm,18.0s
SUMG  Summit             49.15 339 ⇑P        P        16 37 01.4 +0.2
SUMG  Summit             49.15 339 i P        P        16 37 01.0 -0.2
SUMG                                 IAmb     IAmb     16 37 06.7
      comp=Z,70nm,1.2s
SUMG  Summit             49.15 339   P        P        16 37 01.7 +0.6
      comp=Z,89nm,1.0s
ALBI  Allahabad          49.26  85  eP        P        16 37 01.2 -1.0
ALBI                                 IAmb     IAmb     16 37 02.7
      comp=Z,24nm,1.0s
LSZ   Lusaka             50.09 176   LR       LR       16 59 21.9
      comp=Z,4µm,19.6s,baz=10,slow=37
LSZ   Lusaka             50.09 176   P        P        16 37 10.8 +2.3
LSZ                                  P        pP       16 37 11.5  -10
LSZ   Lusaka             50.09 176   P        P        16 37 09.4 +0.9
LSZ                                  pmax     pmax
      comp=Z,18nm,0.8s
LSZ                                  MLR      MLR
      comp=Z,4µm,22.0s
LSZ   Lusaka             50.09 176   P        P        16 37 09.3 +0.9
LSZ   Lusaka             50.09 176   IAMs_20  IAMs_20  16 59 11.1
      comp=Z,4µm,22.0s
LSZ   Lusaka             50.09 176 ⇓P        P        16 37 09.3 +0.7
LSZ   Lusaka             50.09 176   P        P        16 37 09.2 +0.7
      comp=Z,16nm,0.9s
LSZ   Lusaka             50.09 176   P        P        16 37 09.2 +0.7
LSZ   Lusaka             50.09 176   P        P        16 37 09.2 +0.7
LSZ                                  pP       pP       16 37 22.2 +0.8
HYB   Hyderabad          50.32  96  eP        P        16 37 09.4 -0.9
HYB                                 epP       pP       16 37 21.8 -1.6
HYB                                 ePcP      PcP      16 38 26.9 -1.7
HYB                                 ePP       PP       16 39 05.3 -0.8
HYB                                 eS        S        16 44 19.4 -0.4
HYB                                 eScS      ScS      16 46 56.5 -1.0
HYB                                  IAMs_20  IAMs_20  16 58 11.0
      comp=Z,3µm,31.0s
EVN   Everest            52.24  80 ⇑P        P        16 37 24.9 -0.5
EVN   Everest            52.24  80   P        P        16 37 25.5 +0.2
      comp=Z,2µmcomp=Z,156nm,0.9s
GAYA  Gaya               52.28  84  eP        P        16 37 23.5 -1.4
KSANE Kasane             52.52 180   IAmb     IAmb     16 37 49.5
      comp=Z,68nm,1.3s
SFJD  Kangerlussuaq      52.86 331   LR       LR       17 01 22.1
      comp=Z,3µm,21.9s,baz=86,slow=38
SFJD  Kangerlussuaq      52.86 331 ⇑P        P        16 37 28.9 +0.4
ILULI Ilulissat          52.95 334   IAmb     IAmb     16 38 21.5
      comp=Z,46nm,0.9s
ILULI Ilulissat          52.95 334 ⇓P        P        16 37 30.5 +1.3
ILULI Ilulissat          52.95 334 i P        P        16 37 29.9 +0.7
ILULI                                IAmb     IAmb     16 37 31.2
      comp=Z,23nm,0.8s
SAATT Saattut            53.10 336 i P        P        16 37 30.6 +0.3
SAATT                                IAmb     IAmb     16 37 36.0
      comp=Z,20nm,0.9s
SALM  Salem              53.13 102  eP        P        16 37 30.7 -0.7
KNGR  Kungurtug, Tuv     53.15  49 i P        P        16 37 32.0 +0.9
KNGR                                 pmax     pmax
      comp=Z,43nm,1.1s
NEEM  North Greenlan     53.15 345 i P        P        16 37 31.2 +0.2
NEEM                                 IAmb     IAmb     16 37 34.6
      comp=Z,38nm,0.7s
SAQQ  Saqqaq             53.22 335 i P        P        16 37 31.8 +0.6
SAQQ                                 IAmb     IAmb     16 37 38.4
      comp=Z,22nm,0.7s
SVZ   Severnaya Zeml     53.33  13  eP        P        16 37 38.8 +6.9
KOD   Kodaikanal         53.41 104  eP        P        16 37 32.0 -1.6
KOD                                  IAmb     IAmb     16 37 37.9
      comp=Z,26nm,0.9s
RAGD  RAYAGADA           53.41  91  eP        P        16 37 32.5 -0.9
RAGD                                 IAmb     IAmb     16 37 35.5
      comp=Z,40nm,0.1s
NUUK  Nuuk               53.54 328 i P        P        16 37 33.9 +0.3
NUUK                                 IAmb     IAmb     16 37 35.7
      comp=Z,52nm,0.5s
GDH   Godhavn            53.81 334 i P        P        16 37 36.1 +0.5
GDH                                  IAmb     IAmb     16 37 37.9
      comp=Z,35nm,0.7s
SHBG  Sahibganj          54.05  82  eP        P        16 37 37.0 -0.9
TSUM  Tsumeb             54.41 189   LR       LR       17 04 28.8
      comp=Z,6µm,18.5s,baz=6.5,slow=40
TSUM  Tsumeb             54.41 189   P        P        16 37 39.0 -1.6
TSUM                                 IAmb     IAmb     16 37 42.7
      comp=Z,31nm,0.8s
TSUM  Tsumeb             54.41 189 i P        P        16 37 40.0 -0.6
TSUM  Tsumeb             54.41 189 ⇓P        P        16 37 39.7 -0.9
TSUM  Tsumeb             54.41 189   P        P        16 37 40.0 -0.6
      comp=Z,41nm,1.2s
TSUM  Tsumeb             54.41 189   P        P        16 37 39.3 -1.3
TSUM  Tsumeb             54.41 189   P        P        16 37 39.6 -0.9
TSUM                                 pP       pP       16 37 52.9 -0.7
UPNV  Upernavik          54.43 339 i P        P        16 37 40.9 +0.9
UPNV                                 IAmb     IAmb     16 37 42.4
      comp=Z,31nm,0.6s
KULLO Kullorsuaq         54.62 341 ⇑P        P        16 37 42.5 +1.2
KULLO Kullorsuaq         54.62 341 i P        P        16 37 42.0 +0.7
KULLO                                IAmb     IAmb     16 37 44.8
      comp=Z,65nm,1.1s
KULLO Kullorsuaq         54.62 341   P        P        16 37 42.6 +1.2
      comp=Z,4µmcomp=Z,2µmcomp=Z,128nm,1.1s
BLWY  Bulawayo           54.94 176 i P        P        16 37 44.5 +0.1
LSA   Lhasa              55.01  76   P        P        16 37 45.6 +0.2
LSA                                  S        S        16 45 22.2 -2.2
LSA   Lhasa              55.01  76   P        P        16 37 47.5 +2.1
LSA   Lhasa              55.01  76 i P        P        16 37 45.7 +0.2
      SNR=10
LSA   Lhasa              55.01  76   P        P        16 37 47.5 +2.1
      comp=Z,1µmcomp=Z,98nm,0.8s
MOY   Mondy              55.04  47  eP        P        16 37 47.6 +2.7
MOY                                  pmax     pmax
      comp=Z,154nm,2.9s
MATP  Matopo             55.22 176   LR       LR       17 04 19.6
      comp=Z,3µm,18.3s,baz=6.0,slow=39
MATP  Matopo             55.22 176 i P        P        16 37 49.7 +3.3
GOMU  GeErMu             55.39  67   P        P        16 37 49.6 +1.6
GOMU                                 S        S        16 45 29.6 +0.3
GOMU                                 SS       SS       16 49 09.8 -4.2
GOMU                                 pmax     pmax
      comp=Z,30nm,1.4s
GOMU                                 L        L
      comp=Z,600nm,16.0s
GOMU                                 L        L
      comp=Z,1µm,15.7s
GOMU                                 L        L
      comp=Z,1µm,15.4s
DHUB  DHUBRI             55.62  80  eP        P        16 37 48.9 -0.4
BROLN Tlhalogang         55.83 178   P        P        16 37 49.7 -1.1
GRTLG Ghanzi             56.19 185   P        P        16 37 53.2 -0.1
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TAWA  Tawang             56.45  78  eP        P        16 37 55.0 -0.7
TLY   Talaya             56.63  47   P        P        16 37 57.0 +0.9
TLY                                  S        S        16 45 46.8 +2.2
TLY   Talaya             56.63  47   P        P        16 37 57.2 +1.0
TLY                                  IAmb     IAmb     16 38 19.7
      comp=Z,99nm,1.4s
KHWEE KHWEE              56.64 180   IAmb     IAmb     16 39 34.9
      comp=Z,40nm,0.9s
ZAK   Zakamensk          56.77  48  eP        P        16 37 56.9 -0.4
ZAK                                  pmax     pmax
      comp=Z,71nm,1.1s
IRK   Irkutsk            56.85  46  eP        P        16 37 58.4 +0.7
IRK                                 eS        S        16 45 48.0 +0.5
IRK                                  pmax     pmax
      comp=Z,188nm,2.3s
MALK  Mahakanadarawa     56.93 104   P        P        16 37 58.9 +0.2
MALK  Mahakanadarawa     56.93 104 ⇓P        P        16 37 58.7  0.0
MUSN  Musina, Limpop     57.15 175 i P        P        16 38 00.7 +0.6
TULEG Thule              57.22 344 i P        P        16 37 59.8  0.0
TULEG                                IAmb     IAmb     16 38 08.4
      comp=Z,60nm,0.7s
SHL   Shillong           57.35  80   P        P        16 38 01.2 -0.6
      SNR=26
SHL   Shillong           57.35  80   P        P        16 38 01.2 -0.6
SHL   Shillong           57.35  80  eP        P        16 38 02.3 +0.5
CRAIL Swartwater, Li     57.56 177  eP        P        16 38 04.2 +1.1
ABPO  Ambohimpanom       57.63 155 i P        P        16 38 06.3 +2.6
ABPO  Ambohimpanom       57.63 155   P        P        16 38 04.5 +0.8
ABPO  Ambohimpanom       57.63 155   IAMs_20  IAMs_20  17 07 30.6
      comp=Z,2µm,18.0s
ABPO  Ambohimpanom       57.63 155   P        P        16 38 05.7 +2.0
      comp=Z,3µmcomp=Z,32nm,1.0s
PALK  Pallekele          57.73 105   LR       LR       17 04 46.5
      comp=Z,3µm,21.1s,baz=319,slow=38
PALK  Pallekele          57.73 105   P        P        16 38 06.1 +1.7
PALK                                 S        S        16 45 59.1 -0.8
PALK  Pallekele          57.73 105   IAMs_20  IAMs_20  17 04 24.3
      comp=Z,3µm,21.0s
PALK  Pallekele          57.73 105   P        P        16 38 05.7 +1.3
PALK  Pallekele          57.73 105   P        P        16 38 06.7 +2.3
      comp=Z,66nm,1.9s
WIN   Windhoek           57.78 189   P        P        16 38 04.7  0.0
WIN   Windhoek           57.78 189   IAmb     IAmb     16 38 08.0
      comp=Z,38nm,0.9s
WIN   Windhoek           57.78 189   P        P        16 38 05.5 +0.8
      comp=Z,53nm,1.2s
GTA2  Gaotai             57.88  62  eP        P        16 38 06.3 +1.0
GTA2                                 S        S        16 46 00.4 -1.2
GTA2                                 SS       SS       16 49 51.3 -1.3
GTA2                                 pmax     pmax
      comp=Z,19nm,0.5s
GTA2                                 pmax     pmax
      comp=Z,740nm,8.9s
GTA2                                 L        L
      comp=Z,890nm,21.9s
GTA2                                 L        L
      comp=Z,2µm,24.1s
GTA2                                 L        L
      comp=Z,2µm,23.2s
KOOLE Kule               57.89 186   P        P        16 38 04.6 -0.8
ZIRO  ZIRO               58.07  77  eP        P        16 38 06.0 -0.8
SILR  SILCHAR            58.44  80  eP        P        16 38 06.4 -2.9
JORH  JORHAT             58.73  78  eP        P        16 38 10.6 -0.6
AZL   Aizawl             58.83  81  eP        P        16 38 11.7 -0.4
AZL                                  IAmb     IAmb     16 38 17.3
      comp=Z,28nm,0.9s
LKGWB Lokgwabe           58.93 184   P        P        16 38 10.1 -2.4
KOHI  KOHIMA             59.07  79  eP        P        16 38 11.8 -2.1
MOKO  MOKOCHONG          59.13  78  eP        P        16 38 13.6 -0.6
SKOMA Sekoma             59.21 181   P        P        16 38 13.8 -0.7
HOED  Hoedspruit, Li     59.34 174  eP        P        16 38 14.3 -1.0
IMP   Imphal             59.35  80  eP        P        16 38 15.0 -0.6
SONM  Songino Array      59.51  51   P        P        16 38 16.3 -0.1
      comp=Z,28nm,0.5s,baz=290,slow=7.2,SNR=146
SONM                                 S        S        16 46 23.7 +1.2
      comp=Z,0.8nm,0.9s,baz=287,slow=15,SNR=1.9
SONM                                 LR       LR       17 07 57.8
      comp=Z,2µm,20.9s,baz=297,slow=40
      comp=Z,28nm,0.5s
SONM  Songino Array      59.51  51   P        P        16 38 15.7 -0.8
SAIH  SAIHA              59.66  83  eP        P        16 38 18.0 +0.1
LBTB  Lobatse            59.70 180   LR       LR       17 07 25.7
      comp=Z,3µm,18.5s,baz=3.5,slow=39
LBTB  Lobatse            59.70 180 i P        P        16 38 17.9 +0.1
LBTB  Lobatse            59.70 180 ⇓P        P        16 38 18.0 +0.1
LBTB  Lobatse            59.70 180  eP        P        16 38 20.3 +2.5
LBTB  Lobatse            59.70 180   P        P        16 38 18.3 +0.4
      comp=Z,3µmcomp=Z,41nm,1.0s
LBTB  Lobatse            59.70 180   P        P        16 38 16.9 -1.0
LBTB  Lobatse            59.70 180   P        P        16 38 17.9 +0.1
LBTB                                 pP       pP       16 38 31.5 +0.3
MORE  Moreh              59.91  80   P        P        16 38 19.1 -0.3
ULN   Ulaanbaatar        59.91  50   P        P        16 38 19.6 +0.3
ULN                                  S        S        16 46 29.3 +1.6
ULN   Ulaanbaatar        59.91  50ceP        P        16 38 19.4 +0.1
ULN                                  pmax     pmax
      comp=Z,112nm,1.0s
ULN                                  MLR      MLR
      comp=Z,5µm,27.0s
ULN   Ulaanbaatar        59.91  50   P        P        16 38 18.5 -0.8
ULN   Ulaanbaatar        59.91  50   IAMs_20  IAMs_20  17 07 50.9
      comp=Z,3µm,21.0s
ULN   Ulaanbaatar        59.91  50 ⇑P        P        16 38 19.2 -0.1
ULN   Ulaanbaatar        59.91  50   P        P        16 38 19.0 -0.3
ULN   Ulaanbaatar        59.91  50   P        P        16 38 19.4 +0.1
      comp=Z,4µmcomp=Z,2µmcomp=Z,111nm,0.9s,comp=Z,2µm
ULN   Ulaanbaatar        59.91  50   P        P        16 38 19.6 +0.3
RUST  Rust De Winter     60.00 177  eP        P        16 38 21.4 +1.5
DRLN  Deer Lake          60.06 311   P        P        16 38 19.7 -0.4
TSWA  Tswaing Meteor     60.16 177  eP        P        16 38 20.0 -1.1
VOI   Vohitsoka          60.18 157 ⇓P        P        16 38 24.2 +3.0
MAKGR Makgori            60.49 180   P        P        16 38 22.3 -1.0
HRAO  HartRAO            60.61 178  eP        P        16 38 22.8 -1.3
POIN  Pond Inlet         60.74 340   P        P        16 38 24.4  0.0
POIN                                 IAmb     IAmb     16 38 44.1
      comp=Z,50nm,1.1s
FRB   Frobisher Bay      60.84 329   LR       LR       17 06 38.1
      comp=Z,2µm,19.9s,baz=70,slow=38
FRB   Frobisher Bay      60.84 329   P        P        16 38 25.0 -0.1
FRB   Frobisher Bay      60.84 329   P        P        16 38 25.3 +0.2
      comp=Z,88nm,1.0s
TIXI  Tiksi              61.27  21   LR       LR       17 08 19.3
      comp=Z,3µm,18.6s,baz=316,slow=39
TIXI  Tiksi              61.27  21ceP        P        16 38 28.8 +0.9
TIXI                                 pmax     pmax
      comp=Z,40nm,1.0s
TIXI                                 MLR      MLR
      comp=Z,6µm,17.0s
TIXI  Tiksi              61.27  21   P        P        16 38 26.9 -1.1
TIXI                                 IAmb     IAmb     16 38 44.3
      comp=Z,42nm,0.9s
LZDM  Lanzhou Array      62.12  64   P        P        16 38 34.6 -0.1
      comp=Z,9.2nm,0.5s,baz=286,slow=6.0,SNR=4.1
LZDM                                 LR       LR       17 11 32.6
      comp=Z,2µm,18.4s,baz=305,slow=42
      comp=Z,9.2nm,0.5s
LZH   Lanzhou            62.18  64  eP        P        16 38 33.3 -1.5
LZH                                  PcP      PcP      16 39 16.8 +2.2
LZH                                  PP       PP       16 40 52.8 +1.0
LZH                                  S        S        16 46 55.8 -1.1
LZH                                  pmax     pmax
      comp=Z,53nm,1.6s
LZH                                  pmax     pmax
      comp=Z,760nm,5.0s
LZH                                  L        L
      comp=Z,2µm,16.8s
LZH                                  L        L
      comp=Z,2µm,18.1s
LZH                                  L        L
      comp=Z,4µm,19.7s
POGA  Pongola            62.32 174   IAmb     IAmb     16 39 28.2
      comp=Z,35nm,1.0s
CIT   Chita              62.33  44  eP        P        16 38 37.1 +1.6
CIT                                 e                  16 38 55.5
CIT                                 e                  16 39 08.0
CIT                                 e                  16 40 53.3
CIT                                 e                  16 46 48.4
CIT                                  pmax     pmax
      comp=Z,177nm,2.7s
ARMS  Ukamas             62.93 185  eP        P        16 38 37.8 -1.8
TNCH  TengChong          62.93  77   P        P        16 38 39.6 -0.5
TNCH                                 pP       pP       16 38 55.0 +1.0
TNCH                                 sP       sP       16 39 00.3 +0.6
TNCH                                 PP       PP       16 41 03.8 +5.0
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TNCH				S	**S**	**16 47 02.8**	**-3.9**
TNCH				SS	**SS**	**16 51 09.1**	**-3.3**
TNCH				pmax	pmax		
	comp=Z,46nm,1.5s						
TNCH				pmax	pmax		
	comp=Z,630nm,3.3s						
TNCH				L	L		
	comp=Z,620nm,25.1s						
TNCH				L	L		
	comp=Z,610nm,22.4s						
TNCH				L	L		
	comp=Z,2µm,26.1s						
BOSA	**Boshof**	**63.28**	**180**	P	**P**	**16 38 41.1**	**-0.9**
	comp=Z,25nm,0.6s,baz=357,slow=7.2,SNR=68						
BOSA				LR	LR	17 09 34.4	
	comp=Z,3µm,18.0s,baz=5.5,slow=39						
	comp=Z,25nm,0.6s						
BOSA	**Boshof**	**63.28**	**180**	P	**P**	**16 38 41.0**	**-0.9**
BOSA				IAmb	IAmb	16 38 43.3	
	comp=Z,30nm,0.7s						
BOSA	**Boshof**	**63.28**	**180**	*i* P	**P**	**16 38 41.5**	**-0.5**
BOSA	**Boshof**	**63.28**	**180**	*e*P	**P**	**16 38 40.3**	**-1.7**
BOSA	**Boshof**	**63.28**	**180**	P	**P**	**16 38 42.6**	**+0.6**
	comp=Z,55nm,0.8s						
BOSA	**Boshof**	**63.28**	**180**	P	**P**	**16 38 41.2**	**-0.8**
BOSA	**Boshof**	**63.28**	**180**	P	**P**	**16 38 40.7**	**-1.3**
SCHQ	**Schefferville**	**63.36**	**320**	P	**P**	**16 38 41.3**	**-0.9**
	comp=Z,39nm,0.3s,baz=60,slow=6.1,SNR=86						
SCHQ				LR	LR	17 07 51.7	
	comp=Z,1µm,18.3s,baz=75,slow=38						
	comp=Z,39nm,0.3s						
NPW	**Naypyitaw**	**63.54**	**84**	P	**P**	**16 38 43.4**	**-0.5**
	comp=Z,2µmcomp=Z,132nm,0.9s						
RES	**Resolute Bay**	**63.84**	**345**	LR	LR	17 07 41.5	
	comp=Z,2µm,20.2s,baz=43,slow=37						
RES	**Resolute Bay**	**63.84**	**345**	P	**P**	**16 38 44.9**	**-0.1**
RES				pmax	pmax		
	comp=Z,43nm,1.2s						
RES	**Resolute Bay**	**63.84**	**345**	P	**P**	**16 38 44.9**	**-0.1**
RES				IAmb	IAmb	16 39 06.1	
	comp=Z,43nm,1.2s						
RES	**Resolute Bay**	**63.84**	**345**	P	**P**	**16 38 47.1**	**+2.1**
	comp=Z,35nm,2.1s						
CD2	**Chengdu**	**64.35**	**69**	P	**P**	**16 38 48.8**	**-0.4**
CD2				PP	**PP**	**16 41 16.3**	**+5.4**
CD2				S	**S**	**16 47 23.4**	**-0.5**
CD2				SS	**SS**	**16 51 35.5**	**+1.4**
CD2				pmax	pmax		
	comp=Z,60nm,1.1s						
CD2				pmax	pmax		
	comp=Z,590nm,6.9s						
CD2				L	L		
	comp=Z,3µm,32.3s						
CD2				L	L		
	comp=Z,3µm,26.9s						
CD2				L	L		
	comp=Z,3µm,29.4s						
BTO2	**Baotou**	**64.53**	**57**	*e*P	**P**	**16 38 51.3**	**+1.0**
BTO2				pP	**pP**	**16 39 04.0**	**-0.5**
BTO2				S	**S**	**16 47 25.4**	**-0.6**
BTO2				SS	**SS**	**16 51 36.6**	**0.0**
BTO2				pmax	pmax		
	comp=Z,41nm,0.8s						
BTO2				pmax	pmax		
	comp=Z,2µm,8.7s						
BTO2				L	L		
	comp=Z,7µm,22.8s						
BTO2				L	L		
	comp=Z,4µm,21.6s						
BTO2				L	L		
	comp=Z,6µm,22.2s						
ALKP	**Alkanpan, Nort**	**64.67**	**183**	*e*P	**P**	**16 38 49.8**	**-1.3**
PZH	**PanZhiHua**	**64.81**	**74**	P	**P**	**16 38 53.9**	**+1.6**
PZH				S	**S**	**16 47 27.1**	**-2.7**
PZH				ScS	**SKSac**	**16 48 41.3**	**-1.8**
PZH				pmax	pmax		
	comp=Z,70nm,0.9s						
PZH				pmax	pmax		
	comp=Z,400nm,4.0s						
PZH				L	L		
	comp=Z,800nm,21.4s						
PZH				L	L		
	comp=Z,750nm,22.7s						
PZH				L	L		
	comp=Z,1µm,22.9s						
HHC	**Hu-ho-hao-te**	**65.64**	**56**	*e*P	**P**	**16 38 58.8**	**+1.3**
HHC				pP	pP	16 39 10.8	-0.9
HHC				sP	sP	16 39 18.1	+0.6
HHC				S	**S**	**16 47 38.8**	**-0.8**
HHC				SS	**SS**	**16 51 56.3**	**+2.5**
HHC				pmax	pmax		
	comp=Z,64nm,0.5s						
HHC				pmax	pmax		
	comp=Z,770nm,5.0s						
HHC				L	L		
	comp=Z,1µm,22.2s						
HHC				L	L		
	comp=Z,1µm,21.4s						
HHC				L	L		
	comp=Z,3µm,22.4s						
YAK	**Yakutsk**	**65.96**	**30**	LR	LR	17 11 00.3	
	comp=Z,2µm,19.8s,baz=296,slow=39						
YAK	**Yakutsk**	**65.96**	**30**	*e*P	**P**	**16 38 57.8**	**-1.1**
YAK				*e**PP	**pP**	**16 39 12.0**	**-1.0**
YAK				*e*		16 39 28.9	
YAK				*e*		16 41 23.2	
YAK				*e*S	**S**	**16 47 42.1**	**-0.4**
YAK				*e**SS	**sS**	**16 48 06.0**	**+0.4**
YAK				*e*		16 48 48.1	
YAK				*e*SS	**SS**	**16 51 56.6**	**-0.8**
YAK				pmax	pmax		
	comp=Z,72nm,0.9s						
YAK				pmax	pmax		
	comp=N,6.0nm,1.1s						
YAK				pmax	pmax		
	comp=E,8.0nm,1.3s						
YAK				pmax	pmax		
	comp=Z,86nm,2.0s						
YAK				pmax	pmax		
	comp=N,30nm,2.0s						
YAK				pmax	pmax		
	comp=E,26nm,1.8s						
YAK				smax	smax		
	comp=E,263nm,3.3s						
YAK				smax	smax		
	comp=N,152nm,3.8s						
YAK				MLR	MLR		
	comp=Z,2µm,18.0s						
YAK				MLR	MLR		
	comp=E,1µm,16.0s						
YAK				MLR	MLR		
	comp=N,503nm,22.0s						
YAK	**Yakutsk**	**65.96**	**30**	P	**P**	**16 38 57.0**	**-2.0**
YAK	**Yakutsk**	**65.96**	**30**	IAMs_20	IAMs_20	17 11 01.3	
	comp=Z,2µm,20.0s						
YAK	**Yakutsk**	**65.96**	**30**	P	**P**	**16 38 57.5**	**-1.5**
	comp=Z,4µmcomp=Z,2µmcomp=Z,88nm,0.8s						
YAK	**Yakutsk**	**65.96**	**30**	P	**P**	**16 38 57.5**	**-1.5**
BATG	**Bathurst New B**	**66.09**	**312**	P	**P**	**16 39 00.9**	**+0.8**
BATG				IAmb	IAmb	16 39 08.7	
	comp=Z,53nm,0.8s						
KMI2	**Kunming**	**66.25**	**75**	P	**P**	**16 39 00.5**	**-1.2**
KMI2				S	**S**	**16 47 45.1**	**-2.6**
KMI2				pmax	pmax		
	comp=Z,23nm,0.9s						
KMI2				pmax	pmax		
	comp=Z,490nm,7.7s						
KMI2				L	L		
	comp=Z,1µm,27.1s						
KMI2				L	L		
	comp=Z,1µm,27.9s						
KMI2				L	L		
	comp=Z,2µm,25.4s						
CHTO	**Chiang Mai**	**66.31**	**83**	P	**P**	**16 39 03.2**	**+1.2**
CHTO	**Chiang Mai**	**66.31**	**83**	P	**P**	**16 39 01.8**	**-0.2**
CHTO				S	**S**	**16 47 46.2**	**-2.0**
CHTO	**Chiang Mai**	**66.31**	**83**	P	**P**	**16 39 00.3**	**-1.7**
CHTO				pmax	pmax		
	comp=Z,33nm,0.9s						
CHTO				MLR	MLR		
	comp=Z,500nm,18.0s						
CHTO	**Chiang Mai**	**66.31**	**83**	P	**P**	**16 39 00.3**	**-1.7**
CHTO				IAmb	IAmb	16 39 33.9	
	comp=Z,33nm,0.9s						
CHTO	**Chiang Mai**	**66.31**	**83**	P	**P**	**16 39 03.0**	**+1.0**
	comp=Z,727nmcomp=Z,39nm,0.9s						
CHTO	**Chiang Mai**	**66.31**	**83**	P	**P**	**16 39 02.4**	**+0.4**
	comp=Z,39nm,0.9s						
CVNA	**Calvinia**	**66.34**	**185**	P	**P**	**16 39 02.4**	**+0.6**
	comp=Z,70nm,1.9s						
BFON	**Badsfontein, M**	**66.47**	**181**	*e*P	P	16 38 56.3	-6.4
BRAK	**Brakfontein**	**66.48**	**182**	*e*P	P	16 38 57.0	-5.6
CM31	**Chiang Mai Arr**	**66.49**	**83**	P	**P**	**16 39 02.1**	**-1.0**
CM31				IAmb	IAmb	16 39 47.6	
	comp=Z,54nm,0.9s						
CMAR	**Chiang Mai Arr**	**66.49**	**83**	P	**P**	**16 39 02.6**	**-0.5**
	comp=Z,8.5nm,0.6s,baz=295,slow=7.7,SNR=40						
CMAR				S	**S**	**16 47 50.1**	**-0.2**
	comp=Z,0.5nm,0.4s,baz=286,slow=16,SNR=5.3						
CMAR				LR	LR	17 15 45.5	
	comp=Z,346nm,20.4s,baz=295,slow=43						
	comp=Z,8.5nm,0.6s						
CMAR	**Chiang Mai Arr**	**66.49**	**83**	*i* P	**P**	**16 39 02.0**	**-1.1**
CMAR				pmax	pmax		
	comp=Z,7.0nm,0.4s						
CMAR	**Chiang Mai Arr**	**66.49**	**83**	P	**P**	**16 39 01.5**	**-1.6**
FRAZ	**Fraserburg**	**66.69**	**184**	*e*P	**P**	**16 39 01.8**	**-2.3**
XAN	**Xi'an**	**66.81**	**64**	⇓P	**P**	**16 39 06.9**	**+1.9**
XAN				S	**S**	**16 47 55.0**	**+1.1**
XAN				pmax	pmax		
	comp=Z,28nm,0.7s						
XAN				pmax	pmax		
	comp=Z,730nm,6.2s						
XAN				L	L		
	comp=Z,1µm,19.2s						
XAN				L	L		
	comp=Z,2µm,17.9s						
XAN				L	L		
	comp=Z,2µm,19.2s						
HILR	**Hailar Array B**	**66.94**	**45**	P	**P**	**16 39 05.2**	**-0.3**
	comp=Z,22nm,0.8s,baz=291,slow=4.6,SNR=34						
HILR				LR	LR	17 12 20.0	
	comp=Z,1µm,19.3s,baz=60,slow=40						
	comp=Z,22nm,0.8s						
HIA	**Hailar**	**67.06**	**45**	P	**P**	**16 39 06.8**	**+0.5**
HIA	**Hailar**	**67.06**	**45**	P	**P**	**16 39 06.5**	**+0.2**
HIA	**Hailar**	**67.06**	**45**	IAMs_20	IAMs_20	17 12 12.6	
	comp=Z,2µm,20.0s						
HIA	**Hailar**	**67.06**	**45**	P	**P**	**16 39 06.5**	**+0.2**
	comp=Z,3µmcomp=Z,1µmcomp=Z,87nm,1.1s						
SUR	**Sutherland**	**67.17**	**184**	LR	LR	17 12 02.0	
	comp=Z,6µm,18.2s,baz=2.5,slow=39						
SUR	**Sutherland**	**67.17**	**184**	P	**P**	**16 39 08.4**	**+1.2**
SUR				IAmb	IAmb	16 39 40.2	
	comp=Z,44nm,1.2s						
XLT	**XiLinHaoTe**	**67.27**	**52**	*e*P	**P**	**16 39 08.9**	**+1.1**
XLT				pP	pP	16 39 24.0	+1.9
XLT				PcP	**PcP**	**16 39 33.8**	**-1.6**
XLT				PP	**PP**	**16 41 39.3**	**+3.2**
XLT				S	**S**	**16 47 59.1**	**-0.1**
XLT				ScS	**SKSac**	**16 48 59.9**	**-1.3**
XLT				pmax	pmax		
	comp=Z,72nm,1.0s						
XLT				L	L		
	comp=Z,2µm,19.6s						
XLT				L	L		
	comp=Z,3µm,20.6s						
TIY	**Taiyuan**	**67.65**	**59**	P	**P**	**16 39 12.6**	**+2.3**
TIY				S	**S**	**16 48 02.8**	**-1.2**
TIY				pmax	pmax		
	comp=Z,40nm,0.5s						
TIY				pmax	pmax		
	comp=Z,590nm,4.2s						
TIY				L	L		
	comp=Z,1µm,27.5s						
TIY				L	L		
	comp=Z,900nm,26.8s						
TIY				L	L		
	comp=Z,2µm,24.0s						
G65A	**Princeton**	**67.97**	**310**	IAMs_20	IAMs_20	17 08 32.2	
	comp=Z,2µm,21.0s						
EMMW	**East Machias**	**68.13**	**310**	IAMs_20	IAMs_20	17 08 39.5	
	comp=Z,2µm,21.0s						
F64A	**Sherman**	**68.15**	**311**	IAmb	IAmb	16 39 21.8	
	comp=Z,30nm,0.8s						
E62A	**Clayton Lake**	**68.50**	**312**	IAMs_20	IAMs_20	17 08 22.7	
	comp=Z,2µm,22.0s						
GYA	**Guiyang**	**68.69**	**72**	⇓P	**P**	**16 39 17.4**	**+0.3**
GYA				S	**S**	**16 48 12.9**	**-3.9**
GYA				pmax	pmax		
	comp=Z,47nm,0.9s						
ZEA	**Zeya**	**69.00**	**38**	*e*P	**P**	**16 39 16.6**	**-1.8**
ZEA				*e**PP	**pP**	**16 39 32.9**	**+0.1**
ZEA				*e**SP	**sP**	**16 39 38.0**	**-0.6**
ZEA				*e*		16 41 51.6	
ZEA				*e*S	**S**	**16 48 16.8**	**-2.5**
ZEA				*e*		16 49 18.0	
ZEA				pmax	pmax		
	comp=E,200nm,3.8s						
ZEA				pmax	pmax		
	comp=Z,400nm,4.6s						
ZEA				pmax	pmax		
	comp=Z,10.0nm,1.7s						
ZEA				pmax	pmax		
	comp=Z,300nm,4.0s						
ZEA				smax	smax		
	comp=E,200nm,7.6s						
ZEA				smax	smax		
	comp=N,400nm,10.9s						
ENH	**Enshi**	**69.01**	**67**	P	**P**	**16 39 19.6**	**+0.7**
ENH	**Enshi**	**69.01**	**67**	P	**P**	**16 39 19.0**	**+0.1**
	comp=Z,1µmcomp=Z,96nm,0.9s						
SLVN	**Son La**	**69.05**	**78**	P	**P**	**16 39 21.6**	**+2.3**
BJT	**Baijiatuau**	**69.14**	**55**	P	**P**	**16 39 20.0**	**+0.5**
BJT	**Baijiatuau**	**69.14**	**55**	P	**P**	**16 39 20.3**	**+0.8**
BJT	**Baijiatuau**	**69.14**	**55**	IAmb	IAmb	16 39 22.2	
	comp=Z,56nm,1.1s						
BJT	**Baijiatuau**	**69.14**	**55**	P	**P**	**16 39 20.3**	**+0.8**
	comp=Z,3µmcomp=Z,917nmcomp=Z,51nm,1.6s						
BJI2	**Beijing**	**69.14**	**55**	P	**P**	**16 39 17.6**	**-1.9**
BJI2				PP	**PP**	**16 41 55.6**	**+3.3**
BJI2				S	**S**	**16 48 22.3**	**+0.8**
BJI2				SS	**SS**	**16 52 52.3**	**+4.5**
BJI2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
BJI2				pmax	pmax		
	comp=Z,410nm,5.5s						
BJI2				L	L		
	comp=Z,1µm,20.0s						
BJI2				L	L		
	comp=Z,1µm,20.4s						
BJI2				L	L		
	comp=Z,2µm,20.6s						
LYN	**LuoYang**	**69.17**	**62**	⇑*i*P	**P**	**16 39 20.8**	**+1.1**
LYN				pP	pP	16 39 33.8	-0.3
LYN				S	**S**	**16 48 22.1**	**+0.2**
LYN				pmax	pmax		
	comp=Z,39nm,0.8s						
LYN				pmax	pmax		
	comp=Z,960nm,9.2s						
LYN				L	L		
	comp=Z,1µm,22.3s						
LYN				L	L		
	comp=Z,2µm,23.4s						
LYN				L	L		
	comp=Z,2µm,32.9s						
HNS	**HongShan**	**69.39**	**58**	⇓P	**P**	**16 39 21.9**	**+0.9**
HNS				pP	**pP**	**16 39 34.3**	**-1.1**
HNS				S	**S**	**16 48 25.5**	**+1.1**
HNS				pmax	pmax		
	comp=Z,45nm,1.4s						
HNS				L	L		
	comp=Z,2µm,24.5s						
HNS				L	L		
	comp=Z,1µm,22.8s						
HNS				L	L		
	comp=Z,3µm,23.9s						
WVL	**Waterville**	**69.58**	**311**	IAMs_20	IAMs_20	17 09 31.9	
	comp=Z,2µm,22.0s						
RCBR	**Riachuelo**	**70.36**	**248**	LR	LR	17 12 08.7	
	comp=Z,749nm,19.5s,baz=53,slow=37						
RCBR	**Riachuelo**	**70.36**	**248**	IAMs_20	IAMs_20	17 11 40.5	
	comp=Z,2µm,20.0s						
I63A	**Otisfield**	**70.41**	**310**	IAMs_20	IAMs_20	17 09 56.8	
	comp=Z,2µm,21.0s						
H62A	**Milan**	**70.50**	**311**	IAMs_20	IAMs_20	17 09 58.4	
	comp=Z,2µm,22.0s						
BLKN	**Baker Lake**	**70.83**	**337**	IAmb	IAmb	16 39 31.1	
	comp=Z,48nm,0.6s						
HEH	**HeiHe**	**70.90**	**42**	*e*P	**P**	**16 39 29.3**	**-0.8**
HEH				pP	**pP**	**16 39 45.8**	**+1.3**
HEH				PP	**PP**	**16 42 06.9**	**-0.3**
HEH				S	**S**	**16 48 38.3**	**-3.4**
HEH				SS	**SS**	**16 53 20.6**	**+6.4**
HEH				pmax	pmax		
	comp=Z,100nm,0.8s						
HEH				pmax	pmax		
	comp=Z,780nm,5.9s						
HEH				L	L		
	comp=Z,2µm,23.2s						
HEH				L	L		
	comp=Z,2µm,23.7s						
HEH				L	L		
	comp=Z,2µm,24.5s						
I62A	**Tamworth**	**70.97**	**311**	IAMs_20	IAMs_20	17 10 23.7	
	comp=Z,2µm,21.0s						
LBNH	**Lisbon**	**71.15**	**311**	IAMs_20	IAMs_20	17 10 29.4	
	comp=Z,2µm,21.0s						
A36M	**Sachs Harbour**	**71.31**	**351**	IAMs_20	IAMs_20	17 13 09.0	
	comp=Z,2µm,20.0s						
FLET	**Fletcher**	**71.53**	**312**	IAmb	IAmb	16 39 43.4	
	comp=Z,37nm,0.9s						
L64A	**Middleborough**	**71.64**	**309**	IAMs_20	IAMs_20	17 10 11.6	
	comp=Z,2µm,21.0s						
HNH	**Hanover**	**71.65**	**311**	IAMs_20	IAMs_20	17 10 43.6	
	comp=Z,2µm,22.0s						
TIA	**Tai'an**	**71.67**	**58**	P	**P**	**16 39 34.3**	**-0.7**
TIA				PP	**PP**	**16 42 15.5**	**+1.4**
TIA				S	**S**	**16 48 50.3**	**-0.7**
TIA				pmax	pmax		
	comp=Z,56nm,0.9s						
TIA				pmax	pmax		
	comp=Z,540nm,5.8s						
TIA				L	L		
	comp=Z,2µm,25.0s						
TIA				L	L		
	comp=Z,1µm,24.7s						
TIA				L	L		
	comp=Z,3µm,23.4s						
TRQ	**Mont Tremblant**	**71.72**	**314**	P	**P**	**16 39 33.9**	**-1.3**
WES	**Weston**	**71.72**	**309**	IAMs_20	IAMs_20	17 10 35.1	
	comp=Z,2µm,20.0s						
HRV	**Adam Dziewonsk**	**71.81**	**309**	IAMs_20	IAMs_20	17 10 03.9	
	comp=Z,2µm,21.0s						
J61A	**Chester**	**72.00**	**311**	IAMs_20	IAMs_20	17 10 55.5	
	comp=Z,2µm,22.0s						
K62A	**Royalston**	**72.15**	**310**	IAMs_20	IAMs_20	17 10 58.6	
	comp=Z,2µm,20.0s						
VLDQ	**Val d'Or**	**72.38**	**317**	IAmb	IAmb	16 39 48.3	
	comp=Z,45nm,0.8s						
WHN	**Wuhan**	**72.53**	**65**	P	**P**	**16 39 42.1**	**+1.9**
WHN				PcP	**PcP**	**16 39 57.8**	**+0.2**
WHN				PP	**PP**	**16 42 26.6**	**+5.0**
WHN				S	**S**	**16 49 02.3**	**+1.3**
WHN				sS	**sS**	**16 49 25.9**	**+1.3**
L61B	**Northampton**	**72.55**	**310**	IAMs_20	IAMs_20	17 11 10.0	
	comp=Z,2µm,22.0s						
LONY	**Lake Ozonia**	**72.58**	**312**	IAMs_20	IAMs_20	17 11 23.7	
	comp=Z,2µm,22.0s						
CNSH	**ChangSha**	**72.66**	**68**	P	**P**	**16 39 42.9**	**+1.9**
CNSH				S	**S**	**16 49 00.4**	**-2.2**
CNSH				pmax	pmax		
	comp=Z,39nm,0.9s						
CNSH				L	L		
	comp=Z,640nm,4.0s						
CNSH				L	L		
	comp=Z,490nm,4.1s						
CNSH				L	L		
	comp=Z,1µm,33.7s						
M63A	**Gales Ferry**	**72.69**	**309**	IAMs_20	IAMs_20	17 13 06.9	
	comp=Z,2µm,18.0s						
TRY	**Troy**	**73.02**	**310**	IAMs_20	IAMs_20	17 11 36.4	
	comp=Z,2µm,22.0s						
SNY	**Shenyang**	**73.09**	**51**	⇓P	**P**	**16 39 44.6**	**+1.3**
SNY				pP	**pP**	**16 39 56.3**	**-1.5**
SNY				S	**S**	**16 49 03.8**	**-3.2**
SNY				pmax	pmax		
	comp=Z,39nm,0.8s						
SNY				L	L		
	comp=Z,1µm,22.3s						
SNY				L	L		
	comp=Z,1µm,23.2s						
SNY				L	L		
	comp=Z,2µm,20.8s						
CFNY	**Clifton-Fine,**	**73.11**	**312**	IAmb	IAmb	16 40 04.4	
	comp=Z,59nm,1.2s						
J59A	**Piesco**	**73.15**	**311**	IAMs_20	IAMs_20	17 11 28.7	
	comp=Z,2µm,22.0s						
BILL	**Bilibino**	**73.19**	**14**	*ce*P	**P**	**16 39 43.3**	**-0.1**
BILL				pmax	pmax		
	comp=Z,38nm,1.5s						
BILL				MLR	MLR		
	comp=Z,3µm,23.0s						
CN2	**Changchun**	**73.20**	**48**	*e*P	**P**	**16 39 44.8**	**+0.8**
CN2				*e*pP	pP	16 39 57.8	-0.7
CN2				*e*S	**S**	**16 49 07.5**	**-0.8**
CN2				pmax	pmax		
	comp=Z,20nm,1.0s						
CN2				pmax	pmax		
	comp=Z,400nm,4.0s						
CN2				L	L		
	comp=Z,200nm,12.0s						
CN2				L	L		
	comp=Z,100nm,12.0s						
CN2				L	L		
	comp=Z,200nm,11.0s						
BILI	**Bilibino, Chuk**	**73.20**	**14**	P	**P**	**16 39 43.5**	**0.0**
	comp=Z,925nmcomp=Z,965nmcomp=Z,27nm,1.2s						
BNX	**BinXian**	**73.33**	**46**	⇑P	**P**	**16 39 43.8**	**-0.8**
BNX				PP	**PP**	**16 42 28.5**	**+0.5**
BNX				S	**S**	**16 49 07.0**	**-2.6**
BNX				SS	**SS**	**16 53 50.3**	**-1.2**
BNX				pmax	pmax		
	comp=Z,89nm,1.0s						
BNX				pmax	pmax		
	comp=Z,820nm,4.6s						
BNX				L	L		
	comp=Z,1µm,20.6s						
BNX				L	L		
	comp=Z,2µm,20.6s						
BNX				L	L		
	comp=Z,2µm,15.7s						
TPTI		**73.33**	**98**	P	**P**	**16 39 49.0**	**+3.9**
	comp=Z,55nm,0.8s						
DL2	**Dalian**	**73.36**	**54**	P	**P**	**16 39 43.9**	**-1.0**
DL2				pP	**pP**	**16 39 57.8**	**-1.6**
DL2				PP	**PP**	**16 42 29.0**	**+0.6**
DL2				S	**S**	**16 49 06.8**	**-3.4**
DL2				sS	**sS**	**16 49 38.8**	**+4.9**
DL2				SS	**SS**	**16 53 56.4**	**+4.1**
DL2				pmax	pmax		
	comp=Z,54nm,1.0s						
DL2				pmax	pmax		
	comp=Z,630nm,3.8s						
DL2				L	L		
	comp=Z,2µm,22.2s						
DL2				L	L		
	comp=Z,910nm,22.7s						
DL2				L	L		
	comp=Z,2µm,27.1s						
C36M	**Paulatuk**	**73.53**	**349**	IAMs_20	IAMs_20	17 12 30.8	
	comp=Z,2µm,22.0s						
WSPT	**Westport, CT**	**73.63**	**309**	IAMs_20	IAMs_20	17 12 13.8	
	comp=Z,2µm,21.0s						
SEY	**Seymchan**	**73.66**	**22**	LR	LR	17 15 19.1	
	comp=Z,3µm,21.1s,baz=322,slow=38						
SEY	**Seymchan**	**73.66**	**22**	*ce*P	**P**	**16 39 46.8**	**+0.5**
SEY				pmax	pmax		
	comp=Z,60nm,2.5s						
SEY				MLR	MLR		
	comp=Z,4µm,24.0s						
KCSI	**Kotacane, Aceh**	**73.66**	**97**	P	**P**	**16 39 50.6**	**+3.5**
	comp=Z,57nm,1.1s						
NBPS	**Pedro II - PI**	**73.74**	**253**	*e*P	**P**	**16 39 48.5**	**+0.8**
KLR	**Kul'dur**	**73.81**	**41**	LR	LR	17 17 58.1	
	comp=Z,1µm,18.1s,baz=305,slow=40						
KLR	**Kul'dur**	**73.81**	**41**	*ce*P	**P**	**16 39 47.4**	**-0.1**
KLR				pmax	pmax		
	comp=Z,63nm,1.0s						
KLR				MLR	MLR		
	comp=Z,1µm,20.0s						
N62A	**Caumsett State**	**73.85**	**309**	IAMs_20	IAMs_20	17 12 18.6	
	comp=Z,2µm,21.0s						
FCC	**Fort Churchill**	**73.88**	**332**	IAmb	IAmb	16 40 08.0	
	comp=Z,106nm,1.3s						
J57A	**Williamstown**	**74.09**	**312**	IAmb	IAmb	16 39 58.6	
	comp=Z,33nm,0.8s						
J57A				IAMs_20	IAMs_20	17 11 56.9	
	comp=Z,2µm,21.0s						

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PAL    Palisades          74.09 309   IAMs_20   IAMs_20   17 12 26.2
       comp=Z,2µm,21.0s
L59A   Walton             74.17 311   IAMs_20   IAMs_20   17 12 12.1
       comp=Z,2µm,21.0s
SUJ    Sinuiju            74.59  52   P         P         16 39 49.2  -2.9
BINY   Binghamton         74.75 311   IAMs_20   IAMs_20   17 12 29.4
       comp=Z,2µm,21.0s
K57A   Scipio Center      74.78 312   IAMs_20   IAMs_20   17 12 29.2
       comp=Z,2µm,22.0s
GSI    Gunungsitoli       74.78  99   P         P         16 39 55.4  +1.8
GSI    Gunungsitoli       74.78  99   IAmb      IAmb      16 40 16.1
       comp=Z,96nm,1.2s
GSI    Gunungsitoli       74.78  99   P         P         16 39 59.3  +5.7
       comp=Z,65nm,1.0s
GSI    Gunungsitoli       74.78  99   P         P         16 39 53.4  -0.2
       comp=Z,65nm,1.1s
B22K   Teshekpuk Lake     74.95 360   IAMs_20   IAMs_20   17 11 14.9
       comp=Z,2µm,22.0s
QIZ    Qiongzhong         75.01  77   P         P         16 39 53.1  -1.8
QIZ                                   S         S         16 49 28.5  -0.8
QIZ                                   L         L
       comp=Z,1µm,19.6s
QIZ                                   L         L
       comp=Z,2µm,16.7s
QIZ                                   L         L
       comp=Z,1µm,15.7s
PSI    Prapat             75.01  97   P         P         16 39 56.3  +1.2
PSI    Prapat             75.01  97   P         P         16 39 57.3  +2.2
PSI    Prapat             75.01  97   P         P         16 39 58.9  +3.8
       comp=Z,49nm,1.1s
NJ2    Nanjing            75.04  61  eP         P         16 39 55.8  +0.9
NJ2                                   PP        PP        16 42 45.8  +2.9
NJ2                                   S         S         16 49 27.3  -1.9
NJ2                                   pmax      pmax
       comp=Z,23nm,0.9s
NJ2                                   pmax      pmax
       comp=Z,580nm,4.5s
NJ2                                   L         L
       comp=Z,1µm,19.9s
NJ2                                   L         L
       comp=Z,890nm,21.3s
NJ2                                   L         L
       comp=Z,2µm,24.3s
RPSI   Rantau Prapat      75.07  97   P         P         16 39 56.2  +0.9
       comp=Z,49nm,1.1s
SADO   Sadowa             75.21 314   LR        LR        17 13 21.9
       comp=Z,2µm,20.6s,baz=70,slow=36
MDJ    Mudanjiang         75.23  46   P         P         16 39 56.3  +0.5
MDJ                                   S         S         16 49 28.4  -2.7
MDJ                                   ScS       SKSac     16 49 54.5  -6.6
MDJ                                   pmax      pmax
       comp=Z,19nm,1.6s
MDJ                                   pmax      pmax
       comp=Z,810nm,10.0s
MDJ                                   L         L
       comp=Z,550nm,17.9s
MDJ                                   L         L
       comp=Z,2µm,17.3s
MDJ                                   L         L
       comp=Z,2µm,18.6s
MDJ    Mudanjiang         75.23  46   P         P         16 39 57.4  +1.6
MDJ    Mudanjiang         75.23  46   IAMs_20   IAMs_20   17 18 26.7
       comp=Z,2µm,18.0s
MDJ    Mudanjiang         75.23  46   P         P         16 39 57.1  +1.3
       comp=Z,3µmcomp=Z,858nmcomp=Z,19nm,1.2s
B20K   Meade River        75.27   1   IAmb      IAmb      16 40 27.3
       comp=Z,69nm,1.0s
GRNR   Gornyy             75.33  38⇑iP        P         16 39 55.8  -0.4
GRNR                                  pmax      pmax
       comp=Z,4.0nm,0.5s
GRNR                                  MLR       MLR
       comp=N,950nm,16.0s
GRNR                                  MLR       MLR
       comp=Z,1µm,16.0s
C27K   Jago River         75.36 356   IAmb      IAmb      16 40 31.8
       comp=Z,48nm,1.0s
P61A   Hammonton          75.38 308   IAMs_20   IAMs_20   17 14 18.4
       comp=Z,2µm,20.0s
C23K   Itkillik River     75.42 359   IAMs_20   IAMs_20   17 11 47.6
       comp=Z,2µm,21.0s
C24K   Franklin Bluff     75.48 358   IAMs_20   IAMs_20   17 11 50.4
       comp=Z,2µm,22.0s
MA2    Magadan            75.58  25   LR        LR        17 17 09.3
       comp=Z,854nm,18.2s,baz=303,slow=39
MA2    Magadan            75.58  25   P         P         16 39 57.8  +0.3
MA2    Magadan            75.58  25ceP          P         16 39 57.8  +0.3
MA2                                   pmax      pmax
       comp=Z,60nm,1.0s
MA2                                   MLR       MLR
       comp=Z,3µm,18.0s
MA2    Magadan            75.58  25   P         P         16 39 56.9  -0.6
MA2    Magadan            75.58  25   P         P         16 39 57.7  +0.3
       comp=Z,2µmcomp=Z,94nm,1.1s
MA2    Magadan            75.58  25   P         P         16 39 57.4   0.0
MA2                                   sP        sP        16 40 17.3  -0.2
L56A   Greenwood          75.75 312   IAMs_20   IAMs_20   17 12 47.0
       comp=Z,2µm,22.0s
INK    Inuvik             75.78 352   LR        LR        17 15 32.3
       comp=Z,1µm,21.8s,baz=28,slow=37
INK    Inuvik             75.78 352   P         P         16 39 57.8  -0.6
INK    Inuvik             75.78 352   P         P         16 39 58.6  +0.2
       comp=Z,1µmcomp=Z,27nm,0.8s
M57A   Sunshine Farm,     75.94 311   IAmb      IAmb      16 40 22.2
       comp=Z,46nm,0.8s
PYAG   Pyongyang          75.99  52   P         P         16 39 57.9  -2.3
PYAG                                  S         S         16 49 36.4  -3.1
PYAG                                  AmB
       comp=Z,409nm,2.3s
D24K   Happy Valley       76.05 358   IAmb      IAmb      16 40 37.6
       comp=Z,51nm,1.1s
E28M   Babbage River      76.08 354   IAmb      IAmb      16 40 32.5
       comp=Z,42nm,1.0s
C19K   Lookout Ridge      76.13   2   IAmb      IAmb      16 40 30.2
       comp=Z,128nm,1.8s
E29M   Blow River         76.15 354   IAmb      IAmb      16 40 32.9
       comp=Z,62nm,0.8s
D23K   Nanushuk River     76.29 358   IAMs_20   IAMs_20   17 12 27.8
       comp=Z,2µm,22.0s
D22K   Ayikyak River      76.41 359   P         P         16 40 02.1   0.0
D22K                                  IAmb      IAmb      16 40 34.2
       comp=Z,44nm,0.9s
D22K                                  IAMs_20   IAMs_20   17 11 26.9
       comp=Z,2µm,22.0s
HJU    Haeju              76.53  53   P         P         16 39 59.5  -3.7
D20K   Etivluk River      76.58   1   IAmb      IAmb      16 40 34.7
       comp=Z,92nm,1.3s
F31M   Tsiigehtchic       76.63 352   IAmb      IAmb      16 40 23.7
       comp=Z,60nm,0.9s
HHU    Hamhung            76.63  51   P         P         16 40 00.4  -3.4
HHU                                   S         S         16 49 44.7  -1.9
HHU                                   AmB
       comp=Z,307nm,2.2s
F30M   Barrier River      76.70 353   IAmb      IAmb      16 41 00.7
       comp=Z,72nm,1.1s
F30M                                  IAMs_20   IAMs_20   17 18 25.6
       comp=Z,2µm,22.0s
MNSI   Mandailing Nat     76.70  98   P         P         16 40 08.2  +3.6
       comp=Z,48nm,1.0s
C16K   Lisburne Hills     76.72   4   IAMs_20   IAMs_20   17 13 36.0
       comp=Z,2µm,22.0s
D19K   Kuna River         76.78   1   IAmb      IAmb      16 40 41.6
       comp=Z,50nm,0.8s
SSPA   Standing Stone     76.81 310   P         P         16 40 05.8  +1.0
SSPA                                  IAmb      IAmb      16 40 24.8
       comp=Z,35nm,0.9s
E21K   Killik River       76.86 360   IAmb      IAmb      16 40 35.3
       comp=Z,41nm,0.8s
USA0B  Ussuriysk Arra     76.88  45c iP         P         16 40 04.5  -0.6
USRK   Ussuriysk Ar.      76.88  45   P         P         16 40 04.2  -0.9
       comp=Z,45nm,0.8s,baz=292,slow=4.6,SNR=80
USRK                                  S         S         16 49 49.8  +0.7
       comp=Z,1.7nm,0.8s,baz=295,slow=5.9,SNR=6.0
USRK                                  LR        LR        17 19 21.2
       comp=Z,1µm,19.6s,baz=305,slow=40
       comp=Z,45nm,0.8s
USRK   Ussuriysk Ar.      76.88  45   P         P         16 40 03.8  -1.4
E25K   Arctic Village     76.95 356   IAmb      IAmb      16 40 40.5
       comp=Z,46nm,1.0s
E25K                                  IAMs_20   IAMs_20   17 13 01.6
       comp=Z,2µm,21.0s
RDOG   Red Dog Mine       77.06   3   IAmb      IAmb      16 40 34.4
       comp=Z,41nm,1.0s
RDOG                                  IAMs_20   IAMs_20   17 15 29.8
       comp=Z,2µm,21.0s
F28M   Old Crow           77.08 354   IAmb      IAmb      16 40 46.9
       comp=Z,79nm,1.5s
E24K   Your Creek         77.12 358   IAmb      IAmb      16 40 41.2
       comp=Z,74nm,1.5s
E24K                                  IAMs_20   IAMs_20   17 12 53.8
       comp=Z,2µm,22.0s
E23K   Chandalar          77.17 358   IAmb      IAmb      16 40 36.0
       comp=Z,73nm,1.2s
E23K                                  IAMs_20   IAMs_20   17 12 55.1
       comp=Z,2µm,21.0s
G31M   Satah River        77.19 352   IAmb      IAmb      16 40 30.0
       comp=Z,30nm,0.7s
MDP    Montagnes des      77.20 267   LR        LR        17 11 05.2
       comp=Z,762nm,21.9s,baz=41,slow=33
E46A   Sault Ste Mari     77.20 318   IAmb      IAmb      16 40 29.7
       comp=Z,52nm,0.9s
E46A                                  IAMs_20   IAMs_20   17 14 13.8
       comp=Z,2µm,21.0s
SSE    Sheshan            77.23  61   P         P         16 40 08.8  +1.5
SSE                                   S         S         16 49 49.1  -4.2
SSE                                   pmax      pmax
       comp=Z,17nm,0.6s
SSE                                   pmax      pmax
       comp=Z,170nm,5.8s
SSE                                   L         L
       comp=Z,580nm,23.0s
SSE                                   L         L
       comp=Z,560nm,24.1s
F26K   Sheenjek River     77.30 356   IAmb      IAmb      16 40 42.7
       comp=Z,50nm,1.2s
F26K                                  IAMs_20   IAMs_20   17 13 28.5
       comp=Z,2µm,22.0s
G30M   tAoh Zraii Nji     77.35 353   IAmb      IAmb      16 40 42.5
       comp=Z,99nm,1.6s
G30M                                  IAMs_20   IAMs_20   17 12 54.9
       comp=Z,1µm,22.0s
INCN   Inchon             77.44  53   P         P         16 40 10.3  +1.9
INCN   Inchon             77.44  53   P         P         16 40 08.4   0.0
INCN                                  S         S         16 49 54.0  -1.4
INCN   Inchon             77.44  53   P         P         16 40 06.9  -1.5
INCN                                  pmax      pmax
       comp=Z,40nm,0.8s
INCN                                  MLR       MLR
       comp=Z,2µm,20.0s
INCN   Inchon             77.44  53   P         P         16 40 06.8  -1.5
INCN                                  IAmb      IAmb      16 40 14.0
       comp=Z,40nm,0.8s
INCN   Inchon             77.44  53   IAMs_20   IAMs_20   17 21 11.0
       comp=Z,2µm,20.0s
INCN   Inchon             77.44  53   P         P         16 40 10.5  +2.1
       comp=Z,2µmcomp=Z,65nm,1.2s
VLA    Vladivostok        77.45  46 i P         P         16 40 07.5  -0.9
VLA                                   pmax      pmax
       comp=Z,92nm,1.3s
P57A   Homestead Farm     77.55 310   IAmb      IAmb      16 40 17.8
       comp=Z,43nm,1.0s
BMAR   Burnt Mountain     77.59 356   P         P         16 40 08.5  -0.3
YKAW1  Yellowknife Wh     77.60 342   IAmb      IAmb      16 40 33.1
       comp=Z,43nm,1.2s
YKA    Yellowknife Ar     77.62 342   P         P         16 40 08.4  -0.5
       comp=Z,14nm,0.4s,baz=34,slow=4.9,SNR=44
YKA                                   LR        LR        17 15 46.9
       comp=Z,1µm,19.8s,baz=24,slow=37
       comp=Z,14nm,0.4s
YKA    Yellowknife Ar     77.62 342   P         P         16 40 08.1  -0.8
F24K   Squaw Lake         77.66 357   IAmb      IAmb      16 40 41.6
       comp=Z,45nm,0.9s
F24K                                  IAMs_20   IAMs_20   17 12 59.9
       comp=Z,2µm,22.0s
E19K   Redstone River     77.83   1   IAmb      IAmb      16 40 33.0
       comp=Z,64nm,0.9s
CBN    Corbin Frederi     77.87 308   IAMs_20   IAMs_20   17 18 33.3
       comp=Z,1µm,20.0s
G27K   Doyon Strip        78.01 355   IAmb      IAmb      16 40 52.2
       comp=Z,96nm,1.7s
G26K   Porcupine Rive     78.02 356   IAmb      IAmb      16 40 52.5
       comp=Z,50nm,0.9s
COLD   Coldfoot           78.02 358   IAmb      IAmb      16 40 43.5
       comp=Z,57nm,1.1s
COLD                                  IAMs_20   IAMs_20   17 13 56.4
       comp=Z,2µm,22.0s
F21K   Alatna River       78.08 360   IAmb      IAmb      16 40 34.9
       comp=Z,57nm,0.8s
PPI    Padang Panjang     78.09  99   P         P         16 40 13.6  +1.2
       comp=Z,58nm,0.8s
BKNI   Bangkinang         78.16  98   P         P         16 40 16.9  +4.2
BKNI   Bangkinang         78.16  98   IAMs_20   IAMs_20   17 20 01.9
       comp=Z,2µm,21.0s
BKNI   Bangkinang         78.16  98   P         P         16 40 14.0  +1.2
       comp=Z,146nm,1.3s
H31M   Peel River         78.27 352   IAmb      IAmb      16 41 05.0
       comp=Z,65nm,1.2s
H31M                                  IAMs_20   IAMs_20   17 18 21.3
       comp=Z,1µm,20.0s
KSAR   Wonju Array Be     78.28  52   P         P         16 40 12.3  -0.8
KSAR   Wonju Array Be     78.28  52   P         P         16 40 12.3  -0.8
KSRS   Korea Array        78.30  52   P         P         16 40 12.7  -0.4
       comp=Z,17nm,0.5s,baz=308,slow=4.5,SNR=135
KSRS                                  LR        LR        17 20 07.6
       comp=Z,2µm,18.8s,baz=300,slow=40
       comp=Z,17nm,0.5s
H29M   Whitestone         78.31 353   IAmb      IAmb      16 40 34.1
       comp=Z,45nm,0.8s
TYV    Tymovskoe          78.31  35  eP         P         16 40 13.9  +0.9
TYV                                  eS         S         16 50 06.2  +1.9
TYV                                   pmax      pmax
       comp=Z,16nm,1.0s
TYV                                   pmax      pmax
       comp=Z,400nm,3.8s
TYV                                   smax      smax
       comp=N,700nm,5.9s
TYV                                   smax      smax
       comp=E,400nm,5.9s
R58B   Mineral            78.34 308   IAMs_20   IAMs_20   17 16 54.6
       comp=Z,2µm,19.0s
M52A   Chesterland        78.41 313   IAMs_20   IAMs_20   17 14 08.2
       comp=Z,1µm,21.0s
K50A   Casco              78.42 314   IAMs_20   IAMs_20   17 14 56.4
       comp=Z,2µm,21.0s
F19K   Shaleruckik Mo     78.45   1   IAmb      IAmb      16 40 35.9
       comp=Z,45nm,1.1s
G24K   Hadweenzic Riv     78.46 357   IAMs_20   IAMs_20   17 13 59.1
       comp=Z,2µm,22.0s
TBO    Thunder Bay        78.46 322   IAmb      IAmb      16 40 32.6
       comp=Z,38nm,0.8s
FYU    Fort Yukon         78.48 356   IAMs_20   IAMs_20   17 14 13.4
       comp=Z,2µm,21.0s
N53A   Lisbon             78.53 312   IAMs_20   IAMs_20   17 14 23.5
       comp=Z,2µm,21.0s
G23K   Bananza Creek      78.54 358   IAmb      IAmb      16 40 37.5
       comp=Z,40nm,0.9s
G23K                                  IAMs_20   IAMs_20   17 13 52.1
       comp=Z,2µm,22.0s
Q56A   Snyder Ridge,      78.55 310   IAmb      IAmb      16 40 34.4
       comp=Z,57nm,0.8s
Q56A                                  IAMs_20   IAMs_20   17 14 55.0
       comp=Z,2µm,21.0s
TJN    Taejon             78.55  54   P         P         16 40 15.5  +1.0
TJN    Taejon             78.55  54   P         P         16 40 13.6  -0.9
TJN                                   pmax      pmax
       comp=Z,281nm,1.3s
TJN    Taejon             78.55  54   P         P         16 40 13.6  -0.9
TJN    Taejon             78.55  54   P         P         16 40 14.8  +0.3
       comp=Z,10µmcomp=Z,4µmcomp=Z,173nm,1.0s
H27K   Steamboat Moun     78.57 355   IAmb      IAmb      16 40 47.0
       comp=Z,39nm,0.8s
H27K                                  IAMs_20   IAMs_20   17 14 34.1
       comp=Z,2µm,22.0s
MCWV   Mont Chateau       78.60 311   IAmb      IAmb      16 40 34.9
       comp=Z,36nm,0.7s
QZH2   Quanzhou           78.67  68  eP         P         16 40 15.0  -0.4
QZH2                                  S         S         16 50 05.6  -3.5
QZH2                                  L         L
       comp=Z,2µm,18.6s
T59A   Double "B" Far     78.70 307   IAMs_20   IAMs_20   17 14 30.3
       comp=Z,2µm,21.0s
G21K   Allakaket          78.79 360   IAmb      IAmb      16 40 53.5
       comp=Z,42nm,0.8s
TEY    Ternei             78.98  42  eP         P         16 40 06.3   -10
TEY                                  e                    16 50 00.4
I30M   Mount Dempster     79.07 352   IAMs_20   IAMs_20   17 16 31.4
       comp=Z,2µm,22.0s
I29M   Ogilvie Camp,      79.14 353   IAmb      IAmb      16 40 46.9
       comp=Z,77nm,1.1s
S57A   Dark Hollow, R     79.14 309   IAMs_20   IAMs_20   17 16 52.0
       comp=Z,2µm,19.0s
G19K   Purcell Mounta     79.15   1   IAmb      IAmb      16 40 41.1
       comp=Z,122nm,1.5s
I28M   Miner Creek        79.21 354   IAmb      IAmb      16 40 52.4
       comp=Z,146nm,1.8s
SDSI   Sungai Dareh       79.21  99   P         P         16 40 17.1  -1.4
       comp=Z,902nmcomp=Z,53nm,1.1s
CMC01  Camacan, BA        79.23 243  eP         P         16 40 19.1  +0.6
F15K   North Star Dit     79.31   4   IAmb      IAmb      16 40 46.8
       comp=Z,150nm,1.8s
F15K                                  IAMs_20   IAMs_20   17 15 29.5
       comp=Z,2µm,22.0s
AAM    Ann Arbor          79.32 314   IAMs_20   IAMs_20   17 15 34.1
       comp=Z,2µm,21.0s
IMAR   Indian Mountai     79.33 360   P         P         16 40 17.4  -0.9
H24K   Noodor Dome        79.34 357   IAMs_20   IAMs_20   17 14 50.3
       comp=Z,2µm,22.0s
H22K   Ishtalitna Cre     79.39 359   IAmb      IAmb      16 40 42.6
       comp=Z,39nm,0.9s
H22K                                  IAMs_20   IAMs_20   17 14 18.6
       comp=Z,2µm,22.0s
H23K   Yukon River        79.41 358   IAmb      IAmb      16 41 06.9
       comp=Z,52nm,1.0s
H23K                                  IAMs_20   IAMs_20   17 15 02.5
       comp=Z,2µm,22.0s
PRP    Porcupine Dome     79.54 356   IAMs_20   IAMs_20   17 14 55.8
       comp=Z,1µm,22.0s
R55A   Marlinton          79.58 310   IAMs_20   IAMs_20   17 17 37.5
       comp=Z,2µm,21.0s
I26K   Coal Creek Min     79.60 355   IAmb      IAmb      16 41 00.5
       comp=Z,46nm,1.1s
I26K                                  IAMs_20   IAMs_20   17 14 54.3
       comp=Z,1µm,22.0s
H21K   Melozitna Rive     79.65 359   IAmb      IAmb      16 40 47.7
       comp=Z,39nm,0.8s
F42A   Maple Grove Fa     79.66 319   IAMs_20   IAMs_20   17 15 45.8
       comp=Z,2µm,22.0s
J30M   Hart River         79.69 352   IAmb      IAmb      16 40 50.8
       comp=Z,108nm,1.2s
J30M                                  IAMs_20   IAMs_20   17 16 38.8
       comp=Z,2µm,22.0s
I45A   Fountain           79.72 317   IAMs_20   IAMs_20   17 15 31.4
       comp=Z,2µm,21.0s
G16K   Koyuk River        79.75   3   IAmb      IAmb      16 40 50.1
       comp=Z,40nm,0.9s
G16K                                  IAMs_20   IAMs_20   17 16 53.9
       comp=Z,2µm,22.0s
FFC    Flin Flon          79.81 332 i P         P         16 40 22.5  +1.4
FFC    Flin Flon          79.81 332   P         P         16 40 20.8  -0.3
FFC                                   IAmb      IAmb      16 40 44.5
       comp=Z,62nm,1.0s
FFC    Flin Flon          79.81 332   IAMs_20   IAMs_20   17 16 41.9
       comp=Z,2µm,21.0s
FFC    Flin Flon          79.81 332   P         P         16 40 20.1  -1.0
       comp=Z,3µmcomp=Z,71nm,0.9s
FFC    Flin Flon          79.81 332   P         P         16 40 21.2  +0.1
FFC                                   PcP       PcP       16 40 27.4  -1.3
KRJI   Kerinci            79.91 100   P         P         16 40 27.1  +4.7
EYMN   Ely                79.97 322   P         P         16 40 23.7  +1.6
I23K   Minto, Yukon-K     80.08 358   IAMs_20   IAMs_20   17 14 49.0
       comp=Z,2µm,22.0s
I21K   Tanana             80.11 359   IAMs_20   IAMs_20   17 14 06.8
       comp=Z,2µm,22.0s
GUA01  Guaratinga, BA     80.24 242  eP         P         16 40 24.4  +0.5
MLY    Manley             80.24 358   IAMs_20   IAMs_20   17 14 43.1
       comp=Z,1µm,22.0s
H43A   Windswept, Lux     80.29 318   IAMs_20   IAMs_20   17 16 09.8
       comp=Z,2µm,21.0s
COLA   College            80.30 357   P         P         16 40 26.0  +2.5
COLA   College            80.30 357   P         P         16 40 24.3  +0.8
COLA   College            80.30 357   IAMs_20   IAMs_20   17 15 41.7
       comp=Z,2µm,22.0s
COLA   College            80.30 357   P         P         16 40 24.3  +0.8
       comp=Z,2µmcomp=Z,38nm,2.3s
W59A   Clinton            80.33 306   IAMs_20   IAMs_20   17 15 53.9
       comp=Z,1µm,21.0s
ILAR   Eielson Array      80.36 357   P         P         16 40 23.6  -0.3
       comp=Z,2.0nm,0.4s,baz=341,slow=3.8,SNR=30
ILAR                                  PKKPbc    PKKPbc    16 59 04.8  -1.1
       comp=Z,1.2nm,0.6s,baz=222,slow=2.6,SNR=8.4
ILAR                                  PKPPKP              17 07 07.5
       comp=Z,1.0nm,0.9s,baz=255,slow=3.5,SNR=4.7
ILAR                                  LR        LR        17 15 09.3
       comp=Z,1µm,21.9s,baz=10.0,slow=35
       comp=Z,2.0nm,0.4s
ILAR   Eielson Array      80.36 357   P         P         16 40 23.2  -0.7
BLA    Blacksburg         80.41 309   IAMs_20   IAMs_20   17 17 31.7
       comp=Z,2µm,20.0s
J25K   Salcha River,      80.43 356   IAMs_20   IAMs_20   17 15 05.3
       comp=Z,2µm,22.0s
N49A   Columbus Grove     80.48 314   IAMs_20   IAMs_20   17 16 25.1
       comp=Z,1µm,21.0s
ULM    Lac du Bonnet      80.49 326   P         P         16 40 24.1  -0.8
       comp=Z,4.4nm,0.4s,baz=46,slow=5.2,SNR=8.0
ULM                                   LR        LR        17 16 09.8
       comp=Z,2µm,21.6s,baz=44,slow=36
       comp=Z,4.4nm,0.4s
ULM    Lac du Bonnet      80.49 326   IAmb      IAmb      16 40 47.3
       comp=Z,67nm,1.3s
DAWY   Dawson             80.51 353   IAmb      IAmb      16 40 55.0
       comp=Z,90nm,1.3s
K29M   Barlow Dome        80.54 352   IAmb      IAmb      16 40 54.6
       comp=Z,59nm,1.4s
K29M                                  IAMs_20   IAMs_20   17 17 15.1
       comp=Z,1µm,21.0s
S54A   Dingess, Beckl     80.62 310   IAMs_20   IAMs_20   17 16 10.3
       comp=Z,2µm,20.0s
NEA2   Nenana             80.63 358   IAMs_20   IAMs_20   17 15 17.4
       comp=Z,2µm,22.0s
WRH    Wood River Hil     80.71 357   IAmb      IAmb      16 40 45.8
       comp=Z,50nm,0.7s
HUMP   Col San Antoni     80.71 286   IAmb      IAmb      16 40 46.4
       comp=Z,59nm,1.0s
HDA    Harding Lake       80.72 357   IAMs_20   IAMs_20   17 15 30.9
       comp=Z,2µm,22.0s
K27K   Chicken            80.78 354   IAmb      IAmb      16 40 57.2
       comp=Z,57nm,1.0s
MMPY   Sheldon Lake,      80.89 349   IAmb      IAmb      16 40 53.7
       comp=Z,54nm,1.0s
E38A   The Farm, Brul     80.90 321   IAMs_20   IAMs_20   17 18 41.5
       comp=Z,1µm,20.0s
U56A   King               80.90 308   IAMs_20   IAMs_20   17 18 20.8
       comp=Z,1µm,19.0s
PDPR   Patillas Dam,      80.92 286   IAmb      IAmb      16 40 58.6
       comp=Z,64nm,1.0s
SCRK   Sand Creek         80.98 355   IAmb      IAmb      16 41 02.7
       comp=Z,62nm,1.2s
SCRK                                  IAMs_20   IAMs_20   17 15 56.8
       comp=Z,2µm,22.0s
YSS    Yuzhno-Sakhali     80.99  38   P         P         16 40 27.6   0.0
YSS    Yuzhno-Sakhali     80.99  38  eP         P         16 40 27.6   0.0
YSS                                  e                    16 43 32.9
YSS                                  ePPP       PPP       16 45 27.4
YSS                                  eS         S         16 50 32.5  -0.3
YSS                                  ePS        SKKSac    16 50 44.1  -0.6
YSS                                  e                    16 51 21.6
YSS                                   pmax      pmax
       comp=Z,70nm,1.2s
YSS                                   pmax      pmax
       comp=Z,800nm,4.2s
YSS                                   pmax      pmax
       comp=N,300nm,5.6s
YSS                                   pmax      pmax
       comp=E,400nm,3.7s
YSS                                   pmax      pmax
       comp=Z,500nm,8.9s
YSS                                   pmax      pmax
       comp=N,100nm,5.5s
YSS                                   smax      smax
       comp=N,600nm,7.2s
YSS                                   smax      smax
       comp=E,500nm,7.2s
YSS    Yuzhno-Sakhali     80.99  38   P         P         16 40 27.3  -0.3
YSS                                   IAMs_20   IAMs_20   17 23 08.6
       comp=Z,2µm,20.0s
YSS    Yuzhno-Sakhali     80.99  38   P         P         16 40 28.9  +1.3
       comp=Z,3µmcomp=Z,2µmcomp=Z,96nm,1.1s
YSS    Yuzhno-Sakhali     80.99  38   P         P         16 40 27.7  +0.2
O49A   Covington          81.02 313   IAmb      IAmb      16 40 52.4
       comp=Z,53nm,1.1s
BWN    Browne             81.06 358   IAMs_20   IAMs_20   17 15 42.7
       comp=Z,2µm,22.0s
G40A   Rib Lake           81.08 320   IAMs_20   IAMs_20   17 16 51.6
       comp=Z,2µm,19.0s
Q51A   Peebles            81.14 312   IAMs_20   IAMs_20   17 15 53.9
       comp=Z,2µm,22.0s
J20K   Nowinta River      81.14 360   IAmb      IAmb      16 41 08.2
       comp=Z,56nm,1.1s
MASI   Maura Aman, Be     81.15 100   P         P         16 40 32.9  +3.9
       comp=Z,224nm,1.2s
BPAW   Bear Paw Mtn.      81.18 358   IAmb      IAmb      16 41 24.6
       comp=Z,46nm,1.1s
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BPAW				IAMs_20	IAMs_20	17 16 06.9	
	comp=Z,2µm,22.0s						
K24K	**Donnelly Dome**	81.26	356	IAMs_20	IAMs_20	17 15 18.2	
	comp=Z,1µm,21.0s						
RIDG	**Independent Ri**	81.27	356	IAMs_20	IAMs_20	17 15 31.4	
	comp=Z,2µm,22.0s						
X58A	**Rowland**	81.29	306	IAMs_20	IAMs_20	17 16 22.2	
	comp=Z,2µm,21.0s						
I42A	**Draeger Farm,**	81.29	318	IAMs_20	IAMs_20	17 16 06.3	
	comp=Z,1µm,20.0s						
L29M	**L29M**	81.32	352	IAmb	IAmb	16 40 55.0	
	comp=Z,59nm,1.2s						
L29M				IAMs_20	IAMs_20	17 16 52.6	
	comp=Z,1µm,22.0s						
J19K	**Poorman**	81.33	0	IAmb	IAmb	16 41 27.0	
	comp=Z,73nm,1.2s						
J19K				IAMs_20	IAMs_20	17 15 43.8	
	comp=Z,1µm,22.0s						
CELP	**Cerrillos**	81.33	286	IAmb	IAmb	16 41 00.6	
	comp=Z,57nm,1.0s						
SDBA	**SAO DESIDERIO**	81.38	248	*e*P	**P**	**16 40 30.6**	**+0.5**
N47A	**Urbana**	81.40	314	IAmb	IAmb	16 40 37.6	
	comp=Z,46nm,0.9s						
N47A				IAMs_20	IAMs_20	17 16 48.4	
	comp=Z,2µm,20.0s						
O48B	**Farmland**	81.47	314	IAMs_20	IAMs_20	17 15 53.4	
	comp=Z,1µm,20.0s						
MCK	**McKinley**	81.48	357	IAmb	IAmb	16 41 09.9	
	comp=Z,81nm,1.2s						
DSRI	**Dabo**	81.51	97	P	P	16 40 37.1	+6.2
	comp=Z,41nm,1.2s						
YULB	**Yu-li**	81.58	67	P	**P**	**16 40 33.8**	**+2.6**
YULB	**Yu-li**	81.58	67	P	**P**	**16 40 31.9**	**+0.7**
	comp=Z,61nm,1.1s						
BCAR	**Beaver Creek A**	81.71	354	P	**P**	**16 40 30.8**	**-0.4**
TWG	**Pinlang**	81.73	68	P	**P**	**16 40 35.3**	**+3.4**
	comp=Z,46nm,1.2s						
KSI	**Kapahiang**	81.73	100	P	**P**	**16 40 34.7**	**+2.6**
V55A	**Taylorsville**	81.74	308	IAMs_20	IAMs_20	17 18 55.9	
	comp=Z,1µm,20.0s						
TWGBT	**Beinan**	81.74	68	P	**P**	**16 40 34.9**	**+2.9**
K43A	**Burlington**	81.74	317	IAMs_20	IAMs_20	17 18 33.3	
	comp=Z,2µm,19.0s						
J18K	**Innoko River**	81.85	1	IAmb	IAmb	16 41 12.5	
	comp=Z,72nm,1.5s						
L44A	**Lake County Fo**	81.85	316	IAMs_20	IAMs_20	17 16 57.1	
	comp=Z,2µm,21.0s						
AGMN	**Agassiz Nation**	81.86	325	P	**P**	**16 40 35.8**	**+3.7**
	comp=Z,22nm,0.9s						
J17K	**VABM Dome**	81.87	2	IAmb	IAmb	16 41 11.7	
	comp=Z,42nm,1.0s						
L26K	**Log Cabin Wild**	81.88	355	IAMs_20	IAMs_20	17 16 48.5	
	comp=Z,1µm,22.0s						
J16K	**Anvik River**	81.93	3	IAmb	IAmb	16 41 06.2	
	comp=Z,39nm,0.9s						
K20K	**Telida**	81.97	360	IAmb	IAmb	16 41 30.1	
	comp=Z,45nm,1.2s						
DHY	**Denali Highway**	82.07	357	IAmb	IAmb	16 41 03.8	
	comp=Z,55nm,0.8s						
DHY				IAMs_20	IAMs_20	17 16 24.6	
	comp=Z,2µm,22.0s						
I40A	**Norwalk**	82.22	319	IAMs_20	IAMs_20	17 17 44.7	
	comp=Z,1µm,22.0s						
KMSC	**Kings Mountain**	82.25	308	IAMs_20	IAMs_20	17 16 38.4	
	comp=Z,2µm,22.0s						
Y57A	**Sumter**	82.31	306	IAMs_20	IAMs_20	17 16 53.1	
	comp=Z,2µm,21.0s						
J14K	**Nanvaranak Lak**	82.32	4	IAMs_20	IAMs_20	17 16 37.0	
	comp=Z,1µm,22.0s						
M27K	**Edge Creek, AK**	82.42	354	IAmb	IAmb	16 41 10.6	
	comp=Z,48nm,1.0s						
SPMN	**Marine on St.**	82.47	321	IAMs_20	IAMs_20	17 19 04.3	
	comp=Z,2µm,19.0s						
N32M	**Quiet Lake**	82.56	350	IAMs_20	IAMs_20	17 19 24.1	
	comp=Z,2µm,22.0s						
K17K	**Iditarod**	82.57	2	IAmb	IAmb	16 41 35.0	
	comp=Z,54nm,1.0s						
K17K				IAMs_20	IAMs_20	17 22 45.6	
	comp=Z,1µm,21.0s						
JANB	**Januaria**	82.58	246	*e*P	**P**	**16 40 37.0**	**+0.5**
LHSI	**Lahat**	82.59	100	P	**P**	**16 40 37.2**	**+0.7**
	comp=Z,2µmcomp=Z,121nm,0.8s						
SJMB	**Sao Joao De Ma**	82.61	241	*e*P	**P**	**16 40 36.6**	**+0.2**
N31M	**Braeburn, Yuko**	82.61	351	IAmb	IAmb	16 41 04.4	
	comp=Z,37nm,0.9s						
N31M				IAMs_20	IAMs_20	17 18 49.0	
	comp=Z,2µm,22.0s						
JFWS	**Jewell Farm**	82.67	318	IAMs_20	IAMs_20	17 18 13.7	
	comp=Z,1µm,20.0s						
R49A	**Shelbyville**	82.72	312	IAmb	IAmb	16 40 45.1	
	comp=Z,41nm,0.9s						
JNU	**Nakatsue**	82.80	55	LR	LR	17 22 30.9	
	comp=Z,2µm,20.4s,baz=310,slow=39						
TZTN	**Tazewell**	82.80	310	IAMs_20	IAMs_20	17 17 58.0	
	comp=Z,2µm,20.0s						
N30M	**Aishikik Lake**	82.81	352	IAMs_20	IAMs_20	17 21 01.0	
	comp=Z,1µm,22.0s						
ASAJ	**Asahikawa**	82.83	40	LR	LR	17 22 25.7	
	comp=Z,2µm,18.8s,baz=320,slow=39						
ASAJ	**Asahikawa**	82.83	40	P	**P**	**16 40 37.2**	**-0.1**
ASAJ				pmax	pmax		
	comp=Z,30nm,0.8s						
JKA	**Kamikawa-asahi**	82.83	40	P	**P**	**16 40 37.1**	**-0.2**
JKA				IAmb	IAmb	16 40 54.0	
	comp=Z,30nm,0.8s						
JKA	**Kamikawa-asahi**	82.83	40	P	**P**	**16 40 41.5**	**+4.1**
	comp=Z,3µmcomp=Z,1µmcomp=Z,54nm,1.8s						
WTLY	**Watson Lake, Y**	82.84	347	IAmb	IAmb	16 40 58.6	
	comp=Z,52nm,0.9s						
CUT	**Chulitna**	82.86	358	IAMs_20	IAMs_20	17 16 27.3	
	comp=Z,2µm,22.0s						
V53A	**Saluda**	82.88	309	IAMs_20	IAMs_20	17 19 17.0	
	comp=Z,2µm,20.0s						
PEA0B	**Petropavlovsk-**	83.00	27	*i* P	**P**	**16 40 38.2**	**+0.1**
PETK	**Petropavlovsk-**	83.00	27	P	**P**	**16 40 36.4**	**-1.6**
	comp=Z,6.9nm,0.8s,baz=38,slow=4.9,SNR=16						
	comp=Z,6.9nm,0.8s						
PETK	**Petropavlovsk-**	83.00	27	P	**P**	**16 40 36.0**	**-2.0**
K13K	**Kusilvak Mount**	83.06	5	IAMs_20	IAMs_20	17 19 59.5	
	comp=Z,2µm,21.0s						
P46A	**Rosedale**	83.09	314	IAMs_20	IAMs_20	17 14 43.3	
	comp=Z,1µm,21.0s						
L18K	**Granite Mounta**	83.10	1	IAmb	IAmb	16 41 36.2	
	comp=Z,45nm,1.2s						
L19K	**White Mountain**	83.15	0	IAmb	IAmb	16 41 12.8	
	comp=Z,69nm,1.3s						
L19K				IAMs_20	IAMs_20	17 16 51.0	
	comp=Z,1µm,22.0s						
WHY	**Whitehorse**	83.29	350	IAmb	IAmb	16 41 03.0	
	comp=Z,35nm,1.0s						
SCM	**Sheep Creek Mo**	83.31	356	IAMs_20	IAMs_20	17 17 58.4	
	comp=Z,1µm,18.0s						
T50A	**Nancy**	83.31	311	IAmb	IAmb	16 40 48.5	
	comp=Z,35nm,0.8s						
SKT	**Skwentna**	83.32	358	IAmb	IAmb	16 41 00.7	
	comp=Z,35nm,0.7s						
SML	**Sawmill**	83.38	357	IAmb	IAmb	16 41 32.5	
	comp=Z,48nm,0.8s						
SML				IAMs_20	IAMs_20	17 17 16.3	
	comp=Z,2µm,21.0s						
PET	**Petropavlovsk**	83.42	26	*e*P	**P**	**16 40 38.5**	**-1.6**
PET				*e*S	**S**	**16 50 55.9**	**-1.5**
PET				*e*PS		16 52 17.6	
PET				pmax	pmax		
	comp=Z,17nm,1.4s						
PET				pmax	pmax		
	comp=Z,200nm,5.3s						
PET	**Petropavlovsk**	83.42	26	IAMs_20	IAMs_20	17 24 14.4	
	comp=Z,1µm,20.0s						
P33M	**Teslin, Yukon**	83.42	349	IAMs_20	IAMs_20	17 19 38.5	
	comp=Z,1µm,22.0s						
M19K	**Big River Lodg**	83.43	360	IAMs_20	IAMs_20	17 16 25.3	
	comp=Z,1µm,22.0s						
WCI	**Wyandotte Cave**	83.44	313	P	**P**	**16 40 41.1**	**+0.5**
WCI				pmax	pmax		
	comp=Z,57nm,1.1s						
WCI				MLR	MLR		
	comp=Z,2µm,20.0s						
WCI	**Wyandotte Cave**	83.44	313	P	**P**	**16 40 41.1**	**+0.5**
WCI				IAmb	IAmb	16 41 05.5	
	comp=Z,57nm,1.1s						
WCI	**Wyandotte Cave**	83.44	313	IAMs_20	IAMs_20	17 18 10.6	
	comp=Z,1µm,20.0s						
WCI	**Wyandotte Cave**	83.44	313	P	**P**	**16 40 43.1**	**+2.5**
	comp=Z,48nm,1.1s						
M20K	**Styx River**	83.44	359	IAmb	IAmb	16 41 19.5	
	comp=Z,55nm,1.3s						
M20K				IAMs_20	IAMs_20	17 16 46.7	
	comp=Z,1µm,22.0s						
HYT	**Haines Junctio**	83.47	352	IAmb	IAmb	16 41 06.5	
	comp=Z,45nm,0.9s						
MCARA	**McCarthy VSAT**	83.48	354	IAMs_20	IAMs_20	17 16 45.8	
	comp=Z,1µm,20.0s						
GLB	**Gilahina Butte**	83.48	355	IAMs_20	IAMs_20	17 18 01.9	
	comp=Z,1µm,21.0s						
TKL	**Tuckaleechee C**	83.50	309	LR	LR	17 19 60.0	
	comp=Z,1µm,18.7s,baz=58,slow=37						
MDSI	**Maura Dua**	83.50	100	P	**P**	**16 40 40.2**	**-1.0**
	comp=Z,956nmcomp=Z,74nm,1.1s						
KLU	**Klutina**	83.57	356	IAmb	IAmb	16 41 01.4	
	comp=Z,32nm,1.0s						
KLU				IAMs_20	IAMs_20	17 16 31.3	
	comp=Z,2µm,22.0s						
PMR	**Palmer**	83.63	357	P	**P**	**16 40 42.4**	**+1.3**
VRDI	**Verde Repeater**	83.66	355	IAMs_20	IAMs_20	17 16 39.8	
	comp=Z,1µm,21.0s						
HDIL	**Hopedale**	83.69	316	IAmb	IAmb	16 41 02.9	
	comp=Z,32nm,0.6s						
L40A	**Anamosa**	83.77	318	IAMs_20	IAMs_20	17 20 50.9	
	comp=Z,1µm,22.0s						
KNK	**Knik Glacier**	83.78	357	IAmb	IAmb	16 41 04.0	
	comp=Z,43nm,0.8s						
KNK				IAMs_20	IAMs_20	17 17 28.8	
	comp=Z,2µm,22.0s						
LOGN	**Logan Glacier**	83.85	353	IAMs_20	IAMs_20	17 19 35.7	
	comp=Z,1µm,21.0s						
R33M	**Jennings River**	83.90	348	IAMs_20	IAMs_20	17 19 56.2	
	comp=Z,1µm,21.0s						
M17K	**Holitna River**	83.91	1	IAmb	IAmb	16 41 17.1	
	comp=Z,80nm,1.2s						
DIV	**Divide**	83.92	356	IAMs_20	IAMs_20	17 17 37.6	
	comp=Z,2µm,22.0s						
W52A	**Murphy**	83.95	309	IAMs_20	IAMs_20	17 20 11.4	
	comp=Z,2µm,19.0s						
BMRM	**Bremner River**	84.01	355	IAMs_20	IAMs_20	17 18 16.8	
	comp=Z,1µm,22.0s						
GRNC	**Granite Creek**	84.01	354	IAMs_20	IAMs_20	17 17 52.0	
	comp=Z,1µm,21.0s						
TGL	**Tana Glacier**	84.08	354	IAMs_20	IAMs_20	17 18 15.8	
	comp=Z,1µm,21.0s						
CRQM	**Cirque**	84.11	354	IAmb	IAmb	16 41 18.6	
	comp=Z,61nm,1.0s						
CRQM				IAMs_20	IAMs_20	17 16 34.4	
	comp=Z,2µm,21.0s						
O29M	**Mount Kennedy**	84.11	352	IAmb	IAmb	16 41 12.3	
	comp=Z,48nm,1.2s						
P32M	**Atlin**	84.15	349	IAMs_20	IAMs_20	17 22 42.8	
	comp=Z,1µm,21.0s						
RC01	**Rabbit Creek A**	84.16	358	IAMs_20	IAMs_20	17 17 29.7	
	comp=Z,1µm,19.0s						
OLIL	**Olney**	84.19	314	IAmb	IAmb	16 41 03.7	
	comp=Z,51nm,1.0s						
U49A	**Red Boiling Sp**	84.22	311	IAmb	IAmb	16 41 33.3	
	comp=Z,77nm,1.2s						
JTM	**Tenmabayashi**	84.23	43	P	**P**	**16 40 45.6**	**+1.0**
JTM	**Tenmabayashi**	84.23	43	P	**P**	**16 40 46.0**	**+1.4**
	comp=Z,3µmcomp=Z,112nm,1.2s						
M16K	**Timber Creek**	84.25	2	IAmb	IAmb	16 41 24.5	
	comp=Z,55nm,1.1s						
KASI	**Kota Agung**	84.36	101	P	P	16 40 51.0	+5.4
	comp=Z,87nm,1.1s						
YAH	**Yahtse**	84.37	354	IAMs_20	IAMs_20	17 16 17.7	
	comp=Z,2µm,22.0s						
M14K	**Bethel**	84.40	4	IAMs_20	IAMs_20	17 25 41.0	
	comp=Z,1µm,19.0s						
JMN	**Monobe**	84.41	53	IAmb	IAmb	16 41 22.6	
	comp=Z,48nm,0.9s						
P43A	**Skaggs, Pawnee**	84.43	315	IAmb	IAmb	16 40 53.7	
	comp=Z,40nm,0.9s						
N41A	**Harden Midland**	84.48	317	IAMs_20	IAMs_20	17 18 37.8	
	comp=Z,2µm,22.0s						
M11K	**Mekoryuk**	84.48	6	IAMs_20	IAMs_20	17 18 35.2	
	comp=Z,2µm,22.0s						
PCA	**Pinnacle**	84.49	353	IAMs_20	IAMs_20	17 25 36.7	
	comp=Z,1µm,20.0s						
SDDR	**Presa de Saban**	84.50	289	P	**P**	**16 40 49.2**	**+2.8**
	comp=Z,46nm,1.0s						
N19K	**Bonanza Creek**	84.52	360	IAmb	IAmb	16 41 20.0	
	comp=Z,43nm,1.1s						
N19K				IAMs_20	IAMs_20	17 17 10.3	
	comp=Z,1µm,21.0s						
Q32M	**Nakina River**	84.53	349	IAMs_20	IAMs_20	17 20 53.8	
	comp=Z,1µm,22.0s						
ERM	**Erimo**	84.56	41	IAMs_20	IAMs_20	17 23 43.3	
	comp=Z,1µm,19.0s						
YUK	**Yuzh-Kuril'sk**	84.58	39*c*	*i*P	**P**	**16 40 47.7**	**+1.4**
YUK				*i* S	**SKSac**	**16 51 06.1**	**-0.1**
YUK				*e*SS	**SS**	**16 56 40.7**	**+0.6**
YUK				*e*SSS	SSS	17 00 10.4	
YUK				pmax	pmax		
	comp=Z,237nm,1.4s						
DLBC	**Dease Lake**	84.64	347	LR	LR	17 20 06.3	
	comp=Z,1µm,20.9s,baz=357,slow=37						
M13K	**Dall Lake**	84.66	4	IAMs_20	IAMs_20	17 18 45.7	
	comp=Z,2µm,22.0s						
GOGA	**Godfrey**	84.70	307	IAMs_20	IAMs_20	17 17 25.4	
	comp=Z,1µm,22.0s						
GOGA	**Godfrey**	84.70	307	P	**P**	**16 40 51.5**	**+4.4**
	comp=Z,26nm,1.0s						
JOW	**Kunigami**	84.75	61	LR	LR	17 23 41.4	
	comp=Z,638nm,20.5s,baz=310,slow=39						
JOW	**Kunigami**	84.75	61	P	**P**	**16 40 47.1**	**-0.4**
JOW	**Kunigami**	84.75	61	P	**P**	**16 40 47.0**	**-0.4**
	comp=Z,1µmcomp=Z,101nm,1.3s						
SLKM	**Skilak Lake**	84.76	358	IAmb	IAmb	16 41 41.5	
	comp=Z,46nm,1.0s						
SLKM				IAMs_20	IAMs_20	17 18 24.4	
	comp=Z,2µm,22.0s						
W50A	**Signal Mountai**	84.76	310	IAMs_20	IAMs_20	17 20 38.8	
	comp=Z,2µm,20.0s						
Y52A	**Lilburn**	84.80	308	IAMs_20	IAMs_20	17 17 37.1	
	comp=Z,1µm,22.0s						
X51A	**Calhoun**	84.87	309	IAMs_20	IAMs_20	17 20 19.9	
	comp=Z,2µm,20.0s						
154A	**Montrose**	84.96	306	IAMs_20	IAMs_20	17 18 23.4	
	comp=Z,1µm,20.0s						
ITTB	**Itaituba**	85.14	261	*e*P	**P**	**16 40 49.9**	**+0.3**
BOAV	**Boa Vista**	85.20	270	P	**P**	**16 40 49.6**	**-0.2**
BOAV				IAmb	IAmb	16 41 21.6	
	comp=Z,42nm,1.4s						
BOAV	**Boa Vista**	85.20	270	*e*P	**P**	**16 40 51.0**	**+1.1**
BESE	**Bessie Mountai**	85.29	350	IAMs_20	IAMs_20	17 23 37.0	
	comp=Z,1µm,20.0s						
S34M	**Telegraph Cree**	85.33	348	IAmb	IAmb	16 41 36.5	
	comp=Z,40nm,0.8s						
S34M				IAMs_20	IAMs_20	17 20 39.0	
	comp=Z,2µm,21.0s						
MAJO	**Matsushiro**	85.35	48	P	**P**	**16 40 50.2**	**-0.1**
MAJO	**Matsushiro**	85.35	48	P	**P**	**16 40 49.2**	**-1.1**
MAJO				pmax	pmax		
	comp=Z,47nm,1.0s						
MAJO				MLR	MLR		
	comp=Z,1µm,18.0s						
MAJO	**Matsushiro**	85.35	48	P	**P**	**16 40 49.2**	**-1.1**
MAJO				IAmb	IAmb	16 41 13.9	
	comp=Z,47nm,1.0s						
MAJO	**Matsushiro**	85.35	48	IAMs_20	IAMs_20	17 26 00.6	
	comp=Z,1µm,18.0s						
MAJO	**Matsushiro**	85.35	48	P	**P**	**16 40 50.9**	**+0.5**
	comp=Z,3µmcomp=Z,1µmcomp=Z,75nm,1.1s						
MAJO	**Matsushiro**	85.35	48	P	**P**	**16 40 50.5**	**+0.2**
MJAR	**Matsushiro Arr**	85.35	48	P	**P**	**16 40 50.2**	**-0.2**
	comp=Z,23nm,0.8s,baz=310,slow=5.1,SNR=33						
MJAR				LR	LR	17 24 24.7	
	comp=Z,995nm,18.2s,baz=310,slow=39						
	comp=Z,23nm,0.8s						
MJAR	**Matsushiro Arr**	85.35	48	P	**P**	**16 40 49.2**	**-1.1**
V48A	**Smith Brothers**	85.36	311	IAmb	IAmb	16 40 58.3	
	comp=Z,33nm,1.0s						
JGF	**Kuroka**	85.44	49	P	**P**	**16 40 52.2**	**+1.4**
JGF	**Kuroka**	85.44	49	IAmb	IAmb	16 41 40.9	
	comp=Z,56nm,1.2s						
JGF	**Kuroka**	85.44	49	P	**P**	**16 40 52.9**	**+2.0**
	comp=Z,2µmcomp=Z,42nm,1.1s						
ECSD	**EROS Data Cent**	85.47	322	IAmb	IAmb	16 41 21.0	
	comp=Z,31nm,1.1s						
ECSD	**EROS Data Cent**	85.47	322	IAMs_20	IAMs_20	17 20 48.4	
	comp=Z,2µm,19.0s						
ECSD	**EROS Data Cent**	85.47	322	P	**P**	**16 40 50.5**	**-0.3**
JIS	**Juneau Island**	85.51	349	P	**P**	**16 40 53.4**	**+2.8**
R32K	**Eaglecrest**	85.54	349	IAMs_20	IAMs_20	17 21 04.4	
	comp=Z,2µm,22.0s						
T45A	**Paducah**	85.64	313	IAMs_20	IAMs_20	17 19 35.0	
	comp=Z,2µm,20.0s						
WVT	**Waverly**	85.73	312	P	**P**	**16 40 51.2**	**-1.0**
WVT				pmax	pmax		
	comp=Z,27nm,0.9s						
WVT				MLR	MLR		
	comp=Z,2µm,22.0s						
WVT	**Waverly**	85.73	312	P	**P**	**16 40 51.2**	**-1.0**
WVT				IAmb	IAmb	16 41 09.5	
	comp=Z,27nm,0.9s						
WVT	**Waverly**	85.73	312	P	**P**	**16 40 55.6**	**+3.4**
	comp=Z,31nm,0.8s						
WVT	**Waverly**	85.73	312	P	**P**	**16 40 51.4**	**-0.8**
BDFB	**Brasilia**	85.74	248	P	**P**	**16 40 52.7**	**+0.1**
	comp=Z,5.0nm,0.6s,baz=58,slow=8.0,SNR=8.7						
BDFB				LR	LR	17 20 06.0	
	comp=Z,2µm,21.2s,baz=55,slow=36						
	comp=Z,5.0nm,0.6s						
BDFB	**Brasilia**	85.74	248	P	**P**	**16 40 53.7**	**+1.1**
BDFB				pmax	pmax		
	comp=Z,16nm,0.7s						
BDFB	**Brasilia**	85.74	248	P	**P**	**16 40 53.6**	**+1.1**
N38A	**Joes South For**	85.75	318	IAMs_20	IAMs_20	17 21 15.1	
	comp=Z,1µm,19.0s						
P40A	**Paris**	85.95	316	IAMs_20	IAMs_20	17 19 12.7	
	comp=Z,1µm,22.0s						
TIGA	**Tifton**	86.01	306	IAMs_20	IAMs_20	17 20 51.3	
	comp=Z,1µm,20.0s						
T35M	**Bob Quinn**	86.05	347	IAmb	IAmb	16 41 20.0	
	comp=Z,29nm,1.0s						
T35M				IAMs_20	IAMs_20	17 24 23.1	
	comp=Z,1µm,20.0s						
FVM	**French Village**	86.06	314	IAmb	IAmb	16 41 02.1	
	comp=Z,37nm,0.8s						
S31K	**Pelican**	86.09	350	IAMs_20	IAMs_20	17 21 08.9	
	comp=Z,1µm,21.0s						
SBUM	**Sibu**	86.10	90	P	**P**	**16 40 55.8**	**+1.5**
SBUM	**Sibu**	86.10	90	IAmb	IAmb	16 41 23.2	
	comp=Z,28nm,1.3s						
SBUM	**Sibu**	86.10	90	P	**P**	**16 40 57.2**	**+2.9**
SBUM	**Sibu**	86.10	90	P	**P**	**16 40 56.0**	**+1.6**
	comp=Z,308nmcomp=Z,12nm,1.1s						
SUSD	**Miller**	86.11	324	IAMs_20	IAMs_20	17 22 17.4	
	comp=Z,1µm,20.0s						
Y49A	**Blount Mountai**	86.32	309	IAmb	IAmb	16 41 03.5	
	comp=Z,35nm,0.9s						
S32K	**Killisnoo**	86.32	349	IAmb	IAmb	16 41 15.4	
	comp=Z,23nm,1.1s						
S32K				IAMs_20	IAMs_20	17 21 17.2	
	comp=Z,1µm,21.0s						
Q19K	**Cape Douglas,**	86.41	359	IAMs_20	IAMs_20	17 22 55.2	
	comp=Z,1µm,22.0s						
CCM	**Cathedral Cave**	86.49	315	P	**P**	**16 40 55.4**	**-0.5**
CCM				pmax	pmax		
	comp=Z,30nm,0.7s						
CCM				MLR	MLR		
	comp=Z,1µm,19.0s						
CCM	**Cathedral Cave**	86.49	315	P	**P**	**16 40 55.4**	**-0.5**
CCM				IAmb	IAmb	16 41 35.5	
	comp=Z,30nm,0.7s						
CCM	**Cathedral Cave**	86.49	315	IAMs_20	IAMs_20	17 21 45.1	
	comp=Z,1µm,19.0s						
CCM	**Cathedral Cave**	86.49	315	P	**P**	**16 40 56.2**	**+0.3**
	comp=Z,38nm,0.8s						
CCM	**Cathedral Cave**	86.49	315	P	**P**	**16 40 55.3**	**-0.6**
CCM				pP	**pP**	**16 41 10.4**	**-0.1**
CCM				sP	**sP**	**16 41 15.1**	**-0.9**
SIT	**Sitka**	86.83	350	P	**P**	**16 40 59.5**	**+2.4**
SIT	**Sitka**	86.83	350	IAmb	IAmb	16 41 26.7	
	comp=Z,51nm,1.2s						
STKI	**Sintang**	86.84	92	P	**P**	**16 41 01.8**	**+3.8**
	comp=Z,116nm,1.3s						
PBMO	**Poplar Bluff**	86.87	314	IAmb	IAmb	16 41 39.7	
	comp=Z,55nm,1.2s						
352A	**Blakely**	86.87	307	IAMs_20	IAMs_20	17 19 31.0	
	comp=Z,1µm,21.0s						
R40A	**Maddies Statio**	86.92	316	IAMs_20	IAMs_20	17 23 11.5	
	comp=Z,1µm,22.0s						
WRAK	**Wrangell Islan**	86.96	348	IAMs_20	IAMs_20	17 21 40.0	
	comp=Z,1µm,20.0s						
T42A	**Van Buren**	87.09	314	IAMs_20	IAMs_20	17 21 32.2	
	comp=Z,1µm,19.0s						
LRAL	**Lakeview Retre**	87.22	309	IAMs_20	IAMs_20	17 21 50.9	
	comp=Z,1µm,20.0s						
KKM	**Kota Kinabalu**	87.34	85	P	**P**	**16 41 01.2**	**+0.6**
KKM	**Kota Kinabalu**	87.34	85	IAmb	IAmb	16 41 24.1	
	comp=Z,29nm,0.8s						
KKM	**Kota Kinabalu**	87.34	85	P	P	16 41 06.1	+5.6
	comp=Z,40nm,1.0s						
KKM	**Kota Kinabalu**	87.34	85	P	**P**	**16 41 01.1**	**+0.6**
	comp=Z,41nm,1.0s						
U33K	**Whale Pass**	87.38	348	IAmb	IAmb	16 41 51.7	
	comp=Z,33nm,1.1s						
KDAK	**Kodiak Island**	87.54	359	LR	LR	17 23 05.1	
	comp=Z,673nm,20.4s,baz=14,slow=38						
K30B	**Basset**	87.74	323	IAMs_20	IAMs_20	17 21 05.5	
	comp=Z,1µm,20.0s						
LCAR	**Lake Charles**	87.78	313	IAmb	IAmb	16 41 43.0	
	comp=Z,32nm,0.9s						
V35K	**Ketchikan**	87.87	347	IAmb	IAmb	16 41 44.1	
	comp=Z,24nm,1.0s						
V35K				IAMs_20	IAMs_20	17 27 16.1	
	comp=Z,1µm,21.0s						
451A	**Vernon**	87.96	306	IAMs_20	IAMs_20	17 20 15.9	
	comp=Z,2µm,22.0s						
CRAG	**Craig**	88.00	348	P	**P**	**16 41 05.6**	**+2.8**
CRAG	**Craig**	88.00	348	IAmb	IAmb	16 41 28.9	
	comp=Z,24nm,1.0s						
BBJI	**Bungbulang**	88.03	100	IAmb	IAmb	16 41 22.5	
	comp=Z,27nm,0.9s						
EGMT	**Eagleton**	88.08	332	IAMs_20	IAMs_20	17 23 37.9	
	comp=Z,2µm,20.0s						
MACA	**Manacapuru-AM**	88.49	265	*e*P	**P**	**16 41 06.3**	**+0.4**
SHEM	**Shemya Is, Ala**	88.49	18	LR	LR	17 25 04.0	
	comp=Z,2µm,19.6s,baz=300,slow=38						
JHJ	**Hachijo jima 2**	88.57	50	LR	LR	17 27 18.9	
	comp=Z,609nm,19.0s,baz=102,slow=40						
ARAG	**Araguaiana, MT**	88.68	250	*e*P	**P**	**16 41 06.5**	**-0.1**
RSSD	**Black Hills**	88.76	326	P	**P**	**16 41 06.9**	**-0.1**
RSSD				MLR	MLR		
	comp=Z,3µm,21.0s						
RSSD	**Black Hills**	88.76	326	P	**P**	**16 41 06.9**	**-0.1**
RSSD	**Black Hills**	88.76	326	P	**P**	**16 41 08.7**	**+1.7**
	comp=Z,23nm,1.0s						
KSU1	**Kansas State U**	88.78	319	IAMs_20	IAMs_20	17 23 44.3	
	comp=Z,1µm,20.0s						
146A	**Union**	88.79	310	IAMs_20	IAMs_20	17 20 48.5	
	comp=Z,2µm,21.0s						
CLDB	**Colider**	88.97	256	*e*P	**P**	**16 41 07.8**	**-0.3**
CLDB	**Colider**	88.97	256	P	**P**	**16 41 09.4**	**+1.4**
	comp=Z,1µmcomp=Z,16nm,1.0s						
KPJI	**Karang Pucung**	88.99	100	P	**P**	**16 41 08.9**	**+0.7**
	comp=Z,59nm,0.5s						
U38A	**Gravette**	89.42	316	IAMs_20	IAMs_20	17 23 13.6	
	comp=Z,1µm,22.0s						
SDV	**Santo Domingo**	89.77	281	P	**P**	**16 41 13.0**	**+0.9**
	comp=Z,150nm,0.8s						
MOBC	**Moresby Island**	90.01	347	IAmb	IAmb	16 41 19.6	
	comp=Z,22nm,1.0s						
DIB	**Dawson Inlet,**	90.05	347	IAmb	IAmb	16 41 20.0	
	comp=Z,19nm,1.0s						
OGNE	**Ogallala**	90.23	323	IAMs_20	IAMs_20	17 20 55.5	
	comp=Z,2µm,22.0s						
RLMT	**Red Lodge**	90.25	330	IAMs_20	IAMs_20	17 19 55.3	
	comp=Z,1µm,22.0s						
MIAR	**Mount Ida**	90.26	314	P	**P**	**16 41 15.0**	**+1.1**
MIAR	**Mount Ida**	90.26	314	P	**P**	**16 41 16.0**	**+2.1**
	comp=Z,18nm,1.3s						
R32A	**Long Quarter,**	90.40	319	IAMs_20	IAMs_20	17 23 33.2	
	comp=Z,1µm,19.0s						
CNBA	**Chernabura Isl**	90.43	3	IAMs_20	IAMs_20	17 21 56.3	
	comp=Z,1µm,22.0s						
NEW	**Newport**	90.55	336	LR	LR	17 24 22.3	
	comp=Z,2µm,20.3s,baz=28,slow=37						
NEW	**Newport**	90.55	336	P	**P**	**16 41 15.1**	**+0.1**
	comp=Z,44nm,1.0s						
TUL3	**Leonard**	90.60	316	IAMs_20	IAMs_20	17 23 50.7	
	comp=Z,1µm,20.0s						
UGM	**Wanagama**	90.61	99	IAMs_20	IAMs_20	17 27 35.3	
	comp=Z,1µm,22.0s						
YNE	**Yellowstone No**	90.64	330	IAmb	IAmb	16 41 24.0	
	comp=Z,33nm,1.0s						
MSO	**Missoula**	90.66	333	IAmb	IAmb	16 42 09.9	
	comp=Z,18nm,1.1s						
BOZ	**Bozeman (W)**	90.81	331	IAmb	IAmb	16 41 44.5	
	comp=Z,34nm,1.7s						
UNV	**Unalaska Valle**	90.92	7	IAMs_20	IAMs_20	17 26 15.4	
	comp=Z,1µm,20.0s						
C09A	**Chrisman Ranch**	91.34	336	IAmb	IAmb	16 41 41.8	
	comp=Z,35nm,1.1s						

OK029	**Liberty Lake**	**91.62**	**317**	IAMs_20	IAMs_20	17 23 07.7	
	comp=Z,1µm,21.0s						
SALV	**Santo Antonio**	**91.81**	**252**	*e*P	**P**	**16 41 22.3**	**+1.1**
Z38A	**Mt. Pleasant**	**92.00**	**314**	IAMs_20	IAMs_20	17 23 27.9	
	comp=Z,1µm,21.0s						
PGC	**Sidney**	**92.17**	**340**	IAmb	IAmb	16 41 44.8	
	comp=Z,16nm,1.0s						
FXWY	**Fox Creek**	**92.19**	**330**	IAMs_20	IAMs_20	17 27 46.4	
	comp=Z,1µm,20.0s						
SNOW	**Snow King Moun**	**92.22**	**330**	IAMs_20	IAMs_20	17 28 27.3	
	comp=Z,1µm,20.0s						
PDAR	**Pinedale Array**	**92.28**	**328**	P	**P**	**16 41 22.3**	**-1.1**
	comp=Z,1.0nm,0.6s,baz=75,slow=5.7,SNR=11						
PDAR				LR	LR	17 24 22.9	
	comp=Z,1µm,20.9s,baz=24,slow=36						
	comp=Z,1.0nm,0.6s						
PDAR	**Pinedale Array**	**92.28**	**328**	P	**P**	**16 41 21.9**	**-1.5**
ISCO	**Idaho Springs**	**92.86**	**324**	IAmb	IAmb	16 41 50.5	
	comp=Z,41nm,1.8s						
ISCO	**Idaho Springs**	**92.86**	**324**	P	**P**	**16 41 26.9**	**+0.7**
	comp=Z,12nm,1.4s						
AHID	**Auburn Hatcher**	**92.94**	**329**	IAMs_20	IAMs_20	17 26 41.5	
	comp=Z,1µm,20.0s						
HAWA	**Hanford**	**92.99**	**336**	IAmb	IAmb	16 41 34.4	
	comp=Z,18nm,0.8s						
HAYD	**Hayden**	**93.06**	**326**	IAMs_20	IAMs_20	17 22 58.8	
	comp=Z,1µm,21.0s						
WMOK	**Wichita Mounta**	**93.13**	**317**	IAMs_20	IAMs_20	17 24 06.6	
	comp=Z,1µm,21.0s						
Z35A	**Perchaven, San**	**93.28**	**315**	IAMs_20	IAMs_20	17 25 50.7	
	comp=Z,1µm,20.0s						
NLWA	**Neilton Lookou**	**93.42**	**340**	IAmb	IAmb	16 41 57.4	
	comp=Z,23nm,1.1s						
BMO	**Blue Mountains**	**93.57**	**334**	P	**P**	**16 41 28.9**	**-0.2**
BMO	**Blue Mountains**	**93.57**	**334**	IAMs_20	IAMs_20	17 28 59.7	
	comp=Z,1µm,21.0s						
JAGI	**Jajag, Banyuwa**	**93.88**	**98**	IAMs_20	IAMs_20	17 25 36.9	
	comp=Z,1µm,22.0s						
STD	**Studebaker Rid**	**93.98**	**338**	IAmb	IAmb	16 41 53.6	
	comp=Z,22nm,1.1s						
RDMU	**Red Mountain**	**94.07**	**327**	IAmb	IAmb	16 42 08.4	
	comp=Z,18nm,1.3s						
HWUT	**Hardware Ranch**	**94.09**	**329**	IAmb	IAmb	16 41 38.9	
	comp=Z,14nm,0.8s						
HWUT	**Hardware Ranch**	**94.09**	**329**	P	**P**	**16 41 31.8**	**+0.1**
	comp=Z,17nm,1.0s						
JCJ	**Chichijima**	**94.15**	**53**	LR	LR	17 29 48.9	
	comp=Z,311nm,19.3s,baz=225,slow=39						
DAV	**Davao City (W)**	**94.35**	**78**	LR	LR	17 30 58.0	
	comp=Z,493nm,21.0s,baz=310,slow=40						
WHTX	**Lake Whitney,**	**94.36**	**314**	IAMs_20	IAMs_20	17 27 18.4	
	comp=Z,958nm,19.0s						
HOOD	**Mount Hood Mea**	**94.62**	**337**	IAmb	IAmb	16 42 02.2	
	comp=Z,24nm,0.9s						
AMTX	**Amarillo**	**94.62**	**319**	IAMs_20	IAMs_20	17 27 22.8	
	comp=Z,1µm,21.0s						
ABTX	**Abilene, Hawle**	**95.17**	**316**	IAMs_20	IAMs_20	17 26 50.6	
	comp=Z,2µm,22.0s						
PV22	**Blue Mesa, Par**	**95.36**	**326**	IAmb	IAmb	16 42 09.2	
	comp=Z,20nm,1.0s						
PV15	**Paradox Valley**	**95.37**	**325**	IAmb	IAmb	16 42 05.8	
	comp=Z,15nm,0.9s						
PINE	**Pine Mountain**	**95.75**	**336**	IAmb	IAmb	16 42 03.1	
	comp=Z,15nm,0.9s						
WIFE	**Three Sisters-**	**95.80**	**337**	IAmb	IAmb	16 42 02.8	
	comp=Z,24nm,1.0s						
MSTX	**Muleshoe**	**95.90**	**319**	IAMs_20	IAMs_20	17 27 13.7	
	comp=Z,1µm,19.0s						
WVOR	**Wild Horse Val**	**96.15**	**334**	IAMs_20	IAMs_20	17 27 52.0	
	comp=Z,1µm,20.0s						
I04A	**Tendick Farm,**	**96.23**	**337**	P	**P**	**16 41 40.0**	**-1.2**
I04A				IAmb	IAmb	16 41 48.5	
	comp=Z,15nm,0.7s						
ELK	**Elko**	**96.32**	**331**	LR	LR	17 27 51.8	
	comp=Z,2µm,20.8s,baz=34,slow=37						
K05A	**Summer Lake**	**96.68**	**336**	IAmb	IAmb	16 42 07.8	
	comp=Z,17nm,1.2s						
LUWI	**Luwuk**	**96.74**	**87**	P	**P**	**16 41 46.5**	**+2.5**
735A	**Kenedy**	**96.83**	**312**	IAMs_20	IAMs_20	17 26 06.9	
	comp=Z,1µm,21.0s						
JCT	**Junction City**	**96.84**	**315**	IAMs_20	IAMs_20	17 28 52.9	
	comp=Z,916nm,20.0s						
ANMO	**Albuquerque**	**97.08**	**322**	LR	LR	17 27 01.2	
	comp=Z,1µm,19.5s,baz=37,slow=36						
ANMO	**Albuquerque**	**97.08**	**322**	IAMs_20	IAMs_20	17 27 08.6	
	comp=Z,1µm,20.0s						
TASM	**ASL Pad, Albuq**	**97.08**	**322**	IAMs_20	IAMs_20	17 26 58.6	
	comp=Z,1µm,20.0s						
TASM	**ASL Pad, Albuq**	**97.08**	**322**	IAMs_20	IAMs_20	17 26 58.6	
	comp=Z,1µm,20.0s						
TASM	**ASL Pad, Albuq**	**97.08**	**322**	IAMs_20	IAMs_20	17 26 58.6	
	comp=Z,1µm,20.0s						
TASM	**ASL Pad, Albuq**	**97.08**	**322**	IAMs_20	IAMs_20	17 26 58.7	
	comp=Z,1µm,20.0s						
ABQ	**Albuquerque**	**97.08**	**322**	IAMs_20	IAMs_20	17 26 58.6	
	comp=Z,1µm,20.0s						
ALQ	**Albuquerque**	**97.08**	**322**	IAMs_20	IAMs_20	17 26 58.7	
	comp=Z,1µm,20.0s						
ALQ	**Albuquerque**	**97.08**	**322**	IAMs_20	IAMs_20	17 26 58.7	
	comp=Z,1µm,20.0s						
YBH	**Yreka Blue Hor**	**98.18**	**336**	LR	LR	17 27 34.8	
	comp=Z,947nm,21.5s,baz=21,slow=36						
M02C	**Callahan**	**98.53**	**336**	IAMs_20	IAMs_20	17 29 47.7	
	comp=Z,1µm,21.0s						
HATC	**Hat Creek Radi**	**98.57**	**335**	IAMs_20	IAMs_20	17 30 09.0	
	comp=Z,1µm,20.0s						
WUAZ	**Wupatki**	**99.01**	**325**	IAMs_20	IAMs_20	17 26 19.4	
	comp=Z,1µm,22.0s						
CPUP	**Villa Florida**	**99.04**	**244**	LR	LR	17 29 47.8	
	comp=Z,818nm,19.1s,baz=55,slow=37						
MNTX	**Cornudas Mount**	**99.05**	**319**	P	**Pdif**	**16 41 58.9**	**+4.7**
	comp=Z,6.8nm,1.7s						
JCC	**Jacoby Creek,**	**99.43**	**337**	IAMs_20	IAMs_20	17 28 35.5	
	comp=Z,1µm,22.0s						
BOAB	**BOACO BROADBAN**	**99.46**	**292**	IAMs_20	IAMs_20	17 25 56.5	
	comp=Z,1µm,22.0s						
NVAR	**Mina Array Bea**	**99.51**	**332**	P	**Pdif**	**16 41 55.7**	**-0.7**
	comp=Z,0.3nm,0.6s,baz=43,slow=4.8,SNR=5.1						
NVAR				PP	**PP**	**16 46 01.0**	**+1.6**
	comp=Z,0.2nm,0.3s,baz=35,slow=9.5,SNR=2.0						
NVAR				PKKPbc	**PKKPbc**	**16 58 18.3**	**+0.2**
	comp=Z,1.6nm,0.8s,baz=245,slow=1.8,SNR=5.1						
NVAR				LR	LR	17 28 53.2	
	comp=Z,1µm,21.0s,baz=30,slow=37						
	comp=Z,0.3nm,0.6s						
EPT	**El Paso**	**99.59**	**320**	IAMs_20	IAMs_20	17 29 50.3	
	comp=Z,1µm,20.0s						
TXAR	**Lajitas Array**	**99.91**	**316**	P	**Pdif**	**16 41 58.3**	**+0.1**
	comp=Z,0.4nm,0.7s,baz=68,slow=4.3,SNR=8.1						
TXAR				PP	**PP**	**16 45 58.9**	**-3.8**
	comp=Z,1.5nm,0.9s,baz=46,slow=5.9,SNR=5.3						
TXAR				PKKPbc	**PKKPbc**	**16 58 15.9**	**-0.6**
	comp=Z,1.1nm,0.9s,baz=238,slow=2.3,SNR=5.9						
TXAR				LR	LR	17 30 03.0	
	comp=Z,582nm,18.4s,baz=23,slow=37						
	comp=Z,0.4nm,0.7s						
TPNV	**Topopah Spring**	**99.96**	**330**	IAMs_20	IAMs_20	17 31 18.2	
	comp=Z,1µm,20.0s						
SUTB	**Sutter Butte**	**100.10**	**335**	IAMs_20	IAMs_20	17 31 17.4	
	comp=Z,1µm,19.0s						
KCPM	**Cahto Peak**	**100.31**	**336**	IAMs_20	IAMs_20	17 27 56.7	
	comp=Z,1µm,22.0s						
MMRI	**Maumere**	**100.58**	**93**	IAMs_20	IAMs_20	17 32 06.3	
	comp=Z,911nm,21.0s						
FURC	**Furnace Creek,**	**100.63**	**330**	IAMs_20	IAMs_20	17 31 45.8	
	comp=Z,1µm,20.0s						
SHOC	**Shoshone, Teco**	**100.87**	**329**	IAMs_20	IAMs_20	17 32 47.2	
	comp=Z,968nm,18.0s						
CVS	**Carmenet Viney**	**101.12**	**335**	IAMs_20	IAMs_20	17 31 22.5	
	comp=Z,1µm,21.0s						
MCCM	**Marconi Confer**	**101.45**	**335**	IAMs_20	IAMs_20	17 29 21.2	
	comp=Z,1µm,22.0s						
MHC	**Mount Hamilton**	**101.73**	**334**	IAMs_20	IAMs_20	17 31 10.5	
	comp=Z,1µm,20.0s						
LRMC	**Laurel Mtn Rad**	**101.81**	**330**	IAMs_20	IAMs_20	17 31 21.2	
	comp=Z,956nm,20.0s						
IRM	**Iron Mountain**	**101.86**	**327**	IAMs_20	IAMs_20	17 34 03.6	
	comp=Z,1µm,20.0s						
JRSC	**Jasper Ridge**	**101.89**	**334**	IAMs_20	IAMs_20	17 31 49.7	
	comp=Z,1µm,20.0s						
FARB	**Farallon Islan**	**101.89**	**335**	IAMs_20	IAMs_20	17 29 33.9	
	comp=Z,1µm,22.0s						
VES	**Vestal, Richgr**	**102.07**	**331**	IAMs_20	IAMs_20	17 30 52.9	
	comp=Z,1µm,21.0s						
BELC	**Belle Mtn. Jos**	**102.36**	**328**	IAMs_20	IAMs_20	17 29 57.0	
	comp=Z,1µm,20.0s						
BC3	**Big Chuckawall**	**102.42**	**327**	IAMs_20	IAMs_20	17 30 42.4	
	comp=Z,1µm,22.0s						
PKD	**Bear Valley Ra**	**102.55**	**332**	IAMs_20	IAMs_20	17 29 21.4	
	comp=Z,1µm,21.0s						
SOEI	**Soe**	**102.86**	**93**	IAMs_20	IAMs_20	17 33 51.8	
	comp=Z,1µm,21.0s						
MWC	**Mount Wilson**	**103.05**	**329**	IAMs_20	IAMs_20	17 34 31.0	
	comp=Z,1µm,20.0s						
PASC	**Pasadena Art C**	**103.15**	**330**	IAMs_20	IAMs_20	17 34 33.6	
	comp=Z,1µm,19.0s						
BAR	**Barrett**	**103.78**	**328**	IAMs_20	IAMs_20	17 30 30.5	
	comp=Z,1µm,22.0s						
PSGCX	**Pisagua**	**105.27**	**257**	IAMs_20	IAMs_20	17 29 53.5	
	comp=Z,973nm,19.0s						
ELIB	**Princess Elisa**	**106.67**	**181**	*d*PKiKP	**PKiKP**	**16 46 37.4**	**+0.4**
VNA2	**Neumayer--Watz**	**108.19**	**191**	Pdiff	**Pdif**	**16 42 41.8**	**+8.2**
	comp=Z,2.6nm,0.8s,baz=26,slow=4.6						
VNA2				PKiKP	PKiKP	16 46 51.8	+12
	comp=Z,4.9nm,0.7s,baz=24,slow=5.1						
VNA3	**Neumayer Olymp**	**108.83**	**191**	Pdiff	**Pdif**	**16 42 45.0**	**+8.5**
	comp=Z,2.7nm,0.7s						
VNA3				PKKP	PKiKP	16 46 54.0	+13
	comp=Z,3.2nm,0.8s						
WRKA	**Warakurna**	**114.08**	**105**	P	PKPdf	16 46 52.1	-0.3
WRA	**Warramunga Arr**	**116.48**	**97**	PKP	**PKPdf**	**16 46 55.8**	**-1.3**
	comp=Z,3.3nm,0.5s,baz=321,slow=1.6,SNR=52						
WRA				PP	**PP**	**16 48 02.8**	**-1.8**
	comp=Z,2.8nm,0.8s,baz=307,slow=5.7,SNR=5.1						
WRA				PKKPbc	**PKKPbc**	**16 57 24.5**	**+0.3**
	comp=Z,0.7nm,0.8s,baz=114,slow=4.0,SNR=7.0						
WRAB	**Tennant Creek**	**116.48**	**97**	*i* PKIKP	**PKPdf**	**16 46 57.0**	**0.0**
FORT	**Forrest**	**116.56**	**110**	P	**PKPdf**	**16 46 53.4**	**-3.5**
AS15	**Alice Springs**	**117.92**	**100**	P	**PKPdf**	**16 46 59.0**	**-0.8**
ASAR	**Alice Springs**	**117.93**	**100**	PKP	**PKPdf**	**16 46 58.5**	**-1.3**
	comp=Z,5.2nm,0.5s,baz=316,slow=1.5,SNR=110						
ASAR				PP	**PP**	**16 48 16.1**	**+1.3**
	comp=Z,2.9nm,0.9s,baz=310,slow=6.1,SNR=5.6						
ASAR				PKKPbc	**PKKPbc**	**16 57 19.9**	**+0.8**
	comp=Z,0.8nm,0.6s,baz=118,slow=3.8,SNR=21						
ASAR	**Alice Springs**	**117.93**	**100**	PKIKP	**PKPdf**	**16 46 58.8**	**-1.0**
ASAR	**Alice Springs**	**117.93**	**100**	PKPdf	**PKPdf**	**16 46 58.8**	**-1.0**
AS31	**Alice Springs**	**117.93**	**100**	P	**PKPdf**	**16 46 58.7**	**-1.1**
AS31	**Alice Springs**	**117.93**	**100**		**PKPdf**	**16 46 58.4**	**-1.3**
AS09	**Alice Springs**	**117.97**	**100**	P	**PKPdf**	**16 46 59.0**	**-0.9**
AS17	**Alice Springs**	**118.00**	**100**	P	**PKPdf**	**16 46 59.0**	**-0.9**
QIS	**Mount Isa**	**121.08**	**94**	P	**PKPdf**	**16 47 05.4**	**-0.4**
MTSU	**Mount Surprise**	**123.75**	**89**	P	**PKiKP**	**16 47 17.6**	**+6.3**
QSPA	**South Pole Qui**	**124.87**	**180**	PKP	**PKPdf**	**16 47 10.8**	**-1.0**
	comp=Z,8.1nm,0.6s,baz=280,slow=1.2,SNR=61						
HTT	**Hallett**	**126.05**	**109**	P	**PKPdf**	**16 47 15.1**	**0.0**
CTA	**Charters Tower**	**126.31**	**90**	P	**PKiKP**	**16 47 22.4**	**+6.0**
STKA	**Stephens Creek**	**127.57**	**106**	P	**PKiKP**	**16 47 18.5**	**0.0**
STKA	**Stephens Creek**	**127.57**	**106**	PKP	**PKPdf**	**16 47 17.2**	**-0.8**
	comp=Z,5.9nm,0.6s,baz=358,slow=2.8,SNR=16						
QLP	**Quilpie**	**127.59**	**99**	P	**PKiKP**	**16 47 19.5**	**+0.7**
CMSA	**Cobar Meteorol**	**130.70**	**104**	P	**PKiKP**	**16 47 25.7**	**+0.9**
HNR	**Honiara**	**131.48**	**69**	IAMs_20	IAMs_20	17 38 56.6	
	comp=Z,697nm,20.0s						
TOO	**Toolangi**	**132.45**	**111**	P	**PKiKP**	**16 47 29.8**	**+1.5**
VNDA	**Vanda**	**133.40**	**168**	PKP	**PKPdf**	**16 47 27.6**	**-0.1**
	comp=Z,2.1nm,0.9s,baz=241,slow=5.0,SNR=5.5						
VNDA				SKPbc	**SKPbc**	**16 50 50.4**	**-1.5**
	comp=Z,5.0nm,1.0s,baz=254,slow=7.1,SNR=6.4						
WKZ	**Wanaka**	**150.72**	**121**		**PKiKP**	**16 48 05.6**	**+0.2**
TAOE	**Nuku Hiva Isla**	**150.74**	**329**	*e*PKP1	**PKPdf**	**16 47 56.0**	**-4.2**
	comp=Z,352nm,24.6s						
TAOE				*e*SS	SS	17 10 54.2	-4.0
	comp=Z,471nm,29.1s						
TAOE				*e*LR	LR	17 38 09.6	
	comp=Z,2µm,24.5s						
OXZ	**Oxford**	**153.06**	**118**		**PKiKP**	**16 48 10.4**	**+0.2**
PPT2	**Papeete2**	**162.05**	**344**	*e*PKP1	**PKPdf**	**16 48 11.5**	**-3.2**
	comp=Z,156nm,25.5s						
PPT2				*e*PP	**PP**	**16 52 40.2**	**-3.7**
	comp=Z,336nm,26.5s						
PPT2				*e*SS	SS	17 12 55.1	-4.1
	comp=Z,1µm,31.5s						
PPT2				*e*LR	LR	17 43 19.3	
	comp=Z,2µm,26.2s						
PPT2				*e*LR	LR	17 43 21.4	
	comp=Z,2µm,25.5s						

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*ISK **18** 16:33:36.2, 34°.83N×25°.38E, h14^{km}, ML3.5/5*
*THE **18** 16:33:37.1, 35°N±4°×2°5E±°, h16^{km}±4^{km}, M3.4/6, MLh3.4/6*
*ATH **18** 16:33:37.5, 34°.98N×25°.42E, h49^{km}±5^{km}, ML3.5/7, Latitude uncertainty: 3 km; Longitude uncertainty: 1 km*
ISC 18 16:33:37.1±1.1**, 34°.93N**±0°.06×**25°.38E**±0°.02**, h29**^{km}±10^{km}**, n35, σ0^{s}78**/53**, Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AGNA	**Agios Nikolaos**	**0.38**	**48**	P	**Pn**	**16 33 46.0**	**-0.7**
AGNA				S	**Sn**	**16 33 53.7**	**+0.7**
AGNA				AML	AML		
NPS	**Neapolis**	**0.38**	**30**	P	**Pn**	**16 33 46.0**	**-0.7**
NPS				S	**Sb**	**16 33 52.1**	**+0.7**
NPS				AML	AML		
NPS	**Neapolis**	**0.38**	**30**	P	**Pn**	**16 33 46.0**	**-0.7**
NPS				S	**Sn**	**16 33 53.5**	**+0.4**
IACM	**Heraklion**	**0.45**	**326**	P	**Pn**	**16 33 47.1**	**-0.5**
IACM				S	**Sn**	**16 33 55.7**	**+1.0**
SIVA	**Sivas**	**0.47**	**280**	P	**Pb**	**16 33 46.5**	**-0.6**
SIVA				S	**Sn**	**16 33 55.2**	**-0.2**
SIVA				AML	AML		
SIVA	**Sivas**	**0.47**	**280**	P	**Pn**	**16 33 47.2**	**-0.8**
SIVA				S	**Sn**	**16 33 56.5**	**+1.2**
IDI	**Anoyia**	**0.53**	**312**	P	**Pb**	**16 33 47.9**	**-0.2**
IDI				S	**Sn**	**16 33 57.5**	**+0.7**
IDI				AML	AML		
IDI	**Anoyia**	**0.53**	**312**	Pg	**Pn**	**16 33 48.4**	**-0.5**
IDI				Sg	**Sn**	**16 33 57.6**	**+0.7**
IDI				AML	AML		
IDI	**Anoyia**	**0.53**	**312**	P	**Pb**	**16 33 47.9**	**-0.2**
IDI				S	**Sn**	**16 33 57.7**	**+0.7**
ZKR	**Zakros**	**0.71**	**75**	P	**Pb**	**16 33 51.0**	**0.0**
ZKR				S	**Sn**	**16 34 02.9**	**+1.7**
ZKR	**Zakros**	**0.71**	**75**	Pg	**Pb**	**16 33 51.1**	**0.0**
ZKR				AML	AML		
ZKR	**Zakros**	**0.71**	**75**	P	**Pb**	**16 33 51.0**	**0.0**
ZKR				S	**Sb**	**16 34 00.0**	**-0.5**
ZKR				AML	AML		
RTHF	**Rethymno-Limin**	**0.85**	**301**	P	**Pb**	**16 33 52.9**	**-0.5**
RTHF				S	**Sb**	**16 34 04.6**	**+0.2**
RTHF				AML	AML		
GVD	**Gavdhos**	**1.06**	**265**	P	**Pb**	**16 33 55.9**	**-1.1**
GVD				S	**Sb**	**16 34 10.7**	**+0.2**
GVD				AML	AML		
GVD	**Gavdhos**	**1.06**	**265**	Pg	**Pb**	**16 33 57.0**	**+0.1**
GVD				AML	AML		
GVD	**Gavdhos**	**1.06**	**265**	P	**Pb**	**16 33 55.9**	**-1.1**
GVD				S	**Sb**	**16 34 10.6**	**+0.1**
GVD				AML	AML		
VAM	**Vamos**	**1.07**	**296**	P	**Pb**	**16 33 57.9**	**+0.8**
GVDS	**Gavdos**	**1.09**	**265**	P	**Pb**	**16 33 56.6**	**-0.8**
GVDS				S	**Sb**	**16 34 13.4**	**+2.3**
GVDS				AML	AML		
GVDS	**Gavdos**	**1.09**	**265**	P	**Pb**	**16 33 57.2**	**-0.1**
CHNB	**Souda**	**1.21**	**298**	P	**Pn**	**16 33 58.1**	**+0.1**
CHAN	**Chania**	**1.24**	**298**	P	**Pb**	**16 33 59.4**	**-0.4**
CHAN				S	**Sb**	**16 34 14.7**	**-0.8**
CH01	**Chania**	**1.25**	**298**	P	**Pb**	**16 33 59.0**	**-1.1**
IMMV	**Iera Moni Meta**	**1.26**	**295**	P	**Pb**	**16 33 59.5**	**-0.7**
IMMV				S	**Sb**	**16 34 17.2**	**+1.2**
IMMV	**Iera Moni Meta**	**1.26**	**295**	Pn	**Pb**	**16 34 00.7**	**+0.5**
IMMV				AML	AML		
IMMV	**Iera Moni Meta**	**1.26**	**295**	P	**Pb**	**16 33 59.5**	**-0.7**
IMMV				S	**Sn**	**16 34 14.8**	**0.0**
IMMV				AML	AML		
THR6	**Thira Island,**	**1.42**	**1**	P	**Pn**	**16 34 00.2**	**-0.8**
THERA	**Ancient Thera,**	**1.43**	**3**	P	**Pn**	**16 34 00.4**	**-0.7**
SNT5	**Nea Kammeni, S**	**1.47**	**1**	P	**Pn**	**16 34 02.3**	**+0.7**
THR3	**Thira Island,**	**1.47**	**1**	P	**Pn**	**16 34 01.1**	**-0.6**
THR8	**Santorini-Mono**	**1.47**	**3**	P	**Pn**	**16 34 00.9**	**-0.7**
THR5	**Thira Island,**	**1.48**	**359**	P	**Pn**	**16 34 00.9**	**-0.9**
THR2	**Thira island,**	**1.51**	**2**	P	**Pn**	**16 34 01.4**	**-0.8**
KARP	**Karpathos**	**1.58**	**67**	Pn	**Pb**	**16 34 04.9**	**-0.8**
KARP				AML	AML		
KARP	**Karpathos**	**1.58**	**67**	P	**Pn**	**16 34 02.9**	**-0.3**
MHLO	**Agia Marina, M**	**1.92**	**336**	P	**Pn**	**16 34 07.3**	**-0.6**

IDC 18 16:35:45.7±4.1**, 18°.91S**×**177°.79W, h603**^{km}±23^{km}**, mb2.9**/3**, mbtmp4.0**/5**, Error ellipse: s-maj=80.8km s-min=29.2km az=56.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**4.12**	**286**	P	P	16 37 12.3	-0.1
	6.7nm,0.5s,baz=148,slow=15,SNR=8.6						
URZ	**Urewera**	**19.79**	**192**	P	P	16 39 37.1	0.0
	15nm,1.0s,baz=360,slow=7.1,SNR=8.2						
STKA	**Stephens Creek**	**38.68**	**242**	P	P	16 42 19.6	+0.1
	0.6nm,0.4s,baz=38,slow=12,SNR=1.3						
	0.6nm,0.4s						
WRA	**Warramunga Arr**	**45.04**	**260**	P	P	16 43 09.2	-0.3
	0.7nm,0.4s,baz=97,slow=7.4,SNR=24						
	0.7nm,0.4s						
ASAR	**Alice Springs**	**45.10**	**255**	P	P	16 43 09.9	0.0
	1.5nm,0.6s,baz=92,slow=7.8,SNR=52						
ASAR				PcP	PcP	16 44 37.0	-0.4
	0.5nm,1.0s,baz=108,slow=3.7,SNR=2.2						
	1.5nm,0.6s						

KRSC 18 17:41:42.4±1.7**, 51°.89N**×**157°.13E, h206**^{km}±14^{km}**, Ml3.6, Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PAU	**Pauzhetka**	**0.47**	**205**	*e*P	Pn	17 42 11.4	+1.3
KDTR	**Khodutka, Kamc**	**0.59**	**98**	*e*P	Pn	17 42 11.9	+1.4
KDTR				*e*S	S	17 42 32.9	+0.5
ASAK	**Asacha**	**0.68**	**44**	*e*P	Pn	17 42 12.8	+1.8
MTVR	**Mutnovka**	**0.88**	**47**	*e*P	Pn	17 42 13.9	+1.8
GRL	**Gorelyy**	**0.88**	**41**	*e*P	Pn	17 42 13.6	+1.4
RUS	**Russkaya**	**1.01**	**57**	*e*P	Pn	17 42 14.3	+1.5
RUS				*e*S	S	17 42 37.2	+0.8
APC	**Apacha**	**1.03**	**1**	*e*P	Pn	17 42 12.7	-0.2
KRMR	**Karymshinskiy**	**1.12**	**33**	*e*P	Pn	17 42 14.7	+1.1
SKR	**Severo-Kuril’s**	**1.37**	**208**	*e*P	Pn	17 42 17.0	+1.5
INSR	**Institute**	**1.48**	**37**	*e*S	S	17 42 44.9	+2.2
DALK	**Dalny**	**1.51**	**40**	*e*P	Pn	17 42 18.3	+1.6
DALK				*e*S	S	17 42 44.3	+1.2
KOK	**Koryaka**	**1.68**	**33**	*e*P	Pn	17 42 20.3	+2.0
UGLR	**Uglovaya**	**1.68**	**37**	*e*P	Pn	17 42 22.2	+3.9
AVH	**Avacha**	**1.69**	**35**	*e*P	Pn	17 42 21.3	+3.0
SMAR	**Somma**	**1.71**	**36**	*e*P	Pn	17 42 21.0	+2.3
KRER	**Koryakskii**	**1.73**	**34**	*e*P	Pn	17 42 20.4	+1.5
KRX	**Arik**	**1.74**	**32**	*e*P	Pn	17 42 20.3	+1.4
SDLR	**Sedlovina**	**1.75**	**37**	*e*P	Pn	17 42 21.8	+2.8
SPN	**Mys Shipunski**	**2.14**	**55**	*e*P	Pn	17 42 25.3	+2.5
SPN				*e*S	S	17 42 54.8	+1.0
MKZ	**Mys Kozlova**	**3.84**	**44**	*e*P	Pn	17 42 43.8	+1.5
MKZ				*e*S	S	17 43 27.8	-1.2
KBTR	**Krutoberegovo**	**5.47**	**36**	*e*P	Pn	17 43 03.6	+0.8

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*IDC **18** 17:42:14.7±1.6, 34°.91N×25°.35E, h51^{km}±15^{km}, mb3.5/6, mbtmp3.6/9, ML3.2/3, Error ellipse: s-maj=25.1km s-min=22.0km az=160.0*
*ATH **18** 17:42:15.8, 34°.94N×25°.47E, h79^{km}±6^{km}, ML3.1/6, Latitude uncertainty: 3 km; Longitude uncertainty: 1 km*
*THE **18** 17:42:15.6, 35°N±6°×2°5E±°, h57^{km}±6^{km}, M2.9/6, MLh2.9/6*
*ISK **18** 17:42:15.8, 34°.94N×25°.43E, h25^{km}, ML2.9/7*
ISC 18 17:42:15.8±0.8**, 34°.97N**±0°.06×**25°.41E**±0°.03**, h56**^{km}±7^{km}**, n40, σ1^{s}59**/53**, mb3.7**/6**, Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NPS	**Neapolis**	**0.34**	**30**	P	**Pn**	**17 42 25.6**	**-0.3**
NPS				S	**Sn**	**17 42 34.5**	**+1.3**
NPS				AML	AML		
IACM	**Heraklion**	**0.43**	**321**	P	**Pn**	**17 42 26.7**	**-0.1**
IACM				S	**Sn**	**17 42 36.2**	**+1.6**
IACM				AML	AML		
SIVA	**Sivas**	**0.49**	**276**	P	**Pn**	**17 42 26.4**	**-1.0**
SIVA				S	**Sn**	**17 42 36.7**	**+1.0**
SIVA				AML	AML		
IDI	**Anoyia**	**0.53**	**307**	P	**Pn**	**17 42 27.4**	**-0.4**
	77nm,0.3s,baz=149,slow=14,SNR=195						
IDI				S	**Sn**	**17 42 37.3**	**+0.7**
	514nm,0.4s,baz=210,slow=20,SNR=42						
IDI	**Anoyia**	**0.53**	**307**	P	**Pn**	**17 42 27.3**	**-0.6**
IDI				S	**Sn**	**17 42 37.1**	**+0.5**
IDI				AML	AML		
IDI	**Anoyia**	**0.53**	**307**	Pg	**Pn**	**17 42 27.7**	**-0.2**
IDI				Sg	**Sn**	**17 42 36.7**	**+0.1**
IDI				AML	AML		
ZKR	**Zakros**	**0.68**	**77**	P	**Pn**	**17 42 30.3**	**+0.8**
ZKR				S	**Sn**	**17 42 42.5**	**+2.8**
ZKR	**Zakros**	**0.68**	**77**	Pg	**Pn**	**17 42 30.4**	**+0.8**
ZKR				AML	AML		
ZKR	**Zakros**	**0.68**	**77**	P	**Pn**	**17 42 30.4**	**+0.8**
ZKR				S	**Sn**	**17 42 42.0**	**+2.4**
ZKR				AML	AML		
VAM	**Vamos**	**1.08**	**294**	P	**Pn**	**17 42 37.5**	**+2.8**
VAM				S	**Sn**	**17 42 51.7**	**+2.9**
GVD	**Gavdhos**	**1.09**	**264**	Pn	**Pn**	**17 42 36.1**	**+1.2**
GVD				Sn	**Sn**	**17 42 50.9**	**+1.9**
GVD				AML	AML		
GVD	**Gavdhos**	**1.09**	**264**	P	**Pn**	**17 42 35.9**	**+1.0**
GVD				S	**Sn**	**17 42 52.1**	**+3.1**
GVD				AML	AML		
GVDS	**Gavdos**	**1.11**	**264**	P	**Pn**	**17 42 36.8**	**+1.6**
CHAN	**Chania**	**1.24**	**297**	P	**Pn**	**17 42 38.6**	**+1.7**
IMMV	**Iera Moni Meta**	**1.27**	**293**	Pn	**Pn**	**17 42 38.9**	**+1.7**
IMMV				AML	AML		
IMMV	**Iera Moni Meta**	**1.27**	**293**	P	**Pn**	**17 42 38.5**	**+1.3**
IMMV				S	**Sn**	**17 42 56.7**	**+3.5**
IMMV				AML	AML		
THERA	**Ancient Thera,**	**1.40**	**2**	P	**Pn**	**17 42 39.5**	**+0.5**
THERA				S	**Sn**	**17 42 57.8**	**+1.3**
THERA				AML	AML		
THERA	**Ancient Thera,**	**1.40**	**2**	P	**Pn**	**17 42 39.5**	**+0.5**
THR3	**Thira Island,**	**1.44**	**360**	P	**Pn**	**17 42 40.1**	**+0.6**
THR8	**Santorini-Mono**	**1.44**	**2**	P	**Pn**	**17 42 40.0**	**+0.5**
SAP3	**Santorini-Thir**	**1.47**	**358**	P	**Pn**	**17 42 41.1**	**+1.2**
KNDR	**Palaiochora Ch**	**1.48**	**281**	P	**Pn**	**17 42 42.2**	**+2.0**
KNDR				AML	AML		
KARP	**Karpathos**	**1.55**	**68**	P	**Pn**	**17 42 43.3**	**+2.2**
KARP	**Karpathos**	**1.55**	**68**	Pn	**Pn**	**17 42 42.3**	**+1.2**
KARP				AML	AML		
KARP	**Karpathos**	**1.55**	**68**	P	**Pn**	**17 42 41.5**	**+0.4**
DAT	**Datca**	**2.49**	**44**	Pn	**Pn**	**17 42 55.6**	**+1.6**
ARG	**Arkhangelos**	**2.54**	**60**	Pn	**Pn**	**17 42 56.1**	**+1.5**
ARG	**Arkhangelos**	**2.54**	**60**	P	**Pn**	**17 42 55.5**	**+0.9**
VLI	**Veliai**	**2.66**	**312**	P	**Pn**	**17 42 55.9**	**-0.3**
KARY	**Karystos**	**3.16**	**346**	P	**Pn**	**17 43 04.0**	**+1.0**
BRTR	**Keskin Array B**	**8.10**	**52**	P	**Pn**	**17 44 11.1**	**+0.4**
	baz=256,slow=11,SNR=2.5						
	0.2nm,0.5s						
EIL	**Elat**	**9.65**	**121**	P	**Pn**	**17 44 29.3**	**-2.6**
	0.2nm,0.3s,baz=333,slow=16,SNR=1.4						
EIL				S	Sn	17 46 08.0	-11
	1.6nm,0.3s,baz=330,slow=15,SNR=7.2						
	1.0nm,0.5s						
EIL				AML	AML		
AKASG	**Malin Array Be**	**15.97**	**9**	P	**Pn**	**17 45 58.1**	**+1.5**
	1.0nm,0.3s,baz=204,slow=11,SNR=4.6						
	0.2nm,0.3s						
AKASG				AML	AML		
FINES	**FINESS Array B**	**26.50**	**1**	P	**P**	**17 47 45.9**	**-1.7**
	3.0nm,0.9s,baz=189,slow=9.8,SNR=4.3						
	3.0nm,0.9s						
TORD	**Torodi Ar. Bea**	**30.52**	**230**	P	**P**	**17 48 23.1**	**-0.8**
	0.4nm,0.3s,baz=32,slow=9.3,SNR=4.1						
	0.4nm,0.3s						
ARCES	**ARCESS Array B**	**34.62**	**0**	P	**P**	**17 48 55.8**	**-3.3**
	6.3nm,1.2s,baz=185,slow=9.7,SNR=3.8						
KURBB	**Kurchatov Arra**	**41.09**	**51**	P	**P**	**17 49 54.4**	**+0.5**
	0.5nm,0.4s,baz=276,slow=9.0,SNR=5.8						
	0.5nm,0.4s						
MKAR	**Makanchi Array**	**43.71**	**56**	P	**P**	**17 50 16.2**	**+0.9**
	0.3nm,0.7s,baz=272,slow=7.5,SNR=5.7						
	0.3nm,0.7s						
ZALV	**Zalesovo Beam**	**44.99**	**46**	P	**P**	**17 50 25.2**	**-0.1**
	0.6nm,0.4s,baz=271,slow=7.6,SNR=4.0						
	0.6nm,0.4s						
SONM	**Songino Array**	**59.45**	**51**	P	**P**	**17 52 11.8**	**-1.1**
	0.3nm,0.5s,baz=316,slow=4.0,SNR=1.9						
	0.3nm,0.5s						

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*IDC **18** 17:46:44.3±1.1, 30°.97N×140°.43E, h93^{km}±52^{km}, mb3.0/2,* *mbtmp3.5/5, Error ellipse: s-maj=205.3km s-min=8.9km az=71.0*

*JMA **18** 17:46:48.7±0.4, 31°N±2°×14°1E±°, h116^{km}, MV3.8/22, NEAR TORISHIMA IS*

ISC 18 17:46:45.8±1.0**, 31°.11N**±0°.07×**140°.7E**±0°.2**, h110**^{km}**, n12,** σ**1^{s}.63**/18**, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHJ2	**Mitsune**	**2.13**	**340**	*e*P	**Pn**	**17 47 21.6**	**+1.3**
JHJ2				*e*S	**Sn**	**17 47 46.3**	**-0.6**
JHJ	**Hachijo jima 2**	**2.15**	**339**	P	**Pn**	**17 47 21.2**	**+0.6**
	47nm,0.2s,baz=255,slow=16,SNR=19						
JHJ				S	**Sn**	**17 47 46.0**	**-1.3**
	101nm,0.3s,baz=218,slow=19,SNR=12						
JMYK	**Miyake Tsubota**	**3.10**	**342**	*e*S	**Sn**	**17 48 09.5**	**0.0**
BSO1	**Boso 1**	**3.54**	**4**	*e*P	**Pn**	**17 47 39.1**	**+0.6**
BSO1				*e*S	**Sn**	**17 48 18.9**	**-0.4**
CBIJ	**Chichi jima**	**4.21**	**161**	P	**Pn**	**17 47 49.5**	**+1.5**
CBIJ				*e*S	**Sn**	**17 48 38.4**	**+2.3**
JCJ	**Chichijima**	**4.21**	**161**	P	**Pn**	**17 47 45.7**	**-2.2**
	30nm,0.7s,baz=180,slow=0.0						
JCJ				S	**Sn**	**17 48 33.1**	**-3.0**
	baz=0.0,slow=0.0						
JOD2	**Odawara 2**	**4.36**	**343**	*e*P	**Pn**	**17 47 51.7**	**+1.8**
JHH2	**Haha-jima-NKT2**	**4.65**	**163**	*e*S	**Sn**	**17 48 48.7**	**+2.0**
JRY	**Ryogami san**	**5.12**	**344**	*e*P	**Pn**	**17 48 02.1**	**+2.0**
MJAR	**Matsushiro Arr**	**5.80**	**340**	P	**Pn**	**17 48 10.0**	**+0.6**
	0.9nm,0.3s,baz=158,slow=15,SNR=9.5						
MJAR				S	**Sn**	**17 49 14.2**	**-0.4**
	1.4nm,0.8s,baz=140,slow=15,SNR=1.2						
WRA	**Warramunga Arr**	**51.12**	**188**	P	**P**	**17 55 36.6**	**-0.8**
	0.6nm,0.7s,baz=5.0,slow=7.5,SNR=4.9						
	0.6nm,0.7s						
ASAR	**Alice Springs**	**54.85**	**188**	P	**P**	**17 56 03.4**	**-1.3**
	0.2nm,0.5s,baz=3.5,slow=7.0,SNR=8.0						
	0.2nm,0.5s						

*IDC **18** 17:47:43.5±0.4, 37°.86N×73°.82E, h0^{km}, mb4.6/44, mbtmp4.6/50, ML4.0/6, MS4.4/58, Error ellipse: s-maj=8.2km s-min=7.4km az=42.0*

*MOS **18** 17:47:43.0±1.2, 37°.80N×73°.80E, h34^{km}, mb5.1/42, MS4.6/15, Error ellipse: s-maj=4.5km s-min=3.3km az=93.8*

MOS Felt (III) at Andizhan, Namangan, Fergana; (II) at Jizzakh, Gulistan, Karshi, Navoi, Samarkand, Tashkent, Termez.

*NNC **18** 17:47:46.4±2.2, 38°.16N×73°.67E, h0^{km}, mb5.7, mpv5.5, Error ellipse: s-maj=18.6km s-min=14.3km az=156.0*

*GFZ **18** 17:47:47.6±0.2, 38°N±3°×7°4E±°, h10^{km}, M4.9/22, mb5.2/22*

*BJI **18** 17:47:47.6, 38°.04N×73°.83E, h34^{km}, mB5.1/29, mb5.0/68, ML5.1/4, Ms5.1/64, Ms7 4.8/53*

*GCMT **18** 17:47:48.6±0.2, 38°.04N±0°.01×73°.66E±0°.01, h29^{km}, MW5.2/140, Moment Tensor Solution. s65,c84; s140,c236; Duration: 1^{s}.0 Moment tensor: Scale 10^{17} Nm; M_{rr}-0.13±.03; $M_{\theta\theta}$-0.76±.02; $M_{\phi\phi}$0.89±.02; $M_{r\theta}$-0.11±.03; $M_{\theta\phi}$-0.38±.02; $M_{\phi r}$0.05±.03; Best double couple: $M_0$0.91900×10^{17} NP1:ϕ_s32.00000°, δ82.00000°, λ-3.00000°. NP2:ϕ_s123.00000°, δ87.00000°, λ-172.00000°. Principal axes: T 0.9790, Plg4.0000°, Azm257.0000°; N -0.1200, Plg81.0000°, Azm143.0000°; P -0.8580, Plg8.0000°, Azm348.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*NEIC **18** 17:47:49.6±1.7, 38°.01N±0°.04×73°.69E±0°.07, h36^{km}±5^{km}, mb5.1/162 Error ellipse: s-maj=8.7km s-min=3.9km az=59.0*

*BGR **18** 17:47:53.4, 35°.02N×70°.58E, h33^{km}, mb4.7*

ISC 18 17:47:48.8±0.6**, 37°.95N**±0°.03×**73°.74E**±0°.02**, h33**^{km}±3^{km}**, n682,** σ**1^{s}.96**/644**, mb5.0**/222**, MS4.6**/97**, 32C-31D, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH2	**Kashi**	**1.87**	**50**	Pg	**Pn**	**17 48 19.3**	**+0.7**
KSH2				Sg	**Sn**	**17 48 42.4**	**+1.3**
KSH2				AML	AML		
	43µm,0.8s						
KSH2				AML	AML		
	33µm,0.9s						
DRK	**Karamyk**	**2.15**	**316**	PN	**Pn**	**17 48 22.1**	**-0.6**
DRK						17 48 48.2	
DRK	**Karamyk**	**2.15**	**316**		**Pn**	**17 48 22.1**	**-0.6**
DRK				Sn	**Sn**	**17 48 48.2**	**-0.2**
BTK	**Batken**	**3.10**	**314**	PN	**Pn**	**17 48 37.7**	**+2.2**
BTK	**Batken**	**3.10**	**314**		**Pn**	**17 48 37.7**	**+2.2**
ARSB	**Arslanbob**	**3.42**	**350**	PN	**Pn**	**17 48 41.2**	**+1.3**
ARSB	**Arslanbob**	**3.42**	**350**		**Pn**	**17 48 41.2**	**+1.3**
NRN	**Naryn**	**3.89**	**26**	PN	**Pn**	**17 48 49.0**	**+2.4**
NRN	**Naryn**	**3.89**	**26**		**Pn**	**17 48 49.0**	**+2.4**
NIL	**Nilore**	**4.31**	**185**	P	**Pn**	**17 48 55.4**	**+3.4**
NIL	**Nilore**	**4.31**	**185**	PN	Pn	17 48 56.1	+4.0
NIL	**Nilore**	**4.31**	**185**		**Pn**	**17 48 54.6**	**+2.6**
NIL					**Sn**	**17 49 44.4**	**+3.2**
NIL	**Nilore**	**4.31**	**185**	P	**Pn**	**17 48 55.6**	**+3.5**
ALCI	**Alchi Leh**	**4.66**	**142**	*e*P	**Pn**	**17 49 00.5**	**+3.3**
ALCI				*e*S	**Sn**	**17 49 50.6**	**+0.3**
ALCI				IAML		17 49 56.0	
	comp=E,5µm,0.6s						
ALCI				IAML		17 49 56.1	
	comp=N,4µm,0.2s						
ULHL	**Ulahol**	**4.70**	**23**	P	**Pn**	**17 49 00.8**	**+3.2**
	SNR=41						
EKS2	**Erkin-Say**	**4.71**	**0**	P	**Pn**	**17 49 00.4**	**+2.8**
	SNR=54						
AAK	**Ala-Archa**	**4.72**	**7**	Pn	**Pn**	**17 48 60.0**	**+2.2**
	comp=N,16nm,0.3s,baz=189,slow=10.0,SNR=138						
AAK				Sn	**Sn**	**17 49 55.9**	**+4.4**
	comp=N,23nm,0.3s,baz=158,slow=21,SNR=7.0						
AAK				Lg	Lg	17 50 13.9	
	comp=N,56nm,0.3s,baz=63,slow=18,SNR=6.1						
AAK				LR	LR	17 50 29.2	
	comp=N,962nm,19.4s,baz=290,slow=34						
	comp=N,57nm,0.4s						
AAK				AML	AML		
AAK	**Ala-Archa**	**4.72**	**7**	P	**Pn**	**17 49 00.7**	**+2.9**
	SNR=108						
AAK	**Ala-Archa**	**4.72**	**7**	⇓Pn	**Pn**	**17 48 55.6**	**-2.2**
	comp=N,412nm,0.7s						
AAK				⇑Lg	Lg	17 50 09.6	
	comp=N,628nm,0.8s						
AAK	**Ala-Archa**	**4.72**	**7**	P	**Pn**	**17 49 00.9**	**+3.1**
AAK				S	**Sn**	**17 49 56.6**	**+5.1**
AAK	**Ala-Archa**	**4.72**	**7**	*de*PN	**Pn**	**17 49 00.6**	**+2.8**
AAK				pmax	pmax		
	comp=Z,233nm,1.0s						
AAK	**Ala-Archa**	**4.72**	**7**	*i* P	**Pn**	**17 49 00.7**	**+2.9**
	SNR=138						
AAK	**Ala-Archa**	**4.72**	**7**	P	**Pn**	**17 49 00.9**	**+3.1**
KBK	**Karagaybulak**	**4.79**	**11**	P	**Pn**	**17 49 01.8**	**+3.0**
	SNR=126						
MRKS	**Merke**	**4.81**	**356**	Pg	Pb	17 49 07.1	-5.1
	comp=Z,602nm,0.5s						
MRKS				Lg	Lg	17 50 15.3	
	comp=Z,933nm,0.8s						
BOOM	**Boomskoye usch**	**4.84**	**20**	PN	**Pn**	**17 49 02.2**	**+2.7**
BOOM	**Boomskoye usch**	**4.84**	**20**		**Pn**	**17 49 02.2**	**+2.7**
FRU1	**Bishkek**	**4.90**	**8**	PN	**Pn**	**17 49 02.1**	**+1.8**
FRU1	**Bishkek**	**4.90**	**8**		**Pn**	**17 49 02.1**	**+1.8**
TARG	**Taragay, Kyrgy**	**4.90**	**38**	PN	**Pn**	**17 49 03.9**	**+3.3**
TARG	**Taragay, Kyrgy**	**4.90**	**38**		**Pn**	**17 49 03.2**	**+2.7**
TARG	**Taragay, Kyrgy**	**4.90**	**38**	P	**Pn**	**17 49 03.9**	**+3.3**
KDJ	**Kajisay**	**4.94**	**31**	PN	**Pn**	**17 49 02.7**	**+1.8**
KDJ	**Kajisay**	**4.94**	**31**		**Pn**	**17 49 02.7**	**+1.8**
KBL	**Kabul**	**5.09**	**230**	P	**Pn**	**17 49 05.2**	**+2.2**
	SNR=257						
KBL				S	**Sn**	**17 50 03.4**	**+2.5**
KBL	**Kabul**	**5.09**	**230**	PN	**Pn**	**17 49 04.7**	**+1.7**
KBL	**Kabul**	**5.09**	**230**		**Pn**	**17 49 04.7**	**+1.7**
KBL	**Kabul**	**5.09**	**230**	P	**Pn**	**17 49 06.0**	**+3.0**
	comp=Z,676nm,0.8s						
CHMS	**Chumysh**	**5.10**	**8**	P	**Pn**	**17 49 05.7**	**+2.7**
	SNR=24						
TKM2	**Tokmak 2**	**5.17**	**15**	P	**Pn**	**17 49 06.8**	**+2.8**
	SNR=46						
JMU	**Jammu**	**5.23**	**170**	*e*P	**Pn**	**17 49 08.3**	**+3.6**
JMU				*e*S	**Sn**	**17 50 04.3**	**+0.3**
JMU				IAML		17 50 13.0	
	comp=N,4µm,0.2s						
JMU				IAML		17 50 13.4	
	comp=E,4µm,0.7s						
DZA	**Taraz**	**5.27**	**340**	Pg	**Pb**	**17 49 17.9**	**-2.2**
	comp=E,850nm,0.6s						
DZA				Lg	Lg	17 50 32.2	
	comp=E,3µm,1.0s						
DZA	**Taraz**	**5.27**	**340**	*e*PN	**Pn**	**17 49 07.7**	**+2.5**
DZA				*e*S	**Sn**	**17 50 06.9**	**+2.1**
DZA	**Taraz**	**5.27**	**340**	*e*P	**Pn**	**17 49 07.7**	**+2.5**
DZA				*e*S	**Sn**	**17 50 07.0**	**+2.1**
WUS	**Wushi**	**5.33**	**51**		**Pn**	**17 49 08.1**	**+1.8**
USP	**Ospenovka**	**5.34**	**6**	P	**Pn**	**17 49 08.8**	**+2.5**
	SNR=18						
KST	**Kastek**	**5.36**	**18**	Pg	**Pb**	**17 49 18.5**	**-3.3**
	comp=E,112nm,1.1s						
KST				Lg	Lg	17 50 33.8	
	comp=E,2µm,0.5s						
CHM	**Chimkent**	**5.39**	**325**	*e*PN	**Pn**	**17 49 09.6**	**+2.7**
CHM				*e*S	**Sn**	**17 50 10.6**	**+2.7**
CHM	**Chimkent**	**5.39**	**325**	*e*P	**Pn**	**17 49 09.7**	**+2.8**
CHM				*e*S	**Sn**	**17 50 10.6**	**+2.7**
TSSA	**Tissa**	**5.47**	**158**	*e*P	**Pn**	**17 49 11.4**	**+3.3**
TSSA				*e*S	**Sn**	**17 50 10.5**	**+0.5**
TSSA				IAML		17 50 15.6	
	comp=E,3µm,0.4s						
TSSA				IAML		17 50 17.4	
	comp=N,3µm,0.4s						
SGDS	**Sogindy**	**5.54**	**7**	Pg	**Pb**	**17 49 22.6**	**-2.1**
	comp=N,266nm,0.6s						
SGDS				Lg	Lg	17 50 39.4	
	comp=N,622nm,0.6s						
SGDS	**Sogindy**	**5.54**	**7**	*e*P	**Pn**	**17 49 11.5**	**+2.6**
TNSS	**Tian-Shan**	**5.64**	**25**	*e*PN	**Pn**	**17 49 12.7**	**+2.1**
TNSS	**Tian-Shan**	**5.64**	**25**	*e*P	**Pn**	**17 49 12.8**	**+2.1**
KK31	**Karatay Array**	**5.71**	**336**	Pn	**Pn**	**17 49 10.4**	**-0.8**
	comp=N,156nm,0.5s,baz=148,slow=12,SNR=1690						
KK31				Sn	**Sn**	**17 50 14.6**	**-1.0**
	comp=N,389nm,0.6s,baz=151,slow=23,SNR=4.2						
KK31	**Karatay Array**	**5.71**	**336**	*e*PN	**Pn**	**17 49 12.7**	**+1.5**
KK31						17 50 24.1	
KK31	**Karatay Array**	**5.71**	**336**		**Pn**	**17 49 11.8**	**+0.5**
KKAR	**Karatay Array**	**5.71**	**336**	PN	**Pn**	**17 49 12.1**	**+0.9**
KKAR	**Karatay Array**	**5.71**	**336**		**Pn**	**17 49 12.1**	**+0.9**
THN	**Thein Dam**	**5.74**	**163**	*e*P	**Pn**	**17 49 14.4**	**+2.7**
THN				*e*S	**Sn**	**17 50 16.4**	**-0.1**
THN				IAML		17 50 24.0	
	comp=N,3µm,1.0s						
THN				IAML		17 50 24.4	
	comp=E,2µm,0.6s						
PRZ	**Przheval'sk**	**5.76**	**37**	PN	**Pn**	**17 49 13.6**	**+1.4**
PRZ	**Przheval'sk**	**5.76**	**37**		**Pn**	**17 49 13.6**	**+1.4**
MDOK	**Medeo**	**5.79**	**25**	Pg	**Pb**	**17 49 27.0**	**-2.0**
	comp=E,420nm,0.5s						
MDOK				Lg	Lg	17 50 45.7	
	comp=E,923nm,0.8s						
MDOK	**Medeo**	**5.79**	**25**	*e*PN	**Pn**	**17 49 14.8**	**+2.4**
MDOK	**Medeo**	**5.79**	**25**	*e*P	**Pn**	**17 49 14.9**	**+2.4**
KNDC	**Almaty**	**5.81**	**24**	⇓Pn	**Pn**	**17 49 13.4**	**+0.7**
	comp=E,2µm,0.8s						
KNDC				⇑Lg	Lg	17 50 43.5	
	comp=E,832nm,0.9s						
KNDC	**Almaty**	**5.81**	**24**	PN	**Pn**	**17 49 16.2**	**+3.5**
KOTS	**Kotyrbulak**	**5.87**	**25**	Pg	**Pb**	**17 49 28.2**	**-2.2**
	comp=E,344nm,0.4s						
KOTS				Lg	Lg	17 50 48.6	
	comp=E,2µm,0.9s						
BRLS	**Borolday**	**5.88**	**331**	Pg	**Pb**	**17 49 26.6**	**-4.0**
	comp=E,259nm,0.6s						
BRLS				Lg	Lg	17 50 47.4	
	comp=E,608nm,1.5s						
KRBS	**Karabastau**	**5.93**	**14**	Pg	**Pb**	**17 49 30.7**	**-0.6**
	comp=E,254nm,0.5s						
KRBS				Lg	Lg	17 50 52.8	
	comp=E,121nm,0.9s						
DHRM	**DHARAMSHALA**	**6.06**	**159**	*e*P	**Pn**	**17 49 19.1**	**+2.7**
DHRM				*e*S	**Sn**	**17 50 23.7**	**-1.0**
DHRM				IAML		17 50 32.9	
	comp=N,2µm,0.7s						
DHRM				IAML		17 50 33.0	
	comp=E,2µm,0.5s						
SATY	**Saty**	**6.22**	**33**	*e*PN	**Pn**	**17 49 20.9**	**+2.5**
SATY	**Saty**	**6.22**	**33**	*e*P	**Pn**	**17 49 20.9**	**+2.5**
TLWR	**Talawar**	**6.25**	**162**	*e*P	**Pn**	**17 49 21.9**	**+3.2**
TLWR				*e*S	**Sn**	**17 50 27.9**	**-1.1**
TLWR				IAML		17 50 34.8	
	comp=N,2µm,0.5s						
TLWR				IAML		17 51 21.5	
	comp=E,2µm,0.9s						
UZB	**Uzynbulak**	**6.57**	**36**	*e*PN	**Pn**	**17 49 25.5**	**+2.3**
UZB				*e*S	**Sn**	**17 50 39.2**	**+2.2**
UZB	**Uzynbulak**	**6.57**	**36**	*e*P	**Pn**	**17 49 25.6**	**+2.3**
UZB				*e*S	**Sn**	**17 50 39.3**	**+2.2**
KPKS	**Kokpek**	**6.67**	**33**	*e*PN	**Pn**	**17 49 26.7**	**+2.2**
KPKS	**Kokpek**	**6.67**	**33**	*e*P	**Pn**	**17 49 26.7**	**+2.2**
SHLS	**Shalkode**	**6.79**	**38**	*e*PN	Pn	17 49 31.5	+5.4
SHLS				*e*S	**Sn**	**17 50 49.8**	**+7.5**
SHLS	**Shalkode**	**6.79**	**38**	*e*P	Pn	17 49 31.6	+5.4
SHLS				*e*S	**Sn**	**17 50 49.8**	**+7.5**
PDGK	**Podgornoye**	**6.93**	**37**	⇓Pn	**Pn**	**17 49 29.3**	**+1.2**
	comp=E,340nm,1.2s						
PDGK				⇓Lg	Lg	17 51 21.7	
	comp=E,350nm,0.8s						
PDGK	**Podgornoye**	**6.93**	**37**	PN	**Pn**	**17 49 29.9**	**+1.8**
PDGK						17 50 50.3	
PDGK	**Podgornoye**	**6.93**	**37**		**Pn**	**17 49 28.5**	**+0.4**
SMLA	**Simla**	**7.37**	**156**	*e*P	**Pn**	**17 49 37.3**	**+3.3**
SMLA				*e*S	**Sn**	**17 50 54.4**	**-2.1**
SMLA				IAML		17 51 01.2	
	comp=N,2µm,0.7s						
SMLA				IAML		17 51 02.4	
	comp=E,2µm,0.6s						
KLP	**Kalpa**	**7.40**	**149**	*e*P	**Pn**	**17 49 36.1**	**+1.3**
KLP				*e*S	**Sn**	**17 50 54.6**	**-3.1**
KLP				IAML		17 51 03.1	
	comp=N,850nm,0.4s						
KLP				IAML		17 51 13.1	
	comp=E,877nm,0.7s						
CGRH	**CHANDIGARH**	**7.62**	**160**	*e*P	**Pn**	**17 49 40.6**	**+3.0**
CGRH				*e*S	**Sn**	**17 51 00.4**	**-2.5**
CGRH				IAML		17 51 06.4	
	comp=E,670nm,0.8s						
CGRH				IAML		17 51 07.2	
	comp=N,668nm,0.8s						
TDK	**Taldyqorghan**	**7.87**	**25**	*e*P	**Pn**	**17 49 43.0**	**+2.1**
TDK	**Taldyqorghan**	**7.87**	**25**	*e*P	**Pn**	**17 49 43.1**	**+2.1**
PTH	**Pithoragarh**	**9.92**	**145**	*e*P	**Pn**	**17 50 11.6**	**+2.4**
PTH				*e*S	**Sn**	**17 51 55.6**	**-4.0**
PTH				IAML		17 52 04.2	
	comp=E,488nm,0.3s						
PTH				IAML		17 52 05.6	
	comp=N,499nm,0.5s						
HRA	**Herat**	**9.95**	**253**		**Pn**	**17 50 08.8**	**-0.8**
KUDL	**Kundal**	**10.05**	**166**	*e*P	**Pn**	**17 50 12.3**	**+1.5**
KUDL				*e*S	**Sn**	**17 51 57.4**	**-5.0**
KUDL				IAML		17 52 01.8	
	comp=E,553nm,0.5s						
KUDL				IAML		17 52 02.6	
	comp=N,585nm,0.7s						
MAKZ	**Makanchi**	**10.74**	**32**	P	**Pn**	**17 50 20.4**	**+0.1**
MAKZ	**Makanchi**	**10.74**	**32**	P	**Pn**	**17 50 21.6**	**+1.4**
MAKZ	**Makanchi**	**10.74**	**32**		**Pn**	**17 50 19.8**	**-0.4**
MAKZ	**Makanchi**	**10.74**	**32**	P	**Pn**	**17 50 22.0**	**+1.8**
	comp=Z,81nm,1.6s						
MK31	**Makanchi Array**	**10.86**	**33**	P	**Pn**	**17 50 22.9**	**+0.9**
	comp=Z,34nm,0.7s,baz=208,slow=12,SNR=216						
MK31	**Makanchi Array**	**10.86**	**33**	*ce*P	**Pn**	**17 50 23.2**	**+1.3**
MKAR	**Makanchi Array**	**10.86**	**33**	Pn	**Pn**	**17 50 23.0**	**+1.1**
	comp=Z,1.6nm,0.3s,baz=209,slow=12,SNR=85						
MKAR				Lg	Lg	17 53 23.4	
	comp=Z,0.9nm,0.3s,baz=220,slow=26,SNR=2.8						
MKAR				LR	LR	17 54 02.2	
	comp=Z,1µm,21.3s,baz=213,slow=35						
	comp=Z,19nm,0.7s						
MKAR				AML	AML		
MKAR	**Makanchi Array**	**10.86**	**33**	*e*P	**Pn**	**17 50 23.2**	**+1.3**
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
MKAR	**Makanchi Array**	**10.86**	**33**		**Pn**	**17 50 22.3**	**+0.4**
WMQ	**Urumqi**	**12.08**	**57**	*e*P	**Pn**	**17 50 39.4**	**+0.8**
WMQ				S	**Sn**	**17 52 50.0**	**-2.1**
WMQ				pmax	pmax		
	comp=Z,24nm,0.7s						
WMQ				pmax	pmax		
	comp=Z,440nm,4.3s						
WMQ				L	L		
	comp=Z,11µm,12.9s						
WMQ				L	L		
	comp=Z,5µm,17.3s						
KURBB	**Kurchatov Arra**	**13.12**	**14**	Pn	**Pn**	**17 50 51.9**	**-0.9**
	comp=Z,0.4nm,0.3s,baz=205,slow=12,SNR=53						
KURBB				Sn	**Sn**	**17 53 15.3**	**-2.1**
	comp=Z,0.1nm,0.3s,baz=205,slow=24,SNR=1.4						
KURBB				Lg	Lg	17 54 31.5	
	comp=Z,0.2nm,0.3s,baz=208,slow=27,SNR=5.5						
	comp=Z,10nm,0.6s						
KURBB				AML	AML		
KURK	**Kurchatov**	**13.23**	**14**	⇓P	**Pn**	**17 50 52.0**	**-2.2**
	comp=Z,19nm,1.1s						
KURK	**Kurchatov**	**13.23**	**14**	*de*P	**Pn**	**17 50 53.3**	**-0.9**
KURK				pmax	pmax		
	comp=Z,60nm,1.3s						
KURK	**Kurchatov**	**13.23**	**14**		**Sn**	**17 53 15.3**	**-4.7**
KURK	**Kurchatov**	**13.23**	**14**		**Pn**	**17 50 52.4**	**-1.7**
KURK	**Kurchatov**	**13.23**	**14**	P	**Pn**	**17 50 53.1**	**-1.1**
	comp=Z,41nm,0.8s						
EVN	**Everest**	**14.81**	**128**		Pn	17 51 11.1	-5.4
EVN	**Everest**	**14.81**	**128**	P	Pn	17 51 11.7	-4.8
	comp=Z,103nm,0.9s						
BHPL	**Bhopal**	**15.00**	**167**	*e*P	**Pn**	**17 51 18.7**	**+0.3**
BHPL				*e*S	Sn	17 53 52.9	-11
BHPL				IAML		17 53 59.4	
	comp=N,1µm,0.5s						
BHPL				IAML		17 54 02.6	
	comp=E,1µm,0.7s						
AB31	**Akbulak array**	**15.06**	**323**	P	**Pn**	**17 51 15.9**	**-3.1**
	comp=E,28nm,0.7s,baz=130,slow=13,SNR=213						
AB31	**Akbulak array**	**15.06**	**323**	*e*P	**Pn**	**17 51 15.9**	**-3.1**
AB31	**Akbulak array**	**15.06**	**323**		**Pn**	**17 51 15.1**	**-3.9**
ABKAR	**Akbulak array**	**15.06**	**323**		**Pn**	**17 51 14.8**	**-4.2**
BVAR	**Borovoye Array**	**15.26**	**352**	Pn	**Pn**	**17 51 20.0**	**-1.6**
	comp=E,0.2nm,0.3s,baz=163,slow=13,SNR=115						
BVAR				Lg	Lg	17 55 44.2	
	comp=E,0.1nm,0.3s,baz=166,slow=30,SNR=2.7						
	comp=E,31nm,0.8s						
BVAR				AML	AML		
BVAR	**Borovoye Array**	**15.26**	**352**	P	**Pn**	**17 51 20.0**	**-1.6**
BORK	**Borovoye**	**15.28**	**352**	*d i*P	**Pn**	**17 51 19.8**	**-2.2**
BORK				pmax	pmax		
	comp=Z,41nm,0.9s						
BORK	**Borovoye**	**15.28**	**352**		**Pn**	**17 51 19.2**	**-2.8**
DGZ	**Jazzator, Alta**	**15.32**	**36**	*e*P	**Pn**	**17 51 22.9**	**+0.3**
DGZ				pmax	pmax		
	comp=Z,9.0nm,1.5s						
AKTO	**Aktyubinsk**	**16.77**	**323**	Pn	**Pn**	**17 51 39.7**	**-1.3**
	comp=Z,1.7nm,0.3s,baz=129,slow=14,SNR=63						
AKTO				Sn	**Sn**	**17 54 40.1**	**-6.1**
	comp=Z,3.7nm,0.3s,baz=75,slow=20,SNR=4.5						
AKTO				Lg	Lg	17 56 39.6	
	comp=Z,0.2nm,0.3s,baz=192,slow=14,SNR=0.9						
AKTO				LR	LR	17 58 16.5	
	comp=Z,932nm,21.9s,baz=200,slow=38						
	comp=Z,102nm,1.0s						
AKTO				AML	AML		
AKTO	**Aktyubinsk**	**16.77**	**323**	⇓P	**Pn**	**17 51 40.0**	**-1.1**
	comp=Z,109nm,1.2s						
AKTO	**Aktyubinsk**	**16.77**	**323**	P	**Pn**	**17 51 39.9**	**-1.1**
AKTO				S	**Sn**	**17 54 43.9**	**-2.4**
GOMU	**GeErMu**	**16.91**	**89**	P	**Pn**	**17 51 41.8**	**-1.5**
GOMU				pP	P	17 51 45.4	+0.4
GOMU				pmax	pmax		
	comp=Z,17nm,0.9s						
GOMU				L	L		
	comp=Z,460nm,11.5s						
GOMU				L	L		
	comp=Z,1µm,11.1s						
GOMU				L	L		
	comp=Z,1µm,11.4s						
ZAA0	**Zalesovo Array**	**17.72**	**22**	P	**Pn**	**17 51 50.4**	**-2.5**
ZALV	**Zalesovo Beam**	**17.72**	**22**	P	**Pn**	**17 51 51.4**	**-1.4**
	comp=Z,3.4nm,0.3s,baz=216,slow=12,SNR=57						
ZALV				Lg	Lg	17 56 59.8	
	baz=200,slow=21,SNR=2.1						
ZALV				LR	LR	17 58 51.1	
	comp=Z,987nm,20.1s,baz=216,slow=38						
	comp=Z,38nm,0.7s						
ZALV				AML	AML		
ZALV	**Zalesovo Beam**	**17.72**	**22**	P	**Pn**	**17 51 50.9**	**-1.9**
JASK	**Jask - Hormozg**	**18.04**	**233**	P	**P**	**17 51 58.5**	**+1.3**
JASK				S	**Sn**	**17 55 16.8**	**-0.5**
BANOM	**Banah**	**19.01**	**236**	P	**P**	**17 52 08.0**	**+0.2**
BANOM				S	**Sn**	**17 55 38.1**	**-2.6**
BANOM	**Banah**	**19.01**	**236**	*i* P	**P**	**17 52 07.2**	**-0.7**
	SNR=16						
SHME	**Shamm**	**19.03**	**237**	P	**P**	**17 52 07.3**	**-0.7**
	SNR=7.8						
SHME				S	**Sn**	**17 55 39.8**	**-1.3**
SHME	**Shamm**	**19.03**	**237**	*i* P	**P**	**17 52 06.5**	**-1.5**
	SNR=16						
MDH	**Madha**	**19.44**	**235**	P	**P**	**17 52 11.7**	**-0.8**
	SNR=10						
MDH	**Madha**	**19.44**	**235**	*i* P	**P**	**17 52 11.4**	**-1.2**
	SNR=10						
MASF	**Masafi**	**19.48**	**235**	P	**P**	**17 52 13.2**	**+0.2**
	SNR=12						
MSFE	**Esma-Masafi**	**19.49**	**235**	*i* P	**P**	**17 52 12.3**	**-0.8**
	SNR=14						
WSAR	**Wadi Sarin**	**19.56**	**226**	LR	LR	18 01 22.5	
	comp=Z,5.2nm,19.9s,baz=88,slow=42						
WSAR	**Wadi Sarin**	**19.56**	**226**	P	**Pn**	**17 52 14.7**	**-0.6**
	SNR=6.7						
LKRN	**Lenkeran, Azer**	**19.58**	**280**	P	**Pn**	**17 52 16.2**	**+0.7**
BIDO	**Bidbid**	**19.63**	**227**	P	**Pn**	**17 52 16.2**	**+0.1**
SHL	**Shillong**	**19.72**	**124**	P	**P**	**17 52 15.6**	**-0.2**
	SNR=14						
SHL	**Shillong**	**19.72**	**124**	P	**P**	**17 52 15.4**	**-0.3**
SHL				pmax	pmax		
	comp=Z,42nm,0.9s						
SHL	**Shillong**	**19.72**	**124**	P	**P**	**17 52 15.4**	**-0.3**
UOSS	**Minazif**	**19.75**	**234**	P	**P**	**17 52 15.2**	**-0.7**
UOSS				S	**S**	**17 55 55.4**	**-1.5**
UOSS	**Minazif**	**19.75**	**234**	P	**P**	**17 52 13.7**	**-2.2**
UOSS	**Minazif**	**19.75**	**234**	*i* P	**P**	**17 52 14.6**	**-1.3**
	SNR=26						
WBK	**Wadi Bani Khal**	**19.87**	**224**	P	**Pn**	**17 52 18.6**	**-0.4**
	SNR=6.1						
HATD	**Hatta, Dubai**	**19.88**	**234**	P	**Pn**	**17 52 18.5**	**-0.7**
	SNR=16						
HATD	**Hatta, Dubai**	**19.88**	**234**	*i* P	**P**	**17 52 15.5**	**-1.8**
	SNR=17						
JLN	**Jalan Bani Buh**	**20.00**	**222**	P	**P**	**17 52 19.7**	**+1.0**
	SNR=6.1						
ASHO	**Ashiyiah**	**20.03**	**234**	P	**P**	**17 52 18.5**	**-0.5**
	SNR=43						
ASHO				S	**S**	**17 55 59.7**	**-2.8**
ASHO	**Ashiyiah**	**20.03**	**234**	*i* P	**P**	**17 52 18.4**	**-0.6**
	SNR=52						
SMDO	**Samad**	**20.03**	**227**	P	**P**	**17 52 19.6**	**+0.5**
	SNR=6.8						
SMDO				S	**S**	**17 56 02.6**	**-0.1**
HOQ	**Hoqain**	**20.06**	**229**	P	**P**	**17 52 19.0**	**-0.4**
NAZ	**Nazwa, Dubai**	**20.07**	**235**	P	**P**	**17 52 18.6**	**-0.8**
	SNR=10						
NAZ				S	**S**	**17 56 02.0**	**-1.2**
NAZ	**Nazwa, Dubai**	**20.07**	**235**	*i* P	**P**	**17 52 18.2**	**-1.2**
	SNR=8.3						
SOHO	**SOHO**	**20.13**	**232**	P	Pn	17 52 21.3	-0.7
SOHO	**SOHO**	**20.13**	**232**	P	**P**	**17 52 18.7**	**-1.3**
FAQ	**Al Faqa, Dubai**	**20.29**	**235**	P	Pn	17 52 23.0	-0.8
	SNR=6.0						
FAQ	**Al Faqa, Dubai**	**20.29**	**235**	P	**P**	**17 52 20.0**	**-1.8**
AKT	**Akhty**	**20.29**	**288**	*e*P	**P**	**17 52 22.6**	**+0.8**
AKT				*e*		17 52 41.1	
AKT				*e*S	**S**	**17 56 06.6**	**-1.0**
AKT				*e*SS	**SnSn**	**17 56 29.7**	**+3.7**
AKT				pmax	pmax		
	comp=Z,86nm,1.0s						
GTA2	**Gaotai**	**20.34**	**78**	*e*P	**P**	**17 52 23.0**	**+0.6**
GTA2				S	**S**	**17 56 10.0**	**+1.2**
GTA2				pmax	pmax		
	comp=Z,110nm,0.7s						
GTA2				pmax	pmax		
	comp=Z,540nm,5.1s						
GTA2				L	L		
	comp=Z,1µm,14.0s						
GTA2				L	L		
	comp=Z,2µm,14.6s						
GTA2				L	L		
	comp=Z,2µm,14.9s						
ASUD	**Al Ashush, Dub**	**20.54**	**235**	P	**P**	**17 52 24.2**	**-0.3**
JMDO	**Jabal Madar**	**20.54**	**225**	P	**P**	**17 52 25.4**	**+0.9**
	SNR=8.2						

MAK	Makhachkala	20.54	292	c iP	P	17 52 24.1	-0.3
MAK				e*SP	sP	17 52 42.6	+3.6
MAK				eS	S	17 56 09.3	-3.0
MAK				e*SS	pS	17 56 30.8	+1.6
MAK				pmax	pmax		
	comp=Z,290nm,1.8s						
MAK				MLR	MLR		
	comp=Z,2µm,12.0s						
ALNE	Al Ain	20.67	233	P	P	17 52 25.1	-0.9
	SNR=20						
ALNE	Al Ain	20.67	233	i P	P	17 52 23.9	-2.0
	SNR=13						
SEKA	Sheki	20.68	287	P	P	17 52 27.0	+0.9
ARQ	Araqi	20.72	230	P	Pn	17 52 29.7	+0.7
	SNR=7.4						
BSY	Bisya	20.77	228	P	P	17 52 27.5	+0.5
	SNR=11						
MNGR	Mingechevir, A	20.77	286	P	Pn	17 52 28.9	-0.5
SVE	Sverdlovsk	20.80	339	eP	P	17 52 26.5	-0.5
SVE				eS	S	17 56 15.0	-2.2
SVE				pmax	pmax		
	comp=Z,50nm,1.0s						
SVE				MLR	MLR		
	comp=Z,3µm,11.0s						
AJN	Ajban	20.80	235	P	P	17 52 26.1	-1.2
	SNR=6.3						
AJN	Ajban	20.80	235	i P	P	17 52 26.0	-1.4
	SNR=5.9						
HYB	Hyderabad	20.89	167	eP	Pn	17 52 39.5	+8.5
HYB	Hyderabad	20.89	167	eP	P	17 52 29.2	+0.9
HYB				epP	pP	17 52 38.7	+0.5
HYB				eS	S	17 56 21.5	+1.9
KNGR	Kungurtug, Tuv	21.10	46	c iP	P	17 52 32.3	+1.8
KNGR				pmax	pmax		
	comp=Z,8.0nm,1.9s						
ARTI	Arti	21.11	336	P	P	17 52 30.0	-0.3
	comp=Z,22nm,0.6s,baz=150,slow=5.7,SNR=17						
ARTI				S	S	17 56 28.8	+5.5
	comp=Z,5.2nm,0.8s,baz=31,slow=22,SNR=1.0						
ARTI				Lg	Lg	17 58 54.8	
	comp=Z,0.7nm,0.3s,baz=144,slow=19,SNR=3.4						
ARTI				LR	LR	18 01 43.0	
	comp=Z,697nm,18.5s,baz=146,slow=40						
	comp=Z,22nm,0.6s						
ARTI	Arti	21.11	336	d iP	P	17 52 29.7	-0.6
ARTI						17 52 51.2	
ARTI				S	S	17 56 21.0	-2.3
ARTI				SS	SnSn	17 56 45.0	-0.7
ARTI				pmax	pmax		
	comp=Z,76nm,1.1s						
ARTI				MLR	MLR		
	comp=Z,2µm,13.0s						
ARTI	Arti	21.11	336	P	P	17 52 29.2	-1.2
GANJ	Ganja	21.36	286	P	P	17 52 35.9	+2.7
BRDH	Bariadhala	21.64	130	LR	LR	18 01 22.6	
	comp=Z,2µm,20.3s,baz=332,slow=38						
MHTO	MHTO	21.72	223	P	P	17 52 38.2	+1.0
	SNR=20						
JRN	Qarnain Island	21.98	240	P	P	17 52 38.6	-1.3
UMZA	Um Al Zommool	22.02	232	P	P	17 52 40.2	-0.2
MZWR	Madinat Zayed	22.09	236	P	P	17 52 40.6	-0.5
NAX	Nakhchivan	22.09	282	P	P	17 52 42.8	+1.7
MORE	Moreh	22.23	122	P	P	17 52 42.8	+0.1
MORE				IAmb	IAmb	17 53 02.9	
	comp=Z,67nm,0.8s						
TBLG	Delisi	22.54	289	P	P	17 52 47.2	+1.3
GNI	Garni	22.59	285	P	P	17 52 47.4	+0.8
	comp=Z,43nm,1.2s,baz=124,slow=7.3,SNR=29						
GNI				LR	LR	18 02 23.8	
	comp=Z,595nm,21.6s,baz=92,slow=39						
	comp=Z,43nm,1.2s						
GNI	Garni	22.59	285	i P	P	17 52 48.6	+2.0
GNI				pmax	pmax		
	comp=Z,186nm,1.2s						
GNI	Garni	22.59	285	P	P	17 52 45.3	-1.2
GNI	Garni	22.59	285	P	P	17 52 49.0	+2.4
	comp=Z,2µmcomp=Z,185nm,1.1s						
GNI	Garni	22.59	285	P	P	17 52 49.4	+2.8
	comp=Z,186nm,1.1s						
GHWR	Ruwais	22.61	238	P	P	17 52 45.8	-0.9
MZR	Muzera	22.88	235	P	P	17 52 49.0	-0.6
	SNR=7.9						
MZR	Muzera	22.88	235	i P	P	17 52 48.6	-1.0
	SNR=8.2						
SAKB	Bahrain	22.95	245	P	P	17 52 49.1	-1.2
BELG	Belogornoye	23.23	317	LR	LR	18 02 45.5	
	comp=Z,678nm,20.7s,baz=131,slow=39						
BELG	Belogornoye	23.23	317	i P	P	17 52 52.1	-0.7
BELG				pmax	pmax		
	comp=Z,32nm,1.0s						
SLWR	Sila	23.34	240	P	P	17 52 53.2	-1.1
NCK	Nalchik	23.43	293	i P	P	17 52 55.5	+0.5
NCK				pmax	pmax		
	comp=Z,43nm,0.8s						
MOY	Mondy	23.54	46	eP	P	17 52 57.2	+1.1
MOY				pmax	pmax		
	comp=Z,149nm,2.7s						
HAKT	HAKKARI	23.70	278	P	P	17 53 00.4	+2.5
	comp=Z,102nm,1.5s						
KBZ	Khabaz	23.95	294	P	P	17 53 00.3	+0.5
	comp=Z,8.8nm,0.9s,baz=123,slow=8.8,SNR=7.7						
KBZ				S	S	17 57 22.4	+8.1
	comp=Z,2.1nm,0.7s,baz=82,slow=22,SNR=1.1						
KBZ				LR	LR	18 03 04.4	
	comp=Z,941nm,19.4s,baz=97,slow=38						
	comp=Z,8.8nm,0.9s						
KBZ	Khabaz	23.95	294	eP	P	17 53 01.4	+1.5
KBZ				pmax	pmax		
	comp=Z,9.0nm,0.9s						
GOF	Gofitskoye	23.96	297	c eP	P	17 53 00.6	+0.6
GOF				eS	S	17 57 18.7	+4.2
LZDM	Lanzhou Array	23.98	86	P	P	17 52 58.9	-1.8
	comp=Z,57nm,1.2s,baz=316,slow=6.2,SNR=6.9						
	comp=Z,57nm,1.2s						
EPOS	Posof	24.05	288	P	P	17 53 03.7	+2.7
	comp=Z,82nm,1.2s						
LZH	Lanzhou	24.07	85	eP	P	17 53 01.8	+0.5
LZH				S	S	17 57 03.1	-14
LZH				pmax	pmax		
	comp=Z,73nm,1.4s						
LZH				pmax	pmax		
	comp=Z,280nm,4.6s						
LZH				L	L		
	comp=Z,2µm,14.0s						
LZH				L	L		
	comp=Z,3µm,14.6s						
LZH				L	L		
	comp=Z,3µm,15.2s						
NEUR	Neytrino	24.07	293	i P	P	17 53 03.0	+1.7
NEUR				pmax	pmax		
	comp=Z,27nm,1.0s						
KVAR	Kislovodsk Arr	24.11	294	P	P	17 53 02.1	+0.6
	comp=Z,2.1nm,0.5s,baz=162,slow=9.6,SNR=1.6						
	comp=Z,2.1nm,0.5s						
KIV	Kislovodsk	24.12	294	P	P	17 53 03.4	+1.8
KIV	Kislovodsk	24.12	294	eP	P	17 53 04.3	+2.7
KIV				eS	S	17 57 18.9	+1.7
KIV				pmax	pmax		
	comp=Z,27nm,1.0s						
KIV	Kislovodsk	24.12	294	P	P	17 53 02.9	+1.3
KIV	Kislovodsk	24.12	294	P	P	17 53 06.4	+4.8
	comp=Z,86nm,0.9s						
SHA1	Shidzhatmaz	24.13	294	i P	P	17 53 02.5	+0.7
ZAK	Zakamensk	24.39	50	eP	P	17 53 04.1	+0.1
ZAK				pmax	pmax		
	comp=Z,36nm,1.3s						
TNCH	TengChong	24.66	114	P	P	17 53 06.8	0.0
TNCH				pP	sP	17 53 20.3	-1.7
TNCH				S	S	17 57 24.1	-2.3
TNCH				pmax	pmax		
	comp=Z,84nm,1.4s						
TNCH				pmax	pmax		
	comp=Z,350nm,2.7s						
TNCH				L	L		
	comp=Z,3µm,13.7s						
TNCH				L	L		
	comp=Z,2µm,15.1s						
TNCH				L	L		
	comp=Z,3µm,11.8s						
TLY	Talaya	25.06	47	P	P	17 53 10.1	+0.2
TLY				IAmb	IAmb	17 53 21.3	
	comp=Z,72nm,1.6s						
SHAO	Shalim	25.41	224	P	P	17 53 14.1	+0.8
LABN	Labinsk	25.57	296	eP	P	17 53 14.9	+0.3
LABN				pmax	pmax		
	comp=Z,73nm,0.9s						
IRK	Irkutsk	25.63	46	eP	P	17 53 16.4	+1.3
IRK				pmax	pmax		
	comp=Z,79nm,2.2s						
CD2	Chengdu	25.66	97	P	P	17 53 16.3	+0.6
CD2				S	S	17 57 46.6	+4.5
CD2				pmax	pmax		
	comp=Z,40nm,0.7s						
CD2				L	L		
	comp=Z,2µm,12.7s						
CD2				L	L		
	comp=Z,2µm,13.2s						
CD2				L	L		
	comp=Z,2µm,13.2s						
SONM	Songino Array	25.71	57	P	P	17 53 16.8	+0.7
	comp=Z,44nm,1.0s,baz=258,slow=10,SNR=137						
SONM				S	S	17 57 41.4	-1.4
	comp=Z,0.9nm,0.9s,baz=339,slow=21,SNR=1.0						
SONM				LR	LR	18 03 51.3	
	comp=Z,2µm,19.7s,baz=266,slow=38						
	comp=Z,44nm,1.0s						
SONM	Songino Array	25.71	57	P	P	17 53 16.4	+0.3
SONM				IAmb	IAmb	17 53 25.5	
	comp=Z,49nm,0.8s						
ERBR	Yeremizino-Bor	25.82	298	eP	P	17 53 17.3	+0.4
ERBR				eS	S	17 57 38.4	-5.9
ERBR				pmax	pmax		
	comp=Z,35nm,1.2s						
ERBR				MLR	MLR		
	comp=Z,1µm,14.0s						
KIRV	Kirov	25.97	330	LR	LR	18 03 45.3	
	comp=Z,949nm,18.9s,baz=132,slow=37						
KIRV	Kirov	25.97	330	c eP	P	17 53 18.7	+0.6
VSLR	Vesyoloye	26.02	293	i P	P	17 53 21.4	+2.6
VSLR				pmax	pmax		
	comp=Z,28nm,0.8s						
DMTO	DMTO	26.03	224	P	P	17 53 19.3	+0.3
VRH	Novokhopyorsk	26.14	311	eP	P	17 53 20.9	+1.2
VRH				pmax	pmax		
	comp=Z,28nm,0.8s						
ULN	Ulaanbaatar	26.16	57	P	P	17 53 20.9	+0.8
ULN	Ulaanbaatar	26.16	57	c eP	P	17 53 20.2	+0.1
ULN				pmax	pmax		
	comp=Z,84nm,2.5s						
ULN	Ulaanbaatar	26.16	57	P	P	17 53 20.4	+0.2
ULN				IAmb	IAmb	17 53 29.4	
	comp=Z,37nm,0.9s						
ULN	Ulaanbaatar	26.16	57	P	P	17 53 20.8	+0.6
	comp=Z,49nm,0.8s						
PZH	PanZhiHua	26.20	108	P	P	17 53 23.9	+3.3
PZH				S	S	17 57 52.3	+1.6
PZH				sS	sS	17 58 10.3	+1.9
PZH				pmax	pmax		
	comp=Z,40nm,0.9s						
SOC	Sochi	26.25	293	eP	P	17 53 24.2	+3.4
SOC				e		17 54 02.2	
SOC				eS	S	17 57 54.1	+3.0
SOC				pmax	pmax		
	comp=Z,33nm,1.0s						
SOC				MLR	MLR		
	comp=Z,584nm,13.0s						
WHFO	Wadi Hawf	26.53	227	P	P	17 53 23.2	-0.4
	SNR=5.5						
NPW	Naypyitaw	26.58	127	P	P	17 53 25.3	+1.3
	comp=Z,62nm,0.8s						
RBK	Rabkut	26.61	225	P	P	17 53 24.3	0.0
KELT	Kelkit	26.77	286	P	P	17 53 28.7	+2.9
	comp=Z,120nm,1.4s						
ARPR	Arapgir-MALATY	27.62	283	P	P	17 53 31.9	-1.4
ARPR				IAmb	IAmb	17 53 46.1	
	comp=Z,37nm,1.0s						
ARPR	Arapgir-MALATY	27.62	283	P	P	17 53 36.6	+3.3
	comp=Z,36nm,1.3s						
VSR	Storozhevoye	27.68	310	eP	P	17 53 35.2	+1.6
VSR				pmax	pmax		
	comp=Z,15nm,0.8s						
KMI2	Kunming	27.70	109	P	P	17 53 39.0	+4.7
KMI2				pP	sP	17 53 49.8	+0.5
KMI2				pmax	pmax		
	comp=Z,16nm,1.1s						
KMI2				L	L		
	comp=Z,2µm,16.1s						
KMI2				L	L		
	comp=Z,670nm,16.4s						
ANN	Anapa	27.92	296	eP	P	17 53 37.5	+1.7
ANN				pmax	pmax		
	comp=Z,62nm,2.1s						
ANN				MLR	MLR		
	comp=E,1µm,18.0s						
ANN				MLR	MLR		
	comp=N,2µm,18.0s						
BTO2	Baotou	27.97	73	eP	P	17 53 37.1	+0.7
BTO2				pP	sP	17 53 48.8	-2.8
BTO2				sP	pP	17 53 54.5	+7.4
BTO2				PP	PnPn	17 54 27.3	+3.4
BTO2				S	S	17 58 15.8	-2.6
BTO2				sS	sS	17 58 37.1	+1.2
BTO2				SS	SnSn	17 59 37.3	+3.4
BTO2				pmax	pmax		
	comp=N,29nm,0.6s						
BTO2				pmax	pmax		
	comp=N,220nm,3.9s						
BTO2				L	L		
	comp=N,3µm,16.6s						
BTO2				L	L		
	comp=N,3µm,19.0s						
BTO2				L	L		
	comp=N,5µm,18.4s						
RAYN	Ar Rayn	28.07	247	P	P	17 53 36.6	-0.9
RAYN	Ar Rayn	28.07	247	P	P	17 53 35.1	-2.4
RAYN				pmax	pmax		
	comp=Z,17nm,0.9s						
RAYN	Ar Rayn	28.07	247	P	P	17 53 35.1	-2.4
RAYN	Ar Rayn	28.07	247	i P	P	17 53 35.8	-1.6
	SNR=12						
LPSR	Galich'ya Gora	28.21	313	eP	P	17 53 40.4	+2.1
LPSR				pmax	pmax		
	comp=Z,33nm,0.8s						
XAN	Xi'an	28.63	87	P	P	17 53 42.1	-0.2
XAN				pmax	pmax		
	comp=Z,23nm,0.8s						
XAN				L	L		
	comp=Z,2µm,16.5s						
XAN				L	L		
	comp=Z,2µm,15.8s						
XAN				L	L		
	comp=Z,2µm,15.1s						
CHTO	Chiang Mai	29.09	124	P	P	17 53 50.4	+3.9
HHC	Hu-ho-hao-te	29.23	72	eP	P	17 53 49.0	+1.4
HHC				S	S	17 58 35.0	-3.2
HHC				SS	SnSn	18 00 10.1	+5.5
HHC				pmax	pmax		
	comp=Z,14nm,0.5s						
HHC				pmax	pmax		
	comp=Z,150nm,5.7s						
HHC				L	L		
	comp=Z,870nm,16.8s						
HHC				L	L		
	comp=Z,1µm,17.6s						
HHC				L	L		
	comp=Z,1µm,16.8s						
CMAR	Chiang Mai Arr	29.35	124	P	P	17 53 48.9	+0.2
	comp=Z,1.1nm,0.3s,baz=311,slow=9.3,SNR=6.5						
	comp=Z,1.1nm,0.3s						
CMAR	Chiang Mai Arr	29.35	124	eP	P	17 53 49.1	+0.4
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ANDN	Andirin	29.44	281	P	P	17 53 51.9	+2.4
	comp=Z,48nm,1.0s						
MOS	Moscow	29.98	318	eP	P	17 53 55.5	+1.6
MOS				e		17 54 51.3	
MOS				eS	S	17 58 49.6	+0.2
MOS				pmax	pmax		
	comp=Z,31nm,0.7s						
MOS				MLR	MLR		
	comp=E,2µm,13.0s						
MOS				MLR	MLR		
	comp=Z,2µm,13.0s						
GYA	Guiyang	29.98	103	⇓P	P	17 53 55.8	+1.4
GYA				pmax	pmax		
	comp=Z,27nm,0.5s						
OBN	Obninsk	30.33	317	P	P	17 53 58.3	+1.3
	comp=Z,19nm,0.5s,baz=169,slow=5.7,SNR=5.2						
OBN				LR	LR	18 07 33.7	
	comp=Z,1µm,18.8s,baz=122,slow=39						
	comp=Z,19nm,0.5s						
OBN	Obninsk	30.33	317	i P	P	17 53 58.3	+1.3
OBN				i PPP	PPP	17 55 04.7	
OBN				i		17 57 01.3	
OBN				pmax	pmax		
	comp=Z,33nm,1.0s						
OBN				MLR	MLR		
	comp=Z,802nm,17.0s						
OBN	Obninsk	30.33	317	P	P	17 53 56.9	-0.1
OBN	Obninsk	30.33	317	P	P	17 54 01.7	+4.7
	comp=Z,27nm,0.7s						
TIY	Taiyuan	30.42	78	P	P	17 53 58.8	+0.7
TIY				pmax	pmax		
	comp=Z,200nm,4.7s						
TIY				L	L		
	comp=Z,1µm,15.1s						
TIY				L	L		
	comp=Z,990nm,16.5s						
TIY				L	L		
	comp=Z,1µm,17.9s						
ENH	Enshi	30.43	94	P	P	17 53 57.9	-0.4
ENH				IAmb	IAmb	17 54 05.0	
	comp=Z,30nm,1.0s						
ENH	Enshi	30.43	94	P	P	17 53 58.5	+0.2
ASF	Jabal al Asfar	30.56	270	LR	LR	18 08 49.5	
	comp=Z,704nm,21.9s,baz=66,slow=41						
KIRS	Kirsehir-Merke	31.00	285	⇓P	P	17 54 05.9	+2.6
CIT	Chita	31.05	50	eP	P	17 54 03.8	+0.3
CIT				e		17 55 26.5	
CIT				e		18 00 47.2	
CIT				pmax	pmax		
	comp=Z,74nm,1.7s						
BR131	Keskin Array S	31.11	286	P	P	17 54 05.7	+1.4
BR131	Keskin Array S	31.11	286	i P	P	17 54 06.0	+1.7
BR131	Keskin Array S	31.11	286	P	P	17 54 03.6	-0.7
BRTR	Keskin Array B	31.11	286	P	P	17 54 05.0	+0.7
	comp=Z,3.1nm,1.0s,baz=100,slow=6.6,SNR=13						
BRTR				LR	LR	18 07 38.7	
	comp=Z,219nm,20.7s,baz=174,slow=38						
	comp=Z,3.1nm,1.0s						
BRTR	Keskin Array B	31.11	286	eP	P	17 54 05.4	+1.1
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
BRTR	Keskin Array B	31.11	286	P	P	17 54 04.3	0.0
BR104	Keskin Array S	31.11	286	P	P	17 54 05.4	+1.1
	comp=Z,98nmcomp=Z,11nm,1.1s						
BR106	Keskin Array S	31.12	286	P	P	17 54 05.6	+1.2
	comp=Z,104nmcomp=Z,12nm,0.9s						
PALK	Pallekele	31.18	167	P	P	17 54 05.4	+0.4
	comp=Z,9.9nm,1.0s,baz=7.1,slow=8.1,SNR=1.5						
	comp=Z,9.9nm,1.0s						
LYN	LuoYang	31.27	84	eP	P	17 54 07.0	+1.4
LYN				S	S	17 59 10.6	+0.5
LYN				SS	SnSn	18 00 55.8	+1.6
LYN				pmax	pmax		
	comp=Z,10.0nm,0.9s						
LYN				pmax	pmax		
	comp=Z,160nm,3.8s						
LYN				L	L		
	comp=Z,3µm,17.5s						
LYN				L	L		
	comp=Z,2µm,17.9s						
LYN				L	L		
	comp=Z,1µm,15.8s						
KLMR	Klimovskoe	31.35	328	eP	P	17 54 05.1	-0.9
KLMR				pmax	pmax		
	comp=Z,40nm,1.6s						
CY604	RAF Akrotiri,	31.72	276	P	P	17 54 09.1	-0.1
CY604				IAmb	IAmb	17 54 14.9	
	comp=Z,29nm,1.3s						
KKUL	Konya-Kulu	31.76	285	P	P	17 54 11.7	+1.7
	comp=Z,23nm,0.9s						
GHAJ	Ghor Haditha	31.94	270	P	P	17 54 14.6	+3.1
GHAJ				AML	AML		
GHAJ	Ghor Haditha	31.94	270	P	P	17 54 13.6	+2.1
	comp=Z,29nm,1.6s						
SALP	Salfit	31.95	271	P	P	17 54 19.5	+7.9
SALP				AML	AML		
MSBI	Mazada	32.10	270	P	P	17 54 21.9	+9.0
MSBI	Mazada	32.10	270	P	P	17 54 14.7	+1.9
	comp=Z,12nm,1.1s						
HNS	HongShan	32.25	78	⇑P	P	17 54 17.0	+2.9
HNS				S	S	17 59 24.3	-1.0
HNS				pmax	pmax		
	comp=Z,14nm,0.8s						
HNS				L	L		
	comp=Z,1µm,18.4s						
HNS				L	L		
	comp=Z,490nm,15.3s						
HNS				L	L		
	comp=Z,1µm,15.1s						
XLT	XiLinHaoTe	32.27	66	eP	P	17 54 15.4	+1.0
XLT				pmax	pmax		
	comp=Z,8.0nm,1.2s						
XLT				L	L		
	comp=Z,300nm,21.1s						
XLT				L	L		
	comp=Z,940nm,20.2s						
NRIK	Noril'sk	32.33	9	P	P	17 54 13.8	-0.7
	comp=Z,20nm,1.0s,baz=208,slow=3.9,SNR=10						
	comp=Z,20nm,1.0s						
NRIK	Noril'sk	32.33	9	eP	P	17 54 15.1	+0.6
NRIK				pmax	pmax		
	comp=Z,30nm,1.1s						
NRIK	Noril'sk	32.33	9	P	P	17 54 14.0	-0.5
NRIK				IAmb	IAmb	17 54 20.9	
	comp=Z,27nm,1.0s						
AMAZ	Amatzia	32.37	270	P	P	17 54 19.4	+4.1
AMAZ				AML	AML		
PRNI	Paran	32.76	268	P	P	17 54 21.1	+2.4
	comp=Z,0.3nmcomp=Z,1µmcomp=Z,56nm,1.3s						
PRNI				AML	AML		
BJI2	Beijing	32.83	73	P	P	17 54 19.8	+0.6
BJI2				pmax	pmax		
	comp=Z,4.0nm,0.7s						
BJI2				L	L		
	comp=Z,900nm,13.7s						
BJI2				L	L		
	comp=Z,530nm,18.6s						
HRFI	Mount Harif	32.86	268	P	P	17 54 22.1	+2.5
	comp=Z,0.1nmcomp=Z,338nmcomp=Z,25nm,1.6s						
HRFI				AML	AML		
HRFI	Mount Harif	32.86	268	P	P	17 54 21.7	+2.1
	comp=Z,25nm,1.6s						
KZIT	Kziot	33.02	270	P	P	17 54 23.9	+2.9
	comp=Z,0.1nmcomp=Z,23nm,1.4s						
KZIT				AML	AML		
KZIT	Kziot	33.02	270	P	P	17 54 23.2	+2.2
	comp=Z,24nm,1.3s						
EIL	Elat	33.08	267	LR	LR	18 10 45.2	
	comp=Z,947nm,18.9s,baz=72,slow=42						
EIL	Elat	33.08	267	P	P	17 54 23.7	+2.2
EIL				AML	AML		
PURM	Purcari	33.23	299	P	P	17 54 26.0	+3.4
	comp=Z,62nm,0.7s						
AK09	Malin Array Si	33.74	307	P	P	17 54 29.4	+2.4
AK10	Malin Array Si	33.76	307	P	P	17 54 29.7	+2.5
AKASG	Malin Array Be	33.79	307	P	P	17 54 27.4	0.0
	comp=Z,1.6nm,0.5s,baz=79,slow=7.6,SNR=16						
AKASG				LR	LR	18 08 33.2	
	comp=Z,633nm,20.8s,baz=76,slow=37						
	comp=Z,1.6nm,0.5s						
AKASG	Malin Array Be	33.79	307	eP	P	17 54 29.7	+2.3
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.4s						
AKASG	Malin Array Be	33.79	307	P	P	17 54 26.7	-0.7
AKBB	Malin Array Si	33.79	307	c eP	P	17 54 29.3	+1.8
AKBB				pmax	pmax		
	comp=Z,13nm,0.9s						
AKBB	Malin Array Si	33.79	307	P	P	17 54 26.9	-0.5
AKBB				IAmb	IAmb	17 54 51.7	
	comp=Z,16nm,0.9s						
AKBB	Malin Array Si	33.79	307	P	P	17 54 29.2	+1.8
KIEV	Kiev	33.80	307	P	P	17 54 28.3	+0.8
KIEV	Kiev	33.80	307	P	P	17 54 26.7	-0.8
KIEV	Kiev	33.80	307	P	P	17 54 27.2	-0.3
KIEV	Kiev	33.80	307	⇑P	P	17 54 28.3	+0.8
KIEV	Kiev	33.80	307	P	P	17 54 29.1	+1.6
	comp=Z,57nm,1.1s						
WHN	Wuhan	34.17	90	P	P	17 54 31.5	+0.6
WHN				pmax	pmax		
	comp=Z,88nm,0.8s						
SORM	Soroca	34.25	302	P	P	17 54 31.6	+0.2
SORM	Soroca	34.25	302	⇑P	P	17 54 31.7	+0.2
TPGR	Topolog	34.33	296	⇑P	P	17 54 33.6	+1.4
TIA	Tai'an	34.43	79	P	P	17 54 33.4	+0.2
TIA				pmax	pmax		
	comp=Z,10.0nm,1.1s						

CFR	Carcaliu	34.50	297	P	P	17 54 34.0	+0.4
CFR	Carcaliu	34.50	297	⇓P	P	17 54 34.1	+0.4
LUBAR	Lubar, Ukraine	34.68	305	P	P	17 54 38.0	+2.8
HILR	Hailar Array B	34.69	55	P	P	17 54 35.1	-0.2
	comp=Z,0.5nm,0.3s,baz=285,slow=2.9,SNR=3.9						
HILR				LR	LR	18 10 02.5	
	comp=Z,1µm,18.2s,baz=80,slow=39						
	comp=Z,0.5nm,0.3s						
MI28	Mi28,Pidlybu	34.79	307	P	P	17 54 38.2	+2.1
MNK	Minsk	35.06	313	*i* P	P	17 54 39.2	+0.9
MNK				*i*		17 55 58.2	
MNK				*i*		17 57 09.8	
MNK				*i* S	S	18 00 07.9	-0.5
MNK				*i* SS	SnSn	18 02 30.0	+4.4
MNK				pmax	pmax		
	comp=E,12nm,0.9s						
MNK				pmax	pmax		
	comp=N,19nm,1.1s						
MNK				pmax	pmax		
	comp=Z,9.0nm,0.8s						
MNK				MLR	MLR		
	comp=N,770nm,15.0s						
MNK				MLR	MLR		
	comp=Z,887nm,15.0s						
MNK				MLR	MLR		
	comp=E,954nm,15.0s						
MNK	Minsk	35.06	313	*i* P	P	17 54 39.3	+0.9
	comp=E,12nm,0.9s						
MNK				*i* P	P	17 54 39.3	+0.9
	comp=N,19nm,1.1s						
MNK				*i* P	P	17 54 39.3	+0.9
	comp=Z,9.0nm,0.8s,baz=99						
MNK				*i* pP	sP	17 54 54.3	+0.6
MNK				*i* PP	PP	17 55 58.2	+0.1
MNK				*i* S	S	18 00 08.0	-0.5
MNK				*i* sS	sS	18 00 34.1	+7.6
MNK				*i* SS	SnSn	18 02 30.0	+4.4
MNK				*i* LQ	LQ	18 06 25.9	
MNK				*i* LR	LR	18 09 06.0	
MNK				*i* LRM	MLR	18 10 24.1	
	comp=E,954nm,14.7s						
MNK				*i* LRM	MLR	18 10 24.1	
	comp=N,770nm,15.3s						
MNK				*i* LRM	MLR	18 10 24.1	
	comp=Z,887nm,15.5s						
VRI	Vrincioaia	35.44	298	P	P	17 54 44.0	+2.2
VRI	Vrincioaia	35.44	298	⇑P	P	17 54 44.1	+2.2
TESR	Tescani	35.45	299	⇑P	P	17 54 43.3	+1.4
PLOR	Plostina	35.49	298	P	P	17 54 44.2	+1.9
PLOR	Plostina	35.49	298	⇑P	P	17 54 44.2	+1.9
KMPD	K-Podol'skiy	35.51	303	P	P	17 54 43.6	+1.3
ISR	Istrita	35.63	297	P	P	17 54 45.6	+2.1
	comp=Z,36nm,1.0s						
ISR				pP	sP	17 54 59.0	+0.2
	comp=Z,36nm,1.0s						
ONER	Baraj Valea Uz	35.64	299	⇑P	P	17 54 45.3	+1.8
NACGM	Naroch	35.75	314	*e*P	P	17 54 46.9	+2.5
BIZ	Bicaz	35.80	300	⇑P	P	17 54 46.3	+1.4
COVR	Voineasa-Covas	35.80	298	⇑P	P	17 54 46.6	+1.6
TURR	Turia	35.92	299	⇓P	P	17 54 47.8	+1.9
RNPP9	Sopachiv	35.93	308	P	P	17 54 48.4	+2.5
RNPP8	Varash	35.95	308	P	P	17 54 48.7	+2.6
MLR	Muntele Rosu	36.02	298	LR	LR	18 11 12.4	
	comp=Z,1µm,20.8s,baz=61,slow=39						
MLR	Muntele Rosu	36.02	298	P	P	17 54 48.5	+1.7
MLR	Muntele Rosu	36.02	298	IAmb	IAmb	17 54 55.2	
	comp=Z,22nm,0.8s						
MLR	Muntele Rosu	36.02	298	⇓P	P	17 54 48.6	+1.7
MLR	Muntele Rosu	36.02	298	P	P	17 54 48.8	+1.9
	comp=Z,617nmcomp=Z,30nm,0.9s						
DOPR	Dopca	36.36	298	⇑P	P	17 54 51.4	+1.6
BURAR	Bucovina Array	36.37	301	P	P	17 54 50.3	+0.5
BURAR	Bucovina Array	36.37	301	⇓P	P	17 54 50.4	+0.5
QIZ	Qiongzhong	36.61	111	P	P	17 54 53.5	+1.4
QIZ				S	S	18 00 34.0	+1.1
QIZ				L	L		
	comp=Z,890nm,17.2s						
QIZ				L	L		
	comp=Z,2µm,15.2s						
QIZ				L	L		
	comp=Z,1µm,9.2s						
VOIR		36.65	298	P	P	17 54 53.4	+1.2
VOIR		36.65	298	⇓P	P	17 54 53.5	+1.2
MTUR	Matau	36.66	297	P	P	17 54 53.6	+1.3
MTUR	Matau	36.66	297	⇑P	P	17 54 53.7	+1.3
ARR	Arges	36.95	298	⇓P	P	17 54 56.4	+1.6
ARCR	ARCALIA	36.99	300	⇓P	P	17 54 56.0	+1.0
NJ2	Nanjing	37.14	85	*e*P	P	17 54 56.9	+0.4
NJ2				pmax	pmax		
	comp=Z,18nm,1.0s						
APA	Apatity	37.18	336	*e*P	P	17 54 58.3	+2.0
APA				*e*		17 56 21.7	
APA				*e*		17 57 11.3	
APA				*e*S	S	18 00 43.6	+3.1
APA				*e*SS	SnSn	18 03 12.1	-4.5
DL2	Dalian	37.19	73	P	P	17 54 52.1	-4.7
DL2				*e*S	S	18 00 39.0	-2.4
DL2				pmax	pmax		
	comp=Z,39nm,1.4s						
DL2				pmax	pmax		
	comp=Z,180nm,4.9s						
DL2				L	L		
	comp=Z,2µm,16.4s						
DL2				L	L		
	comp=Z,1µm,16.5s						
DL2				L	L		
	comp=Z,2µm,17.4s						
FINES	FINESS Array B	37.54	324	P	P	17 54 59.7	+0.2
	comp=Z,4.1nm,0.5s,baz=114,slow=9.0,SNR=35						
FINES				LR	LR	18 11 14.7	
	comp=Z,752nm,20.4s,baz=106,slow=38						
	comp=Z,4.1nm,0.5s						
FINES	FINESS Array B	37.54	324	P	P	17 54 59.4	-0.1
LOT	Lotru	37.54	298	⇑P	P	17 55 01.7	+1.9
MARR	Marisel-Cluj	37.86	300	⇓P	P	17 55 03.8	+1.2
DRGR		38.13	300	P	P	17 55 06.6	+1.8
DRGR		38.13	300	⇑P	P	17 55 06.7	+1.8
ATD	Arta Tunnel	38.14	235	LR	LR	18 13 12.7	
	comp=Z,13nm,18.5s,baz=49,slow=40						
GZR	Gura Zlata	38.24	298	P	P	17 55 06.9	+1.2
GZR	Gura Zlata	38.24	298	⇑P	P	17 55 07.0	+1.2
KOLS	Kolonicke sedl	38.27	304	*e*P	P	17 55 06.9	+1.1
KOLS	Kolonicke sedl	38.27	304	*e*P	P	17 55 06.9	+1.1
UZHM	Uzhgorod	38.27	303	P	P	17 55 07.7	+1.9
SURR	Surduc	38.65	299	⇓P	P	17 55 10.3	+1.3
SIRR	Siria	38.91	299	⇑P	P	17 55 12.6	+1.3
CN2	Changchun	39.01	65	*e*P	P	17 55 12.9	+0.8
CN2				*e*pP	sP	17 55 24.8	-2.7
CN2				*e*S	S	18 01 08.0	-0.8
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
CN2				pmax	pmax		
	comp=Z,100nm,3.0s						
CN2				L	L		
	comp=Z,500nm,15.0s						
CN2				L	L		
	comp=Z,200nm,15.0s						
MDVR	Moldovita	39.07	297	⇓P	P	17 55 14.0	+1.3
BOVS	Bovan	39.26	295	⇓P	P	17 55 15.5	+1.3
SSE	Sheshan	39.35	85	P	P	17 55 14.4	-0.6
SSE				S	S	18 01 12.0	-2.1
SSE				pmax	pmax		
	comp=Z,16nm,0.8s						
SSE				pmax	pmax		
	comp=Z,180nm,3.4s						
SSE				L	L		
	comp=Z,670nm,13.7s						
SSE				L	L		
	comp=Z,330nm,17.9s						
ZEA	Zeya	39.48	49	*e*P	P	17 55 17.3	+1.4
ZEA				*e*		17 55 23.6	
ZEA				pmax	pmax		
	comp=N,10.0nm,0.6s						
ZEA				pmax	pmax		
	comp=E,10.0nm,0.8s						
ZEA				pmax	pmax		
	comp=Z,10.0nm,0.8s						
ZEA				pmax	pmax		
	comp=Z,100nm,3.5s						
ZEA				MLR	MLR		
	comp=E,800nm,14.0s						
ZEA				MLR	MLR		
	comp=N,900nm,12.0s						
ZEA				MLR	MLR		
	comp=Z,1µm,12.0s						
NIE	Niedzica	39.53	304	*e*P	P	17 55 18.7	+2.3
HEH	HeiHe	39.63	54	*e*P	P	17 55 17.3	+0.1
HEH				S	S	18 01 19.0	+1.0
HEH				pmax	pmax		
	comp=Z,57nm,0.9s						
HEH				L	L		
	comp=Z,2µm,13.7s						
HEH				L	L		
	comp=Z,660nm,13.0s						
HEH				L	L		
	comp=Z,2µm,18.7s						
VADS	Vadso	39.76	338	*e*P	P	17 55 19.2	+1.3
OJC	Ojcow	39.80	306	*e*P	P	17 55 19.8	+1.2
OJC	Ojcow	39.80	306	P	P	17 55 20.6	+2.0
BNX	BinXian	40.08	61	⇓P	P	17 55 21.4	+0.4
BNX				pmax	pmax		
	comp=Z,13nm,1.2s						
VYHS	Vyhne	40.57	303	*e*P	P	17 55 26.8	+1.8
VYHS	Vyhne	40.57	303	*e*P	P	17 55 26.8	+1.8
ARA0	ARCESS Array S	40.67	336	*e*P	P	17 55 26.1	+0.5
ARCES	ARCESS Array B	40.67	336	P	P	17 55 25.9	+0.4
	comp=Z,6.5nm,0.5s,baz=108,slow=7.9,SNR=23						
ARCES				LR	LR	18 12 53.1	
	comp=Z,2µm,18.5s,baz=116,slow=37						
	comp=Z,6.5nm,0.5s						
ARCES	ARCESS Array B	40.67	336	P	P	17 55 24.5	-1.1
ARCES				IAmb	IAmb	17 55 40.6	
	comp=Z,41nm,1.1s						
OKC	Ostrava-Krasne	40.89	305	AMS	AMS	18 15 10.0	
	comp=Z,800nm,15.6s						
MORH	Mrgy, Hungar	40.99	300	⇑P	P	17 55 29.9	+1.4
SRO	Srobarova	40.99	302	*e*P	P	17 55 33.3	+4.8
SRO	Srobarova	40.99	302	*e*P	P	17 55 33.3	+4.8
STEB	Steborice	41.12	305	*e*P	P	17 55 33.2	+3.6
KTK1	Kautokeino	41.20	335	*e*P	P	17 55 29.7	-0.3
MORC	Moravsky Berou	41.29	305	*e*P	P	17 55 36.7	+5.7
JAVC	Velka Javorina	41.30	304	*e*P	P	17 55 31.9	+0.8
YAK	Yakutsk	41.52	36	LR	LR	18 12 13.3	
	comp=Z,717nm,19.1s,baz=256,slow=35						
YAK	Yakutsk	41.52	36	*e*P	P	17 55 31.4	-1.2
YAK				*e*		17 57 09.2	
YAK				*e*		17 57 28.5	
YAK				*e*S	S	18 01 42.8	-3.0
YAK				*e*SS	SS	18 04 47.4	-3.3
YAK				*e*		18 05 32.2	
YAK				pmax	pmax		
	comp=Z,33nm,1.0s						
YAK				pmax	pmax		
	comp=N,5.0nm,1.1s						
YAK				pmax	pmax		
	comp=E,13nm,1.1s						
YAK				pmax	pmax		
	comp=Z,47nm,2.5s						
YAK				pmax	pmax		
	comp=N,46nm,2.2s						
YAK				smax	smax		
	comp=N,109nm,2.2s						
YAK				smax	smax		
	comp=E,40nm,1.5s						
YAK				MLR	MLR		
	comp=Z,481nm,15.0s						
YAK				MLR	MLR		
	comp=N,290nm,16.0s						
YAK				MLR	MLR		
	comp=E,416nm,15.0s						
YAK	Yakutsk	41.52	36	P	P	17 55 31.8	-0.8
YAK				IAmb	IAmb	17 55 45.7	
	comp=Z,31nm,0.7s						
YAK	Yakutsk	41.52	36	P	P	17 55 32.4	-0.2
MODS	Modra-Piesok	41.61	303	*e*P	P	17 55 40.4	+6.8
MODS	Modra-Piesok	41.61	303	*e*P	P	17 55 40.4	+6.8
KRLC	Kraliky	41.75	306	*e*P	P	17 55 38.3	+3.6
KRLC				MLR	MLR		
	comp=Z,800nm,16.8s						
KRLC	Kraliky	41.75	306	*e*P	P	17 55 38.3	+3.6
KRLC				AMS	AMS	18 15 40.0	
	comp=Z,800nm,16.8s						
VRAC	Vranov	41.95	305	P	P	17 55 36.7	+0.3
	comp=Z,2.7nm,0.8s,baz=75,slow=11,SNR=7.5						
VRAC				LR	LR	18 16 23.2	
	comp=Z,750nm,18.7s,baz=94,slow=41						
	comp=Z,2.7nm,0.8s						
VRAC	Vranov	41.95	305	*e*P	P	17 55 38.8	+2.4
KSP	Ksiaz	41.99	307	*e*P	P	17 55 40.1	+3.5
DPC	Dobruska-Polom	42.02	306	*e*P	P	17 55 38.5	+1.6
DPC				MLR	MLR		
	comp=Z,700nm,15.5s						
DPC	Dobruska-Polom	42.02	306	*e*P	P	17 55 38.5	+1.6
DPC				AMS	AMS	18 14 50.0	
	comp=Z,700nm,15.5s						
BLEU	Blekinge	42.06	315	*e*P	P	17 55 36.5	-0.6
OSTC	Ostas	42.06	307	AMS	AMS	18 15 50.0	
	comp=Z,700nm,14.8s						
KRUC	Moravsky	42.11	304	*e*P	P	17 55 40.9	+3.3
CHVC	Chvalec	42.16	307	*e*P	P	17 55 42.0	+3.9
CHVC				MLR	MLR		
	comp=Z,700nm,13.1s						
CHVC	Chvalec	42.16	307	*e*P	P	17 55 42.0	+3.9
CHVC				AMS	AMS	18 14 10.0	
	comp=Z,700nm,13.1s						
UPC	Upice	42.20	307	AMS	AMS	18 14 50.0	
	comp=Z,900nm,14.2s						
KSAR	Wonju Array Be	42.33	73	P	P	17 55 38.3	-1.3
KSAR	Wonju Array Be	42.33	73		P	17 55 38.3	-1.3
JETT	Jettan, Norway	42.33	335	*e*P	P	17 55 40.0	+0.7
KSRS	Korea Array	42.36	73	P	P	17 55 39.2	-0.6
	comp=Z,2.9nm,0.8s,baz=278,slow=7.4,SNR=13						
	comp=Z,2.9nm,0.8s						
KSRS	Korea Array	42.36	73	*e*P	P	17 55 39.1	-0.7
KSRS				pmax	pmax		
	comp=Z,3.0nm,0.8s						
RONA	Rosalia, Austr	42.36	302	*i* P	P	17 55 42.0	+2.2
	comp=Z,10.0nm,1.1s						
KLR	Kul'dur	42.52	55	P	P	17 55 41.0	0.0
	comp=Z,8.2nm,0.5s,baz=278,slow=7.1,SNR=12						
KLR				LR	LR	18 14 47.7	
	comp=Z,1µm,18.4s,baz=276,slow=38						
	comp=Z,8.2nm,0.5s						
KLR	Kul'dur	42.52	55	*ce*P	P	17 55 40.8	-0.2
KLR				pmax	pmax		
	comp=Z,9.0nm,0.9s						
BSD	Bornholm Skovb	42.58	313	*i* P	P	17 55 40.7	-0.6
CONA	Conrad Observa	42.61	303	*e*P	P	17 55 43.4	+1.5
	comp=Z,17nm,1.1s						
TREC	Trest	42.67	305	AMS	AMS	18 14 10.0	
	comp=Z,1µm,18.7s						
TRO	Tromso	42.85	335	*e*P	P	17 55 43.2	-0.2
ARSA	Arzberg	42.95	302	*i* P	P	17 55 46.4	+1.9
	comp=Z,6.8nm,1.0s						
PSTR	Posyet	43.07	65	*i* P	P	17 55 47.0	+1.5
DEL	Delary	43.14	315	*e*P	P	17 55 45.1	-0.7
PRU	Pruhonice	43.19	306	*e*P	P	17 55 51.5	+5.1
PRU				MLR	MLR		
	comp=Z,800nm,17.7s						
PRU	Pruhonice	43.19	306	*e*P	P	17 55 51.5	+5.1
PRU				AMS	AMS	18 15 30.0	
	comp=Z,800nm,17.7s						
HFS	Hagfors	43.30	321	P	P	17 55 48.2	+1.1
	comp=Z,9.3nm,0.6s,baz=166,slow=3.1,SNR=11						
HFS				LR	LR	18 15 30.9	
	comp=Z,914nm,18.8s,baz=90,slow=38						
	comp=Z,9.3nm,0.6s						
SOKA	Soboth	43.38	301	*i* P	P	17 55 49.6	+1.6
	comp=Z,20nm,1.2s						
BRG	Berggiesshubel	43.47	307	*e*P	P	17 55 51.2	+2.6
	comp=Z,6.8nm,0.7s,baz=86,slow=8.0						
BRG	Berggiesshubel	43.47	307	*e*P	P	17 55 51.1	+2.6
BRG				Amp		17 55 53.8	
	comp=Z,4.2nm,0.6s						
BRG	Berggiesshubel	43.47	307	P	P	17 55 55.1	+6.5
BRG				Amp		17 55 56.3	
	comp=Z,7.4nm,0.7s						
ZVC	Zvikov	43.49	305	AMS	AMS	18 14 00.0	
	comp=Z,800nm,15.0s						
CKRC	Cesky Krumlov	43.50	304	*e*P	P	17 55 55.6	+6.6
CKRC				MLR	MLR		
	comp=Z,900nm,15.3s						
CKRC	Cesky Krumlov	43.50	304	*e*P	P	17 55 55.6	+6.6
CKRC				AMS	AMS	18 16 10.0	
	comp=Z,900nm,15.3s						
RGN	Rugen	43.52	313	*e*P	P	17 55 55.5	+6.6
	comp=Z,39nm,0.9s,baz=86,slow=8.0						
FAUS	Fauske	43.55	331	*e*P	P	17 55 48.8	-0.2
USRK	Ussuriysk Ar.	43.56	63	P	P	17 55 49.1	-0.3
	comp=Z,2.0nm,0.6s,baz=340,slow=5.1,SNR=5.0						
USRK				LR	LR	18 16 00.1	
	comp=Z,982nm,19.5s,baz=302,slow=39						
	comp=Z,2.0nm,0.6s						
TIXI	Tiksi	43.61	22	LR	LR	18 15 00.4	
	comp=Z,748nm,20.2s,baz=267,slow=38						
TIXI	Tiksi	43.61	22	*ce*P	P	17 55 49.7	+0.2
TIXI				pmax	pmax		
	comp=Z,18nm,0.8s						
TIXI	Tiksi	43.61	22	P	P	17 55 49.0	-0.4
MOR8	Moi Rana	43.65	330	*e*P	P	17 55 49.4	-0.5
MOA	Molln	43.69	303	*e*P	P	17 55 51.4	+0.9
	comp=Z,8.6nm,0.8s						
STEI	Steigen	43.69	332	*e*P	P	17 55 50.6	+0.5
OBKA	Obir	43.73	301	*e*P	P	17 55 52.5	+1.6
	comp=Z,12nm,0.9s						
FABU	Falkenberg	43.77	316	*e*P	P	17 55 51.6	+0.7
HSKC	Hora Svate Kat	43.82	307	*e*P	P	17 55 56.6	+5.1
HSKC				AMS	AMS	18 14 30.0	
	comp=Z,800nm,13.7s						
RAUS	Rausandaksla	43.85	330	*e*P	P	17 55 52.2	+0.7
GEC2	GERESS Array S	43.90	304	*e*P	P	17 55 54.3	+2.1
	comp=Z,4.4nm,0.8s,baz=86,slow=8.0						
GERES	GERESS Array B	43.90	304	P	P	17 55 52.4	+0.1
	comp=Z,1.2nm,0.5s,baz=75,slow=7.1,SNR=10						
	comp=Z,1.2nm,0.5s						
KHC	Kasperske Hory	43.93	305	*ce*P	P	17 55 53.2	+0.8
KHC				pmax	pmax		
	comp=Z,8.0nm,1.0s						
KHC	Kasperske Hory	43.93	305	*e*P	P	17 55 54.2	+1.8
KHC				AMS	AMS	18 15 00.0	
	comp=Z,800nm,19.8s						
CLL	Collm	44.00	308	*e*P	P	17 55 55.0	+2.1
CLL				*i*		17 55 56.7	
CLL				pmax	pmax		
	comp=Z,4.0nm,0.6s						
CLL	Collm	44.00	308	*e*P	P	17 55 55.0	+2.1
	comp=Z,7.2nm,0.7s,baz=86,slow=8.0						
CLL	Collm	44.00	308	*e*P	P	17 55 55.0	+2.1
	comp=Z,4.0nm,0.6s						
CLL				*i* x	x	17 55 56.7	
CLL				*i* x	x	17 55 58.3	
	comp=Z,9.0nm,1.1s						
CLL				*e*pPP		17 57 44.0	
CLL				LH		18 08 00.0	
CLL				AMS	AMS	18 12 00.0	
	comp=N,3µm,24.0s						
CLL				AMS	AMS	18 12 00.0	
	comp=E,700nm,26.8s						
CLL				AMS	AMS	18 12 00.0	
	comp=Z,600nm,28.0s						
BIOA	Bad Ischl, Aus	44.13	303	*e*P	P	17 55 56.1	+2.0
	comp=Z,8.1nm,0.9s						
LEIR	Leirfjorden	44.17	329	*e*P	P	17 55 54.2	+0.1
VAGH	Vaagaholmen	44.21	330	*e*P	P	17 55 55.2	+0.9
KONS	Konsvik	44.23	330	*e*P	P	17 55 54.8	+0.3
STOK	Stokkvaagen	44.24	330	*e*P	P	17 55 54.1	-0.5
NC405	NORSAR Array S	44.32	322	IAmb	IAmb	17 56 19.8	
	comp=Z,25nm,1.1s						
LOF	Lofoten	44.36	332	*e*P	P	17 55 55.5	+0.1
WET	Wettzell	44.39	305	*e*P	P	17 55 58.4	+2.4
	comp=Z,2.8nm,0.8s,baz=86,slow=8.0						
CUC	Castrocucco	44.39	291	IAmb	IAmb	17 56 28.0	
	comp=Z,27nm,0.9s						
NC602	NORSAR Array S	44.39	322	*e*P	P	17 55 55.6	-0.3
NORES	NORESS Array B	44.39	322	P	P	17 55 57.4	+1.5
KBA	Koelnbreinsper	44.44	302	*e*P	P	17 55 57.6	+1.0
	comp=Z,10.0nm,0.9s						
NC303	NORSAR Array S	44.49	322		P	17 55 56.2	-0.5
NC303				IAmb	IAmb	17 56 06.5	
	comp=Z,20nm,0.6s						
NKC	Novy Kostel	44.49	307	AMS	AMS	18 17 50.0	
	comp=Z,1µm,15.3s						
STRU	Stroemstad	44.55	319	*e*P	P	17 56 00.1	+2.9
BJO1	Bjornoya	44.56	342	*e*P	P	17 55 55.4	-1.6
NB2	NORSAR Subarra	44.56	322	P	P	17 55 57.8	+0.5
	comp=Z,3.8nm,0.6s,baz=91,slow=7.9						
NB2	NORSAR Subarra	44.56	322	P	P	17 55 56.0	-1.3
NB2				pmax	pmax		
	comp=Z,2.0nm,0.5s						
NB2	NORSAR Subarra	44.56	322	P	P	17 55 57.8	+0.5
NOA	NORSAR Array B	44.56	322	P	P	17 55 57.0	-0.3
	comp=Z,5.1nm,0.7s,baz=92,slow=7.7,SNR=15						
NOA				LR	LR	18 15 22.0	
	comp=Z,688nm,18.9s,baz=95,slow=37						
	comp=Z,5.1nm,0.7s						
NC204	NORSAR Array S	44.79	322		P	17 55 59.5	+0.4
LESA	Schwarzleotal	44.82	303	*e*P	P	17 56 00.6	+1.0
	comp=Z,19nm,1.1s						
MOX	Moxa	44.96	307	*e*P	P	17 56 03.7	+3.1
	comp=Z,3.8nm,0.8s,baz=86,slow=8.0						
FLTG	Flechtingen	44.97	310	*e*P	P	17 56 02.4	+1.8
	comp=Z,13nm,0.7s,baz=86,slow=8.0						
ABTA	Abfaltersbach	45.06	302	*e*P	P	17 56 03.0	+1.4
	comp=Z,6.1nm,0.8s						
GRNR	Gornyy	45.30	53	⇑*i*P	P	17 56 03.8	+0.5
GRNR				pmax	pmax		
	comp=Z,8.0nm,1.2s						
GRNR				MLR	MLR		
	comp=N,370nm,11.0s						
GRNR				MLR	MLR		
	comp=Z,860nm,14.0s						
BSEG	Bad Segeberg	45.33	312	*e*P	P	17 56 06.3	+2.9
	comp=Z,10nm,0.8s,baz=86,slow=8.0						
KONO	Kongsberg	45.36	320	*e*P	P	17 56 05.0	+1.4
WTTA	Wattenberg	45.55	303	*i* P	P	17 56 06.0	+0.5
	comp=Z,7.0nm,0.7s						
CLZ	Clausthal	45.56	309	*e*P	P	17 56 07.1	+1.8
	comp=Z,5.8nm,0.8s,baz=86,slow=8.0						
NRCA	Norcia	45.56	296	IAmb	IAmb	17 56 29.3	
	comp=Z,35nm,1.2s						
WATA	Walderalm	45.57	303	*e*P	P	17 56 05.6	-0.1
	comp=Z,12nm,1.1s						
DOMB	Dombas	45.61	323	*e*P	P	17 56 06.8	+1.1
SQTA	Sankt Quirin	45.84	303	*e*P	P	17 56 09.1	+1.4
	comp=Z,7.9nm,1.1s						
GTTG	Gottingen	45.85	309	*e*P	P	17 56 10.2	+2.6
	comp=Z,22nm,1.0s,baz=86,slow=8.0						
MOTA	Moosalm	45.88	303	*i* P	P	17 56 08.1	0.0
	comp=Z,11nm,1.0s						
HOMB	Homborsund	45.98	318	*i* P	P	17 56 07.7	-0.7
SKAR	Skarslia	45.98	322	*e*P	P	17 56 06.3	-2.3
RETA	Reutte	46.08	303	*e*P	P	17 56 10.2	+0.7
	comp=Z,5.5nm,1.0s						
JNU	Nakatsue	46.13	78	P	P	17 56 09.0	-1.1
	comp=Z,20nm,1.0s,baz=24,slow=3.7,SNR=7.5						
JNU				LR	LR	18 17 39.0	
	comp=Z,429nm,18.7s,baz=295,slow=39						
	comp=Z,20nm,1.0s						
JNU	Nakatsue	46.13	78	IAmb	IAmb	17 57 11.7	
	comp=Z,14nm,0.7s						
FETA	Feichten	46.20	302	*e*P	P	17 56 10.8	+0.2
	comp=Z,9.5nm,1.1s						
VAE	Valguarnera	46.22	289	LR	LR	18 20 17.2	
	comp=Z,338nm,19.5s,baz=54,slow=42						
UBR	Ueberruh	46.47	303	*e*P	P	17 56 13.2	+0.6
	comp=Z,6.5nm,0.8s,baz=86,slow=8.0						
SPA0	Spitsbergen Ar	46.60	346	*e*P	P	17 56 11.4	-1.7
SPITS	Spitsbergen Ar	46.60	346	P	P	17 56 12.2	-1.0
	comp=Z,8.4nm,1.0s,baz=101,slow=13,SNR=5.3						
SPITS				LR	LR	18 18 43.4	
	comp=Z,473nm,18.2s,baz=75,slow=40						
	comp=Z,8.4nm,1.0s						
FUORN	Ofenpass-Fuorn	46.60	302	P	P	17 56 13.8	-0.1
DAVA	Damuels	46.71	303	*e*P	P	17 56 13.8	-0.8
	comp=Z,15nm,0.6s						
JOW	Kunigami	46.78	87	P	P	17 56 14.0	-1.2
	comp=Z,9.3nm,0.4s,baz=292,slow=4.8,SNR=29						
JOW				LR	LR	18 19 31.4	
	comp=Z,791nm,19.1s,baz=182,slow=41						
	comp=Z,9.3nm,0.4s						
JOW	Kunigami	46.78	87	P	P	17 56 14.3	-0.9
JOW				IAmb	IAmb	17 56 15.8	
	comp=Z,27nm,1.2s						
DAVOX	Davos/Dischmat	46.82	302	P	P	17 56 15.4	-0.2
	comp=Z,4.8nm,0.5s,baz=100,slow=7.8,SNR=12						
DAVOX				LR	LR	18 19 48.5	
	comp=Z,724nm,18.1s,baz=76,slow=41						
	comp=Z,4.8nm,0.5s						
KASTN	Kahler Asten	46.87	308	*e*P	P	17 56 19.2	+3.6
	comp=Z,3.0nm,0.8s,baz=86,slow=8.0						
IBBN	Ibbenburen	47.08	310	*e*P	P	17 56 24.0	+6.8
	comp=Z,12nm,0.9s,baz=86,slow=8.0						
WLF	Walferdange	48.60	307	*e*P	P	17 56 31.6	+2.6
	comp=Z,7.6nm,0.7s,baz=86,slow=8.0						
SENIN	Lac Senin/Sane	48.65	302	P	P	17 56 29.1	-0.6
BCLA	Clavier	48.96	308	*d*P	P	17 56 39.0	+7.2
	comp=Z,5.7nm,1.3s						

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LODK  Lodwar            49.08 235   P      P        17 56 32.4 -0.8
TYV   Tymovskoe         49.16  51  eP      P        17 56 37.6 +4.3
TYV                                 pmax   pmax
      comp=Z,14nm,1.3s
TYV                                 pmax   pmax
      comp=Z,100nm,3.2s
BMRD  Maredsous         49.32 308  dP      P        17 56 39.7 +5.1
      comp=Z,8.5nm,1.1s
BMRD                               dPcP    PcP      17 57 54.4 -2.5
BNI   Bardonecchia      49.43 301   P      P        17 56 34.5 -1.1
BNI                                 pmax   pmax
      comp=Z,26nm,1.2s
BNI   Bardonecchia      49.43 301   P      P        17 56 34.5 -1.1
BNI                                 IAmb   IAmb     17 56 54.8
      comp=Z,26nm,1.2s
DOU   Dourbes           49.48 308  dP      P        17 56 43.7 +7.9
      comp=Z,7.8nm,1.0s
KKM   Kota Kinabalu     49.91 119   P      P        17 56 39.5 -0.1
KKM   Kota Kinabalu     49.91 119   P      P        17 56 38.1 -1.5
      comp=Z,35nm,1.3s
YSS   Yuzhno-Sakhali    50.20  56  eP      P        17 56 41.7 +0.4
YSS                                e                17 58 38.6
YSS                                eS      S        18 03 49.4 -1.7
YSS                                eSS     SS       18 07 24.0 -0.3
YSS                                 pmax   pmax
      comp=Z,20nm,1.1s
YSS                                 pmax   pmax
      comp=Z,100nm,0.9s
YSS                                 MLR    MLR
      comp=N,500nm,16.0s
YSS                                 MLR    MLR
      comp=Z,1µm,16.0s
YSS   Yuzhno-Sakhali    50.20  56   P      P        17 56 40.9 -0.4
YSS                                 IAmb   IAmb     17 56 49.0
      comp=Z,25nm,1.1s
MJB9  Matsu-Tunnel      50.40  71   IAmb   IAmb     17 57 14.2
      comp=Z,13nm,0.8s
MAJO  Matsushiro        50.40  71   P      P        17 56 41.5 -1.5
MAJO                                pmax   pmax
      comp=Z,9.0nm,0.8s
MAJO  Matsushiro        50.40  71   P      P        17 56 41.5 -1.5
MAJO  Matsushiro        50.40  71   P      P        17 56 42.1 -0.9
MJAR  Matsushiro Arr    50.40  71   P      P        17 56 42.2 -0.8
      comp=Z,9.1nm,0.9s,baz=291,slow=9.5,SNR=15
      comp=Z,9.1nm,0.9s
MJAR  Matsushiro Arr    50.40  71   P      P        17 56 42.3 -0.7
MJAR                                pmax   pmax
      comp=Z,14nm,1.4s
MJAR  Matsushiro Arr    50.40  71   P      P        17 56 42.3 -0.7
MJA0  Matsu Arr-Jizo    50.43  71  eP      P        17 56 42.5 -0.7
MJA0                                pmax   pmax
      comp=Z,9.0nm,0.9s
KEST  Kesra             50.65 288   P      P        17 56 45.8 +0.8
      comp=Z,3.0nm,0.6s,baz=3.9,slow=1.3,SNR=3.6
      comp=Z,3.0nm,0.6s
KEST  Kesra             50.65 288   IAmb   IAmb     17 56 54.4
      comp=Z,45nm,1.6s
ASAJ  Asahikawa         50.94  60   P      P        17 56 47.0 +0.1
      comp=Z,8.2nm,0.9s,baz=306,slow=14,SNR=2.7
ASAJ                                LR     LR       18 19 56.1
      comp=Z,783nm,19.1s,baz=280,slow=38
      comp=Z,8.2nm,0.9s
ASAJ  Asahikawa         50.94  60   P      P        17 56 47.0 +0.1
JKA   Kamikawa-asahi    50.94  60   P      P        17 56 47.0 +0.1
KMBO  Kilima Mbogo      51.42 230   P      P        17 56 50.9 -0.3
KMBO                                LR     LR       18 19 43.9
      comp=Z,289nm,19.2s,baz=92,slow=37
MA2   Magadan           51.87  39   LR     LR       18 19 36.4
      comp=Z,404nm,19.2s,baz=277,slow=37
MA2   Magadan           51.87  39 i P      P        17 56 54.9 +1.3
MA2                                 pmax   pmax
      comp=Z,14nm,0.9s
MA2   Magadan           51.87  39   P      P        17 56 52.9 -0.8
MA2                                 IAmb   IAmb     17 56 59.9
      comp=Z,14nm,0.7s
KIBK  Kibwezi           51.92 228   P      P        17 56 55.1 +0.4
KIBK  Kibwezi           51.92 228   P      P        17 56 53.9 -0.8
SEY   Seymchan          51.99  35ceP    P        17 56 55.0 +0.5
SEY                                 pmax   pmax
      comp=Z,8.0nm,1.0s
JMIC  Jan Mayen         52.15 336   LR     LR       18 18 48.0
      comp=Z,315nm,19.5s,baz=90,slow=36
EKA   Eskdalemuir Ar    52.77 316   P      P        17 57 00.8 +0.4
      comp=Z,1.0nm,0.5s,baz=94,slow=8.9,SNR=7.9
EKA                                 LR     LR       18 19 40.7
      comp=Z,440nm,18.8s,baz=94,slow=36
      comp=Z,1.0nm,0.5s
JHJ   Hachijo jima 2    52.96  74   LR     LR       18 21 06.3
      comp=Z,434nm,20.2s,baz=134,slow=38
MBAR  Mbarara           55.13 236   LR     LR       18 21 57.2
      comp=Z,270nm,20.2s,baz=44,slow=37
MBAR  Mbarara           55.13 236   P      P        17 57 18.3  0.0
MBAR  Mbarara           55.13 236   P      P        17 57 18.2 -0.1
MBAR  Mbarara           55.13 236   P      P        17 57 17.1 -1.2
DAV   Davao City (W)    55.97 110   LR     LR       18 22 07.6
      comp=Z,339nm,21.8s,baz=328,slow=37
BILL  Bilibino          56.34  27ceP    P        17 57 26.6 +0.5
BILL                                pmax   pmax
      comp=Z,10.0nm,1.0s
PETK  Petropavlovsk-    57.40  45   P      P        17 57 33.2 -0.7
      comp=Z,3.6nm,0.7s,baz=349,slow=1.6,SNR=6.1
PETK                                LR     LR       18 21 47.8
      comp=Z,421nm,19.1s,baz=294,slow=36
      comp=Z,3.6nm,0.7s
BORG  Borgarnes         58.45 330   LR     LR       18 24 25.9
      comp=Z,186nm,19.0s,baz=80,slow=38
ESDC  Sonseca Array     58.71 298   P      P        17 57 43.0 -0.3
      comp=Z,2.1nm,0.9s,baz=55,slow=6.9,SNR=12
ESDC                                LR     LR       18 25 20.9
      comp=Z,261nm,18.4s,baz=64,slow=38
      comp=Z,2.1nm,0.9s
ESDC  Sonseca Array     58.71 298   P      P        17 57 43.2 -0.1
ESDC                                IAmb   IAmb     17 57 50.2
      comp=Z,28nm,1.4s
TAM   Tamanrasset       59.56 276   P      P        17 57 50.4 +0.9
TAM   Tamanrasset       59.56 276   P      P        17 57 48.8 -0.8
NEEM  North Greenlan    60.08 348 i P      P        17 57 51.8 -0.6
NEEM                                IAmb   IAmb     17 57 58.0
      comp=Z,17nm,0.9s
SUMG  Summit            60.40 341   P      P        17 57 54.1 -0.7
SUMG                                pmax   pmax
      comp=Z,26nm,1.1s
SUMG  Summit            60.40 341   P      P        17 57 54.1 -0.7
SUMG  Summit            60.40 341 i P      P        17 57 56.0 +1.2
SUMG                                IAmb   IAmb     17 58 02.9
      comp=Z,13nm,0.9s
KAPI  Kappang           60.41 124   LR     LR       18 27 31.6
      comp=Z,188nm,19.3s,baz=298,slow=40
MDT   Midelt            62.30 291   LR     LR       18 28 46.1
      comp=Z,122nm,18.2s,baz=54,slow=40
SHEM  Shemya Is, Ala    66.44  41   LR     LR       18 29 18.5
      comp=Z,490nm,19.0s,baz=298,slow=38
SFJD  Kangerlussuaq     67.19 339   LR     LR       18 27 49.0
      comp=Z,255nm,21.8s,baz=50,slow=36
D20K  Etivluk River     67.30  18   IAmb   IAmb     17 58 47.8
      comp=Z,22nm,1.1s
RES   Resolute Bay      67.39 357   LR     LR       18 30 09.1
      comp=Z,253nm,21.3s,baz=15,slow=38
TORD  Torodi Ar. Bea    67.92 270   P      P        17 58 43.5 -1.1
      comp=Z,19nm,0.8s,baz=48,slow=5.1,SNR=54
TORD                                LR     LR       18 32 39.7
      comp=Z,210nm,19.3s,baz=126,slow=40
      comp=Z,19nm,0.8s
LSZ   Lusaka            68.04 228   LR     LR       18 29 05.7
      comp=Z,203nm,20.2s,baz=36,slow=36
D22K  Ayikyak River     68.08  16   IAmb   IAmb     17 58 52.4
      comp=Z,26nm,1.1s
E21K  Killik River      68.14  17   IAmb   IAmb     17 58 51.8
      comp=Z,27nm,1.2s
E22K  Anaktuvuk Pass    68.87  17   IAmb   IAmb     17 58 57.5
      comp=Z,17nm,1.1s
D25K  Kavik River       69.04  14   IAmb   IAmb     17 58 59.1
      comp=Z,20nm,1.1s
G19K  Purcell Mounta    69.12  20          P        17 58 50.6 -0.7
COLD  Coldfoot          69.97  17   IAmb   IAmb     17 59 04.4
      comp=Z,23nm,1.0s
IMAR  Indian Mountai    70.12  19   P      P        17 58 56.6 -0.8
E25K  Arctic Village    70.22  15   IAmb   IAmb     17 59 05.9
      comp=Z,17nm,1.3s
J16K  Anvik River       70.25  23   IAmb   IAmb     17 59 06.7
      comp=Z,26nm,1.1s
F25K  Christian Rive    70.65  15   IAmb   IAmb     17 59 08.7
      comp=Z,19nm,1.1s
E28M  Babbage River     70.91  12   IAmb   IAmb     17 59 10.6
      comp=Z,29nm,1.4s
E27K  Coleen River      70.92  13   IAmb   IAmb     17 59 10.6
      comp=Z,19nm,1.2s
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BMAR  Burnt Mountain    71.00  15   P      P        17 59 02.8 -0.1
G24K  Hadweenzic Riv    71.02  16   IAmb   IAmb     17 59 11.2
      comp=Z,15nm,1.1s
J19K  Poorman           71.17  21   IAmb   IAmb     17 59 09.9
      comp=Z,27nm,1.3s
I21K  Tanana            71.20  19   IAmb   IAmb     17 59 27.3
      comp=Z,34nm,1.8s
J18K  Innoko River      71.27  21   IAmb   IAmb     17 59 10.3
      comp=Z,21nm,1.2s
H23K  Yukon River       71.27  17   IAmb   IAmb     17 59 12.9
      comp=Z,15nm,1.0s
J20K  Nowinta River     71.44  20   IAmb   IAmb     17 59 13.6
      comp=Z,14nm,1.0s
G26K  Porcupine Rive    71.58  15   IAmb   IAmb     17 59 14.5
      comp=Z,23nm,1.6s
MLY   Manley            71.64  18   IAmb   IAmb     17 59 12.3
      comp=Z,38nm,1.8s
L16K  Owhat River       71.77  24   IAmb   IAmb     17 59 14.0
      comp=Z,26nm,1.1s
I23K  Minto, Yukon-K    71.88  18   P      P        17 59 07.4 -0.7
MATP  Matopo            71.96 224   LR     LR       18 32 43.9
      comp=Z,190nm,19.0s,baz=60,slow=38
K20K  Telida            72.11  21   IAmb   IAmb     17 59 15.5
      comp=Z,19nm,1.2s
INK   Inuvik            72.11  10   IAmb   IAmb     17 59 17.4
      comp=Z,33nm,1.2s
NEA2  Nenana            72.41  18   IAmb   IAmb     17 59 18.8
      comp=Z,18nm,0.9s
F30M  Barrier River     72.41  11   IAmb   IAmb     17 59 19.9
      comp=Z,19nm,0.9s
COLA  College           72.46  17   P      P        17 59 11.9 +0.4
M17K  Holitna River     72.64  23   IAmb   IAmb     17 59 21.2
      comp=Z,21nm,1.1s
H27K  Steamboat Moun    72.65  14   IAmb   IAmb     17 59 21.7
      comp=Z,20nm,1.4s
CCB   Clear Creek Bu    72.67  17   IAmb   IAmb     17 59 59.8
      comp=Z,48nm,2.0s
G29M  Pine Creek        72.68  13   IAmb   IAmb     17 59 21.1
      comp=Z,25nm,1.2s
IL31                    72.77  17   IAmb   IAmb     17 59 20.5
      comp=Z,18nm,1.0s
ILAR  Eielson Array     72.77  17   P      P        17 59 12.5 -1.0
      comp=Z,5.7nm,0.9s,baz=315,slow=5.5,SNR=25
      comp=Z,5.7nm,0.9s
ILAR  Eielson Array     72.77  17  eP      P        17 59 12.8 -0.6
ILAR                                pmax   pmax
      comp=Z,6.0nm,0.9s
ILAR  Eielson Array     72.77  17          P        17 59 12.2 -1.2
F31M  Tsiigehtchic      72.88  11   IAmb   IAmb     17 59 21.8
      comp=Z,28nm,1.2s
G30M  tAoh Zraii Nji    72.92  12   IAmb   IAmb     17 59 22.2
      comp=Z,14nm,0.9s
HDA   Harding Lake      73.07  17   IAmb   IAmb     17 59 21.1
      comp=Z,29nm,1.6s
I27K  Kandik River      73.19  15   IAmb   IAmb     17 59 23.9
      comp=Z,17nm,1.2s
GENI  Genyem            73.25 107   P      P        17 59 14.8 -2.2
      comp=Z,2µmcomp=Z,27nm,0.9s
G31M  Satah River       73.28  11   IAmb   IAmb     17 59 28.2
      comp=Z,43nm,1.6s
I28M  Miner Creek       73.65  14   IAmb   IAmb     17 59 26.2
      comp=Z,17nm,0.9s
FITZ  Fitzroy Crossi    74.05 129   P      P        17 59 26.6 +5.1
      comp=Z,3.2nm,1.1s
FITZ  Fitzroy Crossi    74.05 129   P      P        17 59 20.5 -1.0
      comp=Z,5.6nm,0.9s,baz=328,slow=5.4,SNR=13
      comp=Z,5.6nm,0.9s
SCRK  Sand Creek        74.11  16   IAmb   IAmb     17 59 29.2
      comp=Z,20nm,1.0s
RIDG  Independent Ri    74.12  17   IAmb   IAmb     17 59 28.1
      comp=Z,23nm,1.0s
KNRA  Kununurra         74.21 125   P      P        17 59 22.7 +0.2
      comp=Z,18nm,0.7s
KNRA  Kununurra         74.21 125   P      P        17 59 21.8 -0.7
KNRA                                IAmb   IAmb     17 59 29.1
      comp=Z,13nm,0.7s
H31M  Peel River        74.31  12   IAmb   IAmb     17 59 59.3
      comp=Z,22nm,1.2s
FRB   Frobisher Bay     74.31 344   LR     LR       18 36 40.7
      comp=Z,166nm,18.7s,baz=34,slow=40
K27K  Chicken           74.48  16   IAmb   IAmb     17 59 31.7
      comp=Z,18nm,1.1s
I30M  Mount Dempster    74.50  13   IAmb   IAmb     17 59 31.2
      comp=Z,24nm,1.1s
J30M  Hart River        75.11  13   IAmb   IAmb     18 00 38.2
      comp=Z,12nm,0.5s
BCAR  Beaver Creek A    75.39  16   P      P        17 59 28.0 -0.8
M27K  Edge Creek, AK    76.00  16   IAmb   IAmb     17 59 40.8
      comp=Z,23nm,1.1s
L29M  L29M              76.11  14   IAmb   IAmb     18 00 57.9
      comp=Z,21nm,0.8s
M29M  Somme Creek       76.64  15   IAmb   IAmb     17 59 42.1
      comp=Z,16nm,1.0s
DBIC  Dimbokro          76.94 268   P      P        17 59 37.8 -0.5
      comp=Z,14nm,0.9s,baz=30,slow=7.5,SNR=3.8
DBIC                                LR     LR       18 39 48.3
      comp=Z,92nm,20.0s,baz=44,slow=41
      comp=Z,14nm,0.9s
DBIC  Dimbokro          76.94 268   P      P        17 59 37.6 -0.7
DBIC                                IAmb   IAmb     17 59 42.9
      comp=Z,18nm,1.1s
TSUM  Tsumeb            77.53 233   LR     LR       18 35 53.6
      comp=Z,222nm,18.3s,baz=60,slow=37
MORW  Morawa            77.53 143   P      P        17 59 41.6 +0.4
MORW                                IAmb   IAmb     18 00 00.2
      comp=Z,17nm,1.1s
BLKN  Baker Lake        77.75 355   P      P        17 59 41.5 -0.5
MMPY  Sheldon Lake,     77.78  12   IAmb   IAmb     18 00 56.4
      comp=Z,35nm,1.7s
N31M  Braeburn, Yuko    78.04  14   IAmb   IAmb     17 59 50.0
      comp=Z,23nm,0.9s
YKA   Yellowknife Ar    79.68   4   P      P        17 59 52.9 +0.3
      comp=Z,9.7nm,0.6s,baz=352,slow=5.6,SNR=16
      comp=Z,9.7nm,0.6s
YKA   Yellowknife Ar    79.68   4  eP      P        17 59 53.6 +1.0
YKA                                 pmax   pmax
      comp=Z,10.0nm,0.6s
YKA   Yellowknife Ar    79.68   4   P      P        17 59 52.8 +0.1
P33M  Teslin, Yukon     79.78  13   IAmb   IAmb     17 59 58.8
      comp=Z,26nm,1.2s
BOSA  Boshof            80.27 222   P      P        17 59 55.8 -0.7
      comp=Z,1.1nm,0.7s,baz=37,slow=7.3,SNR=3.9
      comp=Z,1.1nm,0.7s
WB0   Warramunga Arr    80.85 124   IAmb   IAmb     18 00 04.8
      comp=Z,23nm,1.2s
R33M  Jennings River    80.87  13   IAmb   IAmb     18 00 07.3
      comp=Z,14nm,1.0s
WRA   Warramunga Arr    80.94 124   P      P        17 59 59.1 -0.9
      comp=Z,6.0nm,0.8s,baz=327,slow=4.8,SNR=47
      comp=Z,6.0nm,0.8s
WRA   Warramunga Arr    80.94 124   P      P        17 59 59.5 -0.6
WRA   Warramunga Arr    80.94 124          P        17 59 59.5 -0.6
WRAB  Tennant Creek     80.94 124   P      P        17 59 59.6 -0.5
WRAB  Tennant Creek     80.94 124   P      P        17 59 58.8 -1.3
WRAB                                IAmb   IAmb     18 00 05.3
      comp=Z,16nm,1.1s
WRAB  Tennant Creek     80.94 124   P      P        17 59 59.4 -0.6
Q32M  Nakina River      81.05  13   IAmb   IAmb     18 02 34.0
      comp=Z,25nm,1.6s
WR8   Warramunga Arr    81.06 124   IAmb   IAmb     18 00 05.8
      comp=Z,19nm,1.1s
NWAO  Narrogin (SRO)    81.31 144   P      P        18 00 01.0 -0.7
      comp=Z,6.2nm,0.8s,baz=34,slow=3.6,SNR=1.8
      comp=Z,6.2nm,0.8s
SCHQ  Schefferville     81.59 338   P      P        18 00 03.9 +0.8
      comp=Z,2.3nm,0.7s,baz=36,slow=1.7,SNR=3.6
SCHQ                                LR     LR       18 35 36.1
      comp=Z,275nm,21.7s,baz=69,slow=35
      comp=Z,2.3nm,0.7s
T35M  Bob Quinn         83.28  13   IAmb   IAmb     18 00 18.2
      comp=Z,15nm,1.1s
AS15  Alice Springs     83.31 127   P      P        18 00 17.2 +4.8
      comp=Z,8.2nm,0.8s
AS31  Alice Springs     83.33 127   P      P        18 00 16.9 +4.4
      comp=Z,2.3nm,0.8s
ASAR  Alice Springs     83.33 127   P      P        18 00 11.7 -0.8
      comp=Z,2.6nm,0.9s,baz=327,slow=4.8,SNR=23
      comp=Z,2.6nm,0.9s
ASAR  Alice Springs     83.33 127   P      P        18 00 10.6 -1.9
AS09  Alice Springs     83.38 127   P      P        18 00 17.6 +4.9
      comp=Z,9.7nm,0.8s
AS17  Alice Springs     83.38 127   P      P        18 00 17.3 +4.5
      comp=Z,6.9nm,0.7s
MTSU  Mount Surprise    86.53 116   P      P        18 00 33.8 +5.1
EDM   Edmonton          88.99   4   P      P        18 00 39.7 -0.4
EDM                                 pmax   pmax
      comp=Z,37nm,0.8s
EDM   Edmonton          88.99   4   P      P        18 00 39.7 -0.4
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ULM   Lac du Bonnet     91.70 353   P      P        18 00 52.9 +0.2
      comp=Z,2.6nm,0.6s,baz=62,slow=5.5,SNR=3.4
      comp=Z,2.6nm,0.6s
NEW   Newport           93.62   7   LR     LR       18 45 37.6
      comp=Z,216nm,21.0s,baz=274,slow=37
SADO  Sadowa            94.09 341   LR     LR       18 44 47.2
      comp=Z,137nm,18.0s,baz=0.5,slow=36
PDAR  Pinedale Array    99.61   2   P      Pdif     18 01 30.6 +1.5
      comp=Z,0.2nm,0.5s,baz=25,slow=3.9,SNR=3.6
PDAR                                LR     LR       18 50 59.4
      comp=Z,146nm,19.5s,baz=340,slow=38
      comp=Z,0.2nm,0.5s
TROLL Troll, Antarti   120.19 200 ⇓PKiKP   PKiKP    18 06 38.5 +3.1
      comp=Z,242nm,0.8s
VNA2  Neumayer--Watz   122.57 203 ⇓PKiKP   PKiKP    18 06 41.6 +1.7
      comp=Z,4.4nm,0.7s
VNA1  Neumayer--Stat   122.73 203   PKiKP  PKiKP    18 06 43.3 +3.1
      comp=Z,6.0nm,0.9s
VNA3  Neumayer Olymp   123.37 203 ⇓PKiKP   PKiKP    18 06 44.7 +3.2
      comp=Z,5.2nm,0.7s
QSPA  South Pole Qui   127.74 180   PKP    PKPdf    18 06 49.6 -0.2
      comp=Z,2.6nm,0.8s,baz=258,slow=1.2,SNR=10.0
QSPA  South Pole Qui   127.74 180          PKiKP    18 06 53.6 +3.2
CPUP  Villa Florida    137.41 271   PKP    PKPdf    18 07 08.6 -0.6
      comp=Z,1.8nm,0.7s,baz=112,slow=0.7,SNR=5.3
LPAZ  La Paz           140.16 292   PKP    PKPdf    18 07 14.9 -0.4
      comp=Z,1.7nm,0.8s,baz=135,slow=1.4,SNR=6.0
CO01  Juntas del Tor   149.11 274          PKPdf    18 07 32.5 +2.6
PLCA  Paso Flores      152.36 253   PKP    PKPdf    18 07 34.2 -0.2
      comp=Z,4.6nm,1.1s,baz=46,slow=4.3,SNR=1.9
PLCA                                PKPbc  PKPbc    18 07 40.0 -1.2
      comp=Z,6.7nm,0.9s,baz=104,slow=2.8,SNR=6.4
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*NEIC **18** 17:53:39.6±0.9, 23°.38N±0°.07×94°.55E±0°.06, h90km±7km, mb4.4/24, Error ellipse: s-maj=11.3km s-min=7.3km az=207.0*

*IDC **18** 17:53:41.0±1.9, 23°.22N×94°.48E, h105km±18km, mb3.6/18, mbtmp4.0/20, Error ellipse: s-maj=20.3km s-min=12.1km az=45.0*

*NDI **18** 17:53:43.0±1.1, 23°.38N×94°.33E, h90km, ML4.3, MW4.2, mb4.4(NEIC), Presumed earthquake*

ISC 18 17:53:39.8±0.9, **23°.31N**±0°.05×**94°.50E**±0°.06, **h96**km±8km, **n56**, σ1ˢ.**11**/63, **mb4.2**/26, **Myanmar-India border region**

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Code  Station Name       Δ°  AZ°    Phase ID            Time      Res
                                    Op     ISC         h  m  s    ISC
IMP   Imphal             1.60 342  eP      Pn       17 54 09.2 +2.1
IMP                                eS      Sn       17 54 27.0 -0.9
IMP                                 IAML            17 54 27.5
      comp=N,5µm,0.3s
IMP                                 IAML            17 54 28.7
      comp=E,4µm,0.2s
SAIH  SAIHA              1.62 240  eP      Pn       17 54 08.1 +0.7
SAIH                               eS      Sn       17 54 29.0 +0.7
SAIH                                IAML            17 54 33.0
      comp=E,5µm,0.6s
SAIH                                IAML            17 54 33.1
      comp=N,8µm,0.2s
AZL   Aizawl             1.72 285  eP      Pn       17 54 09.1 +0.4
AZL                                eS      Sn       17 54 28.8 -1.8
AZL                                 IAML            17 54 30.8
      comp=N,4µm,0.3s
AZL                                 IAML            17 54 32.0
      comp=E,5µm,0.3s
SILR  SILCHAR            2.14 314  eP      Pn       17 54 14.7 +0.7
SILR                               eS      Sn       17 54 38.2 -1.9
SILR                                IAML            17 54 41.0
      comp=E,3µm,0.4s
SILR                                IAML            17 54 42.0
      comp=N,4µm,0.2s
KOHI  KOHIMA             2.43 352  eP      Pn       17 54 20.2 +2.2
KOHI                               eS      Sn       17 54 46.7 -0.6
KOHI                                IAML            17 54 53.3
      comp=N,2µm,0.5s
KOHI                                IAML            17 54 56.0
      comp=E,2µm,0.1s
BRDH  Bariadhala         2.71 257   P      Pn       17 54 22.1 +0.5
      comp=E,118nm,0.3s,baz=287,slow=15,SNR=1.8
BRDH                                S      Sn       17 54 55.0 +1.3
      comp=E,383nm,0.3s,baz=244,slow=21,SNR=18
SHL   Shillong           3.28 314          Pn       17 54 29.1 -0.2
SHL                                 Sn     Sn       17 55 03.4 -4.2
CHTO  Chiang Mai         6.10 136   Pn     Pn       17 55 07.5  0.0
CM31  Chiang Mai Arr     6.37 138   Pn     Pn       17 55 10.9 -0.2
CMAR  Chiang Mai Arr     6.37 138   P      Pn       17 55 11.0 -0.1
      comp=E,1.5nm,0.3s,baz=311,slow=13,SNR=1.0
LSA   Lhasa              7.04 335   Pn     Pn       17 55 19.6 -1.0
EVN   Everest            8.34 305   Pn     Pn       17 55 37.5 -0.9
NIL   Nilore            21.29 304   P      P        17 58 18.2 -0.5
NIL                                 IAmb   IAmb     17 58 33.5
      comp=Z,16nm,1.1s
KBL   Kabul             24.87 302   P      P        17 58 52.8 -1.0
MKAR  Makanchi Array    25.41 340   P      P        17 58 59.6 +1.3
      comp=Z,1.6nm,0.5s,baz=158,slow=8.7,SNR=7.8
      comp=Z,1.6nm,0.5s
MKAR  Makanchi Array    25.41 340   P      P        17 58 58.5 +0.1
MAKZ  Makanchi          25.52 340   P      P        17 59 00.1 +0.8
SONM  Songino Array     26.25  18   P      P        17 59 08.0 +1.9
      comp=Z,0.4nm,0.4s,baz=196,slow=9.6,SNR=1.4
      comp=Z,0.4nm,0.4s
KURBB Kurchatov Arra    29.97 339   P      P        17 59 39.7 +0.8
      comp=Z,0.4nm,0.5s,baz=158,slow=7.0,SNR=0.6
KURBB                               ScP    ScP      18 06 11.0 -1.7
      comp=Z,0.6nm,0.8s,baz=166,slow=2.5,SNR=4.3
      comp=Z,0.4nm,0.5s
JOW   Kunigami          30.74  76   P      P        17 59 44.7 -1.4
JOW                                 IAmb   IAmb     18 00 04.0
      comp=Z,11nm,1.1s
ZALV  Zalesovo Beam     31.46 349   P      P        17 59 52.8 +0.8
      comp=Z,0.7nm,0.4s,baz=168,slow=9.4,SNR=4.1
      comp=Z,0.7nm,0.4s
ZALV  Zalesovo Beam     31.46 349   P      P        17 59 51.4 -0.5
BVAR  Borovoye Array    34.87 334   P      P        18 00 23.9 +2.2
      comp=Z,0.8nm,0.5s,baz=132,slow=10,SNR=1.1
      comp=Z,0.8nm,0.5s
AB31  Akbulak array     37.51 322   P      P        18 00 44.4 +0.2
AB31                                IAmb   IAmb     18 01 03.0
      comp=Z,3.6nm,1.1s
ABKAR Akbulak array     37.51 322   P      P        18 00 44.0 -0.2
MJB9  Matsu-Tunnel      39.78  60   P      P        18 01 02.2 -1.3
MJB9                                IAmb   IAmb     18 01 05.8
      comp=Z,6.3nm,1.2s
MAJO  Matsushiro        39.78  60   P      P        18 01 02.3 -1.2
MAJO                                IAmb   IAmb     18 01 04.8
      comp=Z,5.2nm,1.3s
ARTI  Arti              42.27 331   P      P        18 01 23.3 -0.2
      comp=Z,5.3nm,0.7s,baz=174,slow=6.9,SNR=1.2
      comp=Z,5.3nm,0.7s
RAYN  Ar Rayn           44.78 280   P      P        18 01 45.2 +0.9
FAKI  Fak Fak           45.08 120   P      P        18 01 45.1 -1.5
FAKI                                IAmb   IAmb     18 01 47.3
      comp=Z,12nm,1.2s
NRIK  Noril'sk          46.23 357   P      P        18 01 54.8 -0.2
      comp=Z,2.2nm,0.5s,baz=130,slow=7.9,SNR=2.1
      comp=Z,2.2nm,0.5s
NRIK  Noril'sk          46.23 357   P      P        18 01 54.5 -0.4
NRIK                                IAmb   IAmb     18 01 56.5
      comp=Z,2.8nm,0.6s
MTN   Manton Dam        50.75 131   P      P        18 02 30.2 -0.1
MTN                                 IAmb   IAmb     18 02 42.2
      comp=Z,8.1nm,1.4s
FITZ  Fitzroy Crossi    51.17 141   P      P        18 02 33.0 -0.3
KNRA  Kununurra         51.23 136   P      P        18 02 33.4 -0.4
KNRA                                IAmb   IAmb     18 02 35.7
      comp=Z,5.3nm,1.1s
BRTR  Keskin Array B    53.44 303   P      P        18 02 51.7 +1.5
      comp=Z,0.3nm,0.5s,baz=134,slow=11,SNR=1.9
      comp=Z,0.3nm,0.5s
BRTR  Keskin Array B    53.44 303   P      P        18 02 49.8 -0.4
AKASG Malin Array Be    56.76 316   P      P        18 03 13.4 -0.3
      comp=Z,0.3nm,0.3s,baz=82,slow=6.6,SNR=2.6
      comp=Z,0.3nm,0.3s
AKASG Malin Array Be    56.76 316   IAmb   IAmb     18 03 17.5
      comp=Z,3.8nm,1.4s
WRA   Warramunga Arr    57.95 135   P      P        18 03 22.2 -0.2
      comp=Z,1.1nm,0.5s,baz=323,slow=7.4,SNR=13
      comp=Z,1.1nm,0.5s
WRA   Warramunga Arr    57.95 135   P      P        18 03 21.7 -0.8
WR8   Warramunga Arr    58.06 135   P      P        18 03 22.7 -0.5
FINES FINESS Array B    59.50 329   P      P        18 03 33.3 +0.6
      comp=Z,3.9nm,0.9s,baz=104,slow=4.7,SNR=3.5
      comp=Z,3.9nm,0.9s
AS31  Alice Springs     60.38 138   P      P        18 03 39.0 -0.2
ASAR  Alice Springs     60.38 138   P      P        18 03 39.3 +0.1
      comp=Z,1.8nm,0.6s,baz=319,slow=6.7,SNR=14
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	comp=Z,1.8nm,0.6s						
ARCES	ARCESS Array B	61.04	338	P	P	18 03 43.7	+0.7
	comp=Z,2.0nm,0.8s,baz=103,slow=8.1,SNR=5.1						
	comp=Z,2.0nm,0.8s						
VOI	Vohitsoka	64.62	229	P	P	18 04 08.0	+0.4
SPITS	Spitsbergen Ar	64.92	347	P	P	18 04 09.6	+1.1
	comp=Z,4.7nm,1.0s,baz=89,slow=12,SNR=1.3						
	comp=Z,4.7nm,1.0s						
HFS	Hagfors	65.54	327	P	P	18 04 13.0	+0.2
	comp=Z,1.0nm,0.5s,baz=70,slow=4.7,SNR=5.6						
	comp=Z,1.0nm,0.5s						
NOA	NORSAR Array B	66.67	328	P	P	18 04 20.0	-0.1
	comp=Z,0.3nm,0.6s,baz=96,slow=4.3,SNR=1.7						
	comp=Z,0.3nm,0.6s						
NOA	NORSAR Array B	66.67	328	P	P	18 04 20.0	-0.1
NC204	NORSAR Array S	66.86	329	P	P	18 04 21.0	-0.4
GERES	GERESS Array B	66.89	315	P	P	18 04 22.3	+0.5
	comp=Z,0.4nm,0.3s,baz=108,slow=9.8,SNR=2.4						
	comp=Z,0.4nm,0.3s						
BBOO	Buckleboo	68.46	143	P	P	18 04 31.1	-0.6
EKA	Eskdalemuir Ar	75.35	324	P	P	18 05 13.4	+0.8
	comp=Z,0.3nm,0.4s,baz=44,slow=6.6,SNR=2.7						
	comp=Z,0.3nm,0.4s						
J18K	Innoko River	77.38	26	P	P	18 05 24.6	+0.7

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*SOME **18** 18:40:20.6,40°.15N×77°.25E,h10^{km}*
*NNC **18** 18:40:21.9±1.4,40°.19N×77°.24E,h0^{km},mb3.6,mpv3.1, Error ellipse: s-maj=9.4km s-min=5.9km az=166.0*
*KRNET **18** 18:40:26.0±0.1,40°.32N×77°.13E,h20^{km},mb3.3*
ISC 18 18:40:26.0±1.6**,40°.31N**±0°.07×**77°.16E**±0°.04**,h10^{km},n32,** **σ1^{s}58**/52**,11C-17D,Kyrgyzstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NRN	Naryn	1.43	322	⇓iP	Pb	18 40 52.4	-0.6
NRN				⇓iS	Sg	18 41 11.5	-0.6
TARG	Taragay, Kyrgy	1.50	19	⇓iP	Pb	18 40 53.9	-0.4
TARG				⇓iS	Sg	18 41 14.5	0.0
KDJ	Kajisay	1.82	0	⇓iP	Pb	18 40 59.3	-0.3
KDJ				⇓iS	Sg	18 41 23.7	-1.0
ULHL	Ulahol	2.06	341	⇑iP	Pb	18 41 02.8	-0.9
ULHL				⇑iS	Sb	18 41 29.8	+0.4
BOOM	Boomskoye usch	2.37	338	⇓iP	Pb	18 41 07.1	-1.8
BOOM				⇓iS	Sb	18 41 37.2	-1.1
PRZ	Przheval'sk	2.37	23	⇑eP	Pb	18 41 07.5	-1.4
PRZ				⇑eS	Sb	18 41 38.3	0.0
ANVS	Anan'yevo	2.50	9	⇓iP	Pb	18 41 09.2	-2.1
ANVS				⇓iS	Sb	18 41 40.6	-1.6
SALK	Salom-Alik	2.61	284	⇑eP	Pn	18 41 10.2	+1.8
SALK				⇑eS	Sb	18 41 43.0	-2.1
SFK	Sufi-Kurgan	2.82	265	⇑eP	Pn	18 41 13.3	+1.9
SFK				⇑eS	Sb	18 41 48.1	-3.1
MDOK	Medeo	2.86	358	Pg	Pb	18 41 16.4	-0.8
	9.7nm,0.7s						
MDOK				Lg	Lg	18 41 56.7	
	76nm,0.5s						
MDOK	Medeo	2.86	358	eP	Pb	18 41 16.4	-0.8
	9.7nm,0.7s						
MDOK				eS	Sg	18 41 56.7	-1.2
	76nm,0.5s						
KBK	Karagaybulak	2.88	325	⇓iP	Pn	18 41 14.2	+2.1
KBK				⇓iS	Sb	18 41 49.3	-3.6
KST	Kastek	2.88	342	Pg	Pb	18 41 17.3	-0.3
	1.7nm,0.2s						
KST				Lg	Lg	18 41 58.3	
	23nm,0.3s						
KST	Kastek	2.88	342	eP	Pb	18 41 17.3	-0.3
	1.7nm,0.2s						
KST				eS	Sg	18 41 58.2	-0.3
	23nm,0.3s						
SATY	Saty	2.91	18	Pg	Pb	18 41 17.7	-0.3
	5.0nm,0.4s						
SATY				Lg	Lg	18 41 58.9	
	30nm,0.5s						
SATY	Saty	2.91	18	eP	Pb	18 41 17.7	-0.3
	5.0nm,0.4s						
SATY				eS	Sg	18 41 58.9	-0.5
	30nm,0.5s						
KOTS	Kotyrbulak	2.93	359	Pg	Pb	18 41 17.8	-0.6
	9.9nm,0.7s						
KOTS				Lg	Lg	18 41 58.9	
	90nm,0.7s						
KOTS	Kotyrbulak	2.93	359	eP	Pb	18 41 17.8	-0.6
	9.9nm,0.7s						
KOTS				eS	Sg	18 41 58.9	-1.2
	90nm,0.7s						
AAK	Ala-Archa	3.07	320	⇑Pg	Pb	18 41 19.4	-1.5
	3.1nm,0.6s						
AAK				⇓Lg	Lg	18 42 02.9	
	14nm,0.8s						
AAK	Ala-Archa	3.07	320	⇑iP	Pn	18 41 16.9	+2.1
AAK				⇑iS	Sn	18 41 54.0	+2.3
UZB	Uzynbulak	3.16	26	Pg	Pb	18 41 21.3	-1.2
	7.3nm,0.5s						
UZB				Lg	Lg	18 42 04.7	
	16nm,0.5s						
UZB	Uzynbulak	3.16	26	eP	Pb	18 41 21.3	-1.2
	7.3nm,0.5s						
UZB				eS	Sg	18 42 04.7	-3.0
	16nm,0.5s						
KPKS	Kokpek	3.36	19	Pg	Pb	18 41 23.0	-2.7
	0.3nm,0.2s						
KPKS				Lg	Lg	18 42 07.8	
	24nm,0.5s						
KPKS	Kokpek	3.36	19	eP	Pb	18 41 23.0	-2.7
	0.3nm,0.2s						
KPKS				eS	Sb	18 42 07.8	+1.2
	24nm,0.5s						
EKS2	Erkin-Say	3.46	314	⇓iP	Pn	18 41 22.2	+2.1
EKS2				⇓iS	Sn	18 42 03.3	+2.0
PDGK	Podgornoye	3.49	29	⇓Pg	Pb	18 41 25.9	-2.1
	4.1nm,0.5s						
PDGK				⇓Lg	Lg	18 42 14.9	
	20nm,0.6s						
KRBS	Karabastau	3.56	342	Pg	Pb	18 41 29.3	+0.1
	3.9nm,0.7s						
KRBS				Lg	Lg	18 42 18.5	
	10nm,0.4s						
KRBS	Karabastau	3.56	342	eP	Pb	18 41 29.3	+0.1
	3.9nm,0.7s						
KRBS				eS	Sg	18 42 18.5	-2.0
	10nm,0.4s						
MRKS	Merke	3.83	311	Pg	Pb	18 41 34.3	+0.5
	1.2nm,0.2s						
MRKS				Lg	Lg	18 42 26.7	
	5.6nm,0.3s						
MRKS	Merke	3.83	311	eP	Pb	18 41 34.3	+0.5
	1.2nm,0.2s						
MRKS				eS	Sg	18 42 26.7	-2.3
	5.6nm,0.3s						
BLB	Baldybastay	3.91	14	Pg	Pb	18 41 35.5	+0.3
BLB				Lg	Lg	18 42 29.0	
	9.9nm,0.4s						
KNOS	Konyrlen	4.32	20	Pg	Pb	18 41 42.4	+0.3
	1.6nm,0.5s						
KNOS				Lg	Lg	18 42 41.4	
	5.6nm,0.5s						

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*BJI **18** 18:43:21.2,2°.06N×126°.90E,h19^{km},mB5.2/26,mb5.3/76, Ms4.6/61,Ms7 4.5/59*
*MOS **18** 18:43:24.9±0.9,2°.45N×126°.78E,h23^{km},mb5.5/64,Error ellipse: s-maj=7.7km s-min=4.1km az=115.0*
*IDC **18** 18:43:27.6±1.7,2°.41N×126°.76E,h29^{km}±11^{km},mb5.0/39, mbtmp5.2/41,ML4.8/2,MS4.2/50,Error ellipse: s-maj=13.6km s-min=7.0km az=76.0*
*NEIC **18** 18:43:28.1±1.8,2°.40N±0°.04×126°.80E±0°.05,h32^{km}±3^{km}, mb5.4/250,Mww5.2/13,Error ellipse: s-maj=8.0km s-min=5.9km az=62.0*
*GFZ **18** 18:43:29.4,2°.52N×126°.87E,h40^{km},Mw5.2/31,Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M$_{rr}$6.41; M$_{\theta\theta}$-0.10; M$_{\phi\phi}$-6.31; M$_{r\theta}$-0.69; M$_{\theta\phi}$-2.85; M$_{\phi r}$-3.18; Fault plane solution: M$_0$7.68635×10^{16} NP1: ϕ_s196.85005°,δ57.62507°,λ84.85826°. NP2:ϕ_s26.38931°, δ32.73678°,λ98.04574°. Principal axes: T 7.1552, Plg76.7597°, Azm90.7875°; N 0.9702, Plg4.3408°, Azm199.6085°; P -8.1254, Plg12.4840°, Azm290.5715°;*
*GFZ **18** 18:43:29.3±0.1,3°N±2°×12°7E±°,h40^{km},M5.3/86, mb5.5/86,confirmed*
*GCMT **18** 18:43:32.1±0.1,2°.63N±0°.01×126°.76E±0°.01,h34^{km}, MW5.3/130,Moment Tensor Solution. s101,c165; s130,c218; Duration: 1^{s}1 Moment tensor: Scale 10^{17} Nm; M$_{rr}$0.73±.02; M$_{\theta\theta}$-0.09±.01; M$_{\phi\phi}$-0.64±.02; M$_{r\theta}$-0.03±.02; M$_{\theta\phi}$-0.59±.01; M$_{\phi r}$-0.62±.02; Best double couple: M$_0$1.09100×10^{17} NP1:ϕ_s56.00000°,δ34.00000°, λ129.00000°. NP2:ϕ_s192.00000°,δ64.00000°,λ67.00000°. Principal axes: T 1.0090, Plg63.0000°, Azm64.0000°; N 0.1640, Plg21.0000°, Azm203.0000°; P -1.1730, Plg16.0000°, Azm299.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
*DJA **18** 18:43:33.0±0.3,3°N±3°×12°7E±°,h65^{km}±3^{km},M5.0/107, mB5.5/66,mb5.3/107,MLv5.5/19,Mw(mB)5.0/66, MwMwp5.0/23,Mwp5.3/23*
ISC 18 18:43:28.6±0.3**,2°.44N**±0°.02×**126°.88E**±0°.03**,h40^{km}**±3^{km}**,** **h40^{km}:pP-P,n957,σ1^{s}69**/927**,mb5.4**/340**,MS4.3**/79**,** **68C-6D,Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TNTI	Ternate	1.73	163	P	Pn	18 43 57.2	+1.0
TNTI	Ternate	1.73	163		Pn	18 43 57.0	+0.9
TNTI				Sn	Sn	18 44 16.7	-0.3
TNTI	Ternate	1.73	163	P	Pn	18 43 57.5	+1.3
TNTI	Ternate	1.73	163	P	Pn	18 43 57.9	+1.7
MNI	Manado	2.26	244	P	Pn	18 44 05.6	+2.0
DDMP	Don Marcelino,	3.82	342	eP	Pn	18 44 25.1	0.0
DDMP				eS	Sn	18 45 09.0	+0.2
GSPH	General Santos	4.10	332	i P	Pn	18 44 29.7	+0.7
GSPH				i S	Sn	18 45 16.3	+0.4
GTOI	Gorontalo	4.26	245	P	Pn	18 44 34.5	+3.5
SANI	Sanana	4.54	191	P	Pn	18 44 36.0	+1.0
SANI	Sanana	4.54	191	P	Pn	18 44 35.9	+1.0
SANI	Sanana	4.54	191	P	Pn	18 44 36.1	+1.0
DAV	Davao City (W)	4.78	344	Pn	Pn	18 44 39.8	+1.6
	68nm,0.3s,baz=172,slow=5.5,SNR=9.0						
DAV				Sn	Sn	18 45 32.5	+0.1
	56nm,0.3s,baz=122,slow=23,SNR=5.4						
	171nm,0.4s						
DAV				AML	AML		
DAV	Davao City (W)	4.78	344		Pn	18 44 39.8	+1.6
DAV				Sn	Sn	18 45 33.9	+1.5
DAV	Davao City (W)	4.78	344	P	Pn	18 44 39.9	+1.6
DAV	Davao City (W)	4.78	344	P	Pn	18 44 39.0	+0.8
KCP	Kidapawan	4.88	339	i P	Pn	18 44 41.6	+2.0
CDOP	Cateel, Davao	5.33	355	eP	Pn	18 44 46.7	+1.0
CDOP				i S	Sn	18 45 44.5	-1.5
LUWI	Luwuk	5.36	230	P	Pn	18 44 50.4	+4.2
	1μm,0.9s						
LUWI				AML	AML		
LUWI	Luwuk	5.36	230		Pn	18 44 47.4	+1.2
LUWI	Luwuk	5.36	230	P	Pn	18 44 49.9	+3.7
LUWI				AML	AML		
LUWI	Luwuk	5.36	230	P	Pn	18 44 49.9	+3.7
	comp=Z,1μm,0.9s						
SWI	Sorong	5.47	127	P	Pn	18 44 50.9	+3.2
	comp=Z,13μmcomp=Z,3μmcomp=Z,399nm,0.8s						
NLAI	Namlea	5.64	178	P	Pn	18 44 53.1	+3.1
	comp=Z,1.4nmcomp=Z,5μmcomp=Z,3μmcomp=Z,264nm,1.0s						
NLAI				AML	AML		
BUKP	Musuan	5.70	342	eP	Pn	18 44 53.2	+2.3
BUKP				i S	Sn	18 45 47.2	-8.0
BIPH	Bislig	5.73	355	i P	Pn	18 44 52.3	+1.0
BIPH				eS	Sn	18 45 56.5	+0.6
APSI	Ampana	6.19	238	P	Pn	18 45 03.3	+5.7
TOLI2	Tolitoli	6.23	258	P	Pn	18 45 00.1	+2.0
	comp=Z,224nm,0.7s						
TOLI2				AML	AML		
TOLI2	Tolitoli	6.23	258		Pn	18 44 59.4	+1.2
TOLI2				Sn	Sn	18 46 06.0	-2.1
TOLI2	Tolitoli	6.23	258	P	Pn	18 44 59.1	+0.9
	comp=Z,224nm,0.7s						
CGP	Cagayan de Oro	6.36	340	eP	Pn	18 45 03.7	+3.8
PAGZ	Pagadian	6.40	327	i P	Pn	18 45 01.5	+1.0
PAGZ				i S	Sn	18 46 19.5	+7.1
ZCP	Zamboanga City	6.54	313	eP	Pn	18 45 03.6	+1.2
ZCP				eS	Sn	18 46 13.6	-2.3
GLSP	General Luna,	7.34	354	eP	Pn	18 45 15.9	+2.5
GLSP				eS	Sn	18 46 27.9	-7.5
LSIP	Lazi, Siquijor	7.39	334	i P	Pn	18 45 16.6	+2.5
LSIP				eS	Sn	18 47 00.5	+24
BNDI	Bandanaira	7.55	156	P	Pn	18 45 16.5	+0.3
	comp=Z,528nm,1.7s						
BNDI				AML	AML		
BNDI	Bandanaira	7.55	156	P	Pn	18 45 24.3	+8.1
	comp=Z,6μmcomp=Z,8μmcomp=Z,528nm,1.8s						
FAKI	Fak Fak	7.56	135	P	Pn	18 45 18.6	+2.2
	comp=Z,145nm,1.1s						
FAKI				AML	AML		
FAKI	Fak Fak	7.56	135		Pn	18 45 18.6	+2.2
FAKI	Fak Fak	7.56	135	P	Pn	18 45 21.1	+4.7
	comp=Z,0.5nmcomp=Z,8μmcomp=Z,143nm,1.0s						
FAKI				AML	AML		
KDI	Kendari	7.64	214	P	Pn	18 45 20.4	+2.9
	comp=Z,0.5nmcomp=Z,4μmcomp=Z,152nm,0.9s						
KDI				AML	AML		
SNPH	Sibulan	7.76	332	eP	Pn	18 45 24.7	+5.6
PCI	Palu	7.78	245	P	Pn	18 45 28.3	+8.9
	comp=Z,1.2nmcomp=Z,7μmcomp=Z,3μmcomp=Z,300nm,0.9s						
PCI				AML	AML		
TBP	Tagbilaran	7.80	338	eP	Pn	18 45 20.0	+0.3
TBP				i S	Sn	18 46 48.2	+1.3
MWPI	Manokwari, Pap	7.91	115	P	Pn	18 45 30.8	+10
LLP	Lapu-Lapu	8.35	340	eP	Pn	18 45 28.3	+1.2
LLP				eS	Sn	18 47 08.0	+7.8
KKSI	Kolaka, Sulawe	8.39	219	P	Pn	18 45 29.9	+2.2
	comp=Z,0.7nmcomp=Z,4μmcomp=Z,2μmcomp=Z,254nm,0.9s						
KKSI				AML	AML		
PLP	Palo	8.87	348	eP	Pn	18 45 36.8	+2.4
BBSI	Bau Bau	8.97	209	P	Pn	18 45 43.0	+7.3
	comp=Z,3μmcomp=Z,2μmcomp=Z,234nm,1.0s						
I39PW	PALAU INFRASON	9.17	56	Pn	Pn	18 45 41.0	+2.6
	baz=208,slow=15						
GUIM	Jordan	9.18	333	i P	Pn	18 45 40.1	+1.4
GUIM				eS		18 48 27.1	
TARAI	Tarakan	9.34	276	P	Pn	18 45 56.9	+16
MMSI	Mamuju	9.45	237	P	Pn	18 45 51.3	+8.9
	comp=Z,5μmcomp=Z,1μmcomp=Z,90nm,1.0s						
SPSI	Sidrap Palu	9.53	228	P	Pn	18 45 47.0	+3.6
	comp=Z,4μmcomp=Z,2μmcomp=Z,156nm,0.8s						
BAKI	Biak	9.91	111	P	Pn	18 45 55.6	+7.0
	comp=Z,4μmcomp=Z,5μmcomp=Z,352nm,1.0s						
KAPI	Kappang	10.27	224	Pn	Pn	18 45 53.9	+0.4
	comp=Z,5.8nm,0.3s,baz=87,slow=2.9,SNR=12						
	comp=Z,23nm,0.5s						
KAPI				AML	AML		
KAPI	Kappang	10.27	224	P	Pn	18 45 56.5	+3.0
	comp=Z,30nm,1.1s						
KAPI	Kappang	10.27	224	P	Pn	18 45 54.2	+0.6
KAPI	Kappang	10.27	224		Pn	18 45 54.1	+0.6
KAPI	Kappang	10.27	224	P	Pn	18 45 59.7	+6.2
KAPI	Kappang	10.27	224	P	Pn	18 45 56.9	+3.4
	comp=Z,58nm,1.1s						
IBAJ	Ibajay, Aklan	10.42	334	eP	Pn	18 45 55.1	-0.5
MKS	Makassar	10.61	224	P	Pn	18 46 14.3	+16
PPR	Puerto Princes	10.89	312	i P	Pn	18 46 04.3	+2.2
KKM	Kota Kinabalu	11.22	289	P	Pn	18 46 08.3	+1.7
	comp=Z,251nm,1.0s						
KKM	Kota Kinabalu	11.22	289	S	Sn	18 48 13.2	+2.3
	comp=Z,251nm,1.0s						
KKM	Kota Kinabalu	11.22	289		Pn	18 46 08.3	+1.7
KKM	Kota Kinabalu	11.22	289	P	Pn	18 46 10.6	+4.0
	comp=Z,6μmcomp=Z,3μmcomp=Z,251nm,1.0s						
KKM	Kota Kinabalu	11.22	289	P	Pn	18 46 08.5	+1.8
	comp=Z,251nm,1.0s						
SAUI	Saumlaki	11.25	157	Pn	Pn	18 46 07.8	+0.8
MMRI	Maumere	11.93	203	Pn	Pn	18 46 16.8	+0.5
GQP	Guinayangan	12.21	339	eP	Pn	18 46 23.6	+3.6
EDFI	Ende, Flores	12.26	205	P	Pn	18 46 25.7	+4.9
SOEI	Soe	12.39	192	P	Pn	18 46 25.0	+2.4
	comp=Z,154nm,1.1s						
SOEI	Soe	12.39	192	Pn	Pn	18 46 22.6	-0.1
SOEI	Soe	12.39	192	P	P	18 46 33.6	-0.3
LQP	Lukban	12.74	336	eP	Pn	18 46 29.3	+1.7
LBFI	Labuhan Bajo,	12.89	213	P	P	18 46 44.5	+5.1
LUBP	Lubang	13.00	330	eP	Pn	18 46 31.1	+0.3
LUBP				eS	S	18 50 44.7	+86
BBKI	Banjar Baru	13.38	244	P	P	18 46 44.7	-0.2
	comp=Z,4μmcomp=Z,161nm,1.3s						
WSI	Waingapu	13.70	208	P	P	18 46 51.8	+3.4
PKKI	Palangkaraya	13.71	250	P	Pn	18 46 42.0	+1.3
	comp=Z,116nm,0.8s						
DBNI	Kabupaten Domp	13.82	218	P	P	18 46 52.2	+2.4
	comp=Z,998nmcomp=Z,83nm,0.8s						
GENI	Genyem	14.20	111	P	Pn	18 46 48.9	+1.7
	comp=Z,1μm,1.0s						
GENI	Genyem	14.20	111	P	P	18 46 52.0	-1.9
PLAI	Plampang	14.40	219	P	Pn	18 46 52.6	+2.5
	comp=Z,349nm,1.2s						
PLAI	Plampang	14.40	219	P	P	18 46 58.0	+1.7
PLAI	Plampang	14.40	219	P	Pn	18 46 52.3	+2.3
	comp=Z,349nm,1.2s						
SBUM	Sibu	14.64	270	P	Pn	18 46 56.0	+2.7
	comp=Z,140nm,1.1s						
SBUM	Sibu	14.64	270	P	Pn	18 46 55.5	+2.3
SBUM	Sibu	14.64	270	P	P	18 46 57.9	-1.0
	comp=Z,1μmcomp=Z,140nm,1.1s						
SBUM	Sibu	14.64	270	P	Pn	18 46 54.4	+1.1
	comp=Z,140nm,1.1s						
TWSI	Taliwang, Sumb	14.91	222	P	P	18 47 04.3	+2.4
PALP	Palanan	15.18	344	i P	Pn	18 47 00.3	-0.1
DRS	Darwin Rock St	15.30	165	P	Pn	18 47 02.7	+0.7
	comp=Z,174nm,0.8s						
KHKI	Kahang-Kahang	15.54	226	P	P	18 47 12.3	+3.5
	comp=Z,1μmcomp=Z,150nm,0.8s						
STKI	Sintang	15.57	262	P	P	18 47 08.6	-0.7
	comp=Z,216nm,1.4s						
SRBI	Singaraja	15.64	228	P	P	18 47 12.7	+2.7
	comp=Z,2μmcomp=Z,223nm,0.9s						
MTN	Manton Dam	15.76	165	P	Pn	18 47 03.5	-4.4
	comp=Z,51nm,0.9s						
MTN	Manton Dam	15.76	165	P	Pn	18 47 05.1	-2.8
	comp=Z,51nm,0.9s						
MTN	Manton Dam	15.76	165		Pn	18 47 07.0	-0.9
CVP	Callao Caves	15.96	342	eP	Pn	18 47 10.5	0.0
KDU	Kakadu	16.02	160	P	Pn	18 47 12.1	+0.9
	comp=Z,46nm,1.1s						
KDU	Kakadu	16.02	160	P	Pn	18 47 09.8	-1.5
	comp=Z,46nm,1.1s						
DNP	Denpasar	16.04	226	P	P	18 47 18.8	+4.4
RTBI	Rangdo, Negare	16.09	228	P	P	18 47 18.2	+3.2
IGBI	Denpasar	16.18	226	P	P	18 47 18.4	+2.4
ABJI	Asem Bagus	16.20	231	P	P	18 47 25.5	+9.3
BLJI	Banyuglugur	16.67	233	P	P	18 47 29.4	+8.0
	comp=Z,254nm,1.1s						
JAGI	Jajag, Banyuwa	16.68	229	P	P	18 47 22.1	+0.5
	comp=Z,127nm,0.9s						
JAGI	Jajag, Banyuwa	16.68	229		Pn	18 47 20.7	+1.0
JAGI	Jajag, Banyuwa	16.68	229	P	P	18 47 25.0	+3.4
	comp=Z,2μmcomp=Z,127nm,0.9s						
JAGI	Jajag, Banyuwa	16.68	229	P	P	18 47 23.1	+1.5
	comp=Z,127nm,0.9s						
KNRA	Kununurra	18.09	174	P	P	18 47 37.2	0.0
	comp=Z,59nm,1.1s						
KNRA	Kununurra	18.09	174	P	P	18 47 36.5	-0.6
	comp=Z,59nm,1.1s						
KNRA	Kununurra	18.09	174		P	18 47 36.3	-0.8
SJI	Sawahan	18.15	236	P	Pn	18 47 41.3	+3.4
	comp=Z,4μmcomp=Z,118nm,1.1s						
SNJI	Sawahan-Nganju	18.18	236	P	Pn	18 47 41.3	+3.0
	comp=Z,2μmcomp=Z,101nm,0.9s						
PCJI	Pacitan	18.89	236	P	Pn	18 47 50.2	+3.5
	comp=Z,251nm,1.3s						
WOJI	Wonogiri, Jawa	18.90	237	P	Pn	18 47 54.8	+7.8
	comp=Z,98nm,1.0s						
SMRI	Semarang	18.92	240	P	Pn	18 47 48.6	+1.5
	comp=Z,112nm,1.1s						
SMRI	Semarang	18.92	240	P	P	18 47 44.7	-1.6
TPI	Tanjungpandan	19.90	255	P	P	18 47 58.1	+1.1
	comp=Z,1μmcomp=Z,115nm,0.9s						
CTJI	Waduk Cacaban	20.00	242	P	Pn	18 48 07.5	+7.5
KPJI	Karang Pucung	20.37	241	P	P	18 48 02.1	0.0
	comp=Z,116nm,0.9s						
FITZ	Fitzroy Crossi	20.44	183	P	P	18 48 02.6	-0.2
	comp=Z,19nm,0.9s						
FITZ	Fitzroy Crossi	20.44	183	P	P	18 48 02.4	-0.5
	comp=Z,19nm,0.9s						
FITZ	Fitzroy Crossi	20.44	183	P	P	18 48 02.4	-0.5
	comp=Z,20nm,0.5s,baz=17,slow=10,SNR=138						
FITZ				S	S	18 51 43.9	-5.7
	comp=Z,5.2nm,0.7s,baz=133,slow=19,SNR=1.5						
	comp=Z,20nm,0.5s						
FITZ	Fitzroy Crossi	20.44	183	P	P	18 48 04.2	+1.4
	comp=Z,186nm,0.9s						
FITZ	Fitzroy Crossi	20.44	183	P	P	18 48 02.4	-0.5
FITZ	Fitzroy Crossi	20.44	183	P	P	18 48 03.3	+0.5
	comp=Z,19nm,0.9s						
DLV	Lat	20.53	298	P	Pn	18 48 05.9	-0.5
	comp=Z,106nm,1.0s						
DLV	Lat	20.53	298	P	P	18 48 03.0	-1.0
DLV				IAmb	IAmb	18 48 10.6	
	comp=Z,148nm,1.2s						
DLV	Lat	20.53	298	P	P	18 48 04.6	+0.6
	comp=Z,106nm,1.0s						
GUMO	Guam	20.96	57	P	P	18 48 08.9	+0.4
	comp=Z,190nm,0.9s,baz=202,slow=9.8,SNR=12						
GUMO				LR	LR	18 55 47.4	
	comp=Z,590nm,20.5s,baz=230,slow=35						
	comp=Z,190nm,0.9s						
GUMO	Guam	20.96	57	P	P	18 48 08.5	0.0
	comp=Z,137nm,1.0s						
GUMO	Guam	20.96	57	P	P	18 48 08.3	-0.1
GUMO	Guam	20.96	57	P	P	18 48 08.8	+0.3
	comp=Z,248nm,1.0s						
MANU	Manus Island	20.96	102	P	P	18 48 08.4	-0.2
TWGBT	Beinan	21.03	345	P	P	18 48 06.8	-2.3
	comp=Z,138nm,0.7s						
TWG	Pinlang	21.03	345	P	P	18 48 05.6	-3.6
TWG				IAmb	IAmb	18 48 08.2	
	comp=Z,90nm,0.6s						
TWG	Pinlang	21.03	345	P	P	18 48 06.6	-2.6
	comp=Z,138nm,0.7s						
YULB	Yu-li	21.52	346	P	P	18 48 12.1	-2.3
	comp=Z,63nm,0.9s						
YULB	Yu-li	21.52	346	P	P	18 48 10.2	-4.2
YULB	Yu-li	21.52	346	P	P	18 48 11.3	-3.2
	comp=Z,68nm,0.7s						
BBJI	Bungbulang	21.56	243	P	P	18 48 15.9	+0.9
	comp=Z,74nm,0.8s						
BBJI	Bungbulang	21.56	243	P	P	18 48 12.4	-2.6
BBJI	Bungbulang	21.56	243	P	P	18 48 18.7	+3.7
	comp=Z,74nm,0.8s						
BBJI	Bungbulang	21.56	243	P	P	18 48 14.6	-0.4
	comp=Z,74nm,0.8s						
TPUB	Ta-pu	21.61	344	P	P	18 48 13.3	-2.1
	comp=Z,138nm,0.8s						
TPUB	Ta-pu	21.61	344	P	P	18 48 12.2	-3.2
TPUB				IAmb	IAmb	18 48 18.0	
	comp=Z,110nm,0.8s						
TPUB	Ta-pu	21.61	344	P	P	18 48 12.5	-2.9
	comp=Z,137nm,0.8s						
CBJI	Citeko	21.84	246	P	P	18 48 22.8	+4.8
	comp=Z,232nm,0.9s						
CNJI	Cibinong	21.95	244	P	P	18 48 23.5	+4.3
	comp=Z,252nm,0.9s						
SSLB	Suanglung	21.99	345	P	P	18 48 18.3	-1.1
	comp=Z,119nm,0.8s						
SSLB	Suanglung	21.99	345	P	P	18 48 16.2	-3.2
SSLB				IAmb	IAmb	18 48 30.8	
	comp=Z,74nm,0.8s						
SSLB	Suanglung	21.99	345	P	P	18 48 18.5	-1.0
	comp=Z,119nm,0.8s						
YOJ	Yonaguni jima	22.21	351	P	P	18 48 20.4	-1.4
YOJ				pmax	pmax		
	comp=Z,293nm,1.5s						
YOJ	Yonaguni jima	22.21	351	P	P	18 48 20.4	-1.4
YOJ				IAmb	IAmb	18 48 39.3	
	comp=Z,293nm,1.5s						
JMJ	Miyako jima 2	22.30	356	P	P	18 48 23.4	+0.6
	comp=Z,1μm,0.8s						
SKJI	Sukabumi	22.34	245	P	P	18 48 26.9	+3.5
	comp=Z,306nm,1.6s						
TPRI	Tanjung Pinang	22.39	267	P	P	18 48 24.4	+0.5
SBJI	Serang	22.39	248	P	P	18 48 27.9	+4.0
	comp=Z,320nm,1.1s						
DSRI	Dabo	22.48	263	P	P	18 48 28.4	+3.6
DPSS	Saipan	22.58	55	P	P	18 48 23.6	-2.3
YHNB	Yeheng	22.73	347	P	P	18 48 27.5	0.0
	comp=Z,115nm,0.9s						
YHNB	Yeheng	22.73	347	P	P	18 48 24.9	-2.6
YHNB				IAmb	IAmb	18 48 33.0	
	comp=Z,72nm,0.9s						
YHNB	Yeheng	22.73	347	P	P	18 48 27.8	+0.3
	comp=Z,114nm,0.9s						
CGJI	Cibinong	22.98	247	P	P	18 48 31.3	+1.2
	comp=Z,4μmcomp=Z,352nm,1.4s						
TATO	Taipei	23.00	347	P	P	18 48 29.6	-0.6
MYKOM	Kota Tinggi	23.02	269	P	P	18 48 32.2	+1.7
	comp=Z,57nm,1.0s						
MYKOM	Kota Tinggi	23.02	269	P	P	18 48 29.6	-0.9

MYKOM	Kota Tinggi	23.02	269	P	P	18 48 35.4	+4.9
MYKOM	Kota Tinggi	23.02	269	P	P	18 48 31.0	+0.5
	comp=Z,57nm,1.0s						
BTDF	Bukit Timah Da	23.11	268	P	P	18 48 31.7	+0.2
	comp=Z,40nm,1.2s						
BTDF	Bukit Timah Da	23.11	268	P	P	18 48 32.6	+1.1
WB0	Warramunga Arr	23.27	162	P	P	18 48 31.6	-1.3
WB0				IAmb	IAmb	18 48 40.0	
	comp=Z,119nm,0.7s						
HKPS	Hong Kong Po S	23.28	329	P	P	18 48 33.1	+0.1
PMG	Port Moresby	23.39	120	P	P	18 48 33.0	-1.1
	comp=Z,18nm,0.9s,baz=264,slow=6.8,SNR=4.0						
PMG				LR	LR	18 59 21.6	
	comp=Z,1µm,21.2s,baz=322,slow=41						
	comp=Z,18nm,0.9s						
PMG	Port Moresby	23.39	120	*i* P	P	18 48 34.0	-0.1
PMG				pmax	pmax		
	comp=Z,43nm,1.1s						
PMG	Port Moresby	23.39	120	P	P	18 48 33.5	-0.6
WRAB	Tennant Creek	23.41	162	P	P	18 48 32.9	-1.4
	comp=Z,88nm,0.8s						
WRAB	Tennant Creek	23.41	162	*ce*P	P	18 48 33.7	-0.6
WRAB				pmax	pmax		
	comp=Z,129nm,1.3s						
WRAB	Tennant Creek	23.41	162	P	P	18 48 33.0	-1.2
WRAB				IAmb	IAmb	18 48 41.6	
	comp=Z,119nm,0.9s						
WRAB	Tennant Creek	23.41	162	P	P	18 48 33.6	-0.6
	comp=Z,162nm,0.8s						
WRA	Warramunga Arr	23.42	162	P	P	18 48 33.4	-1.0
	comp=Z,56nm,0.7s,baz=334,slow=11,SNR=164						
WRA				S	S	18 52 39.8	-5.1
	comp=Z,2.8nm,0.9s,baz=341,slow=16,SNR=2.5						
	comp=Z,56nm,0.7s						
WRA	Warramunga Arr	23.42	162	*ce*P	P	18 48 33.0	-1.3
WRA				pmax	pmax		
	comp=Z,43nm,0.6s						
WRA	Warramunga Arr	23.42	162	P	P	18 48 33.5	-0.8
QIZ	Qiongzhong	23.45	316	P	P	18 48 34.6	-0.1
QIZ				S	S	18 52 47.8	+2.3
QIZ				L	L		
	comp=Z,1µm,8.4s						
QIZ				L	L		
	comp=Z,1µm,6.8s						
QIZ				L	L		
	comp=Z,1µm,11.2s						
WR8	Warramunga Arr	23.48	162	P	P	18 48 33.9	-1.1
WR8				IAmb	IAmb	18 48 38.8	
	comp=Z,90nm,0.9s						
JMZ	Minamidaito 2	23.62	10	P	P	18 48 37.1	+0.9
	comp=Z,266nm,0.9s						
JMZ	Minamidaito 2	23.62	10	P	P	18 48 35.7	-0.6
	comp=Z,268nm,0.9s						
MDSI	Maura Dua	23.70	253	P	P	18 48 37.3	+0.2
	comp=Z,1µmcomp=Z,91nm,0.9s						
KASI	Kota Agung	23.71	250	P	P	18 48 39.6	+2.4
	comp=Z,189nm,0.9s						
LHSI	Lahat	24.15	255	P	P	18 48 50.7	+9.4
JOW	Kunigami	24.30	3	P	P	18 48 43.9	+1.5
	comp=Z,93nm,0.8s,baz=179,slow=8.0,SNR=51						
JOW				LR	LR	19 01 58.1	
	comp=Z,109nm,18.3s,baz=180,slow=46						
	comp=Z,93nm,0.8s						
JOW	Kunigami	24.30	3	P	P	18 48 43.5	+1.0
	comp=Z,188nm,1.3s						
JOW	Kunigami	24.30	3	P	P	18 48 42.6	+0.1
	comp=Z,188nm,1.3s						
MBWA	Marble Bar	24.47	196	P	P	18 48 44.7	+0.5
	comp=Z,64nm,1.1s						
MBWA	Marble Bar	24.47	196	P	P	18 48 44.3	+0.1
	comp=Z,64nm,1.1s						
MBWA	Marble Bar	24.47	196	P	P	18 48 45.5	+1.4
	comp=Z,37nm,1.1s						
MBWA	Marble Bar	24.47	196	P	P	18 48 42.8	-1.3
MBWA				IAmb	IAmb	18 48 56.1	
	comp=Z,91nm,1.2s						
MBWA	Marble Bar	24.47	196	P	P	18 48 44.6	+0.5
	comp=Z,64nm,1.1s						
KSI	Kapahiang	25.01	256	P	P	18 48 54.2	+5.0
	comp=Z,128nm,0.9s						
MASI	Maura Aman, Be	25.24	257	P	P	18 48 55.3	+4.0
SDSI	Sungai Dareh	25.66	263	P	P	18 48 57.6	+2.6
KRJI	Kerinci	25.80	260	P	P	18 49 06.4	+10
IPM	Ipoh	25.88	275	P	P	18 48 59.2	+2.1
	comp=Z,78nm,1.4s						
IPM	Ipoh	25.88	275	P	P	18 48 55.6	-1.5
IPM				IAmb	IAmb	18 49 01.1	
	comp=Z,90nm,1.2s						
IPM	Ipoh	25.88	275	P	P	18 48 59.8	+2.7
	comp=Z,79nm,1.4s						
IPM	Ipoh	25.88	275	P	P	18 48 58.9	+1.8
	comp=Z,78nm,1.4s						
BKNI	Bangkinang	25.91	266	P	P	18 48 59.0	+1.6
	comp=Z,140nm,0.9s						
BKNI	Bangkinang	25.91	266	P	P	18 48 55.7	-1.6
BKNI	Bangkinang	25.91	266	P	P	18 49 03.1	+5.8
	comp=Z,141nm,0.9s						
BKNI	Bangkinang	25.91	266	P	P	18 48 59.0	+1.6
	comp=Z,140nm,0.9s						
KRVT	Keravat (AS076	26.01	105	P	P	18 48 59.4	+1.2
	comp=Z,113nm,0.3s,baz=271,slow=17,SNR=9.1						
KRVT				LR	LR	18 58 12.0	
	comp=Z,1µm,21.3s,baz=288,slow=34						
	comp=Z,113nm,0.3s						
QIS	Mount Isa	26.04	152	P	P	18 48 58.6	+0.2
QIS	Mount Isa	26.04	152	P	P	18 48 58.4	+0.1
	comp=Z,199nm,0.9s						
QIS	Mount Isa	26.04	152	P	P	18 48 58.5	+0.2
	comp=Z,199nm,0.9s						
QIS	Mount Isa	26.04	152	P	P	18 48 58.6	+0.2
	comp=Z,199nm,0.9s						
RABL	Rabaul	26.11	105	P	P	18 48 57.4	-1.8
RABL				IAmb	IAmb	18 49 02.0	
	comp=Z,84nm,0.8s						
PPI	Padang Panjang	26.63	264	P	P	18 49 09.8	+6.0
	comp=Z,35nm,1.0s						
ALOT	Alotau	26.67	119	P	P	18 49 05.1	+0.9
	comp=Z,190nm,0.8s						
MTSU	Mount Surprise	26.70	141	P	P	18 49 05.2	+0.8
MTSU	Mount Surprise	26.70	141	P	P	18 49 04.7	+0.3
	comp=Z,73nm,0.8s						
MTSU	Mount Surprise	26.70	141	P	P	18 49 05.6	+1.2
	comp=Z,73nm,0.8s						
MTSU	Mount Surprise	26.70	141	P	P	18 49 04.8	+0.3
	comp=Z,73nm,0.8s						
AS15	Alice Springs	26.80	166	P	P	18 49 05.1	-0.2
	comp=Z,86nm,0.9s						
AS15	Alice Springs	26.80	166	P	P	18 49 04.9	-0.4
	comp=Z,86nm,0.9s						
AS31	Alice Springs	26.83	166	P	P	18 49 05.2	-0.3
	comp=Z,16nm,0.9s						
AS31	Alice Springs	26.83	166	P	P	18 49 05.0	-0.5
	comp=Z,16nm,0.9s						
AS31	Alice Springs	26.83	166	P	P	18 49 04.0	-1.5
ASAR	Alice Springs	26.83	166	P	P	18 49 05.0	-0.6
	comp=Z,22nm,0.7s,baz=332,slow=5.5,SNR=188						
ASAR				PcP	PcP	18 52 28.0	+0.3
	comp=Z,9.5nm,0.7s,baz=350,slow=1.7,SNR=8.7						
ASAR				S	S	18 53 42.3	+2.9
	comp=Z,3.8nm,1.0s,baz=357,slow=17,SNR=2.8						
	comp=Z,22nm,0.7s						
ASAR	Alice Springs	26.83	166	P	P	18 49 04.4	-1.1
ASAR					PcP	18 52 27.4	-0.3
ASAR					S	18 53 40.1	+0.7
AS01	Alice Springs	26.84	166	P	P	18 49 05.3	-0.3
AS01	Alice Springs	26.84	166	P	P	18 49 07.2	+1.6
	comp=Z,70nm,0.8s						
AUALC	St Philip's Co	26.85	166	P	P	18 49 05.8	+0.1
	comp=Z,69nm,1.0s						
AS17	Alice Springs	26.85	165	P	P	18 49 05.8	+0.1
	comp=Z,72nm,0.8s						
AS09	Alice Springs	26.87	166	P	P	18 49 05.7	-0.2
	comp=Z,70nm,0.8s						
MNSI	Mandailing Nat	27.33	267	P	P	18 49 10.5	+0.4
	comp=Z,43nm,0.8s						
WRKA	Warakurna	27.34	177	P	P	18 49 10.5	+0.3
	comp=Z,44nm,0.9s						
WRKA	Warakurna	27.34	177	P	P	18 49 10.1	-0.1
	comp=Z,44nm,0.9s						
GIRL	Giralia	27.81	206	P	P	18 49 15.6	+1.3
	comp=Z,43nm,1.3s						
PSI	Prapat	27.92	271	P	P	18 49 16.3	+0.7
	comp=Z,41nm,0.9s						
PSI	Prapat	27.92	271	P	P	18 49 13.6	-2.0
PSI				pmax	pmax		
	comp=Z,26nm,0.8s						
PSI	Prapat	27.92	271	P	P	18 49 14.9	-0.7
	comp=Z,38nm,0.9s						
RPSI	Rantau Prapat	27.92	271	P	P	18 49 13.6	-1.9
RPSI	Rantau Prapat	27.92	271	P	P	18 49 14.5	-0.9
	comp=Z,38nm,1.0s						
SSE	Sheshan	29.01	350	P	P	18 49 23.4	-1.4
SSE				S	S	18 54 10.3	-3.1
SSE				pmax	pmax		
	comp=Z,17nm,0.9s						
SSE				L	L		
	comp=Z,230nm,22.0s						
SSE				L	L		
	comp=Z,220nm,23.4s						
SSE				L	L		
	comp=Z,260nm,25.4s						
KCSI	Kotacane, Aceh	29.08	273	P	P	18 49 25.7	-0.1
JSU	Suzuyama	29.11	6	P	P	18 49 25.2	-0.6
TV1H	Townsville Har	29.13	139	P	P	18 49 27.3	+1.3
	comp=Z,68nm,0.8s						
SLVN	Son La	29.20	312	P	P	18 49 26.9	+0.1
	comp=Z,24nm,1.7s						
GSI	Gunungsitoli	29.30	268	P	P	18 49 27.9	+0.1
	comp=Z,70nm,0.8s						
GSI	Gunungsitoli	29.30	268	P	P	18 49 25.2	-2.6
GSI				IAmb	IAmb	18 49 28.4	
	comp=Z,59nm,0.9s						
GSI	Gunungsitoli	29.30	268	P	P	18 49 27.6	-0.1
GSI	Gunungsitoli	29.30	268	P	P	18 49 26.1	-1.6
	comp=Z,70nm,0.8s						
CTA	Charters Tower	29.37	141	P	P	18 49 29.5	+1.3
CTA	Charters Tower	29.37	141	P	P	18 49 28.9	+0.7
	comp=Z,19nm,1.2s						
CTA	Charters Tower	29.37	141	P	P	18 49 28.5	+0.3
	comp=Z,24nm,1.0s,baz=318,slow=9.1,SNR=8.5						
CTA				LR	LR	19 03 20.6	
	comp=Z,809nm,20.9s,baz=314,slow=40						
	comp=Z,24nm,1.0s						
CTA	Charters Tower	29.37	141	P	P	18 49 29.5	+1.3
	comp=Z,1.4nm,1.2s						
CTAO	Charters Tower	29.37	141	P	P	18 49 29.5	+1.3
	comp=Z,17nm,1.2s						
CTAO	Charters Tower	29.37	141	P	P	18 49 27.2	-1.1
CTAO				pmax	pmax		
	comp=Z,66nm,1.3s						
CTAO	Charters Tower	29.37	141	P	P	18 49 27.2	-1.1
CTAO				IAmb	IAmb	18 49 30.1	
	comp=Z,66nm,1.2s						
CTAO	Charters Tower	29.37	141	P	P	18 49 29.5	+1.3
	comp=Z,48nm,1.2s						
MEEK	Meekatharra	29.98	195	P	P	18 49 34.7	+1.1
	comp=Z,89nm,0.9s						
MEEK	Meekatharra	29.98	195	P	P	18 49 33.5	-0.1
	comp=Z,88nm,0.9s						
MEEK	Meekatharra	29.98	195	P	P	18 49 33.8	+0.2
	comp=Z,88nm,0.9s						
MEEK	Meekatharra	29.98	195	P	P	18 49 34.1	+0.5
	comp=Z,89nm,0.9s						
MEEK				pP	pP	18 49 44.4	+0.5
WHN	Wuhan	30.37	338	P	P	18 49 38.3	+1.4
WHN				pmax	pmax		
	comp=Z,64nm,0.7s						
NJ2	Nanjing	30.41	346	*e*P	P	18 49 38.3	+1.0
NJ2				pmax	pmax		
	comp=Z,14nm,0.8s						
NJ2				L	L		
	comp=Z,710nm,22.7s						
NJ2				L	L		
	comp=Z,460nm,20.8s						
NJ2				L	L		
	comp=Z,940nm,24.1s						
JNU	Nakatsue	30.76	7	P	P	18 49 40.6	+0.2
	comp=Z,52nm,0.8s,baz=174,slow=4.0,SNR=30						
	comp=Z,52nm,0.8s						
CM31	Chiang Mai Arr	31.66	302	P	P	18 49 47.7	-0.9
CM31				IAmb	IAmb	18 49 49.4	
	comp=Z,47nm,0.9s						
CMAR	Chiang Mai Arr	31.66	302	P	P	18 49 48.0	-0.5
	comp=Z,31nm,0.8s,baz=119,slow=7.0,SNR=118						
CMAR				ScP	ScP	18 56 20.5	+0.1
	comp=Z,3.2nm,1.0s,baz=174,slow=2.2,SNR=8.4						
CMAR				LR	LR	19 04 04.3	
	comp=Z,251nm,18.7s,baz=115,slow=39						
	comp=Z,31nm,0.8s						
CMAR	Chiang Mai Arr	31.66	302	P	P	18 49 47.5	-1.0
CMAR					ScP	18 56 18.9	-1.6
JMN	Monobe	31.81	11	P	P	18 49 51.7	+2.0
	comp=Z,68nm,0.9s						
JMN	Monobe	31.81	11	P	P	18 49 49.4	-0.3
JMN				IAmb	IAmb	18 49 54.4	
	comp=Z,45nm,0.8s						
JMN	Monobe	31.81	11	P	P	18 49 51.3	+1.6
	comp=Z,68nm,0.9s						
CHTO	Chiang Mai	31.82	303	P	P	18 49 49.8	-0.1
	comp=Z,51nm,0.8s						
CHTO	Chiang Mai	31.82	303	P	P	18 49 48.9	-1.0
CHTO				pmax	pmax		
	comp=Z,64nm,0.9s						
CHTO	Chiang Mai	31.82	303	P	P	18 49 48.9	-1.0
CHTO				IAmb	IAmb	18 49 50.5	
	comp=Z,64nm,0.8s						
CHTO	Chiang Mai	31.82	303	P	P	18 49 49.0	-1.0
CHTO	Chiang Mai	31.82	303	P	P	18 49 49.3	-0.6
	comp=Z,85nm,0.8s						
CHTO	Chiang Mai	31.82	303	P	P	18 49 49.1	-0.8
ENH	Enshi	32.22	331	P	P	18 49 53.3	0.0
	comp=Z,78nm,0.8s						
ENH	Enshi	32.22	331	IAmb	IAmb	18 49 56.1	
	comp=Z,60nm,0.8s						
ENH	Enshi	32.22	331	P	P	18 49 53.1	-0.2
KMI2	Kunming	32.41	316	⇑P	P	18 49 55.4	+0.1
KMI2				pmax	pmax		
	comp=Z,26nm,1.6s						
KMI2				L	L		
	comp=Z,550nm,23.9s						
KMI2				L	L		
	comp=Z,590nm,28.6s						
KMI2				L	L		
	comp=Z,660nm,18.2s						
MORW	Morawa	33.00	198	P	P	18 50 00.2	+0.1
	comp=Z,30nm,0.8s						
MORW	Morawa	33.00	198	P	P	18 50 00.8	+0.7
	comp=Z,30nm,0.8s						
MORW	Morawa	33.00	198	P	P	18 49 59.2	-0.9
MORW				IAmb	IAmb	18 50 02.7	
	comp=Z,56nm,1.4s						
MORW	Morawa	33.00	198	P	P	18 50 00.7	+0.6
	comp=Z,30nm,0.8s						
FORT	Forrest	33.05	178	P	P	18 50 00.4	-0.1
	comp=Z,168nm,0.8s						
FORT	Forrest	33.05	178	P	P	18 49 59.6	-0.9
QLP	Quilpie	33.37	151	P	P	18 50 03.2	-0.1
	comp=Z,90nm,1.0s						
QLP	Quilpie	33.37	151	P	P	18 50 03.4	+0.1
	comp=Z,90nm,1.0s						
QLP	Quilpie	33.37	151	P	P	18 50 03.1	-0.2
	comp=Z,90nm,1.0s						
JSG	Sagara	33.76	17	P	P	18 50 06.9	+0.2
TJN	Taejon	33.78	1	P	P	18 50 07.5	+0.8
	comp=Z,170nm,0.6s						
TJN	Taejon	33.78	1	P	P	18 50 06.2	-0.5
TJN				pmax	pmax		
	comp=Z,203nm,1.1s						
TJN	Taejon	33.78	1	P	P	18 50 06.2	-0.5
TJN	Taejon	33.78	1	P	P	18 50 08.1	+1.4
	comp=Z,171nm,0.6s						
KMBL	Kambalda	33.95	188	P	P	18 50 08.4	0.0
KMBL	Kambalda	33.95	188	P	P	18 50 08.2	-0.2
	comp=Z,26nm,0.8s						
PZH	PanZhiHua	33.98	317	P	P	18 50 10.0	+1.2
INU	Inuyama	34.08	15	P	P	18 50 09.7	+0.3
	comp=Z,102nm,0.9s						
INU	Inuyama	34.08	15	P	P	18 50 08.6	-0.8
INU	Inuyama	34.08	15	P	P	18 50 10.0	+0.6
	comp=Z,102nm,0.9s						
INU	Inuyama	34.08	15	P	P	18 50 09.9	+0.6
BLDU	Ballidu	34.27	196	P	P	18 50 11.2	+0.1
	comp=Z,52nm,1.2s						
BLDU	Ballidu	34.27	196	P	P	18 50 11.4	+0.3
	comp=Z,52nm,1.2s						
BLDU	Ballidu	34.27	196	P	P	18 50 11.1	+0.1
	comp=Z,52nm,1.2s						
JGF	Kuroka	34.40	15	P	P	18 50 12.5	+0.2
	comp=Z,50nm,0.8s						
JGF	Kuroka	34.40	15	P	P	18 50 12.0	-0.3
JGF				IAmb	IAmb	18 50 14.1	
	comp=Z,33nm,0.7s						
JGF	Kuroka	34.40	15	P	P	18 50 12.3	0.0
	comp=Z,50nm,0.8s						
AUNRC	North Rockhamp	34.47	139	P	P	18 50 14.0	+1.1
	comp=Z,138nm,1.0s						
NPW	Naypyitaw	34.62	302	P	P	18 50 13.7	-0.6
	comp=Z,107nm,0.8s						
LYN	LuoYang	34.66	339	P	P	18 50 14.8	+0.4
LYN				pP	pP	18 50 26.5	+1.7
LYN				S	S	18 55 42.5	+1.0
LYN				SS	SnSn	18 57 58.6	+2.1
LYN				pmax	pmax		
	comp=Z,63nm,0.7s						
LYN				pmax	pmax		
	comp=Z,390nm,4.3s						
LYN				L	L		
	comp=Z,790nm,20.3s						
LYN				L	L		
	comp=Z,650nm,22.3s						
LYN				L	L		
	comp=Z,2µm,28.5s						
TIA	Tai'an	34.80	346	P	P	18 50 16.3	+0.7
TIA				PcP	PcP	18 52 49.5	+1.0
TIA				S	S	18 55 41.0	-2.7
TIA				pmax	pmax		
	comp=Z,19nm,0.8s						
KSRS	Korea Array	34.86	1	P	P	18 50 17.2	+1.1
	comp=Z,32nm,0.7s,baz=179,slow=9.3,SNR=59						
KSRS				PcP	PcP	18 52 49.2	+0.6
	comp=Z,8.4nm,0.8s,baz=185,slow=2.8,SNR=13						
KSRS				ScP	ScP	18 56 31.2	+0.1
	comp=Z,2.2nm,0.9s,baz=202,slow=2.7,SNR=4.7						
	comp=Z,32nm,0.7s						
INCN	Inchon	34.88	360	P	P	18 50 16.0	-0.3
INCN				pmax	pmax		
	comp=Z,31nm,0.8s						
INCN	Inchon	34.88	360	P	P	18 50 16.0	-0.3
INCN				IAmb	IAmb	18 50 22.3	
	comp=Z,31nm,0.8s						
KLBR	Kellerberrin	34.93	194	P	P	18 50 17.0	+0.1
	comp=Z,104nm,0.8s						
KLBR	Kellerberrin	34.93	194	P	P	18 50 17.3	+0.4
	comp=Z,104nm,0.8s						
KLBR	Kellerberrin	34.93	194	P	P	18 50 17.2	+0.4
	comp=Z,104nm,0.8s						
HNR	Honiara	34.99	110	LR	LR	19 05 25.4	
	comp=Z,342nm,21.7s,baz=17,slow=38						
GD1S	Gladstone Soft	35.23	139	P	P	18 50 20.8	+1.3
	comp=Z,83nm,0.6s						
TNCH	TengChong	35.38	312	⇑P	P	18 50 20.4	-0.6
TNCH				pP	pP	18 50 27.8	-3.6
TNCH				sP	pwP	18 50 30.1	-4.0
TNCH				PP	PnPn	18 51 38.3	-1.9
TNCH				S	S	18 55 56.1	+2.9
TNCH				sS	sS	18 56 08.3	-2.1
TNCH				pmax	pmax		
	comp=Z,35nm,1.0s						
TNCH				L	L		
	comp=Z,890nm,29.9s						
MAJO	Matsushiro	35.52	16	P	P	18 50 21.5	-0.3
	comp=Z,73nm,1.0s						
MAJO	Matsushiro	35.52	16	P	P	18 50 20.5	-1.3
MAJO				pmax	pmax		
	comp=Z,37nm,1.0s						
MAJO	Matsushiro	35.52	16	P	P	18 50 20.5	-1.3
MAJO				IAmb	IAmb	18 50 23.3	
	comp=Z,37nm,0.9s						
MAJO	Matsushiro	35.52	16	P	P	18 50 21.4	-0.5
	comp=Z,73nm,1.0s						
MAJO	Matsushiro	35.52	16	P	P	18 50 21.4	-0.5
MJAR	Matsushiro Arr	35.52	16	P	P	18 50 21.4	-0.4
	comp=Z,27nm,0.8s,baz=186,slow=9.0,SNR=50						
MJAR				PcP	PcP	18 52 51.5	+1.0
	comp=Z,11nm,0.8s,baz=173,slow=2.5,SNR=9.0						
MJAR				ScP	ScP	18 56 33.7	+0.2
	comp=Z,5.7nm,1.2s,baz=212,slow=4.4,SNR=4.9						
MJAR				LR	LR	19 04 37.5	
	comp=Z,335nm,21.1s,baz=210,slow=36						
	comp=Z,27nm,0.8s						
MJAR	Matsushiro Arr	35.52	16	P	P	18 50 20.6	-1.2
MJAR				IAmb	IAmb	18 50 23.5	
	comp=Z,33nm,0.9s						
MJAR					PcP	18 52 51.6	+1.0
MJAR					ScP	18 56 33.8	+0.2
MJB9	Matsu-Tunnel	35.52	16	P	P	18 50 22.1	+0.3
MJB9				IAmb	IAmb	18 50 24.9	
	comp=Z,69nm,1.0s						
XAN	Xi'an	35.63	334	⇓P	P	18 50 22.3	-0.6
XAN				pmax	pmax		
	comp=Z,60nm,0.8s						
XAN				L	L		
	comp=Z,770nm,19.9s						
XAN				L	L		
	comp=Z,690nm,22.7s						
XAN				L	L		
	comp=Z,1µm,24.4s						
MUN	Mundaring	35.69	196	P	P	18 50 23.5	+0.2
CD2	Chengdu	35.77	325	P	P	18 50 23.8	-0.3
CD2				S	S	18 55 58.8	-0.1
CD2				pmax	pmax		
	comp=Z,80nm,0.9s						
CD2				pmax	pmax		
	comp=Z,260nm,4.9s						
CD2				L	L		
	comp=Z,540nm,15.5s						
CD2				L	L		
	comp=Z,700nm,12.3s						
JYT	Yasato	35.81	19	P	P	18 50 24.0	-0.3
AUKUL	Kulin High Sch	35.88	193	P	P	18 50 25.4	+0.4
	comp=Z,60nm,0.9s						
BBOO	Buckleboo	36.12	167	P	P	18 50 26.6	-0.4
	comp=Z,113nm,0.8s						
BBOO	Buckleboo	36.12	167	P	P	18 50 27.2	+0.2
	comp=Z,113nm,0.8s						
BBOO	Buckleboo	36.12	167	P	P	18 50 25.8	-1.2
BBOO	Buckleboo	36.12	167	P	P	18 50 26.3	-0.7
	comp=Z,113nm,0.8s						
EIDS	Eidsvold	36.25	141	P	P	18 50 27.9	-0.4
	comp=Z,111nm,0.9s						
EIDS	Eidsvold	36.25	141	P	P	18 50 28.4	+0.1
	comp=Z,111nm,0.9s						
EIDS	Eidsvold	36.25	141	P	P	18 50 27.2	-1.1
EIDS	Eidsvold	36.25	141	P	P	18 50 27.7	-0.6
	comp=Z,111nm,0.9s						
NWAO	Narrogin (SRO)	36.34	194	P	P	18 50 24.6	-4.3
	comp=Z,56nm,0.8s						
NWAO	Narrogin (SRO)	36.34	194	P	P	18 50 29.7	+0.8
	comp=Z,52nm,0.9s						
NWAO	Narrogin (SRO)	36.34	194	P	P	18 50 31.1	+2.3
	comp=Z,32nm,0.9s						
NWAO	Narrogin (SRO)	36.34	194	P	P	18 50 28.6	-0.3
NWAO				pmax	pmax		
	comp=Z,82nm,1.2s						
NWAO	Narrogin (SRO)	36.34	194	P	P	18 50 28.6	-0.3
NWAO				IAmb	IAmb	18 50 52.2	
	comp=Z,82nm,1.2s						
HNS	HongShan	36.55	344	⇑P	P	18 50 30.8	+0.2
HNS				S	S	18 56 06.3	-4.1
HNS				pmax	pmax		
	comp=Z,25nm,0.6s						
HNS				L	L		
	comp=Z,690nm,21.6s						
HNS				L	L		
	comp=Z,260nm,21.6s						
HNS				L	L		
	comp=Z,1µm,22.1s						
DL2	Dalian	36.61	353	P	P	18 50 32.3	+1.2
DL2				S	S	18 56 11.3	-0.1
DL2				pmax	pmax		
	comp=Z,120nm,0.8s						
DL2				pmax	pmax		
	comp=Z,220nm,5.6s						
DL2				L	L		
	comp=Z,430nm,24.0s						
DL2				L	L		
	comp=Z,1µm,21.8s						
DL2				L	L		
	comp=Z,710nm,14.3s						
STKA	Stephens Creek	36.88	159	P	P	18 50 33.4	-0.1
	comp=Z,984nm,0.8s						
STKA	Stephens Creek	36.88	159	P	P	18 50 33.3	-0.2
	comp=Z,188nm,0.8s,baz=335,slow=7.8,SNR=195						
STKA				PcP	PcP	18 52 55.4	+0.7
	comp=Z,18nm,0.7s,baz=323,slow=5.6,SNR=3.2						
STKA				LR	LR	19 07 45.2	
	comp=Z,529nm,21.9s,baz=345,slow=40						
	comp=Z,188nm,0.8s						
STKA	Stephens Creek	36.88	159	P	P	18 50 33.8	+0.3
	comp=Z,49nm,0.8s						
STKA	Stephens Creek	36.88	159	*i* P	P	18 50 32.7	-0.8

STKA	Stephens Creek	36.88	159	P	P	18 50 33.6	+0.1
	comp=Z,985nm,0.8s						
AUCAS	Cummins Area S	37.44	168	P	P	18 50 39.8	+1.6
	comp=Z,127nm,0.8s						
HTT	Hallett	37.44	163	P	P	18 50 38.5	+0.1
	comp=Z,9.3nm,0.8s						
HTT	Hallett	37.44	163	P	P	18 50 39.9	+1.5
HTT	Hallett	37.44	163	P	P	18 50 39.1	+0.8
	comp=Z,23nm,0.8s						
HTT	Hallett	37.44	163	P	P	18 50 38.4	+0.1
TIY	Taiyuan	37.53	341	P	P	18 50 40.8	+1.8
TIY				pmax	pmax		
	comp=Z,54nm,0.5s						
TIY				L	L		
	comp=Z,690nm,28.2s						
TIY				L	L		
	comp=Z,370nm,30.2s						
TIY				L	L		
	comp=Z,1µm,29.5s						
AULRC	Lightning Ridg	37.58	149	P	P	18 50 39.8	+0.3
	comp=Z,195nm,1.0s						
RKGY	Rocky Gully	38.01	193	P	P	18 50 44.4	+1.4
	comp=Z,28nm,0.9s						
CMSA	Cobar Meteorol	38.23	154	P	P	18 50 45.0	+0.1
	comp=Z,67nm,1.5s						
CMSA	Cobar Meteorol	38.23	154	P	P	18 50 45.8	+0.9
	comp=Z,67nm,1.5s						
CMSA	Cobar Meteorol	38.23	154	P	P	18 50 45.3	+0.3
	comp=Z,67nm,1.5s						
TW1H	Toowoomba 1 Ha	38.38	143	P	P	18 50 47.5	+1.2
	comp=Z,107nm,0.9s						
AUTOO	Toowoomba Stat	38.38	143	P	P	18 50 47.9	+1.6
	comp=Z,143nm,1.0s						
SAIH	SAIHA	38.45	304	eP	P	18 50 44.8	-2.3
SAIH				IAmb	IAmb	18 50 46.9	
	comp=Z,39nm,0.7s						
AUBSH	Beerwah State	38.49	141	P	P	18 50 47.5	+0.3
	comp=Z,69nm,1.1s						
BJI2	Beijing	38.65	347	P	P	18 50 48.8	+0.4
BJI2				sP	pP	18 50 55.4	-3.5
BJI2				S	S	18 56 43.3	+1.0
BJI2				pmax	pmax		
	comp=Z,49nm,0.7s						
BJI2				pmax	pmax		
	comp=Z,87nm,3.5s						
BJI2				L	L		
	comp=Z,220nm,23.4s						
BJI2				L	L		
	comp=Z,240nm,23.4s						
BJI2				L	L		
	comp=Z,290nm,24.4s						
BJT	Baijiatuau	38.65	347	P	P	18 50 49.9	+1.5
	comp=Z,96nm,1.1s						
BJT	Baijiatuau	38.65	347	IAmb	IAmb	18 50 50.5	
	comp=Z,55nm,0.7s						
BJT	Baijiatuau	38.65	347	P	P	18 50 49.4	+1.0
IMP	Imphal	38.78	308	eP	P	18 50 46.9	-2.9
IMP				IAmb	IAmb	18 50 48.7	
	comp=Z,23nm,1.4s						
KOHI	KOHIMA	39.10	309	eP	P	18 50 49.2	-3.3
KOHI				IAmb	IAmb	18 50 51.4	
	comp=Z,22nm,0.3s						
MOKO	MOKOCHONG	39.10	310	eP	P	18 50 50.7	-1.9
MOKO				IAmb	IAmb	18 50 57.0	
	comp=Z,152nm,2.0s						
AUMBR	Murray Bridge	39.14	164	P	P	18 50 54.8	+2.3
	comp=Z,52nm,0.9s						
AZL	Aizawl	39.26	306	eP	P	18 50 52.1	-1.8
AZL				IAmb	IAmb	18 50 54.3	
	comp=Z,131nm,2.1s						
SNY	Shenyang	39.33	356	⇓P	P	18 50 55.3	+1.3
SNY				PP	PnPn	18 52 26.9	-0.9
SNY				S	S	18 56 53.1	+0.7
SNY				pmax	pmax		
	comp=Z,34nm,0.7s						
SNY				L	L		
	comp=Z,340nm,17.8s						
SNY				L	L		
	comp=Z,380nm,17.8s						
SNY				L	L		
	comp=Z,480nm,21.3s						
BRDH	Bariadhala	39.65	303	LR	LR	19 08 56.7	
	comp=Z,497nm,20.1s,baz=126,slow=39						
LZDM	Lanzhou Array	39.66	330	P	P	18 50 57.7	+0.4
	comp=Z,5.1nm,0.4s,baz=134,slow=11,SNR=4.4						
	comp=Z,5.1nm,0.4s						
LZH	Lanzhou	39.69	330	eP	P	18 50 58.4	+1.1
LZH				sP	pP	18 51 07.3	-0.5
LZH				ScP	ScP	18 56 50.3	+0.8
LZH				pmax	pmax		
	comp=Z,80nm,1.7s						
LZH				L	L		
	comp=Z,650nm,18.1s						
LZH				L	L		
	comp=Z,660nm,18.1s						
LZH				L	L		
	comp=Z,2µm,17.1s						
GC1S	Gold Coast 1 S	39.76	142	P	P	18 50 59.3	+1.5
PSTR	Posyet	40.19	4	iP	P	18 51 01.6	+0.4
ZIRO	ZIRO	40.24	311	eP	P	18 50 60.0	-2.1
JTM	Tenmabayashi	40.27	17	P	P	18 51 03.6	+1.7
	comp=Z,218nm,0.8s						
JTM	Tenmabayashi	40.27	17	P	P	18 51 01.1	-0.8
JTM	Tenmabayashi	40.27	17	P	P	18 51 02.0	+0.2
	comp=Z,219nm,0.8s						
ARMA	Armidale	40.32	146	P	P	18 51 02.8	+0.3
	comp=Z,122nm,0.9s						
ARMA	Armidale	40.32	146	P	P	18 51 03.5	+1.0
	comp=Z,122nm,0.9s						
ARMA	Armidale	40.32	146	P	P	18 51 02.3	-0.3
ARMA	Armidale	40.32	146	P	P	18 51 03.1	+0.6
	comp=Z,122nm,0.9s						
AUPHS	Peel High Scho	40.44	147	P	P	18 51 04.4	+1.0
	comp=Z,36nm,1.1s						
HHC	Hu-ho-hao-te	40.66	342	eP	P	18 51 07.1	+1.8
HHC				S	S	18 57 07.0	-5.7
HHC				ScS	ScS	19 01 03.5	-4.2
HHC				pmax	pmax		
	comp=Z,23nm,0.6s						
HHC				pmax	pmax		
	comp=Z,87nm,4.1s						
HHC				L	L		
	comp=Z,350nm,20.6s						
HHC				L	L		
	comp=Z,340nm,19.9s						
HHC				L	L		
	comp=Z,800nm,19.1s						
SHL	Shillong	40.77	308	P	P	18 51 04.3	-2.1
SHL	Shillong	40.77	308	P	P	18 51 04.3	-2.1
SHL	Shillong	40.77	308	eP	P	18 51 04.2	-2.1
SHL				IAmb	IAmb	18 51 06.0	
	comp=Z,26nm,0.8s						
BTO2	Baotou	41.11	340	eP	P	18 51 10.5	+1.5
BTO2				pP	pP	18 51 15.3	-4.3
BTO2				sP	pwP	18 51 17.6	-4.7
BTO2				pmax	pmax		
	comp=Z,25nm,0.6s						
BTO2				pmax	pmax		
	comp=Z,340nm,9.1s						
BTO2				L	L		
	comp=Z,2µm,31.1s						
BTO2				L	L		
	comp=Z,940nm,24.1s						
BTO2				L	L		
	comp=Z,3µm,22.9s						
CN2	Changchun	41.21	358	eP	P	18 51 10.4	+0.9
CN2				esP	pP	18 51 17.4	-2.7
CN2				eS	S	18 57 24.6	+4.1
CN2				pmax	pmax		
	comp=Z,10.0nm,0.8s						
CN2				pmax	pmax		
	comp=Z,100nm,5.0s						
CN2				L	L		
	comp=Z,100nm,17.0s						
CN2				L	L		
	comp=Z,100nm,17.0s						
ARPS	Mount Arapiles	41.42	162	P	P	18 51 11.8	+0.5
	comp=Z,30nm,0.8s						
AUMAG	Moama Anglican	41.81	158	P	P	18 51 16.2	+1.6
	comp=Z,85nm,1.0s						
USA0B	Ussuriysk Arra	41.83	6c	iP	P	18 51 15.7	+1.1
USA0B	Ussuriysk Arra	41.83	6	IAmb	IAmb	18 51 17.2	
	comp=Z,54nm,0.8s						
USRK	Ussuriysk Ar.	41.83	6	P	P	18 51 15.8	+1.2
	comp=Z,66nm,0.8s,baz=190,slow=7.4,SNR=77						
	comp=Z,66nm,0.8s						
USRK	Ussuriysk Ar.	41.83	6	P	P	18 51 15.3	+0.6
MGBR	Mount Gambier	41.93	164	P	P	18 51 14.1	-1.4
ERM	Erimo	42.03	18	P	P	18 51 17.3	+1.1
ERM				pmax	pmax		
	comp=Z,58nm,0.9s						
ERM	Erimo	42.03	18	P	P	18 51 17.3	+1.1
ERM				IAmb	IAmb	18 51 20.0	
	comp=Z,58nm,0.8s						
MDJ	Mudanjiang	42.07	3	P	P	18 51 17.5	+0.9
MDJ				S	S	18 57 31.3	-1.9
MDJ				SS	SS	19 00 38.1	-3.7
MDJ				ScS	ScS	19 01 17.3	+1.5
MDJ				pmax	pmax		
	comp=Z,47nm,1.2s						
MDJ				L	L		
	comp=Z,390nm,25.0s						
MDJ				L	L		
	comp=Z,290nm,24.8s						
MDJ				L	L		
	comp=Z,500nm,21.5s						
MDJ	Mudanjiang	42.07	3	P	P	18 51 17.6	+0.9
	comp=Z,47nm,0.9s						
MDJ	Mudanjiang	42.07	3		PcP	18 53 10.8	-0.1
MDJ	Mudanjiang	42.07	3	P	P	18 51 18.1	+1.5
H11S3	WAKE ISLAND Hy	42.13	65	T	T	19 36 30.1	
	baz=252,slow=75,SNR=7.9						
H11S1	WAKE ISLAND Hy	42.15	65	T	T	19 36 20.8	
	baz=252,slow=75,SNR=3.1						
H11S2	WAKE ISLAND Hy	42.15	65	T	T	19 36 42.8	
	baz=252,slow=75,SNR=7.5						
XLT	XiLinHaoTe	42.38	348	eP	P	18 51 20.4	+1.1
XLT				S	S	18 57 36.8	-1.3
XLT				pmax	pmax		
	comp=Z,84nm,0.9s						
XLT				pmax	pmax		
	comp=Z,160nm,3.9s						
XLT				L	L		
	comp=Z,34nm,23.7s						
XLT				L	L		
	comp=Z,280nm,21.1s						
XLT				L	L		
	comp=Z,560nm,23.7s						
SYDH	Sydney Hard Ro	42.45	150	P	P	18 51 21.0	+1.1
	comp=Z,51nm,0.8s						
DHUB	DHUBRI	42.48	307	eP	P	18 51 18.6	-1.6
DHUB				IAmb	IAmb	18 51 21.8	
BRAT	Ballarat	42.82	160	P	P	18 51 24.9	+2.2
	comp=Z,9.9nm,0.8s						
AUMTS	Mt Stromlo	42.90	153	P	P	18 51 24.3	+0.8
	comp=Z,141nm,1.0s						
CAN	Canberra	42.90	153	P	P	18 51 25.2	+1.7
CAN	Canberra	42.90	153	P	P	18 51 24.3	+0.8
	comp=Z,188nm,1.0s						
CAN	Canberra	42.90	153	P	P	18 51 23.6	+0.1
CAN				pmax	pmax		
	comp=Z,98nm,0.9s						
CAN	Canberra	42.90	153	P	P	18 51 23.6	+0.1
CAN				IAmb	IAmb	18 51 26.3	
	comp=Z,98nm,0.9s						
CAN	Canberra	42.90	153	P	P	18 51 25.2	+1.7
	comp=Z,122nm,1.0s						
CAN	Canberra	42.90	153	P	P	18 51 24.8	+1.3
AUMHS	Melrose High S	42.97	153	P	P	18 51 25.0	+0.9
	comp=Z,74nm,1.0s						
WOLH	Wollongong Har	43.04	150	P	P	18 51 26.0	+1.4
	comp=Z,75nm,0.9s						
CNB	Canberra Magne	43.06	153	P	P	18 51 26.3	+1.4
BNX	BinXian	43.13	1	⇓P	P	18 51 25.6	+0.4
BNX				pP	pP	18 51 28.9	-6.8
BNX				PP	PP	18 53 07.9	+2.0
BNX				S	S	18 57 50.3	+1.6
BNX				SS	SS	19 01 04.6	+2.1
BNX				pmax	pmax		
	comp=Z,16nm,0.8s						
BNX				pmax	pmax		
	comp=Z,190nm,6.2s						
BNX				L	L		
	comp=Z,330nm,15.7s						
BNX				L	L		
	comp=Z,270nm,13.0s						
BNX				L	L		
	comp=Z,470nm,24.9s						
TEY	Ternei	43.28	10	⇑eP	P	18 51 18.1	-8.3
TEY				pmax	pmax		
	comp=N,40nm,0.8s						
TEY				pmax	pmax		
	comp=Z,60nm,0.8s						
TOO	Toolangi	43.39	158	P	P	18 51 29.3	+1.8
TOO	Toolangi	43.39	158	P	P	18 51 27.4	-0.1
TOO				pmax	pmax		
	comp=Z,31nm,1.6s						
TOO	Toolangi	43.39	158	P	P	18 51 27.4	-0.1
LSA	Lhasa	43.41	312	IAmb	IAmb	18 51 30.7	
	comp=Z,41nm,0.7s						
LSA	Lhasa	43.41	312	P	P	18 51 28.7	+0.5
LSA	Lhasa	43.41	312	P	P	18 51 28.7	+0.5
AUUHS	Ulladulla High	43.61	152	P	P	18 51 31.2	+2.0
	comp=Z,74nm,0.9s						
AUSMG	Snowy Mountain	43.65	154	P	P	18 51 30.9	+1.3
	comp=Z,103nm,0.9s						
ASAJ	Asahikawa	43.78	16	P	P	18 51 31.4	+1.0
	comp=Z,50nm,0.8s,baz=231,slow=18,SNR=23						
	comp=Z,50nm,0.8s						
JKA	Kamikawa-asahi	43.78	16	P	P	18 51 31.0	+0.6
JKA				IAmb	IAmb	18 51 34.3	
	comp=Z,46nm,0.7s						
JKA	Kamikawa-asahi	43.78	16	P	P	18 51 31.5	+1.0
	comp=Z,67nm,0.8s						
GTA2	Gaotai	44.36	330	eP	P	18 51 35.0	-0.4
GTA2				PP	PP	18 53 19.8	+0.4
GTA2				ScP	ScP	18 57 08.3	+0.2
GTA2				ScS	ScS	19 01 28.8	-1.9
GTA2				pmax	pmax		
	comp=Z,23nm,0.8s						
GTA2				L	L		
	comp=Z,630nm,21.3s						
GTA2				L	L		
	comp=Z,420nm,20.0s						
GTA2				L	L		
	comp=Z,990nm,21.3s						
MILA	Mila	44.42	154	P	P	18 51 37.2	+1.5
GOMU	GeErMu	44.79	322	P	P	18 51 38.1	-1.0
GOMU				pP	pP	18 51 41.9	-7.9
GOMU				sP	pwP	18 51 46.5	-6.1
GOMU				SS	SS	19 01 31.8	-4.2
GOMU				pmax	pmax		
	comp=Z,11nm,0.9s						
GOMU				L	L		
	comp=Z,220nm,10.8s						
GOMU				L	L		
	comp=Z,330nm,10.4s						
BOK	Bokaro	44.95	302	eP	P	18 51 38.5	-1.6
BOK				IAmb	IAmb	18 51 39.9	
	comp=Z,12nm,0.3s						
VIS	Vishakhapatnam	45.33	293	eP	P	18 51 41.3	-2.0
RAGD	RAYAGADA	45.62	295	eP	P	18 51 43.5	-2.0
RAGD				IAmb	IAmb	18 51 46.1	
	comp=Z,29nm,1.3s						
DZM	Mont Dzumac	45.68	124	P	P	18 51 46.4	+0.4
	comp=Z,31nm,1.0s,baz=28,slow=8.2,SNR=5.4						
DZM				LR	LR	19 10 46.2	
	comp=Z,1µm,21.7s,baz=136,slow=36						
	comp=Z,31nm,1.0s						
EVN	Everest	45.88	308	P	P	18 51 46.6	-1.6
EVN	Everest	45.88	308	P	P	18 51 48.0	-0.3
	comp=Z,92nm,1.1s						
PALK	Pallekele	46.24	278	LR	LR	19 13 33.3	
	comp=Z,221nm,20.2s,baz=102,slow=39						
YSS	Yuzhno-Sakhali	46.44	15	P	P	18 51 52.0	+0.5
	comp=Z,66nm,1.1s						
YSS	Yuzhno-Sakhali	46.44	15	eP	P	18 51 52.1	+0.5
YSS				e		18 53 26.8	
YSS				eS	S	18 58 33.1	-3.6
YSS				pmax	pmax		
	comp=Z,200nm,3.6s						
YSS				pmax	pmax		
	comp=Z,40nm,0.8s						
YSS	Yuzhno-Sakhali	46.44	15	P	P	18 51 51.7	+0.2
YSS				IAmb	IAmb	18 51 53.1	
	comp=Z,33nm,0.7s						
YSS	Yuzhno-Sakhali	46.44	15	P	P	18 51 52.4	+0.8
	comp=Z,60nm,1.1s						
KLR	Kul'dur	46.81	4	P	P	18 51 55.0	+0.7
	comp=Z,30nm,0.8s,baz=200,slow=4.6,SNR=65						
KLR				PcP	PcP	18 53 27.9	+0.8
	comp=Z,8.3nm,0.8s,baz=199,slow=3.3,SNR=2.4						
KLR				LR	LR	19 16 08.5	
	comp=Z,101nm,18.6s,baz=192,slow=42						
	comp=Z,30nm,0.8s						
KLR	Kul'dur	46.81	4c	eP	P	18 51 54.7	+0.3
KLR				pmax	pmax		
	comp=Z,30nm,0.9s						
HIA	Hailar	47.05	354	P	P	18 51 57.8	+1.5
	comp=Z,24nm,1.2s						
HIA	Hailar	47.05	354	IAmb	IAmb	18 52 03.7	
	comp=Z,21nm,0.9s						
HILR	Hailar Array B	47.34	354	P	P	18 51 59.1	+0.5
	comp=Z,12nm,0.6s,baz=181,slow=10,SNR=22						
HILR				PcP	PcP	18 53 29.9	+0.9
	comp=Z,10nm,0.7s,baz=207,slow=6.3,SNR=7.0						
	comp=Z,12nm,0.6s						
HEH	HeiHe	47.65	0	eP	P	18 52 01.3	+0.4
HEH				sP	pP	18 52 11.0	-0.6
HEH				S	S	18 58 50.6	-3.2
HEH				pmax	pmax		
	comp=Z,33nm,0.8s						
HEH				L	L		
	comp=Z,270nm,19.2s						
HEH				L	L		
	comp=Z,190nm,17.6s						
HEH				L	L		
	comp=Z,600nm,23.9s						
ULN	Ulaanbaatar	48.39	342c	eP	P	18 52 07.8	+0.9
ULN				pmax	pmax		
	comp=Z,36nm,1.0s						
ULN	Ulaanbaatar	48.39	342	P	P	18 52 07.0	+0.2
ULN				IAmb	IAmb	18 52 10.6	
	comp=Z,37nm,0.9s						
ULN	Ulaanbaatar	48.39	342	P	P	18 52 07.6	+0.7
ULN	Ulaanbaatar	48.39	342	P	P	18 52 07.8	+0.9
	comp=Z,46nm,1.3s						
SONM	Songino Array	48.56	342	P	P	18 52 08.7	+0.5
	comp=Z,21nm,0.9s,baz=159,slow=8.9,SNR=53						
SONM				PcP	PcP	18 53 33.8	+0.3
	comp=Z,6.1nm,0.8s,baz=166,slow=3.3,SNR=2.7						
SONM				ScP	ScP	18 57 25.1	-0.3
	comp=Z,2.6nm,1.0s,baz=163,slow=5.0,SNR=5.0						
SONM				LR	LR	19 16 41.1	
	comp=Z,254nm,19.9s,baz=156,slow=41						
	comp=Z,21nm,0.9s						
SONM	Songino Array	48.56	342	P	P	18 52 08.2	+0.1
SONM				IAmb	IAmb	18 52 11.6	
	comp=Z,22nm,0.9s						
SONM				PcP	PcP	18 53 33.1	-0.4
GRNR	Gornyy	48.83	8	⇑iP	P	18 52 11.3	+1.3
GRNR				pmax	pmax		
	comp=N,20nm,0.8s						
GRNR				pmax	pmax		
	comp=Z,40nm,0.8s						
GRNR				MLR	MLR		
	comp=E,200nm,12.0s						
HYB	Hyderabad	49.70	291	eP	P	18 52 15.3	-1.9
HYB				IAmb	IAmb	18 52 17.2	
	comp=Z,23nm,0.7s						
HYB	Hyderabad	49.70	291	eP	P	18 52 16.2	-1.0
HYB				epP	pP	18 52 26.0	-2.0
HYB				ePcP	PcP	18 53 37.1	-1.0
HYB				eS	S	18 59 23.3	-0.5
HYB				eScS	ScS	19 02 05.5	-0.9
TYV	Tymovskoe	50.06	13	eP	P	18 52 20.5	+1.1
TYV				eS	S	18 59 30.9	+3.2
TYV				pmax	pmax		
	comp=Z,200nm,5.1s						
TYV				pmax	pmax		
	comp=Z,21nm,0.9s						
TYV				smax	smax		
	comp=N,200nm,5.5s						
TYV				smax	smax		
	comp=E,400nm,5.5s						
NGP	Nagpur	50.12	296	IAmb	IAmb	18 52 01.3	
	comp=Z,2.4nm,0.5s						
NGP				eP	P	18 52 20.0	-0.3
NFK	Norfolk Island	50.27	132	P	P	18 52 23.4	+2.0
CIT	Chita	50.66	349	eP	P	18 52 26.5	+2.5
CIT				e		18 52 33.5	
CIT				e		18 52 39.8	
CIT				e		18 53 42.1	
CIT				e		18 54 14.4	
CIT				e		18 55 11.8	
CIT				e		19 04 42.1	
CIT				pmax	pmax		
	comp=Z,115nm,1.7s						
ZEA	Zeya	51.13	0	eP	P	18 52 27.4	0.0
ZEA				pmax	pmax		
	comp=Z,10.0nm,0.7s						
ZAK	Zakamensk	51.79	341	eP	P	18 52 32.3	-0.2
ZAK				e		18 53 40.1	
ZAK				pmax	pmax		
	comp=Z,11nm,1.7s						
ZAK				pmax	pmax		
	comp=Z,10.0nm,0.9s						
PTH	Pithoragarh	51.84	306	eP	P	18 52 31.6	-1.8
PTH				IAmb	IAmb	18 52 37.5	
	comp=Z,7.9nm,0.6s						
BHPL	Bhopal	52.12	298	eP	P	18 52 33.6	-1.9
BHPL				IAmb	IAmb	18 52 34.9	
	comp=Z,19nm,0.6s						
TLY	Talaya	52.80	342	P	P	18 52 41.2	+1.3
IRK	Irkutsk	53.10	343	eP	P	18 52 43.2	+1.1
IRK				pmax	pmax		
	comp=Z,326nm,1.9s						
MOY	Mondy	53.64	340	eP	P	18 52 47.3	+1.1
MOY				pmax	pmax		
	comp=Z,68nm,1.8s						
UTK	UTTARKASHI	53.68	307	eP	P	18 52 45.7	-1.2
WMQ	Urumqi	53.86	326	eP	P	18 52 48.5	+0.5
WMQ				pP	pP	18 52 55.1	-3.7
WMQ				sP	pwP	18 52 59.4	-2.3
WMQ				pmax	pmax		
	comp=Z,23nm,0.7s						
WMQ				L	L		
	comp=Z,350nm,24.5s						
WMQ				L	L		
	comp=Z,310nm,22.9s						
WMQ				L	L		
	comp=Z,370nm,24.2s						
KLP	Kalpa	54.13	308	eP	P	18 52 48.6	-1.9
KLP				IAmb	IAmb	18 52 51.3	
	comp=Z,19nm,0.7s						
MSVF	Nonsavu	54.25	114	LR	LR	19 13 02.9	
	comp=Z,232nm,20.5s,baz=293,slow=33						
MSVF	Nonsavu	54.25	114	P	P	18 52 52.1	+0.9
	comp=Z,88nm,1.1s						
MSVF	Nonsavu	54.25	114	P	P	18 52 52.2	+1.0
MSVF				pmax	pmax		
	comp=Z,74nm,1.0s						
MSVF	Nonsavu	54.25	114	P	P	18 52 52.2	+1.0
MSVF	Nonsavu	54.25	114	P	P	18 52 53.3	+2.0
	comp=Z,87nm,1.1s						
MSVF	Nonsavu	54.25	114	P	P	18 52 53.1	+1.9
KUDL	Kundal	54.38	303	eP	P	18 52 50.3	-1.6
KUDL				IAmb	IAmb	18 52 51.1	
	comp=Z,264nm,1.2s						
SMLA	Simla	54.85	307	eP	P	18 52 53.9	-1.3
SMLA				IAmb	IAmb	18 52 56.9	
	comp=Z,33nm,0.8s						
DGAR	Diego Garcia	55.17	259	P	P	18 52 57.0	-0.9
DGAR				pmax	pmax		
	comp=Z,820nm,1.9s						
DGAR	Diego Garcia	55.17	259	P	P	18 52 57.0	-0.9
DGTI	Dogotuki	55.42	112	P	P	18 53 01.2	+1.6
	comp=Z,122nm,1.0s						
UDPR	Udaipur	55.75	298	eP	P	18 53 00.3	-1.6
DHRM	DHARAMSHALA	55.94	308	eP	P	18 53 02.2	-1.2
TSSA	Tissa	56.27	308	eP	P	18 53 03.6	-2.1
PEA0B	Petropavlovsk-	56.57	22c	eP	P	18 53 07.9	+0.7
PEA0B	Petropavlovsk-	56.57	22	IAmb	IAmb	18 53 19.6	
	comp=Z,38nm,0.9s						
PETK	Petropavlovsk-	56.57	22	P	P	18 53 08.1	+0.9
	comp=Z,16nm,0.8s,baz=196,slow=5.3,SNR=23						
	comp=Z,16nm,0.8s						
PETK	Petropavlovsk-	56.57	22	P	P	18 53 07.9	+0.7
PET	Petropavlovsk	56.86	22	P	P	18 53 09.7	+0.5
	comp=Z,179nm,1.1s						
PET	Petropavlovsk	56.86	22	eP	P	18 53 09.4	+0.2
PET				pmax	pmax		
	comp=Z,43nm,1.0s						
PET	Petropavlovsk	56.86	22	P	P	18 53 09.2	-0.1
PET				IAmb	IAmb	18 53 11.2	
	comp=Z,40nm,1.0s						
PET	Petropavlovsk	56.86	22	P	P	18 53 09.6	+0.5
	comp=Z,47nm,1.1s						

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ZSN   Zaisan            57.67 327  eP     P       18 53 14.9 -0.1
ZSN   Zaisan            57.67 327  eP     P       18 53 15.0 -0.1
DGZ   Jazzator, Alta    57.78 331 i P     P       18 53 15.9 -0.2
DGZ                                pmax   pmax
      comp=Z,9.0nm,0.7s
SHLS  Shalkode          58.43 321c iP     P       18 53 18.5 -2.1
SHLS                               pmax   pmax
      comp=Z,16nm,0.8s
SHLS  Shalkode          58.43 321⇑iP     P       18 53 18.6 -2.1
      comp=Z,16nm,0.8s
PDGK  Podgornoye        58.50 321  P      P       18 53 20.3 -0.9
PDGK  Podgornoye        58.50 321  P      P       18 53 20.3 -0.9
MK31  Makanchi Array    58.70 326ceP      P       18 53 21.9 -0.4
MKAR  Makanchi Array    58.70 326  P      P       18 53 21.9 -0.4
      comp=Z,23nm,0.6s,baz=123,slow=8.4,SNR=131
MKAR                               ScP    ScP     18 58 08.7 -0.8
      comp=Z,3.9nm,0.9s,baz=140,slow=4.3,SNR=5.9
MKAR                               LR     LR      19 20 26.6
      comp=Z,486nm,19.9s,baz=107,slow=38
MKAR                               PKP2bc P'P'bc  19 23 04.5 -5.9
      comp=Z,0.6nm,0.8s,baz=20,slow=3.9,SNR=3.8
      comp=Z,23nm,0.6s
MKAR  Makanchi Array    58.70 326ceP      P       18 53 21.8 -0.5
MKAR                               pmax   pmax
      comp=Z,23nm,0.6s
MKAR  Makanchi Array    58.70 326  P      P       18 53 21.4 -0.9
MKAR                               PcP    PcP     18 54 11.9  0.0
MKAR                                      ScP     18 58 08.6 -0.9
UZB   Uzynbulak         58.70 321c iP     P       18 53 22.3 -0.3
UZB                                pmax   pmax
      comp=Z,12nm,0.9s
UZB   Uzynbulak         58.70 321⇑iP     P       18 53 22.4 -0.3
      comp=Z,12nm,0.9s
TARG  Taragay, Kyrgy    58.81 319  IAmb   IAmb    18 53 33.8
      comp=Z,27nm,0.9s
NIL   Nilore            58.83 308  P      P       18 53 22.7 -0.8
NIL                                pmax   pmax
      comp=Z,21nm,0.9s
NIL   Nilore            58.83 308  P      P       18 53 22.7 -0.8
NIL                                IAmb   IAmb    18 53 50.8
      comp=Z,21nm,0.8s
NIL   Nilore            58.83 308  P      P       18 53 23.9 +0.4
      comp=Z,32nm,1.0s
MAKZ  Makanchi          58.88 326  P      P       18 53 22.8 -0.8
MAKZ                               pmax   pmax
      comp=Z,25nm,0.8s
MAKZ  Makanchi          58.88 326  P      P       18 53 22.8 -0.8
MAKZ                               IAmb   IAmb    18 53 26.9
      comp=Z,25nm,0.8s
MAKZ                               PcP    PcP     18 54 11.9 -0.7
MAKZ  Makanchi          58.88 326  P      P       18 53 23.6  0.0
      comp=Z,37nm,0.8s
MAKZ  Makanchi          58.88 326  P      P       18 53 23.3 -0.3
SATY  Saty              59.05 320  eP     P       18 53 24.7 -0.3
SATY                               pmax   pmax
      comp=Z,31nm,0.9s
SATY  Saty              59.05 320  eP     P       18 53 24.8 -0.3
      comp=Z,31nm,0.9s
KPKS  Kokpek            59.08 321  eP     P       18 53 24.9 -0.2
KPKS  Kokpek            59.08 321  eP     P       18 53 24.9 -0.2
KSH2  Kashi             59.19 315  P      P       18 53 25.9 -0.2
KSH2                               sP     pwP     18 53 41.3 +1.4
KSH2                               pmax   pmax
      comp=Z,21nm,1.0s
YAK   Yakutsk           59.49   2  LR     LR      19 21 04.5
      comp=Z,112nm,19.2s,baz=177,slow=38
YAK   Yakutsk           59.49   2  eP     P       18 53 26.5 -0.9
YAK                                e              18 54 13.9
YAK                                e              18 55 42.9
YAK                                eS     S       19 01 37.2 +3.3
YAK                                e              19 03 17.3
YAK                                eSS    SS      19 05 34.3 +4.7
YAK                                pmax   pmax
      comp=Z,93nm,0.8s
YAK                                pmax   pmax
      comp=N,7.0nm,0.8s
YAK                                pmax   pmax
      comp=E,5.0nm,0.9s
YAK                                pmax   pmax
      comp=Z,103nm,2.8s
YAK                                pmax   pmax
      comp=N,33nm,1.3s
YAK                                pmax   pmax
      comp=E,51nm,2.9s
YAK                                smax   smax
      comp=E,184nm,2.3s
YAK                                smax   smax
      comp=N,62nm,2.0s
YAK   Yakutsk           59.49   2  P      P       18 53 27.8 +0.4
YAK   Yakutsk           59.49   2  P      P       18 53 28.2 +0.8
      comp=Z,165nm,0.7s
YAK   Yakutsk           59.49   2  P      P       18 53 28.2 +0.8
JCZ   Jackson Bay       59.56 146  P      P       18 53 30.3 +1.9
      comp=Z,87nm,1.1s
NRN   Naryn             59.88 318  IAmb   IAmb    18 53 32.9
      comp=Z,21nm,0.9s
MA2   Magadan           59.92  14  P      P       18 53 31.8 +1.3
      comp=Z,64nm,0.8s
MA2   Magadan           59.92  14ceP      P       18 53 31.8 +1.3
MA2                                pmax   pmax
      comp=Z,42nm,0.9s
MA2   Magadan           59.92  14  P      P       18 53 31.1 +0.6
MA2                                PcP    PcP     18 54 17.3 +0.9
MA2   Magadan           59.92  14  P      P       18 53 31.7 +1.3
      comp=Z,667nmcomp=Z,62nm,0.8s
MA2                                pP     pP      18 53 38.6 -2.9
      comp=Z,667nmcomp=Z,62nm,0.8s
MA2   Magadan           59.92  14  P      P       18 53 32.0 +1.6
      comp=Z,56nm,0.8s
MA2   Magadan           59.92  14  P      P       18 53 31.8 +1.3
MDOK  Medeo             59.98 320  eP     P       18 53 31.1 -0.3
MDOK  Medeo             59.98 320  eP     P       18 53 31.1 -0.3
TNSS  Tian-Shan         59.98 320  eP     P       18 53 31.2 -0.5
TNSS  Tian-Shan         59.98 320  eP     P       18 53 31.2 -0.5
TDK   Taldyqorghan      60.02 322  eP     P       18 53 31.5  0.0
TDK                                pmax   pmax
      comp=Z,20nm,0.7s
TDK   Taldyqorghan      60.02 322  eP     P       18 53 31.5  0.0
      comp=Z,20nm,0.7s
AAA   Alma-Ata          60.08 320  eP     P       18 53 31.8 -0.2
AAA                                pmax   pmax
      comp=Z,42nm,1.2s
AAA   Alma-Ata          60.08 320  eP     P       18 53 31.9 -0.2
      comp=Z,42nm,1.2s
LBZ   Lake Benmore      60.54 146  P      P       18 53 34.9 -0.1
LBZ                                PcP    PcP     18 54 20.9 +1.6
THZ   Tophouse          60.60 142  P      P       18 53 35.1 -0.4
THZ                                IAmb   IAmb    18 53 37.3
      comp=Z,30nm,0.7s
RPZ   Rata Peaks        60.63 145  LR     LR      19 21 06.5
      comp=Z,105nm,18.4s,baz=320,slow=37
RPZ   Rata Peaks        60.63 145  P      P       18 53 34.6 -1.0
AAK   Ala-Archa         61.41 318  P      P       18 53 41.2  0.0
      comp=Z,11nm,0.8s,baz=180,slow=9.5,SNR=12
AAK                                LR     LR      19 24 00.9
      comp=Z,329nm,21.1s,baz=87,slow=40
      comp=Z,11nm,0.8s
AAK   Ala-Archa         61.41 318ceP      P       18 53 41.6 +0.4
AAK                                pmax   pmax
      comp=Z,9.0nm,0.8s
AAK   Ala-Archa         61.41 318  P      P       18 53 40.1 -1.1
AAK   Ala-Archa         61.41 318  P      P       18 53 41.3 +0.1
AAK   Ala-Archa         61.41 318  P      P       18 53 39.9 -1.3
      comp=Z,20nm,1.1s
AAK                                pP     pP      18 53 52.1 -0.1
RAO   Raoul Island      61.47 125  LR     LR      19 19 52.9
      comp=Z,186nm,19.4s,baz=304,slow=36
URZ   Urewera           61.51 136  LR     LR      19 22 12.8
      comp=Z,473nm,18.2s,baz=308,slow=38
OHH   Osh               61.70 315  P      P       18 53 41.7 -1.4
OHH   Osh               61.70 315  P      P       18 53 41.7 -1.4
      comp=Z,44nm,0.8s
ZAA0  Zalesovo Array    61.80 333  P      P       18 53 42.2 -1.2
ZALV  Zalesovo Beam     61.80 333  P      P       18 53 42.5 -0.9
      comp=Z,6.9nm,0.4s,baz=122,slow=7.0,SNR=34
ZALV                               PKP2bc P'P'bc  19 22 59.4 -3.0
      comp=Z,1.6nm,0.8s,baz=316,slow=4.1,SNR=6.0
ZALV                               LR     LR      19 23 35.6
      comp=Z,177nm,19.7s,baz=127,slow=39
      comp=Z,6.9nm,0.4s
ARSB  Arslanbob         61.89 316  IAmb   IAmb    18 53 46.2
      comp=Z,23nm,0.8s
DRK   Karamyk           62.00 314  P      P       18 53 45.7 +0.3
DRK   Karamyk           62.00 314  IAmb   IAmb    18 53 47.2
      comp=Z,31nm,0.9s
DRK   Karamyk           62.00 314  P      P       18 53 45.7 +0.3
      comp=Z,34nm,0.8s
KBL   Kabul             62.42 308  P      P       18 53 46.7 -1.5
KBL                                pmax   pmax
      comp=Z,20nm,0.8s
KBL   Kabul             62.42 308  P      P       18 53 46.7 -1.5
KBL                                IAmb   IAmb    18 53 48.6
      comp=Z,20nm,0.8s
KBL   Kabul             62.42 308  P      P       18 53 47.5 -0.8
      comp=Z,29nm,0.8s
ARK   Arkit             62.78 317  P      P       18 53 50.7 +0.4
ARK   Arkit             62.78 317  P      P       18 53 50.7 +0.4
      comp=Z,72nm,0.9s
KURBB Kurchatov Arra    62.90 328  P      P       18 53 50.8 +0.1
      comp=Z,38nm,0.6s,baz=130,slow=6.2,SNR=4.3
KURBB                              LR     LR      19 22 10.9
      comp=Z,104nm,19.3s,baz=166,slow=37
KURBB                              PKP2bc P'P'bc  19 22 57.1 -2.8
      comp=Z,1.9nm,1.0s,baz=298,slow=3.8,SNR=5.6
      comp=Z,38nm,0.6s
KURBB Kurchatov Arra    62.90 328  P      P       18 53 50.2 -0.6
KURK  Kurchatov         62.90 328⇑eP     P       18 53 50.9 +0.1
KURK                               pmax   pmax
      comp=Z,5.0nm,0.8s
KURK  Kurchatov         62.90 328  P      P       18 53 50.2 -0.6
KURK  Kurchatov         62.90 328  P      P       18 53 50.7 -0.1
      comp=Z,107nm,0.7s
KURK  Kurchatov         62.90 328  P      P       18 53 50.4 -0.4
AFI   Afiamalu          62.93 107  LR     LR      19 19 46.0
      comp=Z,143nm,18.6s,baz=357,slow=35
TRKS  Terek-Say         63.24 316  P      P       18 53 53.1 -0.4
SEY   Seymchan          63.25  13ceP      P       18 53 54.3 +1.4
SEY                                pmax   pmax
      comp=Z,35nm,0.9s
DZA   Taraz             63.64 317  eP     P       18 53 55.7 -0.2
DZA                                pmax   pmax
      comp=Z,12nm,1.0s
DZA   Taraz             63.64 317  eP     P       18 53 55.7 -0.2
      comp=Z,12nm,1.0s
KK31  Karatay Array     64.27 317 i P     P       18 53 59.4 -0.7
KK31  Karatay Array     64.27 317  P      P       18 53 59.0 -1.1
KK31                               IAmb   IAmb    18 54 01.6
      comp=Z,32nm,0.9s
KKAR  Karatay Array     64.27 317  P      P       18 53 59.1 -1.0
KKAR  Karatay Array     64.27 317  P      P       18 53 59.0 -1.0
CHM   Chimkent          64.60 316  eP     P       18 54 02.1 -0.1
CHM                                pmax   pmax
      comp=Z,7.0nm,0.5s
CHM   Chimkent          64.60 316  eP     P       18 54 02.1 -0.1
      comp=Z,6.7nm,0.5s
BRLS  Borolday          64.70 317  eP     P       18 54 02.5 -0.3
BRLS                               pmax   pmax
      comp=Z,11nm,1.0s
BRLS  Borolday          64.70 317  eP     P       18 54 02.6 -0.3
      comp=Z,11nm,1.0s
BVAR  Borovoye Array    68.48 327  P      P       18 54 26.8  0.0
      comp=Z,31nm,1.0s,baz=126,slow=7.5,SNR=35
      comp=Z,31nm,1.0s
BORK  Borovoye          68.53 327 i P     P       18 54 26.6 -0.4
BORK                               pmax   pmax
      comp=Z,7.0nm,0.8s
BORK  Borovoye          68.53 327  P      P       18 54 26.7 -0.4
BORK                               IAmb   IAmb    18 54 52.0
      comp=Z,34nm,0.9s
TIXI  Tiksi             69.12   1  LR     LR      19 27 12.7
      comp=Z,124nm,19.5s,baz=187,slow=38
TIXI  Tiksi             69.12   1ceP      P       18 54 30.7 +0.3
TIXI                               pmax   pmax
      comp=Z,43nm,1.0s
TIXI  Tiksi             69.12   1  P      P       18 54 29.9 -0.4
TIXI                               IAmb   IAmb    18 54 32.0
      comp=Z,37nm,0.9s
ATKA  Atka Island       69.47  34  P      P       18 54 33.8 +0.9
      comp=Z,134nm,0.9s
ATKA  Atka Island       69.47  34  P      P       18 54 33.1 +0.2
CASY  Casey             69.56 187  P      P       18 54 34.5 +1.3
      comp=Z,26nm,1.2s
CASY  Casey             69.56 187  P      P       18 54 34.1 +1.0
DRV   Dumont d'Urvil    69.58 174  P      P       18 54 33.3 +0.1
BILL  Bilibino          70.76  15 i P     P       18 54 41.7 +1.2
BILL                               pmax   pmax
      comp=Z,7.0nm,1.0s
BILL                               MLR    MLR
      comp=Z,276nm,21.0s
SOHO  SOHO              71.08 295  P      P       18 54 41.9 -1.4
UOSS  Minazif           71.46 295  P      P       18 54 43.9 -1.7
UOSS  Minazif           71.46 295  P      P       18 54 44.2 -1.4
HATD  Hatta, Dubai      71.52 295  P      P       18 54 44.7 -1.2
ASHO  Ashiyiah          71.57 295  P      P       18 54 45.1 -1.2
NRIK  Noril'sk          71.71 346  P      P       18 54 46.5 +0.3
      comp=Z,33nm,0.7s,baz=127,slow=5.8,SNR=38
NRIK                               LR     LR      19 30 45.1
      comp=Z,177nm,19.2s,baz=142,slow=40
      comp=Z,33nm,0.7s
NRIK  Noril'sk          71.71 346ceP      P       18 54 46.5 +0.3
NRIK                               pmax   pmax
      comp=Z,26nm,0.8s
NRIK  Noril'sk          71.71 346  IAmb   IAmb    18 54 48.1
      comp=Z,33nm,0.8s
ALNE  Al Ain            71.78 294  P      P       18 54 47.0 -0.6
AB31  Akbulak array     73.24 321 i P     P       18 54 55.3 -0.4
ABKAR Akbulak array     73.24 321  P      P       18 54 55.2 -0.5
MZR   Muzera            73.77 293  P      P       18 54 58.9 -0.5
UNV   Unalaska Valle    74.40  34  P      P       18 55 03.3 +0.9
      comp=Z,53nm,0.8s
UNV   Unalaska Valle    74.40  34  IAmb   IAmb    18 55 10.4
      comp=Z,38nm,0.8s
AKTO  Aktyubinsk        74.76 322  LR     LR      19 31 31.9
      comp=Z,228nm,21.7s,baz=97,slow=39
LVA   Lava Point        74.76  34  P      P       18 55 05.1 +0.6
AKUT  Akutan            74.90  34  P      P       18 55 06.8 +1.5
      comp=Z,173nm,1.0s
SVE   Sverdlovsk        75.13 329ceP      P       18 55 06.9 +0.3
SVE                                eS     S       19 04 37.7 -4.5
SVE                                pmax   pmax
      comp=Z,114nm,0.9s
RAR   Rarotonga         75.41 113  LR     LR      19 29 51.3
      comp=Z,48nm,18.1s,baz=286,slow=37
ARTI  Arti              76.18 328  LR     LR      19 31 12.8
      comp=Z,144nm,21.1s,baz=100,slow=38
ARTI  Arti              76.18 328c iP     P       18 55 11.9 -0.7
ARTI                               S      S       19 04 57.0 +3.2
ARTI                               pmax   pmax
      comp=Z,62nm,0.9s
ARTI  Arti              76.18 328  P      P       18 55 12.3 -0.3
CCD   Concordia, Ant    77.46 181  P      P       18 55 20.9 +1.0
POHA  Pohakuloa         77.50  70  P      P       18 55 22.7 +1.6
MLH   Mauna Loa         77.63  71  P      P       18 55 22.8 +1.0
K13K  Kusilvak Mount    77.84  27  IAmb   IAmb    18 55 24.7
      comp=Z,33nm,0.8s
STCH  Steam Cracks      77.88  71  P      P       18 55 23.4 +0.4
SDPT  Sand Point        78.18  34  P      P       18 55 25.3 +1.5
      comp=Z,137nm,1.0s
L14K  Kuka Creek        78.57  28  P      P       18 55 26.8 +1.0
L14K                               IAmb   IAmb    18 55 28.8
      comp=Z,50nm,0.9s
LKRN  Lenkeran, Azer    79.19 309  P      P       18 55 31.5 +1.7
K15K  Wolf Creek Mou    79.35  27  IAmb   IAmb    18 55 33.2
      comp=Z,45nm,0.9s
N15K  Kwethluk River    79.49  29  IAmb   IAmb    18 55 33.7
      comp=Z,28nm,1.0s
J16K  Anvik River       80.02  26  IAmb   IAmb    18 55 36.9
      comp=Z,33nm,0.8s
L16K  Owhat River       80.15  28  IAmb   IAmb    18 55 37.1
      comp=Z,38nm,0.9s
AKT   Akhty             80.26 312  eP     P       18 55 35.4 -0.3
AKT                                e              18 55 41.7
AKT                                e              18 58 32.6
AKT                                eS     S       19 05 38.3 -0.2
AKT                                pmax   pmax
      comp=Z,68nm,1.4s
AKT                                MLR    MLR
      comp=Z,542nm,22.0s
O16K  Kokwok River B    80.35  30  IAmb   IAmb    18 55 38.1
      comp=Z,26nm,0.9s
MAK   Makhachkala       80.56 313d iP     P       18 55 35.5 -1.6
MAK                                e              18 58 36.8
MAK                                eS     S       19 05 39.6 -1.7
MAK                                eSS    SS      19 10 53.6 -0.7
MAK                                eSSS   SSS     19 14 19.2
MAK                                pmax   pmax
      comp=Z,266nm,1.2s
F17K  Baldwin Pennin    80.58  23  IAmb   IAmb    18 55 39.5
      comp=Z,19nm,0.8s
SEKA  Sheki             80.63 311  P      P       18 55 38.9 +1.3
MNGR  Mingechevir, A    80.68 311  P      P       18 55 39.5 +1.7
J17K  VABM Dome         80.72  26  IAmb   IAmb    18 55 40.6
      comp=Z,31nm,0.8s
H17K  Granite Mounta    80.73  24  IAmb   IAmb    18 55 40.6
      comp=Z,60nm,1.4s
K17K  Iditarod          80.91  27  IAmb   IAmb    18 55 41.8
      comp=Z,55nm,0.9s
ABPO  Ambohimpanom      81.02 250  P      P       18 55 39.7 -0.5
ABPO                               pmax   pmax
      comp=Z,14nm,0.8s
ABPO  Ambohimpanom      81.02 250  P      P       18 55 39.7 -0.5
ABPO  Ambohimpanom      81.02 250  P      P       18 55 41.1 +0.9
      comp=Z,24nm,0.8s
RAYN  Ar Rayn           81.12 293 ⇑P     P       18 55 40.4 -0.2
RAYN  Ar Rayn           81.12 293  P      P       18 55 40.0 -0.6
RAYN  Ar Rayn           81.12 293  P      P       18 55 40.1 -0.6
RAYN  Ar Rayn           81.12 293  P      P       18 55 40.4 -0.2
      comp=Z,24nm,0.8s
RAYN  Ar Rayn           81.12 293  P      P       18 55 40.0 -0.6
GANJ  Ganja             81.25 311  P      P       18 55 41.9 +1.0
KIRV  Kirov             81.40 329ceP      P       18 55 41.5 +0.3
BELG  Belogornoye       81.52 323  eP     P       18 55 41.6 -0.3
BELG                               pmax   pmax
      comp=Z,20nm,0.9s
L18K  Granite Mounta    81.54  27  IAmb   IAmb    18 55 45.0
      comp=Z,24nm,0.9s
VOI   Vohitsoka         81.71 248  IAmb   IAmb    18 55 45.4
      comp=Z,29nm,0.8s
VOI   Vohitsoka         81.71 248  P      P       18 55 44.4 +0.5
      comp=Z,40nm,0.8s
NAX   Nakhchivan        81.78 309  P      P       18 55 45.4 +1.6
FOMA  Nahampoana Res    81.88 244  IAmb   IAmb    18 55 48.0
      comp=Z,25nm,0.8s
C19K  Lookout Ridge     81.89  20  IAmb   IAmb    18 55 47.0
      comp=Z,40nm,0.8s
VNDA  Vanda             82.13 173  P      P       18 55 45.1 +0.4
      comp=Z,27nm,0.9s,baz=314,slow=6.0,SNR=130
VNDA                               LR     LR      19 33 01.7
      comp=Z,68nm,20.2s,baz=338,slow=36
      comp=Z,27nm,0.9s
VNDA  Vanda             82.13 173  IAmb   IAmb    18 55 46.6
      comp=Z,22nm,0.8s
VNDA  Vanda             82.13 173  P      P       18 55 45.3 +0.5
      comp=Z,31nm,0.9s
VNDA  Vanda             82.13 173  P      P       18 55 45.2 +0.5
G19K  Purcell Mounta    82.15  23  IAmb   IAmb    18 55 47.9
      comp=Z,28nm,0.8s
N19K  Bonanza Creek     82.34  29  IAmb   IAmb    18 55 59.7
      comp=Z,30nm,1.1s
E19K  Redstone River    82.37  22  IAmb   IAmb    18 55 49.2
      comp=Z,40nm,0.9s
L19K  White Mountain    82.38  28  IAmb   IAmb    18 55 49.3
      comp=Z,26nm,1.0s
GNI   Garni             82.42 310 i P     P       18 55 47.6 +0.4
GNI                                pmax   pmax
      comp=Z,30nm,1.0s
GNI   Garni             82.42 310  P      P       18 55 49.3 +2.0
      comp=Z,36nm,0.8s
MAW   Mawson            82.60 200  P      P       18 55 48.0 +0.7
      comp=Z,31nm,0.9s,baz=72,slow=5.0,SNR=55
MAW                                LR     LR      19 31 00.9
      comp=Z,38nm,21.0s,baz=76,slow=35
      comp=Z,31nm,0.9s
MAW   Mawson            82.60 200  P      P       18 55 48.0 +0.7
MAW   Mawson            82.60 200  P      P       18 55 47.7 +0.4
MAW   Mawson            82.60 200  P      P       18 55 48.2 +0.9
      comp=Z,6.4nm,0.8s
D20K  Etivluk River     82.85  21  IAmb   IAmb    18 56 14.0
      comp=Z,53nm,1.1s
F20K  Avaraart Lake     82.86  23  IAmb   IAmb    18 55 51.9
      comp=Z,31nm,1.2s
KDAK  Kodiak Island     82.90  32  LR     LR      19 26 26.4
      comp=Z,134nm,20.2s,baz=243,slow=31
KDAK  Kodiak Island     82.90  32  P      P       18 55 49.7 +0.6
KDAK                               pmax   pmax
      comp=Z,166nm,1.9s
KDAK  Kodiak Island     82.90  32  P      P       18 55 49.7 +0.6
K20K  Telida            82.92  26  IAmb   IAmb    18 55 52.3
      comp=Z,45nm,1.0s
OZAP  Van, Ozalp-Mer    82.92 308 ⇑P     P       18 55 51.3 +1.3
SBA   Scott Base        83.04 172  P      P       18 55 50.3 +0.8
SBA                                pmax   pmax
      comp=Z,19nm,1.2s
SBA   Scott Base        83.04 172  P      P       18 55 50.3 +0.8
SBA   Scott Base        83.04 172  P      P       18 55 51.0 +1.5
      comp=Z,14nm,1.3s
SBA   Scott Base        83.04 172  P      P       18 55 51.0 +1.5
HAKT  HAKKARI           83.10 307  P      P       18 55 51.8 +0.8
      comp=Z,84nm,1.1s
NCK   Nalchik           83.45 313 i P     P       18 55 51.9 -0.4
NCK                                pmax   pmax
      comp=Z,25nm,0.9s
IMAR  Indian Mountai    83.46  24  P      P       18 55 53.0 +1.2
G21K  Allakaket         83.64  23  IAmb   IAmb    18 55 55.6
      comp=Z,31nm,0.9s
ATD   Arta Tunnel       83.67 281  IAmb   IAmb    18 55 58.3
      comp=Z,23nm,0.9s
ATD   Arta Tunnel       83.67 281  P      P       18 55 55.6 +1.6
      comp=Z,30nm,0.9s
STLK  Strandline Lak    83.71  28  IAmb   IAmb    18 55 54.6
      comp=Z,20nm,1.0s
H21K  Melozitna Rive    83.80  24  IAmb   IAmb    18 55 56.6
      comp=Z,31nm,0.9s
GOF   Gofitskoye        83.92 315ceP      P       18 55 55.0 +0.3
KBZ   Khabaz            83.97 314  P      P       18 55 55.2 +0.3
      comp=Z,9.7nm,0.8s,baz=121,slow=2.9,SNR=14
KBZ                                LR     LR      19 38 45.9
      comp=Z,102nm,21.1s,baz=52,slow=40
      comp=Z,9.7nm,0.8s
KBZ   Khabaz            83.97 314ceP      P       18 55 55.4 +0.5
KBZ                                pmax   pmax
      comp=Z,18nm,1.2s
EPOS  Posof             84.01 311  P      P       18 55 57.0 +1.7
      comp=Z,46nm,1.0s
I21K  Tanana            84.08  25  IAmb   IAmb    18 55 57.9
      comp=Z,31nm,1.1s
NEUR  Neytrino          84.09 313 i P     P       18 55 55.2 -0.6
NEUR                               pmax   pmax
      comp=Z,15nm,1.0s
KVAR  Kislovodsk Arr    84.12 314  LR     LR      19 38 23.6
      comp=Z,114nm,21.6s,baz=246,slow=39
KIV   Kislovodsk        84.13 314  eP     P       18 55 56.4 +0.5
KIV                                e              19 06 19.0
KIV                                pmax   pmax
      comp=Z,31nm,1.1s
KIV                                pmax   pmax
      comp=Z,16nm,3.0s
KIV   Kislovodsk        84.13 314  P      P       18 55 55.7 -0.1
KIV   Kislovodsk        84.13 314  P      P       18 55 55.8 -0.1
KIV   Kislovodsk        84.13 314 ⇑P     P       18 55 56.0 +0.1
KIV   Kislovodsk        84.13 314  P      P       18 55 56.2 +0.3
      comp=Z,351nmcomp=Z,37nm,1.0s
KIV   Kislovodsk        84.13 314  P      P       18 55 56.6 +0.7
      comp=Z,47nm,1.0s
KIV   Kislovodsk        84.13 314  P      P       18 55 56.6 +0.7
SHA1  Shidzhatmaz       84.14 314ceP      P       18 55 55.9 -0.2
D22K  Ayikyak River     84.29  21  IAmb   IAmb    18 56 24.9
      comp=Z,29nm,1.2s
H22K  Ishtalitna Cre    84.41  24  IAmb   IAmb    18 55 59.8
      comp=Z,24nm,1.1s
E22K  Anaktuvuk Pass    84.51  22  P      P       18 55 58.6 +1.3
MLY   Manley            84.58  25  IAmb   IAmb    18 56 00.0
      comp=Z,15nm,0.9s
PPT   Papeete           84.58 108  LR     LR      19 31 04.2
      comp=Z,112nm,19.3s,baz=290,slow=34
PPT2  Papeete2          84.58 108  eLR    LR      19 22 34.4
      comp=Z,556nm,28.8s
PPT2                               eLR    LR      19 22 41.3
      comp=Z,330nm,32.0s
HOMI  Horasan           84.59 310 ⇑P     P       18 56 00.1 +1.6
TRF   Thorofare Moun    84.62  27  IAmb   IAmb    18 56 27.5
      comp=Z,31nm,1.2s
PMR   Palmer            85.00  29  P      P       18 56 00.9 +1.2
      comp=Z,50nm,1.0s
PMR   Palmer            85.00  29  IAmb   IAmb    18 56 01.2
      comp=Z,34nm,0.9s
COLD  Coldfoot          85.02  23  IAmb   IAmb    18 56 03.3
      comp=Z,21nm,0.9s
G23K  Bananza Creek     85.04  23  IAmb   IAmb    18 56 03.0
      comp=Z,34nm,1.1s
VRH   Novokhopyorsk     85.07 321  eP     P       18 56 00.2 -0.1
VRH                                pmax   pmax
      comp=Z,82nm,0.8s
H23K  Yukon River       85.15  24  IAmb   IAmb    18 56 38.6
      comp=Z,31nm,1.3s
E23K  Chandalar         85.32  22  IAmb   IAmb    18 56 05.1
      comp=Z,23nm,0.8s
LABN  Labinsk           85.56 314  eP     P       18 56 03.4 +0.5
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LABN                                  eS     SKSac   19 06 28.4 +3.1
LABN                                   pmax  pmax
      comp=Z,66nm,1.2s
KOPT  Kop Dagi          85.67 310  P      P       18 56 06.1 +2.2
WRH   Wood River Hil    85.67  26  IAmb   IAmb    18 56 55.7
      comp=Z,39nm,1.8s
D24K  Happy Valley      85.70  21  IAmb   IAmb    18 56 07.0
      comp=Z,27nm,0.8s
ERBR  Yeremizino-Bor    85.75 315 eP      P       18 56 04.0 +0.2
ERBR                              eS      SKSac   19 06 28.6 +2.1
ERBR                               pmax   pmax
      comp=Z,87nm,1.1s
F24K  Squaw Lake        85.94  23  IAmb   IAmb    18 56 08.1
      comp=Z,14nm,0.9s
VSLR  Vesyoloye         86.04 313 i P     P       18 56 05.0 -0.4
VSLR                               pmax   pmax
      comp=Z,105nm,0.8s
IL31                    86.20  25  IAmb   IAmb    18 59 14.6
      comp=Z,39nm,2.0s
ILAR  Eielson Array     86.20  25  P      P       18 56 05.8 +0.1
      comp=Z,2.7nm,0.8s,baz=232,slow=5.3,SNR=14
ILAR                               PP     PP      18 59 24.5 -2.0
      comp=Z,0.9nm,0.9s,baz=265,slow=6.9,SNR=4.1
ILAR                               PKKPbc PKKPbc  19 14 04.8 -2.2
      comp=Z,0.6nm,0.7s,baz=90,slow=2.5,SNR=4.8
      comp=Z,2.7nm,0.8s
ILAR  Eielson Array     86.20  25  P      P       18 56 04.8 -0.9
KTUT  Trabzon           86.23 311 ⇑P      P       18 56 09.7 +3.3
SOC   Sochi             86.27 313 eP      P       18 56 05.6 -0.9
SOC                               eS      SKSac   19 06 28.8 -1.0
SOC                               eSSS    SSS     19 15 48.7
SOC                                pmax   pmax
      comp=Z,56nm,0.9s
KLMR  Klimovskoe        86.60 331 eP      P       18 56 06.2 -1.5
KLMR                               S      SKSac   19 06 31.7 +0.6
KLMR                               pmax   pmax
      comp=Z,71nm,1.4s
DIV   Divide            86.60  29  IAmb   IAmb    18 56 37.1
      comp=Z,29nm,1.0s
KELT  Kelkit            86.62 310  P      P       18 56 09.9 +1.4
      comp=Z,198nm,0.9s
VORR  Voronezh          86.65 321 eP      P       18 56 08.3 +0.2
VORR                               pmax   pmax
      comp=Z,78nm,0.8s
VSR   Storozhevoye      86.68 321 eP      P       18 56 08.2 -0.1
VSR                                pmax   pmax
      comp=Z,53nm,0.9s
LPSR  Galich'ya Gora    86.83 322 eP      P       18 56 09.5 +0.5
LPSR                               pmax   pmax
      comp=Z,59nm,1.0s
E25K  Arctic Village    86.84  22  IAmb   IAmb    18 56 12.1
      comp=Z,22nm,0.9s
RIDG  Independent Ri    87.07  26  IAmb   IAmb    18 56 32.8
      comp=Z,16nm,1.0s
BMAR  Burnt Mountain    87.21  23  P      P       18 56 11.6 +1.0
ARPR  Arapgir-MALATY    87.34 309  P      P       18 56 13.1 +1.1
      comp=Z,64nm,1.1s
C27K  Jago River        87.53  21  IAmb   IAmb    18 56 14.4
      comp=Z,20nm,0.8s
MOS   Moscow            87.58 326 eP      P       18 56 12.6 +0.1
MOS                               eS      S       19 06 46.3 -4.8
MOS                                pmax   pmax
      comp=Z,62nm,0.8s
L26K  Log Cabin Wild    87.75  27  IAmb   IAmb    18 56 38.3
      comp=Z,27nm,1.7s
ANN   Anapa             87.90 315 eP      P       18 56 13.9 -0.4
ANN                               e*PP    PcP     18 56 17.4 +1.3
ANN                               eS      SKSac   19 06 41.0 +1.3
ANN                                pmax   pmax
      comp=Z,101nm,0.8s
OBN   Obninsk           88.20 325  LR     LR      19 38 08.3
      comp=Z,157nm,20.7s,baz=21,slow=37
OBN   Obninsk           88.20 325d iP     P       18 56 15.0 -0.5
OBN                                pmax   pmax
      comp=Z,46nm,1.0s
OBN                                MLR    MLR
      comp=Z,149nm,18.0s
OBN   Obninsk           88.20 325  P      P       18 56 14.9 -0.5
      comp=Z,62nm,1.5s
GAZ   Gaziantep         88.28 307  P      P       18 56 16.4  0.0
K27K  Chicken           88.29  26  IAmb   IAmb    18 56 18.8
      comp=Z,20nm,0.9s
E27K  Coleen River      88.33  22  IAmb   IAmb    18 56 18.5
      comp=Z,13nm,0.9s
I27K  Kandik River      88.42  25  IAmb   IAmb    18 56 19.0
      comp=Z,16nm,0.8s
BCAR  Beaver Creek A    88.45  27  P      P       18 56 17.0 +0.4
D27M  Malcolm River     88.51  21  IAmb   IAmb    18 56 33.0
      comp=Z,13nm,0.9s
TOKA  Tokat             88.74 310  IAmb   IAmb    18 56 21.5
      comp=Z,17nm,0.7s
KIBK  Kibwezi           88.93 268  P      P       18 56 22.4 +2.4
      comp=Z,25nm,1.1s
ANDN  Andirin           88.95 307  P      P       18 56 20.8 +1.1
      comp=Z,138nm,1.2s
E28M  Babbage River     89.06  21  IAmb   IAmb    18 56 21.3
      comp=Z,17nm,1.1s
APA   Apatity           89.10 337 eP      P       18 56 19.3 -0.2
APA                               e               18 59 47.0
I28M  Miner Creek       89.13  25  IAmb   IAmb    18 56 21.8
      comp=Z,10nm,0.8s
BNN   Bunyan            89.29 309  IAmb   IAmb    18 56 23.8
      comp=Z,18nm,1.1s
HSUJ  Al Zarqa          89.30 302  P      P       18 56 23.6 +2.3
KMBO  Kilima Mbogo      89.67 269  P      P       18 56 24.4 +0.8
      baz=63,slow=4.6
GEM   Giv'at Ha'Em      89.70 303  P      P       18 56 26.0 +2.9
G29M  Pine Creek        89.78  23  IAmb   IAmb    18 56 30.7
      comp=Z,18nm,1.1s
QRNJ  Al-Qirein         89.81 302  P      P       18 56 26.3 +2.7
HSNJ  Maan              89.81 300  P      P       18 56 26.7 +2.9
I29M  Ogilvie Camp,     89.82  25  IAmb   IAmb    18 58 25.2
      comp=Z,15nm,0.5s
GHAJ  Ghor Haditha      89.87 301  P      P       18 56 26.1 +2.2
GHAJ  Ghor Haditha      89.87 301  P      P       18 56 25.8 +1.9
      comp=Z,59nm,1.0s
UJAP  Al Uja            89.92 302  P      P       18 56 26.0 +1.9
      comp=Z,30nm,1.5s
MMLI  Mount Malkishu    89.94 302  P      P       18 56 26.6 +2.3
      comp=Z,34nm,1.4s
L29M  L29M              90.11  27  IAmb   IAmb    18 56 27.0
      comp=Z,20nm,0.9s
SALP  Salfit            90.15 302  P      P       18 56 27.9 +2.6
HRFI  Mount Harif       90.39 300  P      P       18 56 28.0 +1.6
HRFI  Mount Harif       90.39 300  P      P       18 56 27.2 +0.8
      comp=Z,22nm,1.6s
PRNI  Paran             90.40 300  P      P       18 56 27.8 +1.4
AMAZ  Amatzia           90.41 301  P      P       18 56 29.5 +3.0
EIL   Elat              90.48 300  LR     LR      19 44 42.6
      comp=Z,57nm,18.0s,baz=94,slow=41
EIL   Elat              90.48 300  P      P       18 56 28.2 +1.4
EIL   Elat              90.48 300  P      P       18 56 25.6 -1.2
      comp=Z,14nm,0.9s
F30M  Barrier River     90.57  22  IAmb   IAmb    18 56 38.1
      comp=Z,15nm,1.1s
J30M  Hart River        90.74  25  IAmb   IAmb    18 56 38.1
      comp=Z,26nm,1.8s
KIRS  Kirsehir-Merke    90.78 309 ⇑P      P       18 56 27.1 -1.0
ILGA  Ilgaz             90.80 311  P      P       18 56 26.4 -1.9
ILGA                               IAmb   IAmb    18 56 30.5
      comp=Z,20nm,0.9s
KZIT  Kziot             90.89 301  P      P       18 56 31.1 +2.4
KZIT  Kziot             90.89 301  P      P       18 56 30.9 +2.2
      comp=Z,34nm,1.3s
BR131 Keskin Array S    90.95 310 i P     P       18 56 28.2 -0.8
BR131 Keskin Array S    90.95 310  IAmb   IAmb    18 56 30.8
      comp=Z,12nm,0.8s
BRTR  Keskin Array B    90.95 310  P      P       18 56 28.5 -0.5
      comp=Z,7.7nm,0.8s,baz=126,slow=3.8,SNR=35
BRTR                               PP     PP      19 00 04.4 -1.0
      comp=Z,1.0nm,0.8s,baz=108,slow=8.0,SNR=3.9
BRTR                               LR     LR      19 44 00.6
      comp=Z,48nm,20.4s,baz=77,slow=40
      comp=Z,7.7nm,0.8s
BRTR  Keskin Array B    90.95 310  P      P       18 56 27.5 -1.4
G31M  Satah River       91.25  23  IAmb   IAmb    18 56 30.5
      comp=Z,15nm,1.0s
SYO   Syowa Base        91.28 201⇑eP      P       18 56 28.9 -0.7
INK   Inuvik            91.30  22  LR     LR      19 37 36.1
      comp=Z,42nm,21.7s,baz=253,slow=36
INK   Inuvik            91.30  22  P      P       18 56 28.8 -0.9
INK   Inuvik            91.30  22  P      P       18 56 28.8 -0.9
      comp=Z,7.8nm,1.0s
LODK  Lodwar            91.37 273  P      P       18 56 33.2 +1.9
      comp=Z,7.2nm,1.0s
F31M  Tsiigehtchic      91.37  22  IAmb   IAmb    18 56 36.0
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      comp=Z,35nm,1.6s
CSS   Mathiatis         91.53 305  P      P       18 56 29.8 -1.8
      comp=Z,35nm,0.9s
KKUL  Konya-Kulu        91.55 309  P      P       18 56 31.8 +0.1
      comp=Z,31nm,1.3s
ARCES ARCESS Array B    91.70 340  P      P       18 56 30.9 -0.8
      comp=Z,14nm,0.7s,baz=76,slow=6.4,SNR=19
ARCES                              LR     LR      19 41 26.0
      comp=Z,161nm,21.2s,baz=63,slow=38
      comp=Z,14nm,0.7s
ARCES ARCESS Array B    91.70 340  P      P       18 56 30.7 -0.9
SPITS Spitsbergen Ar    91.77 349  P      P       18 56 31.1 -0.7
      comp=Z,14nm,0.7s,baz=89,slow=5.3,SNR=8.1
SPITS                              LR     LR      19 45 10.5
      comp=Z,103nm,18.2s,baz=60,slow=40
      comp=Z,14nm,0.7s
QSPA  South Pole Qui    92.35 180  P      P       18 56 35.4 +0.6
      comp=Z,13nm,0.9s,baz=322,slow=1.7,SNR=21
      comp=Z,13nm,0.9s
QSPA  South Pole Qui    92.35 180  P      P       18 56 34.9 +0.1
QSPA                               IAmb   IAmb    18 56 40.2
      comp=Z,14nm,0.9s
AKASG Malin Array Be    92.98 321  P      P       18 56 36.6 -1.3
      comp=Z,4.9nm,0.8s,baz=73,slow=4.0,SNR=11
AKASG                              LR     LR      19 41 57.7
      comp=Z,207nm,21.1s,baz=36,slow=38
      comp=Z,4.9nm,0.8s
AKASG Malin Array Be    92.98 321ceP      P       18 56 40.2 +2.3
AKASG                              pmax   pmax
      comp=Z,3.0nm,0.6s
AKASG Malin Array Be    92.98 321  P      P       18 56 37.0 -0.8
AKBB  Malin Array Si    92.98 321ceP      P       18 56 37.5 -0.4
AKBB                               pmax   pmax
      comp=Z,12nm,1.1s
AKBB  Malin Array Si    92.98 321  IAmb   IAmb    18 56 40.9
      comp=Z,9.6nm,0.9s
KIEV  Kiev              92.99 321  P      P       18 56 37.0 -0.9
KIEV                               pmax   pmax
      comp=Z,9.0nm,0.9s
KIEV  Kiev              92.99 321  P      P       18 56 37.0 -0.9
KIEV                               IAmb   IAmb    18 56 40.9
      comp=Z,8.6nm,0.9s
KIEV  Kiev              92.99 321  P      P       18 56 37.1 -0.9
KIEV  Kiev              92.99 321 ⇑P      P       18 56 36.5 -1.4
KIEV  Kiev              92.99 321  P      P       18 56 38.3 +0.3
      comp=Z,11nm,1.0s
P33M  Teslin, Yukon     93.02  29  IAmb   IAmb    18 57 28.8
      comp=Z,17nm,1.6s
FINES FINESS Array B    93.03 332  P      P       18 56 37.7 -0.1
      comp=Z,3.6nm,0.7s,baz=48,slow=2.8,SNR=9.6
FINES                              LR     LR      19 42 42.5
      comp=Z,93nm,19.9s,baz=64,slow=38
      comp=Z,3.6nm,0.7s
FINES FINESS Array B    93.03 332 i P     P       18 56 37.4 -0.5
FINES                              pmax   pmax
      comp=Z,4.0nm,0.6s
FINES FINESS Array B    93.03 332  P      P       18 56 37.4 -0.5
MNK   Minsk             93.25 325 i P     P       18 56 39.0  0.0
MNK                               i               19 00 22.6
MNK                               i PPP   PPP     19 02 22.6
MNK                               i S     SKSac   19 07 12.9 +2.8
MNK                               i PS    PS      19 09 01.1 +0.1
MNK                               i SS    SS      19 14 03.8 +4.6
MNK                               i SSS   SSS     19 17 44.0
MNK                                pmax   pmax
      comp=N,11nm,0.9s
MNK                                pmax   pmax
      comp=E,9.0nm,0.8s
MNK                                pmax   pmax
      comp=Z,26nm,0.9s
MNK                                MLR    MLR
      comp=N,146nm,18.0s
MNK                                MLR    MLR
      comp=Z,336nm,21.0s
MNK                                MLR    MLR
      comp=E,143nm,20.0s
MNK   Minsk             93.25 325 i P     P       18 56 39.0  0.0
      comp=E,9.0nm,0.8s
MNK                               i P     P       18 56 39.0  0.0
      comp=N,11nm,0.9s
MNK                               i P     P       18 56 39.0  0.0
      comp=Z,26nm,0.9s,baz=81
MNK                               i PP    PP      19 00 22.6 -0.2
MNK                               i PPP   PPP     19 02 22.7
MNK                               i S     SKSac   19 07 13.0 +2.8
MNK                               i PS    PS      19 09 01.1 +0.1
MNK                               i SS    SS      19 14 03.8 +4.6
MNK                               i SSS   SSS     19 17 44.1
MNK                               i LRM   MLR     19 40 08.2
      comp=N,146nm,18.3s
MNK                               i LRM   MLR     19 40 17.8
      comp=Z,336nm,21.2s
MNK                               i LRM   MLR     19 40 29.8
      comp=E,143nm,20.2s
MMPY  Sheldon Lake,     93.30  27  IAmb   IAmb    18 56 41.5
      comp=Z,15nm,1.0s
TAOE  Nuku Hiva Isla    93.31  99 eLR     LR      19 26 36.8
      comp=Z,380nm,25.1s
R33M  Jennings River    94.09  30  IAmb   IAmb    18 57 07.2
      comp=Z,14nm,1.1s
DLBC  Dease Lake        94.77  31  LR     LR      19 35 47.8
      comp=Z,99nm,21.8s,baz=253,slow=33
WTLY  Watson Lake, Y    95.01  29  IAmb   IAmb    18 56 49.5
      comp=Z,24nm,1.1s
TESR  Tescani           95.28 317  P      P       18 56 48.4 -0.2
      comp=Z,42nm,1.3s
GIRR  Girov             95.31 317 ⇑P      P       18 56 48.3 -0.4
VRI   Vrincioaia        95.32 316 ⇑P      P       18 56 48.7 -0.1
VRI   Vrincioaia        95.32 316 ⇑P      P       18 56 48.7 -0.1
VRI   Vrincioaia        95.32 316  P      P       18 56 49.4 +0.6
      comp=Z,18nm,1.1s
SAHR  Sahastru          95.38 316 ⇑P      P       18 56 49.2 +0.1
PLOR  Plostina          95.38 316 ⇑P      P       18 56 48.5 -0.6
PLOR  Plostina          95.38 316 ⇑P      P       18 56 48.5 -0.6
ONER  Baraj Valea Uz    95.48 317 ⇑P      P       18 56 49.2 -0.3
BIZ   Bicaz             95.58 317 ⇑P      P       18 56 47.6 -2.4
NEHR  Nehoiu            95.69 316 ⇑P      P       18 56 50.4 -0.1
TURR  Turia             95.78 317 ⇑P      P       18 56 50.5 -0.4
MLR   Muntele Rosu      95.93 316  LR     LR      19 46 47.1
      comp=Z,116nm,21.4s,baz=36,slow=40
MLR   Muntele Rosu      95.93 316 ⇑P      P       18 56 51.8 +0.1
MLR   Muntele Rosu      95.93 316  IAmb   IAmb    18 57 13.7
      comp=Z,9.4nm,0.9s
MLR   Muntele Rosu      95.93 316 ⇑P      P       18 56 51.8 +0.1
MLR   Muntele Rosu      95.93 316  P      P       18 56 52.0 +0.3
      comp=Z,12nm,0.9s
BURAR Bucovina Array    96.06 318 ⇑P      P       18 56 52.1 -0.1
BURAR Bucovina Array    96.06 318  P      P       18 56 51.6 -0.6
BURAR                              IAmb   IAmb    18 56 54.9
      comp=Z,17nm,0.9s
BURAR Bucovina Array    96.06 318 ⇑P      P       18 56 52.1 -0.1
SUW   Suwalki           96.06 325 eP      P       18 56 52.1 +0.2
BUR08 Bucovina Ar. S    96.06 318  IAmb   IAmb    18 56 57.0
      comp=Z,21nm,1.0s
VOIR                    96.56 316 ⇑P      P       18 56 53.9 -0.6
VOIR                    96.56 316 ⇑P      P       18 56 53.9 -0.6
BMR   Baia Mare         97.19 318 ⇑P      P       18 56 56.9 -0.3
BMR   Baia Mare         97.19 318 ⇑P      P       18 56 56.9 -0.3
BMR   Baia Mare         97.19 318  P      Pdif    18 56 58.5 +1.2
      comp=Z,27nm,0.9s
BBB   Bella Bella       97.24  37  LR     LR      19 33 53.0
      comp=Z,90nm,21.6s,baz=254,slow=31
CJR   Cluj-Napoca       97.31 318 ⇑P      Pdif    18 56 58.5 +0.6
LOT   Lotru             97.44 316 ⇑P      P       18 56 57.9 -0.7
LOT   Lotru             97.44 316  P      P       18 56 58.4 -0.1
      comp=Z,9.6nm,1.1s
MARR  Marisel-Cluj      97.64 318 ⇑P      P       18 56 58.5 -0.9
KOLS  Kolonicke sedl    97.72 320 eP      Pdif    18 57 01.7 +2.0
KOLS  Kolonicke sedl    97.72 320 ePDIFF  Pdif    18 57 01.7 +2.0
KOLS  Kolonicke sedl    97.72 320  P      Pdif    18 57 01.9 +2.3
      comp=Z,7.7nm,1.2s
TRPA  Tarpa             97.72 319  P      P       18 56 57.7 -1.9
      comp=Z,6.2nm,0.9s
DRGR                    97.89 318 ⇑P      Pdif    18 57 00.6  0.0
DRGR                    97.89 318 ⇑P      Pdif    18 57 00.6  0.0
DRGR                    97.89 318  P      Pdif    18 57 01.1 +0.6
      comp=Z,11nm,1.2s
MATP  Matopo            98.69 250  LR     LR      19 38 02.4
      comp=Z,120nm,21.9s,baz=76,slow=33
NIE   Niedzica          98.87 321 eP      Pdif    18 57 05.8 +1.0
BZS   Buzias            98.89 317 ⇑P      P       18 57 00.8 -4.1
BZS   Buzias            98.89 317 ⇑P      P       18 57 00.8 -4.1
OJC   Ojcow             98.98 322 eP      Pdif    18 57 05.3 +0.1
MDVR  Moldovita         99.00 316 ⇑P      Pdif    18 56 57.9 -7.7
LSZ   Lusaka            99.02 255  LR     LR      19 38 50.7
      comp=Z,132nm,18.6s,baz=130,slow=34
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LSZ   Lusaka            99.02 255  P      Pdif    18 57 05.5 -0.7
LSZ                                pmax   pmax
      comp=Z,5.0nm,1.0s
LSZ   Lusaka            99.02 255  P      Pdif    18 57 05.5 -0.7
RES   Resolute Bay      99.05  10  LR     LR      19 43 19.9
      comp=Z,38nm,21.3s,baz=342,slow=36
HFS   Hagfors           99.22 332  P      Pdif    18 57 04.7 -1.4
      comp=Z,1.5nm,0.7s,baz=104,slow=6.3,SNR=4.1
      comp=Z,1.5nm,0.7s
BOVS  Bovan             99.25 315 ⇓P      Pdif    18 56 55.9  -11
PSZ   Piszkesteto       99.50 319  P      Pdif    18 57 08.9 +1.2
PSZ   Piszkesteto       99.50 319  P      Pdif    18 57 08.9 +1.2
      comp=Z,9.3nm,1.6s
NB2   NORSAR Subarra100.00 334     P      Pdif    18 57 08.0 -1.6
      comp=Z,3.2nm,0.8s,baz=68,slow=4.4
NB2   NORSAR Subarra100.00 334     P      Pdif    18 57 08.0 -1.6
NOA   NORSAR Array B 100.00 334    P      Pdif    18 57 07.9 -1.7
      comp=Z,2.7nm,0.8s,baz=66,slow=4.6,SNR=10
NOA                                LR     LR      19 47 56.1
      comp=Z,195nm,20.0s,baz=70,slow=39
      comp=Z,2.7nm,0.8s
VYHS  Vyhne            100.04 320 eP      Pdif    18 57 12.5 +2.5
VYHS  Vyhne            100.04 320 ePDIFF  Pdif    18 57 12.5 +2.5
MORH  Mrgy, Hungar     100.76 318 ⇑P      Pdif    18 57 12.2 -1.0
KSP   Ksiaz            100.95 323 eP      Pdif    18 57 13.2 -0.7
MPLH  Magyarpolny      101.23 319  P      Pdif    18 57 15.7 +0.3
      comp=Z,7.6nm,1.2s
BRG   Berggiesshubel   102.36 323  P      Pdif    18 57 23.2 +3.0
BRG   Berggiesshubel   102.36 323  P      Pdif    18 57 23.2 +3.0
      comp=Z,6.6nm,1.1s
TROLL Troll, Antarti   102.43 195 ⇑Pdiff  Pdif    18 57 21.1 +0.8
      comp=Z,83nm,0.8s
TROLL                              PKKPbc PKKPbc  19 13 21.6 -2.7
      comp=Z,103nm,0.8s
CLL   Collm            102.76 324  L      L       19 42 00.0
CLL                                AMS    AMS     19 49 00.0
      comp=N,100nm,25.2s
CLL                                AMS    AMS     19 49 00.0
      comp=E,200nm,23.3s
CLL                                AMS    AMS     19 52 00.0
      comp=Z,200nm,20.2s
GERES GERESS Array B 103.18 321    Pdiff  Pdif    18 57 24.0  0.0
      comp=Z,0.5nm,0.3s,baz=56,slow=3.4,SNR=8.3
GERES GERESS Array B 103.18 321  i P      Pdif    18 57 28.1 +4.0
GERES GERESS Array B 103.18 321           Pdif    18 57 28.1 +4.0
SNAA  Sanae            104.01 195  PKKPbc PKKPbc  19 13 17.1 -2.4
      comp=Z,36nm,0.4s
VNA2  Neumayer--Watz   105.61 194  PKKPbc PKKPbc  19 13 11.7 -2.8
      comp=Z,2.4nm,0.6s,baz=325,slow=5.1
VNA3  Neumayer Olymp 105.94 193    PKKPbc PKKPbc  19 13 10.6 -2.9
      comp=Z,1.8nm,0.7s
VNA3                               PKKPab PKKPab  19 13 27.0 -0.9
      comp=Z,2.7nm,0.7s
VNA1  Neumayer--Stat   106.01 194  PKKPbc PKKPbc  19 13 10.8 -2.4
      comp=Z,3.5nm,0.8s
VNA1                               PKKPab PKKPab  19 13 27.3 -0.3
      comp=Z,2.9nm,0.8s
NVAR  Mina Array Bea   107.65  48  PP     PP      19 02 14.1 +1.5
      comp=Z,1.7nm,0.8s,baz=282,slow=8.9,SNR=3.5
ULM   Lac du Bonnet    116.02  29  PKP    PKPdf   19 02 07.3 -0.1
      comp=Z,4.1nm,0.7s,baz=150,slow=2.9,SNR=8.3
ANMO  Albuquerque      117.78  48  PKP    PKiKP   19 02 11.5 -0.1
      comp=Z,1.2nm,0.6s,baz=142,slow=2.9,SNR=3.1
ANMO  Albuquerque      117.78  48c iPKIKP PKiKP   19 02 12.1 +0.5
ANMO                               pmax   pmax
      comp=Z,5.0nm,1.3s
SCHQ  Schefferville    121.81   9  PKP    PKiKP   19 02 18.8 +0.1
      comp=Z,11nm,0.9s,baz=105,slow=4.3,SNR=6.7
G40A  Rib Lake         122.21  30         PKPdf   19 02 19.4 -0.2
TXAR  Lajitas Array    122.27  53  PKP    PKPdf   19 02 19.1 -1.1
      comp=Z,1.3nm,0.8s,baz=336,slow=2.0,SNR=8.0
TXAR  Lajitas Array    122.27  53         PKPdf   19 02 18.2 -2.0
WMOK  Wichita Mounta   123.45  45  PKIKP  PKPdf   19 02 21.3 -1.0
WMOK  Wichita Mounta   123.45  45         PKPdf   19 02 21.3 -1.0
TORD  Torodi Ar. Bea   123.45 287  PKP    PKPdf   19 02 22.4 -0.3
      comp=Z,3.5nm,0.9s,baz=51,slow=1.9,SNR=13
TORD                               PKKPab PKKPab  19 12 12.4 +0.7
      comp=Z,1.2nm,0.8s,baz=251,slow=5.1,SNR=5.2
P38A  Dawn             124.11  37         PKPdf   19 02 23.2 -0.1
U38A  Gravette         125.50  41         PKiKP   19 02 26.1 -0.4
CCM   Cathedral Cave   126.48  37  PKIKP  PKiKP   19 02 28.3 -0.1
CCM   Cathedral Cave   126.48  37         PKiKP   19 02 28.2 -0.1
SADO  Sadowa           127.58  23  PKP    PKiKP   19 02 30.1 -0.3
      comp=Z,2.6nm,0.5s,baz=347,slow=3.4,SNR=3.7
DBIC  Dimbokro         130.97 281  PKP    PKiKP   19 02 37.5 -0.6
      comp=Z,7.3nm,0.9s,baz=146,slow=3.1,SNR=3.9
TKL   Tuckaleechee C   132.49  34  PKP    PKiKP   19 02 40.2 -0.3
      comp=Z,18nm,0.8s,baz=125,slow=1.4,SNR=16
PLCA  Paso Flores      138.75 160  PKP    PKPdf   19 02 51.5 +0.4
      comp=Z,4.7nm,0.8s,baz=185,slow=4.5,SNR=3.9
PLCA  Paso Flores      138.75 160         PKPdf   19 02 51.8 +0.7
BO02  Sierra Bellavi   143.85 155         PKPdf   19 02 59.1 -1.3
CAIB  Caibarien        144.29  45         PKPdf   19 03 01.2 -0.2
MT09  Talagante        144.63 154         PKPab   19 02 59.8 -0.6
CFA   Coronel Fontan   147.67 155  PKPbc  PKPbc   19 03 10.1 +0.4
      comp=Z,22nm,0.8s,baz=241,slow=3.7,SNR=38
ANCO  Parque Anchore   148.00 172 eP      PKPdf   19 03 05.8 -1.5
CHIV  Chivirico        148.08  45         PKiKP   19 03 12.2 -0.6
LCO   Las Campanas     148.72 149  PKP2   PKPbc   19 03 13.3 +0.5
LCO   Las Campanas     148.72 149         PKPbc   19 03 13.3 +0.5
AC05  El Transito      149.08 150         PKPbc   19 03 13.5 -0.1
PSAL  Palomas, Salto   151.19 172 eP      PKPdf   19 03 11.1 -1.4
CPSB  Cacapava Do Su   152.18 179 eP      PKPdf   19 03 11.2 -2.9
CPUP  Villa Florida    155.90 171  PKP    PKPdf   19 03 19.8 +0.4
      comp=Z,1.9nm,0.9s,baz=297,slow=2.3,SNR=3.6
CPUP                               PKPab  PKPab   19 03 47.2 +1.1
      comp=Z,4.2nm,1.0s,baz=133,slow=3.7,SNR=3.6
LPAZ  La Paz           159.81 134  PKP    PKPdf   19 03 25.9 +0.7
      comp=Z,4.5nm,0.9s,baz=34,slow=4.2,SNR=12
LPAZ                               PKPab  PKPab   19 04 05.3 +1.1
      comp=Z,5.4nm,0.8s,baz=192,slow=1.4,SNR=6.3
LPAZ  La Paz           159.81 134 eP      PKPdf   19 03 22.4 -2.8
AQDB  Aquidauana       161.90 172 eP      PKPdf   19 03 25.4 -1.2
SIV   San Ignacio      164.42 150  PKP    PKPdf   19 03 29.8 +0.7
      comp=Z,1.8nm,0.7s,baz=153,slow=0.3,SNR=9.2
SIV                                PKPab  PKPab   19 04 24.5 +1.0
      comp=Z,11nm,0.8s,baz=200,slow=4.5,SNR=22
PTLB  Pontes e Lacer   165.78 156 eP      PKPdf   19 03 28.6 -1.6
BDFB  Brasilia         165.94 201  PKPab  PKPab   19 04 29.9 -0.3
      comp=Z,7.6nm,0.8s,baz=146,slow=5.7,SNR=5.7
BDFB  Brasilia         165.94 201         PKPab   19 04 31.6 +1.3
ITTB  Itaituba         176.76 126 eP      PKPdf   19 03 34.1 -1.7
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*SOME **18** 18:47:29.4, 40°.03N×75°.90E, h5^{km}*
*KRNET **18** 18:47:30.9±0.1, 40°.11N×75°.78E, h12^{km}, mb3.7*
*NNC **18** 18:47:32.5±1.5, 40°.15N×75°.82E, h0^{km}, mb4.1, mpv3.8,*
Error ellipse: s-maj=10.7km s-min=6.5km az=172.0
ISC 18 18:47:32.6±1.0**, 40°.18N**±0°.04×**75°.74E**±0°.03**, h10^{km}, n58,**
σ**2^{s}.14**/96**, 33C-18D, Kyrgyzstan-Xinjiang border region**

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Code  Station Name         Δ°   AZ°     Phase ID             Time     Res
                                      Op      ISC        h  m  s    ISC
NRN   Naryn               1.27    9⇑iP     Pn       18 47 55.9 -0.8
NRN                               ⇑iS     Sg       18 48 14.2 +0.6
SALK  Salom-Alik          1.63 296⇓eP     Pb       18 48 02.6 -0.2
SALK                              ⇓eS     Sg       18 48 25.4 +0.5
SFK   Sufi-Kurgan         1.73 265⇓iP     Pg       18 48 03.9 -1.8
SFK                               ⇓iS     Sg       18 48 27.7 -0.3
ULHL  Ulahol              2.10   10 P      Pg       18 48 12.0 -0.9
      SNR=38
ULHL  Ulahol              2.10   10⇑iP     Pb       18 48 10.3 -0.6
ULHL                              ⇑iS     Sg       18 48 38.9 -1.3
TARG  Taragay, Kyrgy      2.20   45⇑iP     Pb       18 48 11.4 -1.3
TARG                              ⇑iS     Sb       18 48 40.5 +0.3
KDJ   Kajisay             2.23   29⇑iP     Pb       18 48 11.9 -1.3
KDJ                               ⇑iS     Sb       18 48 41.8 +0.9
OHH   Osh                 2.29 280⇑eP     Pb       18 48 12.5 -1.5
OHH                               ⇑eS     Sb       18 48 43.0 +0.7
BOOM  Boomskoye usch      2.32    4⇓iP     Pb       18 48 13.3 -1.3
BOOM                              ⇓iS     Sb       18 48 44.1 +0.8
ARSB  Arslanbob           2.39 300⇑eP     Pb       18 48 14.3 -1.5
ARSB                              ⇑iS     Sb       18 48 45.8 +0.4
KBK   Karagaybulak        2.55 347  P      Pg       18 48 20.9 -0.5
      SNR=44
KBK   Karagaybulak        2.55 347⇑iP     Pb       18 48 16.6 -1.9
KBK                               ⇑iS     Sb       18 48 49.8 -0.2
AAK   Ala-Archa           2.63 340  P      Pb       18 48 20.0 +0.1
      SNR=21
AAK   Ala-Archa           2.63 340 ⇑Pg     Pb       18 48 20.5 +0.5
      14nm,0.5s
AAK                                ⇓Lg     Lg       18 48 56.5
      50nm,0.8s
AAK   Ala-Archa           2.63 340⇑iP     Pb       18 48 17.6 -2.3
AAK                               ⇑iS     Sb       18 48 51.9 -0.5
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TKM2	**Tokmak 2**	2.75	358	P	Pb	18 48 21.4	-0.5
	SNR=17						
TKM2	**Tokmak 2**	2.75	358	⇑*e*P	Pb	18 48 19.4	-2.5
TKM2				⇑*i*S	Sb	18 48 54.6	-1.1
FRU1	**Bishkek**	2.76	343	⇑*e*P	Pb	18 48 19.8	-2.3
FRU1				⇑*e*S	Sb	18 48 55.3	-0.7
KST	**Kastek**	2.87	3	Pg	Pb	18 48 23.1	-0.8
	18nm,0.4s						
KST				Lg	Lg	18 49 04.6	
	65nm,0.4s						
KST	**Kastek**	2.87	3	*e*P	Pb	18 48 24.6	+0.6
	4.6nm,0.6s						
KST				*e*S	Sg	18 49 04.6	-0.2
	65nm,0.4s						
EKS2	**Erkin-Say**	2.89	330	P	Pg	18 48 27.4	-0.5
	SNR=5.8						
EKS2	**Erkin-Say**	2.89	330	⇑*i*P	Pb	18 48 21.2	-3.1
EKS2				⇑*i*S	Sb	18 48 58.0	-1.7
CHMS	**Chumysh**	2.92	346	P	Pb	18 48 24.2	-0.5
	SNR=5.3						
CHMS	**Chumysh**	2.92	346	⇑*e*P	Pb	18 48 21.6	-3.1
CHMS				⇑*i*S	Sb	18 48 58.5	-1.9
ANVS	**Anan'yevo**	2.98	28	⇑*i*P	Pb	18 48 22.4	-3.5
ANVS				⇑*i*S	Sb	18 48 59.7	-2.7
DRK	**Karamyk**	3.11	258	⇓*e*P	Pn	18 48 23.7	+1.7
DRK				⇓*e*S	Sb	18 49 02.3	-4.0
MDOK	**Medeo**	3.14	18	Pg	Pb	18 48 28.8	+0.2
	28nm,0.8s						
MDOK				Lg	Lg	18 49 13.5	
	80nm,0.4s						
MDOK	**Medeo**	3.14	18	*e*P	Pb	18 48 29.8	+1.2
	28nm,0.8s						
MDOK				*e*S	Sg	18 49 13.5	0.0
	80nm,0.4s						
KNDC	**Almaty**	3.17	16	⇑Pn	Pb	18 48 25.7	-3.4
	32nm,0.5s						
KNDC				⇑Sn	Sb	18 49 04.5	-3.4
	170nm,1.1s						
MRKS	**Merke**	3.19	324	Pg	Pb	18 48 30.4	+1.1
	28nm,0.4s						
MRKS				Lg	Lg	18 49 16.6	
	38nm,0.4s						
MRKS	**Merke**	3.19	324	*e*P	Pg	18 48 31.6	-2.1
	28nm,0.4s						
MRKS				*e*S	Sg	18 49 16.6	+1.6
	38nm,0.4s						
KOTS	**Kotyrbulak**	3.22	18	Pg	Pb	18 48 30.3	+0.3
KOTS				Lg	Lg	18 49 16.6	
KOTS	**Kotyrbulak**	3.22	18	*e*P	Pg	18 48 31.6	-2.7
	12nm,0.7s						
KOTS				*e*S	Sg	18 49 16.6	+0.5
	121nm,0.6s						
USP	**Ospenovka**	3.23	344	P	Pb	18 48 28.0	-2.0
	SNR=14						
USP	**Ospenovka**	3.23	344	⇓*e*P	Pn	18 48 26.0	+2.7
USP				⇓*i*S	Sb	18 49 05.9	-3.4
ARK	**Arkit**	3.29	301	⇑*e*P	Pn	18 48 26.5	+2.3
ARK				⇑*e*S	Sb	18 49 07.6	-3.6
MNAS	**Manas**	3.36	315	⇓*e*P	Pn	18 48 27.7	+2.5
MNAS				⇓*i*S	Sn	18 49 09.3	+4.1
SGDS	**Sogindy**	3.38	346	Pg	Pg	18 48 35.4	-1.8
	8.8nm,0.2s						
SGDS				Lg	Lg	18 49 22.4	
	29nm,0.4s						
SATY	**Saty**	3.51	34	Pg	Pb	18 48 35.0	+0.2
SATY				Lg	Lg	18 49 22.5	
SATY	**Saty**	3.51	34	*e*P	Pb	18 48 35.0	+0.2
	11nm,0.3s						
SATY				*e*S	Sg	18 49 22.5	-2.6
	43nm,0.8s						
KRBS	**Karabastau**	3.52	359	Pg	Pg	18 48 37.3	-2.6
KRBS				Lg	Lg	18 49 25.3	
KRBS	**Karabastau**	3.52	359	*e*P	Pb	18 48 36.7	+1.7
	11nm,0.3s						
KRBS				*e*S	Sg	18 49 25.3	-0.3
	39nm,0.4s						
TRKS	**Terek-Say**	3.74	293	⇑*e*P	Pn	18 48 32.3	+1.8
TRKS				⇑*i*S	Sn	18 49 16.9	+2.1
KURS	**Kuram**	3.77	28	*e*P	Pb	18 48 41.3	+2.0
	21nm,0.5s						
KURS				*e*S	Sg	18 49 32.8	-1.0
	30nm,0.8s						
BTK	**Batken**	3.78	270	⇓*e*P	Pn	18 48 31.4	+0.5
BTK				⇓*e*S	Sn	18 49 18.1	+2.6
UZB	**Uzynbulak**	3.85	39	*e*P	Pb	18 48 41.2	+0.5
	4.7nm,0.3s						
UZB				*e*S	Sg	18 49 32.7	-3.6
	22nm,0.5s						
KPKS	**Kokpek**	3.96	33	Pg	Pb	18 48 43.0	+0.6
KPKS				Lg	Lg	18 49 36.0	
KPKS	**Kokpek**	3.96	33	*e*P	Pb	18 48 42.9	+0.5
	0.3nm,0.1s						
KPKS				*e*S	Sg	18 49 36.0	-3.6
	62nm,0.6s						
SHLS	**Shalkode**	4.08	42	*e*P	Pg	18 48 50.4	-0.3
	25nm,0.6s						
SHLS				*e*S	Sg	18 49 48.4	+4.9
	32nm,0.6s						
PDGK	**Podgornoye**	4.22	40	⇓Pn	Pn	18 48 38.9	+1.9
	10nm,0.8s						
PDGK				⇓Sn	Sn	18 49 29.3	+2.9
	22nm,0.8s						
ARXS	**Arharly**	4.32	20	*e*P	Pb	18 48 51.1	+2.4
	5.8nm,0.4s						
ARXS				*e*S	Sg	18 49 50.0	-1.4
	18nm,0.5s						
BLB	**Baldybastay**	4.42	27	Pg	Pb	18 48 52.6	+2.3
BLB				Lg	Lg	18 49 51.6	
KK31	**Karatay Array**	4.89	308	Pn	Pn	18 48 49.1	+3.0
	1.6nm,0.4s,baz=128,slow=12,SNR=8.7						
KK31				⇓Sn	Sn	18 49 47.7	+4.9
	2.1nm,0.5s,baz=126,slow=28,SNR=8.0						
KNOS	**Konyrlen**	4.90	30	Pg	Pb	18 49 00.2	+1.7
KNOS				Lg	Lg	18 50 05.3	
DJR	**Jarkent**	5.13	35	*e*P	Pb	18 49 03.8	+1.4
	1.3nm,0.3s						
DJR				*e*S	Sg	18 50 11.8	-5.4
	4.1nm,0.4s						
BRLS	**Borolday**	5.27	305	Pg	Pg	18 49 10.1	-3.3
BRLS				Lg	Lg	18 50 22.2	
BRLS	**Borolday**	5.27	305	*e*P	Pg	18 49 09.8	-3.6
	2.4nm,0.5s						
BRLS				*e*S	Sg	18 50 22.2	+0.6
	10nm,0.8s						
KAPS	**Kapalarasan**	5.76	26	*e*P	Pg	18 49 17.2	-5.6
	6.1nm,0.5s						
KAPS				*e*S	Sg	18 50 34.4	-3.0
	6.2nm,0.3s						

IDC 18 19:09:11.0±2.4**, 6°.77N**×**124°.95E, h0^{km}, mb3.6**/3**, mbtmp3.6**/3**, Error ellipse: s-maj=219.4km s-min=25.6km az=65.0, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	28.11	161	P	P	19 15 05.0	+0.1
	0.4nm,0.4s,baz=342,slow=9.2,SNR=7.0						
	0.4nm,0.4s						
ASAR	**Alice Springs**	31.49	164	P	P	19 15 34.7	-0.2
	0.5nm,0.5s,baz=341,slow=7.2,SNR=26						
	0.5nm,0.5s						
MKAR	**Makanchi Array**	54.06	325	P	P	19 18 37.4	-0.1
	0.2nm,0.4s,baz=115,slow=6.9,SNR=7.4						
	0.2nm,0.4s						

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*IDC **18** 19:17:43.0±6.2, 34°.63N×22°.67E, h0^{km}, mb3.7/4, mbtmp3.6/5, ML2.6/1, Error ellipse: s-maj=138.5km s-min=31.2km az=6.0*

*THE **18** 19:17:58.1, 36°6N±0°9×2°3E±°, h13^{km}±1^{km}, M3.1/14, MLh3.1/14*

*ATH **18** 19:17:58.1, 36°.60N×22°.98E, h15^{km}, ML3.3/44, Latitude uncertainty: 1 km; Longitude uncertainty: 2 km*

ISC 18 19:17:57.9±0.8**, 36°.60N**±0°.02×**22°.93E**±0°.03**, h17^{km}**±4^{km}**, n94, σ0^s.80**/106**, mb3.6**/4**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VLI	**Veliai**	0.12	4	P	Pg	19 18 01.6	-0.1
VLI				S	Sg	19 18 04.0	-0.2
VLI				AML	AML		
VLI	**Veliai**	0.12	4	P	Pg	19 18 01.6	-0.1
VLI				S	Sg	19 18 04.0	-0.2
MNVA	**Monemvasia**	0.12	47	P	Pg	19 18 01.8	0.0
MNVA				S	Sg	19 18 03.5	-0.9
MNVA				AML	AML		
NPS1	**Neapolis Lacon**	0.14	130	P	Pg	19 18 02.1	+0.1
NPS1				S	Sg	19 18 04.5	-0.2
NPS1				AML	AML		
KTHA	**Kythira Island**	0.36	163	P	Pg	19 18 05.5	0.0
KTHA				S	Sg	19 18 10.8	+0.2
KTHA				AML	AML		
KTHA	**Kythira Island**	0.36	163	P	Pg	19 18 05.8	+0.3
KTHA				S	Sg	19 18 11.0	+0.3
KTHA	**Kythira Island**	0.36	163	P	Pg	19 18 05.4	0.0
KTHA				AML	AML		
ANKY	**Antikythira Is**	0.80	158	P	Pg	19 18 13.4	-0.1
ANKY				S	Sb	19 18 24.5	+0.9
ANKY				AML	AML		
ANKY	**Antikythira Is**	0.80	158	P	Pg	19 18 13.2	-0.2
ANKY				S	Sg	19 18 23.0	-0.9
ANKY				AML	AML		
YDRA	**Hydra**	0.86	30	P	Pg	19 18 14.6	-0.1
YDRA				AML	AML		
VLX	**Vlachokerasia**	0.88	330	P	Pg	19 18 14.5	-0.6
VLX				S	Sb	19 18 27.8	+1.5
VLX				AML	AML		
VALY	**Valyra**	0.94	307	P	Pg	19 18 15.1	-1.1
VALY				S	Sb	19 18 28.6	+0.7
VALY				AML	AML		
VALY	**Valyra**	0.94	307	P	Pg	19 18 15.2	-1.1
NPLA	**Nafplio**	0.97	354	P	Pn	19 18 17.3	+0.7
NPLA				AML	AML		
ITM	**Ithomi**	0.99	306	P	Pb	19 18 15.8	-0.8
ITM				S	Sn	19 18 30.6	0.0
ITM				AML	AML		
ITM	**Ithomi**	0.99	306	*e*P	Pb	19 18 16.1	-0.5
ITM	**Ithomi**	0.99	306	P	Pb	19 18 15.9	-0.7
ITM				AML	AML		
PYL	**PYLOS**	1.00	287	P	Pb	19 18 16.4	-0.3
PYL				S	Sb	19 18 30.1	+0.5
PYL				AML	AML		
PYL	**PYLOS**	1.00	287	P	Pg	19 18 17.0	-0.3
PYL				AML	AML		
MET3	**Ano Fanari,Met**	1.00	14	P	Pb	19 18 17.1	+0.3
MET3				AML	AML		
MTHA	**Methoni**	1.00	283	P	Pn	19 18 17.6	+0.5
MTHA				AML	AML		
MET1	**Methana Town,**	1.04	20	P	Pb	19 18 17.8	+0.3
MET1				AML	AML		
MET6	**Megalochori,Me**	1.04	19	P	Pb	19 18 17.8	+0.3
MET6				AML	AML		
MET2	**Kameni Chora,**	1.06	18	P	Pb	19 18 17.9	+0.1
MET2				AML	AML		
MET5	**Makryloggos,Me**	1.07	19	P	Pb	19 18 18.4	+0.4
MET5				AML	AML		
MET4	**Agioi Theodoro**	1.08	20	P	Pb	19 18 18.6	+0.3
MET4				AML	AML		
MHLO	**Agia Marina, M**	1.19	85	P	Pn	19 18 19.8	0.0
MHLO				S	Sb	19 18 36.5	+1.4
MHLO				AML	AML		
MHLO	**Agia Marina, M**	1.19	85	P	Pn	19 18 19.7	0.0
MILOS	**Milos**	1.21	83	P	Pn	19 18 19.6	-0.4
MILOS				AML	AML		
ACOR	**Acrocorinthos**	1.28	358	P	Pn	19 18 20.2	-0.9
ACOR				AML	AML		
AMT	**Artemida-Makis**	1.34	314	P	Pn	19 18 22.5	+0.6
AMT				AML	AML		
AMT	**Artemida-Makis**	1.34	314	P	Pn	19 18 22.5	+0.6
AMT				AML	AML		
LOUT	**Loutraki**	1.38	2	P	Pb	19 18 23.7	+0.4
LOUT				AML	AML		
CH01	**Chania**	1.40	140	P	Pn	19 18 22.4	-0.2
CH01				AML	AML		
CHAN	**Chania**	1.41	140	P	Pn	19 18 22.4	-0.3
CHAN				AML	AML		
GUR	**Goura**	1.41	341	P	Pn	19 18 23.7	+0.8
KIAA	**Kiato**	1.42	354	P	Pb	19 18 24.5	+0.7
LTK	**Loutraki**	1.42	1	P	Pn	19 18 24.0	+1.1
LTK				AML	AML		
IMMV	**Iera Moni Meta**	1.43	143	P	Pn	19 18 22.9	0.0
IMMV				AML	AML		
IMMV	**Iera Moni Meta**	1.43	143	*e*P	Pn	19 18 23.1	+0.1
IMMV	**Iera Moni Meta**	1.43	143	P	Pn	19 18 23.0	0.0
IMMV				AML	AML		
VLY	**Voula,Athens**	1.43	29	P	Pn	19 18 23.0	0.0
VLY				AML	AML		
VLY	**Voula,Athens**	1.43	29	P	Pn	19 18 23.0	0.0
VLY				AML	AML		
LVRA	**Laurium**	1.43	39	P	Pn	19 18 23.7	+0.7
LVRA				AML	AML		
THAL	**Thalero**	1.45	352	P	Pn	19 18 24.0	+0.7
KNDR	**Palaiochora Ch**	1.48	157	P	Pb	19 18 25.0	+0.1
KNDR				AML	AML		
ATH	**Athens Observa**	1.50	24	P	Pn	19 18 25.0	+0.9
ATH				AML	AML		
ATH	**Athens Observa**	1.50	24	P	Pn	19 18 24.9	+0.9
ATH				AML	AML		
ATHU	**Athens Univers**	1.52	26	P	Pn	19 18 25.1	+0.8
ATHU				AML	AML		
ATHU	**Athens Univers**	1.52	26	P	Pn	19 18 24.3	-0.1
KLV	**Kalavryta, Ach**	1.56	337	P	Pn	19 18 26.2	+1.2
KLV	**Kalavryta, Ach**	1.56	337	P	Pn	19 18 26.2	+1.2
KLV				AML	AML		
PTL	**Penteli**	1.62	27	P	Pn	19 18 26.0	+0.2
PTL				AML	AML		
VIL2	**Platees**	1.63	9	P	Pn	19 18 25.6	-0.3
VIL2				AML	AML		
STFN	**Stefani**	1.65	17	P	Pn	19 18 26.9	+0.8
STFN				AML	AML		
DRO	**Drossia**	1.66	325	P	Pb	19 18 28.3	+0.3
DRO				AML	AML		
DION	**Dionisos Attik**	1.68	28	P	Pn	19 18 26.7	+0.2
DION				AML	AML		
AIOA	**Agios Ioannis,**	1.73	337	P	Pn	19 18 28.6	+1.4
TEME	**Temeni, Aigial**	1.75	339	P	Pn	19 18 28.9	+1.5
AGEO	**AgiosGiorgios,**	1.79	338	P	Pb	19 18 29.9	-0.4
LAKA	**Lakka**	1.80	335	P	Pb	19 18 30.4	-0.1
LAKA				AML	AML		
KARY	**Karystos**	1.87	40	P	Pn	19 18 29.3	+0.2
KARY				AML	AML		
SERG	**Sergoula**	1.94	339	P	Pn	19 18 31.6	+1.5
SERG				AML	AML		
PYRG	**Pyrgos, Dorida**	1.94	338	P	Pn	19 18 31.6	+1.4
PYRG				AML	AML		
SAP3	**Santorini-Thir**	1.96	94	P	Pn	19 18 30.4	+0.1
THR5	**Thira Island,**	1.96	95	P	Pn	19 18 30.7	+0.4
MG00	**Magoula, Dorid**	1.97	337	P	Pb	19 18 32.7	-0.6
MG00				AML	AML		
GVDS	**Gavdos**	1.99	152	P	Pn	19 18 32.4	+1.7
EFP	**Efpalio**	1.99	336	P	Pn	19 18 32.7	+1.9
EFP				AML	AML		
GVD	**Gavdhos**	2.00	151	*e*P	Pn	19 18 31.6	+0.7
SNT5	**Nea Kammeni, S**	2.00	95	P	Pn	19 18 32.4	+1.5
CMBO	**Columbo, Santo**	2.00	93	P	Pn	19 18 30.4	-0.5
THR3	**Thira Island,**	2.00	95	P	Pn	19 18 31.3	+0.4
THR6	**Thira Island,**	2.01	96	P	Pn	19 18 31.6	+0.6
THR2	**Thira island,**	2.03	94	P	Pn	19 18 32.0	+0.8
LKR	**Lokris**	2.04	2	P	Pn	19 18 30.7	-0.8
LKR				AML	AML		
IDI	**Anoyia**	2.06	129	*e*P	Pn	19 18 31.8	0.0
IDI	**Anoyia**	2.06	129	P	Pn	19 18 31.4	-0.5
THR8	**Santorini-Mono**	2.06	95	P	Pn	19 18 32.2	+0.5
THERA	**Ancient Thera,**	2.07	96	P	Pn	19 18 32.0	+0.2
ANX	**Ano Chora**	2.14	338	P	Pn	19 18 34.3	+1.4
ANX				AML	AML		
AXAR	**Agios Charalam**	2.17	354	P	Pn	19 18 34.8	+1.5
AXAR				AML	AML		
SIVA	**Sivas**	2.20	135	P	Pn	19 18 34.2	+0.5
SIVA				AML	AML		
KYMI	**Kymi, Euboea I**	2.23	24	P	Pn	19 18 33.8	-0.2
KYMI				AML	AML		
NEO	**Neokhori**	2.71	5	P	Pn	19 18 41.5	+0.8
THL	**Klokotos Trika**	3.04	347	P	Pn	19 18 47.0	+1.7
ZKR	**Zakros**	3.06	118	*e*P	Pn	19 18 45.7	+0.3
ZKR	**Zakros**	3.06	118	P	Pn	19 18 46.1	+0.6
CHOS	**Chios island**	3.06	53	*e*P	Pn	19 18 45.0	-0.5
BRTR	**Keskin Array B**	8.99	66	Pn	Pn	19 20 12.4	+5.3
	baz=247,slow=14,SNR=4.4						
	0.3nm,0.7s						
EKA	**Eskdalemuir Ar**	25.82	325	P	P	19 23 29.6	+1.7
	2.3nm,0.6s,baz=123,slow=9.1,SNR=9.0						
	2.3nm,0.6s						
KURBB	**Kurchatov Arra**	41.65	52	P	P	19 25 43.4	-1.8
	0.2nm,0.3s,baz=277,slow=8.6,SNR=4.2						
	0.2nm,0.3s						
MKAR	**Makanchi Array**	44.51	57	P	P	19 26 06.8	-1.6
	0.2nm,0.4s,baz=267,slow=7.8,SNR=6.4						
	0.2nm,0.4s						
ZALV	**Zalesovo Beam**	45.33	47	P	P	19 26 13.1	-1.6
	0.4nm,0.3s,baz=282,slow=7.4,SNR=2.7						
	0.4nm,0.3s						

TAP 18 19:32:48.3, 24°.50N×**121°.46E, h8^{km}**±1^{km}**, ML1.0, B, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LATG	**Datong**	0.07	59	*i* P	Pg	19 32 50.9	+0.6
LATG				*i* S	Sg	19 32 52.4	+0.6
NNS	**Nan Shan**	0.10	234	P	Pg	19 32 51.6	+0.8
NNS				S	Sg	19 32 53.3	+0.7
NNSB	**Datong**	0.10	226	P	Pg	19 32 51.6	+0.8
NNSB				*e*S	Sg	19 32 53.3	+0.7
YHNB	**Yeheng**	0.19	334	*e*P	Pg	19 32 53.2	+1.0
YHNB				*e*S	Sg	19 32 56.2	+1.4
NDS	**Dongshan**	0.27	60	P	Pg	19 32 53.9	+0.3
NDS				S	Sb	19 32 59.5	-0.6
ETLH	**Xiulin Townshi**	0.29	177	*e*P	Pb	19 32 55.6	-0.3
ETLH				*e*S	Sg	19 32 58.9	+0.9

JMA 18 19:33:36.7±0.3**, 25°N**±1°×**123°.5E**±0°.5**, h19^{km}, MV1.2**/7**, NW OFF ISHIGAKIJIMA IS, Southwestern Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IRIF	**Iriomote-Funau**	0.62	161	P	Pb	19 33 48.5	-0.3
JYNG	**Yonagunijimaku**	0.69	228	*e*S	Sg	19 33 59.7	+0.2
JIJ	**Ishigaki jima**	0.80	133	P	Pb	19 33 51.5	-0.5
JIJ				*e*S	Sb	19 34 01.3	-1.2
JISG	**Ishigakijimahi**	0.80	114	*e*P	Pb	19 33 52.0	0.0
JKRS	**Kuro-shima**	0.82	146	P	Pb	19 33 52.2	-0.1
JKRS				*e*S	Sb	19 34 02.9	-0.1

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*NOU **18** 20:41:23.4, 20°.62S×176°.90W, h240^{km}, mb4.6/13, Fiji Islands Region*

*NEIC **18** 20:41:41.4±2.1, 21°.60S±0°.09×177°.8W±0°.1, h350^{km}±6^{km}, mb4.4/35, Error ellipse: s-maj=16.8km s-min=12.0km az=118.0*

*IDC **18** 20:41:47.3±2.2, 21°.36S×178°.02W, h409^{km}±21^{km}, mb3.7/14, mbtmp4.5/16, Error ellipse: s-maj=17.1km s-min=13.7km az=112.0*

ISC 18 20:41:43.6±0.3**, 21°.49S**±0°.05×**177°.72W**±0°.06**, h381^{km}, n158, σ1^s.95**/173**, mb4.3**/30**, 9C-1D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	5.46	312	P	Pn	20 43 10.9	+1.2
	89nm,0.8s,baz=128,slow=14,SNR=34						
MSVF	**Nonsavu**	5.46	312		Pn	20 43 10.6	+0.9
NIUE	**Niue**	7.70	73	Pn	P	20 43 35.3	-0.3
NIUE				Sn	S	20 45 02.0	-3.6
NIUE	**Niue**	7.70	73	P	P	20 43 36.6	+1.1
NIUE				S	S	20 45 02.8	-2.9
RAO	**Raoul Island**	7.74	181	S	S	20 45 00.6	-5.6
	120nm,0.3s,baz=255,slow=23,SNR=1.8						
RAO	**Raoul Island**	7.74	181	Pn	Pn	20 43 30.7	-4.3
GLKZ	**Green Lake**	7.75	181	P	Pn	20 43 34.7	-0.4
GLKZ				P	S	20 45 02.5	-3.9
AFI	**Afiamalu**	9.42	38	Pn	Pn	20 43 53.7	-1.3
AFI				Sn	S	20 45 28.4	-14
AFI	**Afiamalu**	9.42	38	P	Pn	20 43 47.4	-7.6
AFI				S	S	20 45 30.7	-12
DZM	**Mont Dzumac**	14.72	265	P	P	20 44 53.9	0.0
	11nm,0.7s,baz=106,slow=12,SNR=3.1						
OUZ	**Omahuta**	15.66	207	P	Pn	20 45 06.9	0.0
WCZ	**Waipu Caves**	15.98	204	P	Pn	20 45 11.3	+0.6
MXZ	**Matakaoa Point**	16.39	191	P	P	20 45 09.9	-1.7
MXZ	**Matakaoa Point**	16.39	191	P	P	20 45 08.5	-3.1
MXZ	**Matakaoa Point**	16.39	191	P	P	20 45 12.3	+0.7
MXZ				S	S	20 48 06.4	+2.5
WMGZ	**Waiomatatini S**	16.62	191	P	Pn	20 45 16.2	-1.9
WMGZ				S	S	20 48 13.2	+4.7
HAZ	**Te Kaha**	16.68	193	P	P	20 45 14.7	0.0
HAZ				S	S	20 48 18.5	+8.9
PKGZ	**Pakihiroa**	16.72	192	P	Pn	20 45 18.3	-0.9
PUZ	**Puketiti**	16.89	191	P	P	20 45 17.3	+0.2
PUZ				S	S	20 48 17.2	+3.3
RUGZ	**Raukumara Rang**	16.90	193	P	P	20 45 17.5	+0.3
RUGZ				S	S	20 48 20.1	+5.9
TWGZ	**Tauwhareparae**	17.04	192	P	P	20 45 20.4	+1.7
TWGZ				S	S	20 48 26.0	+9.1
TOZ	**Tahuroa Road**	17.22	198	P	P	20 45 17.5	-3.0
TOZ				IAmb	IAmb	20 45 30.3	
	comp=Z,20nm,1.0s						
MWZ	**Matawai**	17.28	193	P	P	20 45 21.0	-0.2
MWZ				S	S	20 48 27.2	+5.6
CNGZ	**Carnagh Statio**	17.30	191	P	P	20 45 21.9	+0.5
URZ	**Urewera**	17.30	194	P	P	20 45 19.7	-1.7
	comp=Z,13nm,0.3s,baz=262,slow=3.3,SNR=29						
URZ				S	S	20 48 16.1	-5.7
	comp=Z,4.6nm,0.6s,baz=157,slow=19,SNR=1.6						
URZ	**Urewera**	17.30	194	P	P	20 45 19.8	-1.6
URZ	**Urewera**	17.30	194	P	P	20 45 19.2	-2.2
URZ				S	S	20 48 25.6	+3.7
TKGZ	**Te Karaka**	17.32	192	P	P	20 45 20.7	-0.8
TKGZ				S	S	20 48 27.7	+5.4
RIGZ	**Rimuhau**	17.60	192	P	P	20 45 24.3	-0.2
RTZ	**Ruatahuna**	17.67	194		P	20 45 22.9	-2.5
RTZ				IAmb	IAmb	20 45 52.9	
	comp=Z,42nm,1.4s						
HIZ	**Hauiti**	18.13	199	P	P	20 45 29.4	-0.9
NGZ	**Ngauruhoe**	18.54	197	P	P	20 45 36.0	+1.3
PXZ	**Pawanui**	19.05	193	P	P	20 45 39.3	-0.7
TSZ	**Takapari Road**	19.28	195	P	P	20 45 42.6	+0.3
BFZ	**Birch Farm**	19.81	194	P	P	20 45 46.7	-0.7
MRZ	**Mangatainoka R**	19.95	195	P	P	20 45 46.6	-2.0
MSWZ	**Moikau Station**	20.74	195	P	P	20 45 52.9	-3.1
SNZO	**South Karori**	20.78	196	P	P	20 45 56.4	+0.2
BHW	**Baring Head**	20.83	196	P	P	20 45 54.5	-2.2
QRZ	**Quartz Range**	20.98	201	P	P	20 45 58.6	+0.5
QRZ	**Quartz Range**	20.98	201	P	P	20 45 58.6	+0.5
NNZ	**Nelson**	21.06	199	P	P	20 45 59.1	+0.3
THZ	**Tophouse**	21.71	199	P	P	20 46 03.2	-1.6
THZ				IAmb	IAmb	20 46 10.9	
	comp=Z,22nm,0.8s						
THZ	**Tophouse**	21.71	199	P	P	20 46 04.9	+0.1
DSZ	**Denniston Nort**	22.05	201	P	P	20 46 08.6	+0.8
KHZ	**Kahutara**	22.12	197	P	P	20 46 08.6	+0.2
KHZ	**Kahutara**	22.12	197	P	P	20 46 07.9	-0.5
GVZ	**Greta Valley S**	22.77	198	P	P	20 46 13.8	-0.6
LTZ	**Lake Taylor**	22.83	199		P	20 46 13.2	-1.7
LTZ	**Lake Taylor**	22.83	199	P	P	20 46 15.9	+0.9
INZ	**Inchbonnie**	23.04	201	P	P	20 46 16.5	-0.3
OXZ	**Oxford**	23.39	199	P	P	20 46 18.2	-1.8
OXZ	**Oxford**	23.39	199	P	P	20 46 22.0	+2.0
WVZ	**Waitaha Valley**	23.59	201	P	P	20 46 21.7	0.0
LBZ	**Lake Benmore**	24.94	201	P	P	20 46 31.0	-2.8
JCZ	**Jackson Bay**	25.15	203	P	P	20 46 36.8	+0.9
DCZ	**Deep Cove**	26.95	204	P	P	20 46 48.1	-3.6
EIDS	**Eidsvold**	28.85	256	P	P	20 47 07.9	-0.9
EIDS				IAmb	IAmb	20 47 15.1	
	comp=Z,22nm,1.4s						
ARMA	**Armidale**	28.89	246		P	20 47 08.8	-0.4
ARMA				IAmb	IAmb	20 47 26.3	
	comp=Z,27nm,1.4s						
CAN	**Canberra**	32.19	237	P	P	20 47 38.2	+0.4
CAN	**Canberra**	32.19	237		P	20 47 37.4	-0.3
CAN				IAmb	IAmb	20 47 39.2	
	comp=Z,22nm,0.8s						
CTA	**Charters Tower**	33.67	266	P	P	20 47 50.2	-0.3
	comp=Z,7.4nm,0.6s,baz=103,slow=12,SNR=8.0						
	comp=Z,7.4nm,0.6s						
CTAO	**Charters Tower**	33.67	266	P	P	20 47 50.0	-0.6
CTAO	**Charters Tower**	33.67	266	P	P	20 47 49.4	-1.1
CTAO				IAmb	IAmb	20 47 55.3	
	comp=Z,24nm,1.3s						
TOO	**Toolangi**	35.54	235		P	20 48 06.0	-0.2
TOO				IAmb	IAmb	20 48 08.1	
	comp=Z,11nm,1.2s						
PMG	**Port Moresby**	35.83	284	P	P	20 48 08.0	-0.9
	comp=Z,21nm,0.8s,baz=184,slow=18,SNR=4.0						

	comp=Z,21nm,0.8s						
PMG	Port Moresby	35.83	284	P	P	20 48 07.4	-1.4
PMG				IAmb	IAmb	20 48 09.3	
	comp=Z,30nm,0.9s						
PATS	Pohnpei	36.68	318	P	P	20 48 16.5	+0.6
STKA	Stephens Creek	37.61	245	P	P	20 48 23.8	+0.2
	comp=Z,15nm,0.9s,baz=91,slow=9.4,SNR=18						
	comp=Z,15nm,0.9s						
INKA	Innaminka	38.14	252	P	P	20 48 28.1	+0.1
HTT	Hallett	40.01	243	P	P	20 48 43.2	-0.1
BBOO	Buckleboo	42.35	244	P	P	20 49 01.1	-1.0
BBOO				IAmb	IAmb	20 49 01.9	
	comp=Z,15nm,0.8s						
AS31	Alice Springs	44.55	258		P	20 49 17.7	-2.0
ASAR	Alice Springs	44.56	258	P	P	20 49 18.9	-0.7
	comp=Z,12nm,0.8s,baz=88,slow=8.4,SNR=95						
ASAR				PcP	PcP	20 50 54.4	-0.9
	comp=Z,1.1nm,0.8s,baz=126,slow=3.6,SNR=5.1						
	comp=Z,12nm,0.8s						
WR8	Warramunga Arr	44.58	263	P	P	20 49 17.8	-2.0
WB0	Warramunga Arr	44.72	263		P	20 49 19.1	-1.8
WRAB	Tennant Creek	44.72	263	P	P	20 49 19.3	-1.6
WRAB	Tennant Creek	44.72	263	P	P	20 49 19.0	-2.0
WRA	Warramunga Arr	44.73	263	P	P	20 49 19.4	-1.6
	comp=Z,7.0nm,1.0s,baz=95,slow=7.7,SNR=49						
WRA				PcP	PcP	20 50 55.7	-0.2
	comp=Z,2.0nm,1.1s,baz=108,slow=3.6,SNR=3.7						
	comp=Z,7.0nm,1.0s						
FORT	Forrest	49.15	247		P	20 49 53.2	-1.4
FORT				IAmb	IAmb	20 49 54.5	
	comp=Z,27nm,0.9s						
FITZ	Fitzroy Crossi	53.16	263	P	P	20 50 23.6	-0.6
SOEI	Soe	56.80	272		P	20 50 50.0	-0.1
SBA	Scott Base	56.91	184		P	20 50 51.7	+1.9
SBA				IAmb	IAmb	20 50 53.9	
	comp=Z,7.1nm,0.9s						
VNDA	Vanda	56.96	185	P	P	20 50 52.5	+2.5
	comp=Z,1.0nm,0.5s,baz=356,slow=8.3,SNR=8.7						
	comp=Z,1.0nm,0.5s						
VNDA	Vanda	56.96	185		P	20 50 51.2	+1.1
MORW	Morawa	59.70	248		P	20 51 08.3	-1.4
MORW				IAmb	IAmb	20 51 10.0	
	comp=Z,20nm,0.9s						
LUWI	Luwuk	61.38	281	P	P	20 51 20.4	-0.7
CASY	Casey	63.19	205		P	20 51 31.7	-0.4
CASY				IAmb	IAmb	20 51 36.4	
	comp=Z,11nm,0.9s						
QSPA	South Pole Qui	68.59	180	P	P	20 52 08.0	+1.7
	comp=Z,6.4nm,1.0s,baz=42,slow=0.9,SNR=15						
	comp=Z,6.4nm,1.0s						
QSPA	South Pole Qui	68.59	180		P	20 52 07.6	+1.3
SBUM	Sibu	72.43	280		P	20 52 28.0	-2.0
SBUM				IAmb	IAmb	20 52 31.3	
	comp=Z,5.0nm,1.1s						
TPUB	Ta-pu	74.73	303	P	P	20 52 42.2	-0.9
PETK	Petropavlovsk-	77.29	345	P	P	20 52 57.2	+0.6
	comp=Z,4.2nm,0.9s,baz=118,slow=9.6,SNR=5.7						
	comp=Z,4.2nm,0.9s						
KSAR	Wonju Array Be	77.81	319	P	P	20 52 59.5	-0.3
MAW	Mawson	80.73	200	P	P	20 53 15.8	+0.8
	comp=Z,4.4nm,0.9s,baz=154,slow=9.9,SNR=6.6						
	comp=Z,4.4nm,0.9s						
MAW	Mawson	80.73	200	IAmb	IAmb	20 53 16.2	
	comp=Z,0.9nm,0.9s						
NVAR	Mina Array Bea	81.56	43	P	P	20 53 21.8	+1.7
	comp=Z,1.3nm,0.8s,baz=223,slow=10,SNR=5.2						
	comp=Z,1.3nm,0.8s						
U15A	North Rim	84.43	47	P	P	20 53 37.3	+2.5
U15A				IAmb	IAmb	20 53 37.8	
	comp=Z,2.3nm,0.9s						
ELIB	Princess Elisa	85.70	186	*d*P	P	20 53 40.5	+0.3
	comp=Z,6.0nm,0.9s						
TROLL	Troll, Antarti	86.75	180	⇑P	P	20 53 45.7	+0.4
	comp=Z,206nm,0.9s						
VNA3	Neumayer Olymp	87.14	176	⇑P	P	20 53 46.8	-0.2
	comp=Z,6.3nm,0.8s						
TXAR	Lajitas Array	87.37	57	P	P	20 53 51.0	+2.1
	comp=Z,0.4nm,0.7s,baz=221,slow=5.0,SNR=4.8						
	comp=Z,0.4nm,0.7s						
VNA2	Neumayer--Watz	87.59	177	⇑P	P	20 53 49.7	+0.6
	comp=Z,4.1nm,0.7s,baz=178,slow=4.0						
VNA1	Neumayer--Stat	87.81	177	P	P	20 53 50.5	+0.4
	comp=Z,5.6nm,0.8s						
ILAR	Eielson Array	89.21	13	P	P	20 53 57.1	+0.5
	comp=Z,0.6nm,0.6s,baz=234,slow=6.1,SNR=4.6						
	comp=Z,0.6nm,0.6s						
PDAR	Pinedale Array	89.50	43	P	P	20 53 59.8	+1.0
	comp=Z,0.7nm,0.8s,baz=198,slow=2.3,SNR=5.9						
	comp=Z,0.7nm,0.8s						
CMAR	Chiang Mai Arr	90.69	289	P	P	20 54 05.2	+0.7
	comp=Z,3.2nm,0.9s,baz=117,slow=3.5,SNR=13						
	comp=Z,3.2nm,0.9s						
CMAR	Chiang Mai Arr	90.69	289		P	20 54 04.4	-0.1
ARTI	Arti	126.26	325		PKiKP	21 00 02.3	+0.7
ARCES	ARCESS Array B	129.93	350	PKP	PKPdf	21 00 07.2	-0.6
	comp=Z,2.3nm,0.7s,baz=80,slow=1.4,SNR=6.4						
FINES	FINESS Array B	136.79	344	PKhKP	PKPpre	21 00 11.3	
	comp=Z,1.2nm,0.8s,baz=95,slow=3.2,SNR=3.8						
HFS	Hagfors	140.55	351	PKhKP	PKPpre	21 00 21.5	
	comp=Z,0.6nm,0.4s,baz=50,slow=4.6,SNR=5.6						
AKASG	Malin Array Be	144.00	331	PKP	PKPab	21 00 31.8	-1.0
	comp=Z,4.5nm,0.5s,baz=43,slow=4.5,SNR=28						
AKASG	Malin Array Be	144.00	331		PKPab	21 00 32.2	-0.5
KIEV	Kiev	144.01	331		PKPab	21 00 31.8	-1.0
EKA	Eskdalemuir Ar	145.96	6	PKPbc	PKPbc	21 00 39.0	+0.2
	comp=Z,0.5nm,0.5s,baz=356,slow=3.0,SNR=4.2						
BNN	Bunyan	146.46	309		PKPdf	21 00 39.2	+0.4
ASF	Jabal al Asfar	147.46	296	PKPbc	PKPbc	21 00 43.1	-0.7
	comp=Z,4.9nm,0.8s,baz=107,slow=3.0,SNR=6.0						
BR131	Keskin Array S	147.69	311		PKPdf	21 00 41.7	+0.8
BRTR	Keskin Array B	147.69	311	PKPbc	PKPbc	21 00 43.1	-1.1
	comp=Z,3.6nm,0.7s,baz=123,slow=4.6,SNR=21						
BRTR	Keskin Array B	147.69	311		PKPdf	21 00 41.7	+0.8
BUR08	Bucovina Ar. S	148.03	330		PKPdf	21 00 42.5	+1.3
BURAR	Bucovina Array	148.04	330		PKPbc	21 00 45.6	+0.7
HSUJ	Al Zarqa	148.06	297	P	PKiKP	21 00 47.6	+0.8
HSUJ				AML	AML		
GEM	Giv'at Ha'Em	148.26	299	P	PKiKP	21 00 47.5	+0.4
GEM				AML	AML		
QRNJ	Al-Qirein	148.52	297	P	PKiKP	21 00 48.5	+0.9
QRNJ				AML	AML		
SALP	Salfit	148.90	297	P	PKiKP	21 00 49.3	+0.8
SALP				AML	AML		
OSTC	Ostas	148.99	343	⇑*e*PKP	PKPbc	21 00 47.3	+0.3
MDUB	Mudurnu	149.02	314		PKPbc	21 00 47.0	-0.5
CLL	Collm	149.08	347		PKPdf	21 00 44.4	+1.8
CLL	Collm	149.08	347	*i* PKPbc	PKPbc	21 00 47.1	-0.1
	comp=Z,25nm,1.7s						
CLL				*i* PKPab	PKPab	21 00 52.7	-0.1
	comp=Z,7.0nm,1.0s						
STEB	Steborice	149.08	340	⇑*e*PKP	PKPbc	21 00 47.2	0.0
DPC	Dobruska-Polom	149.14	342	⇑*e*PKP	PKiKP	21 00 48.7	+0.3
MLR	Muntele Rosu	149.19	327	PKPbc	PKPbc	21 00 47.6	-0.2
	comp=Z,5.5nm,0.9s,baz=81,slow=13,SNR=3.9						
BRG	Berggiesshubel	149.28	345	⇑*e*PKPb		21 00 47.6	
BRG				Amp		21 00 50.1	
	comp=Z,5.2nm,1.0s						
BRG				PKPab	PKPab	21 00 54.6	+1.0
BRG				Amp		21 00 55.8	
	comp=Z,4.9nm,1.0s						
MORC	Moravsky Berou	149.29	340	*e*PKP	PKPbc	21 00 47.6	-0.2
PRNI	Paran	149.36	294	P	PKiKP	21 00 50.3	+0.8
PRNI				AML	AML		
HRFI	Mount Harif	149.38	293	P	PKiKP	21 00 50.1	+0.6
HRFI				AML	AML		
EIL	Elat	149.50	292	P	PKiKP	21 00 50.3	+0.5
KZIT	Kziot	149.78	295	P	PKiKP	21 00 50.2	-0.1
KZIT				AML	AML		
VYHS	Vyhne	149.97	338	*e*PKP	PKiKP	21 00 50.7	+0.6
VRAC	Vranov	149.99	341	*e*PKP	PKPbc	21 00 49.4	-0.1
JAVC	Velka Javorina	150.05	339	*e*PKP	PKiKP	21 00 51.0	+0.6
KRUC	Moravsky	150.27	341	*e*PKP	PKPbc	21 00 49.7	-0.4
ZVC	Zvikov	150.54	344	⇑*e*PKP	PKiKP	21 00 51.2	-0.1
ZVC				*e*PKPAB	PKPab	21 01 00.4	+1.5
MODS	Modra-Piesok	150.60	339	*e*PKP	PKiKP	21 00 51.5	0.0
ABNA	Allensteig Bun	150.91	342	*i* PKP	PKiKP	21 00 52.1	0.0
	comp=Z,6.7nm,1.3s						
ABNA				*e*PKP	PKPab	21 01 01.6	+1.1
	comp=Z,2.1nm,0.6s						
KHC	Kasperske Hory	150.98	345	⇑*e*PKP	PKPbc	21 00 51.6	-0.2
KHC				*e*PKPAB	PKPab	21 01 02.2	+1.4
KHC	Kasperske Hory	150.98	345		PKPdf	21 00 47.1	+1.4
GERES	GERESS Array B	151.22	344	PKPbc	PKPbc	21 00 51.9	-0.5
	comp=Z,0.9nm,0.4s,baz=340,slow=1.6,SNR=12						
GERES	GERESS Array B	151.22	344		PKPbc	21 00 52.4	-0.1
CONA	Conrad Observa	151.44	341	*i* PKP	PKiKP	21 00 53.2	-0.1
	comp=Z,4.0nm,0.8s						
RONA	Rosalia, Austr	151.51	340	*i* PKP	PKiKP	21 00 53.2	-0.2
	comp=Z,2.8nm,0.6s						
BIOA	Bad Ischl, Aus	152.30	343	*i* PKP	PKPab	21 01 07.5	+1.1
	comp=Z,6.1nm,1.0s						
WATA	Walderalm	153.14	346	*i* PKP	PKPbc	21 00 56.3	-0.5
	comp=Z,1.6nm,0.5s						
WTTA	Wattenberg	153.19	346	*i* PKP	PKPbc	21 00 56.5	-0.5
	comp=Z,5.9nm,1.0s						
WTTA				*i* PKP	PKPab	21 01 11.3	+0.9
	comp=Z,6.4nm,1.1s						
DAVA	Damuels	153.53	348	*i* PKP	PKiKP	21 00 58.8	+1.1
	comp=Z,7.9nm,1.6s						
DAVA				*e*PKP	PKPab	21 01 13.1	+1.3
	comp=Z,10nm,1.8s						
TORD	Torodi Ar. Bea	171.69	176	PKPab	PKPab	21 02 32.6	+0.9
	comp=Z,1.7nm,0.8s,baz=180,slow=3.6,SNR=6.8						

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*IDC **18** 20:55:47.3±0.7, 43.°82N×81.°96E, h0^{km}, mb4.3/17, mbtmp4.4/26, ML4.1/9, MS3.7/14, Error ellipse: s-maj=9.6km s-min=8.9km az=156.0*

*MOS **18** 20:55:47.6±1.4, 43.°85N×82.°03E, h13^{km}, mb4.7/22, Error ellipse: s-maj=4.7km s-min=4.5km az=160.3*

*NEIC **18** 20:55:48.5±2.0, 43.°89N±0.°03×81.°95E±0.°06, h10^{km}±1^{km}, mb4.7/71, Error ellipse: s-maj=8.9km s-min=3.8km az=119.0*

*SOME **18** 20:55:48.0, 43.°73N×81.°92E, h5^{km}, MS4.4*

*NNC **18** 20:55:49.1±1.4, 43.°84N×81.°88E, h0^{km}, mb4.9, mpv4.7, Error ellipse: s-maj=12.5km s-min=6.4km az=136.0*

*BJI **18** 20:55:50.7, 43.°80N×81.°99E, h20^{km}, mB4.7/9, mb4.6/23, ML4.9/10, Ms4.2/11, Ms7 3.9/10*

ISC 18 20:55:48.6±1.0**, 43.°87N**±0.°03×**81.°96E**±0.°02**, h12**^{km}±6^{km}**, n309,** σ1^{s}**98**/351**, mb4.6**/79**, MS3.7**/16**, 22C-5D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DJR	Jarkent	1.63	287	P	Pg	20 56 19.4	-0.5
	4µm,0.4s						
DJR				S	Sg	20 56 42.1	+1.1
	4µm,0.2s						
DJR	Jarkent	1.63	287	*e*P	Pg	20 56 19.4	-0.5
	4µm,0.4s						
DJR				*e*S	Sg	20 56 42.1	+1.1
	4µm,0.2s						
PDGK	Podgornoye	1.87	254	PN	Pb	20 56 22.0	-0.9
PDGK				S	Sb	20 56 47.4	+1.1
PDGK	Podgornoye	1.87	254		Pb	20 56 22.0	-0.9
PDGK				Sn	Sb	20 56 47.4	+1.1
SHLS	Shalkode	1.95	249	P	Pn	20 56 19.4	-2.3
	5µm,0.2s						
SHLS				S	Sn	20 56 42.1	-4.1
	35µm,0.6s						
SHLS	Shalkode	1.95	249	*e*PN	Pn	20 56 20.3	-1.4
SHLS				*e*S	Sn	20 56 41.7	-4.5
SHLS	Shalkode	1.95	249	*e*P	Pn	20 56 20.4	-1.4
SHLS				*e*S	Sn	20 56 41.8	-4.5
SHLS	Shalkode	1.95	249	*e*P	Pn	20 56 19.4	-2.3
	5µm,0.2s						
SHLS				*e*S	Sn	20 56 42.1	-4.1
	35µm,0.6s						
KNOS	Konyrlen	2.06	285	Pg	Pb	20 56 26.1	0.0
	322nm,0.2s						
KNOS				Lg	Lg	20 56 54.0	
	5µm,0.2s						
UZB	Uzynbulak	2.26	252	Pg	Pn	20 56 27.7	+1.8
	202nm,0.2s						
UZB				Lg	Lg	20 56 56.8	
	1µm,0.3s						
UZB	Uzynbulak	2.26	252	*e*PN	Pb	20 56 28.5	-0.8
UZB				*e*S	Sb	20 56 56.5	-0.8
UZB	Uzynbulak	2.26	252	*e*P	Pb	20 56 28.6	-0.8
UZB				*e*S	Sb	20 56 56.5	-0.8
UZB	Uzynbulak	2.26	252	*e*P	Pn	20 56 27.7	+1.8
	202nm,0.2s						
UZB				*e*S	Sb	20 56 56.8	-0.5
	1µm,0.3s						
KAPS	Kapalarasan	2.34	308	Pg	Pg	20 56 31.8	-1.6
	177nm,0.1s						
KAPS				Lg	Lg	20 57 03.6	
	3µm,0.2s						
KAPS	Kapalarasan	2.34	308	*e*P	Pg	20 56 31.8	-1.6
	177nm,0.1s						
KAPS				*e*S	Sg	20 57 03.6	-0.1
	3µm,0.2s						
KPKS	Kokpek	2.41	262	Pg	Pb	20 56 31.8	-0.2
	0.3nm,0.1s						
KPKS				Lg	Lg	20 57 03.5	
	1µm,0.2s						
KPKS	Kokpek	2.41	262	*e*PN	Pb	20 56 30.6	-1.4
KPKS	Kokpek	2.41	262	*e*P	Pb	20 56 30.6	-1.4
KPKS	Kokpek	2.41	262	*e*P	Pb	20 56 31.8	-0.2
	0.3nm,0.1s						
KPKS				*e*S	Sb	20 57 03.5	+1.7
	1µm,0.2s						
BLB	Baldybastay	2.52	276	Pg	Pb	20 56 34.0	+0.1
	258nm,0.1s						
BLB				Lg	Lg	20 57 07.3	
	2µm,0.2s						
SATY	Saty	2.71	254	Pg	Pb	20 56 36.1	-1.0
	101nm,0.1s						
SATY				Lg	Lg	20 57 11.1	
	2µm,0.1s						
SATY	Saty	2.71	254	*e*PN	Pn	20 56 34.1	+2.0
SATY	Saty	2.71	254	*e*P	Pn	20 56 34.1	+2.0
SATY	Saty	2.71	254	*e*P	Pb	20 56 36.1	-1.0
	101nm,0.1s						
SATY				*e*S	Sb	20 57 11.1	+0.7
	2µm,0.1s						
KURS	Kuram	2.78	263	Pg	Pb	20 56 39.7	+1.5
	198nm,0.3s						
KURS				Lg	Lg	20 57 17.5	
	721nm,0.4s						
KURS	Kuram	2.78	263	*e*P	Pb	20 56 39.7	+1.5
	198nm,0.3s						
KURS				*e*S	Sg	20 57 17.5	-0.2
	721nm,0.4s						
TDK	Taldyqorghan	2.79	295	*e*PN	Pb	20 56 36.0	-2.3
TDK	Taldyqorghan	2.79	295	*e*P	Pb	20 56 36.1	-2.3
TDK	Taldyqorghan	2.79	295	*e*P	Pg	20 56 40.7	-1.3
	2µm,0.5s						
TDK				*e*S	Sg	20 57 18.5	+0.4
	2µm,0.6s						
MK31	Makanchi Array	2.93	4	⇓Pn	Pn	20 56 35.6	+0.5
	1.4nm,0.1s,baz=42,slow=2.1						
MK31				⇑Pg	Pg	20 56 46.1	+1.3
	22nm,0.2s						
MK31				⇑Lg	Lg	20 57 25.1	
	146nm,0.3s,baz=189,slow=30,SNR=3.5						
MK31	Makanchi Array	2.93	4	*ce*PN	Pb	20 56 38.6	-2.3
MKAR	Makanchi Array	2.93	4	Pn	Pb	20 56 38.3	-2.5
	18nm,0.3s,baz=191,slow=12,SNR=1038						
MKAR				Sn	Sb	20 57 14.4	-2.3
	142nm,0.3s,baz=184,slow=25,SNR=12						
MKAR				Lg	Lg	20 57 23.0	
	129nm,0.3s,baz=190,slow=31,SNR=8.3						
MKAR				LR	LR	20 57 59.4	
	comp=Z,939nm,21.8s,baz=322,slow=44						
	88nm,0.6s						
MKAR				AML	AML		
MKAR	Makanchi Array	2.93	4	*e*PN	Pb	20 56 38.7	-2.2
MKAR				pmax	pmax		
	comp=Z,18nm,0.3s						
MKAR	Makanchi Array	2.93	4		Pb	20 56 38.6	-2.3
MAKZ	Makanchi	2.94	0	PN	Pb	20 56 39.0	-2.0
MAKZ						20 57 13.7	
MAKZ	Makanchi	2.94	0		Pb	20 56 39.0	-2.0
MAKZ				Sn	Sb	20 57 13.7	-3.1
PRZ	Przheval'sk	2.95	243	PN	Pn	20 56 38.5	+3.0
PRZ						20 57 13.3	
PRZ	Przheval'sk	2.95	243		Pn	20 56 38.5	+3.0
PRZ				Sn	Sn	20 57 13.3	+2.3
ARXS	Arharly	3.00	278	Pg	Pb	20 56 42.2	+0.1
	comp=Z,240nm,0.2s						
ARXS				Lg	Lg	20 57 21.5	
	comp=Z,1µm,0.2s						
ARXS	Arharly	3.00	278	*e*P	Pb	20 56 42.2	+0.1
	comp=Z,240nm,0.2s						
ARXS				*e*S	Sg	20 57 21.6	-3.4
	comp=Z,1µm,0.2s						
WUS	Wushi	3.35	218	Pn	Pn	20 56 43.6	+2.6
WUS				Sn	Sn	20 57 22.1	+1.3
KOTS	Kotyrbulak	3.58	261	Pg	Pb	20 56 51.5	-0.4
	comp=Z,62nm,0.3s						
KOTS				Lg	Lg	20 57 37.4	
	comp=Z,1µm,0.3s						
KOTS	Kotyrbulak	3.58	261	*e*P	Pb	20 56 51.5	-0.4
	comp=Z,1µm,0.7s						
KOTS				*e*S	Sb	20 57 37.4	+1.9
	comp=Z,1µm,0.3s						
MDOK	Medeo	3.64	261	*e*PN	Pn	20 56 47.1	+2.2
MDOK	Medeo	3.64	261	*e*P	Pn	20 56 47.2	+2.2
MDOK	Medeo	3.64	261	*e*P	Pb	20 56 53.4	+0.3
	comp=Z,598nm,0.4s						
MDOK				*e*S	Sb	20 57 40.3	+3.1
	comp=Z,1µm,0.6s						
KNDC	Almaty	3.69	262	⇓Pn	Pn	20 56 47.7	+2.2
	comp=Z,12nm,0.2s						
KNDC				⇓Lg	Lg	20 57 46.1	
	comp=Z,3µm,0.8s						
KNDC	Almaty	3.69	262	PN	Pn	20 56 47.7	+2.2
AAA	Alma-Ata	3.73	262	*e*PN	Pn	20 56 48.2	+2.2
AAA	Alma-Ata	3.73	262	*e*P	Pn	20 56 48.3	+2.2
AAA	Alma-Ata	3.73	262	*e*P	Pg	20 56 58.6	-1.4
	comp=Z,904nm,0.4s						
AAA				*e*S	Sg	20 57 49.3	+1.0
	comp=Z,39nm,0.2s						
TARG	Taragay, Kyrgy	3.73	236	PN	Pn	20 56 49.5	+3.1
TARG	Taragay, Kyrgy	3.73	236		Pn	20 56 49.5	+3.1
TNSS	Tian-Shan	3.74	259	*e*PN	Pn	20 56 48.6	+2.0
TNSS	Tian-Shan	3.74	259	*e*P	Pn	20 56 48.6	+2.0
KTBS	Karatobe	3.83	269	Pg	Pb	20 56 58.2	+2.1
	comp=Z,5.2nm,0.1s						
KTBS				Lg	Lg	20 57 48.7	
	comp=Z,1µm,0.7s						
KTBS	Karatobe	3.83	269	*e*P	Pb	20 56 58.2	+2.1
	comp=Z,5.2nm,0.1s						
KTBS				*e*S	Sg	20 57 48.7	-2.8
	comp=Z,1µm,0.7s						
KDJ	Kajisay	3.91	245	PN	Pn	20 56 51.2	+2.5
KDJ	Kajisay	3.91	245		Pn	20 56 51.2	+2.5
ZSN	Zaisan	4.12	29	Pg	Pg	20 57 06.0	-1.5
	comp=Z,130nm,0.4s						
ZSN				Lg	Lg	20 58 02.7	
	comp=Z,2µm,0.4s						
ZSN	Zaisan	4.12	29	*e*P	Pg	20 57 06.0	-1.5
	comp=Z,130nm,0.4s						
ZSN				*e*S	Sg	20 58 02.6	+1.8
	comp=Z,2µm,0.4s						
WMQ	Urumqi	4.15	89	Pn	Pn	20 56 55.6	+3.8
WMQ				Sn	Sn	20 57 46.1	+5.8
WMQ				AML	AML		
	comp=Z,1µm,1.3s						
WMQ				AML	AML		
	comp=Z,1µm,1.3s						
KST	Kastek	4.44	261	Pg	Pb	20 57 08.3	+1.7
	comp=Z,36nm,0.2s						
KST				Lg	Lg	20 58 06.7	
	comp=Z,653nm,0.7s						
KST	Kastek	4.44	261	*e*P	Pb	20 57 08.3	+1.7
	comp=Z,36nm,0.2s						
KST				*e*S	Sg	20 58 06.7	-4.6
	comp=Z,653nm,0.7s						
ULHL	Ulahol	4.49	251	P	Pn	20 56 59.0	+2.3
	SNR=124						
KRBS	Karabastau	4.55	270	Pg	Pb	20 57 10.9	+2.4
	comp=Z,54nm,0.3s						
KRBS				Lg	Lg	20 58 11.1	
	comp=Z,143nm,0.5s						
KRBS	Karabastau	4.55	270	*e*P	Pb	20 57 10.9	+2.4
	comp=Z,54nm,0.3s						
KRBS				*e*S	Sg	20 58 11.1	-3.7
	comp=Z,143nm,0.5s						
BOOM	Boomskoye usch	4.61	255	PN	Pn	20 57 00.8	+2.5
BOOM	Boomskoye usch	4.61	255		Pn	20 57 00.8	+2.5
TKM2	Tokmak 2	4.73	261	P	Pn	20 57 02.5	+2.5
	SNR=16						
KBK	Karagaybulak	5.26	259	P	Pn	20 57 10.3	+3.1
	SNR=44						
CHMS	Chumysh	5.32	263	P	Pn	20 57 10.2	+2.3
	SNR=10						
SGDS	Sogindy	5.33	268	*e*P	Pn	20 57 09.8	+1.6
FRU1	Bishkek	5.45	261	PN	Pn	20 57 11.6	+1.9
FRU1	Bishkek	5.45	261		Pn	20 57 11.6	+1.9
USP	Ospenovka	5.45	266	P	Pn	20 57 11.7	+1.9
	SNR=40						
AAK	Ala-Archa	5.59	260	Pn	Pn	20 57 14.9	+3.2
	comp=Z,3.7nm,0.3s,baz=107,slow=6.4,SNR=42						
AAK				Pg	Pg	20 57 30.9	-4.7
	comp=Z,11nm,0.3s,baz=91,slow=12,SNR=28						
AAK				Lg	Lg	20 58 42.6	
	comp=Z,12nm,0.3s,baz=213,slow=21,SNR=7.8						
AAK				LR	LR	20 59 42.0	
	comp=Z,632nm,20.7s,baz=75,slow=42						
	comp=Z,13nm,0.5s						
AAK				AML	AML		
AAK	Ala-Archa	5.59	260	P	Pn	20 57 15.0	+3.2
	SNR=8.2						
AAK	Ala-Archa	5.59	260	*ce*PN	Pn	20 57 15.2	+3.5
AAK				pmax	pmax		
	comp=Z,19nm,0.8s						
AAK	Ala-Archa	5.59	260		Pn	20 57 13.5	+1.8
EKS2	Erkin-Say	6.10	261	P	Pn	20 57 21.1	+2.4
	SNR=7.1						
MRKS	Merke	6.47	263	Pg	Pb	20 57 46.6	+5.4
	comp=Z,41nm,0.6s						
MRKS				Lg	Lg	20 59 12.4	
	comp=Z,276nm,0.5s						
MRKS	Merke	6.47	263	*e*P	Pb	20 57 46.6	+5.4
	comp=Z,41nm,0.6s						
MRKS				*e*S	Sg	20 59 12.4	-3.8
	comp=Z,276nm,0.5s						
SEM	Semipalatinsk	6.64	350	*e*PN	Pn	20 57 27.5	+1.3
SEM	Semipalatinsk	6.64	350	*e*P	Pn	20 57 27.6	+1.3
KSH2	Kashi	6.73	228	Pn	Pn	20 57 31.3	+3.9
KSH2				Sn	Sn	20 58 50.4	+6.4
KSH2				L	L		
	comp=Z,2µm,5.5s						
KSH2				L	L		
	comp=Z,2µm,4.0s						
KSH2				L	L		
	comp=Z,1µm,13.1s						
DGZ	Jazzator, Alta	6.94	31	*i* PN	Pn	20 57 31.9	+1.7
ARSB	Arslanbob	7.10	252	PN	Pn	20 57 34.0	+1.6
ARSB	Arslanbob	7.10	252	Pn	Pn	20 57 34.0	+1.6
KURBB	Kurchatov Arra	7.15	342	Pn	Pn	20 57 34.9	+1.9
	comp=Z,1.8nm,0.3s,baz=163,slow=12,SNR=320						
KURBB				Sn	Sn	20 58 52.9	-1.0
	comp=Z,6.1nm,0.3s,baz=155,slow=23,SNR=11						
KURBB				Lg	Lg	20 59 32.4	
	comp=Z,3.1nm,0.3s,baz=167,slow=32,SNR=4.3						
	comp=Z,48nm,0.6s						
KURBB				AML	AML		
KURBB	Kurchatov Arra	7.15	342	⇑Pn	Pn	20 57 34.4	+1.5
	comp=Z,60nm,0.7s						
KURBB				⇑Sn	Sn	20 58 53.3	-0.6
	comp=Z,606nm,0.7s						
KURBB	Kurchatov Arra	7.15	342	PN	Pn	20 57 34.4	+1.5
KURK	Kurchatov	7.21	343	⇑Pn	Pn	20 57 35.4	+1.6
	comp=Z,18nm,0.7s						
KURK				⇑Sn	Sn	20 58 55.9	+0.3
	comp=Z,190nm,0.8s						
KURK	Kurchatov	7.21	343	*ce*P	Pn	20 57 35.5	+1.7
KURK				pmax	pmax		
	comp=Z,76nm,1.0s						
KURK	Kurchatov	7.21	343		Pn	20 57 35.2	+1.3
DZA	Taraz	7.81	266	*e*P	Pn	20 57 44.4	+2.4
DZA	Taraz	7.81	266	*e*P	Pn	20 57 44.5	+2.4
KK31	Karatay Array	8.36	269	⇑Pn	Pn	20 57 50.9	+1.2
	comp=Z,1.0nm,0.3s,baz=76,slow=14,SNR=63						
KK31				⇓Lg	Lg	21 00 10.8	
	comp=Z,12nm,0.5s						
KK31	Karatay Array	8.36	269	P	Pn	20 57 50.0	+0.4
KK31	Karatay Array	8.36	269		Pn	20 57 50.0	+0.4
KKAR	Karatay Array	8.36	269	P	Pn	20 57 49.5	-0.1
KKAR	Karatay Array	8.36	269		Pn	20 57 49.5	-0.1
DRK	Karamyk	8.78	243	P	Pn	20 57 57.3	+1.7
DRK	Karamyk	8.78	243		Pn	20 57 57.3	+1.7
BRLS	Borolday	8.86	269	*e*P	Pn	20 58 01.1	+4.6
BRLS	Borolday	8.86	269	*e*P	Pn	20 58 01.1	+4.6
BTK	Batken	9.13	249	P	Pn	20 58 00.7	+0.4
BTK	Batken	9.13	249		Pn	20 58 00.7	+0.4
CHM	Chimkent	9.18	265	*e*P	Pn	20 58 03.2	+2.5
CHM	Chimkent	9.18	265	*e*P	Pn	20 58 03.3	+2.5
ZAA0	Zalesovo Array	10.26	10	⇑Pn	Pn	20 58 16.4	+0.8
	comp=Z,15nm,0.6s						
ZAA0				⇑Sn	Sn	21 00 07.0	-3.4
	comp=Z,67nm,0.8s						

ZAA0	**Zalesovo Array**	**10.26**	**10**		**Pn**	**20 58 16.3**	**+0.8**
ZALV	**Zalesovo Beam**	**10.26**	**10**	Pn	**Pn**	**20 58 17.1**	**+1.6**
	comp=Z,5.3nm,0.3s,baz=189,slow=13,SNR=154						
ZALV				Sn	**Sn**	**21 00 06.6**	**-3.8**
	comp=Z,3.7nm,0.3s,baz=192,slow=21,SNR=6.8						
ZALV				Lg	Lg	21 01 08.7	
	baz=171,slow=29						
ZALV				LR	LR	21 02 32.6	
	comp=Z,228nm,21.2s,baz=184,slow=39						
	comp=Z,21nm,0.4s						
ZALV				AML	AML		
ZALV	**Zalesovo Beam**	**10.26**	**10**		**Pn**	**20 58 16.2**	**+0.7**
BVAR	**Borovoye Array**	**11.94**	**324**	Pn	**Pn**	**20 58 39.7**	**+1.1**
	comp=Z,0.1nm,0.3s,baz=127,slow=13,SNR=8.8						
BVAR				Sn	**Sn**	**21 00 47.6**	**-4.1**
	comp=Z,0.4nm,0.3s,baz=137,slow=22,SNR=5.6						
BVAR				Lg	Lg	21 02 01.1	
	comp=Z,0.4nm,0.3s,baz=124,slow=20,SNR=5.5						
	comp=Z,1.4nm,0.3s						
BVAR				AML	AML		
BORK	**Borovoye**	**11.99**	**324**	P	**Pn**	**20 58 38.9**	**-0.3**
BORK	**Borovoye**	**11.99**	**324**		**Pn**	**20 58 38.9**	**-0.3**
NIL	**Nilore**	**12.25**	**217**	P	**Pn**	**20 58 43.7**	**+0.8**
NIL	**Nilore**	**12.25**	**217**		**Pn**	**20 58 43.7**	**+0.8**
GOMU	**GeErMu**	**12.47**	**124**	P	**Pn**	**20 58 46.4**	**+0.2**
GOMU				S	**Sn**	**21 00 59.6**	**-5.6**
KBL	**Kabul**	**13.66**	**231**	P	**Pn**	**20 59 01.8**	**-0.6**
KBL	**Kabul**	**13.66**	**231**		**Pn**	**20 59 01.8**	**-0.6**
GTA2	**Gaotai**	**14.00**	**102**	*e*P	**Pn**	**20 59 06.1**	**-0.8**
GTA2				pmax	pmax		
	comp=Z,6.0nm,1.1s						
MOY	**Mondy**	**14.96**	**52**	*e*P	**P**	**20 59 28.1**	**+2.7**
MOY				pmax	pmax		
	comp=Z,21nm,1.3s						
ZAK	**Zakamensk**	**15.88**	**58**	*e*P	**Pn**	**20 59 32.3**	**+0.4**
ZAK				pmax	pmax		
	comp=Z,26nm,1.0s						
LSA	**Lhasa**	**15.93**	**150**	P	**Pn**	**20 59 34.1**	**+1.1**
LSA				pmax	pmax		
	comp=Z,9.0nm,0.8s						
LSA	**Lhasa**	**15.93**	**150**		**Pn**	**20 59 34.1**	**+1.1**
AB31	**Akbulak array**	**16.05**	**297**	P	**Pn**	**20 59 31.8**	**-2.2**
	comp=Z,5.2nm,0.6s,baz=101,slow=13,SNR=82						
AB31	**Akbulak array**	**16.05**	**297**	P	**Pn**	**20 59 31.8**	**-2.2**
AB31	**Akbulak array**	**16.05**	**297**		**Pn**	**20 59 31.6**	**-2.4**
ABKAR	**Akbulak array**	**16.05**	**297**		**Pn**	**20 59 31.5**	**-2.5**
EVN	**Everest**	**16.35**	**165**		**Pn**	**20 59 39.4**	**+0.7**
SONM	**Songino Array**	**17.45**	**68**	P	**Pn**	**20 59 52.6**	**+0.7**
	comp=Z,3.4nm,0.3s,baz=276,slow=8.7,SNR=75						
SONM				Lg	Lg	21 04 58.8	
	comp=Z,0.3nm,0.3s,baz=255,slow=28,SNR=4.4						
SONM				LR	LR	21 07 22.2	
	comp=Z,488nm,21.1s,baz=279,slow=40						
	comp=Z,11nm,0.6s						
SONM				AML	AML		
SONM	**Songino Array**	**17.45**	**68**	*e*P	**P**	**20 59 53.0**	**-0.1**
SONM				pmax	pmax		
	comp=Z,3.0nm,0.3s						
SONM	**Songino Array**	**17.45**	**68**		**Pn**	**20 59 52.1**	**+0.2**
AKTO	**Aktyubinsk**	**17.52**	**300**	P	**Pn**	**20 59 52.2**	**-0.3**
	comp=Z,0.8nm,0.3s,baz=107,slow=10.0,SNR=18						
AKTO				S	**S**	**21 03 12.0**	**-3.4**
	comp=Z,5.9nm,0.8s,baz=208,slow=17,SNR=2.5						
AKTO				Lg	Lg	21 04 59.6	
	comp=Z,0.3nm,0.3s,baz=206,slow=18,SNR=3.9						
AKTO				LR	LR	21 07 23.8	
	comp=Z,150nm,19.8s,baz=216,slow=40						
	comp=Z,4.8nm,0.5s						
AKTO				AML	AML		
AKTO	**Aktyubinsk**	**17.52**	**300**	⇑P	**Pn**	**20 59 51.0**	**-1.5**
	comp=Z,7.2nm,0.9s						
ULN	**Ulaanbaatar**	**17.90**	**68**	*ce*P	**P**	**20 59 58.5**	**+0.4**
ULN				pmax	pmax		
	comp=Z,15nm,1.0s						
ULN	**Ulaanbaatar**	**17.90**	**68**		**Pn**	**20 59 57.0**	**-0.4**
HRA	**Herat**	**17.95**	**245**		**Pn**	**20 59 56.3**	**-1.9**
LZDM	**Lanzhou Array**	**18.42**	**108**	P	**P**	**21 00 04.1**	**0.0**
	baz=354,slow=12						
	comp=Z,5.0nm,0.5s						
SVE	**Sverdlovsk**	**18.69**	**321**	*e*P	**Pn**	**21 00 10.6**	**+3.7**
SVE				pmax	pmax		
	comp=Z,11nm,0.7s						
ARTI	**Arti**	**19.51**	**318**	P	**Pn**	**21 00 16.7**	**0.0**
	comp=Z,0.8nm,0.3s,baz=136,slow=4.4,SNR=15						
	comp=Z,12nm,0.8s						
ARTI				AML	AML		
ARTI	**Arti**	**19.51**	**318**	*d* *i*P	**Pn**	**21 00 17.6**	**+0.9**
ARTI				S	**Sn**	**21 03 54.9**	**-0.5**
ARTI				pmax	pmax		
	comp=Z,16nm,0.8s						
ARTI	**Arti**	**19.51**	**318**		**P**	**21 00 14.4**	**-1.1**
SHL	**Shillong**	**19.97**	**153**	P	**P**	**21 00 19.7**	**-1.2**
SHL				pmax	pmax		
	comp=Z,24nm,1.1s						
SHL	**Shillong**	**19.97**	**153**	P	**P**	**21 00 19.7**	**-1.2**
BTO2	**Baotou**	**20.84**	**89**	*e*P	**P**	**21 00 31.4**	**+1.1**
BTO2				S	**S**	**21 04 14.3**	**-8.3**
BTO2				pmax	pmax		
	comp=Z,76nm,0.8s						
BTO2				pmax	pmax		
	comp=Z,130nm,7.4s						
BTO2				L	L		
	comp=Z,380nm,16.7s						
BTO2				L	L		
	comp=Z,330nm,14.3s						
BTO2				L	L		
	comp=Z,440nm,16.5s						
MORE	**Moreh**	**22.05**	**149**		**P**	**21 00 42.8**	**-0.4**
TNCH	**TengChong**	**23.15**	**139**	⇑P	**P**	**21 00 56.1**	**+1.0**
TNCH				pP	sP	21 01 00.3	-0.1
TNCH				sP	pP	21 01 03.3	+4.5
TNCH				S	**S**	**21 05 00.5**	**-6.0**
TNCH				pmax	pmax		
	comp=Z,10.0nm,2.3s						
TNCH				pmax	pmax		
	comp=Z,110nm,3.8s						
BELG	**Belogornoye**	**24.26**	**303**	P	**P**	**21 01 06.0**	**+0.6**
	comp=Z,23nm,0.8s,baz=48,slow=3.0,SNR=8.0						
	comp=Z,23nm,0.8s						
BELG	**Belogornoye**	**24.26**	**303**	*i* P	**P**	**21 01 06.3**	**+1.0**
BELG				pmax	pmax		
	comp=Z,4.0nm,0.9s						
XLT	**XiLinHaoTe**	**24.49**	**78**	*e*P	**P**	**21 01 10.3**	**+2.6**
XLT				pmax	pmax		
	comp=Z,12nm,0.9s						
XLT				L	L		
	comp=Z,52nm,9.2s						
XLT				L	L		
	comp=Z,200nm,7.5s						
XLT				L	L		
	comp=Z,110nm,6.8s						
KIRV	**Kirov**	**24.82**	**318**	P	**P**	**21 01 11.7**	**+1.3**
	comp=Z,21nm,0.6s,baz=78,slow=2.2,SNR=9.4						
	comp=Z,21nm,0.6s						
MAK	**Makhachkala**	**24.94**	**280**	*c* *i*P	**P**	**21 01 08.1**	**-3.5**
MAK				*e*		21 01 42.9	
MAK				*e*S	**S**	**21 05 30.5**	**-4.3**
MAK				pmax	pmax		
	comp=Z,285nm,1.1s						
MAK				MLR	MLR		
	comp=Z,87nm,11.0s						
LYN	**LuoYang**	**25.29**	**101**	P	**P**	**21 01 17.4**	**+2.6**
LYN				pP	sP	21 01 27.6	+7.3
LYN				pmax	pmax		
	comp=Z,27nm,0.8s						
LYN				pmax	pmax		
	comp=Z,210nm,3.9s						
LYN				L	L		
	comp=Z,410nm,9.3s						
LYN				L	L		
	comp=Z,410nm,14.1s						
LYN				L	L		
	comp=Z,230nm,6.5s						
LKRN	**Lenkeran, Azer**	**25.35**	**270**	P	**P**	**21 01 17.9**	**+2.5**
BJT	**Baijiatuau**	**25.62**	**87**	P	**P**	**21 01 19.2**	**+1.4**
BJT				pmax	pmax		
	comp=Z,17nm,1.3s						
BJT	**Baijiatuau**	**25.62**	**87**	P	**P**	**21 01 19.2**	**+1.4**
BJT				IAmb	IAmb	21 01 40.8	
	comp=Z,17nm,1.3s						
BJI2	**Beijing**	**25.62**	**87**	P	**P**	**21 01 21.0**	**+3.2**
BJI2				pmax	pmax		
	comp=Z,3.0nm,0.7s						
SEKA	**Sheki**	**25.64**	**276**	P	**P**	**21 01 21.1**	**+3.0**
ENH	**Enshi**	**25.68**	**113**	P	**P**	**21 01 18.6**	**+0.1**
ENH				IAmb	IAmb	21 01 30.7	
	comp=Z,21nm,0.9s						
NRIK	**Noril'sk**	**25.70**	**5**	P	**P**	**21 01 19.3**	**+1.1**
	comp=Z,27nm,0.6s,baz=174,slow=7.3,SNR=23						
NRIK				LR	LR	21 12 35.1	
	comp=Z,128nm,18.9s,baz=276,slow=39						
	comp=Z,27nm,0.6s						
NRIK	**Noril'sk**	**25.70**	**5**		**P**	**21 01 18.7**	**+0.5**
MNGR	**Mingechevir, A**	**25.86**	**275**	P	**P**	**21 01 23.1**	**+3.2**
HILR	**Hailar Array B**	**26.33**	**64**	P	**P**	**21 01 26.1**	**+1.9**
	comp=Z,1.4nm,0.4s,baz=285,slow=7.5,SNR=3.7						
	comp=Z,1.4nm,0.4s						
HIA	**Hailar**	**26.33**	**65**	P	**P**	**21 01 25.7**	**+1.5**
HIA				pmax	pmax		
	comp=Z,9.0nm,0.8s						
HIA	**Hailar**	**26.33**	**65**	P	**P**	**21 01 25.7**	**+1.5**
HIA				IAmb	IAmb	21 01 45.1	
	comp=Z,8.8nm,0.8s						
GANJ	**Ganja**	**26.45**	**275**	P	**P**	**21 01 28.3**	**+3.0**
HYB	**Hyderabad**	**26.53**	**187**	*e*P	**P**	**21 01 26.3**	**+0.1**
HYB				*e*S	**S**	**21 06 01.8**	**+1.5**
NAX	**Nakhchivan**	**27.55**	**273**	P	**P**	**21 01 38.2**	**+2.8**
GNI	**Garni**	**27.75**	**275**	LR	LR	21 14 04.8	
	comp=Z,53nm,18.8s,baz=14,slow=40						
GNI	**Garni**	**27.75**	**275**	P	**P**	**21 01 36.2**	**-1.0**
GNI				pmax	pmax		
	comp=Z,10.0nm,0.9s						
GNI	**Garni**	**27.75**	**275**	P	**P**	**21 01 36.2**	**-1.0**
GNI				IAmb	IAmb	21 02 14.9	
	comp=Z,10.0nm,0.8s						
KBZ	**Khabaz**	**28.02**	**283**	LR	LR	21 15 06.3	
	comp=Z,208nm,18.6s,baz=39,slow=41						
KIV	**Kislovodsk**	**28.11**	**284**	*e*P	**P**	**21 01 41.8**	**+1.5**
KIV				pmax	pmax		
	comp=Z,5.0nm,1.1s						
KIV				MLR	MLR		
	comp=Z,140nm,15.0s						
KIV	**Kislovodsk**	**28.11**	**284**	P	**P**	**21 01 39.1**	**-1.2**
KIV				IAmb	IAmb	21 02 21.7	
	comp=Z,8.8nm,0.7s						
CHTO	**Chiang Mai**	**28.77**	**145**	P	**P**	**21 01 45.8**	**-0.5**
CHTO				pmax	pmax		
	comp=Z,2.0nm,0.8s						
CHTO	**Chiang Mai**	**28.77**	**145**	P	**P**	**21 01 45.8**	**-0.5**
CMAR	**Chiang Mai Arr**	**29.09**	**145**	P	**P**	**21 01 49.6**	**+0.6**
	comp=Z,0.8nm,0.3s,baz=321,slow=9.5,SNR=5.4						
	comp=Z,0.8nm,0.3s						
CMAR	**Chiang Mai Arr**	**29.09**	**145**	P	**P**	**21 01 48.4**	**-0.7**
VSR	**Storozhevoye**	**29.46**	**300**	*e*P	**P**	**21 01 52.2**	**+0.1**
VSR				pmax	pmax		
	comp=Z,6.0nm,1.0s						
LPSR	**Galich'ya Gora**	**29.57**	**303**	*e*P	**P**	**21 01 54.1**	**+1.0**
LPSR				pmax	pmax		
	comp=Z,22nm,0.9s						
DL2	**Dalian**	**29.96**	**86**	P	P	21 02 02.4	+5.7
DL2				S	**S**	**21 06 59.8**	**+5.7**
DL2				pmax	pmax		
	comp=Z,28nm,1.4s						
DL2				pmax	pmax		
	comp=Z,240nm,4.7s						
DL2				L	L		
	comp=Z,280nm,25.5s						
DL2				L	L		
	comp=Z,250nm,28.2s						
DL2				L	L		
	comp=Z,220nm,23.5s						
KLMR	**Klimovskoe**	**30.29**	**319**	*e*P	**P**	**21 01 59.5**	**+0.2**
KLMR				*e*		21 02 57.2	
KLMR				pmax	pmax		
	comp=Z,15nm,0.9s						
KOPT	**Kop Dagi**	**30.85**	**277**	P	**P**	**21 02 04.1**	**-0.7**
KOPT				IAmb	IAmb	21 02 09.0	
	comp=Z,8.6nm,1.2s						
ZEA	**Zeya**	**30.93**	**55**	*e*P	**P**	**21 02 07.0**	**+1.9**
ZEA				pmax	pmax		
	comp=E,10.0nm,0.5s						
ZEA				pmax	pmax		
	comp=Z,10.0nm,0.8s						
OBN	**Obninsk**	**31.01**	**307**	*i* P	**P**	**21 02 05.6**	**-0.2**
OBN				*i*		21 03 15.7	
OBN				pmax	pmax		
	comp=Z,12nm,1.0s						
OBN				MLR	MLR		
	comp=Z,99nm,19.0s						
OBN	**Obninsk**	**31.01**	**307**	P	**P**	**21 02 04.8**	**-1.0**
HEH	**HeiHe**	**31.22**	**62**	*e*P	**P**	**21 02 08.6**	**+1.0**
HEH				pmax	pmax		
	comp=Z,12nm,0.6s						
ARPR	**Arapgir-MALATY**	**32.74**	**277**	P	**P**	**21 02 18.5**	**-2.9**
ARPR				IAmb	IAmb	21 02 25.1	
	comp=Z,18nm,1.4s						
YAK	**Yakutsk**	**33.03**	**40**	LR	LR	21 16 14.3	
	comp=Z,118nm,18.4s,baz=264,slow=37						
YAK	**Yakutsk**	**33.03**	**40**	*e*P	**P**	**21 02 23.5**	**+0.1**
YAK				pmax	pmax		
	comp=Z,56nm,0.8s						
YAK				pmax	pmax		
	comp=N,7.0nm,1.1s						
YAK				pmax	pmax		
	comp=E,16nm,1.1s						
YAK	**Yakutsk**	**33.03**	**40**	P	**P**	**21 02 23.3**	**-0.1**
KLR	**Kul'dur**	**34.15**	**63**	*ce*P	**P**	**21 02 34.5**	**+1.2**
KLR				pmax	pmax		
	comp=Z,14nm,1.3s						
KSRS	**Korea Array**	**35.09**	**84**	P	**P**	**21 02 41.4**	**-0.2**
	comp=Z,1.0nm,0.6s,baz=285,slow=8.6,SNR=5.0						
	comp=Z,1.0nm,0.6s						
KSRS	**Korea Array**	**35.09**	**84**	*e*P	**P**	**21 02 41.2**	**-0.3**
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.6s						
USA0B	**Ussuriysk Arra**	**35.52**	**72**	P	**P**	**21 02 45.7**	**+0.6**
USA0B				pmax	pmax		
	comp=Z,9.0nm,1.3s						
USA0B	**Ussuriysk Arra**	**35.52**	**72**	P	**P**	**21 02 45.7**	**+0.6**
USA0B				IAmb	IAmb	21 02 51.4	
	comp=Z,8.7nm,1.2s						
USRK	**Ussuriysk Ar.**	**35.52**	**72**	P	**P**	**21 02 45.8**	**+0.6**
	comp=Z,2.5nm,0.7s,baz=283,slow=9.6,SNR=5.9						
	comp=Z,2.5nm,0.7s						
USRK	**Ussuriysk Ar.**	**35.52**	**72**	*e*P	**P**	**21 02 45.7**	**+0.6**
USRK				pmax	pmax		
	comp=Z,2.0nm,0.7s						
TIXI	**Tiksi**	**35.75**	**23**	LR	LR	21 18 01.8	
	comp=Z,157nm,18.4s,baz=238,slow=37						
TIXI	**Tiksi**	**35.75**	**23**	*ce*P	**P**	**21 02 47.5**	**+0.6**
TIXI				pmax	pmax		
	comp=Z,5.0nm,0.6s						
TIXI	**Tiksi**	**35.75**	**23**		**P**	**21 02 46.6**	**-0.3**
TIXI				IAmb	IAmb	21 02 47.8	
	comp=Z,12nm,0.8s						
AKASG	**Malin Array Be**	**35.76**	**300**	P	**P**	**21 02 47.7**	**+0.5**
	comp=Z,2.9nm,0.7s,baz=69,slow=8.6,SNR=9.6						
	comp=Z,2.9nm,0.7s						
AKASG	**Malin Array Be**	**35.76**	**300**	*e*P	**P**	**21 02 47.3**	**+0.1**
AKASG				pmax	pmax		
	comp=Z,5.0nm,0.6s						
AKASG	**Malin Array Be**	**35.76**	**300**	P	**P**	**21 02 46.5**	**-0.7**
AKBB	**Malin Array Si**	**35.76**	**300**	*ce*P	**P**	**21 02 48.2**	**+1.0**
AKBB				pmax	pmax		
	comp=Z,6.0nm,0.9s						
AKBB	**Malin Array Si**	**35.76**	**300**		**P**	**21 02 46.1**	**-1.1**
AKBB				IAmb	IAmb	21 02 48.4	
	comp=Z,6.9nm,0.8s						
KIEV	**Kiev**	**35.77**	**300**	P	**P**	**21 02 46.7**	**-0.6**
KIEV				pmax	pmax		
	comp=Z,6.0nm,0.8s						
KIEV	**Kiev**	**35.77**	**300**		**P**	**21 02 46.7**	**-0.6**
KIEV				IAmb	IAmb	21 02 48.4	
	comp=Z,6.2nm,0.8s						
BR131	**Keskin Array S**	**35.85**	**280**	P	**P**	**21 02 47.7**	**-0.6**
BR131				pmax	pmax		
	comp=Z,6.0nm,1.1s						
BR131	**Keskin Array S**	**35.85**	**280**		**P**	**21 02 47.7**	**-0.6**
BRTR	**Keskin Array B**	**35.85**	**280**	P	**P**	**21 02 49.5**	**+1.2**
	comp=Z,2.8nm,0.9s,baz=81,slow=7.6,SNR=9.6						
BRTR				LR	LR	21 20 51.7	
	comp=Z,49nm,18.3s,baz=12,slow=42						
	comp=Z,2.8nm,0.9s						
BRTR	**Keskin Array B**	**35.85**	**280**		**P**	**21 02 48.1**	**-0.2**
MNK	**Minsk**	**36.05**	**307**	*i* P	**P**	**21 02 51.4**	**+1.8**
MNK				*i*		21 04 13.5	
MNK				*i* PPP	PPP	21 04 28.6	
MNK				*i*		21 05 16.2	
MNK				*i* S	**S**	**21 08 29.1**	**+0.8**
MNK				*i* SS	**SnSn**	**21 10 58.4**	**+5.6**
MNK				*i* SSS	SSS	21 11 15.5	
MNK				*i*		21 13 05.1	
MNK				pmax	pmax		
	comp=N,8.0nm,0.9s						
MNK				pmax	pmax		
	comp=Z,7.0nm,0.8s						
MNK				pmax	pmax		
	comp=E,10.0nm,1.0s						
MNK				MLR	MLR		
	comp=E,28nm,15.0s						
MNK				MLR	MLR		
	comp=N,81nm,17.0s						
MNK				MLR	MLR		
	comp=Z,79nm,19.0s						
MNK	**Minsk**	**36.05**	**307**	*i* P	**P**	**21 02 51.4**	**+1.8**
	comp=E,10.0nm,1.0s						
MNK				*i* P	**P**	**21 02 51.4**	**+1.8**
	comp=N,8.0nm,0.9s						
MNK				*i* P	**P**	**21 02 51.4**	**+1.8**
	comp=Z,7.0nm,0.8s,baz=84						
MNK				*i* pP	sP	21 03 02.6	+7.3
MNK				*i* PP	**PP**	**21 04 13.6**	**+2.1**
MNK				*i* PPP	PPP	21 04 28.6	
MNK				*i* S	**S**	**21 08 29.2**	**+0.8**
MNK				*i* SS	**SnSn**	**21 10 58.4**	**+5.6**
MNK				*i* SSS	SSS	21 11 15.6	
MNK				*i* LQ	LQ	21 15 01.9	
MNK				*i* LR	LR	21 17 20.5	
MNK				*i* LRM	MLR	21 18 16.2	
	comp=E,28nm,15.3s						
MNK				*i* LRM	MLR	21 18 20.7	
	comp=N,81nm,16.6s						
MNK				*i* LRM	MLR	21 18 24.5	
	comp=Z,79nm,19.2s						
RAYN	**Ar Rayn**	**36.10**	**248**	P	**P**	**21 02 49.8**	**-0.6**
RAYN				pmax	pmax		
	comp=Z,9.0nm,0.7s						
RAYN	**Ar Rayn**	**36.10**	**248**		**P**	**21 02 49.8**	**-0.6**
RAYN				IAmb	IAmb	21 02 51.3	
	comp=Z,8.6nm,0.7s						
PALK	**Pallekele**	**36.47**	**182**	LR	LR	21 19 23.7	
	comp=Z,143nm,19.4s,baz=8.0,slow=39						
FINES	**FINESS Array B**	**36.82**	**318**	P	**P**	**21 02 55.5**	**-0.6**
	comp=Z,6.2nm,1.1s,baz=308,slow=9.4,SNR=4.5						
	comp=Z,6.2nm,1.1s						
FINES	**FINESS Array B**	**36.82**	**318**	P	**P**	**21 02 56.1**	**0.0**
FINES	**FINESS Array B**	**36.82**	**318**	P	**P**	**21 02 56.1**	**0.0**
KEV	**Kevo**	**37.63**	**332**	P	**P**	**21 03 01.2**	**-1.6**
KEV				pmax	pmax		
	comp=Z,64nm,1.4s						
KEV	**Kevo**	**37.63**	**332**	P	**P**	**21 03 01.2**	**-1.6**
ARCES	**ARCESS Array B**	**38.09**	**332**	P	**P**	**21 03 07.7**	**+0.9**
	comp=Z,1.1nm,0.6s,baz=92,slow=9.0,SNR=8.4						
	comp=Z,1.1nm,0.6s						
ARCES	**ARCESS Array B**	**38.09**	**332**	*e*P	**P**	**21 03 10.4**	**+3.6**
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.5s						
ARCES	**ARCESS Array B**	**38.09**	**332**	P	**P**	**21 03 07.1**	**+0.3**
ARCES				IAmb	IAmb	21 03 15.0	
	comp=Z,21nm,1.4s						
CSS	**Mathiatis**	**38.14**	**274**	P	**P**	**21 03 07.6**	**0.0**
CSS				IAmb	IAmb	21 03 11.3	
	comp=Z,11nm,1.1s						
SUW	**Suwalki**	**38.85**	**306**	P	**P**	**21 03 12.4**	**-1.0**
SUW	**Suwalki**	**38.85**	**306**	P	**P**	**21 03 12.4**	**-1.0**
ISP	**Isparta**	**38.86**	**279**	*ce*P	**P**	**21 03 15.7**	**+2.0**
ISP				pmax	pmax		
	comp=Z,9.0nm,0.7s						
BURAR	**Bucovina Array**	**39.02**	**296**	P	**P**	**21 03 13.9**	**-1.1**
BURAR				pmax	pmax		
	comp=Z,3.0nm,0.8s						
BURAR	**Bucovina Array**	**39.02**	**296**	P	**P**	**21 03 14.0**	**-1.1**
BUR08	**Bucovina Ar. S**	**39.03**	**296**		**P**	**21 03 14.3**	**-0.8**
MLR	**Muntele Rosu**	**39.17**	**293**	P	**P**	**21 03 17.6**	**+1.3**
	comp=Z,3.8nm,0.7s,baz=114,slow=18,SNR=6.3						
	comp=Z,3.8nm,0.7s						
MLR	**Muntele Rosu**	**39.17**	**293**	P	**P**	**21 03 14.6**	**-1.8**
MLR				IAmb	IAmb	21 03 22.6	
	comp=Z,17nm,1.5s						
ELL	**Elmali**	**39.77**	**278**	P	**P**	**21 03 19.6**	**-1.8**
ELL				pmax	pmax		
	comp=Z,10.0nm,0.9s						
ELL	**Elmali**	**39.77**	**278**	P	**P**	**21 03 19.6**	**-1.8**
AKAS	**Kas**	**40.22**	**278**	P	**P**	**21 03 23.5**	**-1.7**
KOLS	**Kolonicke sedl**	**40.55**	**299**	*e*P	**P**	**21 03 28.0**	**+0.4**
KOLS	**Kolonicke sedl**	**40.55**	**299**	*e*P	**P**	**21 03 28.0**	**+0.4**
JOW	**Kunigami**	**40.85**	**99**	P	**P**	**21 03 28.8**	**-1.5**
JOW				IAmb	IAmb	21 04 05.8	
	comp=Z,24nm,1.4s						
OJC	**Ojcow**	**41.74**	**301**	P	**P**	**21 03 36.2**	**-1.1**
OJC	**Ojcow**	**41.74**	**301**	P	**P**	**21 03 36.2**	**-1.1**
ASAJ	**Asahikawa**	**42.73**	**68**	P	**P**	**21 03 45.1**	**-0.4**
ASAJ				pmax	pmax		
	comp=Z,38nm,1.4s						
JKA	**Kamikawa-asahi**	**42.74**	**68**	P	**P**	**21 03 45.1**	**-0.4**
JKA				IAmb	IAmb	21 04 22.7	
	comp=Z,38nm,1.4s						
MJB9	**Matsu-Tunnel**	**42.86**	**80**	P	**P**	**21 03 45.8**	**-0.8**
MJB9				IAmb	IAmb	21 04 19.9	
	comp=Z,15nm,1.4s						
MJAR	**Matsushiro Arr**	**42.86**	**80**	LR	LR	21 21 26.5	
	comp=Z,182nm,20.7s,baz=158,slow=36						
NC405	**NORSAR Array S**	**43.75**	**319**	P	**P**	**21 03 52.3**	**-1.2**
NC405				IAmb	IAmb	21 04 23.2	
	comp=Z,34nm,1.5s						
MODS	**Modra-Piesok**	**43.87**	**300**	*e*P	**P**	**21 03 56.0**	**+1.3**
MODS	**Modra-Piesok**	**43.87**	**300**	*e*P	**P**	**21 03 56.0**	**+1.3**
KAAM	**Kaadhehdhoo**	**43.92**	**193**	P	**P**	**21 03 54.1**	**-1.2**
ERM	**Erimo**	**43.93**	**70**	P	**P**	**21 03 54.8**	**-0.4**
ERM				pmax	pmax		
	comp=Z,84nm,1.5s						
ERM	**Erimo**	**43.93**	**70**	P	**P**	**21 03 54.8**	**-0.4**
NB2	**NORSAR Subarra**	**44.00**	**319**	P	**P**	**21 03 56.2**	**+0.6**
	comp=Z,6.0nm,1.2s,baz=81,slow=8.6						
NOA	**NORSAR Array B**	**44.00**	**319**	P	**P**	**21 03 56.9**	**+1.3**
	comp=Z,0.9nm,0.7s,baz=80,slow=8.0,SNR=4.6						
	comp=Z,0.9nm,0.7s						
NBO00	**NORSAR Array S**	**44.21**	**319**	P	**P**	**21 03 55.8**	**-1.5**
NBO00				IAmb	IAmb	21 04 13.7	
	comp=Z,11nm,1.2s						
GSI	**Gunungsitoli**	**44.60**	**157**	P	**P**	**21 03 59.9**	**-0.9**
CONA	**Conrad Observa**	**44.91**	**299**	*e*P	**P**	**21 04 04.5**	**+1.3**
	comp=Z,3.5nm,1.0s						
CLL	**Collm**	**45.52**	**305**	*e*P	**P**	**21 04 09.0**	**+1.2**
CLL	**Collm**	**45.52**	**305**	*e*P	**P**	**21 04 09.0**	**+1.2**
GERES	**GERESS Array B**	**45.94**	**301**	P	**P**	**21 04 12.4**	**+1.1**
	comp=Z,0.4nm,0.2s,baz=104,slow=5.6,SNR=3.5						
	comp=Z,0.4nm,0.2s						
GERES	**GERESS Array B**	**45.94**	**301**	*e*P	**P**	**21 04 15.0**	**+3.8**
GERES	**GERESS Array B**	**45.94**	**301**	P	**P**	**21 04 11.8**	**+0.5**
WTTA	**Wattenberg**	**47.82**	**300**	*i* P	**P**	**21 04 27.0**	**+0.9**
	comp=Z,7.0nm,0.8s						
WATA	**Walderalm**	**47.83**	**300**	*i* P	**P**	**21 04 26.9**	**+0.9**
	comp=Z,5.0nm,0.8s						
TIP	**Timpagrande**	**47.91**	**288**	P	**P**	**21 04 27.5**	**+0.8**
SQTA	**Sankt Quirin**	**48.10**	**300**	*i* P	**P**	**21 04 29.1**	**+0.9**
	comp=Z,8.3nm,0.7s						
MOTA	**Moosalm**	**48.12**	**300**	*i* P	**P**	**21 04 29.1**	**+0.8**
	comp=Z,6.5nm,0.8s						
BILL	**Bilibino**	**48.18**	**30**	*i* P	**P**	**21 04 29.8**	**+1.5**
BILL				pmax	pmax		
	comp=Z,4.0nm,1.0s						
CUC	**Castrocucco**	**48.18**	**289**	P	**P**	**21 04 28.9**	**+0.1**
CUC				IAmb	IAmb	21 04 30.9	
	comp=Z,9.2nm,0.7s						
RETA	**Reutte**	**48.27**	**301**	*i* P	**P**	**21 04 30.6**	**+1.2**
	comp=Z,4.7nm,1.1s						
FETA	**Feichten**	**48.48**	**300**	*e*P	**P**	**21 04 31.7**	**+0.5**
	comp=Z,3.3nm,0.8s						
INTR	**Introdacqua**	**48.55**	**293**	P	**P**	**21 04 31.3**	**-0.4**
TEOL	**Teolo**	**48.57**	**298**	P	**P**	**21 04 31.5**	**-0.1**
FDMO	**Fiordimonte**	**48.64**	**294**	P	**P**	**21 04 31.9**	**-0.4**
FDMO				IAmb	IAmb	21 04 35.1	
	comp=Z,7.2nm,0.9s						
SKR	**Severo-Kuril's**	**48.82**	**54**	*ce*P	**P**	**21 04 32.4**	**-1.0**
FUORN	**Ofenpass-Fuorn**	**48.94**	**300**	P	**P**	**21 04 35.2**	**+0.4**
DAVOX	**Davos/Dischmat**	**49.11**	**300**	LR	LR	21 25 37.7	
	comp=Z,113nm,19.5s,baz=268,slow=36						
PET	**Petropavlovsk**	**49.39**	**51**	⇑*e*P	**P**	**21 04 40.6**	**+2.8**
PET				pmax	pmax		
	comp=Z,43nm,1.3s						
TUE	**Stuetta**	**49.57**	**300**	P	**P**	**21 04 39.5**	**-0.1**
TUE				IAmb	IAmb	21 04 60.0	
	comp=Z,8.0nm,1.4s						
BNI	**Bardonecchia**	**51.88**	**299**	P	**P**	**21 04 56.2**	**-0.7**
BNI				pmax	pmax		
	comp=Z,13nm,1.4s						

BNI	Bardonecchia	51.88	299	P	P	21 04 56.2	-0.7
BNI				IAmb	IAmb	21 05 10.3	
	comp=Z,13nm,1.4s						
C19K	Lookout Ridge	58.60	22	P	P	21 05 46.0	+1.1
F15K	North Star Dit	59.34	26	P	P	21 05 50.9	+0.9
D20K	Etivluk River	59.66	21	P	P	21 05 52.7	+0.5
D22K	Ayikyak River	60.53	20	P	P	21 05 58.5	+0.3
D22K				IAmb	IAmb	21 05 59.5	
	comp=Z,8.8nm,0.9s						
F20K	Avaraart Lake	61.08	22	P	P	21 06 01.8	0.0
F20K				IAmb	IAmb	21 06 09.2	
	comp=Z,9.2nm,1.5s						
G19K	Purcell Mounta	61.34	23	P	P	21 06 03.8	+0.1
G19K				IAmb	IAmb	21 06 16.8	
	comp=Z,12nm,1.4s						
ESDC	Sonseca Array	61.39	299	P	P	21 06 04.8	+0.3
	comp=Z,1.7nm,0.8s,baz=55,slow=7.6,SNR=10						
	comp=Z,1.7nm,0.8s						
ESDC	Sonseca Array	61.39	299	IAmb	IAmb	21 06 45.5	
	comp=Z,6.8nm,1.4s						
F21K	Alatna River	61.55	21		P	21 06 05.3	+0.1
F21K				IAmb	IAmb	21 06 06.6	
	comp=Z,4.3nm,0.8s						
E23K	Chandalar	61.90	19	P	P	21 06 07.8	+0.3
E23K				IAmb	IAmb	21 06 08.8	
	comp=Z,6.8nm,0.8s						
IMAR	Indian Mountai	62.40	22	P	P	21 06 10.5	-0.3
F24K	Squaw Lake	62.73	19	P	P	21 06 13.4	+0.3
F24K				IAmb	IAmb	21 06 28.1	
	comp=Z,4.8nm,1.1s						
F25K	Christian Rive	63.20	18	P	P	21 06 15.9	-0.3
F25K				IAmb	IAmb	21 06 18.5	
	comp=Z,4.7nm,0.8s						
K17K	Iditarod	63.41	27	P	P	21 06 17.8	+0.2
L16K	Owhat River	63.74	28	P	P	21 06 20.8	+1.0
M16K	Timber Creek	64.41	28	P	P	21 06 24.9	+0.8
M16K				IAmb	IAmb	21 06 43.0	
	comp=Z,12nm,1.2s						
ILAR	Eielson Array	65.17	21	P	P	21 06 28.9	-0.2
	comp=Z,2.9nm,0.8s,baz=316,slow=5.2,SNR=22						
	comp=Z,2.9nm,0.8s						
SKT	Skwentna	66.08	25	P	P	21 06 34.7	-0.3
SKT				IAmb	IAmb	21 06 55.0	
	comp=Z,12nm,1.3s						
I30M	Mount Dempster	67.22	16		P	21 06 42.3	-0.1
I30M				IAmb	IAmb	21 07 05.1	
	comp=Z,13nm,1.4s						
VOI	Vohitsoka	72.97	214	P	P	21 07 16.6	-1.4
TORD	Torodi Ar. Bea	74.03	273	P	P	21 07 23.8	-0.7
	comp=Z,6.7nm,0.5s,baz=44,slow=4.9,SNR=61						
	comp=Z,6.7nm,0.5s						
TORD	Torodi Ar. Bea	74.03	273	IAmb	IAmb	21 07 24.6	
	comp=Z,5.0nm,0.8s						
FFC	Flin Flon	81.72	2	*i* P	P	21 08 07.3	+0.6
ASAR	Alice Springs	82.35	133	P	P	21 08 10.3	0.0
ASAR	Alice Springs	82.35	133	P	P	21 08 10.3	0.0

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*BJI **18** 20:59:42.8, 5°.88S×147°.26E, h126^{km}, mB5.3/12, mb4.9/38*

*IDC **18** 20:59:47.4±1.2, 5°.64S×147°.11E, h129^{km}±11^{km}, mb4.4/21, mbtmp4.9/25, MS4.0/20, Error ellipse: s-maj=15.2km s-min=7.4km az=98.0*

*NEIC **18** 20:59:47.1, 5°.56S×147°.01E, h118^{km}*

*NEIC **18** 20:59:48.6±1.9, 5°.63S±0°.05×146°.98E±0°.07, h135^{km}±4^{km}, mb5.1/213, Mww5.2/13, Error ellipse: s-maj=11.1km s-min=7.0km az=101.0*

*GFZ **18** 20:59:48.3±0.5, 6°S±3°×14°7E±°, h125^{km}±6^{km}, M5.1/24, mb5.3/24*

*GCMT **18** 20:59:49.6±0.1, 5°.59S±0°.01×147°.14E±0°.01, h141^{km}±1^{km}, MW5.3/105, Moment Tensor Solution. s90,c145; s105,c194; Duration: 1^{s}1 Moment tensor: Scale 10^{17} Nm; M_{rr}0.29±.02; $M_{\theta\theta}$0.15±.02; $M_{\phi\phi}$-0.44±.03; $M_{r\theta}$0.21±.01; $M_{\theta\phi}$-0.60±.02; $M_{\phi r}$-0.98±.02; Best double couple: $M_0$1.22900×10^{17} NP1:ϕ_s70.00000°, δ33.00000°, λ165.00000°. NP2:ϕ_s173.00000°, δ82.00000°, λ58.00000°. Principal axes: T 1.2250, Plg44.0000°, Azm52.0000°; N 0.0080, Plg32.0000°, Azm178.0000°; P -1.2330, Plg29.0000°, Azm289.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*DJA **18** 20:59:49.8±0.4, 6°S±3°×14°7E±°, h128^{km}±4^{km}, M5.1/60, mB5.5/44, mb5.2/60, MLv6.1/6, Mw(mB)5.0/44, MwMwp5.0/12, Mwp5.3/12*

*NEIC **18** 20:59:50.8, 5°.96S×147°.01E, h140^{km}, Moment Tensor Solution. Duration: 2^{s}2 Moment tensor: Scale 10^{16}Nm; M_{rr}4.03; $M_{\theta\theta}$-1.59; $M_{\phi\phi}$-2.44; $M_{r\theta}$0.19; $M_{\theta\phi}$-1.88; $M_{\phi r}$-6.27; Fault plane solution: $M_0$7.43000×10^{16} NP1:ϕ_s53.46000°, δ21.01000°, λ134.50000°. NP2:ϕ_s186.99000°, δ75.19000°, λ74.94000°. Principal axes: T 7.9878, Plg57.0000°, Azm77.0000°; N -1.2784, Plg15.0000°, Azm191.0000°; P -6.7094, Plg29.0000°, Azm289.0000°;*

ISC 18 20:59:47.9±0.3**, 5°.62S**±0°.03×**147°.03E**±0°.04**, h133**^{km}±2^{km}**, h134**^{km}**:pP-P, n460,** σ1^{s}**51**/401**, mb5.1**/167**, 2C-6D, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MANU	Manus Island	3.56	5		Pn	21 00 40.7	-1.4
MANU				Sn	Sn	21 01 21.8	-2.2
PMG	Port Moresby	3.77	178	P	Pn	21 00 44.0	-0.8
	3µm,0.3s,baz=342,slow=9.6,SNR=2987						
PMG				S	Sn	21 01 24.9	-3.8
	8µm,0.3s,baz=235,slow=21,SNR=9.9						
PMG				LR	LR	21 02 09.8	
	comp=Z,351nm,21.5s,baz=350,slow=38						
PMG	Port Moresby	3.77	178	P	Pn	21 00 43.9	-0.8
PMG	Port Moresby	3.77	178		Pn	21 00 43.9	-0.9
PMG				Sn	Sn	21 01 25.3	-3.5
PMG	Port Moresby	3.77	178	P	Pn	21 00 43.6	-1.1
PMG				AML	AML		
PMG	Port Moresby	3.77	178	P	Pn	21 00 44.1	-0.6
KRVT	Keravat (AS076	5.14	76	P	Pn	21 01 03.3	+0.3
	1µm,0.6s,baz=265,slow=1.8,SNR=84						
KRVT				LR	LR	21 02 47.3	
	comp=Z,3µm,18.7s,baz=268,slow=35						
RABL	Rabaul	5.30	75		Pn	21 01 05.3	+0.2
MMPI	Merauke	7.18	246	P	Pn	21 01 32.5	+2.1
GENI	Genyem	7.48	293	P	Pn	21 01 36.1	+1.7
GENI	Genyem	7.48	293	P	Pn	21 01 33.3	-1.1
	7µm313nm,1.3s						
GENI	Genyem	7.48	293	P	Pn	21 01 34.1	-0.3
	comp=Z,317nm,1.3s						
COEN	Coen	9.12	204	P	Pn	21 01 57.4	+0.9
	comp=Z,128nm,0.8s						
COEN	Coen	9.12	204		Pn	21 01 57.3	+0.9
COEN				Sn	Sn	21 03 33.4	-4.1
BAKI	Biak	11.76	292	P	Pn	21 02 31.3	-0.3
	comp=Z,6µmcomp=Z,1µmcomp=Z,67nm,0.5s						
MTSU	Mount Surprise	12.72	192	P	Pn	21 02 45.6	+1.3
	comp=Z,126nm,0.8s						
MTSU	Mount Surprise	12.72	192	P	Pn	21 02 45.1	+0.8
	comp=Z,126nm,0.8s						
MTSU	Mount Surprise	12.72	192	P	Pn	21 02 46.7	+2.5
MTSU	Mount Surprise	12.72	192	S	Sn	21 05 07.3	+2.6
MTSU	Mount Surprise	12.72	192	P	Pn	21 02 45.8	+1.6
	comp=Z,126nm,0.8s						
TATA	Tatamba Isabel	12.97	103	P	P	21 02 52.9	+0.1
SAVO	Savo Central	13.15	106	P	P	21 02 52.9	-2.0
HNR	Honiara	13.35	107	P	Pn	21 02 51.5	-0.8
	comp=Z,238nm,0.9s,baz=297,slow=1.0,SNR=12						
HNR	Honiara	13.35	107	P	P	21 02 56.3	-0.8
HNR	Honiara	13.35	107		Pn	21 02 49.6	-2.7
HNR	Honiara	13.35	107		Pn	21 02 50.5	-1.8
HNR	Honiara	13.35	107	P	Pn	21 02 53.7	+1.4
	comp=Z,507nm,0.9s						
TV1H	Townsville Har	13.57	181	P	P	21 02 57.8	-1.6
NGOA	Tingoa Renbel	14.16	115	P	P	21 03 06.8	+0.7
CTA	Charters Tower	14.41	183	P	P	21 03 10.7	+1.9
	comp=Z,15nm,0.3s,baz=356,slow=14,SNR=45						
CTA				S	Sn	21 05 40.6	-4.6
	comp=Z,10nm,0.4s,baz=58,slow=7.5,SNR=3.5						
CTA				LR	LR	21 08 03.3	
	comp=Z,373nm,20.0s,baz=7.0,slow=34						
CTAO	Charters Tower	14.41	183	P	P	21 03 09.8	+1.0
CTAO	Charters Tower	14.41	183	Pn	Pn	21 03 03.9	-1.8
CTAO	Charters Tower	14.41	183	P	P	21 03 11.4	+2.6
	comp=Z,60nm,0.8s						
FAKI	Fak Fak	14.98	280	P	Pn	21 03 12.6	-0.5
FAKI	Fak Fak	14.98	280		Pn	21 03 11.0	-2.1
FAKI	Fak Fak	14.98	280	P	Pn	21 03 12.3	-0.8
	comp=Z,133nm,1.2s						
FAKI	Fak Fak	14.98	280	P	Pn	21 03 11.4	-1.7
	comp=Z,132nm,1.3s						
HURO	Huro Makira	15.49	109	P	Pn	21 03 20.0	+0.7
HURO	Huro Makira	15.49	109	S	S	21 06 17.9	+1.6
SAUI	Saumlaki	15.80	261	P	P	21 03 25.9	+1.6
SAUI	Saumlaki	15.80	261		Pn	21 03 22.6	-0.6
SAUI	Saumlaki	15.80	261	P	P	21 03 25.6	+1.3
SAUI	Saumlaki	15.80	261	P	P	21 03 25.5	+1.2
	comp=Z,2µm,1.4s						
KDU	Kakadu	15.99	243	P	Pn	21 03 24.7	-0.8
	comp=Z,97nm,0.7s,comp=Z,0.0nm						
SWI	Sorong	16.44	286	P	P	21 03 31.7	+0.4
	comp=Z,2µmcomp=Z,94nm,0.7s						
QIS	Mount Isa	16.51	205	P	P	21 03 32.2	0.0
	comp=Z,281nm,1.0s,comp=Z,0.0nm						
QIS	Mount Isa	16.51	205	P	P	21 03 33.8	+1.7
QIS	Mount Isa	16.51	205	S	S	21 06 37.3	+0.3
QIS	Mount Isa	16.51	205	P	P	21 03 33.1	+0.9
	comp=Z,281nm,1.0s						
PATS	Pohnpei	16.72	42	P	P	21 03 35.0	+0.5
	comp=Z,249nm,2.1s						
PATS	Pohnpei	16.72	42	P	P	21 03 37.2	+2.7
PATS	Pohnpei	16.72	42	P	Pn	21 03 33.4	-1.1
PATS	Pohnpei	16.72	42	P	P	21 03 35.4	+0.9
	comp=Z,249nm,2.1s						
BNDI	Bandanaira	17.10	273	P	Pn	21 03 42.5	+3.5
BNDI	Bandanaira	17.10	273	P	Pn	21 03 41.1	+2.1
BNDI	Bandanaira	17.10	273	P	Pn	21 03 39.9	+0.9
	comp=Z,736nm,1.1s						
MTN	Manton Dam	17.25	244	P	P	21 03 39.8	-0.5
	comp=Z,86nm,0.7s,comp=Z,0.0nmcomp=Z,0.0nm						
MTN	Manton Dam	17.25	244		P	21 03 40.2	-0.1
DRS	Darwin Rock St	17.31	246	P	Pn	21 03 42.6	+1.1
AUNRC	North Rockhamp	17.95	170	P	Pn	21 03 50.6	+1.4
WB0	Warramunga Arr	18.69	220	P	Pn	21 03 57.2	-0.7
WR8	Warramunga Arr	18.76	219	P	Pn	21 03 57.8	-0.9
WRAB	Tennant Creek	18.84	220	P	Pn	21 03 59.3	-0.4
WRAB	Tennant Creek	18.84	220	P	P	21 03 58.5	+0.9
WRAB	Tennant Creek	18.84	220	P	Pn	21 03 58.9	-0.8
	comp=Z,699nm,0.9s						
WRA	Warramunga Arr	18.85	220	P	Pn	21 03 59.6	-0.3
	comp=Z,344nm,0.8s,baz=39,slow=11,SNR=1634						
WRA				S	S	21 07 21.6	-3.6
	comp=Z,227nm,1.2s,baz=43,slow=20,SNR=13						
WRA				LR	LR	21 12 17.7	
	comp=Z,912nm,21.6s,baz=90,slow=40						
WRA	Warramunga Arr	18.85	220	P	Pn	21 03 59.2	-0.6
WRA					S	21 07 21.3	-3.9
GUMO	Guam	19.20	354	P	P	21 04 02.8	+1.2
	comp=Z,121nm,0.8s,baz=193,slow=10,SNR=9.8						
GUMO	Guam	19.20	354	P	Pn	21 04 05.9	+2.0
GUMO	Guam	19.20	354	P	Pn	21 04 03.2	-0.7
	comp=Z,171nm,0.8s						
NLAI	Namlea	20.01	276	P	Pn	21 04 15.7	+2.2
	comp=Z,3µmcomp=Z,2µmcomp=Z,59nm,0.5s						
EIDS	Eidsvold	20.02	169	P	Pn	21 04 12.1	-1.4
	comp=Z,51nm,1.0s						
EIDS	Eidsvold	20.02	169	P	Pn	21 04 12.8	-0.7
EIDS	Eidsvold	20.02	169		P	21 04 10.9	+0.5
EIDS	Eidsvold	20.02	169	P	Pn	21 04 12.5	-1.0
	comp=Z,51nm,1.0s						
KNRA	Kununurra	20.53	239	P	P	21 04 16.1	+0.2
	comp=Z,88nm,0.9s,comp=Z,0.0nm						
KNRA	Kununurra	20.53	239		P	21 04 15.9	0.0
QLP	Quilpie	21.02	187	P	P	21 04 25.0	+3.9
	comp=Z,162nm,1.2s						
QLP	Quilpie	21.02	187	P	P	21 04 21.4	+0.3
	comp=Z,119nm,1.1s,comp=Z,0.0nm						
QLP	Quilpie	21.02	187	P	P	21 04 23.9	+2.8
QLP	Quilpie	21.02	187	P	P	21 04 25.2	+4.1
	comp=Z,162nm,1.2s						
SANI	Sanana	21.29	279	P	P	21 04 25.6	+1.4
SANI	Sanana	21.29	279	P	P	21 04 26.5	+2.3
	comp=Z,2µmcomp=Z,1µmcomp=Z,116nm,0.8s						
SANI	Sanana	21.29	279	P	P	21 04 23.6	-0.6
	comp=Z,116nm,0.9s						
AUBSH	Beerwah State	21.87	166	P	P	21 04 32.8	+2.7
AS17	Alice Springs	21.90	214	P	P	21 04 32.0	+1.3
	comp=Z,98nm,0.9s						
AS15	Alice Springs	21.93	214	P	P	21 04 32.4	+1.6
AS01	Alice Springs	21.93	214	P	P	21 04 31.4	+0.5
	comp=Z,132nm,1.1s						
AS01	Alice Springs	21.93	214	P	P	21 04 32.6	+1.8
AS31	Alice Springs	21.95	214	P	P	21 04 32.4	+1.3
AS31	Alice Springs	21.95	214	P	P	21 04 32.0	+0.9
ASAR	Alice Springs	21.95	214	P	P	21 04 32.5	+1.3
	comp=Z,44nm,0.3s,baz=45,slow=9.1,SNR=1474						
ASAR				S	S	21 08 25.6	+0.8
	comp=Z,63nm,0.9s,baz=33,slow=22,SNR=17						
ASAR				LR	LR	21 13 24.2	
	comp=Z,665nm,19.2s,baz=39,slow=37						
	comp=Z,44nm,0.3s						
AS09	Alice Springs	21.96	214	P	P	21 04 32.6	+1.4
AUALC	St Philip's Co	21.98	214	P	P	21 04 33.0	+1.6
SANVU	Saraoutou	22.08	118	P	P	21 04 34.8	+2.4
SANVU	Saraoutou	22.08	118		P	21 04 31.6	-0.9
SANVU	Saraoutou	22.08	118	P	P	21 04 31.8	-0.7
	comp=Z,152nm,1.2s						
TW1H	Toowoomba 1 Ha	22.31	168	P	P	21 04 38.0	+3.3
KOUNC	Koumac, New Ca	22.38	133	P	P	21 04 36.8	+1.4
KOUNC				IAmb	IAmb	21 04 37.7	
	comp=Z,74nm,0.9s						
INKA	Innaminka	22.80	195		P	21 04 40.3	+0.9
INKA				IAmb	IAmb	21 05 11.4	
	comp=Z,98nm,1.1s						
SOEI	Soe	22.93	258	P	P	21 04 42.4	+1.5
SOEI	Soe	22.93	258		P	21 04 41.0	+0.1
SOEI	Soe	22.93	258	P	P	21 04 41.3	+0.4
	comp=Z,4µmcomp=Z,188nm,0.7s						
SOEI	Soe	22.93	258	P	P	21 04 41.6	+0.7
	comp=Z,189nm,0.7s						
AULRC	Lightning Ridg	23.70	178	P	P	21 04 49.6	+1.9
FITZ	Fitzroy Crossi	24.30	237	P	P	21 04 54.2	+1.1
	comp=Z,91nm,1.0s,comp=Z,0.0nm						
FITZ	Fitzroy Crossi	24.30	237	P	P	21 04 54.8	+1.6
	comp=Z,132nm,0.4s,baz=60,slow=9.8,SNR=727						
FITZ				LR	LR	21 15 39.5	
	comp=Z,1µm,18.7s,baz=56,slow=39						
FITZ	Fitzroy Crossi	24.30	237	P	P	21 04 54.8	+1.6
FITZ	Fitzroy Crossi	24.30	237	P	P	21 04 54.0	+0.8
FITZ				IAmb	IAmb	21 04 58.2	
	comp=Z,65nm,0.9s						
FITZ	Fitzroy Crossi	24.30	237	P	P	21 04 54.4	+1.3
	comp=Z,91nm,1.0s						
BBSI	Bau Bau	24.35	269	P	P	21 04 59.7	+6.0
	comp=Z,2µmcomp=Z,3µmcomp=Z,84nm,1.2s						
LUWI	Luwuk	24.64	280	P	P	21 04 59.0	+2.7
LUWI	Luwuk	24.64	280	P	P	21 04 55.9	-0.4
LUWI	Luwuk	24.64	280	P	P	21 04 57.7	+1.4
	comp=Z,2µmcomp=Z,116nm,1.4s						
LUWI	Luwuk	24.64	280	P	P	21 04 56.3	-0.1
	comp=Z,117nm,1.4s						
GTOI	Gorontalo	24.78	284	P	P	21 04 59.2	+1.6
	comp=Z,1µmcomp=Z,56nm,0.6s						
MMRI	Maumere	24.78	262	P	P	21 04 58.5	+0.8
MMRI	Maumere	24.78	262	P	P	21 04 56.2	-1.5
MMRI	Maumere	24.78	262	P	P	21 04 58.0	+0.3
MMRI	Maumere	24.78	262	P	P	21 04 57.5	-0.2
	comp=Z,192nm,0.6s						
NOUC	Port Laguerre	24.82	133	P	P	21 04 59.5	+1.7
DAV	Davao City (W)	24.84	300	LR	LR	21 14 53.5	
	comp=Z,118nm,20.8s,baz=126,slow=36						
DZM	Mont Dzumac	24.90	133	LR	LR	21 13 30.0	
	comp=Z,826nm,18.9s,baz=268,slow=33						
ARMA	Armidale	25.05	171	P	P	21 05 01.6	+1.5
	comp=Z,98nm,1.1s						
ARMA	Armidale	25.05	171	P	P	21 05 01.3	+1.3
	comp=Z,98nm,1.1s						
ARMA	Armidale	25.05	171	P	P	21 05 01.7	+1.7
ARMA	Armidale	25.05	171	P	P	21 05 01.0	+1.0
ARMA				IAmb	IAmb	21 05 02.4	
	comp=Z,70nm,0.9s						
ARMA	Armidale	25.05	171	P	P	21 05 01.5	+1.5
	comp=Z,98nm,1.1s						
YATNC	Mamie plateau,	25.22	132	P	P	21 05 04.0	+2.5
KKSI	Kolaka, Sulawe	25.33	272	P	P	21 05 06.3	+3.7
AUPHS	Peel High Scho	25.61	172	P	P	21 05 07.1	+2.1
CMSA	Cobar Meteorol	25.82	183	P	P	21 05 08.0	+1.2
	comp=Z,55nm,1.3s						
CMSA	Cobar Meteorol	25.82	183	P	P	21 05 08.9	+2.1
CMSA	Cobar Meteorol	25.82	183	P	P	21 05 12.9	+6.1
	comp=Z,55nm,1.3s						
WRKA	Warakurna	26.38	221	P	P	21 05 13.1	+1.1
	comp=Z,84nm,1.2s						
WRKA	Warakurna	26.38	221	P	P	21 05 12.7	+0.7
	comp=Z,84nm,1.0s,comp=Z,0.0nm						
STKA	Stephens Creek	26.62	190	P	P	21 05 14.7	+0.7
	comp=Z,96nm,0.7s						
STKA	Stephens Creek	26.62	190	P	P	21 05 14.7	+0.7
	comp=Z,9.1nm,0.9s,baz=12,slow=9.0,SNR=12						
STKA				LR	LR	21 16 06.1	
	comp=Z,564nm,19.6s,baz=11,slow=37						
	comp=Z,9.1nm,0.9s						
STKA	Stephens Creek	26.62	190	P	P	21 05 14.9	+0.9
STKA	Stephens Creek	26.62	190	P	P	21 05 16.4	+2.3
	comp=Z,120nm,1.0s						
WSI	Waingapu	26.80	260	P	P	21 05 15.8	0.0
TOLI2	Tolitoli	27.05	284	P	P	21 05 17.7	-0.5
KAPI	Kappang	27.17	270	LR	LR	21 19 19.3	
	comp=Z,234nm,18.3s,baz=100,slow=43						
HTT	Hallett	28.69	194	P	P	21 05 34.4	+1.9
BBOO	Buckleboo	28.93	199	P	P	21 05 36.3	+1.7
	comp=Z,32nm,1.3s						
BBOO	Buckleboo	28.93	199	P	P	21 05 35.0	+0.4
	comp=Z,18nm,1.4s						
BBOO	Buckleboo	28.93	199	P	P	21 05 35.0	+0.4
BBOO				IAmb	IAmb	21 06 06.3	
	comp=Z,30nm,1.0s						
MBWA	Marble Bar	30.64	237	P	P	21 05 50.4	+0.6
	comp=Z,111nm,1.1s						
MBWA	Marble Bar	30.64	237	P	P	21 05 50.9	+1.0
MBWA	Marble Bar	30.64	237	P	P	21 05 49.6	-0.2
MBWA	Marble Bar	30.64	237	P	P	21 05 50.7	+0.8
	comp=Z,112nm,1.1s						
MBWA	Marble Bar	30.64	237	P	P	21 05 50.5	+0.7
FORT	Forrest	30.74	213	P	P	21 05 51.7	+1.2
	comp=Z,41nm,0.9s						
FORT	Forrest	30.74	213	P	P	21 05 51.4	+0.8
	comp=Z,41nm,0.9s						
FORT	Forrest	30.74	213	P	P	21 05 51.2	+0.7
FORT				IAmb	IAmb	21 05 52.7	
	comp=Z,27nm,0.8s						
H11S3	WAKE ISLAND Hy	30.82	39	T	T	21 39 04.6	
	baz=220,slow=74,SNR=12						
H11S2	WAKE ISLAND Hy	30.82	39	T	T	21 39 10.1	
	baz=220,slow=74,SNR=4.1						
H11S1	WAKE ISLAND Hy	30.83	39	T	T	21 39 06.5	
	baz=220,slow=74,SNR=5.6						
ARPS	Mount Arapiles	31.37	188	P	P	21 05 57.4	+1.3
	comp=Z,8.2nm,1.4s						
TOO	Toolangi	31.84	182	P	P	21 06 02.0	+1.8
	comp=Z,8.6nm,3.0s						
TOO	Toolangi	31.84	182	P	P	21 06 01.4	+1.2
H11N1	WAKE ISLAND Hy	31.86	37	T	T	21 40 34.8	
	baz=219,slow=76,SNR=6.3						
H11N3	WAKE ISLAND Hy	31.88	37	T	T	21 40 41.7	
	baz=219,slow=76,SNR=8.7						
H11N2	WAKE ISLAND Hy	31.88	37	T	T	21 40 38.6	
	baz=219,slow=76,SNR=11						
MSVF	Nonsavu	32.61	114	LR	LR	21 17 36.4	
	comp=Z,234nm,19.0s,baz=196,slow=33						
MSVF	Nonsavu	32.61	114	P	P	21 06 09.1	+1.9
MSVF	Nonsavu	32.61	114	P	P	21 06 08.8	+1.6
MSVF				IAmb	IAmb	21 06 17.5	
	comp=Z,65nm,1.4s						
JAGI	Jajag, Banyuwa	32.75	263	P	P	21 06 07.5	-0.9
JAGI	Jajag, Banyuwa	32.75	263	P	P	21 06 05.8	-2.7
JAGI				IAmb	IAmb	21 06 07.0	
	comp=Z,31nm,0.8s						
JAGI	Jajag, Banyuwa	32.75	263	P	P	21 06 07.6	-0.9
	comp=Z,43nm,1.4s						
JAGI	Jajag, Banyuwa	32.75	263	P	P	21 06 06.3	-2.2
	comp=Z,42nm,1.4s						
DGTI	Dogotuki	33.76	111	P	P	21 06 17.4	+0.2
MEEK	Meekatharra	34.23	229	P	P	21 06 22.4	+1.2
	comp=Z,159nm,1.4s						
MEEK	Meekatharra	34.23	229	P	P	21 06 22.2	+1.1
MEEK	Meekatharra	34.23	229	P	P	21 06 22.4	+1.2
	comp=Z,159nm,1.4s						
KMBL	Kambalda	34.82	220	P	P	21 06 27.3	+1.1
	comp=Z,32nm,1.5s						
SNJI	Sawahan-Nganju	35.09	264	P	P	21 06 29.5	+0.6
	comp=Z,75nm,0.6s						
FUTU	Fugatoga	35.35	107	P	P	21 06 31.3	+0.5
LKBA	Tubou, Lakemba	35.61	114	P	P	21 06 34.8	+1.8
PCJI	Pacitan	35.68	264	P	P	21 06 34.5	+0.8
GIRL	Giralia	35.90	239	P	P	21 06 37.2	+1.7
	comp=Z,137nm,1.2s						
GIRL	Giralia	35.90	239	P	P	21 06 36.5	+1.0
WOJI	Wonogiri, Jawa	35.92	264	P	P	21 06 35.9	+0.1
	comp=Z,127nm,1.4s						
UGM	Wanagama	36.32	264	P	P	21 06 38.8	-0.4
SMRI	Semarang	36.39	266	P	P	21 06 39.5	-0.3
JOW	Kunigami	37.02	331	P	P	21 06 45.5	+0.7
	comp=Z,15nm,0.5s,baz=141,slow=8.8,SNR=9.8						
	comp=Z,15nm,0.5s						
JOW	Kunigami	37.02	331	P	P	21 06 46.4	+1.5
JOW	Kunigami	37.02	331	P	P	21 06 44.8	-0.1
JOW				IAmb	IAmb	21 06 46.7	
	comp=Z,33nm,1.0s						
MORW	Morawa	37.45	228	P	P	21 06 49.8	+1.3
	comp=Z,75nm,1.3s						
MORW	Morawa	37.45	228	P	P	21 06 49.9	+1.3
MORW	Morawa	37.45	228	P	P	21 06 48.8	+0.2
MORW	Morawa	37.45	228	P	P	21 06 49.8	+1.3
	comp=Z,75nm,1.3s						
KLBR	Kellerberrin	37.67	223	P	P	21 06 51.1	+0.7
	comp=Z,155nm,0.6s						
KLBR	Kellerberrin	37.67	223	P	P	21 06 51.1	+0.7
KLBR	Kellerberrin	37.67	223	P	P	21 06 51.1	+0.7
	comp=Z,155nm,0.6s						
BLDU	Ballidu	37.83	225	P	P	21 06 52.9	+1.2
	comp=Z,91nm,1.8s						
BLDU	Ballidu	37.83	225	P	P	21 06 52.9	+1.2
BLDU	Ballidu	37.83	225	P	P	21 06 52.9	+1.2
	comp=Z,91nm,1.8s						
YOJ	Yonaguni jima	37.97	323	P	P	21 06 52.2	-0.6
AUKUL	Kulin High Sch	38.07	221	P	P	21 06 55.3	+1.6
YULB	Yu-li	38.25	320	P	P	21 06 55.0	-0.3
TPUB	Ta-pu	38.62	319	P	P	21 06 59.3	+0.9
TPUB	Ta-pu	38.62	319	P	P	21 06 57.3	-1.1
NACB	Ninganchiao	38.62	321	P	P	21 06 59.8	+1.4
NACB	Ninganchiao	38.62	321	P	P	21 06 57.7	-0.7
NACB	Ninganchiao	38.62	321	P	P	21 06 58.8	+0.4
	comp=Z,54nm,1.6s						
NWAO	Narrogin (SRO)	38.84	222	LR	LR	21 24 00.6	
	comp=Z,1µm,19.4s,baz=76,slow=37						
NWAO	Narrogin (SRO)	38.84	222	P	P	21 07 02.0	+1.9
NWAO	Narrogin (SRO)	38.84	222	P	P	21 06 59.2	-0.9
MUN	Mundaring	38.96	224	P	P	21 07 02.1	+0.9
	comp=Z,77nm,1.3s						
MUN	Mundaring	38.96	224	P	P	21 07 02.5	+1.3
YHNB	Yeheng	39.12	321	P	P	21 07 03.9	+1.3
YHNB	Yeheng	39.12	321	P	P	21 07 01.4	-1.2
BBJI	Bungbulang	39.16	265	P	P	21 07 03.1	-0.1
BBJI	Bungbulang	39.16	265		P	21 07 01.3	-1.8
BBJI	Bungbulang	39.16	265	P	P	21 07 03.2	0.0
	comp=Z,661nmcomp=Z,56nm,0.8s						
BBJI	Bungbulang	39.16	265	P	P	21 07 02.7	-0.5
	comp=Z,55nm,0.8s						
TATO	Taipei	39.27	322	P	P	21 07 04.1	+0.3
CNJI	Cibinong	39.68	265	P	P	21 07 07.8	+0.4
TOZ	Tahuroa Road	41.16	145	P	P	21 07 19.6	+0.5
AFI	Afiamalu	41.37	105	LR	LR	21 22 20.8	
	comp=Z,187nm,18.8s,baz=25,slow=33						
AFI	Afiamalu	41.37	105	P	P	21 07 22.3	+1.0
AFI	Afiamalu	41.37	105	P	P	21 07 21.0	-0.3
JNU	Nakatsue	41.46	339	LR	LR	21 24 34.4	
	comp=Z,130nm,18.1s,baz=145,slow=36						
JGF	Kuroka	41.99	348	P	P	21 07 27.3	+1.3
JGF	Kuroka	41.99	348	P	P	21 07 25.3	-0.8
URZ	Urewera	42.44	144	LR	LR	21 22 41.7	
	comp=Z,193nm,20.8s,baz=306,slow=32						
MXZ	Matakaoa Point	42.69	143	P	P	21 07 32.3	+0.6
MDSI	Maura Dua	42.70	269	P	P	21 07 34.2	+2.1
BKZ	Black Stump Fm	42.71	146	P	P	21 07 34.1	+2.3
MJAR	Matsushiro Arr	42.74	350	P	P	21 07 31.6	-0.4
	comp=Z,7.1nm,0.8s,baz=162,slow=8.0,SNR=17						
MJAR				ScP	ScP	21 12 58.7	-1.2
	comp=Z,3.6nm,1.1s,baz=181,slow=4.2,SNR=5.3						
	comp=Z,7.1nm,0.8s						
MJAR	Matsushiro Arr	42.74	350		P	21 07 31.7	-0.4
MJAR					ScP	21 12 58.7	-1.2
MAJO	Matsushiro	42.74	350	P	P	21 07 33.2	+1.1
MAJO	Matsushiro	42.74	350	P	P	21 07 31.8	-0.3
MAJO	Matsushiro	42.74	350	P	P	21 07 32.3	+0.2
MAJO				pP	pwP	21 08 03.0	-0.7
MJB9	Matsu-Tunnel	42.75	350	P	P	21 07 31.8	-0.3
MJB9				IAmb	IAmb	21 07 34.9	

	comp=Z,81nm,1.8s						
JCZ	**Jackson Bay**	**42.80**	**157**	P	**P**	**21 07 35.1**	**+2.5**
TUWZ	**Tuamarina**	**42.99**	**150**	P	**P**	**21 07 34.6**	**+0.6**
LTZ	**Lake Taylor**	**43.23**	**153**	IAmb	IAmb	21 07 38.7	
	comp=Z,57nm,1.0s						
MRZ	**Mangatainoka R**	**43.27**	**148**	P	**P**	**21 07 36.5**	**+0.3**
RPZ	**Rata Peaks**	**43.44**	**155**	LR	LR	21 22 56.7	
	comp=Z,74nm,20.2s,baz=294,slow=32						
RPZ	**Rata Peaks**	**43.44**	**155**	P	**P**	**21 07 37.9**	**+0.3**
LBZ	**Lake Benmore**	**43.62**	**156**	P	**P**	**21 07 39.6**	**+0.6**
MLZ	**Mavora Lakes**	**43.65**	**158**	P	**P**	**21 07 40.3**	**+1.0**
MNAI	**Manna**	**43.92**	**270**	P	**P**	**21 07 40.2**	**-1.7**
NJ2	**Nanjing**	**46.08**	**326**	⇑P	**P**	**21 07 59.9**	**+1.3**
NJ2				pmax	pmax		
	comp=Z,19nm,1.1s						
KSRS	**Korea Array**	**46.41**	**339**	P	**P**	**21 08 01.5**	**+0.4**
	comp=Z,5.2nm,0.8s,baz=152,slow=8.2,SNR=20						
KSRS				LR	LR	21 26 00.8	
	comp=Z,171nm,20.2s,baz=155,slow=34						
	comp=Z,5.2nm,0.8s						
KSAR	**Wonju Array Be**	**46.41**	**339**	P	**P**	**21 08 01.3**	**+0.2**
KS19	**Wonju Array Si**	**46.47**	**339**	P	**P**	**21 08 01.3**	**-0.3**
KS19				IAmb	IAmb	21 08 38.3	
	comp=Z,43nm,1.5s						
JTM	**Tenmabayashi**	**46.50**	**354**	P	**P**	**21 08 01.6**	**-0.2**
WHN	**Wuhan**	**47.66**	**321**	P	**P**	**21 08 11.9**	**+1.0**
WHN				pmax	pmax		
	comp=Z,120nm,1.4s						
JKA	**Kamikawa-asahi**	**49.66**	**356**	P	**P**	**21 08 27.1**	**+1.0**
GSI	**Gunungsitoli**	**49.87**	**276**	P	**P**	**21 08 28.0**	**-0.1**
GSI				IAmb	IAmb	21 08 59.8	
	comp=Z,29nm,1.0s						
TIA	**Tai'an**	**50.17**	**328**	P	**P**	**21 08 29.3**	**-0.7**
TIA				pmax	pmax		
	comp=Z,19nm,0.9s						
ENH	**Enshi**	**50.66**	**317**	P	**P**	**21 08 34.9**	**+1.0**
ENH	**Enshi**	**50.66**	**317**	P	**P**	**21 08 34.3**	**+0.4**
ENH				IAmb	IAmb	21 08 35.2	
	comp=Z,43nm,1.4s						
USA0B	**Ussuriysk Arra**	**51.41**	**346**	P	**P**	**21 08 39.6**	**+0.5**
USA0B				IAmb	IAmb	21 09 42.8	
	comp=Z,41nm,1.8s						
USRK	**Ussuriysk Ar.**	**51.41**	**346**	P	**P**	**21 08 39.7**	**+0.6**
	comp=Z,6.3nm,0.8s,baz=163,slow=7.4,SNR=9.1						
	comp=Z,6.3nm,0.8s						
USRK	**Ussuriysk Ar.**	**51.41**	**346**		**P**	**21 08 39.1**	**0.0**
LYN	**LuoYang**	**51.57**	**323**	P	**P**	**21 08 40.8**	**+0.3**
LYN				pmax	pmax		
	comp=Z,7.0nm,0.5s						
HNS	**HongShan**	**52.34**	**327**	⇓P	**P**	**21 08 46.3**	**+0.2**
HNS				pP	**pwP**	**21 09 20.6**	**+3.8**
HNS				S	**S**	**21 16 00.8**	**-0.7**
HNS				SS	**SS**	**21 19 35.6**	**-5.7**
HNS				pmax	pmax		
	comp=Z,29nm,1.1s						
MDJ	**Mudanjiang**	**52.40**	**344**	P	**P**	**21 08 45.9**	**-0.6**
YSS	**Yuzhno-Sakhali**	**52.48**	**356**	P	**P**	**21 08 48.2**	**+1.2**
YSS	**Yuzhno-Sakhali**	**52.48**	**356**	P	**P**	**21 08 47.1**	**+0.2**
YSS				IAmb	IAmb	21 08 49.1	
	comp=Z,23nm,1.1s						
CN2	**Changchun**	**52.91**	**340**	*e*P	**P**	**21 08 54.0**	**+3.8**
CN2				*e*pP	pP	21 09 23.5	+2.5
CN2				*e*S	**S**	**21 16 12.8**	**+3.7**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
CN2				pmax	pmax		
	comp=Z,100nm,3.0s						
CMAR	**Chiang Mai Arr**	**53.10**	**298**	P	**P**	**21 08 52.4**	**+0.3**
	comp=Z,0.4nm,0.3s,baz=125,slow=5.4,SNR=5.8						
	comp=Z,0.4nm,0.3s						
CMAR	**Chiang Mai Arr**	**53.10**	**298**	P	**P**	**21 08 51.1**	**-1.0**
XAN	**Xi'an**	**53.41**	**320**	P	**P**	**21 08 53.3**	**-0.9**
XAN				S	**S**	**21 16 14.8**	**-1.5**
XAN				pmax	pmax		
	comp=Z,31nm,1.1s						
XAN				pmax	pmax		
	comp=Z,250nm,4.1s						
BJI2	**Beijing**	**53.57**	**331**	P	**P**	**21 08 55.3**	**+0.1**
BJI2				S	**S**	**21 16 14.4**	**-3.8**
BJI2				pmax	pmax		
	comp=Z,6.0nm,0.8s						
BJI2				L	L		
	comp=Z,130nm,18.5s						
BJI2				L	L		
	comp=Z,140nm,21.3s						
BJI2				L	L		
	comp=Z,100nm,17.2s						
BJT	**Baijiatuau**	**53.57**	**331**	P	**P**	**21 08 54.1**	**-1.1**
BJT				IAmb	IAmb	21 09 55.7	
	comp=Z,46nm,1.9s						
TIY	**Taiyuan**	**53.81**	**326**	P	P	21 08 49.9	-7.1
TIY				sP	sP	21 09 48.1	+5.8
TIY				S	**S**	**21 16 22.3**	**+0.7**
TIY				pmax	pmax		
	comp=Z,230nm,4.7s						
BNX	**BinXian**	**54.05**	**343**	⇑P	**P**	**21 08 58.8**	**+0.3**
BNX				pP	**pP**	**21 09 27.0**	**-2.3**
BNX				sP	**sP**	**21 09 41.6**	**-2.3**
BNX				PP	**PP**	**21 11 03.4**	**+1.9**
BNX				S	**S**	**21 16 28.8**	**+4.4**
BNX				sS	**sS**	**21 17 17.9**	**+0.5**
BNX				pmax	pmax		
	comp=Z,10.0nm,0.9s						
BNX				L	L		
	comp=Z,71nm,10.8s						
PZH	**PanZhiHua**	**54.25**	**308**	P	**P**	**21 09 02.1**	**+1.6**
CD2	**Chengdu**	**55.03**	**314**	*e*P	**P**	**21 09 07.0**	**+1.0**
TNCH	**TengChong**	**56.14**	**305**	⇓P	**P**	**21 09 12.3**	**-1.9**
TNCH				sP	sP	21 10 02.8	+3.2
TNCH				pmax	pmax		
	comp=Z,14nm,2.3s						
TNCH				pmax	pmax		
	comp=Z,240nm,4.1s						
KLR	**Kul'dur**	**56.22**	**348**	P	**P**	**21 09 14.2**	**+0.2**
	comp=Z,3.8nm,1.0s,baz=2.7,slow=12,SNR=5.0						
KLR				LR	LR	21 32 21.5	
	comp=Z,39nm,18.6s,baz=156,slow=35						
	comp=Z,3.8nm,1.0s						
HHC	**Hu-ho-hao-te**	**56.53**	**328**	*e*P	**P**	**21 09 18.3**	**+1.8**
HHC				S	**S**	**21 16 59.3**	**+1.5**
HHC				ScS	**ScS**	**21 18 49.0**	**-3.8**
HHC				SS	**SS**	**21 20 45.4**	**-2.1**
HHC				pmax	pmax		
	comp=Z,12nm,0.5s						
HHC				pmax	pmax		
	comp=Z,81nm,4.3s						
LZH	**Lanzhou**	**57.94**	**319**	*e*P	**P**	**21 09 27.9**	**+1.3**
LZH				pP	pwP	21 09 59.0	-0.9
LZH				S	**S**	**21 17 17.3**	**+0.6**
LZH				pmax	pmax		
	comp=Z,23nm,1.5s						
PEA0B	**Petropavlovsk-**	**59.20**	**7**	P	**P**	**21 09 35.3**	**+0.5**
PETK	**Petropavlovsk-**	**59.20**	**7**	P	**P**	**21 09 35.3**	**+0.5**
	comp=Z,20nm,0.8s,baz=157,slow=6.4,SNR=26						
PETK				LR	LR	21 33 24.1	
	comp=Z,54nm,20.0s,baz=189,slow=34						
	comp=Z,20nm,0.8s						
PETK	**Petropavlovsk-**	**59.20**	**7**	P	**P**	**21 09 35.0**	**+0.3**
PET	**Petropavlovsk**	**59.24**	**8**	P	**P**	**21 09 35.4**	**+0.3**
HIA	**Hailar**	**59.61**	**340**	P	**P**	**21 09 38.8**	**+1.1**
HIA	**Hailar**	**59.61**	**340**	P	**P**	**21 09 37.8**	**+0.1**
HIA				IAmb	IAmb	21 09 39.8	
	comp=Z,16nm,1.1s						
HILR	**Hailar Array B**	**59.85**	**340**	P	**P**	**21 09 40.0**	**+0.6**
	comp=Z,6.8nm,0.7s,baz=144,slow=10,SNR=12						
	comp=Z,6.8nm,0.7s						
DRV	**Dumont d'Urvil**	**61.14**	**183**	P	**P**	**21 09 48.9**	**+1.1**
PPT2	**Papeete2**	**62.97**	**107**	*e*P	**P**	**21 10 02.3**	**+1.2**
	comp=Z,139nm,27.0s						
PPT2				*e*S	**S**	**21 18 16.1**	**-5.1**
	comp=Z,127nm,26.5s						
PPT2				*e*LQ	LQ	21 25 49.2	
	comp=Z,371nm,27.0s						
PPT2				*e*LR	LR	21 28 52.2	
	comp=Z,125nm,35.0s						
PPT2				*e*LR	LR	21 28 57.4	
	comp=Z,106nm,26.2s						
ULN	**Ulaanbaatar**	**63.79**	**331**	P	**P**	**21 10 05.8**	**-0.1**
ULN	**Ulaanbaatar**	**63.79**	**331**	P	**P**	**21 10 06.7**	**+0.7**
SONM	**Songino Array**	**64.09**	**331**	P	**P**	**21 10 08.2**	**+0.3**
	comp=Z,2.4nm,0.5s,baz=146,slow=6.3,SNR=11						
	comp=Z,2.4nm,0.5s						
SONM	**Songino Array**	**64.09**	**331**	P	**P**	**21 10 08.0**	**+0.1**
MA2	**Magadan**	**65.05**	**2**	LR	LR	21 34 58.4	
	comp=Z,38nm,22.0s,baz=221,slow=32						
MA2	**Magadan**	**65.05**	**2**	P	**P**	**21 10 14.7**	**+1.0**
	comp=Z,23nm,1.0s						
CASY	**Casey**	**65.64**	**195**	P	**P**	**21 10 17.6**	**+0.2**
CASY	**Casey**	**65.64**	**195**	P	**P**	**21 10 18.1**	**+0.7**
YAK	**Yakutsk**	**68.77**	**351**	P	**P**	**21 10 37.2**	**0.0**
YAK				IAmb	IAmb	21 10 39.9	
	comp=Z,16nm,0.7s						
CCD	**Concordia, Ant**	**70.76**	**186**	P	**P**	**21 10 50.4**	**+0.7**
HYB	**Hyderabad**	**71.36**	**290**	*e*P	**P**	**21 10 53.3**	**-0.7**
HYB				*e*PcP	**PcP**	**21 11 12.2**	**-0.7**
HYB				*e*pP	**pP**	**21 11 26.4**	**+0.1**
HYB				*e*PP	**PP**	**21 13 33.4**	**-0.7**
HYB				*e*S	**S**	**21 20 00.7**	**-1.0**
HYB				*e*ScS	**SKSac**	**21 20 45.1**	**0.0**
VNDA	**Vanda**	**72.29**	**177**	P	**P**	**21 10 59.5**	**+1.2**
	comp=Z,14nm,0.9s,baz=328,slow=6.3,SNR=68						
	comp=Z,14nm,0.9s						
VNDA	**Vanda**	**72.29**	**177**	P	**P**	**21 10 58.9**	**+0.5**
VNDA	**Vanda**	**72.29**	**177**	P	**P**	**21 10 59.5**	**+1.1**
VNDA				pP	**pP**	**21 11 33.5**	**+1.2**
WMQ	**Urumqi**	**72.52**	**319**	*e*P	**P**	**21 11 01.8**	**+1.4**
WMQ				S	**S**	**21 20 12.1**	**-2.1**
WMQ				pmax	pmax		
	comp=Z,16nm,0.7s						
SBA	**Scott Base**	**72.94**	**176**	P	**P**	**21 11 03.4**	**+1.2**
SBA	**Scott Base**	**72.94**	**176**	P	**P**	**21 11 04.3**	**+2.1**
SBA				pP	**pP**	**21 11 37.8**	**+2.2**
ZSN	**Zaisan**	**75.88**	**322**	*e*P	**P**	**21 11 21.1**	**+1.3**
O15K	**Ungalikthiuk R**	**77.05**	**25**	IAmb	IAmb	21 11 28.6	
	comp=Z,54nm,1.1s						
PAF	**Port-aux-Franc**	**77.18**	**221**	P	**P**	**21 11 25.7**	**-1.3**
MKAR	**Makanchi Array**	**77.22**	**320**	P	**P**	**21 11 27.8**	**+0.4**
	comp=Z,1.7nm,0.5s,baz=98,slow=8.2,SNR=4.7						
	comp=Z,1.7nm,0.5s						
N15K	**Kwethluk River**	**77.52**	**24**	IAmb	IAmb	21 11 30.8	
	comp=Z,25nm,1.0s						
J14K	**Nanvaranak Lak**	**77.77**	**21**	IAmb	IAmb	21 11 33.7	
	comp=Z,41nm,1.2s						
SHLS	**Shalkode**	**77.78**	**316**	*e*P	**P**	**21 11 30.4**	**-0.2**
O16K	**Kokwok River B**	**78.02**	**25**	IAmb	IAmb	21 11 32.9	
	comp=Z,28nm,1.1s						
TIXI	**Tiksi**	**78.03**	**354**	P	**P**	**21 11 30.6**	**-0.7**
UZB	**Uzynbulak**	**78.08**	**316**	*e*P	**P**	**21 11 33.5**	**+1.2**
K15K	**Wolf Creek Mou**	**78.22**	**22**	P	**P**	**21 11 32.8**	**+0.3**
K15K				IAmb	IAmb	21 11 34.8	
	comp=Z,42nm,1.0s						
KPKS	**Kokpek**	**78.42**	**316**	*e*P	**P**	**21 11 35.5**	**+1.4**
M16K	**Timber Creek**	**78.47**	**24**	P	**P**	**21 11 34.2**	**+0.4**
M16K				IAmb	IAmb	21 11 36.7	
	comp=Z,36nm,1.1s						
SATY	**Saty**	**78.48**	**316**	*e*P	**P**	**21 11 35.5**	**+1.0**
	comp=Z,21nm,1.9s						
ACHA	**Angle Creek He**	**78.49**	**27**	P	**P**	**21 11 34.1**	**0.0**
L16K	**Owhat River**	**78.66**	**23**	IAmb	IAmb	21 11 36.7	
	comp=Z,35nm,1.2s						
ZALV	**Zalesovo Beam**	**78.71**	**328**	P	**P**	**21 11 34.3**	**-1.0**
	comp=Z,4.3nm,0.6s,baz=109,slow=6.3,SNR=7.3						
	comp=Z,4.3nm,0.6s						
N17K	**Nushagak Hills**	**78.91**	**25**	P	**P**	**21 11 36.7**	**+0.4**
TDK	**Taldyqorghan**	**79.12**	**318**	*e*P	**P**	**21 11 39.2**	**+1.4**
J16K	**Anvik River**	**79.16**	**21**	IAmb	IAmb	21 11 40.2	
	comp=Z,44nm,1.2s						
M17K	**Holitna River**	**79.29**	**24**	IAmb	IAmb	21 11 42.4	
	comp=Z,38nm,1.2s						
F15K	**North Star Dit**	**79.32**	**18**	IAmb	IAmb	21 11 40.6	
	comp=Z,51nm,1.3s						
MDOK	**Medeo**	**79.46**	**316**	*e*P	**P**	**21 11 41.2**	**+1.3**
TNSS	**Tian-Shan**	**79.49**	**315**	*e*P	**P**	**21 11 41.2**	**+0.8**
AAA	**Alma-Ata**	**79.56**	**316**	*e*P	**P**	**21 11 41.6**	**+1.3**
	comp=Z,50nm,1.7s						
K17K	**Iditarod**	**79.69**	**22**	IAmb	IAmb	21 11 43.3	
	comp=Z,32nm,1.1s						
G16K	**Koyuk River**	**79.85**	**19**	IAmb	IAmb	21 11 44.0	
	comp=Z,47nm,1.4s						
L18K	**Granite Mounta**	**80.04**	**23**	P	**P**	**21 11 43.6**	**+1.2**
L18K				IAmb	IAmb	21 11 44.7	
	comp=Z,37nm,1.3s						
CNPM	**China Poot**	**80.99**	**27**	IAmb	IAmb	21 11 48.9	
	comp=Z,29nm,0.8s						
SGDS	**Sogindy**	**81.23**	**315**	*e*P	**P**	**21 11 50.5**	**+1.2**
L20K	**Farewell, AK**	**81.29**	**24**	IAmb	IAmb	21 11 50.9	
	comp=Z,43nm,1.4s						
M20K	**Styx River**	**81.30**	**24**	P	**P**	**21 11 49.0**	**-0.2**
RDOG	**Red Dog Mine**	**81.37**	**17**	IAmb	IAmb	21 11 51.3	
	comp=Z,31nm,1.0s						
J20K	**Nowinta River**	**82.05**	**22**	P	**P**	**21 11 52.9**	**-0.1**
G19K	**Purcell Mounta**	**82.05**	**20**	IAmb	IAmb	21 11 55.5	
	comp=Z,33nm,1.1s						
MAW	**Mawson**	**82.61**	**203**	P	**P**	**21 11 56.4**	**+0.6**
	comp=Z,1.8nm,0.9s						
MAW	**Mawson**	**82.61**	**203**	P	**P**	**21 11 56.5**	**+0.6**
	comp=Z,6.0nm,0.8s,baz=89,slow=7.2,SNR=12						
	comp=Z,6.0nm,0.8s						
MAW	**Mawson**	**82.61**	**203**		**P**	**21 11 56.1**	**+0.2**
MAW				pP	**pP**	**21 12 29.2**	**-0.9**
E19K	**Redstone River**	**82.74**	**19**	IAmb	IAmb	21 11 58.4	
	comp=Z,35nm,1.1s						
PWL	**Port Wells**	**82.88**	**26**	IAmb	IAmb	21 11 58.4	
	comp=Z,34nm,1.0s						
C19K	**Lookout Ridge**	**82.98**	**17**	IAmb	IAmb	21 11 59.9	
	comp=Z,49nm,1.2s						
IMAR	**Indian Mountai**	**83.12**	**21**		**P**	**21 11 58.4**	**-0.1**
IMAR				pP	**pP**	**21 12 33.0**	**+1.0**
IMAR				sP	**sP**	**21 12 44.5**	**-1.6**
TRF	**Thorofare Moun**	**83.20**	**24**	IAmb	IAmb	21 12 13.7	
	comp=Z,41nm,1.7s						
SML	**Sawmill**	**83.28**	**26**	IAmb	IAmb	21 12 00.5	
	comp=Z,32nm,0.9s						
I21K	**Tanana**	**83.36**	**22**	IAmb	IAmb	21 12 02.2	
	comp=Z,38nm,1.3s						
DZA	**Taraz**	**83.41**	**314**	*e*P	**P**	**21 12 01.9**	**+1.3**
D20K	**Etivluk River**	**83.63**	**18**	IAmb	IAmb	21 12 02.7	
	comp=Z,25nm,1.2s						
MLY	**Manley**	**83.75**	**22**	IAmb	IAmb	21 12 03.5	
	comp=Z,19nm,1.0s						
RND	**Reindeer**	**83.75**	**24**	IAmb	IAmb	21 12 02.7	
	comp=Z,21nm,0.9s						
MCK	**McKinley**	**83.86**	**24**	P	**P**	**21 12 01.4**	**-0.9**
MCK				IAmb	IAmb	21 12 03.8	
	comp=Z,28nm,1.0s						
DIV	**Divide**	**84.13**	**27**	IAmb	IAmb	21 12 05.7	
	comp=Z,40nm,1.2s						
KLU	**Klutina**	**84.21**	**26**	IAmb	IAmb	21 12 06.2	
	comp=Z,27nm,1.1s						
DHY	**Denali Highway**	**84.22**	**25**	IAmb	IAmb	21 12 06.0	
	comp=Z,20nm,1.0s						
E21K	**Killik River**	**84.31**	**19**	IAmb	IAmb	21 12 06.8	
	comp=Z,22nm,1.1s						
QSPA	**South Pole Qui**	**84.35**	**180**	P	**P**	**21 12 04.9**	**-0.1**
	comp=Z,16nm,0.9s,baz=326,slow=1.0,SNR=54						
	comp=Z,16nm,0.9s						
QSPA	**South Pole Qui**	**84.35**	**180**	P	**P**	**21 12 04.4**	**-0.6**
QSPA				pP	**pP**	**21 12 38.1**	**-1.0**
QSPA				IAmb	IAmb	21 12 41.5	
	comp=Z,39nm,1.1s						
QSPA	**South Pole Qui**	**84.35**	**180**	P	**P**	**21 12 05.2**	**+0.2**
QSPA				pP	**pP**	**21 12 40.0**	**+0.9**
BRLS	**Borolday**	**84.51**	**314**	*e*P	**P**	**21 12 07.6**	**+1.4**
WRH	**Wood River Hil**	**84.52**	**23**	IAmb	IAmb	21 12 05.7	
	comp=Z,32nm,1.2s						
CHM	**Chimkent**	**84.52**	**313**	*e*P	**P**	**21 12 07.4**	**+1.2**
CCB	**Clear Creek Bu**	**84.70**	**23**	P	**P**	**21 12 05.4**	**-1.2**
COLA	**College**	**84.78**	**23**	P	**P**	**21 12 07.1**	**+0.2**
D22K	**Ayikyak River**	**84.94**	**18**	IAmb	IAmb	21 12 09.9	
	comp=Z,26nm,1.2s						
ILAR	**Eielson Array**	**85.12**	**23**	P	**P**	**21 12 07.2**	**-1.5**
	comp=Z,14nm,0.9s,baz=254,slow=4.5,SNR=50						
	comp=Z,14nm,0.9s						
ILAR	**Eielson Array**	**85.12**	**23**	P	**P**	**21 12 06.6**	**-2.1**
E23K	**Chandalar**	**85.54**	**20**	IAmb	IAmb	21 12 12.7	
	comp=Z,26nm,1.4s						
D23K	**Nanushuk River**	**85.61**	**19**	IAmb	IAmb	21 12 13.5	
	comp=Z,35nm,1.2s						
J25K	**Salcha River,**	**85.65**	**24**	IAmb	IAmb	21 12 12.5	
	comp=Z,29nm,1.0s						
G24K	**Hadweenzic Riv**	**85.69**	**21**	IAmb	IAmb	21 12 14.0	
	comp=Z,20nm,1.1s						
F24K	**Squaw Lake**	**85.90**	**20**	IAmb	IAmb	21 12 14.5	
	comp=Z,23nm,1.2s						
BARN	**Barnard Glacie**	**85.97**	**28**	IAmb	IAmb	21 12 14.9	
	comp=Z,12nm,0.6s						
D24K	**Happy Valley**	**86.30**	**19**	IAmb	IAmb	21 12 16.6	
	comp=Z,36nm,1.2s						
FYU	**Fort Yukon**	**86.46**	**22**	IAmb	IAmb	21 12 17.4	
	comp=Z,22nm,1.1s						
BVAR	**Borovoye Array**	**86.48**	**324**	P	**P**	**21 12 14.5**	**-1.1**
	comp=Z,2.8nm,0.6s,baz=106,slow=6.0,SNR=5.6						
	comp=Z,2.8nm,0.6s						
BCAR	**Beaver Creek A**	**86.58**	**26**	P	**P**	**21 12 15.9**	**0.0**
BCAR				pP	**pP**	**21 12 49.7**	**0.0**
K27K	**Chicken**	**86.78**	**25**	IAmb	IAmb	21 12 18.9	
	comp=Z,22nm,1.0s						
BMAR	**Burnt Mountain**	**87.03**	**21**	P	**P**	**21 12 18.5**	**+0.4**
BMAR				pP	**pP**	**21 12 53.2**	**+1.4**
BMAR				sP	**sP**	**21 13 04.3**	**-1.4**
G26K	**Porcupine Rive**	**87.14**	**22**	IAmb	IAmb	21 12 20.5	
	comp=Z,26nm,1.1s						
D25K	**Kavik River**	**87.16**	**19**	IAmb	IAmb	21 12 20.7	
	comp=Z,27nm,1.1s						
F26K	**Sheenjek River**	**87.28**	**21**	IAmb	IAmb	21 12 21.4	
	comp=Z,20nm,1.2s						
I27K	**Kandik River**	**87.49**	**23**	IAmb	IAmb	21 12 22.4	
	comp=Z,27nm,1.0s						
H27K	**Steamboat Moun**	**87.73**	**23**	IAmb	IAmb	21 12 23.3	
	comp=Z,36nm,1.3s						
HYT	**Haines Junctio**	**87.84**	**28**	IAmb	IAmb	21 12 25.8	
	comp=Z,20nm,1.1s						
M29M	**Somme Creek**	**87.84**	**27**	IAmb	IAmb	21 12 23.7	
	comp=Z,41nm,1.7s						
I28M	**Miner Creek**	**88.11**	**24**	IAmb	IAmb	21 12 24.7	
	comp=Z,27nm,1.5s						
C27K	**Jago River**	**88.14**	**19**	IAmb	IAmb	21 12 25.3	
	comp=Z,34nm,1.3s						
L29M	**L29M**	**88.18**	**26**	IAmb	IAmb	21 12 25.6	
	comp=Z,29nm,1.5s						
E27K	**Coleen River**	**88.36**	**21**	IAmb	IAmb	21 12 26.9	
	comp=Z,20nm,1.1s						
S32K	**Killisnoo**	**88.48**	**32**	IAmb	IAmb	21 12 27.6	
	comp=Z,24nm,1.2s						
K29M	**Barlow Dome**	**88.64**	**25**	IAmb	IAmb	21 12 28.3	
	comp=Z,43nm,1.8s						
I29M	**Ogilvie Camp,**	**88.73**	**24**	P	**P**	**21 12 25.5**	**-0.6**
I29M				IAmb	IAmb	21 12 27.2	
	comp=Z,35nm,1.6s						
DIB	**Dawson Inlet,**	**88.78**	**36**	IAmb	IAmb	21 12 28.7	
	comp=Z,18nm,1.3s						
CRAG	**Craig**	**88.85**	**34**	IAmb	IAmb	21 12 29.7	
	comp=Z,35nm,1.6s						
U33K	**Whale Pass**	**88.98**	**33**	IAmb	IAmb	21 12 29.9	
	comp=Z,29nm,1.3s						
J30M	**Hart River**	**89.33**	**25**	IAmb	IAmb	21 12 30.6	
	comp=Z,37nm,1.7s						
HG4B	**Hotspring**	**89.38**	**37**	IAmb	IAmb	21 12 31.9	
	comp=Z,14nm,0.8s						
V35K	**Ketchikan**	**89.67**	**34**	IAmb	IAmb	21 12 33.0	
	comp=Z,21nm,1.4s						
G30M	**tAoh Zraii Nji**	**89.98**	**23**	IAmb	IAmb	21 12 33.2	
	comp=Z,17nm,1.1s						
F30M	**Barrier River**	**90.30**	**22**	IAmb	IAmb	21 13 15.3	
	comp=Z,28nm,1.5s						
T35M	**Bob Quinn**	**90.70**	**33**	IAmb	IAmb	21 12 38.3	
	comp=Z,13nm,1.2s						
G31M	**Satah River**	**90.71**	**23**	IAmb	IAmb	21 13 45.5	
	comp=Z,12nm,1.1s						
INK	**Inuvik**	**91.28**	**21**	IAmb	IAmb	21 12 40.4	
	comp=Z,15nm,1.1s						
CBB	**Campbell River**	**92.72**	**40**	P	**P**	**21 12 45.2**	**+0.3**
KHMM	**Horse Mountain**	**93.05**	**49**	P	**P**	**21 12 46.6**	**-0.3**
CLRS	**Cowichan Lake**	**93.42**	**41**	IAmb	IAmb	21 12 50.0	
	comp=Z,13nm,1.2s						
KHBM	**Hayfork Bally**	**93.42**	**50**	IAmb	IAmb	21 12 51.4	
	comp=Z,7.5nm,1.0s						
GDXM	**Geysers**	**93.61**	**52**	IAmb	IAmb	21 12 51.9	
	comp=Z,8.3nm,1.1s						
E03A	**Lebam**	**93.62**	**44**	IAmb	IAmb	21 12 51.9	
	comp=Z,14nm,1.2s						
M02C	**Callahan**	**93.75**	**49**	P	**P**	**21 12 50.4**	**+0.3**
PGC	**Sidney**	**93.85**	**42**	P	**P**	**21 12 50.8**	**+0.6**
PGC				IAmb	IAmb	21 12 52.0	
	comp=Z,11nm,1.0s						
YBH	**Yreka Blue Hor**	**93.89**	**49**	IAmb	IAmb	21 12 52.4	
	comp=Z,14nm,1.2s						
GNW	**Green Mountain**	**94.20**	**43**	IAmb	IAmb	21 12 53.7	
	comp=Z,14nm,1.3s						
O03E	**Paynes Creek**	**94.48**	**50**	IAmb	IAmb	21 12 58.5	
	comp=Z,13nm,1.1s						
STD	**Studebaker Rid**	**94.53**	**44**	IAmb	IAmb	21 12 57.1	
	comp=Z,14nm,1.3s						
ELIB	**Princess Elisa**	**94.58**	**195**	*d*P	**P**	**21 12 53.5**	**+0.3**
	comp=Z,4.2nm,1.1s						
ELIB				*d*pP	**pP**	**21 13 26.9**	**-1.1**
ORV	**Oroville**	**94.67**	**51**	IAmb	IAmb	21 12 55.8	
	comp=Z,10nm,1.1s						
LLLB	**Lillooet**	**94.99**	**40**	IAmb	IAmb	21 12 57.3	
	comp=Z,11nm,1.2s						
AFDM	**Forest Hills D**	**95.04**	**51**	IAmb	IAmb	21 12 57.2	
	comp=Z,12nm,1.2s						
K05A	**Summer Lake**	**95.29**	**48**	IAmb	IAmb	21 12 58.8	
	comp=Z,10nm,1.1s						
PINE	**Pine Mountain**	**95.31**	**47**	IAmb	IAmb	21 12 58.2	
	comp=Z,17nm,1.6s						
BEKR	**Beckworth**	**95.56**	**51**	IAmb	IAmb	21 12 59.6	
	comp=Z,6.2nm,1.1s						
LTY	**Liberty**	**95.64**	**43**	IAmb	IAmb	21 12 59.7	
	comp=Z,8.9nm,1.3s						
HAWA	**Hanford**	**96.40**	**44**	IAmb	IAmb	21 13 03.4	
	comp=Z,7.7nm,1.0s						
B08A	**Colville Reser**	**96.57**	**42**	IAmb	IAmb	21 13 03.9	
	comp=Z,5.8nm,0.9s						
NVAR	**Mina Array Bea**	**97.11**	**52**	P	Pdif	21 13 05.8	+0.2
	comp=Z,2.8nm,1.0s,baz=262,slow=4.8,SNR=7.8						
	comp=Z,2.8nm,1.0s						
NVAR	**Mina Array Bea**	**97.11**	**52**	P	**P**	**21 13 05.3**	**-0.3**
MPMC	**Manual Prospec**	**97.70**	**54**	P	**P**	**21 13 08.2**	**-0.1**
MPMC				IAmb	IAmb	21 13 09.7	
	comp=Z,6.3nm,1.4s						
F10A	**Beach Ranch, E**	**97.99**	**44**	IAmb	IAmb	21 13 10.8	
	comp=Z,6.6nm,0.9s						
NEW	**Newport**	**98.05**	**42**	P	**P**	**21 13 09.1**	**-0.3**
	comp=Z,7.5nm,0.9s,baz=238,slow=3.5,SNR=9.4						
	comp=Z,7.5nm,0.9s						
PLID	**Pearl Lake**	**98.86**	**45**	P	**P**	**21 13 11.9**	**-1.4**
TROLL	**Troll, Antarti**	**99.17**	**191**	Pdiff	**Pdif**	**21 13 13.7**	**-0.4**
	comp=Z,107nm,0.8s						
ELK	**Elko**	**99.49**	**50**	P	**Pdif**	**21 13 15.8**	**-0.5**
	comp=Z,1.9nm,0.9s,baz=212,slow=3.0,SNR=6.1						
	comp=Z,1.9nm,0.9s						
VNA3	**Neumayer Olymp**	**101.76**	**188**	⇓Pdiff	**Pdif**	**21 13 24.8**	**-0.6**
	comp=Z,1.4nm,0.9s						
VNA1	**Neumayer--Stat**	**102.11**	**188**	⇓Pdiff	**Pdif**	**21 13 26.7**	**-0.2**
	comp=Z,3.2nm,1.1s						
PDAR	**Pinedale Array**	**103.63**	**47**	Pdiff	**Pdif**	**21 13 34.5**	**-0.2**
	comp=Z,1.4nm,0.8s,baz=184,slow=2.7,SNR=9.6						
CLL	**Collm**	**120.66**	**328**	*e*PKPdf	**PKPdf**	**21 18 23.0**	**-1.0**
GERES	**GERESS Array B**	**121.61**	**326**	PKP	**PKPdf**	**21 18 25.8**	**-0.3**
	comp=Z,1.0nm,0.5s,baz=105,slow=3.2,SNR=6.6						
PLCA	**Paso Flores**	**122.42**	**147**	PKP	**PKPdf**	**21 18 28.0**	**0.0**
	comp=Z,1.9nm,0.5s,baz=249,slow=2.6,SNR=9.5						
LESA	**Schwarzleotal**	**122.94**	**325**	*i* PKP	**PKPdf**	**21 18 28.0**	**-0.7**
	comp=Z,2.1nm,0.6s						
WATA	**Walderalm**	**123.62**	**325**	*e*PKP	**PKPdf**	**21 18 29.5**	**-0.5**
	comp=Z,4.3nm,0.8s						
WTTA	**Wattenberg**	**123.63**	**325**	*i* PKiKP	**PKPdf**	**21 18 29.8**	**-0.3**
	comp=Z,3.6nm,0.9s						
MOTA	**Moosalm**	**123.89**	**325**	*i* PKP	**PKPdf**	**21 18 30.0**	**-0.5**
	comp=Z,2.9nm,0.8s						
SQTA	**Sankt Quirin**	**123.90**	**325**	*i* PKP	**PKPdf**	**21 18 30.0**	**-0.5**
	comp=Z,7.5nm,1.3s						
DAVA	**Damuels**	**124.61**	**326**	*i* PKP	**PKPdf**	**21 18 30.7**	**-1.3**
	comp=Z,3.1nm,0.7s						
TKL	**Tuckaleechee C**	**124.65**	**50**	PKP	**PKPdf**	**21 18 31.1**	**-1.1**
	comp=Z,4.7nm,0.8s,baz=203,slow=3.6,SNR=3.8						
EKA	**Eskdalemuir Ar**	**124.97**	**340**	PKP	**PKPdf**	**21 18 31.3**	**-0.9**
	comp=Z,0.4nm,0.4s,baz=34,slow=2.8,SNR=6.7						
ROSC	**El Rosal**	**138.82**	**89**	PKP	**PKPdf**	**21 19 00.0**	**0.0**
	comp=Z,4.2nm,0.4s,baz=53,slow=20,SNR=3.8						
LPAZ	**La Paz**	**138.96**	**123**		PKPpre	21 18 47.9	
MLPR	**Magueyes Islan**	**144.53**	**67**		**PKPab**	**21 19 06.9**	**-1.4**
CELP	**Cerrillos**	**144.93**	**66**		PKPbc	21 19 07.3	-2.5
TORD	**Torodi Ar. Bea**	**145.03**	**285**	PKPbc	**PKPbc**	**21 19 09.0**	**-1.1**
	comp=Z,3.9nm,0.6s,baz=93,slow=4.3,SNR=21						
PTLB	**Pontes e Lacer**	**146.68**	**129**		**PKPdf**	**21 19 13.0**	**-0.3**
SPB	**Sao Paulo**	**147.72**	**155**		**PKPbc**	**21 19 16.5**	**-1.3**
BOAV	**Boa Vista**	**152.33**	**96**		**PKPdf**	**21 19 19.2**	**-3.2**
BOAV				PKPbc	**PKPbc**	**21 19 26.9**	**-2.4**
BDFB	**Brasilia**	**154.15**	**145**	PKPbc	**PKiKP**	**21 19 33.4**	**+0.1**
	comp=Z,7.6nm,0.4s,baz=227,slow=3.0,SNR=14						
BDFB	**Brasilia**	**154.15**	**145**		**PKPab**	**21 19 44.2**	**-3.1**

SOME ***18*** *21:03:52.9, 41°.90N×83°.43E, h15*^{km}
IDC ***18*** *21:03:56.5±0.7, 42°.03N×83°.45E, h0*^{km}*, mb4.1/16,*
mbtmp4.1/22, ML3.6/6, MS2.9/2, Error ellipse:

s-maj=13.5km s-min=9.6km az=66.0

NEIC **18** 21:03:58.5±1.5, 42°.11N±0°.05×83°.48E±0°.08, h10^{km}±1^{km}, mb4.5/23, Error ellipse: s-maj=12.7km s-min=3.5km az=233.0

NNC **18** 21:03:59.4±3.7, 42°.11N×83°.30E, h0^{km}, mb4.6, mpv4.1, Error ellipse: s-maj=28.7km s-min=15.8km az=148.0

ISC 18 21:03:58.0±0.4, **42°.08N**±0°.04×**83°.53E**±0°.03, **h15^{km}, n102, σ2^{s}21**/123, **mb4.3**/30, **3C-3D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SHLS	Shalkode	3.19	291	Pg	Pn	21 04 49.4	+1.7
	65nm,0.2s						
SHLS				Lg	Lg	21 05 29.5	
	1μm,0.8s						
SHLS	Shalkode	3.19	291	eP	Pn	21 04 46.2	-1.5
	69nm,0.4s						
SHLS				eS	Sn	21 05 25.2	-0.3
	1μm,0.8s						
PDGK	Podgornoye	3.23	294	Pn	Pn	21 04 49.7	+1.5
WUS	Wushi	3.35	256		Pn	21 04 51.4	+1.5
UZB	Uzynbulak	3.49	289	Pg	Pb	21 04 58.7	-0.9
	18nm,0.3s						
UZB				Lg	Lg	21 05 45.6	
	156nm,0.2s						
UZB	Uzynbulak	3.49	289	eP	Pn	21 04 54.7	+2.8
	43nm,0.4s						
UZB				eS	Sb	21 05 40.0	-1.9
	201nm,0.6s						
WMQ	Urumqi	3.52	59	Pn	Pb	21 04 57.3	-2.7
WMQ				Sn	Sb	21 05 40.3	-2.3
WMQ				smax	smax		
	comp=N,330nm,1.7s						
WMQ				smax	smax		
	comp=E,380nm,1.7s						
PRZ	Przheval'sk	3.83	278		Pn	21 04 58.8	+2.3
KPKS	Kokpek	3.83	293	Pg	Pb	21 05 04.3	-0.9
	comp=E,0.2nm,0.1s						
KPKS				Lg	Lg	21 05 54.5	
	comp=E,173nm,0.3s						
KPKS	Kokpek	3.83	293	eP	Pb	21 05 01.7	-3.5
	comp=E,0.2nm,0.1s						
KPKS				eS	Sb	21 05 52.4	+0.9
	comp=E,153nm,0.5s						
SATY	Saty	3.91	286	Pg	Pb	21 05 03.8	-2.9
SATY				Lg	Lg	21 05 54.4	
SATY	Saty	3.91	286	eP	Pb	21 05 04.4	-2.3
	comp=E,30nm,0.4s						
SATY				eS	Sb	21 05 56.4	+2.6
	comp=E,154nm,0.4s						
KNOS	Konyrlen	3.91	307	Pg	Pg	21 05 09.6	-3.3
	comp=E,30nm,0.3s						
KNOS				Lg	Lg	21 06 03.7	
	comp=E,231nm,0.4s						
KURS	Kuram	4.19	291	eP	Pb	21 05 09.9	-1.5
	comp=E,15nm,0.5s						
KURS				eS	Sb	21 06 05.3	+3.5
	comp=E,113nm,0.6s						
TARG	Taragay, Kyrgy	4.29	267		Pn	21 05 04.9	+1.8
KAPS	Kapalarasan	4.41	318	eP	Pb	21 05 14.1	-1.0
	comp=E,28nm,0.2s						
KAPS				eS	Sb	21 06 12.6	+4.5
	comp=E,136nm,0.5s						
ARXS	Arharly	4.69	299	eP	Pb	21 05 19.9	0.0
	comp=E,21nm,0.3s						
ARXS				eS	Sg	21 06 22.9	-5.5
	comp=E,359nm,0.7s						
KDJ	Kajisay	4.72	273	Pn	Pn	21 05 10.4	+1.5
TDK	Taldyqorghan	4.73	310	eP	Pb	21 05 18.6	-2.0
	comp=E,74nm,0.3s						
TDK				eS	Sb	21 06 20.9	+3.5
	comp=E,275nm,0.7s						
MK31	Makanchi Array	4.80	350	⇑Pn	Pn	21 05 12.3	+2.5
	comp=E,1.2nm,0.2s,baz=168,slow=13,SNR=177						
MK31				Pg	Pg	21 05 25.8	-4.0
	comp=E,30nm,0.6s,baz=171,slow=16,SNR=23						
MK31				⇑Sn	Sn	21 06 08.3	+3.3
	comp=E,31nm,0.6s						
MK31				Lg	Lg	21 06 28.1	
	comp=E,87nm,0.5s,baz=167,slow=28,SNR=14						
MKAR	Makanchi Array	4.80	350	Pn	Pn	21 05 12.2	+2.5
	comp=E,5.1nm,0.3s,baz=177,slow=12,SNR=35						
MKAR				Pg	Pg	21 05 26.0	-3.8
	comp=E,16nm,0.3s,baz=165,slow=17,SNR=21						
MKAR				Sn	Sn	21 06 06.9	+1.9
	comp=E,16nm,0.3s,baz=168,slow=24,SNR=5.5						
MKAR				Lg	Lg	21 06 28.3	
	comp=E,29nm,0.3s,baz=174,slow=26,SNR=14						
MKAR				LR	LR	21 06 33.7	
	comp=E,94nm,18.3s,baz=101,slow=32						
	comp=E,6.3nm,0.3s						
MKAR				AML	AML		
MKAR	Makanchi Array	4.80	350		Pn	21 05 11.8	+2.1
MAKZ	Makanchi	4.86	347	Pn	Pn	21 05 12.5	+2.0
KOTS	Kotyrbulak	4.87	286	eP	Pb	21 05 20.0	-3.1
	comp=E,12nm,0.3s						
KOTS				eS	Sb	21 06 22.8	+1.3
	comp=E,147nm,0.6s						
KNDC	Almaty	4.97	285	⇑Pn	Pn	21 05 16.5	+4.4
	comp=E,25nm,0.4s						
KNDC				⇓Pg	Pg	21 05 29.7	-3.5
	comp=E,49nm,0.5s						
KNDC				⇓Lg	Lg	21 06 30.0	
	comp=E,211nm,0.7s						
KTBS	Karatobe	5.29	290	eP	Pb	21 05 30.8	+0.7
	comp=E,0.2nm,0.1s						
KTBS				eS	Sg	21 06 41.1	-6.5
	comp=E,66nm,0.5s						
ZSN	Zaisan	5.46	10	eP	Pb	21 05 35.6	+2.7
	comp=E,27nm,0.4s						
ZSN				eS	Sg	21 06 50.1	-2.9
	comp=E,264nm,0.6s						
BOOM	Boomskoye usch	5.64	277	Pn	Pn	21 05 22.8	+1.3
KST	Kastek	5.67	282	eP	Pb	21 05 35.3	-1.4
	comp=E,7.5nm,0.7s						
KST				eS	Sb	21 06 48.8	+4.4
	comp=E,120nm,0.8s						
KRBS	Karabastau	5.99	288	Pg	Pb	21 05 43.0	+0.9
KRBS				Lg	Lg	21 07 01.2	
KRBS	Karabastau	5.99	288	eP	Pb	21 05 44.0	+1.9
	comp=E,6.7nm,0.7s						
KRBS				eS	Sg	21 07 04.0	-6.3
	comp=E,13nm,0.3s						
AAK	Ala-Archa	6.72	278	Pn	Pn	21 05 37.3	+1.1
	comp=E,0.7nm,0.3s,baz=117,slow=14,SNR=2.0						
AAK				Lg	Lg	21 07 29.6	
	comp=E,1.3nm,0.3s,baz=72,slow=19,SNR=3.6						
AAK				LR	LR	21 08 35.1	
	comp=E,131nm,21.4s,baz=74,slow=42						
	comp=E,4.4nm,0.5s						
AAK				AML	AML		
MRKS	Merke	7.65	278	eP	Pb	21 06 15.9	+5.5
	comp=E,5.6nm,0.6s						
MRKS				eS	Sb	21 07 58.4	+17
	comp=E,15nm,0.8s						
ARSB	Arslanbob	7.93	268	Pn	Pn	21 05 55.0	+2.2
KURBB	Kurchatov Arra	9.22	340	Pn	Pn	21 06 11.0	+0.8
	comp=E,0.5nm,0.3s,baz=147,slow=14,SNR=12						
KURBB				Sn	Sn	21 07 53.8	+0.2
	comp=E,0.5nm,0.3s,baz=155,slow=22,SNR=4.5						
KURBB				Lg	Lg	21 08 43.6	
	comp=E,0.3nm,0.3s,baz=162,slow=30,SNR=2.5						
	comp=E,4.5nm,0.6s						
KURBB				AML	AML		
KURK	Kurchatov	9.28	340		Pn	21 06 11.6	+0.5
GOMU	GeErMu	10.54	120	Pn	Pn	21 06 28.9	0.0
GOMU				Sn	Sn	21 08 16.9	-10
GOMU				smax	smax		
	comp=N,19nm,0.7s						
GOMU				smax	smax		
	comp=E,18nm,0.7s						
NIL	Nilore	11.68	227		Pn	21 06 44.0	-0.1
ZALV	Zalesovo Beam	11.91	4	Pn	Pn	21 06 46.9	-0.2
	comp=E,1.6nm,0.3s,baz=184,slow=13,SNR=14						
ZALV				Sn	Sn	21 08 54.8	-4.9
	comp=E,0.5nm,0.3s,baz=197,slow=24,SNR=2.0						
ZALV				Lg	Lg	21 10 08.4	
	baz=204,slow=28						
	comp=E,6.3nm,0.4s						
ZALV				AML	AML		
BVAR	Borovoye Array	14.07	326	Pn	Pn	21 07 17.2	+0.6
	comp=E,0.1nm,0.3s,baz=134,slow=12,SNR=6.8						
BVAR				Lg	Lg	21 11 18.9	
	baz=137,slow=26,SNR=4.1						
	comp=E,3.7nm,0.7s						
BVAR				AML	AML		
BORK	Borovoye	14.11	326	Pn	Pn	21 07 19.9	+2.7
EVN	Everest	14.34	168		Pn	21 07 24.0	+3.0
ZIRO	ZIRO	16.79	147	eP	Pn	21 07 42.9	-10
DHUB	DHUBRI	16.88	160	eP	Pn	21 07 49.1	-4.6
SONM	Songino Array	17.15	63	Pn	P	21 07 59.4	+0.7
	comp=E,0.4nm,0.3s,baz=16,slow=42,SNR=1.6						
	comp=E,0.9nm,0.5s						
SONM				AML	AML		
SHL	Shillong	17.85	155	P	P	21 08 07.1	+0.4
SHL	Shillong	17.85	155	eP	Pn	21 08 01.3	-4.7
AB31	Akbulak array	17.93	302		Pn	21 08 06.2	-0.4
ABKAR	Akbulak array	17.93	302	Pn	Pn	21 08 06.0	-0.6
IMP	Imphal	19.24	150	eP	P	21 08 17.6	-4.2
AZL	Aizawl	19.82	155	eP	Pn	21 08 31.9	+2.3
SAIH	SAIHA	21.08	155	eP	P	21 08 38.1	-3.8
ARTI	Arti	21.61	320	P	P	21 08 48.2	+1.0
	comp=E,5.6nm,0.7s,baz=110,slow=7.8,SNR=5.3						
	comp=E,5.6nm,0.7s						
ARTI	Arti	21.61	320	P	P	21 08 48.5	+1.2
ARTI				IAmb	IAmb	21 08 53.4	
	comp=Z,11nm,0.9s						
HYB	Hyderabad	24.94	191	eP	P	21 09 21.6	+0.9
HYB				ePcP	PcP	21 12 56.3	+0.3
HYB				eS	S	21 13 46.8	+3.0
KLR	Kul'dur	33.97	61	P	P	21 10 42.1	+1.5
	comp=Z,3.6nm,0.5s,baz=246,slow=7.6,SNR=4.7						
	comp=Z,3.6nm,0.5s						
RAYN	Ar Rayn	36.56	252	P	P	21 11 03.0	-0.2
BRTR	Keskin Array B	37.35	284	P	P	21 11 11.2	+1.2
	comp=Z,1.2nm,0.7s,baz=102,slow=9.4,SNR=8.3						
	comp=Z,1.2nm,0.7s						
BRTR	Keskin Array B	37.35	284	P	P	21 11 10.7	+0.7
FINES	FINESS Array B	38.92	320	P	P	21 11 23.3	+0.6
	comp=Z,2.1nm,0.8s,baz=103,slow=9.2,SNR=9.4						
	comp=Z,2.1nm,0.8s						
CSS	Mathiatis	39.44	277	P	P	21 11 27.7	+0.2
CSS				IAmb	IAmb	21 11 42.7	
	comp=Z,15nm,1.4s						
JOW	Kunigami	39.45	98		P	21 11 28.1	+0.6
JOW				IAmb	IAmb	21 11 33.0	
	comp=Z,26nm,1.4s						
ARCES	ARCESS Array B	40.21	332	P	P	21 11 34.4	+1.0
	comp=Z,3.5nm,0.7s,baz=85,slow=7.7,SNR=20						
	comp=Z,3.5nm,0.7s						
ARCES	ARCESS Array B	40.21	332	P	P	21 11 34.2	+0.8
ARCES				IAmb	IAmb	21 11 45.3	
	comp=Z,23nm,1.4s						
MLR	Muntele Rosu	40.95	295	P	P	21 11 40.7	+0.7
	comp=Z,3.8nm,0.9s,baz=101,slow=19,SNR=5.4						
	comp=Z,3.8nm,0.9s						
MLR	Muntele Rosu	40.95	295	P	P	21 11 40.8	+0.8
MLR				IAmb	IAmb	21 11 51.6	
	comp=Z,14nm,1.4s						
HFS	Hagfors	45.05	318	P	P	21 12 13.5	+0.7
	comp=Z,1.8nm,0.5s,baz=140,slow=5.6,SNR=11						
	comp=Z,1.8nm,0.5s						
IDI	Anoyia	45.50	282	P	P	21 12 16.8	0.0
NC405	NORSAR Array S	45.85	320	P	P	21 12 20.0	+0.9
NC405				IAmb	IAmb	21 12 33.7	
	comp=Z,15nm,1.2s						
NC303	NORSAR Array S	46.00	320	P	P	21 12 20.9	+0.6
NC602	NORSAR Array S	46.00	319	P	P	21 12 20.7	+0.4
NC602				IAmb	IAmb	21 12 35.3	
	comp=Z,8.8nm,1.2s						
NB201	NORSAR Array S	46.07	320	P	P	21 12 21.1	+0.2
NB2	NORSAR Subarra	46.11	320	P	P	21 12 21.5	+0.3
	comp=Z,1.4nm,0.5s,baz=79,slow=7.9						
NOA	NORSAR Array B	46.11	320	P	P	21 12 21.8	+0.6
	comp=Z,1.3nm,0.4s,baz=80,slow=7.9,SNR=10						
	comp=Z,1.3nm,0.4s						
NC204	NORSAR Array S	46.28	320	P	P	21 12 22.7	+0.1
NC204				IAmb	IAmb	21 12 23.3	
	comp=Z,2.2nm,0.8s						
NAO01	NORSAR Array S	46.30	320	P	P	21 12 22.9	+0.2
GERES	GERESS Array B	47.87	303	P	P	21 12 35.9	+0.7
	comp=Z,0.4nm,0.3s,baz=56,slow=6.0,SNR=2.6						
	comp=Z,0.4nm,0.3s						
WTTA	Wattenberg	49.73	302	i PKiKP	P	21 12 50.0	+0.4
	comp=Z,6.1nm,0.9s						
WATA	Walderalm	49.74	302	ePKiKP	P	21 12 50.3	+0.7
	comp=Z,2.2nm,0.5s						
SQTA	Sankt Quirin	50.01	302	i PKiKP	P	21 12 52.3	+0.6
	comp=Z,3.1nm,0.4s						
MOTA	Moosalm	50.03	302	i PKiKP	P	21 12 53.0	+1.2
	comp=Z,6.8nm,1.8s						
RETA	Reutte	50.19	303	i pPKiKP	P	21 12 53.9	+0.9
	comp=Z,2.7nm,0.9s						
FETA	Feichten	50.39	302	i pPKiKP	P	21 12 55.1	+0.5
	comp=Z,1.8nm,0.9s						
EKA	Eskdalemuir Ar	55.08	316	P	P	21 13 29.4	+0.5
	comp=Z,0.5nm,0.4s,baz=75,slow=7.4,SNR=7.7						
	comp=Z,0.5nm,0.4s						
ESDC	Sonseca Array	63.28	300	P	P	21 14 26.6	+0.5
	comp=Z,0.4nm,0.5s,baz=55,slow=6.9,SNR=5.3						
	comp=Z,0.4nm,0.5s						
G21K	Allakaket	63.30	22	P	P	21 14 26.4	+0.8
G21K				IAmb	IAmb	21 14 32.1	
	comp=Z,8.7nm,1.4s						
ILAR	Eielson Array	66.43	21	P	P	21 14 46.7	+0.6
	comp=Z,1.1nm,0.7s,baz=318,slow=6.2,SNR=2.4						
	comp=Z,1.1nm,0.7s						
ILAR	Eielson Array	66.43	21	P	P	21 14 46.3	+0.2
TRF	Thorofare Moun	66.49	23	P	P	21 14 47.7	+1.0
TRF				IAmb	IAmb	21 15 02.2	
	comp=Z,6.6nm,1.2s						
FITZ	Fitzroy Crossi	71.39	138	P	P	21 15 18.7	+1.3
	comp=Z,9.9nm,1.2s,baz=348,slow=9.3,SNR=1.1						
	comp=Z,9.9nm,1.2s						
MMPY	Sheldon Lake,	71.98	16	P	P	21 15 19.9	-0.7
MMPY				IAmb	IAmb	21 15 23.1	
	comp=Z,2.1nm,1.1s						
TORD	Torodi Ar. Bea	75.29	274	P	P	21 15 40.6	0.0
	comp=Z,1.1nm,0.6s,baz=42,slow=4.8,SNR=8.8						
	comp=Z,1.1nm,0.6s						
WB0	Warramunga Arr	77.40	132	P	P	21 15 53.6	+1.2
WRAB	Tennant Creek	77.51	132	P	P	21 15 54.0	+1.0
WRAB				IAmb	IAmb	21 15 57.7	
	comp=Z,8.8nm,1.2s						
WRA	Warramunga Arr	77.52	132	P	P	21 15 54.2	+1.1
	comp=Z,2.0nm,0.7s,baz=328,slow=4.9,SNR=9.7						
	comp=Z,2.0nm,0.7s						
WRA	Warramunga Arr	77.52	132	P	P	21 15 53.6	+0.5
WR8	Warramunga Arr	77.61	132	P	P	21 15 54.3	+0.7
ASAR	Alice Springs	80.28	134	P	P	21 16 09.4	+1.2
	comp=Z,1.5nm,0.7s,baz=316,slow=5.5,SNR=5.4						
	comp=Z,1.5nm,0.7s						
ASAR	Alice Springs	80.28	134	P	P	21 16 09.0	+0.7
SYO	Syowa Base	115.44	196	⇓ePKIKP	Pdif	21 18 46.6	-3.5
QSPA	South Pole Qui	131.85	180	PKP	PKiKP	21 23 10.1	-0.3
	comp=Z,0.9nm,0.8s,baz=243,slow=4.5,SNR=1.6						
QSPA	South Pole Qui	131.85	180		PKiKP	21 23 10.3	-0.2

TAP **18** 21:11:32.0, 24°.61N×122°.68E, h14^{km}, ML2.6, C

JMA **18** 21:11:32.2±0.1, 25°N±1°×122°.7E±0°.5, h19^{km}±2^{km}, MV2.2/10, NW OFF ISHIGAKIJIMA IS

ISC 18 21:11:32.1±0.9, **24°.62N**±0°.04×**122°.68E**±0°.02, **h17^{km}**±8^{km}, **n44, σ0^{s}40**/69, **1C-1D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JYNG	Yonagunijimaku	0.29	124	P	Pg	21 11 38.4	0.0
JYNG				eS	Sg	21 11 43.0	+0.2
YOJ	Yonaguni jima	0.34	117	⇓P	Pg	21 11 39.2	0.0
YOJ				S	Sb	21 11 44.5	-0.3
YOJ	Yonaguni jima	0.34	117	P	Pg	21 11 39.3	0.0
YOJ				eS	Sg	21 11 44.2	+0.1
EOS2	EOS2	0.45	244	P	Pb	21 11 41.3	-0.2
EOS2				eS	Sb	21 11 48.3	+0.4
EOS3	EOS3	0.47	225	eP	Pg	21 11 41.3	-0.1
EOS3				S	Sb	21 11 49.6	+1.4
EOS4	EOS4	0.59	214	eP	Pg	21 11 43.5	-0.2
EGS		0.72	289	i P	Pb	21 11 46.4	+0.3
EGS				i S	Sg	21 11 55.5	-0.2
TWB1	Santiao Chiao	0.74	302	P	Pg	21 11 46.7	+0.1
TWB1				eS	Sg	21 11 56.2	-0.2
TWC	Suao	0.76	270	i P	Pb	21 11 46.1	-0.6
TWC				i S	Sg	21 11 57.0	+0.1
ESAO	Su ao	0.76	267	eP	Pb	21 11 46.7	-0.1
ESAO				eS	Sg	21 11 57.1	+0.1
EWUT	Wuta	0.84	258	P	Pb	21 11 48.3	+0.1
EWUT				i S	Sb	21 11 57.8	-1.3
TIPB	Shuangxi	0.85	295	i P	Pb	21 11 48.4	0.0
TIPB				eS	Sb	21 11 59.9	+0.3
NDS	Dongshan	0.88	271	i P	Pb	21 11 48.8	0.0
NDS				i S	Sb	21 12 00.3	0.0
EAHA	Aohua	0.90	252	eS	Sb	21 12 01.1	+0.1
TWE	Neicheng	0.93	277	⇑i P	Pb	21 11 49.8	+0.1
TWE				eS	Sb	21 12 02.0	+0.3
WFSB	Wu-fen Shan	0.93	299	eP	Pb	21 11 49.9	+0.1
WFSB				eS	Sn	21 12 04.6	+1.2
TNOU	National Taiwa	0.98	303	eP	Pb	21 11 50.3	-0.3
IRIF	Iriomote-Funau	1.00	106	eP	Pb	21 11 51.0	+0.1
FUSB	Fushanzhiwuyua	1.00	278	P	Pb	21 11 51.1	+0.1
FUSB				S	Sn	21 12 05.3	+0.1
LATG	Datong	1.05	266	eP	Pb	21 11 52.0	+0.1
LATG				S	Sb	21 12 05.5	0.0
NDT	Datong Townshi	1.06	269	eP	Pg	21 11 52.6	-0.1
NDT				eS	Sb	21 12 05.8	+0.2
NACB	Ninganchiao	1.08	246	eP	Pb	21 11 52.1	-0.2
NACB				eS	Sb	21 12 06.1	-0.1
NWLT	Wulai	1.08	279	P	Pn	21 11 52.6	+0.1
NWLT				S	Sb	21 12 06.7	+0.5
TWD	Chiawan	1.12	242	P	Pn	21 11 53.2	+0.2
TWD				S	Sb	21 12 07.2	-0.1
YM01	YM01	1.14	298	eP	Pn	21 11 53.0	-0.3
YM08	YM08	1.14	300	eP	Pn	21 11 52.4	-0.9
ETLH	Xiulin Townshi	1.17	250	eP	Pn	21 11 53.2	-0.5
YHNB	Yeheng	1.19	273	i P	Pn	21 11 54.1	+0.2
YHNB				eS	Sb	21 12 09.3	0.0
NNSB	Datong	1.20	261	P	Pb	21 11 54.4	0.0
NNSB				eS	Sb	21 12 09.8	+0.2
NNS	Nan Shan	1.20	262	P	Pb	21 11 54.4	-0.1
NNS				S	Sn	21 12 10.1	-0.1
NSK	Sanguang	1.20	273	P	Pb	21 11 54.5	0.0
NSK				S	Sb	21 12 09.7	0.0
ETM	Tongmen	1.26	239	eP	Pn	21 11 54.9	0.0
JKRS	Kuro-shima	1.27	107	eS	Sb	21 12 11.4	-0.2
LXIB	Xiulin Townshi	1.30	243	eP	Pg	21 11 56.6	-0.5
SHUL	Shoufeng	1.31	231	eP	Pg	21 11 56.9	-0.5
WHF	Hehuan Shan	1.37	250	P	Pn	21 11 57.0	+0.2
TWT	Tachien	1.42	256	eP	Pg	21 11 58.8	-0.7
NFF	Wufeng Townshi	1.42	271	eP	Pb	21 11 58.1	-0.1
NFF				eS	Sb	21 12 16.9	+0.9
TDCB	Techi	1.43	256	eP	Pb	21 11 58.8	+0.4
WARBT	Fenglin Townsh	1.48	233	eP	Pn	21 11 58.2	+0.2
JISG	Ishigakijimahi	1.49	91	eP	Pn	21 11 57.6	-0.4
OWD	Renai	1.52	245	eP	Pn	21 11 58.5	-0.2
WUSB	Renai	1.55	247	eP	Pb	21 12 00.5	0.0
VWDT	VWDT	1.65	239	eP	Pn	21 12 00.1	-0.2

GCG **18** 21:18:18.8±0.4, 14°.69N×92°.85W, h79^{km}±10^{km}, MD4.0, Presumed earthquake

MEX **18** 21:18:19.2±0.6, 14°.60N×93°.11W, h19^{km}±73^{km}, MD4.1, Presumed earthquake

ISC 18 21:18:13.7±2.0, **14°.4N**±0°.1×**93°.18W**±0°.06, **h51^{km}, n11, σ2^{s}06**/20, **Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PATR	El Naranjo	1.17	52	eP	Pn	21 18 34.4	+0.6
PATR				eS	Sn	21 18 46.9	-1.9
SMCA	Catarina	1.17	66	i P	Pn	21 18 35.4	+1.7
SMCA				i S	Sn	21 18 47.9	-0.6
CHUJ	Union Juarez	1.25	56	eP	Pn	21 18 35.9	+0.9
CHUJ				eS	Sn	21 18 49.3	-1.6
PAVE	Pavencul	1.26	50	eP	Pn	21 18 36.0	+0.9
PAVE				eS	Sn	21 18 49.1	-2.0
RTAL	Retalhuleu	1.44	85	eP	Pn	21 18 40.3	+2.9
RTAL				eS	Sn	21 18 57.6	+2.3
STG8	El Palmar, Qui	1.77	88	i P	Pn	21 18 41.4	-0.7
STG8				i S	Sn	21 18 59.4	-4.3
TGIG		2.37	1	eP	Pn	21 18 51.8	+1.5
TGIG				eS	Sn	21 19 17.3	-0.9
TGIG		2.37	1	i P	Pn	21 18 52.4	+2.2
UXUV	UXUV	3.06	342	eP	Pn	21 19 01.8	+2.3
UXUV				eS	Sn	21 19 33.8	-1.1
NEUV	Arroyo Zacate	4.16	323	eP	Pn	21 19 15.2	+0.7
NEUV				eS	Sn	21 20 00.0	-1.9
TOIG	Toxpalan	5.24	315	eS	Sn	21 20 26.5	-2.4

CATAC **18** 21:43:55.5±0.9, 1°N±8°×2°6W±1°4, h10^{km}, M6.7/9, mB6.9/9, mb6.3/9, Mw(mB)6.8/9, confirmed

IDC **18** 21:43:56.9±0.3, 0°.94N×26°.81W, h0^{km}, mb5.5/33, mbtmp5.5/34, ML5.5/1, MS6.5/74, Error ellipse: s-maj=14.0km s-min=8.8km az=136.0

MOS **18** 21:43:56.2±0.7, 0°.93N×26°.82W, h12^{km}, mb6.3/134, MS6.7/71, Error ellipse: s-maj=7.7km s-min=4.2km az=55.6

GFZ **18** 21:43:58.9, 0°.86N×26°.79W, h14^{km}, Mw6.8/294, Moment Tensor Solution. Moment tensor: Scale 10^{19}Nm; M_{rr}-0.07; $M_{\theta\theta}$0.56; $M_{\phi\phi}$-0.49; $M_{r\theta}$-0.14; $M_{\theta\phi}$-2.23; $M_{\phi r}$-0.62; Fault plane solution: $M_0$2.37891×10^{19} NP1: ϕ_s352.81069°, δ85.02896°, λ-14.66934°. NP2: ϕ_s84.11012°, δ75.38707°, λ-174.86235°. Principal axes: T 2.3598, Plg6.7260°, Azm39.2756°; N 0.0378, Plg74.5288°, Azm154.4951°; P -2.3976, Plg13.8669°, Azm307.6073°;

GFZ **18** 21:43:58.9±0.1, 1°N±1°×2°7W±°, h10^{km}, M6.4/319, mB6.6/306, mb6.0/319, Mw(mB)6.4/306, MwMwp6.4/280, Mwp6.3/280

NEIC **18** 21:43:58.9, 0°.92N×26°.84W, h10^{km}

OSUNB **18** 21:43:58.6±0.2, 0°.81N×26°.91W, h10^{km}, Mw6.6/46, Error ellipse: s-maj=2.4km s-min=2.2km az=0.0

INMG **18** 21:43:58.0±8.5, 0°.76N×26°.78W, h10^{km}, mb6.1, Ms6.3, MW6.4, #DIST_RANGE: DISTANT

BJI **18** 21:43:58.0, 0°.90N×26°.90W, h10^{km}, mB6.5/37, Ms6.9/76, Ms7 6.8/75

PTWC **18** 21:43:59, 1°.10N×27°.00W, Mwp7.3/3

NEIC **18** 21:43:59.0±1.4, 0°.93N±0°.08×26°.85W±0°.08, h10^{km}±1^{km}, mb6.4/1078, Ms_20 6.9/764, Mwb6.7/248, Mww6.9/91, Error ellipse: s-maj=13.5km s-min=12.3km az=144.0, Moment Tensor Solution. Moment tensor: Scale 10^{19}Nm; M_{rr}-0.05; $M_{\theta\theta}$0.34; $M_{\phi\phi}$-0.29; $M_{r\theta}$-0.01; $M_{\theta\phi}$-1.51; $M_{\phi r}$0.20; Fault plane solution: $M_0$1.56000×10^{19} NP1: ϕ_s174.08000°, δ89.24000°, λ-7.48000°. NP2: ϕ_s264.18000°, δ82.52000°, λ-179.23000°. Principal axes: T 1.5814, Plg5.0000°, Azm219.0000°; N -0.0437, Plg82.0000°, Azm348.0000°; P -1.5377, Plg6.0000°, Azm129.0000°;

NEIC **18** 21:43:59.5, 0°.96N×26°.83W, h10^{km}

IPGP **18** 21:43:59.0, 0°.96N×26°.83W, h10^{km}, Mw6.9, Fault plane solution: NP1: ϕ_s84.00000°, δ83.00000°, λ-175.00000°. NP2: ϕ_s354.00000°, δ85.00000°, λ-7.00000°.

ISC-PP **18** 21:43:59, 0°.93N×26°.85W, h26^{km}, Mwppsm6.8, Moment Tensor Solution. s52 Moment tensor: Scale 10^{19}Nm; M_{rr}0.44±.07; $M_{\theta\theta}$0.75±.19; $M_{\phi\phi}$-0.11±.14; $M_{r\theta}$0.28±.18; $M_{\theta\phi}$-0.12±.13; $M_{\phi r}$-0.15±.11; Fault plane solution: $M_0$1.91000×10^{19} NP1: ϕ_s148.20000°, δ74.70000°, λ28.10000°. NP2: ϕ_s50.20000°, δ63.00000°, λ162.80000°.

BGR **18** 21:44:01.8, 1°.11N×25°.93W, h10^{km}, mb5.8

GCMT **18** 21:44:07.0±0.0, 0°.94N×26°.91W, h14^{km}, MW6.9/182, Moment Tensor Solution. s182, c466; s181, c878; Duration: 6^{s}6 Moment tensor: Scale 10^{19}Nm; M_{rr}-0.05±.01; $M_{\theta\theta}$0.38±.01; $M_{\phi\phi}$-0.32±.01; $M_{r\theta}$0.40±.02; $M_{\theta\phi}$-2.41±.01; $M_{\phi r}$-0.12±.02; Best double couple: $M_0$2.47000×10^{19} NP1: ϕ_s176.00000°, δ81.00000°, λ3.00000°. NP2: ϕ_s86.00000°, δ87.00000°, λ171.00000°. Principal axes: T 2.5190, Plg8.0000°, Azm41.0000°; N -0.0980, Plg81.0000°, Azm247.0000°; P -2.4200, Plg4.0000°, Azm131.0000°; nsta1 refers to body waves, cutoff=50s. nsta2 refers to surface/mantle waves, cutoff=125s. Triangular moment-rate function

NEIC **18** 21:44:11.9, 0°.86N×26°.93W, h14^{km}, Moment Tensor Solution. Duration: 14^{s}5 Moment tensor: Scale 10^{19}Nm; M_{rr}-0.03; $M_{\theta\theta}$0.27; $M_{\phi\phi}$-0.23; $M_{r\theta}$-0.04; $M_{\theta\phi}$-2.56; $M_{\phi r}$0.18; Fault plane solution: $M_0$2.58000×10^{19} NP1: ϕ_s267.20000°, δ86.00000°, λ179.33000°. NP2: ϕ_s357.25000°, δ89.33000°, λ4.00000°. Principal axes: T 2.5974, Plg3.0000°, Azm222.0000°; N -0.0391, Plg86.0000°, Azm7.0000°; P -2.5583, Plg2.0000°, Azm132.0000°;

ISC 18 21:43:57.4±0.4, **0°.89N**±0°.03×**26°.90W**±0°.03, **h4^{km}**±2^{km}, **h5^{km}:pP-P, n3165, σ1^{s}52**/3243, **mb6.2**/984, **MS6.9**/558, **255C-115D, Central Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC

```
NBPV  Pedro Velho     11.09 229  P         Pn        21 46 33.5 -3.4
NBPV  Pedro Velho     11.09 229 eP         Pn        21 46 32.7 -4.2
RCBR  Riachuelo       11.20 233  Pn        Pn        21 46 36.3 -2.1
      32nm,0.3s,baz=45,slow=18,SNR=240
RCBR                             Sn        Sn        21 48 33.1  -11
      8.1nm,0.3s,baz=127,slow=20,SNR=1.7
RCBR                             LR        LR        21 49 52.6
      comp=Z,626µm,21.2s,baz=336,slow=32
      238nm,0.4s
RCBR                             AML       AML
RCBR  Riachuelo       11.20 233  P         Pn        21 46 37.2 -1.2
RCBR  Riachuelo       11.20 233            Pn        21 46 37.1 -1.2
RCBR  Riachuelo       11.20 233  P         Pn        21 46 36.4 -2.0
RCBR  Riachuelo       11.20 233 ⇑P         Pn        21 46 35.7 -2.7
RCBR  Riachuelo       11.20 233  P         Pn        21 46 35.3 -3.1
RCBR  Riachuelo       11.20 233  P         Pn        21 46 36.9 -1.5
RCBR  Riachuelo       11.20 233 eP         Pn        21 46 35.9 -2.5
RCBR  Riachuelo       11.20 233  P         Pn        21 46 36.5 -2.0
      comp=Z,98µmcomp=Z,3µm,1.0s,comp=Z,974µm
NBPA  Parau_RN        12.15 237  P         Pn        21 46 47.8 -3.6
NBMO  Morrinhos-CE    13.79 252  P         Pn        21 47 10.3 -3.5
NBMO  Morrinhos-CE    13.79 252 eP         Pn        21 47 10.4 -3.4
NBAN  Anadia - AL     14.04 221  P         Pn        21 47 14.8 -2.5
SBBR  Sobral          14.14 251  P         Pn        21 47 16.6 -2.0
NBPB  Pedra_Branca-C  14.19 243  P         Pn        21 47 16.4 -2.9
SACV  Santiago Islan  14.36  13            Pn        21 47 19.6 -2.1
SACV  Santiago Islan  14.36  13  P         Pn        21 47 17.0 -4.7
SACV  Santiago Islan  14.36  13 ⇑P         Pn        21 47 17.7 -4.0
SACV  Santiago Islan  14.36  13  P         Pn        21 47 18.0 -3.7
SACV  Santiago Islan  14.36  13  P         Pn        21 47 18.0 -3.7
      comp=Z,43µmcomp=Z,3µm,0.8s,comp=Z,323µm
NBMA  Muriti-CE       14.40 235  P         Pn        21 47 20.5 -1.8
NBMA  Muriti-CE       14.40 235 eP         Pn        21 47 20.0 -2.2
NBTA  Tacaratu-PE     14.92 228  P         Pn        21 47 25.7 -3.6
NBTA  Tacaratu-PE     14.92 228 eP         Pn        21 47 26.3 -3.1
H10N3 ASCENSION HYDR15.10 125  Pn        Pn        21 47 33.2 +1.7
      baz=300,slow=13
H10N3                            T         T         22 03 03.9
      baz=304,slow=74
H10N2 ASCENSION HYDR15.11 125  Pn        Pn        21 47 32.4 +0.9
      baz=300,slow=13
H10N2                            T         T         22 03 04.2
      baz=304,slow=74
H10N1 ASCENSION HYDR15.12 125  Pn        Pn        21 47 32.4 +0.6
      baz=300,slow=13
H10N1                            T         T         22 03 05.4
      baz=304,slow=74
ASCN  Ascension       15.27 125            Pn        21 47 33.9 -0.1
ASCN  Ascension       15.27 125  P         Pn        21 47 34.8 +0.9
ASCN  Ascension       15.27 125  P         Pn        21 47 34.8 +0.9
      comp=Z,82µmcomp=Z,4µm,2.1s,comp=Z,505µm
NBPS  Pedro II - PI   15.46 250  P         Pn        21 47 33.4 -3.1
NBPS  Pedro II - PI   15.46 250 eP         Pn        21 47 34.8 -1.7
H10S3 ASCENSION HYDR15.63 129  Pn        P         21 47 43.6 +0.9
      baz=307,slow=74
H10S3                            T         T         22 03 39.3
      baz=306,slow=74
H10S2 ASCENSION HYDR15.64 129  Pn        P         21 47 42.2 -0.7
      baz=273,slow=74
H10S2                            T         T         22 03 56.8
      baz=274,slow=74
NBLA  Lagarto - SE    16.02 222  P         Pn        21 47 41.4 -2.4
SOK   Sop, Niakhar    17.01  37  P         Pn        21 47 52.5 -3.9
NBPN  Ponto Novo - B  17.63 228  P         Pn        21 48 03.3 -0.9
NBIT  Itapeh - BA     20.02 218  P         P         21 48 32.2 +0.7
NBIT                             S         S         21 52 13.8 -3.5
NBIT  Itapeh - BA     20.02 218 eP         P         21 48 30.6 -0.9
CMC01 Camacan, BA     20.41 217  P         P         21 48 36.5 +0.8
CMC01 Camacan, BA     20.41 217 eP         P         21 48 34.6 -1.0
GUA01 Guaratinga, BA  21.53 216  P         P         21 48 49.1 +1.3
GUA01                            S         S         21 52 47.6 +0.4
GUA01 Guaratinga, BA  21.53 216 eP         P         21 48 46.7 -1.1
SDBA  SAO DESIDERIO   22.23 233  P         P         21 48 55.2 -0.1
SDBA  SAO DESIDERIO   22.23 233 eP         P         21 48 54.9 -0.5
DBIC  Dimbokro        22.72  75  P         P         21 48 58.1 -2.5
      comp=Z,338nm,1.1s,baz=265,slow=11,SNR=92
DBIC                             LR        LR        21 55 52.2
      comp=Z,45µm,20.7s,baz=260,slow=32
      comp=Z,338nm,1.1s
DBIC  Dimbokro        22.72  75            P         21 48 57.8 -2.8
DBIC  Dimbokro        22.72  75  P         P         21 48 58.1 -2.5
DBIC  Dimbokro        22.72  75 ⇑P         P         21 48 57.8 -2.8
DBIC  Dimbokro        22.72  75  P         P         21 48 58.3 -2.3
DBIC  Dimbokro        22.72  75  P         P         21 48 58.2 -2.5
      comp=Z,29µmcomp=Z,2µm,1.3s,comp=Z,123µmcomp=Z,29µm
SMTB  Santa Maria do  22.78 244  P         P         21 49 01.4 +0.2
SMTB                             S         S         21 53 12.4 +1.3
SMTB  Santa Maria do  22.78 244 eP         P         21 49 00.5 -0.7
JANB  Januaria        23.40 227  P         P         21 49 07.4 -0.3
JANB                             S         S         21 53 22.1 +0.4
JANB  Januaria        23.40 227 eP         P         21 49 06.4 -1.3
LAJE  UHE Lajeado     23.90 243  P         P         21 49 12.4 -0.1
BSFB  Barra de Sao F  23.92 214  P         P         21 49 12.6  0.0
SJMB  Sao Joao De Ma  24.01 215  P         P         21 49 13.7 +0.2
SJMB                             S         S         21 53 30.0 -1.2
SJMB  Sao Joao De Ma  24.01 215 eP         P         21 49 12.6 -0.9
RIB01 Linhares ES     24.06 213  P         P         21 49 13.9 -0.1
RIB01                            S         S         21 53 32.8 +0.8
RIB01 Linhares ES     24.06 213 eP         P         21 49 12.9 -1.0
NTVB  Natividade      24.15 238  P         P         21 49 15.2 +0.3
NTVB                             S         S         21 53 34.1 +0.6
MC01  Montes Claros   24.26 223  P         P         21 49 15.8 -0.1
MC01  Montes Claros   24.26 223 eP         P         21 49 14.9 -1.0
JQT1  Jequitai-MG     24.91 223  P         P         21 49 21.9  0.0
BMO1  UHE Belo Monte  25.17 261  P         P         21 49 24.2  0.0
DIAM  Diamantina, MG  25.21 220  P         P         21 49 24.7  0.0
DIAM  Diamantina, MG  25.21 220 eP         P         21 49 23.6 -1.1
CAN3  Cana Brava      25.36 236  P         P         21 49 26.4 +0.5
ATM1  UHE Belo Monte  25.66 261  P         P         21 49 28.2 -0.3
MDP   Montagnes des   26.04 280  LR        LR        21 57 37.4
      comp=Z,104µm,20.7s,baz=92,slow=31
MPGF  Montagnes des   26.05 280 ⇓P         P         21 49 32.4 +0.2
BDFB  Brasilia        26.56 231  P         P         21 49 37.0 +0.2
      comp=Z,131nm,0.8s,baz=63,slow=8.1,SNR=58
BDFB                             LR        LR        21 59 04.0
      comp=Z,936µm,19.4s,baz=62,slow=34
      comp=Z,131nm,0.8s
BDFB  Brasilia        26.56 231            P         21 49 37.0 +0.2
BDFB                             IAmb      IAmb      21 49 43.8
      comp=Z,1µm,1.6s
SHEL  Horse Pasture   26.77 130  P         P         21 49 37.2 -1.5
SHEL                             pmax      pmax
      comp=Z,2µm,1.7s
SHEL                             MLR       MLR
      comp=Z,16µm,21.0s
SHEL  Horse Pasture   26.77 130  P         P         21 49 37.2 -1.5
SHEL                             IAmb      IAmb      21 49 50.7
      comp=Z,2µm,1.7s
CAM01 Campos-RJ       26.79 212  P         P         21 49 38.7  0.0
CAM01 Campos-RJ       26.79 212 eP         P         21 49 38.0 -0.6
ACRG  Accra           27.05  79  P         P         21 49 39.5 -1.7
ACRG                             IAmb      IAmb      21 49 49.1
      comp=Z,1µm,1.2s
ACRG  Accra           27.05  79  P         P         21 49 39.9 -1.4
      comp=Z,14µmcomp=Z,1µm,1.1s,comp=Z,41µm
PMNB  Patos De Minas  27.24 224  P         P         21 49 43.2 +0.3
PMNB  Patos De Minas  27.24 224 ⇑P         P         21 49 42.9  0.0
PMNB  Patos De Minas  27.24 224  P         P         21 49 43.2 +0.3
PMNB  Patos De Minas  27.24 224 eP         P         21 49 41.9 -1.0
PMNB  Patos De Minas  27.24 224  P         P         21 49 43.2 +0.3
      comp=Z,26µmcomp=Z,866nm,1.5s,comp=Z,151µm
SNDB  Serra Nova Dou  27.39 241  P         P         21 49 44.5 +0.2
SNDB  Serra Nova Dou  27.39 241 eP         P         21 49 43.2 -1.1
BSCB  Bom Sucesso     27.91 218  P         P         21 49 49.0 +0.1
BSCB  Bom Sucesso     27.91 218 eP         P         21 49 47.8 -1.1
BSCB  Bom Sucesso     27.91 218  P         P         21 49 49.1 +0.2
      comp=Z,17µmcomp=Z,485nm,1.4s,comp=Z,129µm
IPMB  Ipameri, GO     28.14 227  P         P         21 49 51.0 +0.1
IPMB  Ipameri, GO     28.14 227 eP         P         21 49 50.1 -0.9
CANS  Sao Roque de M  28.42 221  P         P         21 49 53.9 +0.4
CANS  Sao Roque de M  28.42 221 eP         P         21 49 52.7 -0.8
ITU3  Corumbazu       28.77 228  P         P         21 49 56.4 -0.2
MACI  Morro de la Ar  28.96  19  P         P         21 49 56.7 -1.6
MACI  Morro de la Ar  28.96  19  P         P         21 49 59.6 +1.3
      comp=Z,69µmcomp=Z,6µmcomp=Z,190nm,0.9s
ITTB  Itaituba        29.28 260  P         P         21 50 01.5 +0.3
ITTB                             S         S         21 54 53.1 -2.0
ITTB  Itaituba        29.28 260 eP         P         21 50 00.1 -1.0
ARAG  Araguaiana, MT  29.63 235 eP         P         21 50 03.1 -1.0
BB19B Bebedouro       30.39 223  P         P         21 50 11.4 +0.5
BB19B Bebedouro       30.39 223 eP         P         21 50 09.7 -1.2
TORD  Torodi Ar. Bea  30.83  65  P         P         21 50 13.1 -1.7
      comp=Z,266nm,1.0s,baz=249,slow=6.5,SNR=485
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TORD                             LR        LR        22 00 43.3
      comp=Z,47µm,21.2s,baz=242,slow=33
      comp=Z,266nm,1.0s
TORD  Torodi Ar. Bea  30.83  65  P         P         21 50 13.1 -1.7
TORD                             IAmb      IAmb      21 50 19.4
      comp=Z,518nm,0.8s
CLDB  Colider         31.02 247  P         P         21 50 16.8 +0.2
CLDB                             S         S         21 55 24.1 +1.7
CLDB  Colider         31.02 247 eP         P         21 50 15.5 -1.1
CLDB  Colider         31.02 247  P         P         21 50 16.7 +0.1
      comp=Z,9µmcomp=Z,160nm,1.9s,comp=Z,83µmcomp=Z,9µm
SPB   Sao Paulo       31.48 218            P         21 50 20.0 -0.4
SPB                              IAmb      IAmb      21 50 54.2
      comp=Z,482nm,1.4s
SPB   Sao Paulo       31.48 218 ⇑P         P         21 50 21.1 +0.7
SPB   Sao Paulo       31.48 218  P         P         21 50 21.3 +0.9
SPB   Sao Paulo       31.48 218 eP         P         21 50 19.4 -1.0
SPB   Sao Paulo       31.48 218  P         P         21 50 21.3 +0.9
      comp=Z,97µmcomp=Z,14µmcomp=Z,229nm,1.3s
PET01 Itanhaem-SP     31.90 217  P         P         21 50 24.7 +0.6
PET01 Itanhaem-SP     31.90 217 eP         P         21 50 23.3 -0.8
C2SB  Chapadao do Su  32.12 231  P         P         21 50 27.6 +1.6
C2SB  Chapadao do Su  32.12 231 eP         P         21 50 25.1 -1.0
C2SB  Chapadao do Su  32.12 231  P         P         21 50 27.7 +1.6
      comp=Z,150µmcomp=Z,20µmcomp=Z,421nm,1.2s,comp=Z,20µm
FRTB  Fartura         32.66 221  P         P         21 50 31.7 +0.9
FRTB  Fartura         32.66 221 eP         P         21 50 29.8 -1.0
FRTB  Fartura         32.66 221  P         P         21 50 31.8 +0.9
      comp=Z,10µmcomp=Z,441nm,1.1s,comp=Z,10µm
FUL   Funchal         32.97  16 eP         P         21 50 36.5 +3.1
FUL                             i IAmb     IAmb      21 50 53.5
      comp=Z,330nm,1.9s
FUL                             eT         T         22 24 09.9
SALV  Santo Antonio   32.97 238  P         P         21 50 34.3 +0.6
SALV  Santo Antonio   32.97 238 eP         P         21 50 32.6 -1.1
PMAR  Madeira         33.03  16 eP         P         21 50 37.3 +3.1
PMAR                            i IAmb     IAmb      21 51 07.9
      comp=Z,325nm,1.5s
PMAR                            eT         T         22 24 14.0
PMOZ  Porto Moniz, M  33.05  15  P         P         21 50 33.1 -1.1
PMOZ                             S         S         21 55 56.0 +2.2
PMOZ  Porto Moniz, M  33.05  15 eP         P         21 50 33.7 -0.5
PMOZ                            i IAmb     IAmb      21 51 00.8
      comp=Z,438nm,1.9s
PMOZ                            ePP        PP        21 51 53.6 +4.6
PMOZ                            eS         S         21 56 02.0 +8.2
PMOZ                            eSS        SnSn      21 57 53.9 +2.2
PMOZ                            i IAMs_20  IAMs_20   22 00 47.0
      comp=Z,106µm,20.0s
PMOZ                            eT         T         22 24 13.9
PMOZ  Porto Moniz, M  33.05  15  P         P         21 50 34.4 +0.2
PP1B  Ponte de Pedra  33.12 235  P         P         21 50 36.2 +1.2
PP1B  Ponte de Pedra  33.12 235 eP         P         21 50 34.1 -0.8
PMPS  Porto Santo     33.50  16 eP         P         21 50 43.6 +5.6
PMPS                            i IAmb     IAmb      21 50 60.0
      comp=Z,411nm,1.7s
PMPST Porto Santo, M  33.52  16 eP         P         21 50 42.2 +4.0
PMPST                           i IAmb     IAmb      21 51 00.1
      comp=Z,613nm,1.4s
BOAV  Boa Vista       33.64 273            P         21 50 40.1 +0.6
BOAV  Boa Vista       33.64 273  P         P         21 50 40.4 +0.8
      comp=Z,36µmcomp=Z,8µmcomp=Z,326nm,1.7s
BOAV  Boa Vista       33.64 273  P         P         21 50 40.6 +1.0
BOAV                             S         S         21 56 04.2 +0.9
BOAV  Boa Vista       33.64 273 eP         P         21 50 38.4 -1.1
LDASE Londrina, Braz  33.73 223 eP         P         21 50 39.1 -1.1
MACA  Manacapuru-AM   34.01 263            P         21 50 43.8 +1.0
MACA  Manacapuru-AM   34.01 263  P         P         21 50 43.5 +0.8
MACA                             S         S         21 56 07.1 -1.9
MACA  Manacapuru-AM   34.01 263 eP         P         21 50 41.6 -1.2
TRCB  Terra Rica      34.39 225  P         P         21 50 46.9 +1.0
TRCB                             IAmb      IAmb      21 51 47.6
      comp=Z,664nm,1.6s
TRCB  Terra Rica      34.39 225  P         P         21 50 46.9 +1.0
TRCB                             S         S         21 56 15.5 +0.9
TRCB  Terra Rica      34.39 225 eP         P         21 50 44.9 -1.1
TRCB  Terra Rica      34.39 225  P         P         21 50 47.2 +1.2
      comp=Z,133µmcomp=Z,10µmcomp=Z,234nm,1.4s,comp=Z,10µm
BBGH  Gun Hill        34.56 292  IAMs_20   IAMs_20   22 04 11.1
      comp=Z,163µm,20.0s
BBGH  Gun Hill        34.56 292  P         P         21 50 51.0 +3.5
      comp=Z,94µmcomp=Z,18µmcomp=Z,427nm,2.0s
BBGH  Gun Hill        34.56 292 eP         P         21 50 49.6 +2.1
BBGH                             x         S         21 56 31.8  +14
BBGH  Gun Hill        34.56 292  P         P         21 50 53.9 +6.3
TIO   Tiouine         35.20  30  P         P         21 50 52.8 -0.1
TIO   Tiouine         35.20  30  P         P         21 50 53.1 +0.1
      comp=Z,144µmcomp=Z,22µmcomp=Z,580nm,1.9s,comp=Z,22µm
PTGB  Pitanga         35.25 222  P         P         21 50 54.7 +1.2
PTGB  Pitanga         35.25 222 eP         P         21 50 52.1 -1.4
AQDB  Aquidauana      35.30 231            P         21 50 54.5 +0.7
AQDB  Aquidauana      35.30 231  P         P         21 50 54.3 +0.5
AQDB  Aquidauana      35.30 231 eP         P         21 50 52.7 -1.1
AQDB  Aquidauana      35.30 231  P         P         21 50 54.6 +0.7
      comp=Z,106µmcomp=Z,9µmcomp=Z,166nm,1.1s
TRN   Trinidad (W)    35.63 287 eP         P         21 50 59.5 +2.8
TRN                              x         S         21 56 37.4 +3.5
PTLB  Pontes e Lacer  35.76 242  P         P         21 50 58.6 +0.8
PTLB  Pontes e Lacer  35.76 242  P         P         21 50 58.8 +1.0
PTLB  Pontes e Lacer  35.76 242 eP         P         21 50 57.6 -0.3
VILB  Vilhena         35.78 246  P         P         21 50 59.6 +1.5
VILB                             IAmb      IAmb      21 51 09.4
      comp=Z,1µm,1.7s
VILB  Vilhena         35.78 246  P         P         21 50 59.6 +1.5
VILB  Vilhena         35.78 246 eP         P         21 50 56.8 -1.2
PSMN  Pico do Norte,  35.97   2 eP         P         21 51 04.2 +4.8
PSMN                            i IAmb     IAmb      21 51 09.9
      comp=Z,312nm,1.1s
PSMN                            eS         S         21 56 38.7 +0.1
PSMN                            eLQ        LQ        21 58 38.3
PSMN                            eLR        LR        21 59 20.1
PSMN                            i IAMs_20  IAMs_20   22 02 46.0
      comp=Z,48µm,20.0s
PSMN                            eT         T         22 28 26.1
SLAC  Saint Lucia, A  36.03 293 eP         P         21 51 00.6 +0.4
SLAC                             x         S         21 56 41.7 +1.7
BDQN  Bodoquena, MS   36.11 232 eP         P         21 50 59.7 -1.1
H05S1 Guadeloupe/Mar  36.14 293  T         T         22 28 54.5
      SNR=80
MPOM  Morne Pois Mar  36.17 294  P         P         21 51 01.8 +0.4
MPOM  Morne Pois Mar  36.17 294  P         P         21 51 03.2 +1.9
      comp=Z,56µmcomp=Z,11µmcomp=Z,299nm,2.0s,comp=Z,11µm
GRGR  Grenville       36.23 289  P         P         21 51 02.4 +0.5
      comp=Z,61µmcomp=Z,9µmcomp=Z,445nm,1.5s
GRGR  Grenville       36.23 289 ⇓P         P         21 51 02.9 +1.0
GRGR  Grenville       36.23 289 eP         P         21 50 56.1 -5.8
GRGR                             x         S         21 56 42.8 -0.4
GRGR  Grenville       36.23 289  P         P         21 51 03.6 +1.7
GRGR  Grenville       36.23 289  P         P         21 51 03.6 +1.7
      comp=Z,54µmcomp=Z,13µmcomp=Z,557nm,1.5s
GRSS  Sisters         36.24 290 eP         P         21 51 00.2 -1.8
GRSS                             x         S         21 56 47.9 +4.7
GRW   Mount Saint Ca  36.25 289 eP         P         21 51 01.6 -0.6
GRW                              x         S         21 56 47.9 +4.3
ILAM  Ilet Lapin Mar  36.29 294  P         P         21 51 03.4 +1.0
ILAM                             IAmb      IAmb      21 51 12.2
      comp=Z,1µm,1.2s
ILAM  Ilet Lapin Mar  36.29 294 eP         P         21 50 57.8 -4.5
ILAM                             x         S         21 56 39.3 -4.7
ILAM  Ilet Lapin Mar  36.29 294  P         P         21 51 04.5 +2.1
      comp=Z,17µmcomp=Z,824nm,1.5s
BIM   Bigot           36.39 294  P         P         21 51 03.4 +0.1
BIM                              IAmb      IAmb      21 51 14.1
      comp=Z,1µm,1.6s
BIM   Bigot           36.39 294 eP         P         21 51 02.6 -0.7
BIM                              x         S         21 56 50.2 +4.6
BIM   Bigot           36.39 294  P         P         21 51 05.5 +2.2
      comp=Z,51µmcomp=Z,14µmcomp=Z,466nm,1.9s
FDFM  Morne la Roset  36.54 294  P         P         21 51 05.8 +1.2
CXM   Morne La Croix  36.57 294  P         P         21 51 05.0 +0.1
CXM                              IAmb      IAmb      21 51 19.8
      comp=Z,704nm,1.1s
SVN   Savane Anatole  36.58 294  P         P         21 51 05.4 +0.4
SVN   Savane Anatole  36.58 294  P         P         21 51 06.5 +1.5
      comp=Z,56µmcomp=Z,19µmcomp=Z,1µm,1.6s
COIM  Forte Coimbra   36.66 234 eP         P         21 51 04.4 -1.1
PDA   Ponta Delgada   36.69   2 eP         P         21 51 03.5 -2.0
PDA                             i IAmb     IAmb      21 51 16.9
      comp=Z,937nm,1.7s
PDA                             eT         T         22 29 16.5
CMLA  Cha da Macela   36.72   2 eP         P         21 51 01.4 -4.3
CMLA                            i IAmb     IAmb      21 51 18.9
      comp=Z,519nm,2.2s
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CMLA                            eS         S         21 56 48.6 -1.3
CMLA                            eLQ        LQ        21 58 54.0
CMLA                            eLR        LR        21 59 18.1
CMLA                            i IAMs_20  IAMs_20   22 02 48.1
      comp=Z,44µm,20.0s
CMLA                            eT         T         22 29 18.6
PGRON Lagoa das Cont  36.73   2 eP         P         21 51 14.7 +8.9
PGRON                           i IAmb     IAmb      21 51 25.2
      comp=Z,699nm,1.3s
PGRON                           eT         T         22 29 14.9
BART  Pico Bartolome  36.74   2 eP         P         21 51 04.8 -1.2
BART                            i IAmb     IAmb      21 51 34.0
      comp=Z,941nm,1.9s
BART                            eLQ        LQ        21 59 02.2
BART                            eLR        LR        21 59 42.1
BART                            i IAMs_20  IAMs_20   22 02 57.6
      comp=Z,39µm,20.0s
BART                            eT         T         22 29 12.3
PCALD Caldeiras da R  36.75   2 eT         T         22 29 16.5
PSET  Sete Cidades    36.77   2 eP         P         21 51 03.1 -3.1
PSET                            i IAmb     IAmb      21 51 24.3
      comp=Z,2µm,1.4s
PSET                            eS         S         21 56 53.3 +2.5
PSET                            eLQ        LQ        21 58 56.3
PSET                            eLR        LR        21 59 30.1
PSET                            i IAMs_20  IAMs_20   22 02 49.9
      comp=Z,43µm,20.0s
H05N1 Guadeloupe/Mar  36.99 296  T         T         22 30 35.9
      SNR=6.4
GDSD  La Dsirade Is   36.99 296  P         P         21 51 07.7 -0.7
GDSD                             IAmb      IAmb      21 51 23.4
      comp=Z,1µm,1.4s
GDSD  La Dsirade Is   36.99 296  P         P         21 51 09.3 +0.9
      comp=Z,61µmcomp=Z,13µmcomp=Z,494nm,1.6s
MAGL  Barre de l'ile  37.06 296  P         P         21 51 10.2 +1.2
MAGL                             IAmb      IAmb      21 51 23.6
      comp=Z,1µm,1.3s
MAGL  Barre de l'ile  37.06 296  P         P         21 51 13.3 +4.4
      comp=Z,60µmcomp=Z,14µmcomp=Z,731nm,1.3s
AVE   Averroes        37.07  28  P         P         21 51 08.6 -0.2
AVE   Averroes        37.07  28  P         P         21 51 08.8  0.0
AVE                              IAmb      IAmb      21 51 20.4
      comp=Z,625nm,1.1s
AVE   Averroes        37.07  28 ⇑P         P         21 51 08.8  0.0
AVE   Averroes        37.07  28  P         P         21 51 09.1 +0.3
      comp=Z,65µmcomp=Z,9µmcomp=Z,558nm,1.2s,comp=Z,9µm
EDA   Edea            37.13  85  P         P         21 51 09.0 -0.6
EDA                              IAmb      IAmb      21 51 23.8
      comp=Z,830nm,1.5s
TDBA  Terre de Bas,   37.34 295  P         P         21 51 12.7 +1.3
TDBA  Terre de Bas,   37.34 295  P         P         21 51 13.7 +2.3
      comp=Z,52µmcomp=Z,20µmcomp=Z,892nm,1.7s
CBE   Ff, Capester    37.39 296  P         P         21 51 12.2 +0.4
CBE   Ff, Capester    37.39 296  P         P         21 51 14.0 +2.2
CBE   Ff, Capester    37.39 296  P         P         21 51 14.0 +2.2
      comp=Z,53µmcomp=Z,17µmcomp=Z,535nm,1.3s
ABD   La Joyeuse, An  37.43 296  P         P         21 51 13.8 +1.7
ABD   La Joyeuse, An  37.43 296  P         P         21 51 15.6 +3.5
      comp=Z,52µmcomp=Z,18µmcomp=Z,755nm,1.6s
PICO  Pico            37.45 358 eP         P         21 51 09.4 -2.7
PICO                            i IAmb     IAmb      21 51 28.0
      comp=Z,1µm,1.7s
PICO                            eS         S         21 57 05.0 +3.7
PICO                            eLQ        LQ        21 59 12.7
PICO                            eLR        LR        22 00 02.8
PICO                            i IAMs_20  IAMs_20   22 03 20.4
      comp=Z,60µm,20.0s
HOR   Horta           37.49 358 eLQ        LQ        21 59 12.7
HOR                             eLR        LR        21 59 45.2
HOR                             i IAMs_20  IAMs_20   22 03 21.2
      comp=Z,61µm,20.0s
CALA  Caldeira        37.55 358 eLR        LR        21 59 58.9
CALA                            i IAMs_20  IAMs_20   22 03 30.1
      comp=Z,51µm,20.0s
ADH   Angra Heroismo  37.58 360 eP         P         21 51 09.0 -4.0
ADH                             i IAmb     IAmb      21 51 29.0
      comp=Z,1µm,1.7s
ADH                             eS         S         21 57 02.6 -0.4
ADH                             eLQ        LQ        21 59 17.4
ADH                             eLR        LR        22 00 30.7
ADH                             i IAMs_20  IAMs_20   22 03 24.8
      comp=Z,43µm,18.0s
GDHS  Morne Mazeau,   37.61 296  P         P         21 51 13.5 -0.2
GDHS  Morne Mazeau,   37.61 296  P         P         21 51 15.2 +1.6
      comp=Z,60µmcomp=Z,19µmcomp=Z,922nm,1.6s
ROSA  Rosais          37.67 358 eS         S         21 57 08.5 +4.1
ROSA                            eLQ        LQ        21 59 17.4
ROSA                            eLR        LR        21 59 54.1
ROSA                            i IAMs_20  IAMs_20   22 03 36.8
      comp=Z,60µm,18.0s
ROSA  Rosais          37.67 358  P         P         21 51 17.4 +3.6
      comp=Z,153nm,1.4s
SIV   San Ignacio     37.68 242  P         P         21 51 15.3 +1.0
      comp=Z,37nm,0.8s,baz=84,slow=8.7,SNR=98
      comp=Z,37nm,0.8s
PAGU  Agualva, Azore  37.70 360 eP         P         21 51 09.4 -4.7
PAGU                            i IAmb     IAmb      21 51 29.6
      comp=Z,865nm,2.7s
PAGU                            eS         S         21 57 06.2 +1.4
PAGU                            eLQ        LQ        21 59 19.7
PAGU                            eLR        LR        22 00 43.9
PAGU                            i IAMs_20  IAMs_20   22 03 27.8
      comp=Z,42µm,20.0s
RTC   Rabat Centre    37.90  28  P         P         21 51 14.4 -1.4
PGRA  Graciosa        37.97 359 eS         S         21 57 12.0 +3.1
PGRA                            eLQ        LQ        21 59 33.8
PGRA                            eLR        LR        22 00 10.0
PGRA                            i IAMs_20  IAMs_20   22 03 44.9
      comp=Z,63µm,18.0s
SRBC  Serra Branca    37.98 359 eLQ        LQ        21 59 25.6
SRBC                            eLR        LR        22 00 12.0
SRBC                            i IAMs_20  IAMs_20   22 03 45.6
      comp=Z,57µm,18.0s
MD31  MD31            38.02  31  P         P         21 51 16.1 -0.9
MD01  Midelt array s  38.02  31  P         P         21 51 17.4 +0.4
MDT   Midelt          38.06  31  LR        LR        22 06 08.2
      comp=Z,80µm,20.0s,baz=249,slow=35
ANWB  Willy Bob       38.13 298  P         P         21 51 17.7 -0.3
      comp=Z,77µmcomp=Z,16µmcomp=Z,642nm,1.3s
ANWB  Willy Bob       38.13 298 eP         P         21 51 12.9 -5.1
ANWB                             x         S         21 57 10.3 -1.6
ANWB  Willy Bob       38.13 298  P         P         21 51 20.1 +2.1
ANWB  Willy Bob       38.13 298  P         P         21 51 19.4 +1.5
      comp=Z,61µmcomp=Z,17µmcomp=Z,649nm,1.3s,comp=Z,17µm
MLYT  Lee's Yard      38.15 296 eP         P         21 51 22.5 +4.4
MLYT                             x         S         21 57 08.3 -4.0
SJPY  San Joaquin     38.24 226 eP         P         21 51 17.6 -1.2
TAM   Tamanrasset     38.29  53  P         P         21 51 18.7 -0.8
TAM                              pmax      pmax
      comp=Z,750nm,1.4s
TAM                              MLR       MLR
      comp=Z,52µm,20.0s
TAM   Tamanrasset     38.29  53  P         P         21 51 18.7 -0.8
TAM                              IAmb      IAmb      21 51 25.0
      comp=Z,750nm,1.4s
TAM   Tamanrasset     38.29  53 ⇑P         P         21 51 19.1 -0.4
TAM   Tamanrasset     38.29  53  P         P         21 51 19.4 -0.1
      comp=Z,99µmcomp=Z,6µmcomp=Z,353nm,1.6s,comp=Z,6µm
IFR   Ifrane          38.35  30  P         P         21 51 20.0 +0.1
IFR   Ifrane          38.35  30  P         P         21 51 20.7 +0.9
      comp=Z,1µmcomp=Z,67nm,1.9s
SEUS  St. Eustatius   39.12 297  P         P         21 51 26.8 +0.5
SEUS                             IAmb      IAmb      21 51 46.9
      comp=Z,1µm,1.1s
SEUS  St. Eustatius   39.12 297 eP         P         21 51 26.6 +0.2
SEUS                             x         S         21 57 29.1 +2.2
SEUS  St. Eustatius   39.12 297  P         P         21 51 28.2 +1.8
      comp=Z,56µmcomp=Z,1µm,1.2s
SABA  Saba            39.40 297  P         P         21 51 29.1 +0.4
SABA                             IAmb      IAmb      21 51 46.7
      comp=Z,1µm,1.5s
SABA  Saba            39.40 297 eP         P         21 51 25.7 -3.1
SABA  Saba            39.40 297  P         P         21 51 30.8 +2.1
SABA  Saba            39.40 297  P         P         21 51 30.3 +1.5
      comp=Z,54µmcomp=Z,20µmcomp=Z,707nm,1.9s,comp=Z,20µm
SMRT  St. Maarten     39.41 298  P         P         21 51 28.6 -0.2
SMRT                             IAmb      IAmb      21 51 43.9
      comp=Z,1µm,1.2s
SMRT  St. Maarten     39.41 298 eP         P         21 51 29.3 +0.5
SMRT                             x         S         21 57 26.7 -4.6
SMRT  St. Maarten     39.41 298  P         P         21 51 29.7 +1.0
      comp=Z,52µmcomp=Z,16µmcomp=Z,729nm,1.4s,comp=Z,16µm
PFVI  Vila Bisbo      39.74  23  P         P         21 51 30.5 -0.7
PFVI  Vila Bisbo      39.74  23 eP         P         21 51 34.2 +3.0
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PFVI                             i IAmb     IAmb      21 51 36.4
       comp=Z,506nm,1.6s
PFVI                             ePP        PnPn      21 53 09.3 +3.6
PFVI                             eS         S         21 57 43.0 +7.3
PFVI                             eSS        SS        22 00 25.3  -6.1
PFVI                             i IAMs_20  IAMs_20   22 05 18.5
       comp=Z,44µm,18.0s
PFVI   Vila Bisbo        39.74  23  P       P         21 51 30.9  -0.4
PFVI   Vila Bisbo        39.74  23  P       P         21 51 31.9 +0.6
       comp=Z,36µmcomp=Z,6µmcomp=Z,235nm,1.7s,comp=Z,6µm
CPUP   Villa Florida     39.92 225  P       P         21 51 33.5 +0.6
       comp=Z,71nm,1.1s,baz=25,slow=17,SNR=6.2
CPUP                                LR      LR        22 07 47.3
       comp=Z,575µm,18.6s,baz=60,slow=36
       comp=Z,71nm,1.1s
CPUP   Villa Florida     39.92 225  P       P         21 51 33.2 +0.3
CPUP   Villa Florida     39.92 225 ⥣P       P         21 51 33.5 +0.6
CPUP   Villa Florida     39.92 225  P       P         21 51 33.6 +0.7
CPUP                                S       S         21 57 39.1 +0.4
CPUP   Villa Florida     39.92 225  P       P         21 51 33.8 +0.9
       comp=Z,49µmcomp=Z,8µmcomp=Z,257nm,1.8s
MORF   Marmelete         39.96  23 eP       P         21 51 33.1 +0.1
MORF                               ePP      PP        21 53 04.9  0.0
MORF                               eS       S         21 57 39.4 +0.4
MORF                                IAMs_20 IAMs_20   22 03 02.9
       comp=Z,154µm,34.4s
MORF   Marmelete         39.96  23 eP       P         21 51 32.8  -0.3
MORF                               i IAmb   IAmb      21 51 51.2
       comp=Z,738nm,1.6s
MORF                               ePP      PnPn      21 53 14.4 +6.2
MORF                               eS       S         21 57 42.5 +3.4
MORF                               eSS      SS        22 00 36.0 +0.1
MORF                               i IAMs_20 IAMs_20  22 04 23.8
       comp=Z,46µm,22.0s
MORF   Marmelete         39.96  23 ⥣P       P         21 51 32.8  -0.3
CPSB   Cacapava Do Su    40.09 217  P       P         21 51 34.9 +0.6
CPSB   Cacapava Do Su    40.09 217  P       P         21 51 35.2 +0.9
CPSB   Cacapava Do Su    40.09 217 eP       P         21 51 33.3  -1.0
CPSB   Cacapava Do Su    40.09 217  P       P         21 51 35.4 +1.1
       comp=Z,60µmcomp=Z,9µmcomp=Z,243nm,1.7s,comp=Z,9µm
SGC2   Sao Gabriel da    40.09 269  P       P         21 51 35.6 +1.1
       comp=Z,14µmcomp=Z,7µmcomp=Z,221nm,1.7s
SGC2   Sao Gabriel da    40.09 269  P       P         21 51 35.3 +0.8
SGC2                                S       S         21 57 42.2 +0.5
SGC2   Sao Gabriel da    40.09 269 eP       P         21 51 33.3  -1.2
H09N1  TRISTAN DA CUN    40.12 162  T       T         22 34 18.8
       SNR=138
TRIS   Tristan da Cun    40.12 162  P       P         21 51 34.8 +0.5
TRIS   Tristan da Cun    40.12 162  P       P         21 51 36.0 +1.7
       comp=Z,22µmcomp=Z,14µmcomp=Z,369nm,2.5s,comp=Z,14µm
H09W1  TRISTAN DA CUN    40.14 162  T       T         22 34 29.6
       SNR=114
PTEO   Sao Teotonio      40.14  23 eP       P         21 51 34.2  -0.3
PTEO                               i IAmb   IAmb      21 51 52.9
       comp=Z,963nm,1.6s
PTEO                               ePP      PnPn      21 53 10.9 +0.6
PTEO                               eS       S         21 57 45.1 +3.4
PTEO                               eSS      SS        22 00 40.4 +1.0
ECEU   Ceuta             40.16  28  P       P         21 51 35.3 +0.6
PBDV   Barranco-do-Ve    40.19  24  P       P         21 51 34.9  -0.1
PBDV   Barranco-do-Ve    40.19  24 eP       P         21 51 34.8  -0.2
PBDV                               i IAmb   IAmb      21 51 53.6
       comp=Z,474nm,1.5s
PBDV                               ePP      PnPn      21 53 11.5 +0.5
PBDV                               eS       S         21 57 49.3 +6.8
PBDV                               eSS      SS        22 00 38.8  -1.7
PBDV                               i IAMs_20 IAMs_20  22 04 32.8
       comp=Z,36µm,22.0s
CNIL   Conil             40.24  26  P       P         21 51 34.9  -0.5
SFS    San Fernando      40.26  26  P       P         21 51 35.2  -0.3
SFS    San Fernando      40.26  26  P       P         21 51 35.2  -0.3
SFS                                 pmax    pmax
       comp=Z,2µm,1.1s
SFS                                 MLR     MLR
       comp=Z,169µm,20.0s
SFS    San Fernando      40.26  26  P       P         21 51 35.1  -0.3
SFS                                 IAMs_20 IAMs_20   22 07 08.5
       comp=Z,169µm,20.0s
PVAQ   Vaqueiros         40.41  24 eP       P         21 51 36.4  -0.4
PVAQ                               i IAmb   IAmb      21 51 54.5
       comp=Z,631nm,1.7s
PVAQ                               ePP      PnPn      21 53 13.7 +0.1
PVAQ                               eS       S         21 57 51.1 +5.3
PVAQ                               eSS      SnSn      22 00 47.9  -1.8
PVAQ                               i IAMs_20 IAMs_20  22 04 37.6
       comp=Z,35µm,20.0s
PVAQ   Vaqueiros         40.41  24 ⥣P       P         21 51 36.9 +0.1
PVAQ   Vaqueiros         40.41  24  P       P         21 51 37.2 +0.4
       comp=Z,39µmcomp=Z,7µmcomp=Z,240nm,1.6s,comp=Z,7µm
PCVE   Castro Verde      40.48  23  P       P         21 51 36.7  -0.7
PCVE   Castro Verde      40.48  23 eP       P         21 51 37.0  -0.4
PCVE                               i IAmb   IAmb      21 51 55.1
       comp=Z,721nm,1.6s
PCVE                               ePP      PnPn      21 53 14.7 +0.3
PCVE                               eS       S         21 57 52.5 +5.7
PCVE                               eSS      SS        22 00 44.0  -2.3
PCVE                               i IAMs_20 IAMs_20  22 04 41.5
       comp=Z,46µm,22.0s
MESJ   Messejana         40.59  23 eP       P         21 51 38.4 +0.1
MESJ                               ePP      PP        21 53 11.8  0.0
MESJ                                IAMs_20 IAMs_20   22 03 35.3
       comp=Z,114µm,26.5s
MESJ   Messejana         40.59  23 eP       P         21 51 38.1  -0.2
MESJ                               i IAmb   IAmb      21 51 56.1
       comp=Z,544nm,1.6s
MESJ                               ePP      PnPn      21 53 15.4  -0.3
MESJ   Messejana         40.59  23  P       P         21 51 38.2  -0.1
MESJ                                pmax    pmax
       comp=Z,520nm,1.5s
MESJ   Messejana         40.59  23  P       P         21 51 38.2  -0.1
MESJ   Messejana         40.59  23 ⥣P       P         21 51 38.3 +0.1
EGRO   El Granado        40.62  24  P       P         21 51 37.6  -0.9
PLOUS  Minas do Lousa    40.68  23 eP       P         21 51 39.2 +0.2
PLOUS                              i IAmb   IAmb      21 51 56.6
       comp=Z,306nm,1.5s
PLOUS                              ePP      PnPn      21 53 15.3  -1.4
PLOUS                              eS       S         21 57 57.6 +7.9
PLOUS                              eSS      SS        22 00 48.7  -1.4
PLOUS                              i IAMs_20 IAMs_20  22 05 44.7
       comp=Z,63µm,20.0s
ESPR   Espera            40.75  26  P       P         21 51 39.3  -0.3
EMLI   Melilla           40.86  30  P       P         21 51 39.8  -0.6
WMELI  Melilla           40.87  30  P       P         21 51 39.6  -1.1
WMELI  Melilla           40.87  30  P       P         21 51 41.3 +0.7
       comp=Z,15µmcomp=Z,4µmcomp=Z,287nm,1.2s
PBEJ   Beja              40.89  23 eP       P         21 51 40.3  -0.5
PBEJ                               i IAmb   IAmb      21 51 58.4
       comp=Z,498nm,1.6s
EMIJ   Mijas             40.98  28  P       P         21 51 40.3  -1.3
LIS    Lisbon            41.01  21 eP       P         21 51 41.9 +0.2
LIS                                ePP      PP        21 53 16.2  -0.1
LIS                                eS       S         21 57 55.1 +0.5
LIS                                 IAMs_20 IAMs_20   22 01 17.8
       comp=E,241µm,29.1s
LIS    Lisbon            41.01  21 eP       P         21 51 47.4 +5.7
LIS                                i IAmb   IAmb      21 51 59.9
       comp=E,736nm,1.8s
LIS                                ePP      PnPn      21 53 26.4 +5.9
MOE    Montemor          41.14  22 eP       P         21 51 43.3 +0.5
MOE                                i IAmb   IAmb      21 52 00.7
       comp=E,657nm,1.5s
MOE                                eS       S         21 58 08.0  +11
MOE                                eSS      SnSn      22 01 05.6  -1.4
MOE                                i IAMs_20 IAMs_20  22 05 58.0
       comp=E,54µm,20.0s
EMIN   Mina Concepcio    41.15  25  P       P         21 51 42.5  -0.4
PMAFR  Mafra             41.17  21  P       P         21 51 43.0  -0.1
PMAFR  Mafra             41.17  21 eP       P         21 51 42.5  -0.6
PMAFR                              i IAmb   IAmb      21 52 00.7
       comp=E,634nm,2.1s
PMAFR                              ePP      PnPn      21 53 28.1 +5.5
PMAFR                              eS       S         21 58 03.9 +6.8
PMAFR                              eSS      SnSn      22 01 09.2 +1.2
PMAFR                              i IAMs_20 IAMs_20  22 05 33.0
       comp=E,44µm,20.0s
EVO    Evora             41.27  23  P       P         21 51 43.5  -0.4
EVO    Evora             41.27  23 eP       P         21 51 43.8  -0.1
EVO                                i IAmb   IAmb      21 52 01.7
       comp=E,579nm,1.6s
EVO    Evora             41.27  23  P       P         21 51 44.5 +0.6
       comp=Z,14µmcomp=Z,3µmcomp=Z,112nm,1.8s,comp=Z,3µm
EMAL   Malaga-Limoner    41.30  28  P       P         21 51 43.5  -0.6
EMAL   Malaga-Limoner    41.30  28  P       P         21 51 44.2  0.0
       comp=Z,20µmcomp=Z,3µmcomp=Z,103nm,1.3s
EALB   Alboran           41.32  30  P       P         21 51 43.5  -0.7
PBAR   Barrancos         41.35  24  P       P         21 51 44.1  -0.4
PBAR   Barrancos         41.35  24 eP       P         21 51 44.4  -0.1
PBAR                               i IAmb   IAmb      21 52 02.2
       comp=Z,302nm,1.7s
PBAR                               ePP      PP        21 53 21.4 +1.4
PBAR                               eS       S         21 58 07.4 +7.7
PBAR                               eSS      SnSn      22 01 09.9  -2.3
PBAR                               i IAMs_20 IAMs_20  22 05 19.8
       comp=Z,38µm,22.0s
PARRA  Arraiolos         41.51  22 eP       P         21 51 46.0 +0.2
PARRA                              i IAmb   IAmb      21 52 03.7
       comp=Z,590nm,1.5s
PARRA                              eS       S         21 58 05.6 +3.5
PARRA                              eSS      SnSn      22 01 12.3  -3.7
PARRA                              i IAMs_20 IAMs_20  22 06 08.6
       comp=Z,69µm,20.0s
PMTG   Montargil         41.66  22 eP       P         21 51 46.9  -0.2
PMTG                               i IAmb   IAmb      21 52 04.9
       comp=Z,484nm,1.7s
PMTG                               eS       S         21 58 08.3 +4.0
PMTG                               eSS      SnSn      22 01 16.6  -3.1
PMTG                               i IAMs_20 IAMs_20  22 06 00.5
       comp=Z,49µm,20.0s
PESTR  Estremoz          41.73  23 eP       P         21 51 53.1 +5.4
PESTR                              i IAmb   IAmb      21 52 17.8
       comp=Z,161nm,1.7s
PESTR                              eS       S         21 58 11.6 +6.2
PESTR                              eSS      SnSn      22 01 17.9  -3.4
PESTR                              i IAMs_20 IAMs_20  22 06 30.3
       comp=Z,47µm,18.0s
PESTR  Estremoz          41.73  23  P       P         21 51 47.8 +0.2
EGOR   Sierra Gorda,     41.74  28  P       P         21 51 47.4  -0.5
ELGU   Los Guajares,     41.77  28  P       P         21 51 46.4  -1.7
PSBE   So Bento          41.84  21 eP       P         21 51 48.8 +0.2
PSBE                               i IAmb   IAmb      21 52 07.6
       comp=Z,620nm,1.7s
PSBE                               eS       S         21 58 18.4  +11
PSBE                               eSS      SS        22 01 18.4 +5.1
PSBE                               i IAMs_20 IAMs_20  22 05 53.7
       comp=Z,41µm,18.0s
HUMP   Col San Antoni    41.91 296  P       P         21 51 49.9 +0.4
HUMP                                IAmb    IAmb      21 52 16.0
       comp=Z,629nm,1.3s
PDPR   Patillas Dam,     42.02 296  P       P         21 51 50.3  -0.1
PDPR                                IAmb    IAmb      21 52 00.4
       comp=Z,842nm,1.6s
PSARD  Sardoal           42.15  22 eP       P         21 51 51.3 +0.2
PSARD                              i IAmb   IAmb      21 52 08.9
       comp=Z,686nm,1.6s
PSARD                              eS       S         21 58 17.4 +5.8
PSARD                              eSS      SnSn      22 01 27.1  -4.3
PSARD                              i IAMs_20 IAMs_20  22 06 14.6
       comp=Z,39µm,20.0s
SJG    San Juan          42.17 296  LR      LR        22 07 11.0
       comp=Z,79µm,19.4s,baz=113,slow=33
SJG    San Juan          42.17 296  P       P         21 51 50.9  -0.6
SJG    San Juan          42.17 296  P       P         21 51 51.7 +0.2
SJG    San Juan          42.17 296          P         21 51 52.0 +0.5
SJG    San Juan          42.17 296  P       P         21 51 52.0 +0.5
       comp=Z,56µmcomp=Z,10µmcomp=Z,404nm,1.7s
SJG    San Juan          42.17 296 ⥥P       P         21 51 51.0  -0.6
SJG    San Juan          42.17 296  P       P         21 51 52.7 +1.2
SJG    San Juan          42.17 296  P       P         21 51 52.1 +0.6
       comp=Z,52µmcomp=Z,10µmcomp=Z,404nm,1.7s,comp=Z,10µm
PMRV   Marv??o           42.29  23⥣eP       P         21 51 52.4 +0.2
PMRV                               i IAmb   IAmb      21 52 10.5
       comp=Z,909nm,1.7s
PMRV                               eS       S         21 58 24.8  +11
PMRV                               eSS      SnSn      22 01 29.3  -5.5
PMRV                               i IAMs_20 IAMs_20  22 06 49.4
       comp=Z,49µm,20.0s
PCAS   Casmilo, Conde    42.43  21 eP       P         21 51 53.2  -0.1
PCAS                               i IAmb   IAmb      21 52 12.0
       comp=Z,592nm,1.7s
PCAS                               ePP      PP        21 53 38.3 +6.7
PCAS                               eS       S         21 58 28.0  +12
PCAS                               eSS      SS        22 01 28.9 +4.2
PCAS                               i IAMs_20 IAMs_20  22 06 11.2
       comp=Z,43µm,20.0s
ECPR   Experimental S    42.43 296  P       P         21 51 53.3  -0.4
CELP   Cerrillos         42.54 296  P       P         21 51 54.5  0.0
OBIP   Obispado Ponce    42.56 296  P       P         21 51 54.6  -0.1
PCBR   Castelo Branco    42.62  22 eP       P         21 51 54.3  -0.6
PCBR                               i IAmb   IAmb      21 52 21.9
       comp=Z,352nm,1.9s
PCBR                               ePP      PcP       21 53 41.7  -5.4
AOPR   Arecibo Observ    42.79 296  P       P         21 51 56.0  -0.7
MLPR   Magueyes Islan    42.93 296  P       P         21 51 57.6  -0.1
CRPR   Cabo Rojo, PR     43.00 296  P       P         21 51 58.0  -0.2
CRPR                                IAmb    IAmb      21 52 24.2
       comp=Z,770nm,1.4s
MTE    Manteigas         43.08  22 eP       P         21 51 59.2 +0.6
MTE                                i IAmb   IAmb      21 52 18.1
       comp=Z,391nm,1.9s
MTE                                ePP      PcP       21 53 44.8  -4.0
MTE                                eS       S         21 58 34.4 +9.1
MTE                                eSS      SS        22 01 43.7 +6.0
MTE                                i IAMs_20 IAMs_20  22 06 41.9
       comp=Z,41µm,20.0s
MTE    Manteigas         43.08  22  P       P         21 51 58.5  -0.2
MTE    Manteigas         43.08  22 ⥣P       P         21 51 58.6  0.0
MTE    Manteigas         43.08  22  P       P         21 51 58.9 +0.3
       comp=Z,34µmcomp=Z,6µmcomp=Z,197nm,1.1s,comp=Z,6µm
PRSN   Puerto Rico Se    43.10 296  P       P         21 51 57.9  -1.1
PSAL   Palomas, Salto    43.15 220 eP       P         21 51 58.2  -1.1
AGPR   Aguadilla, PR     43.15 296  P       P         21 51 58.3  -1.2
AGPR                                IAmb    IAmb      21 52 13.7
       comp=Z,898nm,1.3s
PVIS   Viseu             43.23  21 eP       P         21 51 59.8  -0.1
PTO    Porto             43.35  20 eP       P         21 51 59.5  -1.3
PTO                                i IAmb   IAmb      21 52 19.4
       comp=Z,966nm,1.7s
CART   Cartagena         43.62  30  P       P         21 52 01.9  -1.1
CART   Cartagena         43.62  30 ⥣P       P         21 52 02.1  -0.9
CART   Cartagena         43.62  30  P       P         21 52 02.4  -0.6
       comp=Z,36µmcomp=Z,6µmcomp=Z,193nm,1.6s,comp=Z,6µm
PAB    San Pablo         43.63  25  P       P         21 52 03.3 +0.1
PAB    San Pablo         43.63  25  P       P         21 52 02.6  -0.6
PAB    San Pablo         43.63  25 ⥣P       P         21 52 03.2  0.0
PAB    San Pablo         43.63  25  P       P         21 52 03.5 +0.3
       comp=Z,48µmcomp=Z,5µmcomp=Z,188nm,1.9s,comp=Z,5µm
EMUR   La Murta          43.70  30  P       P         21 52 03.2  -0.5
       comp=Z,38µmcomp=Z,5µmcomp=Z,236nm,1.4s
PVRL   Vila Real         43.78  21 eP       P         21 52 03.1  -1.3
PVRL                               i IAmb   IAmb      21 52 21.6
       comp=Z,406nm,1.7s
PVRL                               ePP      PcP       21 53 49.7  -1.4
POLO   Lamas de Olo      43.84  21 eP       P         21 52 05.0 +0.1
POLO                               i IAmb   IAmb      21 52 31.8
       comp=Z,139nm,1.8s
POLO                               ePP      PcP       21 53 50.3  -1.1
POLO                               i IAMs_20 IAMs_20  22 07 02.4
       comp=Z,25µm,20.0s
ESDC   Sonseca Array     43.90  26  P       P         21 52 05.3  0.0
       comp=Z,68nm,1.0s,baz=220,slow=8.8,SNR=143
ESDC                                LR      LR        22 11 07.9
       comp=Z,10µm,18.1s,baz=240,slow=37
       comp=Z,68nm,1.0s
ESDC   Sonseca Array     43.90  26  P       P         21 52 05.6 +0.2
ESBB   Sonseca Array     43.91  26  P       P         21 52 04.8  -0.6
PCAB   Cabril            44.06  20 eP       P         21 52 06.1  -0.4
PCAB                               i IAmb   IAmb      21 52 24.7
       comp=Z,740nm,1.6s
PCAB                               ePP      PcP       21 53 53.2 +1.2
LPAZ   La Paz            44.12 245  P       P         21 52 09.0 +0.9
       comp=Z,170nm,0.9s,baz=75,slow=3.9,SNR=123
LPAZ                                LR      LR        22 10 03.1
       comp=Z,412µm,19.4s,baz=68,slow=35
       comp=Z,170nm,0.9s
LPAZ   La Paz            44.12 245  P       P         21 52 08.2 +0.1
LPAZ   La Paz            44.12 245  P       P         21 52 05.5  -2.6
       comp=Z,55µmcomp=Z,9µmcomp=Z,376nm,1.0s
LPAZ   La Paz            44.12 245 ⥣P       P         21 52 08.5 +0.4
LPAZ   La Paz            44.12 245  P       P         21 52 08.4 +0.3
LPAZ                                S       S         21 58 41.9  -0.4
LPAZ   La Paz            44.12 245 eP       P         21 52 06.1  -2.0
LPAZ   La Paz            44.12 245  P       P         21 52 08.8 +0.6
       comp=Z,40µmcomp=Z,9µmcomp=Z,375nm,1.1s,comp=Z,9µm
PGAV   Gavieira, Arco    44.20  20⥣eP       P         21 52 07.3  -0.4
PGAV                               i IAmb   IAmb      21 52 26.2
       comp=Z,653nm,1.6s
PGAV                               eS       S         21 58 52.3  +11
PGAV                               i IAMs_20 IAMs_20  22 06 48.7
       comp=Z,46µm,20.0s
SDV    Santo Domingo     44.25 282  LR      LR        22 09 51.7
       comp=Z,58µm,19.6s,baz=104,slow=35
SDV    Santo Domingo     44.25 282  P       P         21 52 09.7 +1.0
SDV                                 IAmb    IAmb      21 52 19.0
       comp=Z,1µm,1.6s
SDV    Santo Domingo     44.25 282  P       P         21 52 09.7 +1.0
       comp=Z,182µmcomp=Z,49µmcomp=Z,2µm,1.6s
SDV    Santo Domingo     44.25 282  P       P         21 52 09.9 +1.1
       comp=Z,171µmcomp=Z,50µmcomp=Z,2µm,1.6s
OPU    Opuwo             44.28 117 i P      P         21 52 04.6  -4.2
PCDR   Punta Cana, DR    44.30 296  P       P         21 52 08.0  -0.8
PBRG   Braganca          44.60  22 eP       P         21 52 11.3 +0.5
PBRG                               i IAmb   IAmb      21 52 30.1
       comp=Z,310nm,1.0s
PBRG                               i IAMs_20 IAMs_20  22 07 48.2
       comp=Z,51µm,20.0s
ECAL   Calabor           44.72  21  P       P         21 52 12.2 +0.3
UCM    Universidad Co    44.74  26  P       P         21 52 12.7 +0.7
       comp=Z,36µmcomp=Z,10µmcomp=Z,171nm,1.3s,comp=Z,10µm
DR12   Loma Pena Alta    45.29 296  P       P         21 52 16.6  -0.2
ANCO   Parque Anchore    45.53 217 eP       P         21 52 17.4  -0.9
SALTA                    45.68 234  P       P         21 52 21.1 +0.8
       comp=Z,48µmcomp=Z,10µmcomp=Z,345nm,2.2s,comp=Z,10µm
PB18   Visviri           45.77 244  P       P         21 52 20.6  -0.5
PB18   Visviri           45.77 244  P       P         21 52 20.7  -0.4
       comp=Z,34µmcomp=Z,8µmcomp=Z,308nm,1.4s,comp=Z,8µm
LPA    La Plata          45.95 216ceP       P         21 52 24.6 +3.0
LPA                                 PP      PP        21 54 12.6 +3.3
LPA                                 PPP     PPP       21 54 57.7
LPA                                 S       S         21 59 14.4 +7.4
LPA                                 SS      SS        22 02 45.8  +14
URIC   Uribia, Colomb    46.01 285  P       P         21 52 22.0  -0.5
       comp=Z,37µmcomp=Z,10µmcomp=Z,413nm,1.4s
PB16   IPOC Station P    46.04 243  P       P         21 52 21.9  -1.4
PB16   IPOC Station P    46.04 243  P       P         21 52 22.2  -1.1
       comp=Z,34µmcomp=Z,6µmcomp=Z,163nm,1.4s,comp=Z,6µm
BANI   BANI              46.05 295  P       P         21 52 22.5  -0.4
PAMC   Pamplona, Colo    46.10 279  P       P         21 52 25.4 +1.6
GO01   Chusmiza          46.23 241  P       P         21 52 22.5  -2.2
GO01   Chusmiza          46.23 241  P       P         21 52 23.0  -1.6
       comp=Z,41µmcomp=Z,6µmcomp=Z,100nm,2.3s
RUSC   La Rusia          46.35 277  P       P         21 52 27.3 +1.5
       comp=Z,30µmcomp=Z,11µmcomp=Z,471nm,1.8s
PB08   IPOC Station P    46.37 241  P       P         21 52 23.5  -2.1
PB08   IPOC Station P    46.37 241  P       P         21 52 24.4  -1.3
PB08   IPOC Station P    46.37 241  P       P         21 52 24.3  -1.3
       comp=Z,36µmcomp=Z,6µmcomp=Z,143nm,2.1s,comp=Z,6µm
CZSB   Cruzeiro do Su    46.48 259  P       P         21 52 25.6  -0.6
CZSB   Cruzeiro do Su    46.48 259  P       P         21 52 25.6  -0.6
       comp=Z,19µmcomp=Z,14µmcomp=Z,446nm,1.7s
CZSB   Cruzeiro do Su    46.48 259  P       P         21 52 25.8  -0.4
CZSB                                S       S         21 59 14.7  -0.6
CZSB   Cruzeiro do Su    46.48 259 eP       P         21 52 24.8  -1.4
BARC   Barichara         46.51 278  P       P         21 52 29.8 +3.1
       comp=Z,29µmcomp=Z,20µmcomp=Z,1µm,1.6s
AF01   San Pedro de A    46.64 237  P       P         21 52 27.1  -0.5
AF01                                IAMs_20 IAMs_20   22 12 17.8
       comp=Z,116µm,19.0s
PB11   IPOC Station P    46.67 242  P       P         21 52 25.5  -2.3
PB11                                IAmb    IAmb      21 52 42.7
       comp=Z,554nm,1.5s
PB11                                IAMs_20 IAMs_20   22 11 45.7
       comp=Z,146µm,20.0s
PB11   IPOC Station P    46.67 242  P       P         21 52 25.9  -1.9
       comp=Z,33µmcomp=Z,7µmcomp=Z,229nm,1.5s,comp=Z,7µm
SC01   Santiago de lo    46.70 296  P       P         21 52 27.6  -0.2
AP01   Chacalluta        46.80 244  P       P         21 52 27.5  -1.1
AP01                                IAmb    IAmb      21 52 44.5
       comp=Z,366nm,1.4s
AP01                                IAMs_20 IAMs_20   22 11 51.2
       comp=Z,117µm,19.0s
OCAC   Ocana             46.81 280  P       P         21 52 32.1 +3.2
       comp=Z,12µmcomp=Z,226nm,1.2s
VILC   Villavicencio,    46.85 275  P       P         21 52 30.3 +1.0
EBR    Ebro Roquetas     46.86  29  P       P         21 52 27.0  -1.7
EBR    Ebro Roquetas     46.86  29  P       P         21 52 26.9  -1.7
PB12   IPOC Station P    46.87 243  P       P         21 52 27.1  -2.1
PB12                                IAmb    IAmb      21 52 44.3
       comp=Z,431nm,1.9s
PB12   IPOC Station P    46.87 243  P       P         21 52 28.0  -1.2
       comp=Z,31µmcomp=Z,5µmcomp=Z,100nm,1.6s,comp=Z,5µm
CHIC   Chingaza          46.92 275  P       P         21 52 31.5 +1.4
       comp=Z,21µmcomp=Z,6µmcomp=Z,180nm,1.4s
MACC   Macarena, Meta    46.95 272  P       P         21 52 30.4 +0.5
       comp=Z,18µmcomp=Z,9µmcomp=Z,301nm,1.5s
PSGCX  Pisagua           47.02 242  P       P         21 52 28.1  -2.3
PSGCX                               IAmb    IAmb      21 52 43.6
       comp=Z,581nm,1.7s
PSGCX                               IAMs_20 IAMs_20   22 11 57.0
       comp=Z,182µm,18.0s
PSGCX  Pisagua           47.02 242  P       P         21 52 28.7  -1.7
       comp=Z,34µmcomp=Z,6µmcomp=Z,171nm,1.5s,comp=Z,6µm
PB09   IPOC Station P    47.07 239  P       P         21 52 30.3  -0.6
PB09                                IAmb    IAmb      21 52 40.4
       comp=Z,322nm,1.2s
PB09                                IAMs_20 IAMs_20   22 12 37.3
       comp=Z,151µm,18.0s
PB09   IPOC Station P    47.07 239  P       P         21 52 30.7  -0.2
PB09   IPOC Station P    47.07 239  P       P         21 52 30.7  -0.2
       comp=Z,40µmcomp=Z,8µmcomp=Z,258nm,1.3s,comp=Z,8µm
SDDR   Presa de Saban    47.07 295  P       P         21 52 31.0 +0.2
SDDR                                IAmb    IAmb      21 52 57.7
       comp=Z,311nm,1.2s
SDDR   Presa de Saban    47.07 295  P       P         21 52 29.4  -1.4
       comp=Z,55µmcomp=Z,8µmcomp=Z,232nm,1.6s
SDDR   Presa de Saban    47.07 295 eP       P         21 52 29.9  -0.9
SDDR   Presa de Saban    47.07 295  P       P         21 52 31.7 +0.9
       comp=Z,9µmcomp=Z,236nm,1.6s,comp=Z,40µm
BRJC   Barrancabermej    47.10 279  P       P         21 52 33.3 +2.3
       comp=Z,26µmcomp=Z,10µmcomp=Z,651nm,1.5s
CVER   Cruz Verde, Cu    47.25 275  P       P         21 52 35.0 +2.2
       comp=Z,175µmcomp=Z,12µmcomp=Z,405nm,1.8s
SPBC   San Pablo de B    47.32 277  P       P         21 52 32.5  -0.4
       comp=Z,22µmcomp=Z,6µmcomp=Z,102nm,1.7s
BBSR   BB Station        47.41 315  P       P         21 52 33.0  -0.1
BBSR                                IAmb    IAmb      21 52 42.2
       comp=Z,659nm,1.8s
BBSR   BB Station        47.41 315  P       P         21 52 35.6 +2.5
       comp=Z,43µmcomp=Z,6µmcomp=Z,193nm,1.8s,comp=Z,6µm
TA01   Diego Aracena     47.42 241  P       P         21 52 31.3  -2.1
TA01                                IAMs_20 IAMs_20   22 12 23.5
       comp=Z,170µm,18.0s
TA01   Diego Aracena     47.42 241  P       P         21 52 31.9  -1.4
       comp=Z,35µmcomp=Z,6µmcomp=Z,112nm,1.2s
PB02   IPOC Station P    47.45 240  P       P         21 52 32.5  -1.3
PB02                                IAmb    IAmb      21 52 52.6
       comp=Z,330nm,1.1s
PB02                                IAMs_20 IAMs_20   22 12 27.4
       comp=Z,178µm,20.0s
PB02   IPOC Station P    47.45 240  P       P         21 52 33.2  -0.5
PB02   IPOC Station P    47.45 240  P       P         21 52 33.1  -0.7
       comp=Z,38µmcomp=Z,8µmcomp=Z,333nm,1.2s
KARI   Karibib           47.47 121 i P      P         21 52 31.5  -2.5
ROSC   El Rosal          47.51 276  P       P         21 52 36.0 +1.3
       comp=Z,212nm,1.2s,baz=81,slow=4.2,SNR=21
ROSC                                LR      LR        22 10 45.1
       comp=Z,192µm,20.4s,baz=106,slow=34
       comp=Z,212nm,1.2s
ROSC   El Rosal          47.51 276  P       P         21 52 36.0 +1.3
ROSC   El Rosal          47.51 276  P       P         21 52 35.0 +0.3
ROSC   El Rosal          47.51 276  P       P         21 52 36.8 +2.1
       comp=Z,24µmcomp=Z,17µmcomp=Z,676nm,1.4s
PB07   IPOC Station P    47.59 239  P       P         21 52 34.1  -0.9
PB07                                IAmb    IAmb      21 52 48.6
       comp=Z,549nm,1.2s
PB07                                IAMs_20 IAMs_20   22 11 31.2
       comp=Z,82µm,18.0s
PB07   IPOC Station P    47.59 239  P       P         21 52 34.6  -0.4
       comp=Z,38µmcomp=Z,8µmcomp=Z,361nm,1.2s
PB03   IPOC Station P    47.60 239  P       P         21 52 33.8  -1.2
PB03                                IAmb    IAmb      21 52 48.7
       comp=Z,280nm,1.2s
PB03                                IAMs_20 IAMs_20   22 12 33.5
       comp=Z,169µm,20.0s
PB03   IPOC Station P    47.60 239  P       P         21 52 34.4  -0.7
       comp=Z,39µmcomp=Z,8µmcomp=Z,244nm,1.8s
PB06   IPOC Station P    47.71 238  P       P         21 52 35.0  -0.8
PB06   IPOC Station P    47.71 238  P       P         21 52 35.6  -0.3
       comp=Z,40µmcomp=Z,11µmcomp=Z,647nm,1.9s
GRTK   Grand Turk        47.72 299  P       P         21 52 34.6  -1.2
GRTK   Grand Turk        47.72 299 eP       P         21 52 42.6 +6.9
GRTK   Grand Turk        47.72 299  P       P         21 52 41.2 +5.4
       comp=Z,43µmcomp=Z,13µmcomp=Z,285nm,1.8s,comp=Z,13µm
PTBC   PUERTO BERRIO,    47.77 278  P       P         21 52 40.8 +4.5
       comp=Z,21µmcomp=Z,5µmcomp=Z,127nm,1.5s
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PTLC   Puerto Leguiza   47.90 269   P        P         21 52 39.1 +1.8
       comp=Z,15µmcomp=Z,7µmcomp=Z,380nm,1.4s
TSUM   Tsumeb           48.00 117   LR       LR        22 08 23.6
       comp=Z,22µm,21.0s,baz=283,slow=31
TSUM   Tsumeb           48.00 117   P        P         21 52 37.3 -0.8
TSUM                                IAmb     IAmb      21 52 54.8
       comp=Z,495nm,1.5s
TSUM   Tsumeb           48.00 117 i P        P         21 52 39.0 +0.8
TSUM   Tsumeb           48.00 117 ⇓P        P         21 52 37.5 -0.6
TSUM   Tsumeb           48.00 117   P        P         21 52 37.9 -0.2
       comp=Z,37µmcomp=Z,7µmcomp=Z,229nm,1.2s,comp=Z,7µm
TSUM   Tsumeb           48.00 117   P        P         21 52 37.6 -0.5
TSUM                                S        S         21 59 39.2 +2.0
PRAC   Prado            48.02 274   P        P         21 52 38.5 +0.2
       comp=Z,19µmcomp=Z,13µmcomp=Z,389nm,1.7s
MAHO   Mahon            48.08  32   P        P         21 52 37.4 -0.8
SMRC   Santa Marta, M   48.08 284   P        P         21 52 37.6 -1.1
       comp=Z,34µmcomp=Z,7µmcomp=Z,310nm,1.9s
ATE    Arette           48.10  26   P        P         21 52 39.3 +0.9
       comp=Z,34µmcomp=Z,6µmcomp=Z,304nm,1.8s
NORC   Norcasia         48.10 277   P        P         21 52 38.5 -0.4
       comp=Z,20µmcomp=Z,7µmcomp=Z,385nm,1.8s
PB05   IPOC Station P   48.30 238   P        P         21 52 39.7 -0.6
PB05                                IAMs_20  IAMs_20   22 12 57.9
       comp=Z,190µm,20.0s
PB05   IPOC Station P   48.30 238   P        P         21 52 39.9 -0.5
       comp=Z,40µmcomp=Z,9µmcomp=Z,406nm,2.1s,comp=Z,9µm
KEST   Kesra            48.31  40   P        P         21 52 40.0 -0.2
       comp=Z,147nm,0.9s,baz=225,slow=4.1,SNR=60
KEST                                LR       LR        22 12 38.1
       comp=Z,90µm,21.1s,baz=262,slow=36
       comp=Z,147nm,0.9s
KEST   Kesra            48.31  40   P        P         21 52 39.2 -1.0
       SNR=66
KEST                                S        S         21 59 38.7 -2.3
KEST   Kesra            48.31  40   P        P         21 52 39.4 -0.8
KEST                                IAmb     IAmb      21 53 11.5
       comp=Z,302nm,1.1s
ORTC   Ortega, Tolima   48.39 274   P        P         21 52 42.1 +1.0
       comp=Z,18µmcomp=Z,15µmcomp=Z,844nm,1.5s
CORI   Orista           48.49  29   P        P         21 52 39.8 -1.6
CORI                                         P         21 52 39.9 -1.5
CORI                                IAmb     IAmb      21 52 46.6
       comp=Z,323nm,1.3s
BETC   Betania          48.55 273   P        P         21 52 43.7 +1.3
GUY2C  Guyana, Caldas   48.58 276   P        P         21 52 42.3 -0.7
       comp=Z,21µmcomp=Z,9µmcomp=Z,347nm,1.6s
GARC   Garzon, Huila    48.59 272   P        P         21 52 43.7 +0.8
       comp=Z,15µmcomp=Z,7µmcomp=Z,117nm,1.2s
CEST   Esterri de Car   48.60  28   P        P         21 52 41.0 -1.4
CEST                                IAmb     IAmb      21 52 48.4
       comp=Z,460nm,1.5s
WIN    Windhoek         48.78 121   P        P         21 52 43.3 -0.8
WIN                                 pmax     pmax
       comp=Z,280nm,1.2s
WIN                                 MLR      MLR
       comp=Z,51µm,22.0s
WIN    Windhoek         48.78 121   P        P         21 52 43.3 -0.8
WIN    Windhoek         48.78 121 i P        P         21 52 43.0 -1.2
WIN    Windhoek         48.78 121   P        P         21 52 44.0 -0.1
       comp=Z,38µmcomp=Z,7µmcomp=Z,229nm,2.2s,comp=Z,7µm
WIN    Windhoek         48.78 121   P        P         21 52 43.9 -0.2
WIN                                 S        S         21 59 48.9 +0.7
HELC   Santa Helena     48.80 277   P        P         21 52 43.5 -1.2
       comp=Z,22µmcomp=Z,7µmcomp=Z,337nm,1.6s
SJCC   San Jacinto, C   48.83 282   P        P         21 52 46.0 +1.5
       comp=Z,28µmcomp=Z,4µmcomp=Z,148nm,1.2s
UREC   San Jos de Ur    48.94 279   P        P         21 52 43.8 -1.5
       comp=Z,26µmcomp=Z,9µmcomp=Z,374nm,1.6s
AC02   Maricunga        49.11 233   P        P         21 52 47.3 +0.3
AC02                                IAmb     IAmb      21 53 02.6
       comp=Z,707nm,1.7s
AC02   Maricunga        49.11 233   P        P         21 52 48.9 +1.9
       comp=Z,48µmcomp=Z,8µmcomp=Z,261nm,2.1s,comp=Z,8µm
PB14   IPOC Station P   49.19 236   P        P         21 52 43.9 -3.5
PB14   IPOC Station P   49.19 236   P        P         21 52 47.1 -0.3
PB14                                IAMs_20  IAMs_20   22 15 02.3
       comp=Z,85µm,18.0s
PB14   IPOC Station P   49.19 236   P        P         21 52 47.7 +0.3
       comp=Z,46µmcomp=Z,10µmcomp=Z,472nm,1.7s,comp=Z,10µm
EJON   La Jonquera      49.26  29   P        P         21 52 47.1 -0.2
       comp=Z,32µmcomp=Z,4µmcomp=Z,200nm,1.7s,comp=Z,4µm
CBOC   Ciudad Bolivar   49.26 277   P        P         21 52 47.1 -0.8
       comp=Z,20µmcomp=Z,6µmcomp=Z,260nm,1.6s
SJAF   Saint Jean de    49.28  29   P        P         21 52 47.3 -0.2
       comp=Z,30µmcomp=Z,4µmcomp=Z,180nm,1.8s,comp=Z,4µm
MTLF   Montolieu        49.62  28 ⇑P        P         21 52 49.5 -0.5
MTLF   Montolieu        49.62  28   P        P         21 52 49.8 -0.3
       comp=Z,32µmcomp=Z,5µmcomp=Z,254nm,1.6s
AUSN   Aus              49.78 127 i P        P         21 52 45.6 -6.1
POPC   Popayan, Colom   49.78 273   P        P         21 52 52.3 +0.3
       comp=Z,17µmcomp=Z,10µmcomp=Z,283nm,1.6s
LCBC   Los crdobas,     49.87 281   P        P         21 52 53.9 +1.5
       comp=Z,44µmcomp=Z,23µmcomp=Z,718nm,1.8s
APAC   Apartado, Choc   49.98 280   P        P         21 52 58.2 +4.9
       comp=Z,28µmcomp=Z,9µmcomp=Z,305nm,1.6s
AC01   Pan de Azucar    49.99 234   P        P         21 52 52.1 -1.0
AC01                                IAmb     IAmb      21 52 58.7
       comp=Z,408nm,1.4s
AC01   Pan de Azucar    49.99 234   P        P         21 52 54.0 +0.9
       comp=Z,45µmcomp=Z,9µmcomp=Z,221nm,1.6s,comp=Z,9µm
AC06   Mina Casimiro    50.32 233   P        P         21 52 55.5 -0.2
AC06                                IAMs_20  IAMs_20   22 14 12.4
       comp=Z,122µm,18.0s
GO03   Copiapo          50.33 232   P        P         21 52 54.9 -0.9
GO03                                IAMs_20  IAMs_20   22 14 46.7
       comp=Z,134µm,19.0s
GO03   Copiapo          50.33 232 ⇓P        P         21 52 57.0 +1.2
GO03   Copiapo          50.33 232   P        P         21 52 57.0 +1.2
       comp=Z,52µmcomp=Z,8µmcomp=Z,190nm,1.8s,comp=Z,8µm
BBAC   Balboa, Cauca    50.34 272   P        P         21 52 57.0 +0.7
       comp=Z,17µmcomp=Z,7µmcomp=Z,215nm,1.5s
QMBU   Quimbuelo        50.60 296 eP        P         21 52 56.9 -1.0
VSL    Villasalto       50.69  36   P        P         21 52 57.5 -0.8
VSL    Villasalto       50.69  36 ⇑P        P         21 52 58.0 -0.3
VSL    Villasalto       50.69  36   P        P         21 52 58.4 +0.2
       comp=Z,38µmcomp=Z,5µmcomp=Z,154nm,1.1s,comp=Z,5µm
CFA    Coronel Fontan   50.77 227   LR       LR        22 14 58.2
       comp=Z,230µm,18.0s,baz=52,slow=37
GTBY   Guantanamo Bay   50.79 295   P        P         21 52 58.9 -0.5
GTBY                                IAmb     IAmb      21 53 16.7
       comp=Z,611nm,1.5s
GTBY   Guantanamo Bay   50.79 295   P        P         21 53 00.1 +0.8
       comp=Z,51µmcomp=Z,9µmcomp=Z,318nm,1.7s
GTBY   Guantanamo Bay   50.79 295 ⇓P        P         21 53 00.0 +0.8
GTBY   Guantanamo Bay   50.79 295 eP        P         21 52 58.8 -0.5
GTBY   Guantanamo Bay   50.79 295   P        P         21 53 02.3 +3.0
       comp=Z,36µmcomp=Z,10µmcomp=Z,320nm,1.6s
NMDO   Nuevo Mundo      50.85 296   P        P         21 52 59.3 -0.4
NMDO                                IAmb     IAmb      21 53 17.1
       comp=Z,987nm,1.7s
NMDO   Nuevo Mundo      50.85 296 eP        P         21 52 59.5 -0.2
MOAC   Moa              50.86 296 eP        P         21 52 59.2 -0.6
TULM   Tulcn-Chalpat    50.88 270   P        P         21 53 02.3 +1.6
       comp=Z,20µmcomp=Z,11µmcomp=Z,521nm,1.3s
AC05   El Transito      50.93 231   P        P         21 52 59.8 -0.6
AC05                                IAmb     IAmb      21 53 15.3
       comp=Z,554nm,1.3s
AC05   El Transito      50.93 231   P        P         21 53 01.0 +0.6
       comp=Z,54µmcomp=Z,10µmcomp=Z,368nm,1.8s
ZON    Zonda            51.06 227   P        P         21 53 01.0 -0.2
ZON                                 pmax     pmax
       comp=Z,172nm,1.2s
ZON    Zonda            51.06 227   P        P         21 53 01.0 -0.2
ZON    Zonda            51.06 227 ⇓P        P         21 53 02.1 +0.9
ZON    Zonda            51.06 227   P        P         21 53 02.0 +0.9
       comp=E,110nm,1.4s
MFF    Saint Martin d   51.19  23 ⇑P        P         21 53 01.8  0.0
MFF    Saint Martin d   51.19  23   P        P         21 53 02.1 +0.3
       comp=Z,7µmcomp=Z,1µmcomp=Z,46nm,2.2s
NNA    Nana             51.21 254   LR       LR        22 14 25.7
       comp=Z,55µm,20.8s,baz=72,slow=36
NNA    Nana             51.21 254ceP        P         21 53 01.6 -1.0
NNA                                 pmax     pmax
       comp=Z,301nm,1.3s
NNA    Nana             51.21 254   P        P         21 53 01.4 -1.2
NNA                                 IAmb     IAmb      21 53 14.5
       comp=Z,513nm,1.5s
NNA    Nana             51.21 254   IAMs_20  IAMs_20   22 15 16.2
       comp=Z,85µm,19.0s
NNA    Nana             51.21 254   P        P         21 53 03.8 +1.2
       comp=Z,18µmcomp=Z,5µmcomp=Z,251nm,1.8s
NNA    Nana             51.21 254 ⇑P        P         21 53 01.5 -1.2
NNA    Nana             51.21 254   P        P         21 53 01.7 -1.0
       comp=Z,18µmcomp=Z,5µmcomp=Z,243nm,1.8s
ARBF   Arbois           51.23  30   P        P         21 53 02.7 +0.5
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       comp=Z,31µmcomp=Z,5µmcomp=Z,304nm,1.9s
AC04   Llanos de Chal   51.27 232   P        P         21 53 02.9 +0.1
AC04                                IAmb     IAmb      21 53 17.6
       comp=Z,885nm,1.6s
AC04   Llanos de Chal   51.27 232   P        P         21 53 03.9 +1.1
       comp=Z,42µmcomp=Z,9µmcomp=Z,355nm,1.6s,comp=Z,9µm
CO01   Juntas del Tor   51.33 230   P        P         21 53 03.5 -0.1
CO01                                IAmb     IAmb      21 53 18.5
       comp=Z,973nm,1.8s
CO01   Juntas del Tor   51.33 230   P        P         21 53 05.0 +1.4
       comp=Z,44µmcomp=Z,8µmcomp=Z,320nm,2.4s,comp=Z,8µm
RCC    Rio Carpintero   51.34 295 eP        P         21 53 02.4 -1.0
LCO    Las Campanas     51.34 231   P        P         21 53 03.6 -0.1
LCO                                 pmax     pmax
       comp=Z,537nm,1.6s
LCO                                 MLR      MLR
       comp=Z,242µm,20.0s
LCO    Las Campanas     51.34 231   P        P         21 53 03.6 -0.1
LCO                                 IAmb     IAmb      21 53 18.1
       comp=Z,537nm,1.6s
LCO    Las Campanas     51.34 231 ⇑P        P         21 53 03.9 +0.3
ROSF   Rostrenen        51.48  20   P        P         21 53 08.7 +4.7
ROSF                                pmax     pmax
       comp=Z,175nm,2.1s
ROSF   Rostrenen        51.48  20 ⇑P        P         21 53 04.6 +0.6
ROSF   Rostrenen        51.48  20   P        P         21 53 06.8 +2.8
       comp=Z,30µmcomp=Z,5µmcomp=Z,174nm,2.1s,comp=Z,5µm
CUSE   Cuicocha Este    51.50 270   P        P         21 53 07.5 +2.2
       comp=Z,311µmcomp=Z,13µmcomp=Z,217nm,1.3s
MARVS  Santiago de Cu   51.53 295 eP        P         21 53 02.6 -2.2
OTAV   Otavalo          51.55 270   P        P         21 53 06.5 +0.8
OTAV   Otavalo          51.55 270   P        P         21 53 06.2 +0.5
OTAV                                IAmb     IAmb      21 53 15.6
       comp=Z,920nm,1.7s
OTAV   Otavalo          51.55 270   P        P         21 53 06.3 +0.5
       comp=Z,14µmcomp=Z,7µmcomp=Z,288nm,1.8s
OTAV   Otavalo          51.55 270 ⇓P        P         21 53 06.2 +0.5
OTAV   Otavalo          51.55 270   P        P         21 53 06.4 +0.7
OTAV                                S        S         22 00 23.6 -4.2
OTAV   Otavalo          51.55 270 eP        P         21 53 03.7 -2.0
OTAV   Otavalo          51.55 270   P        P         21 53 07.6 +1.9
       comp=Z,13µmcomp=Z,7µmcomp=Z,289nm,1.8s,comp=Z,7µm
PINC   Pinares de May   51.56 296 eP        P         21 53 04.7 -0.3
KOOLE  Kule             51.59 121   P        P         21 53 04.3 -1.1
KOOLE  Kule             51.59 121   P        P         21 53 05.0 -0.4
KOOLE                               S        S         22 00 24.4 -3.0
SLOR   San Lorenzo -    51.62 268   P        P         21 53 06.1 -0.1
RUSF   Rustrel          51.64  30   P        P         21 53 05.5 +0.2
       comp=Z,33µmcomp=Z,5µmcomp=Z,106nm,2.2s
WDD    Wied Dalam       51.81  43   P        P         21 53 05.6 -1.1
WDD                                 IAmb     IAmb      21 53 12.2
       comp=Z,608nm,1.2s
WDD                                 IAMs_20  IAMs_20   22 14 38.9
       comp=Z,124µm,22.0s
WDD    Wied Dalam       51.81  43 ⇑P        P         21 53 06.7  0.0
WDD    Wied Dalam       51.81  43   P        P         21 53 06.9 +0.2
       comp=Z,32µmcomp=Z,8µmcomp=Z,455nm,1.1s
PAC1   Pacto, Paraso    51.90 270   P        P         21 53 09.8 +1.9
       comp=Z,8µmcomp=Z,293nm,1.6s
CLTB   Caltabellotta    51.91  41 ⇑P        P         21 53 07.0 -0.5
CLTB   Caltabellotta    51.91  41   P        P         21 53 08.1 +0.6
       comp=Z,22µmcomp=Z,999nm,1.4s
HLGC   Holguin          51.91 296 eP        P         21 53 08.8 +1.1
GRTLG  Ghanzi           51.93 118   P        P         21 53 06.4 -1.6
GRTLG                               IAmb     IAmb      21 53 24.7
       comp=Z,842nm,1.9s
GRTLG  Ghanzi           51.93 118   P        P         21 53 07.7 -0.3
GRTLG                               S        S         22 00 37.2 +5.2
GO04   Tololo Observa   51.96 230   P        P         21 53 08.4 +0.2
GO04                                IAmb     IAmb      21 53 22.8
       comp=Z,931nm,1.4s
GO04   Tololo Observa   51.96 230 ⇑P        P         21 53 08.3 +0.1
GO04   Tololo Observa   51.96 230   P        P         21 53 09.1 +0.8
       comp=Z,49µmcomp=Z,10µmcomp=Z,455nm,2.0s
ATAH   Atahualpa        51.99 260   LR       LR        22 15 50.5
       comp=Z,97µm,18.9s,baz=84,slow=37
CHIV   Chivirico        51.99 295   P        P         21 53 07.2 -1.1
CHIV   Chivirico        51.99 295 eP        P         21 53 06.5 -1.8
YAR    Yar              52.04 295 eP        P         21 53 08.2 -0.5
SSB    Saint Sauveur    52.17  28   P        P         21 53 09.0 -0.3
SSB                                 pmax     pmax
       comp=Z,729nm,2.0s
SSB                                 MLR      MLR
       comp=Z,48µm,22.0s
SSB    Saint Sauveur    52.17  28   P        P         21 53 09.0 -0.3
SSB                                 IAmb     IAmb      21 53 27.4
       comp=Z,728nm,2.0s
SSB    Saint Sauveur    52.17  28 ⇑P        P         21 53 09.5 +0.2
SSB    Saint Sauveur    52.17  28   P        P         21 53 09.8 +0.5
       comp=Z,39µmcomp=Z,5µmcomp=Z,121nm,2.1s
CALF   Calern           52.22  31   P        P         21 53 10.0 +0.3
       comp=Z,30µmcomp=Z,6µmcomp=Z,211nm,1.4s,comp=Z,6µm
RAFF   Raffo Rosso      52.46  42   P        P         21 53 11.2 -0.3
RAFF                                IAmb     IAmb      21 53 46.3
       comp=Z,400nm,1.3s
MON    Monaco           52.46  31   P        P         21 53 12.3 +0.9
       comp=Z,32µmcomp=Z,5µmcomp=Z,209nm,1.3s,comp=Z,5µm
CCA1   Carnmenellis     52.47  17 eP        P         21 53 12.2 +0.9
CCA1                                IAMs_20  IAMs_20   22 09 25.7
       comp=Z,101µm,20.6s
CCA1   Carnmenellis     52.47  17   P        P         21 53 12.4 +1.1
       comp=Z,31µmcomp=Z,8µmcomp=Z,336nm,1.3s,comp=Z,8µm
PGF    Pioggiola        52.49  33   P        P         21 53 11.2 -0.6
PGF                                 pmax     pmax
       comp=Z,163nm,1.8s
PGF    Pioggiola        52.49  33 ⇑P        P         21 53 11.2 -0.6
PGF    Pioggiola        52.49  33   P        P         21 53 11.4 -0.3
       comp=Z,29µmcomp=Z,4µmcomp=Z,162nm,1.8s,comp=Z,4µm
ESCA   l'Escarene       52.51  31   P        P         21 53 11.9 +0.1
       comp=Z,4µmcomp=Z,208nm,1.9s,comp=Z,4µm
ORIF   Oris-en-Rattie   52.54  29   P        P         21 53 12.6 +0.5
ORIF                                pmax     pmax
       comp=Z,160nm,1.7s
ORIF   Oris-en-Rattie   52.54  29   P        P         21 53 12.8 +0.7
       comp=Z,33µmcomp=Z,4µmcomp=Z,160nm,1.7s
LMGC   Las Mercedes     52.55 295 eP        P         21 53 12.1 -0.3
MTDJ   Mount Denham     52.59 292   P        P         21 53 13.1 +0.3
MTDJ                                IAmb     IAmb      21 53 52.0
       comp=Z,930nm,1.8s
MTDJ   Mount Denham     52.59 292   P        P         21 53 14.8 +1.9
       comp=Z,40µmcomp=Z,8µmcomp=Z,223nm,1.2s
MTDJ   Mount Denham     52.59 292 ⇓P        P         21 53 13.4 +0.6
MTDJ   Mount Denham     52.59 292 eP        P         21 53 13.2 +0.3
MTDJ   Mount Denham     52.59 292   P        P         21 53 13.6 +0.7
       comp=Z,30µmcomp=Z,9µmcomp=Z,226nm,1.2s
ISO    Isola            52.59  30   P        P         21 53 12.9 +0.5
       comp=Z,33µmcomp=Z,4µmcomp=Z,229nm,1.5s
CO02   Combarbal        52.61 229   P        P         21 53 12.5 -0.3
CO02                                IAmb     IAmb      21 53 28.3
       comp=Z,555nm,1.5s
CO02   Combarbal        52.61 229 ⇑P        P         21 53 13.6 +0.7
CO02   Combarbal        52.61 229   P        P         21 53 12.5 -0.3
       comp=Z,40µmcomp=Z,6µmcomp=Z,241nm,1.4s
VAE    Valguarnera      52.64  41   LR       LR        22 15 27.3
       comp=Z,141µm,21.5s,baz=222,slow=36
VAL    Valentia         52.76  13   P        P         21 53 12.7 -0.7
VAL    Valentia         52.76  13   P        P         21 53 13.2 -0.2
VAL    Valentia         52.76  13   P        P         21 53 14.6 +1.2
       comp=Z,26µmcomp=Z,197nm,1.7s
CO06   Fray Jorge       52.84 230   P        P         21 53 14.5 +0.1
LKGWB  Lokgwabe         52.86 121   P        P         21 53 17.3 +2.5
LKGWB                               IAmb     IAmb      21 53 32.5
       comp=Z,1µm,2.0s
LKGWB  Lokgwabe         52.86 121   P        P         21 53 17.4 +2.6
LKGWB                               S        S         22 00 55.7  +11
PILO   Pilon            52.87 294 eP        P         21 53 14.2 -0.7
CO04   Los Peladeros    53.00 228   P        P         21 53 15.8 -0.1
CO04   Los Peladeros    53.00 228   P        P         21 53 16.2 +0.3
       comp=Z,42µmcomp=Z,8µmcomp=Z,194nm,1.3s
UPA    Univ. de Panam   53.00 281   P        P         21 53 16.1 +0.2
       comp=Z,6µmcomp=Z,291nm,1.7s
MT08   Bocatoma Ro      53.00 226   P        P         21 53 16.2 +0.3
MT08                                IAmb     IAmb      21 53 35.0
       comp=Z,646nm,1.3s
BNI    Bardonecchia     53.03  29   P        P         21 53 15.9 +0.1
BNI                                 pmax     pmax
       comp=Z,291nm,1.2s
BNI                                 MLR      MLR
       comp=Z,26µm,20.0s
BNI    Bardonecchia     53.03  29   P        P         21 53 15.8 +0.1
BNI    Bardonecchia     53.03  29 ⇑P        P         21 53 16.4 +0.6
BNI    Bardonecchia     53.03  29   P        P         21 53 16.6 +0.9
       comp=Z,33µmcomp=Z,6µmcomp=Z,224nm,1.3s
VA03   San Esteban      53.04 227   P        P         21 53 16.2 +0.2
VA03                                IAmb     IAmb      21 53 30.8
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       comp=Z,598nm,1.4s
VA03   San Esteban      53.04 227   P        P         21 53 16.9 +0.9
       comp=Z,42µmcomp=Z,7µmcomp=Z,163nm,0.8s,comp=Z,7µm
ARMS   Ukamas           53.16 127 i P        P         21 53 08.6 -8.3
MCRA   Macar, Loja      53.27 264   P        P         21 53 17.1 -0.9
       comp=Z,9µmcomp=Z,7µmcomp=Z,278nm,1.1s
BCIP   Isla Barro Col   53.31 281   P        P         21 53 20.2 +2.0
       comp=Z,24µmcomp=Z,11µmcomp=Z,430nm,1.9s
BCIP   Isla Barro Col   53.31 281 ⇓P        P         21 53 19.2 +1.0
BCIP   Isla Barro Col   53.31 281   P        P         21 53 20.1 +1.9
       comp=Z,22µmcomp=Z,11µmcomp=Z,435nm,1.9s
PEL    Peldehue         53.33 226   P        P         21 53 18.1  0.0
PEL                                 pmax     pmax
       comp=Z,761nm,1.6s
PEL                                 MLR      MLR
       comp=Z,417µm,20.0s
PEL    Peldehue         53.33 226   P        P         21 53 18.1  0.0
PEL                                 IAmb     IAmb      21 53 32.8
       comp=Z,761nm,1.6s
PEL    Peldehue         53.33 226 ⇑P        P         21 53 18.4 +0.3
PEL    Peldehue         53.33 226   P        P         21 53 18.3 +0.2
       comp=Z,50µmcomp=Z,8µmcomp=Z,281nm,2.0s
MT13   San Alfonso      53.35 226   P        P         21 53 18.3  0.0
MT16   CCHEN            53.36 226   P        P         21 53 18.5 +0.2
MT16                                IAmb     IAmb      21 53 33.2
       comp=Z,912nm,1.6s
LOR    Lormes           53.38  26   P        P         21 53 18.3 +0.2
LOR                                 pmax     pmax
       comp=Z,199nm,1.9s
LOR    Lormes           53.38  26 ⇑P        P         21 53 18.1 -0.1
LOR    Lormes           53.38  26   P        P         21 53 18.3 +0.2
       comp=Z,30µmcomp=Z,4µmcomp=Z,198nm,1.9s
MT03   Universidad Ad   53.38 226   P        P         21 53 18.4 -0.1
HTL    Hartland         53.41  17   P        P         21 53 19.5 +1.3
       comp=Z,8µmcomp=Z,2µmcomp=Z,79nm,1.9s
MT05   Renca            53.49 226   P        P         21 53 19.4 +0.1
CCCC   Cccc             53.53 296 eP        P         21 53 17.2 -2.5
KATM   Katima Mulilo    53.61 112 i P        P         21 53 16.3 -4.1
AZU    Azuero           53.62 279   P        P         21 53 22.5 +2.1
       comp=Z,23µmcomp=Z,9µmcomp=Z,320nm,1.6s
CASP   Castiglione de   53.68  34   P        P         21 53 19.0 -1.4
BO04   La Punta         53.71 225   P        P         21 53 20.4 -0.4
MT02   Curacav          53.72 226   P        P         21 53 20.6 -0.3
MT02                                IAmb     IAmb      21 53 35.3
       comp=Z,569nm,1.7s
PNME   Penonome         53.73 280   P        P         21 53 22.0 +0.7
       comp=Z,26µmcomp=Z,12µmcomp=Z,681nm,1.6s
GBN    Guysborough      53.80 330   P        P         21 53 21.0 -0.2
GBN                                 IAmb     IAmb      21 53 28.4
       comp=Z,691nm,1.7s
AUGR   Augrabies        53.87 127 i P        P         21 53 18.9 -3.2
MT09   Talagante        53.87 226   P        P         21 53 21.3 -0.8
MT09                                IAmb     IAmb      21 53 36.3
       comp=Z,673nm,1.2s
GIMEL  St. Georges /    53.91  28   P        P         21 53 22.3 +0.1
       comp=Z,35µmcomp=Z,4µmcomp=Z,116nm,1.5s,comp=Z,4µm
PPLP   Puerto Lpez      53.93 267   P        P         21 53 23.6 +0.8
IWEX   Carrickbyrne,    54.00  15   P        P         21 53 22.7 +0.2
IWEX   Carrickbyrne,    54.00  15   P        P         21 53 27.2 +4.7
       comp=Z,26µmcomp=Z,4µmcomp=Z,121nm,1.9s
CEL    Celeste          54.05  41   P        P         21 53 22.0 -1.3
CEL                                 IAmb     IAmb      21 53 40.1
       comp=Z,419nm,1.2s
CEL                                 IAMs_20  IAMs_20   22 15 41.9
       comp=Z,123µm,22.0s
CEL    Celeste          54.05  41 ⇑P        P         21 53 22.3 -0.9
CEL    Celeste          54.05  41   P        P         21 53 23.4 +0.2
       comp=Z,5µmcomp=Z,296nm,1.0s
CEL    Celeste          54.05  41   P        P         21 53 23.8 +0.5
       comp=Z,36µmcomp=Z,5µmcomp=Z,298nm,1.0s,comp=Z,5µm
MT01   Popeta           54.10 226   P        P         21 53 23.4 -0.2
RSBS   Rosebush, Pemb   54.18  17 eP        P         21 53 24.4 +0.5
RSBS                                IAMs_20  IAMs_20   22 09 34.1
       comp=Z,111µm,26.0s
BOB    Bobbio (Coli)    54.23  31 ⇑P        P         21 53 24.8 +0.3
BO02   Sierra Bellavi   54.24 225   P        P         21 53 24.7 -0.1
BO02   Sierra Bellavi   54.24 225 ⇑P        P         21 53 24.9 +0.1
BO02   Sierra Bellavi   54.24 225   P        P         21 53 25.0 +0.2
       comp=Z,42µmcomp=Z,8µmcomp=Z,340nm,1.0s
BO01   Tunca            54.25 225   P        P         21 53 24.2 -0.5
BO01   Tunca            54.25 225   P        P         21 53 24.8  0.0
       comp=Z,41µmcomp=Z,9µmcomp=Z,396nm,1.7s
VA05   Santo Domingo    54.26 226   P        P         21 53 24.0 -0.7
VA05                                IAmb     IAmb      21 53 38.0
       comp=Z,519nm,1.8s
VA05   Santo Domingo    54.26 226   P        P         21 53 26.2 +1.5
       comp=Z,41µmcomp=Z,7µmcomp=Z,119nm,1.0s
SENIN  Lac Senin/Sane   54.28  29   P        P         21 53 23.9 -1.0
VLC    Villacollemand   54.32  32 ⇑P        P         21 53 24.4 -0.7
VLC    Villacollemand   54.32  32   P        P         21 53 24.8 -0.3
       comp=Z,32µmcomp=Z,5µmcomp=Z,189nm,1.8s,comp=Z,5µm
HAL    Halifax          54.33 328   P        P         21 53 24.5 -0.6
HAL                                 pmax     pmax
       comp=Z,342nm,1.2s
HAL    Halifax          54.33 328   P        P         21 53 24.5 -0.6
HAL                                 IAmb     IAmb      21 53 40.0
       comp=Z,342nm,1.2s
IGLA   Glengowla, Co    54.33  13   P        P         21 53 25.1 +0.2
MGAB   Montegabbione    54.46  35 ⇑P        P         21 53 25.6 -0.6
KSANE  Kasane           54.48 113   P        P         21 53 25.0 -1.8
KSANE  Kasane           54.48 113   P        P         21 53 26.6 -0.2
KSANE                               S        S         22 01 02.4 -4.4
CESX   Cesi             54.54  35   P        P         21 53 25.9 -0.8
GMAL   Guarumal, Vera   54.57 279   P        P         21 53 29.2 +1.8
       comp=Z,219nm,1.5s
MONM   Monmouth         54.66  18 eP        P         21 53 27.6 +0.2
MONM                                IAMs_20  IAMs_20   22 09 47.0
       comp=Z,108µm,33.1s
CVNA   Calvinia         54.67 130   P        P         21 53 27.9  0.0
       comp=Z,86µmcomp=Z,17µmcomp=Z,823nm,1.6s,comp=Z,17µm
PRMA   PARMA            54.68  32   P        P         21 53 27.1 -0.5
WOL    Wolverton        54.72  19 eP        P         21 53 28.2 +0.5
WOL                                 IAMs_20  IAMs_20   22 09 52.4
       comp=Z,94µm,33.4s
MCH1   Michaelchurch    54.74  18 ⇑P        P         21 53 28.2 +0.2
MCH1   Michaelchurch    54.74  18 eP        P         21 53 28.1 +0.2
MCH1                                IAMs_20  IAMs_20   22 09 48.5
       comp=Z,123µm,35.3s
ZCCA   Zocca            54.76  33   P        P         21 53 27.9 -0.5
ZCCA                                IAmb     IAmb      21 53 49.5
       comp=Z,386nm,1.0s
PAOL   Paolisi          54.76  38   P        P         21 53 27.7 -0.7
AQU    L'Aquila         54.86  36   P        P         21 53 28.6 -0.5
AQU                                 pmax     pmax
       comp=Z,387nm,1.1s
AQU    L'Aquila         54.86  36   P        P         21 53 28.6 -0.5
AQU                                 IAmb     IAmb      21 53 58.6
       comp=Z,387nm,1.1s
AQU    L'Aquila         54.86  36 ⇑P        P         21 53 28.9 -0.1
AQU    L'Aquila         54.86  36⇑iP        P         21 53 28.8 -0.3
AQU    L'Aquila         54.86  36   P        P         21 53 29.0 -0.1
       comp=Z,4µmcomp=Z,268nm,1.1s
AQU    L'Aquila         54.86  36   P        P         21 53 29.2 +0.1
       comp=Z,38µmcomp=Z,5µmcomp=Z,332nm,1.1s
DRLN   Deer Lake        54.86 336   P        P         21 53 28.0 -0.9
DRLN                                IAmb     IAmb      21 53 44.4
       comp=Z,429nm,1.6s
DRLN   Deer Lake        54.86 336 ⇑P        P         21 53 30.8 +1.9
HMNX   Herstmonceux     54.88  21   P        P         21 53 29.8 +0.9
       comp=Z,33µmcomp=Z,10µmcomp=Z,532nm,1.5s
DSB    Dublin           54.89  15   P        P         21 53 28.8 -0.3
DSB    Dublin           54.89  15   P        P         21 53 29.3 +0.3
DSB    Dublin           54.89  15   P        P         21 53 28.4 -0.6
DSB                                 IAmb     IAmb      21 53 38.3
       comp=Z,411nm,1.6s
MURB   Monte Urbino     54.91  35   P        P         21 53 28.6 -0.9
BO03   Pichilemu        54.93 226   P        P         21 53 29.8 +0.1
       comp=Z,39µmcomp=Z,7µmcomp=Z,316nm,1.7s,comp=Z,7µm
INTR   Introdacqua      54.95  37   P        P         21 53 28.9 -0.8
INTR                                IAmb     IAmb      21 53 47.5
       comp=Z,399nm,1.3s
CUC    Castrocucco      54.95  40   P        P         21 53 29.0 -0.8
CUC    Castrocucco      54.95  40 ⇑P        P         21 53 28.4 -1.4
CUC    Castrocucco      54.95  40   P        P         21 53 28.7 -1.1
       comp=Z,30µmcomp=Z,5µmcomp=Z,207nm,1.2s,comp=Z,5µm
CBCY   The Bluff, Cay   54.98 294 eP        P         21 53 29.9 -0.4
NRCA   Norcia           54.98  35   P        P         21 53 28.8 -1.2
NRCA                                IAmb     IAmb      21 53 50.6
       comp=Z,526nm,1.4s
BOURR  Bourrignon       54.99  28   P        P         21 53 30.0  0.0
       comp=Z,27µmcomp=Z,6µmcomp=Z,307nm,1.6s,comp=Z,6µm
FDMO   Fiordimonte      55.09  35   P        P         21 53 29.5 -1.3
TIP    Timpagrande      55.11  41   P        P         21 53 29.2 -1.8
TIP                                 IAmb     IAmb      21 53 48.1
       comp=Z,368nm,1.3s
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TIP   Timpagrande      55.11  41 ⇑P        P         21 53 29.6 -1.4
TIP   Timpagrande      55.11  41 ⇑P        P         21 53 29.7 -1.3
TIP   Timpagrande      55.11  41  P        P         21 53 29.2 -1.8
        comp=Z,3µmcomp=Z,179nm,1.3s
TIP   Timpagrande      55.11  41  P        P         21 53 29.9 -1.1
        comp=Z,37µmcomp=Z,3µmcomp=Z,221nm,1.3s
MARCO Tramutola        55.11  39  P        P         21 53 31.2 +0.2
        comp=Z,37µmcomp=Z,4µmcomp=Z,198nm,1.1s
GO05  Hualane          55.16 225  P        P         21 53 31.0 -0.4
GO05  Hualane          55.16 225 ⇑P        P         21 53 31.0 -0.4
GO05  Hualane          55.16 225  P        P         21 53 31.6 +0.2
        comp=Z,47µmcomp=Z,9µmcomp=Z,544nm,1.8s,comp=Z,9µm
BNALP Bannalp          55.18  29  P        P         21 53 31.1 -0.4
        comp=Z,29µmcomp=Z,4µmcomp=Z,161nm,1.1s,comp=Z,4µm
CER   Ceres            55.19 133  P        P         21 53 32.1 +0.5
        comp=Z,6µmcomp=Z,182nm,1.9s,comp=Z,6µm
ML02  Panimavida       55.19 224  P        P         21 53 31.4 -0.1
ML02  Panimavida       55.19 224  P        P         21 53 31.8 +0.3
        comp=Z,40µmcomp=Z,12µmcomp=Z,675nm,1.6s
HLM1  Long Mynd        55.23  18 eP        P         21 53 31.4 -0.1
HLM1                              IAMs_20  IAMs_20   22 11 21.8
        comp=Z,90µm,22.4s
GUMA  Gualdo di Mace   55.25  35  P        P         21 53 30.6 -1.3
GUMA                              IAmb     IAmb      21 53 50.5
        comp=Z,463nm,1.1s
PRVC  Isla de Provid   55.31 286  P        P         21 53 34.4 +1.7
        comp=Z,30µmcomp=Z,8µmcomp=Z,267nm,1.4s
SKOMA Sekoma           55.33 121  P        P         21 53 32.3 -0.6
SKOMA                             S        S         22 01 20.9 +2.9
TUE   Stuetta          55.35  30  P        P         21 53 31.2 -1.5
TUE   Stuetta          55.35  30 ⇑P        P         21 53 31.5 -1.3
TUE   Stuetta          55.35  30  P        P         21 53 31.3 -1.5
        comp=Z,14µmcomp=Z,535nm,2.4s
TUE   Stuetta          55.35  30  P        P         21 53 31.7 -1.1
        comp=Z,34µmcomp=Z,4µmcomp=Z,135nm,2.4s,comp=Z,4µm
SALO  Salr             55.37  31  P        P         21 53 31.3 -1.4
SALO                              IAmb     IAmb      21 53 40.8
        comp=Z,329nm,1.3s
SALO  Salr             55.37  31 ⇑P        P         21 53 31.4 -1.2
CAIB  Caibarien        55.40 297  P        P         21 53 32.8 -0.4
CAIB                              IAmb     IAmb      21 53 50.4
        comp=Z,551nm,1.7s
CAIB  Caibarien        55.40 297 eP        P         21 53 32.9 -0.3
FOEL  Foel Wylfa       55.45  17 eP        P         21 53 33.3 +0.2
FOEL                              IAMs_20  IAMs_20   22 10 06.8
        comp=Z,137µm,37.1s
FOEL  Foel Wylfa       55.45  17  P        P         21 53 33.8 +0.6
        comp=Z,13µmcomp=Z,5µmcomp=Z,259nm,1.7s
WLF1  Llynfaes         55.46  16 eP        P         21 53 33.1  0.0
WLF1                              IAMs_20  IAMs_20   22 10 07.2
        comp=Z,317µm,36.3s
ECH   Echery           55.56  27  P        P         21 53 32.7 -1.3
ECH                               pmax     pmax
        comp=Z,369nm,1.5s
ECH                               MLR      MLR
        comp=Z,53µm,20.0s
ECH   Echery           55.56  27  P        P         21 53 32.7 -1.3
ECH                               IAmb     IAmb      21 53 51.4
        comp=Z,369nm,1.5s
ECH   Echery           55.56  27 ⇑P        P         21 53 33.5 -0.5
ECH   Echery           55.56  27  P        P         21 53 33.9 -0.1
        comp=Z,33µmcomp=Z,5µmcomp=Z,158nm,1.8s
BI02  San Fabin de     55.56 223  P        P         21 53 33.9 -0.4
BI02  San Fabin de     55.56 223  P        P         21 53 34.5 +0.2
        comp=Z,40µmcomp=Z,7µmcomp=Z,251nm,1.1s
KDWAN Kaudwane         55.59 119  P        P         21 53 33.6 -1.1
KDWAN                             IAmb     IAmb      21 53 37.1
        comp=Z,579nm,1.2s
KDWAN Kaudwane         55.59 119  P        P         21 53 34.3 -0.4
KDWAN                             S        S         22 01 25.0 +3.4
ILTH  Belurgan, Co L   55.61  15  P        P         21 53 34.2 +0.1
ILTH  Belurgan, Co L   55.61  15 eP        P         21 53 34.2 +0.1
ILTH  Belurgan, Co L   55.61  15  P        P         21 53 37.7 +3.5
        comp=N,3µmcomp=N,78nm,1.3s
MGV   Manicaragua      55.76 296 eP        P         21 53 36.3 +0.5
TEOL  Teolo            55.80  32  P        P         21 53 33.6 -2.1
TEOL                              IAmb     IAmb      21 53 40.0
        comp=Z,474nm,1.2s
KHWEE KHWEE            55.85 117  P        P         21 53 35.5 -1.2
KHWEE KHWEE            55.85 117  P        P         21 53 36.1 -0.5
KHWEE                             S        S         22 01 28.6 +3.5
SLE   Schleitheim      55.85  28  P        P         21 53 33.5 -2.6
SLE   Schleitheim      55.85  28  P        P         21 53 35.8 -0.3
        comp=Z,26µmcomp=Z,5µmcomp=Z,226nm,1.7s
SUR   Sutherland       55.87 131  LR       LR        22 12 04.1
        comp=Z,18µm,21.0s,baz=294,slow=30
SUR   Sutherland       55.87 131  P        P         21 53 36.5 -0.2
SUR                               S        S         22 01 27.1 +1.8
SUR   Sutherland       55.87 131  P        P         21 53 35.2 -1.5
SUR   Sutherland       55.87 131 ⇑P        P         21 53 36.6 -0.2
SUR   Sutherland       55.87 131  P        P         21 53 36.0 -0.7
        comp=Z,31µmcomp=Z,6µmcomp=Z,226nm,2.7s
SUR   Sutherland       55.87 131  P        P         21 53 36.3 -0.4
SUR                               S        S         22 01 32.2 +6.9
MATE  Matera           55.88  39 ⇑P        P         21 53 34.6 -1.8
MATE  Matera           55.88  39  P        P         21 53 34.8 -1.5
        comp=Z,28µmcomp=Z,3µmcomp=Z,89nm,1.4s
DOU   Dourbes          55.88  24  P        P         21 53 34.6 -1.6
DOU   Dourbes          55.88  24 dP        P         21 53 35.1 -1.1
        comp=Z,48nm,1.1s
CWF   Charnwood Fore   55.90  18 eP        P         21 53 36.3 -0.1
CWF                               IAMs_20  IAMs_20   22 11 21.1
        comp=Z,77µm,23.2s
CWF   Charnwood Fore   55.90  18  P        P         21 53 36.5 +0.2
        comp=Z,26µmcomp=Z,7µmcomp=Z,356nm,1.3s,comp=Z,7µm
FUORN Ofenpass-Fuorn   55.91  30  P        P         21 53 35.4 -1.5
FUORN Ofenpass-Fuorn   55.91  30  P        P         21 53 36.0 -0.9
        comp=Z,33µmcomp=Z,4µmcomp=Z,142nm,1.3s
STNC  Stoke            55.93  18  P        P         21 53 37.7 +1.2
        comp=Z,10µmcomp=Z,629nm,1.3s,comp=Z,10µm
ALKP  Alkanpan, Nort   55.94 128 ⇓P        P         21 53 36.1 -1.1
BSKQ  Steenkerk        56.11  23 dP        P         21 53 37.3 -0.5
        comp=Z,86nm,1.2s
BMRD  Maredsous        56.11  24 dP        P         21 53 36.9 -0.9
        comp=Z,40nm,1.3s
BOST  Ostende          56.13  22 dP        P         21 53 37.0 -0.9
        comp=Z,112nm,1.1s
SOOWA Sowa             56.15 116  P        P         21 53 37.9 -0.9
SOOWA                             S        S         22 01 31.1 +2.0
BFO   Black Forest     56.18  28  P        P         21 53 38.0 -0.4
BFO                               pmax     pmax
        comp=Z,540nm,1.8s
BFO                               MLR      MLR
        comp=Z,35µm,20.0s
BFO   Black Forest     56.18  28  P        P         21 53 38.0 -0.4
BFO                               IAmb     IAmb      21 53 55.8
        comp=Z,540nm,1.8s
BFO   Black Forest     56.18  28 ⇑P        P         21 53 37.6 -0.8
BFO   Black Forest     56.18  28 eP        P         21 53 37.8 -0.7
        comp=Z,45nm,0.9s,baz=225,slow=7.0
DAVA  Damuels          56.18  29 ⇑P        P         21 53 37.7 -1.0
DAVA  Damuels          56.18  29 i P       P         21 53 37.8 -0.8
        comp=Z,236nm,1.2s,SNR=67
DAVA  Damuels          56.18  29  P        P         21 53 37.9 -0.8
        comp=Z,38µmcomp=Z,6µmcomp=Z,325nm,1.1s
RCHB  Rochefort        56.19  24 dP        P         21 53 37.5 -0.9
RCHB  Rochefort        56.19  24  P        P         21 53 37.7 -0.7
        comp=Z,31µmcomp=Z,4µmcomp=Z,84nm,2.1s,comp=Z,4µm
WLF   Walferdange      56.20  25  P        P         21 53 37.4 -1.1
WLF   Walferdange      56.20  25  P        P         21 53 37.6 -0.9
WLF                               pmax     pmax
        comp=Z,520nm,1.9s
WLF                               MLR      MLR
        comp=Z,55µm,20.0s
WLF   Walferdange      56.20  25  P        P         21 53 37.5 -0.9
WLF                               IAmb     IAmb      21 54 03.7
        comp=Z,520nm,1.9s
WLF   Walferdange      56.20  25 dP        P         21 53 38.1 -0.3
        comp=Z,42nm,1.8s
WLF   Walferdange      56.20  25 ⇑P        P         21 53 38.2 -0.3
WLF   Walferdange      56.20  25  P        P         21 53 38.5 -0.1
        comp=Z,27µmcomp=Z,4µmcomp=Z,126nm,1.9s
FSCY  Frank Sound, G   56.20 293 eP        P         21 53 38.4 -0.6
CGRP  Cima Grappa      56.21  32  P        P         21 53 38.2 -0.7
        comp=Z,27µmcomp=Z,5µmcomp=Z,163nm,1.8s
CTI   Castel Tesino    56.24  31  P        P         21 53 38.1 -0.9
CTI                               pmax     pmax
        comp=Z,153nm,0.9s
CTI   Castel Tesino    56.24  31  P        P         21 53 38.1 -0.9
IOMK  Kirk Michael     56.28  16  P        P         21 53 43.7 +4.7
        comp=Z,22µmcomp=Z,6µmcomp=Z,169nm,2.1s,comp=Z,6µm
IDGL  Inch Island, C   56.28  13  P        P         21 53 39.7 +0.7
IDGL  Inch Island, C   56.28  13  P        P         21 53 42.4 +3.4
        comp=Z,4µmcomp=Z,110nm,1.8s
UCC   Uccle            56.33  23  P        P         21 53 38.7 -0.7
UCC                               pmax     pmax
        comp=Z,288nm,1.4s
UCC   Uccle            56.33  23  P        P         21 53 38.6 -0.7
UCC   Uccle            56.33  23 dP        P         21 53 39.0 -0.4
        comp=Z,83nm,1.2s
UCC   Uccle            56.33  23  P        P         21 53 39.2 -0.2
        comp=Z,2µmcomp=Z,618nmcomp=Z,24nm,1.5s
GGN   Saint George     56.38 327  P        P         21 53 40.7 +0.9
GGN                               IAmb     IAmb      21 53 50.1
        comp=Z,429nm,1.4s
BCLA  Clavier          56.42  24 dP        P         21 53 39.2 -0.8
        comp=Z,28nm,1.7s
FETA  Feichten         56.42  30 eP        P         21 53 39.4 -0.9
        comp=Z,234nm,1.1s,SNR=111
FETA                             i P'P'    P'P'bc    22 23 49.5 -0.1
        comp=Z,12nm,1.8s
EMMW  East Machias     56.46 326  P        P         21 53 40.1 -0.4
EMMW                              IAMs_20  IAMs_20   22 12 16.9
        comp=Z,94µm,20.0s
M65A  Busby, Falmout   56.48 322  P        P         21 53 40.9 +0.2
M65A                              IAmb     IAmb      21 53 55.8
        comp=Z,726nm,1.5s
M65A                              IAMs_20  IAMs_20   22 11 26.0
        comp=Z,119µm,22.0s
MAKGR Makgori          56.50 122  P        P         21 53 40.5 -0.8
MAKGR                             IAmb     IAmb      21 53 43.7
        comp=Z,498nm,1.2s
MAKGR Makgori          56.50 122  P        P         21 53 40.4 -0.8
MAKGR                             S        S         22 01 35.8 +2.1
WACR  West Acre        56.52  20  P        P         21 53 40.8 +0.1
        comp=Z,28µmcomp=Z,7µmcomp=Z,530nm,1.1s
UBR   Ueberruh         56.57  29 eP        P         21 53 40.7 -0.5
        comp=Z,136nm,0.9s,baz=225,slow=7.0
UBR   Ueberruh         56.57  29  P        P         21 53 40.8 -0.5
        comp=Z,28µmcomp=Z,6µmcomp=Z,242nm,1.6s
CLGH  Cloghs, Cushen   56.62  14 eP        P         21 53 41.7 +0.3
CLGH                              IAMs_20  IAMs_20   22 10 38.8
        comp=Z,130µm,34.0s
CLGH  Cloghs, Cushen   56.62  14  P        P         21 53 42.4 +1.0
        comp=Z,24µmcomp=Z,5µmcomp=Z,215nm,1.4s
PIRO  Carate, Puerto   56.69 279  P        P         21 53 43.3 +0.6
LSZ   Lusaka           56.75 109  LR       LR        22 13 12.8
        comp=Z,21µm,21.3s,baz=288,slow=31
LSZ   Lusaka           56.75 109  P        P         21 53 43.3 +0.2
LSZ                               S        S         22 01 37.5 +0.2
LSZ   Lusaka           56.75 109  P        P         21 53 42.9 -0.3
LSZ                               pmax     pmax
        comp=Z,2µm,2.0s
LSZ                               MLR      MLR
        comp=Z,26µm,22.0s
LSZ   Lusaka           56.75 109  P        P         21 53 42.9 -0.3
LSZ   Lusaka           56.75 109 i P       P         21 53 42.0 -1.1
LSZ   Lusaka           56.75 109 ⇑P        P         21 53 43.2  0.0
LSZ   Lusaka           56.75 109  P        P         21 53 43.6 +0.4
        comp=Z,23µmcomp=Z,10µmcomp=Z,383nm,2.4s
LSZ   Lusaka           56.75 109  P        P         21 53 43.8 +0.6
LSZ                               S        S         22 01 38.8 +1.6
RETA  Reutte           56.76  30 i P       P         21 53 41.5 -1.2
        comp=Z,197nm,1.3s,SNR=54
GAL1  Galloway         56.78  15 eP        P         21 53 42.7 +0.2
GAL1                              IAMs_20  IAMs_20   22 10 43.6
        comp=Z,156µm,36.6s
SQTA  Sankt Quirin     56.80  30 eP        P         21 53 41.9 -1.1
        comp=Z,323nm,1.2s,SNR=94
SQTA                             i P'P'    P'P'bc    22 23 51.6 +2.9
        comp=Z,13nm,1.4s
L64A  Middleborough    56.81 322  P        P         21 53 42.8 -0.2
L64A                              IAMs_20  IAMs_20   22 11 47.3
        comp=Z,122µm,22.0s
LMK   Market Rasen     56.83  19  P        P         21 53 47.8 +4.9
        comp=Z,25µmcomp=Z,10µmcomp=Z,660nm,1.4s
G65A  Princeton        56.83 327  P        P         21 53 42.8 -0.3
G65A                              IAmb     IAmb      21 53 53.4
        comp=Z,1µm,2.0s
G65A                              IAMs_20  IAMs_20   22 12 19.6
        comp=Z,109µm,22.0s
MOTA  Moosalm          56.83  30 i P       P         21 53 42.0 -1.3
        comp=Z,164nm,1.1s,SNR=62
MOTA                             i P'P'    P'P'bc    22 23 52.1 +3.4
        comp=Z,14nm,1.5s
MEM   Membach          56.85  24 dP        P         21 53 43.1  0.0
        comp=Z,78nm,1.4s
MEM   Membach          56.85  24  P        P         21 53 43.4 +0.2
        comp=Z,19µmcomp=Z,5µmcomp=Z,192nm,1.9s
STU   Stuttgart        56.90  28  P        P         21 53 42.0 -1.5
STU                               pmax     pmax
        comp=Z,319nm,1.5s
STU                               MLR      MLR
        comp=Z,28µm,20.0s
STU   Stuttgart        56.90  28  P        P         21 53 42.0 -1.5
STU   Stuttgart        56.90  28  P        P         21 53 43.2 -0.3
        comp=Z,23µmcomp=Z,4µmcomp=Z,146nm,1.9s
LBTB  Lobatse          56.92 121  LR       LR        22 13 38.1
        comp=Z,23µm,22.0s,baz=280,slow=31
LBTB  Lobatse          56.92 121  P        P         21 53 42.7 -1.6
LBTB                              pmax     pmax
        comp=Z,774nm,1.6s
LBTB  Lobatse          56.92 121  P        P         21 53 42.6 -1.6
LBTB                              IAmb     IAmb      21 54 04.1
        comp=Z,774nm,1.6s
LBTB  Lobatse          56.92 121 i P       P         21 53 43.7 -0.5
LBTB  Lobatse          56.92 121 ⇓P        P         21 53 42.9 -1.3
LBTB  Lobatse          56.92 121  P        P         21 53 43.3 -1.0
        comp=Z,24µmcomp=Z,6µmcomp=Z,256nm,1.5s
LBTB  Lobatse          56.92 121  P        P         21 53 43.2 -1.0
LBTB                              S        S         22 01 44.5 +5.3
BI05  Punta Hualpn     56.93 224  P        P         21 53 42.3 -1.7
STAL  STALIGIAL        56.94  32  P        P         21 53 42.7 -1.2
STAL                              IAmb     IAmb      21 54 01.1
        comp=Z,380nm,1.4s
HGN   Heimansgroeve    56.94  24  P        P         21 53 44.0 +0.3
        comp=Z,30µmcomp=Z,6µmcomp=Z,221nm,2.3s
BMOL  Mol              56.95  23 dP        P         21 53 43.8  0.0
        comp=Z,160nm,1.4s
KESW  Keswick, Cumbr   56.97  16  P        P         21 53 45.0 +1.1
        comp=Z,24µmcomp=Z,8µmcomp=Z,350nm,2.1s
WTTA  Wattenberg       57.04  30 i P       P         21 53 43.8 -1.0
        comp=Z,240nm,1.2s,SNR=65
WTTA  Wattenberg       57.04  30  P        P         21 53 43.8 -1.0
        comp=Z,31µmcomp=Z,5µmcomp=Z,200nm,1.3s
WATA  Walderalm        57.06  30 i P       P         21 53 43.7 -1.2
        comp=Z,200nm,1.4s,SNR=51
WATA                             i P'P'    P'P'bc    22 23 54.6 +6.5
        comp=Z,22nm,2.8s
BOPT  Opiter           57.09  24 dP        P         21 53 45.1 +0.4
        comp=Z,60nm,1.4s
LTHK  Lithakia         57.13  44  P        P         21 53 44.4 -0.9
NEWG  New Galloway     57.13  15 eP        P         21 53 45.0 -0.1
NEWG                              IAMs_20  IAMs_20   22 10 53.7
        comp=Z,142µm,35.4s
TRI   Trieste          57.15  33  P        P         21 53 44.7 -0.6
TRI                               pmax     pmax
        comp=Z,460nm,1.2s
TRI   Trieste          57.15  33  P        P         21 53 44.7 -0.6
TRI                               IAmb     IAmb      21 53 50.5
        comp=Z,460nm,1.2s
ABTA  Abfaltersbach    57.15  31 i P       P         21 53 45.2 -0.3
        comp=Z,441nm,1.9s,SNR=100
ABTA                             i P'P'    P'P'bc    22 23 48.8 +0.8
        comp=Z,7.5nm,1.2s
VLS   Valsamata        57.18  44  P        P         21 53 44.8 -0.9
SKDS  Skadanscina      57.18  33 i P       P         21 53 45.4 -0.2
FUSE  Fusea            57.19  32  P        P         21 53 45.3 -0.3
        comp=Z,29µmcomp=Z,4µmcomp=Z,272nm,1.8s
SABO  M.te Sabotino    57.23  33  P        P         21 53 45.7 -0.3
SABO                              IAmb     IAmb      21 53 51.6
        comp=Z,448nm,1.3s
BCX   Boston College   57.23 322  P        P         21 53 46.5 +0.5
BCX                               IAMs_20  IAMs_20   22 11 59.6
        comp=Z,96µm,22.0s
CAMR  Camarioca        57.24 297  P        P         21 53 46.7 +0.3
CAMR  Camarioca        57.24 297 eP        P         21 53 46.6 +0.2
CAMR                             ⇓eP       P         21 53 47.3 +0.9
M63A  Gales Ferry      57.27 321  P        P         21 53 45.4 -0.8
M63A                              IAMs_20  IAMs_20   22 12 07.6
        comp=Z,94µm,21.0s
GO06  Curarrehue       57.27 220  P        P         21 53 46.2 -0.3
GO06                              IAmb     IAmb      21 53 52.4
        comp=Z,381nm,1.4s
GO06  Curarrehue       57.27 220 ⇑P        P         21 53 46.0 -0.5
GO06  Curarrehue       57.27 220  P        P         21 53 46.3 -0.2
        comp=Z,41µmcomp=Z,206nm,1.6s
BROLN Tlhalogang       57.30 116  P        P         21 53 45.6 -1.4
BROLN                             S        S         22 01 46.0 +1.7
PLCA  Paso Flores      57.34 219  P        P         21 53 46.5 -0.3
        comp=Z,58nm,1.3s,baz=53,slow=8.1,SNR=11
PLCA                              LR       LR        22 18 02.5
        comp=Z,172µm,19.2s,baz=44,slow=36
PLCA                              PKP2bc   P'P'bc    22 23 47.5 -0.1
        comp=Z,6.3nm,1.2s,baz=243,slow=7.9,SNR=2.9
        comp=Z,58nm,1.3s
PLCA  Paso Flores      57.34 219  P        P         21 53 46.7 -0.1
PLCA                              pmax     pmax
        comp=Z,285nm,1.6s
PLCA  Paso Flores      57.34 219  P        P         21 53 46.7 -0.1
PLCA  Paso Flores      57.34 219 ⇓P        P         21 53 46.9 +0.1
PLCA  Paso Flores      57.34 219  P        P         21 53 46.0 -0.9
PLCA                              S        S         22 01 45.7 +1.6
PLCA  Paso Flores      57.34 219 eP        P         21 53 45.7 -1.2
PLCA  Paso Flores      57.34 219  P        P         21 53 46.7 -0.1
        comp=Z,41µmcomp=Z,7µmcomp=Z,128nm,1.6s
BILN  Bilwi Airport    57.34 286  P        P         21 53 47.0 -0.2
WES   Weston           57.35 322  P        P         21 53 46.8 -0.1
WES                               pmax     pmax
        comp=Z,417nm,1.4s
WES                               MLR      MLR
        comp=Z,102µm,22.0s
WES   Weston           57.35 322  P        P         21 53 46.8 -0.1
WES                               IAmb     IAmb      21 53 56.1
        comp=Z,417nm,1.4s
WES                               IAMs_20  IAMs_20   22 12 02.8
        comp=Z,102µm,22.0s
BATG  Bathurst New B   57.37 329  P        P         21 53 46.6 -0.3
BATG                              IAmb     IAmb      21 53 54.0
        comp=Z,559nm,1.3s
DRE   Drenchia         57.38  32  P        P         21 53 47.0  0.0
        comp=Z,30µmcomp=Z,6µmcomp=Z,262nm,1.2s
PYL   PYLOS            57.39  46  P        P         21 53 46.4 -0.8
KEK   Kerkira          57.40  42  P        P         21 53 46.5 -0.7
KEK   Kerkira          57.40  42  P        P         21 53 45.6 -1.6
KEK   Kerkira          57.40  42 ⇑P        P         21 53 45.7 -1.6
KEK   Kerkira          57.40  42  P        P         21 53 46.0 -1.3
        comp=Z,33µmcomp=Z,4µmcomp=Z,270nm,1.3s
DRAG  Dragano-Lefkad   57.41  43  P        P         21 53 46.6 -0.7
JAVS  Javornik         57.43  33 i P       P         21 53 47.2 -0.3
JAVS                             i                   21 53 51.5
EVGI  Lefkada island   57.44  43  P        P         21 53 46.8 -0.7
060A  Indiantown       57.46 302  P        P         21 53 47.1 -0.8
060A                              IAmb     IAmb      21 54 37.3
        comp=Z,330nm,1.0s
060A                              IAMs_20  IAMs_20   22 12 15.8
        comp=Z,92µm,22.0s
060A  Indiantown       57.46 302 eP        P         21 53 55.1 +7.2
BLUN  Bluefields       57.47 284  P        P         21 53 48.3 +0.2
        comp=Z,7µmcomp=Z,66nm,1.2s
FUR   Furstenfeldbru   57.47  29 eP        P         21 53 47.0 -0.6
        comp=Z,168nm,1.0s,baz=225,slow=7.0
FUR   Furstenfeldbru   57.47  29  P        P         21 53 47.3 -0.3
        comp=Z,26µmcomp=Z,7µmcomp=Z,391nm,2.0s
UNH   University of    57.47 323  P        P         21 53 48.0 +0.4
PRED  Cave del Predi   57.51  32  P        P         21 53 47.4 -0.6
PRED  Cave del Predi   57.51  32  P        P         21 53 48.0 +0.1
        comp=Z,3µmcomp=Z,101nm,1.1s
EDMD  Edmundbyers      57.51  17  P        P         21 53 48.0 +0.3
        comp=Z,28µmcomp=Z,5µmcomp=Z,248nm,2.2s,comp=Z,5µm
NYDR  Nydri-Lefkada    57.51  43  P        P         21 53 47.0 -1.0
LKD2  Lefkada island   57.52  43  P        P         21 53 47.0 -1.2
LKD2  Lefkada island   57.52  43  P        P         21 53 48.3 +0.2
        comp=Z,8µmcomp=Z,430nm,1.3s
OPLO  Oploo            57.52  24  P        P         21 53 49.1 +1.3
        comp=Z,10µmcomp=Z,366nm,2.1s,comp=Z,10µm
TSLK  Tsoukalades, L   57.54  43  P        P         21 53 47.7 -0.6
ACOM  Acomizza, Ital   57.55  32  P        P         21 53 48.6 +0.2
        comp=Z,31µmcomp=Z,9µmcomp=Z,354nm,1.4s
HRV   Adam Dziewonsk   57.57 322  P        P         21 53 49.7 +1.3
HRV   Adam Dziewonsk   57.57 322  P        P         21 53 48.2 -0.2
HRV                               IAmb     IAmb      21 53 57.8
        comp=Z,489nm,1.1s
HRV   Adam Dziewonsk   57.57 322  IAMs_20  IAMs_20   22 12 20.4
        comp=Z,96µm,21.0s
HRV   Adam Dziewonsk   57.57 322 ⇓P        P         21 53 48.8 +0.5
HRV   Adam Dziewonsk   57.57 322  P        P         21 53 49.2 +0.8
        comp=Z,33µmcomp=Z,8µmcomp=Z,458nm,1.6s
VLO   Vlora            57.58  41  P        P         21 53 48.0 -0.4
VLO   Vlora            57.58  41  P        P         21 53 49.5 +1.0
        comp=Z,31µmcomp=Z,11µmcomp=Z,324nm,1.2s
ESK   Eskdalemuir      57.59  16  P        P         21 53 47.1 -1.1
ESK                               pmax     pmax
        comp=Z,173nm,1.1s
ESK                               MLR      MLR
        comp=Z,70µm,20.0s
ESK   Eskdalemuir      57.59  16  P        P         21 53 47.1 -1.1
ESK   Eskdalemuir      57.59  16  IAMs_20  IAMs_20   22 13 41.5
        comp=Z,69µm,20.0s
ESK   Eskdalemuir      57.59  16 ⇑P        P         21 53 48.1 -0.2
ESK   Eskdalemuir      57.59  16 eP        P         21 53 48.0 -0.2
ESK                               IAMs_20  IAMs_20   22 11 09.5
        comp=Z,122µm,30.2s
ESK   Eskdalemuir      57.59  16  P        P         21 53 48.3 +0.1
        comp=Z,25µmcomp=Z,5µmcomp=Z,166nm,2.3s,comp=Z,5µm
ESK   Eskdalemuir      57.59  16  P        P         21 53 48.3 +0.1
        comp=Z,26µmcomp=Z,5µmcomp=Z,162nm,2.3s
HDC   Heredia          57.59 281  P        P         21 53 50.2 +1.0
HDC   Heredia          57.59 281 eP        P         21 53 47.6 -1.6
HDC   Heredia          57.59 281  P        P         21 53 52.0 +2.8
        comp=Z,20µmcomp=Z,8µmcomp=Z,278nm,1.8s
TNS   Taunus Mts       57.61  26 eP        P         21 53 48.4 -0.1
        comp=Z,81nm,0.8s,baz=225,slow=7.0
TNS   Taunus Mts       57.61  26  P        P         21 53 48.5  0.0
        comp=Z,27µmcomp=Z,5µmcomp=Z,195nm,1.5s,comp=Z,5µm
EKA   Eskdalemuir Ar   57.61  16  P        P         21 53 48.0 -0.4
        comp=Z,53nm,0.9s,baz=209,slow=6.4,SNR=39
EKA                               LR       LR        22 13 22.6
        comp=Z,81µm,21.5s,baz=214,slow=31
        comp=Z,53nm,0.9s
SRN   Sarande          57.62  42  P        P         21 53 48.3 -0.5
SRN   Sarande          57.62  42  P        P         21 53 48.8 +0.1
        comp=Z,4µmcomp=Z,138nm,1.2s
WVL   Waterville       57.62 325  P        P         21 53 48.9 +0.3
WVL                               IAMs_20  IAMs_20   22 12 35.6
        comp=Z,113µm,21.0s
ITM   Ithomi           57.65  45  P        P         21 53 48.4 -0.7
ITM   Ithomi           57.65  45  P        P         21 53 48.4 -0.7
ITM   Ithomi           57.65  45 ⇑P        P         21 53 48.8 -0.3
ITM   Ithomi           57.65  45  P        P         21 53 49.1  0.0
        comp=Z,37µmcomp=Z,7µmcomp=Z,481nm,1.1s
MBAR  Mbarara          57.65  91  P        P         21 53 49.8 +0.1
MBAR                              S        S         22 01 50.2 +0.8
MBAR  Mbarara          57.65  91c iP       P         21 53 50.0 +0.3
MBAR                              pmax     pmax
        comp=Z,51nm,1.1s
MBAR  Mbarara          57.65  91  P        P         21 53 49.1 -0.6
MBAR                              IAmb     IAmb      21 54 04.5
        comp=Z,816nm,1.9s
MBAR  Mbarara          57.65  91  P        P         21 53 50.1 +0.4
        comp=Z,11µmcomp=Z,5µmcomp=Z,227nm,2.2s
MBAR  Mbarara          57.65  91  P        P         21 53 50.3 +0.6
GORS  Gorjuse          57.66  32 eP        P         21 53 48.5 -0.5
V61A  Roper            57.66 313  P        P         21 53 49.7 +0.6
V61A                              IAMs_20  IAMs_20   22 11 56.4
        comp=Z,105µm,21.0s
AMT   Artemida-Makis   57.66  45  P        P         21 53 48.5 -0.7
IGT   Igoumenitsa      57.66  42  P        P         21 53 48.4 -0.7
MYKA  Terra Mystica    57.67  32 eP        P         21 53 49.1  0.0
        comp=Z,235nm,1.3s,SNR=41
F64A  Sherman          57.67 327  P        P         21 53 48.6 -0.4
F64A                              IAmb     IAmb      21 54 13.2
        comp=Z,520nm,1.9s
F64A                              IAMs_20  IAMs_20   22 12 45.9
        comp=Z,115µm,22.0s
LESA  Schwarzleotal    57.68  31 i P       P         21 53 48.3 -0.9
        comp=Z,280nm,1.8s,SNR=84
LESA                             i P'P'    P'P'bc    22 23 49.0 +2.3
        comp=Z,12nm,1.5s
RLS   Riolos of Patr   57.73  44  P        P         21 53 48.8 -0.7
AXS   Araxos           57.73  44  P        P         21 53 48.7 -0.9
LJU   Ljubljana        57.77  33 i P       P         21 53 49.4 -0.3
LJU                              e                   21 57 35.5
LJU                              eS        S         22 01 53.2 +3.6
LJU                              e                   22 11 16.3
PDO   Prodromos        57.79  44  P        P         21 53 49.3 -0.7
KBA   Koelnbreinsper   57.80  31 ⇑P        P         21 53 49.0 -1.1
KBA   Koelnbreinsper   57.80  31 i P       P         21 53 49.4 -0.7
        comp=Z,162nm,1.7s,SNR=22
KBA                              ePP       PP        21 55 57.8 -0.5
        comp=Z,120nm,1.5s
KBA   Koelnbreinsper   57.80  31  P        P         21 53 49.4 -0.7
        comp=Z,39µmcomp=Z,5µmcomp=Z,194nm,1.8s
PKME  Peaks-Kenny Pk   57.83 326  P        P         21 53 49.3 -0.8
PKME                              IAmb     IAmb      21 54 00.5
        comp=Z,497nm,1.6s
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PKME				IAMs_20	IAMs_20	22 12 45.1	
	comp=Z,96µm,21.0s						
PKME	Peaks-Kenny Pk	57.83	326	⇓P	P	21 53 52.6	+2.5
BOJS	Bojanci	57.84	34	iP	P	21 53 50.3	+0.1
BOJS				eS	S	22 01 52.4	+2.0
S61A	Accomac	57.84	315	P	P	21 53 50.0	-0.4
DRO	Drossia	57.85	44	P	P	21 53 49.7	-0.8
I63A	Otisfield	57.85	324	P	P	21 53 50.5	+0.2
I63A				IAMs_20	IAMs_20	22 13 21.8	
	comp=Z,112µm,20.0s						
PLEV	Plevrona-Mesol	57.86	44	P	P	21 53 49.8	-0.7
BOSA	Boshof	57.86	125	P	P	21 53 49.2	-1.6
	comp=Z,76nm,1.0s,baz=292,slow=6.6,SNR=35						
BOSA				LR	LR	22 13 32.6	
	comp=Z,43µm,21.8s,baz=276,slow=31						
	comp=Z,76nm,1.0s						
BOSA	Boshof	57.86	125	P	P	21 53 49.2	-1.6
BOSA	Boshof	57.86	125	iP	P	21 53 49.8	-1.0
BOSA	Boshof	57.86	125	⇓P	P	21 53 49.2	-1.6
BOSA	Boshof	57.86	125	P	P	21 53 49.3	-1.5
BOSA				S	S	22 01 47.3	-4.2
BOSA	Boshof	57.86	125	P	P	21 53 49.7	-1.2
	comp=Z,24µmcomp=Z,4µmcomp=Z,184nm,1.3s,comp=Z,4µm						
BOSA	Boshof	57.86	125	P	P	21 53 49.3	-1.5
BOSA				S	S	22 01 56.3	+4.8
LAWE	Loch Awe, Argy	57.86	14	eP	P	21 53 49.9	-0.3
LAWE				IAMs_20	IAMs_20	22 11 14.8	
	comp=Z,105µm,31.7s						
LR03	Panguipulli	57.87	221	P	P	21 53 50.7	+0.2
LR03				IAmb	IAmb	21 54 19.8	
	comp=Z,482nm,1.9s						
R61A	Willards	57.91	316	IAMs_20	IAMs_20	22 14 15.9	
	comp=Z,63µm,19.0s						
N62A	Caumsett State	57.94	320	P	P	21 53 51.8	+0.9
N62A				IAmb	IAmb	21 54 00.5	
	comp=Z,279nm,1.0s						
N62A				IAMs_20	IAMs_20	22 12 35.3	
	comp=Z,76µm,20.0s						
RJOB	Jochberg	57.95	31	P	P	21 53 50.0	-1.0
	comp=Z,19µmcomp=Z,3µmcomp=Z,106nm,1.2s						
AMPL	Ampelaki	57.97	43	P	P	21 53 50.5	-0.7
WSPT	Westport, CT	57.97	320	P	P	21 53 50.9	-0.3
WSPT				IAmb	IAmb	21 54 00.7	
	comp=Z,560nm,1.3s						
WSPT				IAMs_20	IAMs_20	22 12 14.1	
	comp=Z,94µm,22.0s						
HCY	Herceg Novi	57.99	38	eP	P	21 53 51.5	+0.2
GRC2	Grafenberg Arr	58.00	29	P	P	21 53 50.4	-0.9
	comp=Z,24µmcomp=Z,3µmcomp=Z,112nm,1.7s,comp=Z,3µm						
BUG	Bochum--Univer	58.01	24	eP	P	21 53 51.1	-0.1
	comp=Z,116nm,1.1s,baz=225,slow=7.0						
BUG	Bochum--Univer	58.01	24	P	P	21 53 51.5	+0.3
	comp=Z,27µmcomp=Z,5µmcomp=Z,244nm,1.5s						
PVO	Paravola	58.03	44	P	P	21 53 51.0	-0.7
KNDR	Palaiochora Ch	58.04	48	P	P	21 53 51.0	-0.9
TREB	Trebinje	58.05	38	eP	P	21 53 49.5	-2.2
VLX	Vlachokerasia	58.06	45	P	P	21 53 51.3	-0.8
EAB	Aberfoyle	58.06	15	eP	P	21 53 51.1	-0.5
EAB				IAMs_20	IAMs_20	22 11 24.0	
	comp=Z,126µm,30.4s						
KTHA	Kythira Island	58.06	47	P	P	21 53 51.3	-0.7
KTHA	Kythira Island	58.06	47	P	P	21 53 52.4	+0.4
	comp=Z,9µmcomp=Z,738nm,1.2s						
ANKY	Antikythira Is	58.07	47	P	P	21 53 51.3	-0.7
K62A	Royalston	58.07	322	P	P	21 53 52.0	0.0
K62A				IAMs_20	IAMs_20	22 12 34.8	
	comp=Z,99µm,21.0s						
JAN	Janina	58.07	42	P	P	21 53 51.5	-0.6
OBKA	Obir	58.08	33	eP	P	21 53 52.0	0.0
	comp=Z,142nm,1.5s,SNR=14						
OBKA				iP'P'	P'P'bc	22 23 52.1	+6.2
	comp=Z,16nm,1.4s						
OBKA	Obir	58.08	33	P	P	21 53 51.9	0.0
	comp=Z,38µmcomp=Z,7µmcomp=Z,216nm,2.2s						
GRC3	Grafenberg Arr	58.12	29	P	P	21 53 51.2	-0.9
	comp=Z,24µmcomp=Z,3µmcomp=Z,111nm,1.6s,comp=Z,3µm						
EDI	Edinburgh	58.12	15	eP	P	21 53 51.7	-0.3
EDI				IAMs_20	IAMs_20	22 11 24.0	
	comp=Z,129µm,30.3s						
VVK	Vomvokou	58.14	44	P	P	21 53 51.9	-0.6
Y60A	Bolivia	58.15	310	P	P	21 53 53.0	+0.4
Y60A				IAmb	IAmb	21 54 02.0	
	comp=Z,371nm,1.1s						
Y60A				IAMs_20	IAMs_20	22 12 16.5	
	comp=Z,133µm,22.0s						
GRC1	Grafenberg Arr	58.16	29	P	P	21 53 51.5	-0.9
	comp=Z,25µmcomp=Z,3µmcomp=Z,134nm,0.8s						
VLI	Veliai	58.17	46	P	P	21 53 52.0	-0.8
LAKA	Lakka	58.17	44	P	P	21 53 52.0	-0.8
PRMD	Pramanda	58.18	43	P	P	21 53 52.2	-0.6
P61A	Hammonton	58.18	318	P	P	21 53 52.4	-0.3
P61A				IAMs_20	IAMs_20	22 13 18.9	
	comp=Z,90µm,20.0s						
CPNY	Central Park	58.18	319	P	P	21 53 52.6	-0.1
CPNY				IAmb	IAmb	21 54 02.1	
	comp=Z,363nm,1.2s						
MATP	Matopo	58.18	115	LR	LR	22 14 45.9	
	comp=Z,24µm,21.8s,baz=284,slow=32						
MATP	Matopo	58.18	115	iP	P	21 53 53.2	-0.1
I62A	Tamworth	58.20	323	P	P	21 53 53.0	+0.2
I62A				IAmb	IAmb	21 54 02.5	
	comp=Z,299nm,1.1s						
I62A				IAMs_20	IAMs_20	22 14 10.0	
	comp=Z,119µm,19.0s						
KLV	Kalavryta, Ach	58.20	45	P	P	21 53 52.3	-0.7
GVDS	Gavdos	58.21	49	P	P	21 53 52.2	-0.8
EFP	Efpalio	58.21	44	P	P	21 53 52.4	-0.6
TETR	Tetrakomo, Epi	58.21	43	P	P	21 53 52.4	-0.6
WTSB	Winterswijk	58.21	24	P	P	21 53 53.1	+0.4
	comp=Z,26µmcomp=Z,7µmcomp=Z,295nm,2.3s						
BLWY	Bulawayo	58.21	114	iP	P	21 53 53.0	-0.4
GRC4	Grafenberg Arr	58.22	29	P	P	21 53 52.2	-0.7
	comp=Z,25µmcomp=Z,4µmcomp=Z,190nm,0.9s,comp=Z,4µm						
GVD	Gavdhos	58.23	49	P	P	21 53 52.4	-0.8
GVD	Gavdhos	58.23	49	P	P	21 53 52.6	-0.6
	comp=Z,36µmcomp=Z,6µmcomp=Z,308nm,1.2s						
L61B	Northampton	58.23	321	P	P	21 53 52.5	-0.5
L61B				IAmb	IAmb	21 54 02.4	
	comp=Z,232nm,1.0s						
L61B				IAMs_20	IAMs_20	22 12 39.0	
	comp=Z,114µm,22.0s						
PAL	Palisades	58.26	319	P	P	21 53 53.7	+0.5
PAL				pmax	pmax		
	comp=Z,426nm,1.1s						
PAL				MLR	MLR		
	comp=Z,78µm,20.0s						
PAL	Palisades	58.26	319	P	P	21 53 53.7	+0.5
PAL				IAmb	IAmb	21 54 02.5	
	comp=Z,426nm,1.1s						
PAL				IAMs_20	IAMs_20	22 12 43.9	
	comp=Z,78µm,20.0s						
BRY	Bratogost	58.26	38	⇑iP	P	21 53 52.8	-0.6
DRME	Dracevica, Mon	58.28	39	⇑iP	P	21 53 53.5	+0.1
GUR	Goura	58.29	45	P	P	21 53 52.9	-0.7
ANX	Ano Chora	58.30	44	P	P	21 53 53.1	-0.5
SERG	Sergoula	58.31	44	P	P	21 53 53.2	-0.5
KASTN	Kahler Asten	58.31	25	eP	P	21 53 53.3	-0.1
	comp=Z,91nm,1.1s,baz=225,slow=7.0						
GRB5	Grafenberg Arr	58.31	29	P	P	21 53 52.8	-0.7
	comp=Z,25µmcomp=Z,4µmcomp=Z,186nm,1.4s						
BIOA	Bad Ischl, Aus	58.35	31	eP	P	21 53 52.3	-1.4
	comp=Z,182nm,1.4s,SNR=53						
INVG	Invergeldie, C	58.35	15	eP	P	21 53 53.1	-0.4
INVG				IAMs_20	IAMs_20	22 11 29.2	
	comp=Z,122µm,31.1s						
KALE	Kalithea	58.36	44	P	P	21 53 53.7	-0.4
KSCT	Kent School, K	58.36	320	P	P	21 53 54.2	+0.3
EVR	Evrytania	58.37	44	P	P	21 53 54.0	-0.2
IMMV	Iera Moni Meta	58.40	48	P	P	21 53 53.8	-0.6
IMMV	Iera Moni Meta	58.40	48	P	P	21 53 54.3	-0.1
	comp=Z,31µmcomp=Z,6µmcomp=Z,322nm,0.8s						
GRB2	Grafenberg Arr	58.42	29	P	P	21 53 53.5	-0.7
	comp=Z,25µmcomp=Z,4µmcomp=Z,201nm,1.3s						
JTS	Las Juntas de	58.44	281	LR	LR	22 21 54.4	
	comp=Z,33µm,18.0s,baz=103,slow=39						
JTS	Las Juntas de	58.44	281	eP	P	21 53 55.8	+0.8
JTS				pmax	pmax		
	comp=Z,167nm,1.8s						
JTS	Las Juntas de	58.44	281	P	P	21 53 54.4	-0.7
SOKA	Soboth	58.44	33	eP	P	21 53 54.3	-0.2
	comp=Z,155nm,1.2s,SNR=49						
SOKA				iP'P'	P'P'bc	22 23 52.3	+7.2
	comp=Z,16nm,1.9s						
ZAG	Zagreb	58.44	34	P	P	21 53 55.0	+0.6
	comp=Z,19µmcomp=Z,10µmcomp=Z,664nm,1.2s						
PDG	Podgorica	58.45	39	P	P	21 53 53.6	-0.9
PDG				IAmb	IAmb	21 54 12.7	
	comp=Z,391nm,1.1s						
PDG	Podgorica	58.45	39	⇑P	P	21 53 54.8	+0.2
PDG	Podgorica	58.45	39	⇑P	P	21 53 54.8	+0.2
PDG	Podgorica	58.45	39	⇑iP	P	21 53 54.6	0.0
PDG	Podgorica	58.45	39	P	P	21 53 55.1	+0.5
	comp=Z,34µmcomp=Z,7µmcomp=Z,372nm,1.8s						
SESA	Seetaler Alpe,	58.46	32	eP	P	21 53 53.6	-1.2
	SNR=18						
BLY	Banja Luka	58.49	36	P	P	21 53 53.5	-1.3
BLY	Banja Luka	58.49	36	⇑P	P	21 53 54.4	-0.4
BLY	Banja Luka	58.49	36	⇓P	P	21 53 54.3	-0.4
BLY	Banja Luka	58.49	36	⇑iP	P	21 53 54.4	-0.4
BLY	Banja Luka	58.49	36	P	P	21 53 54.7	-0.1
	comp=Z,29µmcomp=Z,4µmcomp=Z,159nm,1.2s						
GRB1	Grafenberg Arr	58.49	29	P	P	21 53 54.1	-0.6
	comp=Z,25µmcomp=Z,4µmcomp=Z,144nm,1.1s						
GRFO	Grafenberg	58.49	28	P	P	21 53 54.6	-0.1
GRFO				MLR	MLR		
	comp=Z,28µm,20.0s						
GRFO	Grafenberg	58.49	28	P	P	21 53 54.6	-0.1
GRA1	Grafenberg Arr	58.49	28	P	P	21 53 53.4	-1.4
GRA1				IAmb	IAmb	21 54 12.9	
	comp=Z,349nm,1.3s						
GRA1	Grafenberg Arr	58.49	28	P	P	21 53 54.3	-0.4
	comp=Z,24µmcomp=Z,5µmcomp=Z,221nm,1.8s,comp=Z,5µm						
GRF	Grafenberg Arr	58.49	28	P	P	21 53 53.4	-1.4
GRF				pmax	pmax		
	comp=Z,349nm,1.3s						
GRF				MLR	MLR		
	comp=Z,27µm,20.0s						
GRF	Grafenberg Arr	58.49	28	eP	P	21 53 54.2	-0.6
	comp=Z,233nm,1.3s,baz=225,slow=7.0						
H62A	Milan	58.49	324	P	P	21 53 55.1	+0.3
H62A				IAmb	IAmb	21 54 20.0	
	comp=Z,558nm,1.7s						
H62A				IAMs_20	IAMs_20	22 13 41.7	
	comp=Z,122µm,20.0s						
GRB4	Grafenberg Arr	58.50	28	P	P	21 53 54.1	-0.7
	comp=Z,25µmcomp=Z,4µmcomp=Z,133nm,1.2s						
G62A	West of Eustis	58.51	325	P	P	21 53 54.3	-0.6
G62A				IAMs_20	IAMs_20	22 13 25.0	
	comp=Z,125µm,21.0s						
KBN	Korca	58.51	41	P	P	21 53 55.4	+0.3
KBN	Korca	58.51	41	P	P	21 53 56.0	+0.9
	comp=Z,30µmcomp=Z,7µmcomp=Z,302nm,1.4s						
BRNJ	Basking Ridge	58.53	319	P	P	21 53 55.2	+0.1
PENT	Pentalofos	58.53	42	P	P	21 53 55.6	+0.3
GRB3	Grafenberg Arr	58.53	29	P	P	21 53 54.4	-0.7
	comp=Z,25µmcomp=Z,4µmcomp=Z,172nm,2.0s						
GRA2	Grafenberg Arr	58.53	28	P	P	21 53 54.6	-0.4
	comp=Z,24µmcomp=Z,4µmcomp=Z,252nm,1.9s						
VAM	Vamos	58.54	48	P	P	21 53 56.0	+0.6
THAL	Thalero	58.56	45	P	P	21 53 54.7	-0.7
KPRO	Kipourio	58.56	42	P	P	21 53 55.4	-0.1
GRA3	Grafenberg Arr	58.59	28	P	P	21 53 55.2	-0.2
	comp=Z,24µmcomp=Z,5µmcomp=Z,217nm,1.6s						
EFI	East Falkland	58.62	202	ceP	P	21 53 57.6	+2.1
EFI				pmax	pmax		
	comp=Z,288nm,1.3s						
EFI	East Falkland	58.62	202	P	P	21 53 55.8	+0.2
EFI				IAmb	IAmb	21 54 15.7	
	comp=Z,385nm,1.4s						
EFI	East Falkland	58.62	202	IAMs_20	IAMs_20	22 14 44.3	
	comp=Z,112µm,20.0s						
EFI	East Falkland	58.62	202	⇑P	P	21 53 58.5	+3.0
EFI	East Falkland	58.62	202	P	P	21 53 57.7	+2.2
	comp=Z,37µmcomp=Z,235nm,1.3s						
SOR	Soroa	58.64	296	P	P	21 53 56.9	+0.7
SOR				pmax	pmax		
	comp=Z,836nm,1.8s						
SOR	Soroa	58.64	296	P	P	21 53 56.9	+0.7
SOR				IAmb	IAmb	21 54 05.6	
	comp=Z,836nm,1.8s						
SOR	Soroa	58.64	296	eP	P	21 53 54.0	-2.2
SOR				eP	P	21 53 55.5	-0.7
SOR	Soroa	58.64	296	P	P	21 53 57.7	+1.4
	comp=Z,27µmcomp=Z,8µmcomp=Z,229nm,1.7s,comp=Z,8µm						
J61A	Chester	58.64	322	P	P	21 53 56.2	+0.3
J61A				IAmb	IAmb	21 54 01.7	
	comp=Z,389nm,1.4s						
J61A				IAMs_20	IAMs_20	22 12 42.8	
	comp=Z,102µm,22.0s						
SIUN	Universidad Ur	58.64	285	P	P	21 53 55.9	-0.5
UPM	Unac-Piva	58.65	38	⇑iP	P	21 53 56.3	+0.1
HNH	Hanover	58.67	323	P	P	21 53 56.3	+0.2
HNH				IAmb	IAmb	21 54 05.7	
	comp=Z,334nm,1.1s						
HNH				IAMs_20	IAMs_20	22 12 44.7	
	comp=Z,111µm,22.0s						
DWPF	Disney Wildern	58.69	303	P	P	21 53 56.6	+0.1
DWPF				IAmb	IAmb	21 54 24.1	
	comp=Z,369nm,1.4s						
DWPF	Disney Wildern	58.69	303	IAMs_20	IAMs_20	22 13 32.3	
	comp=Z,115µm,20.0s						
DWPF	Disney Wildern	58.69	303	eP	P	21 53 54.9	-1.6
DWPF				eP	pwP	21 54 00.7	-0.7
LR04	Corral	58.70	221	P	P	21 53 54.5	-1.9
LR04				IAmb	IAmb	21 53 59.1	
	comp=Z,363nm,1.4s						
LL03	Petrohue	58.72	219	P	P	21 53 55.9	-0.5
LL03				IAmb	IAmb	21 54 08.8	
	comp=Z,361nm,0.9s						
LL03	Petrohue	58.72	219	P	P	21 53 56.0	-0.5
	comp=Z,33µmcomp=Z,8µmcomp=Z,416nm,1.0s						
UBBA	Unterbreizbach	58.73	26	P	P	21 53 51.6	-4.6
	comp=Z,23µmcomp=Z,5µmcomp=Z,190nm,1.9s						
PSUB	Penn St. - Bra	58.75	318	P	P	21 53 56.3	-0.3
LBNH	Lisbon	58.76	324	P	P	21 53 56.1	-0.6
LBNH				pmax	pmax		
	comp=Z,226nm,1.2s						
LBNH				MLR	MLR		
	comp=Z,108µm,20.0s						
LBNH	Lisbon	58.76	324	P	P	21 53 56.1	-0.6
LBNH				IAMs_20	IAMs_20	22 13 47.8	
	comp=Z,108µm,20.0s						
LBNH	Lisbon	58.76	324	⇑P	P	21 53 57.4	+0.7
OHR	Ohrid	58.76	41	iP	P	21 53 57.9	+1.1
LTK	Loutraki	58.77	45	P	P	21 53 55.4	-1.5
MOA	Molln	58.77	31	iP	P	21 53 55.4	-1.3
	comp=Z,84nm,0.9s,SNR=20						
MOA				iP'P'	P'P'bc	22 23 50.2	+6.1
	comp=Z,8.2nm,1.4s						
MOA	Molln	58.77	31	P	P	21 53 55.5	-1.3
	comp=Z,4µmcomp=Z,131nm,1.1s						
AGG	Agios Georgios	58.78	44	⇑P	P	21 53 57.0	0.0
AGG	Agios Georgios	58.78	44	P	P	21 53 57.2	+0.3
	comp=Z,30µmcomp=Z,6µmcomp=Z,390nm,1.6s						
KPL	Plockton	58.78	13	eP	P	21 53 56.0	-0.5
KPL				IAMs_20	IAMs_20	22 11 39.6	
	comp=Z,98µm,30.5s						
W59A	Clinton	58.78	311	P	P	21 53 56.3	-0.7
W59A				IAMs_20	IAMs_20	22 12 28.2	
	comp=Z,139µm,22.0s						
E62A	Clayton Lake	58.78	327	IAMs_20	IAMs_20	22 13 18.9	
	comp=Z,109µm,21.0s						
NPNY	Mohonk Preserv	58.79	320	P	P	21 53 56.6	-0.3
NPNY				IAmb	IAmb	21 54 06.2	
	comp=Z,399nm,1.6s						
D62A	Allapoint, All	58.81	328	P	P	21 53 56.6	-0.3
D62A				IAmb	IAmb	21 54 03.4	
	comp=Z,539nm,1.7s						
D62A				IAMs_20	IAMs_20	22 13 22.9	
	comp=Z,108µm,22.0s						
PHP	Peshkopia	58.82	40	P	P	21 53 58.0	+0.8
	comp=Z,3µmcomp=Z,268nm,1.2s						
IBBN	Ibbenburen	58.85	24	⇑P	P	21 53 57.3	+0.1
IBBN	Ibbenburen	58.85	24	eP	P	21 53 57.3	+0.1
	comp=Z,185nm,1.0s,baz=225,slow=7.0						
IBBN	Ibbenburen	58.85	24	P	P	21 53 57.5	+0.3
	comp=Z,25µmcomp=Z,6µmcomp=Z,245nm,2.3s						
WUPA	West Chester U	58.85	318	P	P	21 53 57.2	-0.2
WUPA				IAmb	IAmb	21 54 12.7	
	comp=Z,393nm,1.6s						
T59A	Double "B" Far	58.88	314	P	P	21 53 56.6	-1.0
T59A				IAmb	IAmb	21 54 21.4	
	comp=Z,362nm,1.5s						
T59A				IAMs_20	IAMs_20	22 12 32.5	
	comp=Z,115µm,22.0s						
WET	Wettzell	58.92	29	eP	P	21 53 56.9	-0.9
	comp=Z,124nm,1.2s,baz=225,slow=7.0						
WET	Wettzell	58.92	29	P	P	21 53 57.1	-0.6
	comp=Z,24µmcomp=Z,4µmcomp=Z,147nm,2.1s,comp=Z,4µm						
TRY	Troy	59.00	321	P	P	21 53 57.4	-1.0
TRY				IAmb	IAmb	21 54 07.9	
	comp=Z,344nm,1.2s						
TRY				IAMs_20	IAMs_20	22 13 01.3	
	comp=Z,130µm,22.0s						
JUD3	Juan Diaz 3	59.00	281	P	P	21 53 58.7	-0.3
IDI	Anoyia	59.01	49	LR	LR	22 20 42.7	
	comp=Z,28µm,21.6s,baz=264,slow=37						
IDI	Anoyia	59.01	49	P	P	21 53 57.9	-0.8
IDI				IAmb	IAmb	21 54 08.0	
	comp=Z,310nm,1.1s						
ARSA	Arzberg	59.06	32	P	P	21 53 57.0	-1.7
ARSA	Arzberg	59.06	32	⇑P	P	21 53 57.7	-1.1
ARSA	Arzberg	59.06	32	iP	P	21 53 58.0	-0.8
	comp=Z,74nm,1.3s,SNR=34						
ARSA				iP'P'	P'P'bc	22 23 50.4	+6.9
	comp=Z,5.5nm,1.4s						
ARSA	Arzberg	59.06	32	P	P	21 53 57.9	-0.8
	comp=Z,37µmcomp=Z,4µmcomp=Z,101nm,1.3s						
CARN	Rivas	59.08	282	P	P	21 53 59.5	0.0
CARN				IAmb	IAmb	21 54 10.4	
	comp=Z,415nm,1.3s						
GEC2	GERESS Array S	59.13	30	P	P	21 53 58.3	-1.0
GEC2				IAmb	IAmb	21 54 04.1	
	comp=Z,289nm,1.4s						
GEC2	GERESS Array S	59.13	30	eP	P	21 53 58.4	-0.8
	comp=Z,140nm,1.1s,baz=225,slow=7.0						
GEC2	GERESS Array S	59.13	30	P	P	21 53 58.7	-0.6
	comp=Z,25µmcomp=Z,5µmcomp=Z,176nm,2.3s						
GERES	GERESS Array B	59.13	30	P	P	21 53 58.5	-0.8
	comp=Z,86nm,1.1s,baz=230,slow=6.3,SNR=131						
GERES				PKP2bc	P'P'bc	22 23 39.5	-3.8
	comp=Z,0.6nm,0.2s,baz=162,slow=0.3,SNR=4.8						
	comp=Z,86nm,1.1s						
GERES	GERESS Array B	59.13	30	P	P	21 53 58.3	-1.0
DRUM	Mains of Drumt	59.18	15	eP	P	21 53 58.8	-0.6
DRUM				IAMs_20	IAMs_20	22 12 38.4	
	comp=Z,115µm,26.5s						
DRUM	Mains of Drumt	59.18	15	P	P	21 53 59.3	-0.1
	comp=Z,23µmcomp=Z,6µmcomp=Z,223nm,1.6s						
CSU	Charleston Sou	59.20	308	P	P	21 54 00.0	+0.1
X58A	Rowland	59.22	310	P	P	21 54 00.2	+0.1
X58A				IAmb	IAmb	21 54 09.5	
	comp=Z,238nm,1.1s						
X58A				IAMs_20	IAMs_20	22 13 00.8	
	comp=Z,130µm,22.0s						
Y58A	Scranton	59.22	310	P	P	21 53 59.8	-0.3
Y58A				IAmb	IAmb	21 54 05.7	
	comp=Z,372nm,1.2s						
Y58A				IAMs_20	IAMs_20	22 13 22.0	
	comp=Z,113µm,21.0s						
GTTG	Gottingen	59.23	26	P	P	21 54 00.3	+0.5
	comp=Z,37µmcomp=Z,8µmcomp=Z,369nm,1.3s						
MCVT	Middlebury Col	59.24	323	P	P	21 54 00.1	0.0
KHC	Kasperske Hory	59.25	30	eP	P	21 53 59.3	-0.8
KHC				e*PP	pwP	21 54 06.6	+1.6
KHC				eS	S	22 02 10.1	+1.3
KHC	Kasperske Hory	59.25	30	eP	P	21 53 59.3	-0.8
KHC				epP	pwP	21 54 06.6	+1.6
KHC				eS	S	22 02 10.1	+1.3
KHC				AMS	AMS	22 12 50.0	
	comp=Z,119µm,40.3s						
KHC	Kasperske Hory	59.25	30	P	P	21 53 58.8	-1.3
KHC	Kasperske Hory	59.25	30	⇑P	P	21 53 59.2	-0.8
KHC	Kasperske Hory	59.25	30	P	P	21 53 59.2	-0.8
	comp=Z,4µmcomp=Z,168nm,1.9s						
KHC	Kasperske Hory	59.25	30	P	P	21 53 59.5	-0.6
	comp=Z,24µmcomp=Z,4µmcomp=Z,168nm,1.9s						
BEHE	Becsehely	59.27	34	P	P	21 53 59.5	-0.6
BEHE	Becsehely	59.27	34	⇑iP	P	21 54 00.2	0.0
BEHE	Becsehely	59.27	34	P	P	21 54 00.5	+0.4
	comp=Z,9µmcomp=Z,3µmcomp=Z,128nm,1.2s						
CBN	Corbin Frederi	59.28	315	P	P	21 54 00.6	+0.2
BBLS	Lazi&#263i	59.32	37	⇑iP	P	21 54 00.0	-0.7
NHSC	New Hope	59.33	309	P	P	21 54 00.9	+0.1
NHSC				IAMs_20	IAMs_20	22 13 34.8	
	comp=Z,79µm,20.0s						
NHSC	New Hope	59.33	309	⇓P	P	21 54 02.7	+1.9
MOX	Moxa	59.34	27	eP	P	21 54 00.3	-0.3
	comp=Z,211nm,1.4s,baz=225,slow=7.0						
MOX	Moxa	59.34	27	P	P	21 54 00.6	0.0
	comp=Z,23µmcomp=Z,5µmcomp=Z,151nm,2.5s						
SJES	Sjenica	59.34	38	⇑iP	P	21 54 00.5	-0.4
BOAB	BOACO BROADBA	59.36	284	P	P	21 54 00.8	-0.5
BOAB				IAMs_20	IAMs_20	22 17 47.0	
	comp=Z,68µm,22.0s						
BOAB	BOACO BROADBA	59.36	284	⇓P	P	21 54 01.1	-0.2
BOAB	BOACO BROADBA	59.36	284	P	P	21 54 01.6	+0.3
	comp=Z,52µmcomp=Z,23µmcomp=Z,947nm,1.8s						
MVL	Millersville	59.39	317	P	P	21 54 01.2	0.0
MVL				IAmb	IAmb	21 54 25.1	
	comp=Z,326nm,1.4s						
CKRC	Cesky Krumlov	59.42	30	eP	P	21 54 00.9	-0.3
CKRC				eS	S	22 02 13.9	+3.0
CKRC	Cesky Krumlov	59.42	30	eP	P	21 54 00.9	-0.3
CKRC				eS	S	22 02 13.9	+3.0
CKRC				AMS	AMS	22 13 20.0	
	comp=Z,63µm,30.5s						
NKC	Novy Kostel	59.44	28	AMS	AMS	22 17 20.0	
	comp=Z,23µm,18.1s						
NKC	Novy Kostel	59.44	28	P	P	21 54 01.0	-0.4
	comp=Z,4µmcomp=Z,94nm,1.6s						
SDMD	Soldier's Deli	59.45	316	P	P	21 54 01.5	-0.1
ICQ	Pointe Anglais	59.46	331	P	P	21 54 00.6	-0.8
ICQ				IAmb	IAmb	21 54 08.4	
	comp=Z,275nm,1.3s						
PLN	Plauen	59.48	28	eP	P	21 54 01.0	-0.5
	baz=225,slow=7.0						
LL02	Futaleuf	59.53	217	P	P	21 54 01.6	-0.5
LL02				IAMs_20	IAMs_20	22 21 36.9	
	comp=Z,108µm,20.0s						
LL02	Futaleuf	59.53	217	⇑P	P	21 54 01.9	-0.2
LL02	Futaleuf	59.53	217	P	P	21 54 02.0	-0.1
	comp=Z,35µmcomp=Z,7µmcomp=Z,220nm,1.4s,comp=Z,7µm						
R58B	Mineral	59.53	315	P	P	21 54 01.8	-0.4
R58B				IAmb	IAmb	21 54 26.8	
	comp=Z,793nm,2.0s						
R58B				IAMs_20	IAMs_20	22 13 17.0	
	comp=Z,81µm,22.0s						
V58A	Windy Hill, Pi	59.53	312	P	P	21 54 02.1	-0.1
V58A				IAmb	IAmb	21 54 11.7	
	comp=Z,348nm,1.3s						
V58A				IAMs_20	IAMs_20	22 13 24.1	
	comp=Z,106µm,20.0s						
LL05	Los Muermos	59.55	219	P	P	21 54 01.6	-0.6
LL05				IAmb	IAmb	21 54 09.3	
	comp=Z,479nm,1.2s						
LL05	Los Muermos	59.55	219	P	P	21 54 03.0	+0.9
	comp=Z,33µmcomp=Z,329nm,1.7s						
TANN	Tannenbergstha	59.57	28	eP	P	21 54 01.8	-0.5
	comp=Z,162nm,1.1s,baz=225,slow=7.0						
TANN	Tannenbergstha	59.57	28	P	P	21 54 02.1	-0.2
	comp=Z,45µmcomp=Z,7µmcomp=Z,333nm,1.3s						
MCD	Coleburn Disti	59.58	15	eP	P	21 54 01.6	-0.5
MCD				IAMs_20	IAMs_20	22 12 02.1	
	comp=Z,133µm,37.0s						
L59A	Walton	59.59	320	P	P	21 54 02.4	-0.2
L59A				IAMs_20	IAMs_20	22 13 15.1	
	comp=Z,84µm,22.0s						
257A	Skidaway Islan	59.60	307	IAMs_20	IAMs_20	22 13 16.1	
	comp=Z,127µm,22.0s						
SKO	Skopje	59.61	40	iP	P	21 54 02.6	0.0
VA04	Juan Fernndez	59.62	230	P	P	21 54 02.2	-0.6
VA04				IAmb	IAmb	21 54 24.7	
	comp=Z,467nm,1.3s						
CLZ	Clausthal	59.62	26	eP	P	21 54 02.4	-0.2
	comp=Z,83nm,1.3s,baz=225,slow=7.0						
CLZ	Clausthal	59.62	26	P	P	21 54 02.6	0.0
	comp=Z,24µmcomp=Z,3µmcomp=Z,119nm,2.1s						
LINV	Loch Inver, As	59.62	13	eP	P	21 54 01.2	-1.1
LINV				IAMs_20	IAMs_20	22 12 04.0	
	comp=Z,101µm,30.2s						
FLET	Fletcher	59.64	323	P	P	21 54 02.4	-0.3
CONA	Conrad Observa	59.66	32	eP	P	21 54 02.2	-0.7
	comp=Z,114nm,1.5s,SNR=29						
CONA				ePP	PP	21 56 18.2	+3.6
	comp=Z,86nm,1.8s						
CONA				eP'P'	P'P'ab	22 23 49.9	-4.2
	comp=Z,19nm,1.6s						
GRG	Griva	59.74	42	P	P	21 54 03.2	-0.3
	comp=Z,70µmcomp=Z,11µmcomp=Z,319nm,1.4s						
KSPA	Keystone Colle	59.75	319	P	P	21 54 03.5	-0.1
KSPA				IAmb	IAmb	21 54 28.4	
	comp=Z,464nm,1.6s						
PAGS	Pennsylvania G	59.75	317	P	P	21 54 03.8	+0.2
PAGS				IAmb	IAmb	21 54 28.1	
	comp=Z,609nm,1.7s						

RONA	Rosalia, Austr	59.75	32	eP	P	21 54 03.2	-0.3
	comp=Z,151nm,1.3s,SNR=55						
RONA				ePP	PP	21 56 21.1	+5.7
	comp=Z,82nm,1.7s						
RONA				i P'P'	P'P'ab	22 23 49.3	-4.4
	comp=Z,14nm,1.6s						
ZVC	Zvikov	59.76	30	eP	P	21 54 02.7	-0.8
ZVC				eS	S	22 02 18.0	+2.7
TEKS	Tekeris	59.76	37	⇑iP	P	21 54 03.0	-0.7
LMQ	La Malbaie	59.78	327	P	P	21 54 04.1	+0.3
KOVH	Kovagotottos	59.79	35	⇑P	P	21 53 57.0	-6.8
NEUB	Neuenburg	59.80	27	eP	P	21 54 03.7	-0.1
	comp=Z,115nm,0.9s,baz=225,slow=7.0						
NEUB	Neuenburg	59.80	27	P	P	21 54 03.8	+0.1
	comp=Z,23µmcomp=Z,5µmcomp=Z,220nm,1.9s						
Y57A	Sumter	59.82	309	P	P	21 54 04.9	+0.7
Y57A				IAmb	IAmb	21 54 10.0	
	comp=Z,506nm,1.3s						
Y57A				IAMs_20	IAMs_20	22 13 27.9	
	comp=Z,119µm,22.0s						
RETH	Rethem/Aller,	59.84	25	eP	P	21 54 04.1	+0.2
	baz=225,slow=7.0						
RETH	Rethem/Aller,	59.84	25	P	P	21 54 04.5	+0.6
	comp=Z,26µmcomp=Z,5µmcomp=Z,174nm,1.5s						
THERA	Ancient Thera,	59.88	48	P	P	21 54 03.3	-1.3
	comp=Z,26µmcomp=Z,6µmcomp=Z,381nm,1.1s						
SOP	Sopron	59.88	32	P	P	21 54 04.2	-0.2
	comp=Z,24µmcomp=Z,5µmcomp=Z,164nm,1.3s						
WINA	Alland / Wiene	59.88	32	eP	P	21 54 04.0	-0.4
	SNR=42						
MGAN	Managua	59.89	283	P	P	21 54 04.8	-0.2
MGAN	Managua	59.89	283	P	P	21 54 06.7	+1.7
	comp=Z,14µmcomp=Z,628nm,1.6s						
MGAN	Managua	59.89	283	P	P	21 54 06.0	+1.0
	comp=Z,16µmcomp=Z,642nm,1.7s						
WIMM	Wimmelburg	59.89	27	P	P	21 54 04.3	-0.1
	comp=Z,64µmcomp=Z,9µmcomp=Z,288nm,1.2s						
J59A	Piesco	59.91	322	P	P	21 54 04.8	+0.1
J59A				IAmb	IAmb	21 54 13.8	
	comp=Z,201nm,1.0s						
J59A				IAMs_20	IAMs_20	22 13 30.3	
	comp=Z,104µm,22.0s						
W57A	Gilead	59.94	311	P	P	21 54 05.2	+0.1
ZKR	Zakros	59.94	49	P	P	21 54 04.7	-0.4
	comp=Z,30µmcomp=Z,7µmcomp=Z,498nm,0.9s						
ASSE	Asse, Remlinge	59.95	26	eP	P	21 54 04.5	-0.2
	comp=Z,33nm,0.8s,baz=225,slow=7.0						
ASSE	Asse, Remlinge	59.95	26	P	P	21 54 04.9	+0.2
	comp=Z,24µmcomp=Z,4µmcomp=Z,119nm,2.4s						
THE	Thessaloniki	59.96	42	P	P	21 54 04.4	-0.7
	comp=Z,5µmcomp=Z,200nm,1.4s						
456A	Hilliard	59.99	305	P	P	21 54 04.6	-0.8
456A				IAmb	IAmb	21 54 11.4	
	comp=Z,374nm,1.2s						
656A	Willston	59.99	304	P	P	21 54 04.5	-1.0
656A				IAMs_20	IAMs_20	22 14 09.7	
	comp=Z,125µm,21.0s						
NCB	Newcomb	60.00	322	P	P	21 54 04.9	-0.4
VAY	Valandovo	60.03	41	i P	P	21 54 05.3	-0.2
N58A	Sunbury	60.03	318	P	P	21 54 05.3	-0.2
N58A				IAmb	IAmb	21 54 20.7	
	comp=Z,328nm,1.5s						
N58A				IAMs_20	IAMs_20	22 14 16.9	
	comp=Z,92µm,21.0s						
HORT	Hortiatis	60.04	42	P	P	21 54 05.2	-0.5
	comp=Z,26µmcomp=Z,4µmcomp=Z,155nm,1.4s						
MPLH	Magyarpolny	60.11	33	P	P	21 54 05.7	-0.2
	comp=Z,14µmcomp=Z,542nm,1.4s						
MPLH	Magyarpolny	60.11	33	P	P	21 54 06.1	+0.1
	comp=Z,28µmcomp=Z,5µmcomp=Z,214nm,1.4s						
BIRD	Birdtown, Kers	60.11	310	P	P	21 54 06.5	+0.3
BIRD				IAmb	IAmb	21 54 15.7	
	comp=Z,239nm,1.2s						
PAIG	Paliouri	60.12	43	P	P	21 54 05.8	-0.4
	comp=Z,1µmcomp=Z,46nm,1.1s						
HSKC	Hora Svate Kat	60.16	28	eP	P	21 54 06.5	+0.2
HSKC				eS	S	22 02 27.8	+7.4
HSKC				AMS	AMS	22 14 50.0	
	comp=Z,37µm,25.3s						
HSKC	Hora Svate Kat	60.16	28	P	P	21 54 06.3	0.0
	comp=Z,25µmcomp=Z,5µmcomp=Z,236nm,1.3s						
MORH	Mrgy, Hungar	60.17	35	⇑P	P	21 54 06.0	-0.4
MORH	Mrgy, Hungar	60.17	35	⇑iP	P	21 54 05.7	-0.6
MORH	Mrgy, Hungar	60.17	35	P	P	21 54 05.8	-0.6
MORH	Mrgy, Hungar	60.17	35	P	P	21 54 06.0	-0.4
	comp=Z,25µmcomp=Z,3µmcomp=Z,90nm,3.0s						
BINY	Binghamton	60.20	320	P	P	21 54 06.8	0.0
BINY				IAMs_20	IAMs_20	22 13 54.4	
	comp=Z,75µm,20.0s						
BINY	Binghamton	60.20	320	⇑P	P	21 54 07.7	+0.9
BINY	Binghamton	60.20	320	P	P	21 54 07.8	+1.1
	comp=Z,35µmcomp=Z,9µmcomp=Z,333nm,1.9s						
S57A	Dark Hollow, R	60.22	314	P	P	21 54 06.5	-0.4
S57A				IAMs_20	IAMs_20	22 13 13.1	
	comp=Z,117µm,22.0s						
BIGH	Upper Bighouse	60.23	14	eP	P	21 54 06.3	-0.2
BIGH				IAMs_20	IAMs_20	22 12 19.0	
	comp=Z,108µm,37.8s						
BIGH	Upper Bighouse	60.23	14	P	P	21 54 06.7	+0.2
	comp=E,201nm,1.1s						
FRGS	Fruska Gora	60.26	36	⇑iP	P	21 54 06.8	-0.3
PRU	Pruhonice	60.29	29	eP	P	21 54 06.8	-0.3
PRU				eS	S	22 02 24.5	+2.5
PRU	Pruhonice	60.29	29	eP	P	21 54 06.8	-0.3
PRU				eS	S	22 02 24.5	+2.5
PRU				AMS	AMS	22 13 10.0	
	comp=E,107µm,40.7s						
PRU	Pruhonice	60.29	29	P	P	21 54 06.5	-0.7
	comp=Z,22µmcomp=Z,4µmcomp=Z,113nm,2.5s						
P57A	Homestead Farm	60.30	316	P	P	21 54 06.7	-0.7
P57A				IAmb	IAmb	21 54 32.5	
	comp=Z,443nm,1.6s						
SOH	Sokhos	60.31	42	P	P	21 54 07.5	-0.1
	comp=Z,30µmcomp=Z,4µmcomp=Z,244nm,1.3s						
TREC	Trest	60.32	31	eP	P	21 54 06.6	-0.8
TREC				eS	S	22 02 23.0	+0.5
TREC	Trest	60.32	31	eP	P	21 54 06.6	-0.8
TREC				eS	S	22 02 23.0	+0.5
TREC				AMS	AMS	22 13 40.0	
	comp=Z,109µm,36.6s						
TREC	Trest	60.32	31	P	P	21 54 06.8	-0.6
	comp=Z,25µmcomp=Z,4µmcomp=Z,143nm,1.9s						
LL07	Hotel Espejo d	60.32	218	IAMs_20	IAMs_20	22 19 13.8	
	comp=Z,83µm,20.0s						
FLTG	Flechtingen	60.34	26	⇑P	P	21 54 07.2	-0.2
FLTG	Flechtingen	60.34	26	eP	P	21 54 07.2	-0.2
	comp=Z,40nm,0.8s,baz=225,slow=7.0						
FLTG	Flechtingen	60.34	26	P	P	21 54 07.4	0.0
CNGN	Cerro Negro	60.36	284	P	P	21 54 13.0	+4.7
	comp=Z,256µmcomp=Z,122µmcomp=Z,6µm,1.9s						
CNGN	Cerro Negro	60.36	284	P	P	21 54 09.1	+0.8
	comp=Z,169µmcomp=Z,122µmcomp=Z,6µm,1.9s						
CLL	Collm	60.43	28	⇑iP	P	21 54 07.7	-0.3
CLL				i		21 54 15.6	
CLL				eS	S	22 02 26.0	+2.3
CLL				pmax	pmax		
	comp=Z,257nm,1.5s						
CLL				MLR	MLR		
	comp=Z,30µm,21.0s						
CLL	Collm	60.43	28	P	P	21 54 07.5	-0.5
CLL	Collm	60.43	28	eP	P	21 54 07.7	-0.3
	comp=Z,90nm,1.2s,baz=225,slow=7.0						
CLL	Collm	60.43	28	P	P	21 54 07.5	-0.5
	comp=Z,4µmcomp=Z,113nm,2.4s						
CLL	Collm	60.43	28	P	P	21 54 07.9	-0.1
	comp=Z,24µmcomp=Z,4µmcomp=Z,113nm,2.4s						
CLL	Collm	60.43	28	⇑iP	P	21 54 07.7	-0.3
	comp=Z,257nm,1.5s						
CLL				i x	pwP	21 54 15.6	+2.6
CLL				ePP	PP	21 56 22.0	+0.7
CLL				ePPP	PPP	21 57 44.0	
CLL				eS	S	22 02 26.0	+2.3
	comp=N,46µm,30.0s						
CLL				eS	S	22 02 26.0	+2.3
	comp=E,39µm,28.1s						
CLL				eS	S	22 02 26.0	+2.3
	comp=Z,17µm,28.1s						
CLL				eSSS	SSS	22 09 06.0	
CLL				LH		22 10 00.0	
CLL				LV		22 12 00.0	
CLL				AMS	AMS	22 17 00.0	
	comp=N,26µm,21.6s						
CLL				AMS	AMS	22 17 00.0	
	comp=E,14µm,20.0s						
CLL				AMS	AMS	22 17 00.0	
	comp=Z,30µm,21.0s						
CLL				AMS	AMS	22 18 00.0	
	comp=Z,0.0nm,21.0s						
CLL				ePKPPKPbc	P'P'bc	22 23 39.0	-0.9
CLL				ex	x	22 25 26.0	
RICC	Richard	60.44	29	eP	P	21 54 08.4	+0.3
MNTQ	Montreal, Queb	60.46	324	P	P	21 54 08.3	0.0
PEHC	Pehcevo	60.46	41	i P	P	21 54 08.3	-0.3
ZST	Bratislava	60.48	32	eP	P	21 54 08.2	-0.3
ZST				pmax	pmax		
	comp=Z,24nm,1.4s						
ZST	Bratislava	60.48	32	eP	P	21 54 08.2	-0.3
ZST	Bratislava	60.48	32	P	P	21 54 08.3	-0.1
	comp=Z,93µmcomp=Z,3µm,1.9s						
GRHM	Grahamstown, E	60.50	130	P	P	21 54 08.0	-1.0
GRHM				IAmb	IAmb	21 54 17.4	
	comp=Z,265nm,0.9s						
LDAQ	Lac Daran	60.53	327	P	P	21 54 08.6	-0.3
LDAQ				IAmb	IAmb	21 54 15.8	
	comp=Z,434nm,1.4s						
M57A	Sunshine Farm,	60.54	318	P	P	21 54 08.9	-0.1
M57A				IAmb	IAmb	21 54 18.5	
	comp=Z,836nm,2.0s						
M57A				IAMs_20	IAMs_20	22 14 44.3	
	comp=Z,90µm,21.0s						
LONY	Lake Ozonia	60.56	323	P	P	21 54 09.1	0.0
LONY				IAMs_20	IAMs_20	22 13 51.5	
	comp=Z,97µm,22.0s						
LONY	Lake Ozonia	60.56	323	⇓P	P	21 54 09.7	+0.5
BRG	Berggiesshubel	60.58	28	eP	P	21 54 08.5	-0.6
	comp=Z,110nm,1.1s,baz=225,slow=7.0						
BRG	Berggiesshubel	60.58	28	P	P	21 54 08.8	-0.3
	comp=Z,22µmcomp=Z,4µmcomp=Z,118nm,1.3s						
BRG	Berggiesshubel	60.58	28	eP	P	21 54 08.5	-0.6
BRG				Amp		21 54 15.0	
	comp=Z,105nm,1.1s						
BRG	Berggiesshubel	60.58	28	P	P	21 54 17.5	+8.4
BRG				Amp		21 54 20.7	
	comp=Z,125nm,1.1s						
BRG	Berggiesshubel	60.58	28	S	S	22 02 34.0	+8.3
JSC	Jenkinsville	60.59	309	P	P	21 54 09.9	+0.4
JSC				pmax	pmax		
	comp=Z,273nm,1.3s						
JSC	Jenkinsville	60.59	309	P	P	21 54 09.9	+0.4
JSC				IAmb	IAmb	21 54 15.3	
	comp=Z,273nm,1.3s						
GO07	Milladeo Hill,	60.59	218	P	P	21 54 09.5	+0.1
GO07				IAmb	IAmb	21 54 19.9	
	comp=Z,761nm,2.0s						
CFNY	Clifton-Fine,	60.61	322	P	P	21 54 09.4	-0.1
CFNY				IAmb	IAmb	21 54 19.8	
	comp=Z,214nm,1.1s						
SRS	Serrai	60.61	42	P	P	21 54 09.4	-0.1
	comp=Z,28µmcomp=Z,6µmcomp=Z,331nm,1.5s						
BOVS	Bovan	60.61	39	⇑P	P	21 54 09.3	-0.2
KRUC	Moravsky	60.64	31	eP	P	21 54 08.4	-1.1
KRUC				e		21 57 50.1	
KRUC				eS	S	22 02 23.5	-3.0
KRUC				ePKPPKP	P'P'df	22 23 43.7	+13
KRUC	Moravsky	60.64	31	P	P	21 54 08.4	-1.1
	comp=Z,24µmcomp=Z,3µmcomp=Z,84nm,1.8s						
KKB	Krupnik	60.64	41	i P	P	21 54 09.9	+0.1
MODS	Modra-Piesok	60.68	32	eP	P	21 54 09.3	-0.6
MODS				pmax	pmax		
	comp=Z,228nm,1.3s						
MODS	Modra-Piesok	60.68	32	eP	P	21 54 09.3	-0.6
MODS	Modra-Piesok	60.68	32	P	P	21 54 09.6	-0.3
	comp=Z,54µmcomp=Z,9µmcomp=Z,259nm,1.3s						
U56A	King	60.70	312	P	P	21 54 10.3	+0.1
U56A				IAmb	IAmb	21 54 19.9	
	comp=Z,275nm,1.4s						
U56A				IAMs_20	IAMs_20	22 13 35.9	
	comp=Z,125µm,22.0s						
CRIN	San Cristobal	60.73	284	P	P	21 54 10.9	+0.1
SSPA	Standing Stone	60.73	317	P	P	21 54 10.3	0.0
SSPA				IAmb	IAmb	21 54 35.3	
	comp=Z,664nm,1.9s						
K57A	Scipio Center	60.81	320	P	P	21 54 10.6	-0.2
K57A				IAMs_20	IAMs_20	22 14 14.3	
	comp=Z,61µm,21.0s						
J57A	Williamstown	60.81	321	P	P	21 54 10.6	-0.2
J57A				IAMs_20	IAMs_20	22 14 16.3	
	comp=Z,100µm,21.0s						
KARP	Karpathos	60.82	49	P	P	21 54 09.9	-1.2
KARP	Karpathos	60.82	49	⇑P	P	21 54 10.1	-1.1
KARP	Karpathos	60.82	49	P	P	21 54 10.0	-1.1
	comp=Z,9µmcomp=Z,579nm,1.4s						
KARP	Karpathos	60.82	49	P	P	21 54 10.4	-0.7
	comp=Z,37µmcomp=Z,9µmcomp=Z,579nm,1.4s						
KARP	Karpathos	60.82	49	P	P	21 54 10.4	-0.7
	comp=Z,37µmcomp=Z,9µmcomp=Z,579nm,1.4s						
GORT1	Trebel	60.84	25	P	P	21 54 12.0	+1.3
	comp=Z,65nmcomp=Z,2.8nm,2.3s						
SMOL	Smolenice	60.85	32	eP	P	21 54 10.3	-0.7
SMOL				pmax	pmax		
	comp=Z,11nm,1.1s						
VRAC	Vranov	60.89	31	LR	LR	22 18 20.3	
	comp=Z,12µm,21.2s,baz=240,slow=34						
VRAC	Vranov	60.89	31	P	P	21 54 10.5	-0.8
VRAC	Vranov	60.89	31	eP	P	21 54 10.2	-1.1
VRAC				e		21 57 52.1	
VRAC				e		21 58 01.9	
VRAC				eS	S	22 02 28.2	-1.6
VRAC				ePKPPKP	P'P'df	22 23 43.9	+14
VRAC	Vranov	60.89	31	⇑P	P	21 54 10.3	-1.0
VRAC	Vranov	60.89	31	P	P	21 54 10.5	-0.8
	comp=Z,7µmcomp=Z,1µmcomp=Z,37nm,2.0s						
SRO	Srobarova	60.91	33	eP	P	21 54 13.5	+2.1
SRO				pmax	pmax		
	comp=Z,100nm,1.2s						
SRO	Srobarova	60.91	33	eP	P	21 54 13.5	+2.1
SRO	Srobarova	60.91	33	P	P	21 54 13.5	+2.1
	comp=Z,3µmcomp=Z,208nm,1.2s						
MMB	Musomishta	60.91	42	i P	P	21 54 11.9	+0.3
Q56A	Snyder Ridge,	60.92	315	P	P	21 54 12.0	+0.2
KMSC	Kings Mountain	60.96	310	P	P	21 54 11.6	-0.4
KMSC				IAmb	IAmb	21 54 21.6	
	comp=Z,714nm,2.0s						
KMSC				IAMs_20	IAMs_20	22 14 14.9	
	comp=Z,127µm,21.0s						
COYC	Coyhaique	61.05	215	P	P	21 54 12.1	-0.3
COYC	Coyhaique	61.05	215	IAMs_20	IAMs_20	22 21 37.0	
	comp=Z,88µm,18.0s						
COYC	Coyhaique	61.05	215	⇑P	P	21 54 13.8	+1.4
COYC	Coyhaique	61.05	215	P	P	21 54 14.1	+1.6
	comp=Z,36µmcomp=Z,159nm,1.1s						
BLA	Blacksburg	61.06	313	P	P	21 54 12.8	+0.1
BLA				pmax	pmax		
	comp=Z,232nm,1.3s						
BLA				MLR	MLR		
	comp=Z,121µm,21.0s						
BLA	Blacksburg	61.06	313	P	P	21 54 12.8	+0.1
BLA				IAMs_20	IAMs_20	22 14 12.5	
	comp=Z,121µm,21.0s						
BLA	Blacksburg	61.06	313	⇓P	P	21 54 13.4	+0.7
VTS	Vitosha	61.08	40	i P	P	21 54 12.8	-0.1
TGUH	Tegucigalpa,Un	61.09	285	P	P	21 54 13.0	-0.4
TGUH	Tegucigalpa,Un	61.09	285	P	P	21 54 13.5	+0.1
	comp=Z,23µmcomp=Z,11µmcomp=Z,722nm,1.6s						
TGUH	Tegucigalpa,Un	61.09	285	⇓P	P	21 54 13.7	+0.3
TGUH	Tegucigalpa,Un	61.09	285	P	P	21 54 13.8	+0.3
	comp=Z,20µmcomp=Z,11µmcomp=Z,732nm,1.6s,comp=Z,11µm						
BSEG	Bad Segeberg	61.10	24	eP	P	21 54 12.5	0.0
	comp=Z,230nm,0.9s,baz=225,slow=7.0						
BSEG	Bad Segeberg	61.10	24	P	P	21 54 12.6	+0.1
	comp=Z,21µmcomp=Z,7µmcomp=Z,408nm,1.3s						
BUD	Budapest	61.11	34	P	P	21 54 12.5	-0.3
	comp=Z,26µmcomp=Z,5µmcomp=Z,161nm,1.1s						
CHOS	Chios island	61.12	46	P	P	21 54 13.0	-0.1
	comp=Z,25µmcomp=Z,6µmcomp=Z,303nm,1.4s						
V55A	Taylorsville	61.13	311	P	P	21 54 13.5	+0.4
V55A				IAmb	IAmb	21 54 19.3	
	comp=Z,352nm,1.3s						
V55A				IAMs_20	IAMs_20	22 14 33.4	
	comp=Z,119µm,21.0s						
PLNA	Plana	61.14	41	i P	P	21 54 13.8	+0.6
WBO	Williamsburg	61.18	323	P	P	21 54 13.5	+0.2
JAVC	Velka Javorina	61.18	32	eP	P	21 54 12.8	-0.5
JAVC				eS	S	22 02 30.9	-2.7
JAVC	Velka Javorina	61.18	32	P	P	21 54 13.3	0.0
	comp=Z,26µmcomp=Z,4µmcomp=Z,91nm,2.0s						
L56A	Greenwood	61.20	319	P	P	21 54 13.4	-0.2
L56A				IAMs_20	IAMs_20	22 14 44.7	
	comp=Z,91µm,20.0s						
MDVR	Moldovita	61.21	38	⇑P	P	21 54 13.8	+0.2
PAULI	Pauline	61.21	310	P	P	21 54 13.8	+0.1
PAULI				IAmb	IAmb	21 54 23.4	
	comp=Z,576nm,1.9s						
R55A	Marlinton	61.27	314	P	P	21 54 14.6	+0.4
R55A				IAmb	IAmb	21 54 39.7	
	comp=Z,400nm,1.6s						
R55A				IAMs_20	IAMs_20	22 13 57.0	
	comp=Z,103µm,22.0s						
SKMB	Sankelmark Bun	61.32	23	P	P	21 54 15.3	+1.3
	comp=Z,22µmcomp=Z,13µmcomp=Z,458nm,2.3s,comp=Z,13µm						
HODGE	Hodges	61.35	309	P	P	21 54 14.5	-0.1
HODGE				IAmb	IAmb	21 54 20.5	
	comp=Z,280nm,1.3s						
UPC	Upice	61.35	30	eP	P	21 54 14.0	-0.3
UPC				eS	S	22 02 37.5	+1.9
UPC	Upice	61.35	30	eP	P	21 54 14.0	-0.3
UPC				eS	S	22 02 37.5	+1.9
UPC	Upice	61.35	30	P	P	21 54 14.1	-0.3
	comp=Z,22µmcomp=Z,4µmcomp=Z,145nm,1.4s						
TRQ	Mont Tremblant	61.40	324	P	P	21 54 14.7	-0.2
TRQ				IAmb	IAmb	21 54 23.7	
	comp=Z,280nm,1.0s						
DPC	Dobruska-Polom	61.40	30	eP	P	21 54 14.3	-0.5
DPC				eS	S	22 02 38.2	+1.8
DPC	Dobruska-Polom	61.40	30	eP	P	21 54 14.3	-0.5
DPC				eS	S	22 02 38.2	+1.8
DPC				AMS	AMS	22 13 40.0	
	comp=Z,100µm,40.3s						
DPC	Dobruska-Polom	61.40	30	P	P	21 54 14.1	-0.7
	comp=Z,3µmcomp=Z,113nm,2.0s						
DPC	Dobruska-Polom	61.40	30	P	P	21 54 14.5	-0.3
	comp=Z,25µmcomp=Z,3µmcomp=Z,113nm,2.0s						
CHVC	Chvalec	61.42	30	eP	P	21 54 14.6	-0.3
CHVC	Chvalec	61.42	30	eP	P	21 54 14.6	-0.3
AMBH	Ambrzfalva	61.45	36	⇓P	P	21 54 15.5	+0.4
AMBH	Ambrzfalva	61.45	36	P	P	21 54 16.0	+0.9
	comp=Z,31µmcomp=Z,11µmcomp=Z,533nm,1.5s						
KRLC	Kraliky	61.46	30	eP	P	21 54 15.1	-0.1
KRLC	Kraliky	61.46	30	eP	P	21 54 15.1	-0.1
KRLC				AMS	AMS	22 14 20.0	
	comp=Z,70µm,33.8s						
KRLC	Kraliky	61.46	30	P	P	21 54 15.1	-0.1
	comp=Z,23µmcomp=Z,3µmcomp=Z,90nm,1.4s						
154A	Montrose	61.47	307	P	P	21 54 15.5	0.0
154A				IAMs_20	IAMs_20	22 14 23.7	
	comp=Z,120µm,22.0s						
OSTC	Ostas	61.48	30	eP	P	21 54 15.0	-0.3
OSTC				eS	S	22 02 40.8	+3.5
OSTC	Ostas	61.48	30	eP	P	21 54 15.0	-0.3
OSTC				eS	S	22 02 40.8	+3.5
TIGA	Tifton	61.49	306	P	P	21 54 16.3	+0.6
TIGA				IAmb	IAmb	21 54 21.8	
	comp=Z,526nm,1.4s						
MAUC	Maruska	61.57	32	eP	P	21 54 16.0	+0.1
MAUC				eS	S	22 02 38.3	-0.2
RUE	Ruedersdorf	61.58	27	⇑P	P	21 54 16.1	+0.4
RUE	Ruedersdorf	61.58	27	eP	P	21 54 16.2	+0.4
	comp=Z,645nm,1.3s,baz=225,slow=7.0						
RUE	Ruedersdorf	61.58	27	P	P	21 54 16.4	+0.6
	comp=Z,26µmcomp=Z,8µmcomp=Z,388nm,2.4s						
BZS	Buzias	61.58	37	P	P	21 54 15.7	-0.3
BZS	Buzias	61.58	37	⇑P	P	21 54 15.6	-0.5
BZS	Buzias	61.58	37	⇑P	P	21 54 15.8	-0.3
BZS	Buzias	61.58	37	P	P	21 54 15.9	-0.2
	comp=Z,27µmcomp=Z,3µmcomp=Z,86nm,1.6s						
VYHS	Vyhne	61.59	33	eP	P	21 54 15.4	-0.6
VYHS				pmax	pmax		
	comp=Z,113nm,1.4s						
VYHS	Vyhne	61.59	33	eP	P	21 54 15.4	-0.6
VYHS	Vyhne	61.59	33	P	P	21 54 15.7	-0.4
	comp=Z,2µmcomp=Z,32nm,2.0s						
BDRM	Kayabasi	61.61	48	⇑P	P	21 54 15.1	-1.3
RZN	Rozhen	61.64	42	i P	P	21 54 16.6	-0.1
MCWV	Mont Chateau	61.65	316	P	P	21 54 15.2	-1.4
MCWV	Mont Chateau	61.65	316	⇑P	P	21 54 17.5	+0.9
MORC	Moravsky Berou	61.67	31	P	P	21 54 16.3	-0.3
MORC	Moravsky Berou	61.67	31	P	P	21 54 15.3	-1.3
MORC				IAmb	IAmb	21 54 21.9	
	comp=Z,321nm,1.5s						
MORC	Moravsky Berou	61.67	31	eP	P	21 54 16.0	-0.6
MORC				eS	S	22 02 35.6	-4.2
MORC				ePKPPKP	P'P'df	22 23 43.0	+14
MORC	Moravsky Berou	61.67	31	⇑P	P	21 54 15.9	-0.6
MORC	Moravsky Berou	61.67	31	⇑P	P	21 54 16.1	-0.5
MORC	Moravsky Berou	61.67	31	P	P	21 54 16.3	-0.3
	comp=Z,23µmcomp=Z,4µmcomp=Z,159nm,2.3s						
GAC	Glen Almond	61.67	323	⇑P	P	21 54 17.3	+0.7
HERR	Herculane	61.69	38	⇓P	P	21 54 16.9	+0.2
KSP	Ksiaz	61.70	30	eP	P	21 54 16.7	0.0
KSP	Ksiaz	61.70	30	P	P	21 54 14.9	-1.8
KSP	Ksiaz	61.70	30	⇑P	P	21 54 16.2	-0.4
KSP	Ksiaz	61.70	30	P	P	21 54 16.4	-0.3
	comp=Z,3µmcomp=Z,105nm,2.5s						
PECO	Prince Edward	61.70	321	P	P	21 54 16.0	-0.8
PECO				IAmb	IAmb	21 54 22.3	
	comp=Z,225nm,1.2s						
PUNG	Punghina	61.70	39	⇓P	P	21 54 16.8	0.0
BSZH	Besenyszg	61.70	35	P	P	21 54 17.3	+0.5
	comp=Z,9µmcomp=Z,293nm,1.5s,comp=Z,25µm						
MMNY	Mt. Morris Dam	61.71	319	P	P	21 54 16.6	-0.3
MMNY				IAmb	IAmb	21 54 26.1	
	comp=Z,421nm,1.0s						
RMGR	Halanga-Turnu	61.75	38	⇓P	P	21 54 17.1	0.0
NRS	Narsarsuaq	61.76	350	P	P	21 54 17.6	+0.8
NRS				pmax	pmax		
	comp=Z,412nm,1.5s						
NRS	Narsarsuaq	61.76	350	P	P	21 54 17.6	+0.8
NRS				IAmb	IAmb	21 55 00.2	
	comp=Z,412nm,1.5s						
NRS	Narsarsuaq	61.76	350	⇑P	P	21 54 18.9	+2.1
NRS	Narsarsuaq	61.76	350	i P	P	21 54 18.6	+1.8
NRS				IAmb	IAmb	21 54 25.3	
	comp=Z,316nm,1.4s						
NRS	Narsarsuaq	61.76	350	P	P	21 54 19.2	+2.4
	comp=Z,164nm,1.2s						
MPEP	Malo Peshtene	61.76	40	i P	P	21 54 17.2	-0.1
ARG	Arkhangelos	61.80	49	P	P	21 54 16.1	-1.5
ARG				pmax	pmax		
	comp=Z,707nm,1.1s						
ARG	Arkhangelos	61.80	49	P	P	21 54 16.1	-1.5
ARG	Arkhangelos	61.80	49	⇑P	P	21 54 16.7	-1.0
ARG	Arkhangelos	61.80	49	P	P	21 54 16.9	-0.8
	comp=Z,7µmcomp=Z,9µmcomp=Z,506nm,1.0s						
553A	Crawfordville	61.81	304	P	P	21 54 18.0	+0.2
553A				IAmb	IAmb	21 54 24.2	
	comp=Z,419nm,1.3s						
553A				IAMs_20	IAMs_20	22 14 33.8	
	comp=Z,141µm,22.0s						
U54A	Nelsons Funny	61.83	312	P	P	21 54 17.4	-0.6
U54A				IAmb	IAmb	21 54 27.7	
	comp=Z,265nm,1.2s						
U54A				IAMs_20	IAMs_20	22 14 35.0	
	comp=Z,117µm,22.0s						
BAIL	Bailesti	61.84	39	⇑P	P	21 54 18.0	+0.3
PSZ	Piszkesteto	61.84	34	P	P	21 54 17.5	-0.3
PSZ	Piszkesteto	61.84	34	⇑P	P	21 54 17.7	-0.1
PSZ	Piszkesteto	61.84	34	⇑P	P	21 54 17.8	0.0
PSZ	Piszkesteto	61.84	34	P	P	21 54 17.9	+0.1
	comp=Z,11µmcomp=Z,326nm,2.0s						
PLD	Plovdiv	61.85	41	i P	P	21 54 17.7	-0.2
STEB	Steborice	61.88	31	eP	P	21 54 17.6	-0.4
EZN	Ezine	61.91	44	P	P	21 54 18.0	-0.3
EZN	Ezine	61.91	44	P	P	21 54 17.3	-1.0
	comp=Z,4µmcomp=Z,187nm,1.1s						
S54A	Dingess, Beckl	61.94	313	P	P	21 54 18.1	-0.6
S54A				IAmb	IAmb	21 54 34.2	
	comp=Z,477nm,1.6s						
S54A				IAMs_20	IAMs_20	22 14 16.8	
	comp=Z,132µm,22.0s						
SIRR	Siria	61.95	36	⇑P	P	21 54 18.5	0.0
SSRD	Sdr. Stenderup	61.96	23	i P	P	21 54 18.1	-0.2
SSRD				IAmb	IAmb	21 54 29.4	
	comp=Z,1µm,1.5s						
SURR	Surduc	61.96	37	⇑P	P	21 54 18.2	-0.4
DKL	Dikili	62.01	45	⇑P	P	21 54 18.9	-0.1
KDZ	Kurdzhali	62.01	42	i P	P	21 54 18.7	-0.3
GOGA	Godfrey	62.02	308	P	P	21 54 18.8	-0.4
GOGA				pmax	pmax		
	comp=Z,179nm,1.4s						
GOGA				MLR	MLR		
	comp=Z,58µm,21.0s						
GOGA	Godfrey	62.02	308	P	P	21 54 18.8	-0.4
GOGA	Godfrey	62.02	308	⇑P	P	21 54 20.3	+1.1
GOGA	Godfrey	62.02	308	P	P	21 54 20.9	+1.7
	comp=Z,31µmcomp=Z,5µmcomp=Z,103nm,1.4s						

OKC	Ostrava-Krasne	62.02	31	*e*S	S	22 02 48.2	+4.1
OKC	Ostrava-Krasne	62.02	31	P	P	21 54 18.7	-0.2
	comp=Z,18µmcomp=Z,4µmcomp=Z,194nm,2.3s						
SRE	Strehaia	62.06	38	P	P	21 54 19.2	-0.1
SRE	Strehaia	62.06	38	⇓P	P	21 54 19.3	-0.1
Q54A	Coxs Mills	62.07	315	P	P	21 54 19.1	-0.3
Q54A				IAmb	IAmb	21 54 29.0	
	comp=Z,232nm,1.1s						
Q54A				IAMs_20	IAMs_20	22 14 45.0	
	comp=Z,81µm,21.0s						
CAVK	Edirne/Enez-Ca	62.17	43	⇓P	P	21 54 18.9	-1.1
GZR	Gura Zlata	62.17	37	P	P	21 54 19.8	-0.2
GZR	Gura Zlata	62.17	37	⇑P	P	21 54 19.9	-0.2
ALN	Alexandroupoli	62.17	43	P	P	21 54 19.1	-1.0
ALN				pmax	pmax		
	comp=Z,165nm,1.2s						
ALN	Alexandroupoli	62.17	43	P	P	21 54 19.1	-1.0
ALN	Alexandroupoli	62.17	43	⇑P	P	21 54 19.5	-0.5
ALN	Alexandroupoli	62.17	43	P	P	21 54 19.8	-0.2
	comp=Z,24µmcomp=Z,4µmcomp=Z,235nm,1.2s						
O54A	Avella	62.24	316	P	P	21 54 20.7	+0.1
O54A				IAmb	IAmb	21 54 44.5	
	comp=Z,690nm,1.9s						
O54A				IAMs_20	IAMs_20	22 17 46.4	
	comp=Z,56µm,19.0s						
LODK	Lodwar	62.26	87	P	P	21 54 21.2	0.0
	SNR=20						
LODK	Lodwar	62.26	87	P	P	21 54 20.7	-0.5
LODK	Lodwar	62.26	87	P	P	21 54 21.6	+0.4
MEDO	Medina	62.27	320	P	P	21 54 20.0	-0.6
MEDO				IAmb	IAmb	21 54 29.6	
	comp=Z,319nm,1.0s						
CRAR	CRAIOVA	62.27	39	P	P	21 54 20.5	-0.1
CRAR	CRAIOVA	62.27	39	⇓P	P	21 54 20.6	-0.1
V53A	Saluda	62.27	310	P	P	21 54 20.7	-0.3
V53A				IAmb	IAmb	21 54 32.9	
	comp=Z,298nm,1.4s						
V53A				IAMs_20	IAMs_20	22 15 06.8	
	comp=Z,120µm,21.0s						
IVI	Ivigtut	62.31	349	P	P	21 54 20.6	0.0
IVI	Ivigtut	62.31	349	*i* P	P	21 54 21.6	+1.0
IVI				IAmb	IAmb	21 54 29.4	
	comp=Z,614nm,1.5s						
IVI	Ivigtut	62.31	349	P	P	21 54 22.9	+2.4
	comp=Z,19µmcomp=Z,263nm,1.5s						
PAOC	Oil Creek Stat	62.33	318	P	P	21 54 20.6	-0.5
LRW	Lerwick	62.34	14	⇑P	P	21 54 20.2	-0.6
LRW	Lerwick	62.34	14	*e*P	P	21 54 20.4	-0.4
LRW				IAMs_20	IAMs_20	22 13 19.5	
	comp=Z,106µm,36.7s						
PLVB	Pleven	62.34	40	⇑P	P	21 54 20.9	-0.3
PAMR	Moraine State	62.37	317	P	P	21 54 21.0	-0.4
PAMR				IAmb	IAmb	21 54 46.0	
	comp=Z,558nm,1.6s						
DELO	Deloro Mine	62.38	321	P	P	21 54 21.0	-0.3
DELO				IAmb	IAmb	21 54 30.5	
	comp=Z,235nm,1.1s						
LNIZ	Loecknitz	62.45	26	P	P	21 54 22.1	+0.5
	comp=Z,21µmcomp=Z,8µmcomp=Z,471nm,1.6s						
BORR	Bors	62.46	35	⇓P	P	21 54 22.1	+0.2
KECS	Kecovo	62.49	34	*e*P	P	21 54 22.4	+0.4
KECS				pmax	pmax		
	comp=Z,57nm,1.1s						
KECS	Kecovo	62.49	34	*e*P	P	21 54 22.4	+0.4
KECS	Kecovo	62.49	34	P	P	21 54 22.8	+0.8
	comp=Z,932nmcomp=Z,41nm,1.1s						
DEV	Deva	62.49	37	P	P	21 54 21.9	-0.2
DEV	Deva	62.49	37	⇑P	P	21 54 22.0	-0.2
DEV	Deva	62.49	37	P	P	21 54 22.0	-0.2
	comp=Z,3µmcomp=Z,128nm,1.3s						
VLAD	Vladila	62.49	39	⇓P	P	21 54 22.0	-0.2
MUD	Monsted U'grnd	62.51	22	*i* P	P	21 54 21.2	-0.8
MUD				IAmb	IAmb	21 54 33.0	
	comp=Z,735nm,1.5s						
352A	Blakely	62.59	305	P	P	21 54 23.2	+0.2
Y52A	Lilburn	62.63	308	P	P	21 54 23.4	0.0
Y52A				IAmb	IAmb	21 54 29.4	
	comp=Z,495nm,1.3s						
Y52A				IAMs_20	IAMs_20	22 15 44.4	
	comp=Z,65µm,21.0s						
P53A	Whipple	62.66	315	P	P	21 54 23.0	-0.4
P53A				IAmb	IAmb	21 54 47.2	
	comp=Z,342nm,1.4s						
P53A				IAMs_20	IAMs_20	22 14 39.8	
	comp=Z,93µm,22.0s						
LTVH	Ltavrtes, Hu	62.68	35	⇑P	P	21 54 23.6	+0.3
LTVH	Ltavrtes, Hu	62.68	35	⇑P	P	21 54 23.7	+0.3
LTVH	Ltavrtes, Hu	62.68	35	P	P	21 54 23.8	+0.5
	comp=Z,7µmcomp=Z,199nm,1.8s						
ALLY	Alegheny Colle	62.70	317	P	P	21 54 23.2	-0.4
152A	Waverly Hall	62.78	307	P	P	21 54 23.8	-0.5
152A				IAmb	IAmb	21 54 36.4	
	comp=Z,295nm,1.4s						
152A				IAMs_20	IAMs_20	22 15 15.4	
	comp=Z,139µm,22.0s						
RGN	Rugen	62.78	25	P	P	21 54 22.9	-1.0
RGN				IAmb	IAmb	21 54 35.6	
	comp=Z,332nm,1.1s						
RGN	Rugen	62.78	25	P	P	21 54 24.6	+0.7
	comp=Z,23µmcomp=Z,7µmcomp=Z,322nm,1.7s						
BALY	Balya	62.78	45	P	P	21 54 23.9	-0.4
	comp=Z,76µmcomp=Z,15µmcomp=Z,682nm,2.0s						
LOT	Lotru	62.80	38	⇑P	P	21 54 23.9	-0.5
LOT	Lotru	62.80	38	P	P	21 54 23.9	-0.5
	comp=Z,26µmcomp=Z,3µmcomp=Z,155nm,1.4s						
ABAH	Abaujker	62.80	34	P	P	21 54 23.9	-0.2
ERPA	Erie	62.80	318	P	P	21 54 24.0	-0.3
ERPA				IAmb	IAmb	21 54 48.1	
	comp=Z,429nm,1.7s						
ERPA	Erie	62.80	318	⇑P	P	21 54 24.6	+0.3
N53A	Lisbon	62.82	316	P	P	21 54 23.8	-0.7
DRGR		62.84	36	P	P	21 54 24.1	-0.5
DRGR		62.84	36	⇑P	P	21 54 24.0	-0.5
DRGR		62.84	36	P	P	21 54 24.2	-0.4
	comp=Z,25µmcomp=Z,3µmcomp=Z,100nm,1.3s						
TAVA	DENIZLI_Tavas	62.84	48	⇓P	P	21 54 23.6	-1.2
O53A	New Philadelph	62.85	316	P	P	21 54 24.4	-0.3
POGA	Pongola	62.85	121	P	P	21 54 23.8	-1.1
POGA	Pongola	62.85	121	⇑P	P	21 54 24.1	-0.8
POGA	Pongola	62.85	121	P	P	21 54 24.4	-0.5
	comp=Z,56µmcomp=Z,14µmcomp=Z,581nm,1.7s						
POGA	Pongola	62.85	121	P	P	21 54 24.4	-0.5
POGA				S	S	22 03 01.0	+5.6
SCHQ	Schefferville	62.86	335	P	P	21 54 24.5	+0.1
	comp=Z,21nm,0.7s,baz=120,slow=4.9,SNR=17						
SCHQ				LR	LR	22 17 35.2	
	comp=Z,73µm,21.1s,baz=136,slow=32						
SCHQ				PKP2bc	P'P'bc	22 23 35.6	+1.9
	comp=Z,15nm,1.0s,baz=250,slow=6.0,SNR=5.1						
	comp=Z,21nm,0.7s						
SCHQ	Schefferville	62.86	335	P	P	21 54 23.7	-0.7
SCHQ				IAmb	IAmb	21 54 39.7	
	comp=Z,662nm,1.9s						
LLD	Lille Linde	62.87	24	*i* P	P	21 54 24.1	-0.3
LLD				IAmb	IAmb	21 54 35.7	
	comp=Z,447nm,1.2s						
NIE	Niedzica	62.91	33	*e*P	P	21 54 25.3	+0.4
NIE	Niedzica	62.91	33	P	P	21 54 24.8	-0.1
	comp=Z,2µmcomp=Z,63nm,1.3s						
AKAS	Kas	62.92	49	P	P	21 54 23.8	-1.5
AKAS	Kas	62.92	49	P	P	21 54 24.7	-0.6
	comp=Z,32µmcomp=Z,2µm,1.0s						
BALB	Balikesir	62.93	45	P	P	21 54 23.9	-1.2
BALB				IAmb	IAmb	21 54 30.2	
	comp=Z,331nm,1.2s						
BALB	Balikesir	62.93	45	⇑P	P	21 54 24.6	-0.6
TEIG	Tepich	62.93	292	P	P	21 54 24.8	-0.7
TEIG				IAmb	IAmb	21 54 35.0	
	comp=Z,408nm,1.4s						
TEIG	Tepich	62.93	292	P	P	21 54 31.3	+5.8
TEIG	Tepich	62.93	292	⇓P	P	21 54 25.6	+0.1
TEIG	Tepich	62.93	292	P	P	21 54 28.1	+2.6
	comp=Z,23µmcomp=Z,7µmcomp=Z,273nm,1.9s						
W52A	Murphy	62.93	309	P	P	21 54 25.2	-0.1
W52A				IAMs_20	IAMs_20	22 15 36.3	
	comp=Z,99µm,21.0s						
MANT	Manisa	62.97	47	P	P	21 54 24.2	-1.6
MANT				IAmb	IAmb	21 54 30.7	
	comp=Z,383nm,1.2s						
ORCD	Orcadas	62.99	190	P	P	21 54 23.9	-1.1
TKL	Tuckaleechee C	63.01	310	LR	LR	22 15 39.9	
	comp=Z,114µm,21.8s,baz=118,slow=30						
TKL	Tuckaleechee C	63.01	310	P	P	21 54 25.8	0.0
TKL				pmax	pmax		
	comp=Z,149nm,1.2s						
TKL	Tuckaleechee C	63.01	310	P	P	21 54 25.8	0.0
TKL	Tuckaleechee C	63.01	310	⇑P	P	21 54 26.4	+0.7
451A	Vernon	63.02	304	P	P	21 54 26.1	+0.2
GO08	Villa O'Higgin	63.02	212	P	P	21 54 25.3	-0.3
GO08				IAmb	IAmb	21 54 49.8	
	comp=Z,368nm,1.8s						
GO08				IAMs_20	IAMs_20	22 22 43.3	
	comp=Z,91µm,19.0s						
GO08	Villa O'Higgin	63.02	212	P	P	21 54 27.7	+2.0
	comp=Z,32µmcomp=Z,99nm,1.7s						
MARR	Marisel-Cluj	63.03	36	⇓P	P	21 54 24.5	-1.3
COPA	Copaceanca	63.08	40	⇓P	P	21 54 25.7	-0.3
OJC	Ojcow	63.10	32	*e*P	P	21 54 26.1	0.0
OJC	Ojcow	63.10	32	P	P	21 54 25.4	-0.7
OJC	Ojcow	63.10	32	P	P	21 54 25.4	-0.7
OJC	Ojcow	63.10	32	⇑P	P	21 54 25.9	-0.2
OJC	Ojcow	63.10	32	P	P	21 54 25.8	-0.3
	comp=Z,4µmcomp=Z,164nm,2.0s						
OJC	Ojcow	63.10	32	P	P	21 54 26.1	0.0
	comp=Z,28µmcomp=Z,4µmcomp=Z,164nm,2.0s						
HUMR	Humele	63.11	39	⇑P	P	21 54 26.0	-0.2
HUMR	Humele	63.11	39	P	P	21 54 26.1	-0.2
	comp=Z,13µmcomp=Z,351nm,1.6s						
TZTN	Tazewell	63.14	311	P	P	21 54 25.9	-0.7
TZTN				IAmb	IAmb	21 54 33.5	
	comp=Z,499nm,1.6s						
TZTN				IAMs_20	IAMs_20	22 15 45.7	
	comp=Z,106µm,20.0s						
TZTN	Tazewell	63.14	311	⇑P	P	21 54 27.9	+1.2
TZTN	Tazewell	63.14	311	P	P	21 54 28.2	+1.5
	comp=Z,33µmcomp=Z,7µmcomp=Z,201nm,1.6s						
MTO3	Montecristo	63.14	286	P	P	21 54 26.1	-1.2
MTO3				IAmb	IAmb	21 54 36.1	
	comp=Z,498nm,1.6s						
CEI	Carei	63.16	35	P	P	21 54 26.4	-0.1
CEI	Carei	63.16	35	⇓P	P	21 54 26.4	-0.1
MESR	Meseseni	63.17	36	⇑P	P	21 54 26.5	-0.1
COP	Copenhagen	63.21	24	*i* P	P	21 54 27.3	+0.7
COP				IAmb	IAmb	21 54 38.1	
	comp=Z,1µm,1.3s						
COP	Copenhagen	63.21	24	P	P	21 54 27.5	+0.9
	comp=Z,13µmcomp=Z,632nm,2.0s						
TNR	Turnu Rosu	63.21	38	P	P	21 54 26.9	-0.1
TNR	Turnu Rosu	63.21	38	⇑P	P	21 54 26.4	-0.5
O52A	Adamsville	63.23	315	P	P	21 54 27.3	+0.1
P52A	Corning	63.25	315	P	P	21 54 27.3	0.0
P52A				IAmb	IAmb	21 54 36.4	
	comp=Z,214nm,1.1s						
STFAR	Stefanesti-Arg	63.26	39	⇑P	P	21 54 27.0	-0.2
SNART	Snartemo	63.27	19	*e*P	P	21 54 26.9	-0.1
SNART				IVmB		21 54 33.4	
	comp=Z,2µm,3.1s						
SNART				*e*S	S	22 03 00.0	+0.6
SNART				IVMs_BB	IVMs_BB	22 15 53.7	
	comp=Z,12µm,27.1s						
SNART	Snartemo	63.27	19	*i* P	P	21 54 26.9	-0.1
ARR	Arges	63.29	38	⇑P	P	21 54 27.3	-0.3
ARR	Arges	63.29	38	P	P	21 54 27.4	-0.2
	comp=Z,27µmcomp=Z,5µmcomp=Z,184nm,1.9s						
ELL	Elmali	63.33	49	P	P	21 54 27.4	-0.7
ELL				pmax	pmax		
	comp=Z,531nm,1.2s						
ELL	Elmali	63.33	49	P	P	21 54 27.4	-0.7
ELL	Elmali	63.33	49	⇑P	P	21 54 28.2	+0.1
CJR	Cluj-Napoca	63.33	36	P	P	21 54 27.5	-0.2
CJR	Cluj-Napoca	63.33	36	⇑P	P	21 54 27.6	-0.2
KMY	Karmoy	63.34	18	*e*P	P	21 54 26.5	-1.0
KMY				IVmB		21 54 35.8	
	comp=Z,3µm,1.8s						
KMY				*e*S	S	22 03 00.1	-0.2
KMY				IVMs_BB	IVMs_BB	22 15 43.6	
	comp=Z,17µm,20.7s						
BAND	Balkesir-Ban	63.37	44	⇑P	P	21 54 27.3	-0.7
PAYG	Puerto Ayora	63.41	269	P	P	21 54 28.2	-0.6
PAYG	Puerto Ayora	63.41	269	P	P	21 54 29.9	+1.1
	comp=Z,11µmcomp=Z,8µmcomp=Z,358nm,1.9s						
PAYG	Puerto Ayora	63.41	269	P	P	21 54 32.0	+3.1
	comp=Z,10µmcomp=Z,8µmcomp=Z,363nm,1.9s,comp=Z,8µm						
STHS	Stebnicka Huta	63.42	33	*e*P	P	21 54 28.2	-0.1
STHS				pmax	pmax		
	comp=Z,31nm,1.1s						
STHS	Stebnicka Huta	63.42	33	*e*P	P	21 54 28.2	-0.1
TRPA	Tarpa	63.45	35	P	P	21 54 28.0	-0.4
	comp=Z,21µmcomp=Z,5µmcomp=Z,200nm,2.0s						
SADO	Sadowa	63.45	321	LR	LR	22 16 09.1	
	comp=Z,76µm,21.1s,baz=138,slow=30						
SADO	Sadowa	63.45	321	P	P	21 54 27.9	-0.6
SADO				IAmb	IAmb	21 54 37.5	
	comp=Z,501nm,1.7s						
M52A	Chesterland	63.48	317	P	P	21 54 27.7	-1.1
M52A				IAmb	IAmb	21 54 53.4	
	comp=Z,649nm,1.9s						
X51A	Calhoun	63.48	309	P	P	21 54 28.6	-0.3
X51A				IAMs_20	IAMs_20	22 15 39.9	
	comp=Z,82µm,22.0s						
CPCT	Cooper Cave	63.51	310	P	P	21 54 28.5	-0.6
CPCT				IAmb	IAmb	21 54 41.0	
	comp=Z,246nm,1.3s						
OVD	Ostervraa, Den	63.54	21	*i* P	P	21 54 28.6	-0.2
OVD				IAmb	IAmb	21 54 39.9	
	comp=Z,636nm,1.3s						
S51A	Beattyville	63.56	312	P	P	21 54 28.7	-0.7
S51A				IAmb	IAmb	21 54 39.2	
	comp=Z,361nm,1.5s						
S51A				IAMs_20	IAMs_20	22 15 39.7	
	comp=Z,121µm,22.0s						
UZHM	Uzhgorod	63.57	34	P	P	21 54 28.8	-0.4
VOIR		63.58	38	P	P	21 54 28.8	-0.7
VOIR		63.58	38	⇓P	P	21 54 28.9	-0.7
VOIR		63.58	38	P	P	21 54 28.8	-0.7
	comp=Z,5µmcomp=Z,173nm,1.3s						
VOIR		63.58	38	P	P	21 54 29.2	-0.3
	comp=Z,29µmcomp=Z,5µmcomp=Z,172nm,1.4s						
LUNU	Lund	63.58	24	*i* P	P	21 54 29.0	-0.1
LOZB	Loznitsa	63.62	41	⇑P	P	21 54 28.9	-0.7
RAZG	Razgrad	63.65	41	⇓P	P	21 54 29.2	-0.7
HOMB	Homborsund	63.65	20	*e*P	P	21 54 29.3	-0.2
HOMB				IVmB_BB		21 54 45.5	
	comp=Z,3µm,2.4s						
HOMB				*e*S	S	22 03 07.0	+2.8
HOMB				IVMs_BB	IVMs_BB	22 14 26.5	
	comp=Z,14µm,43.5s						
HOMB	Homborsund	63.65	20	*i* P	P	21 54 29.6	0.0
GKP	Gorka Klasztor	63.68	28	*e*P	P	21 54 30.1	+0.2
KOLS	Kolonicke sedl	63.72	34	*e*P	P	21 54 30.0	-0.3
KOLS				pmax	pmax		
	comp=Z,22nm,1.2s						
KOLS	Kolonicke sedl	63.72	34	*e*P	P	21 54 30.0	-0.3
KOLS	Kolonicke sedl	63.72	34	P	P	21 54 30.2	-0.1
	comp=Z,567nmcomp=Z,62nm,0.9s						
BMR	Baia Mare	63.76	35	P	P	21 54 30.1	-0.4
BMR	Baia Mare	63.76	35	⇑P	P	21 54 30.2	-0.4
BMR	Baia Mare	63.76	35	P	P	21 54 30.1	-0.4
	comp=Z,20µmcomp=Z,5µmcomp=Z,121nm,1.2s						
TGMR	Targu Mures	63.79	37	⇑P	P	21 54 30.5	-0.2
250A	Grady	63.83	305	P	P	21 54 31.7	+0.4
BORG	Borgarnes	63.84	3	LR	LR	22 16 49.7	
	comp=Z,10µm,18.7s,baz=178,slow=31						
BORG	Borgarnes	63.84	3	P	P	21 54 30.1	-0.6
BORG				pmax	pmax		
	comp=Z,417nm,1.6s						
BORG	Borgarnes	63.84	3	P	P	21 54 30.1	-0.6
BORG				IAmb	IAmb	21 54 51.7	
	comp=Z,417nm,1.6s						
BORG	Borgarnes	63.84	3	P	P	21 54 31.4	+0.7
	comp=Z,181nm,1.9s						
BSD	Bornholm Skovb	63.84	25	⇑P	P	21 54 30.5	-0.4
BSD	Bornholm Skovb	63.84	25	*i* P	P	21 54 30.1	-0.8
BSD				IAmb	IAmb	21 54 39.1	
	comp=Z,124nm,1.0s						
BSD	Bornholm Skovb	63.84	25	P	P	21 54 30.8	-0.1
	comp=Z,3µmcomp=Z,142nm,2.1s						
P51A	Williamsport	63.85	314	P	P	21 54 31.0	-0.3
P51A				IAmb	IAmb	21 54 40.6	
	comp=Z,311nm,1.3s						
BLS5	Blasjo	63.88	18	*e*P	P	21 54 30.7	-0.4
BLS5				IVmB_BB		21 54 46.6	
	comp=Z,3µm,3.5s						
BLS5				*e*S	S	22 03 06.8	-0.3
BLS5				IVMs_BB	IVMs_BB	22 16 11.0	
	comp=Z,16µm,20.1s						
Q51A	Peebles	63.89	314	P	P	21 54 31.4	-0.2
Q51A				IAMs_20	IAMs_20	22 15 52.4	
	comp=Z,105µm,22.0s						
N51A	Ashland	63.93	316	P	P	21 54 31.4	-0.4
N51A				IAmb	IAmb	21 54 56.5	
	comp=Z,423nm,1.4s						
BUKO	Buck Lake	63.93	322	P	P	21 54 31.1	-0.6
BUKO				IAmb	IAmb	21 54 43.3	
	comp=Z,394nm,1.6s						
CTYL	Yalikoy Yolu	63.95	43	P	P	21 54 31.2	-0.7
	comp=Z,4µmcomp=Z,193nm,1.1s						
ARCR	ARCALIA	63.96	36	⇑P	P	21 54 31.4	-0.5
SULR		63.98	39	P	P	21 54 31.8	-0.2
	comp=Z,10µmcomp=Z,380nm,2.2s						
NEF	NEVSHA	64.02	41	*i* P	P	21 54 31.3	-1.0
W50A	Signal Mountai	64.04	309	P	P	21 54 32.5	-0.1
W50A				IAmb	IAmb	21 54 38.5	
	comp=Z,366nm,1.3s						
W50A				IAMs_20	IAMs_20	22 16 19.6	
	comp=Z,84µm,21.0s						
DOPR	Dopca	64.04	38	⇑P	P	21 54 32.4	-0.1
FPAL	Fort Paine	64.06	308	P	P	21 54 32.6	-0.3
FPAL				IAmb	IAmb	21 54 38.7	
	comp=Z,308nm,1.3s						
VLDQ	Val d'Or	64.08	325	P	P	21 54 33.4	+0.8
ACSO	Alum Creek Sta	64.08	315	P	P	21 54 32.1	-0.7
ACSO				IAmb	IAmb	21 54 42.1	
	comp=Z,239nm,1.1s						
ACSO				IAMs_20	IAMs_20	22 16 09.3	
	comp=Z,56µm,21.0s						
ACSO	Alum Creek Sta	64.08	315	⇓P	P	21 54 33.3	+0.5
MG02	Cerro Sombrero	64.10	207	IAMs_20	IAMs_20	22 18 23.5	
	comp=Z,117µm,20.0s						
ISP	Isparta	64.16	48	*ce*P	P	21 54 32.8	-0.7
ISP				pmax	pmax		
	comp=Z,190nm,1.0s						
ISP	Isparta	64.16	48	P	P	21 54 32.1	-1.5
ISP				IAmb	IAmb	21 54 38.5	
	comp=Z,351nm,1.3s						
MLR	Muntele Rosu	64.16	39	LR	LR	22 23 25.5	
	comp=Z,46µm,21.9s,baz=256,slow=37						
MLR	Muntele Rosu	64.16	39	P	P	21 54 32.7	-0.7
MLR	Muntele Rosu	64.16	39	P	P	21 54 32.1	-1.3
MLR	Muntele Rosu	64.16	39	⇑P	P	21 54 32.8	-0.7
MLR	Muntele Rosu	64.16	39	P	P	21 54 32.5	-0.9
	comp=Z,5µmcomp=Z,340nm,1.4s						
MLR	Muntele Rosu	64.16	39	P	P	21 54 32.8	-0.6
	comp=Z,26µmcomp=Z,5µmcomp=Z,339nm,1.4s						
KMBO	Kilima Mbogo	64.18	92	P	P	21 54 35.5	+1.2
	baz=268,slow=7.2						
KMBO				LR	LR	22 20 01.9	
	comp=Z,7µm,20.3s,baz=264,slow=34						
KMBO	Kilima Mbogo	64.18	92	*i* P	P	21 54 34.7	+0.5
ONAU	Onsala	64.23	22	*i* P	P	21 54 31.7	-1.7
FABU	Falkenberg	64.25	23	*i* P	P	21 54 32.6	-0.9
BOSR	Bodos	64.26	38	⇑P	P	21 54 33.9	0.0
CICN	Ciocanesti	64.26	40	⇓P	P	21 54 33.1	-0.8
APG	El Apazote	64.27	286	LR	LR	22 21 09.4	
	comp=Z,3µm,21.5s,baz=96,slow=35						
T50A	Nancy	64.28	311	P	P	21 54 34.4	+0.2
T50A				IAmb	IAmb	21 54 46.4	
	comp=Z,269nm,1.4s						
T50A				IAMs_20	IAMs_20	22 16 21.7	
	comp=Z,106µm,21.0s						
BER	Bergen	64.31	17	*e*P	P	21 54 33.5	-0.3
BER				IVmB		21 54 49.1	
	comp=Z,2µm,2.3s						
BER				*e*S	S	22 03 13.2	+0.9
BER				IVMs_BB	IVMs_BB	22 16 56.2	
	comp=Z,23µm,18.9s						
BER	Bergen	64.31	17	P	P	21 54 38.3	+4.5
	comp=Z,20µmcomp=Z,3µmcomp=Z,118nm,1.7s						
ODD1	Odda	64.32	18	*e*P	P	21 54 34.0	0.0
ODD1				IVmB_BB		21 54 49.9	
	comp=Z,4µm,2.5s						
ODD1				*e*S	S	22 03 12.4	-0.2
ODD1				IVMs_BB	IVMs_BB	22 16 23.1	
	comp=Z,17µm,23.4s						
R50A	Paris	64.33	313	P	P	21 54 34.3	-0.2
R50A				IAmb	IAmb	21 54 40.4	
	comp=Z,282nm,1.2s						
R50A				IAMs_20	IAMs_20	22 16 04.1	
	comp=Z,123µm,22.0s						
DEL	Delary	64.34	24	*i* P	P	21 54 33.7	-0.4
KWP	Kalwaria Pacla	64.34	33	*e*P	P	21 54 33.3	-1.0
KWP	Kalwaria Pacla	64.34	33	⇑P	P	21 54 33.8	-0.5
KWP	Kalwaria Pacla	64.34	33	P	P	21 54 33.8	-0.5
	comp=Z,4µmcomp=Z,124nm,1.5s						
YLV	Yalova	64.34	45	P	P	21 54 33.1	-1.5
	comp=Z,5µmcomp=Z,249nm,1.2s						
ASK	Askoy	64.35	17	*e*P	P	21 54 33.5	-0.6
ASK				IVmB		21 54 50.8	
	comp=Z,3µm,2.8s						
ASK				*e*S	S	22 03 12.8	+0.1
ASK				IVMs_BB	IVMs_BB	22 16 57.5	
	comp=Z,27µm,17.3s						
OZUR		64.35	38	⇑P	P	21 54 34.5	0.0
ISR	Istrita	64.37	39	P	P	21 54 34.2	-0.4
ISR	Istrita	64.37	39	⇑P	P	21 54 34.3	-0.4
ISR	Istrita	64.37	39	P	P	21 54 33.9	-0.7
	comp=Z,314nm,1.4s						
DSPA	Despedida	64.47	206	P	P	21 54 34.8	-0.2
TURR	Turia	64.47	38	⇑P	P	21 54 35.2	-0.1
Y49A	Blount Mountai	64.49	307	P	P	21 54 35.6	0.0
Y49A				IAMs_20	IAMs_20	22 16 19.6	
	comp=Z,77µm,21.0s						
COVR	Voineasa-Covas	64.49	38	⇑P	P	21 54 34.4	-1.0
SWET	Sewanee	64.53	309	P	P	21 54 35.6	-0.3
SWET				IAmb	IAmb	21 54 41.6	
	comp=Z,472nm,1.2s						
BEL	Belsk	64.55	31	*e*P	P	21 54 36.0	+0.4
BEL	Belsk	64.55	31	P	P	21 54 36.2	+0.6
	comp=Z,1800µmcomp=Z,497µmcomp=Z,20µm,1.5s						
TJOU	Tjoern	64.58	22	*i* P	P	21 54 35.7	+0.1
M50A	Fremont	64.58	316	P	P	21 54 36.2	+0.1
M50A				IAmb	IAmb	21 54 45.1	
	comp=Z,209nm,0.9s						
M50A				IAMs_20	IAMs_20	22 17 26.5	
	comp=Z,52µm,20.0s						
AMRR	Amara	64.64	40	P	P	21 54 35.7	-0.6
AMRR	Amara	64.64	40	⇑P	P	21 54 35.7	-0.6
KEPZ	Antalya-Kepez	64.66	49	⇑P	P	21 54 35.7	-1.0
SUE	Sulen	64.69	16	*e*P	P	21 54 35.8	-0.5
SUE				IVmB		21 54 47.3	
	comp=Z,3µm,2.6s						
SUE				*e*S	S	22 03 18.9	+2.0
SUE				IVMs_BB	IVMs_BB	22 14 51.3	
	comp=Z,21µm,38.2s						
LRAL	Lakeview Retre	64.72	306	P	P	21 54 37.0	-0.1
LRAL	Lakeview Retre	64.72	306	⇓P	P	21 54 37.4	+0.3
ICOR	Ion Corvin	64.73	41	⇓P	P	21 54 36.2	-0.7
SAHR	Sahastru	64.73	39	⇑P	P	21 54 36.2	-0.8
BURAR	Bucovina Array	64.73	36	P	P	21 54 36.8	-0.2
BURAR	Bucovina Array	64.73	36	P	P	21 54 35.9	-1.2
BURAR	Bucovina Array	64.73	36	⇑P	P	21 54 36.8	-0.2
BUR08	Bucovina Ar. S	64.74	36	P	P	21 54 36.3	-0.8
PLOR	Plostina	64.77	38	P	P	21 54 35.8	-1.4
PLOR	Plostina	64.77	38	⇓P	P	21 54 35.8	-1.4
U49A	Red Boiling Sp	64.82	310	P	P	21 54 37.9	+0.2
U49A				IAmb	IAmb	21 54 43.5	
	comp=Z,425nm,1.3s						
U49A				IAMs_20	IAMs_20	22 16 26.2	
	comp=Z,124µm,22.0s						
VRI	Vrincioaia	64.82	38	P	P	21 54 36.1	-1.4
VRI	Vrincioaia	64.82	38	⇑P	P	21 54 36.2	-1.4
VRI	Vrincioaia	64.82	38	P	P	21 54 36.6	-1.0
	comp=Z,5µmcomp=Z,279nm,1.1s						
VRI	Vrincioaia	64.82	38	P	P	21 54 36.1	-1.4
	comp=Z,26µmcomp=Z,5µmcomp=Z,279nm,1.1s						
ONER	Baraj Valea Uz	64.83	38	⇓P	P	21 54 37.3	-0.3
K50A	Casco	64.85	318	P	P	21 54 37.5	-0.2
K50A				IAMs_20	IAMs_20	22 17 27.3	
	comp=Z,56µm,20.0s						
BORA	Eskisehir	64.85	46	P	P	21 54 36.6	-1.4
BORA				IAmb	IAmb	21 54 54.1	
	comp=Z,224nm,1.2s						
BIZ	Bicaz	64.94	37	⇑P	P	21 54 38.2	-0.1
R9F13	Warsaw-Wawer	64.95	30	*e*P	P	21 54 38.3	+0.1
R9F13				*e*S	S	22 03 17.6	-2.9
ODBI	Odobesti	64.98	39	⇓P	P	21 54 37.9	-0.7
KIBK	Kibwezi	65.01	93	P	P	21 54 39.5	0.0
KIBK	Kibwezi	65.01	93	P	P	21 54 40.0	+0.5
	SNR=24						
KIBK	Kibwezi	65.01	93	P	P	21 54 37.7	-1.7
KIBK	Kibwezi	65.01	93	P	P	21 54 40.5	+1.0
	comp=Z,7µmcomp=Z,2µmcomp=Z,124nm,2.4s						
BLEU	Blekinge	65.02	25	*i* P	P	21 54 37.4	-1.1

O49A	Covington	65.03	315	P	P	21 54 38.6	-0.4
O49A				IAmb	IAmb	21 54 48.0	
	comp=Z,341nm,1.5s						
O49A				IAMs_20	IAMs_20	22 16 27.3	
	comp=Z,73µm,22.0s						
HARR	Harsova	65.06	40	P	P	21 54 38.1	-0.9
HARR	Harsova	65.06	40	⇑P	P	21 54 38.2	-0.9
KONO	Kongsberg	65.07	19	ceP	P	21 54 37.9	-0.9
KONO				pmax	pmax		
	comp=Z,278nm,1.7s						
KONO	Kongsberg	65.07	19	eP	P	21 54 37.3	-1.5
KONO				IVmB_BB		21 54 54.2	
	comp=Z,3µm,2.1s						
KONO				eS	S	22 03 22.3	+0.6
KONO				IVMs_BB	IVMs_BB	22 16 45.3	
	comp=Z,14µm,26.7s						
KONO	Kongsberg	65.07	19	P	P	21 54 38.4	-0.5
KONO				IAmb	IAmb	21 54 55.2	
	comp=Z,353nm,1.6s						
KONO	Kongsberg	65.07	19	⇑P	P	21 54 38.5	-0.4
KONO	Kongsberg	65.07	19	P	P	21 54 39.4	+0.6
	comp=Z,22µmcomp=Z,3µmcomp=Z,136nm,2.1s						
TESR	Tescani	65.07	38	⇑P	P	21 54 38.1	-1.0
TESR	Tescani	65.07	38	P	P	21 54 38.2	-1.0
	comp=Z,21µmcomp=Z,4µmcomp=Z,169nm,0.8s						
TLBR	Topalu	65.07	40	⇑P	P	21 54 38.2	-1.0
PANC	Panciu	65.09	39	⇑P	P	21 54 37.9	-1.4
CLTN	Cedars of Leba	65.11	310	P	P	21 54 38.5	-1.1
KZIT	Kziot	65.12	56	⇑P	P	21 54 38.8	-1.0
KZIT	Kziot	65.12	56	P	P	21 54 39.0	-0.8
	comp=Z,19µmcomp=Z,6µmcomp=Z,225nm,1.3s						
KZIT	Kziot	65.12	56	P	P	21 54 39.1	-0.8
	comp=Z,19µmcomp=Z,6µmcomp=Z,226nm,1.3s						
USHA	Ushuaia	65.14	205	LR	LR	22 18 57.2	
	comp=Z,139µm,20.6s,baz=56,slow=32						
STRU	Stroemstad	65.15	21	i P	P	21 54 39.2	-0.2
X48A	Hartselle	65.17	308	P	P	21 54 39.8	-0.2
X48A				IAmb	IAmb	21 54 45.4	
	comp=Z,276nm,1.4s						
X48A				IAMs_20	IAMs_20	22 16 42.5	
	comp=Z,73µm,22.0s						
GO10	Punta Arenas	65.18	208	P	P	21 54 38.8	-1.0
GIRR	Girov	65.19	37	⇓P	P	21 54 38.9	-1.0
HYA	Hoyanger	65.19	17	eP	P	21 54 39.8	+0.2
HYA				IVmB_BB		21 54 55.4	
	comp=Z,4µm,2.0s						
HYA				eS	S	22 03 23.6	+0.5
HYA				IVMs_BB	IVMs_BB	22 17 20.6	
	comp=Z,27µm,19.8s						
N49A	Columbus Grove	65.19	315	P	P	21 54 40.0	0.0
N49A				IAMs_20	IAMs_20	22 16 31.6	
	comp=Z,62µm,21.0s						
FOO	Floro	65.21	16	eP	P	21 54 40.1	+0.4
FOO				IVmB_BB		21 54 55.4	
	comp=Z,4µm,2.1s						
FOO				eS	S	22 03 24.8	+1.4
FOO				IVMs_BB	IVMs_BB	22 16 04.5	
	comp=Z,23µm,25.5s						
PRAR	RASCA	65.22	37	⇑P	P	21 54 39.6	-0.5
TIRR	Tirgusor	65.27	40	P	P	21 54 39.6	-0.9
TIRR	Tirgusor	65.27	40	P	P	21 54 39.1	-1.3
TIRR				IAmb	IAmb	21 54 55.4	
	comp=Z,422nm,1.6s						
TIRR	Tirgusor	65.27	40	⇑P	P	21 54 39.5	-0.9
TIRR	Tirgusor	65.27	40	⇑P	P	21 54 39.6	-0.9
TIRR	Tirgusor	65.27	40	P	P	21 54 39.5	-0.9
	comp=Z,4µmcomp=Z,148nm,1.4s						
TIRR	Tirgusor	65.27	40	P	P	21 54 39.8	-0.7
	comp=Z,21µmcomp=Z,4µmcomp=Z,148nm,1.4s						
EIL	Elat	65.28	58	LR	LR	22 22 15.8	
	comp=Z,24µm,21.3s,baz=269,slow=35						
EIL	Elat	65.28	58	⇑P	P	21 54 39.9	-1.0
EIL	Elat	65.28	58	P	P	21 54 40.1	-0.7
	comp=Z,17µmcomp=Z,5µmcomp=Z,184nm,1.3s						
EIL	Elat	65.28	58	P	P	21 54 40.1	-0.7
	comp=Z,17µmcomp=Z,5µmcomp=Z,184nm,1.3s						
TUDR		65.29	39	⇓P	P	21 54 40.1	-0.4
IZVR	Izvoarele	65.33	39	⇑P	P	21 54 39.9	-0.9
GHRR		65.33	38	⇑P	P	21 54 39.4	-1.4
GHRR		65.33	38	P	P	21 54 39.3	-1.5
GHRR		65.33	38	P	P	21 54 39.6	-1.2
	comp=Z,21µmcomp=Z,7µmcomp=Z,310nm,1.7s						
SCHLR	Schela	65.34	39	⇑P	P	21 54 39.1	-1.8
SCHL	Schela	65.35	39	⇑P	P	21 54 39.3	-1.6
AAM	Ann Arbor	65.36	317	P	P	21 54 40.7	-0.4
AAM				pmax	pmax		
	comp=Z,998nm,2.0s						
AAM				MLR	MLR		
	comp=Z,53µm,20.0s						
AAM	Ann Arbor	65.36	317	P	P	21 54 40.7	-0.4
AAM				IAMs_20	IAMs_20	22 17 29.9	
	comp=Z,53µm,20.0s						
MG03	Isla Dawson	65.36	207	P	P	21 54 39.7	-1.1
MG03				IAmb	IAmb	21 54 48.3	
	comp=Z,239nm,1.1s						
MG03				IAMs_20	IAMs_20	22 20 28.8	
	comp=Z,101µm,19.0s						
AQBJ	Aqaba	65.38	58	P	P	21 54 40.9	-0.6
	comp=Z,48µmcomp=Z,12µmcomp=Z,394nm,1.4s						
V48A	Smith Brothers	65.38	309	P	P	21 54 40.9	-0.5
V48A				IAmb	IAmb	21 54 46.8	
	comp=Z,311nm,1.2s						
V48A				IAMs_20	IAMs_20	22 17 01.0	
	comp=Z,75µm,21.0s						
CSS	Mathiatis	65.38	52	P	P	21 54 40.0	-1.4
CSS				IAmb	IAmb	21 54 46.2	
	comp=Z,322nm,1.1s						
CSS	Mathiatis	65.38	52	⇑P	P	21 54 40.3	-1.1
CSS	Mathiatis	65.38	52	P	P	21 54 40.1	-1.4
	comp=Z,5µmcomp=Z,306nm,1.2s						
CSS	Mathiatis	65.38	52	P	P	21 54 40.6	-0.8
	comp=Z,22µmcomp=Z,5µmcomp=Z,307nm,1.2s						
CSS	Mathiatis	65.38	52	P	P	21 54 40.6	-0.8
	comp=Z,22µmcomp=Z,5µmcomp=Z,306nm,1.2s						
NEGRR	Negrea	65.40	39	⇑P	P	21 54 39.6	-1.7
CFR	Carcaliu	65.40	40	P	P	21 54 39.9	-1.4
CFR	Carcaliu	65.40	40	⇑P	P	21 54 39.9	-1.4
HRFI	Mount Harif	65.44	57	P	P	21 54 41.1	-0.8
	comp=Z,16µmcomp=Z,6µmcomp=Z,233nm,1.3s						
HRFI	Mount Harif	65.44	57	P	P	21 54 41.1	-0.8
	comp=Z,16µmcomp=Z,6µmcomp=Z,233nm,1.3s						
SKAR	Skarslia	65.44	18	eP	P	21 54 42.0	+0.7
SKAR				IVmB_BB		21 54 57.3	
	comp=Z,3µm,2.5s						
SKAR				eS	S	22 03 26.6	+0.1
SKAR				IVMs_BB	IVMs_BB	22 16 57.2	
	comp=Z,19µm,23.8s						
TPGR	Topolog	65.45	40	⇑P	P	21 54 40.7	-0.9
I49A	Point Hope	65.46	319	P	P	21 54 41.5	-0.2
I49A				IAmb	IAmb	21 54 50.5	
	comp=Z,260nm,0.9s						
I49A				IAMs_20	IAMs_20	22 17 46.4	
	comp=Z,83µm,20.0s						
PRNI	Paran	65.49	57	P	P	21 54 41.7	-0.5
	comp=Z,56µmcomp=Z,18µmcomp=Z,2µm,1.1s						
SAHE	Sakarya_HENDEK	65.49	45	⇑P	P	21 54 40.8	-1.3
TATR	Tatarca	65.53	39	⇓P	P	21 54 40.5	-1.6
VARL	Varlezi	65.54	39	⇑P	P	21 54 40.3	-1.9
P48A	Milroy	65.55	314	P	P	21 54 41.7	-0.7
P48A				IAmb	IAmb	21 55 06.6	
	comp=Z,404nm,1.7s						
P48A				IAMs_20	IAMs_20	22 16 54.3	
	comp=Z,105µm,21.0s						
MDUB	Mudurnu	65.60	45	P	P	21 54 41.6	-1.2
MDUB	Mudurnu	65.60	45	⇑P	P	21 54 42.0	-0.9
Z47A	Carrollton	65.63	306	P	P	21 54 43.2	+0.2
O48B	Farmland	65.64	314	P	P	21 54 42.5	-0.4
O48B				IAmb	IAmb	21 54 51.9	
	comp=Z,346nm,1.4s						
O48B				IAMs_20	IAMs_20	22 16 44.5	
	comp=Z,85µm,22.0s						
OSL	Oslo	65.66	20	eP	P	21 54 42.1	-0.5
OSL				eS	S	22 03 30.7	+1.7
OSL				IVMs_BB	IVMs_BB	22 17 02.2	
	comp=Z,13µm,28.0s						
AMAZ	Amatzia	65.71	56	⇑P	P	21 54 42.8	-0.8
AMAZ	Amatzia	65.71	56	P	P	21 54 43.1	-0.5
	comp=Z,17µmcomp=Z,7µmcomp=Z,453nm,1.3s						
NUUK	Nuuk	65.72	348	P	P	21 54 45.9	+2.9
	comp=Z,128nm,1.3s						
WCI	Wyandotte Cave	65.77	312	P	P	21 54 43.4	-0.4
WCI				pmax	pmax		
	comp=Z,288nm,1.3s						
WCI				MLR	MLR		
	comp=Z,126µm,21.0s						
WCI	Wyandotte Cave	65.77	312	P	P	21 54 43.4	-0.4
WCI				IAmb	IAmb	21 54 55.7	
	comp=Z,288nm,1.3s						
WCI	Wyandotte Cave	65.77	312	⇓P	P	21 54 44.3	+0.4
WCI	Wyandotte Cave	65.77	312	P	P	21 54 44.5	+0.7
	comp=Z,33µmcomp=Z,7µmcomp=Z,205nm,2.2s,comp=Z,7µm						
TLCR		65.84	40	P	P	21 54 43.2	-0.9
TLCR		65.84	40	⇑P	P	21 54 43.2	-0.9
KMPD	K-Podol'skiy	65.92	36	P	P	21 54 42.2	-2.4
MSBI	Mazada	66.02	56	⇑P	P	21 54 44.7	-0.8
MSBI	Mazada	66.02	56	P	P	21 54 45.0	-0.5
	comp=Z,5µmcomp=Z,1µmcomp=Z,56nm,1.1s						
MSBI	Mazada	66.02	56	P	P	21 54 45.0	-0.5
	comp=Z,21µmcomp=Z,5µmcomp=Z,225nm,1.1s						
HSNJ	Maan	66.04	57	P	P	21 54 45.6	-0.3
	comp=Z,17µmcomp=Z,793nm,0.9s						
SALP	Salfit	66.08	55	⇑P	P	21 54 45.4	-0.6
SALP	Salfit	66.08	55	P	P	21 54 45.6	-0.4
	comp=Z,7µmcomp=Z,324nm,1.1s						
LISJ	El Lisan	66.11	56	P	P	21 54 46.0	-0.1
	comp=Z,7µmcomp=Z,353nm,1.2s						
CY603	RAF Akrotiri,	66.12	53	P	P	21 54 44.8	-1.0
CY603				IAmb	IAmb	21 55 09.7	
	comp=Z,552nm,1.5s						
CY604	RAF Akrotiri,	66.13	53	P	P	21 54 45.0	-0.9
CY604				IAmb	IAmb	21 55 09.0	
	comp=Z,262nm,1.1s						
CY602	RAF Akrotiri,	66.14	53	P	P	21 54 45.5	-0.4
CY602				IAmb	IAmb	21 55 04.3	
	comp=Z,367nm,1.2s						
CY606	RAF Akrotiri,	66.14	53	P	P	21 54 45.6	-0.4
CY606				IAmb	IAmb	21 55 09.1	
	comp=Z,237nm,1.0s						
GHAJ	Ghor Haditha	66.19	56	P	P	21 54 45.5	-1.2
GHAJ				IAmb	IAmb	21 55 00.6	
	comp=Z,443nm,1.3s						
GHAJ	Ghor Haditha	66.19	56	P	P	21 54 46.2	-0.4
	comp=Z,21µmcomp=Z,6µmcomp=Z,269nm,1.4s						
GHAJ	Ghor Haditha	66.19	56	P	P	21 54 46.2	-0.4
	comp=Z,21µmcomp=Z,6µmcomp=Z,269nm,1.4s						
AKN	Aaknes	66.23	17	eP	P	21 54 46.5	+0.1
AKN				IVmB_BB		21 55 02.4	
	comp=Z,4µm,2.7s						
AKN				eS	S	22 03 35.9	0.0
AKN				IVMs_BB	IVMs_BB	22 15 36.0	
	comp=Z,23µm,31.0s						
N47A	Urbana	66.24	315	P	P	21 54 46.4	-0.4
N47A				IAmb	IAmb	21 54 51.9	
	comp=Z,278nm,1.3s						
BLO	Bloomington	66.25	313	P	P	21 54 46.2	-0.7
BLO				pmax	pmax		
	comp=Z,408nm,1.4s						
BLO	Bloomington	66.25	313	P	P	21 54 46.2	-0.7
BLO				IAmb	IAmb	21 54 56.3	
	comp=Z,408nm,1.4s						
UJAP	Al Uja	66.27	55	P	P	21 54 46.8	-0.3
	comp=Z,20µmcomp=Z,5µmcomp=Z,177nm,1.3s						
UJAP	Al Uja	66.27	55	P	P	21 54 46.8	-0.3
	comp=Z,20µmcomp=Z,5µmcomp=Z,177nm,1.3s						
WVT	Waverly	66.28	309	P	P	21 54 45.9	-1.2
WVT				pmax	pmax		
	comp=Z,286nm,1.4s						
WVT				MLR	MLR		
	comp=Z,80µm,21.0s						
WVT	Waverly	66.28	309	P	P	21 54 45.9	-1.2
WVT				IAmb	IAmb	21 54 58.2	
	comp=Z,286nm,1.4s						
WVT	Waverly	66.28	309	IAMs_20	IAMs_20	22 17 49.8	
	comp=Z,80µm,21.0s						
WVT	Waverly	66.28	309	⇓P	P	21 54 45.8	-1.3
WVT	Waverly	66.28	309	P	P	21 54 46.9	-0.2
	comp=Z,31µmcomp=Z,6µmcomp=Z,171nm,2.1s						
146A	Union	66.28	305	P	P	21 54 47.0	-0.3
346A	Big Creek Wild	66.30	304	P	P	21 54 47.5	+0.1
MMLI	Mount Malkishu	66.36	55	P	P	21 54 47.7	-0.1
	comp=Z,17µmcomp=Z,7µmcomp=Z,328nm,1.6s						
KKUL	Konya-Kulu	66.39	47	P	P	21 54 47.6	-0.4
	comp=Z,24µmcomp=Z,6µmcomp=Z,291nm,2.0s						
NAO01	NORSAR Array S	66.39	19	P	P	21 54 46.3	-1.1
NAO01				IAmb	IAmb	21 54 58.5	
	comp=Z,268nm,1.4s						
NAO01	NORSAR Array S	66.39	19	P	P	21 54 47.4	0.0
	comp=Z,4µmcomp=Z,1µmcomp=Z,48nm,1.5s,comp=Z,1µm						
QRNJ	Al-Qirein	66.46	55	P	P	21 54 48.2	-0.1
	comp=Z,11µmcomp=Z,140µmcomp=Z,18µm,1.0s						
NBO00	NORSAR Array S	66.50	19	P	P	21 54 47.1	-1.0
NBO00				IAmb	IAmb	21 54 59.3	
	comp=Z,238nm,1.2s						
J47A	Sunmer	66.51	318	P	P	21 54 48.2	-0.2
J47A				IAmb	IAmb	21 54 57.5	
	comp=Z,177nm,1.0s						
NC602	NORSAR Array S	66.53	19	eP	P	21 54 49.0	+0.8
NC602				IVmB		21 55 04.9	
	comp=Z,2µm,2.5s						
NC602				eS	S	22 03 41.5	+1.9
NC602				IVMs_BB	IVMs_BB	22 15 52.2	
	comp=Z,11µm,27.0s						
NC602	NORSAR Array S	66.53	19	P	P	21 54 46.9	-1.4
NORES	NORESS Array B	66.53	19	P	P	21 54 52.0	+3.7
NORES				pmax	pmax		
	comp=Z,12nm,0.8s						
SWQJ	Swaqa	66.59	56	P	P	21 54 49.8	+0.5
	comp=Z,223nmcomp=Z,27nm,1.1s						
NB2	NORSAR Subarra	66.65	19	P	P	21 54 48.8	-0.3
	comp=Z,458nm,2.0s,baz=221,slow=6.5						
NB2	NORSAR Subarra	66.65	19	P	P	21 54 48.8	-0.3
NOA	NORSAR Array B	66.65	19	P	P	21 54 49.0	-0.1
	comp=Z,19nm,0.9s,baz=222,slow=6.3,SNR=35						
NOA				LR	LR	22 19 18.7	
	comp=Z,21µm,21.9s,baz=220,slow=32						
	comp=Z,19nm,0.9s						
NC204	NORSAR Array S	66.68	19	P	P	21 54 49.1	-0.1
NC204				IAmb	IAmb	21 55 14.8	
	comp=Z,334nm,1.6s						
NB201	NORSAR Array S	66.68	19	P	P	21 54 48.6	-0.6
NB201				IAmb	IAmb	21 54 58.3	
	comp=Z,330nm,1.4s						
MOL	Molde	66.70	17	eP	P	21 54 49.7	+0.5
MOL				eS	S	22 03 42.4	+0.9
MOL				IVMs_BB	IVMs_BB	22 16 49.0	
	comp=Z,25µm,28.1s						
USIN	University of	66.71	311	P	P	21 54 49.5	-0.3
DOMB	Dombas	66.73	18	eP	P	21 54 49.6	+0.1
DOMB				IVmB_BB		21 55 05.8	
	comp=Z,2µm,2.3s						
DOMB				eS	S	22 03 41.8	-0.2
DOMB				IVMs_BB	IVMs_BB	22 17 32.5	
	comp=Z,28µm,23.4s						
GEM	Giv'at Ha'Em	66.75	54	⇑P	P	21 54 50.1	-0.1
GEM	Giv'at Ha'Em	66.75	54	P	P	21 54 50.3	0.0
DQRL	Deir Qamar	66.81	54	eP	P	21 54 50.3	-0.4
HFS	Hagfors	66.83	21	P	P	21 54 49.6	-0.6
	comp=Z,11nm,0.8s,baz=88,slow=11,SNR=7.9						
HFS				LR	LR	22 20 01.6	
	comp=Z,41µm,21.9s,baz=230,slow=32						
	comp=Z,11nm,0.8s						
NC303	NORSAR Array S	66.84	19	P	P	21 54 48.8	-1.4
NC303				IAmb	IAmb	21 55 01.7	
	comp=Z,263nm,1.4s						
545A	Edgard	66.84	302	P	P	21 54 50.0	-0.8
545A				IAMs_20	IAMs_20	22 23 02.2	
	comp=Z,96µm,19.0s						
SORM	Soroca	66.84	37	P	P	21 54 48.4	-2.1
SORM	Soroca	66.84	37	⇑P	P	21 54 48.5	-2.1
SORM	Soroca	66.84	37	P	P	21 54 48.3	-2.2
	comp=Z,4µmcomp=Z,163nm,2.4s						
SHBL	Chebaa	66.85	54	eP	P	21 54 50.6	-0.5
QRWL	Qaraoun	66.86	54	eP	P	21 54 50.5	-0.5
NC405	NORSAR Array S	66.87	19	P	P	21 54 49.5	-0.9
P46A	Rosedale	66.90	313	P	P	21 54 50.7	-0.3
P46A				IAmb	IAmb	21 55 10.3	
	comp=Z,523nm,1.4s						
P46A				IAMs_20	IAMs_20	22 17 47.0	
	comp=Z,116µm,22.0s						
RNPP5	Staryi Chortor	66.91	33	P	P	21 54 50.2	-0.6
HSUJ	Al Zarqa	66.91	55	P	P	21 54 50.8	-0.5
	comp=Z,6µmcomp=Z,154nm,1.4s						
BHL	Bhannes	66.93	53	eP	P	21 54 50.9	-0.6
RNPP8	Varash	66.94	33	P	P	21 54 50.4	-0.7
RCY	Rachaya	66.97	54	eP	P	21 54 50.8	-1.0
SUW	Suwalki	66.97	29	eP	P	21 54 50.8	-0.4
SUW	Suwalki	66.97	29	P	P	21 54 49.9	-1.3
SUW				MLR	MLR		
	comp=Z,24µm,20.0s						
SUW	Suwalki	66.97	29	P	P	21 54 49.9	-1.3
SUW	Suwalki	66.97	29	⇑P	P	21 54 50.7	-0.5
Y45A	Yeager Farm, C	66.99	307	P	P	21 54 51.0	-0.8
RNPP9	Sopachiv	67.00	33	P	P	21 54 50.9	-0.5
OXF	Oxford	67.06	307	P	P	21 54 51.8	-0.3
OXF				pmax	pmax		
	comp=Z,347nm,1.2s						
OXF				MLR	MLR		
	comp=Z,93µm,22.0s						
OXF	Oxford	67.06	307	P	P	21 54 51.8	-0.3
OXF				IAmb	IAmb	21 55 10.6	
	comp=Z,346nm,1.1s						
OXF				IAMs_20	IAMs_20	22 17 49.1	
	comp=Z,93µm,22.0s						
OXF	Oxford	67.06	307	⇑P	P	21 54 51.9	-0.2
SFIN	Lafayette	67.07	314	IAMs_20	IAMs_20	22 17 28.0	
	comp=Z,113µm,22.0s						
PURM	Purcari	67.08	39	⇑P	P	21 54 51.0	-1.0
PURM	Purcari	67.08	39	P	P	21 54 50.7	-1.3
	comp=Z,8µmcomp=Z,465nm,1.1s						
BR105	Keskin Array S	67.08	47	P	P	21 54 51.7	-0.7
	comp=Z,2µmcomp=Z,176nm,1.1s						
BR106	Keskin Array S	67.09	47	P	P	21 54 51.6	-0.8
	comp=Z,1µmcomp=Z,108nm,1.0s						
BR104	Keskin Array S	67.10	47	P	P	21 54 51.7	-0.8
	comp=Z,1µmcomp=Z,151nm,1.1s						
BR131	Keskin Array S	67.10	47	P	P	21 54 51.8	-0.7
	SNR=95						
BR131	Keskin Array S	67.10	47	c iP	P	21 54 51.6	-0.9
BR131	Keskin Array S	67.10	47	P	P	21 54 51.3	-1.2
BR131				IAmb	IAmb	21 54 57.6	
	comp=Z,266nm,1.1s						
BRTR	Keskin Array B	67.10	47	P	P	21 54 51.6	-0.9
	comp=Z,85nm,0.9s,baz=226,slow=5.0,SNR=172						
BRTR				PKP2bc	P'P'bc	22 23 20.8	-2.8
	comp=Z,1.3nm,1.1s,baz=104,slow=5.2,SNR=3.9						
BRTR				LR	LR	22 26 53.5	
	comp=Z,11µm,19.8s,baz=234,slow=38						
	comp=Z,85nm,0.9s						
BRTR	Keskin Array B	67.10	47	ceP	P	21 54 51.7	-0.8
BRTR				pmax	pmax		
	comp=Z,87nm,0.9s						
BRTR	Keskin Array B	67.10	47	P	P	21 54 51.3	-1.2
ZAHL	Zahle	67.10	53	eP	P	21 54 52.3	-0.3
KIRS	Kirsehir-Merke	67.11	47	⇑P	P	21 54 51.8	-0.7
UTMT	University of	67.14	309	P	P	21 54 53.4	+0.7
UTMT				IAmb	IAmb	21 55 12.4	
	comp=Z,557nm,1.4s						
T45A	Paducah	67.17	310	P	P	21 54 52.6	-0.2
T45A				IAMs_20	IAMs_20	22 18 30.3	
	comp=Z,90µm,21.0s						
HWQ	Hawqa	67.26	53	eP	P	21 54 53.0	-0.6
OLIL	Olney	67.27	312	P	P	21 54 53.4	0.0
LUBAR	Lubar, Ukraine	67.31	35	P	P	21 54 52.4	-1.1
VBMS	Vicksburg	67.37	305	P	P	21 54 53.7	-0.5
VBMS				IAmb	IAmb	21 54 59.9	
	comp=Z,498nm,1.4s						
HALT	Halls	67.38	309	P	P	21 54 53.6	-0.6
E46A	Sault Ste Mari	67.41	321	P	P	21 54 53.5	-0.6
E46A				IAmb	IAmb	21 55 02.8	
	comp=Z,225nm,1.1s						
E46A				IAMs_20	IAMs_20	22 17 45.0	
	comp=Z,73µm,21.0s						
GLAT	Glass	67.44	309	P	P	21 54 55.5	+1.0
HICK	Hickman	67.48	309	P	P	21 54 54.4	-0.3
HICK				IAmb	IAmb	21 55 07.2	
	comp=Z,403nm,1.1s						
ASF	Jabal al Asfar	67.50	55	LR	LR	22 26 10.9	
	comp=Z,9µm,18.8s,baz=231,slow=38						
BEIL	Beino	67.52	53	eP	P	21 54 54.6	-0.6
PBUR	Paburge	67.52	27	P	P	21 54 55.1	+0.5
	comp=Z,22µmcomp=Z,10µmcomp=Z,546nm,1.4s						
LNXT	Lenox	67.56	309	P	P	21 54 55.2	-0.1
ILGA	Ilgaz	67.59	45	P	P	21 54 53.9	-1.8
MET	Memphis--Engin	67.64	308	P	P	21 54 56.5	+0.7
MI28	Mi28,Pidlybu	67.74	34	P	P	21 54 53.8	-2.3
I45A	Fountain	67.76	318	P	P	21 54 56.0	-0.4
I45A				IAMs_20	IAMs_20	22 19 16.4	
	comp=Z,64µm,21.0s						
NE56	Odesa	67.78	39	P	P	21 54 54.9	-1.6
S44A	Carbondale	67.83	311	P	P	21 54 56.2	-0.7
S44A				IAmb	IAmb	21 55 10.2	
	comp=Z,360nm,1.3s						
S44A				IAMs_20	IAMs_20	22 18 51.8	
	comp=Z,100µm,21.0s						
PEBM	Pemiscott Bayo	67.85	309	P	P	21 54 58.6	+1.5
PEBM				IAmb	IAmb	21 55 09.9	
	comp=Z,328nm,1.3s						
PARMO	Parma	67.91	309	P	P	21 54 57.3	-0.2
PARMO				IAmb	IAmb	21 55 27.3	
	comp=Z,527nm,1.5s						
GNAR	Gosnell	67.93	309	P	P	21 54 57.4	-0.2
ESPZ	Base Esperanza	67.94	194	P	P	21 54 56.7	-0.4
ESPZ				IAmb	IAmb	21 55 12.4	
	comp=Z,222nm,1.2s						
Q44A	Meyer Farm, Va	68.01	312	P	P	21 54 57.1	-1.0
Q44A				IAmb	IAmb	21 55 16.3	
	comp=Z,278nm,1.2s						
SFJD	Kangerlussuaq	68.04	350	LR	LR	22 19 40.2	
	comp=Z,20µm,19.1s,baz=164,slow=32						
SFJD	Kangerlussuaq	68.04	350	P	P	21 54 56.4	-1.3
SFJD				pmax	pmax		
	comp=Z,551nm,1.8s						
SFJD	Kangerlussuaq	68.04	350	P	P	21 54 56.4	-1.3
SFJD				IAmb	IAmb	21 55 32.6	
	comp=Z,551nm,1.8s						
SFJD	Kangerlussuaq	68.04	350	⇑P	P	21 54 58.4	+0.7
SFJD	Kangerlussuaq	68.04	350	P	P	21 54 57.7	0.0
SFJD				S	S	22 03 58.3	+0.8
SFJD	Kangerlussuaq	68.04	350	i P	P	21 54 58.5	+0.8
SFJD				IAmb	IAmb	21 55 05.9	
	comp=Z,162nm,1.1s						
SFJD	Kangerlussuaq	68.04	350	P	P	21 54 58.2	+0.5
	comp=Z,14µmcomp=Z,147nm,1.4s						
M44A	Midewin, Midew	68.08	315	P	P	21 54 57.8	-0.7
M44A				IAmb	IAmb	21 55 03.0	
	comp=Z,232nm,1.3s						
M44A				IAMs_20	IAMs_20	22 18 10.2	
	comp=Z,80µm,22.0s						
BZK	Bozkurt	68.10	45	P	P	21 54 56.5	-2.1
BZK				IAmb	IAmb	21 55 18.2	
	comp=Z,458nm,1.5s						
BZK	Bozkurt	68.10	45	⇑P	P	21 54 57.0	-1.6
BZK	Bozkurt	68.10	45	P	P	21 54 57.9	-0.7
	comp=Z,4µmcomp=Z,148nm,1.1s						
PABE	Paberze	68.18	28	P	P	21 54 57.8	-1.0
PABE				IAmb	IAmb	21 55 09.8	
	comp=Z,352nm,1.3s						
PABE	Paberze	68.18	28	P	P	21 54 58.8	+0.1
	comp=Z,54µmcomp=Z,212nm,1.7s						
143A	Socs Landing,	68.21	305	P	P	21 55 00.0	+0.5
L44A	Lake County Fo	68.25	316	P	P	21 54 59.5	0.0
L44A				IAmb	IAmb	21 55 04.4	
	comp=Z,469nm,1.4s						
L44A				IAMs_20	IAMs_20	22 18 03.7	
	comp=Z,66µm,22.0s						
HBAR	Harrisburg	68.32	308	P	P	21 55 01.0	+0.9
AK13	Malin Array Si	68.38	35	P	P	21 54 58.9	-1.2
BNN	Bunyan	68.46	48	P	P	21 54 59.8	-1.3
BNN	Bunyan	68.46	48	⇑P	P	21 55 00.3	-0.8
ANDN	Andirin	68.47	50	P	P	21 55 01.1	-0.1
	comp=Z,70µmcomp=Z,27µmcomp=Z,1µm,1.3s						
PBMO	Poplar Bluff	68.47	309	P	P	21 55 00.0	-1.0
PBMO				IAmb	IAmb	21 55 13.6	
	comp=Z,234nm,1.2s						
KIEV	Kiev	68.50	35	P	P	21 54 59.8	-1.1
KIEV				pmax	pmax		
	comp=Z,573nm,1.4s						
KIEV				MLR	MLR		
	comp=Z,13µm,22.0s						
KIEV	Kiev	68.50	35	P	P	21 54 59.8	-1.1
KIEV	Kiev	68.50	35	⇑P	P	21 55 00.0	-0.9
KIEV	Kiev	68.50	35	i P	P	21 54 60.0	-0.9
	SNR=99						
KIEV	Kiev	68.50	35	⇑P	P	21 55 00.0	-0.9
KIEV	Kiev	68.50	35	P	P	21 55 00.0	-0.9
	comp=Z,25µmcomp=Z,1µm,2.0s						
KIEV	Kiev	68.50	35	P	P	21 55 00.2	-0.7
	comp=Z,24µmcomp=Z,6µmcomp=Z,300nm,2.0s						
AKASG	Malin Array Be	68.51	35	P	P	21 55 00.0	-0.9
	comp=Z,124nm,0.9s,baz=242,slow=6.7,SNR=72						
AKASG				PKP2bc	P'P'bc	22 23 17.4	-0.9
	comp=Z,0.4nm,0.4s,baz=56,slow=2.5,SNR=8.7						
AKASG				LR	LR	22 25 35.0	
	comp=Z,9µm,20.5s,baz=240,slow=36						
	comp=Z,124nm,0.9s						

AKASG	Malin Array Be	68.51	35	P	P	21 54 59.6	-1.3
AKASG				pmax	pmax		
	comp=Z,529nm,1.3s						
AKASG	Malin Array Be	68.51	35	P	P	21 54 59.6	-1.3
AKBB	Malin Array Si	68.51	35	P	P	21 54 59.8	-1.2
AKBB				pmax	pmax		
	comp=Z,582nm,1.3s						
AKBB	Malin Array Si	68.51	35	P	P	21 54 59.8	-1.2
AKBB	Malin Array Si	68.51	35	P	P	21 54 59.8	-1.2
P43A	Skaggs, Pawnee	68.60	313	P	P	21 55 01.1	-0.7
P43A				IAmb	IAmb	21 55 14.4	
	comp=Z,275nm,1.6s						
SLIT	Slitere, Latvi	68.62	26	P	P	21 55 01.3	-0.1
	comp=Z,46µmcomp=Z,17µmcomp=Z,1µm,1.7s						
HDIL	Hopedale	68.72	314	P	P	21 55 01.5	-1.0
HDIL				IAMs_20	IAMs_20	22 18 41.2	
	comp=Z,111µm,22.0s						
HDIL	Hopedale	68.72	314	⇓P	P	21 55 02.6	+0.1
CMIG	Matias Romero	68.72	288	LR	LR	22 22 57.8	
	comp=Z,15µm,21.8s,baz=108,slow=34						
K43A	Burlington	68.72	316	P	P	21 55 01.8	-0.7
K43A				IAmb	IAmb	21 55 07.2	
	comp=Z,244nm,1.2s						
FVM	French Village	68.80	311	P	P	21 55 01.3	-1.8
FVM				pmax	pmax		
	comp=Z,479nm,1.6s						
FVM	French Village	68.80	311	P	P	21 55 01.3	-1.8
FVM				IAmb	IAmb	21 55 13.8	
	comp=Z,479nm,1.6s						
CCAR	Cane Creek	68.80	306	P	P	21 55 02.4	-0.8
SLM	Saint Louis	68.84	311	P	P	21 55 02.6	-0.7
SLM				pmax	pmax		
	comp=Z,433nm,1.7s						
SLM	Saint Louis	68.84	311	P	P	21 55 02.6	-0.7
SLM				IAmb	IAmb	21 55 13.6	
	comp=Z,433nm,1.6s						
LCAR	Lake Charles	68.84	309	P	P	21 55 02.9	-0.5
LCAR				IAmb	IAmb	21 55 14.0	
	comp=Z,462nm,1.5s						
H43A	Windswept, Lux	68.95	318	P	P	21 55 03.6	-0.3
H43A				IAmb	IAmb	21 55 07.9	
	comp=Z,396nm,1.7s						
H43A				IAMs_20	IAMs_20	22 19 52.8	
	comp=Z,69µm,20.0s						
SNOP	Sinop	68.97	45	P	P	21 55 02.3	-1.7
GAZ	Gaziantep	69.02	50	P	P	21 55 03.9	-0.7
GAZ	Gaziantep	69.02	50	⇑P	P	21 55 04.4	-0.2
T42A	Van Buren	69.05	310	P	P	21 55 04.8	+0.2
T42A				IAMs_20	IAMs_20	22 19 46.3	
	comp=Z,92µm,21.0s						
SIM	Simferopol'	69.21	42	*e*P	P	21 55 03.7	-1.8
SIM				*e*		21 55 29.0	
SIM				*e*S	S	22 04 03.0	-9.2
SIM				pmax	pmax		
	comp=Z,103nm,1.1s						
441A	DeRidder	69.27	303	P	P	21 55 05.7	-0.4
441A				IAMs_20	IAMs_20	22 20 46.0	
	comp=Z,87µm,21.0s						
TOKA	Tokat	69.36	47	P	P	21 55 05.0	-1.6
TOKA				IAmb	IAmb	21 55 21.6	
	comp=Z,542nm,1.6s						
L42A	Oliver, Polo	69.43	315	P	P	21 55 06.2	-0.7
L42A				IAMs_20	IAMs_20	22 18 51.1	
	comp=Z,72µm,22.0s						
CCM	Cathedral Cave	69.44	311	P	P	21 55 06.2	-0.9
CCM				pmax	pmax		
	comp=Z,391nm,1.4s						
CCM				MLR	MLR		
	comp=Z,98µm,21.0s						
CCM	Cathedral Cave	69.44	311	P	P	21 55 06.2	-0.9
CCM				IAmb	IAmb	21 55 20.2	
	comp=Z,391nm,1.4s						
CCM	Cathedral Cave	69.44	311	IAMs_20	IAMs_20	22 19 51.6	
	comp=Z,98µm,21.0s						
CCM	Cathedral Cave	69.44	311	⇓P	P	21 55 06.5	-0.5
CCM	Cathedral Cave	69.44	311	P	P	21 55 05.8	-1.3
	comp=Z,26µmcomp=Z,5µmcomp=Z,203nm,2.5s,comp=Z,5µm						
UALR	University of	69.46	307	P	P	21 55 06.7	-0.5
UALR				IAmb	IAmb	21 55 18.1	
	comp=Z,482nm,1.4s						
NSS	Namsos	69.48	17	*e*P	P	21 55 07.3	+0.6
NSS				IVmB_BB		21 55 22.5	
	comp=Z,4µm,2.8s						
NSS				*e*S	S	22 04 17.2	+2.6
NSS				IVMs_BB	IVMs_BB	22 18 35.8	
	comp=Z,19µm,29.3s						
Z41A	Richland Creek	69.48	305	P	P	21 55 07.3	-0.1
Z41A				IAmb	IAmb	21 55 13.4	
	comp=Z,549nm,1.4s						
I42A	Draeger Farm,	69.52	317	P	P	21 55 06.8	-0.7
I42A				IAmb	IAmb	21 55 12.2	
	comp=Z,236nm,1.2s						
I42A				IAMs_20	IAMs_20	22 20 38.3	
	comp=Z,45µm,19.0s						
WHAR	Wooly Hollow	69.54	307	P	P	21 55 07.2	-0.5
SCO	Scoresbysund	69.55	2	P	P	21 55 07.0	-0.1
SCO				pmax	pmax		
	comp=Z,485nm,1.7s						
SCO	Scoresbysund	69.55	2	P	P	21 55 07.0	-0.1
SCO				IAmb	IAmb	21 55 16.5	
	comp=Z,485nm,1.7s						
SCO	Scoresbysund	69.55	2	⇓P	P	21 55 08.3	+1.3
SCO	Scoresbysund	69.55	2	*i* P	P	21 55 07.5	+0.4
SCO				IAmb	IAmb	21 55 16.1	
	comp=Z,502nm,1.7s						
SCO	Scoresbysund	69.55	2	P	P	21 55 09.6	+2.5
	comp=Z,9µmcomp=Z,5µmcomp=Z,174nm,1.8s						
FCAR	Ozark Folk Cen	69.56	308	P	P	21 55 07.3	-0.5
FCAR				IAmb	IAmb	21 55 20.5	
	comp=Z,288nm,1.5s						
MNK	Minsk	69.58	31	*i* P	P	21 55 06.6	-0.9
MNK				*i*		21 55 29.7	
MNK				*i*		21 57 39.9	
MNK				*i* PPP	PPP	21 59 20.6	
MNK				*i* S	S	22 04 14.7	-1.5
MNK				*i*		22 05 07.9	
MNK				*i* SS	SS	22 08 43.0	-1.0
MNK				pmax	pmax		
	comp=E,56nm,1.1s						
MNK				pmax	pmax		
	comp=Z,187nm,1.1s						
MNK				pmax	pmax		
	comp=N,60nm,1.0s						
MNK				MLR	MLR		
	comp=Z,14µm,20.0s						
MNK				MLR	MLR		
	comp=N,11µm,18.0s						
MNK				MLR	MLR		
	comp=E,5µm,17.0s						
MNK	Minsk	69.58	31	*i* P	P	21 55 06.7	-0.9
	comp=E,56nm,1.1s						
MNK				*i* P	P	21 55 06.7	-0.9
	comp=N,60nm,1.0s						
MNK				*i* P	P	21 55 06.7	-0.9
	comp=Z,187nm,1.1s,baz=241						
MNK				*i* PcP	PcP	21 55 29.7	-0.9
MNK				*i* PP	PP	21 57 40.0	-1.4
MNK				*i* PPP	PPP	21 59 20.7	
MNK				*i* S	S	22 04 14.8	-1.5
MNK				*i* ScS	SKSac	22 05 07.9	-0.9
MNK				*i* SS	SS	22 08 43.0	-1.0
MNK				*i* SSS	SSS	22 12 00.3	
MNK				*i* LR	LR	22 26 01.8	
MNK				*i* LRM	MLR	22 28 20.7	
	comp=Z,14µm,19.6s						
MNK				*i* LRM	MLR	22 28 22.0	
	comp=N,11µm,18.1s						
MNK				*i* LRM	MLR	22 28 23.3	
	comp=E,5µm,17.1s						
F42A	Maple Grove Fa	69.64	319	P	P	21 55 07.5	-0.7
F42A				IAMs_20	IAMs_20	22 20 04.4	
	comp=Z,89µm,21.0s						
FRB	Frobisher Bay	69.75	342	LR	LR	22 22 03.8	
	comp=Z,11µm,20.5s,baz=143,slow=33						
FRB	Frobisher Bay	69.75	342	⇓P	P	21 55 15.4	+7.1
FRB	Frobisher Bay	69.75	342	P	P	21 55 10.2	+1.8
	comp=Z,17µmcomp=Z,4µmcomp=Z,173nm,1.4s						
X40A	Basin Creek Fa	69.79	307	P	P	21 55 08.5	-0.8
X40A				IAmb	IAmb	21 55 17.8	
	comp=Z,398nm,1.9s						
WLAR	White Oak Lake	69.83	306	P	P	21 55 09.3	-0.3
N41A	Harden Midland	69.89	313	P	P	21 55 09.1	-0.7
N41A				IAmb	IAmb	21 55 22.5	
	comp=Z,386nm,1.3s						
MTSE	Matsula	69.91	25	P	P	21 55 09.8	+0.4
	comp=Z,17µmcomp=Z,668nm,2.4s						
ATD	Arta Tunnel	69.98	78	LR	LR	22 25 50.7	
	comp=Z,139nm,18.1s,baz=264,slow=36						
ATD	Arta Tunnel	69.98	78	P	P	21 55 11.5	+0.6
	SNR=24						
ATD				S	S	22 04 28.9	+6.5
ATD	Arta Tunnel	69.98	78	P	P	21 55 10.3	-0.6
ATD	Arta Tunnel	69.98	78	⇑P	P	21 55 11.6	+0.7
ATD	Arta Tunnel	69.98	78	P	P	21 55 11.8	+1.0
	comp=Z,8µmcomp=Z,3µmcomp=Z,115nm,1.1s						
ILULI	Ilulissat	70.12	351	P	P	21 55 10.3	-0.3
ILULI				pmax	pmax		
	comp=Z,185nm,1.2s						
ILULI				MLR	MLR		
	comp=Z,40µm,22.0s						
ILULI	Ilulissat	70.12	351	P	P	21 55 10.3	-0.3
ILULI	Ilulissat	70.12	351	⇓P	P	21 55 11.6	+1.1
ILULI	Ilulissat	70.12	351	*i* P	P	21 55 11.4	+0.9
ILULI				IAmb	IAmb	21 55 18.5	
	comp=Z,190nm,1.2s						
ILULI	Ilulissat	70.12	351	P	P	21 55 12.0	+1.4
	comp=Z,9µmcomp=Z,145nm,1.3s						
JFWS	Jewell Farm	70.13	316	P	P	21 55 10.1	-1.1
JFWS				pmax	pmax		
	comp=Z,181nm,1.3s						
JFWS				MLR	MLR		
	comp=Z,40µm,19.0s						
JFWS	Jewell Farm	70.13	316	P	P	21 55 10.1	-1.1
JFWS	Jewell Farm	70.13	316	⇓P	P	21 55 10.8	-0.4
R40A	Maddies Statio	70.28	311	P	P	21 55 11.9	-0.4
R40A				IAmb	IAmb	21 55 23.0	
	comp=Z,379nm,1.5s						
R40A				IAMs_20	IAMs_20	22 20 15.8	
	comp=Z,93µm,21.0s						
ARPR	Arapgir-MALATY	70.39	49	P	P	21 55 12.1	-1.0
ARPR	Arapgir-MALATY	70.39	49	P	P	21 55 12.8	-0.3
	comp=Z,19µmcomp=Z,6µmcomp=Z,292nm,1.5s						
MIAR	Mount Ida	70.40	306	P	P	21 55 13.0	0.0
MIAR				pmax	pmax		
	comp=Z,488nm,1.7s						
MIAR				MLR	MLR		
	comp=Z,89µm,22.0s						
MIAR	Mount Ida	70.40	306	P	P	21 55 13.0	0.0
MIAR				IAmb	IAmb	21 55 24.0	
	comp=Z,488nm,1.7s						
MIAR				IAMs_20	IAMs_20	22 19 41.2	
	comp=Z,89µm,22.0s						
MIAR	Mount Ida	70.40	306	P	P	21 55 15.1	+2.0
	comp=Z,24µmcomp=Z,6µmcomp=Z,143nm,2.7s,comp=Z,6µm						
P40A	Paris	70.44	312	P	P	21 55 12.4	-0.7
GDH	Godhavn	70.55	350	*i* P	P	21 55 14.4	+1.2
GDH				IAmb	IAmb	21 55 21.5	
	comp=Z,187nm,1.1s						
L40A	Anamosa	70.56	315	P	P	21 55 12.6	-1.2
L40A				IAMs_20	IAMs_20	22 19 35.8	
	comp=Z,72µm,22.0s						
I40A	Norwalk	70.69	317	P	P	21 55 13.6	-1.0
I40A				IAMs_20	IAMs_20	22 22 37.2	
	comp=Z,52µm,20.0s						
NATX	Nacogdoches	70.71	303	P	P	21 55 14.8	-0.2
NATX	Nacogdoches	70.71	303	⇓P	P	21 55 14.9	0.0
G40A	Rib Lake	70.84	318	P	P	21 55 14.5	-1.0
G40A				IAMs_20	IAMs_20	22 20 51.2	
	comp=Z,75µm,20.0s						
PMSA	Palmer Station	70.88	196	LR	LR	22 20 18.7	
	comp=Z,43µm,21.5s,baz=26,slow=31						
PMSA	Palmer Station	70.88	196	P	P	21 55 15.3	0.0
PMSA				IAmb	IAmb	21 55 36.1	
	comp=Z,321nm,1.3s						
PMSA	Palmer Station	70.88	196	IAMs_20	IAMs_20	22 19 45.0	
	comp=Z,49µm,22.0s						
PMSA	Palmer Station	70.88	196	⇓P	P	21 55 15.9	+0.6
PMSA	Palmer Station	70.88	196	*e*P	P	21 55 14.9	-0.3
PMSA	Palmer Station	70.88	196	P	P	21 55 16.2	+0.9
	comp=Z,183nm,1.5s						
JMI	Jan Mayen	70.92	6	*e*P	P	21 55 16.8	+1.4
JMI				*e*S	S	22 04 34.7	+3.4
JMI				IVMs_BB	IVMs_BB	22 19 40.1	
	comp=Z,13µm,3.7s						
S39A	Bolivar	70.94	310	P	P	21 55 16.5	+0.3
S39A				IAmb	IAmb	21 55 27.0	
	comp=Z,446nm,1.5s						
S39A				IAMs_20	IAMs_20	22 21 25.2	
	comp=Z,60µm,20.0s						
SAQQ	Saqqaq	70.97	351	*i* P	P	21 55 19.4	+3.7
SAQQ				IAmb	IAmb	21 55 24.2	
	comp=Z,230nm,1.1s						
LEIR	Leirfjorden	70.98	16	*e*P	P	21 55 17.1	+1.2
LEIR				*e*S	S	22 04 33.8	+1.7
LEIR				IVMs_BB	IVMs_BB	22 18 54.0	
	comp=Z,15µm,28.6s						
JMIC	Jan Mayen	71.00	6	LR	LR	22 19 55.5	
	comp=Z,25µm,20.8s,baz=187,slow=30						
JMIC	Jan Mayen	71.00	6	*e*P	P	21 55 16.2	+0.3
JMIC				IVmB		21 55 17.2	
	comp=Z,4µm,2.2s						
JMIC				*e*S	S	22 04 36.5	+4.3
JMIC				IVMs_BB	IVMs_BB	22 17 44.2	
	comp=Z,15µm,23.7s						
JNE	Jan Mayen East	71.03	6	*e*P	P	21 55 18.6	+2.5
JNE				IVmB		21 55 22.7	
	comp=Z,4µm,1.7s						
JNE				*e*S	S	22 04 38.6	+6.0
JNE				IVMs_BB	IVMs_BB	22 19 42.3	
	comp=Z,13µm,22.2s						
VSU	Vasula	71.05	27	*ce*P	P	21 55 14.0	-2.4
VSU				pmax	pmax		
	comp=Z,261nm,1.3s						
VSU				MLR	MLR		
	comp=Z,20µm,18.0s						
VSU	Vasula	71.05	27	⇑P	P	21 55 15.1	-1.3
VSU	Vasula	71.05	27	P	P	21 55 15.5	-0.9
	comp=Z,20µmcomp=Z,4µmcomp=Z,199nm,1.6s						
JNW	Jan Mayen West	71.05	6	IVmB		21 55 17.7	
	comp=Z,9µm,1.9s						
JNW				*e*P	P	21 55 18.1	+1.9
JNW				*e*S	S	22 04 34.7	+1.9
JNW				IVMs_BB	IVMs_BB	22 19 35.6	
	comp=Z,18µm,17.6s						
HHAR	Hobbs	71.08	308	P	P	21 55 17.4	+0.2
HHAR				IAmb	IAmb	21 55 27.7	
	comp=Z,348nm,1.6s						
STOK	Stokkvaagen	71.11	16	*e*P	P	21 55 17.8	+1.1
STOK				IVmB		21 55 28.1	
	comp=Z,4µm,2.2s						
STOK				*e*S	S	22 04 36.8	+3.2
STOK				IVMs_BB	IVMs_BB	22 18 57.8	
	comp=Z,16µm,28.6s						
HNVL	Huntsville, TX	71.19	302	P	P	21 55 17.9	-0.1
ARBE	Arbavere	71.24	25	P	P	21 55 18.0	+0.4
	comp=Z,16µmcomp=Z,794nm,1.9s,comp=Z,16µm						
KONS	Konsvik	71.26	16	*e*P	P	21 55 18.0	+0.4
KONS				IVmB_BB		21 55 50.1	
	comp=Z,6µm,4.3s						
KONS				*e*S	S	22 04 37.5	+2.1
KONS				IVMs_BB	IVMs_BB	22 18 16.3	
	comp=Z,15µm,33.0s						
Z38A	Mt. Pleasant	71.27	305	P	P	21 55 18.1	-0.3
KELT	Kelkit	71.35	48	P	P	21 55 19.0	0.0
	comp=Z,92µmcomp=Z,30µmcomp=Z,2µm,1.8s,comp=Z,30µm						
HKT	Hockley	71.36	301	*d i*P	P	21 55 18.9	0.0
HKT				pmax	pmax		
	comp=Z,71nm,1.3s						
HKT				MLR	MLR		
	comp=Z,80µm,18.0s						
HKT	Hockley	71.36	301	IAMs_20	IAMs_20	22 26 55.7	
	comp=Z,85µm,19.0s						
HKT	Hockley	71.36	301	⇓P	P	21 55 19.1	+0.2
HKT	Hockley	71.36	301	P	P	21 55 19.2	+0.4
	comp=Z,24µmcomp=Z,7µmcomp=Z,231nm,2.1s						
ANN	Anapa	71.39	43	*d i*P	P	21 55 17.1	-1.7
ANN				*e**PP	sP	21 55 20.6	+1.5
ANN				*e*		21 55 31.4	
ANN				*i* S	S	22 04 35.1	-2.5
ANN				pmax	pmax		
	comp=Z,210nm,1.0s						
ANN				MLR	MLR		
	comp=E,15µm,20.0s						
ANN				MLR	MLR		
	comp=N,7µm,18.0s						
ANN				MLR	MLR		
	comp=Z,4µm,15.0s						
MOR8	Moi Rana	71.39	16	*e*P	P	21 55 19.7	+1.3
MOR8				IVmB_BB		21 55 34.7	
	comp=Z,4µm,2.6s						
MOR8				*e*S	S	22 04 40.5	+3.5
MOR8				IVMs_BB	IVMs_BB	22 19 12.6	
	comp=Z,13µm,27.6s						
U38A	Gravette	71.47	308	P	P	21 55 19.5	0.0
U38A				IAmb	IAmb	21 55 30.1	
	comp=Z,838nm,1.8s						
RAUS	Rausandaksla	71.47	16	*e*P	P	21 55 19.0	+0.1
RAUS				IVmB_BB		21 56 02.1	
	comp=Z,3µm,4.0s						
RAUS				*e*S	S	22 04 39.9	+2.0
RAUS				IVMs_BB	IVMs_BB	22 19 08.6	
	comp=Z,16µm,27.8s						
VAGH	Vaagaholmen	71.47	16	*e*P	P	21 55 20.0	+1.1
VAGH				*e*S	S	22 04 40.6	+2.8
VAGH				IVMs_BB	IVMs_BB	22 19 23.0	
	comp=Z,18µm,22.6s						
TBO	Thunder Bay	71.48	322	P	P	21 55 18.7	-0.7
TBO				IAmb	IAmb	21 55 42.3	
	comp=Z,424nm,1.9s						
P38A	Dawn	71.57	312	P	P	21 55 19.7	-0.3
SAATT	Saattut	71.65	352	*i* P	P	21 55 21.4	+1.6
SAATT				IAmb	IAmb	21 55 28.4	
	comp=Z,225nm,1.1s						
N38A	Joes South For	71.66	313	P	P	21 55 19.8	-0.7
N38A				IAmb	IAmb	21 55 33.6	
	comp=Z,313nm,1.3s						
NIAQ	Niaqornat	71.94	351	*i* P	P	21 55 22.4	+0.9
NIAQ				IAmb	IAmb	21 55 30.6	
	comp=Z,225nm,1.3s						
KTUT	Trabzon	71.94	47	⇓P	P	21 55 22.5	+0.2
SUMG	Summit	71.95	356	P	P	21 55 21.5	-0.7
SUMG	Summit	71.95	356	P	P	21 55 20.9	-1.2
SUMG				pmax	pmax		
	comp=Z,399nm,1.2s						
SUMG				MLR	MLR		
	comp=Z,26µm,19.0s						
SUMG	Summit	71.95	356	P	P	21 55 20.9	-1.2
SUMG				IAmb	IAmb	21 55 31.7	
	comp=Z,399nm,1.2s						
SUMG	Summit	71.95	356	⇑P	P	21 55 22.6	+0.5
SUMG	Summit	71.95	356	*i* P	P	21 55 21.4	-0.7
SUMG				IAmb	IAmb	21 55 31.3	
	comp=Z,2µm,2.1s						
SUMG	Summit	71.95	356	P	P	21 55 22.7	+0.5
	comp=Z,9µmcomp=Z,8µmcomp=Z,351nm,1.6s,comp=Z,8µm						
VAF	Ylistaro	71.98	21	P	P	21 55 22.6	+0.6
VAF				pmax	pmax		
	comp=Z,218nm,2.2s						
TREL	Terrell	72.08	304	P	P	21 55 22.8	-0.4
TREL				IAmb	IAmb	21 55 50.7	
	comp=Z,455nm,1.3s						
E38A	The Farm, Brul	72.17	319	P	P	21 55 21.9	-1.6
E38A				IAMs_20	IAMs_20	22 21 44.5	
	comp=Z,74µm,20.0s						
KOPT	Kop Dagi	72.24	48	P	P	21 55 23.0	-1.4
KOPT				IAmb	IAmb	21 55 40.5	
	comp=Z,731nm,1.5s						
TLIG	Tlapa	72.27	288	P	P	21 55 25.0	+0.3
TLIG				IAmb	IAmb	21 55 35.0	
	comp=Z,292nm,1.2s						
TLIG	Tlapa	72.27	288	⇑P	P	21 55 27.2	+2.4
FINES	FINESS Array B	72.37	24	P	P	21 55 24.6	+0.2
	comp=Z,83nm,0.8s,baz=222,slow=2.6,SNR=50						
FINES				LR	LR	22 23 27.7	
	comp=Z,50µm,21.8s,baz=240,slow=33						
	comp=Z,83nm,0.8s						
FINES	FINESS Array B	72.37	24	P	P	21 55 23.7	-0.6
FIA1	FINESS Array S	72.37	24	P	P	21 55 24.4	+0.1
MLDN	Muldoon	72.39	301	P	P	21 55 26.2	+1.1
TUL3	Leonard	72.46	307	P	P	21 55 25.2	-0.3
TUL3				IAmb	IAmb	21 55 36.2	
	comp=Z,621nm,1.3s						
TUL3				IAMs_20	IAMs_20	22 21 18.3	
	comp=Z,49µm,22.0s						
VNA1	Neumayer--Stat	72.47	174	P	P	21 55 25.5	+0.7
	comp=Z,142nm,0.9s						
FAUS	Fauske	72.49	16	*e*P	P	21 55 26.8	+1.8
FAUS				*e*S	S	22 04 49.4	-0.2
FAUS				IVMs_BB	IVMs_BB	22 21 07.2	
	comp=Z,17µm,21.4s						
EYMN	Ely	72.56	320	P	P	21 55 24.8	-1.1
EYMN	Ely	72.56	320	IAMs_20	IAMs_20	22 20 54.6	
	comp=Z,53µm,21.0s						
EYMN	Ely	72.56	320	⇑P	P	21 55 24.7	-1.1
EYMN	Ely	72.56	320	P	P	21 55 24.5	-1.3
	comp=Z,19µmcomp=Z,3µmcomp=Z,58nm,1.6s,comp=Z,3µm						
LOF	Lofoten	72.58	15	*e*P	P	21 55 28.0	+2.6
LOF				*e*S	S	22 04 54.6	+4.1
LOF				IVMs_BB	IVMs_BB	22 18 32.2	
	comp=Z,17µm,45.0s						
SPMN	Marine on St.	72.58	317	P	P	21 55 24.8	-1.2
SPMN				IAMs_20	IAMs_20	22 23 48.5	
	comp=Z,56µm,19.0s						
SOC	Sochi	72.60	44	*c i*P	P	21 55 24.7	-1.4
SOC				*e*		21 58 09.3	
SOC				*e*PPP	PPP	21 59 49.1	
SOC				*e*S	S	22 04 50.9	-0.8
SOC				*e*SS	SS	22 09 25.5	-5.4
SOC				pmax	pmax		
	comp=Z,126nm,1.2s						
SOC				MLR	MLR		
	comp=Z,8µm,22.0s						
I37A	Lemond, Waseca	72.64	316	P	P	21 55 25.7	-0.7
I37A				IAmb	IAmb	21 55 54.3	
	comp=Z,504nm,1.5s						
I37A				IAMs_20	IAMs_20	22 25 25.3	
	comp=Z,44µm,18.0s						
KVTX	Kingsville	72.77	298	P	P	21 55 26.7	-0.8
KVTX				IAMs_20	IAMs_20	22 28 05.0	
	comp=Z,45µm,19.0s						
KVTX	Kingsville	72.77	298	P	P	21 55 32.0	+4.6
	comp=Z,30µmcomp=Z,12µmcomp=Z,353nm,1.7s						
VSLR	Vesyoloye	72.79	45	*c i*P	P	21 55 25.8	-1.5
VSLR				pmax	pmax		
	comp=Z,162nm,1.0s						
VNA2	Neumayer--Watz	72.83	173	⇑P	P	21 55 27.2	+0.3
	comp=Z,124nm,0.7s,baz=345,slow=5.1						
VNA2				⇓S	S	22 04 57.0	+3.7
	comp=E,31µm,19.1s						
VNA2	Neumayer--Watz	72.83	173	P	P	21 55 27.4	+0.5
	comp=Z,4µmcomp=Z,204nm,0.9s,comp=Z,4µm						
STEI	Steigen	72.87	15	*e*P	P	21 55 29.9	+2.7
STEI				IVmB_BB		21 55 48.0	
	comp=Z,4µm,4.3s						
STEI				*e*S	S	22 04 56.3	+2.4
STEI				IVMs_BB	IVMs_BB	22 19 02.6	
	comp=Z,16µm,36.2s						
VNA3	Neumayer Olymp	72.88	174	⇑P	P	21 55 27.3	0.0
	comp=Z,50nm,0.8s						
VNA3				⇓S	SKiKP	22 04 58.3	-3.3
	comp=E,25µm,16.2s						
VNA3	Neumayer Olymp	72.88	174	P	P	21 55 27.6	+0.3
	comp=Z,10µmcomp=Z,3µmcomp=Z,138nm,1.5s,comp=Z,3µm						
735A	Kenedy	72.89	300	P	P	21 55 28.9	+0.8
735A				IAMs_20	IAMs_20	22 25 04.0	
	comp=Z,44µm,20.0s						
EF04	Eagle Ford 04	72.92	300	P	P	21 55 28.6	+0.3
435B	Jarrell	73.00	302	P	P	21 55 28.5	-0.2
435B				IAmb	IAmb	21 55 37.4	
	comp=Z,680nm,1.6s						
UNM	Universidad Na	73.00	290	P	P	21 55 29.8	+0.5
UNM				pmax	pmax		
	comp=Z,796nm,1.6s						
UNM				MLR	MLR		
	comp=Z,19µm,21.0s						
UNM	Universidad Na	73.00	290	P	P	21 55 29.8	+0.5
UNM				IAmb	IAmb	21 56 01.4	
	comp=Z,796nm,1.6s						
DEOK	Depew	73.01	307	P	P	21 55 28.7	0.0
WHTX	Lake Whitney,	73.09	303	P	P	21 55 29.3	+0.1
FW13	Cleburne	73.13	303	P	P	21 55 29.0	-0.5
Z35A	Perchaven, San	73.15	305	P	P	21 55 29.1	-0.5
W35A	Tecumseh	73.18	306	P	P	21 55 29.6	-0.2
LOOK	Love County	73.21	305	P	P	21 55 29.5	-0.5
T35A	Sooner Cattle	73.24	308	P	P	21 55 29.7	-0.4
T35A				IAMs_20	IAMs_20	22 21 43.7	
	comp=Z,46µm,20.0s						
QUOK	Quay	73.24	308	P	P	21 55 29.8	-0.3
OK052	Battle Ridge R	73.28	307	P	P	21 55 30.3	0.0
HOMI	Horasan	73.30	48	⇓P	P	21 55 30.4	-0.3
PUL	Pulkovo	73.31	26	*ce*P	P	21 55 30.5	+0.6
PUL				pmax	pmax		
	comp=Z,516nm,1.3s						
PUL				MLR	MLR		
	comp=Z,14µm,18.0s						

PUL	**Pulkovo**	**73.31**	**26**	P	**P**	**21 55 30.5**	**+0.6**
	comp=Z,6µmcomp=Z,255nm,0.9s,comp=Z,6µm						
FW06	**Azle**	**73.34**	**304**	P	**P**	**21 55 30.7**	**-0.1**
HBVL	**Hebbronville**	**73.39**	**298**	P	**P**	**21 55 30.3**	**-0.8**
HBVL				IAmb	IAmb	21 55 41.2	
	comp=Z,733nm,1.7s						
OK051	**E0350 and S346**	**73.41**	**308**	P	**P**	**21 55 30.3**	**-0.8**
OK051				IAmb	IAmb	21 55 49.4	
	comp=Z,747nm,1.6s						
DBG	**Daneborg**	**73.43**	**2**	i P	**P**	**21 55 30.4**	**0.0**
DBG				IAmb	IAmb	21 55 40.6	
	comp=Z,738nm,1.8s						
DBG	**Daneborg**	**73.43**	**2**	P	**P**	**21 55 32.2**	**+1.8**
	comp=Z,10µmcomp=Z,5µmcomp=Z,205nm,1.7s						
OK048	**Pawnee Station**	**73.48**	**308**	P	**P**	**21 55 31.2**	**-0.3**
OK048				IAmb	IAmb	21 55 42.6	
	comp=Z,546nm,1.3s						
OK048				IAMs_20	IAMs_20	22 29 59.1	
	comp=Z,39µm,18.0s						
EF02	**Christine**	**73.50**	**300**	P	**P**	**21 55 32.2**	**+0.4**
RAYN	**Ar Rayn**	**73.52**	**66**	P	**P**	**21 55 32.0**	**-0.1**
RAYN				S	**SKiKP**	**22 05 04.1**	**+0.1**
RAYN	**Ar Rayn**	**73.52**	**66**	P	**P**	**21 55 31.6**	**-0.4**
RAYN				pmax	pmax		
	comp=Z,160nm,1.1s						
RAYN				MLR	MLR		
	comp=Z,17µm,19.0s						
RAYN	**Ar Rayn**	**73.52**	**66**	P	**P**	**21 55 31.6**	**-0.4**
RAYN	**Ar Rayn**	**73.52**	**66**	⇑P	**P**	**21 55 31.9**	**-0.1**
RAYN	**Ar Rayn**	**73.52**	**66**	i P	**P**	**21 55 32.1**	**-0.1**
	SNR=204						
RAYN	**Ar Rayn**	**73.52**	**66**	P	**P**	**21 55 32.3**	**+0.3**
	comp=Z,14µmcomp=Z,6µmcomp=Z,266nm,2.0s,comp=Z,6µm						
LABN	**Labinsk**	**73.59**	**43**	eP	**P**	**21 55 31.3**	**-0.6**
LABN				i S	**SKiKP**	**22 05 03.5**	**+0.1**
LABN				pmax	pmax		
	comp=Z,451nm,1.8s						
FNO	**Franklin**	**73.62**	**306**	P	**P**	**21 55 31.5**	**-0.9**
FNO				IAmb	IAmb	21 55 48.4	
	comp=Z,890nm,1.6s						
ADOK	**Arcadia Dam**	**73.67**	**307**	P	**P**	**21 55 32.7**	**+0.1**
OKCSW	**OKLAHOMA CITY**	**73.68**	**307**	P	**P**	**21 55 32.8**	**+0.1**
ERBR	**Yeremizino-Bor**	**73.71**	**42c**	iP	**P**	**21 55 31.8**	**-0.9**
ERBR				eS	**SKiKP**	**22 05 03.3**	**-0.3**
ERBR				pmax	pmax		
	comp=Z,402nm,1.2s						
BLOK	**Blackwell**	**73.76**	**308**	P	**P**	**21 55 33.3**	**+0.1**
BLOK				IAmb	IAmb	21 55 47.0	
	comp=Z,747nm,1.5s						
OK029	**Liberty Lake**	**73.77**	**307**	P	**P**	**21 55 32.4**	**-0.8**
OK029				IAMs_20	IAMs_20	22 22 09.7	
	comp=Z,61µm,22.0s						
KSU1	**Kansas State U**	**73.77**	**311**	P	**P**	**21 55 32.6**	**-0.5**
KSU1	**Kansas State U**	**73.77**	**311**	IAMs_20	IAMs_20	22 22 23.6	
	comp=Z,67µm,20.0s						
GEVA	**Gevas**	**73.79**	**50**	P	**P**	**21 55 32.9**	**-0.6**
X34A	**Smith Ranch, M**	**73.85**	**306**	P	**P**	**21 55 33.5**	**-0.2**
X34A				IAmb	IAmb	21 55 44.6	
	comp=Z,417nm,1.6s						
PLPT	**Palo Pinto**	**73.94**	**304**	P	**P**	**21 55 33.4**	**-0.9**
PLPT				IAmb	IAmb	21 55 43.6	
	comp=Z,889nm,2.0s						
UPNV	**Upernavik**	**74.06**	**351**	P	**P**	**21 55 35.7**	**+1.5**
	comp=Z,3µmcomp=Z,116nm,0.9s						
SNAA	**Sanae**	**74.08**	**172**	⇑P	**P**	**21 55 34.5**	**+0.1**
	comp=Z,2µm,1.0s						
SNAA				⇓S	**S**	**22 05 10.8**	**+3.1**
	comp=E,649µm,16.3s						
SNAA	**Sanae**	**74.08**	**172**	P	**P**	**21 55 34.5**	**+0.1**
	comp=E,30nm,0.9s,baz=340,slow=6.7,SNR=30						
SNAA				LR	LR	22 23 30.7	
	comp=E,15µm,18.1s,baz=328,slow=32						
	comp=E,30nm,0.9s						
SNAA	**Sanae**	**74.08**	**172c**	eP	**P**	**21 55 33.6**	**-0.8**
SNAA				pmax	pmax		
	comp=Z,94nm,1.2s						
SNAA	**Sanae**	**74.08**	**172**	P	**P**	**21 55 34.0**	**-0.4**
SNAA	**Sanae**	**74.08**	**172**	⇑P	**P**	**21 55 33.9**	**-0.5**
SNAA	**Sanae**	**74.08**	**172**	P	**P**	**21 55 35.2**	**+0.8**
	comp=Z,10µmcomp=Z,3µmcomp=Z,91nm,1.0s,comp=Z,3µm						
HAKT	**HAKKARI**	**74.14**	**51**	P	**P**	**21 55 35.3**	**-0.3**
	comp=Z,53µmcomp=Z,17µmcomp=Z,766nm,2.2s						
833A	**Chaparral WMA,**	**74.19**	**299**	P	**P**	**21 55 35.7**	**-0.1**
833A				IAmb	IAmb	21 55 45.0	
	comp=Z,474nm,1.4s						
WTFS	**Witchita Falls**	**74.22**	**305**	P	**P**	**21 55 35.6**	**-0.3**
SMAI	**San Martin Ant**	**74.23**	**195**	P	**P**	**21 55 35.2**	**+0.1**
L34A	**Svendsen Farm,**	**74.23**	**313**	P	**P**	**21 55 34.9**	**-0.9**
L34A				IAMs_20	IAMs_20	22 22 13.7	
	comp=Z,101µm,21.0s						
EPOS	**Posof**	**74.24**	**47**	P	**P**	**21 55 36.2**	**+0.2**
	comp=Z,17µmcomp=Z,11µmcomp=Z,809nm,1.7s						
HNDO	**Hondo**	**74.26**	**300**	P	**P**	**21 55 36.5**	**+0.2**
HNDO				IAmb	IAmb	21 55 45.6	
	comp=Z,866nm,1.7s						
KAN01	**Argonia South**	**74.26**	**308**	P	**P**	**21 55 35.9**	**-0.2**
KAN01				IAmb	IAmb	21 55 54.5	
	comp=Z,897nm,1.6s						
BRDY	**Brady**	**74.27**	**302**	P	**P**	**21 55 35.9**	**-0.4**
BRDY				IAmb	IAmb	21 55 44.8	
	comp=Z,703nm,1.6s						
GC02	**Grant County #**	**74.29**	**308**	P	**P**	**21 55 36.3**	**+0.1**
CROK	**Carrier**	**74.32**	**308**	P	**P**	**21 55 36.4**	**-0.1**
CROK				IAmb	IAmb	21 55 47.6	
	comp=Z,686nm,1.4s						
OUL	**Oulu**	**74.33**	**21**	P	**P**	**21 55 36.7**	**+0.9**
OUL				pmax	pmax		
	comp=Z,109nm,1.9s						
OUL	**Oulu**	**74.33**	**21**	P	**P**	**21 55 36.0**	**+0.2**
	comp=Z,17µmcomp=Z,3µmcomp=Z,109nm,1.9s						
OBN	**Obninsk**	**74.38**	**32**	LR	LR	22 27 30.0	
	comp=Z,16µm,21.2s,baz=254,slow=35						
OBN	**Obninsk**	**74.38**	**32c**	iP	**P**	**21 55 35.7**	**-0.6**
OBN				i		21 55 49.9	
OBN				i		21 58 22.0	
OBN				i S	**S**	**22 05 10.2**	**-1.1**
OBN				i SS	**SS**	**22 09 56.4**	**-1.0**
OBN				i SSS	SSS	22 13 05.6	
OBN				pmax	pmax		
	comp=Z,428nm,1.4s						
OBN	**Obninsk**	**74.38**	**32**	P	**P**	**21 55 35.4**	**-0.9**
OBN				IAmb	IAmb	21 55 51.3	
	comp=Z,335nm,1.2s						
OBN	**Obninsk**	**74.38**	**32**	⇑P	**P**	**21 55 35.7**	**-0.6**
OBN	**Obninsk**	**74.38**	**32**	⇑P	**P**	**21 55 35.4**	**-0.9**
OBN	**Obninsk**	**74.38**	**32**	P	**P**	**21 55 35.0**	**-1.3**
	comp=Z,5µmcomp=Z,244nm,1.7s						
OBN	**Obninsk**	**74.38**	**32**	P	**P**	**21 55 35.9**	**-0.4**
	comp=Z,21µmcomp=Z,5µmcomp=Z,246nm,1.7s						
KAN08	**Anthony NE Sta**	**74.44**	**308**	P	**P**	**21 55 37.2**	**+0.1**
KAN08				IAmb	IAmb	21 55 48.2	
	comp=Z,443nm,1.3s						
EPLO	**Experimental L**	**74.49**	**322**	P	**P**	**21 55 35.6**	**-1.6**
VSR	**Storozhevoye**	**74.50**	**37**	eP	**P**	**21 55 36.8**	**-0.4**
VSR				eS	**S**	**22 05 12.6**	**-0.4**
VSR				pmax	pmax		
	comp=Z,137nm,1.0s						
OZAP	**Van, Ozalp-Mer**	**74.58**	**50**	⇓P	**P**	**21 55 36.9**	**-1.3**
NEUR	**Neytrino**	**74.62**	**45c**	iP	**P**	**21 55 37.4**	**-0.9**
NEUR				pmax	pmax		
	comp=Z,66nm,1.2s						
NEUR				MLR	MLR		
	comp=Z,33µm,22.0s						
WMOK	**Wichita Mounta**	**74.64**	**306**	P	**P**	**21 55 38.2**	**-0.2**
WMOK				pmax	pmax		
	comp=Z,454nm,1.8s						
WMOK				MLR	MLR		
	comp=Z,102µm,21.0s						
WMOK	**Wichita Mounta**	**74.64**	**306**	P	**P**	**21 55 38.1**	**-0.2**
WMOK				IAmb	IAmb	21 55 46.6	
	comp=Z,454nm,1.8s						
WMOK	**Wichita Mounta**	**74.64**	**306**	P	**P**	**21 55 37.7**	**-0.7**
	comp=Z,25µmcomp=Z,5µmcomp=Z,118nm,2.4s,comp=Z,5µm						
VORR	**Voronezh**	**74.67**	**36**	eP	**P**	**21 55 37.5**	**-0.6**
VORR				pmax	pmax		
	comp=Z,187nm,1.0s						
VORR				MLR	MLR		
	comp=Z,20µm,20.0s						
SHA1	**Shidzhatmaz**	**74.70**	**45c**	eP	**P**	**21 55 38.8**	**0.0**
KIV	**Kislovodsk**	**74.78**	**45**	P	**P**	**21 55 38.9**	**-0.2**
KIV				S	**S**	**22 05 15.4**	**-1.1**
KIV	**Kislovodsk**	**74.78**	**45**	eP	**P**	**21 55 38.8**	**-0.2**
KIV				eS	**S**	**22 05 16.1**	**-0.4**
KIV				pmax	pmax		
	comp=Z,46nm,2.1s						
KIV				pmax	pmax		
	comp=Z,166nm,1.0s						
KIV				MLR	MLR		
	comp=Z,7µm,18.0s						
KIV	**Kislovodsk**	**74.78**	**45**	P	**P**	**21 55 38.3**	**-0.8**
KIV	**Kislovodsk**	**74.78**	**45**	⇑P	**P**	**21 55 38.7**	**-0.3**
KIV	**Kislovodsk**	**74.78**	**45**	i P	**P**	**21 55 38.7**	**-0.3**
	SNR=34						
KIV	**Kislovodsk**	**74.78**	**45**	P	**P**	**21 55 38.7**	**-0.3**
KIV				S	**S**	**22 05 20.5**	**+4.0**
KIV	**Kislovodsk**	**74.78**	**45**	P	**P**	**21 55 38.6**	**-0.4**
	comp=Z,8µmcomp=Z,524nm,1.7s						
KIV	**Kislovodsk**	**74.78**	**45**	P	**P**	**21 55 39.0**	**-0.2**
	comp=Z,21µmcomp=Z,10µmcomp=Z,672nm,1.7s,comp=Z,10µm						
KVAR	**Kislovodsk Arr**	**74.78**	**45**	LR	LR	22 30 37.0	
	comp=Z,8µm,20.9s,baz=90,slow=38						
LPSR	**Galich'ya Gora**	**74.81**	**35**	eP	**P**	**21 55 38.7**	**-0.2**
LPSR				eS	**S**	**22 05 19.3**	**+3.0**
LPSR				pmax	pmax		
	comp=Z,307nm,1.2s						
ECSD	**EROS Data Cent**	**74.82**	**315**	P	**P**	**21 55 37.9**	**-1.3**
ECSD				IAmb	IAmb	21 56 01.8	
	comp=Z,521nm,2.0s						
ECSD	**EROS Data Cent**	**74.82**	**315**	IAMs_20	IAMs_20	22 26 08.6	
	comp=Z,44µm,19.0s						
ECSD	**EROS Data Cent**	**74.82**	**315**	⇑P	P	21 55 33.9	-5.3
JCT	**Junction City**	**74.84**	**301**	P	**P**	**21 55 38.6**	**-1.0**
JCT				pmax	pmax		
	comp=Z,272nm,1.0s						
JCT				MLR	MLR		
	comp=Z,53µm,19.0s						
JCT	**Junction City**	**74.84**	**301**	P	**P**	**21 55 38.6**	**-1.0**
JCT				IAmb	IAmb	21 56 02.0	
	comp=Z,272nm,0.9s						
JCT				IAMs_20	IAMs_20	22 27 33.1	
	comp=Z,53µm,19.0s						
JCT	**Junction City**	**74.84**	**301**	⇓P	**P**	**21 55 40.0**	**+0.3**
KBZ	**Khabaz**	**74.87**	**45**	P	**P**	**21 55 39.2**	**-0.2**
	comp=Z,53nm,1.0s,baz=252,slow=4.5,SNR=49						
	comp=Z,53nm,1.0s						
MOIG	**Morelia**	**74.91**	**290**	P	**P**	**21 55 41.0**	**+0.6**
MOIG				IAmb	IAmb	21 55 49.9	
	comp=Z,362nm,1.3s						
OK038	**West end E0370**	**74.92**	**308**	P	**P**	**21 55 39.0**	**-0.9**
OK038				IAmb	IAmb	21 55 51.2	
	comp=Z,920nm,1.7s						
ABTX	**Abilene, Hawle**	**75.02**	**303**	P	**P**	**21 55 40.6**	**0.0**
TRO	**Tromso**	**75.03**	**15**	eP	**P**	**21 55 41.1**	**+1.3**
TRO				IVmB		21 55 45.3	
	comp=Z,2µm,2.0s						
TRO				eS	**S**	**22 05 20.1**	**+2.0**
TRO				IVMs_BB	IVMs_BB	22 20 03.6	
	comp=Z,18µm,31.6s						
NOKA	**Waynoka**	**75.09**	**308**	P	**P**	**21 55 40.9**	**-0.1**
F33A	**5 Mile Ranch,**	**75.11**	**317**	P	**P**	**21 55 39.4**	**-1.3**
F33A				IAMs_20	IAMs_20	22 24 11.1	
	comp=Z,52µm,20.0s						
MOS	**Moscow**	**75.17**	**32**	eP	**P**	**21 55 40.2**	**-0.7**
MOS				e		21 55 54.6	
MOS				e		21 58 28.4	
MOS				ePPP	PPP	22 00 20.1	
MOS				eS	**S**	**22 05 21.9**	**+1.7**
MOS				e		22 05 50.2	
MOS				eSS	**SS**	**22 10 02.7**	**-6.7**
MOS				pmax	pmax		
	comp=Z,2µm,2.1s						
MOS				pmax	pmax		
	comp=Z,1µm,1.7s						
MOS				pmax	pmax		
	comp=N,229nm,1.5s						
TROLL	**Troll, Antarti**	**75.17**	**171**	⇑P	**P**	**21 55 41.1**	**+0.3**
	comp=Z,3µm,0.8s						
TROLL				⇓S	**S**	**22 05 25.3**	**+5.4**
	comp=E,1594µm,20.8s						
VOI	**Vohitsoka**	**75.22**	**113**	P	**P**	**21 55 44.3**	**+2.2**
	SNR=18						
VOI	**Vohitsoka**	**75.22**	**113**	P	**P**	**21 55 41.0**	**-1.1**
VOI				IAmb	IAmb	21 55 59.6	
	comp=Z,520nm,1.9s						
VOI	**Vohitsoka**	**75.22**	**113**	⇑P	**P**	**21 55 44.2**	**+2.1**
VOI	**Vohitsoka**	**75.22**	**113**	P	**P**	**21 55 44.6**	**+2.5**
	comp=Z,15µmcomp=Z,3µmcomp=Z,114nm,1.6s						
VOI	**Vohitsoka**	**75.22**	**113**	P	**P**	**21 55 43.9**	**+1.8**
R32A	**Long Quarter,**	**75.25**	**309**	P	**P**	**21 55 41.7**	**-0.1**
R32A				IAmb	IAmb	21 56 12.1	
	comp=Z,647nm,1.6s						
R32A				IAMs_20	IAMs_20	22 22 46.3	
	comp=Z,71µm,22.0s						
GOF	**Gofitskoye**	**75.29**	**43c**	iP	**P**	**21 55 41.3**	**-0.5**
ABPO	**Ambohimpanom**	**75.30**	**110**	P	**P**	**21 55 41.2**	**-1.4**
ABPO				pmax	pmax		
	comp=Z,350nm,1.6s						
ABPO				MLR	MLR		
	comp=Z,6µm,19.0s						
ABPO	**Ambohimpanom**	**75.30**	**110**	P	**P**	**21 55 41.2**	**-1.4**
ABPO	**Ambohimpanom**	**75.30**	**110**	⇑P	**P**	**21 55 44.6**	**+1.9**
ABPO	**Ambohimpanom**	**75.30**	**110**	P	**P**	**21 55 45.5**	**+2.8**
	comp=Z,13µmcomp=Z,3µmcomp=Z,131nm,1.4s,comp=Z,3µm						
ABPO	**Ambohimpanom**	**75.30**	**110**	P	**P**	**21 55 44.5**	**+1.9**
NCK	**Nalchik**	**75.31**	**45c**	iP	**P**	**21 55 42.2**	**+0.2**
NCK				pmax	pmax		
	comp=Z,111nm,1.0s						
NCK				MLR	MLR		
	comp=Z,15µm,21.0s						
JETT	**Jettan, Norway**	**75.36**	**15**	eP	**P**	**21 55 45.0**	**+3.2**
JETT				IVmB		21 55 53.3	
	comp=Z,3µm,1.8s						
JETT				eS	**S**	**22 05 21.8**	**-0.2**
JETT				IVMs_BB	IVMs_BB	22 21 39.1	
	comp=Z,19µm,25.0s						
ELIS	**Ellis County**	**75.38**	**307**	P	**P**	**21 55 42.8**	**+0.2**
BGNE	**Belgrade**	**75.41**	**313**	P	**P**	**21 55 42.8**	**+0.1**
BGNE				IAmb	IAmb	21 56 00.4	
	comp=Z,311nm,1.1s						
GNI	**Garni**	**75.44**	**49**	LR	LR	22 32 12.2	
	comp=Z,5µm,20.0s,baz=263,slow=38						
GNI	**Garni**	**75.44**	**49**	P	**P**	**21 55 42.9**	**-0.1**
GNI				S	**S**	**22 05 25.0**	**+0.7**
GNI	**Garni**	**75.44**	**49c**	eP	**P**	**21 55 42.9**	**-0.1**
GNI				pmax	pmax		
	comp=Z,281nm,1.7s						
GNI				MLR	MLR		
	comp=Z,10µm,22.0s						
GNI	**Garni**	**75.44**	**49**	P	**P**	**21 55 41.7**	**-1.4**
GNI				IAmb	IAmb	21 55 58.7	
	comp=Z,792nm,1.5s						
GNI	**Garni**	**75.44**	**49**	⇑P	**P**	**21 55 42.8**	**-0.2**
GNI	**Garni**	**75.44**	**49**	P	**P**	**21 55 42.6**	**-0.5**
	comp=Z,7µmcomp=Z,382nm,1.8s						
GNI	**Garni**	**75.44**	**49**	P	**P**	**21 55 43.1**	**+0.1**
	comp=Z,21µmcomp=Z,7µmcomp=Z,384nm,1.8s,comp=Z,7µm						
AGMN	**Agassiz Nation**	**75.45**	**320**	P	**P**	**21 55 42.2**	**-0.5**
AGMN				IAMs_20	IAMs_20	22 23 36.1	
	comp=Z,41µm,20.0s						
AGMN	**Agassiz Nation**	**75.45**	**320**	⇑P	**P**	**21 55 42.0**	**-0.7**
AGMN	**Agassiz Nation**	**75.45**	**320**	P	**P**	**21 55 42.2**	**-0.5**
	comp=Z,20µmcomp=Z,4µmcomp=Z,159nm,2.1s,comp=Z,4µm						
APMT	**Aspermont**	**75.52**	**304**	P	**P**	**21 55 42.9**	**-0.5**
APMT				IAmb	IAmb	21 55 53.4	
	comp=Z,831nm,1.6s						
KULLO	**Kullorsuaq**	**75.77**	**352**	⇓P	**P**	**21 55 45.8**	**+1.8**
KULLO	**Kullorsuaq**	**75.77**	**352**	P	**P**	**21 55 45.7**	**+1.7**
	comp=Z,10µmcomp=Z,4µmcomp=Z,292nm,1.5s,comp=Z,4µm						
FOMA	**Nahampoana Res**	**75.79**	**116**	P	**P**	**21 55 44.4**	**-0.7**
FOMA	**Nahampoana Res**	**75.79**	**116**	⇓P	**P**	**21 55 48.1**	**+3.0**
FOMA	**Nahampoana Res**	**75.79**	**116**	P	**P**	**21 55 48.4**	**+3.3**
	comp=Z,15µmcomp=Z,3µmcomp=Z,151nm,1.2s						
FOMA	**Nahampoana Res**	**75.79**	**116**	P	**P**	**21 55 48.0**	**+2.9**
KTK1	**Kautokeino**	**75.80**	**17**	eP	**P**	**21 55 44.8**	**+0.5**
KTK1				IVmB		21 55 49.6	
	comp=Z,2µm,1.8s						
KTK1				eS	**S**	**22 05 30.3**	**+3.5**
KTK1				IVMs_BB	IVMs_BB	22 21 14.2	
	comp=Z,15µm,30.1s						
SGF	**Sodankyl**	**75.87**	**19**	P	**P**	**21 55 45.5**	**+0.8**
SGF				pmax	pmax		
	comp=Z,194nm,1.4s						
SGF	**Sodankyl**	**75.87**	**19**	P	**P**	**21 55 45.2**	**+0.5**
	comp=Z,16µmcomp=Z,5µmcomp=Z,194nm,1.4s						
MSF	**Maaselka**	**75.88**	**21**	P	**P**	**21 55 45.4**	**+0.6**
	comp=Z,16µmcomp=Z,5µmcomp=Z,206nm,2.2s						
NVL	**N'lazarevskaya**	**75.88**	**168**	eP	**P**	**21 55 43.8**	**-0.9**
NVL				ePPP	PPP	22 00 19.5	
NVL				eS	**S**	**22 05 28.1**	**+0.6**
NVL				eSS	**SS**	**22 10 20.7**	**+1.0**
NVL				eSSS	SSS	22 13 28.7	
NVL				pmax	pmax		
	comp=Z,46nm,0.9s						
NVL				MLR	MLR		
	comp=Z,8µm,17.0s						
SMWD	**Samnorwood**	**75.89**	**306**	P	**P**	**21 55 44.8**	**-0.8**
DAG	**Danmarks Havn**	**75.94**	**2**	P	**P**	**21 55 45.2**	**+0.3**
DAG				pmax	pmax		
	comp=Z,174nm,1.7s						
DAG	**Danmarks Havn**	**75.94**	**2**	⇑P	**P**	**21 55 45.0**	**+0.1**
DAG	**Danmarks Havn**	**75.94**	**2**	i P	**P**	**21 55 45.3**	**+0.4**
DAG				IAmb	IAmb	21 55 54.1	
	comp=Z,247nm,1.3s						
DAG	**Danmarks Havn**	**75.94**	**2**	P	**P**	**21 55 45.4**	**+0.4**
	comp=Z,10µmcomp=Z,4µmcomp=Z,174nm,1.7s						
ULM	**Lac du Bonnet**	**75.99**	**322**	P	**P**	**21 55 45.6**	**-0.2**
	comp=Z,132nm,1.4s,baz=92,slow=6.4,SNR=18						
ULM				LR	LR	22 23 33.1	
	comp=Z,103µm,21.9s,baz=102,slow=31						
	comp=Z,132nm,1.4s						
ULM	**Lac du Bonnet**	**75.99**	**322d**	iP	**P**	**21 55 44.9**	**-0.8**
ULM	**Lac du Bonnet**	**75.99**	**322**	P	**P**	**21 55 44.6**	**-1.1**
ULM				IAmb	IAmb	21 55 58.7	
	comp=Z,456nm,1.7s						
OZNA	**Ozona**	**76.03**	**302**	P	**P**	**21 55 47.0**	**+0.6**
VRH	**Novokhopyorsk**	**76.03**	**37**	eP	**P**	**21 55 45.1**	**-0.8**
VRH				eS	**S**	**22 05 26.9**	**-3.0**
VRH				pmax	pmax		
	comp=Z,132nm,1.1s						
VRH				smax	smax		
	comp=E,7µm,14.3s						
CBKS	**Cedar Bluff**	**76.11**	**310**	P	**P**	**21 55 46.4**	**-0.3**
CBKS				pmax	pmax		
	comp=Z,540nm,1.4s						
CBKS				MLR	MLR		
	comp=Z,77µm,21.0s						
CBKS	**Cedar Bluff**	**76.11**	**310**	P	**P**	**21 55 46.4**	**-0.3**
CBKS				IAmb	IAmb	21 55 57.9	
	comp=Z,540nm,1.4s						
CBKS				IAMs_20	IAMs_20	22 23 56.1	
	comp=Z,77µm,21.0s						
CBKS	**Cedar Bluff**	**76.11**	**310**	⇓P	**P**	**21 55 47.0**	**+0.3**
SN07	**Snyder 07**	**76.12**	**304**	P	**P**	**21 55 47.2**	**+0.2**
SGCY	**Sterling City**	**76.16**	**303**	P	**P**	**21 55 47.0**	**-0.2**
DKNS	**Dickens**	**76.23**	**304**	P	**P**	**21 55 47.1**	**-0.5**
ZAIG	**Zacatecas**	**76.45**	**293**	P	**P**	**21 55 49.3**	**+0.1**
ZAIG				IAmb	IAmb	21 56 09.0	
	comp=Z,416nm,1.6s						
ZAIG	**Zacatecas**	**76.45**	**293**	⇑P	**P**	**21 55 50.9**	**+1.7**
ZAIG	**Zacatecas**	**76.45**	**293**	P	**P**	**21 55 51.2**	**+1.9**
	comp=Z,19µmcomp=Z,6µmcomp=Z,155nm,1.7s						
SUSD	**Miller**	**76.62**	**316**	P	**P**	**21 55 49.4**	**-0.1**
SUSD				IAmb	IAmb	21 56 16.2	
	comp=Z,229nm,0.9s						
SUSD				IAMs_20	IAMs_20	22 23 02.3	
	comp=Z,49µm,22.0s						
POST	**Post**	**76.63**	**304**	P	**P**	**21 55 49.8**	**-0.1**
K30B	**Basset**	**76.73**	**314**	P	**P**	**21 55 49.5**	**-0.7**
K30B				IAmb	IAmb	21 56 06.3	
	comp=Z,374nm,1.2s						
229A	**Bryant Ranch,**	**76.74**	**303**	P	**P**	**21 55 50.3**	**-0.3**
229A				IAmb	IAmb	21 55 55.9	
	comp=Z,334nm,1.4s						
ARA0	**ARCESS Array S**	**76.76**	**17**	eP	**P**	**21 55 50.7**	**+0.9**
ARA0				IVmB_BB		21 56 10.1	
	comp=Z,4µm,4.4s						
ARA0				eS	**S**	**22 05 38.0**	**+0.6**
ARA0				IVMs_BB	IVMs_BB	22 23 05.4	
	comp=Z,20µm,25.2s						
ARCES	**ARCESS Array B**	**76.76**	**17**	P	**P**	**21 55 48.6**	**-1.2**
	comp=Z,15nm,1.0s,baz=250,slow=2.5,SNR=13						
ARCES				LR	LR	22 24 56.9	
	comp=Z,44µm,20.6s,baz=242,slow=32						
	comp=Z,15nm,1.0s						
ARCES	**ARCESS Array B**	**76.76**	**17**	P	**P**	**21 55 49.1**	**-0.7**
ARCES				pmax	pmax		
	comp=Z,394nm,1.6s						
ARCES	**ARCESS Array B**	**76.76**	**17**	P	**P**	**21 55 49.0**	**-0.7**
ARCES				IAmb	IAmb	21 56 06.0	
	comp=Z,394nm,1.6s						
SAND	**Sanderson**	**76.76**	**300**	P	**P**	**21 55 50.7**	**0.0**
129A	**Stewart Farms,**	**76.87**	**303**	P	**P**	**21 55 50.6**	**-0.6**
TMB01	**Midkiff**	**76.94**	**302**	P	**P**	**21 55 51.2**	**-0.4**
AMTX	**Amarillo**	**77.02**	**306**	P	**P**	**21 55 52.8**	**+0.7**
AMTX				IAmb	IAmb	21 56 06.2	
	comp=Z,918nm,2.0s						
PH02	**Texas Public H**	**77.31**	**306**	P	**P**	**21 55 52.4**	**-1.3**
KEV	**Kevo**	**77.32**	**17**	P	**P**	**21 55 52.2**	**-0.7**
KEV				pmax	pmax		
	comp=Z,275nm,1.3s						
KEV				MLR	MLR		
	comp=Z,57µm,22.0s						
KEV	**Kevo**	**77.32**	**17**	P	**P**	**21 55 52.2**	**-0.7**
KEV				IAMs_20	IAMs_20	22 24 10.5	
	comp=Z,57µm,22.0s						
KEV	**Kevo**	**77.32**	**17**	⇓P	**P**	**21 55 53.0**	**+0.1**
KEV	**Kevo**	**77.32**	**17**	P	**P**	**21 55 51.8**	**-1.0**
KEV				S	**S**	**22 05 44.3**	**+1.0**
KEV	**Kevo**	**77.32**	**17**	P	**P**	**21 55 53.2**	**+0.3**
	comp=Z,16µmcomp=Z,5µmcomp=Z,136nm,1.0s						
ODSA	**Odessa**	**77.38**	**303**	P	**P**	**21 55 52.8**	**-1.3**
ODSA				IAmb	IAmb	21 56 02.9	
	comp=Z,478nm,1.3s						
128A	**Castleberry Fa**	**77.39**	**303**	P	**P**	**21 55 53.7**	**-0.5**
SBV	**Sambava**	**77.39**	**104**	P	**P**	**21 55 57.3**	**+3.0**
SBV	**Sambava**	**77.39**	**104**	P	**P**	**21 55 58.5**	**+4.2**
	comp=Z,9µmcomp=Z,3µmcomp=Z,124nm,2.4s						
ILON	**Igloolik, Nuna**	**77.41**	**343**	P	**P**	**21 55 53.4**	**0.0**
MNHN	**Monahans**	**77.47**	**302**	P	**P**	**21 55 54.1**	**-0.5**
MNHN				IAmb	IAmb	21 56 03.3	
	comp=Z,627nm,1.9s						
FCC	**Fort Churchill**	**77.57**	**331**	P	**P**	**21 55 54.3**	**-0.2**
FCC				pmax	pmax		
	comp=Z,322nm,1.3s						
FCC	**Fort Churchill**	**77.57**	**331**	P	**P**	**21 55 54.2**	**-0.2**
FCC				IAmb	IAmb	21 56 05.3	
	comp=Z,322nm,1.3s						
NEEM	**North Greenlan**	**77.61**	**355**	⇑P	**P**	**21 55 55.1**	**+0.4**
NEEM	**North Greenlan**	**77.61**	**355**	i P	**P**	**21 55 55.3**	**+0.6**
NEEM				IAmb	IAmb	21 56 04.1	
	comp=Z,387nm,0.9s						
MDND	**Maddock**	**77.78**	**319**	P	**P**	**21 55 55.9**	**0.0**
MDND				IAMs_20	IAMs_20	22 25 42.8	
	comp=Z,65µm,20.0s						
MSTX	**Muleshoe**	**77.80**	**304**	P	**P**	**21 55 56.2**	**-0.3**
TPB06	**Permian Basin**	**77.89**	**302**	P	**P**	**21 55 57.1**	**+0.2**
TPB06				IAmb	IAmb	21 56 11.0	
	comp=Z,547nm,2.0s						
TPB05	**Hovey Rd**	**77.90**	**301**	P	**P**	**21 55 57.6**	**+0.5**
AKT	**Akhty**	**77.92**	**48**	eP	**P**	**21 55 55.8**	**-1.2**
AKT				e		21 56 06.0	
AKT				e		21 58 52.2	
AKT				ePPP	PPP	22 00 40.5	
AKT				eS	**S**	**22 05 48.7**	**-2.5**
AKT				e		22 06 14.7	
AKT				eSS	**SS**	**22 10 48.5**	**-3.4**
AKT				pmax	pmax		
	comp=Z,157nm,1.3s						
AKT				MLR	MLR		
	comp=Z,16µm,23.0s						
KLMR	**Klimovskoe**	**77.92**	**27**	eP	**P**	**21 55 53.8**	**-2.6**
KLMR				S	**S**	**22 05 45.7**	**-4.4**
KLMR				SS	**SS**	**22 10 43.3**	**-7.5**
KLMR				pmax	pmax		
	comp=Z,958nm,1.5s						
MAK	**Makhachkala**	**78.00**	**46c**	iP	P	21 55 51.7	-5.5
MAK				e		21 58 51.4	
MAK				ePPP	PPP	22 00 36.7	
MAK				eS	**S**	**22 05 42.8**	**-8.9**
MAK				eSS	**SS**	**22 10 45.8**	**-7.1**
MAK				eSSS	SSS	22 14 14.4	
MAK				pmax	pmax		
	comp=Z,1µm,1.3s						
TXAR	**Lajitas Array**	**78.03**	**300**	P	**P**	**21 55 58.2**	**+0.4**
	comp=Z,51nm,1.0s,baz=114,slow=5.6,SNR=27						
TXAR				PKPPKP	**P'P'df**	**22 22 57.5**	**-5.0**
	comp=Z,1.1nm,1.1s,baz=225,slow=3.2,SNR=4.9						
TXAR				LR	LR	22 26 39.5	
	comp=Z,33µm,22.0s,baz=68,slow=33						
	comp=Z,51nm,1.0s						
TXAR	**Lajitas Array**	**78.03**	**300**	P	**P**	**21 55 57.8**	**0.0**
TX31	**Lajitas Ar. Si**	**78.03**	**300**	P	**P**	**21 55 58.3**	**+0.5**
TX31				IAmb	IAmb	21 56 12.2	
	comp=Z,687nm,1.9s						
RTBA	**Rita Blanca**	**78.09**	**307**	P	**P**	**21 55 57.1**	**-0.9**

RTBA				IAmb	IAmb	21 56 16.7	
	comp=Z,965nm,2.0s						
ALPN	Alpine	78.11	301	P	P	21 55 58.4	0.0
VADS	Vadso	78.20	17	*e*P	P	21 56 01.0	+3.2
VADS				IVmB_BB		21 56 08.9	
	comp=Z,4µm,2.3s						
VADS				*e*S	S	22 05 51.5	-1.4
VADS				IVMs_BB	IVMs_BB	22 24 00.2	
	comp=Z,23µm,21.6s						
OGNE	Ogallala	78.21	312	P	P	21 55 58.8	+0.3
OGNE				IAmb	IAmb	21 56 15.1	
	comp=Z,675nm,1.4s						
OGNE				IAMs_20	IAMs_20	22 26 27.5	
	comp=Z,83µm,19.0s						
OGNE	Ogallala	78.21	312	⇓P	P	21 55 59.1	+0.6
APA	Apatity	78.21	20	⇓*i*P	P	21 55 57.4	-0.4
APA				*i*		21 56 09.0	
APA				*i*		21 58 59.6	
APA				*i* S	S	22 05 50.3	-2.7
APA				*i*		22 06 25.8	
E28A	Huff	78.25	317	P	P	21 55 58.8	+0.2
E28A				IAmb	IAmb	21 56 28.4	
	comp=Z,694nm,1.4s						
E28A				IAMs_20	IAMs_20	22 27 12.2	
	comp=Z,52µm,18.0s						
TPB01	Permian Basin	78.30	301	P	P	21 55 59.9	+0.6
TPB01				IAmb	IAmb	21 56 08.9	
	comp=Z,771nm,1.8s						
POIN	Pond Inlet	78.30	346	P	P	21 55 58.7	+0.4
POIN				IAmb	IAmb	21 56 18.0	
	comp=Z,343nm,1.5s						
SAKB	Bahrain	78.31	64	P	P	21 55 58.3	-1.1
SAKB				S	S	22 05 53.5	-2.2
BJO1	Bjornoya	78.35	11	*e*P	P	21 55 59.8	+1.3
BJO1				IVmB		21 56 02.8	
	comp=Z,3µm,1.8s						
BJO1				*e*S	S	22 05 55.2	+0.9
BJO1				IVMs_BB	IVMs_BB	22 21 45.7	
	comp=Z,11µm,22.2s						
KSCO	Kaye Shedlock'	78.36	310	P	P	21 56 00.1	+0.6
KSCO				IAMs_20	IAMs_20	22 25 05.8	
	comp=Z,64µm,22.0s						
PECS	Pecos	78.41	302	P	P	21 56 00.0	+0.1
ADZR	Andozero	78.50	24	*c i*P	P	21 55 59.4	-0.1
ADZR				S	S	22 05 57.7	+1.4
ADZR				pmax	pmax		
	comp=Z,274nm,1.2s						
CLNB	Carlsbad	78.52	303	P	P	21 56 01.7	+1.2
CPRX	Cap Rock	78.59	303	P	P	21 56 01.3	+0.4
TPB11	China Draw	78.62	302	P	P	21 56 01.3	+0.3
TPB11				IAmb	IAmb	21 56 07.2	
	comp=Z,523nm,1.4s						
LVZ	Lovozero	78.78	20	*ce*P	P	21 56 01.6	+0.5
LVZ				pmax	pmax		
	comp=Z,503nm,1.4s						
LVZ				MLR	MLR		
	comp=Z,68µm,21.0s						
LVZ	Lovozero	78.78	20	P	P	21 56 01.0	0.0
LVZ				IAmb	IAmb	21 56 12.9	
	comp=Z,583nm,1.4s						
LVZ				IAMs_20	IAMs_20	22 25 57.2	
	comp=Z,71µm,22.0s						
LVZ	Lovozero	78.78	20	⇓P	P	21 56 02.1	+1.0
LVZ	Lovozero	78.78	20	P	P	21 56 02.6	+1.5
	comp=Z,19µmcomp=Z,7µmcomp=Z,350nm,1.8s						
BELA	Belgrano 2	78.79	182	P	P	21 56 01.0	0.0
BELA				IAmb	IAmb	21 56 16.1	
	comp=Z,380nm,1.2s						
TPB28		78.98	302	P	P	21 56 03.2	+0.1
TPB28				IAmb	IAmb	21 56 19.0	
	comp=Z,1µm,1.8s						
TULEG	Thule	79.09	351	P	P	21 56 02.4	-0.1
TULEG				IAmb	IAmb	21 56 20.0	
	comp=Z,595nm,1.5s						
TULEG	Thule	79.09	351	*e*P	P	21 56 04.3	+1.7
TULEG				IAmb	IAmb	21 56 19.6	
	comp=Z,700nm,1.6s						
TULEG	Thule	79.09	351	P	P	21 56 06.5	+3.9
	comp=Z,10µmcomp=Z,6µmcomp=Z,254nm,1.4s,comp=Z,6µm						
SLWR	Sila	79.22	66	P	P	21 56 03.6	-0.7
SLWR				S	S	22 06 03.0	-2.4
VHRN	Van Horn	79.31	301	P	P	21 56 05.1	+0.2
ELIB	Princess Elisa	79.36	166	*d*P	P	21 56 05.9	+1.6
	comp=Z,94nm,1.0s						
T25A	Trinidad	79.51	307	IAmb	IAmb	21 56 20.9	
	comp=Z,701nm,1.8s						
T25A				IAMs_20	IAMs_20	22 31 35.4	
	comp=Z,42µm,18.0s						
HPIG		79.58	297	P	P	21 56 06.5	-0.1
HPIG				IAmb	IAmb	21 56 20.9	
	comp=Z,554nm,1.6s						
HPIG		79.58	297	⇓P	P	21 56 07.2	+0.6
HPIG		79.58	297	P	P	21 56 07.2	+0.6
	comp=Z,19µmcomp=Z,5µmcomp=Z,196nm,1.8s						
MNTX	Cornudas Mount	79.73	302	P	P	21 56 06.8	-0.3
MNTX				IAmb	IAmb	21 56 20.7	
	comp=Z,690nm,1.8s						
MNTX				IAMs_20	IAMs_20	22 29 28.7	
	comp=Z,52µm,19.0s						
MNTX	Cornudas Mount	79.73	302	P	P	21 56 07.0	-0.1
	comp=Z,19µmcomp=Z,4µmcomp=Z,139nm,1.3s						
BELG	Belogornoye	79.88	37	LR	LR	22 31 11.0	
	comp=Z,22µm,21.4s,baz=264,slow=36						
BELG	Belogornoye	79.88	37	*c i*P	P	21 56 06.2	-1.1
BELG				pmax	pmax		
	comp=Z,17nm,0.9s						
RSSD	Black Hills	80.15	315	P	P	21 56 09.4	+0.1
RSSD				pmax	pmax		
	comp=Z,432nm,1.9s						
RSSD				MLR	MLR		
	comp=Z,66µm,19.0s						
RSSD	Black Hills	80.15	315	P	P	21 56 09.4	+0.1
RSSD	Black Hills	80.15	315	IAMs_20	IAMs_20	22 29 35.8	
	comp=Z,66µm,19.0s						
RSSD	Black Hills	80.15	315	P	P	21 56 10.3	+1.0
	comp=Z,25µmcomp=Z,4µmcomp=Z,147nm,2.4s,comp=Z,4µm						
BLKN	Baker Lake	80.25	336	P	P	21 56 09.2	+0.1
Q24A	Divide	80.31	309	P	P	21 56 11.2	+0.8
Q24A				IAmb	IAmb	21 56 42.3	
	comp=Z,577nm,1.5s						
Q24A				IAMs_20	IAMs_20	22 25 46.3	
	comp=Z,54µm,22.0s						
JRN	Qarnain Island	80.33	65	P	P	21 56 09.6	-0.7
	SNR=17						
JRN				S	S	22 06 13.5	-3.6
SDCO	Great Sand Dun	80.44	308	P	P	21 56 10.8	-0.3
SDCO				IAmb	IAmb	21 56 26.1	
	comp=Z,439nm,1.4s						
SDCO				IAMs_20	IAMs_20	22 30 33.0	
	comp=Z,35µm,19.0s						
SDCO	Great Sand Dun	80.44	308	⇓P	P	21 56 12.0	+0.9
SPA0	Spitsbergen Ar	80.49	8	*e*P	P	21 56 12.2	+2.0
SPA0				IVmB		21 56 20.0	
	comp=Z,2µm,2.2s						
SPA0				*e*S	S	22 06 17.8	+0.8
SPA0				IVMs_BB	IVMs_BB	22 22 10.2	
	comp=Z,10µm,36.4s						
SPITS	Spitsbergen Ar	80.49	8	P	P	21 56 09.7	-0.5
	comp=Z,8.5nm,0.9s,baz=141,slow=9.3,SNR=3.2						
SPITS				LR	LR	22 24 01.3	
	comp=Z,41µm,21.4s,baz=222,slow=30						
	comp=Z,8.5nm,0.9s						
FFC	Flin Flon	80.68	325	P	P	21 56 11.4	-0.2
FFC				pmax	pmax		
	comp=Z,301nm,1.4s						
FFC				MLR	MLR		
	comp=Z,80µm,22.0s						
FFC	Flin Flon	80.68	325	P	P	21 56 11.4	-0.2
FFC	Flin Flon	80.68	325	IAMs_20	IAMs_20	22 25 31.2	
	comp=Z,80µm,22.0s						
FFC	Flin Flon	80.68	325	⇑P	P	21 56 11.7	0.0
FFC	Flin Flon	80.68	325	P	P	21 56 12.0	+0.3
	comp=Z,19µmcomp=Z,3µmcomp=Z,159nm,1.9s						
EPT	El Paso	80.69	302	P	P	21 56 12.3	0.0
EPT				IAmb	IAmb	21 56 27.4	
	comp=Z,1µm,1.9s						
EPT				IAMs_20	IAMs_20	22 29 59.1	
	comp=Z,68µm,19.0s						
ISCO	Idaho Springs	80.76	310	P	P	21 56 13.3	+0.5
ISCO				pmax	pmax		
	comp=Z,419nm,1.5s						
ISCO				MLR	MLR		
	comp=Z,74µm,22.0s						
ISCO	Idaho Springs	80.76	310	P	P	21 56 13.3	+0.5
ISCO				IAmb	IAmb	21 56 22.8	
	comp=Z,419nm,1.5s						
ISCO				IAMs_20	IAMs_20	22 26 45.2	
	comp=Z,74µm,22.0s						
ISCO	Idaho Springs	80.76	310	⇓P	P	21 56 13.9	+1.2
ISCO	Idaho Springs	80.76	310	P	P	21 56 14.0	+1.2
	comp=Z,22µmcomp=Z,5µmcomp=Z,189nm,2.4s,comp=Z,5µm						
MZR	Muzera	80.79	67	P	P	21 56 12.8	-0.1
	SNR=64						
MZR				S	S	22 06 19.5	-2.7
MZR	Muzera	80.79	67	*i* P	P	21 56 12.5	-0.4
	SNR=98						
NOR	Nord	80.80	2	*i* P	P	21 56 11.2	-0.5
NOR				IAmb	IAmb	21 56 24.4	
	comp=Z,244nm,1.8s						
NOR	Nord	80.80	2	P	P	21 56 12.2	+0.4
	comp=Z,8µmcomp=Z,3µmcomp=Z,84nm,2.7s						
HOPEN	Hopen	80.80	11	*e*P	P	21 56 11.4	-0.4
HOPEN				IVmB		21 56 15.6	
	comp=Z,3µm,2.6s						
HOPEN				*e*S	S	22 06 20.5	+0.2
HOPEN				IVMs_BB	IVMs_BB	22 24 04.8	
	comp=Z,11µm,24.2s						
HOPEN				IVMs		22 25 28.4	
	comp=Z,2µm,1.5s						
WHFO	Wadi Hawf	80.85	72	P	P	21 56 13.1	-0.2
WHFO				S	S	22 06 15.0	-7.9
ABQ	Albuquerque	80.93	305	P	P	21 56 13.6	-0.1
ABQ				IAmb	IAmb	21 56 29.6	
	comp=Z,897nm,1.9s						
ALQ	Albuquerque	80.93	305	P	P	21 56 13.9	+0.2
ALQ				IAmb	IAmb	21 56 29.5	
	comp=Z,828nm,1.8s						
ALQ	Albuquerque	80.93	305	P	P	21 56 14.2	+0.6
ALQ				IAmb	IAmb	21 56 29.6	
	comp=Z,856nm,1.8s						
ALQ				IAMs_20	IAMs_20	22 26 41.1	
	comp=Z,129µm,22.0s						
ALQ	Albuquerque	80.93	305	P	P	21 56 14.1	+0.5
ALQ				IAmb	IAmb	21 56 29.6	
	comp=Z,862nm,1.8s						
ANMO	Albuquerque	80.93	305	LR	LR	22 27 03.1	
	comp=Z,123µm,21.8s,baz=95,slow=32						
ANMO	Albuquerque	80.93	305	*de*P	P	21 56 14.5	+0.8
ANMO				pmax	pmax		
	comp=Z,185nm,1.3s						
ANMO	Albuquerque	80.93	305	P	P	21 56 13.7	+0.1
ANMO				IAmb	IAmb	21 56 29.4	
	comp=Z,939nm,1.9s						
ANMO	Albuquerque	80.93	305	P	P	21 56 13.6	-0.1
ANMO				IAmb	IAmb	21 56 29.5	
	comp=Z,954nm,1.9s						
ANMO	Albuquerque	80.93	305	⇓P	P	21 56 13.5	-0.2
ANMO	Albuquerque	80.93	305	P	P	21 56 14.7	+1.1
	comp=Z,21µmcomp=Z,5µmcomp=Z,232nm,2.0s						
TASM	ASL Pad, Albuq	80.93	305	P	P	21 56 14.1	+0.5
TASM				IAmb	IAmb	21 56 29.6	
	comp=Z,815nm,1.8s						
TASM	ASL Pad, Albuq	80.93	305	P	P	21 56 14.3	+0.6
TASM				IAmb	IAmb	21 56 29.6	
	comp=Z,824nm,1.9s						
TASM	ASL Pad, Albuq	80.93	305	P	P	21 56 14.1	+0.5
TASM				IAmb	IAmb	21 56 29.6	
	comp=Z,887nm,1.9s						
TASM	ASL Pad, Albuq	80.93	305	P	P	21 56 14.3	+0.6
TASM				IAmb	IAmb	21 56 29.6	
	comp=Z,890nm,1.9s						
TASM				IAMs_20	IAMs_20	22 26 41.1	
	comp=Z,132µm,22.0s						
TASM	ASL Pad, Albuq	80.93	305	P	P	21 56 13.7	+0.1
TASM				IAmb	IAmb	21 56 29.6	
	comp=Z,882nm,1.9s						
TASM				IAMs_20	IAMs_20	22 26 41.2	
	comp=Z,133µm,22.0s						
TASM	ASL Pad, Albuq	80.93	305	P	P	21 56 14.0	+0.3
TASM				IAmb	IAmb	21 56 29.6	
	comp=Z,863nm,1.9s						
TASM				IAMs_20	IAMs_20	22 26 41.2	
	comp=Z,133µm,22.0s						
CRNM	Carthage	81.07	304	P	P	21 56 14.1	-0.3
MZWR	Madinat Zayed	81.20	66	P	P	21 56 14.6	-0.4
MZWR				S	S	22 06 23.5	-2.9
RBK	Rabkut	81.25	73	P	P	21 56 15.1	-0.3
	SNR=22						
RBK				S	S	22 06 22.0	-5.1
Y22A	Socorro	81.26	304	P	P	21 56 15.6	+0.2
Y22A				IAmb	IAmb	21 56 30.1	
	comp=Z,697nm,1.9s						
LENM	Lemitar	81.29	304	P	P	21 56 15.9	+0.3
SBM	South Baldy	81.44	304	P	P	21 56 17.5	+0.9
K22A	Casper	81.76	313	P	P	21 56 18.3	+0.4
K22A				IAmb	IAmb	21 56 32.8	
	comp=Z,936nm,2.0s						
121A	Cookes Peak, D	81.83	303	P	P	21 56 19.2	+0.7
121A				IAmb	IAmb	21 56 31.1	
	comp=Z,400nm,1.6s						
DMTO	DMTO	81.96	72	P	P	21 56 19.4	+0.3
LAO	LASA Array	82.03	317	P	P	21 56 19.4	+0.3
LAO				IAmb	IAmb	21 56 29.4	
	comp=Z,548nm,1.3s						
LAO				IAMs_20	IAMs_20	22 29 40.2	
	comp=Z,43µm,19.0s						
LAO	LASA Array	82.03	317	⇓P	P	21 56 19.8	+0.7
HAYD	Hayden	82.09	311	P	P	21 56 20.3	+0.5
KIRV	Kirov	82.12	31	LR	LR	22 31 29.8	
	comp=Z,32µm,20.9s,baz=273,slow=35						
KIRV	Kirov	82.12	31	*ce*P	P	21 56 18.8	-0.3
AJN	Ajban	82.25	65	P	P	21 56 20.0	-0.5
	SNR=13						
AJN	Ajban	82.25	65	*i* P	P	21 56 19.6	-1.0
	SNR=19						
UMZA	Um Al Zommool	82.33	67	P	P	21 56 20.1	-0.9
MSEY	Mahe Island	82.47	95	P	P	21 56 22.5	+0.5
MSEY	Mahe Island	82.47	95	P	P	21 56 21.4	-0.6
MSEY				pmax	pmax		
	comp=Z,110nm,1.3s						
MSEY	Mahe Island	82.47	95	P	P	21 56 21.4	-0.6
ASUD	Al Ashush, Dub	82.56	65	P	P	21 56 22.0	-0.2
	SNR=19						
ASUD	Al Ashush, Dub	82.56	65	*i* P	P	21 56 21.6	-0.6
	SNR=9.4						
SYO	Syowa Base	82.57	161	⇑*i*P	P	21 56 20.2	-1.1
SYO	Syowa Base	82.57	161	⇓*i*P	P	21 56 27.8	+6.5
SHAO	Shalim	82.61	72	P	P	21 56 21.8	-0.8
SHAO	Shalim	82.61	72	P	P	21 56 21.3	-1.3
MVCO	Mesa Verde	82.77	307	IAMs_20	IAMs_20	22 27 54.4	
	comp=Z,55µm,22.0s						
MVCO	Mesa Verde	82.77	307	⇓P	P	21 56 24.4	+1.1
MVCO	Mesa Verde	82.77	307	P	P	21 56 24.6	+1.2
	comp=Z,20µmcomp=Z,8µmcomp=Z,348nm,1.6s						
O20A	White River Ci	82.80	310	P	P	21 56 23.4	0.0
O20A				IAMs_20	IAMs_20	22 28 03.3	
	comp=Z,51µm,22.0s						
FAQ	Al Faqa, Dubai	82.80	65	P	P	21 56 22.7	-0.8
	SNR=25						
FAQ	Al Faqa, Dubai	82.80	65	*i* P	P	21 56 22.4	-1.1
	SNR=10						
PV15	Paradox Valley	82.84	308	P	P	21 56 23.8	0.0
NAZ	Nazwa, Dubai	82.88	65	P	P	21 56 23.1	-0.8
	SNR=47						
NAZ	Nazwa, Dubai	82.88	65	*i* P	P	21 56 23.0	-0.8
	SNR=30						
PV01	Paradox Valley	82.89	308	P	P	21 56 24.8	+0.8
UMQ	Umm Al-Quwin	82.90	65	P	P	21 56 23.7	-0.2
ALNE	Al Ain	82.92	66	P	P	21 56 23.9	-0.3
	SNR=92						
ALNE	Al Ain	82.92	66	*i* P	P	21 56 23.1	-1.1
	SNR=46						
DUN6	Lazy B Ranch	82.94	303	P	P	21 56 25.1	+0.9
PV07	Paradox Valley	82.98	308	P	P	21 56 24.7	+0.3
PV07				IAmb	IAmb	21 56 55.0	
	comp=Z,363nm,1.6s						
319A	Douglas	83.03	301	P	P	21 56 25.2	+0.5
PV02	Paradox Valley	83.03	308	P	P	21 56 25.3	+0.6
PV12	Saucer Basin,	83.09	308	P	P	21 56 24.9	-0.1
PV13	Radium Mtn., P	83.09	308	P	P	21 56 25.1	+0.1
PV22	Blue Mesa, Par	83.10	309	P	P	21 56 25.0	0.0
PV22				IAmb	IAmb	21 56 39.8	
	comp=Z,558nm,1.5s						
PV03	Paradox Valley	83.12	308	P	P	21 56 25.8	+0.6
PV11	David Mesa, Pa	83.14	308	P	P	21 56 26.1	+0.9
PV18	Skein Mesa, Pa	83.17	308	P	P	21 56 26.0	+0.6
PV04	Paradox Valley	83.18	308	P	P	21 56 26.3	+0.9
PV16	Nyswonger Mesa	83.18	308	P	P	21 56 26.3	+0.9
PV17	East Wray Mesa	83.21	308	P	P	21 56 26.0	+0.4
PV20	West Nyswonger	83.22	308	P	P	21 56 26.3	+0.7
ASHO	Ashiyiah	83.23	65	P	P	21 56 25.0	-0.7
	SNR=91						
ASHO				S	S	22 06 45.7	-1.6
ASHO	Ashiyiah	83.23	65	*i* P	P	21 56 24.6	-1.1
	SNR=76						
PV21	Cone Mtn., Par	83.25	309	P	P	21 56 26.4	+0.6
PV23	Carpenter Ridg	83.27	308	P	P	21 56 26.9	+0.9
PV14	Lion Creek, Pa	83.27	308	P	P	21 56 26.5	+0.6
SLBS	Sierra La Lagu	83.27	294	P	P	21 56 26.3	+0.3
SLBS				IAmb	IAmb	21 56 41.0	
	comp=Z,497nm,2.0s						
SLBS	Sierra La Lagu	83.27	294	P	P	21 56 29.7	+3.7
	comp=Z,3µmcomp=Z,105nm,2.9s,comp=Z,16µm						
PV10	Paradox Valley	83.28	308	P	P	21 56 26.8	+0.8
HATD	Hatta, Dubai	83.30	65	P	P	21 56 25.2	-0.8
	SNR=166						
HATD				S	S	22 06 45.3	-2.7
HATD	Hatta, Dubai	83.30	65	*i* P	P	21 56 25.1	-1.0
	SNR=152						
PV05	Paradox Valley	83.31	308	P	P	21 56 25.4	-0.7
MSFE	Esma-Masafi	83.34	65	*i* P	P	21 56 25.3	-1.0
	SNR=23						
MASF	Masafi	83.34	65	P	P	21 56 25.4	-0.9
	SNR=65						
SHME	Shamm	83.35	64	P	P	21 56 25.1	-1.2
	SNR=28						
SHME	Shamm	83.35	64	*i* P	P	21 56 24.6	-1.6
	SNR=33						
UOSS	Minazif	83.37	65	P	P	21 56 25.3	-1.1
UOSS				S	S	22 06 45.6	-3.0
UOSS	Minazif	83.37	65	P	P	21 56 24.9	-1.5
UOSS	Minazif	83.37	65	⇑P	P	21 56 25.1	-1.3
UOSS	Minazif	83.37	65	*i* P	P	21 56 25.2	-1.1
	SNR=79						
UOSS	Minazif	83.37	65	P	P	21 56 25.3	-1.1
UOSS	Minazif	83.37	65	P	P	21 56 25.3	-1.1
	comp=Z,12µmcomp=Z,6µmcomp=Z,546nm,1.4s						
RES	Resolute Bay	83.43	346	P	P	21 56 26.3	+0.7
RES				pmax	pmax		
	comp=Z,330nm,1.3s						
RES	Resolute Bay	83.43	346	P	P	21 56 26.3	+0.7
RES				IAmb	IAmb	21 56 35.2	
	comp=Z,330nm,1.2s						
RES	Resolute Bay	83.43	346	⇓P	P	21 56 27.1	+1.4
RES	Resolute Bay	83.43	346	P	P	21 56 27.4	+1.7
	comp=Z,5µmcomp=Z,218nm,1.7s						
RER	Riviere de l'E	83.46	111	P	P	21 56 25.5	-1.5
RER				IAmb	IAmb	21 57 05.0	
	comp=Z,252nm,1.4s						
MDH	Madha	83.47	65	P	P	21 56 25.4	-1.5
	SNR=49						
MDH				S	S	22 06 46.5	-3.1
MDH	Madha	83.47	65	*i* P	P	21 56 25.3	-1.6
	SNR=55						
BANOM	Banah	83.49	64	P	P	21 56 25.9	-1.1
BANOM	Banah	83.49	64	*i* P	P	21 56 25.8	-1.3
	SNR=33						
ARQ	Araqi	83.60	67	P	P	21 56 27.2	-0.5
	SNR=72						
ARQ				S	S	22 06 49.5	-1.6
LPIG	La Paz	83.62	294	LR	LR	22 32 14.2	
	comp=Z,29µm,20.5s,baz=85,slow=35						
W18A	Petrified Fore	83.62	305	P	P	21 56 27.6	-0.2
SOHO	SOHO	83.64	66	P	P	21 56 26.6	-1.2
SOHO				S	S	22 06 48.2	-3.2
SOHO	SOHO	83.64	66	*i* P	P	21 56 26.6	-1.2
	SNR=64						
RPN	Rapa Nui	83.67	243	LR	LR	22 30 37.5	
	comp=Z,60µm,19.6s,baz=84,slow=33						
RPN	Rapa Nui	83.67	243	IAMs_20	IAMs_20	22 30 14.6	
	comp=Z,57µm,19.0s						
RPN	Rapa Nui	83.67	243	P	P	21 56 32.1	+4.2
	comp=Z,432nm,1.3s						
VA02	Isla de Pascua	83.76	243	P	P	21 56 28.0	-0.4
VA02				IAMs_20	IAMs_20	22 30 19.0	
	comp=Z,61µm,20.0s						
X18A	Snowflake	83.77	304	P	P	21 56 29.4	+0.8
RDMU	Red Mountain	83.85	311	P	P	21 56 29.2	+0.4
RDMU				IAmb	IAmb	21 56 43.2	
	comp=Z,476nm,1.6s						
RLMT	Red Lodge	83.98	315	P	P	21 56 29.3	-0.1
RLMT				IAmb	IAmb	21 56 59.2	
	comp=Z,444nm,1.6s						
RLMT				IAMs_20	IAMs_20	22 28 56.0	
	comp=Z,41µm,22.0s						
BW06	Boulder Array	84.00	313	P	P	21 56 29.3	-0.3
BW06				IAmb	IAmb	21 56 44.6	
	comp=Z,549nm,1.9s						
PD31	Pinedale Array	84.00	313	P	P	21 56 29.5	-0.2
PD31				IAmb	IAmb	21 56 44.6	
	comp=Z,505nm,1.9s						
PDAR	Pinedale Array	84.00	313	P	P	21 56 29.4	-0.2
	comp=Z,3.9nm,0.7s,baz=87,slow=7.6,SNR=23						
PDAR				LR	LR	22 28 37.6	
	comp=Z,74µm,21.5s,baz=104,slow=32						
	comp=Z,3.9nm,0.7s						
PDAR	Pinedale Array	84.00	313	P	P	21 56 28.7	-0.9
BSY	Bisya	84.21	67	P	P	21 56 30.0	-0.8
	SNR=55						
P18A	Preston Nutter	84.30	310	P	P	21 56 31.4	+0.1
GCMT	Greycliff	84.31	316	P	P	21 56 30.6	-0.3
HOQ	Hoqain	84.33	67	P	P	21 56 30.0	-1.4
	SNR=42						
TUC	Tucson	84.36	302	P	P	21 56 32.1	+0.7
TUC				pmax	pmax		
	comp=Z,475nm,1.7s						
TUC				MLR	MLR		
	comp=Z,73µm,20.0s						
TUC	Tucson	84.36	302	P	P	21 56 32.1	+0.7
TUC				IAmb	IAmb	21 56 46.1	
	comp=Z,475nm,1.7s						
TUC	Tucson	84.36	302	IAMs_20	IAMs_20	22 31 54.0	
	comp=Z,73µm,20.0s						
TUC	Tucson	84.36	302	⇓P	P	21 56 32.3	+0.9
TUC	Tucson	84.36	302	P	P	21 56 32.4	+1.0
	comp=Z,16µmcomp=Z,3µmcomp=Z,151nm,1.8s						
HSIG		84.36	299	P	P	21 56 31.8	+0.3
HSIG		84.36	299	⇑P	P	21 56 32.5	+1.1
YNE	Yellowstone No	84.49	315	P	P	21 56 31.7	-0.4
EGMT	Eagleton	84.55	318	P	P	21 56 32.9	+0.8
EGMT				IAMs_20	IAMs_20	22 29 49.0	
	comp=Z,70µm,20.0s						
YMP	Mirror Lake Pl	84.58	315	P	P	21 56 32.4	-0.2
HMU	Henry Mountain	84.59	308	P	P	21 56 33.5	+0.8
P17A	Butcher Ranch,	84.68	309	P	P	21 56 33.4	+0.4
P17A				IAmb	IAmb	21 56 42.3	
	comp=Z,423nm,1.5s						
BSUT	Blindstream Ca	84.75	310	P	P	21 56 33.5	-0.1
BSUT				IAmb	IAmb	21 56 43.1	
	comp=Z,411nm,1.5s						
LOHW	Long Hollow	84.82	314	P	P	21 56 33.1	-0.6
H17A	Grant Village	84.85	314	P	P	21 56 34.6	+0.7
MHTO	MHTO	84.89	69	P	P	21 56 33.2	-1.0
	SNR=40						
JASK	Jask - Hormozg	84.90	64	P	P	21 56 34.6	+0.5
	SNR=97						
SNOW	Snow King Moun	84.92	313	P	P	21 56 34.3	0.0
SNOW				IAmb	IAmb	21 56 43.7	
	comp=Z,513nm,1.4s						
YNR	Norris Junctio	84.95	315	P	P	21 56 35.3	+1.0
YNR				IAmb	IAmb	21 56 51.0	
	comp=Z,276nm,1.4s						
YNM	Yellowstone No	84.97	315	P	P	21 56 35.4	+1.0
Q16A	Castle Valley	84.98	309	P	P	21 56 35.0	+0.4
Q16A				IAmb	IAmb	21 56 50.1	
	comp=Z,561nm,1.7s						
WUAZ	Wupatki	84.98	305	P	P	21 56 35.5	+0.9
WUAZ				IAMs_20	IAMs_20	22 29 02.4	
	comp=Z,83µm,22.0s						
WUAZ	Wupatki	84.98	305	⇓P	P	21 56 35.4	+0.7
X16A	Lo Mia Camp, P	84.99	304	P	P	21 56 35.3	+0.6
SMDO	Samad	85.00	67	P	P	21 56 34.0	-0.9
	SNR=82						
YPP	Pitchstone Pla	85.01	314	P	P	21 56 35.4	+0.6
YPP				IAmb	IAmb	21 56 55.0	
	comp=Z,435nm,1.5s						
TMUT	Trail Mountain	85.03	309	P	P	21 56 35.5	+0.5
JMDO	Jabal Madar	85.04	68	P	P	21 56 33.4	-1.5
	SNR=25						
YFT	Old Faithful	85.04	314	P	P	21 56 36.5	+1.6
YHH	Holmes Hill	85.08	315	P	P	21 56 35.4	+0.4
YHH				IAmb	IAmb	21 56 45.8	
	comp=Z,512nm,1.5s						
BIDO	Bidbid	85.08	67	P	P	21 56 33.4	-1.7
	SNR=35						

FXWY	Fox Creek	85.13	314		P	P	21 56 35.0	-0.2
FXWY					IAmb	IAmb	21 56 49.8	
	comp=Z,431nm,1.6s							
YMR	Madison River	85.15	315		P	P	21 56 36.3	+1.0
YMR					IAmb	IAmb	21 56 46.2	
	comp=Z,355nm,1.3s							
TCUT	Toone Canyon	85.28	311		P	P	21 56 35.9	-0.2
YHL	Hebgen Lake	85.31	315		P	P	21 56 37.2	+0.9
YHB	Horse Butte	85.32	315		P	P	21 56 36.9	+0.7
YHB					IAmb	IAmb	21 56 52.7	
	comp=Z,668nm,1.8s							
MPU	Maple Canyon	85.39	310		P	P	21 56 37.3	+0.7
MPU					IAmb	IAmb	21 56 52.3	
	comp=Z,561nm,1.7s							
HWUT	Hardware Ranch	85.42	311		P	P	21 56 36.6	-0.1
HWUT	Hardware Ranch	85.42	311	⇓	P	P	21 56 36.8	+0.1
HWUT	Hardware Ranch	85.42	311		P	P	21 56 37.0	+0.3
	comp=Z,17µmcomp=Z,7µmcomp=Z,289nm,1.7s							
SRIG	Santa Rosalia	85.45	297		P	P	21 56 36.6	-0.3
SRIG	Santa Rosalia	85.45	297		P	P	21 56 41.1	+4.2
	comp=Z,17µmcomp=Z,8µmcomp=Z,456nm,1.7s							
QLMT	Earthquake Lak	85.49	315		P	P	21 56 37.8	+0.7
CTU	Camp Tracy	85.51	311		P	P	21 56 37.9	+0.7
WSAR	Wadi Sarin	85.54	67		LR	LR	22 34 52.3	
	comp=Z,50nm,20.6s,baz=300,slow=36							
WSAR	Wadi Sarin	85.54	67		P	P	21 56 36.5	-0.9
	SNR=27							
BOZ	Bozeman (W)	85.67	315		P	P	21 56 37.9	+0.1
BOZ					pmax	pmax		
	comp=Z,428nm,1.8s							
BOZ					MLR	MLR		
	comp=Z,53µm,22.0s							
BOZ	Bozeman (W)	85.67	315		P	P	21 56 37.9	+0.1
BOZ					IAmb	IAmb	21 56 52.6	
	comp=Z,428nm,1.8s							
BOZ					IAMs_20	IAMs_20	22 29 26.8	
	comp=Z,53µm,22.0s							
BOZ	Bozeman (W)	85.67	315	⇓	P	P	21 56 38.1	+0.2
NLU	North Lily Min	85.73	310		P	P	21 56 39.0	+0.6
MTPU	Mount Pierson	85.74	308		P	P	21 56 39.0	+0.4
U15A	North Rim	85.76	306		P	P	21 56 39.0	+0.4
U15A					IAmb	IAmb	21 56 54.0	
	comp=Z,664nm,1.8s							
NOQ	North Oquirrh	85.79	311		P	P	21 56 38.5	-0.1
PKCU	Pink Cliffs	85.81	307		P	P	21 56 39.7	+0.7
WBK	Wadi Bani Khal	85.84	68		P	P	21 56 38.2	-0.8
	SNR=24							
TCRU	Three Creeks R	85.96	308		P	P	21 56 39.7	+0.2
SPUT	South Promonto	86.07	311		P	P	21 56 39.6	-0.3
SPUT					IAmb	IAmb	21 56 54.1	
	comp=Z,648nm,1.6s							
AKTO	Aktyubinsk	86.07	40		LR	LR	22 38 42.9	
	comp=Z,8µm,19.9s,baz=278,slow=38							
KNB	Kanab	86.21	307		P	P	21 56 41.1	+0.4
KNB					pmax	pmax		
	comp=Z,315nm,1.7s							
KNB	Kanab	86.21	307		P	P	21 56 41.1	+0.4
KNB					IAmb	IAmb	21 57 23.6	
	comp=Z,315nm,1.7s							
JLN	Jalan Bani Buh	86.25	68		P	P	21 56 39.9	-1.0
	SNR=22							
Y14A	Wickenburg	86.27	304		P	P	21 56 41.7	+0.7
Y14A					IAmb	IAmb	21 56 56.0	
	comp=Z,570nm,1.6s							
DUG	Dugway, Tooele	86.30	310		P	P	21 56 41.0	-0.1
DUG					pmax	pmax		
	comp=Z,654nm,1.6s							
DUG					MLR	MLR		
	comp=Z,60µm,21.0s							
DUG	Dugway, Tooele	86.30	310		P	P	21 56 41.0	-0.1
DUG					IAMs_20	IAMs_20	22 30 49.0	
	comp=Z,60µm,21.0s							
DUG	Dugway, Tooele	86.30	310	⇓	P	P	21 56 41.6	+0.5
DUG	Dugway, Tooele	86.30	310		P	P	21 56 41.8	+0.7
	comp=Z,15µmcomp=Z,5µmcomp=Z,266nm,1.7s							
GBMT	Granite Butte,	86.31	317		P	P	21 56 41.7	+0.6
DLMT	Dillon	86.34	315		P	P	21 56 42.0	+0.8
DLMT					IAMs_20	IAMs_20	22 31 42.5	
	comp=Z,59µm,21.0s							
BUT	Butte	86.35	316		P	P	21 56 41.7	+0.5
BUT					IAmb	IAmb	21 56 50.7	
	comp=Z,450nm,1.6s							
SZCU	Shurtz Canyon	86.44	307		P	P	21 56 42.5	+0.6
BGU	Big Grassy Mou	86.49	311		P	P	21 56 41.9	-0.1
MCMT	McKenzie Canyo	86.50	315		P	P	21 56 42.4	+0.3
LCMT	Little Creek M	86.55	307		P	P	21 56 41.9	-0.4
PIX	Pinacate	86.61	301		P	P	21 56 42.6	+0.1
PIX					IAmb	IAmb	21 56 57.9	
	comp=Z,293nm,1.5s							
ARTI	Arti	86.64	34		LR	LR	22 35 40.5	
	comp=Z,18µm,21.0s,baz=276,slow=36							
ARTI	Arti	86.64	34	*c i*	P	P	21 56 42.6	+0.4
ARTI					S	SKSac	22 07 08.6	-1.0
ARTI					SSS	SSS	22 16 29.0	
ARTI					pmax	pmax		
	comp=Z,170nm,1.3s							
ARTI					pmax	pmax		
	comp=Z,441nm,5.1s							
ARTI	Arti	86.64	34		P	P	21 56 41.9	-0.3
ARTI					IAmb	IAmb	21 56 59.2	
	comp=Z,298nm,1.3s							
ARTI	Arti	86.64	34	⇑	P	P	21 56 42.6	+0.4
CCUT	Cedar City	86.65	307		P	P	21 56 43.8	+0.8
CCUT					IAmb	IAmb	21 56 58.1	
	comp=Z,302nm,1.4s							
BCYI	Bear Canyon	86.88	314		P	P	21 56 44.6	+0.7
BCYI					IAmb	IAmb	21 56 58.8	
	comp=Z,524nm,1.5s							
113A	Mohawk Valley,	86.89	303		P	P	21 56 44.0	+0.1
113A					IAmb	IAmb	21 56 58.6	
	comp=Z,392nm,1.7s							
W13A	Hualapai Mount	87.02	305		P	P	21 56 45.8	+1.0
W13A					IAmb	IAmb	21 57 00.1	
	comp=Z,488nm,1.7s							
PSUT	Pine Spring	87.06	308		P	P	21 56 44.7	-0.2
PSUT					IAmb	IAmb	21 56 59.9	
	comp=Z,560nm,1.7s							
EDM	Edmonton	87.16	323		P	P	21 56 44.6	-0.2
EDM					pmax	pmax		
	comp=Z,1µm,1.3s							
EDM	Edmonton	87.16	323		P	P	21 56 44.6	-0.2
AB31	Akbulak array	87.26	41		P	P	21 56 45.3	0.0
ABKAR	Akbulak array	87.26	41		P	P	21 56 44.8	-0.5
MSO	Missoula	87.33	317		P	P	21 56 45.3	-0.6
MSO					IAmb	IAmb	21 56 54.8	
	comp=Z,370nm,1.6s							
MSO					IAMs_20	IAMs_20	22 30 11.5	
	comp=Z,45µm,21.0s							
MSO	Missoula	87.33	317	⇑	P	P	21 56 46.4	+0.5
BLYC	Blythe	87.53	304		P	P	21 56 47.1	+0.1
JTMT	Jette	87.58	318		P	P	21 56 47.4	+0.2
HLID	Hailey	87.59	313		P	P	21 56 47.1	-0.2
HLID	Hailey	87.59	313	⇓	P	P	21 56 48.2	+0.9
HLID	Hailey	87.59	313		P	P	21 56 48.4	+1.1
	comp=Z,15µmcomp=Z,5µmcomp=Z,202nm,2.1s							
SVE	Sverdlovsk	87.91	33	*de*	P	P	21 56 49.1	+0.8
SVE				*e*	S	SKSac	22 07 17.5	+0.2
SVE					pmax	pmax		
	comp=Z,318nm,1.9s							
SVE					MLR	MLR		
	comp=Z,27µm,22.0s							
PRN	Pahroc Range	87.99	307		P	P	21 56 50.3	+0.9
PRN	Pahroc Range	87.99	307	⇓	P	P	21 56 50.9	+1.6
IRM	Iron Mountain	88.05	304		P	P	21 56 49.8	+0.2
LVN	Las Vegas	88.06	306		P	P	21 56 51.0	+1.5
SHPR	Sheep Range	88.08	306		P	P	21 56 49.9	+0.1
SHPR					IAmb	IAmb	21 57 04.8	
	comp=Z,285nm,1.5s							
YKAW1	Yellowknife Wh	88.10	332		P	P	21 56 48.8	-0.2
YKA	Yellowknife Ar	88.15	332		P	P	21 56 49.4	+0.1
	comp=Z,7.6nm,0.7s,baz=95,slow=5.2,SNR=11							
YKA					PP	PP	22 00 07.9	-8.1
	comp=Z,0.8nm,0.3s,baz=107,slow=5.9,SNR=11							
YKA					LR	LR	22 32 24.3	
	comp=Z,84µm,20.6s,baz=80,slow=33							
	comp=Z,7.6nm,0.7s							
YKA	Yellowknife Ar	88.15	332	*ce*	P	P	21 56 50.2	+0.9
YKA					pmax	pmax		
	comp=Z,8.0nm,0.7s							
YKA	Yellowknife Ar	88.15	332		P	P	21 56 49.8	+0.5
YKAW3	Yellowknife Wh	88.16	332		P	P	21 56 49.8	+0.5
ELK	Elko	88.17	311		LR	LR	22 33 44.5	
	comp=Z,35µm,19.5s,baz=92,slow=34							
ELK	Elko	88.17	311		P	P	21 56 50.7	+0.5
ELK					pmax	pmax		
	comp=Z,562nm,1.9s							
ELK					MLR	MLR		
	comp=Z,36µm,19.0s							
ELK	Elko	88.17	311		P	P	21 56 50.7	+0.5
ELK					IAMs_20	IAMs_20	22 33 03.2	
	comp=Z,36µm,19.0s							
ELK	Elko	88.17	311	⇓	P	P	21 56 50.6	+0.5
CPBX	Cerro Prieto	88.18	302		P	P	21 56 51.5	+1.3
DANC	Danby, Needles	88.25	304		P	P	21 56 51.4	+0.9
LDM	Libby Dam	88.29	318		P	P	21 56 51.8	+1.4
LDM					IAmb	IAmb	21 57 06.3	
	comp=Z,280nm,1.4s							
BC3	Big Chuckawall	88.31	303		P	P	21 56 51.5	+0.7
BC3					IAmb	IAmb	21 57 05.4	
	comp=Z,433nm,1.7s							
BC3					IAMs_20	IAMs_20	22 33 37.6	
	comp=Z,65µm,20.0s							
MTPC	Mountain Pass	88.39	305		P	P	21 56 52.6	+1.3
MTPC					IAmb	IAmb	21 57 06.0	
	comp=Z,451nm,1.7s							
S11A	Rachel	88.55	307		P	P	21 56 52.6	+0.7
VTX	Valle De La Tr	88.59	301		P	P	21 56 52.5	+0.3
VTX					IAmb	IAmb	21 57 08.0	
	comp=Z,370nm,1.5s							
MFID	Camas Ranch	88.61	313		P	P	21 56 52.3	+0.2
YUH	Yuha Desert	88.70	302		P	P	21 56 53.0	+0.4
YUH					IAmb	IAmb	21 57 08.4	
	comp=Z,553nm,1.8s							
ESJX	Sierra Juarez	88.73	302		P	P	21 56 53.2	+0.2
PLID	Pearl Lake	88.74	315		P	P	21 56 52.0	-0.8
PLID					IAMs_20	IAMs_20	22 31 36.0	
	comp=Z,71µm,21.0s							
SALN	Salton City	88.75	303		P	P	21 56 54.0	+1.2
BELC	Belle Mtn. Jos	88.76	304		P	P	21 56 53.8	+0.7
BELC					IAmb	IAmb	21 57 08.8	
	comp=Z,296nm,1.4s							
HRA	Herat	88.79	56		P	P	21 56 52.3	-0.9
HRA					IAmb	IAmb	21 57 03.0	
	comp=Z,259nm,1.3s							
TPNV	Topopah Spring	88.95	307		P	P	21 56 54.4	+0.5
TPNV					pmax	pmax		
	comp=Z,547nm,1.7s							
TPNV					MLR	MLR		
	comp=Z,61µm,22.0s							
TPNV	Topopah Spring	88.95	307		P	P	21 56 54.4	+0.5
TPNV					IAMs_20	IAMs_20	22 31 32.3	
	comp=Z,61µm,22.0s							
TPNV	Topopah Spring	88.95	307	⇓	P	P	21 56 54.9	+1.0
SHOC	Shoshone, Teco	88.98	306		P	P	21 56 54.0	+0.1
SHOC					IAMs_20	IAMs_20	22 31 54.1	
	comp=Z,64µm,22.0s							
PMD	Palm Desert	89.08	303		P	P	21 56 53.7	-0.7
PMD					IAmb	IAmb	21 57 10.1	
	comp=Z,335nm,1.6s							
BORC	Borrego Spring	89.11	303		P	P	21 56 54.9	+0.4
BORC					IAmb	IAmb	21 57 10.2	
	comp=Z,320nm,1.5s							
PFO	Pinyon Flats O	89.15	303		LR	LR	22 34 24.4	
	comp=Z,55µm,19.3s,baz=101,slow=34							
PFO	Pinyon Flats O	89.15	303	*i*	P	P	21 56 55.6	+0.7
PFO					pmax	pmax		
	comp=Z,395nm,1.6s							
PFO	Pinyon Flats O	89.15	303		P	P	21 56 55.5	+0.7
PFO					IAmb	IAmb	21 57 10.7	
	comp=Z,335nm,1.6s							
PFO	Pinyon Flats O	89.15	303		IAMs_20	IAMs_20	22 34 21.7	
	comp=Z,56µm,19.0s							
PFO	Pinyon Flats O	89.15	303		P	P	21 56 56.5	+1.7
	comp=Z,12µmcomp=Z,4µmcomp=Z,173nm,2.6s							
WCT	Wildcat Mounta	89.25	307		P	P	21 56 55.9	+0.7
DNR	Dunn Ranch,Anz	89.29	303		P	P	21 56 55.3	-0.2
GWY	Greenwater Val	89.30	306		P	P	21 56 56.6	+1.1
CBX	Cerro Bola	89.33	302		P	P	21 56 55.8	0.0
CBX					IAmb	IAmb	21 57 11.4	
	comp=Z,478nm,1.6s							
BAR	Barrett	89.33	302		P	P	21 56 55.8	+0.2
BAR					IAmb	IAmb	21 57 10.9	
	comp=Z,263nm,1.5s							
BAR					IAMs_20	IAMs_20	22 34 46.8	
	comp=Z,50µm,20.0s							
CCX	Cicese	89.34	302		P	P	21 56 56.2	+0.6
CCX					IAmb	IAmb	21 57 15.0	
	comp=Z,290nm,1.5s							
GSC	Goldstone, Bar	89.42	305		P	P	21 56 56.6	+0.6
GSC					pmax	pmax		
	comp=Z,261nm,1.4s							
GSC	Goldstone, Bar	89.42	305		P	P	21 56 56.5	+0.6
GSC					IAmb	IAmb	21 57 11.6	
	comp=Z,261nm,1.4s							
FURC	Furnace Creek,	89.45	306		P	P	21 56 57.2	+1.3
FURC					IAMs_20	IAMs_20	22 36 27.5	
	comp=Z,35µm,20.0s							
QSM	Queen of Sheba	89.46	306		P	P	21 56 57.0	+0.9
NEW	Newport	89.49	318		LR	LR	22 34 27.8	
	comp=Z,53µm,18.6s,baz=87,slow=34							
NEW	Newport	89.49	318		P	P	21 56 56.1	+0.1
NEW					pmax	pmax		
	comp=Z,173nm,1.9s							
NEW					MLR	MLR		
	comp=Z,60µm,18.0s							
NEW	Newport	89.49	318		P	P	21 56 56.1	+0.1
NEW	Newport	89.49	318		IAMs_20	IAMs_20	22 34 34.6	
	comp=Z,60µm,18.0s							
NEW	Newport	89.49	318	⇑	P	P	21 56 56.6	+0.6
NEW	Newport	89.49	318		P	P	21 56 57.0	+0.9
	comp=Z,12µmcomp=Z,2µmcomp=Z,46nm,1.4s							
DPP	Dos Picos Cty	89.56	303		P	P	21 56 56.7	+0.1
DPP					IAmb	IAmb	21 57 11.2	
	comp=Z,429nm,1.7s							
F10A	Beach Ranch, E	89.60	316		P	P	21 56 57.2	+0.6
F10A					IAmb	IAmb	21 57 11.7	
	comp=Z,352nm,1.9s							
TJX	Tijuana	89.66	302		P	P	21 56 56.0	-1.1
BMO	Blue Mountains	89.67	315		P	P	21 56 57.4	+0.4
BMO					pmax	pmax		
	comp=Z,497nm,1.6s							
BMO					MLR	MLR		
	comp=Z,79µm,22.0s							
BMO	Blue Mountains	89.67	315		P	P	21 56 57.4	+0.4
BMO					IAmb	IAmb	21 57 12.5	
	comp=Z,497nm,1.6s							
BMO	Blue Mountains	89.67	315	⇓	P	P	21 56 57.4	+0.4
Q09A	Carvers	89.67	309		P	P	21 56 56.3	-1.0
BMN	Battle Mountai	89.68	310		P	P	21 56 56.8	-0.4
BMN					pmax	pmax		
	comp=Z,261nm,1.9s							
BMN	Battle Mountai	89.68	310		P	P	21 56 56.8	-0.4
TPH	Tonopah	89.71	308		P	P	21 56 58.2	+0.7
TPH					pmax	pmax		
	comp=Z,391nm,1.5s							
TPH	Tonopah	89.71	308		P	P	21 56 58.2	+0.7
TPH					IAmb	IAmb	21 57 12.0	
	comp=Z,391nm,1.5s							
GMN	Gold Mountain	89.75	307		P	P	21 56 58.3	+0.5
GRAC	Grapevine Rang	89.84	307		P	P	21 56 58.3	+0.3
GRAC					IAmb	IAmb	21 57 12.7	
	comp=Z,450nm,1.8s							
CCCA	Chr Cany lake	89.87	305		P	P	21 56 58.5	+0.5
CCCA					IAmb	IAmb	21 57 13.7	
	comp=Z,311nm,1.3s							
ELS	Elsinore Mount	89.95	303		P	P	21 56 58.7	+0.1
ELS					IAmb	IAmb	21 57 13.8	
	comp=Z,307nm,1.5s							
MPMC	Manual Prospec	89.96	306		P	P	21 56 59.6	+0.9
MPMC					IAmb	IAmb	21 57 14.3	
	comp=Z,360nm,1.6s							
MPMC					IAMs_20	IAMs_20	22 32 25.1	
	comp=Z,69µm,22.0s							
CLC	China Lake	90.05	306		P	P	21 56 59.9	+1.0
CLC					pmax	pmax		
	comp=Z,279nm,1.6s							
CLC	China Lake	90.05	306		P	P	21 56 59.9	+1.0
CLC					IAmb	IAmb	21 57 14.4	
	comp=Z,279nm,1.6s							
LRMC	Laurel Mtn Rad	90.13	305		P	P	21 57 00.4	+1.0
LRMC					IAmb	IAmb	21 57 14.9	
	comp=Z,311nm,1.4s							
BFSC	Mount Baldy Ra	90.14	304		P	P	21 57 00.2	+0.7
BFSC					IAmb	IAmb	21 57 13.5	
	comp=Z,286nm,1.6s							
E09A	Wood Farm, Sta	90.22	316		P	P	21 57 00.3	+0.9
C09A	Chrisman Ranch	90.28	318		P	P	21 57 00.2	+0.6
LNOR	Lincton Mounta	90.34	316		P	P	21 56 59.8	-0.3
KVN	Kaiserville	90.38	309		P	P	21 57 00.7	+0.1
KVN					pmax	pmax		
	comp=Z,108nm,1.6s							
KVN	Kaiserville	90.38	309		P	P	21 57 00.7	+0.1
CWC	Cottonwood Cre	90.43	306		P	P	21 57 01.0	+0.2
CWC					IAMs_20	IAMs_20	22 32 53.5	
	comp=Z,51µm,21.0s							
NV11	Mina Array Sit	90.44	308		P	P	21 57 00.8	0.0
MWC	Mount Wilson	90.47	304		P	P	21 57 00.8	-0.3
MWC					pmax	pmax		
	comp=Z,282nm,1.6s							
MWC					MLR	MLR		
	comp=Z,79µm,20.0s							
MWC	Mount Wilson	90.47	304		P	P	21 57 00.8	-0.3
MWC					IAmb	IAmb	21 57 15.2	
	comp=Z,282nm,1.6s							
TIN	Tinemaha, Big	90.53	307		P	P	21 57 02.2	+0.9
TIN					pmax	pmax		
	comp=Z,184nm,1.5s							
TIN					MLR	MLR		
	comp=Z,44µm,21.0s							
TIN	Tinemaha, Big	90.53	307		P	P	21 57 02.2	+0.9
TIN					IAMs_20	IAMs_20	22 34 34.2	
	comp=Z,44µm,21.0s							
J08A	Circle Bar Ran	90.55	313		P	P	21 57 01.6	+0.5
NVAR	Mina Array Bea	90.56	308		P	P	21 57 02.1	+0.6
	comp=Z,23nm,1.1s,baz=98,slow=4.4,SNR=36							
NVAR					LR	LR	22 33 31.9	
	comp=Z,33µm,21.9s,baz=98,slow=33							
	comp=Z,23nm,1.1s							
NVAR	Mina Array Bea	90.56	308		P	P	21 57 02.0	+0.5
PASC	Pasadena Art C	90.57	304		P	P	21 57 01.6	+0.2
PASC					IAmb	IAmb	21 57 16.3	
	comp=Z,256nm,1.6s							
TPO	Tropico Hills	90.59	305		P	P	21 57 02.2	+0.7
WVOR	Wild Horse Val	90.69	312		P	P	21 57 03.0	+1.1
WVOR					pmax	pmax		
	comp=Z,240nm,1.7s							
WVOR					MLR	MLR		
	comp=Z,87µm,21.0s							
WVOR	Wild Horse Val	90.69	312		P	P	21 57 03.0	+1.1
WVOR					IAmb	IAmb	21 57 16.9	
	comp=Z,240nm,1.7s							
WVOR	Wild Horse Val	90.69	312	⇓	P	P	21 57 03.9	+2.0
WVOR	Wild Horse Val	90.69	312		P	P	21 57 03.5	+1.6
	comp=Z,12µmcomp=Z,2µmcomp=Z,81nm,2.0s							
LHV	Little Huntoon	90.72	308		P	P	21 57 02.5	+0.6
LHV					IAmb	IAmb	21 57 16.8	
	comp=Z,315nm,1.6s							
RYN	Ryan	90.72	308		P	P	21 57 02.5	+0.3
MAW	Mawson	90.73	157		P	P	21 57 02.5	+1.2
	comp=Z,43nm,1.2s,baz=275,slow=6.3,SNR=31							
MAW					PKKPbc	PKKPbc	22 14 29.6	-0.6
	comp=Z,6.0nm,1.1s,baz=29,slow=4.7,SNR=4.2							
MAW					LR	LR	22 28 57.0	
	comp=Z,25µm,21.8s,baz=272,slow=30							
	comp=Z,43nm,1.2s							
MAW	Mawson	90.73	157		P	P	21 57 02.7	+1.4
MAW					pmax	pmax		
	comp=Z,42nm,1.3s							
MAW	Mawson	90.73	157		P	P	21 57 02.6	+1.4
MAW	Mawson	90.73	157	⇑	P	P	21 57 03.1	+1.9
MAW	Mawson	90.73	157		P	P	21 57 03.0	+1.8
	comp=Z,31nm,1.4s,comp=Z,0.0nm							
MAW	Mawson	90.73	157		P	P	21 57 03.5	+2.2
	comp=Z,31nm,1.4s,comp=Z,0.0nm							
MAW	Mawson	90.73	157		P	P	21 57 03.5	+2.2
	comp=Z,1µmcomp=Z,555nmcomp=Z,31nm,1.4s							
D08A	Wollman Farm,	90.74	317		P	P	21 57 03.0	+1.2
ISA	Isabella, Lake	90.77	306		P	P	21 57 02.9	+0.6
ISA					pmax	pmax		
	comp=Z,195nm,1.4s							
ISA					MLR	MLR		
	comp=Z,95µm,22.0s							
ISA	Isabella, Lake	90.77	306		P	P	21 57 02.9	+0.6
ISA					IAmb	IAmb	21 57 18.2	
	comp=Z,195nm,1.4s							
YPT	Yellepit	90.80	316		P	P	21 57 02.3	+0.2
E08A	Dider Farm, El	90.85	316		P	P	21 57 02.9	+0.6
QSPA	South Pole Qui	90.96	180		P	P	21 57 02.9	+0.4
	comp=Z,96nm,1.1s,baz=192,slow=2.6,SNR=66							
QSPA					PKKPbc	PKKPdf	22 14 28.2	+1.6
	comp=Z,5.5nm,1.0s,baz=328,slow=1.0,SNR=6.6							
QSPA					PKPPKP	P'P'df	22 22 37.1	+1.0
	comp=Z,3.8nm,1.2s,baz=20,slow=1.0,SNR=3.7							
QSPA					LR	LR	22 32 18.0	
	comp=Z,11µm,21.2s,baz=184,slow=32							
	comp=Z,96nm,1.1s							
QSPA	South Pole Qui	90.96	180		P	P	21 57 03.0	+0.4
QSPA	South Pole Qui	90.96	180	⇑	P	P	21 57 02.4	-0.2
QSPA	South Pole Qui	90.96	180		P	P	21 57 03.3	+0.7
	comp=Z,7µmcomp=Z,6µmcomp=Z,389nm,1.2s							
B08A	Colville Reser	90.97	318		P	P	21 57 03.0	+0.2
B08A					IAmb	IAmb	21 57 17.5	
	comp=Z,286nm,2.0s							
OSI	Osito Audit: C	91.00	304		P	P	21 57 03.8	+0.4
OSI					IAmb	IAmb	21 57 18.6	
	comp=Z,381nm,1.6s							
PNT	Penticton	91.11	319		P	P	21 57 06.3	+2.8
PNT					pmax	pmax		
	comp=Z,309nm,1.8s							
EPH	Ephrata	91.19	317		P	P	21 57 03.9	-0.1
HAWA	Hanford	91.19	316		P	P	21 57 04.5	+0.6
HAWA					IAmb	IAmb	21 57 19.3	
	comp=Z,386nm,1.9s							
HAWA					IAMs_20	IAMs_20	22 35 12.6	
	comp=Z,38µm,19.0s							
HAWA	Hanford	91.19	316	⇓	P	P	21 57 06.7	+2.8
WAH2	Wahluke Slope	91.19	317		P	P	21 57 04.1	+0.2
MDPB	Devils Postpil	91.19	307		P	P	21 57 04.7	+0.2
VES	Vestal, Richgr	91.26	306		P	P	21 57 05.3	+0.8
VES					IAmb	IAmb	21 57 18.2	
	comp=Z,260nm,1.7s							
YERR	Yerington	91.27	309		P	P	21 57 04.9	+0.2
PAHR	Pah Rah Range	91.36	310		P	P	21 57 04.4	-0.7
E07A	Sunnyside	91.40	316		P	P	21 57 06.3	+1.3
E07A					IAmb	IAmb	21 57 14.0	
	comp=Z,249nm,1.7s							
WAKR	Walker	91.44	308		P	P	21 57 05.6	0.0
F07A	Phinny Hill Vi	91.48	316		IAmb	IAmb	21 57 20.9	
	comp=Z,359nm,1.4s							
PNTR	Pine Nut	91.55	309		P	P	21 57 06.3	+0.3
PNTR					IAmb	IAmb	21 57 20.8	
	comp=Z,309nm,1.8s							
MXC	Moxie City	91.70	316		P	P	21 57 06.6	+0.3
C36M	Paulatuk	91.71	339		P	P	21 57 07.5	+1.7
C36M					IAmb	IAmb	21 57 25.5	
	comp=Z,236nm,2.0s							
C36M					IAMs_20	IAMs_20	22 32 43.5	
	comp=Z,34µm,22.0s							
A36M	Sachs Harbour	91.75	342		P	P	21 57 06.2	+0.2
A36M					IAmb	IAmb	21 57 14.8	
	comp=Z,188nm,1.1s							
A36M					IAMs_20	IAMs_20	22 35 14.3	
	comp=Z,33µm,21.0s							
LTY	Liberty	91.92	317		P	P	21 57 06.8	-0.6
LTY					IAmb	IAmb	21 57 31.5	
	comp=Z,204nm,1.7s							
MOD	Modoc Plateau	91.95	312		P	P	21 57 07.8	0.0
BEKR	Beckworth	92.10	310		P	P	21 57 08.5	-0.1
WRGLY	Wrigley	92.18	333		P	P	21 57 08.8	+0.8
CMB	Columbia Colle	92.21	308		P	P	21 57 09.3	+0.4
CMB					pmax	pmax		
	comp=Z,103nm,1.5s							
CMB					MLR	MLR		
	comp=Z,71µm,22.0s							
CMB	Columbia Colle	92.21	308		P	P	21 57 09.3	+0.4
CMB					IAMs_20	IAMs_20	22 34 26.5	
	comp=Z,71µm,22.0s							
PINE	Pine Mountain	92.32	314		P	P	21 57 10.0	+0.5
PINE					IAmb	IAmb	21 57 24.8	
	comp=Z,247nm,1.8s							
K05A	Summer Lake	92.34	313		P	P	21 57 09.9	+0.2
K05A					IAmb	IAmb	21 57 24.5	
	comp=Z,312nm,1.7s							
PKD	Bear Valley Ra	92.44	306		P	P	21 57 09.9	-0.1
PKD					IAMs_20	IAMs_20	22 34 02.7	
	comp=Z,65µm,21.0s							
WELL	Weller Preserv	92.46	308		IAMs_20	IAMs_20	22 33 37.9	
	comp=Z,56µm,22.0s							
LLLB	Lillooet	92.49	321		P	P	21 57 10.1	+0.2
G05A	Wamic	92.49	315		P	P	21 57 10.1	+0.1
J05D	Fort Rock, OR	92.56	313		P	P	21 57 09.4	-1.1
J05D					IAmb	IAmb	21 57 26.4	
	comp=Z,287nm,1.7s							
I05D	Terrebonne, OR	92.57	314		P	P	21 57 10.8	+0.3
I05D					IAmb	IAmb	21 57 20.1	

	comp=Z,201nm,1.5s						
AFDM	**Forest Hills D**	**92.62**	**309**	P	**P**	**21 57 10.6**	**-0.2**
PMPB	**Monarch Peak**	**92.64**	**306**	P	**P**	**21 57 11.2**	**+0.3**
PMPB				IAmb	IAmb	21 57 25.6	
	comp=Z,240nm,1.4s						
LON	**Longmire**	**92.73**	**317**	P	**P**	**21 57 10.6**	**-0.6**
LON				pmax	pmax		
	comp=Z,119nm,1.3s						
LON	**Longmire**	**92.73**	**317**	P	**P**	**21 57 10.6**	**-0.6**
A05A	**Maple Falls**	**92.75**	**319**	P	**P**	**21 57 10.8**	**-0.3**
A05A				IAmb	IAmb	21 57 19.8	
	comp=Z,221nm,1.7s						
BBGB	**Big Mountain B**	**92.81**	**307**	P	**P**	**21 57 12.2**	**+0.4**
BBGB				IAmb	IAmb	21 57 26.5	
	comp=Z,183nm,1.4s						
D05A	**Enumclaw**	**92.82**	**317**	P	**P**	**21 57 11.8**	**+0.3**
HATC	**Hat Creek Radi**	**92.89**	**311**	P	**P**	**21 57 12.5**	**+0.5**
HATC				IAmb	IAmb	21 57 51.9	
	comp=Z,150nm,1.4s						
HATC				IAMs_20	IAMs_20	22 35 53.1	
	comp=Z,53µm,20.0s						
WIFE	**Three Sisters-**	**92.93**	**314**	P	**P**	**21 57 12.7**	**+0.4**
K04D	**Chiloquin, OR**	**92.98**	**313**	P	**P**	**21 57 11.8**	**-0.7**
K04D				IAmb	IAmb	21 57 52.2	
	comp=Z,192nm,1.3s						
ORV	**Oroville**	**93.00**	**309**	P	**P**	**21 57 12.5**	**+0.1**
ORV				pmax	pmax		
	comp=Z,80nm,1.5s						
ORV				MLR	MLR		
	comp=Z,44µm,22.0s						
ORV	**Oroville**	**93.00**	**309**	P	**P**	**21 57 12.5**	**+0.1**
ORV				IAMs_20	IAMs_20	22 35 59.1	
	comp=Z,44µm,22.0s						
HULI	**Fort Hunter Li**	**93.00**	**306**	P	**P**	**21 57 12.5**	**0.0**
HULI				IAmb	IAmb	21 57 27.2	
	comp=Z,182nm,1.2s						
JRO	**Jston Ridge Ob**	**93.05**	**316**	P	**P**	**21 57 12.8**	**+0.1**
JRO				IAmb	IAmb	21 57 42.5	
	comp=Z,249nm,1.5s						
STD	**Studebaker Rid**	**93.06**	**316**	P	**P**	**21 57 12.7**	**0.0**
STD				IAmb	IAmb	21 57 27.3	
	comp=Z,231nm,1.4s						
SAO	**San Andreas Ge**	**93.12**	**307**	P	**P**	**21 57 13.6**	**+0.5**
SAO				pmax	pmax		
	comp=Z,104nm,1.6s						
SAO				MLR	MLR		
	comp=Z,63µm,21.0s						
SAO	**San Andreas Ge**	**93.12**	**307**	P	**P**	**21 57 13.6**	**+0.5**
SAO				IAMs_20	IAMs_20	22 34 26.8	
	comp=Z,63µm,21.0s						
O03E	**Paynes Creek**	**93.18**	**310**	P	**P**	**21 57 13.6**	**+0.2**
O03E				IAmb	IAmb	21 57 27.5	
	comp=Z,171nm,1.4s						
O03E				IAMs_20	IAMs_20	22 37 17.9	
	comp=Z,35µm,20.0s						
A04D	**Lummi Island**	**93.18**	**319**	P	**P**	**21 57 13.4**	**+0.4**
A04D				IAmb	IAmb	21 57 22.3	
	comp=Z,281nm,1.4s						
J04A	**Umpqua Nationa**	**93.20**	**313**	P	**P**	**21 57 14.6**	**+1.0**
SUTB	**Sutter Butte**	**93.24**	**309**	P	**P**	**21 57 14.9**	**+1.4**
MHC	**Mount Hamilton**	**93.24**	**307**	P	**P**	**21 57 14.8**	**+1.0**
MHC				pmax	pmax		
	comp=Z,265nm,1.9s						
MHC				MLR	MLR		
	comp=Z,36µm,22.0s						
MHC	**Mount Hamilton**	**93.24**	**307**	P	**P**	**21 57 14.8**	**+1.0**
MHC				IAmb	IAmb	21 57 28.6	
	comp=Z,264nm,1.9s						
MHC				IAMs_20	IAMs_20	22 34 23.9	
	comp=Z,36µm,22.0s						
G04A	**Mulino**	**93.31**	**315**	P	**P**	**21 57 13.8**	**0.0**
M03C	**McCloud**	**93.35**	**311**	P	**P**	**21 57 14.8**	**+0.6**
GNW	**Green Mountain**	**93.36**	**318**	P	**P**	**21 57 13.4**	**-0.4**
GNW				IAmb	IAmb	21 57 27.8	
	comp=Z,168nm,1.3s						
I04A	**Tendick Farm,**	**93.38**	**314**	P	**P**	**21 57 14.1**	**-0.1**
I04A				IAmb	IAmb	21 57 28.6	
	comp=Z,207nm,1.6s						
FORD	**Fort Ord Natur**	**93.40**	**307**	P	**P**	**21 57 15.7**	**+1.4**
FORD				IAmb	IAmb	21 58 06.3	
	comp=Z,209nm,0.9s						
FORD				IAMs_20	IAMs_20	22 34 23.0	
	comp=Z,68µm,22.0s						
L04D	**Klamath Falls**	**93.42**	**312**	P	**P**	**21 57 15.1**	**+0.6**
L04D				IAmb	IAmb	21 57 29.1	
	comp=Z,253nm,1.5s						
H04D	**Lebanon**	**93.55**	**315**	P	**P**	**21 57 14.9**	**0.0**
H04D				IAmb	IAmb	21 57 28.8	
	comp=Z,132nm,1.2s						
F04D	**Rainier, OR**	**93.61**	**316**	P	**P**	**21 57 16.1**	**+1.0**
BORK	**Borovoye**	**93.64**	**37**	*i* P	**P**	**21 57 15.2**	**+0.1**
BORK				pmax	pmax		
	comp=Z,66nm,1.5s						
BORK				MLR	MLR		
	comp=Z,24µm,26.0s						
BORK	**Borovoye**	**93.64**	**37**	P	**P**	**21 57 15.3**	**+0.1**
BBOR	**Butler Butte**	**93.64**	**313**	P	**P**	**21 57 14.8**	**-0.8**
PGC	**Sidney**	**93.68**	**319**	P	**P**	**21 57 15.4**	**+0.1**
BVAR	**Borovoye Array**	**93.69**	**37**	P	**P**	**21 57 15.1**	**-0.2**
	comp=Z,10nm,1.0s,baz=259,slow=3.0,SNR=19						
BVAR				PP	PP	22 00 45.2	-15
	comp=Z,8.6nm,0.9s,baz=303,slow=8.1,SNR=4.1						
BVAR				PKKPbc	**PKKPbc**	**22 14 23.6**	**+1.5**
	comp=Z,1.5nm,0.8s,baz=122,slow=5.4,SNR=3.7						
	comp=Z,10nm,1.0s						
JRSC	**Jasper Ridge**	**93.71**	**307**	P	**P**	**21 57 17.0**	**+1.2**
JRSC				IAmb	IAmb	21 57 31.2	
	comp=Z,196nm,1.6s						
JRSC				IAMs_20	IAMs_20	22 34 39.3	
	comp=Z,40µm,22.0s						
BUCK	**Buck Mountain**	**93.76**	**314**	P	**P**	**21 57 16.0**	**0.0**
BUCK				IAmb	IAmb	21 57 30.7	
	comp=Z,382nm,1.7s						
YBH	**Yreka Blue Hor**	**93.76**	**312**	LR	LR	22 35 26.3	
	comp=Z,61µm,20.7s,baz=92,slow=33						
YBH	**Yreka Blue Hor**	**93.76**	**312**	P	**P**	**21 57 15.1**	**-0.9**
YBH				pmax	pmax		
	comp=Z,94nm,1.6s						
YBH	**Yreka Blue Hor**	**93.76**	**312**	P	**P**	**21 57 15.1**	**-0.9**
B04A	**Port Angeles**	**93.77**	**318**	P	**P**	**21 57 16.4**	**+0.6**
CVS	**Carmenet Viney**	**93.82**	**308**	P	**P**	**21 57 16.6**	**+0.3**
CVS				IAmb	IAmb	21 57 31.5	
	comp=Z,166nm,1.4s						
CVS				IAMs_20	IAMs_20	22 34 52.1	
	comp=Z,43µm,22.0s						
G03D	**McMinnville, O**	**93.87**	**315**	P	**P**	**21 57 16.3**	**0.0**
G03D				IAmb	IAmb	21 57 52.9	
	comp=Z,217nm,1.4s						
M02C	**Callahan**	**93.89**	**311**	P	**P**	**21 57 16.9**	**+0.2**
M02C				IAMs_20	IAMs_20	22 36 16.7	
	comp=Z,57µm,20.0s						
O02D	**Mt. Diablo Mer**	**93.94**	**310**	P	**P**	**21 57 16.4**	**-0.5**
O02D				IAMs_20	IAMs_20	22 37 45.1	
	comp=Z,31µm,19.0s						
COR	**Corvallis**	**93.95**	**315**	P	**P**	**21 57 17.8**	**+1.1**
COR				pmax	pmax		
	comp=Z,329nm,1.5s						
COR				MLR	MLR		
	comp=Z,41µm,22.0s						
COR	**Corvallis**	**93.95**	**315**	P	**P**	**21 57 17.8**	**+1.1**
COR				IAmb	IAmb	21 57 31.5	
	comp=Z,329nm,1.4s						
COR	**Corvallis**	**93.95**	**315**	IAMs_20	IAMs_20	22 34 21.0	
	comp=Z,41µm,22.0s						
COR	**Corvallis**	**93.95**	**315**	⇓P	**P**	**21 57 19.9**	**+3.2**
COR	**Corvallis**	**93.95**	**315**	P	**P**	**21 57 18.9**	**+2.2**
	comp=Z,10µmcomp=Z,4µmcomp=Z,174nm,1.3s						
E03A	**Lebam**	**93.95**	**317**	P	**P**	**21 57 16.7**	**+0.1**
E03A				IAmb	IAmb	21 57 31.3	
	comp=Z,325nm,1.3s						
F03A	**Seaside**	**94.01**	**316**	P	**P**	**21 57 18.3**	**+1.4**
WISH	**Wishkah**	**94.04**	**317**	P	**P**	**21 57 17.2**	**+0.2**
GDXM	**Geysers**	**94.05**	**309**	P	**P**	**21 57 16.7**	**-0.7**
NLWA	**Neilton Lookou**	**94.08**	**317**	P	**P**	**21 57 17.6**	**+0.3**
NLWA				IAMs_20	IAMs_20	22 40 56.0	
	comp=Z,58µm,19.0s						
NLWA	**Neilton Lookou**	**94.08**	**317**	⇑P	**P**	**21 57 18.5**	**+1.2**
CLRS	**Cowichan Lake**	**94.11**	**319**	P	**P**	**21 57 18.2**	**+0.9**
CLRS				IAmb	IAmb	21 57 47.8	
	comp=Z,462nm,2.0s						
RADR	**Rader Ridge**	**94.13**	**316**	P	**P**	**21 57 18.6**	**+1.1**
MCCM	**Marconi Confer**	**94.17**	**308**	P	**P**	**21 57 18.0**	**+0.2**
MCCM				IAMs_20	IAMs_20	22 34 41.3	
	comp=Z,46µm,21.0s						
CHM	**Chimkent**	**94.22**	**48**	*e*P	**P**	**21 57 17.3**	**-0.7**
CHM				*e*S	**SKSac**	**22 07 52.0**	**-2.2**
CHM				pmax	pmax		
	comp=Z,259nm,2.8s						
CHM				MLR	MLR		
	comp=Z,4µm,20.0s						
CHM	**Chimkent**	**94.22**	**48**	*e*P	**P**	**21 57 17.3**	**-0.7**
	comp=Z,259nm,2.8s						
CHM				*e*S	**SKSac**	**22 07 52.0**	**-2.2**
CHM				LR	LR	22 41 07.2	
	comp=Z,4µm,19.7s						
KHBM	**Hayfork Bally**	**94.23**	**311**	P	**P**	**21 57 18.0**	**-0.3**
KHBM				IAMs_20	IAMs_20	22 36 46.7	
	comp=Z,49µm,20.0s						
FARB	**Farallon Islan**	**94.30**	**308**	P	**P**	**21 57 18.5**	**+0.1**
FARB				IAMs_20	IAMs_20	22 34 56.7	
	comp=Z,49µm,22.0s						
BRLS	**Borolday**	**94.33**	**47**	*e*P	**P**	**21 57 17.4**	**-1.1**
BRLS	**Borolday**	**94.33**	**47**	*e*P	**P**	**21 57 17.4**	**-1.1**
L02F	**Cave Junction**	**94.37**	**312**	P	**P**	**21 57 18.9**	**+0.2**
L02F				IAmb	IAmb	21 57 33.5	
	comp=Z,226nm,1.5s						
I02E	**Swisshome, OR**	**94.38**	**314**	P	**P**	**21 57 19.1**	**+0.4**
I02E				IAmb	IAmb	21 57 28.1	
	comp=Z,260nm,1.3s						
K02D	**Willamette Mer**	**94.38**	**313**	P	**P**	**21 57 18.7**	**-0.1**
KBL	**Kabul**	**94.40**	**55**	P	**P**	**21 57 18.7**	**-0.6**
	SNR=35						
KBL	**Kabul**	**94.40**	**55**	P	**P**	**21 57 18.2**	**-1.1**
KBL				pmax	pmax		
	comp=Z,75nm,1.5s						
KBL	**Kabul**	**94.40**	**55**	P	**P**	**21 57 18.2**	**-1.1**
KBL	**Kabul**	**94.40**	**55**	P	**P**	**21 57 19.2**	**-0.1**
	comp=Z,7µmcomp=Z,787nmcomp=Z,33nm,1.7s						
DCMP	**DeCamp, Califo**	**94.42**	**310**	P	**P**	**21 57 20.2**	**+1.2**
DCMP				IAmb	IAmb	21 58 31.2	
	comp=Z,138nm,0.8s						
C03A	**Quillayute Air**	**94.49**	**318**	P	**P**	**21 57 18.8**	**-0.3**
C03A				IAmb	IAmb	21 57 35.4	
	comp=Z,356nm,1.6s						
J01E	**Myrtle Point**	**94.53**	**313**	P	**P**	**21 57 18.2**	**-1.2**
J01E				IAmb	IAmb	21 57 34.7	
	comp=Z,192nm,1.4s						
KCPM	**Cahto Peak**	**94.59**	**310**	P	**P**	**21 57 20.2**	**+0.3**
KCPM				IAmb	IAmb	21 57 34.8	
	comp=Z,229nm,1.7s						
KCPM				IAMs_20	IAMs_20	22 36 59.3	
	comp=Z,44µm,21.0s						
KHMM	**Horse Mountain**	**94.60**	**311**	P	**P**	**21 57 20.0**	**0.0**
KHMM				IAmb	IAmb	21 57 34.5	
	comp=Z,183nm,1.5s						
KHMM				IAMs_20	IAMs_20	22 36 49.4	
	comp=Z,60µm,20.0s						
KSXB	**Camp Six Broad**	**94.62**	**312**	P	**P**	**21 57 19.4**	**-0.6**
KSXB				IAmb	IAmb	21 57 35.2	
	comp=Z,252nm,1.3s						
KMRM	**Mail Ridge**	**94.64**	**310**	P	**P**	**21 57 19.9**	**-0.2**
KRMB	**Red Mountain**	**94.67**	**312**	P	**P**	**21 57 19.8**	**-0.5**
KRMB				IAmb	IAmb	21 57 34.8	
	comp=Z,137nm,1.3s						
CBB	**Campbell River**	**94.77**	**320**	P	**P**	**21 57 19.3**	**-1.1**
CBB				IAmb	IAmb	21 57 30.5	
	comp=Z,319nm,1.5s						
KK31	**Karatay Array**	**94.81**	**47**	P	**P**	**21 57 20.0**	**-0.8**
KK31				pmax	pmax		
	comp=Z,37nm,1.3s						
KK31	**Karatay Array**	**94.81**	**47**	P	**P**	**21 57 20.0**	**-0.8**
KKAR	**Karatay Array**	**94.81**	**47**	P	**P**	**21 57 19.9**	**-0.9**
KKAR	**Karatay Array**	**94.81**	**47**	P	**P**	**21 57 19.9**	**-0.9**
JCC	**Jacoby Creek,**	**94.83**	**311**	P	**P**	**21 57 20.8**	**0.0**
JCC				IAMs_20	IAMs_20	22 37 06.5	
	comp=Z,47µm,20.0s						
KMPM	**Mount Pierce**	**94.93**	**311**	P	**P**	**21 57 20.7**	**-0.7**
KMPM				IAmb	IAmb	21 57 36.2	
	comp=Z,212nm,1.4s						
WTLY	**Watson Lake, Y**	**95.16**	**331**	P	**P**	**21 57 22.1**	**+0.1**
WTLY				IAmb	IAmb	21 57 31.2	
	comp=Z,177nm,1.4s						
INK	**Inuvik**	**95.28**	**339**	LR	LR	22 38 20.7	
	comp=Z,38µm,18.8s,baz=84,slow=34						
INK	**Inuvik**	**95.28**	**339**	P	**P**	**21 57 22.2**	**-0.1**
INK				pmax	pmax		
	comp=Z,88nm,1.2s						
INK	**Inuvik**	**95.28**	**339**	P	**P**	**21 57 22.2**	**-0.1**
INK	**Inuvik**	**95.28**	**339**	⇑P	**P**	**21 57 23.0**	**+0.8**
INK	**Inuvik**	**95.28**	**339**	P	**P**	**21 57 23.6**	**+1.3**
	comp=Z,1µmcomp=Z,75nm,1.1s						
PAF	**Port-aux-Franc**	**95.31**	**139**	IAMs_20	IAMs_20	22 29 56.5	
	comp=Z,31µm,22.0s						
BTK	**Batken**	**95.34**	**50**	P	**P**	**21 57 22.8**	**-0.5**
BTK				pmax	pmax		
	comp=Z,109nm,1.4s						
BTK	**Batken**	**95.34**	**50**	P	**P**	**21 57 22.8**	**-0.5**
BTK	**Batken**	**95.34**	**50**	P	**P**	**21 57 23.7**	**+0.3**
	comp=Z,6µmcomp=Z,1µmcomp=Z,57nm,1.6s						
DZA	**Taraz**	**95.43**	**47**	*e*P	**P**	**21 57 22.8**	**-0.8**
DZA	**Taraz**	**95.43**	**47**	*e*P	**P**	**21 57 22.9**	**-0.8**
F31M	**Tsiigehtchic**	**95.60**	**338**	P	**P**	**21 57 24.0**	**+0.3**
F31M				IAmb	IAmb	21 57 33.1	
	comp=Z,196nm,1.2s						
F31M				IAMs_20	IAMs_20	22 37 45.4	
	comp=Z,54µm,20.0s						
MMPY	**Sheldon Lake,**	**95.80**	**333**	P	**P**	**21 57 25.6**	**+0.8**
G31M	**Satah River**	**95.94**	**338**	P	**P**	**21 57 25.7**	**+0.4**
G31M				IAmb	IAmb	21 57 34.0	
	comp=Z,169nm,1.2s						
ARK	**Arkit**	**96.02**	**48**	P	**P**	**21 57 27.1**	**+0.7**
	comp=Z,5µmcomp=Z,1µmcomp=Z,39nm,1.1s						
DLBC	**Dease Lake**	**96.10**	**329**	LR	LR	22 38 52.1	
	comp=Z,48µm,18.5s,baz=49,slow=34						
DRK	**Karamyk**	**96.16**	**50**	P	**P**	**21 57 26.7**	**-0.6**
DRK				pmax	pmax		
	comp=Z,59nm,1.3s						
DRK	**Karamyk**	**96.16**	**50**	P	**P**	**21 57 26.6**	**-0.6**
DRK	**Karamyk**	**96.16**	**50**	P	**P**	**21 57 28.6**	**+1.3**
	comp=Z,2µmcomp=Z,40nm,1.6s						
BBB	**Bella Bella**	**96.17**	**323**	LR	LR	22 36 33.7	
	comp=Z,64µm,20.6s,baz=77,slow=33						
BBB	**Bella Bella**	**96.17**	**323**	P	**P**	**21 57 27.4**	**+0.7**
BBB	**Bella Bella**	**96.17**	**323**	P	**P**	**21 57 30.2**	**+3.5**
	comp=Z,7µmcomp=Z,1µmcomp=Z,61nm,1.8s						
H31M	**Peel River**	**96.28**	**337**	P	**P**	**21 57 27.8**	**+0.9**
H31M				IAmb	IAmb	21 57 35.8	
	comp=Z,119nm,1.3s						
F30M	**Barrier River**	**96.30**	**339**	P	**P**	**21 57 27.6**	**+0.7**
F30M				IAmb	IAmb	21 57 35.8	
	comp=Z,123nm,1.4s						
F30M				IAMs_20	IAMs_20	22 38 18.9	
	comp=Z,47µm,19.0s						
R33M	**Jennings River**	**96.38**	**330**	P	**P**	**21 57 27.6**	**0.0**
T35M	**Bob Quinn**	**96.52**	**328**	P	**P**	**21 57 28.1**	**-0.1**
T35M				IAMs_20	IAMs_20	22 35 19.7	
	comp=Z,63µm,22.0s						
G30M	**tAoh Zraii Nji**	**96.66**	**338**	P	**P**	**21 57 28.8**	**+0.2**
G30M				IAmb	IAmb	21 57 43.8	
	comp=Z,231nm,1.9s						
G30M				IAMs_20	IAMs_20	22 35 47.4	
	comp=Z,57µm,22.0s						
S34M	**Telegraph Cree**	**96.79**	**329**	P	**P**	**21 57 29.3**	**0.0**
S34M				IAMs_20	IAMs_20	22 37 57.7	
	comp=Z,47µm,20.0s						
OHH	**Osh**	**96.79**	**49**	P	**P**	**21 57 29.4**	**-0.5**
	comp=Z,45nm,1.7s						
E29M	**Blow River**	**96.80**	**340**	P	**P**	**21 57 27.9**	**-1.3**
E29M				IAMs_20	IAMs_20	22 38 23.0	
	comp=Z,33µm,20.0s						
ARSB	**Arslanbob**	**96.84**	**48**	P	**P**	**21 57 30.0**	**-0.2**
ARSB				pmax	pmax		
	comp=Z,346nm,1.6s						
ARSB	**Arslanbob**	**96.84**	**48**	P	**P**	**21 57 30.0**	**-0.2**
N32M	**Quiet Lake**	**96.99**	**332**	P	**P**	**21 57 31.4**	**+1.2**
N32M				IAmb	IAmb	21 57 39.5	
	comp=Z,115nm,1.2s						
N32M				IAMs_20	IAMs_20	22 40 49.7	
	comp=Z,43µm,19.0s						
EPYK	**Eagle Plains**	**97.04**	**338**	P	**P**	**21 57 30.2**	**-0.2**
EPYK				IAmb	IAmb	21 57 40.0	
	comp=Z,99nm,1.1s						
EPYK				IAMs_20	IAMs_20	22 37 58.5	
	comp=Z,43µm,20.0s						
RUBB	**Prince Rupert**	**97.05**	**325**	P	**P**	**21 57 30.0**	**-0.5**
P33M	**Teslin, Yukon**	**97.10**	**331**	P	**P**	**21 57 29.9**	**-0.9**
Q32M	**Nakina River**	**97.13**	**330**	P	Pdif	21 57 31.4	+0.2
Q32M				IAmb	IAmb	21 57 40.5	
	comp=Z,103nm,1.4s						
I30M	**Mount Dempster**	**97.27**	**336**	P	Pdif	21 57 32.1	+0.5
I30M				IAMs_20	IAMs_20	22 40 23.7	
	comp=Z,55µm,19.0s						
E28M	**Babbage River**	**97.29**	**340**	P	Pdif	21 57 32.7	+1.2
E28M				IAMs_20	IAMs_20	22 40 18.8	
	comp=Z,27µm,19.0s						
M31M	**Drury Creek, Y**	**97.31**	**333**	P	Pdif	21 57 32.1	+0.3
M31M				IAmb	IAmb	21 57 41.7	
	comp=Z,135nm,1.4s						
G29M	**Pine Creek**	**97.35**	**338**	P	Pdif	21 57 32.5	+0.7
G29M				IAmb	IAmb	21 57 45.8	
	comp=Z,117nm,1.6s						
G29M				IAMs_20	IAMs_20	22 39 54.7	
	comp=Z,47µm,20.0s						
J30M	**Hart River**	**97.45**	**336**	P	Pdif	21 57 32.8	+0.4
D27M	**Malcolm River**	**97.52**	**341**	P	**P**	**21 57 32.1**	**-0.5**
D27M				IAmb	IAmb	21 57 42.3	
	comp=Z,119nm,1.5s						
NRIK	**Noril'sk**	**97.61**	**19**	P	Pdif	21 57 33.8	+0.9
	comp=Z,1.6nm,0.4s,baz=326,slow=3.6,SNR=1.3						
NRIK				PKKPbc	**PKKPbc**	**22 14 11.2**	**-0.7**
	comp=Z,2.1nm,0.5s,baz=101,slow=5.2,SNR=4.6						
NRIK				LR	LR	22 39 21.7	
	comp=Z,23µm,21.9s,baz=304,slow=34						
	comp=Z,1.6nm,0.4s						
NRIK	**Noril'sk**	**97.61**	**19**	*i* P	Pdif	21 57 34.0	+1.1
NRIK				pmax	pmax		
	comp=Z,22nm,1.4s						
NRIK				MLR	MLR		
	comp=Z,37µm,23.0s						
NRIK	**Noril'sk**	**97.61**	**19**	P	**P**	**21 57 32.7**	**-0.1**
V35K	**Ketchikan**	**97.61**	**326**	P	Pdif	21 57 33.9	+0.7
V35K				IAMs_20	IAMs_20	22 37 49.9	
	comp=Z,44µm,20.0s						
P32M	**Atlin**	**97.69**	**331**	P	**P**	**21 57 32.8**	**-0.7**
H29M	**Whitestone**	**97.72**	**338**	P	Pdif	21 57 33.8	+0.3
H29M				IAmb	IAmb	21 57 42.3	
	comp=Z,77nm,1.2s						
H29M				IAMs_20	IAMs_20	22 39 25.4	
	comp=Z,44µm,18.0s						
SGDS	**Sogindy**	**97.75**	**46**	*e*P	**P**	**21 57 33.3**	**-0.8**
SGDS				*e*S	**SKSac**	**22 08 10.9**	**-2.0**
WRAK	**Wrangell Islan**	**97.77**	**327**	P	**P**	**21 57 33.6**	**-0.1**
WRAK				IAmb	IAmb	21 57 54.5	
	comp=Z,135nm,2.0s						
WRAK	**Wrangell Islan**	**97.77**	**327**	IAMs_20	IAMs_20	22 37 37.9	
	comp=Z,51µm,20.0s						
F28M	**Old Crow**	**97.77**	**339**	P	Pdif	21 57 33.9	+0.2
F28M				IAmb	IAmb	21 57 42.4	
	comp=Z,118nm,1.6s						
F28M				IAMs_20	IAMs_20	22 39 18.7	
	comp=Z,42µm,19.0s						
AAK	**Ala-Archa**	**97.78**	**47**	LR	LR	22 46 03.2	
	comp=Z,11µm,20.8s,baz=296,slow=38						
AAK	**Ala-Archa**	**97.78**	**47**	P	Pdif	21 57 34.8	+0.3
AAK	**Ala-Archa**	**97.78**	**47**	*ce*P	Pdif	21 57 35.1	+0.6
AAK				pmax	pmax		
	comp=Z,105nm,1.6s						
AAK				MLR	MLR		
	comp=Z,18µm,26.0s						
AAK	**Ala-Archa**	**97.78**	**47**	P	**P**	**21 57 34.1**	**-0.3**
AAK				IAmb	IAmb	21 57 52.3	
	comp=Z,138nm,1.6s						
AAK	**Ala-Archa**	**97.78**	**47**	*i* P	Pdif	21 57 35.0	+0.5
	SNR=15						
AAK	**Ala-Archa**	**97.78**	**47**	P	Pdif	21 57 34.5	+0.1
AAK	**Ala-Archa**	**97.78**	**47**	P	Pdif	21 57 35.1	+0.6
	comp=Z,7µmcomp=Z,995nmcomp=Z,51nm,1.6s						
FRU1	**Bishkek**	**97.85**	**47**	P	**P**	**21 57 34.2**	**-0.4**
FRU1				pmax	pmax		
	comp=Z,76nm,1.3s						
FRU1	**Bishkek**	**97.85**	**47**	P	**P**	**21 57 34.2**	**-0.4**
NIL	**Nilore**	**97.96**	**56**	P	**P**	**21 57 35.1**	**-0.2**
NIL				pmax	pmax		
	comp=Z,43nm,1.2s						
NIL				MLR	MLR		
	comp=Z,7µm,19.0s						
NIL	**Nilore**	**97.96**	**56**	P	**P**	**21 57 35.1**	**-0.2**
NIL	**Nilore**	**97.96**	**56**	P	Pdif	21 57 37.0	+1.7
	comp=Z,6µmcomp=Z,783nmcomp=Z,32nm,1.4s						
WHY	**Whitehorse**	**97.97**	**332**	P	**P**	**21 57 34.5**	**-0.3**
WHY				IAmb	IAmb	21 57 43.4	
	comp=Z,128nm,1.4s						
I29M	**Ogilvie Camp,**	**97.99**	**337**	P	Pdif	21 57 35.1	+0.4
HG4B	**Hotspring**	**98.02**	**323**	P	Pdif	21 57 35.1	0.0
N31M	**Braeburn, Yuko**	**98.15**	**333**	IAMs_20	IAMs_20	22 37 11.3	
	comp=Z,63µm,21.0s						
E27K	**Coleen River**	**98.15**	**340**	P	**P**	**21 57 35.1**	**-0.3**
E27K				IAmb	IAmb	21 57 44.5	
	comp=Z,110nm,1.4s						
E27K				IAMs_20	IAMs_20	22 40 33.7	
	comp=Z,29µm,19.0s						
K29M	**Barlow Dome**	**98.18**	**335**	IAmb	IAmb	21 57 45.2	
	comp=Z,101nm,1.3s						
C27K	**Jago River**	**98.25**	**342**	P	Pdif	21 57 35.8	0.0
C27K				IAmb	IAmb	21 57 45.5	
	comp=Z,70nm,1.1s						
C27K				IAMs_20	IAMs_20	22 37 35.1	
	comp=Z,34µm,22.0s						
U33K	**Whale Pass**	**98.26**	**327**	P	**P**	**21 57 35.5**	**-0.5**
U33K				IAMs_20	IAMs_20	22 38 12.9	
	comp=Z,45µm,20.0s						
J29N	**Klondike Camp**	**98.26**	**336**	P	Pdif	21 57 36.5	+0.5
J29N				IAmb	IAmb	21 57 51.4	
	comp=Z,181nm,1.8s						
J29N				IAMs_20	IAMs_20	22 40 22.0	
	comp=Z,50µm,19.0s						
MOBC	**Moresby Island**	**98.30**	**324**	P	**P**	**21 57 36.0**	**-0.3**
MOBC				IAmb	IAmb	21 57 51.6	
	comp=Z,88nm,1.4s						
R32K	**Eaglecrest**	**98.44**	**329**	P	Pdif	21 57 37.3	+0.5
SKAG	**Skagway**	**98.52**	**331**	P	Pdif	21 57 38.2	+1.1
BESE	**Bessie Mountai**	**98.53**	**330**	P	Pdif	21 57 37.6	+0.3
DIB	**Dawson Inlet,**	**98.58**	**324**	P	**P**	**21 57 37.4**	**-0.1**
I28M	**Miner Creek**	**98.60**	**337**	P	**P**	**21 57 37.5**	**0.0**
I28M				IAmb	IAmb	21 57 46.1	
	comp=Z,123nm,1.6s						
I28M				IAMs_20	IAMs_20	22 35 56.7	
	comp=Z,45µm,21.0s						
L29M	**L29M**	**98.68**	**335**	P	Pdif	21 57 38.1	+0.2
S32K	**Killisnoo**	**98.69**	**329**	P	**P**	**21 57 36.6**	**-1.3**
S32K				IAMs_20	IAMs_20	22 37 11.1	
	comp=Z,44µm,20.0s						
G27K	**Doyon Strip**	**98.72**	**339**	P	Pdif	21 57 38.4	+0.4
G27K				IAmb	IAmb	21 57 46.9	
	comp=Z,112nm,1.7s						
G27K				IAMs_20	IAMs_20	22 40 12.9	
	comp=Z,54µm,20.0s						
N30M	**Aishikik Lake**	**98.75**	**333**	P	**P**	**21 57 37.9**	**-0.3**
DAWY	**Dawson**	**98.88**	**336**	P	Pdif	21 57 39.3	+0.6
DAWY				IAmb	IAmb	21 57 48.1	
	comp=Z,100nm,1.3s						
SRGN	**SRI GANGA NAGA**	**98.90**	**60**	*e*P	Pdif	21 57 40.7	+1.2
SRGN				IAmb	IAmb	21 57 43.5	
	comp=Z,86nm,1.1s						
H27K	**Steamboat Moun**	**98.90**	**338**	IAMs_20	IAMs_20	22 39 46.7	
	comp=Z,35µm,20.0s						
M29M	**Somme Creek**	**99.05**	**334**	P	**Pdif**	**21 57 40.0**	**+0.4**
KURBB	**Kurchatov Arra**	**99.06**	**38**	P	**Pdif**	**21 57 40.1**	**+0.3**
	comp=Z,5.8nm,0.8s,baz=285,slow=4.7,SNR=18						
KURBB				PKKPbc	**PKKPbc**	**22 14 08.4**	**+1.1**
	comp=Z,0.8nm,0.3s,baz=106,slow=2.6,SNR=4.6						
KURBB				LR	LR	22 44 18.0	
	comp=Z,10µm,19.9s,baz=292,slow=37						
	comp=Z,5.8nm,0.8s						
KSH2	**Kashi**	**99.10**	**50**	P	**Pdif**	**21 57 40.8**	**+0.4**
KSH2				sP	pwP	21 57 49.1	+3.7
KSH2				PP	**PP**	**22 01 43.1**	**+0.5**
KSH2				SKS	**SKSac**	**22 08 20.3**	**+0.3**
KSH2				S	**ScS**	**22 09 14.5**	**+1.8**
KSH2				SS	**SS**	**22 16 02.8**	**+2.4**
KSH2				L	L		
	comp=Z,16µm,29.4s						
KSH2				L	L		
	comp=Z,7µm,25.9s						
KSH2				L	L		
	comp=Z,23µm,29.4s						
KURK	**Kurchatov**	**99.10**	**38**	*ce*P	**Pdif**	**21 57 40.0**	**+0.1**
KURK				pmax	pmax		
	comp=Z,24nm,1.3s						
KURK				MLR	MLR		
	comp=Z,10µm,20.0s						
KURK	**Kurchatov**	**99.10**	**38**	P	**Pdif**	**21 57 39.6**	**-0.3**
KURK				IAmb	IAmb	21 57 56.6	
	comp=Z,130nm,1.8s						
KURK	**Kurchatov**	**99.10**	**38**	P	**Pdif**	**21 57 40.3**	**+0.4**
	comp=Z,6µmcomp=Z,1µmcomp=Z,36nm,1.9s						

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HYT   Haines Junctio    99.15 332  P        Pdif      21 57 40.2 +0.1
I27K  Kandik River      99.18 338  P        Pdif      21 57 39.9 -0.2
I27K                               IAMs_20  IAMs_20   22 37 14.2
      comp=Z,39µm,22.0s
SIT   Sitka             99.19 328  P        Pdif      21 57 39.8 -0.4
SIT                                pmax     pmax
      comp=Z,85nm,1.6s
SIT   Sitka             99.19 328  P        Pdif      21 57 39.8 -0.4
SRNI  Srinagar          99.19  55  eP       Pdif      21 57 43.5 +2.5
SRNI                               IAmb     IAmb      21 57 45.8
      comp=Z,72nm,0.4s
D25K  Kavik River       99.23 342  P        Pdif      21 57 40.6 +0.5
D25K                               IAmb     IAmb      21 57 49.7
      comp=Z,81nm,1.2s
F26K  Sheenjek River    99.23 340  P        Pdif      21 57 40.4 +0.2
F26K                               IAMs_20  IAMs_20   22 41 06.3
      comp=Z,34µm,20.0s
UDPR  Udaipur           99.28  65  eP       Pdif      21 57 42.6 +1.3
UDPR                               IAmb     IAmb      21 57 48.5
      comp=Z,24nm,0.2s
JMU   Jammu             99.38  57  eP       Pdif      21 57 43.6 +2.0
JMU                                IAmb     IAmb      21 57 55.7
      comp=Z,28nm,0.7s
G26K  Porcupine Rive    99.43 339  P        Pdif      21 57 41.7 +0.7
G26K                               IAMs_20  IAMs_20   22 41 42.6
      comp=Z,44µm,19.0s
AAA   Alma-Ata          99.44  46  eP       Pdif      21 57 40.8 -0.9
AAA   Alma-Ata          99.44  46  eP       Pdif      21 57 40.8 -0.9
TNSS  Tian-Shan         99.49  46  eP       Pdif      21 57 41.0 -1.4
TNSS  Tian-Shan         99.49  46  eP       Pdif      21 57 41.1 -1.4
BMAR  Burnt Mountain    99.50 340  P        Pdif      21 57 41.7 +0.3
E25K  Arctic Village    99.53 341  IAMs_20  IAMs_20   22 40 34.9
      comp=Z,35µm,20.0s
MDOK  Medeo             99.54  46  eP       Pdif      21 57 41.2 -1.1
MDOK  Medeo             99.54  46  eP       Pdif      21 57 41.3 -1.1
MDOK                               LR       LR        22 44 22.9
C24K  Franklin Bluff    99.74 343  Pdif     Pdif      21 57 42.5 +0.2
C24K                               IAmb     IAmb      21 57 52.2
      comp=Z,163nm,1.6s
F25K  Christian Rive    99.79 340  Pdif     Pdif      21 57 44.2 +1.5
F25K                               IAMs_20  IAMs_20   22 41 34.1
      comp=Z,38µm,20.0s
O29M  Mount Kennedy     99.82 332  Pdif     Pdif      21 57 44.0 +0.9
O29M                               IAMs_20  IAMs_20   22 42 20.5
      comp=Z,51µm,19.0s
I26K  Coal Creek Min    99.89 338  Pdif     Pdif      21 57 44.4 +1.3
I26K                               IAmb     IAmb      21 57 52.3
      comp=Z,140nm,1.7s
I26K                               IAMs_20  IAMs_20   22 41 49.9
      comp=Z,31µm,19.0s
POO   Poona             99.91  71  eP       Pdif      21 57 46.2 +1.9
AJM   Ajmer             99.92  63  eP       Pdif      21 57 46.0 +1.8
AJM                                IAmb     IAmb      21 57 49.2
      comp=Z,15nm,0.7s
K27K  Chicken           99.99 336           Pdif      21 57 44.1 +0.5
K27K                               IAMs_20  IAMs_20   22 41 34.6
      comp=Z,55µm,19.0s
D24K  Happy Valley     100.07 342  Pdif     Pdif      21 57 48.2 +4.4
GOA   Goa              100.09  74  eP       Pdif      21 57 54.7  +10
FYU   Fort Yukon       100.12 339  Pdif     Pdif      21 57 47.8 +3.7
FYU                                IAMs_20  IAMs_20   22 41 25.7
      comp=Z,43µm,19.0s
TDK   Taldyqorghan     100.16  44  eP       Pdif      21 57 43.8 -1.0
TDK                                eS       SKSac     22 08 22.8 -1.9
TDK                                MLR      MLR
      comp=Z,7µm,19.0s
TDK   Taldyqorghan     100.16  44  eP       Pdif      21 57 43.9 -1.0
TDK                                eS       SKSac     22 08 22.8 -1.9
TDK                                LR       LR        22 44 56.8
      comp=Z,7µm,18.8s
SEM   Semipalatinsk    100.18  38  eP       Pdif      21 57 44.1 -0.9
SEM   Semipalatinsk    100.18  38  eP       Pdif      21 57 44.2 -0.9
SEM                                LR       LR        22 45 13.8
      comp=Z,4µm,17.5s
THN   Thein Dam        100.19  57  eP       Pdif      21 57 46.5 +1.2
BCAR  Beaver Creek A   100.25 335           Pdif      21 57 45.2 +0.4
C23K  Itkillik River   100.25 343  Pdif     Pdif      21 57 48.6 +4.0
L27K  Beaver Creek,    100.27 335           Pdif      21 57 45.8 +0.9
KAD   Karad            100.31  72  eP       Pdif      21 57 47.8 +1.7
O28M  Mount Upton      100.41 333  Pdif     Pdif      21 57 45.5 -0.4
O28M                               IAMs_20  IAMs_20   22 38 12.0
      comp=Z,56µm,22.0s
TSSA  Tissa            100.47  57  eP       Pdif      21 57 48.6 +1.9
E24K  Your Creek       100.51 341  IAMs_20  IAMs_20   22 42 09.9
      comp=Z,34µm,21.0s
SATY  Saty             100.54  46  eP       Pdif      21 57 45.8 -0.9
SATY  Saty             100.54  46  eP       Pdif      21 57 45.8 -0.9
M27K  Edge Creek, AK   100.56 335           Pdif      21 57 47.8 +1.4
F24K  Squaw Lake       100.59 340  IAMs_20  IAMs_20   22 41 16.0
      comp=Z,44µm,21.0s
KPKS  Kokpek           100.66  46  eP       Pdif      21 57 46.2 -1.0
KPKS  Kokpek           100.66  46  eP       Pdif      21 57 46.2 -1.0
DHRM  DHARAMSHALA      100.67  57  eP       Pdif      21 57 51.4 +3.7
PCA   Pinnacle         100.68 332  IAMs_20  IAMs_20   22 41 48.2
      comp=Z,48µm,19.0s
PRP   Porcupine Dome   100.70 338  Pdif     Pdif      21 57 49.5 +2.6
PRP                                IAMs_20  IAMs_20   22 38 02.1
      comp=Z,39µm,22.0s
D23K  Nanushuk River   100.74 342  Pdif     Pdif      21 57 48.4 +1.5
D23K                               IAMs_20  IAMs_20   22 44 38.8
      comp=Z,29µm,20.0s
SCRK  Sand Creek       100.78 336           Pdif      21 57 47.8 +0.5
SCRK                               IAMs_20  IAMs_20   22 42 08.5
      comp=Z,31µm,19.0s
G24K  Hadweenzic Riv   100.85 340  Pdif     Pdif      21 57 48.3 +1.0
G24K                               IAMs_20  IAMs_20   22 41 33.9
      comp=Z,37µm,19.0s
E23K  Chandalar        100.88 341  Pdif     Pdif      21 57 48.0 +0.3
E23K                               IAMs_20  IAMs_20   22 42 32.8
      comp=Z,32µm,20.0s
L26K  Log Cabin Wild   100.92 335  Pdif     Pdif      21 57 48.9 +1.1
UZB   Uzynbulak        100.96  46  eP       Pdif      21 57 47.5 -1.1
UZB   Uzynbulak        100.96  46  eP       Pdif      21 57 47.5 -1.1
BARN  Barnard Glacie   100.97 333  Pdif     Pdif      21 57 48.9 +0.6
M26K  Nabesna, AK      101.02 335  Pdif     Pdif      21 57 50.2 +1.9
J25K  Salcha River,    101.04 337  Pdif     Pdif      21 57 50.9 +2.6
J25K                               IAMs_20  IAMs_20   22 42 32.4
      comp=Z,41µm,20.0s
MENT  Mentasta         101.11 335  Pdif     Pdif      21 57 49.5 +0.9
RIDG  Independent Ri   101.22 336  IAMs_20  IAMs_20   22 42 40.2
      comp=Z,30µm,19.0s
PDGK  Podgornoye       101.26  46  i P      Pdif      21 57 50.2 +0.3
PDGK  Podgornoye       101.26  46  Pdif     Pdif      21 57 50.2 +0.3
SHLS  Shalkode         101.28  46  eP       Pdif      21 57 50.1 +0.1
SHLS  Shalkode         101.28  46  eP       Pdif      21 57 50.1 +0.1
KUDL  Kundal           101.37  61  eP       Pdif      21 57 52.5 +2.0
MCARA McCarthy VSAT    101.45 334           Pdif      21 57 50.8 +0.6
COLD  Coldfoot         101.51 341  Pdif     Pdif      21 57 51.3 +1.0
COLD                               IAMs_20  IAMs_20   22 41 45.4
      comp=Z,40µm,20.0s
E22K  Anaktuvuk Pass   101.54 342  Pdif     Pdif      21 57 50.8 +0.3
E22K                               IAMs_20  IAMs_20   22 39 34.1
      comp=Z,33µm,22.0s
IL31                   101.55 338  Pdif     Pdif      21 57 50.7 +0.2
ILAR  Eielson Array    101.55 338  P        Pdif      21 57 51.0 +0.5
      comp=Z,2.1nm,0.8s,baz=49,slow=3.8,SNR=14
ILAR                               PP       PP        22 02 01.6 +1.5
      comp=Z,5.1nm,1.0s,baz=66,slow=5.6,SNR=4.3
ILAR                               PKKPbc   PKKPbc    22 14 00.1 -0.6
      comp=Z,2.0nm,1.1s,baz=252,slow=3.1,SNR=5.0
ILAR  Eielson Array    101.55 338  i P      Pdif      21 57 50.9 +0.3
ILAR  Eielson Array    101.55 338  Pdif     Pdif      21 57 50.9 +0.3
SMLA  Simla            101.56  58  eP       Pdif      21 57 51.2 -0.1
K24K  Donnelly Dome    101.57 337  IAMs_20  IAMs_20   22 47 48.3
      comp=Z,32µm,18.0s
TGL   Tana Glacier     101.61 333  Pdif     Pdif      21 57 51.4 +0.4
GNR   GANAUR           101.71  60  eP       Pdif      21 57 51.9 -0.1
G23K  Bananza Creek    101.72 340  IAMs_20  IAMs_20   22 42 31.9
      comp=Z,34µm,20.0s
HDA   Harding Lake     101.75 337  IAMs_20  IAMs_20   22 43 21.9
      comp=Z,32µm,19.0s
COLA  College          101.86 338  IAMs_20  IAMs_20   22 45 00.1
      comp=Z,29µm,18.0s
COLA  College          101.86 338  P        Pdif      21 57 53.4 +1.5
      comp=Z,3µmcomp=Z,14nm,1.9s
ZALV  Zalesovo Beam    101.90  34  P        Pdif      21 57 52.0 -0.3
      comp=Z,1.7nm,0.8s,baz=284,slow=6.0,SNR=7.3
ZALV  Zalesovo Beam    101.90  34  i P      Pdif      21 57 56.5 +4.2
ZALV                               pmax     pmax
      comp=Z,2.0nm,0.8s
ZALV  Zalesovo Beam    101.90  34           Pdif      21 57 52.4 +0.1
NPLP  NPLP New Delhi   101.90  61  eP       Pdif      21 57 55.3 +2.4
NDI   New Delhi        101.94  61  i P      Pdif      21 57 54.8 +1.7
NDI                                eP       Pdif      21 57 54.8 +1.7
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LDR   Lodi Road        101.95  61  eP       Pdif      21 57 54.9 +1.8
CCB   Clear Creek Bu   101.96 338  IAMs_20  IAMs_20   22 43 23.5
      comp=Z,27µm,19.0s
JMIU  JAMIA UNIVERSI   102.02  61  eP       Pdif      21 57 55.2 +1.8
WRH   Wood River Hil   102.15 338  IAMs_20  IAMs_20   22 43 35.6
      comp=Z,27µm,19.0s
MAKZ  Makanchi         102.18  42  P        Pdif      21 57 54.5 +0.8
      comp=Z,428nmcomp=Z,17nm,1.9s,comp=Z,5µm
I23K  Minto, Yukon-K   102.29 339  IAMs_20  IAMs_20   22 42 39.1
      comp=Z,40µm,20.0s
PTCN  Pitcairn Islan   102.33 245  IAMs_20  IAMs_20   22 39 45.0
      comp=Z,33µm,20.0s
MERT  Meerut           102.35  60  eP       Pdif      21 57 56.7 +1.8
MK31  Makanchi Array   102.39  42  i P      Pdif      21 57 54.0 -0.7
MKAR  Makanchi Array   102.39  42  P        Pdif      21 57 54.4 -0.3
      comp=Z,2.4nm,1.0s,baz=280,slow=2.2,SNR=10
MKAR                               PP       PP        22 02 00.4 -6.7
      comp=Z,12nm,1.0s,baz=297,slow=6.3,SNR=5.3
MKAR                               PKKPbc   PKKPbc    22 13 57.8 +0.1
      comp=Z,1.3nm,0.9s,baz=97,slow=4.0,SNR=3.8
MKAR  Makanchi Array   102.39  42  i P      Pdif      21 57 54.7  0.0
MKAR                               pmax     pmax
      comp=Z,2.0nm,1.0s
KLP   Kalpa            102.42  58  eP       Pdif      21 57 58.2 +2.7
NEA2  Nenana           102.46 338  IAMs_20  IAMs_20   22 43 29.7
      comp=Z,26µm,18.0s
DHY   Denali Highway   102.54 336  IAMs_20  IAMs_20   22 43 24.0
      comp=Z,42µm,19.0s
F21K  Alatna River     102.58 341  IAMs_20  IAMs_20   22 43 03.6
      comp=Z,39µm,20.0s
H22K  Ishtalitna Cre   102.62 340  IAMs_20  IAMs_20   22 42 38.7
      comp=Z,46µm,19.0s
D20K  Etivluk River    102.65 343  IAMs_20  IAMs_20   22 50 27.2
      comp=Z,26µm,19.0s
UTK   UTTARKASHI       102.71  58  eP       Pdif      21 58 00.3 +3.7
SBA   Scott Base       102.76 183  P        Pdif      21 57 58.3 +2.6
      comp=Z,14nm,1.0s
BWN   Browne           102.82 338  IAMs_20  IAMs_20   22 39 12.6
      comp=Z,29µm,22.0s
MCK   McKinley         102.84 337  IAMs_20  IAMs_20   22 38 29.8
      comp=Z,32µm,21.0s
MLY   Manley           102.85 339  IAMs_20  IAMs_20   22 43 52.0
      comp=Z,37µm,19.0s
RND   Reindeer         102.97 337  IAMs_20  IAMs_20   22 44 07.3
      comp=Z,32µm,19.0s
G21K  Allakaket        102.99 341  IAMs_20  IAMs_20   22 41 08.5
      comp=Z,27µm,20.0s
I21K  Tanana           103.21 339  IAMs_20  IAMs_20   22 44 15.6
      comp=Z,49µm,19.0s
C19K  Lookout Ridge    103.23 344  IAMs_20  IAMs_20   22 45 38.4
      comp=Z,34µm,20.0s
H21K  Melozitna Rive   103.24 340  IAMs_20  IAMs_20   22 42 58.2
      comp=Z,54µm,20.0s
VNDA  Vanda            103.30 182  Pdiff    Pdif      21 57 59.0 +1.0
      comp=Z,5.9nm,1.2s,baz=198,slow=4.0,SNR=7.9
VNDA                               PP       PP        22 02 12.6 -0.3
      comp=Z,6.7nm,1.2s,baz=176,slow=5.6,SNR=4.1
VNDA                               PKKPbc   PKKPbc    22 13 54.8 -1.0
      comp=Z,1.4nm,1.0s,baz=276,slow=3.2,SNR=3.9
VNDA  Vanda            103.30 182  i P      Pdif      21 58 00.1 +2.0
VNDA  Vanda            103.30 182           Pdif      21 58 00.1 +2.0
VNDA  Vanda            103.30 182  P        Pdif      21 58 00.3 +2.3
F20K  Avaraart Lake    103.39 342  IAMs_20  IAMs_20   22 43 51.1
      comp=Z,33µm,20.0s
BPAW  Bear Paw Mtn.    103.43 338  IAMs_20  IAMs_20   22 43 58.4
      comp=Z,32µm,19.0s
TRF   Thorofare Moun   103.50 337  IAMs_20  IAMs_20   22 44 35.4
      comp=Z,33µm,20.0s
JHNI  Jhansi           103.60  64  eP       Pdif      21 58 02.2 +1.7
E19K  Redstone River   103.61 342  IAMs_20  IAMs_20   22 43 32.7
      comp=Z,39µm,20.0s
ZSN   Zaisan           103.90  40  i P      Pdif      21 58 00.7 -0.7
ZSN   Zaisan           103.90  40  ePdif    Pdif      21 58 00.7 -0.7
KOD   Kodaikanal       103.97  79  eP       Pdif      21 58 04.1 +1.3
CUT   Chulitna         104.03 336  IAMs_20  IAMs_20   22 44 10.4
      comp=Z,45µm,19.0s
CAST  Castle Rocks     104.21 338  IAMs_20  IAMs_20   22 46 00.9
      comp=Z,30µm,20.0s
G19K  Purcell Mounta   104.38 341  IAMs_20  IAMs_20   22 43 48.1
      comp=Z,32µm,21.0s
PTH   Pithoragarh      104.39  59  eP       Pdif      21 58 06.4 +2.3
HYB   Hyderabad        104.46  72  eP       Pdif      21 58 06.0 +1.5
HYB   Hyderabad        104.46  72  ePKiKP   PKiKP     22 02 20.1 -0.9
HYB                                eSKSac   SKSac     22 08 43.7 -2.4
HYB                                eSKKSac  SKKSac    22 09 26.0 -4.1
HYB                                IAMs_20  IAMs_20   22 35 24.0
      comp=Z,14µm,37.3s
NGP   Nagpur           104.53  68  eP       Pdif      21 58 01.2 -3.5
J20K  Nowinta River    104.55 339  IAMs_20  IAMs_20   22 44 08.8
      comp=Z,28µm,20.0s
SKT   Skwentna         104.76 336  IAMs_20  IAMs_20   22 44 52.7
      comp=Z,43µm,19.0s
G18K  Tagagawik        105.03 342  IAMs_20  IAMs_20   22 44 08.4
      comp=Z,25µm,21.0s
J19K  Poorman          105.18 339  IAMs_20  IAMs_20   22 44 28.6
      comp=Z,27µm,19.0s
C16K  Lisburne Hills   105.32 345  IAMs_20  IAMs_20   22 45 11.7
      comp=Z,26µm,21.0s
L20K  Farewell, AK     105.41 337  IAMs_20  IAMs_20   22 44 26.8
      comp=Z,29µm,20.0s
H18K  Honhosa River    105.41 341  IAMs_20  IAMs_20   22 47 40.5
      comp=Z,29µm,18.0s
LKN   LUCKNOW          105.43  62  eP       Pdif      21 58 09.0 +0.4
M20K  Styx River       105.45 337  IAMs_20  IAMs_20   22 41 59.9
      comp=Z,33µm,22.0s
J18K  Innoko River     105.89 339  IAMs_20  IAMs_20   22 43 07.3
      comp=Z,34µm,22.0s
L19K  White Mountain   105.95 337  IAMs_20  IAMs_20   22 43 17.2
      comp=Z,26µm,21.0s
H17K  Granite Mounta   106.06 341  IAMs_20  IAMs_20   22 45 40.5
      comp=Z,33µm,20.0s
VJD   Vijayawada       106.54  73  eP       Pdif      21 58 16.2 +2.5
L18K  Granite Mounta   106.63 338  IAMs_20  IAMs_20   22 45 56.0
      comp=Z,41µm,19.0s
J17K  VABM Dome        106.77 340  IAMs_20  IAMs_20   22 43 36.4
      comp=Z,35µm,22.0s
WMQ   Urumqi           106.89  43  Pdif     Pdif      21 58 15.4 +0.6
WMQ                                PP       PP        22 02 41.9 +1.3
WMQ                                SS       SS        22 17 48.6 +1.4
WMQ                                PPMZ
      comp=Z,2µm,11.3s
WMQ                                L        L
      comp=Z,16µm,23.9s
WMQ                                L        L
      comp=Z,20µm,24.7s
WMQ                                L        L
      comp=Z,47µm,24.1s
K17K  Iditarod         106.92 339  IAMs_20  IAMs_20   22 44 43.6
      comp=Z,29µm,20.0s
F15K  North Star Dit   106.99 343  IAMs_20  IAMs_20   22 51 20.9
      comp=Z,22µm,19.0s
I17K  Unalakleet       107.00 340  IAMs_20  IAMs_20   22 45 34.5
      comp=Z,45µm,20.0s
J16K  Anvik River      107.37 340  IAMs_20  IAMs_20   22 45 42.2
      comp=Z,33µm,19.0s
M17K  Holitna River    107.41 337  IAMs_20  IAMs_20   22 48 17.6
      comp=Z,31µm,19.0s
KDAK  Kodiak Island    107.42 333  IAMs_20  IAMs_20   22 45 06.5
      comp=Z,50µm,20.0s
VAR   Varanasi         107.54  63  eP       Pdif      21 58 15.5 -2.5
L16K  Owhat River      107.98 338  IAMs_20  IAMs_20   22 47 16.7
      comp=Z,30µm,20.0s
VLK   Valmikinagar     107.99  61  eP       Pdif      21 58 21.1 +1.1
ANM   Nome             108.02 342  IAMs_20  IAMs_20   22 46 25.3
      comp=Z,37µm,20.0s
CASY  Casey            108.18 163  IAMs_20  IAMs_20   22 39 01.0
      comp=Z,25µm,22.0s
M16K  Timber Creek     108.22 338  IAMs_20  IAMs_20   22 45 18.1
      comp=Z,46µm,21.0s
K15K  Wolf Creek Mou   108.34 339  IAMs_20  IAMs_20   22 49 44.1
      comp=Z,31µm,18.0s
J14K  Nanvaranak Lak   108.72 341  IAMs_20  IAMs_20   22 46 48.1
      comp=Z,44µm,20.0s
O16K  Kokwok River B   108.77 336  IAMs_20  IAMs_20   22 47 27.6
      comp=Z,40µm,19.0s
JHSG  JHARSUGUGA       108.81  67  eP       Pdif      21 58 25.3 +1.5
SII   Sitkinak Islan   108.81 332  IAMs_20  IAMs_20   22 45 20.4
      comp=Z,46µm,20.0s
RAGD  RAYAGADA         108.88  69  eP       Pdif      21 58 26.2 +2.1
RAGD                               IAmb     IAmb      21 58 29.1
      comp=Z,3.3nm,0.9s
VIS   Vishakhapatnam   108.95  71  eP       Pdif      21 58 25.1 +0.6
N15K  Kwethluk River   109.20 337  IAMs_20  IAMs_20   22 49 29.9
      comp=Z,35µm,18.0s
L14K  Kuka Creek       109.39 339  IAMs_20  IAMs_20   22 49 26.7
      comp=Z,35µm,19.0s
M14K  Bethel           109.52 338  IAMs_20  IAMs_20   22 46 23.3
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      comp=Z,30µm,20.0s
K13K  Kusilvak Mount   109.66 340  IAMs_20  IAMs_20   22 47 14.9
      comp=Z,42µm,19.0s
O15K  Ungalikthiuk R   109.72 336  IAMs_20  IAMs_20   22 47 57.8
      comp=Z,40µm,19.0s
N14K  Kuskokwak Cree   109.97 338  IAMs_20  IAMs_20   22 48 04.2
      comp=Z,24µm,19.0s
O14K  Tigyukauivet M   110.24 337  IAMs_20  IAMs_20   22 46 53.5
      comp=Z,36µm,21.0s
M13K  Dall Lake        110.26 339  IAMs_20  IAMs_20   22 47 25.8
      comp=Z,32µm,20.0s
M11K  Mekoryuk         111.29 340  IAMs_20  IAMs_20   22 48 01.1
      comp=Z,31µm,20.0s
MOY   Mondy            111.74  32  eP       Pdif      21 58 52.5  +16
MOY                                e                  22 03 10.1
MOY                                pmax     pmax
      comp=Z,13nm,2.1s
TAOE  Nuku Hiva Isla   113.11 261  eP       Pdif      21 58 32.4  -11
      comp=Z,173nm,28.8s
TAOE                               ePP      PP        22 03 21.8 -4.9
      comp=Z,516nm,26.7s
TAOE                               eS                 22 10 10.4
      comp=Z,3µm,26.2s
TAOE                               eSS      SS        22 19 05.3 -7.4
      comp=Z,22µm,27.1s
TAOE                               eLQ      LQ        22 31 38.8
      comp=Z,58µm,40.4s
TAOE                               eLR      LR        22 36 23.2
      comp=Z,25µm,24.5s
ZAK   Zakamensk        113.65  32  ePKIKP   PKiKP     22 02 38.8 +1.4
ZAK                                pmax     pmax
      comp=Z,15nm,1.7s
GOMU  GeErMu           114.58  49  PKP      PKiKP     22 02 42.3 +2.3
GOMU                               SS       SS        22 19 33.8 +2.6
GOMU                               L        L
      comp=Z,5µm,19.5s
GOMU                               L        L
      comp=Z,14µm,19.1s
GOMU                               L        L
      comp=Z,13µm,19.0s
YAK   Yakutsk          114.77  12  ePKIKP   PKPdf     22 02 40.6 +1.6
YAK                                e                  22 02 43.8
YAK                                e                  22 03 39.8
YAK                                e                  22 09 52.1
YAK                                ePS      PKKPbc    22 13 19.1 +0.4
YAK                                eSS      SS        22 19 30.0 -0.6
YAK                                pmax     pmax
      comp=Z,30nm,1.2s
YAK                                pmax     pmax
      comp=N,6.0nm,1.3s
YAK                                pmax     pmax
      comp=E,3.0nm,1.5s
YAK                                pmax     pmax
      comp=Z,251nm,2.3s
YAK                                pmax     pmax
      comp=N,181nm,2.7s
YAK                                pmax     pmax
      comp=E,34nm,1.5s
YAK                                MLR      MLR
      comp=Z,9µm,16.0s
YAK                                MLR      MLR
      comp=N,7µm,20.0s
YAK                                MLR      MLR
      comp=E,6µm,20.0s
SPIA  Saint Paul Isl   115.08 339  IAMs_20  IAMs_20   22 51 28.4
      comp=Z,38µm,20.0s
SHL   Shillong         115.35  61  P        PKPdf     22 02 40.2 -1.3
SEY   Seymchan         116.34   0c iPKIKP   PKPdf     22 02 42.8 +0.8
SEY                                pmax     pmax
      comp=Z,17nm,2.5s
SONM  Songino Array    116.78  33  Pdiff    Pdif      21 59 00.3 +1.4
      comp=Z,0.2nm,0.3s,baz=304,slow=3.3,SNR=1.7
SONM                               PKP      PKPdf     22 02 43.3 -0.2
      comp=Z,9.6nm,1.1s,baz=294,slow=3.6,SNR=17
SONM                               PP       PP        22 03 46.1 -5.0
      comp=Z,13nm,1.1s,baz=293,slow=7.2,SNR=3.5
SONM                               PKKPbc   PKKPbc    22 13 11.1 -0.5
      comp=Z,1.2nm,0.8s,baz=143,slow=4.1,SNR=5.0
GTA2  Gaotai           116.88  44  Pdif     Pdif      21 59 01.3 +1.8
GTA2                               PKP      sPKPdf    22 02 45.6 +1.3
GTA2                               PP       PP        22 03 51.0 -1.3
GTA2                               SS       SS        22 20 02.0 +1.5
GTA2                               PPMZ
      comp=Z,680nm,8.6s
GTA2                               L        L
      comp=Z,8µm,24.4s
GTA2                               L        L
      comp=Z,14µm,23.8s
GTA2                               L        L
      comp=Z,30µm,23.8s
ULN   Ulaanbaatar      117.12  33  i PKIKP  PKiKP     22 02 44.9 +0.6
ULN   Ulaanbaatar      117.12  33  IAMs_20  IAMs_20   22 52 27.7
      comp=Z,41µm,22.0s
CIT   Chita            117.66  26  ePKIKP   PKiKP     22 02 58.1  +13
CIT                                e                  22 03 58.1
CIT                                e                  22 06 32.0
CIT                                pmax     pmax
      comp=Z,176nm,3.3s
MA2   Magadan          119.68   1c iPKIKP   PKiKP     22 02 50.7 +2.0
MA2                                pmax     pmax
      comp=Z,21nm,1.7s
VAH   Vaihoa           119.82 253  eLR      LR        22 39 33.5
      comp=Z,33µm,21.9s
PMOR  Pomariorio Ree   120.10 253  eLR      LR        22 39 41.7
      comp=Z,44µm,25.3s
TVO   Taravao          120.97 250  eLR      LR        22 40 04.4
      comp=Z,21µm,22.3s
TIAR  Tiarei           121.09 250  eLR      LR        22 40 08.1
      comp=Z,121µm,22.0s
GSTR  Great Sitkin T   121.16 338  PKPdf    PKPdf     22 02 51.0 -0.7
LZDM  Lanzhou Array    121.25  46  PKP      PKPdf     22 02 52.6 -0.2
      comp=Z,6.8nm,0.5s,baz=11,slow=3.2,SNR=12
TNCH  TengChong        121.28  60  PKP      PKPdf     22 02 50.6 -2.3
TNCH                               sPKP     sPKPdf    22 02 55.0 +1.8
TNCH                               PP       PP        22 04 21.8 -1.5
TNCH                               SS       SS        22 20 53.6 -4.9
TNCH                               PPMZ
      comp=Z,870nm,5.7s
TNCH                               L        L
      comp=Z,4µm,26.2s
TNCH                               L        L
      comp=Z,5µm,25.2s
TNCH                               L        L
      comp=Z,14µm,28.4s
PPTF  Pamatai, Papee   121.29 250  IAMs_20  IAMs_20   22 50 12.6
      comp=Z,26µm,20.0s
PAE   Paea             121.30 250  eLR      LR        22 40 09.3
      comp=Z,31µm,22.4s
LZH   Lanzhou          121.30  46  Pdif     Pdif      21 59 17.8 -1.4
LZH                                PKP      sPKPdf    22 02 53.6 +0.7
LZH                                PP       PP        22 04 22.8 -0.1
LZH                                SKKS               22 11 12.3
LZH                                PPMZ
      comp=Z,2µm,8.1s
LZH                                L        L
      comp=Z,10µm,20.0s
LZH                                L        L
      comp=Z,14µm,20.6s
LZH                                L        L
      comp=Z,38µm,20.9s
PPT2  Papeete2         121.30 250  ePP      PP        22 04 19.2 -4.5
      comp=Z,2µm,27.2s
PPT2                               eS                 22 10 21.2
      comp=Z,14µm,33.8s
PPT2                               eSS      SS        22 21 00.0 +0.8
      comp=Z,20µm,28.8s
PPT2                               eLQ      LQ        22 34 55.1
      comp=Z,140µm,31.5s
PPT2                               eLR      LR        22 40 06.9
      comp=Z,32µm,23.8s
PPT2                               eLR      LR        22 40 12.7
      comp=Z,40µm,22.8s
ZEA   Zeya             121.47  18  ePKIKP   PKiKP     22 02 54.7 +2.4
ZEA                                e                  22 04 25.1
ZEA                                pmax     pmax
      comp=Z,30nm,1.4s
ADK   Adak             121.56 339  IAMs_20  IAMs_20   22 51 58.8
      comp=Z,36µm,22.0s
HILR  Hailar Array B   122.15  25  PKP      PKiKP     22 02 54.3 +0.4
      comp=Z,19nm,1.0s,baz=122,slow=1.9,SNR=15
HIA   Hailar           122.37  25  IAMs_20  IAMs_20   22 54 37.7
      comp=Z,34µm,21.0s
BTO2  Baotou           122.92  38  ePKP     PKPdf     22 02 55.0 -0.6
BTO2                               SS       SS        22 21 15.1 -2.7
CHTO  Chiang Mai       123.34  67  PKP      PKiKP     22 02 57.6 +0.6
CHTO  Chiang Mai       123.34  67  PKP      PKiKP     22 02 58.6 +1.6
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CM31	Chiang Mai Arr	123.43	67	P	PKiKP	22 02 57.6	+0.4
CMAR	Chiang Mai Arr	123.43	67	PKP	PKPdf	22 02 56.9	0.0
	comp=Z,15nm,1.0s,baz=280,slow=2.9,SNR=26						
CMAR				PKKPbc	PKKPbc	22 12 40.2	-5.7
	comp=Z,0.7nm,0.3s,baz=358,slow=2.5,SNR=4.1						
CMAR	Chiang Mai Arr	123.43	67		PKPdf	22 02 56.3	-0.6
CD2	Chengdu	123.50	51	PKP	PKPdf	22 02 55.6	-1.3
CD2				SS	SS	22 21 26.6	+0.6
CD2				PPMZ			
	comp=Z,11μm,10.2s						
CD2				L	L		
	comp=Z,14μm,27.5s						
CD2				L	L		
	comp=Z,21μm,29.4s						
CD2				L	L		
	comp=Z,17μm,23.5s						
PZH	PanZhiHua	123.55	57	PKP	PKiKP	22 02 58.9	+1.5
PZH				PP	PP	22 04 38.3	-0.2
PZH				SKS	SKSac	22 10 00.8	+0.4
PZH				SS	SS	22 21 31.3	+4.2
PZH				PPMZ			
	comp=Z,1μm,10.4s						
PZH				L	L		
	comp=Z,6μm,20.4s						
PZH				L	L		
	comp=Z,6μm,24.3s						
PZH				L	L		
	comp=Z,9μm,24.1s						
HHC	Hu-ho-hao-te	123.90	37	*e*PKP	PKPdf	22 02 54.3	-3.1
HHC				PP	PP	22 04 42.3	+2.2
HHC				SKKS		22 11 34.8	
HHC				SS	SS	22 21 28.6	-1.4
HHC				L	L		
	comp=Z,16μm,22.2s						
HHC				L	L		
	comp=Z,17μm,21.4s						
HHC				L	L		
	comp=Z,32μm,22.2s						
XLT	XiLinHaoTe	124.50	32	*e*PKP	PKiKP	22 03 00.4	+1.6
XLT				PP	PP	22 04 51.3	+7.4
XLT				L	L		
	comp=Z,1μm,24.1s						
XLT				L	L		
	comp=Z,14μm,21.0s						
XLT				L	L		
	comp=Z,34μm,23.3s						
HEH	HeiHe	124.51	20	PKP	PKiKP	22 02 59.3	+0.9
HEH				SS	SS	22 21 33.6	-2.8
HEH				PPMZ			
	comp=Z,2μm,11.5s						
HEH				L	L		
	comp=Z,20μm,22.9s						
HEH				L	L		
	comp=Z,15μm,23.0s						
HEH				L	L		
	comp=Z,48μm,24.4s						
KCSI	Kotacane, Aceh	124.53	85	PKP	PKiKP	22 03 00.9	+1.4
KMI2	Kunming	124.86	58	Pdif	Pdif	21 59 34.8	-0.6
KMI2				PKP	PKiKP	22 03 00.3	+0.1
KMI2				PP	PP	22 04 46.3	-1.2
KMI2				L	L		
	comp=Z,6μm,22.3s						
KMI2				L	L		
	comp=Z,4μm,20.9s						
KMI2				L	L		
	comp=Z,10μm,24.0s						
POHA	Pohakuloa	125.65	295	IAMs_20	IAMs_20	22 54 11.3	
	comp=Z,19μm,19.0s						
PSI	Prapat	125.72	86	PKP	PKPdf	22 03 01.6	0.0
XAN	Xi'an	125.93	46	PKP	PKPdf	22 03 01.4	0.0
XAN				PP	PP	22 04 53.6	-0.3
XAN				SS	SS	22 21 59.1	+3.0
XAN				PPMZ			
	comp=Z,2μm,9.2s						
XAN				L	L		
	comp=Z,7μm,17.9s						
XAN				L	L		
	comp=Z,10μm,19.9s						
XAN				L	L		
	comp=Z,24μm,24.7s						
PEA0B	Petropavlovsk-	126.05	357	*i* PKIKP	PKiKP	22 03 01.9	+0.5
PETK	Petropavlovsk-	126.05	357	PKP	PKPdf	22 03 00.5	-0.5
	comp=Z,28nm,0.8s,baz=56,slow=3.4,SNR=23						
PETK	Petropavlovsk-	126.05	357	PKIKP	PKiKP	22 03 01.8	+0.4
PETK	Petropavlovsk-	126.05	357		PKiKP	22 03 01.8	+0.4
PET	Petropavlovsk	126.08	356	*i* PKIKP	PKiKP	22 03 04.0	+2.6
PET				*e*		22 04 59.0	
PET				*e*SSS	SSS	22 26 43.1	
PET				pmax	pmax		
	comp=Z,67nm,1.1s						
PET				pmax	pmax		
	comp=Z,900nm,11.0s						
PET				pmax	pmax		
	comp=Z,1μm,8.8s						
TIY	Taiyuan	126.30	40	PKP	PKiKP	22 03 03.8	+1.3
TIY				PP	PP	22 05 00.6	+4.4
TIY				PPMZ			
	comp=Z,2μm,12.4s						
TIY				L	L		
	comp=Z,9μm,21.3s						
TIY				L	L		
	comp=Z,9μm,18.5s						
TIY				L	L		
	comp=Z,20μm,24.0s						
MNSI	Mandailing Nat	126.45	88	PKP	PKiKP	22 03 03.7	+0.4
GRNR	Gornyy	126.60	13	*e*PKIKP	PKPdf	22 02 49.4	-13
KLR	Kul'dur	126.78	17*c*	*i*PKIKP	PKPdf	22 03 01.6	-0.9
KLR				pmax	pmax		
	comp=Z,46nm,1.3s						
BJI2	Beijing	127.15	35	⇓PKP	PKiKP	22 03 05.8	+1.8
BJI2				PP	PP	22 05 01.6	+0.1
BJI2				SS	SS	22 22 15.3	+4.8
BJI2				L	L		
	comp=Z,7μm,24.5s						
BJI2				L	L		
	comp=Z,10μm,24.5s						
BJI2				L	L		
	comp=Z,11μm,25.0s						
BJT	Baijiatuau	127.15	35	IAMs_20	IAMs_20	23 02 36.4	
	comp=Z,19μm,20.0s						
PPI	Padang Panjang	127.30	90	PKP	PKPdf	22 03 03.7	-0.8
GYA	Guiyang	127.65	55	PKP	PKPdf	22 03 03.9	-1.1
GYA				S		22 13 03.8	
TYV	Tymovskoe	127.68	8	*e*PKIKP	PKiKP	22 03 07.3	+2.6
TYV				pmax	pmax		
	comp=Z,24nm,1.0s						
TYV				pmax	pmax		
	comp=Z,300nm,2.8s						
BKNI	Bangkinang	127.92	89	PKP	PKPdf	22 03 02.4	-3.3
HNS	HongShan	127.93	39	⇑Pdif	Pdif	21 59 47.1	-1.4
HNS				PKP	PKiKP	22 03 07.3	+1.7
HNS				PP	PP	22 05 08.9	+2.1
HNS				PKS	PKSdf	22 06 36.3	-5.3
HNS				L	L		
	comp=Z,14μm,19.8s						
HNS				L	L		
	comp=Z,13μm,21.2s						
HNS				L	L		
	comp=Z,33μm,23.9s						
LYN	LuoYang	128.14	43	PKP	PKiKP	22 03 06.6	+0.4
LYN				PP	PP	22 05 14.3	+5.9
LYN				SKKS		22 11 57.5	
LYN				SS	SS	22 22 25.5	+2.1
LYN				L	L		
	comp=Z,16μm,17.5s						
LYN				L	L		
	comp=Z,14μm,22.2s						
LYN				L	L		
	comp=Z,34μm,24.7s						
BNX	BinXian	128.31	23	⇓PKP	PKPdf	22 03 04.6	-1.0
BNX				S		22 13 11.3	
BNX				SS	SS	22 22 25.3	+1.2
BNX				PPMZ			
	comp=Z,750nm,5.2s						
BNX				L	L		
	comp=Z,14μm,30.4s						
BNX				L	L		
	comp=Z,11μm,22.8s						
BNX				L	L		
	comp=Z,19μm,19.5s						
SDSI	Sungai Dareh	128.33	90	PKP	PKPdf	22 03 06.5	0.0
CN2	Changchun	129.10	26	PKP	PKPdf	22 03 05.4	-1.7
CN2				*e*PP	PP	22 05 17.3	+3.3
CN2				*e*SS	SS	22 22 30.6	-3.4
CN2				PPMZ			
	comp=Z,500nm,8.0s						
CN2				L	L		
	comp=Z,1μm,22.0s						
CN2				L	L		
	comp=Z,2μm,22.0s						
CN2				L	L		
	comp=Z,3μm,23.0s						
MASI	Maura Aman, Be	129.12	93	PKP	PKPdf	22 03 07.2	-0.9
KSI	Kapahiang	129.46	94	PKP	PKPdf	22 03 09.0	+0.3
CTZ	Chatham Island	129.53	208	IAMs_20	IAMs_20	22 47 31.9	
	comp=Z,28μm,22.0s						
SNY	Shenyang	129.79	29	⇑PKP	PKiKP	22 03 11.6	+2.4
SNY				PP	PP	22 05 19.8	+1.2
SNY				PPMZ			
	comp=Z,2μm,11.1s						
SNY				L	L		
	comp=Z,10μm,20.1s						
SNY				L	L		
	comp=Z,4μm,15.6s						
SNY				L	L		
	comp=Z,18μm,20.4s						
RAR	Rarotonga	129.82	243	IAMs_20	IAMs_20	22 55 33.0	
	comp=Z,31μm,18.0s						
MDJ	Mudanjiang	130.09	22	PKP	PKiKP	22 03 12.1	+2.3
MDJ				PP	PP	22 05 19.6	-0.7
MDJ				SS	SS	22 22 53.0	+7.0
MDJ				L	L		
	comp=Z,18μm,23.7s						
MDJ				L	L		
	comp=Z,14μm,20.6s						
MDJ				L	L		
	comp=Z,21μm,20.1s						
TIA	Tai'an	130.19	38	PKP	PKiKP	22 03 12.1	+1.9
TIA				PP	PP	22 05 22.6	+1.0
TIA				L	L		
	comp=Z,17μm,15.5s						
TIA				L	L		
	comp=Z,12μm,21.0s						
TIA				L	L		
	comp=Z,51μm,18.9s						
XMAS	Kiritimati	130.47	273	IAMs_20	IAMs_20	23 00 32.7	
	comp=Z,24μm,18.0s						
MYKOM	Kota Tinggi	130.68	87	PKP	PKPdf	22 03 11.3	+0.4
DL2	Dalian	130.97	33	PKP	PKiKP	22 03 13.0	+1.3
DL2				PKS	PKSdf	22 06 48.5	+1.2
DL2				SKKS		22 12 19.8	
DL2				PPMZ			
	comp=Z,3μm,9.2s						
DL2				L	L		
	comp=Z,22μm,21.2s						
DL2				L	L		
	comp=Z,15μm,22.6s						
DL2				L	L		
	comp=Z,35μm,25.1s						
MDSI	Maura Dua	131.01	95	PKP	PKPdf	22 03 11.1	-0.5
USA0B	Ussuriysk Arra	131.31	20	*i* PKIKP	PKPdf	22 03 11.1	-0.2
USRK	Ussuriysk Ar.	131.31	20	PKP	PKPdf	22 03 11.0	-0.3
	comp=Z,15nm,1.0s,baz=316,slow=1.5,SNR=23						
USRK				SP	SP	22 15 35.6	-5.3
	comp=Z,1.9nm,0.7s,baz=114,slow=2.3,SNR=4.5						
USRK	Ussuriysk Ar.	131.31	20	PKIKP	PKiKP	22 03 13.0	+0.8
USRK	Ussuriysk Ar.	131.31	20		PKiKP	22 03 13.0	+0.8
YSS	Yuzhno-Sakhali	131.50	9	*i* PKIKP	PKiKP	22 03 12.9	+0.4
YSS				*e*		22 05 33.6	
YSS				*e*PS	PS	22 15 41.2	-2.7
YSS				*e*SS	SS	22 23 02.2	-0.5
YSS				pmax	pmax		
	comp=Z,90nm,1.3s						
YSS				pmax	pmax		
	comp=Z,700nm,3.5s						
YSS				pmax	pmax		
	comp=N,100nm,5.0s						
YSS				pmax	pmax		
	comp=E,100nm,5.4s						
SUJ	Sinuiju	131.56	29	PKPbc	PKPdf	22 03 12.1	+0.2
WHN	Wuhan	131.68	46	PKP	PKiKP	22 03 15.3	+1.9
WHN				PP	PP	22 05 37.1	+5.6
WHN				SS	SS	22 23 09.8	+2.7
WHN				L	L		
	comp=E,34μm,22.6s						
WHN				L	L		
	comp=E,35μm,19.9s						
WHN				L	L		
	comp=E,91μm,39.2s						
VLA	Vladivostok	132.22	21	*i* PKIKP	PKiKP	22 03 13.8	-0.3
CGJI	Cibinong	132.38	98	PKP	PKiKP	22 03 15.3	+0.1
PYAG	Pyongyang	132.99	29	PKPbc	PKPdf	22 03 13.1	-1.5
PYAG				PP	PP	22 05 41.3	+2.0
PYAG				AMS	AMS		
	comp=Z,163nm,3.2s						
HHU	Hamhung	133.13	27	PKPbc	PKPdf	22 03 14.7	-0.1
HHU				AMS	AMS		
	comp=Z,43nm,2.1s						
QIZ	Qiongzhong	133.15	63	PKP	PKPdf	22 03 14.5	-1.0
QIZ				PP	PP	22 05 40.3	-1.4
QIZ				SS	SS	22 23 23.6	-2.7
QIZ				L	L		
	comp=Z,5μm,22.6s						
QIZ				L	L		
	comp=Z,6μm,24.0s						
QIZ				L	L		
	comp=Z,9μm,16.9s						
WHZ	Wether Hill Ro	133.32	194	IAMs_20	IAMs_20	23 00 43.3	
	comp=Z,23μm,19.0s						
PYZ	Puysegur Point	133.36	193	IAMs_20	IAMs_20	22 59 41.2	
	comp=Z,22μm,19.0s						
ODZ	Otahua Downs	133.38	197	IAMs_20	IAMs_20	22 57 33.0	
	comp=Z,32μm,20.0s						
HJU	Haeju	133.75	30	PKPbc	PKPdf	22 03 16.1	0.0
MLZ	Mavora Lakes	133.77	195	IAMs_20	IAMs_20	23 00 35.2	
	comp=Z,22μm,18.0s						
KUR	Kuril'sk	133.84	5	*e*PKIKP	PKiKP	22 03 17.8	+0.5
KUR				*e*SS	SS	22 23 29.1	-2.0
KUR				pmax	pmax		
	comp=Z,459nm,1.1s						
KUR				pmax	pmax		
	comp=Z,2μm,3.6s						
NJ2	Nanjing	133.92	42	*e*PKP	PKiKP	22 03 19.8	+1.9
NJ2				PP	PP	22 05 54.6	+8.9
NJ2				PKS	PKSdf	22 06 51.4	-1.6
NJ2				SS	SS	22 23 34.3	+0.3
NJ2				PPMZ			
	comp=Z,1μm,11.8s						
NJ2				L	L		
	comp=Z,24μm,22.7s						
NJ2				L	L		
	comp=Z,14μm,20.8s						
NJ2				L	L		
	comp=Z,34μm,21.8s						
LBZ	Lake Benmore	134.11	197	IAMs_20	IAMs_20	22 58 02.5	
	comp=Z,27μm,20.0s						
ASAJ	Asahikawa	134.22	11	PKIKP	PKPdf	22 03 12.7	-4.1
JKA	Kamikawa-asahi	134.22	11		PKPdf	22 03 12.7	-4.1
KHZ	Kahutara	134.76	201	IAMs_20	IAMs_20	22 57 11.2	
	comp=Z,35μm,20.0s						
YUK	Yuzh-Kuril'sk	134.81	7	*e*PKIKP	PKiKP	22 03 22.5	+3.2
YUK				*e*		22 05 46.4	
YUK				*e*PPP	PPP	22 08 43.5	
YUK				*e*		22 10 25.1	
YUK				*e*SS	SS	22 23 43.2	+0.5
FOZ	Fox Glacier	135.00	197	IAMs_20	IAMs_20	23 00 57.0	
	comp=Z,30μm,18.0s						
BFZ	Birch Farm	135.17	205	IAMs_20	IAMs_20	22 58 37.4	
	comp=Z,31μm,19.0s						
SNZO	South Karori	135.28	203	IAMs_20	IAMs_20	22 55 52.9	
	comp=Z,29μm,21.0s						
KSRS	Korea Array	135.30	29	PKP	PKPdf	22 03 18.9	0.0
	comp=Z,3.5nm,0.9s,baz=332,slow=2.4,SNR=9.1						
KSRS				PP	PP	22 05 52.8	-1.1
	comp=Z,18nm,1.2s,baz=343,slow=5.5,SNR=6.1						
MRZ	Mangatainoka R	135.47	205	IAMs_20	IAMs_20	22 59 07.2	
	comp=Z,30μm,19.0s						
NNZ	Nelson	135.87	202	IAMs_20	IAMs_20	22 54 34.4	
	comp=Z,35μm,22.0s						
SSE	Sheshan	136.06	41	PKP	PKPdf	22 03 18.6	-2.0
SSE				PPMZ			
	comp=Z,950nm,11.3s						
SSE				L	L		
	comp=Z,7μm,23.1s						
SSE				L	L		
	comp=Z,4μm,22.9s						
ERM	Erimo	136.35	11	PKP	PKiKP	22 03 23.3	+0.8
QRZ	Quartz Range	136.52	202	IAMs_20	IAMs_20	22 54 56.7	
	comp=Z,31μm,22.0s						
MXZ	Matakaoa Point	136.74	210	IAMs_20	IAMs_20	22 58 29.9	
	comp=Z,26μm,20.0s						
URZ	Urewera	136.77	208	PKP	PKPdf	22 03 21.8	+0.1
	comp=Z,7.3nm,0.9s,baz=163,slow=4.2,SNR=2.2						
HIZ	Hauiti	137.57	206	IAMs_20	IAMs_20	22 57 22.9	
	comp=Z,24μm,20.0s						
PCJI	Pacitan	137.61	101	PKP	PKPdf	22 03 21.4	-2.5
TAU	Tasmania Unive	137.85	174	IAMs_20	IAMs_20	22 57 10.9	
	comp=Z,16μm,19.0s						
QZH2	Quanzhou	137.86	50	*e*PKP	PKPdf	22 03 23.9	-0.2
QZH2				PP	PP	22 06 10.0	-0.9
QZH2				SS	SS	22 24 25.8	+3.9
QZH2				L	L		
	comp=Z,14μm,18.9s						
QZH2				L	L		
	comp=Z,7μm,22.3s						
QZH2				L	L		
	comp=Z,13μm,19.2s						
SBUM	Sibu	138.99	85		PKPdf	22 03 25.8	-0.7
TATO	Taipei	140.02	48	IAMs_20	IAMs_20	23 11 08.1	
	comp=Z,21μm,20.0s						
YHNB	Yeheng	140.12	48	IAMs_20	IAMs_20	23 08 29.4	
	comp=Z,19μm,22.0s						
MAJO	Matsushiro	140.26	19	PKIKP	PKPdf	22 03 27.1	-1.2
MAJO				MLR	MLR		
	comp=Z,16μm,22.0s						
MAJO	Matsushiro	140.26	19		PKPdf	22 03 27.1	-1.2
MAJO	Matsushiro	140.26	19	PKP	PKPdf	22 03 23.3	-4.9
MJAR	Matsushiro Arr	140.27	19	PKhKP	PKPpre	22 03 23.5	
	comp=Z,6.2nm,0.9s,baz=329,slow=2.8,SNR=11						
MJAR				PP	PP	22 06 20.5	-4.1
	comp=Z,6.3nm,1.0s,baz=336,slow=6.0,SNR=4.3						
MJAR	Matsushiro Arr	140.27	19	PKIKP	PKPdf	22 03 23.6	-4.6
MJAR	Matsushiro Arr	140.27	19		PKPdf	22 03 23.6	-4.6
SSLB	Suanglung	140.29	50	IAMs_20	IAMs_20	23 09 29.3	
	comp=Z,17μm,21.0s						
JAGI	Jajag, Banyuwa	140.49	102		PKPdf	22 03 29.0	-0.2
JAGI	Jajag, Banyuwa	140.49	102	PKP	PKPdf	22 03 28.7	-0.5
RAO	Raoul Island	140.52	222	IAMs_20	IAMs_20	22 57 21.7	
	comp=Z,28μm,22.0s						
NACB	Ninganchiao	140.56	49	IAMs_20	IAMs_20	23 11 52.3	
	comp=Z,21μm,20.0s						
YULB	Yu-li	140.77	50		PKPdf	22 03 28.0	-1.5
YULB				IAMs_20	IAMs_20	23 07 58.0	
	comp=Z,26μm,22.0s						
BBKI	Banjar Baru	141.69	94	PKP	PKPdf	22 03 32.4	+1.0
MBWA	Marble Bar	141.72	124	P	PKPdf	22 03 29.6	-1.6
MBWA	Marble Bar	141.72	124		PKPdf	22 03 29.0	-2.2
MBWA	Marble Bar	141.72	124	PKP	PKPdf	22 03 29.0	-2.2
TOO	Toolangi	142.83	170	PKIKP	PKPdf	22 03 33.4	+0.6
TOO	Toolangi	142.83	170		PKPdf	22 03 33.4	+0.6
AFI	Afiamalu	142.93	248	IAMs_20	IAMs_20	23 01 09.9	
	comp=Z,21μm,20.0s						
BKB	Balikpapan	143.80	91	PKP	PKPdf	22 03 36.2	+1.1
DBNI	Kabupaten Domp	144.54	103	PKP	PKPbc	22 03 35.2	+0.2
CAN	Canberra	145.53	174	IAMs_20	IAMs_20	22 59 20.4	
	comp=Z,15μm,22.0s						
PMSI	Majene	145.74	95	PKP	PKPab	22 03 40.4	+1.1
MMSI	Mamuju	145.78	93	PKP	PKPab	22 03 39.8	+0.4
LBFI	Labuhan Bajo,	146.08	104	PKP	PKPbc	22 03 39.6	-0.3
WSI	Waingapu	146.22	106	PKP	PKPab	22 03 41.5	+0.5
KAPI	Kappang	146.45	98	PKP	PKPab	22 03 42.8	+0.9
KAPI	Kappang	146.45	98	PKP	PKPdf	22 03 39.7	0.0
PCI	Palu	146.74	90	PKP	PKPab	22 03 42.9	-0.1
BSSI	Bau Bau, Buton	147.05	100	PKP	PKiKP	22 03 45.7	+0.5
STKA	Stephens Creek	147.32	162	PKPbc	PKPbc	22 03 42.8	-0.2
	comp=Z,31nm,1.0s,baz=137,slow=1.9,SNR=22						
EDFI	Ende, Flores	147.76	105	PKP	PKPbc	22 03 43.9	-0.9
MMRI	Maumere	148.32	105	PKP	PKPbc	22 03 46.8	+0.6
KKSI	Kolaka, Sulawe	148.41	96	PKP	PKPbc	22 03 45.5	-0.9
APSI	Ampana	148.55	90	PKP	PKiKP	22 03 48.9	+0.6
FUTU	Fugatoga	148.58	244	IAMs_20	IAMs_20	23 01 19.2	
	comp=Z,15μm,21.0s						
BBSI	Bau Bau	149.18	99	PKP	PKPbc	22 03 48.8	+0.4
KDI	Kendari	149.40	96	PKP	PKiKP	22 03 49.8	-0.3
LUWI	Luwuk	149.67	91	PKP	PKPbc	22 03 49.2	-0.4
GTOI	Gorontalo	149.87	87	PKP	PKiKP	22 03 51.0	-0.1
SOEI	Soe	150.00	108	IAMs_20	IAMs_20	23 22 41.0	
	comp=Z,15μm,22.0s						
SOEI	Soe	150.00	108	PKP	PKPdf	22 03 46.9	+1.3
MSVF	Nonsavu	150.31	234	IAMs_20	IAMs_20	23 07 12.9	
	comp=Z,25μm,19.0s						
ASAR	Alice Springs	150.69	142	PKP	PKPdf	22 03 45.8	-0.5
	comp=Z,0.3nm,0.4s,baz=197,slow=0.9,SNR=8.5						
ASAR				PKPbc	PKPbc	22 03 51.5	-0.4
	comp=Z,41nm,0.9s,baz=206,slow=1.8,SNR=19						
ASAR	Alice Springs	150.69	142	PKIKP	PKPdf	22 03 46.1	-0.3
ASAR						22 03 51.1	
ASAR	Alice Springs	150.69	142		PKPdf	22 03 46.1	-0.3
ASAR					PKPbc	22 03 51.1	-0.7
DAV	Davao City (W)	151.42	74	P	PKPab	22 04 02.0	0.0
MNI	Manado	151.64	85	PKP	PKPdf	22 03 49.9	+1.8
WRA	Warramunga Arr	153.62	137	PKP	PKPdf	22 03 50.6	-0.2
	comp=Z,6.5nm,1.0s,baz=231,slow=1.4,SNR=24						
WRA				PKPbc	sPKPbc	22 04 00.0	+1.2
	comp=Z,6.5nm,1.0s,baz=239,slow=1.2,SNR=22						
WRAB	Tennant Creek	153.64	137	IAMs_20	IAMs_20	23 24 02.8	
	comp=Z,26μm,20.0s						
ONTNC	Ouen Toro	155.06	210	IAMs_20	IAMs_20	23 07 30.0	
	comp=Z,24μm,22.0s						
DZM	Mont Dzumac	155.26	211	PKP	PKPdf	22 03 53.6	+0.5
	comp=Z,19nm,1.1s,baz=139,slow=11,SNR=3.8						
WAKE	Wake Island	155.94	327	IAMs_20	IAMs_20	23 05 37.4	
	comp=Z,30μm,22.0s						
FAKI	Fak Fak	159.06	96	IAMs_20	IAMs_20	23 26 04.8	
	comp=Z,24μm,22.0s						
FAKI	Fak Fak	159.06	96	PKP	PKPdf	22 03 59.0	+0.9
CTAO	Charters Tower	159.78	161	IAMs_20	IAMs_20	23 25 11.4	
	comp=Z,20μm,20.0s						
BAKI	Biak	163.00	91	PKP	PKPdf	22 04 03.1	+0.8

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*TXNET **18** 21:48:27.5, 31°.7N±0°.6×104°.1W±0°.5, $h6^{km}\pm1^{km}$, ML3.7/22, Error ellipse: s-maj=1.0km s-min=0.7km az=38.9, final*

*NEIC **18** 21:48:27.5, 31°.71N×104°.13W, $h5^{km}$*

*NEIC **18** 21:48:27.5±0.9, 31°.706N±0°.010×104°.13W±0°.01, $h5^{km}$, mb_Lg3.5/165, ML3.8/86, Mwr3.5/11, Error ellipse: s-maj=1.9km s-min=1.5km az=62.0, Moment Tensor Solution. Moment tensor: Scale 10^{14}Nm; M_{rr}-2.00; $M_{\theta\theta}$1.82; $M_{\phi\phi}$0.18; $M_{r\theta}$-0.18; $M_{\theta\phi}$-0.81; $M_{\phi r}$-0.15; Fault plane solution: $M_0$2.10000×10^{14} NP1:ϕ_s106.16000°, δ46.79000°, λ-98.64000°. NP2:ϕ_s298.67000°, δ43.90000°, λ-80.91000°. Principal axes: T 2.1600, Plg1.0000°, Azm202.0000°; N -0.1342, Plg6.0000°, Azm112.0000°; P -2.0258, Plg84.0000°, Azm305.0000°;*

ISC 18 21:48:27.9±0.8**, 31°.70N**±0°.02×**104°.13W**±0°.02**, $h13^{km}\pm6^{km}$, n118, $\sigma 0^{s}.59$**/133**, 9C-1D, Western Texas**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TPB09	Culberson Coun	0.16	296		Pg	21 48 31.7	-0.2
TPB09					Sg	21 48 34.2	-0.4
TPB09	Culberson Coun	0.16	296	⇓P	Pg	21 48 31.7	-0.2
TPB09				S	Sg	21 48 34.2	-0.4
TPB09				AML	AML		
TPB09				AML	AML		
TPB11	China Draw	0.25	19		Pg	21 48 33.0	-0.2
TPB11				Sg	Sg	21 48 36.6	-0.2
TPB11	China Draw	0.25	19	⇑P	Pg	21 48 33.0	-0.2
TPB11				S	Sg	21 48 36.7	-0.1
TPB11				AML	AML		
TPB11				AML	AML		
TPB13	Reeves - Culbe	0.28	121	P	Pg	21 48 33.9	+0.1
TPB13				S	Sg	21 48 38.3	+0.4
TPB13				AML	AML		
TPB13				AML	AML		
TPB28		0.32	264		Pg	21 48 34.4	0.0
TPB28				Sg	Sg	21 48 38.8	-0.1
TPB28				IAML		21 48 39.4	
	4μm,0.2s						
TPB28				IAML		21 48 41.3	
	4μm,0.2s						
TPB28		0.32	264	P	Pg	21 48 34.5	0.0
TPB28				S	Sg	21 48 39.1	+0.2
TPB28				AML	AML		
TPB28				AML	AML		
TPB29		0.33	279		Pg	21 48 34.6	-0.1
TPB29					Sg	21 48 39.3	0.0
TPB29		0.33	279	P	Pg	21 48 34.6	-0.1
TPB29				S	Sg	21 48 39.3	0.0
TPB29				AML	AML		
TPB29				AML	AML		
PECS	Pecos	0.40	146		Pg	21 48 35.7	-0.2
PECS				Sg	Sg	21 48 41.6	+0.2

PECS	**Pecos**	**0.40**	**146**	⇑P	**Pg**	**21 48 35.8**	**-0.1**
PECS				S	**Sg**	**21 48 41.5**	**+0.2**
PECS				AML	AML		
PECS				AML	AML		
TPB07	**Mentone**	**0.41**	**107**		**Pb**	**21 48 36.6**	**-0.5**
TPB07					**Sb**	**21 48 42.5**	**-0.7**
TPB07	**Mentone**	**0.41**	**107**	P	**Pb**	**21 48 36.6**	**-0.5**
TPB07				S	**Sb**	**21 48 42.5**	**-0.7**
TPB07				AML	AML		
TPB07				AML	AML		
TPB12	**Southwest of T**	**0.51**	**163**		**Pg**	**21 48 37.9**	**0.0**
TPB12					**Sg**	**21 48 44.8**	**+0.1**
TPB12	**Southwest of T**	**0.51**	**163**	⇑P	**Pg**	**21 48 37.9**	**0.0**
TPB12				S	**Sg**	**21 48 44.8**	**+0.1**
TPB12				AML	AML		
TPB12				AML	AML		
TPB10	**Southeast of T**	**0.53**	**142**		**Pb**	**21 48 38.5**	**-0.5**
TPB10					**Sg**	**21 48 45.7**	**+0.4**
TPB10	**Southeast of T**	**0.53**	**142**	P	**Pb**	**21 48 38.5**	**-0.5**
TPB10				S	**Sg**	**21 48 45.7**	**+0.4**
TPB10				AML	AML		
TPB10				AML	AML		
GDL2	**Guadalupe Moun**	**0.54**	**338**		**Pg**	**21 48 37.8**	**-0.7**
GDL2	**Guadalupe Moun**	**0.54**	**338**	⇑P	**Pg**	**21 48 38.1**	**-0.3**
CLNB	**Carlsbad**	**0.60**	**21**		**Pg**	**21 48 39.2**	**-0.5**
CLNB	**Carlsbad**	**0.60**	**21**	⇑P	**Pg**	**21 48 39.3**	**-0.3**
CLNB				S	**Sb**	**21 48 48.5**	**-0.2**
CLNB				AML	AML		
CLNB				AML	AML		
PCOS	**Crockett Middl**	**0.60**	**119**	S	**Sg**	**21 48 48.2**	**+0.5**
TDG03		**0.63**	**119**	P	**Pb**	**21 48 40.6**	**-0.2**
TDG03				S	**Sb**	**21 48 49.4**	**-0.2**
LWM1	**Layne Water Mi**	**0.64**	**138**	P	**Pb**	**21 48 40.5**	**-0.4**
LWM1				S	**Sb**	**21 48 49.9**	**+0.2**
LWM2	**Layne Water Mi**	**0.64**	**133**	P	**Pb**	**21 48 40.5**	**-0.3**
LWM2				S	**Sb**	**21 48 49.7**	**+0.1**
TPB06	**Permian Basin**	**0.78**	**94**		**Pg**	**21 48 42.9**	**-0.2**
TPB06					**Sg**	**21 48 53.6**	**+0.3**
TPB06	**Permian Basin**	**0.78**	**94**	S	**Sg**	**21 48 53.6**	**+0.3**
TPB30		**0.81**	**121**		**Pb**	**21 48 43.7**	**-0.1**
TPB30					**Sg**	**21 48 54.5**	**+0.3**
TPB30		**0.81**	**121**	P	**Pb**	**21 48 43.7**	**-0.1**
TPB30				S	**Sg**	**21 48 54.5**	**+0.3**
TPB30				AML	AML		
TPB30				AML	AML		
TPB03	**Saragosa**	**0.81**	**139**		**Pg**	**21 48 43.4**	**-0.2**
TPB03					**Sb**	**21 48 54.6**	**-0.1**
TPB03	**Saragosa**	**0.81**	**139**	⇑P	**Pg**	**21 48 43.4**	**-0.2**
TPB03				S	**Sb**	**21 48 54.6**	**-0.1**
TPB03				AML	AML		
TPB03				AML	AML		
TPB01	**Permian Basin**	**0.81**	**158**		**Pg**	**21 48 42.9**	**-0.7**
TPB01					**Sg**	**21 48 53.6**	**-0.7**
TPB01	**Permian Basin**	**0.81**	**158**	⇑P	**Pg**	**21 48 42.9**	**-0.7**
TPB01				S	**Sg**	**21 48 53.6**	**-0.7**
TPB04	**Verhalen**	**0.90**	**125**		**Pg**	**21 48 45.1**	**-0.1**
TPB04					**Sg**	**21 48 57.0**	**0.0**
TPB04	**Verhalen**	**0.90**	**125**	P	**Pg**	**21 48 45.1**	**-0.1**
TPB04				S	**Sg**	**21 48 57.0**	**0.0**
TPB04				AML	AML		
TPB04				AML	AML		
TPB18		**0.94**	**122**		**Pg**	**21 48 45.7**	**-0.4**
TPB18					**Sg**	**21 48 58.0**	**-0.4**
TPB18		**0.94**	**122**	P	**Pg**	**21 48 45.7**	**-0.4**
TPB18				S	**Sg**	**21 48 58.0**	**-0.4**
TPB18				AML	AML		
TPB18				AML	AML		
TPB16	**Coyonosa**	**0.95**	**127**		**Pg**	**21 48 46.0**	**-0.2**
TPB16					**Sb**	**21 48 58.8**	**+0.2**
TPB16	**Coyonosa**	**0.95**	**127**	P	**Pg**	**21 48 46.0**	**-0.2**
TPB16				S	**Sb**	**21 48 58.8**	**+0.2**
TPB16				AML	AML		
TPB16				AML	AML		
TPB19	**West of Imperi**	**0.97**	**114**		**Pg**	**21 48 46.3**	**-0.2**
TPB19					**Sg**	**21 48 59.0**	**-0.2**
TPB19	**West of Imperi**	**0.97**	**114**	P	**Pg**	**21 48 46.3**	**-0.2**
TPB19				S	**Sg**	**21 48 59.0**	**-0.2**
TPB19				AML	AML		
TPB19				AML	AML		
TPB21		**0.98**	**111**	P	**Pg**	**21 48 46.5**	**-0.3**
TPB21				S	**Sg**	**21 48 59.2**	**-0.4**
TPB21				AML	AML		
TPB21				AML	AML		
TPB14		**1.01**	**124**		**Pg**	**21 48 46.9**	**-0.5**
TPB14					**Sg**	**21 48 59.8**	**-0.9**
TPB14		**1.01**	**124**	P	**Pg**	**21 48 46.9**	**-0.5**
TPB14				S	**Sg**	**21 48 59.8**	**-0.9**
TPB14				AML	AML		
TPB14				AML	AML		
TPB05	**Hovey Rd**	**1.04**	**138**		**Pg**	**21 48 47.4**	**-0.6**
TPB05					**Sb**	**21 49 01.6**	**+0.3**
TPB05	**Hovey Rd**	**1.04**	**138**	P	**Pg**	**21 48 47.4**	**-0.6**
TPB05				S	**Sb**	**21 49 01.6**	**+0.3**
TPB05				AML	AML		
TPB05				AML	AML		
MNTX	**Cornudas Mount**	**1.07**	**270**		**Pg**	**21 48 47.9**	**-0.6**
MNTX					**Sg**	**21 49 02.0**	**-0.4**
MNTX	**Cornudas Mount**	**1.07**	**270**	P	**Pg**	**21 48 47.9**	**-0.6**
MNTX				S	**Sg**	**21 49 02.0**	**-0.4**
MNTX				AML	AML		
MNTX				AML	AML		
TPB17		**1.09**	**130**		**Pg**	**21 48 48.5**	**-0.5**
TPB17					**Sg**	**21 49 02.9**	**-0.4**
TPB17				IAML		21 49 14.7	
	726nm,0.7s						
TPB17				IAML		21 49 17.3	
	884nm,1.0s						
TPB17		**1.09**	**130**	P	**Pg**	**21 48 48.5**	**-0.5**
TPB17				S	**Sg**	**21 49 02.9**	**-0.4**
TPB17				AML	AML		
TPB17				AML	AML		
VHRN	**Van Horn**	**1.17**	**219**		**Pg**	**21 48 49.4**	**-1.0**
VHRN					**Sb**	**21 49 06.2**	**+1.1**
VHRN				IAML		21 49 10.6	
	3µm,0.8s						
VHRN	**Van Horn**	**1.17**	**219**	⇑P	**Pg**	**21 48 49.4**	**-1.0**
VHRN				S	**Sb**	**21 49 06.2**	**+1.1**
VHRN				AML	AML		
VHRN				AML	AML		
MNHN	**Monahans**	**1.22**	**107**		**Pg**	**21 48 50.0**	**-1.5**
CPRX	**Cap Rock**	**1.34**	**9**		**Pn**	**21 48 52.2**	**-0.3**
ALPN	**Alpine**	**1.39**	**162**		**Pn**	**21 48 52.8**	**-0.3**
ALPN					**Sb**	**21 49 11.3**	**-0.1**
ALPN	**Alpine**	**1.39**	**162**	⇑P	**Pn**	**21 48 52.8**	**-0.3**
ALPN				S	**Sb**	**21 49 11.3**	**-0.1**
ODSA	**Odessa**	**1.41**	**72**		**Pn**	**21 48 53.7**	**+0.4**
ODSA					**Sb**	**21 49 12.5**	**+0.6**
ODSA	**Odessa**	**1.41**	**72**	P	**Pn**	**21 48 53.7**	**+0.4**
ODSA				S	**Sb**	**21 49 12.5**	**+0.6**
TMB07		**1.62**	**79**	P	**Pb**	**21 48 57.6**	**-0.1**
128A	**Castleberry Fa**	**1.67**	**56**		**Pn**	**21 48 57.5**	**+0.6**
TMB04	**Seminole**	**1.67**	**56**	P	**Pn**	**21 48 58.0**	**+1.2**
TMB01	**Midkiff**	**1.75**	**91**		**Pn**	**21 48 58.5**	**+0.6**
TMB01	**Midkiff**	**1.75**	**91**	P	**Pb**	**21 48 59.9**	**+0.1**
TMB02	**Rankin**	**1.86**	**105**		**Pb**	**21 49 01.4**	**-0.3**
TMB02	**Rankin**	**1.86**	**105**	P	**Pb**	**21 49 01.4**	**-0.3**
229A	**Bryant Ranch,**	**1.99**	**82**		**Pn**	**21 49 02.3**	**+1.0**
TMB06	**Greenwood**	**2.00**	**81**	P	**Pb**	**21 49 04.1**	**-0.1**
EPT	**El Paso**	**2.02**	**273**		**Pb**	**21 49 03.6**	**-1.0**
EPT				IAML		21 49 33.0	
	comp=N,430nm,0.8s						
EPT				IAML		21 49 35.5	
	comp=E,542nm,0.4s						
EPT	**El Paso**	**2.02**	**273**	P	**Pb**	**21 49 04.1**	**-0.5**
129A	**Stewart Farms,**	**2.13**	**64**		**Pb**	**21 49 05.5**	**-0.9**
TMB05	**Klondike**	**2.13**	**64**	P	**Pb**	**21 49 05.7**	**-0.7**
TX31	**Lajitas Ar. Si**	**2.39**	**170**		**Pn**	**21 49 08.6**	**+1.7**
TX31	**Lajitas Ar. Si**	**2.39**	**170**	P	**Pn**	**21 49 08.9**	**+2.0**
TXAR	**Lajitas Array**	**2.39**	**170**		**Pn**	**21 49 07.3**	**+0.5**
SAND	**Sanderson**	**2.45**	**135**		**Pn**	**21 49 07.7**	**+0.1**
MSTX	**Muleshoe**	**2.53**	**26**		**Pn**	**21 49 09.8**	**+1.0**
MSTX				IAmb_Lg		21 49 53.4	
	comp=Z,238nm,0.9s						
SGCY	**Sterling City**	**2.57**	**84**		**Pn**	**21 49 10.7**	**+1.5**
POST	**Post**	**2.61**	**58**		**Pn**	**21 49 10.5**	**+0.8**
OZNA	**Ozona**	**2.69**	**106**		**Pn**	**21 49 11.6**	**+0.8**
OZNA				IAmb_Lg		21 49 57.2	
	comp=Z,135nm,1.0s						
SN07	**Snyder 07**	**3.07**	**62**		**Pn**	**21 49 15.9**	**-0.2**
CRNM	**Carthage**	**3.14**	**316**		**Pn**	**21 49 19.1**	**+2.0**
121A	**Cookes Peak, D**	**3.21**	**286**	IAML		21 50 13.5	
	comp=N,239nm,0.7s						
121A				IAML		21 50 17.4	
	comp=E,170nm,0.8s						
Y22A	**Socorro**	**3.27**	**314**	IAML		21 50 14.3	
	comp=N,247nm,0.4s						
Y22A				IAML		21 50 15.6	
	comp=E,301nm,0.6s						
DKNS	**Dickens**	**3.34**	**53**	Pn	**Pn**	**21 49 21.2**	**+1.4**
DKNS				IAmb_Lg		21 50 19.9	
	comp=Z,158nm,0.7s						
ALQ	**Albuquerque**	**3.77**	**330**	IAML		21 50 27.8	
	comp=Z,151nm,0.7s						
ALQ				IAmb_Lg		21 50 31.9	
	comp=Z,149nm,0.8s						
ALQ	**Albuquerque**	**3.77**	**330**	IAML		21 50 27.7	
	comp=Z,162nm,0.8s						
ALQ				IAML		21 50 27.8	
	comp=Z,114nm,0.7s						
ALQ				IAmb_Lg		21 50 27.8	
	comp=Z,151nm,0.7s						
ALQ				IAmb_Lg		21 50 27.8	
	comp=Z,153nm,0.7s						
ALQ	**Albuquerque**	**3.77**	**330**	IAmb_Lg		21 50 32.0	
	comp=Z,148nm,0.8s						
ANMO	**Albuquerque**	**3.78**	**330**	IAML		21 50 27.4	
	comp=Z,109nm,0.6s						
ANMO				IAML		21 50 27.8	
	comp=Z,142nm,0.7s						
TASM	**ASL Pad, Albuq**	**3.78**	**330**	IAML		21 50 27.4	
	comp=Z,137nm,0.5s						
TASM	**ASL Pad, Albuq**	**3.78**	**330**	IAML		21 50 27.4	
	comp=Z,209nm,0.6s						
TASM				IAML		21 50 27.9	
	comp=Z,162nm,0.7s						
TASM				IAmb_Lg		21 50 31.6	
	comp=Z,194nm,1.0s						
TASM				IAmb_Lg		21 50 31.7	
	comp=Z,198nm,1.1s						
ABTX	**Abilene, Hawle**	**3.92**	**75**	IAmb_Lg		21 50 32.1	
	comp=Z,91nm,0.7s						
RTBA	**Rita Blanca**	**4.86**	**13**	IAmb_Lg		21 51 10.5	
	comp=Z,106nm,0.7s						
HPIG		**4.94**	**196**	IAML		21 51 09.3	
	comp=N,55nm,0.6s						
HPIG				IAML		21 51 11.4	
	comp=E,85nm,0.7s						
PLPT	**Palo Pinto**	**5.05**	**76**	IAmb_Lg		21 51 14.1	
	comp=Z,94nm,0.9s						
833A	**Chaparral WMA,**	**5.31**	**128**	IAmb_Lg		21 51 29.8	
	comp=Z,66nm,0.7s						
WMOK	**Wichita Mounta**	**5.41**	**55**	IAmb_Lg		21 51 30.8	
	comp=Z,73nm,0.9s						
EF02	**Christine**	**5.65**	**120**	IAmb_Lg		21 51 34.9	
	comp=Z,83nm,1.0s						
435B	**Jarrell**	**5.68**	**98**	IAmb_Lg		21 51 41.6	
	comp=Z,95nm,0.8s						
TUC	**Tucson**	**5.69**	**278**	IAmb_Lg		21 51 32.3	
	comp=Z,15nm,0.8s						
WHTX	**Lake Whitney,**	**5.69**	**85**	IAmb_Lg		21 51 37.8	
	comp=Z,60nm,0.8s						
FW13	**Cleburne**	**5.73**	**82**	IAmb_Lg		21 51 35.2	
	comp=Z,54nm,0.8s						
EF04	**Eagle Ford 04**	**6.01**	**113**	IAmb_Lg		21 51 55.1	
	comp=Z,90nm,0.8s						
X34A	**Smith Ranch, M**	**6.02**	**60**	IAmb_Lg		21 51 53.2	
	comp=Z,77nm,0.7s						
MLDN	**Muldoon**	**6.37**	**106**	IAmb_Lg		21 52 07.2	
	comp=Z,74nm,0.9s						
OK038	**West end E0370**	**6.53**	**42**	IAmb_Lg		21 52 14.3	
	comp=Z,57nm,0.8s						
NOKA	**Waynoka**	**6.54**	**40**	IAmb_Lg		21 52 11.1	
	comp=Z,67nm,0.8s						
OK029	**Liberty Lake**	**6.90**	**52**	IAmb_Lg		21 52 09.9	
	comp=Z,60nm,0.8s						
W35A	**Tecumseh**	**6.97**	**58**	IAmb_Lg		21 52 25.7	
	comp=Z,43nm,0.9s						
CROK	**Carrier**	**7.00**	**45**	IAmb_Lg		21 52 17.9	
	comp=Z,41nm,0.7s						
OK052	**Battle Ridge R**	**7.45**	**53**	IAmb_Lg		21 52 28.2	
	comp=Z,38nm,0.8s						
KAN01	**Argonia South**	**7.57**	**42**	IAmb_Lg		21 52 46.3	
	comp=Z,55nm,1.2s						
Z38A	**Mt. Pleasant**	**7.88**	**76**	IAmb_Lg		21 52 54.5	
	comp=Z,51nm,0.8s						
CBKS	**Cedar Bluff**	**7.95**	**26**	IAmb_Lg		21 52 51.4	
	comp=Z,54nm,0.7s						
R32A	**Long Quarter,**	**8.04**	**32**	IAmb_Lg		21 53 00.4	
	comp=Z,59nm,0.9s						
NATX	**Nacogdoches**	**8.07**	**87**	IAmb_Lg		21 53 06.3	
	comp=Z,44nm,0.9s						
T35A	**Sooner Cattle**	**8.17**	**48**	IAmb_Lg		21 53 01.2	
	comp=Z,60nm,1.2s						
SNAG	**San Augustine**	**8.49**	**89**	IAmb_Lg		21 53 19.6	
	comp=Z,38nm,0.9s						
KSU1	**Kansas State U**	**9.60**	**38**	IAmb_Lg		21 53 50.4	
	comp=Z,34nm,0.9s						

SDD 18 21:50:35.3±2.6**, 18°.72N**×**70°.78W, h22**^{km}±7^{km}**, MD3.2, ML2.2, MW2.4, 14C-1D, Presumed earthquake, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ABDR	**Alto Bandera**	**0.17**	**58**	⇓*i*P	Pb	21 50 42.5	+0.9
ABDR				⇑*i*S	Sb	21 50 44.4	-1.6
ABDR				IAML		21 50 46.2	
	comp=N,740nm,0.4s						
BANI	**BANI**	**0.51**	**130**	⇑*i*P	Pn	21 50 48.5	+1.1
BANI				⇑*i*S	Sn	21 50 55.6	-0.1
BANI				IAML		21 50 59.7	
	comp=N,90nm,0.3s						
SDDR	**Presa de Saban**	**0.55**	**298**	⇑*i*P	Pn	21 50 48.4	+0.4
SDDR				⇑*i*S	Sn	21 50 57.4	+0.9
SDDR				IAML		21 51 02.7	
	comp=N,45nm,0.3s						
SC01	**Santiago de lo**	**0.70**	**4**	⇑*i*S	Sn	21 51 03.0	+2.9
SC01				IAML		21 51 36.7	
	comp=N,53nm,0.3s						
PODR	**Polo**	**0.73**	**221**	⇑*i*P	Pn	21 50 51.8	+1.2
PODR				*i* S	Sn	21 51 02.8	+1.5
REDR	**Restauracion**	**0.73**	**307**	⇑*i*P	Pn	21 50 56.9	+6.5
REDR				⇑*i*S	Sn	21 51 10.9	+10
REDR				IAML		21 51 13.4	
	comp=N,59nm,0.3s						
DR08	**Loma La Naviza**	**0.75**	**71**	⇑*i*S	Sn	21 51 02.7	+1.2
DR08				IAML		21 51 40.1	
	comp=N,826nm,0.2s						
JIDR	**Jimani**	**1.05**	**257**	⇑*i*P	Pb	21 50 56.4	+1.7
JIDR				⇑*i*S	Sn	21 51 12.9	+4.3
JIDR				IAML		21 51 13.2	
	comp=N,44nm,0.6s						
HATOM	**Hato Mayor del**	**1.32**	**87**	⇑*i*P	Pb	21 51 02.4	+2.9
HATOM				⇑*i*S	Sb	21 51 20.0	+4.0
HATOM				IAML		21 51 20.3	
	comp=N,22nm,4.6s						

SJA 18 22:12:14.3±0.6**, 32°.90S**×**68°.33W, h10**^{km}**, ML3.5, MW3.2, Mendoza Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AAGR	**Agrelo**	**0.46**	**245**	*e*P	Pg	22 12 23.9	+0.6
ARCO	**CERRO ARCO**	**0.51**	**276**	*e*P	Pb	22 12 25.0	-0.4
ARCO				IAML		22 12 33.8	
	comp=Z,2µm,0.4s						
AVIZ	**Vizcacheras**	**0.60**	**195**	*e*P	Pb	22 12 26.5	-0.4
ACAN	**Cantantal**	**1.15**	**58**	*e*P	Pb	22 12 36.1	-0.2
ACAN				IAML		22 12 56.0	
	comp=Z,3µm,0.4s						
CFA	**Coronel Fontan**	**1.29**	**4**	*e*P	Pn	22 12 38.5	+0.1
CFA				*e*S	Sb	22 12 51.8	-3.5
RTLS	**Leoncito**	**1.36**	**323**	*e*P	Pb	22 12 40.2	+0.1
RTLS				IAML		22 13 01.0	
	comp=Z,950nm,0.8s						
SJA	**San Juan**	**1.38**	**352**	*e*P	Pn	22 12 38.7	-0.9
ZON	**Zonda**	**1.38**	**348**	*e*P	Pb	22 12 40.3	+0.1
ZON				*e*S	Sb	22 12 53.4	-4.5
MT08	**Bocatoma Ro**	**1.52**	**248**	*e*P	Pb	22 12 42.3	-0.3
MT08				*e*S	Sg	22 13 04.0	+0.9
RTLL	**Cerro Villicun**	**1.57**	**356**	*e*P	Pg	22 12 44.5	+0.1
RTLL				*e*S	Sn	22 12 59.8	-2.9
RTLL				IAML		22 13 12.1	
	comp=Z,2µm,1.5s						
MT04	**Ro Olivares**	**1.60**	**251**	*e*P	Pb	22 12 43.8	-0.3
MT04				*e*S	Sg	22 13 05.7	0.0
MT04				IAML		22 13 06.5	
	comp=Z,323nm,3.1s						
MT13	**San Alfonso**	**1.84**	**242**	*e*P	Pb	22 12 47.8	-0.4
MT13				*e*S	Sg	22 13 13.2	-0.3
MT13				IAML		22 13 14.2	
	comp=Z,398nm,3.2s						
VA03	**San Esteban**	**1.87**	**273**	*e*P	Pb	22 12 48.5	-0.1
VA03				IAML		22 13 14.6	
	comp=Z,341nm,3.5s						
MT03	**Universidad Ad**	**1.92**	**251**	*e*P	Pb	22 12 49.7	+0.2
MT03				*e*S	Sn	22 13 10.8	-0.6
MT03				IAML		22 13 18.4	
	comp=Z,212nm,1.1s						
PEL	**Peldehue**	**1.99**	**262**	*e*P	Pb	22 12 50.5	-0.2
PEL				*e*S	Sg	22 13 18.1	-0.2
MT05	**Renca**	**2.08**	**256**	*e*P	Pb	22 12 52.4	+0.3
MRA	**San Martin**	**2.26**	**79**	*e*P	Pn	22 12 50.6	-1.2
MRA				*e*S	Sb	22 13 24.1	+0.9
MRA				IAML		22 13 25.5	
	comp=Z,366nm,0.8s						
AVFE	**Valle Fertil**	**2.35**	**19**	*e*S	Sn	22 13 21.9	-0.1
AVFE				IAML		22 13 28.9	
	comp=Z,350nm,0.7s						
MT02	**Curacav**	**2.38**	**260**	*e*P	Pb	22 12 55.7	-1.6
MT02				*e*S	Sg	22 13 30.4	-0.5
ACCO	**Cerro Coronel**	**2.38**	**345**	*e*P	Pb	22 12 56.9	-0.6
ACCO				*e*S	Sn	22 13 25.0	+1.8
ACCO				IAML		22 13 41.2	
	comp=Z,119nm,0.6s						
MT01	**Popeta**	**2.62**	**248**	*e*P	Pb	22 13 00.9	-0.5
MT01				*e*S	Sg	22 13 36.9	-1.7
BO01	**Tunca**	**2.74**	**236**	*e*P	Pb	22 13 02.7	-0.6
BO01				*e*S	Sg	22 13 41.2	-1.0
BO02	**Sierra Bellavi**	**2.78**	**226**	*e*P	Pb	22 13 03.8	-0.3
BO02				*e*S	Sg	22 13 42.7	-0.9
BO02				IAML		22 13 43.0	
	comp=Z,227nm,1.9s						
VA01	**Torpederas**	**2.79**	**267**	*e*P	Pg	22 13 09.3	+1.5
VA01				IAML		22 14 06.2	
	comp=Z,88nm,1.3s						
CO02	**Combarbal**	**2.82**	**306**	*e*P	Pb	22 13 02.4	-2.5
CO02				*e*S	Sg	22 13 46.1	+1.1
AROD	**Rodeo**	**2.89**	**340**	*e*P	Pb	22 13 03.9	-2.3
EDS3	**Malargue**	**3.00**	**197**	*e*P	Pn	22 13 04.7	+2.6
EDS3				*e*S	Sb	22 13 43.7	-1.0
CO01	**Juntas del Tor**	**3.28**	**332**	*e*P	Pb	22 13 10.4	-2.3
CO01				*e*S	Sg	22 14 01.1	+1.5
GO04	**Tololo Observa**	**3.44**	**322**	*e*P	Pn	22 13 11.3	+3.2
GO04				*e*S	Sb	22 13 56.1	-1.2
TCA	**Tanti**	**3.53**	**65**	*e*P	Pn	22 13 11.5	+2.2
TCA				*e*S	Sb	22 13 58.0	-1.9
TCA				IAML		22 14 13.1	
	comp=Z,151nm,0.6s						
ACLC	**CERRO LA CRUZ**	**3.66**	**19**	*e*P	Pn	22 13 13.8	+2.7
ACLC				*e*S	Sb	22 14 05.5	+1.8
ACLC				IAML		22 14 13.1	
	comp=Z,77nm,0.4s						
CYA	**Choya**	**4.95**	**27**	*e*P	Pn	22 13 26.9	-1.8

ATH 18 22:16:46.5, 39°.19N×**21°.03E, h51**^{km}±2^{km}**, ML1.7**/3**, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km, Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ARTB	**Arta**	**0.05**	**234**	P	Pn	22 16 54.0	-0.3
TETR	**Tetrakomo, Epi**	**0.25**	**50**	P	Pn	22 16 55.4	0.0
TETR				S	Sn	22 17 02.2	+0.4
TETR				AML	AML		
AMPL	**Ampelaki**	**0.30**	**151**	P	Pn	22 16 55.7	0.0
AMPL				S	Sn	22 17 02.5	+0.1
AMPL				AML	AML		
PRMD	**Pramanda**	**0.35**	**9**	P	Pn	22 16 56.8	+0.5
PRMD				S	Sn	22 17 04.2	+0.9
PRMD				AML	AML		
TSLK	**Tsoukalades, L**	**0.46**	**219**	P	Pn	22 16 57.3	-0.1
TSLK				S	Sn	22 17 05.7	+0.5
LKD2	**Lefkada island**	**0.49**	**216**	P	Pn	22 16 57.6	-0.1
LKD2				S	Sn	22 17 06.1	+0.2
NYDR	**Nydri-Lefkada**	**0.54**	**209**	P	Pn	22 16 58.7	+0.4
PDO	**Prodromos**	**0.60**	**168**	P	Pn	22 16 59.3	+0.3
EVGI	**Lefkada island**	**0.64**	**207**	P	Pn	22 16 59.7	+0.2
IGT	**Igoumenitsa**	**0.64**	**303**	P	Pn	22 16 59.7	+0.2
IGT				S	Sn	22 17 09.1	+0.1
PVO	**Paravola**	**0.69**	**146**	P	Pn	22 17 01.3	+1.1
ANX	**Ano Chora**	**0.91**	**130**	P	Pn	22 17 03.7	+0.5
TYRN	**Tyrnavos**	**1.07**	**60**	P	Pn	22 17 05.2	0.0
KEK	**Kerkira**	**1.09**	**299**	P	Pn	22 17 04.8	-0.7

THE ***18*** *22:17:14.9, 37°N±2°×2°1E±°, h24*^{km}*±2*^{km}*, M3.3/14, MLh3.3/14*

ATH ***18*** *22:17:14.2, 37°.35N×21°.25E, h20*^{km}*±1*^{km}*, ML3.5/26, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*

IDC ***18*** *22:17:27.7±5.2, 39°.22N×23°.15E, h0*^{km}*, mb3.7/6, mbtmp3.7/6, Error ellipse: s-maj=103.8km s-min=33.1km az=23.0*

ISC 18 22:17:14.7±1.0**, 37°.34N**±0°.03×**21°.29E**±0°.04**, h32**^{km}±7^{km}**, n56, σ0.^{s}93**/70**, mb3.8**/6**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZARO	**Zacharo**	**0.32**	**62**	P	**Pb**	**22 17 22.4**	**-0.2**
ZARO				S	**Sb**	**22 17 27.7**	**-0.4**
AMT	**Artemida-Makis**	**0.38**	**59**	P	**Pb**	**22 17 23.0**	**-0.6**
AMT				S	**Sb**	**22 17 29.7**	**+0.1**
AMT				AML	AML		
AMT	**Artemida-Makis**	**0.38**	**59**	P	**Pb**	**22 17 23.0**	**-0.6**
AMT				S	**Sb**	**22 17 29.4**	**-0.2**
AMT				AML	AML		
LTHK	**Lithakia**	**0.52**	**316**	P	**Pb**	**22 17 25.0**	**-0.6**
LTHK				S	**Sn**	**22 17 33.6**	**-0.1**
LTHK				AML	AML		
LTHK	**Lithakia**	**0.52**	**316**	P	**Pb**	**22 17 25.0**	**-0.6**
LTHK				AML	AML		
ITM	**Ithomi**	**0.53**	**107**	P	**Pb**	**22 17 25.5**	**-0.3**
ITM				S	**Sb**	**22 17 34.1**	**+0.8**
ITM				AML	AML		
ITM	**Ithomi**	**0.53**	**107**	P	**Pb**	**22 17 25.3**	**-0.4**
ITM				S	**Sb**	**22 17 33.9**	**+0.7**
ITM				AML	AML		
PYL1	**Pylos**	**0.53**	**143**	P	**Pb**	**22 17 25.4**	**-0.3**
PYL1				S	**Sb**	**22 17 33.7**	**+0.4**
PYL1				AML	AML		
PYL	**PYLOS**	**0.57**	**141**	P	**Pb**	**22 17 26.0**	**-0.3**
PYL				AML	AML		
CLEM	**Kyllini,Ilia,G**	**0.57**	**347**	P	**Pb**	**22 17 25.8**	**-0.6**
VALY	**Valyra**	**0.58**	**107**	P	**Pb**	**22 17 26.3**	**-0.2**
VALY				S	**Sb**	**22 17 35.2**	**+0.7**
VALY				AML	AML		
VALY	**Valyra**	**0.58**	**107**	P	**Pb**	**22 17 26.1**	**-0.4**
VALY				S	**Sb**	**22 17 34.5**	**0.0**
VALY				AML	AML		
LCHA	**Lechaina**	**0.60**	**358**	P	**Pb**	**22 17 27.1**	**+0.2**
MTHA	**Methoni**	**0.61**	**147**	P	**Pn**	**22 17 27.7**	**+0.6**
MTHA				AML	AML		
DRO	**Drossia**	**0.70**	**28**	P	**Pb**	**22 17 27.7**	**-0.8**
DRO				S	**Sn**	**22 17 38.5**	**+0.4**
DRO				AML	AML		
DRO	**Drossia**	**0.70**	**28**	P	**Pb**	**22 17 27.8**	**-0.8**
DRO				AML	AML		
RLS	**Riolos of Patr**	**0.73**	**11**	P	**Pb**	**22 17 28.6**	**-0.5**
RLS				S	**Sn**	**22 17 39.8**	**+0.8**
RLS				AML	AML		
RLS	**Riolos of Patr**	**0.73**	**11**	P	**Pb**	**22 17 28.3**	**-0.8**
RLS				AML	AML		
AXS	**Araxos**	**0.86**	**4**	P	**Pn**	**22 17 30.6**	**0.0**
AXS				S	**Sn**	**22 17 44.2**	**+2.1**
AXS				AML	AML		
AXS	**Araxos**	**0.86**	**4**	P	**Pn**	**22 17 30.4**	**-0.2**
VLX	**Vlachokerasia**	**0.86**	**87**	P	**Pn**	**22 17 30.8**	**+0.1**
VLX				S	**Sn**	**22 17 44.4**	**+2.1**
VLX				AML	AML		
KLV1	**Kalavrita**	**0.95**	**43**	P	**Pn**	**22 17 32.1**	**+0.3**
KLV1				AML	AML		
KLV	**Kalavryta, Ach**	**0.98**	**44**	P	**Pn**	**22 17 32.3**	**0.0**
KLV				AML	AML		
KLV	**Kalavryta, Ach**	**0.98**	**44**	P	**Pn**	**22 17 32.0**	**-0.3**
VLS	**Valsamata**	**1.01**	**327**	P	**Pn**	**22 17 32.6**	**0.0**

VLS				S	Sb	22 17 47.7	+1.0
VLS				AML	AML		
VLS	Valsamata	1.01	327	P	Pn	22 17 32.5	-0.2
VLS				AML	AML		
GUR	Goura	1.03	54	P	Pn	22 17 32.8	-0.1
GUR				S	Sb	22 17 48.3	+1.1
GUR				AML	AML		
GUR	Goura	1.03	54	P	Pn	22 17 32.6	-0.3
GUR				AML	AML		
LAKA	Lakka	1.05	31	P	Pn	22 17 33.8	+0.5
LAKA				AML	AML		
LAKA	Lakka	1.05	31	P	Pn	22 17 33.9	+0.7
LAKA				AML	AML		
PLEV	Plevrona-Mesol	1.08	5	P	Pn	22 17 34.3	+0.7
PLEV				AML	AML		
PLEV	Plevrona-Mesol	1.08	5	P	Pn	22 17 33.8	+0.2
PLEV				AML	AML		
TEME	Temeni, Aigial	1.11	36	P	Pn	22 17 34.9	+1.0
AGEO	AgiosGiorgios,	1.11	33	P	Pb	22 17 35.2	-0.2
AGRP	Agrapidokambos	1.11	18	P	Pn	22 17 35.0	+1.0
AGRP				AML	AML		
VVK	Vomvokou	1.16	20	P	Pn	22 17 35.6	+0.9
VVK	Vomvokou	1.16	20	P	Pn	22 17 35.7	+0.9
VVK				AML	AML		
EFP	Efpalio	1.19	24	P	Pb	22 17 36.4	-0.4
EFP				AML	AML		
MG00	Magoula, Dorid	1.20	25	P	Pb	22 17 37.0	+0.2
MG00				AML	AML		
PYRG	Pyrgos, Dorida	1.22	28	P	Pb	22 17 37.1	-0.1
PYRG				AML	AML		
SERG	Sergoula	1.23	29	P	Pb	22 17 37.7	+0.2
SERG				AML	AML		
KALE	Kalithea	1.25	32	P	Pb	22 17 37.4	-0.4
KALE				AML	AML		
PDO	Prodromos	1.27	356	P	Pb	22 17 37.5	-0.5
PDO				AML	AML		
PVO	Paravola	1.29	8	P	Pb	22 17 38.4	-0.1
PVO				AML	AML		
ANX	Ano Chora	1.35	21	P	Pn	22 17 37.7	+0.3
ANX				AML	AML		
ACOR	Acrocorinthos	1.37	66	P	Pn	22 17 37.5	-0.1
ACOR				AML	AML		
EVGI	Lefkada island	1.38	339	P	Pn	22 17 38.0	+0.2
EVGI				AML	AML		
NYDR	Nydri-Lefkada	1.46	341	P	Pn	22 17 40.1	+1.3
OHR	Ohrid	3.79	354	*i* Pn	Pn	22 18 15.2	+4.3
VAY	Valandovo	4.10	14	*i* Pn	Pb	22 18 23.5	-2.6
FINES	FINESS Array B	24.32	6	P	P	22 22 27.5	-1.6
	2.7nm,0.9s,baz=182,slow=9.6,SNR=3.8						
	2.7nm,0.9s						
EKA	Eskdalemuir Ar	24.47	325	P	P	22 22 42.7	+12
	0.3nm,0.4s,baz=128,slow=9.9,SNR=2.1						
	0.3nm,0.4s						
ARCES	ARCESS Array B	32.34	3	P	P	22 23 40.3	-0.3
	2.0nm,0.9s,baz=186,slow=8.5,SNR=1.5						
	2.0nm,0.9s						
KURBB	Kurchatov Arra	42.24	53	P	P	22 25 03.8	-0.9
	0.5nm,0.3s,baz=276,slow=8.7,SNR=1.8						
	0.5nm,0.3s						
MKAR	Makanchi Array	45.23	58	P	P	22 25 28.6	-0.2
	0.2nm,0.3s,baz=276,slow=7.9,SNR=11						
	0.2nm,0.3s						
ZALV	Zalesovo Beam	45.80	48	P	P	22 25 31.8	-1.3
	0.5nm,0.4s,baz=271,slow=7.1,SNR=2.6						
	0.5nm,0.4s						

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*IDC **18** 22:32:21.9±0.7, 62°.32S×58°.14W, h0^{km}, mb4.2/9, mbtmp4.2/10, ML3.9/1, Error ellipse: s-maj=22.9km s-min=16.5km az=100.0*

*NEIC **18** 22:32:23.1±1.6, 62°.34S±0°.05×58°.6W±0°.2, h10^{km}±1^{km}, mb4.8/35, Error ellipse: s-maj=13.0km s-min=7.6km az=245.0*

ISC 18 22:32:22.8±0.5**, 62°.34S**±0°.07×**58°.42W**±0°.08**, h10^{km}, n74, σ0^{s}.84**/64**, mb4.7**/25**, 5C-1D, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ESPZ	Base Esperanza	1.25	149	Pn	Pn	22 32 43.1	-3.1
PMSA	Palmer Station	3.51	223	Pn	Pn	22 33 15.8	-1.4
	9.0nm,0.3s,baz=59,slow=9.3,SNR=33						
	39nm,0.5s						
PMSA				AML	AML		
PMSA	Palmer Station	3.51	223		Pn	22 33 16.2	-1.1
ORCD	Orcadas	6.73	82	Pn	Pn	22 34 02.4	+0.9
MG03	Isla Dawson	10.62	318	Pn	Pn	22 34 53.4	-1.3
VNA3	Neumayer Olymp	20.54	136	⇑P	P	22 37 00.7	-0.3
	comp=Z,21nm,0.8s						
LL02	Futaleuf	20.75	331	P	P	22 37 02.8	-0.6
LL02				IAmb	IAmb	22 37 08.6	
	comp=Z,30nm,1.1s						
VNA1	Neumayer--Stat	21.01	134	⇑P	P	22 37 06.6	+0.7
	comp=Z,36nm,0.9s						
VNA2	Neumayer--Watz	21.29	135	⇑P	P	22 37 09.1	+0.1
	comp=Z,18nm,0.7s,baz=267,slow=10						
SNAA	Sanae	22.71	137	⇑P	P	22 37 23.9	-0.4
	comp=Z,292nm,0.7s						
SNAA	Sanae	22.71	137	P	P	22 37 23.9	-0.4
	comp=Z,21nm,1.0s,baz=262,slow=9.5,SNR=21						
	comp=Z,21nm,1.0s						
SNAA	Sanae	22.71	137	P	P	22 37 23.7	-0.6
SNAA				IAmb	IAmb	22 37 26.7	
	comp=Z,29nm,1.0s						
LL05	Los Muermos	22.82	330	P	P	22 37 24.4	-1.1
PLCA	Paso Flores	22.84	336	P	P	22 37 26.9	+1.1
	comp=Z,11nm,0.9s,baz=160,slow=10,SNR=10.0						
	comp=Z,11nm,0.9s						
PLCA	Paso Flores	22.84	336	P	P	22 37 24.9	-0.9
PLCA				IAmb	IAmb	22 37 29.2	
	comp=Z,21nm,1.2s						
GO06	Curarrehue	24.13	335	P	P	22 37 36.5	-2.2
GO06				IAmb	IAmb	22 37 42.3	
	comp=Z,33nm,0.9s						
TROLL	Troll, Antarti	24.35	139	⇑P	P	22 37 40.3	-0.1
	comp=Z,610nm,0.8s						
BI02	San Fabin de	26.92	337	P	P	22 38 03.7	-0.2
BI02				IAmb	IAmb	22 38 08.6	
	comp=Z,16nm,1.1s						
ML02	Panimavida	27.82	337	P	P	22 38 11.5	-0.4
ML02				IAmb	IAmb	22 38 30.3	
	comp=Z,19nm,0.9s						
QSPA	South Pole Qui	27.89	180	P	P	22 38 12.6	+0.1
	comp=Z,5.8nm,0.9s,baz=174,slow=2.1,SNR=18						
	comp=Z,5.8nm,0.9s						
QSPA	South Pole Qui	27.89	180	P	P	22 38 12.1	-0.4
QSPA				IAmb	IAmb	22 38 22.5	
	comp=Z,11nm,0.9s						
GO05	Hualane	28.65	336	P	P	22 38 19.0	-0.3
BO02	Sierra Bellavi	28.65	338	P	P	22 38 18.8	-0.6
BO02				IAmb	IAmb	22 38 46.7	
	comp=Z,25nm,1.4s						
BO01	Tunca	29.09	338	P	P	22 38 23.5	+0.3
BO01				IAmb	IAmb	22 38 30.3	
	comp=Z,18nm,1.2s						
MT09	Talagante	29.68	339	P	P	22 38 28.4	-0.2
MT09				IAmb	IAmb	22 38 36.7	
	comp=Z,25nm,0.9s						
MT08	Bocatoma Ro	29.84	340	P	P	22 38 30.6	+0.4
MT08				IAmb	IAmb	22 38 38.6	
	comp=Z,18nm,1.0s						
VA05	Santo Domingo	29.90	338	P	P	22 38 29.8	-0.6
MT16	CCHEN	29.94	339	P	P	22 38 30.6	-0.2
MT16				IAmb	IAmb	22 38 39.1	
	comp=Z,21nm,0.8s						
ELIB	Princess Elisa	30.55	143	*d*P	P	22 38 35.4	-0.5
	comp=Z,3.4nm,0.7s						
VA03	San Esteban	30.59	340	P	P	22 38 36.7	0.0
CO01	Juntas del Tor	33.26	341	P	P	22 38 60.0	-0.3
CO01				IAmb	IAmb	22 39 13.4	
	comp=Z,15nm,1.1s						
LCO	Las Campanas	34.30	341	P	P	22 39 08.5	-0.8
AC04	Llanos de Chal	35.15	340	P	P	22 39 16.2	-0.1
GO03	Copiapo	35.62	342	P	P	22 39 19.8	-0.7
GO03				IAmb	IAmb	22 39 31.5	
	comp=Z,15nm,0.9s						
AC06	Mina Casimiro	35.87	342	P	P	22 39 22.1	-0.5
AC06				IAmb	IAmb	22 39 25.6	
	comp=Z,9.6nm,0.8s						
CPUP	Villa Florida	36.01	2	P	P	22 39 24.0	+0.3
	comp=Z,1.1nm,0.7s,baz=162,slow=6.6,SNR=4.1						
	comp=Z,1.1nm,0.7s						
CPUP	Villa Florida	36.01	2	P	P	22 39 23.7	-0.1
AC02	Maricunga	36.21	344	P	P	22 39 25.5	-0.5
AC01	Pan de Azucar	37.09	342	P	P	22 39 33.2	+0.2
AC01				IAmb	IAmb	22 39 40.1	
	comp=Z,52nm,1.3s						
SBA	Scott Base	37.38	194	P	P	22 39 35.5	+0.6
VNDA	Vanda	38.21	193	P	P	22 39 44.4	+2.5
	comp=Z,0.4nm,0.3s,baz=299,slow=1.2,SNR=7.0						
	comp=Z,0.4nm,0.3s						
VNDA	Vanda	38.21	193	P	P	22 39 43.5	+1.6
PB05	IPOC Station P	40.28	343	P	P	22 39 59.7	-0.2
PB05				IAmb	IAmb	22 40 11.2	
	comp=Z,16nm,1.1s						
MAW	Mawson	43.61	152	P	P	22 40 26.6	+0.1
	comp=Z,3.2nm,0.7s,baz=192,slow=11,SNR=6.7						
	comp=Z,3.2nm,0.7s						
MAW	Mawson	43.61	152	P	P	22 40 26.6	+0.1
PB12	IPOC Station P	44.47	344	P	P	22 40 34.7	+0.8
PB12				IAmb	IAmb	22 40 39.6	
	comp=Z,11nm,1.1s						
PB16	IPOC Station P	44.64	345	P	P	22 40 36.3	+0.4
PTLB	Pontes e Lacer	46.83	359	P	P	22 40 52.7	+0.1
H10S2	ASCENSION HYDR	61.98	51	T	T	23 49 54.7	
	baz=18,slow=74,SNR=8.0						
H10S3	ASCENSION HYDR	61.98	51	T	T	23 49 52.1	
	baz=202,slow=74,SNR=8.8						
BOSA	Boshof	62.19	99	P	P	22 42 44.7	+0.5
	comp=Z,1.4nm,0.6s,baz=200,slow=8.3,SNR=4.0						
	comp=Z,1.4nm,0.6s						
BOSA	Boshof	62.19	99	IAmb	IAmb	22 43 00.1	
	comp=Z,10.0nm,1.3s						
H10N3	ASCENSION HYDR	63.07	50	T	T	23 51 12.0	
	baz=202,slow=75,SNR=14						
H10N1	ASCENSION HYDR	63.07	50	T	T	23 51 14.2	
	baz=202,slow=75,SNR=12						
H10N2	ASCENSION HYDR	63.09	50	T	T	23 51 14.4	
	baz=202,slow=75,SNR=13						
ASAR	Alice Springs	93.73	191	P	P	22 45 40.0	+0.4
	comp=Z,0.2nm,0.5s,baz=173,slow=5.4,SNR=4.8						
	comp=Z,0.2nm,0.5s						
ASAR	Alice Springs	93.73	191	P	P	22 45 40.5	+0.8
WRA	Warramunga Arr	97.37	192	P	Pdif	22 45 56.9	+0.6
	comp=Z,0.4nm,0.6s,baz=171,slow=4.2,SNR=5.3						
	comp=Z,0.4nm,0.6s						
WRA	Warramunga Arr	97.37	192	P	Pdif	22 45 56.9	+0.5
Y49A	Blount Mountai	98.48	337	P	Pdif	22 46 01.2	+0.5
V61A	Roper	98.88	345	P	P	22 46 02.1	-0.2
CMAR	Chiang Mai Arr	133.41	150	PKP	PKPdf	22 51 39.0	+0.3
	comp=Z,1.2nm,0.7s,baz=220,slow=3.2,SNR=6.5						
CMAR	Chiang Mai Arr	133.41	150		PKPdf	22 51 39.4	+0.6
ILAR	Eielson Array	142.54	315	PKP	PKPdf	22 51 53.6	-0.5
	comp=Z,0.4nm,0.6s,baz=197,slow=2.8,SNR=3.3						
ARCES	ARCESS Array B	144.15	37	PKhKP	PKPpre	22 51 53.5	
	comp=Z,1.9nm,0.6s,baz=270,slow=1.2,SNR=7.5						
SPITS	Spitsbergen Ar	147.16	22	PKPbc	PKPbc	22 52 04.7	+0.6
	comp=Z,6.5nm,0.9s,baz=116,slow=3.8,SNR=4.1						
LZDM	Lanzhou Array	151.32	149	PKPbc	PKiKP	22 52 17.2	+0.6
	comp=Z,0.6nm,0.3s,baz=68,slow=3.9,SNR=4.3						
BVAR	Borovoye Array	151.82	85	PKPbc	PKPbc	22 52 15.8	-0.6
	comp=Z,3.9nm,0.6s,baz=267,slow=1.7,SNR=16						
MKAR	Makanchi Array	152.97	107	PKPbc	PKPbc	22 52 18.4	-0.7
	comp=Z,1.2nm,0.7s,baz=224,slow=1.9,SNR=7.6						
MKAR	Makanchi Array	152.97	107		PKiKP	22 52 20.0	+0.7
KURBB	Kurchatov Arra	154.03	97	PKPbc	PKiKP	22 52 22.1	+0.8
	comp=Z,0.8nm,0.5s,baz=228,slow=2.6,SNR=7.9						
KURK	Kurchatov	154.13	97		PKiKP	22 52 22.1	+0.6
ZALV	Zalesovo Beam	159.13	97	PKPab	PKPab	22 52 57.1	+0.4
	comp=Z,0.4nm,0.4s,baz=258,slow=4.3,SNR=2.1						
SONM	Songino Array	163.14	143	PKPab	PKPab	22 53 14.7	+0.1
	comp=Z,0.4nm,0.7s,baz=210,slow=6.0,SNR=4.6						

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*NOU **18** 22:38:32.7, 39°.58S×174°.29E, h204^{km}, MLv3.6/16, North Island, New Zealand*

*WEL **18** 22:38:35.1±0.9, 40°S±8°×17°4E±°, h191^{km}±6^{km}, M2.8/10, ML2.4/9, MLv2.8/10, Error ellipse: s-maj=10.1km s-min=8.1km az=12.6, confirmed*

ISC 18 22:38:30.3±2.0**, 39°.50S**±0°.05×**174°.20E**±0°.06**, h225^{km}**±11^{km}**, n99, σ1^{s}.54**/115**, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LREZ	Lake Rotokare	0.16	77	P	Pn	22 39 01.3	+1.8
LREZ				S	S	22 39 21.7	-0.7
LREZ				AML	AML		
LREZ				AML	AML		
NEZ	North Egmont	0.24	341	P	Pn	22 39 01.4	+1.5
NEZ				S	S	22 39 21.9	-1.1
NEZ				AML	AML		
NEZ				AML	AML		
KHEZ	Kahui Hut	0.25	325	P	Pn	22 39 01.2	+1.3
KHEZ	Kahui Hut	0.25	325	S	S	22 39 22.7	-0.2
KHEZ	Kahui Hut	0.25	325	P	Pn	22 39 01.3	+1.5
KHEZ				S	S	22 39 22.2	-0.7
KHEZ				AML	AML		
NMEZ	Namu Road	0.26	289	P	Pn	22 39 00.9	+1.2
NMEZ				S	S	22 39 22.2	-0.5
DREZ	Durham Road	0.31	0	S	S	22 39 21.8	-1.2
NBEZ	Newall Road No	0.34	312	P	Pn	22 39 01.0	+1.1
HUKS	Huiakama Schoo	0.37	51	S	S	22 39 21.7	-1.4
MHEZ	Mangahewa	0.43	13	P	Pn	22 39 01.7	+1.5
VRZ	Vera Road	0.57	50	P	Pn	22 39 01.4	+0.8
VRZ				S	S	22 39 22.6	-1.6
VRZ				AML	AML		
WAZ	Wanganui	0.66	113	P	Pn	22 39 03.1	+2.2
WAZ				S	S	22 39 24.2	-0.7
WAZ				AML	AML		
WCDS	Wanganui Civil	0.79	124	S	S	22 39 25.9	+0.1
PKVZ	Pokaka	0.91	77	P	Pn	22 39 03.5	+1.2
PKVZ				S	S	22 39 25.7	-1.5
PKVZ				AML	AML		
PKVZ				AML	AML		
ORCS	Ohakune Ruapeh	0.94	86	P	Pn	22 39 03.8	+1.4
ORCS				S	S	22 39 25.3	-2.1
MTVZ	Mangateitei	0.99	84	P	Pn	22 39 04.2	+1.5
MTVZ				S	S	22 39 26.2	-1.8
MTVZ				AML	AML		
MTVZ				AML	AML		
TWVZ	Taurewa	1.05	66	P	Pn	22 39 04.2	+1.0
TWVZ				AML	AML		
TWVZ				AML	AML		
TRVZ	Turoa	1.06	80	P	Pn	22 39 05.0	+1.7
TRVZ				AML	AML		
TRVZ				AML	AML		
FWVZ	Far West T-bar	1.08	77	P	Pn	22 39 04.7	+1.3
FWVZ				S	S	22 39 27.2	-2.0
FWVZ				AML	AML		
FWVZ				AML	AML		
MAVZ	Matarangi	1.08	78	P	Pn	22 39 05.3	+1.7
MAVZ				AML	AML		
MAVZ				AML	AML		
COVZ	Chateau Observ	1.08	75	P	Pn	22 39 04.9	+1.6
COVZ				S	S	22 39 27.6	-1.5
COVZ				AML	AML		
COVZ				AML	AML		
WNVZ	Wahianoa	1.10	82	P	Pn	22 39 05.0	+1.5
WNVZ				S	S	22 39 27.1	-2.2
WHVZ	Whangaehu Hut	1.10	79	P	Pn	22 39 05.2	+1.6
HIZ	Hauiti	1.11	28	P	Pn	22 39 04.1	+0.7
HIZ	Hauiti	1.11	28	S	S	22 39 28.3	-0.9
HIZ	Hauiti	1.11	28	P	Pn	22 39 04.4	+1.0
HIZ				S	S	22 39 27.7	-1.5
NGZ	Ngauruhoe	1.13	74	P	Pn	22 39 05.1	+1.3
WTVZ	West Tongariro	1.15	71	P	Pn	22 39 05.1	+1.3
TUVZ	Tukino	1.15	79	P	Pn	22 39 05.7	+1.8
SNVZ	South Ngauruho	1.16	75	P	Pn	22 39 05.9	+2.0
SNVZ				S	S	22 39 29.1	-1.0
OTVZ	Oturere	1.19	74	P	Pn	22 39 05.9	+1.8
KRVZ	Karewarewa	1.19	71	P	Pn	22 39 05.7	+1.6
MOVZ	Moawhango	1.21	86	P	Pn	22 39 05.4	+1.2
MOVZ				S	S	22 39 27.0	-3.5
NTVZ	North Tongarir	1.21	71	P	Pn	22 39 05.7	+1.5
ETVZ	East Tongariro	1.23	73	P	Pn	22 39 06.2	+1.8
TMVZ	Te Maari	1.23	72	P	Pn	22 39 06.3	+2.0
FXBS	Foxton Beach S	1.25	141	P	Pn	22 39 06.5	+2.3
FXBS				S	S	22 39 30.0	-0.8
DUWZ	D'Urville Isla	1.32	189	P	Pn	22 39 06.1	+1.2
DUWZ				AML	AML		
RATZ	Rangitukua	1.38	63	P	Pn	22 39 06.8	+1.4
RITZ	Rihia Road	1.39	69	P	Pn	22 39 07.3	+1.8
WATZ	Wairara	1.43	57	P	Pn	22 39 07.5	+1.7
BHHZ	Black Hill Sta	1.44	90	P	Pn	22 39 07.0	+1.1
KIW	Kapiti Island	1.47	158	P	Pn	22 39 07.2	+1.3
TSZ	Takapari Road	1.47	113	P	Pn	22 39 07.7	+1.7
POWZ	Post Office Ro	1.50	127	P	Pn	22 39 07.8	+1.6
OGWZ	Otaki Gorge	1.51	151	P	Pn	22 39 07.9	+1.5
MRZ	Mangatainoka R	1.57	138	P	Pn	22 39 08.2	+1.4
PNHZ	Pukenui	1.60	106	P	Pn	22 39 08.8	+1.7
KRHZ	Kereru	1.69	96	P	Pn	22 39 09.5	+1.6
TCW	Tory Channel	1.71	178	P	Pn	22 39 09.5	+1.5
DVHZ	Dannevirke	1.71	118	P	Pn	22 39 09.6	+1.6
PRWZ	Pori Road	1.72	128	P	Pn	22 39 10.3	+2.2
HOWZ	Holdsworth Sta	1.72	145	P	Pn	22 39 09.3	+1.2
KWHZ	Kaweka Forest	1.72	88	P	Pn	22 39 10.2	+2.0
CAW	Cannon Point	1.74	158	P	Pn	22 39 09.5	+1.3
BKZ	Black Stump Fm	1.81	80	P	Pn	22 39 10.2	+1.2
BKZ	Black Stump Fm	1.81	80	S	S	22 39 37.0	-2.1
BKZ	Black Stump Fm	1.81	80	P	Pn	22 39 10.0	+1.0
WPHZ	Waipukurau	1.82	109	P	Pn	22 39 10.9	+1.8
NNZ	Nelson	1.83	200	P	Pn	22 39 10.1	+1.1
NNZ				AML	AML		
WEL	Wellington	1.84	166	P	Pn	22 39 10.3	+1.2
QRZ	Quartz Range	1.84	223	P	Pn	22 39 09.7	+0.5
MRHZ	Matea Rd	1.85	70	P	Pn	22 39 10.4	+1.0
SNZO	South Karori	1.85	168	P	Pn	22 39 10.2	+1.0
SNZO	South Karori	1.85	168	S	S	22 39 37.2	-2.5
ALRZ	Allen Road	1.91	61	P	Pn	22 39 11.4	+1.4
MCHZ	McNeill Hill	1.94	89	P	Pn	22 39 12.5	+2.4
MTW	Mount Morrison	1.94	149	P	Pn	22 39 11.1	+1.1
TUWZ	Tuamarina	1.94	186	P	Pn	22 39 11.7	+1.6
BFZ	Birch Farm	1.97	128	P	Pn	22 39 11.6	+1.2
BFZ	Birch Farm	1.97	128	P	S	22 39 39.5	-2.2
BFZ	Birch Farm	1.97	128	P	Pn	22 39 11.9	+1.6
BHW	Baring Head	1.98	165	P	Pn	22 39 11.4	+1.0
PRHZ	Porangahau	2.03	113	P	Pn	22 39 12.9	+2.0
TOZ	Tahuroa Road	2.04	30	P	Pn	22 39 12.6	+1.5
NMHZ	Naumai	2.06	80	P	Pn	22 39 13.8	+2.4
TMWZ	Te Maipa	2.06	142	P	Pn	22 39 12.6	+1.3
MSWZ	Moikau Station	2.08	158	P	Pn	22 39 12.4	+1.0
KAHZ	Kahuranaki	2.09	99	P	Pn	22 39 13.8	+2.2
PAWZ	Paruwai Farm	2.10	154	P	Pn	22 39 12.7	+1.0
PXZ	Pawanui	2.12	105	P	Pn	22 39 13.8	+2.0
RRRZ	Republican Roa	2.15	58	P	Pn	22 39 13.7	+1.5
MTHZ	Maungataniwha	2.15	73	P	Pn	22 39 13.6	+1.3
ARHZ	Aropaoanui	2.18	85	P	Pn	22 39 14.7	+2.2
TRWZ	Traveller	2.21	150	P	Pn	22 39 14.0	+1.2
PLWZ	Palliser	2.22	159	P	Pn	22 39 13.7	+0.8
BSWZ	Blackbirch Sta	2.23	186	P	Pn	22 39 14.2	+1.3
CKHZ	Cape Kidnapper	2.23	95	P	Pn	22 39 15.3	+2.3
CMWZ	Cape Campbell	2.25	180	P	Pn	22 39 14.9	+1.7
MUGZ	Murupara	2.25	64	P	Pn	22 39 14.2	+0.9
RAHZ	Arahi	2.32	76	P	Pn	22 39 15.7	+1.8
MKAZ	Moumakai	2.51	18	P	Pn	22 39 16.9	+0.9
URZ	Urewera	2.59	62	P	Pn	22 39 17.0	+0.3
URZ	Urewera	2.59	62	P	Pn	22 39 17.5	+0.7
RAGZ	Rawiri	2.70	69	P	Pn	22 39 19.3	+1.2
KHZ	Kahutara	2.96	190	P	Pn	22 39 21.3	+0.6
MXZ	Matakaoa Point	3.76	60	P	Pn	22 39 30.9	+0.8
JCZ	Jackson Bay	6.10	220	P	Pn	22 40 00.7	+1.4
ODZ	Otahua Downs	6.14	204	P	Pn	22 40 00.2	+0.6

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*IDC **18** 23:11:12.2±1.5, 1°.35N×123°.86E, h0^{km}, mb3.6/4, mbtmp3.6/5, ML3.9/1, Error ellipse: s-maj=141.0km s-min=21.2km az=66.0*

*DJA **18** 23:11:19.5±0.6, 1°N±4°×12°3E±°, h25^{km}±6^{km}, M4.1/13, mB5.3/1, mb4.4/3, MLv3.9/13, Mw(mB)4.7/1*

ISC 18 23:11:18.6±1.2**, 1°.08N**±0°.10×**123°.2E**±0°.1**, h35^{km}, n12, σ1^{s}.55**/11**, mb3.6**/4**, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GTOI	Gorontalo	0.46	199	P	Pn	23 11 29.7	+0.9
GTOI				AML	AML		
MNI	Manado	1.72	78	P	Pn	23 11 47.7	+1.6
MNI				AML	AML		
LUWI	Luwuk	2.14	190	P	Pn	23 11 53.8	+1.9
LUWI				AML	AML		
APSI	Ampana	2.49	217	P	Pn	23 12 00.8	+4.2
APSI				AML	AML		
SANI	Sanana	4.20	138	P	Pn	23 12 20.4	+0.2
SANI				AML	AML		
KDI	Kendari	5.03	186	P	Pn	23 12 33.0	+1.4
	0.1nm3µm19nm,0.8s						
KDI				AML	AML		
NLAI	Namlea	5.82	137	P	Pn	23 12 44.2	+1.7
NLAI				AML	AML		
FITZ	Fitzroy Crossi	19.21	173	P	P	23 15 38.8	-1.0
	0.3nm,0.3s,baz=4.8,slow=12,SNR=2.0						
	1.0nm,0.4s						
FITZ				AML	AML		
WRA	Warramunga Arr	23.59	153	P	P	23 16 24.1	-2.3
	0.7nm,0.4s,baz=334,slow=10,SNR=13						
	0.7nm,0.4s						
ASAR	Alice Springs	26.72	158	P	P	23 16 54.0	-1.0
	0.3nm,0.5s,baz=346,slow=10,SNR=5.0						
	0.3nm,0.5s						
MKAR	Makanchi Array	57.79	328	P	P	23 21 06.4	-0.1
	0.3nm,0.4s,baz=122,slow=7.9,SNR=4.2						
	0.3nm,0.4s						
KURBB	Kurchatov Arra	62.12	330	P	P	23 21 35.7	-0.4
	0.4nm,0.2s,baz=130,slow=7.3,SNR=2.2						
	0.4nm,0.2s						

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*IDC **18** 23:34:23.8±0.7, 62°.17S×57°.55W, h0^{km}, mb4.0/9, mbtmp4.0/10, ML3.0/1, Error ellipse: s-maj=22.2km s-min=14.9km az=113.0*

*NEIC **18** 23:34:24.8±2.2, 62°.29S±0°.06×58°.27W±0°.09, h10^{km}±1^{km}, mb4.9/10, Error ellipse: s-maj=12.4km s-min=3.9km az=209.0*

ISC 18 23:34:24.7±0.5**, 62°.22S**±0°.06×**57°.96W**±0°.08**, h10^{km}, n35, σ1^{s}.14**/31**, mb4.3**/14**, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ESPZ	Base Esperanza	1.26	160	Pn	Pn	23 34 47.0	-1.3
ESPZ				Sg	Sb	23 35 03.7	-1.1
PMSA	Palmer Station	3.74	224	Pn	Pn	23 35 22.0	-0.4
	1.1nm,0.3s,baz=48,slow=8.8,SNR=8.3						
PMSA				Sn	Sn	23 36 07.1	+0.7
	3.7nm,0.3s,baz=117,slow=17,SNR=3.6						
	8.0nm,0.7s						
PMSA				AML	AML		
PMSA	Palmer Station	3.74	224		Pn	23 35 21.2	-1.2
DSPA	Despedida	9.91	322	Pn	Pn	23 36 46.0	-0.9
VNA3	Neumayer Olymp	20.48	136	P	Pn	23 39 05.6	+1.3
	comp=Z,7.5nm,0.8s						
VNA1	Neumayer--Stat	20.94	135	P	Pn	23 39 11.0	+1.3
	comp=Z,14nm,1.0s						
VNA2	Neumayer--Watz	21.22	135	P	P	23 39 13.5	+3.3
	comp=Z,5.9nm,0.7s,baz=272,slow=12						
SNAA	Sanae	22.66	138	P	P	23 39 25.4	-0.3
	comp=Z,4.1nm,0.9s,baz=264,slow=11,SNR=6.0						
	comp=Z,4.1nm,0.9s						
PLCA	Paso Flores	22.82	335	P	P	23 39 28.7	+1.1
	comp=Z,4.0nm,0.8s,baz=226,slow=6.5,SNR=5.8						
	comp=Z,4.0nm,0.8s						
PLCA	Paso Flores	22.82	335	P	P	23 39 27.9	+0.4
PLCA				IAmb	IAmb	23 39 30.7	
	comp=Z,24nm,1.6s						
GO06	Curarrehue	24.11	334	P	P	23 39 39.0	-1.4
GO06				IAmb	IAmb	23 39 45.4	
	comp=Z,16nm,1.1s						
QSPA	South Pole Qui	28.01	180	P	P	23 40 16.9	+1.4
	comp=Z,2.0nm,0.8s,baz=172,slow=2.4,SNR=9.2						
	comp=Z,2.0nm,0.8s						
QSPA	South Pole Qui	28.01	180	P	P	23 40 16.7	+1.2
BO04	La Punta	29.37	338	P	P	23 40 25.9	-1.8
BO04				IAmb	IAmb	23 40 38.0	
	comp=Z,43nm,1.4s						
MT09	Talagante	29.65	338	P	P	23 40 30.7	+0.4
CPUP	Villa Florida	35.88	1	P	P	23 41 24.7	+0.1
	comp=Z,0.4nm,0.3s,baz=207,slow=9.0,SNR=3.1						
	comp=Z,0.4nm,0.3s						
AC02	Maricunga	36.16	343	P	P	23 41 27.9	+0.4
AC02				IAmb	IAmb	23 41 30.2	
	comp=Z,24nm,1.5s						
AC01	Pan de Azucar	37.05	341	P	P	23 41 34.7	+0.2
AC01				IAmb	IAmb	23 42 42.8	
	comp=Z,77nm,1.8s						
MAW	Mawson	43.62	152	P	P	23 42 28.6	+0.1
	comp=Z,1.4nm,0.8s,baz=230,slow=16,SNR=3.8						
	comp=Z,1.4nm,0.8s						
PB16	IPOC Station P	44.58	344	P	P	23 42 38.5	+1.1
PB16				IAmb	IAmb	23 42 56.6	
	comp=Z,27nm,1.9s						
BDFB	Brasilia	47.05	13	P	P	23 42 56.7	+0.4

	comp=Z,2.3nm,0.6s,baz=209,slow=5.1,SNR=4.4						
	comp=Z,2.3nm,0.6s						
BOSA	**Boshof**	**61.99**	**99**	P	**P**	**23 44 45.1**	**+0.2**
	comp=Z,4.7nm,1.1s,baz=198,slow=9.6,SNR=2.9						
	comp=Z,4.7nm,1.1s						
BOSA	**Boshof**	**61.99**	**99**	P	**P**	**23 44 45.4**	**+0.5**
BOSA				IAmb	IAmb	23 45 24.5	
	comp=Z,30nm,1.7s						
H10N3	**ASCENSION HYDR**	**62.83**	**50**	T	T	00 53 19.9	
	baz=201,slow=75,SNR=5.3						
H10N1	**ASCENSION HYDR**	**62.83**	**50**	T	T	00 53 33.8	
	baz=201,slow=75,SNR=4.6						
H10N2	**ASCENSION HYDR**	**62.84**	**50**	T	T	00 53 16.0	
	baz=201,slow=75,SNR=5.5						
TORD	**Torodi Ar. Bea**	**88.23**	**57**	P	**P**	**23 47 16.1**	**+0.3**
	comp=Z,1.2nm,0.8s,baz=205,slow=4.6,SNR=4.1						
	comp=Z,1.2nm,0.8s						
TORD	**Torodi Ar. Bea**	**88.23**	**57**	P	**P**	**23 47 13.3**	**-2.5**
ASAR	**Alice Springs**	**93.89**	**191**	P	**P**	**23 47 42.4**	**+0.1**
	comp=Z,0.2nm,0.5s,baz=151,slow=6.1,SNR=2.2						
	comp=Z,0.2nm,0.5s						
GERES	**GERESS Array B**	**124.46**	**50**	PKP	**PKPdf**	**23 53 22.0**	**-0.9**
	comp=Z,0.3nm,0.3s,baz=17,slow=1.4,SNR=4.1						
ARCES	**ARCESS Array B**	**143.93**	**36**	PKhKP	PKPpre	23 53 55.2	
	comp=Z,3.5nm,0.7s,baz=278,slow=1.2,SNR=7.5						
SPITS	**Spitsbergen Ar**	**146.97**	**21**	PKPbc	**PKPbc**	**23 54 05.3**	**-0.2**
	comp=Z,8.8nm,1.0s,baz=251,slow=4.4,SNR=1.9						
BVAR	**Borovoye Array**	**151.60**	**85**	PKPbc	**PKPbc**	**23 54 17.8**	**+0.1**
	comp=Z,4.0nm,0.7s,baz=221,slow=2.5,SNR=12						
MKAR	**Makanchi Array**	**152.80**	**106**	PKPbc	**PKPbc**	**23 54 20.5**	**-0.2**
	comp=Z,0.9nm,0.6s,baz=234,slow=2.4,SNR=7.8						
KURBB	**Kurchatov Arra**	**153.83**	**96**	PKPbc	**PKPbc**	**23 54 22.7**	**0.0**
	comp=Z,0.3nm,0.3s,baz=238,slow=3.2,SNR=6.1						

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*MDD **18** 23:38:39.8±0.9, 37°06N×12°91W, h15^{km}, Mb4.1/10, M_mb3.5/10, Error ellipse: s-maj=7.0km s-min=5.9km az=67.0*
*IGIL **18** 23:38:40.1, 36°92N×13°10W, h31^{km}, ML2.0*
*CNRM **18** 23:38:40.8, 36°78N×12°95W, h71^{km}*
*INMG **18** 23:38:42.0±1.1, 36°92N×13°10W, h10^{km}±10^{km}, ML2.4, Error ellipse: s-maj=4.0km s-min=2.3km az=125.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Josephine*
ISC 18 23:38:40.0±2.4**, 37°06N**±0°05×**12°6W**±0°1**, h10**^{km}**, n74, σ2**^{s}**19**/135**, 9C, Azores-Cape St. Vincent Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PFVI	**Vila Bisbo**	**2.98**	**88**	P	**Pn**	**23 39 28.7**	**+1.4**
PFVI				S	**Sn**	**23 40 04.0**	**+0.9**
PFVI	**Vila Bisbo**	**2.98**	**88**	*e*P	**Pn**	**23 39 29.3**	**+2.0**
PFVI				*e*S	**Sn**	**23 40 05.0**	**+2.0**
PFVI				*i* IAML		23 40 05.9	
PFVI				*i* IAML		23 40 06.9	
PFVI	**Vila Bisbo**	**2.98**	**88**	P	**Pn**	**23 39 29.4**	**+2.0**
PFVI				S	**Sb**	**23 40 08.8**	**-0.8**
PTEO	**Sao Teotonio**	**3.09**	**80**	*e*P	**Pn**	**23 39 31.1**	**+2.3**
PTEO				*e*S	**Sn**	**23 40 08.1**	**+2.3**
MORF	**Marmelete**	**3.12**	**84**	*e*P	**Pn**	**23 39 31.4**	**+2.1**
MORF				*e*S	**Sn**	**23 40 09.0**	**+2.3**
MORF				IAML		23 40 10.7	
	comp=E,8.8nm,0.2s						
MORF	**Marmelete**	**3.12**	**84**	*e*P	**Pn**	**23 39 31.4**	**+2.1**
MORF				*e*S	**Sn**	**23 40 09.2**	**+2.5**
MORF				*i* IAML		23 40 14.9	
MORF				*i* IAML		23 40 23.4	
PMAFR	**Mafra**	**3.20**	**53**	*e*P	**Pn**	**23 39 32.6**	**+2.2**
PMAFR				*e*S	**Sn**	**23 40 10.5**	**+2.0**
PMAFR				*i* IAML		23 40 12.4	
PMAFR				*i* IAML		23 40 12.7	
PLOUS	**Minas do Lousa**	**3.42**	**72**	*e*P	**Pn**	**23 39 35.7**	**+2.3**
PLOUS				*e*S	**Sn**	**23 40 15.9**	**+2.0**
PLOUS				*i* IAML		23 40 22.7	
PLOUS				*i* IAML		23 40 23.0	
PLOUS				*i* IAML		23 40 24.3	
MESJ	**Messejana**	**3.53**	**76**	*e*P	**Pn**	**23 39 37.1**	**+2.1**
MESJ				*e*S	**Sn**	**23 40 18.7**	**+1.9**
MESJ				IAML		23 40 21.6	
	comp=E,1.9nm,0.1s						
MESJ	**Messejana**	**3.53**	**76**	*e*P	**Pn**	**23 39 37.1**	**+2.1**
MESJ				*e*S	**Sn**	**23 40 18.8**	**+2.1**
MESJ				*i* IAML		23 40 23.6	
MOE	**Montemor**	**3.63**	**65**	*e*P	**Pn**	**23 39 38.4**	**+2.1**
MOE				*e*S	**Sn**	**23 40 21.0**	**+1.8**
PCVE	**Castro Verde**	**3.64**	**80**	P	**Pn**	**23 39 38.4**	**+2.0**
PCVE				S	**Sn**	**23 40 20.4**	**+1.0**
PCVE	**Castro Verde**	**3.64**	**80**	*e*P	**Pn**	**23 39 38.7**	**+2.3**
PCVE				*e*S	**Sn**	**23 40 20.8**	**+1.4**
PCVE				*i* IAML		23 40 24.9	
PBDV	**Barranco-do-Ve**	**3.69**	**86**	P	**Pn**	**23 39 39.2**	**+2.0**
PBDV				S	**Sn**	**23 40 23.2**	**+2.4**
PBDV	**Barranco-do-Ve**	**3.69**	**86**	*e*P	**Pn**	**23 39 39.8**	**+2.6**
PBDV				*e*S	**Sn**	**23 40 22.4**	**+1.6**
PBDV				*i* IAML		23 40 27.9	
PSBE	**So Bento**	**3.84**	**49**	*e*P	**Pn**	**23 39 41.4**	**+2.2**
PSBE				*e*S	**Sn**	**23 40 25.7**	**+1.4**
PSBE				*i* IAML		23 40 28.8	
PSBE				*i* IAML		23 40 30.2	
PSBE				*i* IAML		23 40 31.7	
PBEJ	**Beja**	**3.84**	**74**	*e*P	**Pn**	**23 39 41.6**	**+2.4**
PBEJ				*e*S	**Sn**	**23 40 25.8**	**+1.4**
PBEJ				*i* IAML		23 40 32.2	
PBEJ				*i* IAML		23 40 32.7	
PVAQ	**Vaqueiros**	**3.87**	**83**	*e*P	**Pn**	**23 39 42.1**	**+2.5**
PVAQ				*e*S	**Sn**	**23 40 26.4**	**+1.3**
PVAQ				*i* IAML		23 40 31.0	
PVAQ				*i* IAML		23 40 31.6	
PVAQ				*i* IAML		23 40 34.4	
PVAQ	**Vaqueiros**	**3.87**	**83**	P	**Pn**	**23 39 42.0**	**+2.5**
PVAQ				S	**Sb**	**23 40 31.6**	**-3.8**
EVO	**Evora**	**3.88**	**66**	P	**Pn**	**23 39 41.4**	**+1.7**
EVO				S	**Sn**	**23 40 26.3**	**+0.9**
EVO	**Evora**	**3.88**	**66**	*e*P	**Pn**	**23 39 41.7**	**+2.0**
EVO				*e*S	**Sn**	**23 40 26.2**	**+0.9**
EVO				*i* IAML		23 40 30.8	
EVO				*i* IAML		23 40 31.5	
EVO				*i* IAML		23 40 31.5	
PMTG	**Montargil**	**3.96**	**58**	*e*P	**Pn**	**23 39 42.7**	**+2.0**
PMTG				*e*S	**Sn**	**23 40 28.3**	**+1.1**
PMTG				*i* IAML		23 40 32.8	
PMTG				*i* IAML		23 40 33.0	
PARRA	**Arraiolos**	**3.97**	**62**	*e*P	**Pn**	**23 39 42.7**	**+1.7**
PARRA				*e*S	**Sn**	**23 40 28.3**	**+0.7**
PARRA				*i* IAML		23 40 31.9	
EGRO	**El Granado**	**4.07**	**82**	P	**Pn**	**23 39 44.5**	**+2.2**
EGRO				S	**Sn**	**23 40 31.0**	**+1.1**
EGRO	**El Granado**	**4.07**	**82**	Pn	**Pn**	**23 39 44.9**	**+2.6**
EGRO				⇑IVmb_VC		23 39 48.1	
	comp=E,271nm,SNR=1.5						
EGRO				Sn	**Sn**	**23 40 32.2**	**+2.3**
PSARD	**Sardoal**	**4.28**	**52**	*e*P	**Pn**	**23 39 47.5**	**+2.3**
PSARD				*e*S	**Sn**	**23 40 36.8**	**+1.5**
PSARD				*i* IAML		23 40 37.5	
PSARD				*i* IAML		23 40 40.2	
PSARD				*i* IAML		23 40 41.0	
PESTR	**Estremoz**	**4.31**	**64**	P	**Pn**	**23 39 47.9**	**+2.3**
PESTR				S	**Sn**	**23 40 37.5**	**+1.5**
PESTR	**Estremoz**	**4.31**	**64**	*e*P	**Pn**	**23 39 48.1**	**+2.4**
PESTR				*e*S	**Sn**	**23 40 37.0**	**+1.0**
PCAS	**Casmilo, Conde**	**4.36**	**46**	*e*P	**Pn**	**23 39 48.5**	**+2.2**
PCAS				*e*S	**Sn**	**23 40 37.9**	**+0.7**
PCAS				*i* IAML		23 40 43.0	
PCAS				*i* IAML		23 40 44.9	
PBAR	**Barrancos**	**4.51**	**74**	P	**Pn**	**23 39 50.5**	**+2.1**
PBAR				S	**Sn**	**23 40 42.3**	**+1.3**
PBAR	**Barrancos**	**4.51**	**74**	*e*P	**Pn**	**23 39 51.1**	**+2.7**
PBAR				*e*S	**Sn**	**23 40 41.7**	**+0.7**
EBAD	**Badajoz**	**4.69**	**67**	P	**Pn**	**23 39 52.3**	**+1.4**
EBAD				S	**Sn**	**23 40 46.0**	**+0.6**
PMRV	**Marv??o**	**4.70**	**58**	*e*P	**Pn**	**23 39 52.9**	**+2.0**
PMRV				*e*S	**Sn**	**23 40 45.5**	**0.0**
PMRV				*i* IAML		23 40 49.2	
PMRV				*i* IAML		23 40 49.4	
EMIN	**Mina Concepcio**	**4.73**	**80**	P	**Pn**	**23 39 52.5**	**+1.1**
PCBR	**Castelo Branco**	**4.85**	**54**	*e*P	**Pn**	**23 39 55.2**	**+2.2**
PCBR				*e*S	**Sn**	**23 40 49.7**	**+0.4**
PMPST	**Porto Santo, M**	**5.04**	**219**	*e*S	Sn	23 40 34.4	-20
MTE	**Manteigas**	**5.14**	**48**	*e*P	**Pn**	**23 39 58.9**	**+1.8**
MTE				*e*S	**Sn**	**23 40 57.4**	**+0.9**
MTE				*i* IAML		23 40 59.7	
MTE				*i* IAML		23 41 00.5	
PVIS	**Viseu**	**5.15**	**43**	*e*P	**Pn**	**23 39 58.7**	**+1.6**
PVIS				*e*S	**Sn**	**23 40 55.5**	**-1.2**
ESPR	**Espera**	**5.36**	**90**	P	**Pn**	**23 40 02.3**	**+2.2**
ESPR				S	**Sn**	**23 41 04.5**	**+2.6**
PMAR	**Madeira**	**5.62**	**221**	*e*P	Pn	23 39 54.2	-10
PMAR				*e*S	Sn	23 40 48.0	-20
PMAR	**Madeira**	**5.62**	**221**	P	Pn	23 39 57.0	-6.8
PMAR				S	Sn	23 40 55.6	-13
AVE	**Averroes**	**5.64**	**130**	S	**Sn**	**23 41 05.3**	**-3.4**
PVRL	**Vila Real**	**5.64**	**40**	*e*S	**Sn**	**23 41 07.8**	**-1.0**
PVRL				*i* IAML		23 41 11.4	
PVRL				*i* IAML		23 41 12.2	
PVRL				*i* IAML		23 41 12.8	
POLO	**Lamas de Olo**	**5.67**	**39**	*e*P	**Pn**	**23 40 05.9**	**+1.5**
POLO				*e*S	**Sn**	**23 41 08.2**	**-1.4**
POLO				*i* IAML		23 41 10.4	
POLO				*i* IAML		23 41 11.8	
ECAB	**El Cabril**	**5.75**	**78**	P	**Pn**	**23 40 07.4**	**+1.9**
ECAB				S	**Sn**	**23 41 12.4**	**+0.8**
ECAB	**El Cabril**	**5.75**	**78**	Pn	**Pn**	**23 40 07.8**	**+2.3**
ECAB				⇑IVmb_VC		23 40 10.2	
	comp=E,124nm,SNR=1.4						
ECAB				Sn	**Sn**	**23 41 11.6**	**0.0**
PCAB	**Cabril**	**5.81**	**36**	*e*S	**Sn**	**23 41 12.8**	**-0.3**
PCAB				*i* IAML		23 41 13.3	
PGAV	**Gavieira, Arco**	**5.91**	**33**	*e*P	**Pn**	**23 40 09.9**	**+2.2**
PGAV				*e*S	**Sn**	**23 41 13.3**	**-2.2**
PGAV				*i* IAML		23 41 15.8	
PGAV				*i* IAML		23 41 16.0	
PGAV				*i* IAML		23 41 17.4	
ELOB	**Lobios**	**5.92**	**35**	Pn	**Pn**	**23 40 09.2**	**+1.3**
ELOB				⇑IVmb_VC		23 40 11.9	
	comp=E,121nm,SNR=0.8						
ELOB				Sn	**Sn**	**23 41 12.2**	**-3.6**
SMIR	**Smir Dam**	**5.95**	**101**	P	**Pn**	**23 40 09.9**	**+1.8**
SMIR				S	**Sn**	**23 41 19.7**	**+3.5**
SRHM	**Skhour des Reh**	**5.97**	**139**	P	**Pn**	**23 40 08.6**	**+0.2**
SRHM				S	**Sn**	**23 41 18.0**	**+1.1**
ZHG	**ZHG**	**6.03**	**125**	P	**Pn**	**23 40 08.3**	**-1.1**
ZHG				S	**Sn**	**23 41 19.0**	**+0.5**
CIBOR	**Castaar de Ib**	**6.16**	**63**	Pn	**Pn**	**23 40 12.8**	**+1.8**
CIBOR				Sn	**Sn**	**23 41 20.9**	**-0.7**
EMIJ	**Mijas**	**6.26**	**92**	P	**Pn**	**23 40 13.9**	**+1.5**
EMIJ				S	**Sn**	**23 41 25.1**	**+1.0**
EMAZ	**Mazaricos**	**6.49**	**24**	Pn	**Pn**	**23 40 15.1**	**-0.4**
EMAZ				⇑IVmb_VC		23 40 17.8	
	comp=E,192nm,SNR=1.0						
EMAZ				Sn	**Sn**	**23 41 22.8**	**-6.8**
PBRG	**Braganca**	**6.53**	**42**	*e*P	**Pn**	**23 40 17.5**	**+1.4**
PBRG				*e*S	**Sn**	**23 41 28.8**	**-1.9**
PBRG				*i* IAML		23 41 32.5	
PBRG				*i* IAML		23 41 32.5	
PBRG				*i* IAML		23 41 35.2	
ECAL	**Calabor**	**6.63**	**41**	P	**Pn**	**23 40 18.3**	**+0.7**
ECAL				S	**Sn**	**23 41 31.7**	**-1.5**
ECAL	**Calabor**	**6.63**	**41**	Pn	**Pn**	**23 40 18.9**	**+1.4**
ECAL				⇑IVmb_VC		23 40 21.6	
	comp=E,342nm,SNR=1.3						
ECAL				Sn	**Sn**	**23 41 30.0**	**-3.1**
EAGO	**Agolada(Pontev**	**6.68**	**29**	⇑IVmb_VC		23 40 18.1	
	comp=E,173nm,SNR=1.0						
EAGO				Pn	**Pn**	**23 40 18.2**	**0.0**
EAGO				Sn	**Sn**	**23 41 29.7**	**-4.6**
PAB	**San Pablo**	**6.91**	**66**	Pn	**Pn**	**23 40 22.8**	**+1.4**
PAB				⇑IVmb_VC		23 40 24.2	
	comp=E,64nm,SNR=0.9						
PAB				Sn	**Sn**	**23 41 38.1**	**-2.0**
OUK	**Oukaimeden**	**7.01**	**145**	P	**Pn**	**23 40 20.7**	**-2.4**
OUK				S	**Sn**	**23 41 38.6**	**-4.5**
IFR	**Ifrane**	**7.03**	**118**	S	**Sn**	**23 41 38.3**	**-4.8**
ELGU	**Los Guajares,**	**7.15**	**89**	S	**Sn**	**23 41 47.0**	**+1.0**
TISM	**Timmit**	**7.34**	**135**	P	**Pn**	**23 40 25.1**	**-2.2**
TISM				S	**Sn**	**23 41 50.3**	**-0.2**
GUD	**Guadarrama**	**7.46**	**59**	Pn	**Pn**	**23 40 30.8**	**+1.8**
GUD				⇑IVmb_VC		23 40 30.9	
	comp=E,45nm,SNR=0.7						
GUD				Sn	**Sn**	**23 41 52.3**	**-1.5**
EPON	**Pontenova**	**7.50**	**32**	Pn	**Pn**	**23 40 29.9**	**+0.5**
EPON				⇑IVmb_VC		23 40 31.8	
	comp=E,12nm,SNR=1.6						
EPON				Sn	**Sn**	**23 41 50.1**	**-4.3**
AKLM	**AKL**	**7.50**	**107**	P	**Pn**	**23 40 28.6**	**-0.9**
AKLM				S	**Sn**	**23 41 54.6**	**-0.2**
TIO	**Tiouine**	**7.53**	**143**	P	**Pn**	**23 40 28.5**	**-1.5**
TIO				S	**Sn**	**23 41 47.5**	**-8.0**
TIO	**Tiouine**	**7.53**	**143**	P	**Pn**	**23 40 27.0**	**-3.0**
TIO				S	**Sn**	**23 41 52.1**	**-3.5**
MD31	**MD31**	**7.64**	**121**	P	**Pn**	**23 40 31.4**	**-0.1**
MD31				S	**Sn**	**23 41 57.2**	**-1.0**
MDT	**Midelt**	**7.78**	**121**	P	**Pn**	**23 40 32.8**	**-0.5**
MDT				S	**Sn**	**23 42 02.3**	**+0.8**
OUZM	**OUZ**	**7.79**	**140**	P	**Pn**	**23 40 32.4**	**-1.2**
OUZM				S	**Sn**	**23 41 57.7**	**-4.3**
UCM	**Universidad Co**	**7.97**	**63**	P	**Pn**	**23 40 37.3**	**+1.4**
UCM				S	**Sn**	**23 42 06.4**	**+0.3**
ETOB	**Tobarra**	**8.85**	**76**	P	**Pn**	**23 40 48.8**	**+0.8**

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*IDC **18** 23:46:39.6±10.0, 31°50S×179°49W, h217^{km}±107^{km}, mb3.2/2, mbtmp3.7/3, Error ellipse: s-maj=102.2km s-min=43.2km az=1.0*
*WEL **18** 23:46:48.5±1.1, 32°S±12°×18°0W±2°4, h318^{km}±24^{km}, M4.2/6, mB4.4/3, ML4.1/12, MLv4.3/6, Mw(mB)3.6/3, Error ellipse: s-maj=32.6km s-min=11.6km az=108.2, confirmed*
ISC 18 23:46:48.2±2.0**, 32°1S**±0°1×**179°7W**±0°2**, h300**^{km}**, n26, σ1**^{s}**59**/40**, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	**5.75**	**196**	P	**Pn**	**23 48 14.5**	**+0.2**
MXZ				S	**S**	**23 49 24.0**	**+0.2**
MXZ				AML	AML		
WMGZ	**Waiomatatini S**	**5.97**	**195**	P	**Pn**	**23 48 14.4**	**-2.5**
WMGZ				S	**S**	**23 49 31.6**	**+3.0**
WMGZ				AML	AML		
HAZ	**Te Kaha**	**6.07**	**200**	P	**Pn**	**23 48 16.4**	**-1.7**
HAZ				S	**S**	**23 49 29.9**	**-0.8**
HAZ				AML	AML		
PUZ	**Puketiti**	**6.25**	**195**	P	**Pn**	**23 48 19.4**	**-0.9**
PUZ				S	**S**	**23 49 33.7**	**-1.0**
PUZ				AML	AML		
RUGZ	**Raukumara Rang**	**6.29**	**200**	P	**Pn**	**23 48 20.2**	**-0.7**
RUGZ				S	**S**	**23 49 34.4**	**-1.5**
RUGZ				AML	AML		
RUGZ				AML	AML		
WCZ	**Waipu Caves**	**6.31**	**231**	P	**Pn**	**23 48 20.9**	**-0.2**
WCZ				AML	AML		
TWGZ	**Tauwhareparae**	**6.41**	**197**	P	**Pn**	**23 48 25.4**	**+3.1**
TWGZ				S	**S**	**23 49 38.6**	**+0.2**
TWGZ				AML	AML		
TWGZ				AML	AML		
MWZ	**Matawai**	**6.68**	**199**	P	**Pn**	**23 48 22.8**	**-2.8**
MWZ				S	**S**	**23 49 43.0**	**-1.2**
TKGZ	**Te Karaka**	**6.69**	**197**	P	**Pn**	**23 48 25.8**	**+0.1**
TKGZ				S	**S**	**23 49 44.6**	**+0.1**
TKGZ				AML	AML		
TKGZ				AML	AML		
URZ	**Urewera**	**6.74**	**202**	P	**Pn**	**23 48 23.9**	**-2.2**
	1.6nm,0.3s,baz=346,slow=19,SNR=13						
URZ				S	**S**	**23 49 46.8**	**+1.4**
	5.6nm,0.8s,baz=132,slow=14,SNR=2.0						
URZ	**Urewera**	**6.74**	**202**	P	**Pn**	**23 48 25.2**	**-1.0**
URZ				S	**S**	**23 49 45.6**	**+0.2**
URZ				AML	AML		
RAGZ	**Rawiri**	**6.86**	**200**	P	**Pn**	**23 48 30.1**	**+2.3**
RAGZ				S	**S**	**23 49 51.6**	**+3.3**
RAGZ				AML	AML		
RIGZ	**Rimuhau**	**6.97**	**197**	P	**Pn**	**23 48 28.6**	**-0.4**
RIGZ				S	**S**	**23 49 53.2**	**+2.6**
RIGZ				AML	AML		
RIGZ				AML	AML		
MUGZ	**Murupara**	**7.04**	**204**	P	**Pn**	**23 48 29.3**	**-0.7**
MUGZ				AML	AML		
MUGZ				AML	AML		
MTHZ	**Maungataniwha**	**7.36**	**202**	P	**Pn**	**23 48 36.2**	**+2.3**
MTHZ				AML	AML		
BKZ	**Black Stump Fm**	**7.76**	**203**	P	**Pn**	**23 48 38.2**	**-0.6**
HIZ	**Hauiti**	**7.85**	**213**	P	Pn	23 48 45.1	+5.3
NTVZ	**North Tongarir**	**7.99**	**207**	P	**Pn**	**23 48 42.9**	**+1.2**
SNVZ	**South Ngauruho**	**8.08**	**207**	P	**Pn**	**23 48 44.2**	**+1.4**
BHHZ	**Black Hill Sta**	**8.20**	**204**	P	**Pn**	**23 48 43.5**	**-0.6**
PNHZ	**Pukenui**	**8.53**	**202**	P	**Pn**	**23 48 47.0**	**-1.2**
PNHZ				S	**S**	**23 50 24.6**	**-1.1**
PNHZ				AML	AML		
PNHZ				AML	AML		
DVHZ	**Dannevirke**	**8.89**	**201**	P	**Pn**	**23 48 52.7**	**+0.1**
DVHZ				S	**S**	**23 50 34.0**	**+0.2**
BFZ	**Birch Farm**	**9.22**	**200**	P	**Pn**	**23 48 56.7**	**+0.1**
BFZ				S	**S**	**23 50 38.7**	**-2.5**
ASAR	**Alice Springs**	**41.64**	**270**	P	**P**	**23 54 08.2**	**+0.3**
	0.5nm,0.5s,baz=105,slow=7.5,SNR=11						
	0.5nm,0.5s						
WRA	**Warramunga Arr**	**42.78**	**275**	P	**P**	**23 54 16.7**	**-0.4**
	0.9nm,0.5s,baz=114,slow=8.0,SNR=15						
	0.9nm,0.5s						
FINES	**FINESS Array B**	**146.18**	**338**	PKPbc	**PKPdf**	**00 05 51.4**	**+0.4**
	4.1nm,1.0s,baz=29,slow=3.2,SNR=6.9						

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*FUNV **18** 23:47:10.6, 10°76N×62°40W, h31^{km}, MW3.1, Presumed earthquake*
*TRN **18** 23:47:11.6, 10°76N×62°03W, h101^{km}, MD3.5, North of the Paria peninsula.*
ISC 18 23:47:09.0±1.3**, 10°69N**±0°06×**62°45W**±0°04**, h75**^{km}**, n10, σ1**^{s}**20**/20**, Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DMDM	**Guralp CMG5TDE**	**0.89**	**90**	*e*P	**Pn**	**23 47 27.6**	**+1.3**
DMDM				*e*S	**Sn**	**23 47 38.9**	**-0.4**
PSMG	**Mucurapo Girls**	**0.90**	**91**	*e*P	**Pn**	**23 47 27.5**	**+0.9**
PSMG				*e*S	**Sn**	**23 47 39.4**	**-0.3**
TRN	**Trinidad (W)**	**1.03**	**92**	*e*P	**Pn**	**23 47 28.5**	**+0.4**
TRN				*e*S	**Sn**	**23 47 40.8**	**-1.6**
TRN	**Trinidad (W)**	**1.03**	**92**	*e*P	**Pn**	**23 47 28.7**	**+0.6**
TRN				*e*S	**Sn**	**23 47 41.1**	**-1.3**
GRGR	**Grenville**	**1.63**	**29**	*e*P	**Pn**	**23 47 35.6**	**-0.2**
GRGR				*e*S	**Sn**	**23 47 54.3**	**-1.8**
GRGR	**Grenville**	**1.63**	**29**	*e*P	**Pn**	**23 47 36.5**	**+0.7**
GRGR				*e*S	**Sn**	**23 47 55.5**	**-0.7**
GRW	**Mount Saint Ca**	**1.65**	**28**	*e*P	**Pn**	**23 47 37.7**	**+1.5**
GRW				*e*S	**Sn**	**23 47 56.7**	**-0.1**
GRSS	**Sisters**	**1.79**	**27**	*e*P	**Pn**	**23 47 39.1**	**+1.1**
GRSS				*e*S	**Sn**	**23 47 59.2**	**-0.9**
TACV	**Tcata**	**4.54**	**263**	*e*P	**Pn**	**23 48 16.6**	**+1.3**
TACV				*e*S	**Sn**	**23 49 05.7**	**-1.1**
BENV	**Beln**	**5.12**	**262**	*e*P	**Pn**	**23 48 24.2**	**+1.0**
BENV				*e*S	**Sn**	**23 49 19.1**	**-2.0**

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*IDC **18** 23:52:49.5±1.4, 2°74N×128°75E, h0^{km}, mb3.7/6, mbtmp3.7/6, Error ellipse: s-maj=95.6km s-min=18.3km az=70.0*
*DJA **18** 23:52:57.0±1.2, 3°N±8°×12°8E±°, h20^{km}±5^{km}, M4.2/12, mB4.9/1, mb4.2/4, MLv4.1/12, Mw(mB)4.2/1*
ISC 18 23:52:56.8±0.9**, 2°44N**±0°08×**128°50E**±0°09**, h35**^{km}**, n18, σ2**^{s}**27**/13**, mb3.9**/5**, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TNTI	**Ternate**	**2.00**	**214**	P	**Pn**	**23 53 29.7**	**+1.5**
MNI	**Manado**	**3.79**	**255**	P	**Pn**	**23 53 53.8**	**+1.1**
SWI	**Sorong**	**4.29**	**140**	P	**Pn**	**23 54 02.5**	**+2.9**
SWI				AML	AML		
DDMP	**Don Marcelino,**	**4.58**	**323**	*e*P	**Pn**	**23 54 05.5**	**+1.9**
DDMP				*e*S	**Sn**	**23 54 59.0**	**+3.4**
GTOI	**Gorontalo**	**5.77**	**252**	P	**Pn**	**23 54 21.6**	**+1.6**
	0.1nm24nm,0.6s						
GTOI				AML	AML		
FAKI	**Fak Fak**	**6.51**	**145**	P	Pn	23 54 36.3	+6.1
FAKI				AML	AML		
FITZ	**Fitzroy Crossi**	**20.60**	**188**	P	**P**	**23 57 34.9**	**+1.9**
	0.8nm,0.6s,baz=0.0,slow=8.1,SNR=1.7						
	0.8nm,0.6s						
WRA	**Warramunga Arr**	**22.97**	**166**	P	**P**	**23 57 58.4**	**0.0**
	0.9nm,0.5s,baz=345,slow=10,SNR=13						
	0.9nm,0.5s						
ASAR	**Alice Springs**	**26.48**	**169**	P	**P**	**23 58 30.6**	**-0.4**
	0.3nm,0.5s,baz=351,slow=7.9,SNR=8.2						
ASAR				PcP	**PcP**	**00 01 53.2**	**-2.4**
	0.3nm,0.5s,baz=352,slow=2.6,SNR=4.9						
	0.3nm,0.5s						
STKA	**Stephens Creek**	**36.33**	**161**	P	**P**	**23 59 56.3**	**-1.1**
	1.8nm,0.6s,baz=336,slow=9.5,SNR=4.2						
	1.8nm,0.6s						
H11S3	**WAKE ISLAND Hy**	**40.66**	**64**	T	T	00 43 55.3	
	baz=252,slow=75,SNR=28						
H11S2	**WAKE ISLAND Hy**	**40.68**	**64**	T	T	00 43 56.5	
	baz=252,slow=75,SNR=19						
H11S1	**WAKE ISLAND Hy**	**40.68**	**64**	T	T	00 43 52.1	
	baz=252,slow=75,SNR=8.3						
H11N1	**WAKE ISLAND Hy**	**41.24**	**63**	T	T	00 44 28.2	
	baz=250,slow=75,SNR=26						
H11N2	**WAKE ISLAND Hy**	**41.26**	**63**	T	T	00 44 29.8	
	baz=250,slow=75,SNR=17						
H11N3	**WAKE ISLAND Hy**	**41.26**	**63**	T	T	00 44 29.5	
	baz=250,slow=75,SNR=27						
MKAR	**Makanchi Array**	**59.62**	**325**	P	**P**	**00 02 54.8**	**-2.6**
	1.0nm,0.7s,baz=120,slow=7.7,SNR=8.0						
	1.0nm,0.7s						
KURBB	**Kurchatov Arra**	**63.77**	**327**	P	**P**	**00 03 22.9**	**-2.3**
	0.9nm,0.8s,baz=127,slow=6.0,SNR=8.9						
	0.9nm,0.8s						

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*IDC **19** 00:25:46.6±0.9, 9°44S×75°45W, h0^{km}, mb4.1/2, mbtmp4.0/6, ML3.7/4, Error ellipse: s-maj=18.0km s-min=11.1km az=41.0*
ISC 19 00:25:48.0±0.9**, 9°41S**±0°08×**75°52W**±0°09**, h10**^{km}**, n7, σ2**^{s}**21**/9**, Central Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNA	**Nana**	**2.87**	**207**	Pn	**Pn**	**00 26 34.0**	**+0.1**
	24nm,0.3s,baz=28,slow=16,SNR=29						
NNA				Sn	**Sn**	**00 27 09.7**	**+1.1**
	24nm,0.3s,baz=251,slow=20,SNR=7.4						
	59nm,0.3s						
NNA				AML	AML		
ATAH	**Atahualpa**	**3.64**	**308**	Pn	**Pn**	**00 26 48.4**	**+3.7**
	1.4nm,0.3s,baz=136,slow=12,SNR=11						
ATAH				Pg	**Pg**	**00 26 55.2**	**-2.5**
	9.5nm,0.3s,baz=32,slow=6.4,SNR=10						
ATAH				Sn	**Sb**	**00 27 36.1**	**-0.9**
	2.6nm,0.3s,baz=305,slow=19,SNR=1.8						
ATAH				Lg	Lg	00 27 44.6	
	4.4nm,0.3s,baz=314,slow=14,SNR=6.8						
	14nm,0.6s						
ATAH				AML	AML		
LPAZ	**La Paz**	**9.93**	**134**	Pn	**Pn**	**00 28 13.1**	**+1.7**
	0.3nm,0.3s,baz=318,slow=7.7,SNR=6.9						
LPAZ				Lg	Lg	00 30 51.3	
	0.3nm,0.3s,baz=161,slow=17,SNR=4.9						
	1.5nm,0.3s						
LPAZ				AML	AML		
SIV	**San Ignacio**	**15.53**	**116**	Pn	**Pn**	**00 29 25.2**	**-2.0**
	0.1nm,0.3s,baz=294,slow=10,SNR=18						
SIV				Lg	Lg	00 33 45.1	
	baz=274,slow=23,SNR=3.1						
	1.6nm,0.3s						
SIV				AML	AML		
TORD	**Torodi Ar. Bea**	**79.86**	**75**	P	**P**	**00 37 57.1**	**-0.4**
	2.1nm,0.8s,baz=264,slow=4.5,SNR=12						
	2.1nm,0.8s						
ESDC	**Sonseca Array**	**82.09**	**48**	P	**P**	**00 38 08.7**	**-0.3**
	1.7nm,1.1s,baz=252,slow=6.9,SNR=4.1						
	1.7nm,1.1s						
WRA	**Warramunga Arr**	**138.59**	**225**	PKhKP	PKPpre	00 45 11.3	
	0.1nm,0.6s,baz=133,slow=2.4,SNR=1.3						

IDC 19 00:36:14.4±5.1**, 12°59S**×**167°35E, h0**^{km}**, mb3.7**/3**, mbtmp3.7**/3**, Error ellipse: s-maj=252.5km s-min=35.0km az=140.0, Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**32.47**	**253**	P	P	00 42 46.7	-0.2
	0.2nm,0.4s,baz=86,slow=9.4,SNR=6.1						
	0.2nm,0.4s						
ASAR	**Alice Springs**	**33.55**	**246**	P	P	00 42 56.5	+0.1
	0.6nm,0.5s,baz=70,slow=8.9,SNR=8.2						
	0.6nm,0.5s						
ILAR	**Eielson Array**	**84.48**	**18**	P	P	00 48 48.7	0.0
	0.6nm,0.5s,baz=239,slow=5.5,SNR=4.4						

0.6nm,0.5s

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*LJU **19** 00:49:29.9, 46°.96N×13°.16E, h15^{km}, ML1.8*
*VIE **19** 00:49:30.1±0.1, 46°.96N×13°.13E, h6^{km}±1^{km}, mb2.0/19, ml2.6/21, Error ellipse: s-maj=0.8km s-min=0.6km az=36.0 5 km SW of Mallnitz felt 4 ems98 SW of Mallnitz / Carinthia*
*PRU **19** 00:49:31.4, 47°.03N×13°.13E, h1^{km}, Mallnitz*
*ROM **19** 00:49:31.1±0.3, 46°.88N±0°.01×13°.11E±0°.01, h6^{km}±1^{km}, ML2.0/55, Error ellipse: s-maj=1.3km s-min=0.6km az=207.0*
ISC 19 00:49:30.2±0.9**, 46°.93N**±0°.02×**13°.13E**±0°.01**, h9**^{km}±8^{km}**, n82,** σ**0^{s}.78**/129**, 4D, Austria**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBA	**Koelnbreinsper** 36nm,0.0s	**0.21**	**45**	*i* Pg	**Pg**	**00 49 34.6**	**0.0**
KBA	96nm,0.1s			*e*Sg	**Sg**	**00 49 37.2**	**-0.3**
PLRO	**Paularo**	**0.38**	**178**⇓	*e*Pg	**Pb**	**00 49 38.7**	**-0.7**
PLRO				*e*Sg	**Sg**	**00 49 43.9**	**+1.0**
PLRO	**Paularo**	**0.38**	**178**	P	**Pb**	**00 49 38.6**	**-0.7**
PLRO				S	**Sb**	**00 49 44.1**	**-1.3**
ZOU	**Zoufplan**	**0.39**	**196**⇓	*e*Pg	**Pb**	**00 49 38.7**	**-0.8**
ZOU				*e*Sg	**Sb**	**00 49 44.4**	**-1.3**
FVI	**Forni Avoltri**	**0.41**	**216**	P	**Pb**	**00 49 39.0**	**-0.8**
FVI				S	**Sg**	**00 49 44.7**	**+0.8**
FVI	comp=E,629µm,0.6s			AML	AML		
FVI	comp=N,295µm,0.2s			AML	AML		
FVI	comp=E,506µm,0.1s			AML	AML		
FVI	comp=N,352µm,0.5s			AML	AML		
MYKA	**Terra Mystica** comp=N,0.1nm,0.0s	**0.46**	**131**	*i* Pg	**Pg**	**00 49 39.6**	**+0.3**
MYKA	comp=N,2.6nm,0.1s			*e*Sg	**Sb**	**00 49 46.8**	**-0.9**
ABTA	**Abfaltersbach** comp=N,0.3nm,0.1s	**0.46**	**247**	*e*Pg	**Pg**	**00 49 39.5**	**+0.2**
ABTA	comp=N,6.5nm,0.1s			*e*Sg	**Sg**	**00 49 45.7**	**+0.3**
ACOM	**Acomizza, Ital**	**0.47**	**146**⇓	*e*Pg	**Pg**	**00 49 39.9**	**+0.5**
ACOM				*e*Sg	**Sg**	**00 49 46.4**	**+1.0**
ACOM	**Acomizza, Ital**	**0.47**	**146**	P	**Pg**	**00 49 39.9**	**+0.5**
ACOM				S	**Sb**	**00 49 46.7**	**-1.1**
ACOM	comp=E,347µm,0.4s			AML	AML		
ACOM	comp=N,312µm,1.1s			AML	AML		
ACOM	comp=E,369µm,0.3s			AML	AML		
ACOM	comp=E,368µm,0.3s			AML	AML		
ACOM	comp=N,312µm,1.1s			AML	AML		
ACOM	comp=E,337µm,0.3s			AML	AML		
ACOM	comp=N,272µm,0.1s			AML	AML		
ACOM	comp=E,333µm,0.1s			AML	AML		
ACOM	comp=N,282µm,0.1s			AML	AML		
ACOM	comp=E,337µm,1.7s			AML	AML		
CLUD	**Cludinico**	**0.51**	**200**	*e*Pg	**Pb**	**00 49 40.8**	**-0.6**
CLUD				*e*Sg	**Sb**	**00 49 47.6**	**-1.2**
CLUD	**Cludinico**	**0.51**	**200**	P	**Pb**	**00 49 40.7**	**-0.6**
CLUD				S	**Sb**	**00 49 47.8**	**-1.1**
CLUD	comp=E,130µm,0.7s			AML	AML		
CLUD	comp=N,71µm,0.7s			AML	AML		
CLUD	comp=E,87µm,0.5s			AML	AML		
CLUD	comp=N,53µm,0.2s			AML	AML		
CLUD	comp=N,57µm,0.2s			AML	AML		
CLUD	comp=E,86µm,0.3s			AML	AML		
CLUD	comp=E,87µm,1.5s			AML	AML		
FUSE	**Fusea**	**0.53**	**190**	*e*Pg	**Pb**	**00 49 41.1**	**-0.6**
FUSE				*e*Sg	**Sb**	**00 49 48.8**	**-0.6**
FUSE	**Fusea**	**0.53**	**190**	P	**Pb**	**00 49 41.1**	**-0.6**
FUSE				S	**Sb**	**00 49 48.6**	**-0.8**
LSR	**Lussari**	**0.53**	**149**⇓	*e*Pg	**Pb**	**00 49 41.2**	**-0.7**
LSR				*e*Sg	**Sb**	**00 49 48.6**	**-1.1**
CSMI	**Casera Mimoias**	**0.54**	**218**	*e*Pg	**Pb**	**00 49 41.4**	**-0.6**
PTCC	**Patocco-Chiusa**	**0.55**	**164**	P	**Pb**	**00 49 41.5**	**-0.6**
PTCC				S	**Sb**	**00 49 49.3**	**-0.8**
PTCC	comp=E,101µm,0.5s			AML	AML		
PTCC	comp=N,96µm,0.4s			AML	AML		
PTCC	comp=N,96µm,0.4s			AML	AML		
PTCC	comp=E,101µm,0.5s			AML	AML		
PTCC	comp=N,96µm,0.4s			AML	AML		
PTCC	comp=E,83µm,0.1s			AML	AML		
PTCC	comp=N,90µm,0.2s			AML	AML		
DANT	**Danta di Cador**	**0.56**	**229**	P	**Pb**	**00 49 41.6**	**-0.7**
DANT				S	**Sg**	**00 49 49.2**	**+0.8**
PRED	**Cave del Predi**	**0.57**	**149**	*e*Pg	**Pb**	**00 49 41.8**	**-0.7**
PRED	**Cave del Predi**	**0.57**	**149**	P	**Pb**	**00 49 42.2**	**-0.3**
LESA	**Schwarzleotal** comp=N,26nm,0.1s	**0.58**	**328**	*e*Pg	**Pg**	**00 49 41.3**	**-0.2**
LESA	comp=N,55nm,0.1s			*e*Sg	**Sg**	**00 49 48.5**	**-0.7**
BOO	**Bordano**	**0.61**	**182**	*e*Pg	**Pb**	**00 49 42.9**	**-0.3**
BOO	**Bordano**	**0.61**	**182**	P	**Pb**	**00 49 42.8**	**-0.3**
GEPF	**Gemona**	**0.66**	**180**	P	**Pb**	**00 49 43.6**	**-0.3**
GEPF	comp=E,38µm,0.2s			AML	AML		
GEPF	comp=N,43µm,0.4s			AML	AML		
VINO	**Villanova**	**0.69**	**171**	*e*Pg	**Pb**	**00 49 44.0**	**-0.3**
MPRI	**Monte Prat**	**0.70**	**188**	*e*Pg	**Pb**	**00 49 44.6**	**-0.1**
MPRI	**Monte Prat**	**0.70**	**188**	P	**Pb**	**00 49 44.4**	**-0.3**
MPRI	comp=E,182µm,0.5s			AML	AML		
MPRI	comp=N,158µm,1.1s			AML	AML		
MPRI	comp=E,137µm,0.2s			AML	AML		
MPRI	comp=E,177µm,0.2s			AML	AML		
MPRI	comp=N,147µm,0.3s			AML	AML		
MPRI	comp=E,137µm,1.8s			AML	AML		
MPRI	comp=E,177µm,1.8s			AML	AML		
MPRI	comp=N,116µm,0.3s			AML	AML		
BAD	**Bernadia**	**0.70**	**174**	*e*Pg	**Pb**	**00 49 44.4**	**-0.3**
BAD	**Bernadia**	**0.70**	**174**	P	**Pb**	**00 49 44.3**	**-0.4**
BUA	**Buia**	**0.71**	**180**	*e*Pg	**Pb**	**00 49 44.8**	**-0.1**
STAL	**STALIGIAL**	**0.73**	**203**	P	**Pb**	**00 49 45.2**	**0.0**
STAL	comp=N,480µm,0.6s			AML	AML		
STAL	comp=E,260µm,0.2s			AML	AML		
STAL	comp=N,306µm,0.6s			AML	AML		
STAL	comp=E,428µm,1.1s			AML	AML		
STAL	comp=N,480µm,0.6s			AML	AML		
STAL	comp=E,261µm,0.2s			AML	AML		
STAL	comp=N,278µm,0.2s			AML	AML		
STAL	comp=E,393µm,0.2s			AML	AML		
STAL	comp=N,476µm,0.2s			AML	AML		
ROBS	**Robic**	**0.74**	**159**	*i* Pg	**Pb**	**00 49 45.0**	**-0.3**
ROBS				*i* Sg	**Sb**	**00 49 55.2**	**-0.3**
ROBS	comp=Z,7.1nm,0.1s			IAML		00 49 55.8	
AFL	**Alpe Faloria**	**0.77**	**239**	*e*Pg	**Pb**	**00 49 45.7**	**-0.2**
CIMO	**Cimolais**	**0.79**	**218**	*e*Pg	**Pb**	**00 49 46.0**	**-0.1**
CIMO	**Cimolais**	**0.79**	**218**	P	**Pb**	**00 49 46.0**	**-0.1**
CIMO	comp=E,57µm,0.5s			AML	AML		
CIMO	comp=N,49µm,0.3s			AML	AML		
CIMO	comp=N,47µm,0.3s			AML	AML		
CIMO	comp=N,49µm,0.3s			AML	AML		
CIMO	comp=E,45µm,0.4s			AML	AML		
CIMO	comp=E,57µm,0.5s			AML	AML		
COLI	**Coloredo**	**0.82**	**168**	*e*Pg	**Pb**	**00 49 46.8**	**+0.1**
CADS	**Cadrg**	**0.82**	**149**	*i* Pg	**Pb**	**00 49 46.4**	**-0.3**
CADS				*i* Sg	**Sb**	**00 49 57.9**	**0.0**
CADS	comp=Z,20nm,0.1s			IAML		00 49 59.0	
BIOA	**Bad Ischl, Aus** comp=Z,0.4nm,0.1s	**0.83**	**24**	*e*Pg	**Pg**	**00 49 46.0**	**-0.3**
BIOA	comp=Z,1.8nm,0.1s			Sg	**Sg**	**00 49 57.3**	**+0.2**
DRE	**Drenchia**	**0.84**	**155**	P	**Pn**	**00 49 47.6**	**-0.7**
GORS	**Gorjuse**	**0.86**	**136**	*i* Pg	**Pb**	**00 49 47.0**	**-0.3**
GORS				*i* Sg	**Sb**	**00 49 58.7**	**-0.3**
GORS	comp=Z,15nm,0.1s			IAML		00 50 01.3	
MLNI	**Malnisio**	**0.86**	**205**	*e*Pg	**Pb**	**00 49 47.7**	**+0.3**
BRES	**Bressanone**	**0.99**	**257**	P	**Pg**	**00 49 49.2**	**0.0**
BRES	comp=E,94µm,0.4s			AML	AML		
BRES	comp=N,118µm,1.0s			AML	AML		
BRES	comp=E,83µm,0.1s			AML	AML		
BRES	comp=N,108µm,0.3s			AML	AML		
BRES	comp=E,83µm,1.9s			AML	AML		
AGOR	**Agordo**	**0.99**	**229**	P	**Pb**	**00 49 49.7**	**+0.1**
SESA	**Seetaler Alpe,** comp=E,1.4nm,0.1s	**1.00**	**79**	*e*Pg	**Pg**	**00 49 48.9**	**-0.5**
SESA	comp=E,2.1nm,0.1s			*e*Sg	**Sg**	**00 50 01.8**	**-0.6**
SABO	**M.te Sabotino**	**1.01**	**161**	P	**Pn**	**00 49 50.1**	**-0.5**
SABO	comp=E,353µm,0.8s			AML	AML		
SABO	comp=N,338µm,0.5s			AML	AML		
SABO	comp=E,80µm,0.8s			AML	AML		
SABO	comp=N,75µm,0.5s			AML	AML		
OBKA	**Obir** comp=N,0.6nm,0.1s	**1.06**	**113**	Pg	**Pg**	**00 49 50.5**	**-0.2**
OBKA	comp=N,0.5nm,0.1s			*e*Sg	**Sb**	**00 50 05.2**	**+0.3**
WTTA	**Wattenberg**	**1.07**	**288**	P	**Pg**	**00 49 50.3**	**-0.6**
WTTA	comp=N,61µm,0.8s			AML	AML		
WTTA	comp=E,55µm,1.6s			AML	AML		
WTTA	comp=E,54µm,0.4s			AML	AML		
WTTA	comp=N,42µm,0.2s			AML	AML		
WTTA	**Wattenberg** comp=N,3.7nm,0.1s	**1.07**	**288**	*e*Pg	**Pg**	**00 49 50.3**	**-0.6**
WTTA	comp=N,2.5nm,0.1s			Sg	**Sb**	**00 50 05.3**	**0.0**
MOZS	**Mozjanca**	**1.11**	**125**	*i* Pg	**Pn**	**00 49 51.6**	**-0.4**
MOZS				*i* Sg	**Sn**	**00 50 07.4**	**-0.1**
MOZS	comp=Z,14nm,0.2s			IAML		00 50 08.3	
WATA	**Walderalm** comp=Z,12nm,0.2s	**1.14**	**291**	*e*Pg	**Pb**	**00 49 51.5**	**-0.7**
WATA	comp=Z,0.8nm,0.1s			Sg	**Sb**	**00 50 07.1**	**0.0**
CRNS	**Crni Vrh**	**1.16**	**137**	*i* Pg	**Pn**	**00 49 52.6**	**-0.1**
CRNS				*i* Sg	**Sn**	**00 50 08.3**	**-0.3**
CRNS	comp=Z,8.5nm,0.1s			IAML		00 50 12.2	
VARN	**Col Varnada, M**	**1.18**	**217**	P	**Pg**	**00 49 53.4**	**+0.6**
VARN	comp=E,82µm,1.5s			AML	AML		
VARN	comp=N,89µm,0.3s			AML	AML		
VARN	comp=E,79µm,0.2s			AML	AML		
VARN	comp=N,90µm,0.3s			AML	AML		
VARN	comp=E,81µm,0.2s			AML	AML		
VARN	comp=N,89µm,0.3s			AML	AML		
ROSI	**Rosskopf**	**1.18**	**270**	P	**Pb**	**00 49 52.0**	**-0.9**
ROSI	comp=E,117µm,1.1s			AML	AML		
ROSI	comp=N,128µm,1.0s			AML	AML		
ROSI	comp=N,118µm,0.3s			AML	AML		
ROSI	comp=E,109µm,0.3s			AML	AML		
ROSI	comp=N,118µm,1.7s			AML	AML		
MOA	**Molln** comp=N,0.4nm,0.1s	**1.20**	**40**	*e*Pg	**Pg**	**00 49 53.5**	**+0.3**
MOA	comp=N,0.3nm,0.1s			*i* Sg	**Sn**	**00 50 09.7**	**0.0**
JAVS	**Javornik**	**1.22**	**148**	*i* Pg	**Pg**	**00 49 54.3**	**+0.6**
JAVS				*i* Sg	**Sn**	**00 50 12.3**	**+2.0**
ZIAN	**Ziano**	**1.27**	**239**	P	**Pg**	**00 49 54.3**	**-0.2**
ZIAN	comp=E,46µm,0.3s			AML	AML		
ZIAN	comp=N,32µm,0.3s			AML	AML		
KOSI	**Kohlern**	**1.30**	**249**	P	**Pg**	**00 49 54.9**	**-0.2**
KOSI	comp=E,45µm,1.6s			AML	AML		
KOSI	comp=N,70µm,1.4s			AML	AML		
KOSI	comp=E,41µm,0.2s			AML	AML		
KOSI	comp=N,54µm,0.7s			AML	AML		
LJU	**Ljubljana**	**1.31**	**132**	P	**Pg**	**00 49 55.4**	**0.0**
LJU	comp=E,372µm,1.2s			AML	AML		
LJU	comp=N,492µm,1.0s			AML	AML		
LJU	comp=E,372µm,0.8s			AML	AML		
LJU	comp=E,306µm,0.7s			AML	AML		
LJU	comp=N,441µm,0.2s			AML	AML		
SOKA	**Soboth** comp=N,0.2nm,0.1s	**1.33**	**100**	*e*Pn	**Pg**	**00 49 55.6**	**-0.2**
SOKA	comp=N,1.2nm,0.1s			*i* Sg	**Sg**	**00 50 13.2**	**+0.1**
SQTA	**Sankt Quirin** comp=N,0.5nm,0.1s	**1.34**	**283**	Pg	**Pn**	**00 49 55.3**	**-0.1**
SQTA	comp=N,1.3nm,0.2s			Sg	**Sb**	**00 50 12.9**	**-0.2**
APPI	**Appiano**	**1.39**	**252**	P	**Pb**	**00 49 56.4**	**0.0**
APPI	comp=E,67µm,0.8s			AML	AML		
APPI	comp=N,77µm,0.3s			AML	AML		
APPI	comp=N,77µm,0.3s			AML	AML		
APPI	comp=N,77µm,0.3s			AML	AML		
APPI	comp=E,60µm,0.3s			AML	AML		
PERS	**Pernice**	**1.40**	**102**	*i* Pg	**Pn**	**00 49 56.0**	**0.0**
PERS				*i* Sg	**Sb**	**00 50 14.1**	**-0.4**
MOTA	**Moosalm** comp=E,0.1nm,0.0s	**1.44**	**287**	*e*Pg	**Pb**	**00 49 56.9**	**-0.5**
MOTA	comp=E,0.6nm,0.1s			*e*Sg	**Sg**	**00 50 16.6**	**-0.1**
OZOL	**Ozolo**	**1.53**	**250**	P	**Pg**	**00 49 59.1**	**-0.4**
OZOL	comp=E,155µm,1.5s			AML	AML		
OZOL	comp=N,125µm,0.5s			AML	AML		
OZOL	comp=N,186µm,0.7s			AML	AML		
OZOL	comp=E,155µm,0.3s			AML	AML		
OZOL	comp=N,118µm,0.3s			AML	AML		
OZOL	comp=N,186µm,1.3s			AML	AML		
OZOL	comp=E,155µm,1.7s			AML	AML		
FETA	**Feichten** comp=E,0.1nm,0.1s	**1.65**	**274**	Pn	**Pn**	**00 49 59.6**	**0.0**
FETA	comp=E,2.3nm,0.1s			*e*Sg	**Sn**	**00 50 21.1**	**+0.1**
ARSA	**Arzberg** comp=E,2.9nm,0.2s	**1.67**	**78**	Pn	**Pb**	**00 50 00.1**	**-1.0**
ARSA	comp=E,0.2nm,0.1s			Sg	**Sb**	**00 50 22.6**	**+0.4**
DOSS	**Dosso del Somm**	**1.71**	**233**	P	**Pg**	**00 50 02.9**	**0.0**
DOSS	comp=E,72µm,0.4s			AML	AML		
DOSS	comp=N,59µm,0.6s			AML	AML		
DOSS	comp=E,72µm,0.4s			AML	AML		
DOSS	comp=N,57µm,0.6s			AML	AML		
DOSS	comp=N,57µm,1.4s			AML	AML		
RETA	**Reutte** comp=N,0.3nm,0.1s	**1.71**	**290**	Pg	**Pg**	**00 50 03.2**	**+0.2**
RETA	comp=N,0.8nm,0.2s			Sg	**Sg**	**00 50 26.6**	**+1.4**
LUSI	**Trento, Gardas**	**1.80**	**238**	P	**Pg**	**00 50 04.6**	**-0.1**
LUSI	comp=N,113µm,1.1s			AML	AML		
LUSI	comp=E,68µm,0.3s			AML	AML		
LUSI	comp=N,102µm,0.2s			AML	AML		
LUSI	comp=E,68µm,0.3s			AML	AML		
CKRC	**Cesky Krumlov** comp=E,12nm,0.2s	**2.05**	**22**	*e*SG	**Sb**	**00 50 33.6**	**+0.4**
CKRC				AML	AML		
CONA	**Conrad Observa** comp=E,1.6nm,0.2s	**2.10**	**61**	*i* Pn	**Pn**	**00 50 05.8**	**+0.1**
CONA	comp=E,0.1nm,0.1s			*e*Sn	**Sn**	**00 50 33.0**	**+0.9**
KHC	**Kasperske Hory**	**2.22**	**8**	*e*PN	**Pn**	**00 50 08.7**	**+1.4**
KHC				*e*SN	**Sn**	**00 50 35.6**	**+0.7**
KHC	comp=E,6.6nm,0.3s			*e*SG	**Sb**	**00 50 39.0**	**+0.8**
KHC				AML	AML		
DAVA	**Damuels** comp=E,1.9nm,0.2s	**2.25**	**280**	*e*Pg	**Pg**	**00 50 12.6**	**-0.7**
DAVA	comp=E,15nm,0.5s			Sg	**Sg**	**00 50 42.9**	**+0.4**
RONA	**Rosalia, Austr** comp=E,6.4nm,0.4s	**2.29**	**69**	*i* Pn	**Pn**	**00 50 08.4**	**+0.2**
RONA	comp=E,0.1nm,0.0s			*i* Sn	**Sn**	**00 50 37.4**	**+0.9**
ZVC	**Zvikov**	**2.61**	**15**	*e*PN	**Pn**	**00 50 14.1**	**+1.5**
ZVC				*e*SN	**Sn**	**00 50 44.8**	**+0.4**
ZVC	comp=E,5.6nm,0.4s			*e*SG	**Sb**	**00 50 51.2**	**+1.9**
ZVC				AML	AML		
TREC	**Trest**	**2.84**	**33**	*e*SG	**Sb**	**00 50 57.4**	**+1.3**
KRUC	**Moravsky**	**3.06**	**45**	*e*PN	**Pn**	**00 50 19.2**	**+0.4**
KRUC				*e*SN	**Sn**	**00 50 56.6**	**+1.2**
MODS	**Modra-Piesok**	**3.15**	**61**	*e*PN	**Pn**	**00 50 21.3**	**+1.2**
MODS				*e*PG	**Pg**	**00 50 31.2**	**+0.6**
MODS				*e*SG	**Sg**	**00 51 11.0**	**-0.4**
PRU	**Pruhonice** comp=E,4.9nm,0.4s	**3.20**	**17**	*e*SG	**Sg**	**00 51 10.3**	**-2.6**
PRU				AML	AML		
VRAC	**Vranov**	**3.32**	**43**	*e*SN	**Sn**	**00 51 02.6**	**+0.6**
BRG	**Berggiesshubel**	**3.98**	**7**	Sg	**Sg**	**00 51 36.7**	**-1.3**
BRG	comp=Z,2.0nm,0.7s			Amp		00 51 42.9	
DPC	**Dobruska-Polom** comp=Z,4.4nm,0.5s	**4.02**	**31**	*e*SG	**Sg**	**00 51 36.2**	**-3.1**
DPC				AML	AML		
CLL	**Collm**	**4.38**	**359**	*i* Pn	**Pn**	**00 50 38.1**	**+1.2**
CLL				*e*Sg	**Sg**	**00 51 49.0**	**-1.8**

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*TRN **19** 01:15:40.0, 17°.32N×61°.30W, h19^{km}, MD3.8, North-east of Antigua.*
*PTWC **19** 01:16:07, 17°.30N×61°.30W, h14^{km}, Ml3.6/9*
ISC 19 01:16:06.4±2.5**, 17°.33N**±0°.07×**61°.2W**±0°.1**, h8**^{km}±13^{km}**, n17,** σ**0^{s}.62**/26**, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ANWB	**Willy Bob**	**0.62**	**303**	P	**Pb**	**01 16 20.3**	**+0.7**
ANWB	**Willy Bob**	**0.62**	**303**	*e*P	**Pb**	**01 16 19.9**	**+0.3**
ANWB				*e*S	**Sb**	**01 16 29.0**	**+0.5**
ABD	**La Joyeuse, An**	**0.88**	**196**	P	**Pb**	**01 16 24.1**	**+0.1**
ABD				S	**Sb**	**01 16 36.6**	**+0.7**
GDSD	**La Dsirade Is**	**1.02**	**171**	P	**Pn**	**01 16 26.6**	**-0.5**
GDHS	**Morne Mazeau,**	**1.16**	**206**	P	**Pg**	**01 16 28.6**	**-0.2**
GDHS				S	**Sg**	**01 16 43.6**	**-0.3**
CBE	**Ff, Capester**	**1.30**	**196**	P	**Pn**	**01 16 31.0**	**+0.1**
MAGL	**Barre de l'ile**	**1.37**	**182**	P	**Pb**	**01 16 32.2**	**-0.1**
TDBA	**Terre de Bas,**	**1.52**	**195**	P	**Pn**	**01 16 33.7**	**-0.2**
TDBA				S	**Sn**	**01 16 53.7**	**-0.2**
SBLM	**St Barthlm**	**1.65**	**291**	P	**Pn**	**01 16 35.5**	**-0.2**
SEUS	**St. Eustatius**	**1.67**	**276**	*e*P	**Pn**	**01 16 36.4**	**+0.3**
SEUS				*e*S	**Sn**	**01 16 57.7**	**0.0**
DWS	**Wesley**	**1.75**	**182**	*e*P	**Pn**	**01 16 37.2**	**+0.1**
DWS				*e*S	**Sn**	**01 17 00.1**	**+0.5**
SMRT	**St. Maarten**	**1.89**	**293**	P	**Pn**	**01 16 38.0**	**-1.1**
SMRT	**St. Maarten**	**1.89**	**293**	*e*P	**Pn**	**01 16 38.8**	**-0.3**
SMRT				*e*S	**Sn**	**01 17 02.2**	**-1.0**
SABA	**Saba**	**1.94**	**279**	*e*P	**Pn**	**01 16 40.1**	**+0.5**
FDFM	**Morne la Roset**	**2.58**	**178**	P	**Pn**	**01 16 48.6**	**+0.1**
BIM	**Bigot**	**2.80**	**177**	*e*P	**Pn**	**01 16 52.5**	**+0.9**
BIM				*e*S	**Sn**	**01 17 24.9**	**-0.7**
SLAC	**Saint Lucia, A**	**3.43**	**174**	*e*P	**Pn**	**01 17 01.1**	**+0.9**
SLAC				*e*S	**Sn**	**01 17 39.9**	**-1.1**

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*TEH **19** 01:18:41.0, 34°.63N×46°.12E, h10^{km}±45^{km}, ML2.7, Presumed earthquake*
*ISN **19** 01:18:45.7±1.7, 34°.68N×46°.13E, h10^{km}, ML2.7, Presumed earthquake*
ISC 19 01:18:42.0±1.0**, 34°.64N**±0°.05×**46°.17E**±0°.04**, h10**^{km}**, n10,** σ**1^{s}.56**/12**, Western Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IDHR	**Dehrash**	**0.18**	**72**	Pg	**Pg**	**01 18 46.6**	**+0.5**
IDHR				Sg	**Sg**	**01 18 50.4**	**+1.5**
IGHG	**Ghaleghazi**	**0.45**	**134**	Pg	**Pg**	**01 18 50.8**	**-0.1**
KCHF	**Cheshme Sefid,**	**0.81**	**117**	Pg	**Pg**	**01 18 57.1**	**-0.5**
ILBA	**Ilam Banvizeh**	**1.02**	**178**	Pg	**Pn**	**01 19 00.9**	**-1.5**
SNJK	**Sanadaj _Korde**	**1.08**	**43**	Pg	**Pn**	**01 19 02.9**	**-0.6**
SNQR	**Sonqor, Kerman**	**1.22**	**79**	Pg	**Pg**	**01 19 05.3**	**-0.1**
IBZA	**Bozab**	**1.40**	**97**	Pg	**Pb**	**01 19 08.2**	**-0.3**
IBDR	**Badra** baz=5.8	**1.54**	**188**	*i* P	Pg	01 19 15.2	+3.6
IBDR				*i* S	**Sg**	**01 19 35.3**	**+3.6**
IBDR	comp=N,124nm,0.5s			IAML		01 19 42.2	
IBDR	comp=E,137nm,0.8s			IAML		01 19 42.3	
IKRK	**Kirkuk**	**1.68**	**297**	*i* P	**Pg**	**01 19 13.9**	**-0.5**
IKRK				*i* S	**Sg**	**01 19 37.6**	**+1.5**
IKRK	comp=E,94nm,0.7s			IAML		01 19 39.0	
IKRK	comp=N,118nm,0.5s			IAML		01 19 40.2	
IKFM	**Kafar-mosalman**	**1.78**	**128**	Pn	**Pg**	**01 19 15.2**	**-1.0**

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*UCR **19** 02:21:06.8±1.0, 9°.91N×84°.34W, h7^{km}±2^{km}, MW3.9,*

Presumed earthquake

*NEIC **19** 02:21:07.0±1.1, 9°.89N±0°.04×84°.36W±0°.02, h10^{km}±2^{km}, ML3.3/18, Error ellipse: s-maj=7.3km s-min=3.0km az=18.0*

*UPA **19** 02:21:08.3±1.7, 10°.13N×84°.32W, h12^{km}±12^{km}, MW3.6, Presumed earthquake*

ISC 19 02:21:06.9±0.8**, 9°.88N**±0°.02×**84°.37W**±0°.02**, h8**^{km}±5^{km}**, n111, σ0^s.74**/147**, 3C-1D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PURI	Puriscal	0.06	122	eP	Pg	02 21 09.0	0.0
PURI				eS	Sg	02 21 10.3	-0.1
ATEO	Atenas	0.10	350	eP	Pg	02 21 09.4	0.0
ATEO				eS	Sg	02 21 11.2	+0.1
TCS1	Tacares	0.17	22	eP	Pg	02 21 10.8	+0.2
TCS1				eS	Sg	02 21 14.1	+1.0
SANTA	Santa Ana	0.18	74	eP	Pg	02 21 10.5	-0.3
SANTA				eS	Sg	02 21 13.1	-0.3
BELE	Belen	0.20	61	eP	Pg	02 21 10.9	-0.1
BELE				eS	Sg	02 21 13.7	-0.2
GREC	Grecia	0.20	16	eP	Pg	02 21 11.6	+0.5
SARCI	Sarchi	0.21	5	eP	Pg	02 21 11.8	+0.6
SARCI				eS	Sg	02 21 15.6	+1.4
ACOS	Acosta	0.21	113	eP	Pg	02 21 11.6	+0.2
ACOS				eS	Sg	02 21 15.0	+0.6
NARAN	Naranjo de Ala	0.22	357	eP	Pg	02 21 12.0	+0.6
NARAN				eS	Sg	02 21 15.9	+1.5
POAS	San Pedro de P	0.23	32	eP	Pg	02 21 12.2	+0.6
RAMO	San Ramon	0.23	334	eP	Pg	02 21 11.9	+0.3
PAVB	Pavas, San Jos	0.25	76	eP	Pg	02 21 11.8	-0.2
PAVB				eS	Sg	02 21 15.3	-0.1
HEME	Heredia, Merce	0.25	63	eP	Pb	02 21 13.2	-0.6
HDC	Heredia	0.28	64		Pg	02 21 12.7	+0.2
HDC				Sg	Sg	02 21 16.7	+0.6
HDC				IAML		02 21 17.1	
	comp=N,4µm,0.8s						
HDC				IAML		02 21 17.9	
	comp=E,3µm,0.5s						
HDC	Heredia	0.28	64	eP	Pg	02 21 12.3	-0.1
HDC				eS	Sg	02 21 16.8	+0.6
MEXI	Barrio Mexico	0.28	78	eP	Pg	02 21 12.6	0.0
CENT	San Jose	0.29	80	eP	Pg	02 21 12.6	0.0
CENT				eS	Sg	02 21 16.7	+0.1
DOMI	Santo Domingo	0.29	69	eP	Pg	02 21 12.9	+0.2
LUJA	Lujan	0.29	81	eP	Pg	02 21 12.7	-0.1
AMPA	Desamparados	0.30	87	eP	Pg	02 21 12.6	-0.4
AMPA				eS	Sg	02 21 16.8	-0.1
TIBA	Tibas	0.30	74	eP	Pg	02 21 12.9	0.0
SJS	Escuela Geolog	0.31	79	eP	Pg	02 21 13.1	0.0
SJS				eS	Sg	02 21 17.9	+0.6
LUPE	Guadalupe	0.31	78	eP	Pg	02 21 13.1	0.0
SJS3	Mercedes San J	0.31	79	eP	Pg	02 21 13.3	+0.1
SJS3				eS	Sg	02 21 18.1	+0.7
ECI	Escuela Centro	0.31	79	eP	Pg	02 21 13.2	0.0
ECI				eS	Sg	02 21 17.9	+0.5
ARZA	Esparza	0.32	290	eP	Pb	02 21 14.1	-0.7
ARZA				eS	Sb	02 21 19.2	-0.9
VPS8	V Poas	0.32	22	eP	Pg	02 21 13.8	+0.4
VPS5	V. Poas	0.34	23	eP	Pg	02 21 13.8	+0.1
VBV1	V. Barva	0.35	48	eP	Pg	02 21 14.0	+0.1
VBV1				eS	Sg	02 21 19.0	+0.5
ABE2	San Pablo	0.35	120	eP	Pg	02 21 14.0	0.0
BITO	Garabito Jaco	0.36	224	eP	Pb	02 21 15.3	-0.3
TRIO	Tres Rios	0.37	86	eP	Pg	02 21 13.6	-0.6
CORON	Coronado	0.37	75	eP	Pg	02 21 14.3	+0.1
VPL1	V. Platanar	0.37	360	eP	Pg	02 21 14.5	+0.1
PITB	Pirrs, San	0.40	123	eP	Pg	02 21 14.9	+0.1
VPL2	V. Platanar	0.42	358	eP	Pg	02 21 15.5	+0.3
TAGO	Cartago	0.43	92	eP	Pg	02 21 15.3	-0.1
CVIMO	Finca Echandi	0.44	71	eP	Pn	02 21 19.9	+0.2
QUEU	Ciudad Quesada	0.44	351	eP	Pb	02 21 16.8	-0.2
PIEC	Cerro El Cedra	0.48	123	eP	Pg	02 21 16.3	+0.1
PIEC				eS	Sg	02 21 23.4	+0.8
ARTO	Ro Cuarto	0.48	18	eP	Pg	02 21 16.2	-0.1
REPA	Paraso	0.49	96	eP	Pg	02 21 16.2	-0.3
REPA				eS	Sg	02 21 23.8	+0.8
VICA	Volcano Irazu	0.52	79	eP	Pg	02 21 16.9	-0.2
PCAYA	Pacayas	0.55	86	eP	Pg	02 21 17.3	-0.2
PCAYA				eS	Sg	02 21 25.1	+0.3
RAFA	San Farael, Vo	0.55	82		Pg	02 21 17.4	-0.3
RAFA				Sg	Sg	02 21 24.4	-0.6
RAFA	San Farael, Vo	0.55	82	eP	Pg	02 21 17.3	-0.3
PAQE	Paquera	0.56	264	eP	Pg	02 21 18.2	+0.3
CVTQ	Turrialba Volc	0.60	78	eP	Pg	02 21 18.4	-0.2
VTR0	Volcan Turrial	0.61	77	eP	Pg	02 21 18.7	-0.1
CVTR	Volcan Turrial	0.61	77	eP	Pg	02 21 18.7	-0.2
VTCV	VTCV, Calle Va	0.64	81	eP	Pg	02 21 19.3	+0.1
FORC	Fortuna	0.66	333	eP	Pb	02 21 20.0	-0.6
FORC				eS	Sb	02 21 29.4	-0.4
PILE	Guapiles	0.66	59	eP	Pg	02 21 19.3	-0.4
PILE				eS	Sb	02 21 29.1	-0.9
CASO	Castillo	0.66	327	eP	Pg	02 21 19.7	0.0
VACR	Volcan Arenal	0.66	332	eP	Pg	02 21 20.0	+0.2
TURIB	Turrialba	0.67	88	eP	Pg	02 21 19.1	-0.8
TURIB				eS	Sg	02 21 28.4	-0.3
ARE1	Arenal 1	0.67	329	eP	Pg	02 21 20.3	+0.4
VARE2	V. Arenal	0.67	329	eP	Pg	02 21 20.3	+0.4
CEDE	Laguna Cedeo	0.69	331	eP	Pb	02 21 20.7	-0.5
JTS	Las Juntas de	0.71	305		Pg	02 21 20.7	+0.1
JTS	Las Juntas de	0.71	305	eP	Pg	02 21 20.1	-0.5
REZ	Monterrey de S	0.72	333	eP	Pb	02 21 21.6	-0.2
TABAC	Tabacon	0.73	327	eP	Pb	02 21 21.6	-0.3
RVLA	Villa Bonita	0.80	73	eP	Pg	02 21 22.2	-0.1
LCOCO	El Coco	0.82	76	eP	Pg	02 21 22.6	-0.1
LCOCO				eS	Sb	02 21 34.1	-0.5
TILA	Tilaran	0.83	315	eP	Pg	02 21 23.0	0.0
COTE	Lago Cote	0.88	322	eP	Pg	02 21 24.0	+0.2
NYURE	Nandayure	0.88	278	eP	Pg	02 21 23.1	-0.8
CNAS	Canas	0.90	307	eP	Pb	02 21 24.7	-0.1
QUEB	Quebradon, Cot	0.90	325	eP	Pg	02 21 24.3	0.0
TIMP	Tierras Morena	0.95	317	eP	Pg	02 21 24.9	-0.3
TENO	El Achiote	1.02	324	eP	Pg	02 21 26.3	-0.2
CMARA	Lajas Hojancha	1.05	278	eP	Pg	02 21 26.9	-0.3
CMARA	Lajas Hojancha	1.05	278	⇑eP	Pb	02 21 27.2	-0.2
CMARA				eS	Sn	02 21 43.0	+0.1
EDPE	Pejibaye, P	1.06	132	eP	Pg	02 21 26.4	-0.9
BAGA	Bagaces	1.09	306	eP	Pb	02 21 26.8	-1.2
CUI	Cuipilapa	1.10	315	eP	Pb	02 21 27.9	-0.3
COLC	Colonia	1.14	313	eP	Pg	02 21 28.7	0.0
HORNC	Hornillas	1.15	316	eP	Pb	02 21 28.8	-0.3
CANAL	Canalete	1.17	324	eP	Pb	02 21 28.1	-1.1
MESS	Mesas	1.18	316	eP	Pb	02 21 29.2	-0.4
VMAR	Armenia, Volca	1.18	322	eP	Pb	02 21 29.0	-0.6
JUD3	Juan Diaz 3	1.19	284		Pb	02 21 29.2	-0.5
JUD3	Juan Diaz 3	1.19	284	eP	Pb	02 21 28.9	-0.9
CLARA	Aguas Claras	1.20	318	eP	Pb	02 21 29.8	-0.1
GPS2	Hotel Rincn d	1.30	312	eP	Pn	02 21 31.0	-0.5
VRLE	La Escondida,	1.33	313	eP	Pn	02 21 31.7	-0.2
VORI	VORI	1.34	314	eP	Pn	02 21 31.5	-0.6
ALIBA	Liberia Airpor	1.36	301	eP	Pb	02 21 32.1	-0.5
LAPC	Finca la Perla	1.37	310	eP	Pb	02 21 32.3	-0.5
PEJA	Penjamo Buenos	1.37	317	eP	Pb	02 21 32.7	-0.2
CEUA	Cerro Uatsi, L	1.43	100	eP	Pg	02 21 33.8	-0.5
CARN	Rivas	1.73	319	Pn	Pn	02 21 36.9	-0.3
CARN				IAML		02 22 05.5	
	comp=N,238nm,0.9s						
CARN				IAML		02 22 08.5	
	comp=E,384nm,0.9s						
CARN	Rivas	1.73	319	eP	Pb	02 21 37.8	-1.1
VITO	San Vito	1.73	127	eP	Pg	02 21 40.8	+0.6
VITO				eS	Sg	02 22 03.6	+0.9
RGM0	Gandoca	1.76	99	Pn	Pn	02 21 37.4	-0.2
PIRO	Carate, Puerto	1.78	145	Pn	Pb	02 21 38.5	-1.3
PIRO				IAML		02 22 08.6	
	comp=E,344nm,0.3s						
PIRO				IAML		02 22 09.5	
	comp=N,360nm,0.4s						
PIRO	Carate, Puerto	1.78	145	eP	Pg	02 21 40.7	-0.4
PIRO				eS	Sg	02 22 05.4	+1.1
NELY	Ciudad Neily	1.86	131	eP	Pg	02 21 46.8	+4.2
NELY				eS	Sg	02 22 10.1	+3.4
BRU2	Volcan	1.97	123		Pn	02 21 41.0	+0.3
BRU2				IAML		02 22 09.3	
	comp=E,289nm,0.7s						
BRU2				IAML		02 22 16.2	
	comp=N,258nm,0.7s						
BRU2	Volcan	1.97	123	eP	Pn	02 21 41.0	+0.3
BRU2	Volcan	1.97	123	⇑iP	Pb	02 21 42.4	-0.8
BRU2				eS	Sg	02 22 08.9	-1.5
CLLRA	Cordillera,	2.06	123	eP	Pn	02 21 42.0	0.0
CLLRA	Cordillera,	2.06	123	eP	Pb	02 21 44.4	-0.3
CLLRA				eS	Sb	02 22 11.2	+0.6
BQTLY	Boquete Panama	2.19	121	eP	Pn	02 21 43.2	-0.5
BQTLY	Boquete Panama	2.19	121	eP	Pb	02 21 45.4	-1.4
BQTLY				eS	Sb	02 22 14.3	+0.3
LMNES	Limones	2.31	140	eP	Pb	02 21 48.7	-0.1
LMNES				eS	Sg	02 22 19.8	-1.4
RBALA	Bur	2.40	114	eP	Pn	02 21 46.6	+0.2
RBALA	Bur	2.40	114	⇓eP	Pb	02 21 48.3	-2.0
RBALA				eS	Sb	02 22 19.1	-1.0
KKNTU	Kakintº	2.73	112	⇑eP	Pn	02 21 52.2	+1.2
KKNTU				eS	Sn	02 22 26.1	+2.0
BOAB	BOACO BROADBAN	2.85	334	Pn	Pn	02 21 52.8	+0.1
BOAB				IAML		02 22 34.2	
	comp=N,71nm,0.5s						
BOAB				IAML		02 22 35.8	
	comp=E,118nm,0.6s						

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*IDC **19** 02:29:00.7±1.6, 24°.22N×141°.52E, h0^{km}, mb3.4/4, mbtmp3.4/4, Error ellipse: s-maj=53.3km s-min=34.1km az=86.0*

*JMA **19** 02:29:18.1±0.1, 24°N±1°×14°1E±°, h150^{km}, MV4.3/7, IOTO ISLANDS REGION*

ISC 19 02:29:17.8±1.3**, 24°.3N**±0°.1×**141°.3E**±0°.2**, h150**^{km}**, n8, σ1^s.20**/10**, mb3.3**/4**, Volcano Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHH2	Haha-jima-NKT2	2.44	18	eP	Pn	02 29 58.4	+0.2
JHH2				eS	Sn	02 30 29.1	-0.2
CBIJ	Chichi jima	2.88	15	eP	Pn	02 30 03.6	-0.1
CBIJ				eS	Sn	02 30 38.8	-0.3
BSO1	Boso 1	10.31	358	eP	Pn	02 31 40.5	-0.9
BSO3	Boso 3	10.48	356	eP	Pn	02 31 42.0	-1.9
WRA	Warramunga Arr	44.51	189	P	P	02 37 13.4	-1.1
	0.3nm,0.4s,baz=10.0,slow=8.1,SNR=3.0						
	0.3nm,0.4s						
MKAR	Makanchi Array	51.69	311	P	P	02 38 10.7	+1.2
	0.4nm,0.7s,baz=90,slow=9.0,SNR=2.8						
	0.4nm,0.7s						
KURBB	Kurchatov Arra	54.47	316	P	P	02 38 31.2	+1.6
	0.3nm,0.6s,baz=99,slow=6.2,SNR=4.3						
	0.3nm,0.6s						
ILAR	Eielson Array	60.52	28	P	P	02 39 12.3	+0.5
	0.3nm,0.6s,baz=261,slow=6.1,SNR=2.6						
	0.3nm,0.6s						

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*KEA **19** 02:32:56.2, 40°.40N×122°.23E, h18^{km}, ML4.1/4*

*IDC **19** 02:32:58.0±1.2, 40°.55N×122°.36E, h0^{km}, mb3.9/3, mbtmp3.8/7, ML3.5/4, MS3.4/2, Error ellipse: s-maj=17.3km s-min=11.6km az=38.0*

ISC 19 02:32:58.7±1.1**, 40°.43N**±0°.09×**122°.39E**±0°.07**, h10**^{km}**, n15, σ1^s.27**/17**, mb3.9**/3**, Northeastern China**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SUJ	Sinuiju	1.64	101	Pg	Pg	02 33 29.3	-0.9
SUJ				Sg	Sg	02 33 52.2	+0.8
SUJ				AML	AML		
	comp=N,5µm,0.7s						
SUJ				AML	AML		
	comp=E,2µm,0.4s						
SUJ				AML	AML		
	comp=Z,1µm,0.7s						
PYS	Pyongsong	2.91	113	Pg	Pg	02 33 52.7	-1.8
PYS				Sg	Sg	02 34 31.6	-0.7
PYS				AML	AML		
	comp=N,2µm,0.5s						
PYS				AML	AML		
	comp=E,2µm,0.6s						
PYS				AML	AML		
	comp=Z,1µm,1.1s						
PYAG	Pyongyang	2.94	117	Pg	Pg	02 33 52.8	-2.2
PYAG				Sg	Sg	02 34 32.1	-0.9
PYAG				AML	AML		
	comp=N,634nm,0.5s						
PYAG				AML	AML		
	comp=E,622nm,0.5s						
PYAG				AML	AML		
	comp=Z,419nm,0.4s						
KGE	Kanggye	3.25	79	Pg	Pb	02 33 58.0	+1.5
KGE				Sg	Sg	02 34 41.9	-1.2
KGE				AML	AML		
	comp=N,469nm,0.9s						
KGE				AML	AML		
	comp=E,378nm,1.0s						
KGE				AML	AML		
	comp=Z,4.1nm,0.2s						
HHU	Hamhung	3.97	96	Sg	Sg	02 35 04.7	-1.3
KSRS	Korea Array	5.23	123	Pn	Pn	02 34 18.5	+1.5
	comp=Z,2.2nm,0.3s,baz=305,slow=14,SNR=22						
KSRS				Sn	Sn	02 35 18.4	+1.0
	comp=Z,1.7nm,0.3s,baz=301,slow=24,SNR=5.7						
KSRS				Lg	Lg	02 35 43.2	
	comp=Z,3.2nm,0.3s,baz=308,slow=30,SNR=6.4						
	comp=Z,7.9nm,0.5s						
KSRS				AML	AML		
USRK	Ussuriysk Ar.	8.05	59	Pn	Pn	02 34 57.0	+1.3
	comp=Z,1.0nm,0.3s,baz=241,slow=13,SNR=6.1						
USRK				Lg	Lg	02 37 09.6	
	comp=Z,1.3nm,0.3s,baz=250,slow=28,SNR=15						
	comp=Z,2.4nm,0.4s						
USRK				AML	AML		
HILR	Hailar Array B	9.32	349	Pn	Pn	02 35 11.9	-1.2
	baz=170,slow=17						
HILR				Lg	Lg	02 37 49.8	
	baz=159,slow=26						
	comp=Z,0.8nm,0.2s						
JNU	Nakatsue	9.97	134	Lg	Lg	02 38 14.2	
	comp=Z,0.4nm,0.3s,baz=353,slow=17,SNR=1.9						
KLR	Kul'dur	11.02	34	Pn	Pn	02 35 36.5	+0.1
	baz=258,slow=9.3,SNR=3.6						
KLR				Lg	Lg	02 38 38.5	
	comp=Z,0.1nm,0.3s,baz=174,slow=8.8,SNR=4.4						
KLR				LR	LR	02 39 17.3	
	comp=Z,128nm,21.3s,baz=165,slow=35						
	comp=Z,1.6nm,0.8s						
SONM	Songino Array	13.65	308	Lg	Lg	02 40 02.3	
	comp=Z,0.2nm,0.3s,baz=123,slow=26,SNR=1.4						
KURBB	Kurchatov Arra	31.95	303	P	P	02 39 24.8	+0.3
	comp=Z,0.8nm,0.6s,baz=90,slow=9.4,SNR=11						
	comp=Z,0.8nm,0.6s						
FINES	FINESS Array B	58.26	326	P	P	02 42 52.8	-0.2
	comp=Z,4.6nm,1.0s,baz=132,slow=8.0,SNR=4.6						
	comp=Z,4.6nm,1.0s						
NOA	NORSAR Array B	64.53	330	P	P	02 43 35.5	0.0
	comp=Z,0.6nm,0.8s,baz=58,slow=4.7,SNR=2.0						
	comp=Z,0.6nm,0.8s						
ANMO	Albuquerque	92.54	38	LR	LR	03 33 27.8	
	comp=Z,24nm,19.2s,baz=179,slow=39						

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*JMA **19** 02:46:05.9±0.1, 24°.0N±1°.0×122°.2E±0°.5, h25^{km}±3^{km}, MV2.6/13, TAIWAN REGION*

*TAP **19** 02:46:06.3, 24°.04N×122°.21E, h21^{km}, ML3.1, C*

ISC 19 02:46:06.1±0.9**, 24°.01N**±0°.02×**122°.21E**±0°.02**, h24**^{km}±7^{km}**, n105, σ0^s.82**/170**, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EOS4	EOS4	0.15	42	P	Pb	02 46 10.6	-0.1
EOS4				S	Sb	02 46 13.7	-0.1
EOS3	EOS3	0.29	20	P	Pb	02 46 12.7	-0.1
EOS3				S	Sb	02 46 17.6	+0.2
EOS2	EOS2	0.41	3	P	Pb	02 46 14.6	-0.1
EOS2				S	Sb	02 46 20.6	+0.2
EAHA	Aohua	0.53	307	eP	Pb	02 46 16.4	-0.5
HWA	Hwalien	0.55	267	P	Pb	02 46 17.9	+0.7
ETL	Fush Village	0.56	286	eP	Pb	02 46 17.9	+0.6
TWD	Chiawan	0.56	277	eP	Pb	02 46 17.4	+0.1
TWD				S	Sb	02 46 26.0	+1.0
TEYL	Yanliau Villag	0.58	256	P	Pb	02 46 18.2	+0.6
TEYL				S	Sn	02 46 27.4	0.0
EWUT	Wuta	0.58	318	eP	Pb	02 46 16.6	-1.1
NACB	Ninganchiao	0.58	286	P	Pb	02 46 17.7	0.0
NACB				eS	Sb	02 46 25.9	+0.3
SHUL	Shoufeng	0.63	250	P	Pb	02 46 18.8	+0.4
SHUL				eS	Sn	02 46 30.1	+1.3
ESAO	Su ao	0.65	329	eP	Pb	02 46 18.0	-0.9
ETM	Tongmen	0.66	266	i P	Pb	02 46 18.8	-0.1
ETM				S	Sb	02 46 28.1	+0.5
TWC	Suao	0.68	331	P	Pb	02 46 17.9	-1.4
TWC				eS	Sb	02 46 26.5	-1.8
TEGC	Jichi Village	0.68	244	P	Pb	02 46 19.6	+0.3
TEGC				eS	Sn	02 46 29.7	-0.3
ETLH	Xiulin Townshi	0.69	287	P	Pb	02 46 19.4	-0.1
ETLH				S	Sn	02 46 29.9	-0.5
LXIB	Xiulin Townshi	0.73	271	eP	Pb	02 46 20.0	-0.2
LXIB				eS	Sb	02 46 29.9	+0.1
ESL	Shilin	0.74	255	eP	Pb	02 46 19.8	-0.4
NDS	Dongshan	0.77	324	P	Pb	02 46 19.7	-1.0
NDS				eS	Sb	02 46 28.4	-2.4
JYNG	Yonagunijimaku	0.80	57	eP	Pb	02 46 21.1	-0.3
JYNG				eS	Sb	02 46 31.1	-0.7
WARBT	Fenglin Townsh	0.81	249	P	Pb	02 46 21.0	-0.5
WARBT				eS	Sb	02 46 31.7	-0.3
LATG	Datong	0.81	310	P	Pb	02 46 21.2	-0.4
YOJ	Yonaguni jima	0.86	58	P	Pb	02 46 22.4	+0.1
YOJ				eS	Sn	02 46 35.9	+1.5
YOJ	Yonaguni jima	0.86	58	eP	Pb	02 46 21.9	-0.4
NNSB	Datong	0.86	299	P	Pb	02 46 22.3	-0.2
NNSB				eS	Sb	02 46 32.1	-1.5
NNSH	Datong	0.86	299	P	Pb	02 46 22.3	-0.2
TWE	Neicheng	0.86	325	eP	Pn	02 46 22.7	0.0
NDT	Datong Townshi	0.87	313	P	Pb	02 46 22.2	-0.2
NDT				eS	Sb	02 46 32.5	-1.1
EGS		0.87	343	eP	Pb	02 46 22.3	-0.2
WHF	Hehuan Shan	0.87	279	eP	Pb	02 46 22.6	-0.3
WHF				eS	Sb	02 46 34.7	+0.4
NNS	Nan Shan	0.88	299	eP	Pb	02 46 22.5	-0.1
HGSD	Ruisui	0.89	235	eP	Pb	02 46 22.4	-0.4
FUSB	Fushanzhiwuyua	0.94	323	eP	Pb	02 46 23.4	-0.4
FUSB				eS	Sb	02 46 35.9	+0.2
EHYH	Wanrong	0.94	237	eP	Pb	02 46 23.4	-0.3
EHYH				S	Sb	02 46 35.5	-0.4
OWD	Renai	0.95	267	P	Pb	02 46 23.5	-0.4
EHY	Hungye	0.95	238	eP	Pb	02 46 23.5	-0.4
EHY				eS	Sb	02 46 35.3	-0.9
TWT	Tachien	0.97	285	eP	Pn	02 46 25.1	+0.7
ECBN	Changbin	0.98	225	P	Pb	02 46 24.0	-0.4
ECBN				S	Sb	02 46 36.7	-0.1
TDCB	Techi	0.99	284	eP	Pn	02 46 24.8	+0.2
WUSB	Renai	1.00	269	P	Pb	02 46 24.5	-0.3
WUSB				eS	Sb	02 46 37.0	-0.6
NWLT	Wulai	1.00	320	P	Pn	02 46 24.5	-0.1
YHNB	Yeheng	1.00	311	P	Pn	02 46 24.6	-0.2
VWDT	VWDT	1.01	256	P	Pn	02 46 24.7	0.0
TWB1	Santiao Chiao	1.01	349	eP	Pn	02 46 24.4	-0.3
TIPB	Shuangxi	1.02	340	eP	Pn	02 46 24.7	-0.2
TIPB				eS	Sb	02 46 37.6	-0.4
NSK	Sanguang	1.02	311	P	Pn	02 46 24.8	-0.1
YULB	Yu-li	1.04	234	P	Pn	02 46 24.5	-0.6
YULB				S	Sb	02 46 36.8	-1.7
TWF1	Yuli	1.06	232	eP	Pn	02 46 25.1	-0.4
TWF1				eS	Sb	02 46 39.4	+0.1
CHKH	Chenggong	1.10	223	P	Pn	02 46 25.1	-0.9
CHKH				eS	Sb	02 46 38.9	-1.6
TWA	Mucha	1.12	330	eP	Pb	02 46 27.1	+0.3
NWF	Wu-fen Shan	1.13	340	P	Pn	02 46 26.4	0.0
NWF				eS	Sn	02 46 41.5	+0.3
WFSB	Wu-fen Shan	1.13	340	P	Pn	02 46 26.4	+0.1
WFSB				S	Sn	02 46 41.4	+0.4
FULB	Fuli	1.17	226	eP	Pn	02 46 26.2	-0.6
FULB				eS	Sn	02 46 41.5	-0.6
SSLB	Suanglung	1.17	259	eP	Pn	02 46 26.9	0.0
SSLB				eS	Sn	02 46 41.7	-0.4
NFF	Wufeng Townshi	1.17	302	eP	Pb	02 46 27.9	+0.2
WHP	Taichung City	1.18	283	eP	Pb	02 46 28.5	+0.6
WCS	Beigang Elemen	1.19	273	eP	Pn	02 46 27.5	+0.3
WCS				eS	Sb	02 46 43.0	+0.2
CHKT	Chengkung	1.19	221	eS	Sn	02 46 41.0	-1.6
TNOU	National Taiwa	1.20	341	eP	Pb	02 46 28.0	-0.1
TNOU				eS	Sn	02 46 41.6	-1.3
SMLT	Sun Moon Lake	1.20	264	P	Pn	02 46 27.8	+0.3
SMLT				eS	Sb	02 46 44.1	+0.6
KSHI	Guanxi Townshi	1.21	309	eP	Pb	02 46 29.0	+0.7
TYC	Yuchr	1.24	265	eP	Pn	02 46 28.2	+0.4
EHD	Haiduan	1.26	227	P	Pn	02 46 28.0	-0.1
EHD				eS	Sn	02 46 43.1	-1.2
LIOB	Emei	1.26	300	eP	Pb	02 46 29.5	+0.4
YUS	Yu-Shan	1.26	246	eP	Pb	02 46 29.2	-0.2
YUS				eS	Sn	02 46 44.9	-0.2
NSTT	Nanjuang	1.26	300	eP	Pb	02 46 29.0	-0.2
YM01	YM01	1.27	333	eP	Pb	02 46 29.7	+0.3
YM01				eS	Sn	02 46 44.6	-0.1
WHYT	Xinyi Township	1.28	256	P	Pb	02 46 29.4	-0.1
WHYT				S	Sb	02 46 45.9	+0.4
ZUZH	Zhuzihu	1.30	332	eP	Pn	02 46 29.2	+0.5
ZUZH				eS	Sb	02 46 46.0	-0.1
YM08	YM08	1.30	334	eP	Pn	02 46 29.2	+0.4
TWQ1	Liyutan	1.35	285	P	Pb	02 46 30.6	-0.2
ELDTW	Lidau	1.36	233	P	Pn	02 46 29.4	-0.3
ELDTW				S	Sn	02 46 45.9	-1.2
WJS	Zhushan	1.37	262	P	Pb	02 46 31.7	+0.7
WJS				eS	Sb	02 46 49.9	+1.9
TWY	Chenhua	1.38	336	eP	Pb	02 46 30.5	-0.6
ALS	Alishan	1.38	249	P	Pb	02 46 30.9	-0.4
ALS				S	Sb	02 46 48.5	-0.2
WNT	Mingjian	1.40	265	eP	Pb	02 46 32.3	+0.7
WNT				eS	Sb	02 46 50.5	+1.5
IRIF	Iriomote-Funau	1.43	77	eP	Pn	02 46 31.2	+0.8
HATJ	Hateruma jima	1.46	88	eP	Pn	02 46 31.8	+0.9
WCHH	Zhanghua	1.51	273	eP	Pb	02 46 33.3	-0.1
STYH	Taoyuan	1.56	238	P	Pn	02 46 32.9	+0.7
STYH				eS	Sb	02 46 53.2	-0.3
WDLH	Douliu	1.56	259	P	Pb	02 46 34.0	-0.3
WDLH				S	Sb	02 46 54.6	+1.0
TWGBT	Beinan	1.58	221	eP	Pn	02 46 31.7	-0.8
TWGBT				eS	Sn	02 46 49.7	-2.4
WCKO	Fanlu	1.58	249	P	Pb	02 46 34.3	-0.3
WCKO				eS	Sb	02 46 54.9	+0.8
TWG	Pinlang	1.58	222	eP	Pn	02 46 31.8	-0.7
TWG				eS	Sn	02 46 49.3	-2.9
TPUB	Ta-pu	1.61	244	P	Pb	02 46 34.6	-0.6
TPUB				eS	Sb	02 46 54.6	-0.5
WTP	Ta-pu	1.65	243	P	Pb	02 46 35.4	-0.4
WTP				eS	Sb	02 46 57.5	+1.3
JKRS	Kuro-shima	1.66	82	eP	Pn	02 46 34.7	+1.1
WRL	Guolierlin Hig	1.68	267	P	Pb	02 46 35.8	-0.5
WRL				S	Sb	02 46 57.9	+0.9
RLNB	Erlin	1.70	266	eP	Pb	02 46 36.2	-0.4
RLNB				eS	Sb	02 46 59.1	+1.6
CHY	Chiayi	1.71	253	eP	Pb	02 46 36.3	-0.6
CHY				eS	Sb	02 46 57.7	-0.3
TWK	Hsinying	1.74	245	P	Pb	02 46 36.8	-0.6
TWK				eS	Sb	02 46 59.7	+0.8
CHN1	Nanshi	1.75	242	P	Pb	02 46 37.0	-0.5
CHN1				S	Sb	02 46 59.4	+0.4
SGST	Jiashian	1.75	239	P	Pn	02 46 36.3	+1.4
SGST				S	Sb	02 46 59.7	+0.5
SLGT	Liugui	1.75	235	P	Pb	02 46 38.2	+0.6
SLGT				S	Sb	02 47 00.9	+1.6
JIJ	Ishigaki jima	1.80	78	eP	Pn	02 46 36.1	+0.6
SSD	Sandimen	1.92	229	P	Pb	02 46 40.1	-0.3
SSD				eS	Sb	02 47 04.3	+0.4
JISG	Ishigakijimahi	2.00	73	eS	Sn	02 47 02.8	+0.1
MASBT	Mashibuluo	2.01	226	eP	Pn	02 46 39.5	+1.0
MASBT				eS	Sb	02 47 05.4	-1.1
TWM1	Shoushan	2.02	235	eS	Sb	02 47 09.4	+2.5
EAST	Anshuo	2.05	218	eP	Pn	02 46 38.8	-0.2
EAST				eS	Sn	02 47 02.5	-1.3
TSCK	Chigu Township	2.13	247	eS	Sb	02 47 08.3	-1.6
SCZT	Fangliau	2.19	222	eP	Pn	02 46 42.0	+1.1
SCZT				eS	Sn	02 47 08.8	+1.5
PHUB	P'eng-hu	2.47	259	eP	Pn	02 46 45.6	+0.9
PHUB				eS	Sn	02 47 15.2	+1.1
PNG	Penghu	2.47	260	P	Pn	02 46 46.0	+1.2
PNG				S	Sn	02 47 15.6	+1.4
VWUC	VWUC	2.70	292	eP	Pn	02 46 47.7	-0.2
VWUC				eS	Sn	02 47 20.1	+0.3

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*KRNET **19** 03:02:49.2±0.1, 42°.57N×79°.02E, h22^{km}, mb2.8*

*NNC **19** 03:02:50.9±1.3, 42°.62N×79°.00E, h0^{km}, mb3.4, mpv2.5, Error ellipse: s-maj=7.9km s-min=5.5km az=167.0*

*SOME **19** 03:02:50.2, 42°.57N×78°.90E, h10^{km}*

ISC 19 03:02:49.7±1.4**, 42°.55N**±0°.04×**78°.97E**±0°.04**, h2**^{km}±11^{km}**, n21, σ0^s.84**/41**, 6C-6D, Lake Issyk-Kul region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PRZ	**Przheval'sk**	**0.43**	**261**	⇓iP	**Pg**	**03 02 58.5**	**+0.6**
PRZ				⇓iS	**Sg**	**03 03 05.6**	**+2.2**
UZB	**Uzynbulak**	**0.60**	**4**	P	**Pg**	**03 03 01.5**	**+0.2**
	1.7nm,0.1s						
UZB				S	**Sg**	**03 03 09.2**	**+0.2**
	19nm,0.1s						
UZB	**Uzynbulak**	**0.60**	**4**	eP	**Pg**	**03 03 01.5**	**+0.2**
	1.7nm,0.1s						
UZB				eS	**Sg**	**03 03 09.2**	**+0.2**
	19nm,0.1s						
SHLS	**Shalkode**	**0.71**	**31**	P	**Pn**	**03 03 07.9**	**+1.0**
	3.4nm,0.1s						
SHLS				S	**Sn**	**03 03 20.0**	**+1.6**
	23nm,0.3s						
SHLS	**Shalkode**	**0.71**	**31**	eP	**Pn**	**03 03 07.9**	**+1.0**
	3.4nm,0.1s						
SHLS				eS	**Sn**	**03 03 20.0**	**+1.6**
	23nm,0.3s						
PDGK	**Podgornoye**	**0.87**	**26**	⇓P	**Pg**	**03 03 05.9**	**-0.5**
	0.5nm,0.4s						
PDGK				⇓S	**Sg**	**03 03 17.1**	**-0.6**
	9.4nm,0.5s						
KPKS	**Kokpek**	**0.94**	**347**	P	**Pg**	**03 03 07.6**	**-0.2**
	0.1nm,0.1s						
KPKS				S	**Sg**	**03 03 19.6**	**-0.3**
	6.3nm,0.2s						
KPKS	**Kokpek**	**0.94**	**347**	eP	**Pg**	**03 03 07.6**	**-0.2**
	0.1nm,0.1s						
KPKS				eS	**Sg**	**03 03 19.6**	**-0.3**
	6.3nm,0.2s						
ANVS	**Anan'yevo**	**0.99**	**284**	⇑iP	**Pg**	**03 03 08.4**	**-0.3**
ANVS				⇑iS	**Sg**	**03 03 22.2**	**+0.7**
TARG	**Taragay, Kyrgy**	**1.19**	**227**	⇓iP	**Pb**	**03 03 12.1**	**-1.2**
TARG				⇓iS	**Sg**	**03 03 28.6**	**+0.6**
KDJ	**Kajisay**	**1.39**	**253**	⇑iP	**Pn**	**03 03 15.1**	**-1.2**
KDJ				⇑iS	**Sb**	**03 03 34.1**	**-0.7**
BLB	**Baldybastay**	**1.59**	**347**	P	**Pb**	**03 03 19.7**	**-0.2**
	1.9nm,0.1s						
BLB				S	**Sg**	**03 03 40.5**	**-0.3**
	5.3nm,0.2s						
KNOS	**Konyrlen**	**1.82**	**5**	P	**Pb**	**03 03 23.3**	**-0.5**
	1.6nm,0.1s						
KNOS				S	**Sb**	**03 03 46.5**	**-0.6**
	6.0nm,0.2s						
DJR	**Jarkent**	**1.88**	**18**	P	**Pb**	**03 03 24.1**	**-0.7**
	3.5nm,0.2s						
DJR				S	**Sb**	**03 03 48.3**	**-0.6**
	4.3nm,0.3s						
DJR	**Jarkent**	**1.88**	**18**	eP	**Pb**	**03 03 24.1**	**-0.7**
	3.5nm,0.2s						
DJR				eS	**Sb**	**03 03 48.2**	**-0.6**
	4.3nm,0.3s						
KTBS	**Karatobe**	**2.04**	**306**	Pg	**Pb**	**03 03 26.4**	**-1.1**
	0.2nm,0.1s						
KTBS				Lg	Lg	03 03 52.3	
	4.4nm,0.4s						
KTBS	**Karatobe**	**2.04**	**306**	eP	**Pb**	**03 03 26.4**	**-1.1**
	0.2nm,0.1s						
KTBS				eS	**Sb**	**03 03 52.2**	**-1.1**
	4.4nm,0.4s						
ULHL	**Ulahol**	**2.04**	**262**	i P	**Pn**	**03 03 25.1**	**-0.2**
ULHL				i S	**Sn**	**03 03 51.2**	**-0.3**
BOOM	**Boomskoye usch**	**2.24**	**270**	⇑eP	**Pn**	**03 03 27.9**	**-0.1**
BOOM				⇑eS	**Sn**	**03 03 56.2**	**-0.1**
KST	**Kastek**	**2.27**	**284**	eP	**Pb**	**03 03 32.4**	**+1.0**
	1.4nm,0.7s						
KST				eS	**Sg**	**03 04 02.1**	**-0.4**
	4.7nm,0.3s						
KRBS	**Karabastau**	**2.67**	**297**	eP	**Pb**	**03 03 38.6**	**+0.3**
	0.5nm,0.7s						
KRBS				eS	**Sb**	**03 04 12.9**	**+1.4**
	4.0nm,0.4s						

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*IDC **19** 03:21:29.2±2.2, 23°.24S×67°.49W, h152^{km}±22^{km}, mb2.9/3, mbtmp3.4/7, Error ellipse: s-maj=30.2km s-min=22.9km az=67.0*

*SJA **19** 03:21:29.7±0.8, 23°.19S×67°.69W, h175^{km}, ML3.4, MW3.5*

*GUC **19** 03:21:32.3±0.7, 23°.10S×67°.86W, h175^{km}±4^{km}, ML3.6*

ISC 19 03:21:30.2±0.8**, 23°.19S**±0°.04×**67°.63W**±0°.05**, h168**^{km}±7^{km}**, n38, σ1^{s}72**/61**, 6C, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AF01	**San Pedro de A**	**0.56**	**295**	eP	**Pn**	**03 21 54.7**	**+0.5**
AF01				eS	**Sn**	**03 22 14.3**	**+1.7**
AF01				IAML		03 22 31.3	
	comp=Z,515nm,0.5s						
AF01	**San Pedro de A**	**0.56**	**295**	⇑eP	**Pn**	**03 21 54.7**	**+0.5**
AF01				eS	**Sn**	**03 22 12.9**	**+0.3**
SALTA		**1.57**	**131**	eP	**Pn**	**03 22 03.8**	**+1.5**
PB06	**IPOC Station P**	**1.85**	**285**	eP	**Pn**	**03 22 05.3**	**+0.3**
PB06				eS	**Sn**	**03 22 31.4**	**-0.5**
PB06				IAML		03 22 33.2	
	comp=Z,420nm,0.2s						
PB06	**IPOC Station P**	**1.85**	**285**	⇑eP	**Pn**	**03 22 05.2**	**+0.3**
PB06				eS	**Sn**	**03 22 29.9**	**-1.9**
PB09	**IPOC Station P**	**2.04**	**313**	eP	**Pn**	**03 22 07.4**	**+0.4**
PB09				eS	**Sn**	**03 22 35.5**	**+0.1**
PB09				IAML		03 22 37.4	
	comp=Z,136nm,0.2s						
PB09	**IPOC Station P**	**2.04**	**313**	eP	**Pn**	**03 22 07.4**	**+0.4**
HJA	**Humahuaca**	**2.04**	**91**	eP	**Pn**	**03 22 09.1**	**+1.9**
HJA				eS	**Sn**	**03 22 32.7**	**-3.2**
PB03	**IPOC Station P**	**2.27**	**300**	eP	**Pn**	**03 22 09.4**	**-0.2**
PB03				eS	**Sn**	**03 22 39.5**	**-0.7**
PB03				IAML		03 22 44.9	
	comp=Z,180nm,0.3s						
PB03	**IPOC Station P**	**2.27**	**300**	⇑eP	**Pn**	**03 22 09.5**	**-0.2**
PB03				IAML		03 22 39.2	
	comp=N,252nm,0.3s						
PB05	**IPOC Station P**	**2.40**	**277**	eP	**Pn**	**03 22 11.0**	**-0.1**
PB05				eS	**Sn**	**03 22 43.3**	**+0.6**
PB05				IAML		03 22 44.9	
	comp=Z,124nm,0.4s						
PB05	**IPOC Station P**	**2.40**	**277**	⇑eP	**Pn**	**03 22 10.7**	**-0.4**
PB05				IAML		03 22 46.7	
	comp=N,155nm,0.3s						
SLA	**San Lorenzo**	**2.47**	**129**	eP	**Pn**	**03 22 15.8**	**+3.8**
SLA				eS	**Sn**	**03 22 45.2**	**+0.7**
PB07	**IPOC Station P**	**2.54**	**304**	eP	**Pn**	**03 22 12.6**	**-0.3**
PB07				eS	**Sn**	**03 22 44.9**	**-1.2**
PB07				IAML		03 22 45.0	
	comp=Z,151nm,0.5s						
PB07	**IPOC Station P**	**2.54**	**304**	⇑eP	**Pn**	**03 22 12.7**	**-0.3**
PB07				IAML		03 22 50.2	
	comp=E,175nm,0.3s						
PB02	**IPOC Station P**	**2.81**	**311**	eP	**Pn**	**03 22 15.7**	**-0.3**
PB02				eS	**Sn**	**03 22 49.8**	**-1.7**
PB02				IAML		03 22 52.7	
	comp=Z,232nm,0.4s						
PB02	**IPOC Station P**	**2.81**	**311**	eP	**Pn**	**03 22 15.3**	**-0.7**
PB14	**IPOC Station P**	**2.92**	**240**	eP	**Pn**	**03 22 17.7**	**+0.1**
PB14				eS	**Sn**	**03 22 53.2**	**-1.1**
PB14				IAML		03 22 54.8	
	comp=Z,252nm,0.3s						
PB14	**IPOC Station P**	**2.92**	**240**	eP	**Pn**	**03 22 17.4**	**-0.1**
PB14				IAML		03 22 53.9	
	comp=E,203nm,0.2s						
PB08	**IPOC Station P**	**3.35**	**335**	eP	**Pn**	**03 22 23.5**	**+0.4**
PB08				eS	**Sn**	**03 23 03.7**	**-0.3**
PB08				IAML		03 23 04.5	
	comp=Z,65nm,0.6s						
PB08	**IPOC Station P**	**3.35**	**335**	⇑eP	**Pn**	**03 22 23.2**	**+0.2**
PB08				eS	**Sn**	**03 23 02.8**	**-1.3**
TA01	**Diego Aracena**	**3.52**	**317**	eP	**Pn**	**03 22 24.1**	**-0.7**
TA01				IAML		03 23 10.2	
	comp=Z,52nm,0.3s						
TA01	**Diego Aracena**	**3.52**	**317**	eP	**Pn**	**03 22 24.6**	**-0.3**
TA01				IAML		03 23 05.7	
	comp=N,98nm,0.3s						
GO01	**Chusmiza**	**3.79**	**337**	eP	**Pn**	**03 22 28.6**	**-0.2**
GO01				eS	**Sn**	**03 23 14.7**	**+0.3**
GO01				IAML		03 23 19.2	
	comp=Z,43nm,0.1s						
GO01	**Chusmiza**	**3.79**	**337**	eP	**Pn**	**03 22 28.6**	**-0.2**
AC02	**Maricunga**	**3.88**	**200**	eP	**Pn**	**03 22 30.6**	**+0.8**
AC02				eS	**Sn**	**03 23 17.2**	**+0.8**
AC02				IAML		03 23 52.8	
	comp=Z,18nm,0.9s						
AC01	**Pan de Azucar**	**4.00**	**222**	eP	**Pn**	**03 22 30.2**	**-0.7**
AC01				eS	**Sn**	**03 23 16.2**	**-2.2**
AC01				IAML		03 23 21.2	
	comp=Z,40nm,0.7s						
PSGCX	**Pisagua**	**4.26**	**326**	eP	**Pn**	**03 22 32.2**	**-2.2**
PSGCX				eS	**Sn**	**03 23 22.9**	**-1.7**
PSGCX				IAML		03 23 27.9	
	comp=Z,28nm,0.4s						
GO03	**Copiapo**	**4.98**	**208**	eP	**Pn**	**03 22 43.4**	**-0.3**
GO03				eS	**Sn**	**03 23 39.0**	**-2.3**
GO03				IAML		03 23 43.0	
	comp=Z,36nm,0.6s						
PB16	**IPOC Station P**	**5.14**	**340**	eP	**Pn**	**03 22 45.6**	**-0.7**
PB16				eS	**Sn**	**03 23 44.8**	**-1.1**
PB16				IAML		03 23 49.7	
	comp=Z,12nm,0.6s						
PB12	**IPOC Station P**	**5.20**	**330**	eP	**Pn**	**03 22 45.2**	**-1.5**
PB12				eS	**Sn**	**03 23 41.9**	**-4.7**
PB12				IAML		03 23 44.6	
	comp=Z,23nm,0.2s						
LPAZ	**La Paz**	**6.88**	**356**	P	**Pn**	**03 23 10.2**	**+0.9**
	comp=Z,1.7nm,0.4s,baz=161,slow=7.6,SNR=8.8						
LPAZ				S	**Sn**	**03 24 24.0**	**-3.2**
	comp=Z,0.9nm,0.5s,baz=96,slow=15,SNR=3.6						
CFA	**Coronel Fontan**	**8.40**	**184**	P	**Pn**	**03 23 27.0**	**-1.8**
	comp=Z,0.4nm,0.4s,baz=5.6,slow=13,SNR=1.7						
CFA				S	**Sn**	**03 24 56.1**	**-6.5**
	comp=Z,0.4nm,0.4s,baz=318,slow=7.6,SNR=1.4						
SIV	**San Ignacio**	**9.45**	**42**	P	**Pn**	**03 23 40.0**	**-2.8**
	comp=Z,0.8nm,0.3s,baz=227,slow=12,SNR=9.3						
SIV				S	Sn	03 25 18.2	-10
	comp=Z,0.7nm,0.5s,baz=184,slow=14,SNR=4.2						
CPUP	**Villa Florida**	**9.87**	**111**	P	**Pn**	**03 23 46.1**	**-2.1**
	comp=Z,0.8nm,0.6s,baz=289,slow=11,SNR=3.5						
TXAR	**Lajitas Array**	**62.69**	**325**	P	**P**	**03 31 38.4**	**+1.1**
	comp=Z,0.1nm,0.6s,baz=152,slow=7.3,SNR=2.2						
	comp=Z,0.1nm,0.6s						
PDAR	**Pinedale Array**	**76.16**	**330**	P	**P**	**03 33 01.5**	**+1.6**
	comp=Z,0.1nm,0.5s,baz=327,slow=7.9,SNR=2.0						
	comp=Z,0.1nm,0.5s						
TORD	**Torodi Ar. Bea**	**76.82**	**69**	P	**P**	**03 33 04.5**	**+0.6**
	comp=Z,0.4nm,0.5s,baz=256,slow=6.2,SNR=7.1						
	comp=Z,0.4nm,0.5s						

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*IDC **19** 03:23:04.8±1.4, 7°.27S×127°.79E, h0^{km}, mb4.0/3, mbtmp3.8/5, ML3.4/2, Error ellipse: s-maj=43.0km s-min=16.5km az=76.0*

ISC 19 03:23:11.9±3.2**, 8°.1S**±0°.2×**128°.0E**±0°.2**, h10**^{km}**, n6, σ1^{s}43**/7**, mb4.0**/3**, Timor region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	**10.20**	**193**	Pn	**Pn**	**03 25 37.9**	**-0.6**
	0.2nm,0.3s,baz=16,slow=14,SNR=8.9						
FITZ				Sn	**Sn**	**03 27 33.2**	**+0.2**
	0.5nm,0.3s,baz=223,slow=21,SNR=6.2						
	2.0nm,0.9s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**13.30**	**153**	Pn	**Pn**	**03 26 19.7**	**-1.4**
	0.2nm,0.3s,baz=333,slow=13,SNR=7.6						
WRA				Sn	**Sn**	**03 28 48.7**	**-0.4**
	0.2nm,0.3s,baz=333,slow=26,SNR=6.2						
	0.8nm,0.8s						
WRA				AML	AML		
ASAR	**Alice Springs**	**16.50**	**160**	P	**Pn**	**03 27 04.0**	**+0.3**
	0.5nm,0.6s,baz=335,slow=9.6,SNR=8.7						
ASAR				S	**Sn**	**03 30 08.8**	**+1.7**
	0.2nm,0.6s,baz=248,slow=39,SNR=1.9						
STKA	**Stephens Creek**	**26.86**	**154**	P	**P**	**03 28 54.5**	**+1.6**
	1.3nm,0.4s,baz=339,slow=7.5,SNR=5.3						
	1.3nm,0.4s						
MKAR	**Makanchi Array**	**68.05**	**328**	P	P	03 34 00.5	-11
	0.5nm,0.8s,baz=126,slow=6.3,SNR=2.9						
	0.5nm,0.8s						
KURBB	**Kurchatov Arra**	**72.40**	**329**	P	P	03 34 28.8	-9.4
	0.5nm,0.3s,baz=129,slow=7.3,SNR=1.8						
	0.5nm,0.3s						

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*IDC **19** 03:46:12.4±0.9, 17°.49S×173°.79W, h0^{km}, mb4.0/5, mbtmp4.1/7, ML3.4/2, MS3.3/6, Error ellipse: s-maj=29.0km s-min=19.9km az=151.0*

*NEIC **19** 03:46:14.0±1.1, 17°.58S±0°.04×173°.2W±0°.1, h31^{km}±7^{km}, mb4.2/5, Error ellipse: s-maj=15.6km s-min=6.3km az=91.0*

ISC 19 03:46:14.0±0.7**, 17°.44S**±0°.06×**173°.13W**±0°.09**, h28**^{km}**, n25, σ2^{s}28**/23**, mb4.1**/7**, MS3.5**/5**, 1D, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NIUE	**Niue**	**3.45**	**119**		**Pn**	**03 47 06.6**	**+0.7**
NIUE				Sn	**Sn**	**03 47 42.5**	**-3.4**
AFI	**Afiamalu**	**3.74**	**21**	Pn	**Pn**	**03 47 11.4**	**+1.4**
	2.6nm,0.3s,baz=206,slow=14,SNR=1.4						
AFI				Sn	**Sn**	**03 47 49.3**	**-3.9**
	14nm,0.3s,baz=85,slow=20,SNR=6.6						
AFI				LR	LR	03 48 28.3	
	comp=Z,107nm,21.6s,baz=268,slow=34						
	13nm,0.4s						
AFI				AML	AML		
AFI	**Afiamalu**	**3.74**	**21**		**Pn**	**03 47 11.9**	**+1.9**
AFI				Sn	**Sn**	**03 47 49.5**	**-3.7**
RAR	**Rarotonga**	**13.15**	**109**	Pn	**Pn**	**03 49 21.2**	**+2.2**
	2.0nm,0.3s,baz=285,slow=12,SNR=2.1						
RAR				LR	LR	03 53 18.8	
	comp=Z,102nm,20.8s,baz=282,slow=31						
	15nm,0.7s						
RAR				AML	AML		
RAR	**Rarotonga**	**13.15**	**109**		**Pn**	**03 49 18.6**	**-0.4**
PPT2	**Papeete2**	**22.46**	**94**	eLR	LR	03 56 31.0	
	142nm,24.8s						
PPT2				eLR	LR	03 56 38.1	
	117nm,25.5s						
PPT	**Papeete**	**22.46**	**94**	LR	LR	03 57 45.3	
	comp=Z,50nm,19.1s,baz=277,slow=30						
HNR	**Honiara**	**27.34**	**283**	LR	LR	04 01 16.3	
	comp=Z,101nm,18.6s,baz=194,slow=34						
WR8	**Warramunga Arr**	**49.51**	**258**	P	**P**	**03 55 00.3**	**-2.2**
WRA	**Warramunga Arr**	**49.66**	**258**	P	**P**	**03 55 01.0**	**-2.7**
	0.8nm,0.6s,baz=97,slow=7.5,SNR=4.9						
	0.8nm,0.6s						
WRA	**Warramunga Arr**	**49.66**	**258**	P	**P**	**03 55 01.3**	**-2.4**
AS31	**Alice Springs**	**49.76**	**254**	P	**P**	**03 55 02.7**	**-1.7**
AS31				IAmb	IAmb	03 55 06.3	
	comp=Z,1.5nm,0.6s						
ASAR	**Alice Springs**	**49.76**	**254**	P	**P**	**03 55 01.8**	**-2.5**
	comp=Z,5.2nm,0.7s,baz=91,slow=7.8,SNR=27						
	comp=Z,5.2nm,0.7s						
ASAR	**Alice Springs**	**49.76**	**254**	P	**P**	**03 55 01.7**	**-2.7**
FITZ	**Fitzroy Crossi**	**58.07**	**259**	P	**P**	**03 56 05.0**	**-0.2**
	comp=Z,0.9nm,0.6s,baz=117,slow=6.8,SNR=1.9						
FITZ				LR	LR	04 19 26.6	
	comp=Z,75nm,18.0s,baz=176,slow=35						
	comp=Z,0.9nm,0.6s						
FITZ	**Fitzroy Crossi**	**58.07**	**259**	P	**P**	**03 56 05.3**	**+0.2**
FITZ				IAmb	IAmb	03 56 40.5	
	comp=Z,1.1nm,1.1s						
MJAR	**Matsushiro Arr**	**70.66**	**320**	LR	LR	04 23 33.6	
	comp=Z,24nm,19.3s,baz=204,slow=32						
QSPA	**South Pole Qui**	**72.62**	**180**	P	**P**	**03 57 41.3**	**+2.6**
	comp=Z,2.1nm,1.0s,baz=40,slow=5.9,SNR=2.2						
	comp=Z,2.1nm,1.0s						
QSPA	**South Pole Qui**	**72.62**	**180**	P	**P**	**03 57 37.5**	**-1.2**
QSPA				IAmb	IAmb	03 57 46.3	
	comp=Z,6.5nm,1.4s						
USHA	**Ushuaia**	**84.10**	**146**	LR	LR	04 29 43.5	
	comp=Z,424nm,20.0s,baz=82,slow=31						
ILAR	**Eielson Array**	**84.38**	**11**	P	**P**	**03 58 45.8**	**+2.6**
	comp=Z,0.2nm,0.6s,baz=202,slow=4.7,SNR=5.2						
	comp=Z,0.2nm,0.6s						
ELIB	**Princess Elisa**	**90.14**	**185**	dP	**P**	**03 59 11.4**	**0.0**
	comp=Z,1.3nm,1.2s						
CLL	**Collm**	**145.86**	**353**	i PKPbc	**PKPab**	**04 05 52.5**	**+1.5**
	comp=Z,4.0nm,0.8s						
BRTR	**Keskin Array B**	**147.88**	**319**	PKPbc	**PKiKP**	**04 05 58.3**	**-0.6**
	comp=Z,0.7nm,0.7s,baz=51,slow=3.6,SNR=2.7						
GERES	**GERESS Array B**	**148.18**	**351**	PKPbc	**PKiKP**	**04 05 59.6**	**+0.5**
	comp=Z,0.4nm,0.3s,baz=8.5,slow=2.0,SNR=6.6						

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*IDC **19** 03:47:10.6±1.8, 1°.97S×128°.69E, h0^{km}, mb3.6/3, mbtmp3.6/5, ML3.6/2, Error ellipse: s-maj=96.9km s-min=21.9km az=73.0*

*DJA **19** 03:47:17.5±0.3, 2°S±3°×12°8E±°, h47^{km}±14^{km}, M4.2/14, mB4.9/3, mb4.5/3, MLv3.9/14, Mw(mB)4.2/3*

ISC 19 03:47:16.4±0.9**, 2°.36S**±0°.07×**127°.86E**±0°.06**, h32**^{km}**, n16, σ1^{s}40**/16**, mb3.7**/3**, Ceram Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRAI	**Karang Ratu**	**1.09**	**151**	P	**Pb**	**03 47 38.4**	**+1.6**
KRAI				AML	AML		
NLAI	**Namlea**	**1.16**	**221**	P	**Pn**	**03 47 36.1**	**-0.3**
NLAI				AML	AML		
AAI	**Ambon**	**1.36**	**166**	P	**Pb**	**03 47 43.5**	**+2.2**
AAI				AML	AML		
MSAI	**Masohi**	**1.45**	**133**	P	**Pb**	**03 47 43.8**	**+0.9**
MSAI				AML	AML		
SANI	**Sanana**	**1.89**	**279**	P	**Pn**	**03 47 44.4**	**-2.1**
BNDI	**Bandanaira**	**2.97**	**136**	P	**Pb**	**03 48 05.9**	**-2.7**
BNDI				AML	AML		
SWI	**Sorong**	**3.71**	**66**	P	**Pn**	**03 48 10.7**	**-0.9**
SWI				AML	AML		
FAKI	**Fak Fak**	**4.42**	**97**	P	**Pn**	**03 48 20.5**	**-0.9**
FAKI				AML	AML		
LUWI	**Luwuk**	**5.25**	**284**	P	**Pn**	**03 48 32.6**	**-0.1**
	1μm26nm,0.4s						
GTOI	**Gorontalo**	**5.69**	**301**	P	**Pn**	**03 48 40.3**	**+1.6**
	0.1nm662nm29nm,0.7s						
GTOI				AML	AML		
APSI	**Ampana**	**6.37**	**283**	P	**Pn**	**03 48 48.5**	**+0.4**
FITZ	**Fitzroy Crossi**	**15.79**	**188**	Pn	**P**	**03 50 59.6**	**-0.5**
	0.1nm,0.3s,baz=3.8,slow=12,SNR=1.6						
	0.9nm,0.8s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**18.59**	**161**	P	**P**	**03 51 30.0**	**-1.1**
	0.3nm,0.3s,baz=340,slow=12,SNR=9.0						
	0.5nm,0.3s						
WRA				AML	AML		
ASAR	**Alice Springs**	**21.98**	**165**	P	**P**	**03 52 07.5**	**-0.4**
	1.6nm,0.6s,baz=345,slow=12,SNR=20						
	1.6nm,0.6s						
MKAR	**Makanchi Array**	**63.20**	**327**	P	**P**	**03 57 41.4**	**-0.2**
	0.6nm,0.8s,baz=114,slow=7.0,SNR=3.4						
	0.6nm,0.8s						
KURBB	**Kurchatov Arra**	**67.46**	**328**	P	**P**	**03 58 09.3**	**+0.2**
	0.6nm,0.8s,baz=123,slow=5.6,SNR=3.8						
	0.6nm,0.8s						

IDC 19 03:56:52.2±3.2**, 3°.06N**×**128°.14E, h0**^{km}**, mb3.5**/4**, mbtmp3.5**/4**, Error ellipse: s-maj=295.4km s-min=27.3km az=66.0, North of Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**23.65**	**165**	P	P	04 02 04.6	-0.9
	0.7nm,0.7s,baz=353,slow=11,SNR=11						
	0.7nm,0.7s						
ASAR	**Alice Springs**	**27.15**	**168**	P	P	04 02 37.7	+0.3
	0.5nm,1.0s,baz=337,slow=8.5,SNR=5.8						
	0.5nm,1.0s						
STKA	**Stephens Creek**	**37.02**	**161**	P	P	04 04 04.5	+0.7
	1.5nm,0.6s,baz=311,slow=10.0,SNR=4.6						
	1.5nm,0.6s						
MKAR	**Makanchi Array**	**58.91**	**325**	P	P	04 06 52.9	-0.3
	0.2nm,0.4s,baz=120,slow=8.3,SNR=2.0						
	0.2nm,0.4s						

IDC 19 03:58:47.2±7.0**, 20°.28S**×**178°.85W, h0**^{km}**, mb3.6**/4**, mbtmp3.6**/4**, Error ellipse: s-maj=301.4km s-min=41.6km az=146.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ASAR	**Alice Springs**	**43.79**	**257**	P	P	04 06 54.5	-0.5
	0.7nm,0.7s,baz=106,slow=8.3,SNR=5.9						
	0.7nm,0.7s						
WRA	**Warramunga Arr**	**43.84**	**262**	P	P	04 06 56.1	+0.6
	0.2nm,0.3s,baz=98,slow=8.6,SNR=10						
	0.2nm,0.3s						
FITZ	**Fitzroy Crossi**	**52.26**	**262**	P	P	04 07 59.9	-0.7
	0.4nm,0.3s,baz=113,slow=7.7,SNR=1.6						
	0.4nm,0.3s						
ILAR	**Eielson Array**	**88.28**	**13**	P	P	04 11 40.0	0.0
	0.4nm,0.8s,baz=203,slow=3.9,SNR=2.8						
	0.4nm,0.8s						

IDC 19 04:00:52.2±4.9**, 1°.85N**×**129°.49E, h0**^{km}**, mb3.3**/3**, mbtmp3.4**/3**, Error ellipse: s-maj=387.8km s-min=28.8km az=69.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**22.17**	**168**	P	P	04 05 50.5	+0.4
	0.6nm,0.5s,baz=349,slow=11,SNR=12						
	0.6nm,0.5s						
ASAR	**Alice Springs**	**25.72**	**171**	P	P	04 06 24.1	-0.4
	0.3nm,0.5s,baz=343,slow=9.9,SNR=4.4						
	0.3nm,0.5s						
MKAR	**Makanchi Array**	**60.67**	**325**	P	P	04 11 05.3	0.0
	0.2nm,0.5s,baz=118,slow=8.0,SNR=2.3						
	0.2nm,0.5s						

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*PDG **19** 04:29:44.3±0.2, 41°.61N×20°.30E, h5^{km}±1^{km}, ML2.7/10, Error ellipse: s-maj=0.9km s-min=1.0km az=0.0*

*TIR **19** 04:29:45.2, 41°.72N×20°.26E, h12^{km}±1^{km}, Ml2.7/4*

*BEO **19** 04:29:46.6±0.7, 41°.65N×20°.28E, h2^{km}±5^{km}, ML2.5/18*

ISC 19 04:29:45.6±1.0**, 41°.67N**±0°.02×**20°.25E**±0°.02**, h5**^{km}±9^{km}**, n44, σ1^{s}44**/67**, 4C-2D, Albania**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PHP	**Peshkopia**	**0.14**	**82**	P	**Pg**	**04 29 48.3**	**-0.2**
PHP				S	**Sg**	**04 29 50.3**	**-0.1**
PHP				AML	AML	04 29 52.0	
	12nm,0.4s						
TIR	**Tirane**	**0.43**	**223**	P	**Pg**	**04 29 53.5**	**-0.4**
TIR				S	**Sb**	**04 30 01.5**	**-1.0**
TIR				AML	AML	04 30 03.7	
	2.3nm,0.5s						
SDA	**Shkodra**	**0.68**	**305**	P	**Pg**	**04 29 58.6**	**-0.2**
SDA				S	**Sg**	**04 30 07.8**	**+0.2**
SDA				AML	AML	04 30 24.8	
	1.0nm,0.9s						
OHR	**Ohrid**	**0.69**	**143**	i Pg	**Pg**	**04 29 58.5**	**-0.3**
OHR				i Sg	**Sb**	**04 30 10.1**	**+0.1**
ULC	**Ulcinj**	**0.81**	**292**	ePg	**Pg**	**04 30 00.3**	**-0.9**
ULC				eSg	**Sn**	**04 30 14.0**	**-2.2**
ULC				AML	AML		
SKO	**Skopje**	**0.94**	**71**	i Pg	**Pg**	**04 30 03.3**	**-0.3**
SKO				i Sg	**Sb**	**04 30 16.7**	**-0.4**
DRME	**Dracevica, Mon**	**0.95**	**303**	⇓iPg	**Pg**	**04 30 02.9**	**-1.0**
DRME				eSg	**Sn**	**04 30 18.9**	**-0.8**
DRME				AML	AML		
PVY	**Plav**	**0.95**	**347**	ePg	**Pg**	**04 30 02.8**	**-1.1**
PVY				eSg	**Sn**	**04 30 19.1**	**-0.8**
PVY				AML	AML		
PDG	**Podgorica**	**1.07**	**316**	P	**Pg**	**04 30 04.8**	**-1.3**
PDG				S	**Sn**	**04 30 21.3**	**-1.2**
PDG	**Podgorica**	**1.07**	**316**	ePg	**Pg**	**04 30 05.0**	**-1.1**
PDG				eSg	**Sn**	**04 30 21.9**	**-0.6**
KBN	**Korca**	**1.12**	**159**	P	**Pn**	**04 30 07.3**	**-0.7**
KBN				S	**Sn**	**04 30 23.6**	**-0.2**
KBN				AML	AML	04 30 29.8	
	0.7nm,0.7s						
BUM	**Brajici-Budva**	**1.20**	**302**	⇑iPg	**Pg**	**04 30 07.7**	**-0.9**
BUM				eSg	**Sn**	**04 30 27.4**	**+1.6**
BUM				AML	AML		
IVA	**Berane**	**1.23**	**348**	⇑iPg	**Pg**	**04 30 08.5**	**-0.8**
IVA				eSg	**Sn**	**04 30 27.6**	**+0.8**
IVA				AML	AML		
KOME	**Kolasin**	**1.30**	**335**	⇑iPg	**Pn**	**04 30 09.6**	**-1.0**
KOME				eSg	**Sn**	**04 30 30.9**	**+2.4**
KOME				AML	AML		
VLO	**Vlora**	**1.33**	**206**	P	**Pg**	**04 30 12.2**	**+1.2**
VLO				S	**Sn**	**04 30 29.3**	**+0.5**
CEME	**Cevo**	**1.33**	**312**	ePg	**Pn**	**04 30 09.2**	**-1.7**
CEME				i Sg	**Sn**	**04 30 32.1**	**+3.1**
CEME				AML	AML		
NKME	**Niksic**	**1.47**	**319**	ePg	**Pn**	**04 30 12.3**	**-0.5**
NKME				i Sg	**Sg**	**04 30 37.0**	**+4.3**
NKME				AML	AML		
HCY	**Herceg Novi**	**1.53**	**301**	⇓iPn	**Pb**	**04 30 13.3**	**-1.1**
HCY				eSn	**Sg**	**04 30 37.5**	**+2.9**
HCY				AML	AML		
SJES	**Sjenica**	**1.61**	**353**	ePg	**Pg**	**04 30 16.3**	**-0.1**
SJES				eSg	**Sg**	**04 30 38.8**	**+1.5**
BARS	**Barje**	**1.63**	**45**	ePn	**Pb**	**04 30 15.6**	**-0.6**

SELS	**Selova**	**1.68**	**22**	*e*Pn	**Pb**	**04 30 17.0**	**-0.1**
SELS				*e*Sg	**Sg**	**04 30 39.4**	**-0.2**
TREB	**Trebinje**	**1.76**	**307**	*e*Pn	**Pb**	**04 30 17.5**	**-0.9**
BRY	**Bratogost**	**1.77**	**315**	⇑*i*Pn	**Pb**	**04 30 17.6**	**-1.1**
BRY				*e*Sn	**Sg**	**04 30 44.8**	**+2.2**
BRY				AML	AML		
VAY	**Valandovo**	**1.77**	**100**	*i* Pn	**Pb**	**04 30 17.4**	**-1.2**
VAY				*i* Sn	**Sg**	**04 30 41.8**	**-0.8**
SRN	**Sarande**	**1.79**	**186**	P	**Pg**	**04 30 19.5**	**-0.5**
SRN				S	**Sg**	**04 30 46.7**	**+3.5**
BOSS	**Bosilegrad**	**1.85**	**63**	*e*Pn	**Pb**	**04 30 19.6**	**-0.4**
IVAS	**Ivanjica**	**1.91**	**358**	*e*Pn	**Pb**	**04 30 19.6**	**-1.4**
GOCS	**Kraljevo Serbi**	**1.95**	**13**	*e*Pn	**Pb**	**04 30 21.5**	**-0.2**
IGT	**Igoumenitsa**	**2.13**	**178**	*e*Pn	**Pb**	**04 30 23.3**	**-1.4**
BOVS	**Bovan**	**2.24**	**28**	*e*Pn	**Pb**	**04 30 24.8**	**-1.8**
STON	**Ston**	**2.25**	**303**	*e*Pn	**Pb**	**04 30 24.8**	**-1.9**
GRUS	**Gruza**	**2.25**	**9**	*e*Pn	**Pb**	**04 30 25.1**	**-1.6**
BBLS	**Lazi&#263i**	**2.29**	**344**	*e*Pn	**Pb**	**04 30 26.1**	**-1.3**
ZAPS	**Zavoj**	**2.38**	**47**	*e*Pn	**Pn**	**04 30 26.0**	**+0.6**
VTS	**Vitosha**	**2.41**	**66**	*e*Pn	**Pn**	**04 30 26.6**	**+0.7**
DIVS	**Divibare**	**2.44**	**356**	*e*Pn	**Pn**	**04 30 27.5**	**+1.3**
TRUS	**Trudelj**	**2.56**	**2**	*e*Pn	**Pn**	**04 30 28.5**	**+0.7**
ZAGS	**Zajecar**	**2.59**	**34**	*e*Pn	**Pb**	**04 30 30.3**	**-2.3**
BLKB	**Belogradchik**	**2.65**	**42**	*e*Pn	**Pn**	**04 30 30.7**	**+1.6**
BORS2	**Bor- Borsko je**	**2.75**	**28**	*e*Pn	**Pn**	**04 30 32.4**	**+2.0**
TEKS	**Tekeris**	**2.93**	**350**	*e*Pn	**Pn**	**04 30 34.4**	**+1.5**
KUBS	**Kucevo**	**2.94**	**20**	*e*Pn	**Pn**	**04 30 33.7**	**+0.7**
AVAS	**Avala Beograd**	**3.04**	**3**	*e*Pn	**Pn**	**04 30 35.9**	**+1.6**
FRGS	**Fruska Gora**	**3.51**	**355**	*e*Pn	**Pn**	**04 30 41.9**	**+1.1**

SFS ***19*** *04:45:44.8, 36°.57N×4°.55W, h67^{km}, Mjma3.6/15, ML2.9/17, ML3.2/17, MLv2.8/17*
MDD ***19*** *04:45:44.8±0.3, 36°.56N×4°.54W, h66^{km}±3^{km}, Mb3.4/38, Error ellipse: s-maj=2.5km s-min=1.7km az=158.0*
IGIL ***19*** *04:45:45.4, 36°.56N×4°.53W, h65^{km}, ML2.1*
CNRM ***19*** *04:45:45.2, 36°.34N×4°.94W, h67^{km}*
INMG ***19*** *04:45:46.3±1.4, 36°.65N×4°.66W, h59^{km}, ML1.9, Error ellipse: s-maj=3.8km s-min=3.1km az=101.0, #DIST_RANGE: REGIONAL #IPMA_REGION: SW Malaga (ESP)*
ISC 19 04:45:41.9±1.2**, 36°.53N**±0°.02×**4°.53W**±0°.02**, h83**^{km}±6^{km}**,**
n81, σ1^{s}72/156**, 20C, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
EMIJ	**Mijas**	**0.20**	**280**	P	**Pn**	**04 45 54.3**	**+0.1**
EMIJ				S	**Sn**	**04 46 01.2**	**-2.0**
EMIJ	**Mijas**	**0.20**	**280**	P	**Pn**	**04 45 54.2**	**+0.1**
EMIJ				P	**Pn**	**04 45 54.2**	**+0.1**
EMIJ				S	**Sn**	**04 46 01.2**	**-2.0**
EMIJ				S		04 46 01.5	
EMAL	**Malaga-Limoner**	**0.25**	**20**	P	**Pn**	**04 45 54.6**	**+0.2**
EMAL				S	**Sn**	**04 46 01.4**	**-2.0**
EGOR	**Sierra Gorda,**	**0.67**	**30**	P	**Pn**	**04 45 58.6**	**+0.8**
EGOR				S	**Sn**	**04 46 10.0**	**+0.4**
EGOR	**Sierra Gorda,**	**0.67**	**30**	P	**Pn**	**04 45 58.8**	**+1.1**
EGOR				S	**Sn**	**04 46 08.7**	**-0.8**
EXAGR	**Agron**	**0.75**	**48**	P	**Pn**	**04 45 59.5**	**+1.0**
EXAGR				S	**Sn**	**04 46 10.3**	**-0.5**
EJIF	**Jimena Fronter**	**0.76**	**264**	P	**Pn**	**04 46 00.0**	**+1.6**
EJIF				S	**Sn**	**04 46 11.3**	**+0.5**
ELGU	**Los Guajares,**	**0.80**	**65**	P	**Pn**	**04 45 59.3**	**+0.2**
ELGU				S	**Sn**	**04 46 10.6**	**-1.2**
ELGU	**Los Guajares,**	**0.80**	**65**	P	**Pn**	**04 45 59.3**	**+0.2**
ELGU				⇑IVmb_VC		04 46 03.9	
	662nm,SNR=5.0						
ELGU				S	**Sn**	**04 46 11.1**	**-0.7**
ECEU	**Ceuta**	**0.93**	**227**	P	**Pn**	**04 46 02.3**	**+2.0**
ECEU				S	**Sn**	**04 46 14.6**	**+0.5**
ECEU	**Ceuta**	**0.93**	**227**	P	**Pn**	**04 46 02.0**	**+1.7**
ECEU				S	**Sn**	**04 46 15.1**	**+1.0**
EXMOR	**Moron de la Fr**	**0.94**	**309**	S	**Sn**	**04 46 14.8**	**+0.4**
SMIR	**Smir Dam**	**1.09**	**219**	P	**Pn**	**04 46 01.9**	**-0.3**
SMIR				S	**Sn**	**04 46 12.8**	**-4.7**
EQTA	**Presa de Quent**	**1.11**	**52**	P	**Pn**	**04 46 04.9**	**+2.4**
EQTA				S	**Sn**	**04 46 19.3**	**+1.3**
EQUE	**Quentar**	**1.11**	**52**	P	**Pn**	**04 46 04.6**	**+2.1**
EQUE				S	**Sn**	**04 46 18.0**	**0.0**
ESPR	**Espera**	**1.11**	**288**	P	**Pn**	**04 46 04.6**	**+2.1**
ESPR				S	**Sn**	**04 46 19.2**	**+1.2**
ESPR	**Espera**	**1.11**	**288**	P	**Pn**	**04 46 04.2**	**+1.7**
ESPR				⇑IVmb_VC		04 46 05.1	
	203nm,SNR=1.6						
ESPR				S	**Sn**	**04 46 18.4**	**+0.4**
EBER	**Berja**	**1.37**	**74**	P	**Pn**	**04 46 05.9**	**0.0**
EBER				S	**Sn**	**04 46 25.2**	**+1.2**
EBER	**Berja**	**1.37**	**74**	P	**Pn**	**04 46 07.4**	**+1.5**
EBER				S	**Sn**	**04 46 23.4**	**-0.6**
PALE	**Palemas**	**1.40**	**160**	P	**Pn**	**04 46 07.6**	**+1.5**
PALE				S	**Sn**	**04 46 25.5**	**+1.2**
ECAB	**El Cabril**	**1.70**	**336**	P	**Pn**	**04 46 10.8**	**+0.8**
ECAB				⇑IVmb_VC		04 46 11.8	
	223nm,SNR=2.6						
ECAB				S	**Sn**	**04 46 29.6**	**-1.6**
EQES	**Quesada**	**1.73**	**42**	P	**Pn**	**04 46 11.8**	**+1.4**
EQES				⇑IVmb_VC		04 46 12.6	
	175nm,SNR=1.6						
EQES				S	**Sn**	**04 46 31.8**	**-0.3**
E0802	**Ubeda,Jaen**	**1.76**	**31**	P	**Pn**	**04 46 12.3**	**+1.5**
E0802				S	**Sn**	**04 46 31.6**	**-1.0**
RSA	**Sarsar**	**1.95**	**213**	P	**Pn**	**04 46 11.4**	**-1.9**
RSA				S	**Sn**	**04 46 32.3**	**-4.8**
AKLM	**AKL**	**2.09**	**165**	P	**Pn**	**04 46 16.6**	**+1.4**
AKLM				S	**Sn**	**04 46 39.3**	**-1.2**
EMIN	**Mina Concepcio**	**2.11**	**307**	P	**Pn**	**04 46 16.3**	**+1.0**
EMIN				⇑IVmb_VC		04 46 17.4	
	210nm,SNR=1.6						
EMIN				S	**Sn**	**04 46 39.4**	**-1.5**
EGRO	**El Granado**	**2.56**	**294**	P	**Pn**	**04 46 23.7**	**+2.3**
EGRO				S	**Sn**	**04 46 50.8**	**-1.0**
EGRO	**El Granado**	**2.56**	**294**	P	**Pn**	**04 46 23.5**	**+2.1**
EGRO				⇑IVmb_VC		04 46 26.4	
	194nm,SNR=1.3						
EGRO				S	**Sn**	**04 46 50.7**	**-1.0**
PBAR	**Barrancos**	**2.58**	**310**	P	**Pn**	**04 46 22.9**	**+1.3**
PBAR				S	**Sn**	**04 46 50.1**	**-2.1**
PBAR	**Barrancos**	**2.58**	**310**	*e*P	**Pn**	**04 46 23.0**	**+1.3**
PBAR				*e*S	**Sn**	**04 46 50.8**	**-1.4**
PBAR				*i* IAML		04 46 52.4	
PBAR				*i* IAML		04 46 52.9	
PBAR				*i* IAML		04 46 53.1	
PVAQ	**Vaqueiros**	**2.69**	**290**	*e*P	**Pn**	**04 46 24.6**	**+1.4**
PVAQ				*e*S	**Sn**	**04 46 53.6**	**-1.2**
PVAQ				*i* IAML		04 46 55.1	
PVAQ				*i* IAML		04 46 56.1	
PVAQ	**Vaqueiros**	**2.69**	**290**	P	**Pn**	**04 46 23.2**	**0.0**
PVAQ				S	**Sn**	**04 46 52.5**	**-2.4**
PBDV	**Barranco-do-Ve**	**2.81**	**286**	S	**Sn**	**04 46 58.1**	**+0.2**
PBDV	**Barranco-do-Ve**	**2.81**	**286**	*e*S	**Sn**	**04 46 58.0**	**+0.1**
PBDV				*i* IAML		04 47 00.8	
PBDV				*i* IAML		04 47 03.2	
EBAD	**Badajoz**	**2.97**	**319**	P	**Pn**	**04 46 28.2**	**+1.4**
EBAD				S	**Sn**	**04 46 59.7**	**-1.8**
EBAD	**Badajoz**	**2.97**	**319**	P	**Pn**	**04 46 28.3**	**+1.4**
EBAD				⇑IVmb_VC		04 46 28.8	
	380nm,SNR=2.7						
EBAD				S	**Sn**	**04 46 59.9**	**-1.6**
PCVE	**Castro Verde**	**3.01**	**292**	P	**Pn**	**04 46 29.2**	**+1.8**
PCVE				S	**Sn**	**04 47 02.1**	**-0.4**
PCVE	**Castro Verde**	**3.01**	**292**	*e*P	**Pn**	**04 46 29.1**	**+1.6**
PCVE				*e*S	**Sn**	**04 47 02.6**	**+0.1**
PAB	**San Pablo**	**3.02**	**3**	P	**Pn**	**04 46 28.7**	**+1.2**
PAB				⇑IVmb_VC		04 46 30.2	
	257nm,SNR=3.1						
PAB				S	**Sn**	**04 47 01.1**	**-1.7**
IFR	**Ifrane**	**3.04**	**189**	S	**Sn**	**04 47 03.8**	**+0.2**
PBEJ	**Beja**	**3.05**	**300**	*e*S	**Sn**	**04 47 02.4**	**-1.1**
ESDC	**Sonseca Array**	**3.17**	**8**	⇑IVmb_VC		04 46 32.0	
	96nm,SNR=1.5						
ESDC				S	**Sn**	**04 47 05.2**	**-1.3**
ESBB	**Sonseca Array**	**3.17**	**8**	P	**Pn**	**04 46 31.4**	**+1.7**
ESBB				⇑IVmb_VC		04 46 31.6	
	73nm,SNR=1.1						
ESBB				S	**Sn**	**04 47 05.8**	**-0.7**
ETOB	**Tobarra**	**3.17**	**47**	P	**Pn**	**04 46 30.9**	**+1.2**
ETOB				S	**Sn**	**04 47 04.3**	**-2.3**
ETOB	**Tobarra**	**3.17**	**47**	P	**Pn**	**04 46 30.9**	**+1.2**
ETOB				⇑IVmb_VC		04 46 31.1	
	114nm,SNR=1.1						
ETOB				S	**Sn**	**04 47 03.9**	**-2.7**
CIBOR	**Castaar de Ib**	**3.18**	**347**	P	**Pn**	**04 46 30.9**	**+1.1**
CIBOR				S	**Sn**	**04 47 04.4**	**-2.2**
MESJ	**Messejana**	**3.22**	**295**	*e*P	**Pn**	**04 46 32.5**	**+2.3**
MESJ				*e*S	**Sn**	**04 47 06.8**	**-0.8**
PESTR	**Estremoz**	**3.37**	**315**	P	**Pn**	**04 46 34.1**	**+1.9**
PESTR				S	**Sn**	**04 47 09.1**	**-2.0**
PESTR	**Estremoz**	**3.37**	**315**	*e*P	**Pn**	**04 46 34.6**	**+2.4**
PESTR				*e*S	**Sn**	**04 47 09.5**	**-1.6**
PESTR				*i* IAML		04 47 09.9	
PESTR				*i* IAML		04 47 10.0	
PESTR				*i* IAML		04 47 11.2	
MORF	**Marmelete**	**3.39**	**284**	*e*P	**Pn**	**04 46 34.5**	**+1.9**
MORF				*e*S	**Sn**	**04 47 10.3**	**-1.5**
MORF				IAML		04 47 13.9	
	comp=N,5.3nm,0.2s						
MORF	**Marmelete**	**3.39**	**284**	*e*P	**Pn**	**04 46 34.7**	**+2.1**
MORF				*e*S	**Sn**	**04 47 11.8**	**0.0**
MORF				*i* IAML		04 47 14.9	
MORF				*i* IAML		04 47 15.0	
MORF				*i* IAML		04 47 15.6	
EVO	**Evora**	**3.41**	**307**	P	**Pn**	**04 46 34.8**	**+1.9**
EVO				S	**Sn**	**04 47 10.7**	**-1.5**
EVO	**Evora**	**3.41**	**307**	*e*P	**Pn**	**04 46 35.0**	**+2.1**
EVO				*e*S	**Sn**	**04 47 10.8**	**-1.5**
EVO				*i* IAML		04 47 11.8	
EVO				*i* IAML		04 47 12.7	
EVO				*i* IAML		04 47 13.0	
PLOUS	**Minas do Lousa**	**3.44**	**297**	*e*P	**Pn**	**04 46 35.4**	**+2.1**
PLOUS				*e*S	**Sn**	**04 47 11.9**	**-1.1**
PLOUS				*i* IAML		04 47 14.7	
PFVI	**Vila Bisbo**	**3.50**	**281**	P	**Pn**	**04 46 35.5**	**+1.5**
PFVI				S	**Sn**	**04 47 13.0**	**-1.3**
PFVI	**Vila Bisbo**	**3.50**	**281**	*e*P	**Pn**	**04 46 36.2**	**+2.2**
PFVI				*e*S	**Sn**	**04 47 12.7**	**-1.6**
PFVI				*i* IAML		04 47 16.6	
PFVI	**Vila Bisbo**	**3.50**	**281**	P	**Pn**	**04 46 32.7**	**-1.3**
PFVI				S	**Sn**	**04 47 11.2**	**-3.1**
PTEO	**Sao Teotonio**	**3.50**	**288**	*e*P	**Pn**	**04 46 37.5**	**+3.4**
PTEO				*e*S	**Sn**	**04 47 16.1**	**+1.7**
ZHG	**ZHG**	**3.53**	**210**	P	**Pn**	**04 46 35.4**	**+0.9**
ZHG				S	**Sn**	**04 47 14.5**	**-0.8**
PARRA	**Arraiolos**	**3.60**	**310**	*e*P	**Pn**	**04 46 37.1**	**+1.7**
PARRA				*e*S	**Sn**	**04 47 14.7**	**-2.1**
PARRA				*i* IAML		04 47 17.3	
MOE	**Montemor**	**3.63**	**304**	*e*P	**Pn**	**04 46 38.2**	**+2.4**
MOE				*e*S	**Sn**	**04 47 16.1**	**-1.4**
MD31	**MD31**	**3.66**	**183**	P	**Pn**	**04 46 37.1**	**+0.7**
MD31				S	**Sn**	**04 47 17.7**	**-0.7**
PMRV	**Marv??o**	**3.67**	**323**	*e*P	**Pn**	**04 46 38.1**	**+1.7**
PMRV				*e*S	**Sn**	**04 47 16.1**	**-2.4**
MDT	**Midelt**	**3.71**	**181**	P	**Pn**	**04 46 38.2**	**+1.2**
MDT				S	**Sn**	**04 47 19.3**	**-0.3**
AFON	**Font Roja**	**3.82**	**55**	P	**Pn**	**04 46 39.5**	**+1.0**
AFON				⇑IVmb_VC		04 46 40.1	
	comp=N,102nm,SNR=0.8						
AFON				S	**Sn**	**04 47 21.7**	**-0.7**
EVIV	**Cofrentes, Val**	**3.84**	**44**	P	**Pn**	**04 46 39.9**	**+1.1**
EVIV				⇑IVmb_VC		04 46 43.8	
	comp=N,151nm,SNR=1.3						
EVIV				S	**Sn**	**04 47 20.1**	**-2.7**
PMTG	**Montargil**	**3.87**	**312**	*e*P	**Pn**	**04 46 40.9**	**+1.8**
PMTG				*e*S	**Sn**	**04 47 20.9**	**-2.4**
PMTG				*i* IAML		04 47 23.5	
PMTG				*i* IAML		04 47 24.1	
UCM	**Universidad Co**	**3.91**	**15**	P	**Pn**	**04 46 41.2**	**+1.6**
UCM				S	**Sn**	**04 47 23.2**	**-1.1**
AVE	**Averroes**	**4.00**	**217**	S	**Sn**	**04 47 26.1**	**-0.5**
PCBR	**Castelo Branco**	**4.04**	**326**	*e*P	**Pn**	**04 46 43.1**	**+1.8**
PCBR				*e*S	**Sn**	**04 47 25.1**	**-2.3**
EBEN2	**Beniarda presa**	**4.06**	**57**	⇑IVmb_VC		04 46 43.1	
	comp=N,143nm,SNR=0.6						
EBEN2				P	**Pn**	**04 46 43.3**	**+1.6**
EBEN2				S	**Sn**	**04 47 27.7**	**-0.3**
GUD	**Guadarrama**	**4.12**	**4**	P	**Pn**	**04 46 43.8**	**+1.2**
GUD				⇑IVmb_VC		04 46 46.0	
	comp=N,120nm,SNR=2.1						
GUD				S	**Sn**	**04 47 28.2**	**-1.4**
PSARD	**Sardoal**	**4.20**	**318**	*e*P	**Pn**	**04 46 45.5**	**+2.0**
PSARD				*e*S	**Sn**	**04 47 29.0**	**-2.3**
PSARD				*i* IAML		04 47 31.2	
PSARD				*i* IAML		04 47 31.4	
PSARD				*i* IAML		04 47 32.3	
PMAFR	**Mafra**	**4.47**	**304**	P	**Pn**	**04 46 48.3**	**+1.0**
PMAFR				S	**Sn**	**04 47 37.1**	**-1.1**
ETOR	**Torete**	**4.70**	**24**	P	**Pn**	**04 46 51.9**	**+1.4**
ETOR				⇑IVmb_VC		04 46 52.0	
	comp=N,148nm,SNR=1.8						
ETOR				S	**Sn**	**04 47 40.8**	**-2.9**
EMOS	**Mosqueruela**	**4.98**	**39**	⇑IVmb_VC		04 46 56.0	
	comp=N,150nm,SNR=1.4						
EMOS				P	**Pn**	**04 46 56.3**	**+2.0**
EMOS				S	**Sn**	**04 47 46.9**	**-3.8**
ECAL	**Calabor**	**5.67**	**343**	P	**Pn**	**04 47 05.8**	**+2.1**
ECAL				S	**Sn**	**04 48 04.4**	**-2.9**
ECAL	**Calabor**	**5.67**	**343**	P	**Pn**	**04 47 05.9**	**+2.2**
ECAL				⇑IVmb_VC		04 47 06.4	
	comp=N,190nm,SNR=0.9						
ECAL				S	**Sn**	**04 48 05.7**	**-1.6**
OUZM	**OUZ**	**5.90**	**199**	P	**Pn**	**04 47 08.8**	**+1.9**
OUZM				S	**Sn**	**04 48 13.5**	**+0.2**
ELOB	**Lobios**	**5.99**	**334**	P	**Pn**	**04 47 10.1**	**+2.0**
ELOB				⇑IVmb_VC		04 47 10.1	
	comp=N,171nm,SNR=0.9						
ELOB				S	**Sn**	**04 48 12.6**	**-2.7**
EARI	**Arriondas**	**6.78**	**356**	P	**Pn**	**04 47 21.2**	**+2.4**
EARI				⇑IVmb_VC		04 47 21.6	
	comp=N,159nm,SNR=1.1						
EARI				S	**Sn**	**04 48 30.7**	**-3.8**

IDC ***19*** *04:50:19.6±0.6, 4°.94N×96°.45E, h0^{km}, mb4.1/12, mbtmp4.1/13, MS3.4/5, Error ellipse: s-maj=27.7km s-min=15.0km az=64.0*
NEIC ***19*** *04:50:22.4±2.5, 4°.98N±0°.09×96°.41E±0°.06, h10^{km}±1^{km}, mb4.5/10, Error ellipse: s-maj=16.7km s-min=7.6km az=337.0*
DJA ***19*** *04:50:22.9±0.2, 5°N±2°×9°6E±°, h10^{km}, M4.3/24, mB5.5/2, mb4.3/3, MLv4.4/24, Mw(mB)5.0/2*
ISC 19 04:50:22.3±0.5**, 5°.02N**±0°.04×**96°.49E**±0°.05**, h10**^{km}**, n52,**
σ1^{s}67/53**, mb4.3**/18**, MS3.9**/3**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
LHMI	**Lhok Sumawe**	**0.51**	**65**		**Pb**	**04 50 34.5**	**+1.3**
LHMI	**Lhok Sumawe**	**0.51**	**65**	P	**Pb**	**04 50 34.4**	**+1.2**
LHMI				AML	AML		
MLSI	**Meulaboh, Aceh**	**0.75**	**186**	P	**Pg**	**04 50 37.0**	**+0.2**
MLSI				S	**Sg**	**04 50 48.5**	**+1.9**
MLSI				AML	AML		
BSI	**Banda Aceh**	**1.28**	**292**	P	**Pn**	**04 50 45.7**	**-0.5**
BSI				S	**Sn**	**04 51 03.3**	**-0.1**
TPTI		**1.88**	**158**	P	**Pn**	**04 50 56.4**	**+1.9**
TPTI				AML	AML		
KCSI	**Kotacane, Aceh**	**1.96**	**139**	P	**Pn**	**04 50 57.5**	**+1.9**
KCSI				AML	AML		
TSI	**Tuntungan**	**2.56**	**126**	P	**Pb**	**04 51 08.2**	**-0.2**
SNSI	**Sinabang, Aceh**	**2.60**	**184**	P	**Pn**	**04 51 05.1**	**+0.8**
SNSI				AML	AML		
PSI	**Prapat**	**3.28**	**132**	P	**Pn**	**04 51 16.0**	**+2.1**
PSI				AML	AML		
RPSI	**Rantau Prapat**	**3.35**	**133**		**Pn**	**04 51 15.9**	**+1.1**
GSI	**Gunungsitoli**	**3.85**	**164**		**Pn**	**04 51 23.2**	**+1.6**
GSI	**Gunungsitoli**	**3.85**	**164**	P	**Pn**	**04 51 24.4**	**+2.8**
GSI				AML	AML		
IPM	**Ipoh**	**4.56**	**97**		**Pn**	**04 51 30.7**	**-0.6**
IPM	**Ipoh**	**4.56**	**97**	P	**Pn**	**04 51 30.9**	**-0.4**
IPM				AML	AML		
MYKOM	**Kota Tinggi**	**8.02**	**113**	Pn	**Pn**	**04 52 17.2**	**-1.7**
CMAR	**Chiang Mai Arr**	**13.57**	**10**	Pn	**Pn**	**04 53 37.9**	**+2.9**
	0.7nm,0.3s,baz=201,slow=15,SNR=1.3						
CMAR				LR	LR	04 59 11.6	
	comp=Z,26nm,18.6s,baz=200,slow=39						
PALK	**Pallekele**	**15.85**	**279**	LR	LR	05 00 08.7	
	comp=Z,29nm,19.2s,baz=212,slow=37						
HYB	**Hyderabad**	**21.45**	**306**	*e*P	**P**	**04 55 10.3**	**-0.7**
HYB				*e*S	**S**	**04 59 08.8**	**-0.3**
LZDM	**Lanzhou Array**	**31.50**	**11**	P	**P**	**04 56 45.4**	**+0.6**
	1.3nm,0.3s,baz=190,slow=7.3,SNR=1.7						
	1.3nm,0.3s						
GTA2	**Gaotai**	**34.44**	**4**	*e*P	**P**	**04 57 14.4**	**+4.1**
GTA2				pmax	pmax		
	comp=Z,7.0nm,0.9s						
FITZ	**Fitzroy Crossi**	**36.81**	**129**	P	**P**	**04 57 28.8**	**-1.9**
MKAR	**Makanchi Array**	**43.39**	**346**	P	**P**	**04 58 23.1**	**-1.9**
	comp=Z,0.5nm,0.5s,baz=168,slow=8.5,SNR=7.9						
	comp=Z,0.5nm,0.5s						
MKAR	**Makanchi Array**	**43.39**	**346**	P	**P**	**04 58 23.3**	**-1.7**
SONM	**Songino Array**	**43.50**	**10**	P	**P**	**04 58 29.7**	**+3.7**
	comp=Z,1.6nm,0.6s,baz=187,slow=8.7,SNR=7.1						
WRA	**Warramunga Arr**	**44.72**	**125**	P	**P**	**04 58 34.5**	**-1.6**
	comp=Z,1.0nm,0.6s,baz=302,slow=9.2,SNR=10						
WRA				PcP	**PcP**	**05 00 16.8**	**-1.7**
	comp=Z,0.4nm,0.6s,baz=308,slow=3.3,SNR=5.3						
	comp=Z,1.0nm,0.6s						
WRA	**Warramunga Arr**	**44.72**	**125**	P	**P**	**04 58 34.3**	**-1.8**
WR8	**Warramunga Arr**	**44.86**	**125**	P	**P**	**04 58 35.9**	**-1.2**
WR8				IAmb	IAmb	04 59 03.7	
	comp=Z,5.3nm,1.1s						
ASAR	**Alice Springs**	**46.31**	**130**	P	**P**	**04 58 47.4**	**-1.2**
	comp=Z,2.0nm,0.7s,baz=305,slow=7.5,SNR=22						
ASAR				PcP	**PcP**	**05 00 22.7**	**-1.3**
	comp=Z,0.5nm,0.8s,baz=315,slow=3.2,SNR=2.9						
	comp=Z,2.0nm,0.7s						
KURBB	**Kurchatov Arra**	**47.88**	**345**	P	**P**	**04 58 59.0**	**-1.5**
	comp=Z,0.8nm,0.5s,baz=158,slow=7.2,SNR=4.4						
	comp=Z,0.8nm,0.5s						
ZALV	**Zalesovo Beam**	**49.70**	**351**	P	**P**	**04 59 12.5**	**-1.8**
	comp=Z,0.9nm,0.4s,baz=165,slow=6.2,SNR=5.3						
	comp=Z,0.9nm,0.4s						
ZALV	**Zalesovo Beam**	**49.70**	**351**	P	**P**	**04 59 12.7**	**-1.7**
BBOO	**Buckleboo**	**53.14**	**138**	P	**P**	**04 59 38.9**	**-1.6**
INKA	**Innaminka**	**53.69**	**130**	P	**P**	**04 59 44.2**	**-0.4**
INKA				IAmb	IAmb	04 59 44.9	
	comp=Z,2.9nm,0.8s						
AB31	**Akbulak array**	**53.84**	**331**	P	**P**	**04 59 42.8**	**-2.6**
AB31				IAmb	IAmb	04 59 46.9	
	comp=Z,1.2nm,0.9s						
ABKAR	**Akbulak array**	**53.84**	**331**	P	**P**	**04 59 42.4**	**-3.0**
STKA	**Stephens Creek**	**56.46**	**134**	P	**P**	**05 00 03.2**	**-1.4**
	comp=Z,2.5nm,0.6s,baz=311,slow=7.0,SNR=7.4						
	comp=Z,2.5nm,0.6s						
NRIK	**Noril'sk**	**64.50**	**356**	LR	LR	05 33 19.7	
	comp=Z,47nm,19.0s,baz=299,slow=40						
BRTR	**Keskin Array B**	**66.05**	**311**	P	**P**	**05 01 08.6**	**-1.1**
	comp=Z,0.9nm,0.9s,baz=85,slow=4.8,SNR=2.8						
	comp=Z,0.9nm,0.9s						
BRTR	**Keskin Array B**	**66.05**	**311**	P	**P**	**05 01 09.1**	**-0.6**
LBTB	**Lobatse**	**74.97**	**243**	P	**P**	**05 02 04.8**	**+0.4**
LBTB				IAmb	IAmb	05 02 16.8	
	comp=Z,7.9nm,1.2s						
KDWAN	**Kaudwane**	**75.45**	**244**	P	**P**	**05 02 06.7**	**-0.6**
BOSA	**Boshof**	**76.09**	**239**	P	**P**	**05 02 10.5**	**-0.3**
	comp=Z,1.1nm,0.4s,baz=56,slow=2.8,SNR=5.1						
	comp=Z,1.1nm,0.4s						
BOSA	**Boshof**	**76.09**	**239**	P	**P**	**05 02 10.8**	**0.0**
BOSA				IAmb	IAmb	05 02 21.0	
	comp=Z,11nm,1.4s						
FINES	**FINESS Array B**	**76.31**	**332**	P	**P**	**05 02 10.8**	**-0.4**
	comp=Z,3.9nm,1.1s,baz=118,slow=16,SNR=1.5						
	comp=Z,3.9nm,1.1s						
ARCES	**ARCESS Array B**	**78.72**	**340**	P	**P**	**05 02 25.3**	**+0.6**
	comp=Z,3.9nm,0.9s,baz=90,slow=6.1,SNR=8.0						
	comp=Z,3.9nm,0.9s						
KOOLE	**Kule**	**79.41**	**246**	P	**P**	**05 02 30.0**	**+0.6**
KOOLE				IAmb	IAmb	05 02 30.4	
	comp=Z,5.0nm,0.6s						
DAVOX	**Davos/Dischmat**	**84.05**	**316**	LR	LR	05 47 15.7	
	comp=Z,79nm,18.2s,baz=264,slow=41						
TORD	**Torodi Ar. Bea**	**93.52**	**283**	P	**P**	**05 03 37.7**	**-1.5**
	comp=Z,0.5nm,0.6s,baz=90,slow=5.8,SNR=3.3						
	comp=Z,0.5nm,0.6s						
BORG	**Borgarnes**	**96.94**	**338**	LR	LR	05 50 57.8	
	comp=Z,39nm,18.8s,baz=138,slow=38						
NVAR	**Mina Array Bea**	**126.07**	**34**	PKP	**PKPdf**	**05 09 25.2**	**-0.5**
	comp=Z,0.2nm,0.3s,baz=297,slow=7.1,SNR=2.7						
CPUP	**Villa Florida**	**147.21**	**227**	PKPbc	**PKPdf**	**05 10 04.4**	**0.0**
	comp=Z,1.1nm,0.9s,baz=170,slow=6.1,SNR=3.0						
CFA	**Coronel Fontan**	**149.92**	**207**	PKPbc	**PKPdf**	**05 10 11.7**	**+2.9**
	comp=Z,0.6nm,0.6s,baz=231,slow=1.4,SNR=4.9						

IDC 19 04:58:08.4±4.2**, 19°.33S**×**174°.02W, h0**^{km}**, mb4.0**/4**,**
mbtmp4.0/4**, Error ellipse: s-maj=262.6km**
s-min=31.9km az=154.0, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
CTA	**Charters Tower**	**37.34**	**262**	P	P	05 05 24.1	+1.2
	3.0nm,0.3s,baz=99,slow=10,SNR=11						
	3.0nm,0.3s						
ASAR	**Alice Springs**	**48.43**	**255**	P	P	05 06 51.6	-1.3
	0.5nm,0.3s,baz=92,slow=7.0,SNR=8.9						
	0.5nm,0.3s						
WRA	**Warramunga Arr**	**48.48**	**260**	P	P	05 06 53.0	-0.3
	0.6nm,0.2s,baz=96,slow=8.0,SNR=36						
	0.6nm,0.2s						
NVAR	**Mina Array Bea**	**77.64**	**42**	P	P	05 10 07.1	+0.1
	0.3nm,0.5s,baz=247,slow=5.1,SNR=1.7						
	0.3nm,0.5s						

TAP ***19*** *05:01:55.3, 22°.93N×120°.88E, h6^{km}, ML4.2, C*
NIED ***19*** *05:01:56.2, 22°.88N×121°.27E, h0^{km}, MW4.0, Moment Tensor Solution. s2 Moment tensor: Scale 10^{14}Nm; M$_{rr}$-9.77; M$_{\theta\theta}$5.19; M$_{\phi\phi}$4.58; M$_{r\theta}$3.96; M$_{\theta\phi}$-2.08; M$_{\phi r}$-2.38; Fault plane solution: M$_0$9.56000×10^{14} NP1: φ$_s$132.00000°, δ31.00000°, λ-85.00000°. NP2: φ$_s$306.00000°, δ59.00000°, λ-93.00000°.*
JMA ***19*** *05:01:56.2±0.1, 22°.9N±0°.4×121°.3E±0°.6, h0^{km}, MV3.7/13, TAIWAN REGION*
IDC ***19*** *05:02:06.1±5.5, 22°.73N×120°.86E, h94^{km}±53^{km}, mb3.4/11, mbtmp3.7/12, Error ellipse: s-maj=26.0km s-min=16.4km az=67.0*
ISC 19 05:01:56.2±0.9**, 22°.90N**±0°.01×**120°.89E**±0°.01**, h7**^{km}±6^{km}**,**
n169, σ1^{s}05/273**, mb3.7**/9**, 22C, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
TWG	**Pinlang**	**0.19**	**116**	⇑*i*P	**Pg**	**05 02 00.4**	**+0.5**
TWG				S	**Sg**	**05 02 03.7**	**+1.2**
TWGBT	**Beinan**	**0.19**	**116**	P	**Pg**	**05 02 00.8**	**+0.7**
TWGBT	**Beinan**	**0.19**	**116**	S	**Sg**	**05 02 03.6**	**+0.8**
TWGBT	**Beinan**	**0.19**	**116**	⇑*i*P	**Pg**	**05 02 00.3**	**+0.3**
TWGBT				*i* S	**Sg**	**05 02 03.5**	**+0.8**
LONT	**Longtian**	**0.22**	**89**	⇑*i*P	**Pg**	**05 02 00.7**	**+0.1**
LONT				*i* S	**Sg**	**05 02 04.0**	**+0.5**
SLGT	**Liugui**	**0.24**	**292**	⇑P	**Pg**	**05 02 00.2**	**-0.8**
SLGT				*i* S	**Sg**	**05 02 03.2**	**-1.0**
SSD	**Sandimen**	**0.29**	**237**	⇑*i*P	**Pg**	**05 02 01.2**	**-0.6**
SSD				S	**Sg**	**05 02 04.6**	**-1.0**
STYH	**Taoyuan**	**0.29**	**338**	⇑*i*P	**Pg**	**05 02 01.2**	**-0.6**
STYH				*i* S	**Sg**	**05 02 04.9**	**-0.7**
TSMG	**Majia**	**0.30**	**229**	⇑P	**Pg**	**05 02 01.6**	**-0.5**
TSMG				S	**Sg**	**05 02 05.3**	**-0.8**
ELDTW	**Lidau**	**0.31**	**22**	⇑*i*P	**Pg**	**05 02 01.3**	**-1.0**
ELDTW				*i* S	**Sg**	**05 02 05.4**	**-1.0**
ECL	**Taimali**	**0.31**	**169**	⇑*i*P	**Pg**	**05 02 02.5**	**+0.2**
ECL				S	**Sg**	**05 02 06.8**	**+0.4**
SGST	**Jiashian**	**0.34**	**302**	*e*P	**Pg**	**05 02 01.6**	**-1.2**
SGST				*e*S	**Sg**	**05 02 06.2**	**-1.0**
ECS	**Chishang**	**0.36**	**58**	⇑P	**Pg**	**05 02 03.1**	**-0.1**
ECS				*e*S	**Sg**	**05 02 08.0**	**0.0**
MASBT	**Mashibuluo**	**0.38**	**219**	⇑*i*P	**Pg**	**05 02 03.0**	**-0.5**
MASBT				*e*S	**Sg**	**05 02 07.6**	**-0.9**
EHD	**Haiduan**	**0.38**	**50**	⇑*i*P	**Pg**	**05 02 02.9**	**-0.7**
EHD				*e*S	**Sg**	**05 02 07.6**	**-1.0**
SGLT	**Jiouru**	**0.41**	**244**	*i* P	**Pb**	**05 02 04.8**	**-1.0**
SGLT				*e*S	**Sb**	**05 02 12.7**	**+0.5**
WTP	**Ta-pu**	**0.43**	**323**	*i* P	**Pg**	**05 02 04.2**	**-0.2**
WTP				*i* S	**Sg**	**05 02 10.2**	**+0.1**
TWM1	**Shoushan**	**0.44**	**260**	⇑*i*P	**Pb**	**05 02 05.6**	**-0.7**
TPUB	**Ta-pu**	**0.46**	**329**	P	**Pg**	**05 02 05.6**	**+0.4**
TPUB	**Ta-pu**	**0.46**	**329**	S	**Sg**	**05 02 11.8**	**+0.6**
TPUB	**Ta-pu**	**0.46**	**329**	⇑P	**Pg**	**05 02 05.1**	**-0.1**
TPUB				*i* S	**Sg**	**05 02 11.8**	**+0.6**
FULB	**Fuli**	**0.47**	**52**	⇑*i*P	**Pg**	**05 02 05.4**	**0.0**
FULB				S	**Sg**	**05 02 12.3**	**+0.7**
CHKT	**Chengkung**	**0.48**	**66**	⇑*i*P	**Pg**	**05 02 06.1**	**+0.6**
CHKT				S	**Sb**	**05 02 13.8**	**-0.4**
SSPT	**Xinbi**	**0.51**	**216**	⇑*i*P	**Pg**	**05 02 06.4**	**+0.3**
CHN3	**Shinhua**	**0.51**	**290**	*e*P	**Pb**	**05 02 08.3**	**+0.8**
CHN3				*e*S	**Sn**	**05 02 18.4**	**-0.7**
TWK	**Hsinying**	**0.52**	**314**	*e*P	**Pg**	**05 02 06.8**	**+0.6**

EAST	**Anshuo**	**0.52**	**184**	⇑*i*P	**Pg**	**05 02 06.5**	**+0.2**
EAST				S	**Sg**	**05 02 13.4**	**+0.4**
SNJT	**Kaohsiung City**	**0.53**	**254**	*e*P	**Pb**	**05 02 08.7**	**+0.8**
TAW	**Tawu**	**0.54**	**180**	*i* P	**Pg**	**05 02 07.0**	**+0.3**
TAW				S	**Sg**	**05 02 14.2**	**+0.5**
CHKH	**Chenggong**	**0.55**	**58**	P	**Pg**	**05 02 06.7**	**0.0**
CHKH				S	**Sb**	**05 02 15.8**	**-0.4**
TWF1	**Yuli**	**0.58**	**40**	⇑*i*P	**Pg**	**05 02 06.5**	**-0.9**
TWF1				*i* S	**Sg**	**05 02 13.5**	**-1.5**
SCZT	**Fangliau**	**0.58**	**205**	⇑*i*P	**Pg**	**05 02 07.2**	**-0.2**
SCZT				*e*S	**Sb**	**05 02 15.8**	**-1.5**
YUS	**Yu-Shan**	**0.59**	**5**	P	**Pg**	**05 02 06.5**	**-1.1**
YUS				S	**Sg**	**05 02 14.1**	**-1.3**
WCKO	**Fanlu**	**0.59**	**334**	*i* P	**Pg**	**05 02 08.2**	**+0.6**
WCKO				S	**Sb**	**05 02 17.2**	**-0.4**
SSHA	**Shanhua**	**0.60**	**293**	*e*P	**Pb**	**05 02 10.2**	**+1.1**
SSHA				*e*S	**Sn**	**05 02 21.5**	**+0.3**
ALS	**Alishan**	**0.61**	**353**	⇑*i*P	**Pg**	**05 02 07.3**	**-0.7**
ALS				S	**Sg**	**05 02 17.0**	**+0.9**
YULB	**Yu-li**	**0.61**	**37**	P	**Pg**	**05 02 07.0**	**-1.0**
YULB	**Yu-li**	**0.61**	**37**	S	**Sg**	**05 02 13.9**	**-2.2**
YULB	**Yu-li**	**0.61**	**37**	⇑*i*P	**Pg**	**05 02 06.9**	**-1.2**
YULB				S	**Sg**	**05 02 14.2**	**-1.8**
TAI1	**Yung-k'ang**	**0.63**	**283**	*e*P	**Pb**	**05 02 09.8**	**+0.4**
TAI1				S	**Sn**	**05 02 22.1**	**+0.4**
WSSB	**Gushan**	**0.64**	**246**	P	**Pn**	**05 02 11.0**	**-0.7**
WSSB				*e*S	**Sn**	**05 02 25.5**	**+3.4**
ECBN	**Changbin**	**0.66**	**51**	*e*P	**Pg**	**05 02 09.1**	**+0.2**
ECBN				*e*S	**Sb**	**05 02 20.0**	**+0.6**
EHY	**Hungye**	**0.72**	**33**	*e*P	**Pg**	**05 02 08.8**	**-1.3**
EHY				S	**Sg**	**05 02 18.1**	**-1.3**
EHYH	**Wanrong**	**0.72**	**35**	P	**Pg**	**05 02 09.0**	**-1.0**
EHYH				*e*S	**Sg**	**05 02 19.1**	**-0.4**
WLCH	**Liuqiu**	**0.73**	**221**	P	**Pn**	**05 02 13.4**	**+0.5**
CHY	**Chiayi**	**0.73**	**324**	P	**Pg**	**05 02 10.9**	**+0.6**
CHY				S	**Sb**	**05 02 22.0**	**+0.5**
TWP	**Hsiaoliuchiu**	**0.74**	**221**	*e*P	**Pn**	**05 02 13.5**	**+0.4**
HGSD	**Ruisui**	**0.76**	**40**	*i* P	**Pg**	**05 02 10.6**	**-0.3**
HGSD				S	**Sg**	**05 02 22.1**	**+1.3**
CHN8	**Yiju**	**0.77**	**305**	*e*P	**Pg**	**05 02 10.2**	**-0.7**
CHN8				S	**Sn**	**05 02 24.4**	**-0.9**
TSCK	**Chigu Township**	**0.78**	**288**	P	**Pb**	**05 02 12.3**	**+0.2**
TSCK				*e*S	**Sn**	**05 02 26.3**	**+0.6**
WHYT	**Xinyi Township**	**0.79**	**357**	*e*P	**Pg**	**05 02 11.1**	**-0.3**
WHYT				*e*S	**Sg**	**05 02 20.0**	**-1.7**
WDLH	**Douliu**	**0.85**	**338**	*i* P	**Pb**	**05 02 13.5**	**+0.2**
WDLH				*e*S	**Sb**	**05 02 25.9**	**+1.1**
WSL	**Shuilin Townsh**	**0.87**	**315**	*e*P	**Pb**	**05 02 13.7**	**0.0**
WSL				S	**Sb**	**05 02 26.9**	**+1.5**
WDL	**Douliou City**	**0.87**	**338**	*e*P	**Pb**	**05 02 13.9**	**+0.2**
WDL				*e*S	**Sn**	**05 02 27.8**	**-0.1**
VWDT	**VWDT**	**0.88**	**15**	*i* P	**Pg**	**05 02 11.3**	**-1.7**
VWDT				*e*S	**Sg**	**05 02 25.1**	**+0.6**
SMST	**Manzhou Townsh**	**0.88**	**183**	*e*P	**Pb**	**05 02 13.5**	**-0.4**
SSLB	**Suanglung**	**0.88**	**4**	P	**Pg**	**05 02 11.9**	**-1.3**
SSLB	**Suanglung**	**0.88**	**4**	S	**Sg**	**05 02 23.6**	**-1.0**
SSLB	**Suanglung**	**0.88**	**4**	P	**Pg**	**05 02 11.3**	**-1.8**
HEN	**Hengchun**	**0.91**	**189**	*e*P	**Pn**	**05 02 14.9**	**-0.4**
WJS	**Zhushan**	**0.93**	**351**	P	**Pg**	**05 02 13.9**	**-0.1**
WJS				*e*S	**Sn**	**05 02 29.8**	**+0.5**
WARBT	**Fenglin Townsh**	**0.93**	**29**	P	**Pg**	**05 02 12.3**	**-1.8**
WARBT				S	**Sg**	**05 02 24.8**	**-1.4**
WSF	**Szhu**	**0.95**	**320**	P	**Pg**	**05 02 14.9**	**+0.3**
WSF				S	**Sb**	**05 02 29.0**	**+1.0**
TWK1	**Hengchun**	**0.96**	**185**	P	**Pb**	**05 02 15.2**	**0.0**
TWKBT	**Hengchun**	**0.96**	**184**	P	**Pb**	**05 02 15.0**	**-0.2**
SMLT	**Sun Moon Lake**	**0.97**	**0**	P	**Pg**	**05 02 14.1**	**-0.9**
SMLT				S	**Sb**	**05 02 29.6**	**+0.9**
WNT	**Mingjian**	**0.99**	**349**	P	**Pg**	**05 02 15.7**	**+0.5**
WNT				S	**Sb**	**05 02 30.5**	**+1.6**
TYC	**Yuchr**	**1.00**	**358**	P	**Pg**	**05 02 14.8**	**-0.6**
TYC				S	**Sb**	**05 02 30.7**	**+1.5**
TEGC	**Jichi Village**	**1.00**	**37**	*e*P	**Pg**	**05 02 15.1**	**-0.3**
TEGC				S	**Sb**	**05 02 30.8**	**+1.6**
TSEB	**Hengchuen, Pin**	**1.00**	**180**	P	**Pn**	**05 02 16.1**	**-0.5**
ESL	**Shilin**	**1.03**	**29**	*e*P	**Pg**	**05 02 14.4**	**-1.6**
ESL				*e*S	**Sg**	**05 02 28.1**	**-1.4**
LAY	**Lan-yu**	**1.05**	**145**	*e*P	**Pg**	**05 02 15.2**	**-1.2**
SHUL	**Shoufeng**	**1.07**	**35**	*e*P	**Pg**	**05 02 16.2**	**-0.7**
SHUL				*e*S	**Sb**	**05 02 32.4**	**+1.0**
OWD	**Renai**	**1.08**	**14**	*e*P	**Pg**	**05 02 14.6**	**-2.3**
OWD				S	**Sg**	**05 02 31.1**	**+0.1**
RLNB	**Erlin**	**1.10**	**334**	*e*P	**Pg**	**05 02 16.0**	**-1.3**
RLNB				S	**Sb**	**05 02 33.1**	**+1.1**
WRL	**Guolierlin Hig**	**1.10**	**335**	P	**Pg**	**05 02 16.9**	**-0.4**
WRL				*e*S	**Sb**	**05 02 32.7**	**+0.5**
WUSB	**Renai**	**1.10**	**11**	*e*P	**Pg**	**05 02 15.3**	**-2.1**
WUSB				*e*S	**Sb**	**05 02 33.9**	**+1.5**
WCS	**Beigang Elemen**	**1.15**	**1**	P	**Pg**	**05 02 17.9**	**-0.3**
WCS				*e*S	**Sb**	**05 02 34.4**	**+0.8**
TEYL	**Yanliau Villag**	**1.16**	**34**	P	**Pg**	**05 02 18.8**	**+0.4**
TEYL				*e*S	**Sn**	**05 02 36.9**	**+1.9**
WDGT	**Dungji**	**1.19**	**288**	P	**Pg**	**05 02 18.3**	**-0.7**
WDGT				*e*S	**Sg**	**05 02 34.5**	**+0.1**
ETM	**Tongmen**	**1.19**	**27**	*e*P	**Pg**	**05 02 18.1**	**-1.1**
ETM				*e*S	**Sg**	**05 02 33.1**	**-1.5**
WCH1	**Changhua City**	**1.21**	**345**	*e*S	**Sn**	**05 02 36.9**	**+0.7**
WCHH	**Zhanghua**	**1.21**	**345**	P	**Pg**	**05 02 19.1**	**-0.3**
WCHH				*e*S	**Sg**	**05 02 35.8**	**+0.7**
LXIB	**Xiulin Townshi**	**1.21**	**23**	*e*P	**Pg**	**05 02 17.4**	**-2.0**
LXIB				*e*S	**Sg**	**05 02 35.8**	**+0.5**
HWA	**Hwalien**	**1.25**	**31**	*e*P	**Pn**	**05 02 19.5**	**-0.7**
HWA				*e*S	**Sn**	**05 02 39.4**	**+2.0**
TCU	**Taichung**	**1.25**	**351**	P	**Pb**	**05 02 20.7**	**+0.5**
TCU				S	**Sn**	**05 02 38.4**	**+1.1**
WHF	**Hehuan Shan**	**1.28**	**15**	*e*P	**Pg**	**05 02 19.1**	**-1.8**
WHF				*e*S	**Sg**	**05 02 37.8**	**+0.2**
TWD	**Chiawan**	**1.34**	**29**	*e*P	**Pn**	**05 02 20.4**	**-1.0**
TWD				S	**Sb**	**05 02 39.2**	**+0.2**
PHUB	**P'eng-hu**	**1.36**	**297**	*e*P	**Pn**	**05 02 20.7**	**-0.9**
PHUB				S	**Sb**	**05 02 37.8**	**-1.8**
TDCB	**Techi**	**1.37**	**10**	P	**Pn**	**05 02 21.4**	**-0.5**
TDCB				*e*S	**Sb**	**05 02 39.9**	**-0.1**
TWT	**Tachien**	**1.37**	**11**	P	**Pn**	**05 02 21.7**	**-0.3**
TWT				*e*S	**Sb**	**05 02 40.6**	**+0.5**
WHP	**Taichung City**	**1.37**	**2**	*e*P	**Pn**	**05 02 22.3**	**+0.5**
WHP				*e*S	**Sn**	**05 02 42.8**	**+2.4**
VCHM	**Qimei**	**1.38**	**283**	*e*P	**Pn**	**05 02 21.1**	**-0.9**
VCHM				*e*S	**Sb**	**05 02 39.5**	**-0.7**
PNG	**Penghu**	**1.40**	**299**	*e*P	**Pn**	**05 02 21.2**	**-0.9**
PNG				*e*S	**Sb**	**05 02 39.5**	**-1.1**
ETLH	**Xiulin Townshi**	**1.41**	**23**	*e*P	**Pn**	**05 02 20.8**	**-1.6**
ETLH				*e*S	**Sb**	**05 02 39.8**	**-1.3**
ETL	**Fush Village**	**1.42**	**28**	P	**Pn**	**05 02 21.9**	**-0.6**
ETL				*e*S	**Sb**	**05 02 41.0**	**-0.3**
NACB	**Ninganchiao**	**1.42**	**27**	P	**Pn**	**05 02 21.1**	**-1.4**
NACB	**Ninganchiao**	**1.42**	**27**	S	**Sb**	**05 02 40.7**	**-0.7**
NACB	**Ninganchiao**	**1.42**	**27**	P	**Pn**	**05 02 20.8**	**-1.7**
NACB				*e*S	**Sb**	**05 02 40.6**	**-0.7**
TWQ1	**Liyutan**	**1.44**	**356**	P	**Pb**	**05 02 24.1**	**+0.6**
TWQ1				S	**Sg**	**05 02 43.9**	**+1.3**
WDJ	**Dajia District**	**1.46**	**351**	P	**Pn**	**05 02 23.5**	**+0.5**
WDJ				*e*S	**Sg**	**05 02 45.9**	**+2.9**
NNSB	**Datong**	**1.58**	**16**	*e*P	**Pn**	**05 02 24.3**	**-0.5**
NNSB				S	**Sn**	**05 02 46.4**	**+0.7**
NNS	**Nan Shan**	**1.59**	**16**	*e*P	**Pn**	**05 02 24.9**	**0.0**
NNS				*e*S	**Sb**	**05 02 47.1**	**+0.6**
EAHA	**Aohua**	**1.62**	**29**	*e*P	**Pn**	**05 02 25.1**	**-0.1**
EAHA				S	**Sn**	**05 02 45.2**	**-1.2**
ENA	**Nanau**	**1.71**	**27**	*e*P	**Pn**	**05 02 23.1**	**-3.3**
ENA				*e*S	**Sn**	**05 02 49.0**	**+0.5**
NSTT	**Nanjuang**	**1.72**	**3**	*e*P	**Pb**	**05 02 29.0**	**+0.8**
NSTT				*e*S	**Sg**	**05 02 51.9**	**+0.3**
LATG	**Datong**	**1.73**	**20**	*e*P	**Pn**	**05 02 27.3**	**+0.5**
LATG				S	**Sn**	**05 02 49.1**	**0.0**
NFF	**Wufeng Townshi**	**1.73**	**7**	*e*P	**Pb**	**05 02 28.2**	**-0.2**
NFF				*e*S	**Sg**	**05 02 52.1**	**+0.1**
EWUT	**Wuta**	**1.74**	**28**	P	**Pn**	**05 02 27.2**	**+0.4**
LIOB	**Emei**	**1.74**	**4**	*e*P	**Pb**	**05 02 28.2**	**-0.3**
LIOB				S	**Sb**	**05 02 51.8**	**+1.2**
EOS4	**EOS4**	**1.78**	**47**	*e*P	**Pn**	**05 02 27.8**	**+0.7**
EOS4				*e*S	**Sn**	**05 02 48.8**	**-1.1**
NDT	**Datong Townshi**	**1.79**	**18**	*e*P	**Pn**	**05 02 28.6**	**+1.1**
NDT				*e*S	**Sg**	**05 02 55.0**	**+1.4**
YHNB	**Yeheng**	**1.81**	**14**	P	**Pn**	**05 02 29.1**	**+1.1**
YHNB	**Yeheng**	**1.81**	**14**	*e*P	**Pn**	**05 02 28.6**	**+0.6**
YHNB				*e*S	**Sb**	**05 02 53.6**	**+0.8**
NSK	**Sanguang**	**1.82**	**14**	*e*P	**Pn**	**05 02 29.3**	**+1.3**
NSK				*e*S	**Sb**	**05 02 54.0**	**+1.1**
NDS	**Dongshan**	**1.88**	**24**	*e*P	**Pn**	**05 02 29.6**	**+0.7**
NDS				*e*S	**Sb**	**05 02 55.0**	**+0.3**
KSHI	**Guanxi Townshi**	**1.88**	**8**	*e*P	**Pb**	**05 02 30.9**	**-0.1**
KSHI				*e*S	**Sb**	**05 02 56.4**	**+1.7**
EOS3	**EOS3**	**1.90**	**43**	*e*P	**Pn**	**05 02 27.3**	**-1.6**
EOS3				*e*S	**Sn**	**05 02 52.9**	**-0.2**
TWC	**Suao**	**1.91**	**27**	*i* P	**Pn**	**05 02 30.8**	**+1.6**
TWC				*e*S	**Sn**	**05 02 54.6**	**+1.0**
TWE	**Neicheng**	**1.94**	**21**	*e*P	**Pb**	**05 02 31.8**	**-0.2**
TWE				*e*S	**Sg**	**05 02 58.6**	**-0.1**
EOS2	**EOS2**	**1.95**	**39**	*e*P	**Pn**	**05 02 29.6**	**+0.1**
NWLT	**Wulai**	**1.95**	**17**	*e*P	**Pn**	**05 02 31.1**	**+1.4**
NWLT				*e*S	**Sn**	**05 02 56.3**	**+1.8**
FUSB	**Fushanzhiwuyua**	**1.96**	**19**	*e*P	**Pb**	**05 02 31.6**	**-0.6**
FUSB				*e*S	**Sg**	**05 02 59.2**	**+0.2**
NHDH	**Xindian Distri**	**2.13**	**16**	*e*P	**Pb**	**05 02 35.5**	**+0.3**
EGS		**2.15**	**26**	*e*P	**Pb**	**05 02 34.8**	**-0.8**
TWA	**Mucha**	**2.16**	**17**	*e*P	**Pb**	**05 02 35.9**	**+0.2**
TAP	**Taipei**	**2.20**	**15**	*e*P	**Pb**	**05 02 37.3**	**+0.9**
TIPB	**Shuangxi**	**2.23**	**22**	*e*P	**Pn**	**05 02 35.2**	**+1.6**
TIPB				*e*S	**Sn**	**05 03 02.1**	**+0.6**
TWS1	**Kuangyinshan**	**2.24**	**12**	*e*P	**Pb**	**05 02 38.0**	**+1.0**
TWS1				*e*S	**Sb**	**05 03 06.5**	**+1.5**
NWF	**Wu-fen Shan**	**2.31**	**20**	*e*P	**Pb**	**05 02 37.1**	**-1.1**
WFSB	**Wu-fen Shan**	**2.31**	**20**	*e*P	**Pb**	**05 02 37.4**	**-0.7**
WFSB				*e*S	**Sb**	**05 03 07.9**	**+1.0**
NTST	**Danshui**	**2.31**	**13**	*e*P	**Pb**	**05 02 38.0**	**-0.2**
YM01	**YM01**	**2.32**	**15**	*e*P	**Pb**	**05 02 37.9**	**-0.5**
TWB1	**Santiao Chiao**	**2.32**	**25**	*e*P	**Pn**	**05 02 36.8**	**+1.9**
TWB1				*e*S	**Sb**	**05 03 07.0**	**-0.3**
ZUZH	**Zhuzihu**	**2.33**	**15**	*e*P	**Pn**	**05 02 37.3**	**+2.3**
ZUZH				*e*S	**Sb**	**05 03 07.8**	**+0.2**
ANP	**Anpu**	**2.34**	**14**	*e*P	**Pn**	**05 02 35.7**	**+0.4**
YM08	**YM08**	**2.36**	**16**	*e*P	**Pb**	**05 02 37.9**	**-1.2**
YM08				*e*S	**Sb**	**05 03 08.3**	**-0.2**
JYNG	**Yonagunijimaku**	**2.43**	**50**	*e*P	**Pn**	**05 02 35.1**	**-1.3**
TWY	**Chenhua**	**2.45**	**15**	*e*P	**Pb**	**05 02 41.0**	**+0.4**
VWUC	**VWUC**	**2.46**	**328**	*e*P	**Pn**	**05 02 35.5**	**-1.3**
YOJ	**Yonaguni jima**	**2.49**	**51**	P	**Pn**	**05 02 36.8**	**-0.3**
YOJ	**Yonaguni jima**	**2.49**	**51**	P	**Pn**	**05 02 36.6**	**-0.5**
YOJ				*e*S	**Sn**	**05 03 07.4**	**-0.4**
YOJ	**Yonaguni jima**	**2.49**	**51**	*e*P	**Pn**	**05 02 35.6**	**-1.5**
PTMZ	**Houxiangcun**	**2.67**	**323**	*e*P	**Pn**	**05 02 38.9**	**-0.8**
PCYT	**Pengchaiyu**	**2.92**	**21**	*e*P	**Pn**	**05 02 43.8**	**+0.7**
IRIF	**Iriomote-Funau**	**2.97**	**61**	*e*P	**Pn**	**05 02 41.9**	**-1.8**
ZPLA	**Ao Xicun**	**3.06**	**290**	*e*P	**Pn**	**05 02 44.9**	**-0.1**
JKRS	**Kuro-shima**	**3.15**	**64**	*e*P	**Pn**	**05 02 45.3**	**-1.0**
DSXP	**Dongshan**	**3.29**	**285**	*e*P	**Pn**	**05 02 48.3**	**+0.1**
DSXP				*e*S	**Sn**	**05 03 27.1**	**-0.4**
JIJ	**Ishigaki jima**	**3.32**	**63**	*e*P	**Pn**	**05 02 47.0**	**-1.5**
AXDP	**Jialang**	**3.33**	**307**	*e*P	**Pn**	**05 02 47.7**	**-1.0**
MATB	**Ma-tsu**	**3.35**	**345**	*e*P	**Pn**	**05 02 48.2**	**-0.7**
MATB				*e*S	**Sn**	**05 03 28.2**	**-0.8**
JISG	**Ishigakijimahi**	**3.55**	**61**	*e*P	**Pn**	**05 02 49.7**	**-2.1**
MHZQ	**Yeshan**	**3.61**	**332**	*e*P	**Pn**	**05 02 52.2**	**-0.4**
LYJJ	**Jianjiangzhen**	**3.77**	**344**	*e*P	**Pn**	**05 02 54.1**	**-0.7**
XPSS	**Dashiqiu**	**4.06**	**351**	*e*P	**Pn**	**05 02 59.1**	**+0.3**
SXFK	**Yanhouchang**	**4.56**	**320**	*e*P	**Pn**	**05 03 04.2**	**-1.5**
KSRS	**Korea Array**	**15.72**	**21**	P	**P**	**05 05 45.6**	**+3.4**
	0.7nm,0.5s,baz=193,slow=10.0,SNR=2.2						
MJAR	**Matsushiro Arr**	**20.23**	**44**	P	Pn	05 06 35.4	+1.6
	1.1nm,0.4s,baz=231,slow=8.5,SNR=5.8 1.1nm,0.4s						
CMAR	**Chiang Mai Arr**	**21.00**	**262**	P	Pn	05 06 42.2	-0.8
	0.4nm,0.3s,baz=84,slow=10,SNR=1.4 0.4nm,0.3s						
SONM	**Songino Array**	**27.45**	**339**	P	**P**	**05 07 45.1**	**+2.2**
	0.3nm,0.5s,baz=156,slow=11,SNR=1.6 0.3nm,0.5s						
MKAR	**Makanchi Array**	**39.08**	**317**	P	**P**	**05 09 25.0**	**+1.0**
	0.7nm,0.7s,baz=108,slow=10,SNR=5.4						
MKAR				PcP	**PcP**	**05 11 33.1**	**-0.7**
	0.3nm,0.6s,baz=112,slow=3.1,SNR=2.8 0.7nm,0.7s						
ZALV	**Zalesovo Beam**	**41.18**	**328**	P	**P**	**05 09 40.8**	**-0.5**
	0.7nm,0.3s,baz=134,slow=8.4,SNR=5.9 0.7nm,0.3s						
KURBB	**Kurchatov Arra**	**42.92**	**321**	P	**P**	**05 09 54.7**	**-0.8**
	0.6nm,0.8s,baz=107,slow=5.0,SNR=3.3 0.6nm,0.8s						
WRA	**Warramunga Arr**	**44.56**	**162**	P	**P**	**05 10 07.1**	**-2.0**
	0.6nm,0.5s,baz=345,slow=8.8,SNR=9.2 0.6nm,0.5s						
ASAR	**Alice Springs**	**47.99**	**164**	P	**P**	**05 10 34.4**	**-1.6**
	0.4nm,0.4s,baz=339,slow=6.7,SNR=5.0 0.4nm,0.4s						
BVAR	**Borovoye Array**	**48.50**	**322**	P	**P**	**05 10 39.8**	**+0.2**
	0.8nm,0.5s,baz=108,slow=7.7,SNR=1.8 0.8nm,0.5s						
NOA	**NORSAR Array B**	**79.23**	**332**	P	**P**	**05 14 03.1**	**+1.1**
	0.6nm,0.7s,baz=61,slow=5.4,SNR=2.3 0.6nm,0.7s						
YKA	**Yellowknife Ar**	**84.25**	**23**	P	**P**	**05 14 27.1**	**-1.2**
	1.3nm,1.0s,baz=326,slow=5.2,SNR=3.7 1.3nm,1.0s						

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*IDC **19** 05:02:46.1±6.9, 16°.88S×168°.00E, $h0^{km}$, mb3.7/4, mbtmp3.8/5, ML3.4/1, Error ellipse: s-maj=112.8km s-min=25.7km az=75.0*

*NEIC **19** 05:02:48.7±0.9, 17°.03S±0°.06×168°.01E±0°.05, $h11^{km}±5^{km}$, mb4.4/9, Error ellipse: s-maj=9.4km s-min=5.5km az=147.0*

ISC 19 05:02:49.6±0.7**, 17°.02S**±0°.07×**167°.9E**±0°.1**,** $\mathbf{h21}^{km}$**, n21,** $\sigma 1^{s}.$**01**/21**, mb4.3**/8**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SANVU	**Saraoutou**	**1.71**	**335**		**Pb**	**05 03 19.1**	**-1.3**
MARNC	**Mare, Loyalty**	**4.44**	**179**	Pn	**Pn**	**05 03 54.8**	**-1.0**
DZM	**Mont Dzumac**	**5.22**	**195**	Pn	**Pn**	**05 04 07.0**	**+0.4**
	1.3nm,0.3s,baz=19,slow=14,SNR=18						
DZM				Sn	**Sn**	**05 05 04.5**	**-1.8**
	1.7nm,0.3s,baz=168,slow=23,SNR=6.1 18nm,1.1s						
DZM				AML	AML		
ONTNC	**Ouen Toro**	**5.45**	**195**	Pn	**Pn**	**05 04 09.3**	**-0.3**
OUENC	**Ouen Island, N**	**5.47**	**191**	Pn	**Pn**	**05 04 10.0**	**0.0**
FUTU	**Fugatoga**	**13.69**	**81**	Pn	**Pn**	**05 06 01.4**	**-1.2**
CTA	**Charters Tower**	**20.78**	**258**	P	Pn	05 07 31.2	-0.8
	1.1nm,0.4s,baz=84,slow=9.2,SNR=3.4 1.1nm,0.4s						
STKA	**Stephens Creek**	**28.08**	**233**	P	**P**	**05 08 38.7**	**-1.1**
	0.8nm,0.6s,baz=51,slow=6.5,SNR=1.2 0.8nm,0.6s						
WR8	**Warramunga Arr**	**31.82**	**259**	P	**P**	**05 09 13.5**	**+0.4**
WRA	**Warramunga Arr**	**31.97**	**259**	P	**P**	**05 09 15.1**	**+0.6**
	0.4nm,0.7s,baz=87,slow=8.8,SNR=4.7 0.4nm,0.7s						
WRA	**Warramunga Arr**	**31.97**	**259**	P	**P**	**05 09 14.5**	**0.0**
AS31	**Alice Springs**	**32.53**	**253**	P	**P**	**05 09 18.8**	**-0.7**
AS31				IAmb	IAmb	05 09 21.2	
	comp=Z,1.6nm,0.3s						
ASAR	**Alice Springs**	**32.54**	**253**	P	**P**	**05 09 20.1**	**+0.7**
	comp=Z,0.9nm,0.4s,baz=82,slow=8.5,SNR=13 comp=Z,0.9nm,0.4s						
ASAR	**Alice Springs**	**32.54**	**253**	P	**P**	**05 09 18.5**	**-0.9**
FAKI	**Fak Fak**	**37.74**	**288**	P	**P**	**05 10 04.5**	**+0.1**
FAKI				IAmb	IAmb	05 10 24.5	
	comp=Z,7.6nm,1.2s						
SOEI	**Soe**	**43.02**	**274**	P	**P**	**05 10 48.1**	**-0.1**
SOEI				IAmb	IAmb	05 11 04.8	
	comp=Z,12nm,1.1s						
VNDA	**Vanda**	**60.61**	**182**	P	**P**	**05 13 00.4**	**+2.1**
VNDA				IAmb	IAmb	05 13 04.0	
	comp=Z,3.8nm,1.4s						
KSAR	**Wonju Array Be**	**65.99**	**326**	P	**P**	**05 13 35.0**	**+0.4**
QSPA	**South Pole Qui**	**73.03**	**180**	P	**P**	**05 14 19.0**	**+1.2**
QSPA				IAmb	IAmb	05 14 32.9	
	comp=Z,3.5nm,1.2s						
K17K	**Iditarod**	**83.77**	**15**	P	**P**	**05 15 17.8**	**+1.0**
MID	**Middleton Isla**	**84.75**	**22**	P	**P**	**05 15 22.5**	**+0.7**

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*TAP **19** 05:03:29.7, 22°.93N×120°.88E, $h6^{km}$, ML3.5, C*

*JMA **19** 05:03:30.3±0.1, 22°.9N±0°.4×121°.3E±0°.5, $h0^{km}$, TAIWAN REGION*

ISC 19 05:03:30.6±0.8**, 22°.89N**±0°.02×**120°.91E**±0°.02**,** $\mathbf{h12}^{km}±6^{km}$**, n91,** $\sigma 1^{s}.$**30**/137**, 3C, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TWG	**Pinlang**	**0.16**	**115**	*i* P	**Pg**	**05 03 34.9**	**+0.6**
TWG				*i* S	**Sg**	**05 03 38.0**	**+1.0**
TWGBT	**Beinan**	**0.17**	**115**	P	**Pg**	**05 03 34.9**	**+0.4**
TWGBT				*i* S	**Sg**	**05 03 37.9**	**+0.7**
LONT	**Longtian**	**0.20**	**85**	*i* P	**Pg**	**05 03 35.2**	**+0.2**
LONT				*i* S	**Sg**	**05 03 38.5**	**+0.4**
TTN	**Taitung**	**0.26**	**122**	P	Pg	05 03 37.6	+1.6
TTN				S	**Sg**	**05 03 42.9**	**+3.3**
SLGT	**Liugui**	**0.27**	**293**	*i* P	**Pg**	**05 03 34.8**	**-1.4**
SLGT				S	**Sg**	**05 03 37.8**	**-2.0**
ECL	**Taimali**	**0.29**	**172**	*i* P	**Pg**	**05 03 37.0**	**+0.3**
ECL				S	**Sg**	**05 03 41.2**	**+0.5**
SSD	**Sandimen**	**0.29**	**241**	*i* P	**Pg**	**05 03 35.7**	**-1.0**
SSD				S	**Sg**	**05 03 39.2**	**-1.5**
STYH	**Taoyuan**	**0.31**	**336**	*i* P	**Pg**	**05 03 35.7**	**-1.1**
STYH				*i* S	**Sg**	**05 03 39.3**	**-1.7**
STYT	**Tauyuan**	**0.31**	**332**	*i* P	**Pg**	**05 03 35.6**	**-1.3**
STYT				S	**Sg**	**05 03 39.2**	**-1.9**
ELDTW	**Lidau**	**0.31**	**18**	⇑*i*P	**Pg**	**05 03 35.7**	**-1.3**
ELDTW				*i* S	**Sg**	**05 03 39.8**	**-1.5**
ECS	**Chishang**	**0.35**	**54**	*i* P	**Pb**	**05 03 37.5**	**-1.2**
ECS				*i* S	**Sg**	**05 03 42.5**	**+0.1**
SGST	**Jiashian**	**0.36**	**302**	*e*P	**Pg**	**05 03 36.0**	**-1.8**
SGST				*e*S	**Sg**	**05 03 40.5**	**-2.1**
EHD	**Haiduan**	**0.37**	**46**	⇑*i*P	**Pg**	**05 03 37.4**	**-0.7**
EHD				*i* S	**Sg**	**05 03 42.2**	**-1.0**
MASBT	**Mashibuluo**	**0.38**	**223**	⇑*i*P	**Pb**	**05 03 37.6**	**-1.6**
MASBT				*i* S	**Sb**	**05 03 42.9**	**-2.1**
SGLT	**Jiouru**	**0.42**	**247**	P	**Pb**	**05 03 39.2**	**-0.7**
WTP	**Ta-pu**	**0.45**	**322**	P	**Pg**	**05 03 39.0**	**-0.5**
TWM1	**Shoushan**	**0.46**	**262**	P	**Pb**	**05 03 40.2**	**-0.4**
CHN1	**Nanshi**	**0.46**	**310**	P	**Pg**	**05 03 39.5**	**-0.1**
CHN1				*e*S	**Sg**	**05 03 46.7**	**+0.9**
CHKT	**Chengkung**	**0.47**	**63**	*i* P	**Pb**	**05 03 40.6**	**-0.1**
CHKT				S	**Sb**	**05 03 48.6**	**+1.0**
FULB	**Fuli**	**0.47**	**49**	*i* P	**Pb**	**05 03 39.9**	**-0.9**
FULB				S	**Sb**	**05 03 47.0**	**-0.7**
TPUB	**Ta-pu**	**0.48**	**328**	P	**Pg**	**05 03 39.8**	**-0.3**
TPUB				*e*S	**Sg**	**05 03 45.4**	**-1.1**
SSPT	**Xinbi**	**0.51**	**218**	P	**Pb**	**05 03 41.0**	**-0.6**
SSPT				S	**Sb**	**05 03 49.3**	**+0.4**
TAW	**Tawu**	**0.53**	**182**	P	**Pn**	**05 03 41.5**	**-2.5**
TAW				S	**Sb**	**05 03 48.8**	**-0.6**
CHN3	**Shinhua**	**0.54**	**290**	*e*P	**Pb**	**05 03 42.5**	**+0.6**
CHKH	**Chenggong**	**0.54**	**56**	P	**Pb**	**05 03 41.2**	**-0.7**
CHKH				S	**Sb**	**05 03 50.2**	**+0.6**
TWK	**Hsinying**	**0.54**	**314**	P	**Pg**	**05 03 41.7**	**+0.5**
TWK				S	**Sg**	**05 03 49.4**	**+1.0**
TWF1	**Yuli**	**0.58**	**38**	*i* P	**Pg**	**05 03 41.0**	**-1.0**
TWF1				S	**Sg**	**05 03 48.2**	**-1.4**
SCZT	**Fangliau**	**0.58**	**208**	P	**Pb**	**05 03 41.7**	**-1.0**
SCZT				S	**Sn**	**05 03 50.2**	**-3.9**
YUS	**Yu-Shan**	**0.60**	**4**	P	**Pg**	**05 03 41.1**	**-1.3**
YULB	**Yu-li**	**0.61**	**35**	P	**Pg**	**05 03 41.3**	**-1.3**
YULB				S	**Sg**	**05 03 50.3**	**-0.4**
WCKO	**Fanlu**	**0.61**	**333**	*e*P	**Pg**	**05 03 42.8**	**+0.2**
WCKO				*e*S	**Sg**	**05 03 51.7**	**+1.0**
ALS	**Alishan**	**0.62**	**351**	P	**Pg**	**05 03 41.8**	**-1.1**
ALS				*e*S	**Sg**	**05 03 50.9**	**-0.3**
WSSB	**Gushan**	**0.65**	**248**	*e*P	**Pn**	**05 03 46.7**	**+1.1**
WSSB				*e*S	**Sn**	**05 03 59.8**	**+4.1**
ECBN	**Changbin**	**0.65**	**49**	*e*P	**Pb**	**05 03 43.6**	**-0.3**
EHY	**Hungye**	**0.72**	**32**	P	**Pg**	**05 03 43.4**	**-1.2**
EHY				*e*S	**Sg**	**05 03 52.9**	**-1.1**
EHYH	**Wanrong**	**0.72**	**34**	P	**Pg**	**05 03 43.4**	**-1.2**
EHYH				*e*S	**Sg**	**05 03 52.2**	**-1.8**
WLCH	**Liuqiu**	**0.73**	**223**	*e*P	**Pn**	**05 03 48.0**	**+1.4**
TWP	**Hsiaoliuchiu**	**0.74**	**223**	*e*P	**Pn**	**05 03 48.5**	**+1.7**
CHY	**Chiayi**	**0.75**	**324**	P	**Pg**	**05 03 45.9**	**+0.7**
HGSD	**Ruisui**	**0.76**	**38**	P	**Pg**	**05 03 45.2**	**-0.2**
HGSD				S	**Sb**	**05 03 56.5**	**+0.4**
TSCK	**Chigu Township**	**0.80**	**289**	*e*P	**Pg**	**05 03 45.9**	**-0.2**
WHYT	**Xinyi Township**	**0.80**	**356**	*e*P	**Pg**	**05 03 44.9**	**-1.3**
WDLH	**Douliu**	**0.87**	**337**	*e*P	**Pg**	**05 03 47.8**	**+0.5**
SMST	**Manzhou Townsh**	**0.87**	**185**	*e*P	**Pn**	**05 03 47.5**	**-1.1**
VWDT	**VWDT**	**0.89**	**14**	*e*P	**Pg**	**05 03 45.6**	**-2.1**
WSL	**Shuilin Townsh**	**0.89**	**315**	*e*P	**Pg**	**05 03 47.8**	**0.0**
WSL				*e*S	**Sg**	**05 04 00.6**	**+1.2**
SSLB	**Suanglung**	**0.89**	**3**	*e*P	**Pg**	**05 03 46.0**	**-1.9**
HEN	**Hengchun**	**0.90**	**190**	*e*P	**Pn**	**05 03 50.8**	**+1.9**
WARBT	**Fenglin Townsh**	**0.93**	**28**	*e*P	**Pg**	**05 03 46.8**	**-1.8**
WARBT				*e*S	**Sg**	**05 03 59.1**	**-1.7**
WJS	**Zhushan**	**0.94**	**350**	*e*P	**Pg**	**05 03 48.8**	**0.0**
WJS				*e*S	**Sb**	**05 04 04.0**	**+2.7**
TWK1	**Hengchun**	**0.95**	**186**	*e*P	**Pn**	**05 03 51.0**	**+1.3**
TWKBT	**Hengchun**	**0.95**	**186**	*e*P	**Pn**	**05 03 49.9**	**+0.1**
WSF	**Szhu**	**0.98**	**320**	*e*P	**Pg**	**05 03 49.8**	**+0.3**
WSF				*e*S	**Sg**	**05 04 03.6**	**+1.4**
TSEB	**Hengchuen, Pin**	**0.99**	**181**	*e*P	**Pn**	**05 03 51.3**	**+1.1**
SMLT	**Sun Moon Lake**	**0.99**	**359**	*e*P	**Pg**	**05 03 50.3**	**+0.6**
SMLT				*e*S	**Sb**	**05 04 05.4**	**+2.6**
WNT	**Mingjian**	**1.00**	**348**	*e*P	**Pg**	**05 03 50.1**	**+0.1**
WNT				*e*S	**Sb**	**05 04 05.6**	**+2.4**
TYC	**Yuchr**	**1.01**	**357**	*e*P	**Pg**	**05 03 50.6**	**+0.5**
TYC				*e*S	**Sb**	**05 04 05.5**	**+2.2**
ESL	**Shilin**	**1.04**	**27**	*e*P	**Pg**	**05 03 48.9**	**-1.7**
ESL				*e*S	**Sg**	**05 04 03.1**	**-1.1**
SHUL	**Shoufeng**	**1.07**	**34**	*e*P	**Pg**	**05 03 50.5**	**-0.8**
OWD	**Renai**	**1.09**	**13**	*e*P	**Pg**	**05 03 49.1**	**-2.5**
WUSB	**Renai**	**1.11**	**10**	*e*P	**Pb**	**05 03 50.0**	**-1.9**
WRL	**Guolierlin Hig**	**1.12**	**334**	*e*P	**Pn**	**05 03 50.8**	**-1.2**
WCS	**Beigang Elemen**	**1.16**	**0**	*e*P	**Pn**	**05 03 53.1**	**+0.5**
ETM	**Tongmen**	**1.20**	**26**	*e*P	**Pn**	**05 03 52.1**	**-1.1**
WDGT	**Dungji**	**1.21**	**288**	P	**Pn**	**05 03 52.9**	**-0.4**
WDGT				*e*S	**Sb**	**05 04 09.4**	**+0.4**
LXIB	**Xiulin Townshi**	**1.22**	**22**	*e*P	**Pn**	**05 03 52.6**	**-0.9**
LXIB				*e*S	**Sn**	**05 04 11.6**	**+1.6**
WHF	**Hehuan Shan**	**1.29**	**15**	*e*P	**Pn**	**05 03 53.9**	**-0.9**
TWD	**Chiawan**	**1.34**	**28**	*e*P	**Pn**	**05 03 54.8**	**-0.3**
TDCB	**Techi**	**1.38**	**9**	*e*P	**Pn**	**05 03 55.5**	**-0.2**
TWT	**Tachien**	**1.38**	**10**	*e*P	**Pn**	**05 03 56.4**	**+0.6**
PHUB	**P'eng-hu**	**1.38**	**297**	*e*P	**Pn**	**05 03 54.9**	**-0.7**
WHP	**Taichung City**	**1.38**	**1**	*e*P	**Pb**	**05 03 56.9**	**+0.5**
VCHM	**Qimei**	**1.40**	**283**	*e*P	**Pn**	**05 03 55.3**	**-0.6**
ETLH	**Xiulin Townshi**	**1.41**	**22**	*e*P	**Pn**	**05 03 56.0**	**-0.2**
PNG	**Penghu**	**1.42**	**299**	*e*P	**Pn**	**05 03 55.5**	**-0.7**
PNG				*e*S	**Sn**	**05 04 14.1**	**-0.7**
NACB	**Ninganchiao**	**1.42**	**26**	*e*P	**Pn**	**05 03 56.3**	**+0.1**
TWQ1	**Liyutan**	**1.46**	**355**	*e*P	**Pb**	**05 03 58.3**	**+0.6**
NNSB	**Datong**	**1.59**	**16**	*e*P	**Pn**	**05 03 59.4**	**+0.7**
NNSB				*e*S	**Sn**	**05 04 21.0**	**+1.8**
NNS	**Nan Shan**	**1.60**	**15**	*e*P	**Pn**	**05 03 59.7**	**+0.9**
LATG	**Datong**	**1.73**	**19**	*e*P	**Pb**	**05 04 01.8**	**-0.6**
LATG				*e*S	**Sb**	**05 04 25.3**	**+1.1**
NFF	**Wufeng Townshi**	**1.74**	**6**	*e*P	**Pn**	**05 04 01.8**	**+1.1**
NFF				*e*S	**Sb**	**05 04 26.5**	**+2.0**
LIOB	**Emei**	**1.75**	**3**	*e*P	**Pb**	**05 04 02.9**	**+0.2**
YHNB	**Yeheng**	**1.82**	**13**	*e*P	**Pn**	**05 04 03.1**	**+1.3**
YHNB				*e*S	**Sb**	**05 04 27.9**	**+1.2**
NSK	**Sanguang**	**1.82**	**13**	*e*P	**Pb**	**05 04 04.2**	**+0.2**
NSK				*e*S	**Sb**	**05 04 28.6**	**+1.8**
NDS	**Dongshan**	**1.89**	**23**	*e*P	**Pb**	**05 04 05.0**	**+0.1**
TWE	**Neicheng**	**1.95**	**21**	*e*P	**Pb**	**05 04 05.9**	**-0.1**
FUSB	**Fushanzhiwuyua**	**1.96**	**18**	*e*P	**Pn**	**05 04 05.0**	**+1.3**
TIPB	**Shuangxi**	**2.23**	**22**	*e*P	**Pb**	**05 04 09.9**	**-1.0**
YM01	**YM01**	**2.33**	**15**	*e*P	**Pb**	**05 04 13.4**	**+0.9**
JYNG	**Yonagunijimaku**	**2.43**	**50**	*e*S	**Sn**	**05 04 40.1**	**+0.5**
HATJ	**Hateruma jima**	**2.90**	**66**	S	**Sn**	**05 04 49.9**	**-1.5**

ISC 19 05:14:32.6±1.2**, 44°.67N**±0°.04×**15°.41E**±0°.05**,** $\mathbf{h10}^{km}±11^{km}$**, n7,** $\sigma 0^{s}.$**50**/13**, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
UDBI	**Udbina**	**0.29**	**119**	*e*Pg	**Pg**	**05 14 38.7**	**+0.3**
UDBI				Sg	**Sb**	**05 14 44.0**	**-0.7**
VIRC	**Vir**	**0.45**	**215**	*e*Pg	**Pg**	**05 14 41.6**	**+0.1**
VIRC				Sg	**Sb**	**05 14 48.7**	**-0.8**
DUGI	**Dugi Otok**	**0.72**	**201**	*e*Pg	**Pg**	**05 14 46.3**	**-0.2**
DUGI				Sg	**Sb**	**05 14 57.8**	**+0.5**
BOJS	**Bojanci**	**0.84**	**352**	*i* Pg	**Pg**	**05 14 48.7**	**-0.2**
BOJS				*i* Sg	**Sg**	**05 14 59.9**	**0.0**
GBRS	**Gornja Briga**	**0.96**	**334**	*i* Pg	**Pb**	**05 14 51.6**	**+0.2**
CRES	**Cresnjevec Ost**	**1.16**	**2**	*i* Pg	**Pb**	**05 14 54.6**	**-0.1**
CRES				*i* Sg	**Sn**	**05 15 11.5**	**+0.7**
VISS	**Visnje**	**1.21**	**341**	*i* Pg	**Pb**	**05 14 55.5**	**-0.1**
VISS				*i* Sg	**Sn**	**05 15 12.2**	**+0.2**

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*JMA **19** 05:22:23.3±0.2, 25°N±3°×122°.6E±0°.7, $h131^{km}±2^{km}$,*

MV2.4/14, NW OFF ISHIGAKIJIMA IS

*TAP **19** 05:22:24.1, 25°.00N×122°.59E, h122km, ML3.6, C*

ISC 19 05:22:22.9±1.3, **24°.97N**±0°.04×**122°.60E**±0°.03, **h135**km±6km, **n146, σ1.s07**/282, **1D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TWB1	Santiao Chiao	0.56	274	eP	Pn	05 22 43.4	+0.5
TWB1				eS	Sn	05 22 58.1	+0.2
JYNG	Yonagunijimaku	0.60	149	eP	Pn	05 22 43.2	0.0
JYNG				S	Sn	05 22 58.4	-0.1
EGS		0.62	259	P	Pn	05 22 43.6	+0.3
EGS				S	Sn	05 22 57.9	-0.7
YOJ	Yonaguni jima	0.63	143	eP	Pn	05 22 43.5	+0.2
YOJ				S	Sn	05 22 58.3	-0.5
YOJ	Yonaguni jima	0.63	143	eP	Pn	05 22 43.4	+0.1
YOJ				eS	Sn	05 22 58.7	0.0
EOS2	EOS2	0.64	212	P	Pn	05 22 43.7	+0.4
EOS2				eS	Sn	05 22 59.9	+1.2
TIPB	Shuangxi	0.70	270	iP	Pn	05 22 44.5	+0.6
TIPB				eS	Sn	05 23 00.2	+0.4
NTC	Toucheng	0.71	261	P	Pn	05 22 44.0	+0.1
NTC				S	Sn	05 22 59.3	-0.5
EOS3	EOS3	0.73	201	eP	Pn	05 22 44.4	+0.5
EOS3				eS	Sn	05 23 00.9	+1.2
NWF	Wu-fen Shan	0.75	278	P	Pn	05 22 44.9	+0.6
NWF				S	Sn	05 22 59.4	-1.1
WFSB	Wu-fen Shan	0.75	278	eP	Pn	05 22 45.1	+1.0
TWC	Suao	0.77	242	eP	Pn	05 22 44.2	-0.2
TWC				S	Sn	05 22 59.7	-0.8
TNOU	National Taiwa	0.77	284	P	Pn	05 22 44.9	+0.5
TNOU				S	Sn	05 22 59.8	-0.8
ESAO	Su ao	0.79	241	eP	Pn	05 22 44.7	+0.2
ESAO				eS	Sn	05 23 00.3	-0.6
ILA	Ilan	0.80	256	eP	Pn	05 22 45.0	+0.4
PCYT	Pengchaiyu	0.81	324	eP	Pn	05 22 45.3	+0.6
PCYT				S	Sn	05 23 00.6	-0.7
NDS	Dongshan	0.87	248	iP	Pn	05 22 45.6	+0.4
NDS				S	Sn	05 23 01.4	-0.6
EOS4	EOS4	0.88	197	eP	Pn	05 22 44.9	0.0
EOS4				eS	Sn	05 23 02.0	+0.5
TWE	Neicheng	0.88	254	P	Pn	05 22 45.4	+0.1
TWE				S	Sn	05 23 01.2	-1.0
NWRT	Kuosheng	0.88	285	P	Pn	05 22 45.7	+0.5
NWRT				S	Sn	05 23 01.2	-1.0
EWUT	Wuta	0.91	235	iP	Pn	05 22 46.0	+0.5
EWUT				S	Sn	05 23 02.6	0.0
TWA	Mucha	0.92	271	P	Pn	05 22 45.7	+0.1
TWA				S	Sn	05 23 02.2	-0.6
YM08	YM08	0.94	284	P	Pn	05 22 46.2	+0.4
YM08				eS	Sn	05 23 03.4	+0.3
FUSB	Fushanzhiwuyua	0.94	257	iP	Pn	05 22 46.3	+0.4
FUSB				S	Sn	05 23 02.6	-0.6
ENA	Nanau	0.95	236	eP	Pn	05 22 43.9	-2.0
ENA				eS	Sn	05 23 00.8	-2.5
YM01	YM01	0.95	281	eP	Pn	05 22 46.6	+0.7
YM01				eS	Sn	05 23 04.1	+0.7
TWY	Chenhua	0.96	289	P	Pn	05 22 46.1	+0.2
TWY				S	Sn	05 23 02.7	-0.6
NSM	Shimen	0.97	289	eP	Pn	05 22 46.6	+0.6
NSM				eS	Sn	05 23 03.0	-0.5
NHDH	Xindian Distri	0.98	270	P	Pn	05 22 46.2	+0.1
NHDH				S	Sn	05 23 02.8	-0.8
ZUZH	Zhuzihu	0.98	282	P	Pn	05 22 45.7	-0.4
ZUZH				eS	Sn	05 23 03.8	0.0
TAP	Taipei	0.99	274	P	Pn	05 22 46.5	+0.2
TAP				S	Sn	05 23 03.1	-0.8
EAHA	Aohua	1.01	231	eP	Pn	05 22 46.6	+0.2
EAHA				iS	Sn	05 23 04.2	0.0
TATO	Taipei	1.01	271	P	Pn	05 22 46.6	+0.2
TATO				eS	Sn	05 23 03.3	-0.8
NWLT	Wulai	1.01	259	iP	Pn	05 22 46.8	+0.3
NWLT				eS	Sn	05 23 03.2	-1.1
EHP	Heping Village	1.02	230	eP	Pn	05 22 46.4	-0.1
EHP				eS	Sn	05 23 04.1	-0.3
NDT	Datong Townshi	1.05	250	P	Pn	05 22 47.6	+0.8
NDT				eS	Sn	05 23 05.5	+0.5
NTST	Danshui	1.06	281	P	Pn	05 22 47.4	+0.5
NTST				S	Sn	05 23 04.2	-0.8
LATG	Datong	1.07	246	eP	Pn	05 22 48.1	+1.0
LATG				iS	Sn	05 23 05.8	+0.4
TWS1	Kuangyinshan	1.08	277	P	Pn	05 22 47.9	+0.9
TWS1				S	Sn	05 23 04.2	-1.1
YHNB	Yeheng	1.15	255	iP	Pn	05 22 48.6	+0.8
YHNB				iS	Sn	05 23 06.7	0.0
NSK	Sanguang	1.17	256	P	Pn	05 22 48.5	+0.6
NSK				iS	Sn	05 23 06.1	-0.8
NTY	Taoyuan	1.18	272	P	Pn	05 22 48.5	+0.5
NTY				S	Sn	05 23 06.4	-0.7
ETL	Fush Village	1.20	228	eP	Pn	05 22 48.6	+0.3
ETL				S	Sn	05 23 07.3	-0.2
IRIF	Iriomote-Funau	1.21	121	eP	Pn	05 22 48.2	-0.1
IRIF				S	Sn	05 23 07.0	-0.5
NACB	Ninganchiao	1.21	229	P	Pn	05 22 48.2	-0.1
NACB				iS	Sn	05 23 06.7	-1.0
NNSB	Datong	1.23	244	iP	Pn	05 22 49.4	+0.7
NNSB				eS	Sn	05 23 08.0	-0.3
NNSH	Datong	1.23	244	P	Pn	05 22 48.7	0.0
NNSH				eS	Sn	05 23 07.6	-0.6
NNS	Nan Shan	1.23	245	iP	Pn	05 22 49.4	+0.7
NNS				eS	Sn	05 23 08.3	0.0
ETLH	Xiulin Townshi	1.27	234	eP	Pn	05 22 49.1	0.0
ETLH				eS	Sn	05 23 08.1	-0.8
TWD	Chiawan	1.27	226	P	Pn	05 22 48.8	-0.2
TWD				S	Sn	05 23 08.1	-0.7
NCUH	Zhongli	1.28	270	P	Pn	05 22 50.0	+0.9
NCUH				eS	Sn	05 23 10.5	+1.5
KSHI	Guanxi Townshi	1.31	262	eP	Pn	05 22 50.6	+1.3
KSHI				iS	Sn	05 23 10.0	+0.6
HWA	Hwalien	1.34	223	P	Pn	05 22 49.4	-0.3
HWA				eS	Sn	05 23 10.2	+0.2
NFF	Wufeng Townshi	1.39	256	eP	Pn	05 22 50.9	+0.7
NFF				S	Sn	05 23 10.6	-0.5
NJD	Zhudong	1.39	261	eP	Pn	05 22 48.6	-1.6
NHW	Xinwu Township	1.41	272	P	Pn	05 22 50.9	+0.5
NHW				S	Sn	05 23 10.6	-0.7
ETM	Tongmen	1.42	226	eP	Pn	05 22 50.5	-0.1
ETM				eS	Sn	05 23 10.3	-1.2
HATJ	Hateruma jima	1.43	129	eS	Sn	05 23 11.4	-0.2
TEYL	Yanliau Villag	1.43	220	eP	Pn	05 22 50.5	-0.1
TEYL				eS	Sn	05 23 11.3	-0.4
FUSS	Fushou	1.43	240	P	Pn	05 22 51.3	+0.5
FUSS				S	Sn	05 23 11.8	-0.3
LXIB	Xiulin Townshi	1.44	229	eP	Pn	05 22 50.6	-0.3
LXIB				eS	Sn	05 23 11.3	-0.8
HSN1	Hsinchu	1.45	263	eP	Pn	05 22 51.3	+0.5
HSN1				S	Sn	05 23 11.6	-0.4
WHF	Hehuan Shan	1.47	236	eP	Pn	05 22 51.3	-0.2
WHF				S	Sn	05 23 13.2	+0.1
JKRS	Kuro-shima	1.48	119	eP	Pn	05 22 51.5	+0.4
JKRS				S	Sn	05 23 12.4	-0.1
LIOB	Emei	1.48	258	eP	Pn	05 22 51.9	+0.7
LIOB				iS	Sn	05 23 12.3	-0.3
SBCB	Hsinchu	1.48	264	P	Pn	05 22 51.7	+0.6
SBCB				S	Sn	05 23 12.6	-0.1
TWT	Tachien	1.48	242	P	Pn	05 22 51.9	+0.5
TWT				eS	Sn	05 23 13.0	0.0
HSN	Hsinchu	1.49	264	P	Pn	05 22 51.5	+0.3
HSN				eS	Sn	05 23 12.4	-0.4
NSTT	Nanjuang	1.49	257	eP	Pn	05 22 51.5	+0.2
NSTT				S	Sn	05 23 12.2	-0.7
TDCB	Techi	1.49	242	eP	Pn	05 22 52.6	+1.1
TDCB				iS	Sn	05 23 13.1	-0.1
SHUL	Shoufeng	1.51	219	eP	Pn	05 22 51.5	0.0
SHUL				eS	Sn	05 23 12.9	-0.4
JIJ	Ishigaki jima	1.53	113	eP	Pn	05 22 51.8	+0.1
JIJ				eS	Sn	05 23 12.3	-1.3
ESL	Shilin	1.57	223	eP	Pn	05 22 51.7	-0.4
ESL				eS	Sn	05 23 12.3	-2.1
TEGC	Jichi Village	1.58	218	P	Pn	05 22 52.2	-0.2
TEGC				S	Sn	05 23 14.5	-0.3
JISG	Ishigakijimahi	1.60	103	eP	Pn	05 22 52.8	+0.3
JISG				S	Sn	05 23 14.3	-0.8
OWD	Renai	1.64	232	P	Pn	05 22 53.6	+0.5
OWD				S	Sn	05 23 15.3	-0.9
WHP	Taichung City	1.66	246	eP	Pn	05 22 54.4	+1.2
WHP				iS	Sn	05 23 16.6	+0.3
WUSB	Renai	1.67	235	iP	Pn	05 22 54.3	+0.9
WUSB				S	Sn	05 23 16.6	0.0
WARBT	Fenglin Townsh	1.67	222	eP	Pn	05 22 52.6	-0.7
WARBT				S	Sn	05 23 14.4	-2.1
EGFH	Guangfu	1.68	220	eP	Pn	05 22 52.6	-0.8
EGFH				S	Sn	05 23 15.6	-1.1
NMLH	Miaoli	1.70	256	P	Pn	05 22 54.5	+0.8
NMLH				eS	Sn	05 23 14.5	-2.6
NSY	Sanyi	1.76	252	eP	Pn	05 22 53.9	-0.4
NSY				S	Sn	05 23 18.6	+0.2
TWQ1	Liyutan	1.77	250	P	Pn	05 22 55.5	+1.0
TWQ1				S	Sn	05 23 18.8	+0.2
WPL	Puli Township	1.77	238	P	Pn	05 22 55.1	+0.6
WPL				S	Sn	05 23 18.4	-0.2
WCS	Beigang Elemen	1.79	240	eP	Pn	05 22 56.4	+1.8
WCS				iS	Sn	05 23 19.6	+0.7
DPDB	Guoxing	1.79	239	P	Pn	05 22 56.4	+1.7
DPDB				S	Sn	05 23 20.2	+1.2
VWDT	VWDT	1.80	228	P	Pn	05 22 55.6	+0.8
VWDT				eS	Sn	05 23 18.9	-0.2
HGSD	Ruisui	1.82	216	eP	Pn	05 22 55.3	+0.3
HGSD				S	Sn	05 23 19.3	-0.3
EHYH	Wanrong	1.86	218	eP	Pn	05 22 53.7	-1.8
EHYH				eS	Sn	05 23 16.4	-4.1
EHY	Hungye	1.87	219	P	Pn	05 22 56.1	+0.5
EHY				S	Sn	05 23 18.6	-2.0
WDJ	Dajia District	1.89	251	P	Pn	05 22 56.4	+0.6
WDJ				S	Sn	05 23 20.6	-0.4
SMLT	Sun Moon Lake	1.89	235	P	Pn	05 22 57.9	+1.9
SMLT				eS	Sn	05 23 23.3	+2.0
SSLB	Suanglung	1.91	232	P	Pn	05 22 57.7	+1.6
SSLB				eS	Sn	05 23 23.1	+1.6
TYC	Yuchr	1.91	237	P	Pn	05 22 57.6	+1.5
TYC				eS	Sn	05 23 22.9	+1.5
TCU	Taichung	1.93	245	eP	Pn	05 22 56.1	-0.2
TCU				S	Sn	05 23 21.9	0.0
JTJ	Tarama	1.94	99	eP	Pn	05 22 57.0	+0.6
JTJ				S	Sn	05 23 22.5	+0.5
ECBN	Changbin	1.95	213	⇓P	Pn	05 22 57.1	+0.5
WWF	Wufeng	1.96	242	P	Pn	05 22 58.1	+1.3
WWF				eS	Sn	05 23 22.3	-0.3
YULB	Yu-li	1.97	217	P	Pn	05 22 56.8	-0.1
YULB				eS	Sn	05 23 20.3	-2.5
EYUL	Yuli	1.99	216	P	Pn	05 22 57.8	+0.7
EYUL				S	Sn	05 23 22.4	-0.9
TWF1	Yuli	2.00	217	eP	Pn	05 22 55.7	-1.6
TWF1				S	Sn	05 23 21.9	-1.6
WWCA	Taichung City	2.02	250	P	Pn	05 22 58.2	+0.8
WWCA				S	Sn	05 23 23.4	-0.4
WHYT	Xinyi Township	2.04	232	eP	Pn	05 22 59.5	+1.8
WHYT				iS	Sn	05 23 25.5	+1.3
WNT1	Nantou City	2.04	239	P	Pn	05 22 58.6	+0.9
WNT1				eS	Sn	05 23 24.0	-0.4
WJS	Zhushan	2.05	237	P	Pn	05 22 59.5	+1.7
WJS				S	Sn	05 23 26.8	+2.2
WNT	Mingjian	2.06	239	eP	Pn	05 22 57.4	-0.4
WNT				S	Sn	05 23 25.9	+1.3
CHKH	Chenggong	2.08	212	eP	Pn	05 22 57.9	-0.3
CHKH				eS	Sn	05 23 24.3	-0.9
WYL	Yuanlin Townsh	2.10	242	P	Pn	05 22 59.1	+0.7
WYL				S	Sn	05 23 26.3	+0.8
YUS	Yu-Shan	2.10	226	eP	Pn	05 22 59.1	+0.1
YUS				S	Sn	05 23 26.8	+0.2
FULB	Fuli	2.13	214	P	Pn	05 22 58.8	0.0
FULB				S	Sn	05 23 26.1	-0.2
CHKT	Chengkung	2.18	211	P	Pn	05 22 59.4	0.0
CHKT				eS	Sn	05 23 27.2	-0.1
ALS	Alishan	2.19	229	P	Pn	05 23 01.1	+1.3
ALS				eS	Sn	05 23 30.3	+2.3
EHD	Haiduan	2.21	215	eP	Pn	05 22 59.1	-0.8
EHD				eS	Sn	05 23 29.1	+0.9
WDLH	Douliu	2.27	236	P	Pn	05 23 01.4	+0.9
WDLH				eS	Sn	05 23 28.9	-0.5
ELDTW	Lidau	2.29	220	P	Pn	05 23 00.7	-0.2
WRL	Guolierlin Hig	2.29	243	P	Pn	05 23 01.4	+0.7
WRL				S	Sn	05 23 29.0	-0.7
RLNB	Erlin	2.31	243	P	Pn	05 23 02.1	+1.2
RLNB				S	Sn	05 23 29.1	-0.9
EDH	Donghe	2.31	211	P	Pn	05 23 00.3	-0.8
EDH				S	Sn	05 23 28.7	-1.6
WCKO	Fanlu	2.38	231	eP	Pn	05 23 04.8	+3.0
WCKO				eS	Sn	05 23 33.8	+2.1
STYH	Taoyuan	2.45	223	P	Pn	05 23 03.7	+1.0
STYH				S	Sn	05 23 33.9	+0.7
TPUB	Ta-pu	2.45	228	P	Pn	05 23 03.5	+0.7
TPUB				S	Sn	05 23 32.9	-0.4
JMJ	Miyako jima 2	2.45	93	P	Pn	05 23 04.0	+1.3
JMJ				S	Sn	05 23 33.4	+0.1
LONT	Longtian	2.46	214	P	Pn	05 23 03.5	+0.7
LONT				S	Sn	05 23 32.1	-1.4
STYT	Tauyuan	2.46	224	P	Pn	05 23 03.7	+0.7
STYT				S	Sn	05 23 35.4	+1.7
WTP	Ta-pu	2.50	227	eP	Pn	05 23 05.2	+1.8
WTP				eS	Sn	05 23 33.2	-1.3
TWGBT	Beinan	2.55	213	eS	Sn	05 23 32.6	-3.1
TWG	Pinlang	2.56	213	P	Pn	05 23 05.0	+0.9
TWG				eS	Sn	05 23 32.5	-3.3
TWK	Hsinying	2.57	229	P	Pn	05 23 06.4	+2.1
TWK				S	Sn	05 23 36.4	+0.3
SNST	Tainan City	2.59	228	P	Pn	05 23 06.7	+2.1
SNST				eS	Sn	05 23 40.0	+3.5
CHN1	Nanshi	2.60	227	P	Pn	05 23 05.7	+1.1
CHN1				S	Sn	05 23 36.4	-0.2
WSL	Shuilin Townsh	2.60	237	P	Pn	05 23 05.6	+1.0
WSL				eS	Sn	05 23 36.1	-0.5
SGST	Jiashian	2.63	225	P	Pn	05 23 07.7	+2.6
SGST				eS	Sn	05 23 37.5	+0.1
ICHU	Yijhu	2.66	233	P	Pn	05 23 06.1	+0.8
ICHU				eS	Sn	05 23 36.9	-1.1
CHN8	Yiju	2.71	234	P	Pn	05 23 06.7	+0.6
CHN8				eS	Sn	05 23 38.3	-1.0
VWUC	VWUC	2.86	271	P	Pn	05 23 08.1	+0.2
VWUC				eS	Sn	05 23 41.3	-1.3
TSMG	Majia	2.88	219	P	Pn	05 23 10.1	+1.9
TSMG				eS	Sn	05 23 42.0	-1.0
MASBT	Mashibuluo	2.96	218	eP	Pn	05 23 10.3	+1.1
MASBT				eS	Sn	05 23 44.3	-0.7
LYJJ	Jianjiangzhen	3.01	302	eP	Pn	05 23 10.1	+0.3
LYJJ				eS	Sn	05 23 44.3	-1.7
EAST	Anshuo	3.03	212	P	Pn	05 23 11.5	+1.3
TAWH	Dawu Township	3.05	211	eP	Pn	05 23 13.3	+2.9
TAWH				S	Sn	05 23 46.1	-1.0
PNG	Penghu	3.11	244	eP	Pn	05 23 12.3	+1.1
PNG				S	Sn	05 23 46.0	-2.3
PHUB	P'eng-hu	3.12	243	eP	Pn	05 23 12.5	+1.2
PHUB				eS	Sn	05 23 46.9	-1.8
PTMZ	Houxiangcun	3.16	272	eP	Pn	05 23 12.3	+0.5
PTMZ				eS	Sn	05 23 48.3	-1.1
SLIU	Shizi	3.20	211	eP	Pn	05 23 13.3	+0.9
VCHM	Qimei	3.39	239	P	Pn	05 23 14.8	0.0
VCHM				eS	Sn	05 23 51.3	-3.5
JOW	Kunigami	5.44	69	eP	Pn	05 23 41.8	-0.2

TAP 19 05:23:21.3, 23°.15N×120°.70E, h9km, ML1.1, B, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STYT	Tauyuan	0.05	73	iP	Pg	05 23 23.9	+0.6
STYT				iS	Sg	05 23 25.7	+1.1
STYH	Taoyuan	0.07	71	P	Pg	05 23 24.2	+0.8
STYH				S	Sg	05 23 26.1	+1.2
SGST	Jiashian	0.13	239	iP	Pg	05 23 25.1	+0.9
SGST				eS	Sg	05 23 28.2	+2.0
WTP	Ta-pu	0.13	321	P	Pg	05 23 25.1	+0.9
WTP				iS	Sg	05 23 27.6	+1.3
SLGT	Liugui	0.16	198	P	Pg	05 23 25.6	+0.9
SLGT				S	Sg	05 23 28.9	+1.8
TPUB	Ta-pu	0.17	337	P	Pg	05 23 26.1	+1.2
TPUB				S	Sg	05 23 29.2	+1.9
TWK	Hsinying	0.23	301	eP	Pg	05 23 26.4	+0.4
TWK				eS	Sg	05 23 30.1	+0.9
ELDTW	Lidau	0.29	82	P	Pb	05 23 28.7	-0.2
ELDTW				S	Sb	05 23 33.9	-0.1

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*NIED **19** 05:24:39.6, 41°.53N×142°.24E, h36km, MW3.8, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}1.25; $M_{\theta\theta}$-0.01; $M_{\phi\phi}$-1.24; $M_{r\theta}$-4.09; $M_{\theta\phi}$-0.26; $M_{\phi r}$3.06; Fault plane solution: $M_0$5.19000×10^{14} NP1: ϕ_s185.00000°, δ8.00000°, λ146.00000°. NP2: ϕ_s309.00000°, δ86.00000°, λ84.00000°.*

*JMA **19** 05:24:39.6±0.1, 41°.5N±0°.3×142°.2E±0°.3, h36km, MV3.9/39, E OFF AOMORI PREF*

JMA Felt I J1 at E OFF AOMORI PREF .

*NEIC **19** 05:24:40.4±1.6, 41°.39N±0°.08×142°.40E±0°.09, h42km±9km, mb4.4/14, Error ellipse: s-maj=14.9km s-min=3.8km az=139.0*

*IDC **19** 05:24:41.6±1.9, 41°.55N×142°.19E, h56km±16km, mb3.6/14, mbtmp3.9/17, ML3.9/2, MS2.9/5, Error ellipse: s-maj=18.9km s-min=11.6km az=110.0*

ISC 19 05:24:40.6±1.0, **41°.48N**±0°.04×**142°.27E**±0°.04, **h45**km±9km, **n70, σ1.s30**/77, **mb4.2**/24, **2C-11D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAHD	Aomorihigashid	0.73	253	⇓P	Pn	05 24 53.4	-1.2
JAHD				⇓S	Sn	05 25 03.6	-1.1
JARK	Aomorirokkasho	0.83	236	⇓P	Pn	05 24 54.6	-1.3
JARK				⇓S	Sn	05 25 05.4	-1.5
ERM	Erimo	0.85	51		Pn	05 24 55.0	-1.2
ERM				Sn	Sn	05 25 06.6	-1.0
JEM	Erimo	0.85	51	iP	Pn	05 24 55.1	-1.1
JEM				S	Sn	05 25 06.7	-0.9
JNBK	Urakawa-nobuka	0.88	24	eP	Pn	05 24 55.1	-1.4
JNBK				S	Sn	05 25 07.2	-1.0
JOT	Ohata	0.92	264	⇓P	Pn	05 24 55.8	-1.4
JOT				⇓S	Sn	05 25 07.7	-1.6
JSHD	Hidakashinhida	0.94	9	⇓P	Pn	05 24 57.0	-0.5
JKB	Kayabe	1.01	294	iP	Pn	05 24 56.8	-1.5
JKB				S	Sn	05 25 09.1	-2.3
JTM	Tenmabayashi	1.14	233		Pn	05 24 59.7	-0.4
JTM				Sn	Sn	05 25 13.9	-0.7
JTM	Tenmabayashi	1.14	233	⇓iP	Pn	05 24 59.6	-0.4
JTM				⇓S	Sn	05 25 14.0	-0.6
JIAM	Iburiatsuma	1.17	347	eP	Pn	05 24 59.0	-1.6
JANG	Nango	1.24	208	⇓iP	Pn	05 25 00.3	-1.3
JBT2	Biratori 2	1.30	3	iP	Pn	05 25 01.6	-0.7
JBT2				S	Sn	05 25 18.7	+0.2
JNB	Noboribetsu	1.35	318	iP	Pn	05 25 01.5	-1.5
JNB				S	Sn	05 25 17.4	-2.2
JSR	Shiriuchi	1.39	273	P	Pn	05 25 03.0	-0.6
JCH	Churui	1.40	35	⇓iP	Pn	05 25 03.5	-0.2
ASAJ	Asahikawa	2.65	5	P	Pn	05 25 20.9	+0.1
	23nm,0.3s,baz=223,slow=10,SNR=59						
ASAJ				S	Sn	05 25 51.2	-0.5
	35nm,0.3s,baz=17,slow=33,SNR=3.8						
ASAJ				LR	LR	05 26 49.0	
	comp=Z,213nm,20.5s,baz=76,slow=49						
	59nm,0.4s						
ASAJ				AML	AML		
JKA	Kamikawa-asahi	2.65	5		Pn	05 25 21.4	+0.6
JKA				Sn	Sn	05 25 54.0	+2.4
YSS	Yuzhno-Sakhali	5.49	3	Pn	Pn	05 26 00.1	+0.4
MJB9	Matsu-Tunnel	5.85	214		Pn	05 26 04.8	-0.1
MAJO	Matsushiro	5.86	214		Pn	05 26 05.0	+0.1
MJAR	Matsushiro Arr	5.86	214	P	Pn	05 26 07.2	+2.3
	2.2nm,0.5s,baz=25,slow=14,SNR=8.2						
MJAR				LR	LR	05 28 46.5	
	comp=Z,122nm,19.4s,baz=26,slow=42						
MJAR	Matsushiro Arr	5.86	214	Pn	Pn	05 26 04.7	-0.2
JGF	Kuroka	7.02	215	Pn	Pn	05 26 20.1	-0.8
KSRS	Korea Array	11.79	255	P	Pn	05 27 28.4	+2.3
	0.3nm,0.3s,baz=63,slow=15,SNR=4.2						
KSRS				S	Sn	05 29 41.2	+4.9
	4.0nm,0.7s,baz=68,slow=24,SNR=5.7						
KSRS				LR	LR	05 31 31.3	
	comp=Z,61nm,20.0s,baz=70,slow=35						
	1.5nm,0.7s						
KSRS				AML	AML		
MA2	Magadan	18.88	13	LR	LR	05 35 39.1	
	comp=Z,30nm,21.0s,baz=230,slow=35						
HHC	Hu-ho-hao-te	23.07	279	eP	P	05 29 41.8	-0.5
HHC				pmax	pmax		
	comp=Z,12nm,0.7s						
SONM	Songino Array	26.13	296	P	P	05 30 08.7	-1.7
	comp=Z,0.6nm,0.6s,baz=91,slow=6.9,SNR=2.6						
	comp=Z,0.6nm,0.6s						
GUMO	Guam	27.88	175	LR	LR	05 41 31.2	
	comp=Z,21nm,20.3s,baz=45,slow=36						
H11N2	WAKE ISLAND Hy	30.13	129	T	T	06 02 21.4	
	baz=322,slow=75,SNR=69						
H11N1	WAKE ISLAND Hy	30.14	129	T	T	06 02 12.5	
	baz=322,slow=75,SNR=64						
H11N3	WAKE ISLAND Hy	30.15	129	T	T	06 02 18.6	
	baz=322,slow=75,SNR=34						
LZH	Lanzhou	30.26	272	eP	P	05 30 50.9	+3.5
LZH				sP	pP	05 30 57.3	-1.7
LZH				pmax	pmax		
	comp=Z,21nm,1.4s						
H11S1	WAKE ISLAND Hy	30.98	130	T	T	06 03 21.5	
	baz=324,slow=75,SNR=35						
H11S3	WAKE ISLAND Hy	30.98	130	T	T	06 03 31.5	
	baz=324,slow=75,SNR=4.7						
H11S2	WAKE ISLAND Hy	31.00	130	T	T	06 03 23.8	
	baz=324,slow=75,SNR=4.8						
PZH	PanZhiHua	36.42	259	P	P	05 31 42.5	+1.4
ZALV	Zalesovo Beam	39.54	308	P	P	05 32 06.0	-0.9
	comp=Z,0.8nm,0.4s,baz=90,slow=7.6,SNR=6.0						
	comp=Z,0.8nm,0.4s						
L16K	Owhat River	39.78	39	P	P	05 32 08.8	0.0
L16K				IAmb	IAmb	05 32 25.8	
	comp=Z,8.2nm,1.3s						
G18K	Tagagawik	40.52	33	P	P	05 32 14.8	-0.1
G18K				IAmb	IAmb	05 32 44.0	
	comp=Z,6.5nm,1.4s						
D20K	Etivluk River	41.69	29	P	P	05 32 24.0	-0.5
J20K	Nowinta River	42.30	36	P	P	05 32 30.1	+0.6
J20K				IAmb	IAmb	05 32 48.1	
	comp=Z,9.7nm,1.4s						
MKAR	Makanchi Array	42.46	298	P	P	05 32 30.2	-0.9
	comp=Z,0.3nm,0.6s,baz=80,slow=8.5,SNR=3.7						
MKAR				PcP	PcP	05 34 23.1	-0.2
	comp=Z,0.2nm,0.4s,baz=79,slow=5.5,SNR=1.6						
	comp=Z,0.3nm,0.6s						
KURBB	Kurchatov Arra	43.91	305	P	P	05 32 41.5	-1.1
	comp=Z,1.7nm,0.6s,baz=77,slow=8.6,SNR=9.2						
KURBB				PcP	PcP	05 34 27.2	-0.8
	comp=Z,0.3nm,0.4s,baz=71,slow=3.3,SNR=1.8						
	comp=Z,1.7nm,0.6s						
SLKM	Skilak Lake	44.31	41	P	P	05 32 45.1	-0.7
NEA2	Nenana	44.50	35	P	P	05 32 48.3	+1.0
NEA2				IAmb	IAmb	05 32 48.8	
	comp=Z,5.0nm,0.6s						
IL31		45.42	35	P	P	05 32 55.2	+0.7
IL31				IAmb	IAmb	05 32 57.6	
	comp=Z,6.2nm,1.2s						
ILAR	Eielson Array	45.42	35	P	P	05 32 55.0	+0.5
	comp=Z,3.1nm,1.0s,baz=271,slow=6.4,SNR=20						
	comp=Z,3.1nm,1.0s						
EVN	Everest	46.79	272	P	P	05 33 07.0	+0.4
EVN				IAmb	IAmb	05 33 20.6	
	comp=Z,7.3nm,1.3s						
BVAR	Borovoye Array	48.16	310	P	P	05 33 15.4	-0.8
	comp=Z,0.8nm,0.4s,baz=77,slow=7.6,SNR=3.1						
	comp=Z,0.8nm,0.4s						
I30M	Mount Dempster	49.76	33		P	05 33 29.4	+1.1
I30M				IAmb	IAmb	05 33 30.4	
	comp=Z,4.4nm,0.8s						
AB31	Akbulak array	55.65	308	P	P	05 34 11.3	-0.6
ABKAR	Akbulak array	55.65	308	P	P	05 34 11.3	-0.6
KNRA	Kununurra	58.22	195	P	P	05 34 29.4	-1.0
KNRA				IAmb	IAmb	05 34 31.1	
	comp=Z,3.5nm,0.8s						
YKA	Yellowknife Ar	59.66	32	P	P	05 34 40.6	+0.7
	comp=Z,0.7nm,0.8s,baz=304,slow=6.8,SNR=2.4						
	comp=Z,0.7nm,0.8s						
WB0	Warramunga Arr	61.37	188	P	P	05 34 51.1	-0.9
WRA	Warramunga Arr	61.55	188	P	P	05 34 52.0	-1.1
	comp=Z,1.6nm,0.5s,baz=6.3,slow=6.9,SNR=26						
	comp=Z,1.6nm,0.5s						
WRA	Warramunga Arr	61.55	188	P	P	05 34 51.8	-1.3
FINES	FINESS Array B	65.21	332	P	P	05 35 16.1	-0.8
	comp=Z,4.4nm,0.9s,baz=58,slow=4.7,SNR=9.3						
	comp=Z,4.4nm,0.9s						
AS31	Alice Springs	65.28	188	P	P	05 35 17.1	-0.7
ASAR	Alice Springs	65.28	188	P	P	05 35 17.6	-0.2
	comp=Z,1.3nm,0.6s,baz=12,slow=6.1,SNR=12						
	comp=Z,1.3nm,0.6s						
ASAR	Alice Springs	65.28	188	P	P	05 35 16.4	-1.3
HFS	Hagfors	70.32	335	P	P	05 35 47.5	-1.6
	comp=Z,0.7nm,0.3s,baz=43,slow=6.7,SNR=9.9						
	comp=Z,0.7nm,0.3s						
NB2	NORSAR Subarra	70.35	337	P	P	05 35 48.5	-0.8
	comp=Z,0.3nm,0.4s,baz=36,slow=6.5						
NOA	NORSAR Array B	70.35	337	P	P	05 35 48.3	-1.1
	comp=Z,0.5nm,0.6s,baz=50,slow=5.5,SNR=3.5						

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
	comp=Z,0.5nm,0.6s						
AKASG	Malin Array Be	71.20	322	P	P	05 35 53.7	-1.0
	comp=Z,0.3nm,0.3s,baz=49,slow=6.2,SNR=2.1						
	comp=Z,0.3nm,0.3s						
PDAR	Pinedale Array	74.11	47	P	P	05 36 12.4	+0.1
	comp=Z,0.3nm,0.6s,baz=327,slow=5.5,SNR=4.1						
	comp=Z,0.3nm,0.6s						
TROLL	Troll, Antarti	143.65	200	PKPdf	PKPbc	05 44 07.7	+0.7
	comp=Z,95nm,0.9s						
VNA2	Neumayer--Watz	146.76	198	⇑PKPdf	PKPbc	05 44 15.7	-0.8
	comp=Z,1.7nm,0.6s,baz=140,slow=1.7						
VNA3	Neumayer Olymp	147.02	196	⇑PKPdf	PKPbc	05 44 16.7	-0.5
	comp=Z,1.4nm,0.8s						

IDC 19 05:46:34.7±5.9**, 7°.18S×129°.49E, h184**^{km}±59^{km}**, mb3.3**/1**, mbtmp3.5**/4**, Error ellipse: s-maj=62.9km s-min=28.0km az=68.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	11.48	199	P	Pn	05 49 15.4	+1.9
	1.1nm,0.5s,baz=18,slow=19,SNR=1.7						
FITZ				S	Sn	05 51 19.7	-1.5
	1.1nm,0.7s,baz=245,slow=24,SNR=1.0						
WRA	Warramunga Arr	13.53	160	P	Pn	05 49 38.0	-1.6
	0.2nm,0.3s,baz=338,slow=13,SNR=6.9						
WRA				S	Sn	05 52 01.7	-8.6
	0.2nm,0.3s,baz=112,slow=26,SNR=6.3						
ASAR	Alice Springs	16.93	166	P	Pn	05 50 21.8	+0.7
	0.6nm,0.7s,baz=345,slow=10,SNR=7.8						
ASAR				S	S	05 53 26.2	-1.1
	0.1nm,0.4s,baz=343,slow=20,SNR=1.7						
MKAR	Makanchi Array	68.10	327	P	P	05 57 14.5	-0.2
	0.4nm,0.3s,baz=125,slow=7.2,SNR=5.1						
	0.4nm,0.3s						

*IDC **19** 06:03:01.4±1.8, 14°.44N×92°.73W, h66^{km}±15^{km}, mb3.8/14, mbtmp4.1/18, MS3.5/22, Error ellipse: s-maj=19.6km s-min=7.2km az=32.0*

*MEX **19** 06:03:01.4±0.9, 14°.53N×92°.79W, h12^{km}±20^{km}, MD4.9, Presumed earthquake*

*CATAC **19** 06:03:02.0±0.4, 15°N±3°×9°3W±°, h33^{km}±4^{km}, M5.3/31, mb5.7/10, mB5.6/7, MLv5.3/31, Mw(mB)5.1/7, Error ellipse: s-maj=7.6km s-min=5.0km az=37.7, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}-8.00; $M_{\theta\theta}$3.83; $M_{\phi\phi}$4.16; $M_{r\theta}$1.39; $M_{\theta\phi}$-3.12; $M_{\phi r}$-0.31; Fault plane solution: $M_0$7.72943×10^{15} NP1:ϕ_s141.32976°, δ40.76410°, λ-82.40104°. NP2:ϕ_s311.34009°, δ49.66828°, λ-96.50368°. Principal axes: T 7.2128, Plg4.4689°, Azm45.9480°; N 0.9462, Plg4.9533°, Azm315.5599°; P -8.1590, Plg83.3212°, Azm177.8172°; confirmed*

*GFZ **19** 06:03:03.9±0.2, 15°N±3°×9°2W±°, h76^{km}, M5.0/24, mb4.7/24*

*GCG **19** 06:03:03.4±2.1, 14°.67N×92°.47W, h53^{km}±12^{km}, ML5.1, Presumed earthquake*

*NEIC **19** 06:03:04.2±1.7, 14°.78N±0°.08×92°.52W±0°.07, h66^{km}±7^{km}, mb4.4/70, Md4.6/26(MEX), Error ellipse: s-maj=11.7km s-min=9.0km az=213.0*

ISC 19 06:03:02.3±0.5**, 14°.63N**±0°.05×**92°.64W**±0°.04**, h71**^{km}±5^{km}**, n298,** σ1ṡ**66**/360**, mb4.4**/38**, Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THIG		0.45	53	*i* P	Pn	06 03 13.2	-1.6
THIG				*e*S	Sn	06 03 22.0	-1.9
THIG		0.45	53		Sn	06 03 22.3	-1.7
THIG		0.45	53	*i* P	Pn	06 03 13.2	-1.6
THIG				*i* S	Sn	06 03 18.7	-5.3
THIG				IAML		06 03 22.9	
	comp=E,73µm,0.4s						
SMCA	Catarina	0.59	68	*i* P	Pn	06 03 14.6	-1.5
SMCA				*i* S	Sn	06 03 24.0	-2.3
SMCA				IAML		06 03 25.0	
	comp=E,136µm,0.4s						
PATR	El Naranjo	0.62	39	*e*P	Pn	06 03 14.9	-1.8
PATR				*e*S	Sn	06 03 24.7	-2.6
PATR	El Naranjo	0.62	39		Pn	06 03 14.9	-1.8
PATR					Sn	06 03 24.7	-2.6
CHUJ	Union Juarez	0.69	48	*e*P	Pn	06 03 15.3	-2.2
CHUJ				*e*S	Sn	06 03 26.3	-2.3
PAVE	Pavencul	0.72	39	*e*P	Pn	06 03 16.1	-1.6
PAVE				*e*S	Sn	06 03 27.4	-1.7
PAVE	Pavencul	0.72	39		Pn	06 03 16.1	-1.6
PAVE					Sn	06 03 27.4	-1.7
RTAL	Retalhuleu	0.92	97	*e*P	Pn	06 03 18.6	-1.3
RTAL				*e*S	Sn	06 03 30.9	-2.1
RTAL	Retalhuleu	0.92	97		Pn	06 03 19.0	-0.9
RTAL	Retalhuleu	0.92	97	P	Pn	06 03 18.7	-1.2
RTAL				S	Sn	06 03 31.2	-1.7
STG8	El Palmar, Qui	1.26	98	*i* P	Pn	06 03 19.8	-4.7
STG8				*i* S	Sn	06 03 32.4	-8.6
STG8				IAML		06 03 34.3	
	comp=N,67µm,0.2s						
HUEH	Huehuetenango	1.29	58	*e*P	Pn	06 03 24.9	+0.1
HUEH				*e*S	Sn	06 03 42.7	+1.0
HUEH	Huehuetenango	1.29	58		Pn	06 03 25.0	+0.1
HUEH	Huehuetenango	1.29	58	*i* P	Pn	06 03 25.1	+0.2
HUEH				*i* S	Sn	06 03 40.8	-0.9
HUEH				IAML		06 03 48.3	
	comp=E,137µm,0.5s						
HUEH	Huehuetenango	1.29	58	P	Pn	06 03 25.1	+0.2
HUEH				S	Sn	06 03 43.0	+1.3
GCG4	OSOP	2.04	91	*i* P	Pn	06 03 33.7	-1.0
FG16	Alotenango, Sa	2.09	100	*i* P	Pn	06 03 29.7	-5.7
APG	El Apazote	2.14	80	P	Pn	06 03 35.7	-0.4
	comp=E,36nm,0.4s,baz=190,slow=12,SNR=142						
APG				S	Sn	06 04 04.7	+3.0
	comp=E,295nm,0.8s,baz=184,slow=11,SNR=46						
APG				LR	LR	06 04 22.5	
	comp=E,46nm,18.6s,baz=208,slow=36						
APG	El Apazote	2.14	80	*i* P	Pn	06 03 35.9	-0.1
TGIG		2.19	348	*e*P	Pn	06 03 36.0	-0.6
TGIG				*e*S	Sn	06 04 02.1	-0.6
TGIG		2.19	348	*i* P	Pn	06 03 36.4	-0.2
PCG5	San Vicente Pa	2.23	100	*i* P	Pn	06 03 33.2	-4.1
FAME	Alcaldia de Sa	2.66	107	P	Pn	06 03 41.9	-1.1
FAME				S	Sn	06 04 13.0	-1.2
JUAM	Asuncion Mita	2.86	96	*i* P	Pn	06 03 45.3	-0.4
JUAM				IAML		06 04 24.7	
	comp=E,4µm,0.8s						
NUBE	Las Nubes	2.87	104	*i* P	Pn	06 03 45.5	-0.3
NUBE	Las Nubes	2.87	104	P	Pn	06 03 45.6	-0.3
NUBE				S	Sn	06 04 17.8	-1.5
CEVE	Cerro Verde	3.03	105	P	Pn	06 03 48.4	+0.1
CEVE				S	Sn	06 04 25.2	+1.6
UXUV	UXUV	3.04	332	*e*P	Pn	06 03 48.0	-0.1
UXUV				*e*S	Sn	06 04 22.0	-1.4
UXUV	UXUV	3.04	332		Pn	06 03 48.0	-0.1
UNIC	Universidad Ca	3.06	102	P	Pn	06 03 48.2	-0.3
UNIC				S	Sn	06 04 25.5	+1.3
MTO3	Montecristo	3.18	94		Pn	06 03 49.4	-0.9
MTO3	Montecristo	3.18	94	*i* P	Pn	06 03 49.5	-0.8
MTO3	Montecristo	3.18	94	P	Pn	06 03 49.6	-0.7
ZAFR2	Estanzuela, Za	3.18	91	*i* P	Pn	06 03 46.7	-3.4
ESQI	Esquipulas	3.19	91		Pn	06 03 50.0	-0.3
ESQI	Esquipulas	3.19	91	P	Pn	06 03 49.9	-0.3
JAYA	Jayaque - finc	3.24	107	*i* P	Pn	06 03 50.7	-0.3
JAYA				IAML		06 04 35.3	
	comp=E,7µm,0.4s						
JAYA	Jayaque - finc	3.24	107	P	Pn	06 03 50.8	-0.3
JAYA				S	Sn	06 04 29.7	+1.1
CEDA	San Andres	3.25	104	P	Pn	06 03 52.0	+0.9
CEDA				S	Sn	06 04 30.5	+1.9
CMIG	Matias Romero	3.26	319	P	Pn	06 03 51.3	+0.1
	comp=E,84nm,0.2s,baz=157,slow=13,SNR=216						
CMIG				S	Sn	06 04 30.0	+1.1
	comp=E,725nm,0.6s,baz=92,slow=22,SNR=9.1						
PMON	Piamonte	3.35	105	P	Pn	06 03 52.6	+0.2
PMON				S	Sn	06 04 30.8	-0.4
LALI	Alcalda de L	3.41	109	*i* P	Pn	06 03 52.7	-0.5
LALI	Alcalda de L	3.41	109	P	Pn	06 03 53.1	-0.1
LALI				S	Sn	06 04 33.4	+0.8
UEES	Universidad Ev	3.42	105	P	Pn	06 03 53.8	+0.4
UEES				S	Sn	06 04 34.8	+1.9
SEMO	Seminario San	3.44	105	P	Pn	06 03 54.4	+0.8
SEMO				S	Sn	06 04 34.5	+1.2
LOMA	Loma Larga	3.50	106	P	Pn	06 03 55.4	+0.8
LOMA				S	Sn	06 04 36.5	+1.5
PANCS	Alcalda de	3.51	106	P	Pn	06 03 55.5	+0.9
PANCS				S	Sn	06 04 34.2	-0.7
HUIG	Huatulco	3.54	289	*e*P	Pn	06 03 53.4	-1.4
HUIG				*e*S	Sn	06 04 29.7	-5.8
PAVA	Las Pavas	3.71	104	P	Pn	06 03 57.3	0.0
PAVA				S	Sn	06 04 43.8	+3.9
SARH	Santa Rosa de	3.76	87	*i* P	Pn	06 03 57.6	-0.3
SARH	Santa Rosa de	3.76	87	P	Pn	06 03 57.6	-0.3
COEG	Centro de Oper	3.78	105	P	Pn	06 03 58.4	+0.1
COEG				S	Sn	06 04 44.6	+2.9
P5NO	Presa 5 de nov	3.82	99	P	Pn	06 03 57.9	-0.9
P5NO				S	Sn	06 04 49.4	+7.0
TECO	Alcaldia de Te	3.90	106	P	Pn	06 03 59.6	-0.2
TECO				S	Sn	06 04 46.0	+1.6
ALJI	Alcalda de J	4.16	108	S	Sn	06 04 50.6	-0.2
PACA	Pacayal	4.34	105	P	Pn	06 04 06.8	+0.7
PACA				S	Sn	06 04 59.6	+4.1
SCIG	Sabancuy	4.53	18	*e*P	Pn	06 04 07.9	-0.6
SCIG				*e*S	Sn	06 04 56.6	-3.2
SCIG	Sabancuy	4.53	18	*i* P	Pn	06 04 07.8	-0.7
PEIG	Puerto Escondi	4.56	288	*e*P	Pn	06 04 08.1	-0.7
PEIG				*e*S	Sn	06 04 53.3	-7.3
VHO	Vista Hermosa	4.63	302	*e*P	Pn	06 04 09.6	-0.4
VHO				*e*S	Sn	06 05 00.4	-2.1
LCND	La Caada	4.79	105	P	Pn	06 04 12.7	+0.7
CNCH	Conchagua	4.86	106	P	Pn	06 04 13.8	+0.8
CNCH				S	Sn	06 05 09.2	+1.1
YOIG	Yosondua	5.22	296	*e*P	Pn	06 04 18.9	+0.8
YOIG				*e*S	Sn	06 05 14.2	-2.9
TGUH	Tegucigalpa,Un	5.23	96		Pn	06 04 18.6	+0.5
TGUH	Tegucigalpa,Un	5.23	96	P	Pn	06 04 18.5	+0.3
TGUH	Tegucigalpa,Un	5.23	96	P	Pn	06 04 18.4	+0.3
	comp=Z,167nm,0.8s						
TOIG	Toxpalan	5.47	310	*e*P	Pn	06 04 21.4	0.0
TOIG				*e*S	Sn	06 05 20.8	-2.2
TXIG	Tlaxiaco	5.58	299	*e*P	Pn	06 04 24.2	+1.2
TXIG				*e*S	Sn	06 05 22.7	-3.3
CRIN	San Cristobal	5.76	109		Pn	06 04 27.9	+2.5
CRIN	San Cristobal	5.76	109	P	Pn	06 04 29.0	+3.6
CRIN	San Cristobal	5.76	109	P	Pn	06 04 26.7	+1.3
	comp=Z,1µm,0.8s						
TPIG	Tehuac#an	5.89	310	*e*P	Pn	06 04 26.6	-0.6
TPIG				*e*S	Sn	06 05 31.6	-1.8
HLIG	Huajuapan de L	5.89	303	*e*P	Pn	06 04 28.0	+0.7
HLIG				*e*S	Sn	06 05 31.2	-2.4
ILCN	San Idelfonso	6.12	109	P	Pn	06 04 27.6	-2.7
CNGA	Al SSO del Vol	6.15	109	P	Pn	06 04 29.8	-0.9
CNGN	Cerro Negro	6.15	109	P	Pn	06 04 30.5	-0.2
	comp=Z,35µmcomp=Z,5µm,0.7s						
CNGN				AML	AML		
CNGN	Cerro Negro	6.15	109	P	Pn	06 04 30.5	-0.2
CNGN				S	Sn	06 05 42.2	+2.4
CNGN	Cerro Negro	6.15	109	P	Pn	06 04 30.2	-0.5
	comp=Z,5µm,0.7s						
JAUV	Jalcomulco	6.17	320	*e*P	Pn	06 04 29.0	-1.9
JAUV				*e*S	Sn	06 05 39.8	-0.2
FTIG	Fresnillo de T	6.20	302	*e*P	Pn	06 04 33.3	+1.9
FTIG				*e*S	Sn	06 05 39.1	-1.9
LEVN	Ruinas Leon Vi	6.26	110	S	Sn	06 05 43.9	+1.5
MGIG	Malinaltepec	6.32	295	*e*P	Pn	06 04 33.0	-0.1
MGIG				*e*S	Sn	06 05 41.2	-2.8
RCVN	Varillal2	6.34	99	P	Pn	06 04 33.2	-0.2
COPN	Copaltepe	6.37	112	P	Pn	06 04 34.3	+0.7
TLIG	Tlapa	6.40	298	*e*P	Pn	06 04 35.0	+0.9
TLIG				*e*S	Sn	06 05 42.6	-3.3
TLIG	Tlapa	6.40	298		Pn	06 04 36.8	+2.6
CRIG	Cruz Grande	6.59	289	*e*P	Pn	06 04 36.5	-0.2
CRIG				*e*S	Sn	06 05 46.1	-4.4
TISN	Laguna Tiscapa	6.67	111	P	Pn	06 04 37.5	-0.3
UNAN	Cigeo UNAN	6.68	111	P	Pn	06 04 39.2	+1.3
MGAN	Managua	6.69	111		Pn	06 04 39.1	+1.1
MGAN	Managua	6.69	111	P	Pn	06 04 39.5	+1.5
	comp=Z,5µmcomp=Z,304nm,0.8s						
MGAN	Managua	6.69	111	P	Pn	06 04 38.7	+0.7
	comp=Z,316nm,0.8s						
MATN	Matagalpa	6.74	104	P	Pn	06 04 39.0	+0.3
MAS3	Al N del Volca	6.80	112	P	Pn	06 04 40.6	+1.0
NANN	Nandasmo	6.89	112	P	Pn	06 04 42.9	+2.2
TEIG	Tepich	6.95	36		Pn	06 04 40.0	-1.6
TEIG	Tepich	6.95	36	P	Pn	06 04 39.8	-1.7
	comp=Z,13µmcomp=Z,398nm,0.4s						
TEIG	Tepich	6.95	36	P	Pn	06 04 40.2	-1.3
	comp=Z,419nm,0.4s						
NADN	Granada	7.04	113	P	Pn	06 04 44.1	+1.2
BOAB	BOACO BROADBAN	7.12	107		Pn	06 04 44.2	+0.3
BOAB	BOACO BROADBAN	7.12	107	P	Pn	06 04 43.7	-0.1
BOAB	BOACO BROADBAN	7.12	107	P	Pn	06 04 44.4	+0.5
	comp=Z,268nm,0.7s						
PPCL	Tochimilco	7.13	307	*e*P	Pn	06 04 46.6	+2.2
PPCL				*e*S	Sn	06 06 03.1	-1.0
DAIG	Los Arroyos	7.16	290	*e*P	Pn	06 04 44.0	-0.4
DAIG				*e*S	Sn	06 06 00.7	-3.5
PPPT	Popocatepetl	7.17	308	*e*P	Pn	06 04 47.8	+2.7
PPPT				*e*S	Sn	06 06 04.8	-0.6
PPM	Popocatepetl	7.23	308	*e*P	Pn	06 04 49.3	+3.4
PPM				*e*S	Sn	06 06 04.1	-2.7
CXUV	Coxquihui	7.26	320	*e*P	Pn	06 04 45.0	-0.9
CXUV				*e*S	Sn	06 06 03.9	-2.9
YAIG	Yautepec	7.46	305	*e*P	Pn	06 04 51.6	+2.9
YAIG				*e*S	Sn	06 06 09.0	-2.9
MEIG	Mezcala	7.46	297	*e*P	Pn	06 04 50.9	+2.3
MEIG				*e*S	Sn	06 06 07.2	-4.7
OMEN	Al SSO del Vol	7.50	114	P	Pn	06 04 49.4	+0.3
PLIG	Platanillo	7.57	301	*e*P	Pn	06 04 52.6	+2.5
PLIG				*e*S	Sn	06 06 14.4	-0.1
MPVM	San Francisco	7.61	308	*e*P	Pn	06 04 53.0	+2.3
MPVM				*e*S	Sn	06 06 14.4	-1.1
THVM	De Xico	7.64	308	*e*P	Pn	06 04 51.9	+0.7
THVM				*e*S	Sn	06 06 14.2	-2.3
SIUN	Universidad Ur	7.68	96		Pn	06 04 51.9	+0.3
TLVM	San Miguel Top	7.72	307	*e*P	Pn	06 04 50.4	-2.0
TLVM				*e*S	Sn	06 06 16.2	-2.3
CARN	Rivas	7.74	115	Pn	Pn	06 04 53.6	+1.3
MAVM	Malinalco, Edo	7.85	304	*e*P	Pn	06 04 56.9	+2.8
MAVM				*e*S	Sn	06 06 21.4	-0.1
PTVM	Pico Tres Padr	7.92	309	*e*P	Pn	06 04 53.6	-1.4
PTVM				*e*S	Sn	06 06 21.9	-1.3
INVM	La Marquesa	7.94	307	*e*P	Pn	06 04 56.0	+0.6
INVM				*e*S	Sn	06 06 24.0	-0.1
TOVM	TOLUCA	8.17	305	*e*P	Pn	06 05 00.5	+1.9
TOVM				*e*S	Sn	06 06 29.3	-0.2
JUD3	Juan Diaz 3	8.23	122		Pn	06 05 00.5	+1.3
JTS	Las Juntas de	8.66	119	P	Pn	06 05 04.9	-0.1
	comp=Z,34nm,0.7s,baz=324,slow=5.2,SNR=29						
JTS				LR	LR	06 07 25.8	
	comp=Z,36nm,21.1s,baz=307,slow=31						
JTS	Las Juntas de	8.66	119		Pn	06 05 06.8	+1.9
JTS	Las Juntas de	8.66	119	P	Pn	06 05 06.6	+1.6
JTS	Las Juntas de	8.66	119	P	Pn	06 05 06.5	+1.6
	comp=Z,71nm,0.8s						
ZIIG	Zihuatanejo	8.98	290	*e*P	Pn	06 05 11.0	+1.7
ZIIG				*e*S	Sn	06 06 47.1	-1.9
BLUN	Bluefields	9.01	106	P	Pn	06 05 12.0	+2.2
	comp=Z,25nm,0.8s						
HDC	Heredia	9.52	118	P	Pn	06 05 18.5	+1.7
	comp=Z,115nm,0.8s						
MOIG	Morelia	9.59	303	*e*P	Pn	06 05 17.0	-0.9
MOIG				*e*S	Sn	06 07 06.0	+1.8
MOIG	Morelia	9.59	303		Pn	06 05 20.5	+2.7
RPIG	Rio Verde	10.03	317	*e*P	Pn	06 05 24.9	+1.1
RPIG				*e*S	Sn	06 07 16.5	+1.7
GTIG	Gomez Farias	10.42	325	*e*P	Pn	06 05 28.7	-0.3
GTIG				*e*S	Sn	06 07 20.4	-3.7
PIRO	Carate, Puerto	11.02	123		Pn	06 05 37.4	+0.2
BRU2	Volcan	11.34	120		Pn	06 05 42.1	+0.4
BRU2	Volcan	11.34	120	P	Pn	06 05 42.1	+0.4
	comp=Z,55nm,0.7s						
INCO	Volcan de Coli	11.56	296	*e*P	Pn	06 05 45.9	+1.0
INCO				*e*S	Sn	06 07 55.1	+2.6
CDAR	Ciudad de Arme	11.70	293	*e*P	Pn	06 05 48.8	+2.3
CDAR				*e*S	Sn	06 07 56.3	+0.9
CEGR	Campo Tres	11.73	295	*e*P	Pn	06 05 50.9	+3.9
CEGR				*e*S	Sn	06 07 57.3	+1.0
LNIG	Linares	12.06	329	*e*P	Pn	06 05 51.6	+0.2
SOR	Soroa	12.21	47		Pn	06 05 51.3	-2.1
SOR	Soroa	12.21	47	P	Pn	06 05 52.4	-1.0
	comp=Z,54nm,0.9s						
ZAIG	Zacatecas	12.40	312	Pn	Pn	06 05 56.6	+0.3
GMAL	Guarumal, Vera	13.10	120	P	Pn	06 06 06.9	+1.3
	comp=Z,1µmcomp=Z,26nm,0.7s						
PNME	Penonome	13.52	116	P	P	06 06 15.9	-1.9
CAMR	Camarioca	13.56	50		Pn	06 06 10.0	-1.6
BCIP	Isla Barro Col	13.65	112	P	Pn	06 06 12.5	-0.4
	comp=Z,17nm,1.0s						
CAIB	Caibarien	14.72	56		Pn	06 06 26.1	-0.8
MTDJ	Mount Denham	14.92	74	P	Pn	06 06 27.7	-1.9
	comp=Z,39nm,1.3s						
833A	Chaparral WMA,	15.00	336	Pn	Pn	06 06 31.2	+0.9
HKT	Hockley	15.53	350	P	Pn	06 06 38.1	+1.1
	comp=Z,19nm,1.5s						
HNDO	Hondo	16.05	339	Pn	Pn	06 06 44.0	+0.3
CHIV	Chivirico	16.37	69	Pn	Pn	06 06 47.2	-0.6
CHIV				IAmb	IAmb	06 06 54.2	
	comp=Z,23nm,0.9s						
435B	Jarrell	16.71	345	Pn	Pn	06 06 52.1	+0.2
435B				IAmb	IAmb	06 07 10.3	
	comp=Z,54nm,1.4s						
JCT	Junction City	17.09	339		Pn	06 06 57.5	+0.7
JCT				IAmb	IAmb	06 07 32.9	
	comp=Z,13nm,0.9s						
APAC	Apartado, Choc	17.10	111	P	Pn	06 06 56.7	-0.2
	comp=Z,7.8nm,1.1s						
HPIG		17.25	317	P	Pn	06 07 00.8	+2.0
HPIG		17.25	317	P	P	06 07 01.4	+2.0
	comp=Z,5.4nm,0.7s						
SAND	Sanderson	17.58	332	P	Pn	06 07 03.3	+0.6
VBMS	Vicksburg	17.61	6	P	Pn	06 07 02.5	-0.6
VBMS				IAmb	IAmb	06 07 22.2	
	comp=Z,30nm,0.8s						
SJCC	San Jacinto, C	17.70	103	P	Pn	06 07 01.3	-3.0
	comp=Z,23nm,1.2s						
TXAR	Lajitas Array	17.83	327	P	Pn	06 07 08.0	+2.2
	comp=Z,3.6nm,0.8s,baz=154,slow=14,SNR=24						
TXAR	Lajitas Array	17.83	327	P	P	06 07 06.8	+1.1
TX31	Lajitas Ar. Si	17.83	327	P	P	06 07 07.0	+1.3
OZNA	Ozona	17.99	336	P	P	06 07 08.2	+0.8
OZNA				IAmb	IAmb	06 07 26.1	
	comp=Z,16nm,0.9s						
143A	Socs Landing,	18.03	3		P	06 07 07.4	-0.2
143A				IAmb	IAmb	06 07 25.9	
	comp=Z,29nm,0.9s						
UREC	San Jos de Ur	18.11	110	P	P	06 07 07.5	-1.3
	comp=Z,7.9nm,0.8s						
CBOC	Ciudad Bolivar	18.52	116	P	P	06 07 14.0	+0.5
	comp=Z,9.6nm,1.1s						
Z41A	Richland Creek	18.54	360	P	Pn	06 07 14.8	+0.5
Z41A				IAmb	IAmb	06 07 18.2	
	comp=Z,28nm,0.8s						
ALPN	Alpine	18.65	329	P	P	06 07 15.6	+0.8
SGCY	Sterling City	18.87	337	P	P	06 07 17.8	+0.8
SGCY				IAmb	IAmb	06 07 45.6	
	comp=Z,18nm,0.9s						
TPB05	Hovey Rd	18.95	331	P	P	06 07 18.8	+0.8
WLAR	White Oak Lake	18.98	359	P	P	06 07 18.6	+0.5
WLAR				IAmb	IAmb	06 07 36.6	
	comp=Z,39nm,1.0s						
ABTX	Abilene, Hawle	19.02	342	P	P	06 07 19.3	+0.8
TMB01	Midkiff	19.03	335	P	P	06 07 20.2	+1.4
MNHN	Monahans	19.04	333	P	P	06 07 20.4	+1.5
LPIG	La Paz	19.13	302	LR	LR	06 14 08.0	
	comp=Z,73nm,18.7s,baz=143,slow=35						
229A	Bryant Ranch,	19.18	336	P	P	06 07 22.1	+1.6
TPB01	Permian Basin	19.19	330	P	P	06 07 22.0	+1.4
152A	Waverly Hall	19.35	21	P	P	06 07 22.3	+0.1
152A				IAmb	IAmb	06 07 40.2	
	comp=Z,31nm,0.9s						
GUY2C	Guyana, Caldas	19.40	117	P	P	06 07 21.5	-1.8
	comp=Z,7.8nm,0.6s						
PTBC	PUERTO BERRIO,	19.59	112	P	P	06 07 21.2	-3.7
	comp=Z,5.5nm,0.9s						
ODSA	Odessa	19.62	334	P	P	06 07 27.0	+1.7
ODSA				IAmb	IAmb	06 07 30.6	
	comp=Z,14nm,0.8s						
VHRN	Van Horn	19.68	327	P	P	06 07 27.6	+1.7
BBAC	Balboa, Cauca	19.70	128	P	P	06 07 27.5	+1.2
	comp=Z,14nm,1.0s						
129A	Stewart Farms,	19.79	336	P	P	06 07 28.3	+1.2
129A				IAmb	IAmb	06 08 07.3	
	comp=Z,11nm,0.8s						
APMT	Aspermont	19.81	341	P	P	06 07 28.0	+0.8
APMT				IAmb	IAmb	06 07 48.2	
	comp=Z,18nm,1.1s						
POPC	Popayan, Colom	19.81	126	P	P	06 07 28.7	+1.1
	comp=Z,22nm,0.9s						
MIAR	Mount Ida	19.85	358	P	P	06 07 27.2	-0.3
MIAR	Mount Ida	19.85	358	P	P	06 07 28.7	+1.1
	comp=Z,53nm,0.8s						
CMBC	Cumbal	19.99	132	P	Pn	06 07 32.6	+0.6
128A	Castleberry Fa	20.03	335	P	P	06 07 30.5	+0.8
128A				IAmb	IAmb	06 07 47.5	
	comp=Z,15nm,1.1s						
OTAV	Otavalo	20.04	134	P	P	06 07 31.7	+1.5
OTAV	Otavalo	20.04	134	P	P	06 07 31.2	+0.9
	comp=Z,7.4nm,1.0s						
OTAV	Otavalo	20.04	134	P	P	06 07 30.3	0.0
	comp=Z,7.6nm,1.0s						
TPB28		20.13	329	P	P	06 07 32.3	+1.5
TPB28				IAmb	IAmb	06 08 13.0	
	comp=Z,7.7nm,1.1s						
ORTC	Ortega, Tolima	20.18	120	P	P	06 07 32.6	+1.2
	comp=Z,2µmcomp=Z,548nmcomp=Z,59nm,0.9s						
X48A	Hartselle	20.37	13	P	P	06 07 33.2	0.0
X48A				IAmb	IAmb	06 07 39.1	
	comp=Z,22nm,0.8s						
GOGA	Godfrey	20.47	22	P	P	06 07 32.8	-1.5
	comp=Z,33nm,1.0s						
ROSC	El Rosal	20.49	117	P	P	06 07 33.4	-1.7
	comp=Z,4.1nm,0.6s,baz=101,slow=22,SNR=6.0						
	comp=Z,4.1nm,0.6s						
ROSC	El Rosal	20.49	117	P	P	06 07 36.0	+0.9
ROSC				IAmb	IAmb	06 07 53.7	
	comp=Z,14nm,0.8s						
WHAR	Wooly Hollow	20.57	1	P	P	06 07 35.8	+0.4
WHAR				IAmb	IAmb	06 08 16.3	
	comp=Z,25nm,1.1s						
PRAC	Prado	20.59	120	P	P	06 07 36.9	+1.1
	comp=Z,32nm,1.2s						
MNTX	Cornudas Mount	20.60	328	P	P	06 07 37.2	+1.4
MNTX	Cornudas Mount	20.60	328	P	P	06 07 37.7	+1.9
	comp=Z,6.5nm,0.8s						
SLOR	San Lorenzo -	20.71	136	P	P	06 07 39.5	+1.9
BARC	Barichara	20.71	111	P	P	06 07 37.7	+0.4
	comp=Z,9.0nm,0.9s						
BETC	Betania	20.71	123	P	P	06 07 39.5	+2.3
WMOK	Wichita Mounta	20.77	346	P	P	06 07 38.3	+0.7
	comp=Z,12nm,1.3s						
PAMC	Pamplona, Colo	20.86	108	P	P	06 07 37.5	-1.7
SDDR	Presa de Saban	20.89	75	P	P	06 07 38.9	-0.1
SDDR				IAmb	IAmb	06 07 57.6	
	comp=Z,12nm,0.7s						
CASC	Dorado de Casc	20.89	132	P	P	06 07 41.2	+2.1
	comp=Z,37nm,1.4s						
RUSC	La Rusia	21.09	112	P	P	06 07 41.6	-0.1
	comp=Z,9.3nm,1.0s						
FCAR	Ozark Folk Cen	21.18	1	P	P	06 07 42.8	+0.9
FCAR				IAmb	IAmb	06 08 05.7	
	comp=Z,20nm,1.0s						
SWET	Sewanee	21.37	15	P	P	06 07 43.1	-0.9
SWET				IAmb	IAmb	06 07 50.9	
	comp=Z,16nm,0.8s						
BANI	BANI	21.68	77	P	P	06 07 47.9	+0.3
U38A	Gravette	21.77	356	P	P	06 07 47.8	-0.4
U38A				IAmb	IAmb	06 08 05.5	
	comp=Z,19nm,1.2s						
WVT	Waverly	21.84	11	P	P	06 07 48.6	-0.3
WVT				IAmb	IAmb	06 08 29.5	
	comp=Z,21nm,1.3s						
WVT	Waverly	21.84	11	P	P	06 07 49.0	+0.1
CPCT	Cooper Cave	21.98	18	P	P	06 07 50.0	-0.5
CPCT				IAmb	IAmb	06 08 30.1	
	comp=Z,18nm,1.3s						
SDV	Santo Domingo	22.28	102	P	P	06 07 52.2	-1.9
	comp=Z,3.5nm,0.3s,baz=287,slow=11,SNR=3.9						
SDV				LR	LR	06 16 28.0	
	comp=Z,103nm,21.3s,baz=265,slow=36						
	comp=Z,3.5nm,0.3s						
MACC	Macarena, Meta	22.32	122	P	P	06 07 55.7	+1.3
	comp=Z,31nm,1.0s						
T42A	Van Buren	22.35	3	P	P	06 07 53.8	-0.7
T42A				IAmb	IAmb	06 08 18.7	
	comp=Z,26nm,1.4s						
TKL	Tuckaleechee C	22.40	19	P	P	06 07 53.8	-1.2
	comp=Z,6.4nm,0.7s,baz=189,slow=9.4,SNR=6.5						
MCRA	Macar, Loja	22.68	145	P	P	06 07 57.7	-0.6
PTLC	Puerto Leguiza	22.75	128	P	P	06 08 02.6	+3.6
	comp=Z,31nm,1.1s						
CRNM	Carthage	23.08	329	P	P	06 08 03.9	+1.6
TZTN	Tazewell	23.29	19	P	P	06 08 03.3	-0.8

	comp=Z,43nm,2.1s						
TZTN				pP	pP	06 08 20.2	+0.7
CCM	Cathedral Cave	23.36	3	P	P	06 08 04.2	-0.6
	comp=Z,12nm,1.5s						
LENM	Lemitar	23.37	329	P	P	06 08 07.2	+2.2
ALQ	Albuquerque	23.75	331	P	P	06 08 09.8	+1.3
ANMO	Albuquerque	23.75	331	P	P	06 08 09.4	+1.0
	comp=Z,1.6nm,0.7s,baz=142,slow=12,SNR=8.8						
	comp=Z,1.6nm,0.7s						
ANMO	Albuquerque	23.75	331	P	P	06 08 10.3	+1.8
	comp=Z,6.9nm,0.8s						
ANMO				pP	pP	06 08 24.9	+0.3
TUC	Tucson	24.16	320	P	P	06 08 13.0	+0.9
TUC				pP	pP	06 08 30.3	+1.7
WCI	Wyandotte Cave	24.17	12	P	P	06 08 11.3	-0.6
WCI	Wyandotte Cave	24.17	12	P	P	06 08 10.5	-1.4
	comp=Z,28nm,0.8s						
WCI				pP	pP	06 08 28.2	-0.3
ECPR	Experimental S	25.45	78	P	P	06 08 24.9	+1.1
SJG	San Juan	25.64	79	LR	LR	06 17 59.9	
	comp=Z,61nm,19.3s,baz=256,slow=35						
ATAH	Atahualpa	25.83	146	LR	LR	06 17 07.7	
	comp=Z,56nm,19.6s,baz=343,slow=33						
MVCO	Mesa Verde	26.55	331	P	P	06 08 34.9	+1.0
	comp=Z,35nm,1.1s						
CZSB	Cruzeiro do Su	29.74	137	P	P	06 09 03.6	+1.4
DUG	Dugway, Tooele	30.98	329	P	P	06 09 14.6	+1.4
	comp=Z,4.6nm,1.2s						
HWUT	Hardware Ranch	31.49	332	P	P	06 09 18.8	+1.1
	comp=Z,6.8nm,1.1s						
HWUT				pP	pP	06 09 35.1	+0.5
PDAR	Pinedale Array	31.59	336	P	P	06 09 20.6	+2.0
	comp=Z,0.3nm,0.7s,baz=153,slow=9.0,SNR=3.5						
	comp=Z,0.3nm,0.7s						
SADO	Sadowa	32.15	18	P	P	06 09 20.4	-2.7
	comp=Z,6.4nm,0.9s,baz=232,slow=7.4,SNR=4.5						
SADO				LR	LR	06 23 25.4	
	comp=Z,60nm,21.2s,baz=212,slow=38						
ELK	Elko	32.63	327	P	P	06 09 29.4	+1.7
	comp=Z,1.2nm,0.5s,baz=132,slow=8.6,SNR=4.7						
	comp=Z,1.2nm,0.5s						
MDPB	Devils Postpil	32.78	319	P	P	06 09 30.5	+1.4
NVAR	Mina Array Bea	32.79	321	P	P	06 09 31.2	+2.1
	comp=Z,4.2nm,0.7s,baz=134,slow=8.7,SNR=31						
NVAR				LR	LR	06 23 27.4	
	comp=Z,104nm,20.5s,baz=121,slow=37						
	comp=Z,4.2nm,0.7s						
HLID	Hailey	34.33	331	P	P	06 09 44.1	+1.7
HLID				IAmb	IAmb	06 10 01.5	
	comp=Z,6.0nm,1.1s						
HLID	Hailey	34.33	331	P	P	06 09 42.6	+0.2
	comp=Z,5.0nm,0.9s						
HLID				pP	pP	06 09 59.8	+0.4
MCMT	McKenzie Canyo	34.64	334	P	P	06 09 47.2	+2.0
ULM	Lac du Bonnet	35.62	356	LR	LR	06 26 35.2	
	comp=Z,48nm,18.2s,baz=188,slow=40						
J08A	Circle Bar Ran	36.18	327	P	P	06 09 59.5	+1.3
YBH	Yreka Blue Hor	37.49	322	P	P	06 10 08.2	-1.1
	comp=Z,0.6nm,0.5s,baz=121,slow=12,SNR=2.2						
YBH				LR	LR	06 26 46.3	
	comp=Z,77nm,19.5s,baz=152,slow=38						
	comp=Z,0.6nm,0.5s						
LPAZ	La Paz	39.11	141	P	P	06 10 22.9	-0.9
	comp=Z,2.6nm,0.7s,baz=334,slow=6.9,SNR=14						
LPAZ				LR	LR	06 26 14.3	
	comp=Z,77nm,19.6s,baz=340,slow=36						
	comp=Z,2.6nm,0.7s						
NEW	Newport	39.16	334	LR	LR	06 26 42.2	
	comp=Z,39nm,19.5s,baz=122,slow=36						
PB16	IPOC Station P	39.91	144	P	P	06 10 31.2	+0.8
PB16				IAmb	IAmb	06 10 32.9	
	comp=Z,5.8nm,0.7s						
PB16	IPOC Station P	39.91	144	P	P	06 10 28.9	-1.5
	comp=Z,9.8nm,0.7s						
MDP	Montagnes des	40.46	99	LR	LR	06 28 09.9	
	comp=Z,64nm,21.4s,baz=310,slow=37						
PB11	IPOC Station P	40.98	146	P	P	06 10 38.9	+0.2
GO01	Chusmiza	41.16	145	P	P	06 10 41.4	+0.8
GO01				IAmb	IAmb	06 10 42.5	
	comp=Z,8.0nm,0.8s						
GO01	Chusmiza	41.16	145	P	P	06 10 41.0	+0.4
	comp=Z,13nm,1.3s						
GO01				pP	pP	06 10 59.9	+2.0
SCHQ	Schefferville	44.85	21	P	P	06 11 07.1	-2.3
	comp=Z,1.9nm,0.5s,baz=200,slow=9.9,SNR=5.5						
SCHQ				LR	LR	06 30 52.0	
	comp=Z,71nm,20.4s,baz=212,slow=37						
SALTA		46.38	146	P	P	06 11 22.5	+0.1
YKA	Yellowknife Ar	50.27	347	P	P	06 11 50.5	-0.8
	comp=Z,2.0nm,0.5s,baz=155,slow=7.2,SNR=23						
	comp=Z,2.0nm,0.5s						
AQDB	Aquidauana	50.35	133	P	P	06 11 50.9	-1.5
	comp=Z,7.4nm,1.3s						
FRB	Frobisher Bay	51.84	13	LR	LR	06 38 04.2	
	comp=Z,62nm,18.3s,baz=86,slow=40						
MT08	Bocatoma Ro	52.46	156	P	P	06 12 08.9	+0.7
CPUP	Villa Florida	53.26	140	P	P	06 12 12.1	-1.9
	comp=Z,1.6nm,0.7s,baz=319,slow=9.2,SNR=6.0						
CPUP				LR	LR	06 34 11.4	
	comp=Z,39nm,18.1s,baz=311,slow=35						
	comp=Z,1.6nm,0.7s						
BDFB	Brasilia	53.38	123	P	P	06 12 13.8	-1.4
	comp=Z,3.1nm,0.7s,baz=292,slow=5.9,SNR=4.7						
	comp=Z,3.1nm,0.7s						
M29M	Somme Creek	57.59	337	P	P	06 12 45.8	+1.0
PLCA	Paso Flores	58.77	160	P	P	06 12 52.6	-0.6
	comp=Z,5.3nm,0.9s,baz=351,slow=8.4,SNR=6.3						
PLCA				LR	LR	06 32 31.6	
	comp=Z,83nm,18.0s,baz=113,slow=30						
	comp=Z,5.3nm,0.9s						
SFJD	Kangerlussuaq	59.10	18	LR	LR	06 42 44.2	
	comp=Z,57nm,18.2s,baz=188,slow=40						
BCAR	Beaver Creek A	59.21	336	P	P	06 12 57.0	+1.0
RES	Resolute Bay	60.06	359	LR	LR	06 40 43.0	
	comp=Z,57nm,18.2s,baz=11,slow=38						
I27K	Kandik River	60.51	339	P	P	06 13 06.0	+1.1
I27K				IAmb	IAmb	06 13 07.6	
	comp=Z,3.9nm,0.8s						
J25K	Salcha River,	61.37	337	P	P	06 13 11.4	+0.7
J25K				IAmb	IAmb	06 13 31.4	
	comp=Z,2.9nm,0.8s						
ILAR	Eielson Array	62.02	337	P	P	06 13 15.2	+0.3
	comp=Z,2.8nm,0.9s,baz=126,slow=4.9,SNR=25						
	comp=Z,2.8nm,0.9s						
ILAR	Eielson Array	62.02	337	P	P	06 13 15.8	+0.8
BMAR	Burnt Mountain	62.49	340	P	P	06 13 19.1	+0.9
I23K	Minto, Yukon-K	63.13	337	P	P	06 13 22.6	+0.3
L20K	Farewell, AK	63.98	333	P	P	06 13 28.2	+0.1
F21K	Alatna River	65.49	338	P	P	06 13 38.5	+0.7
F20K	Avaraart Lake	66.25	338	P	P	06 13 43.4	+0.7
F20K				IAmb	IAmb	06 14 02.3	
	comp=Z,6.4nm,0.9s						
EKA	Eskdalemuir Ar	77.82	36	P	P	06 14 53.8	+1.8
	comp=Z,0.6nm,0.6s,baz=271,slow=5.8,SNR=2.0						
	comp=Z,0.6nm,0.6s						
HFS	Hagfors	85.35	29	LR	LR	06 56 07.1	
	comp=Z,68nm,18.2s,baz=296,slow=37						
DBIC	Dimbokro	86.21	84	LR	LR	06 50 47.2	
	comp=Z,37nm,18.8s,baz=108,slow=33						
VAE	Valguarnera	94.23	50	LR	LR	06 51 56.4	
	comp=Z,58nm,20.4s,baz=301,slow=31						
AKASG	Malin Array Be	97.54	33	LR	LR	07 00 26.6	
	comp=Z,40nm,20.4s,baz=278,slow=35						
MKAR	Makanchi Array	118.69	4	PKP	PKPdf	06 21 41.3	-1.3
	comp=Z,0.3nm,0.6s,baz=325,slow=2.3,SNR=2.6						
HHC	Hu-ho-hao-te	120.41	339	*e*P	PKPdf	06 21 43.4	-2.8
STKA	Stephens Creek	127.83	241	PKP	PKPdf	06 21 58.0	-2.4
	comp=Z,1.1nm,0.6s,baz=90,slow=2.1,SNR=3.4						
WRA	Warramunga Arr	134.94	256	PKP	PKPdf	06 22 13.8	-0.4
	comp=Z,0.6nm,0.5s,baz=85,slow=2.1,SNR=10						
ASAR	Alice Springs	135.29	251	PKP	PKPdf	06 22 15.3	+0.6
	comp=Z,0.7nm,0.6s,baz=84,slow=1.6,SNR=8.7						
PZH	PanZhiHua	136.79	341	PKP	PKPdf	06 22 16.1	-1.6
FITZ	Fitzroy Crossi	143.15	259	PKP	PKPab	06 22 26.9	+2.0
	comp=Z,2.2nm,0.6s,baz=104,slow=2.7,SNR=4.3						
CMAR	Chiang Mai Arr	145.19	340	PKPbc	PKPbc	06 22 31.6	-0.9
	comp=Z,1.8nm,0.5s,baz=343,slow=3.2,SNR=9.0						

*MEX **19** 06:06:26.9±0.6, 14°.71N×92°.56W, h82^{km}±9^{km}, MD3.7, Presumed earthquake*

*GCG **19** 06:06:30.4±1.5, 14°.71N×92°.35W, h53^{km}±9^{km}, MD3.9, Presumed earthquake*

ISC 19 06:06:26.0±2.2, **14°.5N**±0°.1×**92°.6W**±0°.1, **h53**^{km}±17^{km}, **n13**, σ**1^{s}.87**/24, **Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THIG		0.51	44	*e*P	Pn	06 06 38.1	+0.4
THIG				*e*S	Sn	06 06 47.2	+1.1
THIG		0.51	44	*i* P	Pn	06 06 38.1	+0.4
THIG				*i* S	Sn	06 06 46.0	-0.1
SMCA	Catarina	0.63	59	*i* P	Pn	06 06 39.6	+0.5
SMCA				*i* S	Sn	06 06 48.1	-0.4
PATR	El Naranjo	0.69	34	*e*P	Pn	06 06 39.7	-0.4
PATR				*e*S	Sn	06 06 49.7	-0.6
CHUJ	Union Juarez	0.75	42	*e*P	Pn	06 06 40.1	-0.7
CHUJ				*e*S	Sn	06 06 51.1	-0.5
PAVE	Pavencul	0.79	34	*e*P	Pn	06 06 41.1	-0.2
PAVE				*e*S	Sn	06 06 52.2	-0.2
RTAL	Retalhuleu	0.91	91	*e*P	Pn	06 06 43.6	+1.0
RTAL				*e*S	Sn	06 06 55.3	+0.5
STG8	El Palmar, Qui	1.24	94	*i* P	Pn	06 06 44.7	-2.6
STG8				*i* S	Sn	06 06 57.5	-5.7
HUEH	Huehuetenango	1.34	54	*e*P	Pn	06 06 50.2	+1.6
HUEH				*e*S	Sn	06 07 07.0	+1.4
HUEH	Huehuetenango	1.34	54	*i* P	Pn	06 06 50.2	+1.6
HUEH				*i* S	Sn	06 07 03.3	-2.3
NUBE	Las Nubes	2.84	102	*i* P	Pn	06 07 11.6	+2.6
UXUV	UXUV	3.13	332	*e*S	Sn	06 07 47.6	-1.4
JAYA	Jayaque - finc	3.21	105	*i* P	Pn	06 07 16.3	+2.2
JAYA				*i* S	Sn	06 07 50.6	-0.7

*SSNC **19** 06:07:23.0±1.1, 19°.38N×78°.86W, h7^{km}±9^{km}, MD3.2, ML2.4, Presumed earthquake*

*JSN **19** 06:07:26.2±0.3, 19°.57N×78°.37W, h30^{km}±999^{km}, MD4.0, Presumed earthquake*

ISC 19 06:07:20.3±1.1, **19°.29N**±0°.06×**78°.84W**±0°.07, **h10**^{km}, **n15**, σ**1^{s}.39**/19, **2D, Cuba region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBCY	The Bluff, Cay	0.98	298	*e*P	Pg	06 07 39.5	+0.3
CBCY				*e*S	Sg	06 07 49.7	-2.2
CBCY				IAML		06 07 51.2	
	comp=E,44nm,0.2s						
CBCY				IAML		06 07 51.3	
	comp=N,24nm,0.2s						
LMGC	Las Mercedes	1.89	66	*e*P	Pn	06 07 52.5	-0.2
LMGC				IAML		06 08 16.4	
	comp=E,55nm,0.1s						
LMGC				IAML		06 08 16.6	
	comp=N,63nm,0.1s						
CCCC	Cccc	2.15	28	*e*P	Pn	06 07 57.9	+1.6
CCCC				*e*S	Sn	06 08 24.7	+1.6
PCJ	Portland Cotta	2.21	134	*i* P	Pn	06 07 59.5	+2.4
PCJ				*i* S	Sn	06 08 24.5	-0.1
STH	Stony Hill	2.27	122	⇓*i*P	Pn	06 07 58.7	+0.9
STH				*i* P	Pb	06 07 58.8	-2.6
STH	Stony Hill	2.27	122	*e*P	Pn	06 07 58.8	+0.9
GWJ	Greenwich	2.33	121	⇓*i*P	Pn	06 07 59.6	+0.7
GWJ				*i* P	Pb	06 07 59.6	-3.0
GWJ				*i* S	Sn	06 08 24.8	-3.0
CHIV	Chivirico	2.38	73	*e*P	Pn	06 07 59.9	+0.4
CHIV				IAML		06 08 28.2	
	comp=E,24nm,0.2s						
CHIV				IAML		06 08 28.2	
	comp=N,32nm,0.2s						
YAR	Yar	2.57	65	*e*P	Pn	06 08 02.7	+0.7
MARVS	Santiago de Cu	2.86	75	*e*P	Pn	06 08 06.7	+0.7
RCC	Rio Carpintero	3.04	76	*e*P	Pn	06 08 08.7	+0.2
HLGC	Holguin	3.06	58	*e*P	Pn	06 08 07.5	-1.3
PINC	Pinares de May	3.11	67	*e*P	Pn	06 08 10.0	+0.6
GTBY	Guantanamo Bay	3.57	79	*e*P	Pn	06 08 16.5	+0.8
QMBU	Quimbuelo	3.90	76	*e*P	Pn	06 08 21.0	+0.7

*IDC **19** 06:21:11.8±11.0, 2°.95S×102°.38E, h0^{km}, mb3.7/4, mbtmp3.8/4, Error ellipse: s-maj=424.1km s-min=29.1km az=60.0*

*DJA **19** 06:22:06.1±0.9, 6°S±16°×10°6E±1°2, h175^{km}±8^{km}, M3.5/8, MLv3.5/8*

ISC 19 06:21:10.5±4.4, **3°.4S**±0°.5×**101°.9E**±0°.8, **h10**^{km}, **n7**, σ**1^{s}.87**/6, **mb3.7**/4, **Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBJI	Citeko	5.82	122	P	Pn	06 22 36.8	-0.1
CBJI				AML	AML		
SKJI	Sukabumi	5.91	128	P	Pn	06 22 35.7	-2.5
SKJI				S	Sn	06 22 57.1	-49
SKJI				AML	AML		
BBJI	Bungbulang	7.05	126	P	Pn	06 22 46.6	-7.3
CMAR	Chiang Mai Arr	21.86	353	P	P	06 26 02.8	-0.8
	2.3nm,0.3s,baz=149,slow=10,SNR=4.8						
	2.3nm,0.3s						
FITZ	Fitzroy Crossi	27.51	124	P	P	06 26 58.2	+0.7
	2.3nm,1.0s,baz=300,slow=9.0,SNR=2.6						
	2.3nm,1.0s						
WRA	Warramunga Arr	35.70	120	P	P	06 28 10.5	+1.0
	0.3nm,0.4s,baz=292,slow=8.2,SNR=6.2						
	0.3nm,0.4s						
ASAR	Alice Springs	36.95	126	P	P	06 28 21.6	+1.5
	0.2nm,0.3s,baz=303,slow=8.3,SNR=6.1						
	0.2nm,0.3s						

*NOU **19** 06:23:04.7, 14°.74S×166°.44E, h0^{km}, MLv4.9/12, Vanuatu Islands*

*IDC **19** 06:23:06.0±5.8, 14°.29S×165°.89E, h0^{km}, mb3.7/4, mbtmp3.7/4, MS2.8/1, Error ellipse: s-maj=271.7km s-min=36.7km az=144.0*

ISC 19 06:23:08.5±0.9, **14°.80S**±0°.07×**166°.53E**±0°.09, **h35**^{km}, **n12**, σ**1^{s}.38**/11, **mb3.6**/4, **Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SANVU	Saraoutou	0.92	135	P	Pn	06 23 23.9	-1.1
SANVU	Saraoutou	0.92	135	S	Sn	06 23 37.4	+0.5
LUES	Luesalemba Tem	4.16	352	P	Pn	06 24 08.1	-1.4
LUES	Luesalemba Tem	4.16	352	S	Sn	06 24 57.7	+0.8
NGOA	Tingoa Renbel	7.07	296	P	Pn	06 24 48.8	-0.8
YATNC	Mamie plateau,	7.23	177	P	Pn	06 24 52.7	+0.9
OUENC	Ouen Island, N	7.58	178	P	Pn	06 24 57.7	+1.1
HNR	Honiara	8.36	309	LR	LR	06 28 04.9	
	comp=Z,74nm,19.0s,baz=334,slow=40						
WRA	Warramunga Arr	31.11	256	P	P	06 29 22.2	-1.8
	0.4nm,0.6s,baz=83,slow=8.6,SNR=4.5						
	0.4nm,0.6s						
ASAR	Alice Springs	31.98	249	P	P	06 29 30.2	-1.4
	0.5nm,0.7s,baz=77,slow=9.0,SNR=7.0						
	0.5nm,0.7s						
FITZ	Fitzroy Crossi	39.30	259	P	P	06 30 33.5	-0.9
	1.6nm,0.7s,baz=71,slow=10,SNR=3.6						
	1.6nm,0.7s						
ILAR	Eielson Array	86.82	18	P	P	06 35 50.5	+1.6
	0.3nm,0.7s,baz=234,slow=4.3,SNR=3.1						
	0.3nm,0.7s						

*IDC **19** 06:38:43.9±0.6, 33°.93N×118°.08W, h0^{km}, mb4.2/17, mbtmp4.1/24, ML3.8/7, MS3.8/37, Error ellipse: s-maj=13.8km s-min=9.1km az=71.0*

*NEIC **19** 06:38:45.8, 34°.01N×118°.10W, h19^{km}*

*NEIC **19** 06:38:46.4±1.1, 34°.049N±0°.009×118°.068W±0°.010, h20^{km}±1^{km}, mb4.6/57, ML4.7/148, Mwr4.5/136, Mwr4.5/6(PAS), Error ellipse: s-maj=1.3km s-min=1.1km az=216.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M$_{rr}$7.63; M$_{\theta\theta}$-7.34; M$_{\phi\phi}$-0.29; M$_{r\theta}$0.59; M$_{\theta\phi}$-1.27; M$_{\phi r}$1.01; Fault plane solution: M$_{0}$7.69000×10^{15} NP1:φ$_{s}$73.64000°, δ48.20000°, λ81.31000°. NP2: φ$_{s}$266.55000°, δ42.53000°, λ99.59000°. Principal axes: T 7.7680, Plg83.0000°, Azm284.0000°; N -0.1655, Plg6.0000°, Azm79.0000°; P -7.6025, Plg3.0000°, Azm170.0000°;*

*GFZ **19** 06:38:46.3±0.4, 34°N±5°×11°8W±°, h10^{km}, M4.6/18, mb4.6/18 Error ellipse: s-maj=14.0km s-min=9.9km az=55.5, confirmed*

*PAS **19** 06:38:46.9±1.1, 34°.038N±0°.008×118°.080W±0°.010, h17^{km}±1^{km}, Error ellipse: s-maj=1.2km s-min=1.1km az=220.0*

ISC 19 06:38:46.7±0.6, **34°.04N**±0°.01×**118°.08W**±0°.01, **h17**^{km}±4^{km}, **n306**, σ**0^{s}.96**/344, **mb4.6**/57, **MS3.9**/32, **5C-1D, Southern California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GVRC	Garvey Reservo	0.04	286		Pg	06 38 50.0	+0.2
GVRC					Sg	06 38 52.5	+0.6
CACC	Caltech Cellar	0.11	338		Pb	06 38 50.2	-0.2
CACC					Sg	06 38 52.8	0.0
CRPC	Caltech Rob'n	0.11	336		Pb	06 38 50.2	-0.2
CRPC					Sg	06 38 53.0	+0.1
GSA	Caltech--GSA	0.11	336		Pb	06 38 50.2	-0.2
GSA					Sb	06 38 52.9	0.0
CBCC	Caltech Broad	0.11	337		Pb	06 38 50.3	-0.1
CBCC					Sb	06 38 53.1	+0.2
PASC	Pasadena Art C	0.16	325		Pg	06 38 50.7	-0.4
PASC				IAML		06 38 54.2	
	comp=E,228µm,0.4s						
USC	University of	0.18	264		Pb	06 38 51.5	-0.1
USC					Sb	06 38 55.1	+0.3
MWC	Mount Wilson	0.18	4		Pg	06 38 51.3	-0.3
MWC				IAML		06 38 55.0	
	comp=E,139µm,0.5s						
MWC				IAML		06 38 55.1	
	comp=N,233µm,0.8s						
DLAC	Del Amo	0.19	185		Pb	06 38 52.2	+0.5
DLAC					Sb	06 38 57.0	+1.9
GR2C	Griffith Obs.	0.20	293		Pg	06 38 51.4	-0.3
GR2C					Sg	06 38 54.6	-0.4
BHPC	Baldwin Hills	0.24	259		Pb	06 38 52.7	+0.1
BHPC					Sb	06 38 56.8	+0.1
BREC	Barre Substati	0.24	161		Pb	06 38 52.9	+0.2
BREC					Sb	06 38 58.1	+1.4
LCGC	La Cienega, Cu	0.26	261		Pb	06 38 52.8	0.0
LCGC					Sb	06 38 57.9	+0.9
HLLC	North Hollywoo	0.27	300		Pg	06 38 52.6	-0.2
HLLC					Sg	06 38 56.4	-0.5
DECC	Green Verdugo	0.30	315		Pg	06 38 53.0	-0.4
DECC					Sg	06 38 57.5	-0.3
DJJ	Donna J Jenkin	0.32	282		Pg	06 38 53.0	-0.6
DJJ					Sg	06 38 57.7	-0.6
CHNC	Chino	0.33	97		Pb	06 38 53.9	-0.3
CHNC					Sb	06 38 59.3	+0.2
SANC	Santa Ana	0.37	155		Pb	06 38 54.5	-0.3
SANC					Sb	06 39 00.9	+0.7
BFSC	Mount Baldy Ra	0.40	60		Pg	06 38 54.7	-0.3
BFSC	Mount Baldy Ra	0.40	60		Sg	06 39 00.3	-0.3
RPV	Rancho Palos V	0.40	223		Pg	06 38 54.5	-0.5
RPV					Sg	06 39 00.2	-0.3
JNH	Juniper Hills	0.42	14		Pg	06 38 55.0	-0.4
JNH					Sg	06 39 00.9	-0.4
MLSC	Mira Loma	0.43	94		Pg	06 38 55.1	-0.4
MLSC					Sg	06 39 01.2	-0.2
TPRS	Tripped Ranch	0.43	277		Pg	06 38 55.2	-0.3
TPRS					Sb	06 39 01.4	-0.6
HOLC	Holcomb Ridge	0.46	24		Pg	06 38 55.7	-0.4
HOLC					Sg	06 39 02.3	-0.1
TMC	Table Mountain	0.46	43		Pb	06 38 56.2	-0.4
TMC					Sg	06 39 02.5	-0.1
LRRC	Littlerock Res	0.49	5		Pg	06 38 56.1	-0.5
LRRC					Sg	06 39 03.1	-0.1
CJV	Casa Juvan	0.49	353		Pg	06 38 56.1	-0.6
CJV					Sg	06 39 03.2	-0.3
FON	Fontana	0.53	83		Pg	06 38 57.0	-0.4
FON					Sg	06 39 04.4	-0.1
BLCC	Black Canyon	0.54	293		Pg	06 38 57.1	-0.4
BLCC					Sb	06 39 04.8	-0.3
OAT	Oat Mountain	0.54	304		Pb	06 38 57.6	-0.2
OAT					Sb	06 39 05.3	-0.1
PDE	Pardee, Santa	0.58	314		Pg	06 38 57.7	-0.6
PDE					Sb	06 39 07.4	+0.9
RVR	Riverside	0.58	94		Pg	06 38 57.5	-0.8
RVR					Sg	06 39 05.6	-0.5
AGOC	Agoura	0.58	281		Pg	06 38 57.5	-0.8
AGOC					Sb	06 39 06.0	-0.5
LEOC	Leona Valley	0.62	342		Pg	06 38 58.2	-0.9
LEOC					Sb	06 39 07.2	-0.5
RSBC	Riverside Bore	0.62	96		Pg	06 38 58.5	-0.6
RSBC					Sg	06 39 07.1	-0.4
RSBC	Riverside Bore	0.62	96		Pg	06 38 58.5	-0.6
RSBC					Sg	06 39 07.0	-0.5
CLTC	Calectric	0.63	85		Pg	06 38 58.8	-0.4
CLTC					Sb	06 39 07.9	0.0
CFSC	Central Fire S	0.66	84		Pg	06 38 59.5	-0.3
CFSC					Sb	06 39 08.9	+0.2
ELS	Elsinore Mount	0.67	126		Pg	06 38 59.1	-0.8
ELS				IAML		06 39 10.4	
	comp=E,28µm,0.2s						
ELS	Elsinore Mount	0.67	126		Sg	06 39 08.4	-0.3
ALPC	Antelope	0.67	344		Pg	06 38 59.2	-0.8
ALPC					Sg	06 39 08.3	-0.7
SBB	Saddle Back Bu	0.68	18		Pg	06 38 59.4	-0.8
SBB					Sg	06 39 08.3	-1.0
CIAC	Catalina I. Ai	0.69	204		Pg	06 38 59.7	-0.8
CIAC					Sg	06 39 09.1	-0.5
HLNC	Highland	0.71	83		Pb	06 39 00.2	-0.5
HLNC					Sb	06 39 10.2	-0.1
FOXC	Fox Airport	0.72	350		Pg	06 38 59.9	-1.0
FOXC					Sb	06 39 11.1	+0.7
ADO	Adelanto Recei	0.74	46		Pg	06 39 01.1	-0.1
ADO					Sb	06 39 11.5	+0.5
OSI	Osito Audit: C	0.79	317		Pb	06 39 01.3	-0.7
OSI				IAML		06 39 13.5	
	comp=N,26µm,0.6s						
OSI				IAML		06 39 14.4	
	comp=E,31µm,0.7s						
OSI	Osito Audit: C	0.79	317		Sg	06 39 12.8	+0.2
CFT	Crafton Hills	0.80	90		Pb	06 39 01.7	-0.5
CFT					Sb	06 39 12.4	-0.3
VTV	Victorville	0.81	50		Pb	06 39 01.9	-0.4
VTV					Sb	06 39 12.8	-0.2
SVD	Seven Oaks Dam	0.81	85		Pb	06 39 01.8	-0.7
SVD					Sg	06 39 13.4	0.0
EDW2	Edwards Air Fo	0.84	5		Pb	06 39 02.4	-0.6
EDW2					Sb	06 39 13.2	-0.8
TPO	Tropico Hills	0.85	351		Pb	06 39 02.1	-1.0
TPO	Tropico Hills	0.85	351		Sn	06 39 15.1	-0.9
MURC	Murrieta	0.85	121		Pb	06 39 02.2	-0.9
MURC					Sb	06 39 14.0	-0.3
BBSC	Beaumont Base	0.92	97		Pb	06 39 03.6	-0.6
BBSC					Sg	06 39 16.8	+0.2
HYS	Haystack Butte	0.92	27		Pb	06 39 03.9	-0.4
HYS					Sg	06 39 16.3	-0.6
MLL	Mill Creek	0.95	86		Pb	06 39 04.1	-0.7
MLL					Sb	06 39 17.0	-0.1
HMTC	Hemet	0.95	110		Pb	06 39 03.9	-0.9
HMTC					Sb	06 39 16.5	-0.5
STCC	Santa Clara	0.96	286		Pb	06 39 04.7	-0.2
STCC					Sn	06 39 19.2	+0.5
BACC	Bachelor Mtn.	0.96	116		Pb	06 39 03.9	-1.1
DGR	Domenigoni Val	0.97	113		Pb	06 39 04.1	-1.0
DGR					Sb	06 39 17.1	-0.5
SBI	Santa Barbara	0.97	235		Pb	06 39 04.0	-1.1
BBRC	Big Bear Solar	0.98	77		Pb	06 39 05.0	-0.5
BBRC					Sb	06 39 17.9	-0.3
THC	Tehachapi Micr	0.99	331		Pb	06 39 05.1	-0.5
RAY	Raywood Flat	1.05	90		Pb	06 39 06.2	-0.4
VG2	Vista Grande	1.07	101		Pb	06 39 06.2	-0.6
VG2					Sb	06 39 20.2	-0.3
SIL	Silver Peak	1.08	73		Pb	06 39 06.7	-0.4
CCAC	Calif City Air	1.11	2		Pn	06 39 07.4	-0.2
SCI2	San Clemente I	1.13	201		Pn	06 39 06.2	-1.6
SCI2					Sb	06 39 20.9	-1.2
GORC	Green Oak Ranc	1.13	141		Pn	06 39 06.0	-1.7
GORC					Sb	06 39 21.3	-0.9
TJR	Tejon Ranch	1.13	331		Pn	06 39 07.3	-0.5
MPI	Mount Pinos, F	1.17	311		Pn	06 39 07.9	-0.8
MPI					Sb	06 39 23.4	-0.5
CRY	Cary Ranch	1.21	113		Pn	06 39 07.9	-1.1
CRY					Sb	06 39 23.6	-1.1
PLM	Palomar	1.22	124		Pn	06 39 07.9	-1.2
PLM					Sb	06 39 23.7	-1.3
RRX	Edison Barstow	1.22	47		Pn	06 39 08.9	-0.1
DEVC	Devers	1.25	94		Pn	06 39 09.4	0.0
DNR	Dunn Ranch,Anz	1.29	111		Pn	06 39 08.8	-1.3
TEJ	El Tejon	1.29	337		Pn	06 39 09.7	-0.4
BZNA	Buzz No.'s Pla	1.29	115		Pn	06 39 09.3	-0.9
SNDA	J Saunders Pla	1.31	111		Pn	06 39 09.8	-0.6
SNDA					Sb	06 39 28.2	+0.7
FRD	Ford Ranch, An	1.34	113		Pn	06 39 10.1	-0.7
FRD					Sn	06 39 27.7	-0.5
FRD	Ford Ranch, An	1.34	113		Pn	06 39 10.0	-0.7
FRD					Sn	06 39 27.3	-0.9

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EW2    E Wide Canyon      1.39  94         Pn      06 39 11.1 -0.2
EW2                                        Sn      06 39 29.3  0.0
BLAC   Blackrock camp     1.40  88         Pn      06 39 11.2 -0.4
DPP    Dos Picos Cty      1.40 137         Pn      06 39 09.9 -1.7
DPP                                 IAML           06 39 30.7
       comp=E,17µm,0.3s
DPP                                 IAML           06 39 31.7
       comp=N,6µm,0.2s
DPP    Dos Picos Cty      1.40 137         Sn      06 39 27.7 -2.0
PFO    Pinyon Flats O     1.41 107  Pg     Pn      06 39 10.8 -0.9
       comp=N,391nm,0.3s,baz=285,slow=15,SNR=959
PFO                                 Lg     Lg      06 39 29.3
       comp=N,2µm,0.3s,baz=322,slow=6.2,SNR=19
PFO    Pinyon Flats O     1.41 107         Pn      06 39 10.7 -1.1
PFO    Pinyon Flats O     1.41 107  P      Pn      06 39 11.1 -0.7
XPFO   Pinon Flat         1.41 107         Pn      06 39 10.9 -0.9
SBC    Santa Barbara      1.42 287         Pn      06 39 11.0 -0.7
I57US  PINON FLAT INF     1.42 107  Pg     Pn      06 39 11.7 -0.1
       baz=288,slow=33
PMD    Palm Desert        1.47 105         Pn      06 39 11.5 -0.8
LRMC   Laurel Mtn Rad     1.47  13         Pn      06 39 12.1 -0.5
LRMC                                IAML           06 39 34.5
       comp=N,14µm,0.6s
LRMC                                IAML           06 39 37.9
       comp=E,14µm,0.7s
BORC   Borrego Spring     1.58 119         Pn      06 39 12.9 -1.0
BORC                                IAML           06 39 37.8
       comp=E,6µm,0.3s
BORC                                IAML           06 39 39.0
       comp=N,6µm,1.0s
CCCA   Chr Cany lake      1.59  21         Pn      06 39 13.8 -0.4
GSC    Goldstone, Bar     1.64  39         Pn      06 39 14.6 -0.3
GSC                                 IAML           06 39 40.3
       comp=N,11µm,1.0s
ISA    Isabella, Lake     1.65 349         Pn      06 39 14.7 -0.3
ISA                                 IAML           06 39 41.5
       comp=E,6µm,1.1s
BELC   Belle Mtn. Jos     1.73  91         Pn      06 39 15.3 -0.8
BELC                                IAML           06 39 42.3
       comp=N,12µm,0.8s
BELC                                IAML           06 39 43.5
       comp=E,14µm,0.7s
TJX    Tijuana            1.75 150         Pn      06 39 14.9 -1.4
TJX                                 IAML           06 39 42.6
       comp=N,13µm,0.6s
BAR    Barrett            1.79 139         Pn      06 39 15.5 -1.4
BAR                                 IAML           06 39 42.8
       comp=N,10µm,0.3s
BAR                                 IAML           06 39 43.2
       comp=E,10µm,0.3s
CLC    China Lake         1.82  12         Pn      06 39 16.5 -0.8
CLC                                 IAML           06 39 49.5
       comp=E,5µm,1.5s
VES    Vestal, Richgr     1.98 336         Pn      06 39 19.1 -0.4
VES                                 IAML           06 39 52.7
       comp=N,6µm,1.1s
VES                                 IAML           06 39 53.6
       comp=E,8µm,1.3s
MPMC   Manual Prospec     2.07  13         Pn      06 39 20.5 -0.5
MPMC                                IAML           06 39 55.0
       comp=E,7µm,0.8s
MPMC                                IAML           06 39 55.0
       comp=N,7µm,0.8s
CBX    Cerro Bola         2.09 145         Pn      06 39 20.0 -1.1
CBX                                 IAML           06 39 53.7
       comp=N,7µm,0.4s
CBX                                 IAML           06 39 54.9
       comp=E,9µm,0.4s
QSM    Queen of Sheba     2.16  27         Pn      06 39 21.8 -0.2
QSM                                 IAML           06 39 57.0
       comp=E,7µm,0.8s
QSM                                 IAML           06 39 60.0
       comp=N,5µm,0.7s
BC3    Big Chuckawall     2.21  99         Pn      06 39 21.1 -1.7
YUH    Yuha Desert        2.27 127         Pn      06 39 22.6 -0.8
DANC   Danby, Needles     2.31  74         Pn      06 39 23.4 -0.5
DANC                                IAML           06 40 01.5
       comp=E,7µm,0.9s
DANC                                IAML           06 40 09.3
       comp=N,6µm,0.8s
SHOC   Shoshone, Teco     2.37  38         Pn      06 39 24.7 -0.2
CWC    Cottonwood Cre     2.40 360         Pn      06 39 25.1 -0.3
GWY    Greenwater Val     2.43  28         Pn      06 39 25.3 -0.5
GWY                                 IAML           06 40 08.6
       comp=N,6µm,0.8s
IRM    Iron Mountain      2.43  86         Pn      06 39 24.6 -1.2
CCX    Cicese             2.47 151         Pn      06 39 25.2 -1.0
CCX                                 IAML           06 40 06.7
       comp=E,2µm,0.5s
MTPC   Mountain Pass      2.53  54         Pn      06 39 26.3 -0.8
MTPC                                IAML           06 40 11.2
       comp=E,2µm,1.0s
FURC   Furnace Creek,     2.62  22         Pn      06 39 27.3 -0.9
ESJX   Sierra Juarez      2.70 138         Pn      06 39 29.3 -0.2
ESJX                                IAML           06 40 10.7
       comp=E,2µm,0.4s
ESJX                                IAML           06 40 11.0
       comp=N,2µm,0.3s
PKD    Bear Valley Ra     2.78 314         Pn      06 39 29.2 -1.2
PKD                                 IAML           06 40 23.3
       comp=E,2µm,1.6s
PKD                                 IAML           06 40 38.5
       comp=N,2µm,1.0s
BLYC   Blythe             2.97  95         Pn      06 39 31.5 -1.5
BLYC                                IAML           06 40 23.8
       comp=N,2µm,1.1s
WCT    Wildcat Mounta     2.99  23         Pn      06 39 33.7 +0.2
WCT                                 IAML           06 40 26.5
       comp=N,2µm,1.1s
WCT                                 IAML           06 40 27.0
       comp=E,2µm,0.7s
GRAC   Grapevine Rang     3.01  11         Pn      06 39 34.1 +0.5
GRAC                                IAML           06 40 26.7
       comp=E,3µm,0.9s
GRAC                                IAML           06 40 29.3
       comp=N,3µm,0.8s
TIN    Tinemaha, Big      3.01 358         Pn      06 39 34.0 +0.3
TIN                                 IAML           06 40 28.5
       comp=E,4µm,1.2s
PMPB   Monarch Peak       3.12 315         Pn      06 39 34.4 -0.8
PMPB                                IAML           06 40 32.5
       comp=N,2µm,1.1s
PMPB                                IAML           06 40 44.4
       comp=E,2µm,1.0s
LVN    Las Vegas          3.17  49         Pn      06 39 35.4 -0.5
HULI   Fort Hunter Li     3.26 308         Pn      06 39 35.6 -1.5
HULI                                IAML           06 40 41.8
       comp=E,2µm,1.4s
HULI                                IAML           06 40 43.2
       comp=N,3µm,1.1s
TPNV   Topopah Spring     3.26  27         Pn      06 39 37.6 +0.3
TPNV                                IAML           06 40 34.5
       comp=N,2µm,1.0s
TPNV                                IAML           06 40 35.3
       comp=N,3µm,1.0s
GMN    Gold Mountain      3.32  11         Pn      06 39 38.1  0.0
SHPR   Sheep Range        3.43  43         Pn      06 39 39.8 +0.3
SHPR                                IAML           06 40 42.9
       comp=E,1µm,1.0s
BBGB   Big Mountain B     3.51 317         Pn      06 39 40.5 -0.1
W13A   Hualapai Mount     3.62  72         Pn      06 39 41.3 -0.8
W13A                                IAML           06 40 49.1
       comp=N,1µm,1.5s
113A   Mohawk Valley,     3.82 108         Pn      06 39 44.5 -0.3
SAO    San Andreas Ge     3.87 316         Pn      06 39 44.3 -1.2
FORD   Fort Ord Natur     4.02 312         Pn      06 39 46.1 -1.3
FORD                                IAML           06 41 00.4
       comp=E,2µm,0.8s
FORD                                IAML           06 41 10.4
       comp=N,2µm,1.5s
TPH    Tonopah            4.09   9         Pn      06 39 49.6 +1.0
TPH                                 IAML           06 41 02.8
       comp=E,1µm,1.4s
TPH                                 IAML           06 41 07.4
       comp=N,729nm,1.8s
PRN    Pahroc Range       4.17  35         Pn      06 39 50.3 +0.7
Y14A   Wickenburg         4.21  90         Pn      06 39 49.3 -1.0
Y14A                                IAML           06 41 11.2
       comp=N,487nm,1.6s
LHV    Little Huntoon     4.22 355         Pn      06 39 51.9 +1.7
LHV                                 IAML           06 41 08.4
       comp=E,1µm,1.3s
NV11   Mina Array Sit     4.38 359         Pn      06 39 53.9 +1.2
NVAR   Mina Array Bea     4.39 358  Pn     Pn      06 39 54.5 +1.8
       comp=E,2.5nm,0.3s,baz=184,slow=14,SNR=64
NVAR                                Pg     Pg      06 40 07.5 -3.3
       comp=E,17nm,0.3s,baz=183,slow=14,SNR=70
NVAR                                Lg     Lg      06 41 06.3
       comp=E,13nm,0.3s,baz=122,slow=33,SNR=1.6
       comp=E,8.6nm,0.5s
NVAR                                AML    AML
NVAR   Mina Array Bea     4.39 358         Pn      06 39 53.9 +1.1
MHC    Mount Hamilton     4.39 320         Pn      06 39 52.5 -0.2
MHC                                 IAML           06 41 17.9
       comp=N,441nm,1.3s
CMB    Columbia Colle     4.41 336         Pn      06 39 53.7 +0.9
PIX    Pinacate           4.61 121         Pn      06 39 55.2 -0.4
JRSC   Jasper Ridge       4.77 316         Pn      06 39 57.4 -0.4
JRSC                                IAML           06 41 47.2
       comp=E,448nm,1.4s
Q09A   Carvers            4.84   8         Pn      06 40 00.8 +1.9
CCUT   Cedar City         5.19  46         Pn      06 40 05.2 +1.4
U15A   North Rim          5.30  62         Pn      06 40 05.9 +0.5
SZCU   Shurtz Canyon      5.39  47         Pn      06 40 07.6 +1.1
FARB   Farallon Islan     5.42 314         Pn      06 40 07.2 +0.5
AFDM   Forest Hills D     5.43 335         Pn      06 40 07.3 +0.4
X16A   Lo Mia Camp, P     5.51  84         Pn      06 40 07.9 -0.3
CVS    Carmenet Viney     5.57 322         Pn      06 40 08.1 -0.8
MCCM   Marconi Confer     5.65 318         Pn      06 40 08.9 -1.0
WUAZ   Wupatki            5.71  73         Pn      06 40 11.5 +0.6
ORV    Oroville           6.15 334         Pn      06 40 17.0 +0.2
TUC    Tucson             6.35 104  P      Pn      06 40 19.4 -0.2
       comp=Z,14nm,0.9s
X18A   Snowflake          6.74  84  Pn     Pn      06 40 25.2 +0.1
O03E   Paynes Creek       6.92 336  Pn     Pn      06 40 28.8 +1.4
ELK    Elko               7.06  18  Pn     Pn      06 40 31.2 +1.7
       comp=Z,1.6nm,0.3s,baz=200,slow=10,SNR=15
ELK                                 Lg     Lg      06 42 26.9
       comp=Z,11nm,0.3s,baz=151,slow=5.0,SNR=10
ELK                                 LR     LR      06 43 14.0
       comp=Z,289nm,19.1s,baz=206,slow=38
       comp=Z,4.7nm,0.3s
ELK                                 AML    AML
ELK    Elko               7.06  18  Pn     Pn      06 40 31.1 +1.5
O02D   Mt. Diablo Mer     7.19 330         Pn      06 40 31.3 +0.1
319A   Douglas            7.87 107  Pn     Pn      06 40 40.6  0.0
HSIG                      7.87 128  Pn     Pn      06 40 40.3 -0.2
MVCO   Mesa Verde         8.41  65  P      Pn      06 40 50.4 +2.3
       comp=Z,27nm,0.9s
YBH    Yreka Blue Hor     8.51 336  Pn     Pn      06 40 52.1 +2.9
       comp=Z,0.2nm,0.3s,baz=141,slow=5.9,SNR=22
       comp=Z,5.9nm,0.8s
YBH                                 AML    AML
ANMO   Albuquerque        9.63  81  Pn     Pn      06 41 07.6 +2.9
       comp=Z,0.2nm,0.3s,baz=272,slow=11,SNR=11
ANMO                                Lg     Lg      06 43 45.4
       comp=Z,0.4nm,0.3s,baz=38,slow=17,SNR=6.0
PDAR   Pinedale Array    10.97  35  Pn     Pn      06 41 27.6 +4.4
       comp=Z,0.1nm,0.3s,baz=224,slow=10,SNR=19
PDAR                                LR     LR      06 46 28.4
       comp=Z,347nm,18.2s,baz=219,slow=42
       comp=Z,2.3nm,0.8s
PDAR                                AML    AML
LPIG   La Paz            12.00 144  LR     LR      06 46 03.0
       comp=Z,926nm,18.5s,baz=334,slow=37
TXAR   Lajitas Array     13.13 107  Pn     Pn      06 41 51.7 -0.8
       comp=Z,0.3nm,0.3s,baz=289,slow=13,SNR=14
TXAR                                Lg     Lg      06 45 37.2
       baz=295,slow=30,SNR=1.5
TXAR                                LR     LR      06 47 16.8
       comp=Z,406nm,19.2s,baz=288,slow=39
       comp=Z,0.2nm,0.4s
TXAR                                AML    AML
JTMT   Jette             13.99  11  Pn     Pn      06 42 03.9 -0.3
NEW    Newport           14.23   3  Pn     P       06 42 11.5 -3.2
       comp=Z,0.2nm,0.3s,baz=183,slow=12,SNR=22
NEW                                 Lg     Lg      06 46 19.9
       comp=Z,0.1nm,0.3s,baz=108,slow=10,SNR=3.3
NEW                                 LR     LR      06 48 22.5
       comp=Z,716nm,18.2s,baz=186,slow=40
       comp=Z,3.1nm,1.0s
NEW                                 AML    AML
EGMT   Eagleton          15.30  22  Pn     Pn      06 42 22.4 +0.5
EGMT                                IAmb   IAmb    06 42 30.6
       comp=Z,35nm,1.1s
LAO    LASA Array        15.51  32  Pn     Pn      06 42 23.2 -1.4
LAO                                 IAmb   IAmb    06 42 33.0
       comp=Z,22nm,0.8s
WTFS   Witchita Falls    16.29  85  Pn     Pn      06 42 32.8 -1.8
BRDY   Brady             16.30  94  Pn     Pn      06 42 33.1 -1.7
PLPT   Palo Pinto        16.54  89  Pn     Pn      06 42 36.1 -1.8
K30B   Basset            16.83  54  Pn     Pn      06 42 40.3 -1.2
K30B                                IAmb   IAmb    06 42 47.5
       comp=Z,60nm,1.3s
W35A   Tecumseh          17.49  80  P      P       06 42 50.8 -0.1
TUL3   Leonard           18.35  78  P      Pn      06 43 01.1 +0.7
ECSD   EROS Data Cent    19.26  54  P      Pn      06 43 12.3 +0.9
       comp=Z,22nm,1.0s
HKT    Hockley           19.29  96  P      Pn      06 43 14.1 +2.4
       comp=Z,21nm,2.5s
EDM    Edmonton          19.47   9         P       06 43 12.6  0.0
EDM                                 IAmb   IAmb    06 43 23.1
       comp=Z,37nm,1.1s
BBB    Bella Bella       19.53 341  P      Pn      06 43 14.6 +0.1
       comp=Z,0.2nm,0.3s,baz=153,slow=7.0,SNR=5.5
BBB                                 LR     LR      06 51 35.4
       comp=Z,276nm,18.3s,baz=174,slow=39
       comp=Z,5.7nm,0.9s
BBB                                 AML    AML
HHAR   Hobbs             19.85  77         P       06 43 17.2 +0.3
MIAR   Mount Ida         20.24  82  P      P       06 43 21.6 +0.5
MIAR                                IAmb   IAmb    06 43 23.8
       comp=Z,35nm,1.0s
MIAR   Mount Ida         20.24  82  P      Pn      06 43 22.9 -0.2
       comp=Z,48nm,1.1s
S39A   Bolivar           20.37  73         P       06 43 22.1 -0.4
P38A   Dawn              20.39  67         P       06 43 22.6 -0.1
P38A                                IAmb   IAmb    06 43 28.5
       comp=Z,25nm,1.0s
N38A   Joes South For    20.81  64  P      P       06 43 26.3 -0.9
WHAR   Wooly Hollow      21.23  79         P       06 43 31.7 -0.1
WHAR                                IAmb   IAmb    06 43 33.9
       comp=Z,31nm,1.4s
FCAR   Ozark Folk Cen    21.33  78  P      P       06 43 32.8 -0.1
P40A   Paris             21.52  68         P       06 43 35.0 +0.1
P40A                                IAmb   IAmb    06 43 41.5
       comp=Z,20nm,1.0s
AGMN   Agassiz Nation    21.86  43         P       06 43 38.0 -0.4
AGMN                                IAmb   IAmb    06 43 40.3
       comp=Z,19nm,0.8s
AGMN   Agassiz Nation    21.86  43  P      P       06 43 39.1 +0.7
       comp=Z,29nm,1.5s
CCM    Cathedral Cave    22.03  72  P      P       06 43 43.9 +3.5
       comp=Z,22nm,1.6s
SPMN   Marine on St.     22.35  53         P       06 43 44.4 +0.7
SPMN                                IAmb   IAmb    06 43 46.7
       comp=Z,24nm,1.0s
ULM    Lac du Bonnet     22.96  38  P      P       06 43 48.9 -1.2
       comp=Z,18nm,0.9s,baz=234,slow=10,SNR=17
ULM                                 LR     LR      06 52 47.2
       comp=Z,169nm,19.2s,baz=228,slow=37
       comp=Z,18nm,0.9s
ULM    Lac du Bonnet     22.96  38         P       06 43 49.6 -0.5
ULM                                 IAmb   IAmb    06 43 51.5
       comp=Z,19nm,0.9s
I40A   Norwalk           23.41  57  P      P       06 43 54.9 +0.1
L42A   Oliver, Polo      23.67  62         P       06 43 57.7 +0.3
E38A   The Farm, Brul    23.67  50         P       06 43 57.0 -0.3
E38A                                IAmb   IAmb    06 43 59.6
       comp=Z,26nm,1.2s
HDIL   Hopedale          23.74  66         P       06 43 57.3 -0.7
EYMN   Ely               24.25  47  P      P       06 44 03.3 +0.5
       comp=Z,17nm,1.6s
WVT    Waverly           24.79  77  P      P       06 44 11.3 +3.6
       comp=Z,24nm,1.2s
X48A   Hartselle         25.61  80         P       06 44 15.1 -0.1
X48A                                IAmb   IAmb    06 44 16.1
       comp=Z,11nm,0.9s
V48A   Smith Brothers    25.64  77  P      P       06 44 15.4 -0.1
V48A                                IAmb   IAmb    06 44 19.6
       comp=Z,11nm,1.0s
DLBC   Dease Lake        25.69 345  LR     LR      06 55 22.1
       comp=Z,432nm,21.0s,baz=102,slow=39
TBO    Thunder Bay       25.81  47         P       06 44 16.7 -0.2
WCI    Wyandotte Cave    25.94  72  P      P       06 44 22.2 +4.1
       comp=Z,16nm,2.9s
CLTN   Cedars of Leba    26.00  76  P      P       06 44 18.5 -0.2
U49A   Red Boiling Sp    26.42  75  P      P       06 44 22.8 +0.3
Q32M   Nakina River      26.66 344  P      P       06 44 24.5 -0.1
Q32M                                IAmb   IAmb    06 44 39.6
       comp=Z,13nm,1.2s
FPAL   Fort Paine        26.77  80  P      P       06 44 25.2 -0.5
CMIG   Matias Romero     26.78 123  LR     LR      06 54 57.3
       comp=Z,189nm,19.9s,baz=192,slow=36
W50A   Signal Mountai    26.92  78  P      P       06 44 26.1 -1.0
CPCT   Cooper Cave       27.54  77  P      P       06 44 32.3 -0.3
CPCT                                IAmb   IAmb    06 44 33.9
       comp=Z,14nm,1.1s
S51A   Beattyville       28.09  73  P      P       06 44 37.1 -0.4
S51A                                IAmb   IAmb    06 44 38.9
       comp=Z,15nm,0.9s
TZTN   Tazewell          28.20  75  P      P       06 44 39.2 +0.6
       comp=Z,22nm,1.9s
ACSO   Alum Creek Sta    28.52  67  P      P       06 44 40.9 -0.4
ACSO                                IAmb   IAmb    06 44 42.8
       comp=Z,13nm,0.8s
YKA    Yellowknife Ar    28.56   3  P      P       06 44 41.8 +0.4
       comp=Z,1.2nm,0.8s,baz=182,slow=8.9,SNR=5.5
YKA                                 LR     LR      06 55 56.9
       comp=Z,65nm,21.2s,baz=176,slow=36
       comp=Z,1.2nm,0.8s
YKA    Yellowknife Ar    28.56   3  P      P       06 44 42.0 +0.6
BG3    Lake Jocassee     28.89  78  P      P       06 44 44.2 -0.4
HODGE  Hodges            29.55  79  P      P       06 44 50.7 +0.2
HODGE                               IAmb   IAmb    06 45 01.4
       comp=Z,9.4nm,0.8s
SADO   Sadowa            31.66  59  LR     LR      06 58 50.3
       comp=Z,306nm,19.6s,baz=278,slow=38
GLB    Gilahina Butte    32.00 337  P      P       06 45 11.0 -0.8
GLB                                 IAmb   IAmb    06 45 22.7
       comp=Z,8.4nm,1.2s
SSPA   Standing Stone    32.41  66  P      P       06 45 16.2 +0.5
       comp=Z,21nm,2.0s
I30M   Mount Dempster    33.12 346  P      P       06 45 20.3 -1.4
I30M                                IAmb   IAmb    06 45 24.2
       comp=Z,4.6nm,0.8s
KDAK   Kodiak Island     33.17 326  LR     LR      06 56 07.2
       comp=Z,156nm,20.9s,baz=120,slow=31
TGUH   Tegucigalpa,Un    34.24 118  P      P       06 45 35.1 +3.2
       comp=Z,24nm,1.5s
G29M   Pine Creek        34.93 346         P       06 45 38.2 +0.9
G29M                                IAmb   IAmb    06 45 39.5
       comp=Z,12nm,1.0s
ILAR   Eielson Array     35.39 339  P      P       06 45 42.5 +1.3
       comp=Z,3.0nm,0.8s,baz=155,slow=7.6,SNR=36
       comp=Z,3.0nm,0.8s
ILAR   Eielson Array     35.39 339         P       06 45 40.6 -0.7
INK    Inuvik            35.43 350  LR     LR      07 01 30.8
       comp=Z,357nm,20.1s,baz=200,slow=38
INK    Inuvik            35.43 350  P      P       06 45 42.6 +1.1
       comp=Z,10nm,1.3s
M17K   Holitna River     37.12 330         P       06 45 56.6 +0.5
J20K   Nowinta River     37.36 335         P       06 45 58.6 +0.6
J20K                                IAmb   IAmb    06 45 60.0
       comp=Z,7.7nm,1.0s
J19K   Poorman           37.78 334         P       06 46 02.7 +1.0
J19K                                IAmb   IAmb    06 46 04.2
       comp=Z,17nm,1.2s
K17K   Iditarod          38.13 331         P       06 46 04.9 +0.4
IMAR   Indian Mountai    38.33 337         P       06 46 07.0 +0.8
JTS    Las Juntas de     38.44 120  LR     LR      07 01 40.0
       comp=Z,115nm,18.4s,baz=311,slow=36
M14K   Bethel            38.81 327         P       06 46 10.8 +0.6
SCHQ   Schefferville     40.95  43  LR     LR      07 03 45.8
       comp=Z,207nm,20.8s,baz=263,slow=37
RES    Resolute Bay      42.27   9  LR     LR      07 04 01.6
       comp=Z,116nm,18.8s,baz=200,slow=36
FRB    Frobisher Bay     42.38  30  LR     LR      07 04 59.2
       comp=Z,249nm,21.7s,baz=272,slow=37
OTAV   Otavalo           50.07 124  P      P       06 47 43.8 +2.5
       comp=Z,10.0nm,1.1s
SDV    Santo Domingo     50.17 109  LR     LR      07 12 33.8
       comp=Z,50nm,18.1s,baz=267,slow=40
SFJD   Kangerlussuaq     50.40  28  LR     LR      07 09 48.9
       comp=Z,372nm,18.3s,baz=262,slow=37
SHEM   Shemya Is, Ala    50.74 313  LR     LR      07 05 15.2
       comp=Z,41nm,20.6s,baz=7.5,slow=31
SUMG   Summit            54.80  21  P      P       06 48 16.0 +0.3
DAG    Danmarks Havn     59.28  15  P      P       06 48 46.0 -0.8
PPT2   Papeete2          59.47 215 eLR     LR      07 06 15.2
       comp=Z,78nm,21.5s
PETK   Petropavlovsk-    60.34 316  P      P       06 48 55.2 +0.7
       comp=Z,7.2nm,1.0s,baz=98,slow=10,SNR=3.8
PETK                                LR     LR      07 09 43.6
       comp=Z,30nm,21.9s,baz=62,slow=31
       comp=Z,7.2nm,1.0s
MA2    Magadan           61.90 325  LR     LR      07 15 04.6
       comp=Z,52nm,19.0s,baz=32,slow=35
BOAV   Boa Vista         62.08 107         P       06 49 06.1 -0.7
BOAV                                IAmb   IAmb    06 49 08.1
       comp=Z,6.5nm,1.0s
BORG   Borgarnes         62.52  29  LR     LR      07 17 13.3
       comp=Z,147nm,18.2s,baz=219,slow=37
TIXI   Tiksi             64.82 341  LR     LR      07 18 30.7
       comp=Z,65nm,19.9s,baz=62,slow=37
SPITS  Spitsbergen Ar    64.83   9  LR     LR      07 19 53.5
       comp=Z,108nm,18.0s,baz=282,slow=38
LPAZ   La Paz            69.03 128  P      P       06 49 51.9 -0.5
       comp=Z,1.0nm,0.8s,baz=321,slow=5.1,SNR=4.4
       comp=Z,1.0nm,0.8s
PB16   IPOC Station P    69.65 131  P      P       06 49 58.2 +2.1
       comp=Z,9.4nm,1.9s
PB11   IPOC Station P    70.62 132  P      P       06 50 02.2 +0.6
       comp=Z,13nm,1.7s
ARCES  ARCESS Array B    73.35  13  LR     LR      07 25 58.8
       comp=Z,98nm,18.1s,baz=248,slow=39
CLDB   Colider           74.04 115  P      P       06 50 22.7 +0.8
       comp=Z,14nm,1.2s
ESK    Eskdalemuir       75.08  32  P      P       06 50 27.1 -0.2
       comp=Z,25nm,2.1s
NRIK   Noril'sk          75.22 351  P      P       06 50 27.9  0.0
       comp=Z,4.5nm,0.8s,baz=48,slow=2.7,SNR=3.8
       comp=Z,4.5nm,0.8s
KLR    Kul'dur           76.53 321  LR     LR      07 26 06.8
       comp=Z,12nm,18.1s,baz=9.0,slow=37
FOEL   Foel Wylfa        76.61  34  P      P       06 50 37.4 +1.2
       comp=Z,15nm,1.2s
NB2    NORSAR Subarra    76.66  23  P      P       06 50 36.2 -0.1
       comp=Z,0.6nm,0.6s,baz=316,slow=5.6
NOA    NORSAR Array B    76.66  23  P      P       06 50 36.2 -0.1
       comp=Z,1.2nm,0.8s,baz=318,slow=5.7,SNR=4.9
NOA                                 LR     LR      07 24 04.2
       comp=Z,55nm,19.4s,baz=285,slow=35
       comp=Z,1.2nm,0.8s
HFS    Hagfors           78.14  22  P      P       06 50 44.8 +0.2
       comp=Z,1.3nm,0.7s,baz=322,slow=4.7,SNR=2.6
HFS                                 LR     LR      07 24 28.2
       comp=Z,84nm,19.1s,baz=306,slow=35
       comp=Z,1.3nm,0.7s
MJAR   Matsushiro Arr    80.11 307  P      P       06 50 55.7 -0.2
       comp=Z,0.8nm,0.3s,baz=60,slow=5.0,SNR=4.2
MJAR                                LR     LR      07 20 05.7
       comp=Z,45nm,21.0s,baz=136,slow=31
       comp=Z,0.8nm,0.3s
AQDB   Aquidauana        80.37 123  P      P       06 50 57.0 -0.3
       comp=Z,5.9nm,1.4s
CFA    Coronel Fontan    80.42 139  P      P       06 50 57.1 -0.3
       comp=Z,1.3nm,0.8s,baz=337,slow=5.6,SNR=3.9
       comp=Z,1.3nm,0.8s
FINES  FINESS Array B    80.49  17  P      P       06 50 57.5 +0.1
       comp=Z,3.8nm,0.8s,baz=338,slow=5.8,SNR=5.7
FINES                               LR     LR      07 29 16.4
       comp=Z,113nm,18.0s,baz=256,slow=38
       comp=Z,3.8nm,0.8s
BNX    BinXian           81.00 320 ⇓P      P       06 51 00.8 +0.3
BNX                                 pmax   pmax
       comp=Z,13nm,1.0s
CPUP   Villa Florida     83.20 128  P      P       06 51 12.4 +0.3
       comp=Z,1.9nm,0.7s,baz=310,slow=5.8,SNR=6.1
       comp=Z,1.9nm,0.7s
ASSE   Asse, Remlinge    83.20  29  P      P       06 51 13.1 +1.3
       comp=Z,8.7nm,1.4s
LOR    Lormes            83.75  36  P      P       06 51 16.1 +1.3
       comp=Z,17nm,1.8s
ESDC   Sonseca Array     84.69  45  P      P       06 51 19.9 +0.1
       comp=Z,2.6nm,1.0s,baz=306,slow=5.7,SNR=9.7
       comp=Z,2.6nm,1.0s
FRTB   Fartura           86.56 121  P      P       06 51 29.7 +0.6
       comp=Z,16nm,2.7s
DAVOX  Davos/Dischmat    86.92  33  LR     LR      07 30 40.0
       comp=Z,93nm,18.3s,baz=268,slow=36
JNU    Nakatsue          86.98 308  LR     LR      07 26 07.0
       comp=Z,44nm,20.7s,baz=226,slow=33
VRAC   Vranov            87.75  28  LR     LR      07 34 12.4
       comp=Z,64nm,19.0s,baz=324,slow=38
SONM   Songino Array     89.28 332  P      P       06 51 43.4 +1.3
       comp=Z,0.6nm,0.5s,baz=17,slow=6.2,SNR=4.7
SONM                                LR     LR      07 31 36.6
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	comp=Z,70nm,18.4s,baz=76,slow=36						
	comp=Z,0.6nm,0.5s						
ZALV	Zalesovo Beam	90.16	347	P	P	06 51 45.3	-0.5
	comp=Z,0.4nm,0.4s,baz=357,slow=5.8,SNR=3.9						
ZALV				LR	LR	07 39 33.9	
	comp=Z,44nm,18.2s,baz=341,slow=40						
	comp=Z,0.4nm,0.4s						
AKASG	Malin Array Be	90.82	20	P	P	06 51 48.4	-0.5
	comp=Z,0.8nm,0.5s,baz=335,slow=4.2,SNR=7.8						
	comp=Z,0.8nm,0.5s						
HHC	Hu-ho-hao-te	92.58	325	eP	P	06 51 56.4	-1.1
HHC				pmax	pmax		
	comp=Z,18nm,0.7s						
KURBB	Kurchatov Arra	94.44	349	P	P	06 52 05.4	-0.3
	comp=Z,0.3nm,0.3s,baz=11,slow=3.9,SNR=6.4						
	comp=Z,0.3nm,0.3s						
NJ2	Nanjing	95.19	314	eP	P	06 52 09.1	-0.4
NJ2				pmax	pmax		
	comp=Z,9.0nm,0.6s						
MKAR	Makanchi Array	97.47	346	LR	LR	07 40 51.8	
	comp=Z,36nm,20.8s,baz=316,slow=38						
USHA	Ushuaia	98.24	154	LR	LR	07 30 25.7	
	comp=Z,902nm,18.4s,baz=257,slow=32						
WMQ	Urumqi	99.02	341	eP	Pdif	06 52 28.4	+1.7
WMQ				pmax	pmax		
	comp=Z,29nm,0.9s						
PZH	PanZhiHua	108.92	323	PKP	PKiKP	06 57 14.5	-1.3
WRA	Warramunga Arr	115.15	262	PKP	PKPdf	06 57 27.0	-0.5
	comp=Z,1.0nm,1.1s,baz=62,slow=2.1,SNR=5.0						
ASAR	Alice Springs	117.25	259	PKP	PKPdf	06 57 29.9	-1.6
	comp=Z,0.8nm,0.8s,baz=80,slow=2.9,SNR=7.5						
VNDA	Vanda	120.84	194	PKP	PKiKP	06 57 37.1	+0.2
	comp=Z,0.6nm,0.8s,baz=67,slow=1.8,SNR=4.0						
QSPA	South Pole Qui	123.87	180	PKP	PKiKP	06 57 43.3	+0.1
	comp=Z,5.3nm,1.0s,baz=109,slow=0.8,SNR=12						
VNA3	Neumayer Olymp	127.74	157	⇑PKPdf	PKPdf	06 57 49.9	-0.2
	comp=Z,10nm,0.8s						
VNA1	Neumayer--Stat	128.25	156	⇑PKPdf	PKiKP	06 57 51.1	-0.5
	comp=Z,5.1nm,1.0s						
VNA2	Neumayer--Watz	128.51	157	⇑PKPdf	PKiKP	06 57 51.7	-0.5
	comp=Z,4.3nm,0.7s,baz=308,slow=2.2						
SNAA	Sanae	129.83	158	⇑PKPdf	PKiKP	06 57 55.4	+0.4
	comp=Z,55nm,0.6s						
SNAA	Sanae	129.83	158	PKP	PKiKP	06 57 54.5	-0.4
	comp=Z,3.4nm,0.8s,baz=243,slow=3.5,SNR=3.4						
TROLL	Troll, Antarti	131.37	159	⇑PKPdf	PKiKP	06 57 58.4	+0.2
	comp=Z,95nm,0.8s						
MAW	Mawson	146.39	181	PKPbc	PKPbc	06 58 25.8	+0.1
	comp=Z,13nm,0.9s,baz=180,slow=3.1,SNR=14						
BOSA	Boshof	148.33	90	PKPbc	PKPdf	06 58 29.9	+0.9
	comp=Z,4.5nm,0.9s,baz=304,slow=3.6,SNR=4.0						

*IDC **19** 06:45:49.7±4.5, 13°.03S×167°.11E, h187^{km}±41^{km}, mb3.5/5, mbtmp4.0/6, Error ellipse: s-maj=30.8km s-min=20.1km az=158.0*

ISC 19 06:45:48.8±1.0**, 13°.0S**±0°.2×**167°.1E**±0°.1**, h180^{km}, n8, σ0^{s}.54**/9**, mb3.8**/5**, Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	Nonsavu	11.57	116	P	Pn	06 48 28.9	0.0
	6.6nm,0.8s,baz=287,slow=19,SNR=0.9						
STKA	Stephens Creek	30.03	227	P	P	06 51 41.6	+0.7
	1.3nm,0.5s,baz=34,slow=7.3,SNR=3.2						
	1.3nm,0.5s						
WRA	Warramunga Arr	32.13	253	P	P	06 51 59.5	-0.1
	1.1nm,0.9s,baz=84,slow=9.2,SNR=5.6						
	1.1nm,0.9s						
ASAR	Alice Springs	33.18	247	P	P	06 52 08.5	-0.2
	1.3nm,0.6s,baz=75,slow=9.3,SNR=30						
ASAR				PcP	PcP	06 54 46.4	-1.0
	0.4nm,0.8s,baz=94,slow=3.6,SNR=2.9						
	1.3nm,0.6s						
QSPA	South Pole Qui	77.04	180	P	P	06 57 21.6	-0.2
	1.7nm,0.7s,baz=306,slow=1.1,SNR=13						
	1.7nm,0.7s						
ILAR	Eielson Array	84.92	18	P	P	06 58 03.6	+0.5
	0.5nm,0.6s,baz=241,slow=4.8,SNR=11						
	0.5nm,0.6s						
ARCES	ARCESS Array B	118.52	346	PKP	PKPdf	07 04 14.4	-0.1
	6.1nm,1.0s,baz=39,slow=2.2,SNR=5.7						
FINES	FINESS Array B	124.04	339	PKP	PKPdf	07 04 25.1	-0.2
	3.3nm,1.0s,baz=66,slow=3.5,SNR=3.7						

*SJA **19** 07:01:57.9±0.7, 20°.39S×70°.09W, h64^{km}±2^{km}, ML4.1, MW4.0*

*NEIC **19** 07:01:58.5±1.6, 20°.41S±0°.04×70°.3W±0°.1, h66^{km}±10^{km}, mb3.9/2, ML4.0(GUC), Error ellipse: s-maj=16.5km s-min=5.8km az=99.0*

*IDC **19** 07:01:59.6±2.3, 20°.59S×69°.72W, h65^{km}±29^{km}, mb3.4/3, mbtmp3.7/7, ML3.4/4, Error ellipse: s-maj=35.5km s-min=17.9km az=105.0*

*GUC **19** 07:01:59.7±0.5, 20°.38S×70°.05W, h62^{km}±2^{km}, ML4.0*

ISC 19 07:01:58.1±0.7**, 20°.40S**±0°.03×**70°.18W**±0°.05**, h66^{km}**±5^{km}**, n73, σ1^{s}.19**/89**, 3C-11D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TA02	Huaiquique	0.14	19	eP	Pn	07 02 08.3	+0.2
TA02				eS	Sn	07 02 15.6	+0.4
TA02	Huaiquique	0.14	19	⇑iP	Pn	07 02 08.5	+0.4
TA02				i S	Sn	07 02 15.3	+0.1
TA01	Diego Aracena	0.16	181	eP	Pn	07 02 08.4	+0.3
TA01				eS	Sn	07 02 15.9	+0.5
TA01	Diego Aracena	0.16	181	⇑iP	Pn	07 02 08.7	+0.6
TA01				i S	Sn	07 02 15.7	+0.3
TA01				IAML		07 02 16.2	
	comp=N,16µm,0.3s						
TA01	Diego Aracena	0.16	181		Pn	07 02 08.8	+0.6
PSGCX	Pisagua	0.80	4	⇓iP	Pn	07 02 14.4	+0.3
PSGCX				i S	Sn	07 02 25.3	-0.5
PSGCX	Pisagua	0.80	4		Pn	07 02 14.4	+0.3
PB11	IPOC Station P	0.80	38	⇓iP	Pn	07 02 14.0	-0.2
PB11				i S	Sn	07 02 25.1	-0.9
PB11				IAML		07 02 26.1	
	comp=E,16µm,0.1s						
PB11	IPOC Station P	0.80	38		Pn	07 02 13.7	-0.5
PB02	IPOC Station P	0.95	164	eS	Sn	07 02 16.5	-13
PB02				eP	Pn	07 02 16.6	+0.6
PB02				eS		07 02 31.0	
PB02				IAML		07 02 32.5	
	comp=Z,6µm,0.4s						
PB02	IPOC Station P	0.95	164	⇓iP	Pn	07 02 16.8	+0.8
PB02				i S	Sn	07 02 29.7	+0.5
PB02				IAML		07 02 31.8	
	comp=E,6µm,0.3s						
PB02	IPOC Station P	0.95	164		Pn	07 02 16.6	+0.6
PB08	IPOC Station P	1.00	75	eP	Pn	07 02 16.5	-0.2
PB08				eS	Sn	07 02 30.1	-0.4
PB08				IAML		07 02 30.4	
	comp=Z,2µm,0.2s						
PB08	IPOC Station P	1.00	75	⇓iP	Pn	07 02 16.6	-0.2
PB08				i S	Sn	07 02 29.0	-1.6
PB08	IPOC Station P	1.00	75		Pn	07 02 16.4	-0.2
GO01	Chusmiza	1.18	52	eP	Pn	07 02 19.2	0.0
GO01				eS	Sn	07 02 35.0	+0.1
GO01				IAML		07 02 36.4	
	comp=Z,4µm,0.1s						
GO01	Chusmiza	1.18	52	i P	Pn	07 02 19.3	0.0
GO01				i S	Sn	07 02 34.2	-0.7
GO01				IAML		07 02 35.3	
	comp=N,17µm,0.2s						
GO01	Chusmiza	1.18	52		Pn	07 02 19.0	-0.2
PB07	IPOC Station P	1.35	168	eP	Pn	07 02 16.5	-4.6
PB07				eP		07 02 22.2	
PB07				eS	Sn	07 02 39.3	+0.9
PB07				IAML		07 02 43.2	
	comp=Z,3µm,0.4s						
PB07	IPOC Station P	1.35	168	⇓iP	Pn	07 02 22.3	+1.1
PB07				i S	Sn	07 02 38.9	+0.5
PB07				IAML		07 02 43.2	
	comp=E,3µm,0.6s						
PB07	IPOC Station P	1.35	168		Pn	07 02 21.8	+0.7
PX02	IPOC Station P	1.43	359	i P	Pn	07 02 21.7	-0.5
PB09	IPOC Station P	1.64	148	eP	Pn	07 02 26.5	+1.4
PB09				eS	Sn	07 02 48.2	+2.8
PB09				IAML		07 02 49.0	
	comp=Z,2µm,0.4s						
PB09	IPOC Station P	1.64	148	⇑iP	Pn	07 02 26.5	+1.4
PB09				i S	Sn	07 02 46.9	+1.5
PB09				IAML		07 02 50.4	
	comp=N,2µm,0.4s						
PB09	IPOC Station P	1.64	148		Pn	07 02 26.3	+1.2
PB03	IPOC Station P	1.69	166	eP	Pn	07 02 26.7	+1.1
PB03				eS	Sn	07 02 47.5	+1.1
PB03				IAML		07 02 50.5	
	comp=Z,1µm,0.6s						
PB03	IPOC Station P	1.69	166	⇓iP	Pn	07 02 26.8	+1.1
PB03				i S	Sn	07 02 46.5	0.0
PB03	IPOC Station P	1.69	166		Pn	07 02 26.5	+0.8
PB12	IPOC Station P	1.78	355	⇓iP	Pn	07 02 27.7	+0.8
PB12				i S	Sn	07 02 48.5	-0.1
PB12				IAML		07 02 50.5	
	comp=E,3µm,0.2s						
PB12	IPOC Station P	1.78	355		Pn	07 02 27.8	+0.8
AP01	Chacalluta	2.02	356	eP	Pn	07 02 31.4	+1.4
AP01				eS	Sn	07 02 56.2	+1.9
AP01				IAML		07 02 57.7	
	comp=Z,2µm,0.1s						
AP01	Chacalluta	2.02	356	i P	Pn	07 02 31.1	+1.1
AP01				i S	Sn	07 02 54.6	+0.3
AP01				IAML		07 02 56.7	
	comp=E,2µm,0.2s						
AP01	Chacalluta	2.02	356		Pn	07 02 30.9	+0.9
PB16	IPOC Station P	2.15	17	⇓iP	Pn	07 02 33.3	+1.0
PB16				i S	Sn	07 02 59.1	+0.8
PB16	IPOC Station P	2.15	17		Pn	07 02 33.2	+1.0
PB06	IPOC Station P	2.36	166	eP	Pn	07 02 35.4	+0.6
PB06				eS	Sn	07 03 04.0	+1.2
PB06				IAML		07 03 12.1	
	comp=Z,546nm,0.3s						
PB06	IPOC Station P	2.36	166	⇓iP	Pn	07 02 35.3	+0.5
PB06				i S	Sn	07 03 01.9	-0.9
PB06				IAML		07 03 02.6	
	comp=E,739nm,0.4s						
PB06	IPOC Station P	2.36	166		Pn	07 02 34.8	0.0
PB05	IPOC Station P	2.44	181	eP	Pn	07 02 36.1	+0.3
PB05	IPOC Station P	2.44	181	⇓iP	Pn	07 02 35.9	+0.1
PB05	IPOC Station P	2.44	181		Pn	07 02 35.4	-0.4
PB18	Visviri	2.87	13	⇓iP	Pn	07 02 45.7	+3.6
PB18				IAML		07 03 40.0	
	comp=E,368nm,0.4s						
PB18	Visviri	2.87	13		Pn	07 02 44.9	+2.8
AF01	San Pedro de A	3.15	144	eP	Pn	07 02 48.2	+2.7
AF01				eS	Sn	07 03 36.0	+14
AF01				IAML		07 04 07.7	
	comp=Z,808nm,0.6s						
AF01	San Pedro de A	3.15	144	eP	Pn	07 02 47.9	+2.3
AF01	San Pedro de A	3.15	144		Pn	07 02 47.5	+1.9
PB14	IPOC Station P	4.21	183	eP	Pn	07 02 59.2	-0.9
PB14				eS	Sn	07 03 48.5	+0.3
PB14	IPOC Station P	4.21	183		Pn	07 02 58.1	-2.0
LPAZ	La Paz	4.53	26	P	Pn	07 03 08.4	+3.6
	comp=Z,0.8nm,0.3s,baz=200,slow=7.6,SNR=12						
LPAZ				S	Sn	07 03 57.4	+0.9
	comp=Z,6.2nm,0.5s,baz=143,slow=7.0,SNR=1.7						
	comp=Z,2.9nm,0.3s						
LPAZ				AML	AML		
LPAZ	La Paz	4.53	26		Pn	07 03 07.4	+2.6
AC02	Maricunga	6.48	172		Pn	07 03 31.0	-0.4
AC06	Mina Casimiro	6.93	181	Pn	Pn	07 03 36.5	-0.6
SIV	San Ignacio	9.70	65	P	Pn	07 04 13.3	-1.8
	baz=247,slow=11,SNR=14						
	comp=Z,1.0nm,0.3s						
GO04	Tololo Observa	9.75	183	Pn	Pn	07 04 14.0	-1.8
NNA	Nana	10.53	322	P	Pn	07 04 34.3	+8.0
	comp=Z,0.9nm,0.3s,baz=149,slow=12,SNR=3.6						
	comp=Z,5.4nm,0.6s						
NNA				AML	AML		
CFA	Coronel Fontan	11.29	172	P	Pn	07 04 33.2	-3.5
	comp=Z,0.2nm,0.3s,baz=353,slow=13,SNR=7.0						
CFA				S	Sn	07 06 31.3	-10
	comp=Z,1.1nm,0.8s,baz=91,slow=18,SNR=2.2						
	comp=Z,0.4nm,0.4s						
CFA				AML	AML		
VILB	Vilhena	12.09	54		Pn	07 04 47.9	+0.2
H03N1	Juan Fernandez	15.13	209	P	Pn	07 05 28.2	+0.4
	baz=49,slow=74,SNR=30						
H03N2	Juan Fernandez	15.14	209	P	Pn	07 05 28.2	+0.3
	baz=213,slow=74,SNR=13						
H03S3	Juan Fernandez	15.46	208	P	Pn	07 05 32.3	+0.4
	baz=293,slow=14,SNR=40						
H03S1	Juan Fernandez	15.47	208	P	Pn	07 05 32.1	0.0
	baz=293,slow=14,SNR=14						
H03S2	Juan Fernandez	15.47	208	P	Pn	07 05 32.5	+0.4
	baz=293,slow=14,SNR=22						
PLCA	Paso Flores	20.27	181	P	P	07 06 27.9	-0.4
	comp=Z,3.3nm,1.1s,baz=25,slow=10.0,SNR=3.2						
	comp=Z,3.3nm,1.1s						
PLCA	Paso Flores	20.27	181	P	P	07 06 28.2	-0.1
PLCA				IAmb	IAmb	07 07 06.1	
	comp=Z,8.4nm,1.4s						
BDFB	Brasilia	21.60	81	P	P	07 06 41.0	-1.8
	comp=Z,1.0nm,0.3s,baz=231,slow=9.9,SNR=4.0						
	comp=Z,1.0nm,0.3s						
BOAV	Boa Vista	24.55	24	P	P	07 07 12.5	+0.6
BOAV				IAmb	IAmb	07 07 13.8	
	comp=Z,5.2nm,0.9s						
TORD	Torodi Ar. Bea	78.11	71	P	P	07 13 50.0	-0.6
	comp=Z,0.4nm,0.5s,baz=259,slow=4.9,SNR=2.5						
	comp=Z,0.4nm,0.5s						
H11S2	WAKE ISLAND Hy	126.56	278	T	T	09 40 23.5	
	baz=102,slow=74,SNR=120						
H11S1	WAKE ISLAND Hy	126.56	278	T	T	09 40 27.4	
	baz=102,slow=74,SNR=74						
H11S3	WAKE ISLAND Hy	126.57	278	T	T	09 40 28.2	
	baz=102,slow=74,SNR=80						
H11N3	WAKE ISLAND Hy	126.61	280	T	T	09 40 30.7	
	baz=102,slow=74,SNR=121						
H11N2	WAKE ISLAND Hy	126.62	280	T	T	09 40 30.4	
	baz=102,slow=74,SNR=72						
H11N1	WAKE ISLAND Hy	126.63	280	T	T	09 40 31.1	
	baz=102,slow=74,SNR=92						

*NNC **19** 07:15:10.6±6.3, 40°.41N×69°.71E, h0^{km}, mb2.8, mpv2.4, Error ellipse: s-maj=47.7km s-min=31.0km az=38.0*

*KRNET **19** 07:15:12.1±0.1, 40°.81N×69°.19E, mb2.9*

ISC 19 07:15:14.8±1.9**, 40°.80N**±0°.06×**69°.4E**±0°.1**, h10^{km}, n7, σ1^{s}.51**/11**, 8C-2D, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BTK	Batken	1.32	124	⇑eP	Pn	07 15 38.9	-0.5
BTK				⇑eS	Sg	07 15 58.5	+1.1
TRKS	Terek-Say	1.51	61	⇓eP	Pn	07 15 42.1	0.0
TRKS				⇓eS	Sb	07 16 04.3	+1.9
ARK	Arkit	2.18	62	⇑eP	Pn	07 15 52.7	+1.4
ARK				⇑eS	Sb	07 16 21.9	+0.3
DRK	Karamyk	2.27	125	⇑eP	Pn	07 15 53.7	+1.0
DRK				⇑eS	Sb	07 16 24.2	-0.2
KK31	Karatay Array	2.45	20	Pg	Pg	07 16 01.4	-0.4
	0.5nm,0.3s,baz=199,slow=8.3,SNR=8.3						
KK31				Lg	Lg	07 16 37.5	
	2.0nm,0.5s,baz=197,slow=28,SNR=12						
AAK	Ala-Archa	4.24	63	⇑Pg	Pb	07 16 26.7	-2.9
	0.4nm,0.5s						
AAK				⇑Lg	Lg	07 17 26.2	
	0.7nm,0.6s						
AKUT	Akutan	74.27	30	P	P	07 26 53.1	+1.3

*CNRM **19** 07:28:01.1, 36°.39N×7°.42W, h34^{km}*

*MDD **19** 07:28:02.9±1.4, 36°.56N×7°.54W, h20^{km}±6^{km}, mb_Lg2.2/3, Error ellipse: s-maj=9.4km s-min=5.6km az=171.0*

*SFS **19** 07:28:02.2, 36°.46N×7°.49W, h30^{km}, ML2.9/12, ML3.0/13, MLv2.9/13*

*INMG **19** 07:28:03.2±1.9, 36°.54N×7°.56W, h19^{km}±5^{km}, ML1.7, Error ellipse: s-maj=6.1km s-min=5.7km az=24.0, #DIST_RANGE: LOCAL #IPMA_REGION: Golfo de Cadiz*

ISC 19 07:28:00.5±1.2**, 36°.46N**±0°.03×**7°.48W**±0°.03**, h31^{km}**±12^{km}**, n44, σ1^{s}.06**/80**, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PBDV	Barranco-do-Ve	0.86	335	eP	Pn	07 28 17.4	+0.9
PBDV				eS	Sb	07 28 27.8	-0.5
PBDV				i IAML		07 28 28.5	
PBDV				i IAML		07 28 28.6	
PBDV				i IAML		07 28 28.7	
ARNO	Arenosillo	0.88	43	S	Sn	07 28 29.2	+0.8
PVAQ	Vaqueiros	0.96	349	eP	Pn	07 28 18.8	+0.9
PVAQ				eS	Sb	07 28 30.0	-1.0
PVAQ				i IAML		07 28 30.4	
PVAQ				i IAML		07 28 30.9	
PVAQ				i IAML		07 28 31.0	
PVAQ	Vaqueiros	0.96	349	P	Pn	07 28 19.0	+1.1
PVAQ				S	Sn	07 28 32.7	+2.1
EGRO	El Granado	1.07	360	P	Pb	07 28 20.5	0.0
EGRO				S	Sb	07 28 33.0	-1.2
EGRO	El Granado	1.07	360	P	Pb	07 28 20.6	+0.1
EGRO				S	Sb	07 28 33.3	-0.9
EGRO				IVmb_Lg		07 28 34.1	
CNIL	Conil	1.15	94	P	Pb	07 28 22.6	+0.8
PCVE	Castro Verde	1.25	339	P	Pb	07 28 23.6	+0.1
PCVE				S	Sn	07 28 37.5	-0.2
PCVE	Castro Verde	1.25	339	eP	Pb	07 28 23.9	+0.3
PCVE				eS	Sn	07 28 37.2	-0.6
PCVE				i IAML		07 28 38.0	
PCVE				i IAML		07 28 38.3	
PCVE				i IAML		07 28 38.3	
MORF	Marmelete	1.27	312	eP	Pn	07 28 22.7	+0.6
MORF				eS	Sn	07 28 37.7	-0.4
MORF				i IAML		07 28 38.5	
MORF				i IAML		07 28 38.7	
MORF				i IAML		07 28 39.4	
PFVI	Vila Bisbo	1.27	302	P	Pn	07 28 22.9	+0.8
PFVI				S	Sn	07 28 37.5	-0.7
PFVI	Vila Bisbo	1.27	302	eP	Pn	07 28 23.0	+0.8
PFVI				eS	Sn	07 28 37.8	-0.5
PFVI				i IAML		07 28 49.5	
PFVI				i IAML		07 28 49.9	
PFVI				i IAML		07 28 51.1	
PFVI	Vila Bisbo	1.27	302	P	Pb	07 28 24.0	+0.1
PFVI				S	Sb	07 28 41.3	+1.4
ESPR	Espera	1.37	72	P	Pn	07 28 23.0	-0.4
ESPR				S	Sn	07 28 41.2	+0.7
EMIN	Mina Concepcio	1.46	26	P	Pn	07 28 25.6	+0.9
EMIN				S	Sn	07 28 41.9	-0.8
EMIN	Mina Concepcio	1.46	26	P	Pn	07 28 25.7	+1.0
EMIN				S	Sn	07 28 42.4	-0.3
PTEO	Sao Teotonio	1.47	318	eP	Pn	07 28 26.1	+1.2
PTEO				eS	Sn	07 28 42.8	-0.3
PTEO				i IAML		07 28 43.6	
PTEO				i IAML		07 28 45.2	
MESJ	Messejana	1.50	337	eP	Pb	07 28 26.7	-1.0
MESJ				eS	Sn	07 28 42.9	-0.9
MESJ				i IAML		07 28 44.4	
MESJ				i IAML		07 28 46.2	
MESJ				i IAML		07 28 48.1	
PBEJ	Beja	1.60	349	eS	Sn	07 28 46.3	+0.1
PBEJ				i IAML		07 28 49.0	
PBEJ				i IAML		07 28 50.4	
PBEJ				i IAML		07 28 51.6	
PLOUS	Minas do Lousa	1.74	335	eS	Sn	07 28 49.5	-0.3
PLOUS				i IAML		07 28 52.7	
PLOUS				i IAML		07 28 54.1	
PLOUS				i IAML		07 28 56.8	
PBAR	Barrancos	1.75	11	P	Pn	07 28 29.7	+1.0
PBAR				S	Sn	07 28 49.9	-0.1
PBAR	Barrancos	1.75	11	eP	Pn	07 28 29.9	+1.2
PBAR				eS	Sn	07 28 50.1	+0.2
PBAR				i IAML		07 28 55.0	
PBAR				i IAML		07 28 56.3	
PBAR				i IAML		07 29 02.5	
EVO	Evora	2.11	349	P	Pn	07 28 34.7	+1.0
EVO				S	Sn	07 28 57.8	-1.1
EVO	Evora	2.11	349	eS	Sn	07 28 58.5	-0.4
MOE	Montemor	2.17	342	eS	Sn	07 28 59.7	-0.7
MOE				i IAML		07 29 02.0	
MOE				i IAML		07 29 02.0	
MOE				i IAML		07 29 02.1	
ECAB	El Cabril	2.30	45	P	Pn	07 28 37.5	+1.2
ECAB				S	Sn	07 29 01.8	-1.9
ECAB	El Cabril	2.30	45	P	Pn	07 28 37.6	+1.3
ECAB				IVmb_Lg		07 29 04.7	
ECAB				S	Sn	07 29 05.4	+1.7
EBAD	Badajoz	2.32	9	P	Pn	07 28 37.1	+0.5
EBAD				S	Sn	07 29 05.1	+1.0
EBAD	Badajoz	2.32	9	P	Pn	07 28 37.4	+0.8
EBAD				S	Sn	07 29 03.9	-0.2
EBAD				IVmb_Lg		07 29 15.7	
PARRA	Arraiolos	2.40	349	eP	Pn	07 28 38.8	+1.2
PARRA				eS	Sn	07 29 04.7	-1.2
PARRA				i IAML		07 29 06.1	
PARRA				i IAML		07 29 06.3	
PARRA				i IAML		07 29 06.3	
PESTR	Estremoz	2.41	358	P	Pn	07 28 38.1	+0.3
PESTR				S	Sn	07 29 04.9	-1.3
PESTR	Estremoz	2.41	358	eP	Pn	07 28 38.6	+0.9
PESTR				eS	Sn	07 29 05.5	-0.7
PMTG	Montargil	2.67	347	eP	Pn	07 28 42.7	+1.3
PMTG				eS	Sn	07 29 12.5	-0.2
PMTG				i IAML		07 29 13.9	
PMTG				i IAML		07 29 15.2	
PMTG				i IAML		07 29 15.6	
PMRV	Marv??o	2.97	1	eP	Pn	07 28 46.6	+1.1
PMRV				eS	Sn	07 29 19.4	-0.6
PMRV				i IAML		07 29 19.8	
PMRV				i IAML		07 29 20.1	
PMRV				i IAML		07 29 20.6	
ZHG	ZHG	3.08	167	P	Pn	07 28 47.3	+0.2
ZHG				S	Sn	07 29 23.7	+0.7
PSARD	Sardoal	3.18	350	eP	Pn	07 28 49.9	+1.4
PSARD				eS	Sn	07 29 24.4	-1.0
PSARD				i IAML		07 29 25.3	
PSARD				i IAML		07 29 25.6	
PSARD				i IAML		07 29 26.4	
PSBE	So Bento	3.22	342	eS	Sn	07 29 26.5	+0.2
PCBR	Castelo Branco	3.38	0	eP	Pn	07 28 52.3	+1.2
PCBR				eS	Sn	07 29 28.1	-2.0
PCBR				i IAML		07 29 30.0	
PCBR				i IAML		07 29 30.1	
PCBR				i IAML		07 29 30.4	
MD31	MD31	4.22	147	P	Pn	07 29 02.9	0.0
MD31				S	Sn	07 29 50.5	-0.6
MDT	Midelt	4.34	146	P	Pn	07 29 03.6	-0.8
MDT				S	Sn	07 29 53.2	-0.8
ETOB	Tobarra	5.19	63	P	Pn	07 29 16.4	+0.3
ETOB				S	Sn	07 30 11.8	-3.2
ECAL	Calabor	5.51	6	P	Pn	07 29 20.6	+0.1
ECAL				S	Sn	07 30 20.4	-2.3
TIO	Tiouine	5.52	178	P	Pn	07 29 20.8	+0.1
TIO				S	Sn	07 30 20.2	-3.0
OUZM	OUZ	5.57	174	P	Pn	07 29 21.4	+0.1

*NOU **19** 07:34:30.1, 10°.87S×164°.34E, h0^{km}, mb4.9/9, Santa Cruz Islands Region*

*NEIC **19** 07:34:32.9±1.1, 10°.8S±0°.1×164°.51E±0°.08, h50^{km}±9^{km}, mb4.3/10, Error ellipse: s-maj=17.7km s-min=6.8km az=209.0*

*IDC **19** 07:34:35.3±3.2, 10°.78S×164°.32E, h76^{km}±27^{km}, mb3.6/8, mbtmp4.0/10, MS3.4/8, Error ellipse: s-maj=25.9km s-min=17.8km az=62.0*

ISC 19 07:34:30.0±0.7**, 10°.77S**±0°.08×**164°.53E**±0°.09**, h29^{km}, n45, σ1^{s}.69**/36**, mb4.2**/12**, MS3.4**/5**, Santa Cruz Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HURO	Huro Makira	2.60	277	P	Pn	07 35 10.5	+0.3
NGOA	Tingoa Renbel	4.45	260	P	Pn	07 35 35.0	-0.7
HNR	Honiara	4.71	286	P	Pn	07 35 40.9	+1.7
	228nm,0.5s,baz=198,slow=2.3,SNR=18						
HNR				S	Sn	07 36 34.1	+1.3
	140nm,0.6s,baz=185,slow=24,SNR=5.6						
HNR				LR	LR	07 37 49.0	
	comp=Z,430nm,19.2s,baz=188,slow=43						
HNR	Honiara	4.71	286	P	Pn	07 35 41.5	+2.4
HNR	Honiara	4.71	286		Pn	07 35 41.1	+2.0
SAVO	Savo Central	4.92	289	P	Pn	07 35 44.2	+2.1
TATA	Tatamba Isabel	5.23	297	P	Pn	07 35 47.1	+0.8
SANVU	Saraoutou	5.32	151	P	Pn	07 35 50.0	+2.4
SANVU	Saraoutou	5.32	151		Pn	07 35 48.9	+1.3
KOUNC	Koumac, New Ca	9.72	181	Pn	Pn	07 36 49.1	+1.1
DZM	Mont Dzumac	11.38	171	P	Pn	07 37 13.9	+3.1
	4.6nm,0.5s,baz=307,slow=17,SNR=14						
DZM				S	Sn	07 39 14.7	-2.5
	8.2nm,0.8s,baz=122,slow=9.3,SNR=2.3						
DZM				LR	LR	07 41 20.0	
	comp=Z,176nm,18.7s,baz=250,slow=36						
NOUC	Port Laguerre	11.39	172	P	Pn	07 37 14.3	+3.4
PMG	Port Moresby	17.16	273	LR	LR	07 44 37.9	
	comp=Z,192nm,18.8s,baz=164,slow=36						
EIDS	Eidsvold	19.32	219	P	P	07 38 53.1	+0.1
CTA	Charters Tower	19.89	240	P	Pn	07 39 02.0	+1.0
	4.7nm,0.7s,baz=90,slow=9.6,SNR=3.9						

H11S2	WAKE ISLAND Hy	29.16	4	T	T	08 10 50.3	
	baz=184,slow=76,SNR=61						
H11S3	WAKE ISLAND Hy	29.16	4	T	T	08 10 54.5	
	baz=184,slow=76,SNR=32						
H11S1	WAKE ISLAND Hy	29.17	4	T	T	08 10 51.6	
	baz=184,slow=76,SNR=27						
WB0	Warramunga Arr	30.37	249	P	P	07 40 37.7	-2.1
WB0				IAmb	IAmb	07 41 07.2	
	comp=Z,3.0nm,1.1s						
H11N1	WAKE ISLAND Hy	30.38	4	T	T	08 12 21.8	
	baz=184,slow=76,SNR=68						
H11N3	WAKE ISLAND Hy	30.39	4	T	T	08 12 26.8	
	baz=184,slow=76,SNR=26						
H11N2	WAKE ISLAND Hy	30.40	4	T	T	08 12 22.2	
	baz=184,slow=76,SNR=23						
WRA	Warramunga Arr	30.46	249	P	P	07 40 38.5	-2.1
	comp=Z,0.4nm,0.6s,baz=79,slow=9.2,SNR=6.1						
WRA				PcP	PcP	07 43 37.8	-1.9
	comp=Z,0.3nm,0.8s,baz=75,slow=2.5,SNR=2.0						
	comp=Z,0.4nm,0.6s						
WRA	Warramunga Arr	30.46	249	P	P	07 40 38.1	-2.4
GUMO	Guam	31.09	321	LR	LR	07 54 19.8	
	comp=Z,49nm,18.2s,baz=148,slow=38						
ASAR	Alice Springs	31.86	242	P	P	07 40 50.5	-2.3
	comp=Z,0.2nm,0.4s,baz=65,slow=10,SNR=4.3						
	comp=Z,0.2nm,0.4s						
BBOO	Buckleboo	34.15	226	P	P	07 41 11.7	-1.1
BBOO				IAmb	IAmb	07 41 34.8	
	comp=Z,8.2nm,1.1s						
FITZ	Fitzroy Crossi	38.30	254	LR	LR	07 57 53.2	
	comp=Z,84nm,18.0s,baz=148,slow=37						
NWAO	Narrogin (SRO)	48.63	235	LR	LR	08 02 52.1	
	comp=Z,120nm,18.3s,baz=353,slow=35						
KSRS	Korea Array	58.99	326	LR	LR	08 06 27.8	
	comp=Z,12nm,20.9s,baz=165,slow=32						
SHEM	Shemya Is, Ala	63.78	6	LR	LR	08 05 59.4	
	comp=Z,23nm,20.8s,baz=110,slow=30						
CASY	Casey	66.20	201	P	P	07 45 14.9	+0.1
CASY				IAmb	IAmb	07 45 44.9	
	comp=Z,3.5nm,1.1s						
VNDA	Vanda	66.75	181	P	P	07 45 19.3	+1.1
	comp=Z,1.5nm,1.0s,baz=345,slow=2.5,SNR=6.5						
	comp=Z,1.5nm,1.0s						
VNDA	Vanda	66.75	181	P	P	07 45 18.8	+0.7
VNDA				IAmb	IAmb	07 45 20.2	
	comp=Z,2.4nm,1.1s						
SONM	Songino Array	77.75	324	P	P	07 46 23.6	-0.9
	comp=Z,0.7nm,0.8s,baz=117,slow=5.7,SNR=2.6						
	comp=Z,0.7nm,0.8s						
N18K	Kilae Creek	77.81	19	P	P	07 46 24.8	+0.4
M19K	Big River Lodg	79.22	18	P	P	07 46 33.1	+1.0
M19K				IAmb	IAmb	07 46 34.3	
	comp=Z,5.3nm,0.9s						
QSPA	South Pole Qui	79.23	180	P	P	07 46 32.7	+0.3
	comp=Z,2.6nm,0.7s,baz=12,slow=5.4,SNR=16						
	comp=Z,2.6nm,0.7s						
QSPA	South Pole Qui	79.23	180	P	P	07 46 32.7	+0.3
QSPA				IAmb	IAmb	07 46 33.9	
	comp=Z,3.1nm,0.8s						
HDA	Harding Lake	83.38	19	P	P	07 46 54.3	+0.2
ILAR	Eielson Array	83.64	19	P	P	07 46 55.2	-0.2
	comp=Z,2.4nm,0.8s,baz=230,slow=5.8,SNR=22						
	comp=Z,2.4nm,0.8s						
ILAR	Eielson Array	83.64	19	P	P	07 46 55.5	+0.1
NVAR	Mina Array Bea	86.76	50	P	P	07 47 13.1	+1.1
	comp=Z,0.2nm,0.5s,baz=320,slow=3.0,SNR=2.1						
	comp=Z,0.2nm,0.5s						
MKAR	Makanchi Array	92.51	317	P	P	07 47 37.9	-0.7
	comp=Z,1.2nm,0.8s,baz=85,slow=6.4,SNR=8.7						
	comp=Z,1.2nm,0.8s						
ARCES	ARCESS Array B	115.77	345	PKP	PKiKP	07 53 06.4	-2.8
	comp=Z,6.1nm,1.1s,baz=103,slow=2.9,SNR=4.4						

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*IDC **19** 07:38:19.9±4.0, 36°.68S×177°.72E, h134^{km}±25^{km}, mb3.4/3, mbtmp3.8/3, Error ellipse: s-maj=54.3km s-min=24.2km az=48.0*

*NOU **19** 07:38:21.1, 37°.12S×177°.65E, h177^{km}, ML4.0/13, Off E. Coast of N. Island, N.Z.*

*WEL **19** 07:38:24.5±0.9, 37°S±5°×17°8E±°, h151^{km}±6^{km}, M3.5/64, ML3.4/30, MLv3.5/64, Error ellipse: s-maj=8.5km s-min=4.6km az=52.5, confirmed*

ISC 19 07:38:24.6±0.8**, 37°.20S**±0°.06×**177°.44E**±0°.06**, h171**^{km}±5^{km}**, n167, σ1^{s}.66**/179**, mb3.7**/6**, 4C, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WSRZ	White Island S	0.38	213	P	Pn	07 38 47.4	-0.5
WSRZ				AML	AML		
WSRZ				AML	AML		
WIZ	White Island	0.38	211	P	Pn	07 38 46.5	-1.3
WIZ				AML	AML		
WIZ				AML	AML		
HAZ	Te Kaha	0.62	154	P	Pn	07 38 47.3	-1.5
HAZ				S	Sn	07 39 04.6	-3.1
HAZ				AML	AML		
HAZ				AML	AML		
WHRZ	Whale Island	0.75	209	P	Pn	07 38 49.9	+0.3
WHRZ				AML	AML		
WHRZ				AML	AML		
MXZ	Matakaoa Point	0.78	118	P	Pn	07 38 47.6	-2.2
MXZ	Matakaoa Point	0.78	118	S	Sn	07 39 06.5	-2.7
MXZ	Matakaoa Point	0.78	118	P	Pn	07 38 47.8	-1.9
MXZ				S	Sn	07 39 06.3	-2.9
MXZ				AML	AML		
MXZ				AML	AML		
RUGZ	Raukumara Rang	0.79	166	P	Pn	07 38 48.4	-1.6
RUGZ				S	Sn	07 39 06.5	-3.3
RUGZ				AML	AML		
RUGZ				AML	AML		
PKGZ	Pakihiroa	0.84	143	P	Pn	07 38 49.4	-0.8
PKGZ				S	Sn	07 39 08.0	-2.0
PKGZ				AML	AML		
PKGZ				AML	AML		
MYRZ	Mayor Island	0.96	265	P	Pn	07 38 50.1	-1.0
MYRZ				AML	AML		
MYRZ				AML	AML		
WMGZ	Waiomatatini S	0.99	129	P	Pn	07 38 50.1	-1.1
WMGZ				S	Sn	07 39 09.9	-2.0
WMGZ				AML	AML		
WMGZ				AML	AML		
MARZ	Manawahe	0.99	218	P	Pn	07 38 51.3	0.0
MARZ				AML	AML		
MARZ				AML	AML		
EDRZ	Edgecumbe	1.06	211	P	Pn	07 38 52.0	+0.1
EDRZ				AML	AML		
EDRZ				AML	AML		
TWGZ	Tauwhareparae	1.07	156	P	Pn	07 38 52.0	0.0
TWGZ				S	Sn	07 39 13.2	+0.1
TWGZ				AML	AML		
TWGZ				AML	AML		
TGRZ	Tauranga	1.08	240	P	Pn	07 38 51.6	-0.3
TGRZ				AML	AML		
TGRZ				AML	AML		
PUZ	Puketiti	1.09	144	P	Pn	07 38 51.2	-0.9
PUZ				S	Sn	07 39 11.2	-2.1
PUZ				AML	AML		
PUZ				AML	AML		
URZ	Urewera	1.09	194	P	Pn	07 38 51.5	-0.5
	58nm,0.4s,baz=17,slow=12,SNR=260						
URZ				S	Sn	07 39 12.6	-0.7
	342nm,0.4s,baz=137,slow=22,SNR=86						
URZ	Urewera	1.09	194	P	Pn	07 38 51.6	-0.4
URZ	Urewera	1.09	194	S	Sn	07 39 13.1	-0.3
URZ	Urewera	1.09	194	P	Pn	07 38 51.8	-0.2
URZ				S	Sn	07 39 12.7	-0.7
URZ				AML	AML		
URZ				AML	AML		
MWZ	Matawai	1.14	177	P	Pn	07 38 52.4	-0.1
MWZ				S	Sn	07 39 13.5	-0.7
MWZ				AML	AML		
MWZ				AML	AML		
KARZ	Kaharoa	1.25	229	P	Pn	07 38 53.8	+0.3
KARZ				AML	AML		
KARZ				AML	AML		
TARZ	Mount Tarawera	1.27	215	P	Pn	07 38 54.6	+0.9
TARZ				AML	AML		
TARZ				AML	AML		
TKGZ	Te Karaka	1.28	165	P	Pn	07 38 53.6	0.0
TKGZ				AML	AML		
TKGZ				AML	AML		
RAGZ	Rawiri	1.29	181	P	Pn	07 38 54.2	+0.3
RAGZ				AML	AML		
RAGZ				AML	AML		
NGRZ	Ngongotaha	1.34	227	P	Pn	07 38 55.0	+0.7
NGRZ				AML	AML		
NGRZ				AML	AML		
RRRZ	Republican Roa	1.35	213	P	Pn	07 38 55.0	+0.6
RRRZ				AML	AML		
RRRZ				AML	AML		
KMRZ	Kaimai	1.35	241	P	Pn	07 38 54.8	+0.4
KMRZ				AML	AML		
KMRZ				AML	AML		
HLRZ	Highlands Stat	1.36	219	P	Pn	07 38 55.4	+0.9
HLRZ				AML	AML		
HLRZ				AML	AML		
MUGZ	Murupara	1.38	202	P	Pn	07 38 54.8	+0.2
MUGZ				AML	AML		
MUGZ				AML	AML		
UTU	Utuhina	1.39	225	P	Pn	07 38 55.9	+1.3
UTU				AML	AML		
UTU				AML	AML		
CNGZ	Carnagh Statio	1.42	155	P	Pn	07 38 55.3	+0.3
CNGZ				AML	AML		
CNGZ				AML	AML		
HSRZ	Hossack Road	1.46	220	P	Pn	07 38 56.9	+1.5
HSRZ				AML	AML		
HSRZ				AML	AML		
RTZ	Ruatahuna	1.46	194	P	Pn	07 38 55.2	-0.2
RTZ				AML	AML		
RTZ				AML	AML		
HRRZ	Handcock Road	1.50	217	P	Pn	07 38 57.0	+1.2
HRRZ				AML	AML		
RIGZ	Rimuhau	1.53	171	P	Pn	07 38 56.2	+0.2
RIGZ				AML	AML		
RIGZ				AML	AML		
PRRZ	Plateau Road	1.54	212	P	Pn	07 38 56.8	+0.6
PRRZ				AML	AML		
PRRZ				AML	AML		
GRRZ	Galatos Road	1.56	222	P	Pn	07 38 57.5	+1.2
GRRZ				AML	AML		
GRRZ				AML	AML		
ALRZ	Allen Road	1.61	212	P	Pn	07 38 57.7	+0.8
ALRZ				AML	AML		
ALRZ				AML	AML		
TOZ	Tahuroa Road	1.63	250	P	Pn	07 38 57.6	+0.6
TOZ				AML	AML		
TOZ				AML	AML		
WPRZ	Whakapapatarin	1.66	217	P	Pn	07 38 58.5	+1.1
WPRZ				AML	AML		
MTHZ	Maungataniwha	1.72	196	P	Pn	07 38 58.0	+0.1
MTHZ				AML	AML		
RAHZ	Arahi	1.74	189	P	Pn	07 38 58.7	+0.6
RAHZ				AML	AML		
RAHZ				AML	AML		
PRGZ	Paritu Road	1.76	169	P	Pn	07 38 58.5	+0.1
PRGZ				AML	AML		
PRGZ				AML	AML		
KUTZ	Kaahu Road	1.82	224	P	Pn	07 38 57.5	-1.4
KUTZ				AML	AML		
MRHZ	Matea Rd	1.82	206	P	Pn	07 38 59.4	+0.3
MRHZ				AML	AML		
MKAZ	Moumakai	1.82	272	P	Pn	07 38 58.9	-0.2
MKAZ				AML	AML		
KNZ	Kokohu	1.83	174	P	Pn	07 38 59.3	+0.2
KNZ				AML	AML		
GRZ	Great Barrier	1.85	300	P	Pn	07 38 57.3	-2.1
GRZ				AML	AML		
WHTZ	Whakaora	1.88	218	P	Pn	07 39 00.3	+0.6
WHTZ				AML	AML		
WHTZ				AML	AML		
WHHZ	Waihua	1.88	185	P	Pn	07 39 00.6	+0.9
WHHZ				AML	AML		
WHHZ				AML	AML		
TLZ	Tolley Road	1.88	233	P	Pn	07 39 00.8	+1.1
TLZ				AML	AML		
WIAZ	Waiheke Island	1.89	282	P	Pn	07 38 59.0	-0.8
WIAZ				AML	AML		
NMHZ	Naumai	1.96	195	P	Pn	07 39 01.5	+0.9
NMHZ				AML	AML		
NMHZ				AML	AML		
MHGZ	Mahia Peninsul	1.98	169	P	Pn	07 39 01.5	+0.7
MHGZ				AML	AML		
WATZ	Wairara	2.02	221	P	Pn	07 39 02.7	+1.4
WATZ				AML	AML		
ETAZ	East Tamaki Re	2.02	276	P	Pn	07 39 01.2	0.0
ETAZ				AML	AML		
MBAZ	Motutapu North	2.08	281	P	Pn	07 39 01.4	-0.4
MBAZ				AML	AML		
ARHZ	Aropaoanui	2.09	190	P	Pn	07 39 02.6	+0.6
ARHZ				AML	AML		
BKZ	Black Stump Fm	2.10	201	P	Pn	07 39 02.1	0.0
BKZ	Black Stump Fm	2.10	201	S	Sn	07 39 31.8	+0.4
BKZ	Black Stump Fm	2.10	201	P	Pn	07 39 02.3	+0.1
BKZ				AML	AML		
RITZ	Rihia Road	2.17	215	P	Pn	07 39 04.1	+1.2
RITZ				AML	AML		
ABAZ	Army Bay	2.17	285	P	Pn	07 39 02.4	-0.5
ABAZ				AML	AML		
EPAZ	Eden Park BICE	2.18	278	P	Pn	07 39 03.1	+0.1
EPAZ				AML	AML		
HBAZ	Herne Bay Bore	2.20	278	P	Pn	07 39 03.3	+0.2
HBAZ				AML	AML		
AWAZ	Awhitu Peninsu	2.24	273	P	Pn	07 39 03.9	+0.2
AWAZ				AML	AML		
KATZ	Kakaramea	2.25	217	P	Pn	07 39 04.9	+1.0
KATZ				AML	AML		
WTAZ	Waiatarua	2.31	276	P	Pn	07 39 04.6	+0.1
WTAZ				AML	AML		
MCHZ	McNeill Hill	2.32	194	P	Pn	07 39 05.4	+0.9
MCHZ				AML	AML		
RVAZ	Riverhead Bore	2.33	280	P	Pn	07 39 04.6	-0.2
RVAZ				AML	AML		
NTVZ	North Tongarir	2.35	216	P	Pn	07 39 06.2	+1.1
NTVZ				AML	AML		
TMVZ	Te Maari	2.35	215	P	Pn	07 39 06.1	+1.0
TMVZ				AML	AML		
KWHZ	Kaweka Forest	2.36	200	P	Pn	07 39 05.5	+0.4
KWHZ				AML	AML		
KRVZ	Karewarewa	2.37	216	P	Pn	07 39 05.7	+0.4
KRVZ				AML	AML		
ETVZ	East Tongariro	2.37	215	P	Pn	07 39 06.1	+0.8
ETVZ				AML	AML		
WTVZ	West Tongariro	2.41	217	P	Pn	07 39 06.5	+0.8
WTVZ				AML	AML		
OTVZ	Oturere	2.41	215	P	Pn	07 39 06.6	+0.9
OTVZ				AML	AML		
HIZ	Hauiti	2.43	237	P	Pn	07 39 07.7	+1.8
SNVZ	South Ngauruho	2.44	215	P	Pn	07 39 07.0	+0.9
SNVZ				AML	AML		
TWVZ	Taurewa	2.45	220	P	Pn	07 39 07.1	+0.9
TWVZ				AML	AML		
NGZ	Ngauruhoe	2.45	216	P	Pn	07 39 07.3	+1.1
NGZ				AML	AML		
CKHZ	Cape Kidnapper	2.47	187	P	Pn	07 39 06.7	+0.3
CKHZ				AML	AML		
TUVZ	Tukino	2.50	214	P	Pn	07 39 07.5	+0.7
TUVZ				AML	AML		
BHHZ	Black Hill Sta	2.53	205	P	Pn	07 39 07.1	0.0
BHHZ				AML	AML		
FWVZ	Far West T-bar	2.53	215	P	Pn	07 39 08.0	+0.6
WHVZ	Whangaehu Hut	2.54	214	P	Pn	07 39 08.0	+0.6
MAVZ	Matarangi	2.54	215	P	Pn	07 39 08.2	+0.7
TRVZ	Turoa	2.57	215	P	Pn	07 39 08.3	+0.6
WNVZ	Wahianoa	2.57	214	P	Pn	07 39 08.1	+0.4
WNVZ				AML	AML		
MOVZ	Moawhango	2.57	211	P	Pn	07 39 07.5	-0.1
MOVZ				AML	AML		
KRHZ	Kereru	2.58	199	P	Pn	07 39 07.5	-0.2
KRHZ				AML	AML		
KAHZ	Kahuranaki	2.63	190	P	Pn	07 39 08.4	+0.2
KAHZ				AML	AML		
PKVZ	Pokaka	2.66	218	P	Pn	07 39 09.5	+0.8
PKVZ				AML	AML		
MTVZ	Mangateitei	2.68	215	P	Pn	07 39 09.5	+0.6
MTVZ				AML	AML		
WCZ	Waipu Caves	2.79	296	P	Pn	07 39 08.5	-1.7
WCZ				AML	AML		
VRZ	Vera Road	2.86	227	P	Pn	07 39 13.2	+2.2
PXZ	Pawanui	2.86	189	P	Pn	07 39 11.0	0.0
PNHZ	Pukenui	2.88	199	P	Pn	07 39 10.8	-0.5
WPHZ	Waipukurau	2.97	195	P	Pn	07 39 11.9	-0.4
TSZ	Takapari Road	3.08	202	P	Pn	07 39 13.2	-0.6
PRHZ	Porangahau	3.13	191	P	Pn	07 39 13.8	-0.5
WAZ	Wanganui	3.20	216	P	Pn	07 39 16.2	+1.0
DVHZ	Dannevirke	3.25	197	P	Pn	07 39 14.9	-1.0
ANWZ	Angora Road	3.34	193	P	Pn	07 39 16.6	-0.3
PKE	Pukeiti	3.37	233	P	Pn	07 39 19.4	+2.0
KHEZ	Kahui Hut	3.41	231	P	Pn	07 39 17.4	-0.5
KHEZ	Kahui Hut	3.41	231	P	Pn	07 39 20.6	+2.7
POWZ	Post Office Ro	3.44	202	P	Pn	07 39 17.6	-0.7
PRWZ	Pori Road	3.54	198	P	Pn	07 39 19.2	-0.3
BFZ	Birch Farm	3.60	195	P	Pn	07 39 19.3	-0.9
BFZ	Birch Farm	3.60	195	S	Sn	07 40 03.7	-0.1
BFZ	Birch Farm	3.60	195	P	Pn	07 39 19.2	-1.1
OUZ	Omahuta	3.68	301	P	Pn	07 39 19.3	-2.0
OUZ	Omahuta	3.68	301	P	Pn	07 39 19.5	-1.8
MRZ	Mangatainoka R	3.75	202	P	Pn	07 39 20.9	-1.2
TIWZ	Tintock	3.77	198	P	Pn	07 39 21.7	-0.7
CPWZ	Castlepoint	3.83	194	P	Pn	07 39 22.7	-0.4
HOWZ	Holdsworth Sta	3.98	201	P	Pn	07 39 23.6	-1.6
OGWZ	Otaki Gorge	4.02	205	P	Pn	07 39 24.4	-1.2
TMWZ	Te Maipa	4.08	197	P	Pn	07 39 25.0	-1.4
KIW	Kapiti Island	4.15	208	P	Pn	07 39 25.8	-1.5
MTW	Mount Morrison	4.23	200	P	Pn	07 39 26.3	-1.9
CAW	Cannon Point	4.32	205	P	Pn	07 39 27.6	-1.8
TRWZ	Traveller	4.41	197	P	Pn	07 39 29.0	-1.5
DUWZ	D'Urville Isla	4.52	216	P	Pn	07 39 30.7	-1.4
MSWZ	Moikau Station	4.54	201	P	Pn	07 39 30.1	-2.2
WEL	Wellington	4.58	206	P	Pn	07 39 30.8	-1.9
SNZO	South Karori	4.62	206	P	Pn	07 39 31.0	-2.3
BHW	Baring Head	4.65	205	P	Pn	07 39 31.6	-2.1
PLWZ	Palliser	4.68	201	P	Pn	07 39 31.9	-2.3
TCW	Tory Channel	4.70	211	P	Pn	07 39 32.2	-2.1
TUWZ	Tuamarina	5.02	212	P	Pn	07 39 36.6	-1.9
NNZ	Nelson	5.10	217	P	Pn	07 39 37.6	-1.9
TKNZ	Takaka Hill	5.18	221	P	Pn	07 39 38.7	-1.9
QRZ	Quartz Range	5.27	225	P	Pn	07 39 40.1	-1.6
QRZ	Quartz Range	5.27	225	P	Pn	07 39 39.8	-2.0
BSWZ	Blackbirch Sta	5.29	210	P	Pn	07 39 40.0	-2.0
MRNZ	Matariki Terra	5.55	219	P	Pn	07 39 43.1	-2.3
THZ	Tophouse	5.75	216	P	Pn	07 39 45.8	-2.4
KHZ	Kahutara	6.01	209	P	Pn	07 39 48.8	-2.7
KHZ	Kahutara	6.01	209	P	Pn	07 39 48.8	-2.7
DSZ	Denniston Nort	6.29	222	P	Pn	07 39 52.5	-2.7
GVZ	Greta Valley S	6.68	209	P	Pn	07 39 57.5	-2.8
LTZ	Lake Taylor	6.84	214	P	Pn	07 39 59.1	-3.4
INZ	Inchbonnie	7.19	218	P	Pn	07 40 03.9	-3.1
OKCZ	Okains Bay	7.32	206	P	Pn	07 40 05.5	-3.3
OXZ	Oxford	7.38	212	P	Pn	07 40 05.6	-4.0
MQZ	McQueen's Vall	7.45	208	P	Pn	07 40 06.6	-3.9
MHCZ	Mount Hutt	7.75	213	P	Pn	07 40 11.1	-3.4
WACZ	Wakanui South	7.97	211	P	Pn	07 40 13.9	-3.4
RPZ	Rata Peaks	8.12	215	P	Pn	07 40 17.4	-2.1
	2.2nm,0.8s,baz=55,slow=16,SNR=16						
RPZ				S	Sn	07 41 43.5	-6.8
	2.6nm,0.4s,baz=156,slow=23,SNR=15						
RPZ	Rata Peaks	8.12	215	P	Pn	07 40 17.3	-2.1
ARCZ	Arundel	8.25	213	P	Pn	07 40 18.5	-2.6
TMZ	Timaru	8.68	212	P	Pn	07 40 23.6	-3.1
LBZ	Lake Benmore	9.04	215	P	Pn	07 40 28.9	-2.7
ODZ	Otahua Downs	9.36	211	P	Pn	07 40 32.7	-3.0
JCZ	Jackson Bay	9.51	221	P	Pn	07 40 35.6	-2.1
ASAR	Alice Springs	39.55	277	P	P	07 45 39.6	+0.5
	0.9nm,0.6s,baz=118,slow=8.2,SNR=14						
ASAR				PcP	PcP	07 47 41.3	-1.7
	0.2nm,0.5s,baz=113,slow=2.3,SNR=1.4						
	0.9nm,0.6s						
WRA	Warramunga Arr	41.18	283	P	P	07 45 52.1	-0.3
	0.6nm,0.5s,baz=121,slow=8.0,SNR=12						
	0.6nm,0.5s						
QSPA	South Pole Qui	52.92	180	P	P	07 47 26.5	+3.7
	1.3nm,0.7s,baz=34,slow=7.6,SNR=6.3						
	1.3nm,0.7s						
TROLL	Troll, Antarti	71.03	182	⇑P	P	07 49 26.7	+3.3
	comp=Z,24nm,0.4s						
VNA3	Neumayer Olymp	71.74	178	⇑P	P	07 49 29.5	+2.1
	comp=Z,1.0nm,0.6s						
VNA2	Neumayer--Watz	72.12	178	⇑P	P	07 49 32.0	+2.3
	comp=Z,1.1nm,0.4s,baz=182,slow=5.6						
VNA1	Neumayer--Stat	72.38	178	⇑P	P	07 49 33.8	+2.6
	comp=Z,0.9nm,0.6s						
FINES	FINESS Array B	149.85	333	PKPbc	PKPbc	07 57 51.3	-2.1
	comp=Z,2.4nm,0.9s,baz=48,slow=2.1,SNR=5.5						
TORD	Torodi Ar. Bea	155.75	190	PKPab	PKPab	07 58 26.2	+0.7
	comp=Z,0.3nm,0.3s,baz=171,slow=4.3,SNR=4.1						

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*IDC **19** 08:00:13.8±0.8, 4°.99N×123°.39E, h0^{km}, mb3.9/9, mbtmp3.9/9, MS3.5/2, Error ellipse: s-maj=48.6km s-min=15.6km az=71.0*

*MAN **19** 08:00:58.0, 4°.99N×124°.03E, h452^{km}, MS4.0*

ISC 19 08:00:57.5±0.9**, 4°.94N**±0°.10×**124°.1E**±0°.2**, h450**^{km}**, n15, σ2^{s}.15**/17**, mb3.5**/9**, Celebes Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KCP	Kidapawan	2.29	26	*i* P	P	08 02 02.2	+2.3
KCP				*i* S	S	08 02 55.5	+5.2
DMPH	Davao City--Mi	2.56	34	*e*P	P	08 02 04.9	+3.4
DMPH				*i* S	S	08 02 54.4	+1.1
DCPH	Dipolog City	3.69	349	*i* P	P	08 02 12.3	+2.2
BIPH	Bislig	3.94	35	*e*P	P	08 02 13.0	+0.9
BIPH				*e*S	S	08 03 10.7	-2.2
TBP	Tagbilaran	4.73	357	*i* P	P	08 02 21.1	+1.8
WRA	Warramunga Arr	26.70	158	P	P	08 05 58.0	-1.1
	0.5nm,0.5s,baz=341,slow=8.9,SNR=9.6						
	0.5nm,0.5s						
ASAR	Alice Springs	30.00	162	P	P	08 06 27.8	-0.3
	1.5nm,0.6s,baz=341,slow=7.1,SNR=30						
ASAR				LR	LR	08 21 00.4	
	comp=Z,59nm,18.4s,baz=106,slow=41						
	1.5nm,0.6s						
MJAR	Matsushiro Arr	34.03	21	P	P	08 07 01.0	-1.4
	1.5nm,0.8s,baz=192,slow=9.7,SNR=4.4						
	1.5nm,0.8s						
USRK	Ussuriysk Ar.	39.72	9	P	P	08 07 48.6	-0.8
	1.0nm,0.5s,baz=196,slow=8.0,SNR=8.5						
	1.0nm,0.5s						
STKA	Stephens Creek	40.23	157	P	P	08 07 53.9	+0.2
	1.6nm,0.6s,baz=326,slow=8.5,SNR=5.5						
	1.6nm,0.6s						
SONM	Songino Array	45.35	343	P	P	08 08 32.9	-1.2
	0.3nm,0.4s,baz=152,slow=6.5,SNR=2.6						
	0.3nm,0.4s						
MKAR	Makanchi Array	55.08	326	P	P	08 09 45.5	-0.2
	1.0nm,0.4s,baz=118,slow=7.6,SNR=16						
	1.0nm,0.4s						
KURBB	Kurchatov Arra	59.32	328	P	P	08 10 13.9	-0.7
	1.2nm,0.4s,baz=128,slow=6.4,SNR=8.4						
	1.2nm,0.4s						
BVAR	Borovoye Array	64.88	327	P	P	08 10 50.7	-0.3
	0.3nm,0.4s,baz=130,slow=5.8,SNR=1.8						
	0.3nm,0.4s						
OBN	Obninsk	84.56	325	LR	LR	08 53 44.4	
	comp=Z,38nm,20.8s,baz=230,slow=38						

WEL 19 08:48:37.4±1.0**, 34°S**±8°×**18°0E**±1°6**, h12**^{km}**, M4.1**/12**, mB4.3**/1**, ML4.0**/13**, MLv4.1**/12**, Mw(mB)3.4**/1**, Error ellipse: s-maj=22.0km s-min=7.5km az=111.1, confirmed, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	3.66	196	P	Pn	08 49 35.1	+1.3
MXZ				S	Sn	08 50 18.7	+1.7
MXZ				AML	AML		
MXZ				AML	AML		
WMGZ	Waiomatatini S	3.89	194	P	Pn	08 49 37.6	+0.7
WMGZ				S	Sn	08 50 24.5	+2.0
WMGZ				AML	AML		
WMGZ				AML	AML		
HAZ	Te Kaha	3.98	201	P	Pn	08 49 39.3	+1.1
HAZ				S	Sn	08 50 27.8	+3.0
HAZ				AML	AML		
HAZ				AML	AML		
PKGZ	Pakihiroa	4.01	197	P	Pn	08 49 40.1	+1.5
PKGZ				S	Sn	08 50 28.7	+3.2
PKGZ				AML	AML		
PKGZ				AML	AML		
PUZ	Puketiti	4.16	195	P	Pn	08 49 39.8	-0.9
PUZ				S	Sn	08 50 29.6	+0.2
PUZ				AML	AML		

PUZ				AML	AML		
RUGZ	Raukumara Rang	4.21	201	P	Pn	08 49 41.9	+0.4
RUGZ				S	Sn	08 50 30.8	+0.1
RUGZ				AML	AML		
RUGZ				AML	AML		
TWGZ	Tauwhareparae	4.33	197	P	Pn	08 49 43.9	+0.9
TWGZ				S	Sn	08 50 35.2	+1.8
TWGZ				AML	AML		
TWGZ				AML	AML		
CNGZ	Carnagh Statio	4.57	194	P	Pn	08 49 45.8	-0.5
CNGZ				AML	AML		
CNGZ				AML	AML		
MWZ	Matawai	4.60	201	P	Pn	08 49 45.9	-0.8
MWZ				S	Sn	08 50 40.9	+0.9
MWZ				AML	AML		
TKGZ	Te Karaka	4.61	197	P	Pn	08 49 46.0	-0.8
TKGZ				S	Sn	08 50 40.7	+0.5
TKGZ				AML	AML		
TKGZ				AML	AML		
URZ	Urewera	4.66	205	P	Pn	08 49 47.3	-0.3
URZ				S	Sn	08 50 42.2	+0.6
URZ				AML	AML		
URZ				AML	AML		
MKAZ	Moumakai	4.73	229	P	Pn	08 49 51.0	+2.5
RAGZ	Rawiri	4.78	201	P	Pn	08 49 49.2	-0.1
RAGZ				S	Sn	08 50 46.5	+1.9
RAGZ				AML	AML		
RAGZ				AML	AML		
RIGZ	Rimuhau	4.88	197	P	Pn	08 49 49.4	-1.2
RIGZ				S	Sn	08 50 46.1	-1.0
RIGZ				AML	AML		
RIGZ				AML	AML		
MUGZ	Murupara	4.98	206	P	Pn	08 49 51.6	-0.3
MUGZ				S	Sn	08 50 51.0	+1.6
MUGZ				AML	AML		
MUGZ				AML	AML		
RTZ	Ruatahuna	5.03	204	P	Pn	08 49 51.0	-1.7
RTZ				AML	AML		
MHGZ	Mahia Peninsul	5.28	194	P	Pn	08 49 56.6	+0.5
MHGZ				S	Sn	08 50 52.6	-4.2
MHGZ				AML	AML		
MTHZ	Maungataniwha	5.29	204	P	Pn	08 49 55.1	-1.1
MTHZ				AML	AML		
MTHZ				AML	AML		
ETVZ	East Tongariro	5.96	210	P	Pn	08 50 05.0	-0.6
CTZ	Chatham Island	10.12	164	P	Pn	08 51 03.0	+0.6
CTZ				S	Sn	08 52 49.0	-6.8

IDC ***19*** *09:17:45.8±0.8, 35°.52N×94°.44E, h0^{km}, mb3.8/11, mbtmp3.8/17, ML3.8/5, MS3.4/13, Error ellipse: s-maj=23.2km s-min=14.1km az=42.0*

ISC 19 09:17:50.6±0.8**, 35°.5N**±0°.1×**94°.4E**±0°.1**, h35**^{km}**, n24,** σ**1s.23**/18**, mb3.8**/11**, MS3.6**/6**, Qinghai**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LZDM	Lanzhou Array	7.57	84	Pn	Pn	09 19 38.5	-0.2
	baz=266,slow=16						
LZDM				Lg	Lg	09 21 46.3	
	baz=300,slow=36						
	1.6nm,0.3s						
MKAR	Makanchi Array	14.46	325	Pn	Pn	09 21 10.8	-1.8
	0.7nm,0.3s,baz=138,slow=14,SNR=33						
MKAR				LR	LR	09 27 13.8	
	comp=Z,77nm,18.5s,baz=150,slow=39						
	5.0nm,0.6s						
MKAR				AML	AML		
SONM	Songino Array	15.18	32	Pn	Pn	09 21 22.3	-0.1
	0.2nm,0.3s,baz=218,slow=15,SNR=11						
SONM				LR	LR	09 27 35.3	
	comp=Z,200nm,19.0s,baz=228,slow=39						
	1.8nm,0.6s						
SONM				AML	AML		
AAK	Ala-Archa	16.98	301	LR	LR	09 28 54.5	
	comp=Z,37nm,20.8s,baz=24,slow=39						
TLY	Talaya	17.45	19	LR	LR	09 28 51.0	
	comp=Z,132nm,21.1s,baz=189,slow=38						
CMAR	Chiang Mai Arr	17.48	166	P	Pn	09 21 49.2	-2.5
	0.3nm,0.3s,baz=349,slow=8.1,SNR=1.4						
CMAR				LR	LR	09 29 16.3	
	comp=Z,59nm,20.8s,baz=345,slow=40						
	0.5nm,0.3s						
CMAR				AML	AML		
KURBB	Kurchatov Arra	18.95	328	P	P	09 22 08.0	-0.6
	baz=134,slow=12,SNR=23						
KURBB				LR	LR	09 30 23.2	
	comp=Z,133nm,20.1s,baz=178,slow=40						
	9.3nm,1.0s						
ZALV	Zalesovo Beam	19.59	343	P	P	09 22 15.5	0.0
	1.1nm,0.7s,baz=148,slow=12,SNR=8.2						
ZALV				LR	LR	09 30 31.8	
	comp=Z,40nm,20.1s,baz=151,slow=39						
BVAR	Borovoye Array	24.33	323	P	P	09 23 06.2	+1.3
	1.0nm,0.5s,baz=143,slow=11,SNR=3.6						
	1.0nm,0.5s						
KSRS	Korea Array	26.94	76	P	P	09 23 29.2	+0.6
	1.0nm,0.7s,baz=274,slow=9.3,SNR=4.2						
KSRS				LR	LR	09 35 13.4	
	comp=Z,33nm,18.0s,baz=310,slow=39						
	1.0nm,0.7s						
YAK	Yakutsk	34.49	29	LR	LR	09 39 26.9	
	comp=Z,90nm,19.1s,baz=246,slow=38						
TIXI	Tiksi	40.37	16	LR	LR	09 42 40.5	
	comp=Z,41nm,19.6s,baz=16,slow=37						
MA2	Magadan	43.28	38	LR	LR	09 45 28.0	
	comp=Z,69nm,18.6s,baz=309,slow=38						
FINES	FINESS Array B	49.29	324	P	P	09 26 36.0	+0.3
	1.1nm,0.8s,baz=134,slow=14,SNR=4.1						
	1.1nm,0.8s						
HFS	Hagfors	55.47	323	P	P	09 27 22.9	+1.4
	1.6nm,0.7s,baz=175,slow=18,SNR=3.6						
HFS				LR	LR	09 53 19.4	
	comp=Z,135nm,19.2s,baz=311,slow=38						
	1.6nm,0.7s						
NB2	NORSAR Subarra	56.45	325	P	P	09 27 30.5	+1.9
	comp=Z,4.9nm,1.1s,baz=77,slow=7.4						
NOA	NORSAR Array B	56.45	325	P	P	09 27 30.1	+1.5
	comp=Z,0.9nm,0.7s,baz=77,slow=6.9,SNR=4.7						
	comp=Z,0.9nm,0.7s						
WRA	Warramunga Arr	66.92	139	P	P	09 28 40.1	+0.6
	comp=Z,0.7nm,0.9s,baz=314,slow=8.8,SNR=1.3						
	comp=Z,0.7nm,0.9s						
ILAR	Eielson Array	69.21	24	P	P	09 28 52.5	-0.8
	comp=Z,0.9nm,0.8s,baz=284,slow=4.1,SNR=7.5						
	comp=Z,0.9nm,0.8s						
ASAR	Alice Springs	69.76	142	P	P	09 28 58.1	+0.9
	comp=Z,0.7nm,0.7s,baz=333,slow=7.2,SNR=4.5						
	comp=Z,0.7nm,0.7s						
ESDC	Sonseca Array	73.95	307	P	P	09 29 23.0	+0.6
	comp=Z,0.2nm,0.4s,baz=74,slow=11,SNR=4.3						
	comp=Z,0.2nm,0.4s						
YKA	Yellowknife Ar	79.55	13	P	P	09 29 53.2	-0.3
	comp=Z,0.8nm,0.9s,baz=344,slow=6.0,SNR=2.1						
	comp=Z,0.8nm,0.9s						
STKA	Stephens Creek	80.36	141	P	P	09 29 59.0	+0.7
	comp=Z,1.0nm,0.7s,baz=262,slow=7.7,SNR=3.7						
	comp=Z,1.0nm,0.7s						
PDAR	Pinedale Array	99.05	18	LR	LR	10 22 20.6	
	comp=Z,25nm,18.9s,baz=63,slow=39						

IDC ***19*** *09:18:28.8±1.2, 3°.50S×134°.22E, h0^{km}, mb4.0/5, mbtmp4.1/7, ML4.2/2, Error ellipse: s-maj=54.1km s-min=18.7km az=85.0*

DJA ***19*** *09:18:32.5±0.3, 4°S±3°×13°4E±°, h10^{km}, M4.5/14, mB4.9/2, mb4.4/5, MLv4.5/14, Mw(mB)4.2/2*

ISC 19 09:18:29.1±0.8**, 3°.75S**±0°.06×**134°.2E**±0°.1**, h13**^{km}**, n16,** σ**2s.56**/18**, mb4.0**/4**, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FAKI	Fak Fak	2.08	293	P	Pn	09 19 01.5	-2.2
FAKI				AML	AML		
MWPI	Manokwari, Pap	2.80	358	P	Pb	09 19 18.6	-0.4
MWPI				AML	AML		
BAKI	Biak	3.20	38	P	Pb	09 19 24.2	-1.6
BAKI				AML	AML		
SWI	Sorong	4.07	315	P	Pn	09 19 30.1	-1.0
BNDI	Bandanaira	4.31	260	P	Pn	09 19 34.6	+0.2
BNDI				AML	AML		
MSAI	Masohi	5.24	274	P	Pn	09 19 46.7	-0.4
MSAI				AML	AML		
NLAI	Namlea	7.07	274	P	Pn	09 20 12.5	+0.2
NLAI				AML	AML		
SANI	Sanana	8.33	281	P	Pn	09 20 26.8	-2.9
	0.1nm738nm12nm,0.7s						
SANI				AML	AML		
EDFI	Ende, Flores	13.35	248	P	Pn	09 21 40.2	+1.7
WRA	Warramunga Arr	16.10	179	Pn	Pn	09 22 16.2	+0.9
	0.5nm,0.3s,baz=3.0,slow=12,SNR=14						
WRA				Sn	Sn	09 25 08.2	-5.7
	0.5nm,0.3s,baz=355,slow=24,SNR=6.1						
	1.1nm,0.8s						
WRA				AML	AML		
FITZ	Fitzroy Crossi	16.52	210	Pn	Pn	09 22 19.9	-0.9
	2.2nm,0.3s,baz=36,slow=12,SNR=37						
FITZ				Sn	Sn	09 25 14.5	-10
	0.8nm,0.3s,baz=177,slow=9.7,SNR=4.1						
	4.3nm,0.3s						
FITZ				AML	AML		
ASAR	Alice Springs	19.81	181	P	Pn	09 23 04.2	+3.2
	12nm,0.9s,baz=3.1,slow=11,SNR=84						
ASAR				S	S	09 26 38.0	-4.5
	0.4nm,0.5s,baz=2.3,slow=30,SNR=2.4						
	12nm,0.9s						
STKA	Stephens Creek	28.84	167	P	P	09 24 30.8	+3.5
	1.2nm,0.8s,baz=342,slow=11,SNR=3.3						
	1.2nm,0.8s						
MKAR	Makanchi Array	67.90	324	P	P	09 29 28.4	+0.9
	1.7nm,0.6s,baz=114,slow=7.7,SNR=13						
	1.7nm,0.6s						
ZALV	Zalesovo Beam	70.61	332	P	P	09 29 44.7	+0.7
	0.5nm,0.4s,baz=114,slow=6.5,SNR=3.7						
	0.5nm,0.4s						
ILAR	Eielson Array	88.66	25	P	P	09 31 22.4	+0.5
	0.6nm,0.7s,baz=258,slow=4.5,SNR=5.1						
	0.6nm,0.7s						

CATAC ***19*** *09:20:19.9±0.6, 11°N±3°×8°6W±°, h10^{km}±4^{km}, M3.2/15, MLv3.2/15, Error ellipse: s-maj=7.2km s-min=4.7km az=40.3, confirmed*

UCR ***19*** *09:20:20.9±0.7, 10°.81N×86°.36W, h8^{km}±31^{km}, MW3.8, Presumed earthquake*

ISC 19 09:20:20.0±1.9**, 10°.73N**±0°.06×**86°.39W**±0°.07**, h8**^{km}±11^{km}**, n36,** σ**0s.54**/43**, Off coast of Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LCRUZ	La Cruz	0.82	65	*e*P	Pb	09 20 36.2	-0.4
LCRUZ				*e*S	Sb	09 20 48.6	+0.7
ALIBA	Liberia Airpor	0.84	99	*e*P	Pn	09 20 37.5	-0.7
ALIBA				*e*S	Sn	09 20 51.0	+0.3
LAPC	Finca la Perla	0.94	88	*e*P	Pg	09 20 38.1	0.0
CARN	Rivas	0.96	62	P	Pb	09 20 38.6	-0.4
CARN				S	Sn	09 20 53.4	-0.4
CARN	Rivas	0.96	62	*e*P	Pb	09 20 38.8	-0.2
GPS3	Bodega del ICE	1.01	89	*e*P	Pn	09 20 40.1	-0.5
GPS2	Hotel Rincn d	1.02	89	*e*P	Pb	09 20 39.8	-0.2
JAPN	Al SSO del Vol	1.05	41	P	Pn	09 20 40.8	-0.4
PEJA	Penjamo Buenos	1.07	81	*e*P	Pn	09 20 40.9	-0.5
NADN	Granada	1.07	19	P	Pb	09 20 40.5	-0.3
NADN				S	Sn	09 20 57.1	+0.6
OMEN	Al SSO del Vol	1.08	44	P	Pg	09 20 40.3	-0.4
MORN	Al O del Volca	1.09	42	P	Pb	09 20 40.8	-0.3
MORN				S	Sn	09 20 57.6	+0.6
BAGA	Bagaces	1.13	100	*e*P	Pn	09 20 42.2	0.0
CMARA	Lajas Hojancha	1.18	127	P	Pn	09 20 43.7	+0.7
HORNC	Hornillas	1.19	91	*e*P	Pg	09 20 42.4	-0.5
CLARA	Aguas Claras	1.19	87	*e*P	Pn	09 20 43.1	0.0
CUI	Cuipilapa	1.21	93	*e*P	Pb	09 20 42.2	-0.9
NANN	Nandasmo	1.23	12	P	Pg	09 20 44.3	+0.7
VMAR	Armenia, Volca	1.25	86	*e*P	Pn	09 20 43.6	-0.4
CANAL	Canalete	1.31	85	*e*P	Pn	09 20 44.2	-0.5
UPAL	Upala	1.36	83	P	Pn	09 20 44.8	-0.6
UPAL				S	Sg	09 21 04.4	+0.6
UNAN	Cigeo UNAN	1.38	5	P	Pb	09 20 45.7	-0.4
UNAN				S	Sg	09 21 05.8	+1.4
MGAN	Managua	1.41	6	P	Pn	09 20 45.5	-0.6
WILN	Americas 2	1.44	8	P	Pn	09 20 46.1	-0.2
COPN	Copaltepe	1.45	352	P	Pn	09 20 46.4	-0.2
APQ2	Apoyeque	1.46	2	P	Pn	09 20 46.5	-0.3
JTS	Las Juntas de	1.48	107	P	Pn	09 20 46.8	-0.2
JTS	Las Juntas de	1.48	107	*e*P	Pb	09 20 47.4	-0.4
TABAC	Tabacon	1.61	98	*e*P	Pb	09 20 49.6	-0.5
ARE1	Arenal 1	1.66	99	*e*P	Pb	09 20 51.2	+0.2
LCHIL	Los Chiles	1.67	79	*e*P	Pn	09 20 50.0	+0.4
MOMN	Momotombo	1.67	355	S	Sb	09 21 12.5	+0.1
LEVN	Ruinas Leon Vi	1.68	352	S	Sg	09 21 13.1	-0.8
ACON	Acoyapa	1.71	44	P	Pn	09 20 49.9	-0.3
ACON	Acoyapa	1.71	44	*e*P	Pn	09 20 49.5	-0.7
CNGA	Al SSO del Vol	1.78	350	P	Pn	09 20 50.8	-0.4

SJA ***19*** *09:26:47.7±1.2, 21°.01S×68°.69W, h140^{km}, ML4.8, MW4.6*

NEIC ***19*** *09:26:49.6±2.0, 21°.01S±0°.04×68°.69W±0°.08, h124^{km}±4^{km}, mb4.8/235, Mwr4.9/34, Mww4.9/20, Mwr4.9(GUC), Error ellipse: s-maj=10.2km s-min=5.7km az=96.0, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}-1.88; $M_{\theta\theta}$1.12; $M_{\phi\phi}$0.75; $M_{r\theta}$1.01; $M_{\theta\phi}$-0.66; $M_{\phi r}$-1.66; Fault plane solution: $M_0$2.63000×10^{16} NP1: ϕ_s322.28000°, δ69.25000°, λ-81.23000°. NP2: ϕ_s118.75000°, δ22.46000°, λ-111.92000°. Principal axes: T 2.4301, Plg24.0000°, Azm46.0000°; N 0.3558, Plg8.0000°, Azm139.0000°; P -2.7858, Plg65.0000°, Azm247.0000°;*

NEIC ***19*** *09:26:49.3, 21°.01S×68°.65W, h118^{km}*

GFZ ***19*** *09:26:49.2±0.2, 21°S±2°×6°9W±°, h132^{km}±4^{km}, M5.1/19, mb5.1/19*

GUC ***19*** *09:26:50.2±0.7, 21°.00S×68°.73W, h129^{km}±3^{km}, ML4.9*

VAO ***19*** *09:26:50.2±0.3, 20°.92S×68°.52W, h129^{km}, mb5.1, Presumed earthquake*

IDC ***19*** *09:26:50.3±0.5, 20°.91S×68°.42W, h131^{km}±4^{km}, mb4.3/14, mbtmp4.8/19, MS3.7/9, Error ellipse: s-maj=14.2km s-min=9.8km az=75.0*

GCMT ***19*** *09:26:52.6±0.3, 21°.01S±0°.02×68°.62W±0°.02, h148^{km}±2^{km}, MW5.0/98, Moment Tensor Solution. s41,c49; s98,c131; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-2.60±.11; $M_{\theta\theta}$1.97±.13; $M_{\phi\phi}$0.63±.18; $M_{r\theta}$1.10±.09; $M_{\theta\phi}$-0.99±.12; $M_{\phi r}$-2.31±.11; Best double couple: $M_0$3.58000×10^{16} NP1:ϕ_s103.00000°, δ27.00000°, λ-125.00000°. NP2: ϕ_s321.00000°, δ68.00000°, λ-73.00000°. Principal axes: T 3.3070, Plg21.0000°, Azm39.0000°; N 0.5480, Plg15.0000°, Azm135.0000°; P -3.8520, Plg63.0000°, Azm258.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 19 09:26:49.3±0.3**, 21°.03S**±0°.02×**68°.73W**±0°.03**, h130**^{km}±2^{km}**, h130**^{km}**:pP-P, n443,** σ**1s.72**/393**, mb4.8**/140**, 17C-6D, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PB09	IPOC Station P	0.90	212	*e*P	Pn	09 27 12.3	+0.7
PB09				IAML		09 27 34.1	
	comp=Z,13μm,0.4s						
PB09	IPOC Station P	0.90	212	⇑*i*P	Pn	09 27 12.2	+0.7
PB09				*i* S	Sn	09 27 29.2	+0.8
PB09				IAML		09 27 30.9	
	comp=N,27μm,0.4s						
PB09	IPOC Station P	0.90	212		Pn	09 27 12.0	+0.5
PB09					Sn	09 27 28.4	0.0
PB09	IPOC Station P	0.90	212	P	Pn	09 27 12.3	+0.7
PB08	IPOC Station P	0.97	335	*e*P	Pn	09 27 12.5	+0.1
PB08	IPOC Station P	0.97	335	⇑*i*P	Pn	09 27 12.4	+0.1
PB08				*i* S	Sn	09 27 29.5	-0.2
PB08				IAML		09 27 31.4	
	comp=E,14μm,0.6s						
PB08	IPOC Station P	0.97	335	Pn	Pn	09 27 12.2	-0.2
PB08				Sn	Sn	09 27 28.8	-0.9
PB08	IPOC Station P	0.97	335	P	Pn	09 27 12.5	+0.1
PB02	IPOC Station P	1.13	255	*e*P	Pn	09 27 14.2	+0.6
PB02				IAML		09 27 38.1	
	comp=Z,25μm,0.5s						
PB02	IPOC Station P	1.13	255	⇑*i*P	Pn	09 27 14.0	+0.4
PB02				*i* S	Sn	09 27 32.0	+0.1
PB02				IAML		09 27 33.4	
	comp=E,39μm,0.6s						
PB02	IPOC Station P	1.13	255	Pn	Pn	09 27 13.5	-0.1
PB02				Sn	Sn	09 27 31.3	-0.6
PB02	IPOC Station P	1.13	255	P	Pn	09 27 14.2	+0.6
PB07	IPOC Station P	1.29	237	*e*P	Pn	09 27 15.7	+0.5
PB07				IAML		09 27 47.0	
	comp=Z,11μm,0.9s						
PB07	IPOC Station P	1.29	237	⇑*i*P	Pn	09 27 15.6	+0.4
PB07				*i* S	Sn	09 27 35.0	0.0
PB07				IAML		09 27 36.7	
	comp=N,17μm,0.7s						
PB07	IPOC Station P	1.29	237		Pn	09 27 15.4	+0.2
PB07				Sn	Sn	09 27 34.4	-0.5
PB07	IPOC Station P	1.29	237	P	Pn	09 27 15.7	+0.5
PB03	IPOC Station P	1.40	223	*e*P	Pn	09 27 16.9	+0.5
PB03				IAML		09 27 41.1	
	comp=Z,9μm,1.0s						
PB03	IPOC Station P	1.40	223	⇑*i*P	Pn	09 27 16.8	+0.4
PB03				*i* S	Sn	09 27 37.0	0.0
PB03				IAML		09 27 38.3	
	comp=E,12μm,0.4s						
PB03	IPOC Station P	1.40	223		Pn	09 27 16.8	+0.4
PB03	IPOC Station P	1.40	223	P	Pn	09 27 17.0	+0.5
GO01	Chusmiza	1.42	342	*e*P	Pn	09 27 17.1	0.0
GO01				*e*S	Sn	09 27 39.7	+1.6
GO01				IAML		09 27 42.2	
	comp=Z,6μm,0.8s						
GO01	Chusmiza	1.42	342	⇑*i*P	Pn	09 27 17.0	-0.1
GO01				*i* S	Sn	09 27 37.7	-0.4
GO01				IAML		09 27 41.5	
	comp=N,15μm,0.2s						
GO01	Chusmiza	1.42	342	Pn	Pn	09 27 16.7	-0.4
GO01	Chusmiza	1.42	342	P	Pn	09 27 17.1	0.0
TA01	Diego Aracena	1.44	288	*e*P	Pn	09 27 16.5	-0.2
TA01				*e*S	Sn	09 27 38.1	+0.6
TA01	Diego Aracena	1.44	288	⇑*i*P	Pn	09 27 16.5	-0.2
TA01				*i* S	Sn	09 27 37.0	-0.5
TA01				IAML		09 27 39.6	
	comp=E,8μm,0.2s						
TA01	Diego Aracena	1.44	288		Pn	09 27 16.5	-0.2
TA01	Diego Aracena	1.44	288	P	Pn	09 27 16.6	-0.2
TA02	Huaiquique	1.52	300	*e*P	Pn	09 27 17.7	+0.1
TA02				*e*S	Sn	09 27 40.0	+0.9
TA02				IAML		09 27 42.2	
	comp=Z,8μm,0.6s						
TA02	Huaiquique	1.52	300	*i* P	Pn	09 27 17.2	-0.3
TA02				*i* S	Sn	09 27 38.2	-0.9
PB11	IPOC Station P	1.53	325	*e*P	Pn	09 27 17.6	-0.4
PB11				IAML		09 27 43.1	
	comp=Z,4μm,0.3s						
PB11	IPOC Station P	1.53	325	⇑*i*P	Pn	09 27 17.5	-0.4
PB11				*i* S	Sn	09 27 38.9	-0.8
PB11				IAML		09 27 40.2	
	comp=E,9μm,0.1s						
PB11	IPOC Station P	1.53	325		Pn	09 27 17.5	-0.4
PB11	IPOC Station P	1.53	325	P	Pn	09 27 17.6	-0.4
PB06	IPOC Station P	1.85	205	*e*P	Pn	09 27 22.1	+0.6
PB06				*e*S	Sn	09 27 41.7	-4.5
PB06				IAML		09 27 47.7	
	comp=Z,13μm,1.0s						
PB06	IPOC Station P	1.85	205	⇑*i*P	Pn	09 27 22.2	+0.6
PB06				*i* S	Sn	09 27 46.6	+0.3
PB06				IAML		09 27 47.9	
	comp=E,16μm,0.5s						
PB06	IPOC Station P	1.85	205		Pn	09 27 22.0	+0.4
PB06	IPOC Station P	1.85	205	P	Pn	09 27 22.3	+0.7
PSGCX	Pisagua	1.94	317	*e*P	Pn	09 27 21.8	-0.8
PSGCX				IAML		09 27 49.5	
	comp=Z,3μm,1.0s						
PSGCX	Pisagua	1.94	317	⇑*i*P	Pn	09 27 21.7	-0.8
PSGCX				*i* S	Sn	09 27 46.5	-1.5
PSGCX	Pisagua	1.94	317	Pn	Pn	09 27 21.7	-0.8
PSGCX	Pisagua	1.94	317	P	Pn	09 27 21.9	-0.8
AF01	San Pedro de A	1.98	165	*e*P	Pn	09 27 24.7	+1.4
AF01				*e*S	Sn	09 27 52.3	+2.9
AF01				IAML		09 28 06.9	
	comp=Z,8μm,1.5s						
AF01	San Pedro de A	1.98	165	⇑*i*P	Pn	09 27 24.7	+1.4
AF01				*i* S	Sn	09 27 51.3	+2.0
AF01	San Pedro de A	1.98	165		Pn	09 27 24.8	+1.4
PB05	IPOC Station P	2.28	217	*e*P	Pn	09 27 27.1	+0.3
PB05				*e*S	Sn	09 27 49.2	-6.4
PB05				IAML		09 28 02.6	
	comp=Z,3μm,0.4s						
PB05	IPOC Station P	2.28	217	⇑*i*P	Pn	09 27 26.9	+0.1
PB05				IAML		09 27 57.2	
	comp=E,6μm,0.3s						
PB05	IPOC Station P	2.28	217		Pn	09 27 26.9	+0.1
PB05	IPOC Station P	2.28	217	P	Pn	09 27 27.1	+0.3
PX02	IPOC Station P	2.48	326	*i* P	Pn	09 27 27.4	-1.9
PB16	IPOC Station P	2.78	344	*e*P	Pn	09 27 28.4	-5.2
PB16				*e*S	Sn	09 28 09.2	+1.5
PB16	IPOC Station P	2.78	344	⇑*i*P	Pn	09 27 33.9	+0.2
PB16	IPOC Station P	2.78	344		Pn	09 27 33.7	0.0
PB16	IPOC Station P	2.78	344	P	Pn	09 27 34.0	+0.4
PB12	IPOC Station P	2.84	328	*e*P	Pn	09 27 32.5	-1.4
PB12				*e*S	Sn	09 28 03.0	-5.2
PB12				IAML		09 28 10.6	
	comp=Z,1μm,0.4s						
PB12	IPOC Station P	2.84	328	⇑*i*P	Pn	09 27 32.3	-1.6
PB12				*i* S	Sn	09 28 04.5	-3.7
PB12				IAML		09 28 12.8	
	comp=N,3μm,0.8s						
PB12	IPOC Station P	2.84	328		Pn	09 27 32.4	-1.6
PB12	IPOC Station P	2.84	328	P	Pn	09 27 32.5	-1.4
AP01	Chacalluta	3.05	330	*e*P	Pn	09 27 35.8	-0.9
AP01				*e*S	Sn	09 28 06.5	-6.6
AP01				IAML		09 28 39.5	
	comp=Z,2μm,1.2s						
AP01	Chacalluta	3.05	330	*i* P	Pn	09 27 35.2	-1.4
AP01				IAML		09 28 19.2	
	comp=E,4μm,0.7s						
AP01	Chacalluta	3.05	330	Pn	Pn	09 27 35.2	-1.4
AP01	Chacalluta	3.05	330	P	Pn	09 27 39.5	+2.9
YJA	Yavi	3.20	112	*e*P	Pn	09 27 34.5	-4.4
YJA	Yavi	3.20	112	*e*P	Pn	09 27 40.0	+1.0
PB18	Visviri	3.49	348	⇑*e*P	Pn	09 27 44.2	+1.3
PB18	Visviri	3.49	348	Pn	Pn	09 27 43.6	+0.7
PB18	Visviri	3.49	348	P	Pn	09 27 44.5	+1.5
HJA	Humahuaca	3.76	126	*e*P	Pn	09 27 42.2	-4.1
SALTA		3.87	146	*e*P	Pn	09 27 43.4	-4.4
SALTA				*e*P		09 27 43.7	
SALTA		3.87	146	P	Pn	09 27 49.2	+1.4
PB14	IPOC Station P	3.90	203	*e*P	Pn	09 27 46.9	-1.2
PB14				*e*S	Sn	09 28 24.5	-9.1
PB14				IAML		09 28 44.5	
	comp=Z,1μm,0.3s						
PB14	IPOC Station P	3.90	203	⇑*i*P	Pn	09 27 46.8	-1.2
PB14				*i* S	Sn	09 28 32.0	-1.5
PB14	IPOC Station P	3.90	203		Pn	09 27 47.1	-1.0
PB14	IPOC Station P	3.90	203	P	Pn	09 27 46.9	-1.2
SLA	San Lorenzo	4.72	142	*e*P	Pn	09 27 54.6	-4.3
SLA	San Lorenzo	4.72	142	⇑*e*P	Pn	09 27 59.9	+1.0
LPAZ	La Paz	4.75	7	P	Pn	09 28 00.3	+0.6
	comp=Z,127nm,0.4s,baz=240,slow=2.1,SNR=734						
LPAZ				S	Sn	09 28 49.2	-5.0
	comp=Z,38nm,0.7s,baz=55,slow=6.1,SNR=1.1						
LPAZ	La Paz	4.75	7	*e*P	Pn	09 27 37.5	-22
LPAZ	La Paz	4.75	7		Pn	09 28 00.2	+0.5
LPAZ	La Paz	4.75	7	*e*P	Pn	09 27 58.7	-0.9
LPAZ	La Paz	4.75	7	P	Pn	09 28 00.4	+0.8
AC01	Pan de Azucar	5.38	198	*e*P	Pn	09 28 05.4	-2.1
AC01				*e*S	Sn	09 29 04.9	-3.6
AC01				IAML		09 29 26.7	
	comp=Z,592nm,0.4s						
AC01	Pan de Azucar	5.38	198	Pn	Pn	09 28 05.7	-1.8
AC01	Pan de Azucar	5.38	198	P	Pn	09 28 05.2	-2.3
AC02	Maricunga	5.79	184	Pn	Pn	09 28 12.5	-1.0
AC02	Maricunga	5.79	184	P	Pn	09 28 12.9	-0.6
	comp=Z,374nm,0.5s						
GO03	Copiapo	6.68	192		Pn	09 28 22.5	-2.6
GO03	Copiapo	6.68	192	P	Pn	09 28 22.2	-2.8
	comp=Z,522nm,0.7s						
AC04	Llanos de Chal	7.46	196		Pn	09 28 31.0	-4.5
AC04	Llanos de Chal	7.46	196	P	Pn	09 28 31.5	-3.9
	comp=Z,155nm,0.6s						
AC05	El Transito	7.90	190		Pn	09 28 38.5	-3.0
AC05	El Transito	7.90	190	P	Pn	09 28 38.6	-3.0
	comp=Z,474nm,0.7s						
LCO	Las Campanas	8.15	192		Pn	09 28 40.9	-4.1
SIV	San Ignacio	8.82	57	P	Pn	09 28 49.7	-4.2
	comp=Z,183nm,0.4s,baz=247,slow=9.7,SNR=1350						
SIV				S	Sn	09 30 16.0	-16
	comp=Z,29nm,0.9s,baz=344,slow=22,SNR=4.5						
CO01	Juntas del Tor	9.00	188	P	Pn	09 28 54.2	-2.2
	comp=Z,122nm,0.9s						
GO04	Tololo Observa	9.30	191	P	Pn	09 28 56.2	-4.2
	comp=Z,153nm,0.4s						

COIM	Forte Coimbra	10.31	86	eP	Pn	09 29 08.1	-5.8
CO02	Combarbal	10.34	191		Pn	09 29 09.2	-5.1
CO02	Combarbal	10.34	191	P	Pn	09 29 09.3	-4.9
CFA	Coronel Fontan	10.54	178	P	Pn	09 29 13.3	-3.7
	comp=Z,15nm,0.3s,baz=10,slow=8.8,SNR=112						
CFA				S	Sn	09 31 03.8	-9.5
	comp=Z,8.7nm,0.3s,baz=246,slow=19,SNR=8.3						
PTLB	Pontes e Lacer	10.66	60		Pn	09 29 14.1	-4.5
PTLB	Pontes e Lacer	10.66	60	eP	Pn	09 29 14.1	-4.5
CO04	Los Peladeros	11.15	190		Pn	09 29 19.9	-5.4
BDQN	Bodoquena, MS	11.22	89	eP	Pn	09 29 21.3	-4.7
VILB	Vilhena	11.44	47		Pn	09 29 26.1	-2.9
VILB	Vilhena	11.44	47	eP	Pn	09 29 25.1	-3.9
CPUP	Villa Florida	11.70	119	P	Pn	09 29 29.1	-3.1
	comp=Z,6.6nm,0.6s,baz=303,slow=13,SNR=29						
CPUP				LR	LR	09 35 05.5	
	comp=Z,138nm,19.5s,baz=300,slow=43						
CPUP	Villa Florida	11.70	119		Pn	09 29 29.5	-2.7
CPUP	Villa Florida	11.70	119	eP	Pn	09 29 29.2	-3.1
VA03	San Esteban	11.80	188	P	Pn	09 29 30.3	-3.4
	comp=Z,59nm,0.8s						
AQDB	Aquidauana	12.20	90		Pn	09 29 36.0	-2.9
AQDB	Aquidauana	12.20	90	eP	Pn	09 29 34.9	-4.0
AQDB	Aquidauana	12.20	90	P	Pn	09 29 36.4	-2.5
	comp=Z,84nm,1.0s						
SJPY	San Joaquin	12.28	111	eP	Pn	09 29 38.0	-1.8
MT03	Universidad Ad	12.52	187		Pn	09 29 38.8	-4.2
SALV	Santo Antonio	13.37	70	eP	Pn	09 29 50.1	-4.0
BO01	Tunca	13.48	188	Pn	Pn	09 29 53.8	-1.5
BO01	Tunca	13.48	188	P	Pn	09 29 54.8	-0.5
	comp=Z,88nm,1.0s						
PP1B	Ponte de Pedra	13.51	78	eP	Pn	09 29 51.6	-4.3
BO03	Pichilemu	13.72	191	P	Pn	09 29 57.3	-1.1
	comp=Z,77nm,0.8s						
CZSB	Cruzeiro do Su	13.77	343	P	Pn	09 29 53.5	-5.7
	comp=Z,111nm,0.6s						
CZSB	Cruzeiro do Su	13.77	343	eP	Pn	09 29 55.0	-4.3
BO02	Sierra Bellavi	13.83	187	P	Pn	09 30 00.3	+0.3
	comp=Z,85nm,0.9s						
ML02	Panimavida	14.87	189	Pn	Pn	09 30 11.9	-1.1
ML02	Panimavida	14.87	189	P	Pn	09 30 12.9	-0.1
	comp=Z,222nm,0.8s						
C2SB	Chapadao do Su	15.11	84	eP	Pn	09 30 14.5	-1.6
C2SB	Chapadao do Su	15.11	84	P	P	09 30 19.3	+1.0
	comp=Z,326nm,1.4s						
H03N1	Juan Fernandez	15.31	214	P	P	09 30 20.7	+0.6
	baz=48,slow=74,SNR=38						
H03N2	Juan Fernandez	15.32	214	P	P	09 30 20.9	+0.7
	baz=214,slow=74,SNR=27						
H03S3	Juan Fernandez	15.62	213	P	P	09 30 24.6	+1.1
	baz=50,slow=15,SNR=62						
H03S1	Juan Fernandez	15.63	213	P	P	09 30 23.6	0.0
	baz=50,slow=15,SNR=39						
H03S2	Juan Fernandez	15.63	213	P	P	09 30 24.0	+0.4
	baz=50,slow=15,SNR=54						
BI02	San Fabin de	15.74	188	Pn	Pn	09 30 23.6	-0.3
BI02	San Fabin de	15.74	188	P	P	09 30 24.3	-0.8
	comp=Z,160nm,0.9s						
PTGB	Pitanga	15.79	107	eP	P	09 30 24.3	-1.5
CLDB	Colider	16.00	53	eP	Pn	09 30 24.6	-2.6
CLDB	Colider	16.00	53	P	Pn	09 30 24.5	-2.8
	comp=Z,77nm,1.3s						
ANCO	Parque Anchore	16.26	146	eP	P	09 30 30.1	-0.8
LDASE	Londrina, Braz	16.47	101	eP	P	09 30 31.9	-1.5
CPSB	Cacapava Do Su	16.62	127		P	09 30 33.2	-1.8
CPSB				IAmb	IAmb	09 30 35.3	
	comp=Z,52nm,0.7s						
CPSB	Cacapava Do Su	16.62	127	eP	P	09 30 33.4	-1.6
CPSB	Cacapava Do Su	16.62	127	P	P	09 30 33.6	-1.4
	comp=Z,83nm,0.8s						
ATAH	Atahualpa	16.68	325	P	P	09 30 38.1	+2.0
	comp=Z,11nm,0.8s,baz=156,slow=11,SNR=6.2						
ARAG	Araguaiana, MT	16.90	75	eP	Pn	09 30 35.8	-2.4
FRTB	Fartura	17.89	101	eP	Pn	09 30 48.3	-1.8
FRTB	Fartura	17.89	101	P	Pn	09 30 48.4	-1.8
	comp=Z,247nm,0.8s						
CNLB	Canela	18.14	121	eP	P	09 30 49.2	-2.5
CNLB	Canela	18.14	121	P	Pn	09 30 51.0	-2.1
	comp=Z,80nm,0.8s						
GO06	Curarrehue	18.64	187		Pn	09 30 58.5	-0.5
GO06	Curarrehue	18.64	187	P	Pn	09 30 59.0	0.0
	comp=Z,90nm,1.0s						
LR03	Panguipulli	18.80	189	P	P	09 30 59.3	+0.5
LR03				IAmb	IAmb	09 31 01.2	
	comp=Z,61nm,1.1s						
BB19B	Bebedouro	18.85	94	eP	P	09 30 58.0	-1.6
SNDB	Serra Nova Dou	18.97	64	eP	P	09 30 58.7	-2.0
MACA	Manacapuru-AM	19.41	25	P	P	09 31 02.6	-2.9
MACA	Manacapuru-AM	19.41	25	eP	P	09 31 03.2	-2.3
IPMB	Ipameri, GO	19.57	85	eP	P	09 31 05.7	-1.7
PLCA	Paso Flores	19.70	184	P	Pn	09 31 09.9	-1.4
	comp=Z,23nm,0.8s,baz=10,slow=12,SNR=27						
PLCA	Paso Flores	19.70	184	P	P	09 31 09.0	+0.4
PLCA				IAmb	IAmb	09 31 11.3	
	comp=Z,60nm,1.2s						
PLCA	Paso Flores	19.70	184	eP	P	09 31 09.6	+0.9
MCRA	Macar, Loja	19.83	325	P	P	09 31 11.2	+1.0
	comp=Z,623nmcomp=Z,61nm,1.0s						
SPB	Sao Paulo	19.86	101		P	09 31 09.2	-1.2
SPB				IAmb	IAmb	09 31 10.6	
	comp=Z,58nm,0.9s						
SPB	Sao Paulo	19.86	101	eP	P	09 31 09.5	-0.9
SPB	Sao Paulo	19.86	101	P	P	09 31 09.4	-1.0
	comp=Z,68nm,0.8s						
PET01	Itanhaem-SP	20.06	103	eP	P	09 31 10.1	-2.4
VAO	Valinhos	20.27	100	eP	P	09 31 12.6	-2.3
LL03	Petrohue	20.29	188	P	Pn	09 31 17.4	-0.7
	comp=Z,164nm,1.1s						
BDFB	Brasilia	20.37	78	P	P	09 31 15.0	-1.1
	comp=Z,45nm,0.5s,baz=263,slow=12,SNR=26						
BDFB				LR	LR	09 40 24.4	
	comp=Z,306nm,20.3s,baz=275,slow=41						
	comp=Z,45nm,0.5s						
BDFB	Brasilia	20.37	78		P	09 31 14.6	-1.4
ITTB	Itaituba	20.82	39	eP	P	09 31 18.4	-2.4
CANS	Sao Roque de M	20.91	92	eP	P	09 31 19.5	-2.3
PMNB	Patos De Minas	21.12	87	eP	P	09 31 21.9	-2.1
PMNB	Patos De Minas	21.12	87	P	P	09 31 22.3	-1.7
	comp=Z,108nm,0.9s						
PTLC	Puerto Leguiza	21.89	344	P	P	09 31 29.3	-2.8
	comp=Z,18nm,1.0s						
LL02	Futaleuf	22.25	186	P	P	09 31 35.4	-0.2
LL02				IAmb	IAmb	09 31 37.8	
	comp=Z,57nm,1.2s						
BSCB	Bom Sucesso	22.36	94	eP	P	09 31 35.7	-1.3
PPLP	Puerto Lpez	22.65	327	P	P	09 31 50.5	+11
CASC	Dorado de Casc	22.66	337	P	P	09 31 41.7	+1.7
	comp=Z,1µmcomp=Z,88nm,0.9s						
OTAV	Otavalo	23.18	335	P	P	09 31 48.1	+2.9
	comp=Z,516nmcomp=Z,33nm,1.0s						
OTAV	Otavalo	23.18	335	eP	P	09 31 46.2	+1.0
TULM	Tulcn-Chalpat	23.36	337	P	P	09 31 49.9	+3.0
	comp=Z,762nmcomp=Z,51nm,1.0s						
CMBC	Cumbal	23.58	337	P	P	09 31 55.1	+6.2
	comp=Z,8µmcomp=Z,119nm,0.8s						
SMTB	Santa Maria do	23.70	62	eP	P	09 31 49.1	-0.4
DIAM	Diamantina, MG	23.74	88	eP	P	09 31 47.5	-2.5
MC01	Montes Claros	23.83	84	eP	P	09 31 49.2	-1.6
CRUC	La Cruz	23.86	339	P	P	09 31 58.4	+7.1
JANB	Januaria	23.95	80	eP	P	09 31 50.0	-1.8
GARC	Garzon, Huila	24.00	343	P	P	09 31 52.0	-0.5
	comp=Z,34nm,0.7s						
SDBA	SAO DESIDERIO	24.34	73	eP	P	09 31 53.6	-1.8
BBAC	Balboa, Cauca	24.38	339	P	P	09 31 58.1	+2.2
	comp=Z,583nmcomp=Z,50nm,0.8s						
BOAV	Boa Vista	24.63	20	P	P	09 31 56.9	-1.0
BOAV				IAmb	IAmb	09 31 59.4	
	comp=Z,51nm,0.9s						
BOAV	Boa Vista	24.63	20	P	P	09 31 57.5	-0.4
	comp=Z,62nm,0.9s						
BOAV	Boa Vista	24.63	20	eP	P	09 31 57.3	-0.6
COYC	Coyhaique	24.64	186	P	P	09 31 58.0	+0.3
COYC				IAmb	IAmb	09 31 59.6	
	comp=Z,31nm,1.0s						
COYC	Coyhaique	24.64	186	P	P	09 31 57.0	-0.7
	comp=Z,36nm,1.0s						
POPC	Popayan, Colom	24.68	341	P	P	09 32 01.3	+2.6
	comp=Z,10nm,0.9s						
CAM01	Campos-RJ	25.20	97	eP	P	09 32 02.5	-0.5
PRAC	Prado	25.32	345	P	P	09 32 04.4	+0.2
	comp=Z,1µmcomp=Z,17nm,0.8s						
VILC	Villavicencio,	25.45	348	P	P	09 32 05.9	+0.4
ORTC	Ortega, Tolima	25.59	345	P	P	09 32 07.5	+0.8
	comp=Z,32nm,0.8s						
ARCA	Ara§uai, MG	25.64	85	eP	P	09 32 06.2	-0.9
CVER	Cruz Verde, Cu	25.93	348	P	P	09 32 11.2	+1.0
CHIC	Chingaza	25.97	349	P	P	09 32 10.3	-0.2
	comp=Z,16nm,0.5s						
SJMB	Sao Joao De Ma	25.99	90	eP	P	09 32 08.3	-2.0
BSFB	Barra de Sao F	26.29	90	eP	P	09 32 12.1	-0.8
RIB01	Linhares ES	26.64	91	eP	P	09 32 15.2	-0.9
GUY2C	Guyana, Caldas	26.89	345	P	P	09 32 19.2	+0.4
	comp=Z,14nm,1.1s						
SPBC	San Pablo de B	27.03	348	P	P	09 32 19.7	+0.1
	comp=Z,11nm,0.5s						
RUSC	La Rusia	27.09	350	P	P	09 32 20.9	+0.2
	comp=Z,43nm,0.7s						
NORC	Norcasia	27.11	346	P	P	09 32 20.6	+0.3
	comp=Z,13nm,0.9s						
GUA01	Guaratinga, BA	27.71	86	eP	P	09 32 25.1	-0.6
BARC	Barichara	27.80	350	P	P	09 32 26.1	-0.5
	comp=Z,32nm,0.9s						
PTBC	PUERTO BERRIO,	27.97	348	P	P	09 32 25.5	-2.4
	comp=Z,27nm,0.7s						
BRJC	Barrancabermej	28.26	349	P	P	09 32 23.1	-7.4
	comp=Z,2µmcomp=Z,54nm,0.8s						
CMC01	Camacan, BA	28.29	83	eP	P	09 32 29.6	-1.2
PAMC	Pamplona, Colo	28.46	352	P	P	09 32 32.0	-0.8
NBIT	Itapeh - BA	28.48	83	eP	P	09 32 31.9	-0.7
NBPN	Ponto Novo - B	29.19	74	eP	P	09 32 38.2	-0.6
OCAC	Ocana	29.43	351	P	P	09 32 39.2	-1.9
APAC	Apartado, Choc	29.77	344	P	P	09 32 46.0	+2.2
	comp=Z,11nm,2.6s						
SDV	Santo Domingo	29.79	356	LR	LR	09 45 30.1	
	comp=Z,166nm,18.5s,baz=216,slow=38						
MDP	Montagnes des	30.39	33	LR	LR	09 45 10.6	
	comp=Z,197nm,18.3s,baz=188,slow=36						
NBPS	Pedro II - PI	31.23	62	eP	P	09 32 55.9	-1.0
SJCC	San Jacinto, C	31.38	348	P	P	09 32 58.4	+0.3
	comp=Z,27nm,0.9s						
NBTA	Tacaratu-PE	31.82	73	eP	P	09 33 01.4	-0.6
NBMA	Muriti-CE	31.98	69	eP	P	09 33 02.6	-0.8
URIC	Uribia, Colomb	32.68	354	P	P	09 33 05.5	-3.9
NBMO	Morrinhos-CE	33.00	62	eP	P	09 33 10.9	-1.4
RCBR	Riachuelo	35.21	69	P	P	09 33 31.2	-0.3
RCBR	Riachuelo	35.21	69	eP	P	09 33 30.8	-0.6
RCBR	Riachuelo	35.21	69	P	P	09 33 32.0	+0.6
NBPV	Pedro Velho	35.47	71	eP	P	09 33 33.2	-0.4
BIM	Bigot	36.11	13	P	P	09 33 37.1	-1.9
FDFM	Morne la Roset	36.31	12	P	P	09 33 38.8	-1.8
CELP	Cerrillos	38.92	3		P	09 34 00.9	-1.6
SJG	San Juan	38.98	4	P	P	09 34 01.2	-1.8
DR12	Loma Pena Alta	39.58	359	P	P	09 34 05.7	-2.4
PMSA	Palmer Station	43.84	177	eP	P	09 34 42.9	+0.8
CAIB	Caibarien	44.51	346	P	P	09 34 48.4	+0.4
CAIB				IAmb	IAmb	09 35 35.6	
	comp=Z,40nm,1.5s						
ZAIG	Zacatecas	54.63	321	P	P	09 36 06.5	+1.4
ZAIG				IAmb	IAmb	09 36 08.6	
	comp=Z,14nm,0.9s						
RGRS	Roger Stewart	54.74	348	P	P	09 36 06.1	+0.8
X58A	Rowland	56.19	349	P	P	09 36 15.6	-0.1
LRAL	Lakeview Retre	56.52	342	P	P	09 36 17.5	-0.6
LRAL				IAmb	IAmb	09 37 59.2	
	comp=Z,24nm,1.6s						
Y49A	Blount Mountai	57.12	342	P	P	09 36 21.7	-0.7
Y49A				IAmb	IAmb	09 38 23.1	
	comp=Z,24nm,1.5s						
X48A	Hartselle	57.86	342		P	09 36 26.8	-0.7
X48A				IAmb	IAmb	09 36 28.4	
	comp=Z,9.8nm,0.8s						
TKL	Tuckaleechee C	58.15	346	LR	LR	10 04 38.4	
	comp=Z,44nm,18.1s,baz=127,slow=39						
BELA	Belgrano 2	59.19	172	P	P	09 36 37.4	+1.2
CLTN	Cedars of Leba	59.20	343	P	P	09 36 36.2	-0.5
CLTN				IAmb	IAmb	09 37 09.7	
	comp=Z,20nm,1.6s						
U49A	Red Boiling Sp	59.46	344	P	P	09 36 38.0	-0.5
U49A				IAmb	IAmb	09 36 39.1	
	comp=Z,6.2nm,0.6s						
BRDY	Brady	59.58	330	IAmb	IAmb	09 37 27.6	
	comp=Z,6.6nm,1.1s						
WVT	Waverly	59.65	342	P	P	09 36 38.9	-1.0
WVT				IAmb	IAmb	09 36 40.3	
	comp=Z,11nm,0.7s						
WVT	Waverly	59.65	342	P	P	09 36 38.9	-1.0
WVT				pP	pP	09 37 10.4	-1.7
SLBS	Sierra La Lagu	59.89	316	P	P	09 36 42.8	+0.9
SLBS				IAmb	IAmb	09 36 45.0	
	comp=Z,10nm,1.1s						
MIAR	Mount Ida	60.11	336	P	P	09 36 43.3	+0.3
MIAR				IAmb	IAmb	09 36 44.4	
	comp=Z,13nm,0.8s						
OZNA	Ozona	60.30	328	IAmb	IAmb	09 36 45.5	
	comp=Z,12nm,1.2s						
WHAR	Wooly Hollow	60.31	338		P	09 36 44.9	+0.5
WHAR				IAmb	IAmb	09 36 45.4	
	comp=Z,12nm,1.1s						
TX31	Lajitas Ar. Si	60.34	325	P	P	09 36 44.5	-0.4
TX31				IAmb	IAmb	09 37 33.1	
	comp=Z,11nm,1.6s						
TXAR	Lajitas Array	60.34	325	P	P	09 36 45.6	+0.8
	comp=Z,1.3nm,1.0s,baz=147,slow=7.4,SNR=8.9						
	comp=Z,1.3nm,1.0s						
TXAR	Lajitas Array	60.34	325	P	P	09 36 44.7	-0.1
VNA3	Neumayer Olymp	60.47	161	⇓P	P	09 36 46.2	+1.2
	comp=Z,16nm,0.9s						
VNA1	Neumayer--Stat	60.67	161	⇓P	P	09 36 48.0	+1.6
	comp=Z,19nm,1.1s						
FCAR	Ozark Folk Cen	60.79	338	P	P	09 36 46.4	-1.2
FCAR				IAmb	IAmb	09 36 48.4	
	comp=Z,11nm,1.1s						
VNA2	Neumayer--Watz	61.04	161	⇓P	P	09 36 50.0	+1.2
	comp=Z,17nm,0.9s,baz=288,slow=6.9						
PBMO	Poplar Bluff	61.04	340	IAmb	IAmb	09 36 50.2	
	comp=Z,12nm,0.8s						
LOOK	Love County	61.06	333	P	P	09 36 49.5	0.0
Q51A	Peebles	61.29	347	P	P	09 36 50.4	-0.5
TMB01	Midkiff	61.38	328	IAmb	IAmb	09 36 53.4	
	comp=Z,8.2nm,1.1s						
TPB05	Hovey Rd	61.41	326	IAmb	IAmb	09 36 54.1	
	comp=Z,7.2nm,0.9s						
WTFS	Witchita Falls	61.42	332	IAmb	IAmb	09 36 53.6	
	comp=Z,16nm,1.0s						
MNHN	Monahans	61.46	327	IAmb	IAmb	09 37 41.1	
	comp=Z,10nm,1.0s						
229A	Bryant Ranch,	61.49	328	P	P	09 36 52.5	0.0
TPB01	Permian Basin	61.67	326	IAmb	IAmb	09 37 42.3	
	comp=Z,10nm,1.0s						
HHAR	Hobbs	61.79	337	IAmb	IAmb	09 36 55.6	
	comp=Z,14nm,1.0s						
APMT	Aspermont	61.80	330	IAmb	IAmb	09 36 56.2	
	comp=Z,12nm,1.0s						
SN07	Snyder 07	61.96	330	IAmb	IAmb	09 36 57.0	
	comp=Z,10nm,0.9s						
129A	Stewart Farms,	62.06	329	IAmb	IAmb	09 36 57.9	
	comp=Z,12nm,1.1s						
U38A	Gravette	62.09	337	IAmb	IAmb	09 36 57.1	
	comp=Z,9.8nm,1.2s						
TUL3	Leonard	62.16	335	P	P	09 36 57.0	+0.2
TUL3				IAmb	IAmb	09 36 58.2	
	comp=Z,12nm,0.8s						
VHRN	Van Horn	62.19	325	IAmb	IAmb	09 37 45.6	
	comp=Z,10nm,1.1s						
CCM	Cathedral Cave	62.47	340	P	P	09 36 58.4	-0.4
CCM	Cathedral Cave	62.47	340	P	P	09 36 59.1	+0.3
TPB11	China Draw	62.59	326	IAmb	IAmb	09 37 02.9	
	comp=Z,17nm,1.1s						
TPB28		62.62	326	IAmb	IAmb	09 37 02.9	
	comp=Z,11nm,1.1s						
SNAA	Sanae	62.67	161	⇓P	P	09 37 00.9	+1.0
	comp=Z,435nm,0.9s						
SNAA	Sanae	62.67	161	P	P	09 36 59.8	0.0
	comp=Z,17nm,0.9s,baz=285,slow=6.0,SNR=23						
	comp=Z,17nm,0.9s						
SNAA	Sanae	62.67	161		P	09 37 00.8	+1.0
R40A	Maddies Statio	63.01	339	IAmb	IAmb	09 37 03.4	
	comp=Z,13nm,0.8s						
T35A	Sooner Cattle	63.32	335	IAmb	IAmb	09 37 06.6	
	comp=Z,21nm,1.2s						
SMWD	Samnorwood	63.34	331	IAmb	IAmb	09 37 06.2	
	comp=Z,19nm,1.0s						
MSTX	Muleshoe	63.58	329	IAmb	IAmb	09 37 08.4	
	comp=Z,18nm,1.0s						
P40A	Paris	64.07	340	IAmb	IAmb	09 37 10.3	
	comp=Z,17nm,1.0s						
TROLL	Troll, Antarti	64.38	161	⇓P	P	09 37 12.5	+1.3
	comp=Z,725nm,0.7s						
P38A	Dawn	64.64	339	P	P	09 37 12.7	-0.3
P38A				IAmb	IAmb	09 37 14.1	
	comp=Z,9.6nm,0.8s						
319A	Douglas	65.02	322	IAmb	IAmb	09 37 50.6	
	comp=Z,12nm,0.8s						
121A	Cookes Peak, D	65.05	324	IAmb	IAmb	09 37 19.4	
	comp=Z,17nm,1.4s						
R32A	Long Quarter,	65.49	334	IAmb	IAmb	09 37 20.4	
	comp=Z,15nm,0.9s						
CRNM	Carthage	65.57	326	P	P	09 37 20.8	+1.3
ALQ	Albuquerque	66.20	327	IAmb	IAmb	09 37 25.5	
	comp=Z,6.3nm,1.2s						
ANMO	Albuquerque	66.20	327	P	P	09 37 24.8	+1.3
ANMO	Albuquerque	66.20	327	P	P	09 37 24.9	+1.4
TASM	ASL Pad, Albuq	66.20	327	IAmb	IAmb	09 37 25.5	
	comp=Z,6.0nm,1.2s						
TUC	Tucson	66.57	322	P	P	09 37 26.8	+1.0
BGNE	Belgrade	67.85	336	P	P	09 37 33.9	+0.3
SDCO	Great Sand Dun	67.93	329	IAmb	IAmb	09 37 37.2	
	comp=Z,8.7nm,1.0s						
DBIC	Dimbokro	68.44	74	P	P	09 37 37.0	-0.8
	comp=Z,30nm,0.8s,baz=233,slow=6.2,SNR=29						
DBIC				LR	LR	10 06 13.0	
	comp=Z,45nm,19.8s,baz=267,slow=35						
	comp=Z,30nm,0.8s						
DBIC	Dimbokro	68.44	74	P	P	09 37 36.6	-1.2
DBIC	Dimbokro	68.44	74	P	P	09 37 37.2	-0.5
Q24A	Divide	68.74	330	IAmb	IAmb	09 37 42.2	
	comp=Z,14nm,1.1s						
MVCO	Mesa Verde	69.00	327	IAmb	IAmb	09 37 43.9	
	comp=Z,12nm,1.1s						
QSPA	South Pole Qui	69.16	180	P	P	09 37 43.6	+2.1
	comp=Z,24nm,1.0s,baz=150,slow=1.5,SNR=56						
	comp=Z,24nm,1.0s						
QSPA	South Pole Qui	69.16	180	P	P	09 37 42.9	+1.3
QSPA	South Pole Qui	69.16	180	P	P	09 37 43.7	+2.1
QSPA				PcP	PcP	09 38 04.8	+0.2
QSPA				pP	pP	09 38 17.2	+2.7
ECSD	EROS Data Cent	69.34	339	IAmb	IAmb	09 37 43.9	
	comp=Z,11nm,1.2s						
BLYC	Blythe	69.79	320	P	P	09 37 47.6	+1.9
BLYC				IAmb	IAmb	09 37 49.3	
	comp=Z,9.6nm,0.9s						
PV13	Radium Mtn., P	69.89	327	IAmb	IAmb	09 38 36.0	
	comp=Z,20nm,1.3s						
PV05	Paradox Valley	69.97	327	IAmb	IAmb	09 37 49.7	
	comp=Z,14nm,1.0s						
PV03	Paradox Valley	69.97	327	IAmb	IAmb	09 37 50.0	
	comp=Z,23nm,1.5s						
PV18	Skein Mesa, Pa	70.00	327	IAmb	IAmb	09 37 50.0	
	comp=Z,18nm,1.4s						
PV11	David Mesa, Pa	70.02	327	IAmb	IAmb	09 37 50.9	
	comp=Z,17nm,1.3s						
PV20	West Nyswonger	70.10	327	IAmb	IAmb	09 38 42.5	
	comp=Z,18nm,1.5s						
PV14	Lion Creek, Pa	70.15	327	IAmb	IAmb	09 38 37.0	
	comp=Z,18nm,1.4s						
PV22	Blue Mesa, Par	70.16	328	IAmb	IAmb	09 37 51.1	
	comp=Z,23nm,1.2s						
PV21	Cone Mtn., Par	70.27	327	IAmb	IAmb	09 37 51.2	
	comp=Z,16nm,1.2s						
BC3	Big Chuckawall	70.28	320	P	P	09 37 51.0	+2.1
BC3				IAmb	IAmb	09 37 52.4	
	comp=Z,17nm,1.1s						
IRM	Iron Mountain	70.45	320	IAmb	IAmb	09 37 53.3	
	comp=Z,15nm,1.2s						
ELIB	Princess Elisa	70.83	161	dP	P	09 37 53.0	+1.4
	comp=Z,8.4nm,0.7s						
BELC	Belle Mtn. Jos	70.85	320	P	P	09 37 54.4	+2.0
O20A	White River Ci	71.13	329	IAmb	IAmb	09 37 56.8	
	comp=Z,10nm,1.0s						
SRU	San Rafael Swe	71.48	327	IAmb	IAmb	09 37 58.8	
	comp=Z,14nm,1.0s						
SZCU	Shurtz Canyon	71.71	324	P	P	09 37 59.0	+1.4
SZCU				IAmb	IAmb	09 38 35.3	
	comp=Z,12nm,1.1s						
P18A	Preston Nutter	71.72	327	IAmb	IAmb	09 38 00.9	
	comp=Z,12nm,1.0s						
RSSD	Black Hills	72.45	334	P	P	09 38 02.4	+0.6
RSSD	Black Hills	72.45	334	P	P	09 38 03.1	+1.3
BSUT	Blindstream Ca	72.67	328	IAmb	IAmb	09 38 06.5	
	comp=Z,12nm,1.0s						
MPU	Maple Canyon	72.72	327	IAmb	IAmb	09 38 06.6	
	comp=Z,10nm,1.0s						
GWY	Greenwater Val	72.75	321	IAmb	IAmb	09 38 06.9	
	comp=Z,13nm,1.1s						
TPNV	Topopah Spring	73.03	322	IAmb	IAmb	09 38 09.2	
	comp=Z,12nm,1.1s						
DUG	Dugway, Tooele	73.46	326	IAmb	IAmb	09 38 11.0	
	comp=Z,12nm,1.1s						
ISA	Isabella, Lake	73.47	320	P	P	09 38 10.0	+2.2
ISA				IAmb	IAmb	09 38 11.4	
	comp=Z,13nm,1.0s						
PDAR	Pinedale Array	73.79	330	P	P	09 38 10.6	+0.8
	comp=Z,1.4nm,0.9s,baz=140,slow=7.2,SNR=10						
	comp=Z,1.4nm,0.9s						
PDAR	Pinedale Array	73.79	330	P	P	09 38 09.8	+0.1
HVU	Hansel Valley	74.61	327	P	P	09 38 15.5	+1.1
ULM	Lac du Bonnet	74.92	342	P	P	09 38 15.7	-0.1
	comp=Z,3.1nm,0.5s,baz=148,slow=6.5,SNR=12						
ULM				pP	pP	09 38 48.6	-0.7
	comp=Z,4.3nm,0.8s,baz=204,slow=0.5,SNR=2.9						
	comp=Z,3.1nm,0.5s						
ULM	Lac du Bonnet	74.92	342	IAmb	IAmb	09 38 49.4	
	comp=Z,13nm,1.1s						
ELK	Elko	75.14	325	P	P	09 38 18.4	+0.9
LHV	Little Huntoon	75.23	322	IAmb	IAmb	09 38 21.6	
	comp=Z,17nm,1.3s						
NVAR	Mina Array Bea	75.23	322	P	P	09 38 19.9	+1.8
	comp=Z,4.1nm,0.9s,baz=148,slow=6.3,SNR=20						
NVAR				pP	pP	09 38 53.0	+1.5
	comp=Z,1.0nm,0.8s,baz=116,slow=4.0,SNR=1.9						
NVAR				sP	sP	09 39 07.4	+1.7
	comp=Z,1.4nm,0.8s,baz=152,slow=6.6,SNR=2.8						
	comp=Z,4.1nm,0.9s						
NVAR	Mina Array Bea	75.23	322	P	P	09 38 19.4	+1.2
LAO	LASA Array	75.44	334	IAmb	IAmb	09 38 21.4	
	comp=Z,16nm,1.1s						
YFT	Old Faithful	75.68	330	P	P	09 38 22.0	+1.4
YNE	Yellowstone No	75.72	331	IAmb	IAmb	09 38 23.7	
	comp=Z,26nm,1.0s						
WAKR	Walker	75.94	321	P	P	09 38 23.4	+1.2
PAHR	Pah Rah Range	76.71	322	IAmb	IAmb	09 38 30.0	
	comp=Z,21nm,1.0s						
HLID	Hailey	76.74	328	IAmb	IAmb	09 38 30.0	
	comp=Z,14nm,1.1s						
TORD	Torodi Ar. Bea	77.03	70	P	P	09 38 27.6	-0.9
	comp=Z,22nm,0.9s,baz=251,slow=5.4,SNR=77						
TORD				pP	pP	09 38 59.9	-2.4
	comp=Z,5.2nm,0.8s,baz=256,slow=4.9,SNR=1.8						
	comp=Z,22nm,0.9s						
TORD	Torodi Ar. Bea	77.03	70	P	P	09 38 28.0	-0.6
TORD				IAmb	IAmb	09 40 51.2	
	comp=Z,21nm,0.8s						
DLMT	Dillon	77.19	330	P	P	09 38 30.5	+1.6
DLMT				IAmb	IAmb	09 38 32.1	
	comp=Z,15nm,1.2s						
VNDA	Vanda	77.34	190	P	P	09 38 30.8	+1.6
	comp=Z,2.5nm,0.9s,baz=142,slow=4.3,SNR=10						
	comp=Z,2.5nm,0.9s						
VNDA	Vanda	77.34	190	P	P	09 38 30.9	+1.6
VNDA	Vanda	77.34	190	P	P	09 38 32.3	+3.1
VNDA				sP	sP	09 39 20.1	+2.9
MFID	Camas Ranch	77.34	327	IAmb	IAmb	09 38 33.3	
	comp=Z,16nm,1.3s						
ORV	Oroville	77.84	321	IAmb	IAmb	09 38 36.0	
	comp=Z,23nm,1.2s						
O03E	Paynes Creek	78.50	321	IAmb	IAmb	09 38 38.3	
	comp=Z,16nm,1.1s						
PLID	Pearl Lake	78.62	328	IAmb	IAmb	09 38 39.9	
	comp=Z,12nm,1.0s						
HATC	Hat Creek Radi	78.64	322	P	P	09 38 38.3	+1.3
HATC				IAmb	IAmb	09 38 39.9	
	comp=Z,21nm,1.0s						
J08A	Circle Bar Ran	78.68	325	IAmb	IAmb	09 38 40.6	
	comp=Z,25nm,1.9s						
MOD	Modoc Plateau	78.69	323	IAmb	IAmb	09 38 40.5	
	comp=Z,12nm,1.1s						
M03C	McCloud	79.31	322	IAmb	IAmb	09 38 42.9	
	comp=Z,16nm,0.9s						
KHBM	Hayfork Bally	79.56	321	IAmb	IAmb	09 38 45.3	
	comp=Z,15nm,1.0s						
K04D	Chiloquin, OR	79.98	323	IAmb	IAmb	09 38 47.2	
	comp=Z,18nm,0.9s						
TSUM	Tsumeb	80.01	107	P	P	09 38 45.3	+0.2
TSUM				IAmb	IAmb	09 38 46.7	
	comp=Z,13nm,0.8s						
TSUM	Tsumeb	80.01	107	P	P	09 38 45.8	+0.7
TSUM				pP	pP	09 39 20.4	+1.5
PINE	Pine Mountain	80.30	325	IAmb	IAmb	09 38 49.6	

	comp=Z,16nm,1.0s						
J04A	Umpqua Nationa	80.58	324	IAmb	IAmb	09 38 50.4	
	comp=Z,22nm,1.0s						
L02F	Cave Junction	80.69	322	IAmb	IAmb	09 38 51.1	
	comp=Z,22nm,1.2s						
I05D	Terrebonne, OR	80.88	325	IAmb	IAmb	09 38 52.3	
	comp=Z,19nm,1.0s						
WIFE	Three Sisters-	80.95	324	IAmb	IAmb	09 38 52.6	
	comp=Z,12nm,0.9s						
KOOLE	Kule	81.10	111	P	P	09 38 51.2	+0.4
KOOLE				IAmb	IAmb	09 38 52.3	
	comp=Z,23nm,1.1s						
K02D	Willamette Mer	81.11	322	IAmb	IAmb	09 38 53.5	
	comp=Z,25nm,1.2s						
HAWA	Hanford	81.31	327	IAmb	IAmb	09 38 54.2	
	comp=Z,11nm,1.1s						
MDT	Midelt	81.31	50	LR	LR	10 16 20.7	
	comp=Z,74nm,18.1s,baz=244,slow=37						
C09A	Chrisman Ranch	81.65	329	IAmb	IAmb	09 38 55.6	
	comp=Z,12nm,0.8s						
BUCK	Buck Mountain	81.68	324	IAmb	IAmb	09 38 55.9	
	comp=Z,22nm,1.0s						
LTY	Liberty	82.47	327	IAmb	IAmb	09 38 59.9	
	comp=Z,12nm,1.2s						
GRTLG	Ghanzi	82.53	110	P	P	09 38 58.4	+0.1
GRTLG				IAmb	IAmb	09 38 59.7	
	comp=Z,13nm,0.8s						
STD	Studebaker Rid	82.59	326	P	P	09 38 59.0	+1.0
D05A	Enumclaw	83.09	327	IAmb	IAmb	09 39 02.6	
	comp=Z,13nm,1.0s						
BOSA	Boshof	83.52	118	P	P	09 39 03.0	-0.3
	comp=Z,10nm,0.8s,baz=285,slow=3.6,SNR=15						
	comp=Z,10nm,0.8s						
BOSA	Boshof	83.52	118	IAmb	IAmb	09 39 04.3	
	comp=Z,12nm,0.8s						
BOSA	Boshof	83.52	118	P	P	09 39 03.2	-0.1
BOSA				pP	pP	09 39 39.9	+2.4
CCD	Concordia, Ant	83.78	183	P	P	09 39 06.0	+1.9
CCD				pP	pP	09 39 40.4	+2.0
CCD				sP	sP	09 39 54.2	+1.6
A05A	Maple Falls	84.33	328	IAmb	IAmb	09 39 08.7	
	comp=Z,13nm,1.0s						
TAM	Tamanrasset	84.45	63	P	P	09 39 07.9	-0.2
MAW	Mawson	84.73	163	P	P	09 39 09.1	+0.6
	comp=Z,6.7nm,0.7s,baz=217,slow=5.2,SNR=9.8						
MAW				LR	LR	10 16 46.9	
	comp=Z,35nm,20.2s,baz=68,slow=35						
	comp=Z,6.7nm,0.7s						
MAW	Mawson	84.73	163		P	09 39 09.8	+1.3
KDWAN	Kaudwane	84.83	113	IAmb	IAmb	09 39 11.6	
	comp=Z,15nm,0.9s						
LBTB	Lobatse	85.06	115	IAmb	IAmb	09 39 12.0	
	comp=Z,13nm,0.9s						
LLLB	Lillooet	85.30	329	IAmb	IAmb	09 39 13.3	
	comp=Z,11nm,1.2s						
ESDC	Sonseca Array	85.38	44	P	P	09 39 12.3	+0.1
	comp=Z,3.3nm,1.0s,baz=242,slow=4.8,SNR=14						
	comp=Z,3.3nm,1.0s						
ESDC	Sonseca Array	85.38	44	P	P	09 39 11.9	-0.3
ESDC				IAmb	IAmb	09 39 13.9	
	comp=Z,11nm,1.1s						
DRV	Dumont d'Urvil	89.95	191	P	P	09 39 35.4	+1.8
YKA	Yellowknife Ar	90.80	341	P	P	09 39 38.0	+0.6
	comp=Z,5.9nm,0.9s,baz=137,slow=4.8,SNR=25						
YKA				pP	pP	09 40 12.1	+0.1
	comp=Z,11nm,0.9s,baz=138,slow=4.8,SNR=13						
	comp=Z,5.9nm,0.9s						
CASY	Casey	92.96	180		P	09 39 48.8	+1.2
MBAR	Mbarara	98.62	94	LR	LR	10 22 49.0	
	comp=Z,47nm,19.5s,baz=166,slow=34						
ASAR	Alice Springs	130.41	208	PKP	PKPdf	09 45 45.3	0.0
	comp=Z,3.7nm,1.0s,baz=150,slow=2.1,SNR=21						
ASAR	Alice Springs	130.41	208		PKPdf	09 45 45.2	-0.1
ABKAR	Akbulak array	130.69	42	PKPdf	PKPdf	09 45 45.6	+0.8
WRA	Warramunga Arr	133.45	211	PKP	PKPdf	09 45 51.8	+0.7
	comp=Z,2.3nm,0.8s,baz=145,slow=1.8,SNR=17						
WRA	Warramunga Arr	133.45	211	PKPdf	PKPdf	09 45 51.5	+0.4
BVAR	Borovoye Array	135.31	34	PKP	PKPdf	09 45 53.7	+0.2
	comp=Z,1.9nm,0.8s,baz=305,slow=5.2,SNR=6.7						
BRLS	Borolday	139.12	48	*e*PKP	PKPdf	09 46 00.6	-0.3
CHM	Chimkent	139.19	49	*e*PKP	PKPdf	09 46 00.8	-0.2
IUG	Iuzhnay	139.54	49	*e*PKP	PKPdf	09 46 01.3	-0.5
DZA	Taraz	140.20	47	*e*PKP	PKPdf	09 46 02.6	-0.3
KURBB	Kurchatov Arra	140.85	33	PKhKP	PKPpre	09 45 59.8	
	comp=Z,1.4nm,0.8s,baz=305,slow=2.3,SNR=4.7						
KURBB				PKP	PKPdf	09 46 05.1	+1.4
	comp=Z,2.0nm,0.9s,baz=286,slow=3.0,SNR=8.3						
ZALV	Zalesovo Beam	141.46	25	PKhKP	PKPpre	09 46 02.0	
	comp=Z,6.1nm,0.9s,baz=122,slow=6.1,SNR=14						
ZALV				PKP	PKPdf	09 46 05.5	+0.8
	comp=Z,2.1nm,0.6s,baz=304,slow=2.2,SNR=4.3						
SEM	Semipalatinsk	141.85	32	*e*PKP	PKPdf	09 46 05.6	-0.2
SGDS	Sogindy	142.22	45	*e*PKP	PKPdf	09 46 06.2	-0.4
AAA	Alma-Ata	143.83	44	*e*PKP	PKPdf	09 46 09.1	-0.3
TDK	Taldyqorghan	143.91	41	*e*PKP	PKPdf	09 46 09.1	-0.3
MDOK	Medeo	143.93	44	*e*PKP	PKPdf	09 46 09.2	-0.5
KSH2	Kashi	144.50	51	PKP	PKPdf	09 46 10.9	+0.1
KSH2				pPKP	pPKPdf	09 46 47.8	+0.7
KPKS	Kokpek	144.85	43	*e*PKP	PKPab	09 46 10.8	+0.3
SATY	Saty	144.86	44	*e*PKP	PKPab	09 46 10.9	+0.2
MKAR	Makanchi Array	145.15	36	PKP	PKPdf	09 46 12.2	+0.6
	comp=Z,17nm,0.9s,baz=308,slow=2.8,SNR=77						
MKAR				pPKP	pPKPdf	09 46 47.5	-0.2
	comp=Z,2.2nm,0.6s,baz=306,slow=2.3,SNR=2.9						
MKAR	Makanchi Array	145.15	36		PKPbc	09 46 11.8	+0.4
UZB	Uzynbulak	145.22	43	*e*PKP	PKPbc	09 46 11.4	-0.4
SHLS	Shalkode	145.49	43	*e*PKP	PKPdf	09 46 12.4	+0.1
ZSN	Zaisan	146.08	33	*e*PKP	PKPdf	09 46 12.9	-0.2
HEH	HeiHe	148.17	340	*e*P	PKPbc	09 46 20.1	+0.3
HEH				pmax	pmax		
	comp=Z,19nm,0.9s						
WMQ	Urumqi	149.98	35	*e*PKPbc	PKPdf	09 46 20.3	+0.7
HILR	Hailar Array B	150.74	349	PKPbc	PKPbc	09 46 27.3	+1.1
	comp=Z,6.8nm,0.7s,baz=135,slow=0.6,SNR=8.8						
HILR				pPKPbc	pPKPbc	09 47 01.7	-0.6
	comp=Z,6.8nm,0.7s,baz=76,slow=6.3,SNR=4.0						
USRK	Ussuriysk Ar.	151.20	328	PKPbc	PKiKP	09 46 28.7	+0.8
	comp=Z,9.2nm,0.8s,baz=31,slow=1.2,SNR=12						
USRK				pPKPbc	pPKPbc	09 47 02.4	-1.1
	comp=Z,2.6nm,0.7s,baz=333,slow=3.0,SNR=2.1						
USRK	Ussuriysk Ar.	151.20	328		PKPbc	09 46 28.3	+0.8
MJAR	Matsushiro Arr	151.91	309	PKPbc	PKPbc	09 46 29.9	+0.5
	comp=Z,6.8nm,0.9s,baz=78,slow=2.7,SNR=15						
MJAR				pPKPbc	pPKPbc	09 47 05.4	0.0
	comp=Z,2.8nm,0.9s,baz=84,slow=5.3,SNR=3.0						
MJAR	Matsushiro Arr	151.91	309	PKPbc	PKPbc	09 46 30.0	+0.7
SONM	Songino Array	152.97	7	PKP	PKPdf	09 46 25.8	+1.7
	comp=Z,2.1nm,0.9s,baz=23,slow=1.2,SNR=8.5						
SONM				PKPbc	PKPbc	09 46 32.2	+0.7
	comp=Z,2.3nm,1.0s,baz=249,slow=0.8,SNR=9.5						
SONM	Songino Array	152.97	7		PKPdf	09 46 25.2	+1.1
SONM					PKPbc	09 46 32.3	+0.7
KSRS	Korea Array	158.17	322	PKP	PKPdf	09 46 32.5	+1.4
	comp=Z,1.9nm,0.9s,baz=48,slow=1.9,SNR=7.3						
KSRS				PKPab	PKPab	09 47 06.9	+1.3
	comp=Z,1.9nm,0.9s,baz=54,slow=5.4,SNR=5.2						
GTA2	Gaotai	159.12	26	*e*PKP	PKPdf	09 46 34.0	+1.5
GTA2				sPKP		09 47 10.1	
HHC	Hu-ho-hao-te	160.24	359	*e*P	PKPdf	09 46 28.8	-4.9
XAN	Xi'an	166.87	9	PKP	PKPdf	09 46 41.8	+1.8
NJ2	Nanjing	167.10	330	*e*P	PKPdf	09 46 40.3	+0.2
NJ2				pmax	pmax		
	comp=Z,5.0nm,0.6s						
PZH	PanZhiHua	169.71	56	PKP	PKPdf	09 46 39.9	-2.3

GII ***19*** *09:30:04.7±0.0, 37°.061N±0°.002×35°.808E±0°.001, h0^{km}, Mws3.9, confirmed*
IDC ***19*** *09:30:04.3±0.6, 36°.94N×35°.75E, h0^{km}, mb3.9/11, mbtmp3.8/17, ML3.1/6, MS3.2/12, Error ellipse: s-maj=12.0km s-min=9.8km az=75.0*
ISK ***19*** *09:30:05.0, 36°.98N×35°.82E, h12^{km}, ML4.0/21*
AFAD ***19*** *09:30:05.0, 36°.98N×35°.84E, h24^{km}±6^{km}, ML3.9*
NEIC ***19*** *09:30:06.5±1.9, 37°.03N±0°.05×35°.86E±0°.05, h10^{km}±1^{km}, mb4.4/14, Error ellipse: s-maj=8.8km s-min=6.2km az=146.0*
NIC ***19*** *09:30:07.8, 36°.87N×35°.73E, h5^{km}±31^{km}, Ml3.6/13*
ISC 19 09:30:06.4±1.0, **37°.01N**±0°.02×**35°.86E**±0°.02, **h12**^{km}±7^{km}, **n162,** σ1^{s}.**40**/209, **mb4.2**/16, **MS3.3**/5, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAYT	Sariam	0.46	290	P	Pb	09 30 15.8	-0.6
CAYT				S	Sb	09 30 23.5	+0.4
CAYT				IAML		09 30 39.0	
	comp=N,2µm,0.9s						
CAYT				IAML		09 30 39.0	
	comp=E,1µm,0.5s						
KOZT	Kozan	0.47	357	Pg	Pb	09 30 15.7	-0.9
KOZT				Sg	Sb	09 30 23.1	-0.4
KOZT				AML	AML		
HASA	Hatay-Hassa-Ha	0.57	117	P	Pg	09 30 17.0	-0.5
HASA				S	Sb	09 30 25.3	-1.1
HASA				IAML		09 30 28.0	
	comp=N,2µm,0.5s						
HASA				IAML		09 30 28.0	
	comp=E,1µm,0.3s						
KAMA	Osmaniye	0.67	75	P	Pg	09 30 18.9	-0.5
KAMA				S	Sg	09 30 28.7	+0.4
KAMA				IAML		09 30 33.0	
	comp=E,4µm,0.2s						
KAMA				IAML		09 30 34.0	
	comp=N,5µm,0.6s						
ANDN	Andirin	0.69	34	P	Pg	09 30 19.4	-0.3
ANDN				S	Sn	09 30 31.1	-1.6
ANDN				IAML		09 30 33.0	
	comp=E,4µm,0.2s						
ANDN				IAML		09 30 42.0	
	comp=N,4µm,0.9s						
KHMR	Kahramanmara	0.90	68	P	Pg	09 30 23.4	-0.5
KHMR				S	Sb	09 30 36.6	+0.6
KHMR				IAML		09 30 37.0	
	comp=E,6µm,0.6s						
KHMR				IAML		09 30 38.0	
	comp=N,3µm,0.4s						
CMRD	Camardi-Nigde	0.95	313	Pg	Pg	09 30 23.3	-1.4
CMRD				Sg	Sb	09 30 37.2	-0.2
RHAN	Hatay/Reyhanl	0.96	141	P	Pb	09 30 23.5	-1.5
RHAN				S	Sb	09 30 37.0	-0.7
RHAN				IAML		09 30 38.0	
	comp=N,9µm,0.4s						
RHAN				IAML		09 30 38.0	
	comp=E,9µm,0.5s						
KMRS	Kahramanmaras	0.97	59	Pg	Pn	09 30 25.2	-0.6
KMRS				Sg	Sn	09 30 38.6	-0.9
KMRS				AML	AML		
SAIM	ADANA	0.98	11	P	Pb	09 30 23.9	-1.4
SAIM				S	Sn	09 30 39.1	-0.8
SAIM				IAML		09 30 41.0	
	comp=E,4µm,0.3s						
SAIM				IAML		09 30 52.0	
	comp=N,2µm,0.3s						
YAYL	Yayladag	1.00	168	P	Pb	09 30 24.1	-1.6
YAYL				S	Sn	09 30 38.8	-1.5
YAYL				IAML		09 30 40.0	
	comp=E,4µm,0.4s						
YAYL				IAML		09 30 44.0	
	comp=N,4µm,0.3s						
GAZ	Gaziantep	1.10	81	Pn	Pn	09 30 27.0	-0.7
GAZ				Sn	Sn	09 30 42.9	+0.1
GAZ				AML	AML		
GAZ	Gaziantep	1.10	81	S	Sn	09 30 43.3	+0.5
GAZ				AML	AML	09 30 45.3	
	10.0nm,0.6s						
GAZ				AML	AML	09 30 46.5	
	17nm,0.9s						
GAZ	Gaziantep	1.10	81		Pn	09 30 26.9	-0.7
KHMN	Narli-Kahraman	1.11	70	Pn	Pg	09 30 27.8	+0.1
KHMN				AML	AML		
KHMN	Narli-Kahraman	1.11	70	P	Pg	09 30 27.3	-0.3
KHMN				S	Sn	09 30 42.7	-0.3
KHMN				IAML		09 30 44.0	
	comp=E,8µm,0.5s						
KHMN				IAML		09 30 45.0	
	comp=N,7µm,0.4s						
YAHY	KAYSERI_Yahyal	1.15	340	P	Pb	09 30 26.2	-2.0
YAHY				S	Sn	09 30 44.5	+0.3
YAHY				IAML		09 30 52.0	
	comp=E,760nm,0.5s						
NIDE	Nigde/Merkez-G	1.31	319	P	Pn	09 30 29.7	-0.9
NIDE				S	Sg	09 30 48.9	+0.4
NIDE				IAML		09 30 50.0	
	comp=E,2µm,0.6s						
NIDE				IAML		09 30 58.0	
	comp=N,2µm,0.5s						
GZT	Gaziantep	1.41	75	P	Pn	09 30 31.4	-0.6
GZT				S	Sb	09 30 50.8	+0.2
GZT				IAML		09 30 53.0	
	comp=E,3µm,0.6s						
GZT				IAML		09 31 02.0	
	comp=N,3µm,0.6s						
KERG	Konya-Eregli	1.44	287	P	Pn	09 30 31.5	-0.9
KERG				S	Sg	09 30 52.7	-0.1
NZIP	Nizip/Gaziante	1.46	88	P	Pn	09 30 31.6	-1.0
NZIP				S	Sg	09 30 53.7	+0.5
NZIP				IAML		09 31 01.0	
	comp=E,2µm,0.4s						
NZIP				IAML		09 31 02.0	
	comp=N,3µm,1.0s						
SARI	SarD1z-Kayseri	1.46	18	Pn	Pn	09 30 32.2	-0.6
SARI				AML	AML		
KIZK	Mersin	1.47	249	Pn	Pn	09 30 31.3	-1.5
KIZK				Sn	Sn	09 30 50.1	-1.9
AKCA	Adyaman/G¶l	1.65	61	P	Pn	09 30 34.9	-0.5
AKCA				S	Sg	09 31 01.3	+1.6
AKCA				IAML		09 31 09.0	
	comp=N,1µm,0.4s						
AKCA				IAML		09 31 16.0	
	comp=E,1µm,0.5s						
ELBS	KAHRAMANMARAS	1.66	37	P	Pb	09 30 35.7	-1.2
ELBS				IAML		09 31 06.0	
	comp=N,769nm,0.4s						
ELBS				IAML		09 31 06.0	
	comp=E,1µm,0.3s						
SLFK	Silifke-Mersin	1.66	249	Pn	Pn	09 30 34.1	-1.1
SILI	Silifke-Mersin	1.68	248	Pn	Pn	09 30 34.5	-1.1
SILI				AML	AML		
BSIR	Belisirma, Guz	1.77	316	P	Pb	09 30 37.4	-1.4
BSIR				S	Sg	09 31 12.1	+8.9
KEBE	Keben-Mersin	1.81	252	Pn	Pn	09 30 36.1	-1.4
KEBE				AML	AML		
BNN	Bunyan	1.84	360	Pn	Pn	09 30 38.3	+0.4
BNN				AML	AML		
BNN	Bunyan	1.84	360	Pn	Pn	09 30 37.3	-0.6
GULA	Gulagac	1.85	316	Pn	Pn	09 30 37.2	-0.8
GULA				AML	AML		
YESY	Yesilyurt	1.85	295	Pn	Pn	09 30 37.0	-1.0
YESY				AML	AML		
GUNE	Kayseri	1.90	355	P	Pn	09 30 39.1	+0.4
GUNE				S	Sg	09 31 16.6	+9.2
GUNE				IAML		09 31 17.0	
	comp=E,758nm,0.6s						
GUNE				IAML		09 31 35.0	
	comp=N,856nm,0.8s						
TISA	Tisan-Mersin	1.95	245	Pn	Pn	09 30 38.2	-1.1
TISA				AML	AML		
YESI	Yesilovacik-Me	1.96	246	Pn	Pn	09 30 38.2	-1.2
AVNS	Nevsehir-Avano	1.96	336	P	Pg	09 30 43.0	-1.0
AVNS				S	Sg	09 31 17.0	+7.6
ATAB	Bozova	2.00	76	P	Pg	09 30 44.3	-0.4
ATAB				S	Sg	09 31 11.4	+0.7
EREN	Erenkoy	2.01	223	Pn	Pn	09 30 40.2	+0.1
EREN				AML	AML		
TEPK	Tepekoy-MERSIN	2.02	248	Pn	Pn	09 30 39.4	-0.9
TEVE	Tevekalti-Mers	2.02	254	Pn	Pn	09 30 39.7	-0.7
TEVE				AML	AML		
BECE	Buyukeceli-Mer	2.04	246	Pn	Pn	09 30 40.2	-0.3
BECE				AML	AML		
CUGUR	Gurin_SVAS	2.04	33	P	Pn	09 30 41.4	+0.7
CUGUR				S	Sg	09 31 12.2	+0.2
CUGUR				IAML		09 31 17.0	
	comp=E,1µm,0.4s						
CUGUR				IAML		09 31 22.0	
	comp=N,1µm,0.7s						
AKK1	Akkuyu-Mersin	2.06	246	Pn	Pn	09 30 39.7	-1.0
AZEY	Adyaman-Merk	2.06	67	P	Pn	09 30 39.7	-1.3
AZEY				S	Sb	09 31 08.5	-1.0
KRMN	Karaman	2.08	275	Pn	Pn	09 30 40.9	-0.3
KRMN				AML	AML		
AKCD	Akcadag	2.08	51	P	Pn	09 30 41.7	+0.4
AKCD				S	Sg	09 31 13.8	+0.5
AKCD				IAML		09 31 17.0	
	comp=N,1µm,0.4s						
AKCD				IAML		09 31 19.0	
	comp=E,965nm,0.7s						
YORU	Yoruktepe-Mers	2.15	247	Pn	Pn	09 30 41.5	-0.6
BERE	Bereket-Mersin	2.22	253	Pn	Pn	09 30 42.7	-0.4
BERE				AML	AML		
KOZK	Kozakli-Nevseh	2.33	341	Pn	Pn	09 30 44.3	-0.3
KOZK				AML	AML		
CUAYA	Sivas-Altinyay	2.36	17	P	Pn	09 30 45.3	+0.2
CUAYA				S	Sg	09 31 29.7	+7.6
TEKE	Tekeli-Mersin	2.37	249	Pn	Pn	09 30 44.3	-0.8
TEKE				AML	AML		
BEIL	Beino	2.48	174	*e*P	Pn	09 30 46.8	+0.2
PARAL	Paralimni	2.50	217	P	Pn	09 30 46.1	-0.7
PARAL				S	Sn	09 31 17.8	+0.6
PARAL				AML	AML	09 31 27.9	
	1.3nm,0.8s						
PARAL				AML	AML	09 31 31.9	
	1.2nm,0.5s						
SERE	Sereflikochisa	2.65	318	Pn	Pn	09 30 48.6	-0.4
SERE				AML	AML		
YOZ	Yozgat	2.66	351	Pn	Pn	09 30 49.1	-0.1
YOZ				AML	AML		
MVOU	Mavrovouni	2.69	223	P	Pn	09 30 48.4	-1.0
MVOU				S	Sn	09 31 22.8	+0.9
MVOU				AML	AML	09 31 30.9	
	0.6nm,0.9s						
MVOU				AML	AML	09 31 33.4	
	0.5nm,0.6s						
HWQ	Hawqa	2.73	178	*e*P	Pn	09 30 50.2	0.0
ARPR	Arapgir-MALATY	2.85	43	Pn	Pn	09 30 53.1	+1.2
ARPR	Arapgir-MALATY	2.85	43	Pn	Pn	09 30 50.7	-1.2
CY604	RAF Akrotiri,	2.88	203	Pn	Pn	09 30 52.0	+0.2
CSS	Mathiatis	2.90	226	P	Pn	09 30 51.2	-1.2
CSS				S	Sn	09 31 27.0	-0.1
CSS				AML	AML	09 31 37.8	
	0.6nm,0.6s						
CSS				AML	AML	09 31 40.1	
	0.4nm,0.7s						
CSS	Mathiatis	2.90	226	Pn	Pn	09 30 51.8	-0.5
CSS	Mathiatis	2.90	226	P	Pn	09 30 51.9	-0.4
CSS				S	Sn	09 31 28.4	+1.3
XYLS	Xyliatos	3.03	230	AML	AML	09 31 33.8	
	0.6nm,0.3s						
XYLS				AML	AML	09 31 39.8	
	0.5nm,0.4s						
SVSK	Karacayir	3.04	17	Pn	Pn	09 30 55.4	+1.2
SVSK				AML	AML		
ASGA	Asgata	3.07	224	P	Pn	09 30 55.1	+0.4
ASGA				S	Sn	09 31 30.8	-0.5
ASGA				AML	AML	09 31 43.7	
	0.6nm,0.6s						
ASGA				AML	AML	09 31 44.0	
	0.5nm,0.6s						
BHL	Bhannes	3.11	183	*e*P	Pn	09 30 55.0	-0.3
ZAHL	Zahle	3.15	180	*e*P	Pb	09 30 58.4	-3.9
TROD	Troodos	3.18	231	AML	AML	09 31 45.4	
	0.5nm,0.8s						
TROD				AML	AML	09 31 48.4	
	0.9nm,0.7s						
BR131	Keskin Array S	3.22	328	Pn	Pn	09 30 57.0	+0.1
BRTR	Keskin Array B	3.22	328	Pn	Pn	09 30 57.0	+0.1
	2.2nm,0.3s,baz=162,slow=13,SNR=52						
BRTR				Lg	Lg	09 31 48.6	
	3.7nm,0.3s,baz=146,slow=32,SNR=3.7						
BRTR				LR	LR	09 31 54.7	
	comp=Z,57nm,19.3s,baz=127,slow=34						
	7.6nm,0.6s						
BRTR				AML	AML		
BRTR	Keskin Array B	3.22	328	Pn	Pn	09 30 56.9	0.0
ALFC	Alefka	3.22	236	P	Pn	09 30 54.7	-2.2
ALFC				S	Sn	09 31 34.5	-0.7
ALFC				AML	AML	09 31 36.2	
	0.8nm,0.4s						
ALFC				AML	AML	09 31 39.3	
	0.6nm,0.4s						
DQRL	Deir Qamar	3.31	184	*e*P	Pn	09 30 57.2	-0.9
TOKA	Tokat	3.34	8	Pn	Pn	09 30 56.8	-1.7
APOL	The Sanctuary	3.37	227	P	Pn	09 30 58.9	+0.1
APOL				S	Sn	09 31 39.6	+0.8
APOL				AML	AML	09 31 50.2	
	0.7nm,0.9s						
APOL				AML	AML	09 31 53.6	
	0.6nm,0.5s						
POL7C	Prodromi	3.43	236	P	Pn	09 31 00.4	+0.8
QRWL	Qaraoun	3.46	182	*e*P	Pn	09 31 00.2	0.0
NATA	Nata	3.48	231	P	Pn	09 31 00.3	0.0
NATA				S	Sn	09 31 41.2	-0.3
NATA				AML	AML	09 31 56.5	
	2.0nm,0.7s						
NATA				AML	AML	09 31 57.1	
	1.3nm,0.6s						
AKMS	Akamas	3.48	236	P	Pn	09 31 01.3	+0.9
AKMS				AML	AML	09 31 51.8	
	0.7nm,0.8s						
AKMS				AML	AML	09 31 52.5	
	0.9nm,0.6s						
RCY	Rachaya	3.51	180	*e*P	Pn	09 31 01.2	+0.3
SHBL	Chebaa	3.66	181	*e*P	Pn	09 31 03.0	0.0
NATI	Neve Ativ	3.74	182	P	Pn	09 31 04.4	+0.5
NATI				S	Sn	09 31 50.8	+2.8
GEM	Giv'at Ha'Em	3.80	182	P	Pn	09 31 04.9	+0.2
GEM				S	Sn	09 31 51.6	+2.3
KIRY	Kiryat Shemona	3.80	184	P	Pn	09 31 05.1	+0.3
KIRY				S	Sn	09 31 51.6	+2.1
MMA0B	Mount Meron ar	4.01	185	P	Pn	09 31 07.6	-0.1
MMA0B				S	Sn	09 31 56.8	+2.2
KSHT	Keshet	4.02	181	P	Pn	09 31 08.6	+0.7
KSHT				S	Sn	09 31 57.4	+2.4
ZEFT	Zefat	4.05	184	P	Pn	09 31 09.0	+0.8
ZEFT				S	Sn	09 31 58.2	+2.6
KNHM	Kefar Nahum	4.13	183	P	Pn	09 31 09.8	+0.5
KNHM				S	Sn	09 31 59.4	+2.0
ISP	Isparta	4.32	282	Pn	Pn	09 31 13.1	+1.1
ILGA	Ilgaz	4.36	338	Pn	Pn	09 31 13.5	+0.8
OFRI	`Ofer	4.44	190	P	Pn	09 31 13.1	-0.5
OFRI				S	Sn	09 32 07.1	+1.9
MMLI	Mount Malkishu	4.58	185	P	Pn	09 31 16.0	+0.5
MMLI				S	Sn	09 32 09.0	+0.4
MMLI				AML	AML	09 32 13.3	
	0.1nm,0.3s						
MMLI				AML	AML	09 32 17.6	
	0.1nm,0.4s						
MMLI	Mount Malkishu	4.58	185	P	Pn	09 31 16.2	+0.7
MMLI				S	Sn	09 32 10.5	+1.9
KOPT	Kop Dagi	4.72	49	Pn	Pn	09 31 17.0	-0.6
ROII	Roi	4.76	184	P	Pn	09 31 18.9	+0.9
ROII				S	Sn	09 32 15.5	+2.4
ELL	Elmali	4.78	269	Pn	Pn	09 31 19.7	+1.5
RGMN	Argaman	4.84	183	P	Pn	09 31 19.5	+0.5
RGMN				S	Sn	09 32 16.8	+1.8
ASF	Jabal al Asfar	4.91	170	Pn	Pn	09 31 20.4	+0.4
	1.2nm,0.3s,baz=86,slow=5.0,SNR=7.5						
ASF				Lg	Lg	09 32 37.4	
	5.8nm,0.3s,baz=142,slow=19,SNR=8.9						
ASF				LR	LR	09 33 35.4	
	comp=Z,208nm,18.4s,baz=210,slow=44						
	2.8nm,0.3s						
ASF				AML	AML		
OSC2	CSNet OBS 4	4.91	218	P	Pn	09 31 21.1	+1.1
OSC2				AML	AML	09 32 28.5	
	0.1nm,0.6s						
OSC2				AML	AML	09 32 36.6	
	0.1nm,0.5s						
YITV	Yitav	5.07	184	P	Pn	09 31 23.1	+1.0
YITV				S	Sn	09 32 22.2	+1.6
AKAS	Kas	5.09	263	Pn	Pn	09 31 23.2	+0.7
ALMO	Almog	5.22	184	P	Pn	09 31 24.6	+0.4
ALMO				S	Sn	09 32 26.6	+2.2
JER	Jerusalem	5.26	186	P	Pn	09 31 25.5	+0.6
JER				S	Sn	09 32 27.8	+2.4
MZS	Mizpe Shalem	5.44	184	P	Pn	09 31 27.7	+0.4
MZS				S	Sn	09 32 31.8	+1.9
AMAZ	Amatzia	5.52	188	P	Pn	09 31 29.2	+0.7
AMAZ				S	Sn	09 32 34.2	+2.3
GHAJ	Ghor Haditha	5.70	182	Pn	Pn	09 31 32.9	+2.0
MSBI	Mazada	5.70	184	P	Pn	09 31 31.6	+0.8
MSBI				S	Sn	09 32 38.2	+2.0
GEVA	Gevas	5.86	75	Pn	Pn	09 31 34.5	+1.3
IDAN	Idan	6.18	185	P	Pn	09 31 38.2	+0.7
IDAN				S	Sn	09 32 50.2	+2.0
KZIT	Kziot	6.21	192	P	Pn	09 31 38.5	+0.6
KZIT				S	Sn	09 32 51.2	+2.3
ARG	Arkhangelos	6.27	265	Pn	Pn	09 31 37.2	-1.5
RMNI	Mount Ramon	6.46	188	P	Pn	09 31 42.1	+0.7
RMNI				S	Sn	09 32 57.2	+2.0
HRFI	Mount Harif	6.99	186	P	Pn	09 31 49.5	+0.9
HRFI				S	Sn	09 33 10.9	+2.7

KARP	Karpathos	7.17	261	Pn	Pn	09 31 49.6	-1.5
EIL	Elat	7.36	186	Pn	Pn	09 31 54.5	+0.8
	1.1nm,0.3s,baz=19,slow=1.9,SNR=7.0						
EIL				LR	LR	09 35 15.4	
	comp=Z,109nm,18.4s,baz=76,slow=43						
	3.1nm,0.6s						
EIL				AML	AML		
EIL	Elat	7.36	186	P	Pn	09 31 54.5	+0.8
EIL				S	Sn	09 33 19.2	+2.0
GNI	Garni	7.63	63	LR	LR	09 34 58.7	
	comp=Z,34nm,18.6s,baz=316,slow=38						
KBZ	Khabaz	8.59	37	LR	LR	09 35 41.3	
	comp=Z,152nm,18.9s,baz=228,slow=39						
IDI	Anoyia	9.04	262	Pn	Pn	09 32 14.9	-1.8
	1.4nm,0.3s,baz=64,slow=10,SNR=16						
IDI				Sn	Sn	09 33 52.9	-5.5
	1.2nm,0.3s,baz=306,slow=20,SNR=4.2						
	5.8nm,0.3s						
IDI				AML	AML		
IDI	Anoyia	9.04	262	Pn	Pn	09 32 15.6	-1.1
MLR	Muntele Rosu	11.28	322	LR	LR	09 37 59.1	
	comp=Z,174nm,18.8s,baz=179,slow=42						
AKASG	Malin Array Be	14.49	343	Pn	Pn	09 33 32.0	+0.9
	0.3nm,0.3s,baz=162,slow=11,SNR=1.4						
	0.2nm,0.3s						
AKASG				AML	AML		
TIP	Timpagrande	15.19	284	Pn	Pn	09 33 41.6	+0.8
TIP				IAmb	IAmb	09 33 45.2	
	comp=Z,26nm,1.5s						
VRAC	Vranov	18.60	317	LR	LR	09 42 57.9	
	comp=Z,89nm,18.9s,baz=74,slow=42						
GERES	GERESS Array B	19.99	313	P	P	09 34 37.8	-0.9
	baz=104,slow=11,SNR=3.6						
	comp=Z,0.9nm,0.5s						
AKTO	Aktyubinsk	20.79	43	P	Pn	09 34 48.0	-1.6
	comp=Z,1.3nm,0.5s,baz=241,slow=10,SNR=4.6						
	comp=Z,1.3nm,0.5s						
AB31	Akbulak array	21.31	47	P	P	09 34 52.3	-0.6
ABKAR	Akbulak array	21.31	47	P	P	09 34 52.3	-0.6
KEST	Kesra	21.36	275	P	P	09 34 52.8	-0.9
	comp=Z,2.0nm,0.6s,baz=248,slow=4.3,SNR=3.9						
	comp=Z,2.0nm,0.6s						
KEST	Kesra	21.36	275	P	P	09 34 53.7	0.0
DAVOX	Davos/Dischmat	21.57	305	LR	LR	09 44 44.4	
	comp=Z,58nm,19.3s,baz=278,slow=41						
CLL	Collm	21.62	319	AMS	AMS	09 42 00.0	
FINES	FINESS Array B	25.21	349	P	P	09 35 31.6	-0.1
	comp=Z,9.0nm,0.9s,baz=156,slow=11,SNR=11						
	comp=Z,9.0nm,0.9s						
FINES	FINESS Array B	25.21	349	P	P	09 35 30.7	-1.0
FIA1	FINESS Array S	25.22	349	P	P	09 35 31.0	-0.7
KK31	Karatay Array	27.08	66	P	P	09 35 49.3	+0.4
KK31				IAmb	IAmb	09 35 51.2	
	comp=Z,6.2nm,0.8s						
KKAR	Karatay Array	27.08	66	P	P	09 35 49.2	+0.3
AAK	Ala-Archa	30.01	67	LR	LR	09 49 09.6	
	comp=Z,60nm,18.8s,baz=290,slow=38						
KURBB	Kurchatov Arra	33.18	52	P	P	09 36 44.3	+1.6
	comp=Z,1.0nm,0.7s,baz=265,slow=8.8,SNR=7.0						
KURBB				LR	LR	09 51 25.6	
	comp=Z,71nm,19.9s,baz=174,slow=38						
	comp=Z,1.0nm,0.7s						
WUS	Wushi	33.65	69	P	P	09 36 48.4	+1.3
WUS				IAmb	IAmb	09 36 49.6	
	comp=Z,4.7nm,0.9s						
MKAR	Makanchi Array	35.46	59	P	P	09 37 03.5	+1.0
	comp=Z,1.8nm,0.8s,baz=267,slow=7.5,SNR=13						
MKAR				LR	LR	09 53 49.4	
	comp=Z,42nm,18.0s,baz=288,slow=40						
	comp=Z,1.8nm,0.8s						
MKAR	Makanchi Array	35.46	59	P	P	09 37 03.1	+0.6
ZALV	Zalesovo Beam	37.43	47	P	P	09 37 20.0	+0.9
	comp=Z,0.8nm,0.5s,baz=258,slow=10,SNR=4.6						
	comp=Z,0.8nm,0.5s						
ZALV	Zalesovo Beam	37.43	47	P	P	09 37 19.2	+0.1
TORD	Torodi Ar. Bea	38.68	241	P	P	09 37 29.3	-0.8
	comp=Z,0.9nm,1.0s,baz=33,slow=8.7,SNR=6.5						
	comp=Z,0.9nm,1.0s						
BRDH	Bariadhala	49.80	90	LR	LR	10 03 29.8	
	comp=Z,94nm,18.2s,baz=269,slow=40						
SONM	Songino Array	51.49	54	P	P	09 39 13.2	+1.4
	comp=Z,0.4nm,0.5s,baz=303,slow=8.0,SNR=1.8						
	comp=Z,0.4nm,0.5s						
CMAR	Chiang Mai Arr	57.82	90	P	P	09 39 56.6	-1.3
	comp=Z,0.8nm,0.4s,baz=297,slow=9.4,SNR=6.0						
	comp=Z,0.8nm,0.4s						
KSAR	Wonju Array Be	70.10	58	P	P	09 41 19.3	+0.7
KSRS	Korea Array	70.12	58	P	P	09 41 17.9	-0.7
	comp=Z,1.6nm,0.8s,baz=296,slow=5.6,SNR=5.6						
	comp=Z,1.6nm,0.8s						
G31M	Satah River	76.11	356	P	P	09 41 53.6	+0.1
G27K	Doyon Strip	76.48	359	P	P	09 41 56.9	+1.2
G27K				IAmb	IAmb	09 42 39.2	
	comp=Z,3.3nm,1.4s						
G19K	Purcell Mounta	76.68	5	P	P	09 41 57.2	+0.4
G19K				IAmb	IAmb	09 42 07.4	
	comp=Z,6.8nm,1.2s						
IMAR	Indian Mountai	77.06	4	P	P	09 41 59.8	+0.9
I26K	Coal Creek Min	78.01	360	P	P	09 42 04.5	+0.3
I26K				IAmb	IAmb	09 42 15.9	
	comp=Z,6.0nm,1.4s						
YKA	Yellowknife Ar	78.02	346	P	P	09 42 04.6	+0.3
	comp=Z,1.0nm,0.8s,baz=15,slow=5.2,SNR=3.3						
	comp=Z,1.0nm,0.8s						
YKA	Yellowknife Ar	78.02	346	P	P	09 42 03.0	-1.4
RIDG	Independent Ri	79.58	0	P	P	09 42 14.1	+1.1
RIDG				IAmb	IAmb	09 42 26.7	
	comp=Z,5.3nm,1.2s						
L29M	L29M	80.10	357	P	P	09 42 16.6	+0.7
L29M				IAmb	IAmb	09 42 57.4	
	comp=Z,6.2nm,1.5s						
M29M	Somme Creek	80.78	357	P	P	09 42 20.2	+0.7

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*IDC **19** 09:37:05.7±14.0, 26°.10N×142°.06E, h0^{km}, mb4.2/5, mbtmp4.2/5, MS3.4/3, Error ellipse: s-maj=477.3km s-min=94.2km az=13.0*

*JMA **19** 09:38:10.4±0.2, 28°N±2°×14°1E±°, h468^{km}, MV3.6/22, W OFF OGASAWARA*

ISC 19 09:38:09.1±1.1, **27°.7N**±0°.1×**139°.9E**±0°.2, **h450^{km}, n16,** σ**1^{s}.68**/14, **mb4.0**/5, **Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CBIJ	Chichi jima	2.09	105	*e*P	P	09 39 10.7	+0.5
CBIJ				*e*S	S	09 39 58.5	-1.1
JHH2	Haha-jima-NKT2	2.25	117	*e*P	P	09 39 12.5	+1.3
JHH2				*e*S	S	09 40 01.4	0.0
BSO1	Boso 1	7.02	7	*e*P	P	09 39 55.0	+1.6
BSO3	Boso 3	7.13	4	*e*S	S	09 41 21.1	-0.3
JKN2	Miekihoku	7.26	335	*e*P	P	09 40 00.5	+4.0
JRY	Ryogami san	8.37	354	*e*P	P	09 40 09.7	+1.3
JAG	Ashikaga	8.74	357	*e*P	P	09 40 12.4	0.0
JHO	Hitachi	8.93	3	*e*P	P	09 40 15.0	+0.5
MA2	Magadan	32.76	10	LR	LR	09 59 09.7	
	comp=Z,15nm,19.3s,baz=280,slow=39						
SONM	Songino Array	32.92	317	P	P	09 44 03.0	-1.6
	0.4nm,0.5s,baz=134,slow=10,SNR=2.4						
	0.4nm,0.5s						
KURBB	Kurchatov Arra	51.20	314	P	P	09 46 28.8	-0.5
	2.8nm,0.4s,baz=92,slow=8.7,SNR=40						
	2.8nm,0.4s						
BVAR	Borovoye Array	56.26	317	P	P	09 47 05.0	-0.3
	5.3nm,0.4s,baz=89,slow=6.6,SNR=16						
	5.3nm,0.4s						
FINES	FINESS Array B	76.54	333	P	P	09 49 10.3	-1.3
	1.2nm,0.3s,baz=55,slow=5.6,SNR=14						
	1.2nm,0.3s						
NOA	NORSAR Array B	82.32	337	P	P	09 49 40.0	-2.3
	0.6nm,0.7s,baz=32,slow=7.4,SNR=2.8						
	0.6nm,0.7s						
ASF	Jabal al Asfar	85.69	304	LR	LR	10 33 11.0	
	comp=Z,30nm,18.8s,baz=208,slow=38						
EIL	Elat	88.39	303	LR	LR	10 34 55.4	
	comp=Z,41nm,19.1s,baz=274,slow=38						

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*IDC **19** 09:45:45.6±13.0, 23°.48S×179°.88E, h594^{km}±157^{km}, mb2.8/4, mbtmp3.7/4, Error ellipse: s-maj=60.9km s-min=33.9km az=65.0*

ISC 19 09:45:40.1±1.2, **23°.4S**±0°.3×**180°.0W**±0°.2, **h532^{km}, n6,** σ**1^{s}.02**/5, **mb3.4**/4, **South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ASAR	Alice Springs	42.13	260	P	P	09 52 46.1	+0.1
	0.3nm,0.3s,baz=97,slow=7.5,SNR=6.7						
	0.3nm,0.3s						
WRA	Warramunga Arr	42.45	266	P	P	09 52 48.9	+0.4
	0.5nm,0.7s,baz=100,slow=8.1,SNR=27						
	0.5nm,0.7s						
QSPA	South Pole Qui	66.69	180	P	P	09 55 37.8	0.0
	1.4nm,0.8s,baz=14,slow=1.4,SNR=8.8						
	1.4nm,0.8s						
TXAR	Lajitas Array	90.16	58	P	P	09 57 44.4	+0.5
	0.5nm,0.9s,baz=240,slow=7.0,SNR=4.2						
	0.5nm,0.9s						
HFS	Hagfors	142.06	349	PKhKP	PKPpre	10 04 07.0	
	0.7nm,0.3s,baz=73,slow=5.0,SNR=8.8						
AKASG	Malin Array Be	144.55	328	PKP	PKPdf	10 04 14.4	-1.3
	0.5nm,0.4s,baz=47,slow=3.8,SNR=4.3						

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*IDC **19** 10:07:54.0±1.6, 16°.89S×69°.58W, h172^{km}±12^{km}, mb3.0/4, mbtmp3.7/8, Error ellipse: s-maj=31.2km s-min=19.7km az=28.0*

*GUC **19** 10:07:54.8±0.7, 17°.02S×69°.71W, h189^{km}±7^{km}, ML3.5*

ISC 19 10:07:53.2±0.6, **17°.02S**±0°.05×**69°.49W**±0°.07, **h173^{km}, n22,** σ**2^{s}.00**/29, **mb3.1**/3, **2C, Peru-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PB18	Visviri	0.57	179	*e*P	Pn	10 08 21.1	+3.0
PB16	IPOC Station P	1.31	181⇑	*i*P	Pn	10 08 26.6	+3.2
PB16				IAML		10 08 56.0	
	comp=N,64nm,0.3s						
LPAZ	La Paz	1.49	61	P	Pn	10 08 27.0	+1.9
	comp=N,355nm,0.3s,baz=305,slow=4.9,SNR=4163						
LPAZ				S	Sn	10 08 50.3	+0.6
	comp=N,47nm,0.5s,baz=323,slow=5.6,SNR=1.8						
LPAZ	La Paz	1.49	61	*e*P	Pn	10 08 27.0	+1.9
PB12	IPOC Station P	1.78	207	*e*P	Pn	10 08 28.4	+0.9
PB12				*e*S	Sn	10 08 54.6	+0.5
PB12				IAML		10 08 55.8	
	comp=N,406nm,0.2s						
PSGCX	Pisagua	2.64	193	*e*P	Pn	10 08 38.2	+1.0
PSGCX				*e*S	Sn	10 09 10.7	-0.8
GO01	Chusmiza	2.65	174⇑	*e*P	Pn	10 08 40.5	+2.8
PB11	IPOC Station P	2.73	183	*e*P	Pn	10 08 40.1	+1.7
PB11				*e*S	Sn	10 09 14.8	+1.1
PB11				IAML		10 09 17.8	
	comp=N,376nm,0.3s						
PB08	IPOC Station P	3.12	174	*e*P	Pn	10 08 45.9	+2.5
PB08				*e*S	Sn	10 09 24.6	+2.1
PB08				IAML		10 09 28.1	
	comp=E,180nm,0.3s						
TA02	Huaiquique	3.29	191	*e*P	Pn	10 08 45.7	+0.6
TA01	Diego Aracena	3.59	190	*e*P	Pn	10 08 49.4	+0.5
SIV	San Ignacio	8.13	84	P	Pn	10 09 50.1	+1.7
	comp=E,2.4nm,0.3s,baz=274,slow=11,SNR=12						
SIV				S	Sn	10 11 15.9	-3.6
	comp=E,1.9nm,0.5s,baz=271,slow=13,SNR=4.2						
NNA	Nana	8.70	304	P	Pn	10 09 54.4	-1.5
	comp=E,30nm,0.4s,baz=137,slow=10,SNR=15						
CFA	Coronel Fontan	14.57	176	P	P	10 11 12.3	-0.7
	comp=E,0.8nm,0.3s,baz=36,slow=15,SNR=6.6						
CFA				S	Sn	10 13 48.1	-5.4
	comp=E,0.7nm,0.4s,baz=228,slow=20,SNR=2.3						
CPUP	Villa Florida	14.60	131	P	P	10 11 15.4	+1.9
	comp=E,0.7nm,0.4s,baz=298,slow=13,SNR=3.1						
TXAR	Lajitas Array	56.68	324	P	P	10 17 18.7	-0.1
	comp=E,0.2nm,0.6s,baz=133,slow=9.7,SNR=2.0						
	comp=E,0.2nm,0.6s						
PDAR	Pinedale Array	69.98	330	P	P	10 18 46.0	-0.2
	comp=E,0.1nm,0.4s,baz=124,slow=7.7,SNR=5.0						
	comp=E,0.1nm,0.4s						
TORD	Torodi Ar. Bea	76.41	72	P	P	10 19 24.6	+0.5
	comp=E,0.2nm,0.5s,baz=269,slow=4.3,SNR=1.7						
	comp=E,0.2nm,0.5s						
YKA	Yellowknife Ar	86.80	341	P	P	10 20 17.9	+0.4
	comp=E,0.4nm,0.5s,baz=135,slow=4.9,SNR=9.3						
	comp=E,0.4nm,0.5s						
WRA	Warramunga Arr	136.45	213	PKP	PKiKP	10 26 56.8	-0.3
	comp=E,0.2nm,0.4s,baz=133,slow=1.9,SNR=2.5						
USRK	Ussuriysk Ar.	147.40	331	PKPbc	PKPbc	10 27 16.7	0.0
	comp=E,0.9nm,0.6s,baz=169,slow=3.9,SNR=4.1						
SONM	Songino Array	149.08	5	PKPbc	PKiKP	10 27 22.0	-0.2
	comp=E,1.1nm,0.5s,baz=219,slow=0.9,SNR=4.4						

IDC 19 10:14:10.2±2.3, **3°.54N×129°.27E, h0^{km}, mb3.4**/4, **mbtmp3.4**/4, **Error ellipse: s-maj=165.9km s-min=23.5km az=69.0, North of Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	23.86	168	P	P	10 19 24.1	-1.4
	0.4nm,0.6s,baz=348,slow=10,SNR=5.9						
	0.4nm,0.6s						
ASAR	Alice Springs	27.42	171	P	P	10 19 58.8	+1.0
	0.1nm,0.4s,baz=350,slow=9.9,SNR=4.2						
	0.1nm,0.4s						
MKAR	Makanchi Array	59.17	324	P	P	10 24 13.6	+0.6
	0.4nm,0.6s,baz=126,slow=7.7,SNR=4.3						
	0.4nm,0.6s						
KURBB	Kurchatov Arra	63.28	326	P	P	10 24 40.3	-0.4
	0.3nm,0.5s,baz=134,slow=5.1,SNR=3.3						
	0.3nm,0.5s						

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*IDC **19** 10:16:31.7±4.9, 20°.89S×177°.55W, h466^{km}±36^{km}, mb3.2/3, mbtmp4.1/5, Error ellipse: s-maj=111.1km s-min=18.3km az=148.0*

ISC 19 10:16:30.3±1.9, **21°.1S**±0°.3×**177°.3W**±0°.2, **h450^{km}, n7,** σ**1^{s}.97**/8, **mb3.7**/3, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	Nonsavu	5.50	307	P	P	10 18 00.5	+0.7
	3.7nm,0.4s,baz=91,slow=23,SNR=7.5						
AFI	Afiamalu	8.90	37	P	P	10 18 37.8	+2.0
	24nm,0.5s,baz=172,slow=1.3,SNR=7.3						
AFI				S	S	10 20 16.0	-2.7
	24nm,0.5s,baz=53,slow=21,SNR=5.0						
ASAR	Alice Springs	44.99	257	P	P	10 24 03.0	-1.3
	2.0nm,0.7s,baz=93,slow=8.0,SNR=20						
ASAR				PcP	pwP	10 25 35.8	+1.3
	0.4nm,0.6s,baz=101,slow=3.2,SNR=5.2						
	2.0nm,0.7s						
WRA	Warramunga Arr	45.14	262	P	P	10 24 03.5	-2.0
	1.4nm,0.3s,baz=96,slow=7.4,SNR=191						
	1.4nm,0.3s						
ILAR	Eielson Array	88.77	13	P	P	10 28 34.4	-0.1
	0.2nm,0.7s,baz=221,slow=4.7,SNR=4.2						
	0.2nm,0.7s						
AKASG	Malin Array Be	143.84	331	PKP	PKPab	10 35 10.3	-1.6
	1.4nm,0.4s,baz=44,slow=3.9,SNR=9.8						
BRTR	Keskin Array B	147.71	312	PKPbc	PKPbc	10 35 24.0	+0.2
	0.6nm,0.5s,baz=106,slow=5.2,SNR=2.2						

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*IDC **19** 10:59:31.4±1.7, 5°.51S×152°.47E, h0^{km}, mb3.6/3, mbtmp3.7/4, ML1.4/1, MS3.2/2, Error ellipse: s-maj=39.9km s-min=17.5km az=103.0*

ISC 19 10:59:37.0±1.6, **5°.43S**±0°.09×**152°.4E**±0°.2, **h40^{km}, n7,** σ**0^{s}.94**/7, **mb3.6**/3, **New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRVT	Keravat (AS076	1.17	343	Pn	Pn	10 59 56.0	-0.8
	668nm,0.3s,baz=357,slow=0.2,SNR=76						
KRVT				Sn	Sn	11 00 12.4	+0.9
	438nm,0.3s,baz=239,slow=23,SNR=8.2						
PMG	Port Moresby	6.50	232	Pn	Pn	11 01 10.1	-0.1
	0.4nm,0.3s,baz=48,slow=16,SNR=0.9						
	8.4nm,0.7s						
PMG				AML	AML		
HNR	Honiara	8.51	118	LR	LR	11 04 16.8	
	comp=Z,68nm,18.3s,baz=316,slow=34						
WRA	Warramunga Arr	22.70	229	P	P	11 04 34.7	-0.9
	2.3nm,0.8s,baz=55,slow=10.0,SNR=17						
WRA				LR	LR	11 12 29.2	
	comp=Z,149nm,20.9s,baz=269,slow=34						
	2.3nm,0.8s						
ASAR	Alice Springs	25.39	223	P	P	11 05 00.5	-0.4
	0.9nm,0.8s,baz=47,slow=10,SNR=11						
	0.9nm,0.8s						
ILAR	Eielson Array	82.90	22	P	P	11 11 57.3	0.0
	0.4nm,0.7s,baz=257,slow=5.7,SNR=5.0						
	0.4nm,0.7s						
TORD	Torodi Ar. Bea	150.08	287	PKPbc	PKiKP	11 19 26.5	+1.1
	0.3nm,0.4s,baz=63,slow=3.1,SNR=4.4						

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*CATAC **19** 11:01:55.9±0.7, 11°N±4°×8°6W±°, h15^{km}±7^{km}, M3.2/12, MLv3.2/12, Error ellipse: s-maj=10.4km s-min=5.0km az=35.6, confirmed*

*UCR **19** 11:01:57.7±0.4, 10°.87N×86°.37W, h8^{km}±44^{km}, MW3.9, Presumed earthquake*

ISC 19 11:01:56.3±2.1, **10°.88N**±0°.06×**86°.44W**±0°.09, **h10^{km}**±12^{km}, **n31,** σ**0^{s}.58**/37, **Off coast of Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ALIBA	Liberia Airpor	0.92	108	*e*P	Pb	11 02 14.8	+0.5
ALIBA				*e*S	Sn	11 02 28.3	-0.2
CARN	Rivas	0.94	71	P	Pg	11 02 14.2	-0.2
CARN				S	Sn	11 02 29.6	+0.5
CARN	Rivas	0.94	71	*e*P	Pg	11 02 14.3	-0.2
JAPN	Al SSO del Vol	0.98	49	P	Pb	11 02 16.1	+0.7
LAPC	Finca la Perla	0.99	97	*e*P	Pg	11 02 15.1	-0.3
OMEN	Al SSO del Vol	1.01	52	P	Pb	11 02 15.3	-0.5
MORN	Al O del Volca	1.01	49	P	Pb	11 02 15.9	0.0
VRLE	La Escondida,	1.05	95	*e*P	Pb	11 02 16.4	-0.3
GPS2	Hotel Rincn d	1.07	97	*e*P	Pb	11 02 16.6	-0.3
NANN	Nandasmo	1.09	16	P	Pg	11 02 18.4	+1.1
SABN	Sabanita	1.10	14	P	Pb	11 02 16.8	-0.6
UNAN	Cigeo UNAN	1.23	7	P	Pn	11 02 19.4	-0.1
UNAN				S	Sb	11 02 35.6	+0.1
HORNC	Hornillas	1.25	98	*e*P	Pn	11 02 19.4	-0.3
CUI	Cuipilapa	1.27	100	*e*P	Pn	11 02 19.8	-0.3
SAPS	Ciudad Sandino	1.28	1	P	Pn	11 02 20.3	+0.2
SAPS				S	Sb	11 02 37.5	+0.6
WILN	Americas 2	1.29	11	S	Sb	11 02 37.7	+0.4
COPN	Copaltepe	1.30	353	P	Pn	11 02 18.4	-2.0
VMAR	Armenia, Volca	1.30	93	*e*P	Pn	11 02 20.3	-0.2
CANAL	Canalete	1.36	92	*e*P	Pn	11 02 20.7	-0.6
TIMP	Tierras Morena	1.42	102	*e*P	Pn	11 02 22.2	-0.1
TENO	El Achiote	1.44	97	*e*P	Pn	11 02 22.0	-0.5
LEVN	Ruinas Leon Vi	1.52	353	S	Sn	11 02 43.6	+0.3
QUEB	Quebradon, Cot	1.53	100	*e*P	Pb	11 02 24.5	-0.3
JTS	Las Juntas de	1.57	112	P	Pn	11 02 24.5	+0.2
JTS	Las Juntas de	1.57	112	*e*P	Pn	11 02 24.8	+0.5
CNGA	Al SSO del Vol	1.62	351	P	Pn	11 02 24.1	-0.9
CNGN	Cerro Negro	1.63	351	P	Pn	11 02 25.2	+0.2
CNGN				S	Sn	11 02 46.2	+0.2
ACON	Acoyapa	1.64	49	P	Pn	11 02 24.5	-0.7
BOAB	BOACO BROADBAN	.73	26	P	Pn	11 02 25.6	-0.7
BOAB				S	Sb	11 02 50.1	+0.2
ARE1	Arenal 1	1.74	104	*e*P	Pb	11 02 28.3	+0.1
REZ	Monterrey de S	1.74	102	*e*P	Pb	11 02 28.3	-0.1

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*IDC **19** 11:05:45.4±1.4, 15°.16S×175°.66W, h334^{km}±15^{km}, mb3.6/10, mbtmp4.4/13, Error ellipse: s-maj=23.3km s-min=12.2km az=144.0*

*NEIC **19** 11:05:45.5±1.8, 15°.1S±0°.1×175°.6W±0°.1, h329^{km}±6^{km}, mb4.3/17, Error ellipse: s-maj=17.8km s-min=13.9km az=167.0*

ISC 19 11:05:46.4±0.6, **15°.1S**±0°.1×**175°.64W**±0°.08, **h350^{km}, n49,** σ**1^{s}.01**/45, **mb4.2**/18, **Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FUTU	Fugatoga	2.54	289		Pn	11 06 39.9	-1.9
AFI	Afiamalu	3.94	72	P	Pn	11 06 53.0	-1.9
	362nm,0.5s,baz=133,slow=0.8,SNR=166						
AFI	Afiamalu	3.94	72		Pn	11 06 53.1	-1.8
MSVF	Nonsavu	6.58	246	P	Pn	11 07 23.2	-0.7
	38nm,0.6s,baz=221,slow=23,SNR=22						
MSVF	Nonsavu	6.58	246		Pn	11 07 24.9	+1.0
FUNA	Funafuti	8.29	322	Pn	Pn	11 07 43.5	-0.6
DZM	Mont Dzumac	18.31	245	P	P	11 09 36.7	-0.1
	11nm,1.0s,baz=66,slow=20,SNR=2.2						
CTA	Charters Tower	36.59	257	P	P	11 12 20.7	+0.1
	11nm,0.6s,baz=84,slow=9.2,SNR=19						
	11nm,0.6s						
INKA	Innaminka	42.27	245		P	11 13 07.3	+0.3
INKA				IAmb	IAmb	11 13 08.5	
	comp=Z,16nm,0.7s						
STKA	Stephens Creek	42.30	239	P	P	11 13 07.1	0.0
	comp=Z,8.8nm,0.4s,baz=80,slow=8.7,SNR=56						
	comp=Z,8.8nm,0.4s						
BBOO	Buckleboo	47.08	239	P	P	11 13 44.4	0.0
WB0	Warramunga Arr	47.75	257	P	P	11 13 49.2	-0.6
WRA	Warramunga Arr	47.79	257	P	P	11 13 49.7	-0.4
	comp=Z,3.0nm,0.5s,baz=89,slow=7.7,SNR=5.2						
	comp=Z,3.0nm,0.5s						
WRA	Warramunga Arr	47.79	257	P	P	11 13 48.5	-1.6
AS31	Alice Springs	48.13	252	P	P	11 13 52.5	-0.2
ASAR	Alice Springs	48.13	252	P	P	11 13 52.2	-0.4
	comp=Z,40nm,0.5s,baz=88,slow=7.8,SNR=632						
ASAR	Alice Springs	48.13	252	P	P	11 13 52.4	-0.3
MTN	Manton Dam	51.59	265	P	P	11 14 18.6	0.0
FORT	Forrest	53.60	243	P	P	11 14 32.4	-0.5
FORT				IAmb	IAmb	11 14 33.8	
	comp=Z,9.0nm,0.7s						
SOEI	Soe	58.77	268	P	P	11 15 10.5	+1.0
MBWA	Marble Bar	61.35	254	P	P	11 15 26.0	-0.6
MJAR	Matsushiro Arr	67.36	321	P	P	11 16 04.8	-0.2
	comp=Z,2.7nm,0.9s,baz=148,slow=5.6,SNR=7.0						
	comp=Z,2.7nm,0.9s						
MJAR	Matsushiro Arr	67.36	321	P	P	11 16 05.5	+0.6
MJAR				IAmb	IAmb	11 16 40.1	
	comp=Z,7.2nm,1.5s						
PETK	Petropavlovsk-	71.75	343	P	P	11 16 31.9	+0.8
	comp=Z,3.8nm,0.7s,baz=97,slow=11,SNR=5.8						
	comp=Z,3.8nm,0.7s						
QSPA	South Pole Qui	74.90	180	P	P	11 16 49.8	+0.4
	comp=Z,1.5nm,0.7s,baz=29,slow=0.7,SNR=9.4						
	comp=Z,1.5nm,0.7s						
QSPA	South Pole Qui	74.90	180	P	P	11 16 50.6	+1.1
QSPA				IAmb	IAmb	11 16 52.0	
	comp=Z,6.8nm,1.4s						
NVAR	Mina Array Bea	75.61	43	P	P	11 16 55.1	+1.2
	comp=Z,0.5nm,0.7s,baz=224,slow=8.2,SNR=4.4						
	comp=Z,0.5nm,0.7s						
CCB	Clear Creek Bu	82.34	12	IAmb	IAmb	11 17 30.5	
	comp=Z,6.3nm,1.1s						
IL31		82.63	12	IAmb	IAmb	11 17 32.3	
	comp=Z,3.3nm,0.8s						
ILAR	Eielson Array	82.63	12	P	P	11 17 31.3	+0.5
	comp=Z,1.7nm,0.6s,baz=216,slow=5.6,SNR=24						
	comp=Z,1.7nm,0.6s						
ILAR	Eielson Array	82.63	12	P	P	11 17 31.5	+0.7
J25K	Salcha River,	82.80	13	P	P	11 17 32.8	+1.0
J25K				IAmb	IAmb	11 17 33.5	
	comp=Z,4.6nm,1.0s						
F19K	Shaleruckik Mo	82.81	7	P	P	11 17 32.6	+0.9
F19K				IAmb	IAmb	11 17 33.6	
	comp=Z,6.2nm,0.8s						
L29M	L29M	83.28	16	IAmb	IAmb	11 17 36.6	
	comp=Z,8.6nm,1.1s						
PDAR	Pinedale Array	83.53	43	P	P	11 17 36.8	+0.5
	comp=Z,0.3nm,0.7s,baz=204,slow=2.9,SNR=4.1						
	comp=Z,0.3nm,0.7s						
CMAR	Chiang Mai Arr	90.48	289	P	P	11 18 11.8	+2.1
	comp=Z,2.1nm,0.9s,baz=100,slow=2.6,SNR=7.0						
	comp=Z,2.1nm,0.9s						
CMAR	Chiang Mai Arr	90.48	289	P	P	11 18 10.4	+0.7
DPC	Dobruska-Polom	143.57	347	*e*PKP	PKPdf	11 24 39.8	-0.1
STEB	Steborice	143.62	345	*e*PKP	PKPbc	11 24 38.1	-0.3
MORC	Moravsky Berou	143.82	345	*e*PKP	PKPdf	11 24 39.3	-1.0
VRAC	Vranov	144.49	346	*e*PKP	PKPdf	11 24 41.7	+0.2
BR131	Keskin Array S	144.57	319	PKPdf	PKPdf	11 24 42.9	+0.8
BRTR	Keskin Array B	144.57	319	PKP	PKiKP	11 24 43.4	-2.6
	comp=Z,5.8nm,0.9s,baz=96,slow=2.5,SNR=18						
BRTR	Keskin Array B	144.57	319	PKPdf	PKPdf	11 24 42.7	+0.6
MLR	Muntele Rosu	144.70	333		PKPdf	11 24 42.3	+0.2
KRUC	Moravsky	144.76	346	*e*PKP	PKPab	11 24 42.8	+0.8
KHC	Kasperske Hory	145.27	349	PKPdf	PKPab	11 24 43.4	-0.6
CKRC	Cesky Krumlov	145.44	348	*e*PKP	PKiKP	11 24 45.3	-1.9
FUORN	Ofenpass-Fuorn	148.23	352	PKPbc	PKiKP	11 24 53.5	+0.1

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*SOME **19** 11:06:11.8, 41°.98N×75°.45E, h10^{km}*

*KNET **19** 11:06:12.5±0.5, 42°.05N×75°.44E, h12^{km}±4^{km}, ml2.5, Error ellipse: s-maj=4.0km s-min=2.6km az=21.0*

*KRNET **19** 11:06:12.0±0.1, 41°.98N×75°.44E, h17^{km}, mb3.4*

*NNC **19** 11:06:13.1±1.1, 42°.00N×75°.44E, h0^{km}, mb3.6, mpv3.4, Error ellipse: s-maj=9.7km s-min=4.1km az=178.0*

ISC 19 11:06:11.4±1.1, **41°.96N**±0°.02×**75°.40E**±0°.02, **h5^{km}**±10^{km}, **n56,** σ**1^{s}.49**/100, **38C-29D, Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC

BOOM	**Boomskoye usch**	**0.67**	**37**	⇓*i*P	**Pg**	**11 06 24.5**	**+0.2**
BOOM				⇓*i*S	**Sg**	**11 06 33.1**	**+0.2**
ULHL	**Ulahol**	**0.69**	**65**	⇑P	**Pg**	**11 06 24.7**	**0.0**
	37nm,0.1s,SNR=12						
ULHL				⇓S	**Sg**	**11 06 33.8**	**+0.1**
	106nm,0.2s						
ULHL	**Ulahol**	**0.69**	**65**	⇓*i*P	**Pg**	**11 06 24.6**	**-0.1**
ULHL				⇓*i*S	**Sg**	**11 06 33.8**	**+0.1**
NRN	**Naryn**	**0.69**	**139**	⇑*e*P	**Pg**	**11 06 25.2**	**+0.5**
NRN				⇑*e*S	**Sg**	**11 06 34.5**	**+0.8**
UCH	**Uchtor**	**0.71**	**293**	⇑*i*P	**Pg**	**11 06 25.8**	**+0.6**
UCH				⇑*i*S	**Sg**	**11 06 36.0**	**+1.5**
KBK	**Karagaybulak**	**0.78**	**334**	P	**Pg**	**11 06 27.3**	**+0.9**
	683nm,0.1s,SNR=39						
KBK				⇓S	**Sb**	**11 06 37.4**	**-1.1**
	919nm,0.2s						
KBK	**Karagaybulak**	**0.78**	**334**	⇑*i*P	**Pb**	**11 06 26.6**	**-1.0**
KBK				⇑*i*S	**Sg**	**11 06 37.0**	**+0.5**
AAK	**Ala-Archa**	**0.96**	**316**	P	**Pb**	**11 06 30.4**	**-0.3**
	85nm,0.1s,SNR=119						
AAK				⇑S	**Sb**	**11 06 42.9**	**-0.8**
	236nm,0.2s						
AAK	**Ala-Archa**	**0.96**	**316**	⇑P	**Pb**	**11 06 30.1**	**-0.6**
	66nm,0.2s						
AAK				⇑S	**Sb**	**11 06 42.7**	**-0.9**
	192nm,0.2s						
AAK	**Ala-Archa**	**0.96**	**316**	⇓*i*P	**Pb**	**11 06 29.9**	**-0.7**
AAK				⇓*i*S	**Sb**	**11 06 42.8**	**-0.9**
TKM2	**Tokmak 2**	**0.97**	**8**	⇓P	**Pg**	**11 06 30.4**	**+0.3**
	104nm,0.2s,SNR=200						
TKM2				⇑S	**Sg**	**11 06 43.0**	**+0.2**
	124nm,0.1s						
TKM2	**Tokmak 2**	**0.97**	**8**	⇓*i*P	**Pb**	**11 06 29.7**	**-1.2**
TKM2				⇓*i*S	**Sg**	**11 06 42.7**	**-0.1**
FRU1	**Bishkek**	**1.03**	**326**	⇑*i*P	**Pb**	**11 06 31.3**	**-0.5**
FRU1				⇑*i*S	**Sn**	**11 06 45.4**	**-2.0**
CHMS	**Chumysh**	**1.15**	**335**	⇓P	**Pg**	**11 06 33.7**	**+0.3**
	58nm,0.1s,SNR=26						
CHMS				⇓S	**Sg**	**11 06 49.0**	**+0.6**
	202nm,0.2s						
CHMS	**Chumysh**	**1.15**	**335**	⇑*i*P	**Pn**	**11 06 32.8**	**-1.4**
CHMS				⇑*i*S	**Sn**	**11 06 48.1**	**-2.2**
KDJ	**Kajisay**	**1.33**	**82**	⇓*i*P	**Pb**	**11 06 36.2**	**-0.9**
KDJ				⇓*i*S	**Sg**	**11 06 53.9**	**-0.5**
EKS2	**Erkin-Say**	**1.40**	**301**	⇑P	**Pb**	**11 06 38.4**	**+0.3**
	20nm,0.2s,SNR=16						
EKS2				⇑S	**Sg**	**11 06 57.4**	**+1.1**
	48nm,0.2s						
EKS2	**Erkin-Say**	**1.40**	**301**	⇓*i*P	**Pb**	**11 06 37.7**	**-0.4**
EKS2				⇓*i*S	**Sb**	**11 06 56.4**	**+0.1**
USP	**Ospenovka**	**1.47**	**333**	⇑P	**Pb**	**11 06 39.3**	**0.0**
	26nm,0.1s,SNR=20						
USP				⇑S	**Sg**	**11 06 58.4**	**-0.2**
	107nm,0.3s						
USP	**Ospenovka**	**1.47**	**333**	⇑*i*P	**Pb**	**11 06 38.6**	**-0.7**
USP				⇑*i*S	**Sg**	**11 06 58.1**	**-0.6**
SGDS	**Sogindy**	**1.60**	**339**	P	**Pg**	**11 06 41.8**	**-0.3**
	53nm,0.2s						
SGDS				S	**Sg**	**11 07 03.6**	**+0.7**
	110nm,0.3s						
SALK	**Salom-Alik**	**1.60**	**228**	⇓*e*P	**Pb**	**11 06 42.3**	**+0.7**
SALK				⇓*e*S	**Sg**	**11 07 04.7**	**+1.8**
KNDC	**Almaty**	**1.71**	**42**	⇓P	**Pg**	**11 06 44.4**	**+0.2**
	20nm,0.2s						
KNDC				⇑S	**Sg**	**11 07 07.9**	**+1.5**
	83nm,0.4s						
MDOK	**Medeo**	**1.71**	**45**	Pg	**Pg**	**11 06 43.8**	**-0.5**
	13nm,0.4s						
MDOK				Lg	Lg	11 07 07.1	
	47nm,0.4s						
MDOK	**Medeo**	**1.71**	**45**	*e*P	**Pg**	**11 06 43.8**	**-0.5**
	13nm,0.4s						
MDOK				*e*S	**Sg**	**11 07 07.1**	**+0.6**
	47nm,0.4s						
KRBS	**Karabastau**	**1.75**	**6**	P	**Pb**	**11 06 44.2**	**+0.1**
	30nm,0.3s						
KRBS				S	**Sg**	**11 07 07.8**	**+0.1**
	25nm,0.3s						
KRBS	**Karabastau**	**1.75**	**6**	*e*P	**Pb**	**11 06 44.2**	**+0.1**
	30nm,0.3s						
KRBS				*e*S	**Sg**	**11 07 07.8**	**+0.1**
	25nm,0.3s						
MRKS	**Merke**	**1.79**	**297**	P	**Pb**	**11 06 45.7**	**+0.8**
	11nm,0.2s						
MRKS				S	**Sg**	**11 07 10.2**	**+1.1**
	180nm,0.4s						
MRKS	**Merke**	**1.79**	**297**	*e*P	**Pb**	**11 06 45.7**	**+0.8**
	11nm,0.2s						
MRKS				*e*S	**Sg**	**11 07 10.2**	**+1.1**
	180nm,0.4s						
TARG	**Taragay, Kyrgy**	**1.81**	**96**	⇑*i*P	**Pb**	**11 06 44.6**	**-0.7**
TARG				⇑*i*S	**Sg**	**11 07 08.5**	**-1.1**
ANVS	**Anan'yevo**	**1.87**	**63**	⇑*e*P	**Pb**	**11 06 45.3**	**-0.9**
ANVS				⇑*e*S	**Sg**	**11 07 10.0**	**-1.5**
KTBS	**Karatobe**	**1.99**	**28**	Pg	**Pb**	**11 06 47.8**	**-0.4**
	2.8nm,0.1s						
KTBS				Lg	Lg	11 07 13.7	
	113nm,0.4s						
KTBS	**Karatobe**	**1.99**	**28**	*e*P	**Pb**	**11 06 47.8**	**-0.4**
	2.8nm,0.1s						
KTBS				*e*S	**Sg**	**11 07 13.7**	**-1.7**
	113nm,0.4s						
MNAS	**Manas**	**2.22**	**285**	⇑*i*P	**Pb**	**11 06 50.7**	**-1.4**
MNAS				⇑*i*S	**Sb**	**11 07 18.9**	**-1.0**
PRZ	**Przheval'sk**	**2.29**	**76**	⇑*i*P	**Pb**	**11 06 51.1**	**-2.2**
PRZ				⇑*i*S	**Sb**	**11 07 19.7**	**-2.3**
SFK	**Sufi-Kurgan**	**2.42**	**217**	⇓*i*P	**Pb**	**11 06 53.7**	**-1.8**
SFK				⇓*i*S	**Sb**	**11 07 24.2**	**-1.5**
OHH	**Osh**	**2.44**	**235**	⇑*i*P	**Pb**	**11 06 53.9**	**-1.9**
OHH				⇑*i*S	**Sb**	**11 07 24.5**	**-1.7**
SATY	**Saty**	**2.48**	**63**	Pg	**Pb**	**11 06 56.7**	**+0.2**
	6.0nm,0.2s						
SATY				Lg	Lg	11 07 29.7	
	104nm,0.3s						
SATY	**Saty**	**2.48**	**63**	*e*P	**Pb**	**11 06 56.7**	**+0.2**
	6.0nm,0.2s						
SATY				*e*S	**Sg**	**11 07 29.7**	**-1.4**
	104nm,0.3s						
ARK	**Arkit**	**2.57**	**268**	⇓*i*P	**Pn**	**11 06 55.7**	**+1.8**
ARK				⇓*i*S	**Sb**	**11 07 27.6**	**-2.5**
KPKS	**Kokpek**	**2.85**	**57**	Pg	**Pb**	**11 07 03.5**	**+0.6**
	0.2nm,0.2s						
KPKS				Lg	Lg	11 07 40.8	
	61nm,0.6s						
KPKS	**Kokpek**	**2.85**	**57**	*e*P	**Pb**	**11 07 03.5**	**+0.6**
	0.2nm,0.2s						
KPKS				*e*S	**Sg**	**11 07 40.8**	**-2.2**
	61nm,0.6s						
ARXS	**Arharly**	**2.87**	**37**	Pg	**Pb**	**11 07 03.5**	**+0.3**
	5.8nm,0.3s						
ARXS				Lg	Lg	11 07 40.9	
	117nm,0.7s						
ARXS	**Arharly**	**2.87**	**37**	*e*P	**Pb**	**11 07 03.5**	**+0.3**
	5.8nm,0.3s						
ARXS				*e*S	**Sg**	**11 07 40.9**	**-2.7**
	117nm,0.7s						
UZB	**Uzynbulak**	**2.93**	**65**	Pg	**Pb**	**11 07 03.4**	**-0.8**
	9.1nm,0.3s						
UZB				Lg	Lg	11 07 40.7	
	49nm,0.3s						
UZB	**Uzynbulak**	**2.93**	**65**	*e*P	**Pb**	**11 07 03.4**	**-0.8**
	9.1nm,0.3s						
UZB				*e*S	**Sb**	**11 07 40.7**	**+0.4**
	49nm,0.3s						
BLB	**Baldybastay**	**3.11**	**45**	Pg	**Pb**	**11 07 07.8**	**+0.5**
	16nm,0.4s						
BLB				Lg	Lg	11 07 48.3	
	41nm,0.4s						
SHLS	**Shalkode**	**3.23**	**67**	Pg	**Pg**	**11 07 14.5**	**+1.2**
	9.8nm,0.5s						
SHLS				Lg	Lg	11 07 59.9	
	27nm,0.5s						
SHLS	**Shalkode**	**3.23**	**67**	*e*P	**Pg**	**11 07 14.5**	**+1.2**
	9.8nm,0.5s						
SHLS				*e*S	**Sg**	**11 07 59.9**	**+4.7**
	27nm,0.5s						
PDGK	**Podgornoye**	**3.31**	**64**	⇑Pn	**Pb**	**11 07 07.4**	**-3.3**
	3.0nm,0.4s						
PDGK				⇓Lg	Lg	11 07 57.3	
	21nm,0.6s						
KNOS	**Konyrlen**	**3.66**	**48**	Pg	**Pb**	**11 07 16.4**	**-0.3**
	1.5nm,0.3s						
KNOS				Lg	Lg	11 08 03.2	
	20nm,0.4s						
KK31	**Karatay Array**	**3.79**	**289**	⇓Pn	**Pb**	**11 07 15.2**	**-3.6**
	0.3nm,0.2s,baz=106,slow=17,SNR=33						
KK31				⇑Pg	**Pg**	**11 07 23.8**	**-0.3**
	1.2nm,0.2s,baz=109,slow=16,SNR=18						
KK31				⇓Lg	Lg	11 08 12.1	
	8.7nm,0.3s,baz=104,slow=28,SNR=10						
DJR	**Jarkent**	**3.99**	**52**	Pg	**Pb**	**11 07 23.2**	**+0.9**
DJR				Lg	Lg	11 08 14.6	
	7.5nm,0.6s						
DJR	**Jarkent**	**3.99**	**52**	*e*P	**Pb**	**11 07 23.2**	**+0.9**
DJR				*e*S	**Sg**	**11 08 14.6**	**-5.0**
	7.5nm,0.6s						
MAKZ	**Makanchi**	**6.76**	**42**	⇑Pn	Pn	11 07 55.4	+4.1
	0.8nm,0.7s						
MAKZ				⇓Sn	**Sn**	**11 09 13.4**	**+4.8**
	0.7nm,0.6s						
MAKZ				⇑Lg	Lg	11 09 46.5	
	2.5nm,0.9s						
MK31	**Makanchi Array**	**6.91**	**43**	⇑Pn	**Pn**	**11 07 55.8**	**+2.4**
	0.6nm,0.5s,baz=223,slow=15,SNR=7.8						
MK31				⇑Sn	**Sn**	**11 09 15.7**	**+3.4**
	0.9nm,0.7s						
MK31				⇓Lg	Lg	11 09 52.0	
	1.2nm,0.7s						

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*IDC **19** 11:11:51.4±0.4, 62°.23S×58°.03W, h0^{km}, mb4.6/15, mbtmp4.6/16, ML3.8/1, MS4.6/45, Error ellipse: s-maj=19.3km s-min=12.3km az=100.0*

*NEIC **19** 11:11:52.7±1.4, 62°.44S±0°.06×58°.4W±0°.1, h10^{km}±1^{km}, mb5.3/70, Mww5.3/13, Error ellipse: s-maj=12.2km s-min=8.3km az=239.0*

*MOS **19** 11:11:52.4±1.4, 62°.20S×58°.26W, h10^{km}, mb5.4/11, Error ellipse: s-maj=35.0km s-min=9.2km az=94.2*

*BJI **19** 11:11:53.0, 62°.40S×58°.40W, h10^{km}, mB5.2/1, Ms5.2/6, Ms7 5.0/7*

*GCMT **19** 11:11:54.7±0.1, 62°.37S±0°.01×58°.29W±0°.02, h12^{km}±1^{km}, MW5.2/145, Moment Tensor Solution. s83,c120; s145,c252; Duration: 1^{s}0 Moment tensor: Scale 10^{16} Nm; M$_{rr}$-0.53±.14; M$_{\theta\theta}$-2.78±.13; M$_{\phi\phi}$3.31±.14; M$_{r\theta}$1.73±.39; M$_{\theta\phi}$7.66±.14; M$_{\phi r}$-3.43±.53; Best double couple: M$_{0}$9.10000×10^{16} NP1:φ$_{s}$258.00000°,δ66.00000°, λ-7.00000°. NP2:φ$_{s}$350.00000°,δ84.00000°, λ-156.00000°. Principal axes: T 8.9050, Plg12.0000°, Azm122.0000°; N 0.3860, Plg65.0000°, Azm4.0000°; P -9.2940, Plg21.0000°, Azm217.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*GFZ **19** 11:11:54.0±0.2, 63°S±4°×5°8W±°, h10^{km}, M5.2/22, mb5.3/22*

*GFZ **19** 11:11:54.0, 62°.41S×58°.26W, h10^{km}, Mw5.2/49, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M$_{rr}$0.64; M$_{\theta\theta}$-3.43; M$_{\phi\phi}$2.78; M$_{r\theta}$2.29; M$_{\theta\phi}$7.43; M$_{\phi r}$-0.57; Fault plane solution: M$_{0}$8.41168×10^{16} NP1: φ$_{s}$349.38270°,δ75.94535°,λ-175.30637°. NP2: φ$_{s}$258.24046°,δ85.44718°,λ-14.10006°. Principal axes: T 7.8244, Plg6.6377°, Azm304.5762°; N 1.0719, Plg75.1973°, Azm60.7031°; P -8.8962, Plg13.1704°, Azm213.0158°;*

ISC 19 11:11:52.1±0.8**, 62°.32S**±0°.04×**58°.33W**±0°.04**, h6**^{km}±5^{km}**, n315, σ1^{s}42**/273**, mb5.2**/63**, MS4.6**/49**, 8C-2D, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JUBA	**Jubany**	**0.17**	**297**	*e*P	**Pg**	**11 11 54.0**	**-1.5**
JUBA				*i* S	**Sg**	**11 11 56.5**	**-1.3**
JUBA				IAML		11 11 59.6	
	comp=Z,348µm,0.6s						
ESPZ	**Base Esperanza**	**1.25**	**151**	*e*P	**Pn**	**11 12 13.2**	**-2.8**
ESPZ				*e*S	**Sb**	**11 12 29.6**	**-2.6**
ESPZ	**Base Esperanza**	**1.25**	**151**	Pn	**Pn**	**11 12 13.5**	**-2.5**
ESPZ				Sg	**Sb**	**11 12 29.6**	**-2.6**
PMSA	**Palmer Station**	**3.55**	**224**	Pn	**Pn**	**11 12 46.2**	**-1.4**
	comp=Z,7.0nm,0.3s,baz=53,slow=13,SNR=32						
PMSA				Sn	**Sb**	**11 13 38.3**	**-0.2**
	comp=Z,29nm,0.3s,baz=309,slow=17,SNR=3.8						
PMSA				LR	LR	11 14 05.2	
	comp=Z,16µm,20.7s,baz=31,slow=36						
	comp=Z,66nm,0.7s						
PMSA				AML	AML		
PMSA	**Palmer Station**	**3.55**	**224**	*e*P	**Pn**	**11 12 46.6**	**-1.1**
PMSA				*i* S	**Sb**	**11 13 38.4**	**-0.2**
PMSA	**Palmer Station**	**3.55**	**224**	*e*P	**Pn**	**11 12 46.2**	**-1.4**
PMSA	**Palmer Station**	**3.55**	**224**	P	**Pn**	**11 12 46.4**	**-1.2**
ORCD	**Orcadas**	**6.69**	**82**	Pn	**Pn**	**11 13 32.0**	**+1.2**
SMAI	**San Martin Ant**	**6.90**	**208**	*e*P	**Pn**	**11 13 31.7**	**-1.8**
SMAI				*e*S	**Sn**	**11 14 55.9**	**+3.7**
SMAI	**San Martin Ant**	**6.90**	**208**		**Pn**	**11 13 32.4**	**-1.2**
USHA	**Ushuaia**	**9.16**	**320**	LR	LR	11 16 59.9	
	comp=Z,5µm,19.9s,baz=142,slow=34						
USHA	**Ushuaia**	**9.16**	**320**	*e*P	**Pn**	**11 14 04.4**	**-0.2**
USHA				*i* S	**Sn**	**11 15 41.3**	**-6.6**
USHA				IAML		11 17 05.0	
	comp=Z,62nm,4.1s						
DSPA	**Despedida**	**9.88**	**324**	Pn	**Pn**	**11 14 15.4**	**+1.0**
EFI	**East Falkland**	**10.67**	**1**	*e*P	**Pn**	**11 14 26.0**	**+0.7**
EFI				IAML		11 18 43.2	
	comp=Z,121nm,2.0s						
EFI	**East Falkland**	**10.67**	**1**	*i* P	**Pn**	**11 14 26.6**	**+1.3**
EFI	**East Falkland**	**10.67**	**1**	Pn	**Pn**	**11 14 26.8**	**+1.5**
GO08	**Villa O'Higgin**	**16.00**	**324**	Pn	**P**	**11 15 39.5**	**-1.6**
GO08	**Villa O'Higgin**	**16.00**	**324**	P	**P**	**11 15 40.8**	**-0.2**
	comp=Z,87nm,1.4s						
BELA	**Belgrano 2**	**17.32**	**163**	P	**Pn**	**11 15 53.4**	**-0.6**
COYC	**Coyhaique**	**18.55**	**328**	P	**P**	**11 16 08.8**	**-0.4**
COYC	**Coyhaique**	**18.55**	**328**	P	**Pn**	**11 16 14.0**	**+4.6**
	comp=Z,115nm,1.1s						
VNA3	**Neumayer Olymp**	**20.53**	**136**	⇑P	**P**	**11 16 30.7**	**0.0**
	comp=Z,40nm,0.7s						
VNA3				⇑S	Sn	11 20 31.6	+7.4
	comp=N,2.3nm,0.5s						
VNA3	**Neumayer Olymp**	**20.53**	**136**	P	**P**	**11 16 31.0**	**+0.3**
	comp=Z,96nm,1.1s						
LL02	**Futaleuf**	**20.75**	**331**		**P**	**11 16 33.1**	**-0.1**
LL02				IAmb	IAmb	11 16 37.3	
	comp=Z,88nm,0.9s						
LL02	**Futaleuf**	**20.75**	**331**	P	Pn	11 16 36.3	+0.7
	comp=Z,107nm,1.1s						
VNA1	**Neumayer--Stat**	**21.00**	**134**	⇑P	**P**	**11 16 36.6**	**+0.9**
	comp=Z,53nm,1.0s						
GO07	**Milladeo Hill,**	**21.25**	**328**	P	**P**	**11 16 40.2**	**+1.6**
GO07				IAmb	IAmb	11 16 41.6	
	comp=Z,98nm,0.7s						
GO07	**Milladeo Hill,**	**21.25**	**328**	P	**P**	**11 16 41.2**	**+2.6**
	comp=Z,139nm,1.0s						
VNA2	**Neumayer--Watz**	**21.28**	**135**	⇑P	**P**	**11 16 39.1**	**+0.3**
	comp=Z,19nm,0.7s,baz=268,slow=10						
VNA2	**Neumayer--Watz**	**21.28**	**135**	P	**P**	**11 16 39.0**	**+0.3**
	comp=Z,54nm,1.3s						
SNAA	**Sanae**	**22.70**	**138**	⇑P	**P**	**11 16 54.2**	**+0.1**
	comp=Z,796nm,1.0s						
SNAA				⇑S	**S**	**11 21 05.0**	**+2.5**
	comp=N,50nm,0.8s						
SNAA	**Sanae**	**22.70**	**138**	P	**P**	**11 16 53.4**	**-0.7**
	comp=N,35nm,0.9s,baz=260,slow=9.7,SNR=36						
SNAA				LR	LR	11 24 19.9	
	comp=N,3µm,21.4s,baz=272,slow=33						
	comp=N,35nm,0.9s						
SNAA	**Sanae**	**22.70**	**138**	*ce*P	**P**	**11 16 54.4**	**+0.3**
SNAA				pmax	pmax		
	comp=Z,137nm,1.7s						
SNAA	**Sanae**	**22.70**	**138**	P	**P**	**11 16 54.0**	**-0.1**
SNAA				IAmb	IAmb	11 16 56.6	
	comp=Z,264nm,1.8s						
SNAA	**Sanae**	**22.70**	**138**	P	**P**	**11 16 54.4**	**+0.3**
	comp=Z,82nm,1.5s						
LL05	**Los Muermos**	**22.82**	**330**	P	**P**	**11 16 56.9**	**+1.5**
LL05	**Los Muermos**	**22.82**	**330**	P	**P**	**11 16 57.1**	**+1.7**
	comp=Z,433nm,1.0s						
LL03	**Petrohue**	**22.83**	**332**	P	**P**	**11 16 57.4**	**+1.9**
LL03				IAmb	IAmb	11 16 58.8	
	comp=Z,110nm,0.8s						
LL03	**Petrohue**	**22.83**	**332**	P	**P**	**11 16 57.9**	**+2.4**
	comp=Z,140nm,1.0s						
PLCA	**Paso Flores**	**22.83**	**336**	P	**P**	**11 16 55.4**	**-0.3**
	comp=Z,77nm,1.0s,baz=165,slow=9.8,SNR=48						
PLCA				LR	LR	11 25 52.3	
	comp=Z,2µm,19.2s,baz=164,slow=37						
	comp=Z,77nm,1.0s						
PLCA	**Paso Flores**	**22.83**	**336**		**P**	**11 16 57.2**	**+1.5**
PLCA				IAmb	IAmb	11 16 59.8	
	comp=Z,141nm,1.1s						
PLCA	**Paso Flores**	**22.83**	**336**	*e*P	**P**	**11 16 57.0**	**+1.3**
GO06	**Curarrehue**	**24.12**	**335**		**P**	**11 17 07.6**	**-0.9**
GO06	**Curarrehue**	**24.12**	**335**	P	**P**	**11 17 09.9**	**+1.3**
	comp=Z,287nm,1.0s						
LR03	**Panguipulli**	**24.26**	**333**	P	**P**	**11 17 10.3**	**+0.7**
LR03				IAmb	IAmb	11 17 12.7	
	comp=Z,78nm,0.8s						
LR04	**Corral**	**24.26**	**331**	P	**P**	**11 17 08.6**	**-1.0**
LR04				IAmb	IAmb	11 17 11.0	
	comp=Z,83nm,0.8s						
TROLL	**Troll, Antarti**	**24.34**	**139**	⇑P	**P**	**11 17 10.7**	**+0.4**
	comp=Z,716nm,0.8s						
BI02	**San Fabin de**	**26.91**	**337**	P	**P**	**11 17 34.0**	**+0.3**
BI02				IAmb	IAmb	11 17 38.9	
	comp=Z,117nm,1.2s						
BI02	**San Fabin de**	**26.91**	**337**	P	**P**	**11 17 36.7**	**+2.9**
	comp=Z,90nm,1.2s						
BI05	**Punta Hualpn**	**27.21**	**333**	P	**P**	**11 17 37.4**	**+1.1**
NVL	**N'lazarevskaya**	**27.53**	**138**	*e*P	**P**	**11 17 36.1**	**-2.8**
NVL				*e*S	**S**	**11 22 15.0**	**-4.8**
NVL				pmax	pmax		
	comp=Z,11nm,1.1s						
NVL				MLR	MLR		
	comp=Z,702nm,17.0s						
ML02	**Panimavida**	**27.81**	**337**	P	**P**	**11 17 43.1**	**+1.3**
ML02				IAmb	IAmb	11 17 47.2	
	comp=Z,73nm,0.8s						
ML02	**Panimavida**	**27.81**	**337**	P	**P**	**11 17 44.6**	**+2.9**
	comp=Z,113nm,0.9s						
QSPA	**South Pole Qui**	**27.91**	**180**	P	**P**	**11 17 43.3**	**+0.7**
	comp=Z,20nm,1.1s,baz=165,slow=3.5,SNR=13						
QSPA				LR	LR	11 29 47.7	
	comp=Z,1µm,19.7s,baz=168,slow=38						
	comp=Z,20nm,1.1s						
QSPA	**South Pole Qui**	**27.91**	**180**	P	**P**	**11 17 41.7**	**-0.9**
QSPA				IAmb	IAmb	11 17 56.7	
	comp=Z,38nm,1.0s						
GO05	**Hualane**	**28.64**	**336**		**P**	**11 17 49.1**	**-0.1**
GO05	**Hualane**	**28.64**	**336**	P	**P**	**11 17 51.3**	**+2.1**
	comp=Z,126nm,1.0s						
BO02	**Sierra Bellavi**	**28.64**	**338**	P	**P**	**11 17 49.8**	**+0.5**
BO02				IAmb	IAmb	11 17 55.9	
	comp=Z,47nm,0.9s						
BO02	**Sierra Bellavi**	**28.64**	**338**	P	**P**	**11 17 52.8**	**+3.5**
	comp=Z,56nm,1.1s						
BO01	**Tunca**	**29.09**	**338**	P	**P**	**11 17 53.3**	**+0.2**
BO01				IAmb	IAmb	11 18 00.7	
	comp=Z,69nm,1.2s						
BO01	**Tunca**	**29.09**	**338**	P	**P**	**11 17 54.6**	**+1.5**
	comp=Z,62nm,1.8s						
BO03	**Pichilemu**	**29.14**	**336**	P	**P**	**11 17 52.7**	**-0.9**
	comp=Z,47nm,0.9s						
BO04	**La Punta**	**29.40**	**339**	P	**P**	**11 17 57.0**	**+1.1**
BO04				IAmb	IAmb	11 17 59.3	
	comp=Z,41nm,0.8s						
MT09	**Talagante**	**29.67**	**338**	P	**P**	**11 17 58.6**	**+0.2**
MT03	**Universidad Ad**	**29.87**	**339**	P	**P**	**11 18 01.1**	**+1.0**
MT16	**CCHEN**	**29.93**	**339**	P	**P**	**11 18 01.4**	**+0.7**
PEL	**Peldehue**	**30.24**	**339**	P	P	11 18 10.6	+7.2
	comp=Z,96nm,1.2s						
ELIB	**Princess Elisa**	**30.55**	**143**	*d*P	**P**	**11 18 04.9**	**-0.9**
	comp=Z,4.5nm,1.1s						
VA03	**San Esteban**	**30.59**	**339**	P	P	11 18 11.8	+5.3
	comp=Z,144nm,1.0s						
PSAL	**Palomas, Salto**	**31.25**	**1**	*e*P	**P**	**11 18 12.9**	**+0.7**
CO04	**Los Peladeros**	**31.36**	**339**	P	**P**	**11 18 13.4**	**-0.1**
CFA	**Coronel Fontan**	**31.38**	**344**	LR	LR	11 30 05.4	
	comp=Z,656nm,19.4s,baz=176,slow=35						
ZON	**Zonda**	**31.50**	**343**	P	**P**	**11 18 16.4**	**+1.9**
ZON	**Zonda**	**31.50**	**343**	IAmb	IAmb	11 18 20.1	
	comp=Z,24nm,1.1s						
ZON	**Zonda**	**31.50**	**343**	P	**P**	**11 18 16.4**	**+1.9**
	comp=E,21nm,0.9s						
CO02	**Combarbal**	**32.19**	**339**	P	**P**	**11 18 23.1**	**+2.4**
	comp=Z,95nm,1.0s						
GO04	**Tololo Observa**	**33.16**	**340**	P	**P**	**11 18 31.3**	**+1.9**
	comp=Z,86nm,0.8s						
CO01	**Juntas del Tor**	**33.25**	**341**	P	**P**	**11 18 32.6**	**+2.6**
	comp=Z,74nm,1.1s						
CNLB	**Canela**	**33.37**	**12**	*e*P	**P**	**11 18 32.4**	**+1.5**
CNLB	**Canela**	**33.37**	**12**	P	**P**	**11 18 32.7**	**+1.8**
	comp=Z,35nm,1.3s						
LCO	**Las Campanas**	**34.29**	**341**	P	**P**	**11 18 39.8**	**+0.6**
LCO				pmax	pmax		
	comp=Z,47nm,1.1s						
LCO	**Las Campanas**	**34.29**	**341**	P	**P**	**11 18 39.8**	**+0.6**
LCO				IAmb	IAmb	11 18 50.8	
	comp=Z,47nm,1.1s						
AC05	**El Transito**	**34.39**	**341**	IAmb	IAmb	11 18 52.1	
	comp=Z,36nm,1.0s						
AC05	**El Transito**	**34.39**	**341**	P	**P**	**11 18 41.8**	**+1.9**
	comp=Z,33nm,2.2s						
AC04	**Llanos de Chal**	**35.14**	**340**	P	**P**	**11 18 48.5**	**+2.4**
	comp=Z,143nm,1.1s						
GO03	**Copiapo**	**35.61**	**342**	IAmb	IAmb	11 19 02.0	
	comp=Z,21nm,0.8s						
AC06	**Mina Casimiro**	**35.86**	**342**	IAmb	IAmb	11 19 04.3	
	comp=Z,31nm,0.9s						
CPUP	**Villa Florida**	**35.99**	**2**	P	**P**	**11 18 54.0**	**+0.6**
	comp=Z,5.5nm,0.8s,baz=175,slow=9.1,SNR=14						
CPUP				LR	LR	11 34 00.7	
	comp=Z,703nm,18.9s,baz=180,slow=37						
	comp=Z,5.5nm,0.8s						
CPUP	**Villa Florida**	**35.99**	**2**	P	**P**	**11 18 52.7**	**-0.8**
CPUP	**Villa Florida**	**35.99**	**2**	*e*P	**P**	**11 18 53.1**	**-0.4**
AC02	**Maricunga**	**36.20**	**344**	IAmb	IAmb	11 19 08.8	
	comp=Z,43nm,1.1s						
AC02	**Maricunga**	**36.20**	**344**	P	**P**	**11 18 58.0**	**+2.1**
	comp=Z,41nm,1.1s						
SYO	**Syowa Base**	**36.71**	**143**	⇓*e*P	**P**	**11 19 02.3**	**+3.0**
AC01	**Pan de Azucar**	**37.08**	**342**	P	**P**	**11 19 04.3**	**+1.4**
	comp=Z,54nm,1.0s						
SJPY	**San Joaquin**	**37.34**	**3**	*e*P	**P**	**11 19 05.4**	**+0.3**
VNDA	**Vanda**	**38.24**	**193**	P	**P**	**11 19 14.6**	**+2.5**
	comp=Z,1.5nm,1.0s,baz=164,slow=8.4,SNR=5.7						
VNDA				PcP	**PcP**	**11 21 27.2**	**+1.2**
	comp=Z,2.4nm,0.8s,baz=230,slow=1.1,SNR=3.9						
VNDA				LR	LR	11 34 56.0	
	comp=Z,908nm,19.6s,baz=150,slow=36						
	comp=Z,1.5nm,1.0s						
VNDA	**Vanda**	**38.24**	**193**	P	**P**	**11 19 11.4**	**-0.7**
SALTA		**38.46**	**348**	P	**P**	**11 19 17.4**	**+2.3**
	comp=Z,23nm,1.0s						
PET01	**Itanhaem-SP**	**38.74**	**16**	*e*P	**P**	**11 19 18.1**	**+1.3**
LDASE	**Londrina, Braz**	**39.21**	**11**	*e*P	**P**	**11 19 21.9**	**+1.0**
FRTB	**Fartura**	**39.41**	**13**	*e*P	**P**	**11 19 23.6**	**+1.1**
SPB	**Sao Paulo**	**39.41**	**16**		**P**	**11 19 23.2**	**+0.7**
SPB	**Sao Paulo**	**39.41**	**16**	*e*P	**P**	**11 19 23.5**	**+1.1**
VAO	**Valinhos**	**40.05**	**16**	*e*P	**P**	**11 19 28.6**	**+0.7**
PB05	**IPOC Station P**	**40.27**	**343**	IAmb	IAmb	11 19 33.8	
	comp=Z,40nm,0.8s						
PB06	**IPOC Station P**	**40.33**	**344**	IAmb	IAmb	11 19 34.6	
	comp=Z,50nm,0.9s						
PB03	**IPOC Station P**	**41.00**	**344**	IAmb	IAmb	11 19 40.2	
	comp=Z,51nm,1.1s						
PB07	**IPOC Station P**	**41.33**	**344**	IAmb	IAmb	11 19 44.0	
	comp=Z,137nm,1.8s						
BB19B	**Bebedouro**	**41.77**	**14**	*e*P	**P**	**11 19 43.0**	**+1.0**
AQDB	**Aquidauana**	**41.85**	**4**		**P**	**11 19 42.3**	**-0.3**
AQDB	**Aquidauana**	**41.85**	**4**	*e*P	**P**	**11 19 42.9**	**+0.3**
BDQN	**Bodoquena, MS**	**41.85**	**2**	*e*P	**P**	**11 19 42.7**	**+0.1**
COIM	**Forte Coimbra**	**42.37**	**1**	*e*P	**P**	**11 19 47.2**	**+0.3**
CANS	**Sao Roque de M**	**42.80**	**17**	*e*P	**P**	**11 19 50.5**	**0.0**
MAW	**Mawson**	**43.61**	**152**	P	**P**	**11 19 55.8**	**-0.6**
	comp=Z,5.0nm,2.2s						
MAW	**Mawson**	**43.61**	**152**	P	**P**	**11 19 58.3**	**+1.9**
	comp=Z,9.5nm,0.9s,baz=205,slow=7.5,SNR=4.7						
MAW				LR	LR	11 38 24.3	
	comp=Z,3µm,18.4s,baz=213,slow=36						
	comp=Z,9.5nm,0.9s						
MAW	**Mawson**	**43.61**	**152**	P	**P**	**11 19 55.7**	**-0.7**
PB12	**IPOC Station P**	**44.46**	**344**	IAmb	IAmb	11 20 08.8	
	comp=Z,59nm,1.4s						
PMNB	**Patos De Minas**	**44.52**	**16**	*e*P	**P**	**11 20 04.7**	**+0.4**
PB16	**IPOC Station P**	**44.63**	**345**	IAmb	IAmb	11 20 12.1	
	comp=Z,23nm,0.9s						
PP1B	**Ponte de Pedra**	**44.73**	**5**	*e*P	**P**	**11 20 07.0**	**+1.0**
IPMB	**Ipameri, GO**	**44.85**	**14**	*e*P	**P**	**11 20 05.6**	**-1.4**
BSFB	**Barra de Sao F**	**45.12**	**24**	*e*P	**P**	**11 20 09.2**	**+0.2**
DIAM	**Diamantina, MG**	**45.16**	**20**	*e*P	**P**	**11 20 10.0**	**+0.6**
SJMB	**Sao Joao De Ma**	**45.18**	**23**	*e*P	**P**	**11 20 09.4**	**-0.2**
SALV	**Santo Antonio**	**46.40**	**4**	*e*P	**P**	**11 20 19.3**	**+0.2**
LPAZ	**La Paz**	**46.49**	**347**	P	**P**	**11 20 20.7**	**+0.2**
	comp=Z,2.9nm,0.7s,baz=141,slow=4.2,SNR=11						
LPAZ				ScP	**ScP**	**11 25 49.5**	**+0.9**
	comp=Z,1.9nm,0.9s,baz=84,slow=3.5,SNR=4.9						

LPAZ				LR	LR	11 40 49.3	
	comp=Z,425nm,20.6s,baz=168,slow=37						
	comp=Z,2.9nm,0.7s						
LPAZ	La Paz	46.49	347	P	P	11 20 21.0	+0.4
LPAZ				pmax	pmax		
	comp=Z,7.0nm,0.8s						
LPAZ	La Paz	46.49	347		P	11 20 21.0	+0.4
LPAZ	La Paz	46.49	347	eP	P	11 20 21.3	+0.7
MC01	Montes Claros	46.67	19	eP	P	11 20 21.2	-0.2
ARAG	Araguaiana, MT	46.78	9	eP	P	11 20 21.4	-0.7
PTLB	Pontes e Lacer	46.81	359		P	11 20 22.0	-0.3
PTLB	Pontes e Lacer	46.81	359	eP	P	11 20 22.6	+0.3
ARCA	Ara§uai, MG	46.86	22	eP	P	11 20 23.0	+0.2
BDFB	Brasilia	47.19	14	P	P	11 20 25.3	-0.1
	comp=Z,18nm,0.8s,baz=186,slow=6.2,SNR=17						
BDFB				LR	LR	11 38 48.9	
	comp=Z,965nm,21.8s,baz=174,slow=34						
	comp=Z,18nm,0.8s						
BDFB	Brasilia	47.19	14		P	11 20 25.0	-0.4
BDFB				IAmb	IAmb	11 20 27.8	
	comp=Z,19nm,0.8s						
GUA01	Guaratinga, BA	47.51	24	eP	P	11 20 25.9	-1.9
JANB	Januaria	48.24	18	eP	P	11 20 32.7	-0.8
CMC01	Camacan, BA	48.76	24	eP	P	11 20 37.5	0.0
NBIT	Itapeh - BA	49.19	24	eP	P	11 20 40.4	-0.4
VILB	Vilhena	49.31	358		P	11 20 40.9	-0.8
VILB				IAmb	IAmb	11 20 46.5	
	comp=Z,24nm,0.9s						
VILB	Vilhena	49.31	358	eP	P	11 20 42.2	+0.5
SNDB	Serra Nova Dou	50.52	9	eP	P	11 20 51.1	+0.3
DRV	Dumont d'Urvil	50.62	189	P	P	11 20 52.9	+1.8
SDBA	SAO DESIDERIO	50.76	17	eP	P	11 20 53.0	+0.3
CLDB	Colider	51.39	3	eP	P	11 20 55.3	-2.2
CASY	Casey	51.45	174	P	P	11 20 56.8	-0.5
NNA	Nana	51.99	337	LR	LR	11 40 43.4	
	comp=Z,301nm,18.1s,baz=159,slow=33						
NNA	Nana	51.99	337	iP	P	11 21 00.8	-1.2
NNA				pmax	pmax		
	comp=Z,30nm,1.1s						
NBPN	Ponto Novo - B	53.03	23	eP	P	11 21 08.1	-1.6
SMTB	Santa Maria do	53.93	13	eP	P	11 21 16.9	+0.6
NBTA	Tacaratu-PE	55.12	25	eP	P	11 21 24.8	-0.1
CZSB	Cruzeiro do Su	55.49	343	eP	P	11 21 27.2	-0.3
NBMA	Muriti-CE	56.70	23	eP	P	11 21 36.8	+0.5
SUR	Sutherland	56.93	97	LR	LR	11 41 31.1	
	comp=Z,510nm,18.7s,baz=209,slow=31						
ATAH	Atahualpa	57.01	336	LR	LR	11 43 40.6	
	comp=Z,378nm,18.5s,baz=163,slow=34						
ITTB	Itaituba	57.85	3	eP	P	11 21 44.2	-0.1
RCBR	Riachuelo	58.76	26	LR	LR	11 48 26.6	
	comp=Z,89nm,18.1s,baz=182,slow=37						
MACA	Manacapuru-AM	59.04	357	eP	P	11 21 51.5	-1.1
H10S2	ASCENSION HYDR	61.94	51	T	T	12 29 28.5	
	baz=17,slow=74,SNR=33						
H10S3	ASCENSION HYDR	61.94	51	T	T	12 29 26.8	
	baz=203,slow=74,SNR=47						
BOSA	Boshof	62.15	99	P	P	11 22 14.5	+0.5
	comp=Z,4.4nm,0.8s,baz=206,slow=7.5,SNR=6.5						
BOSA				LR	LR	11 45 23.2	
	comp=Z,416nm,18.1s,baz=212,slow=32						
	comp=Z,4.4nm,0.8s						
SGC2	Sao Gabriel da	62.35	350	eP	P	11 22 14.2	-1.0
H10N3	ASCENSION HYDR	63.02	50	T	T	12 30 42.7	
	baz=201,slow=74,SNR=56						
H10N1	ASCENSION HYDR	63.03	50	T	T	12 30 47.9	
	baz=201,slow=74,SNR=51						
H10N2	ASCENSION HYDR	63.04	50	T	T	12 30 46.2	
	baz=201,slow=74,SNR=71						
WIN	Windhoek	63.52	88	IAmb	IAmb	11 22 36.9	
	comp=Z,36nm,1.3s						
OTAV	Otavalo	64.22	338	P	P	11 22 27.3	-0.8
OTAV				pmax	pmax		
	comp=Z,37nm,1.4s						
OTAV	Otavalo	64.22	338		P	11 22 27.3	-0.8
OTAV				IAmb	IAmb	11 22 34.8	
	comp=Z,37nm,1.4s						
OTAV	Otavalo	64.22	338	eP	P	11 22 29.3	+1.2
BOAV	Boa Vista	64.56	358		P	11 22 29.9	+0.1
BOAV	Boa Vista	64.56	358	eP	P	11 22 29.8	+0.1
KOOLE	Kule	64.59	91	IAmb	IAmb	11 22 44.6	
	comp=Z,20nm,0.9s						
LBTB	Lobatse	65.38	97	LR	LR	11 46 40.0	
	comp=Z,552nm,18.5s,baz=207,slow=32						
LBTB	Lobatse	65.38	97	P	P	11 22 35.2	0.0
LBTB				pmax	pmax		
	comp=Z,37nm,1.5s						
LBTB	Lobatse	65.38	97		P	11 22 35.2	0.0
LBTB				IAmb	IAmb	11 22 37.1	
	comp=Z,37nm,1.4s						
KDWAN	Kaudwane	66.34	95	IAmb	IAmb	11 22 57.6	
	comp=Z,25nm,1.1s						
GRTLG	Ghanzi	66.47	91	P	P	11 22 42.3	0.0
RPZ	Rata Peaks	67.14	217	P	P	11 22 48.1	+2.0
	comp=Z,5.1nm,1.1s,baz=163,slow=5.5,SNR=2.5						
RPZ				LR	LR	11 47 27.8	
	comp=Z,91nm,20.4s,baz=198,slow=32						
	comp=Z,5.1nm,1.1s						
MDP	Montagnes des	67.37	6	LR	LR	11 54 58.0	
	comp=Z,424nm,18.3s,baz=243,slow=38						
ROSC	El Rosal	68.08	343	LR	LR	11 52 01.3	
	comp=Z,517nm,18.7s,baz=245,slow=35						
URZ	Urewera	70.32	224	LR	LR	11 49 37.8	
	comp=Z,466nm,19.7s,baz=154,slow=32						
MATP	Matopo	70.67	97	LR	LR	11 49 54.8	
	comp=Z,429nm,18.1s,baz=208,slow=32						
SDV	Santo Domingo	71.63	347	LR	LR	11 57 34.2	
	comp=Z,631nm,18.2s,baz=174,slow=38						
LSZ	Lusaka	75.00	94	LR	LR	11 52 26.9	
	comp=Z,504nm,18.9s,baz=176,slow=32						
LSZ	Lusaka	75.00	94	P	P	11 23 34.1	-0.2
LSZ				pmax	pmax		
	comp=Z,20nm,1.0s						
LSZ	Lusaka	75.00	94		P	11 23 34.1	-0.2
LSZ				IAmb	IAmb	11 23 47.3	
	comp=Z,20nm,0.9s						
PPT2	Papeete2	75.17	261	eLR	LR	11 46 34.1	
	comp=Z,893nm,25.5s						
PPT2				eLR	LR	11 46 40.6	
	comp=Z,1µm,24.8s						
PPT	Papeete	75.19	261	LR	LR	11 48 17.3	
	comp=Z,465nm,20.4s,baz=144,slow=29						
JTS	Las Juntas de	75.29	333	LR	LR	11 51 18.2	
	comp=Z,193nm,19.3s,baz=170,slow=31						
JTS	Las Juntas de	75.29	333	iP	P	11 23 35.9	+0.2
JTS				pmax	pmax		
	comp=Z,19nm,1.5s						
RAR	Rarotonga	76.61	250	LR	LR	11 48 57.2	
	comp=Z,186nm,20.4s,baz=138,slow=29						
RAO	Raoul Island	76.80	231	LR	LR	11 50 31.7	
	comp=Z,183nm,21.7s,baz=147,slow=30						
VOI	Vohitsoka	77.60	113	IAmb	IAmb	11 23 52.7	
	comp=Z,31nm,0.9s						
TAOE	Nuku Hiva Isla	78.41	273	eLR	LR	11 48 11.1	
	comp=Z,908nm,28.2s						
DBIC	Dimbokro	79.97	54	P	P	11 24 01.4	-0.5
	comp=Z,5.6nm,0.8s,baz=218,slow=7.9,SNR=4.5						
DBIC				LR	LR	11 51 20.2	
	comp=Z,442nm,21.6s,baz=207,slow=30						
	comp=Z,5.6nm,0.8s						
DBIC	Dimbokro	79.97	54	P	P	11 24 02.0	+0.1
DBIC				pmax	pmax		
	comp=Z,9.0nm,0.9s						
DBIC	Dimbokro	79.97	54	P	P	11 24 02.0	+0.1
MLPR	Magueyes Islan	80.31	352	IAmb	IAmb	11 24 31.8	
	comp=Z,20nm,1.0s						
SJG	San Juan	80.39	352	LR	LR	12 01 43.0	
	comp=Z,412nm,19.4s,baz=168,slow=37						
OPO	Ambohidratompo	80.72	112	LR	LR	11 55 57.8	
	comp=Z,263nm,18.1s,baz=161,slow=33						
CMIG	Matias Romero	84.23	325	LR	LR	11 53 52.6	
	comp=Z,421nm,21.9s,baz=154,slow=30						
CMSA	Cobar Meteorol	84.49	200	P	P	11 24 33.2	+7.7
	comp=Z,11nm,1.0s						
STKA	Stephens Creek	84.77	197	P	P	11 24 28.4	+1.5
	comp=Z,2.8nm,0.7s,baz=115,slow=4.2,SNR=6.5						
STKA				LR	LR	11 57 17.6	
	comp=Z,351nm,21.5s,baz=170,slow=32						
	comp=Z,2.8nm,0.7s						
STKA	Stephens Creek	84.77	197	iP	P	11 24 26.4	-0.5
NWAO	Narrogin (SRO)	85.02	176	LR	LR	12 01 09.8	
	comp=Z,472nm,20.7s,baz=190,slow=35						
AFI	Afiamalu	88.24	243	LR	LR	11 55 27.3	
	comp=Z,165nm,20.9s,baz=151,slow=30						
TORD	Torodi Ar. Bea	88.43	58	P	P	11 24 42.8	-2.0
	comp=Z,2.9nm,1.0s,baz=221,slow=4.1,SNR=11						
TORD				LR	LR	11 56 06.8	
	comp=Z,244nm,19.5s,baz=204,slow=30						
	comp=Z,2.9nm,1.0s						
MSVF	Nonsavu	88.78	233	LR	LR	11 56 08.7	
	comp=Z,428nm,21.9s,baz=186,slow=30						
INKA	Innaminka	88.96	197		P	11 24 47.0	-0.4
MBAR	Mbarara	89.04	89	LR	LR	11 59 48.0	
	comp=Z,247nm,21.9s,baz=212,slow=32						
MBAR	Mbarara	89.04	89	iP	P	11 24 48.2	+0.2
MBAR				pmax	pmax		
	comp=Z,15nm,1.5s						
MBAR	Mbarara	89.04	89	P	P	11 24 47.7	-0.4
QLP	Quilpie	89.58	200	P	P	11 24 49.6	-0.7
	comp=Z,38nm,1.4s						
KMBO	Kilima Mbogo	91.61	95	LR	LR	12 01 01.5	
	comp=Z,688nm,21.7s,baz=239,slow=32						
ASAR	Alice Springs	93.76	191	P	P	11 25 09.8	+0.1
	comp=Z,1.6nm,0.8s,baz=161,slow=3.9,SNR=14						
ASAR				LR	LR	12 06 37.4	
	comp=Z,240nm,19.2s,baz=162,slow=35						
	comp=Z,1.6nm,0.8s						
ASAR	Alice Springs	93.76	191	P	P	11 25 07.9	-1.8
LPIG	La Paz	95.52	314	LR	LR	11 59 22.5	
	comp=Z,100nm,18.2s,baz=152,slow=30						
CTA	Charters Tower	95.58	203	LR	LR	12 03 18.3	
	comp=Z,200nm,20.6s,baz=179,slow=32						
WRA	Warramunga Arr	97.40	192	P	P	11 25 25.8	-0.6
	comp=Z,1.0nm,0.7s,baz=175,slow=4.2,SNR=14						
	comp=Z,1.0nm,0.7s						
WRA	Warramunga Arr	97.40	192	P	P	11 25 26.3	-0.1
WRA	Warramunga Arr	97.40	192	P	P	11 25 26.3	-0.1
TXAR	Lajitas Array	98.30	321	LR	LR	12 04 01.9	
	comp=Z,127nm,18.1s,baz=140,slow=32						
TKL	Tuckaleechee C	99.77	339	LR	LR	12 16 05.7	
	comp=Z,221nm,18.6s,baz=154,slow=39						
FITZ	Fitzroy Crossi	99.80	184	LR	LR	12 10 36.7	
	comp=Z,272nm,19.2s,baz=180,slow=35						
GERES	GERESS Array B	124.66	50	PKP	PKPdf	11 30 51.0	-0.3
	comp=Z,0.9nm,0.4s,baz=186,slow=1.3,SNR=9.5						
GERES	GERESS Array B	124.66	50	PKIKP	PKPdf	11 30 51.0	-0.3
EKA	Eskdalemuir Ar	124.98	35	PKP	PKPdf	11 30 51.1	-0.4
	comp=Z,0.4nm,0.4s,baz=195,slow=5.1,SNR=1.9						
ZST	Bratislava	125.35	53	ePKIKP	PKiKP	11 30 54.3	+1.4
ZST	Bratislava	125.35	53	ePKP	PKiKP	11 30 54.3	+1.4
HYB	Hyderabad	126.06	126	ePKiKP	PKiKP	11 30 55.3	0.0
HYB				eSKSac	SKSac	11 37 59.2	-1.0
HYB				eSKKSac	SKKSac	11 39 44.9	-2.1
VOIR		126.16	60	PKPdf	PKiKP	11 30 54.7	0.0
VYHS	Vyhne	126.25	54	ePKIKP	PKiKP	11 30 55.0	+0.3
VYHS	Vyhne	126.25	54	ePKP	PKiKP	11 30 55.0	+0.3
BRG	Berggiesshubel	126.44	49	PKP	PKiKP	11 30 54.7	-0.2
BRG				Amp		11 31 01.9	
	comp=Z,2.7nm,0.9s						
BRG				PP	PP	11 33 04.2	+13
BRG				Amp		11 33 06.9	
	comp=Z,3.0nm,0.9s						
CLL	Collm	126.48	48	LV		12 11 00.0	
CLL				AMS	AMS	12 21 00.0	
	comp=Z,100nm,20.8s						
KMPD	K-Podol'skiy	129.26	59	PKPdf	PKPdf	11 30 57.7	-2.2
LUBAR	Lubar, Ukraine	130.85	58	PKPdf	PKPdf	11 31 01.6	-1.3
YKA	Yellowknife Ar	131.51	329	PKP	PKPdf	11 31 03.9	+0.1
	comp=Z,1.5nm,0.9s,baz=161,slow=2.0,SNR=5.5						
AK22	Malin Array Si	132.03	59	PKPdf	PKPdf	11 31 05.1	0.0
AKASG	Malin Array Be	132.05	59	PKP	PKPdf	11 31 04.2	-1.0
	comp=Z,0.4nm,0.2s,baz=257,slow=1.6,SNR=5.3						
AKBB	Malin Array Si	132.05	59	iPKIKP	PKPdf	11 31 03.1	-2.1
AKBB	Malin Array Si	132.05	59	PKPdf	PKPdf	11 31 02.9	-2.3
KIV	Kislovodsk	132.54	74	iPKIKP	PKiKP	11 31 09.1	+1.5
KIV				pmax	pmax		
	comp=Z,5.0nm,1.0s						
KIV				MLR	MLR		
	comp=Z,123nm,23.0s						
CMAR	Chiang Mai Arr	133.41	150	PKP	PKPdf	11 31 09.3	+0.5
	comp=Z,1.5nm,0.8s,baz=219,slow=3.6,SNR=7.6						
NOA	NORSAR Array B	133.87	39	PKP	PKPdf	11 31 08.6	+0.3
	comp=Z,0.6nm,0.7s,baz=221,slow=1.9,SNR=3.5						
HFS	Hagfors	133.90	41	PKP	PKPdf	11 31 07.2	-1.1
	comp=Z,1.1nm,0.7s,baz=116,slow=3.4,SNR=2.1						
FINES	FINESS Array B	138.90	47	iPKIKP	PKiKP	11 31 19.7	-0.1
PZH	PanZhiHua	141.81	150	PKP	PKPdf	11 31 22.8	-1.4
ILAR	Eielson Array	142.55	315	PKP	PKPdf	11 31 22.7	-1.4
	comp=Z,0.6nm,0.6s,baz=185,slow=2.6,SNR=8.4						
ILAR				PP	PP	11 34 39.0	+6.0
	comp=Z,0.5nm,1.0s,baz=138,slow=5.2,SNR=4.1						
COLA	College	142.93	315	iPKIKP	PKPdf	11 31 25.4	+0.7
KLMR	Klimovskoe	143.35	54	ePKIKP	PKPdf	11 31 26.5	+0.9
KLMR				ePPP	PPP	11 37 48.3	
KLMR				pmax	pmax		
	comp=Z,22nm,1.6s						
CHM	Chimkent	143.72	99	ePKIKP	PKPdf	11 31 28.2	+1.3
CHM	Chimkent	143.72	99	ePKP	PKPdf	11 31 28.2	+1.3
KSH2	Kashi	143.88	108	PKP	PKPdf	11 31 26.4	-1.1
ARCES	ARCESS Array B	144.11	37	PKP	PKPab	11 31 24.2	-0.2
	comp=Z,18nm,0.8s,baz=225,slow=1.5,SNR=16						
AKTO	Aktyubinsk	144.33	79	PKHKP	PKPpre	11 31 23.3	
AB31	Akbulak array	144.39	82	iPKHKP	PKPpre	11 31 22.9	
KK31	Karatay Array	144.75	99	iPKHKP	PKPpre	11 31 25.7	
APA	Apatity	145.28	42	iPKP2	PKPbc	11 31 26.0	-2.6
APA				pmax	pmax		
	comp=Z,55nm,0.9s						
E23K	Chandalar	145.42	319	PKPdf	PKPdf	11 31 28.9	-0.3
E23K					PKPab	11 31 30.1	+0.6
G21K	Allakaket	145.79	315	PKPdf	PKPab	11 31 30.9	+0.2
LVZ	Lovozero	145.86	42	iPKP2	PKPdf	11 31 30.0	+0.2
LVZ	Lovozero	145.86	42	PKPdf	PKPbc	11 31 30.4	-0.2
LVZ	Lovozero	145.86	42	PKPdf	PKPdf	11 31 27.7	-2.1
LVZ				PKP	pPKPdf	11 31 32.3	+0.7
KIRV	Kirov	145.88	63	iPKIKP	PKPdf	11 31 29.1	-0.9
AAK	Ala-Archa	146.21	103	PKPbc	PKPab	11 31 33.2	0.0
	comp=Z,9.0nm,0.8s,baz=214,slow=4.8,SNR=14						
AAK	Ala-Archa	146.21	103	iPKIKP	PKPdf	11 31 31.2	-0.2
AAK	Ala-Archa	146.21	103		PKPbc	11 31 32.4	-0.1
KIWB	Kanaga Island	146.43	281	PKPdf	PKPbc	11 31 32.5	-0.2
J16K	Anvik River	146.47	307	PKPdf	PKPab	11 31 33.1	-0.3
CD2	Chengdu	146.51	151	PKPbc	PKPdf	11 31 31.0	-1.2
SGDS	Sogindy	146.91	103	ePKP	PKPbc	11 31 33.5	-0.9
SPITS	Spitsbergen Ar	147.12	21	PKPbc	PKPbc	11 31 33.6	-0.3
	comp=Z,15nm,1.0s,baz=193,slow=5.9,SNR=3.9						
MDOK	Medeo	147.78	105	ePKIKP	PKPdf	11 31 35.0	+1.0
MDOK	Medeo	147.78	105	ePKP	PKPdf	11 31 35.0	+1.0
SATY	Saty	148.30	107	ePKIKP	PKPdf	11 31 35.8	+1.0
SATY	Saty	148.30	107	ePKP	PKPdf	11 31 35.9	+1.0
ARTI	Arti	148.39	71	iPKIKP	PKPdf	11 31 34.8	+0.4
UZB	Uzynbulak	148.65	108	ePKIKP	PKPdf	11 31 36.3	+0.9
UZB	Uzynbulak	148.65	108	ePKP	PKPdf	11 31 36.3	+0.9
KPKS	Kokpek	148.75	107	ePKIKP	PKPdf	11 31 36.5	+1.0
KPKS	Kokpek	148.75	107	ePKP	PKPdf	11 31 36.5	+1.0
SHLS	Shalkode	148.85	108	ePKIKP	PKPdf	11 31 36.9	+1.2
SHLS	Shalkode	148.85	108	ePKP	PKPdf	11 31 36.1	+0.4
GOMU	GeErMu	148.98	135	PKPbc	PKiKP	11 31 41.8	0.0
GOMU				L	L		
	comp=Z,79nm,12.3s						
GOMU				L	L		
	comp=Z,99nm,12.1s						
GOMU				L	L		
	comp=Z,190nm,12.7s						
SVE	Sverdlovsk	149.65	72	ePKP2	PKPab	11 31 48.4	+2.1
NJ2	Nanjing	149.67	175	ePKPbc	PKPdf	11 31 36.8	-0.4
TDK	Taldyqorghan	149.82	105	ePKHKP	PKPpre	11 31 38.2	
TDK	Taldyqorghan	149.82	105	ePKP	PKPdf	11 31 38.2	+1.1
XAN	Xi'an	150.57	158	PKPbc	PKiKP	11 31 45.1	+0.3
LZDM	Lanzhou Array	151.32	149	PKPbc	PKiKP	11 31 46.8	+0.2
	comp=Z,1.7nm,0.3s,baz=166,slow=2.4,SNR=9.6						
LZH	Lanzhou	151.49	149	ePKPbc	PKiKP	11 31 46.8	0.0
LZH				pPKP	PKPab	11 31 55.3	+0.6
BORK	Borovoye	151.76	85	iPKIKP	PKPdf	11 31 38.5	-1.3
BVAR	Borovoye Array	151.78	85	PKPbc	PKPbc	11 31 45.2	-1.0
	comp=Z,19nm,0.7s,baz=238,slow=1.4,SNR=47						
MJAR	Matsushiro Arr	152.22	209	PKPbc	PKPbc	11 31 47.7	0.0
	comp=Z,1.5nm,0.6s,baz=99,slow=6.6,SNR=4.4						
WMQ	Urumqi	152.93	117	PKPbc	PKPdf	11 31 44.3	+2.4
WMQ				PKPab	pPKPab	11 32 02.8	+0.5
WMQ				PP	PP	11 35 38.6	+4.6
WMQ				L	L		
	comp=Z,110nm,24.7s						
MK31	Makanchi Array	152.94	107	iPKIKP	PKPdf	11 31 43.0	+1.2
MKAR	Makanchi Array	152.94	107	PKPbc	PKPbc	11 31 48.5	-0.6
	comp=Z,2.4nm,0.7s,baz=245,slow=3.2,SNR=20						
GTA2	Gaotai	153.56	140	ePKPbc	PKiKP	11 31 51.0	+0.1
GTA2				LR	LR		
	comp=N,160nm,17.5s						
GTA2				LR	LR		
	comp=E,160nm,18.7s						
GTA2				LR	LR		
	comp=Z,210nm,18.4s						
KURBB	Kurchatov Arra	153.99	97	PKP	PKPdf	11 31 42.9	-0.2
	comp=Z,2.5nm,0.2s,baz=244,slow=2.0,SNR=6.8						
KURBB				PKPbc	PKPbc	11 31 50.7	-0.5
	comp=Z,3.1nm,0.2s,baz=236,slow=2.8,SNR=12						
KURBB				PKPab	PKPab	11 32 02.8	-1.9
	comp=Z,1.5nm,0.2s,baz=237,slow=3.8,SNR=9.2						
KURK	Kurchatov	154.10	97	PKIKP	PKPdf	11 31 42.9	-0.3
KURK						11 31 50.7	
KURK						11 32 02.8	
KURK	Kurchatov	154.10	97	PKPdf	PKPdf	11 31 43.8	+0.6
ZSN	Zaisan	154.58	109	ePKIKP	PKPdf	11 31 45.3	+1.2
ZSN	Zaisan	154.58	109	ePKP	PKPdf	11 31 45.3	+1.2
SEM	Semipalatinsk	154.64	99	ePKIKP	PKPdf	11 31 45.5	+1.2
SEM	Semipalatinsk	154.64	99	ePKP	PKPdf	11 31 45.5	+1.2
KSRS	Korea Array	154.81	192	PKPbc	PKiKP	11 31 53.6	+0.3
	comp=Z,0.8nm,0.8s,baz=151,slow=2.8,SNR=1.9						
HHC	Hu-ho-hao-te	157.66	160	ePKP	PKPdf	11 31 44.6	-3.9
ZALV	Zalesovo Beam	159.09	97	PKP	PKPdf	11 31 49.7	+0.1
	comp=Z,0.5nm,0.4s,baz=272,slow=3.9,SNR=4.1						
ZALV				PKPab	PKPab	11 32 24.4	-2.2
	comp=Z,2.0nm,0.8s,baz=255,slow=4.3,SNR=7.2						
SONM	Songino Array	163.13	142	PKPab	PKPab	11 32 44.9	+0.4
	comp=Z,3.8nm,1.0s,baz=204,slow=4.9,SNR=9.8						
SONM	Songino Array	163.13	142	PKP2	PKPab	11 32 44.4	-0.1
SONM	Songino Array	163.13	142	PKPab	PKPab	11 32 44.4	-0.1
SEY	Seymchan	165.92	286	ePKP2	PKPab	11 33 07.5	+11
SEY				pmax	pmax		
	comp=Z,10.0nm,1.2s						

IDC 19 11:19:51.2±2.0, 29°.98S×177°.89W, h128^{km}±10^{km}, mb3.0/2, mbtmp3.6/3, Error ellipse: s-maj=55.0km s-min=21.9km az=103.0, Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	Raoul Island	0.73	358	P	Pn	11 20 13.3	+1.7
	857nm,0.3s,baz=28,slow=22,SNR=16						
RAO				S	Sn	11 20 27.8	+0.7
	597nm,0.3s,baz=90,slow=22,SNR=10						
URZ	Urewera	9.23	205	P	Pn	11 21 59.9	-1.2
	5.8nm,1.0s,baz=269,slow=4.2,SNR=8.5						
URZ				S	Sn	11 23 44.0	+0.7
	5.8nm,0.3s,baz=121,slow=18,SNR=16						
ASAR	Alice Springs	43.22	266	P	P	11 27 40.4	+0.5
	0.2nm,0.7s,baz=109,slow=7.9,SNR=1.6						
	0.2nm,0.7s						
WRA	Warramunga Arr	44.17	272	P	P	11 27 47.2	-0.3
	0.4nm,0.4s,baz=111,slow=7.6,SNR=12						
	0.4nm,0.4s						
FINES	FINESS Array B	144.78	340	PKP	PKPab	11 39 10.2	-1.1
	1.4nm,0.4s,baz=49,slow=3.3,SNR=16						

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*KRNET **19** 11:20:54.5±0.1, 40°.39N×77°.59E, h21^{km}, mb3.0*
*SOME **19** 11:20:56.6, 40°.45N×77°.50E, h10^{km}*
*NNC **19** 11:20:57.6±1.0, 40°.49N×77°.60E, h0^{km}, mb3.6, mpv3.1, Error ellipse: s-maj=7.4km s-min=3.6km az=160.0*
ISC 19 11:20:57.1±2.1, 40°.38N±0°.10×77°.54E±0°.04, h10^{km}, n33, σ1^{s}.72/54, 17C-5D, Kyrgyzstan-Xinjiang border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TARG	Taragay, Kyrgy	1.36	8	⇑iP	Pn	11 21 20.2	-2.4
TARG				⇑iS	Sb	11 21 39.0	-1.6
NRN	Naryn	1.57	313	⇑eP	Pn	11 21 24.4	-1.0
NRN				⇑eS	Sb	11 21 46.6	+0.1
KDJ	Kajisay	1.77	351	⇑iP	Pn	11 21 27.5	-0.5
KDJ				⇑iS	Sb	11 21 51.4	-0.7
ULHL	Ulahol	2.10	333	⇓iP	Pn	11 21 33.3	+0.7
ULHL				⇓iS	Sb	11 22 01.8	0.0
PRZ	Przheval'sk	2.20	17	⇑eP	Pn	11 21 34.4	+0.5
PRZ				⇑eS	Sb	11 22 03.3	-1.2
ANVS	Anan'yevo	2.40	2	⇑eP	Pn	11 21 37.0	+0.3
ANVS				⇑eS	Sb	11 22 08.2	-2.2
BOOM	Boomskoye usch	2.43	331	⇑iP	Pn	11 21 38.0	+1.0
BOOM				⇑iS	Sb	11 22 09.5	-1.5
IZV	Izvestkoviy	2.74	346	eP	Pg	11 21 47.7	-2.0
IZV				eS	Sg	11 22 23.9	-1.3
SATY	Saty	2.75	13	Pg	Pb	11 21 46.5	0.0
	10.0nm,0.7s						
SATY				Lg	Lg	11 22 22.5	
	41nm,0.6s						
SATY	Saty	2.75	13	eP	Pb	11 21 46.5	0.0
	10.0nm,0.7s						
SATY				eS	Sb	11 22 22.5	+2.0
	41nm,0.6s						
MDOK	Medeo	2.81	353	Pg	Pb	11 21 47.6	+0.2
	16nm,0.5s						
MDOK				Lg	Lg	11 22 24.0	
	108nm,0.6s						
MDOK	Medeo	2.81	353	eP	Pb	11 21 47.6	+0.2
	16nm,0.5s						
MDOK				eS	Sb	11 22 24.0	+2.2
	108nm,0.6s						
KOTS	Kotyrbulak	2.87	354	eP	Pb	11 21 48.8	+0.2
	6.6nm,0.5s						
KOTS				eS	Sb	11 22 26.2	+2.5
	76nm,0.9s						
KST	Kastek	2.91	337	eP	Pb	11 21 49.2	0.0
	1.6nm,0.4s						
KST				eS	Sb	11 22 26.5	+1.6
	28nm,1.0s						
TKM2	Tokmak 2	2.93	331	⇓iP	Pn	11 21 44.9	+1.0
TKM2				⇓iS	Sn	11 22 21.5	+2.3
UZB	Uzynbulak	2.98	21	Pg	Pb	11 21 50.2	-0.2
	1.2nm,0.1s						
UZB				Lg	Lg	11 22 28.4	
	26nm,0.8s						
UZB	Uzynbulak	2.98	21	eP	Pb	11 21 50.2	-0.2
	1.2nm,0.1s						
UZB				eS	Sb	11 22 28.4	+1.5
	26nm,0.8s						
SHLS	Shalkode	3.13	27	Pg	Pg	11 21 55.2	-1.8
	5.8nm,0.5s						
SHLS				Lg	Lg	11 22 37.3	
	28nm,0.5s						
SHLS	Shalkode	3.13	27	eP	Pg	11 21 55.2	-1.8
	5.8nm,0.5s						
SHLS				eS	Sg	11 22 37.3	-0.2
	28nm,0.5s						
KURS	Kuram	3.14	8	eP	Pb	11 21 53.8	+0.8
	3.9nm,0.5s						
KURS				eS	Sb	11 22 34.5	+3.0
	8.6nm,0.4s						
KPKS	Kokpek	3.20	15	Pg	Pb	11 21 54.0	-0.1
	0.3nm,0.2s						
KPKS				Lg	Lg	11 22 35.0	
	22nm,0.5s						
KPKS	Kokpek	3.20	15	eP	Pb	11 21 54.0	-0.1
	0.3nm,0.2s						
KPKS				eS	Sb	11 22 35.0	+1.8
	22nm,0.5s						
AAK	Ala-Archa	3.21	316	⇑Pg	Pb	11 21 54.9	+0.6
	8.2nm,1.1s						
AAK				⇑Lg	Lg	11 22 38.4	
	15nm,0.8s						
PDGK	Podgornoye	3.29	26	⇑Pg	Pb	11 21 54.7	-0.9
	4.1nm,0.6s						
PDGK				⇓Lg	Lg	11 22 38.0	
	41nm,0.7s						
KTBS	Karatobe	3.39	349	eP	Pb	11 21 56.7	-0.6
	5.1nm,1.2s						
KTBS				eS	Sb	11 22 39.8	+1.2
	16nm,0.8s						
KRBS	Karabastau	3.59	338	eP	Pg	11 22 05.3	-0.7
	1.7nm,0.8s						
KRBS				eS	Sg	11 22 54.0	+1.6
	12nm,0.7s						
BLB	Baldybastay	3.78	10	Pg	Pb	11 22 04.2	+0.2
	5.0nm,0.4s						
BLB				Lg	Lg	11 22 52.9	
	16nm,0.4s						
MRKS	Merke	4.01	308	Pg	Pg	11 22 10.6	-3.2
	1.8nm,0.2s						
MRKS				Lg	Lg	11 23 03.6	
	6.3nm,0.5s						
MRKS	Merke	4.01	308	eP	Pg	11 22 10.6	-3.2
	1.8nm,0.2s						
MRKS				eS	Sg	11 23 03.6	-2.2
	6.3nm,0.5s						
KNOS	Konyrlen	4.16	16	Pg	Pb	11 22 11.4	+0.9
	0.2nm,0.1s						
KNOS				Lg	Lg	11 23 04.8	
	7.1nm,0.6s						

DJR	**Jarkent**	**4.29**	**22**	Pg	**Pb**	**11 22 14.1**	**+1.4**
	1.2nm,0.2s						
DJR				Lg	Lg	11 23 09.3	
	3.8nm,0.6s						
DJR	**Jarkent**	**4.29**	**22**	*e*P	**Pb**	**11 22 14.1**	**+1.4**
	1.2nm,0.2s						
DJR				*e*S	**Sb**	**11 23 09.3**	**+4.9**
	3.8nm,0.6s						
KK31	**Karatay Array**	**5.92**	**300**	⇑Pg	**Pb**	**11 22 44.7**	**+4.3**
	0.6nm,0.6s,baz=118,slow=13						
KK31				⇑Lg	Lg	11 24 05.6	
	0.9nm,0.6s,baz=113,slow=25,SNR=4.5						

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*IDC **19** 11:48:20.9±0.8, 15°.58S×167°.06E, h0^{km}, mb4.1/14, mbtmp4.2/16, ML4.5/2, MS3.5/2, Error ellipse: s-maj=24.2km s-min=12.9km az=80.0*

*NOU **19** 11:48:23.6, 15°.66S×167°.16E, h17^{km}, MLv4.9/17, Vanuatu Islands*

*NEIC **19** 11:48:24.6±1.1, 15°.63S±0°.07×167°.2E±0°.2, h26^{km}±6^{km}, mb4.5/12, Error ellipse: s-maj=22.7km s-min=10.6km az=93.0*

ISC 19 11:48:24.0±0.5, **15°.65S**±0°.07×**167°.09E**±0°.09, **h20**^{km}±3^{km}, **n53**, σ**1^{s}.11**/52, **mb4.3**/16, **3C, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SANVU	**Saraoutou**	**0.23**	**29**	P	**Pb**	**11 48 29.8**	**-0.1**
SANVU	**Saraoutou**	**0.23**	**29**	Pg	**Pb**	**11 48 30.0**	**+0.1**
SANVU				Sg	**Sb**	**11 48 34.0**	**0.0**
RTV	**Rentapao**	**2.48**	**149**	P	**Pn**	**11 49 02.1**	**-1.2**
KOUNC	**Koumac, New Ca**	**5.55**	**208**	P	**Pn**	**11 49 46.6**	**+1.1**
KOUNC	**Koumac, New Ca**	**5.55**	**208**	Pn	**Pn**	**11 49 46.0**	**+0.4**
MARNC	**Mare, Loyalty**	**5.87**	**171**	P	**Pn**	**11 49 50.9**	**+1.1**
MARNC	**Mare, Loyalty**	**5.87**	**171**	Pn	**Pn**	**11 49 51.0**	**+1.2**
YATNC	**Mamie plateau,**	**6.38**	**182**	P	**Pn**	**11 49 55.9**	**-1.0**
DZM	**Mont Dzumac**	**6.42**	**185**	Pn	**Pn**	**11 49 57.4**	**-0.1**
	9.8nm,0.3s,baz=329,slow=11,SNR=62						
DZM				Sn	**Sn**	**11 51 08.2**	**-2.0**
	3.8nm,0.3s,baz=305,slow=23,SNR=1.5						
	27nm,0.3s						
DZM				AML	AML		
NOUC	**Port Laguerre**	**6.46**	**186**	P	**Pn**	**11 49 58.1**	**+0.1**
ONTNC	**Ouen Toro**	**6.65**	**185**	P	**Pn**	**11 50 00.6**	**0.0**
ONTNC	**Ouen Toro**	**6.65**	**185**	Pn	**Pn**	**11 50 00.3**	**-0.2**
OUENC	**Ouen Island, N**	**6.74**	**182**	P	**Pn**	**11 50 02.2**	**+0.4**
OUENC	**Ouen Island, N**	**6.74**	**182**		**Pn**	**11 50 02.0**	**+0.2**
NGOA	**Tingoa Renbel**	**7.95**	**300**	P	**Pn**	**11 50 18.5**	**0.0**
HNR	**Honiara**	**9.31**	**311**	Pn	**Pn**	**11 50 36.5**	**-0.8**
	5.7nm,0.3s,baz=66,slow=3.0,SNR=4.3						
HNR				LR	LR	11 53 52.4	
	comp=Z,524nm,20.3s,baz=236,slow=36						
	100nm,0.8s						
HNR				AML	AML		
TATA	**Tatamba Isabel**	**10.14**	**315**	P	**Pn**	**11 50 50.5**	**+2.0**
CTA	**Charters Tower**	**20.31**	**254**	P	**P**	**11 52 59.6**	**+0.7**
	10nm,0.7s,baz=91,slow=10,SNR=11						
	10nm,0.7s						
CTAO	**Charters Tower**	**20.31**	**254**		Pn	11 53 01.1	+0.1
CTAO				IAmb	IAmb	11 53 02.2	
	comp=Z,15nm,0.8s						
URZ	**Urewera**	**24.19**	**160**	P	**P**	**11 53 40.8**	**+1.6**
	comp=Z,12nm,0.8s,baz=330,slow=7.7,SNR=6.4						
	comp=Z,12nm,0.8s						
INKA	**Innaminka**	**27.21**	**239**	P	**P**	**11 54 06.1**	**-0.5**
RPZ	**Rata Peaks**	**28.18**	**174**	LR	LR	12 03 25.9	
	comp=Z,50nm,18.2s,baz=51,slow=32						
STKA	**Stephens Creek**	**28.27**	**231**	P	**P**	**11 54 14.8**	**-1.3**
	comp=Z,1.0nm,0.6s,baz=24,slow=8.5,SNR=3.3						
	comp=Z,1.0nm,0.6s						
WRA	**Warramunga Arr**	**31.44**	**257**	P	**P**	**11 54 43.2**	**-1.1**
	comp=Z,0.6nm,0.4s,baz=87,slow=8.6,SNR=5.2						
	comp=Z,0.6nm,0.4s						
AS31	**Alice Springs**	**32.19**	**250**		**P**	**11 54 50.3**	**-0.6**
ASAR	**Alice Springs**	**32.19**	**250**	P	**P**	**11 54 50.5**	**-0.5**
	comp=Z,3.1nm,0.7s,baz=75,slow=9.2,SNR=42						
	comp=Z,3.1nm,0.7s						
FORT	**Forrest**	**38.68**	**240**	P	**P**	**11 55 46.7**	**+0.1**
FORT				IAmb	IAmb	11 55 52.2	
	comp=Z,10.0nm,1.1s						
FITZ	**Fitzroy Crossi**	**39.68**	**260**	P	**P**	**11 55 54.9**	**-0.2**
MJAR	**Matsushiro Arr**	**58.64**	**333**	P	**P**	**11 58 19.6**	**-0.3**
	comp=Z,0.5nm,0.5s,baz=170,slow=9.0,SNR=7.2						
	comp=Z,0.5nm,0.5s						
VNDA	**Vanda**	**61.94**	**181**	P	**P**	**11 58 42.7**	**+0.8**
	comp=Z,0.5nm,0.6s,baz=2.2,slow=2.8,SNR=3.1						
	comp=Z,0.5nm,0.6s						
VNDA	**Vanda**	**61.94**	**181**	P	**P**	**11 58 41.1**	**-0.8**
VNDA				IAmb	IAmb	11 58 53.9	
	comp=Z,4.0nm,1.2s						
KSRS	**Korea Array**	**64.40**	**326**	P	**P**	**11 58 58.9**	**+0.2**
	comp=Z,0.7nm,0.7s,baz=144,slow=6.3,SNR=2.6						
	comp=Z,0.7nm,0.7s						
QSPA	**South Pole Qui**	**74.38**	**180**	P	**P**	**12 00 00.4**	**+0.2**
	comp=Z,2.9nm,0.8s,baz=292,slow=1.8,SNR=16						
	comp=Z,2.9nm,0.8s						
QSPA	**South Pole Qui**	**74.38**	**180**	P	**P**	**11 59 59.9**	**-0.4**
QSPA				IAmb	IAmb	12 00 14.7	
	comp=Z,6.2nm,1.1s						
CM31	**Chiang Mai Arr**	**75.16**	**294**	P	**P**	**12 00 03.3**	**-2.2**
CMAR	**Chiang Mai Arr**	**75.16**	**294**	P	**P**	**12 00 06.0**	**+0.5**
	comp=Z,0.7nm,0.3s,baz=111,slow=4.9,SNR=9.2						
	comp=Z,0.7nm,0.3s						
CMAR	**Chiang Mai Arr**	**75.16**	**294**	P	**P**	**12 00 03.8**	**-1.6**
SONM	**Songino Array**	**83.13**	**324**	P	**P**	**12 00 48.5**	**-0.1**
	comp=Z,1.1nm,0.9s,baz=145,slow=5.4,SNR=6.1						
	comp=Z,1.1nm,0.9s						
SONM	**Songino Array**	**83.13**	**324**	P	**P**	**12 00 48.6**	**-0.1**
SONM				IAmb	IAmb	12 00 53.6	
	comp=Z,3.5nm,1.2s						
CAST	**Castle Rocks**	**84.92**	**17**	P	**P**	**12 00 56.7**	**-0.5**
CAST				IAmb	IAmb	12 01 00.1	
	comp=Z,2.9nm,0.9s						
J20K	**Nowinta River**	**84.95**	**16**	P	**P**	**12 00 57.2**	**-0.1**
IMAR	**Indian Mountai**	**86.50**	**15**	P	**P**	**12 01 05.1**	**+0.1**
IL31		**87.45**	**18**	P	**P**	**12 01 09.2**	**-0.3**
ILAR	**Eielson Array**	**87.45**	**18**	P	**P**	**12 01 08.2**	**-1.4**
	comp=Z,0.6nm,0.6s,baz=234,slow=5.1,SNR=7.8						
	comp=Z,0.6nm,0.6s						
ILAR	**Eielson Array**	**87.45**	**18**	P	**P**	**12 01 09.6**	**0.0**
TROLL	**Troll, Antarti**	**91.93**	**185**	⇑P	**P**	**12 01 34.0**	**+3.1**
	comp=Z,235nm,0.6s						
VNA3	**Neumayer Olymp**	**93.30**	**181**	⇑P	**P**	**12 01 38.5**	**+1.4**
	comp=Z,5.0nm,0.6s						
VNA2	**Neumayer--Watz**	**93.56**	**182**	⇑P	**P**	**12 01 41.2**	**+2.9**
	comp=Z,4.9nm,0.6s,baz=178,slow=4.3						
MKAR	**Makanchi Array**	**97.75**	**316**	P	Pdif	12 01 58.0	+0.3
	comp=Z,0.6nm,0.7s,baz=96,slow=6.0,SNR=7.3						
	comp=Z,0.6nm,0.7s						
MKAR	**Makanchi Array**	**97.75**	**316**	P	**P**	**12 01 57.2**	**-0.5**
ZALV	**Zalesovo Beam**	**98.03**	**324**	P	**P**	**12 01 57.1**	**-1.7**
	comp=Z,0.6nm,0.6s,baz=101,slow=6.2,SNR=7.4						
	comp=Z,0.6nm,0.6s						
ZALV	**Zalesovo Beam**	**98.03**	**324**	P	**P**	**12 01 57.4**	**-1.3**
ARCES	**ARCESS Array B**	**121.09**	**345**	PKP	**PKiKP**	**12 07 15.7**	**+0.9**
	comp=Z,1.8nm,0.7s,baz=135,slow=0.7,SNR=8.4						

IDC 19 11:57:41.8±18.0, **13°.70N**×**40°.50E**, **h0**^{km}, **mb3.8**/4, **mbtmp3.8**/4, **Error ellipse: s-maj=650.6km s-min=31.0km az=156.0, Ethiopia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TORD	**Torodi Ar. Bea**	**37.72**	**274**	P	P	12 04 59.5	-0.1
	0.8nm,0.9s,baz=88,slow=9.8,SNR=4.3						
	0.8nm,0.9s						
KURBB	**Kurchatov Arra**	**48.01**	**32**	P	P	12 06 23.0	+0.5
	0.8nm,0.2s,baz=234,slow=6.4,SNR=1.2						
	0.8nm,0.2s						
MKAR	**Makanchi Array**	**48.02**	**38**	P	P	12 06 22.9	+0.1
	0.7nm,0.6s,baz=230,slow=7.5,SNR=6.7						
	0.7nm,0.6s						
ZALV	**Zalesovo Beam**	**53.07**	**31**	P	P	12 06 59.9	-0.9
	0.4nm,0.5s,baz=256,slow=5.8,SNR=3.6						
	0.4nm,0.5s						

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*IDC **19** 12:37:52.4±1.0, 8°.36N×91°.24E, h0^{km}, mb3.7/6, mbtmp3.8/8, ML4.1/2, MS3.1/1, Error ellipse: s-maj=20.5km s-min=16.9km az=177.0*

ISC 19 12:37:57.0±1.1, **8°.4N**±0°.2×**91°.2E**±0°.1, **h35**^{km}, **n13**, σ**0^{s}.76**/8, **mb3.7**/6, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	**Pallekele**	**10.42**	**265**	Pn	**Pn**	**12 40 23.6**	**-0.5**
	1.8nm,0.3s,baz=88,slow=14,SNR=9.4						
PALK				Sn	Sn	12 42 09.9	-10
	4.7nm,0.3s,baz=159,slow=20,SNR=7.0						
PALK				LR	LR	12 43 44.9	
	comp=Z,99nm,19.7s,baz=63,slow=34						
	4.4nm,0.3s						
PALK				AML	AML		
CMAR	**Chiang Mai Arr**	**12.57**	**36**	Pn	**Pn**	**12 40 52.6**	**-0.8**
	0.3nm,0.3s,baz=233,slow=14,SNR=12						
	1.3nm,0.7s						
CMAR				AML	AML		
H08S3	**Diego Garcia H**	**24.47**	**230**	T	T	13 09 49.5	
	baz=254,slow=74,SNR=12						
H08S2	**Diego Garcia H**	**24.48**	**230**	T	T	13 09 56.3	
	baz=50,slow=74,SNR=5.8						
MKAR	**Makanchi Array**	**39.05**	**350**	P	**P**	**12 45 20.7**	**+0.2**
	1.3nm,0.6s,baz=172,slow=8.9,SNR=15						
	1.3nm,0.6s						
SONM	**Songino Array**	**41.41**	**16**	P	**P**	**12 45 40.4**	**+0.2**
	0.5nm,0.6s,baz=205,slow=9.5,SNR=1.9						
	0.5nm,0.6s						
KURBB	**Kurchatov Arra**	**43.42**	**348**	P	**P**	**12 45 57.4**	**+1.1**
	0.7nm,0.5s,baz=169,slow=7.2,SNR=8.5						
	0.7nm,0.5s						
ZALV	**Zalesovo Beam**	**45.75**	**355**	P	**P**	**12 46 15.4**	**+0.5**
	0.4nm,0.6s,baz=178,slow=3.9,SNR=1.6						
	0.4nm,0.6s						
WRA	**Warramunga Arr**	**50.95**	**124**	P	**P**	**12 46 55.2**	**-0.3**
	0.9nm,0.7s,baz=304,slow=8.3,SNR=7.3						
	0.9nm,0.7s						
ASAR	**Alice Springs**	**52.50**	**128**	P	**P**	**12 47 07.5**	**+0.5**
	0.7nm,0.8s,baz=299,slow=8.0,SNR=10						
	0.7nm,0.8s						
H04N2	**CROZET ISLANDS**	**64.67**	**209**	T	T	14 00 07.3	
	baz=47,slow=75,SNR=9.2						
H04N1	**CROZET ISLANDS**	**64.67**	**209**	T	T	14 00 10.3	
	baz=47,slow=75,SNR=7.2						
H04N3	**CROZET ISLANDS**	**64.68**	**209**	T	T	14 00 06.7	
	baz=47,slow=75,SNR=51						

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*RSNC **19** 12:38:24.4±0.9, 4°N±3°×8°3W±°, h0^{km}, M4.3, mB5.0, mb4.3, ML3.1, Mw(mB)4.3*

*UCR **19** 12:38:32.0±0.6, 4°.58N×82°.87W, h35^{km}±999^{km}, MW3.6, Presumed earthquake*

ISC 19 12:38:30.6±1.4, **4°.44N**±0°.08×**83°.0W**±0°.1, **h35**^{km}, **n28**, σ**1^{s}.17**/28, **South of Panama**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CACAO	**El Cacao, Vera**	**3.56**	**36**	P	Pn	12 39 20.4	-3.0
AZU	**Azuero**	**4.27**	**39**	P	**Pn**	**12 39 31.8**	**-1.4**
PTGL	**Punta Galera**	**4.67**	**141**	P	**Pn**	**12 39 38.3**	**-0.4**
SAJE	**San Jernim**	**4.90**	**354**	*e*P	**Pn**	**12 39 42.1**	**+0.2**
BUS1	**Rivas**	**5.13**	**351**	*e*P	**Pn**	**12 39 45.9**	**+0.5**
BUS1				*e*S	**Sn**	**12 40 44.2**	**+0.4**
PIEC	**Cerro El Cedra**	**5.24**	**349**	*e*P	**Pn**	**12 39 47.3**	**+0.6**
ABE2	**San Pablo**	**5.33**	**348**	*e*P	**Pn**	**12 39 48.6**	**+0.6**
VICA	**Volcano Irazu**	**5.57**	**351**	*e*P	**Pn**	**12 39 52.6**	**+1.1**
CVTQ	**Turrialba Volc**	**5.58**	**352**	*e*P	**Pn**	**12 39 52.8**	**+1.3**
BCIP	**Isla Barro Col**	**5.63**	**33**	P	**Pn**	**12 39 51.1**	**-0.7**
	17nm,0.5s						
BCIP				AML	AML		
UPA	**Univ. de Panam**	**5.65**	**37**	P	**Pn**	**12 39 51.9**	**-0.3**
	13nm,0.8s						
UPA				AML	AML		
VBV1	**V. Barva**	**5.74**	**349**	*e*P	**Pn**	**12 39 54.7**	**+1.0**
PAC1	**Pacto, Paraso**	**5.89**	**135**	P	**Pn**	**12 39 55.5**	**0.0**
PAC1				AML	AML		
JTS	**Las Juntas de**	**6.13**	**341**	P	**Pn**	**12 39 56.7**	**-2.1**
OTAV	**Otavalo**	**6.15**	**133**	P	**Pn**	**12 39 59.4**	**0.0**
BBAC	**Balboa, Cauca**	**6.20**	**113**	P	**Pn**	**12 39 59.3**	**-0.6**
PPLP	**Puerto Lpez**	**6.34**	**160**	P	**Pn**	**12 39 59.5**	**-2.2**
POPC	**Popayan, Colom**	**6.56**	**107**	P	**Pn**	**12 40 03.0**	**-1.9**
CRUC	**La Cruz**	**6.66**	**115**	P	**Pn**	**12 40 06.1**	**-0.2**
APAC	**Apartado, Choc**	**7.22**	**61**	P	**Pn**	**12 40 13.9**	**+0.2**
	26nm,0.7s						
GUY2C	**Guyana, Caldas**	**7.62**	**84**	P	**Pn**	**12 40 19.7**	**+0.1**
	7.6nm,1.1s						
GARC	**Garzon, Huila**	**7.79**	**106**	P	**Pn**	**12 40 19.7**	**-2.1**
PRAC	**Prado**	**8.10**	**95**	P	**Pn**	**12 40 25.9**	**+0.1**
	10nm,1.0s						
NORC	**Norcasia**	**8.15**	**82**	P	**Pn**	**12 40 25.3**	**-1.2**
	9.8nm,0.8s						
PTBC	**PUERTO BERRIO,**	**8.73**	**76**	P	**Pn**	**12 40 34.2**	**-0.2**
	6.6nm,1.0s						
MCRA	**Macar, Loja**	**9.26**	**161**	P	**Pn**	**12 40 41.7**	**-0.1**
MACC	**Macarena, Meta**	**9.39**	**104**	P	**Pn**	**12 40 45.4**	**+1.9**
SJCC	**San Jacinto, C**	**9.44**	**55**	P	**Pn**	**12 40 46.3**	**+2.1**

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*IDC **19** 12:42:24.7±0.8, 6°.60N×72°.81W, h168^{km}±8^{km}, mb3.5/6, mbtmp4.1/9, MS3.5/1, Error ellipse: s-maj=28.9km s-min=7.7km az=132.0*

*RSNC **19** 12:42:25.9±0.0, 7°N±1°×7°3W±°, h152^{km}±2^{km}, M4.2, mB4.9, mb4.4, ML3.8, Mw(mB)4.2*

*NEIC **19** 12:42:26.7±0.6, 6°.76N±0°.08×73°.0W±0°.1, h165^{km}±12^{km}, mb4.1/8, Error ellipse: s-maj=17.1km s-min=9.1km az=123.0*

*FUNV **19** 12:42:28.9, 7°.13N×73°.17W, h16^{km}, MW4.3, Presumed earthquake*

ISC 19 12:42:25.1±0.6, **6°.86N**±0°.03×**73°.13W**±0°.04, **h153**^{km}±5^{km}, **n83**, σ**1^{s}.79**/123, **mb4.1**/9, **Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BARC	**Barichara**	**0.27**	**192**	P	**Pn**	**12 42 46.8**	**+0.5**
BARC				S	**Sn**	**12 43 02.1**	**-0.3**
BRJC	**Barrancabermej**	**0.62**	**281**	P	**Pn**	**12 42 48.5**	**+1.0**
BRJC				S	**Sn**	**12 43 04.8**	**+0.3**
PAMC	**Pamplona, Colo**	**0.64**	**42**	P	**Pn**	**12 42 49.6**	**+1.4**
PAMC				S	**Sn**	**12 43 06.6**	**+0.9**
RUSC	**La Rusia**	**0.96**	**177**	P	**Pn**	**12 42 50.6**	**+0.1**
RUSC				S	**Sn**	**12 43 09.0**	**-0.8**
RUSC	**La Rusia**	**0.96**	**177**	*e*P	**Pn**	**12 42 50.6**	**+0.1**
RUSC				*e*S	**Sn**	**12 43 07.4**	**-2.4**
PTBC	**PUERTO BERRIO,**	**1.36**	**257**	P	**Pn**	**12 42 53.1**	**-0.4**
PTBC				S	**Sn**	**12 43 14.4**	**-0.8**
OCAC	**Ocana**	**1.39**	**352**	P	**Pn**	**12 42 54.9**	**+0.9**
OCAC				S	**Sn**	**12 43 15.7**	**-0.4**
SPBC	**San Pablo de B**	**1.52**	**218**	P	**Pn**	**12 42 55.5**	**+0.2**
SPBC				S	**Sn**	**12 43 17.4**	**-1.0**
NORC	**Norcasia**	**2.16**	**234**	P	**Pn**	**12 43 02.3**	**-0.1**
NORC				S	**Sn**	**12 43 30.0**	**-1.0**
CHIC	**Chingaza**	**2.29**	**195**	P	**Pn**	**12 43 04.6**	**+0.2**
CHIC				S	**Sn**	**12 43 32.1**	**-2.4**
ROSC	**El Rosal**	**2.33**	**211**	P	**Pn**	**12 43 06.5**	**+1.8**
	655nm,0.3s,baz=297,slow=12,SNR=186						
ROSC				S	**Sn**	**12 43 35.8**	**+0.5**
	596nm,0.6s,baz=127,slow=19,SNR=9.6						
ROSC	**El Rosal**	**2.33**	**211**	P	**Pn**	**12 43 06.3**	**+1.5**
ROSC				S	**Sn**	**12 43 32.9**	**-2.3**
HELC	**Santa Helena**	**2.48**	**255**	P	**Pn**	**12 43 06.7**	**+0.2**
HELC				S	**Sn**	**12 43 37.3**	**-1.0**
HELC	**Santa Helena**	**2.48**	**255**	*e*P	**Pn**	**12 43 08.8**	**+2.3**
HELC				*e*S	**Sn**	**12 43 38.4**	**+0.1**
CVER	**Cruz Verde, Cu**	**2.50**	**202**	P	**Pn**	**12 43 08.1**	**+1.1**
CVER				S	**Sn**	**12 43 37.7**	**-1.5**
MEDEC	**Medelln, Ant**	**2.51**	**257**	P	**Pn**	**12 43 06.2**	**-0.6**
MEDEC				S	**Sn**	**12 43 37.8**	**-1.0**
UREC	**San Jos de Ur**	**2.55**	**291**	P	**Pn**	**12 43 06.5**	**-0.5**
UREC				S	**Sn**	**12 43 37.6**	**-1.7**
GUY2C	**Guyana, Caldas**	**2.75**	**234**	P	**Pn**	**12 43 10.6**	**+0.6**
GUY2C				S	**Sn**	**12 43 43.7**	**-0.9**
VILC	**Villavicencio,**	**2.79**	**192**	P	**Pn**	**12 43 10.0**	**-0.1**
VILC				S	**Sn**	**12 43 43.3**	**-1.6**
CMAN1	**Manizales, Cal**	**2.97**	**233**	P	**Pn**	**12 43 12.0**	**-0.6**
CMAN1				S	**Sn**	**12 43 48.8**	**-0.4**
SDV	**Santo Domingo**	**3.19**	**51**	P	**Pn**	**12 43 16.3**	**+1.0**
	58nm,0.3s,baz=239,slow=4.7,SNR=27						
SDV				S	**Sn**	**12 43 53.4**	**-0.6**
	428nm,0.5s,baz=54,slow=22,SNR=45						
SDV	**Santo Domingo**	**3.19**	**51**		**Pn**	**12 43 16.5**	**+1.2**
SDV	**Santo Domingo**	**3.19**	**51**	P	**Pn**	**12 43 16.4**	**+1.2**
SDV				S	**Sn**	**12 43 53.0**	**-1.0**
SDV	**Santo Domingo**	**3.19**	**51**	*e*P	**Pn**	**12 43 16.7**	**+1.4**
SDV				*e*S	**Sn**	**12 43 50.7**	**-3.3**
ARMEC	**Armenia, Quind**	**3.40**	**228**	P	**Pn**	**12 43 18.4**	**+0.4**
ARMEC				S	**Sn**	**12 43 57.2**	**-1.7**
APAC	**Apartado, Choc**	**3.58**	**287**	P	**Pn**	**12 43 20.6**	**+0.6**
APAC				S	**Sn**	**12 43 59.9**	**-2.7**
PRAC	**Prado**	**3.58**	**209**	P	**Pn**	**12 43 19.5**	**-0.6**
PRAC				S	**Sn**	**12 44 02.0**	**-0.8**
ORTC	**Ortega, Tolima**	**3.61**	**216**	P	**Pn**	**12 43 20.6**	**+0.1**
ORTC				S	**Sn**	**12 44 03.6**	**+0.1**
SJCC	**San Jacinto, C**	**3.64**	**326**	P	**Pn**	**12 43 20.5**	**-0.4**
SJCC				S	**Sn**	**12 44 01.8**	**-2.4**
SJCC	**San Jacinto, C**	**3.64**	**326**	*e*P	**Pn**	**12 43 20.8**	**0.0**
SJCC				*e*S	**Sn**	**12 43 58.0**	**-6.2**
LCBC	**Los crdobas,**	**3.77**	**302**	P	**Pn**	**12 43 22.7**	**+0.1**
LCBC				S	**Sn**	**12 44 07.6**	**+0.4**
GUVC	**San Jose del G**	**4.31**	**173**	P	**Pn**	**12 43 29.5**	**-0.1**
GUVC				S	**Sn**	**12 44 14.5**	**-5.4**
SMRC	**Santa Marta, M**	**4.41**	**346**	P	**Pn**	**12 43 31.5**	**+0.6**
SMRC				S	**Sn**	**12 44 20.0**	**-2.2**
PIZC	**Pizarro, Choco**	**4.61**	**246**	P	**Pn**	**12 43 35.3**	**+1.8**
PIZC				S	**Sn**	**12 44 25.8**	**-1.0**
MACC	**Macarena, Meta**	**4.74**	**189**	P	**Pn**	**12 43 33.6**	**-1.6**
BETC	**Betania**	**4.75**	**209**	P	**Pn**	**12 43 34.7**	**-0.7**
BETC				S	**Sn**	**12 44 24.4**	**-5.7**
URIC	**Uribia, Colomb**	**4.94**	**13**	P	**Pn**	**12 43 37.1**	**-0.8**
URIC				S	**Sn**	**12 44 33.3**	**-1.4**
URIC				AML	AML		
URIC	**Uribia, Colomb**	**4.94**	**13**	*e*P	**Pn**	**12 43 36.9**	**-1.0**
URIC				*e*S	**Sn**	**12 44 28.5**	**-6.2**
UPD2	**Meteti**	**5.13**	**289**	P	**Pn**	**12 43 39.9**	**-0.4**
UPD2				S	**Sn**	**12 44 36.4**	**-2.6**
GARC	**Garzon, Huila**	**5.20**	**207**	P	**Pn**	**12 43 40.3**	**-1.3**
GARC				S	**Sn**	**12 44 37.4**	**-3.9**
GARC				AML	AML		
POPC	**Popayan, Colom**	**5.56**	**220**	P	**Pn**	**12 43 46.2**	**-0.1**
	613nm55nm,0.7s						
POPC				S	**Sn**	**12 44 47.5**	**-2.2**
	613nm55nm,0.7s						
POPC				AML	AML		
BENV	**Beln**	**6.28**	**60**	*e*S	**Sn**	**12 45 04.0**	**-2.6**
BBAC	**Balboa, Cauca**	**6.32**	**221**	P	**Pn**	**12 43 56.2**	**-0.2**
	1µm48nm,0.6s						
BBAC				S	**Sn**	**12 45 06.3**	**-1.5**
	1µm48nm,0.6s						
PTLC	**Puerto Leguiza**	**6.85**	**194**	P	**Pn**	**12 44 05.6**	**+2.3**
	2µm50nm,0.7s						
TACV	**Tcata**	**6.86**	**61**	*e*S	**Sn**	**12 45 16.6**	**-3.8**
BCIP	**Isla Barro Col**	**7.03**	**289**	P	**Pn**	**12 44 04.4**	**-1.2**
	20nm,0.8s						
BCIP				S	**Sn**	**12 45 21.3**	**-3.2**
	20nm,0.8s						
AZU	**Azuero**	**7.15**	**278**	P	**Pn**	**12 44 07.2**	**0.0**
	22nm,0.7s						
OTAV	**Otavalo**	**8.45**	**219**	Pn	**Pn**	**12 44 25.4**	**+0.4**
OTAV	**Otavalo**	**8.45**	**219**	P	**Pn**	**12 44 25.0**	**-0.1**
MTDJ	**Mount Denham**	**12.09**	**340**		**P**	**12 45 16.1**	**-2.9**
MTDJ	**Mount Denham**	**12.09**	**340**	*e*P	Pn	12 45 07.9	-4.8
MTDJ				IAML		12 45 17.7	
	18nm,0.1s						
MTDJ				IAML		12 45 17.9	
	comp=Z,23nm,0.2s						
JTS	**Las Juntas de**	**12.18**	**287**	P	**P**	**12 45 19.3**	**-0.6**
	9.6nm,0.5s,baz=75,slow=8.0,SNR=11						
SDDR	**Presa de Saban**	**12.18**	**8**		**Pn**	**12 45 14.9**	**+1.1**
PDPR	**Patillas Dam,**	**13.08**	**31**	Pn	**Pn**	**12 45 24.6**	**-0.7**
RCC	**Rio Carpintero**	**13.29**	**349**	*e*P	**P**	**12 45 32.0**	**-0.3**
BOAV	**Boa Vista**	**13.32**	**109**	Pn	**Pn**	**12 45 27.2**	**-1.3**
QMBU	**Quimbuelo**	**13.36**	**353**	*e*P	**P**	**12 45 32.2**	**-0.9**
PILO	**Pilon**	**13.62**	**343**	*e*P	**P**	**12 45 35.1**	**-0.9**
PILO				IAML		12 46 16.3	
	comp=E,102nm,0.3s						
LMGC	**Las Mercedes**	**13.66**	**344**	*e*P	**P**	**12 45 36.3**	**0.0**
PINC	**Pinares de May**	**13.79**	**349**	*e*P	**P**	**12 45 38.4**	**+0.6**
YAR	**Yar**	**13.79**	**347**	*e*P	**P**	**12 45 38.4**	**+0.6**
HLGC	**Holguin**	**14.24**	**349**	*e*P	**P**	**12 45 46.9**	**+4.1**
LCCY	**Blossom Villag**	**14.41**	**333**	*e*P	**P**	**12 45 46.4**	**+1.7**
CCCC	**Cccc**	**14.95**	**343**	*e*P	**P**	**12 45 53.6**	**+3.0**
MTO3	**Montecristo**	**17.62**	**296**		**Pn**	**12 46 22.4**	**+0.8**
MTO3				IAmb	IAmb	12 46 25.6	
	comp=Z,7.5nm,0.9s						
TEIG	**Tepich**	**19.81**	**314**	P	**P**	**12 46 45.6**	**+1.7**
LPAZ	**La Paz**	**23.52**	**168**	P	**P**	**12 47 20.6**	**-1.6**
TX31	**Lajitas Ar. Si**	**36.43**	**312**	P	**P**	**12 49 16.6**	**+1.2**
TXAR	**Lajitas Array**	**36.43**	**312**	P	**P**	**12 49 16.6**	**+1.2**
	comp=Z,1.0nm,0.6s,baz=124,slow=9.3,SNR=12						
TXAR				PcP	**PcP**	**12 51 37.4**	**+1.0**
	comp=Z,0.3nm,0.7s,baz=125,slow=4.0,SNR=2.5						
	comp=Z,1.0nm,0.6s						
MNTX	**Cornudas Mount**	**38.94**	**314**	P	**P**	**12 49 37.9**	**+1.5**
MNTX				IAmb	IAmb	12 49 38.3	
	comp=Z,7.0nm,1.5s						
ULM	**Lac du Bonnet**	**47.25**	**340**	P	**P**	**12 50 42.3**	**-0.4**
	comp=Z,1.9nm,0.4s,baz=143,slow=5.9,SNR=7.0						
	comp=Z,1.9nm,0.4s						
PDAR	**Pinedale Array**	**48.04**	**324**	P	**P**	**12 50 50.2**	**+0.9**
	comp=Z,0.6nm,0.6s,baz=132,slow=10,SNR=5.7						
	comp=Z,0.6nm,0.6s						
PDAR	**Pinedale Array**	**48.04**	**324**	P	**P**	**12 50 50.3**	**+1.0**
SCHQ	**Schefferville**	**48.10**	**5**	P	**P**	**12 50 48.9**	**-0.4**
	comp=Z,3.6nm,0.8s,baz=218,slow=8.6,SNR=4.3						
	comp=Z,3.6nm,0.8s						
NVAR	**Mina Array Bea**	**51.45**	**315**	P	**P**	**12 51 16.4**	**+1.3**
	comp=Z,0.4nm,0.7s,baz=124,slow=7.1,SNR=4.6						
	comp=Z,0.4nm,0.7s						
NEW	**Newport**	**55.56**	**326**	LR	LR	13 19 18.8	
	comp=Z,42nm,18.2s,baz=3.0,slow=40						
YKA	**Yellowknife Ar**	**63.23**	**340**	P	**P**	**12 52 37.2**	**+0.3**
	comp=Z,1.4nm,0.6s,baz=135,slow=6.6,SNR=12						
	comp=Z,1.4nm,0.6s						
INK	**Inuvik**	**72.99**	**340**	P	**P**	**12 53 38.5**	**+0.8**
INK				IAmb	IAmb	12 53 51.4	
	comp=Z,4.3nm,1.0s						
H29M	**Whitestone**	**73.92**	**337**	P	**P**	**12 53 44.2**	**+1.0**
H29M				IAmb	IAmb	12 53 47.8	
	comp=Z,3.3nm,1.1s						
BCAR	**Beaver Creek A**	**74.33**	**334**	P	**P**	**12 53 47.5**	**+1.8**
I27K	**Kandik River**	**74.98**	**336**	P	**P**	**12 53 50.5**	**+1.1**
ASAR	**Alice Springs**	**149.13**	**234**	PKPbc	**PKPdf**	**13 01 53.0**	**+1.0**
	comp=Z,1.3nm,0.6s,baz=108,slow=1.9,SNR=3.5						
WRA	**Warramunga Arr**	**150.35**	**241**	PKPbc	**PKPbc**	**13 01 57.0**	**-2.3**
	comp=Z,1.1nm,0.4s,baz=110,slow=2.3,SNR=4.0						

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*IDC **19** 12:52:57.4±3.3, 6°.35S×128°.81E, h269^{km}±35^{km}, mb3.6/10, mbtmp4.3/13, Error ellipse: s-maj=27.6km s-min=10.9km az=76.0*

*NEIC **19** 12:52:57.8±1.3, 6°.33S±0°.08×128°.83E±0°.10, h270^{km}±10^{km}, mb4.3/12, Error ellipse: s-maj=14.5km s-min=11.8km az=100.0*

*DJA **19** 12:52:57.7±0.3, 6°S±3°×12°9E±°, h277^{km}±8^{km}, M4.4/14, mb4.4/14, mB4.7/6, MLv4.7/12, Mw(mB)3.9/6*

ISC 19 12:52:57.3±0.5, **6°.38S**±0°.05×**128°.82E**±0°.07, **h270**^{km}, **n62**, σ**1^{s}.09**/65, **mb4.1**/15, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BNDI	**Bandanaira**	**2.13**	**30**	P	**Pn**	**12 53 45.1**	**+2.4**
SAUI	**Saumlaki**	**2.93**	**123**	P	**Pn**	**12 53 51.7**	**+1.4**
SAUI	**Saumlaki**	**2.93**	**123**		**Pn**	**12 53 51.8**	**+1.4**
NLAI	**Namlea**	**3.56**	**331**	P	**Pn**	**12 53 58.6**	**+1.5**
NLAI				AML	AML		
FAKI	**Fak Fak**	**4.84**	**45**	P	**Pn**	**12 54 10.0**	**-1.9**
FAKI	**Fak Fak**	**4.84**	**45**		**Pn**	**12 54 09.9**	**-2.1**
FAKI	**Fak Fak**	**4.84**	**45**	P	**Pn**	**12 54 10.1**	**-1.9**
FAKI				AML	AML		
SANI	**Sanana**	**5.14**	**327**	P	**Pn**	**12 54 15.6**	**+0.1**
SANI	**Sanana**	**5.14**	**327**	P	**Pn**	**12 54 15.4**	**-0.1**
SANI				AML	AML		
SOEI	**Soe**	**5.62**	**233**		**Pn**	**12 54 22.4**	**+1.0**
SOEI	**Soe**	**5.62**	**233**	P	**Pn**	**12 54 21.9**	**+0.5**
	43nm,0.6s						
DRS	**Darwin Rock St**	**6.36**	**161**	P	**Pn**	**12 54 31.5**	**+1.2**
MTN	**Manton Dam**	**6.82**	**161**		**Pn**	**12 54 36.7**	**+0.6**
MMRI	**Maumere**	**6.90**	**251**	Pn	**Pn**	**12 54 36.9**	**-0.2**
TNTI	**Ternate**	**7.25**	**348**	Pn	**Pn**	**12 54 41.4**	**0.0**
EDFI	**Ende, Flores**	**7.45**	**251**	P	**Pn**	**12 54 45.3**	**+1.3**
	0.1nm548nm21nm,0.7s						
EDFI				AML	AML		
MWPI	**Manokwari, Pap**	**7.51**	**44**	P	**Pn**	**12 54 44.6**	**0.0**
	0.4nm97nm,0.9s						
MWPI				AML	AML		
BAKI	**Biak**	**8.91**	**55**	P	**Pn**	**12 55 02.6**	**+0.5**
	63nm,1.1s						
GTOI	**Gorontalo**	**9.06**	**320**	P	**Pn**	**12 55 07.1**	**+3.0**
	23nm,0.8s						
KNRA	**Kununurra**	**9.24**	**180**		**Pn**	**12 55 06.9**	**+0.6**
TOLI2	**Tolitoli**	**10.94**	**313**	P	**Pn**	**12 55 26.0**	**-1.5**
TOLI2	**Tolitoli**	**10.94**	**313**	Pn	**Pn**	**12 55 26.3**	**-1.2**

PLAI	Plampang	11.22	257	P	Pn	12 55 31.1	+0.2
GENI	Genyem	11.92	72	P	Pn	12 55 39.2	-0.3
FITZ	Fitzroy Crossi	12.06	195	P	Pn	12 55 40.5	-0.7
	3.9nm,0.3s,baz=19,slow=9.9,SNR=58						
FITZ				S	S	12 57 53.2	-2.4
	9.2nm,0.6s,baz=76,slow=12,SNR=5.5						
FITZ	Fitzroy Crossi	12.06	195	P	Pn	12 55 41.5	+0.3
FITZ	Fitzroy Crossi	12.06	195	Pn	Pn	12 55 41.0	-0.2
WB0	Warramunga Arr	14.37	158		P	12 56 09.6	+0.4
WRAB	Tennant Creek	14.51	159	P	P	12 56 10.9	+0.3
WRA	Warramunga Arr	14.51	159	P	P	12 56 11.2	+0.5
	12nm,0.7s,baz=337,slow=12,SNR=114						
WRA				S	S	12 58 49.2	-1.8
	2.9nm,0.6s,baz=342,slow=20,SNR=5.5						
WRA	Warramunga Arr	14.51	159		P	12 56 09.9	-0.8
WR8	Warramunga Arr	14.58	158		P	12 56 12.2	+0.7
MBWA	Marble Bar	17.13	210	P	P	12 56 40.3	+0.9
MBWA				IAmb	IAmb	12 56 43.5	
	comp=Z,20nm,1.2s						
KKM	Kota Kinabalu	17.62	314	P	P	12 56 45.1	+0.2
AS31	Alice Springs	17.87	165	P	P	12 56 50.0	+2.5
ASAR	Alice Springs	17.87	165	P	P	12 56 49.9	+2.4
	comp=Z,28nm,0.6s,baz=345,slow=11,SNR=595						
ASAR				S	S	12 59 59.7	+1.1
	comp=Z,6.3nm,0.8s,baz=342,slow=19,SNR=26						
BBJI	Bungbulang	21.05	266	P	P	12 57 21.4	+0.3
CMAR	Chiang Mai Arr	38.44	310	P	P	12 59 53.5	-0.2
	comp=Z,0.6nm,0.5s,baz=135,slow=7.0,SNR=6.5						
	comp=Z,0.6nm,0.5s						
MJAR	Matsushiro Arr	43.59	11	P	P	13 00 33.6	-1.6
	comp=Z,0.6nm,0.5s,baz=188,slow=9.2,SNR=2.4						
	comp=Z,0.6nm,0.5s						
KSAR	Wonju Array Be	43.60	359	P	P	13 00 35.0	-0.2
KSRS	Korea Array	43.61	359	P	P	13 00 34.8	-0.5
	comp=Z,1.0nm,0.5s,baz=179,slow=8.8,SNR=7.9						
	comp=Z,1.0nm,0.5s						
KS19	Wonju Array Si	43.66	359	P	P	13 00 36.3	+0.6
KS19				IAmb	IAmb	13 00 58.3	
	comp=Z,23nm,1.5s						
USRK	Ussuriysk Ar.	50.42	3	P	P	13 01 27.8	+0.1
	comp=Z,1.9nm,0.4s,baz=189,slow=6.0,SNR=5.8						
	comp=Z,1.9nm,0.4s						
USRK	Ussuriysk Ar.	50.42	3	P	P	13 01 27.9	+0.3
SONM	Songino Array	57.49	342	P	P	13 02 18.6	0.0
	comp=Z,1.3nm,0.7s,baz=164,slow=7.0,SNR=5.9						
	comp=Z,1.3nm,0.7s						
SONM	Songino Array	57.49	342	P	P	13 02 18.9	+0.3
PETK	Petropavlovsk-	64.11	19	P	P	13 03 03.0	+0.3
	comp=Z,11nm,1.1s,baz=164,slow=2.3,SNR=7.7						
	comp=Z,11nm,1.1s						
PETK	Petropavlovsk-	64.11	19	P	P	13 03 03.5	+0.8
PDGK	Podgornoye	66.60	323	P	P	13 03 18.6	-0.5
MKAR	Makanchi Array	67.07	327	P	P	13 03 22.2	+0.4
	comp=Z,4.8nm,0.5s,baz=120,slow=8.3,SNR=70						
	comp=Z,4.8nm,0.5s						
MAKZ	Makanchi	67.25	327	P	P	13 03 23.2	+0.2
MAKZ				IAmb	IAmb	13 03 23.6	
	comp=Z,3.0nm,0.6s						
ZAA0	Zalesovo Array	70.51	334	P	P	13 03 42.4	-0.3
ZAA0				IAmb	IAmb	13 03 43.1	
	comp=Z,5.0nm,1.3s						
ZALV	Zalesovo Beam	70.51	334	P	P	13 03 42.5	-0.3
	comp=Z,0.8nm,0.3s,baz=122,slow=5.4,SNR=8.9						
	comp=Z,0.8nm,0.3s						
ZALV	Zalesovo Beam	70.51	334	P	P	13 03 42.8	0.0
KURBB	Kurchatov Arra	71.37	329	P	P	13 03 48.0	-0.1
	comp=Z,2.0nm,0.2s,baz=132,slow=5.0,SNR=14						
	comp=Z,2.0nm,0.2s						
KURK	Kurchatov	71.38	329	P	P	13 03 48.0	0.0
KURK				IAmb	IAmb	13 03 49.5	
	comp=Z,5.3nm,0.8s						
KK31	Karatay Array	72.10	319	P	P	13 03 52.2	-0.4
KKAR	Karatay Array	72.10	319	P	P	13 03 52.6	0.0
BVAR	Borovoye Array	76.92	328	P	P	13 04 20.7	+0.8
	comp=Z,0.8nm,0.4s,baz=123,slow=9.6,SNR=5.2						
	comp=Z,0.8nm,0.4s						
TIXI	Tiksi	77.87	0	P	P	13 04 24.9	+0.1
TIXI				IAmb	IAmb	13 04 25.4	
	comp=Z,5.2nm,1.1s						
AB31	Akbulak array	81.30	322	P	P	13 04 43.0	-0.6
ABKAR	Akbulak array	81.30	322	P	P	13 04 43.0	-0.6

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*CATAC **19** 13:32:02.0±0.3, 13°N±1°×8°9W±°, h22^{km}±2^{km}, M4.3/47, MLv4.3/47, Error ellipse: s-maj=3.6km s-min=1.7km az=39.7, confirmed*

*SNET **19** 13:32:02.8±2.8, 12°.81N×89°.03W, h25^{km}, ML4.0, Presumed earthquake*

*GCG **19** 13:32:04.5±0.5, 12°.91N×89°.15W, h30^{km}±7^{km}, MD4.5, Presumed earthquake*

*NEIC **19** 13:32:05.8±1.9, 13°.05N±0°.08×88°.79W±0°.10, h67^{km}±10^{km}, mb4.4/20, Error ellipse: s-maj=18.0km s-min=3.5km az=48.0*

*IDC **19** 13:32:07.0±2.0, 13°.62N×88°.35W, h49^{km}±22^{km}, mb3.7/7, mbtmp4.0/9, ML3.7/2, MS3.2/2, Error ellipse: s-maj=42.0km s-min=13.3km az=47.0*

*UCR **19** 13:32:08.0±0.4, 12°.61N×88°.80W, h20^{km}±999^{km}, MW3.9, Presumed earthquake*

ISC 19 13:32:01.5±1.3**, 12°.85N**±0°.04×**89°.01W**±0°.03**, h26**^{km}±10^{km}**, n128,** σ1^{s}.**90**/172**, mb4.3**/14**, Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ALJI	Alcalda de J	0.64	42	*i* P	Pn	13 32 16.0	+1.1
ALJI				*e*S	Sn	13 32 27.6	+3.4
ALJI	Alcalda de J	0.64	42	P	Pn	13 32 16.1	+1.1
ALJI				S	Sn	13 32 25.6	+1.4
LALI	Alcalda de L	0.70	335	*i* P	Pn	13 32 16.2	+0.5
LALI				*i* S	Sb	13 32 25.2	+0.7
LALI	Alcalda de L	0.70	335	P	Pn	13 32 16.3	+0.5
LALI				S	Sn	13 32 26.8	+1.0
TECO	Alcaldia de Te	0.72	18	P	Pn	13 32 16.8	+0.7
TECO				S	Sn	13 32 27.8	+1.5
PANCS	Alcalda de	0.78	348	P	Pn	13 32 17.3	+0.4
PANCS				S	Sn	13 32 29.0	+1.3
COEG	Centro de Oper	0.78	9	*e*P	Pn	13 32 17.4	+0.5
COEG				*e*S	Sn	13 32 32.7	+5.0
COEG	Centro de Oper	0.78	9	P	Pn	13 32 17.6	+0.7
COEG				S	Sn	13 32 29.6	+1.8
LOMA	Loma Larga	0.81	349	P	Pn	13 32 18.2	+0.9
LOMA				S	Sn	13 32 30.5	+1.9
JUCU	Jucuar¡n	0.84	61	*e*P	Pn	13 32 18.5	+0.7
JUCU				*e*S	Sn	13 32 31.8	+2.4
PAVA	Las Pavas	0.86	5	P	Pn	13 32 19.4	+1.2
PAVA				S	Sn	13 32 31.7	+1.8
UTEC	Universidad Te	0.87	348	P	Pn	13 32 19.1	+1.0
UTEC				S	Sn	13 32 31.7	+1.7
IGN	Direccin Gen	0.87	350	P	Pn	13 32 19.1	+0.9
IGN				S	Sn	13 32 31.7	+1.5
SEMO	Seminario San	0.88	346	P	Pn	13 32 19.1	+0.8
SEMO				S	Sn	13 32 31.7	+1.5
PQSS	Presa 15 de Se	0.89	30	P	Pn	13 32 19.8	+1.5
PQSS				S	Sn	13 32 32.9	+2.6
UEES	Universidad Ev	0.89	346	P	Pn	13 32 19.4	+0.9
UEES				S	Sn	13 32 32.2	+1.6
SCLA	Alcaldia de Sa	0.89	18	S	Sn	13 32 32.9	+2.4
PMON	Piamonte	0.91	341	P	Pn	13 32 19.6	+0.9
PMON				S	Sn	13 32 32.3	+1.3
BOQS	Boqueron	0.92	343	*e*P	Pn	13 32 19.8	+0.8
INTP	Intipuca	0.99	69	*e*P	Pn	13 32 20.7	+0.9
CEDA	San Andres	1.02	338	*e*P	Pn	13 32 20.9	+0.7
CEDA	San Andres	1.02	338	P	Pn	13 32 21.2	+1.0
CEDA				S	Sn	13 32 35.2	+1.5
CEVE	Cerro Verde	1.14	329	*e*S	Sn	13 32 43.0	+5.9
CEVE	Cerro Verde	1.14	329	P	Pb	13 32 23.0	+0.2
CEVE				S	Sn	13 32 38.4	+1.4
P5NO	Presa 5 de nov	1.16	12	P	Pb	13 32 23.7	+0.8
P5NO				S	Sn	13 32 39.7	+2.6
LCND	La Caada	1.18	67	P	Pb	13 32 23.7	+0.4
CNCH	Conchagua	1.22	70	*e*P	Pb	13 32 24.0	0.0
CNCH				*e*S	Sn	13 32 42.0	+3.2
CNCH	Conchagua	1.22	70	P	Pb	13 32 24.1	0.0
CNCH				S	Sn	13 32 41.4	+2.6
UNIC	Universidad Ca	1.24	335	P	Pb	13 32 24.8	+0.4
UNIC				S	Sn	13 32 41.2	+2.0
LLGN	La Laguna	1.31	3	P	Pb	13 32 25.9	+0.4
LLGN				S	Sb	13 32 43.5	+1.6
FAME	Alcaldia de Sa	1.39	315	P	Pn	13 32 25.5	+0.2
FAME				S	Sb	13 32 44.1	-0.1
CSGN	Cosiguina Volc	1.42	85	P	Pb	13 32 27.1	-0.4
CSGN				S	Sb	13 32 46.0	+0.9
MTO3	Montecristo	1.58	348		Pb	13 32 29.5	-0.7
JUAM	Asuncion Mita	1.63	335	*i* P	Pb	13 32 30.0	-0.9
ESQI	Esquipulas	1.73	349		Pb	13 32 31.9	-0.9
ESQI	Esquipulas	1.73	349	*e*P	Pb	13 32 31.9	-0.9
ESQI	Esquipulas	1.73	349	P	Pb	13 32 32.0	-0.8
ESQI				S	Sb	13 32 53.9	-0.2
ZAFR2	Estanzuela, Za	1.75	349	*i* P	Pb	13 32 38.0	+5.0
CRIN	San Cristobal	1.92	94	Pn	Pn	13 32 33.7	+1.1
CRIN	San Cristobal	1.92	94	P	Pb	13 32 34.1	-1.7
CRIN				S	Sb	13 32 59.3	-0.2
SARH	Santa Rosa de	1.93	7	*i* P	Pb	13 32 35.1	-1.0
SARH	Santa Rosa de	1.93	7	P	Pb	13 32 35.1	-1.0
SARH				S	Sb	13 32 58.9	-1.0
TGUH	Tegucigalpa,Un	2.07	54		Pn	13 32 35.5	+0.7
TGUH	Tegucigalpa,Un	2.07	54	P	Pb	13 32 36.6	-2.0
TGUH				S	Sb	13 33 02.4	-1.6
PLRN	Geotermica Pol	2.20	97	P	Pn	13 32 37.5	+1.0
PLRN				S	Sb	13 33 05.1	-2.5
ILCN	San Idelfonso	2.27	97	S	Sn	13 33 06.4	+1.9
CNGA	Al SSO del Vol	2.28	99	P	Pn	13 32 37.7	+0.1
CNGN	Cerro Negro	2.28	98	P	Pn	13 32 38.3	+0.8
CNGN				S	Sn	13 33 06.9	+2.0
LEVN	Ruinas Leon Vi	2.38	101	S	Sb	13 33 09.9	-2.8
MOMN	Momotombo	2.45	100	P	Pn	13 32 40.6	+0.7
MOMN				S	Sn	13 33 10.9	+1.8
COPN	Copaltepe	2.45	105	P	Pn	13 32 41.2	+1.3
MOM2	El Cardon	2.50	99	P	Pn	13 32 41.5	+1.0
MOM2				S	Sn	13 33 12.6	+2.5
APG	El Apazote	2.57	327	P	Pn	13 32 43.0	+1.4
	2.1nm,0.5s,baz=139,slow=12,SNR=7.3						
APG				S	Sn	13 33 15.1	+3.0
	3.8nm,0.5s,baz=105,slow=13,SNR=6.0						
APG	El Apazote	2.57	327	*i* P	Pn	13 32 43.0	+1.4
LIMN	Finca el Limon	2.59	85	P	Pn	13 32 42.9	+1.1
LIMN				S	Sn	13 33 14.7	+2.3
OCON	Estacion meteo	2.59	72	P	Pn	13 32 43.0	+1.2
OCON				S	Sn	13 33 14.9	+2.5
AMTN	Mateare	2.59	103	P	Pn	13 32 43.2	+1.4
AMTN				S	Sn	13 33 14.8	+2.4
APQ2	Apoyeque	2.70	104	P	Pn	13 32 44.6	+1.3
APQ2				S	Sn	13 33 17.1	+1.9
ABCN	Banco Central	2.73	105	S	Sn	13 33 18.5	+2.5
ALLN	Telcor Managua	2.76	104	S	Sn	13 33 18.8	+2.2
UNAN	Cigeo UNAN	2.77	105	P	Pn	13 32 45.6	+1.3
UNAN				S	Sn	13 33 18.9	+1.9
MGAN	Managua	2.79	104	Pn	Pn	13 32 44.8	+0.4
MGAN				Sn	Sn	13 33 16.9	-0.3
MGAN	Managua	2.79	104	P	Pn	13 32 45.6	+1.2
MGAN				S	Sn	13 33 19.2	+1.9
RCVN	Varillal2	2.84	75	P	Pn	13 32 46.8	+1.5
RCVN				S	Sn	13 33 21.4	+2.6
WILN	Americas 2	2.84	104	P	Pn	13 32 46.7	+1.5
WILN				S	Sn	13 33 20.4	+1.8
AERN	Aeropuerto Man	2.86	104	P	Pn	13 32 46.8	+1.3
AERN				S	Sn	13 33 21.6	+2.5
MAS3	Al N del Volca	2.89	106	P	Pn	13 32 47.1	+1.3
MAS3				S	Sn	13 33 20.9	+1.1
SABN	Sabanita	2.92	107	P	Pn	13 32 47.2	+0.9
MASN	Masaya	2.92	107	P	Pn	13 32 47.2	+0.9
MASN				S	Sn	13 33 22.8	+2.1
NANN	Nandasmo	2.96	107	P	Pn	13 32 48.1	+1.2
NANN				S	Sn	13 33 24.1	+2.4
MATN	Matagalpa	3.01	88	P	Pn	13 32 48.9	+1.3
MATN				S	Sn	13 33 24.9	+1.9
RTAL	Retalhuleu	3.10	303	P	Pn	13 32 49.6	+0.8
RTAL				S	Sn	13 33 26.5	+1.5
BOAB	BOACO BROADBAN	3.29	97		Pn	13 32 51.4	0.0
BOAB	BOACO BROADBAN	3.29	97	P	Pn	13 32 51.8	+0.5
BOAB				S	Sn	13 33 32.5	+2.8
MORN	Al O del Volca	3.53	111	P	Pn	13 32 55.9	+1.1
MORN				S	Sn	13 33 38.2	+2.5
OMEN	Al SSO del Vol	3.57	112	P	Pn	13 32 56.4	+1.2
OMEN				S	Sn	13 33 38.9	+2.3
CARN	Rivas	3.79	115	P	Pn	13 32 59.5	+1.2
CARN				S	Sn	13 33 43.9	+1.8
ACON	Acoyapa	3.85	103	S	Sn	13 33 45.7	+2.2
SIUN	Universidad Ur	4.21	78		Pn	13 33 04.3	+0.2
SIUN	Universidad Ur	4.21	78	S	Sn	13 33 55.1	+2.6
MESS	Mesas	4.28	119	*e*P	Pn	13 33 07.2	+2.0
VMAR	Armenia, Volca	4.32	118	*e*P	Pn	13 33 07.8	+2.2
JUD3	Juan Diaz 3	4.32	128		Pn	13 33 08.0	+2.3
JUD3	Juan Diaz 3	4.32	128	*e*P	Pn	13 33 07.9	+2.2
CUI	Cuipilapa	4.35	120	*e*P	Pn	13 33 08.8	+2.7
JTS	Las Juntas de	4.72	122	P	Pn	13 33 13.8	+2.7
	3.7nm,0.3s,baz=313,slow=22,SNR=8.1						
	7.5nm,0.3s						
JTS				AML	AML		
JTS	Las Juntas de	4.72	122		Pn	13 33 13.3	+2.2
ARE1	Arenal 1	4.83	119	*e*P	Pn	13 33 16.1	+3.5
CEDE	Laguna Cedeo	4.83	119	*e*P	Pn	13 33 16.2	+3.6
VARE2	V. Arenal	4.83	119	*e*P	Pn	13 33 16.1	+3.4
ABE2	San Pablo	5.78	122	*e*P	Pn	13 33 29.7	+3.9
PIEC	Cerro El Cedra	5.90	122	*e*P	Pn	13 33 31.5	+4.0
BUS1	Rivas	6.11	122	*e*P	Pn	13 33 34.5	+3.9
EDPE	Pejibaye, P	6.48	124	*e*P	Pn	13 33 38.9	+3.7
CMIG	Matias Romero	7.07	307	P	Pn	13 33 49.9	+6.5
	1.0nm,0.3s,baz=128,slow=6.1,SNR=4.6						
CMIG				S	Sn	13 35 10.1	+7.1
	12nm,0.8s,baz=58,slow=21,SNR=3.5						
CMIG				LR	LR	13 36 54.4	
	comp=Z,136nm,20.9s,baz=98,slow=40						
	3.5nm,0.4s						
CMIG				AML	AML		
PIRO	Carate, Puerto	7.11	128		Pn	13 33 48.1	+4.1
TEIG	Tepich	7.37	5	Pn	Pn	13 33 48.4	+1.0
BRDY	Brady	20.53	335	P	P	13 36 37.1	-0.9
TREL	Terrell	20.82	343	P	P	13 36 40.1	-1.0
GOGA	Godfrey	21.09	13	P	P	13 36 41.9	-2.0
GOGA				IAmb	IAmb	13 37 17.2	
	comp=Z,19nm,1.4s						
TX31	Lajitas Ar. Si	21.32	323	P	P	13 36 47.0	+0.4
TXAR	Lajitas Array	21.32	323	P	P	13 36 48.3	+1.7
	comp=Z,1.0nm,0.5s,baz=145,slow=10,SNR=20						
	comp=Z,1.0nm,0.5s						
TXAR	Lajitas Array	21.32	323	P	P	13 36 46.4	-0.2
PLPT	Palo Pinto	21.62	338	P	P	13 36 49.6	-0.1
ABTX	Abilene, Hawle	21.96	335	P	P	13 36 52.7	-0.8
ABTX				IAmb	IAmb	13 37 09.7	
	comp=Z,15nm,1.5s						
CCM	Cathedral Cave	25.18	356	P	P	13 37 23.9	-1.0
CCM				IAmb	IAmb	13 37 24.7	
	comp=Z,7.4nm,0.8s						
BOAV	Boa Vista	30.05	108	P	P	13 38 06.1	-2.6
PV03	Paradox Valley	30.85	329	P	P	13 38 12.9	-3.0
PV18	Skein Mesa, Pa	30.88	329	P	P	13 38 15.3	-0.8
PV18				IAmb	IAmb	13 38 17.6	
	comp=Z,3.5nm,0.5s						
SPMN	Marine on St.	32.43	355	P	P	13 38 26.5	-2.8
PDAR	Pinedale Array	34.72	333	P	P	13 38 49.4	-0.3
	comp=Z,0.3nm,0.6s,baz=134,slow=9.8,SNR=3.8						
PDAR				PcP	PcP	13 41 22.3	-0.9
	comp=Z,0.4nm,0.5s,baz=144,slow=3.7,SNR=6.0						
	comp=Z,0.3nm,0.6s						
LPAZ	La Paz	35.56	144	P	P	13 39 03.8	+6.2
	comp=Z,5.2nm,0.3s,baz=279,slow=7.3,SNR=26						
	comp=Z,5.2nm,0.3s						
LPAZ	La Paz	35.56	144	P	P	13 38 57.9	+0.3
LPAZ				IAmb	IAmb	13 39 04.3	
	comp=Z,7.6nm,1.1s						
ELK	Elko	36.06	325	LR	LR	13 55 43.4	
	comp=Z,52nm,18.1s,baz=173,slow=40						
NVAR	Mina Array Bea	36.41	320	P	P	13 39 06.0	+1.8
	comp=Z,0.4nm,0.6s,baz=107,slow=7.9,SNR=3.8						
	comp=Z,0.4nm,0.6s						
ULM	Lac du Bonnet	37.72	353	P	P	13 39 11.7	-3.2
	comp=Z,1.3nm,0.4s,baz=140,slow=9.0,SNR=5.1						
	comp=Z,1.3nm,0.4s						
ULM	Lac du Bonnet	37.72	353	P	P	13 39 11.9	-3.0
ULM				IAmb	IAmb	13 39 49.1	
	comp=Z,9.1nm,1.3s						
MCMT	McKenzie Canyo	37.81	332	P	P	13 39 15.5	-0.6
VILB	Vilhena	38.38	131	P	P	13 39 20.4	-0.6
EGMT	Eagleton	39.10	338	P	P	13 39 25.9	-0.8
EGMT				IAmb	IAmb	13 39 27.1	
	comp=Z,5.1nm,0.7s						
JCC	Jacoby Creek,	41.40	319	P	P	13 39 44.7	-1.1
EDM	Edmonton	44.70	339	P	P	13 40 10.7	-1.6
EDM				IAmb	IAmb	13 40 11.9	
	comp=Z,6.7nm,0.8s						
SCHQ	Schefferville	45.35	18	P	P	13 40 13.6	-3.8
	comp=Z,3.6nm,0.8s,baz=240,slow=8.1,SNR=2.1						
	comp=Z,3.6nm,0.8s						
SCHQ	Schefferville	45.35	18	P	P	13 40 13.1	-4.3
SCHQ				IAmb	IAmb	13 40 49.2	
	comp=Z,9.4nm,1.2s						
YKA	Yellowknife Ar	52.84	345	P	P	13 41 12.9	-1.6
	comp=Z,2.4nm,0.7s,baz=142,slow=7.9,SNR=10.0						
	comp=Z,2.4nm,0.7s						
YKAW3	Yellowknife Wh	52.90	345	P	P	13 41 12.5	-2.5
YKAW3				IAmb	IAmb	13 41 13.9	
	comp=Z,3.8nm,0.9s						
ILON	Igloolik, Nuna	56.66	3	P	P	13 41 38.5	-3.6
CMAR	Chiang Mai Arr	147.92	346	PKPbc	PKPdf	13 51 44.0	+1.6
	comp=Z,0.4nm,0.4s,baz=22,slow=3.8,SNR=2.1						

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*NOU **19** 13:42:24.4, 18°.64S×177°.39W, h440^{km}, mb4.4/9, Fiji Islands Region*

*IDC **19** 13:42:27.6±1.0, 18°.09S×178°.40W, h525^{km}±9^{km}, mb3.5/13, mbtmp4.3/14, Error ellipse: s-maj=16.6km s-min=11.6km az=131.0*

ISC 19 13:42:26.8±0.9**, 18°.2S**±0°.1×**178°.3W**±0°.1**, h500**^{km}**, n57,** σ**2^{s}.44**/48**, mb3.9**/15**, 4C-1D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TAVE	Taveuni	2.13	315	P	P	13 43 32.2	-0.4
DGTI	Dogotuki	2.66	316	P	P	13 43 34.5	-1.2
MSVF	Nonsavu	3.48	278	P	P	13 43 43.0	+1.7
	63nm,0.8s,baz=120,slow=6.4,SNR=25						
MSVF				S	S	13 44 46.0	+4.1
	21nm,0.9s,baz=213,slow=14,SNR=8.0						
MSVF	Nonsavu	3.48	278	P	P	13 43 42.8	+1.5
FUTU	Fugatoga	3.90	3	P	P	13 43 42.4	-2.2
URZ	Urewera	20.35	190	P	P	13 46 27.1	-1.4
	9.4nm,0.6s,baz=245,slow=3.4,SNR=11						
	9.4nm,0.6s						
URZ	Urewera	20.35	190	P	P	13 46 27.0	-1.5
BKZ	Black Stump Fm	21.34	191	P	P	13 46 35.8	-1.8
QRZ	Quartz Range	23.86	197	P	P	13 47 00.9	+0.9
KHZ	Kahutara	25.09	194	P	P	13 47 11.1	+0.2
JCZ	Jackson Bay	27.96	200	P	P	13 47 36.8	+0.5
STKA	Stephens Creek	38.54	242	P	P	13 49 05.9	-0.1
	2.5nm,0.7s,baz=39,slow=6.0,SNR=4.4						
	2.5nm,0.7s						
WRA	Warramunga Arr	44.65	260	P	P	13 49 52.7	-1.9
	0.7nm,0.3s,baz=95,slow=7.0,SNR=21						
	0.7nm,0.3s						
ASAR	Alice Springs	44.77	255	P	P	13 49 54.7	-0.9
	11nm,0.6s,baz=89,slow=8.3,SNR=197						
ASAR				S	S	13 55 52.5	-3.5
	0.8nm,0.8s,baz=86,slow=16,SNR=5.4						
	11nm,0.6s						
MJAR	Matsushiro Arr	68.20	323	P	P	13 52 34.6	-2.4
	3.2nm,0.9s,baz=152,slow=5.7,SNR=7.9						
	3.2nm,0.9s						
QSPA	South Pole Qui	71.83	180	P	P	13 52 58.6	+0.3
	2.9nm,0.8s,baz=47,slow=0.9,SNR=15						
	2.9nm,0.8s						
PETK	Petropavlovsk-	74.00	345	P	P	13 53 07.7	-3.0
	4.9nm,0.7s,baz=112,slow=8.4,SNR=6.9						
	4.9nm,0.7s						
YBH	Yreka Blue Hor	78.72	39	P	P	13 53 35.8	-1.3
	1.4nm,0.8s,baz=226,slow=4.0,SNR=5.7						
	1.4nm,0.8s						
NVAR	Mina Array Bea	79.60	44	P	P	13 53 39.7	-2.3
	1.9nm,0.8s,baz=231,slow=7.4,SNR=8.6						
	1.9nm,0.8s						
ELK	Elko	82.84	43	P	P	13 53 57.1	-1.5
	1.0nm,0.6s,baz=250,slow=5.7,SNR=4.3						
	1.0nm,0.6s						
SEY	Seymchan	84.10	347	P	P	13 54 01.4	-2.7
	7.9nm,0.7s,baz=144,slow=5.4,SNR=16						
	7.9nm,0.7s						
ILAR	Eielson Array	86.18	13	P	P	13 54 10.6	-3.6
	0.7nm,0.5s,baz=228,slow=4.0,SNR=16						
	0.7nm,0.5s						
PDAR	Pinedale Array	87.53	43	P	P	13 54 19.7	-1.7
	0.6nm,0.8s,baz=220,slow=3.5,SNR=5.9						
	0.6nm,0.8s						
TROLL	Troll, Antarti	89.99	180	⇑P	P	13 54 31.5	-0.7
	comp=Z,61nm,0.7s						
VNA3	Neumayer Olymp	90.42	176	⇑P	P	13 54 33.0	-1.1
	comp=Z,3.0nm,0.7s						
VNA2	Neumayer--Watz	90.86	177	⇑P	P	13 54 35.4	-0.7
	comp=Z,1.5nm,0.6s,baz=183,slow=3.4						
VNA1	Neumayer--Stat	91.09	177	⇑P	P	13 54 36.4	-0.7
	comp=Z,2.6nm,0.8s						
FINES	FINESS Array B	133.51	344	PKP	PKPdf	14 00 43.7	-1.8
	comp=Z,2.6nm,0.9s,baz=96,slow=3.8,SNR=3.4						
BRTR	Keskin Array B	145.06	315	PKP	PKPdf	14 01 05.8	-1.5
	comp=Z,1.4nm,0.6s,baz=139,slow=4.6,SNR=6.9						
CHVC	Chvalec	145.73	344	*e*PKP	PKPdf	14 01 08.2	+0.3
CLL	Collm	145.79	347	⇓*i*PKPbc	PKPdf	14 01 07.6	-0.3
	comp=Z,12nm,0.8s						
UPC	Upice	145.81	344	*e*PKP	PKPdf	14 01 08.7	+0.7
STEB	Steborice	145.82	341	*e*PKP	PKPdf	14 01 08.2	+0.2
DPC	Dobruska-Polom	145.87	343	*e*PKP	PKPdf	14 01 08.9	+0.7
BRG	Berggiesshubel	145.99	346	*e*P	PKPdf	14 01 08.6	+0.4
BRG				Amp		14 01 09.4	
	comp=Z,5.4nm,0.9s						
KRLC	Kraliky	145.99	343	*e*PKP	PKPdf	14 01 09.0	+0.6
MORC	Moravsky Berou	146.03	341	*e*PKP	PKPdf	14 01 08.3	-0.2
PRU	Pruhonice	146.67	345	*e*PKP	PKPdf	14 01 10.6	+1.2
VRAC	Vranov	146.73	342	*e*PKP	PKPdf	14 01 10.8	+1.2
KRUC	Moravsky	147.01	342	*e*PKP	PKPdf	14 01 11.4	+1.3
KHC	Kasperske Hory	147.70	345	*e*PKP	PKPdf	14 01 13.5	+2.2
KHC				*e*x	x	14 01 17.6	
CKRC	Cesky Krumlov	147.81	344	*e*PKP	PKPdf	14 01 13.7	+2.3
CKRC				*e*x	x	14 01 17.5	
GERES	GERESS Array B	147.94	345	PKPbc	PKPdf	14 01 14.0	+2.3
	comp=Z,8.5nm,0.3s,baz=46,slow=3.9,SNR=22						
CONA	Conrad Observa	148.19	342	*e*PKiKP	PKPdf	14 01 15.1	+3.0
	comp=Z,4.0nm,0.7s						
BIOA	Bad Ischl, Aus	149.02	344	*e*PKP	PKPdf	14 01 16.4	+3.0
	comp=Z,1.2nm,0.4s						
SESA	Seetaler Alpe,	149.30	343	*e*PKP	PKPdf	14 01 17.2	+3.1
	comp=Z,8.6nm,0.5s,SNR=7.2						
SESA				*e*PKP	PKiKP	14 01 22.8	+2.9
	comp=Z,14nm,0.7s						
LESA	Schwarzleotal	149.51	345	*e*PKP	PKPdf	14 01 17.6	+3.3
	comp=Z,1.9nm,0.4s						
KBA	Koelnbreinsper	149.66	344	*e*PKP	PKPdf	14 01 17.8	+3.1
	comp=Z,3.0nm,0.5s						
WATA	Walderalm	149.85	347	*e*PKP	PKPdf	14 01 18.4	+3.6
	comp=Z,1.5nm,0.5s						
RETA	Reutte	149.88	348	*i* PKP	PKPdf	14 01 18.7	+3.9
	comp=Z,1.6nm,0.6s						
WTTA	Wattenberg	149.90	346	*e*PKiKP	PKPdf	14 01 19.0	+4.0
	comp=Z,6.3nm,0.5s,SNR=6.4						
MOTA	Moosalm	149.94	347	*e*PKP	PKPdf	14 01 18.7	+3.6
	comp=Z,1.2nm,0.5s						
MYKA	Terra Mystica	150.00	343	*e*PKP	PKPdf	14 01 18.3	+3.3
	comp=Z,3.0nm,0.5s						
SQTA	Sankt Quirin	150.04	347	*e*PKP	PKPdf	14 01 18.8	+3.6
	comp=Z,3.7nm,0.6s						
ABTA	Abfaltersbach	150.18	345	*e*PKP	PKPdf	14 01 18.6	+3.3
	comp=Z,6.8nm,0.7s,SNR=6.1						
DAVA	Damuels	150.24	349	*e*PKiKP	PKPdf	14 01 19.7	+4.2
	comp=Z,4.0nm,1.0s						
FETA	Feichten	150.33	347	*e*PKiKP	PKPdf	14 01 20.1	+4.5
	comp=Z,3.6nm,0.8s						

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*IDC **19** 13:51:30.7±10.0, 34°.69N×70°.03E, h0^{km}, mb3.6/2, mbtmp3.4/5, ML3.0/2, Error ellipse: s-maj=181.6km s-min=45.9km az=158.0*

ISC 19 13:51:45.3±3.3**, 35°.7N**±0°.3×**70°.0E**±0°.2**, h50**^{km}**, n7,** σ**2^{s}.28**/8**, 2C-2D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KK31	Karatay Array	7.45	3	⇑P	Pn	13 53 33.4	+2.0
	3.0nm,0.5s,baz=177,slow=11,SNR=38						
KK31				⇑S	Sn	13 54 47.9	-6.7
	3.0nm,0.5s,baz=189,slow=19,SNR=5.1						
AAK	Ala-Archa	7.80	25	⇓P	Pn	13 53 39.7	+3.3
	0.6nm,0.4s						
AAK				⇓S	Sn	13 55 01.1	-2.3
	2.3nm,0.6s						
MKAR	Makanchi Array	14.46	36	Pn	Pn	13 55 07.1	+0.2
	0.1nm,0.3s,baz=219,slow=12,SNR=4.0						
	0.1nm,0.5s						
MKAR				AML	AML		
KURBB	Kurchatov Arra	16.19	20	P	Pn	13 55 30.6	+1.4
	0.7nm,0.9s,baz=211,slow=10,SNR=4.2						
BVAR	Borovoye Array	17.37	1	P	P	13 55 46.0	+1.2
	baz=175,slow=9.9,SNR=3.6						
	0.6nm,0.3s						
ZALV	Zalesovo Beam	21.03	25	P	P	13 56 23.8	-0.9

	1.4nm,0.4s,baz=226,slow=11,SNR=9.2						
	1.4nm,0.4s						
NOA	**NORSAR Array B**	**44.57**	**324**	P	**P**	**13 59 50.7**	**-1.4**
	0.3nm,0.5s,baz=101,slow=7.5,SNR=1.0						
	0.3nm,0.5s						

SDD ***19*** *14:09:51.4±3.5, 18°.39N×71°.69W, h25^{km}±12^{km}, MD2.9, ML1.5, MW2.7, Presumed earthquake*

OSPL ***19*** *14:09:54.6±2.3, 18°.37N×71°.70W, h4^{km}±135^{km}, ML1.8, Presumed earthquake*

ISC 19 14:09:53.4±1.0, **18°.38N**±0°.04×**71°.66W**±0°.04, **h13**^{km}±7^{km}, **n9**, σ**0ˢ.94**/16, **7C, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LODU1	**El Espartillar**	**0.18**	**98**	*i*P	**Pg**	**14 09 57.2**	**-0.3**
LODU1				*e*S	**Sg**	**14 10 00.7**	**+0.4**
LODU1				IAML		14 10 02.9	
	comp=Z,2µm,0.2s						
JIDR	**Jimani**	**0.21**	**302**	⇑*i*S	**Sg**	**14 10 00.5**	**-0.8**
JIDR				⇑*i*P	**Pb**	**14 10 00.6**	**+1.4**
JIDR				IAML		14 10 06.3	
	comp=N,54nm,0.3s						
NEDR	**Neiba UASD**	**0.25**	**65**	⇑*i*S	**Sb**	**14 10 05.5**	**+1.4**
NEDR				IAML		14 10 06.3	
	comp=N,69nm,0.2s						
LONE3	**El Aguacate, B**	**0.29**	**40**	*i*P	**Pb**	**14 10 00.2**	**-0.4**
LONE3				*e*S	**Sb**	**14 10 06.3**	**+0.8**
LONE3				IAML		14 10 08.3	
	comp=Z,42nm,0.3s						
PODR	**Polo**	**0.41**	**120**	⇑*i*P	**Pg**	**14 10 02.4**	**+0.6**
PODR				⇑*i*S	**Sb**	**14 10 09.6**	**+0.6**
LOBH	**Bahia de las A**	**0.51**	**178**	*i*P	**Pg**	**14 10 03.2**	**-0.3**
LOBH				*e*S	**Sb**	**14 10 10.8**	**-0.8**
LOBH				IAML		14 10 17.6	
	comp=Z,22nm,1.9s						
LOVI	**El Cajuil, Ovi**	**0.64**	**154**	*i*P	**Pg**	**14 10 06.0**	**+0.1**
LOVI				*e*S	**Sb**	**14 10 16.1**	**+0.8**
SDDR	**Presa de Saban**	**0.70**	**30**	*i*S	**Sn**	**14 10 18.2**	**-1.6**
SDDR				IAML		14 10 31.7	
	comp=N,10nm,2.5s						
REDR	**Restauracion**	**0.82**	**18**	⇑*i*P	**Pn**	**14 10 10.1**	**-0.6**
REDR				⇑*i*S	**Sn**	**14 10 23.0**	**+0.2**
REDR				IAML		14 10 24.1	
	comp=N,35nm,0.2s						

SJA ***19*** *14:17:41.7±0.6, 24°.22S×67°.20W, h188^{km}±5^{km}, ML3.6, MW3.6*

NEIC ***19*** *14:17:43.6±1.8, 24°.20S±0°.07×67°.5W±0°.2, h191^{km}±11^{km}, mb4.4/8, ML3.8(GUC), Error ellipse: s-maj=22.0km s-min=10.4km az=98.0*

GUC ***19*** *14:17:44.6±0.7, 24°.14S×67°.71W, h222^{km}±8^{km}, ML3.8*

IDC ***19*** *14:17:47.3±2.3, 23°.76S×67°.15W, h215^{km}±27^{km}, mb3.4/2, mbtmp4.1/6, Error ellipse: s-maj=28.2km s-min=17.2km az=126.0*

ISC 19 14:17:42.9±0.7, **24°.17S**±0°.04×**67°.31W**±0°.04, **h182**^{km}±7^{km}, **n75**, σ**1ˢ.40**/103, **1C, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SALTA		**0.89**	**94**	*e*P	**Pn**	**14 18 09.6**	**-1.0**
SALTA				*e*P		14 18 09.6	
AF01	**San Pedro de A**	**1.45**	**326**	*e*P	**Pn**	**14 18 17.4**	**+2.5**
AF01				*e*S	**Sn**	**14 18 40.9**	**+1.3**
AF01				IAML		14 18 52.6	
	comp=Z,158nm,0.3s						
AF01	**San Pedro de A**	**1.45**	**326**		**Pn**	**14 18 15.9**	**+1.0**
AF01				Sn	**Sn**	**14 18 40.9**	**+1.3**
HJA	**Humahuaca**	**1.98**	**62**	*e*P	**Pn**	**14 18 20.3**	**-0.1**
FSA	**Cafayete**	**2.28**	**148**	*e*P	**Pn**	**14 18 23.7**	**+0.3**
PB06	**IPOC Station P**	**2.54**	**305**	*e*P	**Pn**	**14 18 27.6**	**+1.2**
PB06				*e*S	**Sn**	**14 18 59.3**	**-0.7**
PB06				IAML		14 19 01.8	
	comp=Z,427nm,0.3s						
PB06	**IPOC Station P**	**2.54**	**305**	*e*P	**Pn**	**14 18 27.3**	**+1.0**
PB06				*i*S	**Sn**	**14 18 59.7**	**-0.3**
PB06				IAML		14 19 02.0	
	comp=E,514nm,0.2s						
PB06	**IPOC Station P**	**2.54**	**305**		**Pn**	**14 18 27.0**	**+0.7**
PB06				Sn	**Sn**	**14 18 59.4**	**-0.7**
YJA	**Yavi**	**2.58**	**40**	*e*P	**Pn**	**14 18 28.0**	**+0.9**
YJA				*e*S	**Sn**	**14 19 00.6**	**-0.8**
PB14	**IPOC Station P**	**2.86**	**260**	*e*P	**Pn**	**14 18 30.8**	**+0.6**
PB14				*e*S	**Sn**	**14 19 07.7**	**+0.6**
PB14				IAML		14 19 09.7	
	comp=Z,91nm,0.2s						
PB14	**IPOC Station P**	**2.86**	**260**	*e*P	**Pn**	**14 18 30.7**	**+0.4**
PB14				*i*S	**Sn**	**14 19 05.6**	**-1.4**
PB14				IAML		14 19 09.6	
	comp=E,54nm,0.4s						
PB14	**IPOC Station P**	**2.86**	**260**		**Pn**	**14 18 30.5**	**+0.2**
PB09	**IPOC Station P**	**2.96**	**323**	*e*P	**Pn**	**14 18 33.2**	**+1.9**
PB09				*e*S	**Sn**	**14 19 09.6**	**+0.6**
PB09				IAML		14 19 10.0	
	comp=Z,100nm,0.5s						
PB09	**IPOC Station P**	**2.96**	**323**	*e*P	**Pn**	**14 18 33.1**	**+1.8**
PB09				*i*S	**Sn**	**14 19 09.2**	**+0.2**
PB09				IAML		14 19 11.4	
	comp=N,149nm,0.3s						
PB09	**IPOC Station P**	**2.96**	**323**		**Pn**	**14 18 32.9**	**+1.6**
PB05	**IPOC Station P**	**2.96**	**296**	*e*P	**Pn**	**14 18 32.1**	**+0.8**
PB05				*e*S	**Sn**	**14 19 08.2**	**-0.7**
PB05				IAML		14 19 10.2	
	comp=Z,123nm,0.4s						
PB05	**IPOC Station P**	**2.96**	**296**	*e*P	**Pn**	**14 18 31.7**	**+0.4**
PB05				*i*S	**Sn**	**14 19 07.4**	**-1.5**
PB05				IAML		14 19 09.4	
	comp=N,231nm,0.2s						
PB05	**IPOC Station P**	**2.96**	**296**		**Pn**	**14 18 31.9**	**+0.6**
PB03	**IPOC Station P**	**3.08**	**313**	*e*P	**Pn**	**14 18 34.0**	**+1.2**
PB03				*e*S	**Sn**	**14 19 10.6**	**-1.1**
PB03				IAML		14 19 17.1	
	comp=Z,234nm,0.4s						
PB03	**IPOC Station P**	**3.08**	**313**	*e*P	**Pn**	**14 18 33.5**	**+0.7**
PB03				*i*S	**Sn**	**14 19 10.5**	**-1.2**
PB03				IAML		14 19 11.8	
	comp=E,350nm,0.3s						
PB03	**IPOC Station P**	**3.08**	**313**		**Pn**	**14 18 33.8**	**+0.9**
AC02	**Maricunga**	**3.13**	**211**	*e*P	**Pn**	**14 18 34.2**	**+0.6**
AC02				*e*S	**Sn**	**14 19 17.4**	**+4.1**
AC02	**Maricunga**	**3.13**	**211**	*e*P	**Pn**	**14 18 34.2**	**+0.6**
AC02				*i*S	**Sn**	**14 19 14.3**	**+1.1**
AC02	**Maricunga**	**3.13**	**211**		**Pn**	**14 18 34.0**	**+0.4**
AHML	**Horco Molle**	**3.16**	**146**	*e*P	Pn	14 18 20.9	-13
PB07	**IPOC Station P**	**3.40**	**315**	*e*P	**Pn**	**14 18 37.6**	**+0.9**
PB07				*e*S	**Sn**	**14 19 17.1**	**-1.6**
PB07				IAML		14 19 18.6	
	comp=Z,239nm,0.4s						
PB07	**IPOC Station P**	**3.40**	**315**	*e*P	**Pn**	**14 18 37.2**	**+0.5**
PB07				*i*S	**Sn**	**14 19 17.0**	**-1.7**
PB07	**IPOC Station P**	**3.40**	**315**		**Pn**	**14 18 37.1**	**+0.3**
AC01	**Pan de Azucar**	**3.58**	**236**	*e*P	**Pn**	**14 18 38.2**	**-0.5**
AC01				*e*S	**Sn**	**14 19 22.4**	**0.0**
AC01				IAML		14 19 23.9	
	comp=Z,58nm,0.3s						
AC01	**Pan de Azucar**	**3.58**	**236**	*e*P	**Pn**	**14 18 38.0**	**-0.6**
AC01				*i*S	**Sn**	**14 19 20.3**	**-2.1**
AC01	**Pan de Azucar**	**3.58**	**236**		**Pn**	**14 18 38.1**	**-0.6**
PB02	**IPOC Station P**	**3.71**	**319**	*e*P	**Pn**	**14 18 41.6**	**+1.2**
PB02				*e*S	**Sn**	**14 19 25.0**	**-0.5**
PB02				IAML		14 19 31.7	
	comp=Z,212nm,0.2s						
PB02	**IPOC Station P**	**3.71**	**319**	*e*P	**Pn**	**14 18 40.9**	**+0.4**
PB02				*i*S	**Sn**	**14 19 23.5**	**-2.0**
PB02	**IPOC Station P**	**3.71**	**319**		**Pn**	**14 18 40.9**	**+0.4**
TINO	**Tinogasta**	**3.89**	**183**	*e*P	**Pn**	**14 18 43.5**	**+0.8**
AC06	**Mina Casimiro**	**4.20**	**220**		**Pn**	**14 18 45.7**	**-0.9**
GO03	**Copiapo**	**4.31**	**217**	*e*P	**Pn**	**14 18 47.3**	**-0.8**
GO03				*e*S	**Sn**	**14 19 36.9**	**-2.3**
GO03				IAML		14 19 40.7	
	comp=Z,69nm,0.3s						
GO03	**Copiapo**	**4.31**	**217**	*e*P	**Pn**	**14 18 47.0**	**-1.1**
GO03				*i*S	**Sn**	**14 19 36.9**	**-2.3**
GO03	**Copiapo**	**4.31**	**217**		**Pn**	**14 18 46.6**	**-1.4**
PB08	**IPOC Station P**	**4.36**	**337**	*e*P	**Pn**	**14 18 49.9**	**+0.9**
PB08				*e*S	**Sn**	**14 19 40.4**	**-0.3**
PB08				IAML		14 19 44.6	
	comp=Z,25nm,0.4s						
PB08	**IPOC Station P**	**4.36**	**337**	*e*P	**Pn**	**14 18 49.9**	**+0.9**
PB08				*i*S	**Sn**	**14 19 40.0**	**-0.8**
PB08	**IPOC Station P**	**4.36**	**337**		**Pn**	**14 18 49.8**	**+0.8**
PB11	**IPOC Station P**	**4.89**	**333**	*e*P	**Pn**	**14 18 55.4**	**-0.3**
PB11				*e*S	**Sn**	**14 19 48.9**	**-4.0**
PB11				IAML		14 19 52.9	
	comp=Z,34nm,0.4s						
PB11	**IPOC Station P**	**4.89**	**333**		**Pn**	**14 18 54.8**	**-0.9**
PSGCX	**Pisagua**	**5.24**	**330**	*e*P	**Pn**	**14 18 59.3**	**-0.9**
PSGCX				*e*S	Sn	14 19 48.2	-13
PSGCX				IAML		14 20 21.2	
	comp=Z,21nm,2.9s						
PSGCX	**Pisagua**	**5.24**	**330**		**Pn**	**14 18 58.9**	**-1.3**
AC04	**Llanos de Chal**	**5.25**	**219**	*e*P	**Pn**	**14 18 58.3**	**-1.8**
AC04				*e*S	**Sn**	**14 19 58.2**	**-2.8**
AC04				IAML		14 20 10.0	
	comp=Z,18nm,0.4s						
AC04	**Llanos de Chal**	**5.25**	**219**		**Pn**	**14 18 58.4**	**-1.8**
AC05	**El Transito**	**5.36**	**209**	*e*P	**Pn**	**14 19 00.4**	**-1.3**
AC05				*e*S	**Sn**	**14 20 00.8**	**-2.8**
AC05				IAML		14 20 06.0	
	comp=Z,28nm,0.8s						
AC05	**El Transito**	**5.36**	**209**		**Pn**	**14 19 00.2**	**-1.4**
LCO	**Las Campanas**	**5.70**	**211**		**Pn**	**14 19 04.3**	**-1.9**
PB16	**IPOC Station P**	**6.15**	**340**		**Pn**	**14 19 13.2**	**+0.6**
CO01	**Juntas del Tor**	**6.30**	**203**	Pn	**Pn**	**14 19 13.5**	**-0.6**
GO04	**Tololo Observa**	**6.74**	**207**	Pn	**Pn**	**14 19 17.8**	**-2.0**
CO06	**Fray Jorge**	**7.54**	**210**	Pn	**Pn**	**14 19 28.9**	**-1.2**
CO02	**Combarbal**	**7.74**	**204**	Pn	**Pn**	**14 19 31.1**	**-1.7**
LPAZ	**La Paz**	**7.88**	**354**	P	**Pn**	**14 19 36.1**	**+0.9**
	comp=Z,3.1nm,0.3s,baz=164,slow=7.2,SNR=40						
LPAZ				S	**Sn**	**14 21 00.3**	**-3.8**
	comp=Z,2.5nm,0.8s,baz=337,slow=16,SNR=5.0						
SIV	**San Ignacio**	**10.02**	**37**	P	**Pn**	**14 19 59.6**	**-3.3**
	comp=Z,2.5nm,0.5s,baz=211,slow=13,SNR=14						
SIV				S	Sn	14 21 45.9	-8.6
	comp=Z,0.9nm,0.6s,baz=78,slow=22,SNR=3.5						
GO06	**Curarrehue**	**15.77**	**192**	P	**P**	**14 21 15.8**	**+0.3**
PLCA	**Paso Flores**	**16.74**	**189**	P	Pn	14 21 34.4	+7.4
	comp=Z,2.1nm,0.6s,baz=10.0,slow=11,SNR=8.4						
VAO	**Valinhos**	**18.68**	**91**	P	**P**	**14 21 47.1**	**-0.4**
VAO				IAmb	IAmb	14 21 48.2	
	comp=Z,9.6nm,0.6s						
LL02	**Futaleuf**	**19.34**	**190**	P	**Pn**	**14 21 57.1**	**-0.5**
LL02				IAmb	IAmb	14 21 59.0	
	comp=Z,9.1nm,0.8s						
BDFB	**Brasilia**	**20.01**	**68**	P	**P**	**14 22 01.5**	**-0.5**
	comp=Z,12nm,0.6s,baz=248,slow=11,SNR=15						
BDFB	**Brasilia**	**20.01**	**68**	P	**P**	**14 22 00.6**	**-1.4**
BDFB				IAmb	IAmb	14 22 02.3	
	comp=Z,13nm,0.7s						
GO08	**Villa O'Higgin**	**24.60**	**188**	P	**P**	**14 22 46.8**	**+0.5**
GO08				IAmb	IAmb	14 22 57.7	
	comp=Z,5.7nm,0.9s						
BOAV	**Boa Vista**	**27.21**	**15**	P	**P**	**14 23 09.7**	**-0.3**
EFI	**East Falkland**	**28.37**	**168**	P	**P**	**14 23 20.1**	**+0.2**
HOPE	**Hope Point**	**37.84**	**151**	P	**P**	**14 24 41.2**	**-0.6**
VNA2	**Neumayer--Watz**	**57.66**	**160**	P	**P**	**14 27 15.3**	**+1.6**
	baz=288,slow=7.3						
TROLL	**Troll, Antarti**	**61.00**	**161**	⇑P	**P**	**14 27 37.8**	**+0.9**
	comp=Z,34nm,0.5s						
QSPA	**South Pole Qui**	**66.04**	**180**	P	**P**	**14 28 12.2**	**+2.3**
	comp=Z,0.9nm,0.5s,baz=262,slow=0.9,SNR=14						
	comp=Z,0.9nm,0.5s						
QSPA	**South Pole Qui**	**66.04**	**180**	P	**P**	**14 28 11.6**	**+1.6**
TORD	**Torodi Ar. Bea**	**76.89**	**69**	P	**P**	**14 29 15.9**	**+0.4**
	comp=Z,0.7nm,0.6s,baz=272,slow=4.5,SNR=4.8						
	comp=Z,0.7nm,0.6s						
ASAR	**Alice Springs**	**128.19**	**205**	PKP	**PKPdf**	**14 36 28.6**	**+0.3**
	comp=Z,0.2nm,0.6s,baz=132,slow=2.4,SNR=1.9						
WRA	**Warramunga Arr**	**131.35**	**208**	PKP	**PKiKP**	**14 36 36.1**	**+0.8**
	comp=Z,0.1nm,0.4s,baz=158,slow=1.8,SNR=5.1						

IDC ***19*** *14:19:29.8±2.5, 26°.84S×177°.70W, h133^{km}±23^{km}, mb3.4/3, mbtmp4.0/5, Error ellipse: s-maj=37.0km s-min=30.7km az=104.0*

ISC 19 14:19:30.4±1.2, **26°.81S**±0°.09×**177°.7W**±0°.3, **h150**^{km}, **n10**, σ**1ˢ.62**/13, **mb3.6**/3, **South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	**Raoul Island**	**2.44**	**184**	P	**Pn**	**14 20 09.1**	**-1.8**
	240nm,0.5s,baz=237,slow=19,SNR=2.2						
RAO				S	**Sn**	**14 20 44.4**	**+2.3**
	451nm,0.3s,baz=84,slow=22,SNR=7.5						
MSVF	**Nonsavu**	**9.85**	**336**	P	**Pn**	**14 21 48.7**	**+0.2**
	14nm,1.0s,baz=136,slow=9.7,SNR=2.8						
ASAR	**Alice Springs**	**43.68**	**263**	P	**P**	**14 27 21.8**	**+1.1**
	1.3nm,0.9s,baz=94,slow=7.0,SNR=9.0						
ASAR				pP	**pwP**	**14 27 54.8**	**-1.6**
	0.6nm,0.6s,baz=104,slow=7.3,SNR=6.7						
	1.3nm,0.9s						
WRA	**Warramunga Arr**	**44.35**	**268**	P	**P**	**14 27 26.2**	**+0.3**
	0.6nm,0.8s,baz=106,slow=8.0,SNR=4.6						
WRA				pP	**pwP**	**14 27 59.7**	**-2.0**
	0.7nm,0.7s,baz=104,slow=8.0,SNR=5.5						
	0.6nm,0.8s						
KSRS	**Korea Array**	**81.80**	**319**	P	**P**	**14 31 34.5**	**+2.0**
	1.2nm,0.6s,baz=125,slow=5.5,SNR=8.8						
	1.2nm,0.6s						
NB2	**NORSAR Subarra**	**145.24**	**352**	PKP	**PKPbc**	**14 38 49.3**	**-0.4**
	comp=Z,0.8nm,0.7s,baz=11,slow=4.1						
NOA	**NORSAR Array B**	**145.24**	**352**	PKPbc	**PKPab**	**14 38 49.5**	**-0.5**
	comp=Z,1.8nm,0.9s,baz=14,slow=2.5,SNR=6.7						
HFS	**Hagfors**	**145.77**	**350**	PKPbc	**PKPbc**	**14 38 50.8**	**-0.5**
	comp=Z,0.5nm,0.4s,baz=52,slow=2.4,SNR=5.6						
AKASG	**Malin Array Be**	**148.53**	**327**	PKPbc	**PKPab**	**14 39 01.5**	**-1.6**
	comp=Z,1.0nm,0.6s,baz=46,slow=4.3,SNR=5.7						
BRTR	**Keskin Array B**	**150.96**	**304**	PKPbc	**PKiKP**	**14 39 07.8**	**+1.5**
	comp=Z,0.7nm,0.6s,baz=101,slow=4.6,SNR=2.7						

IDC ***19*** *14:48:27.5±1.0, 25°.83N×90°.28E, h0^{km}, mb3.6/7, mbtmp3.6/9, ML3.9/2, Error ellipse: s-maj=51.4km s-min=12.4km az=64.0*

NDI ***19*** *14:48:30.7±1.8, 26°.24N×90°.51E, h6^{km}±14^{km}, ML3.7, MW3.7, Presumed earthquake*

DMN ***19*** *14:48:31.5±0.2, 25°.95N×90°.73E, h10^{km}, Ml4.1/7, Error ellipse: s-maj=21.2km s-min=4.0km az=20.0*

ISC 19 14:48:31.0±1.2, **25°.99N**±0°.04×**90°.54E**±0°.03, **h16**^{km}±8^{km}, **n28**, σ**1ˢ.81**/44, **mb3.5**/7, **India-Bangladesh border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DHUB	**DHUBRI**	**0.49**	**274**	*e*P	**Pg**	**14 48 41.0**	**+0.1**
DHUB				*e*S	**Sg**	**14 48 47.4**	**-0.2**
DHUB				IAML		14 48 47.7	
	comp=N,1µm,0.2s						
SHL	**Shillong**	**1.28**	**109**	*e*P	**Pg**	**14 48 55.9**	**+0.1**
TAWA	**Tawang**	**1.99**	**36**	*e*P	**Pg**	**14 49 09.3**	**0.0**
TAWA				*e*S	**Sn**	**14 49 26.3**	**-2.8**
TAWA				IAML		14 49 36.6	
	comp=N,1µm,0.5s						
TAWA				IAML		14 49 36.8	
	comp=E,2µm,0.2s						
TEZP	**TEZPUR**	**2.12**	**72**	*e*P	**Pn**	**14 49 06.7**	**+1.0**
TEZP				*e*S	**Sn**	**14 49 32.7**	**+1.0**
TEZP				IAML		14 49 41.2	
	comp=E,638nm,0.1s						
TEZP				IAML		14 49 41.9	
	comp=N,782nm,0.2s						
AGT	**Agartala**	**2.19**	**163**	*e*P	**Pg**	**14 49 12.7**	**-0.4**
AGT				*e*S	**Sg**	**14 49 41.2**	**-0.2**
AGT				IAML		14 49 47.6	
	comp=E,511nm,0.3s						
AGT				IAML		14 49 48.6	
	comp=N,495nm,0.6s						
ODAN	**Odare**	**2.96**	**288**	Pn	**Pn**	**14 49 19.1**	**+1.5**
	baz=288,slow=0.0						
ODAN				Sn	**Sn**	**14 49 54.1**	**+1.3**
	baz=288,slow=0.0						
AZL	**Aizawl**	**2.97**	**139**	*e*P	**Pn**	**14 49 20.6**	**+2.9**
AZL				*e*S	**Sb**	**14 49 58.7**	**-1.1**
AZL				IAML		14 50 05.3	
	comp=N,486nm,0.2s						
AZL				IAML		14 50 06.3	
	comp=E,332nm,0.8s						
KOHI	**KOHIMA**	**3.22**	**94**	*e*P	**Pn**	**14 49 23.9**	**+2.8**
KOHI				*e*S	**Sn**	**14 50 00.8**	**+1.5**
KOHI				IAML		14 50 19.1	
	comp=E,259nm,0.6s						
KOHI				IAML		14 50 19.9	
	comp=N,420nm,0.4s						
IMP	**Imphal**	**3.29**	**110**	*e*P	**Pn**	**14 49 24.4**	**+2.5**
IMP				*e*S	**Sn**	**14 50 03.7**	**+2.9**
IMP				IAML		14 50 22.0	
	comp=N,289nm,0.2s						
IMP				IAML		14 50 22.2	
	comp=E,236nm,0.1s						
ZIRO	**ZIRO**	**3.33**	**62**	IAML		14 50 23.7	
	comp=N,258nm,0.3s						
BRDH	**Bariadhala**	**3.45**	**163**	Pn	**Pn**	**14 49 24.2**	**+0.1**
	comp=N,43nm,0.3s,baz=245,slow=14,SNR=1.7						
BRDH				Sn	**Sn**	**14 50 03.0**	**-1.5**
	comp=N,53nm,0.3s,baz=232,slow=21,SNR=6.5						
	comp=N,107nm,0.3s						
BRDH				AML	AML		
RAMN	**Ramite**	**3.66**	**286**	Pn	**Pn**	**14 49 29.1**	**+1.8**
	baz=286,slow=0.0						
RAMN				Sn	**Sn**	**14 50 11.8**	**+1.6**
	comp=N,222nm,0.3s,baz=286,slow=0.0						
RAMN				AML	AML		
SAIH	**SAIHA**	**4.14**	**147**	*e*P	**Pn**	**14 49 35.9**	**+2.2**
SAIH				*e*S	**Sn**	**14 50 26.6**	**+4.7**
SAIH				IAML		14 50 27.0	
	comp=N,287nm,0.2s						
SAIH				IAML		14 50 27.4	
	comp=E,246nm,0.1s						
GUN	**Gumba**	**4.58**	**296**	Pn	**Pn**	**14 49 41.7**	**+1.7**
	baz=295,slow=0.0						
GUN				Sn	**Sn**	**14 50 33.6**	**+0.5**
	comp=E,57nm,0.3s,baz=295,slow=0.0						
GUN				AML	AML		
PKI	**Pulchoki**	**4.85**	**290**	Pn	**Pn**	**14 49 45.7**	**+2.0**
	baz=290,slow=0.0						
PKI				Sn	**Sn**	**14 50 39.5**	**-0.2**
	comp=E,29nm,0.2s,baz=290,slow=0.0						
PKI				AML	AML		
PKIN	**Phulchoki**	**4.86**	**290**	Pn	**Pn**	**14 49 45.3**	**+1.5**
	baz=290,slow=0.0						
PKIN				Sn	**Sn**	**14 50 40.9**	**+1.0**
	comp=E,42nm,0.2s,baz=290,slow=0.0						
PKIN				AML	AML		
KKN	**Kakani**	**5.03**	**292**	Pn	**Pn**	**14 49 48.8**	**+2.7**
	baz=292,slow=0.0						
DMN	**Daman**	**5.12**	**290**	Pn	**Pn**	**14 49 50.7**	**+3.4**
	baz=289,slow=0.0						
DMN				Sn	**Sn**	**14 50 46.6**	**+0.4**
	comp=E,28nm,0.3s,baz=289,slow=0.0						
DMN				AML	AML		
GKN	**Gorkha**	**5.64**	**292**	Pn	**Pn**	**14 49 55.7**	**+1.4**
	baz=292,slow=0.0						
GKN				Sn	**Sn**	**14 50 58.2**	**-0.7**
	comp=E,47nm,0.2s,baz=292,slow=0.0						
GKN				AML	AML		
DANN	**Dangsing**	**6.48**	**293**	Pn	**Pn**	**14 50 07.1**	**+1.0**
	baz=292,slow=0.0						
DANN				Sn	**Sn**	**14 51 18.3**	**-1.6**
	comp=E,22nm,0.3s,baz=292,slow=0.0						
DANN				AML	AML		
CMAR	**Chiang Mai Arr**	**10.80**	**132**	Pn	**Pn**	**14 51 03.4**	**-1.7**
	comp=E,0.1nm,0.3s,baz=312,slow=14,SNR=2.3						
	comp=E,0.4nm,0.5s						
CMAR				AML	AML		
MKAR	**Makanchi Array**	**21.77**	**345**	P	**P**	**14 53 22.8**	**+0.7**
	comp=E,1.2nm,0.6s,baz=163,slow=9.5,SNR=11						
	comp=E,1.2nm,0.6s						
SONM	**Songino Array**	**25.12**	**26**	P	**P**	**14 53 56.9**	**+1.6**
	comp=E,0.5nm,0.5s,baz=210,slow=11,SNR=2.6						
	comp=E,0.5nm,0.5s						
KURBB	**Kurchatov Arra**	**26.27**	**343**	P	**P**	**14 54 05.6**	**+0.2**
	comp=E,0.5nm,0.8s,baz=168,slow=8.6,SNR=12						
	comp=E,0.5nm,0.8s						
BVAR	**Borovoye Array**	**30.94**	**336**	P	**P**	**14 54 45.4**	**-1.7**
	comp=E,0.1nm,0.3s,baz=128,slow=6.4,SNR=4.1						
	comp=E,0.1nm,0.3s						
WRA	**Warramunga Arr**	**62.39**	**133**	P	**P**	**14 58 53.3**	**-0.1**
	comp=E,0.8nm,0.5s,baz=324,slow=7.0,SNR=37						
	comp=E,0.8nm,0.5s						
NOA	**NORSAR Array B**	**62.49**	**327**	P	**P**	**14 58 52.0**	**-1.6**
	comp=E,0.2nm,0.3s,baz=79,slow=9.7,SNR=5.8						
	comp=E,0.2nm,0.3s						
ASAR	**Alice Springs**	**64.79**	**136**	P	**P**	**14 59 08.7**	**-0.4**
	comp=E,0.6nm,0.6s,baz=315,slow=6.2,SNR=13						
	comp=E,0.6nm,0.6s						

IDC ***19*** *15:00:36.5±1.0, 55°.59S×26°.77W, h0^{km}, mb3.8/4, mbtmp3.8/4, Error ellipse: s-maj=48.8km s-min=25.8km az=83.0*

ISC 19 15:00:40.5±1.0, **55°.6S**±0°.2×**26°.9W**±0°.3, **h25**^{km}, **n10**, σ**0ˢ.76**/9, **mb4.0**/3, **2C, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNA1	**Neumayer--Stat**	**17.18**	**159**	P	**P**	**15 04 41.1**	**+1.2**
	comp=Z,0.5nm,0.2s						
VNA3	**Neumayer Olymp**	**17.39**	**161**	⇑P	**P**	**15 04 42.1**	**-0.2**
	comp=Z,2.5nm,0.6s						
VNA2	**Neumayer--Watz**	**17.58**	**159**	⇑P	**P**	**15 04 45.0**	**+0.7**
	comp=Z,1.0nm,0.4s,baz=312,slow=13						
TROLL	**Troll, Antarti**	**20.61**	**154**	P	Pn	15 05 19.9	0.0
	comp=Z,19nm,0.4s						
QSPA	**South Pole Qui**	**34.67**	**180**	P	**P**	**15 07 26.9**	**-0.9**
	comp=Z,0.7nm,0.5s,baz=185,slow=2.4,SNR=10						
	comp=Z,0.7nm,0.5s						
VNDA	**Vanda**	**47.05**	**183**	P	**P**	**15 09 09.6**	**+0.3**
	comp=Z,1.0nm,0.6s,baz=189,slow=5.6,SNR=6.3						
	comp=Z,1.0nm,0.6s						
LPAZ	**La Paz**	**50.23**	**305**	P	**P**	**15 09 35.4**	**+0.4**
	comp=Z,1.3nm,0.6s,baz=175,slow=9.0,SNR=5.2						
	comp=Z,1.3nm,0.6s						
TORD	**Torodi Ar. Bea**	**72.57**	**29**	P	**P**	**15 12 05.4**	**+0.1**
	comp=Z,0.2nm,0.5s,baz=204,slow=6.2,SNR=2.4						
	comp=Z,0.2nm,0.5s						
ILAR	**Eielson Array**	**149.91**	**312**	PKPbc	**PKPbc**	**15 20 26.8**	**-0.2**
	comp=Z,1.4nm,0.8s,baz=118,slow=2.8,SNR=12						
SONM	**Songino Array**	**150.55**	**85**	PKPbc	**PKPbc**	**15 20 28.5**	**-0.7**
	comp=Z,1.3nm,0.8s,baz=245,slow=3.9,SNR=4.4						

IDC 19 15:28:20.9±2.8, **3°.47S**×**135°.49E**, **h0**^{km}, **mb2.9**/2, **mbtmp3.2**/4, **ML3.1**/2, **Error ellipse: s-maj=92.7km s-min=30.5km az=84.0, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**16.41**	**184**	Pn	Pn	15 32 09.8	-3.0
	0.1nm,0.3s,baz=6.2,slow=13,SNR=5.8						
	0.3nm,0.9s						
WRA				AML	AML		
FITZ	**Fitzroy Crossi**	**17.45**	**213**	P	Pn	15 32 24.8	-1.1
	0.1nm,0.3s,baz=35,slow=12,SNR=1.4						
	1.6nm,0.9s						
FITZ				AML	AML		
ASAR	**Alice Springs**	**20.14**	**184**	P	P	15 32 57.6	+0.8
	0.2nm,0.7s,baz=8.1,slow=12,SNR=2.4						
	0.2nm,0.7s						
MKAR	**Makanchi Array**	**68.46**	**324**	P	P	15 39 24.9	0.0
	0.1nm,0.5s,baz=127,slow=6.5,SNR=1.5						
	0.1nm,0.5s						

IDC ***19*** *15:42:40.7±3.4, 33°.82S×178°.84W, h0^{km}, mb3.7/2, mbtmp3.8/3, ML3.8/1, Error ellipse: s-maj=76.2km s-min=37.5km az=115.0*

WEL ***19*** *15:42:43.7±1.2, 34°S±14°×17°8W±1°6, h184^{km}±37^{km}, M3.9/10, mB4.4/3, ML3.9/11, MLv4.0/10, Mw(mB)3.5/3, Error ellipse: s-maj=22.2km s-min=16.4km az=117.5, confirmed*

ISC 19 15:42:39.2±1.7, **34°.2S**±0°.1×**177°.7W**±0°.1, **h35**^{km}, **n22**, σ**1ˢ.43**/39, **South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	**4.67**	**223**	P	**Pn**	**15 43 48.2**	**+1.1**
MXZ				S	**Sn**	**15 44 40.2**	**+0.1**
WMGZ	**Waiomatatini S**	**4.79**	**220**	P	**Pn**	**15 43 51.4**	**+2.5**
WMGZ				S	**Sn**	**15 44 44.6**	**+1.4**
WMGZ				AML	AML		
WMGZ				AML	AML		
PKGZ	**Pakihiroa**	**5.01**	**222**	P	**Pn**	**15 43 52.8**	**+0.9**
PKGZ				S	**Sn**	**15 44 48.9**	**+0.3**
PKGZ				AML	AML		
PKGZ				AML	AML		
PUZ	**Puketiti**	**5.07**	**219**	P	**Pn**	**15 43 53.0**	**+0.3**
PUZ				S	**Sn**	**15 44 50.1**	**+0.2**
PUZ				AML	AML		
HAZ	**Te Kaha**	**5.10**	**225**	P	**Pn**	**15 43 54.9**	**+1.8**
HAZ				S	**Sn**	**15 44 51.7**	**+1.0**
HAZ				AML	AML		
HAZ				AML	AML		

TWGZ	Tauwhareparae	5.29	220	P	Pn	15 43 59.4	+3.7
TWGZ				S	Sn	15 44 56.4	+1.0
TWGZ				AML	AML		
TWGZ				AML	AML		
RUGZ	Raukumara Rang	5.31	224	P	Pn	15 43 57.7	+1.6
RUGZ				S	Sn	15 44 55.7	-0.3
RUGZ				AML	AML		
RUGZ				AML	AML		
CNGZ	Carnagh Statio	5.41	216	P	Pn	15 43 58.0	+0.7
CNGZ				S	Sn	15 44 57.6	-0.6
CNGZ				AML	AML		
TKGZ	Te Karaka	5.55	219	P	Pn	15 44 00.7	+1.4
TKGZ				S	Sn	15 45 01.9	0.0
TKGZ				AML	AML		
TKGZ				AML	AML		
MWZ	Matawai	5.65	222	P	Pn	15 44 01.2	+0.5
MWZ				S	Sn	15 45 02.9	-1.5
MWZ				AML	AML		
RIGZ	Rimuhau	5.80	218	P	Pn	15 44 03.0	+0.3
RIGZ				S	Sn	15 45 07.7	-0.3
RIGZ				AML	AML		
RAGZ	Rawiri	5.83	221	P	Pn	15 44 02.1	-1.0
RAGZ				S	Sn	15 45 08.1	-0.6
RAGZ				AML	AML		
URZ	Urewera	5.83	224	Pn	Pn	15 44 04.2	+1.1
	3.2nm,0.3s,baz=19,slow=2.2,SNR=11						
URZ				Sn	Sn	15 45 07.4	-1.4
	1.6nm,0.3s,baz=333,slow=14,SNR=6.4						
	5.5nm,0.3s						
URZ				AML	AML		
URZ	Urewera	5.83	224	P	Pn	15 44 03.8	+0.7
URZ				S	Sn	15 45 07.2	-1.6
URZ				AML	AML		
MUGZ	Murupara	6.18	225	P	Pn	15 44 09.4	+1.5
MUGZ				S	Sn	15 45 14.1	-3.2
MUGZ				AML	AML		
MUGZ				AML	AML		
MTHZ	Maungataniwha	6.39	222	P	Pn	15 44 13.5	+2.6
MTHZ				S	Sn	15 45 21.8	-0.9
MTHZ				AML	AML		
MTHZ				AML	AML		
TOZ	Tahuroa Road	6.54	235	P	Pn	15 44 14.1	+1.2
TOZ				AML	AML		
BKZ	Black Stump Fm	6.81	222	P	Pn	15 44 16.8	+0.2
BKZ				S	Sn	15 45 30.7	-2.1
BKZ				AML	AML		
BKZ				AML	AML		
CTZ	Chatham Island	9.56	175	P	Pn	15 44 54.7	+0.4
ASAR	Alice Springs	43.29	271	P	P	15 50 36.5	-1.2
	0.6nm,0.6s,baz=103,slow=7.5,SNR=7.7						
	0.6nm,0.6s						
WRA	Warramunga Arr	44.61	276	P	P	15 50 47.3	-1.0
	1.1nm,0.8s,baz=116,slow=7.6,SNR=10.0						
	1.1nm,0.8s						
FINES	FINESS Array B	148.77	338	PKPbc	PKPab	16 02 26.7	+0.8
	6.7nm,1.2s,baz=15,slow=1.6,SNR=2.4						

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*IDC **19** 15:55:55.4±1.0, 1°.35N×101°.43W, h0^{km}, mb4.0/7, mbtmp4.0/7, MS3.3/12, Error ellipse: s-maj=55.1km s-min=20.0km az=64.0*

*NEIC **19** 15:55:56.6±2.2, 1°.32N±0°.08×101°.5W±0°.1, h10^{km}±1^{km}, mb4.2/15, Error ellipse: s-maj=23.8km s-min=13.6km az=266.0*

ISC 19 15:55:55.9±0.7, **1°.3N**±0°.1×**101°.4W**±0°.1, **h10**^{km}, **n37**, σ**1^s.12**/29, **mb4.2**/13, **MS3.4**/10, **Galapagos Triple Junction region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMIG	Matias Romero	16.95	22	LR	LR	16 04 20.2	
	comp=Z,71nm,21.1s,baz=190,slow=30						
MTO3	Montecristo	17.64	42		P	16 00 04.1	+0.9
JUD3	Juan Diaz 3	18.06	60	Pn	Pn	16 00 06.0	-1.3
JTS	Las Juntas de	18.63	61	LR	LR	16 04 44.2	
	comp=Z,23nm,20.6s,baz=266,slow=28						
OTAV	Otavalo	22.98	92	P	P	16 01 01.0	-0.5
OTAV				IAmb	IAmb	16 01 04.3	
	comp=Z,8.2nm,1.1s						
LPIG	La Paz	24.25	340	LR	LR	16 08 36.4	
	comp=Z,114nm,20.2s,baz=158,slow=32						
ATAH	Atahualpa	24.44	110	LR	LR	16 07 46.0	
	comp=Z,63nm,20.6s,baz=279,slow=29						
TX31	Lajitas Ar. Si	27.96	356	P	P	16 01 46.8	-0.1
TXAR	Lajitas Array	27.96	356	P	P	16 01 48.0	+1.1
	comp=Z,0.9nm,0.8s,baz=177,slow=11,SNR=8.1						
TXAR				LR	LR	16 11 38.1	
	comp=Z,83nm,19.0s,baz=155,slow=34						
	comp=Z,0.9nm,0.8s						
TXAR	Lajitas Array	27.96	356	P	P	16 01 46.5	-0.5
ALPN	Alpine	28.99	356	P	P	16 01 54.4	-1.7
ALPN				IAmb	IAmb	16 01 59.2	
	comp=Z,5.5nm,1.3s						
JCT	Junction City	29.06	3	P	P	16 01 55.9	-0.7
JCT				IAmb	IAmb	16 01 58.2	
	comp=Z,4.1nm,0.3s						
VA02	Isla de Pascua	29.33	195	P	P	16 01 56.8	-2.2
CZSB	Cruzeiro do Su	30.00	108	P	P	16 02 05.1	0.0
CHIV	Chivirico	30.69	51	P	P	16 02 10.2	-0.9
ANMO	Albuquerque	33.80	353	LR	LR	16 14 43.7	
	comp=Z,81nm,20.3s,baz=150,slow=33						
PFO	Pinyon Flats O	35.11	338	LR	LR	16 14 47.5	
	comp=Z,44nm,20.1s,baz=352,slow=32						
LCMT	Little Creek M	37.18	344	P	P	16 03 06.7	-0.8
LCMT				IAmb	IAmb	16 03 10.7	
	comp=Z,2.8nm,0.6s						
LPAZ	La Paz	37.21	119	P	P	16 03 10.8	+2.3
	comp=Z,1.9nm,0.6s,baz=306,slow=5.8,SNR=9.8						
LPAZ				LR	LR	16 15 21.9	
	comp=Z,68nm,21.5s,baz=300,slow=31						
	comp=Z,1.9nm,0.6s						
LPAZ	La Paz	37.21	119	P	P	16 03 09.5	+1.0
LPAZ				IAmb	IAmb	16 03 11.0	
	comp=Z,2.2nm,0.7s						
NVAR	Mina Array Bea	40.07	339	LR	LR	16 16 32.2	
	comp=Z,68nm,21.8s,baz=90,slow=31						
HWUT	Hardware Ranch	41.16	348	P	P	16 03 41.6	+0.8
HWUT				IAmb	IAmb	16 04 07.1	
	comp=Z,7.2nm,1.3s						
PD31	Pinedale Array	41.93	351	P	P	16 03 47.9	+0.8
PD31				IAmb	IAmb	16 04 08.8	
	comp=Z,5.2nm,1.4s						
PDAR	Pinedale Array	41.93	351	P	P	16 03 48.1	+1.0
	comp=Z,1.2nm,0.8s,baz=152,slow=8.4,SNR=12						
PDAR				LR	LR	16 19 40.8	
	comp=Z,27nm,20.1s,baz=68,slow=34						
	comp=Z,1.2nm,0.8s						
PDAR	Pinedale Array	41.93	351	P	P	16 03 47.5	+0.4
YBH	Yreka Blue Hor	44.59	337	LR	LR	16 19 15.6	
	comp=Z,41nm,19.0s,baz=118,slow=31						
PTLB	Pontes e Lacer	44.97	113	P	P	16 04 12.5	+0.7
PTLB				IAmb	IAmb	16 04 13.0	
	comp=Z,3.1nm,0.7s						
ULM	Lac du Bonnet	49.00	5	P	P	16 04 41.5	-1.2
	comp=Z,2.1nm,0.6s,baz=225,slow=4.3,SNR=4.1						
	comp=Z,2.1nm,0.6s						
ULM	Lac du Bonnet	49.00	5	P	P	16 04 42.3	-0.4
ULM				IAmb	IAmb	16 04 49.9	
	comp=Z,4.6nm,1.1s						
PLCA	Paso Flores	50.39	150	P	P	16 04 54.1	+0.5
	comp=Z,1.8nm,0.9s,baz=312,slow=6.7,SNR=3.3						
PLCA				LR	LR	16 22 25.6	
	comp=Z,74nm,18.6s,baz=186,slow=32						
	comp=Z,1.8nm,0.9s						
DLBC	Dease Lake	61.27	343	P	P	16 06 12.5	+1.2
	comp=Z,1.1nm,0.7s,baz=193,slow=12,SNR=3.4						
	comp=Z,1.1nm,0.7s						
ILAR	Eielson Array	71.29	341	P	P	16 07 16.1	+0.7
	comp=Z,1.4nm,0.8s,baz=146,slow=5.5,SNR=13						
	comp=Z,1.4nm,0.8s						
ILAR	Eielson Array	71.29	341	P	P	16 07 15.4	0.0
ASAR	Alice Springs	122.05	243	PKP	PKiKP	16 14 53.0	+1.1
	comp=Z,0.2nm,0.8s,baz=105,slow=2.0,SNR=5.1						
ZALV	Zalesovo Beam	124.70	356	PKP	PKPdf	16 14 55.3	-0.6
	comp=Z,0.5nm,0.4s,baz=60,slow=3.6,SNR=4.0						
KURBB	Kurchatov Arra	128.28	0	PKP	PKPdf	16 15 02.3	-0.6
	comp=Z,0.5nm,0.8s,baz=344,slow=1.8,SNR=5.3						
CMAR	Chiang Mai Arr	151.96	315	PKPbc	PKiKP	16 15 54.6	+1.9
	comp=Z,1.0nm,0.8s,baz=23,slow=2.9,SNR=4.4						

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*IDC **19** 16:02:44.9±1.2, 53°.66S×141°.12E, h0^{km}, mb3.9/5, mbtmp4.0/5, MS3.8/21, Error ellipse: s-maj=133.1km s-min=19.0km az=84.0*

*GCMT **19** 16:02:50.0±0.4, 53°.69S±0°.02×140°.52E±0°.06, h24^{km}±2^{km}, MW4.8/80, Moment Tensor Solution. s7,c8; s80,c102; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.14±.15; $M_{\theta\theta}$0.26±.10; $M_{\phi\phi}$-0.11±.12; $M_{r\theta}$-0.76±.17; $M_{\theta\phi}$-1.78±.08; $M_{\phi r}$0.34±.15; Best double couple: $M_0$1.95000×10^{16} NP1:ϕ_s359.00000°,δ69.00000°,λ7.00000°. NP2: ϕ_s266.00000°,δ84.00000°,λ159.00000°. Principal axes: T 2.1360, Plg19.0000°, Azm221.0000°; N -0.3710, Plg68.0000°, Azm70.0000°; P -1.7640, Plg10.0000°, Azm314.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Surface-wave location Triangular moment-rate function*

ISC 19 16:02:46.5±1.2, **53°.7S**±0°.2×**14°0E**±°, **h10**^{km}, **n31**, σ**0^s.37**/5, **mb4.0**/5, **MS3.7**/21, **West of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	21.87	4	P	P	16 07 39.5	+0.2
	6.9nm,0.7s,baz=163,slow=10,SNR=9.6						
STKA				LR	LR	16 14 27.5	
	comp=Z,133nm,20.8s,baz=191,slow=32						
	6.9nm,0.7s						
RPZ	Rata Peaks	22.63	76	LR	LR	16 14 38.5	
	comp=Z,135nm,18.4s,baz=226,slow=32						
VNDA	Vanda	25.18	169	P	P	16 08 11.3	-0.2
	1.1nm,0.8s,baz=317,slow=10,SNR=3.8						
VNDA				LR	LR	16 16 47.7	
	comp=Z,61nm,18.9s,baz=343,slow=34						
	1.1nm,0.8s						
H01W1	Cape Leeuwin H	26.15	306	T	T	16 36 03.5	
	baz=142,slow=75,SNR=63						
H01W2	Cape Leeuwin H	26.16	306	T	T	16 36 04.0	
	baz=142,slow=75,SNR=62						
H01W3	Cape Leeuwin H	26.17	306	T	T	16 36 04.8	
	baz=142,slow=75,SNR=48						
NWAO	Narrogin (SRO)	26.37	313	LR	LR	16 16 29.6	
	comp=Z,167nm,19.8s,baz=148,slow=31						
URZ	Urewera	29.65	74	LR	LR	16 18 47.0	
	comp=Z,262nm,21.7s,baz=224,slow=33						
ASAR	Alice Springs	30.37	349	P	P	16 08 58.6	+0.1
	1.5nm,0.6s,baz=164,slow=9.8,SNR=48						
ASAR				LR	LR	16 20 16.8	
	comp=Z,101nm,19.0s,baz=162,slow=35						
	1.5nm,0.6s						
CTA	Charters Tower	33.92	11	LR	LR	16 21 55.0	
	comp=Z,139nm,18.7s,baz=220,slow=34						
WRA	Warramunga Arr	34.00	350	P	P	16 09 30.1	-0.3
	2.4nm,0.9s,baz=171,slow=7.6,SNR=27						
	2.4nm,0.9s						
QSPA	South Pole Qui	36.38	180	P	P	16 09 50.9	+0.2
	1.0nm,0.9s,baz=326,slow=15,SNR=5.3						
QSPA				LR	LR	16 24 37.4	
	comp=Z,141nm,19.4s,baz=18,slow=36						
	1.0nm,0.9s						
FITZ	Fitzroy Crossi	37.26	337	LR	LR	16 24 20.2	
	comp=Z,130nm,20.0s,baz=183,slow=35						
MAW	Mawson	37.48	218	LR	LR	16 24 28.6	
	comp=Z,226nm,19.4s,baz=94,slow=34						
PMG	Port Moresby	44.57	10	LR	LR	16 28 17.2	
	comp=Z,122nm,19.3s,baz=169,slow=34						
HNR	Honiara	46.99	27	LR	LR	16 28 19.9	
	comp=Z,82nm,19.9s,baz=297,slow=33						
KAPI	Kappang	51.30	334	LR	LR	16 33 05.0	
	comp=Z,79nm,20.0s,baz=140,slow=35						
SNAA	Sanae	52.18	194	LR	LR	16 33 41.3	
	comp=Z,225nm,20.5s,baz=146,slow=35						
H04S1	CROZET ISLANDS	53.24	239	T	T	17 10 51.9	
	baz=132,slow=76,SNR=18						
H04S2	CROZET ISLANDS	53.24	239	T	T	17 10 51.1	
	baz=132,slow=76,SNR=20						
H04S3	CROZET ISLANDS	53.26	239	T	T	17 10 49.8	
	baz=132,slow=76,SNR=23						
GUMO	Guam	67.17	5	LR	LR	16 40 42.3	
	comp=Z,33nm,21.4s,baz=176,slow=34						
H08S2	Diego Garcia H	70.63	284	T	T	17 31 44.0	
	baz=144,slow=76,SNR=15						
H08S1	Diego Carcia H	70.64	284	T	T	17 31 48.6	
	baz=144,slow=76,SNR=4.8						
H08S3	Diego Garcia H	70.65	284	T	T	17 31 49.9	
	baz=144,slow=76,SNR=32						
PALK	Pallekele	78.47	299	LR	LR	16 43 14.5	
	comp=Z,54nm,18.6s,baz=123,slow=31						
CMAR	Chiang Mai Arr	80.08	321	LR	LR	16 48 07.8	
	comp=Z,25nm,21.6s,baz=190,slow=34						
BOSA	Boshof	80.53	234	LR	LR	16 44 15.9	
	comp=Z,74nm,18.5s,baz=181,slow=31						
LBTB	Lobatse	83.37	236	LR	LR	16 45 59.8	
	comp=Z,60nm,18.0s,baz=166,slow=31						
LSZ	Lusaka	90.14	244	LR	LR	16 52 32.1	
	comp=Z,90nm,18.1s,baz=165,slow=33						
KMBO	Kilima Mbogo	96.63	259	LR	LR	16 51 20.0	
	comp=Z,57nm,21.9s,baz=100,slow=30						

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*SJA **19** 16:03:57.0±0.7, 27°.90S×71°.80W, h11^{km}, ML4.1, MW3.9*

*GUC **19** 16:04:02.2±0.7, 28°.02S×71°.43W, h23^{km}±2^{km}, ML3.7*

*IDC **19** 16:04:06.4±3.1, 27°.91S×71°.54W, h49^{km}±26^{km}, mb3.6/4, mbtmp3.9/7, ML3.9/3, MS3.3/3, Error ellipse: s-maj=37.0km s-min=18.3km az=81.0*

ISC 19 16:03:59.1±0.7, **27°.95S**±0°.02×**71°.58W**±0°.04, **h10**^{km}, **n46**, σ**2^s.38**/66, **mb4.2**/3, **5C-4D**, **Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.52	120	*e*P	Pb	16 04 09.9	-0.3
AC04				*e*S	Sg	16 04 15.7	-0.4
AC04	Llanos de Chal	0.52	120	⇑*e*P	Pb	16 04 10.0	-0.3
AC04				*e*S	Sg	16 04 15.5	-0.5
AC04				IAML		16 04 15.9	
	comp=E,16μm,0.4s						
AC06	Mina Casimiro	1.24	62	⇓*e*P	Pg	16 04 22.2	-0.7
AC06				IAML		16 04 42.9	
	comp=N,2μm,0.5s						
GO03	Copiapo	1.24	74	*e*P	Pg	16 04 22.6	-0.5
GO03				*e*S	Sn	16 04 40.8	+1.3
GO03				IAML		16 04 45.7	
	comp=Z,2μm,0.4s						
GO03	Copiapo	1.24	74	⇓*e*P	Pg	16 04 22.3	-0.7
GO03				*e*S	Sn	16 04 39.2	-0.3
GO03				IAML		16 04 45.3	
	comp=E,3μm,0.5s						
LCO	Las Campanas	1.31	144	*e*P	Pg	16 04 23.5	-0.9
LCO				*e*S	Sb	16 04 39.7	-1.4
AC05	El Transito	1.45	128	⇓*e*P	Pb	16 04 25.7	-0.6
AC05				*e*S	Sn	16 04 43.1	-1.7
AC05				IAML		16 04 46.2	
	comp=E,2μm,0.6s						
AC01	Pan de Azucar	1.99	26	*e*P	Pb	16 04 33.6	-1.9
AC01				*e*P	Pb	16 04 33.6	-1.9
AC01				*e*S	Sg	16 05 01.1	-2.1
AC01				IAML		16 05 10.3	
	comp=Z,640nm,0.6s						
AC01	Pan de Azucar	1.99	26	⇑*e*P	Pb	16 04 33.6	-1.9
AC01				*e*S	Sg	16 05 01.8	-1.4
AC01				IAML		16 05 09.2	
	comp=E,508nm,0.3s						
GO04	Tololo Observa	2.32	163	*e*P	Pb	16 04 39.3	-2.0
GO04				*e*S	Sg	16 05 13.3	-0.5
GO04				IAML		16 05 17.7	
	comp=Z,2μm,0.6s						
GO04	Tololo Observa	2.32	163	⇑*e*P	Pb	16 04 39.0	-2.3
GO04				*e*S	Sb	16 05 07.7	-2.4
CO01	Juntas del Tor	2.41	148	*e*P	Pb	16 04 41.1	-1.6
CO01				*e*S	Sb	16 05 10.4	-2.1
CO01				IAML		16 05 16.8	
	comp=Z,783nm,0.3s						
CO01	Juntas del Tor	2.41	148	⇑*e*P	Pb	16 04 41.3	-1.4
CO01				*e*S	Sb	16 05 09.8	-2.7
CO01				IAML		16 05 15.4	
	comp=E,1μm,0.3s						
AC02	Maricunga	2.44	64	*e*P	Pb	16 04 42.1	-1.3
AC02				*e*S	Sn	16 05 09.1	-0.7
AC02				IAML		16 05 33.1	
	comp=Z,636nm,1.1s						
AC02	Maricunga	2.44	64	⇑*e*P	Pb	16 04 42.0	-1.5
AC02				*e*S	Sb	16 05 12.4	-1.5
CO06	Fray Jorge	2.72	181	*e*P	Pn	16 04 43.3	+0.4
CO06				*e*S	Sn	16 05 15.2	-0.6
CO06				IAML		16 05 32.4	
	comp=E,604nm,0.4s						
AROD	Rodeo	2.88	141	*e*P	Pb	16 04 48.3	-2.5
AROD				*e*S	Sb	16 05 28.0	+1.8
VCA	Vinchina	3.08	106	*e*P	Pb	16 04 53.0	-1.1
VCA				*e*S	Sb	16 05 31.1	-0.7
VCA				IAML		16 05 44.5	
	comp=Z,476nm,0.6s						
CO02	Combarbal	3.29	171	*e*P	Pn	16 04 52.3	+1.5
CO02				*e*S	Sb	16 05 33.6	-4.1
CO02				IAML		16 05 47.7	
	comp=Z,984nm,0.6s						
CO02	Combarbal	3.29	171	⇓*e*P	Pn	16 04 52.0	+1.2
CO02				*e*S	Sn	16 05 29.5	-0.5
ACCO	Cerro Coronel	3.43	141	*e*P	Pb	16 04 57.5	-2.7
ACCO				*e*S	Sb	16 05 41.6	-0.5
ACCO				IAML		16 05 51.8	
	comp=Z,346nm,0.4s						
PB14	IPOC Station P	3.47	18	*e*P	Pn	16 04 53.7	+0.2
PB14				*e*S	Sg	16 05 46.6	-4.1
PB14				IAML		16 06 05.5	
	comp=Z,192nm,0.7s						
TINO	Tinogasta	3.55	93	*e*P	Pb	16 04 57.6	-4.5
TINO				*e*S	Sb	16 05 43.6	-1.7
TINO				IAML		16 05 54.4	
	comp=Z,236nm,0.5s						
RTLL	Cerro Villicun	4.32	142	*e*P	Pn	16 05 09.1	+4.1
RTLL				*e*S	Sb	16 06 01.1	-6.4
RTLL				*e*S	Sn	16 06 04.1	+8.6
RTLL				IAML		16 06 21.1	
	comp=Z,244nm,0.6s						
RTLS	Leoncito	4.32	153	*e*P	Pb	16 05 10.2	-5.2
RTLS				*e*S	Sb	16 06 04.1	-3.6
ACLC	CERRO LA CRUZ	4.33	111	*e*P	Pb	16 05 09.3	-6.0
ACLC				*e*S	Sb	16 06 05.9	-1.8
ACLC				IAML		16 06 11.1	
	comp=Z,84nm,1.1s						
CFA	Coronel Fontan	4.66	142	P	Pn	16 05 13.2	+3.6
	comp=Z,5.4nm,0.3s,baz=332,slow=9.8,SNR=60						
CFA				S	Sn	16 06 09.1	+5.2
	comp=Z,22nm,0.5s,baz=143,slow=16,SNR=4.6						
	comp=Z,16nm,0.3s						
CFA				AML	AML		
CFA	Coronel Fontan	4.66	142	*e*P	Pn	16 05 13.5	+3.9
CFA				*e*S	Sb	16 06 10.1	-7.2
CFA				IAML		16 06 23.0	
	comp=Z,119nm,0.5s						
VA03	San Esteban	4.88	170	*e*S	Sb	16 06 21.6	-2.1
VA03				IAML		16 06 39.6	
	comp=Z,267nm,0.8s						
CYA	Choya	5.12	97	*e*P	Pn	16 05 18.8	+2.8
H03N1	Juan Fernandez	8.36	227	T	T	16 14 48.0	
	baz=55,slow=74,SNR=1644						
H03N2	Juan Fernandez	8.37	227	T	T	16 14 39.8	
	baz=207,slow=74,SNR=1614						
LPAZ	La Paz	12.03	16	P	Pn	16 06 53.8	+2.5
	comp=Z,0.3nm,0.3s,baz=245,slow=5.8,SNR=4.6						
	comp=Z,0.9nm,0.4s						
LPAZ				AML	AML		
PLCA	Paso Flores	12.78	176	LR	LR	16 11 54.0	
	comp=Z,93nm,18.4s,baz=35,slow=36						
CPUP	Villa Florida	12.79	86	LR	LR	16 12 28.3	
	comp=Z,138nm,18.5s,baz=252,slow=39						
SIV	San Ignacio	15.37	41	P	P	16 07 39.3	-1.7
	baz=236,slow=12,SNR=12						
	comp=Z,2.4nm,0.7s						
QSPA	South Pole Qui	62.27	180	P	P	16 14 23.0	+1.9
	comp=Z,1.2nm,0.8s,baz=177,slow=3.7,SNR=6.7						
	comp=Z,1.2nm,0.8s						
TKL	Tuckaleechee C	64.30	349	LR	LR	16 43 10.1	
	comp=Z,36nm,19.2s,baz=32,slow=36						
TXAR	Lajitas Array	64.71	329	P	P	16 14 41.0	+3.4
	comp=Z,0.1nm,0.4s,baz=140,slow=13,SNR=1.9						
	comp=Z,0.1nm,0.4s						
DBIC	Dimbokro	72.94	73	P	P	16 15 30.3	+1.2
	comp=Z,2.7nm,0.5s,baz=230,slow=5.9,SNR=4.1						
	comp=Z,2.7nm,0.5s						
TORD	Torodi Ar. Bea	81.80	70	P	P	16 16 20.1	+1.4
	comp=Z,1.5nm,1.0s,baz=260,slow=4.8,SNR=5.2						
	comp=Z,1.5nm,1.0s						
ASAR	Alice Springs	123.10	208	PKP	PKiKP	16 22 56.8	-0.1
	comp=Z,0.4nm,0.8s,baz=136,slow=1.6,SNR=4.6						
WRA	Warramunga Arr	126.19	211	PKP	PKiKP	16 23 03.6	+0.6
	comp=Z,0.3nm,0.4s,baz=148,slow=1.6,SNR=5.5						
KURBB	Kurchatov Arra	147.99	37	PKPbc	PKiKP	16 23 44.7	-1.7
	comp=Z,0.3nm,0.4s,baz=292,slow=3.2,SNR=6.1						
ZALV	Zalesovo Beam	148.78	27	PKPbc	PKPab	16 23 48.6	-1.6
	comp=Z,1.3nm,0.6s,baz=308,slow=3.2,SNR=7.7						
MKAR	Makanchi Array	152.18	40	PKPbc	PKiKP	16 23 56.6	+1.5
	comp=Z,0.5nm,0.4s,baz=299,slow=1.4,SNR=6.8						

IDC 19 16:14:39.9±5.9, **2°.30S**×**141°.84E**, **h0**^{km}, **mb3.2**/2, **mbtmp3.2**/3, **ML3.3**/1, **Error ellipse: s-maj=213.1km s-min=32.7km az=90.0**, **Near north coast of New Guinea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	19.00	202	P	P	16 19 03.0	-0.4
	0.1nm,0.3s,baz=20,slow=12,SNR=6.4						
	0.2nm,0.4s						
WRA				AML	AML		
ASAR	Alice Springs	22.59	199	P	P	16 19 42.6	+0.4
	0.4nm,0.7s,baz=29,slow=11,SNR=10						
	0.4nm,0.7s						
MKAR	Makanchi Array	71.40	321	P	P	16 26 02.0	-0.1
	0.3nm,0.6s,baz=122,slow=5.4,SNR=2.6						
	0.3nm,0.6s						

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*AZER **19** 16:19:11.6, 38°.82N×44°.73E, h4^{km}, ml3.0*

*AFAD **19** 16:19:11.7, 38°.81N×44°.83E, h6^{km}±2^{km}, ML2.5*

*ISK **19** 16:19:14.9, 38°.87N×44°.57E, h8^{km}, ML2.7/9*

*TEH **19** 16:19:16.0, 38°.68N×44°.90E, h10^{km}±87^{km}, ML2.9, Presumed earthquake*

ISC 19 16:19:13.0±1.0, **38°.82N**±0°.02×**44°.81E**±0°.02, **h14**^{km}±9^{km}, **n47**, σ**1^s.08**/76, **Turkey-Iran border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NAX	Nakhchivan	0.64	56	P	Pn	16 19 27.4	-0.4
NAX				S	Sn	16 19 38.4	+0.6
OZAP	Van, Ozalp-Mer	0.66	256	P	Pb	16 19 24.8	-1.7
OZAP				S	Sg	16 19 34.8	+0.1
OZAP				IAML		16 19 36.0	
	comp=N,250nm,1.0s						
IMRD	Marand	0.71	98	Pg	Pn	16 19 28.0	-0.8
CLDR	Caldiran	0.77	295	Pg	Pb	16 19 26.7	-1.6
CLDR				AML	AML		
CLDR	Caldiran	0.77	295	P	Pb	16 19 26.5	-1.8
CLDR				S	Sg	16 19 38.5	+0.4
CLDR				IAML		16 19 41.0	
	comp=N,370nm,0.4s						
SBZ	Shahbuz	0.82	45	P	Pn	16 19 30.4	+0.1
SBZ				S	Sn	16 19 44.0	+1.8
ISHB	Shabestar	0.83	130	Pg	Pn	16 19 30.4	-0.2
HYR	Heyderabad	0.90	2	P	Pn	16 19 30.9	-0.5
HYR				S	Sn	16 19 45.5	+1.3
ORD	Ordubad	0.93	83	P	Pn	16 19 32.3	+0.5
ORD				S	Sn	16 19 46.8	+1.8
VANB	Van	1.13	259	Pg	Pn	16 19 33.8	-0.8
VANB				Sg	Sb	16 19 48.4	-0.7
VANB				AML	AML		
TVAN	Van	1.14	256	P	Pn	16 19 33.9	-0.8
IGDI	IGDIR	1.19	332	P	Pb	16 19 34.8	-0.7
IGDI	IGDIR	1.19	332	P	Pg	16 19 35.6	-0.4
IGDI				S	Sg	16 19 53.3	+1.8
ITBZ	Tabriz	1.20	119	Sg	Sg	16 19 52.8	+0.9
TASB	TASBURUN-IGDIR	1.24	339	Pn	Pg	16 19 37.4	+0.4
TASB				Sn	Sg	16 19 53.3	+0.1
TASB				AML	AML		
YOVA	Hakkari_Yksek	1.30	199	P	Pg	16 19 38.5	+0.4
GNI	Garni	1.33	358	Pn	Pg	16 19 39.6	+1.0
GNI				Sn	Sg	16 19 57.8	+1.8
GNI				AML	AML		
GEVA	Gevas	1.46	250	P	Pn	16 19 38.7	-0.4
GEVA				S	Sg	16 20 00.9	+0.8
GEVA				IAML		16 20 06.0	
	comp=N,65nm,0.6s						
IAZR	Azarshahr	1.47	141	Pg	Pb	16 19 40.5	+0.3
AKDM	Akdamar-Van	1.52	252	Pn	Pb	16 19 40.9	-0.1
AKDM				Sn	Sb	16 19 59.7	-0.5
AKDM				AML	AML		
HAKT	HAKKARI	1.53	215	P	Pb	16 19 41.2	-0.1
HAKT				S	Sg	16 20 02.8	+0.5
HAKT				IAML		16 20 14.0	
	comp=N,55nm,0.6s						
HAKT	HAKKARI	1.53	215	Pn	Pg	16 19 42.0	-0.5
HAKT				Sn	Sg	16 20 05.4	+3.1
KOTA	Agri, Merkez-K	1.58	309	P	Pg	16 19 43.1	-0.3

AGRB	Hanur-Agry	1.60	299	Pn	Pb	16 19 41.8	-0.7
AGRB				AML	AML		
ADCV	BITLIS_Adilcev	1.63	270	P	Pn	16 19 41.7	+0.2
ADCV				S	Sb	16 20 03.6	+0.1
ADCV				IAML		16 20 10.0	
	comp=N,49nm,1.0s						
DORK	Agr/Tutak/Do	1.68	290	P	Pb	16 19 43.3	-0.5
MLAZ	Malazgirt-MUS	1.79	281	Pn	Pb	16 19 44.4	-1.3
MLAZ				AML	AML		
CUKT	Cukurca	1.83	212	Pn	Pg	16 19 47.5	-0.7
CUKT				AML	AML		
CUKT	Cukurca	1.83	212	P	Pg	16 19 48.3	+0.1
PERV	Siirt/Pervari-	1.98	245	P	Pg	16 19 50.1	-1.0
GDB	GEDABAY	2.03	21	Pn	Pg	16 19 51.3	-0.8
GDB				Sn	Sg	16 20 19.7	+1.2
QRD	Qoradiz	2.06	71	Pn	Pg	16 19 51.7	-0.7
QRD				Sn	Sg	16 20 20.6	+1.5
GANJ	Ganja	2.17	32	Pn	Pg	16 19 53.4	-1.2
GANJ				Sn	Sg	16 20 24.3	+1.7
AGDM	Agdam	2.20	53	Pn	Pg	16 19 54.6	-0.6
AGDM				Sn	Sg	16 20 25.8	+2.2
QZX	Qazax, Azerbai	2.28	11	Pn	Pb	16 19 54.6	+0.6
QZX				Sn	Sg	16 20 26.6	+0.4
BLQ	Beylaqan	2.32	66	Pn	Pg	16 19 55.6	-1.8
BLQ				Sg	Sg	16 20 28.2	+0.7
BRDA	Brd	2.33	51	Pg	Pb	16 19 54.7	-0.1
BRDA				Sg	Sg	16 20 28.6	+0.6
GRMI	Germi	2.41	89	Pn	Pb	16 19 56.7	+0.5
ISRB	Sarab	2.46	113	Pn	Pb	16 19 57.3	+0.2
VRTB	Varto-Mus	2.63	278	Pn	Pn	16 19 56.3	+1.0
YRD	Yardimli	2.68	87	Pg	Pb	16 20 01.0	+0.1
YRD				Sg	Sg	16 20 38.0	-1.1
LRK	Lerik	2.77	93	Pg	Pb	16 20 02.5	+0.1
LRK				Sg	Sg	16 20 40.7	-1.2
GLBA	Clilabad	2.82	80	Pg	Pb	16 20 03.1	-0.1
GLBA				Sg	Sg	16 20 44.5	+0.8
SEKA	Sheki	3.01	37	Pg	Pg	16 20 09.4	-1.4
SEKA				Sg	Sg	16 20 50.2	+0.5
LKRN	Lenkeran, Azer	3.10	91	Pg	Pb	16 20 07.2	-0.9
LKRN				Sg	Sg	16 20 51.6	-1.2
ASTR	Astara	3.13	94	Pg	Pb	16 20 07.3	-1.1
ASTR				Sg	Sg	16 20 54.0	+0.6
QBL	Gabala	3.15	47	Pg	Pg	16 20 10.9	-2.6
QBL				Sg	Sg	16 20 52.5	-1.8

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*IDC **19** 16:20:09.6±3.0, 12.°50N×122.°57E, h0^{km}, mb3.3/4, mbtmp3.3/4, Error ellipse: s-maj=336.8km s-min=23.6km az=64.0*

ISC 19 16:20:08.2±1.8, **12.°88N**±0.°06×**123.°51E**±0.°09, **h2**^{km}±12^{km}, **n14**, σ**1.^{s}53**/21, **mb3.4**/4, **Luzon**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MMPH	Masbate	0.53	168	*i* P	Pb	16 20 19.6	-0.6
MMPH				*i* S	Sb	16 20 28.0	-0.2
GQP	Guinayangan	1.46	315	*e*P	Pn	16 20 34.2	-1.3
GQP				*i* S	Sn	16 20 54.8	-0.4
IBAJ	Ibajay, Aklan	1.68	231	*i* P	Pg	16 20 40.0	-0.4
PLP	Palo	2.23	140	*e*P	Pn	16 20 46.4	+0.3
PLP				*e*S	Sn	16 21 15.1	+0.9
LQP	Lukban	2.28	303	*e*P	Pn	16 20 46.4	-0.6
LQP				*e*S	Sg	16 21 20.6	-0.8
LLP	Lapu-Lapu	2.58	170	*e*P	Pg	16 20 56.4	-1.3
LLP				*i* S	Sn	16 21 24.2	+1.2
PCPS	Palayan City	2.96	307	*e*P	Pg	16 21 05.0	-0.1
PCPS				*e*S	Sg	16 21 48.2	+4.7
TBP	Tagbilaran	3.19	174	*e*P	Pn	16 20 59.9	+0.6
DCPH	Dipolog City	4.27	182	*i* P	Pn	16 21 11.8	-2.4
CVP	Callao Caves	5.07	341	*e*P	Pn	16 21 24.2	-0.9
CVP				*e*S	Sn	16 22 23.6	-0.8
WRA	Warramunga Arr	34.31	162	P	P	16 26 56.4	+0.1
	0.3nm,0.9s,baz=339,slow=8.9,SNR=1.7						
	0.3nm,0.9s						
ASAR	Alice Springs	37.72	164	P	P	16 27 26.9	+1.5
	0.2nm,0.8s,baz=340,slow=8.5,SNR=6.9						
	0.2nm,0.8s						
MKAR	Makanchi Array	48.33	323	P	P	16 28 50.9	-0.3
	0.4nm,0.7s,baz=119,slow=9.0,SNR=3.6						
	0.4nm,0.7s						
KURBB	Kurchatov Arra	52.40	325	P	P	16 29 22.1	+0.1
	0.5nm,0.6s,baz=118,slow=8.2,SNR=4.2						
	0.5nm,0.6s						

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*KRNET **19** 16:22:22.9±0.1, 39.°55N×73.°75E, h20^{km}, mb3.5*

*IDC **19** 16:22:23.1±1.5, 39.°34N×73.°60E, h0^{km}, mb3.6/6, mbtmp3.6/8, ML2.7/2, Error ellipse: s-maj=39.4km s-min=28.5km az=69.0*

*SOME **19** 16:22:23.7, 39.°60N×73.°80E, h5^{km}*

*NNC **19** 16:22:29.6±2.6, 39.°83N×73.°74E, h0^{km}, mb3.6, mpv3.2, Error ellipse: s-maj=22.8km s-min=16.9km az=173.0*

ISC 19 16:22:24.0±0.8, **39.°57N**±0.°05×**73.°75E**±0.°03, **h10**^{km}, **n44**, σ**1.^{s}70**/75, **mb3.6**/5, **26C-26D**, **Tajikistan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SFK	Sufi-Kurgan	0.48	337	⇑*i*P	Pg	16 22 32.7	-0.7
SFK				⇑*i*S	Sg	16 22 39.9	+0.1
OHH	Osh	1.21	322	⇓*i*P	Pn	16 22 45.0	-2.0
OHH				⇓*i*S	Sb	16 23 01.7	-0.9
SALK	Salom-Alik	1.31	2	⇑*e*P	Pn	16 22 47.3	-1.2
SALK				⇑*e*S	Sb	16 23 05.3	-0.5
DRK	Karamyk	1.51	267	⇓*i*P	Pn	16 22 50.4	-1.0
DRK				⇓*i*S	Sb	16 23 10.8	-0.8
ARSB	Arslanbob	1.84	342	⇓*i*P	Pb	16 22 56.6	-1.3
ARSB				⇓*i*S	Sb	16 23 21.1	0.0
BTK	Batken	2.31	283	⇑*i*P	Pn	16 23 02.7	+0.5
BTK				⇑*i*S	Sb	16 23 31.8	-2.6
NRN	Naryn	2.53	42	⇑*e*P	Pn	16 23 05.7	+0.3
NRN				⇑*e*S	Sn	16 23 36.7	+0.2
ARK	Arkit	2.61	329	⇓*i*P	Pn	16 23 07.1	+0.8
ARK				⇓*i*S	Sn	16 23 39.2	+1.1
UCH	Uchtor	2.71	12	⇓*i*P	Pn	16 23 08.9	+0.8
UCH				⇓*i*S	Sn	16 23 42.3	+1.1
TRKS	Terek-Say	2.79	315	⇑*e*P	Pn	16 23 08.7	-0.1
TRKS				⇑*e*S	Sn	16 23 42.0	-0.6
MNAS	Manas	3.06	342	⇓*i*P	Pn	16 23 13.4	+0.8
MNAS				⇓*i*S	Sn	16 23 50.3	+1.0
EKS2	Erkin-Say	3.09	0	⇑*i*P	Pn	16 23 13.6	+0.7
EKS2				⇑*i*S	Sn	16 23 50.8	+0.9
AAK	Ala-Archa	3.11	10	⇑Pg	Pg	16 23 21.3	-2.3
	4.1nm,0.5s						
AAK				⇓Lg	Lg	16 24 01.6	
	17nm,0.6s						
AAK	Ala-Archa	3.11	10	⇑*i*P	Pn	16 23 14.1	+0.8
AAK				⇑*i*S	Sn	16 23 51.9	+1.3
MRKS	Merke	3.19	353	*e*P	Pg	16 23 22.8	-2.4
	13nm,0.3s						
MRKS				*e*S	Sg	16 24 05.2	-1.4
	70nm,0.7s						
KBK	Karagaybulak	3.21	16	⇑*i*P	Pn	16 23 15.5	+0.8
KBK				⇑*i*S	Sn	16 23 54.0	+0.9
ULHL	Ulahol	3.27	34	⇓*e*P	Pn	16 23 16.2	+0.7
ULHL				⇓*i*S	Sn	16 23 55.2	+0.6
FRU1	Bishkek	3.30	11	⇓*i*P	Pn	16 23 17.0	+1.2
FRU1				⇓*i*S	Sn	16 23 56.5	+1.3
BOOM	Boomskoye usch	3.35	29	⇑*e*P	Pn	16 23 17.6	+1.0
BOOM				⇑*i*S	Sn	16 23 57.4	+0.8
CHMS	Chumysh	3.50	12	⇓*i*P	Pn	16 23 19.4	+0.8
CHMS				⇓*i*S	Sn	16 24 00.9	+0.8
TKM2	Tokmak 2	3.62	22	⇓*e*P	Pn	16 23 21.3	+0.9
TKM2				⇓*i*S	Sn	16 24 03.8	+0.5
KDJ	Kajisay	3.65	44	⇑*i*P	Pn	16 23 21.7	+1.1
KDJ				⇑*i*S	Sn	16 24 04.3	+0.5
USP	Ospenovka	3.73	8	⇓*i*P	Pn	16 23 22.6	+0.9
USP				⇓*i*S	Sn	16 24 06.4	+0.6
TARG	Taragay, Kyrgy	3.76	54	⇑*e*P	Pn	16 23 23.2	+0.7
TARG				⇑*i*S	Sn	16 24 07.2	+0.2
IUG	Iuzhnay	3.82	314	*e*P	Pg	16 23 34.3	-2.8
	21nm,0.3s						
IUG				*e*S	Sg	16 24 25.4	-1.2
	72nm,0.7s						
KST	Kastek	3.85	25	*e*P	Pg	16 23 35.6	-2.1
	3.9nm,1.0s						
KST				*e*S	Sg	16 24 27.7	+0.1
	30nm,1.3s						
KK31	Karatay Array	4.29	326	⇑Pn	Pn	16 23 33.2	+3.8
	1.3nm,0.3s,baz=128,slow=13,SNR=48						
KK31				⇑Lg	Lg	16 24 38.9	
	6.7nm,0.3s,baz=140,slow=29,SNR=4.8						
ANVS	Anan'yevo	4.36	41	⇓*i*P	Pn	16 23 31.5	+1.0
ANVS				⇓*i*S	Sn	16 24 21.5	0.0
KRBS	Karabastau	4.37	19	*e*P	Pg	16 23 44.6	-3.0
	5.8nm,0.7s						
KRBS				*e*S	Sg	16 24 42.9	-1.2
	20nm,0.9s						
KOTS	Kotyrbulak	4.45	34	*e*P	Pg	16 23 47.3	-1.8
	6.4nm,0.6s						
KOTS				*e*S	Sg	16 24 47.9	+1.2
	26nm,1.1s						
BRLS	Boroldey	4.54	321	*e*P	Pb	16 23 45.7	+1.9
	3.0nm,0.3s						
BRLS				*e*S	Sg	16 24 44.8	-5.0
	13nm,0.6s						
KTBS	Karatobe	4.68	27	*e*P	Pg	16 23 50.1	-3.6
	0.1nm,0.1s						
KTBS				*e*S	Sg	16 24 52.3	-2.0
	21nm,0.6s						
UZB	Uzynbulak	5.34	46	*e*P	Pg	16 24 01.6	-4.6
	2.5nm,0.2s						
UZB				*e*S	Sg	16 25 12.1	-3.2
	4.8nm,0.9s						
ARXS	Arharly	5.54	32	*e*P	Pg	16 24 06.2	-4.0
	6.5nm,0.7s						
ARXS				*e*S	Sg	16 25 19.9	-2.0
	10nm,1.0s						
PDGK	Podgornoye	5.72	47	⇓Pn	Pn	16 23 54.0	+5.0
	3.1nm,0.7s						
PDGK				⇑Lg	Lg	16 25 24.6	
	6.1nm,1.1s						
BVAR	Borovoye Array	13.65	351	Pn	Pn	16 25 38.1	+0.6
	baz=162,slow=14,SNR=2.7						
	1.1nm,0.7s						
ZALV	Zalesovo Beam	16.23	24	Pn	P	16 26 16.0	+1.0
	0.1nm,0.3s,baz=211,slow=7.9,SNR=2.4						
	0.6nm,0.6s						
ZALV				AML	AML		
FINES	FINESS Array B	36.24	323	P	P	16 29 28.5	+1.7
	1.4nm,0.7s,baz=107,slow=8.8,SNR=6.9						
	1.4nm,0.7s						
ARCES	ARCESS Array B	39.20	335	P	P	16 29 53.8	+2.0
	0.6nm,0.5s,baz=114,slow=8.3,SNR=5.3						
	0.6nm,0.5s						
HFS	Hagfors	42.06	320	P	P	16 30 17.3	+1.8
	0.9nm,0.8s,baz=108,slow=3.8,SNR=2.0						
	0.9nm,0.8s						
NB2	NORSAR Subarra	43.30	321	P	P	16 30 26.6	+1.0
	comp=Z,0.7nm,0.7s,baz=95,slow=7.9						
NOA	NORSAR Array B	43.30	321	P	P	16 30 26.6	+1.0
	comp=Z,0.3nm,0.6s,baz=91,slow=8.0,SNR=4.2						
	comp=Z,0.3nm,0.6s						
TORD	Torodi Ar. Bea	67.95	269	P	P	16 33 23.2	-0.2
	comp=Z,0.4nm,0.6s,baz=35,slow=6.9,SNR=2.3						
	comp=Z,0.4nm,0.6s						
WRA	Warramunga Arr	81.84	124	P	P	16 34 44.0	+0.6
	comp=Z,0.4nm,1.0s,baz=333,slow=5.3,SNR=1.2						
	comp=Z,0.4nm,1.0s						

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*IDC **19** 17:01:32.3±1.0, 27.°77N×53.°20E, h0^{km}, mb3.8/17, mbtmp3.8/17, MS3.3/5, Error ellipse: s-maj=24.0km s-min=16.8km az=171.0*

*TEH **19** 17:01:33.1, 27.°77N×53.°27E, h8^{km}±24^{km}, ML3.5, Presumed earthquake*

*NEIC **19** 17:01:34.2±2.0, 27.°8N±0.°1×53.°12E±0.°09, h10^{km}±1^{km}, mb4.1/19, Error ellipse: s-maj=19.5km s-min=13.6km az=5.0*

*DSN **19** 17:01:37.5±1.1, 27.°62N×53.°31E, h10^{km}, ML3.5/11, Error ellipse: s-maj=12.2km s-min=7.3km az=169.0*

*OMAN **19** 17:01:37.4±0.1, 27.°64N×53.°21E, h10^{km}, mb3.4/4, ml3.9/20, Error ellipse: s-maj=1.4km s-min=0.8km az=1.0*

ISC 19 17:01:34.5±0.5, **27.°79N**±0.°03×**53.°19E**±0.°04, **h14**^{km}, **n100**, σ**1.^{s}51**/117, **mb3.9**/21, **MS3.2**/4, **Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KHL1	Khalili_Fars	0.18	146	Pg	Pg	17 01 36.4	-2.4
KHL1				Sg	Sg	17 01 39.9	-1.8
LMD1	Lamerd	0.45	182	Pg	Pg	17 01 42.6	-0.8
JHRM	Jahrom	0.80	26	Pg	Pg	17 01 49.1	-0.9
DSBU	Dashti - Bushe	1.80	289	Pn	Pb	17 02 08.8	+1.5
SHI	Shiraz	1.94	342	Pn	Pb	17 02 09.7	-0.1
KAZ2	Kazeron-Fars-I	2.26	324	Pn	Pb	17 02 14.9	-0.3
JRN	Qarnain Island	2.85	186	P	Pn	17 02 21.5	+1.9
	SNR=6.7						
SHME	Shamm	3.15	123	P	Pn	17 02 25.7	+1.9
SHME				S	Sn	17 03 02.9	+1.6
SHME	Shamm	3.15	123	P	Pn	17 02 23.7	-0.1
UMQ	Umm Al-Quwin	3.16	135	P	Pn	17 02 26.6	+2.7
BANOM	Banah	3.34	123	P	Pn	17 02 28.7	+2.2
BANOM				S	Sn	17 03 08.3	+2.3
BANOM	Banah	3.34	123	P	Pn	17 02 27.9	+1.4
KLNJ	Kolanjah	3.50	337	Pn	Pn	17 02 32.1	+3.2
NAZ	Nazwa, Dubai	3.56	141	P	Pn	17 02 30.9	+1.5
NAZ				S	Sn	17 03 13.0	+1.7
NAZ	Nazwa, Dubai	3.56	141	P	Pn	17 02 30.6	+1.1
MASF	Masafi	3.59	131	P	Pn	17 02 31.3	+1.5
MASF				S	Sn	17 03 14.4	+2.3
AJN	Ajban	3.59	153	P	Pn	17 02 31.3	+1.5
AJN				S	Sn	17 03 14.0	+1.9
MSFE	Esma-Masafi	3.60	132	P	Pn	17 02 30.1	+0.2
ASUD	Al Ashush, Dub	3.69	148	P	Pn	17 02 33.5	+2.3
ASUD				S	Sn	17 03 15.6	+1.1
FAQ	Al Faqa, Dubai	3.72	144	P	Pn	17 02 33.8	+2.2
FAQ				S	Sn	17 03 15.7	+0.5
MDH	Madha	3.73	131	P	Pn	17 02 33.8	+2.1
MDH				S	Sn	17 03 17.7	+2.2
MDH	Madha	3.73	131	P	Pn	17 02 33.2	+1.5
IMEH	Mehriz	3.80	19	Pn	Pn	17 02 35.4	+2.4
GHWR	Ruwais	3.82	184	P	Pn	17 02 34.4	+1.5
GHWR				S	Sn	17 03 19.0	+1.4
KHGB	Koh Gabri	3.87	47	Pn	Pn	17 02 35.3	+1.5
UOSS	Minazif	3.92	136	P	Pn	17 02 36.0	+1.7
UOSS				S	Sn	17 03 20.9	+0.8
UOSS	Minazif	3.92	136		Pn	17 02 35.4	+1.1
UOSS				Sn	Sn	17 03 18.1	-2.0
UOSS	Minazif	3.92	136	P	Pn	17 02 35.2	+0.9
SLWR	Sila	3.94	200	P	Pn	17 02 36.4	+1.8
HATD	Hatta, Dubai	3.96	137	P	Pn	17 02 37.2	+2.3
HATD				S	Sn	17 03 22.7	+1.5
HATD	Hatta, Dubai	3.96	137	P	Pn	17 02 36.4	+1.5
HATD				S	Sn	17 03 21.1	0.0
KHNJ	Kahnooj	4.00	87	Pn	Pn	17 02 36.7	+1.1
TAFT	Taft - Yazd	4.01	12	Pn	Pn	17 02 38.1	+2.2
ASHO	Ashiyiah	4.03	140	P	Pn	17 02 37.5	+1.7
ASHO				S	Sn	17 03 23.7	+0.8
ASHO	Ashiyiah	4.03	140	P	Pn	17 02 37.2	+1.4
MZWR	Madinat Zayed	4.06	171	P	Pn	17 02 37.7	+1.5
ALNE	Al Ain	4.37	148	P	Pn	17 02 42.1	+1.5
ALNE				S	Sn	17 03 31.8	+0.4
JASK	Jask - Hormozg	4.60	114	P	Pn	17 02 45.8	+2.1
JASK				S	Sn	17 03 38.3	+1.4
SOHO	SOHO	4.72	140	P	Pn	17 02 47.2	+1.8
SOHO				S	Sn	17 03 42.0	+2.1
MZR	Muzera	4.77	177	P	Pn	17 02 47.1	+1.0
MZR	Muzera	4.77	177	P	Pn	17 02 47.9	+1.9
KBAM	BAM	4.83	73	Pn	Pn	17 02 48.1	+1.2
ARQ	Araqi	5.36	145	P	Pn	17 02 56.1	+1.9
UMZA	Um Al Zommool	5.36	160	P	Pn	17 02 55.0	+0.9
ANAR	Anarak	5.41	5	Pn	Pn	17 02 57.5	+2.6
HOQ	Hoqain	5.60	137	P	Pn	17 02 59.7	+2.2
BSY	Bisya	6.20	143	P	Pn	17 03 07.0	+1.3
	SNR=9.1						
SMDO	Samad	6.44	136	P	Pn	17 03 10.5	+1.4
	SNR=9.2						
WSAR	Wadi Sarin	6.68	131	P	Pn	17 03 13.4	+1.0
JMDO	Jabal Madar	7.00	139	P	Pn	17 03 18.3	+1.6
WBK	Wadi Bani Khal	7.35	133	P	Pn	17 03 22.4	+0.9
JLN	Jalan Bani Buh	7.96	133	P	Pn	17 03 30.9	+1.0
MHTO	MHTO	8.05	146	P	Pn	17 03 32.3	+1.2
RAYN	Ar Rayn	8.13	240	P	Pn	17 03 34.0	+1.8
RAYN	Ar Rayn	8.13	240		Pn	17 03 30.7	-1.5
RAYN				Sn	Sn	17 04 59.6	-4.4
GNI	Garni	14.17	333	LR	LR	17 11 19.1	
	comp=Z,72nm,20.3s,baz=98,slow=41						
NIL	Nilore	18.20	66	P	Pn	17 05 47.2	+0.3
NIL				IAmb	IAmb	17 05 51.9	
	comp=Z,17nm,0.9s						
CSS	Mathiatis	18.39	298	P	P	17 05 47.8	-1.3
CSS				IAmb	IAmb	17 06 02.6	
	comp=Z,36nm,1.3s						
BR131	Keskin Array S	20.10	311	P	P	17 06 06.2	-1.7
BRTR	Keskin Array B	20.10	311	P	P	17 06 09.3	+1.3
	comp=Z,0.3nm,0.5s,baz=128,slow=12,SNR=1.9						
	comp=Z,0.3nm,0.5s						
BRTR	Keskin Array B	20.10	311	P	P	17 06 06.9	-1.0
KK31	Karatay Array	20.74	38	P	P	17 06 14.2	-0.6
KKAR	Karatay Array	20.74	38	P	P	17 06 14.3	-0.5
ARSB	Arslanbob	21.11	45	P	P	17 06 18.8	0.0
ARSB				IAmb	IAmb	17 06 24.8	
	comp=Z,6.0nm,0.9s						
AB31	Akbulak array	22.06	12	P	P	17 06 28.8	0.0
ABKAR	Akbulak array	22.06	12	P	P	17 06 28.7	-0.2
AAK	Ala-Archa	22.77	44	P	P	17 06 37.8	+1.1
	comp=Z,0.7nm,0.4s,baz=229,slow=11,SNR=1.8						
AAK				LR	LR	17 17 04.0	
	comp=Z,64nm,19.2s,baz=305,slow=41						
	comp=Z,0.7nm,0.4s						
AAK	Ala-Archa	22.77	44	P	P	17 06 36.6	-0.1
AAK				IAmb	IAmb	17 06 57.0	
	comp=Z,4.5nm,1.3s						
AKTO	Aktyubinsk	22.92	8	P	P	17 06 38.2	+0.3
	comp=Z,2.3nm,0.5s,baz=185,slow=9.8,SNR=8.4						
AKTO				LR	LR	17 17 47.5	
	comp=Z,70nm,18.4s,baz=48,slow=42						
	comp=Z,2.3nm,0.5s						
IDI	Anoyia	25.19	294	P	P	17 07 01.0	+1.2
	comp=Z,5.4nm,0.7s,baz=142,slow=11,SNR=1.5						
	comp=Z,5.4nm,0.7s						
BORK	Borovoye	28.25	22	P	P	17 07 25.6	-1.5
BORK				IAmb	IAmb	17 07 29.1	
	comp=Z,2.9nm,1.2s						
BVAR	Borovoye Array	28.26	22	P	P	17 07 28.6	+1.5
	comp=Z,1.1nm,0.5s						
	comp=Z,1.1nm,0.5s						
ARTI	Arti	28.82	6	LR	LR	17 20 55.3	
	comp=Z,61nm,19.4s,baz=244,slow=40						
AKASG	Malin Array Be	29.22	328	P	P	17 07 36.7	+1.0
	comp=Z,0.3nm,0.4s,baz=135,slow=7.6,SNR=2.4						
	comp=Z,0.3nm,0.4s						
AKBB	Malin Array Si	29.22	328	P	P	17 07 36.1	+0.4
AKBB				IAmb	IAmb	17 07 38.5	
	comp=Z,8.8nm,1.4s						
KIEV	Kiev	29.23	328	P	P	17 07 36.0	+0.2
KIEV				IAmb	IAmb	17 07 38.5	
	comp=Z,8.0nm,1.4s						
MK31	Makanchi Array	29.68	42	P	P	17 07 40.9	+1.0
MKAR	Makanchi Array	29.68	42	P	P	17 07 39.5	-0.4
	comp=Z,0.4nm,0.5s,baz=236,slow=10.0,SNR=7.0						
MKAR				PcP	PcP	17 10 43.2	-0.8
	comp=Z,0.3nm,0.6s,baz=254,slow=2.2,SNR=2.6						
	comp=Z,0.4nm,0.5s						
MKAR	Makanchi Array	29.68	42	P	P	17 07 40.4	+0.5
KURBB	Kurchatov Arra	29.83	33	LR	LR	17 21 22.9	
	comp=Z,76nm,20.3s,baz=182,slow=40						
KURK	Kurchatov	29.93	33	P	P	17 07 41.5	-0.6
KURK				IAmb	IAmb	17 08 23.4	
	comp=Z,0.9nm,0.6s						
ZAA0	Zalesovo Array	34.92	33	P	P	17 08 25.8	+0.1
ZAA0				IAmb	IAmb	17 08 30.0	
	comp=Z,4.1nm,1.2s						
ZALV	Zalesovo Beam	34.92	33	P	P	17 08 26.2	+0.6
	comp=Z,0.8nm,0.5s,baz=258,slow=7.4,SNR=5.4						
	comp=Z,0.8nm,0.5s						
ZALV	Zalesovo Beam	34.92	33	P	P	17 08 25.8	+0.2
FINES	FINESS Array B	38.22	339	P	P	17 08 51.9	-1.8
	comp=Z,3.7nm,0.9s,baz=134,slow=5.5,SNR=10						
	comp=Z,3.7nm,0.9s						
FINES	FINESS Array B	38.22	339	P	P	17 08 51.8	-1.9
HFS	Hagfors	41.95	332	P	P	17 09 23.3	-1.4
	comp=Z,0.8nm,0.4s,baz=146,slow=9.0,SNR=9.4						
	comp=Z,0.8nm,0.4s						
CM31	Chiang Mai Arr	42.89	92	P	P	17 09 31.8	-1.1
CMAR	Chiang Mai Arr	42.89	92	P	P	17 09 32.6	-0.2
	comp=Z,0.8nm,0.9s,baz=299,slow=6.4,SNR=4.5						
	comp=Z,0.8nm,0.9s						
CMAR	Chiang Mai Arr	42.89	92	P	P	17 09 31.6	-1.2
NC405	NORSAR Array S	43.30	332	P	P	17 09 34.1	-1.6
NOA	NORSAR Array B	43.47	332	P	P	17 09 36.0	-1.1
	comp=Z,0.6nm,0.7s,baz=119,slow=8.0,SNR=3.3						
	comp=Z,0.6nm,0.7s						
ARCES	ARCESS Array B	44.76	347	P	P	17 09 46.2	-1.1
	comp=Z,3.2nm,1.1s,baz=145,slow=4.4,SNR=4.1						
	comp=Z,3.2nm,1.1s						
ESDC	Sonseca Array	48.26	300	P	P	17 10 16.2	+1.0
	comp=Z,0.4nm,0.7s,baz=77,slow=9.7,SNR=2.2						
	comp=Z,0.4nm,0.7s						
TORD	Torodi Ar. Bea	50.05	264	P	P	17 10 28.4	-0.7
	comp=Z,1.0nm,0.5s,baz=65,slow=8.4,SNR=6.3						
	comp=Z,1.0nm,0.5s						
DBIC	Dimbokro	58.71	260	P	P	17 11 33.5	+1.2
	comp=Z,2.7nm,0.6s,baz=54,slow=9.0,SNR=4.6						
	comp=Z,2.7nm,0.6s						
LBTB	Lobatse	58.84	209	P	P	17 11 34.2	+1.3
BOSA	Boshof	62.14	208	P	P	17 11 55.6	+0.2
ASAR	Alice Springs	93.10	115	P	P	17 14 47.2	-1.2
	comp=Z,0.2nm,0.7s,baz=306,slow=5.5,SNR=4.3						
	comp=Z,0.2nm,0.7s						
ASAR	Alice Springs	93.10	115	P	P	17 14 49.1	+0.7

DJA 19 17:05:44.4±0.6, **11.°S**±9°×**11.°9E**±°, **h79**^{km}±23^{km}, **M3.6**/15, **mb3.7**/4, **mb3.7**/4, **ML3.5**/14, **MLv3.6**/15, **MLv3.6**/15, **South of Sumba**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WSI	Waingapu	1.81	34	P	Pn	17 06 14.2	+0.4
WSI				S	Sn	17 06 36.6	+0.5
WSI				AML	AML		
WSI				AML	AML		
WSI				AML	AML		
LBFI	Labuhan Bajo,	2.75	13	P	Pn	17 06 26.1	-0.3
PLAI	Plampang	2.76	328	P	Pn	17 06 26.9	+0.3
PLAI				S	Sn	17 06 58.8	-0.1
PLAI				AML	AML		
PLAI				AML	AML		
PLAI				AML	AML		
DBNI	Kabupaten Domp	2.82	340	P	Pn	17 06 27.3	-0.1
DBNI				AML	AML		
DBNI				AML	AML		
DBNI				AML	AML		
TWSI	Taliwang, Sumb	3.38	316	P	Pn	17 06 35.0	+0.1
TWSI				AML	AML		
TWSI				AML	AML		
TWSI				AML	AML		
EDFI	Ende, Flores	3.39	45	P	Pn	17 06 34.7	-0.5
EDFI				AML	AML		
EDFI				AML	AML		
EDFI				AML	AML		
MMRI	Maumere	3.87	49	P	Pn	17 06 40.9	-0.6
MMRI				AML	AML		
MMRI				AML	AML		
MMRI				AML	AML		
KHKI	Kahang-Kahang	4.57	307	P	Pn	17 06 51.0	-0.1
KHKI				AML	AML		
KHKI				AML	AML		
KHKI				AML	AML		
IGBI	Denpasar	4.69	300	P	Pn	17 06 52.6	-0.2
DNP	Denpasar	4.71	302	P	Pn	17 06 52.8	-0.2
RTBI	Rangdo, Negare	5.05	302	P	Pn	17 06 57.7	0.0
	0.1nm0.2nm0.2nm46nm,1.0s,46nm,1.0s						
RTBI				AML	AML		
RTBI				AML	AML		
RTBI				AML	AML		
BSSI	Bau Bau, Buton	5.15	14	P	Pn	17 06 59.9	+0.9
	0.1nm0.2nm0.2nm46nm,1.5s,46nm,1.5s						
BSSI				AML	AML		
BSSI				AML	AML		
BSSI				AML	AML		

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*TAP **19** 17:38:29.2, 24.°27N×122.°78E, h13^{km}, ML2.6, C*

*JMA **19** 17:38:30.0±0.1, 24°N±2°×122.°8E±0.°7, h26^{km}±1^{km}, MV1.6/9, NW OFF ISHIGAKIJIMA IS*

ISC 19 17:38:28.5±1.0, **24.°23N**±0.°03×**122.°79E**±0.°02, **h17**^{km}±8^{km}, **n64**, σ**0.^{s}67**/116, **Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JYNG	Yonagunijimaku	0.27	32	P	Pb	17 38 35.4	+0.6
JYNG				S	Sb	17 38 39.3	+0.2
YOJ	Yonaguni jima	0.31	41	*i* P	Pb	17 38 36.0	+0.5
YOJ				*i* S	Sb	17 38 40.6	+0.2
YOJ	Yonaguni jima	0.31	41	P	Pb	17 38 36.1	+0.6
YOJ				S	Sb	17 38 40.3	0.0
EOS3	EOS3	0.43	278	P	Pb	17 38 38.1	+0.5

EOS3				eS	Sb	17 38 45.2	+1.4
EOS4	**EOS4**	0.44	256	P	Pb	17 38 38.0	+0.4
EOS4				S	Sn	17 38 46.1	-0.9
EOS2	**EOS2**	0.54	291	P	Pn	17 38 40.4	-0.9
EOS2				S	Sn	17 38 48.5	-1.5
IRIF	**Iriomote-Funau**	0.86	83	P	Pn	17 38 45.8	0.0
IRIF				S	Sn	17 38 58.2	+0.2
ESAO	**Su ao**	0.93	292	iP	Pn	17 38 46.7	-0.1
ESAO				iS	Sn	17 39 00.4	+0.8
TWC	**Suao**	0.94	294	P	Pn	17 38 46.7	-0.2
TWC				S	Sb	17 38 58.1	-0.3
HATJ	**Hateruma jima**	0.94	100	P	Pn	17 38 47.9	+1.0
HATJ				S	Sn	17 38 59.7	-0.3
ENA	**Nanau**	0.98	282	eP	Pb	17 38 44.9	-2.1
ENA				eS	Sb	17 38 58.4	-1.2
NDS	**Dongshan**	1.06	293	P	Pg	17 38 48.7	-0.4
NDS				S	Sn	17 39 02.6	-0.3
ETL	**Fush Village**	1.07	267	eS	Sg	17 39 05.2	+2.0
TWB1	**Santiao Chiao**	1.07	317	P	Pg	17 38 49.3	+0.2
TWB1				S	Sn	17 39 02.8	-0.2
NACB	**Ninganchiao**	1.09	268	P	Pg	17 38 49.9	+0.3
NACB				S	Sg	17 39 05.2	+1.3
JKRS	**Kuro-shima**	1.11	89	P	Pg	17 38 50.2	+0.1
JKRS				eS	Sg	17 39 05.5	+0.9
TWE	**Neicheng**	1.14	296	P	Pg	17 38 51.0	+0.5
TWE				S	Sn	17 39 04.8	+0.1
TIPB	**Shuangxi**	1.15	310	P	Pg	17 38 51.5	+0.7
TIPB				eS	Sn	17 39 05.3	+0.2
LATG	**Datong**	1.19	285	P	Pg	17 38 51.6	0.0
LATG				S	Sg	17 39 07.5	+0.3
ETLH	**Xiulin Townshi**	1.19	269	P	Pg	17 38 51.5	-0.1
ETLH				S	Sg	17 39 07.4	+0.2
SXI1	**Grass Mountain**	1.20	316	eP	Pg	17 38 51.1	-0.6
SXI1				eS	Sg	17 39 07.5	+0.1
SHUL	**Shoufeng**	1.20	249	P	Pg	17 38 52.6	+0.9
SHUL				S	Sg	17 39 08.9	+1.4
ETM	**Tongmen**	1.21	258	eP	Pg	17 38 52.4	+0.5
ETM				eS	Sg	17 39 08.1	+0.3
FUSB	**Fushanzhiwuyua**	1.22	296	P	Pg	17 38 52.5	+0.4
FUSB				S	Sn	17 39 06.9	0.0
NDT	**Datong Townshi**	1.22	288	eP	Pg	17 38 52.5	+0.3
NDT				eS	Sn	17 39 07.0	+0.1
JIJ	**Ishigaki jima**	1.24	83	P	Pg	17 38 51.6	-0.9
JIJ				S	Sg	17 39 08.5	-0.2
LXIB	**Xiulin Townshi**	1.27	261	eP	Pb	17 38 52.3	+0.2
LXIB				eS	Sg	17 39 10.1	+0.3
NWLT	**Wulai**	1.29	295	iP	Pg	17 38 54.0	+0.5
NWLT				S	Sg	17 39 09.8	-0.6
NNSB	**Datong**	1.30	279	eP	Pg	17 38 53.4	-0.2
NNSB				S	Sg	17 39 10.7	+0.1
NNSH	**Datong**	1.30	279	iP	Pg	17 38 53.4	-0.2
NNSH				S	Sg	17 39 10.2	-0.3
NNS	**Nan Shan**	1.31	280	eP	Pg	17 38 53.8	0.0
NNS				eS	Sg	17 39 10.7	-0.3
TWA	**Mucha**	1.33	305	eS	Sg	17 39 11.2	-0.4
YHNB	**Yeheng**	1.36	289	eP	Pg	17 38 54.8	0.0
YHNB				S	Sg	17 39 11.9	-0.7
EGFH	**Guangfu**	1.36	246	eP	Pg	17 38 54.0	-0.8
EGFH				eS	Sg	17 39 11.8	-0.8
NSK	**Sanguang**	1.38	289	P	Pg	17 38 55.1	0.0
NSK				eS	Sb	17 39 11.6	+0.4
WARBT	**Fenglin Townsh**	1.38	249	P	Pb	17 38 53.5	-0.3
WARBT				S	Sb	17 39 11.7	+0.5
WHF	**Hehuan Shan**	1.39	267	P	Pg	17 38 55.6	+0.1
TATO	**Taipei**	1.40	302	P	Pb	17 38 54.2	0.0
TATO				S	Sb	17 39 12.7	+1.0
FUSS	**Fushou**	1.41	271	eP	Pg	17 38 55.4	-0.4
FUSS				eS	Sg	17 39 13.5	-0.7
JISG	**Ishigakijimahi**	1.43	75	P	Pb	17 38 54.0	-0.8
JISG				eS	Sb	17 39 11.6	-1.1
YM01	**YM01**	1.44	310	eP	Pb	17 38 54.4	-0.4
YM01				S	Sb	17 39 13.1	+0.2
HGSD	**Ruisui**	1.45	240	eP	Pb	17 38 54.4	-0.5
HGSD				eS	Sg	17 39 15.0	-0.3
TWT	**Tachien**	1.47	271	eP	Pg	17 38 57.1	+0.2
TWT				S	Sg	17 39 16.3	+0.2
TDCB	**Techi**	1.49	271	P	Pg	17 38 57.2	0.0
TDCB				eS	Sn	17 39 14.1	+0.4
OWD	**Renai**	1.50	260	iP	Pb	17 38 55.7	-0.2
OWD				S	Sb	17 39 14.8	+0.1
WUSB	**Renai**	1.54	262	P	Pb	17 38 56.7	0.0
WUSB				S	Sb	17 39 16.4	+0.3
KSHI	**Guanxi Townshi**	1.57	291	eP	Pg	17 38 57.9	-0.8
NFF	**Wufeng Townshi**	1.58	285	P	Pg	17 38 59.1	+0.2
VWDT	**VWDT**	1.58	253	eP	Pb	17 38 57.2	0.0
VWDT				eS	Sb	17 39 17.1	+0.3
YULB	**Yu-li**	1.60	239	P	Pb	17 38 56.5	-1.1
YULB				S	Sn	17 39 16.3	+0.1
EYUL	**Yuli**	1.61	237	P	Pb	17 38 57.3	-0.4
EYUL				eS	Sb	17 39 17.4	-0.2
LIOB	**Emei**	1.67	285	eP	Pb	17 38 58.5	-0.3
LIOB				eS	Sb	17 39 19.6	+0.1
FULB	**Fuli**	1.71	234	eP	Pg	17 39 00.2	-1.2
FULB				eS	Sn	17 39 19.5	+0.5
WCS	**Beigang Elemen**	1.72	265	eP	Pg	17 39 00.8	-0.9
SMLT	**Sun Moon Lake**	1.76	259	eP	Pb	17 39 00.1	-0.3
SMLT				eS	Sb	17 39 22.1	-0.1
EDH	**Donghe**	1.85	228	eP	Pb	17 39 01.2	-0.5
WHYT	**Xinyi Township**	1.85	254	eS	Sb	17 39 25.8	+1.2
ELDTW	**Lidau**	1.93	238	eP	Pn	17 39 00.9	+0.4
ALS	**Alishan**	1.95	249	eP	Pb	17 39 03.5	-0.3
ALS				eS	Sb	17 39 26.9	-1.0
WCKO	**Fanlu**	2.15	249	eS	Sb	17 39 34.5	+1.2
TPUB	**Ta-pu**	2.18	245	P	Pb	17 39 06.9	-0.6
TPUB				S	Sb	17 39 34.7	+0.4
WTP	**Ta-pu**	2.22	244	P	Pb	17 39 08.2	0.0
CHN1	**Nanshi**	2.32	244	eP	Pb	17 39 09.4	-0.5
CHN1				eS	Sb	17 39 37.1	-1.0
MASBT	**Mashibuluo**	2.55	231	eP	Pn	17 39 11.0	+1.9

MAN 19 17:49:50.0, 12°.85N×123°.38E, h15^{km}, MS3.8, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MMPH	**Masbate**	0.54	154	iP	Pg	17 49 59.9	-0.9
MMPH				iS	Sb	17 50 08.5	-0.4
GQP	**Guinayangan**	1.39	319	eP	Pn	17 50 14.1	-0.8
GQP				eS	Sg	17 50 35.0	+0.1
IBAJ	**Ibajay, Aklan**	1.56	229	eP	Pn	17 50 16.8	-0.5
IBAJ				eS	Sn	17 50 35.1	-2.2
LQP	**Lukban**	2.19	305	eP	Pn	17 50 26.9	+0.9
LQP				eS	Sg	17 51 01.2	+0.7
PLP	**Palo**	2.29	137	eP	Pn	17 50 26.9	-0.4
PLP				eS	Sb	17 50 59.6	+0.3
JAP	**San Jose, Anti**	2.52	214	eP	Pn	17 50 32.6	+2.2
LLP	**Lapu-Lapu**	2.58	167	eP	Pn	17 50 31.7	+0.4
LLP				iS	Sb	17 51 05.1	-2.5
TGY	**Tagaytay City**	2.68	298	iP	Pn	17 50 33.9	+1.2
TGY				iS	Sn	17 50 46.0	-19
PCPS	**Palayan City**	2.88	309	eP	Pg	17 50 44.9	-0.4
PCPS				eS	Sg	17 51 42.0	+19
TBP	**Tagbilaran**	3.17	171	eP	Pn	17 50 40.1	+0.7
SNPH	**Sibulan**	3.49	182	iP	Pg	17 50 57.2	+0.3
SNPH				iS	Sb	17 51 31.8	-1.9
DCPH	**Dipolog City**	4.24	180	iP	Pn	17 50 57.4	+3.3
CVP	**Callao Caves**	5.05	343	eP	Pn	17 51 05.0	-0.3
CVP				eS	Sn	17 52 05.8	+2.3

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*JMA **19** 17:55:37.8±0.2, 25°N±2°×122°.7E±0°.6, h116^{km}±1^{km}, MV2.6/17, NW OFF ISHIGAKIJIMA IS*

*TAP **19** 17:55:37.2, 24°.72N×122°.72E, h122^{km}, ML3.3, C*

ISC 19 17:55:38.0±1.4**, 24°.68N**±0°.04×**122°.71E**±0°.02**, h115**^{km}±7^{km}**, n109, σ0^{s}.82**/200**, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JYNG	**Yonagunijimaku**	0.31	137	P	Pn	17 55 54.5	0.0
JYNG				S	Sn	17 56 07.2	+0.4
YOJ	**Yonaguni jima**	0.35	129	P	Pn	17 55 54.9	+0.3
YOJ				S	Sn	17 56 07.6	+0.6
EOS2	**EOS2**	0.51	239	P	Pn	17 55 55.8	+0.4
EOS2				S	Sn	17 56 10.1	+1.8
EOS3	**EOS3**	0.53	223	P	Pn	17 55 56.1	+0.6
EOS3				S	Sn	17 56 10.7	+2.1
EOS4	**EOS4**	0.67	213	P	Pn	17 55 56.3	+0.1
EOS4				S	Sn	17 56 10.8	+0.9
EGS		0.73	283	P	Pn	17 55 56.6	-0.5
TWB1	**Santiao Chiao**	0.73	296	iP	Pn	17 55 57.2	0.0
TWC	**Suao**	0.79	265	iP	Pn	17 55 57.3	-0.3
TWC				S	Sn	17 56 11.8	-0.7
ESAO	**Su ao**	0.80	263	P	Pn	17 55 57.7	0.0
ESAO				S	Sn	17 56 12.4	-0.2
TIPB	**Shuangxi**	0.86	290	iP	Pn	17 55 58.4	+0.1
TIPB				iS	Sn	17 56 13.3	-0.3
SXI1	**Grass Mountain**	0.86	298	iP	Pn	17 55 58.4	-0.1
SXI1				S	Sn	17 56 13.9	+0.1
ILA	**Ilan**	0.88	276	iP	Pn	17 55 58.7	+0.2
NDS	**Dongshan**	0.91	267	P	Pn	17 55 58.8	+0.1
NDS				S	Sn	17 56 14.0	-0.4
ENA	**Nanau**	0.92	254	P	Pn	17 55 56.5	-2.4
ENA				eS	Sn	17 56 12.6	-2.0
TWE	**Neicheng**	0.95	273	P	Pn	17 55 59.2	0.0
EAHA	**Aohua**	0.95	249	iP	Pn	17 55 59.1	-0.1
EAHA				S	Sn	17 56 15.7	+0.5
TNOU	**National Taiwa**	0.97	299	P	Pn	17 55 59.2	-0.2
IRIF	**Iriomote-Funau**	0.99	110	P	Pn	17 55 59.5	0.0
IRIF				S	Sn	17 56 15.6	-0.1
FUSB	**Fushanzhiwuyua**	1.03	275	P	Pn	17 55 59.9	-0.1
FUSB				S	Sn	17 56 15.8	-0.8
TWA	**Mucha**	1.07	286	iP	Pn	17 56 00.2	-0.1
TWA				S	Sn	17 56 17.0	-0.2
LATG	**Datong**	1.09	263	P	Pn	17 56 00.9	+0.2
LATG				S	Sn	17 56 18.6	+0.7
NDT	**Datong Townshi**	1.09	266	P	Pn	17 56 01.1	+0.5
NDT				S	Sn	17 56 18.4	+0.7
NHY	**Taipei**	1.10	289	P	Pn	17 56 00.2	-0.5
NWLT	**Wulai**	1.10	275	P	Pn	17 56 00.6	-0.2
NWLT				S	Sn	17 56 17.4	-0.6
PCYT	**Pengchaiyu**	1.11	328	P	Pn	17 56 01.1	+0.3
PCYT				eS	Sn	17 56 17.1	-0.8
NHDH	**Xindian Distri**	1.11	285	P	Pn	17 56 00.7	-0.1
ETL	**Fush Village**	1.12	243	P	Pn	17 56 00.4	-0.6
ETL				S	Sn	17 56 17.9	-0.4
YM01	**YM01**	1.14	294	P	Pn	17 56 01.1	0.0
YM01				S	Sn	17 56 18.3	-0.3
YM08	**YM08**	1.14	296	P	Pn	17 56 01.1	0.0
YM08				S	Sn	17 56 17.9	-0.7
NACB	**Ninganchiao**	1.14	244	P	Pn	17 56 00.5	-0.6
NACB				S	Sn	17 56 18.2	-0.4
ZUZH	**Zhuzihu**	1.16	294	P	Pn	17 56 01.4	0.0
ZUZH				S	Sn	17 56 18.5	-0.6
TWY	**Chenhua**	1.17	301	eP	Pn	17 56 01.3	-0.1
HATJ	**Hateruma jima**	1.17	122	P	Pn	17 56 02.1	+0.6
HATJ				S	Sn	17 56 19.5	+0.3
TWD	**Chiawan**	1.18	240	iP	Pn	17 56 01.1	-0.4
TWD				S	Sn	17 56 19.0	-0.3
ANP	**Anpu**	1.19	295	eP	Pn	17 56 01.7	-0.1
ANP				eS	Sn	17 56 17.7	-2.0
YHNB	**Yeheng**	1.22	270	iP	Pn	17 56 02.3	+0.2
YHNB				S	Sn	17 56 20.0	-0.2
ETLH	**Xiulin Townshi**	1.22	247	P	Pn	17 56 01.7	-0.3
ETLH				eS	Sn	17 56 19.8	-0.4
HWA	**Hwalien**	1.23	235	P	Pn	17 56 01.9	-0.2
HWA				eS	Sn	17 56 20.0	-0.3
NSK	**Sanguang**	1.23	270	iP	Pn	17 56 02.3	+0.1
NSK				iS	Sn	17 56 20.3	-0.2
NNSB	**Datong**	1.24	258	P	Pn	17 56 02.3	0.0
NNSB				eS	Sn	17 56 19.3	-1.3
NNSH	**Datong**	1.24	258	P	Pn	17 56 02.3	0.0
NNS	**Nan Shan**	1.24	259	P	Pn	17 56 02.4	0.0
NNS				S	Sn	17 56 20.3	-0.5
NTST	**Danshui**	1.24	293	P	Pn	17 56 02.2	0.0
NTST				S	Sn	17 56 20.3	-0.3
TWS1	**Kuangyinshan**	1.25	290	P	Pn	17 56 02.3	0.0
TWS1				S	Sn	17 56 20.3	-0.4
JKRS	**Kuro-shima**	1.26	110	P	Pn	17 56 02.9	+0.5
JKRS				S	Sn	17 56 21.2	+0.4
TEYL	**Yanliau Villag**	1.30	232	P	Pn	17 56 02.4	-0.4
TEYL				S	Sn	17 56 21.4	-0.3
ETM	**Tongmen**	1.32	238	P	Pn	17 56 02.7	-0.4
ETM				S	Sn	17 56 21.5	-0.6
JIJ	**Ishigaki jima**	1.34	103	P	Pn	17 56 03.2	-0.1
JIJ				S	Sn	17 56 21.7	-0.8
LXIB	**Xiulin Townshi**	1.36	241	P	Pn	17 56 03.1	-0.6
LXIB				S	Sn	17 56 22.1	-1.0
SHUL	**Shoufeng**	1.38	230	eP	Pn	17 56 03.7	-0.1
SHUL				S	Sn	17 56 23.3	+0.1
KSHI	**Guanxi Townshi**	1.40	274	P	Pn	17 56 04.4	+0.4
KSHI				S	Sn	17 56 24.2	+0.5
FUSS	**Fushou**	1.41	252	P	Pn	17 56 04.7	+0.4
FUSS				S	Sn	17 56 24.1	-0.2
NCUH	**Zhongli**	1.42	282	eP	Pn	17 56 04.3	+0.1
NCUH				S	Sn	17 56 24.6	+0.5
WHF	**Hehuan Shan**	1.43	248	P	Pn	17 56 04.7	-0.1
WHF				eS	Sn	17 56 24.5	-0.4
TEGC	**Jichi Village**	1.45	228	P	Pn	17 56 04.1	-0.4
TEGC				S	Sn	17 56 24.8	+0.2
NFF	**Wufeng Townshi**	1.45	268	P	Pn	17 56 04.8	+0.2
NFF				S	Sn	17 56 24.5	-0.4
ESL	**Shilin**	1.45	234	iP	Pn	17 56 04.0	-0.6
ESL				S	Sn	17 56 23.6	-1.2
JISG	**Ishigakijimahi**	1.46	93	P	Pn	17 56 04.5	-0.1
JISG				eS	Sn	17 56 24.0	-0.8
TWT	**Tachien**	1.47	253	P	Pn	17 56 05.7	+0.8
TWT				S	Sn	17 56 25.6	+0.2
TDCB	**Techi**	1.48	254	P	Pn	17 56 05.7	+0.6
TDCB				S	Sn	17 56 25.5	-0.1
LIOB	**Emei**	1.54	269	P	Pn	17 56 05.8	+0.1
LIOB				S	Sn	17 56 26.4	-0.3
WARBT	**Fenglin Townsh**	1.55	232	P	Pn	17 56 05.0	-0.8
WARBT				eS	Sn	17 56 25.3	-1.5
NSTT	**Nanjuang**	1.56	268	P	Pn	17 56 05.8	-0.1
NSTT				S	Sn	17 56 26.8	-0.3
OWD	**Renai**	1.58	243	P	Pn	17 56 06.1	-0.1
OWD				S	Sn	17 56 26.7	-1.0
WUSB	**Renai**	1.61	245	P	Pn	17 56 06.9	+0.3
WUSB				S	Sn	17 56 27.9	-0.4
WHP	**Taichung City**	1.66	256	P	Pn	17 56 08.0	+0.8
WHP				S	Sn	17 56 29.7	+0.4
HGSD	**Ruisui**	1.67	225	P	Pn	17 56 07.3	0.0
HGSD				S	Sn	17 56 29.5	+0.1
VWDT	**VWDT**	1.71	238	P	Pn	17 56 07.9	+0.3
VWDT				S	Sn	17 56 30.0	-0.1
EHYH	**Wanrong**	1.72	227	P	Pn	17 56 07.2	-0.7
EHYH				S	Sn	17 56 29.0	-1.6
EHY	**Hungye**	1.73	228	P	Pn	17 56 07.0	-0.9
EHY				S	Sn	17 56 29.4	-1.3
NMLH	**Miaoli**	1.76	266	eP	Pn	17 56 08.2	0.0
NMLH				eS	Sn	17 56 31.2	0.0
WCS	**Beigang Elemen**	1.76	250	P	Pn	17 56 09.1	+0.9
WCS				S	Sn	17 56 31.5	+0.2
ECBN	**Changbin**	1.78	221	eP	Pn	17 56 06.3	-2.2
ECBN				S	Sn	17 56 31.5	-0.4
TWQ1	**Liyutan**	1.80	260	iP	Pn	17 56 09.0	+0.2
TWQ1				S	Sn	17 56 32.3	+0.1
JTJ	**Tarama**	1.81	91	P	Pn	17 56 09.0	+0.1
JTJ				eS	Sn	17 56 31.9	-0.5
YULB	**Yu-li**	1.82	226	P	Pn	17 56 08.4	-0.7
YULB				S	Sn	17 56 31.1	-1.7
SMLT	**Sun Moon Lake**	1.84	245	P	Pn	17 56 10.5	+1.1
SMLT				S	Sn	17 56 35.5	+2.3
SSLB	**Suanglung**	1.84	241	P	Pn	17 56 10.3	+1.1
SSLB				eS	Sn	17 56 32.7	-0.4
EYUL	**Yuli**	1.84	224	eP	Pn	17 56 09.3	0.0
EYUL				iS	Sn	17 56 33.9	+0.7
TYC	**Yuchr**	1.86	246	P	Pn	17 56 10.5	+1.0
TYC				S	Sn	17 56 34.5	+0.9
CHKH	**Chenggong**	1.91	219	eP	Pn	17 56 09.6	-0.6
CHKH				eS	Sn	17 56 33.4	-1.3
WDJ	**Dajia District**	1.92	260	S	Sn	17 56 35.4	+0.6
WHYT	**Xinyi Township**	1.96	240	P	Pn	17 56 12.0	+1.2
WHYT				S	Sn	17 56 37.2	+1.3
FULB	**Fuli**	1.97	222	P	Pn	17 56 10.6	-0.3
FULB				S	Sn	17 56 35.4	-0.6
YUS	**Yu-Shan**	2.00	234	eP	Pn	17 56 12.1	+0.3
YUS				S	Sn	17 56 37.2	-0.2
CHKT	**Chengkung**	2.00	218	S	Sn	17 56 35.2	-1.5
WJS	**Zhushan**	2.00	245	eP	Pn	17 56 12.4	+1.1
WJS				S	Sn	17 56 38.7	+1.9
WNT	**Mingjian**	2.02	247	eP	Pn	17 56 12.1	+0.6
WNT				eS	Sn	17 56 38.1	+1.0
ECS	**Chishang**	2.09	221	eP	Pn	17 56 12.6	+0.1
ECS				eS	Sn	17 56 40.4	+1.7
ALS	**Alishan**	2.10	237	P	Pn	17 56 13.6	+0.8
ALS				eS	Sn	17 56 40.4	+1.0
EDH	**Donghe**	2.14	217	P	Pn	17 56 12.2	-0.8
EDH				S	Sn	17 56 38.4	-1.3
ELDTW	**Lidau**	2.15	227	eP	Pn	17 56 12.6	-0.6
JIRJ	**Irabujima**	2.26	86	eP	Pn	17 56 14.7	+0.1
WRL	**Guolierlin Hig**	2.27	250	eP	Pn	17 56 14.6	-0.1
WRL				eS	Sn	17 56 41.9	-0.8
LONT	**Longtian**	2.29	220	eS	Sn	17 56 42.4	-0.8
RLNB	**Erlin**	2.29	250	eP	Pn	17 56 14.4	-0.5
RLNB				eS	Sn	17 56 43.0	-0.1
WCKO	**Fanlu**	2.29	238	eP	Pn	17 56 15.9	+0.9
WCKO				eS	Sn	17 56 45.6	+2.4
JIKM	**Ikemajima**	2.32	84	eS	Sn	17 56 43.6	-0.1
STYH	**Taoyuan**	2.33	230	eS	Sn	17 56 44.8	+0.8
WTK	**Tuku**	2.34	245	eP	Pn	17 56 15.5	-0.1
WTK				eS	Sn	17 56 44.6	+0.2
TPUB	**Ta-pu**	2.35	235	eP	Pn	17 56 17.4	+1.6
TPUB				eS	Sn	17 56 47.0	+2.3
JMJ2	**Miyako jima3**	2.38	88	eP	Pn	17 56 16.7	+0.6
JMJ2				eS	Sn	17 56 45.0	-0.2
TWGBT	**Beinan**	2.38	219	eP	Pn	17 56 14.2	-2.0
TWGBT				eS	Sn	17 56 44.6	-0.8
TWG	**Pinlang**	2.39	219	eP	Pn	17 56 13.9	-2.3
TWG				eS	Sn	17 56 44.4	-1.1
WTP	**Ta-pu**	2.39	234	eP	Pn	17 56 16.8	+0.5
WTP				eS	Sn	17 56 48.1	+2.4
JOGS	**Gusukube**	2.45	88	S	Sn	17 56 46.7	-0.2
TWK	**Hsinying**	2.48	236	eS	Sn	17 56 47.7	+0.1
CHN1	**Nanshi**	2.49	234	eP	Pn	17 56 17.1	-0.5
CHN1				eS	Sn	17 56 48.5	+0.5
MASBT	**Mashibuluo**	2.81	223	eP	Pn	17 56 22.6	+0.9
MASBT				eS	Sn	17 56 56.7	+1.4

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*KRNET **19** 18:05:06.6±0.1, 41°.45N×79°.47E, h20^{km}, mb2.9*

*NNC **19** 18:05:08.6±1.7, 41°.53N×79°.41E, h0^{km}, mb3.4, mpv3.0, Error ellipse: s-maj=11.8km s-min=9.4km az=160.0*

*SOME **19** 18:05:08.6, 41°.57N×79°.45E, h10^{km}*

ISC 19 18:05:02.1±2.5**, 41°.2N**±0°.1×**79°.61E**±0°.08**, h8**^{km}±15^{km}**, n30, σ1^{s}.14**/49**, 8C-8D, Kyrgyzstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TARG	**Taragay, Kyrgy**	1.47	293	⇑iP	Pg	18 05 30.5	+0.2
TARG				⇑iS	Sn	18 05 48.2	-0.6
PRZ	**Przheval'sk**	1.60	326	⇑iP	Pn	18 05 31.2	+0.3
PRZ				⇑iS	Sn	18 05 49.0	-2.8
SHLS	**Shalkode** 3.1nm,0.2s	2.00	357	P	Pb	18 05 39.6	+0.8
SHLS	30nm,0.4s			S	Sn	18 06 01.8	+0.3
SHLS	**Shalkode** 3.1nm,0.2s	2.00	357	eP	Pb	18 05 39.6	+0.8
SHLS	30nm,0.4s			eS	Sn	18 06 01.8	+0.3
UZB	**Uzynbulak** 4.2nm,0.3s	2.03	348	P	Pb	18 05 40.1	+0.7
UZB	33nm,0.4s			S	Sn	18 06 02.4	+0.1
UZB	**Uzynbulak** 4.2nm,0.3s	2.03	348	eP	Pb	18 05 40.1	+0.7
UZB	33nm,0.4s			eS	Sn	18 06 02.4	+0.1
KDJ	**Kajisay**	2.06	299	⇓iP	Pb	18 05 40.2	+0.3
KDJ				⇓iS	Sb	18 06 04.7	-1.0
PDGK	**Podgornoye** 4.0nm,0.5s	2.17	358	⇓Pn	Pb	18 05 40.6	-1.0
PDGK	47nm,0.6s			⇓Lg	Lg	18 06 08.3	
ANVS	**Anan'yevo**	2.17	319	⇓iP	Pb	18 05 41.1	-0.7
ANVS				⇓iS	Sn	18 06 06.5	+0.6
KTMS	**Ketmen** 1.7nm,0.3s	2.35	13	Pg	Pb	18 05 44.6	-0.1
KTMS	5.3nm,0.2s			Lg	Lg	18 06 10.6	
KTMS	**Ketmen** 1.7nm,0.3s	2.35	13	eP	Pb	18 05 44.6	-0.1
KTMS	5.3nm,0.2s			eS	Sn	18 06 10.6	+0.4
KPKS	**Kokpek** 0.1nm,0.1s	2.40	344	Pg	Pb	18 05 45.7	0.0
KPKS	40nm,0.4s			Lg	Lg	18 06 12.2	
KPKS	**Kokpek** 0.1nm,0.1s	2.40	344	eP	Pb	18 05 45.6	0.0
KPKS	40nm,0.4s			eS	Sn	18 06 12.2	+0.7
KURS	**Kuram** 3.1nm,0.2s	2.56	336	Pg	Pb	18 05 48.5	+0.3
KURS	5.3nm,0.3s			Lg	Lg	18 06 17.3	
KURS	**Kuram** 3.1nm,0.2s	2.56	336	eP	Pb	18 05 48.5	+0.3
KURS	5.3nm,0.3s			eS	Sn	18 06 17.3	+2.1
NRN	**Naryn**	2.73	277	⇑eP	Pb	18 05 51.7	+0.3
NRN				⇑eS	Sb	18 06 24.0	-1.1
ULHL	**Ulahol**	2.74	294	⇓iP	Pb	18 05 50.1	-1.4
ULHL				⇓iS	Sn	18 06 22.0	+2.0
MDOK	**Medeo** 15nm,0.2s	2.76	317	Pg	Pb	18 05 52.9	+1.1
MDOK	20nm,0.6s			Lg	Lg	18 06 24.6	
MDOK	**Medeo** 15nm,0.2s	2.76	317	eP	Pb	18 05 52.9	+1.1
MDOK	20nm,0.6s			eS	Sb	18 06 24.6	-1.2
KOTS	**Kotyrbulak** 21nm,0.3s	2.78	319	Pg	Pb	18 05 53.3	+1.2
KOTS	35nm,0.9s			Lg	Lg	18 06 25.7	
KOTS	**Kotyrbulak** 21nm,0.3s	2.78	319	eP	Pb	18 05 53.2	+1.2
KOTS	35nm,0.9s			eS	Sb	18 06 25.7	-0.6
BOOM	**Boomskoye usch**	3.04	297	⇑iP	Pb	18 05 54.3	-2.3
BOOM				⇑iS	Sn	18 06 29.1	+1.7
BLB	**Baldybastay** 9.4nm,0.2s	3.05	345	Pg	Pb	18 05 57.1	+0.4
BLB	17nm,0.3s			Lg	Lg	18 06 32.0	
KNOS	**Konyrlen** 0.9nm,0.1s	3.21	355	Pg	Pb	18 05 59.2	-0.2
KNOS	9.7nm,0.4s			Lg	Lg	18 06 35.7	
ARXS	**Arharly** 1.2nm,0.2s	3.32	337	Pg	Pb	18 06 01.4	+0.1
ARXS	12nm,0.3s			Lg	Lg	18 06 39.6	
ARXS	**Arharly** 1.2nm,0.2s	3.32	337	eP	Pb	18 06 01.4	+0.1
ARXS	12nm,0.3s			eS	Sb	18 06 39.6	-2.2
KTBS	**Karatobe** 0.3nm,0.1s	3.34	321	Pg	Pb	18 06 01.9	+0.3
KTBS	10.0nm,0.4s			Lg	Lg	18 06 40.2	
KTBS	**Karatobe** 0.3nm,0.1s	3.34	321	eP	Pb	18 06 01.9	+0.3
KTBS	10.0nm,0.4s			eS	Sb	18 06 40.2	-2.3
KRBS	**Karabastau** 0.8nm,0.3s	3.86	312	Pg	Pb	18 06 12.0	+1.6
KRBS	1.4nm,0.5s			Lg	Lg	18 06 58.0	
KRBS	**Karabastau** 0.8nm,0.3s	3.86	312	eP	Pb	18 06 12.0	+1.6
KRBS	1.4nm,0.5s			eS	Sb	18 06 58.0	+0.7

MAN 19 18:06:26.0, 12°.86N×123°.39E, h27^{km}, MS3.5, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MMPH	**Masbate**	0.55	155	iP	Pb	18 06 34.3	-2.8
MMPH				iS	Sb	18 06 42.6	-2.0
GQP	**Guinayangan**	1.39	319	eP	Pn	18 06 48.9	-0.7
GQP				eS	Sb	18 07 09.3	+0.7
IBAJ	**Ibajay, Aklan**	1.58	229	iP	Pn	18 06 51.5	-0.8
IBAJ				eS	Sb	18 07 13.9	-0.1
LQP	**Lukban**	2.19	305	eP	Pn	18 07 00.9	+0.1
LQP				eS	Sb	18 07 35.6	+3.7
PLP	**Palo**	2.29	137	eP	Pn	18 07 01.2	-0.8
PLP				eS	Sn	18 07 31.5	+2.0
JAP	**San Jose, Anti**	2.53	214	eP	Pb	18 07 08.1	-2.7
LLP	**Lapu-Lapu**	2.59	167	eP	Pn	18 07 06.0	-0.1
LLP				iS	Sn	18 07 38.6	+1.9

PCPS	**Palayan City**	2.88	308	*e*P	Pb	18 07 19.8	+3.1
PCPS				*e*S	Sb	18 08 16.8	+25
TBP	**Tagbilaran**	3.18	172	*e*P	Pn	18 07 14.4	0.0
SNPH	**Sibulan**	3.50	182	*i* P	Pb	18 07 23.9	-3.4
CVP	**Callao Caves**	5.05	343	*e*P	Pn	18 07 42.6	+2.6
CVP				*e*S	Sn	18 08 38.4	+1.0

IDC ***19*** *18:20:02.6±1.3, 0°.60S×124°.84E, h0km, mb3.4/4, mbtmp3.5/4, Error ellipse: s-maj=180.2km s-min=22.0km az=64.0*

DJA ***19*** *18:20:06.4±1.6, 0°S±3°×12°6E±°, h18km±13km, M3.3/4, ML3.5/6, MLv3.4/6, MLv3.3/4*

ISC 19 18:20:04.2±0.9**, 0°.13S**±0°.06×**126°.31E**±0°.08**, h10**km**, n8, σ1ˢ.91**/11**, mb3.6**/4**, Southern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TNTI	**Ternate**	1.38	50	P	Pn	18 20 30.9	+1.3
TNTI				S	Sn	18 20 49.6	+1.6
TNTI				AML	AML		
TNTI				AML	AML		
TNTI				AML	AML		
SANI	**Sanana**	1.93	190	P	Pn	18 20 37.8	+0.6
SANI				S	Sn	18 21 02.2	+0.6
SANI				AML	AML		
MNI	**Manado**	2.15	317	P	Pn	18 20 40.6	+0.4
MNI				AML	AML		
MNI				AML	AML		
GTOI	**Gorontalo**	3.39	283	P	Pn	18 21 00.2	+3.0
WRA	**Warramunga Arr**	21.20	159	P	P	18 24 50.7	+0.5
	0.7nm,0.5s,baz=332,slow=11,SNR=7.8						
	0.7nm,0.5s						
ASAR	**Alice Springs**	24.53	163	P	P	18 25 25.3	+1.1
	0.4nm,0.3s,baz=344,slow=11,SNR=27						
ASAR				PcP	PcP	18 29 01.8	-0.8
	0.2nm,0.8s,baz=335,slow=2.5,SNR=1.3						
	0.4nm,0.3s						
MKAR	**Makanchi Array**	60.50	327	P	P	18 30 11.8	-2.8
	0.2nm,0.3s,baz=130,slow=6.6,SNR=6.1						
	0.2nm,0.3s						
KURBB	**Kurchatov Arra**	64.77	329	P	P	18 30 40.6	-2.3
	0.2nm,0.4s,baz=130,slow=6.8,SNR=4.3						
	0.2nm,0.4s						

JMA ***19*** *18:37:06.2±0.2, 24°.7N±0°.7×121°.9E±0°.5, h84km±2km, MV2.9/15, TAIWAN REGION*

TAP ***19*** *18:37:07.2, 24°.72N×121°.93E, h77km, ML3.8, B*

ISC 19 18:37:06.6±1.2**, 24°.74N**±0°.02×**121°.95E**±0°.02**, h83**km±4km**, n173, σ1ˢ.06**/324**, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EGS		0.10	350	P	Pn	18 37 18.9	+0.4
NTC	**Toucheng**	0.16	315	P	Pn	18 37 18.9	+0.4
NTC				S	Sn	18 37 27.4	0.0
TWC	**Suao**	0.16	215	P	Pn	18 37 18.8	+0.2
TWC				S	Sn	18 37 27.0	-0.5
ILA	**Ilan**	0.19	277	P	Pn	18 37 19.3	+0.7
ILA				S	Sn	18 37 28.1	+0.5
ESAO	**Su ao**	0.19	210	*i* P	Pn	18 37 19.1	+0.4
ESAO				S	Sn	18 37 27.5	-0.1
NDS	**Dongshan**	0.24	243	P	Pn	18 37 19.6	+0.7
NDS				S	Sn	18 37 28.3	+0.3
TIPB	**Shuangxi**	0.25	333	*i* P	Pn	18 37 19.1	+0.1
TIPB				S	Sn	18 37 27.5	-0.8
TWE	**Neicheng**	0.26	265	*i* P	Pn	18 37 19.5	+0.6
TWE				S	Sn	18 37 28.4	+0.2
TWB1	**Santiao Chiao**	0.27	7	*i* P	Pn	18 37 19.1	0.0
TWB1				*i* S	Sn	18 37 27.7	-0.6
FUSB	**Fushanzhiwuyua**	0.33	273	*i* P	Pn	18 37 19.9	+0.4
FUSB				S	Sn	18 37 28.8	-0.2
SXI1	**Grass Mountain**	0.36	349	*i* P	Pn	18 37 19.6	0.0
SXI1				S	Sn	18 37 28.9	-0.4
NWF	**Wu-fen Shan**	0.36	335	P	Pn	18 37 19.9	+0.1
NWF				S	Sn	18 37 28.9	-0.5
WFSB	**Wu-fen Shan**	0.36	335	*i* P	Pn	18 37 19.8	+0.2
WFSB				S	Sn	18 37 28.8	-0.4
ENA	**Nanau**	0.37	211	*e*P	Pn	18 37 17.6	-2.1
ENA				*e*S	Sn	18 37 27.6	-1.7
TWA	**Mucha**	0.41	305	P	Pn	18 37 20.2	+0.2
TWA				S	Sn	18 37 29.5	-0.3
NWLT	**Wulai**	0.41	275	*i* P	Pn	18 37 20.2	+0.3
NWLT				S	Sn	18 37 29.5	-0.4
EOS2	**EOS2**	0.41	142	*e*P	Pn	18 37 20.6	+0.8
EOS2				*e*S	Sn	18 37 29.9	+0.3
NDT	**Datong Townshi**	0.42	251	P	Pn	18 37 20.7	+0.7
NDT				S	Sn	18 37 30.4	+0.4
TNOU	**National Taiwa**	0.44	338	P	Pn	18 37 20.1	0.0
TNOU				S	Sn	18 37 29.6	-0.6
LATG	**Datong**	0.44	242	P	Pn	18 37 20.9	+0.6
LATG				S	Sn	18 37 30.0	-0.4
NHDH	**Xindian Distri**	0.44	300	P	Pn	18 37 20.6	+0.4
NHDH				*e*S	Sn	18 37 30.1	-0.1
EAHA	**Aohua**	0.46	205	P	Pn	18 37 20.2	-0.1
EAHA				S	Sn	18 37 31.2	+0.8
NHY	**Taipei**	0.46	310	P	Pn	18 37 20.5	+0.2
NHY				S	Sn	18 37 30.3	-0.1
EHP	**Heping Village**	0.47	204	*e*P	Pn	18 37 20.8	+0.3
EHP				*e*S	Sn	18 37 31.0	+0.3
TATO	**Taipei**	0.48	299	P	Pn	18 37 20.6	+0.1
TATO	**Taipei**	0.48	299	S	Sn	18 37 30.2	-0.5
TAP	**Taipei**	0.50	306	P	Pn	18 37 21.0	+0.3
TAP				S	Sn	18 37 31.1	0.0
YHNB	**Yeheng**	0.53	262	P	Pn	18 37 20.9	-0.1
YHNB	**Yeheng**	0.53	262	P	Pn	18 37 21.3	+0.3
YHNB				S	Sn	18 37 31.4	-0.3
YM01	**YM01**	0.53	319	P	Pn	18 37 21.2	+0.3
YM01				S	Sn	18 37 31.2	-0.4
NSK	**Sanguang**	0.54	263	*i* P	Pn	18 37 21.3	+0.2
NSK				S	Sn	18 37 31.6	-0.2
YM08	**YM08**	0.55	324	P	Pn	18 37 21.2	0.0
YM08				S	Sn	18 37 30.9	-1.0
ZUZH	**Zhuzihu**	0.56	319	P	Pn	18 37 21.4	+0.2
ZUZH				S	Sn	18 37 31.3	-0.7
EOS3	**EOS3**	0.56	144	*e*P	Pn	18 37 21.9	+0.9
EOS3				*e*S	Sn	18 37 33.1	+1.4
ANP	**Anpu**	0.59	319	*e*P	Pn	18 37 21.9	+0.4
ANP				S	Sn	18 37 31.6	-1.0
TWS1	**Kuangyinshan**	0.60	306	P	Pn	18 37 22.2	+0.7
TWS1				S	Sn	18 37 33.5	+0.9
NNSB	**Datong**	0.60	239	*i* P	Pn	18 37 22.3	+0.6
NNSB				S	Sn	18 37 33.1	+0.1
NNS	**Nan Shan**	0.61	240	P	Pn	18 37 22.4	+0.6
NNS				S	Sn	18 37 33.1	+0.1
TWY	**Chenhua**	0.62	329	*e*P	Pn	18 37 22.5	+0.8
NTST	**Danshui**	0.62	313	P	Pn	18 37 22.3	+0.6
NTST				S	Sn	18 37 33.4	+0.5
ETL	**Fush Village**	0.65	207	P	Pn	18 37 21.9	-0.2
ETL				S	Sn	18 37 33.0	-0.6
NACB	**Ninganchiao**	0.65	210	P	Pn	18 37 21.5	-0.6
NACB	**Ninganchiao**	0.65	210	S	Sn	18 37 28.9	-4.6
NACB	**Ninganchiao**	0.65	210	P	Pn	18 37 21.6	-0.4
NACB				S	Sn	18 37 33.2	-0.3
ETLH	**Xiulin Townshi**	0.68	219	P	Pn	18 37 22.4	-0.1
ETLH				S	Sn	18 37 33.8	-0.5
EOS4	**EOS4**	0.70	152	P	Pn	18 37 22.4	+0.2
EOS4				S	Sn	18 37 33.7	-0.1
KSHI	**Guanxi Townshi**	0.70	273	P	Pn	18 37 23.3	+0.8
KSHI				S	Sn	18 37 35.0	+0.5
NCU	**National Centr**	0.73	288	*e*P	Pn	18 37 23.3	+0.5
NCU				*e*S	Sn	18 37 35.9	+1.0
NCUH	**Zhongli**	0.73	288	P	Pn	18 37 23.3	+0.5
NCUH				S	Sn	18 37 35.5	+0.6
TWD	**Chiawan**	0.74	206	P	Pn	18 37 22.5	-0.4
TWD				S	Sn	18 37 34.0	-0.9
NFF	**Wufeng Townshi**	0.77	262	P	Pn	18 37 23.6	+0.3
NFF				S	Sn	18 37 35.3	-0.3
FUSS	**Fushou**	0.81	233	*i* P	Pn	18 37 24.6	+0.6
FUSS				S	Sn	18 37 37.1	+0.2
HWA	**Hwalien**	0.83	203	*i* P	Pn	18 37 23.9	+0.1
HWA				*e*S	Sn	18 37 37.4	+0.7
LIOB	**Emei**	0.86	264	*i* P	Pn	18 37 24.6	+0.4
LIOB				S	Sn	18 37 37.4	+0.1
TWT	**Tachien**	0.86	235	*i* P	Pn	18 37 25.6	+1.2
TWT				S	Sn	18 37 38.6	+0.9
WHF	**Hehuan Shan**	0.86	227	P	Pn	18 37 25.1	+0.4
WHF				S	Sn	18 37 37.9	-0.3
LXIB	**Xiulin Townshi**	0.87	214	P	Pn	18 37 23.9	-0.6
LXIB				*e*S	Sn	18 37 36.6	-1.3
NSTT	**Nanjuang**	0.87	263	*i* P	Pn	18 37 24.6	+0.3
NSTT				S	Sn	18 37 37.5	-0.1
TDCB	**Techi**	0.87	236	P	Pn	18 37 25.4	+0.9
TDCB				S	Sn	18 37 38.2	+0.4
SBCB	**Hsinchu**	0.88	273	P	Pn	18 37 24.8	+0.4
SBCB				*e*S	Sn	18 37 37.6	-0.2
ETM	**Tongmen**	0.88	208	P	Pn	18 37 23.7	-0.8
ETM				*e*S	Sn	18 37 36.1	-1.7
PCYT	**Pengchaiyu**	0.89	7	P	Pn	18 37 25.0	+0.5
PCYT				S	Sn	18 37 36.3	-1.6
HSN	**Hsinchu**	0.89	274	P	Pn	18 37 24.7	+0.1
HSN				S	Sn	18 37 37.8	-0.3
TEYL	**Yanliau Villag**	0.93	200	*i* P	Pn	18 37 25.0	0.0
TEYL				S	Sn	18 37 38.0	-0.7
JYNG	**Yonagunijimaku**	0.95	108	P	Pn	18 37 24.9	-0.4
JYNG				S	Sn	18 37 38.9	-0.2
YOJ	**Yonaguni jima**	1.00	106	P	Pn	18 37 25.7	-0.2
YOJ	**Yonaguni jima**	1.00	106	S	Sn	18 37 40.0	-0.3
YOJ	**Yonaguni jima**	1.00	106	*i* P	Pn	18 37 26.0	+0.2
YOJ				*i* S	Sn	18 37 39.9	-0.3
YOJ	**Yonaguni jima**	1.00	106	P	Pn	18 37 26.0	+0.2
YOJ				S	Sn	18 37 39.8	-0.5
SHUL	**Shoufeng**	1.02	200	P	Pn	18 37 26.1	+0.1
SHUL				S	Sn	18 37 40.9	+0.3
WHP	**Taichung City**	1.03	243	P	Pn	18 37 27.3	+1.0
WHP				S	Sn	18 37 41.4	+0.5
ESL	**Shilin**	1.04	207	P	Pn	18 37 25.4	-0.9
ESL				S	Sn	18 37 39.5	-1.5
OWD	**Renai**	1.06	222	P	Pn	18 37 26.9	+0.2
OWD				*e*S	Sn	18 37 41.4	-0.3
WUSB	**Renai**	1.07	226	*i* P	Pn	18 37 27.4	+0.6
WUSB				S	Sn	18 37 42.3	+0.4
NMLH	**Miaoli**	1.07	259	P	Pn	18 37 27.4	+0.6
NMLH				S	Sn	18 37 42.3	+0.5
TEGC	**Jichi Village**	1.10	200	P	Pn	18 37 27.1	+0.1
TEGC				*e*S	Sn	18 37 43.2	+1.0
TWQ1	**Liyutan**	1.14	250	P	Pn	18 37 28.1	+0.5
TWQ1				S	Sn	18 37 43.3	0.0
WARBT	**Fenglin Townsh**	1.14	207	*i* P	Pn	18 37 26.4	-1.2
WARBT				S	Sn	18 37 41.3	-2.0
WCS	**Beigang Elemen**	1.17	234	P	Pn	18 37 28.8	+0.9
WCS				S	Sn	18 37 44.3	+0.5
VWDT	**VWDT**	1.23	217	*i* P	Pn	18 37 29.2	+0.6
VWDT				S	Sn	18 37 45.6	+0.4
WDJ	**Dajia District**	1.26	252	P	Pn	18 37 29.8	+0.8
WDJ				S	Sn	18 37 46.5	+0.8
SMLT	**Sun Moon Lake**	1.29	228	P	Pn	18 37 30.6	+1.1
SMLT				S	Sn	18 37 47.9	+1.3
TYC	**Yuchr**	1.30	230	P	Pn	18 37 30.5	+1.0
TYC				*e*S	Sn	18 37 47.6	+0.9
TCU	**Taichung**	1.30	243	*e*P	Pn	18 37 30.3	+0.8
TCU				*e*S	Sn	18 37 47.2	+0.4
SSLB	**Suanglung**	1.32	224	P	Pn	18 37 30.5	+0.7
SSLB	**Suanglung**	1.32	224	P	Pn	18 37 30.7	+1.0
SSLB				S	Sn	18 37 48.2	+1.0
HGSD	**Ruisui**	1.34	201	P	Pn	18 37 30.0	0.0
HGSD				*e*S	Sn	18 37 48.2	+0.7
EHY	**Hungye**	1.36	205	P	Pn	18 37 29.3	-0.9
EHY				*e*S	Sn	18 37 46.2	-1.9
EHYH	**Wanrong**	1.36	204	*e*P	Pn	18 37 29.5	-0.8
EHYH				*e*S	Sn	18 37 45.4	-2.8
WCHH	**Zhanghua**	1.43	243	*e*P	Pn	18 37 31.5	+0.3
WCHH				S	Sn	18 37 49.5	-0.1
WNT	**Mingjian**	1.44	234	P	Pn	18 37 32.0	+0.7
WNT				*i* S	Sn	18 37 51.0	+1.1
WCH1	**Changhua City**	1.44	243	P	Pn	18 37 31.7	+0.4
WCH1				S	Sn	18 37 50.4	+0.4
WJS	**Zhushan**	1.45	231	P	Pn	18 37 31.9	+0.6
WJS				S	Sn	18 37 50.8	+0.8
WHYT	**Xinyi Township**	1.45	224	P	Pn	18 37 32.6	+1.2
WHYT				S	Sn	18 37 51.9	+1.8
YULB	**Yu-li**	1.47	204	P	Pn	18 37 30.5	-1.2
YULB	**Yu-li**	1.47	204	S	Sn	18 37 48.3	-2.4
YULB	**Yu-li**	1.47	204	P	Pn	18 37 30.5	-1.2
YULB				S	Sn	18 37 49.0	-1.7
ECBN	**Changbin**	1.49	198	*i* P	Pn	18 37 31.7	-0.2
ECBN				*i* S	Sn	18 37 50.4	-0.7
EYUL	**Yuli**	1.50	203	*e*P	Pn	18 37 32.3	+0.2
EYUL				*e*S	Sn	18 37 50.4	-1.0
YUS	**Yu-Shan**	1.55	216	P	Pn	18 37 33.9	+0.8
YUS				S	Sn	18 37 54.2	+1.1
ALS	**Alishan**	1.61	221	P	Pn	18 37 35.2	+1.4
ALS				S	Sn	18 37 56.5	+2.1
CHKH	**Chenggong**	1.63	198	P	Pn	18 37 33.4	-0.3
CHKH				S	Sn	18 37 52.9	-1.3
WDL	**Douliou City**	1.65	232	*e*P	Pn	18 37 34.8	+0.9
WDL				S	Sn	18 37 56.0	+1.4
WGK	**Gukeng**	1.65	231	P	Pn	18 37 34.9	+0.9
WGK				S	Sn	18 37 56.0	+1.4
FULB	**Fuli**	1.65	201	P	Pn	18 37 34.2	+0.2
FULB				S	Sn	18 37 55.4	+0.6
WRL	**Guolierlin Hig**	1.66	240	P	Pn	18 37 34.4	+0.2
WRL				S	Sn	18 37 54.5	-0.6
WDLH	**Douliu**	1.66	231	P	Pn	18 37 35.1	+0.9
WDLH				S	Sn	18 37 55.8	+0.7
IRIF	**Iriomote-Funau**	1.67	104	P	Pn	18 37 34.4	+0.1
IRIF				S	Sn	18 37 55.1	-0.1
RLNB	**Erlin**	1.68	240	P	Pn	18 37 34.8	+0.4
RLNB				S	Sn	18 37 55.5	0.0
CHKT	**Chengkung**	1.72	198	*e*P	Pn	18 37 34.4	-0.5
CHKT				S	Sn	18 37 54.5	-2.0
EHD	**Haiduan**	1.73	203	*e*P	Pn	18 37 34.5	-0.5
EHD				*e*S	Sn	18 37 55.8	-0.8
WTCT	**Ta-ch'eng**	1.76	240	S	Sn	18 37 58.0	+0.8
ELDTW	**Lidau**	1.77	209	P	Pn	18 37 35.3	-0.4
ELDTW				*e*S	Sn	18 37 56.6	-1.1
ECS	**Chishang**	1.77	202	P	Pn	18 37 35.7	+0.1
ECS				S	Sn	18 37 57.4	-0.2
WTK	**Tuku**	1.77	234	P	Pn	18 37 36.1	+0.5
WTK				S	Sn	18 37 57.6	0.0
WCKO	**Fanlu**	1.79	224	P	Pn	18 37 36.9	+1.1
WCKO				S	Sn	18 37 59.5	+1.5
CHN2	**Minshiung**	1.81	228	P	Pn	18 37 37.0	+1.0
CHN2				S	Sn	18 37 59.8	+1.4
HATJ	**Hateruma jima**	1.82	112	P	Pn	18 37 37.0	+0.8
EDH	**Donghe**	1.86	199	P	Pn	18 37 36.2	-0.5
EDH				S	Sn	18 37 58.2	-1.4
CHY	**Chiayi**	1.87	229	P	Pn	18 37 37.6	+0.8
CHY				S	Sn	18 38 00.3	+0.5
TPUB	**Ta-pu**	1.88	220	P	Pn	18 37 38.1	+1.1
TPUB	**Ta-pu**	1.88	220	P	Pn	18 37 38.0	+1.0
TPUB				*e*S	Sn	18 38 01.6	+1.4
STYH	**Taoyuan**	1.90	215	P	Pn	18 37 38.8	+1.5
STYH				*e*S	Sn	18 38 02.6	+2.0
WSF	**Szhu**	1.93	235	*e*P	Pn	18 37 37.9	+0.3
WSF				*e*S	Sn	18 38 01.6	+0.4
WTP	**Ta-pu**	1.93	220	P	Pn	18 37 38.9	+1.2
WTP				*e*S	Sn	18 38 01.5	+0.2
JKRS	**Kuro-shima**	1.94	105	P	Pn	18 37 38.4	+0.6
JKRS				*e*S	Sn	18 38 01.9	+0.4
LONT	**Longtian**	1.98	203	*e*P	Pn	18 37 37.3	-1.0
LONT				*e*S	Sn	18 38 00.4	-2.1
TWK	**Hsinying**	1.99	223	*e*P	Pn	18 37 39.7	+1.2
TWK				*e*S	Sn	18 38 04.2	+1.4
WSL	**Shuilin Townsh**	1.99	233	P	Pn	18 37 38.7	+0.3
WSL				S	Sn	18 38 03.1	+0.5
CHN1	**Nanshi**	2.02	220	P	Pn	18 37 40.4	+1.5
CHN1				S	Sn	18 38 04.5	+0.9
JIJ	**Ishigaki jima**	2.03	100	P	Pn	18 37 39.1	+0.2
JIJ				*e*S	Sn	18 38 03.3	-0.4
ICHU	**Yijhu**	2.06	228	P	Pn	18 37 39.8	+0.4
ICHU				S	Sn	18 38 04.8	+0.6
SGST	**Jiashian**	2.07	217	*e*P	Pn	18 37 40.2	+0.6
SGST				*e*S	Sn	18 38 05.3	+0.6
TWG	**Pinlang**	2.08	203	P	Pn	18 37 39.0	-0.6
TWG				*e*S	Sn	18 38 01.9	-2.9
TWGBT	**Beinan**	2.08	203	P	Pn	18 37 39.1	-0.5
TWGBT	**Beinan**	2.08	203	S	Sn	18 38 03.0	-1.8
TWGBT	**Beinan**	2.08	203	*e*P	Pn	18 37 38.8	-0.8
TWGBT				S	Sn	18 38 02.9	-1.9
LDUT	**Ludao**	2.11	192	P	Pn	18 37 38.8	-1.3
LDUT				*e*S	Sn	18 38 02.8	-2.7
SLGT	**Liugui**	2.11	215	*e*P	Pn	18 37 42.3	+2.2
SLGT				S	Sn	18 38 08.3	+2.6
CHN8	**Yiju**	2.11	229	P	Pn	18 37 38.8	-1.3
CHN8				S	Sn	18 38 06.5	+0.9
JISG	**Ishigakijimahi**	2.15	94	P	Pn	18 37 41.0	+0.5
JISG				*e*S	Sn	18 38 07.1	+0.6
SCLT	**Jiali**	2.24	226	S	Sn	18 38 09.7	+1.0
SCST	**Cishan**	2.28	216	P	Pn	18 37 43.9	+1.5
SCST				S	Sn	18 38 11.3	+1.6
VWUC	**VWUC**	2.29	277	P	Pn	18 37 42.0	-0.3
VWUC				*e*S	Sn	18 38 09.1	-0.6
MATB	**Ma-tsu**	2.29	308	P	Pn	18 37 42.3	-0.2
MATB				*e*S	Sn	18 38 08.9	-1.0
ECL	**Taimali**	2.32	203	P	Pn	18 37 42.2	-0.7
ECL				*e*S	Sn	18 38 09.0	-1.7
SSD	**Sandimen**	2.33	212	*e*P	Pn	18 37 44.8	+1.9
SSD				*e*S	Sn	18 38 12.8	+2.0
TSCK	**Chigu Township**	2.33	227	P	Pn	18 37 43.5	+0.5
TSCK				*e*S	Sn	18 38 11.2	+0.3
TSMG	**Majia**	2.36	211	*e*P	Pn	18 37 45.3	+2.0
TSMG				*e*S	Sn	18 38 14.2	+2.8
TWM1	**Shoushan**	2.37	217	*e*P	Pn	18 37 46.4	+2.9
MASBT	**Mashibuluo**	2.44	210	P	Pn	18 37 46.3	+1.8
MASBT				*e*S	Sn	18 38 15.1	+1.6
PNG	**Penghu**	2.48	242	*e*P	Pn	18 37 44.3	-0.7
PNG				*e*S	Sn	18 38 11.9	-2.5
PHUB	**P'eng-hu**	2.50	241	P	Pn	18 37 44.0	-1.2
PHUB				*e*S	Sn	18 38 12.5	-2.2
EAST	**Anshuo**	2.56	204	*e*P	Pn	18 37 46.1	0.0
EAST				*e*S	Sn	18 38 16.2	-0.2
WDGT	**Dungji**	2.56	235	*e*P	Pn	18 37 45.7	-0.4
WDGT				*e*S	Sn	18 38 14.7	-1.7
TAW	**Tawu**	2.56	202	*e*P	Pn	18 37 45.9	-0.2
TAW				*e*S	Sn	18 38 14.8	-1.6
SSPT	**Xinbi**	2.58	210	*e*S	Sn	18 38 20.4	+3.5
PTMZ	**Houxiangcun**	2.59	277	*e*P	Pn	18 37 46.2	-0.2
PTMZ				*e*S	Sn	18 38 17.0	+0.1
SCZT	**Fangliau**	2.66	208	*e*P	Pn	18 37 48.7	+1.3
SCZT				*e*S	Sn	18 38 21.2	+2.5
LYJJ	**Jianjiangzhen**	2.67	313	*e*P	Pn	18 37 47.5	-0.1
LYJJ				*e*S	Sn	18 38 18.2	-0.9
XPSS	**Dashiqiu**	2.69	324	*e*P	Pn	18 37 48.0	+0.1
XPSS				*e*S	Sn	18 38 19.4	-0.1
LAY	**Lan-yu**	2.72	188	P	Pn	18 37 47.1	-1.1
LAY				*e*S	Sn	18 38 17.4	-2.8
SLIU	**Shizi**	2.73	203	*e*P	Pn	18 37 48.4	0.0
SLIU				*e*S	Sn	18 38 20.7	+0.3
VCHM	**Qimei**	2.77	237	*e*P	Pn	18 37 49.3	+0.5
VCHM				*e*S	Sn	18 38 20.0	-1.3
SMST	**Manzhou Townsh**	2.90	201	*e*P	Pn	18 37 51.4	+0.8
SMST				*e*S	Sn	18 38 23.5	-1.0
HEN	**Hengchun**	2.94	202	*e*P	Pn	18 37 55.0	+3.8
HEN				*e*S	Sn	18 38 27.1	+1.5
JIRJ	**Irabujima**	2.95	88	P	Pn	18 37 52.8	+1.5
MHZQ	**Yeshan**	2.97	298	*e*P	Pn	18 37 51.6	+0.1
MHZQ				*e*S	Sn	18 38 26.4	+0.3
JMJ	**Miyako jima 2**	3.04	88	P	Pn	18 37 54.7	+2.2
KNMB	**Chin-men Tao**	3.25	266	*e*P	Pn	18 37 54.8	-0.7
KNMB				*e*S	Sn	18 38 31.9	-1.3
AXDP	**Jialang**	3.62	273	P	Pn	18 38 00.3	0.0
AXDP				*e*S	Sn	18 38 39.9	-2.1
ZPLA	**Ao Xicun**	3.92	259	*e*P	Pn	18 38 04.0	-0.4
ZPLA				*e*S	Sn	18 38 47.8	-1.4
DSXP	**Dongshan**	4.26	257	P	Pn	18 38 08.9	-0.1
DSXP				*e*S	Sn	18 38 55.4	-2.2

IDC ***19*** *18:46:45.6±0.7, 2°.45N×126°.80E, h0km, mb3.9/10, mbtmp3.9/10, MS3.0/3, Error ellipse: s-maj=50.6km s-min=14.1km az=77.0*

DJA ***19*** *18:46:50.0±0.5, 3°N±5°×12°7E±°, h10km, M4.0/9, mB4.8/3, mb4.3/3, mb4.3/3, mB4.8/3, ML3.7/9, MLv3.9/11, MLv3.9/9, Mw(mB)4.1/3, Mw(mB)4.1/3*

NEIC ***19*** *18:46:51.3±1.1, 2°.44N±0°.05×126°.76E±0°.06, h40km±9km, mb4.2/19, Error ellipse: s-maj=9.0km s-min=7.1km az=117.0*

ISC 19 18:46:51.9±0.6**, 2°.44N**±0°.07×**126°.80E**±0°.06**, h53**km**, n45, σ1ˢ.48**/46**, mb4.1**/17**, MS3.0**/3**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TNTI	**Ternate**	1.75	161		Pn	18 47 19.6	-0.3
TNTI				Sn	Sn	18 47 38.5	-2.5
MNI	**Manado**	2.20	243	P	Pn	18 47 28.8	+2.8
MNI				AML	AML		
MNI				AML	AML		
MNI				AML	AML		
GTOI	**Gorontalo**	4.19	245	P	Pn	18 47 57.0	+3.6
GTOI				AML	AML		
GTOI				AML	AML		
LUWI	**Luwuk**	5.31	229	Pn	Pn	18 48 06.9	-1.9
SWI	**Sorong**	5.53	126	P	Pn	18 48 11.9	+0.1
	0.1nm0.1nm781nm781nm13nm,0.9s						
SWI				AML	AML		
SWI				AML	AML		
NLAI	**Namlea**	5.65	177	P	Pn	18 48 17.5	+4.1
	0.1nm480nm480nm16nm,0.8s,16nm,0.8s						
NLAI				AML	AML		
TOLI2	**Tolitoli**	6.16	258	Pn	Pn	18 48 19.4	-1.0
TOLI2				Sn	Sn	18 49 26.9	-2.7
FAKI	**Fak Fak**	7.61	134	Pn	Pn	18 48 39.9	-0.5
FAKI				Sn	Sn	18 50 08.1	+2.9
KNRA	**Kununurra**	18.10	174		P	18 50 57.5	-2.0
FITZ	**Fitzroy Crossi**	20.44	183	P	P	18 51 25.9	+0.9
	2.2nm,0.4s,baz=15,slow=10,SNR=17						
	2.2nm,0.4s						
FITZ	**Fitzroy Crossi**	20.44	183	P	P	18 51 24.9	-0.2
GUMO	**Guam**	21.02	57	LR	LR	18 58 32.4	
	comp=Z,29nm,21.2s,baz=245,slow=34						
TPUB	**Ta-pu**	21.59	344	P	P	18 51 34.6	-2.8
TPUB				IAmb	IAmb	18 52 01.9	
	comp=Z,24nm,1.2s						
COEN	**Coen**	23.00	136	P	P	18 51 51.6	-0.9
WB0	**Warramunga Arr**	23.29	162	P	P	18 51 55.1	-0.2
WB0				IAmb	IAmb	18 52 06.0	
	comp=Z,7.5nm,0.9s						
WRAB	**Tennant Creek**	23.43	162	P	P	18 51 56.5	-0.1
WRAB				IAmb	IAmb	18 52 04.9	
	comp=Z,8.7nm,1.1s						
WRA	**Warramunga Arr**	23.44	162	P	P	18 51 56.2	-0.5
	comp=Z,1.1nm,0.3s,baz=341,slow=11,SNR=52						
WRA				PcP	PcP	18 55 43.1	+1.3
	comp=Z,0.2nm,0.5s,baz=333,slow=1.8,SNR=1.5						
	comp=Z,1.1nm,0.3s						
WR8	**Warramunga Arr**	23.50	162	P	P	18 51 57.0	-0.3
WR8				IAmb	IAmb	18 52 07.4	
	comp=Z,15nm,1.3s						
MBWA	**Marble Bar**	24.45	196	P	P	18 52 05.5	-0.5
AS31	**Alice Springs**	26.85	165	P	P	18 52 27.6	-0.1
ASAR	**Alice Springs**	26.85	165	P	P	18 52 28.0	+0.2
	comp=Z,0.7nm,0.5s,baz=341,slow=8.0,SNR=17						
ASAR				PcP	PcP	18 55 51.1	+1.7
	comp=Z,0.5nm,0.7s,baz=350,slow=3.1,SNR=4.8						
	comp=Z,0.7nm,0.5s						
ASAR	**Alice Springs**	26.85	165	P	P	18 52 27.6	-0.2
GSI	**Gunungsitoli**	29.23	268	P	P	18 52 49.1	-0.1
INKA	**Innaminka**	32.87	157	P	P	18 53 20.8	-0.2
FORT	**Forrest**	33.05	178	P	P	18 53 22.5	0.0
KSRS	**Korea Array**	34.86	2	P	P	18 53 39.4	+1.2
	comp=Z,1.0nm,0.7s,baz=173,slow=11,SNR=4.4						
	comp=Z,1.0nm,0.7s						
MJAR	**Matsushiro Arr**	35.53	16	P	P	18 53 42.5	-1.5
	comp=Z,0.6nm,0.7s,baz=187,slow=9.1,SNR=2.1						
MJAR				LR	LR	19 06 57.0	
	comp=Z,28nm,20.2s,baz=214,slow=34						
	comp=Z,0.6nm,0.7s						
MJAR	**Matsushiro Arr**	35.53	16	IAmb	IAmb	18 53 47.9	
	comp=Z,4.6nm,1.4s						
STKA	**Stephens Creek**	36.90	159	P	P	18 53 56.5	+0.8
	comp=Z,1.8nm,0.3s,baz=338,slow=8.3,SNR=7.3						
	comp=Z,1.8nm,0.3s						
ARMA	**Armidale**	40.36	146	P	P	18 54 25.7	+0.8
USRK	**Ussuriysk Ar.**	41.84	6	P	P	18 54 38.3	+1.7
	comp=Z,3.0nm,0.8s,baz=196,slow=5.2,SNR=4.4						
	comp=Z,3.0nm,0.8s						
USRK	**Ussuriysk Ar.**	41.84	6	P	P	18 54 36.9	+0.3
TLY	**Talaya**	52.77	342	LR	LR	19 19 56.7	
	comp=Z,22nm,18.5s,baz=104,slow=38						
MK31	**Makanchi Array**	58.66	326	P	P	18 56 44.2	+0.3
MK31				IAmb	IAmb	18 57 12.2	
	comp=Z,1.5nm,1.1s						
MKAR	**Makanchi Array**	58.66	326	P	P	18 56 44.2	+0.3
	comp=Z,0.5nm,0.5s,baz=119,slow=7.3,SNR=7.7						
	comp=Z,0.5nm,0.5s						
ZALV	**Zalesovo Beam**	61.77	333	P	P	18 57 06.6	+1.6
	comp=Z,0.3nm,0.3s,baz=146,slow=5.8,SNR=2.1						
	comp=Z,0.3nm,0.3s						
ZALV	**Zalesovo Beam**	61.77	333	P	P	18 57 05.3	+0.4

KURBB	Kurchatov Arra	62.86	328	P	P	18 57 12.6	+0.2
	comp=Z,0.9nm,0.5s,baz=130,slow=6.1,SNR=11						
	comp=Z,0.9nm,0.5s						
KURK	Kurchatov	62.87	328	P	P	18 57 12.6	+0.2
KURK	Kurchatov	62.87	328	IAmb	IAmb	18 57 15.0	
	comp=Z,2.0nm,0.5s						
KK31	Karatay Array	64.22	317	P	P	18 57 20.9	-0.7
KK31				IAmb	IAmb	18 57 25.7	
	comp=Z,2.6nm,1.2s						
KKAR	Karatay Array	64.22	317	P	P	18 57 20.9	-0.7
AB31	Akbulak array	73.19	321	P	P	18 58 17.4	+0.1
AB31				IAmb	IAmb	18 58 19.2	
	comp=Z,2.0nm,1.1s						
ABKAR	Akbulak array	73.19	321	P	P	18 58 17.4	+0.1
ARTI	Arti	76.14	328	P	P	18 58 34.5	+0.3
ARTI				IAmb	IAmb	18 58 42.8	
	comp=Z,2.9nm,0.9s						

SOME ***19*** *19:09:40.4, 39°.28N×73°.57E, h15^{km}*
IDC ***19*** *19:09:45.1±1.0, 39°.41N×73°.74E, h0^{km}, mb3.7/11, mbtmp3.6/16, ML2.7/6, MS3.2/2, Error ellipse: s-maj=20.2km s-min=16.0km az=103.0*
KRNET ***19*** *19:09:45.5±0.1, 39°.55N×73°.67E, h21^{km}, mb3.7*
NEIC ***19*** *19:09:46.4±1.5, 39°.32N±0°.06×73°.55E±0°.07, h10^{km}±2^{km}, mb4.2/3, Error ellipse: s-maj=11.6km s-min=7.6km az=141.0*
NNC ***19*** *19:09:47.9±3.5, 39°.74N×73°.54E, h0^{km}, mb4.2, mpv3.8, Error ellipse: s-maj=27.9km s-min=14.9km az=175.0*
ISC 19 19:09:45.5±1.3**, 39°.54N**±0°.03×**73°.64E**±0°.03**, h0**^{km}±8^{km}**, n93, σ1^{s}.92**/130**, mb3.6**/12**, 38C-17D, Tajikistan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SFK	Sufi-Kurgan	0.49	347	⇑iP	Pg	19 09 55.1	+0.2
SFK				⇑iS	Sg	19 10 02.2	+0.9
OHH	Osh	1.19	327	⇑iP	Pg	19 10 07.4	-0.9
OHH				⇑iS	Sg	19 10 23.4	-0.3
SALK	Salom-Alik	1.35	6	⇓eP	Pg	19 10 10.0	-1.5
SALK				⇓eS	Sg	19 10 28.3	-0.7
DRK	Karamyk	1.43	268	⇑iP	Pg	19 10 12.0	-0.9
DRK				⇑iS	Sg	19 10 31.4	0.0
DRK	Karamyk	1.43	268		Pg	19 10 11.7	-1.2
DRK				Sn	Sg	19 10 27.1	-4.3
ARSB	Arslanbob	1.86	344	⇑eP	Pn	19 10 18.9	+0.2
ARSB				⇑iS	Sn	19 10 43.1	+0.1
ARSB	Arslanbob	1.86	344		Pb	19 10 20.5	+0.1
ARSB				Sn	Sb	19 10 44.2	0.0
BTK	Batken	2.24	284	⇑eP	Pn	19 10 24.4	+0.5
BTK				⇑iS	Sn	19 10 52.7	+0.4
BTK	Batken	2.24	284		Pn	19 10 24.1	+0.2
ARK	Arkit	2.60	331	⇓iP	Pn	19 10 29.2	+0.3
ARK				⇓iS	Sn	19 11 01.0	-0.2
NRN	Naryn	2.61	43	⇓eP	Pn	19 10 28.6	-0.7
NRN				⇓eS	Sn	19 11 00.2	-1.6
TRKS	Terek-Say	2.76	317	⇑eP	Pn	19 10 30.5	-0.7
TRKS				⇑eS	Sn	19 11 03.7	-1.5
UCH	Uchtor	2.77	13	⇑iP	Pn	19 10 31.6	0.0
UCH				⇑iS	Sn	19 11 05.2	-0.7
MNAS	Manas	3.07	344	⇑iP	Pn	19 10 35.8	+0.4
MNAS				⇑iS	Sn	19 11 12.5	-0.5
EKS2	Erkin-Say	3.12	2	P	Pb	19 10 39.9	-2.2
	SNR=15						
EKS2	Erkin-Say	3.12	2	⇑iP	Pn	19 10 36.4	+0.3
EKS2				⇑iS	Sn	19 11 13.5	-0.7
AAK	Ala-Archa	3.17	11	Pn	Pn	19 10 40.1	+3.4
	5.6nm,0.3s,baz=177,slow=6.9,SNR=47						
AAK				Lg	Lg	19 11 26.6	
	7.0nm,0.3s,baz=144,slow=19,SNR=4.2						
AAK				LR	LR	19 11 44.7	
	comp=Z,54nm,19.6s,baz=299,slow=36						
	16nm,0.4s						
AAK				AML	AML		
AAK	Ala-Archa	3.17	11	P	Pb	19 10 40.7	-2.1
	SNR=28						
AAK	Ala-Archa	3.17	11	⇑Pg	Pb	19 10 40.5	-2.2
	4.3nm,0.4s						
AAK				⇓Lg	Lg	19 11 25.6	
	52nm,1.0s						
AAK	Ala-Archa	3.17	11	⇑iP	Pn	19 10 36.8	+0.1
AAK				⇑iS	Sn	19 11 14.4	-0.9
AAK	Ala-Archa	3.17	11		Pn	19 10 39.7	+3.0
MRKS	Merke	3.22	355	Pg	Pn	19 10 40.8	+3.4
	15nm,0.3s						
MRKS				Lg	Lg	19 11 24.4	
	84nm,0.3s						
MRKS	Merke	3.22	355	eP	Pn	19 10 40.8	+3.4
	15nm,0.3s						
MRKS				eS	Sb	19 11 24.4	+0.9
	84nm,0.3s						
KBK	Karagaybulak	3.27	17	P	Pb	19 10 43.4	-1.1
	SNR=19						
KBK	Karagaybulak	3.27	17	⇑iP	Pn	19 10 38.4	+0.2
KBK				⇑iS	Sn	19 11 16.8	-1.1
ULHL	Ulahol	3.35	35	P	Pb	19 10 43.1	-2.7
	SNR=9.1						
ULHL	Ulahol	3.35	35	⇓iP	Pn	19 10 39.4	+0.1
ULHL				⇓iS	Sn	19 11 18.6	-1.2
FRU1	Bishkek	3.35	12	⇑iP	Pn	19 10 39.8	+0.5
FRU1				⇑iS	Sn	19 11 19.2	-0.6
FRU1	Bishkek	3.35	12	Pn	Pn	19 10 42.3	+3.0
BOOM	Boomskoye usch	3.42	30	⇑eP	Pn	19 10 40.3	0.0
BOOM				⇑eS	Sn	19 11 20.8	-0.9
BOOM	Boomskoye usch	3.42	30		Pn	19 10 43.9	+3.6
CHMS	Chumysh	3.56	13	P	Pn	19 10 45.8	+3.7
	SNR=13						
CHMS	Chumysh	3.56	13	⇑iP	Pn	19 10 42.2	+0.2
CHMS				⇑iS	Sn	19 11 23.6	-1.2
TKM2	Tokmak 2	3.69	23	P	Pn	19 10 47.9	+3.9
	SNR=6.9						
TKM2	Tokmak 2	3.69	23	⇓iP	Pn	19 10 44.2	+0.2
TKM2				⇓iS	Sn	19 11 26.9	-1.3
KDJ	Kajisay	3.73	45	⇓iP	Pn	19 10 44.9	+0.4
KDJ				⇓iS	Sn	19 11 27.8	-1.4
KDJ	Kajisay	3.73	45		Pn	19 10 47.4	+2.9
DZA	Taraz	3.78	333	eP	Pb	19 10 54.9	+1.8
	20nm,0.1s						
DZA				eS	Sg	19 11 47.8	+0.9
	51nm,0.2s						
USP	Ospenovka	3.78	10	P	Pn	19 10 49.0	+3.8
	SNR=7.1						
USP	Ospenovka	3.78	10	⇓iP	Pn	19 10 45.3	+0.2
USP				⇓iS	Sn	19 11 29.0	-1.3
IUG	Iuzhnay	3.78	315	Pg	Pn	19 10 49.3	+4.1
	45nm,0.3s						
IUG				Lg	Lg	19 11 38.8	
	66nm,0.4s						
IUG	Iuzhnay	3.78	315	eP	Pn	19 10 49.3	+4.1
	45nm,0.3s						
IUG				eS	Sb	19 11 38.8	-0.9
	66nm,0.4s						
TARG	Taragay, Kyrgy	3.85	54	⇑eP	Pn	19 10 46.4	0.0
TARG				⇑iS	Sn	19 11 30.8	-1.7
TARG	Taragay, Kyrgy	3.85	54		Pn	19 10 49.0	+2.6
KST	Kastek	3.92	26	eP	Pb	19 10 56.6	+1.1
	3.9nm,0.9s						
KST				eS	Sg	19 11 50.7	-0.6
	32nm,0.9s						
KK31	Karatay Array	4.27	328	⇓Pn	Pn	19 10 54.7	+2.9
	3.1nm,0.3s,baz=129,slow=12,SNR=110						
KK31				⇑Pg	Pb	19 11 03.8	+2.3
	12nm,0.6s,baz=141,slow=15,SNR=5.2						
KK31				⇓Lg	Lg	19 11 59.7	
	6.8nm,0.3s,baz=141,slow=30,SNR=2.6						
KK31	Karatay Array	4.27	328		Pn	19 10 53.1	+1.3
KKAR	Karatay Array	4.27	328		Pn	19 10 54.0	+2.2
MDOK	Medeo	4.44	34	Pg	Pb	19 11 04.9	+0.5
	14nm,0.5s						
MDOK				Lg	Lg	19 12 05.3	
	16nm,0.4s						
MDOK	Medeo	4.44	34	eP	Pb	19 11 04.9	+0.5
	14nm,0.5s						
MDOK				eS	Sg	19 12 05.3	-2.8
	16nm,0.4s						
ANVS	Anan'yevo	4.44	42	⇑eP	Pn	19 10 54.6	+0.3
ANVS				⇑iS	Sn	19 11 44.9	-1.9
KNDC	Almaty	4.45	33	⇑Pg	Pb	19 11 06.8	+2.3
	23nm,0.5s						
KNDC				⇑Lg	Lg	19 12 06.3	
	42nm,0.6s						
BRLS	Borolday	4.52	322	eP	Pb	19 11 05.9	+0.1
	6.5nm,0.4s						
BRLS				eS	Sg	19 12 06.7	-4.0
	43nm,0.7s						
KOTS	Kotyrbulak	4.52	34	Pg	Pb	19 11 07.7	+1.8
	13nm,0.3s						
KOTS				Lg	Lg	19 12 10.4	
	56nm,0.4s						
KOTS	Kotyrbulak	4.52	34	eP	Pb	19 11 07.7	+1.8
	13nm,0.3s						
KOTS				eS	Sg	19 12 10.4	-0.4
	56nm,0.4s						
WUS	Wushi	4.57	67		Pn	19 10 58.1	+2.0
PRZ	Przheval'sk	4.65	49		Pn	19 10 58.8	+1.7
KPKS	Kokpek	5.45	42	Pg	Pb	19 11 24.0	+2.4
	0.2nm,0.1s						
KPKS				Lg	Lg	19 12 38.2	
	16nm,0.5s						
KPKS	Kokpek	5.45	42	eP	Pb	19 11 24.0	+2.4
	0.2nm,0.1s						
KPKS				eS	Sg	19 12 38.2	-2.5
	16nm,0.5s						
PDGK	Podgornoye	5.80	47	⇑Pn	Pn	19 11 15.7	+2.8
	4.7nm,0.8s						
PDGK				⇑Lg	Lg	19 12 50.4	
	12nm,0.9s						
PDGK	Podgornoye	5.80	47		Pn	19 11 15.4	+2.5
NIL	Nilore	5.88	183		Pn	19 11 11.2	-2.7
TSSA	Tissa	6.99	162	eP	Pn	19 11 34.4	+5.2
TSSA				eS	Sn	19 12 49.2	-0.2
TSSA				IAML		19 12 57.0	
	comp=N,373nm,0.1s						
TSSA				IAML		19 12 59.5	
	comp=E,397nm,0.3s						
THN	Thein Dam	7.28	166	eP	Pn	19 11 38.0	+4.8
THN				eS	Sn	19 12 54.9	-1.7
THN				IAML		19 13 07.1	
	comp=E,278nm,0.3s						
THN				IAML		19 13 08.5	
	comp=N,233nm,0.5s						
DHRM	DHARAMSHALA	7.58	163	eP	Pn	19 11 42.3	+4.8
DHRM				eS	Sn	19 13 00.6	-3.6
DHRM				IAML		19 13 13.6	
	comp=E,220nm,0.3s						
DHRM				IAML		19 13 15.1	
	comp=N,220nm,0.4s						
SMLA	Simla	8.87	160	eP	Pn	19 11 59.6	+4.7
SMLA				eS	Sn	19 13 31.1	-4.4
SMLA				IAML		19 13 43.5	
	comp=N,111nm,0.4s						
SMLA				IAML		19 13 46.9	
	comp=E,81nm,0.6s						
MKAR	Makanchi Array	9.61	38	Pn	Pn	19 12 05.4	+0.2
	baz=224,slow=11,SNR=1.7						
HRA	Herat	10.47	244	Pn	Pn	19 12 14.6	-2.4
KURBB	Kurchatov Arra	11.61	16	Pn	Pn	19 12 34.0	+1.7
	baz=203,slow=11,SNR=3.5						
KURBB				Lg	Lg	19 15 48.8	
	baz=202,slow=27,SNR=6.1						
	comp=E,0.3nm,0.8s						
BVAR	Borovoye Array	13.68	352	Pn	Pn	19 13 00.3	-0.3
	baz=167,slow=14,SNR=12						
BVAR				Lg	Lg	19 16 57.3	
	baz=163,slow=25,SNR=2.4						
	comp=E,1.7nm,0.7s						
BORK	Borovoye	13.71	351	Pn	Pn	19 12 59.8	-1.1
AB31	Akbulak array	13.78	319	Pn	Pn	19 13 01.3	-0.6
ABKAR	Akbulak array	13.78	319	Pn	Pn	19 13 01.6	-0.4
AKTO	Aktyubinsk	15.49	320	Pn	Pn	19 13 25.2	0.0
	comp=E,0.2nm,0.3s,baz=112,slow=16,SNR=3.6						
	comp=E,1.1nm,0.6s						
AKTO				AML	AML		
ZALV	Zalesovo Beam	16.29	24	Pn	Pn	19 13 36.6	+1.1
	comp=E,0.1nm,0.3s,baz=215,slow=10,SNR=5.2						
	comp=E,0.8nm,0.6s						
ZALV				AML	AML		
ZALV	Zalesovo Beam	16.29	24	Pn	Pn	19 13 36.1	+0.6
FIA1	FINESS Array S	36.22	323	P	P	19 16 48.0	-1.7
FIA1				IAmb	IAmb	19 17 15.2	
	comp=Z,18nm,1.1s						
FINES	FINESS Array B	36.22	323	P	P	19 16 50.7	+1.0
	comp=Z,2.8nm,0.8s,baz=116,slow=9.8,SNR=11						
	comp=Z,2.8nm,0.8s						
FINES	FINESS Array B	36.22	323	P	P	19 16 49.8	+0.1
ARCES	ARCESS Array B	39.19	336	P	P	19 17 15.8	+1.0
	comp=Z,5.8nm,1.1s,baz=116,slow=8.5,SNR=10						
	comp=Z,5.8nm,1.1s						
ARCES	ARCESS Array B	39.19	336	P	P	19 17 15.4	+0.6
ARCES				IAmb	IAmb	19 17 24.9	
	comp=Z,0.9nm,0.7s						
HFS	Hagfors	42.04	320	P	P	19 17 39.3	+0.9
	comp=Z,0.8nm,0.6s,baz=98,slow=11,SNR=2.9						
	comp=Z,0.8nm,0.6s						
GERES	GERESS Array B	42.96	303	P	P	19 17 46.1	-0.1
	comp=Z,0.3nm,0.3s,baz=50,slow=8.9,SNR=1.9						
	comp=Z,0.3nm,0.3s						
NC303	NORSAR Array S	43.20	321	P	P	19 17 47.7	-0.2
NC303				IAmb	IAmb	19 17 49.5	
	comp=Z,3.4nm,0.8s						
NB2	NORSAR Subarra	43.28	321	P	P	19 17 48.7	+0.2
	comp=Z,0.6nm,0.7s,baz=91,slow=7.9						
NOA	NORSAR Array B	43.28	321	P	P	19 17 48.7	+0.2
	comp=Z,0.4nm,0.6s,baz=91,slow=8.0,SNR=4.6						
	comp=Z,0.4nm,0.6s						
EKA	Eskdalemuir Ar	51.60	315	P	P	19 18 53.3	+0.1
	comp=Z,0.4nm,0.5s,baz=83,slow=1.8,SNR=1.9						
	comp=Z,0.4nm,0.5s						
ESDC	Sonseca Array	57.91	297	P	P	19 19 40.1	+0.7
	comp=Z,0.4nm,0.8s,baz=49,slow=7.5,SNR=2.1						
	comp=Z,0.4nm,0.8s						
TORD	Torodi Ar. Bea	67.87	269	P	P	19 20 45.6	-0.3
	comp=Z,0.4nm,0.6s,baz=57,slow=6.2,SNR=3.5						
	comp=Z,0.4nm,0.6s						
IMAR	Indian Mountai	68.64	19	P	P	19 20 49.8	-0.2
YKA	Yellowknife Ar	78.10	4	P	P	19 21 45.9	0.0
	comp=Z,0.4nm,0.7s,baz=351,slow=6.1,SNR=1.7						
	comp=Z,0.4nm,0.7s						
WRA	Warramunga Arr	81.89	124	P	P	19 22 06.3	-0.5
	comp=Z,0.5nm,1.0s,baz=326,slow=5.1,SNR=5.1						
	comp=Z,0.5nm,1.0s						
ASAR	Alice Springs	84.34	127	P	P	19 22 18.9	-0.7
	comp=Z,0.2nm,0.7s,baz=314,slow=5.2,SNR=1.8						
ASAR				LR	LR	20 08 12.1	
	comp=Z,64nm,18.3s,baz=122,slow=42						
	comp=Z,0.2nm,0.7s						

IDC ***19*** *19:24:21.9±0.7, 4°.00N×126°.30E, h0^{km}, mb3.9/10, mbtmp3.9/11, ML3.8/1, MS3.0/3, Error ellipse: s-maj=48.4km s-min=10.7km az=71.0*
NEIC ***19*** *19:24:27.4±1.8, 4°.14N±0°.06×126°.7E±0°.1, h41^{km}±9^{km}, mb4.3/21, Error ellipse: s-maj=16.7km s-min=7.6km az=69.0*
DJA ***19*** *19:24:28.9±1.2, 4°N±5°×12°7E±°, h34^{km}±24^{km}, M4.2/9, mb4.3/9, mb4.3/9, ML4.1/7, MLv4.2/7, MLv4.2/7*
ISC 19 19:24:27.5±0.6**, 4°.11N**±0°.05×**126°.65E**±0°.09**, h45**^{km}**, n52, σ2^{s}.03**/51**, mb4.0**/17**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GSPH	General Santos	2.59	319	i P	Pn	19 25 07.5	+0.4
GSPH				i S	Sn	19 25 39.5	+2.1
DAV	Davao City (W)	3.12	340	Pn	Pn	19 25 14.6	+0.4
	12nm,0.3s,baz=224,slow=15,SNR=1.4						
DAV				Sn	Sn	19 25 51.2	+0.9
	16nm,0.3s,baz=259,slow=19,SNR=4.5						
	51nm,0.3s						
DAV				AML	AML		
DAV	Davao City (W)	3.12	340		Pn	19 25 14.9	+0.6
DAV				Sn	Sn	19 25 50.5	+0.2
DAV	Davao City (W)	3.12	340	P	Pn	19 25 17.4	+3.1
DAV				AML	AML		
MNI	Manado	3.21	214	P	Pn	19 25 18.4	+3.0
MNI				AML	AML		
MNI				AML	AML		
MNI				AML	AML		
TNTI	Ternate	3.40	168		Pn	19 25 18.6	+0.5
TNTI				Sn	Sn	19 25 56.0	-1.1
TNTI	Ternate	3.40	168	P	Pn	19 25 18.9	+0.9
TNTI				AML	AML		
CGP	Cagayan de Oro	4.73	336	eP	Pn	19 25 43.0	+6.6
GTOI	Gorontalo	5.01	227	P	Pn	19 25 42.8	+2.6
	0.1nm20nm,1.2s						
GTOI				AML	AML		
SANI	Sanana	6.16	186	P	Pn	19 25 56.0	+0.1
	0.1nm8.6nm,0.6s,8.6nm,0.6s						
SANI				AML	AML		
LUWI	Luwuk	6.42	217		Pn	19 26 01.1	+1.5
LUWI	Luwuk	6.42	217	P	Pn	19 26 03.1	+3.5
	57nm,1.0s,57nm,1.0s						
TOLI2	Tolitoli	6.58	243	Pn	Pn	19 26 02.7	+1.1
SWI	Sorong	6.76	137	P	Pn	19 26 03.7	-0.5
	0.0nm11nm,0.5s,11nm,0.5s						
SWI				AML	AML		
APSI	Ampana	7.06	225	P	Pn	19 26 13.0	+4.6
	31nm,0.9s,31nm,0.9s						
KAPI	Kappang	11.39	217	LR	LR	19 31 14.4	
	comp=Z,27nm,20.6s,baz=96,slow=37						
SBUM	Sibu	14.50	264	Pn	Pn	19 27 48.4	-1.6
MTN	Manton Dam	17.43	165	Pn	Pn	19 28 24.4	-3.0
JAGI	Jajag, Banyuwa	17.65	225		P	19 28 30.1	-0.6
JAGI				IAmb	IAmb	19 28 44.2	
	comp=Z,36nm,1.5s						
KNRA	Kununurra	19.77	174	P	Pn	19 28 53.1	-2.7
KNRA				IAmb	IAmb	19 29 19.6	
	comp=Z,13nm,1.4s						
TPUB	Ta-pu	19.94	344	P	P	19 28 54.4	-1.5
TPUB				IAmb	IAmb	19 29 15.9	
	comp=Z,34nm,1.3s						
YHNB	Yeheng	21.06	347	P	P	19 29 06.5	-1.4
FITZ	Fitzroy Crossi	22.09	183	P	P	19 29 18.7	-0.3
	comp=Z,1.6nm,0.3s,baz=0.9,slow=6.0,SNR=12						
	comp=Z,1.6nm,0.3s						
FITZ	Fitzroy Crossi	22.09	183	P	P	19 29 18.1	-0.9
WB0	Warramunga Arr	24.92	162	P	P	19 29 45.8	-0.8
WB0				IAmb	IAmb	19 29 50.8	
	comp=Z,6.5nm,0.8s						
WRA	Warramunga Arr	25.07	163	P	P	19 29 47.4	-0.6
	comp=Z,3.7nm,0.7s,baz=344,slow=10,SNR=36						
WRA				S	S	19 34 15.0	+5.5
	comp=Z,0.2nm,0.6s,baz=345,slow=22,SNR=1.7						
WRA				ScP	ScP	19 37 06.2	+8.7
	comp=Z,0.3nm,0.7s,baz=334,slow=2.9,SNR=2.0						
	comp=Z,3.7nm,0.7s						
WRA	Warramunga Arr	25.07	163	P	P	19 29 47.1	-0.9
AS31	Alice Springs	28.50	166	P	P	19 30 18.8	0.0
ASAR	Alice Springs	28.50	166	P	P	19 30 18.6	-0.2
	comp=Z,0.2nm,0.3s,baz=346,slow=7.6,SNR=7.7						
ASAR				PcP	PcP	19 33 31.1	+1.2
	comp=Z,0.2nm,0.6s,baz=344,slow=4.1,SNR=1.8						
ASAR				ScP	ScP	19 37 14.5	+6.8
	comp=Z,0.3nm,0.6s,baz=347,slow=2.4,SNR=5.3						
	comp=Z,0.2nm,0.3s						
ASAR	Alice Springs	28.50	166	P	P	19 30 18.8	-0.1
CMAR	Chiang Mai Arr	30.61	300	P	P	19 30 36.7	-0.9
	comp=Z,0.7nm,0.8s,baz=111,slow=8.5,SNR=4.2						
	comp=Z,0.7nm,0.8s						
CHTO	Chiang Mai	30.76	301	P	P	19 30 39.0	+0.2
CHTO				IAmb	IAmb	19 30 44.6	
	comp=Z,16nm,1.5s						
KSRS	Korea Array	33.20	2	LR	LR	19 42 19.8	
	comp=Z,11nm,21.5s,baz=195,slow=32						
INKA	Innaminka	34.47	158	P	P	19 31 11.3	+0.2
INKA				IAmb	IAmb	19 31 12.5	
	comp=Z,1.4nm,0.7s						
BBOO	Buckleboo	37.79	167	P	P	19 31 39.2	-0.3
STKA	Stephens Creek	38.51	159	P	P	19 31 45.9	+0.2
	comp=Z,4.1nm,0.7s,baz=343,slow=8.2,SNR=8.4						
	comp=Z,4.1nm,0.7s						
SHL	Shillong	39.59	306	P	P	19 31 54.4	-0.6
ARMA	Armidale	41.83	147	P	P	19 32 12.5	-0.7
EVN	Everest	44.70	306	P	P	19 32 36.6	-0.5
EVN				IAmb	IAmb	19 32 38.2	
	comp=Z,3.0nm,0.6s						
MSVF	Nonsavu	55.15	115	LR	LR	19 56 14.0	
	comp=Z,75nm,18.6s,baz=170,slow=34						
MKAR	Makanchi Array	57.20	325	P	P	19 34 09.9	-0.2
	comp=Z,0.6nm,0.5s,baz=122,slow=7.7,SNR=12						
MKAR				PcP	PcP	19 35 05.1	+0.9
	comp=Z,0.5nm,0.7s,baz=100,slow=6.0,SNR=2.7						
	comp=Z,0.6nm,0.5s						
MKAR	Makanchi Array	57.20	325	P	P	19 34 09.2	-0.9
MAKZ	Makanchi	57.38	325	P	P	19 34 10.6	-0.8
MAKZ				IAmb	IAmb	19 34 13.1	
	comp=Z,1.4nm,0.8s						
ZALV	Zalesovo Beam	60.21	333	P	P	19 34 30.8	0.0
	comp=Z,0.3nm,0.3s,baz=138,slow=7.8,SNR=2.0						
	comp=Z,0.3nm,0.3s						
KURBB	Kurchatov Arra	61.37	327	P	P	19 34 38.6	-0.2
	comp=Z,0.9nm,0.5s,baz=128,slow=6.4,SNR=20						
	comp=Z,0.9nm,0.5s						
KURK	Kurchatov	61.38	327	P	P	19 34 38.8	-0.1
KURK				IAmb	IAmb	19 34 39.8	
	comp=Z,2.0nm,0.5s						
LBZ	Lake Benmore	62.04	146	P	P	19 34 44.0	+0.6
BVAR	Borovoye Array	66.96	327	P	P	19 35 15.1	-0.3
	comp=Z,0.6nm,0.6s,baz=140,slow=8.5,SNR=4.5						
	comp=Z,0.6nm,0.6s						
BORK	Borovoye	67.00	327	P	P	19 35 15.7	0.0
BORK				IAmb	IAmb	19 35 17.7	
	comp=Z,1.8nm,0.8s						
AB31	Akbulak array	71.80	321	P	P	19 35 45.2	-0.2
ABKAR	Akbulak array	71.80	321	P	P	19 35 45.2	-0.2
ILAR	Eielson Array	84.79	25	P	P	19 37 00.2	+3.3
	comp=Z,0.4nm,1.0s,baz=283,slow=6.6,SNR=2.0						
	comp=Z,0.4nm,1.0s						

KRNET ***19*** *19:45:17.7±0.1, 43°.01N×77°.12E, h15^{km}, mb2.8*
NNC ***19*** *19:45:18.7±0.7, 43°.05N×77°.14E, h4^{km}±4^{km}, mb2.9, mpv3.0, Error ellipse: s-maj=7.1km s-min=2.6km az=171.0*
SOME ***19*** *19:45:18.2, 43°.00N×77°.08E, h15^{km}*
KNET ***19*** *19:45:20.3±0.3, 42°.90N×76°.98E, h25^{km}±2^{km}, ml1.8, Error ellipse: s-maj=3.0km s-min=1.3km az=35.0*
ISC 19 19:45:18.0±0.8**, 43°.00N**±0°.02×**77°.12E**±0°.02**, h13**^{km}±6^{km}**, n48, σ0^{s}.80**/89**, 29C-15D, Lake Issyk-Kul region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MDOK	Medeo	0.17	342	Pg	Pg	19 45 21.5	-0.6
MDOK				Lg	Lg	19 45 24.1	
MDOK	Medeo	0.17	342	⇑eP	Pg	19 45 21.5	-0.6
MDOK				eS	Sg	19 45 24.1	-0.9
KOTS	Kotyrbulak	0.24	359	P	Pg	19 45 23.0	-0.1
KOTS				S	Sg	19 45 26.6	0.0
KOTS	Kotyrbulak	0.24	359	⇓eP	Pg	19 45 23.0	-0.1
KOTS				eS	Sg	19 45 26.6	0.0
AAA	Alma-Ata	0.26	325	P	Pg	19 45 23.7	+0.3
AAA				S	Sg	19 45 27.7	+0.6
AAA	Alma-Ata	0.26	325	eP	Pg	19 45 23.7	+0.3
AAA				eS	Sg	19 45 27.7	+0.6
ANVS	Anan'yevo	0.46	118	⇑iP	Pg	19 45 27.0	0.0
ANVS				⇑iS	Sg	19 45 33.1	0.0
KTBS	Karatobe	0.78	336	eP	Pg	19 45 32.3	-0.8
	5.0nm,0.1s						
KTBS				eS	Sg	19 45 42.4	-1.0
	23nm,0.2s						
KST	Kastek	0.85	273	eP	Pg	19 45 34.2	-0.2
	1.6nm,0.2s						
KST				eS	Sg	19 45 45.7	+0.2
	18nm,0.3s						
KDJ	Kajisay	0.87	177	⇑iP	Pb	19 45 34.4	-0.6
KDJ				⇑iS	Sg	19 45 46.6	+0.5
KURS	Kuram	0.91	57	eP	Pb	19 45 35.1	-0.6
	1.3nm,0.2s						
KURS				eS	Sb	19 45 47.2	-0.6
	3.6nm,0.4s						
ULHL	Ulahol	0.99	221	⇑P	Pb	19 45 36.8	-0.4
ULHL				⇑S	Sb	19 45 48.6	-1.7
	7.8nm,0.2s						
ULHL	Ulahol	0.99	221	⇑iP	Pb	19 45 36.5	-0.7
ULHL				⇑iS	Sb	19 45 50.1	-0.2
BOOM	Boomskoye usch	1.01	240	⇓eP	Pb	19 45 37.0	-0.4
BOOM				⇓eS	Sb	19 45 50.7	+0.1
PRZ	Przheval'sk	1.07	118	⇑iP	Pb	19 45 38.5	0.0
PRZ				⇑iS	Sb	19 45 52.9	+0.3
TKM2	Tokmak 2	1.12	267	⇑P	Pb	19 45 39.4	+0.1
	2.1nm,0.1s						
TKM2				⇓S	Sg	19 45 54.8	+0.6
	19nm,0.1s						
TKM2	Tokmak 2	1.12	267	⇑iP	Pb	19 45 39.5	+0.1
TKM2				⇑iS	Sg	19 45 54.8	+0.6
KPKS	Kokpek	1.23	67	P	Pn	19 45 41.1	0.0
	0.2nm,0.1s						
KPKS				S	Sb	19 45 57.6	+0.4
	8.7nm,0.2s						
KPKS	Kokpek	1.23	67	eP	Pn	19 45 41.1	0.0
	0.2nm,0.1s						
KPKS				eS	Sb	19 45 57.6	+0.4
	8.7nm,0.2s						
KRBS	Karabastau	1.26	304	P	Pn	19 45 41.6	+0.1
	5.9nm,0.1s						
KRBS				S	Sb	19 45 58.2	+0.2

	17nm,0.1s						
KRBS	**Karabastau**	1.26	304	eP	Pn	19 45 41.6	+0.1
KRBS				eS	Sb	19 45 58.2	+0.2
KRBS	**Karabastau**	1.26	304	eP	Pn	19 45 41.6	+0.1
	5.9nm,0.1s						
KRBS				eS	Sb	19 45 58.2	+0.2
	17nm,0.1s						
ARXS	**Arharly**	1.32	23	P	Pn	19 45 42.5	+0.3
	1.9nm,0.1s						
ARXS				S	Sn	19 46 00.0	+0.3
	11nm,0.1s						
ARXS	**Arharly**	1.32	23	eP	Pn	19 45 42.5	+0.3
	1.9nm,0.1s						
ARXS				eS	Sn	19 46 00.0	+0.3
	11nm,0.1s						
TARG	**Taragay, Kyrgy**	1.37	158	⇓iP	Pn	19 45 43.5	+0.3
TARG				⇓iS	Sb	19 46 02.2	+1.0
UZB	**Uzynbulak**	1.40	83	P	Pn	19 45 43.9	+0.5
	7.8nm,0.1s						
UZB				S	Sb	19 46 02.7	+0.7
	10nm,0.1s						
UZB	**Uzynbulak**	1.40	83	eP	Pn	19 45 43.9	+0.5
UZB				eS	Sb	19 46 02.7	+0.7
UZB	**Uzynbulak**	1.40	83	eP	Pn	19 45 43.9	+0.5
	7.8nm,0.1s						
UZB				eS	Sb	19 46 02.7	+0.7
	10nm,0.1s						
BLB	**Baldybastay**	1.48	41	P	Pb	19 45 45.3	-0.1
	16nm,0.1s						
BLB				S	Sb	19 46 04.8	+0.7
	13nm,0.2s						
KBK	**Karagaybulak**	1.63	259	⇓P	Pb	19 45 48.3	+0.2
	3.6nm,0.1s						
KBK				⇑S	Sb	19 46 09.4	+0.7
	17nm,0.3s						
KBK	**Karagaybulak**	1.63	259	⇓iP	Pb	19 45 48.3	+0.2
KBK				⇓iS	Sg	19 46 10.4	-0.2
SHLS	**Shalkode**	1.72	84	eP	Pg	19 45 56.9	+5.8
	3.8nm,0.1s						
SHLS				eS	Sg	19 46 24.5	+11
	9.6nm,0.5s						
CHMS	**Chumysh**	1.74	271	⇑P	Pb	19 45 50.1	+0.4
	1.9nm,0.2s						
CHMS				⇓S	Sb	19 46 13.0	+1.4
	11nm,0.2s						
CHMS	**Chumysh**	1.74	271	⇑iP	Pb	19 45 50.2	+0.4
CHMS				⇑iS	Sg	19 46 13.5	-0.4
PDGK	**Podgornoye**	1.77	78	⇓Pn	Pn	19 45 49.7	+1.3
	2.4nm,0.5s						
PDGK				⇓Sn	Sb	19 46 13.3	+0.8
	2.1nm,0.3s						
NRN	**Naryn**	1.77	208	⇑eP	Pb	19 45 51.0	+0.5
NRN				⇑eS	Sg	19 46 15.0	0.0
FRU1	**Bishkek**	1.84	265	⇑eP	Pb	19 45 52.0	+0.5
FRU1				⇑eS	Sb	19 46 16.4	+1.9
USP	**Ospenovka**	1.94	279	⇓P	Pb	19 45 53.5	+0.3
	1.9nm,0.1s						
USP				⇑S	Sb	19 46 18.9	+1.6
	9.9nm,0.2s						
AAK	**Ala-Archa**	1.96	260	⇓P	Pb	19 45 53.4	-0.3
	1.9nm,0.2s						
AAK				⇑S	Sb	19 46 19.6	+1.4
	3.3nm,0.2s						
AAK	**Ala-Archa**	1.96	260	⇑Pn	Pb	19 45 54.1	+0.3
	1.1nm,0.7s						
AAK				⇑Sn	Sb	19 46 19.7	+1.5
	0.7nm,0.5s						
AAK	**Ala-Archa**	1.96	260	eP	Pb	19 45 53.4	-0.3
AAK				eS	Sb	19 46 19.9	+1.7
KNOS	**Konyrlen**	2.02	47	Pg	Pb	19 45 54.7	0.0
	3.1nm,0.1s						
KNOS				Lg	Lg	19 46 21.2	
	7.6nm,0.2s						
DJR	**Jarkent**	2.35	55	Pg	Pb	19 45 59.9	-0.4
	3.7nm,0.2s						
DJR				Lg	Lg	19 46 29.6	
	5.5nm,0.4s						
DJR	**Jarkent**	2.35	55	eP	Pb	19 45 59.9	-0.4
	3.7nm,0.2s						
DJR				eS	Sb	19 46 29.6	+0.4
	5.5nm,0.4s						
EKS2	**Erkin-Say**	2.48	263	⇑iP	Pb	19 46 01.2	-1.3
EKS2				⇑iS	Sb	19 46 32.2	-0.9
KAPS	**Kapalarasan**	2.80	34	Pg	Pb	19 46 08.8	+1.0
	1.4nm,0.1s						
KAPS				Lg	Lg	19 46 45.2	
	24nm,0.2s						
KAPS	**Kapalarasan**	2.80	34	eP	Pb	19 46 08.8	+1.0
	1.4nm,0.1s						
KAPS				eS	Sg	19 46 45.2	-2.6
	24nm,0.2s						
KK31	**Karatay Array**	4.84	273	⇓Pg	Pg	19 46 47.8	-2.9
	0.1nm,0.3s,baz=72,slow=16						
KK31				⇑Lg	Lg	19 47 50.9	
	0.6nm,0.3s,baz=82,slow=30,SNR=8.4						

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*IDC **19** 20:05:03.1±4.0, 14°.28S×167°.17E, h234^{km}±37^{km}, mb3.6/9, mbtmp4.1/10, Error ellipse: s-maj=28.1km s-min=25.4km az=93.0*

ISC 19 20:05:00.5±1.1**, 14°.12S**±0°.09×**167°.1E**±0°.2**, h200^{km}, n13, σ1^{s}.78**/14**, mb3.9**/9**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	7.93	184	P	Pn	20 06 53.8	+0.9
	7.9nm,1.0s,baz=27,slow=22,SNR=2.0						
DZM				S	Sn	20 08 22.9	+0.5
	9.0nm,1.0s,baz=131,slow=19,SNR=1.9						
STKA	**Stephens Creek**	29.26	229	P	P	20 10 44.1	+0.1
	2.3nm,0.5s,baz=42,slow=8.6,SNR=9.5 2.3nm,0.5s						
WRA	**Warramunga Arr**	31.82	255	P	P	20 11 06.0	-0.6
	1.6nm,0.5s,baz=86,slow=9.6,SNR=24 1.6nm,0.5s						
ASAR	**Alice Springs**	32.74	248	P	P	20 11 13.8	-0.9
	1.5nm,0.4s,baz=76,slow=9.3,SNR=34 1.5nm,0.4s						
MJAR	**Matsushiro Arr**	57.29	332	P	P	20 14 27.1	-0.3
	1.8nm,1.0s,baz=167,slow=7.6,SNR=5.2 1.8nm,1.0s						
CMAR	**Chiang Mai Arr**	74.55	294	P	P	20 16 18.5	+0.7
	0.4nm,0.7s,baz=121,slow=7.9,SNR=1.5 0.4nm,0.7s						
QSPA	**South Pole Qui**	75.90	180	P	P	20 16 22.6	-2.2
	0.8nm,0.9s,baz=37,slow=8.1,SNR=1.8 0.8nm,0.9s						
SONM	**Songino Array**	81.91	324	P	P	20 16 58.6	+0.9
	1.2nm,0.6s,baz=114,slow=3.6,SNR=2.6 1.2nm,0.6s						
MKAR	**Makanchi Array**	96.65	316	P	P	20 18 07.8	0.0
	0.5nm,0.6s,baz=99,slow=7.5,SNR=5.6 0.5nm,0.6s						
ZALV	**Zalesovo Beam**	96.80	324	P	P	20 18 07.3	-0.9
	0.6nm,0.6s,baz=90,slow=2.2,SNR=3.7 0.6nm,0.6s						
ARCES	**ARCESS Array B**	119.62	345	PKP	PKPdf	20 23 24.6	-1.3
	2.6nm,0.9s,baz=71,slow=2.1,SNR=6.5						
FINES	**FINESS Array B**	125.10	338	PKP	PKPdf	20 23 34.7	-1.8
	1.9nm,1.0s,baz=7.5,slow=6.4,SNR=3.5						
KEST	**Kesra**	150.63	321	PKPbc	PKPdf	20 24 28.1	+4.5
	2.8nm,0.6s,baz=145,slow=2.6,SNR=5.5						

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*AEIC **19** 20:28:17.2±1.4, 54°.37N±0°.04×161°.07W±0°.05, h31^{km}±7^{km}, Error ellipse: s-maj=5.7km s-min=4.1km az=171.0*

NEIC 19 20:28:15.2±1.0**, 54°.37N**±0°.07×**161°.08W**±0°.07**, h11**^{km}±9^{km}**, mb3.6**/7**, ML3.3**/28**, ML3.2**(AEIC)**, Error ellipse: s-maj=11.2km s-min=3.6km az=151.0, Alaska Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CNBA	**Chernabura Isl**	0.98	62		Pb	20 28 34.2	+0.1
CNBA				Sg	Sb	20 28 47.4	+0.3
SDPT	**Sand Point**	1.04	19		Pg	20 28 34.9	-0.4
SDPT				Sg	Sg	20 28 47.5	-1.4
SDPT				IAML		20 28 49.7	
	comp=N,734nm,0.7s						
SDPT				IAML		20 28 51.3	
	comp=E,676nm,0.5s						
PN7A	**Pavlof North-7**	1.19	334		Pb	20 28 37.7	-0.1
PN7A					Sb	20 28 53.0	-0.2
S12K	**Black Hills**	1.45	337		Pn	20 28 41.4	0.0
S12K					Sb	20 29 00.7	0.0
S12K				IAML		20 29 04.6	
	comp=N,888nm,0.5s						
ISNN	**Isanotski Nort**	1.64	288		Pn	20 28 44.5	+0.6
ISNN					Sb	20 29 06.4	+0.3
SSLS	**Shishaldin Sou**	1.73	283		Pn	20 28 46.0	+0.7
SSLS					Sb	20 29 08.5	-0.5
VNKR	**Veniaminof 5**	1.93	30		Pn	20 28 49.0	+0.9
VNKR					Sb	20 29 13.5	-1.1
VNSS	**Veniaminof 8**	2.08	26		Pn	20 28 51.1	+0.9
VNSS					Pb	20 28 51.4	-1.7
VNFG	**Fog Glacier, M**	2.11	24		Pn	20 28 50.6	+0.1
VNFG	**Fog Glacier, M**	2.11	24		Sn	20 29 17.6	+0.8
VNHG	**Veniaminof 1**	2.15	30		Pn	20 28 52.0	+0.8
VNHG					Pb	20 28 52.5	-1.8
VNHG					Sn	20 29 18.9	+1.0
CHGN	**Chignik**	2.46	37		Pn	20 28 55.6	+0.3
CHGN				IAML		20 29 33.2	
	comp=N,104nm,0.8s						
CHGN				IAML		20 29 33.6	
	comp=E,197nm,0.9s						
BPBCA	**Veniaminof**	2.68	33		Pn	20 28 59.6	+1.3
AKUT	**Akutan**	2.76	267	Pn	Pn	20 28 59.4	0.0
AKUT				IAML		20 29 43.9	
	comp=N,116nm,0.9s						
AKUT				IAML		20 29 45.0	
	comp=E,97nm,0.6s						
AKBBA	**Akutan Broad B**	2.86	267		Pn	20 29 01.4	+0.7
AKBBA					Sn	20 29 36.0	+0.9
AKLV	**Akutan Long Va**	2.87	268		Pn	20 29 01.4	+0.5
AKLV					Sn	20 29 35.9	+0.6
LVA	**Lava Point**	2.91	268	Pn	Pn	20 29 01.2	-0.3
LVA				IAML		20 29 46.1	
	comp=E,125nm,0.6s						
LVA				IAML		20 29 57.5	
	comp=N,137nm,0.7s						
UNV	**Unalaska Valle**	3.24	263	Pn	Pn	20 29 02.8	-3.1
MNAT	**Makushin Natee**	3.33	264		Pn	20 29 07.2	-0.1
MSW	**Makushin Switc**	3.38	265		Pn	20 29 08.0	0.0
CHIR	**Chirikof Islan**	3.46	63	Pn	Pn	20 29 08.3	-0.6
MGOD	**Makushin Gods**	3.46	263		Pn	20 29 09.5	+0.5
OKFG	**Magazine Ridge**	4.15	259		Pn	20 29 20.2	+1.6
R17L	**Mt. Peulik Vol**	4.21	37		Pn	20 29 20.8	+1.5
SII	**Sitkinak Islan**	4.50	58	Pn	Pn	20 29 23.0	-0.2
Q17K	**Contact Creek**	4.86	34		Pn	20 29 28.9	+0.7
O15K	**Ungalikthiuk R**	4.87	8	Pn	Pn	20 29 28.3	0.0
O15K				IAML		20 31 04.7	
	comp=E,18nm,2.2s						
O14K	**Tigyukauivet M**	4.90	359	Pn	Pn	20 29 28.8	+0.1
O14K				IAML		20 30 54.1	
	comp=E,16nm,2.1s						
O14K				IAML		20 31 33.6	
	comp=N,17nm,2.6s						
ANCK	**Angle Creek**	4.94	37		Pn	20 29 29.7	+0.3
P16K	**Nushagak River**	4.97	19	Pn	Pn	20 29 30.4	+0.6
ACHA	**Angle Creek He**	5.01	37	Pn	Pn	20 29 29.6	-0.7
KABU	**Katmai Buttres**	5.07	37		Pn	20 29 32.5	+1.3
OHAK	**Old Harbor**	5.24	54	Pn	Pn	20 29 32.7	-0.7
OHAK				IAML		20 30 36.6	
	comp=E,29nm,2.2s						
OHAK				IAML		20 32 52.7	
	comp=N,29nm,2.2s						
P17K	**Kvichak River**	5.47	26	Pn	Pn	20 29 37.3	+0.8
O16K	**Kokwok River B**	5.49	16	Pn	Pn	20 29 36.4	-0.4
N14K	**Kuskokwak Cree**	5.58	357		Pn	20 29 38.0	-0.1
N15K	**Kwethluk River**	5.84	5		Pn	20 29 41.8	+0.1
KDAK	**Kodiak Island**	5.86	51	Pn	Pn	20 29 41.5	-0.4
Q19K	**Cape Douglas,**	6.14	39	Pn	Pn	20 29 45.8	+0.1
M13K	**Dall Lake**	6.18	349	Pn	Pn	20 29 46.3	0.0
N16K	**Nishlik Lake**	6.25	11		Pn	20 29 47.8	+0.6
M15K	**Kasigluk River**	6.35	2		Pn	20 29 48.4	-0.2
M14K	**Bethel**	6.42	356		Pn	20 29 49.5	-0.1
N17K	**Nushagak Hills**	6.52	17	Pn	Pn	20 29 51.4	+0.4
M16K	**Timber Creek**	6.77	9	Pn	Pn	20 29 54.8	+0.4
N18K	**Kilae Creek**	6.92	22	Pn	Pn	20 29 56.4	0.0
L14K	**Kuka Creek**	7.04	354		Pn	20 29 58.0	-0.1
ILSW	**Iliamna Southw**	7.09	34	Pn	Pn	20 29 59.7	+0.8
M17K	**Holitna River**	7.31	14	Pn	Pn	20 30 01.8	-0.1
L15K	**Ungalak Mounta**	7.33	358		Pn	20 30 01.6	-0.5
N19K	**Bonanza Creek**	7.37	26	Pn	Pn	20 30 02.3	-0.3
L16K	**Owhat River**	7.41	6	Pn	Pn	20 30 02.7	-0.5
CNPM	**China Poot**	7.46	42	Pn	Pn	20 30 03.9	0.0
K13K	**Kusilvak Mount**	7.82	347		Pn	20 30 08.8	+0.1
L17K	**Donlin**	7.92	10		Pn	20 30 09.6	-0.7
K15K	**Wolf Creek Mou**	7.95	358	Pn	Pn	20 30 10.5	-0.1
ATKA	**Atka Island**	8.15	260	Pn	Pn	20 30 13.4	0.0
J16K	**Anvik River**	8.95	1	Pn	Pn	20 30 24.0	-0.3
HIN	**Hinchinbrook I**	9.91	47	Pn	Pn	20 30 36.9	-0.5
SCM	**Sheep Creek Mo**	10.42	39	Pn	Pn	20 30 43.6	-0.8
KLU	**Klutina**	10.74	42	Pn	Pn	20 30 47.1	-1.8
K24K	**Donnelly Dome**	12.26	33	Pn	Pn	20 31 08.6	-1.0
M29M	**Somme Creek**	14.28	46	Pn	Pn	20 31 37.5	+0.3
D20K	**Etivluk River**	14.54	7	Pn	Pn	20 31 39.9	-0.8
L29M	**L29M**	14.70	44	Pn	Pn	20 31 43.7	+0.8
I28M	**Miner Creek**	15.25	35	Pn	Pn	20 31 48.5	-1.9
I28M				IAmb	IAmb	20 32 13.4	
	comp=Z,5.0nm,1.4s						
K29M	**Barlow Dome**	15.28	42	Pn	Pn	20 31 48.5	-2.3
K29M				IAmb	IAmb	20 32 05.2	
	comp=Z,1.9nm,0.8s						
I29M	**Ogilvie Camp,**	15.76	37	Pn	Pn	20 31 56.3	-0.6
J30M	**Hart River**	16.08	41		P	20 32 03.2	-1.3
J30M				IAmb	IAmb	20 32 11.8	
	comp=Z,2.2nm,0.7s						
I30M	**Mount Dempster**	16.38	39		P	20 32 07.5	-0.3
I30M				IAmb	IAmb	20 32 18.1	
	comp=Z,4.8nm,0.8s						
H31M	**Peel River**	17.40	38		P	20 32 19.1	+0.1
H31M				IAmb	IAmb	20 32 43.9	
	comp=Z,15nm,1.4s						
PEA0B	**Petropavlovsk-**	24.17	284	P	P	20 33 28.9	-2.3
PETK	**Petropavlovsk-**	24.17	284	P	P	20 33 29.1	-2.1

IDC 19 20:43:14.7±8.7**, 6°.31S**×**128°.45E, h389**^{km}±112^{km}**, mb2.8**/1**, mbtmp3.8**/4**, Error ellipse: s-maj=65.3km s-min=43.8km az=60.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	12.03	193	P	P	20 45 53.4	-1.7
	2.4nm,0.9s,baz=23,slow=13,SNR=6.9						
FITZ				S	S	20 48 08.4	+0.5
	1.4nm,0.6s,baz=13,slow=19,SNR=1.6						
WRA	**Warramunga Arr**	14.71	158	P	P	20 46 25.1	+0.5
	1.2nm,0.3s,baz=337,slow=10,SNR=93						
WRA				S	S	20 49 01.4	-0.4
	0.8nm,0.7s,baz=338,slow=22,SNR=7.6						
ASAR	**Alice Springs**	18.04	164	P	P	20 47 00.7	+0.4
	1.8nm,0.3s,baz=345,slow=12,SNR=54						
MKAR	**Makanchi Array**	66.81	327	P	P	20 53 26.0	0.0
	0.3nm,0.5s,baz=124,slow=7.7,SNR=5.6 0.3nm,0.5s						

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*IDC **19** 20:43:53.1±8.3, 14°.92S×165°.61E, h0^{km}, mb4.1/3, mbtmp4.1/4, ML3.8/1, MS2.9/1, Error ellipse: s-maj=142.0km s-min=23.8km az=55.0*

*NOU **19** 20:43:55.9, 14°.92S×167°.46E, h117^{km}, MLv4.7/15, Vanuatu Islands*

ISC 19 20:44:00.1±1.3**, 15°.14S**±0°.09×**166°.8E**±0°.1**, h100^{km}, n12, σ1^{s}.87**/10**, mb3.8**/3**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SANVU	**Saraoutou**	0.50	128	P	Pn	20 44 14.5	-1.4
SANVU	**Saraoutou**	0.50	128	S	Sn	20 44 30.5	+2.8
YATNC	**Mamie plateau,**	6.88	179	P	Pn	20 45 37.0	-1.4
DZM	**Mont Dzumac**	6.90	183	Pn	Pn	20 45 38.2	-0.5
	1.6nm,0.3s,baz=12,slow=20,SNR=24						
DZM				Sn	Sn	20 46 57.5	+1.7
	0.3nm,0.3s,baz=323,slow=20,SNR=1.7 4.1nm,0.3s						
DZM				AML	AML		
NOUC	**Port Laguerre**	6.94	184	P	Pn	20 45 39.1	-0.1
ONTNC	**Ouen Toro**	7.14	183	P	Pn	20 45 42.7	+0.8
NGOA	**Tingoa Renbel**	7.46	298	P	Pn	20 45 47.7	+1.4
TATA	**Tatamba Isabel**	9.59	314	P	Pn	20 46 16.2	+0.9
KRVT	**Keravat (AS076**	18.09	305	LR	LR	20 53 49.7	
	comp=Z,39nm,19.8s,baz=232,slow=35						
STKA	**Stephens Creek**	28.38	230	P	P	20 49 42.6	-2.4
	3.4nm,0.5s,baz=44,slow=10,SNR=6.0 3.4nm,0.5s						
WRA	**Warramunga Arr**	31.29	256	P	P	20 50 06.1	-4.8
	0.8nm,0.9s,baz=90,slow=7.8,SNR=3.4 0.8nm,0.9s						
ASAR	**Alice Springs**	32.10	250	P	P	20 50 13.4	-4.7
	0.9nm,0.5s,baz=78,slow=9.2,SNR=16 0.9nm,0.5s						

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*DJA **19** 20:47:44.6±0.3, 1°S±2°×12°7E±°, h72^{km}±5^{km}, M3.4/10, MLv3.3/7, MLv3.4/10*

*IDC **19** 20:47:58.9±2.0, 3°.77S×127°.09E, h0^{km}, mb3.1/2, mbtmp3.4/4, ML3.5/2, Error ellipse: s-maj=89.1km s-min=25.3km az=74.0*

ISC 19 20:47:41.9±1.4**, 1°.26S**±0°.09×**127°.48E**±0°.10**, h25^{km}, n7, σ2^{s}.66**/6**, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NLAI	**Namlea**	2.00	191	P	Pb	20 48 18.8	+1.1
NLAI				S	Sb	20 48 43.3	+1.0
NLAI				AML	AML		
NLAI				AML	AML		
MNI	**Manado**	3.76	316	P	Pn	20 48 39.1	+0.7
SWI	**Sorong**	3.81	84	P	Pn	20 48 40.3	+1.3
FITZ	**Fitzroy Crossi**	16.83	186	Pn	Pn	20 51 17.1	-19
	0.2nm,0.3s,baz=36,slow=8.7,SNR=1.8 1.8nm,1.0s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	19.75	161	P	P	20 52 07.2	-2.9
	0.1nm,0.3s,baz=339,slow=13,SNR=6.0 1.0nm,0.7s						
WRA				AML	AML		
ASAR	**Alice Springs**	23.13	165	P	P	20 52 43.6	-2.9
	0.3nm,0.5s,baz=346,slow=12,SNR=6.1 0.3nm,0.5s						
MKAR	**Makanchi Array**	62.08	327	P	P	20 58 33.7	+33
	0.1nm,0.4s,baz=126,slow=7.3,SNR=3.7 0.1nm,0.4s						

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*SJA **19** 20:56:54.3±0.7, 27°.44S×69°.34W, h122^{km}±4^{km}, ML4.1, MW3.9*

*GUC **19** 20:56:54.0±0.8, 27°.49S×69°.31W, h108^{km}±7^{km}, ML4.2*

*NEIC **19** 20:56:55.6±0.9, 27°.45S±0°.04×69°.38W±0°.10, h115^{km}±4^{km}, mb4.3/7, ML4.2(GUC), Error ellipse: s-maj=12.3km s-min=6.4km az=96.0*

*IDC **19** 20:56:56.5±2.8, 27°.55S×68°.90W, h116^{km}±22^{km}, mb4.1/2, mbtmp4.1/5, Error ellipse: s-maj=40.5km s-min=15.2km az=106.0*

ISC 19 20:56:54.4±0.6**, 27°.47S**±0°.03×**69°.32W**±0°.03**, h116**^{km}±6^{km}**, n101, σ1^{s}.55**/131**, mb4.1**/5**, 2C, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC02	**Maricunga**	0.65	15	eP	Pn	20 57 14.6	+1.1
AC02				eS	Sn	20 57 29.3	+1.3
AC02				IAML		20 57 32.1	
	comp=Z,2µm,0.2s						
AC02	**Maricunga**	0.65	15	eP	Pn	20 57 14.3	+0.7
AC02				i S	Sn	20 57 29.2	+1.3
AC02				IAML		20 57 31.8	
	comp=E,9µm,0.2s						
AC02	**Maricunga**	0.65	15		Pn	20 57 14.8	+1.2
GO03	**Copiapo**	0.82	261	eP	Pn	20 57 15.1	+0.7
GO03				IAML		20 57 30.5	
	comp=Z,5µm,0.3s						
GO03				eS	Sn	20 57 30.6	+1.1
GO03	**Copiapo**	0.82	261	Pn	Pn	20 57 15.3	+0.9
GO03				Sn	Sn	20 57 29.9	+0.3
AC06	**Mina Casimiro**	0.93	276	eP	Pn	20 57 16.0	+0.6
AC06				i S	Sn	20 57 31.2	+0.1
AC06				IAML		20 57 32.3	
	comp=N,10µm,0.6s						
AC06	**Mina Casimiro**	0.93	276		Pn	20 57 16.0	+0.6
AC06					Sn	20 57 31.0	-0.1
AC05	**El Transito**	1.60	211	eP	Pn	20 57 24.1	+1.1
AC05				eS	Sn	20 57 46.7	+2.1
AC05				IAML		20 57 48.1	
	comp=Z,1µm,0.5s						
AC05	**El Transito**	1.60	211	eP	Pn	20 57 24.0	+1.1
AC05				i S	Sn	20 57 45.5	+0.8
AC05				IAML		20 57 48.9	
	comp=E,4µm,0.6s						
AC05	**El Transito**	1.60	211		Pn	20 57 24.0	+1.1
AC05				Sn	Sn	20 57 45.7	+1.0
VCA	**Vinchina**	1.60	142	eP	Pn	20 57 25.4	+2.5
VCA				eS	Sn	20 58 02.7	+18
TINO	**Tinogasta**	1.66	111	eP	Pn	20 57 24.2	+0.6
TINO				eS	Sn	20 57 42.0	-3.8
TINO				IAML		20 57 50.8	
	comp=Z,562nm,0.7s						
AC04	**Llanos de Chal**	1.72	244	eP	Pn	20 57 25.1	+0.9
AC04	**Llanos de Chal**	1.72	244	eP	Pn	20 57 24.7	+0.6
AC04				i S	Sn	20 57 47.8	+0.9
AC04				IAML		20 57 54.0	
	comp=N,2µm,0.2s						
AC04	**Llanos de Chal**	1.72	244		Pn	20 57 24.8	+0.6
AC04				Sn	Sn	20 57 47.7	+0.8
AC01	**Pan de Azucar**	1.74	319	eP	Pn	20 57 25.6	+1.1
AC01				eS	Sn	20 57 48.0	+0.7
AC01				IAML		20 57 54.2	
	comp=Z,1µm,0.3s						
AC01	**Pan de Azucar**	1.74	319	eP	Pn	20 57 25.7	+1.3
AC01				i S	Sn	20 57 47.4	+0.1
AC01				IAML		20 57 50.7	
	comp=E,3µm,0.3s						
AC01	**Pan de Azucar**	1.74	319		Pn	20 57 25.8	+1.3
AC01				Sn	Sn	20 57 47.1	-0.3
LCO	**Las Campanas**	1.96	218	eP	Pn	20 57 28.0	+0.5
LCO				eS	Sn	20 57 54.3	+1.6
LCO				IAML		20 57 60.0	
	comp=Z,2µm,0.7s						
LCO	**Las Campanas**	1.96	218	eP	Pn	20 57 27.7	+0.2
LCO				i S	Sn	20 57 53.3	+0.6
LCO	**Las Campanas**	1.96	218		Pn	20 57 28.0	+0.5
LCO				Sn	Sn	20 57 53.1	+0.4
CO01	**Juntas del Tor**	2.59	195	eP	Pn	20 57 37.4	+1.8
CO01				eS	Sn	20 58 09.7	+2.7
CO01	**Juntas del Tor**	2.59	195	eP	Pn	20 57 37.3	+1.8
CO01				i S	Sn	20 58 08.8	+1.8
CO01				IAML		20 58 14.1	
	comp=E,639nm,0.6s						
CO01	**Juntas del Tor**	2.59	195		Pn	20 57 37.3	+1.8
AROD	**Rodeo**	2.69	183	eP	Pn	20 57 39.4	+2.5
AROD				eS	Sn	20 58 06.5	-3.0
ACDV	**Cuesta del Vie**	2.70	176	eP	Pn	20 57 41.7	+4.9
ACDV				eS	Sn	20 58 07.9	-1.5
ACLC	**CERRO LA CRUZ**	2.86	134	eP	Pn	20 57 40.2	+1.4
ACLC				eS	Sn	20 58 13.3	+0.2
PB14	**IPOC Station P**	2.99	341	eP	Pn	20 57 41.8	+1.0
PB14				eS	Sn	20 58 04.9	-12
PB14				IAML		20 58 24.1	
	comp=Z,394nm,0.8s						
PB14	**IPOC Station P**	2.99	341		Pn	20 57 41.4	+0.6
GO04	**Tololo Observa**	2.99	205	eP	Pn	20 57 41.0	+0.3
GO04				eS	Sn	20 58 17.7	+1.4
GO04				IAML		20 58 20.0	
	comp=Z,810nm,0.3s						
GO04	**Tololo Observa**	2.99	205	eP	Pn	20 57 40.8	+0.1
GO04				i S	Sn	20 58 14.0	-2.3
GO04	**Tololo Observa**	2.99	205		Pn	20 57 40.9	+0.1
ACCO	**Cerro Coronel**	3.12	176	eP	Pn	20 57 44.5	+2.1
ACCO				eS	Sn	20 58 21.8	+2.4
ACCO				IAML		20 58 25.4	
	comp=Z,199nm,0.7s						
CYA	**Choya**	3.26	108	eP	Pn	20 57 45.0	+0.9
CYA				eS	Sn	20 58 20.9	-1.5
CYA				IAML		20 58 21.7	
	comp=Z,201nm,0.5s						
FSA	**Cafayete**	3.28	66	eP	Pn	20 57 46.3	+1.9
AHML	**Horco Molle**	3.62	80	eP	Pn	20 57 49.2	+0.4
AHML				eS	Sn	20 58 31.6	+0.7
CO06	**Fray Jorge**	3.78	212		Pn	20 57 49.6	-1.4
RTLL	**Cerro Villicun**	3.92	169	eP	Pn	20 57 54.2	+1.4
RTLL				eS	Sn	20 58 37.7	-0.4
RTLL				IAML		20 58 41.4	
	comp=Z,389nm,0.4s						
CO02	**Combarbal**	4.00	201	eP	Pn	20 57 53.2	-0.7
CO02				i S	Sn	20 58 38.9	-1.3
CO02	**Combarbal**	4.00	201		Pn	20 57 53.3	-0.7
ZON	**Zonda**	4.10	172	eP	Pn	20 57 57.4	+2.1
ZON	**Zonda**	4.10	172		Pn	20 57 56.6	+1.3
SALTA		4.20	40	eP	Pn	20 57 59.1	+2.1
SALTA				eP		20 57 59.3	
CFA	**Coronel Fontan**	4.23	167	P	Pn	20 57 57.7	+0.7
	comp=Z,7.1nm,0.3s,baz=348,slow=14,SNR=35						

CFA				S	Sn	20 58 44.0	-1.5
	comp=Z,29nm,0.3s,baz=307,slow=20,SNR=17						
RTLS	Leoncito	4.32	180	*e*P	Pn	20 57 59.9	+1.5
RTLS				IAML		20 58 52.6	
	comp=Z,372nm,0.3s						
SLA	San Lorenzo	4.39	52	*e*P	Pn	20 58 01.8	+2.5
AF01	San Pedro de A	4.61	13	*e*P	Pn	20 58 04.4	+2.0
AF01				IAML		20 59 52.3	
	comp=Z,294nm,0.5s						
AF01	San Pedro de A	4.61	13		Pn	20 58 03.6	+1.2
PB05	IPOC Station P	4.66	350	*e*P	Pn	20 58 01.9	-1.0
PB05				IAML		20 59 07.1	
	comp=Z,134nm,0.8s						
PB05	IPOC Station P	4.66	350		Pn	20 58 01.6	-1.3
PB06	IPOC Station P	4.75	357		Pn	20 58 03.8	-0.2
CO04	Los Peladeros	4.78	197		Pn	20 58 03.4	-1.2
ARCO	CERRO ARCO	5.37	177	*e*P	Pn	20 58 13.8	+1.4
ARCO				IAML		20 59 18.4	
	comp=Z,61nm,0.4s						
VA03	San Esteban	5.39	191		Pn	20 58 12.3	-0.3
PB03	IPOC Station P	5.41	356		Pn	20 58 11.5	-1.5
PB09	IPOC Station P	5.64	1		Pn	20 58 16.6	+0.4
PB07	IPOC Station P	5.74	355		Pn	20 58 15.6	-1.9
PEL	Peldehue	5.78	191	Pn	Pn	20 58 16.8	-1.0
MT02	Curacav	5.98	195	Pn	Pn	20 58 18.2	-2.4
MT08	Bocatoma Ro	5.99	186		Pn	20 58 21.0	+0.2
MT05	Renca	6.03	191	Pn	Pn	20 58 18.8	-2.5
MT16	CCHEN	6.03	190	Pn	Pn	20 58 19.9	-1.4
MT03	Universidad Ad	6.09	189	Pn	Pn	20 58 20.9	-1.2
PB02	IPOC Station P	6.14	355		Pn	20 58 20.5	-2.4
MT13	San Alfonso	6.31	187		Pn	20 58 24.8	-0.3
MT09	Talagante	6.45	192	Pn	Pn	20 58 23.1	-3.9
VA05	Santo Domingo	6.48	197	Pn	Pn	20 58 23.6	-3.7
MT01	Popeta	6.59	194		Pn	20 58 25.9	-2.9
BO04	La Punta	6.60	189	Pn	Pn	20 58 26.5	-2.4
BO02	Sierra Bellavi	7.41	189	Pn	Pn	20 58 37.0	-3.0
PB11	IPOC Station P	7.68	358	Pn	Pn	20 58 39.6	-4.1
CPUP	Villa Florida	10.76	87	P	Pn	20 59 23.4	-1.9
	comp=Z,1.0nm,0.4s,baz=264,slow=13,SNR=3.8						
CPUP	Villa Florida	10.76	87	Pn	Pn	20 59 24.0	-1.2
LPAZ	La Paz	11.18	6	P	Pn	20 59 33.8	+2.4
	comp=Z,1.6nm,0.4s,baz=182,slow=5.5,SNR=7.1						
LPAZ	La Paz	11.18	6		Pn	20 59 29.9	-1.5
GO06	Curarrehue	12.22	188	Pn	Pn	20 59 43.3	-1.4
PLCA	Paso Flores	13.27	184	P	P	21 00 02.1	-1.8
	comp=Z,1.2nm,0.5s,baz=344,slow=11,SNR=6.8						
PLCA	Paso Flores	13.27	184	Pn	Pn	20 59 57.3	-1.0
SIV	San Ignacio	13.74	36	P	Pn	21 00 01.5	-3.1
	comp=Z,2.1nm,0.5s,baz=204,slow=14,SNR=12						
CPSB	Cacapava Do Su	14.21	106	Pn	Pn	21 00 10.8	+0.4
AQDB	Aquidauana	14.26	64	Pn	Pn	21 00 11.6	+0.6
PTLB	Pontes e Lacer	15.25	40	Pn	Pn	21 00 23.3	-0.3
VAO	Valinhos	20.70	83	P	P	21 01 25.3	-0.3
VAO				IAmb	IAmb	21 01 26.8	
	comp=Z,14nm,1.0s						
GO08	Villa O'Higgin	21.12	186	P	P	21 01 29.9	+0.2
GO08				IAmb	IAmb	21 01 30.8	
	comp=Z,25nm,1.4s						
BDFB	Brasilia	23.00	64	P	P	21 01 47.8	-1.8
	comp=Z,6.5nm,0.6s,baz=227,slow=7.8,SNR=11						
	comp=Z,6.5nm,0.6s						
BDFB	Brasilia	23.00	64	P	P	21 01 48.5	-1.1
BDFB				IAmb	IAmb	21 01 50.8	
	comp=Z,7.9nm,0.8s						
BOAV	Boa Vista	30.88	17	P	P	21 02 59.4	-0.6
BOAV				IAmb	IAmb	21 03 38.8	
	comp=Z,2.0nm,0.9s						
VNA2	Neumayer--Watz	55.20	159	⇑P	P	21 06 16.1	+1.4
	comp=Z,1.5nm,0.6s,baz=283,slow=7.5						
TROLL	Troll, Antarti	58.53	160	⇑P	P	21 06 39.6	+1.2
	comp=Z,62nm,0.6s						
QSPA	South Pole Qui	62.75	180	P	P	21 07 09.0	+1.8
	comp=Z,3.9nm,0.5s,baz=158,slow=2.2,SNR=56						
	comp=Z,3.9nm,0.5s						
QSPA	South Pole Qui	62.75	180	P	P	21 07 08.8	+1.7
QSPA				IAmb	IAmb	21 07 10.0	
	comp=Z,4.6nm,0.8s						
BOSA	Boshof	81.01	117	P	P	21 08 57.5	+0.6
ASAR	Alice Springs	124.44	206	PKP	PKPdf	21 15 41.4	+0.8
	comp=Z,0.5nm,0.5s,baz=129,slow=1.9,SNR=7.9						
WRA	Warramunga Arr	127.60	208	PKP	PKiKP	21 15 48.1	+0.8
	comp=Z,0.8nm,0.7s,baz=159,slow=2.3,SNR=8.7						
KURBB	Kurchatov Arra	146.39	38	PKPbc	PKPab	21 16 22.6	0.0
	comp=Z,1.3nm,0.7s,baz=304,slow=3.2,SNR=8.6						
ZAA0	Zalesovo Array	147.42	29		PKPdf	21 16 22.5	+0.8
ZALV	Zalesovo Beam	147.42	29	PKPbc	PKiKP	21 16 26.1	-0.3
	comp=Z,2.1nm,0.5s,baz=298,slow=3.4,SNR=12						
ZALV	Zalesovo Beam	147.42	29		PKPdf	21 16 22.3	+0.6
MAKZ	Makanchi	150.31	42		PKPbc	21 16 32.7	+0.8
MKAR	Makanchi Array	150.51	42	PKPbc	PKiKP	21 16 33.9	+0.8
	comp=Z,2.3nm,0.6s,baz=310,slow=2.1,SNR=23						
MKAR	Makanchi Array	150.51	42		PKiKP	21 16 33.8	+0.7

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*IDC **19** 20:58:15.1±0.8, 0°.06S×18°.09W, h0^{km}, mb3.9/13, mbtmp4.0/15, ML4.3/2, MS3.7/7, Error ellipse: s-maj=27.6km s-min=17.4km az=139.0*

*NEIC **19** 20:58:16.7±1.1, 0°.08S±0°.09×18°.1W±0°.1, h10^{km}±1^{km}, mb4.6/23, Error ellipse: s-maj=18.1km s-min=14.4km az=261.0*

*GCMT **19** 20:58:19.7±0.4, 0°.01N±0°.02×18°.07W±0°.02, h16^{km}±1^{km}, MW4.8/81, Moment Tensor Solution. s24,c28; s81,c112; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.14±.10; $M_{\theta\theta}$1.16±.10; $M_{\phi\phi}$-1.02±.10; $M_{r\theta}$0.04±.26; $M_{\theta\phi}$-1.92±.10; $M_{\phi r}$-0.29±.27; Best double couple: $M_0$2.22700×10^{16} NP1:ϕ_s75.00000°,δ82.00000°,λ-178.00000°. NP2: ϕ_s345.00000°,δ88.00000°,λ-8.00000°. Principal axes: T 2.2910, Plg4.0000°, Azm30.0000°; N -0.1260, Plg82.0000°, Azm154.0000°; P -2.1640, Plg6.0000°, Azm300.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 19 20:58:17.9±0.5, **0°.07S**±0°.08×**18°.05W**±0°.08, **h23**^{km}, **n70**, σ**0^s.91**/63, **mb4.3**/32, **MS3.8**/6, **Central Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
H10N2	ASCENSION HYDR	8.48	155	Pn	Pn	21 00 19.3	+0.1
	baz=334,slow=13						
H10N2				T	T	21 09 16.6	
	baz=332,slow=74						
H10N3	ASCENSION HYDR	8.49	155	Pn	Pn	21 00 19.3	0.0
	baz=334,slow=13						
H10N3				T	T	21 08 44.7	
	baz=332						
H10N1	ASCENSION HYDR	8.50	155	Pn	Pn	21 00 19.7	+0.2
	baz=334,slow=13						
H10N1				T	T	21 09 21.9	
	baz=332,slow=74						
ASCN	Ascension	8.63	155	Pn	Pn	21 00 19.9	-1.6
H10S3	ASCENSION HYDR	9.44	159	T	T	21 10 35.1	
	baz=246						
H10S2	ASCENSION HYDR	9.46	159	Pn	Pn	21 00 32.5	-0.1
H10S2				T	T	21 10 32.9	
	baz=334						
DBIC	Dimbokro	14.77	63	Pn	Pn	21 01 43.7	-1.9
	3.3nm,0.3s,baz=258,slow=14,SNR=29						
DBIC				Sn	Sn	21 04 16.7	-12
	0.8nm,0.3s,baz=165,slow=22,SNR=4.7						
DBIC				LR	LR	21 05 24.1	
	comp=Z,155nm,21.3s,baz=240,slow=29						
	11nm,0.5s						
DBIC				AML	AML		
DBIC	Dimbokro	14.77	63		Pn	21 01 43.4	-2.2
SACV	Santiago Islan	15.93	340	Pn	Pn	21 02 00.4	-0.3
RCBR	Riachuelo	18.71	252	P	P	21 02 34.8	-0.3
	0.4nm,0.3s,baz=92,slow=20,SNR=6.5						
RCBR				S	Sn	21 05 45.9	-19
	0.9nm,0.3s,baz=142,slow=19,SNR=6.1						
	1.2nm,0.4s						
RCBR				AML	AML		
RCBR	Riachuelo	18.71	252	P	P	21 02 34.0	-1.1
TORD	Torodi Ar. Bea	23.57	55	P	P	21 03 26.8	-0.3
	6.5nm,0.7s,baz=237,slow=10.0,SNR=26						
	6.5nm,0.7s						
TAM	Tamanrasset	32.29	44	P	P	21 04 45.2	-0.3
BDFB	Brasilia	33.38	241	LR	LR	21 17 36.0	
	comp=Z,152nm,18.9s,baz=357,slow=35						
MDP	Montagnes des	34.93	279	LR	LR	21 16 51.7	
	comp=Z,47nm,18.1s,baz=138,slow=32						
MD31	MD31	35.08	20	P	P	21 05 09.9	+0.3
MD31				IAmb	IAmb	21 05 13.5	
	comp=Z,7.9nm,1.1s						
MD01	Midelt array s	35.08	20	P	P	21 05 10.1	+0.5
MDT	Midelt	35.08	20	LR	LR	21 18 54.1	
	comp=Z,196nm,20.9s,baz=219,slow=35						
MESJ	Messejana	38.80	12	P	P	21 05 41.6	+0.6
MESJ				IAmb	IAmb	21 05 43.7	
	comp=Z,13nm,1.0s						
PAB	San Pablo	41.38	16	P	P	21 06 02.9	+0.5
PAB				IAmb	IAmb	21 06 36.1	
	comp=Z,11nm,1.4s						
ESDC	Sonseca Array	41.60	16	P	P	21 06 05.7	+1.4
	comp=Z,1.7nm,1.1s,baz=210,slow=8.3,SNR=6.2						
ESDC				LR	LR	21 23 20.0	
	comp=Z,135nm,19.3s,baz=214,slow=36						
	comp=Z,1.7nm,1.1s						
ESDC	Sonseca Array	41.60	16	P	P	21 06 04.5	+0.2
KEST	Kesra	43.81	33	LR	LR	21 25 59.0	
	comp=Z,313nm,19.3s,baz=244,slow=38						
SIV	San Ignacio	45.29	247	P	P	21 06 33.8	-0.7
	comp=Z,0.4nm,0.4s,baz=82,slow=4.4,SNR=2.7						
	comp=Z,0.4nm,0.4s						
BOSA	Boshof	50.18	128	P	P	21 07 12.6	+0.3
	comp=Z,1.2nm,0.8s,baz=288,slow=6.8,SNR=1.3						
	comp=Z,1.2nm,0.8s						
BOSA	Boshof	50.18	128	P	P	21 07 11.4	-0.8
BOSA				IAmb	IAmb	21 07 41.1	
	comp=Z,15nm,1.5s						
SJG	San Juan	50.60	294	LR	LR	21 26 34.5	
	comp=Z,37nm,18.0s,baz=104,slow=34						
NRCA	Norcia	51.05	29	P	P	21 07 19.3	+0.8
NRCA				IAmb	IAmb	21 07 35.2	
	comp=Z,9.2nm,1.4s						
FDMO	Fiordimonte	51.19	29	P	P	21 07 20.2	+0.6
FDMO				IAmb	IAmb	21 07 21.8	
	comp=Z,9.8nm,1.3s						
SENIN	Lac Senin/Sane	51.32	22	P	P	21 07 21.1	+0.4
TUE	Stuetta	52.22	24	P	P	21 07 26.4	-1.0
FUORN	Ofenpass-Fuorn	52.71	24	P	P	21 07 31.2	+0.1
FUORN				IAmb	IAmb	21 08 05.1	
	comp=Z,6.3nm,1.4s						
DAVA	Damuels	53.09	24	*e*P	P	21 07 34.6	+0.9
	comp=Z,7.5nm,1.3s						
FETA	Feichten	53.22	24	*e*P	P	21 07 35.6	+0.9
	comp=Z,1.9nm,0.6s						
BFO	Black Forest	53.35	22	P	P	21 07 35.8	+0.3
BFO				IAmb	IAmb	21 07 37.3	
	comp=Z,12nm,1.5s						
SQTA	Sankt Quirin	53.58	24	*e*P	P	21 07 38.1	+0.8
	comp=Z,4.0nm,0.7s						
RETA	Reutte	53.61	24	*e*P	P	21 07 38.1	+0.7
	comp=Z,0.5nm,0.4s						
SABO	M.te Sabotino	53.65	27	P	P	21 07 38.6	+0.8
SABO				IAmb	IAmb	21 07 52.8	
	comp=Z,12nm,1.1s						
ABTA	Abfaltersbach	53.76	26	*e*P	P	21 07 39.5	+1.0
	comp=Z,1.0nm,0.6s						
WATA	Walderalm	53.82	25	*e*P	P	21 07 39.8	+0.7
	comp=Z,0.3nm,0.4s						
LESA	Schwarzleotal	54.35	25	*e*P	P	21 07 44.0	+1.1
	comp=Z,0.1nm,0.3s						
KBA	Koelnbreinsper	54.38	26	*e*P	P	21 07 44.7	+1.5
	comp=Z,1.4nm,0.9s						
BANI	BANI	54.54	293	P	P	21 07 45.1	+0.3
PSGCX	Pisagua	54.56	246	P	P	21 07 44.0	-0.9
PSGCX				IAmb	IAmb	21 08 00.6	
	comp=Z,9.8nm,1.0s						
SDDR	Presa de Saban	55.53	293	P	P	21 07 51.6	-0.3
GERES	GERESS Array B	55.89	25	P	P	21 07 54.4	+0.4
	comp=Z,1.2nm,0.7s,baz=206,slow=8.8,SNR=13						
	comp=Z,1.2nm,0.7s						
GERES	GERESS Array B	55.89	25	P	P	21 07 53.6	-0.5
KHC	Kasperske Hory	56.06	25	P	P	21 07 55.0	-0.1
RONA	Rosalia, Austr	56.17	27	*e*P	P	21 07 57.5	+1.6
	comp=Z,1.8nm,0.7s						
CLL	Collm	57.54	23	LH		21 25 00.0	
CLL				LV		21 26 00.0	
BRTR	Keskin Array B	61.49	44	P	P	21 08 34.0	+0.7
	comp=Z,0.6nm,0.6s,baz=255,slow=6.5,SNR=3.6						
	comp=Z,0.6nm,0.6s						
BRTR	Keskin Array B	61.49	44	P	P	21 08 32.5	-0.8
AKASG	Malin Array Be	64.50	31	P	P	21 08 52.7	-0.2
	comp=Z,0.5nm,0.5s,baz=237,slow=6.9,SNR=5.2						
	comp=Z,0.5nm,0.5s						
BORG	Borgarnes	64.72	358	P	P	21 08 53.1	-0.8
HFS	Hagfors	64.88	17	P	P	21 08 56.1	+0.9
	comp=Z,1.3nm,0.7s,baz=186,slow=12,SNR=4.2						
	comp=Z,1.3nm,0.7s						
NOA	NORSAR Array B	64.95	15	P	P	21 08 56.7	+1.1
	comp=Z,0.6nm,0.8s,baz=207,slow=7.0,SNR=3.4						
	comp=Z,0.6nm,0.8s						
NC405	NORSAR Array S	65.14	15	P	P	21 08 57.5	+0.6
FINES	FINESS Array B	69.89	21	P	P	21 09 28.0	+1.2
	comp=Z,5.7nm,1.0s,baz=205,slow=8.4,SNR=7.2						
	comp=Z,5.7nm,1.0s						
FINES	FINESS Array B	69.89	21	P	P	21 09 27.0	+0.2
UTMT	University of	74.66	308	P	P	21 09 55.6	-0.2
ECSD	EROS Data Cent	81.79	314	P	P	21 10 34.6	-0.6
ECSD				IAmb	IAmb	21 10 36.1	
	comp=Z,5.8nm,1.1s						
MSTX	Muleshoe	85.66	304	P	P	21 10 54.6	-0.8
MSTX				IAmb	IAmb	21 10 57.2	
	comp=Z,5.4nm,0.8s						
TXAR	Lajitas Array	86.21	299	P	P	21 10 59.2	+1.0
	comp=Z,1.2nm,0.9s,baz=120,slow=7.4,SNR=7.4						
	comp=Z,1.2nm,0.9s						
TXAR	Lajitas Array	86.21	299	P	P	21 10 57.9	-0.3
BVAR	Borovoye Array	89.11	37	P	P	21 11 12.8	+1.2
	comp=Z,0.1nm,0.3s,baz=248,slow=2.7,SNR=1.5						
	comp=Z,0.1nm,0.3s						
QSPA	South Pole Qui	90.00	180	P	P	21 11 18.1	+2.6
	comp=Z,0.9nm,1.0s,baz=210,slow=5.3,SNR=3.5						
	comp=Z,0.9nm,1.0s						
QSPA	South Pole Qui	90.00	180	P	P	21 11 16.4	+0.9
QSPA				IAmb	IAmb	21 11 29.1	
	comp=Z,11nm,1.5s						
STKA	Stephens Creek	142.84	151	PKP	PKPdf	21 17 50.7	+0.4
	comp=Z,0.9nm,0.6s,baz=198,slow=3.2,SNR=0.9						
ASAR	Alice Springs	143.97	133	PKP	PKPdf	21 17 54.0	+1.4
	comp=Z,1.0nm,0.9s,baz=222,slow=3.5,SNR=6.4						
WRA	Warramunga Arr	146.43	128	PKPbc	PKPbc	21 17 58.3	+0.2
	comp=Z,1.0nm,1.0s,baz=231,slow=2.6,SNR=4.2						

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*IDC **19** 21:05:12.6±2.2, 17°.11S×179°.16W, h542^{km}±19^{km}, mb2.9/4, mbtmp3.8/5, Error ellipse: s-maj=117.4km s-min=28.6km az=157.0*

ISC 19 21:05:12.2±1.6, **17°.3S**±0°.9×**179°.1W**±0°.5, **h539**^{km}, **n5**, σ**0^s.42**/6, **mb3.5**/4, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	Nonsavu	2.78	260	P	P	21 06 25.6	+0.5
	25nm,0.8s,baz=122,slow=13,SNR=7.6						
STKA	Stephens Creek	38.39	240	P	P	21 11 47.5	-0.1
	0.5nm,0.3s,baz=81,slow=8.0,SNR=5.0						
	0.5nm,0.3s						
WRA	Warramunga Arr	44.13	259	P	P	21 12 32.8	-0.4
	0.3nm,0.3s,baz=92,slow=7.7,SNR=22						
	0.3nm,0.3s						
ASAR	Alice Springs	44.36	254	P	P	21 12 35.1	+0.1
	4.8nm,0.5s,baz=89,slow=8.1,SNR=115						
ASAR				PcP	PcP	21 14 07.1	-0.3
	0.3nm,0.7s,baz=99,slow=3.8,SNR=1.6						
	4.8nm,0.5s						
TXAR	Lajitas Array	86.19	58	P	P	21 16 57.0	0.0
	0.2nm,0.7s,baz=205,slow=3.2,SNR=1.8						
	0.2nm,0.7s						

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*SNET **19** 21:09:19.9±1.3, 13°.74N×89°.27W, h4^{km}, ML2.5, Presumed earthquake*

*CATAC **19** 21:09:20.0±0.4, 14°N±1°×89°.3W±1°.0, h8^{km}±2^{km}, M2.4/15, MLv2.4/15, Error ellipse: s-maj=3.0km s-min=2.1km az=7.3, confirmed*

ISC 19 21:09:20.2±0.9, **13°.75N**±0°.03×**89°.26W**±0°.02, **h2**^{km}±5^{km}, **n34**, σ**1^s.09**/57, **2C**, **El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PIC2	El Picacho	0.01	147	*e*P	Pg	21 09 21.3	+0.4
PIC2				*e*S	Sg	21 09 22.9	+1.4
BOQS	Boqueron	0.03	227	⇑*i*P	Pg	21 09 21.3	+0.3
BOQS	Boqueron	0.03	227	⇑*i*P	Pg	21 09 21.4	+0.4
BOQS				*e*S	Sg	21 09 21.6	0.0
UEES	Universidad Ev	0.04	149	*e*P	Pg	21 09 21.4	+0.3
UEES				*e*S	Sg	21 09 22.4	+0.6
UEES				IAML		21 09 24.5	
	comp=Z,8µm,0.2s						
UEES	Universidad Ev	0.04	149	*e*P	Pg	21 09 21.4	+0.3
UEES				*e*P		21 09 22.0	
UEES				*e*S	Sg	21 09 22.6	+0.7
UEES	Universidad Ev	0.04	149	P	Pg	21 09 21.5	+0.3
UEES				S	Sg	21 09 22.5	+0.7
SEMO	Seminario San	0.06	143	P	Pg	21 09 22.2	+0.7
SEMO				S	Sg	21 09 23.7	+1.3
PMON	Piamonte	0.07	232	*e*P	Pg	21 09 22.1	+0.6
PMON	Piamonte	0.07	232	*e*P	Pg	21 09 22.1	+0.6
PMON	Piamonte	0.07	232	P	Pg	21 09 22.3	+0.7
PMON				S	Sg	21 09 23.7	+1.2
UESS	Universidad de	0.07	118	*e*P	Pg	21 09 22.6	+1.0
MAGS	Ministerio de	0.07	200	*e*P	Pg	21 09 22.3	+0.6
MAGS				*e*S	Sg	21 09 23.9	+1.2
UTEC	Universidad Te	0.08	131	P	Pg	21 09 22.7	+0.9
UTEC				S	Sg	21 09 24.6	+1.8
IGN	Direccin Gen	0.10	113	P	Pg	21 09 22.8	+0.7
IGN				S	Sg	21 09 25.3	+1.9
LOMA	Loma Larga	0.14	141	*e*P	Pg	21 09 23.9	+1.0
LOMA	Loma Larga	0.14	141	*e*P	Pg	21 09 23.8	+0.9
LOMA				*e*S	Sg	21 09 26.7	+1.9
LOMA	Loma Larga	0.14	141	P	Pg	21 09 24.1	+1.2
LOMA				S	Sg	21 09 26.2	+1.5
LFU	La Fuente	0.14	91	*e*P	Pg	21 09 24.5	+1.5
LFU				IAML		21 09 28.6	
	comp=Z,10nm,0.2s						
PANCS	Alcalda de	0.16	150	P	Pg	21 09 24.0	+0.7
PANCS				S	Sg	21 09 26.8	+1.4
JAYA	Jayaque - finc	0.21	242	*e*P	Pg	21 09 25.2	+1.0
JAYA	Jayaque - finc	0.21	242	*e*P	Pg	21 09 25.2	+1.0
JAYA				*e*S	Sg	21 09 28.7	+1.8
JAYA	Jayaque - finc	0.21	242	P	Pg	21 09 25.3	+1.0
JAYA				S	Sg	21 09 28.8	+1.8
LALI	Alcalda de L	0.27	192	P	Pb	21 09 26.5	-1.2
LALI				S	Sg	21 09 30.2	+1.3
SJTE	Alcalda de S	0.28	119	*e*P	Pb	21 09 26.9	-1.2
SJTE				*e*S	Sb	21 09 31.4	-1.8
PAVA	Las Pavas	0.32	97	P	Pg	21 09 26.5	+0.2
PAVA				S	Sg	21 09 32.2	+1.7
UNIC	Universidad Ca	0.36	309	P	Pg	21 09 28.0	+0.9
UNIC				S	Sb	21 09 34.2	-1.3
COEG	Centro de Oper	0.39	109	P	Pg	21 09 27.6	-0.2
LLGN	La Laguna	0.51	37	P	Pg	21 09 30.3	+0.3
LLGN				S	Sg	21 09 37.8	+1.2
TECO	Alcaldia de Te	0.51	114	S	Sg	21 09 37.1	+0.4
NUBE	Las Nubes	0.53	287	P	Pb	21 09 31.6	-0.6
NUBE				S	Sb	21 09 39.0	-1.3
P5NO	Presa 5 de nov	0.54	64	P	Pg	21 09 31.0	+0.5
P5NO				S	Sb	21 09 39.7	-0.9
RBDL	Robledal	0.55	311	*e*P	Pg	21 09 31.5	+0.8
MTO3	Montecristo	0.65	351	P	Pb	21 09 33.7	-0.7
FAME	Alcaldia de Sa	0.74	277	P	Pg	21 09 34.6	+0.3
FAME				S	Sb	21 09 45.1	-1.2

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*IDC **19** 21:09:30.6±0.4, 37°.53S×77°.95E, h0^{km}, mb4.9/29, mbtmp4.9/29, MS5.5/65, Error ellipse: s-maj=14.2km s-min=13.0km az=58.0*

*MOS **19** 21:09:30.2±0.9, 37°.58S×77°.99E, h10^{km}, mb5.5/61, MS5.5/24, Error ellipse: s-maj=9.6km s-min=5.6km az=96.6*

*NEIC **19** 21:09:31.9±1.2, 37°.52S±0°.09×77°.89E±0°.09, h10^{km}±1^{km}, mb5.4/135, Ms_20 5.7/435, Mwb5.7/72, Mww5.8/26, Error ellipse: s-maj=15.3km s-min=11.4km az=151.0, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}0.74; $M_{\theta\theta}$-4.58; $M_{\phi\phi}$3.84; $M_{r\theta}$-0.83; $M_{\theta\phi}$2.56; $M_{\phi r}$1.03; Fault plane solution: $M_0$5.15000×10^{17} NP1:ϕ_s60.56000°, δ74.95000°,λ0.95000°. NP2:ϕ_s330.32000°,δ89.08000°, λ164.95000°. Principal axes: T 4.7141, Plg11.0000°, Azm284.0000°; N 0.7759, Plg75.0000°, Azm147.0000°; P -5.4899, Plg10.0000°, Azm16.0000°;*

*NEIC **19** 21:09:31.9, 37°.53S×77°.89E, h10^{km}*

*BJI **19** 21:09:31.0, 37°.60S×77°.90E, h10^{km}, mB5.7/59, mb5.1/72, Ms5.9/72, Ms7 5.7/71*

*IPGP **19** 21:09:32.0, 37°.56S×77°.86E, h15^{km}, Mw5.8, Fault plane solution: NP1:ϕ_s241.00000°,δ85.00000°,λ17.00000°. NP2:ϕ_s150.00000°,δ73.00000°,λ175.00000°.*

*NEIC **19** 21:09:32.3, 37°.55S×77°.87E, h10^{km}*

*GFZ **19** 21:09:33.1±0.1, 38°S±3°×7°8E±°, h10^{km}, M5.5/67, mb5.3/67*

*GFZ **19** 21:09:33.1, 37°.51S×77°.85E, h10^{km}, Mw5.8/126, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}-0.83; $M_{\theta\theta}$-4.35; $M_{\phi\phi}$5.18; $M_{r\theta}$-1.23; $M_{\theta\phi}$3.08; $M_{\phi r}$1.76; Fault plane solution: $M_0$6.10818×10^{17} NP1: ϕ_s152.77646°,δ84.43148°,λ-158.47091°. NP2: ϕ_s60.58422°,δ68.57754°,λ-5.98325°. Principal axes: T 6.3484, Plg10.9324°, Azm284.8382°; N -0.5129, Plg67.7956°, Azm166.5954°; P -5.8356, Plg19.0795°, Azm18.6689°;*

*GCMT **19** 21:09:34.9±0.1, 37°.55S×77°.96E, h12^{km}, MW5.8/159, Moment Tensor Solution. s154,c326; s159,c494; Duration: 1^s.9 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.40±.03; $M_{\theta\theta}$-5.17±.04; $M_{\phi\phi}$5.57±.03; $M_{r\theta}$0.29±.09; $M_{\theta\phi}$3.00±.03; $M_{\phi r}$0.79±.09; Best double couple: $M_0$6.20200×10^{17} NP1:ϕ_s329.00000°,δ85.00000°, λ176.00000°. NP2:ϕ_s60.00000°,δ86.00000°,λ5.00000°. Principal axes: T 6.4520, Plg7.0000°, Azm285.0000°; N -0.4950, Plg83.0000°, Azm98.0000°; P -5.9520, Plg1.0000°, Azm195.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s. Triangular moment-rate function*

*NEIC **19** 21:09:40.6, 37°.53S×77°.63E, h12^{km}, Moment Tensor Solution. Duration: 4^s.1 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.05; $M_{\theta\theta}$-3.84; $M_{\phi\phi}$3.89; $M_{r\theta}$-0.44; $M_{\theta\phi}$3.35; $M_{\phi r}$1.78; Fault plane solution: $M_0$5.43000×10^{17} NP1:ϕ_s66.02000°, δ70.76000°,λ2.71000°. NP2:ϕ_s335.13000°,δ87.44000°, λ160.74000°. Principal axes: T 5.5524, Plg15.0000°, Azm289.0000°; N -0.2465, Plg71.0000°, Azm148.0000°; P -5.3059, Plg12.0000°, Azm22.0000°;*

ISC 19 21:09:32.5±0.5, **37°.60S**±0°.04×**77°.85E**±0°.04, **h11**^{km}±2^{km}, **n985**, σ**1^s.76**/857, **mb5.3**/246, **MS5.7**/329, **43C-16D**, **Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AIS	Amsterdam Isla	0.30	228		Pg	21 09 39.0	+0.4
AIS	Amsterdam Isla	0.30	228	P	Pg	21 09 39.2	+0.6
H04N2	CROZET ISLANDS	21.13	238	P	P	21 14 20.8	+3.8
	baz=40,slow=74,SNR=2.9						
H04N2				T	T	21 36 17.8	
	baz=75,slow=75						
H04N1	CROZET ISLANDS	21.14	238	P	P	21 14 20.3	+3.1
	baz=40,slow=74,SNR=5.1						
H04N1				T	T	21 36 26.2	
	baz=75,slow=75						
H04N3	CROZET ISLANDS	21.15	238	P	P	21 14 20.1	+2.9
	baz=40,slow=74,SNR=4.3						
H04N3				T	T	21 36 20.3	
	baz=75,slow=75						
CRZF	Crozet Islands	21.16	237	P	P	21 14 17.2	-0.3
CRZF				IAmb	IAmb	21 14 23.6	
	comp=Z,429nm,1.3s						
H04S1	CROZET ISLANDS	21.24	236	P	P	21 14 22.5	+4.2
	baz=280,slow=74,SNR=6.1						
H04S1				T	T	21 36 38.3	
	baz=73,slow=75,SNR=52						
H04S2	CROZET ISLANDS	21.25	236	P	P	21 14 16.6	-1.8
H04S2				T	T	21 36 37.6	
	baz=73,slow=75,SNR=47						
H04S3	CROZET ISLANDS	21.25	236	P	P	21 14 22.4	+4.0
	baz=346,slow=74,SNR=3.4						
H04S3				T	T	21 36 37.0	
	baz=73,slow=75,SNR=63						
ROCAM	Rodrigues Isla	21.80	321	P	P	21 14 23.1	-1.5
RER	Riviere de l'E	25.19	304	P	P	21 14 56.4	-1.8
RER				IAMs_20	IAMs_20	21 21 46.2	
	comp=Z,23µm,18.0s						
RER	Riviere de l'E	25.19	304	P	P	21 14 56.0	-2.2
	comp=Z,182nm,2.2s						
FOMA	Nahampoana Res	29.09	287	P	P	21 15 31.8	-1.4
H01W2	Cape Leeuwin H	29.27	96	T	T	21 46 00.4	
	baz=254,slow=75,SNR=3091						
H01W3	Cape Leeuwin H	29.28	96	T	T	21 46 00.9	
	baz=254,slow=75,SNR=3788						
H01W1	Cape Leeuwin H	29.29	96	T	T	21 46 01.7	

	baz=254,slow=75,SNR=3233						
H08S2	Diego Garcia H	30.21	349	T	T	21 47 17.9	
	baz=171,slow=76,SNR=2760						
H08S1	Diego Carcia H	30.21	349	T	T	21 47 16.7	
	baz=171,slow=76,SNR=1516						
H08S3	Diego Garcia H	30.23	349	T	T	21 47 19.2	
	baz=171,slow=76,SNR=9501						
COCO	West Island	30.47	39	P	P	21 15 44.0	-1.5
COCO				pmax	pmax		
	comp=Z,293nm,1.3s						
COCO				MLR	MLR		
	comp=Z,12µm,21.0s						
COCO	West Island	30.47	39	P	P	21 15 44.0	-1.5
VOI	Vohitsoka	30.99	291	P	P	21 15 50.5	+0.3
VOI	Vohitsoka	30.99	291		P	21 15 49.2	-1.0
VOI				IAmb	IAmb	21 15 51.8	
	comp=Z,175nm,2.0s						
VOI				IAMs_20	IAMs_20	21 24 42.0	
	comp=Z,23µm,21.0s						
VOI	Vohitsoka	30.99	291	P	P	21 15 50.8	+0.6
	comp=Z,39nm,1.5s						
MAW	Mawson	31.22	191	P	P	21 15 52.8	+1.2
	comp=Z,7.1nm,1.4s,comp=Z,0.0nm,12.4s						
MAW	Mawson	31.22	191	P	P	21 15 53.0	+1.4
	comp=Z,29nm,1.1s,baz=26,slow=13,SNR=4.3						
MAW				LR	LR	21 26 03.0	
	comp=Z,19µm,19.0s,baz=9.5,slow=32						
	comp=Z,29nm,1.1s						
MAW	Mawson	31.22	191	P	P	21 15 53.0	+1.4
MAW	Mawson	31.22	191		P	21 15 51.3	-0.3
MAW	Mawson	31.22	191	P	P	21 15 54.6	+3.0
	comp=Z,7.0nm,1.4s						
NWAO	Narrogin (SRO)	32.33	94	LR	LR	21 26 04.2	
	comp=Z,26µm,20.0s,baz=260,slow=31						
NWAO	Narrogin (SRO)	32.33	94	P	P	21 15 59.7	-2.1
NWAO				pmax	pmax		
	comp=Z,286nm,2.0s						
NWAO				MLR	MLR		
	comp=Z,25µm,20.0s						
NWAO	Narrogin (SRO)	32.33	94	P	P	21 15 59.7	-2.1
ABPO	Ambohimpanom	32.49	296	*i* P	P	21 16 04.5	+1.0
ABPO	Ambohimpanom	32.49	296		P	21 16 01.6	-1.8
ABPO				IAmb	IAmb	21 16 09.2	
	comp=Z,57nm,1.6s						
ABPO	Ambohimpanom	32.49	296	IAMs_20	IAMs_20	21 25 44.7	
	comp=Z,18µm,19.0s						
ABPO	Ambohimpanom	32.49	296	P	P	21 16 04.1	+0.6
	comp=Z,24nm,1.6s						
OPO	Ambohidratompo	32.82	297	LR	LR	21 26 39.7	
	comp=Z,6µm,18.1s,baz=340,slow=31						
MORW	Morawa	32.84	86	P	P	21 16 04.2	-2.1
	comp=Z,79nm,1.2s,comp=Z,0.0nm,10.0s						
MORW	Morawa	32.84	86	P	P	21 16 08.5	+2.2
MORW	Morawa	32.84	86	P	P	21 16 04.2	-2.1
MORW				IAmb	IAmb	21 16 11.7	
	comp=Z,91nm,1.1s						
MORW	Morawa	32.84	86	P	P	21 16 07.6	+1.3
	comp=Z,78nm,1.2s						
AUKUL	Kulin High Sch	33.14	94	P	P	21 16 11.8	+2.9
CASY	Casey	34.31	157		P	21 16 18.0	-0.6
CASY				IAmb	IAmb	21 16 22.8	
	comp=Z,50nm,1.2s						
CASY	Casey	34.31	157	P	P	21 16 18.7	+0.1
	comp=Z,36nm,1.2s						
MEEK	Meekatharra	35.96	84	P	P	21 16 29.7	-3.7
	comp=Z,59nm,1.8s						
MEEK	Meekatharra	35.96	84	P	P	21 16 34.6	+1.2
MEEK	Meekatharra	35.96	84	P	P	21 16 33.6	+0.2
	comp=Z,58nm,1.2s						
KMBL	Kambalda	36.56	94	P	P	21 16 38.2	-0.3
	comp=Z,35nm,1.7s						
KMBL	Kambalda	36.56	94	P	P	21 16 37.7	-0.7
	comp=Z,35nm,1.7s,comp=Z,0.0nm,18.0s						
SYO	Syowa Base	37.68	201	⇓*e*P	P	21 16 45.2	-2.2
SYO	Syowa Base	37.68	201	⇑*e*P	P	21 16 48.0	+0.6
SYO	Syowa Base	37.68	201	⇑*i*P	P	21 16 50.7	+3.3
MSEY	Mahe Island	38.62	323	P	P	21 16 56.1	+0.1
MSEY				S	S	21 22 53.2	+0.8
MSEY	Mahe Island	38.62	323	P	P	21 16 54.3	-1.7
MSEY				pmax	pmax		
	comp=Z,139nm,1.4s						
MSEY				MLR	MLR		
	comp=Z,7µm,19.0s						
MSEY	Mahe Island	38.62	323	P	P	21 16 54.3	-1.7
MSEY				IAmb	IAmb	21 17 02.9	
	comp=Z,139nm,1.4s						
MBWA	Marble Bar	39.64	78	P	P	21 17 04.8	+0.3
	comp=Z,28nm,1.3s,comp=Z,0.0nm,9.9s						
MBWA	Marble Bar	39.64	78	P	P	21 17 05.8	+1.3
MBWA	Marble Bar	39.64	78	S	S	21 23 05.7	-2.0
MBWA	Marble Bar	39.64	78		P	21 17 03.3	-1.2
MBWA				IAmb	IAmb	21 17 10.9	
	comp=Z,161nm,1.9s						
MBWA	Marble Bar	39.64	78	IAMs_20	IAMs_20	21 29 59.7	
	comp=Z,11µm,19.0s						
MBWA	Marble Bar	39.64	78	P	P	21 17 02.9	-1.6
	comp=Z,28nm,1.3s						
POGA	Pongola	39.91	271	P	P	21 17 06.0	-0.6
POGA	Pongola	39.91	271	P	P	21 17 07.7	+1.0
	comp=Z,98nm,1.0s						
CNJI	Cibinong	40.17	49	P	P	21 17 13.1	+4.2
BBJI	Bungbulang	40.37	50	P	P	21 17 13.3	+2.7
	comp=Z,28nm,1.4s						
CBJI	Citeko	40.72	48	P	P	21 17 14.7	+1.3
	comp=Z,3µmcomp=Z,59nm,1.2s						
KPJI	Karang Pucung	41.25	51	P	P	21 17 26.4	+8.6
	comp=Z,65nm,1.1s,comp=Z,65nm,1.1s						
CTJI	Waduk Cacaban	41.66	51	P	P	21 17 26.4	+5.2
	comp=Z,74nm,1.0s,comp=Z,74nm,1.0s						
FORT	Forrest	41.68	96	P	P	21 17 21.1	-0.2
	comp=Z,26nm,1.1s,comp=Z,0.0nm,10.4s						
FORT	Forrest	41.68	96		P	21 17 20.2	-1.1
GRHM	Grahamstown, E	41.74	260	P	P	21 17 21.2	-0.6
GRHM				IAmb	IAmb	21 17 25.5	
	comp=Z,45nm,0.8s						
UGM	Wanagama	41.80	53	P	P	21 17 23.9	+1.5
UGM	Wanagama	41.80	53	P	P	21 17 21.5	-0.9
UGM				IAmb	IAmb	21 17 38.2	
	comp=Z,150nm,1.2s						
PCJI	Pacitan	42.01	54	P	P	21 17 26.5	+2.5
WOJI	Wonogiri, Jawa	42.12	54	P	P	21 17 30.5	+5.6
	comp=Z,69nm,1.2s						
PPI	Padang Panjang	42.40	35	P	P	21 17 28.9	+1.7
	comp=Z,2µmcomp=Z,43nm,1.4s						
SDSI	Sungai Dareh	42.46	36	P	P	21 17 28.1	+0.4
SNJI	Sawahan-Nganju	42.70	55	P	P	21 17 31.3	+1.5
	comp=Z,66nm,1.3s,comp=Z,66nm,1.3s						
GSI	Gunungsitoli	42.79	30	P	P	21 17 31.5	+1.1
GSI	Gunungsitoli	42.79	30		P	21 17 29.3	-1.1
GSI				IAmb	IAmb	21 17 40.5	
	comp=Z,93nm,1.4s						
GSI	Gunungsitoli	42.79	30	P	P	21 17 32.2	+1.8
	comp=Z,52nm,1.5s						
MNSI	Mandailing Nat	43.16	33	P	P	21 17 34.8	+1.5
	comp=Z,38nm,1.4s,comp=Z,38nm,1.4s						
BKNI	Bangkinang	43.39	35	P	P	21 17 35.0	-0.2
BKNI	Bangkinang	43.39	35	P	P	21 17 36.0	+0.8
BKNI	Bangkinang	43.39	35	IAMs_20	IAMs_20	21 31 40.4	
	comp=Z,9µm,20.0s						
SBSI	Sibolga	43.55	31	P	P	21 17 38.4	+1.9
	comp=Z,47nm,1.8s,comp=Z,47nm,1.8s						
JAGI	Jajag, Banyuwa	43.77	58	P	P	21 17 37.6	-0.7
JAGI				IAmb	IAmb	21 17 45.1	
	comp=Z,62nm,1.3s						
ELIB	Princess Elisa	43.86	201	*d*P	P	21 17 38.2	-0.4
	comp=Z,37nm,1.3s						
ELIB				*d*PP	PP	21 19 22.2	+1.7
IGBI	Denpasar	44.19	59	P	P	21 17 45.1	+3.4
	comp=Z,2µmcomp=Z,2µmcomp=Z,108nm,1.4s,comp=Z,108nm,1.4s						
RTBI	Rangdo, Negare	44.31	59	P	P	21 17 48.2	+5.5
	comp=Z,2µmcomp=Z,2µmcomp=Z,76nm,1.3s,comp=Z,76nm,1.3s						
WRKA	Warakurna	44.39	89	P	P	21 17 43.4	0.0
	comp=Z,17nm,1.6s,comp=Z,0.0nm,13.3s						
TPTI		44.44	28	P	P	21 17 46.2	+2.6
	comp=Z,46nm,1.4s,comp=Z,46nm,1.4s						
BOSA	Boshof	44.47	266	P	P	21 17 44.0	+0.1
	comp=Z,10nm,0.8s,baz=114,slow=8.0,SNR=18						
BOSA				LR	LR	21 33 25.5	
	comp=Z,6µm,18.1s,baz=118,slow=32						
	comp=Z,10nm,0.8s						
BOSA	Boshof	44.47	266	P	P	21 17 43.2	-0.8
RPSI	Rantau Prapat	44.60	31		P	21 17 43.9	-1.0
RPSI	Rantau Prapat	44.60	31	P	P	21 17 46.6	+1.7
	comp=Z,24nm,1.5s						
PSI	Prapat	44.70	31	P	P	21 17 45.4	-0.4
PSI	Prapat	44.70	31	P	P	21 17 43.9	-1.9
PSI				pmax	pmax		
	comp=Z,37nm,1.3s						
PSI				MLR	MLR		
	comp=Z,15µm,20.0s						
PALK	Pallekele	44.71	4	LR	LR	21 31 47.9	
	comp=Z,11µm,21.4s,baz=182,slow=30						
PALK	Pallekele	44.71	4	S	S	21 24 23.1	+0.5
PALK	Pallekele	44.71	4	*i* P	P	21 17 44.9	-0.9
PALK				pmax	pmax		
	comp=Z,73nm,1.5s						
PALK	Pallekele	44.71	4	P	P	21 17 43.7	-2.1
PALK				IAmb	IAmb	21 19 20.1	
	comp=Z,137nm,1.8s						
PALK	Pallekele	44.71	4	IAMs_20	IAMs_20	21 31 26.6	
	comp=Z,11µm,22.0s						
SRBI	Singaraja	44.76	59	P	P	21 17 50.1	+3.8
	comp=Z,2µmcomp=Z,83nm,1.2s,comp=Z,83nm,1.2s						
KCSI	Kotacane, Aceh	44.90	29	P	P	21 17 49.5	+2.2
DRV	Dumont d'Urvil	45.17	150	P	P	21 17 48.0	-0.9
TPRI	Tanjung Pinang	45.57	39	P	P	21 17 57.1	+4.4
MALK	Mahakanadarawa	45.82	4	P	P	21 17 53.6	-1.0
LBTB	Lobatse	45.84	270	LR	LR	21 33 42.2	
	comp=Z,13µm,19.7s,baz=119,slow=32						
LBTB	Lobatse	45.84	270	P	P	21 17 53.8	-1.1
LBTB				pmax	pmax		
	comp=Z,43nm,1.5s						
LBTB	Lobatse	45.84	270	P	P	21 17 53.8	-1.1
LBTB				IAmb	IAmb	21 18 02.3	
	comp=Z,43nm,1.4s						
MATP	Matopo	45.89	278	LR	LR	21 34 34.7	
	comp=Z,10µm,18.3s,baz=120,slow=33						
FITZ	Fitzroy Crossi	45.96	79	P	P	21 17 56.7	+1.0
	comp=Z,5.1nm,1.6s						
FITZ	Fitzroy Crossi	45.96	79	P	P	21 17 55.6	-0.1
	comp=Z,5.1nm,1.6s,comp=Z,0.0nm,10.4s						
FITZ	Fitzroy Crossi	45.96	79	LR	LR	21 34 03.4	
	comp=Z,7µm,20.0s,baz=250,slow=32						
FITZ	Fitzroy Crossi	45.96	79	P	P	21 17 54.5	-1.2
FITZ	Fitzroy Crossi	45.96	79	P	P	21 17 57.4	+1.7
	comp=Z,5.1nm,1.6s						
MYKOM	Kota Tinggi	45.99	38	P	P	21 17 56.5	+0.5
MYKOM	Kota Tinggi	45.99	38		P	21 17 54.0	-2.0
MYKOM				IAmb	IAmb	21 17 56.0	
	comp=Z,59nm,1.5s						
MYKOM	Kota Tinggi	45.99	38	P	P	21 17 55.1	-0.9
	comp=Z,20nm,1.4s						
PLAI	Plampang	46.00	62	P	P	21 17 56.2	+0.1
PLAI	Plampang	46.00	62	P	P	21 17 55.5	-0.6
	comp=Z,64nm,1.0s						
LHMI	Lhok Sumawe	46.17	27	IAMs_20	IAMs_20	21 32 34.0	
	comp=Z,8µm,21.0s						
SUR	Sutherland	46.41	259	LR	LR	21 33 47.1	
	comp=Z,8µm,19.4s,baz=122,slow=31						
SUR	Sutherland	46.41	259	P	P	21 18 01.4	+1.9
SUR				S	S	21 24 52.0	+4.7
SUR	Sutherland	46.41	259	P	P	21 17 58.4	-1.1
SUR				IAmb	IAmb	21 18 05.2	
	comp=Z,46nm,0.9s						
SUR	Sutherland	46.41	259	IAMs_20	IAMs_20	21 33 30.5	
	comp=Z,7µm,20.0s						
SUR	Sutherland	46.41	259	P	P	21 18 01.2	+1.7
	comp=Z,64nm,1.1s						
DBNI	Kabupaten Domp	46.60	62	P	P	21 18 01.6	+0.7
	comp=Z,2µmcomp=Z,80nm,1.4s,comp=Z,80nm,1.4s						
IPM	Ipoh	47.09	32	P	P	21 18 05.8	+1.2
IPM	Ipoh	47.09	32	IAMs_20	IAMs_20	21 35 41.4	
	comp=Z,8µm,18.0s						
NVL	N'lazarevskaya	47.14	204	*e*P	P	21 18 05.6	+1.2
NVL				*e*		21 19 29.7	
NVL				*e*S	S	21 24 55.3	-1.0
NVL				pmax	pmax		
	comp=Z,31nm,1.1s						
NVL				MLR	MLR		
	comp=Z,5µm,16.0s						
BBOO	Buckleboo	47.15	103	P	P	21 18 05.1	+0.1
	comp=Z,57nm,1.6s,comp=Z,0.0nm,18.1s						
BBOO	Buckleboo	47.15	103	P	P	21 18 06.6	+1.6
BBOO	Buckleboo	47.15	103		P	21 18 03.7	-1.3
BBOO	Buckleboo	47.15	103	P	P	21 18 07.2	+2.1
	comp=Z,57nm,1.6s						
WSI	Waingapu	47.21	65	P	P	21 18 09.6	+4.0
CER	Ceres	47.21	257	P	P	21 18 07.0	+1.5
	comp=Z,43nm,1.0s						
CVNA	Calvinia	47.59	259	P	P	21 18 09.9	+1.3
	comp=Z,118nm,1.3s						
LBFI	Labuhan Bajo,	47.73	64	P	P	21 18 11.8	+2.1
AUMBR	Murray Bridge	48.75	107	P	P	21 18 19.6	+2.3
LSZ	Lusaka	49.06	283	LR	LR	21 35 34.4	
	comp=Z,10µm,20.4s,baz=128,slow=32						
LSZ	Lusaka	49.06	283	P	P	21 18 20.4	+0.4
LSZ				S	S	21 25 26.5	+1.5
LSZ	Lusaka	49.06	283	P	P	21 18 19.2	-0.9
LSZ				pmax	pmax		
	comp=Z,50nm,1.2s						
LSZ				MLR	MLR		
	comp=Z,11µm,20.0s						
LSZ	Lusaka	49.06	283		P	21 18 19.1	-0.9
LSZ				IAmb	IAmb	21 18 26.6	
	comp=Z,50nm,1.2s						
LSZ	Lusaka	49.06	283	IAMs_20	IAMs_20	21 35 11.7	
	comp=Z,11µm,20.0s						
LSZ	Lusaka	49.06	283	P	P	21 18 19.9	-0.2
	comp=Z,44nm,1.4s						
HTT	Hallett	49.12	105	P	P	21 18 19.9	-0.3
	comp=Z,20nm,1.7s,comp=Z,0.0nm,7.6s						
HTT	Hallett	49.12	105	P	P	21 18 20.0	-0.3
HTT	Hallett	49.12	105	P	P	21 18 21.5	+1.2
HTT	Hallett	49.12	105	P	P	21 18 19.9	-0.3
MMRI	Maumere	49.31	66	P	P	21 18 23.7	+1.9
MMRI	Maumere	49.31	66		P	21 18 21.0	-0.8
MMRI	Maumere	49.31	66	P	P	21 18 24.2	+2.4
	comp=Z,55nm,1.0s						
AUALC	St Philip's Co	49.49	90	P	P	21 18 24.6	+1.4
ASAR	Alice Springs	49.52	90	P	P	21 18 21.9	-1.5
	comp=Z,51nm,1.3s,baz=238,slow=7.0,SNR=29						
ASAR				PcP	PcP	21 19 46.7	+1.4
	comp=Z,4.2nm,0.9s,baz=237,slow=2.9,SNR=1.8						
ASAR				LR	LR	21 36 57.2	
	comp=Z,10µm,19.2s,baz=246,slow=33						
	comp=Z,51nm,1.3s						
ASAR	Alice Springs	49.52	90		P	21 18 21.8	-1.7
AS31	Alice Springs	49.52	90	P	P	21 18 21.8	-1.7
AS09	Alice Springs	49.53	91	P	P	21 18 22.8	-0.8
	comp=Z,27nm,1.1s,comp=Z,0.0nm,1.7s						
AS15	Alice Springs	49.54	90	P	P	21 18 22.8	-0.8
	comp=Z,38nm,1.3s,comp=Z,0.0nm,1.8s						
AS01	Alice Springs	49.56	90	P	P	21 18 22.9	-0.8
	comp=Z,40nm,1.3s,comp=Z,0.0nm,1.6s						
AS01	Alice Springs	49.56	90	P	P	21 18 24.6	+0.9
AS17	Alice Springs	49.59	91	P	P	21 18 23.2	-0.8
	comp=Z,32nm,1.6s,comp=Z,0.0nm,1.7s						
KNRA	Kununurra	49.79	78	P	P	21 18 27.1	+1.7
	comp=Z,33nm,1.0s						
KNRA	Kununurra	49.79	78	P	P	21 18 25.6	+0.2
	comp=Z,33nm,1.0s,comp=Z,0.0nm,15.6s						
KNRA	Kununurra	49.79	78	P	P	21 18 23.9	-1.6
KNRA				IAmb	IAmb	21 18 29.1	
	comp=Z,35nm,1.1s						
SOEI	Soe	50.05	69	P	P	21 18 24.9	-2.7
SOEI	Soe	50.05	69	P	P	21 18 29.9	+2.3
SOEI	Soe	50.05	69	P	P	21 18 26.1	-1.5
SOEI				IAmb	IAmb	21 19 15.7	
	comp=Z,87nm,1.2s						
SOEI	Soe	50.05	69	P	P	21 18 31.1	+3.4
	comp=Z,56nm,1.3s						
ARPS	Mount Arapiles	50.07	110	P	P	21 18 27.6	+0.2
	comp=Z,20nm,1.2s,comp=Z,0.0nm,12.5s						
KAPI	Kappang	50.08	60	P	P	21 18 27.5	-0.1
	comp=Z,8.6nm,0.8s,baz=241,slow=10,SNR=3.6						
KAPI				LR	LR	21 35 26.6	
	comp=Z,3µm,21.4s,baz=206,slow=31						
	comp=Z,8.6nm,0.8s						
KAPI	Kappang	50.08	60	P	P	21 18 27.1	-0.6
KAPI				S	S	21 25 38.4	-0.6
KAPI	Kappang	50.08	60	*i* P	P	21 18 26.2	-1.5
KAPI				pmax	pmax		
	comp=Z,45nm,1.4s						
KAPI	Kappang	50.08	60	P	P	21 18 26.5	-1.2
KAPI				IAmb	IAmb	21 18 41.8	
	comp=Z,90nm,1.7s						
TROLL	Troll, Antarti	50.21	203	⇑P	P	21 18 28.8	+0.6
	comp=Z,1µm,1.1s						
TROLL				⇑S	S	21 25 44.5	+4.6
	comp=N,59nm,1.3s						
KIBK	Kibwezi	50.63	304	P	P	21 18 30.8	-1.2
KIBK	Kibwezi	50.63	304	P	P	21 18 29.9	-2.0
KIBK	Kibwezi	50.63	304	P	P	21 18 30.6	-1.4
	comp=Z,11nm,2.5s						
SBUM	Sibu	51.00	47	P	P	21 18 35.8	+1.2
SBUM	Sibu	51.00	47		P	21 18 33.4	-1.3
SBUM	Sibu	51.00	47	P	P	21 18 35.1	+0.5
	comp=Z,19nm,0.7s						
WRA	Warramunga Arr	51.79	87	P	P	21 18 38.7	-1.8
	comp=Z,24nm,0.9s,baz=233,slow=7.8,SNR=59						
WRA				PcP	PcP	21 19 53.1	-0.6
	comp=Z,4.3nm,1.1s,baz=234,slow=2.4,SNR=1.1						
WRA				LR	LR	21 38 22.2	
	comp=Z,9µm,19.6s,baz=270,slow=34						
	comp=Z,24nm,0.9s						
WRA	Warramunga Arr	51.79	87	P	P	21 18 39.4	-1.1
WRA				pmax	pmax		
	comp=Z,18nm,1.8s						
WRA	Warramunga Arr	51.79	87	P	P	21 18 39.4	-1.1
WRAB	Tennant Creek	51.80	87	P	P	21 18 42.3	+1.6
WRAB	Tennant Creek	51.80	87	*ce*P	P	21 18 39.8	-0.9
WRAB				pmax	pmax		
	comp=Z,72nm,1.3s						
WRAB	Tennant Creek	51.80	87	P	P	21 18 39.5	-1.2
WRAB	Tennant Creek	51.80	87	IAMs_20	IAMs_20	21 38 00.9	
	comp=Z,10µm,21.0s						
WRAB	Tennant Creek	51.80	87	P	P	21 18 39.7	-0.9
	comp=Z,67nm,1.5s						
STKA	Stephens Creek	51.81	104	P	P	21 18 39.8	-0.9
	comp=Z,225nm,1.1s						
STKA	Stephens Creek	51.81	104	P	P	21 18 39.5	-1.0
	comp=Z,35nm,0.9s,baz=247,slow=6.5,SNR=28						
STKA				LR	LR	21 36 34.0	
	comp=Z,11µm,20.3s,baz=247,slow=31						
	comp=Z,35nm,0.9s						
STKA	Stephens Creek	51.81	104	P	P	21 18 42.6	+2.0
STKA	Stephens Creek	51.81	104	*i* P	P	21 18 39.2	-1.4
STKA	Stephens Creek	51.81	104	P	P	21 18 39.7	-0.9
	comp=Z,225nm,1.1s						
SNAA	Sanae	51.91	203	⇑P	P	21 18 42.5	+1.7
	comp=Z,362nm,1.1s						
SNAA				⇑S	S	21 26 08.0	+4.8
	comp=N,23nm,0.4s						
SNAA	Sanae	51.91	203	P	P	21 18 41.1	+0.3
	comp=N,26nm,1.1s,baz=82,slow=6.5,SNR=18						
SNAA				LR	LR	21 36 47.4	
	comp=N,6µm,21.4s,baz=78,slow=32						
	comp=N,26nm,1.1s						
SNAA	Sanae	51.91	203	*i* P	P	21 18 41.3	+0.5
SNAA				pmax	pmax		
	comp=Z,47nm,1.3s						
SNAA	Sanae	51.91	203	P	P	21 18 40.7	-0.1
SNAA				IAmb	IAmb	21 18 45.5	
	comp=Z,54nm,1.3s						
SNAA				IAMs_20	IAMs_20	21 36 14.7	
	comp=Z,7µm,22.0s						
SNAA	Sanae	51.91	203	P	P	21 18 42.1	+1.3
	comp=Z,35nm,1.3s						
WR8	Warramunga Arr	51.91	87		P	21 18 40.0	-1.4
WR8				IAmb	IAmb	21 18 46.8	
	comp=Z,77nm,1.1s						
TAU	Tasmania Unive	51.92	119	IAMs_20	IAMs_20	21 35 07.3	
	comp=Z,8µm,20.0s						
KMBO	Kilima Mbogo	52.06	304	P	P	21 18 43.2	+0.3
	baz=162,slow=8.7						
KMBO				LR	LR	21 35 37.1	
	comp=Z,5µm,21.8s,baz=132,slow=30						
KMBO	Kilima Mbogo	52.06	304	*i* P	P	21 18 42.1	-0.7
VNDA	Vanda	52.34	164	P	P	21 18 43.9	+0.1
	comp=Z,11nm,1.2s,baz=273,slow=6.7,SNR=10						
VNDA				LR	LR	21 39 02.2	
	comp=Z,6µm,19.8s,baz=266,slow=34						
	comp=Z,11nm,1.2s						
VNDA	Vanda	52.34	164	P	P	21 18 43.0	-0.8
VNDA	Vanda	52.34	164	P	P	21 18 45.8	+1.9
TOO	Toolangi	52.48	112	P	P	21 18 46.1	+0.6
	comp=Z,17nm,0.4s,comp=Z,0.0nm,18.8s						
TOO	Toolangi	52.48	112	P	P	21 18 44.9	-0.7
TOO				pmax	pmax		
	comp=Z,20nm,1.1s						
TOO	Toolangi	52.48	112	P	P	21 18 44.9	-0.7
AUMAG	Moama Anglican	52.50	110	P	P	21 18 46.5	+0.9
QSPA	South Pole Qui	52.56	180	P	P	21 18 45.1	-0.8
	comp=Z,70nm,1.1s,baz=290,slow=2.7,SNR=31						
QSPA				LR	LR	21 39 44.9	
	comp=Z,29µm,18.3s,baz=298,slow=34						
	comp=Z,70nm,1.1s						
QSPA	South Pole Qui	52.56	180		P	21 18 45.3	-0.5
QSPA				IAmb	IAmb	21 18 50.2	
	comp=Z,96nm,1.1s						
INKA	Innaminka	52.98	99	P	P	21 18 48.1	-1.1
INKA				IAmb	IAmb	21 18 56.3	
	comp=Z,73nm,1.9s						
MTN	Manton Dam	53.32	77	P	P	21 18 53.8	+1.9
	comp=Z,17nm,1.2s						
MTN	Manton Dam	53.32	77	P	P	21 18 51.2	-0.7
	comp=Z,17nm,1.2s,comp=Z,0.0nm,10.7s						
MTN	Manton Dam	53.32	77	P	P	21 18 50.3	-1.6
SBA	Scott Base	53.35	165	P	P	21 18 50.7	-0.6
SBA				pmax	pmax		
	comp=Z,53nm,1.7s						
SBA				MLR	MLR		
	comp=Z,4µm,20.0s						
SBA	Scott Base	53.35	165	P	P	21 18 50.7	-0.6
SBA				IAmb	IAmb	21 19 15.4	
	comp=Z,53nm,1.6s						
DRS	Darwin Rock St	53.39	77	P	P	21 18 54.8	+2.4
VNA2	Neumayer--Watz	53.46	204	⇑P	P	21 18 52.6	+0.4
	comp=Z,24nm,1.0s,baz=87,slow=6.9						
VNA2				⇑S	S	21 26 28.9	+4.7
	comp=N,0.5nm,0.6s						
VNA2	Neumayer--Watz	53.46	204	P	P	21 18 53.3	+1.1
	comp=Z,56nm,1.2s						
VNA1	Neumayer--Stat	53.79	204	⇑P	P	21 18 55.6	+1.0
	comp=Z,74nm,1.1s						
WIN	Windhoek	53.81	268	P	P	21 18 54.3	-1.4
WIN				pmax	pmax		
	comp=Z,90nm,1.9s						
WIN				MLR	MLR		
	comp=Z,11µm,18.0s						
WIN	Windhoek	53.81	268	P	P	21 18 54.3	-1.4
WIN				IAmb	IAmb	21 19 17.6	
	comp=Z,90nm,1.9s						
VNA3	Neumayer Olymp	54.13	204	⇑P	P	21 18 57.6	+0.4
	comp=Z,37nm,1.1s						
VNA3				⇑S	S	21 26 39.4	+6.0
	comp=N,0.4nm,0.7s						
VNA3	Neumayer Olymp	54.13	204	P	P	21 18 57.9	+0.8
	comp=Z,80nm,1.2s						
KDU	Kakadu	54.45	78	P	P	21 19 01.3	+1.1
	comp=Z,13nm,1.2s,comp=Z,0.0nm						
KDU	Kakadu	54.45	78	P	P	21 18 59.5	-0.6
	comp=Z,13nm,1.2s,comp=Z,0.0nm,11.0s						
HYB	Hyderabad	54.72	1	*e*P	P	21 19 00.5	-1.5
HYB				*e*PcP	PcP	21 20 03.4	-1.2
HYB				*e*PP	PP	21 21 03.0	-1.9
HYB				*e*S	S	21 26 41.3	-1.0
HYB				*e*ScS	ScS	21 28 49.9	-1.5
HYB				IAMs_20	IAMs_20	21 38 22.1	
	comp=Z,9µm,19.3s						
LUWI	Luwuk	55.02	60	P	P	21 19 02.6	-1.7
LUWI	Luwuk	55.02	60	P	P	21 19 06.6	+2.3
LUWI	Luwuk	55.02	60	P	P	21 19 02.8	-1.5
LUWI				IAmb	IAmb	21 19 15.3	
	comp=Z,90nm,1.2s						
LUWI	Luwuk	55.02	60	P	P	21 19 03.8	-0.5
	comp=Z,66nm,1.3s						
CMSA	Cobar Meteorol	55.11	105	P	P	21 19 04.7	-0.1
	comp=Z,34nm,1.1s,comp=Z,0.0nm,15.0s						
CMSA	Cobar Meteorol	55.11	105	P	P	21 19 06.2	+1.4
CMSA	Cobar Meteorol	55.11	105	P	P	21 19 04.7	-0.1
	comp=Z,34nm,1.1s						
TSUM	Tsumeb	55.19	272	LR	LR	21 38 57.4	
	comp=Z,16µm,21.6s,baz=124,slow=32						
TSUM	Tsumeb	55.19	272	P	P	21 19 04.4	-1.3
TSUM	Tsumeb	55.19	272	P	P	21 19 05.8	+0.1
	comp=Z,29nm,1.3s						
AUSMG	Snowy Mountain	55.23	112	P	P	21 19 07.1	+1.4
TOLI2	Tolitoli	55.26	56	P	P	21 19 07.0	+0.9
TOLI2	Tolitoli	55.26	56	P	P	21 19 04.2	-1.9
TOLI2				IAmb	IAmb	21 19 15.2	
	comp=Z,44nm,1.4s						
TOLI2	Tolitoli	55.26	56	P	P	21 19 03.8	-2.3
	comp=Z,24nm,1.3s						
QIS	Mount Isa	55.64	91	P	P	21 19 07.9	-0.9
	comp=Z,45nm,1.2s,comp=Z,0.0nm,20.2s						
QIS	Mount Isa	55.64	91	P	P	21 19 09.8	+1.0
QIS	Mount Isa	55.64	91	P	P	21 19 07.9	-0.9

	comp=Z,45nm,1.2s						
CAN	**Canberra**	**55.97**	**111**	P	**P**	**21 19 14.2**	**+3.1**
	comp=Z,55nm,1.5s						
CAN	**Canberra**	**55.97**	**111**	P	**P**	**21 19 11.4**	**+0.3**
	comp=Z,44nm,1.3s,comp=Z,0.0nm,20.1s						
CAN	**Canberra**	**55.97**	**111**	P	**P**	**21 19 13.9**	**+2.8**
CAN	**Canberra**	**55.97**	**111**	P	**P**	**21 19 10.3**	**-0.8**
CAN				pmax	pmax		
	comp=Z,151nm,1.6s						
CAN				MLR	MLR		
	comp=Z,9µm,19.0s						
CAN	**Canberra**	**55.97**	**111**	P	**P**	**21 19 10.3**	**-0.8**
CAN	**Canberra**	**55.97**	**111**	P	**P**	**21 19 13.8**	**+2.7**
	comp=Z,55nm,1.5s						
AUMTS	**Mt Stromlo**	**55.98**	**111**	P	**P**	**21 19 13.7**	**+2.6**
AUMHS	**Melrose High S**	**56.02**	**111**	P	**P**	**21 19 13.9**	**+2.5**
CNB	**Canberra Magne**	**56.25**	**111**	P	**P**	**21 19 14.6**	**+1.6**
	comp=Z,1.4nm,1.3s						
CNB	**Canberra Magne**	**56.25**	**111**	P	**P**	**21 19 12.8**	**-0.3**
	comp=Z,1.4nm,1.4s,comp=Z,0.0nm,15.6s						
QLP	**Quilpie**	**56.26**	**99**	P	**P**	**21 19 13.2**	**0.0**
	comp=Z,94nm,1.7s,comp=Z,0.0nm,12.2s						
QLP	**Quilpie**	**56.26**	**99**	P	**P**	**21 19 14.8**	**+1.6**
QLP	**Quilpie**	**56.26**	**99**	P	**P**	**21 19 13.8**	**+0.6**
	comp=Z,94nm,1.7s						
SANI	**Sanana**	**56.54**	**63**	P	**P**	**21 19 11.7**	**-3.6**
SANI	**Sanana**	**56.54**	**63**	P	**P**	**21 19 15.3**	**+0.1**
SANI	**Sanana**	**56.54**	**63**	P	**P**	**21 19 13.7**	**-1.5**
	comp=Z,46nm,1.2s						
LODK	**Lodwar**	**56.73**	**306**	P	**P**	**21 19 16.9**	**+0.3**
	SNR=12						
LODK	**Lodwar**	**56.73**	**306**		**P**	**21 19 15.3**	**-1.3**
LODK				IAmb	IAmb	21 19 18.4	
	comp=Z,62nm,1.7s						
LODK	**Lodwar**	**56.73**	**306**	P	**P**	**21 19 16.7**	**+0.1**
	comp=Z,17nm,2.0s						
MBAR	**Mbarara**	**56.85**	**299**	LR	LR	21 39 43.8	
	comp=Z,9µm,20.6s,baz=138,slow=32						
MBAR	**Mbarara**	**56.85**	**299**	P	**P**	**21 19 17.9**	**+0.3**
MBAR				S	**S**	**21 27 13.6**	**+2.3**
MBAR	**Mbarara**	**56.85**	**299**	*i* P	**P**	**21 19 16.3**	**-1.3**
MBAR				pmax	pmax		
	comp=Z,21nm,1.4s						
MBAR	**Mbarara**	**56.85**	**299**	P	**P**	**21 19 15.6**	**-2.0**
MBAR	**Mbarara**	**56.85**	**299**	P	**P**	**21 19 17.8**	**+0.2**
	comp=Z,17nm,1.9s						
AULRC	**Lightning Ridg**	**57.82**	**104**	P	**P**	**21 19 26.3**	**+2.1**
AKL	**Akola**	**57.99**	**359**	*e*P	**P**	**21 19 23.2**	**-2.0**
AKL				IAmb	IAmb	21 19 32.0	
	comp=Z,17nm,0.5s						
BELA	**Belgrano 2**	**58.02**	**193**	P	**P**	**21 19 24.5**	**-0.4**
BELA				IAmb	IAmb	21 19 29.1	
	comp=Z,62nm,1.3s						
BWNR	**Bhubaneshwar**	**58.02**	**9**	*e*P	**P**	**21 19 23.2**	**-2.2**
ATD	**Arta Tunnel**	**58.87**	**319**	P	**P**	**21 19 31.4**	**-0.2**
	comp=Z,1.1nm,1.0s,baz=120,slow=3.5,SNR=8.7						
ATD				LR	LR	21 40 54.6	
	comp=Z,150nm,18.8s,baz=143,slow=32						
ATD	**Arta Tunnel**	**58.87**	**319**	P	**P**	**21 19 32.8**	**+1.2**
	SNR=7.9						
ATD				S	**S**	**21 27 40.1**	**+2.8**
ATD	**Arta Tunnel**	**58.87**	**319**	P	**P**	**21 19 30.6**	**-1.0**
ATD	**Arta Tunnel**	**58.87**	**319**	P	**P**	**21 19 32.6**	**+1.1**
	comp=Z,68nm,1.3s						
DMTO	**DMTO**	**59.09**	**334**	P	**P**	**21 19 33.7**	**+0.7**
DMTO				S	**S**	**21 27 41.4**	**+1.4**
SHAO	**Shalim**	**59.15**	**335**	S	**S**	**21 27 43.4**	**+2.7**
RBK	**Rabkut**	**59.15**	**334**	P	**P**	**21 19 33.7**	**+0.3**
RBK				S	**S**	**21 27 41.9**	**+1.0**
CM31	**Chiang Mai Arr**	**59.18**	**23**	P	**P**	**21 19 32.8**	**-0.8**
	SNR=5.6						
CM31	**Chiang Mai Arr**	**59.18**	**23**	P	**P**	**21 19 31.8**	**-1.8**
CM31				IAmb	IAmb	21 19 38.2	
	comp=Z,37nm,1.1s						
CMAR	**Chiang Mai Arr**	**59.18**	**23**	P	**P**	**21 19 32.8**	**-0.8**
	comp=Z,8.7nm,1.0s,baz=212,slow=6.6,SNR=26						
CMAR				LR	LR	21 41 15.8	
	comp=Z,3µm,20.4s,baz=200,slow=32						
	comp=Z,8.7nm,1.0s						
CMAR	**Chiang Mai Arr**	**59.18**	**23**		**P**	**21 19 31.4**	**-2.2**
AUPHS	**Peel High Scho**	**59.27**	**107**	P	**P**	**21 19 35.8**	**+1.5**
TNTI	**Ternate**	**59.50**	**62**	P	**P**	**21 19 36.9**	**+1.0**
TNTI	**Ternate**	**59.50**	**62**	P	**P**	**21 19 33.8**	**-2.2**
TNTI				IAmb	IAmb	21 19 46.8	
	comp=Z,60nm,1.5s						
TNTI	**Ternate**	**59.50**	**62**	P	**P**	**21 19 37.0**	**+1.0**
	comp=Z,21nm,1.4s						
CHTO	**Chiang Mai**	**59.52**	**23**	P	**P**	**21 19 36.3**	**+0.4**
CHTO	**Chiang Mai**	**59.52**	**23**	S	**S**	**21 27 45.4**	**-0.1**
CHTO	**Chiang Mai**	**59.52**	**23**	P	**P**	**21 19 34.6**	**-1.3**
CHTO				pmax	pmax		
	comp=Z,15nm,1.2s						
CHTO				MLR	MLR		
	comp=Z,3µm,20.0s						
CHTO	**Chiang Mai**	**59.52**	**23**	P	**P**	**21 19 34.6**	**-1.3**
WHFO	**Wadi Hawf**	**59.69**	**333**	P	**P**	**21 19 38.1**	**+1.0**
RMQ	**Roma**	**59.84**	**102**	P	**P**	**21 19 41.0**	**+2.7**
ARMA	**Armidale**	**60.15**	**107**	P	**P**	**21 19 40.4**	**-0.1**
	comp=Z,37nm,1.1s,comp=Z,0.0nm,15.7s						
ARMA	**Armidale**	**60.15**	**107**	P	**P**	**21 19 39.6**	**-0.8**
ARMA				IAmb	IAmb	21 19 47.7	
	comp=Z,70nm,1.4s						
ARMA	**Armidale**	**60.15**	**107**	P	**P**	**21 19 41.9**	**+1.5**
	comp=Z,37nm,1.1s						
FAKI	**Fak Fak**	**60.49**	**69**	P	**P**	**21 19 41.9**	**-0.9**
MTSU	**Mount Surprise**	**60.69**	**91**	P	**P**	**21 19 43.6**	**-0.6**
	comp=Z,14nm,1.1s,comp=Z,0.0nm,0.1s						
MTSU	**Mount Surprise**	**60.69**	**91**	P	**P**	**21 19 44.2**	**0.0**
	comp=Z,14nm,1.1s						
CTA	**Charters Tower**	**61.17**	**94**	P	**P**	**21 19 47.1**	**-0.4**
	comp=Z,14nm,1.6s						
CTA	**Charters Tower**	**61.17**	**94**	LR	LR	21 44 10.1	
	comp=Z,12µm,19.0s,baz=232,slow=34						
CTA	**Charters Tower**	**61.17**	**94**	P	**P**	**21 19 47.0**	**-0.4**
CTAO	**Charters Tower**	**61.17**	**94**	P	**P**	**21 19 48.8**	**+1.4**
CTAO	**Charters Tower**	**61.17**	**94**	P	**P**	**21 19 45.5**	**-1.9**
CTAO				pmax	pmax		
	comp=Z,62nm,1.4s						
CTAO				MLR	MLR		
	comp=Z,13µm,19.0s						
CTAO	**Charters Tower**	**61.17**	**94**	P	**P**	**21 19 45.5**	**-1.9**
CTAO				IAmb	IAmb	21 19 52.9	
	comp=Z,62nm,1.4s						
CTAO	**Charters Tower**	**61.17**	**94**	P	**P**	**21 19 48.3**	**+0.9**
	comp=Z,35nm,1.6s						
MHTO	**MHTO**	**61.20**	**339**	P	**P**	**21 19 47.3**	**-0.1**
MHTO				S	**S**	**21 28 07.8**	**+0.7**
BRDH	**Bariadhala**	**61.34**	**15**	LR	LR	21 45 35.7	
	comp=Z,8µm,18.4s,baz=173,slow=35						
SAIH	**SAIHA**	**61.44**	**16**	*e*P	**P**	**21 19 46.8**	**-2.3**
SAIH				IAmb	IAmb	21 19 51.5	
	comp=Z,68nm,1.0s						
AUTOO	**Toowoomba Stat**	**61.80**	**104**	P	**P**	**21 19 54.0**	**+2.3**
JLN	**Jalan Bani Buh**	**61.91**	**341**	P	**P**	**21 19 52.5**	**+0.4**
JLN				S	**S**	**21 28 16.1**	**+0.1**
GUNA	**GUNA**	**61.91**	**359**	*e*P	**P**	**21 19 48.5**	**-3.7**
TV1H	**Townsville Har**	**62.04**	**94**	P	**P**	**21 19 55.7**	**+2.4**
EIDS	**Eidsvold**	**62.21**	**102**	P	**P**	**21 19 53.9**	**-0.4**
	comp=Z,39nm,1.0s,comp=Z,0.0nm,16.8s						
EIDS	**Eidsvold**	**62.21**	**102**		**P**	**21 19 52.7**	**-1.7**
EIDS	**Eidsvold**	**62.21**	**102**	P	**P**	**21 19 53.6**	**-0.8**
	comp=Z,39nm,1.0s						
AGT	**Agartala**	**62.44**	**14**	*e*P	**P**	**21 19 53.9**	**-1.7**
GAYA	**Gaya**	**62.45**	**8**	*e*P	**P**	**21 19 55.0**	**-0.7**
WBK	**Wadi Bani Khal**	**62.47**	**340**	P	**P**	**21 19 57.8**	**+1.9**
WBK				S	**S**	**21 28 24.7**	**+1.7**
JMDO	**Jabal Madar**	**62.48**	**339**	P	**P**	**21 19 57.7**	**+1.8**
JMDO				S	**S**	**21 28 24.8**	**+1.7**
AZL	**Aizawl**	**62.58**	**15**	*e*P	**P**	**21 19 54.4**	**-2.4**
ALBI	**Allahabad**	**62.68**	**4**	*e*P	**P**	**21 19 55.1**	**-2.1**
JMUI	**Jamui**	**62.69**	**9**	*e*P	P	21 19 52.3	-5.0
JMUI				IAmb	IAmb	21 20 07.6	
	comp=Z,45nm,1.3s						
JHNI	**Jhansi**	**62.72**	**1**	*e*P	**P**	**21 19 55.2**	**-2.2**
JHNI				IAmb	IAmb	21 19 59.1	
	comp=Z,24nm,0.8s						
BNDA	**BANDA**	**62.78**	**3**	*e*P	**P**	**21 19 57.8**	**-0.1**
AUNRC	**North Rockhamp**	**62.82**	**99**	P	**P**	**21 20 00.0**	**+1.6**
DAV	**Davao City (W)**	**62.87**	**56**	LR	LR	21 46 05.7	
	comp=Z,810nm,20.4s,baz=208,slow=35						
AUBSH	**Beerwah State**	**62.90**	**104**	P	**P**	**21 20 00.3**	**+1.4**
GD1S	**Gladstone Soft**	**63.06**	**100**	P	**P**	**21 20 02.1**	**+2.1**
BSY	**Bisya**	**63.09**	**339**	P	**P**	**21 19 59.7**	**-0.3**
BSY				S	**S**	**21 28 31.8**	**+1.0**
SMDO	**Samad**	**63.15**	**340**	P	**P**	**21 20 01.6**	**+1.1**
	SNR=10						
SMDO				S	**S**	**21 28 32.7**	**+1.0**
WSAR	**Wadi Sarin**	**63.16**	**340**	LR	LR	21 41 58.1	
	comp=Z,12nm,19.5s,baz=171,slow=31						
WSAR	**Wadi Sarin**	**63.16**	**340**	P	**P**	**21 20 01.0**	**+0.6**
WSAR				S	**S**	**21 28 31.8**	**+0.1**
PYZ	**Puysegur Point**	**63.38**	**129**	P	**P**	**21 20 00.3**	**-1.5**
PYZ				IAMs_20	IAMs_20	21 40 58.5	
	comp=Z,7µm,22.0s						
MORE	**Moreh**	**63.42**	**17**	P	**P**	**21 19 59.8**	**-2.4**
MORE				IAmb	IAmb	21 20 10.2	
	comp=Z,48nm,0.9s						
SLVN	**Son La**	**63.54**	**27**	P	**P**	**21 20 04.1**	**+1.0**
SLVN	**Son La**	**63.54**	**27**	P	**P**	**21 20 01.7**	**-1.4**
SLVN				IAmb	IAmb	21 20 09.8	
	comp=Z,21nm,1.0s						
SLVN				IAMs_20	IAMs_20	21 44 39.5	
	comp=Z,5µm,20.0s						
SLVN	**Son La**	**63.54**	**27**	P	**P**	**21 20 03.1**	**0.0**
	comp=Z,28nm,1.6s						
BIDO	**Bidbid**	**63.56**	**340**	P	**P**	**21 20 04.6**	**+1.5**
	SNR=5.9						
BIDO				S	**S**	**21 28 38.4**	**+1.7**
UMZA	**Um Al Zommool**	**63.68**	**337**	P	**P**	**21 20 03.3**	**-0.6**
UMZA				S	**S**	**21 28 37.2**	**-0.9**
AJM	**Ajmer**	**63.75**	**357**	*e*P	**P**	**21 20 02.2**	**-2.1**
ARQ	**Araqi**	**63.84**	**338**	P	**P**	**21 20 05.7**	**+0.7**
ARQ				S	**S**	**21 28 41.7**	**+1.5**
HOQ	**Hoqain**	**63.85**	**339**	P	**P**	**21 20 05.8**	**+0.8**
	SNR=10						
HOQ				S	**S**	**21 28 40.8**	**+0.5**
QIZ	**Qiongzhong**	**63.87**	**34**	P	**P**	**21 20 06.4**	**+1.2**
QIZ				S	**S**	**21 28 44.4**	**+3.7**
QIZ				pmax	pmax		
	comp=Z,520nm,9.1s						
QIZ				L	L		
	comp=Z,3µm,22.0s						
QIZ				L	L		
	comp=Z,1µm,16.2s						
QIZ				L	L		
	comp=Z,5µm,21.2s						
IMP	**Imphal**	**63.91**	**16**	*e*P	**P**	**21 20 03.0**	**-2.5**
IMP				IAmb	IAmb	21 20 13.7	
	comp=Z,44nm,2.8s						
SHL	**Shillong**	**64.20**	**14**	P	**P**	**21 20 06.3**	**-1.2**
	SNR=17						
SHL	**Shillong**	**64.20**	**14**	P	**P**	**21 20 06.3**	**-1.2**
SHL	**Shillong**	**64.20**	**14**		**P**	**21 20 06.3**	**-1.2**
SHL	**Shillong**	**64.20**	**14**	*e*P	**P**	**21 20 05.4**	**-2.1**
SHL				IAmb	IAmb	21 20 12.4	
	comp=Z,36nm,1.4s						
WHZ	**Wether Hill Ro**	**64.29**	**129**	P	**P**	**21 20 07.0**	**-0.8**
WHZ				IAmb	IAmb	21 20 11.8	
	comp=Z,57nm,1.1s						
WHZ				IAMs_20	IAMs_20	21 41 36.6	
	comp=Z,6µm,20.0s						
DHUB	**DHUBRI**	**64.30**	**12**	*e*P	**P**	**21 20 05.8**	**-2.1**
COBR	**COOCHBEHAR**	**64.48**	**12**	*e*P	**P**	**21 20 06.3**	**-2.7**
MZR	**Muzera**	**64.49**	**335**	P	**P**	**21 20 08.8**	**-0.5**
	SNR=8.3						
MZR				S	**S**	**21 28 50.4**	**+2.2**
NGCH	**Negor - Chabah**	**64.56**	**343**	P	**P**	**21 20 10.2**	**+0.5**
NGCH				S	**S**	**21 28 53.2**	**+4.3**
SOHO	**SOHO**	**64.59**	**338**	P	**P**	**21 20 11.0**	**+1.1**
SOHO				S	**S**	**21 28 49.1**	**-0.3**
JPG	**JALPAIGURI**	**64.61**	**11**	*e*P	**P**	**21 20 07.8**	**-2.1**
JPG				IAmb	IAmb	21 20 23.5	
	comp=Z,35nm,0.5s						
MLZ	**Mavora Lakes**	**64.64**	**129**	P	**P**	**21 20 09.7**	**-0.5**
FRKB	**FARRUKHABAD**	**64.67**	**2**	*e*P	**P**	**21 20 08.8**	**-1.5**
ALNE	**Al Ain**	**64.75**	**338**	S	**S**	**21 28 52.1**	**+0.7**
KOHI	**KOHIMA**	**64.81**	**16**	*e*P	**P**	**21 20 09.2**	**-2.2**
KOHI				IAmb	IAmb	21 20 13.4	
	comp=Z,32nm,1.1s						
BRCI	**Bahraich**	**64.91**	**4**	*e*P	**P**	**21 20 13.2**	**+1.3**
MZWR	**Madinat Zayed**	**65.06**	**336**	P	**P**	**21 20 13.4**	**+0.4**
MZWR				S	**S**	**21 28 56.1**	**+0.9**
ASHO	**Ashiyiah**	**65.25**	**338**	P	**P**	**21 20 14.8**	**+0.5**
ASHO				S	**S**	**21 28 56.8**	**-0.8**
TNCH	**TengChong**	**65.25**	**21**	⇓P	**P**	**21 20 13.5**	**-0.9**
TNCH				pP	pP	21 20 18.1	+0.6
TNCH				sP	sP	21 20 21.0	+2.4
TNCH				PP	**PP**	**21 22 35.3**	**-3.0**
TNCH				S	**S**	**21 28 57.4**	**-0.5**
TNCH				sS	sS	21 29 08.0	+5.0
TNCH				pmax	pmax		
	comp=Z,62nm,1.3s						
TNCH				pmax	pmax		
	comp=Z,450nm,3.1s						
TNCH				L	L		
	comp=Z,2µm,23.4s						
TNCH				L	L		
	comp=Z,2µm,19.9s						
TNCH				L	L		
	comp=Z,9µm,28.5s						
HATD	**Hatta, Dubai**	**65.36**	**338**	P	**P**	**21 20 14.5**	**-0.4**
HATD				S	**S**	**21 28 56.6**	**-2.4**
TEZP	**TEZPUR**	**65.40**	**15**	*e*P	**P**	**21 20 12.5**	**-2.5**
TEZP				IAmb	IAmb	21 20 16.7	
	comp=Z,32nm,1.0s						
KUDL	**Kundal**	**65.41**	**359**	*e*P	**P**	**21 20 14.6**	**-0.5**
BKNR	**BIKANER**	**65.41**	**356**	*e*P	**P**	**21 20 14.3**	**-0.9**
ASUD	**Al Ashush, Dub**	**65.42**	**337**	P	**P**	**21 20 16.6**	**+1.4**
ASUD				S	**S**	**21 29 00.8**	**+1.3**
FAQ	**Al Faqa, Dubai**	**65.45**	**338**	P	**P**	**21 20 15.8**	**+0.4**
FAQ				S	**S**	**21 29 00.1**	**+0.1**
UOSS	**Minazif**	**65.45**	**338**	P	**P**	**21 20 17.7**	**+2.2**
UOSS				S	**S**	**21 28 58.1**	**-1.9**
UOSS	**Minazif**	**65.45**	**338**	P	**P**	**21 20 13.7**	**-1.8**
AJN	**Ajban**	**65.46**	**337**	P	**P**	**21 20 15.4**	**-0.1**
AJN				S	**S**	**21 29 00.6**	**+0.6**
MOKO	**MOKOCHONG**	**65.48**	**16**	*e*P	**P**	**21 20 14.7**	**-1.1**
MOKO				IAmb	IAmb	21 20 28.4	
	comp=Z,32nm,0.8s						
GHWR	**Ruwais**	**65.59**	**335**	P	**P**	**21 20 18.8**	**+2.4**
GHWR				S	**S**	**21 29 02.9**	**+1.3**
NAZ	**Nazwa, Dubai**	**65.66**	**338**	P	**P**	**21 20 17.6**	**+0.8**
NAZ				S	**S**	**21 29 01.4**	**-1.1**
EVN	**Everest**	**65.75**	**9**	P	**P**	**21 20 16.4**	**-1.7**
EVN				IAmb	IAmb	21 20 29.3	
	comp=Z,67nm,1.3s						
EVN	**Everest**	**65.75**	**9**	P	**P**	**21 20 17.1**	**-1.0**
	comp=Z,41nm,1.4s						
MDH	**Madha**	**65.76**	**339**	P	**P**	**21 20 19.4**	**+2.0**
MDH				S	**S**	**21 29 01.5**	**-2.2**
JMIU	**JAMIA UNIVERSI**	**65.82**	**359**	*e*P	**P**	**21 20 16.0**	**-1.7**
JASK	**Jask - Hormozg**	**65.86**	**340**	P	**P**	**21 20 17.9**	**-0.3**
JASK				S	**S**	**21 29 06.6**	**+1.6**
MASF	**Masafi**	**65.87**	**339**	P	**P**	**21 20 16.8**	**-1.4**
MASF				S	**S**	**21 29 04.2**	**-0.9**
ASOR	**Ausora**	**66.00**	**360**	*e*P	**P**	**21 20 17.0**	**-2.0**
ASOR				IAmb	IAmb	21 20 21.2	
	comp=Z,33nm,0.4s						
SLWR	**Sila**	**66.09**	**334**	P	**P**	**21 20 19.4**	**-0.2**
SLWR				S	**S**	**21 29 09.8**	**+2.0**
UMQ	**Umm Al-Quwin**	**66.16**	**338**	S	**S**	**21 29 10.2**	**+1.6**
TAWA	**Tawang**	**66.17**	**14**	*e*P	**P**	**21 20 18.0**	**-2.5**
TAWA				IAmb	IAmb	21 20 22.9	
	comp=Z,30nm,0.7s						
BANOM	**Banah**	**66.35**	**339**	P	**P**	**21 20 22.3**	**+1.0**
BANOM				S	**S**	**21 29 09.4**	**-1.6**
ODZ	**Otahua Downs**	**66.36**	**129**	IAMs_20	IAMs_20	21 43 01.4	
	comp=Z,6µm,19.0s						
GNR	**GANAUR**	**66.38**	**359**	*e*P	**P**	**21 20 18.1**	**-3.3**
ZIRO	**ZIRO**	**66.50**	**15**	*e*P	**P**	**21 20 20.0**	**-2.3**
ZIRO				IAmb	IAmb	21 20 24.0	
	comp=Z,23nm,0.9s						
JRN	**Qarnain Island**	**66.50**	**335**	P	**P**	**21 20 20.2**	**-2.0**
JRN				S	**S**	**21 29 13.5**	**+0.8**
SHME	**Shamm**	**66.52**	**339**	P	**P**	**21 20 19.8**	**-2.5**
SHME				S	**S**	**21 29 11.7**	**-1.2**
FOZ	**Fox Glacier**	**66.60**	**128**	IAMs_20	IAMs_20	21 42 28.8	
	comp=Z,7µm,22.0s						
KMI2	**Kunming**	**66.66**	**25**	⇓P	**P**	**21 20 23.1**	**-0.4**
KMI2				S	**S**	**21 29 15.6**	**+0.5**
KMI2				SKS	**ScS**	**21 30 21.6**	**+0.9**
KMI2				pmax	pmax		
	comp=Z,30nm,1.1s						
KMI2				pmax	pmax		
	comp=Z,640nm,8.0s						
KMI2				L	L		
	comp=Z,4µm,17.6s						
KMI2				L	L		
	comp=Z,2µm,15.3s						
KMI2				L	L		
	comp=Z,4µm,17.8s						
PTH	**Pithoragarh**	**66.87**	**2**	*e*P	**P**	**21 20 22.2**	**-2.5**
PTH				IAmb	IAmb	21 20 29.1	
	comp=Z,29nm,1.5s						
SRGN	**SRI GANGA NAGA**	**67.27**	**356**	*e*P	**P**	**21 20 23.4**	**-3.6**
SRGN				IAmb	IAmb	21 20 25.3	
	comp=Z,26nm,0.3s						
RPZ	**Rata Peaks**	**67.28**	**128**	LR	LR	21 43 40.5	
	comp=Z,3µm,19.9s,baz=229,slow=30						
RPZ	**Rata Peaks**	**67.28**	**128**	P	**P**	**21 20 26.3**	**-0.9**
RPZ				IAmb	IAmb	21 20 29.1	
	comp=Z,42nm,1.1s						
PZH	**PanZhiHua**	**67.59**	**23**	P	**P**	**21 20 32.3**	**+3.0**
PZH				S	**S**	**21 29 28.0**	**+1.8**
PZH				SS	**SS**	**21 33 49.6**	**+2.0**
PZH				pmax	pmax		
	comp=Z,30nm,0.9s						
PZH				pmax	pmax		
	comp=Z,360nm,5.3s						
PZH				L	L		
	comp=Z,1µm,17.8s						
PZH				L	L		
	comp=Z,1µm,15.1s						
PZH				L	L		
	comp=Z,2µm,17.9s						
JOSI	**Joshimath**	**67.82**	**2**	*e*P	**P**	**21 20 28.0**	**-2.7**
JOSI				IAmb	IAmb	21 20 40.5	
	comp=Z,21nm,1.1s						
PMG	**Port Moresby**	**67.94**	**85**	LR	LR	21 49 44.1	
	comp=Z,6µm,18.1s,baz=231,slow=36						
PMG	**Port Moresby**	**67.94**	**85**	P	**P**	**21 20 34.3**	**+2.6**
PMG	**Port Moresby**	**67.94**	**85**	*e*P	**P**	**21 20 30.6**	**-1.1**
PMG				pmax	pmax		
	comp=Z,104nm,1.8s						
PMG	**Port Moresby**	**67.94**	**85**	P	**P**	**21 20 30.8**	**-0.9**
PMG	**Port Moresby**	**67.94**	**85**	P	**P**	**21 20 33.7**	**+2.0**
	comp=Z,47nm,1.2s						
RAYN	**Ar Rayn**	**67.99**	**328**	P	**P**	**21 20 32.2**	**+0.5**
RAYN				S	**S**	**21 29 33.1**	**+2.3**
RAYN	**Ar Rayn**	**67.99**	**328**	P	**P**	**21 20 30.9**	**-0.9**
RAYN				pmax	pmax		
	comp=Z,20nm,1.0s						
RAYN				MLR	MLR		
	comp=Z,4µm,20.0s						
RAYN	**Ar Rayn**	**67.99**	**328**	P	**P**	**21 20 30.9**	**-0.9**
RAYN				IAmb	IAmb	21 20 37.5	
	comp=Z,20nm,0.9s						
RAYN	**Ar Rayn**	**67.99**	**328**	IAMs_20	IAMs_20	21 44 34.8	
	comp=Z,4µm,20.0s						
RAYN	**Ar Rayn**	**67.99**	**328**	P	**P**	**21 20 32.0**	**+0.3**
	comp=Z,35nm,1.4s						
INZ	**Inchbonnie**	**68.04**	**128**	P	**P**	**21 20 30.4**	**-1.5**
INZ				IAMs_20	IAMs_20	21 44 00.9	
	comp=Z,6µm,20.0s						
LSA	**Lhasa**	**68.09**	**12**	P	**P**	**21 20 32.3**	**-0.5**
LSA	**Lhasa**	**68.09**	**12**	P	**P**	**21 20 31.4**	**-1.4**
LSA				pmax	pmax		
	comp=Z,32nm,1.1s						
LSA				MLR	MLR		
	comp=Z,7µm,20.0s						
LSA	**Lhasa**	**68.09**	**12**	P	**P**	**21 20 31.4**	**-1.4**
LSA				IAmb	IAmb	21 20 39.4	
	comp=Z,32nm,1.1s						
OXZ	**Oxford**	**68.10**	**128**	P	**P**	**21 20 31.8**	**-0.5**
SAKB	**Bahrain**	**68.25**	**334**	P	**P**	**21 20 34.3**	**+1.0**
SAKB				S	**S**	**21 29 34.3**	**+0.6**
BHK	**Bhakra**	**68.65**	**359**	*e*P	**P**	**21 20 33.4**	**-2.3**
HKPS	**Hong Kong Po S**	**68.65**	**36**	IAMs_20	IAMs_20	21 47 21.1	
	comp=Z,4µm,20.0s						
KLP	**Kalpa**	**68.77**	**0**	*e*P	**P**	**21 20 34.5**	**-2.3**
KLP				IAmb	IAmb	21 20 38.8	
	comp=Z,33nm,1.7s						
DSZ	**Denniston Nort**	**68.78**	**127**	IAMs_20	IAMs_20	21 45 02.5	
	comp=Z,5µm,19.0s						
GYA	**Guiyang**	**69.22**	**28**	⇑P	**P**	**21 20 39.5**	**0.0**
GYA				PP	**PP**	**21 23 15.3**	**+2.4**
GYA				S	**S**	**21 29 47.5**	**+1.9**
GYA				pmax	pmax		
	comp=Z,40nm,1.1s						
GYA				pmax	pmax		
	comp=Z,680nm,4.5s						
GYA				L	L		
	comp=Z,2µm,22.6s						
GYA				L	L		
	comp=Z,880nm,11.3s						
GYA				L	L		
	comp=Z,3µm,26.4s						
THZ	**Tophouse**	**69.47**	**127**	IAMs_20	IAMs_20	21 44 51.7	
	comp=Z,5µm,20.0s						
KHZ	**Kahutara**	**69.51**	**128**	P	**P**	**21 20 39.6**	**-1.5**
KHZ				IAmb	IAmb	21 20 45.4	
	comp=Z,58nm,1.1s						
KHZ	**Kahutara**	**69.51**	**128**	P	**P**	**21 20 40.8**	**-0.3**
	comp=Z,52nm,1.3s						
GULI	**GuiLin**	**69.62**	**31**	⇓P	**P**	**21 20 39.5**	**-2.3**
GULI				S	**S**	**21 29 50.8**	**+0.7**
GULI				pmax	pmax		
	comp=Z,36nm,1.1s						
GULI				pmax	pmax		
	comp=Z,450nm,5.2s						
GULI				L	L		
	comp=Z,3µm,17.8s						
GULI				L	L		
	comp=Z,2µm,18.6s						
GULI				L	L		
	comp=Z,4µm,18.3s						
QRZ	**Quartz Range**	**69.73**	**126**	IAMs_20	IAMs_20	21 44 06.6	
	comp=Z,4µm,21.0s						
NNZ	**Nelson**	**70.06**	**127**	IAMs_20	IAMs_20	21 45 00.4	
	comp=Z,4µm,20.0s						
JMU	**Jammu**	**70.07**	**357**	*e*P	**P**	**21 20 42.5**	**-1.9**
JMU				IAmb	IAmb	21 20 46.3	
	comp=Z,22nm,1.0s						
TSSA	**Tissa**	**70.09**	**358**	*e*P	**P**	**21 20 42.1**	**-2.7**
TSSA				IAmb	IAmb	21 20 45.8	
	comp=Z,22nm,0.9s						
BSWZ	**Blackbirch Sta**	**70.10**	**128**	P	**P**	**21 20 44.1**	**-0.7**
NIL	**Nilore**	**71.01**	**356**	P	**P**	**21 20 49.0**	**-1.2**
NIL				S	**S**	**21 30 06.5**	**+0.4**
NIL	**Nilore**	**71.01**	**356**	P	**P**	**21 20 48.3**	**-1.9**
NIL				pmax	pmax		
	comp=Z,22nm,1.1s						
NIL				MLR	MLR		
	comp=Z,4µm,18.0s						
NIL	**Nilore**	**71.01**	**356**	P	**P**	**21 20 48.3**	**-1.9**
NIL	**Nilore**	**71.01**	**356**	IAMs_20	IAMs_20	21 50 45.5	
	comp=Z,4µm,18.0s						
NIL	**Nilore**	**71.01**	**356**	P	**P**	**21 20 48.7**	**-1.5**
	comp=Z,26nm,1.3s						
SMAI	**San Martin Ant**	**71.36**	**193**	P	**P**	**21 20 52.5**	**+0.5**
SMAI				IAmb	IAmb	21 20 57.1	
	comp=Z,32nm,1.2s						
ALCI	**Alchi Leh**	**71.45**	**359**	*e*P	**P**	**21 20 50.1**	**-3.1**
BFZ	**Birch Farm**	**72.16**	**128**	P	**P**	**21 20 58.5**	**+1.2**
BFZ	**Birch Farm**	**72.16**	**128**	IAMs_20	IAMs_20	21 47 13.1	
	comp=Z,5µm,18.0s						
KBL	**Kabul**	**72.24**	**352**	P	**P**	**21 20 57.5**	**-0.3**
	SNR=31						
KBL				S	**S**	**21 30 21.4**	**+0.8**
KBL	**Kabul**	**72.24**	**352**	P	**P**	**21 20 56.7**	**-1.1**
KBL				pmax	pmax		
	comp=Z,105nm,1.5s						
KBL	**Kabul**	**72.24**	**352**		**P**	**21 20 56.7**	**-1.1**
KBL	**Kabul**	**72.24**	**352**	P	**P**	**21 20 57.2**	**-0.6**
	comp=Z,43nm,1.3s						
CD2	**Chengdu**	**72.33**	**23**	P	**P**	**21 20 57.3**	**-0.9**
CD2				S	**S**	**21 30 23.0**	**+1.6**
CD2				pmax	pmax		
	comp=Z,80nm,1.3s						
CD2				pmax	pmax		
	comp=Z,640nm,5.1s						
CD2				L	L		
	comp=Z,3µm,17.6s						
CD2				L	L		
	comp=Z,4µm,18.8s						
CD2				L	L		
	comp=Z,4µm,19.2s						
HOPE	**Hope Point**	**72.53**	**214**	*i* P	**P**	**21 20 59.2**	**0.0**
TWG	**Pinlang**	**72.55**	**41**	P	**P**	**21 20 58.8**	**-0.9**
TWGBT	**Beinan**	**72.56**	**41**	P	**P**	**21 21 00.5**	**+0.8**
QZH2	**Quanzhou**	**73.05**	**38**	*e*P	**P**	**21 21 04.8**	**+2.2**
QZH2				S	**SKiKP**	**21 30 33.3**	**-2.0**
QZH2				SKS	**SKSac**	**21 31 08.6**	**+0.3**
QZH2				L	L		

	comp=Z,4µm,15.1s						
QZH2				L	L		
	comp=Z,1µm,14.8s						
QZH2				L	L		
	comp=Z,4µm,18.2s						
YULB	**Yu-li**	**73.14**	**41**	P	**P**	**21 21 04.8**	**+1.6**
YULB	**Yu-li**	**73.14**	**41**		**P**	**21 21 01.4**	**-1.7**
YULB				IAmb	IAmb	21 21 09.3	
	comp=Z,84nm,1.8s						
BKZ	**Black Stump Fm**	**73.18**	**127**	P	**P**	**21 21 04.9**	**+1.4**
CNSH	**ChangSha**	**73.24**	**32**	P	**P**	**21 21 03.3**	**-0.3**
CNSH				S	**SKiKP**	**21 30 34.4**	**-1.0**
CNSH				pmax	pmax		
	comp=Z,19nm,1.4s						
CNSH				L	L		
	comp=Z,2µm,21.3s						
CNSH				L	L		
	comp=Z,1µm,22.7s						
CNSH				L	L		
	comp=Z,3µm,26.2s						
SSLB	**Suanglung**	**73.28**	**41**	P	**P**	**21 21 05.7**	**+1.7**
SSLB	**Suanglung**	**73.28**	**41**	P	**P**	**21 21 07.3**	**+3.2**
	comp=Z,47nm,1.2s						
OUZ	**Omahuta**	**73.52**	**122**	IAMs_20	IAMs_20	21 47 54.2	
	comp=Z,4µm,19.0s						
PMSA	**Palmer Station**	**73.68**	**196**	LR	LR	21 50 38.6	
	comp=Z,2µm,21.7s,baz=160,slow=34						
ENH	**Enshi**	**73.72**	**28**	P	**P**	**21 21 06.5**	**0.0**
ENH	**Enshi**	**73.72**	**28**	P	**P**	**21 21 05.2**	**-1.3**
RTZ	**Ruatahuna**	**73.81**	**126**	IAMs_20	IAMs_20	21 48 51.6	
	comp=Z,4µm,18.0s						
URZ	**Urewera**	**74.10**	**126**	LR	LR	21 48 46.4	
	comp=Z,4µm,19.0s,baz=229,slow=32						
URZ	**Urewera**	**74.10**	**126**	P	**P**	**21 21 06.9**	**-1.9**
	comp=Z,45nm,1.3s						
KRVT	**Keravat (AS076**	**74.85**	**84**	LR	LR	21 53 15.8	
	comp=Z,2µm,19.1s,baz=248,slow=35						
EDA	**Edea**	**74.87**	**287**		**P**	**21 21 12.4**	**-1.1**
EDA				IAmb	IAmb	21 21 19.4	
	comp=Z,31nm,1.2s						
GOMU	**GeErMu**	**75.09**	**14**	P	**P**	**21 21 14.3**	**-0.4**
GOMU				pP	pP	21 21 17.6	-0.2
GOMU				sP	sP	21 21 22.3	+3.4
GOMU				S	**S**	**21 30 52.8**	**-0.2**
GOMU				SS	**SS**	**21 35 48.0**	**+5.1**
GOMU				pmax	pmax		
	comp=Z,4.0nm,0.5s						
GOMU				L	L		
	comp=Z,3µm,16.9s						
GOMU				L	L		
	comp=Z,2µm,16.8s						
GOMU				L	L		
	comp=Z,4µm,16.8s						
ONTNC	**Ouen Toro**	**75.69**	**107**	IAMs_20	IAMs_20	21 52 42.1	
	comp=Z,5µm,18.0s						
DZM	**Mont Dzumac**	**75.81**	**107**	LR	LR	21 49 56.6	
	comp=Z,4µm,19.2s,baz=212,slow=32						
WHN	**Wuhan**	**75.89**	**32**	P	**P**	**21 21 18.3**	**-0.7**
WHN				S	**S**	**21 31 03.3**	**+1.9**
WHN				pmax	pmax		
	comp=Z,170nm,1.3s						
WHN				pmax	pmax		
	comp=Z,1µm,4.3s						
WHN				L	L		
	comp=Z,4µm,13.6s						
WHN				L	L		
	comp=Z,3µm,13.2s						
WHN				L	L		
	comp=Z,15µm,24.2s						
OUENC	**Ouen Island, N**	**75.92**	**107**	P	**P**	**21 21 18.8**	**-0.7**
YATNC	**Mamie plateau,**	**76.16**	**107**	P	**P**	**21 21 23.2**	**+2.3**
KSH2	**Kashi**	**76.39**	**358**	P	**P**	**21 21 20.3**	**-1.6**
KSH2				pP	pP	21 21 25.3	+0.4
KSH2				S	**S**	**21 30 58.5**	**-8.4**
KSH2				SS	**SS**	**21 36 02.3**	**+0.1**
KSH2				pmax	pmax		
	comp=Z,15nm,1.0s						
KSH2				L	L		
	comp=Z,4µm,22.6s						
KSH2				L	L		
	comp=Z,2µm,19.1s						
KSH2				L	L		
	comp=Z,5µm,24.3s						
DRK	**Karamyk**	**76.90**	**355**	P	**P**	**21 21 23.8**	**-1.1**
DRK				pmax	pmax		
	comp=Z,71nm,0.3s						
DRK	**Karamyk**	**76.90**	**355**	P	**P**	**21 21 23.8**	**-1.1**
XAN	**Xi'an**	**76.91**	**26**	⇓P	**P**	**21 21 23.4**	**-1.4**
XAN				S	**S**	**21 31 07.5**	**-5.0**
XAN				pmax	pmax		
	comp=Z,53nm,1.1s						
XAN				pmax	pmax		
	comp=Z,640nm,4.9s						
XAN				L	L		
	comp=Z,2µm,19.9s						
XAN				L	L		
	comp=Z,3µm,19.2s						
XAN				L	L		
	comp=Z,3µm,20.6s						
LZDM	**Lanzhou Array**	**77.00**	**21**	P	**P**	**21 21 24.9**	**-0.6**
	comp=Z,27nm,1.0s,baz=188,slow=6.0,SNR=10						
LZDM				LR	LR	21 52 27.4	
	comp=Z,3µm,21.8s,baz=220,slow=34						
	comp=Z,27nm,1.0s						
LZH	**Lanzhou**	**77.17**	**21**	*e*P	**P**	**21 21 25.6**	**-0.7**
LZH				sP	PcP	21 21 34.9	-2.1
LZH				S	**S**	**21 31 16.8**	**+1.3**
LZH				pmax	pmax		
	comp=Z,40nm,1.5s						
LZH				pmax	pmax		
	comp=Z,430nm,5.0s						
LZH				L	L		
	comp=Z,4µm,16.5s						
LZH				L	L		
	comp=Z,2µm,14.9s						
LZH				L	L		
	comp=Z,6µm,20.0s						
BTK	**Batken**	**77.55**	**354**	P	**P**	**21 21 27.3**	**-0.9**
BTK				pmax	pmax		
	comp=Z,42nm,1.0s						
BTK	**Batken**	**77.55**	**354**		**P**	**21 21 27.3**	**-0.9**
BTK				IAmb	IAmb	21 21 39.0	
	comp=Z,42nm,1.0s						
EIL	**Elat**	**78.04**	**323**	P	**P**	**21 21 31.1**	**-0.1**
	comp=Z,18nm,0.8s,baz=334,slow=2.6,SNR=14						
EIL				LR	LR	21 51 39.8	
	comp=Z,1µm,19.4s,baz=173,slow=32						
	comp=Z,18nm,0.8s						
EIL	**Elat**	**78.04**	**323**	P	**P**	**21 21 31.4**	**+0.2**
	comp=Z,35nm,1.1s						
HNR	**Honiara**	**78.07**	**93**	LR	LR	21 52 44.7	
	comp=Z,5µm,20.9s,baz=344,slow=33						
HNR	**Honiara**	**78.07**	**93**	P	**P**	**21 21 33.4**	**+1.7**
HNR	**Honiara**	**78.07**	**93**	P	**P**	**21 21 30.3**	**-1.4**
HNR				pmax	pmax		
	comp=Z,371nm,1.3s						
HNR				MLR	MLR		
	comp=Z,7µm,22.0s						
HNR	**Honiara**	**78.07**	**93**	P	**P**	**21 21 30.3**	**-1.4**
HNR	**Honiara**	**78.07**	**93**	P	**P**	**21 21 33.8**	**+2.0**
	comp=Z,239nm,1.5s						
SAVO	**Savo Central**	**78.13**	**92**	P	**P**	**21 21 33.6**	**+1.5**
ASAI	**AK-SAY(Kyrgyzs**	**78.15**	**359**	P	**P**	**21 21 31.7**	**-0.1**
	comp=Z,20nm,1.8s						
HRFI	**Mount Harif**	**78.31**	**323**	P	**P**	**21 21 33.0**	**+0.4**
	comp=Z,38nm,1.4s						
WUS	**Wushi**	**78.43**	**1**	P	**P**	**21 21 31.4**	**-1.8**
WUS	**Wushi**	**78.43**	**1**	IAMs_20	IAMs_20	21 52 50.7	
	comp=Z,4µm,21.0s						
TATA	**Tatamba Isabel**	**78.58**	**92**	P	**P**	**21 21 35.8**	**+1.3**
LYN	**LuoYang**	**78.66**	**29**	P	**P**	**21 21 34.3**	**-0.1**
LYN				S	**S**	**21 31 32.3**	**+1.0**
LYN				pmax	pmax		
	comp=Z,61nm,1.8s						
LYN				pmax	pmax		
	comp=Z,840nm,5.8s						
LYN				L	L		
	comp=Z,5µm,19.6s						
LYN				L	L		
	comp=Z,2µm,17.2s						
LYN				L	L		
	comp=Z,5µm,21.6s						
ARSB	**Arslanbob**	**78.67**	**356**	P	**P**	**21 21 33.5**	**-1.0**
ARSB				pmax	pmax		
	comp=Z,84nm,1.4s						
ARSB	**Arslanbob**	**78.67**	**356**	P	**P**	**21 21 33.5**	**-1.0**
ARSB				IAmb	IAmb	21 21 47.5	
	comp=Z,84nm,1.4s						
TARG	**Taragay, Kyrgy**	**78.95**	**360**	P	**P**	**21 21 35.2**	**-1.2**
TARG				pmax	pmax		
	comp=Z,16nm,1.2s						
TARG	**Taragay, Kyrgy**	**78.95**	**360**	P	**P**	**21 21 35.2**	**-1.2**
TARG	**Taragay, Kyrgy**	**78.95**	**360**	P	**P**	**21 21 37.2**	**+0.9**
	comp=Z,12nm,1.2s						
GHAJ	**Ghor Haditha**	**79.11**	**324**	P	**P**	**21 21 36.1**	**-0.9**
GHAJ				IAmb	IAmb	21 21 46.1	
	comp=Z,60nm,1.2s						
GHAJ	**Ghor Haditha**	**79.11**	**324**	P	**P**	**21 21 38.0**	**+1.0**
	comp=Z,29nm,1.1s						
NJ2	**Nanjing**	**79.15**	**35**	⇑P	**P**	**21 21 38.1**	**+0.9**
NJ2				S	**S**	**21 31 39.3**	**+2.7**
NJ2				ScS	**ScS**	**21 32 00.3**	**+0.8**
NJ2				pmax	pmax		
	comp=Z,12nm,0.7s						
NJ2				pmax	pmax		
	comp=Z,490nm,4.8s						
NJ2				L	L		
	comp=Z,3µm,19.9s						
NJ2				L	L		
	comp=Z,2µm,17.5s						
NJ2				L	L		
	comp=Z,5µm,19.6s						
ASF	**Jabal al Asfar**	**79.23**	**326**	P	**P**	**21 21 37.3**	**-0.5**
	comp=Z,17nm,0.8s,baz=138,slow=3.5,SNR=26						
ASF				LR	LR	21 51 01.2	
	comp=Z,2µm,21.9s,baz=155,slow=31						
	comp=Z,17nm,0.8s						
GTA2	**Gaotai**	**79.31**	**17**	*e*P	**P**	**21 21 37.5**	**-0.5**
GTA2				S	**S**	**21 31 36.4**	**-1.9**
GTA2				SS	**SS**	**21 36 50.6**	**+4.5**
GTA2				pmax	pmax		
	comp=Z,500nm,7.9s						
GTA2				L	L		
	comp=Z,2µm,23.2s						
GTA2				L	L		
	comp=Z,2µm,23.2s						
GTA2				L	L		
	comp=Z,2µm,24.1s						
KZIT	**Kziot**	**79.33**	**323**	P	**P**	**21 21 38.9**	**+0.7**
	comp=Z,51nm,0.9s						
SSE	**Sheshan**	**79.43**	**37**	P	**P**	**21 21 40.5**	**+1.8**
SSE				S	**S**	**21 31 42.6**	**+3.0**
SSE				SS	**SS**	**21 36 53.0**	**+5.2**
SSE				pmax	pmax		
	comp=Z,15nm,1.0s						
SSE				pmax	pmax		
	comp=Z,200nm,4.7s						
SSE				L	L		
	comp=Z,770nm,22.5s						
JOW	**Kunigami**	**79.66**	**44**	LR	LR	21 51 17.4	
	comp=Z,644nm,21.9s,baz=202,slow=32						
IUG	**Iuzhnay**	**79.69**	**354**	*c i*P	**P**	**21 21 40.9**	**+0.9**
IUG				*e*S	**S**	**21 31 43.8**	**+1.7**
IUG				pmax	pmax		
	comp=Z,72nm,2.6s						
IUG	**Iuzhnay**	**79.69**	**354**	⇑*i*P	**P**	**21 21 40.9**	**+0.9**
	comp=Z,72nm,2.6s						
IUG				*e*S	**S**	**21 31 43.9**	**+1.7**
BOOM	**Boomskoye usch**	**79.73**	**359**	P	**P**	**21 21 39.4**	**-0.9**
BOOM	**Boomskoye usch**	**79.73**	**359**	P	**P**	**21 21 39.4**	**-0.9**
CHM	**Chimkent**	**79.89**	**354**	*e*P	**P**	**21 21 42.1**	**+1.1**
CHM				pmax	pmax		
	comp=Z,27nm,1.3s						
CHM	**Chimkent**	**79.89**	**354**	*e*P	**P**	**21 21 42.1**	**+1.1**
	comp=Z,26nm,1.3s						
AAK	**Ala-Archa**	**79.91**	**357**	P	**P**	**21 21 41.7**	**+0.4**
	comp=Z,7.2nm,0.8s,baz=192,slow=5.8,SNR=11						
AAK				LR	LR	21 53 43.2	
	comp=Z,5µm,20.4s,baz=176,slow=33						
	comp=Z,7.2nm,0.8s						
AAK	**Ala-Archa**	**79.91**	**357**	P	**P**	**21 21 41.1**	**-0.2**
AAK				S	**S**	**21 31 44.6**	**0.0**
AAK	**Ala-Archa**	**79.91**	**357**	*ce*P	**P**	**21 21 41.5**	**+0.2**
AAK				pmax	pmax		
	comp=Z,42nm,2.5s						
AAK	**Ala-Archa**	**79.91**	**357**	P	**P**	**21 21 40.4**	**-0.9**
AAK	**Ala-Archa**	**79.91**	**357**	IAMs_20	IAMs_20	21 53 32.2	
	comp=Z,5µm,21.0s						
AAK	**Ala-Archa**	**79.91**	**357**	P	**P**	**21 21 41.0**	**-0.3**
	comp=Z,29nm,2.1s						
SANVU	**Saraoutou**	**80.24**	**102**	P	**P**	**21 21 45.9**	**+2.3**
SANVU	**Saraoutou**	**80.24**	**102**	P	**P**	**21 21 43.0**	**-0.6**
SANVU				IAMs_20	IAMs_20	21 52 56.1	
	comp=Z,4µm,21.0s						
SANVU	**Saraoutou**	**80.24**	**102**	P	**P**	**21 21 44.9**	**+1.2**
	comp=Z,128nm,1.2s						
TNSS	**Tian-Shan**	**80.26**	**359**	*e*P	**P**	**21 21 43.9**	**+0.5**
TNSS	**Tian-Shan**	**80.26**	**359**	*e*P	**P**	**21 21 44.0**	**+0.5**
DZA	**Taraz**	**80.33**	**355**	*e*P	**P**	**21 21 44.3**	**+1.0**
DZA	**Taraz**	**80.33**	**355**	*e*P	**P**	**21 21 44.4**	**+1.0**
UZB	**Uzynbulak**	**80.37**	**1**	*c i*P	**P**	**21 21 44.4**	**+0.7**
UZB				*e*S	**S**	**21 31 50.8**	**+1.4**
UZB	**Uzynbulak**	**80.37**	**1**	⇑*i*P	**P**	**21 21 44.5**	**+0.7**
UZB				*e*S	**S**	**21 31 50.8**	**+1.4**
MDOK	**Medeo**	**80.38**	**359**	*e*P	**P**	**21 21 44.6**	**+0.8**
MDOK				*e*S	**S**	**21 31 50.6**	**+1.0**
MDOK	**Medeo**	**80.38**	**359**	*e*P	**P**	**21 21 44.7**	**+0.8**
MDOK				*e*S	**S**	**21 31 50.6**	**+1.0**
SHLS	**Shalkode**	**80.39**	**1**	*e*P	**P**	**21 21 44.7**	**+0.9**
SHLS	**Shalkode**	**80.39**	**1**	*e*P	**P**	**21 21 44.7**	**+0.9**
AAA	**Alma-Ata**	**80.43**	**359**	*e*P	**P**	**21 21 44.8**	**+0.8**
AAA				pmax	pmax		
	comp=Z,25nm,0.9s						
AAA	**Alma-Ata**	**80.43**	**359**	*e*P	**P**	**21 21 44.8**	**+0.8**
	comp=Z,25nm,0.9s						
LKRN	**Lenkeran, Azer**	**80.52**	**337**	P	**P**	**21 21 47.7**	**+3.3**
PDGK	**Podgornoye**	**80.56**	**1**	P	**P**	**21 21 43.2**	**-1.5**
PDGK	**Podgornoye**	**80.56**	**1**		**P**	**21 21 43.2**	**-1.5**
BRLS	**Borolday**	**80.58**	**354**	*c i*P	**P**	**21 21 44.5**	**-0.2**
BRLS				*e*S	**S**	**21 31 50.4**	**-0.9**
BRLS	**Borolday**	**80.58**	**354**	⇑*i*P	**P**	**21 21 44.5**	**-0.2**
BRLS				*e*S	**S**	**21 31 50.4**	**-0.9**
KK31	**Karatay Array**	**80.60**	**355**	P	**P**	**21 21 44.0**	**-0.8**
KK31				pmax	pmax		
	comp=Z,56nm,1.2s						
KK31	**Karatay Array**	**80.60**	**355**		**P**	**21 21 44.0**	**-0.8**
KK31				IAmb	IAmb	21 21 58.1	
	comp=Z,56nm,1.1s						
KKAR	**Karatay Array**	**80.60**	**355**	P	**P**	**21 21 43.9**	**-0.9**
KKAR	**Karatay Array**	**80.60**	**355**		**P**	**21 21 43.9**	**-0.9**
KPKS	**Kokpek**	**80.69**	**1**	*e*P	**P**	**21 21 46.1**	**+0.8**
KPKS				*e*S	**S**	**21 31 53.8**	**+1.2**
KPKS	**Kokpek**	**80.69**	**1**	*e*P	**P**	**21 21 46.1**	**+0.8**
KPKS				*e*S	**S**	**21 31 53.9**	**+1.2**
SGDS	**Sogindy**	**80.72**	**358**	⇑*i*P	**P**	**21 21 46.4**	**+0.9**
HAKT	**HAKKARI**	**81.16**	**333**	P	**P**	**21 21 48.7**	**+0.5**
	comp=Z,222nm,1.2s						
TIY	**Taiyuan**	**81.45**	**27**	P	**P**	**21 21 52.1**	**+2.5**
TIY				S	**S**	**21 32 01.0**	**+0.2**
TIY				pmax	pmax		
	comp=Z,22nm,0.6s						
TIY				pmax	pmax		
	comp=Z,320nm,5.1s						
TIY				L	L		
	comp=Z,2µm,21.3s						
TIY				L	L		
	comp=Z,2µm,20.6s						
TIY				L	L		
	comp=Z,2µm,20.6s						
WMQ	**Urumqi**	**81.53**	**7**	*e*P	**P**	**21 21 49.6**	**-0.2**
WMQ				S	**S**	**21 32 00.6**	**-0.7**
WMQ				pmax	pmax		
	comp=Z,15nm,1.7s						
WMQ				pmax	pmax		
	comp=Z,300nm,3.6s						
WMQ				L	L		
	comp=Z,4µm,24.7s						
WMQ				L	L		
	comp=Z,3µm,20.3s						
WMQ				L	L		
	comp=Z,6µm,23.9s						
TIA	**Tai'an**	**81.95**	**31**	P	**P**	**21 21 50.3**	**-1.8**
TIA				S	**S**	**21 32 07.5**	**+1.6**
TIA				pmax	pmax		
	comp=Z,24nm,1.0s						
TIA				pmax	pmax		
	comp=Z,530nm,4.5s						
TIA				L	L		
	comp=Z,2µm,20.1s						
TIA				L	L		
	comp=Z,2µm,19.5s						
TIA				L	L		
	comp=Z,4µm,24.4s						
NAX	**Nakhchivan**	**81.99**	**335**	P	**P**	**21 21 55.0**	**+2.6**
HNS	**HongShan**	**82.02**	**29**	⇓P	**P**	**21 21 51.1**	**-1.3**
HNS				PP	**PP**	**21 25 04.8**	**+4.0**
HNS				S	**S**	**21 32 06.8**	**+0.3**
HNS				SS	**SS**	**21 37 29.1**	**+2.7**
HNS				pmax	pmax		
	comp=Z,20nm,1.2s						
HNS				L	L		
	comp=Z,2µm,18.0s						
HNS				L	L		
	comp=Z,1µm,17.7s						
HNS				L	L		
	comp=Z,2µm,22.0s						
OZAP	**Van, Ozalp-Mer**	**82.04**	**334**	⇓P	**P**	**21 21 54.5**	**+1.7**
TDK	**Taldyqorghan**	**82.22**	**0**	*c i*P	**P**	**21 21 54.0**	**+0.7**
TDK				pmax	pmax		
	comp=Z,76nm,1.8s						
TDK	**Taldyqorghan**	**82.22**	**0**	⇑*i*P	**P**	**21 21 54.1**	**+0.7**
	comp=Z,76nm,1.8s						
GURO	**Guroymak-BITLI**	**82.65**	**332**	P	**P**	**21 21 55.3**	**-0.6**
GURO				IAmb	IAmb	21 22 14.9	
	comp=Z,41nm,1.4s						
RAO	**Raoul Island**	**82.83**	**121**	LR	LR	21 53 38.2	
	comp=Z,2µm,18.1s,baz=199,slow=32						
MNGR	**Mingechevir, A**	**82.93**	**337**	P	**P**	**21 22 00.2**	**+3.1**
GANJ	**Ganja**	**83.05**	**336**	P	**P**	**21 22 00.8**	**+3.0**
GNI	**Garni**	**83.12**	**335**	LR	LR	21 56 18.6	
	comp=Z,2µm,19.6s,baz=151,slow=34						
GNI	**Garni**	**83.12**	**335**	P	**P**	**21 21 59.4**	**+1.1**
GNI				S	**SKSac**	**21 32 21.2**	**+1.1**
GNI	**Garni**	**83.12**	**335**	P	**P**	**21 21 57.3**	**-1.0**
GNI				pmax	pmax		
	comp=Z,135nm,1.5s						
GNI				MLR	MLR		
	comp=Z,2µm,20.0s						
GNI	**Garni**	**83.12**	**335**	P	**P**	**21 21 57.3**	**-1.0**
GNI	**Garni**	**83.12**	**335**	P	**P**	**21 21 57.7**	**-0.6**
	comp=Z,1µmcomp=Z,57nm,1.5s						
GNI	**Garni**	**83.12**	**335**	P	**P**	**21 21 59.2**	**+0.9**
	comp=Z,57nm,1.5s						
CSS	**Mathiatis**	**83.19**	**325**	P	**P**	**21 21 57.9**	**-0.8**
CSS				IAmb	IAmb	21 22 08.6	
	comp=Z,33nm,1.1s						
CSS	**Mathiatis**	**83.19**	**325**	P	**P**	**21 21 58.3**	**-0.3**
	comp=Z,741nmcomp=Z,28nm,1.0s						
CSS	**Mathiatis**	**83.19**	**325**	P	**P**	**21 22 00.6**	**+2.0**
	comp=Z,28nm,1.0s						
SEKA	**Sheki**	**83.29**	**337**	P	**P**	**21 22 02.0**	**+2.9**
BTO2	**Baotou**	**83.30**	**24**	*e*P	**P**	**21 21 58.8**	**-0.4**
BTO2				pP	**PcP**	**21 22 03.6**	**0.0**
BTO2				sP	**pwP**	**21 22 05.9**	**+1.6**
BTO2				S	**S**	**21 32 18.9**	**-0.8**
BTO2				SS	**SS**	**21 37 47.8**	**+2.2**
BTO2				pmax	pmax		
	comp=Z,31nm,1.4s						
BTO2				pmax	pmax		
	comp=Z,1µm,8.1s						
BTO2				L	L		
	comp=Z,8µm,20.3s						
BTO2				L	L		
	comp=Z,3µm,18.4s						
BTO2				L	L		
	comp=Z,10µm,20.3s						
GAZ	**Gaziantep**	**83.34**	**328**	P	**P**	**21 21 59.2**	**-0.2**
GAZ				IAmb	IAmb	21 22 07.2	
	comp=Z,17nm,0.9s						
AKT	**Akhty**	**83.38**	**338**	*e*P	**P**	**21 21 58.1**	**-1.5**
AKT				*e*		21 22 02.3	
AKT				*e*		21 25 11.3	
AKT				*e*S	**S**	**21 32 19.7**	**-0.7**
AKT				pmax	pmax		
	comp=Z,51nm,1.6s						
AKT				MLR	MLR		
	comp=Z,831nm,16.0s						
HHC	**Hu-ho-hao-te**	**83.95**	**25**	⇓*i*P	**P**	**21 22 04.3**	**+1.8**
HHC				pP	pwP	21 22 09.3	+1.7
HHC				PP	**PP**	**21 25 19.0**	**+2.3**
HHC				S	**S**	**21 32 28.3**	**+2.1**
HHC				SS	**SS**	**21 37 59.4**	**+4.2**
HHC				pmax	pmax		
	comp=Z,27nm,1.4s						
HHC				pmax	pmax		
	comp=Z,330nm,5.2s						
HHC				L	L		
	comp=Z,2µm,18.7s						
HHC				L	L		
	comp=Z,2µm,17.6s						
HHC				L	L		
	comp=Z,2µm,18.5s						
HOMI	**Horasan**	**84.01**	**333**	⇑P	**P**	**21 22 04.4**	**+1.4**
ANDN	**Andirin**	**84.05**	**328**	P	**P**	**21 22 04.1**	**+1.0**
	comp=Z,82nm,1.4s						
MK31	**Makanchi Array**	**84.11**	**3**	*ce*P	**P**	**21 22 01.6**	**-1.5**
MKAR	**Makanchi Array**	**84.11**	**3**	P	**P**	**21 22 01.2**	**-1.9**
	comp=Z,13nm,0.9s,baz=180,slow=4.9,SNR=57						
MKAR				LR	LR	21 56 53.5	
	comp=Z,5µm,20.9s,baz=179,slow=34						
	comp=Z,13nm,0.9s						
MKAR	**Makanchi Array**	**84.11**	**3**	P	**P**	**21 22 01.4**	**-1.7**
MKAR	**Makanchi Array**	**84.11**	**3**		**P**	**21 22 01.4**	**-1.7**
MAKZ	**Makanchi**	**84.11**	**3**	P	**P**	**21 22 01.8**	**-1.3**
MAKZ	**Makanchi**	**84.11**	**3**		**P**	**21 22 01.6**	**-1.4**
MAKZ				IAmb	IAmb	21 22 08.0	
	comp=Z,25nm,1.1s						
MAKZ	**Makanchi**	**84.11**	**3**	P	**P**	**21 22 02.0**	**-1.1**
	comp=Z,17nm,1.0s						
JSU	**Suzuyama**	**84.48**	**43**	P	**P**	**21 22 06.8**	**+1.4**
JSU	**Suzuyama**	**84.48**	**43**	P	**P**	**21 22 04.2**	**-1.2**
JSU				IAmb	IAmb	21 22 10.5	
	comp=Z,28nm,1.1s						
JSU	**Suzuyama**	**84.48**	**43**	P	**P**	**21 22 07.1**	**+1.7**
	comp=Z,30nm,1.6s						
KOPT	**Kop Dagi**	**84.50**	**332**	P	**P**	**21 22 05.1**	**-0.5**
KOPT				IAmb	IAmb	21 22 20.5	
	comp=Z,42nm,1.0s						
ARPR	**Arapgir-MALATY**	**84.53**	**330**	P	**P**	**21 22 05.3**	**-0.2**
ARPR				IAMs_20	IAMs_20	21 56 15.9	
	comp=Z,3µm,19.0s						
MAK	**Makhachkala**	**84.80**	**338**	*d i*P	P	21 22 01.4	-5.2
MAK				*e*		21 25 17.0	
MAK				*e*PPP	PPP	21 27 17.6	
MAK				*e*		21 32 21.7	
MAK				*e*SS	SS	21 38 01.5	-5.8
MAK				*e*SSS	SSS	21 41 37.3	
MAK				pmax	pmax		
	comp=Z,213nm,1.1s						
BJT	**Baijiatuau**	**84.86**	**29**	P	**P**	**21 22 08.3**	**+1.3**
BJT	**Baijiatuau**	**84.86**	**29**	P	**P**	**21 22 04.8**	**-2.2**
BJT				pmax	pmax		
	comp=Z,10.0nm,0.9s						
BJT				MLR	MLR		
	comp=Z,2µm,19.0s						
BJT	**Baijiatuau**	**84.86**	**29**	P	**P**	**21 22 04.8**	**-2.2**
BJI2	**Beijing**	**84.87**	**29**	P	**P**	**21 22 07.0**	**0.0**
BJI2				PP	**PP**	**21 25 27.8**	**+3.8**
BJI2				SKS	**SKSac**	**21 32 27.5**	**-3.6**
BJI2				SS	**SS**	**21 38 14.4**	**+5.9**
BJI2				pmax	pmax		
	comp=Z,7.0nm,1.1s						
BJI2				pmax	pmax		
	comp=Z,190nm,4.9s						
BJI2				L	L		
	comp=Z,420nm,23.8s						
BJI2				L	L		
	comp=Z,770nm,23.1s						
BJI2				L	L		
	comp=Z,880nm,24.8s						
ZSN	**Zaisan**	**84.90**	**5**	*c i*P	**P**	**21 22 08.1**	**+1.1**
ZSN				pmax	pmax		
	comp=Z,28nm,1.8s						
ZSN	**Zaisan**	**84.90**	**5**	⇑*i*P	**P**	**21 22 08.2**	**+1.1**
	comp=Z,28nm,1.8s						
EPOS	**Posof**	**85.01**	**334**	P	**P**	**21 22 08.6**	**+0.7**
	comp=Z,22nm,1.5s						
KELT	**Kelkit**	**85.08**	**331**	P	**P**	**21 22 10.2**	**+1.8**
	comp=Z,153nm,1.5s						
BNN	**Bunyan**	**85.33**	**328**	P	**P**	**21 22 07.5**	**-2.1**
BNN				IAmb	IAmb	21 22 17.8	
	comp=Z,30nm,1.3s						
KEPZ	**Antalya-Kepez**	**85.58**	**324**	⇑P	**P**	**21 22 11.4**	**+0.6**
GO10	**Punta Arenas**	**85.68**	**198**	P	**P**	**21 22 10.4**	**-0.9**
JNU	**Nakatsue**	**85.95**	**42**	P	**P**	**21 22 12.0**	**-0.7**
	comp=Z,29nm,1.1s,baz=135,slow=3.7,SNR=7.4						

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JNU                                  LR       LR        22 01 16.3
       comp=Z,547nm,18.0s,baz=220,slow=36
       comp=Z,29nm,1.1s
DL2    Dalian            86.13  33   P        P         21 22 12.9 -0.4
DL2                                  SKS      SKSac     21 32 36.3 -2.8
DL2                                  S        S         21 32 47.6  0.0
DL2                                  pmax     pmax
       comp=Z,28nm,1.1s
DL2                                  pmax     pmax
       comp=Z,370nm,3.7s
DL2                                  L        L
       comp=Z,4µm,19.7s
DL2                                  L        L
       comp=Z,2µm,18.1s
DL2                                  L        L
       comp=Z,5µm,20.6s
ELL    Elmali            86.25 323   P        P         21 22 12.7 -1.5
ELL                                  pmax     pmax
       comp=Z,102nm,1.8s
ELL    Elmali            86.25 323   P        P         21 22 12.7 -1.5
TOKA   Tokat             86.32 330   P        P         21 22 13.5 -0.9
TOKA                                 IAmb     IAmb      21 22 22.3
       comp=Z,29nm,1.3s
KIRS   Kirsehir-Merke    86.39 327 ⇑P         P         21 22 16.5 +1.7
NCK    Nalchik           86.50 336 i P        P         21 22 15.7 +0.6
NCK                                  pmax     pmax
       comp=Z,20nm,1.2s
NEUR   Neytrino          86.58 335 i P        P         21 22 16.0 +0.3
NEUR                                 pmax     pmax
       comp=Z,25nm,1.6s
KARP   Karpathos         86.63 321   P        P         21 22 14.5 -1.5
KARP   Karpathos         86.63 321   P        P         21 22 14.6 -1.4
       comp=Z,51nm,1.0s
KARP   Karpathos         86.63 321   P        P         21 22 17.1 +1.2
       comp=Z,52nm,1.0s
TJN    Taejon            86.70  38 eP         P         21 22 15.2 -1.0
KBZ    Khabaz            86.93 335   P        P         21 22 17.1  0.0
       comp=Z,3.1nm,1.0s,baz=162,slow=10,SNR=5.2
KBZ                                  LR       LR        21 57 18.1
       comp=Z,1µm,21.6s,baz=158,slow=33
       comp=Z,3.1nm,1.0s
KBZ    Khabaz            86.93 335 i P        P         21 22 15.9 -1.2
KBZ                                  pmax     pmax
       comp=Z,42nm,3.5s
ASCN   Ascension         86.97 262   IAMs_20  IAMs_20   21 54 29.8
       comp=Z,3µm,20.0s
BR104  Keskin Array S    86.98 327   P        P         21 22 17.0 -0.7
       comp=Z,96nmcomp=Z,9.6nm,1.1s
BR131  Keskin Array S    87.00 327   P        P         21 22 17.5 -0.3
BR131  Keskin Array S    87.00 327 i P        P         21 22 15.9 -1.9
BR131  Keskin Array S    87.00 327   P        P         21 22 16.6 -1.2
BRTR   Keskin Array B    87.00 327   P        P         21 22 17.4 -0.4
       comp=Z,3.6nm,0.9s,baz=164,slow=7.3,SNR=14
BRTR                                 LR       LR        21 58 10.0
       comp=Z,697nm,19.4s,baz=148,slow=34
       comp=Z,3.6nm,0.9s
BRTR   Keskin Array B    87.00 327 i P        P         21 22 17.3 -0.5
BRTR                                 pmax     pmax
       comp=Z,4.0nm,0.9s
BRTR   Keskin Array B    87.00 327            P         21 22 16.5 -1.2
BR105  Keskin Array S    87.00 327   P        P         21 22 15.8 -2.0
       comp=Z,85nmcomp=Z,8.5nm,1.1s
BR106  Keskin Array S    87.02 327   P        P         21 22 16.4 -1.5
       comp=Z,73nmcomp=Z,7.0nm,1.0s
SHA1   Shidzhatmaz       87.02 335ceP         P         21 22 17.4 -0.5
MSVF   Nonsavu           87.14 110   LR       LR        21 53 50.6
       comp=Z,4µm,21.4s,baz=222,slow=30
MSVF   Nonsavu           87.14 110   IAMs_20  IAMs_20   21 53 28.2
       comp=Z,4µm,21.0s
KVAR   Kislovodsk Arr    87.20 335   LR       LR        21 58 46.7
       comp=Z,1µm,20.1s,baz=98,slow=34
KIV    Kislovodsk        87.20 335   P        P         21 22 17.3 -1.4
KIV    Kislovodsk        87.20 335 eP         P         21 22 16.5 -2.1
KIV                                e                    21 32 42.8
KIV                                eSS        SS        21 38 41.3 -1.6
KIV                                eSSS       SSS       21 42 14.5
KIV                                  pmax     pmax
       comp=Z,10.0nm,1.1s
KIV    Kislovodsk        87.20 335   P        P         21 22 18.1 -0.5
KIV                                  IAmb     IAmb      21 22 25.0
       comp=Z,30nm,1.4s
KIV    Kislovodsk        87.20 335   P        P         21 22 17.9 -0.7
KIV    Kislovodsk        87.20 335   P        P         21 22 19.7 +1.1
TORD   Torodi Ar. Bea    87.26 289   P        P         21 22 18.6 -0.9
       comp=Z,2.2nm,0.9s,baz=102,slow=3.4,SNR=9.0
TORD                                 LR       LR        21 59 44.4
       comp=Z,11µm,18.8s,baz=130,slow=34
       comp=Z,2.2nm,0.9s
TORD   Torodi Ar. Bea    87.26 289   P        P         21 22 18.6 -0.9
TORD                                 IAmb     IAmb      21 22 20.1
       comp=Z,14nm,0.8s
DGZ    Jazzator, Alta    87.33   6 i P        P         21 22 18.2 -1.0
DGZ                                  pmax     pmax
       comp=Z,37nm,1.5s
SEM    Semipalatinsk     87.65   2c iP        P         21 22 21.6 +0.9
SEM                                  pmax     pmax
       comp=Z,11nm,1.1s
SEM    Semipalatinsk     87.65   2⇑iP         P         21 22 21.7 +0.9
       comp=Z,11nm,1.1s
KSAR   Wonju Array Be    87.80  38   P        P         21 22 20.4 -1.1
KSAR   Wonju Array Be    87.80  38   P        P         21 22 20.4 -1.1
KSRS   Korea Array       87.83  38   P        P         21 22 20.7 -0.9
       comp=Z,1.3nm,0.8s,baz=217,slow=5.5,SNR=5.7
KSRS                                 LR       LR        21 59 52.2
       comp=Z,583nm,20.3s,baz=225,slow=34
       comp=Z,1.3nm,0.8s
KURBB  Kurchatov Arra    87.84   0   P        P         21 22 21.1 -0.3
       comp=Z,6.2nm,0.7s,baz=192,slow=4.7,SNR=33
KURBB                                LR       LR        21 59 46.8
       comp=Z,3µm,19.2s,baz=161,slow=34
       comp=Z,6.2nm,0.7s
SOC    Sochi             87.90 333 eP         P         21 22 23.8 +2.0
SOC                                e                    21 25 47.3
SOC                                ePPP       PPP       21 27 40.9
SOC                                eS         SKSac     21 32 49.5 -0.2
SOC                                eSSS       SSS       21 42 27.1
SOC                                  pmax     pmax
       comp=Z,21nm,0.8s
SOC                                  MLR      MLR
       comp=Z,584nm,17.0s
AB31   Akbulak array     87.92 348 i P        P         21 22 20.8 -0.9
AB31                                 pmax     pmax
       comp=Z,4.0nm,0.9s
AB31   Akbulak array     87.92 348            P         21 22 20.9 -0.9
ABKAR  Akbulak array     87.92 348            P         21 22 20.8 -1.0
KURK   Kurchatov         87.94   0   P        P         21 22 21.2 -0.6
KURK   Kurchatov         87.94   0ceP         P         21 22 21.4 -0.4
KURK                                 pmax     pmax
       comp=Z,48nm,2.5s
KURK   Kurchatov         87.94   0            P         21 22 20.6 -1.2
KURK                                 IAmb     IAmb      21 22 31.8
       comp=Z,20nm,1.1s
KURK   Kurchatov         87.94   0   IAMs_20  IAMs_20   21 59 57.3
       comp=Z,4µm,20.0s
KURK   Kurchatov         87.94   0   P        P         21 22 21.1 -0.7
       comp=Z,23nm,1.7s
GOF    Gofitskoye        88.07 336ceP         P         21 22 22.9 +0.3
JCJ    Chichijima        88.19  54   LR       LR        21 58 20.6
       comp=Z,273nm,20.6s,baz=315,slow=33
XLT    XiLinHaoTe        88.21  27 eP         P         21 22 23.3 -0.1
XLT                                  SKS      SKSac     21 32 47.6 -4.2
XLT                                  S        S         21 33 07.1 -0.6
XLT                                  SS       SS        21 38 54.9 -2.7
XLT                                  pmax     pmax
       comp=Z,14nm,1.1s
XLT                                  pmax     pmax
       comp=Z,280nm,5.1s
XLT                                  L        L
       comp=Z,2µm,18.2s
XLT                                  L        L
       comp=Z,3µm,18.4s
DBIC   Dimbokro          88.28 280   P        P         21 22 23.6 -0.8
       comp=Z,11nm,1.1s,baz=137,slow=6.9,SNR=4.6
DBIC                                 LR       LR        21 59 48.2
       comp=Z,4µm,18.1s,baz=124,slow=34
       comp=Z,11nm,1.1s
DBIC   Dimbokro          88.28 280   P        P         21 22 24.9 +0.5
DBIC   Dimbokro          88.28 280   P        P         21 22 23.5 -0.9
DBIC                                 IAmb     IAmb      21 22 39.3
       comp=Z,46nm,1.6s
LABN   Labinsk           88.47 334 eP         P         21 22 23.2 -1.3
LABN                               eS         SKSac     21 32 47.7 -5.4
LABN                                 pmax     pmax
       comp=Z,15nm,0.9s
SONM   Songino Array     88.78  19   P        P         21 22 24.9 -1.2
       comp=Z,1.9nm,0.7s,baz=202,slow=4.8,SNR=8.4
SONM                                 LR       LR        22 00 51.1
       comp=Z,3µm,20.0s,baz=194,slow=35
       comp=Z,1.9nm,0.7s
SONM   Songino Array     88.78  19            P         21 22 24.4 -1.8
ULN    Ulaanbaatar       88.98  19   P        P         21 22 26.0 -1.1
ULN    Ulaanbaatar       88.98  19ceP         P         21 22 26.5 -0.6
ULN                                  pmax     pmax
       comp=Z,15nm,1.7s
ULN    Ulaanbaatar       88.98  19            P         21 22 26.0 -1.1
ULN    Ulaanbaatar       88.98  19   P        P         21 22 27.7 +0.6
       comp=Z,12nm,1.4s
SNY    Shenyang          89.38  32   P        P         21 22 35.0 +6.2
SNY                                  S        S         21 33 22.3 +3.7
SNY                                  pmax     pmax
       comp=Z,4.0nm,0.6s
SNY                                  pmax     pmax
       comp=Z,240nm,5.0s
SNY                                  L        L
       comp=Z,870nm,24.5s
SNY                                  L        L
       comp=Z,740nm,20.4s
SNY                                  L        L
       comp=Z,1µm,24.0s
AKTO   Aktyubinsk        89.38 347   P        P         21 22 27.8 -0.9
       comp=Z,3.2nm,0.7s,baz=195,slow=1.8,SNR=7.8
AKTO                                 LR       LR        22 01 54.6
       comp=Z,754nm,18.0s,baz=140,slow=35
       comp=Z,3.2nm,0.7s
ERBR   Yeremizino-Bor    89.49 335 eP         P         21 22 28.3 -1.0
ERBR                               eS         S         21 33 09.0  -10
ERBR                                 pmax     pmax
       comp=Z,8.0nm,0.7s
KNGR   Kungurtug, Tuv    89.52  12 i P        P         21 22 28.3 -1.2
KNGR                                 pmax     pmax
       comp=Z,31nm,1.4s
ANN    Anapa             89.78 333 eP         P         21 22 31.0 +0.4
ANN                                eS         S         21 33 20.1 -2.0
ANN                                  pmax     pmax
       comp=Z,21nm,0.8s
ZAK    Zakamensk         90.42  16 eP         P         21 22 33.6 -0.1
ZAK                                  pmax     pmax
       comp=Z,9.0nm,1.5s
BVAR   Borovoye Array    90.48 355   P        P         21 22 33.3 -0.4
       comp=Z,2.7nm,0.8s,baz=163,slow=6.2,SNR=10
       comp=Z,2.7nm,0.8s
BORK   Borovoye          90.51 355 i P        P         21 22 32.6 -1.3
BORK                                 pmax     pmax
       comp=Z,21nm,2.2s
BORK   Borovoye          90.51 355            P         21 22 32.9 -1.0
BORK                                 IAMs_20  IAMs_20   22 01 03.3
       comp=Z,2µm,20.0s
TAM    Tamanrasset       90.66 298   IAMs_20  IAMs_20   22 00 34.0
       comp=Z,4µm,21.0s
JHJ    Hachijo jima 2    90.96  48   LR       LR        22 02 38.8
       comp=Z,303nm,18.9s,baz=216,slow=35
SIM    Simferopol'       91.16 331 eP         P         21 22 35.8 -1.3
SIM                                eS         S         21 33 26.7 -8.2
SIM                                  SS       SS        21 39 45.0 +4.8
SIM                                  pmax     pmax
       comp=Z,170nm,4.0s
SIM                                  smax     smax
       comp=E,380nm,9.6s
SIM                                  pmax     pmax
       comp=E,260nm,10.0s
JGF    Kuroka            91.35  45   P        P         21 22 40.0 +1.7
ZAA0   Zalesovo Array    91.37   4            P         21 22 35.6 -2.2
ZALV   Zalesovo Beam     91.37   4   P        P         21 22 37.4 -0.5
       comp=E,1.5nm,0.6s,baz=194,slow=3.5,SNR=7.4
ZALV                                 LR       LR        22 01 44.8
       comp=E,3µm,20.5s,baz=195,slow=34
       comp=E,1.5nm,0.6s
ZALV   Zalesovo Beam     91.37   4 i P        P         21 22 39.5 +1.7
ZALV                                 pmax     pmax
       comp=Z,1.0nm,0.6s
ZALV   Zalesovo Beam     91.37   4            P         21 22 36.0 -1.8
TLY    Talaya            91.72  16   LR       LR        22 04 21.2
       comp=Z,1µm,18.0s,baz=188,slow=36
FUTU   Fugatoga          92.14 110   IAMs_20  IAMs_20   21 55 47.0
       comp=Z,3µm,19.0s
MAJO   Matsushiro        92.51  44   P        P         21 22 45.0 +1.4
MAJO   Matsushiro        92.51  44 i P        P         21 22 41.4 -2.2
MAJO                                 pmax     pmax
       comp=Z,28nm,1.6s
MAJO   Matsushiro        92.51  44   P        P         21 22 41.7 -1.9
MJAR   Matsushiro Arr    92.51  44   P        P         21 22 42.3 -1.3
       comp=Z,9.7nm,1.2s,baz=205,slow=5.5,SNR=13
MJAR                                 LR       LR        22 04 44.1
       comp=Z,396nm,18.1s,baz=221,slow=36
       comp=Z,9.7nm,1.2s
TIRR   Tirgusor          93.11 327   P        P         21 22 44.6 -1.5
TIRR                                 pmax     pmax
       comp=Z,39nm,1.4s
TIRR                                 MLR      MLR
       comp=Z,1µm,22.0s
TIRR   Tirgusor          93.11 327            P         21 22 44.6 -1.5
TIRR                                 IAmb     IAmb      21 22 53.6
       comp=Z,39nm,1.4s
TIRR   Tirgusor          93.11 327   P        P         21 22 44.7 -1.4
       comp=Z,526nmcomp=Z,14nm,0.9s
GRG    Griva             93.18 321   P        P         21 22 46.9 +0.3
       comp=Z,35nm,1.2s
BELG   Belogornoye       93.41 342   LR       LR        22 02 01.6
       comp=Z,542nm,22.0s,baz=143,slow=34
BELG   Belogornoye       93.41 342 i P        P         21 22 48.1 +0.8
BELG                                 pmax     pmax
       comp=Z,4.0nm,1.1s
HARR   Harsova           93.50 327   P        P         21 22 48.5 +0.6
HARR   Harsova           93.50 327 ⇑P         P         21 22 48.5 +0.6
WDD    Wied Dalam        93.69 313   IAMs_20  IAMs_20   21 59 44.2
       comp=Z,3µm,22.0s
CFR    Carcaliu          93.80 327   P        P         21 22 49.0 -0.2
CFR    Carcaliu          93.80 327 ⇓P         P         21 22 49.0 -0.2
VRH    Novokhopyorsk     93.93 338 eP         P         21 22 49.3 -0.4
VRH                                  pmax     pmax
       comp=Z,24nm,0.8s
HIA    Hailar            94.11  26 i P        P         21 22 50.8 +0.1
HIA                                  pmax     pmax
       comp=Z,11nm,0.9s
HIA    Hailar            94.11  26   P        P         21 22 48.3 -2.4
HIA    Hailar            94.11  26   IAMs_20  IAMs_20   22 05 05.1
       comp=Z,2µm,19.0s
BNX    BinXian           94.17  32 ⇑P         P         21 22 52.0 +1.0
BNX                                  pP       sP        21 22 55.3 +0.1
BNX                                  PP       PP        21 26 38.4 +0.2
BNX                                  S        S         21 34 03.3 +1.6
BNX                                  sS       sS        21 34 10.3 +3.4
BNX                                  pmax     pmax
       comp=Z,5.0nm,0.8s
BNX                                  pmax     pmax
       comp=Z,230nm,4.3s
BNX                                  L        L
       comp=Z,2µm,20.6s
BNX                                  L        L
       comp=Z,1µm,21.7s
BNX                                  L        L
       comp=Z,4µm,20.6s
SULR                     94.23 326   P        P         21 22 52.6 +1.3
       comp=Z,44nm,1.5s
HILR   Hailar Array B    94.36  26   LR       LR        22 03 42.3
       comp=Z,2µm,21.2s,baz=70,slow=34
VSR    Storozhevoye      94.72 337 eP         P         21 22 52.8 -0.6
VSR                                  pmax     pmax
       comp=Z,15nm,1.1s
VRI    Vrincioaia        94.95 327   P        P         21 22 54.0 -0.6
VRI    Vrincioaia        94.95 327 ⇓P         P         21 22 54.1 -0.6
VRI    Vrincioaia        94.95 327   P        P         21 22 53.1 -1.5
       comp=Z,27nm,1.5s
VRI    Vrincioaia        94.95 327   P        P         21 22 54.6  0.0
       comp=Z,27nm,1.5s
PLOR   Plostina          94.97 327   P        P         21 22 54.6 -0.1
PLOR   Plostina          94.97 327 ⇑P         P         21 22 54.7 -0.1
MLR    Muntele Rosu      95.00 326   LR       LR        22 02 07.9
       comp=Z,998nm,21.5s,baz=147,slow=33
MLR    Muntele Rosu      95.00 326   P        P         21 22 54.9 -0.1
MLR    Muntele Rosu      95.00 326            P         21 22 52.9 -2.1
MLR    Muntele Rosu      95.00 326 ⇑P         P         21 22 54.9 -0.1
MLR    Muntele Rosu      95.00 326   P        P         21 22 53.6 -1.4
       comp=Z,32nm,1.5s
USRK   Ussuriysk Ar.     95.01  36   LR       LR        22 06 31.6
       comp=Z,2µm,18.1s,baz=223,slow=36
ARTI   Arti              95.07 349   LR       LR        22 05 15.3
       comp=Z,590nm,18.8s,baz=156,slow=35
ARTI   Arti              95.07 349c iP        P         21 22 55.1 +0.3
ARTI                                 PPP      PPP       21 28 43.8
ARTI                                 S        SKSac     21 33 30.5 +0.6
ARTI                                 SP       SP        21 35 29.0 +3.0
ARTI                                 SSS      SSS       21 44 10.8
ARTI                                 pmax     pmax
       comp=Z,12nm,1.4s
ARTI   Arti              95.07 349   P        P         21 22 53.1 -1.7
ARTI                                 IAmb     IAmb      21 23 04.8
       comp=Z,37nm,1.8s
VORR   Voronezh          95.11 337 eP         P         21 22 55.8 +0.7
VORR                                 pmax     pmax
       comp=Z,26nm,0.3s
SVE    Sverdlovsk        95.18 351 eP         P         21 22 54.7 -0.6
SVE                                  pmax     pmax
       comp=Z,15nm,1.8s
SVE                                  MLR      MLR
       comp=Z,2µm,18.0s
VOIR                     95.35 326   P        P         21 22 57.0 +0.5
VOIR                     95.35 326 ⇓P         P         21 22 57.1 +0.5
BAL3X  Bal3x, Balta      95.39 330   P        P         21 22 55.1 -1.4
ARR    Arges             95.49 325 ⇑P         P         21 22 58.0 +0.8
ARR    Arges             95.49 325   P        P         21 22 56.2 -0.9
       comp=Z,5.8nm,2.1s
DOPR   Dopca             95.61 326 ⇓P         P         21 22 57.9 +0.3
LL07   Hotel Espejo d    95.81 201   IAMs_20  IAMs_20   22 05 06.2
       comp=Z,3µm,20.0s
LPSR   Galich'ya Gora    96.00 337 eP         P         21 22 59.0 -0.1
LPSR                                 pmax     pmax
       comp=Z,14nm,0.9s
DEV    Deva              96.67 325   P        P         21 23 02.9 +0.5
KEST   Kesra             96.69 310   P        P         21 23 03.4 +0.5
       comp=Z,9.1nm,0.9s,baz=1.1,slow=3.4,SNR=12
KEST                                 LR       LR        22 06 33.9
       comp=Z,4µm,18.2s,baz=140,slow=35
       comp=Z,9.1nm,0.9s
KEST   Kesra             96.69 310   P        P         21 23 04.7 +1.8
KEST   Kesra             96.69 310   P        P         21 23 00.6 -2.3
KEST                                 IAmb     IAmb      21 23 07.8
       comp=Z,13nm,1.1s
AFI    Afiamalu          97.09 113   LR       LR        21 57 35.4
       comp=Z,902nm,21.5s,baz=237,slow=30
JTM    Tenmabayashi      97.09  43   P        P         21 23 02.9 -1.5
LL05   Los Muermos       97.12 201   IAMs_20  IAMs_20   22 05 37.0
       comp=Z,3µm,20.0s
KMPD   K-Podol'skiy      97.17 328   P        P         21 23 02.4 -2.2
LUBAR  Lubar, Ukraine    97.71 330   P        P         21 23 06.7 -0.3
AKASG  Malin Array Be    97.76 331   P        Pdif      21 23 07.3 +0.1
       comp=Z,0.2nm,0.3s,baz=116,slow=4.4,SNR=5.9
AKASG                                PP       PP        21 27 05.9 +0.1
       comp=Z,0.1nm,0.3s,baz=152,slow=7.1,SNR=5.6
       comp=Z,0.2nm,0.3s
AKASG  Malin Array Be    97.76 331   P        P         21 23 05.9 -1.3
AKBB   Malin Array Si    97.76 331 i P        P         21 23 06.5 -0.7
AKBB                                 pmax     pmax
       comp=Z,15nm,1.8s
AKBB   Malin Array Si    97.76 331   P        P         21 23 05.8 -1.4
AKBB                                 IAmb     IAmb      21 23 15.2
       comp=Z,32nm,1.9s
AKBB   Malin Array Si    97.76 331   P        P         21 23 06.7 -0.5
KIEV   Kiev              97.76 331   P        P         21 23 05.9 -1.3
KIEV                                 pmax     pmax
       comp=Z,28nm,2.0s
KIEV                                 MLR      MLR
       comp=Z,1µm,20.0s
KIEV   Kiev              97.76 331   P        P         21 23 05.9 -1.3
KIEV                                 IAmb     IAmb      21 23 15.2
       comp=Z,28nm,1.9s
KIEV   Kiev              97.76 331   P        P         21 23 06.7 -0.5
HEH    HeiHe             97.76  30 eP         P         21 23 05.5 -1.7
HEH                                  pmax     pmax
       comp=Z,6.0nm,1.0s
LR03   Panguipulli       98.42 203   IAMs_20  IAMs_20   22 05 50.3
       comp=Z,3µm,22.0s
KIRV   Kirov             98.72 345   LR       LR        22 06 31.3
       comp=Z,352nm,20.2s,baz=157,slow=35
KIRV   Kirov             98.72 345ceP         P         21 23 10.5 -0.8
KLR    Kul'dur           98.74  32   LR       LR        22 06 05.2
       comp=Z,3µm,20.5s,baz=221,slow=34
KLR    Kul'dur           98.74  32   P        P         21 23 10.1 -1.5
KLR                                  pmax     pmax
       comp=Z,17nm,1.9s
OBN    Obninsk           98.88 337   LR       LR        22 05 13.9
       comp=Z,848nm,21.4s,baz=150,slow=34
OBN    Obninsk           98.88 337⇓eP         P         21 23 12.0 -0.1
OBN                                e                    21 27 11.7
OBN                                eS         SKSac     21 33 54.2 +4.6
OBN                                eSS        SS        21 41 36.0 +6.4
OBN                                  MLR      MLR
       comp=Z,1µm,18.0s
MOS    Moscow            99.09 338 eP         Pdif      21 23 19.0 +6.0
MOS                                e                    21 27 22.0
MOS                                e                    21 41 25.6
MOS                                e                    21 45 26.7
MOS                                  MLR      MLR
       comp=Z,1µm,18.0s
MOS                                  MLR      MLR
       comp=N,900nm,19.0s
KOLS   Kolonicke sedl    99.24 327 eP         Pdif      21 23 16.6 +2.7
KOLS   Kolonicke sedl    99.24 327 ePDIFF     Pdif      21 23 16.6 +2.7
RNPP8  Varash            99.57 330   P        Pdif      21 23 15.7 +0.4
SPB    Sao Paulo        100.32 230   IAMs_20  IAMs_20   21 57 35.5
       comp=Z,2µm,22.0s
LANS   Liptovska Anna   100.65 325 eP         Pdif      21 23 24.5 +4.3
LANS                                 pmax     pmax
       comp=N,8.0nm,0.4s
LANS   Liptovska Anna   100.65 325 ePDIFF     Pdif      21 23 24.5 +4.3
SOKA   Soboth           101.00 321 ePP        PP        21 27 34.5 +3.7
       comp=N,2.9nm,1.2s
OBKA   Obir             101.12 321 ePP        PP        21 27 35.3 +3.5
       comp=N,0.7nm,0.8s
BI05   Punta Hualpn     101.32 203   IAMs_20  IAMs_20   22 08 51.3
       comp=Z,3µm,20.0s
CONA   Conrad Observa   101.46 323 ePP        PP        21 27 35.0 +0.8
       comp=Z,8.1nm,1.8s
SESA   Seetaler Alpe,   101.53 321 ePP        PP        21 27 37.6 +2.7
       comp=Z,7.1nm,1.2s
ML02   Panimavida       101.64 205   IAMs_20  IAMs_20   22 11 41.0
       comp=Z,3µm,20.0s
MYKA   Terra Mystica    101.66 321 ePP        PP        21 27 39.0 +3.3
       comp=Z,0.8nm,0.4s
OKC    Ostrava-Krasne   101.74 325   AMS      AMS       22 22 10.0
       comp=Z,600nm,20.4s
KBA    Koelnbreinsper   102.11 321 ePP        PP        21 27 38.5 -0.8
       comp=Z,0.5nm,0.6s
ABTA   Abfaltersbach    102.31 320 ePP        PP        21 27 40.2 -0.5
       comp=Z,5.2nm,1.7s
MAHO   Mahon            102.44 311   IAMs_20  IAMs_20   22 12 45.8
       comp=Z,2µm,19.0s
GO05   Hualane          102.50 205   IAMs_20  IAMs_20   22 11 24.6
       comp=Z,2µm,20.0s
CKRC   Cesky Krumlov    102.83 323   AMS      AMS       22 20 30.0
       comp=Z,900nm,19.5s
DPC    Dobruska-Polom   102.94 325   AMS      AMS       22 20 20.0
       comp=Z,800nm,15.7s
KLMR   Klimovskoe       102.99 342 eP         Pdif      21 23 31.2 +1.0
KLMR                               e                    21 27 45.2
KLMR                                 pmax     pmax
       comp=Z,16nm,1.5s
WTTA   Wattenberg       103.10 320 ePP        PP        21 27 45.2 -1.5
       comp=Z,7.6nm,1.4s
OSTC   Ostas            103.13 325   AMS      AMS       22 23 40.0
       comp=Z,600nm,17.2s
GERES  GERESS Array B   103.14 322   PP       PP        21 27 46.8 -0.1
       comp=Z,0.4nm,0.5s,baz=148,slow=5.8,SNR=5.2
WATA   Walderalm        103.18 320 ePP        PP        21 27 45.8 -1.4
       comp=Z,9.9nm,1.4s
UPC    Upice            103.19 325   AMS      AMS       22 20 30.0
       comp=Z,800nm,18.3s
CHVC   Chvalec          103.23 325   AMS      AMS       22 20 40.0
       comp=Z,800nm,19.3s
MT03   Universidad Ad   103.38 207   IAMs_20  IAMs_20   22 12 30.1
       comp=Z,3µm,20.0s
KHC    Kasperske Hory   103.39 323   AMS      AMS       22 18 20.0
       comp=Z,1µm,17.9s
PRU    Pruhonice        103.52 324 eSDIF                21 35 19.4
PRU                                  AMS      AMS       22 19 10.0
       comp=Z,800nm,18.0s
MT05   Renca            103.56 207   IAMs_20  IAMs_20   22 11 07.6
       comp=Z,2µm,19.0s
RETA   Reutte           103.69 320 ePP        PP        21 27 49.8 -1.2
       comp=Z,4.8nm,1.8s
PEL    Peldehue         103.76 207   IAMs_20  IAMs_20   22 11 28.0
       comp=Z,3µm,19.0s
MT02   Curacav          103.82 206   IAMs_20  IAMs_20   22 12 00.5
       comp=Z,2µm,20.0s
DAVA   Damuels          104.02 319 ePKiKP     PKiKP     21 27 52.0 -0.7
       comp=Z,6.4nm,1.2s
VA03   San Esteban      104.05 207   IAMs_20  IAMs_20   22 11 21.9
       comp=Z,3µm,20.0s
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VA01	Torpederas	104.21	206	IAMs_20	IAMs_20	22 12 29.8	
	comp=Z,3µm,20.0s						
CART	Cartagena	104.30	306	IAMs_20	IAMs_20	22 13 06.2	
	comp=Z,2µm,18.0s						
BRG	Berggiesshubel	104.40	324	SP	SP	21 37 14.0	+7.4
HSKC	Hora Svate Kat	104.46	324	AMS	AMS	22 21 40.0	
	comp=Z,1µm,19.4s						
NKC	Novy Kostel	104.68	323	AMS	AMS	22 20 20.0	
	comp=Z,1µm,18.7s						
TLOR	Lorca, Murcia	104.78	306	PKP	PKiKP	21 27 54.6	+0.4
RCBR	Riachuelo	104.90	250	IAMs_20	IAMs_20	22 05 41.4	
	comp=Z,2µm,20.0s						
GRF	Grafenberg Arr	104.91	322	*e*L	L	22 19 28.1	
	comp=Z,747nm,19.4s						
CLL	Collm	105.13	324	*e*Sdif	Sdif	21 35 30.0	-4.2
CLL				*e*PS	PS	21 37 06.0	-10
CLL				*e*PPS	PPS	21 38 12.0	
CLL				*e*SS	SS	21 42 48.0	-8.4
CLL				*e*SSS	SSS	21 46 54.0	
CLL				*e*SSSS		21 50 22.0	
CLL				L	L	21 53 00.0	
CLL				L	L	22 00 00.0	
CLL				AMS	AMS	22 19 00.0	
	comp=Z,500nm,21.7s						
CLL				AMS	AMS	22 20 00.0	
	comp=N,500nm,20.5s						
CLL				AMS	AMS	22 20 00.0	
	comp=E,1µm,20.9s						
CLL				AMS	AMS	22 23 00.0	
	comp=Z,600nm,17.8s						
MOX	Moxa	105.35	323	*e*L	L	22 20 50.3	
	comp=Z,934nm,18.7s						
AC05	El Transito	107.48	209	IAMs_20	IAMs_20	22 12 52.6	
	comp=Z,3µm,21.0s						
PAB	San Pablo	107.57	307	IAMs_20	IAMs_20	22 10 58.8	
	comp=Z,3µm,22.0s						
APA	Apatity	110.08	343	*i* PKIKP	PKiKP	21 27 56.4	-6.7
NOA	NORSAR Array B	112.17	331	PP	PP	21 28 53.0	+0.4
	comp=Z,0.2nm,0.7s,baz=127,slow=7.2,SNR=2.8						
PB09	IPOC Station P	113.30	213	IAMs_20	IAMs_20	22 18 54.0	
	comp=Z,2µm,20.0s						
MA2	Magadan	113.84	32	IAMs_20	IAMs_20	22 13 50.7	
	comp=Z,2µm,22.0s						
TIXI	Tiksi	114.70	16	IAMs_20	IAMs_20	22 19 23.6	
	comp=Z,2µm,18.0s						
PB11	IPOC Station P	115.27	214	IAMs_20	IAMs_20	22 20 49.2	
	comp=Z,2µm,18.0s						
PSGCX	Pisagua	115.62	214	IAMs_20	IAMs_20	22 20 00.5	
	comp=Z,1µm,18.0s						
XMAS	Kiritimati	118.26	111	IAMs_20	IAMs_20	22 09 15.9	
	comp=Z,1µm,19.0s						
TAOE	Nuku Hiva Isla	121.71	134	*e*LR	LR	22 05 59.5	
	comp=Z,2µm,27.2s						
TNA	Tin City	133.47	32	IAMs_20	IAMs_20	22 30 16.9	
	comp=Z,2µm,20.0s						
ANM	Nome	134.62	33	IAMs_20	IAMs_20	22 30 52.4	
	comp=Z,1µm,20.0s						
F15K	North Star Dit	134.81	31	IAMs_20	IAMs_20	22 31 12.3	
	comp=Z,2µm,20.0s						
K13K	Kusilvak Mount	135.13	36	IAMs_20	IAMs_20	22 31 32.0	
	comp=Z,1µm,20.0s						
J14K	Nanvaranak Lak	135.59	35	IAMs_20	IAMs_20	22 32 52.0	
	comp=Z,1µm,19.0s						
F17K	Baldwin Pennin	136.07	30	IAMs_20	IAMs_20	22 33 08.5	
	comp=Z,2µm,19.0s						
L14K	Kuka Creek	136.10	37	IAMs_20	IAMs_20	22 36 25.8	
	comp=Z,1µm,18.0s						
K15K	Wolf Creek Mou	136.56	36	IAMs_20	IAMs_20	22 33 50.9	
	comp=Z,1µm,19.0s						
N14K	Kuskokwak Cree	136.69	39	IAMs_20	IAMs_20	22 32 32.5	
	comp=Z,1µm,20.0s						
I17K	Unalakleet	136.74	33	IAMs_20	IAMs_20	22 32 26.2	
	comp=Z,1µm,19.0s						
D19K	Kuna River	136.77	26	IAMs_20	IAMs_20	22 34 25.7	
	comp=Z,2µm,18.0s						
J16K	Anvik River	136.86	34	IAMs_20	IAMs_20	22 39 01.7	
	comp=Z,1µm,18.0s						
O14K	Tigyukauivet M	136.94	40	IAMs_20	IAMs_20	22 33 09.2	
	comp=Z,1µm,20.0s						
G18K	Tagagawik	137.22	30	IAMs_20	IAMs_20	22 34 03.8	
	comp=Z,2µm,20.0s						
D20K	Etivluk River	137.23	26	IAMs_20	IAMs_20	22 32 42.9	
	comp=Z,2µm,20.0s						
F19K	Shaleruckik Mo	137.34	29	PKPdf	PKiKP	21 28 56.3	-0.6
E19K	Redstone River	137.38	28	IAMs_20	IAMs_20	22 32 06.8	
	comp=Z,2µm,20.0s						
N15K	Kwethluk River	137.47	39	IAMs_20	IAMs_20	22 35 06.0	
	comp=Z,1µm,20.0s						
H18K	Honhosa River	137.50	31	IAMs_20	IAMs_20	22 33 39.2	
	comp=Z,2µm,21.0s						
J17K	VABM Dome	137.53	34	IAMs_20	IAMs_20	22 32 54.2	
	comp=Z,1µm,20.0s						
L16K	Owhat River	137.60	36	IAMs_20	IAMs_20	22 33 34.2	
	comp=Z,1µm,19.0s						
O15K	Ungalikthiuk R	137.69	40	IAMs_20	IAMs_20	22 32 01.9	
	comp=Z,1µm,20.0s						
B22K	Teshekpuk Lake	137.72	23	IAMs_20	IAMs_20	22 32 56.6	
	comp=Z,2µm,21.0s						
G19K	Purcell Mounta	137.78	30	IAMs_20	IAMs_20	22 33 43.6	
	comp=Z,2µm,20.0s						
M16K	Timber Creek	137.93	37	IAMs_20	IAMs_20	22 33 59.1	
	comp=Z,1µm,21.0s						
K17K	Iditarod	137.99	35	IAMs_20	IAMs_20	22 32 14.5	
	comp=Z,2µm,21.0s						
F20K	Avaraart Lake	138.06	28	IAMs_20	IAMs_20	22 37 34.8	
	comp=Z,1µm,18.0s						
E21K	Killik River	138.24	26	IAMs_20	IAMs_20	22 32 02.6	
	comp=Z,2µm,21.0s						
J18K	Innoko River	138.56	34	IAMs_20	IAMs_20	22 34 00.4	
	comp=Z,2µm,20.0s						
P16K	Nushagak River	138.64	40	IAMs_20	IAMs_20	22 32 59.2	
	comp=Z,1µm,19.0s						
L18K	Granite Mounta	138.82	35	IAMs_20	IAMs_20	22 32 52.4	
	comp=Z,1µm,21.0s						
N17K	Nushagak Hills	138.86	38	IAMs_20	IAMs_20	22 38 44.7	
	comp=Z,1µm,18.0s						
J19K	Poorman	138.91	33	IAMs_20	IAMs_20	22 34 50.7	
	comp=Z,2µm,22.0s						
G21K	Allakaket	139.06	29	IAMs_20	IAMs_20	22 33 21.3	
	comp=Z,2µm,21.0s						
I20K	Naaghedeneel	139.19	31	IAMs_20	IAMs_20	22 36 45.9	
	comp=Z,2µm,19.0s						
P17K	Kvichak River	139.42	40	IAMs_20	IAMs_20	22 34 17.6	
	comp=Z,2µm,20.0s						
C24K	Franklin Bluff	139.45	23	IAMs_20	IAMs_20	22 34 07.3	
	comp=Z,2µm,20.0s						
N18K	Kilae Creek	139.47	38	IAMs_20	IAMs_20	22 35 47.8	
	comp=Z,1µm,20.0s						
J20K	Nowinta River	139.49	32	IAMs_20	IAMs_20	22 34 39.0	
	comp=Z,1µm,20.0s						
K20K	Telida	139.74	33		PKPdf	21 28 58.3	-1.3
K20K				IAMs_20	IAMs_20	22 35 39.7	
	comp=Z,2µm,20.0s						
E23K	Chandalar	139.89	25	IAMs_20	IAMs_20	22 28 54.0	
	comp=Z,2µm,22.0s						
COLD	Coldfoot	140.02	27	IAMs_20	IAMs_20	22 34 32.6	
	comp=Z,2µm,20.0s						
L20K	Farewell, AK	140.04	35	IAMs_20	IAMs_20	22 34 01.7	
	comp=Z,1µm,22.0s						
H22K	Ishtalitna Cre	140.08	29	IAMs_20	IAMs_20	22 34 14.0	
	comp=Z,1µm,22.0s						
I21K	Tanana	140.08	30	IAMs_20	IAMs_20	22 35 49.5	
	comp=Z,1µm,19.0s						
N19K	Bonanza Creek	140.12	37	IAMs_20	IAMs_20	22 34 58.1	
	comp=Z,1µm,20.0s						
E24K	Your Creek	140.26	25	IAMs_20	IAMs_20	22 31 21.0	
	comp=Z,2µm,21.0s						
G23K	Bananza Creek	140.29	27	IAMs_20	IAMs_20	22 37 18.7	
	comp=Z,2µm,19.0s						
O19K	Port Alsworth	140.32	38	IAMs_20	IAMs_20	22 38 42.4	
	comp=Z,1µm,19.0s						
D25K	Kavik River	140.36	23	IAMs_20	IAMs_20	22 32 13.4	
	comp=Z,2µm,22.0s						
M20K	Styx River	140.53	35	IAMs_20	IAMs_20	22 34 33.6	
	comp=Z,1µm,22.0s						
CAST	Castle Rocks	140.58	33	IAMs_20	IAMs_20	22 37 47.0	
	comp=Z,1µm,20.0s						
MLY	Manley	140.63	30	IAMs_20	IAMs_20	22 36 33.9	
	comp=Z,1µm,19.0s						
H23K	Yukon River	140.81	29	IAMs_20	IAMs_20	22 37 43.6	
	comp=Z,1µm,19.0s						
BPAW	Bear Paw Mtn.	140.84	32	IAMs_20	IAMs_20	22 36 11.6	
	comp=Z,1µm,19.0s						
C27K	Jago River	141.00	22	IAMs_20	IAMs_20	22 34 26.3	
	comp=Z,2µm,20.0s						
I23K	Minto, Yukon-K	141.13	30	IAMs_20	IAMs_20	22 33 35.2	
	comp=Z,2µm,22.0s						
G24K	Hadweenzic Riv	141.22	27		PKPdf	21 29 00.7	-1.5
G24K				IAMs_20	IAMs_20	22 38 29.2	
	comp=Z,2µm,19.0s						
SKT	Skwentna	141.23	35	IAMs_20	IAMs_20	22 37 30.2	
	comp=Z,1µm,20.0s						
TRF	Thorofare Moun	141.34	32	IAMs_20	IAMs_20	22 39 02.0	
	comp=Z,1µm,20.0s						
H24K	Noodor Dome	141.43	28	IAMs_20	IAMs_20	22 39 18.1	
	comp=Z,2µm,19.0s						
BWN	Browne	141.44	31	IAMs_20	IAMs_20	22 35 55.3	
	comp=Z,1µm,19.0s						
NEA2	Nenana	141.45	30	IAMs_20	IAMs_20	22 36 06.8	
	comp=Z,1µm,19.0s						
KDAK	Kodiak Island	141.63	42	IAMs_20	IAMs_20	22 36 13.2	
	comp=Z,1µm,21.0s						
CUT	Chulitna	141.68	34	IAMs_20	IAMs_20	22 35 57.0	
	comp=Z,2µm,21.0s						
CAPN	Captain Cook N	141.72	37	IAMs_20	IAMs_20	22 36 30.1	
	comp=Z,2µm,20.0s						
SUA	Susitna One	141.73	36	IAMs_20	IAMs_20	22 35 41.6	
	comp=Z,1µm,21.0s						
MCK	McKinley	141.82	32	IAMs_20	IAMs_20	22 36 16.4	
	comp=Z,2µm,19.0s						
COLA	College	141.83	30	IAMs_20	IAMs_20	22 37 51.6	
	comp=Z,1µm,20.0s						
BMAR	Burnt Mountain	141.88	25		PKPdf	21 29 00.9	-2.5
CCB	Clear Creek Bu	141.94	30	IAMs_20	IAMs_20	22 38 52.5	
	comp=Z,1µm,19.0s						
RND	Reindeer	141.97	32	IAMs_20	IAMs_20	22 34 48.4	
	comp=Z,2µm,22.0s						
CNPM	China Poot	141.98	39	IAMs_20	IAMs_20	22 34 07.3	
	comp=Z,2µm,22.0s						
D27M	Malcolm River	142.02	21	IAMs_20	IAMs_20	22 34 05.2	
	comp=Z,1µm,21.0s						
FYU	Fort Yukon	142.07	26	IAMs_20	IAMs_20	22 36 26.9	
	comp=Z,2µm,21.0s						
BRLK	Bradley Lake	142.10	38	IAMs_20	IAMs_20	22 34 33.2	
	comp=Z,1µm,21.0s						
ILAR	Eielson Array	142.25	30	PKhKP	PKPpre	21 28 59.4	
	comp=Z,1.3nm,0.8s,baz=294,slow=3.1,SNR=5.3						
RC01	Rabbit Creek A	142.31	36	IAMs_20	IAMs_20	22 33 47.6	
	comp=Z,2µm,22.0s						
HDA	Harding Lake	142.37	30	IAMs_20	IAMs_20	22 38 47.0	
	comp=Z,1µm,19.0s						
PRP	Porcupine Dome	142.45	28	IAMs_20	IAMs_20	22 38 54.0	
	comp=Z,1µm,18.0s						
DHY	Denali Highway	142.71	32	IAMs_20	IAMs_20	22 36 56.1	
	comp=Z,1µm,19.0s						
SEW	Seward	142.71	37	IAMs_20	IAMs_20	22 37 24.5	
	comp=Z,1µm,20.0s						
SML	Sawmill	142.73	34	IAMs_20	IAMs_20	22 37 08.8	
	comp=Z,1µm,20.0s						
KNK	Knik Glacier	142.80	35	IAMs_20	IAMs_20	22 36 47.6	
	comp=Z,2µm,20.0s						
E28M	Babbage River	142.82	22	IAMs_20	IAMs_20	22 32 54.2	
	comp=Z,1µm,21.0s						
J25K	Salcha River,	142.91	29	IAMs_20	IAMs_20	22 39 20.1	
	comp=Z,2µm,20.0s						
PWL	Port Wells	143.03	36	IAMs_20	IAMs_20	22 36 50.8	
	comp=Z,1µm,22.0s						
SJG	San Juan	143.03	248	IAMs_20	IAMs_20	22 29 29.0	
	comp=Z,2µm,20.0s						
K24K	Donnelly Dome	143.09	31	IAMs_20	IAMs_20	22 34 31.0	
	comp=Z,1µm,22.0s						
SCM	Sheep Creek Mo	143.17	34	IAMs_20	IAMs_20	22 38 06.4	
	comp=Z,1µm,20.0s						
G27K	Doyon Strip	143.18	25	IAMs_20	IAMs_20	22 36 36.1	
	comp=Z,2µm,20.0s						
E29M	Blow River	143.43	21	IAMs_20	IAMs_20	22 39 40.3	
	comp=Z,1µm,19.0s						
I26K	Coal Creek Min	143.43	28	IAMs_20	IAMs_20	22 37 55.7	
	comp=Z,2µm,19.0s						
RIDG	Independent Ri	143.49	30	IAMs_20	IAMs_20	22 37 56.6	
	comp=Z,1µm,20.0s						
A36M	Sachs Harbour	143.58	12	IAMs_20	IAMs_20	22 32 15.9	
	comp=Z,1µm,22.0s						
GLI	Glacier Island	143.60	36	IAMs_20	IAMs_20	22 37 33.8	
	comp=Z,1µm,20.0s						
P23K	Montague Islan	143.73	37	IAMs_20	IAMs_20	22 37 33.4	
	comp=Z,2µm,21.0s						
SCRK	Sand Creek	143.73	30		PKPbc	21 29 05.2	+0.8
I27K	Kandik River	143.83	27	IAMs_20	IAMs_20	22 34 59.4	
	comp=Z,2µm,22.0s						
HARP	HAARP	143.91	33	IAMs_20	IAMs_20	22 40 04.9	
	comp=Z,1µm,18.0s						
KLU	Klutina	143.92	34	IAMs_20	IAMs_20	22 35 25.2	
	comp=Z,1µm,22.0s						
HIN	Hinchinbrook I	144.03	36	IAMs_20	IAMs_20	22 37 50.3	
	comp=Z,1µm,20.0s						
DIV	Divide	144.12	35	PKPdf	PKPbc	21 29 06.4	+0.8
DIV				IAMs_20	IAMs_20	22 35 36.4	
	comp=Z,1µm,22.0s						
L26K	Log Cabin Wild	144.41	31	IAMs_20	IAMs_20	22 33 49.9	
	comp=Z,1µm,21.0s						
K27K	Chicken	144.45	29	IAMs_20	IAMs_20	22 36 02.9	
	comp=Z,1µm,21.0s						
F30M	Barrier River	144.54	21	IAMs_20	IAMs_20	22 35 54.7	
	comp=Z,2µm,20.0s						
INK	Inuvik	144.69	20	PKIKP	PKPab	21 29 05.5	-1.5
INK	Inuvik	144.69	20		PKPab	21 29 05.5	-1.5
BMRM	Bremner River	144.71	35		PKPab	21 29 06.7	-0.6
BMRM				IAMs_20	IAMs_20	22 36 24.0	
	comp=Z,2µm,22.0s						
G30M	tAoh Zraii Nji	144.81	22	IAMs_20	IAMs_20	22 35 35.8	
	comp=Z,2µm,21.0s						
M26K	Nabesna, AK	144.83	32	IAMs_20	IAMs_20	22 40 58.1	
	comp=Z,1µm,19.0s						
RAGM	Ragged Mountai	144.89	36	IAMs_20	IAMs_20	22 37 48.9	
	comp=Z,2µm,20.0s						
L27K	Beaver Creek,	145.01	30	IAMs_20	IAMs_20	22 40 16.8	
	comp=Z,2µm,19.0s						
BCAR	Beaver Creek A	145.03	30		PKPbc	21 29 07.4	-1.0
VRDI	Verde Repeater	145.12	34		PKPbc	21 29 07.4	-1.6
VRDI				IAMs_20	IAMs_20	22 40 48.9	
	comp=Z,996nm,19.0s						
I29M	Ogilvie Camp,	145.12	26	IAMs_20	IAMs_20	22 39 16.5	
	comp=Z,2µm,19.0s						
KAIM	Kayak Island	145.17	36	IAMs_20	IAMs_20	22 43 16.4	
	comp=Z,1µm,20.0s						
F31M	Tsiigehtchic	145.24	21	IAMs_20	IAMs_20	22 36 31.1	
	comp=Z,1µm,20.0s						
MCARA	McCarthy VSAT	145.25	34	IAMs_20	IAMs_20	22 38 42.2	
	comp=Z,1µm,19.0s						
BCIP	Isla Barro Col	145.26	221	PKIKP	PKPbc	21 29 08.9	-1.6
BCIP	Isla Barro Col	145.26	221	PKPbc	PKPbc	21 29 08.9	-1.6
M27K	Edge Creek, AK	145.31	32	IAMs_20	IAMs_20	22 34 41.9	
	comp=Z,1µm,22.0s						
BERG	Berg Lake	145.33	35	IAMs_20	IAMs_20	22 36 55.7	
	comp=Z,1µm,21.0s						
G31M	Satah River	145.44	22	IAMs_20	IAMs_20	22 33 15.2	
	comp=Z,2µm,22.0s						
J29N	Klondike Camp	145.67	27	IAMs_20	IAMs_20	22 36 23.0	
	comp=Z,1µm,21.0s						
BARN	Barnard Glacie	145.98	34	IAMs_20	IAMs_20	22 39 13.7	
	comp=Z,1µm,20.0s						
GRNC	Granite Creek	146.08	34	IAMs_20	IAMs_20	22 39 01.3	
	comp=Z,1µm,20.0s						
H31M	Peel River	146.15	23	IAMs_20	IAMs_20	22 35 40.2	
	comp=Z,1µm,21.0s						
YAH	Yahtse	146.24	35	PKPdf	PKPdf	21 29 11.3	-0.1
YAH				IAMs_20	IAMs_20	22 39 00.6	
	comp=Z,1µm,20.0s						
BANI	BANI	146.27	244	PKPdf	PKPdf	21 29 11.7	-0.9
K29M	Barlow Dome	146.27	28	IAMs_20	IAMs_20	22 40 20.8	
	comp=Z,2µm,19.0s						
LOGN	Logan Glacier	146.37	34	IAMs_20	IAMs_20	22 41 20.0	
	comp=Z,1µm,19.0s						
L29M	L29M	146.44	29	IAMs_20	IAMs_20	22 37 45.5	
	comp=Z,1µm,20.0s						
M29M	Somme Creek	146.66	30	IAMs_20	IAMs_20	22 37 23.5	
	comp=Z,1µm,21.0s						
PCA	Pinnacle	147.02	35	IAMs_20	IAMs_20	22 42 22.4	
	comp=Z,1µm,19.0s						
SC01	Santiago de lo	147.20	245	PKPdf	PKPdf	21 29 12.6	-1.4
SDDR	Presa de Saban	147.32	244	IAMs_20	IAMs_20	22 25 12.3	
	comp=Z,1µm,22.0s						
O29M	Mount Kennedy	147.68	34	IAMs_20	IAMs_20	22 40 36.3	
	comp=Z,1µm,19.0s						
N30M	Aishikik Lake	147.73	31	IAMs_20	IAMs_20	22 42 27.8	
	comp=Z,1µm,19.0s						
HDC	Heredia	148.08	215	IAMs_20	IAMs_20	22 31 20.5	
	comp=Z,1µm,21.0s						
N31M	Braeburn, Yuko	148.25	30	IAMs_20	IAMs_20	22 38 11.1	
	comp=Z,1µm,21.0s						
M31M	Drury Creek, Y	148.38	28	IAMs_20	IAMs_20	22 41 08.5	
	comp=Z,2µm,20.0s						
JTS	Las Juntas de	148.72	214	PKHKP	PKPpre	21 29 13.5	
JTS				MLR	MLR		
	comp=Z,1µm,19.0s						
JTS	Las Juntas de	148.72	214		PKPdf	21 29 13.5	-3.2
JTS	Las Juntas de	148.72	214	IAMs_20	IAMs_20	22 33 36.2	
	comp=Z,1µm,19.0s						
N32M	Quiet Lake	149.51	29	IAMs_20	IAMs_20	22 43 52.6	
	comp=Z,1µm,21.0s						
S31K	Pelican	149.84	36	IAMs_20	IAMs_20	22 42 06.1	
	comp=Z,2µm,19.0s						
P32M	Atlin	150.15	32	IAMs_20	IAMs_20	22 39 17.4	
	comp=Z,2µm,21.0s						
BESE	Bessie Mountai	150.18	35	IAMs_20	IAMs_20	22 42 17.8	
	comp=Z,2µm,19.0s						
R32K	Eaglecrest	150.49	35	IAMs_20	IAMs_20	22 42 50.0	
	comp=Z,1µm,19.0s						
SCHQ	Schefferville	150.52	317	PKPbc	PKiKP	21 29 24.1	-0.3
	comp=Z,16nm,1.0s,baz=64,slow=3.4,SNR=7.2						
S32K	Killisnoo	150.86	37	IAMs_20	IAMs_20	22 43 12.9	
	comp=Z,1µm,20.0s						
BOAB	BOACO BROADBA	150.94	215	PKPdf	PKPdf	21 29 18.4	-1.8
MTDJ	Mount Denham	151.07	235	IAMs_20	IAMs_20	22 29 43.3	
	comp=Z,1µm,21.0s						
R33M	Jennings River	151.41	31	IAMs_20	IAMs_20	22 43 08.6	
	comp=Z,2µm,20.0s						
S34M	Telegraph Cree	152.20	34	IAMs_20	IAMs_20	22 40 53.9	
	comp=Z,1µm,20.0s						
WRAK	Wrangell Islan	152.44	37	IAMs_20	IAMs_20	22 34 48.5	
	comp=Z,2µm,22.0s						
BLKN	Baker Lake	152.99	354		PKPbc	21 29 26.2	-2.7
TGUH	Tegucigalpa,Un	153.08	213	IAMs_20	IAMs_20	22 35 21.8	
	comp=Z,950nm,20.0s						
T35M	Bob Quinn	153.12	35	IAMs_20	IAMs_20	22 35 36.3	
	comp=Z,1µm,22.0s						
V35K	Ketchikan	153.35	39	IAMs_20	IAMs_20	22 44 02.8	
	comp=Z,2µm,20.0s						
YKA	Yellowknife Ar	153.92	13	PKPbc	PKPbc	21 29 29.3	-1.7
	comp=Z,4.2nm,0.9s,baz=346,slow=2.3,SNR=8.4						
YKA				PP	PP	21 33 18.9	+0.1
	comp=Z,1.5nm,1.0s,baz=328,slow=6.4,SNR=4.3						
TEIG	Tepich	158.90	219	IAMs_20	IAMs_20	22 45 05.3	
	comp=Z,1µm,20.0s						
LNOR	Lincton Mounta	165.41	50		PKPab	21 30 32.3	-2.6
BEKR	Beckworth	165.60	75	PKPdf	PKPdf	21 29 35.9	-1.5
BEKR					PKPab	21 30 34.4	-1.8
NVAR	Mina Array Bea	167.23	81	PKP	PKPdf	21 29 40.0	+1.3
	comp=Z,3.9nm,1.2s,baz=196,slow=2.8,SNR=9.0						
NVAR				PKPab	PKPab	21 30 43.6	+0.2
	comp=Z,7.1nm,1.1s,baz=253,slow=5.5,SNR=9.9						
NVAR				PP	PP	21 34 35.2	+2.9
	comp=Z,2.1nm,1.1s,baz=288,slow=1.9,SNR=5.3						
NVAR	Mina Array Bea	167.23	81		PKPdf	21 29 37.4	-1.3
TXAR	Lajitas Array	171.66	171	PKP	PKPdf	21 29 43.3	+1.8
	comp=Z,1.5nm,0.9s,baz=331,slow=2.7,SNR=8.8						
TXAR				PKPab	PKPab	21 31 02.7	-0.1
	comp=Z,3.4nm,1.2s,baz=180,slow=8.4,SNR=7.9						
TXAR	Lajitas Array	171.66	171	PKIKP	PKPdf	21 29 39.9	-1.6
TXAR	Lajitas Array	171.66	171		PKPdf	21 29 39.9	-1.6
PDAR	Pinedale Array	172.33	45	PKP	PKPdf	21 29 42.0	+0.4
	comp=Z,2.7nm,1.2s,baz=263,slow=3.7,SNR=11						
PDAR				PKPab	PKPab	21 31 05.8	-0.1
	comp=Z,1.8nm,1.1s,baz=316,slow=4.1,SNR=4.5						
PDAR	Pinedale Array	172.33	45		PKPdf	21 29 39.9	-1.7
PDAR				PKPab	PKPab	21 31 03.3	-2.5

TEH 19 21:16:46.0, 30°.75N×57°.38E, h7^{km}±57^{km}, ML3.6, Presumed earthquake, Northern and central Iran

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRM1	Kerman Provinc	0.27	201	Pg	Pb	21 16 52.6	-0.7
ZRDN	Zarand Kerman	0.76	287	Pg	Pg	21 17 00.3	-0.3
KHGB	Koh Gabri	0.86	245	Pg	Pg	21 17 02.9	+0.2
CHMN	Cheshme madani	0.90	171	Pg	Pb	21 17 03.8	-0.3
NGRK	Negar Kerman	1.24	207	Pg	Pn	21 17 10.5	+0.5
NGRK				Sg	Sn	21 17 28.5	+1.3
IBAF	Bafgh	1.77	299	Pg	Pb	21 17 18.4	-0.4
KBAM	BAM	1.86	150	Pn	Pb	21 17 20.5	+0.2
BSRN	Basiran	1.92	51	Pn	Pb	21 17 20.6	-0.9
IKOO	Kooshah	2.17	39	Pn	Pb	21 17 24.7	-1.1
NHDN	Nehbandan	2.38	74	Pn	Pb	21 17 27.9	-1.3
ITEG	Tejag	2.44	28	Pn	Pb	21 17 28.6	-1.6
IMEH	Mehriz	2.46	286	Pn	Pb	21 17 29.0	-1.7
TAFT	Taft - Yazd	2.92	290	Pn	Pn	21 17 34.7	+1.7
TSHB	Tabas_ShorAb	3.03	345	Pn	Pn	21 17 36.4	+2.0
ZHSF	Zahedan	3.15	110	Pn	Pn	21 17 38.9	+2.7
SHRT	Shahrakht	3.80	40	Pn	Pn	21 17 47.4	+2.5
SHRO	Shahrood	5.35	348	Pn	Pn	21 18 08.2	+1.9
KRSH	Karshahi	5.48	307	Pn	Pn	21 18 10.2	+2.1
IAKL	Akhelmad	5.95	11	Pn	Pn	21 18 16.9	+2.2

*IDC **19** 21:18:19.4±2.5, 7°.73S×107°.33E, h0^{km}, mb3.7/5, mbtmp3.7/5, Error ellipse: s-maj=157.9km s-min=21.6km az=50.0*

*DJA **19** 21:18:26.5±0.3, 8°S±3°×10°7E±°, h10^{km}, M4.1/17, ML4.0/17, MLv4.0/18, MLv4.1/17*

ISC 19 21:18:28.2±1.0, 7°.9S±0°.1×107°.38E±0°.06, h62^{km}, n30, σ1^{s}87/23, mb3.6/5, Jawa

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BBJI	Bungbulang	0.54	30	P	Pn	21 18 40.5	-0.3
BBJI				S	Sn	21 18 50.2	+0.2
BBJI				AML	AML		
CNJI	Cibinong	0.67	338	P	Pn	21 18 42.3	+0.1
CNJI				S	Sn	21 18 53.5	+1.1
CNJI				AML	AML		
CNJI				AML	AML		
CNJI				AML	AML		
CMJI	Cimerak	1.07	82	P	Pn	21 18 45.8	-1.4
CMJI				AML	AML		
CMJI				AML	AML		
CMJI				AML	AML		
SKJI	Sukabumi	1.23	318	P	Pn	21 18 50.5	+1.2
KPJI	Karang Pucung	1.65	69	P	Pn	21 18 57.1	+2.1
KPJI				AML	AML		
KPJI				AML	AML		
KPJI				AML	AML		
SCJI	Gunung Srandil	1.79	82	P	Pn	21 18 57.9	+1.0
CTJI	Waduk Cacaban	2.01	63	P	Pn	21 19 02.4	+2.5
CGJI	Cibinong	2.12	308	P	Pn	21 19 02.3	+0.9
CGJI				AML	AML		
CGJI				AML	AML		
CGJI				AML	AML		
SBJI	Serang	2.19	325	P	Pn	21 19 05.0	+2.8
SBJI				AML	AML		
SBJI				AML	AML		
SBJI				AML	AML		
YOGI	Yogyakarta	2.89	88	P	Pn	21 19 13.1	+1.2
YOGI				AML	AML		
YOGI				AML	AML		
SMRI	Semarang	3.16	74	P	Pn	21 19 16.5	+0.9
WOJI	Wonogiri, Jawa	3.51	89	P	Pn	21 19 22.8	+2.4
WOJI				AML	AML		
WOJI				AML	AML		
WOJI				AML	AML		
KASI	Kota Agung	3.73	310	P	Pn	21 19 25.8	+2.5
PCJI	Pacitan	3.77	94	P	Pn	21 19 24.8	+0.9
SNJI	Sawahan-Nganju	4.34	88	P	Pn	21 19 34.6	+2.7
SJI	Sawahan	4.35	88	P	Pn	21 19 35.5	+3.6
WRA	Warramunga Arr	28.71	117	P	P	21 24 19.0	-0.9
	0.4nm,0.8s,baz=287,slow=12,SNR=1.6						
	0.4nm,0.8s						
ASAR	Alice Springs	29.85	125	P	P	21 24 30.2	+0.3
	0.2nm,0.4s,baz=305,slow=8.4,SNR=2.1						
	0.2nm,0.4s						
H08S2	Diego Garcia H	34.56	268	T	T	22 02 12.3	
	baz=90						
H08S3	Diego Garcia H	34.57	268	T	T	22 02 22.4	
	baz=90						
H08S1	Diego Carcia H	34.58	268	T	T	22 02 17.6	
	baz=90						
STKA	Stephens Creek	39.74	132	P	P	21 25 55.7	+0.7
	3.2nm,0.4s,baz=310,slow=6.4,SNR=12						
	3.2nm,0.4s						
MKAR	Makanchi Array	58.88	340	P	P	21 28 18.2	-2.5
	0.3nm,0.6s,baz=157,slow=7.8,SNR=5.1						
	0.3nm,0.6s						
H04N2	CROZET ISLANDS	60.81	221	T	T	22 35 11.4	
	baz=68,slow=74,SNR=11						
H04N1	CROZET ISLANDS	60.82	221	T	T	22 35 07.2	
	baz=68,slow=74,SNR=18						
H04N3	CROZET ISLANDS	60.82	221	T	T	22 35 01.5	
	baz=68,slow=74,SNR=17						
H04S1	CROZET ISLANDS	60.98	220	T	T	22 35 21.0	

	baz=68						
H04S3	**CROZET ISLANDS**	**60.99**	**220**	T	T	22 35 09.4	
	baz=68						
H04S2	**CROZET ISLANDS**	**60.99**	**220**	T	T	22 35 10.5	
	baz=68						
BVAR	**Borovoye Array**	**68.37**	**337**	P	**P**	**21 29 21.8**	**-1.2**
	1.2nm,0.6s,baz=142,slow=7.2,SNR=6.4						
	1.2nm,0.6s						

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*MAN **19** 21:48:09.0, 13°.05N×123°.67E, h21km, MS4.2*
MAN INTENSITY II - CLAVERIA MASBATE; . INTENSITY I - LEGAZPI CITY.
*IDC **19** 21:48:10.4±0.8, 12°.82N×123°.26E, h0km, mb3.9/11, mbtmp3.9/11, Error ellipse: s-maj=33.3km s-min=16.7km az=68.0*
*NEIC **19** 21:48:11.5±1.6, 12°.80N±0°.10×123°.23E±0°.09, h10km±1km, mb4.4/15, Error ellipse: s-maj=17.8km s-min=12.3km az=34.0*
ISC 19 21:48:10.8±1.3**, 12°.81N**±0°.04×**123°.30E**±0°.06**, h9**km±9km**, n52,** σ1^{s}**51**/57**, mb4.3**/21**, 1C, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MMPH	**Masbate**	**0.55**	**145**	*e*P	**Pg**	**21 48 19.4**	**-2.1**
MMPH				*i* S	**Sb**	**21 48 30.5**	**-0.1**
GQP	**Guinayangan**	**1.37**	**323**	*e*P	**Pg**	**21 48 36.0**	**-1.2**
GQP				*e*S	**Sg**	**21 48 57.0**	**+2.1**
IBAJ	**Ibajay, Aklan**	**1.48**	**228**	*e*P	**Pn**	**21 48 36.0**	**-1.6**
IBAJ				*e*S	**Sg**	**21 48 59.4**	**+0.9**
LQP	**Lukban**	**2.15**	**307**	*e*P	**Pb**	**21 48 48.5**	**-1.6**
LQP				*e*S	**Sg**	**21 49 22.9**	**+3.0**
PLP	**Palo**	**2.32**	**135**	*e*P	**Pn**	**21 48 46.8**	**-2.4**
PLP				*e*S	**Sn**	**21 49 18.7**	**+0.8**
JAP	**San Jose, Anti**	**2.44**	**213**	*e*P	**Pb**	**21 48 55.3**	**+0.3**
LLP	**Lapu-Lapu**	**2.56**	**165**	*e*P	**Pn**	**21 48 53.4**	**+0.8**
LLP				*i* S	**Sb**	**21 49 26.7**	**-2.0**
TGY	**Tagaytay City**	**2.63**	**299**	*e*P	**Pb**	**21 48 56.3**	**-1.9**
PCPS	**Palayan City**	**2.84**	**310**	*e*P	**Pg**	**21 49 05.9**	**+0.5**
PCPS				*e*S	Sg	21 50 07.5	+25
TBP	**Tagbilaran**	**3.15**	**170**	*e*P	**Pn**	**21 49 00.5**	**-0.2**
DCPH	**Dipolog City**	**4.20**	**179**	*i* P	**Pn**	**21 49 19.2**	**+4.0**
CVP	**Callao Caves**	**5.07**	**344**	*e*P	**Pn**	**21 49 26.9**	**-0.1**
CVP				*e*S	**Sn**	**21 50 25.1**	**-0.7**
BIPH	**Bislig**	**5.50**	**146**	*e*P	**Pn**	**21 49 36.8**	**+3.9**
BIPH				*e*S	**Sn**	**21 50 34.7**	**-1.7**
YULB	**Yu-li**	**10.69**	**350**	Pn	**Pn**	**21 50 44.0**	**-0.3**
TNTI	**Ternate**	**12.62**	**161**	Pn	**Pn**	**21 51 11.5**	**+0.7**
CMAR	**Chiang Mai Arr**	**24.11**	**287**	P	**P**	**21 53 26.7**	**-0.5**
	1.1nm,0.3s,baz=108,slow=9.7,SNR=3.8						
	1.1nm,0.3s						
CMAR	**Chiang Mai Arr**	**24.11**	**287**	P	**P**	**21 53 24.5**	**-2.6**
KSRS	**Korea Array**	**24.89**	**9**	P	**P**	**21 53 33.3**	**-0.7**
	0.9nm,0.5s,baz=184,slow=9.8,SNR=6.0						
	0.9nm,0.5s						
SHL	**Shillong**	**32.17**	**298**		**P**	**21 54 37.4**	**-2.0**
BNX	**BinXian**	**33.00**	**5**	⇑P	**P**	**21 54 49.0**	**+2.8**
BNX				pmax	pmax		
	comp=Z,5.0nm,0.7s						
WRA	**Warramunga Arr**	**34.31**	**161**	P	**P**	**21 54 58.8**	**+0.8**
	comp=Z,0.9nm,0.7s,baz=341,slow=9.3,SNR=5.1						
	comp=Z,0.9nm,0.7s						
AS31	**Alice Springs**	**37.71**	**164**	P	**P**	**21 55 26.3**	**-0.7**
ASAR	**Alice Springs**	**37.71**	**164**	P	**P**	**21 55 27.5**	**+0.5**
	comp=Z,0.6nm,0.7s,baz=342,slow=7.1,SNR=4.9						
	comp=Z,0.6nm,0.7s						
ASAR	**Alice Springs**	**37.71**	**164**	P	**P**	**21 55 27.2**	**+0.2**
H11N1	**WAKE ISLAND Hy**	**42.31**	**75**	T	T	22 40 26.0	
	baz=267,slow=74,SNR=12						
H11N2	**WAKE ISLAND Hy**	**42.32**	**75**	T	T	22 40 22.1	
	baz=267,slow=74,SNR=7.9						
H11N3	**WAKE ISLAND Hy**	**42.33**	**75**	T	T	22 40 25.2	
	baz=267,slow=74,SNR=13						
INKA	**Innaminka**	**43.72**	**157**		**P**	**21 56 14.8**	**-1.7**
STKA	**Stephens Creek**	**47.77**	**159**	P	**P**	**21 56 50.5**	**+2.0**
	comp=Z,2.0nm,1.0s,baz=326,slow=8.7,SNR=2.9						
	comp=Z,2.0nm,1.0s						
MKAR	**Makanchi Array**	**48.26**	**323**	P	**P**	**21 56 53.0**	**+0.8**
	comp=Z,2.7nm,0.9s,baz=122,slow=8.2,SNR=15						
	comp=Z,2.7nm,0.9s						
MKAR	**Makanchi Array**	**48.26**	**323**		**P**	**21 56 51.9**	**-0.4**
PDGK	**Podgornoye**	**48.37**	**317**		**P**	**21 56 53.0**	**-0.3**
PETK	**Petropavlovsk-**	**48.62**	**27**	P	**P**	**21 56 57.0**	**+2.1**
	comp=Z,4.1nm,0.9s,baz=234,slow=12,SNR=3.6						
	comp=Z,4.1nm,0.9s						
ZAA0	**Zalesovo Array**	**51.02**	**332**	P	**P**	**21 57 13.0**	**-0.1**
ZALV	**Zalesovo Beam**	**51.02**	**332**	P	**P**	**21 57 13.9**	**+0.8**
	comp=Z,1.3nm,0.7s,baz=124,slow=7.5,SNR=7.7						
	comp=Z,1.3nm,0.7s						
ZALV	**Zalesovo Beam**	**51.02**	**332**		**P**	**21 57 13.2**	**+0.1**
KURK	**Kurchatov**	**52.34**	**326**		**P**	**21 57 23.4**	**+0.4**
KURBB	**Kurchatov Arra**	**52.34**	**325**	P	**P**	**21 57 24.7**	**+1.7**
	comp=Z,2.5nm,0.7s,baz=121,slow=7.8,SNR=14						
	comp=Z,2.5nm,0.7s						
BVAR	**Borovoye Array**	**57.93**	**325**	P	**P**	**21 58 03.8**	**+0.4**
	comp=Z,0.7nm,0.8s,baz=132,slow=8.7,SNR=5.2						
	comp=Z,0.7nm,0.8s						
BORK	**Borovoye**	**57.98**	**325**		**P**	**21 58 02.8**	**-1.0**
BORK				IAmb	IAmb	21 58 12.2	
	comp=Z,3.2nm,0.8s						
HRA	**Herat**	**59.05**	**302**	P	**P**	**21 58 10.2**	**-1.7**
HRA				IAmb	IAmb	21 58 25.0	
	comp=Z,3.6nm,1.2s						
ABKAR	**Akbulak array**	**63.06**	**319**	P	**P**	**21 58 37.5**	**-1.1**
GURO	**Guroymak-BITLI**	**75.35**	**307**	P	**P**	**21 59 56.2**	**+1.0**
GURO				IAmb	IAmb	22 00 04.9	
	comp=Z,3.8nm,0.8s						
CAST	**Castle Rocks**	**76.23**	**27**	P	**P**	**21 59 59.1**	**-0.5**
CAST				IAmb	IAmb	22 00 05.2	
	comp=Z,3.0nm,0.7s						
ILAR	**Eielson Array**	**78.44**	**26**	P	**P**	**22 00 12.1**	**+0.2**
	comp=Z,0.4nm,0.7s,baz=264,slow=6.1,SNR=2.7						
	comp=Z,0.4nm,0.7s						
BMAR	**Burnt Mountain**	**79.09**	**23**	P	**P**	**22 00 15.7**	**+0.2**
I26K	**Coal Creek Min**	**79.94**	**25**	P	**P**	**22 00 20.3**	**+0.2**
I26K				IAmb	IAmb	22 00 29.6	
	comp=Z,3.4nm,1.1s						
BCAR	**Beaver Creek A**	**80.90**	**27**	P	**P**	**22 00 25.9**	**+0.6**
H29M	**Whitestone**	**81.72**	**24**	P	**P**	**22 00 30.1**	**+0.5**
H29M				IAmb	IAmb	22 00 34.9	
	comp=Z,3.7nm,0.9s						
L29M	**L29M**	**82.52**	**27**		**P**	**22 00 34.2**	**+0.3**
L29M				IAmb	IAmb	22 00 40.2	
	comp=Z,2.5nm,0.8s						
BURAR	**Bucovina Array**	**86.02**	**318**	P	**P**	**22 00 51.0**	**-1.0**
BURAR				IAmb	IAmb	22 00 59.9	
	comp=Z,2.8nm,0.8s						
BUR08	**Bucovina Ar. S**	**86.02**	**318**		**P**	**22 00 51.4**	**-0.6**
BUR08				IAmb	IAmb	22 01 02.1	
	comp=Z,3.8nm,1.0s						

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*SNET **19** 21:56:22.2±1.1, 13°.73N×89°.27W, h4km, ML3.1, Presumed earthquake*
*CATAC **19** 21:56:23.3±0.4, 14°N±2°×8°9W±°, h5km±1km, M2.7/13, MLv2.7/13, Error ellipse: s-maj=3.8km s-min=2.1km az=18.9, confirmed*
ISC 19 21:56:21.6±1.1**, 13°.79N**±0°.07×**89°.24W**±0°.04**, h14**km±4km**, n17,** σ1^{s}**09**/32**, El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PIC2	**El Picacho**	**0.05**	**203**	*i* P	**Pg**	**21 56 23.8**	**-0.8**
PIC2				*e*S	**Sg**	**21 56 24.7**	**-1.9**
BOQS	**Boqueron**	**0.07**	**218**	*i* P	**Pg**	**21 56 23.8**	**-0.9**
UEES	**Universidad Ev**	**0.07**	**182**	*e*P	**Pg**	**21 56 23.9**	**-0.7**
UEES				*e*S	**Sg**	**21 56 24.9**	**-1.6**
UEES	**Universidad Ev**	**0.07**	**182**	P	**Pg**	**21 56 23.9**	**-0.7**
UEES				S	**Sg**	**21 56 25.0**	**-1.6**
SEMO	**Seminario San**	**0.09**	**171**	P	**Pg**	**21 56 24.7**	**-0.1**
SEMO				S	**Sg**	**21 56 25.9**	**-0.9**
UTEC	**Universidad Te**	**0.09**	**158**	P	**Pb**	**21 56 25.6**	**+0.8**
UTEC				S	**Sg**	**21 56 26.9**	**0.0**
IGN	**Direccin Gen**	**0.10**	**139**	P	**Pb**	**21 56 26.4**	**+1.6**
PMON	**Piamonte**	**0.11**	**225**	*e*P	**Pg**	**21 56 24.6**	**-0.4**
PMON				*e*S	**Sg**	**21 56 26.3**	**-0.9**
PMON	**Piamonte**	**0.11**	**225**	P	**Pg**	**21 56 24.6**	**-0.4**
PMON				S	**Sg**	**21 56 26.0**	**-1.2**
CEDA	**San Andres**	**0.15**	**275**	P	**Pb**	**21 56 26.2**	**-0.1**
CEDA				S	**Sg**	**21 56 29.6**	**+1.4**
LOMA	**Loma Larga**	**0.16**	**156**	P	**Pb**	**21 56 26.3**	**-0.1**
LOMA				S	**Sg**	**21 56 28.7**	**+0.4**
PANCS	**Alcalda de**	**0.18**	**162**	P	**Pg**	**21 56 26.0**	**0.0**
PANCS				S	**Sg**	**21 56 29.2**	**+0.3**
JAYA	**Jayaque - finc**	**0.24**	**237**	P	**Pg**	**21 56 27.6**	**+0.6**
JAYA				S	**Sg**	**21 56 31.2**	**+0.5**
PAVA	**Las Pavas**	**0.30**	**104**	P	**Pn**	**21 56 30.5**	**-1.2**
PAVA				S	**Sb**	**21 56 35.9**	**+2.2**
LALI	**Alcalda de L**	**0.31**	**195**	P	**Pb**	**21 56 29.0**	**+0.1**
LALI				S	**Sg**	**21 56 33.6**	**+1.3**
CEVE	**Cerro Verde**	**0.38**	**276**	P	**Pn**	**21 56 31.8**	**-1.1**
CEVE				S	**Sb**	**21 56 37.2**	**+1.2**
NUBE	**Las Nubes**	**0.54**	**282**	P	**Pb**	**21 56 33.7**	**+0.8**
NUBE				S	**Sb**	**21 56 42.1**	**+1.4**

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*IDC **19** 22:10:01.3±0.7, 64°.69S×178°.38E, h0km, mb4.2/9, mbtmp4.3/10, ML4.9/1, MS4.7/30, Error ellipse: s-maj=29.5km s-min=15.7km az=65.0*
*NEIC **19** 22:10:02.3±2.2, 64°.9S±0°.1×177°.9E±0°.4, h10km±1km, mb4.6/12, Error ellipse: s-maj=28.6km s-min=18.6km az=66.0*
*GCMT **19** 22:10:07.3±0.1, 64°.94S±0°.01×177°.90E±0°.02, h12km, MW5.4/153, Moment Tensor Solution. s94,c139; s153,c291; Duration: 1^{s}2 Moment tensor: Scale 10^{17} Nm; M_{rr}-0.20±.02; $M_{\theta\theta}$1.43±.02; $M_{\phi\phi}$-1.23±.02; $M_{r\theta}$-0.68±.05; $M_{\theta\phi}$-0.28±.02; $M_{\phi r}$0.14±.05; Best double couple: $M_0$1.48500×10^{17} NP1:ϕ_s229.00000°, δ73.00000°, λ169.00000°. NP2:ϕ_s322.00000°, δ80.00000°, λ18.00000°. Principal axes: T 1.7060, Plg20.0000°, Azm186.0000°; N -0.4410, Plg70.0000°, Azm352.0000°; P -1.2640, Plg5.0000°, Azm95.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
ISC 19 22:10:02.4±0.6**, 64°.83S**±0°.09×**178°.0E**±0°.2**, h10**km**, n75,** σ**0^{s}98**/42**, mb4.2**/15**, MS4.7**/29**, 5C-1D, Balleny Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SBA	**Scott Base**	**13.52**	**190**		**Pn**	**22 13 13.7**	**-0.2**
VNDA	**Vanda**	**13.67**	**195**	Pn	**Pn**	**22 13 14.8**	**-1.2**
	5.7nm,0.3s,baz=26,slow=17,SNR=143						
VNDA				LR	LR	22 17 20.6	
	comp=Z,4μm,18.9s,baz=24,slow=32						
	17nm,0.4s						
VNDA				AML	AML		
VNDA	**Vanda**	**13.67**	**195**		**Pn**	**22 13 15.7**	**-0.2**
WHZ	**Wether Hill Ro**	**19.78**	**339**	P	**P**	**22 14 32.4**	**-0.1**
WHZ				IAmb	IAmb	22 14 41.1	
	comp=Z,49nm,1.4s						
DCZ	**Deep Cove**	**20.32**	**338**		**P**	**22 14 38.9**	**+0.6**
DCZ				IAmb	IAmb	22 14 48.3	
	comp=Z,47nm,1.2s						
RPZ	**Rata Peaks**	**21.52**	**346**	P	**P**	**22 14 50.9**	**-0.4**
	comp=Z,4.9nm,1.0s,baz=160,slow=5.0,SNR=3.6						
RPZ				S	Sn	22 18 56.7	-1.2
	comp=Z,0.6nm,0.2s,baz=175,slow=21,SNR=1.3						
RPZ				LR	LR	22 21 37.7	
	comp=Z,455nm,19.9s,baz=148,slow=32						
	comp=Z,4.9nm,1.0s						
QSPA	**South Pole Qui**	**25.25**	**180**	P	**P**	**22 15 29.3**	**+0.9**
	comp=Z,37nm,1.1s,baz=24,slow=3.9,SNR=18						
QSPA				LR	LR	22 23 41.9	
	comp=Z,2μm,21.1s,baz=39,slow=32						
	comp=Z,37nm,1.1s						
QSPA	**South Pole Qui**	**25.25**	**180**		**P**	**22 15 26.6**	**-1.7**
URZ	**Urewera**	**26.62**	**358**	LR	LR	22 24 19.6	
	comp=Z,2μm,21.0s,baz=172,slow=32						
RAO	**Raoul Island**	**35.69**	**6**	LR	LR	22 31 14.6	
	comp=Z,428nm,18.4s,baz=158,slow=36						
BELA	**Belgrano 2**	**36.16**	**169**	P	**P**	**22 17 02.3**	**-1.8**
BELA				IAmb	IAmb	22 17 22.4	
	comp=Z,18nm,1.5s						
SMAI	**San Martin Ant**	**39.58**	**148**	P	**P**	**22 17 33.4**	**+0.3**
STKA	**Stephens Creek**	**39.84**	**308**	P	**P**	**22 17 36.6**	**+0.9**
	comp=Z,5.1nm,1.0s,baz=143,slow=10,SNR=6.1						
STKA				LR	LR	22 32 05.9	
	comp=Z,479nm,19.2s,baz=227,slow=33						
	comp=Z,5.1nm,1.0s						
MAW	**Mawson**	**40.06**	**213**	LR	LR	22 34 05.0	
	comp=Z,5μm,18.2s,baz=138,slow=36						
PMSA	**Palmer Station**	**43.04**	**146**	LR	LR	22 32 41.8	
	comp=Z,630nm,18.8s,baz=226,slow=32						
SYO	**Syowa Base**	**43.28**	**200**	⇓*e*P	**P**	**22 18 05.0**	**+1.6**
TROLL	**Troll, Antarti**	**43.39**	**182**	⇑P	**P**	**22 18 05.7**	**+1.2**
	comp=Z,337nm,0.8s						
SNAA	**Sanae**	**43.76**	**180**	⇑P	**P**	**22 18 08.6**	**+1.2**
	comp=Z,123nm,1.0s						
SNAA	**Sanae**	**43.76**	**180**	P	**P**	**22 18 08.0**	**+0.6**
	comp=Z,6.4nm,0.9s,baz=157,slow=6.9,SNR=6.5						
SNAA				LR	LR	22 35 18.2	
	comp=Z,2μm,20.8s,baz=196,slow=34						
	comp=Z,6.4nm,0.9s						
SNAA	**Sanae**	**43.76**	**180**	P	**P**	**22 18 06.5**	**-0.9**
SNAA				IAmb	IAmb	22 18 11.4	
	comp=Z,13nm,1.3s						
INKA	**Innaminka**	**43.93**	**309**	P	**P**	**22 18 08.4**	**-0.8**
INKA				IAmb	IAmb	22 18 18.9	
	comp=Z,7.0nm,1.1s						
VNA3	**Neumayer Olymp**	**44.09**	**176**	⇑P	**P**	**22 18 10.9**	**+0.9**
	comp=Z,2.8nm,0.8s						
VNA2	**Neumayer--Watz**	**44.46**	**177**	⇑P	**P**	**22 18 14.0**	**+1.1**
	comp=Z,2.9nm,0.8s,baz=181,slow=6.2						
VNA1	**Neumayer--Stat**	**44.72**	**177**	⇑P	**P**	**22 18 16.2**	**+1.3**
	comp=Z,9.0nm,1.0s						
RAR	**Rarotonga**	**46.01**	**29**	LR	LR	22 33 14.2	
	comp=Z,562nm,18.5s,baz=190,slow=30						
MSVF	**Nonsavu**	**47.06**	**0**	LR	LR	22 35 12.9	
	comp=Z,478nm,19.9s,baz=174,slow=32						
H01W1	**Cape Leeuwin H**	**47.96**	**276**	T	T	23 10 43.1	
	baz=148,slow=76,SNR=101						
H01W2	**Cape Leeuwin H**	**47.97**	**276**	T	T	23 10 38.5	
	baz=148,slow=76,SNR=123						
H01W3	**Cape Leeuwin H**	**47.98**	**276**	T	T	23 10 43.8	
	baz=148,slow=76,SNR=109						
NWAO	**Narrogin (SRO)**	**48.35**	**281**	LR	LR	22 34 41.4	
	comp=Z,911nm,18.4s,baz=115,slow=30						
CTA	**Charters Tower**	**49.43**	**319**	LR	LR	22 37 18.4	
	comp=Z,437nm,19.1s,baz=167,slow=33						
ASAR	**Alice Springs**	**50.04**	**304**	P	**P**	**22 18 57.1**	**+0.1**
	comp=Z,2.0nm,0.9s,baz=153,slow=8.1,SNR=11						
ASAR				LR	LR	22 37 50.3	
	comp=Z,331nm,19.6s,baz=143,slow=33						
	comp=Z,2.0nm,0.9s						
ASAR	**Alice Springs**	**50.04**	**304**	P	**P**	**22 18 56.2**	**-0.7**
AFI	**Afiamalu**	**51.35**	**13**	LR	LR	22 37 08.6	
	comp=Z,345nm,20.9s,baz=162,slow=32						
PPT	**Papeete**	**52.01**	**40**	LR	LR	22 35 20.4	
	comp=Z,387nm,19.6s,baz=188,slow=29						
WRA	**Warramunga Arr**	**53.31**	**306**	P	**P**	**22 19 21.7**	**+0.3**
	comp=Z,2.5nm,0.9s,baz=155,slow=6.6,SNR=9.9						
WRA				PcP	**PcP**	**22 20 29.5**	**+0.6**
	comp=Z,0.8nm,1.0s,baz=153,slow=3.9,SNR=1.5						
	comp=Z,2.5nm,0.9s						
WRA	**Warramunga Arr**	**53.31**	**306**	P	**P**	**22 19 21.0**	**-0.4**
WRAB	**Tennant Creek**	**53.32**	**306**	P	**P**	**22 19 20.8**	**-0.6**
WRAB				IAmb	IAmb	22 19 31.3	
	comp=Z,5.2nm,1.1s						
HNR	**Honiara**	**56.75**	**339**	LR	LR	22 40 05.9	
	comp=Z,581nm,20.8s,baz=260,slow=32						
FITZ	**Fitzroy Crossi**	**58.17**	**298**	LR	LR	22 43 36.4	
	comp=Z,551nm,18.2s,baz=159,slow=35						
FITZ	**Fitzroy Crossi**	**58.17**	**298**	P	**P**	**22 19 55.5**	**-0.8**
RPN	**Rapa Nui**	**58.42**	**87**	LR	LR	22 36 31.0	
	comp=Z,205nm,20.2s,baz=159,slow=27						
PMG	**Port Moresby**	**59.41**	**324**	LR	LR	22 41 33.3	
	comp=Z,301nm,20.7s,baz=160,slow=32						
PLCA	**Paso Flores**	**62.04**	**127**	P	**P**	**22 20 22.5**	**-0.2**
	comp=Z,2.2nm,0.9s,baz=146,slow=12,SNR=3.4						
PLCA				LR	LR	22 42 59.6	
	comp=Z,171nm,18.2s,baz=200,slow=32						
	comp=Z,2.2nm,0.9s						
H03S2	**Juan Fernandez**	**65.13**	**117**	T	T	23 32 03.3	
	baz=205,slow=74,SNR=341						
H03S1	**Juan Fernandez**	**65.13**	**117**	T	T	23 32 04.6	
	baz=205,slow=74,SNR=362						
H03S3	**Juan Fernandez**	**65.14**	**117**	T	T	23 32 04.0	
	baz=205,slow=74,SNR=315						
KAPI	**Kappang**	**72.39**	**297**	LR	LR	22 49 42.1	
	comp=Z,233nm,21.7s,baz=168,slow=33						
CPUP	**Villa Florida**	**79.59**	**131**	P	**P**	**22 22 09.7**	**+0.2**
	comp=Z,2.1nm,1.0s,baz=218,slow=15,SNR=2.8						
	comp=Z,2.1nm,1.0s						
SUR	**Sutherland**	**81.47**	**199**	LR	LR	22 55 39.9	
	comp=Z,1μm,19.3s,baz=173,slow=34						
BOSA	**Boshof**	**84.47**	**204**	LR	LR	22 57 02.4	
	comp=Z,941nm,21.2s,baz=156,slow=33						
BOSA	**Boshof**	**84.47**	**204**	P	**P**	**22 22 35.5**	**+0.3**
LPAZ	**La Paz**	**85.07**	**118**	P	**P**	**22 22 39.4**	**+0.4**
	comp=Z,0.3nm,0.4s,baz=230,slow=4.5,SNR=1.6						
	comp=Z,0.3nm,0.4s						
LPAZ	**La Paz**	**85.07**	**118**	P	**P**	**22 22 38.0**	**-1.0**
NNA	**Nana**	**85.57**	**109**	LR	LR	22 51 00.8	
	comp=Z,338nm,20.0s,baz=282,slow=29						
LBTB	**Lobatse**	**87.92**	**205**	LR	LR	22 58 55.4	
	comp=Z,1μm,20.8s,baz=170,slow=33						
H08S2	**Diego Garcia H**	**89.66**	**253**	T	T	00 02 52.8	
	baz=155,slow=76,SNR=76						
H08S1	**Diego Carcia H**	**89.66**	**253**	T	T	00 02 58.4	
	baz=155,slow=76,SNR=20						
H08S3	**Diego Garcia H**	**89.67**	**253**	T	T	00 02 59.3	
	baz=155,slow=76,SNR=226						
MATP	**Matopo**	**91.83**	**208**	LR	LR	23 01 09.2	
	comp=Z,850nm,20.2s,baz=168,slow=33						
TSUM	**Tsumeb**	**94.89**	**199**	LR	LR	23 03 15.4	
	comp=Z,500nm,21.0s,baz=166,slow=34						
LSZ	**Lusaka**	**96.90**	**209**	LR	LR	23 05 23.6	
	comp=Z,796nm,18.6s,baz=186,slow=34						
PALK	**Pallekele**	**99.65**	**266**	LR	LR	23 01 14.2	
	comp=Z,282nm,19.1s,baz=134,slow=31						
PDAR	**Pinedale Array**	**121.10**	**55**	PKP	**PKPdf**	**22 28 53.5**	**-0.9**
	comp=Z,0.1nm,0.6s,baz=239,slow=1.7,SNR=1.3						
H02S2	**DAWSON INLET T**	**123.72**	**33**	T	T	00 45 01.1	
	SNR=114						
H02S1	**DAWSON INLET T**	**123.72**	**33**	T	T	00 45 09.8	
	SNR=123						
TORD	**Torodi Ar. Bea**	**128.31**	**185**	PKP	**PKiKP**	**22 29 11.8**	**+2.3**
	comp=Z,0.2nm,0.5s,baz=210,slow=6.2,SNR=3.2						
ILAR	**Eielson Array**	**131.82**	**19**	PKP	**PKiKP**	**22 29 15.8**	**+0.9**
	comp=Z,1.2nm,0.9s,baz=203,slow=3.6,SNR=7.0						
ILAR	**Eielson Array**	**131.82**	**19**	PKPdf	**PKiKP**	**22 29 16.1**	**+1.1**
KURBB	**Kurchatov Arra**	**137.88**	**290**	PKP	**PKPdf**	**22 29 24.6**	**-1.1**
	comp=Z,0.4nm,0.9s,baz=158,slow=1.7,SNR=4.6						
BVAR	**Borovoye Array**	**143.00**	**287**	PKP	**PKiKP**	**22 29 36.4**	**-1.7**
	comp=Z,0.7nm,0.7s,baz=160,slow=4.6,SNR=2.6						
KBZ	**Khabaz**	**147.39**	**252**	PKPbc	**PKPbc**	**22 29 45.3**	**+0.1**
	comp=Z,4.3nm,0.8s,baz=153,slow=6.8,SNR=4.6						
BRTR	**Keskin Array B**	**147.51**	**237**	PKPbc	**PKPbc**	**22 29 45.8**	**-0.1**
	comp=Z,2.0nm,0.8s,baz=156,slow=3.5,SNR=8.4						
BRTR	**Keskin Array B**	**147.51**	**237**		**PKPbc**	**22 29 45.3**	**-0.6**
KIV	**Kislovodsk**	**147.66**	**252**	PKPbc	**PKPbc**	**22 29 46.0**	**-0.1**

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*SNET **19** 22:20:39.7±0.9, 13°.74N×89°.27W, h3km, ML2.9, Presumed earthquake*
*CATAC **19** 22:20:41.0±0.3, 14°N±1°×89°.3W±1°.0, h5km±1km, M2.8/13, MLv2.8/13, Error ellipse: s-maj=3.1km s-min=2.1km az=11.0, confirmed*
ISC 19 22:20:40.6±1.0**, 13°.74N**±0°.04×**89°.26W**±0°.02**, h10**km**, n19,** σ**0^{s}95**/33**, 1C, El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PIC2	**El Picacho**	**0.00**	**354**	*e*S	**Sg**	**22 20 42.0**	**-2.1**
PIC2				*e*S		22 20 42.4	
BOQS	**Boqueron**	**0.02**	**257**	⇑*i*P	**Pg**	**22 20 41.4**	**-1.3**
BOQS				*e*S	**Sg**	**22 20 42.3**	**-1.9**
UEES	**Universidad Ev**	**0.03**	**146**	*i* P	**Pg**	**22 20 41.6**	**-1.0**
UEES				*e*S	**Sg**	**22 20 42.5**	**-1.5**
UEES	**Universidad Ev**	**0.03**	**146**	P	**Pg**	**22 20 41.6**	**-1.0**
UEES				S	**Sg**	**22 20 42.7**	**-1.2**
SEMO	**Seminario San**	**0.05**	**140**	P	**Pg**	**22 20 42.3**	**-0.5**
PMON	**Piamonte**	**0.06**	**244**	P	**Pg**	**22 20 42.4**	**-0.5**
PMON				S	**Sg**	**22 20 44.0**	**-0.6**
UTEC	**Universidad Te**	**0.07**	**127**	P	**Pg**	**22 20 42.8**	**-0.1**
UTEC				S	**Sg**	**22 20 44.6**	**+0.1**
IGN	**Direccin Gen**	**0.09**	**108**	P	**Pg**	**22 20 44.2**	**+1.0**
LOMA	**Loma Larga**	**0.13**	**139**	*e*P	**Pg**	**22 20 43.9**	**+0.1**
LOMA	**Loma Larga**	**0.13**	**139**	P	**Pg**	**22 20 44.1**	**+0.3**
PANCS	**Alcalda de**	**0.15**	**150**	P	**Pg**	**22 20 44.2**	**+0.2**
PANCS				S	**Sg**	**22 20 45.8**	**-0.6**
JAYA	**Jayaque - finc**	**0.21**	**245**	P	**Pg**	**22 20 45.4**	**+0.4**
JAYA				S	**Sg**	**22 20 48.8**	**+0.7**
LALI	**Alcalda de L**	**0.26**	**194**	P	**Pg**	**22 20 46.7**	**+0.8**
LALI				S	**Sg**	**22 20 51.4**	**+2.0**
PAVA	**Las Pavas**	**0.31**	**95**	P	**Pb**	**22 20 48.2**	**-0.2**
PAVA				S	**Sb**	**22 20 53.5**	**-0.1**
UNIC	**Universidad Ca**	**0.37**	**310**	P	**Pg**	**22 20 48.4**	**+0.4**
UNIC				S	**Sg**	**22 20 54.0**	**+1.0**
COEG	**Centro de Oper**	**0.38**	**108**	P	**Pb**	**22 20 49.8**	**+0.2**
COEG				S	**Sb**	**22 20 55.4**	**-0.2**
NUBE	**Las Nubes**	**0.53**	**288**	P	**Pg**	**22 20 51.7**	**+0.6**
NUBE				S	**Sg**	**22 20 58.3**	**+0.1**
P5NO	**Presa 5 de nov**	**0.54**	**63**	P	**Pg**	**22 20 51.9**	**+0.7**
P5NO				S	**Sg**	**22 20 59.6**	**+1.2**
FAME	**Alcaldia de Sa**	**0.74**	**278**	P	**Pg**	**22 20 55.4**	**+0.4**
FAME				S	**Sb**	**22 21 05.6**	**-0.4**

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*NEIC **19** 22:23:07.5±0.2, 13°.69N±0°.04×89°.39W±0°.06, h10km±2km, ML3.2/16, Error ellipse: s-maj=10.1km s-min=6.2km az=59.0*
*SNET **19** 22:23:07.5±1.4, 13°.73N×89°.27W, h4km, ML3.6, Presumed earthquake*
*CATAC **19** 22:23:07.8±0.7, 14°N±2°×8°9W±°, h7km±3km, M3.6/9, MLv3.6/9, Error ellipse: s-maj=3.7km s-min=2.8km az=14.2, confirmed*
*GCG **19** 22:23:08.6±0.7, 13°.73N×89°.29W, h6km±8km, MD4.1, Presumed earthquake*
ISC 19 22:23:07.8±0.8**, 13°.76N**±0°.02×**89°.27W**±0°.02**, h3**km±6km**, n38,** σ**0^{s}85**/60**, El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BOQS	**Boqueron**	**0.03**	**207**	*i* P	**Pg**	**22 23 08.9**	**+0.1**
BOQS				*e*S	**Sg**	**22 23 09.7**	**+0.2**
UEES	**Universidad Ev**	**0.05**	**146**	*i* P	**Pg**	**22 23 09.2**	**+0.2**
UEES				*e*S	**Sg**	**22 23 10.1**	**+0.3**
UEES	**Universidad Ev**	**0.05**	**146**	P	**Pg**	**22 23 09.2**	**+0.2**
UEES				S	**Sg**	**22 23 10.2**	**+0.4**
PMON	**Piamonte**	**0.06**	**225**	P	**Pg**	**22 23 09.8**	**+0.5**
PMON				S	**Sg**	**22 23 11.4**	**+1.3**
SEMO	**Seminario San**	**0.07**	**142**	P	**Pg**	**22 23 09.7**	**+0.4**
UTEC	**Universidad Te**	**0.09**	**131**	P	**Pg**	**22 23 10.3**	**+0.7**
UTEC				S	**Sg**	**22 23 12.5**	**+1.7**
IGN	**Direccin Gen**	**0.10**	**115**	P	**Pg**	**22 23 11.0**	**+1.1**
IGN				Sg	**Sg**	**22 23 12.5**	**+1.1**
IGN				S		22 23 13.3	
CEDA	**San Andres**	**0.13**	**290**	P	**Pg**	**22 23 11.7**	**+1.3**
CEDA				Sg	**Sg**	**22 23 12.7**	**+0.5**
LOMA	**Loma Larga**	**0.15**	**140**	*e*P	**Pg**	**22 23 11.6**	**+0.8**
LOMA	**Loma Larga**	**0.15**	**140**	P	**Pg**	**22 23 11.6**	**+0.8**
LOMA				S	**Sg**	**22 23 13.4**	**+0.6**
JAYA	**Jayaque - finc**	**0.20**	**240**	*i* P	**Pg**	**22 23 12.8**	**+1.0**
JAYA				*i* S	**Sg**	**22 23 15.9**	**+1.4**
JAYA	**Jayaque - finc**	**0.20**	**240**	P	**Pg**	**22 23 12.8**	**+1.0**
JAYA				Sg	**Sg**	**22 23 13.8**	**-0.7**
LALI	**Alcalda de L**	**0.27**	**191**	*i* P	**Pg**	**22 23 14.1**	**+1.0**
LALI				*i* S	**Sg**	**22 23 17.8**	**+1.1**
LALI	**Alcalda de L**	**0.27**	**191**	P	**Pg**	**22 23 14.2**	**+1.0**
LALI				S	**Sg**	**22 23 18.8**	**+2.1**
PAVA	**Las Pavas**	**0.33**	**98**	P	**Pb**	**22 23 15.7**	**-0.7**
UNIC	**Universidad Ca**	**0.35**	**309**	P	**Pb**	**22 23 15.9**	**-0.9**
UNIC				S	**Sb**	**22 23 21.8**	**-1.0**
CEVE	**Cerro Verde**	**0.35**	**281**	P	**Pb**	**22 23 16.7**	**-0.3**
CEVE				Sg	**Sg**	**22 23 19.9**	**+0.5**
COEG	**Centro de Oper**	**0.40**	**110**	P	**Pb**	**22 23 17.0**	**-0.6**
NUBE	**Las Nubes**	**0.52**	**286**	*i* P	**Pb**	**22 23 19.1**	**-0.6**
NUBE	**Las Nubes**	**0.52**	**286**	P	**Pb**	**22 23 19.3**	**-0.4**
NUBE				S	**Sb**	**22 23 27.2**	**-0.4**
TECO	**Alcaldia de Te**	**0.52**	**115**	P	**Pb**	**22 23 18.9**	**-0.8**
P5NO	**Presa 5 de nov**	**0.54**	**65**	P	**Pb**	**22 23 19.3**	**-0.7**
P5NO				S	**Sb**	**22 23 27.3**	**-1.0**
MTO3	**Montecristo**	**0.64**	**352**		**Pg**	**22 23 21.2**	**+0.9**
MTO3				Sg	**Sg**	**22 23 29.6**	**+1.0**
FAME	**Alcaldia de Sa**	**0.73**	**277**	P	**Pb**	**22 23 22.6**	**-0.6**
FAME				S	**Sb**	**22 23 33.3**	**-0.4**
ESQI	**Esquipulas**	**0.80**	**355**		**Pg**	**22 23 24.1**	**+0.9**
ESQI				Sg	**Sb**	**22 23 35.5**	**-0.2**
ESQI	**Esquipulas**	**0.80**	**355**	P	**Pb**	**22 23 24.3**	**-0.2**
ESQI				S	**Sb**	**22 23 36.4**	**+0.6**
PACA	**Pacayal**	**0.96**	**107**	P	**Pn**	**22 23 28.0**	**-0.4**
SARH	**Santa Rosa de**	**1.12**	**26**	*i* P	**Pb**	**22 23 30.1**	**+0.1**
SARH	**Santa Rosa de**	**1.12**	**26**	P	**Pn**	**22 23 30.3**	**-0.3**
SARH				S	**Sn**	**22 23 46.7**	**+0.1**
CNCH	**Conchagua**	**1.48**	**109**	P	**Pg**	**22 23 35.8**	**-0.3**
APG	**El Apazote**	**1.70**	**317**	*i* P	**Pb**	**22 23 39.6**	**-0.2**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APG				*i* S	Sg	22 24 02.7	+0.3
TGUH	Tegucigalpa,Un	1.96	81		Pn	22 23 42.4	+0.3
TGUH				IAML		22 24 14.1	
	228nm,0.9s						
TGUH	Tegucigalpa,Un	1.96	81	P	Pb	22 23 43.8	-0.5
HERN	Volcan Telica	2.63	115	Pn	Pn	22 23 51.9	+0.5
HERN				IAML		22 24 37.0	
	comp=E,135nm,0.5s						
HUEH	Huehuetenango	2.66	306	Pn	Pn	22 23 49.8	-2.1
MGAN	Managua	3.35	118	Pn	Pn	22 24 00.7	-0.5
MGAN				IAML		22 24 38.9	
	comp=N,71nm,0.3s						
MGAN				IAML		22 24 47.6	
	comp=E,72nm,0.1s						
BOAB	BOACO BROADBAN	3.74	110		Pn	22 24 06.6	0.0
BOAB				IAML		22 25 18.6	
	comp=N,38nm,1.9s						
BOAB				IAML		22 25 18.8	
	comp=E,31nm,2.4s						
SIUN	Universidad Ur	4.37	90	Pn	Pn	22 24 14.1	-1.1

IDC 19 22:25:25.1±1.5**,13°.45N**×**141°.93E,h0km,mb3.2**/3**, mbtmp3.4**/4**,ML4.2**/1**,Error ellipse: s-maj=33.3km s-min=24.1km az=158.0,South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	2.86	87	Pn	Pn	22 26 10.9	-1.2
	36nm,0.3s,baz=248,slow=11,SNR=31						
GUMO				Sn	Sn	22 26 33.2	-14
	27nm,0.3s,baz=167,slow=22,SNR=15						
	67nm,0.3s						
GUMO				AML	AML		
WRA	Warramunga Arr	34.01	193	P	P	22 32 10.4	-0.5
	0.4nm,0.7s,baz=7.9,slow=9.5,SNR=6.3						
	0.4nm,0.7s						
ASAR	Alice Springs	37.71	192	P	P	22 32 43.0	+0.3
	0.1nm,0.4s,baz=20,slow=12,SNR=6.4						
	0.1nm,0.4s						
MKAR	Makanchi Array	59.62	317	P	P	22 35 31.2	+0.1
	0.2nm,0.7s,baz=101,slow=8.3,SNR=1.8						
	0.2nm,0.7s						

SNET ***19*** *22:31:18.4±1.6, 13°.73N×89°.27W, h5km, ML3.0, Presumed earthquake*

CATAC ***19*** *22:31:19.5±0.6, 14°N±2°×8°9W±°, h6km±3km, M2.7/11, MLv2.7/11, Error ellipse: s-maj=3.7km s-min=2.7km az=177.0, confirmed*

ISC 19 22:31:19.2±1.1**,13°.76N**±0°.05×**89°.28W**±0°.03**,h10km,n17, σ0s.90**/30**,El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PIC2	El Picacho	0.02	124	*e*P	Pg	22 31 20.3	-1.1
PIC2				*e*S	Sg	22 31 21.3	-1.5
BOQS	Boqueron	0.02	194	*i* P	Pg	22 31 20.1	-1.2
BOQS				*e*S	Sg	22 31 20.6	-2.2
UEES	Universidad Ev	0.05	139	*e*P	Pg	22 31 20.5	-0.9
UEES				*e*S	Sg	22 31 21.4	-1.5
UEES	Universidad Ev	0.05	139	P	Pg	22 31 20.5	-0.9
UEES				S	Sg	22 31 21.6	-1.3
PMON	Piamonte	0.06	221	*e*P	Pg	22 31 21.1	-0.4
PMON	Piamonte	0.06	221	P	Pg	22 31 21.3	-0.2
SEMO	Seminario San	0.07	137	S	Sg	22 31 23.2	0.0
UTEC	Universidad Te	0.09	128	P	Pg	22 31 22.0	+0.2
UTEC				S	Sg	22 31 23.6	0.0
IGN	Direccin Gen	0.11	113	P	Pg	22 31 22.2	+0.2
IGN				S	Sg	22 31 24.7	+0.7
LOMA	Loma Larga	0.15	138	*e*P	Pg	22 31 22.9	+0.2
LOMA				*e*S	Sg	22 31 25.8	+0.7
LOMA	Loma Larga	0.15	138	P	Pg	22 31 22.8	+0.2
PANCS	Alcalda de	0.17	147	P	Pg	22 31 23.1	+0.1
PANCS				S	Sg	22 31 25.6	+0.1
JAYA	Jayaque - finc	0.20	239	P	Pg	22 31 24.2	+0.7
JAYA				S	Sg	22 31 27.2	+0.8
LALI	Alcalda de L	0.27	190	P	Pg	22 31 25.4	+0.7
LALI				S	Sg	22 31 28.9	+0.5
PAVA	Las Pavas	0.33	97	P	Pg	22 31 26.4	+0.5
PAVA				S	Sb	22 31 32.4	-0.4
NUBE	Las Nubes	0.51	286	P	Pb	22 31 30.4	0.0
NUBE				S	Sg	22 31 37.2	+1.1
P5NO	Presa 5 de nov	0.55	65	P	Pg	22 31 30.6	+0.7
P5NO				S	Sg	22 31 38.5	+1.3

SNET ***19*** *22:44:15.8±1.6, 13°.73N×89°.27W, h4km, ML3.2, Presumed earthquake*

CATAC ***19*** *22:44:16.8±0.3, 14°N±1°×89°.3W±0°.8, h5km±1km, M2.9/18, MLv2.9/18, Error ellipse: s-maj=2.7km s-min=1.7km az=14.2, confirmed*

GCG ***19*** *22:44:17.7±1.2, 13°.73N×89°.31W, h6km±14km, MD3.9, Presumed earthquake*

ISC 19 22:44:16.8±0.9**,13°.74N**±0°.02×**89°.26W**±0°.02**,h10km,n31, σ0s.81**/57**,El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PIC2	El Picacho	0.01	21	*i* P	Pg	22 44 17.4	-1.5
PIC2				*e*S	Sg	22 44 18.3	-2.1
BOQS	Boqueron	0.02	271	*i* P	Pg	22 44 17.4	-1.5
BOQS				*e*S	Sg	22 44 18.3	-2.0
UEES	Universidad Ev	0.03	132	*e*P	Pg	22 44 17.6	-1.2
UEES				*e*S	Sg	22 44 18.6	-1.6
UEES	Universidad Ev	0.03	132	P	Pg	22 44 17.6	-1.2
UEES				S	Sg	22 44 18.7	-1.4
SEMO	Seminario San	0.05	132	P	Pg	22 44 18.2	-0.7
PMON	Piamonte	0.06	247	P	Pg	22 44 18.4	-0.6
PMON				S	Sg	22 44 19.9	-0.7
UTEC	Universidad Te	0.07	120	P	Pg	22 44 18.7	-0.3
UTEC				S	Sg	22 44 20.5	-0.2
IGN	Direccin Gen	0.09	103	P	Pg	22 44 19.7	+0.3
IGN				S	Sg	22 44 22.9	+1.8
QUEZ	Alcaldia de Qu	0.10	353	*e*P	Pg	22 44 19.5	0.0
QUEZ				*e*S	Sg	22 44 21.8	+0.4
LOMA	Loma Larga	0.12	136	P	Pg	22 44 20.1	+0.2
PANCS	Alcalda de	0.14	147	P	Pg	22 44 20.2	0.0
PANCS				S	Sg	22 44 22.8	+0.3
CEDA	San Andres	0.15	297	P	Pg	22 44 20.1	0.0
CEDA				S	Sg	22 44 22.8	+0.3
JAYA	Jayaque - finc	0.20	246	*i* P	Pg	22 44 21.3	+0.2
JAYA				*i* S	Sg	22 44 24.3	+0.2
JAYA	Jayaque - finc	0.20	246	P	Pg	22 44 21.0	-0.1
JAYA				S	Sg	22 44 24.6	+0.6
LALI	Alcalda de L	0.25	194	*i* P	Pg	22 44 22.6	+0.7
LALI				*i* S	Sg	22 44 25.9	+0.5
LALI	Alcalda de L	0.25	194	P	Pg	22 44 22.6	+0.7
LALI				S	Sg	22 44 26.9	+1.5
PAVA	Las Pavas	0.32	94	P	Pg	22 44 23.2	0.0
PAVA				S	Sb	22 44 29.2	-0.7
CEVE	Cerro Verde	0.36	285	P	Pg	22 44 24.2	+0.1
CEVE				S	Sg	22 44 29.8	+0.8
UNIC	Universidad Ca	0.37	311	P	Pg	22 44 24.4	+0.2
UNIC				S	Sg	22 44 30.1	+0.9
COEG	Centro de Oper	0.39	107	P	Pg	22 44 24.6	+0.1
COEG				S	Sb	22 44 31.7	-0.2
TECO	Alcaldia de Te	0.51	113	P	Pg	22 44 26.7	0.0
TECO				S	Sb	22 44 34.7	-0.5
LLGN	La Laguna	0.52	36	P	Pg	22 44 27.4	+0.3
LLGN				S	Sg	22 44 34.9	+0.8
NUBE	Las Nubes	0.53	288	*i* P	Pg	22 44 27.5	+0.3
NUBE				*i* S	Sg	22 44 34.9	+0.7
NUBE	Las Nubes	0.53	288	P	Pg	22 44 27.4	+0.1
NUBE				S	Sb	22 44 35.3	-0.8
P5NO	Presa 5 de nov	0.55	63	P	Pg	22 44 27.7	+0.2
P5NO				S	Sg	22 44 35.5	+0.8
FAME	Alcaldia de Sa	0.74	278	P	Pg	22 44 31.1	-0.1
FAME				S	Sb	22 44 41.5	-0.5
ESQI	Esquipulas	0.82	355	P	Pg	22 44 33.1	+0.3
ESQI				S	Sb	22 44 44.6	0.0
PACA	Pacayal	0.95	106	P	Pg	22 44 35.2	+0.1
SARH	Santa Rosa de	1.14	25	*i* P	Pb	22 44 38.6	-0.1
SARH	Santa Rosa de	1.14	25	P	Pb	22 44 38.6	-0.1
SARH				S	Sn	22 44 55.4	+0.6
APG	El Apazote	1.72	317	*i* P	Pb	22 44 48.5	-0.1

IDC ***19*** *23:05:22.6±4.5, 5°.20N×125°.42E, h61km±45km, mb3.8/11, mbtmp4.1/11, Error ellipse: s-maj=77.5km s-min=12.7km az=70.0*

NEIC ***19*** *23:05:22.1±1.2, 5°.88N±0°.08×126°.9E±0°.1, h68km±4km, mb4.3/17, Error ellipse: s-maj=19.8km s-min=9.2km az=65.0*

DJA ***19*** *23:05:22.9±0.6, 6°N±4°×12°7E±°, h96km±16km, M4.3/11, mB5.0/4, mB5.0/4, mb4.3/7, mb4.3/7, MLv4.3/11, MLv4.3/11, Mw(mB)4.4/4, Mw(mB)4.4/4*

ISC 19 23:05:22.7±1.1**,5°.83N**±0°.06×**126°.84E**±0°.08**,h75km**±10km**, n50,σ1s.66**/60**,mb4.1**/20**,Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DAV	Davao City (W)	1.76	315	P	Pn	23 05 51.6	+0.3
	222nm,0.5s,baz=40,slow=1.5,SNR=9.3						
DAV				S	Sn	23 06 15.1	+2.1
	527nm,0.6s,baz=68,slow=23,SNR=24						
DAV	Davao City (W)	1.76	315		Pn	23 05 51.2	-0.1
DAV				Sn	Sn	23 06 11.7	-1.3
DAV	Davao City (W)	1.76	315	P	Pn	23 05 52.3	+1.0
DAV				S	Sn	23 06 16.1	+3.1
DMPH	Davao City--Mi	1.82	313	*e*P	Pn	23 05 51.9	-0.2
DMPH				*i* S	Sn	23 06 17.6	+3.2
GSPH	General Santos	1.90	278	*i* P	Pn	23 05 50.3	-3.0
GSPH				*i* S	Sn	23 06 11.1	-5.5
BIPH	Bislig	2.39	348	*e*P	Pn	23 05 57.8	-2.0
BIPH				*i* S	Sn	23 06 22.7	-5.4
MNI	Manado	4.79	205	P	Pn	23 06 34.7	+2.3
TNTI	Ternate	5.05	174	Pn	Pn	23 06 35.4	-0.5
TNTI	Ternate	5.05	174	P	Pn	23 06 37.4	+1.5
	0.2nm0.2nm45nm,0.8s,45nm,0.8s						
TNTI				AML	AML		
TNTI				AML	AML		
PLP	Palo	5.62	341	*e*P	Pn	23 06 46.4	+2.7
GTOI	Gorontalo	6.42	217	P	Pn	23 06 56.0	+1.3
	0.1nm0.1nm25nm,0.6s,25nm,0.6s						
GTOI				AML	AML		
GTOI				AML	AML		
TOLI2	Tolitoli	7.65	232	Pn	Pn	23 07 09.5	-2.0
SANI	Sanana	7.87	186	P	Pn	23 07 13.6	-0.9
	0.1nm0.1nm736nm736nm9.5nm,0.7s,9.5nm,0.7s						
SANI				AML	AML		
SANI				AML	AML		
LUWI	Luwuk	7.94	211	Pn	Pn	23 07 17.0	+1.5
LUWI	Luwuk	7.94	211	P	Pn	23 07 18.2	+2.7
	1µm1µm51nm,0.8s,51nm,0.8s						
SWI	Sorong	7.97	146	P	Pn	23 07 15.0	-0.9
	0.1nm0.1nm2µm2µm7.4nm,0.5s,7.4nm,0.5s						
SWI				AML	AML		
SWI				AML	AML		
NLAI	Namlea	9.01	178	P	Pn	23 07 29.2	-0.8
	2µm2µm13nm,0.5s						
SBUM	Sibu	14.96	258	P	P	23 08 54.5	+0.6
MTN	Manton Dam	19.03	167	P	P	23 09 38.3	-0.5
KNRA	Kununurra	21.45	175	P	P	23 10 05.2	+0.3
KNRA				IAmb	IAmb	23 10 16.9	
	comp=Z,13nm,1.4s						
FITZ	Fitzroy Crossi	23.80	183	P	P	23 10 29.2	+0.5
WB0	Warramunga Arr	26.50	164	P	P	23 10 53.0	-0.2
WB0				IAmb	IAmb	23 11 13.5	
	comp=Z,11nm,1.4s						
WRA	Warramunga Arr	26.65	164	P	P	23 10 54.2	-0.4
	comp=Z,0.8nm,0.7s,baz=343,slow=10,SNR=16						
WRA				PcP	PcP	23 14 17.9	+0.9
	comp=Z,0.3nm,0.9s,baz=337,slow=2.3,SNR=2.1						
	comp=Z,0.8nm,0.7s						
WRA	Warramunga Arr	26.65	164	P	P	23 10 53.1	-1.4
ASAR	Alice Springs	30.11	167	P	P	23 11 24.8	-0.6
	comp=Z,0.4nm,0.5s,baz=352,slow=8.0,SNR=6.1						
ASAR				PcP	PcP	23 14 25.8	+0.3
	comp=Z,0.4nm,0.5s,baz=348,slow=2.3,SNR=6.6						
	comp=Z,0.4nm,0.5s						
BBOO	Buckleboo	39.41	168	P	P	23 12 45.5	+0.2
NWAO	Narrogin (SRO)	39.61	193	P	P	23 12 47.3	+0.4
STKA	Stephens Creek	40.05	160	P	P	23 12 51.0	+0.5
	comp=Z,1.4nm,0.6s,baz=347,slow=9.3,SNR=3.0						
	comp=Z,1.4nm,0.6s						
ARMA	Armidale	43.16	148	P	P	23 13 15.3	-0.9
ARMA				IAmb	IAmb	23 13 54.9	
	comp=Z,16nm,1.3s						
PDGK	Podgornoye	55.89	320	P	P	23 14 52.2	-0.7
MKAR	Makanchi Array	55.92	324	P	P	23 14 52.9	-0.1
	comp=Z,1.1nm,0.6s,baz=123,slow=8.3,SNR=15						
MKAR				PcP	PcP	23 15 52.9	+2.1
	comp=Z,0.7nm,0.7s,baz=112,slow=5.4,SNR=3.7						
	comp=Z,1.1nm,0.6s						
MKAR	Makanchi Array	55.92	324	P	P	23 14 52.5	-0.4
MKAR				PcP	PcP	23 15 50.5	-0.2
ZALV	Zalesovo Beam	58.79	332	P	P	23 15 11.7	-1.2
	comp=Z,0.3nm,0.3s,baz=109,slow=6.1,SNR=2.1						
	comp=Z,0.3nm,0.3s						
KURK	Kurchatov	60.05	327	P	P	23 15 21.2	-0.5
KURK				IAmb	IAmb	23 15 21.9	
	comp=Z,3.0nm,0.5s						
KURBB	Kurchatov Arra	60.05	327	P	P	23 15 21.4	-0.3
	comp=Z,2.1nm,0.5s,baz=125,slow=7.1,SNR=44						
	comp=Z,2.1nm,0.5s						
KK31	Karatay Array	61.80	316	P	P	23 15 33.0	-0.8
KK31				IAmb	IAmb	23 15 33.7	
	comp=Z,4.3nm,1.4s						
KKAR	Karatay Array	61.80	316	P	P	23 15 33.5	-0.2
BVAR	Borovoye Array	65.64	326	P	P	23 15 58.9	+0.1
	comp=Z,1.3nm,0.5s,baz=118,slow=8.2,SNR=8.8						
	comp=Z,1.3nm,0.5s						
ABKAR	Akbulak array	70.61	320	P	P	23 16 29.4	-0.6
AKTO	Aktyubinsk	72.10	321	P	P	23 16 37.0	-1.9
	comp=Z,1.4nm,0.4s,baz=256,slow=3.1,SNR=3.6						
	comp=Z,1.4nm,0.4s						
ARTI	Arti	73.32	327	P	P	23 16 45.2	-0.9
	comp=Z,1.2nm,0.5s,baz=321,slow=14,SNR=2.3						
	comp=Z,1.2nm,0.5s						
ARTI	Arti	73.32	327	P	P	23 16 44.8	-1.3
RAYN	Ar Rayn	79.78	293	P	P	23 17 22.4	-0.9
RAYN				IAmb	IAmb	23 17 23.9	
	comp=Z,0.9nm,0.7s						
BPAW	Bear Paw Mtn.	81.36	26	P	P	23 17 31.1	+0.2
BPAW				IAmb	IAmb	23 17 46.7	
	comp=Z,3.9nm,1.2s						
GURO	Guroymak-BITLI	82.35	308	P	P	23 17 36.3	-0.5
GURO				IAmb	IAmb	23 17 40.4	
	comp=Z,3.8nm,0.9s						
BRTR	Keskin Array B	88.78	310	P	P	23 18 08.2	-0.5
	comp=Z,0.6nm,0.8s,baz=46,slow=6.2,SNR=3.7						
	comp=Z,0.6nm,0.8s						
FINES	FINESS Array B	90.05	332	P	P	23 18 14.3	+0.4
	comp=Z,5.8nm,1.1s,baz=73,slow=9.3,SNR=3.9						
	comp=Z,5.8nm,1.1s						
FINES	FINESS Array B	90.05	332	P	P	23 18 14.6	+0.7
BURAR	Bucovina Array	93.52	318	P	P	23 18 31.6	+1.2
BURAR				IAmb	IAmb	23 18 32.6	
	comp=Z,0.8nm,0.9s						
QSPA	South Pole Qui	95.72	180	P	P	23 18 40.9	+0.8

MOS ***19*** *23:22:45.8±0.9, 11°.55S×165°.14E, h14km, mb5.2/25, Error ellipse: s-maj=10.1km s-min=7.7km az=38.7*

IDC ***19*** *23:22:45.5±0.5, 11°.53S×165°.18E, h0km, mb4.6/20, mbtmp4.7/23, ML2.8/1, MS4.0/30, Error ellipse: s-maj=15.2km s-min=12.2km az=81.0*

GFZ ***19*** *23:22:47.6±0.3, 12°S±4°×16°5E±°, h10km, M5.3/22, mb5.0/22*

BJI ***19*** *23:22:47.2, 10°.98S×165°.25E, h9km, mB5.2/11, mb5.2/60, Ms4.9/4, Ms7 4.6/2*

NEIC ***19*** *23:22:47.2±0.9, 11°.56S±0°.07×165°.18E±0°.08, h10km±1km, mb5.0/79, Error ellipse: s-maj=14.8km s-min=10.8km az=61.0*

NOU ***19*** *23:22:48.0, 11°.53S×165°.13E, h15km, mb5.2/33, Santa Cruz Islands*

GCMT ***19*** *23:22:50.2±0.3, 11°.53S±0°.02×165°.12E±0°.02, h19km±1km, MW4.9/79, Moment Tensor Solution. s13,c13; s79,c101; Duration: 0 Moment tensor: Scale 10¹⁶Nm; Mrr-1.84±.23; Mθθ1.13±.17; Mφφ0.70±.15; Mrθ0.36±.29; Mθφ-2.28±.10; Mφr-0.86±.29; Best double couple: M0 2.75800×10¹⁶ NP1:φs106.00000°,δ42.00000°,λ-130.00000°. NP2: φs334.00000°,δ59.00000°,λ-60.00000°. Principal axes: T 3.3450, Plg9.0000°, Azm43.0000°; N -1.1810, Plg26.0000°, Azm138.0000°; P -2.1710, Plg62.0000°, Azm295.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 19 23:22:48.0±0.6**,11°.58S**±0°.05×**165°.17E**±0°.05**,h17km**±3km**, h17km:pP-P,n297,σ1s.01**/287**,mb5.0**/99**,MS4.1**/28**,10C-6D, Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HURO	Huro Makira	3.39	289	P	Pn	23 23 38.8	-1.4
SANVU	Saraoutou	4.32	153	P	Pn	23 23 53.5	+0.6
SANVU	Saraoutou	4.32	153		Pn	23 23 53.0	0.0
SANVU				Sn	Sn	23 24 38.5	-4.4
SANVU	Saraoutou	4.32	153	P	Pn	23 23 53.5	+0.6
NGOA	Tingoa Renbel	5.00	270	P	Pn	23 24 01.2	-1.1
HNR	Honiara	5.56	292	Pn	Pn	23 24 10.4	+0.4
	660nm,0.7s,baz=199,slow=2.7,SNR=16						
HNR				Sn	Sn	23 25 12.0	-1.6
	48nm,0.3s,baz=181,slow=22,SNR=7.0						
HNR				LR	LR	23 26 16.7	
	comp=Z,688nm,18.1s,baz=215,slow=38						
HNR	Honiara	5.56	292	P	Pn	23 24 09.9	-0.1
HNR	Honiara	5.56	292	S	Sn	23 25 12.2	-1.4
HNR	Honiara	5.56	292		Pn	23 24 09.9	-0.1
HNR	Honiara	5.56	292	P	Pn	23 24 10.6	+0.6
	comp=Z,879nm,1.1s						
SAVO	Savo Central	5.80	294	P	Pn	23 24 13.4	+0.1
SAVO	Savo Central	5.80	294	S	Sn	23 25 18.2	-1.2
TATA	Tatamba Isabel	6.17	300	P	Pn	23 24 18.0	-0.3
TATA	Tatamba Isabel	6.17	300	S	Sn	23 25 26.8	-1.6
DVP	Devils Point	6.77	155	P	Pn	23 24 27.5	+0.9
KOUNC	Koumac, New Ca	8.96	185	P	Pn	23 24 57.0	+0.3
KOUNC	Koumac, New Ca	8.96	185		Pn	23 24 57.3	+0.6
MARNC	Mare, Loyalty	10.22	165	P	Pn	23 25 14.6	+0.7
MARNC	Mare, Loyalty	10.22	165	Pn	Pn	23 25 14.0	+0.1
DZM	Mont Dzumac	10.50	174	Pn	Pn	23 25 18.1	+0.2
	comp=Z,32nm,0.4s,baz=303,slow=11,SNR=155						
DZM				Sn	Sn	23 27 13.6	-1.7
	comp=Z,3.6nm,0.3s,baz=334,slow=24,SNR=3.8						
DZM				LR	LR	23 29 02.3	
	comp=Z,2µm,18.1s,baz=86,slow=36						
NOUC	Port Laguerre	10.52	174	P	Pn	23 25 19.6	+1.6
YATNC	Mamie plateau,	10.55	171	P	Pn	23 25 18.9	+0.4
ONTNC	Ouen Toro	10.74	174	P	Pn	23 25 21.8	+0.8
ONTNC	Ouen Toro	10.74	174		Pn	23 25 21.5	+0.5
OUENC	Ouen Island, N	10.89	172	P	Pn	23 25 24.0	+0.8
OUENC	Ouen Island, N	10.89	172		Pn	23 25 23.8	+0.6
MSVF	Nonsavu	13.88	118	LR	LR	23 30 58.3	
	comp=Z,671nm,19.6s,baz=8.9,slow=35						
MSVF	Nonsavu	13.88	118	*i* P	Pn	23 26 04.2	+0.1
ALOT	Alotau	14.50	274	P	Pn	23 26 12.8	+0.3
PMG	Port Moresby	17.84	275	P	Pn	23 26 56.0	+0.4
	comp=Z,0.9nm,0.3s,baz=121,slow=12,SNR=3.2						
PMG				LR	LR	23 33 13.1	
	comp=Z,688nm,19.1s,baz=96,slow=35						
	comp=Z,24nm,0.8s						
PMG				AML	AML		
PMG	Port Moresby	17.84	275	*ce*P	P	23 26 56.3	+0.1
PMG				pmax	pmax		
	comp=Z,21nm,1.3s						
PMG	Port Moresby	17.84	275		Pn	23 26 55.1	-0.5
PMG	Port Moresby	17.84	275	P	P	23 26 58.9	+2.7
PMG	Port Moresby	17.84	275	P	P	23 26 59.8	+3.6
	comp=Z,64nm,1.1s						
EIDS	Eidsvold	19.12	222		P	23 27 10.1	-0.2
EIDS	Eidsvold	19.12	222	P	Pn	23 27 12.1	+1.0
	comp=Z,49nm,1.5s						
PATS	Pohnpei	19.53	339		P	23 27 14.2	-0.5
PATS				IAmb	IAmb	23 27 17.2	
	comp=Z,132nm,1.1s						
PATS	Pohnpei	19.53	339	P	Pn	23 27 16.5	+0.5
	comp=Z,110nm,1.6s						
MANU	Manus Island	20.04	297	P	P	23 27 19.9	-0.5
MANU				IAmb	IAmb	23 27 23.0	
	comp=Z,113nm,1.4s						
CTA	Charters Tower	20.05	243	P	P	23 27 21.9	+1.4
	comp=Z,40nm,0.9s,baz=71,slow=12,SNR=21						
CTA				LR	LR	23 33 46.3	
	comp=Z,406nm,21.3s,baz=48,slow=33						
	comp=Z,40nm,0.9s						
CTA	Charters Tower	20.05	243	P	P	23 27 21.5	+1.0
CTAO	Charters Tower	20.05	243	P	P	23 27 21.1	+0.6
CTAO	Charters Tower	20.05	243	P	P	23 27 20.1	-0.4
CTAO				pmax	pmax		
	comp=Z,48nm,0.9s						
CTAO	Charters Tower	20.05	243		P	23 27 20.1	-0.4
CTAO				IAmb	IAmb	23 27 25.7	
	comp=Z,48nm,0.9s						
CTAO	Charters Tower	20.05	243	P	Pn	23 27 22.1	-0.2
	comp=Z,62nm,1.0s						
MTSU	Mount Surprise	21.17	250	P	P	23 27 34.3	+1.6
	comp=Z,26nm,0.9s						
ARMA	Armidale	22.57	212	P	P	23 27 48.8	+1.2
ARMA	Armidale	22.57	212		P	23 27 47.5	-0.1
ARMA				IAmb	IAmb	23 27 50.9	
	comp=Z,45nm,1.1s						
ARMA	Armidale	22.57	212	P	P	23 27 48.8	+1.2
	comp=Z,42nm,1.2s						
QLP	Quilpie	24.72	230	P	P	23 28 08.7	+0.2
	comp=Z,28nm,1.7s						
OUZ	Omahuta	24.75	163	P	P	23 28 12.4	+3.7
	comp=Z,44nm,2.0s						
QIS	Mount Isa	26.11	247	P	P	23 28 22.0	+0.8
QIS	Mount Isa	26.11	247	P	P	23 28 21.7	+0.5
	comp=Z,12nm,0.8s						
CMSA	Cobar Meteorol	26.79	219	P	P	23 28 28.2	+0.9
CMSA	Cobar Meteorol	26.79	219	P	P	23 28 27.7	+0.5
	comp=Z,25nm,0.9s						
TOZ	Tahuroa Road	27.64	162	P	P	23 28 35.2	+0.5
INKA	Innaminka	27.97	231	P	P	23 28 37.2	-0.7
RTZ	Ruatahuna	28.91	161	P	P	23 28 45.9	-0.3
RTZ				IAmb	IAmb	23 28 51.3	
	comp=Z,70nm,1.4s						
STKA	Stephens Creek	29.67	223	P	P	23 28 52.5	-0.4
	comp=Z,11nm,0.8s,baz=45,slow=8.0,SNR=21						
STKA				LR	LR	23 39 31.7	
	comp=Z,576nm,21.9s,baz=39,slow=34						
	comp=Z,11nm,0.8s						
STKA	Stephens Creek	29.67	223	P	P	23 28 53.2	+0.3
STKA	Stephens Creek	29.67	223	*i* P	P	23 28 52.3	-0.6
STKA	Stephens Creek	29.67	223	P	P	23 28 53.6	+0.7
H11S2	WAKE ISLAND Hy	29.92	3	T	T	00 00 32.9	
	baz=184,slow=76,SNR=8.2						
H11S3	WAKE ISLAND Hy	29.92	3	T	T	00 00 24.4	
	baz=184,slow=76,SNR=7.4						
H11S1	WAKE ISLAND Hy	29.94	3	T	T	00 00 25.1	
	baz=184,slow=76,SNR=11						
MRZ	Mangatainoka R	30.39	164	P	P	23 28 59.5	+0.4
MRZ				IAmb	IAmb	23 29 03.4	
	comp=Z,38nm,1.5s						
BFZ	Birch Farm	30.59	163	P	P	23 29 03.2	+2.3
BFZ	Birch Farm	30.59	163	P	P	23 29 01.1	+0.2
BFZ				IAmb	IAmb	23 29 14.0	
	comp=Z,20nm,1.0s						
WB0	Warramunga Arr	30.69	251	P	P	23 29 01.9	-0.3
WB0				IAmb	IAmb	23 29 12.3	
	comp=Z,22nm,1.1s						
WRAB	Tennant Creek	30.76	250	P	P	23 29 03.9	+1.2
WRAB	Tennant Creek	30.76	250	*ce*P	P	23 29 03.9	+1.2
WRAB	Tennant Creek	30.76	250	P	P	23 29 03.1	+0.4
	comp=Z,14nm,2.0s						
WRA	Warramunga Arr	30.77	250	P	P	23 29 02.0	-0.8
	comp=Z,4.7nm,0.6s,baz=83,slow=9.0,SNR=68						
WRA				PcP	PcP	23 32 00.7	+0.4
	comp=Z,2.5nm,0.8s,baz=81,slow=2.7,SNR=9.3						
	comp=Z,4.7nm,0.6s						
WRA	Warramunga Arr	30.77	250	*i* P	P	23 29 02.4	-0.4
WRA	Warramunga Arr	30.77	250	P	P	23 29 01.0	-1.8
WRA				PcP	PcP	23 32 00.6	+0.3
H11N1	WAKE ISLAND Hy	31.14	3	T	T	00 01 49.5	
	baz=182,slow=76,SNR=8.0						
H11N3	WAKE ISLAND Hy	31.15	3	T	T	00 01 52.2	
	baz=182,slow=76,SNR=5.3						
H11N2	WAKE ISLAND Hy	31.16	3	T	T	00 01 50.8	
	baz=182,slow=76,SNR=5.4						
TOO	Toolangi	31.32	211	P	P	23 29 07.5	-0.1
TOO	Toolangi	31.32	211	P	P	23 29 07.5	-0.1
AS01	Alice Springs	32.01	244	P	P	23 29 14.9	+1.2
AS31	Alice Springs	32.05	244	P	P	23 29 12.8	-1.3
ASAR	Alice Springs	32.05	244	P	P	23 29 13.0	-1.1
	comp=Z,5.1nm,0.8s,baz=72,slow=9.4,SNR=42						
ASAR				PcP	PcP	23 32 04.0	+0.3
	comp=Z,2.1nm,0.8s,baz=82,slow=3.2,SNR=6.6						
ASAR				LR	LR	23 40 52.7	
	comp=Z,272nm,20.1s,baz=62,slow=34						
	comp=Z,5.1nm,0.8s						
ASAR	Alice Springs	32.05	244	P	P	23 29 12.4	-1.7
ASAR					PcP	23 32 03.6	-0.1
GUMO	Guam	32.11	321	LR	LR	23 40 28.0	
	comp=Z,329nm,21.9s,baz=146,slow=33						

HTT	Hallett	32.40	224	P	P	23 29 18.2	+1.1
MTN	Manton Dam	33.28	264	P	P	23 29 24.4	-0.5
BBOO	Buckleboo	34.05	227	P	P	23 29 31.5	0.0
BBOO	Buckleboo	34.05	227	P	P	23 29 30.6	-0.8
BBOO				IAmb	IAmb	23 29 46.0	
	comp=Z,56nm,1.4s						
RAR	Rarotonga	34.90	110	LR	LR	23 42 10.1	
	comp=Z,186nm,18.7s,baz=300,slow=33						
KNRA	Kununurra	35.59	259	P	P	23 29 44.5	-0.4
NLAI	Namlea	38.61	279	P	P	23 30 11.6	+1.0
	comp=Z,50nm,0.8s						
FITZ	Fitzroy Crossi	38.70	256	P	P	23 30 12.2	+0.9
FITZ	Fitzroy Crossi	38.70	256	P	P	23 30 10.2	-1.1
SANI	Sanana	39.99	281	P	P	23 30 22.2	+0.1
	comp=Z,17nm,1.1s						
SANI	Sanana	39.99	281	P	P	23 30 21.1	-1.1
	comp=Z,17nm,1.1s						
SOEI	Soe	40.21	269	P	P	23 30 22.2	-1.9
MMRI	Maumere	42.34	270	P	P	23 30 39.8	-1.7
LUWI	Luwuk	43.35	281	P	P	23 30 48.3	-1.4
LUWI				IAmb	IAmb	23 31 08.7	
	comp=Z,17nm,0.9s						
MBWA	Marble Bar	44.49	252	P	P	23 30 58.2	-0.6
MBWA				IAmb	IAmb	23 31 00.4	
	comp=Z,20nm,1.1s						
TOLI2	Tolitoli	45.87	283	P	P	23 31 08.3	-1.5
TOLI2				IAmb	IAmb	23 31 10.2	
	comp=Z,9.8nm,0.9s						
NWAO	Narrogin (SRO)	48.70	236	LR	LR	23 52 12.5	
	comp=Z,507nm,18.2s,baz=62,slow=36						
MORW	Morawa	48.87	242	P	P	23 31 32.3	-0.8
KKM	Kota Kinabalu	51.75	287	P	P	23 31 54.2	-1.0
KKM	Kota Kinabalu	51.75	287	P	P	23 31 55.6	+0.4
	comp=Z,54nm,1.1s						
KKM	Kota Kinabalu	51.75	287	P	P	23 31 55.2	+0.1
	comp=Z,54nm,1.1s						
SNJI	Sawahan-Nganju	52.73	269	P	P	23 32 04.5	+2.0
	comp=Z,59nm,1.1s						
INU	Inuyama	53.74	331	P	P	23 32 08.3	-1.1
INU				IAmb	IAmb	23 32 11.3	
	comp=Z,28nm,1.2s						
INU	Inuyama	53.74	331	P	P	23 32 09.7	+0.3
	comp=Z,21nm,1.6s						
JGF	Kuroka	53.79	332	P	P	23 32 08.8	-1.0
JMN	Monobe	54.01	328	P	P	23 32 11.5	+0.1
JMN	Monobe	54.01	328	P	P	23 32 12.4	+1.0
	comp=Z,90nm,0.9s						
MJAR	Matsushiro Arr	54.19	333	P	P	23 32 11.8	-0.8
	comp=Z,11nm,1.0s,baz=166,slow=8.5,SNR=26						
	comp=Z,11nm,1.0s						
MAJO	Matsushiro	54.19	333	P	P	23 32 11.6	-1.0
MAJO				pmax	pmax		
	comp=Z,17nm,1.2s						
MAJO	Matsushiro	54.19	333	P	P	23 32 11.6	-1.0
MAJO				IAmb	IAmb	23 32 13.4	
	comp=Z,17nm,1.1s						
MAJO	Matsushiro	54.19	333	P	P	23 32 11.8	-0.9
	comp=Z,20nm,1.1s						
JSU	Suzuyama	54.25	323	P	P	23 32 12.3	-0.8
SBUM	Sibu	54.45	281	P	P	23 32 13.6	-1.4
YOJ	Yonaguni jima	54.56	311	P	P	23 32 15.3	-0.2
YOJ				pmax	pmax		
	comp=Z,49nm,0.9s						
JNU	Nakatsue	55.19	325	LR	LR	23 51 46.1	
	comp=Z,88nm,21.3s,baz=50,slow=32						
YULB	Yu-li	55.23	309	P	P	23 32 19.5	-0.9
YULB	Yu-li	55.23	309	P	P	23 32 20.0	-0.5
	comp=Z,47nm,1.0s						
NACB	Ninganchiao	55.45	310	P	P	23 32 21.3	-0.7
NACB				IAmb	IAmb	23 32 23.1	
	comp=Z,20nm,0.9s						
TPUB	Ta-pu	55.69	309	P	P	23 32 22.6	-1.1
SSLB	Suanglung	55.71	309	P	P	23 32 23.1	-0.8
SSLB				IAmb	IAmb	23 32 24.6	
	comp=Z,24nm,1.0s						
JTM	Tenmabayashi	56.67	338	P	P	23 32 29.9	-0.5
JKA	Kamikawa-asahi	59.11	341	P	P	23 32 47.4	0.0
ASAJ	Asahikawa	59.11	341	P	P	23 32 47.4	-0.1
ASAJ				pmax	pmax		
	comp=Z,26nm,0.9s						
TJN	Taejon	59.53	325	P	P	23 32 50.3	-0.2
TJN				pmax	pmax		
	comp=Z,68nm,0.9s						
TJN	Taejon	59.53	325	P	P	23 32 50.3	-0.2
KSRS	Korea Array	60.00	326	P	P	23 32 54.5	+0.7
	comp=Z,6.2nm,0.8s,baz=142,slow=6.7,SNR=17						
	comp=Z,6.2nm,0.8s						
KSAR	Wonju Array Be	60.01	326	P	P	23 32 53.3	-0.5
KSAR	Wonju Array Be	60.01	326	P	P	23 32 53.3	-0.5
NJ2	Nanjing	62.01	316	⇑P	P	23 33 08.4	+0.9
NJ2				sP	pwP	23 33 15.8	-2.2
NJ2				pmax	pmax		
	comp=Z,32nm,0.8s						
MYKOM	Kota Tinggi	62.36	278	P	P	23 33 09.3	-1.0
MYKOM				IAmb	IAmb	23 33 11.7	
	comp=Z,16nm,1.0s						
USA0B	Ussuriysk Arra	63.17	334	i P	P	23 33 14.8	-0.2
USA0B	Ussuriysk Arra	63.17	334	P	P	23 33 14.7	-0.2
USRK	Ussuriysk Ar.	63.17	334	P	P	23 33 15.2	+0.1
	comp=Z,15nm,0.8s,baz=129,slow=6.2,SNR=15						
	comp=Z,15nm,0.8s						
USRK	Ussuriysk Ar.	63.17	334	P	P	23 33 14.5	-0.5
CNSH	ChangSha	64.15	309	P	P	23 33 22.8	+1.0
CNSH				pmax	pmax		
	comp=Z,27nm,1.2s						
WHN	Wuhan	64.33	312	P	P	23 33 22.9	0.0
SHEM	Shemya Is, Ala	64.51	6	LR	LR	23 55 23.1	
	comp=Z,90nm,20.9s,baz=270,slow=30						
MDJ	Mudanjiang	64.56	333	P	P	23 33 23.9	-0.2
PETK	Petropavlovsk-	64.75	355	P	P	23 33 25.5	+0.3
	comp=Z,8.9nm,0.8s,baz=135,slow=6.6,SNR=6.7						
PETK				LR	LR	23 56 10.5	
	comp=Z,101nm,20.6s,baz=172,slow=31						
	comp=Z,8.9nm,0.8s						
PETK	Petropavlovsk-	64.75	355	P	P	23 33 24.8	-0.4
BKNI	Bangkinang	64.76	276	P	P	23 33 26.4	+0.3
PPI	Padang Panjang	65.22	275	P	P	23 33 30.9	+1.8
	comp=Z,12nm,1.2s						
TIA	Tai'an	65.64	319	P	P	23 33 31.4	0.0
TIA				pmax	pmax		
	comp=Z,16nm,0.9s						
IPM	Ipoh	65.76	280	P	P	23 33 32.2	-0.4
CN2	Changchun	65.91	330	eP	P	23 33 31.8	-1.1
CN2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
CN2				pmax	pmax		
	comp=Z,100nm,4.0s						
CN2				L	L		
	comp=Z,200nm,11.0s						
CN2				L	L		
	comp=Z,300nm,11.0s						
BNX	BinXian	66.41	332	⇓P	P	23 33 36.1	0.0
BNX				pmax	pmax		
	comp=Z,29nm,1.3s						
KLR	Kul'dur	67.32	337	ceP	P	23 33 42.8	+1.0
KLR				pmax	pmax		
	comp=Z,43nm,2.5s						
ENH	Enshi	67.80	309	P	P	23 33 44.7	-0.6
LYN	LuoYang	67.82	315	P	P	23 33 45.3	0.0
LYN				pmax	pmax		
	comp=Z,37nm,1.0s						
HNS	HongShan	67.91	318	⇓P	P	23 33 46.4	+0.7
HNS				pmax	pmax		
	comp=Z,35nm,1.2s						
GYA	Guiyang	68.25	305	⇓P	P	23 33 49.0	+0.6
GYA				pmax	pmax		
	comp=Z,16nm,0.7s						
GSI	Gunungsitoli	68.35	276	P	P	23 33 48.5	-0.6
GSI				IAmb	IAmb	23 34 14.9	
	comp=Z,25nm,1.1s						
SLVN	Son La	68.47	298	P	P	23 33 48.5	-1.2
	comp=Z,11nm,1.5s						
BJI2	Beijing	68.53	321	P	P	23 33 49.8	+0.1
BJI2				pmax	pmax		
	comp=Z,6.0nm,0.8s						
BJT	Baijiatuau	68.53	321	P	P	23 33 49.0	-0.7
BJT				pmax	pmax		
	comp=Z,8.0nm,0.8s						
BJT	Baijiatuau	68.53	321	P	P	23 33 49.0	-0.7
BJT				IAmb	IAmb	23 33 52.4	
	comp=Z,8.0nm,0.8s						
HEH	HeiHe	69.86	335	eP	P	23 33 57.8	+0.2
HEH				pmax	pmax		
	comp=Z,13nm,0.8s						
XAN	Xi'an	70.06	313	P	P	23 33 59.5	+0.1
XAN				pmax	pmax		
	comp=Z,35nm,0.9s						
KMI2	Kunming	70.92	302	⇓P	P	23 34 06.4	+1.4
KMI2				pmax	pmax		
	comp=Z,24nm,1.0s						
XLT	XiLinHaoTe	70.97	325	eP	P	23 34 06.0	+1.3
XLT				pmax	pmax		
	comp=Z,36nm,1.0s						
CM31	Chiang Mai Arr	71.81	294	P	P	23 34 10.5	+0.3
CM31				IAmb	IAmb	23 34 12.5	
	comp=Z,12nm,0.9s						
CMAR	Chiang Mai Arr	71.81	294	P	P	23 34 11.7	+1.5
	comp=Z,6.1nm,0.8s,baz=121,slow=4.5,SNR=28						
	comp=Z,6.1nm,0.8s						
CMAR	Chiang Mai Arr	71.81	294	ceP	P	23 34 11.6	+1.4
CMAR				pmax	pmax		
	comp=Z,6.0nm,0.8s						
CMAR	Chiang Mai Arr	71.81	294	P	P	23 34 10.6	+0.4
MA2	Magadan	71.86	352	LR	LR	00 00 17.5	
	comp=Z,95nm,21.9s,baz=248,slow=31						
HHC	Hu-ho-hao-te	71.87	320	⇑iP	P	23 34 11.8	+1.5
HHC				pmax	pmax		
	comp=Z,18nm,1.0s						
CHTO	Chiang Mai	71.93	294	P	P	23 34 11.0	+0.1
CHTO				pmax	pmax		
	comp=Z,16nm,1.2s						
CHTO	Chiang Mai	71.93	294	P	P	23 34 10.9	+0.1
CHTO				IAmb	IAmb	23 34 12.8	
	comp=Z,16nm,1.2s						
CHTO	Chiang Mai	71.93	294	P	P	23 34 12.8	+1.9
	comp=Z,15nm,1.6s						
CHTO	Chiang Mai	71.93	294	P	P	23 34 12.2	+1.3
	comp=Z,15nm,1.6s						
PZH	PanZhiHua	72.29	303	P	P	23 34 14.5	+1.4
CD2	Chengdu	72.48	308	eP	P	23 34 14.5	+0.5
HIA	Hailar	72.56	331	i P	P	23 34 14.0	-0.1
HIA				pmax	pmax		
	comp=Z,23nm,0.9s						
HIA	Hailar	72.56	331	P	P	23 34 14.2	+0.1
HIA				IAmb	IAmb	23 34 15.6	
	comp=Z,18nm,0.8s						
HILR	Hailar Array B	72.75	331	P	P	23 34 15.9	+0.7
	comp=Z,4.6nm,0.6s,baz=114,slow=9.6,SNR=3.2						
	comp=Z,4.6nm,0.6s						
BTO2	Baotou	72.89	319	eP	P	23 34 17.8	+1.4
BTO2				pP	pwP	23 34 22.6	-4.4
BTO2				sP	sP	23 34 24.9	+2.9
BTO2				S	S	23 43 44.0	+1.8
BTO2				pmax	pmax		
	comp=Z,43nm,1.7s						
BTO2				pmax	pmax		
	comp=Z,330nm,5.0s						
TNCH	TengChong	74.43	300	⇓P	P	23 34 26.8	+1.0
TNCH				sP	pwP	23 34 32.8	-3.7
TNCH				pmax	pmax		
	comp=Z,25nm,0.6s						
LZH	Lanzhou	74.70	313	eP	P	23 34 28.8	+1.7
LZH				pP	pwP	23 34 33.4	-4.4
LZH				pmax	pmax		
	comp=Z,40nm,1.5s						
LZH				L	L		
	comp=Z,270nm,14.0s						
LZH				L	L		
	comp=Z,170nm,15.6s						
LZH				L	L		
	comp=Z,350nm,16.2s						
NPW	Naypyitaw	74.75	294	P	P	23 34 29.2	+1.7
	comp=Z,37nm,0.9s						
LZDM	Lanzhou Array	74.75	312	P	P	23 34 29.2	+1.6
	comp=Z,6.7nm,0.5s,baz=119,slow=5.2,SNR=7.9						
	comp=Z,6.7nm,0.5s						
SEY	Seymchan	74.94	354	ceP	P	23 34 28.7	+1.0
SEY				pmax	pmax		
	comp=Z,16nm,1.7s						
ACHA	Angle Creek He	76.64	20	P	P	23 34 37.2	-0.5
KDAK	Kodiak Island	77.28	22	LR	LR	00 04 44.7	
	comp=Z,50nm,18.6s,baz=97,slow=33						
M16K	Timber Creek	77.73	17	P	P	23 34 44.1	+0.5
M16K				IAmb	IAmb	23 34 49.9	
	comp=Z,16nm,1.2s						
Q19K	Cape Douglas,	77.76	20	P	P	23 34 43.5	-0.3
Q19K				IAmb	IAmb	23 34 44.3	
	comp=Z,17nm,0.6s						
MORE	Moreh	77.78	298	P	P	23 34 43.3	-1.3
MORE				IAmb	IAmb	23 34 44.4	
	comp=Z,12nm,0.6s						
ULN	Ulaanbaatar	78.40	324	ceP	P	23 34 49.0	+1.1
ULN				pmax	pmax		
	comp=Z,30nm,1.3s						
ULN	Ulaanbaatar	78.40	324	P	P	23 34 48.1	+0.3
ULN				IAmb	IAmb	23 34 49.8	
	comp=Z,18nm,0.8s						
ULN	Ulaanbaatar	78.40	324	P	P	23 34 48.6	+0.8
ULN	Ulaanbaatar	78.40	324	P	P	23 34 49.0	+1.1
	comp=Z,30nm,1.1s						
QSPA	South Pole Qui	78.43	180	P	P	23 34 48.6	+0.9
	comp=Z,8.3nm,1.1s,baz=349,slow=1.9,SNR=19						
	comp=Z,8.3nm,1.1s						
QSPA	South Pole Qui	78.43	180	P	P	23 34 48.3	+0.6
QSPA				IAmb	IAmb	23 34 51.7	
	comp=Z,13nm,1.1s						
YAK	Yakutsk	78.45	344	eP	P	23 34 47.3	-0.2
YAK				e*PP	sP	23 34 51.5	-1.7
YAK				e		23 34 56.2	
YAK				ePPP	PPP	23 39 33.0	
YAK				eS	S	23 44 43.7	+1.2
YAK				e*SS	sS	23 44 52.5	+3.1
YAK				e		23 45 05.0	
YAK				eSSS	SSS	23 53 09.0	
YAK				pmax	pmax		
	comp=Z,33nm,1.1s						
YAK				pmax	pmax		
	comp=E,4.0nm,1.2s						
YAK				pmax	pmax		
	comp=N,6.0nm,1.0s						
YAK				smax	smax		
	comp=N,33nm,1.6s						
YAK				smax	smax		
	comp=E,45nm,2.0s						
YAK	Yakutsk	78.45	344	P	P	23 34 47.4	-0.1
YAK	Yakutsk	78.45	344	P	P	23 34 47.8	+0.3
	comp=Z,44nm,1.0s						
SONM	Songino Array	78.76	324	P	P	23 34 50.4	+0.6
	comp=Z,5.2nm,0.8s,baz=132,slow=5.7,SNR=31						
	comp=Z,5.2nm,0.8s						
SONM	Songino Array	78.76	324	P	P	23 34 49.8	-0.1
SONM				IAmb	IAmb	23 34 51.6	
	comp=Z,9.5nm,1.0s						
GTA2	Gaotai	79.09	314	eP	P	23 34 53.3	+1.5
GTA2				pmax	pmax		
	comp=Z,36nm,1.0s						
BRLK	Bradley Lake	79.34	21	P	P	23 34 51.6	-1.0
BRLK				IAmb	IAmb	23 34 53.0	
	comp=Z,14nm,1.0s						
BILL	Bilibino	79.41	0	ceP	P	23 34 53.3	+0.6
BILL				pmax	pmax		
	comp=Z,34nm,1.3s						
BILL	Bilibino	79.41	0	P	P	23 34 53.0	+0.2
BILL				IAmb	IAmb	23 34 54.1	
	comp=Z,23nm,1.0s						
SHL	Shillong	80.28	299	P	P	23 34 58.1	-0.5
SHL				pmax	pmax		
	comp=Z,21nm,1.2s						
SHL	Shillong	80.28	299	P	P	23 34 58.1	-0.5
SHL				IAmb	IAmb	23 35 00.2	
	comp=Z,21nm,1.2s						
GOMU	GeErMu	81.42	310	P	P	23 35 05.8	+1.1
GOMU				pP	sP	23 35 09.0	-1.4
GOMU				sP	pwP	23 35 13.5	-1.9
GOMU				pmax	pmax		
	comp=Z,5.0nm,0.7s						
F17K	Baldwin Pennin	81.63	13	P	P	23 35 05.1	+0.5
F17K				IAmb	IAmb	23 35 32.4	
	comp=Z,15nm,1.3s						
ZAK	Zakamensk	81.81	325	eP	P	23 35 06.1	0.0
ZAK				pmax	pmax		
	comp=Z,11nm,1.2s						
KAIM	Kayak Island	81.83	23	P	P	23 35 06.0	+0.1
LSA	Lhasa	82.16	302	P	P	23 35 08.2	-0.7
LSA				pmax	pmax		
	comp=Z,7.0nm,0.8s						
LSA	Lhasa	82.16	302	P	P	23 35 08.2	-0.7
LSA				IAmb	IAmb	23 35 11.2	
	comp=Z,7.0nm,0.8s						
TLY	Talaya	82.25	326	LR	LR	00 09 53.9	
	comp=Z,68nm,21.3s,baz=300,slow=34						
BERG	Berg Lake	82.40	23	P	P	23 35 08.8	0.0
BMRM	Bremner River	82.43	22	P	P	23 35 09.1	0.0
BMRM				IAmb	IAmb	23 35 12.6	
	comp=Z,9.3nm,0.9s						
RND	Reindeer	82.62	19	P	P	23 35 10.5	+0.4
RND				pmax	pmax		
	comp=Z,10.0nm,1.3s						
RND	Reindeer	82.62	19	P	P	23 35 10.5	+0.4
RND				IAmb	IAmb	23 35 11.5	
	comp=Z,10nm,1.3s						
VRDI	Verde Repeater	83.03	22	P	P	23 35 12.2	-0.1
VRDI				IAmb	IAmb	23 35 40.5	
	comp=Z,8.6nm,1.2s						
IMAR	Indian Mountai	83.09	16	P	P	23 35 12.5	+0.1
E19K	Redstone River	83.38	14	P	P	23 35 14.5	+0.7
E19K				IAmb	IAmb	23 35 16.5	
	comp=Z,5.7nm,0.7s						
G21K	Allakaket	83.56	15	P	P	23 35 15.0	+0.2
COLA	College	83.97	18	i P	P	23 35 15.3	-1.5
COLA				pmax	pmax		
	comp=Z,5.0nm,0.6s						
O02D	Mt. Diablo Mer	84.07	47	P	P	23 35 18.0	-0.1
IL31		84.20	19	P	P	23 35 17.8	-0.1
ILAR	Eielson Array	84.20	19	P	P	23 35 18.1	+0.1
	comp=Z,1.8nm,0.6s,baz=236,slow=5.2,SNR=28						
ILAR				LR	LR	00 06 14.7	
	comp=Z,112nm,22.0s,baz=326,slow=31						
	comp=Z,1.8nm,0.6s						
ILAR	Eielson Array	84.20	19	P	P	23 35 17.9	-0.2
YBH	Yreka Blue Hor	84.67	46	LR	LR	00 04 20.4	
	comp=Z,50nm,20.9s,baz=354,slow=30						
BCAR	Beaver Creek A	84.80	21	P	P	23 35 21.1	0.0
KNGR	Kungurtug, Tuv	85.20	324	i P	P	23 35 24.2	+0.6
KNGR				pmax	pmax		
	comp=Z,11nm,0.9s						
EVN	Everest	85.30	300	P	P	23 35 25.1	-0.1
BBB	Bella Bella	85.34	35	LR	LR	00 08 55.3	
	comp=Z,102nm,18.2s,baz=254,slow=32						
PINE	Pine Mountain	86.60	44	P	P	23 35 30.2	-0.5
BMAR	Burnt Mountain	86.68	17	P	P	23 35 30.8	+0.3
NVAR	Mina Array Bea	86.80	50	P	P	23 35 32.6	+0.7
	comp=Z,1.6nm,0.9s,baz=232,slow=8.6,SNR=4.6						
NVAR				LR	LR	00 09 15.7	
	comp=Z,169nm,18.5s,baz=276,slow=32						
	comp=Z,1.6nm,0.9s						
NVAR	Mina Array Bea	86.80	50	P	P	23 35 31.4	-0.5
PFO	Pinyon Flats O	86.85	55	LR	LR	00 08 43.0	
	comp=Z,127nm,18.6s,baz=250,slow=32						
KVN	Kaiserville	87.14	49	P	P	23 35 33.3	-0.2
KVN	Kaiserville	87.14	49	P	P	23 35 33.3	-0.2
DLBC	Dease Lake	87.15	28	LR	LR	00 08 00.3	
	comp=Z,124nm,19.5s,baz=337,slow=31						
WMQ	Urumqi	89.07	315	eP	P	23 35 41.8	-0.6
WMQ				pmax	pmax		
	comp=Z,14nm,0.7s						
ELK	Elko	89.72	48	LR	LR	00 07 01.1	
	comp=Z,70nm,20.9s,baz=276,slow=30						
LPIG	La Paz	89.74	65	LR	LR	00 08 18.5	
	comp=Z,70nm,20.9s,baz=270,slow=30						
HYB	Hyderabad	90.24	288	ePKiKP	PKiKP	23 40 43.2	-0.9
HYB				eSKSac	SKSac	23 46 18.5	-0.9
HYB				eSKKSac	SKKSac	23 46 31.8	-1.3
NEW	Newport	90.52	41	LR	LR	00 09 16.7	
	comp=Z,70nm,20.5s,baz=14,slow=31						
INK	Inuvik	90.59	19	LR	LR	00 12 41.3	
	comp=Z,97nm,20.8s,baz=31,slow=33						
DGZ	Jazzator, Alta	90.95	321	i P	P	23 35 49.5	-1.7
DGZ				pmax	pmax		
	comp=Z,9.0nm,1.7s						
ELIB	Princess Elisa	92.90	191	dP	P	23 36 01.0	+1.2
MK31	Makanchi Array	93.52	317	ceP	P	23 36 03.3	+0.3
MKAR	Makanchi Array	93.52	317	P	P	23 36 03.1	+0.1
	comp=Z,6.1nm,0.7s,baz=96,slow=6.1,SNR=50						
	comp=Z,6.1nm,0.7s						
ZAA0	Zalesovo Array	93.66	324	P	P	23 36 02.1	-1.2
ZAA0				IAmb	IAmb	23 36 03.5	
	comp=Z,5.5nm,0.9s						
ZALV	Zalesovo Beam	93.66	324	P	P	23 36 02.0	-1.3
	comp=Z,3.4nm,0.8s,baz=119,slow=5.0,SNR=16						
	comp=Z,3.4nm,0.8s						
ZALV	Zalesovo Beam	93.66	324	i P	P	23 36 02.7	-0.7
ZALV				pmax	pmax		
	comp=Z,3.0nm,0.8s						
ZALV	Zalesovo Beam	93.66	324	P	P	23 36 02.3	-1.1
MAKZ	Makanchi	93.74	317	P	P	23 36 03.6	-0.4
MAKZ				pmax	pmax		
	comp=Z,10.0nm,1.0s						
MAKZ	Makanchi	93.74	317	P	P	23 36 03.6	-0.4
MAKZ				IAmb	IAmb	23 36 05.1	
	comp=Z,9.7nm,1.0s						
MAKZ	Makanchi	93.74	317	P	P	23 36 04.2	+0.2
	comp=Z,10nm,1.3s						
PDAR	Pinedale Array	94.33	47	P	P	23 36 07.0	0.0
	comp=Z,0.5nm,0.9s,baz=278,slow=7.9,SNR=4.4						
PDAR				LR	LR	00 11 50.5	
	comp=Z,43nm,21.9s,baz=18,slow=31						
	comp=Z,0.5nm,0.9s						
ANMO	Albuquerque	95.21	56	LR	LR	00 10 15.9	
	comp=Z,36nm,21.9s,baz=3.5,slow=30						
YKA	Yellowknife Ar	95.70	27	P	P	23 36 11.5	-1.0
	comp=Z,0.7nm,0.7s,baz=257,slow=4.9,SNR=2.4						
	comp=Z,0.7nm,0.7s						
NRIK	Noril'sk	96.42	340	i P	P	23 36 15.1	-0.6
NRIK				pmax	pmax		
	comp=Z,8.0nm,1.4s						
SNAA	Sanae	96.55	184	LR	LR	00 17 03.1	
	comp=Z,120nm,21.2s,baz=210,slow=34						
SNAA	Sanae	96.55	184	i P	P	23 36 17.3	+0.8
SNAA				pmax	pmax		
	comp=Z,14nm,2.8s						
TXAR	Lajitas Array	96.58	61	LR	LR	00 15 57.2	
	comp=Z,102nm,18.0s,baz=252,slow=33						
KURK	Kurchatov	96.69	320	i P	P	23 36 16.5	-0.8
KURK				pmax	pmax		
	comp=Z,5.0nm,2.0s						
KURBB	Kurchatov Arra	96.73	320	P	P	23 36 16.1	-1.3
	comp=Z,0.5nm,0.7s,baz=96,slow=4.3,SNR=5.6						
	comp=Z,0.5nm,0.7s						
ARCES	ARCESS Array B	116.71	345	PKP	PKPdf	23 41 29.7	-1.1
	comp=Z,3.8nm,0.9s,baz=64,slow=3.1,SNR=7.7						
ARCES	ARCESS Array B	116.71	345	PKIKP	PKPdf	23 41 30.4	-0.4
ARCES	ARCESS Array B	116.71	345	PKPdf	PKPdf	23 41 30.4	-0.4
OBN	Obninsk	120.96	328	i PKIKP	PKPdf	23 41 39.6	+0.3
OBN				pmax	pmax		
	comp=Z,4.0nm,0.8s						
RAYN	Ar Rayn	121.62	291	PKIKP	PKPdf	23 41 41.4	-0.3
RAYN	Ar Rayn	121.62	291		PKPdf	23 41 41.4	-0.3
FINES	FINESS Array B	122.06	338	PKP	PKPdf	23 41 39.9	-1.4
	comp=Z,2.5nm,0.9s,baz=339,slow=4.3,SNR=5.8						
FINES	FINESS Array B	122.06	338		PKPdf	23 41 40.2	-1.0
GURO	Guroymak-BITLI	122.94	309	PKPdf	PKPdf	23 41 43.9	0.0
NB2	NORSAR Subarra	127.06	344	PKPdf	PKPdf	23 41 50.6	-0.4
	comp=Z,1.3nm,0.9s,baz=39,slow=1.9						
NOA	NORSAR Array B	127.06	344	PKP	PKPdf	23 41 50.3	-0.7
	comp=Z,0.9nm,0.8s,baz=52,slow=2.3,SNR=4.3						
BRTR	Keskin Array B	128.91	312	PKP	PKPdf	23 41 55.9	+0.7
	comp=Z,0.3nm,0.6s,baz=70,slow=2.1,SNR=3.8						
GERES	GERESS Array B	135.93	333	PKP	PKPdf	23 42 07.5	-0.7
	comp=Z,0.2nm,0.3s,baz=346,slow=1.2,SNR=5.8						
GERES	GERESS Array B	135.93	333	PKIKP	PKPdf	23 42 08.1	-0.1
GERES	GERESS Array B	135.93	333		PKPdf	23 42 08.1	-0.1
KEST	Kesra	147.49	322	PKPbc	PKPbc	23 42 32.4	+0.7
	comp=Z,14nm,0.9s,baz=16,slow=2.7,SNR=21						
KEST	Kesra	147.49	322		PKPbc	23 42 31.6	-0.1
PBRG	Braganca	149.07	348	ePKPdf	PKPbc	23 42 36.3	+0.7
PGAV	Gavieira, Arco	149.19	350	ePKPdf	PKPbc	23 42 36.6	+0.6
POLO	Lamas de Olo	149.69	349	ePKPdf	PKPbc	23 42 37.9	+0.7
PVRL	Vila Real	149.77	349	ePKPdf	PKiKP	23 42 38.5	+0.1
PVIS	Viseu	150.34	349	ePKPdf	PKiKP	23 42 39.6	0.0
ESDC	Sonseca Array	150.41	343	PKPbc	PKiKP	23 42 39.8	0.0
	comp=Z,3.3nm,0.8s,baz=13,slow=2.8,SNR=22						
ESDC	Sonseca Array	150.41	343		PKPbc	23 42 38.7	-0.3
MTE	Manteigas	150.58	349	ePKPdf	PKiKP	23 42 40.9	+0.8
PSARD	Sardoal	151.47	349	ePKPdf	PKPbc	23 42 42.0	+0.6
PMRV	Marv??o	151.49	348	ePKPdf	PKiKP	23 42 42.1	+0.2
PSBE	So Bento	151.67	350	ePKPdf	PKiKP	23 42 43.0	+0.6
PMTG	Montargil	152.00	349	ePKPdf	PKPbc	23 42 43.0	+0.4
TORD	Torodi Ar. Bea	163.78	277	PKP	PKPdf	23 42 50.6	-0.6
	comp=Z,1.7nm,1.0s,baz=110,slow=1.6,SNR=5.6						
TORD				PKPab	PKPab	23 43 43.3	-0.2
	comp=Z,1.6nm,0.9s,baz=101,slow=2.8,SNR=5.7						

UPP 19 23:26:43.7±0.1,67°.85N×20°.21E,h0^{km},ML2.1,
Suspected explosion,Sweden

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUA	**Kurravaara**	**0.12**	**24**	P	Pg	23 26 46.2	+0.2
	baz=216						
KUA				S	Sg	23 26 48.0	+0.4
RATU	**Laukkuluspa**	**0.23**	**265**	P	Pg	23 26 48.3	+0.2
RATU				S	Sg	23 26 51.8	+0.5
NIKU	**Nikkaluokta**	**0.45**	**273**	P	Pg	23 26 52.2	0.0
NIKU				S	Sg	23 26 58.5	+0.5
MASU	**Masugnsbyn**	**0.79**	**119**	P	Pg	23 26 58.5	-0.3
SALU	**Saltoluokta**	**0.80**	**235**	P	Pg	23 26 58.7	-0.3
SALU	**Saltoluokta**	**0.80**	**235**	*e*P	Pg	23 26 58.4	-0.6

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*HEL **19** 23:26:43.8±0.2, 67°.84N×20°.16E, h0^{km}, ML1.8, Suspected explosion*
*IDC **19** 23:26:46.9±1.5, 67°.86N×20°.67E, h0^{km}, mbtmp2.8/4, ML1.9/4, Error ellipse: s-maj=20.3km s-min=10.8km az=120.0*
*UPP **19** 23:26:47.1±0.1, 67°.83N×20°.07E, h0^{km}, ML2.0, Suspected explosion*
ISC 19 23:26:44.9±0.8**, 67°.82N**±0°.03×**20°.40E**±0°.03**, h0**^{km}**, n34, σ1.^{s}40**/49**, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUA	**Kurravaara**	**0.14**	**351**	P	**Pg**	**23 26 50.5**	**+2.9**
	baz=105						
KUA				S	**Sg**	**23 26 52.5**	**+3.1**
RATU	**Laukkuluspa**	**0.31**	**272**	P	**Pg**	**23 26 50.8**	**0.0**
NIKU	**Nikkaluokta**	**0.52**	**276**	P	**Pg**	**23 26 54.7**	**-0.1**
LANU	**Lannavaara**	**0.65**	**68**	S	**Sg**	**23 27 06.8**	**+1.2**
LANU	**Lannavaara**	**0.65**	**68**	P	**Pn**	**23 27 01.6**	**+0.2**
LANU	**Lannavaara**	**0.65**	**68**	PG	**Pg**	**23 26 56.7**	**-0.6**
LANU				SG	**Sg**	**23 27 06.4**	**+0.8**
LANU	**Lannavaara**	**0.65**	**68**	P	**Pg**	**23 26 57.0**	**-0.3**
MASU	**Masugnsbyn**	**0.71**	**120**	P	**Pn**	**23 27 02.4**	**+0.2**
SALU	**Saltoluokta**	**0.85**	**240**	P	**Pg**	**23 27 01.2**	**+0.1**
SALU				S	**Sg**	**23 27 11.2**	**-0.8**
HEF	**Hetta**	**1.36**	**63**	*e*P	**Pg**	**23 27 09.5**	**-1.4**
HEF	**Hetta**	**1.36**	**63**	PG	**Pg**	**23 27 09.4**	**-1.4**
HEF				smax	smax	23 27 26.8	
	comp=Z,14nm,0.2s						
HEF				SG	**Sg**	**23 27 28.1**	**-0.5**
ERTU	**Ertsjaerv**	**1.45**	**150**	P	**Pn**	**23 27 11.2**	**-1.1**
ERTU	**Ertsjaerv**	**1.45**	**150**	PG	**Pn**	**23 27 11.0**	**-1.3**
ERTU				SN	**Sn**	**23 27 34.2**	**+2.3**
KLF	**Kolari**	**1.49**	**111**	PG	**Pn**	**23 27 12.1**	**-0.7**
KLF				smax	smax	23 27 31.2	
	comp=Z,6.9nm,0.2s						
KLF				SN	**Sn**	**23 27 35.5**	**+2.5**
KTK1	**Kautokeino**	**1.60**	**40**	PG	**Pn**	**23 27 13.1**	**-1.2**
KTK1				SN	**Sg**	**23 27 37.5**	**+1.4**
TRO	**Tromso**	**1.90**	**344**	PG	**Pn**	**23 27 17.2**	**-1.3**
TRO				SG	**Sn**	**23 27 42.2**	**-1.0**
TOF	**Tornio**	**2.33**	**137**	PG	**Pn**	**23 27 25.5**	**+1.1**
TOF				smax	smax	23 27 55.1	
	comp=Z,3.7nm,0.2s						
TOF				SG	**Sb**	**23 27 58.0**	**+1.0**
RNF	**Rovaniemi**	**2.50**	**116**	PB	**Pn**	**23 27 28.1**	**+1.4**
RNF				SG	**Sb**	**23 28 03.0**	**+1.1**
ARA0	**ARCESS Array S**	**2.54**	**45**	PB	**Pn**	**23 27 27.1**	**-0.2**
	baz=227						
ARA0				SG	**Sb**	**23 28 01.9**	**-1.3**
ARCES	**ARCESS Array B**	**2.54**	**45**	Pn	**Pn**	**23 27 27.0**	**-0.4**
	comp=Z,0.5nm,0.3s,baz=229,slow=14,SNR=33						
ARCES				Lg	Lg	23 28 02.2	
	comp=Z,1.4nm,0.3s,baz=224,slow=25,SNR=15						
	comp=Z,1.1nm,0.3s						
ARCES				AML	AML		
RAJF	**Raja-Jooseppi**	**3.03**	**74**	PN	**Pn**	**23 27 33.8**	**-0.3**
RAJF				SG	**Sb**	**23 28 17.2**	**0.0**
KEV	**Kevo**	**3.09**	**48**	PN	**Pn**	**23 27 34.9**	**0.0**
KEV				SN	**Sn**	**23 28 13.4**	**+0.9**
BURU	**Burvik**	**3.27**	**173**	PB	**Pn**	**23 27 38.3**	**+1.0**
VRF	**Varrio**	**3.50**	**87**	PB	**Pb**	**23 27 44.5**	**-3.1**
OUL	**Oulu**	**3.52**	**139**	PG	**Pb**	**23 27 48.0**	**+0.1**
	baz=320						
OBF0	**Syolatti, Pyha**	**3.68**	**153**	PG	**Pb**	**23 27 51.5**	**+0.9**
OLKF	**Oulanka, Finla**	**3.83**	**109**	PN	**Pn**	**23 27 45.8**	**+0.8**
MSF	**Maaselka**	**3.91**	**115**	PN	**Pn**	**23 27 47.1**	**+1.0**
	baz=299						
UMAU	**Umeaa**	**3.95**	**178**	PG	**Pb**	**23 27 52.4**	**-2.9**
	baz=0.0						
KU1	**Kurvinen**	**4.28**	**118**	PN	**Pn**	**23 27 52.4**	**+1.1**
HUSU	**Husum**	**4.52**	**187**	PG	**Pb**	**23 28 03.3**	**-1.6**
FINES	**FINESS Array B**	**6.84**	**156**	Pn	**Pn**	**23 28 26.4**	**+0.1**
	comp=Z,0.1nm,0.3s,baz=344,slow=13,SNR=4.0						
FINES				Sn	**Sn**	**23 29 42.8**	**-2.1**
	comp=Z,0.1nm,0.3s,baz=344,slow=19,SNR=2.1						
FINES				Lg	Lg	23 30 16.7	
	comp=Z,0.4nm,0.3s,baz=341,slow=28,SNR=5.4						
	comp=Z,2.6nm,1.0s						
FINES				AML	AML		
NOA	**NORSAR Array B**	**7.87**	**215**	Pn	**Pn**	**23 28 42.1**	**+1.6**
	baz=27,slow=11,SNR=0.9						
NOA				Sn	**Sn**	**23 30 10.2**	**+0.1**
	baz=350,slow=13,SNR=1.7						
NOA				Lg	Lg	23 30 49.5	
	baz=67,slow=21,SNR=3.9						
	comp=Z,0.1nm,0.4s						
HFS	**Hagfors**	**8.25**	**204**	Pn	**Pn**	**23 28 47.4**	**+1.8**
	comp=Z,0.1nm,0.3s,baz=17,slow=15,SNR=1.6						
	comp=Z,0.7nm,0.8s						
HFS				AML	AML		

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*SNET **19** 23:27:27.0±1.8, 13°.73N×89°.27W, h2^{km}, ML3.2, Presumed earthquake*
*CATAC **19** 23:27:28.2±0.2, 14°N±1°×89°.3W±0°.8, h5^{km}, M3.1/25, MLv3.1/25, Error ellipse: s-maj=2.4km s-min=1.6km az=20.4, confirmed*
*GCG **19** 23:27:28.5±1.6, 13°.74N×89°.30W, h6^{km}±18^{km}, MD4.1, Presumed earthquake*
ISC 19 23:27:28.2±0.9**, 13°.74N**±0°.02×**89°.26W**±0°.02**, h3**^{km}±7^{km}**, n34, σ0.^{s}66**/58**, El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
UEES	**Universidad Ev**	**0.03**	**139**	P	**Pg**	**23 27 28.7**	**-0.4**
UEES				S	**Sg**	**23 27 29.8**	**+0.1**
SEMO	**Seminario San**	**0.05**	**136**	P	**Pg**	**23 27 29.4**	**0.0**
SEMO				S	**Sg**	**23 27 30.9**	**+0.8**
PMON	**Piamonte**	**0.06**	**242**	P	**Pg**	**23 27 29.3**	**-0.3**
PMON				S	**Sg**	**23 27 31.2**	**+0.8**
UTEC	**Universidad Te**	**0.07**	**124**	P	**Pg**	**23 27 29.9**	**+0.2**
UTEC				S	**Sg**	**23 27 31.9**	**+1.2**
IGN	**Direccin Gen**	**0.09**	**107**	P	**Pg**	**23 27 30.8**	**+0.7**
LOMA	**Loma Larga**	**0.13**	**138**	P	**Pg**	**23 27 31.0**	**+0.2**
CEDA	**San Andres**	**0.14**	**296**	P	**Pg**	**23 27 31.8**	**+0.7**
PANCS	**Alcalda de**	**0.15**	**148**	P	**Pg**	**23 27 31.2**	**0.0**
PANCS				S	**Sg**	**23 27 33.9**	**+0.7**
JAYA	**Jayaque - finc**	**0.20**	**245**	*i* P	**Pg**	**23 27 32.3**	**+0.1**
JAYA				*i* S	**Sg**	**23 27 35.2**	**+0.3**
JAYA	**Jayaque - finc**	**0.20**	**245**	P	**Pg**	**23 27 32.4**	**+0.1**
JAYA				S	**Sg**	**23 27 35.8**	**+0.9**
LALI	**Alcalda de L**	**0.26**	**193**	*i* P	**Pg**	**23 27 33.5**	**+0.3**
LALI				*i* S	**Sg**	**23 27 37.0**	**+0.4**
LALI	**Alcalda de L**	**0.26**	**193**	P	**Pg**	**23 27 33.7**	**+0.5**
LALI				S	**Sg**	**23 27 38.2**	**+1.6**
PAVA	**Las Pavas**	**0.32**	**95**	P	**Pg**	**23 27 35.3**	**+0.9**
PAVA				S	**Sb**	**23 27 40.6**	**-1.6**
CEVE	**Cerro Verde**	**0.36**	**284**	P	**Pg**	**23 27 36.1**	**+0.8**
UNIC	**Universidad Ca**	**0.37**	**311**	P	**Pg**	**23 27 35.4**	**0.0**
UNIC				S	**Sg**	**23 27 41.4**	**+1.2**
COEG	**Centro de Oper**	**0.39**	**108**	P	**Pg**	**23 27 35.5**	**-0.2**
COEG				S	**Sg**	**23 27 42.1**	**+1.3**
TECO	**Alcaldia de Te**	**0.51**	**113**	P	**Pg**	**23 27 38.3**	**+0.3**
TECO				S	**Sg**	**23 27 44.7**	**+0.1**
SCLA	**Alcaldia de Sa**	**0.52**	**94**	P	**Pb**	**23 27 39.3**	**-0.8**
LLGN	**La Laguna**	**0.52**	**36**	P	**Pb**	**23 27 39.7**	**-0.4**
LLGN				S	**Sg**	**23 27 45.7**	**+0.7**
NUBE	**Las Nubes**	**0.53**	**288**	*i* P	**Pg**	**23 27 38.6**	**+0.2**
NUBE				*i* S	**Sg**	**23 27 45.8**	**+0.5**
NUBE	**Las Nubes**	**0.53**	**288**	P	**Pg**	**23 27 38.6**	**+0.2**
NUBE				S	**Sb**	**23 27 46.9**	**-1.5**
P5NO	**Presa 5 de nov**	**0.55**	**63**	P	**Pg**	**23 27 38.8**	**+0.1**
P5NO				S	**Sg**	**23 27 46.8**	**+1.0**
SLOZ	**Alcaldia de Sa**	**0.58**	**299**	P	**Pg**	**23 27 39.5**	**+0.1**
SLOZ				S	**Sg**	**23 27 47.1**	**+0.1**
MTO3	**Montecristo**	**0.66**	**352**	*i* P	**Pg**	**23 27 40.8**	**-0.1**
MTO3	**Montecristo**	**0.66**	**352**	P	**Pg**	**23 27 40.9**	**-0.1**
MTO3				S	**Sg**	**23 27 50.1**	**+0.5**
FAME	**Alcaldia de Sa**	**0.74**	**278**	P	**Pg**	**23 27 42.1**	**-0.4**
FAME				S	**Sg**	**23 27 53.0**	**+0.9**
ALJI	**Alcalda de J**	**0.79**	**121**	P	**Pg**	**23 27 43.2**	**-0.1**
PACA	**Pacayal**	**0.95**	**106**	P	**Pg**	**23 27 46.8**	**+0.3**
PACA				S	**Sb**	**23 28 00.0**	**-0.5**
RANC	**El Ranchito**	**0.99**	**108**	P	**Pg**	**23 27 47.3**	**0.0**
SARH	**Santa Rosa de**	**1.14**	**25**	*i* P	**Pg**	**23 27 49.8**	**-0.3**
SARH	**Santa Rosa de**	**1.14**	**25**	P	**Pb**	**23 27 50.4**	**-0.3**
SARH				S	**Sb**	**23 28 05.7**	**-0.2**
CNCH	**Conchagua**	**1.46**	**108**	P	**Pn**	**23 27 55.6**	**-0.1**
CNCH				S	**Sb**	**23 28 14.6**	**-0.6**
APG	**El Apazote**	**1.71**	**317**	*i* P	**Pn**	**23 27 59.7**	**+0.4**
TGUH	**Tegucigalpa,Un**	**1.96**	**80**	P	**Pn**	**23 28 02.6**	**+0.1**
TGUH				S	**Sn**	**23 28 28.3**	**+0.6**

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*IDC **19** 23:38:25.6±1.4, 8°.75S×124°.11E, h0^{km}, mb3.8/2, mbtmp3.8/4, ML3.9/2, Error ellipse: s-maj=134.9km s-min=18.9km az=54.0*
*NEIC **19** 23:38:33.2±0.9, 8°.92S±0°.07×124°.3E±0°.1, h68^{km}±10^{km}, mb4.0/6, Error ellipse: s-maj=18.9km s-min=3.9km az=56.0*
*DJA **19** 23:38:36.3±0.4, 9°S±3°×12°4E±°, h42^{km}±11^{km}, M3.5/8, mb3.9/1, mb3.9/1, ML3.3/6, MLv3.3/6, MLv3.5/8*
ISC 19 23:38:33.5±0.9**, 9°.2S**±0°.1×**124°.10E**±0°.08**, h74**^{km}**, n37, σ2.^{s}04**/35**, mb4.0**/5**, Timor region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SOEI	**Soe**	**0.62**	**164**	P	**Pn**	**23 38 49.4**	**+1.4**
SOEI	**Soe**	**0.62**	**164**		**Pn**	**23 38 49.7**	**+1.7**
SOEI				Sn	**Sn**	**23 39 01.0**	**+2.3**
SOEI	**Soe**	**0.62**	**164**	P	**Pn**	**23 38 49.5**	**+1.4**
SOEI				S	**Sn**	**23 39 00.3**	**+1.5**
SOEI				AML	AML		
SOEI				AML	AML		
SOEI				AML	AML		
MMRI	**Maumere**	**1.91**	**285**	P	**Pn**	**23 39 05.5**	**+1.5**
MMRI	**Maumere**	**1.91**	**285**	S	**Sn**	**23 39 29.9**	**+2.7**
MMRI	**Maumere**	**1.91**	**285**		**Pn**	**23 39 04.7**	**+0.7**
MMRI				Sn	**Sn**	**23 39 28.6**	**+1.3**
MMRI	**Maumere**	**1.91**	**285**	P	**Pn**	**23 39 06.2**	**+2.2**
MMRI				AML	AML		
MMRI				AML	AML		
MMRI				AML	AML		
EDFI	**Ende, Flores**	**2.41**	**279**	P	**Pn**	**23 39 12.6**	**+1.7**
EDFI				AML	AML		
WSI	**Waingapu**	**3.78**	**262**	P	**Pn**	**23 39 33.9**	**+4.5**
BBSI	**Bau Bau**	**3.94**	**337**	P	Pn	23 39 35.5	+3.9
LBFI	**Labuhan Bajo,**	**4.21**	**279**	P	**Pn**	**23 39 37.8**	**+2.5**
DBNI	**Kabupaten Domp**	**5.75**	**276**	P	**Pn**	**23 40 00.3**	**+3.9**
	12nm,0.9s						
PLAI	**Plampang**	**6.25**	**272**	P	**Pn**	**23 40 04.2**	**+1.0**
PLAI	**Plampang**	**6.25**	**272**	S	**Sn**	**23 41 10.8**	**-2.5**
DRS	**Darwin Rock St**	**7.43**	**117**	P	**Pn**	**23 40 21.9**	**+2.6**
MTN	**Manton Dam**	**7.82**	**119**		**Pn**	**23 40 24.2**	**-0.5**
KNRA	**Kununurra**	**7.93**	**145**		**Pn**	**23 40 24.2**	**-1.8**
FITZ	**Fitzroy Crossi**	**9.02**	**171**	P	Pn	23 40 38.2	-2.8
FITZ	**Fitzroy Crossi**	**9.02**	**171**		Pn	23 40 38.4	-2.6
JAGI	**Jajag, Banyuwa**	**9.85**	**273**	P	**Pn**	**23 40 53.7**	**+1.3**
WB0	**Warramunga Arr**	**14.51**	**138**	Pn	Pn	23 41 51.0	-4.1
WRA	**Warramunga Arr**	**14.60**	**138**	Pn	**Pn**	**23 41 52.6**	**-3.6**
	0.5nm,0.3s,baz=314,slow=14,SNR=20						
WRA				Sn	Sn	23 44 25.1	-12
	1.4nm,0.3s,baz=319,slow=24,SNR=11						
	0.8nm,0.4s						
WRA				AML	AML		
WRA	**Warramunga Arr**	**14.60**	**138**		Pn	23 41 52.1	-4.2
BBJI	**Bungbulang**	**16.36**	**275**	Pn	**Pn**	**23 42 15.8**	**-3.0**
BBJI				IAmb	IAmb	23 42 34.4	
	comp=Z,9.7nm,0.9s						
AS31	**Alice Springs**	**17.21**	**148**		**Pn**	**23 42 27.2**	**-2.1**
ASAR	**Alice Springs**	**17.21**	**148**	Pn	**Pn**	**23 42 28.0**	**-1.3**
	comp=Z,0.3nm,0.3s,baz=322,slow=12,SNR=22						
ASAR				Sn	Sn	23 45 28.3	-12
	comp=Z,0.5nm,0.3s,baz=320,slow=22,SNR=8.4						
	comp=Z,2.2nm,0.6s						
ASAR				AML	AML		
ASAR	**Alice Springs**	**17.21**	**148**		**Pn**	**23 42 27.1**	**-2.2**
AS01	**Alice Springs**	**17.24**	**148**	P	**Pn**	**23 42 28.2**	**-1.3**
QIS	**Mount Isa**	**18.78**	**129**	P	**Pn**	**23 42 49.0**	**+0.8**
BBOO	**Buckleboo**	**26.01**	**157**	P	**P**	**23 44 00.3**	**+0.6**
BBOO				IAmb	IAmb	23 44 14.5	
	comp=Z,7.5nm,1.0s						
MKAR	**Makanchi Array**	**66.99**	**330**	P	**P**	**23 49 18.5**	**+0.1**
	comp=Z,1.1nm,0.6s,baz=133,slow=7.4,SNR=10.0						
	comp=Z,1.1nm,0.6s						
MKAR	**Makanchi Array**	**66.99**	**330**	P	**P**	**23 49 17.8**	**-0.7**
MAKZ	**Makanchi**	**67.15**	**330**	P	**P**	**23 49 19.5**	**0.0**
MAKZ				IAmb	IAmb	23 49 48.1	
	comp=Z,1.1nm,0.8s						
BOOM	**Boomskoye usch**	**67.61**	**323**	P	**P**	**23 49 22.1**	**-0.6**
KKAR	**Karatay Array**	**71.23**	**322**	P	**P**	**23 49 43.8**	**-1.0**
KURBB	**Kurchatov Arra**	**71.43**	**331**	P	**P**	**23 49 45.1**	**-0.7**
	comp=Z,0.3nm,0.5s,baz=144,slow=5.4,SNR=4.4						
	comp=Z,0.3nm,0.5s						
KURK	**Kurchatov**	**71.44**	**331**	P	**P**	**23 49 45.7**	**-0.2**
KURK				IAmb	IAmb	23 49 46.0	
	comp=Z,0.9nm,0.5s						

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*IDC **19** 23:42:39.7±1.2, 11°.68S×165°.18E, h0^{km}, mb3.9/5, mbtmp3.9/6, ML4.2/1, Error ellipse: s-maj=33.0km s-min=22.5km az=25.0*
ISC 19 23:42:45.2±1.2**, 11°.7S**±0°.2×**165°.1E**±0°.1**, h34**^{km}**, n12, σ0.^{s}96**/8**, mb3.8**/5**, Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	**Honiara**	**5.51**	**293**	Pn	**Pn**	**23 44 05.7**	**+0.8**
	6.7nm,0.3s,baz=279,slow=8.9,SNR=1.9						
HNR				Sn	**Sn**	**23 45 05.8**	**-1.4**
	9.8nm,0.3s,baz=220,slow=2.7,SNR=1.5						
	49nm,0.6s						
HNR				AML	AML		
H11S2	**WAKE ISLAND Hy**	**30.00**	**3**	T	T	00 20 17.8	
	baz=184,slow=76,SNR=5.6						
H11S3	**WAKE ISLAND Hy**	**30.00**	**3**	T	T	00 20 25.9	
	baz=184,slow=76,SNR=4.3						
H11S1	**WAKE ISLAND Hy**	**30.02**	**3**	T	T	00 20 18.2	
	baz=184,slow=76,SNR=6.1						
WRA	**Warramunga Arr**	**30.66**	**251**	P	**P**	**23 48 57.6**	**+0.7**
	1.5nm,0.9s,baz=82,slow=9.9,SNR=5.6						
WRA				PcP	**PcP**	**23 51 55.2**	**+0.5**
	0.6nm,0.9s,baz=71,slow=4.1,SNR=3.7						
	1.5nm,0.9s						
H11N1	**WAKE ISLAND Hy**	**31.23**	**3**	T	T	00 21 54.4	
	baz=190,slow=74						
H11N3	**WAKE ISLAND Hy**	**31.23**	**3**	T	T	00 21 52.8	
	baz=190						
H11N2	**WAKE ISLAND Hy**	**31.24**	**3**	T	T	00 21 55.4	
	baz=190,slow=74						
ASAR	**Alice Springs**	**31.93**	**244**	P	**P**	**23 49 07.8**	**-0.3**
	0.6nm,0.8s,baz=67,slow=11,SNR=3.0						
	0.6nm,0.8s						
QSPA	**South Pole Qui**	**78.35**	**180**	P	**P**	**23 54 41.4**	**-0.7**
	0.9nm,0.8s,baz=21,slow=1.3,SNR=5.8						
	0.9nm,0.8s						
ILAR	**Eielson Array**	**84.30**	**19**	P	**P**	**23 55 12.7**	**-0.6**
	0.4nm,0.6s,baz=236,slow=5.2,SNR=6.5						
	0.4nm,0.6s						
MKAR	**Makanchi Array**	**93.52**	**317**	P	**P**	**23 55 58.3**	**+0.6**
	0.5nm,0.7s,baz=108,slow=6.4,SNR=5.5						
	0.5nm,0.7s						

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*ROM **19** 23:57:06.5±0.2, 38°.345N±0°.010×17°.29E±0°.02, h68^{km}±2^{km}, ML2.8/105, Error ellipse: s-maj=1.3km s-min=1.2km az=291.0*
ISC 19 23:57:07.5±1.4**, 38°.36N**±0°.04×**17°.25E**±0°.04**, h65**^{km}±15^{km}**, n75, σ0.^{s}75**/83**, 1D, Southern Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLAC	**Placanica**	**0.64**	**278**	P	**Pn**	**23 57 21.1**	**-0.3**
PLAC				S	**Sn**	**23 57 31.5**	**-0.1**
PLAC				AML	AML		
	comp=E,403μm,0.5s						
PLAC				AML	AML		
	comp=N,347μm,0.4s						
PLAC				AML	AML		
	comp=E,372μm,0.4s						
PLAC				AML	AML		
	comp=N,346μm,0.4s						
PLAC				AML	AML		
	comp=N,422μm,0.5s						
PLAC				AML	AML		
	comp=E,372μm,0.4s						
PLAC				AML	AML		
	comp=N,421μm,0.5s						
PLAC				AML	AML		
	comp=E,403μm,0.5s						
PLAC				AML	AML		
	comp=E,372μm,1.6s						
PLAC				AML	AML		
	comp=N,347μm,0.4s						
GRI	**Girifalco**	**0.80**	**306**	P	**Pn**	**23 57 23.1**	**-0.2**
GRI				S	**Sn**	**23 57 35.2**	**+0.4**
GRI				AML	AML		
	comp=N,262μm,0.5s						
GRI				AML	AML		
	comp=E,216μm,0.5s						
GRI				AML	AML		
	comp=E,215μm,0.5s						
GRI				AML	AML		
	comp=N,262μm,0.5s						
SERS	**Sersale**	**0.81**	**327**	P	**Pn**	**23 57 22.8**	**-0.6**
SERS				S	**Sn**	**23 57 35.0**	**-0.2**
SERS				AML	AML		
	comp=N,154μm,0.5s						
SERS				AML	AML		
	comp=E,125μm,1.6s						
SERS				AML	AML		
	comp=N,154μm,0.5s						
SERS				AML	AML		
	comp=E,172μm,0.4s						
SERS				AML	AML		
	comp=N,113μm,0.5s						
SERS				AML	AML		
	comp=N,113μm,0.5s						
SERS				AML	AML		
	comp=E,102μm,0.5s						
SERS				AML	AML		
	comp=E,172μm,0.4s						
SERS				AML	AML		
	comp=N,154μm,0.5s						
ALB1	**ALBI**	**0.84**	**323**	P	**Pn**	**23 57 23.4**	**-0.4**
ALB1				S	**Sn**	**23 57 36.5**	**+0.7**
FERC	**Galatro**	**0.89**	**277**	P	**Pn**	**23 57 24.5**	**+0.3**
TIP	**Timpagrande**	**0.91**	**335**	P	**Pn**	**23 57 24.1**	**-0.4**
TIP				S	**Sn**	**23 57 36.9**	**-0.3**
TIP				AML	AML		
	comp=E,89μm,0.3s						
TIP				AML	AML		
	comp=N,73μm,0.3s						
TIP				AML	AML		
	comp=E,114μm,0.3s						
TIP				AML	AML		
	comp=N,73μm,0.3s						
TIP				AML	AML		
	comp=N,104μm,0.3s						
TIP				AML	AML		
	comp=E,89μm,0.3s						
LADO	**San Nicola del**	**0.95**	**347**	P	**Pn**	**23 57 25.0**	**0.0**
LADO				S	**Sn**	**23 57 38.4**	**+0.3**
LADO				AML	AML		
	comp=E,324μm,0.3s						
LADO				AML	AML		
	comp=N,202μm,0.3s						
LADO				AML	AML		
	comp=N,202μm,0.3s						
LADO				AML	AML		
	comp=N,202μm,1.7s						
LADO				AML	AML		
	comp=E,324μm,0.3s						
SOI	**Samo**	**0.98**	**254**	P	**Pn**	**23 57 25.8**	**+0.4**
SOI				S	**Sn**	**23 57 38.7**	**-0.1**
SOI				AML	AML		
	comp=E,234μm,0.5s						
SOI				AML	AML		
	comp=N,199μm,0.9s						
SOI				AML	AML		
	comp=E,234μm,0.5s						
SOI				AML	AML		
	comp=N,179μm,0.6s						
GIZZ	**Gizzeria**	**1.03**	**308**	P	**Pn**	**23 57 26.7**	**+0.6**
CEL	**Celeste**	**1.07**	**265**	P	**Pn**	**23 57 27.1**	**+0.5**
CEL				S	**Sn**	**23 57 41.0**	**0.0**
CEL				AML	AML		
	comp=E,413μm,0.7s						
CEL				AML	AML		
	comp=N,565μm,0.7s						
CEL				AML	AML		
	comp=E,388μm,0.7s						
CEL				AML	AML		
	comp=N,541μm,0.7s						
CEL				AML	AML		
	comp=E,413μm,0.7s						
CEL				AML	AML		
	comp=N,512μm,0.4s						
CEL				AML	AML		
	comp=E,388μm,0.7s						
CEL				AML	AML		
	comp=N,515μm,0.4s						
CEL				AML	AML		
	comp=N,515μm,1.6s						
CEL				AML	AML		
	comp=N,512μm,1.6s						
CEL				AML	AML		
	comp=E,388μm,1.3s						
CEL				AML	AML		
	comp=E,413μm,1.3s						
JOPP	**Joppolo**	**1.10**	**284**	P	**Pn**	**23 57 27.2**	**+0.2**
JOPP				S	**Sn**	**23 57 41.5**	**-0.1**
JOPP				AML	AML		
	comp=E,272μm,0.4s						
JOPP				AML	AML		
	comp=N,193μm,0.8s						
JOPP				AML	AML		
	comp=E,272μm,0.4s						
JOPP				AML	AML		
	comp=N,155μm,0.4s						
JOPP				AML	AML		
	comp=E,272μm,1.6s						
GMB	**Gambarie**	**1.13**	**261**	P	**Pn**	**23 57 27.8**	**+0.2**
GMB				AML	AML		
	comp=E,2100μm,0.2s						
GMB				AML	AML		
	comp=N,2335μm,1.1s						
GMB				AML	AML		
	comp=E,2101μm,0.2s						
GMB				AML	AML		
	comp=N,1640μm,0.2s						
SPS2	**Spezzano della**	**1.18**	**323**	P	**Pn**	**23 57 28.7**	**+0.7**
CELI	**Celico**	**1.19**	**331**	P	**Pn**	**23 57 28.4**	**+0.1**
CELI				AML	AML		
	comp=E,68μm,1.2s						
CELI				AML	AML		
	comp=N,87μm,1.0s						
CELI				AML	AML		
	comp=E,95μm,0.6s						
CELI				AML	AML		
	comp=N,114μm,0.9s						
CELI				AML	AML		
	comp=E,62μm,0.6s						
CELI				AML	AML		
	comp=N,87μm,1.0s						
CELI				AML	AML		
	comp=N,114μm,1.1s						
CELI				AML	AML		
	comp=N,87μm,1.0s						
CELI				AML	AML		
	comp=E,95μm,1.4s						
CAR1	**CAROLEI**	**1.21**	**318**	P	**Pn**	**23 57 29.2**	**+0.8**
CAR1				AML	AML		
	comp=N,132μm,0.5s						
CAR1				AML	AML		
	comp=E,182μm,0.4s						
CAR1				AML	AML		
	comp=N,202μm,0.7s						
CAR1				AML	AML		
	comp=E,183μm,0.4s						
CAR1				AML	AML		
	comp=N,202μm,1.3s						
CAR1				AML	AML		
	comp=N,133μm,0.5s						
CAR1				AML	AML		
	comp=E,179μm,0.9s						

MTTG	**Motta San Giov**	**1.28**	**254**	P	**Pn**	**23 57 29.6**	**+0.3**
MTTG				S	**Sn**	**23 57 45.5**	**-0.2**
MTTG				AML	AML		
	comp=E,384µm,0.6s						
MTTG				AML	AML		
	comp=N,524µm,0.7s						
MTTG				AML	AML		
	comp=E,385µm,0.6s						
MTTG				AML	AML		
	comp=N,524µm,0.7s						
MSRU	**Castanea**	**1.37**	**267**	P	**Pn**	**23 57 30.7**	**+0.1**
MSRU				AML	AML		
	comp=E,484µm,0.4s						
MSRU				AML	AML		
	comp=N,326µm,0.2s						
MSRU				AML	AML		
	comp=E,484µm,0.4s						
MSRU				AML	AML		
	comp=N,326µm,0.2s						
MSRU				AML	AML		
	comp=E,484µm,1.6s						
TDS	**Terranova Siba**	**1.48**	**332**	P	**Pn**	**23 57 32.4**	**+0.4**
TDS				AML	AML		
	comp=E,43µm,0.6s						
TDS				AML	AML		
	comp=N,28µm,1.2s						
TDS				AML	AML		
	comp=E,43µm,0.6s						
TDS				AML	AML		
	comp=N,28µm,0.9s						
TDS				AML	AML		
	comp=E,43µm,1.4s						
TDS				AML	AML		
	comp=N,28µm,1.1s						
MPNC	**Port Mandanici**	**1.51**	**263**	P	**Pn**	**23 57 32.5**	**+0.2**
MPNC				AML	AML		
	comp=E,465µm,0.7s						
MPNC				AML	AML		
	comp=N,524µm,0.5s						
MPNC				AML	AML		
	comp=E,465µm,0.7s						
MPNC				AML	AML		
	comp=N,523µm,0.5s						
MPNC				AML	AML		
	comp=E,465µm,1.4s						
MPNC				AML	AML		
	comp=N,523µm,1.5s						
CET2	**Cetraro**	**1.55**	**320**	P	**Pn**	**23 57 33.2**	**+0.3**
CET2				AML	AML		
	comp=E,99µm,0.4s						
CET2				AML	AML		
	comp=N,209µm,0.5s						
CET2				AML	AML		
	comp=E,90µm,0.4s						
CET2				AML	AML		
	comp=N,140µm,0.3s						
CET2				AML	AML		
	comp=N,140µm,1.7s						
MILZ	**Milazzo**	**1.59**	**268**	P	**Pn**	**23 57 33.1**	**-0.3**
MILZ				AML	AML		
	comp=E,1010µm,1.1s						
MILZ				AML	AML		
	comp=N,365µm,0.3s						
MILZ				AML	AML		
	comp=E,913µm,0.3s						
MILZ				AML	AML		
	comp=N,365µm,0.3s						
AIO	**Antillo**	**1.64**	**257**	P	**Pn**	**23 57 34.8**	**+0.6**
IST3	**Stromboli F**	**1.64**	**286**	AML	AML		
	comp=N,564µm,1.1s						
IST3				AML	AML		
	comp=E,514µm,0.1s						
IST3				AML	AML		
	comp=E,515µm,0.1s						
IST3				AML	AML		
	comp=N,533µm,0.1s						
NOV	**Novara**	**1.70**	**259**	P	**Pn**	**23 57 35.6**	**+0.6**
NOV				AML	AML		
	comp=E,518µm,0.2s						
NOV				AML	AML		
	comp=N,526µm,1.0s						
NOV				AML	AML		
	comp=E,518µm,0.2s						
NOV				AML	AML		
	comp=N,440µm,0.3s						
VPL	**Vulcano Piano**	**1.78**	**271**	⇓P	**Pn**	**23 57 35.8**	**-0.3**
VPL				AML	AML		
	comp=E,218µm,0.6s						
VPL				AML	AML		
	comp=N,242µm,1.6s						
VPL				AML	AML		
	comp=E,205µm,0.2s						
VPL				AML	AML		
	comp=N,225µm,0.4s						
ILOS	**Lipari Osserat**	**1.81**	**274**	P	**Pn**	**23 57 35.6**	**-0.8**
ILOS				AML	AML		
	comp=E,468µm,0.8s						
ILOS				AML	AML		
	comp=N,519µm,0.6s						
ILOS				AML	AML		
	comp=E,480µm,0.8s						
ILOS				AML	AML		
	comp=N,571µm,0.3s						
ILOS				AML	AML		
	comp=N,519µm,0.6s						
ILOS				AML	AML		
	comp=N,571µm,0.3s						
ILOS				AML	AML		
	comp=N,519µm,1.4s						
ILOS				AML	AML		
	comp=E,359µm,0.7s						
ILOS				AML	AML		
	comp=E,373µm,0.7s						
MUCR	**Ucria**	**1.90**	**261**	P	**Pn**	**23 57 38.5**	**+0.8**
MUCR				AML	AML		
	comp=E,106µm,0.3s						
MUCR				AML	AML		
	comp=N,190µm,0.3s						
MUCR				AML	AML		
	comp=E,106µm,0.3s						
MUCR				AML	AML		
	comp=N,189µm,0.3s						
HAGA	**Augusta**	**1.97**	**238**	P	**Pn**	**23 57 37.4**	**-1.3**
HAGA				AML	AML		
	comp=E,197µm,0.8s						
HAGA				AML	AML		
	comp=N,142µm,1.4s						
HAGA				AML	AML		
	comp=E,140µm,0.1s						
HAGA				AML	AML		
	comp=N,140µm,0.1s						
HAGA				AML	AML		
	comp=E,140µm,1.9s						
CUC	**Castrocucco**	**1.98**	**326**	P	**Pn**	**23 57 38.6**	**-0.1**
CUC				AML	AML		
	comp=E,44µm,1.3s						
CUC				AML	AML		
	comp=N,36µm,0.3s						
CUC				AML	AML		
	comp=E,32µm,0.2s						
CUC				AML	AML		
	comp=E,88µm,0.4s						
CUC				AML	AML		
	comp=N,90µm,0.7s						
CUC				AML	AML		
	comp=N,36µm,0.3s						
CRAC	**Craco**	**2.10**	**343**	P	**Pn**	**23 57 41.3**	**+0.9**
CRAC				AML	AML		
	comp=E,145µm,0.2s						
CRAC				AML	AML		
	comp=N,102µm,0.6s						
CRAC				AML	AML		
	comp=N,95µm,0.2s						
CRAC				AML	AML		
	comp=E,145µm,0.2s						
SSY	**Sortino**	**2.10**	**236**	P	**Pn**	**23 57 39.2**	**-1.2**
SSY				AML	AML		
	comp=E,620µm,0.2s						
SIRI	**Monte Sirino -**	**2.12**	**330**	P	**Pn**	**23 57 41.1**	**+0.5**
SIRI				AML	AML		
	comp=E,65µm,0.3s						
SIRI				AML	AML		
	comp=N,70µm,1.0s						
SIRI				AML	AML		
	comp=E,64µm,0.3s						
SIRI				AML	AML		
	comp=N,56µm,0.4s						
SIRI				AML	AML		
	comp=N,65µm,0.4s						
SIRI				AML	AML		
	comp=N,56µm,0.4s						
SIRI				AML	AML		
	comp=E,65µm,0.3s						
SIRI				AML	AML		
	comp=E,64µm,0.3s						
SIRI				AML	AML		
	comp=N,56µm,1.6s						
IFIL	**Filicudi I Eol**	**2.12**	**276**	P	**Pn**	**23 57 40.2**	**-0.3**
IFIL				AML	AML		
	comp=E,460µm,0.7s						
IFIL				AML	AML		
	comp=N,252µm,1.6s						
IFIL				AML	AML		
	comp=N,227µm,0.2s						
IFIL				AML	AML		
	comp=E,439µm,0.2s						
IFIL				AML	AML		
	comp=N,227µm,1.8s						
HLNI	**Lentini**	**2.13**	**243**	P	**Pn**	**23 57 39.5**	**-1.3**
HLNI				AML	AML		
	comp=E,211µm,0.1s						
HLNI				AML	AML		
	comp=N,192µm,0.1s						
HLNI				AML	AML		
	comp=N,192µm,0.1s						
HLNI				AML	AML		
	comp=E,211µm,0.1s						
TAR1	**Taranto**	**2.17**	**1**	P	**Pn**	**23 57 40.5**	**-0.7**
TAR1				AML	AML		
	comp=E,113µm,1.4s						
TAR1				AML	AML		
	comp=N,150µm,0.2s						
TAR1				AML	AML		
	comp=N,149µm,0.2s						
TAR1				AML	AML		
	comp=E,80µm,0.2s						
MGR	**Morigerati**	**2.21**	**324**	P	**Pn**	**23 57 41.7**	**-0.2**
MGR				AML	AML		
	comp=E,69µm,0.2s						
MGR				AML	AML		
	comp=N,52µm,0.4s						
MGR				AML	AML		
	comp=N,52µm,0.4s						
MGR				AML	AML		
	comp=E,69µm,0.2s						
MEU	**Monte Lauro**	**2.23**	**236**	AML	AML		
	comp=E,239µm,0.2s						
MEU				AML	AML		
	comp=E,392µm,0.5s						
MEU				AML	AML		
	comp=N,440µm,1.4s						
MEU				AML	AML		
	comp=N,385µm,0.2s						
IACL	**Alicudi**	**2.28**	**275**	P	**Pn**	**23 57 42.5**	**-0.3**
IACL				AML	AML		
	comp=E,73µm,1.0s						
IACL				AML	AML		
	comp=N,101µm,1.1s						
IACL				AML	AML		
	comp=E,68µm,0.2s						
IACL				AML	AML		
	comp=E,68µm,1.8s						
IACL				AML	AML		
	comp=N,80µm,0.2s						
MATE	**Matera**	**2.33**	**350**	P	**Pn**	**23 57 43.0**	**-0.4**
MATE				AML	AML		
	comp=E,138µm,0.4s						
MATE				AML	AML		
	comp=N,176µm,0.3s						
MATE				AML	AML		
	comp=N,133µm,0.2s						
MATE				AML	AML		
	comp=E,125µm,0.2s						
MIGL	**Miglionico**	**2.33**	**345**	P	**Pn**	**23 57 43.3**	**-0.2**
MIGL				AML	AML		
	comp=N,145µm,0.3s						
HPAC	**Pachino**	**2.37**	**226**	P	**Pn**	**23 57 44.3**	**+0.2**
HPAC				AML	AML		
	comp=E,189µm,0.1s						
HPAC				AML	AML		
	comp=N,215µm,0.2s						
HPAC				AML	AML		
	comp=N,215µm,0.1s						
HPAC				AML	AML		
	comp=E,189µm,0.1s						
KEK	**Kerkira**	**2.40**	**55**	P	**Pn**	**23 57 42.4**	**-2.1**
KEK	**Kerkira**	**2.40**	**55**	P	**Pn**	**23 57 42.5**	**-1.9**
KEK				AML	AML		
	comp=E,194µm,0.2s						
KEK				AML	AML		
	comp=N,109µm,0.2s						
KEK				AML	AML		
	comp=N,109µm,0.2s						
KEK				AML	AML		
	comp=E,194µm,0.2s						
NOCI	**Noci**	**2.43**	**357**	P	**Pn**	**23 57 44.0**	**-0.9**
NOCI				AML	AML		
	comp=E,198µm,0.6s						
NOCI				AML	AML		
	comp=N,175µm,0.5s						
NOCI				AML	AML		
	comp=N,145µm,0.1s						
NOCI				AML	AML		
	comp=E,164µm,0.1s						
RAFF	**Raffo Rosso**	**2.55**	**245**	P	**Pn**	**23 57 46.3**	**-0.2**
RAFF				AML	AML		
	comp=N,95µm,0.5s						
RAFF				AML	AML		
	comp=E,53µm,0.4s						
AMUR	**Altamura**	**2.59**	**349**	P	**Pn**	**23 57 46.5**	**-0.6**
AMUR				AML	AML		
	comp=E,156µm,1.3s						
AMUR				AML	AML		
	comp=N,188µm,1.3s						
AMUR				AML	AML		
	comp=N,185µm,0.2s						
AMUR				AML	AML		
	comp=E,149µm,0.3s						
SRN	**Sarande**	**2.62**	**54**	P	**Pn**	**23 57 45.5**	**-1.9**
DRAG	**Dragano-Lefkad**	**2.63**	**82**	P	**Pn**	**23 57 47.7**	**+0.1**
VLS	**Valsamata**	**2.63**	**93**	P	**Pn**	**23 57 47.2**	**-0.4**
VLS	**Valsamata**	**2.63**	**93**	P	**Pn**	**23 57 47.3**	**-0.4**
VLS				AML	AML		
	comp=E,112µm,1.5s						
VLS				AML	AML		
	comp=N,162µm,0.6s						
VLS				AML	AML		
	comp=E,94µm,0.3s						
VLS				AML	AML		
	comp=E,94µm,1.7s						
VLS				AML	AML		
	comp=N,127µm,0.2s						
IGT	**Igoumenitsa**	**2.67**	**63**	P	**Pn**	**23 57 47.8**	**-0.3**
LKD2	**Lefkada island**	**2.71**	**80**	P	**Pn**	**23 57 48.9**	**+0.3**
TSLK	**Tsoukalades, L**	**2.71**	**79**	P	**Pn**	**23 57 49.0**	**+0.4**
NYDR	**Nydri-Lefkada**	**2.73**	**81**	P	**Pn**	**23 57 48.9**	**+0.1**
MRLC	**Muro Lucano**	**2.76**	**331**	P	**Pn**	**23 57 50.1**	**+0.8**
MRLC				AML	AML		
	comp=E,18µm,0.2s						
MRLC				AML	AML		
	comp=N,22µm,0.2s						
MRLC				AML	AML		
	comp=E,18µm,1.8s						
PALZ	**Palazzo San Ge**	**2.77**	**339**	P	**Pn**	**23 57 49.4**	**0.0**
LTHK	**Lithakia**	**2.91**	**102**	P	**Pn**	**23 57 49.9**	**-1.3**
PDO	**Prodromos**	**3.10**	**84**	P	**Pn**	**23 57 54.6**	**+0.7**
AMPL	**Ampelaki**	**3.15**	**78**	P	**Pn**	**23 57 55.4**	**+0.7**
PRMD	**Pramanda**	**3.22**	**67**	P	**Pn**	**23 57 56.5**	**+0.8**
AXS	**Araxos**	**3.25**	**92**	P	**Pn**	**23 57 56.4**	**+0.4**
PLEV	**Plevrona-Mesol**	**3.27**	**88**	P	**Pn**	**23 57 57.1**	**+0.9**
TETR	**Tetrakomo, Epi**	**3.29**	**71**	P	**Pn**	**23 57 57.4**	**+0.7**
RLS	**Riolos of Patr**	**3.33**	**94**	P	**Pn**	**23 57 57.3**	**+0.2**
PVO	**Paravola**	**3.37**	**84**	P	**Pn**	**23 57 58.9**	**+1.4**
MSAG	**Monte S. Angel**	**3.50**	**343**	P	**Pn**	**23 57 59.3**	**-0.2**
MSAG				AML	AML		
	comp=E,34µm,0.9s						
MSAG				AML	AML		
	comp=N,59µm,0.2s						
MSAG				AML	AML		
	comp=N,133µm,0.2s						
MSAG				AML	AML		
	comp=E,26µm,0.2s						
MSAG				AML	AML		
	comp=N,59µm,0.2s						
KPRO	**Kipourio**	**3.57**	**62**	P	**Pn**	**23 58 01.5**	**+1.0**
SGRT	**San Giovanni R**	**3.58**	**342**	P	**Pn**	**23 58 00.3**	**-0.4**
SGRT				AML	AML		
	comp=E,43µm,0.2s						
SGRT				AML	AML		
	comp=N,36µm,0.1s						
APRC	**Apricena**	**3.64**	**339**	P	**Pn**	**23 58 01.0**	**-0.3**
APRC				AML	AML		
	comp=E,49µm,1.6s						
APRC				AML	AML		
	comp=N,60µm,1.6s						
APRC				AML	AML		
	comp=N,38µm,0.2s						
APRC				AML	AML		
	comp=E,36µm,0.2s						
ANX	**Ano Chora**	**3.67**	**85**	P	**Pn**	**23 58 03.7**	**+1.8**
MELA	**Melanico ??? S**	**3.72**	**335**	P	**Pn**	**23 58 02.4**	**0.0**
PYL	**PYLOS**	**3.85**	**111**	P	**Pn**	**23 58 03.8**	**-0.4**
AGG	**Agios Georgios**	**4.03**	**79**	P	**Pn**	**23 58 08.4**	**+1.7**
TYRN	**Tyrnavos**	**4.11**	**69**	P	**Pn**	**23 58 08.9**	**+1.2**
STON	**Ston**	**4.52**	**4**	P	**Pn**	**23 58 12.1**	**-1.3**

IDC **20** *00:04:46.7±0.4, 36°.79N×140°.50E, h0*^{km}*, mb4.3/27, mbtmp4.2/33, ML4.0/6, MS3.4/3, Error ellipse: s-maj=10.7km s-min=8.5km az=112.0*

JMA **20** *00:04:48.8±0.0, 36°.8N±0°.1×140°.6E±0°.2, h8*^{km}*, MD4.4/20, MV4.5/20, NORTHERN IBARAKI PREF*

JMA Felt III J1 at NORTHERN IBARAKI PREF .

NEIC **20** *00:04:48.8±1.7, 36°.78N±0°.06×140°.56E±0°.07, h10*^{km}*±1*^{km}*, mb4.7/93, Error ellipse: s-maj=10.6km s-min=8.8km az=133.0*

NIED **20** *00:04:48.8, 36°.78N×140°.57E, h8*^{km}*, MW4.2, Moment Tensor Solution. s3 Moment tensor: Scale* 10^{15}*Nm;* M_{rr}*-1.53;* $M_{\theta\theta}$*-0.05;* $M_{\phi\phi}$*1.58;* $M_{r\theta}$*0.18;* $M_{\theta\phi}$*-0.10;* $M_{\phi r}$*1.34; Fault plane solution:* M_0*2.06000×*10^{15} *NP1:* ϕ_s*349.00000°, δ25.00000°, λ-104.00000°. NP2:* ϕ_s*184.00000°, δ66.00000°, λ-84.00000°.*

ISC 20 00:04:48.6±1.0**, 36°.76N**±0°.03×**140°.61E**±0°.03**, h13**^{km}±6^{km}**, n238,** σ**1s.06**/233**, mb4.6**/89**, 1C-3D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
JHO	**Hitachi**	**0.15**	**192**	⇓P	**Pb**	**00 04 52.4**	**-1.0**
JHO				A	A	00 04 52.4	
	comp=N,106nm,0.8s,comp=E,73nm,3.2s						
JHO				⇓S	**Sb**	**00 04 54.9**	**-1.7**
JFFD	**Fukushimafurud**	**0.33**	**353**	*i* P	**Pg**	**00 04 55.0**	**-0.4**
JFFD				A	A	00 04 55.0	
	comp=N,20nm,0.5s,comp=E,16nm,0.6s						
JFFD				S	**Sg**	**00 04 59.3**	**-0.5**
ONAJ	**Iwakimizuishiy**	**0.37**	**24**	*i* P	**Pg**	**00 04 56.0**	**-0.1**
ONAJ				A	A	00 04 56.0	
	comp=N,24nm,1.4s,comp=E,36nm,0.7s						
ONAJ				*e*S	**Sg**	**00 05 01.3**	**+0.2**
JHYU	**Hitachinakayam**	**0.42**	**182**	A	A	00 04 57.5	
	comp=N,42nm,0.3s,comp=E,41nm,0.6s						
JSB	**Shiboa**	**0.59**	**291**	*i* P	**Pg**	**00 05 00.2**	**0.0**
JSB				A	A	00 05 00.2	
	comp=N,61nm,3.5s,comp=E,62nm,4.3s						
JSB				S	**Sg**	**00 05 07.8**	**-0.1**
JYT	**Yasato**	**0.63**	**212**	*i* P	**Pb**	**00 05 00.8**	**-0.8**
JYT				A	A	00 05 00.8	
	comp=N,45nm,0.4s,comp=E,48nm,0.3s						
JYT				S	**Sg**	**00 05 09.5**	**+0.2**
JFK	**Kawauchi**	**0.64**	**19**	*i* P	**Pb**	**00 05 00.6**	**-1.2**
JFK				A	A	00 05 00.6	
	comp=N,14nm,3.6s,comp=E,7.0nm,1.9s						
JFK				S	**Sg**	**00 05 09.2**	**-0.4**
JIHU	**Itakohorinouch**	**0.80**	**185**	A	A	00 05 04.4	
	comp=N,45nm,6.1s,comp=E,56nm,3.7s						
JOTO	**OTAMA OYAMA**	**0.82**	**345**	*i* P	**Pb**	**00 05 04.1**	**-0.8**
JOTO				A	A	00 05 04.1	
	comp=N,30nm,1.4s,comp=E,26nm,0.9s						
JOTO				S	**Sb**	**00 05 14.9**	**-1.0**
JFY	**Yanaizu**	**0.97**	**312**	*i* P	**Pb**	**00 05 06.3**	**-1.0**
JFY				A	A	00 05 06.3	
	comp=N,8.0nm,1.0s,comp=E,9.0nm,4.4s						
JFY				S	**Sb**	**00 05 18.8**	**-1.2**
JMST	**Minamisoumatoc**	**0.98**	**13**	A	A	00 05 07.2	
	comp=N,8.0nm,0.6s,comp=E,10.0nm,0.7s						
JAG	**Ashikaga**	**0.99**	**250**	*i* P	**Pb**	**00 05 06.4**	**-1.3**
JAG				A	A	00 05 06.4	
	comp=N,11nm,0.3s,comp=E,12nm,0.6s						
JAG				S	**Sb**	**00 05 19.6**	**-1.1**
JCAJ	**Choshiashikaji**	**1.06**	**169**	A	A	00 05 09.2	
	comp=N,30nm,0.8s,comp=E,13nm,1.2s						
JKT	**Katashina**	**1.09**	**271**	A	A	00 05 09.0	
	comp=N,11nm,0.3s,comp=E,12nm,0.6s						
JSMT	**Sammumatsuo**	**1.13**	**187**	A	A	00 05 10.2	
	comp=N,29nm,0.7s,comp=E,17nm,2.4s						
JYAR	**Yonezawaarcadi**	**1.21**	**342**	A	A	00 05 10.9	
	comp=N,14nm,1.1s,comp=E,14nm,1.2s						
TOK	**Tokyo**	**1.28**	**213**	A	A	00 05 12.5	
	comp=N,33nm,1.5s,comp=E,37nm,1.6s						
JUON	**Uonuma**	**1.32**	**290**	A	A	00 05 12.7	
	comp=N,6.0nm,1.9s,comp=E,7.0nm,1.4s						
JCCN	**Chibachonan**	**1.41**	**193**	A	A	00 05 14.8	
	comp=N,12nm,3.7s,comp=E,15nm,1.8s						
JNS	**Sasagawa**	**1.47**	**316**	A	A	00 05 15.2	
	comp=N,12nm,1.3s,comp=E,6.0nm,6.5s						
JGK	**Kuni**	**1.60**	**263**	A	A	00 05 17.3	
	comp=N,11nm,1.6s,comp=E,14nm,0.5s						
JOU	**Okura**	**1.60**	**2**	A	A	00 05 17.4	
	comp=N,24nm,1.2s,comp=E,22nm,0.7s						
JIZZ	**Izumozaki**	**1.70**	**297**	A	A	00 05 18.6	
	comp=N,20nm,3.1s,comp=E,17nm,1.1s						
JOFO	**Osakifurukawao**	**1.85**	**7**	A	A	00 05 21.1	
	comp=N,29nm,1.1s,comp=E,36nm,3.3s						
MJAR	**Matsushiro Arr**	**1.94**	**264**	Pg	**Pn**	**00 05 21.9**	**+0.5**
	comp=E,30nm,0.3s,baz=86,slow=14,SNR=618						
MJAR				Lg	Lg	00 05 46.9	
	comp=E,54nm,0.3s,baz=88,slow=29,SNR=5.2						
MJAR				LR	LR	00 05 47.2	
	comp=E,200nm,20.5s,baz=70,slow=32						
MAJO	**Matsushiro**	**1.94**	**264**		**Pn**	**00 05 22.2**	**+0.8**
MAJO				Sn	**Sn**	**00 05 46.7**	**+0.9**
MJB9	**Matsu-Tunnel**	**1.95**	**264**	Pn	**Pn**	**00 05 22.1**	**+0.7**
MJB9				Sn	**Sn**	**00 05 46.8**	**+1.0**
JYA	**Atsumi**	**1.96**	**339**	A	A	00 05 22.6	
	comp=N,14nm,0.8s,comp=E,13nm,0.7s						
JJN	**Nakama**	**1.99**	**281**	A	A	00 05 23.0	
	comp=N,7.0nm,0.6s,comp=E,12nm,0.8s						
JHTM	**Izuhatsuma**	**2.22**	**216**	A	A	00 05 26.8	
	comp=N,13nm,0.9s,comp=E,17nm,1.4s						
JIM2	**Oshima 3**	**2.25**	**205**	A	A	00 05 27.4	
	comp=N,5.0nm,1.4s,comp=E,7.0nm,2.1s						
JSG	**Sagara**	**2.87**	**224**		**Pn**	**00 05 35.4**	**+1.2**
JGF	**Kuroka**	**2.88**	**247**		**Pn**	**00 05 35.4**	**+1.2**
JGF				Sn	**Sn**	**00 06 10.0**	**+1.3**
INU	**Inuyama**	**3.23**	**245**		**Pn**	**00 05 39.5**	**+0.3**
JHJ	**Hachijo jima 2**	**3.70**	**191**	Pn	**Pn**	**00 05 46.1**	**+0.6**
	comp=E,95nm,0.3s,baz=307,slow=18,SNR=11						
JHJ				Sn	**Sn**	**00 06 28.3**	**-0.7**
	comp=E,84nm,0.3s,baz=37,slow=20,SNR=5.8						
	comp=E,177nm,0.3s						
JHJ				AML	AML		
JHJ2	**Mitsune**	**3.70**	**190**		**Pn**	**00 05 47.6**	**+2.1**
JTM	**Tenmabayashi**	**4.03**	**5**		**Pn**	**00 05 52.0**	**+1.9**
ERM	**Erimo**	**5.60**	**20**	Pn	**Pn**	**00 06 12.6**	**+0.9**
JMN	**Monobe**	**6.28**	**243**		**Pn**	**00 06 21.7**	**+0.6**
ASAJ	**Asahikawa**	**7.50**	**11**	Pn	**Pn**	**00 06 37.3**	**-0.4**
	comp=E,4.3nm,0.3s,baz=181,slow=8.6,SNR=18						
ASAJ				Sn	**Sn**	**00 08 03.5**	**+0.9**
	comp=E,0.9nm,0.3s,baz=115,slow=31,SNR=2.3						
	comp=E,20nm,0.5s						
ASAJ				AML	AML		
JKA	**Kamikawa-asahi**	**7.50**	**11**		**Pn**	**00 06 38.0**	**+0.3**
JNU	**Nakatsue**	**8.78**	**248**	Pn	**Pn**	**00 06 56.8**	**+1.5**
	comp=E,0.7nm,0.3s,baz=62,slow=13,SNR=8.6						
JNU				LR	LR	00 10 29.6	
	comp=E,138nm,18.5s,baz=51,slow=39						
	comp=E,4.0nm,0.7s						
JNU				AML	AML		
JCJ	**Chichijima**	**9.73**	**172**	Pn	Pn	00 07 01.6	-6.8
JCJ				Sn	Sn	00 08 44.2	-13
USRK	**Ussuriysk Ar.**	**9.91**	**321**	Pn	**Pn**	**00 07 15.0**	**+4.2**
	comp=E,0.4nm,0.3s,baz=134,slow=13,SNR=9.8						
USRK	**Ussuriysk Ar.**	**9.91**	**321**		**Pn**	**00 07 11.2**	**+0.4**
KSRS	**Korea Array**	**10.16**	**278**	Pn	**Pn**	**00 07 17.6**	**+3.4**
	comp=E,0.6nm,0.3s,baz=96,slow=14,SNR=14						
KSRS				LR	LR	00 10 54.3	

	comp=E,121nm,20.7s,baz=70,slow=36						
	comp=E,2.1nm,0.6s						
KSRS				AML	AML		
KSAR	**Wonju Array Be**	**10.19**	**278**	Pn	**Pn**	**00 07 15.2**	**+0.6**
MDJ	**Mudanjiang**	**11.46**	**317**	P	Pn	00 07 39.0	+7.1
MDJ				pmax	pmax		
	comp=Z,26nm,1.3s						
BNX	**BinXian**	**13.37**	**316**	⇓P	**Pn**	**00 08 01.3**	**+3.3**
BNX				pmax	pmax		
	comp=Z,10.0nm,1.3s						
KLR	**Kul'dur**	**14.03**	**335**	Pn	**Pn**	**00 08 07.3**	**+0.2**
	comp=Z,0.2nm,0.3s,baz=138,slow=14,SNR=6.3						
	comp=Z,0.9nm,0.6s						
KLR				AML	AML		
JOW	**Kunigami**	**14.41**	**230**	Pn	**Pn**	**00 08 14.1**	**+1.7**
	comp=Z,0.5nm,0.3s,baz=41,slow=9.0,SNR=2.0						
JOW	**Kunigami**	**14.41**	**230**		**Pn**	**00 08 13.4**	**+1.0**
NJ2	**Nanjing**	**18.55**	**262**	*e*P	**P**	**00 09 04.6**	**-0.5**
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
BJI2	**Beijing**	**19.41**	**287**	P	**Pn**	**00 09 17.6**	**+1.9**
BJI2				pmax	pmax		
	comp=Z,4.0nm,0.5s						
BJI2				LR	LR		
	comp=N,99nm,15.6s						
BJI2				LR	LR		
	comp=E,87nm,16.5s						
BJI2				LR	LR		
	comp=Z,78nm,11.0s						
BJT	**Baijiatuau**	**19.42**	**287**		**P**	**00 09 14.1**	**-0.5**
HILR	**Hailar Array B**	**19.79**	**317**	P	**P**	**00 09 18.4**	**-0.2**
	baz=131,slow=8.9						
	comp=Z,1.5nm,0.4s						
PEA0B	**Petropavlovsk-**	**20.25**	**31**	P	**P**	**00 09 23.9**	**+0.3**
PEA0B				IAmb	IAmb	00 09 25.6	
	comp=Z,50nm,1.2s						
PETK	**Petropavlovsk-**	**20.25**	**31**	P	**P**	**00 09 24.7**	**+1.2**
	comp=Z,7.8nm,1.0s,baz=218,slow=9.1,SNR=4.1						
	comp=Z,7.8nm,1.0s						
PETK	**Petropavlovsk-**	**20.25**	**31**	P	**P**	**00 09 23.9**	**+0.4**
NACB	**Ninganchiao**	**20.59**	**238**	P	**P**	**00 09 26.0**	**-1.5**
TPUB	**Ta-pu**	**21.83**	**238**	P	**P**	**00 09 39.1**	**-1.8**
TPUB				IAmb	IAmb	00 10 03.2	
	comp=Z,53nm,1.5s						
TWG	**Pinlang**	**21.86**	**236**	P	**P**	**00 09 39.6**	**-1.5**
TWG				IAmb	IAmb	00 09 46.0	
	comp=Z,32nm,1.3s						
WHN	**Wuhan**	**22.68**	**262**	⇑P	**P**	**00 09 54.1**	**+4.2**
HHC	**Hu-ho-hao-te**	**22.95**	**289**	*e*P	**P**	**00 09 53.6**	**+0.8**
HHC				pmax	pmax		
	comp=Z,6.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,73nm,4.5s						
XAN	**Xi'an**	**25.91**	**273**	P	**P**	**00 10 23.3**	**+2.7**
XAN				pmax	pmax		
	comp=Z,9.0nm,0.6s						
ENH	**Enshi**	**26.67**	**265**	P	**P**	**00 10 26.0**	**-1.4**
ULN	**Ulaanbaatar**	**26.98**	**305**		**P**	**00 10 29.6**	**-0.6**
SONM	**Songino Array**	**27.40**	**305**	P	**P**	**00 10 32.8**	**-1.2**
	comp=Z,2.3nm,0.6s,baz=108,slow=9.4,SNR=10						
	comp=Z,2.3nm,0.6s						
SONM	**Songino Array**	**27.40**	**305**	P	**P**	**00 10 32.2**	**-1.8**
H11N2	**WAKE ISLAND Hy**	**28.57**	**119**	T	T	00 40 29.4	
	baz=312,slow=75,SNR=1182						
H11N1	**WAKE ISLAND Hy**	**28.58**	**119**	T	T	00 40 30.7	
	baz=312,slow=75,SNR=1274						
H11N3	**WAKE ISLAND Hy**	**28.59**	**119**	T	T	00 40 31.6	
	baz=312,slow=75,SNR=1343						
H11S1	**WAKE ISLAND Hy**	**29.26**	**121**	T	T	00 41 19.4	
	baz=314,slow=76,SNR=2323						
H11S3	**WAKE ISLAND Hy**	**29.26**	**121**	T	T	00 41 22.8	
	baz=314,slow=76,SNR=210						
H11S2	**WAKE ISLAND Hy**	**29.28**	**121**	T	T	00 41 24.2	
	baz=314,slow=76,SNR=33						
TLY	**Talaya**	**30.02**	**312**	P	**P**	**00 10 56.8**	**-0.3**
	comp=Z,6.0nm,0.9s,baz=74,slow=7.9,SNR=3.7						
	comp=Z,6.0nm,0.9s						
TLY	**Talaya**	**30.02**	**312**	P	**P**	**00 10 56.7**	**-0.4**
PZH	**PanZhiHua**	**34.43**	**264**	P	**P**	**00 11 38.3**	**+2.2**
FAKI	**Fak Fak**	**40.24**	**193**	P	**P**	**00 12 24.0**	**-1.2**
CMAR	**Chiang Mai Arr**	**40.80**	**255**	P	**P**	**00 12 28.9**	**-1.1**
	comp=Z,0.3nm,0.3s,baz=53,slow=7.6,SNR=1.5						
	comp=Z,0.3nm,0.3s						
ZAA0	**Zalesovo Array**	**41.62**	**313**		**P**	**00 12 34.3**	**-2.0**
ZALV	**Zalesovo Beam**	**41.62**	**313**	P	**P**	**00 12 35.4**	**-0.9**
	comp=Z,2.8nm,0.5s,baz=90,slow=6.8,SNR=19						
ZALV				PcP	**PcP**	**00 14 32.3**	**-0.8**
	comp=Z,1.4nm,0.4s,baz=108,slow=3.2,SNR=4.6						
	comp=Z,2.8nm,0.5s						
ZALV	**Zalesovo Beam**	**41.62**	**313**		**P**	**00 12 34.8**	**-1.5**
ZALV					**PcP**	**00 14 32.2**	**-0.8**
ZSN	**Zaisan**	**41.89**	**303**	*e*P	**P**	**00 12 38.6**	**0.0**
M14K	**Bethel**	**42.99**	**37**	P	**P**	**00 12 47.6**	**+0.3**
M14K				IAmb	IAmb	00 12 53.3	
	comp=Z,12nm,1.0s						
MKAR	**Makanchi Array**	**43.72**	**302**	P	**P**	**00 12 53.1**	**-0.4**
	comp=Z,1.6nm,0.6s,baz=89,slow=9.7,SNR=13						
MKAR				PcP	**PcP**	**00 14 40.1**	**-0.2**
	comp=Z,0.2nm,0.6s,baz=72,slow=4.7,SNR=3.4						
	comp=Z,1.6nm,0.6s						
MKAR	**Makanchi Array**	**43.72**	**302**		**P**	**00 12 52.6**	**-0.9**
O15K	**Ungalikthiuk R**	**43.92**	**40**	P	**P**	**00 12 55.5**	**+0.6**
O15K				IAmb	IAmb	00 13 03.4	
	comp=Z,11nm,1.1s						
MAKZ	**Makanchi**	**43.93**	**302**		**P**	**00 12 53.9**	**-1.2**
SEM	**Semipalatinsk**	**44.59**	**308**	*e*P	**P**	**00 13 00.2**	**-0.5**
K17K	**Iditarod**	**44.95**	**35**	P	**P**	**00 13 04.4**	**+1.4**
K17K				IAmb	IAmb	00 13 09.6	
	comp=Z,9.4nm,0.9s						
KURK	**Kurchatov**	**45.59**	**308**		**P**	**00 13 06.8**	**-1.5**
KURK				IAmb	IAmb	00 13 11.2	
	comp=Z,12nm,1.1s						
KURBB	**Kurchatov Arra**	**45.66**	**308**	P	**P**	**00 13 07.9**	**-0.9**
	comp=Z,6.7nm,0.8s,baz=84,slow=8.0,SNR=51						
KURBB				PcP	**PcP**	**00 14 46.1**	**-0.7**
	comp=Z,1.1nm,0.8s,baz=87,slow=2.8,SNR=2.8						
	comp=Z,6.7nm,0.8s						
EVN	**Everest**	**45.77**	**275**	P	**P**	**00 13 09.6**	**-1.2**
EVN				IAmb	IAmb	00 13 14.2	
	comp=Z,3.6nm,0.6s						
KAPI	**Kappang**	**45.91**	**210**	P	**P**	**00 13 11.8**	**+0.7**
	comp=Z,15nm,1.1s,baz=24,slow=10.0,SNR=3.7						
	comp=Z,15nm,1.1s						
KAPI	**Kappang**	**45.91**	**210**	P	**P**	**00 13 10.9**	**-0.2**
N18K	**Kilae Creek**	**45.97**	**38**	P	**P**	**00 13 11.6**	**+0.4**
N18K				IAmb	IAmb	00 13 56.0	
	comp=Z,9.1nm,1.2s						
PDGK	**Podgornoye**	**46.33**	**298**	P	**P**	**00 13 13.1**	**-1.3**
SHLS	**Shalkode**	**46.39**	**298**	*e*P	**P**	**00 13 12.4**	**-2.5**
UZB	**Uzynbulak**	**46.71**	**298**	*e*P	**P**	**00 13 16.8**	**-0.6**
	comp=Z,7.0nm,1.3s						
TDK	**Taldyqorghan**	**46.71**	**300**	*e*P	**P**	**00 13 16.9**	**-0.3**
	comp=Z,5.7nm,0.9s						
KPKS	**Kokpek**	**46.87**	**298**	*e*P	**P**	**00 13 18.4**	**-0.2**
K20K	**Telida**	**46.91**	**34**	P	**P**	**00 13 19.6**	**+1.0**
K20K				IAmb	IAmb	00 13 21.4	
	comp=Z,5.0nm,0.9s						
WUS	**Wushi**	**47.06**	**295**	P	**P**	**00 13 19.5**	**-0.7**
IMAR	**Indian Mountai**	**47.21**	**31**	P	**P**	**00 13 22.3**	**+1.4**
KDAK	**Kodiak Island**	**47.73**	**42**	P	**P**	**00 13 25.0**	**+0.1**
CAST	**Castle Rocks**	**47.81**	**34**	P	**P**	**00 13 26.9**	**+1.4**
CAST				IAmb	IAmb	00 13 31.4	
	comp=Z,4.8nm,1.2s						
TARG	**Taragay, Kyrgy**	**47.94**	**296**	P	**P**	**00 13 26.6**	**-0.8**
TARG				IAmb	IAmb	00 13 31.1	
	comp=Z,6.0nm,0.8s						
MDOK	**Medeo**	**48.10**	**298**	*e*P	**P**	**00 13 28.1**	**-0.1**
AAA	**Alma-Ata**	**48.18**	**298**	*e*P	**P**	**00 13 28.6**	**-0.2**
	comp=Z,4.0nm,0.4s						
KDJ	**Kajisay**	**48.28**	**297**	P	**P**	**00 13 28.5**	**-1.2**
KDJ				IAmb	IAmb	00 13 31.8	
	comp=Z,9.6nm,1.0s						
KUU	**Kurty**	**48.41**	**299**	*e*P	**P**	**00 13 30.5**	**0.0**
SOEI	**Soe**	**48.76**	**202**	P	**P**	**00 13 33.4**	**0.0**
BOOM	**Boomskoye usch**	**49.07**	**298**	P	**P**	**00 13 35.0**	**-0.7**
BOOM				IAmb	IAmb	00 13 40.3	
	comp=Z,5.2nm,0.9s						
AAK	**Ala-Archa**	**50.05**	**298**	P	**P**	**00 13 42.7**	**-0.5**
IL31		**50.07**	**32**	P	**P**	**00 13 43.0**	**+0.3**
ILAR	**Eielson Array**	**50.07**	**32**	P	**P**	**00 13 43.0**	**+0.2**
	comp=Z,2.3nm,0.9s,baz=271,slow=6.3,SNR=18						
ILAR				PcP	**PcP**	**00 15 01.9**	**-0.5**
	comp=Z,0.6nm,0.7s,baz=286,slow=3.1,SNR=1.6						
	comp=Z,2.3nm,0.9s						
ILAR	**Eielson Array**	**50.07**	**32**	P	**P**	**00 13 42.9**	**+0.1**
MTN	**Manton Dam**	**50.14**	**192**	P	**P**	**00 13 44.0**	**+0.2**
BVAR	**Borovoye Array**	**50.28**	**312**	P	**P**	**00 13 43.7**	**-0.9**
	comp=Z,2.1nm,0.6s,baz=67,slow=5.6,SNR=7.0						
	comp=Z,2.1nm,0.6s						
KSH2	**Kashi**	**50.34**	**294**	P	**P**	**00 13 48.5**	**+3.0**
KSH2				pP	sP	00 13 59.8	+8.6
KSH2				pmax	pmax		
	comp=Z,2.0nm,0.5s						
BMAR	**Burnt Mountain**	**50.88**	**29**	P	**P**	**00 13 48.7**	**-0.3**
F26K	**Sheenjek River**	**51.03**	**28**	P	**P**	**00 13 50.5**	**+0.4**
SCRK	**Sand Creek**	**51.39**	**33**	P	**P**	**00 13 53.0**	**0.0**
BMRM	**Bremner River**	**51.46**	**37**	P	**P**	**00 13 53.9**	**+0.4**
BMRM				IAmb	IAmb	00 14 06.5	
	comp=Z,14nm,1.3s						
ARSB	**Arslanbob**	**51.52**	**297**	P	**P**	**00 13 53.8**	**-0.6**
ARSB				IAmb	IAmb	00 14 05.8	
	comp=Z,7.8nm,0.9s						
DZA	**Taraz**	**52.20**	**300**	*e*P	**P**	**00 13 59.0**	**-0.1**
BCAR	**Beaver Creek A**	**52.48**	**34**	P	**P**	**00 14 02.1**	**+1.1**
KK31	**Karatay Array**	**52.70**	**300**	P	**P**	**00 14 02.1**	**-0.8**
KK31				IAmb	IAmb	00 14 07.6	
	comp=Z,8.9nm,1.2s						
KKAR	**Karatay Array**	**52.70**	**300**	P	**P**	**00 14 01.8**	**-1.1**
BRLS	**Borolday**	**53.19**	**300**	*e*P	**P**	**00 14 08.0**	**+1.4**
IUG	**Iuzhnay**	**53.34**	**299**	*e*P	**P**	**00 14 07.6**	**-0.1**
	comp=Z,5.6nm,1.2s						
CHM	**Chimkent**	**53.59**	**299**	*e*P	**P**	**00 14 09.4**	**0.0**
EPYK	**Eagle Plains**	**54.08**	**30**	P	**P**	**00 14 13.4**	**+0.7**
H31M	**Peel River**	**55.14**	**30**	P	**P**	**00 14 21.5**	**+1.1**
ARTI	**Arti**	**56.24**	**318**	P	**P**	**00 14 27.4**	**-1.0**
FITZ	**Fitzroy Crossi**	**56.37**	**197**	P	**P**	**00 14 29.8**	**+0.2**
	comp=Z,2.4nm,0.7s,baz=14,slow=5.6,SNR=10.0						
	comp=Z,2.4nm,0.7s						
FITZ	**Fitzroy Crossi**	**56.37**	**197**	P	**P**	**00 14 30.1**	**+0.5**
WB0	**Warramunga Arr**	**56.53**	**187**		**P**	**00 14 30.3**	**-0.5**
WRA	**Warramunga Arr**	**56.71**	**187**	P	**P**	**00 14 31.3**	**-0.7**
	comp=Z,3.3nm,0.5s,baz=4.2,slow=7.4,SNR=73						
WRA				PcP	**PcP**	**00 15 29.0**	**+0.9**
	comp=Z,0.8nm,0.6s,baz=1.6,slow=4.2,SNR=6.1						
WRA				LR	LR	00 38 11.9	
	comp=Z,114nm,20.4s,baz=269,slow=35						
	comp=Z,3.3nm,0.5s						
WRA	**Warramunga Arr**	**56.71**	**187**		**P**	**00 14 31.4**	**-0.6**
WRA					**PcP**	**00 15 28.8**	**+0.7**
MMPY	**Sheldon Lake,**	**57.28**	**33**	P	**P**	**00 14 37.1**	**+1.3**
MMPY				IAmb	IAmb	00 14 41.2	
	comp=Z,11nm,1.5s						
AB31	**Akbulak array**	**57.62**	**310**	P	**P**	**00 14 37.3**	**-1.0**
AB31				IAmb	IAmb	00 14 40.9	
	comp=Z,4.5nm,0.8s						
ABKAR	**Akbulak array**	**57.62**	**310**		**P**	**00 14 37.1**	**-1.2**
AS31	**Alice Springs**	**60.44**	**187**	P	**P**	**00 14 57.9**	**-0.1**
ASAR	**Alice Springs**	**60.44**	**187**	P	**P**	**00 14 57.9**	**-0.1**
	comp=Z,2.3nm,0.8s,baz=12,slow=6.6,SNR=22						
	comp=Z,2.3nm,0.8s						
ASAR	**Alice Springs**	**60.44**	**187**	P	**P**	**00 14 57.8**	**-0.2**
SPITS	**Spitsbergen Ar**	**60.66**	**349**	P	**P**	**00 15 00.6**	**+1.6**
	comp=Z,10nm,1.0s,baz=45,slow=2.2,SNR=3.0						
	comp=Z,10nm,1.0s						
MBWA	**Marble Bar**	**60.89**	**202**	P	**P**	**00 15 00.9**	**-0.2**
HRA	**Herat**	**62.03**	**293**	P	**P**	**00 15 08.7**	**-0.5**
HRA				IAmb	IAmb	00 15 12.5	
	comp=Z,3.5nm,0.8s						
EIDS	**Eidsvold**	**62.58**	**169**	P	**P**	**00 15 12.4**	**0.0**
EIDS				IAmb	IAmb	00 15 13.7	
	comp=Z,5.5nm,1.0s						
ARCES	**ARCESS Array B**	**64.02**	**339**	P	**P**	**00 15 20.6**	**-0.9**
	comp=Z,4.1nm,0.9s,baz=41,slow=9.6,SNR=6.5						
	comp=Z,4.1nm,0.9s						
ARCES	**ARCESS Array B**	**64.02**	**339**	P	**P**	**00 15 20.9**	**-0.7**
YKA	**Yellowknife Ar**	**64.36**	**30**	P	**P**	**00 15 23.8**	**-0.1**
	comp=Z,0.9nm,0.7s,baz=304,slow=6.6,SNR=6.7						
YKA				PcP	**PcP**	**00 15 58.7**	**+0.4**
	comp=Z,1.1nm,0.6s,baz=305,slow=4.1,SNR=7.8						
	comp=Z,0.9nm,0.7s						
FORT	**Forrest**	**68.21**	**192**	P	**P**	**00 15 48.6**	**-0.2**
STKA	**Stephens Creek**	**68.29**	**179**	P	**P**	**00 15 49.4**	**+0.1**
	comp=Z,0.9nm,0.4s,baz=341,slow=11,SNR=2.8						
	comp=Z,0.9nm,0.4s						
FIA1	**FINESS Array S**	**68.75**	**332**	P	**P**	**00 15 50.4**	**-1.5**
FINES	**FINESS Array B**	**68.75**	**332**	P	**P**	**00 15 50.9**	**-1.0**
	comp=Z,3.0nm,0.7s,baz=44,slow=8.5,SNR=9.9						
	comp=Z,3.0nm,0.7s						
FINES	**FINESS Array B**	**68.75**	**332**	P	**P**	**00 15 50.8**	**-1.1**
I04A	**Tendick Farm,**	**70.10**	**50**	P	**P**	**00 16 01.6**	**+0.9**
I04A				IAmb	IAmb	00 16 02.9	
	comp=Z,4.2nm,0.7s						
M02C	**Callahan**	**71.11**	**52**	P	**P**	**00 16 08.2**	**+1.3**
M02C				IAmb	IAmb	00 16 12.7	
	comp=Z,9.3nm,1.4s						
K05A	**Summer Lake**	**71.61**	**50**		**P**	**00 16 11.4**	**+1.4**
K05A				IAmb	IAmb	00 16 13.1	
	comp=Z,8.8nm,1.0s						
BMO	**Blue Mountains**	**72.58**	**47**		**P**	**00 16 16.3**	**+0.6**
BMO				IAmb	IAmb	00 16 18.2	
	comp=Z,5.0nm,1.1s						
PLID	**Pearl Lake**	**73.21**	**46**		**P**	**00 16 20.2**	**+0.7**
BEKR	**Beckworth**	**73.53**	**52**		**P**	**00 16 21.9**	**+0.3**
BEKR				IAmb	IAmb	00 16 23.8	
	comp=Z,5.3nm,0.9s						
NC405	**NORSAR Array S**	**73.97**	**337**	P	**P**	**00 16 22.8**	**-0.7**
NC405				IAmb	IAmb	00 16 59.3	
	comp=Z,12nm,1.2s						
HFS	**Hagfors**	**74.07**	**335**	P	**P**	**00 16 23.5**	**-0.6**
	comp=Z,1.2nm,0.7s,baz=67,slow=5.0,SNR=5.8						
	comp=Z,1.2nm,0.7s						
AKASG	**Malin Array Be**	**74.11**	**322**	P	**P**	**00 16 23.1**	**-1.4**
	comp=Z,1.2nm,0.5s,baz=48,slow=6.0,SNR=12						
	comp=Z,1.2nm,0.5s						
AKBB	**Malin Array Si**	**74.11**	**322**	P	**P**	**00 16 23.8**	**-0.6**
AKBB				IAmb	IAmb	00 16 24.3	
	comp=Z,4.8nm,0.8s						
NB2	**NORSAR Subarra**	**74.19**	**337**	P	**P**	**00 16 24.0**	**-0.8**
	comp=Z,2.8nm,0.9s,baz=40,slow=6.2						
NOA	**NORSAR Array B**	**74.19**	**337**	P	**P**	**00 16 24.1**	**-0.6**
	comp=Z,1.5nm,0.8s,baz=40,slow=5.8,SNR=6.5						
	comp=Z,1.5nm,0.8s						
MFID	**Camas Ranch**	**74.28**	**47**		**P**	**00 16 26.4**	**+0.7**
MFID				IAmb	IAmb	00 16 28.3	
	comp=Z,5.8nm,1.2s						
EGMT	**Eagleton**	**74.90**	**41**		**P**	**00 16 29.5**	**+0.3**
EGMT				IAmb	IAmb	00 16 31.4	
	comp=Z,12nm,1.1s						
DLMT	**Dillon**	**74.99**	**44**	P	**P**	**00 16 30.4**	**+0.6**
HLID	**Hailey**	**75.03**	**47**		**P**	**00 16 30.6**	**+0.4**
BCYI	**Bear Canyon**	**75.16**	**46**	P	**P**	**00 16 31.2**	**+0.2**
BOZ	**Bozeman (W)**	**75.38**	**44**	P	**P**	**00 16 32.5**	**+0.4**
BOZ				IAmb	IAmb	00 16 34.5	
	comp=Z,4.2nm,0.7s						
NVAR	**Mina Array Bea**	**75.67**	**53**	P	**P**	**00 16 35.9**	**+1.9**
	comp=Z,5.9nm,0.7s,baz=293,slow=5.7,SNR=26						
	comp=Z,5.9nm,0.7s						
NVAR	**Mina Array Bea**	**75.67**	**53**	P	**P**	**00 16 34.9**	**+0.9**
NV11	**Mina Array Sit**	**75.76**	**53**	P	**P**	**00 16 35.4**	**+1.0**
ARPR	**Arapgir-MALATY**	**76.03**	**308**	P	**P**	**00 16 35.9**	**-0.1**
ARPR				IAmb	IAmb	00 16 54.9	
	comp=Z,5.0nm,0.8s						
ELK	**Elko**	**76.22**	**49**		**P**	**00 16 38.0**	**+0.9**
ELK				IAmb	IAmb	00 16 39.4	
	comp=Z,2.9nm,0.7s						
TPH	**Tonopah**	**76.56**	**52**	P	**P**	**00 16 40.0**	**+0.9**
BGU	**Big Grassy Mou**	**77.44**	**48**		**P**	**00 16 44.0**	**+0.1**
TPNV	**Topopah Spring**	**77.85**	**53**		**P**	**00 16 46.9**	**+0.6**
TPNV				IAmb	IAmb	00 16 48.7	
	comp=Z,8.3nm,0.9s						
HWUT	**Hardware Ranch**	**77.89**	**47**		**P**	**00 16 46.9**	**+0.5**
DUG	**Dugway, Tooele**	**78.02**	**49**		**P**	**00 16 47.6**	**+0.5**
DUG				IAmb	IAmb	00 16 49.8	
	comp=Z,6.0nm,0.8s						
BUR08	**Bucovina Ar. S**	**78.11**	**321**	P	**P**	**00 16 47.0**	**-0.4**
BURAR	**Bucovina Array**	**78.12**	**321**	P	**P**	**00 16 47.0**	**-0.4**
PD31	**Pinedale Array**	**78.31**	**45**		**P**	**00 16 49.0**	**+0.1**
PD31				IAmb	IAmb	00 16 50.7	
	comp=Z,3.0nm,0.7s						
PDAR	**Pinedale Array**	**78.31**	**45**	P	**P**	**00 16 50.0**	**+1.1**
	comp=Z,2.3nm,0.6s,baz=275,slow=2.2,SNR=28						
	comp=Z,2.3nm,0.6s						
PDAR	**Pinedale Array**	**78.31**	**45**	P	**P**	**00 16 49.2**	**+0.4**
PSUT	**Pine Spring**	**78.40**	**50**		**P**	**00 16 49.9**	**+0.6**
PSUT				IAmb	IAmb	00 16 56.6	
	comp=Z,5.5nm,0.9s						
BRTR	**Keskin Array B**	**78.55**	**311**	P	**P**	**00 16 50.3**	**+0.3**
	comp=Z,0.9nm,0.6s,baz=77,slow=2.7,SNR=7.0						
	comp=Z,0.9nm,0.6s						
BRTR	**Keskin Array B**	**78.55**	**311**	P	**P**	**00 16 49.5**	**-0.6**
KOLS	**Kolonicke sedl**	**78.66**	**324**	*e*P	**P**	**00 16 50.3**	**0.0**
STHS	**Stebnicka Huta**	**78.81**	**325**	*e*P	**P**	**00 16 53.4**	**+2.3**
LANS	**Liptovska Anna**	**79.82**	**325**	*e*P	**P**	**00 16 57.3**	**+0.6**
DPC	**Dobruska-Polom**	**80.34**	**328**	*e*P	**P**	**00 16 59.5**	**0.0**
KRLC	**Kraliky**	**80.35**	**327**	*e*P	**P**	**00 16 59.4**	**-0.1**
U15A	**North Rim**	**80.68**	**51**		**P**	**00 17 02.8**	**+0.9**
U15A				IAmb	IAmb	00 17 04.7	
	comp=Z,6.5nm,0.8s						
CLL	**Collm**	**81.01**	**330**	*i* P	**P**	**00 17 02.7**	**-0.3**
	comp=Z,4.0nm,0.8s						
CLL				*i* x	x	00 17 05.2	
	comp=Z,3.0nm,0.8s						
WUAZ	**Wupatki**	**81.83**	**52**		**P**	**00 17 08.2**	**+0.4**
WUAZ				IAmb	IAmb	00 17 11.1	
	comp=Z,7.5nm,0.9s						
ZVC	**Zvikov**	**81.94**	**328**	*e*P	**P**	**00 17 07.8**	**-0.2**
RONA	**Rosalia, Austr**	**82.32**	**326**	*e*P	**P**	**00 17 10.3**	**+0.2**
	comp=Z,2.1nm,0.6s						
CONA	**Conrad Observa**	**82.34**	**326**	*e*P	**P**	**00 17 10.1**	**-0.1**
	comp=Z,2.2nm,1.2s						
CKRC	**Cesky Krumlov**	**82.36**	**327**	*e*P	**P**	**00 17 09.9**	**-0.3**
KHC	**Kasperske Hory**	**82.43**	**328**	*e*P	**P**	**00 17 08.4**	**-2.2**
KHC	**Kasperske Hory**	**82.43**	**328**	P	**P**	**00 17 10.5**	**-0.1**
KHC				IAmb	IAmb	00 17 13.7	
	comp=Z,2.0nm,0.6s						
ISCO	**Idaho Springs**	**82.50**	**45**		**P**	**00 17 12.3**	**+0.8**
MVCO	**Mesa Verde**	**82.52**	**49**	P	**P**	**00 17 11.5**	**-0.1**
MVCO				IAmb	IAmb	00 17 13.9	
	comp=Z,5.2nm,0.7s						
GERES	**GERESS Array B**	**82.60**	**328**	P	**P**	**00 17 10.9**	**-0.6**
	comp=Z,1.2nm,0.5s,baz=36,slow=5.0,SNR=13						
	comp=Z,1.2nm,0.5s						
GERES	**GERESS Array B**	**82.60**	**328**	P	**P**	**00 17 10.7**	**-0.9**
ELL	**Elmali**	**82.70**	**311**	P	**P**	**00 17 11.3**	**-1.1**
BIOA	**Bad Ischl, Aus**	**83.51**	**327**	*e*P	**P**	**00 17 16.0**	**-0.2**
	comp=Z,0.8nm,0.4s						
SESA	**Seetaler Alpe,**	**83.54**	**326**	*e*P	**P**	**00 17 15.7**	**-0.9**
	comp=Z,5.8nm,0.8s						
KBA	**Koelnbreinsper**	**84.11**	**327**	*e*P	**P**	**00 17 18.7**	**-0.8**
	comp=Z,1.7nm,0.9s						
LESA	**Schwarzleotal**	**84.13**	**327**	*e*P	**P**	**00 17 19.3**	**-0.2**
	comp=Z,1.3nm,0.6s						
ECSD	**EROS Data Cent**	**84.53**	**38**	P	**P**	**00 17 21.7**	**+0.3**
WTTA	**Wattenberg**	**84.70**	**328**	*e*P	**P**	**00 17 21.3**	**-1.1**
	comp=Z,4.1nm,1.2s						
RETA	**Reutte**	**84.90**	**328**	*i* P	**P**	**00 17 22.5**	**-0.9**
	comp=Z,1.5nm,0.7s						
SQTA	**Sankt Quirin**	**84.92**	**328**	*e*P	**P**	**00 17 22.5**	**-1.0**
	comp=Z,1.7nm,0.6s						
ANMO	**Albuquerque**	**85.25**	**49**		**P**	**00 17 25.6**	**+0.1**
ANMO				IAmb	IAmb	00 17 31.3	
	comp=Z,3.1nm,0.9s						
FETA	**Feichten**	**85.28**	**328**	*e*P	**P**	**00 17 24.3**	**-1.1**
	comp=Z,1.2nm,0.8s						
DAVA	**Damuels**	**85.42**	**329**	*e*P	**P**	**00 17 25.4**	**-0.7**
	comp=Z,2.7nm,0.8s						
ECH	**Echery**	**85.78**	**331**	P	**P**	**00 17 26.9**	**-0.8**
ECH				IAmb	IAmb	00 17 44.9	
	comp=Z,8.0nm,1.4s						
FUORN	**Ofenpass-Fuorn**	**85.79**	**328**		**P**	**00 17 27.6**	**-0.5**
FUORN				IAmb	IAmb	00 17 31.2	
	comp=Z,3.7nm,0.7s						
IDI	**Anoyia**	**86.70**	**312**	P	**P**	**00 17 31.2**	**-1.3**
ITM	**Ithomi**	**87.09**	**315**	P	**P**	**00 17 32.5**	**-1.7**
FDMO	**Fiordimonte**	**87.33**	**324**	P	**P**	**00 17 34.5**	**-0.8**
FDMO				IAmb	IAmb	00 17 36.4	
	comp=Z,4.8nm,1.0s						
TX31	**Lajitas Ar. Si**	**90.80**	**52**		**P**	**00 17 52.5**	**+0.5**
TX31				IAmb	IAmb	00 17 53.6	
	comp=Z,3.0nm,0.8s						
TXAR	**Lajitas Array**	**90.80**	**52**	P	**P**	**00 17 53.3**	**+1.3**
	comp=Z,2.3nm,0.6s,baz=297,slow=2.8,SNR=33						
	comp=Z,2.3nm,0.6s						
TXAR	**Lajitas Array**	**90.80**	**52**	P	**P**	**00 17 53.0**	**+1.0**
ESDC	**Sonseca Array**	**97.24**	**333**	P	**P**	**00 18 19.4**	**-1.9**
	comp=Z,0.4nm,0.8s,baz=10,slow=5.5,SNR=2.2						
	comp=Z,0.4nm,0.8s						
QSPA	**South Pole Qui**	**126.51**	**180**	PKP	**PKPdf**	**00 23 50.2**	**-0.3**
	comp=Z,1.2nm,0.7s,baz=261,slow=1.8,SNR=12						
QSPA	**South Pole Qui**	**126.51**	**180**		**PKPdf**	**00 23 50.6**	**+0.1**
LPAZ	**La Paz**	**147.38**	**59**	PKPbc	**PKPbc**	**00 24 33.9**	**+0.4**
	comp=Z,2.9nm,0.6s,baz=327,slow=2.5,SNR=14						
LPAZ	**La Paz**	**147.38**	**59**		**PKPbc**	**00 24 33.2**	**-0.2**

SNET ***20*** *00:07:35.3±1.9, 13°.72N×89°.27W, h4^{km}, ML2.5,*
Presumed earthquake

CATAC ***20*** *00:07:35.7±0.7, 14°N±3°×8°9W±$^{\circ}$, h8^{km}±4^{km}, M2.2/12,*
MLv2.2/12, Error ellipse: s-maj=5.5km s-min=2.7km
az=179.3, confirmed

ISC 20 00:07:35.5±1.0**, 13°.76N**±0°.06×**89°.27W**±0°.03**, h10^{km}, n16,**
σ**0^{s}.80**/27**, El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
PIC2	**El Picacho**	**0.01**	**137**	*e*P	**Pg**	**00 07 37.0**	**-0.6**
PIC2				*e*S	**Sg**	**00 07 37.9**	**-1.2**
BOQS	**Boqueron**	**0.02**	**211**	*i* P	**Pg**	**00 07 36.9**	**-0.7**
BOQS				*e*S	**Sg**	**00 07 37.3**	**-1.8**
UEES	**Universidad Ev**	**0.05**	**145**	P	**Pg**	**00 07 37.3**	**-0.3**
UEES				S	**Sg**	**00 07 38.7**	**-0.4**
PMON	**Piamonte**	**0.06**	**227**	*e*P	**Pg**	**00 07 37.7**	**-0.1**
PMON				*e*S	**Sg**	**00 07 39.0**	**-0.4**
PMON	**Piamonte**	**0.06**	**227**	P	**Pg**	**00 07 37.7**	**-0.1**
SEMO	**Seminario San**	**0.07**	**141**	P	**Pg**	**00 07 37.7**	**-0.1**
SEMO				S	**Sg**	**00 07 39.3**	**-0.1**
UTEC	**Universidad Te**	**0.08**	**130**	P	**Pg**	**00 07 38.3**	**+0.4**
UTEC				S	**Sg**	**00 07 40.3**	**+0.6**
IGN	**Direccin Gen**	**0.10**	**114**	P	**Pg**	**00 07 38.9**	**+0.7**
LOMA	**Loma Larga**	**0.14**	**140**	*e*P	**Pg**	**00 07 40.3**	**+1.4**
LOMA	**Loma Larga**	**0.14**	**140**	P	**Pg**	**00 07 40.3**	**+1.4**
JAYA	**Jayaque - finc**	**0.20**	**240**	P	**Pg**	**00 07 41.0**	**+1.2**
PAVA	**Las Pavas**	**0.32**	**97**	P	**Pg**	**00 07 42.7**	**+0.7**
PAVA				S	**Sb**	**00 07 48.0**	**-0.8**
CEVE	**Cerro Verde**	**0.35**	**282**	P	**Pg**	**00 07 43.3**	**+0.7**
CEVE				S	**Sb**	**00 07 49.7**	**-0.1**
COEG	**Centro de Oper**	**0.40**	**110**	P	**Pg**	**00 07 43.5**	**+0.1**
COEG				S	**Sb**	**00 07 50.1**	**-0.9**
P5NO	**Presa 5 de nov**	**0.54**	**65**	P	**Pb**	**00 07 47.2**	**0.0**
P5NO				S	**Sb**	**00 07 55.1**	**0.0**
MTO3	**Montecristo**	**0.65**	**352**	P	**Pb**	**00 07 49.4**	**+0.4**
MTO3				S	**Sb**	**00 07 58.9**	**+0.7**

IDC ***20*** *00:16:34.5±0.9, 6°.37N×128°.05E, h0^{km}, mb3.9/7,*
mbtmp3.9/8, ML4.1/1, Error ellipse: s-maj=32.7km
s-min=16.5km az=50.0

ISC 20 00:16:36.2±1.1**, 6°.3N**±0°.2×**128°.0E**±0°.2**, h10^{km}, n9,** σ**1^{s}.24**/9**,**
mb3.9/7**, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
DAV	**Davao City (W)**	**2.49**	**288**	Pn	**Pn**	**00 17 18.1**	**+1.2**
	42nm,0.3s,baz=112,slow=5.4,SNR=4.8						
DAV				Sn	**Sn**	**00 17 46.3**	**-1.0**
	34nm,0.3s,baz=97,slow=24,SNR=5.7						
	177nm,0.5s						
DAV				AML	AML		
GSPH	**General Santos**	**3.00**	**266**	*i* P	Pn	00 17 16.5	-7.5
GSPH				*i* S	Sn	00 17 38.3	-22
WRA	**Warramunga Arr**	**26.81**	**167**	P	**P**	**00 22 18.6**	**+1.8**
	0.5nm,0.4s,baz=343,slow=10,SNR=12						
	0.5nm,0.4s						
ASAR	**Alice Springs**	**30.33**	**169**	P	**P**	**00 22 47.1**	**-1.1**
	0.2nm,0.3s,baz=340,slow=7.1,SNR=11						
ASAR				PcP	**PcP**	**00 25 48.1**	**-0.4**
	0.3nm,0.7s,baz=354,slow=2.4,SNR=2.2						
	0.2nm,0.3s						
MKAR	**Makanchi Array**	**56.20**	**324**	P	P	00 26 14.8	-1.7
	0.3nm,0.4s,baz=113,slow=7.7,SNR=6.6						
	0.3nm,0.4s						
KURBB	**Kurchatov Arra**	**60.29**	**326**	P	**P**	**00 26 44.2**	**-0.8**
	0.7nm,0.7s,baz=127,slow=5.4,SNR=6.1						
	0.7nm,0.7s						
BVAR	**Borovoye Array**	**65.88**	**326**	P	**P**	**00 27 21.8**	**-0.3**
	0.8nm,0.6s,baz=126,slow=7.3,SNR=2.9						
	0.8nm,0.6s						
ARCES	**ARCESS Array B**	**88.49**	**340**	P	**P**	**00 29 29.6**	**+1.0**
	2.8nm,0.8s,baz=72,slow=5.1,SNR=3.8						
	2.8nm,0.8s						
FINES	**FINESS Array B**	**90.17**	**332**	P	**P**	**00 29 36.2**	**-0.5**
	2.5nm,1.0s,baz=67,slow=6.7,SNR=5.0						
	2.5nm,1.0s						

SNET ***20*** *00:42:08.3±1.4, 13°.73N×89°.27W, h4^{km}, ML2.9,*

Presumed earthquake

CATAC ***20*** *00:42:09.0±0.5, 14°N±1°×8°9W±°, h7^{km}±2^{km}, M2.6/12, MLv2.6/12, Error ellipse: s-maj=3.3km s-min=2.3km az=16.5, confirmed*

ISC 20 00:42:08.8±1.0, **13°.75N**±0°.03×**89°.26W**±0°.03, **h10**^{km}, **n18**, σ**0^{s}.87**/34, **El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PIC2	El Picacho	0.01	188	*e*P	Pg	00 42 10.1	-0.8
PIC2				*e*S	Sg	00 42 10.8	-1.5
BOQS	Boqueron	0.03	237	*i* P	Pg	00 42 09.9	-1.0
BOQS				*e*S	Sg	00 42 10.5	-1.9
UEES	Universidad Ev	0.04	155	*e*P	Pg	00 42 10.4	-0.5
UEES				*e*S	Sg	00 42 11.0	-1.3
UEES	Universidad Ev	0.04	155	P	Pg	00 42 10.1	-0.7
UEES				S	Sg	00 42 10.8	-1.4
SEMO	Seminario San	0.06	147	P	Pg	00 42 10.7	-0.3
SEMO				S	Sg	00 42 12.9	+0.3
PMON	Piamonte	0.07	236	*e*P	Pg	00 42 10.8	-0.3
PMON				*e*S	Sg	00 42 12.5	-0.3
PMON	Piamonte	0.07	236	P	Pg	00 42 10.8	-0.3
PMON				S	Sg	00 42 12.2	-0.5
UTEC	Universidad Te	0.07	133	P	Pg	00 42 11.1	0.0
UTEC				S	Sg	00 42 12.8	0.0
IGN	Direccin Gen	0.09	114	P	Pg	00 42 11.7	+0.4
LOMA	Loma Larga	0.13	142	P	Pg	00 42 12.3	+0.3
LOMA				S	Sg	00 42 15.3	+1.0
JAYA	Jayaque - finc	0.21	243	P	Pg	00 42 13.9	+0.6
JAYA				S	Sg	00 42 17.5	+1.1
LALI	Alcalda de L	0.27	194	P	Pg	00 42 15.1	+0.9
LALI				S	Sg	00 42 19.6	+1.8
PAVA	Las Pavas	0.31	97	P	Pb	00 42 16.5	0.0
PAVA				S	Sb	00 42 21.8	+0.1
CEVE	Cerro Verde	0.37	282	P	Pb	00 42 17.3	-0.2
UNIC	Universidad Ca	0.37	309	P	Pg	00 42 16.8	+0.7
UNIC				S	Sb	00 42 22.8	-0.5
COEG	Centro de Oper	0.39	110	P	Pg	00 42 17.3	+0.8
COEG				S	Sb	00 42 23.3	-0.6
NUBE	Las Nubes	0.53	287	P	Pg	00 42 19.7	+0.5
NUBE				S	Sg	00 42 26.2	0.0
MTO3	Montecristo	0.65	351	P	Pg	00 42 22.1	+0.6
MTO3				S	Sg	00 42 31.4	+1.3

SNET ***20*** *00:45:14.6±1.2, 13°.72N×89°.27W, h4^{km}, ML2.8, Presumed earthquake*

CATAC ***20*** *00:45:15.7±0.5, 14°N±2°×8°9W±°, h5^{km}±2^{km}, M2.6/12, MLv2.6/12, Error ellipse: s-maj=3.2km s-min=2.4km az=5.3, confirmed*

GCG ***20*** *00:45:15.6±1.0, 13°.74N×89°.28W, h9^{km}±19^{km}, MD3.7, Presumed earthquake*

ISC 20 00:45:14.2±0.9, **13°.80N**±0°.05×**89°.24W**±0°.03, **h9**^{km}±5^{km}, **n20**, σ**0^{s}.85**/37, **El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PIC2	El Picacho	0.06	199	*i* P	Pg	00 45 16.5	+0.1
PIC2				*e*S	Sg	00 45 17.3	-0.6
BOQS	Boqueron	0.07	213	*i* P	Pg	00 45 16.4	-0.2
BOQS				*e*S	Sg	00 45 17.0	-1.2
UEES	Universidad Ev	0.08	181	*i* P	Pg	00 45 16.5	-0.1
UEES				*e*S	Sg	00 45 17.3	-0.9
UEES	Universidad Ev	0.08	181	P	Pg	00 45 16.5	-0.1
UEES				S	Sg	00 45 17.6	-0.6
SEMO	Seminario San	0.09	172	P	Pg	00 45 17.0	+0.3
SEMO				S	Sg	00 45 18.7	+0.3
PMON	Piamonte	0.11	221	*e*P	Pg	00 45 17.1	+0.2
PMON				*e*S	Sg	00 45 18.7	-0.2
PMON	Piamonte	0.11	221	P	Pg	00 45 17.2	+0.2
PMON				S	Sg	00 45 18.7	-0.2
LOMA	Loma Larga	0.17	157	P	Pb	00 45 18.9	+1.1
LOMA				S	Sg	00 45 21.4	+1.1
PANCS	Alcalda de	0.19	163	P	Pb	00 45 19.0	+0.7
PANCS				S	Sg	00 45 21.5	+0.5
JAYA	Jayaque - finc	0.25	235	*i* P	Pg	00 45 20.1	+0.8
JAYA				*i* S	Sg	00 45 22.5	-0.2
JAYA	Jayaque - finc	0.25	235	P	Pg	00 45 20.2	+0.8
JAYA				S	Sg	00 45 23.8	+1.0
PAVA	Las Pavas	0.30	106	P	Pn	00 45 23.1	-2.0
PAVA				S	Sb	00 45 28.0	+0.9
LALI	Alcalda de L	0.32	195	*i* P	Pb	00 45 21.5	-0.7
LALI				*i* S	Sg	00 45 24.7	0.0
LALI	Alcalda de L	0.32	195	P	Pg	00 45 21.3	+0.7
LALI				S	Sg	00 45 25.6	+0.9
CEVE	Cerro Verde	0.38	275	P	Pb	00 45 24.1	+0.8
P5NO	Presa 5 de nov	0.50	68	P	Pn	00 45 26.7	-1.0
P5NO				S	Sb	00 45 34.6	+1.9
NUBE	Las Nubes	0.54	281	*i* P	Pb	00 45 26.7	+0.7
NUBE	Las Nubes	0.54	281	P	Pb	00 45 26.7	+0.7
NUBE				S	Sb	00 45 33.9	0.0
MTO3	Montecristo	0.61	349	*i* P	Pn	00 45 28.7	-0.7
MTO3	Montecristo	0.61	349	P	Pn	00 45 28.6	-0.8
MTO3				S	Sn	00 45 38.2	-1.2

RSPR ***20*** *01:04:26.5, 19°.05N×66°.83W, h14^{km}±2^{km}, MD3.2/12*

ISC 20 01:04:20.5±1.7, **19°.30N**±0°.09×**66°.85W**±0°.06, **h25**^{km}, **n16**, σ**1^{s}.21**/17, **13C-5D**, **Puerto Rico region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AGPR	Aguadilla, PR	0.86	197	⇑*e*P	Pn	01 04 37.7	+0.7
AOPR	Arecibo Observ	0.95	175	⇑*e*P	Pb	01 04 38.8	+0.5
ECPR	Experimental S	1.08	155	⇑*e*P	Pb	01 04 41.2	+0.8
PRSN	Puerto Rico Se	1.11	195	⇓*e*P	Pb	01 04 41.1	+0.1
LSP	Las Mesas	1.14	192	*e*S	Sn	01 04 54.0	-1.7
CELP	Cerrillos	1.24	168	⇑*e*P	Pb	01 04 43.3	0.0
CRPR	Cabo Rojo, PR	1.31	191	⇑*e*P	Pb	01 04 44.1	-0.3
MLPR	Magueyes Islan	1.33	188	⇑*e*P	Pb	01 04 44.4	-0.5
SJG	San Juan	1.35	151	⇑*e*P	Pb	01 04 45.9	+0.8
HUMP	Col San Antoni	1.49	140	⇓*e*P	Pb	01 04 46.6	-0.9
PDPR	Patillas Dam,	1.49	148	⇓*e*P	Pb	01 04 46.7	-0.8
IGPR	InterUniversit	1.50	152	⇓*e*P	Pb	01 04 47.0	-0.6
PCDR	Punta Cana, DR	1.65	242	⇓*e*P	Pb	01 04 51.6	+1.4
PCDR				*e*S	Sb	01 05 09.9	-0.6
LUDR	Luperon	3.92	279	⇑*i*P	Pn	01 05 19.7	+0.7
LUDR				⇑*i*S	Sn	01 05 23.2	-41
MADR	Mao Valverde	4.03	275	⇑*i*P	Pn	01 05 22.9	+2.4
MADR				⇑*i*S	Sn	01 05 29.2	-38
MADR				IAML		01 05 30.3	
	comp=N,189nm,0.5s						
REDR	Restauracion	4.30	269	⇑*i*P	Pb	01 05 33.1	-2.3
REDR				⇑*i*S	Sn	01 05 46.2	-27
REDR				IAML		01 05 47.8	
	comp=N,67nm,0.3s						

IDC ***20*** *01:11:42.0±1.5, 0°.45N×124°.52E, h0^{km}, mb3.5/4, mbtmp3.5/5, ML3.2/1, MS3.0/1, Error ellipse: s-maj=129.4km s-min=22.0km az=66.0*

DJA ***20*** *01:11:53.4±0.7, 0°N±4°×12°4E±°, h93^{km}±6^{km}, M3.8/7, MLv3.8/4, MLv3.8/7*

ISC 20 01:11:53.7±1.2, **0°.2N**±0°.1×**124°.3E**±0°.1, **h100**^{km}, **n10**, σ**0^{s}.43**/10, **mb3.4**/4, **Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GTOI	Gorontalo	1.37	291	P	Pn	01 12 18.4	0.0
GTOI				S	Sn	01 12 37.0	-0.1
GTOI				AML	AML		
GTOI				AML	AML		
LUWI	Luwuk	1.93	232	P	Pn	01 12 25.4	0.0
LUWI				AML	AML		
SANI	Sanana	2.77	142	P	Pn	01 12 35.9	-0.5
APSI	Ampana	2.84	248	P	Pn	01 12 36.7	-0.7
APSI				AML	AML		
APSI				AML	AML		
FITZ	Fitzroy Crossi	18.18	176	P	Pn	01 16 00.1	+0.4
	0.1nm,0.3s,baz=354,slow=9.2,SNR=1.9						
	1.7nm,0.9s						
FITZ				AML	AML		
WRA	Warramunga Arr	22.26	154	P	P	01 16 43.0	+0.2
	0.5nm,0.5s,baz=333,slow=10,SNR=11						
	0.5nm,0.5s						
ASAR	Alice Springs	25.45	159	P	P	01 17 12.9	+0.5
	0.2nm,0.3s,baz=329,slow=9.1,SNR=4.9						
	0.2nm,0.3s						
TLY	Talaya	54.22	344	LR	LR	01 44 45.0	
	comp=Z,14nm,20.5s,baz=19,slow=37						
MKAR	Makanchi Array	59.17	328	P	P	01 21 44.3	+0.1
	0.3nm,0.6s,baz=123,slow=7.6,SNR=2.9						
	0.3nm,0.6s						
KURBB	Kurchatov Arra	63.49	329	P	P	01 22 12.8	-0.3
	0.9nm,0.3s,baz=128,slow=6.1,SNR=2.2						
	0.9nm,0.3s						

SNET ***20*** *01:24:45.8±1.1, 13°.74N×89°.27W, h1^{km}, ML2.8, Presumed earthquake*

CATAC ***20*** *01:24:46.3±0.3, 14°N±1°×89°.3W±1°.0, h5^{km}±1^{km}, M2.6/18, MLv2.6/18, Error ellipse: s-maj=2.7km s-min=1.9km az=27.6, confirmed*

GCG ***20*** *01:24:46.1±1.5, 13°.73N×89°.27W, h5^{km}±16^{km}, MD3.7, Presumed earthquake*

ISC 20 01:24:45.8±0.9, **13°.75N**±0°.02×**89°.27W**±0°.02, **h2**^{km}±6^{km}, **n40**, σ**1^{s}.13**/65, **El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PIC2	El Picacho	0.01	98	*i* P	Pg	01 24 46.8	+0.1
BOQS	Boqueron	0.02	231	*e*P	Pg	01 24 46.6	-0.1
UEES	Universidad Ev	0.04	138	*e*P	Pg	01 24 47.1	+0.3
UEES				*e*S	Sg	01 24 48.1	+0.7
UEES	Universidad Ev	0.04	138	P	Pg	01 24 47.2	+0.4
UEES				S	Sg	01 24 48.4	+1.0
PMON	Piamonte	0.06	234	*e*P	Pg	01 24 47.6	+0.5
SEMO	Seminario San	0.06	136	*e*P	Pg	01 24 47.8	+0.6
SEMO	Seminario San	0.06	136	P	Pg	01 24 47.7	+0.6
SEMO				S	Sg	01 24 49.7	+1.8
UTEC	Universidad Te	0.08	125	*e*P	Pg	01 24 48.1	+0.7
UTEC				*e*S	Sg	01 24 50.1	+1.6
UTEC	Universidad Te	0.08	125	P	Pg	01 24 48.3	+0.9
UTEC				S	Sg	01 24 50.4	+1.9
IGN	Direccin Gen	0.10	109	*e*P	Pg	01 24 49.5	+1.7
IGN	Direccin Gen	0.10	109	P	Pg	01 24 49.5	+1.7
IGN				S	Sg	01 24 51.1	+2.0
CEDA	San Andres	0.14	294	*e*P	Pg	01 24 49.5	+1.0
CEDA	San Andres	0.14	294	P	Pg	01 24 49.7	+1.2
CEDA				S	Sg	01 24 52.6	+2.2
LOMA	Loma Larga	0.14	138	P	Pg	01 24 49.6	+1.1
LOMA				S	Sg	01 24 52.1	+1.8
LFU	La Fuente	0.15	89	*e*P	Pg	01 24 50.0	+1.2
PANCS	Alcalda de	0.16	148	P	Pg	01 24 49.7	+0.8
PANCS				S	Sg	01 24 52.6	+1.5
JAYA	Jayaque - finc	0.20	243	*i* P	Pg	01 24 51.0	+1.2
JAYA	Jayaque - finc	0.20	243	*i* P	Pg	01 24 50.9	+1.2
JAYA	Jayaque - finc	0.20	243	P	Pg	01 24 50.9	+1.2
JAYA				S	Sg	01 24 53.7	+1.3
LALI	Alcalda de L	0.26	192	*i* P	Pb	01 24 52.1	-1.1
LALI				*i* S	Sg	01 24 55.0	+0.7
LALI	Alcalda de L	0.26	192	P	Pb	01 24 52.2	-1.1
LALI				S	Sb	01 24 56.3	-1.9
SJTE	Alcalda de S	0.28	117	*e*P	Pg	01 24 52.5	+1.1
PAVA	Las Pavas	0.32	96	P	Pb	01 24 53.6	-0.8
PAVA				S	Sb	01 24 58.5	-1.5
CEVE	Cerro Verde	0.36	283	P	Pb	01 24 54.5	-0.5
SBLS	San Blas	0.36	285	*e*P	Pb	01 24 54.6	-0.5
SBLS				*e*S	Sb	01 25 00.5	-0.7
UNIC	Universidad Ca	0.36	311	*e*P	Pg	01 24 53.7	+0.9
UNIC	Universidad Ca	0.36	311	P	Pg	01 24 53.8	+1.0
UNIC				S	Sg	01 24 59.5	+2.0
TECO	Alcaldia de Te	0.52	114	P	Pg	01 24 56.6	+0.9
TECO				S	Sb	01 25 04.3	-1.2
NUBE	Las Nubes	0.52	287	*i* P	Pb	01 24 57.2	-0.6
NUBE				*i* S	Sb	01 25 04.9	-0.9
NUBE	Las Nubes	0.52	287	P	Pb	01 24 57.4	-0.4
NUBE				S	Sb	01 25 05.3	-0.6
P5NO	Presa 5 de nov	0.55	64	P	Pg	01 24 57.2	+0.8
P5NO				S	Sg	01 25 04.9	+1.4
MTO3	Montecristo	0.66	352	*i* P	Pg	01 24 59.1	+0.6
MTO3	Montecristo	0.66	352	P	Pg	01 24 59.0	+0.6
MTO3				S	Sg	01 25 08.2	+1.2
FAME	Alcaldia de Sa	0.73	278	P	Pg	01 25 00.7	+0.7
FAME				S	Sg	01 25 10.7	+1.2
ESQI	Esquipulas	0.81	355	P	Pg	01 25 00.7	-0.7
ESQI				S	Sg	01 25 13.5	+1.5
PACA	Pacayal	0.96	107	P	Pb	01 25 05.2	0.0
SARH	Santa Rosa de	1.14	26	*i* P	Pg	01 25 07.4	-0.2
SARH				*i* S	Sg	01 25 23.2	+0.8
SARH	Santa Rosa de	1.14	26	P	Pg	01 25 07.7	+0.1
SARH				S	Sn	01 25 24.4	-0.6
LCND	La Caada	1.41	108	P	Pn	01 25 12.0	-0.5
APG	El Apazote	1.71	317	*i* P	Pb	01 25 17.8	-0.3
APG				*i* S	Sg	01 25 41.2	+0.5

IDC ***20*** *01:32:37.7±1.8, 17°.48N×146°.05E, h122^{km}±17^{km}, mb3.7/18, mbtmp4.2/21, MS2.7/3, Error ellipse: s-maj=17.7km s-min=9.9km az=80.0*

NEIC ***20*** *01:32:38.9±2.3, 17°.42N±0°.05×146°.2E±0°.1, h123^{km}±6^{km}, mb4.5/72, Error ellipse: s-maj=14.9km s-min=6.6km az=107.0*

ISC 20 01:32:40.5±0.4, **17°.40N**±0°.05×**146°.03E**±0°.09, **h150**^{km}, **n112**, σ**1^{s}.33**/87, **mb4.4**/53, **Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DPSS	Saipan	2.16	186		Pn	01 33 15.2	-2.3
GUMO	Guam	3.95	197	P	Pn	01 33 39.3	-0.8
	85nm,0.3s,baz=29,slow=10,SNR=18						
GUMO				S	Sn	01 34 23.8	-2.7
	129nm,0.4s,baz=7.5,slow=22,SNR=10						
GUMO				LR	LR	01 34 36.0	
	comp=Z,65nm,19.1s,baz=313,slow=29						
GUMO	Guam	3.95	197		Pn	01 33 39.1	-1.0
JCJ	Chichijima	10.29	340	P	Pn	01 35 02.6	-1.6
	13nm,0.4s						
JCJ				S	Sn	01 36 52.6	-5.5
PATS	Pohnpei	15.94	130		Pn	01 36 13.9	-2.7
JOW	Kunigami	18.92	303	P	P	01 36 49.2	-0.6
	14nm,0.9s,baz=115,slow=14,SNR=5.2						
JOW	Kunigami	18.92	303	IAmb	IAmb	01 36 55.2	
	comp=Z,28nm,1.0s						
H11S3	WAKE ISLAND Hy	19.68	84	T	T	01 57 49.1	
	baz=273,slow=74,SNR=17						
H11S1	WAKE ISLAND Hy	19.69	84	T	T	01 57 50.5	
	baz=273,slow=74,SNR=20						
H11S2	WAKE ISLAND Hy	19.70	84	T	T	01 57 49.8	
	baz=273,slow=74,SNR=24						
JGF	Kuroka	19.70	339	P	P	01 36 58.1	-0.1
H11N1	WAKE ISLAND Hy	19.91	80	T	T	01 58 02.8	
	baz=266,slow=74,SNR=31						
H11N2	WAKE ISLAND Hy	19.91	80	T	T	01 58 07.1	
	baz=266,slow=74,SNR=31						
H11N3	WAKE ISLAND Hy	19.93	80	T	T	01 58 07.6	
	baz=266,slow=74,SNR=37						
MJAR	Matsushiro Arr	20.29	342	P	P	01 37 03.2	-1.3
	comp=Z,2.3nm,0.6s,baz=168,slow=9.5,SNR=12						
	comp=Z,2.3nm,0.6s						
MJAR	Matsushiro Arr	20.29	342		P	01 37 03.9	-0.5
MAJO	Matsushiro	20.29	342	P	P	01 37 05.2	+0.8
MJB9	Matsu-Tunnel	20.29	342		P	01 37 05.0	+0.4
MJB9				IAmb	IAmb	01 37 06.8	
	comp=Z,7.5nm,0.6s						
JNU	Nakatsue	20.77	322	LR	LR	01 44 33.1	
	comp=Z,18nm,18.2s,baz=234,slow=34						
DAV	Davao City (W)	22.45	245	LR	LR	01 48 30.8	
	comp=Z,30nm,18.2s,baz=328,slow=42						
NACB	Ninganchiao	23.80	291	P	P	01 37 41.0	+1.4
NACB				IAmb	IAmb	01 38 20.3	
	comp=Z,13nm,1.2s						
YHNB	Yeheng	24.10	292	P	P	01 37 42.8	+0.3
KSRS	Korea Array	25.55	325	P	P	01 37 54.2	-1.1
	comp=Z,1.0nm,0.7s,baz=154,slow=8.9,SNR=2.5						
	comp=Z,1.0nm,0.7s						
JKA	Kamikawa-asahi	26.79	355	P	P	01 38 06.9	+0.5
NJ2	Nanjing	28.57	306	*e*P	P	01 38 23.5	+1.1
NJ2				pmax	pmax		
	comp=Z,8.0nm,0.5s						
KNRA	Kununurra	37.02	208	P	P	01 39 35.4	-0.4
KNRA				IAmb	IAmb	01 39 51.4	
	comp=Z,8.4nm,1.4s						
XAN	Xi'an	37.07	304	P	P	01 39 40.8	+4.5
XAN				pmax	pmax		
	comp=Z,5.0nm,0.6s						
HHC	Hu-ho-hao-te	37.74	315	*e*P	P	01 39 43.8	+1.9
HHC				pmax	pmax		
	comp=Z,12nm,0.6s						
HHC				pmax	pmax		
	comp=Z,61nm,4.5s						
WB0	Warramunga Arr	38.66	198	P	P	01 39 49.4	-0.2
WB0				IAmb	IAmb	01 39 54.3	
	comp=Z,7.2nm,1.2s						
SANVU	Saraoutou	38.74	146	P	P	01 39 49.4	-0.9
WR8	Warramunga Arr	38.81	197	P	P	01 39 51.1	+0.2
WR8				IAmb	IAmb	01 39 54.3	
	comp=Z,15nm,1.4s						
WRA	Warramunga Arr	38.85	198	P	P	01 39 51.2	0.0
	comp=Z,1.6nm,0.6s,baz=20,slow=8.6,SNR=16						
WRA				PcP	PcP	01 41 59.7	+0.3
	comp=Z,0.2nm,0.4s,baz=19,slow=3.3,SNR=1.8						
	comp=Z,1.6nm,0.6s						
WRA	Warramunga Arr	38.85	198	IAmb	IAmb	01 39 57.5	
	comp=Z,0.1nm,1.3s						
FITZ	Fitzroy Crossi	40.58	211	P	P	01 40 06.1	+0.5
PZH	PanZhiHua	41.90	290	P	P	01 40 16.0	-0.5
AS31	Alice Springs	42.50	197	P	P	01 40 22.9	+1.7
ASAR	Alice Springs	42.50	197	P	P	01 40 22.2	+1.1
	comp=Z,0.4nm,0.5s,baz=15,slow=9.4,SNR=12						
	comp=Z,0.4nm,0.5s						
ASAR	Alice Springs	42.50	197	P	P	01 40 21.5	+0.4
SONM	Songino Array	44.35	322	P	P	01 40 36.1	+0.2
	comp=Z,1.2nm,0.5s,baz=137,slow=7.5,SNR=5.9						
	comp=Z,1.2nm,0.5s						
SONM	Songino Array	44.35	322	IAmb	IAmb	01 40 40.3	
	comp=Z,1.1nm,0.6s						
CMAR	Chiang Mai Arr	44.72	279	P	P	01 40 40.5	+1.4
	comp=Z,4.7nm,0.9s,baz=74,slow=7.0,SNR=18						
	comp=Z,4.7nm,0.9s						
GSI	Gunungsitoli	50.23	257	P	P	01 41 23.6	+2.0
BBOO	Buckleboo	50.83	191	P	P	01 41 26.2	+0.4
UNV	Unalaska Valle	51.54	34	P	P	01 41 31.0	+0.1
LVA	Lava Point	51.93	34	P	P	01 41 34.5	+0.8
P16K	Nushagak River	57.95	30	P	P	01 42 18.3	+1.5
P17K	Kvichak River	58.76	31	P	P	01 42 22.4	-0.1
ACHA	Angle Creek He	58.99	32	P	P	01 42 23.8	-0.4
ACHA				IAmb	IAmb	01 42 24.5	
	comp=Z,13nm,1.5s						
ZALV	Zalesovo Beam	59.24	323	P	P	01 42 24.6	-1.3
	comp=Z,0.9nm,0.6s,baz=108,slow=8.0,SNR=4.3						
	comp=Z,0.9nm,0.6s						
N18K	Kilae Creek	59.52	29	P	P	01 42 29.4	+1.7
N18K				IAmb	IAmb	01 42 29.9	
	comp=Z,3.7nm,0.6s						
MKAR	Makanchi Array	59.59	314	P	P	01 42 28.4	-0.1
	comp=Z,0.5nm,0.5s,baz=89,slow=8.5,SNR=4.9						
	comp=Z,0.5nm,0.5s						
MKAR	Makanchi Array	59.59	314	P	P	01 42 28.7	+0.2
Q19K	Cape Douglas,	60.05	31	P	P	01 42 31.0	-0.3
N19K	Bonanza Creek	60.22	29	P	P	01 42 34.3	+1.7
M20K	Styx River	61.17	28	IAmb	IAmb	01 42 41.3	
	comp=Z,4.7nm,0.8s						
K20K	Telida	61.24	26	P	P	01 42 41.0	+1.7
K20K				IAmb	IAmb	01 42 41.7	
	comp=Z,4.4nm,0.7s						
BRLK	Bradley Lake	61.63	31	P	P	01 42 42.0	-0.1
SKT	Skwentna	61.92	28		P	01 42 44.2	+0.2
SKT				IAmb	IAmb	01 42 47.8	
	comp=Z,4.4nm,0.9s						
CAST	Castle Rocks	62.10	27	IAmb	IAmb	01 42 47.0	
	comp=Z,7.0nm,0.7s						
KURK	Kurchatov	62.45	319		P	01 42 47.5	-0.1
KURBB	Kurchatov Arra	62.49	318	P	P	01 42 47.5	-0.4
	comp=Z,2.9nm,0.7s,baz=98,slow=6.8,SNR=20						
	comp=Z,2.9nm,0.7s						
URZ	Urewera	62.58	153	P	P	01 42 47.8	-0.8
	comp=Z,3.8nm,0.6s,baz=329,slow=5.9,SNR=2.6						
	comp=Z,3.8nm,0.6s						
KTH	Kantishna Hill	62.64	27	IAmb	IAmb	01 42 50.2	
	comp=Z,8.4nm,1.0s						
BPAW	Bear Paw Mtn.	62.77	26		P	01 42 50.2	+0.6
BPAW				IAmb	IAmb	01 42 51.8	
	comp=Z,4.7nm,0.8s						
TRF	Thorofare Moun	62.88	27	IAmb	IAmb	01 42 54.1	
	comp=Z,4.5nm,0.8s						
NRIK	Noril'sk	62.93	340	P	P	01 42 49.6	-0.9
	comp=Z,2.2nm,0.4s,baz=118,slow=5.8,SNR=5.1						
	comp=Z,2.2nm,0.4s						
NRIK	Noril'sk	62.93	340	IAmb	IAmb	01 42 51.1	
	comp=Z,4.2nm,0.7s						
SML	Sawmill	63.34	29	P	P	01 42 54.1	+0.7
SCM	Sheep Creek Mo	63.81	29	P	P	01 42 57.2	+0.7
BOOM	Boomskoye usch	63.87	309	P	P	01 42 58.9	+1.5
BOOM				IAmb	IAmb	01 43 39.0	
	comp=Z,3.2nm,0.8s						
IL31		64.67	26	IAmb	IAmb	01 43 05.3	
	comp=Z,7.5nm,1.4s						
ILAR	Eielson Array	64.67	26	P	P	01 43 01.1	-0.9
	comp=Z,1.0nm,0.4s,baz=252,slow=6.1,SNR=26						
	comp=Z,1.0nm,0.4s						
RIDG	Independent Ri	65.32	27	P	P	01 43 06.4	+0.2
RIDG				IAmb	IAmb	01 43 07.0	
	comp=Z,5.6nm,1.0s						
VRDI	Verde Repeater	65.53	30	P	P	01 43 08.5	+0.7
VRDI				IAmb	IAmb	01 43 11.9	
	comp=Z,18nm,1.4s						
BMAR	Burnt Mountain	66.17	23	P	P	01 43 13.2	+1.5
O28M	Mount Upton	67.05	31	IAmb	IAmb	01 43 19.4	
	comp=Z,4.2nm,0.7s						
BVAR	Borovoye Array	67.67	321	P	P	01 43 20.4	-1.0
	comp=Z,0.8nm,0.3s,baz=107,slow=5.4,SNR=9.5						
	comp=Z,0.8nm,0.3s						
BORK	Borovoye	67.72	321	P	P	01 43 21.8	+0.2
KK31	Karatay Array	67.84	310	P	P	01 43 22.8	+0.1
KKAR	Karatay Array	67.84	310	P	P	01 43 22.6	0.0
L29M	L29M	68.23	28	IAmb	IAmb	01 43 28.1	
	comp=Z,3.4nm,0.8s						
HYT	Haines Junctio	68.37	31	IAmb	IAmb	01 43 28.7	
	comp=Z,6.1nm,0.9s						
N30M	Aishikik Lake	68.61	30	IAmb	IAmb	01 43 29.9	
	comp=Z,5.8nm,1.2s						
INK	Inuvik	70.44	23	P	P	01 43 37.6	-0.5
INK				IAmb	IAmb	01 43 40.8	
	comp=Z,4.2nm,0.8s						
AB31	Akbulak array	74.50	317	P	P	01 44 02.0	-0.5
ABKAR	Akbulak array	74.50	317	P	P	01 44 01.8	-0.7
I02E	Swisshome, OR	78.19	47	P	P	01 44 25.2	+1.8
I02E				IAmb	IAmb	01 44 42.8	
	comp=Z,15nm,1.3s						
JRO	Jston Ridge Ob	78.82	45	P	P	01 44 28.8	+1.8
JRO				IAmb	IAmb	01 44 29.4	
	comp=Z,8.6nm,0.6s						
YKA	Yellowknife Ar	78.98	28	P	P	01 44 27.4	+0.1
	comp=Z,1.2nm,0.5s,baz=288,slow=5.3,SNR=12						
	comp=Z,1.2nm,0.5s						
M02C	Callahan	79.52	50	P	P	01 44 31.9	+1.0
YBH	Yreka Blue Hor	79.55	50	P	P	01 44 31.8	+0.8
L04D	Klamath Falls	79.72	49	P	P	01 44 32.7	+0.7
L04D				IAmb	IAmb	01 44 37.4	
	comp=Z,15nm,1.4s						
O02D	Mt. Diablo Mer	79.87	51	P	P	01 44 34.1	+1.4
O02D				IAmb	IAmb	01 44 35.4	
	comp=Z,5.8nm,0.9s						
PINE	Pine Mountain	80.30	47	IAmb	IAmb	01 44 37.6	
	comp=Z,11nm,0.7s						
O03E	Paynes Creek	80.57	51	IAmb	IAmb	01 44 38.2	
	comp=Z,5.2nm,0.8s						
K05A	Summer Lake	80.61	48	IAmb	IAmb	01 44 39.1	
	comp=Z,7.8nm,0.9s						
BEKR	Beckworth	81.75	51	P	P	01 44 43.9	+1.0
BEKR				IAmb	IAmb	01 44 44.6	
	comp=Z,6.4nm,0.7s						
PNTR	Pine Nut	82.53	52	IAmb	IAmb	01 44 49.6	
	comp=Z,6.0nm,0.7s						
PKD	Bear Valley Ra	82.68	55	IAmb	IAmb	01 44 49.7	
	comp=Z,12nm,0.8s						
WAKR	Walker	82.81	52	IAmb	IAmb	01 44 50.7	
	comp=Z,3.7nm,0.7s						
NVAR	Mina Array Bea	83.69	52	P	P	01 44 54.2	+1.2
	comp=Z,4.4nm,0.8s,baz=264,slow=6.3,SNR=28						
	comp=Z,4.4nm,0.8s						
ARCES	ARCESS Array B	83.82	342	P	P	01 44 52.5	-0.2
	comp=Z,2.3nm,0.9s,baz=93,slow=2.4,SNR=5.2						
	comp=Z,2.3nm,0.9s						
ELK	Elko	85.23	49	P	P	01 45 02.0	+1.3
FINES	FINESS Array B	88.19	335	P	P	01 45 12.8	-1.5
	comp=Z,2.1nm,0.9s,baz=97,slow=6.5,SNR=8.2						
	comp=Z,2.1nm,0.9s						
PDAR	Pinedale Array	88.50	46	P	P	01 45 15.9	-0.6
	comp=Z,0.2nm,0.4s,baz=171,slow=0.4,SNR=6.0						
	comp=Z,0.2nm,0.4s						
GO04	Tololo Observa	144.14	118	PKPdf	PKPab	01 51 58.2	+0.9
AC05	El Transito	144.85	116	PKPdf	PKPbc	01 52 01.4	+1.5
PB14	IPOC Station P	145.31	108	PKPab	PKPdf	01 52 02.9	+1.3
PB12	IPOC Station P	145.43	98	PKPab	PKPdf	01 52 02.8	+1.2
PSGCX	Pisagua	145.68	99	PKPab	PKPdf	01 52 03.7	+1.7
LPAZ	La Paz	147.31	93	PKPbc	PKPbc	01 52 09.6	+1.5
	comp=Z,1.8nm,0.5s,baz=0.7,slow=3.7,SNR=11						
BDFB	Brasilia	166.42	85	PKPab	PKPab	01 53 32.0	+0.6

comp=Z,1.4nm,0.5s,baz=315,slow=4.3,SNR=3.1

IDC ***20*** *01:42:35.9±1.3, 34°.11S×57°.24E, h0^{km}, mb3.8/5, mbtmp3.8/5, Error ellipse: s-maj=48.8km s-min=31.2km az=95.0*

ISC 20 01:42:37.4±1.3**, 34°.1S**±0°.2×**57°.2E**±0°.4**, h10^{km}, n16,** σ**1.^{s}03**/7**, mb4.0**/5**, South Indian Ocean**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H04N2	**CROZET ISLANDS**	**12.71**	**197**	T	T	01 58 54.7	
	baz=21,slow=75,SNR=620						
H04N1	**CROZET ISLANDS**	**12.71**	**197**	T	T	01 58 49.9	
	baz=21,slow=75,SNR=567						
H04N3	**CROZET ISLANDS**	**12.72**	**197**	T	T	01 58 54.7	
	baz=21,slow=75,SNR=625						
H04S1	**CROZET ISLANDS**	**13.32**	**196**	T	T	02 00 04.3	
	baz=24						
H04S3	**CROZET ISLANDS**	**13.32**	**196**	T	T	01 59 54.0	
	baz=24						
H04S2	**CROZET ISLANDS**	**13.33**	**196**	T	T	01 59 59.5	
	baz=24						
H08S1	**Diego Carcia H**	**29.89**	**32**	T	T	02 19 56.7	
	baz=204						
H08S2	**Diego Garcia H**	**29.89**	**32**	T	T	02 19 58.0	
	baz=204,slow=74						
H08S3	**Diego Garcia H**	**29.91**	**32**	T	T	02 20 01.2	
	baz=204,slow=74						
QSPA	**South Pole Qui**	**56.05**	**180**	P	**P**	**01 52 16.9**	**+0.6**
	0.9nm,0.6s,baz=285,slow=2.2,SNR=8.7						
	0.9nm,0.6s						
CMAR	**Chiang Mai Arr**	**65.68**	**44**	P	**P**	**01 53 23.0**	**+0.7**
	0.5nm,0.3s,baz=210,slow=6.9,SNR=5.4						
	0.5nm,0.3s						
ASAR	**Alice Springs**	**66.55**	**103**	P	**P**	**01 53 27.4**	**-0.6**
	0.2nm,0.7s,baz=241,slow=7.3,SNR=1.4						
	0.2nm,0.7s						
WRA	**Warramunga Arr**	**68.70**	**100**	P	**P**	**01 53 41.3**	**-0.3**
	0.9nm,1.1s,baz=244,slow=6.0,SNR=4.7						
	0.9nm,1.1s						
BVAR	**Borovoye Array**	**87.55**	**8**	P	**P**	**01 55 25.7**	**+0.6**
	0.8nm,0.7s,baz=178,slow=5.3,SNR=4.1						
	0.8nm,0.7s						
ILAR	**Eielson Array**	**146.01**	**18**	PKPbc	**PKPdf**	**02 02 14.6**	**-1.1**
	0.3nm,0.6s,baz=330,slow=2.5,SNR=4.6						
YKA	**Yellowknife Ar**	**151.15**	**352**	PKPbc	**PKPbc**	**02 02 28.9**	**-1.1**
	0.4nm,0.8s,baz=13,slow=1.5,SNR=3.2						

BGR ***20*** *01:59:00.6, 22°.75N×93°.75E, h33^{km}, mb5.3, Ms4.1*

MOS ***20*** *01:59:02.9±0.9, 22°.99N×93°.81E, h52^{km}, mb5.2/51, Error ellipse: s-maj=7.6km s-min=3.2km az=122.3*

BJI ***20*** *01:59:04.6, 23°.11N×93°.60E, h61^{km}, mB4.9/18, mb4.8/52, ML4.4/3, Ms4.1/31, Ms7 3.9/33*

IDC ***20*** *01:59:05.8±1.0, 23°.00N×93°.76E, h62^{km}±8^{km}, mb4.6/39, mbtmp4.9/41, MS3.6/50, Error ellipse: s-maj=9.2km s-min=7.3km az=166.0*

GFZ ***20*** *01:59:05.7±0.3, 23°N±3°×9°4E±°, h44^{km}±4^{km}, M4.7/18, mb5.1/18*

NEIC ***20*** *01:59:05.6±1.6, 22°.99N±0°.04×93°.77E±0°.05, h54^{km}±4^{km}, mb5.1/208, Error ellipse: s-maj=7.1km s-min=5.4km az=118.0*

NDI ***20*** *01:59:06.6±1.6, 22°.98N×93°.76E, h53^{km}, ML4.8, MW4.8, mb5.1(NEIC), Presumed earthquake*

ISC 20 01:59:05.9±0.3**, 23°.01N**±0°.03×**93°.68E**±0°.03**, h62^{km}**±2^{km}**, h63^{km}:pP-P, n745,** σ**1.^{s}32**/714**, mb5.0**/280**, 45C-56D, Myanmar-India border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SAIH	**SAIHA**	**0.82**	**231**	*e*P	**Pn**	**01 59 21.9**	**0.0**
SAIH				*e*S	**Sn**	**01 59 34.5**	**+0.9**
SAIH				IAML		01 59 37.6	
	comp=E,20µm,0.3s						
SAIH				IAML		01 59 38.3	
	comp=N,20µm,0.5s						
AZL	**Aizawl**	**1.16**	**309**	*e*P	**Pn**	**01 59 27.3**	**+1.0**
AZL				*e*S	**Sn**	**01 59 43.2**	**+1.8**
AZL				IAML		01 59 44.5	
	comp=N,15µm,0.3s						
AZL				IAML		01 59 45.5	
	comp=E,14µm,0.3s						
MORE	**Moreh**	**1.35**	**25**		**Pn**	**01 59 28.5**	**-0.1**
MORE				Sn	**Sn**	**01 59 46.5**	**+0.7**
IMP	**Imphal**	**1.83**	**8**	*e*P	**Pn**	**01 59 36.4**	**+1.1**
IMP				*e*S	**Sn**	**01 59 57.2**	**-0.2**
IMP				IAML		02 00 06.3	
	comp=N,19µm,0.6s						
IMP				IAML		02 00 07.5	
	comp=E,18µm,0.4s						
BRDH	**Bariadhala**	**1.90**	**260**	P	**Pn**	**01 59 37.5**	**+1.4**
	comp=E,885nm,0.5s,baz=85,slow=12,SNR=35						
BRDH				S	**Sn**	**02 00 00.6**	**+1.6**
	comp=E,3µm,0.3s,baz=258,slow=22,SNR=22						
SILR	**SILCHAR**	**1.94**	**336**	*e*P	**Pn**	**01 59 39.9**	**+3.4**
SILR				*e*S	**Sn**	**02 00 00.8**	**+0.9**
SILR				IAML		02 00 11.6	
	comp=E,10µm,0.5s						
SILR				IAML		02 00 12.9	
	comp=N,9µm,0.4s						
AGT	**Agartala**	**2.40**	**292**	*e*P	**Pn**	**01 59 45.1**	**+2.3**
AGT				*e*S	**Sn**	**02 00 12.4**	**+1.3**
KOHI	**KOHIMA**	**2.73**	**8**	*e*P	**Pn**	**01 59 47.7**	**+0.2**
KOHI				*e*S	**Sn**	**02 00 18.9**	**-0.5**
KOHI				IAML		02 00 21.2	
	comp=E,10µm,0.5s						
KOHI				IAML		02 00 21.7	
	comp=N,8µm,0.5s						
SHL	**Shillong**	**3.03**	**328**	P	**Pn**	**01 59 52.1**	**+0.5**
NPW	**Naypyitaw**	**3.95**	**144**	P	**Pn**	**02 00 04.8**	**+0.7**
DHUB	**DHUBRI**	**4.50**	**313**	*e*P	**Pn**	**02 00 13.5**	**+2.0**
DHUB				*e*S	**Sn**	**02 00 56.9**	**-5.6**
ZIRO	**ZIRO**	**4.50**	**2**	*e*P	**Pn**	**02 00 12.0**	**+0.3**
ZIRO				*e*S	**Sn**	**02 01 00.6**	**-2.4**
ZIRO				IAML		02 01 06.8	
	comp=N,8µm,0.4s						
ZIRO				IAML		02 01 08.4	
	comp=E,9µm,0.4s						
TAWA	**Tawang**	**4.85**	**341**	*e*P	**Pn**	**02 00 17.5**	**+0.8**
TAWA				*e*S	**Sn**	**02 01 08.0**	**-3.7**
TNCH	**TengChong**	**4.87**	**65**	P	Pn	02 00 21.5	+4.8
TNCH				S	**Sn**	**02 01 14.1**	**+2.2**
TNCH				AML	AML		
	comp=E,470nm,1.0s						
TNCH				AML	AML		
	comp=E,420nm,1.0s						
TNCH				L	L		
	comp=E,3µm,8.4s						
TNCH				L	L		
	comp=E,3µm,9.2s						
TNCH				L	L		
	comp=E,4µm,9.5s						
CHTO	**Chiang Mai**	**6.46**	**129**	P	**Pn**	**02 00 37.6**	**-0.8**
CHTO	**Chiang Mai**	**6.46**	**129**		**Pn**	**02 00 37.6**	**-0.8**
CHTO	**Chiang Mai**	**6.46**	**129**	P	**Pn**	**02 00 36.3**	**-2.1**
	comp=E,0.7nmcomp=E,88nm,0.8s						
CHTO				AML	AML		
CHTO	**Chiang Mai**	**6.46**	**129**	P	**Pn**	**02 00 38.1**	**-0.3**
	comp=Z,88nm,0.8s						
CM31	**Chiang Mai Arr**	**6.69**	**132**		**Pn**	**02 00 40.6**	**-1.0**
CMAR	**Chiang Mai Arr**	**6.69**	**132**	P	**Pn**	**02 00 41.6**	**-0.1**
	comp=Z,50nm,0.7s,baz=310,slow=13,SNR=151						
CMAR				S	**Sn**	**02 01 56.2**	**-0.3**
	comp=Z,13nm,0.8s,baz=317,slow=19,SNR=1.2						
CMAR				LR	LR	02 04 04.4	
	comp=Z,278nm,19.4s,baz=305,slow=45						
CMAR				ScP	**ScP**	**02 10 57.8**	**+0.4**
	comp=Z,0.4nm,0.4s,baz=201,slow=0.5,SNR=4.1						
CMAR	**Chiang Mai Arr**	**6.69**	**132**	*i* P	**Pn**	**02 00 40.5**	**-1.1**
CMAR				pmax	pmax		
	comp=Z,53nm,0.7s						
CMAR	**Chiang Mai Arr**	**6.69**	**132**		**Pn**	**02 00 39.9**	**-1.7**
LSA	**Lhasa**	**7.04**	**342**	P	**Pn**	**02 00 47.9**	**+1.2**
LSA	**Lhasa**	**7.04**	**342**		**Pn**	**02 00 47.9**	**+1.2**
EVN	**Everest**	**7.92**	**310**		**Pn**	**02 00 57.9**	**-1.1**
EVN	**Everest**	**7.92**	**310**	P	**Pn**	**02 00 58.5**	**-0.4**
	comp=Z,246nm,0.8s						
PZH	**PanZhiHua**	**8.12**	**63**	P	Pn	02 01 07.3	+6.1
PZH				S	**Sn**	**02 02 37.6**	**+6.0**
PZH				pmax	pmax		
	comp=Z,70nm,0.9s						
PZH				L	L		
	comp=Z,570nm,13.1s						
PZH				L	L		
	comp=Z,1µm,10.2s						
PZH				L	L		
	comp=Z,2µm,9.6s						
KMI2	**Kunming**	**8.56**	**74**	⇑P	**Pn**	**02 01 10.4**	**+3.0**
KMI2				S	**Sn**	**02 02 49.1**	**+6.5**
KMI2				pmax	pmax		
	comp=Z,68nm,1.0s						
KMI2				pmax	pmax		
	comp=Z,320nm,4.0s						
KMI2				L	L		
	comp=Z,930nm,7.9s						
KMI2				L	L		
	comp=Z,840nm,12.5s						
KMI2				L	L		
	comp=Z,840nm,9.4s						
SLVN	**Son La**	**9.63**	**98**		**Pn**	**02 01 22.0**	**+0.2**
SLVN	**Son La**	**9.63**	**98**	P	**Pn**	**02 01 22.9**	**+1.0**
	comp=Z,22nm,0.9s						
PBA	**Port Blair**	**11.32**	**185**	Pn	**Pn**	**02 01 44.1**	**-0.9**
GYA	**Guiyang**	**12.29**	**71**	P	**Pn**	**02 01 59.1**	**+0.8**
GYA				pmax	pmax		
	comp=Z,23nm,1.0s						
GOMU	**GeErMu**	**13.18**	**4**	P	**Pn**	**02 02 08.3**	**-2.3**
GOMU				S	**Sn**	**02 04 28.3**	**-7.3**
GOMU				pmax	pmax		
	comp=Z,27nm,0.6s						
GOMU				L	L		
	comp=Z,190nm,8.1s						
GOMU				L	L		
	comp=Z,130nm,8.6s						
GOMU				L	L		
	comp=Z,180nm,8.6s						
HYB	**Hyderabad**	**15.24**	**251**	*e*P	**P**	**02 02 41.9**	**+0.8**
HYB				*e*pP	**pP**	**02 02 53.9**	**-0.6**
HYB				*e*S	**S**	**02 05 41.2**	**+2.4**
LZDM	**Lanzhou Array**	**15.56**	**32**	P	**Pn**	**02 02 39.5**	**-2.3**
	comp=Z,2.9nm,0.4s,baz=224,slow=6.0,SNR=1.1						
QIZ	**Qiongzhong**	**15.61**	**102**	P	**Pn**	**02 02 40.8**	**-1.3**
QIZ				S	**Sn**	**02 05 33.3**	**-0.9**
QIZ				pmax	pmax		
	comp=Z,40nm,1.7s						
QIZ				L	L		
	comp=Z,330nm,8.4s						
QIZ				L	L		
	comp=Z,370nm,7.9s						
QIZ				L	L		
	comp=Z,460nm,8.0s						
LZH	**Lanzhou**	**15.74**	**32**	*e*P	Pn	02 02 30.4	-13
LZH				pP	P	02 02 46.4	-0.3
LZH				pmax	pmax		
	comp=Z,39nm,1.2s						
LZH				LR	LR		
	comp=N,220nm,13.3s						
LZH				LR	LR		
	comp=E,210nm,10.8s						
LZH				LR	LR		
	comp=Z,320nm,15.2s						
ENH	**Enshi**	**15.87**	**60**	P	**Pn**	**02 02 45.5**	**0.0**
GTA2	**Gaotai**	**17.22**	**16**	*e*P	**Pn**	**02 03 00.8**	**-1.6**
GTA2				pP	pP	02 03 16.3	-0.3
GTA2				ScP	**ScP**	**02 11 12.6**	**+0.2**
GTA2				ScS	**ScS**	**02 14 50.3**	**-2.0**
GTA2				pmax	pmax		
	comp=Z,9.0nm,0.9s						
GTA2				L	L		
	comp=Z,150nm,12.4s						
GTA2				L	L		
	comp=Z,330nm,12.1s						
GTA2				L	L		
	comp=Z,230nm,10.2s						
XAN	**Xi'an**	**17.31**	**47**	P	**P**	**02 03 03.3**	**-0.7**
XAN				pmax	pmax		
	comp=Z,19nm,0.7s						
XAN				pmax	pmax		
	comp=Z,110nm,3.5s						
XAN				L	L		
	comp=Z,530nm,13.1s						
XAN				L	L		
	comp=Z,330nm,11.7s						
XAN				L	L		
	comp=Z,340nm,9.6s						
IPM	**Ipoh**	**19.74**	**158**	P	**P**	**02 03 28.1**	**-2.7**
IPM				IAmb	IAmb	02 03 36.2	
	comp=Z,125nm,1.9s						
KCSI	**Kotacane, Aceh**	**19.77**	**168**	P	**P**	**02 03 29.8**	**-1.3**
WHN	**Wuhan**	**19.91**	**63**	P	**Pn**	**02 03 37.8**	**+3.2**
WHN				L	L		
	comp=Z,910nm,9.5s						
TSI	**Tuntungan**	**19.96**	**166**	P	**P**	**02 03 32.1**	**-1.0**
	comp=Z,129nm,0.8s						
PALK	**Pallekele**	**20.01**	**221**	P	**P**	**02 03 34.6**	**+0.9**
	comp=Z,18nm,0.9s,baz=23,slow=12,SNR=4.5						
PALK				S	S	02 07 00.7	-15
	comp=Z,9.5nm,0.7s,baz=290,slow=23,SNR=5.0						
PALK				LR	LR	02 11 46.1	
	comp=Z,95nm,21.9s,baz=40,slow=38						
	comp=Z,18nm,0.9s						
PALK	**Pallekele**	**20.01**	**221**	*i* P	Pn	02 03 35.7	-0.3
PSI	**Prapat**	**20.72**	**165**	P	**P**	**02 03 41.2**	**-0.3**
RPSI	**Rantau Prapat**	**20.82**	**165**	P	**P**	**02 03 41.2**	**-1.2**
RPSI	**Rantau Prapat**	**20.82**	**165**	P	Pn	02 03 44.3	-1.2
	comp=Z,61nm,0.9s						
NIL	**Nilore**	**20.83**	**305**	P	**P**	**02 03 42.4**	**-0.1**
NIL				pmax	pmax		
	comp=Z,97nm,0.8s						
NIL	**Nilore**	**20.83**	**305**		**P**	**02 03 42.4**	**-0.1**
NIL				IAmb	IAmb	02 03 58.5	
	comp=Z,97nm,0.8s						
NIL	**Nilore**	**20.83**	**305**	P	**P**	**02 03 43.1**	**+0.6**
	comp=Z,155nm,0.9s						
WMQ	**Urumqi**	**21.34**	**348**	*e*P	**P**	**02 03 49.3**	**+1.5**
WMQ				S	**S**	**02 07 33.3**	**-8.1**
WMQ				pmax	pmax		
	comp=Z,81nm,1.1s						
WMQ				pmax	pmax		
	comp=Z,240nm,4.3s						
WUS	**Wushi**	**21.83**	**330**	IAmb	IAmb	02 03 54.8	
	comp=Z,91nm,0.9s						
GSI	**Gunungsitoli**	**21.91**	**169**	P	**P**	**02 03 51.8**	**-2.2**
KSH2	**Kashi**	**22.28**	**320**	P	**P**	**02 03 58.3**	**+0.2**
KSH2				pP	pP	02 04 16.4	+4.4
KSH2				S	**S**	**02 07 59.6**	**+0.2**
KSH2				pmax	pmax		
	comp=Z,89nm,0.9s						
KSH2				L	L		
	comp=Z,310nm,17.5s						
KSH2				L	L		
	comp=Z,200nm,18.2s						
KSH2				L	L		
	comp=Z,410nm,21.4s						
BTO2	**Baotou**	**22.34**	**34**	*e*P	**P**	**02 03 58.8**	**+0.1**
BTO2				pP	**pP**	**02 04 13.1**	**+0.8**
BTO2				sP	**sP**	**02 04 20.8**	**+0.7**
BTO2				PP	**PnPn**	**02 04 28.5**	**+4.6**
BTO2				pmax	pmax		
	comp=Z,20nm,1.0s						
BTO2				pmax	pmax		
	comp=Z,250nm,4.5s						
BTO2				L	L		
	comp=Z,400nm,11.4s						
BTO2				L	L		
	comp=Z,430nm,15.2s						
BTO2				L	L		
	comp=Z,350nm,18.4s						
TARG	**Taragay, Kyrgy**	**22.91**	**328**	P	**P**	**02 04 05.9**	**+0.9**
TARG				pmax	pmax		
	comp=Z,45nm,1.0s						
TARG	**Taragay, Kyrgy**	**22.91**	**328**	P	**P**	**02 04 05.8**	**+0.9**
TARG	**Taragay, Kyrgy**	**22.91**	**328**	P	**P**	**02 04 06.2**	**+1.2**
	comp=Z,48nm,1.1s						
ASAI	**AK-SAY(Kyrgyzs**	**22.96**	**325**	P	**P**	**02 04 06.7**	**+1.3**
	comp=Z,22nm,0.9s						
HNS	**HongShan**	**23.08**	**47**	⇑P	**P**	**02 04 05.9**	**-0.4**
HNS				S	**S**	**02 08 10.8**	**-1.7**
HNS				SS	**SnSn**	**02 08 56.3**	**+5.5**
HNS				pmax	pmax		
	comp=Z,16nm,0.8s						
HNS				L	L		
	comp=Z,260nm,13.3s						
HNS				L	L		
	comp=Z,210nm,14.3s						
HNS				L	L		
	comp=Z,200nm,13.0s						
PRZ	**Przheval'sk**	**23.22**	**330**	P	**P**	**02 04 08.5**	**+0.7**
	comp=Z,56nm,1.3s						
SHLS	**Shalkode**	**23.29**	**333**	*d i*P	**P**	**02 04 07.4**	**-1.0**
SHLS	**Shalkode**	**23.29**	**333**	⇓*i*P	**P**	**02 04 07.5**	**-1.0**
	comp=Z,22nm,0.9s						
HHC	**Hu-ho-hao-te**	**23.31**	**36**	*e*P	**P**	**02 04 09.3**	**+0.7**
HHC				pmax	pmax		
	comp=Z,10.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,69nm,5.0s						
PDGK	**Podgornoye**	**23.42**	**333**	P	**P**	**02 04 09.6**	**0.0**
UZB	**Uzynbulak**	**23.47**	**332**	*e*P	**P**	**02 04 10.8**	**+0.7**
UZB	**Uzynbulak**	**23.47**	**332**	*e*P	**P**	**02 04 10.8**	**+0.7**
KDJ	**Kajisay**	**23.52**	**328**	IAmb	IAmb	02 04 13.7	
	comp=Z,71nm,1.0s						
KPKS	**Kokpek**	**23.88**	**332**	*e*P	**P**	**02 04 14.5**	**+0.8**
KPKS	**Kokpek**	**23.88**	**332**	*e*P	**P**	**02 04 14.5**	**+0.8**
NJ2	**Nanjing**	**24.03**	**63**	*e*P	**P**	**02 04 16.3**	**+1.2**
NJ2				pmax	pmax		
	comp=Z,9.0nm,0.6s						
ULHL	**Ulahol**	**24.07**	**327**	P	**P**	**02 04 17.9**	**+2.3**
	SNR=8.9						
TIA	**Tai'an**	**24.19**	**52**	P	**P**	**02 04 17.1**	**+0.6**
TIA				pmax	pmax		
	comp=Z,12nm,0.7s						
TIA				L	L		
	comp=Z,280nm,11.5s						
TIA				L	L		
	comp=Z,230nm,13.2s						
TIA				L	L		
	comp=Z,500nm,12.5s						
TNSS	**Tian-Shan**	**24.32**	**329**	*e*P	**P**	**02 04 18.7**	**+0.6**
TNSS	**Tian-Shan**	**24.32**	**329**	*e*P	**P**	**02 04 18.7**	**+0.6**
MDOK	**Medeo**	**24.37**	**330**	*e*P	**P**	**02 04 19.2**	**+0.9**
MDOK				*e*S	**S**	**02 08 35.3**	**+1.8**
MDOK	**Medeo**	**24.37**	**330**	*e*P	**P**	**02 04 19.2**	**+0.9**
MDOK				*e*S	**S**	**02 08 35.4**	**+1.8**
KBL	**Kabul**	**24.39**	**304**	P	**P**	**02 04 19.7**	**+1.0**
KBL				pmax	pmax		
	comp=Z,70nm,1.0s						
KBL	**Kabul**	**24.39**	**304**	P	**P**	**02 04 19.7**	**+1.0**
KBL				IAmb	IAmb	02 04 21.1	
	comp=Z,70nm,0.9s						
KBL	**Kabul**	**24.39**	**304**	P	**P**	**02 04 19.9**	**+1.2**
	comp=Z,86nm,0.9s						
BOOM	**Boomskoye usch**	**24.40**	**327**	P	**P**	**02 04 20.2**	**+1.6**
BOOM	**Boomskoye usch**	**24.40**	**327**	P	**P**	**02 04 20.2**	**+1.6**
	comp=Z,51nm,0.9s						
AAA	**Alma-Ata**	**24.47**	**329**	*e*P	**P**	**02 04 20.1**	**+1.1**
AAA	**Alma-Ata**	**24.47**	**329**	*e*P	**P**	**02 04 20.2**	**+1.1**
RGRI	**Rengat**	**24.70**	**159**	P	P	02 04 08.2	-13
DRK	**Karamyk**	**24.79**	**317**	P	**P**	**02 04 23.4**	**+1.1**
DRK				pmax	pmax		
	comp=Z,82nm,0.7s						
DRK	**Karamyk**	**24.79**	**317**	P	**P**	**02 04 23.4**	**+1.1**
DRK	**Karamyk**	**24.79**	**317**	P	**P**	**02 04 23.6**	**+1.3**
	comp=Z,119nm,0.7s						
OHH	**Osh**	**24.80**	**320**	P	**P**	**02 04 22.2**	**0.0**
OHH	**Osh**	**24.80**	**320**	P	**P**	**02 04 22.2**	**0.0**
	comp=Z,78nm,1.3s						
TKM2	**Tokmak 2**	**24.89**	**327**	P	**P**	**02 04 24.6**	**+1.6**
	SNR=47						
SDSI	**Sungai Dareh**	**24.96**	**161**	P	**P**	**02 04 19.7**	**-4.0**
KBK	**Karagaybulak**	**25.03**	**326**	P	**P**	**02 04 26.5**	**+2.2**
	SNR=18						
TWG	**Pinlang**	**25.23**	**85**	P	**P**	**02 04 31.9**	**+5.8**
	comp=Z,34nm,1.0s						
TDK	**Taldyqorghan**	**25.24**	**334**	*e*P	**P**	**02 04 27.0**	**+1.0**
TDK				pmax	pmax		
	comp=Z,24nm,0.7s						
TDK	**Taldyqorghan**	**25.24**	**334**	*e*P	**P**	**02 04 27.1**	**+1.0**
	comp=Z,24nm,0.7s						
AAK	**Ala-Archa**	**25.25**	**325**	LR	LR	02 16 38.9	
	comp=Z,133nm,21.4s,baz=134,slow=42						
AAK	**Ala-Archa**	**25.25**	**325**	P	**P**	**02 04 28.6**	**+2.2**
	SNR=39						
AAK	**Ala-Archa**	**25.25**	**325**	P	**P**	**02 04 28.4**	**+2.1**
AAK				pmax	pmax		
	comp=Z,46nm,1.1s						
AAK	**Ala-Archa**	**25.25**	**325**	P	**P**	**02 04 28.4**	**+2.1**
AAK				IAmb	IAmb	02 04 30.7	
	comp=Z,46nm,1.1s						
AAK	**Ala-Archa**	**25.25**	**325**	P	**P**	**02 04 28.6**	**+2.2**
	comp=Z,46nm,1.0s						
KUU	**Kurty**	**25.26**	**330**	*e*P	**P**	**02 04 27.4**	**+1.2**
KUU	**Kurty**	**25.26**	**330**	*e*P	**P**	**02 04 27.4**	**+1.2**
FRU1	**Bishkek**	**25.30**	**326**	IAmb	IAmb	02 04 31.0	
	comp=Z,42nm,1.0s						
CHMS	**Chumysh**	**25.37**	**326**	P	**P**	**02 04 28.8**	**+1.5**
	SNR=14						
ZSN	**Zaisan**	**25.39**	**346**	*e*P	**P**	**02 04 28.8**	**+1.4**
ZSN				pmax	pmax		
	comp=Z,23nm,1.0s						
ZSN	**Zaisan**	**25.39**	**346**	*e*P	**P**	**02 04 28.9**	**+1.5**
	comp=Z,22nm,1.0s						
MK31	**Makanchi Array**	**25.45**	**342**	*ce*P	**P**	**02 04 28.9**	**+1.0**
MKAR	**Makanchi Array**	**25.45**	**342**	P	**P**	**02 04 28.9**	**+1.1**
	comp=Z,68nm,0.8s,baz=153,slow=9.8,SNR=371						
MKAR				PcP	**PcP**	**02 07 57.2**	**-1.3**
	comp=Z,1.6nm,0.7s,baz=192,slow=0.9,SNR=3.7						
MKAR				ScP	**ScP**	**02 11 31.8**	**-0.6**
	comp=Z,0.3nm,0.6s,baz=114,slow=3.6,SNR=2.6						
MKAR				LR	LR	02 17 13.9	
	comp=Z,69nm,20.1s,baz=160,slow=43						
	comp=Z,68nm,0.8s						
MKAR	**Makanchi Array**	**25.45**	**342**	⇑*e*P	**P**	**02 04 29.0**	**+1.1**
MKAR				pmax	pmax		
	comp=Z,67nm,0.8s						
MKAR	**Makanchi Array**	**25.45**	**342**	P	**P**	**02 04 28.8**	**+0.9**
BJI2	**Beijing**	**25.49**	**43**	P	**P**	**02 04 27.3**	**-1.0**
BJI2				S	**S**	**02 08 53.0**	**+1.9**
BJI2				pmax	pmax		
	comp=Z,3.0nm,0.7s						
BJI2				L	L		
	comp=Z,110nm,9.6s						
BJI2				L	L		
	comp=Z,59nm,13.1s						
BJI2				L	L		
	comp=Z,63nm,10.3s						
MAKZ	**Makanchi**	**25.55**	**341**	P	**P**	**02 04 29.5**	**+0.7**
MAKZ				pmax	pmax		
	comp=Z,49nm,0.9s						
MAKZ	**Makanchi**	**25.55**	**341**	P	**P**	**02 04 29.5**	**+0.7**
MAKZ				IAmb	IAmb	02 04 31.9	
	comp=Z,49nm,0.9s						
MAKZ	**Makanchi**	**25.55**	**341**	P	**P**	**02 04 29.9**	**+1.0**
	comp=Z,61nm,0.9s						
DSRI	**Dabo**	**25.64**	**154**	P	**P**	**02 04 35.9**	**+6.0**
	comp=Z,29nm,0.8s						
EKS2	**Erkin-Say**	**25.65**	**325**	P	**P**	**02 04 32.0**	**+2.1**
	SNR=54						
USP	**Ospenovka**	**25.69**	**326**	P	**P**	**02 04 31.6**	**+1.5**
	SNR=24						
BTK	**Batken**	**25.74**	**317**	IAmb	IAmb	02 04 33.3	
	comp=Z,54nm,0.7s						
SGDS	**Sogindy**	**25.76**	**327**	⇓*i*P	**P**	**02 04 32.0**	**+1.2**
ARK	**Arkit**	**26.09**	**321**	P	**P**	**02 04 35.5**	**+1.6**
ARK	**Arkit**	**26.09**	**321**	P	**P**	**02 04 35.5**	**+1.6**
	comp=Z,29nm,1.0s						
SONM	**Songino Array**	**26.78**	**19**	P	**P**	**02 04 40.5**	**+0.5**
	comp=Z,27nm,0.8s,baz=204,slow=10.0,SNR=105						
SONM				ScP	**ScP**	**02 11 35.9**	**-0.6**
	comp=Z,1.5nm,0.8s,baz=186,slow=3.4,SNR=4.6						
SONM				LR	LR	02 17 22.2	
	comp=Z,116nm,21.6s,baz=223,slow=41						
	comp=Z,27nm,0.8s						
SONM	**Songino Array**	**26.78**	**19**	P	**P**	**02 04 40.3**	**+0.2**
SONM				IAmb	IAmb	02 04 41.5	
	comp=Z,32nm,0.8s						
ULN	**Ulaanbaatar**	**27.01**	**20**	*ce*P	**P**	**02 04 42.5**	**+0.4**
ULN				pmax	pmax		
	comp=Z,40nm,1.3s						
ULN	**Ulaanbaatar**	**27.01**	**20**	P	**P**	**02 04 42.2**	**+0.1**
ULN	**Ulaanbaatar**	**27.01**	**20**	P	**P**	**02 04 41.1**	**-1.0**
	comp=Z,358nmcomp=Z,358nmcomp=Z,34nm,1.0s						
ULN	**Ulaanbaatar**	**27.01**	**20**	P	**P**	**02 04 42.5**	**+0.4**
	comp=Z,34nm,1.0s						
DGZ	**Jazzator, Alta**	**27.09**	**351**	*i* P	**P**	**02 04 43.1**	**+0.3**
DGZ				pmax	pmax		
	comp=Z,14nm,0.9s						
DZA	**Taraz**	**27.14**	**322**	*e*P	**P**	**02 04 44.2**	**+1.0**
DZA	**Taraz**	**27.14**	**322**	*e*P	**P**	**02 04 44.2**	**+1.0**
IUG	**Iuzhnay**	**27.44**	**320**	*d i*P	**P**	**02 04 47.4**	**+1.4**
IUG				pmax	pmax		
	comp=Z,35nm,0.8s						
IUG	**Iuzhnay**	**27.44**	**320**	⇓*i*P	**P**	**02 04 47.5**	**+1.4**
	comp=Z,35nm,0.8s						
KNGR	**Kungurtug, Tuv**	**27.71**	**5**	*i* P	**P**	**02 04 50.0**	**+1.7**

KNGR				pmax	pmax		
	comp=Z,13nm,0.9s						
KK31	Karatay Array	27.74	322	iP	P	02 04 48.7	+0.1
KK31	Karatay Array	27.74	322	P	P	02 04 49.3	+0.7
KKAR	Karatay Array	27.74	322	P	P	02 04 49.2	+0.6
KKAR	Karatay Array	27.74	322	P	P	02 04 49.1	+0.6
CHM	Chimkent	27.80	320	eP	P	02 04 50.1	+1.0
CHM				pmax	pmax		
	comp=Z,17nm,1.2s						
CHM	Chimkent	27.80	320	eP	P	02 04 50.1	+1.0
	comp=Z,18nm,1.2s						
BRLS	Borolday	28.09	321	eP	P	02 04 51.6	0.0
BRLS	Borolday	28.09	321	eP	P	02 04 51.7	0.0
ZAK	Zakamensk	28.34	13	eP	P	02 04 54.0	+0.1
MOY	Mondy	29.16	9	eP	P	02 05 02.6	+1.4
SEM	Semipalatinsk	29.29	342	eP	P	02 05 02.5	0.0
SEM				pmax	pmax		
	comp=Z,14nm,0.9s						
SEM	Semipalatinsk	29.29	342	eP	P	02 05 02.6	0.0
	comp=Z,14nm,0.9s						
TLY	Talaya	29.64	13	LR	LR	02 18 57.5	
	comp=Z,89nm,20.9s,baz=196,slow=40						
KURBB	Kurchatov Arra	29.99	341	P	P	02 05 09.1	+0.7
	comp=Z,17nm,0.8s,baz=154,slow=8.3,SNR=82						
KURBB				PcP	PcP	02 08 09.3	-0.1
	comp=Z,6.7nm,0.6s,baz=168,slow=2.4,SNR=21						
KURBB				ScP	ScP	02 11 45.8	-0.4
	comp=Z,0.5nm,0.4s,baz=154,slow=2.6,SNR=1.6						
KURBB				LR	LR	02 20 11.8	
	comp=Z,38nm,18.8s,baz=161,slow=42						
	comp=Z,17nm,0.8s						
KURBB	Kurchatov Arra	29.99	341	P	P	02 05 07.8	-0.6
KURK	Kurchatov	30.04	341	ceP	P	02 05 09.7	+0.8
KURK				pmax	pmax		
	comp=Z,23nm,0.8s						
KURK	Kurchatov	30.04	341	P	P	02 05 09.6	+0.8
KURK				IAmb	IAmb	02 05 10.5	
	comp=Z,20nm,0.8s						
KURK	Kurchatov	30.04	341		PcP	02 08 09.3	-0.2
KURK					ScP	02 11 45.8	-0.5
KURK	Kurchatov	30.04	341	P	P	02 05 09.7	+0.8
	comp=Z,32nm,0.9s						
KURK	Kurchatov	30.04	341	P	P	02 05 09.6	+0.8
KURK				PcP	PcP	02 08 09.7	+0.3
JOW	Kunigami	31.55	76	LR	LR	02 19 20.2	
	comp=Z,148nm,19.8s,baz=218,slow=39						
ZAA0	Zalesovo Array	31.61	350	P	P	02 05 23.4	+0.8
ZALV	Zalesovo Beam	31.61	350	P	P	02 05 23.4	+0.8
	comp=Z,31nm,0.5s,baz=170,slow=7.8,SNR=116						
ZALV				PcP	PcP	02 08 11.9	-1.7
	comp=Z,0.9nm,0.4s,baz=176,slow=5.8,SNR=2.4						
ZALV				LR	LR	02 20 32.0	
	comp=Z,38nm,20.7s,baz=168,slow=41						
	comp=Z,31nm,0.5s						
KSRS	Korea Array	32.71	56	P	P	02 05 30.6	-1.8
	comp=Z,0.6nm,0.3s,baz=246,slow=7.9,SNR=3.1						
KSRS				ScP	ScP	02 11 53.2	-2.4
	comp=Z,1.8nm,0.9s,baz=241,slow=3.9,SNR=5.2						
KSRS				LR	LR	02 21 08.2	
	comp=Z,102nm,19.6s,baz=250,slow=41						
HIA	Hailar	33.30	32	iP	P	02 05 36.6	-0.9
BBKI	Banjar Baru	33.45	139	P	P	02 05 40.9	+1.7
HILR	Hailar Array B	33.50	31	P	P	02 05 39.4	+0.1
	comp=Z,4.0nm,0.5s,baz=232,slow=7.7,SNR=6.0						
	comp=Z,4.0nm,0.5s						
JNU	Nakatsue	34.19	65	LR	LR	02 21 18.9	
	comp=Z,180nm,18.6s,baz=250,slow=39						
DAV	Davao City (W)	34.53	112	LR	LR	02 21 32.9	
	comp=Z,85nm,19.1s,baz=322,slow=39						
BVAR	Borovoye Array	34.82	335	P	P	02 05 51.2	+0.6
	comp=Z,7.6nm,0.6s,baz=142,slow=10,SNR=40						
BVAR				PcP	PcP	02 08 22.7	+0.1
	comp=Z,8.8nm,0.7s,baz=148,slow=3.1,SNR=12						
	comp=Z,7.6nm,0.6s						
BORK	Borovoye	34.86	335	d iP	P	02 05 51.5	+0.5
BORK				pmax	pmax		
	comp=Z,16nm,1.1s						
BORK	Borovoye	34.86	335	P	P	02 05 51.9	+0.9
BNX	BinXian	35.50	42	⇓P	P	02 06 00.0	+3.4
BNX				pmax	pmax		
	comp=Z,7.0nm,0.7s						
AB31	Akbulak array	37.28	323	eP	P	02 06 12.4	+0.7
AB31	Akbulak array	37.28	323	P	P	02 06 13.0	+1.3
ABKAR	Akbulak array	37.28	323	P	P	02 06 13.0	+1.3
KAPI	Kappang	37.75	134	LR	LR	02 26 36.3	
	comp=Z,59nm,18.0s,baz=296,slow=44						
USRK	Ussuriysk Ar.	37.82	47	P	P	02 06 14.7	-1.6
	comp=Z,1.4nm,0.5s,baz=251,slow=10,SNR=2.8						
USRK				LR	LR	02 24 56.2	
	comp=Z,80nm,18.2s,baz=234,slow=41						
	comp=Z,1.4nm,0.5s						
HEH	HeiHe	37.83	36	eP	P	02 06 16.4	+0.1
HEH				pmax	pmax		
	comp=Z,11nm,0.8s						
AKTO	Aktyubinsk	38.96	324	LR	LR	02 26 32.4	
	comp=Z,52nm,22.0s,baz=42,slow=42						
AKTO	Aktyubinsk	38.96	324	iP	P	02 06 26.0	+0.1
AKTO				pmax	pmax		
	comp=Z,13nm,0.6s						
DBNI	Kabupaten Domp	39.52	140	P	P	02 06 31.2	+0.3
	comp=Z,34nm,0.7s						
KLR	Kul'dur	39.74	39	P	P	02 06 30.3	-2.0
	comp=Z,1.4nm,0.7s,baz=248,slow=11,SNR=2.4						
KLR				ScP	ScP	02 12 18.8	-2.5
	comp=Z,0.7nm,0.5s,baz=295,slow=4.0,SNR=3.8						
KLR				LR	LR	02 26 12.7	
	comp=Z,41nm,19.2s,baz=218,slow=41						
	comp=Z,1.4nm,0.7s						
MAJO	Matsushiro	40.59	60	iP	P	02 06 37.0	-2.6
MAJO				pmax	pmax		
	comp=Z,10.0nm,0.8s						
MAJO	Matsushiro	40.59	60	P	P	02 06 38.0	-1.6
MJAR	Matsushiro Arr	40.59	60	P	P	02 06 37.5	-2.1
	comp=Z,6.0nm,0.9s,baz=273,slow=9.4,SNR=19						
MJAR				PcP	PcP	02 08 40.4	-0.3
	comp=Z,2.2nm,0.6s,baz=270,slow=2.2,SNR=6.9						
MJAR				ScP	ScP	02 12 22.4	-2.5
	comp=Z,3.3nm,1.0s,baz=278,slow=3.6,SNR=6.5						
	comp=Z,6.0nm,0.9s						
SVE	Sverdlovsk	41.47	333	c iP	P	02 06 47.8	+1.3
SVE				pmax	pmax		
	comp=Z,51nm,0.7s						
JHJ	Hachijo jima 2	41.63	66	LR	LR	02 24 39.0	
	comp=Z,72nm,21.1s,baz=175,slow=37						
EDFI	Ende, Flores	41.81	136	P	P	02 06 50.3	+0.4
	comp=Z,14nm,0.8s						
ARTI	Arti	42.16	331	LR	LR	02 26 12.7	
	comp=Z,75nm,19.4s,baz=140,slow=38						
ARTI	Arti	42.16	331	d iP	P	02 06 52.8	+0.7
ARTI				*PP	pP	02 07 08.0	-0.3
ARTI						02 08 32.6	
ARTI						02 08 45.7	
ARTI				S	S	02 13 07.4	0.0
ARTI				SS	SS	02 16 10.6	-6.4
ARTI				pmax	pmax		
	comp=Z,41nm,1.3s						
ARTI	Arti	42.16	331	P	P	02 06 52.6	+0.5
ARTI	Arti	42.16	331	P	P	02 06 52.7	+0.6
ARTI				PcP	PcP	02 08 45.5	+0.1
AKT	Akhty	42.45	307	eP	P	02 06 55.5	+0.6
AKT				e*PP	pP	02 07 11.1	+0.1
AKT				e*SP	sP	02 07 19.9	+1.5
AKT				e		02 08 45.6	
AKT				pmax	pmax		
	comp=Z,18nm,0.8s						
MAK	Makhachkala	42.92	309	c iP	P	02 06 58.2	-0.2
MAK				e*PP	pP	02 07 13.8	-0.8
MAK				e*SP	sP	02 07 21.7	-0.3
MAK				e		02 08 38.7	
MAK				eS	S	02 13 20.9	+2.0
MAK				e*SS	sS	02 13 48.2	+1.7
MAK				eSSS	SSS	02 17 13.7	
MAK				pmax	pmax		
	comp=Z,127nm,1.2s						
MAK				MLR	MLR		
	comp=Z,105nm,15.0s						
RAYN	Ar Rayn	44.09	281	P	P	02 07 08.6	+0.4
RAYN				pmax	pmax		
	comp=Z,7.0nm,0.8s						
RAYN	Ar Rayn	44.09	281	P	P	02 07 08.6	+0.4
RAYN	Ar Rayn	44.09	281	P	P	02 07 08.8	+0.6
	comp=Z,14nm,1.0s						
RAYN	Ar Rayn	44.09	281	P	P	02 07 08.8	+0.6
SOEI	Soe	44.24	134	P	P	02 07 07.2	-2.3
SOEI				IAmb	IAmb	02 07 18.8	
	comp=Z,42nm,0.9s						
SOEI	Soe	44.24	134	P	P	02 07 09.2	-0.3
SOEI	Soe	44.24	134	P	P	02 07 08.4	-1.1
	comp=Z,55nm,0.9s						
GNI	Garni	44.48	304	LR	LR	02 28 44.2	
	comp=Z,72nm,20.2s,baz=84,slow=40						
GNI	Garni	44.48	304	iP	P	02 07 11.7	+0.5
GNI				pmax	pmax		
	comp=Z,13nm,1.6s						
HAKT	HAKKARI	45.02	301	P	P	02 07 16.9	+1.2
	comp=Z,31nm,1.0s						
ASAJ	Asahikawa	45.12	50	LR	LR	02 27 03.9	
	comp=Z,40nm,19.7s,baz=68,slow=37						
BELG	Belogornoye	45.65	322	iP	P	02 07 19.3	-0.8
BELG				pmax	pmax		
	comp=Z,6.0nm,0.8s						
NCK	Nalchik	45.83	309	iP	P	02 07 20.2	-1.5
NCK				pmax	pmax		
	comp=Z,18nm,1.4s						
YSS	Yuzhno-Sakhali	45.85	46	eP	P	02 07 17.8	-4.0
YSS				pmax	pmax		
	comp=Z,30nm,1.3s						
YSS				MLR	MLR		
	comp=Z,500nm,11.0s						
YAK	Yakutsk	46.04	23	P	P	02 07 22.8	-0.3
	comp=Z,24nm,0.6s,baz=66,slow=6.2,SNR=5.5						
	comp=Z,24nm,0.6s						
YAK	Yakutsk	46.04	23	eP	P	02 07 22.8	-0.3
YAK				pmax	pmax		
	comp=Z,19nm,0.8s						
YAK				pmax	pmax		
	comp=N,11nm,1.8s						
KBZ	Khabaz	46.36	309	P	P	02 07 26.4	+0.5
	comp=N,4.1nm,1.0s,baz=128,slow=6.6,SNR=4.9						
KBZ				PcP	PcP	02 09 00.5	+0.4
	comp=N,4.0nm,0.8s,baz=56,slow=4.6,SNR=4.2						
KBZ				LR	LR	02 30 40.2	
	comp=N,96nm,21.2s,baz=108,slow=41						
	comp=N,4.1nm,1.0s						
KBZ	Khabaz	46.36	309	ceP	P	02 07 26.7	+0.8
KBZ				pmax	pmax		
	comp=Z,5.0nm,0.9s						
GURO	Guroymak-BITLI	46.41	302	IAmb	IAmb	02 07 29.1	
	comp=Z,13nm,0.8s						
NEUR	Neytrino	46.43	308	iP	P	02 07 29.1	+2.4
NEUR				pmax	pmax		
	comp=Z,11nm,1.5s						
NRIK	Noril'sk	46.49	357	P	P	02 07 27.2	+0.7
	comp=Z,29nm,0.7s,baz=155,slow=6.1,SNR=39						
NRIK				LR	LR	02 27 07.5	
	comp=Z,61nm,19.2s,baz=190,slow=36						
	comp=Z,29nm,0.7s						
NRIK	Noril'sk	46.49	357	d iP	P	02 07 26.8	+0.3
NRIK				pmax	pmax		
	comp=Z,40nm,0.8s						
NRIK	Noril'sk	46.49	357	P	P	02 07 27.2	+0.7
GOF	Gofitskoye	46.50	311	ceP	P	02 07 28.3	+1.4
SHA1	Shidzhatmaz	46.54	309	ceP	P	02 07 29.4	+1.8
KVAR	Kislovodsk Arr	46.55	309	LR	LR	02 31 12.7	
	comp=Z,71nm,20.5s,baz=283,slow=41						
KIV	Kislovodsk	46.55	309	eP	P	02 07 29.1	+1.6
KIV				pmax	pmax		
	comp=Z,13nm,1.1s						
KIV				MLR	MLR		
	comp=Z,53nm,16.0s						
KIV	Kislovodsk	46.55	309	P	P	02 07 28.6	+1.1
KIV				IAmb	IAmb	02 07 29.6	
	comp=Z,14nm,0.7s						
KIV	Kislovodsk	46.55	309	⇑P	P	02 07 29.3	+1.8
KIV	Kislovodsk	46.55	309	P	P	02 07 28.1	+0.6
	comp=Z,15nm,1.2s						
KIRV	Kirov	47.41	330	LR	LR	02 32 16.3	
	comp=Z,50nm,18.3s,baz=129,slow=42						
KIRV	Kirov	47.41	330	ceP	P	02 07 34.7	+0.9
VRH	Novokhopyorsk	48.75	319	eP	P	02 07 44.3	0.0
VRH				pmax	pmax		
	comp=Z,58nm,0.8s						
GUMO	Guam	49.29	92	LR	LR	02 27 45.6	
	comp=Z,33nm,21.0s,baz=280,slow=35						
VSR	Storozhevoye	50.31	318	eP	P	02 07 55.8	-0.4
VSR				pmax	pmax		
	comp=Z,11nm,0.6s						
VORR	Voronezh	50.39	319	eP	P	02 07 56.7	0.0
VORR				pmax	pmax		
	comp=Z,50nm,0.6s						
LPSR	Galich'ya Gora	50.78	320	eP	P	02 07 59.5	-0.1
LPSR				pmax	pmax		
	comp=Z,44nm,0.7s						
FITZ	Fitzroy Crossi	51.43	140	P	P	02 08 04.2	-0.7
	comp=Z,2.5nm,0.8s						
FITZ	Fitzroy Crossi	51.43	140	P	P	02 08 04.2	-0.7
KNRA	Kununurra	51.55	135	P	P	02 08 04.8	-1.0
	comp=Z,15nm,0.7s						
KNRA	Kununurra	51.55	135	P	P	02 08 04.7	-1.0
KNRA				IAmb	IAmb	02 08 10.9	
	comp=Z,9.8nm,0.6s						
MOS	Moscow	52.30	324	eP	P	02 08 11.5	+0.6
MOS				e		02 10 08.3	
MOS				pmax	pmax		
	comp=Z,52nm,1.1s						
MOS				pmax	pmax		
	comp=E,35nm,0.8s						
TIXI	Tiksi	52.62	13	ceP	P	02 08 12.7	-0.4
TIXI				pmax	pmax		
	comp=Z,44nm,0.5s						
TIXI	Tiksi	52.62	13	P	P	02 08 12.6	-0.4
OBN	Obninsk	52.73	323	c iP	P	02 08 14.6	+0.5
OBN				e		02 08 35.7	
OBN				e		02 09 23.0	
OBN				S	S	02 15 45.0	+7.7
OBN				e*SS	sS	02 16 01.1	-4.3
OBN				pmax	pmax		
	comp=Z,50nm,1.3s						
OBN				MLR	MLR		
	comp=Z,86nm,21.0s						
OBN	Obninsk	52.73	323	P	P	02 08 13.6	-0.5
	comp=Z,43nm,1.3s						
KIRS	Kirsehir-Merke	52.76	302	⇓P	P	02 08 15.6	+0.9
KLMR	Klimovskoe	52.91	330	eP	P	02 08 14.1	-1.3
KLMR				e*PP	pP	02 08 30.4	-1.6
KLMR				pmax	pmax		
	comp=Z,60nm,1.4s						
BR104	Keskin Array S	52.96	303	P	P	02 08 15.9	-0.4
	comp=Z,3.8nm,0.9s						
BR131	Keskin Array S	52.96	303	iP	P	02 08 15.4	-0.9
BRTR	Keskin Array B	52.96	303	P	P	02 08 16.7	+0.4
	comp=Z,2.3nm,0.9s,baz=103,slow=5.5,SNR=11						
BRTR				PcP	PcP	02 09 24.8	+0.3
	comp=Z,2.0nm,0.8s,baz=70,slow=4.7,SNR=4.1						
BRTR				LR	LR	02 36 45.3	
	comp=Z,23nm,18.8s,baz=102,slow=43						
	comp=Z,2.3nm,0.9s						
BRTR	Keskin Array B	52.96	303	P	P	02 08 16.0	-0.4
BR106	Keskin Array S	52.98	303	P	P	02 08 16.4	-0.1
	comp=Z,40nmcomp=Z,4.4nm,1.1s						
MA2	Magadan	53.89	32	LR	LR	02 33 25.1	
	comp=Z,38nm,18.1s,baz=125,slow=38						
BORA	Eskisehir	55.41	303	IAmb	IAmb	02 08 35.2	
	comp=Z,22nm,0.9s						
SEY	Seymchan	55.63	28	ceP	P	02 08 35.3	+0.2
SEY				pmax	pmax		
	comp=Z,8.0nm,1.0s						
PURM	Purcari	55.81	312	P	P	02 08 36.8	+0.2
BAL3X	Bal3x, Balta	56.05	313	P	P	02 08 37.4	-0.9
PETK	Petropavlovsk-	56.40	41	P	P	02 08 40.1	-0.7
	comp=Z,4.9nm,0.8s,baz=294,slow=0.6,SNR=6.3						
	comp=Z,4.9nm,0.8s						
AK09	Malin Array Si	56.41	316	P	P	02 08 40.1	-0.8
AKASG	Malin Array Be	56.45	316	P	P	02 08 40.8	-0.4
	comp=Z,6.0nm,0.5s,baz=83,slow=6.5,SNR=38						
AKASG				LR	LR	02 35 00.5	
	comp=Z,67nm,21.0s,baz=70,slow=38						
	comp=Z,6.0nm,0.5s						
AKASG	Malin Array Be	56.45	316	ceP	P	02 08 40.7	-0.4
AKASG				pmax	pmax		
	comp=Z,10.0nm,0.5s						
AKASG	Malin Array Be	56.45	316	IAmb	IAmb	02 08 42.1	
	comp=Z,19nm,1.6s						
AKBB	Malin Array Si	56.45	316	ceP	P	02 08 40.4	-0.8
AKBB				pmax	pmax		
	comp=Z,15nm,0.6s						
AKBB	Malin Array Si	56.45	316	IAmb	IAmb	02 08 41.7	
	comp=Z,22nm,1.0s						
AKBB	Malin Array Si	56.45	316	P	P	02 08 39.6	-1.6
KIEV	Kiev	56.46	316	P	P	02 08 40.8	-0.4
KIEV				pmax	pmax		
	comp=Z,18nm,1.0s						
KIEV	Kiev	56.46	316	P	P	02 08 40.8	-0.4
KIEV				IAmb	IAmb	02 08 41.7	
	comp=Z,18nm,0.9s						
KIEV	Kiev	56.46	316	P	P	02 08 40.2	-1.0
	comp=Z,97nm,0.9s						
KIEV				pP	pP	02 08 57.3	-0.9
	comp=Z,97nm,0.9s						
KIEV	Kiev	56.46	316	P	P	02 08 40.8	-0.4
KIEV				sP	pP	02 09 01.7	+3.5
TLCR		56.52	310	P	P	02 08 42.1	+0.4
TLCR		56.52	310	⇑P	P	02 08 42.2	+0.4
SORM	Soroca	56.89	313	P	P	02 08 43.2	-1.1
	comp=Z,626nmcomp=Z,20nm,1.2s						
CFR	Carcaliu	57.00	310	P	P	02 08 45.4	+0.3
CFR	Carcaliu	57.00	310	⇓P	P	02 08 45.5	+0.3
VLDR	Vladesti	57.04	311	⇓P	P	02 08 46.1	+0.7
MI30	MI30,Zelenitsa	57.11	316	P	P	02 08 44.4	-1.5
HARR	Harsova	57.15	309	P	P	02 08 46.4	+0.2
HARR	Harsova	57.15	309	⇓P	P	02 08 46.5	+0.2
VARL	Varlezi	57.20	311	⇓P	P	02 08 47.4	+0.8
ICOR	Ion Corvin	57.26	309	⇑P	P	02 08 48.2	+1.2
LUBAR	Lubar, Ukraine	57.35	316	P	P	02 08 46.6	-0.9
MI28	Mi28,Pidlybu	57.45	317	P	P	02 08 46.2	-2.0
MNK	Minsk	57.58	321	iP	P	02 08 49.4	+0.3
MNK				i *PP	pP	02 09 07.5	+1.5
MNK				i		02 10 58.1	
MNK				i PPP	PPP	02 12 16.3	
MNK				i S	S	02 16 43.5	+1.2
MNK				i SS	SS	02 20 36.2	+3.4
MNK				pmax	pmax		
	comp=Z,63nm,0.9s						
MNK				pmax	pmax		
	comp=E,11nm,0.9s						
MNK				pmax	pmax		
	comp=N,42nm,1.0s						
MNK				MLR	MLR		
	comp=Z,43nm,13.0s						
MNK				MLR	MLR		
	comp=N,32nm,15.0s						
MNK				MLR	MLR		
	comp=E,58nm,21.0s						
MNK	Minsk	57.58	321	iP	P	02 08 49.4	+0.3
	comp=E,11nm,0.9s						
MNK				iP	P	02 08 49.4	+0.3
	comp=N,42nm,1.0s						
MNK				iP	P	02 08 49.4	+0.3
	comp=Z,63nm,0.9s,baz=95						
MNK				i pP	pP	02 09 07.5	+1.5
MNK				i sP	sP	02 09 15.7	+2.4
MNK				i PP	PP	02 10 58.1	+0.9
MNK				i PPP	PPP	02 12 16.3	
MNK				i S	S	02 16 43.6	+1.2
MNK				i sS	sS	02 17 14.9	+4.4
MNK				i SS	SS	02 20 36.3	+3.4
MNK				i SSS	SSS	02 23 09.3	
MNK				i LQ	LQ	02 29 40.2	
MNK				i LR	LR	02 34 03.9	
MNK				i LRM	MLR	02 36 18.1	
	comp=E,58nm,21.1s						
MNK				i LRM	MLR	02 36 18.1	
	comp=N,32nm,14.7s						
MNK				i LRM	MLR	02 36 18.1	
	comp=Z,43nm,12.8s						
PANC	Panciu	57.69	311	⇑P	P	02 08 50.3	+0.3
APA	Apatity	57.71	337	eP	P	02 08 47.5	-2.3
APA				e		02 09 38.7	
APA				e		02 10 56.6	
APA				pmax	pmax		
	comp=Z,9.0nm,1.4s						
APA				MLR	MLR		
	comp=Z,961nm,3.4s						
BDRM	Kayabasi	57.97	300	⇑P	P	02 08 51.8	-0.4
VRI	Vrincioaia	57.99	311	P	P	02 08 53.5	+1.4
VRI	Vrincioaia	57.99	311	⇓P	P	02 08 53.5	+1.4
VRI	Vrincioaia	57.99	311	P	P	02 08 52.6	+0.5
	comp=Z,555nmcomp=Z,37nm,1.3s						
SAHR	Sahastru	58.02	311	⇓P	P	02 08 53.0	+0.6
TESR	Tescani	58.03	311	⇑P	P	02 08 52.7	+0.3
TESR	Tescani	58.03	311	P	P	02 08 52.2	-0.2
	comp=Z,23nm,1.1s						
PLOR	Plostina	58.04	311	P	P	02 08 53.8	+1.2
PLOR	Plostina	58.04	311	⇓P	P	02 08 53.8	+1.2
GIRR	Girov	58.13	312	⇓P	P	02 08 53.5	+0.4
ISR	Istrita	58.13	310	P	P	02 08 53.9	+0.7
ISR	Istrita	58.13	310	⇑P	P	02 08 54.0	+0.7
LOZB	Loznitsa	58.16	308	⇑P	P	02 08 53.8	+0.5
KMPD	K-Podol'skiy	58.16	314	P	P	02 08 51.4	-1.9
WB0	Warramunga Arr	58.19	134	P	P	02 08 53.0	-0.8
WB0				IAmb	IAmb	02 08 53.6	
	comp=Z,12nm,0.9s						
ONER	Baraj Valea Uz	58.21	311	⇓P	P	02 08 54.8	+1.1
WRA	Warramunga Arr	58.28	134	P	P	02 08 53.7	-0.8
	comp=Z,7.2nm,0.7s,baz=322,slow=7.3,SNR=129						
WRA				ScP	ScP	02 13 37.7	-2.3
	comp=Z,0.8nm,0.7s,baz=318,slow=4.6,SNR=6.6						
	comp=Z,7.2nm,0.7s						
WRA	Warramunga Arr	58.28	134	P	P	02 08 53.3	-1.2
WRAB	Tennant Creek	58.28	134	ceP	P	02 08 54.2	-0.3
WRAB				pmax	pmax		
	comp=Z,7.0nm,0.7s						
WRAB	Tennant Creek	58.28	134	P	P	02 08 53.6	-0.9
WRAB				pP	pP	02 09 08.4	-2.8
COVR	Voineasa-Covas	58.35	311	⇑P	P	02 08 55.8	+1.1
WR8	Warramunga Arr	58.40	134	P	P	02 08 54.5	-0.7
WR8	Warramunga Arr	58.40	134	P	P	02 08 54.5	-0.7
WR8				IAmb	IAmb	02 08 55.2	
	comp=Z,12nm,0.8s						
BIZ	Bicaz	58.40	312	⇓P	P	02 08 55.5	+0.5
WR0	Warramunga Arr	58.43	134	P	P	02 08 54.8	-0.7
TURR	Turia	58.48	311	⇑P	P	02 08 56.5	+0.9
MLR	Muntele Rosu	58.54	310	LR	LR	02 39 25.4	
	comp=Z,111nm,19.0s,baz=6.0,slow=41						
MLR	Muntele Rosu	58.54	310	P	P	02 08 57.3	+1.1
MLR	Muntele Rosu	58.54	310	⇓P	P	02 08 57.3	+1.1
MLR	Muntele Rosu	58.54	310	P	P	02 08 56.7	+0.5
	comp=Z,553nmcomp=Z,50nm,0.9s						
RNPP5	Staryi Chortor	58.59	317	P	P	02 08 55.5	-0.7
RNPP9	Sopachiv	58.59	317	P	P	02 08 55.9	-0.3
OZUR		58.64	311	⇓P	P	02 08 57.3	+0.6
VSU	Vasula	58.65	326	ceP	P	02 08 56.1	-0.3
VSU				pmax	pmax		
	comp=Z,67nm,2.5s						
BURAR	Bucovina Array	59.00	313	P	P	02 08 59.7	+0.5
BURAR	Bucovina Array	59.00	313	P	P	02 08 59.6	+0.3
BURAR				IAmb	IAmb	02 09 00.5	
	comp=Z,10nm,0.7s						
BURAR	Bucovina Array	59.00	313	⇑P	P	02 08 59.8	+0.5
BUR08	Bucovina Ar. S	59.01	313	P	P	02 08 59.4	+0.1
BUR08				IAmb	IAmb	02 09 00.8	
	comp=Z,8.8nm,0.8s						
VOIR		59.17	310	P	P	02 09 00.8	+0.3
VOIR		59.17	310	⇑P	P	02 09 00.8	+0.3
FINES	FINESS Array B	59.37	329	P	P	02 09 01.5	+0.1
	comp=Z,17nm,0.7s,baz=96,slow=6.4,SNR=94						
FINES				LR	LR	02 38 36.0	
	comp=Z,100nm,18.7s,baz=90,slow=40						
	comp=Z,17nm,0.7s						
FINES	FINESS Array B	59.37	329	P	P	02 09 01.8	+0.4
ARR	Arges	59.47	310	⇓P	P	02 09 02.9	+0.4
LODK	Lodwar	59.59	260	P	P	02 09 04.5	+0.6
LODK				IAmb	IAmb	02 09 05.8	
	comp=Z,12nm,0.9s						
ARCR	ARCALIA	59.60	312	⇑P	P	02 09 04.4	+1.2
KMBO	Kilima Mbogo	59.87	254	P	P	02 09 06.0	+0.1
	baz=64,slow=9.0						
KMBO				LR	LR	02 33 52.6	
	comp=Z,44nm,20.9s,baz=71,slow=35						
VADS	Vadso	59.88	339	eP	P	02 09 05.3	+0.5
LOT	Lotru	60.07	310	⇓P	P	02 09 07.4	+0.7
CJR	Cluj-Napoca	60.13	312	P	P	02 09 08.2	+1.2
CJR	Cluj-Napoca	60.13	312	⇓P	P	02 09 08.2	+1.2
BMR	Baia Mare	60.16	313	P	P	02 09 08.2	+1.1
BMR	Baia Mare	60.16	313	⇓P	P	02 09 08.2	+1.1
SUW	Suwalki	60.31	320	eP	P	02 09 07.1	-0.9
SUW	Suwalki	60.31	320	P	P	02 09 08.0	0.0
SUW	Suwalki	60.31	320	P	P	02 09 08.0	0.0
MARR	Marisel-Cluj	60.46	312	⇑P	P	02 09 09.2	-0.1
MESR	Meseseni	60.55	312	⇑P	P	02 09 10.9	+1.1
KWP	Kalwaria Pacla	60.62	315	eP	P	02 09 10.9	+0.7
KWP	Kalwaria Pacla	60.62	315	P	P	02 09 09.8	-0.4
AS15	Alice Springs	60.65	137	P	P	02 09 10.1	-0.7
	comp=Z,10nm,0.6s						
DEV	Deva	60.66	311	P	P	02 09 10.9	+0.4

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DEV   Deva             60.66 311 ⇓P     P       02 09 11.0 +0.4
AS31  Alice Springs    60.67 137  P     P       02 09 10.4 -0.5
      comp=Z,3.8nm,0.6s
AS31  Alice Springs    60.67 137  P     P       02 09 10.7 -0.2
ASAR  Alice Springs    60.67 137  P     P       02 09 10.6 -0.3
      comp=Z,7.5nm,0.6s,baz=320,slow=6.8,SNR=143
ASAR                              PKP2bc        02 38 35.9
      comp=Z,1.1nm,1.0s,baz=134,slow=2.7,SNR=4.0
      comp=Z,7.5nm,0.6s
DRGR                   60.73 312  P     P       02 09 11.6 +0.5
DRGR                   60.73 312 ⇓P     P       02 09 11.7 +0.5
GZR   Gura Zlata       60.77 310  P     P       02 09 11.7 +0.3
GZR   Gura Zlata       60.77 310 ⇓P     P       02 09 11.7 +0.3
KOLS  Kolonicke sedl   60.92 314 eP     P       02 09 12.8 +0.5
KOLS  Kolonicke sedl   60.92 314 eP     P       02 09 12.8 +0.5
UZHM  Uzhgorod         60.93 314  P     P       02 09 12.1 -0.2
ARA0  ARCESS Array S   61.03 338 eP     P       02 09 13.0 +0.3
ARCES ARCESS Array B   61.03 338  P     P       02 09 13.0 +0.3
      comp=Z,4.8nm,0.6s,baz=94,slow=3.6,SNR=22
      comp=Z,4.8nm,0.6s
HERR  Herculane        61.07 310 ⇑P     P       02 09 14.4 +1.0
SURR  Surduc           61.21 311 ⇓P     P       02 09 15.4 +1.1
BORR  Bors             61.35 312 ⇓P     P       02 09 16.0 +0.8
OPO   Ambohidratompo   61.40 232  P     P       02 09 16.2 +0.2
      comp=Z,10nm,0.9s,baz=74,slow=6.0,SNR=8.3
      comp=Z,10nm,0.9s
SIRR  Siria            61.49 311 ⇓P     P       02 09 17.2 +1.0
BZS   Buzias           61.57 311  P     P       02 09 17.3 +0.6
BZS   Buzias           61.57 311 ⇓P     P       02 09 17.4 +0.6
MDVR  Moldovita        61.57 310 ⇑P     P       02 09 18.0 +1.1
STHS  Stebnicka Huta   61.58 315 eP     P       02 09 16.4 -0.4
STHS                              pmax  pmax
      comp=Z,5.0nm,0.6s
STHS  Stebnicka Huta   61.58 315 eP     P       02 09 16.4 -0.4
ABPO  Ambohimpanom     61.66 231 i P    P       02 09 19.0 +1.2
ABPO  Ambohimpanom     61.66 231  P     P       02 09 18.6 +0.8
ABPO                              IAmb  IAmb    02 09 18.8
      comp=Z,9.9nm,0.8s
BOVS  Bovan            61.69 308 ⇓P     P       02 09 18.2 +0.6
KTK1  Kautokeino       61.73 337 eP     P       02 09 17.7 +0.3
BEL   Belsk            61.77 318 eP     P       02 09 18.2 +0.3
AMBH  Ambrzfalva       62.13 311 ⇑P     P       02 09 21.2 +0.7
NIE   Niedzica         62.19 315 eP     P       02 09 22.3 +1.4
BILL  Bilibino         62.37  24ceP     P       02 09 22.0 +0.3
BILL                              pmax  pmax
      comp=Z,24nm,1.7s
OJC   Ojcow            62.47 316 eP     P       02 09 23.3 +0.6
OJC   Ojcow            62.47 316  P     P       02 09 23.1 +0.4
OJC   Ojcow            62.47 316  P     P       02 09 23.1 +0.4
PSZ   Piszkesteto      62.57 313  P     P       02 09 24.1 +0.6
PSZ                               pmax  pmax
      comp=Z,13nm,1.1s
PSZ   Piszkesteto      62.57 313  P     P       02 09 24.1 +0.6
PSZ                               IAmb  IAmb    02 09 24.9
      comp=Z,12nm,1.1s
PSZ   Piszkesteto      62.57 313 ⇑P     P       02 09 24.2 +0.6
LANS  Liptovska Anna   62.76 315 eP     P       02 09 25.9 +1.2
LANS  Liptovska Anna   62.76 315 eP     P       02 09 25.9 +1.2
JETT  Jettan, Norway   62.80 338 eP     P       02 09 25.1 +0.5
FRGS  Fruska Gora      62.88 310⇓iP     P       02 09 25.4 -0.1
SJES  Sjenica          62.98 308⇓iP     P       02 09 26.5 +0.2
TEKS  Tekeris          63.15 310⇓iP     P       02 09 26.7 -0.6
VYHS  Vyhne            63.23 314 eP     P       02 09 28.3 +0.5
VYHS                              pmax  pmax
      comp=Z,14nm,1.3s
VYHS  Vyhne            63.23 314 eP     P       02 09 28.2 +0.5
BBLS  Lazi&#263i       63.32 309⇓iP     P       02 09 28.8 +0.3
TRO   Tromso           63.33 338 eP     P       02 09 28.0  0.0
MORH  Mrgy, Hungar     63.58 311 ⇓P     P       02 09 30.2 +0.1
MORH  Mrgy, Hungar     63.58 311⇓iP     P       02 09 30.0 -0.1
PDG   Podgorica        63.61 307  IAmb  IAmb    02 09 30.9
      comp=Z,19nm,0.8s
PDG   Podgorica        63.61 307 ⇑P     P       02 09 29.9 -0.5
PDG   Podgorica        63.61 307⇓iP     P       02 09 29.6 -0.8
SRO   Srobarova        63.64 313 eP     P       02 09 33.2 +2.8
SRO                               pmax  pmax
      comp=Z,23nm,1.3s
SRO   Srobarova        63.64 313 eP     P       02 09 33.2 +2.8
DRME  Dracevica, Mon   63.70 307 eP     P       02 09 29.7 -1.3
UPM   Unac-Piva        63.76 308 eP     P       02 09 31.3 -0.3
STEB  Steborice        63.79 316 eP     P       02 09 31.7 +0.3
MAUC  Maruska          63.81 315 eP     P       02 09 32.2 +0.6
VOI   Vohitsoka        63.85 229  P     P       02 09 32.5 +0.2
VOI                               IAmb  IAmb    02 09 33.3
      comp=Z,16nm,0.8s
GKP   Gorka Klasztor   63.86 319 eP     P       02 09 32.1 +0.3
MORC  Moravsky Berou   63.95 316  P     P       02 09 32.9 +0.4
MORC  Moravsky Berou   63.95 316  IAmb  IAmb    02 09 34.2
      comp=Z,16nm,0.9s
MORC  Moravsky Berou   63.95 316 eP     P       02 09 33.3 +0.7
MORC  Moravsky Berou   63.95 316 ⇓P     P       02 09 33.0 +0.4
JAVC  Velka Javorina   63.96 315 eP     P       02 09 34.4 +1.8
BRY   Bratogost        64.07 308 eP     P       02 09 32.6 -1.0
SMOL  Smolenice        64.16 314 eP     P       02 09 34.5 +0.6
HCY   Herceg Novi      64.17 307 eP     P       02 09 29.3 -4.7
TREB  Trebinje         64.23 308 eP     P       02 09 33.2 -1.3
MODS  Modra-Piesok     64.27 314 eP     P       02 09 35.1 +0.5
MODS                              pmax  pmax
      comp=Z,17nm,1.1s
MODS  Modra-Piesok     64.27 314 eP     P       02 09 35.1 +0.5
ZST   Bratislava       64.41 314 eP     P       02 09 36.0 +0.5
ZST   Bratislava       64.41 314 eP     P       02 09 36.0 +0.5
KRLC  Kraliky          64.42 316 eP     P       02 09 35.7 +0.1
KRLC  Kraliky          64.42 316 eP     P       02 09 35.7 +0.1
BLEU  Blekinge         64.49 323 i P    P       02 09 35.2 -0.6
FAUS  Fauske           64.52 335 eP     P       02 09 36.0 +0.1
STEI  Steigen          64.56 336 eP     P       02 09 37.1 +1.0
VRAC  Vranov           64.62 315  LR    LR      02 44 17.8
      comp=Z,34nm,18.8s,baz=74,slow=42
VRAC  Vranov           64.62 315  P     P       02 09 37.5 +0.7
VRAC  Vranov           64.62 315 eP     P       02 09 37.8 +0.9
VRAC  Vranov           64.62 315 ⇑P     P       02 09 37.6 +0.7
KSP   Ksiaz            64.65 317 eP     P       02 09 37.8 +0.7
DPC   Dobruska-Polom   64.68 316 eP     P       02 09 38.0 +0.7
DPC   Dobruska-Polom   64.68 316 eP     P       02 09 38.0 +0.7
OSTC  Ostas            64.73 316 eP     P       02 09 38.2 +0.6
OSTC  Ostas            64.73 316 eP     P       02 09 38.2 +0.6
KRUC  Moravsky         64.77 315 eP     P       02 09 38.1 +0.2
BLY   Banja Luka       64.78 310  IAmb  IAmb    02 09 39.7
      comp=Z,15nm,1.0s
BLY   Banja Luka       64.78 310 ⇓P     P       02 09 38.4 +0.4
BLY   Banja Luka       64.78 310 eP     P       02 09 37.4 -0.6
CHVC  Chvalec          64.83 317 eP     P       02 09 39.2 +1.0
CHVC  Chvalec          64.83 317 eP     P       02 09 39.2 +1.0
BEHE  Becsehely        64.83 312  IAmb  IAmb    02 09 40.1
      comp=Z,13nm,1.0s
BEHE  Becsehely        64.83 312 eP     P       02 09 36.6 -1.7
MOR8  Moi Rana         64.85 334 eP     P       02 09 37.4 -0.6
UPC   Upice            64.86 316 eP     P       02 09 39.0 +0.6
UPC   Upice            64.86 316 eP     P       02 09 39.0 +0.6
RONA  Rosalia, Austr   65.00 313 i P    P       02 09 39.6 +0.1
      comp=Z,3.6nm,0.6s
RAUS  Rausandaksla     65.01 334 eP     P       02 09 39.3 +0.2
SPB2  Spitsbergen Ar   65.03 347  P     P       02 09 39.4 +0.3
SPA0  Spitsbergen Ar   65.04 347 eP     P       02 09 39.3 +0.2
SPITS Spitsbergen Ar   65.04 347  P     P       02 09 39.5 +0.4
      comp=Z,8.5nm,0.6s,baz=99,slow=10,SNR=17
      comp=Z,8.5nm,0.6s
BSD   Bornholm Skovb   65.08 322 i P    P       02 09 39.0 -0.7
BSD                               IAmb  IAmb    02 09 39.7
      comp=Z,13nm,0.8s
WINA  Alland / Wiene   65.10 314 i P    P       02 09 40.5 +0.5
      comp=Z,7.2nm,0.6s,SNR=11
KOGS  Kog              65.20 312 i P    P       02 09 41.0 +0.3
LOF   Lofoten          65.20 336 eP     P       02 09 40.0 -0.2
CONA  Conrad Observa   65.26 314 i P    P       02 09 41.4 +0.2
      comp=Z,15nm,1.0s,SNR=10
VAGH  Vaagaholmen      65.31 334 eP     P       02 09 41.2 +0.2
HFS   Hagfors          65.37 327  P     P       02 09 41.6  0.0
      comp=Z,20nm,0.5s,baz=117,slow=5.2,SNR=68
HFS                               LR    LR      02 41 02.2
      comp=Z,129nm,21.4s,baz=97,slow=38
      comp=Z,20nm,0.5s
LEIR  Leirfjorden      65.39 334 eP     P       02 09 41.8 +0.3
ABNA  Allensteig Bun   65.45 314 i P    P       02 09 42.7 +0.4
      comp=Z,6.0nm,0.6s
MBAR  Mbarara          65.47 258  LR    LR      02 38 51.6
      comp=Z,47nm,18.1s,baz=62,slow=36
MBAR  Mbarara          65.47 258 i P    P       02 09 41.1 -2.1
MBAR                              pmax  pmax
      comp=Z,9.0nm,0.9s
DEL   Delary           65.56 323 i P    P       02 09 42.7 -0.1
ARSA  Arzberg          65.58 313  IAmb  IAmb    02 10 45.9
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      comp=Z,8.4nm,0.5s
ARSA  Arzberg          65.58 313 i P    P       02 09 43.3 +0.1
      comp=Z,4.7nm,0.8s,SNR=6.9
PRU   Pruhonice        65.86 316 eP     P       02 09 45.5 +0.6
PRU   Pruhonice        65.86 316 eP     P       02 09 45.5 +0.6
LUNU  Lund             65.87 322 i P    P       02 09 45.2 +0.4
PERS  Pernice          65.95 312 i P    P       02 09 45.8 +0.2
SOKA  Soboth           66.00 312 i P    P       02 09 46.3 +0.3
      comp=Z,7.2nm,0.6s
TIP   Timpagrande      66.01 304  P     P       02 09 46.0 -0.1
TIP                               IAmb  IAmb    02 09 47.1
      comp=Z,20nm,1.4s
RUE   Ruedersdorf      66.02 319 eP     P       02 09 46.4 +0.6
      comp=Z,47nm,0.8s,baz=80,slow=6.2
BRG   Berggiesshubel   66.12 317 eP     P       02 09 47.2 +0.7
      comp=Z,16nm,0.8s,baz=80,slow=6.2
BRG   Berggiesshubel   66.12 317⇓iP     P       02 09 47.4 +0.8
BRG                               Amp           02 09 47.9
      comp=Z,15nm,0.7s
BRG                               pP    pP      02 10 02.6 -1.2
BRG                               Amp           02 10 03.6
      comp=Z,3.8nm,0.7s
BRG                              ⇑PP    PcP     02 10 17.2 +0.7
BRG                               Amp           02 10 18.2
      comp=Z,4.3nm,0.7s
FABU  Falkenberg       66.14 324 i P    P       02 09 46.5  0.0
ZVC   Zvikov           66.16 315 eP     P       02 09 47.4 +0.6
CKRC  Cesky Krumlov    66.17 315 eP     P       02 09 47.0 +0.1
CKRC  Cesky Krumlov    66.17 315 eP     P       02 09 47.0 +0.1
SESA  Seetaler Alpe,   66.25 313 i P    P       02 09 47.8 +0.1
      comp=Z,12nm,0.7s,SNR=8.9
MOA   Molln            66.34 314 i P    P       02 09 48.0  0.0
      comp=Z,9.8nm,0.6s,SNR=16
OBKA  Obir             66.35 312 eP     P       02 09 48.5 +0.3
      comp=Z,10nm,0.8s,SNR=6.1
NC602 NORSAR Array S   66.39 328 eP     P       02 09 48.0 -0.1
NC602 NORSAR Array S   66.39 328  IAmb  IAmb    02 09 48.7
      comp=Z,19nm,0.8s
NC303 NORSAR Array S   66.43 328  IAmb  IAmb    02 09 48.8
      comp=Z,19nm,0.8s
HSKC  Hora Svate Kat   66.48 317 eP     P       02 09 49.1 +0.2
NB2   NORSAR Subarra   66.53 328  P     P       02 09 48.3 -0.7
      comp=Z,12nm,0.7s,baz=84,slow=6.5
NB2   NORSAR Subarra   66.53 328  P     P       02 09 48.3 -0.7
NOA   NORSAR Array B   66.53 328  P     P       02 09 48.5 -0.5
      comp=Z,10.0nm,0.6s,baz=85,slow=6.4,SNR=57
NOA                               LR    LR      02 41 37.6
      comp=Z,62nm,19.1s,baz=100,slow=38
      comp=Z,10.0nm,0.6s
ONAU  Onsala           66.53 324 i P    P       02 09 48.6 -0.4
CEY   Cerknica         66.56 311 eP     P       02 09 49.9 +0.4
GEC2  GERESS Array S   66.56 315  P     P       02 09 50.0 +0.5
GEC2  GERESS Array S   66.56 315 eP     P       02 09 50.1 +0.5
      comp=Z,20nm,0.6s,baz=80,slow=6.2
GERES GERESS Array B   66.56 315  P     P       02 09 50.0 +0.5
      comp=Z,23nm,0.6s,baz=76,slow=5.6,SNR=277
      comp=Z,23nm,0.6s
KHC   Kasperske Hory   66.60 315ceP     P       02 09 50.4 +0.7
KHC                               pmax  pmax
      comp=Z,14nm,1.3s
KHC   Kasperske Hory   66.60 315 eP     P       02 09 49.9 +0.2
LLD   Lille Linde      66.60 322 i P    P       02 09 50.1 +0.7
LLD                               IAmb  IAmb    02 09 50.9
      comp=Z,26nm,0.8s
TJOU  Tjoern           66.62 325 i P    P       02 09 49.1 -0.4
CLL   Collm            66.65 318⇓iP     P       02 09 50.0 +0.1
CLL                              e*SP   sP      02 10 13.0 -1.3
CLL                               pmax  pmax
      comp=Z,17nm,1.2s
CLL   Collm            66.65 318  IAmb  IAmb    02 09 51.2
      comp=Z,19nm,1.2s
CLL   Collm            66.65 318 eP     P       02 09 50.1 +0.1
      comp=Z,17nm,1.1s,baz=80,slow=6.2
CLL   Collm            66.65 318⇓iP     P       02 09 50.0 +0.1
      comp=Z,17nm,1.2s
CLL                              esP    sP      02 10 13.0 -1.3
CLL                               L     L       02 36 00.0
NAO01 NORSAR Array S   66.70 328  IAmb  IAmb    02 09 50.5
      comp=Z,15nm,0.8s
STRU  Stroemstad       66.74 326 i P    P       02 09 50.1 -0.1
BIOA  Bad Ischl, Aus   66.78 314 i P    P       02 09 50.7 -0.1
      comp=Z,5.5nm,0.7s,SNR=6.8
OSL   Oslo             66.88 327 eP     P       02 09 51.7 +0.5
MYKA  Terra Mystica    66.95 312 eP     P       02 09 55.8 +3.8
      comp=Z,4.9nm,0.9s
WET   Wettzell         67.05 315 eP     P       02 09 53.2 +0.6
      comp=Z,8.8nm,0.7s,baz=80,slow=6.2
KBA   Koelnbreinsper   67.08 313 i P    P       02 09 52.6 -0.4
      comp=Z,7.7nm,0.5s,SNR=7.9
TANN  Tannenbergstha   67.12 317 eP     P       02 09 53.5 +0.5
      comp=Z,9.6nm,0.7s,baz=80,slow=6.2
NKC   Novy Kostel      67.16 316 eP     P       02 09 54.0 +0.8
NKC   Novy Kostel      67.16 316 eP     P       02 09 54.0 +0.8
PLN   Plauen           67.31 317 eP     P       02 09 54.7 +0.6
      baz=80,slow=6.2
NEUB  Neuenburg        67.43 318 eP     P       02 09 55.3 +0.5
      comp=Z,31nm,0.9s,baz=80,slow=6.2
DOMB  Dombas           67.44 329 eP     P       02 09 54.5 -0.3
OVD   Ostervraa, Den   67.46 324 i P    P       02 09 55.5 +0.6
OVD                               IAmb  IAmb    02 09 56.1
      comp=Z,45nm,0.7s
LESA  Schwarzleotal    67.47 313 i P    P       02 09 55.0 -0.3
      comp=Z,23nm,0.5s,SNR=22
KONO  Kongsberg        67.47 327ceP     P       02 09 56.4 +1.4
KONO                              pmax  pmax
      comp=Z,14nm,1.7s
KONO  Kongsberg        67.47 327 eP     P       02 09 55.0  0.0
FLTG  Flechtingen      67.59 319 eP     P       02 09 55.7 -0.1
      comp=Z,7.5nm,0.7s,baz=80,slow=6.2
MOX   Moxa             67.62 317 eP     P       02 09 56.6 +0.5
      comp=Z,9.5nm,0.8s,baz=80,slow=6.2
MOX                              eL     L       02 41 10.4
      comp=Z,87nm,21.7s
ABTA  Abfaltersbach    67.70 313 i P    P       02 09 55.8 -0.9
      comp=Z,8.8nm,0.9s,SNR=7.5
GUMA  Gualdo di Mace   67.81 309  IAmb  IAmb    02 10 05.8
      comp=Z,18nm,0.8s
BSEG  Bad Segeberg     67.89 321 eP     P       02 09 58.6 +0.9
      comp=Z,27nm,0.7s,baz=80,slow=6.2
AQU   L'Aquila         67.90 308  IAmb  IAmb    02 10 10.5
      comp=Z,14nm,0.9s
AQU   L'Aquila         67.90 308⇓iP     P       02 09 57.6 -0.5
ASSE  Asse, Remlinge   67.96 319 eP     P       02 09 58.3 +0.2
      comp=Z,3.6nm,0.5s,baz=80,slow=6.2
SKAR  Skarslia         67.98 328 eP     P       02 09 59.1 +0.8
NRCA  Norcia           68.01 309  IAmb  IAmb    02 10 00.0
      comp=Z,17nm,0.7s
GRF   Grafenberg Arr   68.03 316 eP     P       02 09 59.7 +1.0
      comp=Z,12nm,0.8s,baz=80,slow=6.2
GRF                              eL     L       02 42 48.0
      comp=Z,140nm,19.0s
GRFO  Grafenberg       68.03 316  P     P       02 10 00.1 +1.4
GRFO  Grafenberg       68.03 316  P     P       02 10 00.1 +1.4
SSRD  Sdr. Stenderup   68.04 322 i P    P       02 09 59.8 +1.2
SSRD                              IAmb  IAmb    02 10 00.4
      comp=Z,37nm,0.8s
MOL   Molde            68.08 330 eP     P       02 09 59.4 +0.7
MUD   Monsted U'grnd   68.14 323 i P    P       02 10 00.0 +0.8
MUD                               IAmb  IAmb    02 10 00.4
      comp=Z,18nm,0.7s
CLZ   Clausthal        68.19 318 eP     P       02 10 00.4 +0.7
      comp=Z,22nm,0.8s,baz=80,slow=6.2
WTTA  Wattenberg       68.19 313 i P    P       02 09 59.4 -0.6
      comp=Z,9.6nm,0.6s,SNR=11
WATA  Walderalm        68.22 313 i P    P       02 09 59.2 -0.8
      comp=Z,5.6nm,0.6s,SNR=8.6
HOMB  Homborsund       68.23 325 eP     P       02 09 59.9 +0.3
HOMB  Homborsund       68.23 325 i P    P       02 09 59.8 +0.1
FUR   Furstenfeldbru   68.27 314 eP     P       02 10 00.7 +0.5
      comp=Z,7.2nm,0.5s,baz=80,slow=6.2
CTI   Castel Tesino    68.41 312  IAmb  IAmb    02 10 01.9
      comp=Z,10nm,0.7s
CESX  Cesi             68.44 308  IAmb  IAmb    02 10 01.8
      comp=Z,10nm,0.6s
SQTA  Sankt Quirin     68.49 313 i P    P       02 10 01.1 -0.6
      comp=Z,10nm,0.6s,SNR=12
MOTA  Moosalm          68.53 314 i P    P       02 10 01.3 -0.7
      comp=Z,24nm,0.9s,SNR=14
RETA  Reutte           68.73 314 i P    P       02 10 02.9 -0.3
      comp=Z,12nm,0.6s,SNR=13
FETA  Feichten         68.85 313 eP     P       02 10 03.6 -0.4
      comp=Z,6.5nm,0.6s,SNR=8.2
SNART Snartemo         68.89 326 eP     P       02 10 04.5 +0.7
SNART Snartemo         68.89 326 i P    P       02 10 04.1 +0.3
ODD1  Odda             68.92 327 eP     P       02 10 04.2 +0.1
HYA   Hoyanger         68.93 329 eP     P       02 10 04.2 +0.2
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BLS5  Blasjo           69.09 327 eP     P       02 10 05.5 +0.4
UBR   Ueberruh         69.13 314 eP     P       02 10 05.5 -0.1
      comp=Z,14nm,0.6s,baz=80,slow=6.2
ZCCA  Zocca            69.22 310  IAmb  IAmb    02 10 12.5
      comp=Z,22nm,0.7s
DAVA  Damuels          69.36 314 i P    P       02 10 07.0 -0.2
      comp=Z,11nm,0.6s,SNR=10
QLP   Quilpie          69.44 132  P     P       02 10 08.3 +0.6
      comp=Z,21nm,0.7s
DAVOX Davos/Dischmat   69.47 313  LR    LR      02 43 21.0
      comp=Z,93nm,18.2s,baz=66,slow=38
STU   Stuttgart        69.51 315  IAmb  IAmb    02 10 09.4
      comp=Z,28nm,1.0s
STU   Stuttgart        69.51 315 eP     P       02 10 08.5 +0.6
      comp=Z,38nm,0.6s,baz=80,slow=6.2
KASTN Kahler Asten     69.51 318 eP     P       02 10 08.2 +0.3
      comp=Z,5.8nm,0.8s,baz=80,slow=6.2
ASK   Askoy            69.53 328 eP     P       02 10 08.5 +0.8
TNS   Taunus Mts       69.69 317 eP     P       02 10 09.4 +0.4
      comp=Z,19nm,0.8s,baz=80,slow=6.2
KMY   Karmoy           69.74 327 eP     P       02 10 09.9 +0.9
BFO   Black Forest     70.16 315 i P    P       02 10 12.5 +0.5
BFO   Black Forest     70.16 315  P     P       02 10 12.1 +0.1
BFO   Black Forest     70.16 315 eP     P       02 10 11.6 -0.3
      comp=Z,5.1nm,0.8s,baz=80,slow=6.2
BUG   Bochum--Univer   70.17 318 eP     P       02 10 12.5 +0.7
      comp=Z,14nm,0.8s,baz=80,slow=6.2
NOR   Nord             70.29 352 i P    P       02 10 11.7 -0.4
NOR                               IAmb  IAmb    02 10 12.4
      comp=Z,22nm,1.4s
ECH   Echery           70.95 315  P     P       02 10 16.4 -0.3
ECH   Echery           70.95 315  P     P       02 10 16.5 -0.3
ECH                               pP    pP      02 10 32.2 -1.9
MEM   Membach          71.13 318 dP     P       02 10 18.1 +0.3
      comp=Z,11nm,1.0s
WLF   Walferdange      71.26 317 dP     P       02 10 19.5 +0.9
      comp=Z,43nm,1.0s
WLF   Walferdange      71.26 317 eP     P       02 10 19.6 +1.1
      comp=Z,50nm,0.9s,baz=80,slow=6.2
STKA  Stephens Creek   71.27 138  P     P       02 10 19.4 +0.6
      comp=Z,5.0nm,0.8s,baz=316,slow=4.2,SNR=5.2
      comp=Z,5.0nm,0.8s
SENIN Lac Senin/Sane   71.29 313  IAmb  IAmb    02 10 21.2
      comp=Z,11nm,0.7s
VSL   Villasalto       71.52 306  IAmb  IAmb    02 10 21.6
      comp=Z,48nm,1.4s
BMOL  Mol              71.55 318 dP     P       02 10 20.7 +0.4
BCLA  Clavier          71.61 318 dP     P       02 10 21.2 +0.5
      comp=Z,6.6nm,1.0s
RCHB  Rochefort        71.72 317 dP     P       02 10 21.6 +0.3
      comp=Z,9.9nm,0.8s
BMRD  Maredsous        71.97 318 dP     P       02 10 23.1 +0.3
      comp=Z,12nm,0.8s
BNI   Bardonecchia     72.04 312  IAmb  IAmb    02 10 30.6
      comp=Z,16nm,1.1s
UCC   Uccle            72.10 318 dP     P       02 10 23.2 -0.3
      comp=Z,5.7nm,0.7s
DOU   Dourbes          72.13 317 dP     P       02 10 23.3 -0.4
      comp=Z,6.3nm,1.2s
BSKQ  Steenkerk        72.31 318 dP     P       02 10 25.2 +0.4
      comp=Z,12nm,1.0s
HNR   Honiara          72.39 109  LR    LR      02 42 40.0
      comp=Z,8.7nm,18.1s,baz=10.0,slow=36
KEST  Kesra            72.54 302  P     P       02 10 27.3 +0.7
      comp=Z,22nm,1.0s,baz=96,slow=1.5,SNR=22
      comp=Z,22nm,1.0s
KEST  Kesra            72.54 302  IAmb  IAmb    02 10 28.4
      comp=Z,25nm,1.0s
SSB   Saint Sauveur    73.44 313  P     P       02 10 31.7  0.0
SSB   Saint Sauveur    73.44 313  IAmb  IAmb    02 10 32.8
      comp=Z,20nm,1.1s
SSB   Saint Sauveur    73.44 313  P     P       02 10 31.7  0.0
EIDS  Eidsvold         73.54 127  P     P       02 10 31.7 -0.7
CMSA  Cobar Meteorol   73.63 135  P     P       02 10 32.9 +0.1
      comp=Z,12nm,1.3s
MCD   Coleburn Disti   74.48 326 eP     P       02 10 37.6 +0.2
MCD                               IAmb  IAmb    02 10 39.2
      comp=Z,29nm,0.7s
LSZ   Lusaka           74.50 246  P     P       02 10 38.9 +0.5
      comp=Z,12nm,0.7s,baz=54,slow=6.1,SNR=49
LSZ                               LR    LR      02 44 54.8
      comp=Z,57nm,18.2s,baz=59,slow=37
      comp=Z,12nm,0.7s
LSZ   Lusaka           74.50 246  P     P       02 10 38.9 +0.5
LSZ                               IAmb  IAmb    02 10 39.8
      comp=Z,14nm,0.8s
LSZ   Lusaka           74.50 246  P     P       02 10 38.9 +0.5
LSZ   Lusaka           74.50 246  P     P       02 10 38.9 +0.5
LSZ                               PcP   PcP     02 10 52.6  0.0
LSZ                               pP    pP      02 10 54.0 -2.0
BIGH  Upper Bighouse   74.52 327 eP     P       02 10 38.2 +0.6
BIGH                              IAmb  IAmb    02 10 39.1
      comp=Z,5.0nm,0.6s
EDMD  Edmundbyers      74.66 323 eP     P       02 10 38.7 +0.1
EDMD                              IAmb  IAmb    02 10 39.6
      comp=Z,10nm,0.6s
CWF   Charnwood Fore   74.94 321 eP     P       02 10 40.0 -0.1
CWF                               IAmb  IAmb    02 10 40.9
      comp=Z,4.9nm,0.6s
F17K  Baldwin Pennin   74.96  24  IAmb  IAmb    02 10 41.4
      comp=Z,16nm,0.8s
EDI   Edinburgh        74.97 325 eP     P       02 10 40.8 +0.5
EDI                               IAmb  IAmb    02 10 41.9
      comp=Z,12nm,0.7s
EKA   Eskdalemuir Ar   75.15 324  P     P       02 10 41.6 +0.3
      comp=Z,9.9nm,0.8s,baz=75,slow=6.0,SNR=27
EKA                               LR    LR      02 45 42.3
      comp=Z,75nm,19.5s,baz=30,slow=37
      comp=Z,9.9nm,0.8s
ESK   Eskdalemuir      75.18 324 eP     P       02 10 41.4 -0.1
ESK                               IAmb  IAmb    02 10 43.1
      comp=Z,9.5nm,0.8s
D19K  Kuna River       75.22  21  IAmb  IAmb    02 10 43.3
      comp=Z,14nm,0.9s
WOL   Wolverton        75.33 320 eP     P       02 10 42.9 +0.5
WOL                               IAmb  IAmb    02 10 43.8
      comp=Z,22nm,0.7s
D20K  Etivluk River    75.62  21  IAmb  IAmb    02 10 45.3
      comp=Z,26nm,0.9s
PGBU  Glenifferbraes   75.70 325 eP     P       02 10 45.3 +0.8
PGBU                              IAmb  IAmb    02 10 46.4
      comp=Z,26nm,0.7s
KPL   Plockton         75.78 326 eP     P       02 10 44.6 -0.3
KPL                               IAmb  IAmb    02 10 46.1
      comp=Z,3.5nm,0.8s
HLM1  Long Mynd        75.92 321 eP     P       02 10 46.1 +0.2
HLM1                              IAmb  IAmb    02 10 47.1
      comp=Z,9.1nm,0.7s
FOEL  Foel Wylfa       75.98 322 eP     P       02 10 47.1 +0.9
FOEL                              IAmb  IAmb    02 10 48.4
      comp=Z,14nm,0.9s
LAWE  Loch Awe, Argy   76.03 325 eP     P       02 10 46.7 +0.3
LAWE                              IAmb  IAmb    02 10 47.8
      comp=Z,7.7nm,0.7s
MATP  Matopo           76.82 241  P     P       02 10 54.9 +3.4
      comp=Z,20nm,0.7s,baz=59,slow=5.5,SNR=84
MATP                              LR    LR      02 42 44.5
      comp=Z,35nm,21.0s,baz=52,slow=34
F21K  Alatna River     77.37  22  IAmb  IAmb    02 10 55.3
      comp=Z,14nm,0.8s
E22K  Anaktuvuk Pass   77.46  20  IAmb  IAmb    02 10 55.6
      comp=Z,13nm,0.9s
NEEM  North Greenlan   77.61 353 i P    P       02 10 55.2  0.0
NEEM                              IAmb  IAmb    02 10 56.2
      comp=Z,37nm,0.9s
K17K  Iditarod         77.67  27  IAmb  IAmb    02 10 56.7
      comp=Z,21nm,0.8s
G21K  Allakaket        77.71  22  IAmb  IAmb    02 10 56.4
      comp=Z,14nm,0.9s
POGA  Pongola          78.02 233  P     P       02 10 58.6 +0.6
E23K  Chandalar        78.20  20  IAmb  IAmb    02 10 59.9
      comp=Z,15nm,1.1s
COLD  Coldfoot         78.46  21  IAmb  IAmb    02 11 30.2
      comp=Z,12nm,1.1s
D25K  Kavik River      78.47  18  IAmb  IAmb    02 11 01.4
      comp=Z,19nm,0.8s
G23K  Bananza Creek    78.80  21  IAmb  IAmb    02 11 03.0
      comp=Z,16nm,1.0s
SUMG  Summit           79.38 347  P     P       02 11 05.2  0.0
SUMG  Summit           79.38 347  IAmb  IAmb    02 11 05.9
      comp=Z,36nm,1.4s
SUMG  Summit           79.38 347 i P    P       02 11 04.7 -0.5
SUMG                              IAmb  IAmb    02 11 05.8
      comp=Z,52nm,1.5s
BORG  Borgarnes        79.40 337  LR    LR      02 46 03.4
      comp=Z,70nm,20.0s,baz=42,slow=36
F25K  Christian Rive   79.71  20  IAmb  IAmb    02 11 08.8
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	comp=Z,22nm,0.8s						
BPAW	Bear Paw Mtn.	79.86	24	IAmb	IAmb	02 11 09.7	
	comp=Z,15nm,1.0s						
PPLA	Purkeypile	80.04	25	IAmb	IAmb	02 11 09.7	
	comp=Z,23nm,1.3s						
F26K	Sheenjek River	80.10	19	IAmb	IAmb	02 11 10.7	
	comp=Z,13nm,0.8s						
BMAR	Burnt Mountain	80.13	19	P	P	02 11 10.1	+1.1
N19K	Bonanza Creek	80.17	28	IAmb	IAmb	02 11 10.1	
	comp=Z,12nm,0.8s						
BWN	Browne	80.39	23	IAmb	IAmb	02 11 12.8	
	comp=Z,21nm,0.9s						
O19K	Port Alsworth	80.55	28	IAmb	IAmb	02 11 12.1	
	comp=Z,22nm,1.2s						
COLA	College	80.57	22	i P	P	02 11 10.6	-0.6
COLA				pmax	pmax		
	comp=Z,9.0nm,0.9s						
G26K	Porcupine Rive	80.67	20	IAmb	IAmb	02 11 13.8	
	comp=Z,28nm,0.8s						
SKT	Skwentna	80.79	26	IAmb	IAmb	02 11 12.8	
	comp=Z,13nm,0.8s						
MCK	McKinley	80.83	24	IAmb	IAmb	02 11 13.4	
	comp=Z,14nm,0.8s						
ILAR	Eielson Array	80.96	22	P	P	02 11 12.4	-1.0
	comp=Z,4.4nm,0.7s,baz=297,slow=5.2,SNR=38						
ILAR				PP	PP	02 14 17.6	-0.6
	comp=Z,1.5nm,0.8s,baz=294,slow=7.6,SNR=7.1						
	comp=Z,4.4nm,0.7s						
ILAR	Eielson Array	80.96	22	P	P	02 11 11.7	-1.7
PRP	Porcupine Dome	80.99	21	IAmb	IAmb	02 11 15.1	
	comp=Z,18nm,0.9s						
ESDC	Sonseca Array	81.22	309	P	P	02 11 15.7	+0.3
	comp=Z,6.3nm,0.9s,baz=61,slow=5.0,SNR=38						
ESDC				LR	LR	02 57 12.6	
	comp=Z,41nm,18.1s,baz=155,slow=43						
	comp=Z,6.3nm,0.9s						
ESDC	Sonseca Array	81.22	309		P	02 11 15.5	+0.1
ESDC				IAmb	IAmb	02 11 16.3	
	comp=Z,40nm,1.2s						
LBTB	Lobatse	81.45	238	P	P	02 11 17.4	+0.7
	comp=Z,22nm,0.6s,baz=74,slow=4.4,SNR=64						
LBTB				LR	LR	02 45 50.2	
	comp=Z,37nm,19.7s,baz=88,slow=34						
	comp=Z,22nm,0.6s						
LBTB	Lobatse	81.45	238	P	P	02 11 17.4	+0.7
LBTB				IAmb	IAmb	02 11 18.2	
	comp=Z,21nm,0.7s						
LBTB	Lobatse	81.45	238	P	P	02 11 17.5	+0.7
LBTB	Lobatse	81.45	238	P	P	02 11 17.4	+0.7
PAB	San Pablo	81.55	309	P	P	02 11 17.9	+0.8
H27K	Steamboat Moun	81.83	20	IAmb	IAmb	02 11 19.6	
	comp=Z,14nm,0.8s						
I26K	Coal Creek Min	81.90	21	IAmb	IAmb	02 11 19.7	
	comp=Z,15nm,1.0s						
SML	Sawmill	82.15	25	IAmb	IAmb	02 11 20.6	
	comp=Z,20nm,0.8s						
I27K	Kandik River	82.21	20	IAmb	IAmb	02 11 21.8	
	comp=Z,21nm,0.8s						
KNK	Knik Glacier	82.32	25	IAmb	IAmb	02 11 21.5	
	comp=Z,17nm,0.7s						
PBRG	Braganca	82.33	312	eP	P	02 11 21.4	+0.3
G29M	Pine Creek	82.42	18	IAmb	IAmb	02 12 06.0	
	comp=Z,17nm,1.2s						
F30M	Barrier River	82.56	17	IAmb	IAmb	02 11 23.2	
	comp=Z,16nm,1.0s						
KDAK	Kodiak Island	82.56	30	P	P	02 11 21.1	-0.8
	comp=Z,8.8nm,0.6s,baz=232,slow=2.4,SNR=2.3						
KDAK				LR	LR	02 48 55.8	
	comp=Z,40nm,18.9s,baz=178,slow=36						
	comp=Z,8.8nm,0.6s						
INK	Inuvik	82.64	16	P	P	02 11 22.2	+0.1
	comp=Z,13nm,0.5s,baz=338,slow=4.5,SNR=48						
	comp=Z,13nm,0.5s						
INK	Inuvik	82.64	16	IAmb	IAmb	02 11 23.1	
	comp=Z,35nm,1.2s						
H29M	Whitestone	82.79	19	IAmb	IAmb	02 11 23.8	
	comp=Z,28nm,1.4s						
G30M	tAoh Zraii Nji	82.88	18	IAmb	IAmb	02 11 24.1	
	comp=Z,24nm,0.8s						
K27K	Chicken	83.07	22	IAmb	IAmb	02 11 26.3	
	comp=Z,18nm,1.1s						
EPYK	Eagle Plains	83.17	18	IAmb	IAmb	02 11 25.4	
	comp=Z,12nm,0.9s						
POLO	Lamas de Olo	83.22	312	eP	P	02 11 26.3	+0.5
KLU	Klutina	83.26	25	IAmb	IAmb	02 11 26.9	
	comp=Z,21nm,0.8s						
I29M	Ogilvie Camp,	83.40	19	IAmb	IAmb	02 11 37.2	
	comp=Z,11nm,0.5s						
MTE	Manteigas	83.45	311	eP	P	02 11 28.0	+1.0
MTE	Manteigas	83.45	311	IAmb	IAmb	02 11 28.9	
	comp=Z,17nm,0.8s						
G31M	Satah River	83.46	17	IAmb	IAmb	02 11 26.9	
	comp=Z,21nm,1.1s						
BOSA	Boshof	83.52	235	P	P	02 11 27.9	+0.4
	comp=Z,14nm,0.6s,baz=56,slow=3.5,SNR=54						
BOSA				LR	LR	02 49 19.4	
	comp=Z,31nm,18.0s,baz=15,slow=36						
	comp=Z,14nm,0.6s						
BOSA	Boshof	83.52	235	IAmb	IAmb	02 11 28.7	
	comp=Z,17nm,0.8s						
BOSA	Boshof	83.52	235	P	P	02 11 27.9	+0.4
BOSA	Boshof	83.52	235	P	P	02 11 27.8	+0.4
PVIS	Viseu	83.56	311	eP	P	02 11 28.5	+1.0
PCBR	Castelo Branco	83.64	311	eP	P	02 11 28.9	+1.0
PMRV	Marv??o	83.75	310	eP	P	02 11 29.2	+0.7
L27K	Beaver Creek,	83.78	22	IAmb	IAmb	02 11 30.1	
	comp=Z,17nm,1.1s						
BCAR	Beaver Creek A	83.79	22	P	P	02 11 29.3	+1.0
DAWY	Dawson	83.94	21	IAmb	IAmb	02 11 36.4	
	comp=Z,4.5nm,0.6s						
PBAR	Barrancos	84.02	309	eP	P	02 11 30.6	+0.8
PBAR				i IAmb	IAmb	02 11 31.1	
	comp=Z,23nm,1.0s						
I30M	Mount Dempster	84.08	19	IAmb	IAmb	02 11 30.3	
	comp=Z,13nm,0.8s						
GLB	Gilahina Butte	84.10	24	IAmb	IAmb	02 11 31.2	
	comp=Z,11nm,0.8s						
PESTR	Estremoz	84.12	310	eP	P	02 11 30.9	+0.5
PSARD	Sardoal	84.22	311	eP	P	02 11 31.9	+1.0
PSARD				i IAmb	IAmb	02 11 32.9	
	comp=Z,41nm,1.2s						
PCAS	Casmilo, Conde	84.26	311	eP	P	02 11 31.3	+0.3
VRDI	Verde Repeater	84.37	24	IAmb	IAmb	02 11 32.7	
	comp=Z,13nm,0.8s						
PARRA	Arraiolos	84.47	310	eP	P	02 11 32.7	+0.6
MD01	Midelt array s	84.48	303	P	P	02 11 33.2	+0.7
PMTG	Montargil	84.49	310	eP	P	02 11 32.9	+0.7
EVO	Evora	84.56	310	eP	P	02 11 33.5	+0.9
PBEJ	Beja	84.67	309	eP	P	02 11 34.0	+0.9
PSBE	So Bento	84.70	311	eP	P	02 11 34.7	+1.4
CRQM	Cirque	84.78	24	IAmb	IAmb	02 11 37.8	
	comp=Z,19nm,0.9s						
MOE	Montemor	84.81	310	eP	P	02 11 35.1	+1.3
PVAQ	Vaqueiros	84.83	308	eP	P	02 11 34.9	+0.9
PCVE	Castro Verde	84.96	309	eP	P	02 11 35.4	+0.8
GDH	Godhavn	85.00	349	i P	P	02 11 33.5	-0.6
GDH				IAmb	IAmb	02 11 34.1	
	comp=Z,26nm,0.9s						
MESJ	Messejana	85.01	309	eP	P	02 11 35.8	+1.0
MESJ	Messejana	85.01	309	IAmb	IAmb	02 11 36.7	
	comp=Z,20nm,0.9s						
PBDV	Barranco-do-Ve	85.05	308	eP	P	02 11 36.4	+1.3
PLOUS	Minas do Lousa	85.07	309	eP	P	02 11 36.2	+1.1
PLOUS				i IAmb	IAmb	02 11 36.7	
	comp=Z,46nm,0.9s						
BARN	Barnard Glacie	85.14	24	IAmb	IAmb	02 11 37.0	
	comp=Z,15nm,0.8s						
TSUM	Tsumeb	85.28	247	P	P	02 11 37.1	+0.5
	comp=Z,3.0nm,0.6s,baz=59,slow=6.1,SNR=8.8						
TSUM				LR	LR	02 49 47.0	
	comp=Z,46nm,19.0s,baz=347,slow=36						
	comp=Z,3.0nm,0.6s						
TSUM	Tsumeb	85.28	247	IAmb	IAmb	02 14 04.8	
	comp=Z,33nm,1.8s						
GRNC	Granite Creek	85.32	24	IAmb	IAmb	02 11 37.9	
	comp=Z,19nm,0.9s						
LOGN	Logan Glacier	85.54	24	IAmb	IAmb	02 11 40.4	
	comp=Z,9.5nm,0.8s						
MORF	Marmelete	85.55	309	eP	P	02 11 39.2	+1.6
PFVI	Vila Bisbo	85.74	309	eP	P	02 11 39.6	+1.1
PFVI				i IAmb	IAmb	02 11 40.2	
	comp=Z,107nm,2.0s						
SFJD	Kangerlussuaq	86.37	347	i P	P	02 11 40.8	-0.2
SFJD				IAmb	IAmb	02 11 41.5	
	comp=Z,12nm,0.8s						
TORD	Torodi Ar. Bea	86.74	283	P	P	02 11 44.7	+0.9
	comp=Z,8.4nm,0.8s,baz=63,slow=4.4,SNR=39						
	comp=Z,8.4nm,0.8s						
M31M	Drury Creek, Y	86.87	20	IAmb	IAmb	02 12 10.6	
	comp=Z,6.7nm,0.8s						
WIN	Windhoek	87.17	244	P	P	02 11 46.7	+0.8
WIN				pmax	pmax		
	comp=Z,19nm,0.8s						
WIN	Windhoek	87.17	244	P	P	02 11 46.7	+0.8
WIN	Windhoek	87.17	244	P	P	02 11 47.0	+1.1
SUR	Sutherland	88.71	234	LR	LR	02 46 36.0	
	comp=Z,77nm,21.0s,baz=94,slow=32						
P33M	Teslin, Yukon	88.85	21	IAmb	IAmb	02 11 58.1	
	comp=Z,7.1nm,0.7s						
NUUK	Nuuk	89.01	346	i P	P	02 11 53.2	-0.4
NUUK				IAmb	IAmb	02 11 54.6	
	comp=Z,24nm,1.1s						
NRS	Narsarsuaq	89.87	341	i P	P	02 11 57.6	-0.1
DLBC	Dease Lake	91.14	21	LR	LR	02 56 08.1	
	comp=Z,48nm,18.9s,baz=202,slow=38						
MSVF	Nonsavu	91.81	108	LR	LR	02 55 16.4	
	comp=Z,49nm,18.2s,baz=136,slow=37						
YKA	Yellowknife Ar	91.86	13	P	P	02 12 06.5	-0.5
	comp=Z,3.5nm,0.5s,baz=336,slow=4.9,SNR=24						
YKA				PP	PP	02 15 43.6	-2.3
	comp=Z,1.1nm,0.8s,baz=336,slow=8.1,SNR=3.5						
	comp=Z,3.5nm,0.5s						
YKA	Yellowknife Ar	91.86	13	⇑eP	P	02 12 06.5	-0.5
YKA				pmax	pmax		
	comp=Z,3.0nm,0.5s						
YKAW1	Yellowknife Wh	91.90	13	IAmb	IAmb	02 12 07.5	
	comp=Z,6.2nm,0.7s						
DBIC	Dimbokro	95.22	279	P	P	02 12 23.6	+0.3
	comp=Z,2.5nm,0.5s,baz=73,slow=5.0,SNR=6.6						
DBIC				LR	LR	03 02 16.7	
	comp=Z,37nm,18.5s,baz=170,slow=40						
	comp=Z,2.5nm,0.5s						
PDAR	Pinedale Array	111.13	18	PKiKP	PKiKP	02 17 32.0	-0.9
	comp=Z,0.4nm,0.7s,baz=97,slow=2.9,SNR=4.7						
NVAR	Mina Array Bea	111.92	27	PKiKP	PKiKP	02 17 34.8	+0.3
	comp=Z,0.7nm,0.8s,baz=2.0,slow=4.3,SNR=5.0						
TXAR	Lajitas Array	125.35	19	PKP	PKPdf	02 18 00.2	-0.2
	comp=Z,2.0nm,0.6s,baz=196,slow=0.5,SNR=18						
BDFB	Brasilia	143.19	274	PKP	PKPbc	02 18 31.6	+0.7
	comp=Z,2.7nm,0.7s,baz=159,slow=8.6,SNR=4.2						
BOAV	Boa Vista	144.36	312		PKPbc	02 18 34.4	+0.1
BOAB	BOACO BROADBAN	144.76	359		PKPab	02 18 34.4	-0.9
SDV	Santo Domingo	144.78	332		PKPab	02 18 35.5	-0.2
OCAC	Ocana	146.44	336	P	PKPdf	02 18 39.9	+0.2
OCAC				AML	AML		
UREC	San Jos de Ur	147.66	340	P	PKPbc	02 18 43.6	-0.7
UREC				AML	AML		
BRJC	Barrancabermej	147.76	336	P	PKPbc	02 18 44.2	-0.3
BRJC				AML	AML		
APAC	Apartado, Choc	147.84	342	P	PKPbc	02 18 43.7	-1.0
APAC				AML	AML		
BARC	Barichara	147.90	335	P	PKPbc	02 18 43.7	-1.5
BARC				AML	AML		
PTBC	PUERTO BERRIO,	148.42	337	P	PKPbc	02 18 45.8	-0.5
PTBC				AML	AML		
RUSC	La Rusia	148.49	334	P	PKPbc	02 18 46.3	-0.8
RUSC				AML	AML		
SPBC	San Pablo de B	149.10	336	P	PKPbc	02 18 47.7	-0.5
SPBC				AML	AML		
NORC	Norcasia	149.47	337	P	PKPbc	02 18 48.5	-0.5
NORC				AML	AML		
CBOC	Ciudad Bolivar	149.59	339	P	PKPbc	02 18 48.8	-0.7
CBOC				AML	AML		
CHIC	Chingaza	149.90	334	P	PKPbc	02 18 50.1	-0.4
CHIC				AML	AML		
ROSC	El Rosal	149.94	336	PKPbc	PKiKP	02 18 51.8	+0.3
	comp=Z,77nm,0.8s,baz=114,slow=7.9,SNR=51						
ROSC	El Rosal	149.94	336		PKiKP	02 18 51.2	-0.3
ROSC	El Rosal	149.94	336	P	PKiKP	02 18 51.2	-0.3
ROSC				AML	AML		
GUY2C	Guyana, Caldas	149.97	338	P	PKPbc	02 18 50.4	-0.4
GUY2C				AML	AML		
VILC	Villavicencio,	150.36	334	P	PKPbc	02 18 50.9	-0.4
VILC				AML	AML		
ORTC	Ortega, Tolima	151.14	337	P	PKPbc	02 18 51.7	-1.3
ORTC				AML	AML		
PRAC	Prado	151.19	336	P	PKPbc	02 18 52.5	-0.6
PRAC				AML	AML		
AQDB	Aquidauana	151.47	269		PKPbc	02 18 53.2	-0.3
POPC	Popayan, Colom	152.92	338	P	PKPbc	02 18 56.3	-1.0
POPC				AML	AML		
CPUP	Villa Florida	153.47	257	PKPbc	PKPbc	02 18 57.2	-0.6
	comp=Z,6.3nm,0.6s,baz=109,slow=2.8,SNR=30						
BBAC	Balboa, Cauca	153.59	339	P	PKPbc	02 18 57.6	-1.2
LPAZ	La Paz	161.62	288	PKP	PKPdf	02 19 01.0	-0.3
	comp=Z,2.3nm,1.0s,baz=68,slow=4.8,SNR=5.2						
LPAZ				PKPab	PKPab	02 19 46.1	-0.4
	comp=Z,2.2nm,0.8s,baz=98,slow=4.3,SNR=6.4						

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*NEIC **20** 02:07:42.4±2.1, 53°.40N±0°.06×163°.59W±0°.08, h10^{km}±1^{km}, mb4.0/11, ML3.7/12, ML3.5(AEIC), Error ellipse: s-maj=11.2km s-min=6.8km az=154.0*

*AEIC **20** 02:07:44.3±2.0, 53°.41N±0°.07×163°.60W±0°.08, h9^{km}±4^{km}, Error ellipse: s-maj=10.8km s-min=5.8km az=154.0*

*IDC **20** 02:07:47.5±3.9, 53°.78N×163°.60W, h37^{km}±29^{km}, mb3.5/19, mbtmp3.7/22, ML3.5/3, MS3.2/5, Error ellipse: s-maj=27.7km s-min=15.6km az=8.0*

ISC 20 02:07:41.1±4.6, **53°.42N**±0°.08×**163°.55W**±0°.05, **h4**^{km}±29^{km}, **n102,** σ1^{s}.**21**/94, **mb3.9**/18, **MS2.9**/3, **Unimak Island region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SSLS	Shishaldin Sou	1.32	349		Pn	02 08 06.5	+0.2
SSLS					Sb	02 08 24.3	+0.5
ISNN	Isanotski Nort	1.42	355		Pn	02 08 08.2	+0.5
ISNN					Sn	02 08 27.3	+0.5
AKUT	Akutan	1.50	299		Pn	02 08 09.2	+0.4
AKUT				IAML		02 08 35.8	
	comp=E,641nm,0.6s						
AKBBA	Akutan Broad B	1.57	297		Pn	02 08 10.2	+0.5
AKBBA					Sn	02 08 30.2	-0.3
AKLV	Akutan Long Va	1.61	298		Pn	02 08 10.7	+0.3
AKLV					Sn	02 08 31.4	-0.1
LVA	Lava Point	1.65	298		Pn	02 08 11.4	+0.5
LVA				IAML		02 08 37.2	
	comp=E,761nm,1.0s						
UNV	Unalaska Valle	1.81	285		Pn	02 08 13.5	+0.4
UNV	Unalaska Valle	1.81	285		Sn	02 08 36.5	+0.1
MNAT	Makushin Natee	1.93	285		Pn	02 08 15.1	+0.5
MNAT					Sn	02 08 39.5	+0.3
MSW	Makushin Switc	1.99	286		Pn	02 08 15.9	+0.5
MGOD	Makushin Gods	2.02	282		Pn	02 08 16.5	+0.6
MAPS	Pakushin South	2.06	282		Pn	02 08 16.7	+0.3
MAPS					Sn	02 08 42.5	0.0
PN7A	Pavlof North-7	2.21	24		Pn	02 08 20.0	+1.4
S12K	Black Hills	2.45	20		Pn	02 08 24.1	+2.3
S12K				IAML		02 09 06.5	
	comp=N,395nm,0.6s						
S12K				IAML		02 09 11.2	
	comp=E,438nm,0.7s						
SDPT	Sand Point	2.64	42		Pn	02 08 25.4	+1.0
OKTU	Okmok Mt. Tuli	2.69	271		Pn	02 08 25.7	+0.6
VNSS	Veniaminof 8	3.67	38		Pn	02 08 40.6	+1.8
VNFG	Fog Glacier, M	3.68	37		Pn	02 08 40.5	+1.7
CLCO	Concord Point,	3.78	263		Pn	02 08 41.5	+1.5
CHGN	Chignik	4.14	44		Pn	02 08 46.2	+1.3
CHGN				IAML		02 10 00.1	
	comp=N,92nm,1.2s						
CHGN				IAML		02 10 01.9	
	comp=E,152nm,1.2s						
BPBCA	Veniaminof	4.32	41		Pn	02 08 48.3	+0.7
R17L	Mt. Peulik Vol	5.87	41		Pn	02 09 10.0	+1.2
O14K	Tigyukauivet M	5.98	11		Pn	02 09 12.2	+1.9
O15K	Ungalikthiuk R	6.13	18		Pn	02 09 14.3	+2.0
P16K	Nushagak River	6.42	27		Pn	02 09 17.3	+1.1
Q17K	Contact Creek	6.49	39		Pn	02 09 18.1	+0.8
ANCK	Angle Creek	6.59	40		Pn	02 09 19.4	+0.6
N14K	Kuskokwak Cree	6.60	8		Pn	02 09 20.9	+2.1
MGLS	Mageik Landsli	6.68	42		Pn	02 09 20.5	+0.6
KABU	Katmai Buttres	6.73	40		Pn	02 09 21.6	+1.0
O16K	Kokwok River B	6.88	24		Pn	02 09 23.1	+0.4
OHAK	Old Harbor	6.98	53		Pn	02 09 23.2	-0.8
KAWH	Katmai	6.99	41		Pn	02 09 24.4	+0.2
P17K	Kvichak River	7.01	31		Pn	02 09 24.6	+0.3
N15K	Kwethluk River	7.03	14		Pn	02 09 26.3	+1.7
Q18K	Katmai Hardscr	7.09	39		Pn	02 09 26.6	+1.0
KARR	Katmai Rainbow	7.11	41		Pn	02 09 26.2	+0.4
KAHG	Katmai Hook Gl	7.16	41		Pn	02 09 27.1	+0.6
O17K	Koliganek Bris	7.29	27		Pn	02 09 29.4	+1.2
M14K	Bethel	7.40	6		Pn	02 09 30.9	+1.2
M15K	Kasigluk River	7.46	11		Pn	02 09 31.2	+0.7
P18K	Big Mountain,	7.55	34		Pn	02 09 33.2	+1.4
KDAK	Kodiak Island	7.59	50	Pn	Pn	02 09 31.4	-1.0
	comp=E,0.8nm,0.3s,baz=252,slow=9.6,SNR=17						
KDAK				Sn	Sn	02 10 50.0	-8.7
	baz=180,slow=20						
	comp=E,3.6nm,0.3s						
KDAK				AML	AML		
Q19K	Cape Douglas,	7.80	41		Pn	02 09 35.8	+0.5
N17K	Nushagak Hills	7.92	23		Pn	02 09 37.1	+0.2
L14K	Kuka Creek	7.96	3		Pn	02 09 39.4	+2.1
M16K	Timber Creek	8.02	16		Pn	02 09 39.0	+0.8
L15K	Ungalak Mounta	8.35	7		Pn	02 09 44.2	+1.4
N18K	Kilae Creek	8.38	27		Pn	02 09 44.6	+1.4
L16K	Owhat River	8.59	13		Pn	02 09 48.2	+2.1
M17K	Holitna River	8.65	20		Pn	02 09 47.7	+0.9
N19K	Bonanza Creek	8.89	30		Pn	02 09 52.7	+2.4
M18K	Stony River	9.09	24		Pn	02 09 53.3	+0.4
CNPM	China Poot	9.15	43		Pn	02 09 53.9	+0.2
L17K	Donlin	9.17	16		Pn	02 09 55.2	+1.2
RDT	Redoubt	9.39	36		Pn	02 09 58.1	+1.1
L19K	White Mountain	9.92	24		Pn	02 10 04.7	+0.4
STLK	Strandline Lak	10.25	33		Pn	02 10 05.0	-3.9
K20K	Telida	11.12	23		Pn	02 10 21.8	+1.1
J20K	Nowinta River	11.82	20		Pn	02 10 30.6	+0.4
KLU	Klutina	12.43	42		Pn	02 10 36.9	-1.7
SHEM	Shemya Is, Ala	13.45	276	LR	LR	02 16 14.6	
	comp=E,53nm,18.1s,baz=274,slow=38						
M26K	Nabesna, AK	14.09	42		Pn	02 11 00.5	-0.8
ILAR	Eielson Array	14.18	30	Pn	Pn	02 10 58.8	-3.6
	comp=E,0.1nm,0.3s,baz=221,slow=9.9,SNR=5.2						
ILAR				LR	LR	02 17 01.0	
	comp=E,119nm,18.4s,baz=259,slow=40						
	comp=E,0.2nm,0.5s						
ILAR				AML	AML		
M27K	Edge Creek, AK	14.52	43		Pn	02 11 05.5	-1.7
M29M	Somme Creek	15.99	46		Pn	02 11 25.1	-1.6
M29M				IAmb	IAmb	02 11 34.1	
	comp=Z,12nm,0.8s						
N30M	Aishikik Lake	16.26	50	IAmb	IAmb	02 11 43.5	
	comp=Z,9.8nm,0.8s						
L29M	L29M	16.40	44	IAmb	IAmb	02 11 38.4	
	comp=Z,15nm,0.8s						
R33M	Jennings River	18.85	58	P	P	02 11 59.7	-2.3
R33M				IAmb	IAmb	02 12 00.8	
	comp=Z,6.7nm,0.9s						
DLBC	Dease Lake	19.30	61	P	P	02 12 05.5	-1.3
	comp=Z,0.1nm,0.3s,baz=241,slow=13,SNR=4.5						
	comp=Z,4.5nm,1.1s						
DLBC				AML	AML		
INK	Inuvik	20.55	32	P	P	02 12 18.4	-1.8
	comp=Z,3.0nm,0.7s,baz=232,slow=7.8,SNR=1.3						
	comp=Z,3.0nm,0.7s						
INK	Inuvik	20.55	32	IAmb	IAmb	02 12 56.7	
	comp=Z,5.5nm,1.0s						
BBB	Bella Bella	21.33	79	LR	LR	02 19 33.0	
	comp=Z,37nm,18.1s,baz=54,slow=33						
PETK	Petropavlovsk-	23.00	285	P	P	02 12 47.2	+0.6
	comp=Z,2.1nm,0.5s,baz=80,slow=13,SNR=5.3						
PETK				LR	LR	02 22 56.7	
	comp=Z,44nm,18.6s,baz=63,slow=40						
	comp=Z,2.1nm,0.5s						
YKA	Yellowknife Ar	26.87	51	P	P	02 13 22.9	+0.5
	comp=Z,0.7nm,0.5s,baz=273,slow=9.1,SNR=8.1						
	comp=Z,0.7nm,0.5s						
YKA	Yellowknife Ar	26.87	51	P	P	02 13 21.2	-1.2
NVAR	Mina Array Bea	34.22	97	P	P	02 14 30.8	+2.9
	comp=Z,0.1nm,0.3s,baz=315,slow=8.0,SNR=1.6						
	comp=Z,0.1nm,0.3s						
PDAR	Pinedale Array	36.76	84	P	P	02 14 51.0	+1.3
	comp=Z,0.1nm,0.4s,baz=275,slow=14,SNR=1.7						
	comp=Z,0.1nm,0.4s						
H11N2	WAKE ISLAND Hy	40.60	226	T	T	02 59 08.4	
	baz=26,slow=76,SNR=42						
H11N3	WAKE ISLAND Hy	40.60	226	T	T	02 59 06.4	
	baz=26,slow=76,SNR=68						
H11N1	WAKE ISLAND Hy	40.62	226	T	T	02 58 59.1	
	baz=26,slow=76,SNR=54						
H11S1	WAKE ISLAND Hy	41.77	225	T	T	03 00 32.4	
	baz=26,slow=76,SNR=43						
H11S2	WAKE ISLAND Hy	41.78	225	T	T	03 00 33.4	
	baz=26,slow=76,SNR=30						
H11S3	WAKE ISLAND Hy	41.79	225	T	T	03 00 33.7	
	baz=26,slow=76,SNR=39						
TXAR	Lajitas Array	49.25	94	P	P	02 16 32.4	+1.7
	comp=Z,0.2nm,0.5s,baz=303,slow=5.1,SNR=5.0						
	comp=Z,0.2nm,0.5s						
SONM	Songino Array	53.73	303	P	P	02 17 04.2	+0.1
	comp=Z,0.5nm,0.5s,baz=36,slow=5.9,SNR=3.0						
	comp=Z,0.5nm,0.5s						
ARCES	ARCESS Array B	57.18	356	P	P	02 17 27.0	-1.5
	comp=Z,1.2nm,0.7s,baz=5.5,slow=7.3,SNR=1.3						
	comp=Z,1.2nm,0.7s						
ZALV	Zalesovo Beam	58.95	320	P	P	02 17 40.3	-0.8
	comp=Z,0.4nm,0.4s,baz=23,slow=7.8,SNR=2.4						
	comp=Z,0.4nm,0.4s						
KURK	Kurchatov	63.85	321	P	P	02 18 14.2	0.0
KURK	Kurchatov	63.85	321	IAmb	IAmb	02 18 18.6	
	comp=Z,1.3nm,0.8s						
KURBB	Kurchatov Arra	63.96	321	P	P	02 18 14.2	-0.7
	comp=Z,0.3nm,0.3s,baz=24,slow=7.1,SNR=3.3						
	comp=Z,0.3nm,0.3s						
BVAR	Borovoye Array	64.81	327	P	P	02 18 19.2	-1.4
	comp=Z,1.5nm,0.6s,baz=52,slow=9.3,SNR=5.7						
	comp=Z,1.5nm,0.6s						
FINES	FINESS Array B	65.23	355	P	P	02 18 22.6	-0.4
	comp=Z,0.8nm,0.6s,baz=28,slow=8.6,SNR=7.8						
	comp=Z,0.8nm,0.6s						
MKAR	Makanchi Array	65.56	316	P	P	02 18 24.5	-1.0
	comp=Z,0.3nm,0.4s,baz=45,slow=5.9,SNR=4.9						
MKAR				LR	LR	02 47 57.6	
	comp=Z,32nm,18.2s,baz=332,slow=37						
	comp=Z,0.3nm,0.4s						
NOA	NORSAR Array B	65.81	3	P	P	02 18 26.1	-0.8
	comp=Z,0.8nm,0.8s,baz=333,slow=4.9,SNR=2.0						
	comp=Z,0.8nm,0.8s						
HFS	Hagfors	66.78	2	P	P	02 18 32.4	-0.7
	comp=Z,1.1nm,0.4s,baz=29,slow=3.4,SNR=15						
	comp=Z,1.1nm,0.4s						
EKA	Eskdalemuir Ar	70.41	12	P	P	02 18 55.9	+0.1
	comp=Z,0.7nm,0.5s,baz=360,slow=4.6,SNR=6.2						
	comp=Z,0.7nm,0.5s						
AKASG	Malin Array Be	75.70	352	P	P	02 19 26.7	-0.4
	comp=Z,0.4nm,0.3s,baz=12,slow=5.7,SNR=4.6						
	comp=Z,0.4nm,0.3s						
AKASG	Malin Array Be	75.70	352	IAmb	IAmb	02 20 05.9	
	comp=Z,1.6nm,0.9s						
CMAR	Chiang Mai Arr	79.76	287	P	P	02 19 51.0	+0.7
	comp=Z,0.4nm,0.4s,baz=38,slow=5.2,SNR=1.1						
	comp=Z,0.4nm,0.4s						
ESDC	Sonseca Array	85.61	16	P	P	02 20 19.3	-1.2
	comp=Z,0.3nm,0.7s,baz=342,slow=5.3,SNR=2.2						
	comp=Z,0.3nm,0.7s						
VNDA	Vanda	132.44	190	PKP	PKiKP	02 26 57.0	+1.1
	comp=Z,0.7nm,0.5s,baz=22,slow=5.4,SNR=8.6						

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*SDD **20** 02:22:04.4±2.3, 18°.73N×69°.50W, h80^{km}±5^{km}, MD3.5, ML2.7, MW3.1, Presumed earthquake*

*OSPL **20** 02:22:06.4±2.0, 18°.76N×69°.44W, h90^{km}±11^{km}, ML2.3, Presumed earthquake*

ISC 20 02:22:06.8±1.4, **18°.71N**±0°.06×**69°.47W**±0°.03, **h74**^{km}±8^{km}, **n25,** σ1^{s}.**33**/38, **27C, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HATOM	Hato Mayor del	0.12	46	⇑iP	Pn	02 22 16.9	-0.7
HATOM				⇑iS	Sn	02 22 26.5	+0.9
HATOM				IAML		02 22 27.1	
	comp=N,224nm,0.1s						
MIDR	Miches	0.48	55	⇑iP	Pn	02 22 19.0	-0.8
MIDR				⇑iS	Sn	02 22 29.6	+0.2
MIDR				IAML		02 22 31.6	
	comp=N,146nm,0.1s						
SDD	Santo Domingo	0.49	240	i P	Pn	02 22 19.9	0.0
SDD				eS	Sn	02 22 31.0	+1.5
SDD				IAML		02 22 36.4	
	comp=Z,79nm,0.7s						
SDD	Santo Domingo	0.49	240	⇑iP	Pn	02 22 19.4	-0.5
SDD				⇑iS	Sn	02 22 30.3	+0.8
SDD				IAML		02 22 31.1	
	comp=N,54nm,0.2s						
DR08	Loma La Naviza	0.58	296	⇑iP	Pn	02 22 20.1	-0.7
DR08				⇑iS	Sn	02 22 31.2	0.0
DR08				IAML		02 22 32.6	

	comp=N,6µm,0.1s						
LOSC1	**San Cristbal**	**0.68**	**244**	eS	**Sn**	**02 22 33.8**	**+1.1**
HIDR	**Higuey Centro**	**0.72**	**99**	⇑iP	**Pn**	**02 22 21.2**	**-1.0**
HIDR				⇑iS	**Sn**	**02 22 34.6**	**+0.9**
HIDR				IAML		02 22 36.2	
	comp=N,322nm,0.2s						
NADR	**Nagua**	**0.74**	**330**	⇑iS	**Sn**	**02 22 34.5**	**+0.4**
NADR				IAML		02 22 36.6	
	comp=N,832nm,0.2s						
SADR	**Isla Saona**	**0.83**	**128**	⇑iS	**Sn**	**02 22 36.4**	**+0.5**
SADR				IAML		02 22 41.8	
	comp=N,67nm,0.8s						
BANI	**BANI**	**0.90**	**250**	⇑iP	**Pn**	**02 22 24.1**	**-0.3**
BANI				IAML		02 22 43.5	
	comp=N,223nm,0.2s						
PCDR	**Punta Cana, DR**	**1.05**	**100**	iP	**Pn**	**02 22 25.5**	**-0.5**
PCDR				eS	**Sn**	**02 22 40.6**	**+0.1**
PCDR				IAML		02 22 48.4	
	comp=Z,41nm,1.5s						
PCDR	**Punta Cana, DR**	**1.05**	**100**	⇑iP	**Pn**	**02 22 25.4**	**-0.7**
PCDR				IAML		02 23 05.6	
	comp=N,39nm,2.5s						
ABDR	**Alto Bandera**	**1.10**	**276**	⇑iP	**Pn**	**02 22 26.0**	**-1.1**
ABDR				⇑iS	**Sn**	**02 22 41.2**	**-1.1**
ABDR				IAML		02 22 43.4	
	comp=N,80nm,0.5s						
SC01	**Santiago de lo**	**1.39**	**301**	iP	**Pn**	**02 22 29.4**	**-1.0**
SC01				eS	**Sn**	**02 22 47.6**	**-0.7**
SC01				IAML		02 22 55.8	
	comp=Z,33nm,0.5s						
SC01	**Santiago de lo**	**1.39**	**301**	⇑iP	**Pn**	**02 22 31.0**	**+0.6**
SC01				⇑iS	**Sn**	**02 22 49.0**	**+0.7**
SC01				IAML		02 22 54.6	
	comp=N,38nm,1.4s						
SDDR	**Presa de Saban**	**1.74**	**279**	⇑iP	**Pn**	**02 22 34.9**	**-0.3**
SDDR				IAML		02 23 01.9	
	comp=N,19nm,0.3s						
MADR	**Mao Valverde**	**1.77**	**299**	⇑iS	**Sn**	**02 22 56.0**	**-1.0**
MADR				IAML		02 23 00.4	
	comp=N,116nm,0.3s						
PODR	**Polo**	**1.80**	**253**	⇑iP	**Pn**	**02 22 34.9**	**-1.2**
LUDR	**Luperon**	**1.83**	**310**	⇑iS	**Sn**	**02 22 57.1**	**-1.6**
REDR	**Restauracion**	**1.88**	**284**	⇑iP	**Pn**	**02 22 38.7**	**+1.9**
REDR				⇑iS	**Sn**	**02 23 05.3**	**+5.5**
REDR				IAML		02 23 08.4	
	comp=N,57nm,0.1s						
LODU1	**El Espartillar**	**1.94**	**260**	iP	**Pn**	**02 22 37.2**	**-0.5**
LOVI	**El Cajuil, Ovi**	**2.02**	**244**	eS	**Sn**	**02 23 01.0**	**-2.1**
LOVI				IAML		02 23 03.6	
	comp=Z,20nm,1.4s						
LOBH	**Bahia de las A**	**2.23**	**248**	iP	**Pn**	**02 22 41.4**	**-0.1**
LOBH				eS	**Sn**	**02 23 07.4**	**-0.7**
LOBH				IAML		02 23 09.6	
	comp=Z,15nm,1.5s						
AOPR	**Arecibo Observ**	**2.60**	**98**	⇑iP	**Pn**	**02 22 46.9**	**+0.2**
AOPR				⇑iS	**Sn**	**02 23 16.4**	**-0.8**
AOPR				IAML		02 23 26.1	
	comp=N,31nm,0.4s						
CELP	**Cerrillos**	**2.81**	**102**	⇑iP	**Pn**	**02 22 50.7**	**+1.2**

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*IDC **20** 02:26:50.8±8.4, 5°.52S×128°.69E, h284^{km}±94^{km}, mb2.9/2, mbtmp3.6/5, Error ellipse: s-maj=70.7km s-min=34.2km az=59.0*
*DJA **20** 02:26:51.6±0.7, 6°S±4°×12°9E±°, h392^{km}±11^{km}, M4.0/16, mB4.7/3, mB4.6/1, mb4.0/6, mb4.0/6, MLv4.0/16, MLv4.0/16, Mw(mB)3.9/3, Mw(mB)3.9/1*
ISC 20 02:26:55.0±1.0, **5°.65S**±0°.07×**128°.7E**±0°.1, **h337**^{km}**, n13,** σ**2**^{s}**.56**/16, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BNDI	**Bandanaira**	**1.62**	**46**	P	**Pn**	**02 27 43.2**	**+0.6**
MSAI	**Masohi**	**2.30**	**5**	P	**Pn**	**02 27 49.2**	**+1.8**
MSAI				AML	AML		
MSAI				AML	AML		
NLAI	**Namlea**	**2.90**	**326**	P	**Pn**	**02 27 54.0**	**+1.5**
NLAI				AML	AML		
NLAI				AML	AML		
SAUI	**Saumlaki**	**3.44**	**132**	P	**Pn**	**02 27 59.6**	**+2.0**
FAKI	**Fak Fak**	**4.43**	**52**	P	**Pn**	**02 28 06.3**	**-1.6**
FAKI				AML	AML		
FAKI				AML	AML		
KMPI	**Kaimana, Papua**	**5.33**	**68**	P	**Pn**	**02 28 15.9**	**-1.9**
	0.3nm0.3nm2µm68nm,1.0s,68nm,1.0s						
KMPI				AML	AML		
KMPI				AML	AML		
SWI	**Sorong**	**5.38**	**28**	P	**Pn**	**02 28 16.7**	**-1.7**
SWI				AML	AML		
SWI				AML	AML		
SOEI	**Soe**	**6.02**	**227**	P	**Pn**	**02 28 25.1**	**-0.7**
	0.1nm0.1nm15nm,0.8s,15nm,0.8s						
SOEI				AML	AML		
SOEI				AML	AML		
FITZ	**Fitzroy Crossi**	**12.73**	**193**	P	**P**	**02 29 45.2**	**-0.1**
	2.3nm,0.3s,baz=19,slow=13,SNR=25						
FITZ				S	**S**	**02 32 03.5**	**-2.7**
	2.3nm,0.8s,baz=14,slow=23,SNR=2.0						
WRA	**Warramunga Arr**	**15.22**	**160**	P	**P**	**02 30 12.3**	**-0.4**
	0.3nm,0.3s,baz=339,slow=11,SNR=5.4						
WRA				S	**S**	**02 33 03.4**	**+6.8**
	0.3nm,0.5s,baz=340,slow=23,SNR=1.5						
ASAR	**Alice Springs**	**18.59**	**165**	P	**P**	**02 30 49.4**	**+0.4**
	0.6nm,0.3s,baz=343,slow=12,SNR=12						
ASAR				S	**S**	**02 33 59.7**	**-3.5**
	0.2nm,0.5s,baz=349,slow=19,SNR=1.9						
MKAR	**Makanchi Array**	**66.42**	**327**	P	**P**	**02 37 09.3**	**+0.5**
	0.2nm,0.4s,baz=138,slow=6.2,SNR=1.7 0.2nm,0.4s						
KURBB	**Kurchatov Arra**	**70.71**	**329**	P	**P**	**02 37 34.8**	**-0.2**
	0.4nm,0.8s,baz=136,slow=4.8,SNR=3.2 0.4nm,0.8s						

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*IDC **20** 02:44:37.9±1.2, 0°.28N×123°.90E, h0^{km}, mb3.6/5, mbtmp3.6/5, Error ellipse: s-maj=183.4km s-min=20.2km az=64.0*
*DJA **20** 02:44:40.4±0.3, 1°N±6°×12°6E±°, h10^{km}, M3.6/7, ML3.5/6, MLv3.6/7, MLv3.8/5*
ISC 20 02:44:38.1±1.4, **1°.4N**±0°.2×**126°.3E**±0°.1, **h10**^{km}**, n8,** σ**1**^{s}**.30**/9, **mb3.7**/5, **Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MNI	**Manado**	**1.42**	**271**	P	**Pn**	**02 45 04.7**	**+0.6**
MNI				S	**Sb**	**02 45 21.6**	**-1.4**
MNI				AML	AML		
GTOI	**Gorontalo**	**3.34**	**257**	P	**Pn**	**02 45 32.0**	**+1.5**
APSI	**Ampana**	**5.16**	**243**	P	**Pn**	**02 45 56.7**	**+1.2**
WRA	**Warramunga Arr**	**22.66**	**160**	P	**P**	**02 49 38.7**	**-1.0**
	1.0nm,0.3s,baz=331,slow=11,SNR=11 1.0nm,0.3s						
ASAR	**Alice Springs**	**26.02**	**164**	P	**P**	**02 50 11.0**	**-0.6**
	0.5nm,0.5s,baz=345,slow=10,SNR=14 0.5nm,0.5s						
MKAR	**Makanchi Array**	**59.19**	**326**	P	**P**	**02 54 38.4**	**-1.0**
	0.3nm,0.5s,baz=119,slow=7.4,SNR=4.7 0.3nm,0.5s						
ZALV	**Zalesovo Beam**	**62.43**	**334**	P	**P**	**02 55 02.6**	**+1.3**
	0.3nm,0.3s,baz=122,slow=4.1,SNR=1.5 0.3nm,0.3s						
KURBB	**Kurchatov Arra**	**63.43**	**328**	P	**P**	**02 55 07.8**	**-0.3**
	0.3nm,0.6s,baz=119,slow=7.9,SNR=1.4 0.3nm,0.6s						

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*KRSC **20** 02:57:28.4±0.5, 55°.17N×161°.85E, h91^{km}±9^{km}, Ml4.1*
*MOS **20** 02:57:29.0±0.6, 55°.20N×161°.89E, h94^{km}, mb4.0/1, Error ellipse: s-maj=9.5km s-min=4.7km az=77.6*
*IDC **20** 02:57:32.6±2.0, 55°.38N×161°.45E, h115^{km}±20^{km}, mb3.2/10, mbtmp3.6/11, Error ellipse: s-maj=31.8km s-min=15.1km az=137.0*
ISC 20 02:57:29.7±0.7, **55°.20N**±0°.03×**161°.84E**±0°.03, **h91**^{km}±6^{km}, **n97,** σ**0**^{s}**.96**/112, **mb3.4**/11, **Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MKZ	**Mys Kozlova**	**0.65**	**186**	PN	**Pn**	**02 57 45.7**	**0.0**
MKZ				S	**Sn**	**02 57 57.9**	**+0.3**
MKZ	**Mys Kozlova**	**0.65**	**186**	eP	**Pn**	**02 57 45.8**	**0.0**
MKZ				eS	**Sn**	**02 57 57.9**	**+0.3**
TUMR	**Tumrok**	**0.97**	**276**	PN	**Pn**	**02 57 49.6**	**+0.4**
TUMR	**Tumrok**	**0.97**	**276**	eP	**Pn**	**02 57 49.6**	**+0.4**
BZGR	**Bezymyannyi-Gr**	**0.99**	**319**	PN	**Pn**	**02 57 49.4**	**0.0**
BZGR				S	**Sn**	**02 58 04.2**	**+0.1**
BZGR	**Bezymyannyi-Gr**	**0.99**	**319**	eP	**Pn**	**02 57 49.4**	**0.0**
BZGR				eS	**Sn**	**02 58 04.3**	**+0.1**
ZLN	**Zelenaya**	**1.01**	**325**	PN	**Pn**	**02 57 49.9**	**+0.3**
ZLN	**Zelenaya**	**1.01**	**325**	eP	**Pn**	**02 57 50.0**	**+0.3**
BZP	**Bezymyannyi-Pe**	**1.03**	**315**	PN	**Pn**	**02 57 49.6**	**-0.3**
BZP	**Bezymyannyi-Pe**	**1.03**	**315**	eP	**Pn**	**02 57 49.7**	**-0.3**
BZMR	**Bezymyannaya**	**1.06**	**315**	PN	**Pn**	**02 57 50.1**	**-0.2**
BZMR	**Bezymyannaya**	**1.06**	**315**	eP	**Pn**	**02 57 50.2**	**-0.2**
KMNR	**Kamenistaya**	**1.07**	**302**	PN	**Pn**	**02 57 50.5**	**+0.2**
KMNR				S	**Sn**	**02 58 06.0**	**+0.2**
KMNR	**Kamenistaya**	**1.07**	**302**	eP	**Pn**	**02 57 50.5**	**+0.2**
KMNR				eS	**Sn**	**02 58 06.1**	**+0.2**
BZWR	**Bezymyannyi-We**	**1.08**	**316**	PN	**Pn**	**02 57 50.4**	**-0.1**
BZWR	**Bezymyannyi-We**	**1.08**	**316**	eP	**Pn**	**02 57 50.4**	**-0.1**
LGNR	**Loginova**	**1.10**	**324**	PN	**Pn**	**02 57 51.4**	**+0.6**
LGNR				S	**Sn**	**02 58 07.7**	**+1.0**
LGNR	**Loginova**	**1.10**	**324**	eP	**Pn**	**02 57 51.5**	**+0.6**
LGNR				eS	**Sn**	**02 58 07.7**	**+1.0**
CIRR	**Tsirk**	**1.11**	**327**	PN	**Pn**	**02 57 51.1**	**+0.3**
CIRR				S	**Sn**	**02 58 07.2**	**+0.6**
CIRR	**Tsirk**	**1.11**	**327**	eP	**Pn**	**02 57 51.1**	**+0.3**
CIRR				eS	**Sn**	**02 58 07.3**	**+0.6**
KIRR	**Kirishev**	**1.14**	**312**	PN	**Pn**	**02 57 51.0**	**-0.2**
KIRR	**Kirishev**	**1.14**	**312**	eP	**Pn**	**02 57 51.1**	**-0.2**
KBTR	**Krutoberegovo**	**1.16**	**28**	PN	**Pn**	**02 57 51.7**	**+0.5**
KBTR	**Krutoberegovo**	**1.16**	**28**	eP	**Pn**	**02 57 51.7**	**+0.5**
KBG	**Krutoberegovo**	**1.17**	**24**	PN	**Pn**	**02 57 51.7**	**+0.4**
KBG				S	**Sn**	**02 58 08.3**	**+0.7**
KBG	**Krutoberegovo**	**1.17**	**24**	eP	**Pn**	**02 57 51.8**	**+0.4**
KBG				eS	**Sn**	**02 58 08.4**	**+0.7**
KPT	**Kopyto**	**1.20**	**311**	PN	**Pn**	**02 57 51.7**	**-0.1**
KPT	**Kopyto**	**1.20**	**311**	eP	**Pn**	**02 57 51.8**	**-0.1**
KLY	**Klyuchi**	**1.30**	**330**	PN	**Pn**	**02 57 52.5**	**-0.5**
KLY				S	**Sn**	**02 58 09.7**	**-0.8**
KLY	**Klyuchi**	**1.30**	**330**	eP	**Pn**	**02 57 52.5**	**-0.5**
KLY				eS	**Sn**	**02 58 09.8**	**-0.8**
SMKR	**Semkarok**	**1.40**	**352**	PN	**Pn**	**02 57 55.1**	**+0.8**
SMKR	**Semkarok**	**1.40**	**352**	eP	**Pn**	**02 57 55.2**	**+0.8**
KOZ	**Kozyrevsk**	**1.41**	**309**	PN	**Pn**	**02 57 54.4**	**+0.1**
KOZ	**Kozyrevsk**	**1.41**	**309**	eP	**Pn**	**02 57 54.4**	**+0.1**
SRDR	**Sredinnyy**	**1.64**	**314**	PN	**Pn**	**02 57 58.8**	**+1.5**
SRDR	**Sredinnyy**	**1.64**	**314**	eP	**Pn**	**02 57 58.8**	**+1.5**
KII	**Karymskiy**	**1.81**	**231**	PN	**Pn**	**02 58 00.2**	**+0.7**
KII	**Karymskiy**	**1.81**	**231**	eP	**Pn**	**02 58 00.2**	**+0.7**
ESO	**Esso**	**1.93**	**294**	PN	**Pn**	**02 58 00.5**	**-0.4**
ESO				S	**Sn**	**02 58 23.7**	**-1.0**
ESO	**Esso**	**1.93**	**294**	eP	**Pn**	**02 58 00.5**	**-0.4**
ESO				eS	**Sn**	**02 58 23.7**	**-1.0**
SPN	**Mys Shipunski**	**2.36**	**208**	PN	**Pn**	**02 58 06.6**	**0.0**
SPN				S	**Sn**	**02 58 32.8**	**-2.1**
SPN	**Mys Shipunski**	**2.36**	**208**	eP	**Pn**	**02 58 06.6**	**0.0**
SPN				eS	**Sn**	**02 58 32.9**	**-2.1**
BKI	**Bering**	**2.37**	**88**	PN	**Pn**	**02 58 07.0**	**+0.3**
BKI				S	**Sn**	**02 58 33.9**	**-1.2**
BKI	**Bering**	**2.37**	**88**	eP	**Pn**	**02 58 07.1**	**+0.3**
BKI				eS	**Sn**	**02 58 33.9**	**-1.2**
NLC	**Nalytchevo**	**2.50**	**217**	PN	**Pn**	**02 58 08.5**	**0.0**
NLC	**Nalytchevo**	**2.50**	**217**	eP	**Pn**	**02 58 08.6**	**0.0**
SDLR	**Sedlovina**	**2.59**	**223**	PN	**Pn**	**02 58 10.1**	**+0.3**
SDLR	**Sedlovina**	**2.59**	**223**	eP	**Pn**	**02 58 10.2**	**+0.3**
KRER	**Koryakskii**	**2.62**	**225**	PN	**Pn**	**02 58 11.4**	**+1.0**
KRER	**Koryakskii**	**2.62**	**225**	eP	**Pn**	**02 58 11.4**	**+1.0**
KRX	**Arik**	**2.62**	**227**	PN	**Pn**	**02 58 11.1**	**+0.8**
KRX	**Arik**	**2.62**	**227**	eP	**Pn**	**02 58 11.2**	**+0.8**
SMAR	**Somma**	**2.63**	**224**	PN	**Pn**	**02 58 11.1**	**+0.6**
SMAR	**Somma**	**2.63**	**224**	eP	**Pn**	**02 58 11.2**	**+0.6**
AVH	**Avacha**	**2.66**	**224**	PN	**Pn**	**02 58 11.9**	**+1.2**
AVH	**Avacha**	**2.66**	**224**	eP	**Pn**	**02 58 11.9**	**+1.2**
UGLR	**Uglovaya**	**2.67**	**223**	PN	**Pn**	**02 58 11.8**	**+1.0**
UGLR	**Uglovaya**	**2.67**	**223**	eP	**Pn**	**02 58 11.8**	**+1.0**
KOK	**Koryaka**	**2.68**	**226**	PN	**Pn**	**02 58 12.0**	**+1.0**
KOK	**Koryaka**	**2.68**	**226**	eP	**Pn**	**02 58 12.1**	**+1.0**
DALK	**Dalny**	**2.83**	**221**	PN	**Pn**	**02 58 13.0**	**+0.1**
DALK	**Dalny**	**2.83**	**221**	eP	**Pn**	**02 58 13.0**	**+0.1**
PET	**Petropavlovsk**	**2.87**	**222**	ePN	**Pn**	**02 58 15.0**	**+1.5**
PET				eS	**Sn**	**02 58 46.9**	**-0.3**
PET				pmax	pmax		
	comp=Z,42nm,0.4s						
PET				smax	smax		
	comp=E,208nm,0.5s						
PET				smax	smax		
	comp=N,260nm,0.5s						
PEA0B	**Petropavlovsk-**	**3.21**	**231**	iPN	**Pn**	**02 58 18.5**	**+0.5**
PETK	**Petropavlovsk-**	**3.21**	**231**	P	**Pn**	**02 58 19.1**	**+1.0**
	comp=N,9.1nm,0.4s,baz=63,slow=17,SNR=85						
PETK				S	**Sn**	**02 58 59.6**	**+4.3**
	comp=N,7.2nm,0.5s,baz=66,slow=18,SNR=3.9						
KRMR	**Karymshinskiy**	**3.23**	**224**	PN	**Pn**	**02 58 19.4**	**+1.2**
KRMR	**Karymshinskiy**	**3.23**	**224**	eP	**Pn**	**02 58 19.5**	**+1.2**
RUS	**Russkaya**	**3.40**	**217**	PN	**Pn**	**02 58 20.7**	**+0.2**
RUS	**Russkaya**	**3.40**	**217**	eP	**Pn**	**02 58 20.7**	**+0.2**
MTVR	**Mutnovka**	**3.48**	**220**	PN	**Pn**	**02 58 22.9**	**+1.2**
MTVR	**Mutnovka**	**3.48**	**220**	eP	**Pn**	**02 58 22.9**	**+1.2**
ASAK	**Asacha**	**3.66**	**221**	PN	**Pn**	**02 58 25.5**	**+1.3**
ASAK	**Asacha**	**3.66**	**221**	eP	**Pn**	**02 58 25.6**	**+1.3**
KDTR	**Khodutka, Kamc**	**4.07**	**215**	PN	**Pn**	**02 58 29.5**	**-0.1**
KDTR	**Khodutka, Kamc**	**4.07**	**215**	eP	**Pn**	**02 58 29.5**	**-0.1**
SKR	**Severo-Kuril's**	**5.69**	**220**	ePN	**Pn**	**02 58 54.3**	**+2.6**
SKR				pmax	pmax		
	comp=Z,31nm,0.6s						
ERM	**Erimo**	**17.99**	**231**	iP	**P**	**03 01 31.7**	**-1.3**
MAJO	**Matsushiro**	**24.67**	**231**	iP	**P**	**03 02 39.9**	**-2.0**
MAJO				pmax	pmax		
	comp=Z,4.0nm,0.9s						
MJAR	**Matsushiro Arr**	**24.67**	**231**	P	**P**	**03 02 41.6**	**-0.3**
	comp=Z,1.7nm,0.5s,baz=28,slow=7.4,SNR=7.7 comp=Z,1.7nm,0.5s						
ILAR	**Eielson Array**	**26.62**	**48**	P	**P**	**03 02 59.0**	**-0.3**
	comp=Z,0.3nm,0.7s,baz=251,slow=9.9,SNR=4.5 comp=Z,0.3nm,0.7s						
H11N2	**WAKE ISLAND Hy**	**35.62**	**172**	T	T	03 41 44.9	
	baz=355,slow=76,SNR=34						
H11N3	**WAKE ISLAND Hy**	**35.63**	**172**	T	T	03 41 45.5	
	baz=355,slow=76,SNR=26						
H11N1	**WAKE ISLAND Hy**	**35.63**	**172**	T	T	03 41 45.7	
	baz=355,slow=76,SNR=37						
H11S1	**WAKE ISLAND Hy**	**36.81**	**172**	T	T	03 43 11.2	
	baz=352,slow=74						
H11S3	**WAKE ISLAND Hy**	**36.82**	**172**	T	T	03 43 13.7	
	baz=352,slow=74						
H11S2	**WAKE ISLAND Hy**	**36.83**	**172**	T	T	03 43 17.6	
	baz=352						
YKA	**Yellowknife Ar**	**40.93**	**45**	P	**P**	**03 05 03.0**	**+0.3**
	comp=Z,0.3nm,0.5s,baz=304,slow=8.4,SNR=2.3 comp=Z,0.3nm,0.5s						
YKA	**Yellowknife Ar**	**40.93**	**45**	P	**P**	**03 05 03.0**	**+0.3**
MK31	**Makanchi Array**	**48.18**	**295**	iP	**P**	**03 05 58.5**	**-2.1**
NVAR	**Mina Array Bea**	**54.09**	**73**	P	**P**	**03 06 47.2**	**+2.0**
	comp=Z,0.3nm,0.5s,baz=297,slow=6.0,SNR=4.4 comp=Z,0.3nm,0.5s						
PDAR	**Pinedale Array**	**55.62**	**63**	P	**P**	**03 06 57.8**	**+1.6**
	comp=Z,0.4nm,0.6s,baz=318,slow=3.9,SNR=5.2 comp=Z,0.4nm,0.6s						
FINES	**FINESS Array B**	**58.59**	**337**	P	**P**	**03 07 15.2**	**-1.2**
	comp=Z,1.4nm,0.9s,baz=12,slow=10,SNR=4.5 comp=Z,1.4nm,0.9s						
TXAR	**Lajitas Array**	**68.89**	**69**	P	**P**	**03 08 26.2**	**+1.5**
	comp=Z,0.3nm,0.5s,baz=299,slow=6.0,SNR=7.2 comp=Z,0.3nm,0.5s						
WRA	**Warramunga Arr**	**78.43**	**206**	P	**P**	**03 09 20.2**	**-0.1**
	comp=Z,0.4nm,1.0s,baz=11,slow=6.0,SNR=2.5 comp=Z,0.4nm,1.0s						
ASAR	**Alice Springs**	**82.10**	**206**	P	**P**	**03 09 40.5**	**+0.5**
	comp=Z,0.2nm,0.3s,baz=21,slow=5.4,SNR=2.3 comp=Z,0.2nm,0.3s						
ESDC	**Sonseca Array**	**84.72**	**349**	P	**P**	**03 09 52.7**	**-0.8**
	comp=Z,0.4nm,0.8s,baz=27,slow=4.4,SNR=4.1 comp=Z,0.4nm,0.8s						
QSPA	**South Pole Qui**	**144.95**	**180**	PKPbc	PKPbc	03 16 53.6	-0.7
	comp=Z,2.2nm,0.9s,baz=279,slow=1.1,SNR=11						

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*NNC **20** 03:05:01.3±0.6, 42°.93N×78°.04E, h0^{km}, mb2.9, mpv3.3, Error ellipse: s-maj=5.6km s-min=2.4km az=177.0*
*KRNET **20** 03:05:02.5±0.1, 42°.90N×77°.95E, h26^{km}, mb2.7*
*SOME **20** 03:05:02.9, 42°.95N×77°.95E, h15^{km}*
*KNET **20** 03:05:08.4±1.7, 42°.82N×77°.64E, h29^{km}±7^{km}, ml2.3, Error ellipse: s-maj=17.3km s-min=11.7km az=163.0*
ISC 20 03:05:02.2±1.0, **42°.94N**±0°.02×**77°.98E**±0°.02, **h7**^{km}±9^{km}, **n54,** σ**1**^{s}**.31**/100, **24C-17D, Lake Issyk-Kul region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ANVS	**Anan'yevo**	**0.28**	**236**	⇑eP	**Pg**	**03 05 08.7**	**+0.9**
ANVS				⇑eS	**Sg**	**03 05 13.0**	**+1.5**
PRZ	**Przheval'sk**	**0.55**	**146**	⇑eP	**Pg**	**03 05 13.0**	**+0.1**
PRZ				⇑eS	**Sg**	**03 05 20.6**	**+0.6**
KURS	**Kuram**	**0.56**	**14**	P	**Pg**	**03 05 13.4**	**+0.2**
	6.8nm,0.1s						
KURS				S	**Sg**	**03 05 20.8**	**+0.3**
	44nm,0.3s						
KURS	**Kuram**	**0.56**	**14**	eP	**Pg**	**03 05 13.4**	**+0.2**
	6.8nm,0.1s						
KURS				eS	**Sg**	**03 05 20.8**	**+0.3**
	44nm,0.3s						
KOTS	**Kotyrbulak**	**0.70**	**295**	P	**Pg**	**03 05 16.2**	**+0.4**
	51nm,0.2s						
KOTS				S	**Sg**	**03 05 25.7**	**+0.8**
	57nm,0.5s						
KOTS	**Kotyrbulak**	**0.70**	**295**	eP	**Pg**	**03 05 16.2**	**+0.4**
	51nm,0.2s						
KOTS				eS	**Sg**	**03 05 25.7**	**+0.8**
	57nm,0.5s						
MDOK	**Medeo**	**0.72**	**288**	Pg	**Pg**	**03 05 16.2**	**+0.1**
	47nm,0.3s						
MDOK				Lg	Lg	03 05 25.7	
	38nm,0.2s						
MDOK	**Medeo**	**0.72**	**288**	eP	**Pg**	**03 05 16.2**	**+0.1**
	47nm,0.3s						
MDOK				eS	**Sg**	**03 05 25.7**	**+0.2**
	38nm,0.2s						
KPKS	**Kokpek**	**0.73**	**44**	P	**Pg**	**03 05 15.6**	**-0.8**
	0.3nm,0.2s						
KPKS				S	**Sg**	**03 05 24.7**	**-1.3**
	136nm,0.1s						
KPKS	**Kokpek**	**0.73**	**44**	eP	**Pg**	**03 05 15.6**	**-0.8**
	0.3nm,0.2s						
KPKS				eS	**Sg**	**03 05 24.7**	**-1.3**
	136nm,0.1s						
UZB	**Uzynbulak**	**0.79**	**74**	P	**Pg**	**03 05 16.6**	**-0.9**
	13nm,0.1s						
UZB				S	**Sg**	**03 05 26.3**	**-1.4**
	72nm,0.2s						
UZB	**Uzynbulak**	**0.79**	**74**	eP	**Pg**	**03 05 16.6**	**-0.9**
	13nm,0.1s						
UZB				eS	**Sg**	**03 05 26.3**	**-1.4**
	72nm,0.2s						
KDJ	**Kajisay**	**1.00**	**217**	⇓eP	**Pg**	**03 05 20.4**	**-1.1**
KDJ				⇓eS	**Sg**	**03 05 33.3**	**-1.2**
SHLS	**Shalkode**	**1.11**	**78**	P	**Pn**	**03 05 27.8**	**+3.5**
	11nm,0.1s						
SHLS				S	**Sn**	**03 05 45.5**	**+5.6**
	36nm,0.2s						
SHLS	**Shalkode**	**1.11**	**78**	eP	**Pn**	**03 05 27.8**	**+3.5**
	11nm,0.1s						
SHLS				eS	**Sn**	**03 05 45.5**	**+5.6**
	36nm,0.2s						
PDGK	**Podgornoye**	**1.17**	**70**	⇓P	**Pb**	**03 05 22.3**	**-2.6**
	3.5nm,0.6s						
PDGK				⇑S	**Sb**	**03 05 37.5**	**-2.8**
	17nm,0.7s						
BLB	**Baldybastay**	**1.21**	**17**	P	**Pb**	**03 05 24.9**	**-0.7**
	27nm,0.1s						
BLB				S	**Sb**	**03 05 40.5**	**-1.1**
	97nm,0.2s						
TARG	**Taragay, Kyrgy**	**1.22**	**186**	⇑eP	**Pb**	**03 05 24.3**	**-1.5**
TARG				⇑eS	**Sg**	**03 05 40.1**	**-1.3**
KTBS	**Karatobe**	**1.22**	**310**	P	**Pn**	**03 05 25.1**	**-0.7**
	3.7nm,0.1s						
KTBS				S	**Sb**	**03 05 40.9**	**-0.9**
	25nm,0.3s						
KTBS	**Karatobe**	**1.22**	**310**	eP	**Pn**	**03 05 25.1**	**-0.7**
	3.7nm,0.1s						
KTBS				eS	**Sb**	**03 05 40.9**	**-0.9**
	25nm,0.3s						
ARXS	**Arharly**	**1.28**	**355**	P	**Pn**	**03 05 25.9**	**-0.7**
	19nm,0.2s						
ARXS				S	**Sb**	**03 05 42.3**	**-1.1**
	60nm,0.2s						
ARXS	**Arharly**	**1.28**	**355**	eP	**Pn**	**03 05 25.9**	**-0.7**
	19nm,0.2s						
ARXS				eS	**Sb**	**03 05 42.3**	**-1.1**
	60nm,0.2s						
ULHL	**Ulahol**	**1.46**	**242**	⇓P	**Pn**	**03 05 29.4**	**+0.1**
	6.2nm,0.1s						
ULHL				⇓S	**Sb**	**03 05 49.0**	**+0.2**
	131nm,0.4s						
ULHL	**Ulahol**	**1.46**	**242**	⇑eP	**Pn**	**03 05 28.5**	**-0.8**
ULHL				⇑eS	**Sn**	**03 05 47.3**	**-1.5**
KST	**Kastek**	**1.49**	**275**	P	**Pb**	**03 05 30.1**	**-0.2**
	4.1nm,0.2s						
KST				S	**Sb**	**03 05 49.6**	**+0.2**
	16nm,0.4s						
KST	**Kastek**	**1.49**	**275**	eP	**Pb**	**03 05 30.1**	**-0.2**
	4.1nm,0.2s						
KST				eS	**Sb**	**03 05 49.6**	**+0.2**
	16nm,0.4s						
BOOM	**Boomskoye usch**	**1.57**	**254**	⇑eP	**Pn**	**03 05 30.4**	**-0.3**
BOOM				⇑eS	**Sn**	**03 05 50.7**	**-0.7**
KNOS	**Konyrlen**	**1.66**	**31**	P	**Pb**	**03 05 32.9**	**-0.4**
	8.5nm,0.1s						
KNOS				S	**Sb**	**03 05 54.4**	**-0.2**
	17nm,0.2s						
TKM2	**Tokmak 2**	**1.75**	**270**	⇓P	**Pb**	**03 05 35.1**	**+0.3**
	2.9nm,0.2s						
TKM2				⇑S	**Sg**	**03 05 58.3**	**-0.2**
	21nm,0.2s						
TKM2	**Tokmak 2**	**1.75**	**270**	⇑eP	**Pn**	**03 05 33.4**	**+0.1**
TKM2				⇑eS	**Sn**	**03 05 55.6**	**-0.4**
KTMS	**Ketmen**	**1.81**	**73**	P	**Pb**	**03 05 35.2**	**-0.5**
	2.2nm,0.1s						
KTMS				S	**Sb**	**03 05 58.0**	**-0.6**
	15nm,0.1s						
KTMS	**Ketmen**	**1.81**	**73**	eP	**Pb**	**03 05 35.2**	**-0.5**
	2.2nm,0.1s						
KTMS				eS	**Sb**	**03 05 58.0**	**-0.6**
	15nm,0.1s						
KRBS	**Karabastau**	**1.85**	**295**	P	**Pb**	**03 05 36.2**	**-0.2**
	8.6nm,0.3s						
KRBS				S	**Sb**	**03 06 00.1**	**+0.3**
	37nm,0.2s						
KRBS	**Karabastau**	**1.85**	**295**	eP	**Pb**	**03 05 36.2**	**-0.2**
	8.6nm,0.3s						
KRBS				eS	**Sb**	**03 06 00.1**	**+0.3**
	37nm,0.2s						
DJR	**Jarkent**	**1.91**	**43**	P	**Pb**	**03 05 37.2**	**-0.3**
	3.4nm,0.3s						
DJR				S	**Sb**	**03 06 01.4**	**-0.3**
	16nm,0.1s						
DJR	**Jarkent**	**1.91**	**43**	eP	**Pb**	**03 05 37.2**	**-0.3**
	3.4nm,0.3s						
DJR				eS	**Sb**	**03 06 01.4**	**-0.3**
	16nm,0.1s						
TDK	**Taldyqorghan**	**2.08**	**8**	Pg	**Pb**	**03 05 40.5**	**+0.1**
	47nm,0.2s						
TDK				Lg	Lg	03 06 07.2	
	125nm,0.3s						
TDK	**Taldyqorghan**	**2.08**	**8**	eP	**Pb**	**03 05 40.5**	**+0.1**
	47nm,0.2s						
TDK				eS	**Sb**	**03 06 07.2**	**+0.6**
	125nm,0.3s						
KBK	**Karagaybulak**	**2.25**	**264**	⇑P	**Pb**	**03 05 43.2**	**-0.2**
	10nm,0.2s						
KBK				⇑S	**Sn**	**03 06 09.2**	**+1.0**
	14nm,0.1s						
KBK	**Karagaybulak**	**2.25**	**264**	⇓eP	**Pn**	**03 05 40.2**	**+0.1**
KBK				⇓eS	**Sn**	**03 06 07.5**	**-0.7**
CHMS	**Chumysh**	**2.37**	**273**	⇑P	**Pb**	**03 05 45.2**	**-0.2**
	3.5nm,0.2s						
CHMS				⇓S	**Sb**	**03 06 15.8**	**+0.9**
	8.4nm,0.2s						
CHMS	**Chumysh**	**2.37**	**273**	⇓eP	**Pn**	**03 05 41.8**	**+0.2**
CHMS				⇓eS	**Sn**	**03 06 10.4**	**-0.6**
KAPS	**Kapalarasan**	**2.54**	**22**	Pg	**Pb**	**03 05 48.6**	**+0.3**
	4.0nm,0.1s						
KAPS				Lg	Lg	03 06 20.9	
	36nm,0.1s						
KAPS	**Kapalarasan**	**2.54**	**22**	eP	**Pb**	**03 05 48.6**	**+0.3**
	4.0nm,0.1s						
KAPS				eS	**Sb**	**03 06 20.9**	**+1.1**
	36nm,0.1s						
USP	**Ospenovka**	**2.57**	**278**	⇓P	**Pb**	**03 05 48.3**	**-0.4**
	2.8nm,0.2s						
USP	**Ospenovka**	**2.57**	**278**	⇑eP	**Pn**	**03 05 44.7**	**+0.3**
USP				⇑eS	**Sn**	**03 06 15.3**	**-0.7**
AAK	**Ala-Archa**	**2.59**	**264**	⇑P	**Pb**	**03 05 48.1**	**-0.9**
	7.7nm,0.2s						

AAK	Ala-Archa	2.59	264	⇓Pg	Pb	03 05 48.5	-0.5
	0.6nm,0.3s						
AAK				⇓Lg	Lg	03 06 23.8	
	5.3nm,0.7s						
AAK	Ala-Archa	2.59	264	⇑iP	Pn	03 05 44.8	+0.1
AAK				⇑eS	Sn	03 06 15.5	-1.0
EKS2	Erkin-Say	3.11	266	⇑P	Pb	03 05 56.6	-1.3
EKS2	Erkin-Say	3.11	266	⇓eP	Pn	03 05 52.0	+0.2
EKS2				⇓eS	Sn	03 06 28.0	-1.3
MRKS	Merke	3.50	268	Pg	Pb	03 06 06.1	+1.5
	2.4nm,0.2s						
MRKS				Lg	Lg	03 06 50.6	
	4.7nm,0.3s						
MRKS	Merke	3.50	268	eP	Pb	03 06 06.1	+1.5
	2.4nm,0.2s						
MRKS				eS	Sb	03 06 50.6	+3.2
	4.7nm,0.3s						
MK31	Makanchi Array	4.92	37	⇑Pn	Pn	03 06 17.0	+0.4
	0.1nm,0.2s,baz=213,slow=14,SNR=5.5						
MK31				⇓Sn	Sn	03 07 12.1	-1.7
	0.3nm,0.5s						
MK31				Lg	Lg	03 07 35.6	
	0.6nm,0.6s,baz=217,slow=30,SNR=3.1						

IDC 20 03:11:36.4±6.9**, 8.°92S×150.°25E, h115^{km}**±60^{km}**, mb3.4**/3**,**
mbtmp3.7/5**, Error ellipse: s-maj=68.8km s-min=25.4km**
az=105.0, Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	3.08	261	P	Pn	03 12 22.0	-1.7
	13nm,0.4s,baz=105,slow=12,SNR=6.8						
PMG				S	Sn	03 13 01.7	+1.6
	16nm,0.6s,baz=24,slow=20,SNR=1.9						
WRA	Warramunga Arr	18.88	233	P	P	03 15 46.9	-1.1
	0.7nm,0.4s,baz=56,slow=11,SNR=15						
ASAR	Alice Springs	21.43	225	P	P	03 16 15.9	+0.4
	0.3nm,0.3s,baz=48,slow=9.7,SNR=10						
	0.3nm,0.3s						
STKA	Stephens Creek	24.21	198	P	P	03 16 42.3	-0.1
	3.4nm,0.9s,baz=353,slow=8.1,SNR=3.5						
	3.4nm,0.9s						
PETK	Petropavlovsk-	62.11	5	P	P	03 21 45.3	+0.3
	1.1nm,0.5s,baz=155,slow=8.5,SNR=4.4						
	1.1nm,0.5s						

*IDC **20** 03:12:36.9±0.9, 12.°88N×123.°60E, h0^{km}, mb3.7/9,*
mbtmp3.7/9, MS3.3/18, Error ellipse: s-maj=40.4km
s-min=18.2km az=68.0
*MAN **20** 03:12:38.0, 12.°70N×123.°18E, h5^{km}, MS3.7*
MAN INTENSITY II - CLAVERIA MASBATE.
ISC 20 03:12:37.9±2.4**, 12.°81N**±0.°05×**123.°38E**±0.°06**, h7^{km}**±17^{km}**,**
n34, σ1.ˢ33/24**, mb3.6**/9**, MS3.1**/16**, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MMPH	Masbate	0.51	152	eP	Pb	03 12 49.4	+0.2
MMPH				i S	Sb	03 12 57.2	+0.4
IBAJ	Ibajay, Aklan	1.54	230	i P	Pb	03 13 06.2	-0.6
IBAJ				i S	Sb	03 13 26.5	-0.1
LQP	Lukban	2.21	306	eP	Pn	03 13 15.6	+0.4
LQP				eS	Sb	03 13 46.2	+0.1
PLP	Palo	2.26	136	eP	Pn	03 13 16.9	+1.1
PLP				eS	Sb	03 13 47.7	+0.3
LLP	Lapu-Lapu	2.54	167	eP	Pn	03 13 20.4	+0.8
LLP				eS	Sb	03 13 53.3	-2.2
TGY	Tagaytay City	2.70	299	eP	Pb	03 13 25.2	-1.5
TGY				eS	Sg	03 14 06.5	+1.7
TBP	Tagbilaran	3.14	171	eP	Pn	03 13 29.1	+1.3
SNPH	Sibulan	3.45	182	i P	Pb	03 13 36.3	-3.2
SNPH				i S	Sn	03 14 15.1	+1.7
DCPH	Dipolog City	4.20	180	eP	Pn	03 13 35.8	-6.7
JOW	Kunigami	14.68	17	LR	LR	03 21 23.9	
	comp=Z,127nm,20.1s,baz=180,slow=36						
KAPI	Kappang	18.07	192	LR	LR	03 23 55.4	
	comp=Z,89nm,22.0s,baz=6.5,slow=37						
GUMO	Guam	20.93	85	LR	LR	03 26 02.8	
	comp=Z,21nm,18.9s,baz=250,slow=39						
JNU	Nakatsue	21.35	18	LR	LR	03 24 43.1	
	comp=Z,57nm,21.8s,baz=215,slow=34						
CMAR	Chiang Mai Arr	24.18	287	P	P	03 17 56.2	+0.9
	0.6nm,0.4s,baz=107,slow=9.7,SNR=4.8						
CMAR				LR	LR	03 28 40.0	
	comp=Z,21nm,18.1s,baz=110,slow=40						
	0.6nm,0.4s						
KSRS	Korea Array	24.87	9	P	P	03 18 01.3	0.0
	0.7nm,0.7s,baz=183,slow=9.1,SNR=2.3						
KSRS				LR	LR	03 28 15.3	
	comp=Z,49nm,18.9s,baz=190,slow=38						
	0.7nm,0.7s						
MJAR	Matsushiro Arr	27.13	27	LR	LR	03 27 38.9	
	comp=Z,38nm,19.5s,baz=208,slow=33						
BRDH	Bariadhala	31.72	292	LR	LR	03 31 43.3	
	comp=Z,104nm,18.2s,baz=144,slow=36						
USRK	Ussuriysk Ar.	32.14	12	LR	LR	03 32 32.6	
	comp=Z,41nm,18.6s,baz=246,slow=37						
WRA	Warramunga Arr	34.29	161	P	P	03 19 25.2	+0.1
	0.7nm,0.8s,baz=330,slow=10,SNR=5.4						
	0.7nm,0.8s						
ASAJ	Asahikawa	35.29	24	LR	LR	03 34 23.8	
	comp=Z,34nm,19.3s,baz=84,slow=37						
KLR	Kul'dur	36.96	9	LR	LR	03 34 36.0	
	comp=Z,35nm,20.6s,baz=207,slow=36						
ASAR	Alice Springs	37.69	164	P	P	03 19 54.3	+0.1
	0.6nm,0.7s,baz=342,slow=7.3,SNR=9.6						
	0.6nm,0.7s						
SONM	Songino Array	37.69	341	P	P	03 19 53.1	-1.1
	0.5nm,0.4s,baz=162,slow=11,SNR=1.9						
	0.5nm,0.4s						
HNR	Honiara	42.51	120	LR	LR	03 38 07.1	
	comp=Z,14nm,19.3s,baz=12,slow=36						
MKAR	Makanchi Array	48.30	323	P	P	03 21 21.4	+1.4
	1.1nm,0.7s,baz=127,slow=8.8,SNR=8.5						
	1.1nm,0.7s						
PETK	Petropavlovsk-	48.59	27	LR	LR	03 41 49.6	
	comp=Z,18nm,18.8s,baz=164,slow=36						
ZALV	Zalesovo Beam	51.06	332	P	P	03 21 41.2	+0.4
	1.2nm,0.7s,baz=111,slow=8.1,SNR=4.9						
	1.2nm,0.7s						
KURBB	Kurchatov Arra	52.39	325	P	P	03 21 51.7	+0.9
	0.8nm,0.5s,baz=124,slow=7.9,SNR=6.1						
	0.8nm,0.5s						
SEY	Seymchan	54.11	16	LR	LR	03 46 14.2	
	comp=Z,44nm,18.4s,baz=335,slow=37						
TIXI	Tiksi	58.90	2	LR	LR	03 49 31.3	
	comp=Z,62nm,19.5s,baz=50,slow=38						
ARTI	Arti	65.64	326	LR	LR	03 51 52.6	
	comp=Z,26nm,18.5s,baz=118,slow=36						
GNI	Garni	73.22	308	LR	LR	03 58 25.4	
	comp=Z,37nm,20.0s,baz=6.5,slow=38						
ILAR	Eielson Array	78.40	26	P	P	03 24 37.3	-1.8
	0.3nm,0.6s,baz=269,slow=5.2,SNR=2.2						
	0.3nm,0.6s						
ARCES	ARCESS Array B	80.84	339	LR	LR	04 02 48.4	
	comp=Z,74nm,18.2s,baz=257,slow=37						

*IDC **20** 03:50:31.6±0.9, 12.°80N×123.°48E, h0^{km}, mb3.8/11,*
mbtmp3.8/11, MS3.4/23, Error ellipse: s-maj=40.1km
s-min=17.2km az=67.0
*NEIC **20** 03:50:33.5±2.4, 12.°7N±0.°1×123.°5E±0.°1, h10^{km}±1^{km},*
mb4.5/13, Error ellipse: s-maj=27.1km s-min=15.3km
az=237.0
*MAN **20** 03:50:33.0, 12.°77N×123.°30E, h14^{km}, MS3.8*
MAN INTENSITY II - CLAVERIA MASBATE.
ISC 20 03:50:32.7±2.5**, 12.°71N**±0.°05×**123.°36E**±0.°06**, h7^{km}**±16^{km}**,**
n60, σ1.ˢ08/45**, mb4.3**/18**, MS3.3**/20**, 1C-1D, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MMPH	Masbate	0.44	143	eP	Pb	03 50 43.7	+1.0
MMPH				i S	Sb	03 50 51.4	+2.0
IBAJ	Ibajay, Aklan	1.46	233	i P	Pn	03 51 00.4	+1.0
IBAJ				i S	Sn	03 51 18.9	+0.1
PLP	Palo	2.21	134	eP	Pn	03 51 09.8	0.0
PLP				eS	Sg	03 51 43.2	-0.5
LQP	Lukban	2.25	309	eP	Pn	03 51 09.5	-1.0
LQP				eS	Sn	03 51 40.5	+1.8
LLP	Lapu-Lapu	2.45	166	eP	Pn	03 51 14.3	+1.2
LLP				i S	Sb	03 51 48.1	+0.6
TGY	Tagaytay City	2.73	301	eP	Pn	03 51 17.9	+0.9
TBP	Tagbilaran	3.04	171	eP	Pn	03 51 22.4	+1.2
SNPH	Sibulan	3.35	182	eP	Pb	03 51 32.6	+0.2
DCPH	Dipolog City	4.10	180	i P	Pb	03 51 42.7	-2.5
SZP	Santa	5.57	330	Pn	Pn	03 51 57.6	+1.6
DAV	Davao City (W)	6.01	158	LR	LR	03 55 11.7	
	comp=Z,380nm,20.3s,baz=334,slow=46						
JOW	Kunigami	14.79	17	LR	LR	03 59 08.0	
	comp=Z,172nm,20.8s,baz=162,slow=35						
KAPI	Kappang	17.97	192	LR	LR	04 01 38.6	
	comp=Z,149nm,21.9s,baz=10,slow=37						
SLVN	Son La	20.46	297	P	P	03 55 12.6	+1.5
JNU	Nakatsue	21.45	17	LR	LR	04 02 38.0	
	comp=Z,86nm,21.4s,baz=216,slow=34						
IPM	Ipoh	23.52	252	P	P	03 55 44.4	+0.7
IPM				IAmb	IAmb	03 56 16.2	
	comp=Z,36nm,1.4s						
CMAR	Chiang Mai Arr	24.19	287	P	P	03 55 50.4	+0.4
	comp=Z,0.6nm,0.5s,baz=89,slow=7.3,SNR=4.1						
CMAR				LR	LR	04 04 56.6	
	comp=Z,23nm,21.4s,baz=110,slow=36						
	comp=Z,0.6nm,0.5s						
CMAR	Chiang Mai Arr	24.19	287	P	P	03 55 51.5	+1.5
KSRS	Korea Array	24.98	9	P	P	03 55 55.4	-1.5
	comp=Z,0.6nm,0.6s,baz=201,slow=8.6,SNR=1.9						
KSRS				LR	LR	04 06 18.7	
	comp=Z,50nm,18.8s,baz=195,slow=38						
	comp=Z,0.6nm,0.6s						
JHJ	Hachijo jima 2	25.26	34	LR	LR	04 05 29.2	
	comp=Z,70nm,18.5s,baz=162,slow=36						
MJAR	Matsushiro Arr	27.23	27	LR	LR	04 05 11.1	
	comp=Z,75nm,21.9s,baz=208,slow=32						
BRDH	Bariadhala	31.73	293	LR	LR	04 10 31.6	
	comp=Z,71nm,20.6s,baz=154,slow=38						
SHL	Shillong	32.27	298	P	P	03 57 01.8	-0.6
WRA	Warramunga Arr	34.20	161	P	P	03 57 18.5	-0.6
	comp=Z,0.5nm,0.6s,baz=336,slow=9.7,SNR=7.1						
	comp=Z,0.5nm,0.6s						
WRA	Warramunga Arr	34.20	161	P	P	03 57 20.1	+1.1
WR8	Warramunga Arr	34.26	161	P	P	03 57 19.3	-0.3
WR8				IAmb	IAmb	03 57 36.2	
	comp=Z,13nm,1.5s						
ASAJ	Asahikawa	35.39	24	LR	LR	04 12 05.9	
	comp=Z,41nm,19.2s,baz=84,slow=37						
KLR	Kul'dur	37.07	9	LR	LR	04 12 38.9	
	comp=Z,46nm,19.9s,baz=205,slow=36						
ASAR	Alice Springs	37.59	164	P	P	03 57 49.4	+1.3
	comp=Z,0.8nm,0.5s,baz=346,slow=8.0,SNR=14						
	comp=Z,0.8nm,0.5s						
ASAR	Alice Springs	37.59	164	P	P	03 57 47.2	-1.0
SONM	Songino Array	37.78	341	P	P	03 57 50.3	+0.7
	comp=Z,0.2nm,0.3s,baz=167,slow=7.2,SNR=1.3						
	comp=Z,0.2nm,0.3s						
TLY	Talaya	42.01	342	P	P	03 58 24.1	-0.5
HNR	Honiara	42.48	119	LR	LR	04 16 03.3	
	comp=Z,30nm,18.4s,baz=6.5,slow=36						
BBOO	Buckleboo	46.86	165	P	P	03 59 02.9	-0.6
MK31	Makanchi Array	48.37	323	⇓Pg	PKiKP	04 07 31.6	-0.4
	comp=Z,0.8nm,0.8s,baz=169,slow=16,SNR=5.9						
MK31				⇑Lg	Lg	04 08 05.0	
	comp=Z,1.1nm,0.8s,baz=171,slow=28,SNR=5.8						
MKAR	Makanchi Array	48.37	323	P	P	03 59 15.7	+0.5
	comp=Z,3.4nm,0.9s,baz=121,slow=8.7,SNR=11						
	comp=Z,3.4nm,0.9s						
MKAR	Makanchi Array	48.37	323	P	P	03 59 15.2	-0.1
PETK	Petropavlovsk-	48.69	27	LR	LR	04 20 59.2	
	comp=Z,26nm,18.4s,baz=232,slow=38						
MA2	Magadan	51.02	18	LR	LR	04 20 13.6	
	comp=Z,32nm,21.8s,baz=150,slow=35						
ZALV	Zalesovo Beam	51.13	332	P	P	03 59 34.8	-1.2
	comp=Z,2.3nm,0.8s,baz=123,slow=7.3,SNR=7.9						
	comp=Z,2.3nm,0.8s						
AAK	Ala-Archa	51.59	315	LR	LR	04 22 40.7	
	comp=Z,94nm,21.2s,baz=92,slow=37						
KURK	Kurchatov	52.45	326	P	P	03 59 45.1	-0.9
KURBB	Kurchatov Arra	52.46	326	P	P	03 59 46.2	+0.2
	comp=Z,4.5nm,0.8s,baz=121,slow=7.9,SNR=17						
	comp=Z,4.5nm,0.8s						
BVAR	Borovoye Array	58.05	325	P	P	04 00 26.0	-0.3
	comp=Z,0.5nm,0.5s,baz=129,slow=6.5,SNR=2.0						
	comp=Z,0.5nm,0.5s						
AKTO	Aktyubinsk	64.63	320	LR	LR	04 31 07.2	
	comp=Z,73nm,19.2s,baz=249,slow=38						
LTZ	Lake Taylor	71.08	144	P	P	04 01 49.8	-1.9
GNI	Garni	73.26	308	LR	LR	04 37 24.6	
	comp=Z,27nm,18.5s,baz=41,slow=38						
L18K	Granite Mounta	74.17	29	P	P	04 02 11.0	+1.3
L18K				IAmb	IAmb	04 02 35.4	
	comp=Z,6.0nm,1.4s						
KDAK	Kodiak Island	76.19	33	LR	LR	04 31 21.7	
	comp=Z,35nm,21.6s,baz=243,slow=32						
CAST	Castle Rocks	76.30	27	P	P	04 02 22.1	+0.1
CAST				IAmb	IAmb	04 02 26.0	
	comp=Z,4.5nm,1.1s						
BPAW	Bear Paw Mtn.	76.77	27	P	P	04 02 25.4	+0.7
BPAW				IAmb	IAmb	04 02 29.2	
	comp=Z,4.2nm,1.0s						
ILAR	Eielson Array	78.51	26	P	P	04 02 33.7	-0.7
	comp=Z,0.4nm,0.9s,baz=259,slow=5.6,SNR=3.2						
ILAR				LR	LR	04 37 41.8	
	comp=Z,29nm,19.0s,baz=84,slow=36						
	comp=Z,0.4nm,0.9s						
BMAR	Burnt Mountain	79.16	23	P	P	04 02 39.0	+1.1
I28M	Miner Creek	81.32	25	P	P	04 02 49.8	+0.1
I28M				IAmb	IAmb	04 02 59.7	
	comp=Z,4.5nm,1.1s						
EIL	Elat	82.45	299	LR	LR	04 43 32.2	
	comp=Z,36nm,18.3s,baz=156,slow=38						
AKASG	Malin Array Be	82.88	320	P	P	04 02 58.5	+0.5
	comp=Z,0.5nm,0.5s,baz=76,slow=3.8,SNR=2.2						
	comp=Z,0.5nm,0.5s						
INK	Inuvik	83.08	21	LR	LR	04 43 48.3	
	comp=Z,22nm,18.1s,baz=109,slow=38						
BUR08	Bucovina Ar. S	86.13	318	P	P	04 03 14.0	-0.8
BUR08				IAmb	IAmb	04 03 18.8	
	comp=Z,2.6nm,0.9s						
MLR	Muntele Rosu	86.17	316	LR	LR	04 44 40.6	
	comp=Z,79nm,20.7s,baz=0.0,slow=38						
NOA	NORSAR Array B	89.31	333	LR	LR	04 48 39.5	
	comp=Z,26nm,18.5s,baz=0.0,slow=39						

*IDC **20** 03:56:06.9±1.4, 11.°00S×115.°05E, h0^{km}, mb3.4/5,*
mbtmp3.6/7, ML3.7/2, MS3.3/1, Error ellipse: s-maj=36.8km
s-min=16.2km az=47.0
ISC 20 03:56:12.4±1.5**, 11.°16S**±0.°10×**115.°6E**±0.°1**, h35^{km}, n8,**
σ3.ˢ77/9**, mb3.8**/4**, South of Bali**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAPI	Kappang	7.38	35	Pn	Pn	03 58 00.3	+2.6
	2.1nm,0.3s,baz=242,slow=15,SNR=9.9						
KAPI				Sn	Sn	03 59 18.5	-1.8
	0.4nm,0.3s,baz=39,slow=7.9,SNR=3.5						
	5.3nm,0.3s						
KAPI				AML	AML		
FITZ	Fitzroy Crossi	11.95	126	Pn	Pn	03 59 01.9	+1.6
	0.2nm,0.3s,baz=302,slow=11,SNR=2.3						
FITZ				Sn	Sn	04 01 06.7	-5.7
	0.2nm,0.3s,baz=5.0,slow=23,SNR=6.6						
	1.7nm,0.6s						
FITZ				AML	AML		
WRA	Warramunga Arr	20.07	118	P	Pn	04 00 47.0	+2.0
	0.2nm,0.6s,baz=288,slow=12,SNR=1.6						
WRA				S	S	04 04 26.6	-0.3
	0.4nm,0.8s,baz=292,slow=22,SNR=2.2						
	0.2nm,0.6s						
DAV	Davao City (W)	20.67	29	LR	LR	04 10 22.7	
	comp=Z,72nm,18.7s,baz=112,slow=41						
ASAR	Alice Springs	21.44	128	P	P	04 01 02.7	+4.9
	0.3nm,0.6s,baz=297,slow=10,SNR=2.7						
	0.3nm,0.6s						
MKAR	Makanchi Array	64.91	335	P	P	04 06 46.3	-2.0
	0.5nm,0.5s,baz=152,slow=7.8,SNR=6.1						
	0.5nm,0.5s						
KURBB	Kurchatov Arra	69.46	336	P	P	04 07 15.1	-1.9
	0.6nm,0.6s,baz=155,slow=5.7,SNR=5.9						
	0.6nm,0.6s						
ZALV	Zalesovo Beam	69.91	341	P	P	04 07 16.8	-2.9
	0.9nm,0.5s,baz=152,slow=5.7,SNR=4.9						
	0.9nm,0.5s						

*IDC **20** 03:58:15.8±1.5, 15.°08S×178.°40W, h414^{km}±17^{km}, mb3.1/7,*
mbtmp3.9/10, Error ellipse: s-maj=31.4km s-min=13.8km
az=153.0
*NEIC **20** 03:58:15.6±2.4, 15.°1S±0.°2×178.°4W±0.°1, h407^{km}±7^{km},*
mb4.0/16, Error ellipse: s-maj=28.5km s-min=13.6km
az=144.0
ISC 20 03:58:14.8±0.6**, 15.°0S**±0.°2×**178.°3W**±0.°1**, h400^{km}, n38,**
σ1.ˢ25/38**, mb3.9**/16**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FUTU	Fugatoga	0.74	16		Pn	03 59 07.3	+2.0
MSVF	Nonsavu	4.39	232	P	Pn	03 59 33.1	+2.3
	17nm,0.3s,baz=201,slow=22,SNR=51						
MSVF				S	S	04 00 20.8	-12
	7.3nm,0.8s,baz=231,slow=21,SNR=1.1						
MSVF	Nonsavu	4.39	232		Pn	03 59 33.2	+2.4
AFI	Afiamalu	6.45	81	P	Pn	03 59 52.7	+0.2
	36nm,0.5s,baz=138,slow=2.6,SNR=11						
AFI	Afiamalu	6.45	81		Pn	03 59 52.6	0.0
DZM	Mont Dzumac	16.04	242	P	P	04 01 39.9	+1.2
	3.2nm,0.6s,baz=38,slow=18,SNR=1.6						
CTAO	Charters Tower	34.09	256	P	P	04 04 22.7	-1.4
WR8	Warramunga Arr	45.14	257	P	P	04 05 51.9	-2.0
WR8				IAmb	IAmb	04 06 02.9	
	comp=Z,10nm,1.4s						
WRA	Warramunga Arr	45.29	257	P	P	04 05 52.9	-2.2
	comp=Z,0.4nm,0.5s,baz=82,slow=5.8,SNR=9.1						
	comp=Z,0.4nm,0.5s						
AS31	Alice Springs	45.70	252	P	P	04 05 57.2	-1.1
ASAR	Alice Springs	45.70	252	P	P	04 05 57.0	-1.2
	comp=Z,13nm,0.5s,baz=84,slow=8.4,SNR=162						
ASAR	Alice Springs	45.70	252	P	P	04 05 56.7	-1.5
FITZ	Fitzroy Crossi	53.62	258	P	P	04 06 58.0	+0.8
	comp=Z,1.6nm,0.9s,baz=100,slow=11,SNR=1.6						
	comp=Z,1.6nm,0.9s						
FITZ	Fitzroy Crossi	53.62	258	P	P	04 06 55.5	-1.6
QSPA	South Pole Qui	75.01	180	P	P	04 09 12.9	-0.7
	comp=Z,1.0nm,0.6s,baz=260,slow=1.2,SNR=8.9						
	comp=Z,1.0nm,0.6s						
QSPA	South Pole Qui	75.01	180	P	P	04 09 12.7	-0.9
YBH	Yreka Blue Hor	76.26	39	P	P	04 09 22.3	+1.4
BEKR	Beckworth	76.71	42	P	P	04 09 24.5	+1.0
BEKR				IAmb	IAmb	04 09 28.0	
	comp=Z,2.8nm,1.3s						
NVAR	Mina Array Bea	77.31	44	P	P	04 09 27.7	+0.8
	comp=Z,0.5nm,0.6s,baz=218,slow=8.2,SNR=5.8						
	comp=Z,0.5nm,0.6s						
K05A	Summer Lake	77.94	39	P	P	04 09 30.1	-0.2
K05A				IAmb	IAmb	04 09 34.8	
	comp=Z,4.3nm,1.3s						
TPNV	Topopah Spring	77.98	46	P	P	04 09 31.5	+0.9
TPNV				IAmb	IAmb	04 10 04.4	
	comp=Z,4.2nm,1.4s						
L18K	Granite Mounta	78.86	10	P	P	04 09 35.8	+1.2
K20K	Telida	80.38	11	P	P	04 09 42.5	-0.1
RND	Reindeer	81.46	13	P	P	04 09 47.6	-0.7
RND				IAmb	IAmb	04 10 04.4	
	comp=Z,3.5nm,1.3s						
TMUT	Trail Mountain	82.59	46	P	P	04 09 55.8	+0.8
TMUT				IAmb	IAmb	04 09 57.0	
	comp=Z,2.6nm,0.8s						
CCB	Clear Creek Bu	82.77	13	P	P	04 09 54.6	-0.2
CCB				IAmb	IAmb	04 09 55.1	
	comp=Z,1.8nm,0.7s						
ILAR	Eielson Array	83.08	13	P	P	04 09 56.0	-0.5
	comp=Z,0.6nm,0.5s,baz=234,slow=5.3,SNR=9.4						
	comp=Z,0.6nm,0.5s						
H22K	Ishtalitna Cre	83.17	11	P	P	04 09 55.8	-1.1
H22K				IAmb	IAmb	04 10 13.2	
	comp=Z,4.7nm,1.3s						
L29M	L29M	83.91	17	P	P	04 10 00.8	0.0
TXAR	Lajitas Array	84.41	58	P	P	04 10 05.4	+1.4
	comp=Z,0.4nm,0.8s,baz=213,slow=5.7,SNR=5.1						
	comp=Z,0.4nm,0.8s						
TXAR	Lajitas Array	84.41	58	P	P	04 10 05.1	+1.0
PDAR	Pinedale Array	85.22	44	P	P	04 10 08.2	+0.2
	comp=Z,0.4nm,0.5s,baz=199,slow=3.2,SNR=7.5						
	comp=Z,0.4nm,0.5s						
PDAR	Pinedale Array	85.22	44	P	P	04 10 07.7	-0.3
ARCES	ARCESS Array B	123.50	350	PKP	PKPdf	04 16 22.6	-2.2
	comp=Z,4.1nm,1.0s,baz=72,slow=1.9,SNR=4.1						
GERES	GERESS Array B	144.85	346	PKP	PKPdf	04 17 04.5	-0.6
	comp=Z,0.5nm,0.6s,baz=20,slow=4.3,SNR=6.4						
GERES	GERESS Array B	144.85	346		PKPdf	04 17 04.2	-0.9
BFO	Black Forest	146.34	352	PKPbc	PKPbc	04 17 09.4	-0.1
FUORN	Ofenpass-Fuorn	147.69	349	PKPbc	PKPbc	04 17 13.1	-0.4

IDC 20 04:14:00.8±3.7**, 19.°27N×146.°99E, h0^{km}, mb3.7**/5**,**
mbtmp3.7/5**, Error ellipse: s-maj=163.6km**
s-min=25.6km az=84.0, Mariana Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	40.89	198	P	P	04 21 45.2	+0.3
	0.4nm,0.5s,baz=19,slow=9.0,SNR=8.2						
	0.4nm,0.5s						
ASAR	Alice Springs	44.54	197	P	P	04 22 13.8	-0.7
	0.2nm,0.6s,baz=17,slow=9.7,SNR=1.6						
	0.2nm,0.6s						
ZALV	Zalesovo Beam	58.31	322	P	P	04 23 58.6	+1.2
	0.4nm,0.4s,baz=86,slow=5.9,SNR=2.3						
	0.4nm,0.4s						
KURBB	Kurchatov Arra	61.72	318	P	P	04 24 20.1	-0.7
	0.3nm,0.5s,baz=95,slow=7.3,SNR=5.1						
	0.3nm,0.5s						
FINES	FINESS Array B	86.88	336	P	P	04 26 46.8	-0.4
	3.0nm,1.1s,baz=56,slow=5.2,SNR=5.6						
	3.0nm,1.1s						

*IDC **20** 04:27:07.8±1.0, 16.°23S×173.°40W, h0^{km}, mb3.8/5,*
mbtmp3.8/6, ML3.7/1, MS2.9/2, Error ellipse: s-maj=45.7km
s-min=15.7km az=131.0
*NEIC **20** 04:27:09.8±1.1, 16.°15S±0.°06×173.°1W±0.°2, h13^{km}±4^{km},*
mb4.3/7, Error ellipse: s-maj=20.9km s-min=8.7km
az=91.0
ISC 20 04:27:11.1±0.6**, 16.°11S**±0.°08×**173.°1W**±0.°1**, h26^{km}, n33,**
σ1.ˢ06/27**, mb4.2**/8**, 1D, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	2.54	31	Pn	Pn	04 27 50.9	+0.1
	13nm,0.3s,baz=220,slow=16,SNR=12						
AFI				Sn	Sn	04 28 19.5	-1.5
	38nm,0.3s,baz=122,slow=23,SNR=9.7						
AFI				LR	LR	04 28 35.2	
	comp=Z,81nm,20.2s,baz=240,slow=31						
	29nm,0.3s						
AFI				AML	AML		
NIUE	Niue	4.23	135		Pn	04 28 13.3	-0.6
HNR	Honiara	27.08	281	LR	LR	04 41 06.5	
	comp=Z,75nm,18.0s,baz=221,slow=31						
H11S2	WAKE ISLAND Hy	39.72	329	T	T	05 17 00.1	
	baz=145						
H11S3	WAKE ISLAND Hy	39.73	329	T	T	05 17 01.7	
	baz=145						
H11S1	WAKE ISLAND Hy	39.73	329	T	T	05 16 52.6	
	baz=145						
H11N3	WAKE ISLAND Hy	40.66	330	T	T	05 18 10.3	
	baz=151						
H11N1	WAKE ISLAND Hy	40.67	330	T	T	05 18 15.1	
	baz=151						
H11N2	WAKE ISLAND Hy	40.68	330	T	T	05 18 16.8	
	baz=151						
BBOO	Buckleboo	48.70	240	P	P	04 35 54.9	+1.3
WRA	Warramunga Arr	49.96	257	P	P	04 36 02.5	-0.9
	0.3nm,0.6s,baz=96,slow=6.6,SNR=5.7						
	0.3nm,0.6s						
ASAR	Alice Springs	50.16	252	P	P	04 36 02.9	-2.0
	2.0nm,0.6s,baz=88,slow=8.3,SNR=26						
	2.0nm,0.6s						
ASAR	Alice Springs	50.16	252	P	P	04 36 02.4	-2.5
KIWB	Kanaga Island	67.77	357	P	P	04 38 06.5	+0.1
QSPA	South Pole Qui	73.94	180	P	P	04 38 44.7	+0.7
	1.1nm,0.9s,baz=110,slow=1.9,SNR=5.5						
	1.1nm,0.9s						
QSPA	South Pole Qui	73.94	180	P	P	04 38 44.5	+0.5
QSPA				IAmb	IAmb	04 38 51.3	
	comp=Z,4.7nm,1.4s						
TRF	Thorofare Moun	81.27	10	P	P	04 39 24.4	-0.4
TRF				IAmb	IAmb	04 39 58.5	
	comp=Z,4.0nm,1.3s						
PDAR	Pinedale Array	82.61	42	P	P	04 39 33.3	+0.9
	comp=Z,0.5nm,0.8s,baz=195,slow=2.9,SNR=6.4						
	comp=Z,0.5nm,0.8s						
PDAR	Pinedale Array	82.61	42	P	P	04 39 33.0	+0.6
CCB	Clear Creek Bu	82.81	11	P	P	04 39 33.5	+0.9
CCB				IAmb	IAmb	04 39 34.7	
	comp=Z,1.6nm,0.7s						
ILAR	Eielson Array	83.09	11	P	P	04 39 35.4	+1.3
	comp=Z,0.3nm,0.6s,baz=230,slow=5.9,SNR=12						

	comp=Z,0.3nm,0.6s						
J25K	Salcha River,	83.23	12	P	P	04 39 37.0	+2.0
J25K				IAmb	IAmb	04 39 37.2	
	comp=Z,3.4nm,1.2s						
ELIB	Princess Elisa	91.45	185	dP	P	04 40 15.4	+0.5
BRTR	Keskin Array B	146.88	321	PKPbc	PKPab	04 46 52.5	-0.5
	comp=Z,0.8nm,0.9s,baz=116,slow=2.9,SNR=4.2						
GERES	GERESS Array B	146.88	352	PKPbc	PKPbc	04 46 50.2	-1.1
	comp=Z,0.4nm,0.3s,baz=5.0,slow=3.1,SNR=8.5						
CONA	Conrad Observa	147.42	349	ePKP	PKPab	04 46 54.5	-0.3
	comp=Z,2.1nm,0.8s						
SESA	Seetaler Alpe,	148.44	350	ePKP	PKiKP	04 46 56.6	-0.7
	comp=Z,1.9nm,0.5s						
WATA	Walderalm	148.62	354	ePKiKP	PKiKP	04 46 58.1	+0.5
	comp=Z,1.1nm,0.5s						
KBA	Koelnbreinsper	148.66	352	ePKP	PKiKP	04 46 57.3	-0.5
	comp=Z,1.2nm,0.5s						
MOTA	Moosalm	148.66	354	ePKiKP	PKiKP	04 46 57.6	-0.1
	comp=Z,2.2nm,0.9s						
WTTA	Wattenberg	148.69	354	ePKiKP	PKiKP	04 46 57.9	+0.1
	comp=Z,2.5nm,0.5s						
ABTA	Abfaltersbach	149.10	352	ePKP	PKiKP	04 46 58.5	-0.1
	comp=Z,1.9nm,0.6s						
FUORN	Ofenpass-Fuorn	149.45	355		PKiKP	04 46 59.8	+0.3

*IDC **20** 04:42:21.2±1.1, 33.°62N×142.°62E, h0^{km}, mb3.6/7, mbtmp3.6/10, ML3.2/3, Error ellipse: s-maj=19.9km s-min=16.1km az=171.0*

*JMA **20** 04:42:25.5±0.1, 33.°8N±0.°6×142.°5E±0.°6, h41^{km}±1^{km}, MV4.1/35, FAR E OFF CENTRAL HONSHU*

*NIED **20** 04:42:25.5, 33.°76N×142.°46E, h41^{km}, MW3.5, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M$_{rr}$-2.33; M$_{\theta\theta}$0.57; M$_{\phi\phi}$1.76; M$_{r\theta}$0.72; M$_{\theta\phi}$0.71; M$_{\phi r}$0.16; Fault plane solution: M$_0$2.32000×10^{14} NP1:φ$_s$14.00000°, δ40.00000°, λ-108.00000°. NP2:φ$_s$218.00000°, δ52.00000°, λ-75.00000°.*

ISC 20 04:42:26.2±0.9**, 33.°67N**±0.°08×**142.°41E**±0.°09**, h35**^{km}**, n13, σ1**^{s}**.70**/16**, mb3.6**/7**, Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BSO1	Boso 1	1.54	310	P	Pn	04 42 50.6	-0.1
BSO3	Boso 3	1.94	306	P	Pn	04 42 56.8	+0.4
BSO3				eS	Sn	04 43 21.9	+2.5
BSO4	Boso 4	2.16	308	P	Pn	04 43 00.2	+0.6
JHJ	Hachijo jima 2	2.26	257	Pn	Pn	04 43 00.7	-0.4
	19nm,0.3s,baz=56,slow=23,SNR=23						
JHJ				Sn	Sn	04 43 26.4	-1.4
	76nm,0.3s,baz=72,slow=19,SNR=7.5						
	64nm,0.3s						
JHJ				AML	AML		
MJAR	Matsushiro Arr	4.48	311	Pn	Pn	04 43 31.3	-0.3
	0.5nm,0.3s,baz=154,slow=13,SNR=29						
MJAR				Sn	Sn	04 44 19.6	-2.8
	0.9nm,0.3s,baz=98,slow=19,SNR=5.4						
	3.2nm,0.5s						
MJAR				AML	AML		
ASAJ	Asahikawa	10.44	1	Pn	Pn	04 44 49.9	-3.4
	0.2nm,0.3s,baz=180,slow=20,SNR=1.6						
	3.1nm,0.7s						
ASAJ				AML	AML		
SONM	Songino Array	30.43	309	P	P	04 48 37.6	+2.2
	0.5nm,0.5s,baz=96,slow=12,SNR=1.3						
	0.5nm,0.5s						
MKAR	Makanchi Array	46.65	305	P	P	04 50 51.8	+0.6
	0.7nm,0.8s,baz=107,slow=6.5,SNR=3.8						
	0.7nm,0.8s						
KURBB	Kurchatov Arra	48.76	310	P	P	04 51 08.1	+0.8
	1.3nm,0.6s,baz=85,slow=7.6,SNR=14						
	1.3nm,0.6s						
ILAR	Eielson Array	51.93	31	P	P	04 51 32.7	+1.5
	0.3nm,0.9s,baz=277,slow=7.8,SNR=2.6						
	0.3nm,0.9s						
WRA	Warramunga Arr	53.86	189	P	P	04 51 45.1	-0.7
	0.3nm,0.5s,baz=5.9,slow=7.5,SNR=5.3						
	0.3nm,0.5s						
YKA	Yellowknife Ar	66.32	30	P	P	04 53 10.6	-0.1
	1.0nm,0.9s,baz=306,slow=7.2,SNR=4.3						
	1.0nm,0.9s						
TXAR	Lajitas Array	91.51	53	P	P	04 55 29.7	+0.2
	0.1nm,0.5s,baz=326,slow=4.2,SNR=1.8						
	0.1nm,0.5s						

*IDC **20** 04:53:29.5±0.9, 17.°53S×176.°74W, h0^{km}, mb3.9/6, mbtmp3.9/7, ML5.0/1, MS4.1/49, Error ellipse: s-maj=38.5km s-min=22.5km az=147.0*

*NEIC **20** 04:53:29.7±1.0, 17.°36S±0.°06×176.°58W±0.°09, h10^{km}±1^{km}, mb4.5/5, Error ellipse: s-maj=15.3km s-min=9.9km az=75.0*

*GCMT **20** 04:53:35.7±0.2, 17.°58S±0.°01×176.°54W±0.°01, h18^{km}±1^{km}, MW5.0/110, Moment Tensor Solution. s35,c43; s110,c157; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-0.33±.11; M$_{\theta\theta}$-2.81±.10; M$_{\phi\phi}$3.14±.09; M$_{r\theta}$0.90±.23; M$_{\theta\phi}$1.14±.09; M$_{\phi r}$0.43±.19; Best double couple: M$_0$3.34700×10^{16} NP1:φ$_s$326.00000°, δ72.00000°, λ-175.00000°. NP2:φ$_s$235.00000°, δ85.00000°, λ-18.00000°. Principal axes: T 3.4450, Plg9.0000°, Azm282.0000°; N -0.1990, Plg72.0000°, Azm41.0000°; P -3.2490, Plg16.0000°, Azm189.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 20 04:53:31.7±0.7**, 17.°4S**±0.°1×**176.°66W**±0.°09**, h24**^{km}**, n67, σ1**^{s}**.36**/22**, mb4.3**/9**, MS4.2**/45**, 1D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FUTU	Fugatoga	3.40	335	Pn	Pn	04 54 22.5	-0.7
MSVF	Nonsavu	5.05	266	Pn	Pn	04 54 46.7	+0.6
	2.1nm,0.3s,baz=101,slow=17,SNR=7.1						
MSVF				LR	LR	04 56 37.6	
	comp=Z,10μm,18.2s,baz=62,slow=38						
	3.7nm,0.3s						
MSVF				AML	AML		
AFI	Afiamalu	5.86	54	LR	LR	04 56 56.4	
	comp=Z,421nm,18.5s,baz=162,slow=35						
NIUE	Niue	6.61	105	Pn	Pn	04 55 05.6	-1.8
RAO	Raoul Island	11.84	185	LR	LR	05 00 09.8	
	comp=Z,3μm,21.0s,baz=28,slow=34						
SANVU	Saraoutou	15.60	275	Pn	Pn	04 57 08.2	-2.1
RAR	Rarotonga	16.38	106	LR	LR	05 02 08.1	
	comp=Z,966nm,21.5s,baz=284,slow=32						
HNR	Honiara	24.08	286	LR	LR	05 06 55.8	
	comp=Z,857nm,18.4s,baz=201,slow=34						
PPT	Papeete	25.83	94	LR	LR	05 06 28.5	
	comp=Z,666nm,21.0s,baz=296,slow=30						
KRVT	Keravat (AS076	33.32	289	LR	LR	05 12 30.6	
	comp=Z,612nm,20.4s,baz=146,slow=34						
CTA	Charters Tower	35.17	260	LR	LR	05 12 47.4	
	comp=Z,490nm,19.7s,baz=62,slow=33						
PMG	Port Moresby	36.03	278	LR	LR	05 14 16.4	
	comp=Z,305nm,18.4s,baz=130,slow=35						
TAOE	Nuku Hiva Isla	36.51	81	eLR	LR	05 10 13.3	
	752nm,26.2s						
WRA	Warramunga Arr	46.36	259	P	P	05 01 57.0	+0.6
	2.9nm,1.1s,baz=95,slow=7.6,SNR=6.2						
	2.9nm,1.1s						
WRA	Warramunga Arr	46.36	259	P	P	05 01 56.5	+0.1
AS31	Alice Springs	46.52	254	P	P	05 01 57.1	-0.6
AS31				IAmb	IAmb	05 02 06.0	
	comp=Z,2.4nm,0.8s						
ASAR	Alice Springs	46.53	254	P	P	05 01 57.0	-0.6
	comp=Z,7.6nm,0.9s,baz=88,slow=7.6,SNR=20						
ASAR				LR	LR	05 19 49.8	
	comp=Z,276nm,21.7s,baz=98,slow=34						
	comp=Z,7.6nm,0.9s						
ASAR	Alice Springs	46.53	254	P	P	05 01 56.8	-0.9
FITZ	Fitzroy Crossi	54.75	260	LR	LR	05 25 30.4	
	comp=Z,468nm,18.7s,baz=109,slow=35						
VNDA	Vanda	61.08	185	LR	LR	05 28 41.6	
	comp=Z,96nm,18.2s,baz=23,slow=35						
DAV	Davao City (W)	62.02	288	LR	LR	05 29 42.4	
	comp=Z,74nm,19.4s,baz=148,slow=35						
KAPI	Kappang	63.33	273	LR	LR	05 30 20.0	
	comp=Z,85nm,20.3s,baz=87,slow=35						
JOW	Kunigami	69.21	308	LR	LR	05 27 31.2	
	comp=Z,76nm,22.0s,baz=64,slow=30						
SHEM	Shemya Is, Ala	70.31	354	LR	LR	05 29 21.6	
	comp=Z,257nm,22.0s,baz=272,slow=31						
ASAJ	Asahikawa	71.66	330	LR	LR	05 30 40.2	
	comp=Z,102nm,21.2s,baz=106,slow=31						
QSPA	South Pole Qui	72.63	180	P	P	05 04 58.3	+1.1
	comp=Z,1.9nm,0.8s,baz=22,slow=1.3,SNR=9.3						
QSPA				LR	LR	05 35 42.8	
	comp=Z,83nm,18.0s,baz=38,slow=35						
	comp=Z,1.9nm,0.8s						
QSPA	South Pole Qui	72.63	180	P	P	05 04 58.4	+1.2
QSPA				IAmb	IAmb	05 05 29.0	
	comp=Z,9.3nm,1.2s						
PETK	Petropavlovsk-	73.65	344	LR	LR	05 32 59.5	
	comp=Z,83nm,19.7s,baz=149,slow=32						
PFO	Pinyon Flats O	76.58	48	LR	LR	05 32 44.5	
	comp=Z,150nm,19.3s,baz=248,slow=31						
LPIG	La Paz	76.75	59	LR	LR	05 31 19.1	
	comp=Z,99nm,19.3s,baz=238,slow=30						
YBH	Yreka Blue Hor	77.10	38	LR	LR	05 31 17.9	
	comp=Z,173nm,21.0s,baz=238,slow=29						
USRK	Ussuriysk Ar.	77.16	325	LR	LR	05 35 26.0	
	comp=Z,54nm,19.2s,baz=146,slow=33						
KDAK	Kodiak Island	77.54	13	LR	LR	05 32 32.5	
	comp=Z,178nm,21.0s,baz=205,slow=30						
NVAR	Mina Array Bea	77.92	43	P	P	05 05 29.7	+1.6
	comp=Z,0.2nm,0.5s,baz=226,slow=7.1,SNR=4.2						
NVAR				LR	LR	05 32 50.1	
	comp=Z,110nm,20.4s,baz=234,slow=30						
	comp=Z,0.2nm,0.5s						
KLR	Kul'dur	80.55	329	LR	LR	05 36 02.3	
	comp=Z,116nm,21.8s,baz=139,slow=32						
BBB	Bella Bella	81.10	28	LR	LR	05 33 08.2	
	comp=Z,127nm,21.8s,baz=239,slow=29						
MA2	Magadan	81.18	344	LR	LR	05 38 04.0	
	comp=Z,64nm,19.1s,baz=136,slow=33						
GLI	Glacier Island	81.56	14	P	P	05 05 47.1	+0.1
PMSA	Palmer Station	83.60	157	LR	LR	05 40 15.0	
	comp=Z,66nm,18.3s,baz=224,slow=34						
SEY	Seymchan	83.69	346	LR	LR	05 37 06.0	
	comp=Z,138nm,21.1s,baz=142,slow=31						
NEW	Newport	84.14	35	LR	LR	05 35 32.7	
	comp=Z,92nm,20.4s,baz=230,slow=30						
ANMO	Albuquerque	84.49	51	LR	LR	05 37 34.1	
	comp=Z,118nm,18.7s,baz=242,slow=31						
DLBC	Dease Lake	84.73	23	LR	LR	05 36 06.2	
	comp=Z,234nm,21.6s,baz=215,slow=30						
MAW	Mawson	84.88	199	LR	LR	05 41 34.8	
	comp=Z,224nm,19.6s,baz=90,slow=34						
ILAR	Eielson Array	85.05	12	P	P	05 06 05.7	+0.8
	comp=Z,0.7nm,0.9s,baz=204,slow=4.0,SNR=6.7						
ILAR				LR	LR	05 37 03.1	
	comp=Z,110nm,21.4s,baz=230,slow=31						
	comp=Z,0.7nm,0.9s						
ILAR	Eielson Array	85.05	12	P	P	05 06 03.8	-1.1
PDAR	Pinedale Array	85.86	43	P	P	05 06 12.9	+3.1
	comp=Z,0.3nm,0.8s,baz=240,slow=4.5,SNR=5.1						
PDAR				LR	LR	05 37 31.4	
	comp=Z,47nm,20.3s,baz=228,slow=31						
	comp=Z,0.3nm,0.8s						
CMIG	Matias Romero	87.50	71	LR	LR	05 36 22.4	
	comp=Z,157nm,20.8s,baz=216,slow=29						
YAK	Yakutsk	89.75	338	LR	LR	05 40 57.6	
	comp=Z,37nm,21.7s,baz=126,slow=32						
CMAR	Chiang Mai Arr	90.29	289	LR	LR	05 43 19.9	
	comp=Z,28nm,21.9s,baz=110,slow=33						
PLCA	Paso Flores	90.45	133	LR	LR	05 37 44.7	
	comp=Z,62nm,21.4s,baz=218,slow=29						
TROLL	Troll, Antarti	90.79	180	P	P	05 06 31.0	-1.7
	comp=Z,47nm,0.7s						
INK	Inuvik	90.98	15	LR	LR	05 40 03.9	
	comp=Z,102nm,21.5s,baz=231,slow=31						
SNAA	Sanae	91.03	178	LR	LR	05 45 14.4	
	comp=Z,73nm,18.8s,baz=209,slow=34						
VNA3	Neumayer Olymp	91.11	176	⇓P	P	05 06 33.9	-0.2
	comp=Z,3.0nm,0.8s						
VNA2	Neumayer--Watz	91.57	176	P	P	05 06 36.0	-0.2
	comp=Z,2.6nm,0.8s,baz=185,slow=3.3						
YKA	Yellowknife Ar	93.20	24	LR	LR	05 41 11.6	
	comp=Z,141nm,21.7s,baz=239,slow=31						
JTS	Las Juntas de	94.64	81	LR	LR	05 39 04.2	
	comp=Z,87nm,22.0s,baz=233,slow=29						
ATAH	Atahualpa	95.71	99	LR	LR	05 39 48.0	
	comp=Z,145nm,22.0s,baz=251,slow=29						
TIXI	Tiksi	96.11	345	LR	LR	05 46 45.4	
	comp=Z,115nm,20.2s,baz=144,slow=33						
TLY	Talaya	97.27	322	LR	LR	05 45 11.4	
	comp=Z,31nm,21.5s,baz=107,slow=32						
ULM	Lac du Bonnet	97.47	40	LR	LR	05 45 45.8	
	comp=Z,168nm,19.4s,baz=232,slow=32						
BRDH	Bariadhala	98.06	291	LR	LR	05 48 28.8	
	comp=Z,36nm,20.8s,baz=142,slow=34						
CLL	Collm	145.32	349	ePKPmax		05 13 13.0	
BRTR	Keskin Array B	145.60	316	PKPbc	PKiKP	05 13 10.8	-1.7
	comp=Z,2.7nm,1.1s,baz=106,slow=2.7,SNR=4.3						
GERES	GERESS Array B	147.54	347	PKPbc	PKPab	05 13 17.3	+1.2
	comp=Z,1.0nm,0.9s,baz=90,slow=1.0,SNR=5.6						
FUORN	Ofenpass-Fuorn	150.32	350		PKiKP	05 13 22.9	+0.8

*KRNET **20** 05:05:41.8±0.1, 42.°97N×77.°30E, h26^{km}, mb2.2*

*NNC **20** 05:05:43.1±0.9, 42.°93N×77.°28E, h0^{km}, mpv2.9, Error ellipse: s-maj=7.7km s-min=3.7km az=14.0*

*SOME **20** 05:05:44.1, 43.°00N×77.°25E, h15^{km}*

ISC 20 05:05:42.4±1.0**, 42.°93N**±0.°03×**77.°29E**±0.°02**, h17**^{km}±10^{km}**, n22, σ0**^{s}**.44**/43**, 10C-2D, Lake Issyk-Kul region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MDOK	Medeo	0.29	323	Pg	Pb	05 05 49.5	+0.2
	17nm,0.1s						
MDOK				Lg	Lg	05 05 53.4	
	51nm,0.1s						
MDOK	Medeo	0.29	323	eP	Pb	05 05 49.5	+0.2
	17nm,0.1s						
MDOK				eS	Sb	05 05 53.4	-0.5
	51nm,0.1s						
ANVS	Anan'yevo	0.32	118	⇓eP	Pb	05 05 49.4	-0.3
ANVS				⇓eS	Sb	05 05 54.6	0.0
KOTS	Kotyrbulak	0.33	337	P	Pb	05 05 50.5	+0.5
	17nm,0.1s						
KOTS				S	Sb	05 05 55.3	+0.3
	52nm,0.3s						
KOTS	Kotyrbulak	0.33	337	eP	Pb	05 05 50.5	+0.5
	17nm,0.1s						
KOTS				eS	Sb	05 05 55.3	+0.3
	52nm,0.3s						
KDJ	Kajisay	0.81	186	⇑eP	Pb	05 05 57.8	-0.3
KDJ				⇑eS	Sb	05 06 09.4	+0.7
SATY	Saty	0.83	81	P	Pn	05 05 59.8	+0.3
	0.9nm,0.1s						
SATY				S	Sn	05 06 11.1	-0.2
	15nm,0.1s						
SATY	Saty	0.83	81	eP	Pn	05 05 59.8	+0.3
	0.9nm,0.1s						
SATY				eS	Sn	05 06 11.1	-0.2
	15nm,0.1s						
KTBS	Karatobe	0.90	331	P	Pg	05 05 59.7	-0.2
	4.8nm,0.1s						
KTBS				S	Sb	05 06 10.9	-0.3
	8.4nm,0.2s						
KTBS	Karatobe	0.90	331	eP	Pg	05 05 59.7	-0.2
	4.8nm,0.1s						
KTBS				eS	Sb	05 06 10.9	-0.3
	8.4nm,0.2s						
PRZ	Przheval'sk	0.93	118	⇑eP	Pb	05 05 59.3	-1.0
PRZ				⇑eS	Sb	05 06 12.0	-0.4
KST	Kastek	0.98	277	P	Pn	05 06 01.9	+0.4
	0.2nm,0.2s						
KST				S	Sg	05 06 14.7	+0.4
	1.7nm,0.3s						
KST	Kastek	0.98	277	eP	Pn	05 06 01.9	+0.4
	0.2nm,0.2s						
KST				eS	Sg	05 06 14.7	+0.4
	1.7nm,0.3s						
BOOM	Boomskoye usch	1.09	247	⇑eP	Pb	05 06 02.4	-0.5
BOOM				⇑eS	Sb	05 06 17.3	+0.4
TKM2	Tokmak 2	1.24	270	⇑eP	Pn	05 06 04.8	-0.4
TKM2				⇑eS	Sb	05 06 21.6	+0.2
TARG	Taragay, Kyrgy	1.26	162	⇑eP	Pn	05 06 05.6	0.0
TARG				⇑eS	Sn	05 06 22.8	+0.4
UZB	Uzynbulak	1.29	80	P	Pg	05 06 07.7	+0.4
	1.3nm,0.1s						
UZB				S	Sg	05 06 24.9	+0.7
	4.8nm,0.2s						
UZB	Uzynbulak	1.29	80	eP	Pg	05 06 07.7	+0.4
	1.3nm,0.1s						
UZB				eS	Sg	05 06 24.9	+0.7
	4.8nm,0.2s						
ARXS	Arharly	1.34	17	P	Pg	05 06 08.0	-0.2
	1.2nm,0.1s						
ARXS				S	Sg	05 06 25.2	-0.6
	4.9nm,0.2s						
ARXS	Arharly	1.34	17	eP	Pg	05 06 08.0	-0.2
	1.2nm,0.1s						
ARXS				eS	Sg	05 06 25.2	-0.6
	4.9nm,0.2s						
KRBS	Karabastau	1.40	304	P	Pg	05 06 09.3	-0.1
	2.1nm,0.1s						
KRBS				S	Sg	05 06 27.4	-0.4
	4.8nm,0.2s						
KRBS	Karabastau	1.40	304	eP	Pg	05 06 09.3	-0.1
	2.1nm,0.1s						
KRBS				eS	Sg	05 06 27.4	-0.4
	4.8nm,0.2s						

*VAO **20** 05:29:40.5±0.5, 15.°10S×71.°44W, h144^{km}±4^{km}, mb4.9, Presumed earthquake*

*SJA **20** 05:29:41.6±1.7, 15.°45S×71.°39W, h217^{km}±64^{km}, ML4.6, MW4.4*

*NEIC **20** 05:29:41.8±1.4, 15.°24S±0.°07×71.°60W±0.°09, h145^{km}±4^{km}, mb4.5/109, Error ellipse: s-maj=14.0km s-min=9.7km az=62.0*

*IDC **20** 05:29:42.9±0.6, 15.°01S×71.°16W, h148^{km}±4^{km}, mb4.0/16, mbtmp4.4/21, MS3.4/1, Error ellipse: s-maj=15.3km s-min=9.9km az=60.0*

*GFZ **20** 05:29:42.1±0.4, 15°S±4°×7°2W±°, h159^{km}±5^{km}, M4.8/19, mb4.8/19*

ISC 20 05:29:40.2±0.3**, 15.°14S**±0.°04×**71.°39W**±0.°05**, h133**^{km}**, n265, σ1**^{s}**.40**/260**, mb4.5**/61**, 3C, Southern Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB18	Visviri	3.05	143	Pn	Pn	05 30 33.3	+5.2
PB18	Visviri	3.05	143	P	Pn	05 30 33.5	+5.4
	comp=Z,1μm,0.8s						
LPAZ	La Paz	3.34	110	P	Pn	05 30 34.4	+2.4
	comp=Z,58nm,0.4s,baz=304,slow=8.6,SNR=603						
LPAZ				S	Sn	05 31 05.6	-6.2
	comp=Z,91nm,0.6s,baz=328,slow=12,SNR=6.5						
LPAZ	La Paz	3.34	110	i P	Pn	05 30 35.8	+3.8
LPAZ				eS	Sn	05 31 16.7	+4.9
LPAZ	La Paz	3.34	110		Pn	05 30 35.6	+3.6
LPAZ	La Paz	3.34	110	eP	Pn	05 30 34.1	+2.2
LPAZ	La Paz	3.34	110	P	Pn	05 30 36.0	+4.0
	comp=Z,115nm,0.6s						
AP01	Chacalluta	3.37	163	i P	Pn	05 30 34.0	+2.3
AP01				eS	Sn	05 31 12.4	+0.8
AP01				IAML		05 31 16.9	
	comp=Z,1μm,0.8s						
AP01	Chacalluta	3.37	163	Pn	Pn	05 30 32.7	+1.0
AP01				Sn	Sn	05 31 12.7	+1.2
AP01	Chacalluta	3.37	163	P	Pn	05 30 33.8	+2.1
	comp=Z,1μm,1.0s						
PB12	IPOC Station P	3.60	164	i P	Pn	05 30 36.0	+1.1
PB12				eS	Sn	05 31 15.6	-1.6
PB12				IAML		05 31 20.1	
	comp=Z,1μm,0.6s						
PB12	IPOC Station P	3.60	164		Pn	05 30 35.8	+1.0
PB12	IPOC Station P	3.60	164	P	Pn	05 30 36.0	+1.1
	comp=Z,544nm,1.0s						
PB16	IPOC Station P	3.65	151	i P	Pn	05 30 39.1	+3.1
PB16				eS	Sn	05 31 20.4	+1.2
PB16				IAML		05 31 28.1	
	comp=Z,390nm,1.2s						
PB16	IPOC Station P	3.65	151	Pn	Pn	05 30 38.9	+2.9
PB16	IPOC Station P	3.65	151	P	Pn	05 30 39.6	+3.6
	comp=Z,145nm,0.6s						
PSGCX	Pisagua	4.59	165	i P	Pn	05 30 48.0	-0.1
PSGCX				eS	Sn	05 31 37.8	-3.0
PSGCX				IAML		05 31 41.1	
	comp=Z,652nm,0.7s						
PSGCX	Pisagua	4.59	165	Pn	Pn	05 30 48.0	-0.1
PSGCX	Pisagua	4.59	165	P	Pn	05 30 48.0	-0.1
	comp=Z,330nm,1.0s						
PB11	IPOC Station P	4.88	160	Pn	Pn	05 30 52.3	+0.3
PB11	IPOC Station P	4.88	160	P	Pn	05 30 52.0	0.0
	comp=Z,373nm,0.4s						
PB08	IPOC Station P	5.41	157	Pn	Pn	05 31 00.4	+1.1
PB08	IPOC Station P	5.41	157	P	Pn	05 31 00.3	+1.1
	comp=Z,127nm,1.0s						
NNA	Nana	6.16	300	P	Pn	05 31 08.3	-0.7
	comp=Z,155nm,0.6s,baz=136,slow=12,SNR=47						
NNA				S	Sn	05 32 08.6	-10
	comp=Z,80nm,0.4s,baz=163,slow=9.5,SNR=4.7						
NNA	Nana	6.16	300	Pn	Pn	05 31 08.4	-0.6
NNA	Nana	6.16	300	P	Pn	05 31 08.4	-0.7
	comp=Z,337nm,0.7s						
PB02	IPOC Station P	6.31	167		Pn	05 31 10.6	-0.4
PB02	IPOC Station P	6.31	167	P	Pn	05 31 10.8	-0.2
	comp=Z,116nm,0.5s						
PB07	IPOC Station P	6.70	168	Pn	Pn	05 31 15.8	-0.6
PB07	IPOC Station P	6.70	168	P	Pn	05 31 15.7	-0.7
	comp=Z,253nm,0.6s						
PB09	IPOC Station P	6.93	163		Pn	05 31 19.6	+0.2
PB09	IPOC Station P	6.93	163	P	Pn	05 31 19.6	+0.2
	comp=Z,119nm,0.9s						
PB03	IPOC Station P	7.04	168		Pn	05 31 20.3	-0.6
PB03	IPOC Station P	7.04	168	P	Pn	05 31 20.3	-0.6
	comp=Z,141nm,0.5s						
CZSB	Cruzeiro do Su	7.48	350	Pn	Pn	05 31 25.4	-1.3
CZSB	Cruzeiro do Su	7.48	350	P	Pn	05 31 25.6	-1.1
CZSB	Cruzeiro do Su	7.48	350	eP	Pn	05 31 25.1	-1.6
PB06	IPOC Station P	7.72	167	P	Pn	05 31 29.0	-1.1
	comp=Z,91nm,0.6s						
PB05	IPOC Station P	7.75	172	P	Pn	05 31 28.8	-1.7
	comp=Z,51nm,0.6s						
PB14	IPOC Station P	9.48	175		Pn	05 31 52.4	-1.5
PB14	IPOC Station P	9.48	175	P	Pn	05 31 52.0	-1.8
	comp=Z,32nm,0.7s						
SIV	San Ignacio	9.98	96	P	Pn	05 32 00.5	+0.2
	comp=Z,6.4nm,0.5s,baz=281,slow=9.7,SNR=50						
SIV				S	Sn	05 33 42.6	-8.0
	comp=Z,13nm,0.7s,baz=234,slow=19,SNR=4.5						
SALTA		10.21	153	P	Pn	05 32 04.9	+1.1
	comp=Z,8.8nm,0.7s						
ATAH	Atahualpa	10.51	318	P	Pn	05 32 07.5	-0.4
	comp=Z,17nm,0.6s,baz=140,slow=5.3,SNR=14						
ATAH				S	Sn	05 34 04.6	+0.5
	comp=Z,15nm,0.7s,baz=157,slow=7.7,SNR=1.7						
AC01	Pan de Azucar	10.98	176	Pn	Pn	05 32 11.9	-1.7
VILB	Vilhena	11.07	80	eP	Pn	05 32 13.5	-1.4
PTLB	Pontes e Lacer	11.82	93		Pn	05 32 25.2	+0.4
PTLB	Pontes e Lacer	11.82	93	eP	Pn	05 32 25.2	+0.4
AC02	Maricunga	11.83	170		Pn	05 32 24.8	-0.4
AC02	Maricunga	11.83	170	P	Pn	05 32 24.6	-0.6
	comp=Z,16nm,0.5s						
AC05	El Transito	13.67	176	Pn	Pn	05 32 47.4	-1.3
COIM	Forte Coimbra	13.81	112	eP	Pn	05 32 47.8	-2.6
BDQN	Bodoquena, MS	14.90	113	eP	Pn	05 33 05.5	+1.3
GO04	Tololo Observa	14.97	178		Pn	05 33 04.5	-0.8
GO04	Tololo Observa	14.97	178	P	P	05 33 06.7	-0.9
	comp=Z,54nm,1.6s						
SALV	Santo Antonio	15.14	95	eP	Pn	05 33 08.3	+1.0
PTLC	Puerto Leguiza	15.58	347	P	Pn	05 33 06.4	-6.4
	comp=Z,1μmcomp=Z,66nm,0.9s						
CLDB	Colider	15.77	76	eP	Pn	05 33 15.1	-0.1
CLDB	Colider	15.77	76	P	P	05 33 16.7	+0.4
	comp=Z,61nm,0.8s						
AQDB	Aquidauana	15.85	112		P	05 33 17.5	+0.4
AQDB				IAmb	IAmb	05 33 18.8	
	comp=Z,37nm,0.8s						
AQDB	Aquidauana	15.85	112	eP	P	05 33 17.1	+0.1
MACA	Manacapuru-AM	15.90	43	Pn	Pn	05 33 14.9	-1.9
MACA	Manacapuru-AM	15.90	43	eP	Pn	05 33 14.9	-1.9
PP1B	Ponte de Pedra	16.03	101	eP	P	05 33 19.2	+0.1
CFA	Coronel Fontan	16.64	171	P	P	05 33 26.6	+0.8
	comp=Z,1.3nm,0.3s,baz=354,slow=14,SNR=22						
OTAV	Otavalo	16.80	335		P	05 33 27.7	-0.4
OTAV				IAmb	IAmb	05 33 46.9	
	comp=Z,32nm,0.9s						
OTAV	Otavalo	16.80	335	P	Pn	05 33 31.6	+3.4
	comp=Z,395nmcomp=Z,38nm,0.9s						
OTAV	Otavalo	16.80	335	eP	P	05 33 27.8	-0.3
OTAV	Otavalo	16.80	335	P	Pn	05 33 31.1	+3.0
	comp=Z,38nm,0.9s						
TULM	Tulcn-Chalpat	16.98	338	P	Pn	05 33 34.2	+3.8
	comp=Z,3μmcomp=Z,386nm,1.2s						
CMBC	Cumbal	17.20	338	P	Pn	05 33 37.2	+4.2
CPUP	Villa Florida	17.21	133	P	P	05 33 31.5	-0.5
	comp=Z,24nm,0.9s,baz=315,slow=12,SNR=39						
CPUP	Villa Florida	17.21	133		P	05 33 31.6	-0.5
CPUP				IAmb	IAmb	05 33 37.3	
	comp=Z,26nm,0.7s						
CPUP	Villa Florida	17.21	133	eP	P	05 33 31.9	-0.2
CPUP	Villa Florida	17.21	133	P	Pn	05 33 33.8	+1.1
	comp=Z,36nm,0.8s						

MACC	**Macarena, Meta**	**17.35**	**352**	P	**P**	**05 33 32.2**	**-1.5**
	comp=Z,441nmcomp=Z,53nm,0.9s						
SJPY	**San Joaquin**	**17.37**	**127**	eP	**Pn**	**05 33 35.1**	**+0.5**
GARC	**Garzon, Huila**	**17.69**	**346**	P	**P**	**05 33 38.7**	**+1.0**
	comp=Z,1µmcomp=Z,38nm,0.8s						
BBAC	**Balboa, Cauca**	**18.01**	**341**	P	**Pn**	**05 33 44.8**	**+2.3**
	comp=Z,445nmcomp=Z,42nm,1.1s						
C2SB	**Chapadao do Su**	**18.11**	**104**	eP	**P**	**05 33 42.6**	**+0.6**
C2SB	**Chapadao do Su**	**18.11**	**104**	P	**Pn**	**05 33 44.1**	**+0.7**
	comp=Z,82nm,1.1s						
POPC	**Popayan, Colom**	**18.33**	**343**	P	**Pn**	**05 33 47.7**	**+1.4**
	comp=Z,20nm,0.6s						
MT09	**Talagante**	**18.56**	**179**	P	**P**	**05 33 45.2**	**-1.7**
MT09				IAmb	IAmb	05 34 26.6	
	comp=Z,26nm,1.2s						
ITTB	**Itaituba**	**18.76**	**57**	eP	**P**	**05 33 49.4**	**+0.3**
ARAG	**Araguaiana, MT**	**18.88**	**94**	eP	**P**	**05 33 51.6**	**+1.2**
SNDB	**Serra Nova Dou**	**19.79**	**83**	eP	**P**	**05 34 01.2**	**+1.0**
ROSC	**El Rosal**	**20.06**	**351**	P	**P**	**05 34 04.3**	**+0.7**
	comp=Z,6.9nm,0.6s,baz=191,slow=7.4,SNR=10						
ROSC	**El Rosal**	**20.06**	**351**	P	**P**	**05 34 02.1**	**-1.6**
ROSC				IAmb	IAmb	05 34 20.8	
	comp=Z,18nm,0.9s						
PSAL	**Palomas, Salto**	**20.27**	**144**	eP	Pn	05 34 06.9	-1.8
BOAV	**Boa Vista**	**20.48**	**33**		**P**	**05 34 07.1**	**-0.6**
BOAV	**Boa Vista**	**20.48**	**33**	eP	**P**	**05 34 07.9**	**+0.2**
PTGB	**Pitanga**	**20.49**	**121**	eP	**P**	**05 34 08.3**	**+0.5**
LDASE	**Londrina, Braz**	**20.80**	**116**	eP	**P**	**05 34 11.0**	**-0.2**
FRTB	**Fartura**	**22.14**	**115**	eP	**P**	**05 34 25.1**	**-0.3**
FRTB	**Fartura**	**22.14**	**115**	P	**P**	**05 34 25.4**	**0.0**
	comp=Z,218nm,0.9s						
IPMB	**Ipameri, GO**	**22.39**	**100**	eP	**P**	**05 34 26.2**	**-1.7**
CPSB	**Cacapava Do Su**	**22.42**	**136**	P	**P**	**05 34 28.1**	**+0.2**
CPSB	**Cacapava Do Su**	**22.42**	**136**	eP	**P**	**05 34 28.1**	**+0.2**
CPSB	**Cacapava Do Su**	**22.42**	**136**	P	**P**	**05 34 28.7**	**+0.7**
	comp=Z,78nm,0.8s						
BB19B	**Bebedouro**	**22.50**	**109**	eP	**P**	**05 34 28.0**	**-1.0**
BDFB	**Brasilia**	**22.54**	**94**	P	**P**	**05 34 29.3**	**-0.2**
	comp=Z,12nm,0.5s,baz=266,slow=11,SNR=39						
	comp=Z,12nm,0.5s						
BDFB	**Brasilia**	**22.54**	**94**	P	**P**	**05 34 29.2**	**-0.2**
BDFB				IAmb	IAmb	05 34 29.9	
	comp=Z,44nm,1.3s						
ANCO	**Parque Anchore**	**22.58**	**150**	eP	**P**	**05 34 29.3**	**-0.2**
CNLB	**Canela**	**23.62**	**130**	eP	**P**	**05 34 37.8**	**-1.5**
CNLB	**Canela**	**23.62**	**130**	P	**P**	**05 34 38.5**	**-0.8**
	comp=Z,111nm,1.2s						
SDV	**Santo Domingo**	**23.88**	**2**		**P**	**05 34 41.4**	**-0.5**
SDV	**Santo Domingo**	**23.88**	**2**	P	**P**	**05 34 42.8**	**+0.8**
	comp=Z,245nm,1.0s						
SPB	**Sao Paulo**	**24.09**	**114**		**P**	**05 34 43.9**	**+0.3**
SPB	**Sao Paulo**	**24.09**	**114**	eP	**P**	**05 34 43.8**	**+0.3**
SPB	**Sao Paulo**	**24.09**	**114**	P	**P**	**05 34 44.4**	**+0.9**
	comp=Z,58nm,1.3s						
SMTB	**Santa Maria do**	**24.09**	**78**	eP	**P**	**05 34 43.6**	**-0.1**
PMNB	**Patos De Minas**	**24.11**	**102**	eP	**P**	**05 34 42.9**	**-1.1**
PMNB	**Patos De Minas**	**24.11**	**102**	P	**P**	**05 34 44.0**	**0.0**
	comp=Z,42nm,0.8s						
TRQA	**Tornquist**	**24.30**	**162**	P	**P**	**05 34 45.4**	**+0.1**
TRQA				IAmb	IAmb	05 34 51.8	
	comp=Z,21nm,1.3s						
VAO	**Valinhos**	**24.34**	**112**	P	**P**	**05 34 45.9**	**-0.1**
VAO				IAmb	IAmb	05 34 47.6	
	comp=Z,18nm,0.6s						
VAO	**Valinhos**	**24.34**	**112**	eP	**P**	**05 34 44.7**	**-1.3**
PET01	**Itanhaem-SP**	**24.42**	**116**	eP	**P**	**05 34 46.6**	**0.0**
PLCA	**Paso Flores**	**25.51**	**179**	P	**P**	**05 34 57.7**	**+1.3**
	comp=Z,2.5nm,0.7s,baz=358,slow=7.6,SNR=10						
PLCA				PcP	**PcP**	**05 38 26.0**	**+1.5**
	comp=Z,2.7nm,1.1s,baz=315,slow=4.3,SNR=2.4						
	comp=Z,2.5nm,0.7s						
PLCA	**Paso Flores**	**25.51**	**179**	P	**P**	**05 34 56.9**	**+0.5**
PLCA				IAmb	IAmb	05 34 59.2	
	comp=Z,13nm,1.4s						
SDBA	**SAO DESIDERIO**	**25.86**	**87**	eP	**P**	**05 34 59.5**	**-0.2**
BSCB	**Bom Sucesso**	**25.94**	**107**	eP	**P**	**05 35 00.2**	**-0.3**
DIAM	**Diamantina, MG**	**26.72**	**101**	eP	**P**	**05 35 07.2**	**-0.3**
ARCA	**Ara§uai, MG**	**28.33**	**97**	eP	**P**	**05 35 21.7**	**-0.1**
BSFB	**Barra de Sao F**	**29.42**	**102**	eP	**P**	**05 35 31.2**	**-0.2**
GUA01	**Guaratinga, BA**	**30.40**	**97**	eP	**P**	**05 35 39.9**	**-0.2**
NBPN	**Ponto Novo - B**	**30.67**	**86**	eP	**P**	**05 35 42.0**	**-0.5**
CMC01	**Camacan, BA**	**30.73**	**95**	eP	**P**	**05 35 42.9**	**-0.2**
NBIT	**Itapeh - BA**	**30.85**	**94**	eP	**P**	**05 35 44.0**	**0.0**
NBPS	**Pedro II - PI**	**31.33**	**73**	eP	**P**	**05 35 49.0**	**+0.6**
FDFM	**Morne la Roset**	**31.36**	**19**	P	**P**	**05 35 48.8**	**+0.3**
NBMA	**Muriti-CE**	**32.88**	**80**	eP	**P**	**05 36 01.4**	**-0.5**
NBMO	**Morrinhos-CE**	**33.04**	**72**	eP	**P**	**05 36 03.6**	**+0.3**
NBTA	**Tacaratu-PE**	**33.10**	**83**	eP	**P**	**05 36 03.5**	**-0.3**
MLPR	**Magueyes Islan**	**33.18**	**8**	P	**P**	**05 36 03.2**	**-1.0**
MLPR				IAmb	IAmb	05 36 06.8	
	comp=Z,17nm,1.2s						
PDPR	**Patillas Dam,**	**33.37**	**9**	P	**P**	**05 36 04.3**	**-1.6**
PDPR				IAmb	IAmb	05 36 26.4	
	comp=Z,16nm,1.4s						
SJG	**San Juan**	**33.44**	**9**	LR	LR	05 51 24.4	
	comp=Z,68nm,19.2s,baz=288,slow=39						
RCBR	**Riachuelo**	**36.05**	**79**	P	**P**	**05 36 29.7**	**+0.5**
RCBR	**Riachuelo**	**36.05**	**79**	eP	**P**	**05 36 29.4**	**+0.2**
CAMR	**Camarioca**	**39.20**	**345**	P	**P**	**05 36 55.5**	**+0.1**
PMSA	**Palmer Station**	**49.84**	**176**	P	**P**	**05 38 18.4**	**-0.9**
JSC	**Jenkinsville**	**50.04**	**349**	P	**P**	**05 38 21.0**	**-0.3**
LRAL	**Lakeview Retre**	**50.17**	**343**	P	**P**	**05 38 22.1**	**-0.2**
LRAL				IAmb	IAmb	05 38 52.6	
	comp=Z,16nm,1.4s						
HODGE	**Hodges**	**50.18**	**348**	P	**P**	**05 38 22.5**	**+0.2**
HODGE				IAmb	IAmb	05 38 44.3	
	comp=Z,22nm,1.4s						
Z47A	**Carrollton**	**50.64**	**342**	P	**P**	**05 38 25.9**	**+0.1**
PAULI	**Pauline**	**50.66**	**349**	P	**P**	**05 38 26.4**	**+0.4**
W57A	**Gilead**	**50.68**	**351**	P	**P**	**05 38 26.3**	**+0.2**
V55A	**Taylorsville**	**51.56**	**350**	P	**P**	**05 38 33.0**	**+0.3**
SWET	**Sewanee**	**51.95**	**345**	P	**P**	**05 38 35.0**	**-0.6**
SWET				IAmb	IAmb	05 39 09.9	
	comp=Z,8.1nm,1.1s						
U49A	**Red Boiling Sp**	**53.14**	**346**	P	**P**	**05 38 43.3**	**-1.0**
U49A				IAmb	IAmb	05 39 15.0	
	comp=Z,17nm,1.5s						
S54A	**Dingess, Beckl**	**53.48**	**350**	P	**P**	**05 38 47.1**	**+0.3**
TXAR	**Lajitas Array**	**54.10**	**325**	P	**P**	**05 38 52.3**	**+0.7**
	comp=Z,1.0nm,0.6s,baz=155,slow=9.2,SNR=19						
TXAR				pP	**pP**	**05 39 26.7**	**+2.6**
	comp=Z,0.7nm,0.9s,baz=116,slow=7.4,SNR=3.1						
	comp=Z,1.0nm,0.6s						
TXAR	**Lajitas Array**	**54.10**	**325**	P	**P**	**05 38 51.7**	**+0.2**
TX31	**Lajitas Ar. Si**	**54.10**	**325**		**P**	**05 38 51.8**	**+0.3**
MNHN	**Monahans**	**55.17**	**327**	P	**P**	**05 38 59.4**	**+0.1**
MNHN				IAmb	IAmb	05 39 00.7	
	comp=Z,3.9nm,0.8s						
S44A	**Carbondale**	**55.17**	**343**	P	**P**	**05 38 59.1**	**+0.1**
APMT	**Aspermont**	**55.45**	**331**	IAmb	IAmb	05 39 02.8	
	comp=Z,9.6nm,1.1s						
129A	**Stewart Farms,**	**55.74**	**329**	IAmb	IAmb	05 39 05.2	
	comp=Z,5.7nm,1.0s						
O52A	**Adamsville**	**55.83**	**350**	P	**P**	**05 39 03.7**	**+0.1**
TPB28		**56.35**	**326**	IAmb	IAmb	05 39 09.6	
	comp=Z,3.6nm,1.0s						
R40A	**Maddies Statio**	**56.64**	**340**	IAmb	IAmb	05 39 09.3	
	comp=Z,4.5nm,0.6s						
MNTX	**Cornudas Mount**	**56.85**	**325**	IAmb	IAmb	05 39 12.1	
	comp=Z,5.5nm,1.2s						
SMWD	**Samnorwood**	**56.98**	**332**	IAmb	IAmb	05 39 13.2	
	comp=Z,9.1nm,0.9s						
ALQ	**Albuquerque**	**59.91**	**327**	IAmb	IAmb	05 39 34.1	
	comp=Z,2.1nm,0.8s						
ANMO	**Albuquerque**	**59.91**	**327**	P	**P**	**05 39 32.8**	**+0.2**
SADO	**Sadowa**	**60.04**	**354**	P	**P**	**05 39 32.2**	**-0.8**
SADO				IAmb	IAmb	05 40 15.1	
	comp=Z,13nm,1.2s						
BUKO	**Buck Lake**	**60.73**	**354**	P	**P**	**05 39 37.1**	**-0.5**
SDCO	**Great Sand Dun**	**61.60**	**330**	IAmb	IAmb	05 39 45.6	
	comp=Z,3.9nm,0.8s						
WUAZ	**Wupatki**	**63.03**	**324**	IAmb	IAmb	05 39 56.6	
	comp=Z,7.5nm,1.1s						
PV22	**Blue Mesa, Par**	**63.85**	**328**	IAmb	IAmb	05 40 00.4	
	comp=Z,4.5nm,0.8s						
HMU	**Henry Mountain**	**64.44**	**326**	IAmb	IAmb	05 40 16.3	
	comp=Z,9.6nm,1.3s						
KNB	**Kanab**	**64.92**	**324**	IAmb	IAmb	05 40 08.8	
	comp=Z,6.8nm,0.9s						
SRU	**San Rafael Swe**	**65.18**	**327**	IAmb	IAmb	05 40 09.4	
	comp=Z,4.8nm,1.0s						
DRLN	**Deer Lake**	**65.28**	**10**	P	**P**	**05 40 06.9**	**-0.7**
P17A	**Butcher Ranch,**	**65.56**	**327**	IAmb	IAmb	05 40 11.9	
	comp=Z,5.2nm,0.8s						
SHOC	**Shoshone, Teco**	**66.17**	**321**	P	**P**	**05 40 13.9**	**+0.3**
SHOC				IAmb	IAmb	05 40 16.7	
	comp=Z,7.3nm,0.7s						
PSUT	**Pine Spring**	**66.57**	**325**		**P**	**05 40 16.5**	**+0.1**
PSUT				IAmb	IAmb	05 40 19.0	
	comp=Z,4.2nm,1.0s						
GWY	**Greenwater Val**	**66.60**	**321**		**P**	**05 40 17.6**	**+1.0**
GWY				IAmb	IAmb	05 40 18.9	
	comp=Z,4.2nm,0.7s						
AGMN	**Agassiz Nation**	**66.81**	**342**		**P**	**05 40 16.9**	**-0.6**
AGMN				IAmb	IAmb	05 40 18.4	
	comp=Z,7.8nm,0.8s						
VNA3	**Neumayer Olymp**	**66.82**	**162**	P	**P**	**05 40 19.1**	**+1.9**
	comp=Z,4.5nm,0.8s						
TPNV	**Topopah Spring**	**66.86**	**322**		**P**	**05 40 19.4**	**+1.2**
TPNV				IAmb	IAmb	05 40 21.2	
	comp=Z,6.2nm,1.0s						
WCT	**Wildcat Mounta**	**66.98**	**322**	P	**P**	**05 40 18.2**	**-0.7**
WCT				IAmb	IAmb	05 40 21.9	
	comp=Z,4.9nm,0.9s						
VNA1	**Neumayer--Stat**	**67.03**	**161**	P	**P**	**05 40 20.5**	**+2.0**
	comp=Z,10nm,1.0s						
DUG	**Dugway, Tooele**	**67.18**	**327**		**P**	**05 40 19.7**	**-0.4**
DUG				IAmb	IAmb	05 40 22.7	
	comp=Z,6.0nm,1.1s						
VNA2	**Neumayer--Watz**	**67.40**	**161**	⇑P	**P**	**05 40 22.2**	**+1.3**
	comp=Z,5.1nm,0.8s,baz=292,slow=6.3						
PDAR	**Pinedale Array**	**67.45**	**330**	P	**P**	**05 40 22.2**	**+0.4**
	comp=Z,1.0nm,0.8s,baz=126,slow=6.6,SNR=8.9						
	comp=Z,1.0nm,0.8s						
PDAR	**Pinedale Array**	**67.45**	**330**	P	**P**	**05 40 21.2**	**-0.7**
HWUT	**Hardware Ranch**	**67.56**	**328**		**P**	**05 40 22.4**	**-0.2**
MDND	**Maddock**	**67.58**	**340**		**P**	**05 40 21.9**	**-0.4**
CWC	**Cottonwood Cre**	**67.63**	**321**	P	**P**	**05 40 22.0**	**-1.0**
GMN	**Gold Mountain**	**67.69**	**322**	P	**P**	**05 40 23.4**	**-0.2**
TPH	**Tonopah**	**68.18**	**322**	P	**P**	**05 40 26.2**	**-0.4**
HVU	**Hansel Valley**	**68.31**	**328**	P	**P**	**05 40 27.5**	**+0.3**
ULM	**Lac du Bonnet**	**68.58**	**343**	P	**P**	**05 40 28.1**	**-0.3**
	comp=Z,4.5nm,0.7s,baz=142,slow=5.4,SNR=7.6						
	comp=Z,4.5nm,0.7s						
ULM	**Lac du Bonnet**	**68.58**	**343**	P	**P**	**05 40 27.8**	**-0.7**
ULM				IAmb	IAmb	05 40 28.7	
	comp=Z,5.0nm,0.7s						
FXWY	**Fox Creek**	**68.81**	**330**	P	**P**	**05 40 30.3**	**0.0**
MDPB	**Devils Postpil**	**69.00**	**321**	P	**P**	**05 40 32.3**	**+0.6**
SNAA	**Sanae**	**69.03**	**162**	⇑P	**P**	**05 40 32.5**	**+1.3**
	comp=Z,168nm,0.8s						
SNAA	**Sanae**	**69.03**	**162**	P	**P**	**05 40 32.2**	**+1.0**
	comp=Z,4.8nm,0.7s,baz=272,slow=7.5,SNR=11						
	comp=Z,4.8nm,0.7s						
SNAA	**Sanae**	**69.03**	**162**		**P**	**05 40 31.1**	**0.0**
SNAA				IAmb	IAmb	05 40 33.8	
	comp=Z,9.3nm,0.9s						
NVAR	**Mina Array Bea**	**69.06**	**322**	P	**P**	**05 40 33.8**	**+1.8**
	comp=Z,1.6nm,0.9s,baz=154,slow=7.3,SNR=11						
	comp=Z,1.6nm,0.9s						
NVAR	**Mina Array Bea**	**69.06**	**322**	P	**P**	**05 40 32.0**	**0.0**
KVN	**Kaiserville**	**69.34**	**323**		**P**	**05 40 33.2**	**-0.5**
YNE	**Yellowstone No**	**69.37**	**332**	P	**P**	**05 40 34.0**	**+0.1**
DBIC	**Dimbokro**	**69.39**	**77**	P	**P**	**05 40 33.1**	**-1.1**
	comp=Z,5.0nm,0.7s,baz=272,slow=5.7,SNR=11						
	comp=Z,5.0nm,0.7s						
DBIC	**Dimbokro**	**69.39**	**77**	P	**P**	**05 40 32.7**	**-1.5**
DBIC				IAmb	IAmb	05 40 34.7	
	comp=Z,5.6nm,0.6s						
WAKR	**Walker**	**69.78**	**322**	P	**P**	**05 40 37.0**	**+0.6**
WAKR				IAmb	IAmb	05 41 02.3	
	comp=Z,7.0nm,1.4s						
SCHQ	**Schefferville**	**69.80**	**3**	P	**P**	**05 40 37.8**	**+1.8**
	comp=Z,2.2nm,0.7s,baz=228,slow=18,SNR=1.8						
	comp=Z,2.2nm,0.7s						
SCHQ	**Schefferville**	**69.80**	**3**	P	**P**	**05 40 36.7**	**+0.8**
SCHQ				IAmb	IAmb	05 40 57.4	
	comp=Z,14nm,1.4s						
YERR	**Yerington**	**69.97**	**322**	P	**P**	**05 40 37.3**	**-0.3**
YERR				IAmb	IAmb	05 40 40.3	
	comp=Z,10nm,1.3s						
HLID	**Hailey**	**70.43**	**328**	P	**P**	**05 40 40.3**	**0.0**
PAHR	**Pah Rah Range**	**70.53**	**323**		**P**	**05 40 41.4**	**+0.5**
PAHR				IAmb	IAmb	05 40 43.9	
	comp=Z,7.4nm,0.9s						
BOZ	**Bozeman (W)**	**70.56**	**331**	P	**P**	**05 40 40.2**	**-0.8**
TROLL	**Troll, Antarti**	**70.74**	**162**	⇑P	**P**	**05 40 43.4**	**+1.7**
	comp=Z,211nm,0.7s						
MFID	**Camas Ranch**	**71.05**	**327**		**P**	**05 40 43.8**	**-0.1**
MFID				IAmb	IAmb	05 40 46.6	
	comp=Z,6.3nm,0.9s						
ORV	**Oroville**	**71.69**	**321**	P	**P**	**05 40 48.0**	**+0.3**
ORV				IAmb	IAmb	05 40 50.7	
	comp=Z,6.0nm,0.9s						
PLID	**Pearl Lake**	**72.31**	**329**		**P**	**05 40 51.4**	**-0.2**
MOD	**Modoc Plateau**	**72.48**	**324**		**P**	**05 40 53.0**	**+0.5**
MOD				IAmb	IAmb	05 40 55.1	
	comp=Z,5.7nm,0.8s						
BMO	**Blue Mountains**	**72.82**	**328**	P	**P**	**05 40 54.1**	**-0.3**
F10A	**Beach Ranch, E**	**73.55**	**329**		**P**	**05 40 59.3**	**+0.6**
F10A				IAmb	IAmb	05 41 02.6	
	comp=Z,8.9nm,1.4s						
QSPA	**South Pole Qui**	**75.02**	**180**	P	**P**	**05 41 09.0**	**+2.0**
	comp=Z,6.7nm,0.8s,baz=181,slow=1.4,SNR=27						
	comp=Z,6.7nm,0.8s						
QSPA	**South Pole Qui**	**75.02**	**180**	P	**P**	**05 41 06.9**	**-0.1**
QSPA				IAmb	IAmb	05 41 10.0	
	comp=Z,7.6nm,0.8s						
EDM	**Edmonton**	**77.03**	**336**		**P**	**05 41 18.1**	**-0.3**
EDM				IAmb	IAmb	05 41 19.4	
	comp=Z,15nm,1.1s						
TORD	**Torodi Ar. Bea**	**77.58**	**73**	P	**P**	**05 41 20.5**	**-1.7**
	comp=Z,3.4nm,0.6s,baz=266,slow=4.3,SNR=26						
	comp=Z,3.4nm,0.6s						
VNDA	**Vanda**	**82.67**	**190**	P	**P**	**05 41 51.1**	**+2.7**
	comp=Z,1.6nm,0.9s,baz=131,slow=4.8,SNR=5.3						
VNDA				pP	**pP**	**05 42 27.5**	**+4.1**
	comp=Z,0.6nm,0.6s,baz=162,slow=5.0,SNR=2.5						
	comp=Z,1.6nm,0.9s						
VNDA	**Vanda**	**82.67**	**190**	P	**P**	**05 41 48.4**	**0.0**
ESDC	**Sonseca Array**	**83.05**	**46**	P	**P**	**05 41 51.3**	**+0.3**
	comp=Z,1.7nm,0.7s,baz=258,slow=5.3,SNR=24						
	comp=Z,1.7nm,0.7s						
ESDC	**Sonseca Array**	**83.05**	**46**		**P**	**05 41 51.1**	**+0.1**
ESDC				IAmb	IAmb	05 41 53.1	
	comp=Z,5.4nm,1.1s						
TSUM	**Tsumeb**	**84.19**	**108**	P	**P**	**05 41 56.2**	**-1.3**
YKA	**Yellowknife Ar**	**84.44**	**341**	P	**P**	**05 41 57.8**	**+0.3**
	comp=Z,6.1nm,0.7s,baz=136,slow=5.0,SNR=33						
YKA				pP	**pP**	**05 42 34.1**	**+1.6**
	comp=Z,2.1nm,0.9s,baz=140,slow=5.4,SNR=2.6						
	comp=Z,6.1nm,0.7s						
YKA	**Yellowknife Ar**	**84.44**	**341**	P	**P**	**05 41 57.4**	**-0.1**
BOSA	**Boshof**	**88.54**	**119**	P	**P**	**05 42 19.1**	**+0.5**
	comp=Z,5.9nm,0.8s,baz=241,slow=3.0,SNR=12						
	comp=Z,5.9nm,0.8s						
BOSA	**Boshof**	**88.54**	**119**	P	**P**	**05 42 18.8**	**+0.3**
BOSA				IAmb	IAmb	05 42 19.8	
	comp=Z,6.2nm,0.8s						
SUMG	**Summit**	**90.19**	**9**	P	**P**	**05 42 26.4**	**+0.9**
SUMG	**Summit**	**90.19**	**9**	i P	**P**	**05 42 26.7**	**+1.2**
NEEM	**North Greenlan**	**93.16**	**4**	i P	**P**	**05 42 40.0**	**+1.0**
ILAR	**Eielson Array**	**97.52**	**335**	P	**P**	**05 42 58.4**	**-0.4**
	comp=Z,0.3nm,0.6s,baz=121,slow=1.8,SNR=6.0						
	comp=Z,0.3nm,0.6s						
ILAR	**Eielson Array**	**97.52**	**335**	P	Pdif	05 42 59.1	+0.3
VYHS	**Vyhne**	**101.32**	**43**	ePP	PKiKP	05 47 23.8	-16
KBZ	**Khabaz**	**117.82**	**48**	PKP	**PKiKP**	**05 48 12.1**	**+1.1**
	comp=Z,1.7nm,0.5s,baz=180,slow=5.1,SNR=4.3						
AKTO	**Aktyubinsk**	**126.27**	**38**	PKP	**PKPdf**	**05 48 27.5**	**+0.4**
	comp=Z,2.9nm,0.8s,baz=282,slow=2.4,SNR=10						
ABKAR	**Akbulak array**	**127.88**	**39**	PKPdf	**PKiKP**	**05 48 30.8**	**+0.1**
BVAR	**Borovoye Array**	**131.69**	**30**	PKP	**PKiKP**	**05 48 39.0**	**+0.6**
	comp=Z,0.9nm,0.5s,baz=306,slow=5.0,SNR=4.0						
ASAR	**Alice Springs**	**134.19**	**213**	PKP	**PKiKP**	**05 48 43.8**	**-0.6**
	comp=Z,1.0nm,0.7s,baz=137,slow=1.7,SNR=13						
ASAR	**Alice Springs**	**134.19**	**213**		**PKPdf**	**05 48 42.1**	**-0.9**
WRA	**Warramunga Arr**	**136.93**	**217**	PKP	**PKiKP**	**05 48 49.0**	**-0.9**
	comp=Z,1.5nm,0.7s,baz=145,slow=2.0,SNR=13						
WRA				SKPbc	**SKPbc**	**05 52 08.4**	**-0.5**
	comp=Z,0.9nm,0.7s,baz=140,slow=2.8,SNR=7.6						
WRA	**Warramunga Arr**	**136.93**	**217**		**PKPdf**	**05 48 48.3**	**+0.2**
ZALV	**Zalesovo Beam**	**137.03**	**20**	PKP	**PKiKP**	**05 48 48.7**	**-0.4**
	comp=Z,17nm,1.0s,baz=303,slow=1.7,SNR=12						
ZALV				SKPbc	**SKPbc**	**05 52 05.5**	**-2.6**
	comp=Z,1.4nm,0.6s,baz=310,slow=5.6,SNR=3.9						
KURK	**Kurchatov**	**137.06**	**28**		**PKPdf**	**05 48 48.2**	**+0.8**
KURBB	**Kurchatov Arra**	**137.09**	**28**	PKP	**PKiKP**	**05 48 49.0**	**-0.3**
	comp=Z,1.9nm,0.8s,baz=301,slow=2.9,SNR=9.9						
KURBB				SKPbc	**SKPbc**	**05 52 06.2**	**-2.1**
	comp=Z,0.8nm,0.8s,baz=307,slow=2.8,SNR=5.3						
MKAR	**Makanchi Array**	**141.57**	**29**	PKhKP	PKPpre	05 48 50.7	
	comp=Z,1.5nm,0.7s,baz=296,slow=2.9,SNR=6.7						
MKAR				SKPbc	**SKPbc**	**05 52 15.8**	**-5.0**
	comp=Z,1.7nm,0.9s,baz=259,slow=1.2,SNR=5.7						
FITZ	**Fitzroy Crossi**	**142.95**	**208**	PKhKP	PKPpre	05 48 54.7	
	comp=Z,3.9nm,0.9s,baz=179,slow=1.5,SNR=8.0						
HILR	**Hailar Array B**	**144.49**	**347**	PKP	PKPbc	05 49 00.5	+0.8
	comp=Z,6.1nm,0.5s,baz=64,slow=3.4,SNR=7.9						
USRK	**Ussuriysk Ar.**	**144.88**	**330**	PKP	**PKPdf**	**05 49 01.6**	**-0.1**
	comp=Z,2.8nm,0.5s,baz=14,slow=2.9,SNR=6.8						
USRK	**Ussuriysk Ar.**	**144.88**	**330**		PKPbc	05 48 59.7	-1.4
MJAR	**Matsushiro Arr**	**146.11**	**314**	PKPbc	**PKPbc**	**05 49 05.4**	**+0.3**
	comp=Z,9.9nm,0.8s,baz=83,slow=1.8,SNR=33						
WMQ	**Urumqi**	**146.31**	**28**	ePKPbc	**PKPdf**	**05 49 02.8**	**-1.4**
WMQ				PKPab	**PKPab**	**05 49 07.3**	**+0.7**
SONM	**Songino Array**	**147.35**	**3**	PKPbc	**PKPdf**	**05 49 07.3**	**+1.4**
	comp=Z,13nm,0.7s,baz=338,slow=3.5,SNR=41						
SONM				pPKPbc	**pPKPab**	**05 49 47.2**	**+0.6**
	comp=Z,2.4nm,0.9s,baz=326,slow=0.2,SNR=2.1						
SONM	**Songino Array**	**147.35**	**3**		**PKPdf**	**05 49 07.1**	**+1.2**
KSRS	**Korea Array**	**151.94**	**326**	PKP	**PKPdf**	**05 49 14.6**	**+1.3**
	comp=Z,0.9nm,0.5s,baz=48,slow=1.9,SNR=5.5						
KSRS				PKPbc	**PKiKP**	**05 49 21.5**	**+1.3**
	comp=Z,8.9nm,0.7s,baz=15,slow=2.4,SNR=28						
KSRS				pPKPbc	**sPKPdf**	**05 50 00.9**	**-3.8**
	comp=Z,3.5nm,1.0s,baz=9.3,slow=3.0,SNR=2.6						
HHC	**Hu-ho-hao-te**	**154.26**	**355**	eP	**PKPdf**	**05 49 13.5**	**-3.2**
HHC				pmax	pmax		
	comp=Z,7.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,47nm,4.1s						
NJ2	**Nanjing**	**160.75**	**333**	eP	**PKPdf**	**05 49 24.1**	**-0.8**
NJ2				pmax	pmax		
	comp=Z,7.0nm,0.5s						
PZH	**PanZhiHua**	**167.00**	**28**	PKP	**PKPdf**	**05 49 29.4**	**-1.6**
KKM	**Kota Kinabalu**	**168.28**	**220**	PKPdf	**PKPdf**	**05 49 31.3**	**-0.9**
CMAR	**Chiang Mai Arr**	**170.17**	**69**	PKP	**PKPdf**	**05 49 33.1**	**0.0**
	comp=Z,0.4nm,0.3s,baz=55,slow=1.2,SNR=1.2						
CMAR	**Chiang Mai Arr**	**170.17**	**69**		**PKPdf**	**05 49 29.1**	**-4.0**

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*SDD **20** 05:35:18.7±3.8, 18°84N×70°75W, h31^{km}±15^{km}, MD3.0, ML2.2, MW2.7, Presumed earthquake*

*OSPL **20** 05:35:20.3±0.6, 18°80N×70°71W, h8^{km}±4^{km}, ML1.7, Presumed earthquake*

ISC 20 05:35:21.6±1.2**, 18°72N**±0°04×**70°75W**±0°02**, h19**^{km}±2^{km}**,**
n14, σ1^{s}67/26**, 17C-2D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ABDR	**Alto Bandera**	**0.15**	**51**	⇓ePg	**Pb**	**05 35 25.7**	**+0.9**
ABDR				⇓eSg	**Sg**	**05 35 29.1**	**-0.5**
ABDR				IAML		05 35 29.4	
	comp=N,255nm,0.1s						
BANI	**BANI**	**0.49**	**131**	⇑ePg	**Pb**	**05 35 31.7**	**-0.1**
BANI				⇑eSg	**Sn**	**05 35 40.1**	**-1.8**
BANI				IAML		05 35 42.1	
	comp=N,41nm,0.6s						
SDDR	**Presa de Saban**	**0.57**	**297**	⇑ePg	**Pb**	**05 35 31.5**	**-1.5**
SDDR				⇑eSg	**Sb**	**05 35 40.6**	**-0.1**
SDDR				IAML		05 35 47.4	
	comp=N,16nm,0.8s						
LONE3	**El Aguacate, B**	**0.68**	**261**	i P	**Pb**	**05 35 33.6**	**-1.3**
LONE3				eS	**Sb**	**05 35 43.5**	**-0.5**
LONE3				IAML		05 35 45.8	
	comp=Z,18nm,2.6s						
DR08	**Loma La Naviza**	**0.73**	**70**	⇑ePg	**Pb**	**05 35 34.0**	**-1.8**
DR08				⇑eSg	**Sb**	**05 35 43.8**	**-1.7**
DR08				IAML		05 36 07.6	
	comp=N,1µm,0.1s						
REDR	**Restauracion**	**0.76**	**306**	⇑ePg	**Pn**	**05 35 38.1**	**+0.8**
REDR				⇑ePg	**Pg**	**05 35 40.4**	**+3.9**
REDR				IAML		05 35 57.9	
	comp=N,38nm,0.1s						
LODU1	**El Espartillar**	**0.78**	**242**	i P	**Pb**	**05 35 36.0**	**-0.5**
LODU1				eS	**Sb**	**05 35 46.8**	**+0.1**
LODU1				IAML		05 35 49.0	
	comp=Z,15nm,0.7s						
SODR	**Sosua Marina B**	**1.04**	**9**	⇑ePg	**Pb**	**05 35 38.7**	**-2.4**
SODR				⇑eSg	**Sb**	**05 35 50.0**	**-4.4**
SODR				IAML		05 36 32.6	
	comp=N,168nm,0.6s						
JIDR	**Jimani**	**1.07**	**258**	⇑ePg	**Pb**	**05 35 40.7**	**-0.8**
JIDR				IAML		05 35 55.9	
	comp=N,17nm,2.7s						
JIDR				⇑eSg	**Sb**	**05 35 56.0**	**+0.9**
LOVI	**El Cajuil, Ovi**	**1.09**	**213**	i P	**Pb**	**05 35 40.8**	**-1.1**
LOVI				IAML		05 35 56.4	
	comp=Z,17nm,4.6s						
LOBH	**Bahia de las A**	**1.20**	**225**	i P	**Pn**	**05 35 42.8**	**-0.6**
LOBH				IAML		05 36 03.3	
	comp=Z,27nm,3.5s						
HATOM	**Hato Mayor del**	**1.30**	**87**	⇑ePg	**Pn**	**05 35 43.6**	**-1.2**
HATOM				⇑eSg	**Sb**	**05 36 01.3**	**-0.5**
SMDR	**Samana, DR**	**1.58**	**69**	⇑ePg	**Pb**	**05 35 50.9**	**+0.5**
SMDR				eSg	**Sb**	**05 36 10.1**	**+0.1**
SMDR				IAML		05 36 16.3	
	comp=N,211nm,0.6s						
MIDR	**Miches**	**1.63**	**80**	⇑ePg	**Pb**	**05 35 51.4**	**+0.3**
MIDR				⇑eSg	**Sb**	**05 36 11.7**	**+0.3**

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*IDC **20** 05:45:11.5±1.5, 38°17N×38°13E, h0^{km}, mb3.5/3, mbtmp3.3/6, ML2.8/2, MS3.0/5, Error ellipse: s-maj=23.4km s-min=16.5km az=34.0*

*ISK **20** 05:45:14.2, 38°67N×38°09E, h5^{km}, ML3.7/17*

*AFAD **20** 05:45:15.1, 38°69N×38°12E, h7^{km}±2^{km}, MW3.8*

ISC 20 05:45:15.2±1.2**, 38°67N**±0°02×**38°12E**±0°02**, h2**^{km}±10^{km}**,**
n50, σ0^{s}81/61**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HEKM	**Malatya_Hekimh**	**0.24**	**329**	P	**Pg**	**05 45 20.1**	**+0.2**
AKCD	**Akcadag**	**0.41**	**202**	P	**Pb**	**05 45 24.2**	**-0.9**
MAYA	**Malatya/Merkez**	**0.42**	**145**	P	**Pb**	**05 45 24.2**	**-1.2**
MAYA				S	**Sb**	**05 45 30.0**	**-2.2**
MAYA				IAML		05 45 32.0	
	comp=E,6µm,0.5s						
ARPR	**Arapgir-MALATY**	**0.45**	**22**	Pg	**Pg**	**05 45 23.9**	**0.0**
ARPR				Sg	**Sb**	**05 45 32.4**	**-0.8**
ARPR				AML	AML		
CUGUR	**Gurin_SVAS**	**0.67**	**275**	P	**Pg**	**05 45 27.8**	**-0.1**
ELZG	**Elazig**	**0.70**	**104**	P	**Pg**	**05 45 29.2**	**+0.6**
ELZG				S	**Sb**	**05 45 39.6**	**-0.7**
ELZG				IAML		05 45 43.0	
	comp=E,7µm,0.6s						
ESGZ	**Sivrice-Elazig**	**0.78**	**108**	Pg	**Pb**	**05 45 30.8**	**-0.7**
ESGZ				Sg	**Sb**	**05 45 42.5**	**0.0**
ESGZ				AML	AML		
MDYL	**Doganyol-Malat**	**0.81**	**116**	Pg	**Pb**	**05 45 31.3**	**-0.6**
MDYL				Sg	**Sb**	**05 45 43.7**	**+0.5**
MDYL				AML	AML		
ELBS	**KAHRAMANMARAS**	**0.85**	**246**	P	**Pg**	**05 45 31.6**	**+0.2**
ELZ	**Elazig**	**0.85**	**89**	P	**Pg**	**05 45 31.1**	**-0.4**
ELZ				S	**Sg**	**05 45 42.9**	**+0.4**
ELZ				IAML		05 45 45.0	
	comp=N,2µm,0.8s						
ILIC	**ilic-Erzincan**	**0.85**	**24**	Pg	**Pg**	**05 45 31.1**	**-0.4**
ILIC				AML	AML		
AZEY	**Adyaman-Merk**	**0.87**	**173**	P	**Pb**	**05 45 32.8**	**-0.2**
NARI	**Adyaman-Kaht**	**0.94**	**147**	P	**Pn**	**05 45 36.3**	**+1.0**
AKCA	**Adyaman/G¶l**	**0.94**	**201**	P	**Pb**	**05 45 33.6**	**-0.6**
MILC	**Ilic**	**0.97**	**24**	P	**Pg**	**05 45 34.4**	**+0.5**
SVRC	**Sivrice-ELAZID**	**0.98**	**107**	Pg	**Pb**	**05 45 34.2**	**-0.7**
SVRC				AML	AML		
CNGT	**ngs**	**1.03**	**116**	P	**Pb**	**05 45 35.2**	**-0.6**
TNCL	**Tunceli-Merkez**	**1.19**	**68**	P	**Pg**	**05 45 38.0**	**-0.1**
TNCL				S	**Sg**	**05 45 54.0**	**+0.4**
TNCL				IAML		05 45 58.0	
	comp=E,2µm,0.7s						
TNCL				IAML		05 46 00.0	
	comp=N,2µm,0.5s						
ATAB	**Bozova**	**1.21**	**173**	P	**Pn**	**05 45 39.4**	**+0.3**
ATAB				S	**Sn**	**05 45 55.3**	**-0.7**
ATAB				IAML		05 46 00.0	
	comp=N,1µm,0.6s						
ATAB				IAML		05 46 03.0	
	comp=E,2µm,0.8s						
CUAYA	**Sivas-Altinyay**	**1.22**	**299**	P	**Pg**	**05 45 37.2**	**-1.5**
CUAYA				S	**Sg**	**05 45 53.1**	**-1.4**
CUAYA				IAML		05 46 02.0	
	comp=N,1µm,0.8s						
HANM	**anlurfa/Hi**	**1.25**	**151**	P	**Pn**	**05 45 40.5**	**+0.9**

HANM				S	**Sn**	**05 45 58.6**	**+1.7**
HANM				IAML		05 46 00.0	
	comp=E,772nm,0.7s						
HANM				IAML		05 46 01.0	
	comp=N,2μm,0.6s						
MDNT	**Maden**	**1.26**	**102**	P	**Pn**	**05 45 39.9**	**+0.1**
KOVA	**Elazig, Kovanc**	**1.32**	**88**	P	**Pn**	**05 45 39.9**	**-0.8**
SARI	**SarD1z-Kayseri**	**1.36**	**259**	Pn	**Pg**	**05 45 41.3**	**+0.1**
SARI				AML	AML		
GZT	**Gaziantep**	**1.39**	**199**	P	**Pg**	**05 45 42.1**	**+0.4**
GZT				S	**Sn**	**05 46 00.6**	**0.0**
GZT				IAML		05 46 04.0	
	comp=N,1μm,0.6s						
SCER	**sogukcermik**	**1.41**	**327**	P	**Pn**	**05 45 40.5**	**-1.6**
SCER				S	**Sb**	**05 46 00.3**	**-0.6**
SCER				IAML		05 46 06.0	
	comp=N,1μm,0.4s						
KAHM	**Kahramanmaras,**	**1.46**	**218**	P	**Pg**	**05 45 44.0**	**+0.9**
KHMN	**Narli-Kahraman**	**1.49**	**211**	Pn	**Pn**	**05 45 42.5**	**-0.4**
KHMN				AML	AML		
KMRS	**Kahramanmaras**	**1.51**	**220**	Pn	**Pg**	**05 45 43.7**	**-0.4**
KMRS				AML	AML		
SVSK	**Karacayir**	**1.52**	**325**	Pn	**Pb**	**05 45 43.7**	**-0.3**
SVSK				AML	AML		
SUSE	**Susehri**	**1.54**	**2**	P	**Pb**	**05 45 44.3**	**-0.1**
SUSE				S	**Sn**	**05 46 03.9**	**-0.4**
SUSE				IAML		05 46 08.0	
	comp=N,893nm,0.6s						
SUSE				IAML		05 46 11.0	
	comp=E,693nm,0.6s						
ERZN	**Erzincan**	**1.54**	**53**	Pn	**Pb**	**05 45 44.4**	**-0.1**
ERZN				AML	AML		
EUZM	**Uzumlu**	**1.60**	**49**	P	**Pb**	**05 45 45.4**	**-0.1**
EUZM				S	**Sg**	**05 46 06.9**	**+0.2**
EUZM				IAML		05 46 10.0	
	comp=E,694nm,0.6s						
EUZM				IAML		05 46 15.0	
	comp=N,853nm,0.8s						
CUSAR	**Sarkisla-SIVAS**	**1.64**	**298**	P	**Pn**	**05 45 44.9**	**-0.3**
CUSAR				S	**Sg**	**05 46 08.8**	**+1.0**
CUSAR				IAML		05 46 13.0	
	comp=E,457nm,0.7s						
CUSAR				IAML		05 46 14.0	
	comp=N,609nm,0.6s						
GAZ	**Gaziantep**	**1.66**	**206**	Pn	**Pn**	**05 45 45.1**	**-0.2**
GAZ				AML	AML		
DYBB	**Diyarbakir**	**1.74**	**114**	Pn	**Pb**	**05 45 47.2**	**-0.7**
DYBB				AML	AML		
BNN	**Bunyan**	**1.79**	**276**	Pn	**Pn**	**05 45 46.9**	**-0.2**
BNN				AML	AML		
BNGB	**Bingl**	**2.02**	**80**	Pn	**Pb**	**05 45 51.4**	**-1.3**
BNGB				AML	AML		
YEDI	**Yedisu-Bingol**	**2.04**	**67**	Pn	**Pn**	**05 45 51.1**	**+0.5**
YEDI				AML	AML		
TOKT	**Tokat**	**2.05**	**324**	Pn	**Pn**	**05 45 50.9**	**+0.3**
TOKT				AML	AML		
KTUT	**Trabzon**	**2.64**	**28**	Pn	**Pn**	**05 45 59.6**	**+0.9**
KTUT				AML	AML		
BRTR	**Keskin Array B**	**3.64**	**288**	Pn	**Pn**	**05 46 13.8**	**+1.3**
	0.7nm,0.3s,baz=114,slow=13,SNR=12						
BRTR				Pg	**Pb**	**05 46 21.7**	**+1.5**
	2.0nm,0.3s,baz=122,slow=16,SNR=15						
BRTR				Lg	Lg	05 47 13.1	
	1.4nm,0.3s,baz=122,slow=28,SNR=6.5						
BRTR				LR	LR	05 48 08.1	
	comp=Z,66nm,20.4s,baz=69,slow=46						
	4.5nm,0.6s						
BRTR				AML	AML		
ASF	**Jabal al Asfar**	**6.56**	**189**	Pn	Pn	05 46 43.1	-10
	0.2nm,0.3s,baz=18,slow=19,SNR=1.4						
ASF				Lg	Lg	05 48 30.2	
	0.4nm,0.3s,baz=330,slow=20,SNR=1.8						
ASF				LR	LR	05 49 02.2	
	comp=Z,32nm,18.3s,baz=56,slow=38						
	0.8nm,0.4s						
ASF				AML	AML		
MLR	**Muntele Rosu**	**11.32**	**311**	LR	LR	05 52 24.7	
	comp=Z,90nm,19.5s,baz=187,slow=37						
AKASG	**Malin Array Be**	**13.57**	**335**	Pn	**Pn**	**05 48 29.2**	**+0.6**
	0.1nm,0.3s,baz=139,slow=12,SNR=1.0						
GERES	**GERESS Array B**	**20.27**	**308**	P	Pn	05 49 53.0	-0.9
	0.4nm,0.3s,baz=126,slow=12,SNR=5.3						
	0.4nm,0.3s						
FINES	**FINESS Array B**	**23.99**	**346**	P	**P**	**05 50 32.0**	**+1.2**
	1.6nm,0.7s,baz=156,slow=14,SNR=4.4						
	1.6nm,0.7s						
KURBB	**Kurchatov Arra**	**30.75**	**54**	P	**P**	**05 51 30.8**	**-0.8**
	0.2nm,0.3s,baz=266,slow=9.2,SNR=1.8						
	0.2nm,0.3s						
EKA	**Eskdalemuir Ar**	**32.13**	**315**	LR	LR	06 08 02.9	
	comp=Z,78nm,19.8s,baz=1.0,slow=42						
KMBO	**Kilima Mbogo**	**39.61**	**181**	LR	LR	06 08 37.4	
	comp=Z,90nm,18.1s,baz=106,slow=36						

*ATH **20** 06:01:22.8, 35.°18N×23.°12E, h25^{km}±3^{km}, ML4.0/17, Latitude uncertainty: 2 km; Longitude uncertainty: 1 km*
*ISK **20** 06:01:22.8, 35.°28N×23.°32E, h78^{km}, ML3.7/13*
*MOS **20** 06:01:23.8±1.0, 35.°46N×23.°19E, h52^{km}, mb4.3/19, Error ellipse: s-maj=8.0km s-min=4.6km az=76.1*
*NEIC **20** 06:01:23.0±1.7, 35.°25N±0.°08×23.°12E±0.°07, h51^{km}±7^{km}, mb4.2/15, Error ellipse: s-maj=11.1km s-min=7.9km az=181.0*
*IDC **20** 06:01:25.4±1.1, 35.°48N×23.°13E, h65^{km}±9^{km}, mb3.9/20, mbtmp4.0/28, MS3.1/1, Error ellipse: s-maj=16.3km s-min=8.4km az=19.0*
*THE **20** 06:01:25.1, 35°N±4°×2°3E±°, h40^{km}±6^{km}, M3.9/12, MLh3.9/12*
*NAO **20** 06:01:54.7, 39.°21N×24.°42E, h33^{km}, MB3.5*
ISC 20 06:01:22.3±0.9, **35.°24N**±0.°05×**23.°12E**±0.°04, **h42**^{km}±7^{km}, **n226**, σ1^{s}76/254, **mb4.1**/37, **18C-5D, Crete**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KNDR	**Palaiochora Ch**	**0.42**	**90**	P	**Pn**	**06 01 32.6**	**+0.5**
KNDR				S	**Sn**	**06 01 40.1**	**+1.2**
KNDR				AML	AML		
KNDR	**Palaiochora Ch**	**0.42**	**90**	P	**Pn**	**06 01 32.0**	**-0.1**
KNDR				S	**Sn**	**06 01 37.1**	**-1.9**
KNDR				AML	AML		
ANKY	**Antikythira Is**	**0.65**	**13**	P	**Pn**	**06 01 36.7**	**+1.6**
ANKY				S	**Sn**	**06 01 46.9**	**+2.6**
ANKY				AML	AML		
ANKY	**Antikythira Is**	**0.65**	**13**	P	**Pn**	**06 01 36.6**	**+1.4**
ANKY				S	**Sn**	**06 01 46.8**	**+2.5**
ANKY				AML	AML		
IMMV	**Iera Moni Meta**	**0.74**	**72**	P	**Pn**	**06 01 37.2**	**+0.8**
IMMV				S	**Sn**	**06 01 47.8**	**+1.3**
IMMV				AML	AML		
IMMV	**Iera Moni Meta**	**0.74**	**72**	Pg	**Pn**	**06 01 37.3**	**+0.9**
IMMV				Sg	**Sn**	**06 01 48.4**	**+1.8**
IMMV				AML	AML		
IMMV	**Iera Moni Meta**	**0.74**	**72**	P	**Pn**	**06 01 37.1**	**+0.6**
IMMV				S	**Sn**	**06 01 47.2**	**+0.7**
IMMV				AML	AML		
CH01	**Chania**	**0.79**	**69**	P	**Pn**	**06 01 38.1**	**+1.1**
CH01				S	**Sn**	**06 01 49.1**	**+1.4**
CHAN	**Chania**	**0.81**	**69**	P	**Pn**	**06 01 38.3**	**+1.0**
CHAN				S	**Sn**	**06 01 49.5**	**+1.3**
CHNB	**Souda**	**0.82**	**72**	P	**Pn**	**06 01 38.5**	**+1.1**
CHNB				S	**Sn**	**06 01 49.7**	**+1.3**
GVD	**Gavdhos**	**0.89**	**116**	P	**Pn**	**06 01 39.8**	**+1.3**
GVD				AML	AML		
GVD	**Gavdhos**	**0.89**	**116**	Pg	**Pn**	**06 01 39.7**	**+1.3**
GVD				AML	AML		
GVD	**Gavdhos**	**0.89**	**116**	P	**Pn**	**06 01 39.4**	**+1.0**
GVD				S	**Sn**	**06 01 51.1**	**+0.9**
VAM	**Vamos**	**0.90**	**79**	P	**Pn**	**06 01 41.4**	**+2.8**
VAM				S	**Sn**	**06 01 53.0**	**+2.5**
KTHA	**Kythira Island**	**1.02**	**358**	P	**Pn**	**06 01 43.1**	**+2.9**
KTHA				AML	AML		
KTHA	**Kythira Island**	**1.02**	**358**	Pg	**Pn**	**06 01 42.6**	**+2.4**
KTHA				Sg	**Sn**	**06 01 56.9**	**+3.5**
KTHA				AML	AML		
KTHA	**Kythira Island**	**1.02**	**358**	P	**Pn**	**06 01 43.1**	**+2.9**
KTHA				S	**Sn**	**06 01 57.0**	**+3.7**
KTHA				AML	AML		
RTHF	**Rethymno-Limin**	**1.13**	**83**	P	**Pn**	**06 01 44.0**	**+2.4**
RTHF				S	**Sn**	**06 01 57.8**	**+1.9**
RTHF				AML	AML		
NPS1	**Neapolis Lacon**	**1.28**	**358**	P	**Pn**	**06 01 46.5**	**+2.8**
NPS1				S	**Sn**	**06 02 04.2**	**+4.6**
NPS1				AML	AML		
SIVA	**Sivas**	**1.41**	**98**	P	**Pn**	**06 01 47.4**	**+1.9**
SIVA				AML	AML		
SIVA	**Sivas**	**1.41**	**98**	P	**Pn**	**06 01 47.4**	**+1.9**
SIVA				AML	AML		
MNVA	**Monemvasia**	**1.45**	**358**	P	**Pn**	**06 01 49.3**	**+3.2**
IDI	**Anoyia**	**1.45**	**87**	P	**Pn**	**06 01 47.6**	**+1.4**
	202nm,0.5s,baz=278,slow=18,SNR=100						
IDI				S	**Sn**	**06 02 08.1**	**+4.0**
	385nm,0.4s,baz=280,slow=12,SNR=19						
IDI				LR	LR	06 02 36.8	
	comp=Z,380nm,21.0s,baz=290,slow=49						
IDI	**Anoyia**	**1.45**	**87**	P	**Pn**	**06 01 47.6**	**+1.4**
IDI				AML	AML		
IDI	**Anoyia**	**1.45**	**87**	Pn	**Pn**	**06 01 46.5**	**+0.3**
IDI				AML	AML		
IDI	**Anoyia**	**1.45**	**87**		**Pn**	**06 01 48.1**	**+1.9**
IDI	**Anoyia**	**1.45**	**87**	P	**Pn**	**06 01 47.6**	**+1.4**
IDI				S	**Sn**	**06 02 07.0**	**+2.9**
IDI				AML	AML		
VLI	**Veliai**	**1.49**	**354**	P	**Pn**	**06 01 49.6**	**+3.0**
VLI				AML	AML		
VLI	**Veliai**	**1.49**	**354**	P	**Pn**	**06 01 48.7**	**+2.1**
VLI				AML	AML		
IACM	**Heraklion**	**1.60**	**87**	P	**Pn**	**06 01 50.8**	**+2.6**
MHLO	**Agia Marina, M**	**1.79**	**35**	P	**Pn**	**06 01 52.6**	**+1.9**
MHLO				AML	AML		
MHLO	**Agia Marina, M**	**1.79**	**35**	P	**Pn**	**06 01 52.4**	**+1.7**
MILOS	**Milos**	**1.84**	**35**	P	**Pn**	**06 01 53.4**	**+1.9**
PYL	**PYLOS**	**2.00**	**327**	P	**Pn**	**06 01 55.1**	**+1.5**
PYL1	**Pylos**	**2.03**	**326**	P	**Pn**	**06 01 57.5**	**+3.5**
NPS	**Neapolis**	**2.04**	**89**	P	**Pn**	**06 01 56.0**	**+1.7**
NPS	**Neapolis**	**2.04**	**89**	P	**Pn**	**06 01 56.5**	**+2.2**
NPS				AML	AML		
YDRA	**Hydra**	**2.13**	**8**	P	**Pn**	**06 01 58.5**	**+3.1**
YDRA				AML	AML		
THR5	**Thira Island,**	**2.16**	**56**	P	**Pn**	**06 01 56.7**	**+0.8**
ITM	**Ithomi**	**2.17**	**334**	Pn	**Pn**	**06 01 58.8**	**+2.9**
ITM				AML	AML		
ITM	**Ithomi**	**2.17**	**334**	Pn	**Pn**	**06 01 58.1**	**+2.2**
ITM	**Ithomi**	**2.17**	**334**	P	**Pn**	**06 01 58.2**	**+2.2**
THR6	**Thira Island,**	**2.17**	**58**	P	**Pn**	**06 01 57.2**	**+1.3**
SAP3	**Santorini-Thir**	**2.17**	**56**	P	**Pn**	**06 01 57.4**	**+1.4**
SAP3				AML	AML		
SAP3	**Santorini-Thir**	**2.17**	**56**	P	**Pn**	**06 01 57.2**	**+1.2**
SNT5	**Nea Kammeni, S**	**2.19**	**57**	P	**Pn**	**06 01 57.8**	**+1.5**
THR3	**Thira Island,**	**2.20**	**57**	P	**Pn**	**06 01 57.3**	**+1.0**
THERA	**Ancient Thera,**	**2.23**	**59**	P	**Pn**	**06 01 57.6**	**+0.8**
THERA	**Ancient Thera,**	**2.23**	**59**	P	**Pn**	**06 01 57.6**	**+0.8**
CMBO	**Columbo, Santo**	**2.23**	**56**	P	**Pn**	**06 01 57.6**	**+0.8**
THR8	**Santorini-Mono**	**2.25**	**58**	P	**Pn**	**06 01 57.9**	**+0.9**
MET3	**Ano Fanari,Met**	**2.34**	**2**	P	**Pn**	**06 02 00.4**	**+2.1**
MET1	**Methana Town,**	**2.35**	**5**	P	**Pn**	**06 02 01.2**	**+2.8**
MET6	**Megalochori,Me**	**2.36**	**5**	P	**Pn**	**06 02 01.1**	**+2.5**
MET2	**Kameni Chora,**	**2.38**	**4**	P	**Pn**	**06 02 01.6**	**+2.7**
MET2				AML	AML		
MET5	**Makryloggos,Me**	**2.39**	**5**	P	**Pn**	**06 02 01.8**	**+2.7**
MET5				AML	AML		
MET4	**Agioi Theodoro**	**2.39**	**5**	P	**Pn**	**06 02 01.8**	**+2.7**
MET4				AML	AML		
ZKR	**Zakros**	**2.54**	**92**	Pn	**Pn**	**06 02 01.1**	**0.0**
ZKR				AML	AML		
ZKR	**Zakros**	**2.54**	**92**	P	**Pn**	**06 02 03.0**	**+1.9**
AMT	**Artemida-Makis**	**2.56**	**334**	P	**Pn**	**06 02 02.7**	**+1.3**
AMT				AML	AML		
GUR	**Goura**	**2.77**	**347**	P	**Pn**	**06 02 08.0**	**+3.7**
PTL	**Penteli**	**2.87**	**12**	P	**Pn**	**06 02 07.6**	**+1.9**
PTL				AML	AML		
DION	**Dionisos Attik**	**2.91**	**13**	P	**Pn**	**06 02 07.4**	**+1.2**
KARP	**Karpathos**	**3.32**	**83**	Pn	**Pn**	**06 02 12.2**	**+0.4**
KARP				AML	AML		
KARP	**Karpathos**	**3.32**	**83**		**Pn**	**06 02 12.9**	**+1.1**
BODT	**Bodrum**	**3.85**	**61**	Pn	**Pn**	**06 02 19.2**	**+0.1**
BODT				AML	AML		
DAT	**Datca**	**3.91**	**66**	Pn	**Pn**	**06 02 20.1**	**+0.1**
DAT				AML	AML		
BDRM	**Kayabasi**	**3.95**	**61**	⇓P	**Pn**	**06 02 23.3**	**+2.8**
GCAM	**G?zelcaml?**	**4.13**	**52**	Pn	**Pn**	**06 02 23.2**	**+0.3**
GCAM				AML	AML		
ARG	**Arkhangelos**	**4.19**	**75**	Pn	**Pn**	**06 02 23.8**	**0.0**
ARG				AML	AML		
ARG	**Arkhangelos**	**4.19**	**75**	P	**Pn**	**06 02 24.7**	**+0.9**
ARG	**Arkhangelos**	**4.19**	**75**		**Pn**	**06 02 24.7**	**+0.9**
TURN	**Turunc**	**4.43**	**68**	Pn	**Pn**	**06 02 27.2**	**+0.2**
TURN				AML	AML		
YER	**Yerkesik**	**4.59**	**64**	Pn	**Pn**	**06 02 29.7**	**+0.4**
YER				AML	AML		
YER	**Yerkesik**	**4.59**	**64**	P	**Pn**	**06 02 31.1**	**+1.8**
IGT	**Igoumenitsa**	**4.83**	**334**	P	**Pn**	**06 02 35.4**	**+2.9**
TAVA	**DENIZLI_Tavas**	**5.18**	**63**	⇑P	**Pn**	**06 02 40.0**	**+2.6**
KEK	**Kerkira**	**5.19**	**330**	Pn	**Pn**	**06 02 38.2**	**+0.7**
AKAS	**Kas**	**5.37**	**77**		**Pn**	**06 02 40.6**	**+0.5**
MANT	**Manisa**	**5.44**	**52**	Pn	**Pn**	**06 02 43.2**	**+2.1**
ELL	**Elmali**	**5.71**	**73**	P	**Pn**	**06 02 45.5**	**+0.8**
ELL	**Elmali**	**5.71**	**73**		**Pn**	**06 02 45.5**	**+0.8**
SRS	**Serrai**	**5.88**	**4**	P	**Pn**	**06 02 48.8**	**+1.8**
VAY	**Valandovo**	**6.09**	**356**	*i* Pn	**Pn**	**06 02 48.6**	**-1.2**
OHR	**Ohrid**	**6.14**	**343**	*i* Pn	**Pn**	**06 02 52.1**	**+1.5**
OHR				*i* Sn	**Sn**	**06 03 57.1**	**-2.5**
TIP	**Timpagrande**	**6.42**	**310**		**Pn**	**06 02 55.5**	**+1.1**
TIP	**Timpagrande**	**6.42**	**310**	⇓P	**Pn**	**06 02 55.8**	**+1.4**
ISP	**Isparta**	**6.50**	**64**	*i* P	**Pn**	**06 02 55.6**	**+0.1**
CEL	**Celeste**	**6.54**	**300**	Pn	**Pn**	**06 02 57.0**	**+1.1**
PLD	**Plovdiv**	**7.02**	**10**	P	**Pn**	**06 03 04.1**	**+1.6**
PLD				pmax	pmax		
	comp=Z,131nm,0.7s						
KEPZ	**Antalya-Kepez**	**7.07**	**74**	⇑P	**Pn**	**06 03 05.0**	**+1.7**
VAE	**Valguarnera**	**7.37**	**290**	P	**Pn**	**06 03 09.4**	**+2.0**
	comp=Z,4.9nm,0.7s,baz=24,slow=14,SNR=3.0						
VAE				S	**Sn**	**06 04 30.1**	**+0.3**
	comp=Z,19nm,0.5s,baz=72,slow=3.2,SNR=6.1						
MATE	**Matera**	**7.41**	**319**	⇑P	**Pn**	**06 03 08.7**	**+0.9**
CUC	**Castrocucco**	**7.49**	**312**		**Pn**	**06 03 10.9**	**+1.9**
PDG	**Podgorica**	**7.79**	**338**	Pn	**Pn**	**06 03 13.1**	**0.0**
PDG	**Podgorica**	**7.79**	**338**	⇑P	**Pn**	**06 03 13.0**	**0.0**
CSS	**Mathiatis**	**8.38**	**89**	Pn	**Pn**	**06 03 21.0**	**-0.2**
BOVS	**Bovan**	**8.46**	**353**	⇑P	**Pn**	**06 03 22.5**	**+0.3**
SGRT	**San Giovanni R**	**8.70**	**321**	Pn	**Pn**	**06 03 25.3**	**-0.3**
PAOL	**Paolisi**	**8.88**	**313**	Pn	**Pn**	**06 03 28.9**	**+0.8**
BR131	**Keskin Array S**	**9.49**	**59***c*	*i*P	**Pn**	**06 03 38.5**	**+2.0**
BRTR	**Keskin Array B**	**9.49**	**59**	P	**Pn**	**06 03 37.6**	**+1.1**
	comp=Z,4.3nm,0.8s,baz=232,slow=13,SNR=19						
BRTR	**Keskin Array B**	**9.49**	**59**	*e*P	**Pn**	**06 03 38.6**	**+2.0**
BRTR				pmax	pmax		
	comp=Z,5.0nm,0.8s						
BRTR	**Keskin Array B**	**9.49**	**59**		**Pn**	**06 03 35.6**	**-0.9**
INTR	**Introdacqua**	**9.88**	**316**	Pn	**Pn**	**06 03 43.3**	**+1.5**
GZR	**Gura Zlata**	**10.15**	**359**	⇑P	**Pn**	**06 03 46.2**	**+0.7**
GZR	**Gura Zlata**	**10.15**	**359**	⇑P	**Pn**	**06 03 46.2**	**+0.7**
ARR	**Arges**	**10.19**	**6**	⇑P	**Pn**	**06 03 46.0**	**0.0**
VOIR		**10.30**	**8**	⇑P	**Pn**	**06 03 48.0**	**+0.5**
VOIR		**10.30**	**8**	⇑P	**Pn**	**06 03 48.0**	**+0.5**
BZS	**Buzias**	**10.43**	**354**	P	**Pn**	**06 03 49.6**	**+0.3**
BZS				pmax	pmax		
	comp=Z,7.0nm,1.2s						
MLR	**Muntele Rosu**	**10.47**	**11**	P	**Pn**	**06 03 49.5**	**-0.4**
	comp=Z,1.7nm,0.5s,baz=145,slow=16,SNR=4.8						
MLR	**Muntele Rosu**	**10.47**	**11**	⇓P	**Pn**	**06 03 50.8**	**+0.9**
MLR	**Muntele Rosu**	**10.47**	**11**	⇓P	**Pn**	**06 03 50.8**	**+0.9**
BLY	**Banja Luka**	**10.53**	**336**	Pn	**Pn**	**06 03 50.5**	**-0.1**
NRCA	**Norcia**	**10.86**	**317**		**Pn**	**06 03 56.6**	**+1.4**
PLOR	**Plostina**	**10.94**	**13**	⇑P	**Pn**	**06 03 57.3**	**+1.0**
PLOR	**Plostina**	**10.94**	**13**	⇑P	**Pn**	**06 03 57.3**	**+1.0**
VRI	**Vrincioaia**	**10.97**	**13**	⇑P	**Pn**	**06 03 57.6**	**+1.0**
VRI	**Vrincioaia**	**10.97**	**13**	⇑P	**Pn**	**06 03 57.6**	**+1.0**
FDMO	**Fiordimonte**	**11.01**	**318**	Pn	**Pn**	**06 03 57.9**	**+0.7**
EIL	**Elat**	**11.43**	**116**	P	**Pn**	**06 04 01.7**	**-1.3**
	comp=Z,2.5nm,0.5s,baz=297,slow=13,SNR=6.3						
EIL				S	Sn	06 05 56.9	-12
	comp=Z,6.0nm,0.8s,baz=285,slow=20,SNR=2.2						
MORH	**Mrgy, Hungar**	**11.48**	**344**	⇑P	**Pn**	**06 04 01.8**	**-1.8**
BOJS	**Bojanci**	**11.87**	**332**	*i* Pn	**Pn**	**06 04 07.8**	**-1.2**
CRES	**Cresnjevec Ost**	**12.07**	**334**	*i* Pn	**Pn**	**06 04 09.9**	**-1.7**
PERS	**Pernice**	**12.89**	**335**	*i* Pn	**Pn**	**06 04 20.9**	**-2.0**
SABO	**M.te Sabotino**	**12.93**	**329**	Pn	**Pn**	**06 04 22.0**	**-1.4**
OBKA	**Obir**	**12.98**	**333**	*e*Pn	**Pn**	**06 04 23.6**	**-0.7**
	comp=Z,0.6nm,0.3s						
ARSA	**Arzberg**	**13.29**	**337**	Pn	**Pn**	**06 04 27.1**	**-1.2**
ARSA	**Arzberg**	**13.29**	**337**	*i* Pn	**Pn**	**06 04 27.5**	**-0.8**
	comp=Z,0.7nm,0.3s						
RONA	**Rosalia, Austr**	**13.45**	**340**	*i* Pn	**Pn**	**06 04 29.7**	**-0.9**
	comp=Z,0.8nm,0.4s						
SESA	**Seetaler Alpe,**	**13.49**	**334**	*e*Pn	**Pn**	**06 04 29.5**	**-1.7**
	comp=Z,0.2nm,0.1s						
KBA	**Koelnbreinsper**	**13.92**	**331**	*e*Pn	**Pn**	**06 04 37.5**	**+0.4**
	comp=Z,0.3nm,0.3s						
ABTA	**Abfaltersbach**	**14.00**	**328**	*e*Pn	**Pn**	**06 04 38.3**	**+0.3**
	comp=Z,0.1nm,0.2s						
MOA	**Molln**	**14.22**	**335**	*e*Pn	**Pn**	**06 04 41.0**	**0.0**
	comp=Z,0.9nm,0.3s						
MOA				*i* P	**P**	**06 04 49.9**	**+2.3**
	comp=Z,3.6nm,0.5s						
LESA	**Schwarzleotal**	**14.47**	**330**	*e*Pn	**Pn**	**06 04 44.5**	**+0.2**
	comp=Z,1.2nm,0.4s						
LESA				*e*P	**P**	**06 04 52.9**	**+2.6**
	comp=Z,6.2nm,0.5s						
WTTA	**Wattenberg**	**14.78**	**328**	*e*Pn	**Pn**	**06 04 48.8**	**+0.2**
	comp=Z,0.7nm,0.4s						
WATA	**Walderalm**	**14.86**	**328**	*e*Pn	**Pn**	**06 04 50.2**	**+0.6**
	comp=Z,0.2nm,0.1s						
VRAC	**Vranov**	**14.86**	**343**	P	**Pn**	**06 04 48.8**	**-0.7**
	comp=Z,0.7nm,0.3s,baz=137,slow=12,SNR=12						
FETA	**Feichten**	**15.00**	**325**	*e*P	**P**	**06 04 59.9**	**+3.5**
	comp=Z,3.7nm,0.9s						
OJC	**Ojcow**	**15.17**	**352**	P	**Pn**	**06 04 51.9**	**-1.7**
OJC	**Ojcow**	**15.17**	**352**	Pn	**Pn**	**06 04 51.9**	**-1.7**
DAVOX	**Davos/Dischmat**	**15.23**	**323**	P	**Pn**	**06 04 54.6**	**0.0**
	comp=Z,0.3nm,0.3s,baz=162,slow=20,SNR=7.1						
DAVOX				S	**Sn**	**06 07 33.9**	**-8.3**
	comp=Z,1.5nm,0.5s,baz=157,slow=3.8,SNR=2.9						
GERES	**GERESS Array B**	**15.27**	**336**	P	**Pn**	**06 04 53.7**	**-1.4**
	comp=Z,0.5nm,0.3s,baz=142,slow=13,SNR=7.3						
TUE	**Stuetta**	**15.29**	**321**	Pn	**Pn**	**06 04 55.6**	**+0.3**
RETA	**Reutte**	**15.33**	**327**	*i* P	**P**	**06 05 02.7**	**+2.8**
	comp=Z,2.2nm,0.5s						
KHC	**Kasperske Hory**	**15.56**	**336**	*i* P	**P**	**06 05 02.4**	**0.0**
AKASG	**Malin Array Be**	**16.08**	**14**	P	**Pn**	**06 05 02.5**	**-2.8**
	comp=Z,0.7nm,0.4s,baz=205,slow=12,SNR=4.3						
KBZ	**Khabaz**	**17.44**	**55**	P	**Pn**	**06 05 22.4**	**+0.1**
	comp=Z,2.1nm,0.7s,baz=253,slow=11,SNR=4.0						
KBZ	**Khabaz**	**17.44**	**55**	*e*P	**P**	**06 05 24.5**	**+1.3**
KBZ				pmax	pmax		
	comp=Z,2.0nm,0.6s						
GNI	**Garni**	**17.79**	**68**	LR	LR	06 13 15.1	
	comp=Z,64nm,21.8s,baz=316,slow=40						
NACGM	**Naroch**	**19.83**	**6**	⇓*i*P	**P**	**06 05 48.3**	**-1.0**
	comp=Z,24nm,0.8s,baz=188						
PABE	**Paberze**	**20.28**	**1**	P	**P**	**06 05 53.2**	**-0.9**
PABE				IAmb	IAmb	06 06 10.6	
	comp=Z,8.8nm,0.9s						
BSD	**Bornholm Skovb**	**20.68**	**347**	*i* P	**P**	**06 05 57.2**	**-1.3**
BSD				IAmb	IAmb	06 05 58.0	
	comp=Z,11nm,0.7s						
LUNU	**Lund**	**21.46**	**345**	*i* P	**P**	**06 06 07.3**	**+0.5**
BLEU	**Blekinge**	**21.65**	**349**	*i* P	**P**	**06 06 07.5**	**-1.5**
ESDC	**Sonseca Array**	**21.91**	**290**	P	**P**	**06 06 13.6**	**+1.6**
	comp=Z,0.7nm,0.8s,baz=93,slow=9.7,SNR=7.1						
	comp=Z,0.7nm,0.8s						
OBN	**Obninsk**	**21.95**	**21**	P	**P**	**06 06 11.5**	**-0.6**
	comp=Z,19nm,0.4s,baz=171,slow=19,SNR=3.5						
	comp=Z,19nm,0.4s						
OBN	**Obninsk**	**21.95**	**21***c*	*i*P	**P**	**06 06 12.3**	**+0.2**
OBN				*i*		06 06 35.7	
OBN				*e*PPP	PPP	06 06 43.8	
OBN				*e*S	**S**	**06 10 05.2**	**-6.8**
OBN				SS	**SnSn**	**06 10 44.0**	**+4.4**
OBN				SSS	SSS	06 10 56.0	
OBN				pmax	pmax		
	comp=Z,7.0nm,0.7s						
OBN				MLR	MLR		
	comp=Z,43nm,15.0s						
DEL	**Delary**	**22.15**	**346**	*i* P	**P**	**06 06 14.1**	**-0.2**
SSRD	**Sdr. Stenderup**	**22.28**	**340**	*i* P	**P**	**06 06 17.0**	**+1.3**
SSRD				IAmb	IAmb	06 06 17.4	
	comp=Z,25nm,0.8s						
FABU	**Falkenberg**	**22.88**	**345**	*i* P	**P**	**06 06 20.3**	**-1.7**
ONAU	**Onsala**	**23.42**	**345**	*i* P	**P**	**06 06 28.9**	**+1.5**
OVD	**Ostervraa, Den**	**23.74**	**342**	*i* P	**P**	**06 06 31.9**	**+1.5**
OVD				IAmb	IAmb	06 06 32.2	
	comp=Z,34nm,0.4s						
TJOU	**Tjoern**	**24.06**	**345**	*i* P	**P**	**06 06 33.5**	**+0.1**
BELG	**Belogornoye**	**24.45**	**38**	*e*P	**P**	**06 06 37.2**	**+0.2**
BELG				pmax	pmax		
	comp=Z,2.0nm,1.0s						
STRU	**Stroemstad**	**25.08**	**345**	*i* P	**P**	**06 06 42.6**	**0.0**
SNART	**Snartemo**	**25.42**	**340**	*i* P	**P**	**06 06 48.0**	**+2.3**
HFS	**Hagfors**	**25.66**	**349**	P	**P**	**06 06 47.5**	**-0.4**
	comp=Z,1.9nm,0.4s,baz=145,slow=10,SNR=25						
	comp=Z,1.9nm,0.4s						
FINES	**FINESS Array B**	**26.30**	**3**	P	**P**	**06 06 52.2**	**-1.5**
	comp=Z,2.3nm,0.5s,baz=183,slow=8.8,SNR=41						
FINES				PcP	**PcP**	**06 10 18.5**	**-0.3**
	comp=Z,0.4nm,0.4s,baz=200,slow=2.8,SNR=4.8						
	comp=Z,2.3nm,0.5s						
FIA1	**FINESS Array S**	**26.30**	**3**	P	**P**	**06 06 52.4**	**-1.2**
NC602	**NORSAR Array S**	**26.58**	**347**	P	**P**	**06 06 55.4**	**-0.9**
NORES	**NORESS Array B**	**26.58**	**347**	P	**P**	**06 06 58.1**	**+1.8**
NORES				pmax	pmax		
	comp=Z,1.0nm,0.3s						
NAO01	**NORSAR Array S**	**26.81**	**347**	P	**P**	**06 06 58.0**	**-0.3**
NAO01				IAmb	IAmb	06 07 00.0	
	comp=Z,13nm,1.1s						
NC405	**NORSAR Array S**	**26.91**	**348**	P	**P**	**06 06 58.1**	**-1.1**
NC405				IAmb	IAmb	06 06 59.3	
	comp=Z,7.7nm,1.1s						
NB201	**NORSAR Array S**	**26.92**	**347**	P	**P**	**06 06 58.8**	**-0.6**
NB201				IAmb	IAmb	06 07 22.0	
	comp=Z,7.3nm,1.1s						
NB2	**NORSAR Subarra**	**26.93**	**347**	P	**P**	**06 06 58.9**	**-0.5**
	comp=Z,1.1nm,0.6s,baz=153,slow=10						
NOA	**NORSAR Array B**	**26.93**	**347**	P	**P**	**06 06 58.4**	**-1.0**
	comp=Z,0.7nm,0.6s,baz=160,slow=10,SNR=15						
	comp=Z,0.7nm,0.6s						
NOA	**NORSAR Array B**	**26.93**	**347**	*e*P	**P**	**06 06 58.8**	**-0.6**
EKA	**Eskdalemuir Ar**	**27.03**	**326**	P	**P**	**06 06 59.2**	**-1.1**
	comp=Z,0.7nm,0.4s,baz=126,slow=9.2,SNR=11						
	comp=Z,0.7nm,0.4s						
TORD	**Torodi Ar. Bea**	**29.29**	**227**	P	**P**	**06 07 23.5**	**+2.6**
	comp=Z,0.9nm,0.5s,baz=35,slow=9.3,SNR=5.4						
	comp=Z,0.9nm,0.5s						
ARTI	**Arti**	**31.89**	**37***c*	*i*P	**P**	**06 07 42.2**	**-1.3**
ARTI						06 08 46.0	
ARTI				S	**S**	**06 12 55.0**	**+3.7**
ARTI				pmax	pmax		
	comp=Z,8.0nm,1.2s						
ARTI	**Arti**	**31.89**	**37**	P	**P**	**06 07 41.9**	**-1.5**
SVE	**Sverdlovsk**	**33.21**	**38**	*e*P	**P**	**06 07 54.1**	**-0.8**
ARCES	**ARCESS Array B**	**34.38**	**1**	P	**P**	**06 08 03.4**	**-1.6**
	comp=Z,2.8nm,0.5s,baz=183,slow=8.3,SNR=27						
ARCES				PcP	**PcP**	**06 10 39.0**	**-0.8**
	comp=Z,1.8nm,0.8s,baz=193,slow=2.4,SNR=1.5						
	comp=Z,2.8nm,0.5s						
ARCES	**ARCESS Array B**	**34.38**	**1**	P	**P**	**06 08 03.6**	**-1.4**
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.5s						
ARCES	**ARCESS Array B**	**34.38**	**1**	P	**P**	**06 08 03.4**	**-1.6**
KKAR	**Karatay Array**	**37.16**	**63**	P	**P**	**06 08 28.4**	**-0.8**
KKAR	**Karatay Array**	**37.16**	**63**	P	**P**	**06 08 28.4**	**-0.8**
BORK	**Borovoye**	**37.47**	**47**	*e*P	**P**	**06 08 31.5**	**-0.2**
BORK				pmax	pmax		
	comp=Z,2.0nm,0.9s						
BVAR	**Borovoye Array**	**37.51**	**47**	P	**P**	**06 08 30.8**	**-1.2**
	comp=Z,1.6nm,0.6s,baz=261,slow=9.5,SNR=5.7						
	comp=Z,1.6nm,0.6s						
AAK	**Ala-Archa**	**40.12**	**63**	*e*P	**P**	**06 08 54.4**	**+0.2**
AAK				pmax	pmax		
	comp=Z,8.0nm,2.4s						
KURBB	**Kurchatov Arra**	**42.38**	**51**	P	**P**	**06 09 10.1**	**-2.2**
	comp=Z,1.7nm,0.6s,baz=274,slow=8.6,SNR=16						
KURBB				PcP	**PcP**	**06 11 04.9**	**-0.1**
	comp=Z,0.6nm,0.3s,baz=286,slow=3.5,SNR=4.9						
	comp=Z,1.7nm,0.6s						
KURK	**Kurchatov**	**42.43**	**51**	*i* P	**P**	**06 09 11.7**	**-1.1**
KURK				pmax	pmax		
	comp=Z,2.0nm,0.9s						
KURK	**Kurchatov**	**42.43**	**51**	P	**P**	**06 09 11.7**	**-1.1**
KURK				IAmb	IAmb	06 09 14.2	
	comp=Z,3.1nm,1.1s						
SPITS	**Spitsbergen Ar**	**43.15**	**358**	P	**P**	**06 09 17.9**	**-0.4**
	comp=Z,5.6nm,0.8s,baz=169,slow=10,SNR=12						
	comp=Z,5.6nm,0.8s						
MAKZ	**Makanchi**	**44.91**	**56**	P	**P**	**06 09 31.5**	**-1.4**
MAKZ				pmax	pmax		
	comp=Z,4.0nm,0.6s						
MAKZ	**Makanchi**	**44.91**	**56**	P	**P**	**06 09 31.4**	**-1.4**
MAKZ				IAmb	IAmb	06 09 33.0	

	comp=Z,4.2nm,0.6s						
MK31	**Makanchi Array**	**45.13**	**56**	P	**P**	**06 09 33.6**	**-1.0**
MK31				pmax	pmax		
	comp=Z,2.0nm,0.6s						
MK31	**Makanchi Array**	**45.13**	**56**	P	**P**	**06 09 33.6**	**-1.0**
MK31				IAmb	IAmb	06 09 34.1	
	comp=Z,1.9nm,0.6s						
MKAR	**Makanchi Array**	**45.13**	**56**	P	**P**	**06 09 33.4**	**-1.2**
	comp=Z,1.0nm,0.4s,baz=273,slow=7.2,SNR=22						
MKAR				PcP	**PcP**	**06 11 14.5**	**0.0**
	comp=Z,0.6nm,0.8s,baz=268,slow=3.8,SNR=1.4						
	comp=Z,1.0nm,0.4s						
MKAR	**Makanchi Array**	**45.13**	**56**	*e*P	**P**	**06 09 33.8**	**-0.8**
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
MKAR	**Makanchi Array**	**45.13**	**56**	P	**P**	**06 09 33.9**	**-0.8**
ZAA0	**Zalesovo Array**	**46.16**	**46**	P	**P**	**06 09 41.2**	**-1.3**
ZAA0				IAmb	IAmb	06 10 04.7	
	comp=Z,2.6nm,1.1s						
ZALV	**Zalesovo Beam**	**46.16**	**46**	P	**P**	**06 09 40.9**	**-1.6**
	comp=Z,2.1nm,0.4s,baz=274,slow=8.4,SNR=11						
	comp=Z,2.1nm,0.4s						
ZALV	**Zalesovo Beam**	**46.16**	**46**	*e*P	**P**	**06 09 41.0**	**-1.6**
ZALV				pmax	pmax		
	comp=Z,2.0nm,0.4s						
ZALV	**Zalesovo Beam**	**46.16**	**46**	P	**P**	**06 09 41.1**	**-1.4**
DGZ	**Jazzator, Alta**	**48.15**	**52**	*e*P	**P**	**06 09 57.4**	**-1.0**
DGZ				pmax	pmax		
	comp=Z,1.0nm,1.0s						
SONM	**Songino Array**	**60.73**	**50**	P	**P**	**06 11 28.1**	**-1.6**
	comp=Z,1.0nm,0.7s,baz=309,slow=9.1,SNR=3.0						
	comp=Z,1.0nm,0.7s						
ULN	**Ulaanbaatar**	**61.13**	**50**	*e*P	**P**	**06 11 32.5**	**+0.1**
ULN				pmax	pmax		
	comp=Z,1.0nm,0.8s						
TIXI	**Tiksi**	**61.68**	**20**	*e*P	**P**	**06 11 38.9**	**+3.4**
TIXI				pmax	pmax		
	comp=Z,5.0nm,0.9s						
SCHQ	**Schefferville**	**62.04**	**319**	P	**P**	**06 11 37.1**	**-1.1**
	comp=Z,2.8nm,0.4s,baz=66,slow=7.8,SNR=10						
	comp=Z,2.8nm,0.4s						
CMAR	**Chiang Mai Arr**	**68.22**	**82**	P	**P**	**06 12 19.0**	**+0.1**
	comp=Z,0.9nm,0.3s,baz=311,slow=6.8,SNR=4.5						
	comp=Z,0.9nm,0.3s						
CMAR	**Chiang Mai Arr**	**68.22**	**82**	*e*P	**P**	**06 12 19.2**	**+0.3**
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
KLR	**Kul'dur**	**74.80**	**40**	*e*P	**P**	**06 12 57.2**	**-0.9**
KLR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
YKA	**Yellowknife Ar**	**76.85**	**341**	P	**P**	**06 13 10.4**	**+0.9**
	comp=Z,0.8nm,0.8s,baz=26,slow=5.0,SNR=3.9						
	comp=Z,0.8nm,0.8s						
USRK	**Ussuriysk Ar.**	**77.96**	**44**	P	**P**	**06 13 15.4**	**-0.6**
	comp=Z,3.3nm,0.5s,baz=294,slow=3.9,SNR=9.7						
	comp=Z,3.3nm,0.5s						
USRK	**Ussuriysk Ar.**	**77.96**	**44**	*e*P	**P**	**06 13 15.7**	**-0.4**
USRK				pmax	pmax		
	comp=Z,3.0nm,0.5s						
KSRS	**Korea Array**	**79.56**	**51**	P	**P**	**06 13 24.3**	**-0.6**
	comp=Z,1.7nm,0.6s,baz=313,slow=3.7,SNR=7.3						
	comp=Z,1.7nm,0.6s						
KSRS	**Korea Array**	**79.56**	**51**	*e*P	**P**	**06 13 24.9**	**0.0**
KSRS				pmax	pmax		
	comp=Z,2.0nm,0.6s						
MJAR	**Matsushiro Arr**	**86.51**	**47**	P	**P**	**06 14 00.8**	**-0.2**
	comp=Z,1.3nm,0.8s,baz=317,slow=4.4,SNR=4.8						
	comp=Z,1.3nm,0.8s						
MJAR	**Matsushiro Arr**	**86.51**	**47**	*e*P	**P**	**06 14 01.1**	**+0.1**
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
MJAR	**Matsushiro Arr**	**86.51**	**47**	IAmb	IAmb	06 14 03.3	
	comp=Z,1.5nm,1.2s						
MJA0	**Matsu Arr-Jizo**	**86.53**	**47**	*e*P	**P**	**06 14 01.1**	**0.0**
MJA0				pmax	pmax		
	comp=Z,1.0nm,0.8s						
ASAR	**Alice Springs**	**119.71**	**99**	PKP	**PKiKP**	**06 20 08.2**	**0.0**
	comp=Z,0.1nm,0.6s,baz=308,slow=1.6,SNR=4.4						
QSPA	**South Pole Qui**	**125.09**	**180**	PKP	**PKPdf**	**06 20 16.4**	**-0.8**
	comp=Z,0.5nm,0.7s,baz=315,slow=2.9,SNR=1.2						

PRU 20 06:04:17.5, 51°.53N×16°.09E, h0^{km}, Poland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSP	**Ksiaz**	**0.70**	**169**	*e*Pg	Pg	06 04 29.8	-1.1
KSP				*e*Sg	Sg	06 04 39.4	-0.6
CHVC	**Chvalec**	**0.94**	**181**	*e*PG	Pg	06 04 34.7	-0.9
CHVC				*e*SG	Sg	06 04 48.2	+0.4
	comp=Z,11nm,0.6s						
CHVC				AML	AML		
OSTC	**Ostas**	**0.98**	**175**	*e*PG	Pg	06 04 35.4	-0.8
OSTC				*e*SG	Sg	06 04 48.9	0.0
	comp=Z,20nm,0.9s						
OSTC				AML	AML		
UPC	**Upice**	**1.02**	**183**	*e*PG	Pg	06 04 36.0	-1.1
UPC				*e*SG	Sg	06 04 50.6	+0.2
	comp=Z,18nm,0.4s						
UPC				AML	AML		
DPC	**Dobruska-Polom**	**1.19**	**173**	*e*PG	Pg	06 04 38.5	-1.8
DPC				*e*SG	Sg	06 04 55.0	-0.7
	comp=Z,13nm,0.8s						
DPC				AML	AML		
BRG	**Berggiesshubel**	**1.50**	**245**	Pg	Pn	06 04 44.8	-0.9
BRG				Sg	Sg	06 05 05.2	-0.5
BRG				Amp		06 05 05.9	
	comp=Z,16nm,0.5s						
KRLC	**Kraliky**	**1.52**	**163**	*e*PG	Pn	06 04 44.3	-1.7
KRLC				*e*SG	Sg	06 05 05.4	-0.9
	comp=Z,10nm,0.5s						
KRLC				AML	AML		
PRU	**Pruhonice**	**1.83**	**213**	*e*PG	Pn	06 04 50.0	-0.2
PRU				*e*SG	Sg	06 05 15.8	-0.4
	comp=Z,7.2nm,0.6s						
PRU				AML	AML		
HSKC	**Hora Svate Kat**	**1.92**	**242**	*e*PG	Pn	06 04 51.5	+0.1
HSKC				*e*SG	Sb	06 05 17.8	+0.1
	comp=Z,11nm,0.5s						
HSKC				AML	AML		
STEB	**Steborice**	**1.92**	**146**	*e*PG	Pn	06 04 51.6	+0.1
STEB				*e*SG	Sb	06 05 18.4	+0.5
	comp=Z,9.6nm,0.5s						
STEB				AML	AML		
CLL	**Collm**	**1.95**	**265**	*i* Pn	Pn	06 04 49.2	-2.6
CLL				*i* Pg	Pb	06 04 52.3	-1.5
CLL				*i* x	x	06 04 55.9	
CLL				*e*Sg	Sb	06 05 19.0	+0.4
	comp=Z,9.0nm,0.7s						
MORC	**Moravsky Berou**	**1.98**	**152**	P	Pn	06 04 50.3	-2.1
MORC	**Moravsky Berou**	**1.98**	**152**	*e*PN	Pn	06 04 49.9	-2.5
MORC				*e*SG	Sb	06 05 18.9	-0.8
MORC	**Moravsky Berou**	**1.98**	**152**	pmax	pmax		
	comp=Z,4.0nm,0.5s						
MORC	**Moravsky Berou**	**1.98**	**152**		Pn	06 04 50.3	-2.0
OKC	**Ostrava-Krasne**	**2.14**	**142**	*e*P	Pb	06 04 55.8	-1.3
OKC	**Ostrava-Krasne**	**2.14**	**142**	*e*PG	Pb	06 04 55.8	-1.3
OKC				*e*SG	Sb	06 05 25.1	+0.9
	comp=Z,6.5nm,0.6s						
OKC				AML	AML		
VRAC	**Vranov**	**2.25**	**172**	*e*PN	Pn	06 04 54.7	-1.2
VRAC				*e*SG	Sb	06 05 27.6	+0.3
ZVC	**Zvikov**	**2.42**	**211**	*e*PN	Pn	06 04 57.5	-0.8
ZVC				*e*PG	Pb	06 05 01.3	-0.6
ZVC				*e*SG	Sg	06 05 33.8	-1.4
	comp=Z,3.0nm,0.5s						
ZVC				AML	AML		
KRUC	**Moravsky**	**2.48**	**175**	*e*PN	Pn	06 04 57.6	-1.5
KRUC				*e*SG	Sb	06 05 34.4	+0.5
NKC	**Novy Kostel**	**2.65**	**242**	*e*PG	Pb	06 05 05.8	0.0
NKC				*e*SG	Sg	06 05 41.2	-1.3
	comp=Z,11nm,0.4s						
NKC				AML	AML		
KHC	**Kasperske Hory**	**2.89**	**215**	*e*PN	Pn	06 05 04.6	-0.2
KHC				*e*PG	Pb	06 05 09.8	-0.1
KHC				*e*SG	Sg	06 05 48.9	-1.4
	comp=Z,2.6nm,0.4s						
KHC				AML	AML		
MODS	**Modra-Piesok**	**3.25**	**166**	*e*SG	Sg	06 06 02.4	+0.5

IDC 20 06:12:46.1±6.6**, 5°.78S×154°.44E, h0^{km}, mb3.4**/3**, mbtmp3.4**/3**, Error ellipse: s-maj=204.1km s-min=43.8km az=111.0, Bougainville-Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**24.09**	**232**	P	P	06 18 01.9	-1.7
	0.6nm,0.6s,baz=62,slow=9.5,SNR=5.2						
	0.6nm,0.6s						
ASAR	**Alice Springs**	**26.59**	**226**	P	P	06 18 28.2	+1.9
	0.4nm,0.9s,baz=48,slow=10,SNR=1.6						
	0.4nm,0.9s						
H11S3	**WAKE ISLAND Hy**	**26.98**	**26**	T	T	06 46 52.4	
	baz=203						
H11S2	**WAKE ISLAND Hy**	**26.98**	**26**	T	T	06 46 46.0	
	baz=203						
H11S1	**WAKE ISLAND Hy**	**27.00**	**26**	T	T	06 46 40.9	
	baz=203						
MKAR	**Makanchi Array**	**82.14**	**319**	P	P	06 25 08.9	0.0
	0.3nm,0.6s,baz=109,slow=5.3,SNR=1.5						
	0.3nm,0.6s						

IDC 20 06:19:19.4±2.5**, 8°.63N×125°.26E, h0^{km}, mb3.8**/4**, mbtmp3.8**/4**, Error ellipse: s-maj=151.6km s-min=28.0km az=68.0, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	**26.56**	**179**	P	P	06 24 59.1	-0.3
	3.7nm,0.7s,baz=0.2,slow=11,SNR=12						
	3.7nm,0.7s						
WRA	**Warramunga Arr**	**29.77**	**163**	P	P	06 25 27.9	-0.1
	0.5nm,0.3s,baz=343,slow=9.2,SNR=9.4						
	0.5nm,0.3s						
ASAR	**Alice Springs**	**33.20**	**165**	P	P	06 25 58.5	+0.4
	0.5nm,0.7s,baz=338,slow=8.7,SNR=7.3						
	0.5nm,0.7s						
MKAR	**Makanchi Array**	**52.73**	**324**	P	P	06 28 36.0	-0.1
	0.2nm,0.4s,baz=116,slow=9.8,SNR=1.8						
	0.2nm,0.4s						

*IDC **20** 06:30:09.3±5.0, 2°.11N×95°.30W, h0^{km}, mb3.8/6, mbtmp3.8/6, Error ellipse: s-maj=183.2km s-min=46.8km az=43.0*

*NEIC **20** 06:30:10.8±1.6, 2°.0N±0°.2×95°.7W±0°.2, h10^{km}±2^{km}, mb4.1/13, Error ellipse: s-maj=41.7km s-min=6.4km az=217.0*

ISC 20 06:30:10.7±2.7**, 2°.0N**±0°.4×**95°.5W**±0°.3**, h10^{km}, n27, σ0^{s}.89**/21**, mb4.0**/10**, Galapagos Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OTAV	**Otavalo**	**17.18**	**96**	P	**P**	**06 34 13.6**	**+0.5**
TXAR	**Lajitas Array**	**28.22**	**345**	P	**P**	**06 36 04.5**	**+0.5**
	0.5nm,0.7s,baz=164,slow=8.1,SNR=7.3						
	0.5nm,0.7s						
TXAR	**Lajitas Array**	**28.22**	**345**	P	**P**	**06 36 04.8**	**+0.8**
SAND	**Sanderson**	**28.45**	**348**	P	**P**	**06 36 05.9**	**0.0**
SAND				IAmb	IAmb	06 36 07.8	
	comp=Z,5.6nm,1.5s						
MNHN	**Monahans**	**29.93**	**348**	P	**P**	**06 36 18.4**	**-0.7**
MNHN				IAmb	IAmb	06 36 19.3	
	comp=Z,2.7nm,1.1s						
R40A	**Maddies Statio**	**36.20**	**4**	P	**P**	**06 37 13.8**	**+0.2**
WUAZ	**Wupatki**	**36.41**	**338**	P	**P**	**06 37 15.3**	**-0.4**
WUAZ				IAmb	IAmb	06 37 18.9	
	comp=Z,4.7nm,1.1s						
WCI	**Wyandotte Cave**	**36.99**	**12**	P	**P**	**06 37 20.5**	**+0.1**
GMN	**Gold Mountain**	**40.38**	**333**	P	**P**	**06 37 48.1**	**-1.1**
NLU	**North Lily Min**	**40.62**	**340**	P	**P**	**06 37 51.1**	**+0.1**
NLU				IAmb	IAmb	06 37 54.7	
	comp=Z,4.0nm,1.3s						
NVAR	**Mina Array Bea**	**41.78**	**333**	P	**P**	**06 38 02.7**	**+2.0**
	comp=Z,0.8nm,0.8s,baz=148,slow=6.4,SNR=7.2						
	comp=Z,0.8nm,0.8s						
NVAR	**Mina Array Bea**	**41.78**	**333**	P	**P**	**06 38 01.0**	**+0.3**
BW06	**Boulder Array**	**42.44**	**345**	P	**P**	**06 38 04.8**	**-1.2**
PD31	**Pinedale Array**	**42.44**	**345**	P	**P**	**06 38 04.8**	**-1.2**
PD31				IAmb	IAmb	06 38 25.3	
	comp=Z,4.3nm,1.4s						
PDAR	**Pinedale Array**	**42.44**	**345**	P	**P**	**06 38 05.2**	**-0.8**
	comp=Z,1.1nm,0.9s,baz=161,slow=4.2,SNR=8.7						
	comp=Z,1.1nm,0.9s						
PDAR	**Pinedale Array**	**42.44**	**345**	P	**P**	**06 38 05.4**	**-0.7**
FXWY	**Fox Creek**	**43.65**	**344**	P	**P**	**06 38 16.7**	**+0.9**
FXWY				IAmb	IAmb	06 38 17.7	
	comp=Z,2.3nm,0.9s						
MCMT	**McKenzie Canyo**	**45.26**	**343**	P	**P**	**06 38 29.9**	**+1.2**
YKA	**Yellowknife Ar**	**61.97**	**350**	P	**P**	**06 40 30.8**	**+0.2**
	comp=Z,0.8nm,0.7s,baz=155,slow=7.8,SNR=5.2						
	comp=Z,0.8nm,0.7s						
ILAR	**Eielson Array**	**72.57**	**339**	P	**P**	**06 41 37.0**	**-0.8**
	comp=Z,0.4nm,0.8s,baz=116,slow=7.5,SNR=6.1						
	comp=Z,0.4nm,0.8s						
H11N3	**WAKE ISLAND Hy**	**96.42**	**290**	T	T	08 31 02.9	
	baz=85						
H11N2	**WAKE ISLAND Hy**	**96.43**	**290**	T	T	08 31 03.5	
	baz=85						
H11N1	**WAKE ISLAND Hy**	**96.44**	**290**	T	T	08 31 02.7	
	baz=85						
TORD	**Torodi Ar. Bea**	**96.58**	**77**	P	**P**	**06 43 41.2**	**-0.4**
	comp=Z,0.9nm,0.9s,baz=275,slow=6.8,SNR=1.9						
	comp=Z,0.9nm,0.9s						
H11S2	**WAKE ISLAND Hy**	**96.71**	**289**	T	T	08 31 26.6	
	baz=85,slow=74,SNR=11						
H11S1	**WAKE ISLAND Hy**	**96.71**	**289**	T	T	08 31 29.9	
	baz=85,slow=74,SNR=6.4						
H11S3	**WAKE ISLAND Hy**	**96.73**	**289**	T	T	08 31 25.4	
	baz=85,slow=74,SNR=5.9						

*IDC **20** 06:30:59.6±1.0, 42°.09S×85°.23E, h0^{km}, mb4.1/9, mbtmp4.0/9, MS4.2/45, Error ellipse: s-maj=30.8km s-min=24.2km az=113.0*

*NEIC **20** 06:31:00.5±1.1, 42°.02S±0°.06×85°.0E±0°.2, h10^{km}±1^{km}, mb4.6/13, Error ellipse: s-maj=27.3km s-min=9.8km az=281.0*

*GCMT **20** 06:31:03.5±0.1, 41°.77S±0°.01×84°.78E±0°.01, h18^{km}, MW5.2/141, Moment Tensor Solution. s78,c110; s141,c232; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.27±.13; $M_{\theta\theta}$7.01±.13; $M_{\phi\phi}$-6.74±.13; $M_{r\theta}$0.82±.28; $M_{\theta\phi}$-0.35±.11; $M_{\phi r}$-0.37±.28; Best double couple: $M_0$6.94000×10^{16} NP1:ϕ_s46.00000°,δ83.00000°, λ178.00000°. NP2:ϕ_s137.00000°,δ88.00000°,λ7.00000°. Principal axes: T 7.1120, Plg6.0000°, Azm2.0000°; N -0.3440, Plg83.0000°, Azm155.0000°; P -6.7680, Plg3.0000°, Azm271.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 20 06:31:00.6±0.6**, 42°.1S**±0°.1×**85°.1E**±0°.1**, h10^{km}, n76, σ0^{s}.78**/27**, mb4.2**/14**, MS4.2**/45**, Southeast Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
H01W2	**Cape Leeuwin H**	**23.76**	**82**	T	T	07 00 48.4	
	baz=245,slow=74,SNR=144						
H01W3	**Cape Leeuwin H**	**23.77**	**82**	T	T	07 00 49.1	
	baz=245,slow=74,SNR=174						
H01W1	**Cape Leeuwin H**	**23.77**	**82**	T	T	07 00 49.8	
	baz=245,slow=74,SNR=174						
H04S1	**CROZET ISLANDS**	**24.05**	**247**	T	T	07 01 08.4	
	baz=89,slow=78,SNR=55						
H04S2	**CROZET ISLANDS**	**24.06**	**247**	T	T	07 01 08.4	
	baz=89,slow=78,SNR=251						
H04S3	**CROZET ISLANDS**	**24.07**	**247**	T	T	07 01 07.1	
	baz=89,slow=78,SNR=177						
H04N2	**CROZET ISLANDS**	**24.14**	**249**	T	T	07 01 10.6	
	baz=90,slow=74,SNR=1678						
H04N3	**CROZET ISLANDS**	**24.16**	**249**	T	T	07 01 19.7	
	baz=90,slow=74,SNR=1694						
H04N1	**CROZET ISLANDS**	**24.16**	**249**	T	T	07 01 16.1	
	baz=90,slow=74,SNR=1398						
NWAO	**Narrogin (SRO)**	**26.95**	**81**	LR	LR	06 44 55.3	
	comp=Z,708nm,21.7s,baz=260,slow=31						
CASY	**Casey**	**28.06**	**158**	P	**P**	**06 36 51.7**	**0.0**
CASY				IAmb	IAmb	06 37 04.6	
	comp=Z,9.2nm,1.2s						
MORW	**Morawa**	**28.15**	**73**	P	**P**	**06 36 52.9**	**-0.1**
MAW	**Mawson**	**28.27**	**198**	LR	LR	06 45 37.8	
	comp=Z,495nm,21.8s,baz=41,slow=31						
FORT	**Forrest**	**36.02**	**86**	P	**P**	**06 38 01.6**	**-0.2**
H08S2	**Diego Garcia H**	**36.05**	**338**	T	T	07 15 35.3	
	baz=164,slow=76,SNR=79						
H08S1	**Diego Carcia H**	**36.06**	**338**	T	T	07 15 36.2	
	baz=164,slow=76,SNR=36						
H08S3	**Diego Garcia H**	**36.07**	**338**	T	T	07 15 40.3	
	baz=164,slow=76,SNR=422						
DGAR	**Diego Garcia**	**36.29**	**338**	P	**P**	**06 38 03.3**	**-0.9**
FITZ	**Fitzroy Crossi**	**41.91**	**68**	P	**P**	**06 38 52.7**	**+1.4**
	comp=Z,2.8nm,1.0s,baz=235,slow=18,SNR=2.3						
FITZ				LR	LR	06 54 13.7	
	comp=Z,470nm,19.6s,baz=238,slow=33						
	comp=Z,2.8nm,1.0s						
FITZ	**Fitzroy Crossi**	**41.91**	**68**	P	**P**	**06 38 50.5**	**-0.7**
ASAR	**Alice Springs**	**44.27**	**81**	P	**P**	**06 39 10.1**	**-0.4**
	comp=Z,2.5nm,0.8s,baz=226,slow=8.3,SNR=15						
ASAR				PcP	**PcP**	**06 40 55.1**	**+0.2**
	comp=Z,0.7nm,1.0s,baz=234,slow=3.1,SNR=1.8						
ASAR				LR	LR	06 55 42.8	
	comp=Z,924nm,20.1s,baz=240,slow=34						
	comp=Z,2.5nm,0.8s						
ASAR	**Alice Springs**	**44.27**	**81**	P	**P**	**06 39 09.8**	**-0.7**
STKA	**Stephens Creek**	**45.54**	**96**	LR	LR	06 54 44.8	
	comp=Z,530nm,21.0s,baz=229,slow=31						
VNDA	**Vanda**	**46.48**	**163**	P	**P**	**06 39 27.3**	**+0.1**
	comp=Z,0.5nm,0.6s,baz=273,slow=6.9,SNR=6.9						
VNDA				LR	LR	06 57 11.3	
	comp=Z,465nm,20.3s,baz=274,slow=34						
	comp=Z,0.5nm,0.6s						
VNDA	**Vanda**	**46.48**	**163**	P	**P**	**06 39 27.2**	**0.0**
WRA	**Warramunga Arr**	**46.87**	**78**	P	**P**	**06 39 30.3**	**-0.8**
	comp=Z,3.3nm,0.9s,baz=231,slow=7.3,SNR=12						
WRA				LR	LR	06 56 33.5	
	comp=Z,223nm,21.3s,baz=270,slow=33						
	comp=Z,3.3nm,0.9s						
WR8	**Warramunga Arr**	**46.98**	**78**	P	**P**	**06 39 32.3**	**+0.4**
WB0	**Warramunga Arr**	**47.02**	**77**	P	**P**	**06 39 32.0**	**-0.2**
QSPA	**South Pole Qui**	**48.09**	**180**	P	**P**	**06 39 40.4**	**+0.3**
	comp=Z,4.6nm,0.9s,baz=302,slow=4.7,SNR=14						
QSPA				LR	LR	06 58 12.9	
	comp=Z,400nm,20.4s,baz=306,slow=34						
	comp=Z,4.6nm,0.9s						
QSPA	**South Pole Qui**	**48.09**	**180**	P	**P**	**06 39 40.3**	**+0.2**
QSPA				IAmb	IAmb	06 39 45.7	
	comp=Z,8.2nm,1.1s						
PALK	**Pallekele**	**49.27**	**354**	LR	LR	06 55 26.2	
	comp=Z,1µm,21.6s,baz=194,slow=30						
BOSA	**Boshof**	**49.69**	**266**	LR	LR	06 57 00.3	
	comp=Z,522nm,18.6s,baz=136,slow=31						
SNAA	**Sanae**	**50.08**	**204**	LR	LR	06 59 28.6	
	comp=Z,239nm,18.4s,baz=72,slow=34						
SUR	**Sutherland**	**51.01**	**259**	LR	LR	06 57 16.8	
	comp=Z,185nm,19.3s,baz=124,slow=31						
LBTB	**Lobatse**	**51.42**	**270**	LR	LR	06 58 15.2	
	comp=Z,296nm,18.8s,baz=126,slow=32						
VNA2	**Neumayer--Watz**	**51.70**	**205**	P	**P**	**06 40 07.0**	**-0.2**
	comp=Z,1.7nm,0.9s,baz=110,slow=4.2						
MATP	**Matopo**	**51.97**	**276**	LR	LR	06 58 18.3	
	comp=Z,378nm,19.4s,baz=136,slow=32						
VNA3	**Neumayer Olymp**	**52.29**	**204**	P	**P**	**06 40 10.6**	**-1.1**
	comp=Z,2.6nm,0.8s						
CTA	**Charters Tower**	**55.56**	**87**	LR	LR	07 02 18.1	
	comp=Z,186nm,18.9s,baz=224,slow=34						
KMBO	**Kilima Mbogo**	**59.16**	**300**	LR	LR	07 00 40.6	
	comp=Z,105nm,21.4s,baz=117,slow=30						
RPZ	**Rata Peaks**	**60.15**	**123**	LR	LR	07 01 26.9	
	comp=Z,36nm,21.5s,baz=212,slow=30						
DAV	**Davao City (W)**	**61.29**	**47**	LR	LR	07 03 34.4	
	comp=Z,78nm,21.6s,baz=163,slow=32						
CMAR	**Chiang Mai Arr**	**61.57**	**15**	LR	LR	07 04 26.9	
	comp=Z,106nm,19.9s,baz=195,slow=33						
PMG	**Port Moresby**	**63.09**	**78**	LR	LR	07 07 52.4	
	comp=Z,282nm,18.4s,baz=166,slow=35						
MBAR	**Mbarara**	**63.84**	**295**	LR	LR	07 05 06.9	
	comp=Z,112nm,19.2s,baz=182,slow=32						
BRDH	**Bariadhala**	**64.70**	**7**	LR	LR	07 05 09.4	
	comp=Z,426nm,21.2s,baz=188,slow=32						
URZ	**Urewera**	**66.98**	**121**	LR	LR	07 06 12.0	
	comp=Z,171nm,19.3s,baz=246,slow=32						
PMSA	**Palmer Station**	**70.78**	**193**	LR	LR	07 13 18.8	
	comp=Z,396nm,18.5s,baz=144,slow=36						
HNR	**Honiara**	**72.50**	**87**	LR	LR	07 11 54.3	
	comp=Z,76nm,19.7s,baz=322,slow=34						
GUMO	**Guam**	**77.96**	**59**	LR	LR	07 18 51.7	
	comp=Z,23nm,18.3s,baz=244,slow=37						
JOW	**Kunigami**	**79.31**	**38**	LR	LR	07 14 58.9	
	comp=Z,54nm,20.8s,baz=198,slow=33						
AAK	**Ala-Archa**	**84.86**	**352**	LR	LR	07 18 14.4	
	comp=Z,246nm,19.2s,baz=181,slow=33						
EIL	**Elat**	**85.04**	**318**	LR	LR	07 15 30.1	
	comp=Z,194nm,19.9s,baz=106,slow=31						
KK31	**Karatay Array**	**85.80**	**349**		**P**	**06 43 39.3**	**-0.4**
KK31				IAmb	IAmb	06 43 42.8	
	comp=Z,3.7nm,0.9s						
KKAR	**Karatay Array**	**85.80**	**349**		**P**	**06 43 39.5**	**-0.2**
JNU	**Nakatsue**	**85.83**	**37**	LR	LR	07 22 21.4	
	comp=Z,27nm,19.8s,baz=212,slow=36						
ASF	**Jabal al Asfar**	**86.15**	**321**	LR	LR	07 16 03.9	
	comp=Z,116nm,20.8s,baz=189,slow=31						
KSRS	**Korea Array**	**88.26**	**33**	P	**P**	**06 43 52.1**	**+0.3**
	comp=Z,1.1nm,0.8s,baz=239,slow=4.7,SNR=2.8						
	comp=Z,1.1nm,0.8s						
MKAR	**Makanchi Array**	**88.52**	**358**	P	**P**	**06 43 51.8**	**-0.9**
	comp=Z,0.8nm,0.8s,baz=161,slow=6.1,SNR=3.9						
MKAR				LR	LR	07 20 55.1	
	comp=Z,251nm,20.7s,baz=151,slow=34						
	comp=Z,0.8nm,0.8s						
MAKZ	**Makanchi**	**88.54**	**358**	P	**P**	**06 43 52.7**	**-0.2**
GNI	**Garni**	**89.65**	**330**	LR	LR	07 20 12.9	
	comp=Z,99nm,19.3s,baz=147,slow=33						
AFI	**Afiamalu**	**90.27**	**109**	LR	LR	07 16 40.1	
	comp=Z,61nm,20.0s,baz=229,slow=30						
SONM	**Songino Array**	**91.49**	**14**	LR	LR	07 22 47.9	
	comp=Z,95nm,21.6s,baz=228,slow=34						
KURBB	**Kurchatov Arra**	**92.49**	**356**	P	**P**	**06 44 12.8**	**+1.6**
	comp=Z,0.3nm,0.3s,baz=186,slow=3.8,SNR=5.7						
KURBB				LR	LR	07 23 13.5	
	comp=Z,158nm,20.2s,baz=190,slow=34						
	comp=Z,0.3nm,0.3s						
KURK	**Kurchatov**	**92.58**	**356**	P	**P**	**06 44 11.6**	**+0.1**
KURK				IAmb	IAmb	06 44 15.2	
	comp=Z,1.1nm,0.7s						
RAR	**Rarotonga**	**93.15**	**122**	LR	LR	07 19 58.6	
	comp=Z,56nm,19.7s,baz=274,slow=32						
KBZ	**Khabaz**	**93.44**	**331**	LR	LR	07 21 52.4	
	comp=Z,63nm,20.4s,baz=156,slow=33						
BRTR	**Keskin Array B**	**93.85**	**323**	LR	LR	07 22 45.7	
	comp=Z,87nm,19.2s,baz=132,slow=33						
TORD	**Torodi Ar. Bea**	**93.87**	**284**	P	**P**	**06 44 20.4**	**+2.0**
	comp=Z,0.3nm,0.8s,baz=132,slow=4.1,SNR=1.7						
	comp=Z,0.3nm,0.8s						
TORD	**Torodi Ar. Bea**	**93.87**	**284**	P	**P**	**06 44 17.9**	**-0.5**
TORD				IAmb	IAmb	06 44 56.7	
	comp=Z,3.1nm,0.8s						
PLCA	**Paso Flores**	**94.68**	**198**	LR	LR	07 27 20.8	
	comp=Z,177nm,18.7s,baz=164,slow=36						
TLY	**Talaya**	**94.76**	**11**	LR	LR	07 27 49.0	
	comp=Z,82nm,18.5s,baz=194,slow=36						
AKTO	**Aktyubinsk**	**95.12**	**343**	LR	LR	07 26 23.1	
	comp=Z,101nm,18.5s,baz=193,slow=35						
USRK	**Ussuriysk Ar.**	**95.61**	**32**	LR	LR	07 25 00.5	
	comp=Z,70nm,20.6s,baz=201,slow=34						
ZALV	**Zalesovo Beam**	**95.64**	**360**	LR	LR	07 24 50.6	
	comp=Z,126nm,21.4s,baz=192,slow=34						
KLR	**Kul'dur**	**99.74**	**29**	LR	LR	07 32 08.8	
	comp=Z,44nm,18.0s,baz=227,slow=37						

*IDC **20** 06:30:59.5±0.6, 35°.02N×26°.41E, h0^{km}, mb4.1/23, mbtmp4.0/35, ML3.9/11, MS3.4/8, Error ellipse: s-maj=12.0km s-min=8.2km az=1.0*

*MOS **20** 06:31:01.5±1.3, 34°.84N×26°.47E, h29^{km}, mb4.6/16, Error ellipse: s-maj=6.5km s-min=3.7km az=96.0*

*NEIC **20** 06:31:01.4±1.3, 34°.97N±0°.04×26°.46E±0°.02, h10^{km}±1^{km}, mb4.3/45, Error ellipse: s-maj=7.5km s-min=2.8km az=200.0*

*THE **20** 06:31:02.5, 35°N±6°×2°7E±°, h5^{km}±6^{km}, M4.2/14, MLh4.2/14*

*MCSM **20** 06:31:02.7±0.6, 35°N±4°×2°7E±°, h10^{km}±4^{km}, mb4.3, mB4.4, MLv4.1, Mw(mB)3.5*

*GFZ **20** 06:31:03.3±0.2, 35°N±3°×2°7E±°, h10^{km}, M4.3/24, mb4.3/24*

*AFAD **20** 06:31:03.8, 35°.05N×26°.42E, h10^{km}±5^{km}, MW4.2*

*ISK **20** 06:31:03.3, 35°.26N×26°.39E, h2^{km}, ML4.1/21*

*ATH **20** 06:31:04.3, 35°.07N×26°.39E, h13^{km}±2^{km}, ML4.3/17, Latitude uncertainty: 3 km; Longitude uncertainty: 1 km*

*GII **20** 06:31:07.3±0.0, 34°.468N±0°.002×26°.924E±0°.001, h0^{km}, Mws4.1, confirmed*

ISC 20 06:31:02.1±0.7**, 34°.90N**±0°.03×**26°.48E**±0°.02**, h23^{km}**±5^{km}**, n475,** σ**2^{s}.00**/528**, mb4.2**/42**, MS3.5**/4**, 23C-18D, Crete**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZKR	Zakros	0.30	314	P	Pb	06 31 08.1	-1.0
ZKR	Zakros	0.30	314	Pg	Pb	06 31 08.3	-0.8
ZKR				Sg	Sb	06 31 12.3	-1.5
ZKR				AML	AML		
ZKR	Zakros	0.30	314	P	Pb	06 31 08.1	-1.0
ZKR				S	Sb	06 31 10.7	-3.1
ZKR	Zakros	0.30	314	P	Pb	06 31 08.2	-0.8
AGNA	Agios Nikolaos	0.69	295	P	Pb	06 31 15.2	-0.3
AGNA				S	Sb	06 31 23.9	-0.7
AGNA				AML	AML		
NPS	Neapolis	0.80	297	P	Pb	06 31 17.2	-0.2
NPS				S	Sn	06 31 29.4	+0.1
NPS				AML	AML		
NPS	Neapolis	0.80	297	P	Pb	06 31 17.1	-0.2
NPS				S	Sn	06 31 29.3	+0.1
NPS	Neapolis	0.80	297	P	Pb	06 31 17.2	-0.2
NPS				S	Sb	06 31 26.4	-1.4
KARP	Karpathos	0.85	41	P	Pb	06 31 17.0	-1.3
KARP				S	Sb	06 31 29.4	+0.2
KARP				AML	AML		
KARP	Karpathos	0.85	41	Pg	Pb	06 31 17.2	-1.1
KARP				AML	AML		
KARP	Karpathos	0.85	41		Pb	06 31 17.2	-1.1
KARP				Sn	Sn	06 31 30.6	+0.1
KARP	Karpathos	0.85	41	P	Pb	06 31 16.9	-1.3
KARP				AML	AML		
KARP	Karpathos	0.85	41	P	Pb	06 31 17.1	-1.1
IACM	Heraklion	1.23	289	P	Pb	06 31 25.4	+0.8
IACM				S	Sb	06 31 43.3	+3.3
IACM				AML	AML		
IACM	Heraklion	1.23	289	P	Pb	06 31 25.4	+0.8
IACM				S	Sn	06 31 39.5	-0.2
IDI	Anoyia	1.36	287	Pn	Pn	06 31 26.2	+0.4
	239nm,0.3s,baz=103,slow=18,SNR=397						
IDI				LR	LR	06 31 43.1	
	comp=Z,266nm,18.6s,baz=140,slow=34						
IDI				Sn	Sb	06 31 45.6	+1.6
	507nm,0.3s,baz=27,slow=14,SNR=10						
IDI	Anoyia	1.36	287	P	Pb	06 31 27.6	+0.6
IDI				AML	AML		
IDI	Anoyia	1.36	287	Pn	Pb	06 31 27.6	+0.6
IDI				AML	AML		
IDI	Anoyia	1.36	287		Pb	06 31 26.8	-0.2
IDI	Anoyia	1.36	287	P	Pb	06 31 27.5	+0.5
IDI				S	Sn	06 31 43.5	+0.3
SIVA	Sivas	1.38	275	P	Pb	06 31 27.6	+0.3
SIVA				AML	AML		
SIVA	Sivas	1.38	275	P	Pb	06 31 27.7	+0.4
SIVA				S	Sb	06 31 44.8	+0.4
SIVA				AML	AML		
ASTA	Astypalaia	1.64	356	P	Pn	06 31 30.1	+0.5
ASTA				S	Sn	06 31 50.2	+0.2
ASTA				AML	AML		
THERA	Ancient Thera,	1.68	331	P	Pn	06 31 30.5	+0.5
THERA				S	Sb	06 31 52.4	-0.6
THERA				AML	AML		
THERA	Ancient Thera,	1.68	331	P	Pn	06 31 30.6	+0.5
THERA				S	Sn	06 31 50.0	-0.8
THERA	Ancient Thera,	1.68	331	P	Pn	06 31 30.9	+0.8
THR6	Thira Island,	1.70	329	P	Pn	06 31 31.3	+1.0
THR6	Thira Island,	1.70	329	P	Pn	06 31 31.4	+1.0
RTHF	Rethymno-Limin	1.70	286	P	Pb	06 31 31.8	-0.9
RTHF				AML	AML		
THR8	Santorini-Mono	1.71	332	P	Pn	06 31 31.1	+0.6
THR8	Santorini-Mono	1.71	332	P	Pn	06 31 31.1	+0.6
THRA	Thira	1.73	331	P	Pn	06 31 32.0	+1.1
SNT5	Nea Kammeni, S	1.74	330	P	Pb	06 31 32.8	-0.5
SNT5				AML	AML		
SNT5	Nea Kammeni, S	1.74	330	P	Pb	06 31 32.9	-0.5
THR3	Thira Island,	1.74	330	P	Pn	06 31 32.1	+1.1
THR3	Thira Island,	1.74	330	P	Pn	06 31 31.9	+1.0
THR2	Thira island,	1.76	331	P	Pn	06 31 32.4	+1.2
THR2	Thira island,	1.76	331	P	Pn	06 31 32.3	+1.0
THR5	Thira Island,	1.77	329	P	Pn	06 31 32.4	+1.0
THR5	Thira Island,	1.77	329	P	Pn	06 31 32.3	+0.9
SAP3	Santorini-Thir	1.79	329	P	Pn	06 31 32.5	+0.9
SAP3				AML	AML		
SAP3	Santorini-Thir	1.79	329	P	Pn	06 31 32.6	+0.9
CMBO	Columbo, Santo	1.79	331	P	Pn	06 31 32.9	+1.2
ARG	Arkhangelos	1.87	45	P	Pb	06 31 35.2	-0.4
ARG				AML	AML		
ARG	Arkhangelos	1.87	45	Pn	Pb	06 31 35.3	-0.4
ARG				AML	AML		
ARG	Arkhangelos	1.87	45	P	Pb	06 31 35.5	-0.2
ARG	Arkhangelos	1.87	45		Pb	06 31 35.5	-0.2
ARG	Arkhangelos	1.87	45	P	Pb	06 31 35.8	+0.2
ARG				AML	AML		
ARG	Arkhangelos	1.87	45	P	Pb	06 31 35.7	0.0
YAZI	Mula-Dat§a-	1.94	24	P	Pn	06 31 34.5	+0.8
YAZI				S	Sn	06 31 58.7	+1.3
YAZI				IAML		06 32 06.0	
	comp=N,534nm,0.8s						
YAZI				IAML		06 32 09.0	
	comp=E,514nm,0.4s						
GVD	Gavdhos	1.97	269	Pn	Pb	06 31 38.3	+1.0
GVD				AML	AML		
GVD	Gavdhos	1.97	269	P	Pb	06 31 37.0	-0.3
GVD				AML	AML		
GVD	Gavdhos	1.97	269	P	Pb	06 31 39.8	+2.4
DAT	Datca	2.03	26	Pn	Pn	06 31 35.8	+0.8
DAT				AML	AML		
DAT	Datca	2.03	26	P	Pn	06 31 36.5	+1.5
DAT				S	Sn	06 31 60.0	+0.3
DAT				IAML		06 32 14.0	
	comp=N,839nm,0.4s						
DAT				IAML		06 32 19.0	
	comp=E,678nm,0.8s						
CHNB	Souda	2.06	287	P	Pb	06 31 38.2	-0.7
KLNA	Kalymnos	2.09	11	P	Pn	06 31 36.0	+0.3
KLNA				AML	AML		
CHAN	Chania	2.09	288	P	Pb	06 31 38.5	-0.9
CHAN				AML	AML		
RODB	Rodos	2.09	42	P	Pb	06 31 38.1	-1.2
RODB				AML	AML		
RDI1	Rhodes Town Ha	2.10	42	P	Pb	06 31 38.5	-0.9
RDI1				AML	AML		
CH01	Chania	2.11	288	P	Pb	06 31 38.6	-1.1
CH01				AML	AML		
IMMV	Iera Moni Meta	2.12	286	P	Pb	06 31 39.8	-0.2
IMMV				AML	AML		
IMMV	Iera Moni Meta	2.12	286	Pn	Pb	06 31 38.8	-1.1
IMMV				AML	AML		
IMMV	Iera Moni Meta	2.12	286	P	Pb	06 31 38.9	-1.0
IMMV				AML	AML		
IMMV	Iera Moni Meta	2.12	286	P	Pb	06 31 42.6	+2.6
BODT	Bodrum	2.25	17	Pn	Pn	06 31 38.4	+0.3
BODT				AML	AML		
BODA	Bodrum-Mula	2.26	20	Pn	Pn	06 31 38.5	+0.4
BDRM	Kayabasi	2.29	20	P	Pn	06 31 39.3	+0.7
BDRM				S	Sb	06 32 08.8	-1.9
BDRM				IAML		06 32 11.0	
	comp=N,442nm,0.4s						
BDRM				IAML		06 32 15.0	
	comp=E,274nm,0.8s						
YKAV	Yalikavak-Bodr	2.31	16	Pn	Pn	06 31 38.9	+0.1
YKAV				AML	AML		
TURN	Turunc	2.35	37	Pn	Pn	06 31 41.2	+1.8
TURN				AML	AML		
TURN	Turunc	2.35	37	P	Pn	06 31 41.5	+2.1
TURN				S	Sn	06 32 09.9	+2.4
TURN				IAML		06 32 21.0	
	comp=E,572nm,0.5s						
TURN				IAML		06 32 21.0	
	comp=N,812nm,0.5s						
KNDR	Palaiochora Ch	2.37	279	P	Pb	06 31 43.0	-1.1
KNDR				AML	AML		
NAX1	Naxos Island	2.37	338	P	Pn	06 31 40.1	+0.5
NAX1				AML	AML		
MHLO	Agia Marina, M	2.46	317	P	Pn	06 31 43.0	+2.2
MHLO				AML	AML		
MHLO	Agia Marina, M	2.46	317	P	Pn	06 31 42.5	+1.7
MILOS	Milos	2.48	318	P	Pn	06 31 42.2	+1.1
DALY	Dalyan (Mula)	2.60	42	P	Pn	06 31 45.1	+2.4
DALY				S	Sb	06 32 20.7	+1.2
DALY				IAML		06 32 34.0	
	comp=E,611nm,0.8s						
DALY				IAML		06 32 37.0	
	comp=N,905nm,0.6s						
MLSB	Milas	2.61	23	Pn	Pn	06 31 43.8	+0.9
MLSB				AML	AML		
DDIM	Aydin, Didim	2.62	13	P	Pn	06 31 42.6	-0.5
DDIM				S	Sn	06 32 15.3	+1.1
DDIM				IAML		06 32 34.0	
	comp=E,548nm,0.9s						
DDIM				IAML		06 32 40.0	
	comp=N,557nm,0.6s						
YER	Yerkesik	2.66	33	Pn	Pn	06 31 45.2	+1.5
YER				AML	AML		
YER	Yerkesik	2.66	33	P	Pn	06 31 45.0	+1.3
IZZE	Mula-Seydike	2.71	55	P	Pn	06 31 45.5	+1.2
IZZE				S	Sn	06 32 18.5	+2.2
IZZE				IAML		06 32 22.0	
	comp=E,490nm,0.5s						
IZZE				IAML		06 32 39.0	
	comp=N,794nm,0.5s						
FETY	Fethiye	2.73	50	P	Pn	06 31 47.4	+2.8
FETY				S	Sb	06 32 29.8	+6.4
ANKY	Antikythira Is	2.77	291	P	Pn	06 31 47.7	+2.6
MULA	Mugla, Merkez-	2.78	32	P	Pn	06 31 48.0	+2.6
MULA				S	Sn	06 32 20.7	+2.5
MULA				IAML		06 32 29.0	
	comp=N,313nm,1.1s						
MULA				IAML		06 32 41.0	
	comp=E,462nm,0.7s						
SABU	Mula-Dalaman	2.78	46	P	Pn	06 31 47.5	+2.2
SABU				S	Sb	06 32 25.1	+0.3
SABU				IAML		06 32 38.0	
	comp=E,391nm,0.5s						
SABU				IAML		06 32 55.0	
	comp=N,369nm,1.0s						
TNSA	Tinos	2.84	338	P	Pn	06 31 47.3	+1.3
GCAM	G?zelcaml?	2.85	12	Pn	Pn	06 31 46.3	0.0
GCAM				AML	AML		
GCAM	G?zelcaml?	2.85	12	P	Pn	06 31 49.2	+3.0
GCAM				S	Sn	06 32 20.1	+0.2
GCAM				IAML		06 32 23.0	
	comp=E,353nm,0.5s						
GCAM				IAML		06 32 24.0	
	comp=N,231nm,0.4s						
AKAS	Kas	2.87	62	P	Pn	06 31 48.1	+1.5
AKAS				S	Sn	06 32 21.8	+1.3
AKAS				IAML		06 32 33.0	
	comp=E,389nm,0.4s						
AKAS				IAML		06 32 55.0	
	comp=N,510nm,0.9s						
AKAS	Kas	2.87	62		Pn	06 31 47.7	+1.1
AKAS	Kas	2.87	62	P	Pn	06 31 49.4	+2.8
KRL1	Karlovasi Samo	2.89	3	P	Pn	06 31 47.4	+0.6
KTHA	Kythira Island	3.10	297	P	Pn	06 31 52.1	+2.5
KTHA				AML	AML		
KTHA	Kythira Island	3.10	297	Pn	Pn	06 31 51.7	+2.0
KTHA				AML	AML		
KTHA	Kythira Island	3.10	297	P	Pb	06 31 55.1	-1.5
DGB	zmir	3.16	6	P	Pn	06 31 51.8	+1.3
DGB				S	Sn	06 32 27.1	-0.3
DGB				IAML		06 32 47.0	
	comp=N,97nm,0.5s						
DGB				IAML		06 32 49.0	
	comp=E,172nm,0.9s						
KNIK	Mula-Seydike	3.17	51	P	Pn	06 31 52.7	+1.9
KNIK				S	Sn	06 32 31.5	+3.6
KNIK				IAML		06 32 51.0	
	comp=E,143nm,0.5s						
KNIK				IAML		06 32 53.0	
	comp=N,126nm,0.6s						
GMLD	Gumuldur	3.19	6	Pn	Pn	06 31 51.1	+0.3
GMLD				AML	AML		
CAEL	Denizli, Camel	3.19	45	P	Pn	06 31 54.2	+3.1
CAEL				S	Sb	06 32 41.0	+4.3
CAEL				IAML		06 32 53.0	
	comp=E,1µm,0.7s						
CAEL				IAML		06 32 58.0	
	comp=N,777nm,0.7s						
TAVA	DENIZLI_Tavas	3.22	37	P	Pn	06 31 54.5	+3.0
TAVA				S	Sn	06 32 33.6	+4.4
TAVA				IAML		06 32 39.0	
	comp=N,319nm,0.6s						
TAVA				IAML		06 32 52.0	
	comp=E,286nm,0.6s						
AYDB	Zeytinkoy-Aydi	3.24	20	Pn	Pn	06 31 52.6	+0.9
AYDB				AML	AML		
ESEN	Aydn-Nazilli	3.26	27	P	Pn	06 31 54.6	+2.8
ESEN				S	Sn	06 32 29.4	-0.5
ESEN				IAML		06 32 40.0	
	comp=E,193nm,1.0s						
ESEN				IAML		06 32 42.0	
	comp=N,178nm,0.7s						
ZEYE	Izmir, Urla-Ze	3.33	0	P	Pn	06 31 52.5	-0.3
ZEYE				S	Sn	06 32 30.6	-1.0
ZEYE				IAML		06 32 53.0	
	comp=E,238nm,0.4s						
ZEYE				IAML		06 32 56.0	
	comp=N,286nm,1.0s						
ELL	Elmali	3.34	56	P	Pn	06 31 55.3	+2.3
ELL	Elmali	3.34	56		Pn	06 31 55.3	+2.3
ELL	Elmali	3.34	56	P	Pn	06 31 55.0	+2.0
NAZL	Nazilli-Aydin	3.38	25	Pn	Pn	06 31 55.0	+1.4
NAZL				AML	AML		
VLI	Veliai	3.40	303	P	Pn	06 31 55.7	+1.9
VLI				AML	AML		
VLI	Veliai	3.40	303	P	Pn	06 31 55.4	+1.6
VLI				AML	AML		
GOLH	Golhisar	3.41	46	P	Pn	06 31 56.1	+2.1
GOLH				S	Sb	06 32 39.1	-3.9
GOLH				IAML		06 32 53.0	
	comp=N,306nm,0.8s						
GOLH				IAML		06 33 09.0	
	comp=E,330nm,0.5s						
DNIZ	Denizli-Tavas-	3.41	36	P	Pn	06 31 57.6	+3.6
DNIZ				S	Sn	06 32 34.3	+0.5
DNIZ				IAML		06 32 51.0	
	comp=N,604nm,0.4s						
DNIZ				IAML		06 32 58.0	
	comp=E,535nm,0.4s						
IZMR	zmir-demi	3.44	20	P	Pn	06 31 56.2	+1.9
IZMR				S	Sb	06 32 45.6	+2.0
IZMR				IAML		06 32 58.0	
	comp=N,90nm,1.2s						
IZMR				IAML		06 33 10.0	
	comp=E,82nm,0.8s						
CHOS	Chios island	3.49	354	P	Pn	06 31 56.3	+1.1
CHOS				S	Sn	06 32 36.7	+0.9
CHOS	Chios island	3.49	354	Pn	Pn	06 31 55.8	+0.7
CHOS				AML	AML		
BLCB	Balcova	3.50	7	Pn	Pn	06 31 55.7	+0.5
BLCB				AML	AML		
KARY	Karystos	3.53	333	P	Pn	06 31 56.4	+0.8
ODEM	Odemis-Izmir	3.60	20	Pn	Pn	06 31 57.7	+1.1
ODEM				AML	AML		
KIRA	zmir-Kiraz	3.63	25	P	Pn	06 31 59.0	+2.0
KIRA				S	Sn	06 32 39.3	+0.1
KIRA				IAML		06 32 51.0	
	comp=N,170nm,0.9s						
KIRA				IAML		06 32 58.0	
	comp=E,144nm,0.8s						
SULTU	Buldan	3.64	30	P	Pn	06 32 00.1	+2.9
SULTU				S	Sn	06 32 41.8	+2.3
SULTU				IAML		06 32 46.0	
	comp=E,208nm,0.6s						
SULTU				IAML		06 32 50.0	
	comp=N,225nm,0.6s						
VLY	Voula,Athens	3.66	324	P	Pn	06 31 58.6	+1.3
INCE	Denizli-Bozkur	3.75	41	P	Pn	06 32 00.6	+1.9
INCE				S	Sn	06 32 46.3	+4.1
INCE				IAML		06 33 06.0	
	comp=N,229nm,0.5s						
INCE				IAML		06 33 17.0	
	comp=E,205nm,1.0s						
ATHU	Athens Univers	3.75	325	P	Pn	06 32 00.3	+1.7
DION	Dionisos Attik	3.78	328	P	Pn	06 32 00.5	+1.5
MANT	Manisa	3.95	24		Pn	06 32 03.7	+2.2
ITM	Ithomi	4.33	303	Pn	Pn	06 32 08.9	+2.2
ITM				AML	AML		
ITM	Ithomi	4.33	303		Pn	06 32 09.0	+2.4
ITM	Ithomi	4.33	303	P	Pn	06 32 11.3	+4.6
ISP	Isparta	4.37	47	*ce*P	Pn	06 32 08.8	+1.6
ISP				pmax	pmax		
	comp=Z,35nm,0.5s						
ISP	Isparta	4.37	47		Pn	06 32 08.9	+1.7
ISP	Isparta	4.37	47		Pn	06 32 09.1	+1.8
KEPZ	Antalya-Kepez	4.61	63	⇑P	Pn	06 32 12.8	+2.3
BALB	Balikesir	4.86	13		Pn	06 32 14.8	+1.0
BALY	Balya	4.91	10	P	Pn	06 32 17.1	+2.5
AGG	Agios Georgios	5.29	322	P	Pn	06 32 24.2	+4.4
AGG	Agios Georgios	5.29	322	P	Pn	06 32 24.2	+4.4
	comp=Z,169nm,0.6s						
BAND	Balkesir-Ban	5.59	13	⇑P	Pn	06 32 24.1	+0.2
CSS	Mathiatis	5.62	87		Pn	06 32 24.7	+0.3
CSS	Mathiatis	5.62	87	P	Pn	06 32 24.3	-0.1
	comp=Z,0.2nmcomp=Z,474nmcomp=Z,38nm,0.6s						
CSS				AML	AML		
CSS	Mathiatis	5.62	87	P	Pn	06 32 25.8	+1.4
	comp=Z,474nmcomp=Z,38nm,0.6s						
CSS	Mathiatis	5.62	87	P	Pn	06 32 25.4	+1.1
	comp=Z,38nm,0.6s						
CSS	Mathiatis	5.62	87	P	Pn	06 32 25.8	+1.4
CSS				S	Sn	06 33 27.8	-0.5
CAVK	Edirne/Enez-Ca	5.78	358	⇓P	Pn	06 32 28.4	+1.9
BORA	Eskisehir	5.89	31		Pn	06 32 31.0	+3.0
ALN	Alexandroupoli	5.99	357	P	Pn	06 32 30.8	+1.4
ALN	Alexandroupoli	5.99	357		Pn	06 32 30.8	+1.4
YLV	Yalova	6.10	21	P	Pn	06 32 32.8	+1.9
	comp=Z,0.2nmcomp=Z,52nm,1.0s						
YLV				AML	AML		
THE	Thessaloniki	6.36	335	P	Pn	06 32 38.2	+3.7
THE	Thessaloniki	6.36	335	P	Pn	06 32 38.2	+3.7
	comp=Z,41nm,1.1s						
SRS	Serrai	6.61	341	P	Pn	06 32 42.7	+4.8
SRS				pmax	pmax		
	comp=Z,26nm,1.0s						
SRS	Serrai	6.61	341	P	Pn	06 32 42.7	+4.8
	comp=Z,18nm,0.8s						
CY604	RAF Akrotiri,	6.64	93	Pn	Pn	06 32 38.4	+0.3
KKUL	Konya-Kulu	6.68	49	P	Pn	06 32 42.1	+3.2
MDUB	Mudurnu	6.70	33		Pn	06 32 40.0	+0.8
IGT	Igoumenitsa	6.74	315	P	Pn	06 32 43.3	+3.6
IGT				pmax	pmax		
	comp=Z,27nm,1.6s						
GRG	Griva	6.85	333	P	Pn	06 32 46.2	+5.0
GRG	Griva	6.85	333	P	Pn	06 32 46.2	+5.0
	comp=Z,81nm,0.8s						
SAHE	Sakarya_HENDEK	6.87	29	⇓P	Pn	06 32 44.5	+3.0
RZN	Rozhen	6.92	349	P	Pn	06 32 44.3	+2.0
MMB	Musomishta	6.97	343	P	Pn	06 32 45.3	+2.4
VAY	Valandovo	7.11	335	*i* P	Pn	06 32 50.6	+5.8
KEK	Kerkira	7.17	314		Pn	06 32 43.7	-1.9
KIRS	Kirsehir-Merke	7.29	52	⇑P	Pn	06 32 49.8	+2.5
KKB	Krupnik	7.41	340	P	Pn	06 32 55.2	+6.3
OFRI	`Ofer	7.44	105	P	Pn	06 32 49.8	+0.5
OFRI				S	Sn	06 34 09.5	-3.4
BR105	Keskin Array S	7.44	48	P	Pn	06 32 51.8	+2.4
	comp=Z,0.0nmcomp=Z,97nmcomp=Z,12nm,0.8s						
BR105				AML	AML		
BR104	Keskin Array S	7.45	48	P	Pn	06 32 51.3	+1.8
	comp=Z,0.0nmcomp=Z,70nmcomp=Z,8.5nm,0.9s						
BR104				AML	AML		
BR106	Keskin Array S	7.45	48	P	Pn	06 32 51.8	+2.2
	comp=Z,0.0nmcomp=Z,74nmcomp=Z,7.7nm,0.8s						
BR106				AML	AML		
BR131	Keskin Array S	7.46	48	*i* P	Pn	06 32 52.2	+2.5
BR131	Keskin Array S	7.46	48		Pn	06 32 52.0	+2.3
BRTR	Keskin Array B	7.46	48	Pn	Pn	06 32 50.1	+0.4
	comp=Z,0.7nm,0.3s,baz=219,slow=14,SNR=20						
BRTR				Sn	Sn	06 34 13.2	-0.4
	baz=212,slow=24						
BRTR				LR	LR	06 36 35.2	
	comp=Z,170nm,20.2s,baz=228,slow=45						
	comp=Z,2.8nm,0.6s						
BRTR				AML	AML		
BRTR	Keskin Array B	7.46	48	*i* P	Pn	06 32 53.2	+3.5
BRTR				pmax	pmax		
	comp=Z,3.0nm,0.5s						
BRTR	Keskin Array B	7.46	48		Pn	06 32 52.0	+2.3
SLTI	Sal'it	7.62	108	P	Pn	06 32 52.1	+0.3
SLTI				S	Sn	06 34 12.9	-4.5
MMA0B	Mount Meron ar	7.65	102	P	Pn	06 32 53.4	+1.2
MMA0B				S	Sn	06 34 15.5	-2.6
OHR	Ohrid	7.65	326	*i* P	Pn	06 32 57.5	+5.3
KZIT	Kziot	7.75	119	P	Pn	06 32 56.1	+2.4
	comp=Z,2µmcomp=Z,45nm,0.4s						
KZIT	Kziot	7.75	119	P	Pn	06 32 56.2	+2.6
	comp=Z,45nm,0.4s						
KZIT	Kziot	7.75	119	P	Pn	06 32 53.2	-0.5
KZIT				S	Sn	06 34 15.5	-5.2
GEM	Giv'at Ha'Em	7.80	100	P	Pn	06 32 55.2	+0.9
GEM				S	Sn	06 34 19.2	-2.7
SALP	Salfit	7.80	109	P	Pn	06 32 58.4	+4.1
	comp=Z,46nm,0.9s						
AMAZ	Amatzia	7.82	113	P	Pn	06 32 57.9	+3.3
	comp=Z,1µmcomp=Z,53nm,0.7s						
AMAZ	Amatzia	7.82	113	P	Pn	06 32 54.5	-0.1
AMAZ				S	Sn	06 34 18.2	-4.3
KNHM	Kefar Nahum	7.83	102	P	Pn	06 32 55.0	+0.4
KNHM				S	Sn	06 34 19.5	-2.9
MMLI	Mount Malkishu	7.84	106	P	Pn	06 32 55.0	+0.1
MMLI				S	Sn	06 34 19.5	-3.5
NATI	Neve Ativ	7.85	99	P	Pn	06 32 55.8	+0.9
NATI				S	Sn	06 34 21.5	-1.5
JER	Jerusalem	7.93	111	P	Pn	06 32 56.3	+0.2
JER				S	Sn	06 34 21.5	-3.6
KSHT	Keshet	7.98	101	P	Pn	06 32 57.5	+0.7
KSHT				S	Sn	06 34 23.5	-2.9
QRNJ	Al-Qirein	8.00	106	P	Pn	06 33 01.6	+4.6
	comp=Z,2µm,0.5s						
RGMN	Argaman	8.02	107	P	Pn	06 32 57.5	+0.3
RGMN				S	Sn	06 34 23.5	-3.7
YITV	Yitav	8.03	109	P	Pn	06 32 57.5	+0.1
YITV				S	Sn	06 34 22.9	-4.7
VTS	Vitosha	8.11	343	P	Pn	06 33 01.6	+3.0
MZS	Mizpe Shalem	8.18	112	P	Pn	06 32 59.7	+0.3
MZS				S	Sn	06 34 26.5	-4.5
RMNI	Mount Ramon	8.19	119	P	Pn	06 32 59.1	-0.5
RMNI				S	Sn	06 34 25.5	-6.0
MSBI	Mazada	8.26	113	P	Pn	06 33 02.3	+1.8
	comp=Z,213nmcomp=Z,7.1nm,0.5s						
MSBI	Mazada	8.26	113	P	Pn	06 33 00.5	0.0
MSBI				S	Sn	06 34 28.2	-4.9
PHP	Peshkopia	8.27	327	P	Pn	06 33 05.7	+5.0
PHP	Peshkopia	8.27	327	P	Pn	06 33 05.7	+5.0
	comp=Z,15nm,0.8s						
PRD	Provadia	8.28	5	P	Pn	06 33 02.3	+1.6
BLSH	Balsha	8.32	344	P	Pn	06 33 04.9	+3.4
ILGA	Ilgaz	8.38	41	Pn	Pn	06 33 05.4	+3.0
LISJ	El Lisan	8.39	113	P	Pn	06 33 05.1	+2.9
GHAJ	Ghor Haditha	8.42	113		Pn	06 33 06.1	+3.3
IDAN	Idan	8.43	116	P	Pn	06 33 02.5	-0.5
IDAN				S	Sn	06 34 31.9	-5.5
BNN	Bunyan	8.47	60		Pn	06 33 04.1	+0.5
PRNI	Paran	8.50	120	P	Pn	06 33 05.8	+1.9
	comp=Z,2µmcomp=Z,76nm,0.6s						
ZFRI	Zfri	8.51	118	P	Pn	06 33 04.5	+0.5
ZFRI				S	Sn	06 34 33.9	-5.4
PLVB	Pleven	8.59	351	⇓P	Pn	06 33 07.3	+2.2
HRFI	Mount Harif	8.70	122	P	Pn	06 33 08.3	+1.6
	comp=Z,711nmcomp=Z,34nm,0.9s						
HRFI	Mount Harif	8.70	122	P	Pn	06 33 05.0	-1.7
	comp=Z,34nm,0.9s						
HRFI	Mount Harif	8.70	122	P	Pn	06 33 06.8	+0.1
HRFI				S	Sn	06 34 38.9	-5.2
MPEP	Malo Peshtene	8.70	347	P	Pn	06 33 16.3	+10
YTVT	Yotvata	8.80	122	P	Pn	06 33 08.1	+0.1
YTVT				S	Sn	06 34 41.9	-4.6
EIL	Elat	8.86	124	Pn	Pn	06 33 09.1	+0.3
	comp=Z,4.7nm,0.3s,baz=300,slow=8.1,SNR=39						
EIL				Sn	Sn	06 34 40.0	-8.0
	comp=Z,1.1nm,0.3s,baz=350,slow=11,SNR=2.0						
	comp=Z,12nm,0.3s						
EIL				AML	AML		
EIL	Elat	8.86	124	P	Pn	06 33 11.0	+2.1
	comp=Z,22nm,0.9s						
EIL	Elat	8.86	124	P	Pn	06 33 10.3	+1.4
	comp=Z,22nm,0.9s						
EIL	Elat	8.86	124	P	Pn	06 33 08.8	0.0
EIL				S	Sn	06 34 41.6	-6.5
TIP	Timpagrande	8.87	302		Pn	06 33 09.0	+0.1
TIP	Timpagrande	8.87	302	⇑P	Pn	06 33 09.3	+0.3
TIP	Timpagrande	8.87	302	P	Pn	06 33 11.0	+2.0
	comp=Z,19nm,0.5s						
AQBJ	Aqaba	8.90	123	P	Pn	06 33 12.1	+2.8
	comp=Z,88nm,0.6s						
ASF	Jabal al Asfar	9.11	104	Pn	Pn	06 33 12.0	-0.3
	comp=Z,1.3nm,0.3s,baz=288,slow=20,SNR=6.8						
ASF				Sn	Sn	06 34 52.9	-1.3
	comp=Z,0.2nm,0.3s,baz=288,slow=20,SNR=1.3						
	comp=Z,1.0nm,0.3s						

ASF				AML	AML		
CEL	Celeste	9.15	295		Pn	06 33 12.7	-0.1
CEL	Celeste	9.15	295	P	Pn	06 33 15.4	+2.6
	comp=Z,285nmcomp=Z,25nm,0.8s						
CEL	Celeste	9.15	295	P	Pn	06 33 15.8	+3.0
	comp=Z,26nm,0.8s						
ICOR	Ion Corvin	9.26	6	⇓P	Pn	06 33 16.6	+2.4
PDG	Podgorica	9.40	325	⇑P	Pn	06 33 17.8	+1.7
BOVS	Bovan	9.47	338	⇓P	Pn	06 33 19.1	+2.0
MATE	Matera	9.63	309	⇓P	Pn	06 33 20.1	+0.8
TIRR	Tirgusor	9.66	8	P	Pn	06 33 21.6	+2.0
	comp=Z,26nm,1.3s						
CUC	Castrocucco	9.88	304		Pn	06 33 23.0	+0.2
CUC	Castrocucco	9.88	304	P	Pn	06 33 24.3	+1.4
	comp=Z,26nm,0.6s						
MARCO	Tramutola	10.03	306	P	Pn	06 33 27.7	+2.8
	comp=Z,36nm,0.8s						
TPGR	Topolog	10.05	8	⇓P	Pn	06 33 26.3	+1.2
RAFF	Raffo Rosso	10.08	287		Pn	06 33 27.6	+2.0
VAE	Valguarnera	10.09	288	Pn	Pn	06 33 25.4	-0.3
	comp=Z,3.9nm,0.6s,baz=158,slow=19,SNR=1.4						
VAE				Sn	Sn	06 35 12.5	-5.7
	comp=Z,1.1nm,0.3s,baz=30,slow=20,SNR=1.5						
CFR	Carcaliu	10.34	7	⇓P	Pn	06 33 30.5	+1.5
CFR	Carcaliu	10.34	7	⇓P	Pn	06 33 30.5	+1.5
TLCR		10.42	9	⇑P	Pn	06 33 31.6	+1.5
TLCR		10.42	9	⇑P	Pn	06 33 31.6	+1.5
HERR	Herculane	10.44	344	⇑P	Pn	06 33 31.4	+1.0
ARR	Arges	10.55	353	⇓P	Pn	06 33 33.7	+1.8
VOIR		10.58	354	⇓P	Pn	06 33 34.4	+2.0
VOIR		10.58	354	⇓P	Pn	06 33 34.4	+2.0
VOIR		10.58	354	P	Pn	06 33 34.6	+2.3
	comp=Z,7.4nm,1.1s						
MLR	Muntele Rosu	10.58	358	Pn	Pn	06 33 31.5	-0.9
	comp=Z,0.4nm,0.3s,baz=157,slow=13,SNR=5.3						
MLR				LR	LR	06 38 07.7	
	comp=Z,177nm,19.4s,baz=181,slow=41						
	comp=Z,1.6nm,0.6s						
MLR				AML	AML		
MLR	Muntele Rosu	10.58	358	⇓P	Pn	06 33 34.9	+2.4
MLR	Muntele Rosu	10.58	358	⇓P	Pn	06 33 34.9	+2.4
GZR	Gura Zlata	10.85	346	⇑P	Pn	06 33 38.0	+1.9
GZR	Gura Zlata	10.85	346	⇑P	Pn	06 33 38.0	+1.9
SGRT	San Giovanni R	10.85	312		Pn	06 33 35.0	-1.1
COVR	Voineasa-Covas	10.93	359	⇑P	Pn	06 33 37.6	+0.5
PLOR	Plostina	10.94	1	⇓P	Pn	06 33 39.4	+2.2
PLOR	Plostina	10.94	1	⇓P	Pn	06 33 39.4	+2.2
VRI	Vrincioaia	10.95	1	⇑P	Pn	06 33 38.5	+1.1
VRI	Vrincioaia	10.95	1	⇑P	Pn	06 33 38.5	+1.1
DOPR	Dopca	11.08	356	⇑P	Pn	06 33 42.3	+3.1
PAOL	Paolisi	11.21	307	Pn	Pn	06 33 40.1	-0.9
SURR	Surduc	11.33	344	⇑P	Pn	06 33 44.8	+2.2
BIZ	Bicaz	12.03	359	⇑P	Pn	06 33 54.7	+2.6
INTR	Introdacqua	12.14	309		Pn	06 33 52.4	-1.3
BURAR	Bucovina Array	12.73	356	Pn	Pn	06 34 01.8	0.0
MORH	Mrgy, Hungar	12.77	335	⇓P	Pn	06 34 04.5	+2.4
MORH	Mrgy, Hungar	12.77	335	P	Pn	06 34 04.2	+2.1
	comp=Z,4.4nm,0.9s						
NRCA	Norcia	13.07	311		Pn	06 34 06.5	0.0
FDMO	Fiordimonte	13.20	312		Pn	06 34 08.3	+0.1
PSZ	Piszkesteto	13.90	341	P	Pn	06 34 20.4	+2.6
PSZ	Piszkesteto	13.90	341	Pn	Pn	06 34 20.4	+2.6
MPLH	Magyarpolny	13.98	334	P	Pn	06 34 22.3	+3.6
	comp=Z,21nm,0.9s						
MPLH	Magyarpolny	13.98	334	P	P	06 34 23.9	-2.6
	comp=Z,7.7nm,1.0s						
KEST	Kesra	14.02	278	Pn	Pn	06 34 16.0	-3.4
	comp=Z,0.2nm,0.3s,baz=90,slow=4.0,SNR=2.0						
KEST				Sn	Sn	06 36 43.6	-11
	comp=Z,0.2nm,0.3s,baz=75,slow=12,SNR=2.1						
	comp=Z,1.9nm,0.7s						
KEST				AML	AML		
KOLS	Kolonicke sedl	14.36	349	*e*P	P	06 34 33.6	+2.8
OBKA	Obir	14.69	326	*e*P	P	06 34 36.2	+1.7
	comp=Z,1.4nm,0.5s						
ARSA	Arzberg	14.83	330	*e*P	P	06 34 37.9	+1.9
	comp=Z,1.2nm,0.7s						
DRE	Drenchia	14.88	323	P	Pn	06 34 32.7	+1.7
	comp=Z,12nm,0.8s						
RONA	Rosalia, Austr	14.88	332	*e*P	P	06 34 38.3	+1.7
	comp=Z,2.3nm,0.7s						
STHS	Stebnicka Huta	15.01	347	*e*P	P	06 34 37.6	-0.4
LUBAR	Lubar, Ukraine	15.04	3	P	P	06 34 35.9	-2.4
SESA	Seetaler Alpe,	15.13	327	*e*P	P	06 34 41.6	+2.0
	comp=Z,1.8nm,0.7s						
GNI	Garni	15.40	65	LR	LR	06 41 54.2	
	comp=Z,156nm,18.6s,baz=276,slow=42						
KIV	Kislovodsk	15.42	49	*e*P	Pn	06 34 37.8	-0.5
KIV				pmax	pmax		
	comp=Z,9.0nm,1.1s						
KIV				MLR	MLR		
	comp=Z,29nm,14.0s						
KVAR	Kislovodsk Arr	15.43	49	Pn	Pn	06 34 39.7	+1.3
	baz=255,slow=20						
	comp=Z,1.5nm,0.3s						
KBZ	Khabaz	15.44	50	Pn	Pn	06 34 39.3	+0.9
	comp=Z,0.2nm,0.3s,baz=240,slow=12,SNR=14						
	comp=Z,0.8nm,0.4s						
KBZ				AML	AML		
KBZ	Khabaz	15.44	50	*ce*P	Pn	06 34 38.8	+0.4
KBA	Koelnbreinsper	15.67	325	*e*P	P	06 34 47.0	+1.5
	comp=Z,0.8nm,0.6s						
AK07	Malin Array Si	15.76	6	P	P	06 34 46.8	+0.5
AK06	Malin Array Si	15.80	6	P	P	06 34 46.7	0.0
AK13	Malin Array Si	15.81	6	P	P	06 34 47.1	+0.3
AK10	Malin Array Si	15.81	6	P	P	06 34 47.5	+0.6
CTI	Castel Tesino	15.82	319	P	Pn	06 34 43.4	-0.1
CTI				pmax	pmax		
	comp=Z,5.0nm,0.7s						
CTI	Castel Tesino	15.82	319	Pn	Pn	06 34 43.4	-0.1
MOA	Molln	15.83	328	*e*P	P	06 34 49.6	+2.5
	comp=Z,4.7nm,1.3s						
AK09	Malin Array Si	15.83	7	P	P	06 34 47.5	+0.4
AK14	Malin Array Si	15.83	6	P	P	06 34 47.6	+0.5
ABTA	Abfaltersbach	15.84	323	*e*P	P	06 34 48.9	+1.6
	comp=Z,2.4nm,0.6s						
AK08	Malin Array Si	15.85	6	P	P	06 34 48.1	+0.8
AK12	Malin Array Si	15.85	6	P	P	06 34 48.1	+0.8
AK02	Malin Array Si	15.87	6	P	P	06 34 46.9	-0.6
AK16	Malin Array Si	15.87	6	P	P	06 34 47.9	+0.4
AK17	Malin Array Si	15.88	6	P	P	06 34 48.0	+0.4
AK11	Malin Array Si	15.89	6	P	P	06 34 47.8	+0.1
AK15	Malin Array Si	15.90	6	P	P	06 34 46.4	-1.4
KIEV	Kiev	15.91	6	P	Pn	06 34 44.6	+0.2
KIEV				pmax	pmax		
	comp=Z,8.0nm,0.8s						
KIEV	Kiev	15.91	6		Pn	06 34 44.6	+0.2
KIEV				IAmb	IAmb	06 34 57.2	
	comp=Z,7.7nm,0.8s						
KIEV	Kiev	15.91	6	P	P	06 34 47.4	-0.5
	comp=Z,43nm,0.7s						
KIEV	Kiev	15.91	6	P	P	06 34 48.6	+0.7
	comp=Z,11nm,0.7s						
AKASG	Malin Array Be	15.91	6	Pn	Pn	06 34 45.3	+0.8
	comp=Z,2.3nm,0.3s,baz=196,slow=11,SNR=10						
AKASG				Sn	Sn	06 37 36.4	-3.8
	baz=189,slow=22						
AKASG				LR	LR	06 41 43.8	
	comp=Z,61nm,18.1s,baz=202,slow=41						
	comp=Z,0.3nm,0.3s						
AKASG				AML	AML		
AKASG	Malin Array Be	15.91	6	*i* P	P	06 34 49.0	+1.0
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.4s						
AKBB	Malin Array Si	15.91	6	*ce*P	Pn	06 34 42.4	-2.1
AKBB	Malin Array Si	15.91	6		Pn	06 34 45.6	+1.1
AKBB				IAmb	IAmb	06 34 57.2	
	comp=Z,8.6nm,0.8s						
AKBB	Malin Array Si	15.91	6	P	P	06 34 47.4	-0.6
AK19	Malin Array Si	15.92	6	P	P	06 34 47.4	-0.6
AK18	Malin Array Si	15.92	6	P	P	06 34 47.5	-0.6
AK04	Malin Array Si	15.93	6	P	P	06 34 48.0	-0.2
AK20	Malin Array Si	15.94	6	P	P	06 34 47.6	-0.6
AK03	Malin Array Si	15.94	6	P	P	06 34 47.9	-0.3
AK22	Malin Array Si	15.96	6	P	P	06 34 48.0	-0.5
KRUC	Moravsky	15.99	335	*e*P	P	06 34 51.4	+2.5
MI28	Mi28,Pidlybu	16.04	3	P	P	06 34 49.9	+0.5
OJC	Ojcow	16.07	344	P	Pn	06 34 48.1	+1.6
OJC	Ojcow	16.07	344		Pn	06 34 48.1	+1.6
VRAC	Vranov	16.13	336	Pn	Pn	06 34 48.2	+0.8
	comp=Z,0.4nm,0.3s,baz=138,slow=12,SNR=4.4						
	comp=Z,1.2nm,0.4s						
VRAC				AML	AML		
VRAC	Vranov	16.13	336	*e*P	P	06 34 53.5	+3.0
VRAC	Vranov	16.13	336	P	P	06 34 51.5	+1.0
	comp=Z,2.1nm,0.8s						
LESA	Schwarzleotal	16.23	325	*e*Pn	P	06 34 51.0	-0.7
	comp=Z,0.5nm,0.5s						
MORC	Moravsky Berou	16.25	339	P	Pn	06 34 49.9	+1.1
MORC				pmax	pmax		
	comp=Z,4.0nm,0.8s						
MORC	Moravsky Berou	16.25	339		Pn	06 34 49.9	+1.1
MORC	Moravsky Berou	16.25	339	*e*P	P	06 34 57.3	+5.5
RNPP5	Staryi Chortor	16.32	359	P	P	06 34 53.1	+0.6
RNPP8	Varash	16.43	359	P	P	06 34 53.8	+0.1
RNPP9	Sopachiv	16.51	359	P	P	06 34 54.8	+0.3
TREC	Trest	16.51	334	P	P	06 34 55.4	+0.8
TREC	Trest	16.51	334	P	P	06 34 55.4	+0.8
	comp=Z,8.9nm,1.1s						
CKRC	Cesky Krumlov	16.57	331	*e*P	P	06 34 55.5	+0.2
CKRC	Cesky Krumlov	16.57	331	*e*P	P	06 34 55.5	+0.2
WTTA	Wattenberg	16.63	322	*e*Pn	P	06 34 55.9	-0.3
	comp=Z,1.8nm,0.6s						
KRLC	Kraliky	16.74	338	P	P	06 34 59.5	+2.3
KRLC	Kraliky	16.74	338	P	P	06 34 59.5	+2.3
	comp=Z,7.9nm,0.8s						
SQTA	Sankt Quirin	16.82	322	*e*P	P	06 34 60.0	+1.8
	comp=Z,1.2nm,0.4s						
GEC2	GERESS Array S	16.84	330	P	P	06 35 01.2	+2.9
GEC2	GERESS Array S	16.84	330		Pn	06 34 56.6	+0.2
GEC2	GERESS Array S	16.84	330	P	P	06 35 01.2	+2.9
	comp=Z,7.1nm,0.9s						
GERES	GERESS Array B	16.84	330	Pn	Pn	06 34 56.1	-0.2
	baz=142,slow=13,SNR=8.0						
	comp=Z,0.7nm,0.6s						
GERES	GERESS Array B	16.84	330		Pn	06 34 55.8	-0.6
FETA	Feichten	16.93	320	*e*Pn	P	06 34 59.8	+0.3
	comp=Z,3.4nm,1.2s						
MOTA	Moosalm	16.95	322	*e*Pn	P	06 35 00.2	+0.5
	comp=Z,0.4nm,0.3s						
KHC	Kasperske Hory	17.11	330	*i* P	Pn	06 35 00.0	+0.2
KHC	Kasperske Hory	17.11	330	*e*P	P	06 35 04.2	+2.9
KHC				*e*x	x	06 37 47.0	
KHC	Kasperske Hory	17.11	330		P	06 35 01.2	-0.1
KHC	Kasperske Hory	17.11	330	P	P	06 35 03.4	+2.1
	comp=Z,5.5nm,1.1s						
KHC	Kasperske Hory	17.11	330	P	P	06 35 06.3	+5.0
	comp=Z,5.4nm,0.8s						
DPC	Dobruska-Polom	17.12	337	*e*P	P	06 35 02.2	+0.7
DPC	Dobruska-Polom	17.12	337	*e*P	P	06 35 02.2	+0.7
DPC	Dobruska-Polom	17.12	337	P	P	06 35 03.5	+2.0
	comp=Z,5.7nm,0.7s						
DPC	Dobruska-Polom	17.12	337	P	P	06 35 04.6	+3.1
	comp=Z,5.7nm,0.7s						
RETA	Reutte	17.22	322	*e*Pn	P	06 35 03.0	+0.5
	comp=Z,0.9nm,0.5s						
DAVOX	Davos/Dischmat	17.24	318	P	Pn	06 35 02.1	+0.6
	comp=Z,0.1nm,0.3s,baz=132,slow=15,SNR=2.7						
	comp=Z,0.8nm,0.5s						
DAVOX				AML	AML		
OSTC	Ostas	17.34	338	*e*P	P	06 35 08.2	+4.4
TUE	Stuetta	17.35	317	P	P	06 35 03.8	-0.4
PRU	Pruhonice	17.43	334	*e*P	P	06 35 05.9	+1.2
PRU	Pruhonice	17.43	334	*e*P	P	06 35 05.9	+1.2
PRU	Pruhonice	17.43	334	P	Pn	06 35 04.0	+0.4
	comp=Z,7.5nm,0.8s						
DAVA	Damuels	17.55	320	*e*Pn	P	06 35 07.0	+0.7
	comp=Z,3.2nm,1.1s						
BNALP	Bannalp	18.10	317	P	P	06 35 16.4	+4.1
	comp=Z,13nm,1.0s						
BNI	Bardonecchia	18.21	310	P	P	06 35 14.0	+0.4
BNI				pmax	pmax		
	comp=Z,10.0nm,1.1s						
BNI	Bardonecchia	18.21	310	P	P	06 35 13.9	+0.4
BNI				IAmb	IAmb	06 35 29.6	
	comp=Z,9.8nm,1.1s						
BRG	Berggiesshubel	18.37	334	*e*P	Pn	06 35 19.7	+4.4
BRG				Amp		06 35 25.2	
	comp=Z,3.1nm,0.7s						
SENIN	Lac Senin/Sane	18.47	314	IAmb	IAmb	06 35 20.4	
	comp=Z,11nm,0.7s						
BFO	Black Forest	19.02	320	P	P	06 35 22.1	-0.3
BFO				pmax	pmax		
	comp=Z,9.0nm,1.3s						
BFO	Black Forest	19.02	320	P	P	06 35 22.1	-0.3
CLL	Collm	19.07	333	P	P	06 35 23.3	+0.5
CLL	Collm	19.07	333	P	P	06 35 23.3	+0.5
	comp=Z,5.6nm,0.7s						
CLL	Collm	19.07	333	*e*P	Pn	06 35 25.0	+1.3
CLL				*e*x	x	06 35 33.0	
SUW	Suwalki	19.25	354	P	P	06 35 24.4	-0.3
SUW	Suwalki	19.25	354	P	P	06 35 24.4	-0.3
ECH	Echery	19.57	319	P	P	06 35 28.7	+0.3
ECH				pmax	pmax		
	comp=Z,10.0nm,1.4s						
ECH	Echery	19.57	319	P	P	06 35 28.7	+0.3
ECH				IAmb	IAmb	06 35 34.3	
	comp=Z,9.8nm,1.4s						
MNK	Minsk	19.62	2	*i* P	P	06 35 24.2	-4.5
MNK				*i* S	S	06 39 02.9	-5.9
MNK				pmax	pmax		
	comp=E,6.0nm,0.5s						
MNK				pmax	pmax		
	comp=N,6.0nm,0.7s						
MNK				pmax	pmax		
	comp=Z,25nm,0.6s						
MNK				MLR	MLR		
	comp=Z,23nm,14.0s						
MNK	Minsk	19.62	2	*i* P	P	06 35 24.3	-4.5
	comp=E,6.0nm,0.5s						
MNK				*i* P	P	06 35 24.3	-4.5
	comp=N,6.0nm,0.7s						
MNK				*i* P	P	06 35 24.3	-4.5
	comp=Z,25nm,0.6s,baz=184						
MNK				*i* PP	sP	06 35 38.7	+1.4
MNK				*i* PPP	PPP	06 35 46.5	
MNK				*i* S	S	06 39 02.9	-5.9
MNK				*i* SS	SnSn	06 39 20.6	-3.5
MNK				*i* SSS	SSS	06 39 33.6	
MNK				*i* LQ	LQ	06 41 11.0	
MNK				*i* LR	LR	06 42 30.2	
MNK				*i* LRM	MLR	06 44 08.8	
	comp=Z,23nm,14.1s						
SSB	Saint Sauveur	19.67	308	P	P	06 35 29.5	0.0
SSB				pmax	pmax		
	comp=Z,16nm,1.4s						
SSB	Saint Sauveur	19.67	308	P	P	06 35 29.5	0.0
SSB				IAmb	IAmb	06 35 49.1	
	comp=Z,16nm,1.4s						
NACGM	Naroch	20.00	1	*e*P	Pn	06 35 39.6	+4.8
	comp=Z,9.0nm,0.8s,baz=182						
RAYN	Ar Rayn	20.07	119	P	Pn	06 35 36.6	+0.7
RAYN				pmax	pmax		
	comp=Z,4.0nm,1.1s						
RAYN	Ar Rayn	20.07	119		Pn	06 35 36.5	+0.7
RAYN	Ar Rayn	20.07	119	P	Pn	06 35 39.2	+3.3
	comp=Z,4.9nm,1.6s						
GTTG	Gottingen	20.45	329	P	Pn	06 35 42.6	+2.5
	comp=Z,22nm,1.3s						
LOR	Lormes	20.97	313	P	P	06 35 43.1	-0.5
LOR	Lormes	20.97	313	P	P	06 35 43.1	-0.5
	comp=Z,17nm,0.8s						
BSD	Bornholm Skovb	21.75	342	*i* P	P	06 35 50.0	-1.7
BSD				IAmb	IAmb	06 35 55.4	
	comp=Z,2.8nm,0.4s						
TAM	Tamanrasset	21.92	242	P	P	06 35 53.9	-0.2
TAM				pmax	pmax		
	comp=Z,30nm,0.3s						
TAM	Tamanrasset	21.92	242		P	06 35 53.9	-0.2
TAM	Tamanrasset	21.92	242	P	P	06 35 55.3	+1.2
LUNU	Lund	22.59	341	*i* P	P	06 36 00.2	-0.7
BLEU	Blekinge	22.61	344	*i* P	P	06 35 57.8	-3.3
DEL	Delary	23.22	342	*i* P	P	06 36 06.5	-0.9
ESBB	Sonseca Array	24.62	290	P	P	06 36 21.4	+0.6
ESBB				IAmb	IAmb	06 36 47.1	
	comp=Z,8.5nm,1.2s						
ESDC	Sonseca Array	24.62	290	P	P	06 36 21.3	+0.4
	comp=Z,1.5nm,0.5s,baz=90,slow=8.8,SNR=22						
	comp=Z,1.5nm,0.5s						
ESDC	Sonseca Array	24.62	290	P	P	06 36 20.8	0.0
STRU	Stroemstad	26.17	342	*i* P	P	06 36 37.7	+3.2
FINES	FINESS Array B	26.56	360	P	P	06 36 36.2	-1.8
	comp=Z,4.7nm,1.0s,baz=181,slow=9.4,SNR=9.8						
	comp=Z,4.7nm,1.0s						
FINES	FINESS Array B	26.56	360	*i* P	P	06 36 38.5	+0.4
FINES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
HFS	Hagfors	26.58	346	P	P	06 36 36.8	-1.5
	comp=Z,0.6nm,0.6s,baz=150,slow=13,SNR=5.9						
HFS				LR	LR	06 48 20.1	
	comp=Z,89nm,19.9s,baz=152,slow=39						
	comp=Z,0.6nm,0.6s						
NOA	NORSAR Array B	27.93	344	P	P	06 36 48.5	-2.0
	comp=Z,0.5nm,0.7s,baz=152,slow=8.9,SNR=1.7						
NOA				LR	LR	06 50 42.1	
	comp=Z,24nm,18.9s,baz=275,slow=42						
	comp=Z,0.5nm,0.7s						
AB31	Akbulak array	28.41	49		P	06 36 55.0	+0.3
AB31				IAmb	IAmb	06 37 21.2	
	comp=Z,3.2nm,0.9s						
ABKAR	Akbulak array	28.41	49	P	P	06 36 55.9	+1.2
EKA	Eskdalemuir Ar	28.88	324	P	P	06 36 56.7	-2.2
	comp=Z,0.7nm,0.4s,baz=122,slow=9.1,SNR=12						
	comp=Z,0.7nm,0.4s						
EKA	Eskdalemuir Ar	28.88	324	P	P	06 36 58.6	-0.3
EKA				pmax	pmax		
	comp=Z,12nm,1.5s						
EKB	Eskdalemuir	28.89	324	P	P	06 36 57.1	-1.9
ARTI	Arti	30.52	35	*d i*P	P	06 37 12.5	-0.9
ARTI						06 40 11.3	
ARTI				S	S	06 42 12.0	-1.4
ARTI				pmax	pmax		
	comp=Z,7.0nm,1.7s						
TORD	Torodi Ar. Bea	31.17	232	P	P	06 37 20.0	+0.4
	comp=Z,4.0nm,0.7s,baz=37,slow=9.0,SNR=25						
	comp=Z,4.0nm,0.7s						
TORD	Torodi Ar. Bea	31.17	232	IAmb	IAmb	06 37 35.9	
	comp=Z,8.0nm,1.4s						
ARCES	ARCESS Array B	34.69	359	P	P	06 37 48.4	-1.4
	comp=Z,0.6nm,0.3s,baz=181,slow=8.3,SNR=10						
	comp=Z,0.6nm,0.3s						
ARCES	ARCESS Array B	34.69	359	P	P	06 37 48.4	-1.4
ARCES				pmax	pmax		
	comp=Z,19nm,1.4s						
ARCES	ARCESS Array B	34.69	359	P	P	06 37 48.4	-1.4
KK31	Karatay Array	34.85	63	P	P	06 37 51.7	+0.2
KK31				pmax	pmax		
	comp=Z,3.0nm,1.0s						
KK31	Karatay Array	34.85	63	P	P	06 37 51.7	+0.2
KK31				IAmb	IAmb	06 38 20.4	
	comp=Z,3.2nm,0.9s						
KKAR	Karatay Array	34.85	63	P	P	06 37 51.6	+0.1
KKAR	Karatay Array	34.85	63	P	P	06 37 51.6	+0.1
BORK	Borovoye	35.70	46	*i* P	P	06 37 59.3	+0.6
BORK				pmax	pmax		
	comp=Z,5.0nm,1.4s						
BVAR	Borovoye Array	35.74	46	P	P	06 37 59.6	+0.6
	comp=Z,1.0nm,0.5s,baz=245,slow=7.6,SNR=3.8						
	comp=Z,1.0nm,0.5s						
AAK	Ala-Archa	37.80	63	*ce*P	P	06 38 16.6	-0.2
AAK				pmax	pmax		
	comp=Z,4.0nm,1.3s						
DBIC	Dimbokro	40.27	233	P	P	06 38 38.1	+0.6
	comp=Z,2.2nm,0.5s,baz=50,slow=7.9,SNR=5.3						
	comp=Z,2.2nm,0.5s						
DBIC	Dimbokro	40.27	233	P	P	06 38 38.1	+0.6
DBIC				pmax	pmax		
	comp=Z,8.0nm,1.0s						
DBIC	Dimbokro	40.27	233	IAmb	IAmb	06 38 54.5	
	comp=Z,8.2nm,0.9s						
KURBB	Kurchatov Arra	40.44	51	P	P	06 38 37.7	-0.9
	comp=Z,2.7nm,0.5s,baz=274,slow=8.8,SNR=20						
	comp=Z,2.7nm,0.5s						
KURK	Kurchatov	40.50	51	*ce*P	P	06 38 41.5	+2.4
KURK				pmax	pmax		
	comp=Z,5.0nm,1.0s						
KURK	Kurchatov	40.50	51	P	P	06 38 39.9	+0.8
KURK				IAmb	IAmb	06 38 48.5	
	comp=Z,4.3nm,0.6s						
PDGK	Podgornoye	41.38	62	P	P	06 38 46.6	0.0
PDGK	Podgornoye	41.38	62	P	P	06 38 46.6	0.0
WUS	Wushi	41.47	65	P	P	06 38 46.7	-0.7
WUS				IAmb	IAmb	06 39 02.0	
	comp=Z,5.8nm,0.8s						
MK31	Makanchi Array	43.01	56	*ce*P	P	06 39 02.6	+2.9
MKAR	Makanchi Array	43.01	56	P	P	06 39 00.6	+0.8
	comp=Z,3.6nm,0.6s,baz=279,slow=6.9,SNR=22						
	comp=Z,3.6nm,0.6s						
MKAR	Makanchi Array	43.01	56	*ce*P	P	06 39 01.3	+1.6
MKAR				pmax	pmax		
	comp=Z,4.0nm,0.6s						
MKAR	Makanchi Array	43.01	56	P	P	06 39 01.6	+1.9
SPITS	Spitsbergen Ar	43.60	357	P	P	06 39 04.2	+0.1
	comp=Z,1.0nm,0.5s,baz=161,slow=9.2,SNR=6.9						
	comp=Z,1.0nm,0.5s						
ZAA0	Zalesovo Array	44.40	46	IAmb	IAmb	06 39 19.6	
	comp=Z,4.0nm,0.6s						
ZALV	Zalesovo Beam	44.40	46	P	P	06 39 11.2	+0.4
	comp=Z,2.4nm,0.3s,baz=266,slow=9.1,SNR=12						
	comp=Z,2.4nm,0.3s						
ZALV	Zalesovo Beam	44.40	46	*i* P	P	06 39 11.3	+0.5
ZALV				pmax	pmax		
	comp=Z,3.0nm,0.3s						
ZALV	Zalesovo Beam	44.40	46	P	P	06 39 11.6	+0.8
DGZ	Jazzator, Alta	46.18	52	*i* P	P	06 39 26.7	+1.5
DGZ				pmax	pmax		
	comp=Z,3.0nm,0.5s						
NRIK	Noril'sk	47.65	25	P	P	06 39 36.3	+0.1
	comp=Z,1.4nm,0.5s,baz=288,slow=3.2,SNR=3.7						
	comp=Z,1.4nm,0.5s						
NRIK	Noril'sk	47.65	25	P	P	06 39 36.8	+0.6
NRIK				pmax	pmax		
	comp=Z,11nm,1.5s						
NRIK	Noril'sk	47.65	25	P	P	06 39 36.8	+0.6
KNGR	Kungurtug, Tuv	52.47	49	*i* P	P	06 40 13.7	+0.6
KNGR				pmax	pmax		
	comp=Z,3.0nm,0.7s						
SONM	Songino Array	58.81	51	P	P	06 41 00.3	+1.6
	comp=Z,0.6nm,0.3s,baz=288,slow=7.8,SNR=4.2						
	comp=Z,0.6nm,0.3s						
SONM	Songino Array	58.81	51	P	P	06 41 00.0	+1.3
SONM				IAmb	IAmb	06 41 40.1	
	comp=Z,2.0nm,1.2s						
ULN	Ulaanbaatar	59.22	51	*i* P	P	06 41 03.7	+2.1
ULN				pmax	pmax		
	comp=Z,6.0nm,1.7s						
BOSA	Boshof	63.19	181	P	P	06 41 30.0	+1.5
	comp=Z,2.4nm,1.0s,baz=1.1,slow=11,SNR=3.5						
	comp=Z,2.4nm,1.0s						
BOSA	Boshof	63.19	181	P	P	06 41 30.0	+1.5
BOSA				pmax	pmax		
	comp=Z,18nm,1.5s						
SCHQ	Schefferville	64.08	320	P	P	06 41 35.0	+0.9
	comp=Z,3.0nm,0.5s,baz=66,slow=7.5,SNR=8.5						
	comp=Z,3.0nm,0.5s						
CMAR	Chiang Mai Arr	65.52	84	*i* P	P	06 41 43.7	-0.3
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
INK	Inuvik	76.02	352	P	P	06 42 47.3	+0.3
INK				pmax	pmax		
	comp=Z,8.0nm,1.3s						
INK	Inuvik	76.02	352	P	P	06 42 47.3	+0.3
USRK	Ussuriysk Ar.	76.25	46	P	P	06 42 50.1	+1.3
	comp=Z,1.2nm,0.6s,baz=280,slow=4.9,SNR=1.4						
	comp=Z,1.2nm,0.6s						
D23K	Nanushuk River	76.42	359	P	P	06 42 51.1	+1.8
G31M	Satah River	77.43	352	P	P	06 42 55.1	+0.1
KSRS	Korea Array	77.57	53	P	P	06 42 57.3	+0.9
	comp=Z,0.6nm,0.5s,baz=307,slow=5.7,SNR=4.9						
	comp=Z,0.6nm,0.5s						
BMAR	Burnt Mountain	77.76	356	P	P	06 42 59.5	+2.5
F24K	Squaw Lake	77.80	358	P	P	06 42 56.3	-0.9
YKA	Yellowknife Ar	78.02	343	P	P	06 42 59.2	+0.8
	comp=Z,0.3nm,0.5s,baz=34,slow=5.5,SNR=1.9						
	comp=Z,0.3nm,0.5s						
H29M	Whitestone	78.52	354	P	P	06 43 02.0	+0.9
H29M				IAmb	IAmb	06 43 04.0	
	comp=Z,3.1nm,0.9s						
G21K	Allakaket	78.90	360	P	P	06 43 04.2	+0.9
G21K				IAmb	IAmb	06 43 39.6	
	comp=Z,4.0nm,1.1s						
I30M	Mount Dempster	79.31	353	P	P	06 43 06.0	+0.4
I30M				IAmb	IAmb	06 43 15.0	
	comp=Z,3.8nm,1.0s						
IMAR	Indian Mountai	79.44	0	P	P	06 43 07.9	+1.8
ILAR	Eielson Array	80.52	357	P	P	06 43 12.4	+0.4
	comp=Z,0.4nm,0.9s,baz=0.0,slow=3.8,SNR=5.5						
	comp=Z,0.4nm,0.9s						
DAWY	Dawson	80.73	354	P	P	06 43 14.5	+1.3
DAWY				IAmb	IAmb	06 43 29.6	
	comp=Z,4.5nm,1.1s						
WRH	Wood River Hil	80.86	358	P	P	06 43 14.7	+0.8
WRH				IAmb	IAmb	06 43 23.8	
	comp=Z,5.8nm,1.2s						
HDA	Harding Lake	80.88	357	P	P	06 43 14.4	+0.4
ULM	Lac du Bonnet	81.12	327	P	P	06 43 16.1	+0.6

	comp=Z,2.1nm,0.5s,baz=45,slow=4.3,SNR=4.7						
	comp=Z,2.1nm,0.5s						
ULM	Lac du Bonnet	81.12	327	P	P	06 43 14.8	-0.7
ULM				IAmb	IAmb	06 43 17.8	
	comp=Z,3.8nm,0.8s						
ASAJ	Asahikawa	82.27	41	LR	LR	07 24 01.0	
	comp=Z,38nm,21.2s,baz=228,slow=39						
PDAR	Pinedale Array	92.88	329	P	P	06 44 13.7	+0.2
	comp=Z,0.4nm,0.9s,baz=43,slow=8.5,SNR=1.8						
	comp=Z,0.4nm,0.9s						
KAPI	Kappang	95.52	92	LR	LR	07 33 31.5	
	comp=Z,63nm,20.2s,baz=26,slow=39						
ASAR	Alice Springs	116.94	101	PKP	PKiKP	06 49 47.5	+2.2
	comp=Z,0.2nm,0.6s,baz=306,slow=2.2,SNR=1.3						
QSPA	South Pole Qui	124.76	180	PKP	PKiKP	06 50 00.5	+1.1
	comp=Z,0.8nm,0.7s,baz=225,slow=1.4,SNR=1.9						

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*IDC **20** 06:32:47.5±1.6, 2°.71N×94°.55W, h0^{km}, mb3.7/7, mbtmp3.8/8, ML3.2/1, MS3.6/14, Error ellipse: s-maj=46.9km s-min=28.5km az=62.0*

*NEIC **20** 06:32:49.9±1.4, 2°.74N±0°.07×94°.6W±0°.2, h10^{km}±1^{km}, mb4.3/34, Error ellipse: s-maj=33.9km s-min=11.3km az=84.0*

ISC 20 06:32:49.5±1.2**, 2°.8N**±0°.2×**94°.5W**±0°.2**, h10^{km}, n61, σ1^{s}.10**/43**, mb4.3**/23**, MS3.6**/11**, Galapagos Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JTS	Las Juntas de	12.05	52	LR	LR	06 39 22.8	
	comp=Z,220nm,18.5s,baz=237,slow=32						
CMIG	Matias Romero	14.17	359	Pn	Pn	06 36 08.9	-1.5
	0.1nm,0.3s,baz=202,slow=19,SNR=2.4						
CMIG				LR	LR	06 40 29.5	
	comp=Z,262nm,20.3s,baz=157,slow=32						
	2.9nm,1.0s						
CMIG				AML	AML		
ATAH	Atahualpa	18.90	122	LR	LR	06 43 08.5	
	comp=Z,145nm,21.7s,baz=272,slow=33						
ROSC	El Rosal	20.26	84	P	P	06 37 25.2	-0.5
	0.9nm,0.5s,baz=256,slow=8.3,SNR=0.9						
	0.9nm,0.5s						
ZAIG	Zacatecas	21.29	339	P	P	06 37 36.8	0.0
SDV	Santo Domingo	24.50	75	LR	LR	06 46 25.1	
	comp=Z,75nm,18.4s,baz=185,slow=33						
SDV	Santo Domingo	24.50	75	P	P	06 38 09.2	-0.3
SDV				IAmb	IAmb	06 38 21.1	
	comp=Z,11nm,1.3s						
LPIG	La Paz	26.06	326	LR	LR	06 46 20.7	
	comp=Z,69nm,19.7s,baz=150,slow=31						
TX31	Lajitas Ar. Si	27.75	343	P	P	06 38 39.6	+1.0
TX31				IAmb	IAmb	06 38 48.1	
	comp=Z,7.5nm,1.5s						
TXAR	Lajitas Array	27.75	343	P	P	06 38 39.3	+0.7
	comp=Z,0.5nm,0.7s,baz=155,slow=9.6,SNR=7.7						
TXAR				LR	LR	06 48 25.9	
	comp=Z,116nm,20.5s,baz=130,slow=34						
	comp=Z,0.5nm,0.7s						
TXAR	Lajitas Array	27.75	343	P	P	06 38 36.9	-1.7
129A	Stewart Farms,	30.43	348	P	P	06 39 02.0	-0.3
129A				IAmb	IAmb	06 39 05.1	
	comp=Z,5.5nm,1.2s						
LPAZ	La Paz	32.27	127	LR	LR	06 50 57.5	
	comp=Z,101nm,21.2s,baz=290,slow=34						
ANMO	Albuquerque	33.82	342	LR	LR	06 52 30.5	
	comp=Z,168nm,18.5s,baz=152,slow=35						
TKL	Tuckaleechee C	34.14	16	LR	LR	06 52 52.7	
	comp=Z,159nm,19.7s,baz=164,slow=35						
S39A	Bolivar	34.70	2	P	P	06 39 39.4	-0.2
WCI	Wyandotte Cave	36.02	11	P	P	06 39 51.7	+0.8
WUAZ	Wupatki	36.07	336	P	P	06 39 51.4	-0.3
WUAZ				IAmb	IAmb	06 40 02.9	
	comp=Z,5.0nm,1.1s						
BC3	Big Chuckawall	36.36	330	P	P	06 39 54.0	-0.2
BC3				IAmb	IAmb	06 39 55.4	
	comp=Z,8.8nm,1.4s						
IRM	Iron Mountain	36.61	331	P	P	06 39 56.5	+0.3
IRM				IAmb	IAmb	06 39 59.3	
	comp=Z,5.8nm,1.4s						
PFO	Pinyon Flats O	36.84	329	LR	LR	06 51 55.6	
	comp=Z,92nm,18.1s,baz=210,slow=31						
HDIL	Hopedale	37.84	7	P	P	06 40 08.9	+2.5
N41A	Harden Midland	37.84	5	P	P	06 40 08.5	+2.1
LCMT	Little Creek M	38.12	335	P	P	06 40 09.7	+0.7
Q16A	Castle Valley	38.99	339	P	P	06 40 17.1	+0.7
DUG	Dugway, Tooele	40.71	338	P	P	06 40 31.9	+1.3
DUG				IAmb	IAmb	06 40 33.1	
	comp=Z,6.0nm,1.2s						
ECSD	EROS Data Cent	40.76	358	P	P	06 40 33.3	+2.5
ECSD				IAmb	IAmb	06 40 38.8	
	comp=Z,3.9nm,0.7s						
TCUT	Toone Canyon	41.03	340	P	P	06 40 34.5	+1.1
TCUT				IAmb	IAmb	06 40 36.0	
	comp=Z,7.8nm,1.2s						
NVAR	Mina Array Bea	41.56	331	P	P	06 40 37.7	0.0
	comp=Z,1.3nm,0.9s,baz=151,slow=5.2,SNR=7.9						
	comp=Z,1.3nm,0.9s						
NVAR	Mina Array Bea	41.56	331	P	P	06 40 38.1	+0.4
PD31	Pinedale Array	41.96	343	P	P	06 40 40.9	0.0
PDAR	Pinedale Array	41.96	343	P	P	06 40 41.9	+0.9
	comp=Z,1.4nm,0.9s,baz=165,slow=5.0,SNR=10						
PDAR				LR	LR	06 57 51.2	
	comp=Z,117nm,18.1s,baz=146,slow=36						
	comp=Z,1.4nm,0.9s						
PDAR	Pinedale Array	41.96	343	P	P	06 40 41.5	+0.5
HVU	Hansel Valley	42.09	340	P	P	06 40 42.3	+0.4
HVU				IAmb	IAmb	06 40 49.4	
	comp=Z,5.3nm,0.8s						
ELK	Elko	42.12	336	LR	LR	06 56 08.7	
	comp=Z,74nm,18.3s,baz=138,slow=33						
ELK	Elko	42.12	336	P	P	06 40 43.5	+1.3
BMN	Battle Mountai	42.68	334	P	P	06 40 46.9	+0.1
PNTR	Pine Nut	42.70	331	P	P	06 40 45.5	-1.5
PNTR				IAmb	IAmb	06 40 54.3	
	comp=Z,5.5nm,0.8s						
SNOW	Snow King Moun	42.95	343	P	P	06 40 49.8	+0.8
SNOW				IAmb	IAmb	06 40 57.0	
	comp=Z,5.6nm,0.9s						
FXWY	Fox Creek	43.19	342	P	P	06 40 50.8	-0.1
FXWY				IAmb	IAmb	06 40 58.3	
	comp=Z,4.6nm,0.9s						
SADO	Sadowa	43.91	16	LR	LR	06 58 45.7	
	comp=Z,70nm,21.3s,baz=192,slow=35						
YMR	Madison River	44.11	343	P	P	06 40 57.2	-1.1
YNE	Yellowstone No	44.15	344	P	P	06 40 57.6	-1.1
YNE				IAmb	IAmb	06 41 06.4	
	comp=Z,7.2nm,1.5s						
HLID	Hailey	44.23	339	P	P	06 41 00.1	+0.8
HLID				IAmb	IAmb	06 41 01.3	
	comp=Z,7.8nm,1.5s						
YHL	Hebgen Lake	44.34	343	P	P	06 41 01.0	+0.8
YHL				IAmb	IAmb	06 41 03.3	
	comp=Z,7.2nm,1.3s						
QLMT	Earthquake Lak	44.39	343	P	P	06 41 00.9	+0.3
BCYI	Bear Canyon	44.55	341	P	P	06 41 01.9	0.0
BCYI				IAmb	IAmb	06 41 04.4	
	comp=Z,4.7nm,1.4s						
MFID	Camas Ranch	44.62	338	P	P	06 41 03.0	+0.6
MCMT	McKenzie Canyo	44.83	341	P	P	06 41 04.9	+0.8
J04A	Umpqua Nationa	47.12	332	P	P	06 41 19.2	-2.9
YKA	Yellowknife Ar	61.37	350	P	P	06 43 05.7	+0.3
	comp=Z,0.7nm,0.7s,baz=156,slow=6.9,SNR=6.2						
	comp=Z,0.7nm,0.7s						
DLBC	Dease Lake	62.00	340	LR	LR	07 10 24.7	
	comp=Z,114nm,18.2s,baz=82,slow=36						
ILAR	Eielson Array	72.19	339	P	P	06 44 13.7	-0.7
	comp=Z,0.6nm,0.9s,baz=124,slow=7.2,SNR=4.8						
	comp=Z,0.6nm,0.9s						
QSPA	South Pole Qui	92.86	180	P	P	06 46 02.2	-0.2
	comp=Z,1.5nm,1.0s,baz=153,slow=4.5,SNR=2.7						
	comp=Z,1.5nm,1.0s						
QSPA	South Pole Qui	92.86	180	IAmb	IAmb	06 46 06.9	
	comp=Z,3.4nm,1.3s						
H11N3	WAKE ISLAND Hy	97.10	290	T	T	08 33 49.5	
	baz=82						
H11N2	WAKE ISLAND Hy	97.11	290	T	T	08 33 48.5	
	baz=82						
H11N1	WAKE ISLAND Hy	97.12	290	T	T	08 33 49.7	
	baz=82						
H11S2	WAKE ISLAND Hy	97.41	289	T	T	08 34 04.8	
	baz=86,slow=75,SNR=12						
H11S1	WAKE ISLAND Hy	97.41	289	T	T	08 34 02.0	
	baz=86,slow=75,SNR=8.4						
H11S3	WAKE ISLAND Hy	97.43	289	T	T	08 34 03.6	
	baz=86,slow=75,SNR=5.4						

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*IDC **20** 06:33:09.1±1.3, 34°.99N×26°.58E, h0^{km}, mb3.9/10, mbtmp3.8/14, ML3.6/3, Error ellipse: s-maj=29.4km s-min=14.2km az=167.0*

*NEIC **20** 06:33:11.4±2.7, 34°.95N±0°.03×26°.57E±0°.06, h10^{km}±1^{km}, mb4.0/8, Error ellipse: s-maj=8.6km s-min=5.1km az=117.0*

*AFAD **20** 06:33:11.7, 35°.05N×26°.15E, h7^{km}±6^{km}, ML3.4*

*THE **20** 06:33:13.7, 35°N±10°×2°6E±°, h5^{km}±10^{km}, M3.7/9, MLh3.7/9*

*ISK **20** 06:33:14.0, 35°.08N×26°.48E, h9^{km}, ML3.7/16*

ISC 20 06:33:11.3±1.4**, 34°.91N**±0°.06×**26°.58E**±0°.03**, h13^{km}**±8^{km}**, n73, σ1^{s}.52**/85**, mb3.9**/11**, Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZKR	Zakros	0.36	305	P	Pg	06 33 18.8	+0.2
ZKR	Zakros	0.36	305	Pg	Pg	06 33 18.8	+0.2
ZKR				Sg	Sg	06 33 22.6	-0.9
ZKR				AML	AML		
KARP	Karpathos	0.79	37	P	Pn	06 33 28.2	0.0
KARP				S	Sn	06 33 40.9	+0.9
KARP				AML	AML		
KARP	Karpathos	0.79	37	Pg	Pn	06 33 28.6	+0.3
KARP				Sg	Sb	06 33 39.3	+1.6
KARP				AML	AML		
KARP	Karpathos	0.79	37	Pg	Pb	06 33 27.5	+0.5
NPS	Neapolis	0.87	294	P	Pg	06 33 27.9	-0.2
NPS				S	Sg	06 33 40.4	+0.8
NPS				AML	AML		
IACM	Heraklion	1.30	288	P	Pg	06 33 36.6	+0.3
IACM				AML	AML		
IDI	Anoyia	1.44	286	Pn	Pn	06 33 37.7	+0.6
	79nm,0.3s,baz=101,slow=17,SNR=3.0						
IDI				Sn	Sn	06 33 57.4	+1.5
	119nm,0.3s,baz=92,slow=11,SNR=3.8						
IDI	Anoyia	1.44	286	P	Pg	06 33 38.9	0.0
IDI				AML	AML		
IDI	Anoyia	1.44	286	Pn	Pg	06 33 39.1	+0.2
IDI				Sn	Sb	06 33 57.6	+1.3
IDI				AML	AML		
IDI	Anoyia	1.44	286		Pn	06 33 37.6	+0.5
SIVA	Sivas	1.46	275	P	Pb	06 33 38.7	+0.4
SIVA				AML	AML		
THERA	Ancient Thera,	1.71	329	P	Pn	06 33 41.6	+0.8
THERA				AML	AML		
THR6	Thira Island,	1.74	327	P	Pn	06 33 42.2	+1.0
THR8	Santorini-Mono	1.74	329	P	Pn	06 33 42.0	+0.7
SNT5	Nea Kammeni, S	1.78	327	P	Pn	06 33 43.7	+1.9
SNT5				AML	AML		
THR3	Thira Island,	1.78	328	P	Pn	06 33 42.5	+0.7
THR2	Thira island,	1.80	329	P	Pn	06 33 43.0	+1.0
THR5	Thira Island,	1.81	327	P	Pn	06 33 43.2	+1.0
ARG	Arkhangelos	1.81	44	Pn	Pg	06 33 45.5	-0.6
ARG				AML	AML		
ARG	Arkhangelos	1.81	44	Pn	Pb	06 33 44.9	+0.5
YAZI	Mula-Dat§a-	1.91	22	P	Pn	06 33 44.8	+1.3
YAZI				S	Sn	06 34 08.2	+0.8
YAZI				IAML		06 34 16.0	
	comp=N,221nm,0.8s						
YAZI				IAML		06 34 19.0	
	comp=E,171nm,0.4s						
DAT	Datca	1.99	24	Pn	Pb	06 33 47.2	-0.2
DAT				AML	AML		
DAT	Datca	1.99	24	P	Pb	06 33 47.0	-0.4
DAT				S	Sn	06 34 11.4	+1.8
DAT				IAML		06 34 21.0	
	comp=N,301nm,0.4s						
DAT				IAML		06 34 28.0	
	comp=E,268nm,0.6s						
GVD	Gavdhos	2.05	269	Pn	Pb	06 33 48.8	+0.4
GVD				AML	AML		
IMMV	Iera Moni Meta	2.20	285	P	Pb	06 33 51.2	+0.2
IMMV				AML	AML		
IMMV	Iera Moni Meta	2.20	285	Pn	Pb	06 33 49.8	-1.2
IMMV				AML	AML		
BODT	Bodrum	2.23	15	Pn	Pn	06 33 50.0	+2.0
BODT				AML	AML		
BDRM	Kayabasi	2.26	18	P	Pb	06 33 51.2	-0.8
BDRM				S	Sb	06 34 20.5	+0.5
BDRM				IAML		06 34 21.0	
	comp=N,166nm,0.4s						
BDRM				IAML		06 34 37.0	
	comp=E,94nm,1.0s						
TURN	Turunc	2.30	35	Pn	Pb	06 33 52.1	-0.6
TURN				AML	AML		
TURN	Turunc	2.30	35	P	Pb	06 33 51.8	-0.8
TURN				S	Sb	06 34 22.0	+1.0
TURN				IAML		06 34 31.0	
	comp=E,195nm,0.5s						
TURN				IAML		06 34 31.0	
	comp=N,262nm,0.7s						
DALY	Dalyan (Mula)	2.54	41	P	Pn	06 33 54.5	+2.3
DALY				S	Sb	06 34 28.4	+0.5
DALY				IAML		06 34 44.0	
	comp=E,288nm,0.7s						
DALY				IAML		06 34 47.0	
	comp=N,247nm,0.5s						
MLSB	Milas	2.57	22	Pn	Pn	06 33 54.9	+2.2
MLSB				AML	AML		
YER	Yerkesik	2.61	31	P	Pb	06 33 56.7	-1.4
YER	Yerkesik	2.61	31	Pn	Pn	06 33 56.2	+2.9
YER				AML	AML		
SABU	Mula-Dalaman	2.72	45	P	Pn	06 33 56.7	+1.9
SABU				S	Sb	06 34 34.7	+1.5
SABU				IAML		06 34 51.0	
	comp=N,144nm,0.5s						
SABU				IAML		06 34 56.0	
	comp=E,151nm,0.7s						
MULA	Mugla, Merkez-	2.73	31	P	Pn	06 33 57.1	+2.1
MULA				S	Sn	06 34 31.6	+3.6
MULA				IAML		06 34 40.0	
	comp=N,146nm,1.0s						
MULA				IAML		06 34 43.0	
	comp=E,203nm,0.8s						
GCAM	G?zelcaml?	2.83	11	Pn	Pn	06 33 58.7	+2.4
GCAM				AML	AML		
KTHA	Kythira Island	3.17	296	Pn	Pn	06 34 03.3	+2.4
KTHA				AML	AML		
TAVA	DENIZLI_Tavas	3.17	36	P	Pn	06 34 03.8	+2.8
TAVA				S	Sn	06 34 42.8	+4.0
TAVA				IAML		06 34 49.0	
	comp=N,122nm,0.5s						
TAVA				IAML		06 35 01.0	
	comp=E,130nm,0.8s						
ELL	Elmali	3.27	55	Pn	Pn	06 34 03.2	+0.8
NAZL	Nazilli-Aydin	3.35	24	Pn	Pn	06 34 06.2	+2.8
NAZL				AML	AML		
CHOS	Chios island	3.50	353	Pn	Pn	06 34 05.9	+0.4
CHOS				AML	AML		
INCE	Denizli-Bozkur	3.69	40	P	Pn	06 34 11.0	+2.8
INCE				S	Sb	06 34 58.4	-2.9
INCE				IAML		06 35 12.0	
	comp=N,82nm,0.7s						
INCE				IAML		06 35 17.0	
	comp=E,90nm,0.6s						
MANT	Manisa	3.91	23	Pn	Pn	06 34 12.2	+0.9
ITM	Ithomi	4.40	302	Pn	Pn	06 34 20.0	+2.2
ALN	Alexandroupoli	5.99	356	Pn	Pn	06 34 38.5	-1.2
CY604	RAF Akrotiri,	6.56	93	Pn	Pn	06 34 48.8	+1.6
BRTR	Keskin Array B	7.40	47	Pn	Pn	06 34 58.1	-1.0
	0.9nm,0.7s,baz=235,slow=14,SNR=0.9						
NRCA	Norcia	13.13	311	Pn	Pn	06 36 21.3	+3.8
KBZ	Khabaz	15.37	50	Pn	Pn	06 36 47.0	-0.9
	0.2nm,0.3s,baz=253,slow=14,SNR=1.3						
	1.1nm,0.6s						
KBZ				AML	AML		
AKASG	Malin Array Be	15.90	6	Pn	Pn	06 36 54.3	-0.3
	1.9nm,0.3s,baz=194,slow=11,SNR=1.6						
	0.4nm,0.3s						
AKASG				AML	AML		
GERES	GERESS Array B	16.87	330	Pn	Pn	06 37 07.1	-0.1
	baz=151,slow=13,SNR=2.2						
	0.4nm,0.3s						
GERES	GERESS Array B	16.87	330		Pn	06 37 05.7	-1.6
SENIN	Lac Senin/Sane	18.52	314		P	06 37 28.1	+0.5
CLL	Collm	19.10	333	*e*PP	Pn	06 37 47.0	+13
ESBB	Sonseca Array	24.70	290	P	P	06 38 32.4	+0.3
ESDC	Sonseca Array	24.70	290	P	P	06 38 30.9	-1.2
	0.6nm,0.5s,baz=89,slow=9.1,SNR=4.7						
	0.6nm,0.5s						
ESDC	Sonseca Array	24.70	290	IAmb	IAmb	06 38 47.7	
	comp=Z,2.5nm,1.1s						
FINES	FINESS Array B	26.55	359	P	P	06 38 46.2	-2.4
	comp=Z,1.3nm,0.8s,baz=181,slow=9.3,SNR=1.7						
	comp=Z,1.3nm,0.8s						
EKA	Eskdalemuir Ar	28.92	324	P	P	06 39 07.9	-2.0
	comp=Z,0.6nm,0.5s,baz=125,slow=9.5,SNR=1.5						
	comp=Z,0.6nm,0.5s						
TORD	Torodi Ar. Bea	31.24	232	P	P	06 39 30.6	-0.1
	comp=Z,1.9nm,0.6s,baz=38,slow=8.5,SNR=4.7						
	comp=Z,1.9nm,0.6s						
TORD	Torodi Ar. Bea	31.24	232	IAmb	IAmb	06 39 47.5	
	comp=Z,2.1nm,0.8s						
ARCES	ARCESS Array B	34.69	359	P	P	06 39 58.7	-1.6
	comp=Z,3.9nm,1.1s,baz=184,slow=7.9,SNR=4.0						
	comp=Z,3.9nm,1.1s						
KKAR	Karatay Array	34.78	63	P	P	06 40 01.8	+0.3
KURBB	Kurchatov Arra	40.37	51	P	P	06 40 47.0	-1.7
	comp=Z,1.1nm,0.6s,baz=275,slow=8.9,SNR=3.4						
	comp=Z,1.1nm,0.6s						
KURK	Kurchatov	40.44	51	P	P	06 40 48.6	-0.6
KURK				IAmb	IAmb	06 41 04.6	
	comp=Z,1.8nm,0.6s						
MKAR	Makanchi Array	42.94	56	P	P	06 41 09.8	0.0
	comp=Z,0.4nm,0.3s,baz=270,slow=7.2,SNR=2.4						
	comp=Z,0.4nm,0.3s						
ZALV	Zalesovo Beam	44.34	46	P	P	06 41 21.0	+0.1
	comp=Z,1.1nm,0.4s,baz=264,slow=8.7,SNR=4.0						
	comp=Z,1.1nm,0.4s						
ZALV	Zalesovo Beam	44.34	46	P	P	06 41 20.6	-0.3
SONM	Songino Array	58.74	51	P	P	06 43 08.2	-0.8
	comp=Z,0.3nm,0.3s,baz=293,slow=7.5,SNR=1.9						
	comp=Z,0.3nm,0.3s						
SONM	Songino Array	58.74	51	P	P	06 43 07.5	-1.4
SONM				IAmb	IAmb	06 43 31.7	
	comp=Z,2.9nm,1.3s						
USRK	Ussuriysk Ar.	76.19	46	P	P	06 44 59.6	+0.4
	comp=Z,0.6nm,0.5s,baz=300,slow=3.2,SNR=1.7						
	comp=Z,0.6nm,0.5s						

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*TRN **20** 06:54:30.0, 10°.31N×61°.91W, h13^{km}, MD3.7, Gulf of Paria.*

*FUNV **20** 06:54:49.7, 10°.01N×61°.62W, h28^{km}, MW3.3, Presumed earthquake*

ISC 20 06:54:50.0±1.7**, 10°.22N**±0°.08×**61°.93W**±0°.06**, h13^{km}**±11^{km}**, n9, σ0^{s}.48**/17**, Trinidad**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TPP	Pointe-a-Pierr	0.48	78	*e*P	Pn	06 55 02.6	+0.1
TPP				*e*S	Sn	06 55 10.7	-0.1
PSMG	Mucurapo Girls	0.60	41	*e*P	Pg	06 55 01.8	+0.1
PSMG				*e*S	Sg	06 55 08.9	-0.7
DMDM	Guralp CMG5TDE	0.60	38	*e*P	Pg	06 55 01.9	+0.1
DMDM				*e*S	Sg	06 55 09.5	-0.4
TRN	Trinidad (W)	0.67	51	*e*P	Pg	06 55 03.2	+0.1
TRN				*e*S	Sg	06 55 12.2	+0.2
TRN	Trinidad (W)	0.67	51	*e*P	Pg	06 55 03.2	+0.1
TRN				*e*S	Sg	06 55 12.1	+0.1
GRGR	Grenville	1.92	8	*e*P	Pn	06 55 22.4	0.0
GRGR				*e*S	Sn	06 55 47.2	+0.8
GRGR	Grenville	1.92	8	*e*P	Pn	06 55 22.8	+0.4
GRGR				*e*S	Sn	06 55 45.9	-0.5
GRSS	Sisters	2.09	9	*e*S	Sn	06 55 50.3	-0.3
TACV	Tcata	5.02	270	*e*P	Pn	06 56 05.6	+0.5
TACV				*e*S	Sn	06 57 02.1	-0.9

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*SJA **20** 07:05:49.5±1.0, 19°.70S×69°.87W, h78^{km}, ML3.5, MW3.5*

*GUC **20** 07:05:52.0±0.6, 19°.71S×69°.84W, h67^{km}±2^{km}, ML3.4*

ISC 20 07:05:52.4±1.3**, 19°.74S**±0°.03×**69°.91W**±0°.05**, h61^{km}**±7^{km}**, n26, σ0^{s}.77**/44**, 2C-2D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSGCX	Pisagua	0.24	305	*e*P	Pn	07 06 01.9	-0.3
PSGCX				*e*S	Sn	07 06 10.5	+1.0
PSGCX	Pisagua	0.24	305	⇑*i*P	Pn	07 06 02.0	-0.3
PSGCX				*i* S	Sn	07 06 10.1	+0.6
PB11	IPOC Station P	0.24	96	*e*P	Pn	07 06 01.9	-0.5
PB11				*e*S	Sn	07 06 10.9	+1.3
PB11				IAML		07 06 11.6	
	comp=Z,3μm,0.2s						
PB11	IPOC Station P	0.24	96	⇓*i*P	Pn	07 06 01.7	-0.7
PB11				*i* S	Sn	07 06 09.8	+0.1
PB11				IAML		07 06 11.3	
	comp=E,7μm,0.2s						
TA02	Huaiquique	0.57	201	*e*P	Pn	07 06 04.8	-0.5
TA02				IAML		07 06 17.8	
	comp=Z,2μm,0.1s						
TA02	Huaiquique	0.57	201	⇑*i*P	Pn	07 06 04.6	-0.6
TA02				*i* S	Sn	07 06 15.0	+0.5
PB08	IPOC Station P	0.82	120	*e*P	Pn	07 06 07.6	-1.0
PB08				*e*S	Sn	07 06 20.3	-0.1
PB08				IAML		07 06 20.5	
	comp=Z,1μm,0.2s						
PB08	IPOC Station P	0.82	120	⇓*i*P	Pn	07 06 07.5	-1.0
PB08				*i* S	Sn	07 06 19.9	-0.5
PB08				IAML		07 06 20.5	
	comp=E,2μm,0.2s						
PB12	IPOC Station P	1.18	341	*e*P	Pn	07 06 12.1	-0.8
PB12				*e*S	Sn	07 06 28.6	+0.3
PB12				IAML		07 06 29.2	
	comp=Z,373nm,0.3s						
PB12	IPOC Station P	1.18	341	*i* P	Pn	07 06 11.8	-1.2
PB12				*i* S	Sn	07 06 28.0	-0.3
PB12				IAML		07 06 32.9	
	comp=E,668nm,0.2s						
AP01	Chacalluta	1.42	343	*e*P	Pn	07 06 14.6	-1.4
AP01				*e*S	Sn	07 06 33.2	-0.5
AP01				IAML		07 07 03.4	
	comp=Z,610nm,0.4s						
AP01	Chacalluta	1.42	343	*i* P	Pn	07 06 15.5	-0.5
AP01				*i* S	Sn	07 06 33.4	-0.3
AP01				IAML		07 06 38.7	
	comp=N,2μm,0.2s						
PB16	IPOC Station P	1.44	15	*e*P	Pn	07 06 16.4	-0.6
PB16				IAML		07 06 37.4	
	comp=Z,317nm,0.4s						
PB16	IPOC Station P	1.44	15	*i* P	Pn	07 06 16.3	-0.6
PB16				*i* S	Sn	07 06 36.4	+1.2
PB02	IPOC Station P	1.58	179	*e*P	Pn	07 06 17.9	-0.4
PB02				*e*S	Sn	07 06 38.5	+0.7
PB02				IAML		07 06 41.6	
	comp=Z,911nm,0.2s						
PB02	IPOC Station P	1.58	179	*i* P	Pn	07 06 17.9	-0.4
PB02				*i* S	Sn	07 06 37.8	+0.1
PB02				IAML		07 06 39.9	
	comp=E,932nm,0.5s						
PB07	IPOC Station P	1.98	179	*e*P	Pn	07 06 23.9	0.0
PB07				*e*S	Sn	07 06 48.7	+1.0
PB07				IAML		07 06 54.9	
	comp=Z,356nm,0.6s						
PB07	IPOC Station P	1.98	179	*e*P	Pn	07 06 23.5	-0.3
PB07				*i* S	Sn	07 06 48.0	+0.3
PB07				IAML		07 06 53.3	
	comp=E,524nm,0.5s						
PB09	IPOC Station P	2.15	163	*e*P	Pn	07 06 26.1	+0.1
PB09				*e*S	Sn	07 06 52.1	+0.4
PB09				IAML		07 07 00.8	
	comp=Z,226nm,0.4s						
PB09	IPOC Station P	2.15	163	IAML		07 06 58.8	
	comp=E,290nm,0.3s						
PB18	Visviri	2.17	11	*i* P	Pn	07 06 29.2	+2.4
PB18				*i* S	Sn	07 06 53.0	+0.2
PB18				IAML		07 07 02.5	
	comp=E,127nm,0.7s						
PB03	IPOC Station P	2.31	176	*e*P	Pn	07 06 27.9	-0.3
PB03				*e*S	Sn	07 06 56.2	+0.6
PB03				IAML		07 07 00.8	
	comp=Z,256nm,0.2s						
PB03	IPOC Station P	2.31	176	*i* S	Sn	07 06 56.2	+0.6
PB03				IAML		07 07 06.0	
	comp=E,215nm,0.1s						
PB06	IPOC Station P	2.97	174	*e*P	Pn	07 06 36.9	-0.4
PB06				*e*S	Sn	07 07 11.8	-0.1
PB06				IAML		07 07 30.2	
	comp=Z,107nm,0.4s						
PB05	IPOC Station P	3.12	185	*e*P	Pn	07 06 38.6	-0.6
PB05				*e*S	Sn	07 07 00.2	-15
PB05				IAML		07 07 36.6	
	comp=Z,68nm,0.6s						
LPAZ	La Paz	3.82	27	*e*P	Pn	07 06 30.6	-19

IDC ***20*** *07:09:36.9±2.2, 36°.10S×178°.20E, h0^{km}, mb3.6/3, mbtmp3.6/3, Error ellipse: s-maj=68.8km s-min=38.6km az=42.0*
NOU ***20*** *07:09:52.4, 36°.99S×177°.99E, h196^{km}, MLv3.9/10, Off E. Coast of N. Island, N.Z.*
WEL ***20*** *07:09:56.6±1.1, 37°S±4°×17°8E±°, h157^{km}±11^{km}, M3.4/27, ML3.2/10, MLv3.4/27, Error ellipse: s-maj=6.8km s-min=5.5km az=81.6, confirmed*
ISC 20 07:09:54.4±1.0, **36°.99S**±0°.06×**177°.80E**±0°.06, **h187**^{km}±7^{km}, **n138**, σ**1^{s}21**/152, **mb3.4**/3, **Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	Matakaoa Point	0.70	145	P	Pn	07 10 20.3	-0.5
MXZ	Matakaoa Point	0.70	145	S	Sn	07 10 42.1	+0.6
MXZ	Matakaoa Point	0.70	145	P	Pn	07 10 20.4	-0.5
MXZ				AML	AML		
MXZ				AML	AML		
WIZ	White Island	0.72	222	P	Pn	07 10 19.6	-1.4
WIZ				AML	AML		
WIZ				AML	AML		
HAZ	Te Kaha	0.76	181	P	Pn	07 10 20.3	-0.9
HAZ				AML	AML		
HAZ				AML	AML		
PKGZ	Pakihiroa	0.90	166	P	Pn	07 10 22.2	+0.1
PKGZ				AML	AML		
PKGZ				AML	AML		
WMGZ	Waiomatatini S	0.96	150	P	Pn	07 10 22.8	+0.3
WMGZ				S	Sn	07 10 42.7	-1.7
WMGZ				AML	AML		
WMGZ				AML	AML		
RUGZ	Raukumara Rang	0.98	186	P	Pn	07 10 21.6	-1.2
RUGZ				AML	AML		
RUGZ				AML	AML		
WHRZ	Whale Island	1.08	217	P	Pn	07 10 23.2	-0.3
WHRZ				AML	AML		
WHRZ				AML	AML		
PUZ	Puketiti	1.14	162	P	Pn	07 10 24.0	+0.2
PUZ				S	Sn	07 10 44.6	-2.3
PUZ				AML	AML		
TWGZ	Tauwhareparae	1.19	173	P	Pn	07 10 25.2	+0.9
TWGZ				S	Sn	07 10 46.5	-1.1
TWGZ				AML	AML		
TWGZ				AML	AML		
MYRZ	Mayor Island	1.28	257	P	Pn	07 10 24.1	-0.9
MYRZ				AML	AML		
MYRZ				AML	AML		
MWZ	Matawai	1.36	189	P	Pn	07 10 25.7	0.0
MWZ				AML	AML		
MWZ				AML	AML		
URZ	Urewera	1.38	203	P	Pn	07 10 25.3	-0.5
URZ	Urewera	1.38	203	P	Pn	07 10 25.5	-0.3
URZ				AML	AML		
EDRZ	Edgecumbe	1.40	217	P	Pn	07 10 26.1	0.0
EDRZ				AML	AML		
TGRZ	Tauranga	1.43	239	P	Pn	07 10 25.5	-0.8
TGRZ				AML	AML		
TGRZ				AML	AML		
TKGZ	Te Karaka	1.45	179	P	Pn	07 10 26.4	0.0
TKGZ				AML	AML		
TKGZ				AML	AML		
CNGZ	Carnagh Statio	1.52	168	P	Pn	07 10 28.8	+1.7
CNGZ				AML	AML		
RAGZ	Rawiri	1.53	191	P	Pn	07 10 28.0	+0.7
RAGZ				AML	AML		
KARZ	Kaharoa	1.61	230	P	Pn	07 10 28.1	+0.1
KARZ				AML	AML		
TARZ	Mount Tarawera	1.61	219	P	Pn	07 10 28.8	+0.7
TARZ				AML	AML		
RRRZ	Republican Roa	1.69	217	P	Pn	07 10 29.6	+0.8
RRRZ				AML	AML		
MUGZ	Murupara	1.69	209	P	Pn	07 10 28.8	0.0
KMRZ	Kaimai	1.71	240	P	Pn	07 10 28.8	-0.2
KMRZ				AML	AML		
RIGZ	Rimuhau	1.71	181	P	Pn	07 10 29.7	+0.8
RIGZ				AML	AML		
RTZ	Ruatahuna	1.75	202	P	Pn	07 10 29.2	-0.2
HRRZ	Handcock Road	1.84	220	P	Pn	07 10 31.1	+0.7
PRRZ	Plateau Road	1.87	216	P	Pn	07 10 30.9	+0.3
PRRZ				S	Sn	07 10 58.4	-0.4
PRGZ	Paritu Road	1.93	178	P	Pn	07 10 32.1	+0.9
ALRZ	Allen Road	1.95	216	P	Pn	07 10 31.8	+0.5
TOZ	Tahuroa Road	1.98	247	P	Pn	07 10 31.9	+0.3
TOZ				S	Sn	07 10 58.5	-2.1
TOZ				AML	AML		
RAHZ	Arahi	2.00	196	P	Pn	07 10 32.6	+0.7
RAHZ				S	Sn	07 11 01.0	-0.3
MTHZ	Maungataniwha	2.01	202	P	Pn	07 10 31.5	-0.6
GRZ	Great Barrier	2.03	291	P	Pn	07 10 30.9	-1.3
GRZ				AML	AML		
KNZ	Kokohu	2.03	183	P	Pn	07 10 32.9	+0.7
KNZ				S	Sn	07 11 00.9	-0.9
MKAZ	Moumakai	2.12	266	P	Pn	07 10 33.0	-0.2
MKAZ				AML	AML		
WHHZ	Waihua	2.13	192	P	Pn	07 10 34.2	+0.9
WHHZ				S	Sn	07 11 03.5	-0.3
MRHZ	Matea Rd	2.14	210	P	Pn	07 10 33.3	-0.2
WIAZ	Waiheke Island	2.15	275	P	Pn	07 10 33.0	-0.5
WIAZ				AML	AML		
MHGZ	Mahia Peninsul	2.16	178	P	Pn	07 10 34.9	+1.3
MHGZ				S	Sn	07 11 05.4	+1.1
TLZ	Tolley Road	2.24	233	P	Pn	07 10 35.3	+0.8
NMHZ	Naumai	2.24	200	P	Pn	07 10 35.5	+0.9
NMHZ				S	Sn	07 11 07.0	+0.8
ETAZ	East Tamaki Re	2.30	270	P	Pn	07 10 35.3	+0.1
ETAZ				AML	AML		
MBAZ	Motutapu North	2.34	275	P	Pn	07 10 35.5	-0.1
MBAZ				AML	AML		
ARHZ	Aropaoanui	2.35	195	P	Pn	07 10 36.5	+0.8
ARHZ				S	Sn	07 11 08.1	-0.1
WATZ	Wairara	2.37	223	P	Pn	07 10 37.1	+1.1
BKZ	Black Stump Fm	2.40	205	P	Pn	07 10 36.2	-0.2
BKZ	Black Stump Fm	2.40	205	S	Sn	07 11 09.5	+0.2
BKZ	Black Stump Fm	2.40	205	P	Pn	07 10 36.2	-0.2
BKZ				S	Sn	07 11 09.5	+0.2
ABAZ	Army Bay	2.42	278	P	Pn	07 10 36.5	0.0
ABAZ				AML	AML		
EPAZ	Eden Park BICE	2.45	272	P	Pn	07 10 37.4	+0.5
EPAZ				AML	AML		
RATZ	Rangitukua	2.46	220	P	Pn	07 10 38.3	+1.2
HBAZ	Herne Bay Bore	2.47	272	P	Pn	07 10 37.5	+0.5
HBAZ				AML	AML		
RITZ	Rihia Road	2.51	217	P	Pn	07 10 38.6	+1.0
AWAZ	Awhitu Peninsu	2.53	267	P	Pn	07 10 38.2	+0.4
AWAZ				AML	AML		
KATZ	Kakaramea	2.59	219	P	Pn	07 10 39.9	+1.3
WTAZ	Waiatarua	2.59	270	P	Pn	07 10 39.1	+0.6
WTAZ				AML	AML		
RVAZ	Riverhead Bore	2.59	274	P	Pn	07 10 38.8	+0.3
RVAZ				AML	AML		
MCHZ	McNeill Hill	2.60	199	P	Pn	07 10 39.2	+0.6
KWHZ	Kaweka Forest	2.66	204	P	Pn	07 10 39.5	+0.1
TMVZ	Te Maari	2.69	217	P	Pn	07 10 40.5	+0.7
NTVZ	North Tongarir	2.69	218	P	Pn	07 10 40.5	+0.7
ETVZ	East Tongariro	2.70	217	P	Pn	07 10 40.4	+0.5
KRVZ	Karewarewa	2.71	218	P	Pn	07 10 40.6	+0.6
CKHZ	Cape Kidnapper	2.72	192	P	Pn	07 10 40.5	+0.5
CKHZ				S	Sn	07 11 15.4	-0.4
OTVZ	Oturere	2.75	217	P	Pn	07 10 41.0	+0.5
WTVZ	West Tongariro	2.75	219	P	Pn	07 10 41.0	+0.6
SNVZ	South Ngauruho	2.78	217	P	Pn	07 10 41.5	+0.7
SNVZ				S	Sn	07 11 16.2	-0.9
HIZ	Hauiti	2.79	236	P	Pn	07 10 41.8	+1.0
HIZ	Hauiti	2.79	236	P	Pn	07 10 42.5	+1.8
NGZ	Ngauruhoe	2.79	218	P	Pn	07 10 41.8	+0.9
TWVZ	Taurewa	2.79	221	P	Pn	07 10 41.7	+0.8
TUVZ	Tukino	2.83	216	P	Pn	07 10 41.8	+0.4
BHHZ	Black Hill Sta	2.84	208	P	Pn	07 10 41.3	-0.2
FWVZ	Far West T-bar	2.87	217	P	Pn	07 10 42.4	+0.4
KRHZ	Kereru	2.88	203	P	Pn	07 10 41.5	-0.3
WHVZ	Whangaehu Hut	2.88	217	P	Pn	07 10 42.4	+0.3
MAVZ	Matarangi	2.88	217	P	Pn	07 10 42.8	+0.6
KAHZ	Kahuranaki	2.89	194	P	Pn	07 10 42.6	+0.6
MOVZ	Moawhango	2.90	213	P	Pn	07 10 41.9	-0.3
WNVZ	Wahianoa	2.91	216	P	Pn	07 10 42.5	+0.1
TRVZ	Turoa	2.91	217	P	Pn	07 10 42.8	+0.3
WCZ	Waipu Caves	2.98	290	P	Pn	07 10 42.5	-0.6
WCZ				AML	AML		
MTVZ	Mangateitei	3.01	217	P	Pn	07 10 44.1	+0.6
PXZ	Pawanui	3.12	193	P	Pn	07 10 44.7	0.0
PNHZ	Pukenui	3.18	203	P	Pn	07 10 44.9	-0.6
WPHZ	Waipukurau	3.25	199	P	Pn	07 10 46.4	+0.1
TSZ	Takapari Road	3.38	205	P	Pn	07 10 47.4	-0.6
PRHZ	Porangahau	3.39	195	P	Pn	07 10 48.0	-0.1
PRHZ				S	Sn	07 11 29.4	-0.8
WAZ	Wanganui	3.54	218	P	Pn	07 10 50.5	+0.6
DVHZ	Dannevirke	3.54	201	P	Pn	07 10 49.1	-0.8
ANWZ	Angora Road	3.61	196	P	Pn	07 10 50.9	+0.1
POWZ	Post Office Ro	3.75	205	P	Pn	07 10 51.9	-0.6
PRWZ	Pori Road	3.83	201	P	Pn	07 10 53.1	-0.4
OUZ	Omahuta	3.84	296	P	Pn	07 10 53.2	-0.5
OUZ	Omahuta	3.84	296	P	Pn	07 10 53.5	-0.2
BFZ	Birch Farm	3.88	198	P	Pn	07 10 53.4	-0.7
BFZ	Birch Farm	3.88	198	P	Pn	07 10 53.4	-0.7
MRZ	Mangatainoka R	4.05	205	P	Pn	07 10 55.1	-1.2
TIWZ	Tintock	4.06	201	P	Pn	07 10 55.8	-0.6
CPWZ	Castlepoint	4.11	197	P	Pn	07 10 57.1	+0.2
HOWZ	Holdsworth Sta	4.29	204	P	Pn	07 10 57.8	-1.5
OGWZ	Otaki Gorge	4.33	207	P	Pn	07 10 58.8	-1.1
TMWZ	Te Maipa	4.37	199	P	Pn	07 10 59.4	-1.0
KIW	Kapiti Island	4.47	209	P	Pn	07 11 00.1	-1.5
MTW	Mount Morrison	4.53	203	P	Pn	07 11 00.6	-1.7
CAW	Cannon Point	4.63	207	P	Pn	07 11 02.0	-1.6
TRWZ	Traveller	4.70	200	P	Pn	07 11 03.4	-1.1
PAWZ	Paruwai Farm	4.76	202	P	Pn	07 11 03.4	-1.9
MSWZ	Moikau Station	4.84	203	P	Pn	07 11 04.5	-1.8
DUWZ	D'Urville Isla	4.86	217	P	Pn	07 11 05.1	-1.6
WEL	Wellington	4.89	208	P	Pn	07 11 05.4	-1.6
SNZO	South Karori	4.94	208	P	Pn	07 11 05.7	-1.9
BHW	Baring Head	4.96	206	P	Pn	07 11 06.0	-1.9
PLWZ	Palliser	4.98	203	P	Pn	07 11 06.1	-2.0
TCW	Tory Channel	5.03	212	P	Pn	07 11 06.7	-2.0
TUWZ	Tuamarina	5.35	213	P	Pn	07 11 11.6	-1.3
NNZ	Nelson	5.44	218	P	Pn	07 11 12.9	-1.2
BSWZ	Blackbirch Sta	5.61	212	P	Pn	07 11 14.8	-1.5
QRZ	Quartz Range	5.62	225	P	Pn	07 11 16.0	-0.4
QRZ	Quartz Range	5.62	225	P	Pn	07 11 14.4	-2.0
MRNZ	Matariki Terra	5.89	220	P	Pn	07 11 17.7	-2.3
THZ	Tophouse	6.09	217	P	Pn	07 11 20.8	-1.8
KHZ	Kahutara	6.33	210	P	Pn	07 11 23.6	-2.1
DSZ	Denniston Nort	6.64	223	P	Pn	07 11 27.5	-2.3
GVZ	Greta Valley S	7.00	210	P	Pn	07 11 32.4	-2.1
LTZ	Lake Taylor	7.18	215	P	Pn	07 11 34.3	-2.5
INZ	Inchbonnie	7.53	219	P	Pn	07 11 38.8	-2.5
OKCZ	Okains Bay	7.63	207	P	Pn	07 11 40.5	-2.2
MQZ	McQueen's Vall	7.77	209	P	Pn	07 11 41.2	-3.3
RIZ	Raoul Island	8.51	26	P	Pn	07 11 51.2	-3.2
TMZ	Timaru	9.01	213	P	Pn	07 11 58.7	-2.0
ODZ	Otahua Downs	9.69	212	P	Pn	07 12 07.4	-2.2
ASAR	Alice Springs	39.81	277	P	P	07 17 14.0	+4.5
	0.6nm,0.5s,baz=121,slow=8.2,SNR=11						
	0.6nm,0.5s						
WRA	Warramunga Arr	41.42	282	P	P	07 17 26.2	+3.5
	0.4nm,0.4s,baz=120,slow=8.4,SNR=6.6						
	0.4nm,0.4s						
QSPA	South Pole Qui	53.13	180	P	P	07 19 02.6	+10
	0.8nm,0.9s,baz=21,slow=8.6,SNR=1.4						
	0.8nm,0.9s						
FINES	FINESS Array B	149.80	333	PKPbc	PKPab	07 29 25.8	-1.4
	2.2nm,0.9s,baz=50,slow=4.3,SNR=5.5						

GRAL ***20*** *07:28:00.2±0.4, 33°.84N×36°.59E, h29^{km}±15^{km}, MD2.7*
GII ***20*** *07:28:20.4±0.0, 33°.298N±0°.004×35°.987E±0°.001, h0^{km}, Mws1.8, confirmed*
ISC 20 07:27:59.0±3.1, **33°.83N**±0°.05×**36°.6E**±0°.2, **h12**^{km}, **n19**, σ**0^{s}43**/20, **Jordan-Syria region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZAHL	Zahle	0.59	273	*e*P	Pb	07 28 11.3	-0.1
HWQ	Hawqa	0.69	310	*e*P	Pg	07 28 12.8	+0.2
RCY	Rachaya	0.71	242	*e*P	Pg	07 28 12.9	0.0
RCY				*e*S	Sb	07 28 22.9	-0.4
BHL	Bhannes	0.78	275	*e*P	Pg	07 28 14.1	0.0
BEIL	Beino	0.78	335	*e*P	Pg	07 28 14.2	0.0
BEIL				*e*S	Sg	07 28 24.4	-0.1
QRWL	Qaraoun	0.81	250	*e*P	Pg	07 28 14.6	-0.1
SHBL	Chebaa	0.86	236	*e*P	Pg	07 28 15.6	0.0
DQRL	Deir Qamar	0.86	262	*e*P	Pg	07 28 15.5	-0.2
NATI	Neve Ativ	0.91	232	P	Pn	07 28 25.1	+7.5
NATI				S	Sb	07 28 29.1	+0.2
GEM	Giv'at Ha'Em	0.99	232	P	Pn	07 28 26.5	+7.8
GEM				S	Sb	07 28 31.3	+0.1
KIRY	Kiryat Shemona	1.06	234	P	Pn	07 28 27.9	+8.3
KSHT	Keshet	1.07	218	P	Pn	07 28 27.8	+7.9
KSHT				S	Sg	07 28 33.9	+0.4
RMOT	Ramot	1.25	219	P	Pg	07 28 30.8	+7.8
RMOT				S	Sg	07 28 39.8	+0.6
ZEFT	Zefat	1.26	227	P	Pg	07 28 32.1	+8.9
ZEFT				S	Sg	07 28 40.3	+0.7
KNHM	Kefar Nahum	1.27	222	P	Pg	07 28 31.7	+8.3
KNHM				S	Sg	07 28 40.3	+0.4
MMA0B	Mount Meron ar	1.28	231	P	Pg	07 28 33.0	+9.3
MMA0B				S	Sg	07 28 40.8	+0.4
TVER	Teveria	1.37	220	P	Pg	07 28 33.2	+7.8
TVER				S	Sg	07 28 43.3	+0.2
OFRI	`Ofer	1.81	229	P	Pg	07 28 41.5	+7.7
OFRI				S	Sg	07 28 56.3	-0.9
ROII	Roi	1.83	211	P	Pg	07 28 41.3	+7.1
ROII				S	Sg	07 28 57.1	-0.8

IDC 20 07:28:49.4±4.4, **6°.45S**×**128°.66E**, **h256**^{km}±44^{km}, **mb2.7**/2, **mbtmp3.8**/5, **Error ellipse: s-maj=58.8km s-min=16.6km az=69.0**, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	11.95	194	P	P	07 31 33.8	-1.3
	4.8nm,0.9s,baz=13,slow=12,SNR=14						
FITZ				S	S	07 33 44.0	-1.5
	1.7nm,0.8s,baz=0.0,slow=20,SNR=1.7						
WRA	Warramunga Arr	14.50	158	P	Pn	07 32 03.6	+0.2
	1.6nm,0.5s,baz=337,slow=12,SNR=21						
WRA				S	S	07 34 41.0	-2.8
	0.6nm,0.7s,baz=332,slow=23,SNR=5.6						
ASAR	Alice Springs	17.84	164	P	Pn	07 32 41.7	-1.3
	7.5nm,0.5s,baz=343,slow=11,SNR=120						
ASAR				S	S	07 35 50.6	-1.1
	0.6nm,0.6s,baz=350,slow=23,SNR=3.3						
MKAR	Makanchi Array	67.04	327	P	P	07 39 14.8	-0.3
	0.1nm,0.4s,baz=117,slow=8.4,SNR=1.4						
	0.1nm,0.4s						
KURBB	Kurchatov Arra	71.35	329	P	P	07 39 40.9	-0.4
	0.1nm,0.3s,baz=120,slow=4.6,SNR=2.4						
	0.1nm,0.3s						

SJA ***20*** *07:36:10.6±0.7, 35°.15S×72°.56W, h5^{km}, ML3.5, MW3.1*
GUC ***20*** *07:36:15.5±0.7, 35°.17S×72°.35W, h21^{km}±4^{km}, ML3.7*
ISC 20 07:36:13.9±1.6, **35°.19S**±0°.03×**72°.37W**±0°.06, **h4**^{km}±11^{km}, **n43**, σ**1^{s}01**/72, **2C-3D**, **Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GO05	Hualane	0.40	63	*e*P	Pb	07 36 24.2	+0.6
GO05				IAML		07 36 30.8	
	comp=Z,3µm,0.1s						
GO05				*e*S	Sb	07 36 30.9	+0.8
GO05	Hualane	0.40	63	⇑*i*P	Pb	07 36 24.4	+0.8
GO05				*i* S	Sb	07 36 30.0	-0.1
GO05				IAML		07 36 30.8	
	comp=N,10µm,0.2s						
BO03	Pichilemu	0.77	26	⇓*i*P	Pg	07 36 29.7	+1.0
BO03				*i* S	Sb	07 36 40.2	-0.6
ML02	Panimavida	0.96	127	*e*P	Pb	07 36 32.7	-0.4
ML02				*e*S	Sn	07 36 48.4	+0.1
ML02	Panimavida	0.96	127	⇑*i*P	Pb	07 36 32.8	-0.4
ML02				*i* S	Sb	07 36 45.9	-0.4
BO01	Tunca	1.32	53	*e*P	Pn	07 36 32.7	-6.5
BO01				*e*P	Pb	07 36 38.0	-1.3
BO01				*e*S	Sb	07 36 56.4	-0.2
BO01				IAML		07 36 57.0	
	comp=Z,543nm,0.4s						
BO01	Tunca	1.32	53	⇓*i*P	Pn	07 36 38.2	-1.0
BO01				*i* S	Sg	07 36 54.5	-1.9
BO02	Sierra Bellavi	1.36	73	*e*P	Pn	07 36 39.2	-0.6
BO02				*e*S	Sg	07 36 56.7	-0.9
BO02				IAML		07 36 57.3	
	comp=Z,2µm,0.2s						
BO02	Sierra Bellavi	1.36	73	⇓*i*P	Pn	07 36 39.0	-0.8
BO02				*i* S	Sg	07 36 56.1	-1.5
BO02				IAML		07 36 58.4	
	comp=N,5µm,0.3s						
MT01	Popeta	1.61	35	*e*P	Pn	07 36 42.2	-1.0
MT01				*e*S	Sg	07 37 06.8	+1.1
MT01				IAML		07 37 08.3	
	comp=Z,477nm,0.4s						
MT01	Popeta	1.61	35	*i* P	Pn	07 36 42.4	-0.8
MT01				*i* S	Sn	07 37 03.1	-1.4
VA05	Santo Domingo	1.65	22	IAML		07 37 12.3	
	comp=E,731nm,0.3s						
BI05	Punta Hualpn	1.69	203	*e*P	Pn	07 36 44.4	+0.1
BI05	Punta Hualpn	1.69	203	*i* S	Sn	07 37 06.3	0.0
BI05				IAML		07 37 12.1	
	comp=N,683nm,0.2s						
BI02	San Fabin de	1.71	149	*e*P	Pn	07 36 45.2	+0.5
BI02	San Fabin de	1.71	149	*i* P	Pn	07 36 44.8	+0.1
BI02				*i* S	Sn	07 37 05.8	-1.3
MT09	Talagante	1.81	39	*i* P	Pn	07 36 45.8	-0.3
MT09				IAML		07 37 15.2	
	comp=N,1µm,0.1s						
BO04	La Punta	1.88	51	*i* P	Pn	07 36 46.8	-0.2
BO04				*i* S	Sn	07 37 10.6	-0.6
BO04				IAML		07 37 14.2	
	comp=N,795nm,0.3s						
MT12	Pirque	2.09	46	*i* P	Pn	07 36 50.7	+0.9
MT12				*i* S	Sn	07 37 16.5	+0.2
MT12				IAML		07 37 22.6	
	comp=N,970nm,0.5s						
MT02	Curacav	2.18	28	*e*P	Pn	07 36 50.1	-0.9
MT02				*e*S	Sb	07 37 21.0	-0.3
MT02				IAML		07 37 28.0	
	comp=Z,179nm,0.7s						
MT02	Curacav	2.18	28	*i* P	Pn	07 36 50.0	-1.1
MT15	Las Vizcachas	2.21	45	*e*P	Pn	07 36 52.3	+0.8
MT15				*e*S	Sn	07 37 19.6	+0.2
MT15				IAML		07 37 26.1	
	comp=E,1µm,0.2s						
LMEL	Las Melosas	2.23	54	*e*P	Pn	07 36 52.6	+0.7
LMEL				IAML		07 37 24.9	
	comp=N,650nm,0.1s						
MT13	San Alfonso	2.24	51	*e*P	Pn	07 36 53.1	+1.2
MT13				*e*S	Sb	07 37 23.3	0.0
MT13				IAML		07 37 26.0	
	comp=Z,320nm,0.2s						
MT13	San Alfonso	2.24	51	*i* P	Pn	07 36 53.2	+1.2
MT13				*e*S	Sn	07 37 21.1	+0.9
MT13				IAML		07 37 25.9	
	comp=E,427nm,0.2s						
VA01	Torpederas	2.24	16	*e*P	Pn	07 36 51.0	-0.8
VA01				*e*S	Sn	07 37 21.7	+1.7
MT05	Renca	2.25	37	*e*P	Pn	07 36 51.9	-0.1
MT05				*e*S	Sb	07 37 22.6	-0.6
MT05				IAML		07 37 26.9	
	comp=Z,223nm,0.5s						
MT05	Renca	2.25	37	*e*S	Sn	07 37 21.2	+1.0
MT05				IAML		07 37 27.8	
	comp=E,666nm,0.3s						
MT03	Universidad Ad	2.29	43	*e*P	Pn	07 36 52.9	+0.3
MT03				*e*S	Sb	07 37 23.2	-1.3
MT03				IAML		07 37 26.4	
	comp=Z,632nm,0.2s						
MT03	Universidad Ad	2.29	43	*e*S	Sn	07 37 22.2	+0.9
MT14	Cerro Cal¡n	2.35	41	*e*S	Sn	07 37 23.7	+1.1
MT14				IAML		07 37 30.4	
	comp=N,606nm,0.3s						
MT10	Hacienda Santa	2.44	39	*i* P	Pn	07 36 54.7	-0.1
MT10				*e*S	Sn	07 37 26.2	+1.1
MT10				IAML		07 37 33.5	
	comp=E,714nm,0.6s						
PEL	Peldehue	2.47	35	*e*P	Pn	07 36 56.3	+1.2
PEL				*e*S	Sn	07 37 27.0	+1.2
PEL				IAML		07 37 35.3	
	comp=N,269nm,0.4s						
ROCH	El Roble	2.48	27	*i* P	Pn	07 36 55.0	-0.4
ROCH				IAML		07 37 34.9	
	comp=N,431nm,0.5s						
MT04	Ro Olivares	2.56	47	*e*P	Pn	07 36 57.2	+0.6
MT04				*e*S	Sb	07 37 32.4	-0.2
MT04				IAML		07 37 38.5	
	comp=Z,129nm,0.2s						
MT04	Ro Olivares	2.56	47	*i* S	Sn	07 37 29.7	+1.4
MT04				IAML		07 37 34.7	
	comp=N,273nm,0.2s						
VA03	San Esteban	2.85	32	*e*P	Pn	07 37 00.1	-0.3
VA03				*e*S	Sn	07 37 32.7	-2.5
VA03				*e*S	Sb	07 37 40.5	-0.3
VA03				IAML		07 37 43.7	
	comp=Z,138nm,0.4s						
VA03	San Esteban	2.85	32	*i* P	Pn	07 36 59.9	-0.4
VA03				IAML		07 37 46.1	
	comp=E,357nm,0.4s						
RTLS	Leoncito	4.25	38	*e*P	Pn	07 37 21.1	+1.4
RTLS				*e*S	Sb	07 38 23.7	+2.6
GO06	Curarrehue	4.44	171	*e*P	Pn	07 37 23.4	+1.2
CFA	Coronel Fontan	4.97	45	*e*P	Pn	07 37 30.3	+0.8
CFA				*e*S	Sb	07 38 41.4	-0.3
RTLL	Cerro Villicun	5.04	41	*e*P	Pn	07 37 31.6	+1.1
RTLL				*e*S	Sb	07 38 43.9	0.0
GO04	Tololo Observa	5.18	15	*e*P	Pn	07 37 31.4	-1.0
GO04				*e*S	Sn	07 38 30.6	-2.1

IDC ***20*** *07:40:46.2±0.8, 2°.39N×95°.29W, h0^{km}, mb4.2/16, mbtmp4.1/17, ML2.6/2, MS3.7/15, Error ellipse: s-maj=29.1km s-min=13.8km az=61.0*
NEIC ***20*** *07:40:48.3±1.2, 2°.4N±0°.1×95°.1W±0°.1, h10^{km}±1^{km}, mb4.4/37, Error ellipse: s-maj=24.5km s-min=16.3km az=244.0*
ISC 20 07:40:48.0±0.6, **2°.47N**±0°.09×**95°.1W**±0°.1, **h10**^{km}, **n75**, σ**1^{s}19**/52, **mb4.3**/28, **MS3.8**/11, **Galapagos Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PAYG	Puerto Ayora	5.74	123	Pn	Pn	07 42 13.6	+0.3
JUD3	Juan Diaz 3	12.19	51	Pn	Pn	07 43 40.2	-1.8
JTS	Las Juntas de	12.73	52	LR	LR	07 47 23.7	
	comp=Z,474nm,19.8s,baz=221,slow=31						
MGAN	Managua	13.02	42	Pn	Pn	07 43 55.5	+2.4
MTO3	Montecristo	13.14	25	Pn	Pn	07 43 55.2	+0.2
APG	El Apazote	13.27	20	Pn	Pn	07 43 56.5	-0.3
	baz=208,slow=16,SNR=3.9						
APG				LR	LR	07 47 56.3	
	comp=Z,57nm,21.5s,baz=268,slow=32						
CMIG	Matias Romero	14.53	1	Pn	Pn	07 44 12.4	-1.5
	0.1nm,0.3s,baz=180,slow=11,SNR=1.1						
CMIG				LR	LR	07 48 30.5	
	comp=Z,476nm,20.9s,baz=159,slow=32						
	0.9nm,0.7s						
CMIG				AML	AML		
OTAV	Otavalo	16.79	97		Pn	07 44 44.7	+0.9
SLOR	San Lorenzo -	16.90	101	P	Pn	07 44 45.9	+0.7
TEIG	Tepich	18.87	20	P	P	07 45 09.2	+0.8
TEIG				IAmb	IAmb	07 45 42.1	
	comp=Z,35nm,1.3s						
ATAH	Atahualpa	19.21	120	LR	LR	07 51 06.0	
	comp=Z,253nm,21.7s,baz=295,slow=32						
ROSC	El Rosal	20.87	83	P	P	07 45 32.2	+1.4
	comp=Z,10nm,1.1s,baz=257,slow=19,SNR=7.4						
	comp=Z,10nm,1.1s						
ROSC	El Rosal	20.87	83		P	07 45 30.4	-0.5
ROSC				IAmb	IAmb	07 46 10.4	
	comp=Z,15nm,1.1s						
NNA	Nana	23.14	129	P	P	07 45 53.2	-1.6
NNA				IAmb	IAmb	07 46 01.2	
	comp=Z,31nm,1.4s						
CZSB	Cruzeiro do Su	24.53	115	P	P	07 46 07.6	-0.5
CZSB				IAmb	IAmb	07 46 13.9	
	comp=Z,13nm,0.8s						
SDV	Santo Domingo	25.15	74	LR	LR	07 54 49.6	
	comp=Z,111nm,21.1s,baz=252,slow=33						
LPIG	La Paz	26.05	327	LR	LR	07 53 30.5	
	comp=Z,75nm,18.1s,baz=198,slow=29						
TXAR	Lajitas Array	27.93	344	P	P	07 46 39.5	+0.8
	comp=Z,1.1nm,0.9s,baz=158,slow=8.4,SNR=7.0						
TXAR				LR	LR	07 56 38.3	
	comp=Z,213nm,21.6s,baz=156,slow=34						
	comp=Z,1.1nm,0.9s						
TXAR	Lajitas Array	27.93	344	P	P	07 46 38.9	+0.2
GDL2	Guadalupe Moun	30.83	345	P	P	07 47 04.9	+0.5
MSTX	Muleshoe	32.15	348	P	P	07 47 16.3	+0.3
MSTX				IAmb	IAmb	07 47 27.0	

	comp=Z,7.5nm,1.1s						
LPAZ	La Paz	32.52	126	P	P	07 47 21.6	+1.6
	comp=Z,1.4nm,0.8s,baz=292,slow=4.0,SNR=4.6						
LPAZ				PcP	PcP	07 50 06.2	-0.8
	comp=Z,1.2nm,0.8s,baz=308,slow=4.1,SNR=4.0						
LPAZ				LR	LR	08 00 08.0	
	comp=Z,33nm,21.3s,baz=310,slow=36						
	comp=Z,1.4nm,0.8s						
LPAZ	La Paz	32.52	126		P	07 47 20.0	0.0
LPAZ				IAmb	IAmb	07 47 31.6	
	comp=Z,6.1nm,1.4s						
PB16	IPOC Station P	32.59	130	P	P	07 47 19.7	-0.9
PB16				IAmb	IAmb	07 47 26.5	
	comp=Z,6.7nm,1.1s						
ANMO	Albuquerque	34.00	343	LR	LR	08 00 21.7	
	comp=Z,247nm,19.6s,baz=148,slow=35						
BOAV	Boa Vista	34.55	89		P	07 47 35.7	-1.3
TKL	Tuckaleechee C	34.66	16	LR	LR	08 00 53.7	
	comp=Z,293nm,21.8s,baz=180,slow=35						
WUAZ	Wupatki	36.19	337		P	07 47 50.7	-0.3
WUAZ				IAmb	IAmb	07 48 04.1	
	comp=Z,8.8nm,1.3s						
SIV	San Ignacio	38.31	120	P	P	07 48 10.5	+1.3
	comp=Z,2.3nm,1.0s,baz=296,slow=13,SNR=5.0						
	comp=Z,2.3nm,1.0s						
CCUT	Cedar City	38.74	337	P	P	07 48 15.1	+2.4
DUG	Dugway, Tooele	40.84	339		P	07 48 33.0	+2.8
DUG				IAmb	IAmb	07 48 43.3	
	comp=Z,6.5nm,1.2s						
NV11	Mina Array Sit	41.54	332	P	P	07 48 37.6	+1.7
BGU	Big Grassy Mou	41.57	339		P	07 48 38.0	+1.9
NVAR	Mina Array Bea	41.61	332	P	P	07 48 37.1	+0.5
	comp=Z,1.9nm,0.9s,baz=135,slow=5.9,SNR=11						
NVAR				PcP	PcP	07 50 32.8	-0.8
	comp=Z,0.9nm,1.0s,baz=126,slow=3.3,SNR=3.7						
	comp=Z,1.9nm,0.9s						
NVAR	Mina Array Bea	41.61	332	P	P	07 48 35.6	-1.0
BW06	Boulder Array	42.15	344	P	P	07 48 41.2	+0.3
PD31	Pinedale Array	42.15	344		P	07 48 40.8	-0.2
PD31				IAmb	IAmb	07 48 52.5	
	comp=Z,8.3nm,1.4s						
PDAR	Pinedale Array	42.15	344	P	P	07 48 40.9	-0.2
	comp=Z,2.2nm,0.9s,baz=155,slow=5.3,SNR=16						
PDAR				LR	LR	08 05 42.8	
	comp=Z,234nm,19.1s,baz=112,slow=36						
	comp=Z,2.2nm,0.9s						
PDAR	Pinedale Array	42.15	344	P	P	07 48 40.8	-0.2
ELK	Elko	42.23	337		P	07 48 41.3	-0.3
HVU	Hansel Valley	42.24	340	P	P	07 48 40.9	-0.7
HVU				IAmb	IAmb	07 48 54.2	
	comp=Z,10nm,1.2s						
SNOW	Snow King Moun	43.13	343	IAmb	IAmb	07 48 51.1	
	comp=Z,4.5nm,1.0s						
SADO	Sadowa	44.42	16	LR	LR	08 07 06.5	
	comp=Z,90nm,18.8s,baz=217,slow=36						
YHL	Hebgen Lake	44.53	344	IAmb	IAmb	07 49 13.5	
	comp=Z,14nm,1.4s						
BCYI	Bear Canyon	44.71	341	IAmb	IAmb	07 49 13.9	
	comp=Z,6.0nm,1.3s						
MFID	Camas Ranch	44.75	339	IAmb	IAmb	07 49 06.6	
	comp=Z,3.8nm,1.1s						
PLID	Pearl Lake	46.26	340	IAmb	IAmb	07 49 15.2	
	comp=Z,2.4nm,1.0s						
CPUP	Villa Florida	46.38	131	P	P	07 49 14.5	-0.3
	comp=Z,4.5nm,1.3s,baz=310,slow=17,SNR=2.9						
	comp=Z,4.5nm,1.3s						
PINE	Pine Mountain	47.10	334	IAmb	IAmb	07 49 23.1	
	comp=Z,3.5nm,1.0s						
ULM	Lac du Bonnet	47.61	359	P	P	07 49 23.3	-0.7
	comp=Z,4.7nm,0.9s,baz=176,slow=7.3,SNR=4.3						
	comp=Z,4.7nm,0.9s						
PLCA	Paso Flores	48.49	155	LR	LR	08 05 54.1	
	comp=Z,97nm,18.6s,baz=322,slow=31						
NEW	Newport	49.41	341	LR	LR	08 10 53.5	
	comp=Z,180nm,18.3s,baz=77,slow=37						
BDFB	Brasilia	49.91	113	P	P	07 49 43.1	+0.7
	comp=Z,4.5nm,1.0s,baz=242,slow=15,SNR=3.7						
	comp=Z,4.5nm,1.0s						
CLRS	Cowichan Lake	52.45	336	IAmb	IAmb	07 50 02.1	
	comp=Z,7.3nm,1.1s						
YKA	Yellowknife Ar	61.63	350	P	P	07 51 05.0	-0.6
	comp=Z,1.8nm,0.9s,baz=158,slow=5.4,SNR=5.6						
	comp=Z,1.8nm,0.9s						
DLBC	Dease Lake	62.15	340	LR	LR	08 15 52.0	
	comp=Z,70nm,19.7s,baz=88,slow=34						
KLU	Klutina	70.10	337	P	P	07 52 04.0	+3.6
ILAR	Eielson Array	72.33	339	P	P	07 52 12.1	-1.6
	comp=Z,1.2nm,1.0s,baz=125,slow=6.0,SNR=9.1						
	comp=Z,1.2nm,1.0s						
EKA	Eskdalemuir Ar	89.10	35	P	P	07 53 44.0	+0.5
	comp=Z,1.6nm,0.9s,baz=304,slow=7.6,SNR=2.7						
	comp=Z,1.6nm,0.9s						
ESDC	Sonseca Array	89.32	51	P	P	07 53 44.0	-1.0
	comp=Z,0.3nm,0.7s,baz=274,slow=5.4,SNR=2.7						
	comp=Z,0.3nm,0.7s						
QSPA	South Pole Qui	92.49	180	P	P	07 53 59.7	+0.5
	comp=Z,3.2nm,1.1s,baz=129,slow=2.8,SNR=5.9						
	comp=Z,3.2nm,1.1s						
QSPA	South Pole Qui	92.49	180	P	P	07 53 59.3	+0.2
SNAA	Sanae	93.04	162	P	P	07 54 02.7	+1.1
	comp=Z,0.9nm,0.5s,baz=270,slow=10,SNR=3.1						
	comp=Z,0.9nm,0.5s						
SNAA	Sanae	93.04	162	P	P	07 54 01.9	+0.4
H11N3	WAKE ISLAND Hy	96.69	290	T	T	09 41 41.9	
	baz=86						
H11N2	WAKE ISLAND Hy	96.70	290	T	T	09 41 42.6	
	baz=86						
H11N1	WAKE ISLAND Hy	96.71	290	T	T	09 41 43.8	
	baz=86						
H11S2	WAKE ISLAND Hy	96.99	289	T	T	09 41 57.6	
	baz=86,slow=75,SNR=34						
H11S1	WAKE ISLAND Hy	96.99	289	T	T	09 41 57.7	
	baz=86,slow=75,SNR=20						
H11S3	WAKE ISLAND Hy	97.00	289	T	T	09 41 58.8	
	baz=86,slow=75,SNR=15						
ARCES	ARCESS Array B	97.98	18	P	Pdif	07 54 25.6	+1.5
	comp=Z,2.7nm,1.0s,baz=353,slow=3.8,SNR=1.5						
	comp=Z,2.7nm,1.0s						
ARCES	ARCESS Array B	97.98	18	P	Pdif	07 54 24.4	+0.2
SONM	Songino Array	126.49	342	PKP	PKiKP	07 59 51.9	-0.3
	comp=Z,0.4nm,0.5s,baz=0.0,slow=1.7,SNR=1.9						
SONM	Songino Array	126.49	342		PKPdf	07 59 50.9	-0.9
KURBB	Kurchatov Arra	126.83	5	PKP	PKPdf	07 59 51.8	-0.3
	comp=Z,0.8nm,0.9s,baz=358,slow=3.0,SNR=7.4						

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*CNRM **20** 07:46:04.1, 35°.95N×8°.71W, h84^{km}*
*MDD **20** 07:46:08.8±1.4, 36°.24N×8°.47W, h12^{km}±8^{km}, mb_Lg2.0/4, Error ellipse: s-maj=14.2km s-min=6.7km az=47.0*
*SFS **20** 07:46:08.2, 36°.14N×8°.58W, h24^{km}, ML2.9/9, ML2.8/9, MLv2.8/9*
*IGIL **20** 07:46:08.6, 36°.23N×8°.58W, h6^{km}, ML1.1*
*INMG **20** 07:46:08.9±1.3, 36°.10N×8°.63W, h37^{km}, ML1.4, Error ellipse: s-maj=6.3km s-min=3.7km az=85.0, #DIST_RANGE: REGIONAL #IPMA_REGION: SE Cabo S.Vicente*
ISC 20 07:46:06.8±6.3**, 36°.03N**±0°.05×**8°.60W**±0°.06**, h37**^{km}±7^{km}**, n39, σ1^{s}70**/69**, West of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PFVI	Vila Bisbo	1.11	351	P	Pn	07 46 25.5	-0.3
PFVI				S	Sn	07 46 38.0	-1.9
PFVI	Vila Bisbo	1.11	351	*e*P	Pn	07 46 25.6	-0.2
PFVI				*e*S	Sn	07 46 38.5	-1.4
PFVI				*i* IAML		07 46 38.8	
PFVI				*i* IAML		07 46 39.7	
PFVI				*i* IAML		07 46 40.0	
PFVI	Vila Bisbo	1.11	351	P	Pn	07 46 25.7	-0.2
PFVI				S	Sn	07 46 42.3	+2.4
MORF	Marmelete	1.27	358	*e*P	Pn	07 46 27.7	-0.3
MORF				*e*S	Sn	07 46 41.7	-2.2
MORF				IAML		07 46 42.9	
	comp=E,4.7nm,0.1s						
MORF	Marmelete	1.27	358	*e*P	Pn	07 46 27.9	-0.2
MORF				*e*S	Sn	07 46 42.5	-1.3
MORF				*i* IAML		07 46 44.0	
MORF				*i* IAML		07 46 46.0	
MORF				*i* IAML		07 46 46.7	
PBDV	Barranco-do-Ve	1.32	24	*e*S	Sn	07 46 43.9	-1.3
PVAQ	Vaqueiros	1.54	27	*e*P	Pn	07 46 32.0	+0.2
PVAQ				*e*S	Sn	07 46 49.4	-1.1
PVAQ				*i* IAML		07 46 52.9	
PVAQ				*i* IAML		07 46 54.5	
PVAQ				*i* IAML		07 46 57.0	
PVAQ	Vaqueiros	1.54	27	P	Pn	07 46 31.4	-0.3
PVAQ				S	Sn	07 46 53.1	+2.6
PCVE	Castro Verde	1.66	16	P	Pn	07 46 33.5	+0.1
PCVE				S	Sn	07 46 51.9	-1.5
PCVE	Castro Verde	1.66	16	*e*P	Pn	07 46 33.8	+0.5
PCVE				*e*S	Sn	07 46 52.5	-0.9
PCVE				*i* IAML		07 46 52.8	
PCVE				*i* IAML		07 46 52.9	
PCVE				*i* IAML		07 46 53.0	
EGRO	El Granado	1.75	31	P	Pn	07 46 34.7	+0.2
EGRO				S	Sn	07 46 53.9	-1.6
EGRO	El Granado	1.75	31	P	Pn	07 46 35.1	+0.6
EGRO				S	Sn	07 46 54.0	-1.6
EGRO				IVmb_Lg		07 46 55.3	
MESJ	Messejana	1.83	9	*e*P	Pn	07 46 35.8	+0.1
MESJ				*e*S	Sn	07 46 55.9	-1.7
MESJ				IAML		07 46 57.0	
	comp=N,1.1nm,0.0s						
MESJ	Messejana	1.83	9	*e*P	Pn	07 46 36.0	+0.3
MESJ				*e*S	Sn	07 46 56.3	-1.3
MESJ				*i* IAML		07 46 57.5	
MESJ				*i* IAML		07 46 57.9	
MESJ				*i* IAML		07 46 58.5	
PLOUS	Minas do Lousa	2.00	4	*e*P	Pn	07 46 38.7	+0.7
PLOUS				*e*S	Sn	07 46 59.9	-1.9
PLOUS				*i* IAML		07 47 02.0	
PLOUS				*i* IAML		07 47 02.4	
EMIN	Mina Concepcio	2.32	41	P	Pn	07 46 43.3	+0.8
EMIN	Mina Concepcio	2.32	41	S	Sn	07 47 08.3	-1.4
EMIN				IVmb_Lg		07 47 17.3	
ESPR	Espera	2.37	68	S	Sn	07 47 10.4	-0.4
PBAR	Barrancos	2.48	30	P	Pn	07 46 44.8	+0.2
PBAR				S	Sn	07 47 13.1	-0.5
PBAR	Barrancos	2.48	30	*e*P	Pn	07 46 45.1	+0.6
PBAR				*e*S	Sn	07 47 11.5	-2.0
PBAR				*i* IAML		07 47 16.3	
PBAR				*i* IAML		07 47 16.8	
PBAR				*i* IAML		07 47 16.9	
RTC	Rabat Centre	2.49	144	P	Pn	07 46 47.1	+2.4
MOE	Montemor	2.50	4	*e*P	Pn	07 46 45.1	+0.3
MOE				*e*S	Sn	07 47 12.2	-1.8
MOE				*i* IAML		07 47 13.2	
MOE				*i* IAML		07 47 13.2	
MOE				*i* IAML		07 47 13.3	
EVO	Evora	2.54	10	P	Pn	07 46 44.2	-1.2
EVO				S	Sn	07 47 13.1	-2.0
EVO	Evora	2.54	10	*e*S	Sn	07 47 12.7	-2.5
EVO				*i* IAML		07 47 14.8	
EVO				*i* IAML		07 47 14.8	
EVO				*i* IAML		07 47 14.9	
PARRA	Arraiolos	2.81	9	*e*P	Pn	07 46 49.0	-0.2
PARRA				*e*S	Sn	07 47 19.6	-2.3
PARRA				*i* IAML		07 47 20.8	
PARRA				*i* IAML		07 47 21.1	
PARRA				*i* IAML		07 47 21.2	
PESTR	Estremoz	2.94	16	S	Sn	07 47 22.1	-2.9
PMAFR	Mafra	2.97	350	P	Pn	07 46 51.5	+0.1
PMAFR				S	Sn	07 47 24.6	-1.1
EBAD	Badajoz	3.00	24	P	Pn	07 46 50.8	-1.0
EBAD				S	Sn	07 47 23.9	-2.6
EBAD	Badajoz	3.00	24	P	Pn	07 46 50.3	-1.4
EBAD				S	Sn	07 47 24.4	-2.0
EBAD				IVmb_Lg		07 47 25.6	
PMTG	Montargil	3.05	5	*e*P	Pn	07 46 52.5	+0.1
PMTG				*e*S	Sn	07 47 24.3	-3.3
PMTG				*i* IAML		07 47 25.8	
PMTG				*i* IAML		07 47 26.7	
PMTG				*i* IAML		07 47 27.0	
ECAB	El Cabril	3.26	50	P	Pn	07 46 56.6	+1.2
ECAB				S	Sn	07 47 30.1	-2.9
ECAB	El Cabril	3.26	50	P	Pn	07 46 56.3	+0.9
ECAB				S	Sn	07 47 29.0	-3.9
EMAL	Malaga-Limoner	3.44	77	P	Pn	07 46 59.2	+1.3
PMRV	Marv??o	3.52	15	*e*P	Pn	07 46 58.9	-0.1
PMRV				*e*S	Sn	07 47 37.2	-2.2
PSARD	Sardoal	3.58	5	*e*P	Pn	07 47 00.1	+0.3
PSARD				*e*S	Sn	07 47 37.5	-3.2
PSARD				*i* IAML		07 47 39.9	
PSARD				*i* IAML		07 47 40.5	
PSARD				*i* IAML		07 47 40.6	
EADA	Adamuz	3.86	55	S	Sn	07 47 45.0	-2.7
EADA	Adamuz	3.86	55	P	Pn	07 47 04.3	+0.7
EADA				S	Sn	07 47 44.9	-2.8
EADA				IVmb_Lg		07 47 48.4	
MD31	MD31	4.47	134	P	Pn	07 47 09.7	-2.4
MD31				S	Sn	07 48 01.3	-1.7
MDT	Midelt	4.60	133	P	Pn	07 47 11.8	-2.1
MDT				S	Sn	07 48 04.5	-1.7

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*SNET **20** 07:48:13.8±1.3, 13°.74N×89°.28W, h3^{km}, ML2.8, Presumed earthquake*
*GCG **20** 07:48:14.4±1.2, 13°.74N×89°.28W, h5^{km}±9^{km}, MD4.0, Presumed earthquake*
*CATAC **20** 07:48:14.4±0.3, 14°N±2°×8°9W±°, h4^{km}±2^{km}, M2.7/18, MLv2.7/18, Error ellipse: s-maj=5.0km s-min=2.9km az=23.5, confirmed*
ISC 20 07:48:14.4±0.9**, 13°.74N**±0°.02×**89°.26W**±0°.02**, h10**^{km}**, n42, σ0^{s}77**/58**, 1C, El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PIC2	El Picacho	0.01	46	*i* P	Pg	07 48 14.8	-1.7
BOQS	Boqueron	0.02	256	⇑*i*P	Pg	07 48 14.8	-1.7
UEES	Universidad Ev	0.03	136	*e*P	Pg	07 48 15.1	-1.3
UEES				*e*S	Sg	07 48 16.1	-1.6
UEES	Universidad Ev	0.03	136	P	Pg	07 48 15.1	-1.3
UEES				S	Sg	07 48 16.2	-1.6
SEMO	Seminario San	0.05	134	P	Pg	07 48 15.7	-0.8
PMON	Piamonte	0.06	242	P	Pg	07 48 15.7	-0.9
UTEC	Universidad Te	0.07	123	*e*P	Pg	07 48 16.3	-0.4
UTEC	Universidad Te	0.07	123	P	Pg	07 48 16.3	-0.4
IGN	Direccin Gen	0.09	106	*e*P	Pg	07 48 17.4	+0.4
IGN	Direccin Gen	0.09	106	P	Pg	07 48 17.4	+0.4
QUEZ	Alcaldia de Qu	0.10	354	*e*P	Pg	07 48 17.0	-0.1
LOMA	Loma Larga	0.13	137	*e*P	Pg	07 48 17.5	-0.1
LOMA	Loma Larga	0.13	137	P	Pg	07 48 17.5	-0.1
CEDA	San Andres	0.14	296	*e*P	Pg	07 48 17.7	-0.1
CEDA	San Andres	0.14	296	P	Pg	07 48 17.6	-0.1
CEDA				S	Sg	07 48 20.6	+0.6
PANCS	Alcalda de	0.15	148	P	Pg	07 48 17.7	-0.2
PANCS				S	Sg	07 48 20.3	+0.1
JAYA	Jayaque - finc	0.20	245	*i* P	Pg	07 48 18.7	0.0
JAYA				*i* S	Sg	07 48 22.1	+0.4
JAYA	Jayaque - finc	0.20	245	*e*P	Pg	07 48 18.8	0.0
JAYA	Jayaque - finc	0.20	245	P	Pg	07 48 18.7	0.0
JAYA				S	Sg	07 48 22.1	+0.4
LALI	Alcalda de L	0.26	193	*i* P	Pg	07 48 20.2	+0.5
LALI				*i* S	Sg	07 48 24.0	+0.8
LALI	Alcalda de L	0.26	193	P	Pg	07 48 20.2	+0.5
LALI				S	Sb	07 48 24.6	-1.0
PAVA	Las Pavas	0.32	95	*e*P	Pg	07 48 21.5	+0.6
PAVA	Las Pavas	0.32	95	P	Pg	07 48 21.4	+0.6
PAVA				S	Sb	07 48 26.7	-0.8
SNJE	San Jose	0.36	291	*e*P	Pg	07 48 21.8	+0.2
CEVE	Cerro Verde	0.36	284	P	Pb	07 48 22.7	-0.4
SBLS	San Blas	0.36	286	*e*P	Pb	07 48 22.6	-0.6
UNIC	Universidad Ca	0.37	311	P	Pg	07 48 21.8	0.0
UNIC				S	Sg	07 48 27.4	+0.7
COEG	Centro de Oper	0.39	108	P	Pg	07 48 22.7	+0.5
TECO	Alcaldia de Te	0.51	113	P	Pg	07 48 24.6	+0.3
TECO				S	Sb	07 48 32.4	-0.5
NUBE	Las Nubes	0.53	288	*i* P	Pg	07 48 25.2	+0.4
NUBE	Las Nubes	0.53	288	P	Pg	07 48 25.1	+0.3
NUBE				S	Sb	07 48 33.3	-0.3
SLOZ	Alcaldia de Sa	0.58	299	P	Pg	07 48 25.8	0.0
MTO3	Montecristo	0.66	352	*i* P	Pg	07 48 27.1	-0.2
MTO3	Montecristo	0.66	352	*e*P	Pg	07 48 27.0	-0.3
MTO3	Montecristo	0.66	352	P	Pg	07 48 27.1	-0.2
MTO3				S	Sb	07 48 36.8	-0.9
FAME	Alcaldia de Sa	0.74	278	P	Pg	07 48 28.8	+0.1
FAME				S	Sb	07 48 39.1	-0.5
ESQI	Esquipulas	0.82	355	P	Pg	07 48 30.1	-0.2
ESQI				S	Sb	07 48 42.0	0.0
ZAFR2	Estanzuela, Za	0.84	354	*i* P	Pn	07 48 37.9	+5.5
ZAFR2				*i* S	Sn	07 48 55.2	+10
PACA	Pacayal	0.95	106	P	Pb	07 48 33.3	+0.2
SARH	Santa Rosa de	1.14	25	*i* P	Pb	07 48 36.0	-0.3
SARH				*i* S	Sn	07 48 52.4	+0.1
SARH	Santa Rosa de	1.14	25	P	Pb	07 48 36.0	-0.3
SARH				S	Sn	07 48 55.0	+2.8
APG	El Apazote	1.71	317	*i* P	Pb	07 48 46.0	-0.2

IDC 20 07:56:21.0±2.6**, 2°.69N**×**94°.24W, h0**^{km}**, mb3.7**/5**, mbtmp3.7**/5**, MS3.1**/2**, Error ellipse: s-maj=265.9km s-min=35.8km az=77.0, Galapagos Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JTS	Las Juntas de	11.92	50	LR	LR	08 02 50.0	
	comp=Z,152nm,21.0s,baz=255,slow=33						
CMIG	Matias Romero	14.33	358	LR	LR	08 02 57.9	
	comp=Z,41nm,21.4s,baz=191,slow=28						
TXAR	Lajitas Array	27.97	342	P	P	08 02 14.3	+0.7
	0.7nm,1.1s,baz=167,slow=5.9,SNR=3.8						
	0.7nm,1.1s						
NVAR	Mina Array Bea	41.82	331	P	P	08 04 12.7	-0.2
	0.9nm,0.9s,baz=152,slow=4.5,SNR=5.9						
	0.9nm,0.9s						
PDAR	Pinedale Array	42.19	343	P	P	08 04 15.6	-0.3
	0.9nm,0.9s,baz=155,slow=3.0,SNR=5.4						
	0.9nm,0.9s						
ILAR	Eielson Array	72.43	339	P	P	08 07 48.6	-0.3
	0.9nm,1.1s,baz=122,slow=5.7,SNR=5.0						
	0.9nm,1.1s						
QSPA	South Pole Qui	92.71	180	P	P	08 09 35.0	+0.1
	1.0nm,0.9s,baz=117,slow=4.5,SNR=3.5						
	1.0nm,0.9s						
H11N3	WAKE ISLAND Hy	97.42	290	T	T	09 57 19.3	
	baz=86						
H11N2	WAKE ISLAND Hy	97.43	290	T	T	09 57 29.6	
	baz=86						
H11N1	WAKE ISLAND Hy	97.44	290	T	T	09 57 29.3	
	baz=86						
H11S2	WAKE ISLAND Hy	97.73	289	T	T	09 57 34.3	
	baz=86,slow=75,SNR=8.4						
H11S1	WAKE ISLAND Hy	97.73	289	T	T	09 57 32.9	
	baz=86,slow=75,SNR=6.3						
H11S3	WAKE ISLAND Hy	97.75	289	T	T	09 57 31.4	
	baz=86,slow=75,SNR=6.4						

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*KRNET **20** 07:59:19.4±0.1, 41°.68N×79°.33E, h18^{km}, mb3.2*
*SOME **20** 07:59:19.7, 41°.73N×79°.27E, h15^{km}*
*NNC **20** 07:59:20.5±0.9, 41°.80N×79°.22E, h0^{km}, mb3.5, mpv3.3, Error ellipse: s-maj=6.0km s-min=3.5km az=156.0*
ISC 20 07:59:18.8±1.9**, 41°.67N**±0°.06×**79°.28E**±0°.04**, h10**^{km}±11^{km}**, n39, σ1^{s}02**/66**, 10C-13D, Kyrgyzstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PRZ	Przheval'sk	1.05	321	⇑*e*P	Pn	07 59 39.3	-0.5
PRZ				⇑*e*S	Sn	07 59 53.8	-0.8
TARG	Taragay, Kyrgy	1.11	274	⇑*e*P	Pb	07 59 40.6	+0.3
TARG				⇑*e*S	Sn	07 59 56.1	-0.3
SHLS	Shalkode	1.50	5	P	Pg	07 59 47.6	+0.2
	89nm,0.3s						
SHLS				S	Sg	08 00 07.7	+0.8
	187nm,0.6s						
SHLS	Shalkode	1.50	5	*e*P	Pg	07 59 47.6	+0.2
	89nm,0.3s						
SHLS				*e*S	Sg	08 00 07.7	+0.8
	187nm,0.6s						
SATY	Saty	1.54	335	P	Pb	07 59 47.4	0.0
	19nm,0.2s						
SATY				S	Sg	08 00 07.3	-0.9
	60nm,0.2s						
SATY	Saty	1.54	335	*e*P	Pb	07 59 47.4	0.0
	19nm,0.2s						
SATY				*e*S	Sg	08 00 07.3	-0.9
	60nm,0.2s						
KDJ	Kajisay	1.64	287	⇓*e*P	Pb	07 59 49.6	+0.4
KDJ				⇓*e*S	Sg	08 00 11.6	+0.2
ANVS	Anan'yevo	1.64	313	⇑*e*P	Pg	07 59 49.7	-0.5
ANVS				⇑*e*S	Sg	08 00 11.8	+0.3
PDGK	Podgornoye	1.67	5	⇑P	Pb	07 59 48.9	-0.8
	28nm,0.5s						
PDGK				⇓S	Sb	08 00 09.7	-1.2
	55nm,0.6s						
KPKS	Kokpek	1.85	346	P	Pb	07 59 52.1	-0.7
	0.4nm,0.2s						
KPKS				S	Sb	08 00 15.0	-1.1
	149nm,0.6s						
KPKS	Kokpek	1.85	346	*e*P	Pb	07 59 52.1	-0.7
	0.4nm,0.2s						
KPKS				*e*S	Sb	08 00 15.0	-1.1
	149nm,0.6s						
KTMS	Ketmen	1.95	24	P	Pb	07 59 54.4	0.0
	3.0nm,0.2s						
KTMS				S	Sb	08 00 19.0	+0.1
	13nm,0.3s						
KTMS	Ketmen	1.95	24	*e*P	Pb	07 59 54.4	0.0
	3.0nm,0.2s						
KTMS				*e*S	Sb	08 00 18.9	+0.1
	13nm,0.3s						
KURS	Kuram	2.00	336	Pg	Pb	07 59 54.8	-0.4
	10nm,0.3s						
KURS				Lg	Lg	08 00 20.0	
	37nm,0.6s						
KURS	Kuram	2.00	336	*e*P	Pb	07 59 54.8	-0.4
	10nm,0.3s						
KURS				*e*S	Sb	08 00 20.0	-0.2
	37nm,0.6s						
MDOK	Medeo	2.23	313	Pg	Pb	07 59 59.3	0.0
	12nm,0.4s						
MDOK				Lg	Lg	08 00 27.7	
	131nm,0.6s						
MDOK	Medeo	2.23	313	*e*P	Pb	07 59 59.3	0.0
	12nm,0.4s						
MDOK				*e*S	Sb	08 00 27.7	+0.7
	131nm,0.6s						
KOTS	Kotyrbulak	2.24	315	Pg	Pb	07 59 59.2	-0.3
	14nm,0.4s						
KOTS				Lg	Lg	08 00 27.5	
	94nm,0.6s						
KOTS	Kotyrbulak	2.24	315	*e*P	Pb	07 59 59.2	-0.3
	14nm,0.4s						
KOTS				*e*S	Sb	08 00 27.5	+0.1
	94nm,0.6s						
ULHL	Ulahol	2.34	285	⇓*e*P	Pb	07 59 59.9	-1.3
ULHL				⇓*e*S	Sb	08 00 29.4	-0.9
IZV	Izvestkoviy	2.41	306	Pg	Pb	08 00 02.1	-0.2
	22nm,0.1s						
IZV				Lg	Lg	08 00 32.7	
	73nm,0.6s						
IZV	Izvestkoviy	2.41	306	*e*P	Pb	08 00 02.1	-0.2
	22nm,0.1s						
IZV				*e*S	Sb	08 00 32.7	+0.6
	73nm,0.6s						
NRN	Naryn	2.48	266	⇓*e*P	Pb	08 00 02.5	-1.0
NRN				⇓*e*S	Sb	08 00 33.5	-0.7
BLB	Baldybastay	2.50	347	Pg	Pb	08 00 03.0	-0.9
	32nm,0.6s						
BLB				Lg	Lg	08 00 33.9	
	34nm,0.5s						
BOOM	Boomskoye usch	2.62	289	⇓*e*P	Pb	08 00 03.8	-2.1
BOOM				⇓*e*S	Sb	08 00 36.1	-2.2
DJR	Jarkent	2.69	8	Pg	Pb	08 00 06.7	-0.4
	5.2nm,0.2s						
DJR				Lg	Lg	08 00 40.5	
	18nm,0.5s						
DJR	Jarkent	2.69	8	*e*P	Pb	08 00 06.7	-0.4
	5.2nm,0.2s						
DJR				*e*S	Sb	08 00 40.5	+0.3
	18nm,0.5s						
KNOS	Konyrlen	2.69	358	Pg	Pb	08 00 06.8	-0.4
	4.7nm,0.2s						
KNOS				Lg	Lg	08 00 40.5	
	11nm,0.3s						
ARXS	Arharly	2.76	338	Pg	Pb	08 00 08.2	-0.1
	5.0nm,0.5s						
ARXS				Lg	Lg	08 00 43.2	
	25nm,0.5s						
ARXS	Arharly	2.76	338	*e*P	Pb	08 00 08.2	-0.1
	5.0nm,0.5s						
ARXS				*e*S	Sb	08 00 43.2	+0.9
	25nm,0.5s						
KTBS	Karatobe	2.80	318	Pg	Pb	08 00 09.0	+0.1
	1.8nm,0.1s						
KTBS				Lg	Lg	08 00 44.6	
	26nm,0.5s						
KTBS	Karatobe	2.80	318	*e*P	Pb	08 00 09.0	+0.1
	1.8nm,0.1s						
KTBS				*e*S	Sb	08 00 44.6	+1.2

	26nm,0.5s						
KST	**Kastek**	**2.82**	**300**	Pg	**Pb**	**08 00 09.2**	**-0.1**
	1.7nm,0.4s						
KST				Lg	Lg	08 00 44.8	
	44nm,0.5s						
KST	**Kastek**	**2.82**	**300**	*e*P	**Pb**	**08 00 09.2**	**-0.1**
	1.7nm,0.4s						
KST				*e*S	**Sb**	**08 00 44.8**	**+0.8**
	44nm,0.5s						
TKM2	**Tokmak 2**	**3.01**	**296**	⇑*e*P	**Pn**	**08 00 09.2**	**+2.5**
TKM2				⇑*e*S	**Sb**	**08 00 45.4**	**-4.1**
KRBS	**Karabastau**	**3.34**	**309**	Pg	**Pb**	**08 00 18.7**	**+0.5**
	1.6nm,0.2s						
KRBS				Lg	Lg	08 01 01.2	
	3.9nm,0.5s						
KRBS	**Karabastau**	**3.34**	**309**	*e*P	**Pb**	**08 00 18.7**	**+0.5**
	1.6nm,0.2s						
KRBS				*e*S	**Sb**	**08 01 01.2**	**+2.2**
	3.9nm,0.5s						
AAK	**Ala-Archa**	**3.69**	**287**	⇑Pg	**Pb**	**08 00 26.8**	**+2.7**
	1.1nm,0.6s						
AAK				⇓Lg	Lg	08 01 14.4	
	0.8nm,0.4s						
MK31	**Makanchi Array**	**5.56**	**22**	⇓Pn	**Pn**	**08 00 41.5**	**-0.1**
	0.4nm,0.6s,baz=199,slow=13,SNR=7.3						
MK31				⇓Sn	**Sn**	**08 01 46.0**	**+0.3**
	0.6nm,0.6s,baz=200,slow=21,SNR=4.7						
MK31				⇓Lg	Lg	08 02 12.3	
	0.4nm,0.5s						

IDC 20 08:05:15.0±2.5**, 5°.17S×134°.55E, h0^{km}, mb3.5**/1**, mbtmp3.6**/4**, ML3.5**/3**, Error ellipse: s-maj=72.9km s-min=23.8km az=84.0, Aru Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**14.69**	**181**	Pn	Pn	08 08 41.2	-3.0
	0.1nm,0.3s,baz=0.9,slow=13,SNR=6.4						
WRA				Sn	Sn	08 11 12.6	-15
	0.1nm,0.3s,baz=1.5,slow=23,SNR=2.1						
	0.2nm,0.4s						
WRA				AML	AML		
FITZ	**Fitzroy Crossi**	**15.53**	**213**	Pn	Pn	08 08 49.8	-5.6
	0.3nm,0.3s,baz=40,slow=15,SNR=7.1						
FITZ				Sn	Sn	08 11 25.9	-22
	0.3nm,0.3s,baz=102,slow=8.8,SNR=5.9						
	1.1nm,0.4s						
FITZ				AML	AML		
ASAR	**Alice Springs**	**18.41**	**182**	P	P	08 09 32.2	+0.3
	0.2nm,0.3s,baz=8.2,slow=10,SNR=16						
	1.4nm,0.7s						
ASAR				AML	AML		
MKAR	**Makanchi Array**	**69.28**	**324**	P	P	08 16 23.9	-0.2
	0.2nm,0.5s,baz=137,slow=6.6,SNR=2.2						
	0.2nm,0.5s						

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*IDC **20** 08:05:54.0±1.4, 2°.49N×95°.54W, h0^{km}, mb4.0/7, mbtmp4.0/8, ML3.2/1, MS3.8/43, Error ellipse: s-maj=42.3km s-min=26.4km az=63.0*

*NEIC **20** 08:05:56.6±1.8, 2°.4N±0°.1×95°.5W±0°.1, h10^{km}±2^{km}, mb4.4/41, Error ellipse: s-maj=23.9km s-min=15.2km az=236.0*

*GCMT **20** 08:05:58.6±0.5, 2°.61N±0°.03×95°.08W±0°.05, h22^{km}±1^{km}, MW4.8/82, Moment Tensor Solution. s11,c13; s82,c107; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-2.24±.17; $M_{\theta\theta}$1.86±.11; $M_{\phi\phi}$0.38±.10; $M_{r\theta}$-0.49±.16; $M_{\theta\phi}$0.02±.06; $M_{\phi r}$-0.38±.24; Best double couple: $M_0$2.13500×10^{16} NP1:ϕ_s276.00000°, δ39.00000°, λ-78.00000°. NP2: ϕ_s81.00000°, δ52.00000°, λ-99.00000°. Principal axes: T 1.9210, Plg7.0000°, Azm178.0000°; N 0.4280, Plg7.0000°, Azm87.0000°; P -2.3490, Plg80.0000°, Azm311.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 20 08:05:55.6±0.8**, 2°.39N**±0°.09×**95°.5W**±0°.1**, h10^{km}, n92, σ0^{s}.80**/48**, mb4.3**/23**, MS3.9**/39**, Galapagos Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PAYG	**Puerto Ayora**	**6.05**	**120**	Pn	**Pn**	**08 07 24.4**	**-0.8**
JTS	**Las Juntas de**	**13.10**	**53**	LR	LR	08 12 32.4	
	comp=Z,532nm,20.5s,baz=229,slow=30						
MTO3	**Montecristo**	**13.39**	**27**	Pn	**Pn**	**08 09 04.3**	**-1.8**
APG	**El Apazote**	**13.49**	**21**	LR	LR	08 13 03.1	
	comp=Z,65nm,20.6s,baz=266,slow=32						
ESQI	**Esquipulas**	**13.54**	**26**	Pn	**Pn**	**08 09 08.3**	**+0.3**
RAFA	**San Farael, Vo**	**13.85**	**57**	Pn	**Pn**	**08 09 11.3**	**-1.1**
BOAB	**BOACO BROADBAN**	**13.97**	**44**	Pn	**Pn**	**08 09 14.2**	**+0.5**
BRU2	**Volcan**	**14.26**	**63**	Pn	**Pn**	**08 09 17.6**	**-0.3**
CMIG	**Matias Romero**	**14.62**	**2**	Pn	Pn	08 09 18.6	-4.1
	0.1nm,0.3s,baz=21,slow=20,SNR=1.2						
CMIG				LR	LR	08 13 37.9	
	comp=Z,674nm,21.4s,baz=160,slow=32						
	0.9nm,0.5s						
CMIG				AML	AML		
TLIG	**Tlapa**	**15.37**	**349**	Pn	**Pn**	**08 09 33.9**	**+1.0**
TLIG				IAmb	IAmb	08 09 49.5	
	comp=Z,17nm,1.4s						
OTAV	**Otavalo**	**17.19**	**97**	P	**Pn**	**08 09 56.8**	**+0.2**
UNM	**Universidad Na**	**17.21**	**348**	P	**Pn**	**08 09 57.8**	**+1.2**
SLOR	**San Lorenzo -**	**17.30**	**100**	P	**Pn**	**08 09 58.4**	**+0.5**
MOIG	**Morelia**	**18.05**	**343**	P	**Pn**	**08 10 07.1**	**+0.2**
ATAH	**Atahualpa**	**19.53**	**119**	LR	LR	08 16 14.5	
	comp=Z,412nm,21.1s,baz=294,slow=32						
ROSC	**El Rosal**	**21.29**	**83**	P	**P**	**08 10 43.1**	**+0.1**
	comp=Z,4.7nm,0.7s,baz=351,slow=10,SNR=5.0						
ROSC				LR	LR	08 18 01.6	
	comp=Z,85nm,18.4s,baz=287,slow=34						
	comp=Z,4.7nm,0.7s						
ROSC	**El Rosal**	**21.29**	**83**	P	**P**	**08 10 42.6**	**-0.5**
ROSC				IAmb	IAmb	08 10 55.6	
	comp=Z,21nm,1.2s						
ZAIG	**Zacatecas**	**21.38**	**342**	P	**P**	**08 10 44.1**	**+0.3**
LCCY	**Blossom Villag**	**22.86**	**40**	P	**P**	**08 10 59.3**	**0.0**
CZSB	**Cruzeiro do Su**	**24.88**	**114**	P	**P**	**08 11 19.1**	**+0.2**
CZSB				IAmb	IAmb	08 11 25.9	
	comp=Z,10nm,1.1s						
CHIV	**Chivirico**	**25.57**	**45**	P	**P**	**08 11 25.7**	**+0.8**
CHIV				IAmb	IAmb	08 12 03.6	
	comp=Z,11nm,1.3s						
SDV	**Santo Domingo**	**25.58**	**74**	LR	LR	08 19 44.8	
	comp=Z,186nm,22.0s,baz=250,slow=32						
LPIG	**La Paz**	**25.89**	**328**	LR	LR	08 18 46.4	
	comp=Z,90nm,19.7s,baz=148,slow=30						
TX31	**Lajitas Ar. Si**	**27.89**	**345**	P	**P**	**08 11 44.9**	**-1.1**
TXAR	**Lajitas Array**	**27.89**	**345**	P	**P**	**08 11 45.2**	**-0.8**
	comp=Z,1.1nm,0.8s,baz=164,slow=8.1,SNR=11						
TXAR				LR	LR	08 22 25.4	
	comp=Z,252nm,18.4s,baz=108,slow=36						
	comp=Z,1.1nm,0.8s						
TXAR	**Lajitas Array**	**27.89**	**345**	P	**P**	**08 11 45.6**	**-0.4**
SAND	**Sanderson**	**28.12**	**348**	P	**P**	**08 11 48.9**	**+0.9**
SAND				IAmb	IAmb	08 12 00.9	
	comp=Z,6.0nm,1.3s						
152A	**Waverly Hall**	**31.78**	**17**	P	**P**	**08 12 20.9**	**+0.6**
LPAZ	**La Paz**	**32.81**	**125**	LR	LR	08 25 06.3	
	comp=Z,33nm,20.4s,baz=304,slow=35						
U38A	**Gravette**	**33.90**	**2**	P	**P**	**08 12 39.3**	**+0.5**
U38A				IAmb	IAmb	08 12 47.3	
	comp=Z,6.0nm,1.3s						
ANMO	**Albuquerque**	**33.95**	**344**	LR	LR	08 25 29.0	
	comp=Z,348nm,20.3s,baz=136,slow=35						
TKL	**Tuckaleechee C**	**34.85**	**17**	LR	LR	08 26 11.7	
	comp=Z,300nm,20.1s,baz=194,slow=35						
BOAV	**Boa Vista**	**34.96**	**89**	P	**P**	**08 12 48.9**	**+0.6**
BOAV				IAmb	IAmb	08 12 49.0	
	comp=Z,8.2nm,1.1s						
WUAZ	**Wupatki**	**36.10**	**338**	P	**P**	**08 12 58.2**	**+0.2**
WUAZ				IAmb	IAmb	08 13 11.2	
	comp=Z,8.0nm,1.3s						
IRM	**Iron Mountain**	**36.53**	**332**	P	**P**	**08 13 02.2**	**+0.7**
PFO	**Pinyon Flats O**	**36.72**	**330**	LR	LR	08 25 57.3	
	comp=Z,109nm,20.3s,baz=142,slow=33						
P40A	**Paris**	**37.10**	**4**	P	**P**	**08 13 07.1**	**+0.8**
PV03	**Paradox Valley**	**37.73**	**343**	P	**P**	**08 13 12.5**	**+0.6**
PV03				IAmb	IAmb	08 13 24.0	
	comp=Z,12nm,1.3s						
HMU	**Henry Mountain**	**38.04**	**340**	P	**P**	**08 13 14.9**	**+0.3**
HMU				IAmb	IAmb	08 13 28.6	
	comp=Z,14nm,1.4s						
GO03	**Copiapo**	**38.49**	**142**	P	**P**	**08 13 18.8**	**+0.6**
GO03				IAmb	IAmb	08 13 21.4	
	comp=Z,7.6nm,0.8s						
DUG	**Dugway, Tooele**	**40.77**	**340**	P	**P**	**08 13 37.7**	**+0.5**
DUG				IAmb	IAmb	08 13 56.9	
	comp=Z,5.8nm,1.1s						
NVAR	**Mina Array Bea**	**41.49**	**333**	P	**P**	**08 13 43.7**	**+0.5**
	comp=Z,1.6nm,0.8s,baz=160,slow=8.6,SNR=12						
NVAR				LR	LR	08 28 26.4	
	comp=Z,111nm,21.8s,baz=146,slow=33						
	comp=Z,1.6nm,0.8s						
BW06	**Boulder Array**	**42.12**	**345**	P	**P**	**08 13 48.8**	**+0.5**
BW06				IAmb	IAmb	08 14 00.2	
	comp=Z,8.1nm,1.4s						
PD31	**Pinedale Array**	**42.12**	**345**		**P**	**08 13 47.8**	**-0.5**
PD31				IAmb	IAmb	08 14 00.2	
	comp=Z,9.7nm,1.4s						
PDAR	**Pinedale Array**	**42.12**	**345**	P	**P**	**08 13 46.8**	**-1.5**
	comp=Z,1.7nm,0.9s,baz=152,slow=6.5,SNR=14						
PDAR				LR	LR	08 30 58.5	
	comp=Z,298nm,18.2s,baz=162,slow=36						
	comp=Z,1.7nm,0.9s						
PDAR	**Pinedale Array**	**42.12**	**345**		**P**	**08 13 48.2**	**0.0**
ELK	**Elko**	**42.14**	**338**	LR	LR	08 31 37.0	
	comp=Z,243nm,18.0s,baz=130,slow=37						
ELK	**Elko**	**42.14**	**338**		**P**	**08 13 49.1**	**+0.6**
HVU	**Hansel Valley**	**42.17**	**341**	P	**P**	**08 13 48.2**	**-0.4**
HVU				IAmb	IAmb	08 14 01.3	
	comp=Z,8.7nm,1.2s						
MDP	**Montagnes des**	**42.86**	**85**	LR	LR	08 30 21.6	
	comp=Z,99nm,19.3s,baz=288,slow=34						
SNOW	**Snow King Moun**	**43.09**	**344**	P	**P**	**08 13 56.0**	**-0.2**
SNOW				IAmb	IAmb	08 14 11.5	
	comp=Z,6.8nm,1.2s						
FXWY	**Fox Creek**	**43.33**	**344**	P	**P**	**08 13 56.9**	**-1.2**
YHL	**Hebgen Lake**	**44.49**	**344**		**P**	**08 14 08.2**	**+0.8**
YHL				IAmb	IAmb	08 14 22.6	
	comp=Z,8.8nm,1.4s						
QLMT	**Earthquake Lak**	**44.54**	**344**	P	**P**	**08 14 07.7**	**-0.1**
SADO	**Sadowa**	**44.61**	**17**	LR	LR	08 31 42.7	
	comp=Z,254nm,21.3s,baz=231,slow=35						
BCYI	**Bear Canyon**	**44.65**	**342**	IAmb	IAmb	08 14 16.7	
	comp=Z,3.9nm,1.2s						
MFID	**Camas Ranch**	**44.67**	**339**	IAmb	IAmb	08 14 12.2	
	comp=Z,3.0nm,0.9s						
CPUP	**Villa Florida**	**46.65**	**130**	LR	LR	08 33 49.9	
	comp=Z,52nm,19.8s,baz=254,slow=36						
ULM	**Lac du Bonnet**	**47.69**	**360**	LR	LR	08 36 05.4	
	comp=Z,67nm,18.3s,baz=182,slow=38						
PLCA	**Paso Flores**	**48.59**	**155**	LR	LR	08 30 51.8	
	comp=Z,197nm,18.4s,baz=326,slow=31						
NEW	**Newport**	**49.34**	**341**	LR	LR	08 35 25.2	
	comp=Z,161nm,18.1s,baz=148,slow=36						
BDFB	**Brasilia**	**50.27**	**113**	LR	LR	08 35 30.9	
	comp=Z,156nm,18.0s,baz=351,slow=35						
BBB	**Bella Bella**	**56.57**	**337**	LR	LR	08 38 20.0	
	comp=Z,71nm,20.4s,baz=150,slow=34						
SCHQ	**Schefferville**	**57.25**	**19**	LR	LR	08 39 19.9	
	comp=Z,96nm,19.6s,baz=244,slow=35						
YKA	**Yellowknife Ar**	**61.64**	**350**	P	**P**	**08 16 11.7**	**-1.6**
	comp=Z,1.9nm,0.9s,baz=159,slow=6.9,SNR=5.1						
YKA				LR	LR	08 43 30.1	
	comp=Z,53nm,18.4s,baz=139,slow=37						
	comp=Z,1.9nm,0.9s						
DLBC	**Dease Lake**	**62.08**	**340**	LR	LR	08 43 22.8	
	comp=Z,209nm,18.8s,baz=109,slow=36						
FRB	**Frobisher Bay**	**64.33**	**13**	LR	LR	08 44 15.6	
	comp=Z,174nm,19.0s,baz=208,slow=36						
INK	**Inuvik**	**70.66**	**346**	LR	LR	08 47 30.2	
	comp=Z,65nm,22.0s,baz=97,slow=35						
PMSA	**Palmer Station**	**70.87**	**166**	LR	LR	08 40 02.8	
	comp=Z,114nm,18.6s,baz=308,slow=29						
RES	**Resolute Bay**	**72.22**	**0**	LR	LR	08 50 38.4	
	comp=Z,92nm,19.1s,baz=41,slow=37						
ILAR	**Eielson Array**	**72.26**	**339**	P	**P**	**08 17 19.1**	**-1.7**
	comp=Z,1.2nm,0.9s,baz=149,slow=5.4,SNR=8.6						
ILAR				LR	LR	08 48 57.7	
	comp=Z,91nm,18.4s,baz=85,slow=36						
	comp=Z,1.2nm,0.9s						
AFI	**Afiamalu**	**77.26**	**255**	LR	LR	08 45 14.5	
	comp=Z,60nm,19.8s,baz=136,slow=31						
JMIC	**Jan Mayen**	**86.78**	**19**	LR	LR	08 57 27.9	
	comp=Z,42nm,18.4s,baz=56,slow=36						
MDT	**Midelt**	**89.48**	**57**	LR	LR	08 52 09.6	
	comp=Z,48nm,21.0s,baz=266,slow=31						
ESDC	**Sonseca Array**	**89.69**	**50**	LR	LR	08 52 12.2	
	comp=Z,41nm,20.5s,baz=277,slow=31						
VNA3	**Neumayer Olymp**	**90.91**	**161**	P	**P**	**08 18 58.6**	**-0.7**
SPITS	**Spitsbergen Ar**	**92.08**	**11**	LR	LR	09 01 21.6	
	comp=Z,56nm,19.5s,baz=187,slow=36						
QSPA	**South Pole Qui**	**92.41**	**180**	P	**P**	**08 19 07.6**	**+1.2**
	comp=Z,2.5nm,0.9s,baz=161,slow=4.8,SNR=5.7						
QSPA				LR	LR	08 55 34.0	
	comp=Z,38nm,19.4s,baz=110,slow=32						
	comp=Z,2.5nm,0.9s						
QSPA	**South Pole Qui**	**92.41**	**180**	P	**P**	**08 19 06.7**	**+0.3**
SNAA	**Sanae**	**93.10**	**162**	LR	LR	08 53 22.2	
	comp=Z,58nm,20.4s,baz=306,slow=31						
RPZ	**Rata Peaks**	**94.12**	**227**	LR	LR	08 55 33.5	
	comp=Z,28nm,18.0s,baz=286,slow=32						
TROLL	**Troll, Antarti**	**94.75**	**162**	P	**P**	**08 19 16.9**	**-0.3**
	comp=Z,64nm,0.9s						
VNDA	**Vanda**	**95.05**	**192**	LR	LR	08 52 10.5	
	comp=Z,42nm,19.5s,baz=209,slow=29						
NOA	**NORSAR Array B**	**95.96**	**28**	LR	LR	09 00 37.4	
	comp=Z,18nm,20.4s,baz=280,slow=34						
H11N3	**WAKE ISLAND Hy**	**96.33**	**290**	T	T	10 06 42.7	
	baz=86						
H11N2	**WAKE ISLAND Hy**	**96.34**	**290**	T	T	10 06 50.4	
	baz=86						
H11N1	**WAKE ISLAND Hy**	**96.34**	**290**	T	T	10 06 46.0	
	baz=86						
H11S2	**WAKE ISLAND Hy**	**96.62**	**289**	T	T	10 06 59.8	
	baz=86,slow=75,SNR=16						
H11S1	**WAKE ISLAND Hy**	**96.62**	**289**	T	T	10 06 58.5	
	baz=86,slow=75,SNR=12						
H11S3	**WAKE ISLAND Hy**	**96.64**	**289**	T	T	10 07 06.8	
	baz=86,slow=75,SNR=9.5						
HFS	**Hagfors**	**97.39**	**28**	LR	LR	09 04 38.1	
	comp=Z,29nm,18.3s,baz=312,slow=36						
ARCES	**ARCESS Array B**	**98.18**	**18**	LR	LR	09 05 47.7	
	comp=Z,35nm,19.2s,baz=288,slow=37						

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*IDC **20** 08:11:05.2±7.2, 2°.46N×94°.69W, h0^{km}, mb3.6/5, mbtmp3.5/6, ML2.6/1, Error ellipse: s-maj=146.1km s-min=52.5km az=138.0*

ISC 20 08:11:09.1±6.9**, 2°.8N**±0°.8×**94°.7W**±0°.7**, h10^{km}, n12, σ0^{s}.38**/6**, mb3.5**/5**, Galapagos Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
APG	**El Apazote**	**12.80**	**19**	Pn	**Pn**	**08 14 11.5**	**0.0**
	baz=167,slow=9.9,SNR=3.8						
	0.1nm,0.3s						
TXAR	**Lajitas Array**	**27.73**	**343**	P	**P**	**08 16 57.7**	**-0.3**
	0.3nm,0.7s,baz=152,slow=8.8,SNR=5.5						
	0.3nm,0.7s						
NVAR	**Mina Array Bea**	**41.52**	**332**	P	**P**	**08 18 57.1**	**+0.2**
	0.8nm,0.8s,baz=163,slow=10,SNR=5.8						
	0.8nm,0.8s						
PDAR	**Pinedale Array**	**41.95**	**344**	P	**P**	**08 19 00.7**	**+0.3**
	1.1nm,1.0s,baz=147,slow=9.3,SNR=6.6						
	1.1nm,1.0s						
YKA	**Yellowknife Ar**	**61.38**	**350**	P	**P**	**08 21 25.3**	**+0.3**
	0.7nm,0.8s,baz=151,slow=7.2,SNR=3.4						
	0.7nm,0.8s						
ILAR	**Eielson Array**	**72.17**	**339**	P	**P**	**08 22 33.5**	**-0.3**
	0.5nm,0.9s,baz=119,slow=6.3,SNR=4.2						
	0.5nm,0.9s						
H11N3	**WAKE ISLAND Hy**	**96.98**	**290**	T	T	10 11 58.8	
	baz=86						
H11N2	**WAKE ISLAND Hy**	**97.00**	**290**	T	T	10 12 00.2	
	baz=86						
H11N1	**WAKE ISLAND Hy**	**97.00**	**290**	T	T	10 11 57.6	
	baz=86						
H11S2	**WAKE ISLAND Hy**	**97.29**	**289**	T	T	10 12 17.2	
	baz=85,slow=74,SNR=18						
H11S1	**WAKE ISLAND Hy**	**97.30**	**289**	T	T	10 12 22.0	
	baz=85,slow=74,SNR=13						
H11S3	**WAKE ISLAND Hy**	**97.31**	**289**	T	T	10 12 14.8	
	baz=85,slow=74,SNR=12						

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*MAN **20** 08:14:15.0, 5°.41N×126°.55E, h96^{km}, MS4.7*

*DJA **20** 08:14:15.3±1.1, 6°N±10°×12°7E±°, h10^{km}, M5.0/10, mB5.4/5, mb4.9/10, mb4.9/9, mB5.2/6, ML5.2/3, MLv5.1/10, MLv5.1/7, Mw(mB)4.8/5, Mw(mB)4.6/6*

*BJI **20** 08:14:18.0, 5°.60N×126°.50E, h100^{km}, mB4.8/4, mb4.6/16*

*NEIC **20** 08:14:19.2±1.0, 5°.59N±0°.06×126°.55E±0°.10, h97^{km}±5^{km}, mb4.6/34, Error ellipse: s-maj=14.8km s-min=7.6km az=72.0*

*IDC **20** 08:14:20.1±1.7, 5°.56N×126°.30E, h106^{km}±15^{km}, mb4.1/23, mbtmp4.4/24, MS3.2/3, Error ellipse: s-maj=25.1km s-min=9.6km az=71.0*

ISC 20 08:14:17.3±0.7**, 5°.58N**±0°.04×**126°.61E**±0°.06**, h83^{km}**±6^{km}**, n148, σ1^{s}.61**/148**, mb4.5**/49**, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GSPH	**General Santos**	**1.72**	**287**	*i* P	**Pn**	**08 14 44.1**	**-1.7**
GSPH				*i* S	**Sn**	**08 15 05.3**	**-2.0**
DAV	**Davao City (W)**	**1.80**	**325**	P	**Pn**	**08 14 48.4**	**+1.8**
	696nm,0.4s,baz=252,slow=4.4,SNR=14						
DAV				S	**Sn**	**08 15 14.3**	**+5.4**
	1µm,0.3s,baz=299,slow=20,SNR=8.4						
DAV				LR	LR	08 15 40.3	
	comp=Z,490nm,21.9s,baz=148,slow=48						
DAV	**Davao City (W)**	**1.80**	**325**	P	**Pn**	**08 14 48.1**	**+1.5**
DAV	**Davao City (W)**	**1.80**	**325**	Pn	**Pn**	**08 14 47.9**	**+1.3**
DMPH	**Davao City--Mi**	**1.85**	**324**	*i* P	**Pn**	**08 14 48.0**	**+0.7**
DMPH				*i* S	**Sn**	**08 15 02.5**	**-7.6**
KCP	**Kidapawan**	**2.07**	**313**	*i* P	**Pn**	**08 14 50.5**	**+0.2**
KCP				*i* S	**Sn**	**08 15 16.5**	**+1.0**
BIPH	**Bislig**	**2.60**	**355**	*e*P	**Pn**	**08 14 56.7**	**-0.6**
BIPH				*e*S	**Sn**	**08 15 24.8**	**-3.2**
CTBH	**Cotabato--PC H**	**2.85**	**305**	*i* P	**Pn**	**08 15 01.1**	**+0.3**
CGP	**Cagayan de Oro**	**3.43**	**326**	*i* P	**Pn**	**08 15 10.3**	**+1.8**
CGP				*i* S	**Sn**	**08 15 51.5**	**+3.4**
DCPH	**Dipolog City**	**4.39**	**313**	*i* P	**Pn**	**08 15 24.6**	**+2.9**
MNI	**Manado**	**4.47**	**203**	P	**Pn**	**08 15 22.2**	**-0.6**
MNI				AML	AML		
MNI				AML	AML		
ZCP	**Zamboanga City**	**4.70**	**287**	*e*P	**Pn**	**08 15 27.2**	**+1.3**
ZCP				*e*S	**Sn**	**08 16 19.0**	**-0.1**
TNTI	**Ternate**	**4.84**	**171**	Pn	**Pn**	**08 15 29.6**	**+1.8**
TBP	**Tagbilaran**	**4.91**	**326**	*e*P	**Pn**	**08 15 29.8**	**+1.1**
SNPH	**Sibulan**	**5.01**	**318**	*e*P	Pn	08 15 33.7	+3.5
LLP	**Lapu-Lapu**	**5.38**	**331**	*e*P	**Pn**	**08 15 37.1**	**+2.0**
LLP				*i* S	Sn	08 16 44.5	+8.7
PLP	**Palo**	**5.78**	**344**	*e*P	**Pn**	**08 15 42.4**	**+1.9**
GTOI	**Gorontalo**	**6.08**	**216**	P	**Pn**	**08 15 45.6**	**+0.8**
	2µm132nm,0.9s,132nm,0.9s						
TOLI2	**Tolitoli**	**7.32**	**233**	P	**Pn**	**08 16 01.7**	**+0.1**
TOLI2	**Tolitoli**	**7.32**	**233**	Pn	**Pn**	**08 16 01.6**	**0.0**
IBAJ	**Ibajay, Aklan**	**7.59**	**325**	*i* P	Pn	08 16 09.0	+3.7
SANI	**Sanana**	**7.61**	**185**	P	**Pn**	**08 16 03.6**	**-1.9**
LUWI	**Luwuk**	**7.61**	**210**	P	**Pn**	**08 16 06.3**	**+0.7**
LUWI	**Luwuk**	**7.61**	**210**	Pn	Pn	08 16 12.2	+6.6
SWI	**Sorong**	**7.91**	**144**	P	**Pn**	**08 16 10.5**	**+0.8**
	0.2nm51nm,1.0s,51nm,1.0s						
SWI				AML	AML		
APSI	**Ampana**	**8.13**	**218**	P	**Pn**	**08 16 15.0**	**+2.3**
	2µm2µm105nm,1.1s,105nm,1.1s						
MPSI	**Mapaga**	**8.48**	**232**	P	**Pn**	**08 16 17.1**	**-0.4**
NLAI	**Namlea**	**8.78**	**177**	P	**Pn**	**08 16 20.3**	**-1.2**
LQP	**Lukban**	**9.84**	**330**	*e*P	**Pn**	**08 16 38.9**	**+2.8**
FAKI	**Fak Fak**	**10.15**	**146**	S	**Sn**	**08 18 27.5**	**-5.0**
FAKI	**Fak Fak**	**10.15**	**146**		**Pn**	**08 16 41.8**	**+1.5**
KKM	**Kota Kinabalu**	**10.35**	**273**	Pn	**Pn**	**08 16 43.8**	**+0.7**
KAPI	**Kappang**	**12.56**	**213**	P	**Pn**	**08 17 14.0**	**+1.1**
	6.2nm,0.3s,baz=16,slow=9.5,SNR=5.4						
KAPI				LR	LR	08 21 31.6	
	comp=Z,90nm,19.3s,baz=18,slow=35						
KAPI	**Kappang**	**12.56**	**213**		**Pn**	**08 17 13.5**	**+0.6**
SBUM	**Sibu**	**14.68**	**258**	Pn	**Pn**	**08 17 41.3**	**+0.4**
DRS	**Darwin Rock St**	**18.40**	**167**	P	**Pn**	**08 18 26.9**	**-0.1**
TPUB	**Ta-pu**	**18.54**	**342**	P	**Pn**	**08 18 30.6**	**+2.0**
JAGI	**Jajag, Banyuwa**	**18.68**	**222**	P	**Pn**	**08 18 34.2**	**+3.8**
MTN	**Manton Dam**	**18.85**	**166**		**Pn**	**08 18 31.7**	**-0.7**
DLV	**Lat**	**18.98**	**291**	P	**P**	**08 18 31.6**	**-1.0**
YHNB	**Yeheng**	**19.63**	**346**	P	**Pn**	**08 18 42.4**	**+0.8**
KNRA	**Kununurra**	**21.23**	**174**		**P**	**08 18 57.4**	**+0.7**
KNRA				IAmb	IAmb	08 19 01.6	
	comp=Z,29nm,0.7s						
BBJI	**Bungbulang**	**22.93**	**236**	P	**P**	**08 19 13.9**	**-0.9**
BBJI				IAmb	IAmb	08 19 16.3	
	comp=Z,39nm,1.4s						
MYKOM	**Kota Tinggi**	**23.02**	**261**		**P**	**08 19 15.8**	**+0.2**
MYKOM				IAmb	IAmb	08 19 16.7	
	comp=Z,17nm,0.8s						
FITZ	**Fitzroy Crossi**	**23.55**	**182**	P	**P**	**08 19 21.5**	**+1.1**
	comp=Z,4.7nm,0.5s,baz=12,slow=8.4,SNR=18						
	comp=Z,4.7nm,0.5s						
FITZ	**Fitzroy Crossi**	**23.55**	**182**	P	**P**	**08 19 20.4**	**-0.1**
KAVG	**Kavieng**	**25.50**	**108**	P	**P**	**08 19 38.4**	**+0.2**
IPM	**Ipoh**	**25.50**	**269**	P	**P**	**08 19 36.9**	**-1.5**
IPM				IAmb	IAmb	08 19 45.8	
	comp=Z,12nm,0.8s						
WB0	**Warramunga Arr**	**26.33**	**163**	P	**P**	**08 19 45.9**	**+0.3**
WRAB	**Tennant Creek**	**26.48**	**163**	P	**P**	**08 19 48.3**	**+1.3**
WRAB	**Tennant Creek**	**26.48**	**163**	P	**P**	**08 19 46.7**	**-0.3**
WRAB				IAmb	IAmb	08 19 53.2	
	comp=Z,14nm,0.4s						
WRA	**Warramunga Arr**	**26.48**	**164**	P	**P**	**08 19 47.4**	**+0.3**
	comp=Z,3.2nm,0.5s,baz=344,slow=10.0,SNR=45						
	comp=Z,3.2nm,0.5s						
WRA	**Warramunga Arr**	**26.48**	**164**	P	**P**	**08 19 46.0**	**-1.0**
WR8	**Warramunga Arr**	**26.54**	**163**		**P**	**08 19 47.8**	**+0.3**
WR8				IAmb	IAmb	08 19 53.8	
	comp=Z,9.3nm,0.5s						
NJ2	**Nanjing**	**27.32**	**346**	*e*P	**P**	**08 19 56.1**	**+1.7**
NJ2				pmax	pmax		
	comp=Z,9.0nm,0.7s						
MBWA	**Marble Bar**	**27.42**	**194**	P	**P**	**08 19 54.4**	**-1.0**
MBWA				IAmb	IAmb	08 19 55.5	
	comp=Z,23nm,1.2s						
PSI	**Prapat**	**27.74**	**265**	P	**P**	**08 20 03.7**	**+5.1**
RPSI	**Rantau Prapat**	**27.75**	**265**	P	**P**	**08 19 57.3**	**-1.2**
QIS	**Mount Isa**	**28.95**	**154**	P	**P**	**08 20 10.6**	**+1.5**
GSI	**Gunungsitoli**	**29.28**	**263**	P	**P**	**08 20 11.2**	**-0.9**
CMAR	**Chiang Mai Arr**	**29.87**	**298**	P	**P**	**08 20 15.5**	**-1.8**
	comp=Z,1.3nm,0.6s,baz=115,slow=8.9,SNR=6.3						
CMAR				LR	LR	08 33 02.4	
	comp=Z,26nm,18.1s,baz=95,slow=38						
	comp=Z,1.3nm,0.6s						
AS31	**Alice Springs**	**29.93**	**166**		**P**	**08 20 17.8**	**0.0**
ASAR	**Alice Springs**	**29.93**	**167**	P	**P**	**08 20 18.2**	**+0.5**
	comp=Z,3.0nm,0.5s,baz=347,slow=7.2,SNR=48						
ASAR				PcP	**PcP**	**08 23 19.0**	**+0.2**
	comp=Z,1.0nm,0.5s,baz=336,slow=2.5,SNR=4.7						
	comp=Z,3.0nm,0.5s						
ASAR	**Alice Springs**	**29.93**	**167**	P	**P**	**08 20 18.4**	**+0.7**
AS01	**Alice Springs**	**29.94**	**166**	P	**P**	**08 20 19.2**	**+1.4**
CHTO	**Chiang Mai**	**30.00**	**298**	P	**P**	**08 20 18.1**	**-0.3**
CHTO				IAmb	IAmb	08 20 36.4	
	comp=Z,9.1nm,1.1s						
PZH	**PanZhiHua**	**31.56**	**314**	P	**P**	**08 20 33.9**	**+1.7**
CTA	**Charters Tower**	**32.00**	**143**	P	**P**	**08 20 38.0**	**+2.0**
	comp=Z,2.2nm,0.6s,baz=313,slow=9.6,SNR=3.1						
	comp=Z,2.2nm,0.6s						
CTAO	**Charters Tower**	**32.00**	**143**	P	**P**	**08 20 35.9**	**-0.1**
CTAO				IAmb	IAmb	08 20 38.8	
	comp=Z,12nm,1.2s						
XAN	**Xi'an**	**32.72**	**332**	P	**P**	**08 20 41.3**	**-0.9**
XAN				pmax	pmax		
	comp=Z,10.0nm,0.6s						
TIY	**Taiyuan**	**34.49**	**340**	P	**P**	**08 20 57.6**	**0.0**
TIY				pP	**sP**	**08 21 24.0**	**-2.1**
TIY				S	**S**	**08 26 15.3**	**-5.0**
BJI2	**Beijing**	**35.55**	**346**	P	**P**	**08 21 07.3**	**+0.8**
BJI2				pmax	pmax		
	comp=Z,5.0nm,0.6s						
FORT	**Forrest**	**36.18**	**178**	P	**P**	**08 21 12.8**	**+0.7**
HHC	**Hu-ho-hao-te**	**37.61**	**341**	*e*P	**P**	**08 21 25.9**	**+1.7**
HHC				pmax	pmax		
	comp=Z,9.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,43nm,5.0s						
SHL	**Shillong**	**38.71**	**305**	P	**P**	**08 21 32.4**	**-1.3**
SHL				IAmb	IAmb	08 21 36.5	
	comp=Z,8.9nm,0.8s						
USA0B	**Ussuriysk Arra**	**38.75**	**6**	P	**P**	**08 21 33.5**	**-0.1**
USRK	**Ussuriysk Ar.**	**38.75**	**6**	P	**P**	**08 21 34.2**	**+0.6**
	comp=Z,1.0nm,0.5s,baz=181,slow=5.8,SNR=4.0						
	comp=Z,1.0nm,0.5s						
USRK	**Ussuriysk Ar.**	**38.75**	**6**	P	**P**	**08 21 33.4**	**-0.2**
BBOO	**Buckleboo**	**39.22**	**167**	P	**P**	**08 21 37.5**	**-0.2**
XLT	**XiLinHaoTe**	**39.27**	**348**	*e*P	**P**	**08 21 42.3**	**+4.2**
XLT				pmax	pmax		
	comp=Z,11nm,0.7s						
STKA	**Stephens Creek**	**39.90**	**160**	P	**P**	**08 21 44.0**	**+0.8**
	comp=Z,4.5nm,0.4s,baz=324,slow=12,SNR=8.9						

	comp=Z,4.5nm,0.4s						
H11S3	WAKE ISLAND Hy	41.13	68	T	T	09 06 10.8	
	baz=276,slow=76,SNR=11						
H11S1	WAKE ISLAND Hy	41.15	68	T	T	09 06 12.3	
	baz=276,slow=76,SNR=9.6						
H11S2	WAKE ISLAND Hy	41.15	68	T	T	09 06 05.5	
	baz=276,slow=76,SNR=14						
GTA2	Gaotai	41.55	328	*e*P	P	08 21 57.1	+0.1
GTA2				pmax	pmax		
	comp=Z,5.0nm,0.8s						
H11N1	WAKE ISLAND Hy	41.61	67	T	T	09 06 42.7	
	baz=254,slow=75						
H11N2	WAKE ISLAND Hy	41.62	67	T	T	09 06 48.0	
	baz=254,slow=75						
H11N3	WAKE ISLAND Hy	41.62	67	T	T	09 06 43.9	
	baz=254,slow=75						
EVN	Everest	43.81	305	P	P	08 22 15.7	-0.4
EVN				IAmb	IAmb	08 22 17.3	
	comp=Z,10nm,1.0s						
WMQ	Urumqi	51.15	324	*e*P	P	08 23 10.3	-1.8
WMQ				pmax	pmax		
	comp=Z,17nm,0.7s						
WMQ				L	L		
	comp=Z,60nm,20.9s						
PETK	Petropavlovsk-	53.78	23	P	P	08 23 33.1	+1.9
	comp=Z,2.0nm,0.7s,baz=178,slow=5.5,SNR=6.0						
	comp=Z,2.0nm,0.7s						
PETK	Petropavlovsk-	53.78	23	P	P	08 23 31.3	+0.1
ZSN	Zaisan	54.90	326	*e*P	P	08 23 40.2	+0.7
SHLS	Shalkode	55.86	320	*e*P	P	08 23 44.7	-1.9
	comp=Z,5.8nm,0.9s						
PDGK	Podgornoye	55.92	320		P	08 23 46.6	-0.4
MK31	Makanchi Array	55.98	325	P	P	08 23 46.7	-0.6
MK31				IAmb	IAmb	08 24 12.4	
	comp=Z,3.4nm,0.7s						
MKAR	Makanchi Array	55.98	325	P	P	08 23 46.7	-0.6
	comp=Z,3.2nm,0.5s,baz=121,slow=8.3,SNR=34						
	comp=Z,3.2nm,0.5s						
MKAR	Makanchi Array	55.98	325		P	08 23 46.3	-0.9
MKAR				PcP	PcP	08 24 44.8	0.0
UZB	Uzynbulak	56.14	319	*e*P	P	08 23 48.5	-0.1
UZB	Uzynbulak	56.14	319	*e*P	P	08 23 48.6	-0.1
SATY	Saty	56.50	319	*e*P	P	08 23 51.1	-0.1
SATY	Saty	56.50	319	*e*P	P	08 23 51.1	-0.1
	comp=Z,11nm,1.4s						
SATY	Saty	56.50	319	pmax	pmax		
	comp=Z,11nm,1.4s						
KPKS	Kokpek	56.50	320	*e*P	P	08 23 51.5	+0.4
KPKS	Kokpek	56.50	320	*e*P	P	08 23 51.6	+0.4
NIL	Nilore	56.71	307	P	P	08 23 52.2	-0.5
KSH2	Kashi	56.81	314	P	P	08 24 00.9	+7.4
TDK	Taldyqorghan	57.40	321	*e*P	P	08 23 57.5	+0.1
TDK	Taldyqorghan	57.40	321	*e*P	P	08 23 57.5	+0.1
MDOK	Medeo	57.43	319	*e*P	P	08 23 57.8	0.0
MDOK	Medeo	57.43	319	*e*P	P	08 23 57.9	0.0
AAA	Alma-Ata	57.54	319	*e*P	P	08 23 58.7	+0.3
AAA	Alma-Ata	57.54	319	*e*P	P	08 23 58.7	+0.3
ZALV	Zalesovo Beam	58.89	333	P	P	08 24 06.6	-1.0
	comp=Z,1.5nm,0.3s,baz=143,slow=6.8,SNR=4.9						
	comp=Z,1.5nm,0.3s						
ZALV	Zalesovo Beam	58.89	333	P	P	08 24 06.8	-0.8
SGDS	Sogindy	59.16	318	*e*P	P	08 24 10.0	+0.3
KURBB	Kurchatov Arra	60.13	327	P	P	08 24 15.5	-0.6
	comp=Z,2.8nm,0.5s,baz=127,slow=6.6,SNR=14						
	comp=Z,2.8nm,0.5s						
KURK	Kurchatov	60.13	327	P	P	08 24 15.4	-0.7
KBL	Kabul	60.31	307	P	P	08 24 16.8	-1.2
KBL				IAmb	IAmb	08 24 17.3	
	comp=Z,4.8nm,0.8s						
BTK	Batken	60.56	313	P	P	08 24 18.5	-1.0
BTK				IAmb	IAmb	08 24 20.0	
	comp=Z,6.5nm,1.0s						
DZA	Taraz	61.17	316	*e*P	P	08 24 23.6	+0.2
KK31	Karatay Array	61.81	316	P	P	08 24 27.9	+0.2
KK31				IAmb	IAmb	08 24 28.5	
	comp=Z,3.1nm,0.7s						
IUG	Iuzhnay	61.81	315	*e*P	P	08 24 28.1	+0.2
	comp=Z,5.3nm,1.9s						
CHM	Chimkent	62.17	315	*e*P	P	08 24 30.3	+0.1
BRLS	Borolday	62.25	316	*e*P	P	08 24 30.7	0.0
	comp=Z,5.6nm,1.7s						
BVAR	Borovoye Array	65.71	327	P	P	08 24 52.5	-0.6
	comp=Z,3.0nm,0.7s,baz=116,slow=6.9,SNR=8.0						
	comp=Z,3.0nm,0.7s						
BORK	Borovoye	65.76	327	P	P	08 24 53.2	-0.3
BORK				IAmb	IAmb	08 24 55.7	
	comp=Z,4.2nm,0.7s						
NRIK	Noril'sk	68.61	346	P	P	08 25 11.7	+0.6
	comp=Z,5.5nm,0.6s,baz=140,slow=5.7,SNR=5.7						
	comp=Z,5.5nm,0.6s						
NRIK	Noril'sk	68.61	346	P	P	08 25 11.3	+0.1
NRIK				IAmb	IAmb	08 25 12.8	
	comp=Z,6.2nm,0.7s						
AB31	Akbulak array	70.65	320		P	08 25 23.3	-0.8
ABKAR	Akbulak array	70.65	320	P	P	08 25 23.0	-1.1
AKTO	Aktyubinsk	72.14	321	P	P	08 25 32.1	-1.0
	comp=Z,3.2nm,0.6s,baz=105,slow=7.4,SNR=6.9						
	comp=Z,3.2nm,0.6s						
KIRV	Kirov	78.59	329	P	P	08 26 09.6	-0.2
	comp=Z,8.1nm,0.6s,baz=0.1,slow=5.1,SNR=3.8						
	comp=Z,8.1nm,0.6s						
KBZ	Khabaz	81.63	313	P	P	08 26 25.8	-0.7
	comp=Z,1.1nm,0.4s,baz=135,slow=5.7,SNR=2.0						
	comp=Z,1.1nm,0.4s						
ILAR	Eielson Array	83.50	26	P	P	08 26 36.9	+1.1
	comp=Z,0.6nm,0.6s,baz=256,slow=5.5,SNR=8.7						
	comp=Z,0.6nm,0.6s						
BMAR	Burnt Mountain	84.43	23	P	P	08 26 40.5	-0.1
VNDA	Vanda	85.27	173	P	P	08 26 45.8	+1.4
	comp=Z,0.6nm,0.6s,baz=355,slow=5.0,SNR=4.3						
	comp=Z,0.6nm,0.6s						
VNDA	Vanda	85.27	173	P	P	08 26 44.5	+0.1
ARCES	ARCESS Array B	88.68	340	P	P	08 27 00.3	-0.8
	comp=Z,3.0nm,0.6s,baz=76,slow=6.6,SNR=14						
	comp=Z,3.0nm,0.6s						
ARCES	ARCESS Array B	88.68	340	P	P	08 27 01.1	-0.1
BRTR	Keskin Array B	88.75	310	P	P	08 26 59.8	-2.5
	comp=Z,1.0nm,0.6s,baz=108,slow=2.9,SNR=5.8						
	comp=Z,1.0nm,0.6s						
BRTR	Keskin Array B	88.75	310	P	P	08 27 00.7	-1.6
FINES	FINESS Array B	90.15	332	P	P	08 27 08.0	-0.2
	comp=Z,1.9nm,0.5s,baz=62,slow=4.8,SNR=30						
	comp=Z,1.9nm,0.5s						
FINES	FINESS Array B	90.15	332	P	P	08 27 07.8	-0.4
HFS	Hagfors	96.33	332	P	P	08 27 35.3	-1.4
	comp=Z,0.6nm,0.5s,baz=229,slow=3.4,SNR=4.4						
	comp=Z,0.6nm,0.5s						
NB2	NORSAR Subarra	97.08	334	P	P	08 27 38.7	-1.4
	comp=Z,0.6nm,0.6s,baz=67,slow=5.3						
NOA	NORSAR Array B	97.08	334	P	P	08 27 38.7	-1.4
	comp=Z,1.0nm,0.7s,baz=64,slow=4.8,SNR=5.1						
NOA				LR	LR	09 14 27.2	
	comp=Z,20nm,18.3s,baz=270,slow=37						
	comp=Z,1.0nm,0.7s						
TORD	Torodi Ar. Bea	122.21	289	PKP	PKPdf	08 33 03.2	-0.5
	comp=Z,0.5nm,0.3s,baz=50,slow=2.5,SNR=7.1						

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*MCSM **20** 08:15:54.5±0.5, 34°N±4°×2°4E±°, h10^{km}±3^{km}, mb4.2, mB4.5, MLv4.8, Mw(mB)3.7*

*MED_RC **20** 08:15:54.0, 34°.14N×23°.85E, h10^{km}, Mw4.3, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}-2.72±.34; $M_{\theta\theta}$0.83±.43; $M_{\phi\phi}$0.00±.22; $M_{r\theta}$1.00±1.64; $M_{\theta\phi}$-1.56±.28; $M_{\phi r}$1.27±.92; Fault plane solution: $M_0$3.27000×10^{15} NP1:ϕ_s302.00000°, δ46.00000°, λ-127.00000°. NP2:ϕ_s169.00000°, δ55.00000°, λ-58.00000°. Principal axes: T 3.0500, Plg5.0000°, Azm237.0000°; N 0.4500, Plg25.0000°, Azm329.0000°; P -3.5000, Plg64.0000°, Azm136.0000°;*

*MOS **20** 08:15:55.2±1.2, 34°.21N×23°.90E, h28^{km}, mb4.7/15 Error ellipse: s-maj=6.6km s-min=3.4km az=90.5*

*GFZ **20** 08:15:55.5±0.3, 34°N±4°×2°4E±°, h10^{km}, M4.3/53, mb4.3/53*

*NEIC **20** 08:15:55.0±1.4, 34°.28N±0°.09×23°.91E±0°.07, h10^{km}±1^{km}, mb4.4/29, Error ellipse: s-maj=15.2km s-min=9.1km az=188.0*

*ISK **20** 08:15:55.6, 34°.19N×24°.15E, h8^{km}, ML4.1/20*

*IDC **20** 08:15:59.3±1.5, 34°.40N×23°.72E, h46^{km}±12^{km}, mb4.0/25, mbtmp4.2/34, ML3.6/7, MS3.7/11, Error ellipse: s-maj=15.8km s-min=9.5km az=156.0*

*THE **20** 08:16:00.6, 34°N±11°×2°4E±°, h15^{km}±7^{km}, M3.6/7, MLh3.6/7*

*AFAD **20** 08:16:00.7, 34°.48N×24°.62E, h7^{km}±4^{km}, MW4.2*

*GII **20** 08:16:01.9±0.0, 34°.028N±0°.002×24°.632E±0°.001, h0^{km}, Mws4.4, confirmed*

*ATH **20** 08:16:03.7, 34°.68N×24°.05E, h18^{km}±1^{km}, ML3.7/30, Latitude uncertainty: 1 km; Longitude uncertainty: 0 km*

*NAO **20** 08:16:03.1, 35°.08N×24°.47E, h33^{km}, MB3.8*

ISC 20 08:15:54.9±1.0**, 34°.23N**±0°.04×**23°.94E**±0°.03**, h16**^{km}±5^{km}**, n461, σ2^{s}06**/531**, mb4.3**/40**, MS3.8**/9**, 13C-16D, Crete**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GVDS	Gavdos	0.62	9	P	Pb	08 16 07.9	+0.6
GVDS				AML	AML		
GVDS	Gavdos	0.62	9	P	Pn	08 16 08.5	-0.5
GVD	Gavdhos	0.62	11	P	Pb	08 16 08.2	+0.9
GVD				S	Sg	08 16 14.1	-1.3
GVD				AML	AML		
GVD	Gavdhos	0.62	11	Pg	Pn	08 16 08.6	-0.4
GVD				AML	AML		
GVD	Gavdhos	0.62	11	P	Pb	08 16 08.2	+0.9
GVD				S	Sg	08 16 12.1	-3.4
GVD	Gavdhos	0.62	11	P	Pb	08 16 08.3	+0.9
KNDR	Palaiochora Ch	1.04	345	P	Pg	08 16 15.5	+0.5
KNDR				AML	AML		
KNDR	Palaiochora Ch	1.04	345	P	Pg	08 16 16.5	+1.4
KNDR				S	Sb	08 16 25.7	-2.1
KNDR				AML	AML		
SIVA	Sivas	1.06	42	P	Pg	08 16 17.9	+2.5
SIVA				AML	AML		
SIVA	Sivas	1.06	42	P	Pg	08 16 18.0	+2.5
SIVA				S	Sb	08 16 27.0	-1.6
SIVA				AML	AML		
VAM	Vamos	1.20	10	P	Pg	08 16 18.0	0.0
VAM	Vamos	1.20	10	P	Pg	08 16 18.3	+0.3
VAM				S	Sb	08 16 27.6	-4.8
VAM				AML	AML		
RTHF	Rethymno-Limin	1.22	21	P	Pg	08 16 18.4	-0.1
RTHF				S	Sb	08 16 27.8	-5.3
RTHF				AML	AML		
IMMV	Iera Moni Meta	1.23	1	P	Pg	08 16 18.5	-0.2
IMMV				AML	AML		
IMMV	Iera Moni Meta	1.23	1	Pn	Pg	08 16 20.2	+1.5
IMMV				Sn	Sg	08 16 38.2	+3.5
IMMV				AML	AML		
IMMV	Iera Moni Meta	1.23	1	P	Pg	08 16 18.5	-0.2
IMMV				S	Sb	08 16 30.7	-2.7
IMMV				AML	AML		
IMMV	Iera Moni Meta	1.23	1	P	Pg	08 16 19.8	+1.2
CHNB	Souda	1.26	5	P	Pb	08 16 18.5	+0.2
CHNB				S	Sb	08 16 30.9	-3.3
CH01	Chania	1.29	3	P	Pg	08 16 19.3	-0.4
CH01				S	Sb	08 16 31.0	-4.0
CH01				AML	AML		
CHAN	Chania	1.29	4	P	Pg	08 16 19.9	+0.1
CHAN				S	Sb	08 16 30.6	-4.5
IDI	Anoyia	1.31	36	P	Pg	08 16 21.4	+1.1
	309nm,0.7s,baz=234,slow=5.2,SNR=66						
IDI				S	Sg	08 16 37.8	+0.4
	173nm,0.4s,baz=305,slow=22,SNR=7.9						
IDI	Anoyia	1.31	36	P	Pg	08 16 21.2	+0.9
IDI				AML	AML		
IDI	Anoyia	1.31	36	Pn	Pg	08 16 20.6	+0.3
IDI				Sn	Sg	08 16 37.8	+0.4
IDI				AML	AML		
IDI	Anoyia	1.31	36		Pn	08 16 17.8	-0.8
IDI	Anoyia	1.31	36	P	Pg	08 16 21.4	+1.1
IDI				S	Sn	08 16 33.3	-2.5
IACM	Heraklion	1.42	40	P	Pg	08 16 23.9	+1.6
IACM				S	Sn	08 16 36.9	-1.5
ANKY	Antikythira Is	1.72	342	P	Pg	08 16 28.8	+0.9
ANKY				S	Sn	08 16 45.4	-0.3
ANKY				AML	AML		
NPS	Neapolis	1.72	53	P	Pg	08 16 27.7	-0.3
NPS	Neapolis	1.72	53	P	Pg	08 16 27.6	-0.3
NPS				S	Sn	08 16 46.0	+0.2
NPS	Neapolis	1.72	53	P	Pg	08 16 29.1	+1.2
NPS				S	Sb	08 16 46.9	-0.5
AGNA	Agios Nikolaos	1.75	56	P	Pg	08 16 30.2	+1.7
AGNA				S	Sb	08 16 47.7	-0.6
AGNA				AML	AML		
ZKR	Zakros	2.07	64	P	Pb	08 16 33.0	+0.8
ZKR	Zakros	2.07	64	Pn	Pn	08 16 29.9	+0.9
ZKR				AML	AML		
ZKR	Zakros	2.07	64	P	Pg	08 16 34.4	-0.3
ZKR				S	Sb	08 16 57.8	+0.2
ZKR				AML	AML		
ZKR	Zakros	2.07	64	P	Pb	08 16 32.9	+0.8
KTHA	Kythira Island	2.15	341	Pn	Pb	08 16 34.5	+1.0
KTHA				AML	AML		
KTHA	Kythira Island	2.15	341	P	Pb	08 16 34.4	+1.0
KTHA				S	Sn	08 16 56.8	+0.4
KTHA				AML	AML		
NPS1	Neapolis Lacon	2.39	343	P	Pb	08 16 37.5	0.0
NPS1				S	Sn	08 17 02.0	-0.3
NPS1				AML	AML		
THR9	Santorini-Faro	2.42	28	P	Pb	08 16 37.2	-0.8
THR6	Thira Island,	2.43	29	P	Pb	08 16 36.6	-1.7
THR5	Thira Island,	2.47	27	P	Pb	08 16 37.3	-1.6
THR5	Thira Island,	2.47	27	Pn	Pb	08 16 36.8	-2.1
THR5	Thira Island,	2.47	27	P	Pb	08 16 37.1	-1.8
THR5				S	Sn	08 17 02.2	-2.0
SNT5	Nea Kammeni, S	2.47	28	P	Pb	08 16 37.7	-1.2
SNT5				S	Sn	08 17 02.1	-2.2
THERA	Ancient Thera,	2.48	30	P	Pn	08 16 36.3	+1.7
THERA	Ancient Thera,	2.48	30	P	Pb	08 16 37.1	-1.9
THERA				S	Sn	08 17 02.4	-2.0
THR3	Thira Island,	2.48	28	P	Pb	08 16 37.2	-1.8
THR3				S	Sn	08 17 02.7	-1.8
SAP3	Santorini-Thir	2.48	27	P	Pb	08 16 37.1	-2.1
SAP3				S	Sn	08 17 02.9	-1.7
MHLO	Agia Marina, M	2.48	9	P	Pb	08 16 37.4	-1.8
MHLO				S	Sn	08 17 02.6	-2.0
THR8	Santorini-Mono	2.51	30	P	Pb	08 16 37.5	-2.1
THR2	Thira island,	2.53	28	P	Pn	08 16 37.3	+2.0
VLI	Veliai	2.62	342	P	Pb	08 16 40.1	-1.3
VLI				S	Sn	08 17 07.5	-0.4
VLI				AML	AML		
KARP	Karpathos	2.95	63	Pn	Pn	08 16 42.3	+1.1
KARP				AML	AML		
KARP	Karpathos	2.95	63		Pn	08 16 42.5	+1.4
KARP	Karpathos	2.95	63	P	Pb	08 16 45.5	-1.6
KARP				AML	AML		
KARP	Karpathos	2.95	63	P	Pb	08 16 45.2	-2.0
APE	Apeiranthos	3.12	24	*i* P	Pn	08 16 44.6	+1.2
PYL	PYLOS	3.21	327	P	Pb	08 16 48.6	-2.9
ITM	Ithomi	3.37	331	Pn	Pn	08 16 48.4	+1.6
KLNA	Kalymnos	3.67	41	P	Pn	08 16 55.1	+4.1
ATHU	Athens Univers	3.73	358	P	Pn	08 16 54.7	+2.8
ATH	Athens Observa	3.74	357	P	Pn	08 16 54.0	+2.1
ATH	Athens Observa	3.74	357	P	Pn	08 16 54.5	+2.6
YAZI	Mula-Dat§a-	3.77	48	P	Pn	08 16 54.0	+1.6
YAZI				S	Sn	08 17 35.0	-1.4
YAZI				IAML		08 17 42.0	
	comp=E,56nm,0.7s						
YAZI				IAML		08 18 26.0	
	comp=N,36nm,1.8s						
DION	Dionisos Attik	3.84	360	P	Pn	08 16 54.2	+0.9
DION	Dionisos Attik	3.84	360	P	Pn	08 16 55.9	+2.5
DION				AML	AML		
LTK	Loutraki	3.87	348	P	Pn	08 16 56.4	+2.7
LTK				AML	AML		
DAT	Datca	3.88	49	Pn	Pn	08 16 55.9	+2.0
DAT				AML	AML		
DAT	Datca	3.88	49	P	Pn	08 16 55.1	+1.2
DAT				S	Sn	08 17 36.9	-2.2
DAT				IAML		08 17 42.0	
	comp=N,52nm,1.1s						
DAT				IAML		08 17 56.0	
	comp=E,44nm,1.1s						
GUR	Goura	3.92	341	P	Pn	08 16 58.8	+4.3
GUR				AML	AML		
BODT	Bodrum	3.94	43	Pn	Pn	08 16 56.4	+1.7
BODT				AML	AML		
THAL	Thalero	3.94	345	P	Pn	08 16 57.9	+3.2
THAL				AML	AML		
ARG	Arkhangelos	3.96	59	P	Pn	08 16 56.4	+1.5
ARG	Arkhangelos	3.96	59		Pn	08 16 56.4	+1.5
ARG	Arkhangelos	3.96	59	P	Pn	08 16 55.3	+0.4
VIL2	Platees	4.01	352	P	Pn	08 16 57.9	+2.2
VIL2				AML	AML		
BDRM	Kayabasi	4.02	44	P	Pn	08 16 55.9	+0.1
BDRM				S	Sn	08 17 38.3	-4.2
BDRM				IAML		08 17 51.0	
	comp=N,46nm,0.6s						
BDRM				IAML		08 17 53.0	
	comp=E,25nm,0.8s						
KLV	Kalavryta, Ach	4.08	340	P	Pn	08 17 00.4	+3.8
KLV				AML	AML		
DRO	Drossia	4.13	335	P	Pn	08 17 01.8	+4.5
DRO				AML	AML		
LAKA	Lakka	4.31	339	P	Pn	08 17 03.3	+3.5
RLS	Riolos of Patr	4.32	333	P	Pn	08 17 03.9	+4.1
TURN	Turunc	4.33	53	Pn	Pn	08 17 02.6	+2.6
TURN				AML	AML		
TURN	Turunc	4.33	53	P	Pn	08 17 02.0	+1.9
TURN				S	Sn	08 17 46.0	-4.1
TURN				IAML		08 17 52.0	
	comp=N,93nm,0.5s						
TURN				IAML		08 17 55.0	
	comp=E,75nm,0.8s						
MLSB	Milas	4.37	44	Pn	Pn	08 17 03.1	+2.5
MLSB				AML	AML		
KYMI	Kymi, Euboea I	4.40	2	P	Pn	08 17 04.4	+3.4
KALE	Kalithea	4.40	341	P	Pn	08 17 04.2	+3.1
AXS	Araxos	4.47	333	P	Pn	08 17 05.7	+3.7
AXS				AML	AML		
LKR	Lokris	4.48	350	P	Pn	08 17 05.0	+2.9
CHOS	Chios island	4.49	22	Pn	Pn	08 17 05.7	+3.4
CHOS				AML	AML		
EFP	Efpalio	4.50	339	P	Pn	08 17 06.4	+4.0
EFP				AML	AML		
YER	Yerkesik	4.57	49	Pn	Pn	08 17 05.8	+2.4
YER				AML	AML		
YER	Yerkesik	4.57	49	P	Pn	08 17 06.3	+2.9
DALY	Dalyan (Mula)	4.63	55	Pn	Pn	08 17 06.5	+2.4
DALY				AML	AML		
DALY	Dalyan (Mula)	4.63	55	P	Pn	08 17 06.8	+2.7
DALY				S	Sn	08 17 57.3	-0.2
DALY				IAML		08 18 01.0	
	comp=N,75nm,1.2s						
DALY				IAML		08 18 07.0	
	comp=E,68nm,0.7s						
AXAR	Agios Charalam	4.65	348	P	Pn	08 17 07.1	+2.7
PLEV	Plevrona-Mesol	4.65	335	P	Pn	08 17 08.7	+4.2
PLEV				AML	AML		
ANX	Ano Chora	4.65	340	P	Pn	08 17 08.7	+4.1
ANX				AML	AML		
MULA	Mugla, Merkez-	4.67	48	P	Pn	08 17 07.6	+2.8
MULA				S	Sn	08 17 55.7	-3.0
MULA				IAML		08 18 01.0	
	comp=E,109nm,1.3s						
MULA				IAML		08 18 07.0	
	comp=N,56nm,0.8s						
VLS	Valsamata	4.78	326	P	Pn	08 17 09.0	+2.7
VLS	Valsamata	4.78	326	P	Pn	08 17 09.6	+3.3
VLS				AML	AML		
PVO	Paravola	4.79	337	P	Pn	08 17 10.7	+4.3
PVO				AML	AML		
FETY	Fethiye	4.83	59	Pn	Pn	08 17 08.8	+1.8
FETY				AML	AML		
BLCB	Balcova	4.84	30	Pn	Pn	08 17 09.6	+2.5
IZZE	Mula-Seydike	4.85	61	P	Pn	08 17 08.5	+1.4
IZZE				S	Sn	08 17 58.2	-4.7
IZZE				IAML		08 18 07.0	
	comp=N,191nm,0.6s						
IZZE				IAML		08 18 09.0	
	comp=E,130nm,0.4s						
SABU	Mula-Dalaman	4.85	56	P	Pn	08 17 09.6	+2.4
SABU				S	Sn	08 17 59.5	-3.5
SABU				IAML		08 18 09.0	
	comp=N,73nm,0.7s						
SABU				IAML		08 18 14.0	
	comp=E,63nm,1.0s						
AYDB	Zeytinkoy-Aydi	4.90	40	Pn	Pn	08 17 10.8	+2.8
AYDB				AML	AML		
AGG	Agios Georgios	4.96	345	P	Pn	08 17 10.4	+1.7
AGG	Agios Georgios	4.96	345	P	Pn	08 17 10.4	+1.7
	comp=Z,51nm,1.2s						
EVR	Evrytania	4.98	340	P	Pn	08 17 13.2	+4.1
AKAS	Kas	5.05	65	Pn	Pn	08 17 12.1	+2.1
AKAS				AML	AML		
AKAS	Kas	5.05	65	P	Pn	08 17 11.2	+1.2
AKAS				S	Sn	08 18 04.6	-3.4
AKAS				IAML		08 18 15.0	
	comp=Z,144nm,0.5s						
AKAS				IAML		08 18 15.0	
	comp=Z,289nm,0.6s						
AKAS	Kas	5.05	65		Pn	08 17 11.6	+1.6
AKAS	Kas	5.05	65	P	Pn	08 17 12.1	+2.1
	comp=Z,297nm,0.6s						
NEO	Neokhori	5.10	354	P	Pn	08 17 14.3	+3.7
CAME	Cameli-Denizli	5.14	57	Pn	Pn	08 17 13.6	+2.3
CAME				AML	AML		
AMPL	Ampelaki	5.17	336	P	Pn	08 17 15.1	+3.5
AMPL				AML	AML		
CAEL	Denizli, Camel	5.24	55	P	Pn	08 17 14.7	+1.9
CAEL				S	Sn	08 18 10.4	-2.5
CAEL				IAML		08 18 28.0	
	comp=Z,203nm,1.0s						
CAEL				IAML		08 18 34.0	
	comp=Z,181nm,1.6s						
LKD2	Lefkada island	5.26	331	P	Pn	08 17 15.4	+2.5
	comp=Z,39nm,0.9s						
KNIK	Mula-Seydike	5.28	59	P	Pn	08 17 15.0	+1.8
KNIK				S	Sn	08 18 10.0	-3.8
KNIK				IAML		08 18 15.0	
	comp=Z,45nm,1.0s						
KNIK				IAML		08 18 19.0	
	comp=Z,36nm,1.1s						
DNIZ	Denizli-Tavas-	5.35	49	P	Pn	08 17 14.8	+0.7
DNIZ				S	Sn	08 18 12.4	-2.9
DNIZ				IAML		08 18 24.0	
	comp=Z,45nm,0.4s						
DNIZ				IAML		08 18 39.0	
	comp=Z,47nm,0.5s						
APMY	Acipayam-Deniz	5.42	52	Pn	Pn	08 17 17.2	+2.1
APMY				AML	AML		
SULTU	Buldan	5.46	44	P	Pn	08 17 17.5	+1.8
SULTU				S	Sn	08 18 15.4	-2.8
SULTU				IAML		08 18 24.0	
	comp=Z,38nm,1.2s						
SULTU				IAML		08 18 26.0	
	comp=Z,43nm,0.8s						
GOLH	Golhisar	5.47	55	P	Pn	08 17 18.3	+2.5
GOLH				S	Sn	08 18 15.9	-2.4
GOLH				IAML		08 18 26.0	
	comp=Z,76nm,1.3s						
GOLH				IAML		08 19 02.0	
	comp=Z,69nm,0.9s						
ELL	Elmali	5.48	61	Pn	Pn	08 17 18.5	+2.6
ELL				AML	AML		
ELL	Elmali	5.48	61	P	Pn	08 17 17.1	+1.2
ELL	Elmali	5.48	61		Pn	08 17 17.1	+1.2
ELL	Elmali	5.48	61	P	Pn	08 17 20.5	+4.6
TETR	Tetrakomo, Epi	5.54	338	P	Pn	08 17 19.6	+2.9
AKUM	Antalya-Kumluc	5.64	66	P	Pn	08 17 18.6	+0.6
AKUM				S	Sn	08 18 19.4	-2.9
AKUM				IAML		08 18 24.0	
	comp=Z,58nm,0.6s						
AKUM				IAML		08 18 26.0	
	comp=Z,89nm,0.6s						
MANT	Manisa	5.65	40		Pn	08 17 19.1	+0.7
KULA	Kula-Manisa	5.72	40	Pn	Pn	08 17 21.7	+2.4
KULA				AML	AML		
INCE	Denizli-Bozkur	5.74	51	P	Pn	08 17 21.1	+1.6
INCE				S	Sn	08 18 22.8	-2.2
INCE				IAML		08 18 30.0	
	comp=Z,31nm,1.4s						
INCE				IAML		08 18 39.0	
	comp=Z,28nm,0.6s						
PRMD	Pramanda	5.76	338	P	Pn	08 17 22.8	+3.0
KORT	Korkueli	5.91	60	P	Pn	08 17 24.4	+2.6
KORT				S	Sn	08 18 30.2	+1.0
KORT				IAML		08 18 35.0	
	comp=Z,111nm,1.0s						
KORT				IAML		08 18 35.0	
	comp=Z,122nm,0.9s						
JAN	Janina	5.96	336	P	Pn	08 17 26.0	+3.6
JAN	Janina	5.96	336	P	Pn	08 17 26.4	+4.0
IGT	Igoumenitsa	6.03	332	P	Pn	08 17 24.3	+0.9
KZN	Kozani	6.31	345	P	Pn	08 17 30.0	+2.7
KZN	Kozani	6.31	345	P	Pn	08 17 30.8	+3.5
KZN				AML	AML		

PENT	Pentalofos	6.36	340	P	Pn	08 17 30.7	+2.7
KEK	Kerkira	6.40	330		Pn	08 17 28.0	-0.5
ISP	Isparta	6.42	54	i P	Pn	08 17 31.3	+2.4
ISP	Isparta	6.42	54	Pn	Pn	08 17 29.6	+0.7
SRN	Sarande	6.46	332	P	Pn	08 17 30.0	+0.7
	comp=Z,30nm,1.0s						
KEPZ	Antalya-Kepez	6.79	65	P	Pn	08 17 35.6	+1.8
KEPZ				S	Sn	08 18 45.7	-5.1
KEPZ				IAML		08 18 52.0	
	comp=Z,38nm,1.0s						
KEPZ				IAML		08 18 55.0	
	comp=Z,30nm,0.6s						
SRS	Serrai	6.88	358	P	Pn	08 17 37.0	+1.9
SRS				pmax	pmax		
	comp=Z,26nm,1.5s						
SRS	Serrai	6.88	358	P	Pn	08 17 36.0	+0.9
	comp=Z,17nm,0.8s						
TIP	Timpagrande	7.59	313		Pn	08 17 44.9	-0.1
TIP	Timpagrande	7.59	313	P	Pn	08 17 44.7	-0.2
	comp=Z,0.1nmcomp=Z,375nmcomp=Z,38nm,1.0s						
TIP				AML	AML		
TIP	Timpagrande	7.59	313	P	Pn	08 17 45.0	+0.1
	comp=Z,47nm,1.0s						
CEL	Celeste	7.65	304		Pn	08 17 45.3	-0.3
CEL	Celeste	7.65	304	P	Pn	08 17 45.3	-0.3
	comp=Z,0.2nmcomp=Z,606nmcomp=Z,76nm,0.9s						
CEL				AML	AML		
CEL	Celeste	7.65	304	P	Pn	08 17 46.2	+0.6
	comp=Z,76nm,0.9s						
BORA	Eskisehir	7.67	41	Pn	Pn	08 17 46.5	+0.5
CSS	Mathiatis	7.78	82		Pn	08 17 47.2	-0.2
CSS	Mathiatis	7.78	82	P	Pn	08 17 47.1	-0.2
	comp=Z,30nm,0.9s						
CSS	Mathiatis	7.78	82	P	Pn	08 17 47.4	0.0
CSS				S	Sn	08 19 10.8	-4.3
WDD	Wied Dalam	7.89	284		Pn	08 17 48.0	-0.9
WDD	Wied Dalam	7.89	284	P	Pn	08 17 48.5	-0.5
	comp=Z,91nm,0.8s						
PHP	Peshkopia	7.94	341	P	Pn	08 17 49.6	-0.1
PHP	Peshkopia	7.94	341	P	Pn	08 17 49.6	-0.1
	comp=Z,16nm,1.2s						
RAFF	Raffo Rosso	8.34	294		Pn	08 17 54.5	-0.7
VAE	Valguarnera	8.39	295	P	Pn	08 17 56.0	+0.2
	comp=Z,13nm,0.7s,baz=37,slow=12,SNR=5.7						
VAE				S	Sn	08 19 22.1	-8.1
	comp=Z,9.3nm,0.4s,baz=230,slow=12,SNR=1.1						
CUC	Castrocucco	8.67	314		Pn	08 17 59.9	+0.2
CUC	Castrocucco	8.67	314	P	Pn	08 18 00.6	+0.8
	comp=Z,18nm,0.6s						
CY604	RAF Akrotiri,	8.75	86	Pn	Pn	08 18 00.9	+0.5
MARCO	Tramutola	8.87	315	P	Pn	08 18 03.5	+1.0
	comp=Z,20nm,0.8s						
PDG	Podgorica	8.98	337		Pn	08 18 03.1	-0.7
OFRI	`Ofer	9.37	97	P	Pn	08 18 09.5	+0.2
OFRI				S	Sn	08 19 49.2	-5.1
KZIT	Kziot	9.42	108	P	Pn	08 18 10.1	+0.1
KZIT				S	Sn	08 19 49.5	-6.1
BR106	Keskin Array S	9.49	52	P	Pn	08 18 12.6	+1.6
	comp=Z,42nmcomp=Z,5.1nm,0.8s						
BR104	Keskin Array S	9.49	52	P	Pn	08 18 12.6	+1.6
	comp=Z,48nmcomp=Z,6.5nm,1.0s						
BR131	Keskin Array S	9.50	52	i P	Pn	08 18 13.0	+1.9
BR131	Keskin Array S	9.50	52		Pn	08 18 12.3	+1.2
BRTR	Keskin Array B	9.50	52	P	Pn	08 18 13.2	+2.0
	comp=Z,0.3nm,0.3s,baz=221,slow=14,SNR=7.6						
BRTR				LR	LR	08 23 06.1	
	comp=Z,367nm,18.4s,baz=234,slow=45						
	comp=Z,1.4nm,0.5s						
BRTR				AML	AML		
BRTR	Keskin Array B	9.50	52	ceP	Pn	08 18 13.1	+2.0
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
BOVS	Bovan	9.55	350	⇑P	Pn	08 18 08.5	-3.3
AMAZ	Amatzia	9.61	103	P	Pn	08 18 12.5	0.0
AMAZ				S	Sn	08 19 53.8	-6.4
MMA0B	Mount Meron ar	9.63	94	P	Pn	08 18 13.4	+0.5
MMA0B				S	Sn	08 19 55.7	-5.1
JER	Jerusalem	9.76	101	P	Pn	08 18 15.0	+0.3
JER				S	Sn	08 19 58.8	-5.2
MMLI	Mount Malkishu	9.77	97	P	Pn	08 18 14.9	+0.2
MMLI				S	Sn	08 19 58.4	-5.7
KNHM	Kefar Nahum	9.80	95	P	Pn	08 18 15.6	+0.4
KNHM				S	Sn	08 20 00.2	-4.7
GEM	Giv'at Ha'Em	9.81	93	P	Pn	08 18 15.6	+0.3
GEM				S	Sn	08 19 59.3	-5.9
RMNI	Mount Ramon	9.83	109	P	Pn	08 18 15.6	-0.1
RMNI				S	Sn	08 19 59.8	-6.0
YITV	Yitav	9.90	100	P	Pn	08 18 16.4	0.0
YITV				S	Sn	08 20 01.6	-5.5
SGRT	San Giovanni R	9.91	322		Pn	08 18 15.3	-1.4
RGMN	Argaman	9.92	99	P	Pn	08 18 16.8	+0.1
RGMN				S	Sn	08 20 02.2	-5.4
UJAP	Al Uja	9.93	100	P	Pn	08 18 16.2	-0.7
	comp=Z,41nm,0.5s						
KSHT	Keshet	9.98	94	P	Pn	08 18 18.0	+0.4
KSHT				S	Sn	08 20 04.3	-4.9
MZS	Mizpe Shalem	9.99	102	P	Pn	08 18 17.8	+0.1
MZS				S	Sn	08 20 04.0	-5.4
MSBI	Mazada	10.04	104	P	Pn	08 18 18.3	0.0
MSBI				S	Sn	08 20 04.6	-6.0
ZFRI	Zfri	10.18	108	P	Pn	08 18 19.8	-0.5
ZFRI				S	Sn	08 20 08.2	-5.9
HRFI	Mount Harif	10.29	111	P	Pn	08 18 23.3	+1.4
	comp=Z,31nm,0.7s						
HRFI	Mount Harif	10.29	111	P	Pn	08 18 22.1	+0.2
HRFI				S	Sn	08 20 11.2	-5.8
YTVT	Yotvata	10.37	112	P	Pn	08 18 23.4	+0.4
YTVT				S	Sn	08 20 12.9	-6.0
EIL	Elat	10.39	113	P	Pn	08 18 23.0	-0.2
	comp=Z,5.9nm,0.6s,baz=295,slow=3.0,SNR=14						
EIL				S	Sn	08 20 11.0	-8.5
	comp=Z,9.2nm,0.6s,baz=1.9,slow=21,SNR=4.4						
EIL	Elat	10.39	113	P	Pn	08 18 23.5	+0.2
	comp=Z,22nm,0.7s						
EIL	Elat	10.39	113	P	Pn	08 18 23.1	-0.2
EIL				S	Sn	08 20 12.9	-6.5
ANDN	Andirin	10.60	68	P	Pn	08 18 27.3	+1.1
	comp=Z,38nm,0.6s						
BNN	Bunyan	10.63	61		Pn	08 18 27.9	+1.4
ASF	Jabal al Asfar	11.04	97	P	Pn	08 18 31.9	-0.3
	comp=Z,3.5nm,0.6s,baz=272,slow=16,SNR=6.2						
ASF				S	Sn	08 20 31.2	-4.3
	comp=Z,1.5nm,0.4s,baz=64,slow=13,SNR=1.9						
INTR	Introdacqua	11.08	317		Pn	08 18 32.7	0.0
MLR	Muntele Rosu	11.35	7	P	Pn	08 18 37.3	+0.9
	comp=Z,0.1nm,0.3s,baz=248,slow=22,SNR=1.3						
	comp=Z,1.4nm,0.9s						
MLR				AML	AML		
PLOR	Plostina	11.79	9	⇓P	Pn	08 18 48.6	+6.2
VRI	Vrincioaia	11.82	10	⇓P	Pn	08 18 46.4	+3.7
NRCA	Norcia	12.06	319		Pn	08 18 46.3	+0.2
KEST	Kesra	12.07	281	P	Pn	08 18 45.3	-1.0
	comp=Z,0.1nm,0.3s,baz=107,slow=11,SNR=2.8						
	comp=Z,4.5nm,1.0s						
KEST				AML	AML		
FDMO	Fiordimonte	12.21	319		Pn	08 18 47.5	-0.7
MARR	Marisel-Cluj	12.45	357	⇓P	Pn	08 18 51.4	0.0
MORH	Mrgy, Hungar	12.63	343	⇓P	Pn	08 18 50.9	-3.0
MORH	Mrgy, Hungar	12.63	343	P	Pn	08 18 51.0	-2.8
	comp=Z,4.5nm,1.2s						
BOJS	Bojanci	13.08	332	i Pn	Pn	08 18 58.3	-1.6
BURAR	Bucovina Array	13.41	4	⇑P	P	08 19 16.2	+2.3
LEGS	Legarje	13.43	333	ePn	Pn	08 19 02.4	-2.3
KELT	Kelkit	13.56	60	P	Pn	08 19 10.6	+3.9
	comp=Z,65nm,1.4s						
SABO	M.te Sabotino	14.14	329	Pn	Pn	08 19 12.1	-2.4
OBKA	Obir	14.19	333	ePn	Pn	08 19 15.5	+0.4
	comp=Z,1.4nm,0.5s						
OBKA	Obir	14.19	333	P	Pn	08 19 15.8	+0.6
	comp=Z,5.3nm,0.7s						
GORS	Gorjuse	14.25	331	ePn	Pn	08 19 15.5	-0.5
DRE	Drenchia	14.28	330	P	Pn	08 19 16.2	-0.1
	comp=Z,16nm,0.6s						
KOPT	Kop Dagi	14.41	62	P	Pn	08 19 21.1	+2.7
KMPD	K-Podol'skiy	14.45	7	P	Pn	08 19 21.4	+2.8
ARSA	Arzberg	14.48	336	ePn	Pn	08 19 19.4	+0.3
	comp=Z,1.2nm,0.4s						
ARSA	Arzberg	14.48	336	P	Pn	08 19 17.4	-1.7
	comp=Z,5.3nm,0.8s						
ACOM	Acomizza, Ital	14.63	330	P	Pn	08 19 22.1	+0.7
	comp=Z,10nm,1.1s						
RONA	Rosalia, Austr	14.63	339	ePn	Pn	08 19 21.7	+0.5
	comp=Z,1.3nm,0.5s						
SESA	Seetaler Alpe,	14.69	334	ePn	Pn	08 19 22.4	+0.2
	comp=Z,0.9nm,0.3s						
FUSE	Fusea	14.74	329	P	Pn	08 19 24.0	+1.3
	comp=Z,9.7nm,0.8s						
STAL	STALIGIAL	14.74	328	Pn	Pn	08 19 22.5	-0.2
KOLS	Kolonicke sedl	14.75	356	eP	P	08 19 30.2	+1.5
KOLS	Kolonicke sedl	14.75	356	eP	P	08 19 30.2	+1.5
KOLS	Kolonicke sedl	14.75	356	P	Pn	08 19 25.6	+2.9
	comp=Z,6.2nm,0.8s						
VYHS	Vyhne	14.75	347	eP	P	08 19 29.3	+0.5
VYHS	Vyhne	14.75	347	eP	P	08 19 29.3	+0.5
MODS	Modra-Piesok	14.98	343	eP	P	08 19 32.2	+0.9
MODS	Modra-Piesok	14.98	343	eP	P	08 19 32.2	+0.9
SMOL	Smolenice	15.08	343	eP	P	08 19 33.1	+0.7
KBA	Koelnbreinsper	15.13	331	i Pn	Pn	08 19 28.0	-0.1
	comp=Z,0.3nm,0.2s						
KBA	Koelnbreinsper	15.13	331	P	Pn	08 19 27.9	-0.1
	comp=Z,13nm,1.1s						
ABTA	Abfaltersbach	15.21	329	ePn	Pn	08 19 29.3	+0.3
	comp=Z,0.7nm,0.3s						
STHS	Stebnicka Huta	15.31	353	eP	P	08 19 35.9	+1.0
STHS	Stebnicka Huta	15.31	353	eP	P	08 19 35.9	+1.0
SALO	Salr	15.32	322	Pn	Pn	08 19 31.2	+0.8
SALO				IAmb	IAmb	08 19 57.8	
	comp=Z,9.7nm,0.7s						
NIE	Niedzica	15.42	351	P	Pn	08 19 33.4	+1.8
	comp=Z,2.4nm,0.9s						
MOA	Molln	15.42	335	ePn	Pn	08 19 32.1	+0.3
	comp=Z,0.1nm,0.2s						
MOA	Molln	15.42	335	P	P	08 19 37.6	+1.4
	comp=Z,16nm,1.0s						
BIOA	Bad Ischl, Aus	15.52	333	ePn	Pn	08 19 33.2	+0.2
	comp=Z,1.0nm,0.3s						
LESA	Schwarzleotal	15.68	331	ePn	Pn	08 19 35.3	+0.3
	comp=Z,0.2nm,0.2s						
MAUC	Maruska	15.79	345	eP	P	08 19 41.7	+1.4
KRUC	Moravsky	15.85	342	eP	P	08 19 40.6	-0.3
KRUC	Moravsky	15.85	342	P	Pn	08 19 35.3	-1.9
	comp=Z,7.2nm,1.0s						
LUBAR	Lubar, Ukraine	15.93	9	P	Pn	08 19 39.8	+1.6
WTTA	Wattenberg	15.99	328	P	P	08 19 45.0	+2.3
WTTA	Wattenberg	15.99	328	ePn	Pn	08 19 39.4	+0.2
	comp=Z,1.8nm,0.6s						
WTTA	Wattenberg	15.99	328	P	P	08 19 45.0	+2.3
	comp=Z,11nm,1.0s						
VRAC	Vranov	16.02	342	P	Pn	08 19 37.2	-2.2
	comp=Z,0.4nm,0.3s,baz=163,slow=8.0,SNR=15						
VRAC				LR	LR	08 27 50.8	
	comp=Z,144nm,19.6s,baz=156,slow=45						
	comp=Z,2.6nm,0.7s						
VRAC				AML	AML		
VRAC	Vranov	16.02	342	eP	P	08 19 43.2	+0.4
VRAC	Vranov	16.02	342	P	P	08 19 43.4	+0.6
	comp=Z,5.6nm,0.9s						
WATA	Walderalm	16.07	328	ePn	Pn	08 19 40.3	0.0
	comp=Z,0.2nm,0.1s						
SQTA	Sankt Quirin	16.14	327	ePn	Pn	08 19 41.3	+0.1
	comp=Z,0.3nm,0.1s						
FUORN	Ofenpass-Fuorn	16.15	324	Pn	Pn	08 19 41.2	-0.1
FUORN	Ofenpass-Fuorn	16.15	324	P	P	08 19 46.2	+1.7
	comp=Z,13nm,1.4s						
OKC	Ostrava-Krasne	16.17	346	P	P	08 19 45.5	+1.0
OKC	Ostrava-Krasne	16.17	346	P	P	08 19 45.5	+1.0
	comp=Z,25nm,1.2s						
FETA	Feichten	16.22	326	ePn	Pn	08 19 42.5	+0.4
	comp=Z,0.4nm,0.5s						
MORC	Moravsky Berou	16.24	345	P	Pn	08 19 42.5	+0.2
MORC				pmax	pmax		
	comp=Z,11nm,1.0s						
MORC	Moravsky Berou	16.24	345	Pn	Pn	08 19 42.5	+0.2
MORC	Moravsky Berou	16.24	345	eP	P	08 19 45.7	+0.4
MORC	Moravsky Berou	16.24	345	P	P	08 19 46.0	+0.7
	comp=Z,12nm,1.0s						
CKRC	Cesky Krumlov	16.25	337	eP	P	08 19 46.9	+1.6
CKRC	Cesky Krumlov	16.25	337	eP	P	08 19 46.9	+1.6
OJC	Ojcow	16.27	350	P	Pn	08 19 42.4	-0.2
OJC	Ojcow	16.27	350	Pn	Pn	08 19 42.4	-0.2
OJC	Ojcow	16.27	350	P	Pn	08 19 43.9	+1.3
	comp=Z,7.8nm,1.3s						
MOTA	Moosalm	16.29	327	ePn	Pn	08 19 43.4	+0.4
	comp=Z,0.3nm,0.2s						
TREC	Trest	16.30	340	P	P	08 19 46.8	+0.8
TREC	Trest	16.30	340	P	P	08 19 46.8	+0.8
	comp=Z,16nm,0.9s						
HAKT	HAKKARI	16.36	73	P	P	08 19 48.1	+1.2
	comp=Z,32nm,2.3s						
DAVOX	Davos/Dischmat	16.45	324	P	Pn	08 19 42.9	-2.2
	comp=Z,0.2nm,0.3s,baz=150,slow=18,SNR=7.1						
	comp=Z,9.9nm,1.3s						
DAVOX				AML	AML		
GEC2	GERESS Array S	16.47	336	Pn	Pn	08 19 45.3	0.0
GEC2	GERESS Array S	16.47	336	P	P	08 19 49.0	+1.1
	comp=Z,15nm,1.1s						
GERES	GERESS Array B	16.47	336	P	Pn	08 19 44.0	-1.3
	baz=155,slow=13,SNR=15						
	comp=Z,1.7nm,0.7s						
GERES	GERESS Array B	16.47	336	P	Pn	08 19 44.9	-0.4
GERES	GERESS Array B	16.47	336	P	Pn	08 19 44.9	-0.4
EPOS	Posof	16.50	58	P	P	08 19 49.9	+1.6
	comp=Z,16nm,1.0s						
TUE	Stuetta	16.50	322		Pn	08 19 46.4	+0.6
TUE	Stuetta	16.50	322	P	Pn	08 19 46.5	+0.7
	comp=Z,37nm,0.9s						
TUE	Stuetta	16.50	322	P	P	08 19 50.5	+2.2
	comp=Z,9.2nm,0.9s						
RETA	Reutte	16.55	327	ePn	Pn	08 19 46.9	+0.6
	comp=Z,0.1nm,0.2s						
KRLC	Kraliky	16.69	344	eP	P	08 19 51.4	+1.1
KRLC	Kraliky	16.69	344	eP	P	08 19 51.4	+1.1
KRLC	Kraliky	16.69	344	P	P	08 19 51.1	+0.8
	comp=Z,16nm,1.1s						
KHC	Kasperske Hory	16.76	336	ceP	Pn	08 19 48.4	-0.4
KHC				pmax	pmax		
	comp=Z,17nm,1.3s						
KHC	Kasperske Hory	16.76	336	eP	Pn	08 19 47.5	-1.3
	comp=Z,3.5nm,0.6s						
KHC	Kasperske Hory	16.76	336		Pn	08 19 48.5	-0.4
KHC				IAmb	IAmb	08 19 53.8	
	comp=Z,15nm,1.0s						
KHC	Kasperske Hory	16.76	336	P	P	08 19 50.9	-0.1
	comp=Z,16nm,1.0s						
KHC	Kasperske Hory	16.76	336	P	Pn	08 19 48.1	-0.7
	comp=Z,16nm,1.0s						
AK07	Malin Array Si	16.76	12	P	P	08 19 50.5	-0.5
AK06	Malin Array Si	16.79	12	P	P	08 19 50.9	-0.4
DAVA	Damuels	16.81	325	ePn	Pn	08 19 50.2	+0.6
	comp=Z,0.2nm,0.2s						
DAVA	Damuels	16.81	325	P	P	08 19 52.0	+0.3
	comp=Z,16nm,1.1s						
AK10	Malin Array Si	16.82	12	P	P	08 19 50.9	-0.7
AK14	Malin Array Si	16.82	11	P	P	08 19 50.9	-0.8
ZVC	Zvikov	16.82	338	eP	Pn	08 19 49.4	-0.2
AK05	Malin Array Si	16.83	12	P	P	08 19 51.0	-0.7
AK09	Malin Array Si	16.84	12	P	P	08 19 51.1	-0.7
AK12	Malin Array Si	16.84	12	P	P	08 19 51.2	-0.7
AK08	Malin Array Si	16.85	12	P	P	08 19 51.3	-0.7
AK16	Malin Array Si	16.86	11	P	P	08 19 51.4	-0.7
AK02	Malin Array Si	16.86	12	P	P	08 19 51.5	-0.6
AK17	Malin Array Si	16.87	11	P	P	08 19 51.5	-0.6
AK11	Malin Array Si	16.88	12	P	P	08 19 51.7	-0.6
AKASG	Malin Array Be	16.91	12	P	Pn	08 19 50.8	+0.1
	comp=Z,0.9nm,0.4s,baz=214,slow=11,SNR=10						
AKASG				LR	LR	08 26 04.0	
	comp=Z,94nm,20.7s,baz=186,slow=36						
AKBB	Malin Array Si	16.91	12	i P	Pn	08 19 51.3	+0.6
UBR	Ueberruh	16.99	326	P	P	08 19 53.9	+0.2
	comp=Z,10nm,1.0s						
WET	Wettzell	17.01	334	P	P	08 19 54.3	+0.5
WET	Wettzell	17.01	334	P	P	08 19 54.3	+0.5
	comp=Z,11nm,1.4s						
RNPP5	Staryi Chortor	17.05	4	P	P	08 19 53.9	-0.3
DPC	Dobruska-Polom	17.05	343	P	P	08 19 54.8	+0.5
DPC	Dobruska-Polom	17.05	343	eP	P	08 19 55.2	+0.9
DPC	Dobruska-Polom	17.05	343	P	P	08 19 54.8	+0.5
	comp=Z,12nm,1.0s						
RNPP8	Varash	17.16	4	P	P	08 19 55.3	0.0
NEUR	Neytrino	17.16	53	i P	P	08 19 55.0	-0.7
NEUR				pmax	pmax		
	comp=Z,7.0nm,1.2s						
PRU	Pruhonice	17.20	339	eP	Pn	08 19 55.0	+0.6
PRU				pmax	pmax		
	comp=Z,1.0nm,0.3s						
PRU	Pruhonice	17.20	339	eP	Pn	08 19 55.0	+0.6
	comp=Z,1.1nm,0.3s						
PRU	Pruhonice	17.20	339	P	Pn	08 19 54.2	-0.1
	comp=Z,9.1nm,1.1s						
BNALP	Bannalp	17.24	322	P	P	08 19 58.3	+1.8
	comp=Z,16nm,1.4s						
OSTC	Ostas	17.27	343	eP	P	08 19 58.5	+1.8
OSTC	Ostas	17.27	343	eP	P	08 19 58.5	+1.8
UPC	Upice	17.27	343	P	P	08 19 57.1	+0.4
UPC	Upice	17.27	343	eP	P	08 19 58.0	+1.3
UPC	Upice	17.27	343	P	P	08 19 57.1	+0.4
	comp=Z,20nm,1.1s						
GRC3	Grafenberg Arr	17.29	332	P	Pn	08 19 54.6	-0.8
	comp=Z,10.0nm,0.7s						
GRB5	Grafenberg Arr	17.43	332	P	P	08 19 59.4	+1.0
	comp=Z,10nm,0.9s						
KIV	Kislovodsk	17.46	51	eP	P	08 19 58.8	-0.1
KIV				pmax	pmax		
	comp=Z,8.0nm,1.1s						
KIV				MLR	MLR		
	comp=Z,55nm,14.0s						
KBZ	Khabaz	17.49	52	P	P	08 19 59.3	+0.2
	comp=Z,0.3nm,0.3s,baz=246,slow=9.2,SNR=5.7						
	comp=Z,4.2nm,0.8s						
KBZ				AML	AML		
KBZ	Khabaz	17.49	52	ceP	P	08 19 59.7	+0.6
KBZ				pmax	pmax		
	comp=Z,8.0nm,0.9s						
SENIN	Lac Senin/Sane	17.51	319	P	Pn	08 19 58.9	+0.4
GRB2	Grafenberg Arr	17.56	333	P	P	08 20 00.7	+0.8
	comp=Z,18nm,1.0s						
GRB3	Grafenberg Arr	17.57	333	P	P	08 20 01.2	+1.2
	comp=Z,25nm,0.9s						
GNI	Garni	17.58	64	LR	LR	08 28 32.3	
	comp=Z,298nm,19.9s,baz=273,slow=43						
GRB1	Grafenberg Arr	17.67	333	P	P	08 20 02.4	+1.3
GRB1	Grafenberg Arr	17.67	333	P	P	08 20 02.4	+1.3
	comp=Z,34nm,1.0s						
GRB4	Grafenberg Arr	17.77	333	P	P	08 20 03.4	+1.2
	comp=Z,39nm,1.0s						
SLE	Schleitheim	17.81	324	P	Pn	08 20 02.3	+0.3
SLE	Schleitheim	17.81	324	P	Pn	08 20 02.3	+0.3
	comp=Z,14nm,1.3s						
GRA2	Grafenberg Arr	17.99	333	P	P	08 20 06.7	+2.0
	comp=Z,22nm,1.0s						
GRA1	Grafenberg Arr	18.08	333		P	08 20 06.4	+0.8
GRA1				IAmb	IAmb	08 20 35.4	
	comp=Z,20nm,1.1s						
GRF	Grafenberg Arr	18.08	333	P	P	08 20 06.4	+0.8
GRF				pmax	pmax		
	comp=Z,20nm,1.1s						
HSKC	Hora Svate Kat	18.08	338	P	P	08 20 05.6	-0.1
	comp=Z,6.1nm,0.9s						
GRA3	Grafenberg Arr	18.10	333	P	P	08 20 08.4	+2.6
	comp=Z,31nm,1.1s						
BRG	Berggiesshubel	18.16	339	P	P	08 20 06.4	-0.1
BRG	Berggiesshubel	18.16	339	P	P	08 20 06.4	-0.1
	comp=Z,5.9nm,0.7s						
BRG	Berggiesshubel	18.16	339	eP	P	08 20 06.6	+0.1
BRG				Amp		08 20 07.3	
	comp=Z,4.2nm,0.9s						
BRG				PP	PnPn	08 20 16.2	-1.3
BRG				Amp		08 20 16.7	
	comp=Z,3.1nm,0.9s						
BOURR	Bourrignon	18.20	321	P	Pn	08 20 06.7	-0.1
	comp=Z,21nm,1.0s						
TANN	Tannenbergstha	18.23	336	P	P	08 20 08.5	+1.2
	comp=Z,13nm,2.3s						
BFO	Black Forest	18.28	325	P	Pn	08 20 07.7	-0.1
BFO				pmax	pmax		
	comp=Z,5.0nm,0.8s						
BFO	Black Forest	18.28	325		Pn	08 20 07.7	-0.1
CLL	Collm	18.83	338	⇑iP	Pn	08 20 14.6	+0.3
CLL				pmax	pmax		
	comp=Z,18nm,1.1s						
CLL	Collm	18.83	338	IAmb	IAmb	08 20 16.3	
	comp=Z,17nm,1.1s						
CLL	Collm	18.83	338	P	Pn	08 20 14.6	+0.3
	comp=Z,16nm,1.1s						
CLL	Collm	18.83	338	P	Pn	08 20 14.6	+0.3
	comp=Z,16nm,1.1s						
CLL	Collm	18.83	338	⇑iP	Pn	08 20 14.6	+0.3
	comp=Z,18nm,1.1s						
CLL				ePPP	PPP	08 20 36.0	
CLL				LH		08 26 00.0	
CLL				LV		08 27 00.0	
UBBA	Unterbreizbach	19.45	333	P	P	08 20 18.5	-2.0
	comp=Z,12nm,1.9s						
WIMM	Wimmelburg	19.49	336	P	Pn	08 20 23.4	+1.1
	comp=Z,33nm,1.4s						
CEST	Esterri de Car	19.60	302		Pn	08 20 24.2	+0.4
CEST				IAmb	IAmb	08 20 26.6	
	comp=Z,19nm,1.0s						
TNS	Taunus Mts	19.61	329	P	Pn	08 20 25.5	+1.7
TNS	Taunus Mts	19.61	329	P	Pn	08 20 25.5	+1.7
	comp=Z,25nm,1.2s						
GTTG	Gottingen	20.05	334	P	Pn	08 20 29.2	+0.2
	comp=Z,24nm,1.2s						
WLF	Walferdange	20.24	325	P	Pn	08 20 30.5	-0.8
WLF				pmax	pmax		
	comp=Z,25nm,1.1s						
WLF	Walferdange	20.24	325		Pn	08 20 30.5	-0.7
WLF				IAmb	IAmb	08 20 52.8	
	comp=Z,25nm,1.1s						
WLF	Walferdange	20.24	325	dP	Pn	08 20 31.0	-0.3
	comp=Z,11nm,1.2s						
WLF	Walferdange	20.24	325	P	Pn	08 20 31.4	+0.1
	comp=Z,22nm,1.5s						
MNK	Minsk	20.46	7	i P	P	08 20 31.2	-0.3
MNK				i PPP	PPP	08 20 55.8	
MNK				i S	S	08 24 20.1	+0.3
MNK				i SS	SnSn	08 24 39.2	+0.7
MNK				i SSS	SSS	08 24 52.2	
MNK				pmax	pmax		
	comp=E,34nm,1.0s						
MNK				pmax	pmax		
	comp=Z,27nm,0.8s						
MNK				pmax	pmax		
	comp=N,16nm,0.6s						
MNK				MLR	MLR		
	comp=Z,54nm,13.0s						
MNK	Minsk	20.46	7	i P	P	08 20 31.2	-0.3
	comp=E,34nm,1.0s						
MNK				i P	P	08 20 31.2	-0.3
	comp=N,16nm,0.6s						
MNK				i P	P	08 20 31.2	-0.3
	comp=Z,27nm,0.8s,baz=190						
MNK				i PP	PnPn	08 20 48.0	-0.8
MNK				i PPP	PPP	08 20 55.8	
MNK				i S	S	08 24 20.1	+0.3
MNK				i SS	SnSn	08 24 39.2	+0.7
MNK				i SSS	SSS	08 24 52.2	
MNK				i LQ	LQ	08 26 40.7	
MNK				i LR	LR	08 28 13.6	
MNK				i LRM	MLR	08 29 35.7	
	comp=Z,54nm,13.2s						
NACGM	Naroch	20.77	5	⇑iP	P	08 20 34.1	-0.8
	comp=N,49nm,1.3s						
MEM	Membach	20.96	327	dP	Pn	08 20 38.7	-0.9
	comp=Z,9.1nm,1.0s						
RCHB	Rochefort	21.02	325	dP	P	08 20 38.4	+0.7
HGN	Heimansgroeve	21.11	327	P	P	08 20 43.2	+4.6
BCLA	Clavier	21.16	325	dP	P	08 20 41.3	+2.1
RETH	Rethem/Aller,	21.24	335	P	P	08 20 41.1	+1.2
	comp=Z,16nm,1.1s						
PABE	Paberze	21.28	0	P	P	08 20 39.7	-0.6
	comp=Z,21nm,0.7s						
DOU	Dourbes	21.28	324	dP	P	08 20 41.1	+0.6
	comp=Z,26nm,0.9s						
BMRD	Maredsous	21.33	325	dP	P	08 20 41.7	+0.7
BMRD				dPP	PnPn	08 21 00.8	-0.1
RAYN	Ar Rayn	21.64	114	P	P	08 20 49.7	+5.0
	comp=Z,4.5nm,1.0s						
BMOL	Mol	21.80	327	dP	P	08 20 44.8	-1.3
BSKQ	Steenkerk	21.89	325	dP	P	08 20 47.7	+0.7
	comp=Z,12nm,1.1s						
BSKQ				dPP	PnPn	08 21 08.6	+0.1
BSEG	Bad Segeberg	21.93	338	P	P	08 20 47.0	-0.3
BSEG	Bad Segeberg	21.93	338	P	P	08 20 47.0	-0.3
	comp=Z,21nm,1.4s						
OBN	Obninsk	22.66	19	P	P	08 20 54.8	-0.3
	comp=Z,7.0nm,0.4s,baz=241,slow=17,SNR=3.1						
	comp=Z,7.0nm,0.4s						
OBN	Obninsk	22.66	19	⇓eP	P	08 20 55.2	0.0
OBN				*PP	pP	08 20 58.0	-1.3
OBN				e		08 21 06.8	
OBN				ePPP	PPP	08 21 27.3	
OBN				eS	S	08 25 05.0	+2.5
OBN				pmax	pmax		
	comp=Z,14nm,1.0s						

OBN				MLR	MLR		
	comp=Z,93nm,19.0s						
ESDC	Sonseca Array	22.91	292	P	P	08 20 56.3	-1.7
	comp=Z,2.2nm,1.0s,baz=81,slow=8.9,SNR=9.5						
	comp=Z,2.2nm,1.0s						
MD01	Midelt array s	23.93	275		P	08 21 09.0	+0.6
MD31	MD31	23.93	275		P	08 21 08.9	+0.6
MD31				IAmb	IAmb	08 21 09.8	
	comp=Z,5.1nm,1.0s						
BELG	Belogornoye	24.84	36	P	P	08 21 16.6	+0.3
	comp=Z,34nm,0.7s,baz=325,slow=2.0,SNR=9.1						
	comp=Z,34nm,0.7s						
BELG	Belogornoye	24.84	36	*i* P	P	08 21 15.3	-1.0
BELG				pmax	pmax		
	comp=Z,5.0nm,0.7s						
HFS	Hagfors	26.77	349	P	P	08 21 32.9	-0.8
	comp=Z,1.9nm,0.5s,baz=164,slow=12,SNR=8.6						
	comp=Z,1.9nm,0.5s						
KONO	Kongsberg	27.13	344	*i* P	P	08 21 36.0	-0.9
FINES	FINESS Array B	27.27	2	P	P	08 21 36.5	-1.6
	comp=Z,3.6nm,0.9s,baz=164,slow=12,SNR=7.8						
FINES				LR	LR	08 33 17.2	
	comp=Z,125nm,20.1s,baz=206,slow=38						
	comp=Z,3.6nm,0.9s						
FINES	FINESS Array B	27.27	2	*i* P	P	08 21 36.9	-1.2
FINES	FINESS Array B	27.27	2	P	P	08 21 36.8	-1.4
NORES	NORESS Array B	27.72	347	P	P	08 21 43.5	+1.3
NAO01	NORSAR Array S	27.94	346	P	P	08 21 44.2	0.0
NAO01				IAmb	IAmb	08 21 56.7	
	comp=Z,13nm,1.1s						
NB2	NORSAR Subarra	28.06	347	P	P	08 21 44.4	-0.9
	comp=Z,0.8nm,0.6s,baz=156,slow=9.3						
NOA	NORSAR Array B	28.06	347	P	P	08 21 44.2	-1.1
	comp=Z,1.1nm,0.7s,baz=149,slow=9.7,SNR=9.4						
	comp=Z,1.1nm,0.7s						
NBO00	NORSAR Array S	28.14	346	P	P	08 21 45.3	-0.6
EKA	Eskdalemuir Ar	28.24	327	P	P	08 21 46.5	-0.4
	comp=Z,2.9nm,0.5s,baz=124,slow=7.8,SNR=22						
	comp=Z,2.9nm,0.5s						
EKA	Eskdalemuir Ar	28.24	327	P	P	08 21 47.6	+0.7
EKA				pmax	pmax		
	comp=Z,8.0nm,1.2s						
ESK	Eskdalemuir	28.25	327	P	P	08 21 47.3	+0.2
ESK				pmax	pmax		
	comp=Z,19nm,1.3s						
ESK	Eskdalemuir	28.25	327	P	P	08 21 47.3	+0.2
ESK				IAmb	IAmb	08 21 48.6	
	comp=Z,19nm,1.2s						
EKB	Eskdalemuir	28.26	327	P	P	08 21 47.2	+0.1
TORD	Torodi Ar. Bea	29.12	229	P	P	08 21 55.7	+0.6
	comp=Z,2.8nm,0.6s,baz=38,slow=8.2,SNR=14						
TORD				LR	LR	08 36 47.2	
	comp=Z,151nm,18.8s,baz=293,slow=43						
	comp=Z,2.8nm,0.6s						
AKTO	Aktyubinsk	29.62	46	P	P	08 21 58.8	-0.4
	comp=Z,1.6nm,0.5s,baz=255,slow=8.6,SNR=7.8						
	comp=Z,1.6nm,0.5s						
AB31	Akbulak array	30.44	49		P	08 22 07.2	+0.8
ABKAR	Akbulak array	30.44	49	P	P	08 22 07.4	+0.9
ARTI	Arti	32.29	36	*d i*P	P	08 22 22.4	-0.3
ARTI						08 23 25.8	
ARTI						08 25 04.6	
ARTI				S	S	08 27 37.7	+2.3
ARTI				SS	SnSn	08 29 27.8	+0.6
ARTI				pmax	pmax		
	comp=Z,10.0nm,1.1s						
ARTI	Arti	32.29	36		P	08 22 22.3	-0.3
SVE	Sverdlovsk	33.60	36	*e*P	P	08 22 34.9	+0.8
SVE				pmax	pmax		
	comp=Z,12nm,0.8s						
ARCES	ARCESS Array B	35.37	1	P	P	08 22 47.7	-1.6
	comp=Z,2.8nm,0.6s,baz=170,slow=8.1,SNR=14						
	comp=Z,2.8nm,0.6s						
ARCES	ARCESS Array B	35.37	1	P	P	08 22 47.7	-1.6
ARCES				pmax	pmax		
	comp=Z,13nm,1.3s						
ARCES	ARCESS Array B	35.37	1	P	P	08 22 47.7	-1.6
ARCES				IAmb	IAmb	08 23 05.5	
	comp=Z,13nm,1.3s						
KK31	Karatay Array	37.02	62	P	P	08 23 03.7	-0.1
KK31				pmax	pmax		
	comp=Z,3.0nm,0.9s						
KK31	Karatay Array	37.02	62		P	08 23 03.7	-0.1
KK31				IAmb	IAmb	08 23 07.7	
	comp=Z,2.9nm,0.8s						
KKAR	Karatay Array	37.02	62	P	P	08 23 04.2	+0.4
KKAR	Karatay Array	37.02	62		P	08 23 04.2	+0.4
BORK	Borovoye	37.68	46	*i* P	P	08 23 10.7	+1.5
BVAR	Borovoye Array	37.71	46	P	P	08 23 10.5	+1.0
	comp=Z,0.7nm,0.5s,baz=247,slow=10,SNR=2.0						
	comp=Z,0.7nm,0.5s						
DBIC	Dimbokro	38.20	231	P	P	08 23 14.0	0.0
	comp=Z,2.9nm,0.6s,baz=38,slow=10,SNR=5.1						
	comp=Z,2.9nm,0.6s						
DBIC	Dimbokro	38.20	231	P	P	08 23 14.0	0.0
DBIC				pmax	pmax		
	comp=Z,23nm,1.5s						
DBIC	Dimbokro	38.20	231	P	P	08 23 13.9	0.0
DBIC				IAmb	IAmb	08 23 24.7	
	comp=Z,23nm,1.5s						
AAK	Ala-Archa	39.97	62	*ce*P	P	08 23 31.7	+2.9
AAK				pmax	pmax		
	comp=Z,3.0nm,1.0s						
KURBB	Kurchatov Arra	42.48	50	P	P	08 23 49.9	+0.7
	comp=Z,1.8nm,0.4s,baz=273,slow=8.6,SNR=30						
	comp=Z,1.8nm,0.4s						
KURK	Kurchatov	42.54	50	*ce*P	P	08 23 51.2	+1.6
KURK				pmax	pmax		
	comp=Z,2.0nm,0.4s						
SPITS	Spitsbergen Ar	44.17	358	P	P	08 24 01.7	-0.7
	comp=Z,3.8nm,0.8s,baz=148,slow=11,SNR=4.9						
	comp=Z,3.8nm,0.8s						
SPITS	Spitsbergen Ar	44.17	358	P	P	08 24 03.0	+0.6
SPITS				pmax	pmax		
	comp=Z,47nm,1.4s						
MK31	Makanchi Array	45.12	56	*ce*P	P	08 24 11.5	+1.1
MKAR	Makanchi Array	45.12	56	P	P	08 24 11.5	+1.1
	comp=Z,4.4nm,0.6s,baz=279,slow=5.4,SNR=18						
	comp=Z,4.4nm,0.6s						
MKAR	Makanchi Array	45.12	56	*i* P	P	08 24 11.8	+1.4
MKAR				pmax	pmax		
	comp=Z,5.0nm,0.6s						
ZALV	Zalesovo Beam	46.37	46	P	P	08 24 20.4	+0.3
	comp=Z,1.8nm,0.5s,baz=274,slow=11,SNR=5.4						
	comp=Z,1.8nm,0.5s						
NRIK	Noril'sk	49.14	25	LR	LR	08 47 04.8	
	comp=Z,91nm,19.3s,baz=314,slow=38						
LSZ	Lusaka	49.39	175	LR	LR	08 46 25.1	
	comp=Z,116nm,18.0s,baz=320,slow=37						
SONM	Songino Array	60.85	50	P	P	08 26 08.1	+1.5
	comp=Z,1.0nm,0.5s,baz=294,slow=11,SNR=3.7						
	comp=Z,1.0nm,0.5s						
ULN	Ulaanbaatar	61.26	50	*ce*P	P	08 26 11.1	+1.8
ULN				pmax	pmax		
	comp=Z,3.0nm,1.0s						
BOSA	Boshof	62.51	179	P	P	08 26 19.2	+1.4
	comp=Z,3.5nm,1.0s,baz=23,slow=4.7,SNR=4.2						
BOSA				LR	LR	08 57 45.5	
	comp=Z,93nm,18.1s,baz=354,slow=40						
	comp=Z,3.5nm,1.0s						
BOSA	Boshof	62.51	179	P	P	08 26 19.1	+1.4
BOSA				IAmb	IAmb	08 26 21.0	
	comp=Z,4.2nm,1.0s						
SCHQ	Schefferville	63.24	320	P	P	08 26 22.1	-0.3
	comp=Z,4.6nm,0.6s,baz=55,slow=5.0,SNR=8.6						
	comp=Z,4.6nm,0.6s						
SCHQ	Schefferville	63.24	320	P	P	08 26 22.6	+0.3
ILON	Igloolik, Nuna	63.66	338	P	P	08 26 25.0	+0.3
BATG	Bathurst New B	65.79	312	P	P	08 26 39.5	+0.3
SUR	Sutherland	66.32	183	LR	LR	08 56 06.7	
	comp=Z,117nm,19.8s,baz=342,slow=36						
KLR	Kul'dur	75.12	40	*ce*P	P	08 27 35.7	-0.4
KLR				pmax	pmax		
	comp=Z,8.0nm,2.5s						
YKA	Yellowknife Ar	78.02	342	P	P	08 27 51.9	-0.3
	comp=Z,0.7nm,0.7s,baz=28,slow=5.5,SNR=3.6						
	comp=Z,0.7nm,0.7s						
USRK	Ussuriysk Ar.	78.21	44	P	P	08 27 53.9	+0.4
	comp=Z,1.4nm,0.6s,baz=282,slow=2.8,SNR=3.7						
	comp=Z,1.4nm,0.6s						
KSRS	Korea Array	79.64	52	P	P	08 28 02.4	+0.8
	comp=Z,1.3nm,0.7s,baz=314,slow=4.9,SNR=7.2						
	comp=Z,1.3nm,0.7s						
ILAR	Eielson Array	81.06	356	P	P	08 28 08.7	-0.1
	comp=Z,0.7nm,0.8s,baz=7.5,slow=3.7,SNR=5.8						
	comp=Z,0.7nm,0.8s						
JNU	Nakatsue	84.15	54	LR	LR	09 10 24.4	
	comp=Z,56nm,19.0s,baz=51,slow=39						
BDFB	Brasilia	84.42	247	P	P	08 28 28.0	+0.9
	comp=Z,3.4nm,0.7s,baz=25,slow=7.8,SNR=4.8						
	comp=Z,3.4nm,0.7s						
BDFB	Brasilia	84.42	247	P	P	08 28 28.0	+0.9
MJAR	Matsushiro Arr	86.69	47	P	P	08 28 39.0	+0.9
	comp=Z,1.7nm,1.0s,baz=298,slow=5.4,SNR=4.5						
	comp=Z,1.7nm,1.0s						
QSPA	South Pole Qui	124.09	180	PKP	PKiKP	08 34 51.8	-0.1
	comp=Z,0.9nm,0.7s,baz=282,slow=1.6,SNR=8.4						
QSPA	South Pole Qui	124.09	180	PKPdf	PKiKP	08 34 52.2	+0.3

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*IDC **20** 08:23:18.1±5.4, 7°.12S×129°.25E, h114^{km}±52^{km}, mb3.6/6, mbtmp4.0/9, Error ellipse: s-maj=60.5km s-min=20.3km az=56.0*

*NEIC **20** 08:23:20.9±1.0, 7°.12S±0°.07×129°.50E±0°.09, h148^{km}±7^{km}, mb4.2/12, Error ellipse: s-maj=14.0km s-min=8.4km az=61.0*

*DJA **20** 08:23:21.2±0.7, 7°S±5°×13°0E±°, h183^{km}±22^{km}, M4.2/4, mB4.7/3, mb4.3/3, mb4.2/4, Mw(mB)4.0/3*

ISC 20 08:23:20.1±0.6, **7°.18S**±0°.07×**129°.44E**±0°.07, **h139**^{km}, **n47**, σ**1^s.86**/48, **mb4.0**/9, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SAUI	Saumlaki	2.01	114	P	Pn	08 23 57.6	+2.9
SAUI	Saumlaki	2.01	114	Pn	Pn	08 23 56.7	+2.0
SAUI				Sn	Sn	08 24 22.4	+1.1
SAUI	Saumlaki	2.01	114	P	Pn	08 23 57.1	+2.4
FAKI	Fak Fak	5.07	34	Pn	Pn	08 24 33.7	-0.6
FAKI	Fak Fak	5.07	34	P	Pn	08 24 33.2	-1.2
	2μm16nm,0.7s,16nm,0.7s						
DRS	Darwin Rock St	5.42	165	P	Pn	08 24 40.2	+1.3
SOEI	Soe	5.72	243	P	Pn	08 24 46.1	+2.9
SOEI	Soe	5.72	243		Pn	08 24 46.0	+2.8
SOEI	Soe	5.72	243	P	Pn	08 24 46.2	+3.0
	1μm99nm,0.8s						
MTN	Manton Dam	5.87	164		Pn	08 24 46.4	+1.4
KNRA	Kununurra	8.47	184		Pn	08 25 20.1	+0.1
FITZ	Fitzroy Crossi	11.47	198	P	Pn	08 25 59.0	-0.9
	4.1nm,0.8s,baz=24,slow=13,SNR=19						
FITZ				S	Sn	08 27 57.1	-9.4
	7.9nm,0.4s,baz=255,slow=22,SNR=6.0						
FITZ	Fitzroy Crossi	11.47	198	P	Pn	08 25 58.4	-1.5
FITZ	Fitzroy Crossi	11.47	198	Pn	Pn	08 25 59.2	-0.6
PLAI	Plampang	11.67	261	P	Pn	08 26 03.1	+0.6
WB0	Warramunga Arr	13.41	159		Pn	08 26 23.4	-1.6
WRAB	Tennant Creek	13.55	160	P	Pn	08 26 25.4	-1.4
WRAB	Tennant Creek	13.55	160		Pn	08 26 26.1	-0.7
WRA	Warramunga Arr	13.55	160	P	Pn	08 26 25.6	-1.2
	2.4nm,0.4s,baz=342,slow=13,SNR=35						
WRA				S	Sn	08 28 48.0	-8.7
	10nm,0.4s,baz=331,slow=24,SNR=15						
WB2	Warramunga Arr	13.55	160	Pn	Pn	08 26 25.4	-1.6
WR8	Warramunga Arr	13.62	159		Pn	08 26 26.3	-1.4
WR0	Warramunga Arr	13.64	159	Pn	Pn	08 26 27.5	-0.4
JAGI	Jajag, Banyuwa	15.20	264	Pn	Pn	08 26 47.9	+0.2
QIS	Mount Isa	16.55	145	P	P	08 27 05.6	+1.2
AS31	Alice Springs	16.95	166		P	08 27 08.7	0.0
ASAR	Alice Springs	16.95	166	P	Pn	08 27 10.4	+1.3
	3.9nm,0.5s,baz=340,slow=10,SNR=33						
ASAR				S	S	08 30 09.8	-8.5
	3.4nm,0.6s,baz=349,slow=28,SNR=5.9						
ASAR	Alice Springs	16.95	166		P	08 27 08.8	+0.1
KKM	Kota Kinabalu	18.62	315	P	P	08 27 26.2	-0.9
KKM				IAmb	IAmb	08 28 01.4	
	comp=Z,14nm,1.0s						
SBUM	Sibu	19.67	298		P	08 27 37.9	-0.6
SBUM				IAmb	IAmb	08 27 43.3	
	comp=Z,6.3nm,1.0s						
CTA	Charters Tower	20.75	130	P	Pn	08 27 52.3	-1.8
	comp=Z,1.0nm,0.5s,baz=310,slow=13,SNR=1.4						
	comp=Z,1.0nm,0.5s						
BBJI	Bungbulang	21.62	268	P	P	08 27 59.6	+0.1
BBJI				IAmb	IAmb	08 28 03.2	
	comp=Z,21nm,1.1s						
INKA	Innaminka	23.09	154	P	P	08 28 12.3	-1.5
INKA				IAmb	IAmb	08 28 17.2	
	comp=Z,6.8nm,0.7s						
FORT	Forrest	23.52	183	P	P	08 28 17.7	0.0
FORT				IAmb	IAmb	08 28 21.8	
	comp=Z,12nm,0.8s						
BBOO	Buckleboo	26.24	167	P	P	08 28 42.1	-0.1
STKA	Stephens Creek	27.07	157	P	P	08 28 51.0	+1.3
	comp=Z,2.3nm,0.6s,baz=326,slow=8.5,SNR=3.2						
	comp=Z,2.3nm,0.6s						
CM31	Chiang Mai Arr	39.42	311	P	P	08 30 35.9	-0.9
SONM	Songino Array	58.44	342	P	P	08 33 01.8	+0.4
	comp=Z,1.2nm,0.6s,baz=146,slow=8.7,SNR=4.3						
	comp=Z,1.2nm,0.6s						
MKAR	Makanchi Array	68.07	327	P	P	08 34 05.1	+0.3
	comp=Z,0.9nm,0.4s,baz=121,slow=6.7,SNR=13						
	comp=Z,0.9nm,0.4s						
MKAR	Makanchi Array	68.07	327	P	P	08 34 04.1	-0.7
MAKZ	Makanchi	68.25	327	P	P	08 34 05.1	-0.8
MAKZ				IAmb	IAmb	08 34 18.9	
	comp=Z,2.1nm,0.9s						
ZALV	Zalesovo Beam	71.50	334	P	P	08 34 24.0	-1.5
	comp=Z,0.4nm,0.4s,baz=153,slow=4.7,SNR=2.1						
	comp=Z,0.4nm,0.4s						
VNDA	Vanda	72.34	173	P	P	08 34 31.8	+1.6
KURBB	Kurchatov Arra	72.37	329	P	P	08 34 30.4	-0.5
	comp=Z,0.5nm,0.4s,baz=126,slow=5.0,SNR=5.8						
	comp=Z,0.5nm,0.4s						
KURK	Kurchatov	72.38	329	P	P	08 34 30.6	-0.3
ABKAR	Akbulak array	82.30	322	P	P	08 35 26.8	+0.6
LPAZ	La Paz	150.91	143	PKPbc	PKiKP	08 42 59.4	+0.6
	comp=Z,0.8nm,0.4s,baz=287,slow=1.3,SNR=12						
LPAZ	La Paz	150.91	143		PKiKP	08 43 00.3	+1.5

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*IDC **20** 08:41:11.9±4.7, 16°.08S×168°.44E, h180^{km}±37^{km}, mb3.5/6, mbtmp4.1/7, Error ellipse: s-maj=37.1km s-min=25.6km az=26.0*

*NOU **20** 08:41:16.4, 16°.23S×168°.06E, h180^{km}, MLv4.4/29, Vanuatu Islands*

ISC 20 08:41:15.1±1.1, **16°.14S**±0°.08×**168°.3E**±0°.1, **h200**^{km}, **n25**, σ**1^s.61**/26, **mb3.9**/6, **Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SANVU	Saraoutou	1.25	303	P	Pn	08 41 45.0	-1.8
SANVU	Saraoutou	1.25	303	S	Sn	08 42 07.5	-3.7
RTV	Rentapao	1.65	175	P	Pn	08 41 50.0	-0.1
RTV	Rentapao	1.65	175	S	Sn	08 42 15.2	-2.3
MARNC	Mare, Loyalty	5.31	183	P	Pn	08 42 32.8	-0.7
MARNC	Mare, Loyalty	5.31	183	S	Sn	08 43 34.0	-1.5
YATNC	Mamie plateau,	6.03	192	P	Pn	08 42 41.6	-1.2
DZM	Mont Dzumac	6.15	196	P	Pn	08 42 42.8	-1.6
	24nm,0.6s,baz=19,slow=15,SNR=31						
DZM				S	Sn	08 43 52.5	-2.6
	6.2nm,0.4s,baz=346,slow=22,SNR=0.7						
NOUC	Port Laguerre	6.21	197	P	Pn	08 42 44.8	-0.4
ONTNC	Ouen Toro	6.37	195	P	Pn	08 42 47.1	-0.1
OUENC	Ouen Island, N	6.39	192	P	Pn	08 42 48.2	+0.8
NGOA	Tingoa Renbel	9.20	299	P	Pn	08 43 24.8	+0.8
TATA	Tatamba Isabel	11.32	312	P	Pn	08 43 52.3	+0.9
CTA	Charters Tower	21.30	256	P	P	08 45 48.3	+1.8
	4.2nm,0.6s,baz=77,slow=9.5,SNR=7.3						
	4.2nm,0.6s						
MTSU	Mount Surprise	22.99	262	P	P	08 46 04.1	+1.5
BKZ	Black Stump Fm	24.04	164	P	P	08 46 15.0	+3.1
STKA	Stephens Creek	28.87	232	P	P	08 46 55.5	+0.3
	1.7nm,0.6s,baz=52,slow=18,SNR=2.2						
	1.7nm,0.6s						
WRAB	Tennant Creek	32.45	258	P	P	08 47 26.5	-0.4
WRA	Warramunga Arr	32.47	258	P	P	08 47 25.8	-1.2
	1.0nm,0.6s,baz=86,slow=8.8,SNR=21						
	1.0nm,0.6s						
AS01	Alice Springs	33.08	251	P	P	08 47 32.7	+0.4
ASAR	Alice Springs	33.12	251	P	P	08 47 32.6	0.0
	3.8nm,0.5s,baz=76,slow=9.2,SNR=87						
	3.8nm,0.5s						
FITZ	Fitzroy Crossi	40.74	261	P	P	08 48 37.5	+0.7
PLAI	Plampang	49.75	272	P	P	08 49 48.7	+1.0
QSPA	South Pole Qui	73.89	180	P	P	08 52 27.6	-0.4
	1.4nm,0.8s,baz=315,slow=1.4,SNR=8.2						
	1.4nm,0.8s						
ILAR	Eielson Array	87.57	18	P	P	08 53 38.6	-1.5
	0.3nm,0.8s,baz=237,slow=4.2,SNR=1.6						
	0.3nm,0.8s						

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*IDC **20** 08:43:42.8±2.7, 20°.03S×177°.38W, h540^{km}±24^{km}, mb3.3/5, mbtmp4.2/8, Error ellipse: s-maj=34.4km s-min=27.9km az=123.0*

*NEIC **20** 08:43:45.1±0.3, 20°.1S±0°.1×177°.6W±0°.2, h537^{km}±11^{km}, mb4.2/21, Error ellipse: s-maj=26.2km s-min=16.5km az=101.0*

ISC 20 08:43:44.9±1.0, **20°.0S**±0°.1×**177°.6W**±0°.1, **h550**^{km}, **n32**, σ**0^s.93**/34, **mb4.2**/14, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	4.67	298	P	P	08 45 11.5	-0.7
	5.2nm,0.5s,baz=146,slow=10,SNR=4.3						
MSVF	Nonsavu	4.67	298	P	P	08 45 11.7	-0.5
MARNC	Mare, Loyalty	13.51	261	P	P	08 46 38.4	-0.6
DZM	Mont Dzumac	15.02	259	P	P	08 46 55.8	+1.0
	4.1nm,0.6s,baz=254,slow=23,SNR=1.6						
TOZ	Tahuroa Road	18.67	197	P	P	08 47 29.5	+0.8
TOZ				IAmb	IAmb	08 47 31.3	
	comp=Z,4.7nm,1.0s						
URZ	Urewera	18.77	193	P	P	08 47 27.7	-2.0
	comp=Z,2.4nm,0.3s,baz=7.6,slow=13,SNR=10.0						
WHZ	Wether Hill Ro	28.44	201	P	P	08 48 56.3	+0.7
EIDS	Eidsvold	29.33	254	P	P	08 49 03.6	-0.1
EIDS				IAmb	IAmb	08 49 06.1	
	comp=Z,7.0nm,1.1s						
ARMA	Armidale	29.61	243	P	P	08 49 05.0	-1.2
CTA	Charters Tower	33.90	263	P	P	08 49 42.8	0.0
	comp=Z,5.5nm,0.6s,baz=94,slow=11,SNR=9.1						
	comp=Z,5.5nm,0.6s						
CTAO	Charters Tower	33.90	263	P	P	08 49 42.5	-0.2
CTAO				IAmb	IAmb	08 49 43.8	
	comp=Z,6.7nm,0.8s						
TOO	Toolangi	36.49	233	P	P	08 50 03.4	-0.6
TOO				IAmb	IAmb	08 50 08.1	
	comp=Z,7.3nm,1.4s						
STKA	Stephens Creek	38.33	244	P	P	08 50 19.6	+0.5
	comp=Z,1.9nm,0.5s,baz=84,slow=12,SNR=7.6						
	comp=Z,1.9nm,0.5s						
BBOO	Buckleboo	43.09	243	P	P	08 50 57.0	0.0
BBOO				IAmb	IAmb	08 51 03.7	
	comp=Z,11nm,1.0s						
WR0	Warramunga Arr	44.84	261	P	P	08 51 10.9	+0.2
WR0				IAmb	IAmb	08 51 18.7	
	comp=Z,8.8nm,1.4s						
WR8	Warramunga Arr	44.88	261	P	P	08 51 10.9	0.0
WR8				IAmb	IAmb	08 51 12.0	
	comp=Z,8.7nm,1.1s						
AS31	Alice Springs	44.98	256	P	P	08 51 11.9	+0.2
ASAR	Alice Springs	44.98	256	P	P	08 51 11.8	0.0
	comp=Z,9.3nm,0.8s,baz=96,slow=7.7,SNR=40						
ASAR				PcP	PcP	08 52 41.5	+0.3
	comp=Z,2.3nm,1.1s,baz=92,slow=4.4,SNR=4.3						
	comp=Z,9.3nm,0.8s						
WB0	Warramunga Arr	45.00	262	P	P	08 51 12.0	+0.1
WB0				IAmb	IAmb	08 51 12.2	
	comp=Z,5.5nm,0.5s						
WB2	Warramunga Arr	45.02	261	P	P	08 51 12.0	0.0
WB2				IAmb	IAmb	08 51 12.8	
	comp=Z,5.7nm,0.8s						
WRAB	Tennant Creek	45.02	261	P	P	08 51 11.9	-0.1
WRAB				IAmb	IAmb	08 51 12.9	
	comp=Z,7.5nm,0.9s						
WRA	Warramunga Arr	45.03	261	P	P	08 51 11.6	-0.5
	comp=Z,3.8nm,0.6s,baz=98,slow=8.2,SNR=31						
WRA				PcP	PcP	08 52 41.9	+0.6
	comp=Z,0.3nm,0.6s,baz=93,slow=3.0,SNR=1.4						
	comp=Z,3.8nm,0.6s						
WRA	Warramunga Arr	45.03	261	P	P	08 51 11.8	-0.4
MTN	Manton Dam	49.52	270	P	P	08 51 46.2	+0.3
FORT	Forrest	49.83	246	P	P	08 51 47.8	-0.2
FITZ	Fitzroy Crossi	53.45	262	P	P	08 52 14.4	+0.2
MBWA	Marble Bar	58.31	257	P	P	08 52 48.0	+0.2
MBWA				IAmb	IAmb	08 53 14.9	
	comp=Z,12nm,1.1s						
KKM	Kota Kinabalu	69.97	284	P	P	08 54 02.5	+0.4
QSPA	South Pole Qui	70.08	180	P	P	08 54 02.6	+0.8
ADK	Adak	71.56	1	P	P	08 54 12.6	+2.2
ILAR	Eielson Array	87.74	13	P	P	08 55 33.8	-1.1
	comp=Z,0.1nm,0.3s,baz=210,slow=4.7,SNR=1.1						
	comp=Z,0.1nm,0.3s						
AKASG	Malin Array Be	142.74	332	PKP	PKPdf	09 02 12.5	-3.1
	comp=Z,0.5nm,0.4s,baz=30,slow=1.5,SNR=2.0						

IDC 20 08:44:50.5±2.6, **12°.74S**×**169°.08E**, **h642**^{km}±34^{km}, **mb3.2**/4, **mbtmp4.3**/5, **Error ellipse: s-maj=31.4km s-min=20.8km az=169.0**, **Santa Cruz Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	9.97	121	P	P	08 47 09.7	-0.3
	9.0nm,0.7s,baz=301,slow=12,SNR=4.7						
WRA	Warramunga Arr	34.05	253	P	P	08 50 44.4	0.0
	3.0nm,0.3s,baz=83,slow=8.7,SNR=53						
	3.0nm,0.3s						
ASAR	Alice Springs	35.05	247	P	P	08 50 52.8	+0.2
	2.7nm,0.4s,baz=76,slow=9.7,SNR=32						
	2.7nm,0.4s						
QSPA	South Pole Qui	77.28	180	P	P	08 55 40.6	+0.2
	1.5nm,0.9s,baz=8.0,slow=2.2,SNR=8.4						
	1.5nm,0.9s						
ILAR	Eielson Array	84.10	17	P	P	08 56 15.4	+0.2
	1.1nm,0.6s,baz=238,slow=5.4,SNR=20						
	1.1nm,0.6s						
ARCES	ARCESS Array B	118.76	346	PKP	PKPdf	09 02 26.6	-0.2
	1.9nm,0.8s,baz=41,slow=2.3,SNR=9.7						

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*GCG **20** 08:52:41.9±1.4, 13°.65N×91°.07W, h35^{km}±999^{km}, MD3.9, Presumed earthquake*

*SNET **20** 08:52:42.6±2.2, 13°.80N×90°.91W, h17^{km}±12^{km}, ML1.9, Presumed earthquake*

ISC 20 08:52:39.5±2.4, **13°.61N**±0°.10×**90°.92W**±0°.05, **h1**^{km}±13^{km}, **n10**, σ**1^s.79**/17, **Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FG16	Alotenango, Sa	0.77	31	*i* P	Pn	08 52 57.6	0.0
STG8	El Palmar, Qui	0.93	333	*i* P	Pn	08 53 02.6	+2.7
STG8				*i* S	Sn	08 53 18.1	+4.0
RTAL	Retalhuleu	1.18	320	*e*P	Pb	08 53 01.2	-1.4
RTAL				*e*S	Sb	08 53 15.3	-3.1
SBLS	San Blas	1.28	80	*e*P	Pg	08 53 04.9	+0.9
SBLS				*e*S	Sn	08 53 21.7	-0.9
JUAM	Asuncion Mita	1.38	59	*i* P	Pg	08 53 06.4	+0.4
JUAM				*i* S	Sg	08 53 24.3	+0.4
APG	El Apazote	1.45	18	*i* P	Pg	08 53 07.4	0.0
APG				*i* S	Sg	08 53 26.6	+0.4
MTO3	Montecristo	1.70	63	*e*P	Pb	08 53 11.6	-0.1
MTO3				*e*S	Sb	08 53 32.4	-1.4
MTO3				IAML		08 53 35.8	
	comp=Z,11nm,0.6s						
HUEH	Huehuetenango	1.79	342	*i* P	Pn	08 53 10.5	-1.2
ESQI	Esquipulas	1.80	58	*e*P	Pb	08 53 12.7	-0.6
SJTE	Alcalda de S	1.86	90	*e*P	Pb	08 53 13.7	-0.6
SJTE				*e*S	Sb	08 53 37.4	-0.7
SJTE				IAML		08 53 39.1	
	comp=Z,15nm,0.4s						

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*NOU **20** 08:55:00.5, 37°.04S×176°.58E, h294^{km}, mb3.8/7, North Island, New Zealand*

*WEL **20** 08:55:06.0±0.8, 37°S±6°×17°7E±°, h249^{km}±6^{km}, M2.8/24, MLv2.8/24, Error ellipse: s-maj=8.1km s-min=6.6km az=33.7, confirmed*

ISC 20 08:55:01.7±2.3, **37°.17S**±0°.07×**176°.62E**±0°.07, **h284**^{km}±14^{km}, **n84**, σ**1^s.48**/105, **North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TGRZ	Tauranga	0.62	207	P	Pn	08 55 39.8	+1.0
OPRZ	Ohinepanea	0.67	184	P	Pn	08 55 39.9	+0.9
OPRZ				S	S	08 56 06.5	-2.0
MARZ	Manawahe	0.81	177	P	Pn	08 55 41.0	+1.5
MARZ				AML	AML		
KMRZ	Kaimai	0.86	219	P	Pn	08 55 40.6	+0.9
KMRZ				AML	AML		
TOZ	Tahuroa Road	1.05	238	P	Pn	08 55 42.2	+1.6
HAZ	Te Kaha	1.09	123	P	Pn	08 55 41.2	+0.4
URZ	Urewera	1.15	160	P	Pn	08 55 41.5	+0.4
URZ	Urewera	1.15	160	P	Pn	08 55 41.6	+0.4
URZ				AML	AML		
RUGZ	Raukumara Rang	1.15	134	P	Pn	08 55 41.3	0.0

RUGZ				S	S	08 56 10.0	-2.6
RUGZ				AML	AML		
MKAZ	Moumakai	1.17	273	P	Pn	08 55 42.6	+1.3
WIAZ	Waiheke Island	1.25	287	P	Pn	08 55 42.8	+1.0
MUGZ	Murupara	1.31	175	P	Pn	08 55 43.0	+1.0
MUGZ				S	S	08 56 12.8	-1.3
MUGZ				AML	AML		
PKGZ	Pakihiroa	1.35	121	P	Pn	08 55 43.9	+1.5
PKGZ				S	S	08 56 13.9	-0.6
PKGZ				AML	AML		
MWZ	Matawai	1.36	148	P	Pn	08 55 43.4	+1.0
MWZ				S	S	08 56 13.5	-1.3
MXZ	Matakaoa Point	1.40	107	P	Pn	08 55 43.1	+0.5
MXZ	Matakaoa Point	1.40	107	P	Pn	08 55 43.4	+0.8
MXZ				S	S	08 56 13.3	-1.7
TLZ	Tolley Road	1.44	216	P	Pn	08 55 45.1	+2.2
RAGZ	Rawiri	1.46	155	P	Pn	08 55 44.5	+1.4
RAGZ				S	S	08 56 15.8	-0.1
RAGZ				AML	AML		
RTZ	Ruatahuna	1.47	169	P	Pn	08 55 44.4	+1.2
RTZ				S	S	08 56 15.0	-1.0
RTZ				AML	AML		
TWGZ	Tauwhareparae	1.47	133	P	Pn	08 55 44.7	+1.6
TWGZ				S	S	08 56 16.6	+0.6
TWGZ				AML	AML		
WMGZ	Waiomatatini S	1.57	115	P	Pn	08 55 45.1	+1.4
WMGZ				S	S	08 56 15.9	-1.1
WMGZ				AML	AML		
PUZ	Puketiti	1.58	125	P	Pn	08 55 44.9	+1.1
PUZ				S	S	08 56 15.6	-1.7
AWAZ	Awhitu Peninsu	1.58	273	P	Pn	08 55 44.8	+0.9
TKGZ	Te Karaka	1.59	143	P	Pn	08 55 45.3	+1.4
TKGZ				S	S	08 56 16.2	-1.2
TKGZ				AML	AML		
MRHZ	Matea Rd	1.67	185	P	Pn	08 55 45.9	+1.4
MRHZ				AML	AML		
MTHZ	Maungataniwha	1.69	174	P	Pn	08 55 45.9	+1.3
MTHZ				S	S	08 56 17.5	-1.2
MTHZ				AML	AML		
RIGZ	Rimuhau	1.78	150	P	Pn	08 55 47.1	+1.9
RIGZ				S	S	08 56 19.7	-0.2
RIGZ				AML	AML		
RAHZ	Arahi	1.78	168	P	Pn	08 55 47.1	+1.8
RAHZ				AML	AML		
CNGZ	Carnagh Statio	1.81	137	P	Pn	08 55 47.7	+2.1
CNGZ				AML	AML		
RATZ	Rangitukua	1.82	201	P	Pn	08 55 47.4	+1.8
RITZ	Rihia Road	1.90	198	P	Pn	08 55 48.6	+2.3
RITZ				AML	AML		
NMHZ	Naumai	1.93	176	P	Pn	08 55 48.6	+2.1
NMHZ				AML	AML		
WHHZ	Waihua	1.96	166	P	Pn	08 55 48.6	+1.9
WHHZ				AML	AML		
BKZ	Black Stump Fm	1.99	183	P	Pn	08 55 48.0	+1.0
BKZ	Black Stump Fm	1.99	183	P	Pn	08 55 48.1	+1.1
BKZ				AML	AML		
PRGZ	Paritu Road	2.01	151	P	Pn	08 55 49.0	+1.9
PRGZ				AML	AML		
KNZ	Kokohu	2.02	156	P	Pn	08 55 48.6	+1.5
NTVZ	North Tongarir	2.06	201	P	Pn	08 55 49.4	+1.7
KRVZ	Karewarewa	2.07	202	P	Pn	08 55 49.2	+1.5
KRVZ				AML	AML		
TMVZ	Te Maari	2.07	200	P	Pn	08 55 49.6	+1.9
ETVZ	East Tongariro	2.09	200	P	Pn	08 55 49.5	+1.7
WTVZ	West Tongariro	2.10	202	P	Pn	08 55 49.7	+1.7
WTVZ				AML	AML		
ARHZ	Aropaoanui	2.11	172	P	Pn	08 55 49.8	+1.9
ARHZ				AML	AML		
TWVZ	Taurewa	2.11	206	P	Pn	08 55 49.8	+1.7
TWVZ				AML	AML		
OTVZ	Oturere	2.12	200	P	Pn	08 55 50.0	+1.7
SNVZ	South Ngauruho	2.15	201	P	Pn	08 55 50.2	+1.7
SNVZ				AML	AML		
NGZ	Ngauruhoe	2.15	202	P	Pn	08 55 50.4	+1.9
NGZ				AML	AML		
COVZ	Chateau Observ	2.19	202	P	Pn	08 55 50.4	+1.6
WCZ	Waipu Caves	2.21	303	P	Pn	08 55 50.0	+1.1
MHGZ	Mahia Peninsul	2.22	153	P	Pn	08 55 50.7	+1.8
TUVZ	Tukino	2.23	200	P	Pn	08 55 50.7	+1.6
TUVZ				AML	AML		
FWVZ	Far West T-bar	2.24	202	P	Pn	08 55 50.9	+1.6
KWHZ	Kaweka Forest	2.25	184	P	Pn	08 55 50.9	+1.7
KWHZ				AML	AML		
WHVZ	Whangaehu Hut	2.26	201	P	Pn	08 55 51.0	+1.5
MCHZ	McNeill Hill	2.27	179	P	Pn	08 55 51.3	+1.9
TRVZ	Turoa	2.28	201	P	Pn	08 55 51.3	+1.6
WNVZ	Wahianoa	2.30	200	P	Pn	08 55 51.2	+1.4
MOVZ	Moawhango	2.33	197	P	Pn	08 55 51.0	+1.0
PKVZ	Pokaka	2.34	205	P	Pn	08 55 51.6	+1.5
BHHZ	Black Hill Sta	2.35	191	P	Pn	08 55 51.2	+1.1
MTVZ	Mangateitei	2.39	202	P	Pn	08 55 51.9	+1.5
VRZ	Vera Road	2.44	216	P	Pn	08 55 53.4	+2.5
KRHZ	Kereru	2.47	184	P	Pn	08 55 52.5	+1.3
CKHZ	Cape Kidnapper	2.51	172	P	Pn	08 55 53.1	+1.6
KAHZ	Kahuranaki	2.62	176	P	Pn	08 55 54.3	+1.7
PNHZ	Pukenui	2.76	187	P	Pn	08 55 55.0	+1.1
PXZ	Pawanui	2.86	176	P	Pn	08 55 56.3	+1.5
WAZ	Wanganui	2.88	206	P	Pn	08 55 56.9	+1.8
WPHZ	Waipukurau	2.89	183	P	Pn	08 55 56.9	+1.7
PKE	Pukeiti	2.89	225	P	Pn	08 55 58.3	+3.0
TSZ	Takapari Road	2.93	190	P	Pn	08 55 56.6	+1.0
PRHZ	Porangahau	3.09	180	P	Pn	08 55 58.6	+1.3
PRHZ				S	S	08 56 40.7	-0.7
OUZ	Omahuta	3.13	308	P	Pn	08 55 58.6	+0.9
DVHZ	Dannevirke	3.14	186	P	Pn	08 55 58.6	+0.9
DVHZ				S	S	08 56 40.8	-1.7
POWZ	Post Office Ro	3.28	191	P	Pn	08 56 00.3	+1.1
POWZ				S	S	08 56 44.7	-0.4
BFZ	Birch Farm	3.52	185	P	Pn	08 56 02.5	+0.8
BFZ	Birch Farm	3.52	185	P	Pn	08 56 02.5	+0.8
BFZ				S	S	08 56 48.6	-1.0
MRZ	Mangatainoka R	3.58	193	P	Pn	08 56 02.7	+0.3
MRZ				S	S	08 56 49.6	-1.2
TIWZ	Tintock	3.64	189	P	Pn	08 56 04.1	+1.0
HOWZ	Holdsworth Sta	3.82	193	P	Pn	08 56 05.4	+0.4
HOWZ				S	S	08 56 53.4	-2.2
KIW	Kapiti Island	3.92	199	P	Pn	08 56 06.4	+0.3
KIW				S	S	08 56 55.1	-2.4
SNZO	South Karori	4.39	199	P	Pn	08 56 12.2	+0.8
QRZ	Quartz Range	4.84	220	P	Pn	08 56 17.0	+0.3
KHZ	Kahutara	5.75	203	P	Pn	08 56 27.6	+0.2

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*IDC **20** 09:20:25.7±1.1, 13.°35S×111.°69W, h0^{km}, mb3.9/5, mbtmp3.9/5, MS4.0/2, Error ellipse: s-maj=44.5km s-min=23.8km az=72.0*

*NEIC **20** 09:20:27.1±1.4, 13.°6S±0.°1×111.°85W±0.°07, h10^{km}±1^{km}, mb4.5/17, Error ellipse: s-maj=25.1km s-min=10.7km az=353.0*

ISC 20 09:20:26.4±0.7**, 13.°5S**±0.°1×**111.°8W**±0.°1**, h10^{km}, n33, σ1.^{s}06**/24**, mb4.3**/13**, Central East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTCN	Pitcairn Islan	20.67	234	P	P	09 25 04.6	-2.0
MTO3	Montecristo	35.58	40	P	P	09 27 25.1	+0.6
H03N2	Juan Fernandez	35.87	129	T	T	10 05 16.9	
	baz=314,slow=76,SNR=114						
H03N1	Juan Fernandez	35.89	129	T	T	10 05 18.2	
	baz=308,slow=76,SNR=126						
BRU2	Volcan	36.47	54	P	P	09 27 33.0	+0.9
PPTF	Pamatai, Papee	36.52	259	P	P	09 27 32.8	+0.3
CZSB	Cruzeiro do Su	38.86	86	P	P	09 27 51.3	-1.0
AC01	Pan de Azucar	40.60	114	P	P	09 28 05.6	-1.0
AC01				IAmb	IAmb	09 28 25.2	
	comp=Z,15nm,1.1s						
PB02	IPOC Station P	40.66	107	P	P	09 28 07.2	-0.1
PB02				IAmb	IAmb	09 28 11.5	
	comp=Z,14nm,1.0s						
PB11	IPOC Station P	40.81	105	P	P	09 28 08.0	-0.6
PB11				IAmb	IAmb	09 28 09.3	
	comp=Z,7.9nm,0.9s						
PB16	IPOC Station P	40.92	102	P	P	09 28 09.4	-0.6
LPAZ	La Paz	42.27	99	P	P	09 28 21.0	-0.2
	comp=Z,4.9nm,1.1s,baz=294,slow=4.5,SNR=11						
	comp=Z,4.9nm,1.1s						
LPAZ	La Paz	42.27	99	P	P	09 28 21.0	-0.2
CFA	Coronel Fontan	43.76	122	LR	LR	09 41 50.4	
	comp=Z,140nm,21.9s,baz=263,slow=29						
PLCA	Paso Flores	45.05	135	P	P	09 28 43.5	+0.9
	comp=Z,3.1nm,0.9s,baz=295,slow=11,SNR=4.1						
PLCA				LR	LR	09 42 54.0	
	comp=Z,260nm,18.6s,baz=246,slow=30						
	comp=Z,3.1nm,0.9s						
JCT	Junction City	45.27	15	P	P	09 28 44.4	0.0
JCT				IAmb	IAmb	09 28 55.5	
	comp=Z,3.7nm,0.6s						
OZNA	Ozona	45.39	13	P	P	09 28 45.9	+0.6
OZNA				IAmb	IAmb	09 28 48.3	
	comp=Z,5.0nm,1.2s						
TMB01	Midkiff	45.91	12	P	P	09 28 49.9	+0.4
TMB01				IAmb	IAmb	09 28 57.2	
	comp=Z,3.1nm,1.0s						
BRDY	Brady	46.24	15	P	P	09 28 53.3	+1.3
BRDY				IAmb	IAmb	09 28 54.9	
	comp=Z,5.2nm,0.9s						
VILB	Vilhena	50.19	96	P	P	09 29 22.0	-0.9
PTLB	Pontes e Lacer	50.96	99	P	P	09 29 27.8	-0.9
PTLB				IAmb	IAmb	09 29 28.6	
	comp=Z,5.8nm,1.0s						
NVAR	Mina Array Bea	52.05	354	P	P	09 29 36.1	-0.5
	comp=Z,0.8nm,0.9s,baz=180,slow=7.1,SNR=8.0						
	comp=Z,0.8nm,0.9s						
PDAR	Pinedale Array	56.07	2	P	P	09 30 05.7	-0.3
	comp=Z,0.3nm,0.8s,baz=175,slow=4.5,SNR=4.6						
	comp=Z,0.3nm,0.8s						
QSPA	South Pole Qui	76.56	180	P	P	09 32 19.1	+2.2
	comp=Z,2.1nm,0.7s,baz=156,slow=1.1,SNR=19						
	comp=Z,2.1nm,0.7s						
QSPA	South Pole Qui	76.56	180	P	P	09 32 18.8	+1.9
QSPA				IAmb	IAmb	09 32 21.8	
	comp=Z,2.1nm,0.7s						
H11S2	WAKE ISLAND Hy	86.34	290	T	T	11 08 42.0	
	baz=106,slow=75,SNR=87						
H11S1	WAKE ISLAND Hy	86.35	290	T	T	11 08 42.1	
	baz=106,slow=75,SNR=47						
H11S3	WAKE ISLAND Hy	86.36	290	T	T	11 08 38.8	
	baz=106,slow=75,SNR=59						
H11N3	WAKE ISLAND Hy	86.48	291	T	T	11 08 53.3	
	baz=106,slow=75,SNR=13						
H11N2	WAKE ISLAND Hy	86.50	291	T	T	11 08 49.6	
	baz=106,slow=75,SNR=14						
H11N1	WAKE ISLAND Hy	86.50	291	T	T	11 08 26.7	
	baz=106,slow=75,SNR=6.9						
KURBB	Kurchatov Arra	142.07	349	PKP	PKPdf	09 39 57.3	-1.5
	comp=Z,0.2nm,0.3s,baz=3.4,slow=2.4,SNR=5.4						
MKAR	Makanchi Array	144.79	343	PKP	PKPdf	09 40 03.8	0.0
	comp=Z,0.9nm,0.7s,baz=48,slow=2.1,SNR=6.1						

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*NEIC **20** 09:21:52.1±1.6, 8.°80S±0.°05×120.°48E±0.°08, h140^{km}±9^{km}, mb4.3/11, Error ellipse: s-maj=12.9km s-min=5.9km az=61.0*

*DJA **20** 09:21:52.6±0.2, 9°S±3°×12°0E±°, h131^{km}±3^{km}, M4.3/6, mB5.0/1, mB5.7/2, mb4.7/6, mb4.8/6, MLv4.1/10, MLv4.2/6, Mw(mB)5.2/2, Mw(mB)4.3/1*

*IDC **20** 09:21:57.0±1.6, 8.°30S×121.°26E, h178^{km}±14^{km}, mb3.8/7, mbtmp4.3/10, Error ellipse: s-maj=48.6km s-min=9.2km az=56.0*

ISC 20 09:21:52.7±0.4**, 8.°82S**±0.°04×**120.°54E**±0.°05**, h150^{km}, n79, σ1.^{s}67**/84**, mb4.2**/12**, Flores region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LBFI	Labuhan Bajo,	0.72	298	P	Pn	09 22 13.6	-1.8
WSI	Waingapu	0.88	196	P	Pn	09 22 15.6	-0.9
WSI				AML	AML		
EDFI	Ende, Flores	1.14	87	P	Pn	09 22 17.4	-1.4
EDFI				AML	AML		
EDFI				AML	AML		
MMRI	Maumere	1.69	84	P	Pn	09 22 24.2	-0.1
MMRI	Maumere	1.69	84		Pn	09 22 23.8	-0.5
MMRI	Maumere	1.69	84	P	Pn	09 22 23.5	-0.8
MMRI				S	Sn	09 22 47.6	-0.9
DBNI	Kabupaten Domp	2.22	278	P	Pn	09 22 29.7	-0.8
DBNI				AML	AML		
DBNI				AML	AML		
BSSI	Bau Bau, Buton	2.66	359	P	Pn	09 22 34.0	-1.9
BSSI				AML	AML		
PLAI	Plampang	2.73	270	P	Pn	09 22 36.6	-0.1
PLAI	Plampang	2.73	270	S	Sn	09 23 09.6	-1.0
PLAI	Plampang	2.73	270	P	Pn	09 22 36.5	-0.1
PLAI				AML	AML		
TWSI	Taliwang, Sumb	3.62	271	P	Pn	09 22 46.8	-1.2
MKS	Makassar	3.73	343	P	Pn	09 22 48.3	-1.2
MKS				AML	AML		
SOEI	Soe	3.80	104	P	Pn	09 22 51.3	+0.9
SOEI	Soe	3.80	104	S	Sn	09 23 36.5	+1.3
SOEI	Soe	3.80	104		Pn	09 22 50.8	+0.4
SOEI	Soe	3.80	104	P	Pn	09 22 50.9	+0.4
KAPI	Kappang	3.86	348	P	Pn	09 22 51.5	+0.4
	36nm,0.5s,baz=188,slow=9.6,SNR=21						
KAPI				S	Sn	09 23 36.9	+0.3
	23nm,0.8s,baz=295,slow=21,SNR=1.3						
KAPI	Kappang	3.86	348		Pn	09 22 51.1	-0.1
SPSI	Sidrap Palu	4.88	351	P	Pn	09 23 04.9	+0.3
KHKI	Kahang-Kahang	4.90	275	P	Pn	09 23 03.7	-1.1
SRBI	Singaraja	5.32	277	P	Pn	09 23 09.3	-1.1
	2µm2µm128nm,0.9s						
RTBI	Rangdo, Negare	5.55	273	P	Pn	09 23 11.6	-1.8
	112nm,0.8s,112nm,0.8s						
JAGI	Jajag, Banyuwa	6.33	273	P	Pn	09 23 21.6	-2.2
JAGI	Jajag, Banyuwa	6.33	273		Pn	09 23 21.3	-2.4
SNJI	Sawahan-Nganju	8.75	276	P	Pn	09 23 55.6	-0.7
	46nm,0.4s						
WOJI	Wonogiri, Jawa	9.56	275	P	Pn	09 24 06.2	-0.8
UGM	Wanagama	9.95	274	P	Pn	09 24 11.2	-1.0
UGM	Wanagama	9.95	274	Pn	Pn	09 24 10.4	-1.8
FITZ	Fitzroy Crossi	10.47	152	P	Pn	09 24 17.8	-1.2
	9.8nm,0.5s,baz=342,slow=11,SNR=66						
FITZ				S	Sn	09 26 10.3	-4.6
	21nm,0.5s,baz=213,slow=18,SNR=8.0						
FITZ	Fitzroy Crossi	10.47	152	Pn	Pn	09 24 18.2	-0.8
KNRA	Kununurra	10.54	131		Pn	09 24 19.1	-0.7
DRS	Darwin Rock St	10.80	110	P	Pn	09 24 24.3	+1.0
MTN	Manton Dam	11.15	112		Pn	09 24 27.3	-0.6
MBWA	Marble Bar	12.29	184	P	Pn	09 24 44.2	+1.4
MBWA	Marble Bar	12.29	184	S	Sn	09 27 02.5	+3.7
MBWA	Marble Bar	12.29	184		Pn	09 24 42.9	+0.1
BBJI	Bungbulang	12.83	275	P	Pn	09 24 48.0	-1.9
BBJI	Bungbulang	12.83	275	Pn	Pn	09 24 48.0	-1.9
FAKI	Fak Fak	13.04	64	P	Pn	09 24 53.0	+0.5
FAKI	Fak Fak	13.04	64	Pn	Pn	09 24 51.0	-1.5
SBUM	Sibu	13.93	323		Pn	09 25 02.4	-1.5
KKM	Kota Kinabalu	15.38	344		Pn	09 25 21.5	-0.6
KKM				IAmb	IAmb	09 25 25.1	
	comp=Z,20nm,0.7s						
WB0	Warramunga Arr	17.27	131		P	09 25 44.3	+0.3
WB0				IAmb	IAmb	09 25 54.6	
	comp=Z,6.2nm,0.5s						
WRA	Warramunga Arr	17.33	131	P	Pn	09 25 46.5	+0.8
	comp=Z,0.7nm,0.3s,baz=307,slow=12,SNR=36						
WRA				S	S	09 28 50.3	-7.5
	comp=Z,8.9nm,0.7s,baz=306,slow=24,SNR=13						
WRA	Warramunga Arr	17.33	131	P	P	09 25 45.3	+0.5
WRAB	Tennant Creek	17.34	131	P	Pn	09 25 47.2	+1.5
MEEK	Meekatharra	17.82	186	P	Pn	09 25 52.9	+1.5
AS31	Alice Springs	19.53	141		Pn	09 26 10.5	-1.1
AS31				IAmb	IAmb	09 26 12.8	
	comp=Z,6.5nm,1.1s						
ASAR	Alice Springs	19.53	141	P	Pn	09 26 11.4	-0.2
	comp=Z,5.6nm,0.4s,baz=321,slow=11,SNR=168						
ASAR				S	S	09 29 41.5	+0.1
	comp=Z,3.6nm,0.8s,baz=306,slow=20,SNR=6.5						
ASAR	Alice Springs	19.53	141	P	P	09 26 09.3	+0.6
AS01	Alice Springs	19.56	141	P	Pn	09 26 11.1	-0.9
QIS	Mount Isa	21.79	124	P	P	09 26 35.1	+2.1
BLDU	Ballidu	21.98	189	P	P	09 26 36.2	+1.5
MTSU	Mount Surprise	24.88	114	P	P	09 27 03.6	+1.8
BBOO	Buckleboo	27.86	151	P	P	09 27 30.3	+2.0
BBOO	Buckleboo	27.86	151	P	P	09 27 30.0	+1.7
BBOO				IAmb	IAmb	09 27 59.2	
	comp=Z,36nm,1.2s						
HTT	Hallett	29.79	148	P	P	09 27 47.3	+1.8
STKA	Stephens Creek	30.15	143	P	P	09 27 51.2	+2.6
	comp=Z,2.0nm,0.4s,baz=321,slow=8.5,SNR=11						
	comp=Z,2.0nm,0.4s						
CMSA	Cobar Meteorol	32.52	138	P	P	09 28 11.7	+2.2
CMAR	Chiang Mai Arr	34.48	322	P	P	09 28 28.1	+1.6
	comp=Z,1.2nm,0.4s,baz=150,slow=6.4,SNR=7.7						
	comp=Z,1.2nm,0.4s						
CMAR	Chiang Mai Arr	34.48	322	P	P	09 28 26.4	-0.2
JYT	Yasato	48.48	21	P	P	09 30 19.4	-0.8
EVN	Everest	48.99	319	P	P	09 30 24.0	-1.1
EVN				IAmb	IAmb	09 30 26.2	
	comp=Z,3.2nm,0.7s						
HHC	Hu-ho-hao-te	50.11	351	*e*P	P	09 30 36.5	+3.8
HHC				pmax	pmax		
	comp=Z,8.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,49nm,4.0s						
SONM	Songino Array	57.78	349	P	P	09 31 28.6	+0.4
	comp=Z,2.2nm,0.6s,baz=173,slow=9.1,SNR=5.4						
	comp=Z,2.2nm,0.6s						
MKAR	Makanchi Array	65.00	332	P	P	09 32 17.0	+0.4
	comp=Z,2.4nm,0.6s,baz=138,slow=7.5,SNR=24						
	comp=Z,2.4nm,0.6s						
MKAR	Makanchi Array	65.00	332	P	P	09 32 16.6	-0.1
PETK	Petropavlovsk-	69.31	23	P	P	09 32 40.2	-3.4
	comp=Z,1.2nm,0.6s,baz=219,slow=7.3,SNR=4.3						
	comp=Z,1.2nm,0.6s						
PETK	Petropavlovsk-	69.31	23	P	P	09 32 43.9	+0.3
ZAA0	Zalesovo Array	69.42	338	P	P	09 32 44.2	-0.1
ZAA0				IAmb	IAmb	09 32 45.2	
	comp=Z,7.0nm,0.6s						
ZALV	Zalesovo Beam	69.42	338	P	P	09 32 43.9	-0.4
	comp=Z,5.4nm,0.5s,baz=142,slow=4.9,SNR=28						
	comp=Z,5.4nm,0.5s						
ZALV	Zalesovo Beam	69.42	338	P	P	09 32 43.6	-0.7
KURBB	Kurchatov Arra	69.49	333	P	P	09 32 44.9	+0.1
	comp=Z,0.8nm,0.5s,baz=141,slow=5.3,SNR=12						
	comp=Z,0.8nm,0.5s						
AB31	Akbulak array	78.30	324	P	P	09 33 35.7	-0.4
AB31				IAmb	IAmb	09 33 38.1	
	comp=Z,1.1nm,0.7s						
ABKAR	Akbulak array	78.30	324	P	P	09 33 35.3	-0.7
M13K	Dall Lake	90.83	29	P	P	09 34 39.9	+1.2
D19K	Kuna River	94.98	21	P	P	09 34 58.6	+0.8
TORD	Torodi Ar. Bea	119.93	280	PKP	PKiKP	09 40 28.1	+1.6
	comp=Z,0.6nm,0.5s,baz=81,slow=1.8,SNR=7.0						

IDC 20 09:28:40.6±12.0**, 37.°61S**×**77.°94E, h0^{km}, mb3.8**/4**, mbtmp3.8**/4**, Error ellipse: s-maj=421.1km s-min=41.1km az=33.0, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
H04N2	CROZET ISLANDS	21.18	238	T	T	09 55 43.4	
	baz=74,slow=74,SNR=848						
H04N1	CROZET ISLANDS	21.19	238	T	T	09 55 51.4	
	baz=74,slow=74,SNR=846						
H04N3	CROZET ISLANDS	21.20	238	T	T	09 55 39.2	
	baz=74,slow=74,SNR=1003						
H01W2	Cape Leeuwin H	29.20	96	T	T	10 05 04.4	
	baz=254,slow=75,SNR=50						
H01W3	Cape Leeuwin H	29.21	96	T	T	10 05 04.4	
	baz=254,slow=75,SNR=54						
H01W1	Cape Leeuwin H	29.22	96	T	T	10 05 05.2	
	baz=254,slow=75,SNR=37						
H08S2	Diego Garcia H	30.24	349	T	T	10 06 22.2	
	baz=171,slow=76,SNR=234						
H08S1	Diego Carcia H	30.24	349	T	T	10 06 22.0	
	baz=171,slow=76,SNR=119						
H08S3	Diego Garcia H	30.26	349	T	T	10 06 26.1	
	baz=171,slow=76,SNR=1057						
ASAR	Alice Springs	49.45	90	P	P	09 37 32.7	+0.1
	0.6nm,1.0s,baz=236,slow=6.2,SNR=2.6						
	0.6nm,1.0s						
WRA	Warramunga Arr	51.72	87	P	P	09 37 49.7	-0.2
	1.1nm,0.9s,baz=236,slow=7.6,SNR=6.0						
	1.1nm,0.9s						
MKAR	Makanchi Array	84.12	3	P	P	09 41 12.6	-0.4
	1.0nm,0.9s,baz=168,slow=7.4,SNR=4.4						
	1.0nm,0.9s						
KURBB	Kurchatov Arra	87.86	0	P	P	09 41 31.6	+0.3
	0.9nm,0.9s,baz=181,slow=4.5,SNR=5.6						
	0.9nm,0.9s						

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*IDC **20** 09:38:19.5±1.1, 37.°32S×78.°19E, h0^{km}, mb4.1/8, mbtmp4.1/8, MS4.1/17, Error ellipse: s-maj=52.6km s-min=22.4km az=10.0*

*NEIC **20** 09:38:20.7±1.1, 37.°7S±0.°1×78.°08E±0.°08, h10^{km}±1^{km}, mb4.6/16, Error ellipse: s-maj=22.4km s-min=7.3km az=158.0*

*GCMT **20** 09:38:22.7±0.4, 37.°52S±0.°02×78.°15E±0.°03, h20^{km}±2^{km}, MW4.8/74, Moment Tensor Solution. s15,c16; s74,c87; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-0.55±.18; M$_{\theta\theta}$-1.96±.15; M$_{\phi\phi}$2.51±.16; M$_{r\theta}$0.29±.29; M$_{\theta\phi}$-0.67±.12; M$_{\phi r}$-0.52±.25; Best double couple: M$_0$2.39500×10^{16} NP1: ϕ_s217.00000°, δ77.00000°, λ1.00000°. NP2: ϕ_s127.00000°, δ89.00000°, λ167.00000°. Principal axes: T 2.7030, Plg10.0000°, Azm81.0000°; N -0.6150, Plg77.0000°, Azm302.0000°; P -2.0870, Plg8.0000°, Azm173.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 20 09:38:21.1±0.6**, 37.°6S**±0.°1×**78.°08E**±0.°10**, h13^{km}, n52, σ0.^{s}84**/29**, mb4.5**/14**, MS4.2**/17**, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AIS	Amsterdam Isla	0.46	241		Pg	09 38 29.3	-0.8
H04N2	CROZET ISLANDS	21.29	238	T	T	10 05 29.0	
	baz=74,slow=74,SNR=80						
H04N1	CROZET ISLANDS	21.30	238	T	T	10 05 26.0	
	baz=74,slow=74,SNR=1562						
H04N3	CROZET ISLANDS	21.30	238	T	T	10 05 19.4	
	baz=74,slow=74,SNR=1517						
H01W2	Cape Leeuwin H	29.10	96	T	T	10 14 41.6	
	baz=254,slow=75,SNR=105						
H01W3	Cape Leeuwin H	29.10	96	T	T	10 14 42.0	
	baz=254,slow=75,SNR=104						
H01W1	Cape Leeuwin H	29.11	96	T	T	10 14 42.8	
	baz=254,slow=75,SNR=100						
H08S2	Diego Garcia H	30.23	349	T	T	10 16 01.3	
	baz=171,slow=76,SNR=130						
H08S1	Diego Carcia H	30.23	349	T	T	10 16 00.1	
	baz=171,slow=76,SNR=64						
H08S3	Diego Garcia H	30.24	349	T	T	10 16 00.5	
	baz=171,slow=76,SNR=149						
MAW	Mawson	31.27	191	LR	LR	09 55 04.4	
	comp=Z,229nm,18.9s,baz=40,slow=32						
NWAO	Narrogin (SRO)	32.15	94	LR	LR	09 54 51.9	
	comp=Z,676nm,20.0s,baz=240,slow=31						
BOSA	Boshof	44.65	265	P	P	09 46 35.0	+1.3
	2.5nm,0.9s,baz=128,slow=10,SNR=5.0						
BOSA				LR	LR	10 03 14.1	
	comp=Z,131nm,18.6s,baz=139,slow=33						
	2.5nm,0.9s						
BOSA	Boshof	44.65	265	P	P	09 46 34.0	+0.3
BOSA				IAmb	IAmb	09 46 43.5	
	comp=Z,4.7nm,0.9s						
PALK	Pallekele	44.68	4	LR	LR	10 00 34.9	
	comp=Z,280nm,21.0s,baz=188,slow=30						
FITZ	Fitzroy Crossi	45.78	78	LR	LR	10 04 05.9	
	comp=Z,262nm,18.4s,baz=212,slow=34						
LBTB	Lobatse	46.02	270	LR	LR	10 02 41.6	
	comp=Z,293nm,19.5s,baz=126,slow=32						
MATP	Matopo	46.06	277	LR	LR	10 02 01.5	
	comp=Z,173nm,21.6s,baz=100,slow=31						
SUR	Sutherland	46.59	258	LR	LR	10 02 26.1	
	comp=Z,302nm,19.6s,baz=142,slow=31						
LSZ	Lusaka	49.23	283	LR	LR	10 04 43.8	
	comp=Z,179nm,19.7s,baz=152,slow=32						
ASAR	Alice Springs	49.34	90	P	P	09 47 09.4	-0.9
	comp=Z,1.6nm,1.0s,baz=256,slow=6.8,SNR=6.3						
ASAR				LR	LR	10 05 54.3	
	comp=Z,248nm,18.2s,baz=234,slow=34						
	comp=Z,1.6nm,1.0s						
ASAR	Alice Springs	49.34	90	P	P	09 47 10.2	-0.2
AS31	Alice Springs	49.34	90	P	P	09 47 09.1	-1.3
KNRA	Kununurra	49.61	78	P	P	09 47 11.4	-1.0
KNRA				IAmb	IAmb	09 47 27.4	
	comp=Z,6.1nm,1.1s						
KAPI	Kappang	49.92	60	LR	LR	10 04 05.0	
	comp=Z,172nm,21.6s,baz=216,slow=31						
WRA	Warramunga Arr	51.61	86	P	P	09 47 26.9	-0.6
	comp=Z,4.1nm,1.1s,baz=236,slow=7.0,SNR=8.7						
	comp=Z,4.1nm,1.1s						
WRA	Warramunga Arr	51.61	86	P	P	09 47 26.6	-0.9
STKA	Stephens Creek	51.65	104	P	P	09 47 28.3	+0.7
	comp=Z,1.7nm,0.6s,baz=238,slow=9.5,SNR=3.6						
STKA				LR	LR	10 04 50.2	
	comp=Z,283nm,21.1s,baz=214,slow=31						
	comp=Z,1.7nm,0.6s						
WB0	Warramunga Arr	51.75	86	P	P	09 47 27.8	-0.7

WB0				IAmb	IAmb	09 47 33.7	
	comp=Z,8.5nm,1.1s						
KMBO	Kilima Mbogo	52.20	304	LR	LR	10 06 33.1	
	comp=Z,54nm,20.0s,baz=101,slow=32						
VNDA	Vanda	52.30	164	P	P	09 47 33.4	+1.6
QSPA	South Pole Qui	52.58	180	P	P	09 47 34.1	-0.1
TSUM	Tsumeb	55.36	272	LR	LR	10 08 06.7	
	comp=Z,390nm,19.8s,baz=150,slow=32						
CAN	Canberra	55.81	111	P	P	09 47 57.2	-1.0
CAN				IAmb	IAmb	09 47 58.4	
	comp=Z,8.8nm,0.9s						
CTA	Charters Tower	60.99	94	LR	LR	10 13 07.4	
	comp=Z,311nm,18.4s,baz=227,slow=34						
DAV	Davao City (W)	62.71	55	LR	LR	10 13 23.3	
	comp=Z,51nm,20.7s,baz=176,slow=34						
PMG	Port Moresby	67.76	85	LR	LR	10 16 20.8	
	comp=Z,196nm,21.2s,baz=168,slow=34						
TWG	Pinlang	72.42	41	P	P	09 49 46.3	-0.8
TPUB	Ta-pu	72.59	41	P	P	09 49 48.9	+0.8
KK31	Karatay Array	80.60	354	P	P	09 50 33.5	+0.4
KK31				IAmb	IAmb	09 50 44.9	
	comp=Z,5.5nm,1.0s						
KKAR	Karatay Array	80.60	354	P	P	09 50 33.5	+0.4
MKAR	Makanchi Array	84.08	3	P	P	09 50 50.5	-0.7
	comp=Z,1.6nm,0.9s,baz=174,slow=5.9,SNR=9.2						
	comp=Z,1.6nm,0.9s						
MKAR	Makanchi Array	84.08	3	P	P	09 50 50.7	-0.5
ARPR	Arapgir-MALATY	84.60	330	P	P	09 50 55.2	+1.0
ARPR				IAmb	IAmb	09 51 06.3	
	comp=Z,7.7nm,1.1s						
BRTR	Keskin Array B	87.08	327	P	P	09 51 06.3	-0.1
	comp=Z,0.6nm,0.8s,baz=223,slow=3.1,SNR=3.7						
	comp=Z,0.6nm,0.8s						
INCN	Inchon	87.11	37	P	P	09 51 06.7	+0.2
TOA0	Torodi Ar. Sit	87.42	289	P	P	09 51 07.7	-0.8
TORD	Torodi Ar. Bea	87.42	289	P	P	09 51 08.6	+0.1
	comp=Z,0.3nm,0.6s,baz=140,slow=5.3,SNR=2.1						
	comp=Z,0.3nm,0.6s						
TORD	Torodi Ar. Bea	87.42	289	P	P	09 51 07.0	-1.5
TORD				IAmb	IAmb	09 51 10.9	
	comp=Z,1.6nm,0.7s						
KURBB	Kurchatov Arra	87.83	0	P	P	09 51 08.8	-0.7
	comp=Z,0.9nm,0.3s,baz=194,slow=4.6,SNR=5.9						
	comp=Z,0.9nm,0.3s						
KURK	Kurchatov	87.92	0	P	P	09 51 09.7	-0.3
KURK				IAmb	IAmb	09 51 12.8	
	comp=Z,3.5nm,1.1s						
ABKAR	Akbulak array	87.94	348	P	P	09 51 10.6	+0.5

IDC 20 09:39:10.6±9.7,**2°.70N**×**93°.16W, h0^{km}, mb3.5**/3, **mbtmp3.5**/3, **Error ellipse: s-maj=1036.0km s-min=160.7km az=76.0, Galapagos Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TXAR	Lajitas Array	28.31	340	P	P	09 45 06.2	-0.1
	0.4nm,0.8s,baz=156,slow=10,SNR=4.6						
	0.4nm,0.8s						
PDAR	Pinedale Array	42.50	342	P	P	09 47 08.0	0.0
	0.8nm,0.9s,baz=165,slow=5.6,SNR=6.0						
	0.8nm,0.9s						
ILAR	Eielson Array	72.81	339	P	P	09 50 40.9	0.0
	0.3nm,0.8s,baz=139,slow=6.0,SNR=4.5						
	0.3nm,0.8s						

*NEIC **20** 09:39:15.5±1.0, 20°.9S±0°.1×178°.5W±0°.1, h589^{km}±8^{km}, mb4.2/16, Error ellipse: s-maj=24.5km s-min=11.3km az=142.0*

*IDC **20** 09:39:16.1±1.8, 20°.96S×178°.58W, h595^{km}±19^{km}, mb3.4/12, mbtmp4.3/14, Error ellipse: s-maj=24.1km s-min=15.6km az=140.0*

ISC 20 09:39:14.8±0.6, **20°.9S**±0°.1×**178°.53W**±0°.09, **h579^{km}, n46,** σ**0^{s}84**/47, **mb4.0**/19, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	Nonsavu	4.52	314	P	P	09 40 45.2	+2.4
	13nm,0.5s,baz=252,slow=23,SNR=18						
MSVF	Nonsavu	4.52	314		P	09 40 44.9	+2.1
AFI	Afiamalu	9.48	44	P	P	09 41 27.7	-0.5
MARNC	Mare, Loyalty	12.55	265	P	P	09 41 58.8	-0.3
TOZ	Tahuroa Road	17.54	196	P	P	09 42 48.1	+1.2
TOZ				IAmb	IAmb	09 43 16.7	
	comp=Z,16nm,1.4s						
URZ	Urewera	17.69	191	P	P	09 42 47.7	-0.6
	comp=Z,4.5nm,0.5s,baz=252,slow=4.1,SNR=18						
THZ	Tophouse	22.01	197	P	P	09 43 27.2	-0.2
TATA	Tatamba Isabel	24.34	298	S	S	09 47 27.4	-0.7
CTA	Charters Tower	32.96	265	P	P	09 45 03.3	+0.3
	comp=Z,1.9nm,0.3s,baz=89,slow=10.0,SNR=10						
	comp=Z,1.9nm,0.3s						
INKA	Innaminka	37.60	251	P	P	09 45 41.4	+0.1
INKA				IAmb	IAmb	09 45 50.5	
	comp=Z,7.0nm,1.5s						
AS31	Alice Springs	43.95	257	P	P	09 46 31.6	-0.1
ASAR	Alice Springs	43.95	257	P	P	09 46 31.9	+0.1
	comp=Z,4.3nm,0.6s,baz=92,slow=7.6,SNR=98						
ASAR				PcP	PcP	09 48 04.6	0.0
	comp=Z,1.0nm,0.6s,baz=96,slow=4.0,SNR=7.2						
	comp=Z,4.3nm,0.6s						
ASAR	Alice Springs	43.95	257	P	P	09 46 31.6	-0.1
WB0	Warramunga Arr	44.04	263	P	P	09 46 31.9	-0.6
WRA	Warramunga Arr	44.06	263	P	P	09 46 32.1	-0.5
	comp=Z,2.5nm,0.3s,baz=97,slow=7.7,SNR=168						
WRA				PcP	PcP	09 48 04.4	-0.6
	comp=Z,0.4nm,0.7s,baz=82,slow=2.8,SNR=1.8						
	comp=Z,2.5nm,0.3s						
WRA	Warramunga Arr	44.06	263	P	P	09 46 32.1	-0.5
MTN	Manton Dam	48.68	271	P	P	09 47 07.0	-0.5
MTN				IAmb	IAmb	09 47 38.4	
	comp=Z,5.9nm,1.1s						
MBWA	Marble Bar	57.28	258	P	P	09 48 08.0	-0.5
MBWA				IAmb	IAmb	09 48 19.3	
	comp=Z,18nm,1.2s						
TOLI2	Tolitoli	63.21	282	P	P	09 48 47.8	+0.1
QSPA	South Pole Qui	69.16	180	P	P	09 49 24.0	+0.3
QSPA				IAmb	IAmb	09 49 26.6	
	comp=Z,9.5nm,1.5s						
MJAR	Matsushiro Arr	70.25	324	P	P	09 49 29.9	-0.7
	comp=Z,1.6nm,0.7s,baz=153,slow=5.1,SNR=5.3						
	comp=Z,1.6nm,0.7s						
PEA0B	Petropavlovsk-	76.55	346	P	P	09 50 05.5	-0.4
PETK	Petropavlovsk-	76.55	346	P	P	09 50 05.2	-0.7
	comp=Z,2.5nm,0.7s,baz=98,slow=4.4,SNR=5.6						
	comp=Z,2.5nm,0.7s						
PETK	Petropavlovsk-	76.55	346	P	P	09 50 05.8	-0.1
KSRS	Korea Array	76.87	319	P	P	09 50 08.4	+0.4
	comp=Z,0.8nm,0.7s,baz=121,slow=6.1,SNR=3.0						
	comp=Z,0.8nm,0.7s						
S12K	Black Hills	77.58	9	P	P	09 50 10.4	-1.1
USRK	Ussuriysk Ar.	79.03	326	P	P	09 50 20.4	+0.9
	comp=Z,2.0nm,0.7s,baz=83,slow=6.0,SNR=4.2						
	comp=Z,2.0nm,0.7s						
O02D	Mt. Diablo Mer	79.91	40	P	P	09 50 25.4	+1.1
O02D				IAmb	IAmb	09 51 01.0	
	comp=Z,15nm,1.3s						
YBH	Yreka Blue Hor	80.92	39	P	P	09 50 31.3	+1.8
	comp=Z,2.2nm,0.7s,baz=137,slow=2.8,SNR=7.3						
	comp=Z,2.2nm,0.7s						
TXAR	Lajitas Array	87.69	58	P	P	09 51 04.1	+1.1
	comp=Z,1.0nm,0.8s,baz=241,slow=4.9,SNR=5.3						
	comp=Z,1.0nm,0.8s						
CCB	Clear Creek Bu	88.52	13	P	P	09 51 04.7	-1.1
CCB				IAmb	IAmb	09 51 05.5	
	comp=Z,2.9nm,0.8s						
L27K	Beaver Creek,	88.54	16	P	P	09 51 06.0	-0.1
IMAR	Indian Mountai	88.64	10	P	P	09 51 05.8	-0.6
ILAR	Eielson Array	88.83	13	P	P	09 51 06.2	-1.1
	comp=Z,0.6nm,0.5s,baz=206,slow=4.7,SNR=16						
	comp=Z,0.6nm,0.5s						
F19K	Shaleruckik Mo	88.86	8	P	P	09 51 07.0	-0.3
F19K				IAmb	IAmb	09 51 27.8	
	comp=Z,2.8nm,1.1s						
PDAR	Pinedale Array	89.60	43	P	P	09 51 11.8	+0.1
	comp=Z,4.8nm,0.9s,baz=246,slow=4.8,SNR=3.7						
	comp=Z,4.8nm,0.9s						
CMAR	Chiang Mai Arr	89.79	290	P	P	09 51 13.9	+1.1
	comp=Z,1.7nm,0.9s,baz=132,slow=2.8,SNR=5.3						
	comp=Z,1.7nm,0.9s						
BVAR	Borovoye Array	119.08	320	PKP	PKPdf	09 56 57.2	-1.0
	comp=Z,1.7nm,0.4s,baz=135,slow=2.4,SNR=4.8						
ARCES	ARCESS Array B	129.24	349	PKP	PKPdf	09 57 16.8	-0.4
	comp=Z,4.4nm,1.1s,baz=352,slow=3.7,SNR=5.9						
FINES	FINESS Array B	136.03	343	PKP	PKiKP	09 57 31.1	-0.8
	comp=Z,1.9nm,0.8s,baz=90,slow=5.6,SNR=4.4						
HFS	Hagfors	139.87	351	PKhKP	PKPpre	09 57 29.1	
	comp=Z,0.8nm,0.3s,baz=46,slow=5.0,SNR=7.3						
AKASG	Malin Array Be	143.13	330	PKP	PKPab	09 57 40.0	-1.2
	comp=Z,3.7nm,0.4s,baz=44,slow=4.3,SNR=28						
EKA	Eskdalemuir Ar	145.46	5	PKPbc	PKPbc	09 57 47.9	-0.7
	comp=Z,2.1nm,0.8s,baz=359,slow=2.8,SNR=4.3						
BRTR	Keskin Array B	146.75	312	PKPbc	PKPbc	09 57 52.2	-0.7
	comp=Z,1.2nm,0.5s,baz=140,slow=5.7,SNR=6.6						
CLL	Collm	148.35	346	*i* PKPbc	PKPbc	09 57 56.1	-0.2
	comp=Z,6.0nm,1.0s						
CLL				*i* PKPab	PKPab	09 58 01.1	-0.7
	comp=Z,3.0nm,0.6s						
GERES	GERESS Array B	150.46	344	PKPbc	PKPbc	09 58 01.3	-0.3
	comp=Z,1.0nm,0.5s,baz=20,slow=1.6,SNR=10						

*NEIC **20** 09:39:25.2±1.5, 1°.4N±0°.1×94°.9W±0°.1, h10^{km}±1^{km}, mb4.4/27, Error ellipse: s-maj=22.2km s-min=15.3km az=230.0*

*IDC **20** 09:39:26.0±2.5, 1°.47N×95°.77W, h0^{km}, mb3.9/10, mbtmp4.0/11, ML3.1/1, Error ellipse: s-maj=59.2km s-min=32.2km az=32.0*

ISC 20 09:39:24.8±0.8, **1°.4N**±0°.1×**94°.9W**±0°.1, **h10^{km}, n49,** σ**1^{s}01**/48, **mb4.3**/22, **Galapagos Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PAYG	Puerto Ayora	5.01	114	Pn	Pn	09 40 41.2	+1.1
RTAL	Retalhuleu	13.42	13	Pn	Pn	09 42 37.1	+1.7
HDC	Heredia	13.68	51	Pn	Pn	09 42 38.6	-0.6
RAFA	San Farael, Vo	13.89	52	Pn	Pn	09 42 42.6	+0.4
BRU2	Volcan	14.17	58	Pn	Pn	09 42 44.8	-1.1
ESQI	Esquipulas	14.17	22	Pn	Pn	09 42 45.0	-0.8
BOAB	BOACO BROADBAN	14.27	39	Pn	Pn	09 42 46.2	-0.9
TGUH	Tegucigalpa,Un	14.65	30	Pn	Pn	09 42 50.7	-1.7
CMIG	Matias Romero	15.60	360	Pn	Pn	09 43 05.0	0.0
	0.1nm,0.3s,baz=201,slow=9.5,SNR=6.0						
	5.0nm,0.8s						
CMIG				AML	AML		
SIUN	Universidad Ur	15.79	39	Pn	Pn	09 43 05.6	-1.9
OTAV	Otavalo	16.45	94	Pn	Pn	09 43 15.1	-1.2
TLIG	Tlapa	16.48	347	Pn	Pn	09 43 16.2	-0.1
ROSC	El Rosal	20.79	80	P	Pn	09 44 19.2	+10
	4.1nm,0.5s,baz=227,slow=20,SNR=4.4						
	4.1nm,0.5s						
ZAIG	Zacatecas	22.53	341	P	P	09 44 24.1	-1.2
CZSB	Cruzeiro do Su	23.88	113	P	P	09 44 38.1	-0.7
CZSB				IAmb	IAmb	09 45 01.0	
	comp=Z,12nm,1.3s						
CAIB	Caibarien	25.76	34	P	P	09 44 57.3	+1.4
735A	Kenedy	27.45	354	P	P	09 45 11.4	+0.3
TXAR	Lajitas Array	29.03	344	P	P	09 45 24.8	-0.5
	comp=Z,1.2nm,0.9s,baz=167,slow=11,SNR=8.3						
	comp=Z,1.2nm,0.9s						
TXAR	Lajitas Array	29.03	344	P	P	09 45 24.6	-0.7
TX31	Lajitas Ar. Si	29.03	344	P	P	09 45 24.7	-0.6
WHTX	Lake Whitney,	30.53	356	P	P	09 45 37.7	-0.7
WHTX				IAmb	IAmb	09 46 06.0	
	comp=Z,5.7nm,0.7s						
129A	Stewart Farms,	31.77	349	P	P	09 45 48.5	-0.9
129A				IAmb	IAmb	09 45 50.4	
	comp=Z,4.2nm,1.0s						
PB11	IPOC Station P	32.45	132	P	P	09 45 55.3	-0.5
PB11				IAmb	IAmb	09 46 03.2	
	comp=Z,8.7nm,1.1s						
FNO	Franklin	33.78	356	P	P	09 46 05.8	-1.2
FNO				IAmb	IAmb	09 46 13.2	
	comp=Z,7.5nm,0.9s						
ANMO	Albuquerque	35.09	343	P	P	09 46 18.0	-0.5
	comp=Z,0.3nm,0.4s,baz=147,slow=11,SNR=3.1						
	comp=Z,0.3nm,0.4s						
R40A	Maddies Statio	36.80	3	P	P	09 46 32.9	0.0
R40A				IAmb	IAmb	09 46 34.1	
	comp=Z,7.4nm,1.1s						
WCI	Wyandotte Cave	37.49	11	P	P	09 46 39.2	+0.4
PV21	Cone Mtn., Par	39.19	342	P	P	09 46 53.0	-0.4
PV21				IAmb	IAmb	09 46 59.8	
	comp=Z,6.8nm,1.1s						
HMU	Henry Mountain	39.19	340	P	P	09 46 53.8	+0.4
HMU				IAmb	IAmb	09 46 55.9	
	comp=Z,9.9nm,1.2s						
N38A	Joes South For	39.25	2	P	P	09 46 54.1	+0.5
LCMT	Little Creek M	39.30	337	P	P	09 46 54.7	+0.5
HDIL	Hopedale	39.31	7		P	09 46 54.8	+0.8
Q16A	Castle Valley	40.22	340	P	P	09 47 02.3	+0.3
Q16A				IAmb	IAmb	09 47 05.5	
	comp=Z,6.0nm,1.4s						
DUG	Dugway, Tooele	41.93	339		P	09 47 16.0	+0.1
DUG				IAmb	IAmb	09 47 18.5	
	comp=Z,6.5nm,1.1s						
NVAR	Mina Array Bea	42.67	333	P	P	09 47 22.7	+0.6
	comp=Z,2.1nm,0.9s,baz=161,slow=8.6,SNR=8.4						
	comp=Z,2.1nm,0.9s						
PDAR	Pinedale Array	43.25	344	P	P	09 47 26.9	+0.2
	comp=Z,2.5nm,0.9s,baz=152,slow=7.2,SNR=14						
	comp=Z,2.5nm,0.9s						
ELK	Elko	43.31	337	P	P	09 47 27.5	+0.3
	comp=Z,1.9nm,0.9s,baz=113,slow=5.4,SNR=5.3						
	comp=Z,1.9nm,0.9s						
HVU	Hansel Valley	43.33	340	P	P	09 47 27.7	+0.4
HVU				IAmb	IAmb	09 47 29.7	
	comp=Z,6.7nm,1.0s						
SNOW	Snow King Moun	44.22	343	P	P	09 47 34.3	-0.3
SNOW				IAmb	IAmb	09 47 42.1	
	comp=Z,4.0nm,0.8s						
MFID	Camas Ranch	45.83	339		P	09 47 47.3	+0.1
MFID				IAmb	IAmb	09 47 55.4	
	comp=Z,3.0nm,0.9s						
TAOE	Nuku Hiva Isla	46.26	256	P	P	09 47 49.8	-1.3
ULM	Lac du Bonnet	48.69	359	P	P	09 48 09.8	+0.7
	comp=Z,3.2nm,0.9s,baz=190,slow=11,SNR=3.0						
	comp=Z,3.2nm,0.9s						
NEW	Newport	50.49	341	P	P	09 48 22.5	-0.6
	comp=Z,0.9nm,0.7s,baz=144,slow=8.2,SNR=4.2						
	comp=Z,0.9nm,0.7s						
YKA	Yellowknife Ar	62.73	350	P	P	09 49 49.7	-0.1
	comp=Z,1.7nm,0.9s,baz=160,slow=6.8,SNR=4.3						
	comp=Z,1.7nm,0.9s						
BCAR	Beaver Creek A	70.59	339	P	P	09 50 40.5	+0.4
SCM	Sheep Creek Mo	71.93	337	P	P	09 50 48.0	-0.2
ILAR	Eielson Array	73.42	339	P	P	09 50 55.9	-1.1
	comp=Z,1.2nm,1.0s,baz=166,slow=4.5,SNR=8.5						
	comp=Z,1.2nm,1.0s						
ILAR	Eielson Array	73.42	339	P	P	09 50 57.3	+0.3
KURBB	Kurchatov Arra	127.88	5	PKP	PKiKP	09 58 35.5	+4.0
	comp=Z,0.3nm,0.8s,baz=29,slow=2.1,SNR=2.9						

*IDC **20** 09:42:13.6±0.6, 2°.57N×95°.24W, h0^{km}, mb4.4/23, mbtmp4.4/25, ML3.3/3, MS5.0/46, Error ellipse: s-maj=19.2km s-min=11.8km az=55.0*

*GFZ **20** 09:42:15.2, 2°.63N×95°.38W, h16^{km}, Mw5.5/112, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}-2.25; $M_{\theta\theta}$1.78; $M_{\phi\phi}$0.47; $M_{r\theta}$-0.40; $M_{\theta\phi}$0.05; $M_{\phi r}$-0.62; Fault plane solution: $M_0$2.18587×10^{17} NP1:ϕ_s74.94397°, δ52.25971°, λ-104.38961°. NP2:ϕ_s277.68563°, δ40.00532°, λ-72.19958°. Principal axes: T 1.8316, Plg6.2476°, Azm175.1260°; N 0.5882, Plg11.3337°, Azm83.8687°; P -2.4198, Plg77.0181°, Azm293.4771°;*

*GFZ **20** 09:42:15.2±0.2, 3°N±3°×9°5W±°, h10^{km}, M5.0/36, mb4.7/36*

*NEIC **20** 09:42:16.8±1.1, 2°.6N±0°.1×95°.24W±0°.07, h10^{km}±1^{km}, mb5.1/45, Ms_20 5.2/616, Mww5.5/46, Error ellipse: s-maj=20.2km s-min=10.2km az=203.0*

*NEIC **20** 09:42:16.7, 2°.56N×95°.22W, h10^{km}*

*GCMT **20** 09:42:31.8±0.1, 2°.74N×95°.16W, h12^{km}, MW5.5/157, Moment Tensor Solution. s110,c198; s157,c320; Duration: 1^{s}3 Moment tensor: Scale 10^{17}Nm; M_{rr}-1.81±.02; $M_{\theta\theta}$1.78±.01; $M_{\phi\phi}$0.03±.02; $M_{r\theta}$0.55±.04; $M_{\theta\phi}$0.01±.01; $M_{\phi r}$-0.38±.05; Best double couple: $M_0$1.91400×10^{17} NP1:ϕ_s79.00000°, δ37.00000°, λ-107.00000°. NP2:ϕ_s281.00000°, δ55.00000°, λ-77.00000°. Principal axes: T 1.8640, Plg9.0000°, Azm2.0000°; N 0.1050, Plg10.0000°, Azm93.0000°; P -1.9640, Plg76.0000°, Azm232.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*NEIC **20** 09:42:40.6, 2°.56N×95°.22W, h12^{km}, Moment Tensor Solution. Duration: 2^{s}9 Moment tensor: Scale 10^{17}Nm; M_{rr}-1.75; $M_{\theta\theta}$1.65; $M_{\phi\phi}$0.10; $M_{r\theta}$-1.20; $M_{\theta\phi}$0.28; $M_{\phi r}$0.08; Fault plane solution: $M_0$2.10000×10^{17} NP1: ϕ_s253.04000°, δ28.33000°, λ-102.80000°. NP2: ϕ_s87.51000°, δ62.43000°, λ-83.19000°. Principal axes: T 2.0596, Plg17.0000°, Azm172.0000°; N 0.0825, Plg6.0000°, Azm264.0000°; P -2.1421, Plg72.0000°, Azm13.0000°;*

ISC 20 09:42:14.7±0.4, **2°.60N**±0°.06×**95°.35W**±0°.07, **h10^{km}, n511,** σ**1^{s}40**/167, **mb4.8**/84, **MS5.2**/349, **Galapagos Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PAYG	Puerto Ayora	6.02	123	Pn	Pn	09 43 43.7	-0.3
PAYG	Puerto Ayora	6.02	123	P	Pn	09 43 45.1	+1.1
	comp=Z,66nm,1.6s						
JTS	Las Juntas de	12.85	53	Pn	Pn	09 45 14.6	-3.0
	comp=Z,0.7nm,0.3s,baz=315,slow=19,SNR=4.0						
JTS				LR	LR	09 49 00.4	
	comp=Z,11µm,20.0s,baz=236,slow=32						
	comp=Z,4.5nm,0.7s						
JTS				AML	AML		
JTS	Las Juntas de	12.85	53	P	Pn	09 45 17.5	-0.2
	comp=Z,10nm,1.1s						
APG	El Apazote	13.24	21	Pn	Pn	09 45 21.8	-1.4
	baz=191,slow=11,SNR=6.1						
TGUH	Tegucigalpa,Un	13.90	35		Pn	09 45 31.2	-1.0
TGUH	Tegucigalpa,Un	13.90	35	P	P	09 45 37.0	-3.4
	comp=Z,11µmcomp=Z,1µmcomp=Z,49nm,1.8s						
TGUH	Tegucigalpa,Un	13.90	35	P	Pn	09 45 31.5	-0.7
	comp=Z,34nm,1.4s						
BRU2	Volcan	14.02	63		Pn	09 45 33.7	-0.1
BRU2	Volcan	14.02	63	P	Pn	09 45 35.2	+1.5
	comp=Z,29nm,1.6s						
CMIG	Matias Romero	14.41	2	Pn	Pn	09 45 39.5	+0.5
	comp=Z,0.2nm,0.3s,baz=185,slow=8.8,SNR=12						
GMAL	Guarumal, Vera	14.96	69	P	P	09 45 54.5	+2.4
BCIP	Isla Barro Col	16.75	66	P	P	09 46 12.3	+0.4
	comp=Z,2µmcomp=Z,59nm,1.5s						
BCIP	Isla Barro Col	16.75	66	P	P	09 46 11.7	-0.2
	comp=Z,60nm,1.5s						
OTAV	Otavalo	17.06	98	Pn	Pn	09 46 13.3	-0.7
OTAV	Otavalo	17.06	98	P	P	09 46 17.6	+1.8
	comp=Z,3µmcomp=Z,2µmcomp=Z,59nm,1.4s						
OTAV	Otavalo	17.06	98	P	P	09 46 15.4	-0.5
	comp=Z,60nm,1.4s						
BBAC	Balboa, Cauca	18.10	91	P	P	09 46 28.9	+1.8
	comp=Z,3µmcomp=Z,1µmcomp=Z,20nm,2.0s						
CASC	Dorado de Casc	18.17	97	P	P	09 46 35.7	+7.9
POPC	Popayan, Colom	18.66	90	P	Pn	09 46 34.3	+0.7
	comp=Z,3µmcomp=Z,1µmcomp=Z,31nm,2.1s						
TEIG	Tepich	18.83	21	P	Pn	09 46 36.1	+0.7
TEIG	Tepich	18.83	21	P	P	09 46 34.4	-0.5
	comp=Z,9µmcomp=Z,2µmcomp=Z,49nm,1.9s						
TEIG	Tepich	18.83	21	P	P	09 46 34.4	-0.5
	comp=Z,49nm,1.9s						
APAC	Apartado, Choc	19.41	74	P	Pn	09 46 45.5	+3.0
	comp=Z,6µmcomp=Z,3µmcomp=Z,82nm,1.8s						
ATAH	Atahualpa	19.49	120	P	Pn	09 46 43.2	-0.6
	comp=Z,0.1nm,0.3s,baz=304,slow=14,SNR=3.8						
	comp=Z,1.7nm,0.6s						
ATAH				AML	AML		
CBOC	Ciudad Bolivar	19.56	80	P	Pn	09 46 44.3	-0.1
	comp=Z,949nmcomp=Z,29nm,1.7s						
GUY2C	Guyana, Caldas	20.11	82	P	Pn	09 46 51.6	+0.3
	comp=Z,3µmcomp=Z,1µmcomp=Z,68nm,1.5s						
ORTC	Ortega, Tolima	20.11	86	P	P	09 46 49.7	+0.6
	comp=Z,2µmcomp=Z,62nm,2.3s						
UREC	San Jos de Ur	20.39	75	P	Pn	09 46 53.1	-0.9
	comp=Z,879nmcomp=Z,17nm,1.2s						
PRAC	Prado	20.46	86	P	Pn	09 46 54.9	-0.1
	comp=Z,2µmcomp=Z,99nm,1.7s						
ROSC	El Rosal	21.10	83	P	P	09 47 00.2	0.0
	comp=Z,31nm,1.0s,baz=116,slow=11,SNR=14						
ROSC				LR	LR	09 54 13.4	
	comp=Z,1µm,18.7s,baz=285,slow=34						
	comp=Z,31nm,1.0s						
ROSC	El Rosal	21.10	83		P	09 47 00.7	+0.5
ROSC				IAmb	IAmb	09 47 13.0	
	comp=Z,69nm,1.2s						
ROSC	El Rosal	21.10	83	P	P	09 47 00.8	+0.6
	comp=Z,2µmcomp=Z,63nm,1.1s						
PTBC	PUERTO BERRIO,	21.19	79	P	P	09 47 01.6	+0.9
	comp=Z,1µmcomp=Z,51nm,1.5s						
ZAIG	Zacatecas	21.24	341		P	09 47 03.9	+2.5
ZAIG	Zacatecas	21.24	341	P	P	09 47 01.5	+0.1
	comp=Z,40nm,1.6s						
SJCC	San Jacinto, C	21.31	69	P	P	09 47 05.5	+3.5
	comp=Z,1µmcomp=Z,36nm,2.0s						
SPBC	San Pablo de B	21.44	81	P	P	09 47 04.6	+1.2
	comp=Z,1µmcomp=Z,36nm,1.1s						
MACC	Macarena, Meta	21.49	91	P	P	09 47 04.8	+0.9
	comp=Z,836nmcomp=Z,41nm,1.8s						
CHIC	Chingaza	21.67	84	P	P	09 47 09.7	+3.4
	comp=Z,1µmcomp=Z,54nm,1.5s						
RUSC	La Rusia	22.45	81	P	P	09 47 12.7	-2.0
	comp=Z,3µmcomp=Z,1µmcomp=Z,66nm,1.8s						
PAMC	Pamplona, Colo	23.05	77	P	P	09 47 20.3	-0.7
MTDJ	Mount Denham	23.37	47	P	P	09 47 23.4	-0.5
	comp=Z,52nm,1.7s						
SOR	Soroa	23.37	30	P	P	09 47 24.7	+1.0
	comp=Z,45nm,2.1s						
CZSB	Cruzeiro do Su	24.81	115	P	P	09 47 38.3	+0.9
CZSB				IAmb	IAmb	09 47 49.7	
	comp=Z,40nm,1.0s						
CZSB	Cruzeiro do Su	24.81	115	P	P	09 47 39.2	+1.8
	comp=Z,2µmcomp=Z,39nm,1.1s						
CAIB	Caibarien	25.07	37		P	09 47 40.7	+1.1
CAIB				IAmb	IAmb	09 47 44.9	
	comp=Z,47nm,1.1s						
CHIV	Chivirico	25.30	46		P	09 47 42.3	+0.6
SDV	Santo Domingo	25.36	75	P	P	09 47 41.8	-0.7
	comp=Z,12nm,0.7s,baz=274,slow=8.4,SNR=8.0						
SDV				LR	LR	09 56 35.4	
	comp=Z,2µm,21.3s,baz=250,slow=34						
	comp=Z,12nm,0.7s						
SDV	Santo Domingo	25.36	75		P	09 47 43.3	+0.7
SDV	Santo Domingo	25.36	75	P	P	09 47 44.1	+1.5
SDV	Santo Domingo	25.36	75	P	P	09 47 44.1	+1.5
	comp=Z,166nm,1.0s						
LPIG	La Paz	25.81	327	LR	LR	09 55 27.1	
	comp=Z,2µm,20.1s,baz=148,slow=31						
HPIG		26.14	339	P	P	09 47 51.3	+1.8
HPIG				IAmb	IAmb	09 48 22.4	
	comp=Z,72nm,1.8s						
HPIG		26.14	339	P	P	09 47 50.1	+0.6
	comp=Z,10nm,1.4s						
735A	Kenedy	26.22	355	IAMs_20	IAMs_20	09 58 21.9	
	comp=Z,5µm,18.0s						
HNDO	Hondo	27.04	352	P	P	09 47 59.1	+1.7
HNDO				IAmb	IAmb	09 48 25.4	
	comp=Z,60nm,1.8s						
HKT	Hockley	27.21	359	P	P	09 47 59.2	+0.5
	comp=Z,16nm,1.4s						
TXAR	Lajitas Array	27.74	344	P	P	09 48 05.2	+1.4
	comp=Z,3.5nm,0.5s,baz=160,slow=15,SNR=4.7						
TXAR				LR	LR	09 58 23.9	
	comp=Z,6µm,21.2s,baz=135,slow=35						
	comp=Z,3.5nm,0.5s						
JCT	Junction City	28.05	352	P	P	09 48 07.2	+0.8
DWPF	Disney Wildern	28.64	26	P	P	09 48 10.5	-1.1
	comp=Z,224nm,2.1s						
553A	Crawfordville	29.33	20	IAMs_20	IAMs_20	09 58 46.5	
	comp=Z,6µm,21.0s						
BRAL	Brewton	29.48	15	IAMs_20	IAMs_20	10 00 41.4	
	comp=Z,7µm,20.0s						
GRTK	Grand Turk	30.14	50	IAMs_20	IAMs_20	09 58 40.4	
	comp=Z,4µm,21.0s						
HSIG		30.18	332	P	P	09 48 26.9	+1.5
PLPT	Palo Pinto	30.19	355	P	P	09 48 26.2	+0.9
352A	Blakely	30.36	18	IAMs_20	IAMs_20	10 00 06.6	
	comp=Z,6µm,20.0s						
250A	Grady	30.45	15	IAMs_20	IAMs_20	10 00 37.1	
	comp=Z,7µm,21.0s						
456A	Hilliard	30.69	23	IAMs_20	IAMs_20	10 00 35.9	
	comp=Z,4µm,20.0s						
WTFS	Witchita Falls	31.14	355	P	P	09 48 34.9	+1.1
WTFS				IAmb	IAmb	09 49 05.6	
	comp=Z,53nm,1.6s						
Z47A	Carrollton	31.20	12	IAMs_20	IAMs_20	10 02 34.0	
	comp=Z,4µm,19.0s						
LRAL	Lakeview Retre	31.28	14	IAMs_20	IAMs_20	10 01 39.1	
	comp=Z,6µm,20.0s						
152A	Waverly Hall	31.54	17	IAMs_20	IAMs_20	10 00 43.7	
	comp=Z,6µm,20.0s						
MIAR	Mount Ida	31.83	3	P	P	09 48 38.6	-1.2
	comp=Z,13nm,1.7s						
WMOK	Wichita Mounta	32.14	355	P	P	09 48 41.8	-0.8

	comp=Z,10nm,1.4s						
Y49A	Blount Mountai	32.20	14	IAMs_20	IAMs_20	10 01 44.5	
	comp=Z,6µm,21.0s						
RPN	Rapa Nui	32.48	204	P	P	09 48 45.1	-0.5
	comp=Z,201nm,1.9s						
SJG	San Juan	32.51	60	LR	LR	09 59 41.1	
	comp=Z,1µm,19.8s,baz=259,slow=32						
SJG	San Juan	32.51	60	P	P	09 48 45.5	-0.6
SJG	San Juan	32.51	60	P	P	09 48 45.1	-1.0
	comp=Z,15nm,0.9s						
VA02	Isla de Pascua	32.55	204	IAMs_20	IAMs_20	09 58 25.4	
	comp=Z,6µm,22.0s						
GOGA	Godfrey	32.61	19	IAMs_20	IAMs_20	10 01 24.1	
	comp=Z,4µm,20.0s						
X48A	Hartselle	32.62	13	IAMs_20	IAMs_20	10 02 32.7	
	comp=Z,5µm,20.0s						
AMTX	Amarillo	32.66	350	IAMs_20	IAMs_20	10 01 25.9	
	comp=Z,4µm,18.0s						
LPAZ	La Paz	32.80	126	P	P	09 48 49.1	-0.1
	comp=Z,5.0nm,1.2s,baz=296,slow=7.9,SNR=7.2						
LPAZ				LR	LR	10 01 37.4	
	comp=Z,1µm,21.9s,baz=310,slow=36						
	comp=Z,5.0nm,1.2s						
LPAZ	La Paz	32.80	126	P	P	09 48 49.5	+0.2
LPAZ				IAmb	IAmb	09 49 16.0	
	comp=Z,48nm,1.4s						
LPAZ	La Paz	32.80	126	P	P	09 48 48.8	-0.5
	comp=Z,24nm,1.8s						
Y52A	Lilburn	32.85	17	IAMs_20	IAMs_20	10 01 13.4	
	comp=Z,6µm,22.0s						
PB16	IPOC Station P	32.87	130	P	P	09 48 50.1	+0.3
	comp=Z,11nm,1.1s						
TUC	Tucson	32.93	336	IAMs_20	IAMs_20	10 02 35.3	
	comp=Z,4µm,20.0s						
TUC	Tucson	32.93	336	P	P	09 48 50.6	+1.0
	comp=Z,12nm,1.9s						
PSGCX	Pisagua	33.18	133	P	P	09 48 52.8	+0.8
	comp=Z,21nm,1.5s						
PH02	Texas Public H	33.20	350	P	P	09 48 52.6	+0.7
PH02				IAmb	IAmb	09 48 55.3	
	comp=Z,20nm,1.1s						
X51A	Calhoun	33.27	16	IAMs_20	IAMs_20	10 01 28.8	
	comp=Z,6µm,22.0s						
PB11	IPOC Station P	33.62	132	P	P	09 48 56.8	+0.9
	comp=Z,22nm,1.8s						
W50A	Signal Mountai	33.75	15	IAMs_20	IAMs_20	10 02 07.5	
	comp=Z,5µm,21.0s						
ALQ	Albuquerque	33.80	343	IAMs_20	IAMs_20	10 01 46.7	
	comp=Z,7µm,21.0s						
ANMO	Albuquerque	33.80	343	P	P	09 48 58.8	+1.5
	comp=Z,1.6nm,0.6s,baz=156,slow=14,SNR=3.8						
ANMO				LR	LR	10 02 07.9	
	comp=Z,7µm,19.5s,baz=156,slow=35						
	comp=Z,1.6nm,0.6s						
TASM	ASL Pad, Albuq	33.80	343	IAMs_20	IAMs_20	10 01 46.8	
	comp=Z,7µm,20.0s						
TASM	ASL Pad, Albuq	33.80	343	IAMs_20	IAMs_20	10 01 46.8	
	comp=Z,7µm,20.0s						
TASM	ASL Pad, Albuq	33.80	343	IAMs_20	IAMs_20	10 01 46.7	
	comp=Z,7µm,20.0s						
GO01	Chusmiza	33.91	132	P	P	09 48 58.8	0.0
	comp=Z,20nm,2.4s						
V48A	Smith Brothers	33.91	12	IAMs_20	IAMs_20	10 03 21.8	
	comp=Z,6µm,20.0s						
W52A	Murphy	34.03	17	IAMs_20	IAMs_20	10 01 49.8	
	comp=Z,6µm,22.0s						
WVT	Waverly	34.08	11	IAMs_20	IAMs_20	10 03 54.5	
	comp=Z,4µm,20.0s						
WVT	Waverly	34.08	11	P	P	09 49 00.7	+1.2
	comp=Z,29nm,1.5s						
PB08	IPOC Station P	34.23	132	P	P	09 49 02.3	+0.9
	comp=Z,13nm,2.7s						
Y57A	Sumter	34.24	22	IAMs_20	IAMs_20	10 03 03.0	
	comp=Z,4µm,19.0s						
PB02	IPOC Station P	34.44	135	P	P	09 49 03.7	+0.8
	comp=Z,24nm,1.6s						
TKL	Tuckaleechee C	34.60	17	P	P	09 49 05.2	+1.1
	comp=Z,8.8nm,1.2s,baz=190,slow=12,SNR=2.7						
TKL				LR	LR	10 02 29.9	
	comp=Z,7µm,21.8s,baz=197,slow=35						
	comp=Z,8.8nm,1.2s						
PB07	IPOC Station P	34.71	135	P	P	09 49 06.2	+0.9
	comp=Z,23nm,1.8s						
T45A	Paducah	34.81	9	IAMs_20	IAMs_20	10 04 59.6	
	comp=Z,4µm,19.0s						
U49A	Red Boiling Sp	34.89	14	IAMs_20	IAMs_20	10 03 06.6	
	comp=Z,5µm,21.0s						
V53A	Saluda	34.90	18	IAMs_20	IAMs_20	10 02 13.7	
	comp=Z,4µm,22.0s						
KMSC	Kings Mountain	34.90	20	IAMs_20	IAMs_20	10 03 59.7	
	comp=Z,3µm,18.0s						
CGM3	Cape Girardeau	34.93	8	P	P	09 49 07.6	+0.8
X58A	Rowland	35.12	23	IAMs_20	IAMs_20	10 03 22.3	
	comp=Z,3µm,19.0s						
T25A	Trinidad	35.37	347	IAMs_20	IAMs_20	10 03 12.0	
	comp=Z,5µm,18.0s						
S44A	Carbondale	35.37	8	IAMs_20	IAMs_20	10 05 31.7	
	comp=Z,3µm,18.0s						
CCM	Cathedral Cave	35.49	6	P	P	09 49 10.4	-1.3
	comp=Z,15nm,1.0s						
TZTN	Tazewell	35.49	16	IAMs_20	IAMs_20	10 02 46.5	
	comp=Z,6µm,21.0s						
T50A	Nancy	35.60	15	IAMs_20	IAMs_20	10 03 16.4	
	comp=Z,5µm,21.0s						
BLYC	Blythe	35.80	332	P	P	09 49 16.6	+2.2
BLYC				IAmb	IAmb	09 49 47.4	
	comp=Z,36nm,1.4s						
WUAZ	Wupatki	35.97	337	P	P	09 49 18.6	+2.6
BAR	Barrett	36.00	329	P	P	09 49 17.7	+1.6
BAR				IAmb	IAmb	09 49 48.9	
	comp=Z,47nm,1.2s						
BAR				IAMs_20	IAMs_20	10 01 39.1	
	comp=Z,5µm,20.0s						
W59A	Clinton	36.01	24	IAMs_20	IAMs_20	10 03 59.9	
	comp=Z,3µm,19.0s						
BC3	Big Chuckawall	36.16	331	IAMs_20	IAMs_20	10 05 26.3	
	comp=Z,3µm,18.0s						
CBKS	Cedar Bluff	36.27	354	IAMs_20	IAMs_20	10 03 49.1	
	comp=Z,4µm,19.0s						
V58A	Windy Hill, Pi	36.30	23	IAMs_20	IAMs_20	10 04 15.4	
	comp=Z,3µm,18.0s						
U56A	King	36.32	21	IAMs_20	IAMs_20	10 04 36.2	
	comp=Z,3µm,18.0s						
PB14	IPOC Station P	36.32	140	IAMs_20	IAMs_20	10 00 13.3	
	comp=Z,4µm,22.0s						
WCI	Wyandotte Cave	36.42	12	P	P	09 49 21.0	+1.4
WCI	Wyandotte Cave	36.42	12	IAMs_20	IAMs_20	10 04 59.2	
	comp=Z,4µm,20.0s						
WCI	Wyandotte Cave	36.42	12	P	P	09 49 19.8	+0.2
	comp=Z,57nm,1.0s						
IRM	Iron Mountain	36.43	332	IAMs_20	IAMs_20	10 04 48.2	
	comp=Z,3µm,19.0s						
S51A	Beattyville	36.51	16	IAMs_20	IAMs_20	10 03 19.4	
	comp=Z,6µm,22.0s						
MVCO	Mesa Verde	36.51	342	P	P	09 49 20.4	-0.2
	comp=Z,15nm,1.6s						
PFO	Pinyon Flats O	36.63	330	P	P	09 49 24.1	+2.5
	comp=Z,3.7nm,1.0s,baz=144,slow=9.5,SNR=3.6						
PFO				LR	LR	10 01 53.2	
	comp=Z,5µm,21.4s,baz=142,slow=32						
	comp=Z,3.7nm,1.0s						
PFO	Pinyon Flats O	36.63	330	IAMs_20	IAMs_20	10 01 42.6	
	comp=Z,5µm,21.0s						
DNR	Dunn Ranch,Anz	36.68	330	P	P	09 49 24.2	+2.1
DNR				IAmb	IAmb	09 49 55.4	
	comp=Z,55nm,1.3s						
BELC	Belle Mtn. Jos	36.71	331	IAMs_20	IAMs_20	10 05 43.8	
	comp=Z,3µm,18.0s						
R49A	Shelbyville	36.73	13	IAMs_20	IAMs_20	10 04 14.3	
	comp=Z,5µm,21.0s						
KSCO	Kaye Shedlock’	36.85	351	IAMs_20	IAMs_20	10 03 59.7	
	comp=Z,3µm,18.0s						
P40A	Paris	36.88	4	IAMs_20	IAMs_20	10 05 45.9	
	comp=Z,3µm,19.0s						
P43A	Skaggs, Pawnee	37.25	7	IAMs_20	IAMs_20	10 06 52.5	
	comp=Z,3µm,18.0s						
AC01	Pan de Azucar	37.28	142	IAMs_20	IAMs_20	10 01 09.7	
	comp=Z,4µm,19.0s						
Q24A	Divide	37.28	347	IAMs_20	IAMs_20	10 04 16.6	
	comp=Z,3µm,18.0s						
P46A	Rosedale	37.59	10	IAMs_20	IAMs_20	10 05 32.2	
	comp=Z,5µm,20.0s						
BFSC	Mount Baldy Ra	37.73	329	IAMs_20	IAMs_20	10 02 32.9	
	comp=Z,4µm,20.0s						
P48A	Milroy	37.79	13	IAMs_20	IAMs_20	10 05 20.4	
	comp=Z,4µm,20.0s						
MWC	Mount Wilson	37.93	329	IAMs_20	IAMs_20	10 03 04.1	
	comp=Z,3µm,18.0s						
T59A	Double "B" Far	37.93	23	IAMs_20	IAMs_20	10 05 16.8	
	comp=Z,3µm,19.0s						
PASC	Pasadena Art C	37.95	328	IAMs_20	IAMs_20	10 03 03.8	
	comp=Z,3µm,18.0s						
S57A	Dark Hollow, R	38.09	21	IAMs_20	IAMs_20	10 05 21.1	
	comp=Z,3µm,19.0s						
GSC	Goldstone, Bar	38.15	331	P	P	09 49 36.5	+2.0
N41A	Harden Midland	38.15	6	IAMs_20	IAMs_20	10 06 33.5	
	comp=Z,3µm,18.0s						
HDIL	Hopedale	38.18	7	IAMs_20	IAMs_20	10 07 10.1	
	comp=Z,4µm,18.0s						
ISCO	Idaho Springs	38.19	347	P	P	09 49 36.5	+1.5
ISCO				IAmb	IAmb	09 50 03.5	
	comp=Z,65nm,1.9s						
ISCO				IAMs_20	IAMs_20	10 04 48.5	
	comp=Z,4µm,19.0s						
ISCO	Idaho Springs	38.19	347	P	P	09 49 36.0	+1.0
	comp=Z,15nm,1.7s						
AC06	Mina Casimiro	38.31	143	IAMs_20	IAMs_20	10 01 21.9	
	comp=Z,3µm,21.0s						
SHOC	Shoshone, Teco	38.38	332	P	P	09 49 38.7	+2.4
SHOC				IAMs_20	IAMs_20	10 06 14.0	
	comp=Z,3µm,19.0s						
SZCU	Shurtz Canyon	38.45	337	P	P	09 49 39.6	+2.5
SZCU				IAmb	IAmb	09 50 09.9	
	comp=Z,43nm,1.6s						
AC04	Llanos de Chal	38.51	144	IAMs_20	IAMs_20	10 01 26.2	
	comp=Z,4µm,20.0s						
GO03	Copiapo	38.55	143	IAMs_20	IAMs_20	10 01 29.4	
	comp=Z,4µm,21.0s						
O48B	Farmland	38.61	13	IAMs_20	IAMs_20	10 05 55.2	
	comp=Z,4µm,20.0s						
OGNE	Ogallala	38.65	352	IAMs_20	IAMs_20	10 05 35.3	
	comp=Z,3µm,18.0s						
AC02	Maricunga	38.69	141	IAMs_20	IAMs_20	10 01 38.0	
	comp=Z,4µm,21.0s						
LRMC	Laurel Mtn Rad	38.72	330	IAMs_20	IAMs_20	10 03 19.0	
	comp=Z,4µm,20.0s						
O49A	Covington	38.73	14	IAMs_20	IAMs_20	10 05 46.3	
	comp=Z,5µm,20.0s						
SALTA		38.81	135	P	P	09 49 41.0	+0.4
	comp=Z,8.3nm,2.1s						
P53A	Whipple	38.85	17	IAMs_20	IAMs_20	10 04 50.4	
	comp=Z,4µm,22.0s						
H03N2	Juan Fernandez	39.05	158	T	T	10 31 35.5	
	baz=326,slow=74,SNR=264						
H03N1	Juan Fernandez	39.06	158	T	T	10 31 42.6	
	baz=296,slow=74,SNR=284						
MPMC	Manual Prospec	39.09	331	P	P	09 49 45.2	+2.7
MPMC				IAMs_20	IAMs_20	10 03 12.7	
	comp=Z,4µm,21.0s						
PRN	Pahroc Range	39.09	335	P	P	09 49 44.2	+1.8
N47A	Urbana	39.09	12	IAMs_20	IAMs_20	10 06 03.1	
	comp=Z,4µm,21.0s						
FURC	Furnace Creek,	39.12	332	IAMs_20	IAMs_20	10 06 46.5	
	comp=Z,3µm,19.0s						
Q56A	Snyder Ridge,	39.15	20	IAMs_20	IAMs_20	10 06 33.2	
	comp=Z,3µm,19.0s						
M44A	Midewin, Midew	39.17	9	IAMs_20	IAMs_20	10 07 25.3	
	comp=Z,4µm,19.0s						
ISA	Isabella, Lake	39.26	330	IAMs_20	IAMs_20	10 03 33.4	
	comp=Z,4µm,20.0s						
TMUT	Trail Mountain	39.28	340	P	P	09 49 46.5	+2.4
TMUT				IAmb	IAmb	09 50 17.4	
	comp=Z,83nm,1.8s						
O52A	Adamsville	39.31	16	IAMs_20	IAMs_20	10 05 06.4	
	comp=Z,5µm,21.0s						
LCO	Las Campanas	39.33	145	IAMs_20	IAMs_20	10 02 35.0	
	comp=Z,5µm,18.0s						
AC05	El Transito	39.44	144	IAMs_20	IAMs_20	10 02 14.1	
	comp=Z,4µm,19.0s						
N49A	Columbus Grove	39.46	13	IAMs_20	IAMs_20	10 05 47.7	
	comp=Z,4µm,20.0s						
L42A	Oliver, Polo	39.56	7	IAMs_20	IAMs_20	10 07 39.7	
	comp=Z,3µm,18.0s						
CWC	Cottonwood Cre	39.68	331	IAMs_20	IAMs_20	10 03 52.4	
	comp=Z,4µm,21.0s						
P57A	Homestead Farm	39.96	21	IAMs_20	IAMs_20	10 06 26.5	
	comp=Z,3µm,20.0s						
L44A	Lake County Fo	39.97	9	IAMs_20	IAMs_20	10 07 49.3	
	comp=Z,3µm,19.0s						
PTLB	Pontes e Lacer	40.06	118	P	P	09 49 50.4	-0.3
PTLB				IAmb	IAmb	09 50 17.5	
	comp=Z,61nm,2.0s						
CO06	Fray Jorge	40.08	147	IAMs_20	IAMs_20	10 02 19.0	
	comp=Z,4µm,19.0s						
K30B	Basset	40.08	355	IAMs_20	IAMs_20	10 06 20.0	
	comp=Z,3µm,20.0s						
GO04	Tololo Observa	40.15	146	IAMs_20	IAMs_20	10 02 32.8	
	comp=Z,4µm,20.0s						
N53A	Lisbon	40.23	17	IAMs_20	IAMs_20	10 06 03.9	
	comp=Z,3µm,20.0s						
TIN	Tinemaha, Big	40.24	331	IAMs_20	IAMs_20	10 03 50.2	
	comp=Z,4µm,22.0s						
BSUT	Blindstream Ca	40.26	342	P	P	09 49 54.3	+1.9
BSUT				IAmb	IAmb	09 50 25.4	
	comp=Z,83nm,1.6s						
CO01	Juntas del Tor	40.40	145	IAMs_20	IAMs_20	10 02 25.4	
	comp=Z,5µm,21.0s						
K43A	Burlington	40.42	8	IAMs_20	IAMs_20	10 08 25.4	
	comp=Z,4µm,19.0s						
PKD	Bear Valley Ra	40.55	328	IAMs_20	IAMs_20	10 08 25.6	
	comp=Z,3µm,18.0s						
DUG	Dugway, Tooele	40.63	339	P	P	09 49 55.5	+0.3
	comp=Z,29nm,1.4s						
CO02	Combarbal	40.83	147	IAMs_20	IAMs_20	10 02 33.9	
	comp=Z,3µm,21.0s						
AAM	Ann Arbor	40.90	13	IAMs_20	IAMs_20	10 06 32.6	
	comp=Z,4µm,20.0s						
ECSD	EROS Data Cent	40.98	359	P	P	09 49 56.6	-1.2
	comp=Z,23nm,1.3s						
HULI	Fort Hunter Li	40.98	327	IAMs_20	IAMs_20	10 03 39.9	
	comp=Z,2µm,20.0s						
SSPA	Standing Stone	41.03	20	IAMs_20	IAMs_20	10 07 19.8	
	comp=Z,3µm,19.0s						
K22A	Casper	41.11	347	IAMs_20	IAMs_20	10 06 50.9	
	comp=Z,3µm,18.0s						
I37A	Lemond, Waseca	41.28	2	IAMs_20	IAMs_20	10 07 56.4	
	comp=Z,2µm,19.0s						
P61A	Hammonton	41.36	24	IAMs_20	IAMs_20	10 07 46.5	
	comp=Z,3µm,18.0s						
NVAR	Mina Array Bea	41.38	332	P	P	09 50 03.8	+2.3
	comp=Z,7.4nm,0.9s,baz=160,slow=9.0,SNR=35						
NVAR				LR	LR	10 05 05.1	
	comp=Z,2µm,20.9s,baz=138,slow=33						
	comp=Z,7.4nm,0.9s						
HWUT	Hardware Ranch	41.48	342	IAMs_20	IAMs_20	10 06 37.3	
	comp=Z,3µm,19.0s						
HWUT	Hardware Ranch	41.48	342	P	P	09 50 02.6	+0.3
	comp=Z,18nm,1.6s						
CO04	Los Peladeros	41.50	148	IAMs_20	IAMs_20	10 03 12.6	
	comp=Z,3µm,21.0s						
I42A	Draeger Farm,	41.51	7	IAMs_20	IAMs_20	10 09 12.3	
	comp=Z,3µm,18.0s						
J47A	Sunmer	41.54	12	IAMs_20	IAMs_20	10 07 26.8	
	comp=Z,4µm,20.0s						
CLDB	Colider	41.57	109	P	P	09 50 02.4	-0.8
	comp=Z,9.6nm,1.4s						
N58A	Sunbury	41.62	21	IAMs_20	IAMs_20	10 07 27.5	
	comp=Z,2µm,19.0s						
SAO	San Andreas Ge	41.65	328	IAMs_20	IAMs_20	10 09 16.6	
	comp=Z,3µm,18.0s						
FORD	Fort Ord Natur	41.77	328	IAMs_20	IAMs_20	10 09 12.8	
	comp=Z,3µm,18.0s						
SUSD	Miller	41.79	356	IAMs_20	IAMs_20	10 07 25.2	
	comp=Z,2µm,18.0s						
M57A	Sunshine Farm,	41.91	21	IAMs_20	IAMs_20	10 07 46.2	
	comp=Z,2µm,20.0s						
VA01	Torpederas	41.92	150	IAMs_20	IAMs_20	10 03 52.1	
	comp=Z,3µm,19.0s						
PD31	Pinedale Array	41.96	344	P	P	09 50 07.6	+1.4
PD31				IAmb	IAmb	09 50 37.5	
	comp=Z,40nm,1.4s						
PDAR	Pinedale Array	41.96	344	P	P	09 50 07.5	+1.4
	comp=Z,7.9nm,0.9s,baz=154,slow=7.8,SNR=35						
PDAR				LR	LR	10 07 28.2	
	comp=Z,7µm,18.5s,baz=164,slow=36						
	comp=Z,7.9nm,0.9s						
ELK	Elko	42.01	337	P	P	09 50 08.9	+2.3
	comp=Z,7.2nm,0.9s,baz=167,slow=5.9,SNR=20						
ELK				LR	LR	10 08 16.0	
	comp=Z,5µm,18.4s,baz=140,slow=37						
	comp=Z,7.2nm,0.9s						
ELK	Elko	42.01	337	IAMs_20	IAMs_20	10 07 45.7	
	comp=Z,4µm,20.0s						
RSSD	Black Hills	42.06	351	P	P	09 50 06.2	-0.8
	comp=Z,13nm,1.9s						
MHC	Mount Hamilton	42.18	328	IAMs_20	IAMs_20	10 04 40.8	
	comp=Z,3µm,20.0s						
MT02	Curacav	42.37	149	IAMs_20	IAMs_20	10 03 54.7	
	comp=Z,4µm,19.0s						
VA05	Santo Domingo	42.45	150	IAMs_20	IAMs_20	10 03 19.8	
	comp=Z,3µm,20.0s						
L56A	Greenwood	42.47	20	IAMs_20	IAMs_20	10 08 26.1	
	comp=Z,3µm,18.0s						
PEL	Peldehue	42.51	149	IAMs_20	IAMs_20	10 03 23.6	
	comp=Z,3µm,21.0s						
WELL	Weller Preserv	42.55	330	IAMs_20	IAMs_20	10 05 24.4	
	comp=Z,2µm,18.0s						
CFA	Coronel Fontan	42.67	145	LR	LR	10 04 45.7	
	comp=Z,2µm,18.2s,baz=2.5,slow=32						
MT05	Renca	42.68	149	IAMs_20	IAMs_20	10 04 05.9	
	comp=Z,3µm,20.0s						
MDP	Montagnes des	42.68	85	LR	LR	10 08 21.2	
	comp=Z,2µm,18.1s,baz=263,slow=37						
G40A	Rib Lake	42.74	5	IAMs_20	IAMs_20	10 09 57.8	
	comp=Z,2µm,19.0s						
MT01	Popeta	42.79	150	IAMs_20	IAMs_20	10 03 31.0	
	comp=Z,3µm,20.0s						
MT16	CCHEN	42.82	149	IAMs_20	IAMs_20	10 03 32.6	
	comp=Z,3µm,22.0s						
MT09	Talagante	42.85	150	IAMs_20	IAMs_20	10 03 31.6	
	comp=Z,3µm,20.0s						
MT03	Universidad Ad	42.88	149	IAMs_20	IAMs_20	10 03 35.1	
	comp=Z,3µm,21.0s						
BINY	Binghamton	43.08	21	IAMs_20	IAMs_20	10 08 32.0	
	comp=Z,2µm,19.0s						
MT08	Bocatoma Ro	43.09	148	IAMs_20	IAMs_20	10 04 04.5	
	comp=Z,3µm,20.0s						
MT13	San Alfonso	43.19	149	IAMs_20	IAMs_20	10 03 46.4	
	comp=Z,3µm,21.0s						
BO01	Tunca	43.30	150	IAMs_20	IAMs_20	10 03 46.3	
	comp=Z,3µm,20.0s						
K57A	Scipio Center	43.36	20	IAMs_20	IAMs_20	10 08 42.5	
	comp=Z,2µm,20.0s						
GO05	Hualane	43.39	152	IAMs_20	IAMs_20	10 04 06.1	
	comp=Z,3µm,19.0s						
L59A	Walton	43.42	22	IAMs_20	IAMs_20	10 09 39.0	
	comp=Z,3µm,19.0s						
F42A	Maple Grove Fa	43.45	7	IAMs_20	IAMs_20	10 10 18.5	
	comp=Z,3µm,18.0s						
BO02	Sierra Bellavi	43.77	150	IAMs_20	IAMs_20	10 04 47.8	
	comp=Z,3µm,19.0s						
ORV	Oroville	43.79	331	IAMs_20	IAMs_20	10 06 03.3	
	comp=Z,2µm,19.0s						
E38A	The Farm, Brul	43.96	4	IAMs_20	IAMs_20	10 09 45.2	
	comp=Z,2µm,18.0s						
M63A	Gales Ferry	43.96	25	IAMs_20	IAMs_20	10 09 04.1	
	comp=Z,2µm,19.0s						
E28A	Huff	44.05	355	IAMs_20	IAMs_20	10 08 51.0	
	comp=Z,3µm,18.0s						
RLMT	Red Lodge	44.09	346	P	P	09 50 24.7	+1.3
RLMT				IAmb	IAmb	09 50 54.6	
	comp=Z,35nm,1.5s						
RLMT				IAMs_20	IAMs_20	10 08 16.8	
	comp=Z,4µm,19.0s						
J57A	Williamstown	44.13	20	IAMs_20	IAMs_20	10 09 16.0	
	comp=Z,2µm,19.0s						
HLID	Hailey	44.17	340	P	P	09 50 24.2	+0.2
	comp=Z,12nm,1.6s						
ML02	Panimavida	44.24	152	IAMs_20	IAMs_20	10 04 12.8	
	comp=Z,3µm,20.0s						
SADO	Sadowa	44.37	17	P	P	09 50 24.3	-1.0
	comp=Z,8.8nm,1.0s,baz=191,slow=7.5,SNR=3.6						
SADO				LR	LR	10 08 33.7	
	comp=Z,4µm,21.2s,baz=221,slow=36						
	comp=Z,8.8nm,1.0s						
TRY	Troy	44.41	23	IAMs_20	IAMs_20	10 09 05.1	
	comp=Z,2µm,20.0s						
O03E	Paynes Creek	44.51	331	IAMs_20	IAMs_20	10 10 34.3	
	comp=Z,2µm,19.0s						
MFID	Camas Ranch	44.54	339	IAMs_20	IAMs_20	10 08 26.5	
	comp=Z,3µm,21.0s						
E46A	Sault Ste Mari	44.65	11	IAMs_20	IAMs_20	10 09 24.1	
	comp=Z,3µm,20.0s						
J59A	Piesco	44.72	22	IAMs_20	IAMs_20	10 10 28.4	
	comp=Z,2µm,18.0s						
HATC	Hat Creek Radi	44.75	332	IAMs_20	IAMs_20	10 10 40.6	
	comp=Z,2µm,18.0s						
WVOR	Wild Horse Val	44.80	335	P	P	09 50 28.9	-0.1
	comp=Z,14nm,1.7s						
O02D	Mt. Diablo Mer	44.91	330	IAMs_20	IAMs_20	10 06 25.8	
	comp=Z,2µm,20.0s						
L64A	Middleborough	44.91	26	IAMs_20	IAMs_20	10 09 23.4	
	comp=Z,3µm,20.0s						
K62A	Royalston	44.92	24	IAMs_20	IAMs_20	10 10 50.7	
	comp=Z,2µm,18.0s						
BI02	San Fabin de	45.04	152	IAMs_20	IAMs_20	10 04 39.0	
	comp=Z,4µm,21.0s						
HRV	Adam Dziewonsk	45.07	25	IAMs_20	IAMs_20	10 07 56.6	
	comp=Z,2µm,20.0s						
WES	Weston	45.07	25	IAMs_20	IAMs_20	10 09 54.6	
	comp=Z,2µm,19.0s						
MOD	Modoc Plateau	45.08	334	IAMs_20	IAMs_20	10 10 12.2	
	comp=Z,4µm,19.0s						
BCX	Boston College	45.09	25	IAMs_20	IAMs_20	10 09 47.2	
	comp=Z,3µm,20.0s						
MDND	Maddock	45.23	356	IAMs_20	IAMs_20	10 09 30.0	
	comp=Z,2µm,18.0s						
EYMN	Ely	45.30	4	IAMs_20	IAMs_20	10 10 24.6	
	comp=Z,3µm,18.0s						
J61A	Chester	45.36	23	IAMs_20	IAMs_20	10 09 43.4	
	comp=Z,2µm,19.0s						
KHBM	Hayfork Bally	45.49	330	IAMs_20	IAMs_20	10 06 54.2	
	comp=Z,3µm,20.0s						
AGMN	Agassiz Nation	45.53	360	P	P	09 50 35.1	+0.5
	comp=Z,27nm,1.1s						
HNH	Hanover	45.77	23	IAMs_20	IAMs_20	10 09 56.1	
	comp=Z,2µm,19.0s						
M02C	Callahan	45.87	331	IAMs_20	IAMs_20	10 11 19.1	
	comp=Z,2µm,19.0s						
KHMM	Horse Mountain	45.91	330	IAMs_20	IAMs_20	10 07 16.3	
	comp=Z,2µm,20.0s						
YBH	Yreka Blue Hor	46.06	331	P	P	09 50 39.8	+0.9
	comp=Z,4.2nm,0.9s,baz=130,slow=6.1,SNR=7.5						
	comp=Z,4.2nm,0.9s						
TAOE	Nuku Hiva Isla	46.08	255	*e*S	S	09 57 21.1	-4.5
	comp=Z,220nm,24.4s						
TAOE				*e*LR	LR	10 03 42.0	
	comp=Z,2µm,24.5s						
LBNH	Lisbon	46.36	23	IAMs_20	IAMs_20	10 10 13.7	
	comp=Z,2µm,19.0s						
KRMB	Red Mountain	46.48	330	IAMs_20	IAMs_20	10 07 46.4	
	comp=Z,2µm,19.0s						
CPUP	Villa Florida	46.66	131	P	P	09 50 44.2	+0.4
	comp=Z,1.1nm,0.7s,baz=306,slow=13,SNR=5.1						
	comp=Z,1.1nm,0.7s						
KSXB	Camp Six Broad	46.70	331	IAMs_20	IAMs_20	10 07 54.1	
	comp=Z,3µm,20.0s						
I63A	Otisfield	46.74	25	IAMs_20	IAMs_20	10 09 07.9	
	comp=Z,2µm,20.0s						
H62A	Milan	46.94	24	IAMs_20	IAMs_20	10 11 31.2	
	comp=Z,2µm,18.0s						
ULM	Lac du Bonnet	47.48	360	P	P	09 50 49.6	-0.2
	comp=Z,12nm,0.9s,baz=176,slow=7.2,SNR=11						
ULM				LR	LR	10 13 16.0	
	comp=Z,1µm,18.3s,baz=178,slow=39						
	comp=Z,12nm,0.9s						
I04A	Tendick Farm,	47.52	333	P	P	09 50 51.5	+1.1
I04A				IAmb	IAmb	09 51 25.9	
	comp=Z,31nm,1.3s						
G62A	West of Eustis	47.72	24	IAMs_20	IAMs_20	10 12 02.9	
	comp=Z,2µm,18.0s						
PKME	Peaks-Kenny Pk	48.27	25	IAMs_20	IAMs_20	10 11 06.2	
	comp=Z,2µm,20.0s						
HAWA	Hanford	48.45	338	IAMs_20	IAMs_20	10 10 31.1	
	comp=Z,3µm,21.0s						
COR	Corvallis	48.54	333	P	P	09 50 58.0	-0.1
	comp=Z,19nm,1.4s						
PLCA	Paso Flores	48.71	155	P	P	09 51 00.4	+0.8
	comp=Z,1.3nm,0.8s,baz=339,slow=14,SNR=1.0						
PLCA				LR	LR	10 07 40.1	
	comp=Z,5µm,18.5s,baz=324,slow=31						
	comp=Z,1.3nm,0.8s						
E07A	Sunnyside	48.71	338	P	P	09 51 01.2	+1.8
LDM	Libby Dam	48.80	342	P	P	09 51 01.7	+1.5
G65A	Princeton	48.95	26	IAMs_20	IAMs_20	10 12 19.3	
	comp=Z,2µm,20.0s						
F64A	Sherman	49.14	25	IAMs_20	IAMs_20	10 11 59.4	
	comp=Z,2µm,20.0s						
NEW	Newport	49.20	341	P	P	09 51 03.9	+0.7
	comp=Z,4.0nm,0.9s,baz=139,slow=8.2,SNR=12						
NEW				LR	LR	10 12 04.0	
	comp=Z,4µm,18.2s,baz=156,slow=36						
	comp=Z,4.0nm,0.9s						
NEW	Newport	49.20	341	P	P	09 51 02.8	-0.4
	comp=Z,17nm,1.8s						

E62A	**Clayton Lake**	**49.28**	**23**	IAMs_20	IAMs_20	10 10 58.0	
	comp=Z,2µm,20.0s						
JRO	**Jston Ridge Ob**	**49.42**	**336**	P	**P**	**09 51 06.9**	**+1.9**
JRO				IAmb	IAmb	09 51 36.9	
	comp=Z,34nm,1.3s						
D62A	**Allapoint, All**	**49.84**	**23**	IAMs_20	IAMs_20	10 10 55.9	
	comp=Z,2µm,20.0s						
BDFB	**Brasilia**	**50.20**	**113**	P	**P**	**09 51 10.3**	**-1.0**
	comp=Z,3.7nm,0.8s,baz=35,slow=7.4,SNR=3.0						
BDFB				LR	LR	10 12 01.0	
	comp=Z,2µm,20.5s,baz=289,slow=36						
	comp=Z,3.7nm,0.8s						
NLWA	**Neilton Lookou**	**50.99**	**335**	IAMs_20	IAMs_20	10 13 08.5	
	comp=Z,2µm,19.0s						
A05A	**Maple Falls**	**51.58**	**338**	P	**P**	**09 51 21.9**	**+0.8**
A05A				IAmb	IAmb	09 51 47.5	
	comp=Z,13nm,0.8s						
FFC	**Flin Flon**	**52.24**	**355**	P	**P**	**09 51 26.2**	**+0.2**
	comp=Z,13nm,1.6s						
SPB	**Sao Paulo**	**53.40**	**122**	IAMs_20	IAMs_20	10 13 50.4	
	comp=Z,2µm,21.0s						
CBB	**Campbell River**	**53.68**	**336**	P	**P**	**09 51 38.4**	**+1.7**
CBB				IAmb	IAmb	09 52 08.8	
	comp=Z,18nm,1.1s						
BBB	**Bella Bella**	**56.45**	**336**	LR	LR	10 15 00.1	
	comp=Z,1µm,21.5s,baz=160,slow=35						
SCHQ	**Schefferville**	**57.01**	**19**	P	**P**	**09 52 00.0**	**-0.6**
	comp=Z,5.9nm,0.9s,baz=225,slow=13,SNR=3.3						
SCHQ				LR	LR	10 18 23.4	
	comp=Z,2µm,19.0s,baz=221,slow=38						
	comp=Z,5.9nm,0.9s						
PPT	**Papeete**	**57.07**	**247**	LR	LR	10 10 20.3	
	comp=Z,295nm,21.5s,baz=95,slow=30						
RCBR	**Riachuelo**	**59.96**	**98**	LR	LR	10 18 43.7	
	comp=Z,772nm,19.0s,baz=276,slow=37						
RCBR	**Riachuelo**	**59.96**	**98**	IAMs_20	IAMs_20	10 18 32.3	
	comp=Z,2µm,19.0s						
V35K	**Ketchikan**	**60.18**	**337**	IAMs_20	IAMs_20	10 19 37.5	
	comp=Z,2µm,18.0s						
T35M	**Bob Quinn**	**60.91**	**339**	IAMs_20	IAMs_20	10 17 00.5	
	comp=Z,2µm,22.0s						
WRAK	**Wrangell Islan**	**61.26**	**338**	IAMs_20	IAMs_20	10 19 42.0	
	comp=Z,2µm,18.0s						
U33K	**Whale Pass**	**61.34**	**337**	IAMs_20	IAMs_20	10 19 26.1	
	comp=Z,1µm,20.0s						
YKA	**Yellowknife Ar**	**61.46**	**350**	P	**P**	**09 52 31.3**	**0.0**
	comp=Z,7.0nm,0.9s,baz=156,slow=6.9,SNR=15						
	comp=Z,7.0nm,0.9s						
BLKN	**Baker Lake**	**61.59**	**360**	P	**P**	**09 52 32.3**	**+0.3**
DLBC	**Dease Lake**	**61.94**	**340**	LR	LR	10 20 01.4	
	comp=Z,5µm,18.1s,baz=120,slow=37						
WTLY	**Watson Lake, Y**	**62.84**	**342**	P	**P**	**09 52 42.0**	**+1.4**
S32K	**Killisnoo**	**62.87**	**337**	IAMs_20	IAMs_20	10 19 06.5	
	comp=Z,1µm,21.0s						
R32K	**Eaglecrest**	**63.42**	**338**	IAMs_20	IAMs_20	10 20 20.0	
	comp=Z,2µm,18.0s						
BESE	**Bessie Mountai**	**63.76**	**338**	IAMs_20	IAMs_20	10 20 30.0	
	comp=Z,2µm,19.0s						
S31K	**Pelican**	**63.85**	**337**	IAMs_20	IAMs_20	10 20 59.5	
	comp=Z,2µm,19.0s						
FRB	**Frobisher Bay**	**64.10**	**13**	LR	LR	10 20 12.8	
	comp=Z,3µm,21.4s,baz=206,slow=36						
N32M	**Quiet Lake**	**65.00**	**341**	IAMs_20	IAMs_20	10 22 01.5	
	comp=Z,2µm,18.0s						
M31M	**Drury Creek, Y**	**66.20**	**341**	IAMs_20	IAMs_20	10 22 03.1	
	comp=Z,2µm,19.0s						
PCA	**Pinnacle**	**66.83**	**337**	IAMs_20	IAMs_20	10 23 34.2	
	comp=Z,2µm,18.0s						
RAR	**Rarotonga**	**67.28**	**246**	LR	LR	10 14 51.4	
	comp=Z,414nm,21.9s,baz=93,slow=29						
YAH	**Yahtse**	**67.57**	**337**	IAMs_20	IAMs_20	10 23 43.9	
	comp=Z,2µm,18.0s						
GRNC	**Granite Creek**	**67.81**	**337**	IAMs_20	IAMs_20	10 23 40.1	
	comp=Z,2µm,18.0s						
L29M	**L29M**	**68.07**	**341**	IAMs_20	IAMs_20	10 23 55.5	
	comp=Z,2µm,19.0s						
TGL	**Tana Glacier**	**68.24**	**337**	IAMs_20	IAMs_20	10 24 05.5	
	comp=Z,2µm,18.0s						
CRQM	**Cirque**	**68.36**	**337**	IAMs_20	IAMs_20	10 24 00.1	
	comp=Z,1µm,19.0s						
BERG	**Berg Lake**	**68.36**	**336**	IAMs_20	IAMs_20	10 24 24.8	
	comp=Z,2µm,18.0s						
K29M	**Barlow Dome**	**68.38**	**341**	IAMs_20	IAMs_20	10 23 28.5	
	comp=Z,2µm,19.0s						
IVI	**Ivigtut**	**68.40**	**22**	IAMs_20	IAMs_20	10 23 06.7	
	comp=Z,2µm,20.0s						
VRDI	**Verde Repeater**	**68.77**	**337**	IAMs_20	IAMs_20	10 24 13.5	
	comp=Z,2µm,18.0s						
BMRM	**Bremner River**	**69.06**	**337**	IAMs_20	IAMs_20	10 25 18.3	
	comp=Z,1µm,18.0s						
EYAK	**Cordova Ski Ar**	**69.28**	**336**	IAMs_20	IAMs_20	10 25 18.1	
	comp=Z,1µm,20.0s						
C36M	**Paulatuk**	**69.33**	**350**	IAMs_20	IAMs_20	10 25 10.0	
	comp=Z,2µm,19.0s						
NRS	**Narsarsuaq**	**69.44**	**23**	IAMs_20	IAMs_20	10 21 35.3	
	comp=Z,2µm,20.0s						
DIV	**Divide**	**69.62**	**336**	IAMs_20	IAMs_20	10 25 46.1	
	comp=Z,1µm,21.0s						
P23K	**Montague Islan**	**69.66**	**335**	IAMs_20	IAMs_20	10 23 00.2	
	comp=Z,1µm,20.0s						
FID	**Port Fidalgo**	**69.69**	**336**	IAMs_20	IAMs_20	10 25 40.9	
	comp=Z,1µm,20.0s						
KLU	**Klutina**	**69.89**	**337**	IAMs_20	IAMs_20	10 24 52.1	
	comp=Z,1µm,20.0s						
F31M	**Tsiigehtchic**	**69.90**	**345**	IAMs_20	IAMs_20	10 24 59.5	
	comp=Z,1µm,18.0s						
K27K	**Chicken**	**70.00**	**340**	IAMs_20	IAMs_20	10 24 01.8	
	comp=Z,2µm,21.0s						
GLI	**Glacier Island**	**70.01**	**336**	IAMs_20	IAMs_20	10 25 48.5	
	comp=Z,1µm,19.0s						
INK	**Inuvik**	**70.50**	**346**	LR	LR	10 25 22.3	
	comp=Z,2µm,19.2s,baz=122,slow=37						
INK	**Inuvik**	**70.50**	**346**	P	**P**	**09 53 30.7**	**+1.4**
	comp=Z,30nm,1.4s						
PWL	**Port Wells**	**70.51**	**336**	IAMs_20	IAMs_20	10 26 07.7	
	comp=Z,1µm,18.0s						
SEW	**Seward**	**70.58**	**335**	IAMs_20	IAMs_20	10 23 13.8	
	comp=Z,1µm,19.0s						
SCM	**Sheep Creek Mo**	**70.63**	**337**	IAMs_20	IAMs_20	10 25 25.8	
	comp=Z,1µm,20.0s						
KNK	**Knik Glacier**	**70.86**	**336**	IAMs_20	IAMs_20	10 26 12.8	
	comp=Z,1µm,18.0s						
I27K	**Kandik River**	**70.86**	**341**	IAMs_20	IAMs_20	10 25 08.3	
	comp=Z,2µm,18.0s						
O22K	**Cooper Landing**	**70.89**	**335**	IAMs_20	IAMs_20	10 23 34.9	
	comp=Z,957nm,20.0s						
PMSA	**Palmer Station**	**71.03**	**166**	LR	LR	10 17 50.0	
	comp=Z,2µm,18.0s,baz=329,slow=30						
BRLK	**Bradley Lake**	**71.04**	**334**	IAMs_20	IAMs_20	10 25 45.9	
	comp=Z,978nm,18.0s						
I26K	**Coal Creek Min**	**71.17**	**341**	IAMs_20	IAMs_20	10 24 57.5	
	comp=Z,1µm,20.0s						
RC01	**Rabbit Creek A**	**71.21**	**335**	IAMs_20	IAMs_20	10 26 42.3	
	comp=Z,1µm,18.0s						
H27K	**Steamboat Moun**	**71.24**	**342**	IAMs_20	IAMs_20	10 25 13.3	
	comp=Z,995nm,20.0s						
SFJD	**Kangerlussuaq**	**71.32**	**17**	LR	LR	10 25 44.7	
	comp=Z,1µm,19.5s,baz=230,slow=37						
SFJD	**Kangerlussuaq**	**71.32**	**17**	IAMs_20	IAMs_20	10 25 14.0	
	comp=Z,1µm,19.0s						
DHY	**Denali Highway**	**71.34**	**338**	IAMs_20	IAMs_20	10 25 57.5	
	comp=Z,2µm,20.0s						
SUA	**Susitna One**	**71.83**	**335**	IAMs_20	IAMs_20	10 27 15.5	
	comp=Z,1µm,18.0s						
Q19K	**Cape Douglas,**	**71.89**	**332**	IAMs_20	IAMs_20	10 24 36.5	
	comp=Z,986nm,20.0s						
HDA	**Harding Lake**	**71.94**	**339**	IAMs_20	IAMs_20	10 26 13.1	
	comp=Z,1µm,18.0s						
RES	**Resolute Bay**	**72.01**	**0**	LR	LR	10 27 07.3	
	comp=Z,2µm,18.6s,baz=194,slow=37						
PRP	**Porcupine Dome**	**72.09**	**340**	IAMs_20	IAMs_20	10 25 25.8	
	comp=Z,2µm,20.0s						
ILAR	**Eielson Array**	**72.12**	**339**	P	**P**	**09 53 39.6**	**+0.4**
	comp=Z,4.2nm,0.9s,baz=151,slow=4.6,SNR=29						
ILAR				LR	LR	10 26 35.2	
	comp=Z,2µm,18.2s,baz=112,slow=37						
	comp=Z,4.2nm,0.9s						
MCK	**McKinley**	**72.29**	**338**	IAMs_20	IAMs_20	10 26 13.6	
	comp=Z,2µm,19.0s						
CCB	**Clear Creek Bu**	**72.38**	**339**	IAMs_20	IAMs_20	10 26 34.7	
	comp=Z,2µm,18.0s						
G26K	**Porcupine Rive**	**72.40**	**342**	IAMs_20	IAMs_20	10 25 10.8	
	comp=Z,2µm,21.0s						
SKT	**Skwentna**	**72.41**	**336**	IAMs_20	IAMs_20	10 26 39.8	
	comp=Z,1µm,21.0s						
COLA	**College**	**72.52**	**339**	IAMs_20	IAMs_20	10 26 37.6	
	comp=Z,1µm,18.0s						
FYU	**Fort Yukon**	**72.62**	**341**	IAMs_20	IAMs_20	10 26 30.7	
	comp=Z,1µm,19.0s						
O19K	**Port Alsworth**	**72.77**	**333**	IAMs_20	IAMs_20	10 26 52.5	
	comp=Z,861nm,18.0s						
M20K	**Styx River**	**73.02**	**335**	IAMs_20	IAMs_20	10 26 46.2	
	comp=Z,1µm,20.0s						
N19K	**Bonanza Creek**	**73.11**	**334**	IAMs_20	IAMs_20	10 28 15.7	
	comp=Z,1µm,18.0s						
I23K	**Minto, Yukon-K**	**73.21**	**339**	IAMs_20	IAMs_20	10 27 08.7	
	comp=Z,1µm,18.0s						
CNBA	**Chernabura Isl**	**73.26**	**327**	IAMs_20	IAMs_20	10 24 14.2	
	comp=Z,1µm,20.0s						
P17K	**Kvichak River**	**73.31**	**332**	IAMs_20	IAMs_20	10 25 20.0	
	comp=Z,1µm,20.0s						
G24K	**Hadweenzic Riv**	**73.42**	**341**	IAMs_20	IAMs_20	10 26 57.0	
	comp=Z,1µm,20.0s						
N18K	**Kilae Creek**	**73.68**	**333**	IAMs_20	IAMs_20	10 28 45.6	
	comp=Z,1µm,18.0s						
VNFG	**Fog Glacier, M**	**73.75**	**328**	IAMs_20	IAMs_20	10 25 52.0	
	comp=Z,1µm,20.0s						
L19K	**White Mountain**	**73.88**	**335**	IAMs_20	IAMs_20	10 27 40.9	
	comp=Z,2µm,20.0s						
P16K	**Nushagak River**	**73.98**	**331**	IAMs_20	IAMs_20	10 25 40.8	
	comp=Z,2µm,20.0s						
F24K	**Squaw Lake**	**74.02**	**341**	IAMs_20	IAMs_20	10 27 00.8	
	comp=Z,2µm,19.0s						
N17K	**Nushagak Hills**	**74.20**	**333**	IAMs_20	IAMs_20	10 29 08.4	
	comp=Z,1µm,18.0s						
O16K	**Kokwok River B**	**74.25**	**332**	IAMs_20	IAMs_20	10 25 40.8	
	comp=Z,1µm,20.0s						
G23K	**Bananza Creek**	**74.28**	**340**	IAMs_20	IAMs_20	10 27 50.6	
	comp=Z,1µm,19.0s						
COLD	**Coldfoot**	**74.61**	**341**	IAMs_20	IAMs_20	10 26 36.5	
	comp=Z,1µm,22.0s						
M17K	**Holitna River**	**74.66**	**334**	IAMs_20	IAMs_20	10 28 33.6	
	comp=Z,905nm,20.0s						
H21K	**Melozitna Rive**	**74.71**	**339**	IAMs_20	IAMs_20	10 28 17.4	
	comp=Z,2µm,19.0s						
O15K	**Ungalikthiuk R**	**74.91**	**331**	IAMs_20	IAMs_20	10 26 11.5	
	comp=Z,1µm,20.0s						
I20K	**Naaghedeneel**	**74.92**	**338**	IAMs_20	IAMs_20	10 28 02.1	
	comp=Z,1µm,19.0s						
M16K	**Timber Creek**	**75.19**	**333**	IAMs_20	IAMs_20	10 29 11.7	
	comp=Z,990nm,19.0s						
G21K	**Allakaket**	**75.38**	**339**	IAMs_20	IAMs_20	10 28 37.0	
	comp=Z,1µm,20.0s						
N15K	**Kwethluk River**	**75.40**	**332**	IAMs_20	IAMs_20	10 26 47.2	
	comp=Z,1µm,20.0s						
K17K	**Iditarod**	**75.56**	**335**	IAMs_20	IAMs_20	10 28 41.3	
	comp=Z,1µm,20.0s						
E22K	**Anaktuvuk Pass**	**75.61**	**341**	IAMs_20	IAMs_20	10 27 51.8	
	comp=Z,1µm,20.0s						
O14K	**Tigyukauivet M**	**75.63**	**331**	IAMs_20	IAMs_20	10 26 53.5	
	comp=Z,1µm,20.0s						
L16K	**Owhat River**	**75.68**	**334**	IAMs_20	IAMs_20	10 29 11.6	
	comp=Z,992nm,19.0s						
N14K	**Kuskokwak Cree**	**76.06**	**332**	IAMs_20	IAMs_20	10 26 57.8	
	comp=Z,1µm,20.0s						
F20K	**Avaraart Lake**	**76.40**	**339**	IAMs_20	IAMs_20	10 29 08.9	
	comp=Z,1µm,19.0s						
E21K	**Killik River**	**76.46**	**341**	IAMs_20	IAMs_20	10 28 19.3	
	comp=Z,1µm,21.0s						
M14K	**Bethel**	**76.47**	**332**	IAMs_20	IAMs_20	10 27 41.5	
	comp=Z,906nm,19.0s						
G19K	**Purcell Mounta**	**76.49**	**338**	IAMs_20	IAMs_20	10 29 06.6	
	comp=Z,1µm,18.0s						
H18K	**Honhosa River**	**76.56**	**337**	IAMs_20	IAMs_20	10 29 24.6	
	comp=Z,1µm,20.0s						
G18K	**Tagagawik**	**76.97**	**338**	IAMs_20	IAMs_20	10 29 16.4	
	comp=Z,1µm,18.0s						
M13K	**Dall Lake**	**77.01**	**332**	IAMs_20	IAMs_20	10 27 37.8	
	comp=Z,1µm,20.0s						
F19K	**Shaleruckik Mo**	**77.04**	**339**	IAMs_20	IAMs_20	10 29 49.9	
	comp=Z,1µm,20.0s						
E19K	**Redstone River**	**77.11**	**340**	IAMs_20	IAMs_20	10 29 31.6	
	comp=Z,1µm,19.0s						
D20K	**Etivluk River**	**77.45**	**341**	IAMs_20	IAMs_20	10 28 40.4	
	comp=Z,1µm,22.0s						
AFI	**Afiamalu**	**77.47**	**255**	LR	LR	10 21 10.5	
	comp=Z,409nm,18.4s,baz=90,slow=30						
D19K	**Kuna River**	**77.85**	**340**	IAMs_20	IAMs_20	10 28 42.1	
	comp=Z,1µm,22.0s						
K13K	**Kusilvak Mount**	**78.07**	**333**	IAMs_20	IAMs_20	10 30 45.8	
	comp=Z,1µm,19.0s						
G16K	**Koyuk River**	**78.21**	**337**	IAMs_20	IAMs_20	10 30 30.2	
	comp=Z,986nm,20.0s						
M11K	**Mekoryuk**	**78.36**	**331**	IAMs_20	IAMs_20	10 28 31.4	
	comp=Z,1µm,20.0s						
C19K	**Lookout Ridge**	**78.59**	**341**	IAMs_20	IAMs_20	10 29 27.6	
	comp=Z,2µm,22.0s						
F15K	**North Star Dit**	**79.22**	**337**	IAMs_20	IAMs_20	10 30 32.7	
	comp=Z,1µm,19.0s						
RDOG	**Red Dog Mine**	**79.33**	**339**	IAMs_20	IAMs_20	10 31 26.6	
	comp=Z,1µm,20.0s						
TNA	**Tin City**	**80.48**	**336**	IAMs_20	IAMs_20	10 31 53.2	
	comp=Z,755nm,19.0s						
BORG	**Borgarnes**	**80.87**	**25**	LR	LR	10 27 55.7	
	comp=Z,557nm,20.9s,baz=252,slow=34						
GAMB	**Gambell**	**81.66**	**334**	IAMs_20	IAMs_20	10 32 58.5	
	comp=Z,1µm,20.0s						
RAO	**Raoul Island**	**84.78**	**240**	LR	LR	10 25 38.4	
	comp=Z,154nm,21.4s,baz=108,slow=31						
MTE	**Manteigas**	**86.66**	**50**	IAMs_20	IAMs_20	10 24 36.8	
	comp=Z,1µm,22.0s						
AVE	**Averroes**	**86.86**	**57**	IAMs_20	IAMs_20	10 27 01.4	
	comp=Z,836nm,21.0s						
MSVF	**Nonsavu**	**87.54**	**252**	LR	LR	10 27 53.4	
	comp=Z,204nm,18.2s,baz=155,slow=31						
SHEM	**Shemya Is, Ala**	**88.28**	**323**	LR	LR	10 26 10.9	
	comp=Z,242nm,21.1s,baz=48,slow=30						
EKA	**Eskdalemuir Ar**	**89.13**	**35**	P	**P**	**09 55 09.8**	**-0.7**
	comp=Z,2.0nm,0.8s,baz=299,slow=2.9,SNR=4.2						
	comp=Z,2.0nm,0.8s						
PAB	**San Pablo**	**89.14**	**51**	IAMs_20	IAMs_20	10 28 08.4	
	comp=Z,863nm,20.0s						
ESDC	**Sonseca Array**	**89.43**	**50**	P	**P**	**09 55 10.8**	**-1.5**
	comp=Z,1.1nm,0.8s,baz=292,slow=4.1,SNR=8.4						
	comp=Z,1.1nm,0.8s						
URZ	**Urewera**	**89.65**	**232**	LR	LR	10 28 21.4	
	comp=Z,651nm,18.8s,baz=111,slow=31						
DBIC	**Dimbokro**	**90.19**	**83**	LR	LR	10 33 29.8	
	comp=Z,316nm,19.0s,baz=267,slow=34						
VNA3	**Neumayer Olymp**	**91.05**	**161**	P	**P**	**09 55 18.4**	**-0.6**
	comp=Z,5.6nm,1.0s						
VNA3	**Neumayer Olymp**	**91.05**	**161**	P	**P**	**09 55 18.5**	**-0.6**
	comp=Z,12nm,1.1s						
VNA1	**Neumayer--Stat**	**91.46**	**161**	P	**P**	**09 55 20.9**	**0.0**
	comp=Z,4.5nm,0.9s						
VNA2	**Neumayer--Watz**	**91.77**	**161**	P	**P**	**09 55 22.9**	**+0.5**
	comp=Z,2.8nm,0.8s,baz=265,slow=4.7						
SPITS	**Spitsbergen Ar**	**91.84**	**11**	LR	LR	10 37 59.4	
	comp=Z,1µm,19.5s,baz=296,slow=36						
QSPA	**South Pole Qui**	**92.62**	**180**	P	**P**	**09 55 28.2**	**+1.6**
	comp=Z,3.7nm,0.9s,baz=127,slow=1.9,SNR=8.4						
QSPA				LR	LR	10 30 60.0	
	comp=Z,593nm,18.6s,baz=134,slow=32						
	comp=Z,3.7nm,0.9s						
QSPA	**South Pole Qui**	**92.62**	**180**	P	**P**	**09 55 28.2**	**+1.6**
QSPA	**South Pole Qui**	**92.62**	**180**	IAMs_20	IAMs_20	10 32 00.2	
	comp=Z,1µm,18.0s						
QSPA	**South Pole Qui**	**92.62**	**180**	P	**P**	**09 55 27.1**	**+0.6**
	comp=Z,21nm,1.6s						
SNAA	**Sanae**	**93.24**	**162**	LR	LR	10 29 51.5	
	comp=Z,976nm,21.5s,baz=244,slow=31						
SNAA	**Sanae**	**93.24**	**162**	IAMs_20	IAMs_20	10 29 18.2	
	comp=Z,863nm,20.0s						
RPZ	**Rata Peaks**	**94.38**	**227**	LR	LR	10 29 43.5	
	comp=Z,206nm,19.7s,baz=54,slow=30						
TROLL	**Troll, Antarti**	**94.90**	**162**	P	**P**	**09 55 37.2**	**+0.2**
	comp=Z,211nm,1.0s						
VNDA	**Vanda**	**95.28**	**192**	LR	LR	10 30 39.4	
	comp=Z,999nm,19.2s,baz=116,slow=30						
WLF	**Walferdange**	**95.47**	**40**	IAMs_20	IAMs_20	10 34 32.5	
	comp=Z,820nm,19.0s						
TORD	**Torodi Ar. Bea**	**96.27**	**77**	LR	LR	10 37 11.3	
	comp=Z,363nm,20.1s,baz=304,slow=34						
H11N3	**WAKE ISLAND Hy**	**96.41**	**290**	T	T	11 43 19.6	
	baz=85,slow=75,SNR=23						
H11N2	**WAKE ISLAND Hy**	**96.42**	**290**	T	T	11 43 17.7	
	baz=85,slow=75,SNR=23						
H11N1	**WAKE ISLAND Hy**	**96.43**	**290**	T	T	11 43 24.2	
	baz=85,slow=75,SNR=30						
BNI	**Bardonecchia**	**96.65**	**44**	IAMs_20	IAMs_20	10 46 23.0	
	comp=Z,586nm,18.0s						
H11S2	**WAKE ISLAND Hy**	**96.71**	**289**	T	T	11 43 34.9	
	baz=86,slow=75,SNR=133						
H11S1	**WAKE ISLAND Hy**	**96.71**	**289**	T	T	11 43 38.8	
	baz=86,slow=75,SNR=107						
H11S3	**WAKE ISLAND Hy**	**96.72**	**289**	T	T	11 43 39.3	
	baz=86,slow=75,SNR=38						
BFO	**Black Forest**	**97.13**	**41**	IAMs_20	IAMs_20	10 40 28.6	
	comp=Z,536nm,19.0s						
ARCES	**ARCESS Array B**	**97.94**	**18**	LR	LR	10 38 40.1	
	comp=Z,503nm,20.9s,baz=310,slow=35						
GRFO	**Grafenberg**	**98.67**	**39**	IAMs_20	IAMs_20	10 36 30.3	
	comp=Z,950nm,19.0s						
GRA1	**Grafenberg Arr**	**98.67**	**39**	IAMs_20	IAMs_20	10 36 30.3	
	comp=Z,937nm,19.0s						
CLL	**Collm**	**99.35**	**37**	*e*Sdif	**S**	**10 07 32.0**	**+2.4**
CLL				*e*PS	PS	10 09 00.0	+2.7
CLL				*e*PPS	PPS	10 09 42.0	
CLL				*e*SS	**SS**	**10 14 16.0**	**-2.5**
CLL				*e*x	x	10 17 42.0	
CLL				L	L	10 29 00.0	
CLL				AMS	AMS	10 36 00.0	
	comp=N,300nm,24.4s						
CLL				AMS	AMS	10 36 00.0	
	comp=E,200nm,23.0s						
CLL				AMS	AMS	10 36 00.0	
	comp=Z,400nm,21.6s						
MA2	**Magadan**	**99.62**	**332**	IAMs_20	IAMs_20	10 42 20.5	
	comp=Z,565nm,19.0s						
VSL	**Villasalto**	**99.67**	**49**	IAMs_20	IAMs_20	10 33 49.2	
	comp=Z,692nm,21.0s						
BRG	**Berggiesshubel**	**100.04**	**37**	*e*SP	SP	10 09 08.0	+5.0
BRG	**Berggiesshubel**	**100.04**	**37**	SS	SS	10 14 18.0	-10
KHC	**Kasperske Hory**	**100.31**	**39**	IAMs_20	IAMs_20	10 37 17.5	
	comp=Z,815nm,20.0s						
TIXI	**Tiksi**	**100.61**	**347**	IAMs_20	IAMs_20	10 48 36.9	
	comp=Z,714nm,19.0s						
BLY	**Banja Luka**	**103.96**	**43**	IAMs_20	IAMs_20	10 45 24.3	
	comp=Z,624nm,19.0s						
TIP	**Timpagrande**	**105.30**	**48**	IAMs_20	IAMs_20	10 37 28.2	
	comp=Z,681nm,22.0s						
UZHM	**Uzhgorod**	**105.89**	**38**	P	**Pdif**	**09 56 26.1**	**-0.4**
RNPP9	**Sopachiv**	**106.82**	**34**	P	**Pdif**	**09 56 30.9**	**+0.3**
YAK	**Yakutsk**	**107.05**	**340**	IAMs_20	IAMs_20	10 48 25.8	
	comp=Z,854nm,21.0s						
MI30	**MI30,Zelenitsa**	**108.42**	**34**	P	**Pdif**	**09 56 38.5**	**+0.8**
KIEV	**Kiev**	**109.01**	**34**	IAMs_20	IAMs_20	10 43 11.6	
	comp=Z,701nm,20.0s						
AK07	**Malin Array Si**	**109.08**	**34**	P	**Pdif**	**09 56 41.1**	**+0.5**
MAJO	**Matsushiro**	**116.82**	**313**	IAMs_20	IAMs_20	10 40 19.0	
	comp=Z,709nm,21.0s						
ARTI	**Arti**	**117.44**	**16**	IAMs_20	IAMs_20	10 49 39.9	
	comp=Z,746nm,22.0s						
HIA	**Hailar**	**120.09**	**334**	IAMs_20	IAMs_20	10 58 58.6	
	comp=Z,732nm,19.0s						
LSZ	**Lusaka**	**122.99**	**106**	IAMs_20	IAMs_20	10 50 30.4	
	comp=Z,637nm,21.0s						
ZALV	**Zalesovo Beam**	**123.66**	**360**	PKP	**PKPdf**	**10 01 12.8**	**+0.1**
	comp=Z,0.7nm,0.6s,baz=183,slow=2.9,SNR=2.1						
ULN	**Ulaanbaatar**	**126.06**	**341**	IAMs_20	IAMs_20	11 01 25.2	
	comp=Z,612nm,21.0s						
SONM	**Songino Array**	**126.29**	**342**	PKP	**PKiKP**	**10 01 18.4**	**-0.2**
	comp=Z,1.2nm,0.8s,baz=337,slow=1.9,SNR=2.7						
KURBB	**Kurchatov Arra**	**126.73**	**5**	PKP	**PKPdf**	**10 01 18.3**	**-0.4**
	comp=Z,1.8nm,0.8s,baz=346,slow=2.4,SNR=21						
ASAR	**Alice Springs**	**128.01**	**242**	PKP	**PKPdf**	**10 01 22.2**	**+0.2**
	comp=Z,1.0nm,1.2s,baz=163,slow=1.6,SNR=4.2						
WRA	**Warramunga Arr**	**128.55**	**247**	PKP	**PKPdf**	**10 01 22.9**	**-0.2**
	comp=Z,1.2nm,1.2s,baz=95,slow=1.9,SNR=3.8						
BJI2	**Beijing**	**128.69**	**329**	PKP	**PKiKP**	**10 01 23.3**	**-0.1**
BJI2				SS	SS	10 20 48.0	+2.9
BJI2				L	L		
	comp=Z,280nm,20.7s						
BJI2				L	L		
	comp=Z,150nm,19.2s						
BJI2				L	L		
	comp=Z,390nm,20.6s						
BJT	**Baijiatuau**	**128.69**	**329**	IAMs_20	IAMs_20	11 03 50.0	
	comp=Z,651nm,22.0s						
HHC	**Hu-ho-hao-te**	**130.27**	**333**	*e*PKP	**PKPdf**	**10 01 24.1**	**-1.8**
MKAR	**Makanchi Array**	**130.77**	**2**	PKP	**PKPdf**	**10 01 25.5**	**-1.1**
	comp=Z,0.8nm,0.8s,baz=52,slow=2.2,SNR=5.1						
BTO2	**Baotou**	**131.10**	**335**	*e*PKP	PKPdf	10 01 16.3	-11
BTO2				PP	**PP**	**10 03 38.0**	**-5.5**
NJ2	**Nanjing**	**132.67**	**320**	*e*PKP	**PKiKP**	**10 01 31.3**	**-0.4**
KIBK	**Kibwezi**	**133.44**	**91**	IAMs_20	IAMs_20	11 05 37.0	
	comp=Z,397nm,19.0s						
WMQ	**Urumqi**	**133.71**	**357**	*e*PKP	**PKiKP**	**10 01 34.3**	**+0.7**
WMQ				L	L		
	comp=Z,320nm,22.1s						
WMQ				L	L		
	comp=Z,220nm,22.1s						
WMQ				L	L		
	comp=Z,720nm,23.9s						
WUS	**Wushi**	**136.13**	**6**	IAMs_20	IAMs_20	11 08 45.5	
	comp=Z,627nm,21.0s						
ATD	**Arta Tunnel**	**136.13**	**71**	IAMs_20	IAMs_20	11 05 15.2	
	comp=Z,309nm,18.0s						
ENH	**Enshi**	**139.62**	**326**	IAMs_20	IAMs_20	11 17 52.4	
	comp=Z,460nm,20.0s						
CD2	**Chengdu**	**142.03**	**333**	PKP	**PKPdf**	**10 01 47.5**	**-0.4**
QIZ	**Qiongzhong**	**147.20**	**312**	PKPbc	**PKPdf**	**10 01 57.4**	**+0.3**
QIZ				PP	**PP**	**10 05 24.8**	**+1.0**
QIZ				SS	SS	10 24 27.3	+1.6
QIZ				L	L		
	comp=Z,340nm,13.2s						
QIZ				L	L		
	comp=Z,230nm,13.7s						
QIZ				L	L		
	comp=Z,460nm,16.7s						
KMI2	**Kunming**	**147.31**	**329**	PKPbc	**PKPbc**	**10 02 00.1**	**+0.3**
KMI2				L	L		
	comp=Z,280nm,17.6s						
KMI2				L	L		
	comp=Z,300nm,15.5s						
KMI2				L	L		
	comp=Z,420nm,23.8s						
SLVN	**Son La**	**149.65**	**323**	IAMs_20	IAMs_20	11 20 53.1	
	comp=Z,492nm,21.0s						
MORE	**Moreh**	**151.72**	**341**	IAMs_20	IAMs_20	11 17 33.9	
	comp=Z,340nm,20.0s						
DLV	**Lat**	**152.25**	**302**	IAMs_20	IAMs_20	11 18 25.2	
	comp=Z,421nm,20.0s						
CMAR	**Chiang Mai Arr**	**154.78**	**327**	PKPbc	**PKPbc**	**10 02 16.4**	**-1.0**
	comp=Z,1.8nm,0.7s,baz=358,slow=3.0,SNR=6.8						
HYB	**Hyderabad**	**159.22**	**17**	*e*SKKSac	SKKSac	10 13 20.5	-1.2

IDC 20 09:45:00.3±1.6, 29°.46S×76°.25E, h0km, mb3.8/4, mbtmp3.8/4, Error ellipse: s-maj=59.3km s-min=32.5km az=97.0, Mid-Indian Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
H08S2	**Diego Garcia H**	**21.99**	**350**	T	T	10 12 40.1	
	baz=169						
H08S1	**Diego Carcia H**	**21.99**	**350**	T	T	10 12 39.3	
	baz=169						
H08S3	**Diego Garcia H**	**22.01**	**350**	T	T	10 12 38.9	
	baz=169						
H04N2	**CROZET ISLANDS**	**25.36**	**222**	T	T	10 17 06.6	
	baz=57,slow=74,SNR=17						
H04N1	**CROZET ISLANDS**	**25.37**	**222**	T	T	10 17 07.1	
	baz=57,slow=74,SNR=18						
H04N3	**CROZET ISLANDS**	**25.38**	**222**	T	T	10 17 05.7	
	baz=57,slow=74,SNR=20						
H04S1	**CROZET ISLANDS**	**25.67**	**221**	T	T	10 17 25.6	
	baz=56,slow=75,SNR=11						
H04S3	**CROZET ISLANDS**	**25.68**	**221**	T	T	10 17 23.4	
	baz=56,slow=75,SNR=11						
H04S2	**CROZET ISLANDS**	**25.69**	**221**	T	T	10 17 24.1	
	baz=56,slow=75,SNR=9.5						
H01W2	**Cape Leeuwin H**	**32.39**	**110**	T	T	10 25 11.7	
	baz=268						
H01W3	**Cape Leeuwin H**	**32.39**	**110**	T	T	10 25 11.5	
	baz=268						
H01W1	**Cape Leeuwin H**	**32.41**	**110**	T	T	10 25 11.9	
	baz=268						
ASAR	**Alice Springs**	**51.46**	**98**	P	P	09 54 07.8	+0.1
	0.3nm,0.6s,baz=251,slow=7.2,SNR=4.8						
	0.3nm,0.6s						
VNDA	**Vanda**	**60.52**	**166**	P	P	09 55 11.3	-0.4
	0.7nm,0.4s,baz=285,slow=16,SNR=10						
	0.7nm,0.4s						
QSPA	**South Pole Qui**	**60.68**	**180**	P	P	09 55 13.4	+0.3
	1.9nm,0.8s,baz=288,slow=1.7,SNR=11						
	1.9nm,0.8s						
MKAR	**Makanchi Array**	**76.10**	**4**	P	P	09 56 49.6	0.0
	0.4nm,0.6s,baz=190,slow=7.3,SNR=3.2						
	0.4nm,0.6s						

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*IDC **20** 09:50:20.5±0.6, 2°.41N×95°.53W, h0km, mb4.2/17, mbtmp4.1/20, ML3.0/2, Error ellipse: s-maj=25.0km*

s-min=12.3km az=62.0

*GFZ **20** 09:50:22.0±0.3, 2°N±4°×9°6W±°, h10^{km}, M4.5/22, mb4.5/22*

*NEIC **20** 09:50:24.2±1.2, 2°.5N±0°.1×95°.3W±0°.1, h10^{km}±2^{km}, mb4.6/28, Error ellipse: s-maj=24.5km s-min=15.3km az=231.0*

*GCMT **20** 09:50:25.2±0.3, 2°.72N±0°.01×95°.11W±0°.03, h12^{km}±1^{km}, MW5.0/106, Moment Tensor Solution. s27,c27; s106,c171; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-3.87±.24; M$_{\theta\theta}$4.03±.17; M$_{\phi\phi}$-0.16±.13; M$_{r\theta}$0.50±.33; M$_{\theta\phi}$0.12±.08; M$_{\phi r}$-2.11±.53; Best double couple: M$_0$4.45800×10^{16} NP1:φ$_s$67.00000°, δ46.00000°, λ-124.00000°. NP2:φ$_s$291.00000°, δ53.00000°, λ-59.00000°. Principal axes: T 4.0620, Plg4.0000°, Azm0.0000°; N 0.7900, Plg24.0000°, Azm92.0000°; P -4.8540, Plg66.0000°, Azm262.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 20 09:50:22.4±0.5, **2°.44N**±0°.07×**95°.42W**±0°.08, **h10^{km}, n104, σ1^s.17**/99, **mb4.4**/46, **Galapagos Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PAYG	Puerto Ayora	6.00	121	Pn	Pn	09 51 51.1	-0.2
JUD3	Juan Diaz 3	12.46	52	Pn	Pn	09 53 18.2	-1.9
CNGN	Cerro Negro	13.21	40	P	Pn	09 53 30.6	+0.3
APG	El Apazote	13.41	21	Pn	Pn	09 53 32.1	-1.1
	baz=203,slow=12,SNR=5.0						
	0.9nm,0.9s						
TGUH	Tegucigalpa,Un	14.08	34	P	Pn	09 53 43.1	+0.9
	comp=Z,29nm,1.7s						
BRU2	Volcan	14.15	63	P	Pn	09 53 43.2	-0.1
	comp=Z,15nm,1.1s						
CMIG	Matias Romero	14.57	2	Pn	Pn	09 53 47.2	-1.7
	comp=Z,1.5nm,0.6s,baz=172,slow=8.4,SNR=4.0						
TLIG	Tlapa	15.34	349		Pn	09 54 00.2	+0.9
TLIG				IAmb	IAmb	09 54 15.9	
	comp=Z,51nm,1.5s						
BCIP	Isla Barro Col	16.88	66	P	Pn	09 54 20.1	+1.1
	comp=Z,36nm,1.8s						
OTAV	Otavalo	17.11	97		Pn	09 54 23.1	+0.7
OTAV				IAmb	IAmb	09 54 33.2	
	comp=Z,88nm,1.5s						
OTAV	Otavalo	17.11	97	P	Pn	09 54 23.2	+0.8
	comp=Z,36nm,1.7s						
TEIG	Tepich	19.01	21	P	P	09 54 44.2	-0.3
ATAH	Atahualpa	19.48	119	P	P	09 54 50.5	+0.3
	comp=Z,0.1nm,0.3s,baz=220,slow=15,SNR=1.8						
	comp=Z,3.5nm,0.8s						
ATAH				AML	AML		
ROSC	El Rosal	21.20	83	P	P	09 55 08.9	+0.1
	comp=Z,5.8nm,0.5s,baz=53,slow=8.1,SNR=5.1						
	comp=Z,5.8nm,0.5s						
ROSC	El Rosal	21.20	83	P	P	09 55 07.2	-1.6
ROSC				IAmb	IAmb	09 55 32.5	
	comp=Z,44nm,1.3s						
ZAIG	Zacatecas	21.36	342		P	09 55 11.1	+0.7
ZAIG				IAmb	IAmb	09 55 19.4	
	comp=Z,37nm,1.4s						
ZAIG	Zacatecas	21.36	342	P	P	09 55 10.1	-0.4
	comp=Z,20nm,2.1s						
NNA	Nana	23.38	128	P	P	09 55 30.7	-0.9
	comp=Z,13nm,1.2s						
MTDJ	Mount Denham	23.53	47	P	P	09 55 32.4	-0.7
	comp=Z,26nm,1.8s						
SOR	Soroa	23.55	30	P	P	09 55 32.8	-0.3
	comp=Z,21nm,2.2s						
CZSB	Cruzeiro do Su	24.81	114	P	P	09 55 45.4	+0.3
CZSB				IAmb	IAmb	09 55 48.7	
	comp=Z,17nm,1.0s						
CAIB	Caibarien	25.24	37	P	P	09 55 48.4	-0.4
SDV	Santo Domingo	25.48	74	P	P	09 55 51.9	+0.7
	comp=Z,77nm,1.0s						
HPIG		26.26	339	P	P	09 55 56.7	-1.6
	comp=Z,8.5nm,2.8s						
TXAR	Lajitas Array	27.87	344	P	P	09 56 12.2	-0.4
	comp=Z,1.2nm,0.7s,baz=162,slow=11,SNR=15						
TXAR				PcP	PcP	09 59 29.1	+0.5
	comp=Z,0.3nm,0.8s,baz=165,slow=3.8,SNR=4.0						
	comp=Z,1.2nm,0.7s						
SAND	Sanderson	28.09	348		P	09 56 15.3	+0.8
129A	Stewart Farms,	30.64	349	P	P	09 56 37.4	+0.2
129A				IAmb	IAmb	09 56 47.5	
	comp=Z,14nm,1.3s						
128A	Castleberry Fa	30.75	348		P	09 56 38.4	+0.3
128A				IAmb	IAmb	09 56 48.4	
	comp=Z,11nm,1.3s						
DKNS	Dickens	31.49	351	P	P	09 56 44.8	+0.2
DKNS				IAmb	IAmb	09 56 54.8	
	comp=Z,17nm,1.3s						
LPAZ	La Paz	32.76	126	P	P	09 56 57.1	+0.5
	comp=Z,1.6nm,0.8s,baz=331,slow=8.6,SNR=5.9						
LPAZ				PcP	PcP	09 59 42.9	+0.7
	comp=Z,2.5nm,0.9s,baz=16,slow=4.8,SNR=6.0						
	comp=Z,1.6nm,0.8s						
LPAZ	La Paz	32.76	126	P	P	09 56 55.9	-0.8
	comp=Z,5.8nm,1.3s						
TUC	Tucson	33.04	336	P	P	09 56 57.2	-1.1
	comp=Z,7.4nm,1.9s						
CRNM	Carthage	33.09	343	P	P	09 56 58.8	+0.1
ALQ	Albuquerque	33.93	344		P	09 57 06.8	+0.7
ALQ	Albuquerque	33.93	344		P	09 57 07.4	+1.3
ALQ				IAmb	IAmb	09 57 12.4	
	comp=Z,6.5nm,1.5s						
ANMO	Albuquerque	33.93	344	P	P	09 57 04.8	-1.3
	comp=Z,5.7nm,2.9s						
TASM	ASL Pad, Albuq	33.93	344	P	P	09 57 06.8	+0.7
WVT	Waverly	34.25	11	P	P	09 57 08.3	-0.4
	comp=Z,13nm,1.3s						
BOAV	Boa Vista	34.87	89		P	09 57 14.4	+0.1
R40A	Maddies Statio	35.80	4	P	P	09 57 22.8	+0.8
BLYC	Blythe	35.91	332	P	P	09 57 24.2	+1.3
BLYC				IAmb	IAmb	09 57 34.9	
	comp=Z,12nm,1.3s						
BC3	Big Chuckawall	36.27	331		P	09 57 27.1	+0.9
BC3				IAmb	IAmb	09 57 34.0	
	comp=Z,21nm,1.4s						
WCI	Wyandotte Cave	36.59	12	P	P	09 57 28.7	-0.1
	comp=Z,27nm,1.2s						
MVCO	Mesa Verde	36.64	342	P	P	09 57 28.1	-1.3
	comp=Z,8.3nm,2.2s						
ISCO	Idaho Springs	38.32	347	P	P	09 57 43.5	-0.3
	comp=Z,7.8nm,2.7s						
HDIL	Hopedale	38.35	8	P	P	09 57 44.3	+0.7
H03N2	Juan Fernandez	38.94	158	T	T	10 39 19.5	
	baz=335,slow=78,SNR=23						
H03N1	Juan Fernandez	38.94	158	T	T	10 39 26.9	
	baz=335,slow=78,SNR=22						
H03N3	Juan Fernandez	38.95	158	T	T	10 39 31.2	
	baz=335,slow=78,SNR=90						
PTLB	Pontes e Lacer	40.05	118	P	P	09 57 59.2	+0.9
NLU	North Lily Min	40.29	340	P	P	09 58 01.4	+1.2
DUG	Dugway, Tooele	40.76	339	P	P	09 58 03.5	-0.4
	comp=Z,14nm,1.4s						
TCUT	Toone Canyon	41.12	342	P	P	09 58 08.0	+1.0
ECSD	EROS Data Cent	41.13	359	P	P	09 58 05.8	-1.0
	comp=Z,13nm,1.6s						
NVAR	Mina Array Bea	41.49	333	P	P	09 58 10.8	+0.8
	comp=Z,2.7nm,0.8s,baz=156,slow=8.5,SNR=20						
NVAR				PcP	PcP	10 00 08.2	+0.5
	comp=Z,1.4nm,0.9s,baz=166,slow=3.6,SNR=4.6						
NVAR				PKiKP	PKiKP	10 07 17.1	+1.9
	comp=Z,0.3nm,0.6s,baz=114,slow=2.9,SNR=3.8						
	comp=Z,2.7nm,0.8s						
HWUT	Hardware Ranch	41.61	342	P	P	09 58 10.1	-0.9
	comp=Z,8.0nm,1.6s						
BW06	Boulder Array	42.09	344	P	P	09 58 15.6	+0.6
BW06				IAmb	IAmb	09 58 21.7	
	comp=Z,14nm,1.3s						
PDAR	Pinedale Array	42.09	344	P	P	09 58 14.7	-0.3
	comp=Z,2.5nm,0.9s,baz=153,slow=8.2,SNR=15						
PDAR				PKiKP	PKiKP	10 07 17.1	+1.4
	comp=Z,0.4nm,0.8s,baz=318,slow=0.8,SNR=3.6						
	comp=Z,2.5nm,0.9s						
SNOW	Snow King Moun	43.07	344	P	P	09 58 23.3	+0.4
SNOW				IAmb	IAmb	09 58 29.9	
	comp=Z,13nm,1.2s						
HLID	Hailey	44.29	340	P	P	09 58 32.6	-0.1
	comp=Z,6.4nm,1.2s						
WVOR	Wild Horse Val	44.91	336	P	P	09 58 37.0	-0.6
	comp=Z,5.3nm,2.5s						
AGMN	Agassiz Nation	45.69	360	P	P	09 58 43.0	-0.4
	comp=Z,16nm,1.3s						
TAOE	Nuku Hiva Isla	45.97	255	*e*LR	LR	10 11 45.9	
	comp=Z,371nm,26.7s						
YBH	Yreka Blue Hor	46.16	332	P	P	09 58 46.5	-1.0
	comp=Z,1.7nm,0.9s,baz=69,slow=3.8,SNR=3.9						
	comp=Z,1.7nm,0.9s						
CPUP	Villa Florida	46.61	130	P	P	09 58 51.2	+0.2
	comp=Z,2.7nm,1.0s,baz=303,slow=6.8,SNR=4.1						
	comp=Z,2.7nm,1.0s						
ULM	Lac du Bonnet	47.64	360	P	P	09 58 58.1	-0.7
	comp=Z,3.8nm,0.7s,baz=182,slow=10,SNR=5.0						
	comp=Z,3.8nm,0.7s						
PLCA	Paso Flores	48.60	155	P	P	09 59 05.3	-1.1
	comp=Z,2.3nm,0.9s,baz=351,slow=12,SNR=3.6						
	comp=Z,2.3nm,0.9s						
NEW	Newport	49.33	341	P	P	09 59 11.1	-0.7
	comp=Z,1.8nm,0.9s,baz=146,slow=6.8,SNR=5.0						
	comp=Z,1.8nm,0.9s						
NEW	Newport	49.33	341	P	P	09 59 11.7	-0.1
	comp=Z,7.9nm,1.3s						
BDFB	Brasilia	50.20	113	P	P	09 59 18.2	-0.9
	comp=Z,3.7nm,0.8s,baz=264,slow=11,SNR=4.2						
	comp=Z,3.7nm,0.8s						
YKA	Yellowknife Ar	61.60	350	P	P	10 00 38.1	-1.7
	comp=Z,3.6nm,1.0s,baz=157,slow=6.9,SNR=8.4						
	comp=Z,3.6nm,1.0s						
DLBC	Dease Lake	62.06	340	P	P	10 00 41.5	-1.7
	comp=Z,4.2nm,1.1s,baz=159,slow=6.0,SNR=5.2						
	comp=Z,4.2nm,1.1s						
INK	Inuvik	70.64	346	P	P	10 01 36.7	-1.1
	comp=Z,9.5nm,1.1s,baz=153,slow=5.9,SNR=5.8						
	comp=Z,9.5nm,1.1s						
INK	Inuvik	70.64	346	P	P	10 01 37.4	-0.4
	comp=Z,16nm,1.3s						
IL31		72.24	339	P	P	10 01 48.1	+0.5
IL31				IAmb	IAmb	10 01 53.9	
	comp=Z,6.3nm,1.0s						
ILAR	Eielson Array	72.24	339	P	P	10 01 46.6	-1.0
	comp=Z,3.1nm,0.9s,baz=151,slow=4.4,SNR=18						
	comp=Z,3.1nm,0.9s						
BMAR	Burnt Mountain	73.07	342	P	P	10 01 53.1	+0.6
ESDC	Sonseca Array	89.59	50	P	P	10 03 20.1	-0.6
	comp=Z,0.5nm,0.8s,baz=277,slow=5.1,SNR=4.6						
	comp=Z,0.5nm,0.8s						
VNA3	Neumayer Olymp	90.92	161	P	P	10 03 27.0	+0.8
	comp=Z,3.0nm,0.8s						
VNA3	Neumayer Olymp	90.92	161	P	P	10 03 24.9	-1.3
	comp=Z,5.8nm,1.1s						
VNA2	Neumayer--Watz	91.64	161	P	P	10 03 30.0	+0.5
	comp=Z,2.3nm,0.7s						
QSPA	South Pole Qui	92.46	180	P	P	10 03 34.3	+0.7
	comp=Z,5.8nm,1.0s,baz=129,slow=2.5,SNR=11						
	comp=Z,5.8nm,1.0s						
QSPA	South Pole Qui	92.46	180	P	P	10 03 35.0	+1.4
QSPA	South Pole Qui	92.46	180	P	P	10 03 33.3	-0.3
	comp=Z,9.6nm,0.6s						
TROLL	Troll, Antarti	94.77	162	P	P	10 03 43.9	-0.2
	comp=Z,85nm,0.6s						
H11N3	WAKE ISLAND Hy	96.39	290	T	T	11 51 03.2	
	baz=84						
H11N2	WAKE ISLAND Hy	96.41	290	T	T	11 51 04.0	
	baz=84						
H11N1	WAKE ISLAND Hy	96.41	290	T	T	11 51 02.7	
	baz=84						
H11S2	WAKE ISLAND Hy	96.69	289	T	T	11 51 11.1	
	baz=86,slow=74						
H11S1	WAKE ISLAND Hy	96.69	289	T	T	11 51 12.3	
	baz=86						
H11S3	WAKE ISLAND Hy	96.71	289	T	T	11 51 17.4	
	baz=86,slow=74						
KSRS	Korea Array	123.55	319	PKP	PKPdf	10 09 20.1	-0.6
	comp=Z,0.9nm,0.8s,baz=0.0,slow=1.2,SNR=3.5						
SONM	Songino Array	126.42	342	PKP	PKPdf	10 09 25.1	-1.0
	comp=Z,1.4nm,0.8s,baz=29,slow=3.3,SNR=2.8						
KURBB	Kurchatov Arra	126.89	5	PKP	PKPdf	10 09 26.2	-0.5
	comp=Z,2.3nm,0.9s,baz=346,slow=2.4,SNR=13						
ASAR	Alice Springs	127.87	242	PKP	PKPdf	10 09 27.4	-2.0
	comp=Z,0.4nm,0.9s,baz=92,slow=2.6,SNR=2.4						
WRA	Warramunga Arr	128.42	246	PKP	PKPdf	10 09 30.1	-0.4
	comp=Z,0.8nm,0.8s,baz=103,slow=1.7,SNR=6.5						
HHC	Hu-ho-hao-te	130.38	333	*e*P	PKPdf	10 09 31.0	-2.8
MKAR	Makanchi Array	130.94	2	PKP	PKPdf	10 09 33.5	-1.1
	comp=Z,2.4nm,1.0s,baz=347,slow=3.7,SNR=9.0						
NJ2	Nanjing	132.75	319	*e*P	PKPdf	10 09 39.8	+1.4
NJ2				pmax	pmax		
	comp=Z,21nm,0.6s						
WMQ	Urumqi	133.86	357	PKP	PKPdf	10 09 41.8	+1.5
WMQ				sPKP		10 09 52.4	
WMQ				PP	PP	10 12 15.0	+6.6
WMQ				AMB	AMB		
	comp=Z,130nm,5.3s						
WMQ				LR	LR		
	comp=N,1μm,23.9s						
WMQ				LR	LR		
	comp=E,310nm,19.7s						
WMQ				LR	LR		
	comp=Z,950nm,22.1s						
XAN	Xi'an	137.08	330	PKP	PKPdf	10 09 46.5	0.0
PZH	PanZhiHua	146.79	331	PKPbc	PKPdf	10 10 05.1	+1.0
KMI2	Kunming	147.40	328	PKPbc	PKPdf	10 10 07.8	+2.5
CMAR	Chiang Mai Arr	154.88	326	PKP	PKPdf	10 10 15.8	-0.8
	comp=Z,1.2nm,0.8s,baz=360,slow=1.6,SNR=6.7						

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*IDC **20** 09:53:59.4±6.4, 1°.90N×95°.64W, h0^{km}, mb3.9/5, mbtmp3.9/5, ML2.5/1, MS4.0/1, Error ellipse: s-maj=132.4km s-min=50.3km az=140.0*

ISC 20 09:54:01.6±7.1, **2°.1N**±0°.8×**95°.3W**±0°.7, **h10^{km}, n7, σ0^s.28**/6, **mb3.7**/5, **Galapagos Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JTS	Las Juntas de	13.14	51	LR	LR	10 00 59.3	
	comp=Z,532nm,18.1s,baz=181,slow=31						
APG	El Apazote	13.70	20	Pn	Pn	09 57 16.2	0.0
	baz=210,slow=17,SNR=4.3						
TXAR	Lajitas Array	28.22	344	P	P	09 59 55.2	+0.3
	1.8nm,1.1s,baz=158,slow=10,SNR=5.7						
	1.8nm,1.1s						
NVAR	Mina Array Bea	41.83	333	P	P	10 01 51.7	-0.3
	1.7nm,1.1s,baz=153,slow=8.5,SNR=7.4						
	1.7nm,1.1s						
PDAR	Pinedale Array	42.44	344	P	P	10 01 56.8	-0.2
	1.4nm,1.0s,baz=160,slow=9.1,SNR=6.7						
	1.4nm,1.0s						
INK	Inuvik	70.99	346	P	P	10 05 19.0	-0.1
	3.2nm,1.1s,baz=153,slow=6.8,SNR=4.6						
	3.2nm,1.1s						
ILAR	Eielson Array	72.59	339	P	P	10 05 29.1	+0.2
	0.7nm,1.0s,baz=114,slow=7.7,SNR=4.7						
	0.7nm,1.0s						

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*KRNET **20** 10:00:12.6±0.1, 39°.98N×71°.33E, h23^{km}, mb3.2*

*NNC **20** 10:00:15.0±4.2, 40°.17N×71°.50E, h0^{km}, mb3.8, mpv3.5, Error ellipse: s-maj=34.0km s-min=19.1km az=6.0*

*ISU **20** 10:00:15, 40°.04N×71°.38E, h15^{km}*

ISC 20 10:00:12.2±1.3, **39°.97N**±0°.04×**71°.38E**±0°.03, **h1^{km}**±11^{km}, **n27, σ1^s.36**/43, **11C-17D, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BTK	Batken	0.44	282	⇓*e*P	Pg	10 00 20.7	+0.1
BTK				⇓*e*S	Sg	10 00 26.6	+0.3
FRG	Fergana	0.51	38	P	Pg	10 00 22.1	+0.1
FRG				S	Sg	10 00 28.9	+0.2
DRK	Karamyk	0.59	146	⇑*e*P	Pb	10 00 24.6	-0.9
DRK				⇑*e*S	Sb	10 00 33.2	-1.2
TSTA	Tashata	1.04	54	P	Pg	10 00 31.4	-0.7
TSTA				S	Sg	10 00 45.5	-0.1
OHH	Osh	1.21	62	⇑*e*P	Pg	10 00 35.5	0.0
OHH				⇑*e*S	Sb	10 00 52.1	-0.1
TRKS	Terek-Say	1.57	354	⇓*e*P	Pn	10 00 39.9	-1.5
TRKS				⇓*e*S	Sn	10 00 59.7	-2.8
SFK	Sufi-Kurgan	1.64	88	⇓*e*P	Pb	10 00 43.0	-0.3
SFK				⇓*e*S	Sg	10 01 05.0	+0.3
ARSB	Arslanbob	1.82	42	⇓*e*P	Pn	10 00 45.3	+0.4
ARSB				⇓*e*S	Sn	10 01 09.0	+0.3
ARK	Arkit	1.88	14	⇑*e*P	Pn	10 00 45.7	+0.1
ARK				⇑*e*S	Sn	10 01 10.3	+0.2
CHMG	Chimgan	1.89	327	P	Pb	10 00 47.2	-0.4
CHMG				S	Sb	10 01 12.0	+0.2
CHRV	Charvak	1.99	328	S	Sb	10 01 15.3	+0.7
TVKS	Tavaksay	2.07	321	P	Pb	10 00 50.5	-0.1
TVKS				S	Sb	10 01 17.5	+0.6
SALK	Salom-Alik	2.08	63	⇓*e*P	Pn	10 00 49.1	+0.7
SALK				⇓*e*S	Sn	10 01 15.5	+0.5
IUG	Iuzhnay	2.40	335	Pg	Pb	10 00 55.5	-0.8
	55nm,0.3s						
IUG				Lg	Lg	10 01 30.1	
	151nm,0.3s						
MNAS	Manas	2.66	18	⇓*e*P	Pn	10 00 56.8	+0.5
MNAS				⇓*e*S	Sn	10 01 28.8	-0.4
MRKS	Merke	3.10	26	Pg	Pn	10 01 05.1	+2.6
	6.8nm,0.4s						
MRKS				Lg	Lg	10 01 48.5	
	47nm,0.5s						
KK31	Karatay Array	3.20	349	⇓Pn	Pn	10 01 05.1	+1.5
	7.4nm,0.6s,baz=166,slow=14,SNR=37						
KK31				⇑Lg	Lg	10 01 51.9	
	8.2nm,0.3s,baz=164,slow=31						
EKS2	Erkin-Say	3.24	33	P	Pb	10 01 08.5	-2.1
	SNR=15						
EKS2	Erkin-Say	3.24	33	⇑*e*P	Pn	10 01 04.9	+0.6
EKS2				⇑*e*S	Sn	10 01 43.1	-0.6
BRLS	Borolday	3.27	340	Pg	Pn	10 01 05.4	+0.8
	3.7nm,0.1s						
BRLS				Lg	Lg	10 01 48.6	
	28nm,0.3s						
AAK	Ala-Archa	3.55	40	P	Pn	10 01 11.9	+3.2
	SNR=6.8						
AAK	Ala-Archa	3.55	40	⇓Pn	Pn	10 01 10.3	+1.6
	2.0nm,0.5s						
AAK				⇓Lg	Lg	10 02 00.9	
	4.4nm,0.5s						
AAK	Ala-Archa	3.55	40	⇑*e*P	Pn	10 01 09.4	+0.7
AAK				⇑*e*S	Sn	10 01 50.8	-0.6
KBK	Karagaybulak	3.80	44	P	Pn	10 01 15.7	+3.6
	SNR=5.2						
KBK	Karagaybulak	3.80	44	⇓*e*P	Pn	10 01 12.9	+0.8
KBK				⇓*e*S	Sn	10 01 56.7	-0.8
USP	Ospenovka	4.04	34	P	Pn	10 01 17.8	+2.5
	SNR=9.3						
TKM2	Tokmak 2	4.33	46	P	Pn	10 01 22.0	+2.6
	SNR=45						

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*IDC **20** 10:31:38.9±13.0, 33°.02N×135°.61E, h187^{km}±168^{km}, mb3.6/2, mbtmp4.1/2, ML2.2/1, MS3.9/1, Error ellipse: s-maj=317.4km s-min=26.4km az=80.0*

*JMA **20** 10:31:42.1±0.5, 33°N±4°×13°8E±°, h313^{km}, MV2.7/15, FAR S OFF TOKAI DISTRICT*

ISC 20 10:31:45.6±1.2, **33°.5N**±0°.1×**138°.4E**±0°.1, **h300^{km}, n10, σ1^s.45**/12, **Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JIE	Ise	1.64	304	P	Pn	10 32 28.3	-1.3
JOD2	Odawara 2	1.89	19	*e*P	Pn	10 32 31.6	+0.2
JOD2				*e*S	S	10 33 10.4	+2.5
BSO1	Boso 1	2.48	61	*e*P	Pn	10 32 34.6	-1.1
JYTA	Yamagatataniai	2.50	328	P	Pn	10 32 35.8	-0.7
JRY	Ryogami san	2.58	10	*e*P	Pn	10 32 37.7	+0.5
MJAR	Matsushiro Arr	3.06	358	P	Pn	10 32 41.6	-0.2
	0.1nm,0.3s,baz=172,slow=9.8,SNR=16						
MJAR				AML	AML		
MAT	Matsushiro	3.06	358	*e*P	Pn	10 32 41.7	-0.2
JAG	Ashikaga	3.08	17	*e*P	Pn	10 32 41.2	-0.8
JAG				*e*S	S	10 33 24.4	-2.8
WRA	Warramunga Arr	53.26	185	P	P	10 40 34.1	0.0
	0.2nm,0.3s,baz=0.4,slow=7.6,SNR=9.1						
WRA				LR	LR	11 02 52.6	
	comp=Z,116nm,19.8s,baz=269,slow=36						
	0.2nm,0.3s						
FINES	FINESS Array B	70.78	332	P	P	10 42 30.3	+1.0
	7.3nm,1.2s,baz=68,slow=5.4,SNR=4.7						
	7.3nm,1.2s						

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*NNC **20** 10:42:15.2±2.0, 44°.90N×92°.41E, h0^{km}, mb4.2, mpv3.9, Error ellipse: s-maj=21.2km s-min=15.5km az=6.0*

*IDC **20** 10:42:16.4±2.1, 45°.12N×92°.56E, h0^{km}, mbtmp3.5/5, ML2.9/5, Error ellipse: s-maj=31.3km s-min=11.5km az=4.0*

ISC 20 10:42:17.8±1.4, **45°.0N**±0°.1×**92°.55E**±0°.08, **h10^{km}, n12, σ2^s.47**/16, **8C-4D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WMQ	Urumqi	3.67	253	Pn	Pn	10 43 14.3	-0.4
WMQ				Sn	Sn	10 43 59.1	+1.1
WMQ				smax	smax		
	comp=N,560nm,0.7s						
WMQ				smax	smax		
	comp=E,740nm,0.9s						
MK31	Makanchi Array	7.39	288	Pn	Pn	10 44 03.9	-1.8
	comp=E,1.5nm,0.5s,baz=94,slow=15,SNR=29						
MK31				⇑Pg	Pb	10 44 30.4	+4.4
	comp=E,2.9nm,0.5s,baz=96,slow=16,SNR=6.7						
MK31				⇑Sn	Sn	10 45 28.0	-1.5
	comp=E,5.3nm,0.5s,baz=95,slow=28,SNR=3.9						
MK31				⇑Lg	Lg	10 46 07.6	
	comp=E,18nm,0.7s,baz=87,slow=34,SNR=3.6						
MKAR	Makanchi Array	7.39	288	Pn	Pn	10 44 04.4	-1.2
	comp=E,0.9nm,0.3s,baz=98,slow=14,SNR=22						
MKAR				Pg	Pb	10 44 31.0	+5.0
	comp=E,2.0nm,0.3s,baz=97,slow=18,SNR=7.0						
MKAR				Sn	Sn	10 45 30.4	+0.9
	comp=E,2.4nm,0.3s,baz=96,slow=24,SNR=4.2						
MKAR				Lg	Lg	10 46 03.6	
	comp=E,4.7nm,0.3s,baz=90,slow=33,SNR=5.1						
	comp=E,1.7nm,0.4s						
MKAR				AML	AML		
MAKZ	Makanchi	7.60	288	⇓Pn	Pn	10 44 05.1	-3.5
	comp=E,2.3nm,0.4s						
MAKZ				⇑Pg	Pb	10 44 33.4	+3.7
	comp=E,15nm,0.8s						
MAKZ				⇑Lg	Lg	10 46 14.2	
	comp=E,40nm,0.8s						
PDGK	Podgornoye	9.54	265	⇓Pn	Pn	10 44 32.9	-2.4
	comp=E,5.5nm,0.7s						
PDGK				⇑Sn	Sn	10 46 19.5	-3.0
	comp=E,12nm,0.6s						
PDGK				⇓Lg	Lg	10 47 16.1	
	comp=E,44nm,1.1s						
TLY	Talaya	9.96	44	Lg	Lg	10 47 24.6	
	comp=E,1.3nm,0.3s,baz=124,slow=22,SNR=8.7						
SONM	Songino Array	9.98	68	Pn	Pn	10 44 41.5	+0.3
	comp=E,0.1nm,0.3s,baz=250,slow=15,SNR=2.0						
SONM				Pg		10 45 17.7	
	comp=E,0.7nm,0.3s,baz=253,slow=17,SNR=4.8						
SONM				Lg	Lg	10 47 29.1	
	comp=E,1.0nm,0.3s,baz=265,slow=33,SNR=4.2						
	comp=E,0.3nm,0.4s						
SONM				AML	AML		
ZALV	Zalesovo Beam	10.28	334	Pn	Pn	10 44 44.5	-0.7
	comp=E,0.1nm,0.3s,baz=141,slow=9.3,SNR=1.6						
ZALV				Lg	Lg	10 47 33.2	
	comp=E,0.6nm,0.3s,baz=165,slow=22,SNR=4.7						
	comp=E,0.4nm,0.4s						
ZALV				AML	AML		
KURK	Kurchatov	10.97	306	⇑Lg	Lg	10 48 04.4	
	comp=E,24nm,1.0s						
KURBB	Kurchatov Arra	10.98	306	Pn	Pn	10 44 53.0	-1.9
	comp=E,0.1nm,0.3s,baz=110,slow=14,SNR=9.5						
KURBB				Sn	Sn	10 46 55.2	-2.4
	comp=E,0.1nm,0.3s,baz=123,slow=10,SNR=4.8						
KURBB				Lg	Lg	10 47 58.6	
	comp=E,0.2nm,0.3s,baz=108,slow=31,SNR=6.1						
	comp=E,0.8nm,0.4s						
KURBB				AML	AML		
KURBB	Kurchatov Arra	10.98	306	⇑Pn	Pn	10 44 52.5	-2.4
	comp=E,2.3nm,0.8s						
KURBB				⇓Lg	Lg	10 48 04.0	
	comp=E,82nm,0.7s						
BVAR	Borovoye Array	16.57	307	Pn	Pn	10 46 07.3	-2.7
	comp=E,0.1nm,0.3s,baz=103,slow=13,SNR=7.8						
	comp=E,2.6nm,0.7s						
BVAR				AML	AML		

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*BJI **20** 10:48:29.6, 34°.94N×140°.65E, h78^{km}, mB4.9/11, mb4.8/51, Ms4.2/16, Ms7 4.2/14*

*MOS **20** 10:48:30.8±0.9, 34°.95N×140°.50E, h64^{km}, mb4.8/37, Error ellipse: s-maj=9.0km s-min=4.8km az=122.8*

*NEIC **20** 10:48:34.9±1.8, 34°.97N±0°.05×140°.25E±0°.10, h74^{km}±8^{km}, mb4.8/33, Error ellipse: s-maj=12.0km s-min=7.0km az=89.0*

*GFZ **20** 10:48:34.0±0.6, 35°N±4°×14°0E±°, h69^{km}±4^{km}, M5.2/25, mb5.0/25, Error ellipse: s-maj=13.0km s-min=7.9km az=82.1, confirmed*

*NIED **20** 10:48:34.3, 34°.98N×140°.26E, h75^{km}, MW4.4, Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm;*

M_{rr}-0.14; $M_{\theta\theta}$3.03; $M_{\phi\phi}$-2.89; $M_{r\theta}$-2.34; $M_{\theta\phi}$1.15; $M_{\phi r}$-2.75;
Fault plane solution: $M_0$4.80000×10^{15} NP1:
ϕ_s306.00000°,δ41.00000°,λ-1.00000°. NP2:ϕ_s36.00000°,
δ89.00000°,λ-131.00000°.

*JMA **20** 10:48:34.3±0.1, 35°.0N±0°.4×140°.3E±0°.6, h75km±1km,*
MD4.4/39, MV4.1/39, SE OFF BOSO PENINSULA

JMA Felt II J1 at SE OFF BOSO PENINSULA .

*IDC **20** 10:48:35.9±1.0, 34°.91N×140°.12E, h85km±8km, mb4.1/23,*
mbtmp4.4/28, MS3.6/5, Error ellipse: s-maj=16.2km
s-min=5.7km az=73.0

ISC 20 10:48:34.1±0.4,**34°.98N**±0°.03×**140°.32E**±0°.04,**h72km**±3km,
h72km:pP-P,n311,$\sigma 1^{s}34$/316,**mb4.7**/87,**9C-8D,Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
BSO4	**Boso 4**	**0.02**	**41**	⇓*i*P	**Pn**	**10 48 45.5**	**+1.2**
BSO4				⇓S	**Sn**	**10 48 53.4**	**+1.5**
KTR	**Katsuura**	**0.17**	**358**	*i* P	**Pn**	**10 48 45.5**	**+0.7**
KTR				S	**Sn**	**10 48 53.6**	**+1.0**
JKUC	**kamogawauchiur**	**0.21**	**331**	*i* P	**Pn**	**10 48 45.5**	**+0.5**
JKUC				A	A	10 48 45.5	
	comp=N,158nm,0.8s,comp=E,279nm,0.4s						
JKUC				S	**Sn**	**10 48 53.6**	**+0.7**
BSO3	**Boso 3**	**0.23**	**138**	⇓*i*P	**Pn**	**10 48 46.1**	**+1.3**
TATJ	**Tateyama 2**	**0.36**	**279**	*i* P	**Pn**	**10 48 46.7**	**+0.8**
TATJ				A	A	10 48 46.7	
	comp=N,77nm,0.8s,comp=E,38nm,1.5s						
TATJ				S	**Sn**	**10 48 56.5**	**+2.0**
JCCN	**Chibachonan**	**0.41**	**350**	*i* P	**Pn**	**10 48 47.3**	**+0.9**
JCCN				A	A	10 48 47.3	
	comp=N,45nm,0.9s,comp=E,77nm,0.8s						
BSO2	**Boso 2**	**0.42**	**122**	P	**Pn**	**10 48 47.9**	**+1.9**
JYO	**Yokosk**	**0.59**	**295**	A	A	10 48 48.1	
	comp=N,65nm,1.1s,comp=E,104nm,1.2s						
BSO1	**Boso 1**	**0.63**	**121**	⇓*i*P	**Pn**	**10 48 49.3**	**+1.6**
JSMT	**Sammumatsuo**	**0.67**	**9**	A	A	10 48 49.4	
	comp=N,63nm,0.7s,comp=E,65nm,0.9s						
JIM2	**Oshima 3**	**0.78**	**251**	*i* P	**Pn**	**10 48 49.6**	**-0.5**
JIM2				A	A	10 48 49.6	
	comp=N,42nm,1.1s,comp=E,79nm,0.3s						
JIM2				S	**Sn**	**10 49 00.8**	**-1.1**
TOK	**Tokyo**	**0.85**	**327**	A	A	10 48 51.0	
	comp=N,42nm,0.3s,comp=E,30nm,0.6s						
JCAJ	**Choshiashikaji**	**0.86**	**30**	A	A	10 48 51.8	
	comp=N,26nm,0.7s,comp=E,15nm,0.8s						
JTHY	**Toshimahigashi**	**0.96**	**242**	A	A	10 48 52.3	
	comp=N,25nm,0.9s,comp=E,35nm,1.0s						
JIHU	**Itakohorinouch**	**1.00**	**9**	A	A	10 48 53.3	
	comp=N,27nm,1.0s,comp=E,34nm,2.3s						
JOD2	**Odawara 2**	**1.05**	**286**	*i* P	**Pn**	**10 48 52.6**	**-0.7**
JOD2				A	A	10 48 52.6	
	comp=N,16nm,0.5s,comp=E,34nm,0.4s						
JOD2				S	**Sn**	**10 49 06.3**	**-1.4**
JNIO	**Niijimaoohara**	**1.06**	**235**	A	A	10 48 53.6	
	comp=N,22nm,1.7s,comp=E,28nm,1.5s						
JHTM	**Izuhatsuma**	**1.08**	**270**	A	A	10 48 53.6	
	comp=N,66nm,1.7s,comp=E,76nm,0.5s						
JSGW	**Sagamiharawaka**	**1.10**	**305**	A	A	10 48 54.0	
	comp=N,16nm,0.7s,comp=E,23nm,0.9s						
JMYK	**Miyake Tsubota**	**1.11**	**215**	*i* P	**Pn**	**10 48 54.3**	**+0.2**
JMYK				A	A	10 48 54.3	
	comp=N,14nm,0.3s,comp=E,13nm,1.3s						
JMYK				S	**Sn**	**10 49 09.4**	**+0.3**
JSKK	**Shikinejimakit**	**1.12**	**235**	A	A	10 48 54.2	
	comp=N,12nm,0.4s,comp=E,16nm,2.4s						
JHU2	**Hanno**	**1.21**	**316**	A	A	10 48 55.4	
	comp=N,11nm,1.5s,comp=E,9.0nm,3.0s						
JIZS	**Izushimoda**	**1.22**	**258**	*i* P	**Pn**	**10 48 55.1**	**-0.3**
JIZS				A	A	10 48 55.1	
	comp=N,21nm,0.5s,comp=E,19nm,0.5s						
JIZS				S	**Sn**	**10 49 10.4**	**-0.9**
JMKN	**Mikurajimanish**	**1.24**	**209**	*i* P	**Pn**	**10 48 56.0**	**+0.3**
JMKN				A	A	10 48 56.0	
	comp=N,21nm,0.7s,comp=E,23nm,1.0s						
JMKN				S	**Sn**	**10 49 12.0**	**+0.1**
JKO	**Kozu shima**	**1.25**	**232**	A	A	10 48 56.1	
	comp=N,20nm,2.8s,comp=E,18nm,0.8s						
JFNN	**Fujinakano**	**1.36**	**280**	A	A	10 48 57.2	
	comp=N,24nm,0.6s,comp=E,17nm,0.7s						
JYN	**Shimob**	**1.55**	**290**	*i* P	**Pn**	**10 48 59.6**	**-0.2**
JYN				A	A	10 48 59.6	
	comp=N,13nm,0.4s,comp=E,21nm,0.9s,comp=Z,8.0nm,0.8s						
JYN				S	**Sn**	**10 49 18.8**	**-0.4**
JRY	**Ryogami san**	**1.56**	**312**	*i* P	**Pn**	**10 48 59.7**	**-0.2**
JRY				*e*S	**Sn**	**10 49 19.3**	**-0.1**
JAG	**Ashikaga**	**1.61**	**334**	*i* P	**Pn**	**10 49 00.4**	**-0.2**
JAG				A	A	10 49 00.4	
	comp=N,4.0nm,2.4s,comp=E,4.0nm,1.0s						
SHZ3	**Shizuoka 3**	**1.74**	**274**	A	A	10 49 02.4	
	comp=N,7.0nm,2.4s,comp=E,9.0nm,2.6s						
JSG	**Sagara**	**1.78**	**261**	P	**Pn**	**10 49 03.6**	**+0.7**
JSG	**Sagara**	**1.78**	**261**	S	**Sn**	**10 49 29.3**	**+4.6**
JSG	**Sagara**	**1.78**	**261**		**Pn**	**10 49 03.4**	**+0.5**
JSG	**Sagara**	**1.78**	**261**	P	**Pn**	**10 49 03.8**	**+0.9**
JHJ	**Hachijo jima 2**	**1.90**	**194**	P	**Pn**	**10 49 05.2**	**+0.7**
	comp=E,2µm,0.3s,baz=60,slow=23,SNR=722						
JHJ				LR	LR	10 49 28.4	
	comp=E,236nm,18.6s,baz=71,slow=29						
JHJ				S	**Sn**	**10 49 28.4**	**+0.8**
	comp=E,3µm,0.5s,baz=37,slow=23,SNR=14						
JHJ2	**Mitsune**	**1.91**	**193**	P	**Pn**	**10 49 05.0**	**+0.4**
JHJ2	**Mitsune**	**1.91**	**193**	S	**Sn**	**10 49 28.8**	**+1.2**
JHJ2	**Mitsune**	**1.91**	**193**		**Pn**	**10 49 04.9**	**+0.4**
JHJ2	**Mitsune**	**1.91**	**193**	P	**Pn**	**10 49 05.5**	**+0.9**
JKT	**Katashina**	**1.99**	**334**	A	A	10 49 06.2	
	comp=N,7.0nm,0.5s,comp=E,6.0nm,0.6s						
JSB	**Shiboa**	**2.02**	**351**	A	A	10 49 06.7	
	comp=N,6.0nm,2.5s,comp=E,6.0nm,3.3s						
JNY	**Yasuok**	**2.05**	**281**	A	A	10 49 06.8	
	comp=N,14nm,1.3s,comp=E,7.0nm,0.8s						
JGK	**Kuni**	**2.09**	**320**	A	A	10 49 07.5	
	comp=N,6.0nm,2.4s,comp=E,5.0nm,1.9s						
MJAR	**Matsushiro Arr**	**2.32**	**313**	P	**Pn**	**10 49 09.9**	**-0.3**
	comp=E,163nm,0.5s,baz=158,slow=13,SNR=806						
MJAR				S	**Sn**	**10 49 38.5**	**+0.7**
	comp=E,326nm,0.4s,baz=104,slow=15,SNR=7.4						
MJAR	**Matsushiro Arr**	**2.32**	**313**	Pn	**Pn**	**10 49 07.9**	**-2.3**
MAJO	**Matsushiro**	**2.33**	**313**	P	**Pn**	**10 49 10.5**	**+0.3**
MAJO	**Matsushiro**	**2.33**	**313**	S	**Sn**	**10 49 39.3**	**+1.5**
MAJO	**Matsushiro**	**2.33**	**313**	*c i*P	**Pn**	**10 49 10.6**	**+0.3**
MAJO	**Matsushiro**	**2.33**	**313**		**Pn**	**10 49 10.5**	**+0.3**
MAJO	**Matsushiro**	**2.33**	**313**	P	**Pn**	**10 49 10.8**	**+0.5**
MJB9	**Matsu-Tunnel**	**2.33**	**313**		**Pn**	**10 49 10.4**	**+0.1**
JGF	**Kuroka**	**2.50**	**285**	P	**Pn**	**10 49 13.6**	**+0.9**
JGF	**Kuroka**	**2.50**	**285**		**Pn**	**10 49 13.2**	**+0.6**
JGF	**Kuroka**	**2.50**	**285**	P	**Pn**	**10 49 13.9**	**+1.3**
JAOM	**Aogashimamukai**	**2.55**	**191**	A	A	10 49 14.3	
	comp=N,9.0nm,3.0s,comp=E,11nm,0.5s						
INU	**Inuyama**	**2.73**	**279**	P	**Pn**	**10 49 16.2**	**+0.5**
INU	**Inuyama**	**2.73**	**279**	S	**Sn**	**10 49 52.0**	**+4.3**
INU	**Inuyama**	**2.73**	**279**		**Pn**	**10 49 15.9**	**+0.2**
INU	**Inuyama**	**2.73**	**279**	P	**Pn**	**10 49 16.5**	**+0.8**
JMN	**Monobe**	**5.47**	**259**	P	**Pn**	**10 49 54.3**	**+1.2**
JMN	**Monobe**	**5.47**	**259**	S	**Sn**	**10 51 00.2**	**+5.4**
JMN	**Monobe**	**5.47**	**259**		**Pn**	**10 49 53.9**	**+0.8**
JMN	**Monobe**	**5.47**	**259**	P	**Pn**	**10 49 54.9**	**+1.8**
	comp=Z,113nm,0.8s						
JTM	**Tenmabayashi**	**5.83**	**6**	P	**Pn**	**10 49 57.8**	**-0.2**
JTM	**Tenmabayashi**	**5.83**	**6**	S	**Sn**	**10 51 03.7**	**+0.3**
JTM	**Tenmabayashi**	**5.83**	**6**		**Pn**	**10 49 58.2**	**+0.2**
JTM	**Tenmabayashi**	**5.83**	**6**	P	**Pn**	**10 49 57.9**	**-0.1**
	comp=Z,90nm,1.0s						
ERM	**Erimo**	**7.37**	**17**	P	**Pn**	**10 50 17.6**	**-1.4**
ERM	**Erimo**	**7.37**	**17**	*e*P	**Pn**	**10 50 17.7**	**-1.3**
ERM				pmax	pmax		
	comp=Z,23nm,0.7s						
ERM	**Erimo**	**7.37**	**17**	Pn	**Pn**	**10 50 18.5**	**-0.5**
JEM	**Erimo**	**7.37**	**17**	P	**Pn**	**10 50 17.9**	**-1.1**
JCJ	**Chichijima**	**8.02**	**168**	P	Pn	10 50 20.9	-7.0
JCJ				S	Sn	10 51 44.0	-13
JNU	**Nakatsue**	**8.05**	**259**	P	**Pn**	**10 50 29.4**	**+1.0**
	comp=Z,67nm,0.7s,baz=75,slow=8.7,SNR=38						
JSU	**Suzuyama**	**8.96**	**250**	P	**Pn**	**10 50 43.1**	**+2.3**
JSU	**Suzuyama**	**8.96**	**250**		**Pn**	**10 50 42.6**	**+1.8**
JSU	**Suzuyama**	**8.96**	**250**	P	**Pn**	**10 50 43.2**	**+2.5**
	comp=Z,120nm,0.8s						
JTU	**Tsushima**	**9.00**	**270**	P	**Pn**	**10 50 42.6**	**+1.3**
ASAJ	**Asahikawa**	**9.30**	**10**	P	**Pn**	**10 50 42.9**	**-2.4**
	comp=Z,3.9nm,0.3s,baz=233,slow=8.7,SNR=23						
ASAJ				S	**Sn**	**10 52 22.0**	**-6.2**
	comp=Z,23nm,0.9s,baz=268,slow=31,SNR=5.0						
ASAJ				LR	LR	10 55 22.8	
	comp=Z,300nm,18.3s,baz=42,slow=43						
JKA	**Kamikawa-asahi**	**9.30**	**10**	Pn	**Pn**	**10 50 42.9**	**-2.3**
NMR	**Nemuro--Hokkai**	**9.37**	**25**	*e*P	**Pn**	**10 50 42.2**	**-4.1**
RUSJ	**Misakicho**	**9.88**	**21**	*e*P	**Pn**	**10 50 50.4**	**-2.8**
YUK	**Yuzh-Kuril'sk**	**10.01**	**24**	*e*P	**Pn**	**10 50 52.6**	**-2.3**
YUK				*i* S	Sn	10 52 35.5	-10
YUK				pmax	pmax		
	comp=Z,208nm,1.0s						
YUK				pmax	pmax		
	comp=Z,87nm,0.6s						
YUK				pmax	pmax		
	comp=N,28nm,0.3s						
YUK				pmax	pmax		
	comp=E,51nm,0.4s						
KSRS	**Korea Array**	**10.32**	**287**	P	**Pn**	**10 51 00.8**	**+1.6**
	comp=E,3.4nm,0.6s,baz=96,slow=14,SNR=14						
KSAR	**Wonju Array Be**	**10.35**	**287**	P	**Pn**	**10 51 00.2**	**+0.6**
KSAR	**Wonju Array Be**	**10.35**	**287**	Pn	**Pn**	**10 51 00.2**	**+0.6**
TJN	**Taejon**	**10.63**	**281**	P	**Pn**	**10 51 06.7**	**+3.1**
TJN	**Taejon**	**10.63**	**281**	P	**Pn**	**10 51 06.7**	**+3.1**
	comp=Z,96nm,1.2s						
USRK	**Ussuriysk Ar.**	**11.23**	**328**	P	**Pn**	**10 51 11.9**	**+0.3**
	comp=Z,3.6nm,0.8s,baz=137,slow=12,SNR=10.0						
KUR	**Kuril'sk**	**11.76**	**27**	*e*P	Pn	10 51 12.3	-6.5
KUR				*e*S	Sn	10 53 18.2	-10
KUR				smax	smax		
	comp=N,46nm,0.6s						
KUR				smax	smax		
	comp=E,75nm,0.6s						
YSS	**Yuzhno-Sakhali**	**12.11**	**8**	*e*P	**Pn**	**10 51 21.5**	**-2.1**
YSS				pmax	pmax		
	comp=Z,10.0nm,0.8s						
MDJ	**Mudanjiang**	**12.67**	**323**	P	**Pn**	**10 51 30.9**	**-0.4**
MDJ	**Mudanjiang**	**12.67**	**323**	P	**Pn**	**10 51 31.7**	**+0.4**
	comp=Z,12nm,1.1s						
CN2	**Changchun**	**14.47**	**312**	*e*P	**Pn**	**10 51 56.1**	**+0.9**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
BNX	**BinXian**	**14.56**	**321**	⇑P	**Pn**	**10 51 54.4**	**-1.9**
BNX				pmax	pmax		
	comp=Z,7.0nm,1.3s						
DL2	**Dalian**	**15.45**	**290**	P	**P**	**10 52 11.0**	**+0.2**
DL2				pmax	pmax		
	comp=Z,44nm,0.7s						
KLR	**Kul'dur**	**15.58**	**339**	P	**Pn**	**10 52 08.6**	**-0.8**
	comp=Z,2.0nm,0.4s,baz=174,slow=9.8,SNR=13						
KLR	**Kul'dur**	**15.58**	**339**	*e*P	**Pn**	**10 52 10.2**	**+0.8**
KLR				pmax	pmax		
	comp=Z,3.0nm,0.8s						
TYV	**Tymovskoe**	**15.97**	**5**	*e*P	**Pn**	**10 52 08.2**	**-6.0**
TYV				*e*S	Sn	10 54 59.3	-11
TYV				pmax	pmax		
	comp=Z,200nm,3.7s						
TYV				pmax	pmax		
	comp=Z,18nm,1.2s						
TYV				smax	smax		
	comp=E,12nm,1.8s						
TYV				smax	smax		
	comp=N,200nm,3.0s						
TYV				smax	smax		
	comp=E,300nm,3.0s						
HEH	**HeiHe**	**17.94**	**332**	*e*P	P	10 52 27.1	-11
HEH				pmax	pmax		
	comp=Z,4.0nm,0.7s						
NJ2	**Nanjing**	**18.14**	**267**	*e*P	**Pn**	**10 52 40.9**	**-0.2**
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.8s						
TATO	**Taipei**	**19.09**	**244**	P	**P**	**10 52 49.8**	**-1.2**
YHNB	**Yeheng**	**19.35**	**243**	P	**P**	**10 52 52.8**	**-1.2**
SSLB	**Suanglung**	**20.19**	**242**	P	**P**	**10 53 01.0**	**-2.1**
XLT	**XiLinHaoTe**	**20.68**	**303**	*e*P	**P**	**10 53 05.6**	**-2.6**
XLT				pmax	pmax		
	comp=Z,13nm,1.1s						
XLT				L	L		
	comp=Z,49nm,21.7s						
XLT				L	L		
	comp=Z,190nm,18.7s						
XLT				L	L		
	comp=Z,540nm,20.0s						
TPUB	**Ta-pu**	**20.72**	**241**	P	**P**	**10 53 07.5**	**-1.4**
TPUB				IAmb	IAmb	10 53 11.1	
	comp=Z,129nm,1.7s						
HNS	**HongShan**	**20.80**	**284**	⇑P	**P**	**10 53 07.5**	**-2.0**
HNS				pmax	pmax		
	comp=Z,28nm,0.6s						
HILR	**Hailar Array B**	**20.98**	**320**	P	**P**	**10 53 08.3**	**-3.1**
	comp=Z,3.2nm,0.5s,baz=115,slow=13,SNR=5.0						
GUMO	**Guam**	**21.69**	**168**	P	**P**	**10 53 17.7**	**-1.4**
	comp=Z,22nm,0.6s,baz=177,slow=16,SNR=7.9						
GUMO				LR	LR	11 01 04.2	
	comp=Z,110nm,21.6s,baz=28,slow=34						
	comp=Z,22nm,0.6s						
GUMO	**Guam**	**21.69**	**168**	P	**P**	**10 53 19.1**	**0.0**
GUMO				pmax	pmax		
	comp=Z,100nm,0.8s						
GUMO	**Guam**	**21.69**	**168**	P	**P**	**10 53 19.1**	**0.0**
PETK	**Petropavlovsk-**	**21.91**	**29**	P	**P**	**10 53 22.4**	**+1.2**
	comp=Z,7.2nm,0.9s,baz=210,slow=11,SNR=6.5						
PETK				ScP	**ScP**	**11 00 50.0**	**+1.4**
	comp=Z,1.7nm,0.5s,baz=4.4,slow=1.9,SNR=4.6						
	comp=Z,7.2nm,0.9s						
PETK	**Petropavlovsk-**	**21.91**	**29**	P	**P**	**10 53 22.7**	**+1.5**
PETK	**Petropavlovsk-**	**21.91**	**29**	P	**P**	**10 53 22.7**	**+1.5**
PET	**Petropavlovsk**	**22.23**	**30**	*e*P	**P**	**10 53 24.7**	**0.0**
PET				pmax	pmax		
	comp=Z,47nm,1.3s						
PET	**Petropavlovsk**	**22.23**	**30**	P	**P**	**10 53 26.3**	**+1.7**
WHN	**Wuhan**	**22.26**	**266**	P	**P**	**10 53 24.3**	**-0.9**
HHC	**Hu-ho-hao-te**	**23.38**	**293**	*e*P	**P**	**10 53 36.4**	**-0.2**
HHC				pmax	pmax		
	comp=Z,15nm,0.5s						
HHC				pmax	pmax		
	comp=Z,59nm,4.8s						
HHC				L	L		
	comp=Z,400nm,21.2s						
HHC				L	L		
	comp=Z,380nm,17.6s						
HHC				L	L		
	comp=Z,480nm,20.5s						
MA2	**Magadan**	**25.55**	**12**	P	**P**	**10 53 57.6**	**+1.7**
MA2				pmax	pmax		
	comp=Z,18nm,1.0s						
MA2	**Magadan**	**25.55**	**12**	P	**P**	**10 53 57.6**	**+1.7**
XAN	**Xi'an**	**25.84**	**277**	P	**P**	**10 53 56.5**	**-2.4**
XAN				S	**S**	**10 58 20.8**	**-2.7**
XAN				pmax	pmax		
	comp=Z,10.0nm,0.6s						
XAN				pmax	pmax		
	comp=Z,97nm,4.5s						
XAN				L	L		
	comp=Z,360nm,21.3s						
XAN				L	L		
	comp=Z,510nm,19.2s						
XAN				L	L		
	comp=Z,540nm,21.3s						
ULN	**Ulaanbaatar**	**27.84**	**308**	*d i*P	**P**	**10 54 16.6**	**-0.3**
ULN				pmax	pmax		
	comp=Z,5.0nm,0.8s						
ULN	**Ulaanbaatar**	**27.84**	**308**		**P**	**10 54 15.9**	**-1.0**
ULN	**Ulaanbaatar**	**27.84**	**308**	P	**P**	**10 54 16.8**	**-0.1**
	comp=Z,11nm,0.8s						
YAK	**Yakutsk**	**27.90**	**349**	*e*P	**P**	**10 54 18.4**	**+1.4**
YAK				pmax	pmax		
	comp=Z,14nm,1.3s						
YAK				pmax	pmax		
	comp=N,10.0nm,1.3s						
YAK				pmax	pmax		
	comp=E,3.0nm,1.1s						
H11N2	**WAKE ISLAND Hy**	**27.95**	**116**	T	T	11 23 43.8	
	baz=309,slow=75,SNR=164						
H11N1	**WAKE ISLAND Hy**	**27.96**	**116**	T	T	11 23 44.2	
	baz=309,slow=75,SNR=132						
H11N3	**WAKE ISLAND Hy**	**27.97**	**116**	T	T	11 23 46.4	
	baz=309,slow=75,SNR=142						
SONM	**Songino Array**	**28.27**	**307**	P	**P**	**10 54 19.7**	**-0.9**
	comp=E,5.4nm,0.7s,baz=113,slow=8.8,SNR=16						
	comp=E,5.4nm,0.7s						
SONM	**Songino Array**	**28.27**	**307**	P	**P**	**10 54 20.0**	**-0.6**
SONM				pmax	pmax		
	comp=Z,5.0nm,0.8s						
SONM	**Songino Array**	**28.27**	**307**	P	**P**	**10 54 20.0**	**-0.6**
H11S3	**WAKE ISLAND Hy**	**28.58**	**118**	T	T	11 24 47.1	
	baz=311,slow=75,SNR=81						
H11S1	**WAKE ISLAND Hy**	**28.58**	**118**	T	T	11 24 21.8	
	baz=311,slow=75,SNR=55						
H11S2	**WAKE ISLAND Hy**	**28.59**	**118**	T	T	11 24 22.2	
	baz=311,slow=75,SNR=59						
LZH	**Lanzhou**	**29.60**	**283**	*e*P	**P**	**10 54 33.8**	**+1.2**
LZH				pmax	pmax		
	comp=Z,24nm,1.3s						
LZH				L	L		
	comp=Z,620nm,15.6s						
LZH				L	L		
	comp=Z,460nm,16.5s						
LZH				L	L		
	comp=Z,710nm,16.5s						
LZDM	**Lanzhou Array**	**29.74**	**283**	P	**P**	**10 54 31.9**	**-2.2**
	comp=Z,3.0nm,0.4s,baz=108,slow=8.0,SNR=3.9						
	comp=Z,3.0nm,0.4s						
GYA	**Guiyang**	**30.05**	**263**	P	**P**	**10 54 33.9**	**-2.7**
GYA				pmax	pmax		
	comp=Z,22nm,0.5s						
GTA2	**Gaotai**	**32.41**	**290**	*e*P	**P**	**10 54 56.8**	**-0.5**
GTA2				pmax	pmax		
	comp=Z,10.0nm,0.8s						
PZH	**PanZhiHua**	**34.05**	**266**	P	**P**	**10 55 13.4**	**+1.7**
KNGR	**Kungurtug, Tuv**	**34.54**	**310**	⇑*i*P	**P**	**10 55 17.4**	**+1.7**
KNGR				pmax	pmax		
	comp=Z,7.0nm,1.1s						
GOMU	**GeErMu**	**36.77**	**285**	P	**P**	**10 55 33.3**	**-1.9**
GOMU				pmax	pmax		
	comp=Z,4.0nm,0.4s						
TIXI	**Tiksi**	**37.23**	**354**	*e*P	**P**	**10 55 37.6**	**-0.6**
TIXI				pmax	pmax		
	comp=Z,3.0nm,0.9s						
FAKI	**Fak Fak**	**38.45**	**193**	P	**P**	**10 55 47.5**	**-1.6**
FAKI				IAmb	IAmb	10 56 23.2	
	comp=Z,11nm,1.1s						
CMAR	**Chiang Mai Arr**	**40.14**	**257**	P	**P**	**10 56 01.2**	**-2.0**
	comp=Z,2.0nm,0.6s,baz=48,slow=7.7,SNR=12						
	comp=Z,2.0nm,0.6s						
DGZ	**Jazzator, Alta**	**40.91**	**308**	*c i*P	**P**	**10 56 10.5**	**+1.1**
DGZ				pmax	pmax		
	comp=Z,38nm,0.9s						
WMQ	**Urumqi**	**41.02**	**299**	*e*P	**P**	**10 56 12.3**	**+2.1**
WMQ				pmax	pmax		
	comp=Z,29nm,0.9s						
WMQ				L	L		
	comp=Z,250nm,17.9s						
WMQ				L	L		
	comp=Z,270nm,17.9s						
WMQ				L	L		
	comp=Z,260nm,20.9s						
ZAA0	**Zalesovo Array**	**42.68**	**314**		**P**	**10 56 23.7**	**+0.2**
ZAA0				IAmb	IAmb	10 56 24.7	
	comp=Z,7.5nm,0.8s						
ZALV	**Zalesovo Beam**	**42.68**	**314**	P	**P**	**10 56 23.5**	**0.0**
	comp=Z,6.5nm,0.4s,baz=92,slow=6.8,SNR=30						
	comp=Z,6.5nm,0.4s						
ZALV	**Zalesovo Beam**	**42.68**	**314**	*i* P	**P**	**10 56 23.5**	**0.0**
ZALV				pmax	pmax		
	comp=Z,6.0nm,0.4s						
ZALV	**Zalesovo Beam**	**42.68**	**314**		**P**	**10 56 23.7**	**+0.2**
ZSN	**Zaisan**	**42.68**	**304**	*e*P	**P**	**10 56 23.7**	**0.0**
ZSN				pmax	pmax		
	comp=Z,4.0nm,0.5s						
ZSN	**Zaisan**	**42.68**	**304**	*e*P	**P**	**10 56 23.8**	**0.0**
	comp=Z,4.4nm,0.5s						
MK31	**Makanchi Array**	**44.49**	**304**	*c i*P	**P**	**10 56 38.4**	**+0.1**
MK31				*i* *PP	**pP**	**10 56 56.7**	**+0.6**
MKAR	**Makanchi Array**	**44.49**	**304**	P	**P**	**10 56 38.2**	**-0.1**
	comp=Z,5.8nm,0.6s,baz=87,slow=9.6,SNR=46						
MKAR				ScP	**ScP**	**11 02 05.1**	**-1.2**
	comp=Z,0.3nm,0.6s,baz=52,slow=5.5,SNR=2.6						
	comp=Z,5.8nm,0.6s						
MKAR	**Makanchi Array**	**44.49**	**304**		**P**	**10 56 38.5**	**+0.2**
MAKZ	**Makanchi**	**44.70**	**304**	P	**P**	**10 56 39.4**	**-0.6**
MAKZ				pmax	pmax		
	comp=Z,6.0nm,0.8s						
MAKZ	**Makanchi**	**44.70**	**304**	P	**P**	**10 56 39.4**	**-0.6**
MAKZ	**Makanchi**	**44.70**	**304**	P	**P**	**10 56 40.1**	**+0.1**
	comp=Z,10nm,0.8s						
MAKZ	**Makanchi**	**44.70**	**304**	P	**P**	**10 56 39.9**	**-0.1**
NRIK	**Noril'sk**	**44.78**	**336**	P	**P**	**10 56 39.7**	**-0.5**
	comp=Z,3.3nm,0.5s,baz=113,slow=7.7,SNR=1.7						
	comp=Z,3.3nm,0.5s						
NRIK	**Noril'sk**	**44.78**	**336**	*e*P	**P**	**10 56 40.5**	**+0.3**
NRIK				pmax	pmax		
	comp=Z,4.0nm,0.9s						
SEM	**Semipalatinsk**	**45.52**	**309**	*e*P	**P**	**10 56 46.5**	**-0.1**
SEM				pmax	pmax		
	comp=Z,7.0nm,0.6s						
SEM	**Semipalatinsk**	**45.52**	**309**	*e*P	**P**	**10 56 46.5**	**-0.1**
	comp=Z,7.0nm,0.6s						
KURK	**Kurchatov**	**46.53**	**310**	*i* P	**P**	**10 56 53.8**	**-0.4**
KURK				pmax	pmax		
	comp=Z,19nm,0.7s						
KURK	**Kurchatov**	**46.53**	**310**		**P**	**10 56 53.7**	**-0.6**
KURK	**Kurchatov**	**46.53**	**310**	P	**P**	**10 56 53.9**	**-0.4**
	comp=Z,50nm,0.7s						
KURK	**Kurchatov**	**46.53**	**310**	P	**P**	**10 56 54.2**	**0.0**
KURK				pP	**pP**	**10 57 11.9**	**-0.3**
KURBB	**Kurchatov Arra**	**46.59**	**309**	P	**P**	**10 56 54.4**	**-0.4**
	comp=Z,18nm,0.6s,baz=85,slow=7.5,SNR=146						
	comp=Z,18nm,0.6s						
PDGK	**Podgornoye**	**46.98**	**299**	P	**P**	**10 56 57.7**	**-0.4**
PDGK	**Podgornoye**	**46.98**	**299**	P	**P**	**10 56 57.7**	**-0.4**
SHLS	**Shalkode**	**47.04**	**299**	*e*P	**P**	**10 56 55.7**	**-2.8**
SHLS				pmax	pmax		
	comp=Z,11nm,1.0s						
SHLS	**Shalkode**	**47.04**	**299**	*e*P	**P**	**10 56 55.8**	**-2.8**
	comp=Z,11nm,1.0s						
C19K	**Lookout Ridge**	**47.19**	**25**	P	**P**	**10 57 00.7**	**+1.5**
IPM	**Ipoh**	**47.32**	**239**	P	**P**	**10 56 59.2**	**-1.7**
UZB	**Uzynbulak**	**47.35**	**299**	*e*P	**P**	**10 57 00.7**	**-0.3**
UZB				pmax	pmax		
	comp=Z,5.0nm,0.7s						
UZB	**Uzynbulak**	**47.35**	**299**	*e*P	**P**	**10 57 00.8**	**-0.3**
	comp=Z,5.2nm,0.7s						
TDK	**Taldyqorghan**	**47.44**	**302**	*e*P	**P**	**10 57 01.3**	**-0.1**
TDK				pmax	pmax		
	comp=Z,4.0nm,0.6s						
TDK	**Taldyqorghan**	**47.44**	**302**	*e*P	**P**	**10 57 01.4**	**-0.1**
	comp=Z,4.0nm,0.6s						
KPKS	**Kokpek**	**47.53**	**300**	*e*P	**P**	**10 57 02.2**	**-0.1**
KPKS	**Kokpek**	**47.53**	**300**	*e*P	**P**	**10 57 02.2**	**-0.1**
G19K	**Purcell Mounta**	**47.54**	**29**	P	**P**	**10 57 03.6**	**+1.7**
G19K				IAmb	IAmb	10 57 06.5	
	comp=Z,15nm,1.8s						
WUS	**Wushi**	**47.63**	**297**	P	**P**	**10 57 03.9**	**+0.7**
	comp=Z,22nm,0.7s						
WUS	**Wushi**	**47.63**	**297**	P	**P**	**10 57 03.7**	**+0.5**
SATY	**Saty**	**47.81**	**299**	*e*P	**P**	**10 57 04.5**	**0.0**
SATY	**Saty**	**47.81**	**299**	*e*P	**P**	**10 57 04.6**	**0.0**
HNR	**Honiara**	**47.91**	**153**	LR	LR	11 15 49.3	
	comp=Z,56nm,20.8s,baz=70,slow=34						
PRZ	**Przheval'sk**	**47.94**	**298**	P	**P**	**10 57 06.6**	**+1.0**
PRZ				pmax	pmax		
	comp=Z,28nm,0.5s						
PRZ	**Przheval'sk**	**47.94**	**298**	P	**P**	**10 57 06.6**	**+1.0**
PRZ	**Przheval'sk**	**47.94**	**298**	P	**P**	**10 57 06.8**	**+1.2**
	comp=Z,40nm,0.9s						
MTN	**Manton Dam**	**48.35**	**192**	P	**P**	**10 57 07.6**	**-1.0**
ANVS	**Anan'yevo**	**48.40**	**299**	P	**P**	**10 57 09.5**	**+0.3**
ANVS	**Anan'yevo**	**48.40**	**299**	P	**P**	**10 57 09.5**	**+0.3**
	comp=Z,17nm,0.6s						
TARG	**Taragay, Kyrgy**	**48.54**	**298**	P	**P**	**10 57 11.3**	**+0.8**
TARG				pmax	pmax		
	comp=Z,19nm,0.7s						
TARG	**Taragay, Kyrgy**	**48.54**	**298**	P	**P**	**10 57 11.3**	**+0.8**
TARG				IAmb	IAmb	10 57 12.5	
	comp=Z,19nm,0.7s						
TARG	**Taragay, Kyrgy**	**48.54**	**298**	P	**P**	**10 57 11.3**	**+0.8**
	comp=Z,27nm,0.8s						
MDOK	**Medeo**	**48.76**	**300**	*e*P	**P**	**10 57 12.1**	**+0.2**
MDOK	**Medeo**	**48.76**	**300**	*e*P	**P**	**10 57 12.1**	**+0.2**
AAA	**Alma-Ata**	**48.85**	**300**	*e*P	**P**	**10 57 12.4**	**0.0**
AAA	**Alma-Ata**	**48.85**	**300**	*e*P	**P**	**10 57 12.4**	**0.0**
KDJ	**Kajisay**	**48.90**	**298**	P	**P**	**10 57 13.2**	**+0.2**
KDJ				pmax	pmax		
	comp=Z,10.0nm,0.7s						
KDJ	**Kajisay**	**48.90**	**298**	P	**P**	**10 57 13.2**	**+0.2**
KDJ				IAmb	IAmb	10 57 14.2	
	comp=Z,10nm,0.7s						
KDJ	**Kajisay**	**48.90**	**298**	P	**P**	**10 57 13.4**	**+0.4**
	comp=Z,16nm,0.7s						
KUU	**Kurty**	**49.11**	**301**	*e*P	**P**	**10 57 14.2**	**-0.1**
KUU	**Kurty**	**49.11**	**301**	*e*P	**P**	**10 57 14.3**	**-0.1**
ASAI	**AK-SAY(Kyrgyzs**	**49.68**	**297**	P	**P**	**10 57 19.6**	**+0.5**
	comp=Z,11nm,0.8s						
BOOM	**Boomskoye usch**	**49.71**	**299**	P	**P**	**10 57 19.3**	**+0.2**
BOOM				pmax	pmax		

	comp=Z,7.0nm,0.8s						
BOOM	Boomskoye usch	49.71	299	P	P	10 57 19.3	+0.2
BOOM				IAmb	IAmb	10 57 20.4	
	comp=Z,6.6nm,0.8s						
BOOM	Boomskoye usch	49.71	299	P	P	10 57 19.5	+0.4
	comp=Z,8.4nm,1.1s						
SGDS	Sogindy	50.41	301	eP	P	10 57 24.1	-0.2
AAK	Ala-Archa	50.71	300	d iP	P	10 57 26.7	0.0
AAK				pmax	pmax		
	comp=Z,7.0nm,0.9s						
AAK	Ala-Archa	50.71	300	P	P	10 57 26.2	-0.5
AAK				IAmb	IAmb	10 57 28.1	
	comp=Z,5.6nm,0.7s						
AAK	Ala-Archa	50.71	300	P	P	10 57 26.9	+0.2
COLA	College	51.29	31	eP	P	10 57 33.0	+2.6
COLA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
BVAR	Borovoye Array	51.32	313	P	P	10 57 30.3	-0.6
	comp=Z,1.9nm,0.5s,baz=100,slow=7.6,SNR=7.4						
BVAR				PcP	PcP	10 58 45.2	+0.3
	comp=Z,1.8nm,0.7s,baz=351,slow=4.5,SNR=3.7						
	comp=Z,1.9nm,0.5s						
BORK	Borovoye	51.36	313	eP	P	10 57 31.3	+0.1
BORK				pmax	pmax		
	comp=Z,4.0nm,1.0s						
KNRA	Kununurra	51.55	194	P	P	10 57 32.5	-0.4
KNRA				IAmb	IAmb	10 57 34.8	
	comp=Z,5.8nm,0.7s						
ILAR	Eielson Array	51.71	31	P	P	10 57 34.8	+1.2
	comp=Z,1.5nm,0.9s,baz=272,slow=6.4,SNR=11						
	comp=Z,1.5nm,0.9s						
ARSB	Arslanbob	52.15	298	P	P	10 57 38.0	+0.6
ARSB				pmax	pmax		
	comp=Z,11nm,0.8s						
ARSB	Arslanbob	52.15	298	P	P	10 57 38.0	+0.6
ARSB				IAmb	IAmb	10 57 38.9	
	comp=Z,11nm,0.8s						
MNAI	Manna	52.58	230	P	P	10 57 40.0	-0.6
ARK	Arkit	52.74	299	P	P	10 57 42.9	+1.1
ARK	Arkit	52.74	299	P	P	10 57 42.9	+1.1
DZA	Taraz	52.89	301	eP	P	10 57 42.7	0.0
DZA				pmax	pmax		
	comp=Z,4.0nm,0.6s						
DZA	Taraz	52.89	301	eP	P	10 57 42.8	0.0
	comp=Z,4.1nm,0.6s						
SCRK	Sand Creek	53.01	32	P	P	10 57 44.6	+1.2
SCRK				IAmb	IAmb	10 58 07.1	
	comp=Z,21nm,1.9s						
TRKS	Terek-Say	53.41	299	P	P	10 57 47.2	+0.4
BRLS	Borolday	53.90	301	eP	P	10 57 51.3	+1.2
BRLS				pmax	pmax		
	comp=Z,5.0nm,1.1s						
BRLS	Borolday	53.90	301	eP	P	10 57 51.4	+1.2
	comp=Z,5.3nm,1.1s						
IUG	Iuzhnay	54.02	300	eP	P	10 57 51.1	0.0
IUG				pmax	pmax		
	comp=Z,4.0nm,0.7s						
IUG	Iuzhnay	54.02	300	eP	P	10 57 51.1	0.0
	comp=Z,4.3nm,0.7s						
BCAR	Beaver Creek A	54.09	33	P	P	10 57 52.9	+1.6
CHM	Chimkent	54.28	300	eP	P	10 57 52.6	-0.3
CHM	Chimkent	54.28	300	eP	P	10 57 52.7	-0.2
NIL	Nilore	54.44	289	P	P	10 57 54.7	+0.6
NIL	Nilore	54.44	289	P	P	10 57 54.7	+0.6
	comp=Z,43nm,0.8s						
WB0	Warramunga Arr	54.73	187	P	P	10 57 55.3	-0.9
WB0				IAmb	IAmb	10 57 57.0	
	comp=Z,11nm,0.8s						
WRAB	Tennant Creek	54.90	187	⇑ iP	P	10 57 56.2	-1.2
WRAB				pmax	pmax		
	comp=Z,10.0nm,0.9s						
WRAB	Tennant Creek	54.90	187	P	P	10 57 56.4	-1.1
WRAB				IAmb	IAmb	10 57 58.3	
	comp=Z,8.8nm,0.8s						
WRAB	Tennant Creek	54.90	187	P	P	10 57 56.7	-0.7
	comp=Z,14nm,0.9s						
WRA	Warramunga Arr	54.91	187	P	P	10 57 56.5	-1.0
	comp=Z,8.4nm,0.7s,baz=4.2,slow=7.6,SNR=80						
	comp=Z,8.4nm,0.7s						
WRA	Warramunga Arr	54.91	187	i P	P	10 57 56.5	-1.0
WRA				pmax	pmax		
	comp=Z,9.0nm,0.7s						
WRA	Warramunga Arr	54.91	187	P	P	10 57 56.8	-0.7
CTA	Charters Tower	55.05	173	LR	LR	11 23 15.0	
	comp=Z,63nm,18.3s,baz=2.0,slow=38						
QIS	Mount Isa	55.23	181	P	P	10 57 59.0	-0.8
	comp=Z,5.6nm,1.2s						
ARTI	Arti	57.43	319	P	P	10 58 14.5	-0.7
	comp=Z,4.5nm,0.5s,baz=70,slow=5.3,SNR=7.1						
	comp=Z,4.5nm,0.5s						
ARTI	Arti	57.43	319	d iP	P	10 58 14.9	-0.2
ARTI				*PP	pP	10 58 33.8	+0.2
ARTI						10 59 04.7	
ARTI						11 00 21.5	
ARTI				S	S	11 06 05.0	-1.5
ARTI				pmax	pmax		
	comp=Z,4.0nm,0.6s						
ARTI	Arti	57.43	319	P	P	10 58 14.6	-0.5
ARTI	Arti	57.43	319	P	P	10 58 14.8	-0.3
ARTI				pP	pP	10 58 34.3	+0.7
R32K	Eaglecrest	58.60	38	P	P	10 58 22.6	-0.7
R32K				IAmb	IAmb	10 58 25.0	
	comp=Z,11nm,0.6s						
AB31	Akbulak array	58.60	311	P	P	10 58 23.6	+0.2
AB31				IAmb	IAmb	10 58 25.5	
	comp=Z,6.0nm,0.7s						
ABKAR	Akbulak array	58.60	311	P	P	10 58 23.4	0.0
AS31	Alice Springs	58.63	187	P	P	10 58 23.4	-0.5
ASAR	Alice Springs	58.64	187	P	P	10 58 23.1	-0.8
	comp=Z,2.1nm,0.6s,baz=5.2,slow=7.7,SNR=39						
	comp=Z,2.1nm,0.6s						
QLP	Quilpie	61.34	176	P	P	10 58 42.0	-0.2
	comp=Z,22nm,1.1s						
KIRV	Kirov	61.36	323	c iP	P	10 58 42.4	+0.3
INKA	Innaminka	62.38	180	P	P	10 58 49.4	+0.1
INKA				IAmb	IAmb	10 58 50.4	
	comp=Z,6.0nm,0.9s						
BELG	Belogornoye	64.71	317	i P	P	10 59 06.6	+2.2
BELG				pmax	pmax		
	comp=Z,5.0nm,1.0s						
ARCES	ARCESS Array B	65.61	339	P	P	10 59 10.5	+0.5
	comp=Z,3.9nm,0.7s,baz=49,slow=6.5,SNR=5.9						
	comp=Z,3.9nm,0.7s						
STKA	Stephens Creek	66.51	179	P	P	10 59 16.1	0.0
	comp=Z,4.2nm,0.9s,baz=342,slow=9.9,SNR=4.2						
	comp=Z,4.2nm,0.9s						
FINES	FINESS Array B	70.22	332	P	P	10 59 38.8	-0.2
	comp=Z,4.7nm,0.8s,baz=76,slow=5.9,SNR=12						
	comp=Z,4.7nm,0.8s						
FINES	FINESS Array B	70.22	332	i P	P	10 59 39.0	0.0
FINES				pmax	pmax		
	comp=Z,5.0nm,0.8s						
KBZ	Khabaz	71.57	311	P	P	10 59 47.6	+0.1
	comp=Z,7.8nm,0.9s,baz=47,slow=2.9,SNR=16						
	comp=Z,7.8nm,0.9s						
KBZ	Khabaz	71.57	311	d iP	P	10 59 47.7	+0.1
KBZ				pmax	pmax		
	comp=Z,9.0nm,0.9s						
KIV	Kislovodsk	71.59	311	eP	P	10 59 47.1	-0.7
KIV				pmax	pmax		
	comp=Z,17nm,1.1s						
KIV	Kislovodsk	71.59	311	P	P	10 59 47.5	-0.3
	comp=Z,15nm,1.1s						
KIV	Kislovodsk	71.59	311	P	P	10 59 48.2	+0.4
	comp=Z,19nm,1.1s						
MNK	Minsk	73.70	326	i P	P	10 59 59.4	-0.6
MNK				i *PP	pP	11 00 18.1	-1.0
MNK				i *SP	sP	11 00 26.6	-0.4
MNK				i		11 02 44.6	
MNK				i S	S	11 09 25.9	+1.0
MNK				i *SS	sS	11 09 58.5	+1.1
MNK				i SS	SS	11 14 12.1	+3.6
MNK				pmax	pmax		
	comp=E,13nm,0.7s						
MNK				pmax	pmax		
	comp=N,10.0nm,0.9s						
MNK				pmax	pmax		
	comp=Z,10.0nm,0.6s						
MNK	Minsk	73.70	326	i P	P	10 59 59.4	-0.6
	comp=E,13nm,0.7s						
MNK				i P	P	10 59 59.4	-0.6
	comp=N,10.0nm,0.9s						
MNK				i P	P	10 59 59.4	-0.6
	comp=Z,10.0nm,0.6s,baz=52						
MNK				i pP	pP	11 00 18.2	-1.0
MNK				i sP	sP	11 00 26.7	-0.4
MNK				i PP	PP	11 02 44.7	+0.1
MNK				i S	S	11 09 25.9	+1.0
MNK				i sS	sS	11 09 58.5	+1.1
MNK				i SS	SS	11 14 12.2	+3.6
MNK				i SSS	SSS	11 17 33.8	
MNK				i LR	LR	11 33 16.0	
MNK	Minsk	73.70	326	i LRM	MLR	11 07 40.0	
	comp=Z,83nm,13.2s						
AK03	Malin Array Si	75.36	322	P	P	11 00 08.7	-1.0
AKASG	Malin Array Be	75.38	322	P	P	11 00 09.6	-0.2
	comp=Z,4.2nm,0.6s,baz=49,slow=6.2,SNR=20						
	comp=Z,4.2nm,0.6s						
AKBB	Malin Array Si	75.38	322	c iP	P	11 00 09.6	-0.2
AKBB				pmax	pmax		
	comp=Z,5.0nm,0.9s						
AKBB	Malin Array Si	75.38	322	P	P	11 00 08.7	-1.1
AK01	Malin Array Si	75.39	322	P	P	11 00 08.8	-1.0
KIEV	Kiev	75.39	322	P	P	11 00 09.7	-0.1
KIEV	Kiev	75.39	322	P	P	11 00 08.7	-1.1
	comp=Z,45nm,0.9s						
KIEV	Kiev	75.39	322	P	P	11 00 09.7	-0.1
	comp=Z,12nm,0.9s						
AK04	Malin Array Si	75.40	322	P	P	11 00 09.1	-0.8
AK09	Malin Array Si	75.40	322	P	P	11 00 09.2	-0.7
AK08	Malin Array Si	75.41	322	P	P	11 00 09.2	-0.7
AK02	Malin Array Si	75.42	322	P	P	11 00 09.3	-0.7
AK22	Malin Array Si	75.42	322	P	P	11 00 09.3	-0.7
HFS	Hagfors	75.59	335	P	P	11 00 11.0	+0.2
	comp=Z,1.0nm,0.5s,baz=64,slow=6.8,SNR=4.7						
	comp=Z,1.0nm,0.5s						
HFS	Hagfors	75.59	335	P	P	11 00 11.0	+0.2
NB2	NORSAR Subarra	75.74	337	P	P	11 00 12.0	+0.3
	comp=Z,1.4nm,0.8s,baz=42,slow=5.9						
NOA	NORSAR Array B	75.74	337	P	P	11 00 11.7	0.0
	comp=Z,1.8nm,0.8s,baz=41,slow=5.7,SNR=7.2						
	comp=Z,1.8nm,0.8s						
RNPP9	Sopachiv	76.58	324	P	P	11 00 16.0	-0.6
LUBAR	Lubar, Ukraine	76.60	322	P	P	11 00 16.4	-0.4
RNPP8	Varash	76.64	324	P	P	11 00 16.6	-0.3
NVAR	Mina Array Bea	76.94	52	P	P	11 00 22.1	+3.0
	comp=Z,0.6nm,0.8s,baz=304,slow=3.6,SNR=5.2						
	comp=Z,0.6nm,0.8s						
ARPR	Arapgir-MALATY	76.96	309	P	P	11 00 21.0	+1.8
	comp=Z,14nm,0.9s						
KMPD	K-Podol'skiy	78.12	322	P	P	11 00 24.0	-1.2
ANDN	Andirin	79.11	308	P	P	11 00 32.1	+1.1
	comp=Z,54nm,0.9s						
TESR	Tescani	79.34	320	P	P	11 00 32.1	+0.1
	comp=Z,6.3nm,2.2s						
BRTR	Keskin Array B	79.55	311	P	P	11 00 34.3	+0.8
	comp=Z,2.7nm,0.8s,baz=102,slow=2.9,SNR=11						
	comp=Z,2.7nm,0.8s						
BRTR	Keskin Array B	79.55	311	P	P	11 00 33.1	-0.3
KKUL	Konya-Kulu	80.33	311	P	P	11 00 38.6	+1.0
	comp=Z,11nm,0.9s						
RAYN	Ar Rayn	80.61	292	P	P	11 00 38.8	-0.6
RAYN				pmax	pmax		
	comp=Z,6.0nm,0.8s						
RAYN	Ar Rayn	80.61	292	P	P	11 00 38.8	-0.6
RAYN				IAmb	IAmb	11 00 40.1	
	comp=Z,5.5nm,0.8s						
RAYN	Ar Rayn	80.61	292	P	P	11 00 39.5	+0.2
	comp=Z,9.5nm,0.9s						
RAYN	Ar Rayn	80.61	292	P	P	11 00 39.6	+0.2
RAYN				pP	pP	11 00 59.1	+0.4
VOIR		80.89	320	P	P	11 00 43.6	+3.1
	comp=Z,9.0nm,0.7s						
ARR	Arges	81.15	320	P	P	11 00 41.4	-0.5
	comp=Z,11nm,1.0s						
LTVH	Ltavrtes, Hu	81.20	323	P	P	11 00 44.6	+2.7
	comp=Z,74nm,0.6s						
KSP	Ksiaz	81.38	328	eP	P	11 00 44.5	+1.7
CLL	Collm	82.43	330	eP	P	11 00 48.0	-0.4
CLL	Collm	82.43	330	eP	P	11 00 48.0	-0.4
AKAS	Kas	84.21	311	P	P	11 00 57.9	-0.1
	comp=Z,86nm,0.8s						
KZIT	Kziot	84.38	304	P	P	11 00 59.2	+0.5
	comp=Z,24nm,0.9s						
PPT	Papeete	84.52	116	LR	LR	11 32 12.7	
	comp=Z,39nm,19.6s,baz=342,slow=31						
VLO	Vlora	87.26	319	P	P	11 01 15.4	+2.6
VLO	Vlora	87.26	319	P	P	11 01 15.4	+2.6
	comp=Z,196nm,0.7s						

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*IDC **20** 10:54:52.1±1.3, 36°.04N×97°.62W, h0^{km}, mbtmp3.5/5, ML2.5/3, Error ellipse: s-maj=17.0km s-min=12.3km az=160.0*

*NEIC **20** 10:54:54, 36°.13N×97°.59W, h4^{km}, Moment Tensor Solution. Moment tensor: Scale 10^{13}Nm; M_{rr}-3.74; $M_{\theta\theta}$5.79; $M_{\phi\phi}$-2.05; $M_{r\theta}$2.58; $M_{\theta\phi}$5.30; $M_{\phi r}$-3.45; Fault plane solution: $M_0$8.51000×10^{13} NP1:ϕ_s280.00000°, δ65.00000°, λ-35.00000°. NP2:ϕ_s26.00000°, δ59.00000°, λ-150.00000°. Principal axes: T 8.5139, Plg4.0000°, Azm335.0000°; N 0.0024, Plg48.0000°, Azm69.0000°; P -8.5162, Plg42.0000°, Azm241.0000°;*

*NEIC **20** 10:54:54.2±0.8, 36°.123N±0°.008×97°.59W±0°.01, h7^{km}±4^{km}, mb_Lg3.3/138, ML3.7/84, ML3.4/27, Mwr3.2/12(SLM) Error ellipse: s-maj=1.4km s-min=1.2km az=113.0*

*NEIC **20** 10:54:54±0.8, 36°.129N±0°.008×97°.59W±0°.01, h7^{km}±4^{km}, Error ellipse: s-maj=1.3km s-min=1.1km az=54.0*

ISC 20 10:54:53.6±1.0, **36°.10N**±0°.03×**97°.61W**±0°.02, **h11**^{km}±10^{km}, **n111**, σ**1^{s}47**/79, **Oklahoma**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OK029	Liberty Lake	0.33	157		Pb	10 55 01.2	-0.3
OK029					Sb	10 55 06.2	-0.4
BCOK	Bluff Creek, N	0.44	180		Pb	10 55 03.4	+0.1
BCOK					Sb	10 55 09.9	0.0
ADOK	Arcadia Dam	0.49	156		Pb	10 55 04.1	0.0
CROK	Carrier	0.50	324		Pg	10 55 03.9	+0.5
CROK					Sg	10 55 10.9	+0.8
CROK				IAML		10 55 13.7	
	comp=N,8µm,0.2s						
OK004	Okla Sci Mus	0.58	169		Pb	10 55 06.0	+0.2
OK004					Sb	10 55 14.6	+0.5
OK048	Pawnee Station	0.63	59		Pg	10 55 05.8	0.0
OK048	Pawnee Station	0.63	59		Pg	10 55 05.9	+0.2
OK048					Sg	10 55 13.9	-0.1
OK052	Battle Ridge R	0.66	99		Pb	10 55 06.8	-0.3
OK052					Sb	10 55 15.4	-1.0
OK052				IAML		10 55 18.2	
	comp=N,4µm,0.4s						
OK052				IAML		10 55 19.8	
	comp=N,3µm,0.3s						
OKCSW	OKLAHOMA CITY	0.71	168		Pb	10 55 08.1	+0.2
OKCSW					Sb	10 55 18.1	+0.5
OKCSW				IAML		10 55 20.7	
	comp=E,4µm,0.3s						
OKCSW				IAML		10 55 25.7	
	comp=N,4µm,0.5s						
BLOK	Blackwell	0.73	26		Pg	10 55 07.8	0.0
BLOK					Sg	10 55 17.1	-0.3
BLOK				IAML		10 55 23.1	
	comp=N,3µm,0.2s						
QUOK	Quay	0.74	84		Pb	10 55 08.2	-0.2
QUOK					Sg	10 55 17.6	+0.1
OK051	E0350 and S346	0.75	57		Pg	10 55 08.0	0.0
OK051				IAML		10 55 26.8	
	comp=N,3µm,0.2s						
OK051				IAML		10 55 30.9	
	comp=N,3µm,0.2s						
GC02	Grant County #	0.78	345		Pg	10 55 08.6	0.0
FNO	Franklin	0.86	168		Pb	10 55 10.8	+0.4
FNO					Sb	10 55 23.1	+1.2
FNO				IAmb_Lg		10 55 24.0	
	comp=Z,222nm,0.9s						
FNO				IAML		10 55 30.6	
	comp=E,2µm,0.4s						
FNO				IAML		10 55 31.6	
	comp=N,2µm,0.3s						
W34A	Bridge Creek,	0.87	189		Pb	10 55 11.1	+0.4
W34A					Sb	10 55 23.5	+1.2
KAN13	South Haven SW	0.92	7		Pg	10 55 11.2	-0.1
KAN13					Sg	10 55 23.5	+0.2
DEOK	Depew	0.94	105		Pb	10 55 11.6	-0.3
DEOK					Sb	10 55 24.5	+0.2
DEOK				IAML		10 55 25.2	
	comp=E,2µm,0.2s						
DEOK				IAML		10 55 26.7	
	comp=N,2µm,0.4s						
CSTR	Hydro, Custer	0.98	243		Pb	10 55 13.1	+0.5
CSTR					Sn	10 55 27.5	+0.2
OK038	West end E0370	0.99	293		Pg	10 55 12.7	+0.1
OK038					Sb	10 55 26.9	+1.1
KAN01	Argonia South	1.06	354		Pg	10 55 13.7	-0.3
KAN01					Sg	10 55 27.9	+0.1
KAN01				IAML		10 55 32.8	
	comp=N,2µm,0.1s						
KAN01				IAML		10 55 39.1	
	comp=E,2µm,0.2s						
W35A	Tecumseh	1.12	147		Pb	10 55 14.9	0.0
W35A				IAmb_Lg		10 55 30.5	
	comp=Z,190nm,0.9s						
W35A				IAML		10 55 34.7	
	comp=E,2µm,0.4s						
W35A				IAML		10 55 38.5	
	comp=N,2µm,0.3s						
KAN08	Anthony NE Sta	1.16	346		Pg	10 55 15.6	-0.4
KAN08					Sg	10 55 31.2	+0.2
KAN08				IAML		10 55 35.0	
	comp=N,1µm,0.1s						
KAN08				IAML		10 55 36.2	
	comp=E,2µm,0.1s						
NOKA	Waynoka	1.19	297		Pg	10 55 16.2	-0.3
NOKA					Sb	10 55 32.8	+1.1
T35A	Sooner Cattle	1.21	47		Pg	10 55 16.4	-0.3
T35A				IAML		10 55 38.7	
	comp=E,2µm,0.4s						
T35A				IAML		10 55 38.8	
	comp=E,2µm,0.4s						
ELIS	Ellis County	1.46	269		Pg	10 55 21.3	-0.3
TUL3	Leonard	1.49	97		Pn	10 55 20.5	+0.2
X34A	Smith Ranch, M	1.50	187		Pg	10 55 22.8	+0.4
X34A				IAmb_Lg		10 55 43.5	
	comp=Z,151nm,0.8s						
WMOK	Wichita Mounta	1.66	215		Pb	10 55 24.2	+0.1
LOOK	Love County	2.13	170		Pb	10 55 31.9	-0.2
SMWD	Samnorwood	2.36	246		Pb	10 55 34.6	-1.5
WTFS	Witchita Falls	2.43	197		Pb	10 55 35.5	-1.8
R32A	Long Quarter,	2.48	340		Pn	10 55 35.9	+1.9
U38A	Gravette	2.63	82		Pn	10 55 38.1	+2.1
Z35A	Perchaven, San	2.78	174		Pn	10 55 40.5	+2.5
HHAR	Hobbs	2.98	85		Pn	10 55 41.7	+1.0
FW03	Perrin-Whitt E	3.07	187		Pn	10 55 44.7	+2.6
FW06	Azle	3.12	179		Pn	10 55 45.8	+3.1
CBKS	Cedar Bluff	3.19	329		Pn	10 55 46.0	+2.2
CBKS				IAmb_Lg		10 56 38.2	
	comp=Z,104nm,0.7s						
PLPT	Palo Pinto	3.33	190		Pn	10 55 47.0	+1.4
FW07	Weatherford	3.39	182		Pn	10 55 49.6	+3.1
APMT	Aspermont	3.45	217		Pn	10 55 49.2	+1.9
AMTX	Amarillo	3.53	251		Pn	10 55 50.5	+2.0
TREL	Terrell	3.59	159		Pn	10 55 50.9	+1.8
TREL				IAmb_Lg		10 56 55.4	
	comp=Z,135nm,0.9s						
PH02	Texas Public H	3.60	260	IAmb_Lg		10 56 51.0	
	comp=Z,80nm,0.8s						
DKNS	Dickens	3.65	229		Pn	10 55 52.6	+2.6
DKNS				IAmb_Lg		10 56 53.6	
	comp=Z,118nm,1.1s						
MIAR	Mount Ida	3.65	114		Pn	10 55 52.1	+2.2
MIAR				IAmb_Lg		10 56 54.8	
	comp=Z,92nm,0.7s						
S39A	Bolivar	3.79	64	IAmb_Lg		10 56 51.7	
	comp=Z,65nm,0.8s						
ABTX	Abilene, Hawle	3.85	206	IAmb_Lg		10 56 55.9	
	comp=Z,77nm,0.8s						
SN07	Snyder 07	4.04	223		Pn	10 55 57.4	+2.0
SN07				IAmb_Lg		10 57 05.5	
	comp=Z,112nm,1.1s						
RTBA	Rita Blanca	4.16	276	IAmb_Lg		10 57 09.5	
	comp=Z,64nm,0.7s						
SN04	Snyder 4	4.17	221		Pn	10 55 59.6	+2.3
SN03	Snyder 3	4.19	222		Pn	10 55 59.9	+2.4
SN02	Snyder 2	4.22	221		Pn	10 56 00.4	+2.5
X40A	Basin Creek Fa	4.23	111		Pn	10 55 58.9	+1.0
X40A				IAmb_Lg		10 57 14.8	
	comp=Z,100nm,0.8s						
SN08	Arah	4.37	222		Pn	10 56 02.1	+2.2
POST	Post	4.41	228		Pn	10 56 02.4	+1.9
WLAR	White Oak Lake	4.41	122		Pn	10 56 01.9	+1.5
WLAR				IAmb_Lg		10 57 23.3	
	comp=Z,48nm,0.7s						
FCAR	Ozark Folk Cen	4.46	91		Pn	10 56 02.3	+1.2
FCAR				IAmb_Lg		10 57 14.7	
	comp=Z,72nm,0.9s						
P38A	Dawn	4.78	41	IAmb_Lg		10 57 37.8	
	comp=Z,62nm,0.7s						
R40A	Maddies Statio	4.79	61	IAmb_Lg		10 57 22.4	
	comp=Z,63nm,0.8s						
Z41A	Richland Creek	4.87	124	IAmb_Lg		10 57 40.6	
	comp=Z,58nm,0.8s						
KSCO	Kaye Shedlock'	4.93	308	IAmb_Lg		10 57 34.2	
	comp=Z,63nm,0.8s						
129A	Stewart Farms,	4.93	227		Pn	10 56 09.4	+1.7
BRDY	Brady	4.94	194	IAmb_Lg		10 57 33.4	
	comp=Z,64nm,0.8s						
SGCY	Sterling City	5.09	216	IAmb_Lg		10 57 51.0	
	comp=Z,83nm,0.7s						
LCAR	Lake Charles	5.23	88	IAmb_Lg		10 57 44.9	
	comp=Z,57nm,0.8s						
435B	Jarrell	5.30	180	IAmb_Lg		10 57 53.5	
	comp=Z,71nm,0.9s						
T42A	Van Buren	5.33	78	IAmb_Lg		10 57 46.0	
	comp=Z,50nm,0.7s						
CCM	Cathedral Cave	5.45	67	IAmb_Lg		10 57 50.9	
	comp=Z,65nm,0.7s						
T25A	Trinidad	5.57	283	IAmb_Lg		10 57 58.8	
	comp=Z,76nm,0.8s						
P40A	Paris	5.58	50	IAmb_Lg		10 57 55.1	
	comp=Z,81nm,0.8s						
OZNA	Ozona	5.94	211	IAmb_Lg		10 58 15.7	
	comp=Z,35nm,0.8s						
OGNE	Ogallala	5.95	326	IAmb_Lg		10 58 10.2	
	comp=Z,65nm,0.7s						
FVM	French Village	6.05	70	IAmb_Lg		10 58 06.0	
	comp=Z,46nm,0.7s						
143A	Socs Landing,	6.15	122	IAmb_Lg		10 58 25.9	
	comp=Z,37nm,0.8s						
MLDN	Muldoon	6.32	176	IAmb_Lg		10 58 32.7	
	comp=Z,37nm,0.9s						
MNHN	Monahans	6.40	224	IAmb_Lg		10 58 36.4	
	comp=Z,27nm,0.8s						
SLM	Saint Louis	6.40	64	IAmb_Lg		10 58 21.9	
	comp=Z,55nm,0.9s						
CGM3	Cape Girardeau	6.50	77	IAmb_Lg		10 58 20.5	
	comp=Z,67nm,0.7s						
Q24A	Divide	6.64	298	IAmb_Lg		10 58 34.9	
	comp=Z,29nm,0.8s						
HNDO	Hondo	6.70	193	IAmb_Lg		10 58 29.5	
	comp=Z,53nm,0.8s						
EF04	Eagle Ford 04	6.87	181	IAmb_Lg		10 58 36.2	
	comp=Z,58nm,0.9s						
S44A	Carbondale	6.88	74	IAmb_Lg		10 58 35.1	
	comp=Z,61nm,0.7s						
OXF	Oxford	6.89	101	IAmb_Lg		10 58 41.0	
	comp=Z,62nm,1.0s						
PECS	Pecos	7.03	230	IAmb_Lg		10 58 57.2	
	comp=Z,33nm,1.1s						
SAND	Sanderson	7.20	213	IAmb_Lg		10 59 01.5	
	comp=Z,40nm,0.7s						
TPB28		7.23	234	IAmb_Lg		10 58 56.8	
	comp=Z,41nm,0.8s						
TPB01	Permian Basin	7.28	227	IAmb_Lg		10 59 05.2	
	comp=Z,22nm,1.0s						
ANMO	Albuquerque	7.30	264	Pn	Pn	10 56 43.2	+2.9
	comp=Z,0.1nm,0.3s,baz=38,slow=7.2,SNR=4.0						
ANMO				Pg	Pg	10 57 08.6	-4.8
	comp=Z,0.7nm,0.3s,baz=81,slow=18,SNR=12						
ANMO				Lg	Lg	10 58 40.9	
	comp=Z,2.3nm,0.3s,baz=76,slow=6.5,SNR=6.7						
	comp=Z,0.6nm,0.7s						
ANMO				AML	AML		
ALQ	Albuquerque	7.30	263	IAmb_Lg		10 58 48.8	
	comp=Z,11nm,0.8s						
ALQ				IAmb_Lg		10 58 48.8	
	comp=Z,11nm,0.7s						
TASM	ASL Pad, Albuq	7.31	264	IAmb_Lg		10 58 48.8	
	comp=Z,11nm,0.8s						
TASM				IAmb_Lg		10 58 54.4	
	comp=Z,11nm,0.8s						
ISCO	Idaho Springs	7.32	303	IAmb_Lg		10 58 46.2	
	comp=Z,38nm,0.9s						
EF02	Christine	7.34	186	IAmb_Lg		10 58 50.8	
	comp=Z,40nm,0.8s						
ALPN	Alpine	7.62	223	IAmb_Lg		10 59 08.1	
	comp=Z,23nm,0.8s						

ECSD	**EROS Data Cent**	**7.67**	**5**	IAmb_Lg		10 59 01.6	
	comp=Z,32nm,1.1s						
L40A	**Anamosa**	**7.75**	**38**	IAmb_Lg		10 59 07.1	
	comp=Z,38nm,0.9s						
833A	**Chaparral WMA,**	**7.90**	**192**	IAmb_Lg		10 59 15.9	
	comp=Z,48nm,1.0s						
WVT	**Waverly**	**7.92**	**87**	IAmb_Lg		10 59 05.6	
	comp=Z,21nm,0.8s						
Y22A	**Socorro**	**7.97**	**257**	IAmb_Lg		10 59 26.7	
	comp=Z,22nm,1.1s						
Z47A	**Carrollton**	**8.38**	**107**	IAmb_Lg		10 59 43.5	
	comp=Z,30nm,1.0s						
TXAR	**Lajitas Array**	**8.46**	**219**	Pn	**Pn**	**10 56 55.9**	**-0.2**
	comp=Z,0.6nm,0.3s,baz=33,slow=12,SNR=36						
TXAR				Pg	Pb	10 57 26.4	+6.5
	comp=Z,0.5nm,0.3s,baz=23,slow=15,SNR=5.7						
TXAR				Lg	Lg	10 59 19.3	
	comp=Z,2.8nm,0.3s,baz=22,slow=28,SNR=6.8						
JFWS	**Jewell Farm**	**8.87**	**38**	IAmb_Lg		10 59 43.6	
	comp=Z,44nm,0.8s						
M44A	**Midewin, Midew**	**9.15**	**52**	IAmb_Lg		10 59 40.1	
	comp=Z,28nm,0.7s						
RSSD	**Black Hills**	**9.40**	**330**	IAmb_Lg		11 00 14.8	
	comp=Z,18nm,0.7s						
I40A	**Norwalk**	**9.45**	**32**	IAmb_Lg		11 00 13.0	
	comp=Z,30nm,1.0s						
K22A	**Casper**	**9.51**	**316**	IAmb_Lg		11 00 14.7	
	comp=Z,27nm,1.0s						
F33A	**5 Mile Ranch,**	**9.78**	**5**	IAmb_Lg		11 00 05.5	
	comp=Z,19nm,0.9s						
SPMN	**Marine on St.**	**9.82**	**20**	IAmb_Lg		11 00 15.3	
	comp=Z,17nm,0.7s						
TKL	**Tuckaleechee C**	**11.24**	**88**	Pn	**Pn**	**10 57 33.2**	**-0.9**
	comp=Z,0.1nm,0.3s,baz=247,slow=16,SNR=2.1						
TKL				Lg	Lg	11 00 42.5	
	comp=Z,0.9nm,0.3s,baz=189,slow=22,SNR=5.2						
	comp=Z,6.2nm,1.0s						
TKL				AML	AML		
PDAR	**Pinedale Array**	**11.38**	**309**	Pn	**Pn**	**10 57 36.8**	**+0.5**
	comp=Z,0.4nm,0.4s,baz=127,slow=15,SNR=8.9						
PDAR				Pg		10 58 20.8	
	comp=Z,0.6nm,0.3s,baz=121,slow=17,SNR=9.3						
PDAR				Lg	Lg	11 00 48.7	
	comp=Z,0.4nm,0.3s,baz=99,slow=31,SNR=2.5						
ULM	**Lac du Bonnet**	**14.20**	**5**	Pn	**Pn**	**10 58 12.2**	**-2.3**
	comp=Z,0.2nm,0.3s,baz=156,slow=12,SNR=2.0						
ULM				Sn	Sn	11 00 40.2	-12
	comp=Z,0.3nm,0.3s,baz=88,slow=20,SNR=1.7						
ULM				Lg	Lg	11 02 16.2	
	comp=Z,0.3nm,0.3s,baz=103,slow=18,SNR=3.1						
	comp=Z,1.5nm,0.7s						
ULM				AML	AML		

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*IDC **20** 10:55:45.6±8.2,20°.82N×121°.80E,h0^{km},mb3.9/4, mbtmp3.9/5,ML3.4/1,Error ellipse: s-maj=150.9km s-min=23.0km az=159.0*

*JMA **20** 10:55:48.2±0.8,21°N±3°×12°2E±°,h2^{km},MV4.1/15, TAIWAN REGION*

ISC 20 10:55:49.5±2.4**,20°.8N**±0°.2×**122°.2E**±0°.2**,h35**^{km}**,n21,** σ**1^{s}08**/21**,mb3.7**/4**,Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HATJ	**Hateruma jima**	**3.54**	**25**	*e*P	**Pn**	**10 56 42.4**	**+0.5**
HATJ				S	**Sn**	**10 57 22.2**	**-0.3**
JYNG	**Yonagunijimaku**	**3.66**	**11**	P	**Pn**	**10 56 46.0**	**+2.4**
IRIF	**Iriomote-Funau**	**3.76**	**22**	P	**Pn**	**10 56 45.5**	**+0.5**
IRIF				*e*S	**Sn**	**10 57 27.3**	**-0.8**
JKRS	**Kuro-shima**	**3.78**	**26**	*e*P	**Pn**	**10 56 46.1**	**+0.8**
JKRS				*e*S	**Sn**	**10 57 28.2**	**-0.3**
JIJ	**Ishigaki jima**	**3.95**	**27**	*e*P	**Pn**	**10 56 47.8**	**+0.2**
JIJ				*e*S	**Sn**	**10 57 31.7**	**-1.0**
JISG	**Ishigakijimahi**	**4.22**	**28**	*e*P	**Pn**	**10 56 51.8**	**+0.6**
JISG				S	**Sn**	**10 57 38.9**	**-0.4**
JTJ	**Tarama**	**4.44**	**31**	*e*S	**Sn**	**10 57 45.0**	**+0.2**
JMJ2	**Miyako jima3**	**4.85**	**36**	*e*S	**Sn**	**10 57 54.7**	**-0.2**
JOGS	**Gusukube**	**4.91**	**37**	*e*S	**Sn**	**10 57 57.2**	**+0.9**
JIKM	**Ikemajima**	**4.95**	**34**	*e*S	**Sn**	**10 57 57.9**	**+0.5**
JOW	**Kunigami**	**8.17**	**42**	Pn	**Pn**	**10 57 47.4**	**+1.8**
	1.0nm,0.3s,baz=118,slow=22,SNR=6.8						
JOW				Sn	**Sn**	**10 59 14.4**	**-2.2**
	0.7nm,0.3s,baz=271,slow=26,SNR=1.5						
	9.1nm,0.6s						
JOW				AML	AML		
SONM	**Songino Array**	**29.79**	**338**	P	**P**	**11 01 51.9**	**-1.1**
	0.6nm,0.7s,baz=111,slow=6.3,SNR=1.8						
	0.6nm,0.7s						
MKAR	**Makanchi Array**	**41.40**	**318**	P	**P**	**11 03 33.0**	**+0.6**
	0.6nm,0.5s,baz=110,slow=9.9,SNR=5.3						
	0.6nm,0.5s						
H11N1	**WAKE ISLAND Hy**	**41.86**	**83**	T	T	11 48 34.0	
	baz=277,slow=74,SNR=21						
H11N2	**WAKE ISLAND Hy**	**41.86**	**83**	T	T	11 48 37.6	
	baz=277,slow=74,SNR=24						
H11N3	**WAKE ISLAND Hy**	**41.88**	**83**	T	T	11 48 38.0	
	baz=277,slow=74,SNR=18						
H11S3	**WAKE ISLAND Hy**	**41.89**	**85**	T	T	11 48 34.5	
	baz=281,slow=75,SNR=64						
H11S1	**WAKE ISLAND Hy**	**41.90**	**85**	T	T	11 48 34.8	
	baz=281,slow=75,SNR=88						
H11S2	**WAKE ISLAND Hy**	**41.90**	**85**	T	T	11 48 36.1	
	baz=281,slow=75,SNR=74						
ZALV	**Zalesovo Beam**	**43.55**	**329**	P	**P**	**11 03 49.4**	**-0.3**
	0.9nm,0.5s,baz=128,slow=9.3,SNR=4.9						
	0.9nm,0.5s						
KURBB	**Kurchatov Arra**	**45.27**	**322**	P	**P**	**11 04 02.9**	**-0.5**
	1.2nm,0.3s,baz=118,slow=7.4,SNR=4.9						
	1.2nm,0.3s						

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*MOS **20** 10:59:01.9±0.8,44°.20N×15°.89E,h13^{km},mb4.3/11,Error ellipse: s-maj=4.4km s-min=2.8km az=98.0*

*BGR **20** 10:59:02.7±0.7,43°.98N×16°.16E,h10^{km},ML4.2/17,Error ellipse: s-maj=12.2km s-min=11.1km az=72.0*

*NAO **20** 10:59:02.8,44°.24N×15°.97E,h10^{km},MB3.7*

*PDG **20** 10:59:03.8±0.3,44°.04N×15°.81E,h7^{km}±1^{km},MD4.3/5, ML4.2/12,Error ellipse: s-maj=1.8km s-min=1.0km az=90.0*

*ROM **20** 10:59:03.7,44°.22N×15°.94E,h10^{km},mb4.5/17,Mwp4.0/3, Error ellipse: s-maj=1.4km s-min=0.2km az=226.0*

*NEIC **20** 10:59:03.4±1.5,44°.20N±0°.04×15°.98E±0°.06,h10^{km}±1^{km}, mb4.0/9,Error ellipse: s-maj=7.9km s-min=6.2km az=144.0*

*PRU **20** 10:59:04.9,44°.24N×15°.97E,h10^{km},M4.0*

*GFZ **20** 10:59:04.0±0.1,44°N±1°×1°6E±°,h10^{km},M4.2/49, mb4.6/49,ML4.0/72,Error ellipse: s-maj=3.6km s-min=2.6km az=49.3,confirmed*

*BEO **20** 10:59:05.6±0.4,44°.32N×16°.00E,h16^{km}±5^{km},ML4.0/19*

*IDC **20** 10:59:08.4±1.4,44°.35N×15°.98E,h51^{km}±13^{km},mb3.6/16, mbtmp3.8/28,ML3.7/13,MS3.5/5,Error ellipse: s-maj=11.0km s-min=10.4km az=173.0*

*SOF **20** 10:59:51.8,43°.44N±0°.09×20°.8E±0°.1,h10^{km}±14^{km}, MD3.0/6*

ISC 20 10:59:03.2±0.7**,44°.21N**±0°.02×**16°.01E**±0°.02**,h15**^{km}±4^{km}**, n537,**σ**1^{s}76**/646**,mb4.0**/23**,MS3.4**/4**,49C-35D, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KIJV	**Kijevo**	**0.35**	**125**	*i* Pg	**Pb**	**10 59 11.2**	**+0.1**
KIJV				Sg	**Sb**	**10 59 17.7**	**+1.1**
UDBI	**Udbina**	**0.36**	**331**	*i* Pg	**Pg**	**10 59 10.8**	**+0.1**
UDBI				Sg	**Sg**	**10 59 15.8**	**0.0**
MORI	**Morici**	**0.41**	**213**	*i* Pg	**Pg**	**10 59 11.2**	**-0.1**
MORI				Sg	**Sb**	**10 59 17.5**	**-0.5**
ZIRJ	**Zirje**	**0.61**	**206**	*i* Pg	**Pg**	**10 59 14.5**	**-0.7**
VIRC	**Vir**	**0.69**	**277**	*i* Pg	**Pg**	**10 59 15.6**	**-1.0**
VIRC				Sg	**Sg**	**10 59 24.2**	**-1.6**
DUGI	**Dugi Otok**	**0.72**	**253**	*i* Pg	**Pg**	**10 59 16.2**	**-1.0**
DUGI				Sg	**Sg**	**10 59 25.0**	**-1.6**
NVLJ	**Novalja**	**0.89**	**294**	*e*Pg	**Pb**	**10 59 18.9**	**-1.4**
NVLJ				Sg	**Sb**	**10 59 30.7**	**-1.4**
BLY	**Banja Luka**	**1.00**	**57**		**Pn**	**10 59 22.9**	**+0.1**
BLY	**Banja Luka**	**1.00**	**57**	*e*Pg	**Pn**	**10 59 22.8**	**+0.1**
BLY				*e*Sg	**Sn**	**10 59 37.3**	**+0.7**
BLY	**Banja Luka**	**1.00**	**57**	⇓P	**Pn**	**10 59 22.9**	**+0.1**
BLY	**Banja Luka**	**1.00**	**57**	⇑P	**Pn**	**10 59 22.9**	**+0.1**
BLY	**Banja Luka**	**1.00**	**57**	P	**Pn**	**10 59 23.0**	**+0.3**
BLY				AML	AML		
RABC	**Rab**	**1.03**	**302**	*i* Pg	**Pb**	**10 59 21.9**	**-0.9**
RABC				Sg	**Sb**	**10 59 35.0**	**-1.1**
HVAR	**Hvar**	**1.08**	**163**	*i* Pg	**Pb**	**10 59 23.2**	**-0.3**
HVAR				Sg	**Sn**	**10 59 39.5**	**+1.0**
RICI	**Ricice**	**1.08**	**131**	*i* Pg	**Pb**	**10 59 23.6**	**0.0**
RICI				Sg	**Sn**	**10 59 39.3**	**+0.7**
MAKA	**Makarska**	**1.18**	**141**	*i* Pg	**Pn**	**10 59 25.0**	**-0.1**
MAKA				Sg	**Sg**	**10 59 42.5**	**+1.4**
OZLJ	**Ozalj**	**1.46**	**345**	*i* Pn	**Pb**	**10 59 30.0**	**-0.1**
OZLJ				Sn	**Sb**	**10 59 49.3**	**+0.9**
MOSL	**Moslavina**	**1.50**	**20**	*i* Pn	**Pn**	**10 59 30.0**	**+0.3**
MOSL				Sn	**Sb**	**10 59 50.0**	**+0.3**
RIY	**Rijeka**	**1.56**	**316**	*i* Pn	**Pb**	**10 59 31.4**	**-0.4**
RIY				Sn	**Sb**	**10 59 51.1**	**-0.1**
RIY	**Rijeka**	**1.56**	**316**	*e*Pg	**Pb**	**10 59 31.9**	**+0.1**
RIY				*e*Sg	**Sg**	**10 59 53.6**	**+0.2**
GBRS	**Gornja Briga**	**1.57**	**328**	*i* Pn	**Pb**	**10 59 31.9**	**-0.1**
GBRS				*i* Sn	**Sg**	**10 59 53.5**	**-0.4**
LSTV	**Lastovo**	**1.58**	**156**	*i* Pn	**Pb**	**10 59 32.2**	**+0.1**
LSTV				Sn	**Sb**	**10 59 52.6**	**+0.9**
ZAG	**Zagreb**	**1.62**	**359**	P	**Pb**	**10 59 32.6**	**-0.2**
ZAG				S	**Sg**	**10 59 54.3**	**-1.0**
ZAG	**Zagreb**	**1.62**	**359**	*i* Pn	**Pb**	**10 59 32.3**	**-0.5**
ZAG				Sn	**Sb**	**10 59 53.3**	**+0.2**
ZAG	**Zagreb**	**1.62**	**359**	P	**Pb**	**10 59 32.6**	**-0.2**
ZAG				AML	AML		
CRES	**Cresnjevec Ost**	**1.67**	**347**	*i* Pn	**Pb**	**10 59 33.0**	**-0.6**
PTJ	**Puntijarka**	**1.70**	**359**	*e*P	**Pn**	**10 59 33.3**	**+0.9**
PTJ				S	**Sb**	**10 59 55.0**	**-0.4**
PTJ	**Puntijarka**	**1.70**	**359**	*i* Pn	**Pn**	**10 59 32.8**	**+0.4**
PTJ				Sn	**Sb**	**10 59 55.0**	**-0.4**
STON	**Ston**	**1.82**	**137**	*e*Pn	**Pb**	**10 59 35.7**	**-0.4**
STON				Sn	**Sb**	**10 59 58.8**	**+0.1**
STON	**Ston**	**1.82**	**137**	*e*Pn	**Pb**	**10 59 36.2**	**+0.1**
STON				*e*Sn	**Sg**	**11 00 01.7**	**+0.1**
LOBO	**Lobor**	**1.95**	**1**	*i* Pn	**Pn**	**10 59 36.5**	**+0.7**
LOBO				Sn	**Sn**	**11 00 00.7**	**+0.7**
KALN	**Kalnik**	**1.95**	**9**	*i* Pn	**Pn**	**10 59 36.1**	**+0.3**
KALN				Sn	**Sn**	**11 00 00.9**	**+0.8**
DBRK	**Dubrovnik**	**2.19**	**134**	*e*Pn	**Pb**	**10 59 41.4**	**-1.1**
DBRK				Sn	**Sb**	**11 00 09.6**	**+0.1**
TRI	**Trieste**	**2.19**	**314**	P	**Pn**	**10 59 39.1**	**0.0**
TRI	**Trieste**	**2.19**	**314**		**Pn**	**10 59 39.1**	**0.0**
CRNS	**Crni Vrh**	**2.24**	**327**	*i* Pn	**Pn**	**10 59 41.4**	**+1.5**
CRNS				*e*Sn	**Sb**	**11 00 11.7**	**+0.7**
GUMA	**Gualdo di Mace**	**2.25**	**240**		**Pn**	**10 59 40.3**	**+0.3**
BRY	**Bratogost**	**2.26**	**124**	⇑*i*Pn	**Pb**	**10 59 43.2**	**-0.5**
BRY				*e*Sn	**Sb**	**11 00 13.4**	**+1.9**
BRY				AML	AML		
BEHE	**Becsehely**	**2.33**	**13**		**Pn**	**10 59 41.7**	**+0.7**
BEHE	**Becsehely**	**2.33**	**13**	P	**Pn**	**10 59 42.1**	**+1.1**
BEHE				AML	AML		
UPM	**Unac-Piva**	**2.33**	**115**	⇓*i*Pn	**Pb**	**10 59 45.0**	**0.0**
UPM				*i* Sn	**Sg**	**11 00 16.1**	**-1.9**
UPM				AML	AML		
KOVH	**Kovagotottos**	**2.39**	**37**	⇓P	**Pn**	**10 59 42.2**	**+0.3**
FDMO	**Fiordimonte**	**2.42**	**242**		**Pn**	**10 59 42.4**	**+0.1**
SABO	**M.te Sabotino**	**2.46**	**317**		**Pn**	**10 59 43.0**	**+0.2**
SGRT	**San Giovanni R**	**2.46**	**185**		**Pn**	**10 59 43.0**	**+0.1**
BBLS	**Lazi&#263i**	**2.47**	**97**	*e*Pn	**Pb**	**10 59 45.7**	**-1.7**
BBLS				*e*Sn	**Sb**	**11 00 16.5**	**-1.2**
NRCA	**Norcia**	**2.51**	**238**		**Pn**	**10 59 43.9**	**+0.3**
OBKA	**Obir**	**2.52**	**336**		**Pn**	**10 59 44.7**	**+1.0**
OBKA	**Obir**	**2.52**	**336**	*e*Pn	**Pn**	**10 59 44.7**	**+1.0**
	36nm,0.2s,SNR=369						
OBKA				Sn	**Sb**	**11 00 17.0**	**-2.1**
	397nm,0.4s						
OBKA	**Obir**	**2.52**	**336**	P	**Pn**	**10 59 45.1**	**+1.4**
OBKA				AML	AML		
HCY	**Herceg Novi**	**2.53**	**133**	⇓*i*Pn	**Pb**	**10 59 46.1**	**-2.2**
HCY				*e*Sn	**Sb**	**11 00 19.1**	**-0.1**
HCY				AML	AML		
TEKS	**Tekeris**	**2.55**	**81**	*e*Pn	**Pn**	**10 59 45.7**	**+1.7**
SOKA	**Soboth**	**2.56**	**345**		**Pn**	**10 59 45.4**	**+1.1**
SOKA					**Sn**	**11 00 14.6**	**-0.7**
SOKA	**Soboth**	**2.56**	**345**	*e*Pn	**Pn**	**10 59 45.4**	**+1.1**
	29nm,0.3s,SNR=29						
SOKA				*e*Pg	**Pg**	**10 59 51.7**	**-0.7**
	141nm,0.3s						
SOKA				Sn	**Sn**	**11 00 14.6**	**-0.7**
	170nm,0.5s						
CADS	**Cadrg**	**2.58**	**322**	*i* Pn	**Pn**	**10 59 45.4**	**+0.9**
DRE	**Drenchia**	**2.58**	**320**	P	**Pn**	**10 59 45.4**	**+0.9**
DRE				AML	AML		
NKME	**Niksic**	**2.58**	**123**	*e*Pn	**Pb**	**10 59 47.7**	**-1.5**
NKME				*e*Sn	**Sb**	**11 00 22.3**	**+1.5**
NKME				AML	AML		
PLE	**Pljevlja**	**2.60**	**109**	⇓*i*Pn	**Pb**	**10 59 48.7**	**-0.9**
PLE				*e*Sn	**Sb**	**11 00 23.9**	**+2.5**
PLE				AML	AML		
AQU	**L'Aquila**	**2.66**	**227**	P	**Pn**	**10 59 45.9**	**+0.4**
AQU	**L'Aquila**	**2.66**	**227**		**Pn**	**10 59 45.9**	**+0.4**
AQU	**L'Aquila**	**2.66**	**227**	⇑P	**Pn**	**10 59 46.1**	**+0.6**
AQU	**L'Aquila**	**2.66**	**227**	P	**Pn**	**10 59 46.4**	**+0.9**
AQU				AML	AML		
INTR	**Introdacqua**	**2.68**	**216**		**Pn**	**10 59 45.7**	**-0.2**
CEME	**Cevo**	**2.69**	**127**	⇓*i*Pn	**Pb**	**10 59 48.9**	**-2.2**
CEME				*e*Sn	**Sb**	**11 00 23.7**	**-0.3**
CEME				AML	AML		
MURB	**Monte Urbino**	**2.70**	**251**		**Pn**	**10 59 46.8**	**+0.6**
MORH	**Mrgy, Hungar**	**2.74**	**42**	⇓P	**Pn**	**10 59 47.0**	**+0.4**
MORH	**Mrgy, Hungar**	**2.74**	**42**	P	**Pn**	**10 59 47.0**	**+0.4**
MORH				AML	AML		
PRED	**Cave del Predi**	**2.82**	**323**		**Pn**	**10 59 47.7**	**-0.2**
PRED	**Cave del Predi**	**2.82**	**323**	P	**Pn**	**10 59 49.0**	**+1.1**
PRED				AML	AML		
BUM	**Brajici-Budva**	**2.84**	**131**	⇓*i*Pn	**Pn**	**10 59 50.8**	**+2.7**
BUM				*e*Sn	**Sb**	**11 00 26.6**	**-1.7**
BUM				AML	AML		
DIVS	**Divibare**	**2.87**	**91**	*e*Pn	**Pn**	**10 59 51.0**	**+2.5**
FRGS	**Fruska Gora**	**2.87**	**69**	*e*Pn	**Pn**	**10 59 49.5**	**+1.0**
FRGS				*e*Sn	**Sn**	**11 00 24.9**	**+2.1**
PTCC	**Patocco-Chiusa**	**2.89**	**320**	⇑P	**Pn**	**10 59 49.6**	**+0.9**
KOME	**Kolasin**	**2.89**	**117**	⇓*i*Pn	**Pb**	**10 59 53.0**	**-1.5**
KOME				*e*Sn	**Sb**	**11 00 29.6**	**-0.1**
KOME				AML	AML		
ACOM	**Acomizza, Ital**	**2.93**	**324**	P	**Pn**	**10 59 50.8**	**+1.4**
ACOM				AML	AML		
MYKA	**Terra Mystica**	**2.94**	**326**		**Pn**	**10 59 50.6**	**+1.1**
MYKA	**Terra Mystica**	**2.94**	**326**	*e*Pn	**Pn**	**10 59 50.6**	**+1.1**
	9.4nm,0.2s,SNR=38						
MYKA				Sn	**Sn**	**11 00 27.3**	**+2.8**
	85nm,0.4s						
PDG	**Podgorica**	**2.96**	**126**		**Pn**	**10 59 52.3**	**+2.7**
PDG	**Podgorica**	**2.96**	**126**	*e*Pn	**Pn**	**10 59 52.5**	**+2.9**
PDG				*e*Sn	**Sn**	**11 00 28.2**	**+3.3**
PDG	**Podgorica**	**2.96**	**126**	⇑P	**Pn**	**10 59 52.7**	**+3.0**
PDG	**Podgorica**	**2.96**	**126**	⇓P	**Pb**	**10 59 53.5**	**-2.1**
PDG	**Podgorica**	**2.96**	**126**	P	**Pb**	**10 59 52.9**	**-2.8**
PDG				AML	AML		
PDG	**Podgorica**	**2.96**	**126**	*e*Pn	**Pn**	**10 59 52.6**	**+2.9**
PDG				*e*Sn	**Sb**	**11 00 30.3**	**-1.3**
PDG				AML	AML		
CESX	**Cesi**	**2.96**	**239**		**Pn**	**10 59 49.9**	**+0.2**
SJES	**Sjenica**	**3.02**	**107**	*e*Pn	**Pb**	**10 59 54.2**	**-2.6**
SJES				*e*Sn	**Sb**	**11 00 30.6**	**-3.0**
FUSE	**Fusea**	**3.06**	**317**	P	**Pn**	**10 59 51.6**	**+0.6**
FUSE				AML	AML		
IVAS	**Ivanjica**	**3.06**	**100**	*e*Pn	**Pn**	**10 59 53.3**	**+2.2**
IVAS				*e*Sn	**Sn**	**11 00 30.2**	**+2.7**
ARSA	**Arzberg**	**3.06**	**354**		**Pn**	**10 59 52.2**	**+1.1**
ARSA	**Arzberg**	**3.06**	**354**		**Sn**	**11 00 28.7**	**+1.2**
ARSA	**Arzberg**	**3.06**	**354**	⇓P	**Pn**	**10 59 52.0**	**+0.9**
ARSA	**Arzberg**	**3.06**	**354**	*i* Pn	**Pn**	**10 59 52.0**	**+0.9**
	12nm,0.1s,SNR=221						
ARSA				*e*Sn	**Sn**	**11 00 28.7**	**+1.2**
	104nm,0.4s						
ARSA	**Arzberg**	**3.06**	**354**	P	**Pn**	**10 59 52.2**	**+1.1**
ARSA				AML	AML		
SESA	**Seetaler Alpe,**	**3.08**	**341**	*i* Pn	**Pn**	**10 59 52.7**	**+1.2**
	65nm,0.3s,SNR=213						
SESA				*e*Pg	**Pg**	**11 00 01.6**	**-0.5**
	407nm,0.3s						
SESA				*e*Sn	**Sn**	**11 00 28.7**	**+0.6**
	274nm,0.3s						
DRME	**Dracevica, Mon**	**3.08**	**130**	⇓*i*Pn	**Pn**	**10 59 54.1**	**+2.8**
DRME				*e*Sn	**Sb**	**11 00 32.5**	**-2.5**
DRME				AML	AML		
STAL	**STALIGIAL**	**3.10**	**313**		**Pn**	**10 59 51.8**	**+0.1**
MGAB	**Montegabbione**	**3.11**	**247**	⇑P	**Pn**	**10 59 52.6**	**+0.8**
IVA	**Berane**	**3.12**	**114**	⇑*i*Pn	**Pb**	**10 59 56.0**	**-2.5**
MPLH	**Magyarpolny**	**3.15**	**19**	P	**Pn**	**10 59 53.0**	**+0.7**
MPLH				AML	AML		
TRUS	**Trudelj**	**3.16**	**88**	*e*Pn	**Pn**	**10 59 54.4**	**+2.0**
TRUS				*e*Sn	**Sn**	**11 00 31.3**	**+1.4**
AVAS	**Avala Beograd**	**3.26**	**80**	*e*Pn	**Pn**	**10 59 55.6**	**+1.8**
AVAS				*e*Sn	**Sn**	**11 00 32.5**	**+0.1**
ULC	**Ulcinj**	**3.26**	**132**	⇑*i*Pn	**Pn**	**10 59 56.0**	**+2.1**
ULC				*e*Sn	**Sb**	**11 00 36.7**	**-3.7**
ULC				AML	AML		
TEOL	**Teolo**	**3.30**	**292**		**Pn**	**10 59 54.1**	**-0.2**
PVY	**Plav**	**3.30**	**118**	*e*Pn	**Pn**	**10 59 57.8**	**+3.3**
PVY				*e*Sn	**Sb**	**11 00 39.1**	**-2.4**
PVY				AML	AML		
PAOL	**Paolisi**	**3.35**	**199**		**Pn**	**10 59 55.6**	**+0.6**
GRUS	**Gruza**	**3.41**	**94**	*e*Pn	**Pn**	**10 59 58.2**	**+2.4**
CGRP	**Cima Grappa**	**3.42**	**301**	P	**Pn**	**10 59 56.7**	**+0.6**
CGRP				AML	AML		
KBA	**Koelnbreinsper**	**3.42**	**328**	P	**Pn**	**10 59 57.7**	**+1.5**
KBA	**Koelnbreinsper**	**3.42**	**328**		**Pn**	**10 59 57.7**	**+1.5**
KBA	**Koelnbreinsper**	**3.42**	**328**	⇑P	**Pn**	**10 59 57.7**	**+1.5**
KBA	**Koelnbreinsper**	**3.42**	**328**	*i* Pn	**Pn**	**10 59 57.7**	**+1.5**
	16nm,0.3s,SNR=61						
KBA				*e*Sn	**Sn**	**11 00 38.2**	**+1.5**
	60nm,0.3s						
KBA	**Koelnbreinsper**	**3.42**	**328**	P	**Pn**	**10 59 57.9**	**+1.6**
KBA				AML	AML		
SOP	**Sopron**	**3.50**	**6**	P	**Pn**	**10 59 57.0**	**0.0**
SOP	**Sopron**	**3.50**	**6**	P	**Pn**	**10 59 58.0**	**+0.9**
SOP				AML	AML		
RONA	**Rosalia, Austr**	**3.50**	**3**		**Pn**	**10 59 58.1**	**+1.0**
RONA	**Rosalia, Austr**	**3.50**	**3**	*i* Pn	**Pn**	**10 59 58.1**	**+1.0**
	26nm,0.2s,SNR=114						
RONA				*e*Sn	**Sn**	**11 00 38.5**	**+0.2**
	72nm,0.2s						
ABTA	**Abfaltersbach**	**3.54**	**317**		**Pn**	**10 59 58.2**	**+0.5**
ABTA	**Abfaltersbach**	**3.54**	**317**	*i* Pn	**Pn**	**10 59 58.2**	**+0.5**
	5.7nm,0.2s,SNR=63						
GOCS	**Kraljevo Serbi**	**3.58**	**99**	*e*Pn	**Pn**	**11 00 00.8**	**+2.6**
GOCS				*e*Sn	**Sn**	**11 00 43.6**	**+3.3**
CTI	**Castel Tesino**	**3.59**	**302**	P	**Pn**	**10 59 58.7**	**+0.2**
CTI	**Castel Tesino**	**3.59**	**302**		**Pn**	**10 59 58.7**	**+0.2**
MATE	**Matera**	**3.59**	**172**	⇑P	**Pn**	**10 59 58.7**	**+0.4**
MATE	**Matera**	**3.59**	**172**	⇑P	**Pn**	**10 59 59.1**	**+0.7**
MATE	**Matera**	**3.59**	**172**	P	**Pn**	**10 59 58.8**	**+0.5**
MATE				AML	AML		
ZCCA	**Zocca**	**3.62**	**274**		**Pn**	**10 59 60.0**	**+1.2**
CONA	**Conrad Observa**	**3.72**	**358**	*i* Pn	**Pn**	**11 00 01.2**	**+1.0**
	30nm,0.3s,SNR=174						
CONA				*e*Sn	**Sn**	**11 00 43.8**	**-0.1**
	75nm,0.4s						
SVIS	**Svilajnac**	**3.74**	**87**	*e*Pn	**Pn**	**11 00 03.2**	**+2.8**
SELS	**Selova**	**3.83**	**103**	*e*Pn	**Pn**	**11 00 04.8**	**+3.1**
SELS				*e*Sn	**Sn**	**11 00 47.7**	**+1.2**
MOA	**Molln**	**3.84**	**342**		**Pn**	**11 00 03.7**	**+1.9**
MOA	**Molln**	**3.84**	**342**	*i* Pn	**Pn**	**11 00 03.7**	**+1.9**
	39nm,0.4s,SNR=65						
MOA				*e*Sn	**Sn**	**11 00 48.0**	**+1.4**
	96nm,0.3s						
MOA	**Molln**	**3.84**	**342**	P	**Pn**	**11 00 04.0**	**+2.2**
MOA				AML	AML		
BIOA	**Bad Ischl, Aus**	**3.86**	**335**		**Pn**	**11 00 03.6**	**+1.6**
BIOA	**Bad Ischl, Aus**	**3.86**	**335**	*i* Pn	**Pn**	**11 00 03.6**	**+1.6**
	36nm,0.4s,SNR=62						
BIOA				*e*Sn	**Sn**	**11 00 49.6**	**+2.5**
	136nm,0.5s						
BUD	**Budapest**	**3.90**	**32**	P	**Pn**	**11 00 02.6**	**+0.1**
BUD	**Budapest**	**3.90**	**32**	P	**Pn**	**11 00 02.5**	**+0.1**
BUD				AML	AML		
WINA	**Alland / Wiene**	**3.90**	**1**	*i* Pn	**Pn**	**11 00 04.0**	**+1.4**
	8.5nm,0.2s,SNR=73						
WINA				*e*Sn	**Sn**	**11 00 48.7**	**+0.6**
	32nm,0.2s						
VRSS	**Vrsac**	**3.90**	**75**	*e*Pn	**Pn**	**11 00 03.5**	**+0.9**
VRSS				*e*Sn	**Sn**	**11 00 48.1**	**-0.1**
MARCO	**Tramutola**	**3.91**	**182**	P	**Pn**	**11 00 03.1**	**+0.3**
MARCO				AML	AML		
SRO	**Srobarova**	**3.95**	**23**	*e*P	**Pn**	**11 00 06.6**	**+3.4**
SRO				*e*		11 00 51.3	
SRO	**Srobarova**	**3.95**	**23**	*e*PN	**Pn**	**11 00 06.6**	**+3.4**
SRO				*e*SN	**Sn**	**11 00 51.3**	**+2.1**
SRO	**Srobarova**	**3.95**	**23**	P	**Pn**	**11 00 06.9**	**+3.6**
SRO				AML	AML		
LESA	**Schwarzleotal**	**3.97**	**325**		**Pn**	**11 00 05.1**	**+1.4**
LESA	**Schwarzleotal**	**3.97**	**325**	*i* Pn	**Pn**	**11 00 05.1**	**+1.4**
	12nm,0.2s,SNR=90						
LESA				*e*Sn	**Sn**	**11 00 52.4**	**+2.4**
	99nm,0.4s						
PII	**Pisa**	**3.99**	**265**	P	**Pn**	**11 00 05.0**	**+1.2**
CASP	**Castiglione de**	**4.00**	**251**		**Pn**	**11 00 03.8**	**-0.2**
TIR	**Tirane**	**4.03**	**134**	P	**Pn**	**11 00 06.7**	**+2.4**
TIR				S	**Sn**	**11 00 53.4**	**+2.1**
VLC	**Villacollemand**	**4.04**	**271**	⇑P	**Pn**	**11 00 04.9**	**+0.3**
VLC	**Villacollemand**	**4.04**	**271**	P	**Pn**	**11 00 05.2**	**+0.6**
VLC				AML	AML		
ZST	**Bratislava**	**4.06**	**10**	*e*P	**Pn**	**11 00 05.5**	**+0.7**
ZST				*e*		11 00 50.6	
ZST	**Bratislava**	**4.06**	**10**	*e*PN	**Pn**	**11 00 05.5**	**+0.7**
ZST				*e*SN	**Sn**	**11 00 50.6**	**-1.5**
ZST	**Bratislava**	**4.06**	**10**	P	**Pn**	**11 00 05.5**	**+0.7**
ZST				AML	AML		
KUBS	**Kucevo**	**4.07**	**85**	*e*Pn	**Pn**	**11 00 05.3**	**+0.3**
PRMA	**PARMA**	**4.11**	**280**		**Pn**	**11 00 06.2**	**+0.7**
PHP	**Peshkopia**	**4.12**	**126**	P	**Pn**	**11 00 09.0**	**+3.4**
PHP				S	**Sn**	**11 00 58.1**	**+4.6**
PHP	**Peshkopia**	**4.12**	**126**	P	**Pn**	**11 00 09.3**	**+3.7**
PHP				AML	AML		
MDVR	**Moldovita**	**4.12**	**80**	⇑P	**Pn**	**11 00 07.3**	**+1.6**
SALO	**Salr**	**4.14**	**292**		**Pn**	**11 00 06.4**	**+0.4**
SALO	**Salr**	**4.14**	**292**	⇑P	**Pn**	**11 00 06.0**	**0.0**
BOVS	**Bovan**	**4.16**	**96**	*e*Pn	**Pn**	**11 00 08.5**	**+2.4**
BOVS	**Bovan**	**4.16**	**96**	⇓P	**Pn**	**11 00 09.1**	**+3.0**
RJOB	**Jochberg**	**4.18**	**329**	*e*Pn	**Pn**	**11 00 08.4**	**+1.9**
RJOB				*e*Sn	**Sn**	**11 00 58.7**	**+3.6**
RJOB	**Jochberg**	**4.18**	**329**	P	**Pn**	**11 00 08.5**	**+2.0**
RJOB				AML	AML		
CUC	**Castrocucco**	**4.21**	**182**		**Pn**	**11 00 07.8**	**+0.8**
CUC	**Castrocucco**	**4.21**	**182**	⇑P	**Pn**	**11 00 07.7**	**+0.7**
CUC	**Castrocucco**	**4.21**	**182**	P	**Pn**	**11 00 08.0**	**+1.0**
CUC				AML	AML		
BZS	**Buzias**	**4.23**	**69**	⇑P	**Pn**	**11 00 09.0**	**+1.9**
BZS	**Buzias**	**4.23**	**69**	⇑P	**Pn**	**11 00 08.9**	**+1.8**
BZS	**Buzias**	**4.23**	**69**	P	**Pn**	**11 00 09.2**	**+2.1**
BZS				AML	AML		
MODS	**Modra-Piesok**	**4.26**	**11**	*e*P	**Pn**	**11 00 07.9**	**+0.4**
MODS				*e*		11 00 55.1	
MODS	**Modra-Piesok**	**4.26**	**11**	*e*PN	**Pn**	**11 00 07.9**	**+0.4**
MODS				*e*SN	**Sn**	**11 00 55.1**	**-1.9**
MODS	**Modra-Piesok**	**4.26**	**11**	P	**Pn**	**11 00 08.2**	**+0.7**
MODS				AML	AML		
WTTA	**Wattenberg**	**4.33**	**316**	P	**Pn**	**11 00 09.8**	**+1.2**
WTTA	**Wattenberg**	**4.33**	**316**		**Pn**	**11 00 09.8**	**+1.2**
WTTA	**Wattenberg**	**4.33**	**316**	*i* Pn	**Pn**	**11 00 09.8**	**+1.2**
	19nm,0.2s,SNR=186						
WTTA				*e*Sn	**Sn**	**11 01 00.4**	**+1.5**
	112nm,0.5s						
WTTA	**Wattenberg**	**4.33**	**316**	P	**Pn**	**11 00 11.0**	**+2.4**
WTTA				AML	AML		
BORS2	**Bor- Borsko je**	**4.33**	**89**	*e*Pn	**Pn**	**11 00 09.2**	**+0.7**
WATA	**Walderalm**	**4.40**	**317**	P	**Pn**	**11 00 11.2**	**+1.6**
WATA	**Walderalm**	**4.40**	**317**		**Pn**	**11 00 11.2**	**+1.6**
WATA	**Walderalm**	**4.40**	**317**	*i* Pn	**Pn**	**11 00 11.2**	**+1.6**
	88nm,0.2s,SNR=165						
WATA				*e*Sn	**Sn**	**11 01 03.4**	**+2.6**
	35nm,0.2s						
SMOL	**Smolenice**	**4.42**	**12**	*e*P	**Pn**	**11 00 10.4**	**+0.7**
SMOL				*e*		11 01 00.6	
BARS	**Barje**	**4.45**	**106**	*e*Pn	**Pn**	**11 00 13.0**	**+2.9**
BARS				*e*Sn	**Sn**	**11 01 02.2**	**+0.6**
ABNA	**Allensteig Bun**	**4.48**	**355**	*i* Pn	**Pn**	**11 00 11.9**	**+1.3**
	55nm,0.3s						
ABNA				*i* Sn	**Sn**	**11 01 02.2**	**-0.3**
	25nm,0.1s						
SIRR	**Siria**	**4.49**	**61**	⇓P	**Pn**	**11 00 14.1**	**+3.4**
ZAGS	**Zajecar**	**4.51**	**93**	*e*Pn	**Pn**	**11 00 13.1**	**+2.2**
ZAGS				*e*Sn	**Sn**	**11 01 05.3**	**+2.2**
SQTA	**Sankt Quirin**	**4.51**	**314**	P	**Pn**	**11 00 12.9**	**+1.7**
SQTA	**Sankt Quirin**	**4.51**	**314**		**Pn**	**11 00 12.9**	**+1.7**
SQTA	**Sankt Quirin**	**4.51**	**314**	*i* Pn	**Pn**	**11 00 12.9**	**+1.7**
	30nm,0.2s,SNR=102						
SQTA				*e*Sn	**Sn**	**11 01 05.2**	**+1.8**
	61nm,0.3s						
SKO	**Skopje**	**4.56**	**117**	*i* Pn	**Pn**	**11 00 15.3**	**+3.6**
SKO				*i* Sn	**Sn**	**11 01 09.2**	**+4.8**

KW1	Garching a.d.	4.58	330	ePn	Pn	11 00 13.9	+2.0
KW1				eSn	Sn	11 01 06.7	+1.9
PSZ	Piszkesteto	4.59	35		Pn	11 00 12.2	0.0
PSZ	Piszkesteto	4.59	35	⇓P	Pn	11 00 12.2	0.0
PSZ	Piszkesteto	4.59	35	⇑P	Pn	11 00 14.8	+2.7
PSZ	Piszkesteto	4.59	35	P	Pn	11 00 13.9	+1.7
PSZ				AML	AML		
SURR	Surduc	4.61	68	⇑P	Pn	11 00 14.8	+2.5
HERR	Herculane	4.63	79	⇓P	Pn	11 00 09.4	-3.2
MOTA	Moosalm	4.65	314	P	Pn	11 00 14.6	+1.6
MOTA	Moosalm	4.65	314		Pn	11 00 14.6	+1.6
MOTA	Moosalm	4.65	314	i Pn	Pn	11 00 14.6	+1.6
	22nm,0.4s,SNR=58						
MOTA				eSn	Sn	11 01 08.8	+2.0
	57nm,0.5s						
FETA	Feichten	4.65	309		Pn	11 00 14.5	+1.4
FETA	Feichten	4.65	309	i Pn	Pn	11 00 14.5	+1.4
	6.2nm,0.2s,SNR=50						
OHR	Ohrid	4.70	130	i Pn	Pn	11 00 17.4	+3.8
OHR				i Sn	Sn	11 01 14.8	+6.9
FUORN	Ofenpass-Fuorn	4.71	303		Pn	11 00 14.6	+0.7
FUORN	Ofenpass-Fuorn	4.71	303	P	Pn	11 00 15.5	+1.5
FUORN				AML	AML		
VYHS	Vyhne	4.71	24	eP	Pn	11 00 14.4	+0.6
VYHS				e		11 01 06.7	
VYHS	Vyhne	4.71	24	ePN	Pn	11 00 14.4	+0.6
VYHS				eSN	Sn	11 01 06.7	-1.5
VYHS	Vyhne	4.71	24	P	Pn	11 00 14.8	+1.0
VYHS				AML	AML		
BOB	Bobbio (Coli)	4.73	279	⇑P	Pn	11 00 14.8	+0.8
BOB	Bobbio (Coli)	4.73	279	⇑P	Pn	11 00 14.8	+0.8
PART	Garmisch-Parte	4.75	316	ePn	Pn	11 00 16.2	+2.0
CKRC	Cesky Krumlov	4.76	346	eP	Pn	11 00 16.8	+2.4
CKRC				e		11 01 09.1	
CKRC	Cesky Krumlov	4.76	346	ePN	Pn	11 00 16.8	+2.4
CKRC				eSN	Sn	11 01 09.1	-0.2
CKRC	Cesky Krumlov	4.76	346	ePn	Pn	11 00 16.9	+2.5
CKRC				eSn	Sn	11 01 09.6	+0.3
ZUGS	Zugspitze, Sch	4.76	314	ePn	Pn	11 00 16.5	+1.8
JAVC	Velka Javorina	4.79	13	ePN	Pn	11 00 16.5	+1.6
JAVC				eSN	Sn	11 01 07.6	-2.6
JAVC	Velka Javorina	4.79	13	ePn	Pn	11 00 16.5	+1.6
JAVC	Velka Javorina	4.79	13	P	Pn	11 00 16.4	+1.5
JAVC				AML	AML		
KRUC	Moravsky	4.86	3	P	Pn	11 00 16.9	+1.1
KRUC	Moravsky	4.86	3	ePN	Pn	11 00 16.5	+0.7
KRUC				eSN	Sn	11 01 08.1	-3.7
KRUC	Moravsky	4.86	3	ePn	Pn	11 00 16.8	+1.1
KRUC				eSn	Sn	11 01 10.1	-1.7
KRUC	Moravsky	4.86	3	P	Pn	11 00 16.9	+1.1
KRUC				AML	AML		
ZAPS	Zavoj	4.89	99	ePn	Pn	11 00 18.9	+2.7
ZAPS				eSn	Sn	11 01 12.0	-0.6
GEC2	GERESS Array S	4.90	342	P	Pn	11 00 18.1	+1.6
GEC2	GERESS Array S	4.90	342		Pn	11 00 17.4	+1.0
GEC2	GERESS Array S	4.90	342	ePn	Pn	11 00 17.6	+1.1
GEC2				eSn	Sn	11 01 11.9	-1.1
GEC2	GERESS Array S	4.90	342	P	Pn	11 00 18.1	+1.6
GEC2				AML	AML		
GERES	GERESS Array B	4.90	342	P	Pn	11 00 17.7	+1.2
	2.4nm,0.3s,baz=152,slow=15,SNR=289						
GERES				S	Sn	11 01 11.9	-1.1
	128nm,0.3s,baz=152,slow=24,SNR=31						
GERES				AML	AML		
GERES	GERESS Array B	4.90	342		Pn	11 00 17.9	+1.4
RETA	Reutte	4.92	314		Pn	11 00 18.0	+1.4
RETA	Reutte	4.92	314	i Pn	Pn	11 00 18.0	+1.4
	2.1nm,0.1s,SNR=46						
RETA				eSn	Sn	11 01 16.8	+3.5
	50nm,0.6s						
GZR	Gura Zlata	4.96	74	⇑P	Pn	11 00 19.9	+2.7
GZR	Gura Zlata	4.96	74	⇑P	Pn	11 00 19.9	+2.7
BORR	Bors	4.97	53	⇓P	Pg	11 00 39.6	+1.2
BE1	Monatshausen	4.98	320	ePn	Pn	11 00 18.9	+1.4
DAVOX	Davos/Dischmat	5.02	303	P	Pn	11 00 19.5	+1.4
	15nm,0.3s,baz=112,slow=11,SNR=104						
DAVOX				S	Sn	11 01 16.9	+0.9
	32nm,0.3s,baz=353,slow=24,SNR=3.5						
	32nm,0.3s						
DAVOX				AML	AML		
BOSS	Bosilegrad	5.02	108	ePn	Pn	11 00 20.5	+2.5
BOSS				eSn	Sn	11 01 17.0	+1.3
KBN	Korca	5.03	134	P	Pn	11 00 21.3	+3.1
KBN	Korca	5.03	134	P	Pn	11 00 21.1	+2.9
	comp=Z,0.4nmcomp=Z,40nm,0.7s						
KBN				AML	AML		
TIP	Timpagrande	5.06	173		Pn	11 00 19.3	+0.8
TIP	Timpagrande	5.06	173	⇓P	Pn	11 00 19.8	+1.2
TIP	Timpagrande	5.06	173	⇑P	Pn	11 00 20.3	+1.8
TIP	Timpagrande	5.06	173	P	Pn	11 00 20.1	+1.5
	comp=Z,0.1nmcomp=Z,44nm,0.5s						
TIP				AML	AML		
TREC	Trest	5.10	356	P	Pn	11 00 20.2	+1.1
TREC				S	Sn	11 01 16.8	-0.9
TREC	Trest	5.10	356	P	Pn	11 00 21.1	+2.0
	comp=Z,0.3nmcomp=Z,60nm,0.5s						
TREC				AML	AML		
VRAC	Vranov	5.12	4	P	Pn	11 00 20.2	+0.9
	comp=Z,7.9nm,0.3s,baz=189,slow=13,SNR=36						
VRAC				S	Sn	11 01 17.8	-0.3
	comp=Z,31nm,0.3s,baz=254,slow=20,SNR=10						
VRAC				AML	AML		
VRAC	Vranov	5.12	4	ePN	Pn	11 00 20.2	+0.9
VRAC				eSN	Sn	11 01 13.2	-4.9
VRAC	Vranov	5.12	4	⇑P	Pn	11 00 20.1	+0.9
VRAC	Vranov	5.12	4	ePn	Pn	11 00 20.2	+0.9
VRAC				eSn	Sn	11 01 18.3	+0.2
VRAC	Vranov	5.12	4	P	Pn	11 00 20.8	+1.4
	comp=Z,0.1nmcomp=Z,24nm,0.6s						
VRAC				AML	AML		
FUR	Furstenfeldbru	5.14	322	P	Pn	11 00 21.3	+1.6
FUR	Furstenfeldbru	5.14	322	ePn	Pn	11 00 20.9	+1.2
FUR	Furstenfeldbru	5.14	322	P	Pn	11 00 21.3	+1.6
	comp=Z,0.8nmcomp=Z,248nm,0.8s						
FUR				AML	AML		
DEV	Deva	5.17	69	⇓P	Pn	11 00 23.0	+3.1
DEV	Deva	5.17	69	⇓P	Pn	11 00 23.0	+3.1
DEV	Deva	5.17	69	P	Pn	11 00 22.7	+2.8
	comp=Z,0.2nmcomp=Z,36nm,0.8s						
DEV				AML	AML		
KHC	Kasperske Hory	5.20	342	⇑iP	Pn	11 00 21.4	+0.9
KHC	Kasperske Hory	5.20	342	ePN	Pn	11 00 21.6	+1.1
KHC				eSN	Sn	11 01 19.4	-0.8
KHC	Kasperske Hory	5.20	342		Pn	11 00 21.2	+0.7
KHC	Kasperske Hory	5.20	342	⇓P	Pn	11 00 21.8	+1.3
KHC	Kasperske Hory	5.20	342	ePn	Pn	11 00 21.8	+1.3
KHC				eSn	Sn	11 01 18.6	-1.6
KHC	Kasperske Hory	5.20	342	P	Pn	11 00 22.0	+1.5
	comp=Z,0.2nmcomp=Z,48nm,1.1s						
KHC				AML	AML		
LTVH	Ltavrtes, Hu	5.20	50	⇑P	Pg	11 00 47.3	+4.6
TUE	Stuetta	5.21	298		Pn	11 00 21.6	+0.8
TUE	Stuetta	5.21	298	⇑P	Pn	11 00 21.9	+1.1
TUE	Stuetta	5.21	298	P	Pn	11 00 22.2	+1.4
	comp=Z,0.2nmcomp=Z,60nm,0.7s						
TUE				AML	AML		
SRN	Sarande	5.25	144	P	Pn	11 00 22.4	+1.4
SRN				AML	AML		
DAVA	Damuels	5.28	308		Pn	11 00 22.7	+1.0
DAVA	Damuels	5.28	308	⇓P	Pn	11 00 22.9	+1.2
DAVA	Damuels	5.28	308	i Pn	Pn	11 00 22.7	+1.0
	comp=Z,20nm,0.3s,SNR=37						
DAVA				eSn	Sn	11 01 24.6	+2.2
	comp=Z,25nm,0.4s						
DAVA	Damuels	5.28	308	P	Pn	11 00 23.9	+2.2
	comp=Z,0.6nmcomp=Z,99nm,0.6s						
DAVA				AML	AML		
KECS	Kecovo	5.28	34	eP	Pn	11 00 23.2	+1.7
KECS				e		11 01 20.7	
KECS	Kecovo	5.28	34	ePN	Pn	11 00 23.1	+1.6
KECS				eSN	Sn	11 01 20.7	-1.4
KEK	Kerkira	5.31	147	P	Pn	11 00 21.9	-0.1
KEK	Kerkira	5.31	147		Pn	11 00 21.8	-0.1
KEK	Kerkira	5.31	147	⇓P	Pn	11 00 21.6	-0.3
KEK	Kerkira	5.31	147	P	Pn	11 00 21.9	-0.1
	comp=Z,0.4nmcomp=Z,75nm,0.5s						
KEK				AML	AML		
PCP	Piancastagn	5.36	276	P	Pn	11 00 22.4	-0.3
PGF	Pioggiola	5.37	254	⇑P	Pn	11 00 23.7	+0.8
PGF	Pioggiola	5.37	254	⇑P	Pn	11 00 23.7	+0.8
DRGR		5.37	59	P	Pn	11 00 25.8	+2.9
DRGR		5.37	59	⇓P	Pn	11 00 25.8	+2.9
DRGR		5.37	59	P	Pn	11 00 25.3	+2.4
DRGR				AML	AML		
ZVC	Zvikov	5.38	347	ePN	Pn	11 00 23.7	+0.8
ZVC				eSN	Sn	11 01 22.8	-1.8
UBR	Ueberruh	5.38	312	ePn	Pn	11 00 23.9	+0.9
UBR	Ueberruh	5.38	312	P	Pn	11 00 24.5	+1.5
	comp=Z,0.7nmcomp=Z,113nm,0.9s						
UBR				AML	AML		
WET	Wettzell	5.39	338	P	Pn	11 00 23.9	+0.9
WET	Wettzell	5.39	338	P	Pn	11 00 23.9	+0.9
	comp=Z,0.2nmcomp=Z,59nm,0.7s						
WET				AML	AML		
BLSH	Balsha	5.46	102	P	Pn	11 00 27.7	+3.7
BLSH				S	Sn	11 00 51.0	-36
ABAH	Abaujker	5.47	40	P	Pn	11 00 25.7	+1.6
	comp=Z,0.1nmcomp=Z,52nm,1.1s						
ABAH				AML	AML		
LANS	Liptovska Anna	5.49	24	eP	Pn	11 00 26.2	+1.8
LANS				e		11 01 29.7	
LANS	Liptovska Anna	5.49	24	ePN	Pn	11 00 26.2	+1.8
LANS				ePG	Sn	11 01 29.7	+2.4
VTS	Vitosha	5.50	104	P	Pn	11 00 27.6	+2.9
VTS				S	Sn	11 00 53.2	-35
MARR	Marisel-Cluj	5.58	61	⇓P	Pn	11 00 28.1	+2.3
GRC3	Grafenberg Arr	5.59	328	P	Pn	11 00 26.0	+0.2
	comp=Z,0.3nmcomp=Z,81nm,0.8s						
GRC3				AML	AML		
VAY	Valandovo	5.62	119	i Pn	Pn	11 00 29.3	+3.0
VAY				i Sn	Sn	11 01 32.4	+1.8
GRC2	Grafenberg Arr	5.65	327	P	Pn	11 00 26.7	+0.1
	comp=Z,0.4nmcomp=Z,81nm,0.9s						
GRC2				AML	AML		
LOT	Lotru	5.66	75	⇑P	Pb	11 00 37.3	-4.4
MPEP	Malo Peshtene	5.66	96	P	Pn	11 00 28.8	+2.0
MORC	Moravsky Berou	5.67	10	⇑P	Pn	11 00 28.9	+2.0
MORC	Moravsky Berou	5.67	10		Pn	11 00 27.9	+0.9
MORC	Moravsky Berou	5.67	10	ePN	Pn	11 00 28.0	+1.1
MORC				eSN	Sn	11 01 27.7	-4.1
MORC	Moravsky Berou	5.67	10	⇑P	Pn	11 00 28.1	+1.2
MORC	Moravsky Berou	5.67	10	⇑P	Pn	11 00 28.9	+2.0
MORC	Moravsky Berou	5.67	10	ePn	Pn	11 00 28.0	+1.1
MORC	Moravsky Berou	5.67	10	P	Pn	11 00 28.4	+1.4
	comp=Z,0.1nmcomp=Z,45nm,0.8s						
MORC				AML	AML		
IGT	Igoumenitsa	5.68	144	P	Pn	11 00 28.3	+1.2
PLNA	Plana	5.68	105	P	Pn	11 00 30.9	+3.8
GRC1	Grafenberg Arr	5.70	329	P	Pn	11 00 27.4	+0.1
GRC1	Grafenberg Arr	5.70	329	P	Pn	11 00 27.4	+0.1
	comp=Z,0.3nmcomp=Z,89nm,0.8s						
GRC1				AML	AML		
GRG	Griva	5.73	122	P	Pn	11 00 30.8	+3.0
GRG	Griva	5.73	122	P	Pn	11 00 30.8	+3.0
	comp=Z,0.7nmcomp=Z,126nm,0.8s						
GRG				AML	AML		
KKB	Krupnik	5.73	112	P	Pn	11 00 31.6	+3.9
GRB5	Grafenberg Arr	5.74	330	P	Pn	11 00 27.9	+0.1
	comp=Z,0.3nmcomp=Z,82nm,0.9s						
GRB5				AML	AML		
GRC4	Grafenberg Arr	5.77	329	P	Pn	11 00 28.3	0.0
	comp=Z,0.3nmcomp=Z,102nm,0.8s						
GRC4				AML	AML		
JAN	Janina	5.81	140	P	Pn	11 00 30.7	+1.9
OKC	Ostrava-Krasne	5.82	14	P	Pn	11 00 29.2	+0.3
OKC				S	Sn	11 01 34.2	-1.1
OKC	Ostrava-Krasne	5.82	14	ePn	Pn	11 00 30.1	+1.2
OKC	Ostrava-Krasne	5.82	14	P	Pn	11 00 30.6	+1.7
	comp=Z,0.1nmcomp=Z,81nm,0.9s						
OKC				AML	AML		
PRU	Pruhonice	5.87	351	eP	Pn	11 00 30.6	+1.0
PRU				e		11 01 35.1	
PRU	Pruhonice	5.87	351	ePN	Pn	11 00 30.6	+1.0
PRU				eSN	Sn	11 01 35.1	-1.5
PRU	Pruhonice	5.87	351	P	Pn	11 00 30.9	+1.2
	comp=Z,0.2nmcomp=Z,42nm,0.7s						
PRU				AML	AML		
GRB2	Grafenberg Arr	5.88	331	P	Pn	11 00 29.9	+0.1
	comp=Z,0.3nmcomp=Z,95nm,1.0s						
GRB2				AML	AML		
GRB3	Grafenberg Arr	5.89	332	P	Pn	11 00 30.3	+0.3
	comp=Z,0.4nmcomp=Z,78nm,0.7s						
GRB3				AML	AML		
KRLC	Kraliky	5.89	5	P	Pn	11 00 31.7	+1.7
KRLC	Kraliky	5.89	5	P	Pn	11 00 31.7	+1.7
	comp=Z,0.1nmcomp=Z,35nm,0.9s						
KRLC				AML	AML		
CJR	Cluj-Napoca	5.90	62	⇑P	Pn	11 00 33.7	+3.6
CJR	Cluj-Napoca	5.90	62	⇑P	Pn	11 00 33.7	+3.6
CEL	Celeste	5.94	181		Pn	11 00 30.9	+0.2
CEL	Celeste	5.94	181	⇑P	Pn	11 00 30.7	-0.1
CEL	Celeste	5.94	181	P	Pn	11 00 30.9	+0.2
	comp=Z,0.1nmcomp=Z,32nm,0.7s						
CEL				AML	AML		
BNALP	Bannalp	5.96	299	P	Pn	11 00 32.6	+1.7
	comp=Z,0.2nmcomp=Z,22nm,0.6s						
BNALP				AML	AML		
GRB1	Grafenberg Arr	5.99	332	P	Pn	11 00 31.6	+0.4
GRB1	Grafenberg Arr	5.99	332	P	Pn	11 00 31.6	+0.4
	comp=Z,0.5nmcomp=Z,65nm,0.6s						
GRB1				AML	AML		
NIE	Niedzica	5.99	28	eP	Pn	11 00 34.5	+3.3
TRPA	Tarpa	6.00	47	P	Pn	11 00 33.2	+1.8
	comp=Z,0.1nmcomp=Z,27nm,0.7s						
TRPA				AML	AML		
PRMD	Pramanda	6.02	139	P	Pn	11 00 34.0	+2.2
GRB4	Grafenberg Arr	6.08	331	P	Pn	11 00 32.5	0.0
	comp=Z,0.3nmcomp=Z,69nm,1.0s						
GRB4				AML	AML		
ROTZ	Rotzenmuhle	6.14	336	ePn	Pn	11 00 33.4	+0.1
ROTZ				eSn	Sn	11 01 42.4	-0.9
DPC	Dobruska-Polom	6.15	2	P	Pn	11 00 34.8	+1.3
	comp=Z,0.1nmcomp=Z,19nm,0.9s						
DPC				AML	AML		
ARR	Arges	6.25	76	⇑P	Pn	11 00 39.7	+4.8
ARR	Arges	6.25	76	P	Pn	11 00 39.7	+4.8
	comp=Z,0.1nmcomp=Z,11nm,1.0s						
ARR				AML	AML		
TETR	Tetrakomo, Epi	6.25	139	P	Pn	11 00 36.9	+1.9
BMR	Baia Mare	6.27	54	⇓P	Pn	11 00 42.1	+7.0
BMR	Baia Mare	6.27	54	⇓P	Pn	11 00 42.1	+7.0
THE	Thessaloniki	6.27	122	P	Pn	11 00 37.7	+2.6
THE	Thessaloniki	6.27	122	P	Pn	11 00 37.7	+2.6
	comp=Z,0.1nmcomp=Z,27nm,0.5s						
THE				AML	AML		
MMB	Musomishta	6.28	112	P	Pn	11 00 39.2	+3.9
UPC	Upice	6.30	0	P	Pn	11 00 40.2	+4.6
UPC	Upice	6.30	0	P	Pn	11 00 38.1	+2.5
	comp=Z,0.2nmcomp=Z,27nm,0.6s						
UPC				AML	AML		
GRA2	Grafenberg Arr	6.31	331	P	Pn	11 00 35.9	+0.2
	comp=Z,0.3nmcomp=Z,54nm,1.0s						
GRA2				AML	AML		
STHS	Stebnicka Huta	6.33	33	eP	Pn	11 00 37.9	+2.0
STHS				e		11 01 44.7	
STHS	Stebnicka Huta	6.33	33	ePN	Pn	11 00 37.9	+2.0
STHS				eSN	Sn	11 01 44.7	-3.2
SLE	Schleitheim	6.33	307	P	Pn	11 00 35.0	-1.0
SLE	Schleitheim	6.33	307	P	Pn	11 00 36.1	+0.1
	comp=Z,0.2nmcomp=Z,32nm,0.5s						
SLE				AML	AML		
PZZ	Stroppo	6.38	276	P	Pn	11 00 36.1	-0.7
SRS	Serrai	6.39	116	P	Pn	11 00 39.9	+3.2
SRS	Serrai	6.39	116	P	Pn	11 00 40.0	+3.2
	comp=Z,0.1nmcomp=Z,27nm,0.5s						
SRS				AML	AML		
GRFO	Grafenberg	6.39	331	P	Pn	11 00 37.9	+1.1
GRFO				S	Sn	11 01 47.5	-1.9
GRA1	Grafenberg Arr	6.39	331		Pn	11 00 37.2	+0.4
GRA1	Grafenberg Arr	6.39	331	P	Pn	11 00 38.0	+1.3
	comp=Z,0.3nmcomp=Z,48nm,0.7s						
GRA1				AML	AML		
GRF	Grafenberg Arr	6.39	331	P	Pn	11 00 37.2	+0.4
GRF	Grafenberg Arr	6.39	331	eSn	Sn	11 01 44.1	-5.3
KOLS	Kolonicke sedl	6.40	40	eSN	Sn	11 01 46.4	-3.3
TSLK	Tsoukalades, L	6.41	145	P	Pn	11 00 38.1	+1.0
GRA3	Grafenberg Arr	6.42	332	P	Pn	11 00 38.4	+1.3
	comp=Z,0.3nmcomp=Z,40nm,0.8s						
GRA3				AML	AML		
LSD	Lago del Serru	6.43	284	P	Pn	11 00 36.6	-1.0
LKD2	Lefkada island	6.44	146	P	Pn	11 00 38.5	+1.0
LKD2	Lefkada island	6.44	146	P	Pn	11 00 38.4	+0.8
	comp=Z,0.4nmcomp=Z,106nm,0.6s						
LKD2				AML	AML		
ISO	Isola	6.44	273	P	Pn	11 00 37.5	-0.1
DRAG	Dragano-Lefkad	6.50	147	P	Pn	11 00 38.7	+0.4
NKC	Novy Kostel	6.50	339	P	Pn	11 00 38.4	+0.1
NKC	Novy Kostel	6.50	339	P	Pn	11 00 38.8	+0.5
	comp=Z,0.3nmcomp=Z,30nm,0.5s						
NKC				AML	AML		
SENIN	Lac Senin/Sane	6.51	292		Pn	11 00 38.3	-0.3
ARCR	ARCALIA	6.52	61	⇑P	Pn	11 00 41.7	+3.2
NYDR	Nydri-Lefkada	6.52	146	P	Pn	11 00 39.3	+0.7
OJC	Ojcow	6.54	22	eP	Pn	11 00 44.9	+6.0
OJC	Ojcow	6.54	22	P	Pn	11 00 38.9	0.0
OJC	Ojcow	6.54	22		Pn	11 00 38.9	0.0
OJC	Ojcow	6.54	22	P	Pn	11 00 40.2	+1.4
	comp=Z,10nm,0.6s						
VOIR		6.55	76	⇓P	Pn	11 00 42.8	+3.8
VOIR		6.55	76	⇓P	Pn	11 00 42.8	+3.8
VOIR		6.55	76	P	Pn	11 00 42.2	+3.2
	comp=Z,8.9nm,0.7s						
STU	Stuttgart	6.55	317	P	Pn	11 00 38.4	-0.6
STU	Stuttgart	6.55	317		Pn	11 00 38.4	-0.6
STU	Stuttgart	6.55	317	⇓P	Pn	11 00 39.1	+0.1
STU	Stuttgart	6.55	317	P	Pn	11 00 39.1	+0.1
	comp=Z,0.4nmcomp=Z,67nm,0.7s						
STU				AML	AML		
AMPL	Ampelaki	6.56	142	P	Pn	11 00 40.4	+1.1
EVGI	Lefkada island	6.58	146	P	Pn	11 00 39.9	+0.4
RRL	Rocca Remolon	6.62	279	P	Pn	11 00 38.5	-1.7
HSKC	Hora Svate Kat	6.64	346	P	Pn	11 00 43.4	+3.2
	comp=Z,0.2nmcomp=Z,16nm,0.7s						
HSKC				AML	AML		
KSP	Ksiaz	6.64	2	P	Pn	11 00 42.6	+2.4
KSP				S	Sn	11 01 52.2	-3.4
TANN	Tannenbergstha	6.66	340	P	Pn	11 00 40.9	+0.3
	comp=Z,0.3nmcomp=Z,29nm,0.6s						
TANN				AML	AML		
BNI	Bardonecchia	6.71	280	P	Pn	11 00 39.5	-1.8
BNI	Bardonecchia	6.71	280		Pn	11 00 39.5	-1.8
BNI	Bardonecchia	6.71	280	⇑P	Pn	11 00 40.2	-1.1
BNI	Bardonecchia	6.71	280	P	Pn	11 00 40.5	-0.8
	comp=Z,0.1nmcomp=Z,20nm,0.6s						
BNI				AML	AML		
BFO	Black Forest	6.73	310	P	Pn	11 00 41.5	0.0
BFO	Black Forest	6.73	310		Pn	11 00 41.5	0.0
BFO	Black Forest	6.73	310	⇑P	Pn	11 00 41.1	-0.4
BRG	Berggiesshubel	6.81	349	P	Pn	11 00 43.2	+0.6
BRG	Berggiesshubel	6.81	349	P	Pn	11 00 43.2	+0.6
	comp=Z,0.1nmcomp=Z,13nm,0.5s						
BRG				AML	AML		
BRG	Berggiesshubel	6.81	349	Pn	Pn	11 00 43.1	+0.5
BRG				Sn	Sn	11 01 58.2	-1.6
BRG				Amp		11 01 59.4	
	comp=Z,32nm,0.6s						
RSL	Roselend	6.82	286	P	Pn	11 00 44.6	+1.7
VSL	Villasalto	6.83	229		Pn	11 00 43.3	+0.4
VSL	Villasalto	6.83	229	⇑P	Pn	11 00 43.9	+1.0
VAE	Valguarnera	6.83	191	P	Pn	11 00 46.5	+3.6
	comp=Z,7.8nm,0.4s,baz=39,slow=7.4,SNR=4.4						
EVR	Evrytania	6.84	139	P	Pn	11 00 45.3	+2.2
BOURR	Bourrignon	6.91	301	P	Pn	11 00 43.8	-0.2
	comp=Z,0.2nmcomp=Z,35nm,0.7s						
BOURR				AML	AML		
VLS	Valsamata	6.94	149	P	Pn	11 00 44.7	+0.3
PVO	Paravola	6.96	142	P	Pn	11 00 45.9	+1.3
AGG	Agios Georgios	7.02	135	P	Pn	11 00 46.6	+1.2
AGG	Agios Georgios	7.02	135	⇓P	Pn	11 00 46.9	+1.4
AGG	Agios Georgios	7.02	135	⇓P	Pn	11 00 46.9	+1.4
PLEV	Plevrona-Mesol	7.07	143	P	Pn	11 00 47.0	+0.8
RAFF	Raffo Rosso	7.09	191	Pn	Pn	11 00 48.5	+2.1
MOX	Moxa	7.09	337	P	Pn	11 00 47.3	+0.8
MOX	Moxa	7.09	337	P	Pn	11 00 47.3	+0.8
	comp=Z,0.1nmcomp=Z,37nm,0.6s						
MOX				AML	AML		
ANX	Ano Chora	7.16	140	P	Pn	11 00 49.2	+1.9
MLR	Muntele Rosu	7.18	76	P	Pn	11 00 48.7	+1.0
	comp=Z,0.2nm,0.3s,baz=272,slow=23,SNR=1.6						
MLR				S	Sn	11 02 13.3	+4.2
	comp=Z,2.5nm,0.5s,baz=264,slow=19,SNR=1.5						
	comp=Z,1.8nm,0.8s						
MLR				AML	AML		
MLR	Muntele Rosu	7.18	76	⇑P	Pn	11 00 51.8	+4.1
MLR	Muntele Rosu	7.18	76	⇑P	Pn	11 00 51.8	+4.1
AXS	Araxos	7.24	144	P	Pn	11 00 49.0	+0.5
GIMEL	St. Georges /	7.25	292	P	Pn	11 00 48.6	0.0
	comp=Z,0.1nmcomp=Z,17nm,0.8s						
GIMEL				AML	AML		
BURAR	Bucovina Array	7.27	59	P	Pn	11 00 51.3	+2.4
BURAR	Bucovina Array	7.27	59		Pn	11 00 51.3	+2.4
ORIF	Oris-en-Rattie	7.27	279	P	Pn	11 00 49.6	+0.6
ORIF	Oris-en-Rattie	7.27	279	P	Pn	11 00 49.6	+0.6
	comp=Z,0.1nmcomp=Z,22nm,0.6s						
ORIF				AML	AML		
BUR08	Bucovina Ar. S	7.27	59		Pn	11 00 48.6	-0.4
EFP	Efpalio	7.28	140	P	Pn	11 00 50.4	+1.4
ECH	Echery	7.33	306	P	Pn	11 00 48.9	-0.8
ECH	Echery	7.33	306		Pn	11 00 48.9	-0.8
ECH	Echery	7.33	306	⇓P	Pn	11 00 49.2	-0.5
ECH	Echery	7.33	306	P	Pn	11 00 49.5	-0.3
	comp=Z,0.1nmcomp=Z,8.7nm,0.6s						
ECH				AML	AML		
SERG	Sergoula	7.36	140	P	Pn	11 00 51.3	+1.1
CLL	Collm	7.39	345	eP	Pn	11 00 51.0	+0.6
CLL				e		11 02 11.0	
CLL	Collm	7.39	345		Pn	11 00 50.5	+0.1
CLL	Collm	7.39	345	P	Pn	11 00 52.0	+1.6
	comp=Z,0.2nmcomp=Z,18nm,0.4s						
CLL				AML	AML		
CLL	Collm	7.39	345	ePn	Pn	11 00 51.0	+0.6
CLL				i x	x	11 01 06.4	
CLL				ePg	Pg	11 01 28.0	+3.5
CLL				eSn	Sn	11 02 11.0	-2.9
CLL				ex	x	11 02 40.0	
CLL				eSb	Sb	11 02 47.0	+8.2
CLL				eSg	Sg	11 02 57.0	-3.0
	comp=Z,112nm,1.1s						
CLL				AMS	AMS	11 03 00.0	
	comp=N,200nm,16.1s						
CLL				AMS	AMS	11 03 00.0	
	comp=Z,400nm,16.4s						
RLS	Riolos of Patr	7.39	144	P	Pn	11 00 51.5	+0.9
LTHK	Lithakia	7.45	149	P	Pn	11 00 51.4	+0.1
LAKA	Lakka	7.47	141	P	Pn	11 00 52.9	+1.3
NEUB	Neuenburg	7.56	339	P	Pn	11 00 54.2	+1.4
	comp=Z,0.3nmcomp=Z,28nm,0.8s						
NEUB				AML	AML		
KLV	Kalavryta, Ach	7.71	141	P	Pn	11 00 55.9	+1.0
PLOR	Plostina	7.72	74	⇑P	Pn	11 00 56.3	+1.3
PLOR	Plostina	7.72	74	⇑P	Pn	11 00 56.3	+1.3
TNS	Taunus Mts	7.92	322	P	Pn	11 00 59.1	+1.3
TNS	Taunus Mts	7.92	322	P	Pn	11 00 59.0	+1.3
	comp=Z,0.1nmcomp=Z,71nm,0.6s						
TNS				AML	AML		
SSB	Saint Sauveur	8.23	281	P	Pn	11 01 00.3	-1.8
SSB	Saint Sauveur	8.23	281		Pn	11 01 00.2	-1.8
SSB	Saint Sauveur	8.23	281	⇑P	Pn	11 01 00.3	-1.8
ITM	Ithomi	8.33	145		Pn	11 01 03.8	+0.3
ITM	Ithomi	8.33	145	⇑P	Pn	11 01 04.8	+1.3
GTTG	Gottingen	8.39	333	P	Pn	11 01 06.1	+2.0
	comp=Z,67nm,1.1s						
CLZ	Clausthal	8.52	336	P	Pn	11 01 06.6	+0.6
	comp=Z,16nm,1.1s						
LOR	Lormes	9.03	294	⇓P	Pn	11 01 12.1	-0.9
LOR	Lormes	9.03	294	⇓P	Pn	11 01 12.1	-0.9
LOR	Lormes	9.03	294	P	Pn	11 01 12.2	-0.8
	comp=Z,18nm,0.8s						
RCHB	Rochefort	9.44	313	P	Pn	11 01 20.8	+2.2
	comp=Z,16nm,0.8s						
RETH	Rethem/Aller,	9.61	335	P	Pn	11 01 24.2	+3.4
	comp=Z,16nm,1.4s						
DOU	Dourbes	9.75	311	P	Pn	11 01 23.8	+1.0
IBBN	Ibbenburen	9.79	329	P	Pn	11 01 24.3	+0.9
	comp=Z,22nm,0.8s						
KEST	Kesra	9.89	213	P	Pn	11 01 28.3	+3.5
	comp=Z,0.8nm,0.3s,baz=30,slow=5.2,SNR=4.3						
	comp=Z,3.7nm,0.6s						
KEST				AML	AML		
CEST	Esterri de Car	10.86	267	Pn	Pn	11 01 38.9	+0.8
AKASG	Malin Array Be	11.05	49	P	Pn	11 01 41.9	+1.3
	comp=Z,0.7nm,0.3s,baz=245,slow=14,SNR=4.2						
	comp=Z,0.3nm,0.3s						
AKASG				AML	AML		
AKBB	Malin Array Si	11.05	49	i P	Pn	11 01 41.0	+0.4
IDI	Anoyia	11.22	140	P	Pn	11 01 40.2	-2.9
	comp=Z,21nm,0.9s,baz=302,slow=14,SNR=5.6						

IDI				S	**Sn**	**11 03 40.3**	**-8.0**
	comp=Z,14nm,0.7s,baz=108,slow=22,SNR=5.0						
IDI	**Anoyia**	**11.22**	**140**	Pn	**Pn**	**11 01 43.9**	**+0.8**
KARP	**Karpathos**	**12.16**	**132**	Pn	**Pn**	**11 01 57.0**	**+1.0**
MNK	**Minsk**	**12.87**	**33**	*i* P	**Pn**	**11 02 04.1**	**-1.2**
MNK				*i* S	**Sn**	**11 04 29.4**	**+1.2**
MNK				pmax	pmax		
	comp=Z,11nm,0.6s						
MNK				pmax	pmax		
	comp=E,13nm,1.0s						
MNK				pmax	pmax		
	comp=N,16nm,1.0s						
MNK				MLR	MLR		
	comp=Z,83nm,13.0s						
MNK	**Minsk**	**12.87**	**33**	*i* P	**Pn**	**11 02 04.2**	**-1.2**
	comp=E,13nm,1.0s						
MNK	**Minsk**	**12.87**	**33**	*i* P	**Pn**	**11 02 04.2**	**-1.2**
	comp=N,16nm,1.0s						
MNK	**Minsk**	**12.87**	**33**	*i* P	**Pn**	**11 02 04.2**	**-1.2**
	comp=Z,11nm,0.6s,baz=222						
MNK	**Minsk**	**12.87**	**33**	*i* PP	**P**	**11 02 12.0**	**-4.2**
MNK	**Minsk**	**12.87**	**33**	*i* S	**Sn**	**11 04 29.5**	**+1.2**
MNK	**Minsk**	**12.87**	**33**	*i* SS	Sn	11 04 42.4	+14
MNK	**Minsk**	**12.87**	**33**	*i* LQ	LQ	11 05 51.0	
MNK	**Minsk**	**12.87**	**33**	*i* LR	LR	11 06 50.0	
ESDC	**Sonseca Array**	**15.53**	**260**	P	**P**	**11 02 45.2**	**-0.7**
	comp=Z,0.1nm,0.3s,baz=67,slow=12,SNR=21						
	comp=Z,2.3nm,0.7s						
ESDC				AML	AML		
KONO	**Kongsberg**	**15.95**	**348**	*e*P	**Pn**	**11 02 47.8**	**+1.0**
KONO				pmax	pmax		
	comp=Z,8.0nm,1.1s						
HFS	**Hagfors**	**16.01**	**356**	P	**Pn**	**11 02 48.4**	**+0.7**
	comp=Z,0.2nm,0.3s,baz=159,slow=8.5,SNR=4.4						
	comp=Z,1.6nm,0.8s						
HFS				AML	AML		
EKA	**Eskdalemuir Ar**	**16.59**	**319**	P	**Pn**	**11 02 54.8**	**-0.2**
	baz=118,slow=10						
	comp=Z,0.9nm,0.5s						
ESK	**Eskdalemuir**	**16.60**	**319**	P	**Pn**	**11 02 55.3**	**+0.1**
ESK				pmax	pmax		
	comp=Z,14nm,1.1s						
ESK	**Eskdalemuir**	**16.60**	**319**	Pn	**Pn**	**11 02 55.3**	**+0.1**
ESK				IAmb	IAmb	11 03 06.7	
	comp=Z,14nm,1.1s						
NC602	**NORSAR Array S**	**16.77**	**352**	Pn	**Pn**	**11 02 58.1**	**+0.8**
NC602				IAmb	IAmb	11 03 06.1	
	comp=Z,7.4nm,1.1s						
NB2	**NORSAR Subarra**	**17.10**	**352**	P	**P**	**11 03 02.8**	**-0.4**
	comp=Z,4.4nm,1.0s,baz=168,slow=11						
NOA	**NORSAR Array B**	**17.10**	**352**	P	**Pn**	**11 03 01.1**	**-0.4**
	baz=167,slow=11,SNR=4.4						
NOA				LR	LR	11 09 40.4	
	comp=Z,44nm,19.3s,baz=145,slow=37						
	comp=Z,0.6nm,0.7s						
NB201	**NORSAR Array S**	**17.10**	**352**	P	**P**	**11 03 02.7**	**-0.5**
NB201				IAmb	IAmb	11 03 15.1	
	comp=Z,11nm,1.1s						
NC405	**NORSAR Array S**	**17.13**	**353**	Pn	**Pn**	**11 03 02.1**	**+0.3**
OBN	**Obninsk**	**17.14**	**43**	⇑*e*P	**P**	**11 03 03.5**	**-0.1**
OBN				*e*S	**S**	**11 06 19.0**	**-2.5**
OBN				pmax	pmax		
	comp=Z,8.0nm,0.9s						
OBN				MLR	MLR		
	comp=Z,95nm,15.0s						
FINES	**FINESS Array B**	**18.27**	**16**	P	**P**	**11 03 16.1**	**+0.1**
	comp=Z,0.3nm,0.3s,baz=181,slow=13,SNR=7.8						
	comp=Z,4.3nm,0.7s						
FINES				AML	AML		
FINES	**FINESS Array B**	**18.27**	**16**	*e*P	**P**	**11 03 17.5**	**+1.5**
FINES	**FINESS Array B**	**18.27**	**16**	P	**Pn**	**11 03 15.9**	**+0.1**
KBZ	**Khabaz**	**19.34**	**82**	P	**Pn**	**11 03 30.2**	**+1.2**
	comp=Z,0.2nm,0.3s,baz=270,slow=4.0,SNR=4.0						
	comp=Z,1.6nm,0.7s						
KBZ				AML	AML		
KBZ	**Khabaz**	**19.34**	**82**	*e*P	**Pn**	**11 03 30.4**	**+1.5**
KBZ				pmax	pmax		
	comp=Z,3.0nm,0.9s						
MDT	**Midelt**	**19.68**	**242**	P	**Pn**	**11 03 35.6**	**+2.3**
	comp=Z,1.2nm,0.3s,baz=56,slow=15,SNR=19						
	comp=Z,1.8nm,0.9s						
MDT				AML	AML		
MD01	**Midelt array s**	**19.74**	**242**	P	**P**	**11 03 32.7**	**+0.1**
ASF	**Jabal al Asfar**	**20.28**	**119**	LR	LR	11 12 06.6	
	comp=Z,104nm,19.4s,baz=3.3,slow=38						
GURO	**Guroymak-BITLI**	**20.29**	**97**	P	**P**	**11 03 39.4**	**+1.0**
GURO				IAmb	IAmb	11 03 49.5	
	comp=Z,9.7nm,1.0s						
EIL	**Elat**	**20.90**	**128**	P	Pn	11 03 48.1	+0.6
	comp=Z,3.3nm,0.6s,baz=333,slow=16,SNR=2.5						
	comp=Z,3.3nm,0.6s						
KLMR	**Klimovskoe**	**21.76**	**32**	*e*P	**P**	**11 03 53.7**	**-0.3**
KLMR				pmax	pmax		
	comp=Z,26nm,1.6s						
BELG	**Belogornoye**	**22.42**	**57**	LR	LR	11 13 05.1	
	comp=Z,192nm,20.8s,baz=99,slow=37						
BELG	**Belogornoye**	**22.42**	**57**	*e*P	**P**	**11 04 02.0**	**+0.9**
BELG				pmax	pmax		
	comp=Z,4.0nm,1.1s						
KIRV	**Kirov**	**24.99**	**43**	*i* P	**P**	**11 04 27.2**	**+1.2**
ARCES	**ARCESS Array B**	**25.85**	**8**	P	**P**	**11 04 35.1**	**+1.4**
	comp=Z,2.1nm,0.9s,baz=180,slow=6.0,SNR=1.3						
	comp=Z,2.1nm,0.9s						
TORD	**Torodi Ar. Bea**	**33.30**	**206**	P	**P**	**11 05 43.4**	**+3.1**
	comp=Z,0.3nm,0.5s,baz=27,slow=10.0,SNR=5.1						
	comp=Z,0.3nm,0.5s						
BORK	**Borovoye**	**36.17**	**56**	*i* P	**P**	**11 06 05.3**	**+0.5**
BORK				pmax	pmax		
	comp=Z,2.0nm,0.4s						
BVAR	**Borovoye Array**	**36.22**	**56**	P	**P**	**11 06 06.4**	**+1.1**
	comp=Z,0.7nm,0.4s,baz=261,slow=9.6,SNR=4.4						
	comp=Z,0.7nm,0.4s						
KK31	**Karatay Array**	**38.84**	**72**	P	**P**	**11 06 27.6**	**+0.1**
KK31				pmax	pmax		
	comp=Z,1.0nm,0.9s						
KK31	**Karatay Array**	**38.84**	**72**	P	**P**	**11 06 27.6**	**+0.1**
KKAR	**Karatay Array**	**38.84**	**72**	P	**P**	**11 06 27.1**	**-0.4**
KKAR	**Karatay Array**	**38.84**	**72**	P	**P**	**11 06 27.1**	**-0.4**
DBIC	**Dimbokro**	**41.61**	**212**	LR	LR	11 24 10.0	
	comp=Z,39nm,18.2s,baz=102,slow=36						
KURBB	**Kurchatov Arra**	**41.67**	**58**	P	**P**	**11 06 50.6**	**-0.2**
	comp=Z,1.0nm,0.3s,baz=286,slow=9.2,SNR=3.0						
	comp=Z,1.0nm,0.3s						
KURK	**Kurchatov**	**41.70**	**58**	*i* P	**P**	**11 06 49.2**	**-1.9**
KURK				pmax	pmax		
	comp=Z,2.0nm,0.9s						
AAK	**Ala-Archa**	**41.73**	**71**	*i* P	**P**	**11 06 52.6**	**+0.9**
AAK				pmax	pmax		
	comp=Z,1.0nm,1.0s						
ZALV	**Zalesovo Beam**	**44.43**	**52**	P	**P**	**11 07 14.8**	**+1.6**
	comp=Z,0.3nm,0.3s,baz=258,slow=5.3,SNR=4.1						
	comp=Z,0.3nm,0.3s						
MK31	**Makanchi Array**	**45.28**	**62**	*i* P	**P**	**11 07 19.9**	**-0.2**
MK31				*i* *PP	**pP**	**11 07 24.4**	**-0.5**
MKAR	**Makanchi Array**	**45.28**	**62**	P	**P**	**11 07 20.2**	**+0.1**
	comp=Z,1.3nm,0.6s,baz=285,slow=6.6,SNR=12						
MKAR				PcP	**PcP**	**11 08 59.3**	**-0.4**
	comp=Z,0.5nm,0.6s,baz=338,slow=3.5,SNR=3.6						
	comp=Z,1.3nm,0.6s						
DGZ	**Jazzator, Alta**	**47.37**	**57**	*e*P	**P**	**11 07 37.3**	**+0.6**
DGZ				*i* *PP	**pP**	**11 07 41.7**	**+0.2**
DGZ				pmax	pmax		
	comp=Z,1.0nm,0.7s						
SONM	**Songino Array**	**59.32**	**52**	P	**P**	**11 09 04.6**	**+0.2**
	comp=Z,1.2nm,0.7s,baz=283,slow=9.7,SNR=5.8						
	comp=Z,1.2nm,0.7s						
SONM	**Songino Array**	**59.32**	**52**	*e*P	**P**	**11 09 04.6**	**+0.2**
SONM				pmax	pmax		
	comp=Z,2.0nm,0.7s						
LZDM	**Lanzhou Array**	**64.55**	**64**	LR	LR	11 38 50.3	
	comp=Z,169nm,21.9s,baz=125,slow=37						
E29M	**Blow River**	**66.04**	**350**	P	**P**	**11 09 48.8**	**0.0**
E29M				IAmb	IAmb	11 10 00.4	
	comp=Z,2.8nm,1.0s						
HHC	**Hu-ho-hao-te**	**66.43**	**55**	*e*P	**P**	**11 09 52.8**	**+1.0**
HHC				pmax	pmax		
	comp=Z,13nm,0.5s						
HHC				pmax	pmax		
	comp=Z,43nm,5.2s						
YKA	**Yellowknife Ar**	**66.54**	**337**	P	**P**	**11 09 51.4**	**-0.6**
	comp=Z,0.9nm,0.7s,baz=42,slow=6.0,SNR=5.7						
	comp=Z,0.9nm,0.7s						
D23K	**Nanushuk River**	**66.71**	**355**	P	**P**	**11 09 53.5**	**+0.4**
G30M	**tAoh Zraii Nji**	**67.13**	**349**	P	**P**	**11 09 55.4**	**-0.4**
CMAR	**Chiang Mai Arr**	**72.38**	**81**	P	**P**	**11 10 28.8**	**-0.1**
	comp=Z,1.3nm,0.7s,baz=302,slow=6.7,SNR=7.0						
	comp=Z,1.3nm,0.7s						
CMAR	**Chiang Mai Arr**	**72.38**	**81**	*e*P	**P**	**11 10 28.7**	**-0.1**
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
KSRS	**Korea Array**	**78.04**	**49**	P	**P**	**11 11 01.1**	**0.0**
	comp=Z,0.5nm,0.6s,baz=310,slow=6.0,SNR=2.4						
	comp=Z,0.5nm,0.6s						
PDAR	**Pinedale Array**	**80.67**	**323**	P	**P**	**11 11 15.4**	**-0.3**
	comp=Z,0.4nm,0.6s,baz=63,slow=5.5,SNR=5.8						
	comp=Z,0.4nm,0.6s						
MJAR	**Matsushiro Arr**	**84.07**	**43**	P	**P**	**11 11 32.4**	**-0.9**
	comp=Z,1.2nm,0.8s,baz=312,slow=3.6,SNR=4.6						
	comp=Z,1.2nm,0.8s						
MJAR	**Matsushiro Arr**	**84.07**	**43**	*e*P	**P**	**11 11 34.7**	**+1.4**
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MJA0	**Matsu Arr-Jizo**	**84.09**	**43**	*e*P	**P**	**11 11 34.7**	**+1.2**
MJA0				pmax	pmax		
	comp=Z,1.0nm,0.7s						
NVAR	**Mina Array Bea**	**87.96**	**326**	P	**P**	**11 11 52.3**	**-0.5**
	comp=Z,0.1nm,0.3s,baz=16,slow=6.2,SNR=1.6						
	comp=Z,0.1nm,0.3s						
TXAR	**Lajitas Array**	**88.41**	**311**	P	**P**	**11 11 54.5**	**-0.4**
	comp=Z,0.4nm,0.8s,baz=58,slow=3.1,SNR=6.2						
	comp=Z,0.4nm,0.8s						
SIV	**San Ignacio**	**92.04**	**250**	P	**P**	**11 12 12.1**	**+0.3**
	comp=Z,0.6nm,0.6s,baz=18,slow=6.4,SNR=3.8						
	comp=Z,0.6nm,0.6s						
WRA	**Warramunga Arr**	**123.83**	**85**	PKP	**PKPdf**	**11 17 59.4**	**-1.3**
	comp=Z,0.4nm,1.1s,baz=319,slow=1.7,SNR=5.2						
ASAR	**Alice Springs**	**125.86**	**89**	PKP	**PKPdf**	**11 18 03.8**	**-0.8**
	comp=Z,0.5nm,0.7s,baz=318,slow=1.2,SNR=6.6						

HEL 20 11:00:11.6±0.0, 60°.20N×25°.22E, h0^{km}, ML0.9, Explosion, Finland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VUOS	**Vuosaari Helsi**	**0.04**	**261**	*e*P	Pg	11 00 12.2	-0.1
VUOS				*e*S	Sg	11 00 12.8	0.0
HEL1	**Helsinki**	**0.17**	**264**	*e*P	Pg	11 00 14.6	-0.2
HEL1				*e*S	Sg	11 00 16.7	-0.3
HEL1				smax	smax	11 00 17.2	
	comp=Z,5.4nm,0.1s						
LAUT	**Lauttasaari He**	**0.18**	**256**	*e*P	Pg	11 00 14.9	-0.2
LAUT				*e*S	Sg	11 00 17.4	-0.1
HEL3	**Helsinki**	**0.20**	**264**	*e*P	Pg	11 00 15.2	-0.1
HEL3				*e*S	Sg	11 00 17.7	-0.3
MEF	**Metsahovi**	**0.41**	**273**	*e*P	Pg	11 00 19.5	+0.1
MEF	**Metsahovi**	**0.41**	**273**	*e*P	Pg	11 00 19.1	-0.4
MEF				*e*S	Sg	11 00 24.8	0.0
MEF				smax	smax	11 00 25.3	
	comp=Z,2.3nm,0.1s						
NUR	**Nurmijarvi**	**0.42**	**318**	*e*P	Pg	11 00 19.2	-0.5
NUR				*e*S	Sg	11 00 24.5	-0.6
NUR				smax	smax	11 00 25.2	
	comp=Z,3.8nm,0.1s						
PVF	**Pernaja**	**0.47**	**42**	*e*P	Pg	11 00 20.1	-0.6
PVF				*e*S	Sg	11 00 26.2	-0.6
RAF	**Rauma**	**1.90**	**297**	*e*P	Pn	11 00 45.7	+0.6
KEF	**Keuruu**	**1.98**	**355**	*e*P	Pn	11 00 47.1	+0.7
SUF	**Sumiainen**	**2.57**	**10**	*e*P	Pb	11 00 56.6	-2.0

CNRM ***20*** *11:01:49.3, 34°.49N×9°.36W, h22^{km}, ML2.8*

SFS ***20*** *11:01:50.7, 34°.58N×9°.48W, h22^{km}, mb3.6/4, ML3.4/17, ML3.4/17, MLv3.4/17*

IGIL ***20*** *11:01:51.3, 34°.59N×9°.56W, h20^{km}, ML2.2*

MDD ***20*** *11:01:51.7±0.6, 34°.58N×9°.54W, h39^{km}±24^{km}, Mb4.1/24, M_mb3.4/24, Error ellipse: s-maj=7.5km s-min=3.2km az=67.0*

INMG ***20*** *11:01:52.3±1.4, 34°.62N×9°.49W, h18^{km}, ML2.1, Error ellipse: s-maj=7.2km s-min=3.4km az=77.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Mar de Marrocos*

ISC 20 11:01:50.2±1.4, 34°.57N±0°.04×9°.41W±0°.06, h35^{km}, n83, σ1^{s}73/152, 15C, West of Gibraltar

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AVE	**Averroes**	**2.09**	**127**	P	**Pn**	**11 02 24.3**	**+1.7**
AVE				S	**Sn**	**11 02 49.0**	**+1.5**
SRHM	**Skhour des Reh**	**2.44**	**149**	P	**Pn**	**11 02 28.6**	**+1.0**
ZHG	**ZHG**	**2.55**	**115**	P	**Pn**	**11 02 28.2**	**-0.9**
ZHG				S	**Sn**	**11 02 58.6**	**-0.5**
PFVI	**Vila Bisbo**	**2.60**	**10**	P	**Pn**	**11 02 30.0**	**+0.2**
PFVI				S	**Sn**	**11 02 58.8**	**-1.4**
PFVI	**Vila Bisbo**	**2.60**	**10**	*e*P	**Pn**	**11 02 30.9**	**+1.2**
PFVI				*e*S	**Sn**	**11 03 00.9**	**+0.8**
PFVI				*i* IAML		11 03 03.3	
PFVI				*i* IAML		11 03 03.6	
PFVI				*i* IAML		11 03 03.7	
PFVI	**Vila Bisbo**	**2.60**	**10**	P	**Pn**	**11 02 31.0**	**+1.3**
PFVI				S	**Sn**	**11 03 03.2**	**+3.1**
MORF	**Marmelete**	**2.80**	**12**	*e*P	**Pn**	**11 02 33.6**	**+1.1**
MORF				*e*S	**Sn**	**11 03 04.4**	**-0.6**
MORF				IAML		11 03 09.0	
	comp=N,15nm,0.2s						
MORF	**Marmelete**	**2.80**	**12**	*e*P	**Pn**	**11 02 33.6**	**+1.1**
MORF				*e*S	**Sn**	**11 03 04.6**	**-0.5**
MORF				*i* IAML		11 03 09.0	
MORF				*i* IAML		11 03 11.6	
MORF				*i* IAML		11 03 11.7	
PBDV	**Barranco-do-Ve**	**2.92**	**24**	P	**Pn**	**11 02 35.8**	**+1.6**
PBDV				S	**Sn**	**11 03 09.2**	**+1.1**
PBDV	**Barranco-do-Ve**	**2.92**	**24**	*e*P	**Pn**	**11 02 36.3**	**+2.1**
PBDV				*e*S	**Sn**	**11 03 08.2**	**0.0**
PBDV				*i* IAML		11 03 12.6	
PBDV				*i* IAML		11 03 13.9	
PBDV				*i* IAML		11 03 19.4	
RSA	**Sarsar**	**2.97**	**83**	P	**Pn**	**11 02 35.0**	**+0.2**
RSA				S	**Sn**	**11 03 09.9**	**+0.6**
PTEO	**Sao Teotonio**	**3.02**	**10**	*e*P	**Pn**	**11 02 36.7**	**+1.2**
PTEO				*e*S	**Sn**	**11 03 09.5**	**-1.0**
PTEO				*i* IAML		11 03 10.1	
PTEO				*i* IAML		11 03 11.1	
PTEO				*i* IAML		11 03 12.1	
PVAQ	**Vaqueiros**	**3.14**	**25**	*e*P	**Pn**	**11 02 39.0**	**+1.8**
PVAQ				*e*S	**Sn**	**11 03 14.3**	**+0.8**
PVAQ				*i* IAML		11 03 17.4	
PVAQ				*i* IAML		11 03 17.6	
PVAQ				*i* IAML		11 03 18.1	
PVAQ	**Vaqueiros**	**3.14**	**25**	P	**Pn**	**11 02 38.2**	**+1.0**
PVAQ				S	**Sn**	**11 03 17.0**	**+3.5**
PCVE	**Castro Verde**	**3.25**	**20**	P	**Pn**	**11 02 40.5**	**+1.8**
PCVE				S	**Sn**	**11 03 16.6**	**+0.4**
PCVE	**Castro Verde**	**3.25**	**20**	*e*P	**Pn**	**11 02 40.6**	**+1.8**
PCVE				*e*S	**Sn**	**11 03 16.7**	**+0.6**
PCVE				*i* IAML		11 03 18.5	
PCVE				*i* IAML		11 03 21.1	
PCVE				*i* IAML		11 03 21.6	
EGRO	**El Granado**	**3.34**	**27**	P	**Pn**	**11 02 41.4**	**+1.4**
EGRO				S	**Sn**	**11 03 18.8**	**+0.4**
EGRO	**El Granado**	**3.34**	**27**	P	**Pn**	**11 02 41.8**	**+1.8**
EGRO				⇑IVmb_VC		11 02 43.5	
	comp=N,145nm,SNR=2.0						
EGRO				S	**Sn**	**11 03 17.6**	**-0.8**
MESJ	**Messejana**	**3.40**	**16**	*e*P	**Pn**	**11 02 42.3**	**+1.6**
MESJ				*e*S	**Sn**	**11 03 19.3**	**-0.6**
MESJ				IAML		11 03 21.4	
	comp=N,4.1nm,0.2s						
MESJ	**Messejana**	**3.40**	**16**	*e*P	**Pn**	**11 02 42.4**	**+1.6**
MESJ				*e*S	**Sn**	**11 03 19.8**	**-0.1**
MESJ				*i* IAML		11 03 21.7	
MESJ				*i* IAML		11 03 22.4	
MESJ				*i* IAML		11 03 23.4	
SMIR	**Smir Dam**	**3.48**	**70**	P	**Pn**	**11 02 42.1**	**+0.3**
SMIR				S	**Sn**	**11 03 22.3**	**+0.5**
PLOUS	**Minas do Lousa**	**3.54**	**13**	*e*P	**Pn**	**11 02 44.1**	**+1.4**
PLOUS				*e*S	**Sn**	**11 03 22.2**	**-1.2**
PLOUS				*i* IAML		11 03 23.6	
PLOUS				*i* IAML		11 03 29.6	
PLOUS				*i* IAML		11 03 36.2	
ECEU	**Ceuta**	**3.55**	**67**	S	**Sn**	**11 03 28.0**	**+4.4**
OUK	**Oukaimeden**	**3.59**	**158**	P	**Pn**	**11 02 43.3**	**-0.5**
OUK				S	**Sn**	**11 03 25.5**	**+0.4**
PBEJ	**Beja**	**3.67**	**19**	*e*P	**Pn**	**11 02 46.9**	**+2.5**
PBEJ				*e*S	**Sn**	**11 03 26.0**	**-0.5**
PBEJ				*i* IAML		11 03 28.5	
PBEJ				*i* IAML		11 03 29.0	
PBEJ				*i* IAML		11 03 30.6	
ESPR	**Espera**	**3.69**	**51**	P	**Pn**	**11 02 46.3**	**+1.6**
ESPR				S	**Sn**	**11 03 27.1**	**+0.2**
ESPR	**Espera**	**3.69**	**51**	P	**Pn**	**11 02 46.7**	**+2.0**
ESPR				⇑IVmb_VC		11 02 50.6	
	comp=N,211nm,SNR=3.1						
ESPR				S	**Sn**	**11 03 26.7**	**-0.2**
IFR	**Ifrane**	**3.70**	**105**	P	**Pn**	**11 02 45.6**	**+0.5**
IFR				S	**Sn**	**11 03 27.3**	**-0.3**
EJIF	**Jimena Fronter**	**3.72**	**59**	P	**Pn**	**11 02 47.5**	**+2.4**
TISM	**Timmit**	**3.77**	**138**	P	**Pn**	**11 02 44.1**	**-1.8**
TISM				S	**Sn**	**11 03 25.8**	**-3.3**
LCRM	**LCR**	**3.87**	**102**	P	**Pn**	**11 02 46.7**	**-0.7**
LCRM				S	**Sn**	**11 03 31.9**	**+0.2**
EMIN	**Mina Concepcio**	**3.88**	**34**	P	**Pn**	**11 02 48.6**	**+1.2**
EMIN				S	**Sn**	**11 03 29.8**	**-1.9**
EMIN	**Mina Concepcio**	**3.88**	**34**	P	**Pn**	**11 02 48.5**	**+1.2**
EMIN				⇑IVmb_VC		11 02 49.8	
	comp=N,90nm,SNR=1.4						
EMIN				S	**Sn**	**11 03 30.2**	**-1.6**
MOE	**Montemor**	**4.04**	**12**	*e*P	**Pn**	**11 02 51.2**	**+1.7**
MOE				*e*S	**Sn**	**11 03 35.2**	**-0.3**
MOE				*i* IAML		11 03 35.7	
MOE				*i* IAML		11 03 36.8	
MOE				*i* IAML		11 03 37.3	
TIO	**Tiouine**	**4.06**	**153**	P	**Pn**	**11 02 51.2**	**+1.3**
TIO				S	**Sn**	**11 03 36.0**	**-0.3**
TIO	**Tiouine**	**4.06**	**153**	P	**Pn**	**11 02 49.3**	**-0.7**
TIO				S	**Sn**	**11 03 37.1**	**+0.9**
PBAR	**Barrancos**	**4.07**	**27**	P	**Pn**	**11 02 52.1**	**+2.1**
PBAR				S	**Sn**	**11 03 36.2**	**-0.2**
PBAR	**Barrancos**	**4.07**	**27**	*e*P	**Pn**	**11 02 51.5**	**+1.5**
PBAR				*e*S	**Sn**	**11 03 36.7**	**+0.3**
PBAR				*i* IAML		11 03 38.1	
PBAR				*i* IAML		11 03 39.3	
PBAR				*i* IAML		11 03 49.6	
EVO	**Evora**	**4.11**	**15**	P	**Pn**	**11 02 51.5**	**+1.0**
EVO				S	**Sn**	**11 03 35.2**	**-2.1**
EVO	**Evora**	**4.11**	**15**	*e*P	**Pn**	**11 02 51.8**	**+1.3**
EVO				*e*S	**Sn**	**11 03 36.0**	**-1.3**
EVO				*i* IAML		11 03 37.6	
EVO				*i* IAML		11 03 38.1	
EVO				*i* IAML		11 03 40.1	
MD31	**MD31**	**4.23**	**112**	P	**Pn**	**11 02 51.7**	**-0.5**
MD31				S	**Sn**	**11 03 40.7**	**+0.3**
EMIJ	**Mijas**	**4.27**	**61**	P	**Pn**	**11 02 54.0**	**+1.3**
EMIJ				S	**Sn**	**11 03 40.5**	**-0.9**
EMIJ	**Mijas**	**4.27**	**61**	P	**Pn**	**11 02 54.4**	**+1.7**
EMIJ				⇑IVmb_VC		11 02 56.6	
	comp=N,88nm,SNR=1.6						
EMIJ				S	**Sn**	**11 03 42.7**	**+1.4**
OUZM	**OUZ**	**4.28**	**148**	P	**Pn**	**11 02 52.7**	**-0.2**
OUZM				S	**Sn**	**11 03 42.4**	**+0.8**
MDT	**Midelt**	**4.37**	**112**	P	**Pn**	**11 02 53.7**	**-0.4**
MDT				S	**Sn**	**11 03 43.9**	**+0.1**
PARRA	**Arraiolos**	**4.38**	**14**	*e*P	**Pn**	**11 02 55.2**	**+1.0**
PARRA				*e*S	**Sn**	**11 03 42.8**	**-1.2**
PARRA				*i* IAML		11 03 43.6	
PARRA				*i* IAML		11 03 44.0	
PARRA				*i* IAML		11 03 44.3	
PMAFR	**Mafra**	**4.38**	**1**	P	**Pn**	**11 02 54.3**	**+0.1**
PMAFR				S	**Sn**	**11 03 41.4**	**-2.6**
PMAFR	**Mafra**	**4.38**	**1**	*e*P	**Pn**	**11 02 54.9**	**+0.7**
PMAFR				*e*S	**Sn**	**11 03 42.3**	**-1.7**
PMAFR				*i* IAML		11 03 44.7	
PMAFR				*i* IAML		11 03 45.1	
PMAFR				*i* IAML		11 03 45.3	
PESTR	**Estremoz**	**4.53**	**18**	P	**Pn**	**11 02 57.4**	**+1.1**
PESTR				S	**Sn**	**11 03 45.9**	**-1.9**
PESTR	**Estremoz**	**4.53**	**18**	*e*P	**Pn**	**11 02 58.3**	**+2.0**
PESTR				*e*S	**Sn**	**11 03 46.8**	**-0.9**
PESTR				*i* IAML		11 03 48.2	
PESTR				*i* IAML		11 03 48.3	
PESTR				*i* IAML		11 03 50.6	
AKLM	**AKL**	**4.58**	**89**	P	**Pn**	**11 02 54.7**	**-2.3**
AKLM				S	**Sn**	**11 03 47.3**	**-1.7**
PMTG	**Montargil**	**4.59**	**12**	*e*P	**Pn**	**11 02 58.0**	**+0.9**
PMTG				*e*S	**Sn**	**11 03 47.3**	**-1.9**
PMTG				*i* IAML		11 03 49.0	
PMTG				*i* IAML		11 03 49.5	
PMTG				*i* IAML		11 03 52.0	
EBAD	**Badajoz**	**4.60**	**24**	P	**Pn**	**11 02 58.3**	**+1.1**
EBAD				S	**Sn**	**11 03 47.9**	**-1.5**
EBAD	**Badajoz**	**4.60**	**24**	P	**Pn**	**11 02 59.0**	**+1.7**
EBAD				⇑IVmb_VC		11 03 00.3	
	comp=N,154nm,SNR=2.6						
EBAD				S	**Sn**	**11 03 48.4**	**-1.0**
EMAL	**Malaga-Limoner**	**4.60**	**60**	P	**Pn**	**11 02 59.2**	**+2.0**
ECAB	**El Cabril**	**4.75**	**41**	P	**Pn**	**11 03 00.5**	**+1.2**
ECAB				S	**Sn**	**11 03 51.4**	**-1.9**
ECAB	**El Cabril**	**4.75**	**41**	P	**Pn**	**11 03 01.1**	**+1.7**
ECAB				⇑IVmb_VC		11 03 01.8	
	comp=N,57nm,SNR=1.0						
ECAB				S	**Sn**	**11 03 50.5**	**-2.8**
PSBE	**So Bento**	**4.96**	**5**	*e*S	**Sn**	**11 03 57.8**	**-0.5**
EGOR	**Sierra Gorda,**	**4.99**	**58**	P	**Pn**	**11 03 03.8**	**+1.1**
EGOR				S	**Sn**	**11 03 59.0**	**-0.3**
EGOR	**Sierra Gorda,**	**4.99**	**58**	P	**Pn**	**11 03 05.8**	**+3.0**
EGOR				⇑IVmb_VC		11 03 06.9	
	comp=N,64nm,SNR=1.3						
EGOR				S	**Sn**	**11 03 59.1**	**-0.3**
PMRV	**Marv??o**	**5.11**	**18**	*e*P	**Pn**	**11 03 05.4**	**+1.1**
PMRV				*e*S	**Sn**	**11 04 00.2**	**-1.8**
PMRV				*i* IAML		11 04 01.1	
PMRV				*i* IAML		11 04 01.8	
PMRV				*i* IAML		11 04 02.4	
PSARD	**Sardoal**	**5.12**	**11**	*e*P	**Pn**	**11 03 05.8**	**+1.4**
PSARD				*e*S	**Sn**	**11 04 00.7**	**-1.6**
PSARD				*i* IAML		11 04 01.4	
PSARD				*i* IAML		11 04 02.3	
PSARD				*i* IAML		11 04 02.4	
ELGU	**Los Guajares,**	**5.23**	**62**	P	**Pn**	**11 03 07.2**	**+1.2**
ELGU	**Los Guajares,**	**5.23**	**62**	P	**Pn**	**11 03 08.1**	**+2.2**
ELGU				⇑IVmb_VC		11 03 10.2	
	comp=N,39nm,SNR=0.5						
ELGU				S	**Sn**	**11 04 03.0**	**-2.1**
EADA	**Adamuz**	**5.30**	**46**	P	**Pn**	**11 03 07.5**	**+0.6**
EADA				S	**Sn**	**11 04 04.6**	**-2.1**
EADA	**Adamuz**	**5.30**	**46**	P	**Pn**	**11 03 08.3**	**+1.4**
EADA				⇑IVmb_VC		11 03 09.5	
	comp=N,128nm,SNR=1.7						
EADA				S	**Sn**	**11 04 05.5**	**-1.2**
PCBR	**Castelo Branco**	**5.48**	**16**	*e*P	**Pn**	**11 03 12.0**	**+2.7**
PCBR				*e*S	**Sn**	**11 04 09.6**	**-1.5**
PCBR				*i* IAML		11 04 10.1	
PCBR				*i* IAML		11 04 10.5	
PCBR				*i* IAML		11 04 12.4	
PCAS	**Casmilo, Conde**	**5.52**	**7**	*e*P	**Pn**	**11 03 11.3**	**+1.4**
PCAS				*e*S	**Sn**	**11 04 08.7**	**-3.4**
EBER	**Berja**	**5.79**	**64**	P	**Pn**	**11 03 15.3**	**+1.5**
CIBOR	**Castaar de Ib**	**5.97**	**31**	P	**Pn**	**11 03 17.4**	**+1.3**
CIBOR				S	**Sn**	**11 04 21.0**	**-2.3**
PVIS	**Viseu**	**6.25**	**11**	*e*P	**Pn**	**11 03 22.5**	**+2.6**
PVIS				*e*S	**Sn**	**11 04 28.1**	**-2.1**
PAB	**San Pablo**	**6.40**	**38**	P	**Pn**	**11 03 23.9**	**+1.8**
PAB				⇑IVmb_VC		11 03 25.8	
	comp=N,36nm,SNR=0.6						
PAB				S	**Sn**	**11 04 29.6**	**-4.4**
POLO	**Lamas de Olo**	**6.91**	**10**	*e*P	**Pn**	**11 03 30.2**	**+1.2**
EZAR	**Zarzadilla de**	**7.05**	**60**	P	**Pn**	**11 03 32.4**	**+1.4**
EJUZ	**Juzbado, Salam**	**7.08**	**22**	S	**Sn**	**11 04 55.2**	**+4.8**
GUD	**Guadarrama**	**7.36**	**33**	P	**Pn**	**11 03 36.3**	**+1.1**
ELOB	**Lobios**	**7.36**	**8**	P	**Pn**	**11 03 36.1**	**+0.9**
ELOB				⇑IVmb_VC		11 03 37.4	
	comp=N,125nm,SNR=1.0						
ELOB				S	**Sn**	**11 04 52.2**	**-5.4**
PGAV	**Gavieira, Arco**	**7.44**	**7**	*e*S	**Sn**	**11 04 57.5**	**-1.9**
ETOB	**Tobarra**	**7.51**	**55**	P	**Pn**	**11 03 37.8**	**+0.5**
ETOB				S	**Sn**	**11 04 57.2**	**-4.1**
ETOB	**Tobarra**	**7.51**	**55**	P	**Pn**	**11 03 38.6**	**+1.3**
ETOB				⇑IVmb_VC		11 03 39.5	
	comp=N,91nm,SNR=0.8						
ETOB				S	**Sn**	**11 04 57.4**	**-3.9**
ECAL	**Calabor**	**7.65**	**15**	P	**Pn**	**11 03 41.0**	**+1.8**
ECAL				⇑IVmb_VC		11 03 43.2	
	comp=N,147nm,SNR=0.8						
EAGO	**Agolada(Pontev**	**8.29**	**7**	P	**Pn**	**11 03 48.7**	**+0.9**
EAGO				⇑IVmb_VC		11 03 50.8	
	comp=N,56nm,SNR=0.5						
ETOR	**Torete**	**8.53**	**41**	P	**Pn**	**11 03 53.3**	**+2.0**
ETOR				⇑IVmb_VC		11 03 54.6	
	comp=N,21nm,SNR=0.2						
ETOR				S	**Sn**	**11 05 23.5**	**-2.9**

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*IDC **20** 11:11:13.7±3.5, 2°.37N×94°.48W, h0^{km}, mb3.5/4, mbtmp3.5/4, MS3.8/24, Error ellipse: s-maj=247.0km s-min=65.6km az=63.0*

*NEIC **20** 11:11:15.4±1.0, 2°.5N±0°.1×94°.26W±0°.06, h10^{km}±2^{km}, mb4.1/17, Error ellipse: s-maj=23.0km s-min=4.9km az=202.0*

ISC 20 11:11:14.5±1.1**, 2°.4N**±0°.1×**94°.3W**±0°.1**, h10^{km}, n53, σ0ˢ.67**/25**, mb4.0**/11**, MS3.8**/21**, Galapagos Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PAYG	Puerto Ayora	5.04	128	Pn	Pn	11 12 30.4	+0.2
JTS	Las Juntas de	12.10	49	LR	LR	11 17 51.5	
	comp=Z,536nm,19.1s,baz=243,slow=32						
CARN	Rivas	12.28	45	Pn	Pn	11 14 09.9	+0.2
CMIG	Matias Romero	14.57	358	LR	LR	11 19 00.2	
	comp=Z,589nm,20.9s,baz=165,slow=32						
TLIG	Tlapa	15.61	345	Pn	Pn	11 14 54.1	-0.8
SLOR	San Lorenzo -	16.08	101	Pn	Pn	11 15 01.5	+0.1
MOIG	Morelia	18.42	339	P	Pn	11 15 29.1	-1.3
MOIG				IAmb	IAmb	11 16 09.2	
	comp=Z,13nm,0.5s						
ATAH	Atahualpa	18.48	121	LR	LR	11 21 33.6	
	comp=Z,397nm,20.9s,baz=300,slow=33						
ROSC	El Rosal	20.05	83	P	P	11 15 48.5	0.0
ROSC				IAmb	IAmb	11 16 10.9	
	comp=Z,14nm,1.1s						
ZAIG	Zacatecas	21.76	339	P	P	11 16 05.7	-1.1
NNA	Nana	22.48	130	LR	LR	11 23 46.3	
	comp=Z,90nm,19.0s,baz=297,slow=33						
CAIB	Caibarien	24.57	35	P	P	11 16 34.7	-0.2
LPIG	La Paz	26.54	326	LR	LR	11 24 09.7	
	comp=Z,67nm,21.2s,baz=179,slow=29						
TXAR	Lajitas Array	28.20	342	P	P	11 17 08.7	+1.0
	comp=Z,0.3nm,0.6s,baz=159,slow=10,SNR=7.9						
TXAR				LR	LR	11 27 07.4	
	comp=Z,293nm,21.9s,baz=129,slow=34						
	comp=Z,0.3nm,0.6s						
TXAR	Lajitas Array	28.20	342	P	P	11 17 08.3	+0.6
JCT	Junction City	28.38	350	P	P	11 17 09.4	+0.3
JCT				IAmb	IAmb	11 17 26.2	
	comp=Z,3.8nm,1.1s						
ODSA	Odessa	30.54	346	P	P	11 17 28.3	-0.1
LPAZ	La Paz	31.83	127	LR	LR	11 30 16.7	
	comp=Z,78nm,20.5s,baz=298,slow=36						
LPAZ	La Paz	31.83	127	P	P	11 17 39.5	-1.0
ANMO	Albuquerque	34.27	342	LR	LR	11 31 00.6	
	comp=Z,267nm,18.2s,baz=150,slow=35						
TKL	Tuckaleechee C	34.46	15	LR	LR	11 31 22.0	
	comp=Z,223nm,20.6s,baz=187,slow=35						
BLYC	Blythe	36.45	331	P	P	11 18 19.9	+0.2
BLYC				IAmb	IAmb	11 18 25.0	
	comp=Z,3.5nm,1.1s						
PFO	Pinyon Flats O	37.32	329	LR	LR	11 30 57.3	
	comp=Z,202nm,19.2s,baz=147,slow=32						
DNR	Dunn Ranch,Anz	37.37	328	P	P	11 18 28.0	+0.3
HMU	Henry Mountain	38.43	339	P	P	11 18 37.2	+0.4
HMU				IAmb	IAmb	11 19 02.0	
	comp=Z,5.4nm,1.1s						
H03N2	Juan Fernandez	38.51	159	T	T	12 00 10.0	
	baz=327,slow=74,SNR=8.4						
H03N1	Juan Fernandez	38.52	159	T	T	12 00 11.7	
	baz=295,slow=74,SNR=12						
PSUT	Pine Spring	40.14	336	P	P	11 18 51.0	0.0
PSUT				IAmb	IAmb	11 18 53.9	
	comp=Z,5.2nm,1.2s						
DUG	Dugway, Tooele	41.17	338	P	P	11 19 00.5	+1.0
DUG				IAmb	IAmb	11 19 24.5	
	comp=Z,4.0nm,1.1s						
TPH	Tonopah	41.23	332	P	P	11 19 00.3	+0.3
NVAR	Mina Array Bea	42.03	331	P	P	11 19 07.0	+0.5
	comp=Z,0.6nm,0.7s,baz=140,slow=5.7,SNR=5.5						
NVAR				LR	LR	11 34 28.9	
	comp=Z,88nm,19.0s,baz=134,slow=33						
	comp=Z,0.6nm,0.7s						
PDAR	Pinedale Array	42.41	343	P	P	11 19 10.3	+0.6
	comp=Z,0.5nm,0.8s,baz=142,slow=5.6,SNR=5.7						
PDAR				LR	LR	11 36 12.0	
	comp=Z,288nm,18.5s,baz=145,slow=35						
	comp=Z,0.5nm,0.8s						
HVU	Hansel Valley	42.55	339	P	P	11 19 11.2	+0.4
HVU				IAmb	IAmb	11 19 27.9	
	comp=Z,3.4nm,1.1s						
ELK	Elko	42.58	336	LR	LR	11 37 08.8	
	comp=Z,190nm,18.0s,baz=141,slow=36						
SADO	Sadowa	44.22	15	LR	LR	11 37 26.2	
	comp=Z,124nm,20.5s,baz=216,slow=36						
HLID	Hailey	44.70	339	P	P	11 19 28.4	+0.4
HLID				IAmb	IAmb	11 19 52.9	
	comp=Z,1.8nm,1.1s						
PLCA	Paso Flores	48.11	156	LR	LR	11 36 20.8	
	comp=Z,162nm,18.9s,baz=329,slow=31						
BDFB	Brasilia	49.14	113	LR	LR	11 43 04.3	
	comp=Z,77nm,18.1s,baz=3.8,slow=39						
NEW	Newport	49.71	340	LR	LR	11 39 49.2	
	comp=Z,53nm,19.3s,baz=133,slow=34						
SCHQ	Schefferville	56.80	19	LR	LR	11 43 54.2	
	comp=Z,62nm,21.2s,baz=208,slow=34						
YKA	Yellowknife Ar	61.81	349	LR	LR	11 47 05.1	
	comp=Z,64nm,18.7s,baz=114,slow=35						
DLBC	Dease Lake	62.46	340	LR	LR	11 47 05.1	
	comp=Z,65nm,20.9s,baz=116,slow=34						
FRB	Frobisher Bay	64.01	12	LR	LR	11 49 14.4	
	comp=Z,194nm,19.7s,baz=203,slow=36						
INK	Inuvik	70.92	346	LR	LR	11 53 15.5	
	comp=Z,80nm,19.9s,baz=74,slow=36						
SFJD	Kangerlussuaq	71.16	17	LR	LR	11 55 46.3	
	comp=Z,74nm,18.0s,baz=196,slow=38						
ILAR	Eielson Array	72.65	339	P	P	11 22 42.1	0.0
	comp=Z,0.7nm,1.0s,baz=112,slow=5.7,SNR=6.4						
ILAR				LR	LR	11 55 19.0	
	comp=Z,76nm,19.4s,baz=77,slow=36						
	comp=Z,0.7nm,1.0s						
H11N3	WAKE ISLAND Hy	97.48	290	T	T	13 12 06.2	
	baz=83						
H11N2	WAKE ISLAND Hy	97.49	290	T	T	13 12 08.8	
	baz=83						
H11N1	WAKE ISLAND Hy	97.50	290	T	T	13 12 16.8	
	baz=83						
H11S2	WAKE ISLAND Hy	97.78	289	T	T	13 12 23.1	
	baz=86,slow=75,SNR=20						
H11S1	WAKE ISLAND Hy	97.79	289	T	T	13 12 23.9	
	baz=86,slow=75,SNR=14						
H11S3	WAKE ISLAND Hy	97.80	289	T	T	13 12 24.4	
	baz=86,slow=75,SNR=14						
KURBB	Kurchatov Arra	126.78	6	PKP	PKPdf	11 30 19.8	+1.2
	comp=Z,0.2nm,0.4s,baz=352,slow=2.2,SNR=2.0						

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*IDC **20** 11:45:21.9±4.2, 5°.83S×105°.10E, h0^{km}, mb3.7/6, mbtmp3.7/6, Error ellipse: s-maj=230.3km s-min=21.6km az=51.0*

*DJA **20** 11:45:25.2±1.5, 7°S±7°×10°4E±°, h20^{km}±11^{km}, M4.0/14, ML3.9/12, MLv3.9/12, MLv4.0/14*

ISC 20 11:45:25.7±1.0**, 6°.55S**±0°.09×**104°.41E**±0°.08**, h40^{km}, n25, σ0ˢ.97**/20**, mb3.7**/6**, Sunda Strait**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KASI	Kota Agung	1.02	5	P	Pn	11 45 43.8	+0.1
KASI				AML	AML		
KASI				AML	AML		
KASI				AML	AML		
CGJI	Cibinong	1.28	93	P	Pn	11 45 47.2	+0.1
CGJI				S	Sn	11 46 04.0	+1.0
CGJI				AML	AML		
CGJI				AML	AML		
BLSI	Bandar Lampung	1.44	35	P	Pn	11 45 50.3	+0.9
BLSI				AML	AML		
BLSI				AML	AML		
BLSI				AML	AML		
MDSI	Maura Dua	2.06	354	P	Pn	11 45 59.5	+1.6
MNAI	Manna	2.61	326	P	Pn	11 46 06.2	+0.7
MNAI				AML	AML		
CNJI	Cibinong	2.81	106	P	Pn	11 46 09.9	+1.8
CNJI				AML	AML		
CNJI				AML	AML		
CNJI				AML	AML		
LHSI	Lahat	2.85	342	P	Pn	11 46 09.2	+0.5
LHSI				AML	AML		
LHSI				AML	AML		
LHSI				AML	AML		
BBJI	Bungbulang	3.34	106	P	Pn	11 46 15.3	-0.3
MASI	Maura Aman, Be	4.02	327	P	Pn	11 46 25.2	+0.4
CMJI	Cimerak	4.19	107	P	Pn	11 46 27.0	-0.2
CMJI				AML	AML		
KPJI	Karang Pucung	4.56	100	P	Pn	11 46 32.2	0.0
TPI	Tanjungpandan	4.97	41	P	Pn	11 46 37.4	-0.5
FITZ	Fitzroy Crossi	23.67	121	P	P	11 50 33.9	0.0
	1.9nm,0.6s,baz=302,slow=4.0,SNR=6.8						
	1.9nm,0.6s						
H08S2	Diego Garcia H	31.68	266	T	T	12 25 35.1	
	baz=89,slow=75,SNR=9.6						
H08S3	Diego Garcia H	31.69	266	T	T	12 25 36.1	
	baz=89,slow=75,SNR=15						
H08S1	Diego Carcia H	31.70	266	T	T	12 25 29.6	
	baz=89,slow=75,SNR=4.0						
WRA	Warramunga Arr	31.95	118	P	P	11 51 47.2	-0.9
	0.5nm,0.9s,baz=301,slow=10,SNR=5.1						
	0.5nm,0.9s						
ASAR	Alice Springs	33.05	124	P	P	11 51 58.0	+0.2
	0.6nm,1.0s,baz=300,slow=7.7,SNR=4.9						
	0.6nm,1.0s						
STKA	Stephens Creek	42.86	131	P	P	11 53 21.8	+1.4
	1.6nm,0.5s,baz=311,slow=9.3,SNR=1.9						
	1.6nm,0.5s						
MKAR	Makanchi Array	56.63	342	P	P	11 55 03.9	-0.9
	0.3nm,0.4s,baz=132,slow=7.2,SNR=2.2						
	0.3nm,0.4s						
H04N2	CROZET ISLANDS	59.94	220	T	T	13 01 22.7	
	baz=66,slow=76,SNR=19						
H04N1	CROZET ISLANDS	59.96	220	T	T	13 01 23.2	
	baz=66,slow=76,SNR=15						
H04N3	CROZET ISLANDS	59.96	220	T	T	13 01 22.5	
	baz=66,slow=76,SNR=15						
ZALV	Zalesovo Beam	62.49	347	P	P	11 55 43.0	-1.9
	0.7nm,0.3s,baz=140,slow=4.7,SNR=4.1						
	0.7nm,0.3s						
TXAR	Lajitas Array	145.16	46	PKP	PKPdf	12 04 59.7	-0.2
	0.4nm,0.5s,baz=320,slow=1.9,SNR=8.7						

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*IDC **20** 12:17:32.3±16.0, 13°.21S×166°.92E, h250^{km}±151^{km}, mb3.3/6, mbtmp3.9/6, Error ellipse: s-maj=66.5km s-min=32.4km az=90.0*

ISC 20 12:17:24.6±1.3**, 13°.2S**±0°.3×**167°.1E**±0°.3**, h180^{km}, n7, σ0ˢ.70**/7**, mb3.7**/6**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	Charters Tower	21.15	248	P	P	12 21 56.6	+0.8
	4.7nm,1.1s,baz=66,slow=12,SNR=1.6						
	4.7nm,1.1s						
STKA	Stephens Creek	29.93	227	P	P	12 23 16.2	+0.4
	1.5nm,0.5s,baz=45,slow=8.5,SNR=4.2						
	1.5nm,0.5s						
WRA	Warramunga Arr	32.11	253	P	P	12 23 34.5	-0.7
	0.3nm,0.5s,baz=85,slow=9.3,SNR=9.8						
	0.3nm,0.5s						
ASAR	Alice Springs	33.14	247	P	P	12 23 43.4	-0.7
	0.8nm,0.5s,baz=78,slow=9.8,SNR=25						
	0.8nm,0.5s						
QSPA	South Pole Qui	76.85	180	P	P	12 28 56.4	-0.1
	1.4nm,0.8s,baz=135,slow=1.1,SNR=7.3						
	1.4nm,0.8s						
ILAR	Eielson Array	85.09	18	P	P	12 29 40.1	+0.3
	0.5nm,0.6s,baz=239,slow=4.9,SNR=12						
	0.5nm,0.6s						
ARCES	ARCESS Array B	118.72	346	PKP	PKPdf	12 35 50.4	-0.4
	2.4nm,1.0s,baz=92,slow=2.7,SNR=3.9						

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*KRNET **20** 12:18:36.3±0.1, 40°.34N×70°.53E, h14^{km}, mb2.7*

*NNC **20** 12:18:45.4±4.2, 40°.54N×70°.62E, h0^{km}, mb3.6, mpv3.1, Error ellipse: s-maj=31.6km s-min=19.1km az=28.0*

*SOME **20** 12:18:47.2, 40°.65N×70°.58E, h20^{km}*

ISC 20 12:18:38.0±1.2**, 40°.28N**±0°.05×**70°.58E**±0°.05**, h16^{km}**±10^{km}**, n18, σ1ˢ.50**/32**, 17C-1D, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BTK	Batken	0.28	140	⇑eP	Pg	12 18 43.3	-0.8
BTK				⇑eS	Sg	12 18 48.4	+0.2
DRK	Karamyk	1.23	130	⇑eP	Pn	12 19 00.6	-0.2
DRK				⇑eS	Sg	12 19 18.4	+0.7
TRKS	Terek-Say	1.32	18	⇑eP	Pn	12 18 59.4	-2.6
TRKS				⇑eS	Sn	12 19 16.1	-3.3
OHH	Osh	1.70	81	⇑eP	Pn	12 19 08.2	+1.1
OHH				⇑eS	Sb	12 19 31.6	+1.5
ARK	Arkit	1.84	34	⇑eP	Pn	12 19 09.4	+0.3
ARK				⇑eS	Sb	12 19 34.3	0.0
IUG	Iuzhnay	1.92	348	P	Pg	12 19 16.2	+1.4
	20nm,0.2s						
IUG				S	Sb	12 19 37.1	+0.7
	192nm,0.2s						
IUG	Iuzhnay	1.92	348	eP	Pg	12 19 16.1	+1.4
	20nm,0.2s						
IUG				eS	Sb	12 19 37.1	+0.7
	192nm,0.2s						
ARSB	Arslanbob	2.10	59	⇑eP	Pn	12 19 13.9	+1.2
ARSB				⇑eS	Sb	12 19 41.3	-0.4
SFK	Sufi-Kurgan	2.25	96	⇑eP	Pn	12 19 16.7	+1.9
SFK				⇑eS	Sb	12 19 46.1	-0.1
SALK	Salom-Alik	2.54	75	⇑eP	Pn	12 19 20.6	+1.9
SALK				⇑eS	Sb	12 19 52.7	-1.7
BRLS	Borolday	2.81	349	Pg	Pb	12 19 27.2	-0.6
	2.6nm,0.4s						
BRLS				Lg	Lg	12 19 56.2	
	20nm,0.2s						
BRLS	Borolday	2.81	349	eP	Pb	12 19 27.2	-0.6
	2.6nm,0.4s						
BRLS				eS	Sn	12 19 56.1	+0.3
	20nm,0.2s						
KK31	Karatay Array	2.83	359	⇓Pn	Pb	12 19 27.4	-0.7
	0.8nm,0.2s,baz=146,slow=14,SNR=8.0						
KK31				⇑Sn	Sb	12 20 02.9	+0.4
	15nm,0.5s,baz=143,slow=26,SNR=39						
MRKS	Merke	3.17	38	Pg	Pg	12 19 39.0	+0.3
	8.9nm,0.4s						
MRKS				Lg	Lg	12 20 16.7	
	11nm,0.4s						
MRKS	Merke	3.17	38	eP	Pg	12 19 39.0	+0.3
	8.9nm,0.4s						
MRKS				eS	Sb	12 20 16.6	+4.3
	11nm,0.4s						
SGDS	Sogindy	4.38	42	Pg	Pg	12 20 01.1	-0.8
	0.8nm,0.2s						
SGDS				Lg	Lg	12 20 54.1	
	2.4nm,0.2s						
KST	Kastek	4.89	54	Pg	Pg	12 20 12.4	+0.9
	0.8nm,0.2s						
KST				Lg	Lg	12 21 13.4	
	6.6nm,0.4s						
KST	Kastek	4.89	54	eP	Pg	12 20 12.4	+0.9
	0.8nm,0.2s						
KST				eS	Sg	12 21 13.4	-1.5
	6.6nm,0.4s						

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*TAP **20** 12:56:05.0, 24°.08N×121°.79E, h62^{km}, ML3.6, C*

ISC 20 12:56:05.5±1.2**, 24°.07N**±0°.02×**121°.83E**±0°.03**, h57^{km}**±5^{km}**, n136, σ1ˢ.16**/244**, 2C-1D, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ETL	Fush Village	0.21	295	eP	Pn	12 56 14.7	0.0
ETL				S	Sn	12 56 22.1	+0.7
TWD	Chiawan	0.22	272	i P	Pn	12 56 14.6	-0.1
TWD				i S	Sn	12 56 21.9	+0.6
HWA	Hwalien	0.23	246	eP	Pn	12 56 15.1	+0.3
HWA				S	Sn	12 56 23.5	+2.0
NACB	Ninganchiao	0.24	295	P	Pn	12 56 14.5	-0.4
NACB	Ninganchiao	0.24	295	S	Sn	12 56 21.5	-0.1
NACB	Ninganchiao	0.24	295	⇑i P	Pn	12 56 14.7	-0.2
NACB				i S	Sn	12 56 21.6	-0.1
EAHA	Aohua	0.27	342	i P	Pn	12 56 15.0	-0.1
EAHA				eS	Sn	12 56 22.6	+0.5
TEYL	Yanliau Villag	0.29	227	P	Pn	12 56 15.4	+0.1
TEYL				S	Sn	12 56 23.4	+1.1
ETM	Tongmen	0.33	251	i P	Pn	12 56 15.3	-0.3
ETM				S	Sn	12 56 22.6	-0.2
ETLH	Xiulin Townshi	0.35	293	P	Pn	12 56 15.5	-0.3
ETLH				S	Sn	12 56 23.1	-0.2
ENA	Nanau	0.36	347	eP	Pn	12 56 13.4	-2.5
ENA				eS	Sn	12 56 21.5	-1.9
SHUL	Shoufeng	0.38	221	P	Pn	12 56 16.1	+0.2
SHUL				eS	Sn	12 56 24.7	+1.2
LXIB	Xiulin Townshi	0.39	263	i P	Pn	12 56 15.7	-0.6
LXIB				S	Sn	12 56 23.3	-0.7
EOS4	EOS4	0.45	84	eP	Pn	12 56 16.9	+0.6
EOS4				S	Sn	12 56 25.7	+1.7
ESL	Shilin	0.45	235	i P	Pn	12 56 16.1	-0.5
ESL				eS	Sn	12 56 24.2	-0.5
TEGC	Jichi Village	0.45	217	eP	Pn	12 56 17.0	+0.3
TEGC				S	Sn	12 56 26.1	+1.3
EOS3	EOS3	0.49	64	i P	Pn	12 56 18.1	+1.1
EOS3				S	Sn	12 56 27.7	+2.4
EOS2	EOS2	0.50	46	eP	Pn	12 56 18.3	+1.2
EOS2				S	Sn	12 56 28.0	+2.5
ESAO	Su ao	0.50	1	eP	Pn	12 56 17.6	+0.3
ESAO				S	Sn	12 56 26.2	+0.4
WHF	Hehuan Shan	0.52	278	i P	Pn	12 56 17.6	-0.4
WHF				S	Sn	12 56 26.2	-0.7
TWC	Suao	0.54	2	i P	Pn	12 56 17.9	+0.3
TWC				i S	Sn	12 56 27.3	+0.8
WARBT	Fenglin Townsh	0.54	229	i P	Pn	12 56 17.0	-0.7
WARBT				i S	Sn	12 56 25.6	-1.0
LATG	Datong	0.54	329	i P	Pn	12 56 17.5	-0.3
LATG				i S	Sn	12 56 26.9	+0.1
NNSB	Datong	0.54	311	⇓i P	Pn	12 56 17.5	-0.3
NNSB				i S	Sn	12 56 26.4	-0.4
NNS	Nan Shan	0.56	311	P	Pn	12 56 17.8	-0.2
NNS				S	Sn	12 56 26.8	-0.3
FUSS	Fushou	0.57	288	i P	Pn	12 56 18.1	-0.1
FUSS				i S	Sn	12 56 27.6	+0.1
NDS	Dongshan	0.57	349	i P	Pn	12 56 18.1	0.0
NDS				S	Sn	12 56 27.7	+0.5
NDT	Datong Townshi	0.60	331	eP	Pn	12 56 18.3	-0.1
NDT				S	Sn	12 56 28.2	+0.3
OWD	Renai	0.61	259	i P	Pn	12 56 18.6	-0.1
OWD				S	Sn	12 56 27.7	-0.5
TWT	Tachien	0.63	287	P	Pn	12 56 19.1	+0.2
TWT				i S	Sn	12 56 28.6	-0.1
TDCB	Techi	0.64	287	P	Pn	12 56 19.1	+0.1
TDCB				S	Sn	12 56 28.4	-0.5
WUSB	Renai	0.66	263	i P	Pn	12 56 19.2	+0.1
WUSB				S	Sn	12 56 28.9	-0.3
TWE	Neicheng	0.67	347	i P	Pn	12 56 19.2	0.0
TWE				eS	Sn	12 56 29.1	0.0
HGSD	Ruisui	0.69	213	P	Pn	12 56 19.6	+0.2
HGSD				eS	Sn	12 56 30.7	+1.1
ILA	Ilan	0.70	354	eP	Pn	12 56 20.5	+1.0
ILA				eS	Sn	12 56 31.6	+1.8
VWDT	VWDT	0.71	244	⇑i P	Pn	12 56 19.8	+0.1
VWDT				i S	Sn	12 56 30.1	+0.1
FUSB	Fushanzhiwuyua	0.72	342	i P	Pn	12 56 19.9	-0.1
FUSB				S	Sn	12 56 30.4	0.0
YHNB	Yeheng	0.73	325	P	Pn	12 56 19.7	-0.3
YHNB	Yeheng	0.73	325	S	Sn	12 56 30.5	-0.1
YHNB	Yeheng	0.73	325	P	Pn	12 56 19.8	-0.2
YHNB				S	Sn	12 56 29.5	-1.1
EHYH	Wanrong	0.73	218	eP	Pn	12 56 19.1	-0.8
EHYH				eS	Sn	12 56 29.7	-0.7
EHY	Hungye	0.73	220	eP	Pn	12 56 19.2	-0.8
EHY				S	Sn	12 56 29.0	-1.6
NSK	Sanguang	0.74	324	i P	Pn	12 56 19.9	-0.3
NSK				S	Sn	12 56 30.3	-0.6
NWLT	Wulai	0.77	337	P	Pn	12 56 20.5	0.0
NWLT				i S	Sn	12 56 30.6	-0.8
EGS		0.78	7	i P	Pn	12 56 21.6	+1.0
ECBN	Changbin	0.83	205	P	Pn	12 56 21.1	-0.1
ECBN				S	Sn	12 56 33.3	+0.6
WHP	Taichung City	0.84	284	P	Pn	12 56 22.1	+0.8
WHP				S	Sn	12 56 33.7	+0.7
WCS	Beigang Elemen	0.84	269	eP	Pn	12 56 21.9	+0.6
WCS				eS	Sn	12 56 33.8	+0.7
SSLB	Suanglung	0.85	251	P	Pn	12 56 21.4	-0.1
SSLB	Suanglung	0.85	251	P	Pn	12 56 21.4	-0.1
SSLB				eS	Sn	12 56 34.0	+0.6
NFF	Wufeng Townshi	0.86	311	i P	Pn	12 56 21.9	+0.3
NFF				i S	Sn	12 56 33.5	0.0
EYUL	Yuli	0.86	213	eP	Pn	12 56 21.4	-0.2
EYUL				eS	Sn	12 56 34.6	+1.2
SMLT	Sun Moon Lake	0.87	258	i P	Pn	12 56 22.2	+0.3
SMLT				S	Sn	12 56 35.1	+1.1
TIPB	Shuangxi	0.90	360	P	Pn	12 56 22.7	+0.6
TIPB				i S	Sn	12 56 35.2	+0.9
TYC	Yuchr	0.91	260	P	Pn	12 56 22.5	+0.4
TYC				eS	Sn	12 56 34.9	+0.4
KSHI	Guanxi Townshi	0.92	320	i P	Pn	12 56 22.8	+0.4
KSHI				i S	Sn	12 56 35.0	+0.1
NHDH	Xindian Distri	0.93	343	eP	Pn	12 56 22.4	-0.1
NHDH				eS	Sn	12 56 35.1	0.0
TWA	Mucha	0.93	346	eP	Pn	12 56 22.6	+0.1
TWA				i S	Sn	12 56 36.0	+0.8
LIOB	Emei	0.94	308	P	Pn	12 56 22.8	+0.1
LIOB				S	Sn	12 56 36.4	+1.1
NSTT	Nanjuang	0.94	306	P	Pn	12 56 22.6	0.0
NSTT				i S	Sn	12 56 36.0	+0.7
TWB1	Santiao Chiao	0.94	9	i P	Pn	12 56 22.8	+0.1
TWB1				i S	Sn	12 56 35.6	+0.3
TATO	Taipei	0.95	341	P	Pn	12 56 22.5	-0.3
CHKH	Chenggong	0.96	205	i P	Pn	12 56 22.9	0.0
CHKH				S	Sn	12 56 35.6	-0.2
WHYT	Xinyi Township	0.97	248	i P	Pn	12 56 23.7	+0.6
WHYT				i S	Sn	12 56 37.0	+0.9
WFSB	Wu-fen Shan	1.00	357	i P	Pn	12 56 23.8	+0.5
WFSB				i S	Sn	12 56 38.2	+1.6
FULB	Fuli	1.00	210	P	Pn	12 56 23.4	0.0
FULB				eS	Sn	12 56 37.7	+1.0
TWQ1	Liyutan	1.01	286	eP	Pn	12 56 23.7	+0.2
TWQ1				S	Sn	12 56 37.8	+0.9
SXI1	Grass Mountain	1.02	2	P	Pn	12 56 24.1	+0.4
SXI1				S	Sn	12 56 39.7	+2.4
WJS	Zhushan	1.04	256	P	Pn	12 56 25.0	+1.0
WJS				eS	Sn	12 56 39.9	+2.3
SBCB	Hsinchu	1.05	313	eP	Pn	12 56 24.4	+0.2
CHKT	Chengkung	1.06	204	i P	Pn	12 56 23.7	-0.5
CHKT				S	Sn	12 56 37.0	-1.0
NMLH	Miaoli	1.06	296	eP	Pn	12 56 24.6	+0.4
NMLH				eS	Sn	12 56 39.7	+1.6
TCU	Taichung	1.06	274	eP	Pn	12 56 24.1	0.0
TCU				eS	Sn	12 56 39.6	+1.5
WNT	Mingjian	1.07	260	i P	Pn	12 56 25.1	+0.8
WNT				i S	Sn	12 56 40.3	+2.1
NCUH	Zhongli	1.07	327	eP	Pn	12 56 24.1	-0.2
TNOU	National Taiwa	1.08	357	eP	Pn	12 56 24.4	0.0
TNOU				eS	Sn	12 56 38.5	+0.1
EHD	Haiduan	1.08	212	eP	Pn	12 56 23.2	-1.3
EHD				eS	Sn	12 56 37.4	-1.2
TWS1	Kuangyinshan	1.09	340	P	Pn	12 56 24.1	-0.5
TWS1				eS	Sn	12 56 38.5	-0.4
ALS	Alishan	1.09	240	eP	Pn	12 56 25.8	+0.9
ALS				eS	Sn	12 56 40.0	+0.6
YM01	YM01	1.10	347	eP	Pn	12 56 24.3	-0.5
ZUZH	Zhuzihu	1.12	346	P	Pn	12 56 24.4	-0.6
ZUZH				eS	Sn	12 56 38.8	-0.7
ECS	Chishang	1.12	210	eP	Pn	12 56 25.2	+0.2
ECS				eS	Sn	12 56 39.9	+0.2
WDJ	Dajia District	1.12	284	eP	Pn	12 56 24.8	-0.2
WDJ				eS	Sn	12 56 40.7	+1.1
YM08	YM08	1.13	349	eP	Pn	12 56 24.1	-1.1
NTST	Danshui	1.14	342	eP	Pn	12 56 25.2	-0.1
ANP	Anpu	1.15	346	eP	Pn	12 56 24.7	-0.8
ELDTW	Lidau	1.15	221	i P	Pn	12 56 25.1	-0.5
ELDTW				S	Sn	12 56 40.0	-0.5
WCHH	Zhanghua	1.17	271	eP	Pn	12 56 25.6	+0.1
WCHH				eS	Sn	12 56 41.6	+1.0
EDH	Donghe	1.20	204	eP	Pn	12 56 25.9	-0.1
EDH				eS	Sn	12 56 41.3	-0.1
TWY	Chenhua	1.22	350	eP	Pn	12 56 25.9	-0.4
WDLH	Douliu	1.25	252	eP	Pn	12 56 27.8	+1.2
WDLH				i S	Sn	12 56 43.9	+1.4
WCKO	Fanlu	1.29	241	eP	Pn	12 56 28.3	+1.0
WCKO				i S	Sn	12 56 45.1	+1.6
STYH	Taoyuan	1.32	227	P	Pn	12 56 28.7	+1.1
STYH				S	Sn	12 56 44.7	+0.4
LONT	Longtian	1.33	209	P	Pn	12 56 26.7	-1.1
LONT				S	Sn	12 56 42.8	-1.7
WRL	Guolierlin Hig	1.34	263	eP	Pn	12 56 28.3	+0.3
WRL				S	Sn	12 56 46.9	+2.0
TPUB	Ta-pu	1.34	235	P	Pn	12 56 29.0	+1.0
TPUB	Ta-pu	1.34	235	eP	Pn	12 56 28.8	+0.8
TPUB				eS	Sn	12 56 46.8	+1.9
CHN2	Minshiung	1.35	247	eP	Pn	12 56 29.5	+1.3
CHN2				S	Sn	12 56 48.1	+3.0
RLNB	Erlin	1.36	263	eP	Pn	12 56 28.9	+0.8
RLNB				eS	Sn	12 56 46.2	+1.0
WTK	Tuku	1.38	254	eP	Pn	12 56 29.5	+1.1

WTK				S	Sn	12 56 47.0	+1.4
WTP	Ta-pu	1.39	234	*e*P	Pn	12 56 29.6	+1.0
WTP				*e*S	Sn	12 56 47.7	+1.8
CHY	Chiayi	1.41	246	*e*P	Pn	12 56 30.0	+1.1
CHY				*e*S	Sn	12 56 48.2	+1.7
TWG	Pinlang	1.43	209	P	Pn	12 56 28.3	-0.8
TWG				*e*S	Sn	12 56 45.2	-1.7
TWGBT	Beinan	1.43	209	*e*P	Pn	12 56 28.5	-0.6
TWGBT				S	Sn	12 56 44.5	-2.4
LDUT	Ludao	1.43	194	*e*P	Pn	12 56 29.9	+0.7
LDUT				*e*S	Sn	12 56 45.5	-1.4
WTCT	Ta-ch'eng	1.44	262	*e*P	Pn	12 56 30.1	+0.9
WTCT				*e*S	Sn	12 56 49.4	+2.4
TWK	Hsinying	1.47	237	*e*P	Pn	12 56 30.9	+1.1
TWK				*e*S	Sn	12 56 49.7	+1.7
CHN1	Nanshi	1.49	234	*e*P	Pn	12 56 31.6	+1.7
CHN1				*e*S	Sn	12 56 50.2	+1.8
SGST	Jiashian	1.51	230	*e*P	Pn	12 56 31.6	+1.3
SGST				*i*S	Sn	12 56 50.4	+1.4
SLGT	Liugui	1.53	226	*e*P	Pn	12 56 31.8	+1.3
SLGT				*e*S	Sn	12 56 51.9	+2.6
WSF	Szhu	1.54	254	*e*P	Pn	12 56 31.3	+0.7
WSF				*e*S	Sn	12 56 51.1	+1.6
WSL	Shuilin Townsh	1.57	250	*e*P	Pn	12 56 32.2	+1.2
WSL				S	Sn	12 56 51.5	+1.2
ICHU	Yijhu	1.59	244	*e*P	Pn	12 56 32.1	+0.8
ICHU				*e*S	Sn	12 56 52.7	+1.9
ECL	Taimali	1.68	209	*e*P	Pn	12 56 31.7	-0.8
ECL				*e*S	Sn	12 56 51.4	-1.5
SCST	Cishan	1.70	226	*e*P	Pn	12 56 34.4	+1.5
SCST				*e*S	Sn	12 56 58.2	+4.7
SSD	Sandimen	1.72	220	*e*P	Pn	12 56 34.6	+1.5
SSD				*e*S	Sn	12 56 56.6	+2.6
TSMG	Majia	1.74	219	P	Pn	12 56 34.8	+1.4
TSMG				*e*S	Sn	12 56 57.1	+2.6
TWM1	Shoushan	1.79	226	*e*P	Pn	12 56 37.2	+3.1
MASBT	Mashibuluo	1.82	217	*e*P	Pn	12 56 35.8	+1.3
MASBT				*e*S	Sn	12 56 58.9	+2.4
TSCK	Chigu Township	1.85	240	*e*P	Pn	12 56 35.5	+0.7
TSCK				*e*S	Sn	12 56 57.9	+0.8
EAST	Anshuo	1.91	209	*e*P	Pn	12 56 35.0	-0.7
TAW	Tawu	1.91	207	*e*P	Pn	12 56 35.1	-0.6
TAW				*e*S	Sn	12 56 57.2	-1.4
SCZT	Fangliau	2.03	214	*e*P	Pn	12 56 39.4	+2.1
LAY	Lan-yu	2.04	187	*e*P	Pn	12 56 36.2	-1.3
LAY				*e*S	Sn	12 56 58.6	-3.2
LYUB	Lan-yu	2.07	186	*e*P	Pn	12 56 36.7	-1.1
LYUB				S	Sn	12 57 00.1	-2.4
SLIU	Shizi	2.08	207	*e*P	Pn	12 56 39.2	+1.3
PHUB	P'eng-hu	2.14	255	*e*P	Pn	12 56 37.6	-1.2
PHUB				S	Sn	12 57 03.4	-0.9
WDGT	Dungji	2.15	248	*e*P	Pn	12 56 38.9	0.0
TWK1	Hengchun	2.32	204	*e*P	Pn	12 56 41.2	-0.1
VWUC	VWUC	2.36	293	*e*P	Pn	12 56 40.4	-1.4
PTMZ	Houxiangcun	2.65	292	*e*P	Pn	12 56 44.0	-1.7
MATB	Ma-tsu	2.69	321	*e*P	Pn	12 56 44.2	-2.0
LYJJ	Jianjiangzhen	3.10	323	*e*P	Pn	12 56 50.1	-1.8
XPSS	Dashiqiu	3.21	333	*e*P	Pn	12 56 51.5	-1.9
MHZQ	Yeshan	3.25	309	*e*P	Pn	12 56 51.6	-2.3
AXDP	Jialang	3.62	284	*e*P	Pn	12 56 57.2	-1.7

NEIC ***20*** *13:11:45.7±1.5, 1.°98N±0.°09×94.°4W±0.°2, h10^{km}±2^{km}, mb4.2/21, Error ellipse: s-maj=29.8km s-min=10.4km az=247.0*

IDC ***20*** *13:11:48.0±2.7, 2.°58N×94.°77W, h0^{km}, mb3.7/4, mbtmp3.7/4, MS3.8/39, Error ellipse: s-maj=230.1km s-min=51.5km az=63.0*

GCMT ***20*** *13:11:52.7±0.4, 2.°73N±0.°02×95.°17W±0.°04, h14^{km}±1^{km}, MW4.8/85, Moment Tensor Solution. s18,c21; s85,c109; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.77±.13; $M_{\theta\theta}$1.64±.09; $M_{\phi\phi}$0.13±.09; $M_{r\theta}$0.40±.20; $M_{\theta\phi}$0.17±.05; $M_{\phi r}$-0.51±.27; Best double couple: $M_0$1.82300×10^{16} NP1:ϕ_s70.00000°,δ41.00000°,λ-113.00000°. NP2: ϕ_s279.00000°,δ53.00000°,λ-71.00000°. Principal axes: T 1.6950, Plg6.0000°, Azm356.0000°; N 0.2600, Plg15.0000°, Azm87.0000°; P -1.9500, Plg74.0000°, Azm244.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 20 13:11:45.4±1.2**, 2.°0N**±0.°2×**94.°4W**±0.°2**, h10**^{km}**, n72, σ1**^{s}**29**/29**, mb4.1**/13**, MS3.9**/35**, Galapagos Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JTS	Las Juntas de	12.47	48	LR	LR	13 18 26.5	
	comp=Z,342nm,20.1s,baz=189,slow=32						
APG	El Apazote	13.47	16	LR	LR	13 18 57.3	
	comp=Z,53nm,19.7s,baz=266,slow=33						
CMIG	Matias Romero	14.99	358	LR	LR	13 19 31.7	
	comp=Z,665nm,21.5s,baz=162,slow=32						
SIUN	Universidad Ur	15.02	39	Pn	Pn	13 15 17.6	-0.3
ATAH	Atahualpa	18.36	120	LR	LR	13 22 20.1	
	comp=Z,368nm,18.5s,baz=295,slow=33						
MOIG	Morelia	18.77	340	P	P	13 16 03.5	-1.7
MOIG				IAmb	IAmb	13 16 45.0	
	comp=Z,34nm,1.4s						
ROSC	El Rosal	20.22	82	LR	LR	13 23 09.4	
	comp=Z,150nm,19.1s,baz=201,slow=33						
ZAIG	Zacatecas	22.11	340	P	P	13 16 41.3	-0.1
ZAIG				IAmb	IAmb	13 16 47.9	
	comp=Z,12nm,1.3s						
NNA	Nana	22.30	129	LR	LR	13 24 04.2	
	comp=Z,156nm,20.0s,baz=298,slow=32						
SOR	Soroa	23.42	27	P	P	13 16 54.3	-0.6
SDV	Santo Domingo	24.59	73	LR	LR	13 25 41.1	
	comp=Z,115nm,21.4s,baz=262,slow=34						
LPIG	La Paz	26.82	326	LR	LR	13 24 39.5	
	comp=Z,133nm,20.3s,baz=149,slow=30						
HPIG		27.04	337	P	P	13 17 26.2	-2.1
HPIG				IAmb	IAmb	13 17 30.1	
	comp=Z,2.2nm,0.6s						
TXAR	Lajitas Array	28.57	343	P	P	13 17 40.8	-1.1
	comp=Z,0.7nm,0.8s,baz=164,slow=8.1,SNR=6.4						
TXAR				LR	LR	13 28 10.0	
	comp=Z,210nm,18.8s,baz=142,slow=35						
	comp=Z,0.7nm,0.8s						
TX31	Lajitas Ar. Si	28.57	343	P	P	13 17 41.0	-0.9
TX31				IAmb	IAmb	13 18 00.2	
	comp=Z,4.0nm,1.4s						
FW06	Azle	30.94	355	P	P	13 18 02.6	0.0
APMT	Aspermont	31.61	351	P	P	13 18 09.1	+0.5
APMT				IAmb	IAmb	13 18 22.3	
	comp=Z,2.5nm,0.7s						
LPAZ	La Paz	31.67	126	LR	LR	13 31 12.5	
	comp=Z,81nm,18.6s,baz=297,slow=36						
PB11	IPOC Station P	32.52	133		P	13 18 15.7	-1.2
ANMO	Albuquerque	34.64	342	LR	LR	13 31 22.0	
	comp=Z,352nm,21.4s,baz=159,slow=34						
TKL	Tuckaleechee C	34.89	15	LR	LR	13 31 55.4	
	comp=Z,296nm,21.3s,baz=188,slow=35						
PFO	Pinyon Flats O	37.62	329	LR	LR	13 31 16.8	
	comp=Z,256nm,21.1s,baz=180,slow=32						
PFO	Pinyon Flats O	37.62	329	P	P	13 19 01.4	+0.7
PFO				IAmb	IAmb	13 19 10.4	
	comp=Z,7.0nm,1.3s						
H03N2	Juan Fernandez	38.16	159	T	T	14 00 50.5	
	baz=326,slow=74,SNR=14						
H03N1	Juan Fernandez	38.17	159	T	T	14 00 54.1	
	baz=296,slow=74,SNR=18						
HMU	Henry Mountain	38.78	339	P	P	13 19 09.4	-1.2
HMU				IAmb	IAmb	13 19 17.7	
	comp=Z,7.5nm,1.3s						
LCMT	Little Creek M	38.93	336	P	P	13 19 11.8	+0.1
LRMC	Laurel Mtn Rad	39.71	330	P	P	13 19 19.0	+0.7
PAMR	Moraine State	40.84	17	P	P	13 19 27.8	+0.3
PAMR				IAmb	IAmb	13 19 30.8	
	comp=Z,10nm,1.2s						
DUG	Dugway, Tooele	41.52	339	P	P	13 19 33.4	+0.2
DUG				IAmb	IAmb	13 19 36.7	
	comp=Z,8.5nm,1.4s						
MDP	Montagnes des	41.77	85	LR	LR	13 37 39.2	
	comp=Z,91nm,19.7s,baz=128,slow=37						
I37A	Lemond, Waseca	41.83	1	P	P	13 19 36.8	+1.3
BGU	Big Grassy Mou	42.24	339	P	P	13 19 38.8	-0.3
NVAR	Mina Array Bea	42.34	332	P	P	13 19 39.0	-1.0
	comp=Z,0.7nm,0.7s,baz=156,slow=9.2,SNR=7.8						
NVAR				LR	LR	13 34 48.4	
	comp=Z,122nm,18.5s,baz=144,slow=33						
	comp=Z,0.7nm,0.7s						
NVAR	Mina Array Bea	42.34	332	P	P	13 19 39.6	-0.4
PDAR	Pinedale Array	42.78	344	P	P	13 19 42.5	-1.1
	comp=Z,0.6nm,0.8s,baz=152,slow=6.7,SNR=6.8						
PDAR				LR	LR	13 36 42.4	
	comp=Z,348nm,19.3s,baz=152,slow=36						
	comp=Z,0.6nm,0.8s						
PDAR	Pinedale Array	42.78	344	P	P	13 19 42.6	-0.9
HVU	Hansel Valley	42.91	340	P	P	13 19 44.3	-0.1
HVU				IAmb	IAmb	13 19 47.0	
	comp=Z,3.5nm,0.9s						
ELK	Elko	42.92	337	LR	LR	13 37 01.8	
	comp=Z,180nm,19.7s,baz=138,slow=36						
ELK	Elko	42.92	337	P	P	13 19 44.4	-0.3
SADO	Sadowa	44.66	15	LR	LR	13 38 10.3	
	comp=Z,144nm,20.5s,baz=192,slow=36						
CPUP	Villa Florida	45.54	131	LR	LR	13 39 43.6	
	comp=Z,87nm,18.6s,baz=253,slow=36						
MCMT	McKenzie Canyo	45.65	342	P	P	13 20 06.8	+0.3
PLCA	Paso Flores	47.78	156	LR	LR	13 36 27.8	
	comp=Z,227nm,19.6s,baz=331,slow=30						
ULM	Lac du Bonnet	48.08	359	LR	LR	13 40 12.7	
	comp=Z,51nm,21.5s,baz=187,slow=36						
BDFB	Brasilia	49.08	113	LR	LR	13 41 17.6	
	comp=Z,163nm,20.3s,baz=267,slow=36						
NEW	Newport	50.07	340	LR	LR	13 41 18.5	
	comp=Z,159nm,18.7s,baz=179,slow=36						
BBB	Bella Bella	57.37	336	LR	LR	13 44 35.3	
	comp=Z,111nm,20.0s,baz=113,slow=35						
RCBR	Riachuelo	58.92	98	LR	LR	13 48 11.9	
	comp=Z,43nm,18.4s,baz=208,slow=37						
YKA	Yellowknife Ar	62.20	350	LR	LR	13 50 36.6	
	comp=Z,56nm,18.6s,baz=115,slow=38						
DLBC	Dease Lake	62.81	340	LR	LR	13 48 00.9	
	comp=Z,111nm,21.6s,baz=111,slow=35						
FRB	Frobisher Bay	64.45	12	LR	LR	13 49 37.2	
	comp=Z,147nm,20.4s,baz=186,slow=36						
PMSA	Palmer Station	70.24	167	LR	LR	13 47 54.6	
	comp=Z,95nm,18.9s,baz=319,slow=31						
INK	Inuvik	71.30	346	LR	LR	13 54 45.5	
	comp=Z,123nm,19.2s,baz=98,slow=36						
SFJD	Kangerlussuaq	71.59	17	LR	LR	13 55 51.4	
	comp=Z,49nm,19.1s,baz=224,slow=37						
KDAK	Kodiak Island	71.84	331	LR	LR	13 52 47.4	
	comp=Z,104nm,18.2s,baz=180,slow=35						
RES	Resolute Bay	72.59	360	LR	LR	13 56 21.8	
	comp=Z,122nm,19.0s,baz=0.5,slow=37						
ILAR	Eielson Array	73.01	339	P	P	13 23 14.0	-1.2
	comp=Z,0.9nm,0.9s,baz=144,slow=5.2,SNR=8.2						
ILAR				LR	LR	13 55 49.2	
	comp=Z,106nm,18.9s,baz=106,slow=36						
	comp=Z,0.9nm,0.9s						
QSPA	South Pole Qui	92.04	180	LR	LR	13 58 27.5	
	comp=Z,48nm,20.4s,baz=129,slow=30						
SPITS	Spitsbergen Ar	92.23	11	LR	LR	14 07 54.3	
	comp=Z,56nm,18.6s,baz=298,slow=37						
RPZ	Rata Peaks	94.69	226	LR	LR	13 59 53.3	
	comp=Z,22nm,18.7s,baz=269,slow=30						
NOA	NORSAR Array B	95.76	28	LR	LR	14 06 01.0	
	comp=Z,15nm,21.0s,baz=60,slow=34						
H11N3	WAKE ISLAND Hy	97.52	290	T	T	15 12 34.5	
	baz=85						
H11N2	WAKE ISLAND Hy	97.53	290	T	T	15 12 24.5	
	baz=85						
H11N1	WAKE ISLAND Hy	97.53	290	T	T	15 12 32.3	
	baz=85						
H11S2	WAKE ISLAND Hy	97.81	289	T	T	15 12 42.5	
	baz=86,slow=75,SNR=10						
H11S1	WAKE ISLAND Hy	97.81	289	T	T	15 12 40.6	
	baz=86,slow=75,SNR=9.8						
H11S3	WAKE ISLAND Hy	97.83	289	T	T	15 12 43.3	
	baz=86,slow=75,SNR=12						
ARCES	ARCESS Array B	98.19	18	LR	LR	14 11 29.7	
	comp=Z,30nm,18.1s,baz=8.0,slow=37						
KURK	Kurchatov	127.13	6		PKiKP	13 30 53.1	+2.5
KURBB	Kurchatov Arra	127.22	6	PKP	PKiKP	13 30 53.1	+2.3
	comp=Z,0.7nm,0.9s,baz=345,slow=2.7,SNR=4.5						
MKAR	Makanchi Array	131.31	3	PKP	PKiKP	13 31 02.5	+3.3
	comp=Z,0.8nm,0.9s,baz=347,slow=3.1,SNR=3.5						

IDC ***20*** *13:28:26.2±0.3, 6.°55N×125.°32E, h178^{km}±2^{km}, mb4.1/28, mbtmp4.6/28, MS3.7/12, Error ellipse: s-maj=16.0km s-min=6.6km az=80.0*

GCMT ***20*** *13:28:27.9±0.2, 6.°66N±0.°01×125.°66E±0.°02, h179^{km}±1^{km}, MW5.0/126, Moment Tensor Solution. s42,c53; s126,c194; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-4.14±.10; $M_{\theta\theta}$2.88±.13; $M_{\phi\phi}$1.26±.14; $M_{r\theta}$1.51±.11; $M_{\theta\phi}$-1.72±.11; $M_{\phi r}$0.60±.12; Best double couple: $M_0$4.34800×10^{16} NP1:ϕ_s137.00000°,δ40.00000°, λ-66.00000°. NP2:ϕ_s287.00000°,δ54.00000°, λ-109.00000°. Principal axes: T 4.0880, Plg7.0000°, Azm30.0000°; N 0.5210, Plg15.0000°, Azm298.0000°; P -4.6090, Plg73.0000°, Azm144.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

MAN ***20*** *13:28:27.0, 6.°60N×125.°66E, h171^{km}, MS5.0*

MAN INTENSITY III - DON MARCELINO DAVAO OCCIDENTAL; GENERAL SANTOS CITY; ALABEL SARANGANI; . INTENSITY II - JOSE ABAD SANTOS DAVAO OCCIDENTAL; MATI CITY; GLAN & MALAPATAN SARANGANI; HAGONOY KIBLAWAN PADADA & STA. CRUZ DAVAO DEL SUR; GOVERNOR GENEROSO DAVAO ORIENTAL.

NEIC ***20*** *13:28:27.8±2.3, 6.°67N±0.°07×125.°55E±0.°09, h181^{km}±1^{km}, mb5.0/224, Mww5.0/18, Error ellipse: s-maj=13.6km s-min=10.0km az=74.0*

GFZ ***20*** *13:28:27.7±0.4, 7°N±4°×12°6E±°, h178^{km}±4^{km}, M4.6/23, mb5.1/23*

GFZ ***20*** *13:28:27.7, 6.°69N×125.°62E, h176^{km}, Mw4.9/57, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}-3.19; $M_{\theta\theta}$2.40; $M_{\phi\phi}$0.79; $M_{r\theta}$0.70; $M_{\theta\phi}$-1.10; $M_{\phi r}$0.08; Fault plane solution: $M_0$3.15902×10^{16} NP1: ϕ_s122.99921°,δ39.86515°,λ-80.36125°. NP2: ϕ_s290.52268°,δ50.80703°,λ-97.95977°. Principal axes: T 3.0169, Plg5.5030°, Azm26.1681°; N 0.2673, Plg6.1610°, Azm295.5722°; P -3.2842, Plg81.7249°, Azm157.6527°;*

MOS ***20*** *13:28:29.3±0.9, 6.°68N×125.°52E, h220^{km}, mb5.0/25 Error ellipse: s-maj=9.6km s-min=5.3km az=113.8*

DJA ***20*** *13:28:30.9±0.6, 6°N±5°×12°6E±°, h133^{km}±9^{km}, M5.6/14, mB5.9/13, mB5.8/11, mb5.7/14, mb5.6/14, MLv5.9/3, Mw(mB)5.3/11, Mw(mB)5.5/13, MwMwp4.4/1, MwMwp4.6/2, Mwp4.8/1, Mwp4.9/2*

ISC 20 13:28:27.7±0.3**, 6.°66N**±0.°03×**125.°59E**±0.°04**, h188**^{km}±2^{km}**, h189**^{km}**:pP-P, n596, σ1**^{s}**38**/570**, mb5.0**/231**, 15C-8D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DAV	Davao City (W)	0.41	359	P	Pn	13 28 52.2	-0.9
	6µm,0.4s,baz=251,slow=3.7,SNR=296						
DAV				S	Sn	13 29 11.1	-1.8
	5µm,0.3s,baz=276,slow=24,SNR=28						
DAV	Davao City (W)	0.41	359	P	Pn	13 28 52.0	-1.1
DAV	Davao City (W)	0.41	359	S	Sn	13 29 11.3	-1.7
DAV	Davao City (W)	0.41	359		Pn	13 28 52.1	-1.1
DAV	Davao City (W)	0.41	359	P	Pn	13 28 51.7	-1.5
DAV				AML	AML		
DAV	Davao City (W)	0.41	359	P	Pn	13 28 52.3	-0.9
DAV	Davao City (W)	0.41	359	P	Pn	13 28 47.0	-6.2
DMPH	Davao City--Mi	0.43	349	*i*P	Pn	13 28 52.1	-1.1
DMPH				*i*S	Sn	13 29 10.7	-2.4
KCP	Kidapawan	0.61	305	*i*P	Pn	13 28 53.0	-1.0
KCP				*i*S	Sn	13 29 12.6	-1.7
GSPH	General Santos	0.85	228	*i*P	Pn	13 28 54.0	-1.4
GSPH				*i*S	Sn	13 29 13.9	-2.9
CTBH	Cotabato--PC H	1.45	293	*i*P	Pn	13 28 59.1	-0.8
BIPH	Bislig	1.70	27	*i*P	Pn	13 29 01.2	-1.1
BIPH				*i*S	Sn	13 29 27.3	-2.0
CGP	Cagayan de Oro	2.00	334	*i*P	Pn	13 29 04.9	-0.4
CGP				*i*S	Sn	13 29 33.6	-1.1
DCPH	Dipolog City	2.93	311	*i*P	Pn	13 29 16.4	+0.5
DCPH				*i*S	Sn	13 30 01.6	+8.0
TBP	Tagbilaran	3.47	331	*i*P	Pn	13 29 22.2	-0.3
TBP				*i*S	Sn	13 30 04.6	-0.8
ZCP	Zamboanga City	3.50	275	*e*P	Pn	13 29 23.1	+0.3
ZCP				*e*S	Sn	13 30 06.4	+0.4
SNPH	Sibulan	3.54	319	*e*P	Pn	13 29 23.7	+0.2
SNPH				*e*S	Sn	13 30 18.1	+11
LLP	Lapu-Lapu	3.98	336	*e*P	Pn	13 29 29.4	+0.6
LLP				*i*S	Sn	13 30 17.6	+0.7
PLP	Palo	4.52	352	*e*P	Pn	13 29 35.8	+0.1
PLP				*e*S	Sn	13 30 27.8	-1.5
MNI	Manado	5.23	188	P	Pn	13 29 44.9	0.0
MNI				AML	AML		
JAP	San Jose, Anti	5.43	319	*e*P	Pn	13 29 48.7	+1.2
MMPH	Masbate	5.99	341	*e*P	Pn	13 29 55.3	+0.6
TNTI	Ternate	6.11	163	P	Pn	13 29 54.8	-1.5
	1µm,0.8s						
TNTI				AML	AML		
TNTI	Ternate	6.11	163		Pn	13 29 54.7	-1.5
TNTI	Ternate	6.11	163	P	Pn	13 29 54.8	-1.5
	6.4nm17µm1µm,0.6s,1µm,0.6s						
TNTI				AML	AML		
TNTI	Ternate	6.11	163	P	Pn	13 29 54.9	-1.4
	comp=Z,1µm,0.8s						
IBAJ	Ibajay, Aklan	6.14	327	*e*P	Pn	13 29 58.7	+2.0
GTOI	Gorontalo	6.51	203	P	Pn	13 30 00.8	-0.7
	comp=Z,14nmcomp=Z,40µmcomp=Z,4µm,1.1s						
GTOI				AML	AML		
TOLI2	Tolitoli	7.30	221	P	Pn	13 30 11.5	-0.4
	comp=Z,484nm,1.3s						
TOLI2				AML	AML		
TOLI2	Tolitoli	7.30	221	S	Sn	13 31 33.3	-1.1
	comp=Z,484nm,1.3s						
TOLI2				AML	AML		
TOLI2	Tolitoli	7.30	221		Pn	13 30 11.6	-0.4
TOLI2	Tolitoli	7.30	221	P	Pn	13 30 11.8	-0.1
	comp=Z,484nm,1.3s						
LUWI	Luwuk	8.15	200	P	Pn	13 30 23.6	+0.6
	comp=Z,744nm,1.1s						
LUWI	Luwuk	8.15	200	S	Sn	13 31 53.9	-0.6
	comp=Z,744nm,1.1s						
LUWI	Luwuk	8.15	200		Pn	13 30 24.0	+1.0
LUWI	Luwuk	8.15	200	P	Pn	13 30 24.2	+1.2
	comp=Z,3.3nmcomp=Z,3µmcomp=Z,9µmcomp=Z,754nm,1.1s						
LUWI				AML	AML		
LUWI	Luwuk	8.15	200	P	Pn	13 30 25.5	+2.5
	comp=Z,744nm,1.1s						
LQP	Lukban	8.41	332	*e*P	Pn	13 30 29.1	+2.5
APSI	Ampana	8.48	208	P	Pn	13 30 29.5	+2.1
	comp=Z,2.3nmcomp=Z,7µmcomp=Z,812nm,1.1s,comp=Z,812nm,1.1s						
APSI				AML	AML		
SANI	Sanana	8.66	177	P	Pn	13 30 25.5	-4.1
SANI	Sanana	8.66	177	P	Pn	13 30 25.6	-4.0
	comp=Z,651nm,0.7s						
KKM	Kota Kinabalu	9.34	267	P	Pn	13 30 40.1	+1.4
	comp=Z,53nm,0.9s						
KKM	Kota Kinabalu	9.34	267	P	Pn	13 30 40.7	+2.0
	comp=Z,52nm,0.9s						
SWI	Sorong	9.37	143	P	Pn	13 30 38.7	-0.3
NLAI	Namlea	9.94	171	P	Pn	13 30 43.9	-2.6
FAKI	Fak Fak	11.60	145	P	Pn	13 31 08.9	+1.0
	comp=Z,78nm,0.9s						
FAKI	Fak Fak	11.60	145		Pn	13 31 07.1	-0.9
FAKI	Fak Fak	11.60	145	P	Pn	13 31 08.3	+0.3
	comp=Z,78nm,0.9s						
BKB	Balikpapan	11.71	228	P	Pn	13 31 08.8	-0.5
	comp=Z,228nm,0.9s						
BKB	Balikpapan	11.71	228	P	Pn	13 31 07.5	-1.8
	comp=Z,229nm,0.9s						
BNDI	Bandanaira	11.91	159	P	Pn	13 31 12.5	+0.7
	comp=Z,288nm,1.4s						
BNDI	Bandanaira	11.91	159	P	Pn	13 31 13.2	+1.4
	comp=Z,287nm,1.4s						
KAPI	Kappang	12.97	207	P	Pn	13 31 26.0	+0.7
	comp=Z,28nm,0.6s,baz=21,slow=8.0,SNR=19						
KAPI	Kappang	12.97	207	P	Pn	13 31 26.5	+1.1
KAPI	Kappang	12.97	207		Pn	13 31 26.5	+1.1
KAPI	Kappang	12.97	207	P	Pn	13 31 26.9	+1.5
	comp=Z,73nm,1.0s						
SBUM	Sibu	13.96	253	P	P	13 31 40.0	0.0
	comp=Z,152nm,0.9s						
SBUM	Sibu	13.96	253	P	P	13 31 40.7	+0.7
SBUM	Sibu	13.96	253	P	P	13 31 40.2	+0.2
	comp=Z,151nm,0.9s						
MMRI	Maumere	15.55	192	P	P	13 31 58.5	+0.9
	comp=Z,136nm,1.0s						
MMRI	Maumere	15.55	192	S	S	13 34 50.8	+0.2
	comp=Z,136nm,1.0s						
MMRI	Maumere	15.55	192		P	13 31 58.5	+0.9
MMRI	Maumere	15.55	192	P	P	13 31 58.1	+0.5
	comp=Z,136nm,1.0s						
SAUI	Saumlaki	15.62	159	P	Pn	13 31 58.0	0.0
SOEI	Soe	16.36	185	P	Pn	13 32 07.6	+0.5
	comp=Z,164nm,0.8s						
SOEI	Soe	16.36	185	S	S	13 35 09.2	+1.2
	comp=Z,164nm,0.8s						
SOEI	Soe	16.36	185		Pn	13 32 08.1	+1.0
SOEI	Soe	16.36	185	P	Pn	13 32 08.9	+1.8
	comp=Z,164nm,0.8s						
TWG	Pinlang	16.65	345	P	P	13 32 08.6	-1.0
GENI	Genyem	17.21	122	P	Pn	13 32 18.1	+0.9
	comp=Z,326nm,0.9s						
GENI	Genyem	17.21	122	S	S	13 35 28.5	+3.0
	comp=Z,326nm,0.9s						
GENI	Genyem	17.21	122	P	Pn	13 32 17.9	+0.7
	comp=Z,326nm,0.9s						
TPUB	Ta-pu	17.23	344	P	P	13 32 15.9	-0.1
PLAI	Plampang	17.24	207	P	Pn	13 32 18.4	+0.9
	comp=Z,233nm,0.8s						
PLAI	Plampang	17.24	207	P	Pn	13 32 18.3	+0.7
	comp=Z,233nm,0.8s						
SSLB	Suanglung	17.61	346	P	P	13 32 19.6	-0.5
SSLB				IAmb	IAmb	13 32 40.2	
	comp=Z,65nm,1.5s						
DLV	Lat	17.67	289	P	Pn	13 32 24.1	+1.3
	comp=Z,95nm,1.1s						
DLV	Lat	17.67	289	P	Pn	13 32 24.3	+1.5
	comp=Z,95nm,1.1s						
YOJ	Yonaguni jima	17.88	352	P	Pn	13 32 27.3	+2.4
YHNB	Yeheng	18.36	348	P	P	13 32 28.3	-0.1
YHNB				IAmb	IAmb	13 32 32.1	
	comp=Z,92nm,1.4s						
JAGI	Jajag, Banyuwa	18.86	217	P	Pn	13 32 36.2	-0.4
	comp=Z,82nm,1.0s						
JAGI	Jajag, Banyuwa	18.86	217	S	S	13 36 00.4	+2.0
	comp=Z,82nm,1.0s						
JAGI	Jajag, Banyuwa	18.86	217	P	P	13 32 34.3	+0.5
JAGI				IAmb	IAmb	13 32 40.7	
	comp=Z,60nm,0.8s						
JAGI	Jajag, Banyuwa	18.86	217	P	Pn	13 32 37.9	+1.2
	comp=Z,82nm,1.0s						
QIZ	Qiongzhong	19.65	310	P	P	13 32 43.6	+1.3
QIZ				S	S	13 36 14.4	+0.7
QIZ				pmax	pmax		
	comp=Z,21nm,1.1s						
DRS	Darwin Rock St	19.68	164	P	P	13 32 43.7	+1.1
	comp=Z,262nm,0.9s						
MTN	Manton Dam	20.14	164	P	P	13 32 47.7	+0.1
	comp=Z,70nm,0.7s						
MTN	Manton Dam	20.14	164	P	P	13 32 47.7	+0.1
MTN				IAmb	IAmb	13 32 51.0	
	comp=Z,48nm,0.8s						
JOW	Kunigami	20.23	7	P	P	13 32 49.8	+1.4
	comp=Z,38nm,0.8s,baz=130,slow=9.8,SNR=5.2						
	comp=Z,38nm,0.8s						
JOW	Kunigami	20.23	7	P	P	13 32 48.2	-0.2
	comp=Z,103nm,1.9s						
KDU	Kakadu	20.40	160	P	P	13 32 50.6	+0.3
	comp=Z,102nm,0.6s						
MYKOM	Kota Tinggi	22.21	258	P	P	13 33 10.5	+1.5
	comp=Z,95nm,0.9s						
MYKOM	Kota Tinggi	22.21	258		P	13 33 09.9	+0.9
MYKOM				IAmb	IAmb	13 33 12.5	
	comp=Z,65nm,0.8s						
MYKOM	Kota Tinggi	22.21	258	P	P	13 33 10.1	+1.1
	comp=Z,95nm,0.9s						
KNRA	Kununurra	22.41	172	P	P	13 33 11.3	+0.4
	comp=Z,77nm,1.4s						
KNRA	Kununurra	22.41	172	P	P	13 33 11.0	+0.2
BBJI	Bungbulang	22.73	232	P	P	13 33 16.2	+2.3
	comp=Z,89nm,0.9s						
BBJI	Bungbulang	22.73	232		P	13 33 14.8	+0.9
BBJI				IAmb	IAmb	13 33 17.1	
	comp=Z,63nm,0.8s						
BBJI	Bungbulang	22.73	232	P	P	13 33 14.6	+0.6
	comp=Z,89nm,0.9s						
MANU	Manus Island	23.39	111	P	P	13 33 21.5	+1.7
MANU				IAmb	IAmb	13 33 24.9	
	comp=Z,67nm,1.1s						
IPM	Ipoh	24.54	266	P	P	13 33 31.7	+1.4
	comp=Z,117nm,0.9s						
IPM	Ipoh	24.54	266		P	13 33 31.1	+0.8
IPM	Ipoh	24.54	266	P	P	13 33 31.5	+1.2
	comp=Z,117nm,0.9s						

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FITZ  Fitzroy Crossi    24.59 180    P      P       13 33 30.9 +0.2
            comp=Z,38nm,1.6s
FITZ  Fitzroy Crossi    24.59 180    P      P       13 33 30.9 +0.2
            comp=Z,374nm,1.6s
FITZ  Fitzroy Crossi    24.59 180    IAmb   IAmb    13 33 33.4
            comp=Z,25nm,0.8s
SLVN  Son La            25.55 307    P      P       13 33 41.5 +2.0
            comp=Z,5.0nm,1.2s
SLVN  Son La            25.55 307    P      P       13 33 41.4 +2.0
            comp=Z,5.0nm,1.2s
PMG   Port Moresby      26.77 126    P      P       13 33 50.1 -0.2
            comp=Z,56nm,1.5s
PMG   Port Moresby      26.77 126    P      P       13 33 50.2 -0.1
            comp=Z,56nm,1.5s
PMG   Port Moresby      26.77 126d iP     P       13 33 50.6 +0.2
PMG                                  pmax   pmax
            comp=Z,79nm,1.3s
PMG   Port Moresby      26.77 126           P       13 33 50.5 +0.2
PMG   Port Moresby      26.77 126    P      P       13 33 50.9 +0.6
            comp=Z,56nm,1.5s
PSI   Prapat            26.84 263    P      P       13 33 51.5 +0.3
            comp=Z,39nm,0.9s
PSI   Prapat            26.84 263    P      P       13 33 52.3 +1.1
RPSI  Rantau Prapat     26.86 263    IAmb   IAmb    13 33 54.6
            comp=Z,30nm,0.9s
RPSI  Rantau Prapat     26.86 263    P      P       13 33 52.1 +0.9
            comp=Z,36nm,0.9s
WRAB  Tennant Creek     27.79 162    P      P       13 33 58.9 -0.5
            comp=Z,45nm,1.0s
WRAB  Tennant Creek     27.79 162d iP     P       13 33 58.8 -0.5
WRAB                                 pmax   pmax
            comp=Z,55nm,0.8s
WRAB  Tennant Creek     27.79 162    P      P       13 33 58.9 -0.5
WRAB  Tennant Creek     27.79 162    P      P       13 33 59.1 -0.3
            comp=Z,82nm,1.0s
WRA   Warramunga Arr    27.80 162    P      P       13 33 58.4 -1.0
            comp=Z,54nm,0.8s,baz=341,slow=9.6,SNR=185
WRA                                  PcP    PcP     13 37 11.1 +0.1
            comp=Z,11nm,0.8s,baz=336,slow=2.7,SNR=8.2
WRA                                  S      S       13 38 24.4 -4.1
            comp=Z,6.3nm,1.0s,baz=343,slow=16,SNR=4.7
WRA   Warramunga Arr    27.80 162  i P      P       13 33 57.9 -1.6
WRA                                  pmax   pmax
            comp=Z,54nm,0.8s
WRA   Warramunga Arr    27.80 162    P      P       13 33 57.8 -1.6
MBWA  Marble Bar        28.23 192    P      P       13 34 03.0 -0.2
            comp=Z,56nm,1.1s
MBWA  Marble Bar        28.23 192    P      P       13 34 02.7 -0.6
            comp=Z,56nm,1.1s
MBWA  Marble Bar        28.23 192    P      P       13 34 02.8 -0.4
            comp=Z,32nm,1.1s
MBWA  Marble Bar        28.23 192           P       13 34 02.6 -0.6
MBWA                                 IAmb   IAmb    13 34 03.7
            comp=Z,34nm,0.7s
MBWA  Marble Bar        28.23 192    P      P       13 34 00.6 -2.6
            comp=Z,57nm,1.1s
GSI   Gunungsitoli      28.44 260    P      P       13 34 05.4 +0.2
            comp=Z,140nm,0.8s
GSI   Gunungsitoli      28.44 260           P       13 34 05.3 +0.1
GSI   Gunungsitoli      28.44 260    P      P       13 34 05.4 +0.2
            comp=Z,140nm,0.8s
CMAR  Chiang Mai Arr    28.48 297    P      P       13 34 06.4 +0.8
            comp=Z,5.3nm,0.9s,baz=124,slow=7.5,SNR=23
CMAR                                 PcP    PcP     13 37 12.7 -0.1
            comp=Z,3.2nm,0.8s,baz=132,slow=1.3,SNR=13
CMAR                                 LR     LR      13 45 16.8
            comp=Z,139nm,20.9s,baz=115,slow=36
CMAR  Chiang Mai Arr    28.48 297  i P      P       13 34 06.9 +1.3
CMAR  Chiang Mai Arr    28.48 297    P      P       13 34 06.2 +0.6
CMAR                                        PcP     13 37 13.2 +0.5
KMI2  Kunming           28.56 313 ⇑P      P       13 34 08.3 +1.9
KMI2                                 pmax   pmax
            comp=Z,23nm,0.8s
CHTO  Chiang Mai        28.61 297    P      P       13 34 09.2 +2.5
            comp=Z,6.4nm,1.4s
CHTO  Chiang Mai        28.61 297    P      P       13 34 07.8 +1.1
CHTO  Chiang Mai        28.61 297    P      P       13 34 07.8 +1.1
JHJ   Hachijo jima 2    29.45  25    LR     LR      13 44 40.9
            comp=Z,56nm,19.5s,baz=162,slow=33
PZH   PanZhiHua         30.09 314    P      P       13 34 21.6 +1.8
QIS   Mount Isa         30.35 153    P      P       13 34 22.1 +0.1
            comp=Z,111nm,0.9s
QIS   Mount Isa         30.35 153    P      P       13 34 21.9 -0.1
            comp=Z,111nm,0.9s
QIS   Mount Isa         30.35 153    P      P       13 34 22.3 +0.3
            comp=Z,111nm,0.8s
INU   Inuyama           30.43  19    P      P       13 34 24.8 +2.3
            comp=Z,19nm,1.2s
INU   Inuyama           30.43  19    P      P       13 34 23.1 +0.6
KSAR  Wonju Array Be    30.72   4    P      P       13 34 24.6 -0.4
KSAR  Wonju Array Be    30.72   4    P      P       13 34 24.6 -0.4
KSRS  Korea Array       30.73   4    P      P       13 34 26.2 +1.2
            comp=Z,6.3nm,0.8s,baz=185,slow=9.5,SNR=27
KSRS                                 PcP    PcP     13 37 18.9 +0.8
            comp=Z,5.8nm,1.1s,baz=202,slow=2.9,SNR=12
KSRS                                 ScP    ScP     13 40 43.6 +0.6
            comp=Z,1.1nm,0.9s,baz=193,slow=5.0,SNR=4.0
            comp=Z,6.3nm,0.8s
MTSU  Mount Surprise    30.80 143    P      P       13 34 27.1 +1.1
            comp=Z,19nm,0.8s
MTSU  Mount Surprise    30.80 143    P      P       13 34 26.7 +0.7
            comp=Z,19nm,0.8s
MTSU  Mount Surprise    30.80 143    P      P       13 34 26.4 +0.4
            comp=Z,18nm,0.8s
MTSU  Mount Surprise    30.80 143    P      P       13 34 26.7 +0.7
            comp=Z,18nm,0.8s
AS15  Alice Springs     31.18 165    P      P       13 34 29.5 +0.2
            comp=Z,92nm,0.7s
AS31  Alice Springs     31.21 165    P      P       13 34 29.6 +0.1
            comp=Z,26nm,0.5s
AS31  Alice Springs     31.21 165    P      P       13 34 29.8 +0.3
AS31                                 IAmb   IAmb    13 34 31.2
            comp=Z,21nm,0.5s
ASAR  Alice Springs     31.21 165    P      P       13 34 29.7 +0.2
            comp=Z,52nm,0.6s,baz=342,slow=7.0,SNR=865
ASAR                                 PcP    PcP     13 37 20.0 +0.3
            comp=Z,13nm,0.8s,baz=349,slow=2.1,SNR=10.0
ASAR                                 S      S       13 39 18.6 -3.3
            comp=Z,7.6nm,0.8s,baz=352,slow=19,SNR=7.5
ASAR                                 ScP    ScP     13 40 44.8 -0.3
            comp=Z,3.7nm,0.9s,baz=330,slow=4.1,SNR=4.4
ASAR                                 PKiKP  PKiKP   13 44 48.6 -0.9
            comp=Z,0.8nm,0.8s,baz=77,slow=1.7,SNR=4.3
ASAR  Alice Springs     31.21 165    P      P       13 34 29.6  0.0
AS01  Alice Springs     31.22 165    P      P       13 34 29.7 +0.1
            comp=Z,95nm,0.6s
AUALC St Philip’s Co    31.23 165    P      P       13 34 29.8 +0.1
            comp=Z,72nm,0.8s
AS17  Alice Springs     31.23 165    P      P       13 34 30.0 +0.3
            comp=Z,44nm,0.6s
AS17  Alice Springs     31.23 165    P      P       13 34 29.8 +0.1
            comp=Z,44nm,0.6s
AS09  Alice Springs     31.25 165    P      P       13 34 30.2 +0.3
XAN   Xi'an             31.31 333 ⇓P      P       13 34 29.4 -0.9
XAN                                  pmax   pmax
            comp=Z,11nm,1.4s
WRKA  Warakurna         31.61 175    P      P       13 34 33.1 +0.1
            comp=Z,23nm,1.3s
CD2   Chengdu           31.64 322  eP     P       13 34 33.0 -0.2
TNCH  TengChong         31.69 308 ⇑P      P       13 34 34.8 +0.8
TNCH                                 sP     sP      13 35 30.5 -4.5
TNCH                                 pmax   pmax
            comp=Z,23nm,1.5s
TNCH                                 pmax   pmax
            comp=Z,160nm,6.0s
MAJO  Matsushiro        31.91  19  eP     P       13 34 36.0 +0.5
MAJO                                 pmax   pmax
            comp=Z,9.0nm,1.1s
MJAR  Matsushiro Arr    31.91  19    P      P       13 34 35.4 -0.1
            comp=Z,3.4nm,0.8s,baz=192,slow=8.7,SNR=15
MJAR                                 PcP    PcP     13 37 22.2 +0.8
            comp=Z,6.2nm,0.8s,baz=174,slow=2.5,SNR=17
MJAR                                 ScP    ScP     13 40 48.1 +1.0
            comp=Z,3.6nm,1.0s,baz=174,slow=4.1,SNR=7.6
            comp=Z,3.4nm,0.8s
MJAR  Matsushiro Arr    31.91  19    P      P       13 34 35.8 +0.3
MJAR                                                13 37 22.5
MJAR  Matsushiro Arr    31.91  19    P      P       13 34 35.8 +0.3
MJAR                                        PcP     13 37 22.5 +1.2
MJAR                                        ScP     13 40 48.5 +1.4
HNS   HongShan          32.17 344 ⇑P      P       13 34 40.0 +2.3
HNS                                  S      S       13 39 39.4 +3.0
HNS                                  pmax   pmax
            comp=Z,9.0nm,0.5s
HNS                                  L      L
            comp=Z,120nm,11.2s
HNS                                  L      L
            comp=Z,140nm,11.1s
HNS                                  L      L
            comp=Z,190nm,18.6s
DL2   Dalian            32.31 354  eP     P       13 34 31.6 -7.3
DL2                                  pmax   pmax
            comp=Z,26nm,0.8s
TV1H  Townsville Har    33.16 141    P      P       13 34 47.8 +1.3
            comp=Z,50nm,0.7s
CTA   Charters Tower    33.46 143    P      P       13 34 50.1 +1.0
            comp=Z,20nm,1.4s
CTA   Charters Tower    33.46 143    P      P       13 34 50.3 +1.1
            comp=Z,1.4nm,1.4s
CTA   Charters Tower    33.46 143    P      P       13 34 50.1 +1.0
CTAO  Charters Tower    33.46 143    P      P       13 34 50.3 +1.1
            comp=Z,18nm,1.4s
CTAO  Charters Tower    33.46 143    P      P       13 34 50.1 +1.0
CTAO                                 pmax   pmax
            comp=Z,66nm,1.2s
CTAO  Charters Tower    33.46 143    P      P       13 34 50.1 +1.0
CTAO                                 IAmb   IAmb    13 34 51.5
            comp=Z,66nm,1.1s
CTAO  Charters Tower    33.46 143    P      P       13 34 50.5 +1.3
CTAO                                 PcP    PcP     13 37 27.9 +2.0
CTAO                                 ScP    ScP     13 40 55.0 +2.2
MEEK  Meekatharra       33.78 191    P      P       13 34 51.7 -0.1
            comp=Z,88nm,0.9s
MEEK  Meekatharra       33.78 191    P      P       13 34 51.3 -0.5
            comp=Z,88nm,0.9s
MEEK  Meekatharra       33.78 191    P      P       13 34 51.6 -0.2
            comp=Z,88nm,0.9s
MEEK  Meekatharra       33.78 191    P      P       13 34 51.6 -0.2
            comp=Z,88nm,0.9s
AUAYR Ayr State High    33.78 141    P      P       13 34 53.2 +1.3
            comp=Z,63nm,1.3s
BJI2  Beijing           34.28 347    P      P       13 34 56.0  0.0
BJI2                                 pmax   pmax
            comp=Z,5.0nm,1.2s
SNY   Shenyang          35.07 357    P      P       13 35 03.4 +0.7
SNY                                  pmax   pmax
            comp=Z,19nm,0.8s
LZDM  Lanzhou Array     35.40 329    P      P       13 35 06.1  0.0
            comp=Z,1.6nm,0.4s,baz=103,slow=11,SNR=1.4
            comp=Z,1.6nm,0.4s
LZH   Lanzhou           35.43 329  eP     P       13 35 06.3 +0.2
LZH                                  pP     pP      13 35 45.1 -0.6
LZH                                  pmax   pmax
            comp=Z,30nm,1.4s
HHC   Hu-ho-hao-te      36.28 342  eP     P       13 35 16.1 +2.9
HHC                                  pmax   pmax
            comp=Z,11nm,0.7s
HHC                                  pmax   pmax
            comp=Z,65nm,4.5s
MORW  Morawa            36.69 194    P      P       13 35 16.3 -0.3
            comp=Z,56nm,0.9s
MORW  Morawa            36.69 194    P      P       13 35 17.1 +0.5
            comp=Z,56nm,0.9s
MORW  Morawa            36.69 194    IAmb   IAmb    13 35 17.3
            comp=Z,40nm,0.8s
INKA  Innaminka         37.20 157    P      P       13 35 21.6 +0.7
TATA  Tatamba Isabel    37.24 113    P      P       13 35 23.0 +1.5
            comp=Z,61nm,0.8s
SHL   Shillong          37.27 304    P      P       13 35 22.3 +0.5
SHL   Shillong          37.27 304           P       13 35 22.3 +0.5
FORT  Forrest           37.30 176    P      P       13 35 22.1 +0.5
            comp=Z,64nm,0.7s
QLP   Quilpie           37.66 152    P      P       13 35 24.8 -0.1
            comp=Z,157nm,0.9s
QLP   Quilpie           37.66 152    P      P       13 35 25.5 +0.6
            comp=Z,157nm,0.9s
HNR   Honiara           37.78 115    P      P       13 35 24.6 -1.4
USA0B Ussuriysk Arra    37.81   8d iP     P       13 35 26.7 +0.8
USA0B Ussuriysk Arra    37.81   8    P      P       13 35 26.9 +1.0
USRK  Ussuriysk Ar.     37.81   8    P      P       13 35 27.1 +1.3
            comp=Z,7.9nm,0.8s,baz=198,slow=7.5,SNR=14
            comp=Z,7.9nm,0.8s
KMBL  Kambalda          37.97 185    P      P       13 35 27.6 +0.2
            comp=Z,76nm,1.0s
MDJ   Mudanjiang        37.98   5    P      P       13 35 28.8 +1.6
MDJ                                  pmax   pmax
            comp=Z,27nm,0.9s
MDJ   Mudanjiang        37.98   5    P      P       13 35 29.7 +2.5
            comp=Z,26nm,1.0s
MDJ   Mudanjiang        37.98   5    IAmb   IAmb    13 35 30.2
            comp=Z,22nm,0.9s
BLDU  Ballidu           38.02 192    P      P       13 35 27.4 -0.4
            comp=Z,84nm,1.1s
BLDU  Ballidu           38.02 192    P      P       13 35 29.2 +1.4
            comp=Z,84nm,1.1s
ERM   Erimo             38.51  21d iP     P       13 35 32.9 +1.2
ERM                                  pmax   pmax
            comp=Z,33nm,1.1s
AUNRC North Rockhamp    38.52 142    P      P       13 35 33.4 +1.4
            comp=Z,35nm,1.2s
KLBR  Kellerberrin      38.76 191    P      P       13 35 33.9  0.0
            comp=Z,198nm,1.0s
KLBR  Kellerberrin      38.76 191    P      P       13 35 34.3 +0.3
            comp=Z,198nm,1.0s
BNX   BinXian           38.97   2 ⇑P      P       13 35 35.9 +0.4
BNX                                  pP     pP      13 36 14.5 -1.1
BNX                                  S      S       13 41 22.1 +2.2
BNX                                  sS     sS      13 42 31.9 +2.1
BNX                                  pmax   pmax
            comp=Z,14nm,0.9s
BNX                                  L      L
            comp=Z,160nm,16.4s
MUN   Mundaring         39.45 193    P      P       13 35 39.7  0.0
            comp=Z,111nm,0.8s
MUN   Mundaring         39.45 193    P      P       13 35 40.1 +0.5
            comp=Z,110nm,0.8s
MUN   Mundaring         39.45 193    P      P       13 35 39.6  0.0
AUKUL Kulin High Sch    39.74 190    P      P       13 35 42.5 +0.4
            comp=Z,89nm,0.9s
GTA2  Gaotai            40.11 328  eP     P       13 35 45.3 +0.1
GTA2                                 pP     pP      13 36 25.9 +0.3
GTA2                                 PcP    PcP     13 37 46.4 +0.4
GTA2                                 pmax   pmax
            comp=Z,15nm,1.0s
GTA2                                 L      L
            comp=Z,210nm,17.1s
GTA2                                 L      L
            comp=Z,130nm,16.5s
GTA2                                 L      L
            comp=Z,170nm,15.5s
NWAO  Narrogin (SRO)    40.16 191    P      P       13 35 46.2 +0.7
NWAO  Narrogin (SRO)    40.16 191    P      P       13 35 46.2 +0.7
NWAO  Narrogin (SRO)    40.16 191    P      P       13 35 46.3 +0.8
            comp=Z,108nm,0.9s
NWAO  Narrogin (SRO)    40.16 191    P      P       13 35 46.6 +1.1
            comp=Z,108nm,0.9s
NWAO  Narrogin (SRO)    40.16 191    P      P       13 35 45.8 +0.3
NWAO                                 pmax   pmax
            comp=Z,114nm,0.9s
NWAO  Narrogin (SRO)    40.16 191    P      P       13 35 45.8 +0.3
NWAO  Narrogin (SRO)    40.16 191    P      P       13 35 45.9 +0.4
ASAJ  Asahikawa         40.18  19    P      P       13 35 47.3 +1.8
            comp=Z,5.4nm,0.3s,baz=228,slow=8.9,SNR=28
            comp=Z,5.4nm,0.3s
ASAJ  Asahikawa         40.18  19    P      P       13 35 44.9 -0.6
JKA   Kamikawa-asahi    40.18  19    IAmb   IAmb    13 36 18.8
            comp=Z,67nm,1.6s
EIDS  Eidsvold          40.35 143    P      P       13 35 47.3 +0.1
EIDS  Eidsvold          40.35 143    P      P       13 35 47.4 +0.2
            comp=Z,36nm,1.0s
EIDS  Eidsvold          40.35 143    P      P       13 35 47.0 -0.2
EIDS                                 IAmb   IAmb    13 35 48.1
            comp=Z,32nm,1.0s
BBOO  Buckleboo         40.49 166    P      P       13 35 49.2 +1.0
BBOO  Buckleboo         40.49 166    P      P       13 35 49.5 +1.3
            comp=Z,302nm,0.8s
BBOO  Buckleboo         40.49 166    P      P       13 35 49.0 +0.8
GOMU  GeErMu            40.71 321    P      P       13 35 51.3 +0.8
GOMU                                 pmax   pmax
            comp=Z,6.0nm,0.5s
STKA  Stephens Creek    41.25 159    P      P       13 35 55.5 +1.1
STKA  Stephens Creek    41.25 159    P      P       13 35 55.1 +0.7
            comp=Z,144nm,0.7s,baz=333,slow=7.9,SNR=168
STKA                                 PcP    PcP     13 37 49.8 +0.2
            comp=Z,10.0nm,0.8s,baz=318,slow=8.1,SNR=2.9
STKA                                 ScP    ScP     13 41 22.0 +0.2
            comp=Z,6.5nm,0.8s,baz=331,slow=2.1,SNR=4.2
STKA  Stephens Creek    41.25 159    P      P       13 35 55.5 +1.1
            comp=Z,44nm,0.9s
STKA  Stephens Creek    41.25 159d iP     P       13 35 55.3 +0.9
AUCAS Cummins Area S    41.81 167    P      P       13 36 00.6 +1.7
            comp=Z,199nm,1.1s
HTT   Hallett           41.83 163    P      P       13 36 00.7 +1.5
HTT   Hallett           41.83 163    P      P       13 36 00.5 +1.3
            comp=Z,163nm,1.0s
AULRC Lightning Ridg    41.84 150    P      P       13 35 59.7 +0.4
            comp=Z,106nm,1.3s
TW1H  Toowoomba 1 Ha    42.51 144    P      P       13 36 06.0 +1.2
            comp=Z,70nm,1.0s
AUTOO Toowoomba Stat    42.51 144    P      P       13 36 06.4 +1.6
            comp=Z,84nm,1.1s
CMSA  Cobar Meteorol    42.56 154    P      P       13 36 06.2 +1.2
CMSA  Cobar Meteorol    42.56 154    P      P       13 36 06.3 +1.2
            comp=Z,70nm,1.1s
AUBSH Beerwah State     42.58 143    P      P       13 36 06.5 +1.3
            comp=Z,51nm,1.1s
KLR   Kul'dur           42.75   6    P      P       13 36 07.1 +0.8
            comp=Z,4.7nm,0.7s,baz=245,slow=3.5,SNR=11
KLR                                  PcP    PcP     13 37 54.3  0.0
            comp=Z,1.6nm,0.4s,baz=244,slow=4.5,SNR=5.0
KLR                                  ScP    ScP     13 41 28.4 +1.0
            comp=Z,1.3nm,0.6s,baz=224,slow=3.0,SNR=5.1
            comp=Z,4.7nm,0.7s
KLR   Kul'dur           42.75   6d iP     P       13 36 06.9 +0.6
KLR                                  pmax   pmax
            comp=Z,18nm,1.5s
HILR  Hailar Array B    43.04 354    P      P       13 36 07.7 -1.1
            comp=Z,2.6nm,0.5s,baz=138,slow=14,SNR=2.9
HILR                                 PcP    PcP     13 37 56.3 +1.0
            comp=Z,2.5nm,0.4s,baz=162,slow=5.6,SNR=4.5
            comp=Z,2.6nm,0.5s
GHSS  Government Hou    43.14 164    P      P       13 36 11.2 +1.6
            comp=Z,273nm,0.7s
HEH   HeiHe             43.48   2  eP     P       13 36 12.8 +0.6
HEH                                  PcP    PcP     13 37 56.8 +0.1
HEH                                  pmax   pmax
            comp=Z,17nm,0.9s
AUMBR Murray Bridge     43.52 164    P      P       13 36 14.3 +1.6
            comp=Z,130nm,0.9s
ULN   Ulaanbaatar       44.01 342c iP     P       13 36 16.6  0.0
ULN   Ulaanbaatar       44.01 342           P       13 36 16.3 -0.3
SONM  Songino Array     44.18 341    P      P       13 36 16.7 -1.3
            comp=Z,2.7nm,0.8s,baz=166,slow=8.5,SNR=11
SONM                                 LR     LR      13 57 18.5
            comp=Z,56nm,19.5s,baz=142,slow=39
            comp=Z,2.7nm,0.8s
SONM  Songino Array     44.18 341    IAmb   IAmb    13 36 18.8
            comp=Z,5.0nm,1.1s
AUDCS Dubbo College     44.47 152    P      P       13 36 21.4 +1.1
            comp=Z,71nm,1.0s
ARMA  Armidale          44.52 147    P      P       13 36 22.3 +1.4
ARMA  Armidale          44.52 147    P      P       13 36 22.1 +1.2
            comp=Z,64nm,0.9s
ARMA  Armidale          44.52 147           P       13 36 21.5 +0.6
ARMA                                 IAmb   IAmb    13 36 23.1
            comp=Z,45nm,0.8s
AUPHS Peel High Scho    44.67 149    P      P       13 36 23.3 +1.4
            comp=Z,35nm,1.1s
ARPS  Mount Arapiles    45.80 162    P      P       13 36 32.1 +1.4
AUMAG Moama Anglican    46.18 158    P      P       13 36 35.6 +1.9
            comp=Z,442nm,0.8s
SYDH  Sydney Hard Ro    46.73 151    P      P       13 36 39.8 +1.8
            comp=Z,65nm,0.8s
ZEA   Zeya              46.96   1  eP     P       13 36 35.5 -4.0
ZEA                                  pmax   pmax
            comp=Z,10.0nm,0.6s
HYB   Hyderabad         47.11 288  eP     P       13 36 40.9 -0.4
HYB                                epP    pP      13 37 20.8 -1.9
HYB                                ePcP   PcP     13 38 09.9 -0.2
HYB                                ePP    PP      13 38 33.5 -0.4
HYB                                eS     S       13 43 19.7 +0.3
HYB                                eScS   ScS     13 46 15.9 -0.3
BRAT  Ballarat          47.19 160    P      P       13 36 43.3 +1.8
            comp=Z,39nm,0.8s
AUMTS Mt Stromlo        47.22 154    P      P       13 36 43.7 +1.9
            comp=Z,181nm,1.2s
CAN   Canberra          47.22 154    P      P       13 36 44.1 +2.3
CAN   Canberra          47.22 154    P      P       13 36 43.8 +2.0
            comp=Z,246nm,1.0s
CAN   Canberra          47.22 154    P      P       13 36 43.7 +1.9
CAN                                  PcP    PcP     13 38 11.3 +1.2
AUMHS Melrose High S    47.29 154    P      P       13 36 43.7 +1.3
            comp=Z,57nm,1.2s
WOLH  Wollongong Har    47.32 151    P      P       13 36 44.3 +1.8
            comp=Z,94nm,0.8s
CNB   Canberra Magne    47.38 153    P      P       13 36 45.4 +2.4
TOO   Toolangi          47.76 159    P      P       13 36 48.2 +2.3
TOO   Toolangi          47.76 159    P      P       13 36 47.5 +1.6
TOO                                  pmax   pmax
            comp=Z,36nm,0.7s
TOO   Toolangi          47.76 159           P       13 36 47.5 +1.6
TOO                                  IAmb   IAmb    13 36 48.9
            comp=Z,36nm,0.7s
MLBS  Spotswood, Mel    47.78 159    P      P       13 36 47.7 +1.7
            comp=Z,183nm,0.7s
AUUHS Ulladulla High    47.91 152    P      P       13 36 49.4 +2.3
            comp=Z,105nm,1.1s
AUSMG Snowy Mountain    47.98 155    P      P       13 36 49.3 +1.6
            comp=Z,134nm,0.9s
TLY   Talaya            48.41 342    LR     LR      13 57 38.4
            comp=Z,90nm,21.8s,baz=129,slow=36
TLY   Talaya            48.41 342d iP     P       13 36 50.5 -0.2
MILA  Mila              48.75 155    P      P       13 36 54.9 +1.4
YATNC Mamie plateau,    49.51 126    P      P       13 37 01.6 +2.1
            comp=Z,49nm,1.1s
KNGR  Kungurtug, Tuv    49.67 337  eP     P       13 37 01.7 +1.3
WMQ   Urumqi            49.70 324  eP     P       13 37 01.3 +0.6
WMQ                                  pP     pP      13 37 43.6 +1.0
WMQ                                  S      S       13 43 48.3 -6.7
WMQ                                  pmax   pmax
            comp=Z,13nm,0.7s
WMQ                                  L      L
            comp=Z,58nm,22.3s
AUBRN Burnie High Sc    50.98 160    P      P       13 37 11.4 +1.2
            comp=Z,161nm,1.1s
CORO  Coronation Par    51.79 159    P      P       13 37 17.9 +1.8
            comp=Z,28nm,1.1s
MOO   Moorlands         52.68 160    P      P       13 37 24.3 +1.5
PEA0B Petropavlovsk-    53.19  24⇑iP     P       13 37 27.6 +1.2
PETK  Petropavlovsk-    53.19  24    P      P       13 37 27.4 +1.1
            comp=Z,14nm,0.8s,baz=208,slow=5.4,SNR=29
PETK                                 PcP    PcP     13 38 31.7 -0.1
            comp=Z,1.0nm,0.4s,baz=229,slow=6.4,SNR=9.2
            comp=Z,14nm,0.8s
ZSN   Zaisan            53.45 327  eP     P       13 37 28.2 -0.2
ZSN   Zaisan            53.45 327  eP     P       13 37 28.3 -0.2
DGZ   Jazzator, Alta    53.51 330  eP     P       13 37 28.1 -0.8
SHLS  Shalkode          54.39 320  eP     P       13 37 33.1 -2.3
SHLS                                 pmax   pmax
            comp=Z,14nm,1.3s
SHLS  Shalkode          54.39 320  eP     P       13 37 33.1 -2.3
            comp=Z,14nm,1.3s
PDGK  Podgornoye        54.45 320    P      P       13 37 35.8 -0.1
PDGK  Podgornoye        54.45 320    P      P       13 37 35.8 -0.1
MK31  Makanchi Array    54.52 325⇑iP     P       13 37 35.8 -0.4
MKAR  Makanchi Array    54.52 325    P      P       13 37 35.6 -0.5
            comp=Z,2.8nm,0.4s,baz=120,slow=8.6,SNR=22
MKAR                                 PcP    PcP     13 38 36.3 -0.8
            comp=Z,2.3nm,0.6s,baz=117,slow=5.1,SNR=4.7
            comp=Z,2.8nm,0.4s
MKAR  Makanchi Array    54.52 325  i P      P       13 37 35.5 -0.7
MKAR                                 pmax   pmax
            comp=Z,3.0nm,0.4s
UZB   Uzynbulak         54.67 319  eP     P       13 37 36.9 -0.5
UZB   Uzynbulak         54.67 319  eP     P       13 37 37.0 -0.5
MAKZ  Makanchi          54.71 325    P      P       13 37 36.9 -0.6
MAKZ                                 pmax   pmax
            comp=Z,23nm,1.2s
MAKZ  Makanchi          54.71 325    P      P       13 37 36.9 -0.6
MAKZ                                 IAmb   IAmb    13 38 23.7
            comp=Z,23nm,1.2s
KPKS  Kokpek            55.04 320  eP     P       13 37 39.5 -0.5
KPKS  Kokpek            55.04 320  eP     P       13 37 39.6 -0.5
KSH2  Kashi             55.34 314    P      P       13 37 42.1 -0.2
KSH2                                 pP     pP      13 38 25.3 +0.2
KSH2                                 PcP    sP      13 38 43.6 -2.3
KSH2                                 pmax   pmax
            comp=Z,6.0nm,1.0s
YAK   Yakutsk           55.34   2  eP     P       13 37 42.0 +0.4
YAK                                e                13 38 40.6
YAK                                e                13 39 53.3
YAK                                eS     S       13 45 12.0 +1.2
YAK                                e                13 47 03.5
YAK                                eSS    SS      13 48 52.7 -5.5
YAK                                  pmax   pmax
            comp=Z,49nm,0.8s
YAK                                  pmax   pmax
            comp=N,39nm,1.5s
YAK                                  pmax   pmax
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       comp=E,15nm,2.0s
YAK                                pmax     pmax
       comp=E,112nm,5.2s
YAK                                pmax     pmax
       comp=Z,131nm,4.2s
YAK                                pmax     pmax
       comp=N,62nm,4.2s
YAK                                smax     smax
       comp=N,48nm,1.4s
YAK                                smax     smax
       comp=E,36nm,2.0s
YAK    Yakutsk            55.34   2  P        P        13 37 42.1 +0.4
KDJ    Kajisay            55.43 317  P        P        13 37 42.9  0.0
KDJ                                pmax     pmax
       comp=Z,17nm,1.2s
KDJ    Kajisay            55.43 317  P        P        13 37 42.9  0.0
TDK    Taldyqorghan       55.94 321 eP        P        13 37 46.0 -0.3
TDK    Taldyqorghan       55.94 321 eP        P        13 37 46.0 -0.3
MDOK   Medeo              55.97 319 eP        P        13 37 46.5 -0.2
MDOK   Medeo              55.97 319 eP        P        13 37 46.5 -0.2
TNSS   Tian-Shan          55.98 318 eP        P        13 37 46.4 -0.7
TNSS   Tian-Shan          55.98 318 eP        P        13 37 46.5 -0.7
AAA    Alma-Ata           56.07 319 eP        P        13 37 47.3  0.0
AAA                                pmax     pmax
       comp=Z,9.0nm,0.4s
AAA    Alma-Ata           56.07 319 eP        P        13 37 47.3  0.0
       comp=Z,9.2nm,0.4s
MA2    Magadan            56.18  15  P        P        13 37 48.6 +0.9
       comp=Z,10nm,0.7s,baz=206,slow=8.4,SNR=5.6
MA2                                PcP      PcP      13 38 43.5 +0.4
       comp=Z,13nm,0.8s,baz=209,slow=3.9,SNR=5.2
       comp=Z,10nm,0.7s
MA2    Magadan            56.18  15  P        P        13 37 48.6 +0.9
MA2                                                    13 38 43.5
MA2                                pmax     pmax
       comp=Z,21nm,1.0s
MA2    Magadan            56.18  15  IAmb     IAmb     13 38 45.7
       comp=Z,21nm,1.0s
KUU    Kurty              56.75 319 eP        P        13 37 51.8 -0.2
KUU    Kurty              56.75 319 eP        P        13 37 51.9 -0.2
       comp=Z,5.8nm,0.9s
MSVF   Nonsavu            57.18 116  P        P        13 37 58.0 +2.5
       comp=Z,73nm,1.0s
MSVF   Nonsavu            57.18 116 eP        P        13 37 57.8 +2.3
MSVF                               pmax     pmax
       comp=Z,70nm,1.0s
MSVF   Nonsavu            57.18 116  P        P        13 37 57.2 +1.6
AAK    Ala-Archa          57.45 317 eP        P        13 37 56.2 -1.0
AAK                                i *PP    pP       13 38 40.7 +0.5
AAK    Ala-Archa          57.45 317  P        P        13 37 57.1 -0.1
ZALV   Zalesovo Beam      57.48 333  P        P        13 37 54.8 -2.1
       comp=Z,1.1nm,0.3s,baz=117,slow=8.5,SNR=9.3
ZALV                               PKP2bc   P'P'bc   14 07 49.4 -4.4
       comp=Z,1.3nm,0.7s,baz=306,slow=4.8,SNR=7.6
       comp=Z,1.1nm,0.3s
ZALV   Zalesovo Beam      57.48 333 i P       P        13 37 55.7 -1.3
ZALV   Zalesovo Beam      57.48 333  P        P        13 37 55.2 -1.8
SGDS   Sogindy            57.69 318 eP        P        13 37 58.5 -0.2
DGTI   Dogotuki           58.22 114  P        P        13 38 04.5 +1.7
       comp=Z,78nm,1.1s
KURBB  Kurchatov Arra     58.68 327  P        P        13 38 04.3 -1.0
       comp=Z,5.7nm,0.9s,baz=128,slow=5.7,SNR=40
KURBB                              PKPPKP   P'P'df   14 07 32.9 -7.3
       comp=Z,1.4nm,1.1s,baz=271,slow=3.4,SNR=5.2
KURBB                              PKP2bc   P'P'bc   14 07 45.8 -5.5
       comp=Z,1.0nm,0.8s,baz=284,slow=3.0,SNR=4.9
       comp=Z,5.7nm,0.9s
KURK   Kurchatov          58.68 327 i P       P        13 38 04.4 -0.9
KURK                               pmax     pmax
       comp=Z,16nm,1.2s
KURK   Kurchatov          58.68 327  P        P        13 38 04.4 -0.9
BTK    Batken             59.10 313  IAmb     IAmb     13 38 53.6
       comp=Z,33nm,1.3s
SEY    Seymchan           59.47  14  P        P        13 38 11.5 +1.0
       comp=Z,8.5nm,0.9s,baz=184,slow=11,SNR=10
       comp=Z,8.5nm,0.9s
SEY    Seymchan           59.47  14⇑iP        P        13 38 13.0 +2.5
SEY                                pmax     pmax
       comp=Z,16nm,1.2s
KK31   Karatay Array      60.34 316  P        P        13 38 16.0 -0.9
KK31                               pmax     pmax
       comp=Z,18nm,1.3s
KK31   Karatay Array      60.34 316  P        P        13 38 16.0 -0.9
KKAR   Karatay Array      60.34 316  P        P        13 38 15.8 -1.1
KKAR   Karatay Array      60.34 316  P        P        13 38 15.8 -1.1
IUG    Iuzhnay            60.35 315 eP        P        13 38 16.7 -0.3
IUG    Iuzhnay            60.35 315 eP        P        13 38 16.8 -0.3
CHM    Chimkent           60.70 315 eP        P        13 38 19.1 -0.3
CHM    Chimkent           60.70 315 eP        P        13 38 19.2 -0.2
OUZ    Omahuta            61.44 136  P        P        13 38 26.6 +2.3
MKAZ   Moumakai           63.52 137  P        P        13 38 40.3 +2.2
JCZ    Jackson Bay        63.76 147  P        P        13 38 41.2 +1.6
       comp=Z,93nm,1.0s
QRZ    Quartz Range       63.91 142  P        P        13 38 42.1 +1.5
DSZ    Denniston Nort     64.02 143  P        P        13 38 42.9 +1.6
BVAR   Borovoye Array     64.27 327  P        P        13 38 41.5 -1.2
       comp=Z,2.6nm,0.8s,baz=126,slow=9.3,SNR=11
       comp=Z,2.6nm,0.8s
BORK   Borovoye           64.31 327 i P       P        13 38 42.0 -1.0
BORK   Borovoye           64.31 327  P        P        13 38 42.0 -1.0
MRNZ   Matariki Terra     64.39 142  P        P        13 38 44.4 +0.7
INZ    Inchbonnie         64.41 144  P        P        13 38 44.5 +0.8
NNZ    Nelson             64.67 142  P        P        13 38 45.6 +0.1
THZ    Tophouse           64.69 143  P        P        13 38 46.3 +0.6
LBZ    Lake Benmore       64.73 146  P        P        13 38 46.8 +0.9
LBZ    Lake Benmore       64.73 146  P        P        13 38 47.1 +1.3
RPZ    Rata Peaks         64.79 145  P        P        13 38 46.9 +0.6
RPZ    Rata Peaks         64.79 145  P        P        13 38 47.2 +1.0
TIXI   Tiksi              64.96   1⇑iP        P        13 38 46.8  0.0
TIXI                               pmax     pmax
       comp=Z,28nm,1.0s
TIXI   Tiksi              64.96   1  P        P        13 38 46.6 -0.1
TIXI                               IAmb     IAmb     13 38 47.7
       comp=Z,27nm,1.1s
OTVZ   Oturere            64.96 139  P        P        13 38 49.9 +2.3
ETVZ   East Tongariro     64.98 139  P        P        13 38 49.7 +2.0
WNVZ   Wahianoa           65.01 139  P        P        13 38 50.0 +2.0
BSWZ   Blackbirch Sta     65.26 142  P        P        13 38 49.7 +0.4
BHHZ   Black Hill Sta     65.40 139  P        P        13 38 51.1 +0.8
ODZ    Otahua Downs       65.40 147  P        P        13 38 51.2 +1.1
URZ    Urewera            65.44 137  LR       LR       14 09 07.9
       comp=Z,86nm,18.1s,baz=249,slow=37
URZ    Urewera            65.44 137  P        P        13 38 51.2 +0.7
KHZ    Kahutara           65.46 143  P        P        13 38 50.8 +0.2
BKZ    Black Stump Fm     65.51 138  P        P        13 38 51.5 +0.5
       comp=Z,80nm,0.9s
BKZ    Black Stump Fm     65.51 138  P        P        13 38 51.8 +0.8
SNZO   South Karori       65.54 141  P        P        13 38 50.8 -0.2
RTZ    Ruatahuna          65.54 138  P        P        13 38 51.8 +0.5
MTHZ   Maungataniwha      65.57 138  P        P        13 38 52.4 +1.0
HAZ    Te Kaha            65.64 137  P        P        13 38 52.5 +0.7
CAW    Cannon Point       65.65 141  P        P        13 38 51.8  0.0
RUGZ   Raukumara Rang     65.68 137  P        P        13 38 52.5 +0.3
PNHZ   Pukenui            65.72 139  P        P        13 38 52.9 +0.6
MRZ    Mangatainoka R     65.72 140  IAmb     IAmb     13 38 53.2
       comp=Z,25nm,0.9s
MRZ    Mangatainoka R     65.72 140  P        P        13 38 52.3 +0.1
MWZ    Matawai            65.76 137  P        P        13 38 53.2 +0.6
RAHZ   Arahi              65.77 138  P        P        13 38 54.2 +1.6
MXZ    Matakaoa Point     65.90 136  IAmb     IAmb     13 38 55.1
       comp=Z,28nm,0.7s
MXZ    Matakaoa Point     65.90 136  P        P        13 38 54.5 +1.0
MSWZ   Moikau Station     65.94 141  P        P        13 38 54.0 +0.3
PLWZ   Palliser           66.02 141  P        P        13 38 54.3  0.0
WMGZ   Waiomatatini S     66.11 136  P        P        13 38 55.5 +0.7
RIGZ   Rimuhau            66.11 137  P        P        13 38 55.9 +1.1
PUZ    Puketiti           66.12 137  P        P        13 38 54.6 -0.3
BFZ    Birch Farm         66.16 140  P        P        13 38 56.6 +1.5
       comp=Z,59nm,1.4s
BFZ    Birch Farm         66.16 140  P        P        13 38 56.0 +0.9
PXZ    Pawanui            66.21 139  P        P        13 38 56.5 +1.1
BILL   Bilibino           67.05  15⇑iP        P        13 39 00.7 +0.5
BILL                               pmax     pmax
       comp=Z,11nm,1.1s
NRIK   Noril'sk           67.34 346  P        P        13 39 01.8 -0.2
       comp=Z,5.7nm,0.5s,baz=152,slow=3.9,SNR=6.8
NRIK                               LR       LR       14 12 10.0
       comp=Z,71nm,18.2s,baz=114,slow=39
       comp=Z,5.7nm,0.5s
NRIK   Noril'sk           67.34 346⇑iP        P        13 39 02.0  0.0
NRIK                               pmax     pmax
       comp=Z,23nm,1.5s
AB31   Akbulak array      69.19 320  P        P        13 39 12.7 -1.2
ABKAR  Akbulak array      69.19 320  P        P        13 39 13.0 -0.9
CASY   Casey              73.57 186  P        P        13 39 39.9 +0.2
CASY                               IAmb     IAmb     13 39 40.9
       comp=Z,20nm,0.8s
CASY   Casey              73.57 186  P        P        13 39 39.9 +0.2
CASY                               PcP      PcP      13 39 55.3 +0.7
CASY                               pP       pP       13 40 23.5 -1.5
L14K   Kuka Creek         75.46  28  IAmb     IAmb     13 39 53.8
       comp=Z,32nm,0.9s
M14K   Bethel             75.68  29  IAmb     IAmb     13 39 54.7
       comp=Z,29nm,0.8s
N15K   Kwethluk River     76.47  30  IAmb     IAmb     13 39 59.3
       comp=Z,25nm,0.9s
AKT    Akhty              76.53 311 eP        P        13 39 56.7 -0.7
AKT                                eS       S        13 49 27.4 -0.5
AKT                                pmax     pmax
       comp=Z,18nm,1.6s
CHGN   Chignik            76.73  34  IAmb     IAmb     13 39 59.5
       comp=Z,41nm,1.0s
L16K   Owhat River        77.04  28  IAmb     IAmb     13 40 02.4
       comp=Z,23nm,1.0s
KIRV   Kirov              77.15 329  LR       LR       14 15 36.7
       comp=Z,75nm,21.1s,baz=338,slow=37
KIRV   Kirov              77.15 329⇑iP        P        13 39 59.0 -1.3
KIRV                               i *PP    pP       13 40 46.8 +0.7
M16K   Timber Creek       77.17  29  IAmb     IAmb     13 40 03.2
       comp=Z,28nm,1.0s
O16K   Kokwok River B     77.37  30  IAmb     IAmb     13 40 04.2
       comp=Z,25nm,1.1s
N17K   Nushagak Hills     77.95  30  IAmb     IAmb     13 40 08.0
       comp=Z,26nm,1.1s
M17K   Holitna River      77.96  29  IAmb     IAmb     13 40 08.6
       comp=Z,24nm,1.0s
RAYN   Ar Rayn            78.31 293  P        P        13 40 06.6 -1.0
RAYN                               pmax     pmax
       comp=Z,22nm,0.9s
RAYN   Ar Rayn            78.31 293  P        P        13 40 06.6 -1.0
RAYN                               IAmb     IAmb     13 40 07.6
       comp=Z,22nm,0.8s
RAYN   Ar Rayn            78.31 293  P        P        13 40 06.8 -0.7
C19K   Lookout Ridge      78.42  21  IAmb     IAmb     13 40 09.8
       comp=Z,26nm,0.9s
J19K   Poorman            79.14  26  IAmb     IAmb     13 40 14.6
       comp=Z,25nm,1.2s
L19K   White Mountain     79.27  28  IAmb     IAmb     13 40 14.9
       comp=Z,22nm,1.0s
N19K   Bonanza Creek      79.31  29  IAmb     IAmb     13 40 14.7
       comp=Z,19nm,1.0s
O19K   Port Alsworth      79.33  30  IAmb     IAmb     13 40 14.7
       comp=Z,33nm,1.2s
OHAK   Old Harbor         79.63  33  P        P        13 40 15.7 +1.8
       comp=Z,35nm,1.2s
OHAK   Old Harbor         79.63  33  IAmb     IAmb     13 40 16.3
       comp=Z,30nm,0.9s
I20K   Naaghedeneel       79.72  25  IAmb     IAmb     13 40 17.4
       comp=Z,30nm,0.8s
K20K   Telida             79.75  27  IAmb     IAmb     13 40 17.7
       comp=Z,20nm,1.0s
L20K   Farewell, AK       79.75  28  IAmb     IAmb     13 40 19.0
       comp=Z,19nm,1.0s
J20K   Nowinta River      79.80  26  IAmb     IAmb     13 40 18.7
       comp=Z,74nm,1.8s
KDAK   Kodiak Island      80.05  33  P        P        13 40 17.0 +0.9
KDAK                               pmax     pmax
       comp=Z,34nm,0.9s
KDAK   Kodiak Island      80.05  33  P        P        13 40 17.0 +0.9
KDAK                               IAmb     IAmb     13 40 18.4
       comp=Z,34nm,0.8s
KDAK   Kodiak Island      80.05  33  P        P        13 40 17.5 +1.3
KDAK                               pP       pP       13 41 00.2 -2.0
IMAR   Indian Mountai     80.15  24  P        P        13 40 17.5 +0.9
KBZ    Khabaz             80.16 313 eP        P        13 40 14.9 -2.2
KBZ                                pmax     pmax
       comp=Z,5.0nm,1.2s
E21K   Killik River       80.33  22  IAmb     IAmb     13 40 20.0
       comp=Z,19nm,1.0s
H21K   Melozitna Rive     80.51  25  IAmb     IAmb     13 40 21.5
       comp=Z,21nm,1.0s
STLK   Strandline Lak     80.64  29  IAmb     IAmb     13 41 55.5
       comp=Z,13nm,0.4s
CAST   Castle Rocks       80.65  27  IAmb     IAmb     13 40 21.8
       comp=Z,36nm,1.0s
B22K   Teshekpuk Lake     80.74  20  IAmb     IAmb     13 40 22.1
       comp=Z,36nm,1.0s
SKT    Skwentna           80.81  28  IAmb     IAmb     13 40 21.7
       comp=Z,30nm,1.0s
I21K   Tanana             80.82  25  IAmb     IAmb     13 40 23.7
       comp=Z,31nm,1.0s
CNPM   China Poot         80.84  31  IAmb     IAmb     13 40 22.0
       comp=Z,30nm,0.8s
BRLK   Bradley Lake       81.03  31  IAmb     IAmb     13 40 25.4
       comp=Z,47nm,1.0s
H22K   Ishtalitna Cre     81.11  24  IAmb     IAmb     13 40 25.5
       comp=Z,23nm,1.0s
BPAW   Bear Paw Mtn.      81.18  26  IAmb     IAmb     13 40 24.6
       comp=Z,48nm,1.0s
ABPO   Ambohimpanom       81.24 250 i P       P        13 40 23.1 -0.4
ABPO   Ambohimpanom       81.24 250  P        P        13 40 22.2 -1.3
MLY    Manley             81.33  25  IAmb     IAmb     13 40 25.6
       comp=Z,22nm,0.8s
SLKM   Skilak Lake        81.39  30  IAmb     IAmb     13 40 24.8
       comp=Z,30nm,0.8s
TRF    Thorofare Moun     81.46  27  IAmb     IAmb     13 40 25.7
       comp=Z,26nm,0.9s
D23K   Nanushuk River     81.57  21  IAmb     IAmb     13 40 27.4
       comp=Z,35nm,1.1s
ATD    Arta Tunnel        81.61 281  IAmb     IAmb     13 40 27.7
       comp=Z,27nm,1.0s
CCD    Concordia, Ant     81.63 181  P        P        13 40 25.2 +0.5
RC01   Rabbit Creek A     81.64  29  IAmb     IAmb     13 40 26.2
       comp=Z,19nm,0.9s
C23K   Itkillik River     81.65  20  IAmb     IAmb     13 40 27.8
       comp=Z,26nm,0.8s
COLD   Coldfoot           81.66  23  IAmb     IAmb     13 40 28.4
       comp=Z,20nm,0.9s
SEW    Seward             81.76  30  IAmb     IAmb     13 40 26.6
       comp=Z,23nm,1.0s
BWN    Browne             81.85  26  IAmb     IAmb     13 40 28.8
       comp=Z,37nm,1.1s
E23K   Chandalar          81.92  22  IAmb     IAmb     13 40 29.3
       comp=Z,23nm,1.1s
I23K   Minto, Yukon-K     81.92  25  IAmb     IAmb     13 40 29.8
       comp=Z,37nm,1.1s
PMR    Palmer             81.94  29  P        P        13 40 26.5 +0.4
       comp=Z,35nm,1.0s
PMR    Palmer             81.94  29  IAmb     IAmb     13 40 27.8
       comp=Z,31nm,1.0s
GHO    Glory Hole Cre     82.04  29  IAmb     IAmb     13 40 48.1
       comp=Z,22nm,1.0s
RND    Reindeer           82.10  27  IAmb     IAmb     13 40 29.3
       comp=Z,38nm,1.1s
VOI    Vohitsoka          82.15 247  P        P        13 40 26.2 -2.0
VOI                                IAmb     IAmb     13 40 27.4
       comp=Z,17nm,0.9s
D24K   Happy Valley       82.25  21  IAmb     IAmb     13 40 30.6
       comp=Z,25nm,0.9s
KLMR   Klimovskoe         82.32 330 eP        P        13 40 26.0 -2.1
KLMR                               pmax     pmax
       comp=Z,9.0nm,1.2s
WRH    Wood River Hil     82.45  26  IAmb     IAmb     13 40 30.6
       comp=Z,46nm,1.1s
H24K   Noodor Dome        82.55  24  IAmb     IAmb     13 40 33.5
       comp=Z,38nm,1.0s
COLA   College            82.56  25  P        P        13 40 31.6 +2.4
       comp=Z,11nm,0.9s
COLA   College            82.56  25c iP       P        13 40 28.5 -0.7
COLA                               pmax     pmax
       comp=Z,15nm,0.9s
COLA   College            82.56  25  P        P        13 40 29.5 +0.3
COLA   College            82.56  25  P        P        13 40 29.8 +0.6
F24K   Squaw Lake         82.56  23  IAmb     IAmb     13 40 32.5
       comp=Z,81nm,1.9s
CCB    Clear Creek Bu     82.58  26  IAmb     IAmb     13 40 30.9
       comp=Z,48nm,1.2s
G24K   Hadweenzic Riv     82.72  24  IAmb     IAmb     13 40 33.3
       comp=Z,35nm,1.1s
HDA    Harding Lake       82.95  26  IAmb     IAmb     13 40 32.4
       comp=Z,29nm,0.9s
IL31                      82.97  26  IAmb     IAmb     13 40 33.0
       comp=Z,18nm,0.9s
ILAR   Eielson Array      82.97  26  P        P        13 40 30.9 -0.4
       comp=Z,12nm,0.9s,baz=239,slow=5.0,SNR=79
ILAR                               PKKPbc   PKKPbc   13 58 52.9 -2.7
       comp=Z,1.3nm,0.9s,baz=46,slow=1.9,SNR=7.5
       comp=Z,12nm,0.9s
ILAR   Eielson Array      82.97  26  P        P        13 40 31.0 -0.4
D25K   Kavik River        83.12  21  IAmb     IAmb     13 40 34.9
       comp=Z,32nm,1.1s
HIN    Hinchinbrook I     83.23  30  IAmb     IAmb     13 40 35.3
       comp=Z,40nm,0.9s
FID    Port Fidalgo       83.23  30  IAmb     IAmb     13 40 35.1
       comp=Z,45nm,1.0s
MOS    Moscow             83.40 325 eP        P        13 40 33.0 -0.7
F25K   Christian Rive     83.42  23  IAmb     IAmb     13 40 37.2
       comp=Z,24nm,1.1s
KLU    Klutina            83.48  29  IAmb     IAmb     13 40 36.6
       comp=Z,18nm,0.9s
HARP   HAARP              83.81  28  IAmb     IAmb     13 40 38.4
       comp=Z,32nm,1.1s
BMAR   Burnt Mountain     83.84  23  P        P        13 40 37.9 +2.1
F26K   Sheenjek River     83.99  23  IAmb     IAmb     13 40 39.9
       comp=Z,19nm,1.1s
OBN    Obninsk            84.03 325c iP       P        13 40 36.0 -0.9
OBN                                i *PP    pP       13 41 25.9 +2.4
OBN                                i S      S        13 50 27.7  -17
OBN                                e*SS     pS       13 51 28.8  -14
OBN                                SSS      SSS      13 59 46.0
OBN                                pmax     pmax
       comp=Z,9.0nm,0.5s
C27K   Jago River         84.05  21  IAmb     IAmb     13 40 40.1
       comp=Z,34nm,0.8s
BMRM   Bremner River      84.14  29  IAmb     IAmb     13 40 40.0
       comp=Z,32nm,1.0s
G26K   Porcupine Rive     84.17  23  IAmb     IAmb     13 40 40.7
       comp=Z,34nm,0.9s
SCRK   Sand Creek         84.26  26  IAmb     IAmb     13 40 40.3
       comp=Z,51nm,1.6s
MENT   Mentasta           84.44  27  P        P        13 40 41.2 +2.3
       comp=Z,8.8nm,0.8s
GLB    Gilahina Butte     84.49  29  IAmb     IAmb     13 40 41.8
       comp=Z,33nm,1.2s
I26K   Coal Creek Min     84.53  25  IAmb     IAmb     13 40 41.4
       comp=Z,42nm,1.0s
BERG   Berg Lake          84.62  30  IAmb     IAmb     13 40 42.6
       comp=Z,43nm,1.0s
E27K   Coleen River       84.92  22  IAmb     IAmb     13 40 44.2
       comp=Z,19nm,1.0s
G27K   Doyon Strip        85.02  23  IAmb     IAmb     13 40 44.9
       comp=Z,23nm,1.4s
H27K   Steamboat Moun     85.12  24  IAmb     IAmb     13 40 45.6
       comp=Z,23nm,1.1s
BCAR   Beaver Creek A     85.31  27  P        P        13 40 44.2 +0.9
ASF    Jabal al Asfar     85.40 302  LR       LR       14 25 25.7
       comp=Z,27nm,18.1s,baz=27,slow=40
BARN   Barnard Glacie     85.56  29  IAmb     IAmb     13 40 48.3
       comp=Z,14nm,0.8s
F28M   Old Crow           85.63  23  IAmb     IAmb     13 40 47.0
       comp=Z,14nm,0.8s
I28M   Miner Creek        85.86  25  IAmb     IAmb     13 40 49.2
       comp=Z,28nm,0.8s
MAW    Mawson             86.09 200  P        P        13 40 46.8  0.0
MAW    Mawson             86.09 200  P        P        13 40 45.6 -1.2
       comp=Z,5.1nm,0.8s,baz=67,slow=7.6,SNR=9.2
       comp=Z,5.1nm,0.8s
H29M   Whitestone         86.40  24  IAmb     IAmb     13 40 50.6
       comp=Z,16nm,0.8s
VNDA   Vanda              86.45 173  P        P        13 40 48.0 -0.4
       comp=Z,9.8nm,1.0s,baz=310,slow=5.6,SNR=31
       comp=Z,9.8nm,1.0s
VNDA   Vanda              86.45 173  P        P        13 40 48.4 -0.1
VNDA                               pmax     pmax
       comp=Z,12nm,1.1s
VNDA   Vanda              86.45 173  P        P        13 40 48.4 -0.1
VNDA   Vanda              86.45 173  P        P        13 40 48.6 +0.1
L29M   L29M               86.96  27  IAmb     IAmb     13 40 54.1
       comp=Z,13nm,0.8s
EPYK   Eagle Plains       87.03  24  IAmb     IAmb     13 40 53.7
       comp=Z,28nm,1.0s
G30M   tAoh Zraii Nji     87.12  23  IAmb     IAmb     13 40 53.3
       comp=Z,17nm,0.9s
F30M   Barrier River      87.18  22  IAmb     IAmb     13 40 54.0
       comp=Z,25nm,0.9s
BR131  Keskin Array S     87.29 309 eP        P        13 40 52.7 -0.9
BRTR   Keskin Array B     87.29 309  P        P        13 40 51.5 -2.2
       comp=Z,2.0nm,0.9s,baz=134,slow=2.3,SNR=7.2
       comp=Z,2.0nm,0.9s
BRTR   Keskin Array B     87.29 309 i P       P        13 40 52.2 -1.4
ARCES  ARCESS Array B     87.33 340  P        P        13 40 51.9 -1.1
       comp=Z,2.1nm,0.7s,baz=81,slow=5.3,SNR=6.4
ARCES                              PKKPbc   PKKPbc   13 58 41.9 -3.5
       comp=Z,4.5nm,1.1s,baz=244,slow=3.9,SNR=6.6
       comp=Z,2.1nm,0.7s
ARCES  ARCESS Array B     87.33 340  P        P        13 40 51.9 -1.1
ARCES                              pmax     pmax
       comp=Z,67nm,1.7s
SPITS  Spitsbergen Ar     87.41 349  P        P        13 40 53.1 -0.1
       comp=Z,1.2nm,0.5s,baz=90,slow=9.2,SNR=9.0
       comp=Z,1.2nm,0.5s
KIBK   Kibwezi            87.83 267  P        P        13 40 56.1 -0.5
INK    Inuvik             87.87  21  IAmb     IAmb     13 40 56.8
       comp=Z,12nm,0.9s
G31M   Satah River        87.89  23  IAmb     IAmb     13 40 56.9
       comp=Z,24nm,0.9s
H31M   Peel River         88.09  24  IAmb     IAmb     13 40 58.7
       comp=Z,15nm,0.9s
N31M   Braeburn, Yuko     88.31  28  IAmb     IAmb     13 41 00.7
       comp=Z,18nm,0.9s
KMBO   Kilima Mbogo       88.48 269  P        P        13 40 59.3 -0.5
       baz=84,slow=19
FINES  FINESS Array B     88.73 332  P        P        13 40 57.9 -1.8
       comp=Z,2.9nm,0.7s,baz=83,slow=3.1,SNR=13
       comp=Z,2.9nm,0.7s
FINES  FINESS Array B     88.73 332 i P       P        13 41 00.9 +1.2
FINES                              pmax     pmax
       comp=Z,2.0nm,0.6s
AKASG  Malin Array Be     88.92 321  P        P        13 40 58.4 -2.4
       comp=Z,0.4nm,0.4s,baz=74,slow=4.9,SNR=4.2
       comp=Z,0.4nm,0.4s
AKASG  Malin Array Be     88.92 321  P        P        13 40 58.4 -2.4
AKASG                              pmax     pmax
       comp=Z,5.0nm,1.4s
AKBB   Malin Array Si     88.92 321⇑iP        P        13 40 58.8 -2.0
AKBB                               pmax     pmax
       comp=Z,9.0nm,1.5s
MNK    Minsk              89.09 325 i P       P        13 41 01.1 -0.4
MNK                                i                 13 44 33.5
MNK                                i PPP    PPP      13 46 30.9
MNK                                i                 13 51 05.8
MNK                                i *SS    sS       13 52 38.3  -18
MNK                                i SS     SS       13 57 32.5 +0.9
MNK                                i SSS    SSS      14 01 09.0
MNK                                pmax     pmax
       comp=E,4.0nm,0.5s
MNK                                pmax     pmax
       comp=Z,17nm,0.9s
MNK                                pmax     pmax
       comp=N,14nm,0.7s
MNK    Minsk              89.09 325 i P       P        13 41 01.1 -0.4
       comp=E,4.0nm,0.5s
MNK                                i P      P        13 41 01.1 -0.4
       comp=N,14nm,0.7s
MNK                                i P      P        13 41 01.1 -0.4
       comp=Z,17nm,0.9s,baz=80
MNK                                i pP     pP       13 41 48.2 -0.3
MNK                                i sP     sP       13 42 08.3  0.0
MNK                                i PP     PP       13 44 33.6 -0.5
MNK                                i PPP    PPP      13 46 30.9
MNK                                i SKS    S        13 51 05.8  -28
MNK                                i S      SKSac    13 51 12.3 -1.1
MNK                                i sS     pS       13 52 38.3 +4.6
MNK                                i SS     SS       13 57 32.5 +0.9
MNK                                i SSS    SSS      14 01 09.1
MNK                                i LR     LR       14 18 51.1
RNPP9  Sopachiv           90.86 322  P        P        13 41 08.5 -1.3
MLR    Muntele Rosu       92.02 316  LR       LR       14 26 40.0
       comp=Z,61nm,18.8s,baz=359,slow=38
HFS    Hagfors            94.92 332  P        P        13 41 26.5 -1.9
       comp=Z,1.5nm,0.9s,baz=111,slow=6.3,SNR=1.8
       comp=Z,1.5nm,0.9s
RES    Resolute Bay       95.15  10  LR       LR       14 31 07.6
       comp=Z,22nm,18.2s,baz=332,slow=40
NOA    NORSAR Array B     95.68 334  P        P        13 41 30.1 -1.8
       comp=Z,0.8nm,0.8s,baz=68,slow=4.6,SNR=4.5
NOA                                LR       LR       14 27 52.9
       comp=Z,30nm,18.8s,baz=50,slow=37
       comp=Z,0.8nm,0.8s
QSPA   South Pole Qui     96.54 180  P        P        13 41 34.7 -0.9
       comp=Z,5.3nm,1.0s,baz=278,slow=0.8,SNR=11
       comp=Z,5.3nm,1.0s
QSPA   South Pole Qui     96.54 180  P        P        13 41 35.3 -0.3
QSPA                               IAmb     IAmb     13 41 36.8
       comp=Z,7.0nm,1.0s
YKA    Yellowknife Ar     97.31  24  P        P        13 41 37.9 -1.3
       comp=Z,6.7nm,0.8s,baz=298,slow=4.7,SNR=15
YKA                                PKKPbc   PKKPbc   13 58 15.5 -4.0
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	comp=Z,1.5nm,0.6s,baz=121,slow=2.9,SNR=6.5						
LSZ	**Lusaka**	**98.84**	**256**	LR	LR	14 20 53.6	
	comp=Z,38nm,20.3s,baz=290,slow=32						
LLLB	**Lillooet**	**98.85**	**37**	IAmb	IAmb	13 41 48.5	
	comp=Z,6.7nm,1.0s						
EKA	**Eskdalemuir Ar**	**105.12**	**333**	PKKPbc	PKKPbc	13 57 55.3	-1.5
	comp=Z,0.4nm,0.5s,baz=256,slow=3.0,SNR=4.3						
NVAR	**Mina Array Bea**	**105.79**	**47**	Pdiff	**Pdif**	**13 42 19.1**	**+1.3**
	comp=Z,1.0nm,0.9s,baz=277,slow=5.4,SNR=3.8						
NVAR				PKiKP	**PKiKP**	**13 46 30.4**	**+0.9**
	comp=Z,0.2nm,0.4s,baz=314,slow=4.1,SNR=3.5						
PDAR	**Pinedale Array**	**109.89**	**40**	PKiKP	**PKiKP**	**13 46 36.2**	**-0.9**
	comp=Z,0.5nm,0.5s,baz=125,slow=2.3,SNR=6.4						
PDAR				PKKPbc	**PKKPbc**	**13 57 38.6**	**-3.2**
	comp=Z,0.9nm,0.7s,baz=126,slow=4.2,SNR=7.3						
ESDC	**Sonseca Array**	**114.52**	**319**	PKP	PKPdf	13 46 45.0	-0.8
	comp=Z,0.2nm,0.6s,baz=9.4,slow=1.7,SNR=2.6						
ESDC				PKKPbc	**PKKPbc**	**13 57 25.0**	**-1.2**
	comp=Z,0.9nm,0.9s,baz=246,slow=3.6,SNR=6.5						
SCHQ	**Schefferville**	**117.86**	**8**	PKP	**PKPdf**	**13 46 51.7**	**-0.1**
	comp=Z,4.2nm,0.6s,baz=30,slow=6.0,SNR=6.9						
TXAR	**Lajitas Array**	**120.66**	**50**	PKP	**PKiKP**	**13 46 58.7**	**+0.6**
	comp=Z,1.8nm,0.6s,baz=234,slow=1.1,SNR=26						
TORD	**Torodi Ar. Bea**	**120.91**	**290**	PKP	**PKPdf**	**13 46 57.9**	**-0.8**
	comp=Z,3.9nm,0.7s,baz=60,slow=1.9,SNR=20						
DBIC	**Dimbokro**	**128.82**	**284**	PKP	**PKPdf**	**13 47 14.2**	**+0.3**
	comp=Z,5.7nm,0.9s,baz=356,slow=3.0,SNR=3.6						
PLCA	**Paso Flores**	**143.12**	**159**	PKP	PKPbc	13 47 37.5	+0.4
	comp=Z,8.7nm,0.7s,baz=245,slow=2.3,SNR=29						
CHIV	**Chivirico**	**145.81**	**39**	PKPab	**PKPbc**	**13 47 46.1**	**+0.4**
BI02	**San Fabin de**	**146.39**	**155**	PKPbc	**PKPbc**	**13 47 46.6**	**-0.4**
BO02	**Sierra Bellavi**	**148.19**	**154**	*i* P	**PKiKP**	**13 47 53.0**	**-0.6**
MT01	**Popeta**	**148.75**	**152**	*i* P	**PKPbc**	**13 47 53.6**	**+0.2**
MT13	**San Alfonso**	**149.29**	**153**	*i* P	**PKiKP**	**13 47 56.0**	**0.0**
MT02	**Curacav**	**149.31**	**152**	*i* P	**PKiKP**	**13 47 55.6**	**-0.3**
MT03	**Universidad Ad**	**149.40**	**153**	*i* P	**PKPbc**	**13 47 55.5**	**+0.4**
MT04	**Ro Olivares**	**149.65**	**153**	*i* P	**PKiKP**	**13 47 57.0**	**+0.2**
MT08	**Bocatoma Ro**	**149.66**	**154**	*i* P	**PKiKP**	**13 47 57.0**	**+0.2**
VA03	**San Esteban**	**149.99**	**152**	*i* P	**PKiKP**	**13 47 57.4**	**0.0**
AAGR	**Agrelo**	**150.49**	**155**	*i* P	**PKiKP**	**13 47 59.1**	**+0.7**
ARCO	**CERRO ARCO**	**150.65**	**154**	*i* P	**PKiKP**	**13 47 59.5**	**+0.7**
CO02	**Combarbal**	**151.06**	**150**	*i* P	**PKiKP**	**13 48 00.3**	**+0.6**
RTLS	**Leoncito**	**151.38**	**153**	*i* P	**PKiKP**	**13 48 01.4**	**+0.8**
ACAN	**Cantantal**	**151.86**	**157**	*i* P	**PKiKP**	**13 48 01.4**	**+0.2**
GO04	**Tololo Observa**	**151.99**	**149**	*i* P	**PKPbc**	**13 48 01.7**	**+0.3**
CFA	**Coronel Fontan**	**152.01**	**154**	*i* P	**PKiKP**	**13 48 01.6**	**+0.1**
ACCO	**Cerro Coronel**	**152.50**	**152**	*i* P	**PKiKP**	**13 48 03.6**	**+0.7**
AROD	**Rodeo**	**152.66**	**151**	*i* P	**PKiKP**	**13 48 04.5**	**+1.2**
ACDV	**Cuesta del Vie**	**152.82**	**151**	*i* P	**PKiKP**	**13 48 04.2**	**+0.8**
AVFE	**Valle Fertil**	**153.16**	**154**	*i* P	**PKiKP**	**13 48 04.2**	**+0.2**
AC05	**El Transito**	**153.33**	**148**	*i* P	**PKiKP**	**13 48 05.7**	**+1.3**
ACLC	**CERRO LA CRUZ**	**154.45**	**154**	*i* P	**PKiKP**	**13 48 07.5**	**+0.7**
ROSC	**El Rosal**	**157.08**	**61**	PKP	**PKPdf**	**13 48 03.5**	**+1.0**
	comp=Z,12nm,0.7s,baz=200,slow=18,SNR=5.8						
ROSC	**El Rosal**	**157.08**	**61**	PKIKP	**PKPdf**	**13 48 04.0**	**+1.5**
ROSC	**El Rosal**	**157.08**	**61**		**PKPdf**	**13 48 04.0**	**+1.5**
CPUP	**Villa Florida**	**160.24**	**172**	PKP	**PKPdf**	**13 48 05.7**	**+0.3**
	comp=Z,4.5nm,0.8s,baz=175,slow=5.8,SNR=7.3						
CPUP				PKPab	**PKPab**	**13 48 46.9**	**+0.4**
	comp=Z,6.4nm,0.9s,baz=172,slow=4.9,SNR=7.5						
LPAZ	**La Paz**	**163.51**	**127**	PKP	**PKPdf**	**13 48 10.5**	**+0.8**
	comp=Z,13nm,1.1s,baz=0.1,slow=0.9,SNR=25						
LPAZ				PKPab	**PKPab**	**13 49 03.5**	**+1.5**
	comp=Z,5.3nm,0.9s,baz=229,slow=2.3,SNR=6.8						
LPAZ	**La Paz**	**163.51**	**127**	PKIKP	**PKPdf**	**13 48 11.0**	**+1.3**
LPAZ	**La Paz**	**163.51**	**127**		**PKPdf**	**13 48 10.9**	**+1.3**
BDFB	**Brasilia**	**169.09**	**215**	PKP	**PKPdf**	**13 48 12.9**	**-0.5**
	comp=Z,6.8nm,1.0s,baz=79,slow=9.2,SNR=5.3						
BDFB				PKPab	**PKPab**	**13 49 25.4**	**-0.5**
	comp=Z,5.0nm,0.9s,baz=166,slow=4.2,SNR=4.7						
BDFB	**Brasilia**	**169.09**	**215**	PKIKP	**PKPdf**	**13 48 13.9**	**+0.5**
BDFB	**Brasilia**	**169.09**	**215**		**PKPdf**	**13 48 13.9**	**+0.5**

JMA ***20*** *13:57:18.6±0.2, 22°N±1°×121°.6E±0°.7, h0^{km}, MV3.6/13,*
TAIWAN REGION
TAP ***20*** *13:57:19.1, 21°.96N×121°.48E, h20^{km}, ML3.5, D*
ISC 20 13:57:19.0±1.1**, 21°.96N**±0°.04×**121°.55E**±0°.03**, h23**^{km}±6^{km},
n112, σ**1^{s}.17**/169**, 2C, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LYUB	**Lan-yu**	**0.05**	**43**	⇑ *i*P	**Pb**	**13 57 23.0**	**-0.1**
LYUB				*i* S	**Sb**	**13 57 25.7**	**-0.2**
LAY	**Lan-yu**	**0.08**	**5**	⇑ *i*P	**Pb**	**13 57 23.3**	**0.0**
LAY				*i* S	**Sb**	**13 57 26.1**	**-0.1**
TSEB	**Hengchuen, Pin**	**0.60**	**264**	*e*P	**Pb**	**13 57 31.3**	**+0.4**
TSEB				*i* S	**Sb**	**13 57 39.7**	**+0.8**
SMST	**Manzhou Townsh**	**0.66**	**275**	*e*P	**Pb**	**13 57 31.5**	**-0.4**
SMST				*e*S	**Sb**	**13 57 39.8**	**-0.8**
TWKBT	**Hengchun**	**0.68**	**268**	P	**Pb**	**13 57 31.5**	**-0.7**
TWKBT				S	**Sb**	**13 57 40.3**	**-0.9**
TWK1	**Hengchun**	**0.69**	**269**	*i* P	**Pb**	**13 57 31.6**	**-0.7**
TWK1				S	**Sb**	**13 57 40.6**	**-0.8**
LDUT	**Ludao**	**0.71**	**354**	P	**Pb**	**13 57 32.0**	**-0.7**
LDUT				S	**Sb**	**13 57 41.5**	**-0.6**
TAW	**Tawu**	**0.72**	**303**	P	**Pb**	**13 57 31.8**	**-1.0**
TAW				*e*S	**Sb**	**13 57 41.1**	**-1.2**
SLIU	**Shizi**	**0.74**	**290**	*i* P	**Pb**	**13 57 32.3**	**-0.9**
SLIU				*e*S	**Sb**	**13 57 41.7**	**-1.1**
HEN	**Hengchun**	**0.75**	**273**	P	**Pb**	**13 57 32.9**	**-0.5**
HEN				*e*S	**Sb**	**13 57 42.3**	**-0.9**
EAST	**Anshuo**	**0.77**	**303**	*e*P	**Pb**	**13 57 32.9**	**-0.8**
EAST				*e*S	**Sb**	**13 57 42.0**	**-1.8**
ECL	**Taimali**	**0.83**	**319**	*e*P	**Pb**	**13 57 33.8**	**-1.0**
ECL				S	**Sb**	**13 57 44.2**	**-1.4**
TTN	**Taitung**	**0.87**	**335**	P	**Pb**	**13 57 35.6**	**+0.2**
SCZT	**Fangliau**	**0.95**	**296**	*e*P	**Pb**	**13 57 35.8**	**-0.9**
TWGBT	**Beinan**	**0.95**	**333**	P	**Pb**	**13 57 35.7**	**-1.2**
TWGBT	**Beinan**	**0.95**	**333**	*e*P	**Pb**	**13 57 36.0**	**-0.9**
TWGBT				*e*S	**Sn**	**13 57 49.9**	**+0.1**
TWG	**Pinlang**	**0.96**	**333**	*e*P	**Pb**	**13 57 35.8**	**-1.2**
TWG				*e*S	**Sb**	**13 57 49.4**	**+0.1**
LONT	**Longtian**	**1.01**	**338**	*e*P	**Pb**	**13 57 36.9**	**-1.1**
LONT				*e*S	**Sb**	**13 57 50.5**	**-0.3**
EDH	**Donghe**	**1.03**	**348**	P	**Pb**	**13 57 37.1**	**-1.0**
EDH				S	**Sb**	**13 57 50.7**	**-0.6**
SSPT	**Xinbi**	**1.04**	**300**	*e*P	**Pn**	**13 57 39.6**	**+1.4**
MASBT	**Mashibuluo**	**1.06**	**308**	*e*P	**Pb**	**13 57 37.8**	**-0.9**
TSMG	**Majia**	**1.11**	**312**	*e*P	**Pb**	**13 57 39.8**	**+0.2**
CHKT	**Chengkung**	**1.14**	**352**	P	**Pn**	**13 57 38.5**	**-1.0**
CHKT				S	**Sb**	**13 57 52.9**	**-1.7**
SSD	**Sandimen**	**1.15**	**313**	*e*P	**Pb**	**13 57 40.6**	**+0.4**
TWP	**Hsiaoliuchiu**	**1.16**	**289**	*e*P	**Pb**	**13 57 41.7**	**+1.4**
TWP				*e*S	**Sn**	**13 57 55.4**	**+0.4**
ECS	**Chishang**	**1.17**	**345**	*e*P	**Pb**	**13 57 40.7**	**+0.2**
EHD	**Haiduan**	**1.22**	**345**	*e*P	**Pn**	**13 57 40.5**	**-0.2**
CHKH	**Chenggong**	**1.23**	**354**	P	**Pn**	**13 57 40.0**	**-0.8**
CHKH				S	**Sb**	**13 57 55.5**	**-1.5**
SGLT	**Jiouru**	**1.24**	**308**	*e*P	**Pb**	**13 57 43.0**	**+1.4**
FULB	**Fuli**	**1.25**	**349**	P	**Pn**	**13 57 40.7**	**-0.4**
FULB				S	**Sb**	**13 57 56.9**	**-0.8**
ELDTW	**Lidau**	**1.31**	**338**	*e*P	**Pn**	**13 57 41.0**	**-1.1**
SLGT	**Liugui**	**1.32**	**321**	*e*P	**Pb**	**13 57 43.0**	**-0.1**
SCST	**Cishan**	**1.34**	**314**	*e*P	**Pb**	**13 57 44.8**	**+1.4**
TWM1	**Shoushan**	**1.35**	**310**	*e*P	**Pb**	**13 57 45.7**	**+2.1**
TWM1				*e*S	**Sb**	**13 58 03.7**	**+3.3**
ECBN	**Changbin**	**1.35**	**356**	P	**Pn**	**13 57 41.6**	**-0.8**
ECBN				S	**Sn**	**13 57 58.6**	**-1.0**
EYUL	**Yuli**	**1.39**	**351**	*e*P	**Pn**	**13 57 43.1**	**+0.1**
EYUL				S	**Sb**	**13 58 02.7**	**+0.9**
STYH	**Taoyuan**	**1.40**	**330**	*e*P	**Pb**	**13 57 44.6**	**+0.2**
SGST	**Jiashian**	**1.43**	**322**	*e*P	**Pb**	**13 57 44.9**	**0.0**
SGST				S	**Sb**	**13 58 03.7**	**+1.0**
HGSD	**Ruisui**	**1.53**	**356**	*e*P	**Pn**	**13 57 44.3**	**-0.6**
EHYH	**Wanrong**	**1.54**	**353**	*e*P	**Pn**	**13 57 45.1**	**+0.2**
CHN1	**Nanshi**	**1.54**	**323**	*e*P	**Pb**	**13 57 47.7**	**+0.9**
CHN1				*e*S	**Sb**	**13 58 08.4**	**+2.5**
WTP	**Ta-pu**	**1.54**	**326**	*e*P	**Pb**	**13 57 47.0**	**+0.1**
WTP				S	**Sb**	**13 58 07.7**	**+1.7**
EHY	**Hungye**	**1.55**	**352**	*e*P	**Pn**	**13 57 44.9**	**-0.2**
CHN3	**Shinhua**	**1.56**	**316**	*e*P	**Pb**	**13 57 46.7**	**-0.4**
TPUB	**Ta-pu**	**1.58**	**328**	P	**Pb**	**13 57 47.5**	**0.0**
TPUB	**Ta-pu**	**1.58**	**328**	S	**Sn**	**13 58 05.5**	**+0.2**
TPUB	**Ta-pu**	**1.58**	**328**	*e*P	**Pn**	**13 57 46.7**	**+1.1**
TPUB				*e*S	**Sb**	**13 58 09.3**	**+2.3**
YUS	**Yu-Shan**	**1.61**	**340**	*e*P	**Pn**	**13 57 46.9**	**+0.3**
TWK	**Hsinying**	**1.62**	**323**	*e*P	**Pb**	**13 57 48.8**	**+0.5**
TWK				*e*S	**Sb**	**13 58 09.1**	**+0.6**
ALS	**Alishan**	**1.69**	**336**	*e*P	**Pb**	**13 57 50.0**	**+0.5**
ALS				*e*S	**Sb**	**13 58 12.6**	**+2.2**
WCKO	**Fanlu**	**1.71**	**330**	*e*P	**Pb**	**13 57 50.6**	**+0.9**
WCKO				*e*S	**Sb**	**13 58 12.7**	**+2.0**
SCLT	**Jiali**	**1.74**	**314**	*e*P	**Pb**	**13 57 50.2**	**0.0**
WARBT	**Fenglin Townsh**	**1.75**	**355**	*e*P	**Pn**	**13 57 48.1**	**+0.1**
TSCK	**Chigu Township**	**1.79**	**311**	*e*P	**Pb**	**13 57 50.5**	**-0.6**
TSCK				*i* S	**Sb**	**13 58 12.5**	**-0.6**
SHUL	**Shoufeng**	**1.82**	**1**	*e*P	**Pn**	**13 57 49.3**	**+0.5**
ICHU	**Yijhu**	**1.82**	**320**	*e*P	**Pb**	**13 57 50.9**	**-0.6**
VWDT	**VWDT**	**1.82**	**348**	*e*P	**Pn**	**13 57 49.9**	**+1.0**
WHYT	**Xinyi Township**	**1.84**	**340**	*e*P	**Pb**	**13 57 52.0**	**0.0**
WHYT				S	**Sb**	**13 58 16.2**	**+1.6**
CHY	**Chiayi**	**1.84**	**326**	*e*P	**Pb**	**13 57 51.6**	**-0.5**
CHY				*e*S	**Sb**	**13 58 14.4**	**-0.3**
ESL	**Shilin**	**1.84**	**357**	*e*P	**Pn**	**13 57 49.9**	**+0.6**
ESL				*e*S	**Sn**	**13 58 12.6**	**+0.8**
SSLB	**Suanglung**	**1.90**	**343**	P	**Pn**	**13 57 51.8**	**+1.8**
SSLB	**Suanglung**	**1.90**	**343**	*e*P	**Pn**	**13 57 51.7**	**+1.8**
WGK	**Gukeng**	**1.94**	**332**	*e*P	**Pb**	**13 57 53.9**	**+0.2**
WDLH	**Douliu**	**1.95**	**332**	*e*P	**Pb**	**13 57 54.3**	**+0.4**
WDLH				*e*S	**Sb**	**13 58 18.6**	**+0.8**
WSL	**Shuilin Townsh**	**1.97**	**322**	*e*P	**Pn**	**13 57 52.1**	**+1.1**
WSL				*e*S	**Sb**	**13 58 17.2**	**-1.2**
ETM	**Tongmen**	**1.99**	**359**	*e*P	**Pn**	**13 57 51.3**	**0.0**
ETM				*e*S	**Sn**	**13 58 16.5**	**+0.9**
SMLT	**Sun Moon Lake**	**2.00**	**343**	*e*P	**Pb**	**13 57 54.4**	**-0.4**
SMLT				*e*S	**Sb**	**13 58 21.1**	**+1.7**
OWD	**Renai**	**2.01**	**350**	*e*P	**Pn**	**13 57 52.9**	**+1.3**
WTK	**Tuku**	**2.02**	**328**	*e*P	**Pn**	**13 57 52.2**	**+0.6**
WTK				*e*S	**Sb**	**13 58 19.3**	**-0.5**
TYC	**Yuchr**	**2.03**	**342**	*e*P	**Pb**	**13 57 54.8**	**-0.5**
LXIB	**Xiulin Townshi**	**2.05**	**357**	*e*P	**Pn**	**13 57 52.1**	**-0.1**
WUSB	**Renai**	**2.06**	**349**	*e*P	**Pn**	**13 57 54.0**	**+1.7**
WNT	**Mingjian**	**2.06**	**338**	*e*P	**Pb**	**13 57 55.4**	**-0.4**
WNT				*e*S	**Sb**	**13 58 21.6**	**+0.5**
WSF	**Szhu**	**2.07**	**324**	*e*P	**Pn**	**13 57 51.6**	**-0.7**
WCS	**Beigang Elemen**	**2.16**	**344**	*e*P	**Pb**	**13 57 56.3**	**-1.2**
WCS				*e*S	**Sb**	**13 58 23.9**	**0.0**
WDGT	**Dungji**	**2.17**	**307**	*e*P	**Pn**	**13 57 52.7**	**-0.9**
WDGT				*e*S	**Sn**	**13 58 18.8**	**-1.0**
WHF	**Hehuan Shan**	**2.19**	**353**	*e*P	**Pn**	**13 57 55.1**	**+0.8**
WHF				*e*S	**Sb**	**13 58 24.6**	**-0.4**
NACB	**Ninganchiao**	**2.20**	**1**	P	**Pn**	**13 57 53.9**	**-0.2**
NACB	**Ninganchiao**	**2.20**	**1**	*e*P	**Pn**	**13 57 53.9**	**-0.2**
ETLH	**Xiulin Townshi**	**2.23**	**359**	*e*P	**Pn**	**13 57 54.6**	**0.0**
EOS4	**EOS4**	**2.26**	**18**	*e*P	**Pn**	**13 57 54.2**	**-0.4**
EOS4				*e*S	**Sn**	**13 58 21.1**	**-0.6**
FUSS	**Fushou**	**2.29**	**353**	*e*P	**Pn**	**13 57 56.8**	**+1.2**
TDCB	**Techi**	**2.31**	**351**	*e*P	**Pn**	**13 57 56.7**	**+0.9**
VCHM	**Qimei**	**2.31**	**303**	*e*P	**Pn**	**13 57 55.7**	**0.0**
VCHM				*e*S	**Sn**	**13 58 23.1**	**-0.3**
WHP	**Taichung City**	**2.37**	**347**	*e*P	**Pb**	**13 57 59.5**	**-1.6**
WHP				*e*S	**Sb**	**13 58 29.4**	**-0.5**
PHUB	**P'eng-hu**	**2.39**	**311**	*e*P	**Pn**	**13 57 54.1**	**-2.5**
EOS3	**EOS3**	**2.42**	**17**	*e*P	**Pn**	**13 57 57.8**	**+0.8**
EOS3				*e*S	**Sn**	**13 58 25.8**	**0.0**
PNG	**Penghu**	**2.43**	**311**	*e*P	**Pn**	**13 57 58.0**	**+0.6**
PNG				*e*S	**Sn**	**13 58 25.0**	**-1.3**
NNSB	**Datong**	**2.46**	**357**	*e*P	**Pn**	**13 57 59.6**	**+1.8**
NNS	**Nan Shan**	**2.47**	**356**	*e*P	**Pn**	**13 58 00.5**	**+2.5**
NNS				*e*S	**Sn**	**13 58 30.5**	**+3.0**
TWQ1	**Liyutan**	**2.48**	**343**	*e*P	**Pn**	**13 58 00.5**	**+2.5**
TWQ1				*e*S	**Sb**	**13 58 31.8**	**-1.2**
EOS2	**EOS2**	**2.52**	**14**	*e*P	**Pn**	**13 58 00.4**	**+1.9**
LATG	**Datong**	**2.56**	**360**	*e*P	**Pn**	**13 58 00.1**	**+0.9**
TWC	**Suao**	**2.65**	**6**	*e*P	**Pn**	**13 58 01.3**	**+1.0**
NDS	**Dongshan**	**2.66**	**3**	*e*P	**Pn**	**13 58 02.3**	**+1.8**
NFF	**Wufeng Townshi**	**2.69**	**352**	*e*P	**Pn**	**13 58 03.6**	**+2.7**
NFF				*e*S	**Sb**	**13 58 36.9**	**-2.1**
YHNB	**Yeheng**	**2.70**	**357**	P	**Pn**	**13 58 02.8**	**+1.7**
YHNB	**Yeheng**	**2.70**	**357**	*e*P	**Pn**	**13 58 03.1**	**+2.0**
NSTT	**Nanjuang**	**2.70**	**349**	*e*P	**Pn**	**13 58 03.1**	**+2.0**
NSK	**Sanguang**	**2.71**	**356**	*e*P	**Pn**	**13 58 03.4**	**+2.3**
LIOB	**Emei**	**2.71**	**350**	*e*P	**Pb**	**13 58 04.7**	**-2.2**
TWE	**Neicheng**	**2.75**	**2**	*e*P	**Pn**	**13 58 02.4**	**+0.8**
FUSB	**Fushanzhiwuyua**	**2.78**	**1**	*e*P	**Pn**	**13 58 03.7**	**+1.5**
NWLT	**Wulai**	**2.80**	**359**	*e*P	**Pn**	**13 58 05.1**	**+2.7**
HATJ	**Hateruma jima**	**2.95**	**45**	P	**Pn**	**13 58 05.2**	**+0.9**
HATJ				*e*S	**Sn**	**13 58 39.3**	**+0.3**
IRIF	**Iriomote-Funau**	**3.10**	**40**	P	**Pn**	**13 58 07.7**	**+1.2**
IRIF				*e*S	**Sn**	**13 58 43.0**	**+0.2**
JKRS	**Kuro-shima**	**3.21**	**45**	P	**Pn**	**13 58 09.2**	**+1.3**
JKRS				*e*S	**Sn**	**13 58 45.5**	**+0.1**
JIJ	**Ishigaki jima**	**3.38**	**45**	P	**Pn**	**13 58 10.9**	**+0.6**
JIJ				S	**Sn**	**13 58 48.7**	**-1.1**
JISG	**Ishigakijimahi**	**3.65**	**44**	P	**Pn**	**13 58 15.2**	**+1.2**
JISG				S	**Sn**	**13 58 55.2**	**-1.1**
JTJ	**Tarama**	**3.94**	**47**	P	**Pn**	**13 58 19.5**	**+1.4**
JTJ				S	**Sn**	**13 59 03.6**	**+0.1**
JIRJ	**Irabujima**	**4.41**	**49**	*e*S	**Sn**	**13 59 15.3**	**+0.3**
JIKM	**Ikemajima**	**4.50**	**48**	*e*S	**Sn**	**13 59 16.6**	**-0.8**

IDC 20 14:06:46.8±8.5**, 2°.52N**×**94°.37W, h0**^{km}**, mb3.6**/4**,**
mbtmp3.6/4**, MS3.2**/2**, Error ellipse: s-maj=256.7km**
s-min=156.0km az=76.0, Galapagos Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMIG	**Matias Romero**	**14.49**	**358**	LR	LR	14 14 07.4	
	comp=Z,83nm,19.9s,baz=162,slow=30						
TXAR	**Lajitas Array**	**28.10**	**343**	P	P	14 12 40.5	0.0
	0.5nm,0.8s,baz=172,slow=9.8,SNR=5.9						
	0.5nm,0.8s						
LPAZ	**La Paz**	**31.96**	**127**	LR	LR	14 24 08.4	
	comp=Z,39nm,18.1s,baz=284,slow=33						
NVAR	**Mina Array Bea**	**41.91**	**332**	P	P	14 14 39.8	+0.4
	0.8nm,0.6s,baz=155,slow=8.9,SNR=6.6						
	0.8nm,0.6s						
PDAR	**Pinedale Array**	**42.31**	**343**	P	P	14 14 42.2	-0.4
	0.8nm,0.8s,baz=156,slow=8.1,SNR=5.6						
	0.8nm,0.8s						
ILAR	**Eielson Array**	**72.54**	**339**	P	P	14 18 15.2	-0.2
	0.4nm,0.8s,baz=153,slow=6.6,SNR=4.5						
	0.4nm,0.8s						

IDC ***20*** *14:11:55.2±1.1, 34°.16N×25°.58E, h0^{km}, mb3.7/6,*
mbtmp3.6/8, ML3.3/2, Error ellipse: s-maj=21.5km
s-min=16.5km az=30.0
ISC 20 14:11:57.2±1.0**, 34°.13N**±0°.10×**25°.6E**±0°.1**, h17**^{km}**, n9,**
σ**0^{s}.91**/10**, mb3.7**/5**, Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IDI	**Anoyia**	**1.30**	**333**	Pn	**Pg**	**14 12 21.3**	**-0.9**
	4.7nm,0.3s,baz=140,slow=17,SNR=23						
IDI				Sn	**Sg**	**14 12 39.6**	**+0.4**
	13nm,0.3s,baz=265,slow=12,SNR=6.7						
BRTR	**Keskin Array B**	**8.52**	**47**	Pn	**Pn**	**14 14 00.6**	**+0.8**
	0.1nm,0.3s,baz=243,slow=9.2,SNR=1.2						
	0.4nm,0.5s						
BRTR				AML	AML		
EIL	**Elat**	**9.10**	**117**	Pn	**Pn**	**14 14 06.9**	**-0.8**
	1.3nm,0.3s,baz=240,slow=1.0,SNR=11						
	4.1nm,0.4s						
EIL				AML	AML		
ESDC	**Sonseca Array**	**24.22**	**292**	P	**P**	**14 17 14.2**	**+1.2**
	0.3nm,0.6s,baz=81,slow=8.7,SNR=5.7						
	0.3nm,0.6s						
FINES	**FINESS Array B**	**27.34**	**0**	P	**P**	**14 17 39.9**	**-1.0**
	2.7nm,0.9s,baz=151,slow=3.2,SNR=2.1						
	2.7nm,0.9s						
TORD	**Torodi Ar. Bea**	**30.12**	**232**	P	**P**	**14 18 06.3**	**+0.1**
	0.5nm,0.6s,baz=29,slow=9.1,SNR=4.1						
	0.5nm,0.6s						
KURBB	**Kurchatov Arra**	**41.49**	**50**	P	**P**	**14 19 43.9**	**+0.7**
	0.5nm,0.4s,baz=272,slow=8.5,SNR=6.0						
	0.5nm,0.4s						
MKAR	**Makanchi Array**	**44.04**	**56**	P	**P**	**14 20 04.7**	**+0.7**
	0.8nm,0.6s,baz=276,slow=6.3,SNR=8.1						
	0.8nm,0.6s						
ZALV	**Zalesovo Beam**	**45.46**	**45**	P	**P**	**14 20 14.7**	**-0.4**
	0.3nm,0.3s,baz=271,slow=9.8,SNR=2.0						
	0.3nm,0.3s						

AFAD ***20*** *14:40:21.0, 33°.70N×32°.46E, h50^{km}, ML3.1*
ISK ***20*** *14:40:28.2, 34°.29N×32°.78E, h6^{km}, ML3.3/20*
IDC ***20*** *14:40:29.6±0.9, 34°.50N×32°.78E, h0^{km}, mb3.6/4,*
mbtmp3.6/8, ML2.5/3, Error ellipse: s-maj=18.4km
s-min=11.1km az=51.0
NIC ***20*** *14:40:29.5, 34°.38N×32°.72E, h6^{km}±1^{km}, Ml2.8/9*
GII ***20*** *14:40:31.3±0.0, 34°.488N±0°.002×32°.653E±0°.001, h0^{km},*
Mws3.1, confirmed
ISC 20 14:40:30.2±1.1**, 34°.37N**±0°.02×**32°.75E**±0°.02**, h8**^{km}±8^{km},
n102, σ**1^{s}.34**/155**, mb3.5**/3**, Cyprus region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APOL	**The Sanctuary**	**0.31**	**17**	P	**Pg**	**14 40 36.4**	**+0.1**
APOL				S	**Sg**	**14 40 41.6**	**+1.1**
NATA	**Nata**	**0.43**	**340**	P	**Pg**	**14 40 39.0**	**+0.4**
NATA				S	**Sg**	**14 40 45.8**	**+1.5**
NATA				AML	AML	14 40 51.7	
	7.5nm,0.7s						
NATA				AML	AML	14 40 54.9	
	5.5nm,0.7s						
ASGA	**Asgata**	**0.58**	**45**	P	**Pg**	**14 40 41.5**	**0.0**
ASGA				S	**Sb**	**14 40 50.8**	**-0.3**
ASGA				AML	AML	14 40 53.2	
	1.6nm,0.2s						
ASGA				AML	AML	14 40 57.6	
	2.2nm,0.5s						
TROD	**Troodos**	**0.58**	**9**	P	**Pg**	**14 40 40.8**	**-0.6**
TROD				S	**Sb**	**14 40 50.8**	**-0.5**
TROD				AML	AML	14 41 01.5	
	1.7nm,0.8s						
TROD				AML	AML	14 41 07.4	
	2.0nm,0.8s						
XYLS	**Xyliatos**	**0.69**	**21**	P	**Pg**	**14 40 41.9**	**-1.5**
XYLS				S	**Sb**	**14 40 53.6**	**-0.6**
AKMS	**Akamas**	**0.73**	**332**	P	**Pg**	**14 40 43.6**	**-0.6**
AKMS				S	**Sg**	**14 40 54.6**	**+0.9**
AKMS				AML	AML	14 41 03.4	
	1.1nm,0.3s						
AKMS				AML	AML	14 41 08.7	
	1.1nm,0.7s						
CSS	**Mathiatis**	**0.76**	**39**	Pg	**Pg**	**14 40 43.9**	**-0.9**
CSS				Sg	**Sb**	**14 40 55.8**	**-0.4**
CSS				AML	AML		
CSS	**Mathiatis**	**0.76**	**39**	P	**Pg**	**14 40 44.1**	**-0.7**
CSS				S	**Sb**	**14 40 56.4**	**+0.2**
CSS				AML	AML	14 40 59.7	
	1.1nm,0.6s						
CSS				AML	AML	14 41 03.7	
	1.2nm,0.5s						
CSS	**Mathiatis**	**0.76**	**39**	P	**Pg**	**14 40 44.1**	**-0.7**
CSS				AML	AML		
CSS	**Mathiatis**	**0.76**	**39**	P	**Pg**	**14 40 44.7**	**0.0**
CSS				S	**Sg**	**14 40 55.4**	**+0.8**
ALFC	**Alefka**	**0.79**	**351**	P	**Pg**	**14 40 44.7**	**-0.7**
ALFC				S	**Sg**	**14 40 56.4**	**+0.7**
ALFC				AML	AML	14 41 03.5	
	2.0nm,0.5s						
ALFC				AML	AML	14 41 07.6	
	1.6nm,0.6s						
AKDN	**Akdeniz- Kıbrı**	**0.94**	**11**	Pg	**Pg**	**14 40 48.1**	**-0.1**
MVOU	**Mavrovouni**	**0.97**	**48**	P	**Pg**	**14 40 48.4**	**-0.4**
MVOU				S	**Sb**	**14 41 03.4**	**+1.2**
MVOU				AML	AML	14 41 09.7	
	0.8nm,0.7s						
MVOU				AML	AML	14 41 11.1	
	0.6nm,0.6s						
LFK	**Lefkose**	**1.11**	**35**	Pn	**Pg**	**14 40 51.0**	**-0.5**
LFK				Sn	**Sb**	**14 41 07.7**	**+1.4**
LFK				AML	AML		
PARAL	**Paralimni**	**1.23**	**59**	P	**Pg**	**14 40 53.7**	**-0.1**
PARAL				S	**Sn**	**14 41 11.9**	**+1.4**
PARAL				AML	AML	14 41 25.4	
	0.9nm,0.7s						
PARAL				AML	AML	14 41 27.5	
	0.8nm,1.1s						
OSC2	**CSNet OBS 4**	**1.35**	**197**	P	**Pb**	**14 40 57.0**	**+1.2**
OSC2				S	**Sg**	**14 41 10.0**	**-3.7**
OSC1	**CSNet OBS 1**	**1.50**	**235**	P	**Pn**	**14 40 56.4**	**-1.0**
OSC1				S	**Sb**	**14 41 17.7**	**+0.2**
OSC1				AML	AML	14 41 24.0	
	0.3nm,0.4s						
OSC1				AML	AML	14 41 25.9	
	0.2nm,0.4s						
EREN	**Erenkoy**	**1.64**	**45**	Pn	**Pn**	**14 40 58.9**	**-0.4**
EREN	**Erenkoy**	**1.64**	**45**	P	**Pn**	**14 40 58.8**	**-0.6**
EREN				S	**Sg**	**14 41 26.3**	**+3.4**
EREN				IAML		14 41 37.0	
	comp=E,131nm,0.8s						
EREN				IAML		14 41 41.0	
	comp=N,102nm,0.7s						
BOZY	**Bozyazi-Mersin**	**1.74**	**6**	Pn	**Pn**	**14 41 00.6**	**-0.1**
BOZY				AML	AML		
TEKE	**Tekeli-Mersin**	**1.79**	**9**	Pn	**Pn**	**14 41 01.2**	**-0.2**
TEKE				AML	AML		
AKK2	**Akkuyu-Mersin**	**1.88**	**20**	Pn	**Pn**	**14 41 02.6**	**0.0**
AKK1	**Akkuyu-Mersin**	**1.88**	**20**	Pn	**Pn**	**14 41 02.6**	**0.0**
GAZI	**Gazipasa**	**1.89**	**349**	Pn	**Pn**	**14 41 01.9**	**-0.9**
GAZI				AML	AML		
GAZI	**Gazipasa**	**1.89**	**349**	P	**Pn**	**14 41 01.2**	**-1.7**
GAZI				S	**Sn**	**14 41 28.2**	**+1.3**
GAZI				IAML		14 41 38.0	
	comp=N,98nm,0.6s						
GAZI				IAML		14 41 42.0	
	comp=E,63nm,0.7s						
BECE	**Buyukeceli-Mer**	**1.90**	**20**	Pn	**Pn**	**14 41 02.9**	**0.0**
BECE				AML	AML		
OREN	**Orenkoy-Mersin**	**1.92**	**17**	Pn	**Pn**	**14 41 02.9**	**-0.3**
TISA	**Tisan-Mersin**	**1.94**	**23**	Pn	**Pn**	**14 41 03.4**	**-0.1**
YESI	**Yesilovacik-Me**	**1.96**	**22**	Pn	**Pn**	**14 41 03.8**	**+0.1**
KARG	**Kargicak-Mersi**	**1.99**	**23**	Pn	**Pn**	**14 41 04.2**	**+0.1**
BERE	**Bereket-Mersin**	**2.01**	**11**	Pn	**Pn**	**14 41 04.6**	**+0.1**
BERE				AML	AML		
IKL	**Isikli**	**2.01**	**22**	Pn	**Pn**	**14 41 04.5**	**0.0**
IKL				AML	AML		
TEVE	**Tevekalti-Mers**	**2.14**	**15**	Pn	**Pn**	**14 41 06.3**	**+0.1**
TEVE				AML	AML		
SILI	**Silifke-Mersin**	**2.21**	**25**	Pn	**Pn**	**14 41 07.2**	**0.0**
SILI				AML	AML		
KEBE	**Keben-Mersin**	**2.21**	**21**	Pn	**Pn**	**14 41 07.5**	**+0.2**
KEBE				AML	AML		
SLFK	**Silifke-Mersin**	**2.24**	**26**	Pn	**Pn**	**14 41 07.8**	**+0.2**
ERMK	**Ermenek**	**2.27**	**3**	P	**Pn**	**14 41 09.4**	**+1.2**
ERMK				S	**Sg**	**14 41 44.6**	**+1.5**
ERMK				IAML		14 42 05.0	
	comp=N,67nm,0.7s						
KIZK	**Mersin**	**2.39**	**28**	Pn	**Pn**	**14 41 09.9**	**+0.2**
KIZK				AML	AML		
DQRL	**Deir Qamar**	**2.43**	**105**	*e*P	**Pn**	**14 41 11.5**	**+1.1**
BHL	**Bhannes**	**2.45**	**100**	*e*P	**Pn**	**14 41 11.6**	**+1.0**
OFRI	**`Ofer**	**2.56**	**132**	P	**Pn**	**14 41 12.4**	**+0.4**
OFRI				S	**Sn**	**14 41 43.8**	**+0.5**
MMA0B	**Mount Meron ar**	**2.59**	**121**	P	**Pn**	**14 41 12.9**	**+0.4**
MMA0B				S	**Sn**	**14 41 45.1**	**+0.9**
HDMB	**Hadim**	**2.60**	**355**	Pn	**Pn**	**14 41 13.2**	**+0.5**
HDMB				AML	AML		
KIRY	**Kiryat Shemona**	**2.62**	**116**	P	**Pn**	**14 41 13.2**	**+0.5**
KIRY				S	**Sn**	**14 41 44.5**	**-0.3**
HWQ	**Hawqa**	**2.65**	**91**	*e*P	**Pn**	**14 41 13.0**	**-0.3**
GEM	**Giv'at Ha'Em**	**2.69**	**115**	P	**Pg**	**14 41 21.7**	**0.0**
GEM				AML	AML		
GEM	**Giv'at Ha'Em**	**2.69**	**115**	P	**Pn**	**14 41 14.0**	**+0.3**
GEM				S	**Sn**	**14 41 47.1**	**+0.6**
KEPZ	**Antalya-Kepez**	**2.69**	**340**	P	**Pn**	**14 41 12.7**	**-1.1**
KEPZ				S	**Sn**	**14 41 49.6**	**+3.0**
KEPZ				IAML		14 42 02.0	
	comp=N,28nm,0.5s						
KEPZ				IAML		14 42 05.0	
	comp=E,30nm,0.7s						
SHBL	**Chebaa**	**2.69**	**111**	*e*P	**Pn**	**14 41 13.7**	**-0.3**
RCY	**Rachaya**	**2.71**	**108**	*e*P	**Pn**	**14 41 13.7**	**-0.4**
NATI	**Neve Ativ**	**2.72**	**113**	P	**Pn**	**14 41 14.8**	**+0.6**
NATI				S	**Sn**	**14 41 47.8**	**+0.5**
KNHM	**Kefar Nahum**	**2.79**	**121**	P	**Pn**	**14 41 15.4**	**+0.3**
KNHM				S	**Sn**	**14 41 49.5**	**+0.5**
KRMN	**Karaman**	**2.83**	**8**	Pn	**Pn**	**14 41 16.3**	**+0.5**
KRMN				AML	AML		
BEIL	**Beino**	**2.84**	**86**	*e*P	**Pn**	**14 41 15.2**	**-0.7**
BEIL				*e*S	**Sn**	**14 41 48.3**	**-2.1**
KKBE	**Karaman, Kazim**	**2.85**	**3**	P	**Pn**	**14 41 16.9**	**+0.8**
KKBE				S	**Sb**	**14 41 55.4**	**-0.9**
KKBE				IAML		14 42 04.0	
	comp=N,62nm,1.9s						
KKBE				IAML		14 42 04.0	
	comp=E,52nm,0.8s						
KSHT	**Keshet**	**2.90**	**118**	P	**Pn**	**14 41 17.2**	**+0.5**
KSHT				S	**Sn**	**14 41 53.5**	**+1.5**
MMLI	**Mount Malkishu**	**2.95**	**130**	P	**Pn**	**14 41 18.4**	**+1.0**
MMLI				S	**Sn**	**14 41 54.0**	**+0.9**
MMLI	**Mount Malkishu**	**2.95**	**130**	P	**Pn**	**14 41 17.8**	**+0.4**

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
MMLI				S	Sn	14 41 54.8	+1.7
QRNJ	**Al-Qirein**	3.12	130	P	Pb	14 41 23.4	-2.4
QRNJ				AML	AML		
SEYD	**Seydisehir-KON**	3.12	347	Pn	Pn	14 41 20.6	+0.8
SEYD				AML	AML		
ROII	**Roi**	3.12	132	P	Pn	14 41 20.8	+1.2
ROII				S	Sn	14 41 58.5	+1.3
AKAS	**Kas**	3.17	307	Pn	Pn	14 41 21.2	+0.7
AKAS				AML	AML		
SEDI	**Konya, Seydise**	3.18	346	P	Pn	14 41 22.1	+1.5
SEDI				S	Sb	14 42 06.3	+0.4
SEDI				IAML		14 42 13.0	
	comp=N,44nm,0.6s						
SEDI				IAML		14 42 17.0	
	comp=E,57nm,0.6s						
RGMN	**Argaman**	3.20	133	P	Pn	14 41 21.9	+1.2
RGMN				S	Sn	14 42 00.1	+1.2
KERG	**Konya-Eregli**	3.23	20	P	Pn	14 41 23.0	+1.6
KERG				S	Sb	14 42 05.3	-2.2
KERG				IAML		14 42 08.0	
	comp=N,19nm,0.6s						
KERG				IAML		14 42 15.0	
	comp=E,44nm,0.8s						
YITV	**Yitav**	3.30	136	P	Pn	14 41 23.1	+1.0
YITV				S	Sn	14 42 02.5	+1.0
JER	**Jerusalem**	3.31	141	P	Pn	14 41 23.2	+0.9
JER				S	Sn	14 42 03.5	+1.6
ELL	**Elmali**	3.31	316	Pn	Pn	14 41 23.3	+0.8
ELL				AML	AML		
GULE	**Gulek**	3.34	29	P	Pn	14 41 24.1	+1.2
GULE				S	Sb	14 42 09.6	-1.0
GULE				IAML		14 42 12.0	
	comp=N,45nm,0.7s						
GULE				IAML		14 42 22.0	
	comp=E,64nm,0.7s						
AMAZ	**Amatzia**	3.37	147	P	Pn	14 41 23.7	+0.6
AMAZ				S	Sn	14 42 04.8	+1.5
KMER	**Konya-Meram**	3.40	355	P	Pn	14 41 26.7	+3.0
KMER				S	Sb	14 42 14.2	+1.8
ALMO	**Almog**	3.44	138	P	Pn	14 41 24.8	+0.8
ALMO				S	Sn	14 42 06.5	+1.5
YESY	**Yesilyurt**	3.50	13	Pn	Pn	14 41 26.0	+1.0
YESY				AML	AML		
MZS	**Mizpe Shalem**	3.57	141	P	Pn	14 41 26.9	+1.0
MZS				S	Sn	14 42 10.1	+1.8
KONT	**Konya--Tatoy**	3.58	355	Pn	Pn	14 41 27.1	+1.1
KONT				AML	AML		
KZIT	**Kziot**	3.72	158	P	Pn	14 41 30.8	+2.8
	0.2nm1μm37nm,1.0s						
KZIT				AML	AML		
KZIT	**Kziot**	3.72	158	P	Pn	14 41 27.8	-0.2
KZIT				S	Sn	14 42 12.8	+0.7
CMRD	**Camardi-Nigde**	3.75	28	Pn	Pn	14 41 29.2	+0.7
CMRD				AML	AML		
MSBI	**Mazada**	3.76	144	P	Pn	14 41 30.6	+2.2
	0.1nm265nm6.5nm,0.5s						
MSBI				AML	AML		
MSBI	**Mazada**	3.76	144	P	Pn	14 41 29.1	+0.7
MSBI				S	Sn	14 42 13.5	+0.6
GHAJ	**Ghor Haditha**	3.87	141	P	Pb	14 41 35.3	-3.4
	0.4nm2μm30nm,0.5s						
GHAJ				AML	AML		
GHAJ	**Ghor Haditha**	3.87	141	P	Pn	14 41 30.8	+0.8
GHAJ				S	Sn	14 42 17.1	+1.5
LISJ	**El Lisan**	3.88	143	P	Pn	14 41 34.3	+4.3
	0.3nm28nm,0.6s						
LISJ				AML	AML		
ASF	**Jabal al Asfar**	4.11	121	Pn	Pn	14 41 32.8	-0.6
	1.8nm,0.3s,baz=306,slow=5.7,SNR=6.5						
ASF				Sn	Sn	14 42 24.3	+2.6
	1.8nm,0.3s,baz=9.8,slow=22,SNR=7.2						
	2.9nm,0.3s						
ASF				AML	AML		
IDAN	**Idan**	4.12	148	P	Pn	14 41 34.4	+1.0
IDAN				S	Sn	14 42 22.8	+1.0
RMNI	**Mount Ramon**	4.13	155	P	Pn	14 41 34.4	+0.8
RMNI				S	Sn	14 42 22.8	+0.6
ZFRI	**Zfri**	4.32	151	P	Pn	14 41 37.1	+0.9
ZFRI				S	Sn	14 42 27.5	+0.6
PRNI	**Paran**	4.44	154	P	Pn	14 41 40.0	+2.2
	0.5nm53nm,0.6s						
PRNI				AML	AML		
HRFI	**Mount Harif**	4.74	155	P	Pn	14 41 43.6	+1.6
	0.2nm649nm31nm,0.6s						
HRFI				AML	AML		
HRFI	**Mount Harif**	4.74	155	P	Pn	14 41 42.8	+0.8
HRFI				S	Sn	14 42 38.2	+1.1
YTVT	**Yotvata**	4.88	156	P	Pn	14 41 45.1	+1.3
YTVT				S	Sn	14 42 42.5	+2.0
AQBJ	**Aqaba**	5.03	157	P	Pn	14 41 49.4	+3.5
	0.5nm60nm,0.8s						
AQBJ				AML	AML		
EIL	**Elat**	5.05	158	Pn	Pn	14 41 47.0	+0.9
	28nm,0.4s,baz=317,slow=5.4,SNR=61						
EIL				Sn	Sn	14 42 46.7	+2.0
	11nm,0.3s,baz=82,slow=18,SNR=12						
EIL	**Elat**	5.05	158	P	Pn	14 41 48.0	+1.8
	0.2nm34nm,0.5s						
EIL				AML	AML		
EIL	**Elat**	5.05	158	P	Pn	14 41 47.1	+0.9
EIL				S	Sn	14 42 45.5	+0.8
BRTR	**Keskin Array B**	5.39	7	Pn	Pn	14 41 50.2	-0.8
	0.2nm,0.3s,baz=178,slow=16,SNR=3.8						
BRTR				AML	AML		
IDI	**Anoyia**	6.53	280	Pn	Pn	14 42 06.9	+0.3
	0.5nm,0.3s,baz=55,slow=16,SNR=1.5						
IDI				Sn	Sn	14 43 16.0	-5.3
	1.0nm,0.3s,baz=28,slow=23,SNR=2.2						
	4.4nm,0.4s						
IDI				AML	AML		
AKASG	**Malin Array Be**	16.52	352	Pn	Pn	14 44 21.5	-0.6
	0.2nm,0.2s,baz=177,slow=9.5,SNR=8.0						
GERES	**GERESS Array B**	20.22	321	P	P	14 45 07.1	+1.5
	0.9nm,0.5s,baz=139,slow=9.1,SNR=4.0						
	0.9nm,0.5s						
FINES	**FINESS Array B**	27.43	353	P	P	14 46 14.6	-1.6
	2.9nm,1.0s,baz=173,slow=13,SNR=4.8						
	2.9nm,1.0s						
KURBB	**Kurchatov Arra**	36.81	50	P	P	14 47 38.1	-0.3
	0.3nm,0.4s,baz=275,slow=9.9,SNR=2.1						
	0.3nm,0.4s						
MKAR	**Makanchi Array**	39.00	56	P	P	14 47 56.9	-0.2
	0.2nm,0.6s,baz=269,slow=8.6,SNR=2.0						
	0.2nm,0.6s						

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*IDC **20** 15:03:26.1±2.7, 26°.79S×71°.38E, h0^{km}, mb3.7/7, mbtmp3.7/7, MS3.5/17, Error ellipse: s-maj=85.4km s-min=30.9km az=40.0*

ISC 20 15:03:27.9±2.7**, 26°.7S**±0°.5×**71°.4E**±0°.4**, h10^{km}, n34, σ0^s.92**/7**, mb3.8**/7**, MS3.5**/17**, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
H08S1	**Diego Carcia H**	19.01	3	T	T	15 26 56.1	
	baz=182,slow=76,SNR=22						
H08S2	**Diego Garcia H**	19.01	3	T	T	15 26 57.2	
	baz=182,slow=76,SNR=20						
H08S3	**Diego Garcia H**	19.03	3	T	T	15 27 00.0	
	baz=182,slow=76,SNR=31						
H04N2	**CROZET ISLANDS**	24.88	214	T	T	15 35 19.6	
	baz=48,slow=75,SNR=282						
H04N1	**CROZET ISLANDS**	24.89	214	T	T	15 35 23.7	
	baz=48,slow=75,SNR=265						
H04N3	**CROZET ISLANDS**	24.90	214	T	T	15 35 20.6	
	baz=48,slow=75,SNR=279						
H04S1	**CROZET ISLANDS**	25.30	212	T	T	15 35 56.1	
	baz=46,slow=76,SNR=6.0						
H04S3	**CROZET ISLANDS**	25.31	212	T	T	15 35 52.6	
	baz=46,slow=76,SNR=13						
H04S2	**CROZET ISLANDS**	25.32	212	T	T	15 35 54.9	
	baz=46,slow=76,SNR=9.8						
PALK	**Pallekele**	34.98	16	LR	LR	15 22 01.0	
	comp=Z,81nm,18.1s,baz=211,slow=32						
H01W2	**Cape Leeuwin H**	37.35	113	T	T	15 49 57.7	
	baz=268,slow=74,SNR=4.7						
H01W3	**Cape Leeuwin H**	37.35	113	T	T	15 50 01.1	
	baz=268						
H01W1	**Cape Leeuwin H**	37.36	113	T	T	15 49 55.4	
	baz=268,slow=74,SNR=3.6						
MATP	**Matopo**	39.70	270	LR	LR	15 24 33.8	
	comp=Z,60nm,18.4s,baz=60,slow=32						
BOSA	**Boshof**	40.73	256	LR	LR	15 25 01.4	
	comp=Z,80nm,20.0s,baz=32,slow=32						
LBTB	**Lobatse**	41.10	262	LR	LR	15 25 40.4	
	comp=Z,100nm,20.2s,baz=110,slow=32						
MAW	**Mawson**	41.22	185	LR	LR	15 25 27.2	
	comp=Z,102nm,18.2s,baz=80,slow=32						
LSZ	**Lusaka**	41.76	277	LR	LR	15 26 43.1	
	comp=Z,44nm,18.3s,baz=128,slow=34						
SUR	**Sutherland**	44.05	250	LR	LR	15 26 51.1	
	comp=Z,113nm,19.2s,baz=148,slow=32						
MBAR	**Mbarara**	46.94	297	LR	LR	15 28 05.7	
	comp=Z,37nm,19.5s,baz=186,slow=32						
TSUM	**Tsumeb**	49.83	267	LR	LR	15 32 02.9	
	comp=Z,61nm,18.1s,baz=146,slow=34						
FITZ	**Fitzroy Crossi**	50.54	92	LR	LR	15 31 04.0	
	comp=Z,52nm,19.6s,baz=249,slow=33						
CMAR	**Chiang Mai Arr**	52.27	34	P	P	15 12 38.9	-0.7
	0.8nm,0.7s,baz=181,slow=9.2,SNR=5.1						
CMAR				LR	LR	15 32 55.7	
	comp=Z,26nm,18.1s,baz=190,slow=34						
	0.8nm,0.7s						
ASAR	**Alice Springs**	56.12	102	P	P	15 13 07.7	-0.2
	0.8nm,0.9s,baz=245,slow=7.4,SNR=4.5						
ASAR				LR	LR	15 33 11.8	
	comp=Z,26nm,19.7s,baz=184,slow=32						
	0.8nm,0.9s						
WRA	**Warramunga Arr**	57.67	98	P	P	15 13 19.1	+0.2
	0.5nm,0.9s,baz=251,slow=7.7,SNR=3.0						
	0.5nm,0.9s						
STKA	**Stephens Creek**	60.45	113	LR	LR	15 36 50.3	
	comp=Z,39nm,18.1s,baz=204,slow=33						
MKAR	**Makanchi Array**	73.84	8	P	P	15 15 03.3	+0.8
	0.7nm,0.7s,baz=168,slow=6.2,SNR=4.0						
	0.7nm,0.7s						
BRTR	**Keskin Array B**	74.91	331	P	P	15 15 08.4	-0.7
	0.8nm,0.8s,baz=156,slow=9.2,SNR=4.9						
	0.8nm,0.8s						
KURBB	**Kurchatov Arra**	77.27	5	P	P	15 15 23.2	+1.2
	0.2nm,0.3s,baz=193,slow=5.8,SNR=4.7						
	0.2nm,0.3s						
ZALV	**Zalesovo Beam**	81.18	8	P	P	15 15 44.0	+0.6
	0.4nm,0.4s,baz=207,slow=6.0,SNR=2.5						
	0.4nm,0.4s						
JNU	**Nakatsue**	82.07	47	LR	LR	15 50 23.6	
	comp=Z,16nm,19.3s,baz=223,slow=34						
KSRS	**Korea Array**	83.00	42	LR	LR	15 49 58.7	
	comp=Z,21nm,21.1s,baz=230,slow=34						
TLY	**Talaya**	83.06	20	LR	LR	15 52 28.0	
	comp=Z,19nm,19.7s,baz=80,slow=35						
KLR	**Kul'dur**	92.73	35	LR	LR	15 56 29.3	
	comp=Z,18nm,21.1s,baz=183,slow=34						

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*IDC **20** 15:12:48.9±6.0, 7°.06S×129°.83E, h75^{km}±56^{km}, mb3.7/3, mbtmp4.2/6, ML4.5/3, Error ellipse: s-maj=79.3km s-min=32.4km az=67.0*

*DJA **20** 15:12:51.3±0.4, 7°S±4°×13°0E±°, h149^{km}±9^{km}, M4.4/12, mB5.2/4, mB5.2/4, mb4.3/6, mb4.3/8, MLv4.0/2, MLv4.4/12, Mw(mB)4.6/4, Mw(mB)4.6/4*

*NEIC **20** 15:12:52.5±1.0, 7°.2S±0°.1×130°.1E±0°.1, h117^{km}±6^{km}, mb4.1/5, Error ellipse: s-maj=18.2km s-min=11.6km az=218.0*

ISC 20 15:12:52.0±0.8**, 7°.07S**±0°.07×**130°.23E**±0°.09**, h150^{km}, n32, σ2^s.54**/29**, mb4.0**/4**, Tanimbar Islands region**

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
SAUI	**Saumlaki**	1.40	131		Pn	15 13 20.2	-0.3
SAUI				Sn	Sn	15 13 38.5	-4.0
SAUI	**Saumlaki**	1.40	131	P	Pn	15 13 20.3	-0.3
SAUI				S	Sn	15 13 43.6	+1.2
SAUI				AML	AML		
SAUI				AML	AML		
BNDI	**Bandanaira**	2.55	353	P	Pn	15 13 31.3	-2.5
BNDI				AML	AML		
FAKI	**Fak Fak**	4.59	26	Pn	Pn	15 13 56.5	-3.5
FAKI	**Fak Fak**	4.59	26	P	Pn	15 13 56.5	-3.5
FAKI				AML	AML		
MTN	**Manton Dam**	5.81	171		Pn	15 14 14.4	-1.8
SWI	**Sorong**	6.25	10	P	Pn	15 14 18.6	-3.5
	1μm1μm36nm,0.6s,36nm,0.6s						
SOEI	**Soe**	6.47	245	Pn	Pn	15 14 22.1	-3.1
SOEI	**Soe**	6.47	245	P	Pn	15 14 25.1	-0.1
	37nm,0.6s						
MWPI	**Manokwari, Pap**	7.18	32	P	Pn	15 14 31.5	-3.1
BAKI	**Biak**	8.27	45	P	Pn	15 14 50.1	+1.0
KNRA	**Kununurra**	8.68	189		Pn	15 14 53.4	-1.1
FITZ	**Fitzroy Crossi**	11.84	202	P	Pn	15 15 34.0	-2.3
	4.6nm,0.3s,baz=30,slow=9.9,SNR=68						
FITZ				S	Sn	15 17 36.5	-11
	16nm,0.5s,baz=189,slow=21,SNR=8.8						
	13nm,0.4s						
FITZ				AML	AML		
FITZ	**Fitzroy Crossi**	11.84	202		Pn	15 15 34.7	-1.6
WB0	**Warramunga Arr**	13.26	163		Pn	15 15 53.7	-0.9
WRAB	**Tennant Creek**	13.40	163		Pn	15 15 55.6	-0.8
WRA	**Warramunga Arr**	13.41	163	P	Pn	15 15 56.1	-0.4
	2.3nm,0.3s,baz=339,slow=13,SNR=78						
WRA				S	Sn	15 18 16.2	-8.8
	4.0nm,0.5s,baz=348,slow=23,SNR=10						
	4.5nm,0.5s						
WRA				AML	AML		
WRA	**Warramunga Arr**	13.41	163	Pn	Pn	15 15 54.9	-1.7
WR8	**Warramunga Arr**	13.47	162		Pn	15 15 56.8	-0.5
AS31	**Alice Springs**	16.88	168	P	Pn	15 16 40.5	+1.0
AS31				IAmb	IAmb	15 16 49.6	
	comp=Z,3.5nm,0.4s						
ASAR	**Alice Springs**	16.88	168	P	Pn	15 16 41.8	+2.2
	comp=Z,1.3nm,0.3s,baz=338,slow=8.0,SNR=91						
ASAR				S	S	15 19 42.0	-5.3
	comp=Z,3.8nm,0.8s,baz=348,slow=25,SNR=8.8						
	comp=Z,2.2nm,0.4s						
ASAR				AML	AML		
ASAR	**Alice Springs**	16.88	168	P	Pn	15 16 40.5	+0.9
BBJI	**Bungbulang**	22.40	268	P	P	15 17 39.9	+1.4
TCW	**Tory Channel**	51.80	138	P	P	15 21 47.5	+3.0
MKAR	**Makanchi Array**	68.40	327	P	P	15 23 41.6	+4.0
	comp=Z,1.8nm,0.4s,baz=118,slow=8.1,SNR=26						
	comp=Z,1.8nm,0.4s						
MKAR	**Makanchi Array**	68.40	327	P	P	15 23 41.3	+3.8
MAKZ	**Makanchi**	68.58	327	P	P	15 23 42.6	+3.9
MAKZ				IAmb	IAmb	15 23 43.0	
	comp=Z,2.8nm,0.8s						
KURBB	**Kurchatov Arra**	72.68	328	P	P	15 24 06.8	+3.5
	comp=Z,0.3nm,0.5s,baz=128,slow=4.9,SNR=5.3						
	comp=Z,0.3nm,0.5s						
KURK	**Kurchatov**	72.69	329	P	P	15 24 06.8	+3.4
ABKAR	**Akbulak array**	82.70	322	P	P	15 25 02.9	+4.0
QSPA	**South Pole Qui**	82.91	180	P	P	15 25 05.6	+5.8
	comp=Z,0.7nm,0.6s,baz=348,slow=20,SNR=2.1						
	comp=Z,0.7nm,0.6s						
QSPA	**South Pole Qui**	82.91	180	P	P	15 25 05.3	+5.4
QSPA				IAmb	IAmb	15 25 26.8	
	comp=Z,6.2nm,1.4s						

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*NEIC **20** 15:21:12.2±0.6, 20°.6S±0°.2×175°.9W±0°.1, h111^{km}±10^{km}, mb4.5/15, Error ellipse: s-maj=27.5km s-min=15.5km az=167.0*

*IDC **20** 15:21:29.0±27.0, 20°.82S×176°.01W, h287^{km}±243^{km}, mb3.3/4, mbtmp4.0/5, Error ellipse: s-maj=345.5km s-min=107.2km az=63.0*

ISC 20 15:21:11.0±0.8**, 20°.5S**±0°.1×**176°.01W**±0°.09**, h100^{km}, n20, σ0^s.75**/20**, mb4.4**/11**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
NIUE	**Niue**	5.90	77	Pn	Pn	15 22 35.4	-0.6
RAR	**Rarotonga**	15.20	95	P	Pn	15 24 41.0	+0.7
RAR				IAmb	IAmb	15 24 56.5	
	comp=Z,104nm,1.4s						
URZ	**Urewera**	18.66	197	P	Pn	15 25 23.3	+0.8
	comp=Z,2.3nm,0.3s,baz=258,slow=3.7,SNR=14						
URZ				S	S	15 28 20.0	-28
	comp=Z,5.0nm,0.6s,baz=269,slow=22,SNR=12						
RTZ	**Ruatahuna**	19.03	197	P	P	15 25 26.0	+0.9
MRZ	**Mangatainoka R**	21.32	198	P	P	15 25 49.6	-0.2
MRZ				IAmb	IAmb	15 26 29.8	
	comp=Z,25nm,1.4s						
QRZ	**Quartz Range**	22.48	203	P	P	15 26 01.0	-1.0
QRZ				IAmb	IAmb	15 26 13.8	
	comp=Z,38nm,1.4s						
CTA	**Charters Tower**	35.34	264	P	P	15 27 58.3	+1.2
	comp=Z,2.9nm,0.8s,baz=117,slow=9.0,SNR=2.9						
	comp=Z,2.9nm,0.8s						
CTAO	**Charters Tower**	35.34	264	P	P	15 27 57.6	+0.6
CTAO				IAmb	IAmb	15 28 20.5	
	comp=Z,14nm,1.4s						
PMG	**Port Moresby**	37.17	282	P	P	15 28 13.2	+0.6
STKA	**Stephens Creek**	39.46	244	P	P	15 28 30.0	-1.7
	comp=Z,1.4nm,0.6s,baz=84,slow=10,SNR=1.2						
	comp=Z,1.4nm,0.6s						
WR8	**Warramunga Arr**	46.29	262	P	P	15 29 26.9	-0.1
WR8				IAmb	IAmb	15 29 58.1	
	comp=Z,7.2nm,1.2s						
AS31	**Alice Springs**	46.33	256	P	P	15 29 26.8	-0.5
ASAR	**Alice Springs**	46.33	256	P	P	15 29 26.8	-0.5
	comp=Z,1.1nm,0.6s,baz=86,slow=7.8,SNR=23						
	comp=Z,1.1nm,0.6s						
WB0	**Warramunga Arr**	46.42	262	P	P	15 29 27.8	-0.2
WB0				IAmb	IAmb	15 29 43.1	
	comp=Z,10nm,1.4s						
WB2	**Warramunga Arr**	46.43	262	P	P	15 29 28.1	0.0
WB2				IAmb	IAmb	15 29 31.6	
	comp=Z,8.2nm,1.3s						
WRAB	**Tennant Creek**	46.44	262	P	P	15 29 28.1	0.0
WRAB				IAmb	IAmb	15 30 08.9	
	comp=Z,9.2nm,1.4s						
WRA	**Warramunga Arr**	46.44	262	P	P	15 29 27.4	-0.8
	comp=Z,0.3nm,0.3s,baz=97,slow=8.1,SNR=29						
	comp=Z,0.3nm,0.3s						
MBWA	**Marble Bar**	59.67	257	P	P	15 31 05.1	-0.2
JGF	**Kuroka**	71.18	321	P	P	15 32 19.5	+0.3
JGF				IAmb	IAmb	15 32 49.2	
	comp=Z,12nm,1.3s						
JSU	**Suzuyama**	72.86	314	P	P	15 32 29.3	0.0

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*GII **20** 15:55:26.4±0.0, 33°.09N±0°.02×35°.88E±0°.02, h0^{km}, Mws1.9, confirmed*

*GRAL **20** 15:55:27.8±0.3, 33°.11N×35°.91E, h7^{km}±11^{km}, MD2.6*

ISC 20 15:55:25.7±1.4**, 33°.08N**±0°.04×**35°.91E**±0°.09**, h25^{km}**±7^{km}**, n14, σ0^s.58**/24**, Jordan-Syria region**

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
KSHT	**Keshet**	0.13	220	P	Pb	15 55 31.0	+0.3
KSHT				S	Sb	15 55 34.3	+0.2
NATI	**Neve Ativ**	0.23	321	P	Pb	15 55 32.0	+0.2
NATI				S	Sb	15 55 36.0	+0.1
GEM	**Giv'at Ha'Em**	0.24	302	P	Pb	15 55 32.0	0.0
GEM				S	Sb	15 55 36.7	+0.4
SHBL	**Chebaa**	0.30	332	*e*P	Pb	15 55 33.0	+0.1
SHBL				*e*S	Sb	15 55 36.9	-1.0
KNHM	**Kefar Nahum**	0.34	235	P	Pb	15 55 33.6	+0.3
KNHM				S	Sb	15 55 38.9	+0.4
RCY	**Rachaya**	0.42	351	*e*P	Pb	15 55 35.1	+0.3
RCY				*e*S	Sb	15 55 40.4	-0.5
MMA0B	**Mount Meron ar**	0.43	261	P	Pb	15 55 34.8	0.0
MMA0B				S	Sb	15 55 41.6	+0.5
QRWL	**Qaraoun**	0.50	338	*e*P	Pb	15 55 36.5	+0.4
DQRL	**Deir Qamar**	0.69	336	*e*P	Pb	15 55 39.8	+0.7
MMLI	**Mount Malkishu**	0.76	213	P	Pb	15 55 40.7	+0.3
MMLI				S	Sn	15 55 51.6	-0.1
ZAHL	**Zahle**	0.78	358	*e*P	Pn	15 55 41.4	+0.1
BHL	**Bhannes**	0.85	345	*e*P	Pb	15 55 42.7	+0.8
OFRI	**`Ofer**	0.90	240	P	Pn	15 55 42.7	-0.2
OFRI				S	Sb	15 55 55.6	+1.1
SLTI	**Sal'it**	1.11	221	P	Pn	15 55 45.5	-0.3
SLTI				S	Sn	15 55 58.9	-1.4

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*IDC **20** 15:57:18.1±9.8, 2°.09N×124°.54E, h258^{km}±97^{km}, mb3.3/6, mbtmp4.0/6, Error ellipse: s-maj=111.1km s-min=16.8km az=60.0*

*NEIC **20** 15:57:20.3±0.7, 2°.0N±0°.1×124°.33E±0°.08, h271^{km}±8^{km}, mb4.0/13, Error ellipse: s-maj=18.7km s-min=8.7km az=208.0*

ISC 20 15:57:19.5±0.8**, 2°.0N**±0°.1×**124°.33E**±0°.09**, h268^{km}, n25, σ0^s.73**/27**, mb3.9**/11**, Celebes Sea**

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
TNTI	**Ternate**	3.27	112		Pn	15 58 16.6	+0.6
TNTI					S	15 59 01.7	+0.7
LUWI	**Luwuk**	3.41	207	Pn	Pn	15 58 18.5	+1.0
TOLI2	**Tolitoli**	3.66	256	Pn	Pn	15 58 20.9	+0.7
FAKI	**Fak Fak**	9.30	122	Pn	Pn	15 59 29.7	+0.4
SBUM	**Sibu**	12.11	272	P	P	16 00 06.5	+0.1
MTN	**Manton Dam**	16.23	156	P	Pn	16 00 52.7	-0.9
MTN				IAmb	IAmb	16 01 00.5	
	comp=Z,9.7nm,1.4s						
FITZ	**Fitzroy Crossi**	20.02	176	P	P	16 01 32.6	0.0
	comp=Z,1.9nm,0.3s,baz=357,slow=6.0,SNR=46						
	comp=Z,1.9nm,0.3s						
TPUB	**Ta-pu**	21.47	351	P	P	16 01 47.3	0.0
WB0	**Warramunga Arr**	23.79	156	P	P	16 02 07.5	-0.9
WB0				IAmb	IAmb	16 02 08.1	
	comp=Z,5.0nm,0.8s						
WRAB	**Tennant Creek**	23.92	156	P	P	16 02 08.8	-0.9
WRAB				IAmb	IAmb	16 02 38.1	
	comp=Z,7.8nm,1.4s						
WRA	**Warramunga Arr**	23.92	156	P	P	16 02 08.8	-0.9
	comp=Z,2.4nm,0.6s,baz=336,slow=9.9,SNR=32						
	comp=Z,2.4nm,0.6s						
WRA	**Warramunga Arr**	23.92	156	P	P	16 02 07.5	-2.1
COEN	**Coen**	24.50	131	P	P	16 02 14.9	0.0
AS31	**Alice Springs**	27.17	160	P	P	16 02 38.1	-0.6
ASAR	**Alice Springs**	27.17	160	P	P	16 02 38.1	-0.6
	comp=Z,0.4nm,0.4s,baz=339,slow=7.1,SNR=24						
ASAR				PcP	PcP	16 05 51.0	-0.8
	comp=Z,0.2nm,0.9s,baz=342,slow=2.0,SNR=4.4						
	comp=Z,0.4nm,0.4s						
ASAR	**Alice Springs**	27.17	160	P	P	16 02 38.2	-0.5
FORT	**Forrest**	32.80	174	P	P	16 03 27.3	-0.7
INKA	**Innaminka**	33.53	153	P	P	16 03 34.9	+0.5
INKA				IAmb	IAmb	16 04 04.9	
	comp=Z,5.7nm,1.4s						
STKA	**Stephens Creek**	37.47	155	P	P	16 04 07.9	+0.1
	comp=Z,0.9nm,0.3s,baz=338,slow=9.1,SNR=4.0						
	comp=Z,0.9nm,0.3s						
CAN	**Canberra**	43.73	150	P	P	16 04 59.0	+0.3
CAN				IAmb	IAmb	16 05 29.6	
	comp=Z,49nm,1.5s						
MKAR	**Makanchi Array**	57.64	327	P	P	16 06 42.1	+0.1
	comp=Z,1.1nm,0.3s,baz=124,slow=7.8,SNR=28						
	comp=Z,1.1nm,0.3s						
MKAR	**Makanchi Array**	57.64	327	P	P	16 06 42.0	0.0
MAKZ	**Makanchi**	57.82	327	P	P	16 06 43.3	0.0
MAKZ				IAmb	IAmb	16 07 26.3	
	comp=Z,4.0nm,1.1s						
KURBB	**Kurchatov Arra**	61.93	329	P	P	16 07 10.5	-0.5
	comp=Z,0.5nm,0.5s,baz=132,slow=6.3,SNR=7.6						
	comp=Z,0.5nm,0.5s						
KURK	**Kurchatov**	61.93	329	P	P	16 07 10.8	-0.1
KURK				IAmb	IAmb	16 07 11.4	
	comp=Z,1.7nm,0.8s						

IDC 20 16:05:21.0±1.9**, 26°.26S×71°.73E, h0^{km}, mb3.7**/4**, mbtmp3.7**/4**, Error ellipse: s-maj=51.0km s-min=40.2km az=82.0, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
H08S1	**Diego Carcia H**	18.52	2	T	T	16 28 43.3	
	baz=182,slow=76,SNR=11						
H08S2	**Diego Garcia H**	18.52	2	T	T	16 28 42.8	
	baz=182,slow=76,SNR=12						
H08S3	**Diego Garcia H**	18.54	2	T	T	16 28 44.6	
	baz=182,slow=76,SNR=24						
H04N2	**CROZET ISLANDS**	25.43	213	T	T	16 37 19.5	
	baz=47,slow=74,SNR=636						
H04N1	**CROZET ISLANDS**	25.44	214	T	T	16 37 20.1	
	baz=47,slow=74,SNR=656						
H04N3	**CROZET ISLANDS**	25.45	213	T	T	16 37 18.8	
	baz=47,slow=74,SNR=648						
H04S1	**CROZET ISLANDS**	25.86	212	T	T	16 37 56.2	
	baz=45,slow=74,SNR=8.8						
H04S3	**CROZET ISLANDS**	25.86	212	T	T	16 37 57.5	
	baz=45,slow=74,SNR=20						
H04S2	**CROZET ISLANDS**	25.88	212	T	T	16 37 51.4	
	baz=45,slow=74,SNR=10						
H01W2	**Cape Leeuwin H**	37.28	114	T	T	16 51 49.0	
	baz=271,slow=75,SNR=5.0						
H01W3	**Cape Leeuwin H**	37.28	114	T	T	16 51 49.4	
	baz=271,slow=75,SNR=4.5						
H01W1	**Cape Leeuwin H**	37.30	114	T	T	16 51 51.4	
	baz=271,slow=75,SNR=4.2						
ASAR	**Alice Springs**	55.95	102	P	P	16 15 01.4	+0.1
	0.3nm,0.6s,baz=254,slow=7.5,SNR=13						
	0.3nm,0.6s						
WRA	**Warramunga Arr**	57.46	98	P	P	16 15 12.0	-0.1

	0.7nm,0.8s,baz=253,slow=7.1,SNR=6.4						
	0.7nm,0.8s						
QSPA	South Pole Qui	63.87	180	P	P	16 15 55.2	-0.1
	1.6nm,1.1s,baz=284,slow=12,SNR=1.9						
	1.6nm,1.1s						
MKAR	Makanchi Array	73.33	8	P	P	16 16 54.3	0.0
	0.5nm,0.6s,baz=172,slow=4.2,SNR=3.5						
	0.5nm,0.6s						

IDC 20 16:08:38.7±3.4**,31°.90S**×**178°.02W,h0km,mb3.3**/2**,**
mbtmp3.4/3**,ML2.8**/1**,Error ellipse: s-maj=77.3km**
s-min=49.8km az=119.0,Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	7.50	211	Pn	Pn	16 10 28.9	-0.3
	0.2nm,0.3s,baz=71,slow=19,SNR=1.7						
	2.7nm,0.8s						
URZ				AML	AML		
ASAR	Alice Springs	43.03	269	P	P	16 16 41.0	+0.7
	0.4nm,0.8s,baz=108,slow=7.6,SNR=12						
	0.4nm,0.8s						
WRA	Warramunga Arr	44.16	274	P	P	16 16 48.4	-1.0
	0.2nm,0.4s,baz=112,slow=8.1,SNR=8.3						
	0.2nm,0.4s						
FINES	FINESS Array B	146.54	339	PKPbc	PKPdf	16 28 20.5	+0.7
	5.1nm,1.1s,baz=46,slow=4.0,SNR=2.1						

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*IDC **20** 16:10:16.0±2.4,28°.99N×139°.02E,h0km,mb3.2/2,*
mbtmp3.2/3,ML2.4/1,Error ellipse: s-maj=295.9km
s-min=22.0km az=89.0
*JMA **20** 16:10:45.4±0.2,31°N±1°×13°9E±°,h350km,MV2.4/22,*
NEAR TORISHIMA IS
ISC 20 16:10:46.0±1.9**,31°.0N**±0°.3×**139°.6E**±0°.6**,h350km,n7,**
σ**1s.23**/5**,Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JIE	Ise	4.15	325	*e*P	Pn	16 11 56.4	-0.1
JKN2	Miekihoku	4.27	319	*e*P	Pn	16 11 56.4	-1.2
CBIJ	Chichi jima	4.52	150	*e*P	Pn	16 12 01.3	+0.8
JAO	Obara	4.67	336	*e*P	Pn	16 12 02.8	+0.9
MJAR	Matsushiro Arr	5.62	348	Pn	Pn	16 12 12.6	+0.2
	0.1nm,0.3s,baz=174,slow=11,SNR=11						
	0.5nm,0.5s						
MJAR				AML	AML		
WRA	Warramunga Arr	50.93	186	P	P	16 19 03.8	-9.1
	0.2nm,0.5s,baz=4.8,slow=7.7,SNR=1.6						
	0.2nm,0.5s						
ASAR	Alice Springs	54.66	186	P	P	16 19 31.1	-8.9
	0.3nm,0.9s,baz=358,slow=5.1,SNR=5.7						
	0.3nm,0.9s						

IDC 20 16:12:43.5±7.1**,58°.51S**×**159°.57E,h0km,mb3.6**/2**,**
mbtmp3.5/3**,ML3.0**/1**,MS3.7**/5**,Error ellipse:**
s-maj=337.8km s-min=32.1km az=73.0,Macquarie
Island region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNDA	Vanda	19.12	178	P	P	16 17 07.8	+0.2
	baz=358,slow=11,SNR=4.4						
VNDA				LR	LR	16 23 07.6	
	comp=Z,176nm,18.2s,baz=346,slow=33						
	1.3nm,1.0s						
STKA	Stephens Creek	29.29	328	LR	LR	16 29 27.5	
	comp=Z,149nm,18.3s,baz=203,slow=34						
QSPA	South Pole Qui	31.60	180	LR	LR	16 30 19.7	
	comp=Z,84nm,18.2s,baz=302,slow=33						
H01W1	Cape Leeuwin H	38.04	288	T	T	17 00 19.8	
	baz=143,slow=75,SNR=6.8						
H01W2	Cape Leeuwin H	38.05	288	T	T	17 00 18.8	
	baz=143,slow=75,SNR=7.0						
H01W3	Cape Leeuwin H	38.06	288	T	T	17 00 21.5	
	baz=143,slow=75,SNR=6.9						
ASAR	Alice Springs	39.33	321	P	P	16 20 14.4	+0.2
	0.5nm,0.6s,baz=158,slow=7.1,SNR=9.8						
	0.5nm,0.6s						
MAW	Mawson	40.30	216	LR	LR	16 36 33.5	
	comp=Z,111nm,18.1s,baz=92,slow=36						
WRA	Warramunga Arr	42.66	324	P	P	16 20 41.1	-0.6
	1.0nm,0.9s,baz=164,slow=7.0,SNR=5.4						
	1.0nm,0.9s						
FITZ	Fitzroy Crossi	47.38	314	LR	LR	16 39 04.5	
	comp=Z,77nm,18.8s,baz=210,slow=33						
H08S2	Diego Garcia H	82.01	268	T	T	17 55 11.2	
	baz=148,slow=76,SNR=8.9						
H08S1	Diego Carcia H	82.02	268	T	T	17 55 12.8	
	baz=148,slow=76,SNR=6.5						
H08S3	Diego Garcia H	82.03	268	T	T	17 55 17.4	
	baz=148,slow=76,SNR=14						

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*NIED **20** 16:27:09.2,28°.72N×130°.01E,h35km,MW3.9,Moment*
Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm;
M_{rr}3.03; $M_{\theta\theta}$-3.76; $M_{\phi\phi}$0.73; $M_{r\theta}$4.45; $M_{\theta\phi}$-5.81; $M_{\phi r}$4.75;
Fault plane solution: $M_0$8.74000×10^{14} NP1:
ϕ_s277.00000°,δ32.00000°,λ152.00000°. NP2:
ϕ_s31.00000°,δ75.00000°,λ61.00000°.
*JMA **20** 16:27:09.2±0.2,28°.7N±0°.9×13°0E±°,h35km±4km,*
MV3.5/23,NEAR AMAMI-OSHIMA ISLAND
JMA Felt I J1 at NEAR AMAMI-OSHIMA ISLAND.
*IDC **20** 16:27:10.2±2.3,28°.68N×130°.04E,h49km±20km,mb3.4/6,*
mbtmp3.6/9,ML3.2/3,MS3.2/9,Error ellipse: s-maj=31.7km
s-min=13.5km az=103.0
ISC 20 16:27:08.9±1.0**,28°.64N**±0°.04×**130°.15E**±0°.05**,h40**km±10km**,**
n33,σ**0s.99**/40**,mb3.5**/6**,MS3.1**/8**,Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JZK	Kikaishima	0.36	205	*i* P	Pn	16 27 18.1	+0.2
JZK				S	Sn	16 27 25.6	+1.5
JAM	Amami Oshima	0.53	245	*i* P	Pn	16 27 18.8	-1.2
JAM				S	Sn	16 27 26.2	-1.7
JAMN	Amaminishikomi	0.94	245	*e*P	Pn	16 27 25.5	-0.1
JAMN				S	Sn	16 27 38.0	+0.1
JTAJ	Takarajima	0.97	302	P	Pn	16 27 25.0	-1.1
JTAJ				S	Sn	16 27 36.7	-2.0
JNN	Nakanoshima	1.22	349	P	Pn	16 27 29.2	-0.4
JNN				S	Sn	16 27 44.8	0.0
JTK	Tokunoshima	1.35	231	P	Pn	16 27 32.0	+0.7
JTK				*e*S	Sn	16 27 50.0	+1.8
JYAK	Yakushimahirau	1.62	11	*e*P	Pn	16 27 35.7	+0.6
JYAK				*e*S	Sn	16 27 55.4	+0.6
JKC	Kuchinoerabu	1.82	1	*e*P	Pn	16 27 37.8	+0.1
JMTN	Minamitane	1.87	20	P	Pn	16 27 39.1	+0.6
JOKE	Okinoerabujima	1.89	228	*e*P	Pn	16 27 39.7	+1.0
JTN	Tanegashima 3	2.14	20	*e*P	Pn	16 27 42.8	+0.6
JYRO	Yoronjima	2.20	223	P	Pn	16 27 43.5	+0.5
JYRO				*e*S	Sn	16 28 08.9	-0.1
JOW	Kunigami	2.45	223	P	Pn	16 27 47.3	+0.9
	10.0nm,0.3s,baz=82,slow=22,SNR=27						
JOW				S	Sn	16 28 16.1	+1.1
	70nm,0.3s,baz=116,slow=25,SNR=6.8						
	40nm,0.5s						
JOW				AML	AML		
JOW	Kunigami	2.45	223	*e*P	Pn	16 27 47.1	+0.7
JOW				*e*S	Sn	16 28 15.9	+0.9
JIH	Iheya	2.50	231	*e*P	Pn	16 27 47.8	+0.6
JNTH	Nagotoyohara	2.83	222	*e*P	Pn	16 27 52.3	+0.7
JNTH				*e*S	Sn	16 28 24.2	-0.3
JKDJ	Kitadaitoujima	2.87	159	*e*P	Pn	16 27 51.4	-0.8
JKDJ				*e*S	Sn	16 28 24.0	-1.5
JMZ	Minamidaito 2	2.97	161	*e*P	Pn	16 27 53.3	-0.2
JMZ				*e*S	Sn	16 28 26.2	-1.6
JKE	Kume jima 2	3.77	233	*e*P	Pn	16 28 05.6	+1.1
JNU	Nakatsue	4.51	8	P	Pn	16 28 14.6	-0.2
	1.8nm,0.3s,baz=189,slow=9.3,SNR=53						
	6.3nm,0.5s						
JNU				AML	AML		
KSRS	Korea Array	8.99	349	P	Pn	16 29 18.0	+1.9
	0.1nm,0.3s,baz=162,slow=14,SNR=4.8						
KSRS				LR	LR	16 32 56.5	
	comp=Z,79nm,19.1s,baz=170,slow=39						
	0.5nm,0.6s						
KSRS				AML	AML		
SONM	Songino Array	26.57	323	LR	LR	16 45 17.4	
	comp=Z,52nm,18.4s,baz=168,slow=41						
CMAR	Chiang Mai Arr	30.27	257	LR	LR	16 46 43.0	
	comp=Z,28nm,18.1s,baz=65,slow=39						
TLY	Talaya	30.36	327	LR	LR	16 46 56.0	
	comp=Z,44nm,19.6s,baz=110,slow=39						
YAK	Yakutsk	33.40	360	LR	LR	16 47 51.0	
	comp=Z,32nm,19.2s,baz=161,slow=37						
MKAR	Makanchi Array	41.26	309	P	P	16 34 49.7	-0.5
	0.6nm,0.9s,baz=92,slow=8.4,SNR=1.6						
MKAR				LR	LR	16 53 02.8	
	comp=Z,28nm,18.2s,baz=319,slow=38						
	0.6nm,0.9s						
ZALV	Zalesovo Beam	41.42	321	P	P	16 34 51.1	-0.2
	0.7nm,0.4s,baz=103,slow=11,SNR=3.8						
ZALV				LR	LR	16 53 38.3	
	comp=Z,26nm,19.5s,baz=71,slow=38						
	0.7nm,0.4s						
KURBB	Kurchatov Arra	44.34	314	P	P	16 35 14.5	-0.5
	0.3nm,0.4s,baz=101,slow=7.2,SNR=4.2						
	0.3nm,0.4s						
AAK	Ala-Archa	46.55	303	LR	LR	16 56 32.9	
	comp=Z,32nm,19.2s,baz=265,slow=38						
WRA	Warramunga Arr	48.47	175	P	P	16 35 48.6	+1.0
	0.4nm,0.7s,baz=355,slow=7.8,SNR=3.0						
	0.4nm,0.7s						
ASAR	Alice Springs	52.13	176	P	P	16 36 15.9	+0.6
	0.6nm,1.1s,baz=349,slow=9.1,SNR=1.9						
	0.6nm,1.1s						
AKTO	Aktyubinsk	57.38	314	LR	LR	17 02 16.6	
	comp=Z,57nm,21.0s,baz=233,slow=37						
FINES	FINESS Array B	71.61	331	P	P	16 38 25.1	-0.8
	1.3nm,0.7s,baz=64,slow=8.7,SNR=3.9						
	1.3nm,0.7s						

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*IDC **20** 16:55:01.7±0.5,6°.61S×153°.93E,h0km,mb4.6/23,*
mbtmp4.6/27,ML4.1/4,MS3.5/20,Error ellipse:
s-maj=14.9km s-min=10.6km az=91.0
*BJI **20** 16:55:03.5,6°.20S×153°.93E,h10km,mB5.1/8,mb4.8/45*
*NEIC **20** 16:55:04.0±1.1,6°.60S±0°.03×153°.84E±0°.06,h10km±1km,*
mb5.0/83,Error ellipse: s-maj=10.3km s-min=4.3km
az=294.0
*GFZ **20** 16:55:04.1±0.4,7°S±3°×15°4E±°,h10km,M4.8/24,*
mb4.8/24,confirmed
*DJA **20** 16:55:07.9±0.7,7°S±4°×15°4E±°,h42km±7km,M5.0/17,*
mB4.9/4,mB4.9/4,mb4.9/17,mb4.9/17,MLv5.3/2,MLv5.3/2,
Mw(mB)4.2/4,Mw(mB)4.2/4
ISC 20 16:55:03.8±0.3**,6°.60S**±0°.04×**153°.84E**±0°.05**,h10km,n234,**
σ**1s.05**/203**,mb4.9**/100**,MS3.6**/18**,1C,New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KRVT	Keravat (AS076	2.91	321	Pn	Pn	16 55 50.8	+0.7
	70nm,0.3s,baz=131,slow=0.4,SNR=28						
KRVT				Sn	Sn	16 56 23.8	-1.4
	97nm,0.3s,baz=345,slow=21,SNR=13						
	194nm,0.4s						
KRVT				AML	AML		
RABL	Rabaul	2.92	325		Pn	16 55 50.8	+0.5
TATA	Tatamba Isabel	6.17	107	P	Pn	16 56 38.7	+3.6
HNR	Honiara	6.67	115	Pn	Pn	16 56 42.0	+0.1
PMG	Port Moresby	7.18	247	Pn	Pn	16 56 50.1	+1.2
	47nm,0.3s,baz=62,slow=5.3,SNR=80						
PMG				Sn	Sn	16 58 11.2	+0.5
	7.9nm,0.3s,baz=136,slow=24,SNR=2.2						
PMG				LR	LR	16 59 47.0	
	comp=Z,547nm,18.3s,baz=6.5,slow=39						
	291nm,0.5s						
PMG				AML	AML		
PMG	Port Moresby	7.18	247	P	Pn	16 56 50.5	+1.5
PMG	Port Moresby	7.18	247	S	Sn	16 58 09.4	-1.2
PMG	Port Moresby	7.18	247	P	Pn	16 56 50.4	+1.5
PMG	Port Moresby	7.18	247	S	Sn	16 58 09.5	-1.2
PMG	Port Moresby	7.18	247		Pn	16 56 49.2	+0.2
PMG	Port Moresby	7.18	247	P	Pn	16 56 50.8	+1.8
PMG				AML	AML		
PMG				AML	AML		
PMG	Port Moresby	7.18	247	P	Pn	16 56 51.7	+2.7
	comp=Z,422nm,0.8s						
PATS	Pohnpei	14.07	19	Pn	Pn	16 58 22.3	-1.0
MTSU	Mount Surprise	14.76	218	P	Pn	16 58 32.8	0.0
CTA	Charters Tower	15.30	208	Pn	Pn	16 58 38.5	-1.5
	comp=Z,1.1nm,0.3s,baz=24,slow=11,SNR=30						
CTA				LR	LR	17 04 23.6	
	comp=Z,152nm,18.5s,baz=50,slow=37						
	comp=Z,4.4nm,0.9s						
CTA				AML	AML		
CTAO	Charters Tower	15.30	208	P	Pn	16 58 39.2	-0.8
CTAO	Charters Tower	15.30	208	Pn	Pn	16 58 39.0	-1.0
EIDS	Eidsvold	18.85	188	P	P	16 59 23.6	-0.5
EIDS	Eidsvold	18.85	188	P	Pn	16 59 25.1	+0.4
	comp=Z,13nm,1.2s						
NOUC	Port Laguerre	19.55	143	P	P	16 59 32.2	+0.4
QIS	Mount Isa	19.57	223	P	P	16 59 32.1	0.0
QIS	Mount Isa	19.57	223	P	P	16 59 32.8	+0.7
	comp=Z,47nm,0.9s						
DZM	Mont Dzumac	19.62	143	P	P	16 59 32.5	-0.2
	comp=Z,0.3nm,0.3s,baz=12,slow=14,SNR=2.9						
	comp=Z,11nm,1.0s						
DZM				AML	AML		
FAKI	Fak Fak	21.82	279	P	P	16 59 58.6	+2.1
FAKI	Fak Fak	21.82	279	P	P	16 59 55.4	-1.1
FAKI	Fak Fak	21.82	279	P	P	16 59 57.4	+0.9
FAKI	Fak Fak	21.82	279	P	P	16 59 57.7	+1.2
	comp=Z,12nm,0.8s						
QLP	Quilpie	21.88	204	P	P	16 59 57.9	+0.9
	comp=Z,42nm,1.3s						
GUMO	Guam	21.94	336	P	P	16 59 56.0	-1.8
	comp=Z,47nm,0.9s,baz=196,slow=11,SNR=5.6						
GUMO				LR	LR	17 08 53.0	
	comp=Z,29nm,19.0s,baz=147,slow=38						
	comp=Z,47nm,0.9s						
GUMO	Guam	21.94	336	IAmb	IAmb	17 00 01.7	
	comp=Z,80nm,1.0s						
WB0	Warramunga Arr	22.98	233	P	P	17 00 07.5	-1.4
WR8	Warramunga Arr	23.00	233		P	17 00 07.8	-1.2
WRAB	Tennant Creek	23.11	233	P	P	17 00 10.1	0.0
WRAB	Tennant Creek	23.11	233	P	P	17 00 08.9	-1.2
WRAB				IAmb	IAmb	17 00 29.3	
	comp=Z,68nm,1.9s						
WRAB	Tennant Creek	23.11	233	P	P	17 00 09.5	-0.6
	comp=Z,14nm,0.7s						
WRA	Warramunga Arr	23.12	233	P	P	17 00 08.7	-1.5
	comp=Z,9.3nm,0.8s,baz=59,slow=9.2,SNR=75						
	comp=Z,9.3nm,0.8s						
WRA	Warramunga Arr	23.12	233	P	P	17 00 08.9	-1.4
MTN	Manton Dam	23.22	253	P	P	17 00 10.7	-0.5
ARMA	Armidale	23.79	185	P	P	17 00 16.9	-0.1
	comp=Z,15nm,0.8s						
INKA	Innaminka	24.43	209		P	17 00 22.1	-0.6
INKA				IAmb	IAmb	17 00 24.5	
	comp=Z,33nm,0.8s						
AS01	Alice Springs	25.56	226	P	P	17 00 32.8	-0.4
AS31	Alice Springs	25.60	226		P	17 00 32.7	-0.7
ASAR	Alice Springs	25.60	226	P	P	17 00 32.9	-0.6
	comp=Z,20nm,0.7s,baz=60,slow=8.4,SNR=227						
ASAR				LR	LR	17 09 45.2	
	comp=Z,175nm,20.9s,baz=92,slow=34						
	comp=Z,20nm,0.7s						
ASAR	Alice Springs	25.60	226		P	17 00 32.5	-1.0
CMSA	Cobar Meteorol	25.96	196	P	P	17 00 36.6	0.0
CMSA	Cobar Meteorol	25.96	196	P	P	17 00 36.7	+0.1
	comp=Z,34nm,1.0s						
KNRA	Kununurra	26.18	248		P	17 00 37.8	-0.9
STKA	Stephens Creek	27.63	203	P	P	17 00 50.3	-1.4
	comp=Z,11nm,0.8s,baz=17,slow=11,SNR=8.9						
STKA				LR	LR	17 11 10.7	
	comp=Z,175nm,19.2s,baz=27,slow=35						
	comp=Z,11nm,0.8s						
STKA	Stephens Creek	27.63	203	P	P	17 00 52.2	+0.5
	comp=Z,79nm,0.9s						
H11S3	WAKE ISLAND Hy	27.97	27	T	T	17 29 16.5	
	baz=208,slow=74,SNR=54						
H11S2	WAKE ISLAND Hy	27.97	27	T	T	17 29 16.8	
	baz=208,slow=74,SNR=22						
H11S1	WAKE ISLAND Hy	27.98	27	T	T	17 29 24.2	
	baz=208,slow=74,SNR=17						
SOEI	Soe	29.44	262	P	P	17 01 25.5	+17
FITZ	Fitzroy Crossi	29.77	245	LR	LR	17 13 34.0	
	comp=Z,198nm,18.6s,baz=42,slow=37						
FITZ	Fitzroy Crossi	29.77	245	P	P	17 01 09.8	-1.1
FITZ	Fitzroy Crossi	29.77	245	P	P	17 01 10.3	-0.6
	comp=Z,5.8nm,0.8s						
BBOO	Buckleboo	30.89	210	P	P	17 01 19.8	-0.8
BBSI	Bau Bau	31.11	270	P	P	17 01 26.8	+4.0
	comp=Z,30nm,1.1s,comp=Z,30nm,1.1s						
DAV	Davao City (W)	31.29	295	LR	LR	17 11 36.8	
	comp=Z,21nm,21.3s,baz=223,slow=32						
MMRI	Maumere	31.39	264	P	P	17 01 24.0	-1.2
MMRI	Maumere	31.39	264	P	P	17 01 46.6	+21
EDFI	Ende, Flores	31.93	264	P	P	17 01 28.1	-2.0
	comp=Z,23nm,0.8s						
BSSI	Bau Bau, Buton	33.15	269	P	P	17 01 45.3	+4.6
TOLI2	Tolitoli	33.87	282	P	P	17 01 49.0	+2.0
TOLI2	Tolitoli	33.87	282	P	P	17 01 46.5	-0.5
TOLI2	Tolitoli	33.87	282	P	P	17 01 47.5	+0.5
	comp=Z,8.7nm,1.2s						
FORT	Forrest	34.10	222	P	P	17 01 48.2	-0.6
FORT				IAmb	IAmb	17 02 39.9	
	comp=Z,19nm,1.0s						
PCI	Palu	34.39	278	P	P	17 01 57.5	+6.0
PLAI	Plampang	35.80	264	P	P	17 02 04.9	+1.2
BKZ	Black Stump Fm	38.32	151	P	P	17 02 24.7	-0.2
MEEK	Meekatharra	38.99	235	P	P	17 02 29.7	-1.0
	comp=Z,21nm,1.7s						
MRZ	Mangatainoka R	39.09	153	P	P	17 02 31.8	+0.5
MRZ				IAmb	IAmb	17 02 47.9	
	comp=Z,107nm,2.0s						
JAGI	Jajag, Banyuwa	39.38	265	P	P	17 02 32.7	-1.3
JAGI				IAmb	IAmb	17 03 32.4	
	comp=Z,69nm,1.5s						
RPZ	Rata Peaks	39.94	160	LR	LR	17 17 26.6	
	comp=Z,42nm,19.2s,baz=292,slow=34						
JHJ2	Mitsune	41.68	342	P	P	17 02 52.5	-0.2
MORW	Morawa	42.07	233	P	P	17 02 55.0	-1.0
MORW				IAmb	IAmb	17 03 17.2	
	comp=Z,66nm,1.5s						
MORW	Morawa	42.07	233	P	P	17 02 55.1	-0.9
	comp=Z,49nm,2.8s						
TPUB	Ta-pu	44.00	314	P	P	17 03 11.6	-0.1
JMN	Monobe	44.34	336	P	P	17 03 14.8	+0.4
JMN				IAmb	IAmb	17 03 15.2	
	comp=Z,34nm,1.4s						
INU	Inuyama	44.63	340	P	P	17 03 15.9	-0.6
INU				IAmb	IAmb	17 03 18.3	
	comp=Z,33nm,1.7s						
INU	Inuyama	44.63	340	P	P	17 03 15.2	-1.3
	comp=Z,13nm,0.8s						
JGF	Kuroka	44.75	341	P	P	17 03 17.0	-0.6
JGF				IAmb	IAmb	17 03 22.4	
	comp=Z,14nm,1.1s						
JGF	Kuroka	44.75	341	P	P	17 03 17.6	+0.1
	comp=Z,13nm,0.9s						
MJAR	Matsushiro Arr	45.35	342	P	P	17 03 20.3	-2.0
	comp=Z,4.4nm,0.8s,baz=178,slow=8.9,SNR=20						
MJAR				PcP	PcP	17 05 01.8	0.0
	comp=Z,2.0nm,0.8s,baz=169,slow=4.2,SNR=4.7						
MJAR				LR	LR	17 20 07.6	
	comp=Z,20nm,20.4s,baz=154,slow=33						
	comp=Z,4.4nm,0.8s						
MJAR	Matsushiro Arr	45.35	342		P	17 03 21.5	-0.7
MAJO	Matsushiro	45.35	342	P	P	17 03 20.5	-1.7
MAJO	Matsushiro	45.35	342	P	P	17 03 20.6	-1.7
	comp=Z,10nm,0.8s						
MJB9	Matsu-Tunnel	45.35	342	P	P	17 03 20.6	-1.8
TNG	Tangerang	46.89	268	P	P	17 03 46.9	+12
RAR	Rarotonga	47.12	113	P	P	17 03 36.0	-0.4
JTM	Tenmabayashi	48.59	347	P	P	17 03 47.2	-0.3
KSRS	Korea Array	50.06	333	P	P	17 03 57.8	-1.0
	comp=Z,7.0nm,1.0s,baz=146,slow=8.3,SNR=23						
	comp=Z,7.0nm,1.0s						
KSAR	Wonju Array Be	50.07	333	P	P	17 03 58.7	-0.1
INCN	Inchon	50.68	332	P	P	17 04 04.8	+1.2
	comp=Z,34nm,1.1s						
NJ2	Nanjing	50.88	321	*e*P	P	17 04 06.6	+1.4
NJ2				pmax	pmax		
	comp=Z,13nm,0.7s						
JKA	Kamikawa-asahi	51.49	350	P	P	17 04 10.2	+0.7
JKA	Kamikawa-asahi	51.49	350	P	P	17 04 10.2	+0.7
	comp=Z,19nm,1.1s						
ASAJ	Asahikawa	51.49	350	LR	LR	17 22 16.2	
	comp=Z,30nm,21.1s,baz=86,slow=32						
WHN	Wuhan	52.86	317	P	P	17 04 21.0	+1.0
YSS	Yuzhno-Sakhali	54.22	351	P	P	17 04 29.9	+0.3
DL2	Dalian	54.24	329	P	P	17 04 30.4	+0.5
DL2				pmax	pmax		
	comp=Z,21nm,0.7s						
USA0B	Ussuriysk Arra	54.27	341	IAmb	IAmb	17 04 31.5	
	comp=Z,13nm,0.9s						
USRK	Ussuriysk Ar.	54.27	341	P	P	17 04 29.4	-0.6
	comp=Z,8.7nm,0.8s,baz=177,slow=8.5,SNR=32						
	comp=Z,8.7nm,0.8s						
USRK	Ussuriysk Ar.	54.27	341	P	P	17 04 29.9	-0.2
TIA	Tai'an	54.77	324	P	P	17 04 34.4	+0.6
TIA				pP	sP	17 04 37.9	+2.5
TIA				sP	pwP	17 04 41.5	-2.0
TIA				pmax	pmax		
	comp=Z,11nm,1.1s						
MDJ	Mudanjiang	55.46	339	P	P	17 04 38.8	+0.2
MDJ				pmax	pmax		
	comp=Z,14nm,0.9s						
ENH	Enshi	56.13	313	P	P	17 04 43.8	-0.1
	comp=Z,8.1nm,1.3s						
CN2	Changchun	56.35	336	*e*P	P	17 04 44.9	-0.2
CN2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
BNX	BinXian	57.21	338	⇑P	P	17 04 51.4	+0.3
BNX				pmax	pmax		
	comp=Z,33nm,0.9s						
BJI2	Beijing	57.94	326	P	P	17 04 56.9	+0.5
BJI2				pmax	pmax		
	comp=Z,5.0nm,0.5s						
XAN	Xi'an	58.63	317	P	P	17 05 01.5	+0.1
XAN				pmax	pmax		
	comp=Z,5.0nm,0.8s						
PEA0B	Petropavlovsk-	59.56	3	P	P	17 05 07.3	-0.2
PETK	Petropavlovsk-	59.56	3	P	P	17 05 07.5	0.0
	comp=Z,5.9nm,0.8s,baz=145,slow=6.1,SNR=26						
PETK				LR	LR	17 25 45.2	
	comp=Z,30nm,20.8s,baz=161,slow=31						
	comp=Z,5.9nm,0.8s						
PETK	Petropavlovsk-	59.56	3	P	P	17 05 07.3	-0.1
CMAR	Chiang Mai Arr	59.58	296	P	P	17 05 08.6	+0.3
	comp=Z,4.6nm,0.9s,baz=115,slow=4.9,SNR=16						
CMAR				LR	LR	17 31 35.1	
	comp=Z,10nm,18.9s,baz=180,slow=37						
	comp=Z,4.6nm,0.9s						
CMAR	Chiang Mai Arr	59.58	296		P	17 05 07.3	-1.0
PZH	PanZhiHua	60.25	305	P	P	17 05 15.1	+2.2
CD2	Chengdu	60.69	311	*e*P	P	17 05 15.3	-0.4
XLT	XiLinHaoTe	60.73	330	*e*P	P	17 05 16.5	+0.7
XLT				sP	pwP	17 05 23.5	-1.9
XLT				pmax	pmax		
	comp=Z,26nm,0.7s						
HEH	HeiHe	61.08	341	*e*P	P	17 05 17.8	-0.1
HEH				pmax	pmax		
	comp=Z,16nm,0.9s						
HHC	Hu-ho-hao-te	61.10	324	*e*P	P	17 05 19.3	+0.9
HHC				pmax	pmax		
	comp=Z,13nm,0.5s						
HHC				pmax	pmax		
	comp=Z,77nm,4.5s						
LZDM	Lanzhou Array	63.27	316	P	P	17 05 34.2	+1.0
	comp=Z,2.9nm,0.4s,baz=111,slow=8.1,SNR=3.8						
	comp=Z,2.9nm,0.4s						
HILR	Hailar Array B	63.31	336	P	P	17 05 34.2	+1.3
	comp=Z,5.4nm,0.6s,baz=200,slow=7.9,SNR=4.0						
	comp=Z,5.4nm,0.6s						
MA2	Magadan	66.00	358	LR	LR	17 34 14.4	
	comp=Z,17nm,19.1s,baz=348,slow=36						
CASY	Casey	66.62	198	P	P	17 05 54.4	+0.3
CASY				IAmb	IAmb	17 06 10.1	
	comp=Z,23nm,1.8s						
GTA2	Gaotai	67.75	317	*e*P	P	17 06 02.8	+0.8
GTA2				pmax	pmax		
	comp=Z,4.0nm,1.3s						
ULN	Ulaanbaatar	68.06	328	P	P	17 06 05.3	+1.5
	comp=Z,8.9nm,0.9s						
SONM	Songino Array	68.39	328	P	P	17 06 07.3	+1.5
	comp=Z,5.7nm,0.8s,baz=133,slow=5.9,SNR=25						
	comp=Z,5.7nm,0.8s						
SONM	Songino Array	68.39	328		P	17 06 06.2	+0.4
SONM				IAmb	IAmb	17 06 08.2	
	comp=Z,7.5nm,1.0s						
YAK	Yakutsk	70.93	348		P	17 06 21.6	+0.6
YAK	Yakutsk	70.93	348	P	P	17 06 21.4	+0.4
	comp=Z,24nm,1.7s						
VNDA	Vanda	71.01	178	P	P	17 06 21.4	+0.1
	comp=Z,1.2nm,0.9s,baz=337,slow=2.7,SNR=5.1						
	comp=Z,1.2nm,0.9s						
S12K	Black Hills	71.95	24	P	P	17 06 27.1	-0.2
BILL	Bilibino	74.98	5	P	P	17 06 45.0	+0.1
M14K	Bethel	75.50	21	P	P	17 06 48.5	+0.5
J16K	Anvik River	77.72	19	P	P	17 07 01.2	+0.6
J16K				IAmb	IAmb	17 08 13.7	

	comp=Z,30nm,1.4s						
WMQ	Urumqi	77.76	317	eP	P	17 07 03.3	+2.0
HYB	Hyderabad	78.06	289	eP	P	17 07 02.8	-0.6
HYB				ePcP	pwP	17 07 12.4	0.0
HYB				ePP	PP	17 09 59.0	-0.9
HYB				eS	S	17 16 58.3	+0.2
HYB				eScS	ScS	17 17 22.4	-1.5
L19K	White Mountain	79.01	22	IAmb	IAmb	17 08 08.2	
	comp=Z,31nm,1.9s						
F17K	Baldwin Pennin	79.73	17	P	P	17 07 12.7	+1.1
F17K				IAmb	IAmb	17 09 52.0	
	comp=Z,24nm,1.5s						
K20K	Telida	80.02	21	P	P	17 07 13.6	+0.4
J20K	Nowinta River	80.49	20	P	P	17 07 15.9	+0.2
J20K				IAmb	IAmb	17 09 50.2	
	comp=Z,23nm,1.9s						
CAST	Castle Rocks	80.77	22	IAmb	IAmb	17 09 01.1	
	comp=Z,23nm,1.9s						
ZSN	Zaisan	80.90	320	eP	P	17 07 18.8	+0.4
GLI	Glacier Island	81.36	25	P	P	17 07 20.1	-0.3
GLI				IAmb	IAmb	17 07 33.1	
	comp=Z,12nm,0.8s						
E19K	Redstone River	81.58	17	IAmb	IAmb	17 07 22.7	
	comp=Z,7.3nm,0.6s						
IMAR	Indian Mountai	81.72	19		P	17 07 22.1	-0.2
I21K	Tanana	81.84	20	IAmb	IAmb	17 09 49.6	
	comp=Z,29nm,1.9s						
MLY	Manley	82.18	21	P	P	17 07 24.1	-0.7
MLY				IAmb	IAmb	17 07 25.1	
	comp=Z,4.3nm,0.5s						
MKAR	Makanchi Array	82.35	319	P	P	17 07 26.3	+0.2
	comp=Z,2.2nm,0.6s,baz=94,slow=7.3,SNR=21						
	comp=Z,2.2nm,0.6s						
MKAR	Makanchi Array	82.35	319		P	17 07 25.7	-0.3
WUS	Wushi	82.88	313	P	P	17 07 30.4	+1.3
	comp=Z,5.4nm,2.0s						
GLB	Gilahina Butte	83.02	25	P	P	17 07 28.8	-0.4
GLB				IAmb	IAmb	17 09 48.4	
	comp=Z,33nm,2.0s						
ZAA0	Zalesovo Array	83.21	326	IAmb	IAmb	17 07 34.8	
	comp=Z,6.2nm,0.8s						
ZALV	Zalesovo Beam	83.21	326	P	P	17 07 29.6	-0.7
	comp=Z,3.7nm,0.4s,baz=113,slow=6.0,SNR=20						
	comp=Z,3.7nm,0.4s						
ZALV	Zalesovo Beam	83.21	326		P	17 07 29.7	-0.6
HDA	Harding Lake	83.22	22	IAmb	IAmb	17 07 30.6	
	comp=Z,19nm,1.7s						
SHLS	Shalkode	83.22	315	eP	P	17 07 29.4	-1.4
	comp=Z,7.1nm,1.5s						
G23K	Bananza Creek	83.37	19	P	P	17 07 30.8	-0.1
G23K				IAmb	IAmb	17 10 05.4	
	comp=Z,12nm,1.8s						
QSPA	South Pole Qui	83.38	180	P	P	17 07 30.8	-0.3
	comp=Z,5.9nm,1.1s,baz=278,slow=1.7,SNR=8.3						
	comp=Z,5.9nm,1.1s						
QSPA	South Pole Qui	83.38	180		P	17 07 31.1	-0.1
QSPA				IAmb	IAmb	17 07 43.2	
	comp=Z,8.2nm,1.1s						
IL31		83.43	22	IAmb	IAmb	17 09 14.0	
	comp=Z,13nm,1.6s						
ILAR	Eielson Array	83.43	22	P	P	17 07 29.4	-1.8
	comp=Z,2.0nm,0.5s,baz=247,slow=5.0,SNR=29						
ILAR				LR	LR	17 44 34.6	
	comp=Z,22nm,18.4s,baz=258,slow=36						
	comp=Z,2.0nm,0.5s						
UZB	Uzynbulak	83.53	315	eP	P	17 07 32.6	+0.2
	comp=Z,10nm,1.6s						
H24K	Noodor Dome	83.63	21	IAmb	IAmb	17 09 28.0	
	comp=Z,16nm,1.9s						
PRZ	Przheval'sk	83.80	314	P	P	17 07 35.3	+1.4
	comp=Z,9.8nm,1.0s						
KPKS	Kokpek	83.85	315	eP	P	17 07 34.4	+0.5
J25K	Salcha River,	83.91	22	IAmb	IAmb	17 07 34.0	
	comp=Z,19nm,1.4s						
SATY	Saty	83.95	314	eP	P	17 07 35.0	+0.5
	comp=Z,11nm,2.0s						
M27K	Edge Creek, AK	84.25	25	P	P	17 07 35.8	+0.2
M27K				IAmb	IAmb	17 07 40.0	
	comp=Z,18nm,1.6s						
MAW	Mawson	84.32	203	P	P	17 07 35.9	+0.1
	comp=Z,1.1nm,0.5s,baz=214,slow=2.9,SNR=3.9						
	comp=Z,1.1nm,0.5s						
TDK	Taldyqorghan	84.44	316	eP	P	17 07 37.5	+0.6
	comp=Z,4.0nm,0.6s						
F24K	Squaw Lake	84.51	19	IAmb	IAmb	17 07 38.1	
	comp=Z,5.8nm,1.1s						
KDJ	Kajisay	84.59	313	P	P	17 07 37.1	-0.7
KDJ				IAmb	IAmb	17 07 43.0	
	comp=Z,7.9nm,0.8s						
KDJ	Kajisay	84.59	313	P	P	17 07 38.9	+1.1
	comp=Z,10.0nm,0.8s						
ASAI	AK-SAY(Kyrgyzs	84.79	312	P	P	17 07 39.9	+0.8
	comp=Z,3.5nm,0.9s						
MDOK	Medeo	84.94	314	eP	P	17 07 39.9	+0.3
C23K	Itkillik River	84.96	17	P	P	17 07 39.1	+0.3
TNSS	Tian-Shan	84.98	314	eP	P	17 07 40.2	+0.2
AAA	Alma-Ata	85.04	314	eP	P	17 07 40.4	+0.5
	comp=Z,7.7nm,0.9s						
KSH2	Kashi	85.11	310	P	P	17 07 41.5	+1.0
KSH2				pmax	pmax		
	comp=Z,4.0nm,1.0s						
BOOM	Boomskoye usch	85.57	313	IAmb	IAmb	17 07 52.1	
	comp=Z,7.6nm,1.0s						
BOOM	Boomskoye usch	85.57	313	P	P	17 07 43.3	+0.5
	comp=Z,7.5nm,1.0s						
KUU	Kurty	85.61	315	eP	P	17 07 43.2	+0.5
G26K	Porcupine Rive	85.61	20	IAmb	IAmb	17 07 43.7	
	comp=Z,6.2nm,0.8s						
KURK	Kurchatov	85.81	322		P	17 07 43.3	-0.2
KURK				IAmb	IAmb	17 07 48.1	
	comp=Z,8.7nm,1.2s						
KURK	Kurchatov	85.81	322	P	P	17 07 43.8	+0.3
	comp=Z,5.4nm,0.4s						
KURBB	Kurchatov Arra	85.84	322	P	P	17 07 42.8	-0.8
	comp=Z,1.5nm,0.5s,baz=97,slow=5.2,SNR=20						
	comp=Z,1.5nm,0.5s						
L29M	L29M	86.14	25	P	P	17 07 45.6	+0.7
I28M	Miner Creek	86.35	23	IAmb	IAmb	17 08 07.0	
	comp=Z,17nm,1.8s						
AAK	Ala-Archa	86.65	313	P	P	17 07 48.7	+0.6
	comp=Z,3.1nm,0.7s						
K29M	Barlow Dome	86.67	24	IAmb	IAmb	17 09 29.0	
	comp=Z,9.9nm,1.4s						
SGDS	Sogindy	86.72	314	eP	P	17 07 48.4	+0.1
I29M	Ogilvie Camp,	86.94	23	IAmb	IAmb	17 07 52.6	
	comp=Z,4.0nm,0.7s						
J30M	Hart River	87.42	24	P	P	17 07 51.7	+0.5
J30M				IAmb	IAmb	17 07 55.2	
	comp=Z,3.5nm,0.7s						
ARSB	Arslanbob	87.49	312	IAmb	IAmb	17 08 04.8	
	comp=Z,8.1nm,1.1s						
BBB	Bella Bella	87.89	37	LR	LR	17 42 23.3	
	comp=Z,25nm,18.5s,baz=206,slow=32						
NRIK	Noril'sk	87.99	341	P	P	17 07 52.0	-1.8
	comp=Z,7.9nm,0.6s,baz=128,slow=6.0,SNR=5.8						
	comp=Z,7.9nm,0.6s						
ARK	Arkit	88.33	312	P	P	17 07 57.0	+0.9
	comp=Z,4.7nm,1.4s						
H31M	Peel River	88.64	23	P	P	17 07 56.9	0.0
H31M				IAmb	IAmb	17 08 09.8	
	comp=Z,17nm,1.5s						
DZA	Taraz	88.98	313	eP	P	17 07 59.5	+0.5
YBH	Yreka Blue Hor	89.47	48	LR	LR	17 44 02.0	
	comp=Z,56nm,18.4s,baz=286,slow=33						
KKAR	Karatay Array	89.61	313	P	P	17 08 01.7	-0.3
IUG	Iuzhnay	89.81	312	eP	P	17 08 03.2	+0.1
BRLS	Borolday	90.09	313	eP	P	17 08 05.0	+0.8
CHM	Chimkent	90.15	312	eP	P	17 08 04.8	+0.2
BVAR	Borovoye Array	91.29	323	P	P	17 08 09.1	-0.4
	comp=Z,2.6nm,0.6s,baz=110,slow=4.0,SNR=13						
	comp=Z,2.6nm,0.6s						
BORK	Borovoye	91.34	323		P	17 08 09.3	-0.5
NVAR	Mina Array Bea	92.37	52	P	P	17 08 14.6	-0.7
	comp=Z,1.3nm,0.8s,baz=263,slow=6.0,SNR=7.6						
NVAR				LR	LR	17 47 09.9	
	comp=Z,22nm,18.1s,baz=86,slow=34						
	comp=Z,1.3nm,0.8s						
KVN	Kaiserville	92.60	51	P	P	17 08 15.3	-1.0
KVN				IAmb	IAmb	17 11 39.2	
	comp=Z,12nm,2.0s						
PFO	Pinyon Flats O	93.35	57	LR	LR	17 43 21.6	
	comp=Z,32nm,19.6s,baz=182,slow=31						
NEW	Newport	94.23	42	LR	LR	17 46 06.2	
	comp=Z,55nm,18.5s,baz=272,slow=32						
PDAR	Pinedale Array	99.28	48	P	Pdif	17 08 45.2	-1.3
	comp=Z,0.4nm,0.7s,baz=268,slow=5.1,SNR=4.2						
PDAR				LR	LR	17 45 28.4	
	comp=Z,28nm,21.4s,baz=291,slow=30						
	comp=Z,0.4nm,0.7s						
VYHS	Vyhne	123.54	326	ePKP	PKiKP	17 14 03.1	+1.2
GERES	GERESS Array B	126.12	328	PKP	PKiKP	17 14 07.3	+0.1
	comp=Z,0.7nm,0.5s,baz=63,slow=0.6,SNR=7.4						
LPAZ	La Paz	132.65	119	PKP	PKPdf	17 14 21.4	+0.6
	comp=Z,2.3nm,1.0s,baz=258,slow=1.3,SNR=5.9						
LPAZ	La Paz	132.65	119		PKPdf	17 14 18.6	-2.1
CPUP	Villa Florida	135.44	139	PKP	PKPdf	17 14 24.0	-1.0
	comp=Z,1.6nm,0.4s,baz=210,slow=5.3,SNR=4.4						
PVIS	Viseu	142.30	337	ePKPdf	PKPdf	17 14 36.9	-0.2
MTE	Manteigas	142.44	336	ePKPdf	PKPdf	17 14 38.0	+0.6
PSARD	Sardoal	143.37	336	ePKPdf	PKPbc	17 14 37.0	+0.9
PSBE	So Bento	143.69	337	ePKPdf	PKPbc	17 14 37.7	+0.7
PMTG	Montargil	143.84	336	ePKPdf	PKPbc	17 14 38.8	+1.4
PBAR	Barrancos	144.10	334	ePKPdf	PKPbc	17 14 39.0	+0.8
EVO	Evora	144.22	335	ePKPdf	PKPbc	17 14 39.4	+0.8
MESJ	Messejana	144.89	335	ePKPdf	PKPab	17 14 39.8	-0.9
MESJ	Messejana	144.89	335	ePKPdf	PKPdf	17 14 42.0	+0.3
MESJ	Messejana	144.89	335		PKPab	17 14 40.7	0.0
PCVE	Castro Verde	144.99	335	ePKPdf	PKPbc	17 14 41.4	+0.4
PVAQ	Vaqueiros	145.04	334	ePKPdf	PKPdf	17 14 42.2	+0.3
PTEO	Sao Teotonio	145.35	335	ePKPdf	PKPdf	17 14 43.8	+1.3
BDFB	Brasilia	149.07	136	PKPbc	PKPbc	17 14 53.6	+0.1
	comp=Z,3.1nm,0.7s,baz=103,slow=1.3,SNR=4.0						
TORD	Torodi Ar. Bea	151.82	286	PKPbc	PKPbc	17 14 59.5	-0.5
	comp=Z,5.9nm,0.6s,baz=65,slow=2.7,SNR=27						
TORD	Torodi Ar. Bea	151.82	286		PKPbc	17 14 59.9	-0.1

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*IDC **20** 17:18:26.8±1.6, 24°.23S×67°.14W, h148^{km}±15^{km}, mb3.6/6, mbtmp4.1/12, Error ellipse: s-maj=22.6km s-min=11.7km az=98.0*

*SJA **20** 17:18:27.5±0.7, 24°.31S×67°.36W, h184^{km}±6^{km}, ML4.2, MW4.0*

*NEIC **20** 17:18:27.7±2.0, 24°.37S±0°.06×67°.25W±0°.10, h172^{km}±7^{km}, mb4.3/10, Mwr4.2(GUC), Error ellipse: s-maj=13.0km s-min=9.3km az=93.0*

*GUC **20** 17:18:28.8±0.6, 24°.24S×67°.33W, h182^{km}±6^{km}, ML4.7*

*VAO **20** 17:18:31.4±1.2, 24°.14S×67°.07W, h188^{km}, mb4.2, Presumed earthquake*

ISC 20 17:18:27.7±0.6**, 24°.28S**±0°.03×**67°.33W**±0°.04**, h177**^{km}±6^{km}**, n115,** σ1^{s}**64**/141**, mb4.1**/10**, 8C-2D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SALTA		0.91	87	eP	Pn	17 18 55.7	+0.7
SALTA				eP		17 18 56.0	
AF01	San Pedro de A	1.53	329	eP	Pn	17 19 02.3	+2.3
AF01				eS	Sn	17 19 11.1	-14
AF01				IAML		17 19 34.2	
	comp=Z,1µm,0.1s						
AF01	San Pedro de A	1.53	329⇓	eP	Pn	17 19 01.9	+1.9
AF01	San Pedro de A	1.53	329		Pn	17 19 01.9	+1.9
SLA	San Lorenzo	1.73	105	eP	Pn	17 19 03.2	+1.4
SLA				eS	Sn	17 19 29.8	+1.6
SLA	San Lorenzo	1.73	105⇑	eP	Pn	17 19 03.2	+1.4
SLA				eS	Sn	17 19 28.9	+0.7
FSA	Cafayete	2.20	146	eP	Pn	17 19 08.1	+1.1
PB06	IPOC Station P	2.58	307	eP	Pn	17 19 12.7	+1.4
PB06				eS	Sn	17 19 45.4	+0.1
PB06	IPOC Station P	2.58	307⇑	eP	Pn	17 19 12.9	+1.6
PB06				eS	Sn	17 19 45.1	-0.1
PB06	IPOC Station P	2.58	307		Pn	17 19 12.6	+1.3
YJA	Yavi	2.68	39	eP	Pn	17 19 15.0	+2.3
YJA				eS	Sn	17 19 48.5	+0.8
YJA	Yavi	2.68	39	eP	Pn	17 19 14.2	+1.4
YJA				eS	Sn	17 19 47.9	+0.1
PB14	IPOC Station P	2.82	262	eP	Pn	17 19 15.6	+1.3
PB14				eS	Sn	17 19 50.3	-0.2
PB14				IAML		17 19 52.8	
	comp=Z,343nm,0.5s						
PB14	IPOC Station P	2.82	262⇑	eP	Pn	17 19 15.3	+1.1
PB14				eS	Sn	17 19 50.1	-0.4
PB14				IAML		17 19 52.1	
	comp=E,542nm,0.4s						
PB14	IPOC Station P	2.82	262		Pn	17 19 15.4	+1.1
PB05	IPOC Station P	2.99	298	eP	Pn	17 19 17.2	+1.1
PB05				eS	Sn	17 19 53.5	-0.4
PB05				IAML		17 19 58.1	
	comp=Z,977nm,0.2s						
PB05	IPOC Station P	2.99	298⇑	eP	Pn	17 19 17.2	+1.1
PB05				eS	Sn	17 19 52.6	-1.3
PB05				IAML		17 19 55.4	
	comp=E,1µm,0.4s						
PB05	IPOC Station P	2.99	298		Pn	17 19 17.3	+1.1
AC02	Maricunga	3.02	212	eP	Pn	17 19 18.7	+1.8
AC02				eS	Sn	17 19 54.2	-1.1
AC02	Maricunga	3.02	212⇑	eP	Pn	17 19 18.6	+1.8
AC02				eS	Sn	17 19 56.8	+1.6
AC02	Maricunga	3.02	212		Pn	17 19 18.5	+1.6
PB09	IPOC Station P	3.03	324	eP	Pn	17 19 18.7	+1.9
PB09				eS	Sn	17 19 55.8	+0.8
PB09				IAML		17 19 56.3	
	comp=Z,1µm,0.9s						
PB09	IPOC Station P	3.03	324⇓	eP	Pn	17 19 18.5	+1.8
PB09				eS	Sn	17 19 55.6	+0.6
PB09				IAML		17 20 01.0	
	comp=E,1µm,0.6s						
PB09	IPOC Station P	3.03	324		Pn	17 19 18.5	+1.8
AHML	Horco Molle	3.08	145	eP	Pn	17 19 17.6	+0.4
AHML				eS	Sn	17 19 54.2	-1.7
PB03	IPOC Station P	3.14	314	eP	Pn	17 19 19.2	+1.1
PB03				eS	Sn	17 19 56.5	-0.9
PB03	IPOC Station P	3.14	314⇑	eP	Pn	17 19 19.2	+1.1
PB03				eS	Sn	17 19 56.5	-0.9
PB03				IAML		17 19 58.5	
	comp=E,2µm,0.2s						
PB03	IPOC Station P	3.14	314		Pn	17 19 18.6	+0.5
PB07	IPOC Station P	3.46	317	eP	Pn	17 19 23.0	+1.0
PB07				eS	Sn	17 20 03.7	-0.7
PB07				IAML		17 20 04.3	
	comp=Z,931nm,0.3s						
PB07	IPOC Station P	3.46	317	eP	Pn	17 19 23.0	+1.0
PB07				eS	Sn	17 20 02.8	-1.7
PB07	IPOC Station P	3.46	317		Pn	17 19 23.0	+1.0
AC01	Pan de Azucar	3.50	237	eP	Pn	17 19 22.6	+0.2
AC01				eS	Sn	17 20 03.7	-1.3
AC01				IAML		17 20 04.9	
	comp=Z,290nm,0.5s						
AC01	Pan de Azucar	3.50	237⇑	eP	Pn	17 19 22.5	+0.2
AC01	Pan de Azucar	3.50	237		Pn	17 19 22.5	+0.2
PB02	IPOC Station P	3.77	321	eP	Pn	17 19 26.8	+0.8
PB02				eS	Sn	17 20 10.3	-1.1
PB02	IPOC Station P	3.77	321		Pn	17 19 26.5	+0.6
TINO	Tinogasta	3.78	183	eP	Pn	17 19 28.0	+2.1
AC06	Mina Casimiro	4.10	221⇑	eP	Pn	17 19 29.9	-0.1
AC06	Mina Casimiro	4.10	221		Pn	17 19 29.5	-0.4
GO03	Copiapo	4.21	218	eP	Pn	17 19 31.6	+0.2
GO03				eS	Sn	17 20 20.9	-0.5
GO03				IAML		17 20 23.9	
	comp=Z,246nm,0.3s						
GO03	Copiapo	4.21	218		Pn	17 19 31.2	-0.2
CYA	Choya	4.37	162	eP	Pn	17 19 34.7	+1.3
CYA				eS	Sn	17 20 18.6	-6.4
PB08	IPOC Station P	4.45	337	Pn	Pn	17 19 35.7	+0.9
VCA	Vinchina	4.51	190	eP	Pn	17 19 37.7	+2.4
VCA				eS	Sn	17 20 26.1	-2.4
TA02	Huaiquique	4.75	326	eP	Pn	17 19 39.2	+0.8
TA02				eS	Sn	17 20 20.8	-13
TA02				IAML		17 20 37.3	
	comp=Z,224nm,0.1s						
GO01	Chusmiza	4.90	339	eP	Pn	17 19 22.8	-18
GO01				eS	Sn	17 20 35.2	-2.7
GO01				IAML		17 20 40.7	
	comp=Z,110nm,0.2s						
GO01	Chusmiza	4.90	339		Pn	17 19 41.3	+0.5
PB11	IPOC Station P	4.98	334	eP	Pn	17 19 40.8	-0.7
PB11				eS	Sn	17 20 25.6	-14
PB11				IAML		17 20 41.0	
	comp=Z,172nm,0.2s						
PB11	IPOC Station P	4.98	334		Pn	17 19 40.9	-0.7
AC04	Llanos de Chal	5.16	220	eP	Pn	17 19 43.1	-0.5
AC04				eS	Sn	17 20 35.1	-8.1
AC04				IAML		17 20 46.2	
	comp=Z,102nm,0.5s						
AC04	Llanos de Chal	5.16	220	eP	Pn	17 19 42.4	-1.1
AC04	Llanos de Chal	5.16	220		Pn	17 19 42.7	-0.8
AC05	El Transito	5.25	209	eS	Sn	17 20 42.8	-2.8
AC05				IAML		17 20 49.1	
	comp=Z,67nm,0.3s						
AC05	El Transito	5.25	209		Pn	17 19 44.6	-0.4
LCO	Las Campanas	5.60	212		Pn	17 19 48.4	-1.1
PB12	IPOC Station P	6.29	333		Pn	17 19 56.6	-1.9
GO04	Tololo Observa	6.63	207		Pn	17 20 01.5	-1.6
CFA	Coronel Fontan	7.35	186	P	Pn	17 20 12.7	+0.3
	comp=Z,1.9nm,0.5s,baz=310,slow=12,SNR=13						
CFA				S	Sn	17 21 33.4	-1.7
	comp=Z,5.0nm,0.5s,baz=237,slow=22,SNR=13						
LPAZ	La Paz	7.98	354	P	Pn	17 20 21.8	+0.4
	comp=Z,15nm,0.5s,baz=162,slow=6.1,SNR=69						
LPAZ				S	Sn	17 21 48.1	-3.1
	comp=Z,2.4nm,0.5s,baz=224,slow=2.2,SNR=4.7						
LPAZ	La Paz	7.98	354	eP	Pn	17 20 22.3	+0.9
CPUP	Villa Florida	9.28	105	P	Pn	17 20 35.0	-2.9
	comp=Z,3.0nm,0.7s,baz=232,slow=17,SNR=5.3						
CPUP	Villa Florida	9.28	105	Pn	Pn	17 20 34.3	-3.5
CPUP	Villa Florida	9.28	105	eP	Pn	17 20 36.8	-1.0
COIM	Forte Coimbra	9.86	66	eP	Pn	17 20 43.4	-2.0
SIV	San Ignacio	10.12	37	P	Pn	17 20 46.9	-2.0
	comp=Z,4.2nm,0.3s,baz=208,slow=12,SNR=30						
SJPY	San Joaquin	10.24	96	eP	Pn	17 20 49.7	-0.7
AQDB	Aquidauana	11.41	73		Pn	17 21 06.2	+0.6
AQDB	Aquidauana	11.41	73	eP	Pn	17 21 05.0	-0.6
PTLB	Pontes e Lacer	11.68	43	eP	Pn	17 21 07.1	-2.0
VILB	Vilhena	13.13	32	eP	Pn	17 21 28.2	+0.5
PP1B	Ponte de Pedra	13.39	63	eP	Pn	17 21 29.3	-1.6
BI05	Punta Hualpn	13.41	201		Pn	17 21 30.7	-0.3
SALV	Santo Antonio	13.74	55	eP	Pn	17 21 33.9	-1.4
PTGB	Pitanga	13.91	95	eP	P	17 21 38.5	-1.6
PLCA	Paso Flores	16.63	189	P	Pn	17 22 11.7	+1.0
	comp=Z,2.5nm,0.5s,baz=359,slow=9.8,SNR=6.0						
ARAG	Araguaiana, MT	16.88	63	eP	Pn	17 22 13.0	-0.8
CLDB	Colider	17.26	41	eP	Pn	17 22 16.8	-1.6
VAO	Valinhos	18.71	90	eP	P	17 22 32.8	0.0
IPMB	Ipameri, GO	18.90	74	eP	P	17 22 34.9	-0.1
LL02	Futaleuf	19.23	190	P	P	17 22 37.1	-1.1
SNDB	Serra Nova Dou	19.52	54	eP	P	17 22 41.0	-0.6
CANS	Sao Roque de M	19.78	83	eP	P	17 22 44.0	-0.5
BDFB	Brasilia	20.07	68	P	P	17 22 47.8	+0.1
	comp=Z,22nm,0.8s,baz=240,slow=11,SNR=26						
BDFB	Brasilia	20.07	68		P	17 22 46.8	-0.9
PMNB	Patos De Minas	20.27	78	eP	P	17 22 49.2	-0.5
BSCB	Bom Sucesso	21.07	86	eP	P	17 22 57.9	-0.4
ITTB	Itaituba	22.73	31	eP	P	17 23 13.3	-1.4
JANB	Januaria	23.51	71	eP	P	17 23 21.5	-0.4
SDBA	SAO DESIDERIO	24.30	65	eP	P	17 23 28.7	-0.4
SMTB	Santa Maria do	24.30	54	eP	P	17 23 29.4	+0.4
GO08	Villa O'Higgin	24.49	188	P	P	17 23 30.7	+0.3
GO08				IAmb	IAmb	17 23 36.1	
	comp=Z,10nm,0.7s						
BOAV	Boa Vista	27.32	15	P	P	17 23 56.9	+0.7
NBPS	Pedro II - PI	31.81	56	eP	P	17 24 35.5	-0.4
NBMA	Muriti-CE	32.11	63	eP	P	17 24 38.5	+0.1
RCBR	Riachuelo	35.32	64	P	P	17 25 07.2	+1.0
RCBR				IAmb	IAmb	17 25 07.7	
	comp=Z,12nm,1.0s						
PIRO	Carate, Puerto	36.04	332	P	P	17 25 11.5	-0.8
PMSA	Palmer Station	40.55	178	P	P	17 25 46.0	-3.3
PMSA				IAmb	IAmb	17 26 00.8	
	comp=Z,4.6nm,1.1s						
VNA3	Neumayer Olymp	56.99	161	P	P	17 27 55.9	+1.5
	comp=Z,2.4nm,0.7s						
VNA2	Neumayer--Watz	57.56	160	P	P	17 28 00.4	+2.1
	comp=Z,2.5nm,0.6s,baz=284,slow=6.8						
SNAA	Sanae	59.19	161	P	P	17 28 11.7	+2.0
	comp=Z,0.8nm,0.3s,baz=255,slow=19,SNR=2.4						
	comp=Z,0.8nm,0.3s						
SNAA	Sanae	59.19	161	P	P	17 28 08.1	-1.6
SNAA				IAmb	IAmb	17 28 12.6	
	comp=Z,2.2nm,0.7s						
TXAR	Lajitas Array	63.72	325	P	P	17 28 43.0	+2.4
	comp=Z,0.2nm,0.7s,baz=107,slow=5.2,SNR=2.8						
	comp=Z,0.2nm,0.7s						
TXAR	Lajitas Array	63.72	325	P	P	17 28 43.0	+2.4
QSPA	South Pole Qui	65.93	180	P	P	17 28 57.2	+2.7
	comp=Z,3.0nm,0.6s,baz=179,slow=0.8,SNR=44						
	comp=Z,3.0nm,0.6s						
QSPA	South Pole Qui	65.93	180	P	P	17 28 57.2	+2.7
QSPA				IAmb	IAmb	17 28 58.0	
	comp=Z,3.0nm,0.6s						
VNDA	Vanda	74.38	190	P	P	17 29 49.2	+3.8
	comp=Z,0.9nm,0.8s,baz=68,slow=3.1,SNR=5.6						
	comp=Z,0.9nm,0.8s						
TORD	Torodi Ar. Bea	76.95	69	P	P	17 30 01.1	0.0
	comp=Z,1.4nm,0.7s,baz=257,slow=4.7,SNR=6.5						
	comp=Z,1.4nm,0.7s						
TORD	Torodi Ar. Bea	76.95	69	P	P	17 29 58.5	-2.6
MAW	Mawson	81.26	163	P	P	17 30 26.7	+3.1
	comp=Z,1.9nm,0.6s,baz=223,slow=5.7,SNR=3.7						
	comp=Z,1.9nm,0.6s						
ASAR	Alice Springs	128.08	205	PKP	PKiKP	17 37 15.3	+1.4
	comp=Z,0.9nm,0.8s,baz=146,slow=2.2,SNR=10						
WRA	Warramunga Arr	131.24	208	PKP	PKiKP	17 37 21.1	+0.7
	comp=Z,0.3nm,0.5s,baz=153,slow=1.8,SNR=10.0						
MKAR	Makanchi Array	146.93	40	PKPbc	PKiKP	17 37 51.5	-0.1
	comp=Z,0.9nm,0.6s,baz=305,slow=3.8,SNR=7.8						
HHC	Hu-ho-hao-te	163.45	3	eP	PKPdf	17 38 03.1	-6.3
PZH	PanZhiHua	169.88	75	P	PKPdf	17 38 12.8	-1.9
NJ2	Nanjing	170.53	326	eP	PKPdf	17 38 13.6	-1.1
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.7s						

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*IDC **20** 17:23:14.2±3.3, 4°.02N×128°.06E, h0^{km}, mb3.6/4, mbtmp3.7/4, Error ellipse: s-maj=104.8km s-min=57.1km az=88.0*

*DJA **20** 17:23:46.5±0.7, 3°N±9°×12°8E±°, h234^{km}±7^{km}, M3.8/7, mB4.8/1, mB4.8/1, mb4.2/3, mb4.2/3, MLv3.5/7, MLv3.2/3, Mw(mB)4.1/1, Mw(mB)4.1/1, MwMwp5.2/1, MwMwp5.2/1, Mwp5.4/1, Mwp5.4/1*

ISC 20 17:23:46.3±1.2**, 3°.1N**±0°.1×**128°.3E**±0°.2**, h250**^{km}**, n7,** σ1^{s}**42**/8**, mb3.5**/4**, North of Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MNI	Manado	3.80	244	P	Pn	17 24 48.0	+0.2
MNI				AML	AML		
BIPH	Bislig	5.40	339	eP	Pn	17 25 06.0	-1.1
BIPH				eS	S	17 26 05.3	-6.2
NLAI	Namlea	6.40	191	P	Pn	17 25 18.1	-1.4
	23nm,0.7s						
FITZ	Fitzroy Crossi	21.22	187	P	P	17 28 12.9	-0.3
	1.9nm,1.0s,baz=356,slow=8.6,SNR=11						
	1.9nm,1.0s						
WRA	Warramunga Arr	23.66	166	P	P	17 28 35.8	+0.2
	0.4nm,0.3s,baz=342,slow=9.2,SNR=27						
	0.4nm,0.3s						
ASAR	Alice Springs	27.16	169	P	P	17 29 07.2	+0.2
	0.5nm,0.7s,baz=347,slow=6.8,SNR=29						
ASAR				PcP	PcP	17 32 23.4	+2.6
	0.2nm,0.4s,baz=346,slow=2.4,SNR=7.5						
	0.5nm,0.7s						
STKA	Stephens Creek	37.02	161	P	P	17 30 32.6	+0.2
	1.0nm,0.4s,baz=339,slow=9.9,SNR=5.7						
	1.0nm,0.4s						

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*NEIC **20** 17:31:02.4±2.2, 31°.49N±0°.02×115°.68W±0°.02, h10^{km}±2^{km}, ML3.6/36, ML3.9/73(PAS), Error ellipse: s-maj=3.1km s-min=3.1km az=224.0*

*ECX **20** 17:31:03.2±0.4, 31°.48N×115°.65W, h5^{km}±1^{km}, MD3.5, ML3.7*

*PAS **20** 17:31:03.2±2.4, 31°.48N±0°.02×115°.71W±0°.02, h12^{km}±7^{km}, Error ellipse: s-maj=3.1km s-min=2.6km az=145.0*

*MEX **20** 17:31:04.2±0.4, 31°.46N×115°.57W, h21^{km}±999^{km}, MD4.1, Presumed earthquake*

ISC 20 17:31:01.7±0.9**, 31°.49N**±0°.03×**115°.63W**±0°.02**, h15**^{km}±7^{km}**, n51,** σ0^{s}**94**/74**, 14C-7D, Baja California**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VTX	Valle De La Tr	0.16	232⇑	iP	Pg	17 31 06.2	+0.3
VTX				eS	Sg	17 31 08.4	-0.3
VTX				IAML		17 31 09.0	
	comp=E,14µm,0.2s						
VTX			⇑	e		17 31 09.0	
VTX				IAML		17 31 09.7	
	comp=N,13µm,0.1s						
VTX			⇑	e		17 31 09.7	
VTX	Valle De La Tr	0.16	232		Pg	17 31 06.2	+0.3
VTX				IAML		17 31 09.0	
	comp=E,18µm,0.3s						

VTX				IAML		17 31 09.0	
	comp=N,15µm,0.3s						
SJX	**San Joaquin**	**0.39**	**314**	⇓*e*P	**Pn**	**17 31 13.5**	**+0.7**
SJX				*e*S	**Sb**	**17 31 21.3**	**+5.3**
SJX				⇓*e*		17 31 21.7	
SJX				IAML		17 31 21.7	
	comp=N,4µm,0.2s						
ECBX	**El Chinero**	**0.50**	**92**	⇑*i*P	**Pb**	**17 31 12.4**	**+0.3**
ECBX				*e*S	**Sg**	**17 31 19.2**	**+0.9**
ECBX				⇑*e*		17 31 22.8	
ECBX				IAML		17 31 22.8	
	comp=N,3µm,0.4s						
ALAMX	**Rancho Alamar**	**0.52**	**353**	⇓*i*P	**Pb**	**17 31 12.6**	**0.0**
ALAMX				*e*S	**Sb**	**17 31 19.9**	**0.0**
ALAMX				⇓*e*		17 31 23.9	
ALAMX				IAML		17 31 23.9	
	comp=E,4µm,0.3s						
SV2X	**San Vicente**	**0.54**	**254**	⇑*i*P	**Pg**	**17 31 12.6**	**+0.2**
SV2X				*e*S	**Sg**	**17 31 19.5**	**-0.1**
ESJX	**Sierra Juarez**	**0.58**	**332**		**Pb**	**17 31 13.4**	**-0.2**
ESJX				IAML		17 31 22.0	
	comp=E,7µm,0.1s						
ESJX				IAML		17 31 22.0	
	comp=N,4µm,0.1s						
ESJX	**Sierra Juarez**	**0.58**	**332**		**Sb**	**17 31 21.2**	**-0.5**
RHX	**Rio Hardy**	**0.71**	**25**	*e*P	**Pb**	**17 31 15.9**	**+0.2**
RHX				*e*S	**Sb**	**17 31 25.6**	**+0.3**
RHX				⇑*e*		17 31 27.3	
RHX				IAML		17 31 27.3	
	comp=N,3µm,0.5s						
RITX	**Riito Sonora**	**0.88**	**40**		**Pn**	**17 31 20.1**	**+0.6**
RITX					**Sn**	**17 31 32.6**	**+0.6**
EDOMX	**El Doctor, EDO**	**0.89**	**58**		**Pn**	**17 31 20.4**	**+0.8**
EDOMX					**Sn**	**17 31 33.2**	**+1.0**
SQX	**San Quintin**	**0.94**	**193**	⇓*i*P	**Pg**	**17 31 19.5**	**-0.4**
SQX				*e*S	**Sg**	**17 31 31.7**	**-0.4**
SQX				IAML		17 31 33.4	
	comp=N,2µm,0.3s						
SQX				⇓*e*		17 31 33.4	
SQX	**San Quintin**	**0.94**	**193**		**Pg**	**17 31 19.5**	**-0.4**
SQX					**Sg**	**17 31 31.4**	**-0.7**
CCX	**Cicese**	**0.96**	**293**	⇑*i*P	**Pb**	**17 31 19.8**	**-0.1**
CCX				*e*S	**Sb**	**17 31 32.5**	**+0.1**
CCX				IAML		17 31 33.5	
	comp=N,2µm,0.3s						
CCX				⇑*e*		17 31 33.5	
CCX	**Cicese**	**0.96**	**293**		**Pb**	**17 31 19.8**	**-0.1**
CCX				IAML		17 31 33.2	
	comp=E,2µm,0.5s						
CCX				IAML		17 31 33.5	
	comp=N,2µm,0.4s						
CCX	**Cicese**	**0.96**	**293**		**Sg**	**17 31 31.7**	**-1.1**
PBX	**Punta Banda**	**0.96**	**285**	⇑*i*P	**Pb**	**17 31 20.0**	**-0.2**
PBX				*e*S	**Sb**	**17 31 32.7**	**0.0**
CPBX	**Cerro Prieto**	**0.97**	**17**		**Pn**	**17 31 20.9**	**+0.2**
CPBX	**Cerro Prieto**	**0.97**	**17**		**Sn**	**17 31 35.7**	**+1.5**
MBIG	**Mexicali**	**0.98**	**22**	*e*P	**Pn**	**17 31 20.9**	**0.0**
MBIG				*e*S	**Sn**	**17 31 35.4**	**+0.8**
PESCX	**Ej. Pescaderos**	**1.10**	**31**		**Sn**	**17 31 37.7**	**+0.3**
SGL	**Mount Signal**	**1.16**	**356**		**Pn**	**17 31 23.5**	**+0.1**
SGL					**Sn**	**17 31 39.2**	**+0.4**
RMX	**La Rumorosa**	**1.17**	**341**		**Pb**	**17 31 22.9**	**-0.8**
RMX					**Sg**	**17 31 37.0**	**-2.7**
YUH	**Yuha Desert**	**1.18**	**348**		**Pn**	**17 31 23.9**	**+0.3**
YUH				IAML		17 31 41.3	
	comp=E,823nm,0.3s						
YUH				IAML		17 31 41.8	
	comp=N,653nm,0.3s						
YUH	**Yuha Desert**	**1.18**	**348**		**Sn**	**17 31 39.7**	**+0.2**
YUH2	**Yuha Desert**	**1.18**	**348**	⇓*e*P	**Pn**	**17 31 24.0**	**+0.3**
CBX	**Cerro Bola**	**1.20**	**313**	⇑*e*P	**Pn**	**17 31 24.2**	**+0.2**
CBX				*e*S	**Sn**	**17 31 40.2**	**+0.1**
CBX				IAML		17 31 41.2	
	comp=E,3µm,0.2s						
CBX				⇑*e*		17 31 41.2	
CBX	**Cerro Bola**	**1.20**	**313**	*e*P	**Pn**	**17 31 24.2**	**+0.2**
CBX				*e*S	**Sb**	**17 31 39.4**	**-0.2**
CBX	**Cerro Bola**	**1.20**	**313**		**Pn**	**17 31 24.3**	**+0.2**
CBX				IAML		17 31 41.9	
	comp=N,2µm,0.5s						
CBX	**Cerro Bola**	**1.20**	**313**		**Sb**	**17 31 39.4**	**-0.2**
IKP	**In-Ko-Pah, Jac**	**1.22**	**341**		**Pn**	**17 31 25.0**	**+0.7**
IKP					**Sn**	**17 31 40.9**	**+0.2**
TJIG	**Tijuana**	**1.29**	**317**	⇑*e*P	**Pn**	**17 31 25.6**	**+0.4**
TJIG				*e*S	**Sn**	**17 31 42.4**	**+0.2**
TJIG				⇑*e*		17 31 43.1	
TJIG				IAML		17 31 43.1	
	comp=N,2µm,0.3s						
TJIG	**Tijuana**	**1.29**	**317**	*e*P	**Pn**	**17 31 25.7**	**+0.5**
TJIG				*i* S	**Sb**	**17 31 42.2**	**+0.1**
TJIG	**Tijuana**	**1.29**	**317**		**Pn**	**17 31 25.7**	**+0.5**
TJIG					**Sb**	**17 31 42.2**	**+0.1**
TKX	**Tecate**	**1.35**	**323**		**Sn**	**17 31 44.4**	**+0.6**
BAR	**Barrett**	**1.48**	**324**		**Pb**	**17 31 28.9**	**0.0**
BAR				IAML		17 31 48.8	
	comp=N,2µm,0.2s						
BAR	**Barrett**	**1.48**	**324**		**Sn**	**17 31 48.0**	**+1.2**
OLP	**Otay Lakes Par**	**1.56**	**316**	*e*P	**Pg**	**17 31 30.1**	**-1.7**
TJX	**Tijuana**	**1.58**	**310**		**Pn**	**17 31 29.8**	**+0.7**
SLVP	**Salvation Pass**	**1.76**	**9**		**Pn**	**17 31 31.8**	**+0.1**
SALN	**Salton City**	**1.81**	**351**		**Pn**	**17 31 32.1**	**-0.1**
SALN				IAML		17 32 05.0	
	comp=N,920nm,0.3s						
SALN				IAML		17 32 07.8	
	comp=E,945nm,0.4s						
PIX	**Pinacate**	**1.86**	**87**		**Pn**	**17 31 32.0**	**-0.9**
BORC	**Borrego Spring**	**1.89**	**340**		**Pn**	**17 31 34.3**	**+0.8**
BORC				IAML		17 32 02.2	
	comp=E,381nm,0.5s						
BORC				IAML		17 32 06.9	
	comp=N,301nm,0.8s						
BC3	**Big Chuckawall**	**2.16**	**4**		**Pn**	**17 31 37.9**	**+0.6**
PFO	**Pinyon Flats O**	**2.23**	**342**		**Pn**	**17 31 38.5**	**+0.4**
PFO				IAML		17 32 13.8	
	comp=N,133nm,0.5s						
DNR	**Dunn Ranch,Anz**	**2.23**	**338**		**Pn**	**17 31 39.1**	**+0.8**
PMD	**Palm Desert**	**2.24**	**344**		**Pn**	**17 31 38.7**	**+0.4**
PMD				IAML		17 32 13.4	
	comp=E,326nm,0.6s						
PMD				IAML		17 32 13.8	
	comp=N,170nm,0.3s						
BELC	**Belle Mtn. Jos**	**2.52**	**353**		**Pn**	**17 31 43.2**	**+1.0**
BAHB	**Baha de los**	**3.11**	**144**	*e*P	**Pn**	**17 31 50.4**	**+0.2**
BAHB				*e*S	**Sn**	**17 32 24.8**	**-2.2**
TUC	**Tucson**	**4.20**	**78**	*e*P	**Pn**	**17 32 05.6**	**+0.3**
TUC				*e*S	**Sn**	**17 32 54.1**	**-0.1**
TUC	**Tucson**	**4.20**	**78**		**Pn**	**17 32 05.3**	**0.0**

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*KRNET **20** 17:44:38.0±0.1, 41.°97N×80.°19E, mb2.3*
*NNC **20** 17:44:52.8±1.3, 42.°05N×79.°53E, h0^{km}, mb2.3, mpv2.5,*
Error ellipse: s-maj=8.4km s-min=6.7km az=143.0
*SOME **20** 17:44:52.3, 41.°97N×79.°50E, h15^{km}*
ISC 20 17:44:46.3±2.3**, 41.°78N**±0.°08×**79.°51E**±0.°08**, h10**^{km}**, n18,**
σ1§**69**/34**, 10C-4D, Kyrgyzstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PRZ	**Przheval'sk**	**1.09**	**311**	⇓*e*P	**Pg**	**17 45 03.8**	**-3.4**
PRZ				⇓*e*S	**Sb**	**17 45 22.6**	**+1.0**
TARG	**Taragay, Kyrgy**	**1.28**	**268**	⇑*e*P	**Pn**	**17 45 09.1**	**-1.5**
TARG				⇑*e*S	**Sn**	**17 45 32.0**	**+4.0**
SHLS	**Shalkode**	**1.38**	**358**	P	**Pg**	**17 45 14.7**	**+2.0**
	2.4nm,0.1s						
SHLS				S	**Sg**	**17 45 31.1**	**+0.4**
	3.3nm,0.2s						
SHLS	**Shalkode**	**1.38**	**358**	*e*P	**Pg**	**17 45 14.7**	**+2.0**
	2.4nm,0.1s						
SHLS				*e*S	**Sg**	**17 45 31.1**	**+0.4**
	3.3nm,0.2s						
UZB	**Uzynbulak**	**1.42**	**345**	P	**Pg**	**17 45 14.5**	**+1.1**
	1.1nm,0.1s						
UZB				S	**Sb**	**17 45 30.6**	**-0.4**
	1.9nm,0.3s						
UZB	**Uzynbulak**	**1.42**	**345**	*e*P	**Pg**	**17 45 14.5**	**+1.1**
	1.1nm,0.1s						
UZB				*e*S	**Sb**	**17 45 30.6**	**-0.4**
	1.9nm,0.3s						
SATY	**Saty**	**1.52**	**328**	P	**Pg**	**17 45 17.4**	**+1.9**
	1.1nm,0.1s						
SATY				S	**Sg**	**17 45 35.4**	**+0.2**
	4.1nm,0.1s						
SATY	**Saty**	**1.52**	**328**	*e*P	**Pg**	**17 45 17.4**	**+1.9**
	1.1nm,0.1s						
SATY				*e*S	**Sg**	**17 45 35.4**	**+0.2**
	4.1nm,0.1s						
PDGK	**Podgornoye**	**1.55**	**359**	⇑P	**Pg**	**17 45 16.3**	**+0.2**
	0.5nm,0.5s						
PDGK				⇑S	**Sn**	**17 45 34.0**	**-0.3**
	2.8nm,0.5s						
ANVS	**Anan'yevo**	**1.70**	**307**	⇓*e*P	**Pn**	**17 45 12.5**	**-3.7**
ANVS				⇓*e*S	**Sn**	**17 45 37.7**	**-0.4**
KDJ	**Kajisay**	**1.77**	**282**	⇑*e*P	**Pn**	**17 45 15.2**	**-2.0**
KDJ				⇑*e*S	**Sb**	**17 45 42.2**	**+0.8**
KPKS	**Kokpek**	**1.79**	**340**	P	**Pg**	**17 45 21.7**	**+1.0**
	0.4nm,0.2s						
KPKS				S	**Sb**	**17 45 42.7**	**+0.8**
	16nm,0.5s						
KPKS	**Kokpek**	**1.79**	**340**	*e*P	**Pg**	**17 45 21.7**	**+1.0**
	0.4nm,0.2s						
KPKS				*e*S	**Sb**	**17 45 42.7**	**+0.8**
	16nm,0.5s						
KOTS	**Kotyrbulak**	**2.30**	**310**	Pg	**Pg**	**17 45 31.6**	**+1.3**
	1.5nm,0.3s						
KOTS				Lg	Lg	17 45 59.7	
	5.0nm,0.5s						
KOTS	**Kotyrbulak**	**2.30**	**310**	*e*P	**Pg**	**17 45 31.6**	**+1.3**
	1.5nm,0.3s						
KOTS				*e*S	**Sg**	**17 45 59.7**	**-0.3**
	5.0nm,0.5s						
ULHL	**Ulahol**	**2.48**	**282**	⇑*e*P	**Pn**	**17 45 25.1**	**-1.9**
ULHL				⇑*e*S	**Sn**	**17 45 59.4**	**+2.0**
KNOS	**Konyrlen**	**2.59**	**355**	Pg	**Pg**	**17 45 36.0**	**0.0**
	0.7nm,0.2s						
KNOS				Lg	Lg	17 46 07.3	
	3.2nm,0.2s						
BOOM	**Boomskoye usch**	**2.75**	**286**	⇑*e*P	**Pn**	**17 45 28.3**	**-2.3**
BOOM				⇑*e*S	**Sn**	**17 46 05.3**	**+1.3**

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*IDC **20** 17:47:17.5±0.6, 18.°56N×121.°04E, h0^{km}, mb4.2/25,*
mbtmp4.2/28, ML4.4/3, MS3.5/33, Error ellipse:
s-maj=16.8km s-min=12.7km az=76.0
*BJI **20** 17:47:18.6, 18.°61N×120.°98E, h8^{km}, mB4.8/19, mb4.5/59,*
ML4.4/2, Ms4.0/36, Ms7 3.8/38
*MAN **20** 17:47:19.0, 18.°79N×120.°95E, h21^{km}, MS4.9*
MAN INTENSITY IV - CLAVERIA AND SANCHEZ-MIRA
CAGAYAN; CALANASAN APAYAO; PAGUDPUD
BANGUI AND ADAMS ILOCOS NORTE; . INTENSITY III -
PASUQUIN BACARRA AND BURGOS ILOCOS NORTE;
FLORA AND SANTA MARCELA APAYAO; . INTENSITY II
- PAMPLONA CAGAYAN; VINTAR ILOCOS NORTE.
*NEIC **20** 17:47:20.0±2.4, 18.°67N±0.°02×121.°1E±0.°1, h10^{km}±1^{km},*
mb4.7/77, Error ellipse: s-maj=17.0km s-min=3.1km
az=100.0
*GFZ **20** 17:47:21.9±0.3, 19°N±3°×12°1E±°, h10^{km}, M4.7/21,*
mb4.6/21
ISC 20 17:47:20.5±0.7**, 18.°65N**±0.°04×**120.°97E**±0.°06**, h14**^{km}±4^{km}**,**
n208, σ1§**79**/173**, mb4.6**/89**, MS3.6**/41**, 1C-1D, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SZP	**Santa**	**1.20**	**204**		**Pn**	**17 47 43.0**	**+0.2**
SZP	**Santa**	**1.20**	**204**	P	**Pn**	**17 47 43.0**	**+0.2**
TWG	**Pinlang**	**4.15**	**1**		**Pn**	**17 48 22.2**	**-1.3**
TWG				Sn	**Sn**	**17 49 09.1**	**-2.8**
TWG	**Pinlang**	**4.15**	**1**	P	**Pn**	**17 48 23.0**	**-0.6**
TGY	**Tagaytay City**	**4.52**	**180**	*e*P	**Pb**	**17 48 36.4**	**-3.4**
TGY				*e*S	**Sb**	**17 49 36.3**	**+2.1**
LQP	**Lukban**	**4.54**	**173**	*e*P	**Pn**	**17 48 33.0**	**+3.8**
TPUB	**Ta-pu**	**4.64**	**356**		**Pn**	**17 48 29.5**	**-0.7**
TPUB	**Ta-pu**	**4.64**	**356**	P	**Pn**	**17 48 31.7**	**+1.4**
SSLB	**Suanglung**	**5.11**	**360**		**Pn**	**17 48 37.0**	**+0.2**
SSLB	**Suanglung**	**5.11**	**360**	P	**Pn**	**17 48 37.9**	**+1.1**
	comp=Z,159nm,0.6s						
NACB	**Ninganchiao**	**5.53**	**6**		**Pn**	**17 48 42.9**	**+0.4**
NACB	**Ninganchiao**	**5.53**	**6**	P	**Pn**	**17 48 43.8**	**+1.3**
	comp=Z,118nm,0.5s						
YHNB	**Yeheng**	**6.00**	**4**		**Pn**	**17 48 50.0**	**+0.9**
YHNB	**Yeheng**	**6.00**	**4**	P	**Pn**	**17 48 52.8**	**+3.7**
	comp=Z,214nm,0.5s						
TATO	**Taipei**	**6.32**	**4**		**Pn**	**17 48 54.6**	**+1.3**
HKPS	**Hong Kong Po S**	**7.35**	**301**		**Pn**	**17 49 05.9**	**-1.6**
PLP	**Palo**	**8.39**	**152**	*e*P	Pn	17 49 27.9	+6.1
LLP	**Lapu-Lapu**	**8.78**	**160**	*e*P	Pn	17 49 32.9	+5.8
LLP				*i* S	Sn	17 51 33.0	+27
DCPH	**Dipolog City**	**10.27**	**167**	*i* P	**Pn**	**17 49 51.9**	**+4.3**
QIZ	**Qiongzhong**	**10.54**	**274**	P	**Pn**	**17 49 49.8**	**-1.5**
QIZ				S	**Sn**	**17 51 44.5**	**-4.8**
QIZ				pmax	pmax		
	comp=Z,32nm,0.6s						
QIZ				L	L		
	comp=Z,380nm,14.7s						
QIZ				L	L		
	comp=Z,160nm,10.2s						
QIZ				L	L		
	comp=Z,180nm,8.4s						
QIZ	**Qiongzhong**	**10.54**	**274**	Pn	**Pn**	**17 49 50.0**	**-1.4**
QIZ	**Qiongzhong**	**10.54**	**274**	P	**Pn**	**17 49 50.2**	**-1.1**
	comp=Z,50nm,0.7s						
JOW	**Kunigami**	**10.57**	**38**	Pn	**Pn**	**17 49 50.4**	**-1.3**
	comp=Z,7.0nm,0.3s,baz=163,slow=15,SNR=11						
	comp=Z,40nm,0.8s						
JOW				AML	AML		
DAV	**Davao City (W)**	**12.35**	**158**	LR	LR	17 56 09.6	
	comp=Z,533nm,18.0s,baz=6.0,slow=43						
NJ2	**Nanjing**	**13.48**	**352**	*e*P	**Pn**	**17 50 32.6**	**+1.1**
NJ2				pmax	pmax		
	comp=Z,7.0nm,0.7s						
NJ2				L	L		
	comp=Z,330nm,4.1s						
NJ2				L	L		
	comp=Z,340nm,4.7s						
NJ2				L	L		
	comp=Z,220nm,5.4s						
GYA	**Guiyang**	**15.32**	**303**	P	**Pn**	**17 50 56.3**	**-0.3**
GYA				pmax	pmax		
	comp=Z,12nm,0.8s						
ENH	**Enshi**	**15.58**	**320**	P	**Pn**	**17 51 01.1**	**+1.2**
	comp=Z,24nm,1.1s						
SLVN	**Son La**	**16.26**	**282**	P	**Pn**	**17 51 09.3**	**+0.6**
	comp=Z,9.9nm,0.9s						
JNU	**Nakatsue**	**16.93**	**30**	Pn	**Pn**	**17 51 15.8**	**-1.3**
	comp=Z,0.7nm,0.3s,baz=318,slow=5.6,SNR=8.8						
JNU				LR	LR	17 57 35.5	
	comp=Z,74nm,20.5s,baz=223,slow=36						
	comp=Z,14nm,1.0s						
JNU				AML	AML		
TOLI2	**Tolitoli**	**17.43**	**181**	Pn	**Pn**	**17 51 22.2**	**-1.2**
TOLI2	**Tolitoli**	**17.43**	**181**	P	**P**	**17 51 25.7**	**+1.1**
	comp=Z,17nm,1.1s						
LYN	**LuoYang**	**17.55**	**336**	P	**P**	**17 51 28.8**	**+2.9**
LYN				pmax	pmax		
	comp=Z,20nm,1.3s						
LYN				L	L		
	comp=Z,330nm,17.2s						
LYN				L	L		
	comp=Z,440nm,18.9s						
LYN				L	L		
	comp=Z,360nm,24.4s						
TIA	**Tai'an**	**17.82**	**350**	P	**P**	**17 51 30.8**	**+1.9**
TIA				S	**S**	**17 54 51.4**	**-2.0**
TIA				pmax	pmax		
	comp=Z,12nm,1.2s						
TIA				L	L		
	comp=Z,220nm,18.8s						
TIA				L	L		
	comp=Z,260nm,22.9s						
TIA				L	L		
	comp=Z,340nm,17.7s						
KMI2	**Kunming**	**18.09**	**294**	P	**P**	**17 51 33.4**	**+1.2**
KMI2				pmax	pmax		
	comp=Z,10.0nm,0.7s						
KMI2				L	L		
	comp=Z,280nm,11.8s						
KMI2				L	L		
	comp=Z,410nm,14.5s						
KMI2				L	L		
	comp=Z,410nm,16.6s						
SBUM	**Sibu**	**18.24**	**209**	P	**Pn**	**17 51 32.6**	**-0.8**
SBUM	**Sibu**	**18.24**	**209**	P	**P**	**17 51 35.1**	**+1.5**
	comp=Z,8.4nm,1.0s						
XAN	**Xi'an**	**18.72**	**327**	P	**Pn**	**17 51 40.1**	**+0.8**
XAN				S	**S**	**17 55 15.3**	**+3.5**
XAN				pmax	pmax		
	comp=Z,14nm,1.0s						
XAN				pmax	pmax		
	comp=Z,130nm,4.1s						
XAN				L	L		
	comp=Z,220nm,4.5s						
XAN				L	L		
	comp=Z,140nm,5.5s						
XAN				L	L		
	comp=Z,360nm,13.1s						
PZH	**PanZhiHua**	**19.38**	**297**	P	**Pn**	**17 51 48.6**	**+1.2**
HNS	**HongShan**	**19.47**	**345**	⇑P	**Pn**	**17 51 49.5**	**+1.3**
HNS				S	**S**	**17 55 28.4**	**+1.7**
HNS				pmax	pmax		
	comp=Z,31nm,1.0s						
HNS				L	L		
	comp=Z,110nm,11.6s						
HNS				L	L		
	comp=Z,330nm,16.5s						
HNS				L	L		
	comp=Z,250nm,12.7s						
LUWI	**Luwuk**	**19.65**	**175**	P	**P**	**17 51 46.6**	**-2.5**
LUWI	**Luwuk**	**19.65**	**175**	P	**Pn**	**17 51 53.7**	**+3.2**
	comp=Z,54nm,0.9s						
KSAR	**Wonju Array Be**	**19.68**	**17**	P	**P**	**17 51 48.6**	**-0.6**
KSRS	**Korea Array**	**19.70**	**17**	P	**P**	**17 51 48.5**	**-1.0**
	comp=Z,1.2nm,0.3s,baz=198,slow=11,SNR=25						
	comp=Z,3.7nm,0.4s						
KSRS				AML	AML		
KS19	**Wonju Array Si**	**19.73**	**16**	P	**P**	**17 51 48.2**	**-1.7**
DL2	**Dalian**	**20.19**	**1**	P	Pn	17 51 56.1	-0.7
DL2				S	**S**	**17 55 42.3**	**+1.1**
DL2				pmax	pmax		
	comp=Z,58nm,1.0s						
DL2				L	L		
	comp=Z,260nm,12.4s						
DL2				L	L		
	comp=Z,230nm,12.1s						
DL2				L	L		
	comp=Z,220nm,14.8s						
CHTO	**Chiang Mai**	**20.86**	**274**		Pn	17 52 03.8	-1.0
CHTO	**Chiang Mai**	**20.86**	**274**	P	Pn	17 52 04.4	-0.4
	comp=Z,15nm,0.9s						
CM31	**Chiang Mai Arr**	**20.88**	**273**	P	**P**	**17 52 01.3**	**-1.2**
CMAR	**Chiang Mai Arr**	**20.88**	**273**	P	**P**	**17 52 03.1**	**+0.6**
	comp=Z,7.2nm,1.0s,baz=89,slow=8.7,SNR=26						
CMAR				LR	LR	17 59 36.5	
	comp=Z,17nm,19.0s,baz=90,slow=35						
	comp=Z,7.2nm,1.0s						
CMAR	**Chiang Mai Arr**	**20.88**	**273**		**P**	**17 52 02.3**	**-0.2**
SANI	**Sanana**	**21.15**	**166**	P	**P**	**17 52 06.1**	**+0.7**
	comp=Z,17nm,0.8s						
BJI2	**Beijing**	**21.70**	**350**	P	**P**	**17 52 10.9**	**-0.2**
BJI2				S	**S**	**17 56 14.4**	**+3.5**
BJI2				pmax	pmax		
	comp=Z,6.0nm,1.2s						
BJI2				L	L		
	comp=Z,140nm,15.8s						
BJI2				L	L		
	comp=Z,120nm,17.9s						
BJT	**Baijiatuau**	**21.70**	**350**	P	**P**	**17 52 10.5**	**-0.6**
BJT				IAmb	IAmb	17 52 23.1	
	comp=Z,21nm,0.7s						
BJT	**Baijiatuau**	**21.70**	**350**	P	**P**	**17 52 14.9**	**+3.9**
	comp=Z,31nm,0.7s						
INU	**Inuyama**	**21.89**	**37**	P	**P**	**17 52 09.7**	**-3.4**
INU				IAmb	IAmb	17 52 24.5	
	comp=Z,32nm,1.0s						
INU	**Inuyama**	**21.89**	**37**	P	**P**	**17 52 15.4**	**+2.3**
	comp=Z,36nm,1.0s						
JHJ	**Hachijo jima 2**	**22.18**	**46**	LR	LR	18 00 49.9	
	comp=Z,28nm,19.0s,baz=278,slow=37						
LZDM	**Lanzhou Array**	**23.02**	**322**	P	**P**	**17 52 26.6**	**+1.1**
	comp=Z,11nm,0.8s,baz=139,slow=9.9,SNR=7.4						
LZDM				LR	LR	18 01 49.9	
	comp=Z,99nm,19.1s,baz=260,slow=38						
	comp=Z,11nm,0.8s						
LZH	**Lanzhou**	**23.02**	**322**	*e*P	**P**	**17 52 26.8**	**+1.4**
LZH				sP	sP	17 52 33.8	+2.9
LZH				pmax	pmax		
	comp=Z,28nm,1.7s						
LZH				L	L		
	comp=Z,280nm,13.3s						
LZH				L	L		
	comp=Z,350nm,14.0s						
LZH				L	L		
	comp=Z,260nm,14.0s						
MJAR	**Matsushiro Arr**	**23.41**	**37**	P	**P**	**17 52 29.4**	**+0.2**
	comp=Z,1.6nm,0.7s,baz=195,slow=6.7,SNR=9.6						
	comp=Z,1.6nm,0.7s						
MJAR	**Matsushiro Arr**	**23.41**	**37**	P	**P**	**17 52 25.0**	**-4.2**
GUMO	**Guam**	**23.50**	**99**	LR	LR	18 00 15.5	
	comp=Z,86nm,19.6s,baz=284,slow=33						
KAPI	**Kappang**	**23.54**	**183**	LR	LR	18 02 41.0	
	comp=Z,132nm,19.1s,baz=2.5,slow=39						
HHC	**Hu-ho-hao-te**	**23.55**	**342**	*e*P	**P**	**17 52 31.8**	**+1.1**
HHC				sS	sS	17 56 50.8	+0.1
HHC				pmax	pmax		
	comp=Z,16nm,0.7s						
HHC				pmax	pmax		
	comp=Z,99nm,4.5s						
HHC				L	L		
	comp=Z,150nm,14.7s						
HHC				L	L		
	comp=Z,200nm,13.0s						
HHC				L	L		
	comp=Z,140nm,18.7s						
BTO2	**Baotou**	**23.99**	**339**	*e*P	**P**	**17 52 34.3**	**-0.6**
BTO2				pP	**pP**	**17 52 38.6**	**-0.3**
BTO2				sP	**sP**	**17 52 41.4**	**+0.9**
BTO2				PP	**PnPn**	**17 53 09.0**	**+5.4**
BTO2				S	**S**	**17 56 49.8**	**-1.7**
BTO2				sS	**sS**	**17 56 57.1**	**-0.6**
BTO2				pmax	pmax		
	comp=Z,17nm,0.9s						
BTO2				pmax	pmax		
	comp=Z,220nm,6.7s						
BTO2				L	L		
	comp=Z,320nm,16.2s						
BTO2				L	L		
	comp=Z,760nm,14.8s						
BTO2				L	L		
	comp=Z,290nm,21.0s						
CN2	**Changchun**	**25.36**	**8**	*e*P	**P**	**17 52 48.0**	**+0.8**
CN2				*e*S	**S**	**17 57 17.5**	**+4.4**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.7s						
CN2				pmax	pmax		
	comp=Z,100nm,4.0s						
CN2				L	L		
	comp=Z,100nm,13.0s						
CN2				L	L		
	comp=Z,100nm,13.0s						
CN2				L	L		
	comp=Z,100nm,15.0s						
MORE	**Moreh**	**25.41**	**287**		**P**	**17 52 47.7**	**-0.2**
XLT	**XiLinHaoTe**	**25.51**	**352**	*e*P	**P**	**17 52 51.0**	**+2.4**
XLT				sP	sP	17 52 58.1	+3.9
XLT				PP	**PnPn**	**17 53 23.6**	**-0.7**
XLT				PcP	**PcP**	**17 56 20.4**	**+0.3**
XLT				S	**S**	**17 57 23.0**	**+7.3**
XLT				pmax	pmax		
	comp=Z,12nm,0.8s						
XLT				pmax	pmax		
	comp=Z,98nm,3.7s						
XLT				L	L		
	comp=Z,14nm,14.0s						
XLT				L	L		
	comp=Z,120nm,14.5s						
XLT				L	L		
	comp=Z,120nm,13.2s						
MDJ	**Mudanjiang**	**26.88**	**14**	P	**P**	**17 53 02.5**	**+1.6**
MDJ				pmax	pmax		
	comp=Z,9.0nm,0.9s						
USRK	**Ussuriysk Ar.**	**27.10**	**18**	P	**P**	**17 53 04.1**	**+1.2**
	comp=Z,1.8nm,0.5s,baz=208,slow=8.5,SNR=6.0						
USRK				LR	LR	18 05 31.8	
	comp=Z,48nm,18.5s,baz=212,slow=40						
	comp=Z,1.8nm,0.5s						
BNX	**BinXian**	**27.54**	**10**	⇓P	**P**	**17 53 07.5**	**+0.7**
BNX				pmax	pmax		
	comp=Z,6.0nm,0.9s						
GTA2	**Gaotai**	**27.70**	**323**	*e*P	**P**	**17 53 09.5**	**+0.9**
GTA2				pmax	pmax		
	comp=Z,4.0nm,1.0s						
GTA2				L	L		
	comp=Z,120nm,14.0s						
GTA2				L	L		
	comp=Z,150nm,14.6s						

GTA2				L	L		
	comp=Z,130nm,13.6s						
SHL	**Shillong**	**27.77**	**290**		**P**	**17 53 10.0**	**+0.6**
SHL				IAmb	IAmb	17 53 15.1	
	comp=Z,12nm,1.0s						
ASAJ	**Asahikawa**	**31.21**	**31**	LR	LR	18 07 38.9	
	comp=Z,52nm,19.1s,baz=272,slow=39						
SONM	**Songino Array**	**31.45**	**341**	P	**P**	**17 53 42.6**	**+1.0**
	comp=Z,2.0nm,0.8s,baz=159,slow=10.0,SNR=12						
SONM				LR	LR	18 07 04.9	
	comp=Z,134nm,20.9s,baz=155,slow=38						
	comp=Z,2.0nm,0.8s						
SONM	**Songino Array**	**31.45**	**341**	P	**P**	**17 53 42.4**	**+0.7**
KLR	**Kul'dur**	**31.72**	**13**	LR	LR	18 08 08.8	
	comp=Z,85nm,18.1s,baz=227,slow=39						
HEH	**HeiHe**	**31.95**	**8**	*e*P	**P**	**17 53 47.0**	**+1.1**
HEH				pmax	pmax		
	comp=Z,12nm,0.9s						
HEH				L	L		
	comp=Z,160nm,14.3s						
HEH				L	L		
	comp=Z,91nm,14.0s						
HEH				L	L		
	comp=Z,160nm,11.7s						
EVN	**Everest**	**32.61**	**293**		**P**	**17 53 54.3**	**+1.6**
EVN				IAmb	IAmb	17 53 55.4	
	comp=Z,11nm,0.9s						
EVN	**Everest**	**32.61**	**293**	P	**P**	**17 53 54.9**	**+2.2**
	comp=Z,16nm,1.0s						
TLY	**Talaya**	**35.68**	**341**	LR	LR	18 09 41.6	
	comp=Z,102nm,18.5s,baz=140,slow=38						
WMQ	**Urumqi**	**37.52**	**319**	*e*P	**P**	**17 54 36.8**	**+2.6**
WMQ				L	L		
	comp=Z,37nm,16.9s						
WRA	**Warramunga Arr**	**40.53**	**160**	P	**P**	**17 54 57.6**	**-2.0**
	comp=Z,1.1nm,0.4s,baz=342,slow=9.1,SNR=27						
WRA				PcP	**PcP**	**17 57 01.8**	**-0.2**
	comp=Z,1.0nm,0.5s,baz=345,slow=3.2,SNR=8.3						
	comp=Z,1.1nm,0.4s						
WR8	**Warramunga Arr**	**40.60**	**160**	P	**P**	**17 54 58.2**	**-1.9**
WUS	**Wushi**	**42.07**	**311**	P	**P**	**17 55 14.4**	**+2.2**
	comp=Z,7.3nm,2.2s						
MKAR	**Makanchi Array**	**42.31**	**320**	P	**P**	**17 55 15.3**	**+1.4**
	comp=Z,4.4nm,0.8s,baz=119,slow=8.2,SNR=20						
MKAR				PcP	**PcP**	**17 57 07.5**	**0.0**
	comp=Z,1.0nm,0.7s,baz=116,slow=3.4,SNR=4.0						
MKAR				LR	LR	18 13 44.6	
	comp=Z,72nm,18.4s,baz=92,slow=37						
	comp=Z,4.4nm,0.8s						
MKAR	**Makanchi Array**	**42.31**	**320**		**P**	**17 55 14.7**	**+0.7**
SHLS	**Shalkode**	**42.59**	**314**	*e*P	**P**	**17 55 15.5**	**-0.9**
PDGK	**Podgornoye**	**42.63**	**314**		**P**	**17 55 16.4**	**-0.4**
UZB	**Uzynbulak**	**42.88**	**314**	*e*P	**P**	**17 55 20.3**	**+1.5**
KPKS	**Kokpek**	**43.23**	**314**	*e*P	**P**	**17 55 23.0**	**+1.5**
TARG	**Taragay, Kyrgy**	**43.24**	**312**		**P**	**17 55 22.4**	**+0.4**
TARG	**Taragay, Kyrgy**	**43.24**	**312**	P	**P**	**17 55 25.1**	**+3.1**
	comp=Z,6.9nm,1.2s						
H11S3	**WAKE ISLAND Hy**	**43.25**	**83**	T	T	18 40 51.9	
	baz=276,slow=74,SNR=50						
H11S1	**WAKE ISLAND Hy**	**43.26**	**83**	T	T	18 40 59.3	
	baz=276,slow=74,SNR=23						
H11S2	**WAKE ISLAND Hy**	**43.27**	**83**	T	T	18 40 46.2	
	baz=276,slow=74,SNR=28						
SATY	**Saty**	**43.27**	**314**	*e*P	**P**	**17 55 23.5**	**+1.6**
H11N1	**WAKE ISLAND Hy**	**43.29**	**81**	T	T	18 41 26.0	
	baz=277,slow=75,SNR=32						
H11N2	**WAKE ISLAND Hy**	**43.29**	**81**	T	T	18 41 25.9	
	baz=277,slow=75,SNR=20						
H11N3	**WAKE ISLAND Hy**	**43.30**	**81**	T	T	18 41 28.3	
	baz=277,slow=75,SNR=24						
YAK	**Yakutsk**	**43.77**	**6**	LR	LR	18 18 05.7	
	comp=Z,52nm,18.4s,baz=186,slow=42						
YAK	**Yakutsk**	**43.77**	**6**	P	**P**	**17 55 24.0**	**-1.4**
YAK				IAmb	IAmb	17 55 33.3	
	comp=Z,14nm,0.9s						
YAK	**Yakutsk**	**43.77**	**6**	P	**P**	**17 55 24.5**	**-0.9**
	comp=Z,16nm,0.9s						
KDJ	**Kajisay**	**43.81**	**312**	P	**P**	**17 55 27.3**	**+0.9**
KDJ				IAmb	IAmb	17 55 29.7	
	comp=Z,9.9nm,1.0s						
AS31	**Alice Springs**	**43.91**	**163**		**P**	**17 55 26.1**	**-0.9**
ASAR	**Alice Springs**	**43.91**	**163**	P	**P**	**17 55 25.8**	**-1.3**
	comp=Z,1.2nm,0.4s,baz=342,slow=7.1,SNR=27						
ASAR				PcP	**PcP**	**17 57 12.8**	**-0.3**
	comp=Z,0.5nm,0.6s,baz=352,slow=3.0,SNR=4.5						
ASAR				LR	LR	18 14 09.5	
	comp=Z,48nm,19.1s,baz=281,slow=37						
	comp=Z,1.2nm,0.4s						
ASAI	**AK-SAY(Kyrgyzs**	**43.92**	**310**	P	**P**	**17 55 29.9**	**+2.5**
	comp=Z,5.3nm,1.0s						
TDK	**Taldyqorghan**	**43.99**	**316**	*e*P	**P**	**17 55 29.2**	**+1.7**
	comp=Z,7.7nm,1.0s						
KSH2	**Kashi**	**44.15**	**307**	P	**P**	**17 55 31.3**	**+2.2**
KSH2				pmax	pmax		
	comp=Z,11nm,0.9s						
MDOK	**Medeo**	**44.24**	**313**	*e*P	**P**	**17 55 31.2**	**+1.5**
TNSS	**Tian-Shan**	**44.27**	**313**	*e*P	**P**	**17 55 31.6**	**+1.3**
AAA	**Alma-Ata**	**44.35**	**313**	*e*P	**P**	**17 55 31.8**	**+1.3**
	comp=Z,11nm,1.1s						
NRN	**Naryn**	**44.44**	**311**		**P**	**17 55 32.8**	**+1.2**
ULHL	**Ulahol**	**44.51**	**312**	P	**P**	**17 55 34.2**	**+2.2**
	SNR=5.6						
PETK	**Petropavlovsk-**	**44.63**	**31**	P	**P**	**17 55 31.5**	**-1.0**
	comp=Z,1.2nm,0.5s,baz=201,slow=4.9,SNR=17						
PETK				LR	LR	18 15 11.1	
	comp=Z,33nm,18.5s,baz=172,slow=38						
	comp=Z,1.2nm,0.5s						
PETK	**Petropavlovsk-**	**44.63**	**31**	P	**P**	**17 55 31.2**	**-1.3**
BOOM	**Boomskoye usch**	**44.80**	**312**		**P**	**17 55 35.3**	**+1.0**
ZALV	**Zalesovo Beam**	**44.85**	**330**	P	**P**	**17 55 33.9**	**-0.3**
	comp=Z,0.5nm,0.4s,baz=122,slow=7.5,SNR=4.8						
ZALV				LR	LR	18 15 52.1	
	comp=Z,73nm,19.1s,baz=133,slow=38						
	comp=Z,0.5nm,0.4s						
ZALV	**Zalesovo Beam**	**44.85**	**330**	P	**P**	**17 55 31.7**	**-2.6**
KUU	**Kurty**	**44.97**	**314**	*e*P	**P**	**17 55 37.0**	**+1.5**
	comp=Z,6.1nm,0.9s						
NIL	**Nilore**	**44.97**	**299**		**P**	**17 55 35.6**	**0.0**
NIL	**Nilore**	**44.97**	**299**	P	**P**	**17 55 36.7**	**+1.1**
	comp=Z,38nm,0.9s						
TKM2	**Tokmak 2**	**45.17**	**313**	P	**P**	**17 55 39.3**	**+2.0**
	SNR=7.8						
KBK	**Karagaybulak**	**45.55**	**312**	P	**P**	**17 55 42.7**	**+2.5**
	SNR=5.9						
CHMS	**Chumysh**	**45.79**	**312**	P	**P**	**17 55 44.1**	**+2.1**
	SNR=6.9						
CTA	**Charters Tower**	**45.79**	**146**	LR	LR	18 13 50.8	
	comp=Z,34nm,21.8s,baz=28,slow=35						
AAK	**Ala-Archa**	**45.86**	**312**	LR	LR	18 17 58.3	
	comp=Z,89nm,19.0s,baz=90,slow=40						
AAK	**Ala-Archa**	**45.86**	**312**		**P**	**17 55 42.0**	**-0.7**
AAK	**Ala-Archa**	**45.86**	**312**	P	**P**	**17 55 44.9**	**+2.2**
	comp=Z,6.1nm,1.0s						
SGDS	**Sogindy**	**46.01**	**313**	*e*P	**P**	**17 55 45.1**	**+1.4**
MA2	**Magadan**	**46.19**	**21**	LR	LR	18 17 46.8	
	comp=Z,42nm,18.0s,baz=224,slow=40						
KURK	**Kurchatov**	**46.30**	**324**		**P**	**17 55 44.8**	**-0.9**
KURK	**Kurchatov**	**46.30**	**324**	P	**P**	**17 55 46.9**	**+1.2**
	comp=Z,12nm,1.2s						
KURBB	**Kurchatov Arra**	**46.31**	**324**	P	**P**	**17 55 46.9**	**+1.1**
	comp=Z,7.5nm,0.8s,baz=121,slow=7.8,SNR=28						
	comp=Z,7.5nm,0.8s						
EKS2	**Erkin-Say**	**46.38**	**312**	P	**P**	**17 55 48.8**	**+2.1**
	SNR=12						
HNR	**Honiara**	**47.51**	**123**	LR	LR	18 14 59.7	
	comp=Z,67nm,18.7s,baz=6.5,slow=35						
DZA	**Taraz**	**48.18**	**311**	*e*P	**P**	**17 56 02.2**	**+1.6**
	comp=Z,4.8nm,0.9s						
KK31	**Karatay Array**	**48.81**	**311**		**P**	**17 56 06.1**	**+0.6**
KK31				IAmb	IAmb	17 56 07.9	
	comp=Z,10nm,1.1s						
KKAR	**Karatay Array**	**48.81**	**311**		**P**	**17 56 06.3**	**+0.8**
IUG	**Iuzhnay**	**48.94**	**310**	*e*P	**P**	**17 56 08.0**	**+1.4**
	comp=Z,11nm,1.3s						
BRLS	**Borolday**	**49.28**	**311**	*e*P	**P**	**17 56 10.5**	**+1.4**
CHM	**Chimkent**	**49.29**	**310**	*e*P	**P**	**17 56 10.7**	**+1.5**
BVAR	**Borovoye Array**	**51.90**	**324**	P	**P**	**17 56 29.7**	**+1.0**
	comp=Z,2.7nm,0.6s,baz=111,slow=11,SNR=17						
BVAR				PcP	**PcP**	**17 57 40.4**	**-0.8**
	comp=Z,2.6nm,0.7s,baz=116,slow=2.7,SNR=5.9						
	comp=Z,2.7nm,0.6s						
BORK	**Borovoye**	**51.95**	**324**		**P**	**17 56 26.6**	**-2.4**
BORK				IAmb	IAmb	17 56 31.1	
	comp=Z,6.3nm,0.8s						
TIXI	**Tiksi**	**53.21**	**3**	LR	LR	18 22 27.2	
	comp=Z,56nm,19.0s,baz=230,slow=40						
STKA	**Stephens Creek**	**53.99**	**158**	P	**P**	**17 56 42.1**	**-2.1**
	comp=Z,2.2nm,0.7s,baz=344,slow=5.6,SNR=3.6						
	comp=Z,2.2nm,0.7s						
NRIK	**Noril'sk**	**54.69**	**346**	P	**P**	**17 56 48.2**	**-0.6**
	comp=Z,14nm,0.8s,baz=129,slow=7.3,SNR=15						
NRIK				LR	LR	18 22 09.9	
	comp=Z,90nm,18.5s,baz=154,slow=38						
	comp=Z,14nm,0.8s						
NRIK	**Noril'sk**	**54.69**	**346**		**P**	**17 56 46.6**	**-2.2**
AB31	**Akbulak array**	**57.24**	**317**		**P**	**17 57 08.1**	**+0.6**
ABKAR	**Akbulak array**	**57.24**	**317**		**P**	**17 57 07.7**	**+0.2**
AKTO	**Aktyubinsk**	**58.66**	**318**	LR	LR	18 22 48.1	
	comp=Z,46nm,18.0s,baz=32,slow=36						
ARTI	**Arti**	**59.54**	**325**	LR	LR	18 26 19.0	
	comp=Z,66nm,19.4s,baz=154,slow=39						
MSVF	**Nonsavu**	**66.74**	**119**	LR	LR	18 24 11.9	
	comp=Z,43nm,19.3s,baz=181,slow=33						
KBZ	**Khabaz**	**68.84**	**310**	P	**P**	**17 58 24.1**	**-0.5**
	comp=Z,4.2nm,0.9s,baz=179,slow=3.0,SNR=11						
KBZ				LR	LR	18 32 08.4	
	comp=Z,42nm,18.0s,baz=30,slow=39						
	comp=Z,4.2nm,0.9s						
KIV	**Kislovodsk**	**68.97**	**311**		**P**	**17 58 24.8**	**-0.8**
KIV	**Kislovodsk**	**68.97**	**311**	P	**P**	**17 58 26.4**	**+0.7**
	comp=Z,17nm,0.9s						
GEVA	**Gevas**	**69.36**	**305**	P	**P**	**17 58 28.6**	**+0.3**
GEVA				IAmb	IAmb	17 58 29.9	
	comp=Z,4.3nm,0.9s						
RAYN	**Ar Rayn**	**69.84**	**289**		**P**	**17 58 30.5**	**-0.9**
RAYN				IAmb	IAmb	17 58 32.3	
	comp=Z,5.2nm,0.7s						
RAYN	**Ar Rayn**	**69.84**	**289**	P	**P**	**17 58 31.5**	**+0.2**
	comp=Z,9.9nm,1.0s						
E21K	**Killik River**	**71.00**	**23**	IAmb	IAmb	17 58 38.9	
	comp=Z,5.1nm,0.8s						
J20K	**Nowinta River**	**71.17**	**27**	IAmb	IAmb	17 58 40.3	
	comp=Z,5.2nm,0.9s						
H21K	**Melozitna Rive**	**71.63**	**26**	IAmb	IAmb	17 58 46.9	
	comp=Z,7.3nm,1.1s						
M20K	**Styx River**	**71.82**	**30**	P	**P**	**17 58 43.5**	**+0.7**
M20K				IAmb	IAmb	17 58 47.0	
	comp=Z,11nm,1.2s						
I21K	**Tanana**	**72.02**	**26**	IAmb	IAmb	17 58 45.5	
	comp=Z,8.0nm,1.1s						
D23K	**Nanushuk River**	**72.17**	**22**		**P**	**17 58 44.8**	**+0.2**
D23K				IAmb	IAmb	17 58 52.3	
	comp=Z,7.9nm,0.8s						
MLY	**Manley**	**72.56**	**26**	IAmb	IAmb	17 58 48.5	
	comp=Z,6.0nm,0.9s						
E23K	**Chandalar**	**72.65**	**23**	IAmb	IAmb	17 58 54.8	
	comp=Z,6.0nm,0.8s						
G23K	**Bananza Creek**	**72.65**	**25**	IAmb	IAmb	17 58 52.4	
	comp=Z,12nm,1.4s						
H23K	**Yukon River**	**72.96**	**26**	IAmb	IAmb	17 58 51.2	
	comp=Z,8.1nm,1.0s						
E24K	**Your Creek**	**73.07**	**23**	IAmb	IAmb	17 58 51.5	
	comp=Z,6.4nm,0.9s						
I23K	**Minto, Yukon-K**	**73.12**	**26**	IAmb	IAmb	17 58 54.9	
	comp=Z,4.7nm,1.0s						
NEA2	**Nenana**	**73.32**	**27**	IAmb	IAmb	17 58 58.7	
	comp=Z,5.7nm,0.8s						
F24K	**Squaw Lake**	**73.38**	**24**	IAmb	IAmb	17 58 57.1	
	comp=Z,4.7nm,0.8s						
H24K	**Noodor Dome**	**73.63**	**25**	IAmb	IAmb	17 58 55.0	
	comp=Z,6.2nm,1.1s						
D25K	**Kavik River**	**73.65**	**22**	IAmb	IAmb	17 59 01.5	
	comp=Z,7.6nm,0.8s						
G24K	**Hadweenzic Riv**	**73.66**	**24**	IAmb	IAmb	17 58 55.1	
	comp=Z,6.3nm,1.0s						
AFI	**Afiamalu**	**73.74**	**111**	LR	LR	18 25 55.6	
	comp=Z,41nm,19.3s,baz=218,slow=32						
SML	**Sawmill**	**74.09**	**30**	IAmb	IAmb	17 58 59.1	
	comp=Z,11nm,1.1s						
F25K	**Christian Rive**	**74.21**	**23**	IAmb	IAmb	17 59 04.5	
	comp=Z,4.2nm,0.8s						
ILAR	**Eielson Array**	**74.22**	**26**	P	**P**	**17 58 55.2**	**-1.6**
	comp=Z,0.6nm,0.5s,baz=282,slow=5.7,SNR=6.2						
	comp=Z,0.6nm,0.5s						
ARCES	**ARCESS Array B**	**74.58**	**339**	P	**P**	**17 58 56.9**	**-1.9**
	comp=Z,4.0nm,0.9s,baz=50,slow=8.0,SNR=4.3						
	comp=Z,4.0nm,0.9s						
F26K	**Sheenjek River**	**74.76**	**23**	IAmb	IAmb	17 59 05.5	
	comp=Z,4.9nm,1.0s						
SPITS	**Spitsbergen Ar**	**74.83**	**348**	P	**P**	**17 58 59.5**	**-0.6**
	comp=Z,8.4nm,1.0s,baz=63,slow=17,SNR=3.6						
	comp=Z,8.4nm,1.0s						
G26K	**Porcupine Rive**	**75.05**	**24**	IAmb	IAmb	17 59 08.8	
	comp=Z,5.3nm,0.8s						
SCRK	**Sand Creek**	**75.61**	**27**	IAmb	IAmb	17 59 05.5	
	comp=Z,6.8nm,1.4s						
I26K	**Coal Creek Min**	**75.66**	**26**	IAmb	IAmb	17 59 13.9	
	comp=Z,8.5nm,1.1s						
FINES	**FINESS Array B**	**76.12**	**330**	P	**P**	**17 59 06.8**	**-0.9**
	comp=Z,2.9nm,0.8s,baz=57,slow=5.6,SNR=6.5						
	comp=Z,2.9nm,0.8s						
GLB	**Gilahina Butte**	**76.28**	**30**	IAmb	IAmb	17 59 11.6	
	comp=Z,7.2nm,1.0s						
BRTR	**Keskin Array B**	**76.33**	**308**	P	**P**	**17 59 08.7**	**-0.9**
	comp=Z,0.4nm,0.6s,baz=48,slow=6.8,SNR=2.2						
BRTR				LR	LR	18 36 31.4	
	comp=Z,25nm,19.8s,baz=2.0,slow=39						
	comp=Z,0.4nm,0.6s						
BRTR	**Keskin Array B**	**76.33**	**308**	P	**P**	**17 59 09.4**	**-0.2**
M26K	**Nabesna, AK**	**76.42**	**28**	IAmb	IAmb	17 59 16.4	
	comp=Z,6.2nm,0.8s						
K27K	**Chicken**	**76.42**	**27**	IAmb	IAmb	17 59 16.5	
	comp=Z,3.9nm,0.8s						
BCAR	**Beaver Creek A**	**76.79**	**28**		**P**	**17 59 11.5**	**-0.1**
AKASG	**Malin Array Be**	**76.88**	**319**	P	**P**	**17 59 11.2**	**-1.1**
	comp=Z,1.3nm,0.8s,baz=60,slow=6.2,SNR=6.3						
AKASG				LR	LR	18 35 27.2	
	comp=Z,64nm,19.4s,baz=355,slow=38						
	comp=Z,1.3nm,0.8s						
I28M	**Miner Creek**	**76.93**	**25**	IAmb	IAmb	17 59 13.9	
	comp=Z,7.5nm,1.1s						
F30M	**Barrier River**	**77.86**	**22**		**P**	**17 59 17.6**	**+0.1**
L29M	**L29M**	**78.37**	**27**	IAmb	IAmb	17 59 28.2	
	comp=Z,6.0nm,0.7s						
M29M	**Somme Creek**	**78.44**	**28**	P	**P**	**17 59 21.8**	**+0.9**
M29M				IAmb	IAmb	17 59 28.3	
	comp=Z,6.8nm,0.7s						
HFS	**Hagfors**	**82.28**	**331**	P	**P**	**17 59 40.1**	**-1.4**
	comp=Z,1.5nm,0.7s,baz=134,slow=4.2,SNR=4.8						
	comp=Z,1.5nm,0.7s						
NB2	**NORSAR Subarra**	**83.01**	**333**	P	**P**	**17 59 44.0**	**-1.3**
	comp=Z,3.8nm,0.8s,baz=66,slow=4.6						
NOA	**NORSAR Array B**	**83.01**	**333**	P	**P**	**17 59 43.5**	**-1.8**
	comp=Z,0.7nm,0.7s,baz=63,slow=4.9,SNR=4.4						
NOA				LR	LR	18 39 39.2	
	comp=Z,45nm,18.1s,baz=60,slow=38						
	comp=Z,0.7nm,0.7s						
MORH	**Mrgy, Hungar**	**84.94**	**317**	P	**P**	**17 59 55.7**	**+0.3**
	comp=Z,3.9nm,1.8s						
BRG	**Berggiesshubel**	**85.98**	**323**	*e*P	**P**	**18 00 00.8**	**+0.3**
BRG				Amp		18 00 04.2	
	comp=Z,2.9nm,1.0s						
CLL	**Collm**	**86.34**	**323**	*i* P	**P**	**18 00 02.1**	**-0.1**
	comp=Z,10.0nm,1.4s						
GERES	**GERESS Array B**	**86.98**	**321**	P	**P**	**18 00 04.8**	**-0.7**
	comp=Z,0.3nm,0.3s,baz=44,slow=13,SNR=2.1						
	comp=Z,0.3nm,0.3s						
YKA	**Yellowknife Ar**	**88.13**	**23**	P	**P**	**18 00 09.7**	**-1.0**
	comp=Z,1.7nm,0.7s,baz=310,slow=4.4,SNR=9.0						
	comp=Z,1.7nm,0.7s						
BORG	**Borgarnes**	**91.99**	**345**	LR	LR	18 44 36.3	
	comp=Z,25nm,18.3s,baz=143,slow=37						
EKA	**Eskdalemuir Ar**	**92.47**	**332**	LR	LR	18 46 38.0	
	comp=Z,100nm,19.3s,baz=36,slow=38						

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*IDC **20** 18:08:40.3±8.2, 2.°76N×128.°70E, h180^{km}±86^{km}, mb3.4/10, mbtmp3.9/10, MS3.6/1, Error ellipse: s-maj=34.0km s-min=14.6km az=77.0*

*DJA **20** 18:08:46.5±0.9, 2°N±12°×12°8E±°, h238^{km}±9^{km}, M3.6/6, MLv3.6/6, MLv3.6/6*

ISC 20 18:08:42.2±0.9**, 2.°8N**±0.°1×**128.°8E**±0.°3**, h200**^{km}**, n11, σ0.^{s}93**/10**, mb3.6**/9**, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**20.95**	**188**	P	**P**	**18 13 08.7**	**-1.1**
	3.1nm,0.9s,baz=19,slow=6.6,SNR=6.9						
	3.1nm,0.9s						
WRA	**Warramunga Arr**	**23.20**	**167**	P	**P**	**18 13 30.5**	**-1.0**
	0.6nm,0.3s,baz=342,slow=10,SNR=44						
	0.6nm,0.3s						
ASAR	**Alice Springs**	**26.73**	**170**	P	**P**	**18 14 03.5**	**+0.2**
	0.7nm,0.4s,baz=350,slow=7.6,SNR=51						
	0.7nm,0.4s						
CMAR	**Chiang Mai Arr**	**33.14**	**300**	P	**P**	**18 15 00.7**	**+0.9**
	0.9nm,0.7s,baz=115,slow=9.3,SNR=3.3						
	0.9nm,0.7s						
KSRS	**Korea Array**	**34.54**	**359**	P	**P**	**18 15 12.2**	**+0.5**
	1.0nm,0.6s,baz=170,slow=8.2,SNR=5.1						
	1.0nm,0.6s						
MJAR	**Matsushiro Arr**	**34.73**	**13**	P	**P**	**18 15 13.2**	**-0.1**
	1.0nm,0.8s,baz=190,slow=10.0,SNR=6.1						
	1.0nm,0.8s						
STKA	**Stephens Creek**	**36.52**	**162**	P	**P**	**18 15 29.6**	**+1.0**
	1.3nm,0.4s,baz=348,slow=6.8,SNR=9.2						
	1.3nm,0.4s						
LZDM	**Lanzhou Array**	**40.38**	**328**	LR	LR	18 34 37.3	
	comp=Z,84nm,19.7s,baz=190,slow=39						
MKAR	**Makanchi Array**	**59.53**	**325**	P	**P**	**18 18 24.0**	**-0.6**
	0.6nm,0.4s,baz=117,slow=8.0,SNR=12						
	0.6nm,0.4s						
KURBB	**Kurchatov Arra**	**63.67**	**327**	P	**P**	**18 18 51.5**	**-0.6**
	1.3nm,0.4s,baz=126,slow=5.9,SNR=15						
	1.3nm,0.4s						
BVAR	**Borovoye Array**	**69.26**	**327**	P	**P**	**18 19 26.4**	**-1.0**
	0.5nm,0.4s,baz=119,slow=12,SNR=4.1						
	0.5nm,0.4s						

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*SJA **20** 18:19:17.9±0.7, 33.°57S×72.°13W, h18^{km}±2^{km}, ML3.4, MW3.6*

*GUC **20** 18:19:20.7±0.7, 33.°54S×72.°03W, h25^{km}±13^{km}, ML3.2*

ISC 20 18:19:18.7±1.4**, 33.°53S**±0.°02×**72.°08W**±0.°05**, h13**^{km}±9^{km}**, n44, σ1.^{s}40**/81**, 5D, Off coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VA05	**Santo Domingo**	**0.41**	**108**	⇓*i*P	**Pb**	**18 19 28.3**	**+0.5**
VA05				*e*S	**Sb**	**18 19 34.0**	**+0.1**
VA05				IAML		18 19 39.1	
	comp=N,4µm,0.3s						
VA01	**Torpederas**	**0.62**	**36**	*e*P	**Pb**	**18 19 31.9**	**+0.4**
VA01	**Torpederas**	**0.62**	**36**	⇓*i*P	**Pb**	**18 19 31.9**	**+0.4**
VA01				*e*S	**Sb**	**18 19 40.4**	**+0.3**
VA01				IAML		18 19 43.5	
	comp=E,2µm,0.1s						
MT01	**Popeta**	**0.77**	**116**	*e*P	**Pg**	**18 19 33.6**	**+0.1**
MT01				*e*S	**Sb**	**18 19 44.8**	**+0.4**
MT01				IAML		18 19 46.5	
	comp=Z,806nm,0.6s						
MT01	**Popeta**	**0.77**	**116**	*e*P	**Pg**	**18 19 33.8**	**+0.2**
MT01				*e*S	**Sg**	**18 19 43.6**	**-0.1**
MT01				IAML		18 19 46.7	
	comp=N,3µm,0.4s						
MT02	**Curacav**	**0.83**	**71**	*e*P	**Pb**	**18 19 35.1**	**0.0**
MT02				IAML		18 19 52.0	
	comp=Z,538nm,0.5s						
MT02	**Curacav**	**0.83**	**71**	⇓*i*P	**Pb**	**18 19 35.1**	**0.0**
MT02				*e*S	**Sb**	**18 19 45.7**	**-0.5**
MT09	**Talagante**	**0.94**	**105**	⇓*i*P	**Pg**	**18 19 36.5**	**-0.4**
MT09				*e*S	**Sg**	**18 19 48.8**	**-0.5**
MT09				IAML		18 19 52.1	
	comp=N,1µm,0.2s						
BO03	**Pichilemu**	**0.97**	**174**	*e*P	**Pg**	**18 19 37.7**	**+0.3**
BO03				*e*S	**Sg**	**18 19 50.5**	**+0.4**
BO03				IAML		18 19 53.4	
	comp=N,1µm,0.5s						
ROCH	**El Roble**	**1.05**	**58**	*e*P	**Pg**	**18 19 38.7**	**-0.4**
ROCH				*e*S	**Sb**	**18 19 52.8**	**0.0**
ROCH				IAML		18 19 57.6	
	comp=N,1µm,0.4s						
MT05	**Renca**	**1.13**	**83**	*e*P	**Pb**	**18 19 40.3**	**+0.1**
MT05				*e*S	**Sn**	**18 19 56.0**	**+0.3**
MT05				IAML		18 19 58.2	
	comp=Z,698nm,1.2s						
MT05	**Renca**	**1.13**	**83**	*e*P	**Pb**	**18 19 40.0**	**-0.1**
MT05				*e*S	**Sb**	**18 19 54.4**	**-0.4**
MT05				IAML		18 19 59.6	
	comp=E,1µm,0.3s						
BO01	**Tunca**	**1.19**	**136**	*e*P	**Pb**	**18 19 40.4**	**-0.8**
BO01				*e*S	**Sn**	**18 19 57.7**	**+0.4**
BO01	**Tunca**	**1.19**	**136**	*e*P	**Pb**	**18 19 40.3**	**-0.9**
BO01				*e*S	**Sb**	**18 19 56.2**	**-0.4**
PEL	**Peldehue**	**1.23**	**72**	*e*P	**Pn**	**18 19 41.8**	**+0.1**
PEL				*e*S	**Sb**	**18 19 57.3**	**-0.3**
PEL				IAML		18 20 02.6	
	comp=N,888nm,0.5s						
MT12	**Pirque**	**1.29**	**99**	*e*P	**Pn**	**18 19 42.3**	**-0.3**
MT12				*e*S	**Sb**	**18 19 58.7**	**-0.8**
MT12				IAML		18 20 01.7	
	comp=E,2µm,0.5s						
MT14	**Cerro Cal¡n**	**1.30**	**84**	*e*P	**Pn**	**18 19 42.9**	**+0.2**
MT14				*e*S	**Sb**	**18 19 59.4**	**-0.3**
MT14				IAML		18 20 04.5	
	comp=E,2µm,0.6s						
MT16	**CCHEN**	**1.30**	**86**	*e*P	**Pn**	**18 19 42.9**	**+0.2**
MT16				*e*S	**Sb**	**18 19 59.4**	**-0.4**
BO04	**La Punta**	**1.31**	**111**	*e*P	**Pn**	**18 19 42.2**	**-0.5**
BO04				*e*S	**Sb**	**18 19 59.6**	**-0.3**
BO04				IAML		18 20 04.1	
	comp=N,564nm,0.6s						
MT03	**Universidad Ad**	**1.31**	**89**	*e*P	**Pn**	**18 19 43.2**	**+0.4**
MT03				*e*S	**Sg**	**18 20 03.7**	**+2.7**
MT03				IAML		18 20 04.5	
	comp=Z,722nm,0.7s						
MT03	**Universidad Ad**	**1.31**	**89**	*e*P	**Pn**	**18 19 42.8**	**-0.1**
MT03				*e*S	**Sb**	**18 19 59.9**	**-0.2**
MT03				IAML		18 20 05.3	
	comp=E,1µm,0.1s						
MT10	**Hacienda Santa**	**1.31**	**79**	⇓*i*P	**Pb**	**18 19 43.4**	**0.0**
MT10				*e*S	**Sb**	**18 19 59.6**	**-0.7**
MT15	**Las Vizcachas**	**1.31**	**93**	*e*P	**Pn**	**18 19 42.8**	**-0.1**
MT15				*e*S	**Sb**	**18 19 59.5**	**-0.6**
MT15				IAML		18 20 02.1	
	comp=N,973nm,0.3s						
GO05	**Hualane**	**1.48**	**175**	*e*P	**Pn**	**18 19 45.5**	**+0.3**
GO05				*e*S	**Sn**	**18 20 03.8**	**-0.7**
GO05				IAML		18 20 12.1	
	comp=E,500nm,0.6s						
VA03	**San Esteban**	**1.49**	**60**	*e*P	**Pb**	**18 19 46.2**	**-0.2**
VA03				*e*S	**Sg**	**18 20 08.2**	**+1.3**
VA03				IAML		18 20 13.8	
	comp=Z,747nm,0.6s						
VA03	**San Esteban**	**1.49**	**60**	*e*P	**Pn**	**18 19 46.0**	**+0.6**
VA03				*e*S	**Sb**	**18 20 05.0**	**-0.3**
MT13	**San Alfonso**	**1.51**	**99**	*e*P	**Pn**	**18 19 46.4**	**+0.7**
MT13				IAML		18 20 14.1	
	comp=Z,430nm,0.3s						
MT13	**San Alfonso**	**1.51**	**99**	*e*P	**Pn**	**18 19 45.9**	**+0.2**
MT13				*e*S	**Sn**	**18 20 05.1**	**-0.2**
MT13				IAML		18 20 08.5	
	comp=N,534nm,0.6s						
LMEL	**Las Melosas**	**1.59**	**102**	*e*P	**Pn**	**18 19 47.3**	**+0.5**
LMEL				*e*S	**Sn**	**18 20 07.4**	**0.0**
LMEL				IAML		18 20 13.0	
	comp=N,618nm,0.3s						
MT04	**Ro Olivares**	**1.63**	**86**	*e*P	**Pb**	**18 19 48.4**	**-0.4**
MT04				*e*S	**Sg**	**18 20 13.0**	**+1.8**
MT04				IAML		18 20 14.8	
	comp=Z,422nm,0.9s						
MT04	**Ro Olivares**	**1.63**	**86**	*e*P	**Pn**	**18 19 48.0**	**+0.6**
MT04				*e*S	**Sn**	**18 20 08.5**	**+0.2**
MT04				IAML		18 20 13.0	
	comp=N,607nm,0.3s						
BO02	**Sierra Bellavi**	**1.66**	**140**	*e*P	**Pn**	**18 19 48.6**	**+1.0**
BO02				*e*S	**Sn**	**18 20 05.3**	**-3.5**
BO02				IAML		18 20 19.4	
	comp=Z,751nm,0.6s						
BO02	**Sierra Bellavi**	**1.66**	**140**	*e*P	**Pn**	**18 19 48.4**	**+0.8**
BO02				*e*S	**Sn**	**18 20 09.2**	**+0.4**
MT08	**Bocatoma Ro**	**1.72**	**88**	*e*P	**Pb**	**18 19 50.0**	**-0.4**
MT08				*e*S	**Sg**	**18 20 14.1**	**-0.2**
MT08				IAML		18 20 17.4	
	comp=Z,292nm,0.6s						
MT08	**Bocatoma Ro**	**1.72**	**88**	*e*P	**Pb**	**18 19 50.0**	**-0.4**
MT08				*e*S	**Sb**	**18 20 11.9**	**-0.2**
MT08				IAML		18 20 17.6	
	comp=N,337nm,0.5s						
CO04	**Los Peladeros**	**1.75**	**32**	*e*P	**Pn**	**18 19 48.8**	**-0.3**
CO02	**Combarbal**	**2.49**	**22**	*e*P	**Pn**	**18 19 59.3**	**+0.2**
ARCO	**CERRO ARCO**	**2.73**	**76**	*e*P	**Pb**	**18 20 08.6**	**+1.1**
ARCO				IAML		18 20 54.2	
	comp=Z,92nm,1.0s						
RTLS	**Leoncito**	**2.91**	**54**	*e*P	**Pn**	**18 20 08.0**	**+2.9**
RTLS				*e*S	**Sg**	**18 20 49.3**	**-3.1**
RTLS				IAML		18 20 55.3	
	comp=Z,412nm,0.6s						
CFA	**Coronel Fontan**	**3.77**	**60**	*e*P	**Pn**	**18 20 19.6**	**+2.9**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CFA				*e*S	Sg	18 21 15.2	-4.6
CFA				IAML		18 21 18.9	
	comp=Z,37nm,0.6s						
ACCO	Cerro Coronel	3.89	42	*e*P	Pn	18 20 22.3	+3.7
ACCO				*e*S	Sb	18 21 11.8	-2.8
ACCO				IAML		18 21 32.3	
	comp=Z,45nm,1.4s						
CO01	Juntas del Tor	3.92	26	*e*P	Pn	18 20 20.8	+1.8
CO01				*e*S	Sn	18 21 06.0	+1.0
CO01				IAML		18 21 27.0	
	comp=Z,67nm,0.7s						
AROD	Rodeo	4.02	34	*e*P	Pn	18 20 23.8	+3.5
AROD				*e*S	Sg	18 21 23.3	-4.6
ACAN	Cantantal	4.30	74	*e*P	Pn	18 20 26.6	+2.7
ACAN				IAML		18 21 28.2	
	comp=Z,203nm,1.0s						

IDC ***20*** *18:19:53.3±2.9, 33°.84S×178°.64W, h0^{km}, mb3.9/2, mbtmp4.0/3, ML3.9/1, Error ellipse: s-maj=69.5km s-min=35.3km az=122.0*

WEL ***20*** *18:20:00.6±1.0, 34°S±10°×17°9W±1°3, h202^{km}±21^{km}, M4.1/8, mB4.2/2, ML3.9/6, MLv4.1/8, Mw(mB)3.3/2, Error ellipse: s-maj=17.5km s-min=11.1km az=117.1, confirmed*

NOU ***20*** *18:20:03.1, 34°.34S×178°.59W, h156^{km}, mb3.9/5, South of Kermadec Islands*

ISC 20 18:19:56.9±1.8,**33°.9S**±0°.1×**178°.4W**±0°.2,**h37**^{km},**n27**, σ**1^{s}.77**/42,**South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	4.59	215	P	Pn	18 21 04.6	+0.9
MXZ	Matakaoa Point	4.59	215	P	Pn	18 21 02.7	-1.0
MXZ				S	Sn	18 21 56.4	+0.7
WMGZ	Waiomatatini S	4.75	213	P	Pn	18 21 08.5	+2.7
WMGZ				S	Sn	18 22 01.6	+2.0
WMGZ				AML	AML		
WMGZ				AML	AML		
PKGZ	Pakihiroa	4.94	215	P	Pn	18 21 07.9	-0.6
PKGZ				S	Sn	18 22 06.4	+2.0
PKGZ				AML	AML		
HAZ	Te Kaha	5.00	218	P	Pn	18 21 10.7	+1.4
HAZ				S	Sn	18 22 08.5	+2.7
HAZ				AML	AML		
HAZ				AML	AML		
PUZ	Puketiti	5.02	212	P	Pn	18 21 10.6	+0.9
PUZ				S	Sn	18 22 07.4	+0.9
PUZ				AML	AML		
RUGZ	Raukumara Rang	5.21	217	P	Pn	18 21 12.3	-0.1
RUGZ				S	Sn	18 22 13.7	+2.4
RUGZ				AML	AML		
RUGZ				AML	AML		
TWGZ	Tauwhareparae	5.24	213	P	Pn	18 21 14.4	+1.7
TWGZ				S	Sn	18 22 14.4	+2.6
TWGZ				AML	AML		
TWGZ				AML	AML		
TKGZ	Te Karaka	5.51	213	P	Pn	18 21 18.0	+1.7
TKGZ				S	Sn	18 22 19.1	+0.7
TKGZ				AML	AML		
TKGZ				AML	AML		
MWZ	Matawai	5.57	215	P	Pn	18 21 18.5	+1.2
MWZ				S	Sn	18 22 19.6	-0.5
MWZ				AML	AML		
MWZ				AML	AML		
URZ	Urewera	5.72	218	Pn	Pn	18 21 18.0	-1.3
	3.4nm,0.3s,baz=265,slow=4.7,SNR=33						
URZ				Sn	Sn	18 22 22.4	-1.3
	4.5nm,0.3s,baz=210,slow=3.7,SNR=14						
	8.4nm,0.3s						
URZ				AML	AML		
URZ	Urewera	5.72	218	P	Pn	18 21 19.3	0.0
URZ	Urewera	5.72	218	P	Pn	18 21 20.0	+0.7
URZ				S	Sn	18 22 23.6	-0.2
URZ				AML	AML		
RAGZ	Rawiri	5.76	215	P	Pn	18 21 20.8	+1.0
RAGZ				S	Sn	18 22 24.9	+0.3
RAGZ				AML	AML		
RAGZ				AML	AML		
RTZ	Ruatahuna	6.06	217	P	Pn	18 21 24.7	+0.7
RTZ				S	Sn	18 22 31.4	-0.7
RTZ				AML	AML		
BKZ	Black Stump Fm	6.73	216	P	Pn	18 21 33.0	-0.1
BKZ	Black Stump Fm	6.73	216	P	Pn	18 21 32.6	-0.6
BKZ				S	Sn	18 22 46.2	-2.4
OUZ	Omahuta	6.77	256	P	Pn	18 21 36.4	+2.7
OUZ	Omahuta	6.77	256	P	Pn	18 21 35.9	+2.2
NGZ	Ngauruhoe	7.20	221	S	Sn	18 22 57.7	-2.5
BFZ	Birch Farm	8.06	211	P	Pn	18 21 50.2	-1.1
BFZ	Birch Farm	8.06	211	S	Sn	18 23 17.7	-3.4
MRZ	Mangatainoka R	8.34	214	P	Pn	18 21 54.1	-1.0
MRZ				S	Sn	18 23 23.5	-4.5
CTZ	Chatham Island	9.96	173	P	Pn	18 22 20.2	+2.7
ASAR	Alice Springs	42.73	271	P	P	18 27 50.6	0.0
	1.5nm,0.7s,baz=112,slow=7.7,SNR=23						
	1.5nm,0.7s						
WRA	Warramunga Arr	44.03	276	P	P	18 28 00.9	-0.2
	1.3nm,0.6s,baz=117,slow=7.3,SNR=16						
	1.3nm,0.6s						
FINES	FINESS Array B	148.24	338	PKPbc	PKiKP	18 39 39.5	-0.3
	1.9nm,0.7s,baz=45,slow=4.0,SNR=9.6						

NDI 20 18:32:08.2±2.0,**19°.85N**×**72°.11E**,**h24**^{km}±25^{km},**ML3.7**, **MW3.5**,**Presumed earthquake**,**Southern India**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOM	Bombay	1.15	145	*e*P	Pb	18 32 29.5	0.0
BOM				*e*S	Sb	18 32 46.3	+2.3
BOM				IAML		18 32 51.1	
	comp=E,1μm,0.1s						
BOM				IAML		18 32 51.3	
	comp=N,1μm,0.1s						
BHV	Bhavnagar	1.89	1	*e*P	Pn	18 32 39.3	+0.2
BHV				*e*S	Sn	18 33 02.3	+0.1
BHV				IAML		18 33 05.4	
	comp=E,2μm,0.1s						
BHV				IAML		18 33 05.9	
	comp=N,1μm,0.2s						
POO	Poona	2.10	128	*e*P	Pn	18 32 41.7	-0.3
POO				*e*S	Sn	18 33 05.4	-2.0
POO				IAML		18 33 05.8	
	comp=E,509nm,0.3s						
POO				IAML		18 33 07.1	
	comp=N,520nm,0.2s						
KAD	Karad	3.20	142	*e*P	Pn	18 32 57.2	+0.1
KAD				*e*S	Sn	18 33 33.4	-1.2
KAD				IAML		18 33 41.8	
	comp=E,456nm,0.2s						
KAD				IAML		18 33 42.8	
	comp=N,405nm,0.1s						
BHPL	Bhopal	5.99	55	*e*S	Sn	18 34 39.1	-4.2
BHPL				IAML		18 34 56.4	
	comp=N,52nm,0.4s						
BHPL				IAML		18 35 01.0	
	comp=E,45nm,0.6s						

BJI ***20*** *19:07:59.9, 37°.87N×33°.26E, h5^{km}, mB5.3/34, mb4.8/69, Ms5.2/69, Ms7 5.0/69*

GII ***20*** *19:08:01.7±0.0, 38°.341N±0°.002×34°.383E±0°.001, h0^{km}, Mws5.2, confirmed*

CFUSG ***20*** *19:08:04.4, 37°.53N×33°.90E, h33^{km}, Mb4.0/6, MD4.1/3, MSH3.7/2*

AFAD ***20*** *19:08:05.0, 38°.01N×34°.04E, h6^{km}±6^{km}, MW5.1*

ISK ***20*** *19:08:05.1, 38°.02N×34°.08E, h5^{km}, ML5.1/79*

MED_RC ***20*** *19:08:06.0, 38°.04N×34°.03E, h10^{km}, Mw5.3, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}0.12±.02; $M_{\theta\theta}$-0.50±.02; $M_{\phi\phi}$0.00±.01; $M_{r\theta}$-0.09±.06; $M_{\theta\phi}$0.67±.01; $M_{\phi r}$0.63±.06; Fault plane solution: $M_0$1.03000×10^{17} NP1:ϕ_s76.00000°, δ52.00000°, λ8.00000°. NP2:ϕ_s341.00000°, δ84.00000°, λ142.00000°. Principal axes: T 1.0500, Plg31.0000°, Azm292.0000°; N -0.0400, Plg52.0000°, Azm153.0000°; P -1.0100, Plg21.0000°, Azm35.0000°;*

IDC ***20*** *19:08:06.0±0.4, 38°.03N×34°.09E, h0^{km}, mb4.5/26, mbtmp4.5/40, ML3.9/13, MS4.7/78 Error ellipse: s-maj=9.1km s-min=8.2km az=88.0*

MOS ***20*** *19:08:06.4±1.1, 38°.05N×34°.17E, h9^{km}, mb4.8/52, MS4.5/14, Error ellipse: s-maj=3.9km s-min=2.5km az=108.2*

NEIC ***20*** *19:08:07.6±2.2, 38°.02N±0°.04×34°.04E±0°.06, h10^{km}±1^{km}, mb4.8/122, Mwr5.1/31, Mww5.1/23, Error ellipse: s-maj=7.6km s-min=7.4km az=272.0, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}-2.54; $M_{\theta\theta}$-1.09; $M_{\phi\phi}$3.63; $M_{r\theta}$-2.90; $M_{\theta\phi}$4.29; $M_{\phi r}$-0.33; Fault plane solution: $M_0$6.11000×10^{16} NP1:ϕ_s171.51000°, δ53.52000°, λ-157.36000°. NP2:ϕ_s67.59000°, δ71.97000°, λ-38.70000°. Principal axes: T 6.5269, Plg12.0000°, Azm123.0000°; N -0.9453, Plg48.0000°, Azm226.0000°; P -5.5817, Plg40.0000°, Azm23.0000°;*

MCSM ***20*** *19:08:07.6±0.4, 38°N±2°×3°4E±°, h10^{km}±3^{km}, mb4.8, mB5.2, MLv5.4, Mw(mB)4.6*

NEIC ***20*** *19:08:07.6, 38°.02N×34°.04E, h10^{km}*

NEIC ***20*** *19:08:08, 38°.05N×34°.07E, h10^{km}*

GCMT ***20*** *19:08:08.6±0.1, 38°.01N±0°.01×34°.00E±0°.01, h12^{km}, MW5.2/137, Moment Tensor Solution. s82,c115; s137,c250; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.20±.10; $M_{\theta\theta}$-2.96±.11; $M_{\phi\phi}$4.16±.10; $M_{r\theta}$0.82±.28; $M_{\theta\phi}$6.07±.08; $M_{\phi r}$0.49±.25; Best double couple: $M_0$7.09700×10^{16} NP1:ϕ_s345.00000°, δ83.00000°, λ180.00000°. NP2:ϕ_s75.00000°, δ90.00000°, λ7.00000°. Principal axes: T 7.7140, Plg5.0000°, Azm300.0000°; N -1.2350, Plg83.0000°, Azm76.0000°; P -6.4790, Plg5.0000°, Azm210.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

GFZ ***20*** *19:08:09.3±0.1, 38°N±2°×3°4E±°, h10^{km}, M4.7/127, mB5.2/85, mb4.7/127, Mw(mB)4.6/85*

GFZ ***20*** *19:08:09.3, 38°.03N×34°.18E, h10^{km}, Mw5.1/133, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}-0.58; $M_{\theta\theta}$-1.20; $M_{\phi\phi}$1.77; $M_{r\theta}$-0.55; $M_{\theta\phi}$5.28; $M_{\phi r}$1.82; Fault plane solution: $M_0$5.82857×10^{16} NP1: ϕ_s173.14360°, δ85.06942°, λ-160.56677°. NP2: ϕ_s81.40674°, δ70.64156°, λ-5.22684°. Principal axes: T 5.9716, Plg9.9981°, Azm305.7615°; N -0.2975, Plg69.9745°, Azm186.8349°; P -5.6741, Plg17.1674°, Azm38.8834°;*

NAO ***20*** *19:08:12.2, 38°.80N×35°.60E, h33^{km}, MB4.0*

NEIC ***20*** *19:08:13.5, 38°.02N×34°.04E, h12^{km}, Moment Tensor Solution. Duration: 1^{s}.9 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.74; $M_{\theta\theta}$-2.84; $M_{\phi\phi}$3.59; $M_{r\theta}$0.59; $M_{\theta\phi}$4.93; $M_{\phi r}$0.39; Fault plane solution: $M_0$5.97000×10^{16} NP1: ϕ_s343.38000°, δ83.61000°, λ179.27000°. NP2: ϕ_s73.46000°, δ89.27000°, λ6.40000°. Principal axes: T 6.3150, Plg5.0000°, Azm299.0000°; N -0.7745, Plg84.0000°, Azm80.0000°; P -5.5404, Plg4.0000°, Azm208.0000°;*

ISC 20 19:08:07.6±0.5,**38°.02N**±0°.01×**34°.07E**±0°.01,**h7**^{km}±2^{km}, **n1064**,σ**1^{s}.56**/1086,**mb4.8**/190,**MS4.8**/96,**66C-47D**, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BSIR	Belisirma, Guz	0.30	35	P	Pg	19 08 12.3	-1.2
BSIR				S	Sg	19 08 17.1	-0.5
BSIR				IAML		19 08 22.0	
	comp=N,6μm,1.3s						
BSIR				IAML		19 08 48.0	
	comp=E,8μm,1.1s						
GULA	Gulagac	0.35	22	Pg	Pg	19 08 12.9	-1.6
GULA				AML	AML		
YESY	Yesilyurt	0.35	228	Pg	Pg	19 08 12.9	-1.7
YESY				Sg	Sg	19 08 19.9	+0.7
YESY				AML	AML		
NIDE	Nigde/Merkez-G	0.56	92	P	Pg	19 08 17.1	-1.3
NIDE				S	Sg	19 08 26.4	+0.8
KERG	Konya-Eregli	0.61	176	P	Pg	19 08 17.8	-1.6
AKSY	AKSARAY - Alti	0.67	339	P	Pg	19 08 19.2	-1.4
AKSY				S	Sg	19 08 28.0	-1.4
AKSY				IAML		19 08 41.0	
	comp=E,6μm,1.0s						
AKSY				IAML		19 09 05.0	
	comp=N,5μm,2.5s						
CMRD	Camardi-Nigde	0.81	116	Pg	Pg	19 08 21.7	-1.5
CMRD				Sg	Sg	19 08 33.6	-0.1
CMRD				AML	AML		
GULE	Gulek	0.92	143	P	Pg	19 08 23.2	-2.2
GULE				S	Sg	19 08 37.8	+0.4
ALIN	Konya, Altinte	0.98	287	P	Pg	19 08 23.8	-2.7
ALIN				S	Sb	19 08 39.7	-0.6
AVNS	Nevsehir-Avano	0.99	38	P	Pg	19 08 25.9	-0.8
AVNS				S	Sn	19 08 43.7	+1.2
SERE	Sereflikochisa	1.01	337	Pg	Pg	19 08 25.3	-1.7
SERE				AML	AML		
YAHY	KAYSERI_Yahyal	1.02	85	P	Pg	19 08 26.2	-1.0
YAHY				S	Sb	19 08 41.8	+0.3
KRMN	Karaman	1.06	218	Pg	Pg	19 08 25.7	-2.3
KRMN				AML	AML		
KIRS	Kirsehir-Merke	1.12	354	P	Pg	19 08 27.2	-1.9
KIRS				S	Sg	19 08 43.4	-0.2
MCUR	KIREHR	1.19	17	P	Pg	19 08 28.6	-2.0
MCUR				S	Sb	19 08 46.5	+0.1
KKBE	Karaman, Kazim	1.20	229	P	Pg	19 08 27.8	-2.9
CAYT	Sariam	1.30	130	P	Pn	19 08 30.6	-1.6
CAYT				S	Sn	19 08 50.4	+0.5
KULU	Kulu	1.32	321	Pn	Pn	19 08 31.9	-0.8
KULU				AML	AML		
KOZK	Kozakli-Nevseh	1.34	27	Pn	Pn	19 08 31.8	-1.1
KOZK				AML	AML		
KONT	Konya--Tatoy	1.36	267	Pn	Pn	19 08 32.3	-0.8
KONT				AML	AML		
KONT	Konya--Tatoy	1.36	267	P	Pn	19 08 31.0	-2.0
KONT				S	Sn	19 08 52.2	+0.8
KONT				IAML		19 08 58.0	
	comp=E,2μm,0.8s						
KONT				IAML		19 09 01.0	
	comp=N,1μm,1.6s						
LADK	Ladik-KONYA	1.36	278	Pn	Pn	19 08 31.4	-1.8
LADK				AML	AML		
KMER	Konya-Meram	1.37	260	P	Pn	19 08 31.4	-2.0
KMER				S	Sb	19 08 50.0	-1.5
KMER				IAML		19 08 56.0	
	comp=E,7μm,1.0s						
KMER				IAML		19 08 59.0	
	comp=N,1μm,1.3s						
KAMT	Kaman	1.38	348	Pn	Pn	19 08 31.4	-2.0
KAMT				AML	AML		
KKUL	Konya-Kulu	1.46	322	P	Pn	19 08 34.6	0.0
KKUL				S	Sg	19 08 57.5	+2.8
KKUL				IAML		19 09 02.0	
	comp=N,3μm,1.0s						
KKUL				IAML		19 09 18.0	
	comp=E,4μm,1.0s						
KKUL	Konya-Kulu	1.46	322	P	Pn	19 08 32.9	-1.7
AKPI	Kirsehir/Akpin	1.48	358	P	Pn	19 08 33.4	-1.5
KOZT	Kozan	1.49	111	Pn	Pn	19 08 34.3	-0.6
KOZT				AML	AML		
GUNE	Kayseri	1.50	54	P	Pn	19 08 35.2	0.0
SIRC	Yozgat	1.56	32	P	Pn	19 08 34.8	-1.1
SIRC				S	Sg	19 08 58.2	+0.5
SAIM	ADANA	1.59	91	P	Pn	19 08 35.9	-0.4
SAIM				S	Sg	19 08 59.1	+0.5
KEBE	Keben-Mersin	1.60	190	Pn	Pn	19 08 35.6	-0.8
KEBE				AML	AML		
CDAG	Cicekdag	1.62	8	P	Pn	19 08 36.5	-0.2
CDAG				S	Sg	19 09 00.9	+1.3
KDHN	Kadinhani	1.62	289	P	Pn	19 08 34.6	-2.2
KDHN				S	Sn	19 08 57.9	-0.1
KDHN				IAML		19 09 02.0	
	comp=E,5μm,1.4s						
KDHN				IAML		19 09 04.0	
	comp=N,6μm,0.9s						
BNN	Bunyan	1.62	59	Pn	Pn	19 08 36.1	-0.7
BNN				AML	AML		
BNN	Bunyan	1.62	59		Pn	19 08 35.3	-1.5
AFSR	Afar-Bala (An	1.62	331	Pn	Pn	19 08 36.2	-0.6
AFSR				AML	AML		
SLFK	Silifke-Mersin	1.63	184	Pn	Pn	19 08 35.7	-1.1
SLFK				AML	AML		
HDMB	Hadim	1.65	231	Pn	Pn	19 08 36.6	-0.6
HDMB				AML	AML		
KESK	Krkkale-Ke	1.66	347	P	Pn	19 08 36.5	-0.7
KESK				S	Sg	19 09 00.3	-0.6
KESK				IAML		19 09 09.0	
	comp=N,2μm,1.0s						
KESK				IAML		19 09 09.0	
	comp=E,3μm,1.1s						
ERMK	Ermenek	1.66	214	P	Pg	19 08 39.4	0.0
ERMK				S	Sg	19 09 00.7	-0.2
TEVE	Tevekalti-Mers	1.66	198	Pn	Pn	19 08 36.5	-0.8
TEVE				AML	AML		
BBAL	Bala	1.69	334	P	Pn	19 08 38.3	+0.6
BBAL				S	Sg	19 09 01.9	-0.1
BBAL				IAML		19 09 11.0	
	comp=N,3μm,0.9s						
BBAL				IAML		19 09 12.0	
	comp=E,2μm,1.3s						
BR104	Keskin Array S	1.72	349	P	Pn	19 08 38.3	+0.2
BR104				AML	AML		
BR105	Keskin Array S	1.73	348	P	Pn	19 08 38.4	+0.1
BR105				AML	AML		
BR131	Keskin Array S	1.73	349	Pn	Pn	19 08 37.7	-0.7
BR131				AML	AML		
BR131	Keskin Array S	1.73	349	P	Pn	19 08 38.0	-0.4
	SNR=3218						
BR131				S	Sg	19 09 04.1	+0.7
BR131	Keskin Array S	1.73	349	*d i*P	Pn	19 08 36.2	-2.2
BR131	Keskin Array S	1.73	349		Pn	19 08 36.5	-1.9
BR131				Sn	Sg	19 09 04.3	+0.9
BRTR	Keskin Array B	1.73	349	Pn	Pn	19 08 36.2	-2.2
	220nm,0.3s,baz=161,slow=17,SNR=788						
BRTR				Lg	Lg	19 09 02.7	
	1μm,0.3s,baz=158,slow=31,SNR=30						
BRTR				LR	LR	19 09 32.8	
	comp=Z,21μm,19.7s,baz=150,slow=50						
BR106	Keskin Array S	1.75	348	P	Pn	19 08 38.3	-0.2
BR106				AML	AML		
KRTS	Karatas	1.78	144	Pn	Pn	19 08 38.5	-0.3
KRTS				AML	AML		
BERE	Bereket-Mersin	1.80	202	Pn	Pn	19 08 38.5	-0.8
BERE				AML	AML		
IKL	Isikli	1.81	190	Pn	Pn	19 08 38.7	-0.5
IKL				AML	AML		
KARG	Kargicak-Mersi	1.84	189	Pn	Pn	19 08 39.1	-0.6
KARG				AML	AML		
TEPK	Tepekoy-MERSIN	1.84	193	Pn	Pn	19 08 39.2	-0.6
TEPK				AML	AML		
YOZG	Bozok Univ. Me	1.84	18	P	Pn	19 08 39.4	-0.4
YOZG				S	Sb	19 09 05.1	0.0
YOZG				IAML		19 09 14.0	
	comp=N,9μm,0.8s						
YOZG				IAML		19 09 20.0	
	comp=E,5μm,0.7s						
ANDN	Andirin	1.85	103	P	Pn	19 08 40.6	+0.6
ANDN	Andirin	1.85	103	P	Pn	19 08 39.5	-0.5
YESI	Yesilovacik-Me	1.85	191	Pn	Pn	19 08 39.4	-0.5
YESI				AML	AML		
OREN	Orenkoy-Mersin	1.88	195	Pn	Pn	19 08 39.9	-0.2
OREN				AML	AML		
SEYD	Seydisehir-KON	1.88	252	Pn	Pn	19 08 39.7	-0.6
SEYD				AML	AML		
GULN	MERSIN_Gulnar	1.88	193	P	Pn	19 08 40.3	+0.1
GULN				S	Sn	19 09 04.9	+0.6
GULN				IAML		19 09 25.0	
	comp=E,4μm,0.9s						
GULN				IAML		19 09 33.0	
	comp=N,4μm,1.2s						
TISA	Tisan-Mersin	1.88	190	Pn	Pn	19 08 39.8	-0.4
TISA				AML	AML		
SARI	SarD1z-Kayseri	1.89	77	Pn	Pn	19 08 40.0	-0.5
SARI				AML	AML		
YOZ	Yozgat	1.89	31	Pn	Pn	19 08 39.7	-0.8
YOZ				AML	AML		
BECE	Buyukeceli-Mer	1.91	193	Pn	Pn	19 08 40.3	-0.3
BECE				AML	AML		
AKK1	Akkuyu-Mersin	1.92	193	Pn	Pn	19 08 40.4	-0.4
AKK1				AML	AML		
KIZT	Kizilcal	1.92	297	Pn	Pb	19 08 42.1	-1.0
KIZT				AML	AML		
SEDI	Konya, Seydise	1.93	254	P	Pb	19 08 42.8	-0.4
SEDI				S	Sg	19 09 10.6	+1.2
SEDI				IAML		19 09 15.0	
	comp=N,8μm,2.0s						
SEDI				IAML		19 09 22.0	
	comp=E,4μm,1.1s						
AKK2	Akkuyu-Mersin	1.93	193	Pn	Pn	19 08 40.2	-0.6
AKK2				AML	AML		
YORU	Yoruktepe-Mers	1.94	196	Pn	Pn	19 08 41.0	-0.1
YORU				AML	AML		
TEKE	Tekeli-Mersin	2.03	203	Pn	Pn	19 08 41.8	-0.4
TEKE				AML	AML		
GOKD	Ankara-Kalecik	2.10	347	P	Pb	19 08 45.2	-1.0
GOKD				S	Sb	19 09 13.6	+1.2
GOKD				IAML		19 09 22.0	
	comp=E,2μm,1.2s						
GOKD				IAML		19 09 27.0	
	comp=N,1μm,0.8s						
BOZY	Bozyazi-Mersin	2.10	205	Pn	Pn	19 08 42.9	-0.4
BOZY				AML	AML		
HACI	Hacifakili, Ak	2.12	37	P	Pn	19 08 42.9	-0.8
HACI				S	Sg	19 09 16.2	+0.5
HACI				IAML		19 09 19.0	
	comp=N,6μm,1.1s						
HACI				IAML		19 09 22.0	
	comp=E,6μm,0.9s						
LOD	Lodumlu	2.13	332	Pn	Pn	19 08 43.6	-0.1
LOD				AML	AML		
SUNG	orum-Sungurl	2.17	3	P	Pb	19 08 47.2	-0.1
SUNG				S	Sg	19 09 17.1	-0.2
ALAN	Alanya-ANTALYA	2.19	229	Pn	Pn	19 08 44.1	-0.4
ALAN				AML	AML		
POLA	Polatl-ANKAR	2.24	319	Pn	Pn	19 08 44.9	-0.4
POLA				AML	AML		
YVAC	Isparta, Yalva	2.25	277	P	Pb	19 08 48.1	-0.6
YVAC				S	Sg	19 09 21.7	+1.9
KEPZ	Antalya-Kepez	2.26	241	P	Pb	19 08 48.2	-0.6
KEPZ				S	Sg	19 09 21.3	+1.0
KEPZ	Antalya-Kepez	2.26	241	⇑P	Pn	19 08 46.3	+0.8
GAZI	Gazipasa	2.27	219	Pn	Pn	19 08 45.3	-0.3
GAZI				AML	AML		
GAZI	Gazipasa	2.27	219	P	Pb	19 08 47.3	-1.7
GAZI				S	Sb	19 09 18.6	+1.4
GAZI				IAML		19 09 26.0	
	comp=N,6μm,1.0s						
GAZI				IAML		19 09 52.0	
	comp=E,5μm,1.1s						
KMRS	Kahramanmaras	2.30	102	Pn	Pn	19 08 45.7	-0.3
KMRS				AML	AML		
HASA	Hatay-Hassa-Ha	2.30	123	P	Pn	19 08 46.0	-0.1
HASA				S	Sb	19 09 18.9	+0.6
HASA				IAML		19 09 26.0	
	comp=N,8μm,0.8s						
HASA				IAML		19 09 31.0	
	comp=E,7μm,1.6s						
COAL	Corum-Alaca	2.34	17	P	Pb	19 08 48.8	-1.5
COAL				S	Sb	19 09 20.6	+1.2
COAL				IAML		19 09 24.0	
	comp=N,1μm,0.9s						
COAL				IAML		19 09 34.0	
	comp=E,1μm,1.4s						
MNVG	Manavgat-Antal	2.44	241	Pn	Pn	19 08 47.5	-0.5
MNVG				AML	AML		
SVRH	Sivrihisar-ESK	2.45	306	Pn	Pn	19 08 48.2	0.0
SVRH				AML	AML		
EREN	Erenkoy	2.49	178	Pn	Pn	19 08 48.3	-0.3
EREN				AML	AML		
EREN	Erenkoy	2.49	178	P	Pn	19 08 48.1	-0.4
EREN				S	Sb	19 09 23.7	+0.2
EREN				IAML		19 09 45.0	
	comp=N,1μm,0.9s						
EREN				IAML		19 09 51.0	
	comp=E,9μm,1.2s						
ELDT	Eldivan	2.52	349	P	Pb	19 08 52.8	-0.5
ELDT				S	Sg	19 09 27.9	-0.6
SDAG	Sultandagi-AFY	2.52	281	Pn	Pn	19 08 48.9	-0.2
SDAG				AML	AML		
KHMN	Narli-Kahraman	2.52	103	P	Pb	19 08 52.8	-0.6
KHMN				S	Sg	19 09 32.1	+3.3
YAYL	Yayladag	2.56	140	P	Pn	19 08 49.2	-0.6
YAYL				S	Sn	19 09 22.0	+0.7
YAYL				IAML		19 09 33.0	
	comp=N,6μm,0.8s						
YAYL				IAML		19 09 36.0	
	comp=E,7μm,1.0s						
GAZ	Gaziantep	2.63	108	Pn	Pn	19 08 50.5	-0.1
GAZ				AML	AML		

GAZ	Gaziantep	2.63	108		Pn	19 08 50.4	-0.3
RHAN	Hatay/Reyhanl	2.68	130	P	Pn	19 08 51.1	-0.2
RHAN				S	Sb	19 09 27.8	-1.2
LFK	Lefkose	2.77	189	Pn	Pn	19 08 52.6	+0.1
LFK				AML	AML		
ISP	Isparta	2.82	267	Pn	Pn	19 08 53.1	-0.1
ISP				AML	AML		
ISP	Isparta	2.82	267c	iP	Pn	19 08 53.0	-0.1
ISP				pmax	pmax		
	comp=Z,126nm,0.9s						
ISP	Isparta	2.82	267		Pn	19 08 51.7	-1.5
ISP	Isparta	2.82	267	eP	Pg	19 09 00.5	-1.1
BCK	Bucak	2.82	260	Pn	Pn	19 08 53.2	0.0
BCK				AML	AML		
SHUT	Suhut-Afyon	2.82	282	Pn	Pn	19 08 53.5	+0.2
SHUT				AML	AML		
AKDN	Akdeniz- Kıbrı	2.86	198	Pn	Pn	19 08 54.0	+0.3
AKDN				AML	AML		
YALI	Yalozu-CANKI	2.87	343	Pn	Pn	19 08 53.8	-0.2
YALI				AML	AML		
ANTB	Antalya	2.94	249	Pn	Pn	19 08 55.1	+0.3
ANTB				AML	AML		
TOKA	Tokat	2.96	38		Pn	19 08 55.1	0.0
SVSK	Karacayir	2.96	49	Pn	Pn	19 08 55.2	+0.1
SVSK				AML	AML		
TOKT	Tokat	2.99	39	Pn	Pn	19 08 55.5	-0.1
TOKT				AML	AML		
YUVA	Yuva-Kibriscik	3.01	323	Pn	Pn	19 08 55.5	-0.3
YUVA				AML	AML		
ILGA	Ilgaz	3.04	355		Pn	19 08 56.3	-0.1
CSS	Mathiatis	3.11	191	Pn	Pn	19 08 57.2	0.0
CSS				AML	AML		
CSS	Mathiatis	3.11	191		Pn	19 08 55.8	-1.4
CSS	Mathiatis	3.11	191	P	Pn	19 08 56.5	-0.7
CSS				AML	AML		
CSS	Mathiatis	3.11	191	P	Pn	19 08 56.5	-0.7
CSS				AML	AML		
CSS	Mathiatis	3.11	191	P	Pn	19 08 57.0	-0.2
CSS	Mathiatis	3.11	191	P	Pn	19 08 56.7	-0.5
KORT	Korkueli	3.13	252	Pn	Pn	19 08 58.3	+0.7
KORT				AML	AML		
BASM	Basmaki-Afyon	3.18	269	Pn	Pn	19 08 58.9	+0.7
BASM				AML	AML		
YARM	Yarimca-Ladik(	3.20	25	Pn	Pn	19 08 58.7	+0.2
YARM				AML	AML		
KIZO	Buyukkizoglu-L	3.21	26	Pn	Pn	19 08 59.0	+0.3
KIZO				AML	AML		
RUZG	Kolk¶y-BOLU	3.23	327	Pn	Pn	19 08 59.1	+0.2
RUZG				AML	AML		
ALT	Altintas	3.27	290	Pn	Pn	19 08 59.9	+0.4
ALT				AML	AML		
MDUB	Mudurnu	3.31	319	Pn	Pn	19 09 00.5	+0.5
MDUB				AML	AML		
MDUB	Mudurnu	3.31	319		Pn	19 08 59.6	-0.4
KMON	Kastamonu	3.36	356	Pn	Pn	19 09 01.0	+0.4
KMON				AML	AML		
BORA	Eskisehir	3.38	304		Pn	19 09 00.2	-0.8
SAFT	Safranbolu	3.39	342	Pn	Pn	19 09 01.1	+0.1
SAFT				AML	AML		
ARPR	Arapgir-MALATY	3.51	71	Pn	Pn	19 09 02.9	+0.1
ARPR				AML	AML		
ARPR	Arapgir-MALATY	3.51	71		Pn	19 09 02.9	+0.1
ARPR	Arapgir-MALATY	3.51	71	P	Pn	19 09 03.1	+0.3
ELL	Elmali	3.55	250	Pn	Pn	19 09 03.8	+0.5
ELL				AML	AML		
ELL	Elmali	3.55	250	P	Pn	19 09 04.3	+0.9
ELL	Elmali	3.55	250		Pn	19 09 04.3	+0.9
GULT	Gulveren	3.67	312	Pn	Pn	19 09 05.6	+0.7
GULT				AML	AML		
CY604	RAF Akrotiri,	3.69	174		Pn	19 09 05.2	+0.3
GPA	Golpazari	3.70	309	Pn	Pn	19 09 05.9	+0.6
GPA				AML	AML		
ILIC	ilic-Erzincan	3.79	66	Pn	Pn	19 09 06.9	+0.2
ILIC				AML	AML		
BEIL	Beino	3.87	153	eP	Pn	19 09 07.8	+0.2
MDYL	Doganyol-Malat	3.92	84	Pn	Pn	19 09 09.1	+0.7
MDYL				AML	AML		
BZK	Bozkurt	3.93	359	Pn	Pn	19 09 09.8	+1.4
BZK				AML	AML		
BZK	Bozkurt	3.93	359		Pn	19 09 09.0	+0.5
BZK	Bozkurt	3.93	359	⇑P	Pn	19 09 11.1	+2.7
BZK	Bozkurt	3.93	359	P	Pn	19 09 08.7	+0.3
BZK				AML	AML		
ESGZ	Sivrice-Elazig	3.95	83	Pn	Pn	19 09 09.5	+0.7
ESGZ				AML	AML		
KURC	Kurucasile-Bar	3.95	345	Pn	Pn	19 09 09.7	+1.0
KURC				AML	AML		
AKAS	Kas	3.99	245		Pn	19 09 09.5	+0.1
AKAS	Kas	3.99	245	P	Pn	19 09 11.9	+2.5
HWQ	Hawqa	4.03	157	eP	Pn	19 09 08.9	-1.0
SINP	Sinop	4.03	11	Pn	Pn	19 09 10.7	+0.9
SINP				AML	AML		
SNOP	Sinop	4.09	12	Pn	Pn	19 09 11.5	+0.9
SNOP				AML	AML		
TAVA	DENIZLI_Tavas	4.13	264	⇓P	Pn	19 09 11.1	-0.1
SVRC	Sivrice-ELAZID	4.14	83	Pn	Pn	19 09 11.7	+0.3
SVRC				AML	AML		
ESIJ	Sivrice-Elazig	4.15	82	Pn	Pn	19 09 11.9	+0.4
ESIJ				AML	AML		
BHL	Bhannes	4.30	162	eP	Pn	19 09 12.3	-1.3
MANT	Manisa	4.37	278		Pn	19 09 14.3	-0.3
ZAHL	Zahle	4.41	160	eP	Pn	19 09 15.0	-0.1
YLV	Yalova	4.45	306	P	Pn	19 09 15.2	-0.4
YLV				AML	AML		
KELT	Kelkit	4.56	61	P	Pn	19 09 19.1	+1.9
SILT	Sile	4.64	314	⇑P	Pn	19 09 19.1	+1.0
QRWL	Qaraoun	4.65	163	eP	Pn	19 09 17.6	-0.8
RCY	Rachaya	4.74	162	eP	Pn	19 09 19.0	-0.6
SHBL	Chebaa	4.86	163	eP	Pn	19 09 20.6	-0.7
NATI	Neve Ativ	4.94	164	P	Pn	19 09 21.1	-1.2
GEM	Giv'at Ha'Em	4.97	164	P	Pn	19 09 22.5	-0.2
GEM	Giv'at Ha'Em	4.97	164	P	Pn	19 09 21.3	-1.4
GEM				S	Sn	19 10 22.8	+2.3
KLYT	Kilyos	5.05	311	P	Pn	19 09 23.5	-0.3
	comp=Z,5.4nmcomp=Z,15µmcomp=Z,1µm,1.0s						
KLYT				AML	AML		
ARG	Arkhangelos	5.08	251	P	Pn	19 09 26.0	+1.7
ARG	Arkhangelos	5.08	251	P	Pn	19 09 26.0	+1.7
	comp=Z,3µmcomp=Z,169nm,0.9s						
BALB	Balikesir	5.10	290		Pn	19 09 25.1	+0.6
MMA0B	Mount Meron ar	5.11	167	P	Pn	19 09 23.4	-1.3
MMA0B				S	Sn	19 10 25.8	+1.7
BAND	Balkesir-Ban	5.19	299	⇓P	Pn	19 09 27.1	+1.3
KSHT	Keshet	5.22	164	P	Pn	19 09 25.7	-0.5
KNHM	Kefar Nahum	5.27	166	P	Pn	19 09 25.4	-1.5
BALY	Balya	5.32	291	P	Pn	19 09 28.1	+0.5
	comp=Z,58µmcomp=Z,4µm,0.9s,comp=Z,58µm						
BDRM	Kayabasi	5.35	262	⇓P	Pn	19 09 28.8	+0.8
OFRI	`Ofer	5.44	172	P	Pn	19 09 28.2	-1.0
CTYL	Yalikoy Yolu	5.64	310	P	Pn	19 09 31.2	-0.6
	comp=Z,3.1nmcomp=Z,5µmcomp=Z,306nm,1.0s						
CTYL				AML	AML		
MMLI	Mount Malkishu	5.68	168	P	Pn	19 09 33.9	+1.4
	comp=Z,4µmcomp=Z,229nm,1.2s,comp=Z,4µm						
MMLI	Mount Malkishu	5.68	168	P	Pn	19 09 31.4	-1.1
QRNJ	Al-Qirein	5.80	167	P	Pn	19 09 35.8	+1.7
	comp=Z,145nmcomp=Z,209µmcomp=Z,34µm,0.8s						
QRNJ				AML	AML		
SLTI	Sal'it	5.82	172	P	Pn	19 09 32.7	-1.7
RGMN	Argaman	5.96	168	P	Pn	19 09 34.6	-1.7
SALP	Salfit	6.01	171	P	Pn	19 09 37.9	+0.9
	comp=Z,2.0nmcomp=Z,5µmcomp=Z,382nm,0.9s						
SALP				AML	AML		
KARP	Karpathos	6.07	248	eP	Pb	19 09 46.3	-7.5
KARP	Karpathos	6.07	248	P	Pn	19 09 36.7	-1.2
	comp=Z,1.3nmcomp=Z,3µmcomp=Z,198nm,1.2s						
KARP				AML	AML		
KARP	Karpathos	6.07	248	P	Pb	19 09 46.8	-7.0
	comp=Z,1.3nmcomp=Z,198nm,1.2s						
KARP				AML	AML		
HSUJ	Al Zarqa	6.15	163	P	Pn	19 09 42.1	+3.1
	comp=Z,2.3nmcomp=Z,4µmcomp=Z,253nm,0.9s						
HSUJ				AML	AML		
YITV	Yitav	6.16	169	P	Pn	19 09 37.6	-1.5
UJAP	Al Uja	6.16	169	P	Pn	19 09 42.1	+3.1
	comp=Z,1.4nmcomp=Z,3µmcomp=Z,232nm,0.9s						
UJAP				AML	AML		
UJAP	Al Uja	6.16	169	P	Pn	19 09 40.8	+1.8
	comp=Z,3µmcomp=Z,232nm,0.9s						
ASF	Jabal al Asfar	6.28	158	Pn	Pn	19 09 41.7	+0.9
	comp=Z,3.8nm,0.3s,baz=333,slow=5.8,SNR=84						
ASF				Sn	Sn	19 10 53.5	+0.7
	comp=Z,3.3nm,0.3s,baz=164,slow=7.4,SNR=3.7						
ASF				LR	LR	19 12 12.7	
	comp=Z,4µm,20.9s,baz=344,slow=39						
	comp=Z,115nm,0.8s						
ASF				AML	AML		
JER	Jerusalem	6.30	171	P	Pn	19 09 40.1	-1.0
JER				S	Sn	19 10 56.8	+3.4
ALMO	Almog	6.32	169	P	Pn	19 09 40.4	-0.9
HOMI	Horasan	6.42	69	⇑P	Pn	19 09 46.6	+3.7
YAL	Yalta	6.46	1	eP	Pn	19 09 43.6	+0.5
YAL	Yalta	6.46	1	eP	Pn	19 09 43.6	+0.5
YAL				pmax	pmax	19 09 49.2	
	comp=Z,30nm,0.7s						
AMAZ	Amatzia	6.51	174	P	Pn	19 09 46.1	+2.2
	comp=Z,2.6nmcomp=Z,2µmcomp=Z,4µmcomp=Z,270nm,1.2s						
AMAZ				AML	AML		
AMAZ	Amatzia	6.51	174	P	Pn	19 09 43.7	-0.2
AMAZ				S	Sn	19 11 02.8	+4.3
SEV	Sevastopol'	6.53	357	eP	Pn	19 09 43.1	-0.9
SEV	Sevastopol'	6.53	357	eP	Pn	19 09 43.1	-0.9
SEV				pmax	pmax	19 09 50.1	
	comp=Z,73nm,0.4s						
MZS	Mizpe Shalem	6.53	170	P	Pn	19 09 43.0	-1.1
ALU	Alushta	6.66	2	eP	Pn	19 09 50.0	+4.1
ALU				eS	Sn	19 11 10.4	+8.4
ALU	Alushta	6.66	2	eP	Pn	19 09 50.0	+4.1
ALU				pmax	pmax	19 09 56.1	
	comp=Z,20nm,0.4s						
ALU				eS	Sn	19 11 10.4	+8.4
ALU				smax	smax	19 11 13.0	
	comp=N,124nm,0.6s						
ALU				smax	smax	19 11 13.0	
	comp=E,213nm,0.7s						
CAVK	Edirne/Enez-Ca	6.68	296	⇑P	Pn	19 09 47.8	+1.6
MSBI	Mazada	6.78	171	P	Pn	19 09 51.3	+3.8
	comp=E,0.2nmcomp=E,416nmcomp=E,24nm,0.7s						
MSBI				AML	AML		
MSBI	Mazada	6.78	171	P	Pn	19 09 48.8	+1.3
	comp=Z,2µmcomp=Z,96nm,0.7s						
MSBI	Mazada	6.78	171	P	Pn	19 09 46.5	-1.0
GHAJ	Ghor Haditha	6.81	169		Pn	19 09 49.9	+1.8
GHAJ	Ghor Haditha	6.81	169	P	Pn	19 09 52.2	+4.2
	comp=Z,1.0nmcomp=Z,2µmcomp=Z,2µmcomp=Z,88nm,0.9s						
GHAJ				AML	AML		
GHAJ	Ghor Haditha	6.81	169	P	Pn	19 09 47.4	-0.6
ALN	Alexandroupoli	6.84	297	P	Pn	19 09 48.6	+0.2
ALN	Alexandroupoli	6.84	297		Pn	19 09 48.6	+0.2
ALN	Alexandroupoli	6.84	297	P	Pn	19 09 49.1	+0.7
	comp=Z,6µmcomp=Z,424nm,1.6s,comp=Z,6µm						
LISJ	El Lisan	6.86	170	P	Pn	19 09 51.8	+3.1
	comp=Z,0.8nmcomp=Z,3µmcomp=Z,117nm,0.7s						
LISJ				AML	AML		
SUDU	Sudak	6.90	5	eP	Pn	19 09 50.6	+1.5
SUDU	Sudak	6.90	5	eP	Pn	19 09 50.6	+1.5
SUDU				pmax	pmax	19 09 59.1	
	comp=Z,41nm,0.5s						
SIM	Simferopol'	6.92	0	eP	Pn	19 09 49.4	-0.1
SIM				eS	Sn	19 11 06.0	-2.5
SIM				pmax	pmax		
	comp=Z,250nm,1.8s						
SIM				smax	smax		
	comp=N,267nm,0.9s						
SIM				smax	smax		
	comp=E,174nm,1.2s						
SIM	Simferopol'	6.92	0	eP	Pn	19 09 52.9	+3.4
SIM				pmax	pmax	19 09 57.8	
	comp=Z,52nm,0.6s						
SWQJ	Swaqa	6.96	166	P	Pb	19 10 03.6	-5.3
SOC	Sochi	7.01	36	eP	Pn	19 09 50.3	-0.4
SOC				e		19 11 13.1	
SOC				pmax	pmax		
	comp=Z,33nm,0.9s						
SOC				MLR	MLR		
	comp=Z,5µm,12.0s						
FEO	Feodosiya	7.06	8	eP	Pn	19 09 53.0	+1.6
FEO	Feodosiya	7.06	8	eP	Pn	19 09 53.0	+1.6
FEO				pmax	pmax	19 09 55.2	
	comp=Z,43nm,0.4s						
VSLR	Vesyoloye	7.07	38d	iP	Pn	19 09 53.8	+2.3
VSLR				pmax	pmax		
	comp=Z,50nm,1.2s						
KZIT	Kziot	7.10	178	P	Pn	19 09 54.1	+2.1
	comp=Z,0.9nmcomp=Z,3µmcomp=Z,3µmcomp=Z,285nm,0.9s						
KZIT				AML	AML		
KZIT	Kziot	7.10	178	P	Pn	19 09 53.3	+1.3
	comp=Z,3µmcomp=Z,285nm,0.9s,comp=Z,3µm						
KZIT	Kziot	7.10	178	P	Pn	19 09 52.2	+0.2
KZIT				S	Sn	19 11 16.5	+3.4
MANR	Mangalia	7.12	326	⇑P	Pn	19 09 54.6	+2.4
ANN	Anapa	7.23	19	eP	Pn	19 09 53.3	-0.4
ANN				eS	Sn	19 11 19.6	+3.6
ANN				pmax	pmax		
	comp=Z,22nm,1.0s						
ANN				MLR	MLR		
	comp=Z,2µm,12.0s						
IDAN	Idan	7.24	172	P	Pn	19 09 53.2	-0.7
DNZ2	Donuzlav2	7.38	355	eP	Pn	19 09 56.4	+0.7
DNZ2				pmax	pmax	19 10 01.8	
	comp=Z,385nm,0.7s						
DNZ2				eS	Sn	19 11 23.3	+3.7
DNZ2				smax	smax	19 11 30.3	
	comp=N,85nm,0.8s						
DNZ2				smax	smax	19 11 30.3	
	comp=E,310nm,1.1s						
RMNI	Mount Ramon	7.43	175	P	Pn	19 09 56.2	-0.4
TARU	Tarkhankut	7.44	352	eP	Pn	19 09 58.8	+2.2
TARU				pmax	pmax	19 10 05.1	
	comp=Z,1.0nm,0.3s						
TARU				eS	Sn	19 11 28.2	+7.0
TARU				smax	smax	19 11 37.9	
	comp=E,152nm,1.3s						
TARU				smax	smax	19 11 38.0	
	comp=N,4.0nm,0.3s						
MFTR	Murfatlar	7.48	327	⇑P	Pn	19 09 59.1	+1.9
KERU	Kerch	7.50	13	eP	Pn	19 10 03.5	+6.1
KERU	Kerch	7.50	13	eP	Pn	19 10 03.5	+6.1
KERU				pmax	pmax	19 10 03.8	
	comp=Z,111nm,0.8s						
ZFRI	Zfri	7.50	173	P	Pn	19 09 56.7	-0.8
PRNI	Paran	7.69	174	P	Pn	19 10 02.9	+2.8
	comp=Z,2.9nmcomp=Z,5µmcomp=Z,361nm,0.8s						
PRNI				AML	AML		
TIRR	Tirgusor	7.71	328	P	Pn	19 10 01.5	+1.2
TIRR	Tirgusor	7.71	328	⇑P	Pn	19 10 01.6	+1.2
TIRR	Tirgusor	7.71	328	P	Pn	19 10 00.5	+0.1
	comp=Z,0.5nmcomp=Z,2µmcomp=Z,116nm,1.6s						
TIRR				AML	AML		
TIRR	Tirgusor	7.71	328	P	Pn	19 10 01.7	+1.3
	comp=Z,2µmcomp=Z,116nm,1.6s						
JURR	Jurilovca	7.79	332	⇑P	Pn	19 10 03.1	+1.8
LOZB	Loznitsa	7.80	316	⇓P	Pn	19 10 02.1	+0.5
IDI	Anoyia	7.87	253	Pn	Pn	19 10 03.8	+1.3
	comp=Z,8.8nm,0.7s,baz=79,slow=19,SNR=9.8						
IDI				LR	LR	19 13 11.4	
	comp=Z,6µm,18.7s,baz=88,slow=39						
TLBR	Topalu	7.94	327	⇓P	Pn	19 10 05.1	+1.7
HRFI	Mount Harif	8.01	174	P	Pn	19 10 06.6	+2.2
	comp=Z,0.7nmcomp=Z,1µmcomp=Z,153nm,1.2s						
HRFI				AML	AML		
HRFI	Mount Harif	8.01	174	P	Pn	19 10 05.9	+1.5
	comp=Z,1µmcomp=Z,153nm,1.2s,comp=Z,1µm						
HRFI	Mount Harif	8.01	174	P	Pn	19 10 04.4	0.0
HRFI	Mount Harif	8.01	174	P	Pn	19 10 03.8	-0.7
TPGR	Topolog	8.04	330	⇓P	Pn	19 10 07.2	+2.3
HARR	Harsova	8.11	327	P	Pn	19 10 07.5	+1.8
HARR	Harsova	8.11	327	⇑P	Pn	19 10 07.5	+1.8
CICN	Ciocanesti	8.14	321	⇓P	Pn	19 10 07.5	+1.2
PLD	Plovdiv	8.25	303	P	Pn	19 10 07.8	+0.1
PLD				pmax	pmax		
	comp=Z,230nm,0.9s						
LABN	Labinsk	8.29	35	eP	Pn	19 10 11.8	+3.5
LABN				eS	Sn	19 11 44.3	+2.1
LABN				pmax	pmax		
	comp=N,62nm,1.1s						
LABN				MLR	MLR		
	comp=N,17µm,10.0s						
AMRR	Amara	8.31	325	P	Pn	19 10 10.5	+2.0
AMRR	Amara	8.31	325	⇑P	Pn	19 10 10.5	+2.0
AQBJ	Aqaba	8.31	174	P	Pb	19 10 22.9	-9.0
EIL	Elat	8.36	175	Pn	Pn	19 10 09.4	+0.1
	comp=N,3.1nm,0.3s,baz=110,slow=1.0,SNR=11						
EIL				Sn	Sn	19 11 46.4	+2.4
	comp=N,4.4nm,0.3s,baz=22,slow=10,SNR=4.5						
EIL				LR	LR	19 14 29.0	
	comp=N,6µm,18.2s,baz=350,slow=46						
	comp=N,5.8nm,0.5s						
EIL				AML	AML		
EIL	Elat	8.36	175	P	Pn	19 10 12.7	+3.4
	comp=N,0.5nmcomp=N,1µmcomp=N,1µmcomp=N,140nm,0.9s						
EIL				AML	AML		
EIL	Elat	8.36	175	P	Pn	19 10 08.8	-0.6
EIL				S	Sn	19 11 47.5	+3.5
CFR	Carcaliu	8.42	330	P	Pn	19 10 11.9	+1.9
CFR	Carcaliu	8.42	330	⇓P	Pn	19 10 11.9	+1.9
GNI	Garni	8.56	72	Pn	Pn	19 10 13.1	+0.9
	comp=N,0.6nm,0.3s,baz=30,slow=7.1,SNR=6.1						
GNI				LR	LR	19 13 27.4	
	comp=N,3µm,18.1s,baz=278,slow=38						
	comp=N,14nm,0.8s						
GNI				AML	AML		
GNI	Garni	8.56	72	P	Pn	19 10 13.4	+1.2
GNI	Garni	8.56	72	P	Pn	19 10 17.2	+5.0
GVD	Gavdhos	8.65	251	P	Pn	19 10 15.6	+2.3
	comp=Z,143nm,1.2s						
PGOR	Pogoanele	8.70	325	⇑P	Pn	19 10 15.6	+1.8
SGRR	Singureni	8.70	318	⇓P	Pn	19 10 14.8	+0.9
SOH	Sokhos	8.76	292	P	Pn	19 10 15.6	+0.9
SOH	Sokhos	8.76	292	P	Pn	19 10 15.6	+0.9
	comp=Z,976nmcomp=Z,30nm,1.4s						
SCHLR	Schela	8.78	330	⇑P	Pn	19 10 16.3	+1.3
KBZ	Khabaz	8.78	47	Pn	Pn	19 10 17.6	+2.6
	comp=Z,0.2nm,0.3s,baz=228,slow=9.2,SNR=26						
	comp=Z,17nm,1.0s						
KBZ				AML	AML		
KBZ	Khabaz	8.78	47d	iP	Pn	19 10 18.0	+3.0
KBZ				pmax	pmax		
	comp=Z,34nm,1.1s						
TATR	Tatarca	8.80	331	⇑P	Pn	19 10 17.1	+1.8
KIV	Kislovodsk	8.80	45	P	Pn	19 10 18.9	+3.5
KIV	Kislovodsk	8.80	45	eP	Pn	19 10 18.5	+3.1
KIV				eS	Sn	19 11 58.7	+3.8
KIV				pmax	pmax		
	comp=Z,29nm,1.1s						
KIV				MLR	MLR		
	comp=Z,1µm,12.0s						
KIV	Kislovodsk	8.80	45		Pn	19 10 17.0	+1.6
KIV	Kislovodsk	8.80	45	i P	Pn	19 10 17.9	+2.5
	SNR=10						
KIV	Kislovodsk	8.80	45	⇓P	Pn	19 10 20.5	+5.1
KIV	Kislovodsk	8.80	45	P	Pn	19 10 19.3	+3.9
	comp=Z,758nmcomp=Z,58nm,1.2s						
SCHL	Schela	8.81	330	⇑P	Pn	19 10 18.0	+2.7
KVAR	Kislovodsk Arr	8.81	45	Pn	Pn	19 10 16.5	+1.0
	baz=248,slow=18						
KVAR				LR	LR	19 14 27.7	
	comp=Z,3µm,21.9s,baz=198,slow=43						
	comp=Z,1.1nm,0.3s						
NEGRR	Negrea	8.82	330	⇓P	Pn	19 10 17.2	+1.7
SULR		8.87	321	⇓P	Pn	19 10 17.9	+1.6
SCTR	Scanteiesti	8.89	331	⇓P	Pn	19 10 18.8	+2.4
PLVB	Pleven	8.96	310	⇓P	Pn	19 10 17.8	+0.4
VLDR	Vladesti	9.00	332	⇓P	Pn	19 10 20.3	+2.3
ERBR	Yeremizino-Bor	9.05	30	eP	Pn	19 10 20.4	+1.7
ERBR				eS	Sn	19 12 00.4	-0.4
ERBR				pmax	pmax		
	comp=Z,89nm,1.2s						
ERBR				MLR	MLR		
	comp=Z,3µm,13.0s						
COPA	Copaceanca	9.05	315	⇑P	Pn	19 10 19.7	+1.0
NCK	Nalchik	9.06	50	i P	Pn	19 10 22.0	+3.2
ISR	Istrita	9.06	324	P	Pn	19 10 19.9	+1.1
ISR	Istrita	9.06	324	⇑P	Pn	19 10 19.9	+1.1
ISR	Istrita	9.06	324	P	Pn	19 10 19.1	+0.2
	comp=Z,2µmcomp=Z,189nm,0.9s						
GRER		9.06	326	⇑P	Pn	19 10 20.7	+1.8
VARL	Varlezi	9.13	332	⇑P	Pn	19 10 21.6	+1.8
BISRR	Bisoca	9.31	326	⇑P	Pn	19 10 25.1	+2.7
ODBI	Odobesti	9.34	328	⇓P	Pn	19 10 25.0	+2.5
PANC	Panciu	9.38	329	⇑P	Pn	19 10 25.6	+2.3
NEHR	Nehoiu	9.41	324	⇑P	Pn	19 10 25.4	+1.8
VLAD	Vladila	9.43	312	⇑P	Pn	19 10 25.7	+1.8
GHRR		9.44	330	⇓P	Pn	19 10 26.2	+2.1
GHRR		9.44	330	P	Pn	19 10 26.1	+2.1
	comp=Z,114nm,1.1s						
HUMR	Humele	9.44	316	⇓P	Pn	19 10 23.7	-0.3
HUMR	Humele	9.44	316	P	Pn	19 10 23.7	-0.3
	comp=Z,101nm,0.9s						
VAY	Valandovo	9.46	294	i Pn	Pn	19 10 29.2	+4.8
GRG	Griva	9.49	292	P	Pn	19 10 28.2	+3.4
	comp=Z,82nm,1.2s						
BIR	Birlad	9.53	332	P	Pn	19 10 26.0	+0.8
BIR	Birlad	9.53	332	⇓P	Pn	19 10 26.1	+0.8
VRI	Vrincioaia	9.55	327	P	Pn	19 10 26.9	+1.3
VRI	Vrincioaia	9.55	327	⇑P	Pn	19 10 26.9	+1.3
VRI	Vrincioaia	9.55	327	P	Pn	19 10 25.6	-0.1
	comp=Z,1µmcomp=Z,42nm,1.0s						
PLOR	Plostina	9.58	327	P	Pn	19 10 27.3	+1.4
PLOR	Plostina	9.58	327	⇑P	Pn	19 10 27.4	+1.4
MLR	Muntele Rosu	9.62	323	Pn	Pn	19 10 27.8	+1.3
	comp=Z,0.5nm,0.3s,baz=83,slow=21,SNR=9.0						
MLR				LR	LR	19 14 55.2	
	comp=Z,13µm,18.3s,baz=148,slow=43						
	comp=Z,11nm,0.8s						
MLR				AML	AML		
MLR	Muntele Rosu	9.62	323	P	Pn	19 10 29.2	+2.6
MLR	Muntele Rosu	9.62	323		Pn	19 10 28.4	+1.8
MLR	Muntele Rosu	9.62	323	⇑P	Pn	19 10 29.2	+2.6
MLR	Muntele Rosu	9.62	323	P	Pn	19 10 30.3	+3.7
	comp=Z,1µmcomp=Z,61nm,1.0s						
GOF	Gofitskoye	9.72	41c	eP	Pn	19 10 31.9	+4.0
COVR	Voineasa-Covas	9.77	326	⇑P	Pn	19 10 29.7	+1.1
KIS	Kishinev	9.77	338	P	Pn	19 10 28.1	-0.4
	comp=Z,2µmcomp=Z,58nm,0.7s						
VASR	Vaslui	9.79	334	⇑P	Pn	19 10 31.3	+2.5
MTUR	Matau	9.86	320	P	Pn	19 10 31.9	+2.1
MTUR	Matau	9.86	320	⇑P	Pn	19 10 32.0	+2.1
TURR	Turia	10.01	326	⇑P	Pn	19 10 33.4	+1.5
VOIR		10.01	321	P	Pn	19 10 32.5	+0.5
VOIR		10.01	321	⇑P	Pn	19 10 32.5	+0.5
VOIR		10.01	321	P	Pn	19 10 31.7	-0.3
	comp=Z,801nmcomp=Z,41nm,1.1s						
VOIR		10.01	321	P	Pn	19 10 33.0	+1.0
	comp=Z,798nmcomp=Z,41nm,1.1s						
ONER	Baraj Valea Uz	10.07	328	⇑P	Pn	19 10 34.5	+1.9
TESR	Tescani	10.11	329	⇑P	Pn	19 10 35.6	+2.4
OZUR		10.15	325	⇑P	Pn	19 10 36.0	+2.3
ARR	Arges	10.18	319	⇑P	Pn	19 10 35.0	+0.8
ARR	Arges	10.18	319	P	Pn	19 10 35.1	+0.8
	comp=Z,447nmcomp=Z,30nm,1.1s						
DOPR	Dopca	10.23	324	⇑P	Pn	19 10 36.2	+1.3
BAL3X	Bal3x, Balta	10.43	343	P	Pn	19 10 36.2	-1.4
PUNG	Punghina	10.47	310	⇓P	Pn	19 10 39.1	+1.0
LKD2	Lefkada island	10.56	278	P	Pn	19 10 44.7	+5.3
	comp=Z,2µmcomp=Z,56nm,2.0s						
BIZ	Bicaz	10.67	329	⇑P	Pn	19 10 43.0	+2.1
LOT	Lotru	10.69	317	⇑P	Pn	19 10 42.0	+0.8
LOT	Lotru	10.69	317	P	Pn	19 10 41.2	0.0
	comp=Z,648nmcomp=Z,87nm,0.9s						
OHR	Ohrid	10.70	291	i Pn	Pn	19 10 44.5	+3.1
MDB	Medias	10.84	322	P	Pn	19 10 44.0	+0.8
MDB	Medias	10.84	322	⇑P	Pn	19 10 44.0	+0.8
BOVS	Bovan	10.92	305	⇓P	Pn	19 10 44.2	-0.1
SORM	Soroca	10.94	339	P	Pn	19 10 42.6	-1.9
	comp=Z,925nmcomp=Z,63nm,0.8s						
PRAR	RASCA	10.97	331	⇑P	Pn	19 10 46.1	+1.1
AKT	Akhty	11.07	68	eP	Pn	19 10 44.2	-2.2
AKT				eS	Sn	19 12 49.7	-0.8
AKT				pmax	pmax		
	comp=Z,2.0nm,0.6s						
AKT				smax	smax		
	comp=N,4.0nm,0.5s						
AKT				smax	smax		
	comp=E,6.0nm,0.4s						
AKT				MLR	MLR		
	comp=Z,9µm,13.0s						
PHP	Peshkopia	11.10	293	P	Pn	19 10 50.5	+3.7
	comp=Z,474nmcomp=Z,18nm,1.0s						
HERR	Herculane	11.11	312	⇑P	Pn	19 10 47.8	+1.0
MAK	Makhachkala	11.35	60d	iP	Pn	19 10 47.5	-2.7
MAK				eS	Sn	19 12 55.2	-2.1
MAK				pmax	pmax		
	comp=Z,113nm,0.8s						
MAK				MLR	MLR		
	comp=Z,5µm,8.0s						
DEV	Deva	11.43	317	P	Pn	19 10 52.6	+1.3
DEV	Deva	11.43	317	⇓P	Pn	19 10 52.6	+1.3
DEV	Deva	11.43	317	P	Pn	19 10 51.9	+0.6

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      comp=Z,34nm,1.0s
MDVR  Moldovita         11.47 310 ⇑P     Pn      19 10 52.2 +0.3
ARCR  ARCALIA           11.54 325 ⇓P     Pn      19 10 54.9 +2.1
BURAR Bucovina Array    11.58 329  P     Pn      19 10 55.9 +2.6
BURAR Bucovina Array    11.58 329 ⇓P     Pn      19 10 55.9 +2.6
CJR   Cluj-Napoca       11.63 322  P     Pn      19 10 56.0 +2.0
CJR   Cluj-Napoca       11.63 322 ⇑P     Pn      19 10 56.1 +2.0
SURR  Surduc            11.78 315 ⇑P     Pn      19 10 57.2 +1.1
KMPD  K-Podol'skiy      11.90 335  P     Pn      19 10 56.3 -1.4
BZS   Buzias            11.99 313  P     Pn      19 10 59.9 +1.0
BZS   Buzias            11.99 313 ⇑P     Pn      19 10 59.9 +1.0
BZS   Buzias            11.99 313  P     Pn      19 11 01.3 +2.4
      comp=Z,11nm,1.4s
DRGR                    12.13 320  P     Pn      19 11 03.2 +2.4
DRGR                    12.13 320 ⇑P     Pn      19 11 03.3 +2.4
DRGR                    12.13 320  P     Pn      19 11 05.3 +4.4
      comp=Z,21nm,1.0s
PDG   Podgorica         12.15 296  P     Pn      19 11 06.4 +5.3
      comp=Z,890nmcomp=Z,39nm,1.2s
BMR   Baia Mare         12.37 325  P     Pn      19 11 05.5 +1.4
BMR   Baia Mare         12.37 325 ⇑P     Pn      19 11 05.5 +1.4
BMR   Baia Mare         12.37 325  P     Pn      19 11 05.2 +1.1
      comp=Z,1µmcomp=Z,119nm,1.6s
LUBAR Lubar, Ukraine    12.73 341  P     Pn      19 11 07.2 -1.8
AK07  Malin Array Si    13.00 346  P     Pn      19 11 11.4 -1.3
AK06  Malin Array Si    13.03 346  P     Pn      19 11 11.9 -1.2
AK10  Malin Array Si    13.04 346  P     Pn      19 11 11.9 -1.3
AK09  Malin Array Si    13.04 346  P     Pn      19 11 11.4 -1.9
AK05  Malin Array Si    13.06 346  P     Pn      19 11 12.1 -1.5
AK08  Malin Array Si    13.07 346  P     Pn      19 11 12.1 -1.5
AK13  Malin Array Si    13.09 346  P     Pn      19 11 12.4 -1.4
AK14  Malin Array Si    13.09 346  P     Pn      19 11 12.9 -1.1
AK12  Malin Array Si    13.10 346  P     Pn      19 11 13.1 -0.9
AK02  Malin Array Si    13.10 346  P     Pn      19 11 13.1 -1.0
AK11  Malin Array Si    13.13 346  P     Pn      19 11 13.4 -1.0
AK01  Malin Array Si    13.13 346  P     Pn      19 11 13.4 -1.1
AK16  Malin Array Si    13.13 346  P     Pn      19 11 13.4 -1.1
KIEV  Kiev              13.13 346  P     Pn      19 11 13.6 -0.9
KIEV  Kiev              13.13 346        Pn      19 11 13.6 -0.9
KIEV  Kiev              13.13 346 i P    Pn      19 11 13.0 -1.5
      SNR=19
KIEV  Kiev              13.13 346  P     Pn      19 11 14.9 +0.3
      comp=Z,770nmcomp=Z,35nm,1.2s
AKASG Malin Array Be    13.14 346  Pn    Pn      19 11 11.9 -2.6
      comp=Z,1.0nm,0.3s,baz=162,slow=12,SNR=40
AKASG                              LR    LR      19 17 39.8
      comp=Z,3µm,19.6s,baz=164,slow=44
      comp=Z,13nm,0.9s
AKASG                              AML   AML
AKASG Malin Array Be    13.14 346 i P    Pn      19 11 14.6  0.0
AKASG                              pmax  pmax
      comp=Z,11nm,0.8s
AKBB  Malin Array Si    13.14 346c iP    Pn      19 11 14.3 -0.3
TRPA  Tarpa             13.14 324  P     Pn      19 11 15.4 +0.8
      comp=Z,871nmcomp=Z,32nm,1.1s
TIP   Timpagrande       13.60 280  Pn    Pn      19 11 18.5 -2.5
TIP   Timpagrande       13.60 280 ⇑P     Pn      19 11 21.9 +0.9
TIP   Timpagrande       13.60 280  P     Pn      19 11 21.9 +0.9
      comp=Z,540nmcomp=Z,40nm,1.5s
VSR   Storozhevoye      13.68  14 eP     Pn      19 11 21.4 -0.5
VSR                                pmax  pmax
      comp=Z,38nm,1.6s
MI28  Mi28,Pidlybu      13.68 343  P     Pn      19 11 21.3 -0.7
MATE  Matera            13.70 286 eP     Pn      19 11 23.8 +1.5
MATE  Matera            13.70 286 ⇑P     Pn      19 11 21.9 -0.4
KOLS  Kolonicke sedl    13.85 326 eP     Pn      19 11 25.8 +1.5
KOLS  Kolonicke sedl    13.85 326 ePN    Pn      19 11 25.8 +1.5
KOLS  Kolonicke sedl    13.85 326 eP     P       19 11 36.2 +3.4
ABAH  Abaujker          13.88 322  P     Pn      19 11 26.7 +2.0
      comp=Z,684nmcomp=Z,34nm,1.6s
MORH  Mrgy, Hungar      14.06 310 ⇑P     Pn      19 11 29.0 +1.8
MORH  Mrgy, Hungar      14.06 310  P     Pn      19 11 29.3 +2.1
      comp=Z,574nmcomp=Z,42nm,1.2s
VORR  Voronezh          14.12  13 eP     Pn      19 11 26.6 -1.4
VORR                               pmax  pmax
      comp=Z,28nm,0.7s
KWP   Kalwaria Pacla    14.19 328 eP     Pn      19 11 31.2 +2.2
VRH   Novokhopyorsk     14.25  20 eP     Pn      19 11 28.6 -1.1
VRH                                pmax  pmax
      comp=Z,76nm,1.4s
CEL   Celeste           14.31 277  Pn    Pn      19 11 29.9 -0.9
CEL   Celeste           14.31 277  P     Pn      19 11 30.6 -0.2
      comp=Z,700nmcomp=Z,27nm,1.3s
CEL   Celeste           14.31 277  P     Pn      19 11 32.1 +1.3
      comp=Z,710nmcomp=Z,29nm,1.1s
PSZ   Piszkesteto       14.32 318  P     Pn      19 11 32.7 +1.9
PSZ   Piszkesteto       14.32 318 eP     P       19 11 34.9 -3.1
PSZ   Piszkesteto       14.32 318 ⇓P     Pn      19 11 32.7 +1.9
PSZ   Piszkesteto       14.32 318  P     Pn      19 11 33.8 +3.1
      comp=Z,28nm,1.2s
CUC   Castrocucco       14.34 284  P     Pn      19 11 31.7 +0.7
      comp=Z,660nmcomp=Z,53nm,1.4s
MARCO Tramutola         14.36 285  P     P       19 11 35.9 -2.7
      comp=Z,878nmcomp=Z,53nm,1.4s
KECS  Kecovo            14.38 321 eP     P       19 11 42.3 +3.7
RNPP5 Staryi Chortor    14.42 339  P     Pn      19 11 30.8 -1.3
RNPP8 Varash            14.53 339  P     Pn      19 11 32.2 -1.3
BUD   Budapest          14.53 315  P     P       19 11 36.9 -3.4
BUD   Budapest          14.53 315  P     P       19 11 36.9 -3.4
      comp=Z,772nmcomp=Z,23nm,1.2s
RNPP9 Sopachiv          14.58 339  P     Pn      19 11 32.9 -1.4
STHS  Stebnicka Huta    14.66 325 eP     P       19 11 41.9  0.0
STHS  Stebnicka Huta    14.66 325 eP     P       19 11 41.9  0.0
LPSR  Galich'ya Gora    14.97  12 eP     Pn      19 11 38.1 -1.4
LPSR                               pmax  pmax
      comp=Z,63nm,1.0s
NIE   Niedzica          15.10 323 eP     Pn      19 11 43.9 +2.5
SRO   Srobarova         15.11 315 eP     P       19 11 47.7 +1.0
SRO   Srobarova         15.11 315 eP     P       19 11 47.7 +1.0
SRO   Srobarova         15.11 315  P     P       19 11 47.7 +1.0
      comp=Z,572nmcomp=Z,52nm,1.3s
MPLH  Magyarpolny       15.20 312  P     Pn      19 11 44.2 +1.5
      comp=Z,1µmcomp=Z,54nm,1.1s
VYHS  Vyhne             15.23 318 eP     P       19 11 46.9 -1.2
VYHS  Vyhne             15.23 318 eP     P       19 11 46.9 -1.2
VYHS  Vyhne             15.23 318  P     P       19 11 45.6 -2.5
      comp=Z,5.3nm,1.2s
LANS  Liptovska Anna    15.32 321 eP     P       19 11 46.8 -2.4
LANS  Liptovska Anna    15.32 321 eP     P       19 11 46.8 -2.4
KOGS  Kog               15.63 308 eP     Pn      19 11 49.1 +0.7
CRES  Cresnjevec Ost    15.88 305 i P    P       19 11 56.4 +1.1
OJC   Ojcow             15.89 325 eP     P       19 11 54.2 -1.3
OJC   Ojcow             15.89 325  P     Pn      19 11 46.9 -4.8
OJC   Ojcow             15.89 325        Pn      19 11 46.9 -4.8
OJC   Ojcow             15.89 325  P     P       19 11 53.8 -1.6
      comp=Z,56nm,1.4s
SMOL  Smolenice         15.99 316 eP     P       19 11 58.5 +1.9
ZST   Bratislava        16.00 315 eP     P       19 11 59.0 +2.4
ZST   Bratislava        16.00 315 eP     P       19 11 59.0 +2.4
ZST   Bratislava        16.00 315  P     P       19 11 59.6 +3.0
      comp=Z,42µmcomp=Z,999nm,1.0s
MODS  Modra-Piesok      16.00 316 eP     P       19 11 56.1 -0.6
MODS  Modra-Piesok      16.00 316 eP     P       19 11 56.1 -0.6
MODS  Modra-Piesok      16.00 316  P     P       19 11 55.7 -1.0
      comp=Z,2µmcomp=Z,141nm,1.2s
SOP   Sopron            16.04 313  P     P       19 11 59.1 +2.1
SOP                                pmax  pmax
      comp=Z,61nm,1.3s
SOP   Sopron            16.04 313  P     P       19 11 58.6 +1.6
      comp=Z,841nmcomp=Z,58nm,1.2s
JAVC  Velka Javorina    16.07 318 ePN    Pn      19 11 51.7 -2.3
JAVC  Velka Javorina    16.07 318  P     P       19 11 57.8 +0.3
      comp=Z,2µmcomp=Z,82nm,1.3s
GBRS  Gornja Briga      16.19 304 eP     P       19 11 59.4 +0.6
RONA  Rosalia, Austr    16.20 312 epP    P       19 12 00.4 +1.5
      comp=Z,28nm,1.0s,SNR=17
MAUC  Maruska           16.29 319 eP     P       19 12 00.9 +1.0
AQU   L'Aquila          16.37 292  P     P       19 12 04.6 +3.7
      comp=Z,679nmcomp=Z,48nm,1.2s
OKC   Ostrava-Krasne    16.43 321  P     P       19 12 01.1 -0.3
OKC   Ostrava-Krasne    16.43 321  P     P       19 12 01.1 -0.3
      comp=Z,951nmcomp=Z,45nm,1.6s
ARSA  Arzberg           16.44 310 epP    P       19 12 02.8 +1.3
      comp=Z,19nm,0.9s,SNR=20
ARSA  Arzberg           16.44 310  P     P       19 12 03.2 +1.6
      comp=Z,801nmcomp=Z,48nm,1.2s,comp=Z,801nm
SOKA  Soboth            16.49 308 epP    P       19 12 03.6 +1.4
      comp=Z,24nm,1.0s,SNR=35
CLTB  Caltabellotta     16.49 275  P     P       19 12 03.9 +1.6
      comp=Z,78nm,1.2s
WINA  Alland / Wiene    16.53 313 epP    P       19 12 04.2 +1.6
      comp=Z,53nm,1.2s,SNR=21
LJU   Ljubljana         16.56 305  P     P       19 12 04.9 +2.0
LJU                                pmax  pmax
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      comp=Z,421nm,1.1s
CONA  Conrad Observa    16.57 313 eP     P       19 12 03.6 +0.6
      comp=Z,26nm,1.1s,SNR=17
BEL   Belsk             16.67 330 eP     Pn      19 12 01.3 -0.3
BEL   Belsk             16.67 330  P     Pn      19 12 01.9 +0.3
      comp=Z,11µm,1.2s
STEB  Steborice         16.67 321 eP     P       19 12 05.3 +1.2
MORC  Moravsky Berou    16.69 320  P     Pn      19 12 03.0 +1.1
MORC  Moravsky Berou    16.69 320 ePN    Pn      19 11 58.3 -3.7
MORC  Moravsky Berou    16.69 320 ⇑P     Pn      19 12 03.0 +1.1
MORC  Moravsky Berou    16.69 320  P     P       19 12 04.5 +0.2
      comp=Z,994nmcomp=Z,47nm,1.6s
OBKA  Obir              16.73 307 epP    P       19 12 06.2 +1.3
      comp=Z,34nm,0.9s,SNR=45
OBKA  Obir              16.73 307  P     P       19 12 06.4 +1.5
      comp=Z,2µmcomp=Z,95nm,1.2s,comp=Z,2µm
R9F13 Warsaw-Wawer      16.84 332 eP     Pn      19 12 02.6 -1.1
R9F13                             e              19 12 08.4
R9F13                             eS     S       19 15 29.2 +7.5
R9F13                             e              19 15 44.5
KRUC  Moravsky          16.87 316 ePN    Pn      19 12 02.2 -2.0
KRUC  Moravsky          16.87 316  P     P       19 12 07.7 +1.4
      comp=Z,39nm,1.7s
VRAC  Vranov            16.90 317  Pn    Pn      19 12 04.8 +0.2
      comp=Z,0.4nm,0.3s,baz=119,slow=9.6,SNR=37
VRAC                               LR    LR      19 19 45.6
      comp=Z,4µm,19.9s,baz=133,slow=41
      comp=Z,8.5nm,0.9s
VRAC                               AML   AML
VRAC  Vranov            16.90 317 ePN    Pn      19 12 00.0 -4.6
VRAC  Vranov            16.90 317 ⇓P     P       19 12 06.3 -0.4
VRAC  Vranov            16.90 317  P     P       19 12 07.5 +0.8
      comp=Z,497nmcomp=Z,28nm,1.3s,comp=Z,497nm
SESA  Seetaler Alpe,    16.96 309 epP    P       19 12 09.4 +1.8
      comp=Z,79nm,1.2s,SNR=29
MNK   Minsk             17.02 348 i P    Pn      19 12 05.6 -0.4
MNK                               i S    Sn      19 15 14.4 -0.8
MNK                                pmax  pmax
      comp=Z,70nm,1.0s
MNK                                pmax  pmax
      comp=N,55nm,1.1s
MNK                                pmax  pmax
      comp=E,86nm,1.1s
MNK                                MLR   MLR
      comp=Z,2µm,16.0s
MNK                                MLR   MLR
      comp=N,3µm,16.0s
MNK                                MLR   MLR
      comp=E,1µm,13.0s
MNK   Minsk             17.02 348 i P    Pn      19 12 05.6 -0.4
      comp=E,86nm,1.1s
MNK                               i P    Pn      19 12 05.6 -0.4
      comp=N,55nm,1.1s
MNK                               i P    Pn      19 12 05.6 -0.4
      comp=Z,70nm,1.0s,baz=163
MNK                               i PP   PnPn    19 12 15.1 -0.5
MNK                               i PPP  PPP     19 12 22.9
MNK                               i S    Sn      19 15 14.5 -0.8
MNK                               i SS   SnSn    19 15 29.1 +0.6
MNK                               i SSS  SSS     19 15 41.9
MNK                               i LQ   LQ      19 17 06.0
MNK                               i LR   LR      19 18 23.2
MNK                               i LRM  MLR     19 19 34.5
      comp=E,1µm,13.4s
MNK                               i LRM  MLR     19 19 34.5
      comp=N,3µm,16.2s
MNK                               i LRM  MLR     19 19 34.5
      comp=Z,2µm,16.5s
DRE   Drenchia          17.18 305  P     P       19 12 10.4 +0.6
      comp=Z,665nmcomp=Z,28nm,1.1s,comp=Z,665nm
OBN   Obninsk           17.18   5  P     Pn      19 12 07.3 -0.7
      comp=Z,1.2nm,0.3s,baz=162,slow=3.0,SNR=12
OBN                                LR    LR      19 19 03.2
      comp=Z,2µm,19.4s,baz=194,slow=38
      comp=Z,11nm,0.5s
OBN                                AML   AML
OBN   Obninsk           17.18   5d iP    Pn      19 12 05.8 -2.2
OBN                               i S    Sn      19 15 18.3 -0.9
OBN                                pmax  pmax
      comp=Z,36nm,1.3s
OBN                                MLR   MLR
      comp=Z,1µm,14.0s
OBN   Obninsk           17.18   5  IAmb  IAmb    19 12 10.6
      comp=Z,201nm,1.5s
OBN   Obninsk           17.18   5  P     Pn      19 12 07.2 -0.8
      comp=Z,80nm,1.6s
ABNA  Allensteig Bun    17.19 314 eP     P       19 12 10.7 +0.8
      comp=Z,43nm,1.4s
BELG  Belogornoye       17.21  29  P     Pn      19 12 07.5 -0.8
      comp=Z,0.8nm,0.3s,baz=18,slow=2.2,SNR=18
BELG                               LR    LR      19 19 51.2
      comp=Z,877nm,20.1s,baz=231,slow=41
      comp=Z,173nm,1.2s
BELG                               AML   AML
BELG  Belogornoye       17.21  29 i P    Pn      19 12 06.9 -1.5
KRLC  Kraliky           17.26 320 eP     P       19 12 11.3 +0.6
KRLC                               MLR   MLR
      comp=Z,10µm,12.8s
KRLC  Kraliky           17.26 320 eP     P       19 12 11.3 +0.6
KRLC                               AMS   AMS     19 19 50.0
      comp=Z,10µm,12.8s
KRLC  Kraliky           17.26 320  P     P       19 12 11.0 +0.3
      comp=Z,1µmcomp=Z,41nm,1.4s,comp=Z,1µm
PRED  Cave del Predi    17.33 306  P     P       19 12 14.9 +3.5
      comp=Z,718nmcomp=Z,22nm,1.3s
MYKA  Terra Mystica     17.35 306 i P    P       19 12 13.0 +1.3
      comp=Z,110nm,1.3s,SNR=65
ACOM  Acomizza, Ital    17.40 306  P     P       19 12 13.4 +1.0
      comp=Z,2µmcomp=Z,118nm,1.1s
RAYN  Ar Rayn           17.45 143  P     P       19 12 13.8 +0.9
RAYN  Ar Rayn           17.45 143  P     P       19 12 13.4 +0.5
RAYN  Ar Rayn           17.45 143  P     P       19 12 12.6 -0.3
RAYN  Ar Rayn           17.45 143  P     P       19 12 13.4 +0.5
      comp=Z,719nmcomp=Z,34nm,1.5s,comp=Z,719nm
MOA   Molln             17.47 311 eP     P       19 12 16.1 +3.2
      comp=Z,43nm,1.0s,SNR=22
MOA   Molln             17.47 311  P     P       19 12 14.4 +1.4
      comp=Z,2µmcomp=Z,58nm,1.0s,comp=Z,2µm
TREC  Trest             17.49 316  P     P       19 12 15.2 +2.0
TREC  Trest             17.49 316  P     P       19 12 15.2 +2.0
      comp=Z,1µmcomp=Z,38nm,1.4s
NACGM Naroch            17.60 346 eP     Pn      19 12 11.1 -2.1
SUW   Suwalki           17.66 338 eP     P       19 12 16.2 +1.3
SUW   Suwalki           17.66 338 eP     P       19 12 15.5 +0.6
DPC   Dobruska-Polom    17.66 320 eP     P       19 12 16.5 +1.4
DPC                                MLR   MLR
      comp=Z,11µm,12.4s
DPC   Dobruska-Polom    17.66 320 eP     P       19 12 16.5 +1.4
DPC                                AMS   AMS     19 20 10.0
      comp=Z,11µm,12.4s
DPC   Dobruska-Polom    17.66 320  P     Pn      19 12 14.2 +0.1
      comp=Z,2µmcomp=Z,45nm,1.2s
DPC   Dobruska-Polom    17.66 320  P     P       19 12 17.4 +2.3
      comp=Z,1µmcomp=Z,45nm,1.2s,comp=Z,1µm
FUSE  Fusea             17.68 305  P     P       19 12 16.0 +0.7
      comp=Z,1µmcomp=Z,29nm,1.5s
KBA   Koelnbreinsper    17.71 307 eP     P       19 12 18.4 +2.6
      comp=Z,22nm,1.2s,SNR=24
KBA   Koelnbreinsper    17.71 307  P     P       19 12 19.8 +4.0
      comp=Z,1µmcomp=Z,47nm,1.6s,comp=Z,1µm
BIOA  Bad Ischl, Aus    17.78 309 eP     P       19 12 19.0 +2.6
      comp=Z,11nm,1.0s,SNR=8.1
OSTC  Ostas             17.84 320 eP     P       19 12 19.1 +2.0
OSTC                               MLR   MLR
      comp=Z,11µm,12.8s
OSTC  Ostas             17.84 320 eP     P       19 12 19.1 +2.0
OSTC                               AMS   AMS     19 20 00.0
      comp=Z,11µm,12.8s
MOS   Moscow            17.89   7 eP     Pn      19 12 15.1 -1.6
MOS                                pmax  pmax
      comp=Z,229nm,1.4s
MOS                                MLR   MLR
      comp=Z,1µm,14.0s
MOS                                MLR   MLR
      comp=E,3µm,16.0s
CKRC  Cesky Krumlov     17.91 313 eP     P       19 12 19.3 +1.5
CKRC                               MLR   MLR
      comp=Z,3µm,15.0s
CKRC  Cesky Krumlov     17.91 313 eP     P       19 12 19.3 +1.5
CKRC                               AMS   AMS     19 20 00.0
      comp=Z,3µm,15.0s
UPC   Upice             17.92 320 eP     P       19 12 20.5 +2.6
UPC                                MLR   MLR
      comp=Z,10µm,12.7s
UPC   Upice             17.92 320 eP     P       19 12 20.5 +2.6
UPC                                AMS   AMS     19 20 20.0
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      comp=Z,10µm,12.7s
UPC   Upice             17.92 320  P     P       19 12 20.1 +2.3
      comp=Z,2µmcomp=Z,41nm,2.0s,comp=Z,2µm
CHVC  Chvalec           17.94 320 eP     P       19 12 20.2 +2.0
CHVC                               MLR   MLR
      comp=Z,10µm,12.7s
CHVC  Chvalec           17.94 320 eP     P       19 12 20.2 +2.0
CHVC                               AMS   AMS     19 20 20.0
      comp=Z,10µm,12.7s
KSP   Ksiaz             17.98 321 eP     P       19 12 20.3 +1.8
ABTA  Abfaltersbach     18.11 306 epP    P       19 12 22.4 +2.3
      comp=Z,9.3nm,0.8s,SNR=13
LESA  Schwarzleotal     18.27 308 eP     P       19 12 22.9 +1.1
      comp=Z,15nm,0.9s,SNR=22
GEC2  GERESS Array S    18.27 313  P     P       19 12 24.4 +2.5
      comp=Z,1µmcomp=Z,30nm,1.3s
GERES GERESS Array B    18.27 313  P     Pn      19 12 21.6 -0.1
      baz=120,slow=10.0,SNR=52
      comp=Z,22nm,1.0s
ZVC   Zvikov            18.29 315 eP     P       19 12 23.0 +1.1
ZVC                                AMS   AMS     19 19 40.0
      comp=Z,3µm,21.9s
CGRP  Cima Grappa       18.30 302  P     P       19 12 25.1 +2.8
      comp=Z,999nmcomp=Z,39nm,1.4s,comp=Z,999nm
RJOB  Jochberg          18.32 309  P     P       19 12 23.4 +1.1
      comp=Z,656nmcomp=Z,16nm,1.8s
ISAL  Salakas           18.36 346 eP     Pn      19 12 20.6 -1.9
SAKB  Bahrain           18.38 126  P     P       19 12 23.8 +0.7
SAKB                               S     Sn      19 15 48.6  0.0
PRU   Pruhonice         18.39 317 eP     P       19 12 25.0 +2.0
PRU                                pmax  pmax
      comp=Z,4.0nm,0.7s
PRU                                MLR   MLR
      comp=Z,5µm,13.6s
PRU   Pruhonice         18.39 317 eP     P       19 12 25.0 +2.0
      comp=Z,3.9nm,0.7s
PRU                                AMS   AMS     19 20 40.0
      comp=Z,5µm,13.6s
PRU   Pruhonice         18.39 317  P     P       19 12 25.8 +2.7
      comp=Z,2µmcomp=Z,41nm,1.4s,comp=Z,2µm
KHC   Kasperske Hory    18.48 313 eP     Pn      19 12 24.8 +0.6
KHC                               eS     S       19 15 55.7 +0.5
KHC                                pmax  pmax
      comp=Z,22nm,1.0s
KHC                                MLR   MLR
      comp=Z,4µm,21.9s
KHC   Kasperske Hory    18.48 313 eP     Pn      19 12 24.8 +0.6
      comp=Z,22nm,1.0s
KHC                               eS     S       19 15 55.7 +0.5
KHC                                AMS   AMS     19 20 20.0
      comp=Z,4µm,21.9s
KHC   Kasperske Hory    18.48 313  P     Pn      19 12 25.1 +0.9
      comp=Z,1µmcomp=Z,27nm,1.0s,comp=Z,1µm
WTTA  Wattenberg        18.86 306  P     Pn      19 12 29.8 +0.8
WTTA  Wattenberg        18.86 306 eP     Pn      19 12 30.6 +1.7
      comp=Z,60nm,1.1s,SNR=15
WTTA  Wattenberg        18.86 306  P     Pn      19 12 29.8 +0.8
      comp=Z,2µmcomp=Z,51nm,1.4s,comp=Z,2µm
WET   Wettzell          18.89 313  P     Pn      19 12 29.2 +0.1
WET   Wettzell          18.89 313  P     Pn      19 12 29.2 +0.1
      comp=Z,1µmcomp=Z,32nm,1.1s
WATA  Walderalm         18.92 307 epP    Pn      19 12 30.5 +0.8
      comp=Z,42nm,1.5s,SNR=7.8
KLNR  Kaliningrad       19.09 335 eP     Pn      19 12 31.1 -0.4
SQTA  Sankt Quirin      19.12 306 epP    Pn      19 12 32.3 +0.3
      comp=Z,12nm,0.8s,SNR=16
GKP   Gorka Klasztor    19.19 328 eP     Pn      19 12 32.2 -0.5
GKP   Gorka Klasztor    19.19 328 eP     P       19 12 30.6 -1.1
BRG   Berggiesshubel    19.20 318  P     Pn      19 12 32.8  0.0
BRG   Berggiesshubel    19.20 318  P     Pn      19 12 32.8  0.0
      comp=Z,1µmcomp=Z,29nm,1.1s
BRG   Berggiesshubel    19.20 318 eP     Pn      19 12 32.4 -0.4
BRG                                Amp           19 12 37.5
      comp=Z,34nm,1.1s
BRG   Berggiesshubel    19.20 318  S     S       19 16 12.0 +2.4
MOTA  Moosalm           19.23 306 epP    Pn      19 12 33.2 -0.2
      comp=Z,38nm,1.3s,SNR=21
VSL   Villasalto        19.30 282  IAmb  IAmb    19 12 39.3
      comp=Z,52nm,1.1s
VSL   Villasalto        19.30 282  P     Pn      19 12 37.0 +2.8
      comp=Z,1µmcomp=Z,55nm,1.1s,comp=Z,1µm
HSKC  Hora Svate Kat    19.32 317  AMS   AMS     19 21 10.0
      comp=Z,4µm,14.8s
HSKC  Hora Svate Kat    19.32 317  P     Pn      19 12 36.0 +1.7
      comp=Z,1µmcomp=Z,19nm,1.4s,comp=Z,1µm
FETA  Feichten          19.36 305 epP    Pn      19 12 34.8 -0.2
      comp=Z,11nm,0.8s,SNR=39
FUR   Furstenfeldbru    19.43 309  P     Pn      19 12 36.7 +1.1
FUR   Furstenfeldbru    19.43 309  P     Pn      19 12 36.7 +1.1
      comp=Z,2µmcomp=Z,56nm,1.9s
RETA  Reutte            19.50 306 ePn    P       19 12 35.8 +0.5
      comp=Z,101nm,1.1s,SNR=45
FUORN Ofenpass-Fuorn    19.53 304  IAmb  IAmb    19 12 46.4
      comp=Z,59nm,1.1s
FUORN Ofenpass-Fuorn    19.53 304  P     Pn      19 12 39.0 +1.8
      comp=Z,1µmcomp=Z,66nm,1.2s,comp=Z,1µm
GRC3  Grafenberg Arr    19.54 311  P     Pn      19 12 36.6 -0.3
      comp=Z,2µmcomp=Z,82nm,1.2s
GRB5  Grafenberg Arr    19.58 312  P     Pn      19 12 36.7 -0.7
      comp=Z,1µmcomp=Z,47nm,1.0s
GRB3  Grafenberg Arr    19.61 312  P     P       19 12 36.9 +0.5
      comp=Z,1µmcomp=Z,36nm,1.2s
GRC1  Grafenberg Arr    19.62 311  P     Pn      19 12 37.4 -0.5
      comp=Z,2µmcomp=Z,52nm,1.1s
GRC2  Grafenberg Arr    19.65 311  P     Pn      19 12 37.9 -0.3
      comp=Z,3µmcomp=Z,224nm,1.1s
GRB2  Grafenberg Arr    19.65 312  P     P       19 12 37.5 +0.6
      comp=Z,948nmcomp=Z,45nm,1.6s
GRC4  Grafenberg Arr    19.66 311  P     Pn      19 12 37.7 -0.7
      comp=Z,1µmcomp=Z,52nm,1.2s
NKC   Novy Kostel       19.66 315  P     Pn      19 12 39.2 +0.7
NKC   Novy Kostel       19.66 315  P     Pn      19 12 39.2 +0.7
      comp=Z,918nmcomp=Z,21nm,1.3s,comp=Z,918nm
GRB1  Grafenberg Arr    19.72 312  P     Pn      19 12 38.4 -0.7
GRB1  Grafenberg Arr    19.72 312  P     Pn      19 12 38.4 -0.7
      comp=Z,956nmcomp=Z,53nm,1.1s
TANN  Tannenbergstha    19.75 316  P     Pn      19 12 39.0 -0.4
      comp=Z,2µmcomp=Z,75nm,1.5s,comp=Z,2µm
PBUR  Paburge           19.77 340 eP     P       19 12 36.9 -1.2
PBUR  Paburge           19.77 340  P     Pn      19 12 39.6  0.0
      comp=Z,3µmcomp=Z,172nm,1.2s,comp=Z,3µm
GRB4  Grafenberg Arr    19.80 313  P     P       19 12 39.2 +0.7
      comp=Z,1µmcomp=Z,56nm,1.1s
DAVOX Davos/Dischmat    19.84 304  P     P       19 12 39.8 +0.7
      comp=Z,0.8nm,0.3s,baz=124,slow=7.4,SNR=56
DAVOX                              LR    LR      19 21 44.1
      comp=Z,4µm,19.5s,baz=98,slow=41
      comp=Z,87nm,1.1s
DAVOX                              AML   AML
KEST  Kesra             19.90 271  P     Pn      19 12 40.8 -0.7
      comp=Z,0.3nm,0.3s,baz=34,slow=8.0,SNR=20
      comp=Z,15nm,1.0s
KEST                               AML   AML
KEST  Kesra             19.90 271  P     Pn      19 12 42.0 +0.6
KEST                               S     Sn      19 16 28.0 +2.7
KEST  Kesra             19.90 271  P     P       19 12 39.6 -0.3
KEST                               IAmb  IAmb    19 12 49.0
      comp=Z,53nm,1.1s
CLL   Collm             19.93 319 i P    P       19 12 40.4 +0.5
CLL                               eS     Sn      19 16 26.0 +0.2
CLL                                pmax  pmax
      comp=Z,48nm,1.3s
CLL   Collm             19.93 319  IAmb  IAmb    19 12 45.5
      comp=Z,56nm,1.2s
CLL   Collm             19.93 319  P     Pn      19 12 40.7 -0.8
      comp=Z,876nmcomp=Z,44nm,1.2s
CLL   Collm             19.93 319 i P    P       19 12 40.4 +0.5
      comp=Z,48nm,1.3s
CLL                               i sP   sP      19 12 44.7 +1.5
      comp=Z,69nm,1.3s
CLL                               eS     Sn      19 16 26.0 +0.2
CLL                               ex     x       19 16 35.0
CLL                                L     L       19 18 00.0
CLL                                AMS   AMS     19 21 00.0
      comp=N,5µm,15.2s
CLL                                AMS   AMS     19 21 00.0
      comp=E,7µm,14.1s
CLL                                AMS   AMS     19 21 00.0
      comp=Z,10µm,14.0s
CLL                                AMS   AMS     19 21 00.0
      comp=Z,0.0nm,11.4s
UBR   Ueberruh          19.98 307  P     P       19 12 41.0 +0.5
      comp=Z,2µmcomp=Z,122nm,1.0s,comp=Z,2µm
DAVA  Damuels           19.99 305 ePn    P       19 12 41.3 +0.5
      comp=Z,227nm,1.1s,SNR=68
DAVA  Damuels           19.99 305  P     P       19 12 41.5 +0.7
      comp=Z,2µmcomp=Z,236nm,1.1s,comp=Z,2µm
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GRA2	Grafenberg Arr	20.00	313	P	Pn	19 12 41.6	-0.9
	comp=Z,988nmcomp=Z,44nm,1.2s						
GRA3	Grafenberg Arr	20.08	313	P	Pn	19 12 42.5	-0.8
	comp=Z,959nmcomp=Z,51nm,1.2s						
TUE	Stuetta	20.10	303	P	Pn	19 12 45.3	+1.5
	comp=Z,1µmcomp=Z,57nm,1.1s,comp=Z,1µm						
GRA1	Grafenberg Arr	20.10	313	IAmb	IAmb	19 12 49.7	
	comp=Z,41nm,1.0s						
GRA1	Grafenberg Arr	20.10	313	P	Pn	19 12 43.8	+0.2
	comp=Z,839nmcomp=Z,49nm,1.4s						
GRF	Grafenberg Arr	20.10	313	P	Pn	19 12 43.8	+0.2
RUE	Ruedersdorf	20.23	322	eP	P	19 12 42.2	-0.9
RUE	Ruedersdorf	20.23	322	P	P	19 12 43.5	+0.4
	comp=Z,92nm,1.1s						
MOX	Moxa	20.33	316	P	Pn	19 12 45.3	-1.0
MOX	Moxa	20.33	316	P	Pn	19 12 45.3	-1.0
	comp=Z,1µmcomp=Z,41nm,1.1s,comp=Z,1µm						
NEUB	Neuenburg	20.53	317	P	P	19 12 47.3	+0.9
	comp=Z,1µmcomp=Z,102nm,1.4s,comp=Z,1µm						
JRN	Qarnain Island	20.60	124	P	Pn	19 12 49.6	0.0
JRN				S	S	19 16 38.7	+0.7
LNIZ	Loecknitz	20.66	325	P	P	19 12 47.6	-0.2
	comp=Z,3µmcomp=Z,149nm,1.5s						
BNALP	Bannalp	20.82	303	P	P	19 12 50.8	+1.0
	comp=Z,966nmcomp=Z,82nm,1.0s,comp=Z,966nm						
WIMM	Wimmelburg	20.84	318	P	Pn	19 12 51.4	-0.8
	comp=Z,2µmcomp=Z,116nm,1.3s,comp=Z,2µm						
SBF	Sospel	20.90	295	eP	Pn	19 12 52.7	-0.4
SBF				pmax	pmax		
	comp=Z,48nm,1.2s						
STU	Stuttgart	20.94	309	P	P	19 12 50.1	-0.8
STU				pmax	pmax		
	comp=Z,103nm,1.1s						
STU	Stuttgart	20.94	309	P	P	19 12 50.1	-0.8
STU	Stuttgart	20.94	309	eP	P	19 12 49.7	-1.1
STU	Stuttgart	20.94	309	P	P	19 12 51.3	+0.5
	comp=Z,1µmcomp=Z,89nm,1.2s,comp=Z,1µm						
VSU	Vasula	21.01	349	⇑iP	P	19 12 52.3	+0.8
VSU				pmax	pmax		
	comp=Z,67nm,1.2s						
VSU	Vasula	21.01	349	eP	P	19 12 50.2	-1.3
VSU	Vasula	21.01	349	P	P	19 12 50.6	-0.9
	comp=Z,62nm,0.9s						
SLE	Schleitheim	21.04	306	P	P	19 12 52.6	+0.6
SLE	Schleitheim	21.04	306	P	P	19 12 52.5	+0.6
	comp=Z,812nmcomp=Z,71nm,1.1s,comp=Z,812nm						
AKTO	Aktyubinsk	21.07	46	P	P	19 12 51.2	-1.1
	comp=Z,19nm,0.9s,baz=247,slow=10,SNR=42						
	comp=Z,19nm,0.9s						
ISO	Isola	21.22	295	P	P	19 12 59.9	+5.9
	comp=Z,27nm,1.7s						
GHWR	Ruwais	21.30	126	P	P	19 12 57.2	+2.3
GHWR				S	S	19 16 52.7	+0.8
BFO	Black Forest	21.32	307	i P	P	19 12 56.2	+1.1
BFO	Black Forest	21.32	307	P	P	19 12 53.1	-1.9
FLTG	Flechtingen	21.41	319	P	P	19 12 55.8	-0.2
	comp=Z,851nmcomp=Z,58nm,1.4s,comp=Z,851nm						
BSD	Bornholm Skovb	21.46	329	P	P	19 12 54.8	-1.6
BSD	Bornholm Skovb	21.46	329	eP	P	19 12 55.3	-1.1
BSD	Bornholm Skovb	21.46	329	i P	P	19 12 55.0	-1.4
BSD				IAmb	IAmb	19 13 01.4	
	comp=Z,55nm,1.1s						
BSD	Bornholm Skovb	21.46	329	P	P	19 12 54.8	-1.6
	comp=Z,54nm,1.3s						
MBDF	Montbardon	21.49	297	eP	P	19 12 57.6	+0.5
MBDF				pmax	pmax		
	comp=Z,34nm,0.9s						
ASSE	Asse, Remlinge	21.60	318	P	P	19 12 58.9	+1.0
	comp=Z,36nm,1.6s						
CLZ	Clausthal	21.61	317	P	P	19 12 58.2	+0.1
	comp=Z,43nm,1.4s						
BNI	Bardonecchia	21.61	298	P	P	19 13 00.6	+2.3
BNI	Bardonecchia	21.61	298	P	P	19 13 00.6	+2.3
	comp=Z,892nmcomp=Z,38nm,1.1s,comp=Z,892nm						
LPG	La Plagne	21.64	299	eP	P	19 13 00.9	+2.1
LPG				pmax	pmax		
	comp=Z,18nm,1.0s						
LPL	La Plagne	21.65	299	eP	P	19 12 58.8	-0.1
LPL				pmax	pmax		
	comp=Z,9.0nm,0.9s						
GTTG	Gottingen	21.68	316	P	P	19 13 00.3	+1.4
	comp=Z,1µmcomp=Z,38nm,1.1s						
AB31	Akbulak array	21.72	51	i P	P	19 12 58.6	-0.7
ABKAR	Akbulak array	21.72	51	P	P	19 12 57.3	-2.0
BOURR	Bourrignon	21.75	304	P	P	19 13 00.9	+1.3
	comp=Z,924nmcomp=Z,54nm,1.0s,comp=Z,924nm						
MTSE	Matsula	21.75	345	eP	P	19 12 58.5	-1.0
MTSE	Matsula	21.75	345	P	P	19 13 00.0	+0.6
	comp=Z,432nm,1.3s						
PUL	Pulkovo	21.90	355	⇑iP	P	19 13 01.7	+0.6
PUL				pmax	pmax		
	comp=Z,170nm,0.9s						
PUL	Pulkovo	21.90	355	P	P	19 13 01.7	+0.6
	comp=Z,285nm,0.9s						
TNS	Taunus Mts	21.95	312	P	P	19 13 02.9	+1.1
TNS	Taunus Mts	21.95	312	P	P	19 13 02.9	+1.1
	comp=Z,875nmcomp=Z,33nm,1.5s,comp=Z,875nm						
BLEU	Blekinge	21.98	332	i P	P	19 13 00.1	-1.8
CDF	Champ du Feu	22.01	307	eP	P	19 13 03.4	+0.9
CDF				pmax	pmax		
	comp=Z,62nm,1.2s						
ECH	Echery	22.03	306	P	P	19 13 04.6	+2.0
ECH	Echery	22.03	306	IAmb	IAmb	19 13 07.3	
	comp=Z,53nm,1.1s						
ECH	Echery	22.03	306	P	P	19 13 04.6	+2.0
	comp=Z,1µmcomp=Z,55nm,1.0s						
ARBE	Arbavere	22.05	349	eP	P	19 13 01.7	-1.0
ARBE	Arbavere	22.05	349	P	P	19 13 03.3	+0.6
	comp=Z,178nm,1.0s						
MZWR	Madinat Zayed	22.09	124	P	P	19 13 02.8	-0.7
MZWR				S	S	19 17 08.4	+1.0
HINF	Hinteralfeld	22.11	305	eP	P	19 13 03.8	+0.3
HINF				pmax	pmax		
	comp=Z,15nm,1.0s						
UMQ	Umm Al-Quwin	22.12	118	P	P	19 13 03.5	-0.3
SHME	Shamm	22.13	116	P	P	19 13 03.4	-0.5
	SNR=11						
SHME				S	S	19 17 07.5	-0.5
SHME	Shamm	22.13	116	i P	P	19 13 02.9	-0.9
	SNR=9.5						
ORIF	Oris-en-Rattie	22.15	297	P	P	19 13 09.0	+4.9
	comp=Z,30nm,1.6s						
GIMEL	St. Georges /	22.18	301	P	P	19 13 08.2	+3.9
	comp=Z,28nm,1.0s						
AJN	Ajban	22.28	121	P	P	19 13 06.7	+1.2
	SNR=8.0						
AJN				S	S	19 17 12.3	+1.4
BANOM	Banah	22.32	116	P	P	19 13 05.8	-0.2
BANOM				S	S	19 17 13.2	+1.4
BANOM	Banah	22.32	116	i P	P	19 13 05.4	-0.5
	SNR=13						
MZR	Muzera	22.37	126	P	P	19 13 06.4	-0.2
	SNR=19						
MZR				S	S	19 17 14.5	+1.7
LUNU	Lund	22.42	328	i P	P	19 13 06.0	-0.8
NAZ	Nazwa, Dubai	22.46	119	P	P	19 13 08.0	+0.6
	SNR=17						
NAZ				S	S	19 17 17.2	+2.9
NAZ	Nazwa, Dubai	22.46	119	i P	P	19 13 07.6	+0.2
	SNR=8.9						
ASUD	Al Ashush, Dub	22.47	120	P	P	19 13 08.5	+0.9
	SNR=8.8						
ASUD				S	S	19 17 16.2	+1.7
ASUD	Al Ashush, Dub	22.47	120	i P	P	19 13 08.1	+0.6
	SNR=7.0						
HAU	Haudompre	22.49	305	eP	P	19 13 08.5	+0.9
HAU				pmax	pmax		
	comp=Z,58nm,1.1s						
MASF	Masafi	22.57	118	P	P	19 13 08.6	0.0
	SNR=16						
MASF				S	S	19 17 17.5	+1.1
MSFE	Esma-Masafi	22.57	118	i P	P	19 13 08.5	-0.2
	SNR=9.9						
FAQ	Al Faqa, Dubai	22.57	120	P	P	19 13 08.2	-0.4
	SNR=7.0						
FAQ				S	S	19 17 18.7	+2.3
FAQ	Al Faqa, Dubai	22.57	120	P	P	19 13 09.1	+0.5
RETH	Rethem/Aller,	22.60	319	P	P	19 13 10.4	+1.8
	comp=Z,1µmcomp=Z,46nm,1.6s						
MDH	Madha	22.71	118	P	P	19 13 10.0	-0.1
	SNR=18						
MDH				S	S	19 17 18.7	-0.2
MDH	Madha	22.71	118	i P	P	19 13 10.0	-0.1
	SNR=15						
LLD	Lille Linde	22.75	327	i P	P	19 13 09.1	-1.0
LLD				IAmb	IAmb	19 13 16.0	
	comp=Z,76nm,1.3s						
BSEG	Bad Segeberg	22.77	322	P	P	19 13 10.8	+0.4
BSEG	Bad Segeberg	22.77	322	P	P	19 13 10.8	+0.4
	comp=Z,1µmcomp=Z,32nm,1.2s						
DEL	Delary	22.84	330	i P	P	19 13 11.2	0.0
KIRV	Kirov	22.86	21	LR	LR	19 23 18.3	
	comp=Z,692nm,21.2s,baz=210,slow=40						
KIRV	Kirov	22.86	21	⇑iP	P	19 13 10.8	-0.5
UOSS	Minazif	22.87	118	P	P	19 13 11.9	+0.1
UOSS				S	S	19 17 22.4	+0.6
UOSS	Minazif	22.87	118	P	P	19 13 10.3	-1.5
UOSS				IAmb	IAmb	19 13 28.4	
	comp=Z,25nm,0.9s						
UOSS	Minazif	22.87	118	i P	P	19 13 11.4	-0.3
	SNR=7.1						
UOSS	Minazif	22.87	118	P	P	19 13 11.1	-0.7
	comp=Z,889nmcomp=Z,34nm,1.0s						
COP	Copenhagen	22.89	328	P	P	19 13 16.4	+4.7
	comp=Z,82nm,1.2s						
HATD	Hatta, Dubai	22.89	119	P	P	19 13 11.9	-0.1
	SNR=12						
HATD				S	S	19 17 22.6	+0.4
HATD	Hatta, Dubai	22.89	119	i P	P	19 13 11.9	-0.1
	SNR=9.9						
ASHO	Ashiyiah	22.93	119	P	P	19 13 12.4	-0.1
	SNR=16						
ASHO				S	S	19 17 23.1	+0.1
ASHO	Ashiyiah	22.93	119	i P	P	19 13 12.1	-0.4
	SNR=16						
HRA	Herat	22.98	90		P	19 13 12.4	-0.7
VIVF	Saint-Julien-l	22.99	297	eP	P	19 13 13.3	+0.4
VIVF				pmax	pmax		
	comp=Z,42nm,1.5s						
MEF	Metsahovi	23.05	348	eP	P	19 13 12.3	-1.0
KLMR	Klimovskoe	23.11	7	eP	P	19 13 14.5	+0.6
KLMR				S	S	19 17 24.6	-0.7
KLMR				pmax	pmax		
	comp=Z,191nm,1.3s						
KLMR				MLR	MLR		
	comp=Z,2µm,12.0s						
WLF	Walferdange	23.12	309	P	P	19 13 14.6	+0.5
WLF	Walferdange	23.12	309	dP	P	19 13 13.4	-0.8
	comp=Z,17nm,1.1s						
WLF	Walferdange	23.12	309	P	P	19 13 14.6	+0.5
	comp=Z,801nmcomp=Z,36nm,1.6s						
BUG	Bochum--Univer	23.13	314	P	P	19 13 15.2	+0.9
BUG	Bochum--Univer	23.13	314	P	P	19 13 15.2	+0.9
	comp=Z,907nmcomp=Z,20nm,1.0s,comp=Z,907nm						
ALNE	Al Ain	23.14	121	P	P	19 13 15.4	+0.9
	SNR=26						
ALNE				S	S	19 17 27.8	+1.3
ALNE	Al Ain	23.14	121	i P	P	19 13 14.6	+0.1
	SNR=10						
SSB	Saint Sauveur	23.14	298	P	P	19 13 14.3	-0.2
SSB	Saint Sauveur	23.14	298	P	P	19 13 14.3	-0.2
	comp=Z,15nm,1.2s						
IBBN	Ibbenburen	23.25	316	P	P	19 13 16.6	+1.2
	comp=Z,2µmcomp=Z,58nm,1.1s						
JASK	Jask - Hormozg	23.47	114	P	P	19 13 19.6	+1.6
	SNR=14						
JASK				S	S	19 17 35.4	+3.4
MEM	Membach	23.54	311	P	P	19 13 19.3	+0.9
MEM	Membach	23.54	311	dP	P	19 13 18.9	+0.6
	comp=Z,16nm,1.1s						
MEM	Membach	23.54	311	P	P	19 13 19.2	+0.9
	comp=Z,1µmcomp=Z,24nm,1.1s						
SOHO	SOHO	23.62	119	P	P	19 13 18.8	-0.6
SOHO				S	S	19 17 34.2	-0.1
SOHO	SOHO	23.62	119	i P	P	19 13 18.6	-0.8
	SNR=11						
WTSB	Winterswijk	23.62	315	P	P	19 13 19.0	-0.1
	comp=Z,56nm,1.2s						
SKMB	Sankelmark Bun	23.64	323	P	P	19 13 24.2	+5.0
	comp=Z,81nm,1.7s						
UMZA	Um Al Zommool	23.66	124	P	P	19 13 21.3	+1.5
UMZA				S	S	19 17 35.5	+0.5
FABU	Falkenberg	23.67	330	i P	P	19 13 20.0	+0.4
SMF	Signal de Mont	23.84	301	eP	P	19 13 20.5	-0.8
SMF				pmax	pmax		
	comp=Z,77nm,1.4s						
RCHB	Rochefort	23.85	310	dP	P	19 13 21.3	0.0
	comp=Z,20nm,1.3s						
RCHB	Rochefort	23.85	310	P	P	19 13 22.1	+0.7
	comp=Z,48nm,1.4s						
BCLA	Clavier	23.89	311	dP	P	19 13 20.8	-1.0
	comp=Z,10.0nm,1.1s						
BCLA				dPcP	PcP	19 17 04.1	-0.3
LOR	Lormes	23.94	302	eP	P	19 13 21.3	-1.1
LOR				pmax	pmax		
	comp=Z,14nm,0.9s						
LOR	Lormes	23.94	302	P	P	19 13 22.6	+0.3
	comp=Z,24nm,1.1s						
FIA1	FINESS Array S	23.97	351	P	P	19 13 21.7	-0.8
FINES	FINESS Array B	23.97	351	P	P	19 13 21.4	-1.0
	comp=Z,14nm,0.9s,baz=138,slow=9.7,SNR=16						
FINES				LR	LR	19 23 04.5	
	comp=Z,1µm,21.1s,baz=166,slow=38						
	comp=Z,14nm,0.9s						
FINES	FINESS Array B	23.97	351	i P	P	19 13 21.8	-0.6
FINES				pmax	pmax		
	comp=Z,14nm,0.9s						
FINES	FINESS Array B	23.97	351		P	19 13 20.9	-1.5
SSRD	Sdr. Stenderup	23.99	325	i P	P	19 13 24.0	+1.3
SSRD				IAmb	IAmb	19 13 38.3	
	comp=Z,85nm,1.2s						
ARQ	Araqi	24.14	121	P	P	19 13 24.5	+0.1
	SNR=12						
ARQ				S	S	19 17 43.1	+0.5
AVF	Avril sur Loir	24.19	301	eP	P	19 13 23.7	-1.0
AVF				pmax	pmax		
	comp=Z,79nm,1.4s						
DOU	Dourbes	24.21	309	dP	P	19 13 25.7	+0.9
	comp=Z,15nm,1.1s						
UPP	Uppsala	24.24	340	eP	P	19 13 24.0	-0.9
ONAU	Onsala	24.25	330	i P	P	19 13 25.8	+0.8
RAF	Rauma	24.29	345	eP	P	19 13 24.5	-0.9
ARTI	Arti	24.49	34	LR	LR	19 25 04.3	
	comp=Z,863nm,19.9s,baz=226,slow=42						
ARTI	Arti	24.49	34	d iP	P	19 13 26.0	-1.2
ARTI				S	S	19 17 44.7	-2.9
ARTI				pmax	pmax		
	comp=Z,54nm,1.8s						
ARTI				MLR	MLR		
	comp=Z,1µm,16.0s						
ARTI	Arti	24.49	34	P	P	19 13 26.2	-1.0
BGF	Bois d'Agland	24.50	300	eP	P	19 13 28.1	+0.6
BGF				pmax	pmax		
	comp=Z,37nm,1.4s						
HOQ	Hoqain	24.52	119	P	P	19 13 28.0	+0.1
HOQ				S	S	19 17 48.8	+0.1
UCC	Uccle	24.59	311	P	P	19 13 24.4	-3.8
UCC				pmax	pmax		
	comp=Z,15nm,0.9s						
UCC	Uccle	24.59	311	P	P	19 13 24.4	-3.8
UCC	Uccle	24.59	311	dP	P	19 13 27.1	-1.1
UCC	Uccle	24.59	311	P	P	19 13 27.3	-0.9
	comp=Z,2.9nm,1.1s						
MTLF	Montolieu	24.64	293	P	P	19 13 31.0	+2.1
	comp=Z,780nmcomp=Z,20nm,1.2s						
MUD	Monsted U'grnd	24.79	326	i P	P	19 13 32.1	+2.2
MUD				IAmb	IAmb	19 13 38.5	
	comp=Z,57nm,1.3s						
TJOU	Tjoern	24.81	331	i P	P	19 13 29.5	-0.6
KEF	Keuruu	24.83	350	eP	P	19 13 29.4	-0.9
CAF	Calviac	24.84	296	eP	P	19 13 30.9	+0.3
CAF				pmax	pmax		
	comp=Z,9.0nm,1.0s						
JOF	Joensuu	24.98	357	eP	P	19 13 30.4	-1.2
BSY	Bisya	25.00	121	P	P	19 13 33.2	+1.0
	SNR=7.5						
BSY				S	S	19 17 57.6	+1.1
BIDO	Bidbid	25.12	118	P	P	19 13 33.4	+0.2
BIDO				S	S	19 17 58.7	+0.3
SUF	Sumiainen	25.20	351	eP	P	19 13 32.8	-0.8
RJF	Les Rejaudoux	25.26	297	eP	P	19 13 34.0	-0.4
RJF				pmax	pmax		
	comp=Z,27nm,1.2s						
SMDO	Samad	25.37	119	P	P	19 13 35.3	-0.3
	SNR=7.4						
HFS	Hagfors	25.63	336	P	P	19 13 37.4	-0.2
	comp=Z,12nm,0.8s,baz=140,slow=7.2,SNR=15						
HFS				LR	LR	19 25 50.3	
	comp=Z,2µm,18.7s,baz=142,slow=42						
	comp=Z,12nm,0.8s						
WSAR	Wadi Sarin	25.66	118	LR	LR	19 26 21.8	
	comp=Z,10.0nm,19.2s,baz=10,slow=43						
WSAR	Wadi Sarin	25.66	118	P	P	19 13 39.4	+1.3
WSAR				S	S	19 18 07.4	+0.5
STRU	Stroemstad	25.68	332	i P	P	19 13 38.3	+0.3
SVE	Sverdlovsk	25.75	34	deP	P	19 13 40.4	+1.8
SVE				eS	S	19 18 05.9	-1.8
SVE				pmax	pmax		
	comp=Z,87nm,1.4s						
SVE				MLR	MLR		
	comp=Z,1µm,15.0s						
LFF	La Frestale	25.78	296	eP	P	19 13 39.3	+0.2
LFF				pmax	pmax		
	comp=Z,90nm,1.2s						
JMDO	Jabal Madar	25.87	120	P	P	19 13 40.9	+0.8
VAF	Ylistaro	26.00	348	eP	P	19 13 40.1	-0.7
HOMB	Homborsund	26.20	329	i P	P	19 13 44.0	+1.3
WBK	Wadi Bani Khal	26.30	119	P	P	19 13 45.4	+1.4
WHFO	Wadi Hawf	26.42	134	P	P	19 13 46.4	+1.3
MFF	Saint Martin d	26.55	300	P	P	19 13 46.1	+0.1
	comp=Z,7.1nm,0.9s						
KONO	Kongsberg	26.69	332	⇑iP	P	19 13 48.1	+1.0
KONO				pmax	pmax		
	comp=Z,17nm,0.9s						
KONO	Kongsberg	26.69	332	P	P	19 13 45.9	-1.3
KONO	Kongsberg	26.69	332	P	P	19 13 47.8	+0.6
	comp=Z,50nm,1.2s						
MHTO	MHTO	26.73	123	P	P	19 13 48.7	+0.9
MHTO				S	S	19 18 24.5	+0.8
JLN	Jalan Bani Buh	26.91	119	P	P	19 13 50.3	+0.8
NAO01	NORSAR Array S	27.09	335	P	P	19 13 52.1	+1.4
	comp=Z,20nm,1.2s						
NB2	NORSAR Subarra	27.12	335	P	P	19 13 49.9	-1.2
	comp=Z,1.9nm,0.7s,baz=135,slow=9.3						
NOA	NORSAR Array B	27.12	335	P	P	19 13 50.2	-0.9
	comp=Z,4.7nm,1.0s,baz=135,slow=8.7,SNR=8.7						
NOA				LR	LR	19 26 36.4	
	comp=Z,3µm,18.8s,baz=140,slow=41						
	comp=Z,4.7nm,1.0s						
GRR	Gorron	27.27	304	eP	P	19 13 51.8	-0.7
GRR				pmax	pmax		
	comp=Z,38nm,1.1s						
CHM	Chimkent	27.36	70	eP	P	19 13 52.9	-0.5
CHM	Chimkent	27.36	70	eP	P	19 13 52.9	-0.5
BRLS	Borolday	27.50	68	eP	P	19 13 52.9	-1.8
BRLS	Borolday	27.50	68	eP	P	19 13 53.0	-1.8
ATD	Arta Tunnel	27.52	161	LR	LR	19 24 07.7	
	comp=Z,120nm,18.4s,baz=344,slow=35						
IUG	Iuzhnay	27.69	70	eP	P	19 13 55.9	-0.5
IUG				eS	S	19 18 39.2	+0.3
IUG				pmax	pmax		
	comp=Z,11nm,0.9s						
IUG	Iuzhnay	27.69	70	eP	P	19 13 55.9	-0.5
	comp=Z,11nm,0.9s						
IUG				eS	S	19 18 39.3	+0.3
KK31	Karatay Array	27.99	68	i P	P	19 13 58.8	-0.3
KK31	Karatay Array	27.99	68	P	P	19 13 57.5	-1.6
KK31				IAmb	IAmb	19 14 08.8	
	comp=Z,14nm,1.0s						
KKAR	Karatay Array	27.99	68	P	P	19 13 57.1	-2.0
KKAR	Karatay Array	27.99	68	P	P	19 13 57.1	-2.0
SGMF	Saint Gilles	28.37	303	eP	P	19 14 01.9	-0.5
SGMF				pmax	pmax		
	comp=Z,34nm,1.2s						
BTK	Batken	28.49	74	P	P	19 14 04.4	+0.8
	comp=Z,339nmcomp=Z,10nm,2.0s						
DZA	Taraz	28.60	68	eP	P	19 14 04.0	-0.5
DZA	Taraz	28.60	68	eP	P	19 14 04.0	-0.5
TAM	Tamanrasset	28.78	246	P	P	19 14 07.7	+1.3
	comp=Z,5.4nm,0.8s						
ROSF	Rostrenen	28.86	303	eP	P	19 14 04.4	-2.3
ROSF				pmax	pmax		
	comp=Z,23nm,1.2s						
BORK	Borovoye	29.13	47	⇑iP	P	19 14 09.0	0.0
BORK				pmax	pmax		
	comp=Z,18nm,2.2s						
BORK	Borovoye	29.13	47	P	P	19 14 07.9	-1.1
BVAR	Borovoye Array	29.16	47	P	P	19 14 08.7	-0.7
	comp=Z,1.6nm,0.9s,baz=270,slow=5.9,SNR=12						
	comp=Z,1.6nm,0.9s						
ESDC	Sonseca Array	29.53	285	P	P	19 14 12.3	-0.5
	comp=Z,1.1nm,1.1s,baz=71,slow=8.0,SNR=6.2						
ESDC				LR	LR	19 26 46.3	
	comp=Z,558nm,19.7s,baz=66,slow=38						
	comp=Z,1.1nm,1.1s						
ESDC	Sonseca Array	29.53	285	P	P	19 14 11.7	-1.1
ARSB	Arslanbob	29.96	71	P	P	19 14 16.9	+0.2
ARSB				pmax	pmax		
	comp=Z,57nm,1.3s						
ARSB	Arslanbob	29.96	71	P	P	19 14 16.9	+0.2
EKA	Eskdalemuir Ar	30.38	317	P	P	19 14 18.9	-1.2
	comp=Z,2.3nm,0.7s,baz=114,slow=9.3,SNR=8.9						
EKA				LR	LR	19 28 10.3	
	comp=Z,1µm,20.3s,baz=120,slow=40						
	comp=Z,2.3nm,0.7s						
EKA	Eskdalemuir Ar	30.38	317	P	P	19 14 19.5	-0.6
EKA				pmax	pmax		
	comp=Z,13nm,1.3s						
AAK	Ala-Archa	30.95	69	LR	LR	19 27 24.0	
	comp=Z,1µm,21.4s,baz=286,slow=37						
AAK	Ala-Archa	30.95	69	i P	P	19 14 26.3	+0.9
AAK				pmax	pmax		
	comp=Z,6.0nm,1.1s						
AAK	Ala-Archa	30.95	69	P	P	19 14 24.2	-1.3
AAK	Ala-Archa	30.95	69	i P	P	19 14 24.7	-0.7
	SNR=6.8						
AAK	Ala-Archa	30.95	69	P	P	19 14 26.6	+1.1
	comp=Z,8.4nm,1.1s						
SGDS	Sogindy	30.98	67	eP	P	19 14 25.2	-0.4
SGDS				eS	S	19 19 30.9	+0.4
FRU1	Bishkek	31.03	68	IAmb	IAmb	19 14 35.8	
	comp=Z,21nm,1.0s						
MDT	Midelt	31.79	272	LR	LR	19 28 08.8	
	comp=Z,713nm,21.6s,baz=76,slow=38						
MD01	Midelt array s	31.89	273	P	P	19 14 30.4	-3.4
NIL	Nilore	31.90	86	P	P	19 14 33.4	-0.3
NIL				pmax	pmax		
	comp=Z,20nm,1.1s						
NIL	Nilore	31.90	86	P	P	19 14 33.4	-0.3
NIL				IAmb	IAmb	19 14 42.5	
	comp=Z,20nm,1.1s						
NIL	Nilore	31.90	86	P	P	19 14 34.9	+1.2
	comp=Z,18nm,1.1s						
ARCES	ARCESS Array B	31.91	354	P	P	19 14 32.6	-0.8
	comp=Z,9.5nm,0.8s,baz=169,slow=7.4,SNR=18						
	comp=Z,9.5nm,0.8s						
BOOM	Boomskoye usch	32.02	69	IAmb	IAmb	19 14 45.9	
	comp=Z,15nm,1.1s						
BOOM	Boomskoye usch	32.02	69	P	P	19 14 36.4	+1.5
	comp=Z,240nmcomp=Z,14nm,1.1s						
MTE	Manteigas	32.12	287	eP	P	19 14 35.5	-0.2
MTE				i IAmb	IAmb	19 14 43.9	
	comp=Z,34nm,1.5s						
MTE				eS	S	19 19 50.5	+2.0
MTE				eLR	LR	19 25 11.2	
MTE				i IAMs_20	IAMs_20	19 29 08.7	
	comp=Z,974nm,18.0s						
MTE	Manteigas	32.12	287	P	P	19 14 35.1	-0.6
MTE				IAmb	IAmb	19 14 56.5	
	comp=Z,20nm,1.1s						
MTE	Manteigas	32.12	287	P	P	19 14 39.0	+3.3
	comp=Z,20nm,0.4s						
PCBR	Castelo Branco	32.17	286	eP	P	19 14 36.5	+0.5
PCBR				i IAmb	IAmb	19 14 53.2	
	comp=Z,32nm,1.3s						
PMRV	Marv??o	32.18	286	eS	S	19 19 52.3	+3.0
PMRV				eLR	LR	19 24 57.9	
PMRV				i IAMs_20	IAMs_20	19 30 47.0	
	comp=Z,761nm,20.0s						
KUU	Kurty	32.19	66	eP	P	19 14 35.8	-0.4
KUU				pmax	pmax		
	comp=Z,6.0nm,1.1s						
KUU	Kurty	32.19	66	eP	P	19 14 35.9	-0.3
	comp=Z,5.7nm,1.1s						
NRN	Naryn	32.20	71	IAmb	IAmb	19 15 03.6	
	comp=Z,12nm,1.0s						
KSH2	Kashi	32.26	75	P	P	19 14 38.0	+1.0
KSH2				sP	sP	19 14 51.1	+11
KSH2				pmax	pmax		
	comp=Z,7.0nm,1.0s						
KSH2				L	L		
	comp=Z,2µm,17.3s						
KSH2				L	L		
	comp=Z,1µm,14.5s						
KSH2				L	L		
	comp=Z,1µm,13.1s						
PGAV	Gavieira, Arco	32.44	291	eLR	LR	19 25 33.7	

PGAV				*i* IAMs_20	IAMs_20	19 31 06.6	
	comp=Z,2µm,16.0s						
PESTR	**Estremoz**	**32.44**	**285**	*e*P	**P**	**19 14 37.5**	**-0.9**
ASAI	**AK-SAY(Kyrgyzs**	**32.66**	**71**	P	**P**	**19 14 42.6**	**+1.9**
	comp=Z,5.8nm,1.1s						
TNSS	**Tian-Shan**	**32.70**	**67**	*e*P	**P**	**19 14 40.2**	**-0.9**
TNSS	**Tian-Shan**	**32.70**	**67**	*e*P	**P**	**19 14 40.2**	**-0.9**
MDOK	**Medeo**	**32.76**	**67**	*e*P	**P**	**19 14 40.8**	**-0.6**
MDOK				*e*S	**S**	**19 19 58.5**	**0.0**
MDOK	**Medeo**	**32.76**	**67**	*e*P	**P**	**19 14 40.8**	**-0.6**
MDOK				*e*S	**S**	**19 19 58.5**	**0.0**
PVAQ	**Vaqueiros**	**32.87**	**282**	*e*P	**P**	**19 14 43.8**	**+1.6**
PVAQ				*e*S	**S**	**19 20 00.8**	**+0.8**
PVAQ				*e*LR	LR	19 25 10.2	
PVAQ				*i* IAMs_20	IAMs_20	19 28 13.1	
	comp=Z,430nm,22.0s						
KDJ	**Kajisay**	**32.98**	**69**	IAmb	IAmb	19 15 11.2	
	comp=Z,13nm,1.0s						
KDJ	**Kajisay**	**32.98**	**69**	P	**P**	**19 14 43.8**	**+0.5**
	comp=Z,16nm,1.2s						
PCVE	**Castro Verde**	**33.06**	**283**	*e*P	**P**	**19 14 45.7**	**+1.9**
MESJ	**Messejana**	**33.15**	**283**	*e*P	**P**	**19 14 46.7**	**+2.0**
TARG	**Taragay, Kyrgy**	**33.50**	**70**	IAmb	IAmb	19 15 08.1	
	comp=Z,11nm,1.1s						
TARG	**Taragay, Kyrgy**	**33.50**	**70**	P	**P**	**19 14 50.2**	**+2.1**
	comp=Z,10nm,1.2s						
TDK	**Taldyqorghan**	**33.58**	**64**	*e*P	**P**	**19 14 47.9**	**-0.4**
TDK				pmax	pmax		
	comp=Z,6.0nm,0.8s						
TDK	**Taldyqorghan**	**33.58**	**64**	*e*P	**P**	**19 14 47.9**	**-0.4**
	comp=Z,6.0nm,0.8s						
KURBB	**Kurchatov Arra**	**33.70**	**54**	P	**P**	**19 14 49.1**	**-0.2**
	comp=Z,9.1nm,0.8s,baz=272,slow=8.9,SNR=46						
KURBB				LR	LR	19 30 42.0	
	comp=Z,2µm,18.5s,baz=280,slow=40						
	comp=Z,9.1nm,0.8s						
KURBB	**Kurchatov Arra**	**33.70**	**54**	P	**P**	**19 14 48.1**	**-1.2**
SATY	**Saty**	**33.76**	**67**	*e*P	**P**	**19 14 49.4**	**-0.6**
SATY				*e*S	**S**	**19 20 14.1**	**+0.1**
SATY				pmax	pmax		
	comp=Z,13nm,1.3s						
SATY	**Saty**	**33.76**	**67**	*e*P	**P**	**19 14 49.5**	**-0.6**
	comp=Z,13nm,1.3s						
SATY				*e*S	**S**	**19 20 14.2**	**+0.1**
KURK	**Kurchatov**	**33.77**	**53**	P	**P**	**19 14 49.1**	**-0.8**
KURK	**Kurchatov**	**33.77**	**53***c*	*i*P	**P**	**19 14 49.2**	**-0.6**
KURK				pmax	pmax		
	comp=Z,13nm,0.9s						
KURK	**Kurchatov**	**33.77**	**53**	P	**P**	**19 14 48.9**	**-0.9**
KURK				IAmb	IAmb	19 14 58.6	
	comp=Z,24nm,1.2s						
KURK	**Kurchatov**	**33.77**	**53**	P	**P**	**19 14 50.1**	**+0.3**
PRZ	**Przheval'sk**	**33.83**	**68**	IAmb	IAmb	19 15 01.3	
	comp=Z,14nm,0.8s						
PRZ	**Przheval'sk**	**33.83**	**68**	P	**P**	**19 14 52.4**	**+1.6**
	comp=Z,15nm,1.0s						
KPKS	**Kokpek**	**33.92**	**66**	*e*P	**P**	**19 14 50.8**	**-0.5**
KPKS	**Kokpek**	**33.92**	**66**	*e*P	**P**	**19 14 50.9**	**-0.5**
UZB	**Uzynbulak**	**34.20**	**67**	*e*P	**P**	**19 14 53.1**	**-0.8**
UZB	**Uzynbulak**	**34.20**	**67**	*e*P	**P**	**19 14 53.2**	**-0.8**
LODK	**Lodwar**	**34.46**	**178**	P	**P**	**19 14 57.1**	**+1.0**
PDGK	**Podgornoye**	**34.52**	**67**	P	**P**	**19 14 55.1**	**-1.5**
SHLS	**Shalkode**	**34.52**	**67**	*e*P	**P**	**19 14 58.5**	**+1.9**
SHLS	**Shalkode**	**34.52**	**67**	*e*P	**P**	**19 14 58.6**	**+1.9**
WUS	**Wushi**	**34.63**	**70**	IAmb	IAmb	19 15 28.7	
	comp=Z,18nm,1.0s						
WUS	**Wushi**	**34.63**	**70**	P	**P**	**19 14 58.2**	**+0.6**
	comp=Z,16nm,1.8s						
MAKZ	**Makanchi**	**35.96**	**60**	P	**P**	**19 15 08.3**	**-0.5**
MAKZ	**Makanchi**	**35.96**	**60**	P	**P**	**19 15 08.1**	**-0.7**
MK31	**Makanchi Array**	**36.17**	**60**	*i* P	**P**	**19 15 10.3**	**-0.4**
MK31				pmax	pmax		
	comp=Z,6.0nm,0.7s						
MKAR	**Makanchi Array**	**36.17**	**60**	P	**P**	**19 15 10.8**	**+0.1**
	comp=Z,11nm,0.9s,baz=277,slow=6.6,SNR=44						
MKAR				LR	LR	19 31 35.2	
	comp=Z,1µm,21.2s,baz=263,slow=39						
	comp=Z,11nm,0.9s						
MKAR	**Makanchi Array**	**36.17**	**60**		**P**	**19 15 10.2**	**-0.5**
ZAA0	**Zalesovo Array**	**37.80**	**48**	P	**P**	**19 15 22.6**	**-1.8**
ZALV	**Zalesovo Beam**	**37.80**	**48**	P	**P**	**19 15 23.9**	**-0.4**
	comp=Z,2.5nm,0.6s,baz=267,slow=9.9,SNR=11						
ZALV				LR	LR	19 33 39.6	
	comp=Z,575nm,18.1s,baz=264,slow=41						
	comp=Z,2.5nm,0.6s						
ZALV	**Zalesovo Beam**	**37.80**	**48**	*i* P	**P**	**19 15 24.0**	**-0.4**
ZALV				pmax	pmax		
	comp=Z,3.0nm,0.6s						
ZALV	**Zalesovo Beam**	**37.80**	**48**		**P**	**19 15 22.8**	**-1.6**
ZSN	**Zaisan**	**37.88**	**59**	*e*P	**P**	**19 15 24.6**	**-0.5**
ZSN				pmax	pmax		
	comp=Z,13nm,1.7s						
ZSN	**Zaisan**	**37.88**	**59**	*e*P	**P**	**19 15 24.7**	**-0.5**
	comp=Z,13nm,1.7s						
TORD	**Torodi Ar. Bea**	**37.97**	**238**	P	**P**	**19 15 25.2**	**-0.9**
	comp=Z,32nm,0.9s,baz=38,slow=7.7,SNR=106						
TORD				LR	LR	19 34 46.3	
	comp=Z,814nm,20.0s,baz=38,slow=42						
	comp=Z,32nm,0.9s						
TORD	**Torodi Ar. Bea**	**37.97**	**238**	P	**P**	**19 15 24.4**	**-1.8**
TORD				IAmb	IAmb	19 15 27.7	
	comp=Z,23nm,0.9s						
MBAR	**Mbarara**	**38.56**	**185**	LR	LR	19 31 28.7	
	comp=Z,947nm,18.1s,baz=8.0,slow=36						
MBAR	**Mbarara**	**38.56**	**185**	P	**P**	**19 15 31.9**	**+0.6**
MBAR	**Mbarara**	**38.56**	**185***c*	*e*P	**P**	**19 15 32.1**	**+0.8**
MBAR				pmax	pmax		
	comp=Z,12nm,1.7s						
MBAR	**Mbarara**	**38.56**	**185**	P	**P**	**19 15 30.3**	**-1.0**
MBAR	**Mbarara**	**38.56**	**185**	P	**P**	**19 15 31.8**	**+0.5**
	comp=Z,7.2nm,1.3s						
KMBO	**Kilima Mbogo**	**39.06**	**175**	LR	LR	19 31 37.3	
	comp=Z,610nm,18.8s,baz=298,slow=36						
KMBO	**Kilima Mbogo**	**39.06**	**175**	⇓*i*P	**P**	**19 15 36.0**	**+0.4**
DGZ	**Jazzator, Alta**	**39.42**	**55**	*e*P	**P**	**19 15 37.8**	**-0.4**
DGZ				pmax	pmax		
	comp=Z,9.0nm,1.1s						
JMIC	**Jan Mayen**	**39.64**	**340**	LR	LR	19 33 50.6	
	comp=Z,1µm,18.3s,baz=123,slow=39						
WMQ	**Urumqi**	**40.33**	**64**	*e*P	**P**	**19 15 46.6**	**+0.8**
WMQ				pP	sP	19 15 49.3	-0.1
WMQ				S	**S**	**19 21 54.8**	**+0.9**
WMQ				pmax	pmax		
	comp=Z,14nm,1.1s						
WMQ				pmax	pmax		
	comp=Z,180nm,3.7s						
WMQ				L	L		
	comp=Z,2µm,14.9s						
WMQ				L	L		
	comp=Z,2µm,16.1s						
WMQ				L	L		
	comp=Z,1µm,18.5s						
EDA	**Edea**	**40.49**	**219**	P	**P**	**19 15 43.4**	**-3.8**
SPITS	**Spitsbergen Ar**	**40.94**	**355**	P	**P**	**19 15 50.2**	**-0.1**
	comp=Z,20nm,0.8s,baz=142,slow=8.3,SNR=9.0						
	comp=Z,20nm,0.8s						
PMOZ	**Porto Moniz, M**	**41.67**	**279**	*e*LR	LR	19 25 08.2	
PMOZ				*i* IAMs_20	IAMs_20	19 37 26.1	
	comp=Z,510nm,20.0s						
BORG	**Borgarnes**	**41.72**	**328**	LR	LR	19 35 42.9	
	comp=Z,2µm,18.4s,baz=111,slow=40						
NRIK	**Noril'sk**	**42.25**	**25**	P	**P**	**19 16 01.5**	**+0.4**
	comp=Z,3.5nm,0.5s,baz=255,slow=6.4,SNR=5.9						
NRIK				LR	LR	19 36 43.7	
	comp=Z,806nm,18.6s,baz=238,slow=41						
	comp=Z,3.5nm,0.5s						
NRIK	**Noril'sk**	**42.25**	**25**	*e*P	**P**	**19 16 02.0**	**+0.9**
NRIK				pmax	pmax		
	comp=Z,12nm,1.1s						
NRIK	**Noril'sk**	**42.25**	**25**	P	**P**	**19 15 59.7**	**-1.4**
HYB	**Hyderabad**	**43.91**	**105**	*e*P	**P**	**19 16 14.1**	**-1.1**
HYB				*e*PcP	**PcP**	**19 18 00.1**	**-1.2**
HYB				*e*PP	**PP**	**19 18 01.3**	**+3.9**
HYB				*e*S	**S**	**19 22 46.7**	**-0.4**
HYB				*e*ScS	**ScS**	**19 26 13.4**	**-1.8**
EVN	**Everest**	**44.85**	**87**		**P**	**19 16 22.6**	**-0.8**
EVN				IAmb	IAmb	19 17 04.4	
	comp=Z,15nm,1.1s						
EVN	**Everest**	**44.85**	**87**	P	**P**	**19 16 23.6**	**+0.2**
	comp=Z,10nm,1.8s						
KNGR	**Kungurtug, Tuv**	**45.76**	**53**	*e*P	**P**	**19 16 30.8**	**+1.1**
KNGR				pmax	pmax		
	comp=Z,7.0nm,1.0s						
DBIC	**Dimbokro**	**47.07**	**238**	P	**P**	**19 16 39.3**	**-0.9**
	comp=Z,23nm,0.9s,baz=49,slow=8.8,SNR=16						
DBIC				LR	LR	19 41 07.2	
	comp=Z,732nm,18.9s,baz=52,slow=42						
	comp=Z,23nm,0.9s						
DBIC	**Dimbokro**	**47.07**	**238**	P	P	19 16 33.9	-6.4
DBIC	**Dimbokro**	**47.07**	**238**	P	**P**	**19 16 40.3**	**0.0**
LSA	**Lhasa**	**47.48**	**82**	IAmb	IAmb	19 16 49.5	
	comp=Z,7.2nm,0.9s						
LSA	**Lhasa**	**47.48**	**82**	P	**P**	**19 16 44.2**	**+0.3**
	comp=Z,563nmcomp=Z,9.3nm,0.8s						
GOMU	**GeErMu**	**47.71**	**73**	P	**P**	**19 16 44.0**	**-1.5**
GOMU				pP	sP	19 16 48.4	-0.7
GOMU				sP	pP	19 16 51.6	+3.5
GOMU				pmax	pmax		
	comp=Z,1.0nm,0.5s						
GOMU				L	L		
	comp=Z,760nm,14.3s						
GOMU				L	L		
	comp=Z,680nm,14.5s						
GOMU				L	L		
	comp=Z,1µm,15.0s						
MOY	**Mondy**	**47.72**	**51**	*e*P	**P**	**19 16 46.1**	**+1.0**
MOY				pmax	pmax		
	comp=Z,36nm,2.4s						
TLY	**Talaya**	**49.34**	**50**	LR	LR	19 40 16.3	
	comp=Z,1µm,18.3s,baz=282,slow=39						
TLY	**Talaya**	**49.34**	**50**	P	**P**	**19 16 58.7**	**+1.3**
TLY	**Talaya**	**49.34**	**50***d*	*i*P	**P**	**19 16 58.2**	**+0.8**
TLY				pmax	pmax		
	comp=Z,14nm,1.0s						
TLY	**Talaya**	**49.34**	**50**	P	**P**	**19 16 56.5**	**-0.9**
TLY				IAmb	IAmb	19 16 59.5	
	comp=Z,13nm,1.0s						
TLY	**Talaya**	**49.34**	**50**	P	**P**	**19 16 58.6**	**+1.2**
	comp=Z,231nmcomp=Z,17nm,1.3s						
ZAK	**Zakamensk**	**49.41**	**52**	*e*P	**P**	**19 16 57.9**	**-0.1**
ZAK				pmax	pmax		
	comp=Z,13nm,1.2s						
IRK	**Irkutsk**	**49.59**	**49**	*e*P	**P**	**19 16 56.5**	**-2.8**
IRK				pmax	pmax		
	comp=Z,36nm,2.1s						
GTA2	**Gaotai**	**50.20**	**67**	*e*P	**P**	**19 17 03.9**	**-0.4**
GTA2				S	**S**	**19 24 13.3**	**-3.4**
GTA2				pmax	pmax		
	comp=Z,12nm,1.1s						
GTA2				L	L		
	comp=Z,930nm,18.4s						
GTA2				L	L		
	comp=Z,570nm,16.5s						
GTA2				L	L		
	comp=Z,830nm,17.8s						
BRDH	**Bariadhala**	**51.22**	**90**	LR	LR	19 41 20.8	
	comp=Z,900nm,20.5s,baz=313,slow=39						
PALK	**Pallekele**	**52.03**	**114**	LR	LR	19 42 14.0	
	comp=Z,765nm,18.5s,baz=323,slow=39						
SONM	**Songino Array**	**52.06**	**54**	P	**P**	**19 17 18.6**	**+0.4**
	comp=Z,5.8nm,0.8s,baz=293,slow=7.4,SNR=29						
SONM				LR	LR	19 42 08.7	
	comp=Z,2µm,18.2s,baz=288,slow=39						
	comp=Z,5.8nm,0.8s						
SONM	**Songino Array**	**52.06**	**54**		**P**	**19 17 18.5**	**+0.4**
SONM				IAmb	IAmb	19 17 19.5	
	comp=Z,9.3nm,1.0s						
ULN	**Ulaanbaatar**	**52.47**	**54**	P	**P**	**19 17 22.1**	**+0.9**
ULN	**Ulaanbaatar**	**52.47**	**54***d*	*i*P	**P**	**19 17 21.0**	**-0.2**
ULN				pmax	pmax		
	comp=Z,12nm,1.0s						
ULN	**Ulaanbaatar**	**52.47**	**54**	P	**P**	**19 17 19.2**	**-2.0**
ULN				IAmb	IAmb	19 17 22.6	
	comp=Z,18nm,1.1s						
ULN	**Ulaanbaatar**	**52.47**	**54**	P	**P**	**19 17 21.6**	**+0.4**
ULN	**Ulaanbaatar**	**52.47**	**54**	P	**P**	**19 17 21.7**	**+0.4**
	comp=Z,283nmcomp=Z,18nm,1.4s						
LSZ	**Lusaka**	**53.30**	**187**	LR	LR	19 40 19.8	
	comp=Z,834nm,20.0s,baz=14,slow=36						
LSZ	**Lusaka**	**53.30**	**187**	P	**P**	**19 17 28.2**	**+0.7**
LSZ	**Lusaka**	**53.30**	**187**	P	**P**	**19 17 28.4**	**+0.9**
	comp=Z,11nm,0.8s						
SFJD	**Kangerlussuaq**	**53.65**	**331**	LR	LR	19 42 37.8	
	comp=Z,805nm,18.5s,baz=84,slow=39						
LZDM	**Lanzhou Array**	**54.43**	**69**	P	**P**	**19 17 36.3**	**+0.3**
	comp=Z,3.8nm,0.6s,baz=315,slow=5.0,SNR=5.3						
LZDM				LR	LR	19 45 29.4	
	comp=Z,970nm,19.0s,baz=315,slow=41						
	comp=Z,3.8nm,0.6s						
LZH	**Lanzhou**	**54.48**	**69**	*e*P	**P**	**19 17 37.1**	**+0.9**
LZH				sP	sP	19 17 42.3	+2.5
LZH				S	**S**	**19 25 17.0**	**+1.4**
LZH				pmax	pmax		
	comp=Z,26nm,1.4s						
LZH				L	L		
	comp=Z,1µm,15.2s						
LZH				L	L		
	comp=Z,1µm,16.8s						
LZH				L	L		
	comp=Z,1µm,16.5s						
TNCH	**TengChong**	**55.45**	**84**	⇓P	**P**	**19 17 44.8**	**+1.5**
TNCH				pP	sP	19 17 50.5	+3.5
TNCH				sP	pP	19 17 53.8	+7.9
TNCH				S	**S**	**19 25 26.4**	**-2.4**
TNCH				pmax	pmax		
	comp=Z,25nm,2.8s						
TNCH				pmax	pmax		
	comp=Z,310nm,4.2s						
TNCH				L	L		
	comp=Z,470nm,16.6s						
TNCH				L	L		
	comp=Z,520nm,14.4s						
TNCH				L	L		
	comp=Z,800nm,15.9s						
TIXI	**Tiksi**	**55.88**	**22**	LR	LR	19 45 19.6	
	comp=Z,488nm,19.4s,baz=313,slow=40						
TIXI	**Tiksi**	**55.88**	**22**	⇑*i*P	**P**	**19 17 45.5**	**0.0**
TIXI				pmax	pmax		
	comp=Z,10.0nm,1.1s						
NPW	**Naypyitaw**	**56.30**	**90**	P	**P**	**19 17 48.3**	**-1.0**
	comp=Z,16nm,1.1s						
CD2	**Chengdu**	**56.69**	**75**	*e*P	**P**	**19 17 50.5**	**-1.5**
CD2				S	**S**	**19 25 43.6**	**-1.3**
CD2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
CD2				pmax	pmax		
	comp=Z,240nm,5.8s						
CD2				L	L		
	comp=Z,1µm,15.5s						
CD2				L	L		
	comp=Z,900nm,13.5s						
CD2				L	L		
	comp=Z,1µm,14.9s						
BTO2	**Baotou**	**56.91**	**62**	*e*P	**P**	**19 17 54.1**	**+0.6**
BTO2				pP	**sP**	**19 17 58.6**	**+1.5**
BTO2				S	**S**	**19 25 47.0**	**-0.8**
BTO2				pmax	pmax		
	comp=Z,34nm,0.7s						
BTO2				pmax	pmax		
	comp=Z,310nm,7.3s						
BTO2				L	L		
	comp=Z,3µm,20.3s						
BTO2				L	L		
	comp=Z,2µm,19.7s						
BTO2				L	L		
	comp=Z,2µm,23.5s						
PZH	**PanZhiHua**	**57.24**	**80**	P	**P**	**19 17 58.4**	**+2.4**
PZH				S	**S**	**19 25 52.3**	**-0.1**
PZH				SS	**SS**	**19 29 44.4**	**+3.1**
PZH				pmax	pmax		
	comp=Z,10.0nm,1.7s						
PZH				pmax	pmax		
	comp=Z,180nm,3.5s						
PZH				L	L		
	comp=Z,410nm,16.0s						
PZH				L	L		
	comp=Z,420nm,18.4s						
PZH				L	L		
	comp=Z,460nm,15.6s						
OPO	**Ambohidratompo**	**57.62**	**165**	LR	LR	19 42 26.0	
	comp=Z,314nm,18.8s,baz=248,slow=36						
HHC	**Hu-ho-hao-te**	**58.03**	**61**	*e*P	**P**	**19 18 02.3**	**+0.9**
HHC				S	**S**	**19 26 03.4**	**+0.9**
HHC				pmax	pmax		
	comp=Z,29nm,1.0s						
HHC				pmax	pmax		
	comp=Z,77nm,5.0s						
HHC				L	L		
	comp=Z,620nm,20.2s						
HHC				L	L		
	comp=Z,500nm,17.7s						
HHC				L	L		
	comp=Z,900nm,19.3s						
ABPO	**Ambohimpanom**	**58.07**	**165**	*i* P	**P**	**19 18 03.8**	**+2.0**
MATP	**Matopo**	**58.37**	**186**	LR	LR	19 42 44.9	
	comp=Z,539nm,18.9s,baz=15,slow=36						
KMI2	**Kunming**	**58.70**	**81**	⇓P	**P**	**19 18 07.6**	**+1.2**
KMI2				S	**S**	**19 26 13.9**	**+2.1**
KMI2				pmax	pmax		
	comp=Z,11nm,0.9s						
KMI2				pmax	pmax		
	comp=Z,180nm,4.0s						
KMI2				L	L		
	comp=Z,310nm,17.9s						
KMI2				L	L		
	comp=Z,320nm,20.4s						
KMI2				L	L		
	comp=Z,500nm,22.4s						
CHTO	**Chiang Mai**	**59.05**	**90**	P	**P**	**19 18 07.6**	**-1.0**
XAN	**Xi'an**	**59.12**	**69**	⇓P	**P**	**19 18 08.4**	**-0.6**
XAN				S	**S**	**19 26 18.8**	**+2.1**
XAN				pmax	pmax		
	comp=Z,20nm,0.9s						
XAN				pmax	pmax		
	comp=Z,250nm,4.0s						
XAN				L	L		
	comp=Z,1µm,16.5s						
XAN				L	L		
	comp=Z,850nm,15.8s						
XAN				L	L		
	comp=Z,2µm,19.9s						
CMAR	**Chiang Mai Arr**	**59.24**	**90**	P	**P**	**19 18 09.0**	**-1.0**
	comp=Z,3.2nm,0.8s,baz=299,slow=8.0,SNR=20						
CMAR				LR	LR	19 48 50.6	
	comp=Z,357nm,19.1s,baz=295,slow=41						
	comp=Z,3.2nm,0.8s						
CMAR	**Chiang Mai Arr**	**59.24**	**90**	P	**P**	**19 18 08.1**	**-1.9**
YAK	**Yakutsk**	**59.70**	**33**	LR	LR	19 48 48.6	
	comp=Z,421nm,18.8s,baz=286,slow=41						
YAK	**Yakutsk**	**59.70**	**33**	*e*P	**P**	**19 18 11.6**	**-0.8**
YAK				pmax	pmax		
	comp=Z,6.0nm,0.8s						
YAK				pmax	pmax		
	comp=N,4.0nm,1.8s						
YAK				pmax	pmax		
	comp=E,5.0nm,1.5s						
YAK	**Yakutsk**	**59.70**	**33**	P	**P**	**19 18 09.8**	**-2.6**
YAK				IAmb	IAmb	19 18 14.9	
	comp=Z,10nm,0.8s						
YAK	**Yakutsk**	**59.70**	**33**	P	**P**	**19 18 11.5**	**-1.0**
	comp=Z,17nm,0.8s						
XLT	**XiLinHaoTe**	**59.79**	**56**	*e*P	**P**	**19 18 12.6**	**-0.9**
XLT				pP	pP	19 18 16.1	0.0
XLT				sP	sP	19 18 20.3	+3.1
XLT				PcP	**PcP**	**19 18 58.3**	**-1.9**
XLT				S	**S**	**19 26 27.5**	**+2.4**
XLT				SS	**SS**	**19 30 22.5**	**+2.0**
XLT				pmax	pmax		
	comp=Z,12nm,1.1s						
XLT				L	L		
	comp=Z,110nm,16.6s						
XLT				L	L		
	comp=Z,850nm,17.9s						
XLT				L	L		
	comp=Z,2µm,17.9s						
TIY	**Taiyuan**	**60.00**	**64**	P	**P**	**19 18 15.0**	**0.0**
TIY				S	**S**	**19 26 27.8**	**-0.2**
TIY				pmax	pmax		
	comp=Z,140nm,3.7s						
TIY				L	L		
	comp=Z,470nm,17.9s						
TIY				L	L		
	comp=Z,550nm,16.5s						
TIY				L	L		
	comp=Z,600nm,17.9s						
GYA	**Guiyang**	**61.08**	**78**	P	**P**	**19 18 21.8**	**-0.8**
GYA				pmax	pmax		
	comp=Z,10.0nm,1.2s						
ENH	**Enshi**	**61.33**	**73**	P	**P**	**19 18 22.7**	**-1.4**
ENH	**Enshi**	**61.33**	**73**	P	**P**	**19 18 23.6**	**-0.6**
	comp=Z,16nm,1.1s						
LYN	**LuoYang**	**61.48**	**67**	P	**P**	**19 18 25.4**	**+0.3**
LYN				S	**S**	**19 26 45.6**	**-1.2**
LYN				pmax	pmax		
	comp=Z,17nm,0.7s						
LYN				L	L		
	comp=Z,930nm,14.1s						
LYN				L	L		
	comp=Z,1µm,15.1s						
LYN				L	L		
	comp=Z,2µm,16.5s						
BJI2	**Beijing**	**61.56**	**60**	P	**P**	**19 18 25.9**	**+0.4**
BJI2				S	**S**	**19 26 46.8**	**-0.9**
BJI2				pmax	pmax		
	comp=Z,10.0nm,0.7s						
BJI2				L	L		
	comp=Z,680nm,21.3s						
BJI2				L	L		
	comp=Z,330nm,18.5s						
BJI2				L	L		
	comp=Z,190nm,18.5s						
HNS	**HongShan**	**61.75**	**63**	⇓P	**P**	**19 18 27.9**	**+1.1**
HNS				S	**S**	**19 26 52.4**	**+2.3**
HNS				pmax	pmax		
	comp=Z,8.0nm,0.8s						
HNS				L	L		
	comp=Z,830nm,18.4s						
HNS				L	L		
	comp=Z,580nm,18.8s						
HNS				L	L		
	comp=Z,920nm,21.2s						
FRB	**Frobisher Bay**	**61.79**	**330**	LR	LR	19 46 24.7	
	comp=Z,579nm,19.2s,baz=72,slow=37						
RES	**Resolute Bay**	**62.66**	**347**	LR	LR	19 47 27.4	
	comp=Z,450nm,19.3s,baz=28,slow=38						
LBTB	**Lobatse**	**63.21**	**189**	LR	LR	19 45 31.0	
	comp=Z,713nm,19.8s,baz=9.0,slow=36						
HEH	**HeiHe**	**63.84**	**46**	*e*P	**P**	**19 18 40.3**	**-0.3**
HEH				pP	**pP**	**19 18 42.9**	**-0.3**
HEH				S	**S**	**19 27 16.5**	**+0.4**
HEH				pmax	pmax		
	comp=Z,14nm,1.0s						
HEH				L	L		
	comp=Z,1µm,18.9s						
HEH				L	L		
	comp=Z,750nm,17.8s						
HEH				L	L		
	comp=Z,1µm,17.7s						
TIA	**Tai'an**	**64.02**	**63**	P	**P**	**19 18 41.8**	**-0.2**
TIA				S	**S**	**19 27 22.8**	**+4.1**
TIA				pmax	pmax		
	comp=Z,13nm,0.8s						
TIA				L	L		
	comp=Z,790nm,17.3s						
TIA				L	L		
	comp=Z,460nm,18.2s						
TIA				L	L		
	comp=Z,880nm,22.2s						
WHN	**Wuhan**	**64.83**	**70**	P	**P**	**19 18 46.8**	**-0.6**
SCHQ	**Schefferville**	**65.55**	**321**	P	**P**	**19 18 52.9**	**+1.1**
	comp=Z,5.7nm,0.7s,baz=84,slow=11,SNR=4.1						
SCHQ				LR	LR	19 47 28.0	
	comp=Z,701nm,19.6s,baz=94,slow=36						
	comp=Z,5.7nm,0.7s						
DL2	**Dalian**	**65.80**	**59**	*e*P	**P**	**19 18 53.0**	**-0.5**
DL2				S	**S**	**19 27 40.1**	**-0.3**
DL2				pmax	pmax		
	comp=Z,16nm,0.8s						
DL2				L	L		
	comp=Z,470nm,14.6s						
DL2				L	L		
	comp=Z,530nm,14.3s						
DL2				L	L		
	comp=Z,940nm,15.3s						
CN2	**Changchun**	**65.83**	**53**	*e*P	**P**	**19 18 54.8**	**+1.1**
CN2				*e*S	**S**	**19 27 39.8**	**-1.0**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.4s						
CN2				pmax	pmax		
	comp=Z,100nm,5.0s						
CN2				L	L		
	comp=Z,500nm,17.0s						
CN2				L	L		
	comp=Z,700nm,17.0s						
CN2				L	L		
	comp=Z,1µm,17.0s						
BNX	**BinXian**	**66.06**	**50**	⇑P	**P**	**19 18 54.3**	**-0.8**

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BNX                                  S      S        19 27 43.1 -0.4
BNX                                  pmax   pmax
      comp=Z,7.0nm,0.8s
BNX                                  L      L
      comp=Z,870nm,18.3s
BNX                                  L      L
      comp=Z,480nm,20.7s
BNX                                  L      L
      comp=Z,1µm,16.1s
KLR   Kul'dur             66.79  45  LR     LR       19 50 45.8
      comp=Z,562nm,19.4s,baz=304,slow=38
KLR   Kul'dur             66.79  45⇑iP      P        19 18 59.2 -0.5
KLR                                  pmax   pmax
      comp=Z,5.0nm,1.1s
BOSA  Boshof              66.80 188  P      P        19 19 00.3 +0.3
      comp=Z,9.2nm,0.8s,baz=354,slow=6.8,SNR=13
BOSA                                 LR     LR       19 47 39.8
      comp=Z,580nm,19.9s,baz=10.0,slow=36
      comp=Z,9.2nm,0.8s
NJ2   Nanjing             67.36  66 eP      P        19 19 02.6 -1.0
NJ2                                  pmax   pmax
      comp=Z,20nm,0.8s
NJ2                                  L      L
      comp=Z,590nm,18.0s
NJ2                                  L      L
      comp=Z,470nm,13.3s
NJ2                                  L      L
      comp=Z,510nm,15.2s
QIZ   Qiongzhong          67.51  83  P      P        19 19 03.6 -1.2
QIZ                                  S      S        19 27 59.5 -2.3
QIZ                                  L      L
      comp=Z,340nm,10.4s
QIZ                                  L      L
      comp=Z,400nm,13.7s
QIZ                                  L      L
      comp=Z,360nm,11.0s
MDJ   Mudanjiang          67.97  50  P      P        19 19 06.1 -1.2
MDJ                                  S      S        19 28 07.0 +0.5
MDJ                                  pmax   pmax
      comp=Z,9.0nm,2.1s
MDJ                                  L      L
      comp=Z,1µm,15.8s
MDJ                                  L      L
      comp=Z,650nm,15.8s
MDJ                                  L      L
      comp=Z,860nm,20.6s
SEY   Seymchan            68.03  26  LR     LR       19 54 46.1
      comp=Z,484nm,18.0s,baz=314,slow=41
SEY   Seymchan            68.03  26⇑iP      P        19 19 07.9 +0.6
SEY                                  pmax   pmax
      comp=Z,11nm,1.0s
BILL  Bilibino            68.36  17⇑iP      P        19 19 09.6 +0.3
BILL                                 pmax   pmax
      comp=Z,11nm,1.0s
USA0B Ussuriysk Arra      69.64  49 eP      P        19 19 16.4 -1.3
USRK  Ussuriysk Ar.       69.64  49  P      P        19 19 16.1 -1.6
      comp=Z,4.7nm,0.8s,baz=317,slow=4.6,SNR=8.9
USRK                                 LR     LR       19 52 51.3
      comp=Z,780nm,18.4s,baz=281,slow=39
      comp=Z,4.7nm,0.8s
MA2   Magadan             69.67  29  LR     LR       19 56 14.8
      comp=Z,536nm,20.9s,baz=302,slow=42
KSAR  Wonju Array Be      70.76  57  P      P        19 19 22.2 -2.4
KSAR  Wonju Array Be      70.76  57         P        19 19 22.2 -2.4
KSRS  Korea Array         70.78  57  P      P        19 19 23.2 -1.5
      comp=Z,5.2nm,0.9s,baz=311,slow=5.8,SNR=16
KSRS                                 LR     LR       19 53 47.4
      comp=Z,1µm,18.3s,baz=310,slow=39
      comp=Z,5.2nm,0.9s
SUR   Sutherland          71.12 192  LR     LR       19 51 24.8
      comp=Z,564nm,18.8s,baz=11,slow=36
SUR   Sutherland          71.12 192  P      P        19 19 28.3 +1.5
E21K  Killik River        73.68   3  IAmb   IAmb     19 19 49.5
      comp=Z,16nm,1.6s
E23K  Chandalar           74.20   1  P      P        19 19 45.0 +0.2
E23K                                 IAmb   IAmb     19 20 35.3
      comp=Z,8.1nm,0.9s
E19K  Redstone River      74.49   4  IAmb   IAmb     19 20 02.6
      comp=Z,7.0nm,0.8s
F26K  Sheenjek River      74.60 359  IAmb   IAmb     19 19 48.7
      comp=Z,16nm,1.5s
F24K  Squaw Lake          74.77   1  IAmb   IAmb     19 19 56.7
      comp=Z,12nm,1.3s
F21K  Alatna River        74.92   3  IAmb   IAmb     19 19 58.4
      comp=Z,9.4nm,1.1s
F20K  Avaraart Lake       74.99   4  IAmb   IAmb     19 20 19.4
      comp=Z,9.3nm,1.2s
COLD  Coldfoot            75.03   2  IAmb   IAmb     19 20 28.8
      comp=Z,12nm,1.2s
F19K  Shaleruckik Mo      75.08   5  IAmb   IAmb     19 19 58.2
      comp=Z,19nm,1.6s
JNU   Nakatsue            75.22  60  LR     LR       19 57 38.5
      comp=Z,606nm,18.0s,baz=311,slow=40
G27K  Doyon Strip         75.44 358  IAmb   IAmb     19 20 01.8
      comp=Z,22nm,1.8s
G23K  Bananza Creek       75.55   2  IAmb   IAmb     19 20 01.5
      comp=Z,21nm,1.6s
G21K  Allakaket           75.63   3  IAmb   IAmb     19 20 15.1
      comp=Z,8.3nm,1.0s
ASAJ  Asahikawa           75.83  45  LR     LR       19 56 57.5
      comp=Z,477nm,20.1s,baz=277,slow=39
H23K  Yukon River         76.45   2  IAmb   IAmb     19 20 20.8
      comp=Z,18nm,1.5s
H21K  Melozitna Rive      76.51   3  IAmb   IAmb     19 20 08.7
      comp=Z,19nm,1.4s
YKAW3 Yellowknife Wh      76.64 346  P      P        19 19 58.4 -0.3
I27K  Kandik River        76.65 358  IAmb   IAmb     19 19 59.8
      comp=Z,7.1nm,1.0s
YKA   Yellowknife Ar      76.70 346  P      P        19 19 57.6 -1.4
      comp=Z,5.3nm,0.9s,baz=29,slow=5.8,SNR=9.7
YKA                                  LR     LR       19 54 29.3
      comp=Z,371nm,21.5s,baz=23,slow=36
      comp=Z,5.3nm,0.9s
YKA   Yellowknife Ar      76.70 346 i P     P        19 19 58.2 -0.9
YKA                                  pmax   pmax
      comp=Z,5.0nm,0.9s
YKA   Yellowknife Ar      76.70 346  P      P        19 19 57.2 -1.8
I28M  Miner Creek         76.76 357  IAmb   IAmb     19 20 07.7
      comp=Z,21nm,1.6s
I29M  Ogilvie Camp,       76.78 357  IAmb   IAmb     19 19 59.7
      comp=Z,11nm,1.0s
I30M  Mount Dempster      76.82 356  IAmb   IAmb     19 20 04.3
      comp=Z,8.6nm,1.0s
PETK  Petropavlovsk-      76.95  31  P      P        19 19 58.4 -2.4
      comp=Z,2.2nm,0.8s,baz=224,slow=6.2,SNR=3.9
PETK                                 LR     LR       19 59 34.1
      comp=Z,443nm,18.4s,baz=301,slow=40
      comp=Z,2.2nm,0.8s
I26K  Coal Creek Min      76.98 359  IAmb   IAmb     19 21 06.6
      comp=Z,9.7nm,1.2s
I21K  Tanana              77.02   3  IAmb   IAmb     19 20 09.4
      comp=Z,9.7nm,1.1s
MLY   Manley              77.21   2  IAmb   IAmb     19 20 11.1
      comp=Z,25nm,1.9s
COLA  College             77.43   1 eP      P        19 20 02.5 -0.6
COLA                                 pmax   pmax
      comp=Z,5.0nm,1.0s
COLA  College             77.43   1  P      P        19 20 03.3 +0.2
      comp=Z,11nm,1.3s
J30M  Hart River          77.46 356  IAmb   IAmb     19 20 04.3
      comp=Z,13nm,1.1s
ILAR  Eielson Array       77.54   0  P      P        19 20 02.3 -1.5
      comp=Z,0.8nm,0.8s,baz=250,slow=2.5,SNR=7.1
ILAR                                 LR     LR       19 59 58.7
      comp=Z,149nm,18.8s,baz=354,slow=40
      comp=Z,0.8nm,0.8s
ILAR  Eielson Array       77.54   0  P      P        19 20 02.6 -1.2
ILAR  Eielson Array       77.54   0  P      P        19 20 02.6 -1.2
SADO  Sadowa              77.95 318  LR     LR       19 55 03.6
      comp=Z,338nm,19.9s,baz=70,slow=36
MAJO  Matsushiro          77.97  53 eP      P        19 20 05.9 -0.8
MAJO                                 pmax   pmax
      comp=Z,8.0nm,1.1s
MJAR  Matsushiro Arr      77.98  53  P      P        19 20 06.0 -0.8
      comp=Z,3.0nm,0.9s,baz=341,slow=3.4,SNR=8.9
MJAR                                 LR     LR       19 57 38.5
      comp=Z,751nm,19.0s,baz=322,slow=38
      comp=Z,3.0nm,0.9s
MJAR  Matsushiro Arr      77.98  53  P      P        19 20 06.0 -0.8
J19K  Poorman             78.03   4  IAmb   IAmb     19 20 07.6
      comp=Z,12nm,1.1s
DAWY  Dawson              78.12 357  IAmb   IAmb     19 20 14.9
      comp=Z,9.1nm,1.2s
BPAW  Bear Paw Mtn.       78.14   2  IAmb   IAmb     19 20 21.6
      comp=Z,8.4nm,1.0s
K27K  Chicken             78.24 358  IAmb   IAmb     19 20 08.7
      comp=Z,12nm,1.1s
J17K  VABM Dome           78.38   6  P      P        19 20 07.7 -0.7
J17K                                 IAmb   IAmb     19 20 16.8
      comp=Z,13nm,1.2s
K24K  Donnelly Dome       78.51 360  P      P        19 20 07.7 -1.5
CAST  Castle Rocks        78.78   3  IAmb   IAmb     19 20 33.9
      comp=Z,7.5nm,0.9s
L26K  Log Cabin Wild      79.27 359  IAmb   IAmb     19 20 21.7
      comp=Z,15nm,1.4s
M31M  Drury Creek, Y      79.69 355  IAmb   IAmb     19 20 59.7
      comp=Z,8.9nm,1.1s
M26K  Nabesna, AK         79.89 359  IAmb   IAmb     19 20 25.7
      comp=Z,15nm,1.4s
N32M  Quiet Lake          80.62 354  IAmb   IAmb     19 20 28.7
      comp=Z,14nm,1.0s
JHJ   Hachijo jima 2      81.14  55  LR     LR       19 59 51.5
      comp=Z,628nm,19.0s,baz=330,slow=38
HYT   Haines Junctio      81.26 356  IAmb   IAmb     19 20 25.2
      comp=Z,11nm,1.0s
ULM   Lac du Bonnet       81.68 330  LR     LR       19 59 28.4
      comp=Z,588nm,18.2s,baz=38,slow=38
R33M  Jennings River      82.15 352  IAmb   IAmb     19 20 46.5
      comp=Z,12nm,1.1s
P53A  Whipple             82.78 315  P      P        19 20 32.4 -0.1
DLBC  Dease Lake          82.98 352  LR     LR       20 01 34.6
      comp=Z,231nm,20.9s,baz=6.5,slow=39
SHEM  Shemya Is, Ala      83.17  23  LR     LR       20 03 34.3
      comp=Z,417nm,18.7s,baz=284,slow=40
O48B  Farmland            84.28 318  P      P        19 20 38.1 -2.1
MDP   Montagnes des       84.30 272  LR     LR       19 57 52.9
      comp=Z,322nm,19.6s,baz=351,slow=35
KDAK  Kodiak Island       84.39   4  LR     LR       20 02 48.7
      comp=Z,225nm,20.7s,baz=358,slow=39
R50A  Paris               85.25 316         P        19 20 44.8 -0.4
TOLI2 Tolitoli            86.72  91  P      P        19 20 50.9 -1.8
      comp=Z,10.0nm,1.0s
TKL   Tuckaleechee C      86.82 314  LR     LR       20 00 59.8
      comp=Z,591nm,18.6s,baz=48,slow=37
DAV   Davao City (W)      86.88  84  LR     LR       20 04 17.3
      comp=Z,261nm,21.1s,baz=344,slow=39
BBB   Bella Bella         88.83 349  LR     LR       20 03 33.0
      comp=Z,223nm,20.4s,baz=26,slow=38
KAPI  Kappang             89.65  97  LR     LR       20 06 37.7
      comp=Z,167nm,19.4s,baz=313,slow=39
NEW   Newport             90.35 341  LR     LR       20 04 14.6
      comp=Z,466nm,18.5s,baz=22,slow=37
NEW   Newport             90.35 341  IAmb   IAmb     19 21 17.9
      comp=Z,5.0nm,1.1s
GNW   Green Mountain      92.33 345  IAmb   IAmb     19 21 26.2
      comp=Z,6.7nm,0.9s
PDAR  Pinedale Array      93.06 334  LR     LR       20 05 40.3
      comp=Z,323nm,18.9s,baz=22,slow=37
BDFB  Brasilia            93.42 253  LR     LR       20 05 53.0
      comp=Z,496nm,18.8s,baz=54,slow=37
SDV   Santo Domingo       95.97 286  LR     LR       20 01 37.4
      comp=Z,120nm,19.6s,baz=64,slow=34
GUMO  Guam                97.44  66  LR     LR       20 11 49.9
      comp=Z,108nm,18.5s,baz=316,slow=39
YBH   Yreka Blue Hor      97.84 343  LR     LR       20 08 57.9
      comp=Z,291nm,19.0s,baz=10,slow=37
ANMO  Albuquerque         98.69 328  LR     LR       20 10 05.8
      comp=Z,418nm,19.0s,baz=36,slow=38
NVAR  Mina Array Bea      99.78 338  LR     LR       20 09 16.5
      comp=Z,711nm,20.4s,baz=30,slow=37
QSPA  South Pole Qui     127.86 180  PKP    PKPdf    19 27 10.6 -2.5
      comp=Z,1.8nm,0.9s,baz=166,slow=1.7,SNR=7.6
PPT2  Papeete2           159.39  10 eLR     LR       20 21 58.8
      comp=Z,240nm,28.2s
PPT2                                eLR     LR       20 22 04.8
      comp=Z,348nm,25.8s
```

ROM 20 19:09:33.3±0.1**, 43°.149N**±0°.004×**13°.053E**±0°.005**, h13^{km}, ML0.7**/14**, Error ellipse: s-maj=0.4km s-min=0.2km az=265.0, Central Italy**

```
Code  Station Name          Δ°  AZ°   Phase ID          Time      Res
                                     Op     ISC       h  m  s    ISC
MML1  Montelago di S      0.07 239   P      Pg       19 09 36.3 +0.3
MML1                                 S      Sg       19 09 38.4 +0.5
MDAR  Monte D'Aria        0.08  56   P      Pg       19 09 36.5 +0.4
MDAR                                 S      Sg       19 09 38.5 +0.4
PF6   Pievefavera         0.10  90   P      Pg       19 09 35.7 -0.6
PF6                                  S      Sg       19 09 38.9 +0.5
FDMO  Fiordimonte         0.12 167   P      Pg       19 09 36.7 +0.3
FDMO                                 S      Sg       19 09 39.3 +0.6
FDMO                                 AML    AML
      comp=E,38µm,0.7s
FDMO                                 AML    AML
      comp=N,36µm,0.3s
FDMO                                 AML    AML
      comp=N,27µm,0.1s
FDMO                                 AML    AML
      comp=E,34µm,0.1s
CSP1  Cessapalombo        0.12 117   P      Pg       19 09 37.0 +0.4
CSP1                                 S      Sb       19 09 39.8 -0.7
CSP1                                 AML    AML
      comp=N,77µm,0.6s
CSP1                                 AML    AML
      comp=E,88µm,1.4s
CSP1                                 AML    AML
      comp=E,73µm,0.2s
CSP1                                 AML    AML
      comp=N,48µm,0.1s
MTCL  Monte Cavallo       0.16 194   P      Pg       19 09 37.4 +0.3
MTCL                                 S      Sg       19 09 40.3 +0.6
CESI  CESI - Serrava      0.18 217   P      Pg       19 09 37.8 +0.4
CESI                                 S      Sg       19 09 41.1 +0.9
CESI                                 AML    AML
      comp=N,66µm,0.1s
CESI                                 AML    AML
      comp=E,39µm,0.1s
CESI                                 AML    AML
      comp=N,66µm,0.1s
CESI                                 AML    AML
      comp=E,39µm,0.1s
EL6   Elcito              0.18  11   P      Pg       19 09 37.8 +0.3
EL6                                  S      Sg       19 09 41.2 +0.8
EL6                                  AML    AML
      comp=E,32µm,0.1s
EL6                                  AML    AML
      comp=N,26µm,0.1s
GUMA  Gualdo di Mace      0.22 112   P      Pb       19 09 38.8 -0.5
GUMA                                 S      Sb       19 09 42.9 -0.3
GUMA                                 AML    AML
      comp=N,43µm,0.2s
GUMA                                 AML    AML
      comp=E,67µm,0.1s
CING  Cingoli             0.25  25   P      Pg       19 09 38.8 +0.3
CING                                 S      Sb       19 09 43.2 -0.8
MC2   Monte Cornacci      0.26 157   P      Pg       19 09 39.0 +0.2
MC2                                  S      Sb       19 09 43.9 -0.5
ATCC  AVT- Casa Cast      0.30 277   P      Pg       19 09 40.0 +0.4
ATCC                                 S      Sb       19 09 44.8 -0.8
ATCC                                 AML    AML
      comp=E,16µm,0.1s
ATCC                                 AML    AML
      comp=N,13µm,0.2s
NRCA  Norcia              0.32 172   P      Pg       19 09 39.8  0.0
NRCA                                 S      Sb       19 09 45.1 -0.9
NRCA                                 AML    AML
      comp=E,28µm,1.6s
NRCA                                 AML    AML
      comp=N,26µm,0.7s
NRCA                                 AML    AML
      comp=E,27µm,0.1s
NRCA                                 AML    AML
      comp=N,23µm,0.1s
SSFR  Montelago di S      0.35 326   P      Pg       19 09 40.5 +0.2
SSFR                                 S      Sb       19 09 46.4 -0.4
ATSC  Scheggia e Pas      0.38 316   P      Pg       19 09 41.0  0.0
ATSC                                 S      Sb       19 09 47.2 -0.7
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*IDC **20** 19:18:48.8±2.1, 9°.61N×123°.31E, h0^{km}, mb3.6/6, mbtmp3.6/6, MS4.2/2, Error ellipse: s-maj=267.4km s-min=20.1km az=65.0*

*MAN **20** 19:18:48.0, 9°.97N×124°.16E, h6^{km}, MS3.9*

MAN INTENSITY IV - SAGBAYAN BOHOL; . INTENSITY III - CATIGBIAN BOHOL.

ISC 20 19:18:48.2±1.3**, 9°.95N**±0°.03×**124°.16E**±0°.05**, h7**^{km}±10^{km}**, n20, σ1^{s}.19**/26**, mb3.6**/6**, Mindanao**

```
Code  Station Name          Δ°  AZ°   Phase ID          Time      Res
                                     Op     ISC       h  m  s    ISC
TBP   Tagbilaran          0.39 229  i P     Pg       19 18 56.4 +0.5
TBP                                 eS      Sg       19 19 01.6 +0.6
LLP   Lapu-Lapu           0.42 332  i P     Pb       19 18 56.6 -1.3
LLP                                 i S     Sb       19 19 02.9 -1.6
SNPH  Sibulan             1.09 237  i P     Pg       19 19 08.8 -0.4
SNPH                                i S     Sn       19 19 25.3 -0.2
PLP   Palo                1.45  33  eP      Pn       19 19 14.9  0.0
PLP                                 eS      Sg       19 19 36.0 +1.0
CGP   Cagayan de Oro      1.57 161  i P     Pn       19 19 15.3 -1.2
CGP                                 i S     Sg       19 19 39.5 +0.6
DCPH  Dipolog City        1.57 211  eP      Pn       19 19 15.8 -0.8
DCPH                                i S     Sg       19 19 39.2 +0.3
JAP   San Jose, Anti      2.32 290  eP      Pb       19 19 29.7 -0.7
MMPH  Masbate             2.45 348  eP      Pn       19 19 28.6  0.0
MMPH                                i S     Sb       19 20 00.5 -2.6
IBAJ  Ibajay, Aklan       2.70 314  eP      Pn       19 19 33.4 +1.3
IBAJ                                eS      Sb       19 20 10.6 +0.4
CTBH  Cotabato--PC H      2.71 178  i P     Pb       19 19 35.0 -2.1
KCP   Kidapawan           3.06 163  eP      Pn       19 19 39.6 +2.5
LQP   Lukban              4.87 328  eP      Pb       19 20 13.3 -0.8
WRA   Warramunga Arr     31.35 161   P      P        19 25 10.4 +0.8
      0.2nm,0.6s,baz=337,slow=9.2,SNR=1.0
      0.2nm,0.6s
ASAR  Alice Springs      34.74 164   P      P        19 25 40.4 +1.1
      0.3nm,0.5s,baz=342,slow=6.6,SNR=14
      0.3nm,0.5s
STKA  Stephens Creek     44.81 159   LR     LR       19 47 42.8
      comp=Z,147nm,18.1s,baz=27,slow=39
MKAR  Makanchi Array     51.05 324   P      P        19 27 51.4 +0.2
      0.8nm,0.8s,baz=118,slow=9.8,SNR=4.6
      0.8nm,0.8s
ZALV  Zalesovo Beam      53.93 332   P      P        19 28 12.8 +0.4
      0.2nm,0.3s,baz=116,slow=9.8,SNR=2.0
      0.2nm,0.3s
KURBB Kurchatov Arra     55.17 326   P      P        19 28 22.0 +0.5
      0.7nm,0.3s,baz=133,slow=6.1,SNR=4.4
      0.7nm,0.3s
BVAR  Borovoye Array     60.76 326   P      P        19 29 01.0 +0.3
      0.6nm,0.8s,baz=99,slow=9.6,SNR=3.9
      0.6nm,0.8s
MAW   Mawson             88.69 200   LR     LR       20 09 55.3
      comp=Z,192nm,18.3s,baz=338,slow=35
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*IDC **20** 19:28:23.4±0.9, 11°.40S×171°.70E, h0^{km}, mb3.9/8, mbtmp3.9/9, ML5.2/1, MS3.7/12, Error ellipse: s-maj=23.3km s-min=22.6km az=141.0*

ISC 20 19:28:28.7±0.8**, 11°.5S**±0°.1×**171°.7E**±0°.1**, h35^{km}, n26, σ0^{s}.87**/9**, mb3.8**/8**, MS3.4**/8**, Santa Cruz Islands region**

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Code  Station Name          Δ°  AZ°   Phase ID          Time      Res
                                     Op     ISC       h  m  s    ISC
MSVF  Nonsavu             8.76 136   Pn     Pn       19 30 33.6 +0.7
      0.9nm,0.3s,baz=311,slow=17,SNR=2.0
MSVF                                 LR     LR       19 33 15.5
      comp=Z,658nm,18.8s,baz=349,slow=33
      4.7nm,0.6s
MSVF                                 AML    AML
DZM   Mont Dzumac        11.70 205   LR     LR       19 34 47.1
      comp=Z,298nm,19.0s,baz=33,slow=33
HNR   Honiara            11.74 279   LR     LR       19 35 05.7
      comp=Z,283nm,20.8s,baz=198,slow=34
AFI   Afiamalu           16.30 100   LR     LR       19 36 46.7
      comp=Z,193nm,18.6s,baz=213,slow=31
RAO   Raoul Island       20.18 153   LR     LR       19 38 36.2
      comp=Z,156nm,21.9s,baz=112,slow=30
KRVT  Keravat (AS076     20.73 288   LR     LR       19 40 38.4
      comp=Z,170nm,18.5s,baz=140,slow=36
PMG   Port Moresby       24.22 273   LR     LR       19 41 24.7
      comp=Z,152nm,18.6s,baz=138,slow=32
CTA   Charters Tower     25.92 248   LR     LR       19 42 25.4
      comp=Z,99nm,20.4s,baz=46,slow=32
URZ   Urewera            27.13 171   LR     LR       19 41 45.0
      comp=Z,104nm,20.2s,baz=336,slow=30
RAR   Rarotonga          28.99 113   LR     LR       19 43 29.7
      comp=Z,89nm,18.5s,baz=230,slow=31
H11S2 WAKE ISLAND Hy 30.16 351   T      T        20 06 25.7
      baz=171,slow=76,SNR=26
H11S3 WAKE ISLAND Hy 30.17 350   T      T        20 06 26.5
      baz=171,slow=76,SNR=33
H11S1 WAKE ISLAND Hy 30.18 351   T      T        20 06 30.6
      baz=171,slow=76,SNR=32
H11N1 WAKE ISLAND Hy 31.33 351   T      T        20 07 51.2
      baz=170,slow=76,SNR=49
H11N3 WAKE ISLAND Hy 31.33 351   T      T        20 07 50.8
      baz=170,slow=76,SNR=69
H11N2 WAKE ISLAND Hy 31.35 351   T      T        20 07 53.5
      baz=170,slow=76,SNR=48
STKA  Stephens Creek     34.39 229   P      P        19 35 12.4 -0.3
      4.2nm,0.9s,baz=45,slow=8.6,SNR=2.8
      4.2nm,0.9s
WRA   Warramunga Arr     36.88 252   P      P        19 35 34.4 +0.1
      0.7nm,0.9s,baz=84,slow=9.0,SNR=7.3
      0.7nm,0.9s
ASAR  Alice Springs      37.91 246   P      P        19 35 42.2 -0.8
      1.0nm,0.7s,baz=71,slow=9.5,SNR=15
ASAR                                 LR     LR       19 49 10.0
      comp=Z,121nm,21.5s,baz=34,slow=33
      1.0nm,0.7s
PPT2  Papeete2           37.92 104  eLR     LR       19 45 55.0
      94nm,24.2s
MJAR  Matsushiro Arr     57.22 328   P      P        19 38 13.3 +0.7
      0.9nm,0.8s,baz=160,slow=8.3,SNR=5.8
      0.9nm,0.8s
QSPA  South Pole Qui     78.56 180   P      P        19 40 26.5  0.0
      0.8nm,0.8s,baz=257,slow=3.2,SNR=4.0
      0.8nm,0.8s
PFO   Pinyon Flats O     81.59  53   LR     LR       20 10 17.7
      comp=Z,358nm,20.9s,baz=26,slow=31
ILAR  Eielson Array      82.14  17   P      P        19 40 44.7 -0.7
      1.8nm,0.8s,baz=237,slow=5.6,SNR=16
      1.8nm,0.8s
SONM  Songino Array      82.53 322   P      P        19 40 49.2 +1.1
      0.2nm,0.4s,baz=116,slow=3.4,SNR=2.3
      0.2nm,0.4s
TXAR  Lajitas Array      90.92  60   P      P        19 41 28.4 -1.0
      0.4nm,0.6s,baz=231,slow=6.0,SNR=6.0
      0.4nm,0.6s
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*IDC **20** 19:37:40.4±3.7, 5°.07S×152°.99E, h46^{km}±29^{km}, mb3.5/8, mbtmp3.8/9, ML1.9/1, Error ellipse: s-maj=34.2km s-min=17.1km az=92.0*

ISC 20 19:37:39.9±1.1**, 5°.14S**±0°.08×**152°.9E**±0°.1**, h43^{km}, n11, σ1^{s}.14**/13**, mb3.9**/8**, New Britain region**

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Code  Station Name          Δ°  AZ°   Phase ID          Time      Res
                                     Op     ISC       h  m  s    ISC
KRVT  Keravat (AS076      1.23 312   P      Pn       19 38 00.8 +0.1
      4µm,0.4s,baz=75,slow=0.6,SNR=247
KRVT                                 S      Sn       19 38 16.5 +0.4
      7µm,0.5s,baz=304,slow=22,SNR=41
PMG   Port Moresby        7.13 233   P      Pn       19 39 23.1 +1.3
      1.1nm,0.3s,baz=54,slow=17,SNR=2.4
PMG                                  S      Sn       19 40 39.2 -2.4
      9.7nm,0.5s,baz=258,slow=10,SNR=5.6
      17nm,0.9s
PMG                                  AML    AML
WRA   Warramunga Arr     23.33 229   P      P        19 42 45.0 +0.4
      0.5nm,0.3s,baz=50,slow=10.0,SNR=9.0
      0.5nm,0.3s
ASAR  Alice Springs      26.00 223   P      P        19 43 10.2 +1.1
      0.4nm,0.5s,baz=55,slow=9.3,SNR=9.6
      0.4nm,0.5s
CMAR  Chiang Mai Arr     58.15 295   P      P        19 47 30.6 +0.7
      0.6nm,0.8s,baz=110,slow=8.8,SNR=2.5
      0.6nm,0.8s
PETK  Petropavlovsk-     58.17   3   P      P        19 47 29.4 +0.1
      1.0nm,0.6s,baz=182,slow=7.1,SNR=4.8
      1.0nm,0.6s
MKAR  Makanchi Array     80.67 319   P      P        19 49 46.9 -1.7
      0.3nm,0.6s,baz=99,slow=9.5,SNR=4.2
      0.3nm,0.6s
ZALV  Zalesovo Beam      81.51 326   P      P        19 49 52.4 -0.4
      0.5nm,0.3s,baz=126,slow=7.3,SNR=2.9
      0.5nm,0.3s
ILAR  Eielson Array      82.42  22   P      P        19 49 56.8 -0.6
      1.3nm,0.7s,baz=239,slow=6.5,SNR=12
      1.3nm,0.7s
BVAR  Borovoye Array     89.59 323   P      P        19 50 33.3 +0.3
      0.5nm,0.5s,baz=109,slow=5.6,SNR=7.0
      0.5nm,0.5s
TORD  Torodi Ar. Bea    150.54 288   PKPbc  PKiKP    19 57 28.9  0.0
      0.5nm,0.6s,baz=91,slow=3.2,SNR=3.5
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*IDC **20** 19:56:48.9±0.7, 0°.82N×26°.84W, h0^{km}, mb4.0/13, mbtmp4.1/14, ML4.6/1, MS3.8/40, Error ellipse: s-maj=35.4km s-min=13.2km az=143.0*

*NEIC **20** 19:56:48.6±1.8, 1°.2N±0°.1×27°.1W±0°.1, h10^{km}±1^{km}, mb4.6/20, Error ellipse: s-maj=25.9km s-min=15.2km az=149.0*

*GCMT **20** 19:56:55.5±0.4, 0°.88N±0°.03×27°.06W±0°.02, h31^{km}±1^{km}, MW5.0/91, Moment Tensor Solution. s27,c29; s91,c120; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.21±.17; $M_{\theta\theta}$1.09±.14; $M_{\phi\phi}$-0.88±.13; $M_{r\theta}$-0.84±.17; $M_{\theta\phi}$-3.12±.11; $M_{\phi r}$0.46±.16; Best double couple: $M_0$3.39400×10^{16} NP1:ϕ_s352.00000°, δ78.00000°, λ8.00000°. NP2: ϕ_s260.00000°, δ82.00000°, λ168.00000°. Principal axes: T 3.6130, Plg14.0000°, Azm216.0000°; N -0.4420, Plg76.0000°, Azm47.0000°; P -3.1750, Plg3.0000°, Azm307.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 20 19:56:49.5±0.5, **0°.89N**±0°.09×**27°.08W**±0°.08, **h15**^{km}, **n84**, σ1^{s}**86**/47, **mb4.3**/18, **MS3.8**/39, **Central Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NBPV	Pedro Velho	10.95	228	eP	Pn	19 59 24.4	-1.4
RCBR	Riachuelo	11.05	233	Pn	Pn	19 59 27.6	+0.4
	4.5nm,0.3s,baz=56,slow=20,SNR=48						
RCBR				LR	LR	20 02 41.0	
	comp=Z,285nm,21.8s,baz=20,slow=31						
	11nm,0.4s						
RCBR				AML	AML		
RCBR	Riachuelo	11.05	233		Pn	19 59 26.4	-0.8
RCBR	Riachuelo	11.05	233	eP	Pn	19 59 25.5	-1.8
NBMO	Morrinhos-CE	13.62	252	eP	Pn	19 59 58.8	-3.4
NBMA	Muriti-CE	14.26	235	eP	Pn	20 00 09.0	-2.0
SACV	Santiago Islan	14.40	14		Pn	20 00 14.0	+1.0
H10N3	ASCENSION HYDR	15.25	125	T	T	20 15 47.2	
	baz=304,slow=74,SNR=114						
H10N2	ASCENSION HYDR	15.25	125	T	T	20 15 47.3	
	baz=304,slow=74,SNR=139						
H10N1	ASCENSION HYDR	15.27	125	T	T	20 15 50.2	
	baz=304,slow=74,SNR=113						
NBPS	Pedro II - PI	15.29	250	eP	Pn	20 00 21.7	-3.3
ASCN	Ascension	15.42	125		Pn	20 00 28.1	+1.5
H10S3	ASCENSION HYDR	15.77	129	T	T	20 16 30.8	
	baz=306,slow=74,SNR=99						
H10S2	ASCENSION HYDR	15.79	129	T	T	20 16 31.8	
	baz=274,slow=74,SNR=71						
CMC01	Camacan, BA	20.30	217	eP	P	20 01 25.3	+0.3
GUA01	Guaratinga, BA	21.43	215	eP	P	20 01 37.5	+0.3
SDBA	SAO DESIDERIO	22.09	233	eP	P	20 01 43.4	-1.0
DBIC	Dimbokro	22.89	75	P	P	20 01 51.6	-1.3
	4.5nm,0.9s,baz=269,slow=14,SNR=5.1						
DBIC				LR	LR	20 08 49.9	
	comp=Z,335nm,20.2s,baz=245,slow=32						
	4.5nm,0.9s						
DBIC	Dimbokro	22.89	75	P	P	20 01 50.4	-2.5
DBIC				IAmb	IAmb	20 02 02.6	
	comp=Z,20nm,1.2s						
BDFB	Brasilia	26.42	231	P	P	20 02 27.8	+1.8
	comp=Z,6.5nm,0.7s,baz=47,slow=11,SNR=9.1						
	comp=Z,6.5nm,0.7s						
BDFB	Brasilia	26.42	231	P	P	20 02 26.1	+0.1
BDFB				IAmb	IAmb	20 02 31.9	
	comp=Z,8.7nm,0.8s						
TORD	Torodi Ar. Bea	30.99	66	P	P	20 03 06.8	+0.1
	comp=Z,6.0nm,0.9s,baz=254,slow=9.0,SNR=24						
	comp=Z,6.0nm,0.9s						
TORD	Torodi Ar. Bea	30.99	66	P	P	20 03 04.6	-2.0
BOAV	Boa Vista	33.46	273	P	P	20 03 27.3	-1.1
BOAV				IAmb	IAmb	20 03 56.6	
	comp=Z,9.5nm,1.3s						
PTLB	Pontes e Lacer	35.60	242	P	P	20 03 47.7	+0.8
PTLB				IAmb	IAmb	20 03 51.2	
	comp=Z,5.3nm,1.0s						
MD01	Midelt array s	38.11	31	P	P	20 04 05.4	-2.8
MD31	MD31	38.11	31		P	20 04 05.4	-2.7
MDT	Midelt	38.15	31	LR	LR	20 18 44.9	
	comp=Z,124nm,19.8s,baz=244,slow=35						
TAM	Tamanrasset	38.43	53	P	P	20 04 09.0	-2.1
CPUP	Villa Florida	39.80	225	LR	LR	20 20 18.0	
	comp=Z,496nm,18.4s,baz=72,slow=35						
ECPR	Experimental S	42.27	297	P	P	20 04 41.6	-1.1
ECPR				IAmb	IAmb	20 05 04.5	
	comp=Z,23nm,1.2s						
CELP	Cerrillos	42.38	296	P	P	20 04 42.7	-1.0
CELP				IAmb	IAmb	20 04 50.8	
	comp=Z,32nm,1.5s						
LPAZ	La Paz	43.96	245	P	P	20 05 00.3	+3.1
	comp=Z,7.6nm,0.9s,baz=65,slow=4.0,SNR=23						
	comp=Z,7.6nm,0.9s						
LPAZ	La Paz	43.96	245	P	P	20 04 55.9	-1.2
LPAZ				IAmb	IAmb	20 05 00.9	
	comp=Z,8.6nm,0.8s						
ESDC	Sonseca Array	43.98	26	P	P	20 04 58.0	+1.6
	comp=Z,1.1nm,0.9s,baz=220,slow=8.7,SNR=9.4						
ESDC				LR	LR	20 22 23.1	
	comp=Z,71nm,19.5s,baz=245,slow=35						
	comp=Z,1.1nm,0.9s						
ESDC	Sonseca Array	43.98	26	P	P	20 04 53.6	-2.8
SDV	Santo Domingo	44.08	282	LR	LR	20 24 06.0	
	comp=Z,98nm,18.6s,baz=59,slow=37						
PB16	IPOC Station P	45.88	243	P	P	20 05 11.0	-1.4
PB16				IAmb	IAmb	20 05 24.4	
	comp=Z,5.8nm,1.3s						
ROSC	El Rosal	47.33	276	LR	LR	20 23 31.9	
	comp=Z,217nm,19.9s,baz=317,slow=34						
PB07	IPOC Station P	47.44	239	P	P	20 05 24.7	+0.5
PB03	IPOC Station P	47.45	239	P	P	20 05 22.3	-1.9
TSUM	Tsumeb	48.16	117	LR	LR	20 22 18.5	
	comp=Z,72nm,19.1s,baz=112,slow=32						
KEST	Kesra	48.42	40	P	P	20 05 32.9	+1.4
	comp=Z,4.1nm,1.0s,baz=268,slow=6.3,SNR=3.8						
KEST				LR	LR	20 25 46.7	
	comp=Z,172nm,20.6s,baz=213,slow=36						
	comp=Z,4.1nm,1.0s						
AC01	Pan de Azucar	49.84	234	P	P	20 05 42.8	+0.4
KOOLE	Kule	51.75	120	P	P	20 05 57.0	0.0
KOOLE				IAmb	IAmb	20 05 59.1	
	comp=Z,11nm,1.1s						
VAE	Valguarnera	52.75	41	LR	LR	20 28 15.2	
	comp=Z,265nm,19.7s,baz=286,slow=36						
MT08	Bocatoma Ro	52.88	226	P	P	20 06 05.8	+0.5
DAVOX	Davos/Dischmat	55.92	30	LR	LR	20 30 28.9	
	comp=Z,88nm,18.1s,baz=260,slow=36						
SUR	Sutherland	56.01	131	LR	LR	20 26 33.9	
	comp=Z,83nm,18.1s,baz=328,slow=32						
LSZ	Lusaka	56.92	109	LR	LR	20 28 21.9	
	comp=Z,72nm,18.4s,baz=292,slow=33						
LBTB	Lobatse	57.08	121	LR	LR	20 26 38.0	
	comp=Z,55nm,20.5s,baz=312,slow=32						
EKA	Eskdalemuir Ar	57.66	16	P	P	20 06 40.7	+1.6
	comp=Z,2.0nm,0.9s,baz=215,slow=7.1,SNR=4.8						
EKA				LR	LR	20 27 59.6	
	comp=Z,106nm,18.2s,baz=221,slow=32						
	comp=Z,2.0nm,0.9s						
MBAR	Mbarara	57.83	91	LR	LR	20 29 19.1	
	comp=Z,64nm,18.7s,baz=272,slow=34						
BOSA	Boshof	58.01	125	LR	LR	20 26 52.9	
	comp=Z,72nm,19.5s,baz=341,slow=31						
MATP	Matopo	58.35	115	LR	LR	20 27 15.2	
	comp=Z,76nm,21.4s,baz=284,slow=31						
GERES	GERESS Array B	59.22	30	P	P	20 06 50.8	+0.6
	comp=Z,0.3nm,0.3s,baz=238,slow=7.4,SNR=6.3						
	comp=Z,0.3nm,0.3s						
GERES	GERESS Array B	59.22	30	P	P	20 06 48.0	-2.2
SCHQ	Schefferville	62.78	335	LR	LR	20 29 42.1	
	comp=Z,72nm,21.1s,baz=249,slow=31						
TKL	Tuckaleechee C	62.87	310	LR	LR	20 32 08.7	
	comp=Z,75nm,18.2s,baz=99,slow=34						
MLR	Muntele Rosu	64.27	39	LR	LR	20 36 33.5	
	comp=Z,132nm,18.7s,baz=183,slow=37						
EIL	Elat	65.43	58	LR	LR	20 34 50.9	
	comp=Z,132nm,19.9s,baz=262,slow=35						
NOA	NORSAR Array B	66.70	19	P	P	20 07 42.4	+2.7
	comp=Z,1.9nm,1.1s,baz=222,slow=5.9,SNR=2.8						
NOA				LR	LR	20 33 17.5	
	comp=Z,19nm,20.0s,baz=205,slow=33						
	comp=Z,1.9nm,1.1s						
HFS	Hagfors	66.90	21	LR	LR	20 35 40.1	
	comp=Z,73nm,18.1s,baz=319,slow=35						
BRTR	Keskin Array B	67.23	47	P	P	20 07 45.6	+2.0
	comp=Z,0.4nm,0.7s,baz=218,slow=5.8,SNR=4.5						
BRTR				LR	LR	20 38 19.8	
	comp=Z,60nm,19.0s,baz=204,slow=37						
	comp=Z,0.4nm,0.7s						
BRTR	Keskin Array B	67.23	47	P	P	20 07 40.8	-2.8
ASF	Jabal al Asfar	67.65	55	LR	LR	20 36 53.2	
	comp=Z,41nm,18.8s,baz=207,slow=36						
AKASG	Malin Array Be	68.61	35	P	P	20 07 52.9	+1.0
	comp=Z,0.9nm,0.5s,baz=243,slow=6.7,SNR=4.1						
	comp=Z,0.9nm,0.5s						
AKASG	Malin Array Be	68.61	35	P	P	20 07 50.1	-1.7
FINES	FINESS Array B	72.44	24	LR	LR	20 39 47.8	
	comp=Z,47nm,18.7s,baz=250,slow=36						
KBZ	Khabaz	75.00	45	LR	LR	20 42 46.5	
	comp=Z,48nm,20.7s,baz=275,slow=37						
GNI	Garni	75.58	49	LR	LR	20 43 52.6	
	comp=Z,38nm,19.2s,baz=285,slow=37						
ULM	Lac du Bonnet	75.88	322	LR	LR	20 37 31.5	
	comp=Z,41nm,19.6s,baz=175,slow=32						
ARCES	ARCESS Array B	76.81	17	LR	LR	20 37 34.5	
	comp=Z,42nm,20.7s,baz=208,slow=32						
TXAR	Lajitas Array	77.88	300	P	P	20 08 50.6	+3.3
	comp=Z,0.5nm,0.9s,baz=120,slow=7.3,SNR=5.1						
	comp=Z,0.5nm,0.9s						
SPITS	Spitsbergen Ar	80.51	8	LR	LR	20 38 05.7	
	comp=Z,66nm,18.5s,baz=262,slow=31						
ANMO	Albuquerque	80.78	305	LR	LR	20 42 05.6	
	comp=Z,69nm,19.0s,baz=72,slow=34						
KIRV	Kirov	82.21	31	LR	LR	20 45 26.1	
	comp=Z,46nm,18.2s,baz=326,slow=36						
PDAR	Pinedale Array	83.87	313	LR	LR	20 41 44.8	
	comp=Z,50nm,19.6s,baz=108,slow=32						
ARTI	Arti	86.74	34	LR	LR	20 47 55.2	
	comp=Z,27nm,18.1s,baz=63,slow=35						
ELK	Elko	88.03	311	LR	LR	20 48 43.3	
	comp=Z,32nm,18.0s,baz=70,slow=35						
YKA	Yellowknife Ar	88.07	332	LR	LR	20 46 17.4	
	comp=Z,62nm,19.3s,baz=106,slow=34						
NVAR	Mina Array Bea	90.41	308	P	P	20 09 53.0	+2.0
	comp=Z,0.8nm,0.7s,baz=0.0,slow=5.9,SNR=4.0						
NVAR				LR	LR	20 47 27.3	
	comp=Z,51nm,19.2s,baz=86,slow=34						
	comp=Z,0.8nm,0.7s						
NRIK	Noril'sk	97.67	19	LR	LR	20 57 58.4	
	comp=Z,23nm,18.1s,baz=328,slow=38						
ASAR	Alice Springs	150.80	142	PKPbc	PKiKP	20 16 43.6	+0.6
	comp=Z,0.5nm,0.7s,baz=195,slow=2.1,SNR=9.1						

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*SJA **20** 20:11:55.6±0.7, 28°.45S×71°.29W, h24^{km}±2^{km}, ML4.4, MW4.5*

*GUC **20** 20:11:55.7±0.8, 28°.55S×71°.26W, h42^{km}±2^{km}, ML4.2*

*NEIC **20** 20:11:56.8±2.4, 28°.47S±0°.04×71°.39W±0°.07, h38^{km}±8^{km}, mb4.4/4, ML4.2(GUC), Error ellipse: s-maj=9.0km s-min=5.8km az=98.0*

*IDC **20** 20:11:59.3±2.6, 28°.46S×71°.29W, h56^{km}±21^{km}, mb4.0/8, mbtmp4.1/13, ML4.0/5, MS3.4/4, Error ellipse: s-maj=24.0km s-min=14.5km az=81.0*

ISC 20 20:11:55.3±1.3, **28°.48S**±0°.02×**71°.41W**±0°.05, **h27**^{km}±9^{km}, **n110**, σ1^{s}**93**/130, **mb4.3**/9, **MS3.7**/3, **6C-3D**, **Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.40	47	eP	Pn	20 12 05.8	+0.5
AC04	Llanos de Chal	0.40	47⇑	eP	Pn	20 12 05.9	+0.5
AC04				eS	Sn	20 12 12.4	+0.3
AC04				IAML		20 12 13.5	
	comp=E,28μm,0.3s						
AC04	Llanos de Chal	0.40	47		Pn	20 12 05.8	+0.5
AC04				Sn	Sn	20 12 12.3	+0.2
LCO	Las Campanas	0.81	131	eP	Pb	20 12 11.1	+0.1
LCO				eS	Sb	20 12 22.4	+0.6
LCO				IAML		20 12 23.9	
	comp=Z,22μm,0.3s						
LCO	Las Campanas	0.81	131	eP	Pb	20 12 10.4	-0.6
LCO				eS	Sb	20 12 21.0	-0.7
LCO	Las Campanas	0.81	131		Pb	20 12 11.0	-0.1
AC05	El Transito	1.06	110	eP	Pb	20 12 09.3	-5.8
AC05				eP		20 12 14.7	
AC05				eS	Sb	20 12 28.3	-0.2
AC05				IAML		20 12 28.5	
	comp=Z,5μm,0.5s						
AC05	El Transito	1.06	110⇓	eP	Pn	20 12 14.6	+0.1
AC05				eS	Sb	20 12 27.6	-1.0
AC05				IAML		20 12 28.9	
	comp=N,10μm,0.6s						
AC05	El Transito	1.06	110		Pn	20 12 14.6	+0.1
AC05				Sn	Sb	20 12 27.9	-0.6
GO03	Copiapo	1.36	50	eP	Pb	20 12 19.6	-0.6
GO03				eS	Sb	20 12 37.7	+0.4
GO03				IAML		20 12 38.7	
	comp=Z,4μm,0.7s						
GO03	Copiapo	1.36	50⇑	eP	Pb	20 12 19.6	-0.7
GO03				eS	Sb	20 12 37.0	-0.3
GO03				IAML		20 12 37.7	
	comp=N,6μm,0.3s						
GO03	Copiapo	1.36	50		Pb	20 12 19.5	-0.7
AC06	Mina Casimiro	1.46	40⇑	eP	Pb	20 12 21.4	-0.4
AC06				eS	Sb	20 12 40.2	+0.3
AC06				IAML		20 12 44.9	
	comp=E,9μm,0.5s						
AC06	Mina Casimiro	1.46	40		Pb	20 12 21.5	-0.3
GO04	Tololo Observa	1.77	163	eP	Pn	20 12 25.4	+1.1
GO04				eS	Sb	20 12 50.7	+1.6
GO04				IAML		20 12 55.3	
	comp=Z,6μm,0.8s						
GO04	Tololo Observa	1.77	163⇑	eP	Pn	20 12 25.1	+0.7
GO04				eS	Sn	20 12 47.5	+1.4
GO04	Tololo Observa	1.77	163		Pn	20 12 25.5	+1.1
CO01	Juntas del Tor	1.88	143	eP	Pn	20 12 27.6	+1.6
CO01				eS	Sb	20 12 51.3	-1.1
CO01				IAML		20 12 54.6	
	comp=Z,3μm,0.2s						
CO01	Juntas del Tor	1.88	143⇓	eP	Pn	20 12 27.4	+1.4
CO01				eS	Sn	20 12 50.3	+1.4
CO01				IAML		20 12 51.9	
	comp=E,5μm,0.3s						
CO01	Juntas del Tor	1.88	143		Pn	20 12 27.4	+1.4
CO06	Fray Jorge	2.19	185⇑	eP	Pn	20 12 29.9	-0.2
CO06				IAML		20 13 14.2	
	comp=N,2μm,0.7s						
CO06	Fray Jorge	2.19	185		Pn	20 12 30.0	0.0
AROD	Rodeo	2.38	135	eP	Pb	20 12 35.8	-2.0
AROD				eS	Sb	20 13 06.5	-0.3
AC01	Pan de Azucar	2.43	17	eP	Pn	20 12 33.5	+0.1
AC01	Pan de Azucar	2.43	17⇑	eP	Pn	20 12 33.4	+0.1
AC01				eS	Sb	20 13 10.0	+2.0
AC01				IAML		20 13 28.0	
	comp=E,1μm,0.5s						
AC01	Pan de Azucar	2.43	17		Pn	20 12 33.5	+0.1
AC02	Maricunga	2.60	51	eP	Pn	20 12 38.2	+2.1
AC02				eS	Sb	20 13 11.1	-2.3
AC02				IAML		20 13 19.1	
	comp=E,1μm,0.2s						
AC02	Maricunga	2.60	51		Pn	20 12 38.1	+2.1
CO02	Combarbal	2.73	173	eP	Pn	20 12 38.2	+0.6
CO02				eS	Sn	20 13 09.3	-0.6
CO02				IAML		20 13 23.0	
	comp=Z,4μm,0.4s						
CO02	Combarbal	2.73	173⇓	eP	Pn	20 12 38.0	+0.4
CO02				eS	Sn	20 13 12.1	+2.2
CO02	Combarbal	2.73	173		Pn	20 12 38.5	+0.9
VCA	Vinchina	2.83	96	eP	Pb	20 12 43.4	-1.8
VCA				eS	Sb	20 13 24.4	+4.9
VCA				IAML		20 13 25.9	
	comp=Z,1μm,0.5s						
VCA	Vinchina	2.83	96	eP	Pb	20 12 43.1	-2.1
ACCO	Cerro Coronel	2.93	136	eP	Pn	20 12 43.8	+3.4
ACCO				eS	Sb	20 13 19.3	-3.2
ACCO				eS		20 13 24.4	
ACCO				IAML		20 13 35.0	
	comp=Z,1μm,0.5s						
TINO	Tinogasta	3.41	84	eP	Pn	20 12 43.8	-3.1
TINO				eP		20 12 49.3	
TINO				eS	Sb	20 13 34.8	-1.4
TINO				IAML		20 13 40.3	
	comp=Z,485nm,0.5s						
CO04	Los Peladeros	3.57	174	eP	Pn	20 12 50.1	+0.9
CO04				eS	Sn	20 13 34.1	+3.5
CO04	Los Peladeros	3.57	174		Pn	20 12 50.3	+1.1
RTLS	Leoncito	3.78	152	eP	Pn	20 12 56.1	+4.0
RTLS				eS	Sn	20 13 39.3	+3.5
RTLS				eS		20 13 49.3	
RTLL	Cerro Villicun	3.81	139	eP	Pn	20 12 55.3	+2.9
RTLL				eS	Sn	20 13 39.8	+3.5
RTLL				eS		20 13 51.8	
RTLL				IAML		20 13 57.3	
	comp=Z,694nm,0.5s						
ZON	Zonda	3.86	143	eP	Pn	20 12 51.8	-1.3
ZON				eP		20 12 56.5	
ZON				eS	Sb	20 13 51.8	+2.6
ZON				IAML		20 14 01.9	
	comp=Z,324nm,1.5s						
ZON	Zonda	3.86	143		Pn	20 12 56.4	+3.3
PB14	IPOC Station P	3.94	13	eP	Pn	20 12 54.7	+0.3
PB14				eS	Sb	20 13 57.8	+6.0
PB14				IAML		20 14 06.0	
	comp=Z,266nm,0.6s						
PB14	IPOC Station P	3.94	13	eP	Pn	20 12 51.9	-2.6
ACLC	CERRO LA CRUZ	4.01	105	eP	Pn	20 12 57.8	+2.5
ACLC				eS	Sn	20 13 43.3	+1.7
ACLC				IAML		20 13 51.0	
	comp=Z,260nm,0.5s						
CFA	Coronel Fontan	4.15	139	P	Pn	20 12 59.6	+2.6
	comp=Z,19nm,0.3s,baz=310,slow=14,SNR=141						
CFA				S	Sn	20 13 47.5	+2.9
	comp=Z,66nm,0.3s,baz=38,slow=20,SNR=7.8						
	comp=Z,32nm,0.3s						
CFA				AML	AML		
CFA	Coronel Fontan	4.15	139	eP	Pn	20 12 59.7	+2.7
VA03	San Esteban	4.33	170	eP	Pn	20 13 01.2	+1.7
VA03				eS	Sb	20 13 58.3	-4.4
VA03				IAML		20 14 11.9	
	comp=Z,552nm,0.3s						
VA03	San Esteban	4.33	170	eP	Pn	20 13 00.8	+1.3
VA03	San Esteban	4.33	170		Pn	20 13 00.7	+1.2
ROCH	El Roble	4.49	176	eP	Pn	20 13 02.2	+0.4
PEL	Peldehue	4.69	173	eP	Pn	20 13 06.0	+1.7
PEL	Peldehue	4.69	173		Pn	20 13 06.0	+1.7
MT02	Curacav	4.77	177	eP	Pn	20 12 51.9	-14
MT02				eS	Sn	20 14 06.8	+7.0
MT02				IAML		20 14 25.7	
	comp=Z,279nm,0.4s						
MT02	Curacav	4.77	177	eP	Pn	20 13 05.5	0.0
MT10	Hacienda Santa	4.83	171	eP	Pn	20 13 07.5	+1.1
ARCO	CERRO ARCO	4.84	154	eP	Pn	20 13 10.0	+3.5
ARCO				eS	Sn	20 14 06.3	+4.4
ARCO				IAML		20 14 32.2	
	comp=Z,534nm,1.1s						
MT03	Universidad Ad	5.05	171		Pn	20 13 11.7	+2.2
MT13	San Alfonso	5.33	170		Pn	20 13 15.2	+1.9
MT01	Popeta	5.37	179		Pn	20 13 13.3	-0.4
BO04	La Punta	5.53	173		Pn	20 13 17.4	+1.4
PB05	IPOC Station P	5.71	11		Pn	20 13 16.5	-2.1
BO01	Tunca	5.90	177	Pn	Pn	20 13 21.9	+0.9
PB06	IPOC Station P	5.99	16	Pn	Pn	20 13 21.1	-1.2
BO02	Sierra Bellavi	6.31	175		Pn	20 13 27.4	+0.6
SLA	San Lorenzo	6.48	56	eP	Pn	20 13 34.0	+5.0
GO05	Hualane	6.52	184		Pn	20 13 28.1	-1.5
TCA	Tanti	6.56	117	eP	Pn	20 13 30.4	+0.3
H03N1	Juan Fernandez	8.12	231	T	T	20 21 58.8	
	baz=205,slow=74,SNR=1627						
H03N2	Juan Fernandez	8.13	231	T	T	20 22 02.8	
	baz=56,slow=74,SNR=1434						
BI02	San Fabin de	8.16	179		Pn	20 13 51.5	-0.5
PSGCX	Pisagua	8.92	8	Pn	Pn	20 13 59.4	-3.2
PLCA	Paso Flores	12.24	177	P	Pn	20 14 51.4	+3.5
	comp=Z,0.2nm,0.3s,baz=351,slow=11,SNR=5.0						
	comp=Z,2.2nm,1.0s						
PLCA				AML	AML		
LPAZ	La Paz	12.51	15	P	Pn	20 14 54.0	+1.8
	comp=Z,0.4nm,0.3s,baz=200,slow=9.5,SNR=8.0						
LPAZ				LR	LR	20 19 46.8	
	comp=Z,321nm,20.6s,baz=82,slow=38						
	comp=Z,1.6nm,0.5s						
LPAZ				AML	AML		
CPUP	Villa Florida	12.69	84	P	Pn	20 14 55.5	+1.4
	comp=Z,0.3nm,0.3s,baz=246,slow=12,SNR=4.9						
	comp=Z,1.3nm,0.4s						
CPUP				AML	AML		
CPUP	Villa Florida	12.69	84	Pn	Pn	20 14 55.4	+1.3
SIV	San Ignacio	15.67	40	P	Pn	20 15 35.7	+1.3
	baz=230,slow=11,SNR=3.5						
	comp=Z,2.1nm,0.7s						
VILB	Vilhena	18.65	36	P	P	20 16 08.0	-3.2
BDFB	Brasilia	25.11	64	P	P	20 17 17.2	-0.9
	comp=Z,2.6nm,0.5s,baz=223,slow=14,SNR=4.3						
	comp=Z,2.6nm,0.5s						
BOAV	Boa Vista	32.43	21	P	P	20 18 20.6	-2.7
BOAV				IAmb	IAmb	20 18 22.7	
	comp=Z,7.3nm,1.5s						
APG	El Apazote	47.00	334	LR	LR	20 34 32.8	
	comp=Z,8.7nm,20.9s,baz=266,slow=29						
VNA3	Neumayer Olymp	54.28	159	P	P	20 21 17.5	-1.2
	comp=Z,2.3nm,0.8s						
SNAA	Sanae	56.51	159	P	P	20 21 33.4	-1.4
	comp=Z,66nm,0.6s						
SNAA	Sanae	56.51	159	P	P	20 21 34.5	-0.3
	comp=Z,2.0nm,0.4s,baz=304,slow=6.4,SNR=4.8						
	comp=Z,2.0nm,0.4s						
SNAA	Sanae	56.51	159	P	P	20 21 34.2	-0.6
SNAA				IAmb	IAmb	20 21 35.5	
	comp=Z,3.1nm,0.8s						
TROLL	Troll, Antarti	58.22	159	P	P	20 21 45.1	-1.9
	comp=Z,136nm,0.8s						
QSPA	South Pole Qui	61.74	180	P	P	20 22 11.5	+0.3
	comp=Z,2.8nm,1.0s,baz=107,slow=1.2,SNR=8.5						
	comp=Z,2.8nm,1.0s						
QSPA	South Pole Qui	61.74	180	P	P	20 22 11.1	-0.1
TXAR	Lajitas Array	65.24	329	P	P	20 22 35.0	+0.3
	comp=Z,0.5nm,0.7s,baz=149,slow=7.7,SNR=7.0						
	comp=Z,0.5nm,0.7s						
TXAR	Lajitas Array	65.24	329	P	P	20 22 35.4	+0.7
DBIC	Dimbokro	72.95	72	P	P	20 23 22.0	-0.8
	comp=Z,4.3nm,0.8s,baz=141,slow=6.5,SNR=3.3						
	comp=Z,4.3nm,0.8s						
SUR	Sutherland	77.06	120	LR	LR	20 54 30.6	
	comp=Z,38nm,19.1s,baz=224,slow=33						
PDAR	Pinedale Array	79.12	332	P	P	20 23 58.1	+0.5
	comp=Z,0.4nm,0.6s,baz=116,slow=3.4,SNR=6.2						
	comp=Z,0.4nm,0.6s						
TORD	Torodi Ar. Bea	81.83	70	P	P	20 24 12.3	-0.2
	comp=Z,6.6nm,0.9s,baz=259,slow=4.9,SNR=21						
	comp=Z,6.6nm,0.9s						
BOSA	Boshof	82.17	118	P	P	20 24 13.6	-0.8
	comp=Z,5.2nm,1.1s,baz=242,slow=5.9,SNR=5.4						
	comp=Z,5.2nm,1.1s						
MDT	Midelt	87.93	51	LR	LR	21 03 26.4	
	comp=Z,38nm,18.4s,baz=237,slow=35						
ASAR	Alice Springs	122.70	208	PKP	PKPdf	20 30 47.7	-1.6
	comp=Z,0.7nm,0.8s,baz=115,slow=1.3,SNR=5.9						
WRA	Warramunga Arr	125.81	210	PKP	PKPdf	20 30 54.8	-0.5
	comp=Z,0.9nm,0.6s,baz=150,slow=1.7,SNR=17						
H11S2	WAKE ISLAND Hy	126.22	273	T	T	22 50 04.4	
	baz=114,slow=74,SNR=7.9						
H11S1	WAKE ISLAND Hy	126.23	273	T	T	22 50 04.8	
	baz=114,slow=74,SNR=9.8						
H11S3	WAKE ISLAND Hy	126.24	273	T	T	22 50 06.4	
	baz=114,slow=74,SNR=9.1						
H11N3	WAKE ISLAND Hy	126.49	274	T	T	22 50 14.4	
	baz=113,slow=75,SNR=4.3						
H11N1	WAKE ISLAND Hy	126.51	274	T	T	22 50 14.1	
	baz=113,slow=75,SNR=3.8						
H11N2	WAKE ISLAND Hy	126.51	274	T	T	22 50 14.5	
	baz=113,slow=75,SNR=14						
KAPI	Kappang	145.01	200	PKPbc	PKPdf	20 31 31.2	+0.2
	comp=Z,11nm,0.5s,baz=156,slow=5.0,SNR=7.9						
KURBB	Kurchatov Arra	148.32	37	PKP	PKPdf	20 31 36.8	+1.4
	comp=Z,2.4nm,0.4s,baz=304,slow=3.0,SNR=43						
KURBB				PKPbc	PKPbc	20 31 39.2	+0.5
	comp=Z,1.1nm,0.6s,baz=299,slow=3.0,SNR=8.2						
ZALV	Zalesovo Beam	149.19	28	PKP	PKPdf	20 31 37.7	+1.1
	comp=Z,9.3nm,0.6s,baz=300,slow=2.9,SNR=39						
ZALV				PKPbc	PKPbc	20 31 41.3	+0.4
	comp=Z,1.6nm,0.7s,baz=281,slow=3.7,SNR=3.8						
ZALV	Zalesovo Beam	149.19	28		PKPbc	20 31 40.7	-0.2
KSH2	Kashi	150.72	60	PKPbc	PKiKP	20 31 46.5	+0.5
MKAR	Makanchi Array	152.49	41	PKPbc	PKPbc	20 31 48.9	-0.1
	comp=Z,3.1nm,0.6s,baz=320,slow=1.8,SNR=25						
HHC	Hu-ho-hao-te	167.42	350	eP	PKPdf	20 31 58.8	-0.2

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*CNRM **20** 20:34:16.0, 36°.46N×9°.97W, h6^{km}*

*SFS **20** 20:34:27.7, 36°.67N×9°.85W, h27^{km}, ML2.0/8, ML2.5/8, MLv2.8/6*

*MDD **20** 20:34:28.6±2.0, 36°.70N×9°.85W, h34^{km}±29^{km}, mb_Lg2.1/2, Error ellipse: s-maj=21.6km s-min=10.3km az=25.0*

*IGIL **20** 20:34:28.9, 36°.73N×9°.78W, h17^{km}, ML1.1*

*INMG **20** 20:34:29.1±1.4, 36°.74N×9°.78W, h17^{km}±6^{km}, ML1.3, Error ellipse: s-maj=7.3km s-min=5.5km az=33.0, #DIST_RANGE: LOCAL #IPMA_REGION: SW Cabo S.Vicente*

ISC 20 20:34:16.8±1.7, 36°.48N±0°.03×9°.99W±0°.06, h12km±10km, n38, σ1ˢ.21/59, West of Gibraltar

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PFVI	**Vila Bisbo**	**1.13**	**55**	Pn	Pn	20 34 44.3	+5.8
PFVI				Sn	**Sn**	**20 34 56.1**	**+2.1**
PFVI	**Vila Bisbo**	**1.13**	**55**	*e*P	Pn	20 34 44.6	+6.1
PFVI				*e*S	**Sn**	**20 34 56.2**	**+2.2**
PFVI				*i* IAML		20 34 57.1	
PFVI				*i* IAML		20 34 57.2	
PFVI				*i* IAML		20 34 58.0	
PFVI	**Vila Bisbo**	**1.13**	**55**	P	**Pb**	**20 34 36.8**	**-1.5**
PFVI				S	**Sn**	**20 34 53.8**	**-0.2**
MORF	**Marmelete**	**1.34**	**52**	*e*P	Pg	20 34 47.5	+4.8
MORF				*e*S	**Sg**	**20 35 01.1**	**+0.9**
MORF				IAML		20 35 02.2	
	comp=E,7.8nm,0.2s						
MORF	**Marmelete**	**1.34**	**52**	*e*P	Pg	20 34 47.5	+4.8
MORF				*e*S	**Sg**	**20 35 01.7**	**+1.5**
MORF				*i* IAML		20 35 02.8	
MORF				*i* IAML		20 35 03.9	
MORF				*i* IAML		20 35 03.9	
PTEO	**Sao Teotonio**	**1.46**	**43**	*e*S	**Sg**	**20 35 04.5**	**+0.6**
PBDV	**Barranco-do-Ve**	**1.81**	**65**	*e*S	**Sg**	**20 35 13.6**	**-1.5**
PCVE	**Castro Verde**	**1.93**	**53**	Sn	**Sb**	**20 35 15.7**	**-0.3**
PCVE	**Castro Verde**	**1.93**	**53**	*e*S	**Sb**	**20 35 16.0**	**0.0**
PCVE				*i* IAML		20 35 17.6	
PCVE				*i* IAML		20 35 17.6	
PCVE				*i* IAML		20 35 17.7	
MESJ	**Messejana**	**1.95**	**46**	*e*P	**Pg**	**20 34 55.6**	**+1.3**
MESJ				*e*S	**Sb**	**20 35 15.4**	**-1.3**
MESJ				IAML		20 35 17.5	
	comp=E,0.8nm,0.1s						
MESJ	**Messejana**	**1.95**	**46**	*e*P	**Pg**	**20 34 55.9**	**+1.6**
MESJ				*e*S	**Sb**	**20 35 16.3**	**-0.4**
MESJ				*i* IAML		20 35 16.6	
MESJ				*i* IAML		20 35 16.8	
MESJ				*i* IAML		20 35 22.6	
PLOUS	**Minas do Lousa**	**1.98**	**38**	*e*P	**Pg**	**20 34 55.8**	**+0.9**
PLOUS				*e*S	**Sb**	**20 35 16.4**	**-1.2**
PLOUS				*i* IAML		20 35 17.2	
PLOUS				*i* IAML		20 35 17.7	
PLOUS				*i* IAML		20 35 17.8	
PVAQ	**Vaqueiros**	**2.04**	**63**	*e*P	**Pg**	**20 34 57.4**	**+1.5**
PVAQ				*e*S	**Sb**	**20 35 18.4**	**-0.6**
PVAQ				*i* IAML		20 35 21.5	
PVAQ				*i* IAML		20 35 23.3	
PVAQ				*i* IAML		20 35 27.1	
PVAQ	**Vaqueiros**	**2.04**	**63**	P	**Pb**	**20 34 52.9**	**-0.9**
PVAQ				S	**Sn**	**20 35 17.0**	**+0.8**
EGRO	**El Granado**	**2.26**	**62**	S	**Sb**	**20 35 23.6**	**-1.8**
EGRO				IVmb_Lg		20 35 27.6	
MOE	**Montemor**	**2.41**	**32**	*e*P	**Pg**	**20 35 02.5**	**-0.6**
MOE				*e*S	**Sn**	**20 35 27.0**	**+1.4**
MOE				*i* IAML		20 35 29.1	
MOE				*i* IAML		20 35 29.3	
PMAFR	**Mafra**	**2.53**	**13**	Pn	**Pb**	**20 35 03.2**	**+1.1**
PMAFR	**Mafra**	**2.53**	**13**	*e*P	**Pg**	**20 35 03.4**	**-1.9**
PMAFR				*e*S	**Sn**	**20 35 29.3**	**+0.9**
EVO	**Evora**	**2.58**	**37**	Pn	**Pb**	**20 35 03.8**	**+0.9**
EVO				Sn	**Sn**	**20 35 30.4**	**+0.8**
EVO	**Evora**	**2.58**	**37**	*e*S	**Sn**	**20 35 30.2**	**+0.6**
EVO				*i* IAML		20 35 31.5	
EVO				*i* IAML		20 35 31.6	
EVO				*i* IAML		20 35 32.6	
PARRA	**Arraiolos**	**2.79**	**33**	*e*P	**Pb**	**20 35 07.2**	**+0.5**
PARRA				*e*S	**Sn**	**20 35 35.9**	**+1.0**
PARRA				*i* IAML		20 35 37.5	
PARRA				*i* IAML		20 35 37.7	
PARRA				*i* IAML		20 35 38.2	
PBAR	**Barrancos**	**2.89**	**53**	Sn	**Sn**	**20 35 38.5**	**+1.2**
PBAR	**Barrancos**	**2.89**	**53**	*e*S	**Sn**	**20 35 39.2**	**+1.8**
PBAR				*i* IAML		20 35 40.8	
PBAR				*i* IAML		20 35 41.6	
PMTG	**Montargil**	**2.93**	**28**	*e*P	**Pb**	**20 35 09.3**	**+0.3**
PMTG				*e*S	**Sn**	**20 35 39.0**	**+0.6**
PMTG				*i* IAML		20 35 40.8	
PMTG				*i* IAML		20 35 41.4	
PMTG				*i* IAML		20 35 41.7	
PESTR	**Estremoz**	**3.04**	**38**	P	**Pn**	**20 35 04.4**	**-0.4**
PESTR				S	**Sn**	**20 35 42.4**	**+1.2**
PSBE	**So Bento**	**3.17**	**17**	*e*P	**Pb**	**20 35 13.1**	**0.0**
PSBE				*e*S	**Sn**	**20 35 46.5**	**+2.3**
EBAD	**Badajoz**	**3.27**	**45**	Pn	**Pb**	**20 35 13.2**	**-1.6**
EBAD				Sn	**Sn**	**20 35 47.7**	**+0.9**
EBAD	**Badajoz**	**3.27**	**45**	P	**Pb**	**20 35 14.0**	**-0.8**
EBAD				S	**Sn**	**20 35 46.9**	**+0.1**
EBAD				IVmb_Lg		20 35 50.2	
ESPR	**Espera**	**3.34**	**82**	Pn	**Pb**	**20 35 15.4**	**-0.6**
PSARD	**Sardoal**	**3.43**	**24**	*e*S	**Sn**	**20 35 50.9**	**+0.2**
PSARD				*i* IAML		20 35 51.6	
PSARD				*i* IAML		20 35 53.4	
PSARD				*i* IAML		20 35 53.7	
PMRV	**Marv??o**	**3.58**	**34**	*e*P	**Pb**	**20 35 18.2**	**-1.9**
PMRV				*e*S	**Sn**	**20 35 54.3**	**-0.1**
PMRV				*i* IAML		20 35 55.6	
PMRV				*i* IAML		20 35 56.8	
PMRV				*i* IAML		20 35 57.0	
PCAS	**Casmilo, Conde**	**3.75**	**18**	*e*S	**Sn**	**20 35 58.7**	**+0.1**
ECAB	**El Cabril**	**3.97**	**65**	Pn	**Pb**	**20 35 24.0**	**-2.7**
ZHG	**ZHG**	**4.09**	**137**	P	**Pn**	**20 35 18.3**	**-0.9**
ZHG				S	**Sn**	**20 36 09.2**	**+2.1**
OUK	**Oukaimeden**	**5.55**	**161**	P	**Pn**	**20 35 39.0**	**-0.5**
OUK				S	**Sn**	**20 36 43.6**	**+0.1**
MD31	**MD31**	**5.62**	**128**	P	**Pn**	**20 35 40.7**	**+0.4**
MD31				S	**Sn**	**20 36 45.5**	**+0.8**
MDT	**Midelt**	**5.75**	**128**	P	**Pn**	**20 35 41.8**	**-0.3**
MDT				S	**Sn**	**20 36 48.6**	**+0.6**
OUZM	**OUZ**	**6.17**	**153**	P	**Pn**	**20 35 48.6**	**+0.7**
OUZM				S	**Sn**	**20 37 00.1**	**+1.5**

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*MOS **20** 20:41:16.5±0.9, 37°.89N×74°.55E, h116km, mb4.5/5, Error ellipse: s-maj=9.4km s-min=4.1km az=83.8*

*IDC **20** 20:41:19.0±3.8, 38°.05N×74°.54E, h120km±32km, mb3.5/12, mbtmp4.1/17, Error ellipse: s-maj=28.7km s-min=14.8km az=24.0*

*NNC **20** 20:41:22.5±4.5, 38°.50N×73°.75E, h0km, mb4.6, mpv4.4, Error ellipse: s-maj=35.0km s-min=21.3km az=177.0*

*NEIC **20** 20:41:22.8±1.7, 38°.30N±0°.06×74°.54E±0°.05, h146km±10km, mb4.5/10, Error ellipse: s-maj=9.8km s-min=3.5km az=207.0*

*SOME **20** 20:41:23.7, 39°.08N×73°.43E, h20km*

ISC 20 20:41:21.9±0.4, 38°.23N±0°.04×74°.38E±0°.04, h150km, n136, σ2ˢ.05/164, mb4.0/16, 8C-13D, Tajikistan-Xinjiang border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSH2	**Kashi**	**1.30**	**45**	Pg	**Pn**	**20 41 49.1**	**-0.5**
KSH2				Sg	**Sn**	**20 42 07.9**	**-2.9**
KSH2				smax	smax		
	comp=N,3µm,0.4s						
KSH2				smax	smax		
	comp=E,2µm,0.6s						
DRK	**Karamyk**	**2.37**	**303**	PN	**Pn**	**20 42 03.1**	**+1.5**
DRK						20 42 33.8	
DRK	**Karamyk**	**2.37**	**303**		**Pn**	**20 42 03.1**	**+1.5**
DRK				Sn	**Sn**	**20 42 33.8**	**+1.6**
ARSB	**Arslanbob**	**3.27**	**341**	PN	**Pn**	**20 42 13.2**	**+0.4**
ARSB	**Arslanbob**	**3.27**	**341**		**Pn**	**20 42 13.2**	**+0.4**
ARSB				Sn	**Sn**	**20 42 49.9**	**-2.3**
NRN	**Naryn**	**3.43**	**21**	PN	**Pn**	**20 42 13.8**	**-1.2**
NRN	**Naryn**	**3.43**	**21**		**Pn**	**20 42 13.8**	**-1.2**
ULHL	**Ulahol**	**4.25**	**19**	P	**Pn**	**20 42 24.9**	**-0.6**
	SNR=44						
TARG	**Taragay, Kyrgy**	**4.37**	**36**	PN	**Pn**	**20 42 26.4**	**-0.9**
TARG	**Taragay, Kyrgy**	**4.37**	**36**		**Pn**	**20 42 26.4**	**-0.9**
AAK	**Ala-Archa**	**4.40**	**1**	P	**Pn**	**20 42 28.2**	**+0.7**
	comp=E,59nm,0.5s,baz=181,slow=8.7,SNR=283						
AAK				S	**Sn**	**20 43 13.4**	**-5.1**
	comp=E,53nm,0.7s,baz=61,slow=21,SNR=5.3						
AAK	**Ala-Archa**	**4.40**	**1**	P	**Pn**	**20 42 28.2**	**+0.7**
	SNR=20						
AAK	**Ala-Archa**	**4.40**	**1**	⇓P	**Pn**	**20 42 27.9**	**+0.4**
	comp=E,18nm,0.5s						
AAK				⇑S	**Sn**	**20 43 17.1**	**-1.4**
	comp=E,37nm,0.8s						
BOOM	**Boomskoye usch**	**4.42**	**15**	PN	**Pn**	**20 42 27.7**	**0.0**
BOOM	**Boomskoye usch**	**4.42**	**15**		**Pn**	**20 42 27.7**	**0.0**
KBK	**Karagaybulak**	**4.44**	**5**	P	**Pn**	**20 42 28.5**	**+0.6**
	SNR=87						
KDJ	**Kajisay**	**4.44**	**28**	PN	**Pn**	**20 42 27.4**	**-0.6**
KDJ	**Kajisay**	**4.44**	**28**		**Pn**	**20 42 27.4**	**-0.6**
EKS2	**Erkin-Say**	**4.45**	**354**	P	**Pn**	**20 42 28.8**	**+0.7**
	SNR=43						
FRU1	**Bishkek**	**4.58**	**2**	PN	**Pn**	**20 42 30.8**	**+1.1**
FRU1	**Bishkek**	**4.58**	**2**		**Pn**	**20 42 30.8**	**+1.1**
MRKS	**Merke**	**4.59**	**349**	*e*P	**Pn**	**20 42 30.6**	**+0.7**
	comp=E,59nm,0.4s						
MRKS				*e*S	**Sn**	**20 43 18.6**	**-4.3**
	comp=E,373nm,0.3s						
ALCI	**Alchi Leh**	**4.61**	**150**	*e*S	**Sn**	**20 43 20.6**	**-3.2**
ALCI				IAML		20 43 22.4	
	comp=E,4µm,0.4s						
ALCI				IAML		20 43 22.6	
	comp=N,4µm,0.1s						
NIL	**Nilore**	**4.67**	**192**	PN	**Pn**	**20 42 33.6**	**+2.7**
NIL	**Nilore**	**4.67**	**192**		**Pn**	**20 42 33.6**	**+2.7**
WUS	**Wushi**	**4.76**	**50**		**Pn**	**20 42 31.1**	**-1.1**
CHMS	**Chumysh**	**4.77**	**3**	P	**Pn**	**20 42 32.8**	**+0.6**
	SNR=287						
TKM2	**Tokmak 2**	**4.77**	**11**	P	**Pn**	**20 42 32.6**	**+0.2**
	SNR=88						
USP	**Ospenovka**	**5.03**	**1**	P	**Pn**	**20 42 35.9**	**+0.2**
	SNR=56						
IUG	**Iuzhnay**	**5.13**	**321**	*c i*PN	**Pn**	**20 42 38.0**	**+1.0**
IUG	**Iuzhnay**	**5.13**	**321**	⇑*i*P	**Pn**	**20 42 38.1**	**+1.0**
IUG	**Iuzhnay**	**5.13**	**321**	*e*P	**Pn**	**20 42 38.0**	**+1.0**
	comp=N,203nm,0.3s						
IUG				*e*S	**Sn**	**20 43 31.6**	**-4.2**
	comp=N,1µm,0.3s						
TNSS	**Tian-Shan**	**5.18**	**21**	*e*PN	**Pn**	**20 42 37.1**	**-0.8**
TNSS	**Tian-Shan**	**5.18**	**21**	*e*P	**Pn**	**20 42 37.2**	**-0.8**
DZA	**Taraz**	**5.20**	**334**	*e*PN	**Pn**	**20 42 38.6**	**+0.7**
DZA	**Taraz**	**5.20**	**334**	*e*P	**Pn**	**20 42 38.6**	**+0.7**
DZA	**Taraz**	**5.20**	**334**	*e*P	**Pn**	**20 42 38.8**	**+0.9**
	comp=N,73nm,0.2s						
DZA				*e*S	**Sn**	**20 43 32.9**	**-4.3**
	comp=N,2µm,0.5s						
SGDS	**Sogindy**	**5.22**	**2**	⇓*i*P	**Pn**	**20 42 38.0**	**-0.2**
SGDS				*e*S	**Sn**	**20 43 38.0**	**+0.3**
PRZ	**Przheval'sk**	**5.24**	**35**	PN	**Pn**	**20 42 38.1**	**-0.4**
PRZ	**Przheval'sk**	**5.24**	**35**		**Pn**	**20 42 38.1**	**-0.4**
MDOK	**Medeo**	**5.33**	**22**	*e*PN	**Pn**	**20 42 38.9**	**-0.7**
MDOK	**Medeo**	**5.33**	**22**	*e*P	**Pn**	**20 42 39.0**	**-0.7**
MDOK				*e*S	**Sn**	**20 43 39.6**	**-0.8**
AAA	**Alma-Ata**	**5.33**	**20**	*e*PN	**Pn**	**20 42 39.0**	**-0.6**
AAA	**Alma-Ata**	**5.33**	**20**	*e*P	**Pn**	**20 42 39.0**	**-0.6**
KNDC	**Almaty**	**5.35**	**21**	⇓P	**Pn**	**20 42 39.7**	**-0.2**
	comp=N,80nm,0.6s						
KNDC	**Almaty**	**5.35**	**21**	PN	**Pn**	**20 42 39.7**	**-0.2**
KNDC				S	**Sn**	**20 43 46.0**	**+5.1**
JMU	**Jammu**	**5.45**	**176**	*e*P	**Pn**	**20 42 42.6**	**+1.3**
JMU				*e*S	**Sn**	**20 43 40.7**	**-2.7**
JMU				IAML		20 43 46.8	
	comp=E,2µm,0.2s						
JMU				IAML		20 43 51.6	
	comp=N,2µm,0.7s						
CHM	**Chimkent**	**5.48**	**320**	*c i*PN	**Pn**	**20 42 42.8**	**+1.3**
CHM	**Chimkent**	**5.48**	**320**	⇑*i*P	**Pn**	**20 42 42.8**	**+1.3**
CHM	**Chimkent**	**5.48**	**320**	*e*P	**Pn**	**20 42 42.9**	**+1.3**
	comp=N,157nm,0.2s						
CHM				*e*S	**Sn**	**20 43 39.8**	**-4.0**
	comp=N,478nm,0.4s						
KBL	**Kabul**	**5.67**	**231**	PN	**Pn**	**20 42 46.8**	**+2.5**
KBL	**Kabul**	**5.67**	**231**		**Pn**	**20 42 46.8**	**+2.5**
KK31	**Karatay Array**	**5.68**	**330**	⇓P	**Pn**	**20 42 44.8**	**+0.4**
	comp=N,6.8nm,0.2s,baz=140,slow=13,SNR=139						
KK31				⇑S	**Sn**	**20 43 44.6**	**-4.2**
	comp=N,43nm,0.3s,baz=137,slow=25,SNR=11						
KK31	**Karatay Array**	**5.68**	**330**	PN	**Pn**	**20 42 44.7**	**+0.4**
KK31	**Karatay Array**	**5.68**	**330**		**Pn**	**20 42 44.7**	**+0.4**
KKAR	**Karatay Array**	**5.68**	**330**	PN	**Pn**	**20 42 44.8**	**+0.5**
KKAR	**Karatay Array**	**5.68**	**330**		**Pn**	**20 42 44.8**	**+0.5**
SATY	**Saty**	**5.71**	**31**	*d i*PN	**Pn**	**20 42 43.7**	**-1.0**
SATY	**Saty**	**5.71**	**31**	⇓*i*P	**Pn**	**20 42 43.8**	**-1.0**
SATY				*e*S	**Sn**	**20 43 48.2**	**-1.3**
KUU	**Kurty**	**5.84**	**14**	*e*PN	**Pn**	**20 42 45.9**	**-0.5**
KUU	**Kurty**	**5.84**	**14**	*e*P	**Pn**	**20 42 46.0**	**-0.5**
BRLS	**Borolday**	**5.91**	**326**	*e*P	**Pn**	**20 42 47.4**	**+0.1**
	comp=N,29nm,0.2s						
BRLS				*e*S	**Sn**	**20 43 48.1**	**-6.0**
	comp=N,124nm,0.3s						
UZB	**Uzynbulak**	**6.04**	**34**	*d i*PN	**Pn**	**20 42 48.0**	**-1.2**
UZB	**Uzynbulak**	**6.04**	**34**	⇓*i*P	**Pn**	**20 42 48.0**	**-1.2**
UZB				*e*S	**Sn**	**20 43 56.1**	**-1.5**
KPKS	**Kokpek**	**6.16**	**31**	*e*PN	**Pn**	**20 42 49.4**	**-1.3**
KPKS	**Kokpek**	**6.16**	**31**	*e*P	**Pn**	**20 42 49.5**	**-1.3**
DHRM	**DHARAMSHALA**	**6.17**	**165**	*e*P	**Pn**	**20 42 51.5**	**+0.3**
DHRM				*e*S	**Sn**	**20 43 56.8**	**-4.1**
DHRM				IAML		20 44 06.8	
	comp=E,324nm,0.4s						
DHRM				IAML		20 44 07.3	
	comp=N,363nm,0.5s						
SHLS	**Shalkode**	**6.25**	**37**	*d i*PN	**Pn**	**20 42 53.3**	**+1.4**
SHLS	**Shalkode**	**6.25**	**37**	⇓*i*P	**Pn**	**20 42 53.4**	**+1.4**
PDGK	**Podgornoye**	**6.40**	**36**	⇓P	**Pn**	**20 42 51.6**	**-2.3**
	comp=N,45nm,0.7s						
PDGK	**Podgornoye**	**6.40**	**36**	PN	**Pn**	**20 42 52.2**	**-1.7**
PDGK	**Podgornoye**	**6.40**	**36**		**Pn**	**20 42 52.2**	**-1.7**
TDK	**Taldyqorghan**	**7.40**	**23**	*e*PN	**Pn**	**20 43 06.3**	**-0.9**
TDK	**Taldyqorghan**	**7.40**	**23**	*e*P	**Pn**	**20 43 06.3**	**-0.9**
SMLA	**Simla**	**7.45**	**161**	*e*P	**Pn**	**20 43 08.3**	**+0.4**
SMLA				*e*S	**Sn**	**20 44 24.2**	**-6.9**
SMLA				IAML		20 44 33.3	
	comp=N,170nm,0.5s						
SMLA				IAML		20 44 34.4	
	comp=E,186nm,0.6s						
AYAN	**Aya Nagar**	**9.99**	**166**	*e*P	**Pn**	**20 43 42.5**	**+0.7**
AYAN				*e*S	**Sn**	**20 45 25.1**	**-7.4**
AYAN				IAML		20 45 26.5	
	comp=N,186nm,0.2s						
AYAN				IAML		20 45 27.7	
	comp=E,108nm,0.4s						
MAKZ	**Makanchi**	**10.23**	**31**	P	**Pn**	**20 43 43.8**	**-1.1**
MAKZ	**Makanchi**	**10.23**	**31**		**Pn**	**20 43 43.8**	**-1.1**
MK31	**Makanchi Array**	**10.35**	**32**	*i* P	**Pn**	**20 43 45.5**	**-0.9**
MKAR	**Makanchi Array**	**10.35**	**32**	P	**Pn**	**20 43 44.6**	**-1.8**
	comp=E,9.3nm,0.7s,baz=217,slow=15,SNR=54						
MKAR	**Makanchi Array**	**10.35**	**32**	*i* P	**Pn**	**20 43 44.9**	**-1.5**
MKAR				pmax	pmax		
	comp=Z,10.0nm,0.7s						
WMQ	**Urumqi**	**11.50**	**57**	*e*P	**Pn**	**20 44 01.0**	**-0.5**
WMQ				pmax	pmax		
	comp=Z,8.0nm,0.7s						
KURBB	**Kurchatov Arra**	**12.73**	**12**	P	**Pn**	**20 44 14.7**	**-2.8**
	comp=Z,4.4nm,0.8s,baz=200,slow=12,SNR=28						
KURK	**Kurchatov**	**12.84**	**12**	*i* P	**Pn**	**20 44 16.3**	**-2.5**
DGZ	**Jazzator, Alta**	**14.80**	**35**	*i* P	**Pn**	**20 44 42.6**	**-1.1**
DGZ				pmax	pmax		
	comp=Z,12nm,0.9s						
BVAR	**Borovoye Array**	**15.05**	**351**	P	**Pn**	**20 44 45.8**	**-0.9**
	comp=Z,6.4nm,0.5s,baz=157,slow=10,SNR=25						
BORK	**Borovoye**	**15.08**	**351**	*i* P	**Pn**	**20 44 47.1**	**+0.1**
BORK				pmax	pmax		
	comp=Z,21nm,0.7s						
AB31	**Akbulak array**	**15.14**	**321**	P	**Pn**	**20 44 47.5**	**-0.3**
	comp=Z,1.2nm,0.4s,baz=128,slow=13,SNR=54						
AB31				⇑S	**Sn**	**20 47 31.9**	**-4.1**
	comp=Z,3.0nm,0.5s,baz=129,slow=25,SNR=14						
AB31	**Akbulak array**	**15.14**	**321**	P	**Pn**	**20 44 47.5**	**-0.3**
AB31				S	**Sn**	**20 47 31.9**	**-4.1**
AB31	**Akbulak array**	**15.14**	**321**		**Pn**	**20 44 47.9**	**+0.1**
ABKAR	**Akbulak array**	**15.14**	**321**		**Pn**	**20 44 47.7**	**-0.1**
GOMU	**GeErMu**	**16.41**	**91**	P	**P**	**20 45 04.0**	**+0.1**
GOMU				pP	Pn	20 45 07.1	+3.2
GOMU				sP	pP	20 45 11.3	-19
GOMU				pmax	pmax		
	comp=Z,3.0nm,0.5s						
AKTO	**Aktyubinsk**	**16.86**	**322**	P	**Pn**	**20 45 09.0**	**+0.2**
	comp=Z,3.4nm,0.5s,baz=110,slow=9.7,SNR=14						
AKTO				S	**S**	**20 48 08.0**	**-8.1**
	comp=Z,5.0nm,0.6s,baz=70,slow=18,SNR=6.3						
AKTO	**Aktyubinsk**	**16.86**	**322**	⇑P	**Pn**	**20 45 09.9**	**+1.1**
	comp=Z,1.4nm,0.5s						
AKTO				⇓S	**S**	**20 48 15.3**	**-0.8**
	comp=Z,5.5nm,1.0s						
AKTO	**Aktyubinsk**	**16.86**	**322**	P	**Pn**	**20 45 09.9**	**+1.1**
AKTO				S	**S**	**20 48 15.3**	**-0.8**
ZAA0	**Zalesovo Array**	**17.27**	**21**	P	**P**	**20 45 12.1**	**-0.8**
ZAA0				IAmb	IAmb	20 45 13.6	
	comp=Z,13nm,0.4s						
ZALV	**Zalesovo Beam**	**17.27**	**21**	P	**P**	**20 45 12.2**	**-0.7**
	comp=Z,15nm,0.3s,baz=210,slow=11,SNR=106						
ZALV	**Zalesovo Beam**	**17.27**	**21**	*e*P	**P**	**20 45 12.6**	**-0.3**
ZALV				pmax	pmax		
	comp=Z,15nm,0.3s						
ZALV	**Zalesovo Beam**	**17.27**	**21**	P	**P**	**20 45 11.3**	**-1.6**
SHL	**Shillong**	**19.46**	**125**	P	**P**	**20 45 36.5**	**-0.7**
SHL				pmax	pmax		
	comp=Z,12nm,0.6s						
SHL	**Shillong**	**19.46**	**125**	P	**P**	**20 45 36.5**	**-0.7**
SHL				IAmb	IAmb	20 45 38.7	
	comp=Z,11nm,0.6s						
GTA2	**Gaotai**	**19.79**	**78**	*e*P	**P**	**20 45 41.6**	**+1.0**
GTA2				pmax	pmax		
	comp=Z,8.0nm,0.8s						
KNGR	**Kungurtug, Tuv**	**20.54**	**46**	*i* P	**P**	**20 45 49.2**	**+0.7**
ARTI	**Arti**	**21.06**	**335**	P	**P**	**20 45 54.7**	**+0.9**
	comp=Z,3.1nm,0.6s,baz=151,slow=5.6,SNR=7.6						
	comp=Z,3.1nm,0.6s						
ARTI	**Arti**	**21.06**	**335**	*d i*P	**P**	**20 45 55.5**	**+1.7**
ARTI						20 46 30.2	
ARTI				S	**S**	**20 49 43.2**	**+3.7**
ARTI				pmax	pmax		
	comp=Z,6.0nm,0.8s						
ARTI	**Arti**	**21.06**	**335**	P	**P**	**20 45 54.8**	**+0.9**
ARTI				IAmb	IAmb	20 45 58.2	
	comp=Z,6.1nm,0.7s						
HYB	**Hyderabad**	**21.06**	**169**	*e*P	**P**	**20 45 54.9**	**+0.7**
HYB				*e*S	**S**	**20 49 43.2**	**+3.0**
MORE	**Moreh**	**21.96**	**124**	P	**P**	**20 46 04.5**	**+0.8**
MORE				IAmb	IAmb	20 46 20.1	
	comp=Z,9.9nm,0.7s						
KIV	**Kislovodsk**	**24.46**	**294**	*e*P	**P**	**20 46 28.1**	**+1.2**
KIV				*e*S	**S**	**20 50 39.7**	**+3.6**
SONM	**Songino Array**	**25.14**	**57**	P	**P**	**20 46 33.3**	**+0.3**
	comp=Z,1.7nm,0.7s,baz=261,slow=7.4,SNR=3.9						
	comp=Z,1.7nm,0.7s						
PZH	**PanZhiHua**	**25.81**	**109**	P	**P**	**20 46 41.3**	**+2.1**
HHC	**Hu-ho-hao-te**	**28.66**	**73**	*e*P	**P**	**20 47 06.5**	**+2.0**
HHC				pmax	pmax		
	comp=Z,3.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,56nm,5.1s						
NJ2	**Nanjing**	**36.62**	**86**	*e*P	**P**	**20 48 14.4**	**+0.8**
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
FIA1	**FINESS Array S**	**37.61**	**324**	P	**P**	**20 48 23.7**	**+2.1**
FINES	**FINESS Array B**	**37.61**	**324**	P	**P**	**20 48 24.1**	**+2.5**
	comp=Z,1.7nm,0.3s,baz=117,slow=10,SNR=26						
	comp=Z,1.7nm,0.3s						
FINES	**FINESS Array B**	**37.61**	**324**	P	**P**	**20 48 23.9**	**+2.3**
CN2	**Changchun**	**38.43**	**65**	*e*P	**P**	**20 48 26.6**	**-2.1**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
ARCES	**ARCESS Array B**	**40.62**	**336**	P	**P**	**20 48 48.4**	**+1.9**
	comp=Z,2.1nm,0.8s,baz=111,slow=9.2,SNR=9.1						
	comp=Z,2.1nm,0.8s						
ARCES	**ARCESS Array B**	**40.62**	**336**	*e*P	**P**	**20 48 48.8**	**+2.3**
ARCES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ARCES	**ARCESS Array B**	**40.62**	**336**	P	**P**	**20 48 48.1**	**+1.6**
ARCES				IAmb	IAmb	20 48 57.4	
	comp=Z,20nm,1.4s						
HFS	**Hagfors**	**43.40**	**321**	P	**P**	**20 49 11.6**	**+2.4**
	comp=Z,1.9nm,0.5s,baz=109,slow=8.0,SNR=9.1						
	comp=Z,1.9nm,0.5s						
NC303	**NORSAR Array S**	**44.58**	**322**	P	**P**	**20 49 21.0**	**+2.5**
NB2	**NORSAR Subarra**	**44.65**	**322**	P	**P**	**20 49 20.9**	**+1.7**
	comp=Z,0.6nm,0.5s,baz=91,slow=7.9						
NB2	**NORSAR Subarra**	**44.65**	**322**	P	**P**	**20 49 21.3**	**+2.1**
NOA	**NORSAR Array B**	**44.65**	**322**	P	**P**	**20 49 21.2**	**+2.1**
	comp=Z,0.9nm,0.6s,baz=91,slow=7.8,SNR=5.8						
	comp=Z,0.9nm,0.6s						
NC204	**NORSAR Array S**	**44.87**	**322**	P	**P**	**20 49 23.0**	**+2.0**
NC204				IAmb	IAmb	20 49 29.5	
	comp=Z,28nm,1.5s						
MJAR	**Matsushiro Arr**	**49.83**	**71**	P	**P**	**20 49 59.6**	**0.0**
	comp=Z,2.0nm,0.7s,baz=297,slow=8.1,SNR=9.4						
	comp=Z,2.0nm,0.7s						
MJAR	**Matsushiro Arr**	**49.83**	**71**	*e*P	**P**	**20 49 58.5**	**-1.1**
MJAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
MJA0	**Matsu Arr-Jizo**	**49.86**	**71**	*e*P	**P**	**20 49 58.5**	**-1.3**
MJA0				pmax	pmax		
	comp=Z,2.0nm,0.7s						
TORD	**Torodi Ar. Bea**	**68.43**	**270**	P	**P**	**20 52 08.6**	**+0.8**
	comp=Z,0.4nm,0.5s,baz=50,slow=6.0,SNR=7.8						
	comp=Z,0.4nm,0.5s						
ILAR	**Eielson Array**	**72.35**	**17**	P	**P**	**20 52 32.4**	**+1.5**
	comp=Z,0.2nm,0.5s,baz=330,slow=6.1,SNR=2.1						
	comp=Z,0.2nm,0.5s						
YKA	**Yellowknife Ar**	**79.36**	**4**	P	**P**	**20 53 11.8**	**+1.2**
	comp=Z,0.7nm,0.6s,baz=351,slow=5.1,SNR=4.2						
	comp=Z,0.7nm,0.6s						
WRA	**Warramunga Arr**	**80.68**	**124**	P	**P**	**20 53 18.3**	**0.0**
	comp=Z,0.4nm,0.6s,baz=326,slow=5.0,SNR=12						
	comp=Z,0.4nm,0.6s						
WRA	**Warramunga Arr**	**80.68**	**124**	*i* P	**P**	**20 53 18.2**	**-0.1**
WRA	**Warramunga Arr**	**80.68**	**124**	P	**P**	**20 53 17.5**	**-0.8**
ASAR	**Alice Springs**	**83.10**	**127**	P	**P**	**20 53 29.8**	**-1.1**
	comp=Z,0.3nm,0.7s,baz=317,slow=5.0,SNR=6.6						
	comp=Z,0.3nm,0.7s						

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*IDC **20** 20:55:04.2±8.6, 9°.25S×113°.43E, h0km, mb3.7/3, mbtmp3.7/3, Error ellipse: s-maj=197.5km s-min=119.6km az=18.0*

*DJA **20** 20:55:13.0±0.4, 8°S±6°×11°3E±°, h112km±4km, M3.3/19, MLv3.3/19, MLv3.3/19*

ISC 20 20:55:12.2±1.1, 8°.61S±0°.10×113°.21E±0°.05, h100km, n13, σ1ˢ.92/17, mb3.4/3, Jawa

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAGI	**Jajag, Banyuwa**	**0.94**	**81**	P	**Pn**	**20 55 34.1**	**+2.1**
JAGI				S	**Sn**	**20 55 50.2**	**+3.3**
JAGI				AML	AML		
JAGI				AML	AML		
BLJI	**Banyuglugur**	**0.94**	**24**	P	**Pn**	**20 55 32.2**	**+0.2**
BLJI				S	**Sn**	**20 55 47.4**	**+0.5**
BLJI				AML	AML		
BLJI				AML	AML		
ABJI	**Asem Bagus**	**1.30**	**51**	P	**Pn**	**20 55 36.7**	**+0.7**
ABJI				S	**Sn**	**20 55 55.4**	**+1.4**
SJI	**Sawahan**	**1.68**	**301**	P	**Pn**	**20 55 41.6**	**+0.9**
SJI				AML	AML		
SJI				AML	AML		
RTBI	**Rangdo, Negare**	**1.72**	**85**	P	**Pn**	**20 55 42.0**	**+0.8**
RTBI				S	**Sn**	**20 56 05.4**	**+2.1**
RTBI				AML	AML		
RTBI				AML	AML		
IGBI	**Denpasar**	**1.92**	**96**	P	**Pn**	**20 55 45.0**	**+1.3**
IGBI				AML	AML		
IGBI				AML	AML		
DNP	**Denpasar**	**1.98**	**92**	P	**Pn**	**20 55 46.2**	**+1.8**
SRBI	**Singaraja**	**2.05**	**75**	P	**Pn**	**20 55 45.5**	**+0.1**
SRBI				AML	AML		
SRBI				AML	AML		
PCJI	**Pacitan**	**2.06**	**282**	P	**Pn**	**20 55 47.8**	**+2.3**
PCJI				AML	AML		
PCJI				AML	AML		
UGM	**Wanagama**	**2.75**	**284**	P	**Pn**	**20 55 55.7**	**+1.1**
WRA	**Warramunga Arr**	**23.33**	**121**	P	**P**	**21 00 08.8**	**-3.0**
	0.4nm,0.5s,baz=302,slow=11,SNR=10						
	0.4nm,0.5s						
ASAR	**Alice Springs**	**24.83**	**130**	P	**P**	**21 00 23.2**	**-2.1**
	1.0nm,0.6s,baz=303,slow=8.8,SNR=14						
	1.0nm,0.6s						
STKA	**Stephens Creek**	**35.08**	**135**	P	**P**	**21 01 54.4**	**-1.4**
	4.5nm,0.9s,baz=299,slow=11,SNR=3.5						
	4.5nm,0.9s						

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*IDC **20** 21:06:10.8±3.0, 4°.92S×152°.18E, h56km±24km, mb3.6/4, mbtmp3.8/4, MS2.8/1, Error ellipse: s-maj=64.7km s-min=20.2km az=121.0*

ISC 20 21:06:12.6±1.3, 4°.8S±0°.2×152°.0E±0°.3, h70km, n7, σ0ˢ.63/8, mb3.7/4, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRVT	**Keravat (AS076**	**0.50**	**1**	P	**Pn**	**21 06 25.2**	**-0.2**
	2µm,0.3s,baz=114,slow=2.9,SNR=125						
KRVT				S	**Sn**	**21 06 35.5**	**+0.6**
	5µm,0.5s,baz=127,slow=20,SNR=15						

KRVT				LR	LR	21 06 51.4	
	comp=Z,323nm,18.5s,baz=237,slow=64						
PMG	Port Moresby	6.64	226	S	Sn	21 09 02.5	+0.7
	17nm,0.6s,baz=72,slow=20,SNR=3.8						
PMG				LR	LR	21 10 11.4	
	comp=Z,81nm,19.2s,baz=346,slow=36						
WRA	Warramunga Arr	22.86	227	P	P	21 11 09.8	-0.5
	1.0nm,0.5s,baz=54,slow=9.9,SNR=12						
	1.0nm,0.5s						
ASAR	Alice Springs	25.62	221	P	P	21 11 35.5	-0.3
	1.5nm,0.6s,baz=58,slow=9.4,SNR=20						
	1.5nm,0.6s						
ILAR	Eielson Array	82.46	22	P	P	21 18 26.6	-0.5
	0.8nm,0.9s,baz=252,slow=5.5,SNR=4.9						
	0.8nm,0.9s						
NVAR	Mina Array Bea	92.70	52	P	P	21 19 18.2	+0.7
	0.5nm,0.7s,baz=258,slow=4.6,SNR=2.9						
	0.5nm,0.7s						
TORD	Torodi Ar. Bea	149.57	288	PKPbc	PKPbc	21 25 55.0	-0.2
	0.4nm,0.6s,baz=90,slow=2.0,SNR=5.3						

VIE ***20*** *21:47:32.8±0.7, 43°.52N×17°.04E, h8^{km}, mb2.3/2, ml2.2/2, Error ellipse: s-maj=11.4km s-min=3.8km az=30.0 46 km E of Split*
RHSSO ***20*** *21:47:33.9±0.7, 43°.72N×16°.76E, h5^{km}±3^{km}, ML2.2/7*
PDG ***20*** *21:47:34.2±0.1, 43°.73N×16°.92E, h6^{km}, ML2.6/8, Error ellipse: s-maj=0.4km s-min=1.3km az=0.0*
BEO ***20*** *21:47:35.3±0.7, 43°.77N×16°.87E, h0^{km}, ML2.0/5*
ISC 20 21:47:34.3±1.1**, 43°.73N**±0°.02×**16°.92E**±0°.02**, h5**^{km}±10^{km}**,**
n42, σ**0^{s}.91**/81**, 2C, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RICI	Ricice	0.28	146	*i* Pg	Pb	21 47 40.7	-1.1
RICI				Sg	Sb	21 47 45.8	-1.1
MAKA	Makarska	0.45	170	*i* Pg	Pb	21 47 43.7	-0.9
MAKA				Sg	Sb	21 47 51.3	-0.2
KIJV	Kijevo	0.46	307	*i* Pg	Pg	21 47 42.8	-0.4
KIJV				Sg	Sg	21 47 49.8	+0.6
HVAR	Hvar	0.65	212	*e*Pg	Pg	21 47 47.1	+0.4
HVAR				Sg	Sb	21 47 57.7	+0.3
MORI	Morici	0.89	279	*i* Pg	Pg	21 47 51.0	-0.2
MORI				Sg	Sb	21 48 04.9	+0.7
ZIRJ	Zirje	0.93	266	*e*Pg	Pg	21 47 52.1	+0.1
ZIRJ				Sg	Sn	21 48 06.8	-0.7
LSTV	Lastovo	0.96	181	*i* Pg	Pg	21 47 52.4	-0.2
LSTV				Sg	Sn	21 48 08.2	-0.2
STON	Ston	1.03	146	*i* Pg	Pg	21 47 53.3	-0.6
STON				Sg	Sb	21 48 07.8	-0.5
STON	Ston	1.03	146	*e*Pg	Pg	21 47 53.4	-0.6
STON				*e*Sg	Sn	21 48 09.7	-0.4
BLY	Banja Luka	1.04	11	*e*Pg	Pg	21 47 53.8	-0.3
BLY				*e*Sg	Sb	21 48 08.5	-0.1
BLY	Banja Luka	1.04	11	*e*Pg	Pg	21 47 53.0	-1.1
BLY				*e*Sg	Sg	21 48 07.7	+0.1
UDBI	Udbina	1.15	314	*i* Pg	Pg	21 47 56.0	-0.3
UDBI				Sg	Sb	21 48 11.9	-0.1
DUGI	Dugi Otok	1.37	282	*i* Pn	Pn	21 48 00.1	+0.1
DUGI				Sn	Sn	21 48 19.5	+1.0
DBRK	Dubrovnik	1.39	139	*e*Pn	Pn	21 47 59.9	-0.4
DBRK				Sn	Sg	21 48 18.9	0.0
BRY	Bratogost	1.44	124	⇑*i*Pg	Pn	21 48 00.6	-0.6
BRY				*e*Sg	Sg	21 48 22.6	+2.0
BRY	Bratogost	1.44	124	*e*Pg	Pn	21 48 01.0	-0.2
BRY				*i* Sg	Sg	21 48 22.3	+1.7
BRY				AML	AML		
TREB	Trebinje	1.46	134	⇑*i*Pg	Pn	21 48 01.2	0.0
TREB				*e*Sg	Sg	21 48 23.3	+2.3
VIRC	Vir	1.46	293	*e*Pn	Pn	21 48 01.0	-0.2
VIRC				Sn	Sg	21 48 21.5	+0.4
UPM	Unac-Piva	1.54	109	*e*Sn	Sg	21 48 25.5	+1.8
NVLJ	Novalja	1.69	300	*e*Pn	Pn	21 48 04.9	+0.4
NVLJ				Sn	Sb	21 48 27.1	-0.3
HCY	Herceg Novi	1.73	137	*e*Pn	Pn	21 48 05.3	+0.4
HCY				*e*Sn	Sb	21 48 28.2	-0.2
HCY	Herceg Novi	1.73	137	*e*Pn	Pb	21 48 05.5	-0.9
HCY				*i* Sn	Sg	21 48 30.9	+1.3
HCY				AML	AML		
NKME	Niksic	1.77	122	*e*Pn	Pb	21 48 06.4	-0.8
NKME				*i* Sn	Sg	21 48 31.8	+0.7
NKME				AML	AML		
BBLS	Lazi&#263i	1.81	85	*e*Pn	Pb	21 48 08.0	+0.2
BBLS				*e*Sn	Sg	21 48 33.0	+0.7
BBLS	Lazi&#263i	1.81	85	*e*Pn	Pb	21 48 07.5	-0.3
BBLS				*e*Sn	Sg	21 48 31.8	-0.5
RABC	Rab	1.84	304	*e*Pn	Pn	21 48 06.6	+0.1
RABC				Sn	Sn	21 48 30.5	+0.3
CEME	Cevo	1.88	128	*e*Pn	Pn	21 48 07.6	+0.5
CEME				*i* Sn	Sg	21 48 35.0	+0.3
CEME				AML	AML		
MOSL	Moslavina	1.89	357	*e*Pn	Pn	21 48 06.2	-1.0
MOSL				Sn	Sn	21 48 29.4	-1.9
BUM	Brajici-Budva	2.04	134	*e*Pn	Pn	21 48 10.0	+0.8
BUM				*i* Sn	Sg	21 48 38.7	-0.9
BUM				AML	AML		
TEKS	Tekeris	2.05	66	*e*Pn	Pb	21 48 11.1	-0.9
TEKS				*e*Sn	Sb	21 48 37.2	-0.6
KOME	Kolasin	2.09	114	*e*Pn	Pn	21 48 10.6	+0.6
KOME				*i* Sn	Sb	21 48 39.8	+0.8
KOME				AML	AML		
PDG	Podgorica	2.15	126	*e*Pn	Pn	21 48 11.7	+1.0
PDG				*e*Sn	Sb	21 48 39.7	-0.9
PDG	Podgorica	2.15	126	*e*Pn	Pn	21 48 11.4	+0.7
PDG				*i* Sn	Sb	21 48 41.4	+0.8
PDG				AML	AML		
DRME	Dracevica, Mon	2.27	132	*e*Pn	Pn	21 48 12.8	+0.4
DRME				*e*Sn	Sb	21 48 42.3	-1.7
DRME	Dracevica, Mon	2.27	132	*e*Pn	Pn	21 48 13.1	+0.7
DRME				*i* Sn	Sb	21 48 44.3	+0.3
DRME				AML	AML		
SJES	Sjenica	2.27	101	*e*Pn	Pb	21 48 15.2	-0.6
SJES				*e*Sn	Sb	21 48 44.8	+0.6
SJES	Sjenica	2.27	101	*e*Pn	Pb	21 48 14.0	-1.8
SJES				*e*Sn	Sb	21 48 42.7	-1.5
IVAS	Ivanjica	2.35	93	*e*Pn	Pn	21 48 15.1	+1.5
IVAS				*e*Sn	Sn	21 48 43.2	+0.3
FRGS	Fruska Gora	2.52	54	*e*Pn	Pn	21 48 17.0	+1.2
FRGS				*e*Sn	Sn	21 48 48.6	+1.7
MORH	Mrgy, Hungar	2.77	26	*e*Pn	Pn	21 48 19.7	+0.4
MORH				*e*Sn	Sn	21 48 54.4	+1.3
OBKA	Obir	3.25	330	*i* Pn	Pn	21 48 27.5	+1.6
	0.1nm,0.2s						
RONA	Rosalia, Austr	4.00	354	*i* Pn	Pn	21 48 37.2	+1.1
	0.3nm,0.2s						

IDC ***20*** *22:13:02.0±1.1, 23°.70N×122°.65E, h0^{km}, mb3.9/9, mbtmp3.9/11, ML3.9/2, Error ellipse: s-maj=23.0km s-min=21.3km az=167.0*
NEIC ***20*** *22:13:08.8, 23°.91N×122°.78E, h33^{km}*
TAP ***20*** *22:13:09.3, 23°.95N×122°.74E, h33^{km}, ML4.4, D*
NEIC ***20*** *22:13:09.4±0.9, 23°.92N±0°.04×122°.77E±0°.05, h38^{km}±8^{km}, mb4.2/6, Mwr4.1/20, Error ellipse: s-maj=8.1km s-min=4.0km az=122.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M$_{rr}$0.68; M$_{\theta\theta}$-1.07; M$_{\phi\phi}$0.39; M$_{r\theta}$1.30; M$_{\theta\phi}$0.26; M$_{\phi r}$0.56; Fault plane solution: M$_{0}$1.72000×10^{15} NP1:ϕ_s312.07000°, δ25.96000°, λ148.54000°. NP2:ϕ_s70.88000°, δ76.79000°, λ67.44000°. Principal axes: T 1.6675, Plg53.0000°, Azm314.0000°; N 0.0949, Plg22.0000°, Azm76.0000°; P -1.7624, Plg28.0000°, Azm179.0000°;*
NIED ***20*** *22:13:10.0, 23°.99N×122°.66E, h31^{km}, MW3.9, Moment Tensor Solution. s2 Moment tensor: Scale 10^{14}Nm; M$_{rr}$4.15; M$_{\theta\theta}$-4.02; M$_{\phi\phi}$-0.13; M$_{r\theta}$7.16; M$_{\theta\phi}$1.27; M$_{\phi r}$4.41; Fault plane solution: M$_{0}$9.29000×10^{14} NP1: ϕ_s301.00000°, δ19.00000°, λ143.00000°. NP2: ϕ_s67.00000°, δ79.00000°, λ75.00000°.*
JMA ***20*** *22:13:10.0±0.2, 24°N±1°×122°.7E±0°.5, h31^{km}±3^{km}, MD4.2/15, MV3.9/15, NW OFF ISHIGAKIJIMA IS*
ISC 20 22:13:10.3±0.6**, 23°.92N**±0°.02×**122°.77E**±0°.02**, h44**^{km}±6^{km}**,**
n231, σ**1^{s}.46**/395**, mb3.9**/15**, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EOS4	EOS4	0.45	296	*i* P	Pn	22 13 18.3	-2.0
EOS4				S	Sn	22 13 24.7	-2.7
EOS3	EOS3	0.55	312	*e*P	Pn	22 13 19.9	-1.7
EOS3				*e*S	Sn	22 13 27.7	-2.1
JYNG	Yonagunijimaku	0.55	17	P	Pn	22 13 20.7	-1.2
JYNG				A	A	22 13 20.7	
	comp=N,24nm,0.4s,comp=E,23nm,0.4s						
JYNG				*e*S	Sn	22 13 28.1	-2.1
YOJ	Yonaguni jima	0.58	23		Pn	22 13 21.3	-1.0
YOJ				Sn	Sn	22 13 28.7	-2.1
YOJ	Yonaguni jima	0.58	23	*e*P	Pn	22 13 21.5	-0.8
YOJ				S	Sn	22 13 29.2	-1.6
YOJ	Yonaguni jima	0.58	23	P	Pn	22 13 21.3	-1.0
YOJ				S	Sn	22 13 29.1	-1.6
EOS2	EOS2	0.69	315	*i* P	Pn	22 13 22.7	-0.9
EOS2				*e*S	Sn	22 13 32.7	-0.6
HATJ	Hateruma jima	0.96	82	P	Pn	22 13 28.7	+1.3
IRIF	Iriomote-Funau	0.97	65	P	Pn	22 13 28.5	+1.0
IRIF				A	A	22 13 28.5	
	comp=N,17nm,1.1s,comp=E,10.0nm,0.4s						
EHP	Heping Village	1.01	293	*e*P	Pn	22 13 27.1	-1.0
EAHA	Aohua	1.02	294	*e*P	Pn	22 13 27.8	-0.4
EAHA				*e*S	Sn	22 13 39.9	-1.5
ENA	Nanau	1.06	298	*e*P	Pn	22 13 24.9	-3.8
ENA				*e*S	Sn	22 13 41.1	-1.3
ESAO	Su ao	1.06	308	*e*P	Pn	22 13 28.2	-0.6
ESAO				S	Sn	22 13 42.0	-0.3
HWA	Hwalien	1.06	273	*i* P	Pn	22 13 27.9	-0.9
HWA				*e*S	Sn	22 13 42.0	-0.4
TEYL	Yanliau Villag	1.07	267	*e*P	Pn	22 13 27.9	-0.9
TEYL				*e*S	Sn	22 13 41.5	-1.1
ETL	Fush Village	1.07	283	*e*P	Pn	22 13 28.0	-0.9
ETL				S	Sn	22 13 41.5	-1.1
TWC	Suao	1.08	309	*i* P	Pn	22 13 28.0	-1.0
TWC				*e*S	Sn	22 13 41.0	-1.8
TWD	Chiawan	1.08	279	*e*P	Pn	22 13 27.4	-1.5
TWD				S	Sn	22 13 41.9	-0.9
NACB	Ninganchiao	1.10	283		Pn	22 13 27.6	-1.6
NACB				Sn	Sn	22 13 42.4	-0.9
NACB	Ninganchiao	1.10	283	*e*P	Pn	22 13 27.9	-1.3
NACB				S	Sn	22 13 41.9	-1.4
SHUL	Shoufeng	1.11	263	*e*P	Pn	22 13 28.4	-0.9
SHUL				S	Sn	22 13 43.0	-0.5
TEGC	Jichi Village	1.14	259	P	Pn	22 13 29.0	-0.9
TEGC				S	Sn	22 13 43.4	-0.9
ETM	Tongmen	1.17	272	*e*P	Pn	22 13 28.6	-1.5
ETM				S	Sn	22 13 43.6	-1.3
JKRS	Kuro-shima	1.18	74	P	Pn	22 13 32.3	+1.9
EGS		1.19	321	P	Pn	22 13 30.0	-0.5
EGS				*e*S	Sn	22 13 46.5	+0.9
NDS	Dongshan	1.19	307	*i* P	Pn	22 13 30.5	-0.1
NDS				*e*S	Sn	22 13 45.5	0.0
ETLH	Xiulin Townshi	1.21	284	*e*P	Pn	22 13 29.7	-1.1
ETLH				S	Sn	22 13 45.0	-1.1
ESL	Shilin	1.23	265	*e*P	Pn	22 13 29.2	-1.8
ESL				*e*S	Sn	22 13 45.9	-0.4
LXIB	Xiulin Townshi	1.24	275	*e*P	Pn	22 13 29.9	-1.4
LXIB				*e*S	Sn	22 13 44.2	-2.8
ILA	Ilan	1.25	312	*e*P	Pn	22 13 32.3	+1.0
ILA				*e*S	Sn	22 13 48.4	+1.4
EGFH	Guangfu	1.25	259	P	Pn	22 13 30.2	-1.2
EGFH				*e*S	Sn	22 13 46.2	-0.8
NTC	Toucheng	1.26	318	*e*P	Pn	22 13 32.1	+0.6
NTC				S	Sn	22 13 48.5	+1.3
TWE	Neicheng	1.28	309	P	Pn	22 13 31.4	-0.3
TWE				*i* S	Sn	22 13 48.5	+0.9
WARBT	Fenglin Townsh	1.28	261	*i* P	Pn	22 13 30.1	-1.6
WARBT				S	Sn	22 13 45.4	-2.3
LATG	Datong	1.28	299	*e*P	Pn	22 13 32.9	+1.0
LATG				*e*S	Sn	22 13 49.6	+1.6
TWB1	Santiao Chiao	1.29	327	*i* P	Pn	22 13 31.3	-0.6
TWB1				*e*S	Sn	22 13 49.0	+1.0
HGSD	Ruisui	1.30	251	*e*P	Pn	22 13 31.0	-1.0
HGSD				S	Sn	22 13 47.1	-1.1
NDT	Datong Townshi	1.33	301	*e*P	Pn	22 13 32.7	+0.3
NDT				S	Sn	22 13 49.3	+0.4
JIJ	Ishigaki jima	1.33	71	P	Pn	22 13 34.0	+1.6
ECBN	Changbin	1.35	244	*e*P	Pn	22 13 32.2	-0.4
ECBN				S	Sn	22 13 46.8	-2.6
TIPB	Shuangxi	1.35	321	P	Pn	22 13 32.7	-0.1
TIPB				*e*S	Sn	22 13 50.9	+1.3
FUSB	Fushanzhiwuyua	1.36	308	*e*P	Pn	22 13 32.9	0.0
FUSB				S	Sn	22 13 50.4	+0.6
NNSB	Datong	1.36	292	*i* P	Pn	22 13 32.3	-0.7
NNSB				S	Sn	22 13 49.3	-0.5
NNSH	Datong	1.36	292	P	Pn	22 13 31.5	-1.4
NNSH				S	Sn	22 13 49.2	-0.7
EHYH	Wanrong	1.37	252	P	Pn	22 13 32.3	-0.6
EHYH				*e*S	Sn	22 13 48.9	-1.1
NNS	Nan Shan	1.37	292	*e*P	Pn	22 13 32.3	-0.8
NNS				S	Sn	22 13 50.0	-0.2
EHY	Hungye	1.39	253	*e*P	Pn	22 13 32.7	-0.5
EHY				S	Sn	22 13 49.0	-1.3
WHF	Hehuan Shan	1.39	279	*e*P	Pn	22 13 32.4	-1.2
WHF				S	Sn	22 13 50.0	-1.0
SXI1	Grass Mountain	1.42	325	*i* P	Pn	22 13 33.3	-0.4
SXI1				S	Sn	22 13 51.2	0.0
FUSS	Fushou	1.43	283	*e*P	Pn	22 13 33.8	-0.2
FUSS				S	Sn	22 13 51.7	0.0
NWLT	Wulai	1.43	307	*e*P	Pn	22 13 35.3	+1.4
NWLT				S	Sn	22 13 52.4	+0.9
EYUL	Yuli	1.45	247	*e*P	Pn	22 13 33.4	-0.6
EYUL				*e*S	Sn	22 13 51.0	-0.7
CHKH	Chenggong	1.45	240	*e*P	Pn	22 13 33.1	-1.0
CHKH				*i* S	Sn	22 13 48.4	-3.5
WFSB	Wu-fen Shan	1.45	322	*e*P	Pn	22 13 33.9	-0.2
WFSB				*e*S	Sn	22 13 52.5	+0.5
OWD	Renai	1.46	272	*e*P	Pn	22 13 33.3	-0.9
OWD				S	Sn	22 13 50.9	-1.3
YHNB	Yeheng	1.47	301		Pn	22 13 33.7	-0.7
YHNB	Yeheng	1.47	301	*i* P	Pn	22 13 34.2	-0.2
YHNB				*e*S	Sn	22 13 54.5	+2.0
NSK	Sanguang	1.49	301	*i* P	Pn	22 13 34.3	-0.3
NSK				*e*S	Sn	22 13 54.6	+1.7
TWT	Tachien	1.49	283	*e*P	Pn	22 13 34.9	+0.1
TWT				S	Sn	22 13 53.4	+0.2
VWDT	VWDT	1.50	264	*i* P	Pn	22 13 34.2	-0.4
VWDT				S	Sn	22 13 51.9	-1.1
TDCB	Techi	1.50	283	*e*P	Pn	22 13 34.7	-0.3
TDCB				S	Sn	22 13 53.1	-0.4
TWA	Mucha	1.51	315	*e*P	Pn	22 13 36.4	+1.5
TWA				*e*S	Sn	22 13 55.8	+2.5
WUSB	Renai	1.51	273	*e*P	Pn	22 13 34.4	-0.6
WUSB				*e*S	Sn	22 13 54.3	+0.8
TNOU	National Taiwa	1.52	324	*e*P	Pn	22 13 35.2	+0.2
TNOU				S	Sn	22 13 53.6	0.0
CHKT	Chengkung	1.52	238	*e*P	Pn	22 13 33.9	-1.2
CHKT				*e*S	Sn	22 13 50.4	-3.3
FULB	Fuli	1.53	242	*e*P	Pn	22 13 35.5	+0.3
FULB				*i* S	Sn	22 13 52.1	-1.8
NHDH	Xindian Distri	1.53	313	*e*P	Pn	22 13 36.6	+1.5
NHDH				*e*S	Sn	22 13 55.1	+1.2
NHY	Taipei	1.56	316	P	Pn	22 13 35.7	+0.2
NHY				*e*S	Sn	22 13 55.6	+1.2
JISG	Ishigakijimahi	1.56	65	*e*P	Pn	22 13 36.8	+1.3
JISG				*e*S	Sn	22 13 56.3	+1.8
TATO	Taipei	1.57	312		Pn	22 13 35.1	-0.5
TATO	Taipei	1.57	312	*e*P	Pn	22 13 36.6	+1.0
TATO				*e*S	Sn	22 13 56.7	+2.0
TAP	Taipei	1.60	314	P	Pn	22 13 36.4	+0.3
TAP				*e*S	Sn	22 13 56.3	+0.8
BACT	New Taipei Cit	1.61	312	P	Pn	22 13 36.9	+0.7
BACT				*e*S	Sn	22 13 57.4	+1.5
NWRT	Kuosheng	1.62	322	P	Pn	22 13 36.4	0.0
NWRT				*e*S	Sn	22 13 56.9	+0.7
EHD	Haiduan	1.63	242	*e*P	Pn	22 13 35.8	-0.7
EHD				S	Sn	22 13 55.0	-1.2
YM01	YM01	1.63	318	*e*P	Pn	22 13 38.3	+1.7
YM01				*e*S	Sn	22 13 58.2	+1.7
ECS	Chishang	1.64	240	P	Pn	22 13 36.4	-0.3
ECS				*e*S	Sn	22 13 57.4	+0.8
EDH	Donghe	1.64	235	P	Pn	22 13 35.7	-1.0
EDH				S	Sn	22 13 54.3	-2.4
YM08	YM08	1.65	320	P	Pn	22 13 37.1	+0.3
YM08				*e*S	Sn	22 13 58.2	+1.3
WPL	Puli Township	1.66	273	P	Pn	22 13 36.0	-0.9
WPL				S	Sn	22 13 56.5	-0.5
ZUZH	Zhuzihu	1.66	318	*e*P	Pn	22 13 38.6	+1.6
ZUZH				*e*S	Sn	22 13 57.3	+0.1
NFF	Wufeng Townshi	1.66	295	*e*P	Pn	22 13 37.4	+0.3
NFF				S	Sn	22 13 57.4	+0.2
SSLB	Suanglung	1.66	266		Pn	22 13 36.1	-0.9
SSLB	Suanglung	1.66	266	*e*P	Pn	22 13 37.0	-0.1
SSLB				*e*S	Sn	22 13 58.1	+0.8
KSHI	Guanxi Townshi	1.68	301	*e*P	Pn	22 13 39.5	+2.2
KSHI				S	Sn	22 13 58.5	+0.9
DPDB	Guoxing	1.69	274	P	Pn	22 13 37.0	-0.3
DPDB				S	Sn	22 13 57.7	-0.1
ANP	Anpu	1.69	318	*e*S	Sn	22 13 59.4	+1.4
TWS1	Kuangyinshan	1.70	314	P	Pn	22 13 37.6	+0.1
TWS1				*e*S	Sn	22 14 01.1	+3.1
WHP	Taichung City	1.70	282	*e*P	Pn	22 13 39.0	+1.4
WHP				S	Sn	22 13 58.5	+0.3
WCS	Beigang Elemen	1.70	275	P	Pn	22 13 37.3	-0.2
WCS				*e*S	Sn	22 13 58.6	+0.6
SMLT	Sun Moon Lake	1.71	269	*e*P	Pn	22 13 37.5	-0.2
SMLT				*e*S	Sn	22 13 57.3	-1.1
NTY	Taoyuan	1.71	309	*e*P	Pn	22 13 38.7	+1.0
NTY				S	Sn	22 13 58.8	+0.4
TWY	Chenhua	1.71	322	P	Pn	22 13 38.0	+0.3
TWY				*e*S	Sn	22 13 60.0	+1.6
YUS	Yu-Shan	1.72	256	*e*P	Pn	22 13 38.0	-0.1
YUS				*e*S	Sn	22 13 57.6	-1.6
NTST	Danshui	1.72	316	*e*P	Pn	22 13 39.2	+1.4
NTST				*e*S	Sn	22 13 60.0	+1.4
LDUT	Ludao	1.72	224	*e*P	Pn	22 13 36.2	-1.6
LDUT				S	Sn	22 13 55.9	-2.7
NSM	Shimen	1.73	322	P	Pn	22 13 38.4	+0.5
NSM				*e*S	Sn	22 14 00.4	+1.6
NJD	Zhudong	1.73	298	*e*S	Sn	22 13 58.2	-0.6
TYC	Yuchr	1.75	270	*e*P	Pn	22 13 38.1	0.0
TYC				S	Sn	22 13 59.3	+0.1
LIOB	Emei	1.75	295	*e*P	Pn	22 13 39.0	+0.8
LIOB				S	Sn	22 13 59.8	+0.5
NSTT	Nanjuang	1.76	294	*e*P	Pn	22 13 40.1	+1.8
NSTT				S	Sn	22 14 00.2	+0.8
ELDTW	Lidau	1.76	246	*e*P	Pn	22 13 37.8	-0.7
ELDTW				*e*S	Sn	22 13 58.3	-1.5
WHYT	Xinyi Township	1.77	263	*e*P	Pn	22 13 38.6	+0.2
WHYT				*e*S	Sn	22 14 01.3	+1.5
NCU	National Centr	1.78	306	P	Pn	22 13 38.7	+0.1
NCU				S	Sn	22 14 00.8	+0.8
NCUH	Zhongli	1.78	306	P	Pn	22 13 39.3	+0.8
NCUH				*e*S	Sn	22 14 00.2	+0.3
HSN1	Hsinchu	1.81	298	*e*S	Sn	22 14 01.2	+0.5
LONT	Longtian	1.81	236	*e*P	Pn	22 13 38.8	-0.2
LONT				*e*S	Sn	22 14 00.3	-0.5
PCYT	Pengchaiyu	1.81	340	*e*P	Pn	22 13 38.7	-0.3
PCYT				S	Sn	22 14 01.3	+0.5
SBCB	Hsinchu	1.84	298	*e*P	Pn	22 13 41.6	+2.2
SBCB				S	Sn	22 14 02.6	+1.2
ALS	Alishan	1.84	258	*e*P	Pn	22 13 40.5	+0.8
ALS				S	Sn	22 14 01.4	-0.6
HSN	Hsinchu	1.86	298	P	Pn	22 13 39.1	-0.6
HSN				*e*S	Sn	22 14 05.3	+3.4
WJS	Zhushan	1.87	267	P	Pn	22 13 40.0	+0.2
TWQ1	Liyutan	1.87	283	*e*P	Pn	22 13 40.8	+1.0
TWQ1				*e*S	Sn	22 14 04.3	+2.1
NJN	Zhunan	1.89	294	P	Pn	22 13 40.5	+0.4
NJN				S	Sn	22 14 03.3	+0.7
WWF	Wufeng	1.90	274	P	Pn	22 13 41.9	+1.8
WWF				S	Sn	22 14 06.0	+3.2
TWGBT	Beinan	1.90	235	*e*P	Pn	22 13 39.7	-0.6
TWGBT				*e*S	Sn	22 14 02.6	-0.4
NHW	Xinwu Township	1.90	305	P	Pn	22 13 40.7	+0.4
NHW				*e*S	Sn	22 14 03.9	+0.9
NMLH	Miaoli	1.90	289	*e*P	Pn	22 13 39.6	-0.7
NMLH				*e*S	Sn	22 14 05.8	+2.7
TWG	Pinlang	1.90	235		Pn	22 13 39.4	-0.9
TWG	Pinlang	1.90	235	*i* P	Pn	22 13 39.6	-0.7
TWG				S	Sn	22 14 01.4	-1.6
JTJ	Tarama	1.91	68	P	Pn	22 13 42.2	+1.9
WNT	Mingjian	1.91	269	P	Pn	22 13 41.0	+0.7
WNT				*e*S	Sn	22 14 07.2	+4.1
WNT1	Nantou City	1.91	270	P	Pn	22 13 42.0	+1.7
WNT1				*e*S	Sn	22 14 04.0	+0.8
TCU	Taichung	1.92	277	P	Pn	22 13 41.8	+1.2
TCU				*e*S	Sn	22 14 05.5	+1.9
STYH	Taoyuan	1.97	248	*e*P	Pn	22 13 41.9	+0.6
STYH				*i* S	Sn	22 14 04.3	-0.5
WDJ	Dajia District	1.99	283	*e*P	Pn	22 13 43.2	+1.8
WDJ				*e*S	Sn	22 14 05.3	+0.2
STYT	Tauyuan	1.99	248	P	Pn	22 13 42.0	+0.5
STYT				*e*S	Sn	22 14 05.2	-0.1
WYL	Yuanlin Townsh	2.00	272	P	Pn	22 13 42.2	+0.6
WYL				S	Sn	22 14 08.0	+2.6
WCHH	Zhanghua	2.02	275	*i* P	Pn	22 13 43.3	+1.4
WCHH				*e*S	Sn	22 14 07.2	+1.2
WGK	Gukeng	2.03	264	*e*P	Pn	22 13 44.7	+2.7
WGK				*e*S	Sn	22 14 10.1	+3.9
WCH1	Changhua City	2.03	275	*e*P	Pn	22 13 42.0	0.0
WCH1				*e*S	Sn	22 14 08.7	+2.4
WCKO	Fanlu	2.04	257	*e*P	Pn	22 13 44.3	+2.2
WCKO				*e*S	Sn	22 14 08.5	+2.1
WDL	Douliou City	2.05	265	*e*P	Pn	22 13 41.4	-0.9
WDL				*e*S	Sn	22 14 10.9	+4.2
WDLH	Douliu	2.05	264	*e*P	Pn	22 13 44.3	+1.9
WDLH				*e*S	Sn	22 14 09.6	+2.8
TPUB	Ta-pu	2.06	253		Pn	22 13 41.9	-0.5
TPUB	Ta-pu	2.06	253	*e*P	Pn	22 13 43.9	+1.5
TPUB				*e*S	Sn	22 14 08.9	+2.0
WWCA	Taichung City	2.08	280	P	Pn	22 13 43.5	+0.9
WWCA				*e*S	Sn	22 14 07.4	+0.1
WTP	Ta-pu	2.09	252	*e*P	Pn	22 13 44.9	+2.1
WTP				*e*S	Sn	22 14 09.3	+1.7
ECL	Taimali	2.13	232	*e*P	Pn	22 13 42.4	-1.0
ECL				*i* S	Sn	22 14 07.0	-1.5
CHN2	Minshiung	2.13	260	P	Pn	22 13 44.6	+1.2
CHN2				*e*S	Sn	22 14 11.8	+3.1
SLGT	Liugui	2.15	245	*e*P	Pn	22 13 46.5	+2.7
SGST	Jiashian	2.17	248	*e*P	Pn	22 13 45.8	+1.8
SGST				*e*S	Sn	22 14 12.2	+2.6
CHN1	Nanshi	2.18	251	*e*P	Pn	22 13 46.0	+1.9
CHN1				*e*S	Sn	22 14 12.8	+2.9
LAY	Lan-yu	2.18	211	*e*P	Pn	22 13 44.5	+0.4
LAY				S	Sn	22 14 07.1	-2.9
WRL	Guolierlin Hig	2.19	270	*i* P	Pn	22 13 45.5	+1.4
WRL				*i* S	Sn	22 14 11.7	+1.7
CHY	Chiayi	2.19	259	*e*P	Pn	22 13 46.1	+1.9
CHY				S	Sn	22 14 11.9	+1.9
TWK	Hsinying	2.19	253	P	Pn	22 13 45.8	+1.6
TWK				*e*S	Sn	22 14 12.3	+2.2
WTK	Tuku	2.19	264	P	Pn	22 13 46.0	+1.8
WTK				S	Sn	22 14 11.7	+1.6
SNST	Tainan City	2.20	252	*e*P	Pn	22 13 46.2	+1.9
SNST				S	Sn	22 14 12.4	+2.1
LYUB	Lan-yu	2.20	210	P	Pn	22 13 43.0	-1.4
LYUB				*e*S	Sn	22 14 07.8	-2.6
RLNB	Erlin	2.20	270	P	Pn	22 13 44.3	0.0
RLNB				*e*S	Sn	22 14 12.6	+2.2
WTCT	Ta-ch'eng	2.27	269	P	Pn	22 13 45.8	+0.5
WTCT				*e*S	Sn	22 14 12.6	+0.5
TAW	Tawu	2.32	228	P	Pn	22 13 45.3	-0.7
TAW				*e*S	Sn	22 14 12.3	-1.0
SCST	Cishan	2.33	244	*e*P	Pn	22 13 49.6	+3.5
SCST				*e*S	Sn	22 14 17.5	+4.0
WMLT	Mailiao	2.33	268	P	Pn	22 13 46.4	+0.2
WMLT				*e*S	Sn	22 14 14.0	+0.4
EAST	Anshuo	2.34	229	P	Pn	22 13 45.8	-0.5
EAST				*e*S	Sn	22 14 14.4	+0.6
TAWH	Dawu Township	2.34	228	P	Pn	22 13 45.5	-0.7
TAWH				S	Sn	22 14 11.6	-2.2
WSF	Szhu	2.35	264	P	Pn	22 13 47.0	+0.7
WSF				*e*S	Sn	22 14 16.3	+2.4
ICHU	Yijhu	2.35	257	*e*P	Pn	22 13 48.4	+2.0
ICHU				*e*S	Sn	22 14 16.7	+2.7
CHN3	Shinhua	2.36	250	P	Pn	22 13 47.2	+0.6
CHN3				*e*S	Sn	22 14 18.9	+4.6
WSL	Shuilin Townsh	2.36	261	*e*P	Pn	22 13 48.2	+1.6
WSL				S	Sn	22 14 15.8	+1.5
JIRJ	Irabujima	2.39	67	*e*P	Pn	22 13 48.9	+1.9
JIRJ				*e*S	Sn	22 14 18.2	+3.1
SHHT	Tainan City	2.40	248	*e*P	Pn	22 13 50.3	+3.2
SHHT				S	Sn	22 14 19.1	+4.0
SSHA	Shanhua	2.41	251	*e*P	Pn	22 13 49.6	+2.4
SSHA				S	Sn	22 14 18.7	+3.3
SGLT	Jiouru	2.41	241	P	Pn	22 13 48.1	+0.9
CHN8	Yiju	2.41	257	P	Pn	22 13 47.0	-0.2
CHN8				*e*S	Sn	22 14 17.4	+1.8
TWM1	Shoushan	2.42	244	P	Pn	22 13 48.6	+1.3
TSPT	Pingtung City	2.43	240	P	Pn	22 13 49.0	+1.6

JMJ	Miyako jima 2	2.47	68	eP	Pn	22 13 49.9	+1.8
SCLT	Jiali	2.48	253	eP	Pn	22 13 48.0	-0.1
SCLT				eS	Sn	22 14 19.4	+2.3
SSPT	Xinbi	2.48	235	eP	Pn	22 13 49.9	+1.7
SLIU	Shizi	2.48	227	eP	Pn	22 13 48.0	-0.2
SLIU				S	Sn	22 14 16.8	-0.5
TAI1	Yung-k'ang	2.49	250	P	Pn	22 13 49.3	+1.0
TAI1				eS	Sn	22 14 18.3	+0.8
SCZT	Fangliau	2.51	232	eP	Pn	22 13 49.3	+0.7
TAI	Tainan	2.53	249	eP	Pn	22 13 49.5	+0.5
TAI				eS	Sn	22 14 19.2	+0.7
TSCK	Chigu Township	2.58	253	P	Pn	22 13 51.0	+1.5
TSCK				S	Sn	22 14 21.0	+1.4
SMST	Manzhou Townsh	2.60	224	eP	Pn	22 13 50.5	+0.7
SMST				i S	Sn	22 14 19.9	-0.2
WSSB	Gushan	2.63	242	eP	Pn	22 13 53.2	+2.9
WSSB				S	Sn	22 14 25.8	+4.8
TSEB	Hengchuen, Pin	2.65	221	i S	Sn	22 14 22.6	+1.3
HEN	Hengchun	2.67	225	eS	Sn	22 14 23.7	+1.7
TWKBT	Hengchun	2.67	223	eP	Pn	22 13 52.1	+1.2
TWKBT				eS	Sn	22 14 22.3	+0.3
TWK1	Hengchun	2.67	223	eP	Pn	22 13 51.9	+1.0
TWK1				eS	Sn	22 14 22.2	+0.2
SNW	Nanwan	2.70	224	eP	Pn	22 13 52.5	+1.4
SNW				eS	Sn	22 14 24.2	+1.6
WLCH	Liuqiu	2.70	235	eS	Sn	22 14 23.5	+0.9
TWP	Hsiaoliuchiu	2.71	235	S	Sn	22 14 26.7	+3.7
WDGT	Dungji	2.92	258	i P	Pn	22 13 54.9	+0.7
WDGT				S	Sn	22 14 28.2	0.0
PHUB	P'eng-hu	2.96	263	eP	Pn	22 13 55.2	+0.5
PHUB				i S	Sn	22 14 28.3	-0.6
PNG	Penghu	2.96	264	eP	Pn	22 13 55.0	+0.2
PNG				S	Sn	22 14 28.4	-0.7
VCHM	Qimei	3.14	258	P	Pn	22 13 58.2	+0.9
VCHM				eS	Sn	22 14 33.4	-0.2
VWUC	VWUC	3.20	290	eP	Pn	22 13 57.4	-0.7
MATB	Ma-tsu	3.39	312	eP	Pn	22 13 59.7	-0.9
MATB				eS	Sn	22 14 38.2	-1.3
MSUT	Lienchiang	3.41	312	P	Pn	22 14 01.0	0.0
MSUT				S	Sn	22 14 39.2	-1.1
PTMZ	Houxiangcun	3.50	289	P	Pn	22 14 01.3	-0.9
PTMZ				S	Sn	22 14 40.0	-2.4
LYJJ	Jianjiangzhen	3.77	314	P	Pn	22 14 05.6	-0.3
LYJJ				S	Sn	22 14 50.6	+1.5
XPSS	Dashiqiu	3.79	323	P	Pn	22 14 06.3	+0.1
XPSS				S	Sn	22 14 50.0	+0.4
KNM	Kinmen	3.99	278	P	Pn	22 14 09.7	+0.8
KNM				S	Sn	22 14 54.5	+0.2
MHZQ	Yeshan	4.02	303	P	Pn	22 14 09.0	-0.4
MHZQ				S	Sn	22 14 54.8	-0.4
KNMB	Chin-men Tao	4.03	279	Pn	Pn	22 14 08.8	-0.7
AXDP	Jialang	4.48	284	P	Pn	22 14 14.9	-0.7
AXDP				eS	Sn	22 15 03.8	-2.6
ZPLA	Ao Xicun	4.59	271	eP	Pn	22 14 15.7	-1.4
ZPLA				eS	Sn	22 15 05.6	-3.6
DSXP	Dongshan	4.89	269	eP	Pn	22 14 20.7	-0.6
DSXP				eS	Sn	22 15 15.4	-1.3
SXFK	Yanhouchang	5.25	299	eP	Pn	22 14 27.2	+0.9
SXFK				eS	Sn	22 15 23.9	-1.7
JOW	Kunigami	5.76	59	Pn	Pn	22 14 32.1	-1.2
	comp=E,5.4nm,0.3s,baz=132,slow=17,SNR=9.9						
	comp=E,11nm,0.3s						
JOW				AML	AML		
JOW	Kunigami	5.76	59		Pn	22 14 33.0	-0.2
JOW	Kunigami	5.76	59	P	Pn	22 14 34.3	+1.0
KSRS	Korea Array	14.19	17	Pn	Pn	22 16 28.8	+0.2
	comp=E,1.1nm,0.3s,baz=196,slow=12,SNR=16						
	comp=E,1.3nm,0.6s						
KSRS				AML	AML		
USA0B	Ussuriysk Arra	21.59	18	P	P	22 17 54.9	-1.4
USA0B				IAmb	IAmb	22 18 19.0	
	comp=Z,12nm,1.4s						
USRK	Ussuriysk Ar.	21.59	18	P	P	22 17 55.4	-0.8
	comp=Z,3.2nm,0.8s,baz=205,slow=11,SNR=7.8						
	comp=Z,3.2nm,0.8s						
USRK	Ussuriysk Ar.	21.59	18	P	P	22 17 54.7	-1.5
SONM	Songino Array	27.19	335	P	P	22 18 48.8	-1.0
	comp=Z,1.1nm,0.5s,baz=149,slow=9.2,SNR=4.7						
	comp=Z,1.1nm,0.5s						
SONM	Songino Array	27.19	335	P	P	22 18 49.0	-0.7
LHMI	Lhok Sumawe	31.03	237	P	P	22 19 23.4	-0.6
MKAR	Makanchi Array	39.53	316	P	P	22 20 35.6	-1.3
	comp=Z,1.3nm,0.7s,baz=99,slow=9.7,SNR=11						
	comp=Z,1.3nm,0.7s						
MKAR	Makanchi Array	39.53	316	P	P	22 20 36.3	-0.6
PDGK	Podgornoye	40.37	309	P	P	22 20 42.8	-1.1
ZALV	Zalesovo Beam	41.25	327	P	P	22 20 48.3	-2.6
	comp=Z,0.7nm,0.5s,baz=112,slow=8.7,SNR=4.1						
	comp=Z,0.7nm,0.5s						
ZALV	Zalesovo Beam	41.25	327	P	P	22 20 49.3	-1.6
COEN	Coen	42.61	150	P	P	22 20 52.3	-10
	comp=Z,609nm,1.0s,comp=Z,0.0nm						
KURK	Kurchatov	43.22	320	P	P	22 21 06.5	-0.5
KURK				IAmb	IAmb	22 21 07.3	
	comp=Z,2.4nm,1.1s						
KURBB	Kurchatov Arra	43.24	320	P	P	22 21 05.1	-2.0
	comp=Z,0.6nm,0.6s,baz=113,slow=7.9,SNR=7.5						
	comp=Z,0.6nm,0.6s						
WB0	Warramunga Arr	44.88	164	P	P	22 21 19.3	-1.2
WB0				IAmb	IAmb	22 21 57.0	
	comp=Z,46nm,1.1s						
AB31	Akbulak array	54.66	314	P	P	22 22 33.8	-0.8
AB31				IAmb	IAmb	22 22 35.4	
	comp=Z,1.0nm,0.8s						
ABKAR	Akbulak array	54.66	314	P	P	22 22 34.1	-0.5
STKA	Stephens Creek	58.34	161	P	P	22 22 56.9	-4.0
	comp=Z,72nm,1.1s,baz=351,slow=4.7,SNR=5.9						
FINES	FINESS Array B	72.40	330	P	P	22 24 31.3	-0.2
	comp=Z,1.4nm,0.8s,baz=46,slow=5.5,SNR=6.1						
	comp=Z,1.4nm,0.8s						
FINES	FINESS Array B	72.40	330	P	P	22 24 30.9	-0.6
BRTR	Keskin Array B	74.49	307	P	P	22 24 44.7	+0.2
	comp=Z,0.5nm,0.6s,baz=76,slow=5.2,SNR=3.7						
	comp=Z,0.5nm,0.6s						
BRTR	Keskin Array B	74.49	307	P	P	22 24 44.2	-0.3
HFS	Hagfors	78.50	331	P	P	22 25 05.9	-0.6
	comp=Z,1.4nm,0.7s,baz=77,slow=6.5,SNR=2.6						
	comp=Z,1.4nm,0.7s						
NB2	NORSAR Subarra	79.12	333	P	P	22 25 09.6	-0.4
	comp=Z,0.4nm,0.5s,baz=54,slow=5.9						
NOA	NORSAR Array B	79.12	333	P	P	22 25 08.6	-1.5
	comp=Z,0.4nm,0.6s,baz=53,slow=5.9,SNR=4.8						
	comp=Z,0.4nm,0.6s						

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*BJI **20** 22:13:10.5, 8°.98N×126°.59E, h10^{km}, mB5.7/77, mb5.3/87, Ms5.7/97, Ms7 5.5/95*

*IDC **20** 22:13:12.3±0.4, 9°.26N×126°.66E, h0^{km}, mb5.1/37, mbtmp5.1/40, ML3.9/2, MS5.2/62, Error ellipse: s-maj=14.9km s-min=8.3km az=89.0*

*MOS **20** 22:13:13.6±1.0, 9°.26N×126°.63E, h16^{km}, mb5.7/75, MS5.3/19, Error ellipse: s-maj=7.2km s-min=3.7km az=113.3*

*MAN **20** 22:13:13.0, 9°.26N×127°.02E, h22^{km}, MS5.7*

MAN INTENSITY IV - BAYABAS SURIGAO DEL SUR; . INTENSITY III - TAGO SURIGAO DEL SUR; CLAVER SURIGAO DEL NORTE; . INTENSITY II - TANDAG CITY CARMEN AND CAGWAIT SURIGAO DEL SUR; . INTENSITY I - HINATUAN SURIGAO DEL SUR.

*GFZ **20** 22:13:15.0, 9°.35N×126°.76E, h10^{km}, Mw5.6/108, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}2.38; $M_{\theta\theta}$-0.05; $M_{\phi\phi}$-2.33; $M_{r\theta}$-0.17; $M_{\theta\phi}$0.14; $M_{\phi r}$1.51; Fault plane solution: $M_0$2.80443×10^{17} NP1: ϕ_s178.25928°, δ28.66388°, λ92.92896°. NP2: ϕ_s354.92211°, δ61.37703°, λ88.39995°. Principal axes: T 2.8259, Plg73.5739°, Azm260.9184°; N -0.0434, Plg1.4045°, Azm355.6888°; P -2.7825, Plg16.3626°, Azm86.1012°;*

*NEIC **20** 22:13:15, 9°.26N×126°.68E, h9^{km}*

*NEIC **20** 22:13:15.0±1.1, 9°.26N±0°.05×126°.69E±0°.08, h9^{km}±1^{km}, mb5.6/340, Ms_20 5.4/485, Mwb5.6/118, Mww5.6/20, Error ellipse: s-maj=13.0km s-min=8.2km az=255.0, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}1.58; $M_{\theta\theta}$0.51; $M_{\phi\phi}$-2.09; $M_{r\theta}$0.18; $M_{\theta\phi}$0.65; $M_{\phi r}$2.76; Fault plane solution: $M_0$3.41000×10^{17} NP1: ϕ_s2.50000°, δ73.61000°, λ102.70000°. NP2: ϕ_s143.89000°, δ20.62000°, λ53.23000°. Principal axes: T 3.1393, Plg59.0000°, Azm290.0000°; N 0.4842, Plg12.0000°, Azm179.0000°; P -3.6235, Plg28.0000°, Azm82.0000°;*

*NEIC **20** 22:13:15.1, 9°.26N×126°.68E, h9^{km}*

*GFZ **20** 22:13:15.1±0.2, 9°N±2°×12°7E±°, h10^{km}, M5.6/40, mb5.5/40*

*ISC-PP **20** 22:13:15, 9°.26N×126°.69E, h6^{km}, Mwppsm6.0, Moment Tensor Solution. s44 Moment tensor: Scale 10^{18}Nm; M_{rr}0.54±.15; $M_{\theta\theta}$0.08±.16; $M_{\phi\phi}$-0.63±.14; $M_{r\theta}$-0.24±.16; $M_{\theta\phi}$-0.01±.26; $M_{\phi r}$0.30±.16; Fault plane solution: $M_0$1.38000×10^{18} NP1: ϕ_s184.10000°, δ47.30000°, λ126.50000°. NP2: ϕ_s316.60000°, δ53.80000°, λ57.20000°.*

*NEIC **20** 22:13:17.6, 9°.46N×127°.39E, h14^{km}, Moment Tensor Solution. Duration: 3^{s}7 Moment tensor: Scale 10^{17}Nm; M_{rr}2.04; $M_{\theta\theta}$-0.01; $M_{\phi\phi}$-2.03; $M_{r\theta}$-0.64; $M_{\theta\phi}$0.70; $M_{\phi r}$2.51; Fault plane solution: $M_0$3.37000×10^{17} NP1: ϕ_s159.70000°, δ19.92000°, λ84.86000°. NP2: ϕ_s345.16000°, δ70.17000°, λ91.86000°. Principal axes: T 3.2575, Plg65.0000°, Azm258.0000°; N 0.2058, Plg2.0000°, Azm165.0000°; P -3.4632, Plg25.0000°, Azm74.0000°;*

*GCMT **20** 22:13:19.0±0.1, 9°.25N±0°.01×126°.94E, h12^{km}, MW5.7/168, Moment Tensor Solution. s148,c295; s168,c494; Duration: 1^{s}7 Moment tensor: Scale 10^{17}Nm; M_{rr}3.00±.03; $M_{\theta\theta}$-0.03±.02; $M_{\phi\phi}$-2.97±.03; $M_{r\theta}$-0.35±.06; $M_{\theta\phi}$0.56±.02; $M_{\phi r}$2.56±.09; Best double couple: $M_0$3.98700×10^{17} NP1: ϕ_s168.00000°, δ25.00000°, λ87.00000°. NP2: ϕ_s351.00000°, δ65.00000°, λ91.00000°. Principal axes: T 3.9520, Plg70.0000°, Azm264.0000°; N 0.0660, Plg1.0000°, Azm171.0000°; P -4.0220, Plg20.0000°, Azm80.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s. Triangular moment-rate function*

*DJA **20** 22:13:24.2±1.7, 9°N±14°×12°7E±°, h60^{km}±9^{km}, M5.6/35, mB6.1/24, mB6.1/33, mb5.3/30, mb5.3/30, MLv6.4/1, MLv6.3/2, Mw(mB)5.7/24, Mw(mB)5.7/33, MwMwp5.3/13, MwMwp5.4/22, Mwp5.5/13, Mwp5.6/22*

ISC 20 22:13:15.8±0.4, **9°.27N**±0°.02×**126°.74E**±0°.03, **h19**^{km}±1^{km}, **h19**^{km}**:pP-P, n1303,** σ**1^{s}62**/1076, **mb5.5**/354, **MS5.4**/334, **77C-12D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BIPH	Bislig	1.14	199	i P	Pn	22 13 35.5	-1.3
BIPH				i S	Sb	22 13 51.2	-0.3
CGP	Cagayan de Oro	2.18	248	i P	Pb	22 13 53.8	-0.9
CGP				i S	Sg	22 14 26.6	+0.6
DAV	Davao City (W)	2.47	208	Pg	Pb	22 13 57.4	-2.2
	146nm,0.3s,baz=28,slow=15,SNR=62						
DAV				LR	LR	22 14 19.1	
	comp=Z,20µm,21.6s,baz=56,slow=28						
DAV				Lg	Lg	22 14 30.6	
	483nm,0.3s,baz=100,slow=19,SNR=7.9						
DAV	Davao City (W)	2.47	208	P	Pb	22 13 58.8	-0.8
DAV	Davao City (W)	2.47	208	P	Pb	22 13 59.1	-0.5
DAV				S	Sg	22 14 34.4	-0.9
DAV	Davao City (W)	2.47	208		Pn	22 13 54.9	-0.2
DAV	Davao City (W)	2.47	208	P	Pb	22 13 58.6	-1.1
DAV	Davao City (W)	2.47	208	P	Pb	22 13 58.0	-1.6
DMPH	Davao City--Mi	2.49	209	eP	Pb	22 13 58.1	-1.9
DMPH				i S	Sg	22 14 37.5	+1.5
PLP	Palo	2.56	317	eP	Pn	22 13 56.9	+0.6
PLP				eS	Sb	22 14 32.4	+0.2
KCP	Kidapawan	2.78	216	i P	Pb	22 14 04.7	-0.3
KCP				eS	Sb	22 14 40.8	+2.1
TBP	Tagbilaran	2.87	279	i P	Pb	22 14 03.1	-3.3
TBP				i S	Sg	22 14 51.6	+3.5
LLP	Lapu-Lapu	2.93	291	eP	Pb	22 14 04.0	-3.4
LLP				i S	Sg	22 14 51.3	+1.4
CTBH	Cotabato--PC H	3.20	231	i P	Pb	22 14 08.9	-3.1
DCPH	Dipolog City	3.42	259	i P	Pb	22 14 12.0	-3.8
DCPH				i S	Sb	22 14 56.7	-0.3
SNPH	Sibulan	3.46	271	eP	Pn	22 14 11.9	+3.2
SNPH				eS	Sg	22 15 13.7	+6.7
GSPH	General Santos	3.63	209	i P	Pb	22 14 16.0	-3.4
GSPH				i S	Sb	22 15 03.1	-0.1
MMPH	Masbate	4.33	315	eP	Pn	22 14 23.1	+2.4
MMPH				i S	Sn	22 15 04.6	-6.2
JAP	San Jose, Anti	4.95	288	eP	Pn	22 14 34.6	+5.5
IBAJ	Ibajay, Aklan	5.16	300	eP	Pn	22 14 35.4	+3.3
LQP	Lukban	7.01	314	eP	Pn	22 14 59.1	+1.4
TNTI	Ternate	8.47	176	P	Pn	22 15 19.3	+1.8
TNTI	Ternate	8.47	176		Pn	22 15 17.6	+0.1
TNTI	Ternate	8.47	176	P	Pn	22 15 19.7	+2.2
TNTI				AML	AML		
TNTI	Ternate	8.47	176	P	Pn	22 15 18.7	+1.2
	comp=Z,460nm,0.9s						
GTOI	Gorontalo	9.35	204	P	Pn	22 15 32.4	+2.8
TOLI2	Tolitoli	10.04	217	P	Pn	22 15 41.8	+2.6
TOLI2	Tolitoli	10.04	217		Pn	22 15 38.6	-0.6
TOLI2	Tolitoli	10.04	217	P	Pn	22 15 43.4	+4.2
	comp=Z,58nm,2.4s						
KKM	Kota Kinabalu	10.91	254	P	Pn	22 15 55.1	+3.9
KKM	Kota Kinabalu	10.91	254		Pn	22 15 50.3	-0.9
LUWI	Luwuk	10.98	201	P	Pn	22 15 55.2	+3.2
LUWI	Luwuk	10.98	201		Pn	22 15 51.6	-0.4
LUWI	Luwuk	10.98	201	P	Pn	22 15 59.6	+7.6
	comp=Z,12µmcomp=Z,14µmcomp=Z,501nm,1.6s,comp=Z,501nm,1.6s						
LUWI	Luwuk	10.98	201	P	Pn	22 15 56.0	+4.0
	comp=Z,504nm,1.6s						
SWI	Sorong	11.03	156	P	Pn	22 15 51.4	-1.2
	comp=Z,9µmcomp=Z,9µmcomp=Z,192nm,0.7s,comp=Z,192nm,0.7s						
SANI	Sanana	11.27	184	P	Pn	22 15 59.5	+3.5
SANI	Sanana	11.27	184	P	Pn	22 15 58.4	+2.4
	comp=Z,6µmcomp=Z,5µmcomp=Z,5µmcomp=Z,170nm,0.7s, comp=Z,170nm,0.7s						
SANI	Sanana	11.27	184	P	Pn	22 15 57.1	+1.1
	comp=Z,194nm,1.2s						
APSI	Ampana	11.31	207	P	Pn	22 16 03.1	+6.5
	comp=Z,8µmcomp=Z,8µmcomp=Z,273nm,1.8s,comp=Z,273nm,1.8s						
NLAI	Namlea	12.43	178	P	Pn	22 16 09.2	-2.7
	comp=Z,7µmcomp=Z,7µmcomp=Z,5µmcomp=Z,5µm comp=Z,228nm,0.8s,comp=Z,228nm,0.8s						
FAKI	Fak Fak	13.29	155	P	Pn	22 16 25.4	+1.8
FAKI	Fak Fak	13.29	155	P	Pn	22 16 25.5	+1.8
	comp=Z,11µmcomp=Z,11µmcomp=Z,11µmcomp=Z,309nm,1.5s, comp=Z,309nm,1.5s						
FAKI	Fak Fak	13.29	155	P	Pn	22 16 24.5	+0.8
	comp=Z,308nm,1.5s						
BAKI	Biak	13.97	138	P	Pn	22 16 32.6	-0.2
	comp=Z,16µmcomp=Z,9µmcomp=Z,403nm,1.4s,comp=Z,403nm,1.4s						
BNDI	Bandanaira	14.06	167	P	P	22 16 38.6	-3.2
BNDI	Bandanaira	14.06	167	P	P	22 16 47.2	+5.4
KKSI	Kolaka, Sulawe	14.29	201	P	Pn	22 16 38.6	+1.4
BKB	Balikpapan	14.34	224	P	Pn	22 16 39.7	+1.7
BKB	Balikpapan	14.34	224	Pn	Pn	22 16 35.8	-2.2
BKB	Balikpapan	14.34	224	P	P	22 16 49.4	+4.5
PMSI	Majene	14.89	212	P	P	22 16 57.6	+6.5
TPUB	Ta-pu	15.13	338	Pn	Pn	22 16 48.9	+0.3
TPUB				IAmb	IAmb	22 16 54.3	
	comp=Z,597nm,1.8s						
BBSI	Bau Bau	15.24	196	P	P	22 16 58.1	+3.2
SSLB	Suanglung	15.46	340	Pn	Pn	22 16 53.2	+0.2
YOJ	Yonaguni jima	15.52	347	P	Pn	22 16 54.7	+1.0
KAPI	Kappang	15.81	206	Pn	Pn	22 16 57.2	-0.3
	comp=Z,1.7nm,0.3s,baz=7.2,slow=8.9,SNR=13						
KAPI				LR	LR	22 24 25.8	
	comp=Z,4µm,18.1s,baz=24,slow=43						
	comp=Z,4.2nm,0.3s						
KAPI				AML	AML		
KAPI	Kappang	15.81	206	P	P	22 17 00.3	-0.9
KAPI	Kappang	15.81	206	P	P	22 17 01.2	-0.1
KAPI				S	S	22 20 03.1	-3.6
KAPI	Kappang	15.81	206	i P	Pn	22 16 56.3	-1.2
KAPI	Kappang	15.81	206	Pn	Pn	22 16 57.1	-0.3
KAPI	Kappang	15.81	206	P	P	22 17 00.4	-0.8
	comp=Z,180nm,1.8s						
SBUM	Sibu	15.95	246	P	P	22 17 03.4	+0.6
SBUM	Sibu	15.95	246	Pn	Pn	22 16 58.6	-0.7
SBUM	Sibu	15.95	246	P	P	22 17 03.1	+0.2
	comp=Z,119nm,1.5s						
MKS	Makassar	16.11	207	P	P	22 17 18.1	+13
YHNB	Yeheng	16.15	342	Pn	Pn	22 17 01.7	-0.2
TATO	Taipei	16.40	343	P	Pn	22 16 59.7	-5.3
BSSI	Bau Bau, Buton	16.53	202	P	P	22 17 14.5	+5.2
PKKI	Palangkaraya	17.11	229	P	P	22 17 21.6	+5.9
BBKI	Banjar Baru	17.34	224	P	P	22 17 22.9	+4.6
	comp=Z,18µmcomp=Z,14µmcomp=Z,14µmcomp=Z,226nm,1.3s, comp=Z,226nm,1.3s						
QZH2	Quanzhou	17.41	335	⇓iP	P	22 17 18.3	-0.7
QZH2				S	Sn	22 20 34.1	+2.9
QZH2				pmax	pmax		
	comp=Z,7µm,7.4s						
QZH2				L	L		
	comp=Z,10µm,18.2s						
QZH2				L	L		
	comp=Z,11µm,18.2s						
QZH2				L	L		
	comp=Z,14µm,19.6s						
JOW	Kunigami	17.53	5	P	P	22 17 19.8	-0.5
	comp=Z,0.4nm,0.3s,baz=188,slow=10.0,SNR=5.4						
JOW				LR	LR	22 24 04.1	
	comp=Z,12µm,19.0s,baz=175,slow=37						
	comp=Z,23nm,0.7s						
JOW				AML	AML		
JOW	Kunigami	17.53	5	P	P	22 17 23.5	+3.2
JOW	Kunigami	17.53	5	Pn	Pn	22 17 18.6	-0.6
SAUI	Saumlaki	17.73	165	P	P	22 17 25.0	+2.4
SAUI	Saumlaki	17.73	165		Pn	22 17 21.7	-0.1
SAUI				IAmb	IAmb	22 17 26.9	
	comp=Z,439nm,0.7s						
SAUI	Saumlaki	17.73	165	P	P	22 17 26.5	+3.9
	comp=Z,687nm,0.9s						
STKI	Sintang	17.74	240	P	P	22 17 26.1	+3.5
	comp=Z,337nm,2.4s,comp=Z,337nm,2.4s						
GENI	Genyem	17.83	131	P	P	22 17 23.9	+0.2
GENI	Genyem	17.83	131	P	P	22 17 24.2	+0.5
	comp=Z,211nm,0.9s						
DLV	Lat	18.14	280	P	P	22 17 29.9	+2.6
DLV	Lat	18.14	280		Pn	22 17 26.3	-0.7
DLV	Lat	18.14	280	P	P	22 17 29.8	+2.5
	comp=Z,117nm,2.2s						
GUMO	Guam	18.28	75	P	Pn	22 17 28.1	-0.4
	comp=Z,73nm,0.2s,baz=346,slow=4.8,SNR=7.8						
GUMO				LR	LR	22 23 43.0	
	comp=Z,10µm,18.9s,baz=236,slow=34						
GUMO	Guam	18.28	75	P	P	22 17 30.8	+2.2
GUMO	Guam	18.28	75	P	Pn	22 17 26.8	-1.7
GUMO				IAmb	IAmb	22 17 31.8	
	comp=Z,919nm,1.9s						
GUMO	Guam	18.28	75	P	P	22 17 29.0	+0.4
	comp=Z,91nm,1.0s						
MMRI	Maumere	18.34	194	P	P	22 17 32.7	+3.4
MMRI	Maumere	18.34	194	P	Pn	22 17 29.3	0.0
MMRI				IAmb	IAmb	22 17 37.6	
	comp=Z,778nm,1.9s						
MMRI	Maumere	18.34	194	P	P	22 17 31.3	+2.0
	comp=Z,395nm,1.2s						
EDFI	Ende, Flores	18.59	196	P	Pn	22 17 36.0	+3.5
GZH2	Guangzhou	19.00	320	P	Pn	22 17 37.1	-0.2
GZH2				S	S	22 21 13.0	+1.3
GZH2				L	L		
	comp=Z,14µm,19.2s						
GZH2				L	L		
	comp=Z,20µm,19.2s						
GZH2				L	L		
	comp=Z,26µm,15.5s						
QIZ	Qiongzhong	19.02	302	P	Pn	22 17 37.3	-0.3
QIZ				S	S	22 21 11.6	-0.6
QIZ				pmax	pmax		
	comp=Z,46nm,1.1s						
QIZ				pmax	pmax		
	comp=Z,5µm,6.1s						
QIZ				L	L		
	comp=Z,6µm,14.7s						
QIZ				L	L		
	comp=Z,8µm,14.9s						
QIZ				L	L		
	comp=Z,16µm,15.3s						
QIZ	Qiongzhong	19.02	302	P	Pn	22 17 38.0	+0.4
QIZ	Qiongzhong	19.02	302	P	P	22 17 36.4	-0.4
SOEI	Soe	19.06	187	P	Pn	22 17 39.8	+1.6
SOEI	Soe	19.06	187	P	Pn	22 17 38.8	+0.6
	comp=Z,697nm,1.2s						
DPSS	Saipan	19.53	70	P	P	22 17 40.2	-2.2
DBNI	Kabupaten Domp	19.55	206	P	Pn	22 17 44.7	+0.8
	comp=Z,6µmcomp=Z,6µmcomp=Z,6µmcomp=Z,158nm,1.3s, comp=Z,158nm,1.3s						
PLAI	Plampang	20.07	207	P	Pn	22 17 51.6	+1.5
PLAI	Plampang	20.07	207	P	Pn	22 17 50.4	+0.2
	comp=Z,436nm,1.1s						
TWSI	Taliwang, Sumb	20.41	209	P	Pn	22 17 53.4	-0.7
	comp=Z,9µmcomp=Z,231nm,1.0s						
JAGI	Jajag, Banyuwa	21.63	216	P	P	22 18 08.3	+3.2
JAGI	Jajag, Banyuwa	21.63	216	P	P	22 18 03.1	-2.0
JAGI	Jajag, Banyuwa	21.63	216	P	P	22 18 08.1	+3.0
	comp=Z,166nm,1.8s						
DRS	Darwin Rock St	21.95	169	P	P	22 18 10.7	+2.2
GULI	GuiLin	22.28	318	⇑P	P	22 18 08.6	-3.5
GULI				S	S	22 22 13.3	-3.2
GULI				pmax	pmax		
	comp=Z,29nm,1.4s						
GULI				L	L		
	comp=Z,9µm,14.7s						
GULI				L	L		
	comp=Z,11µm,14.1s						
GULI				L	L		
	comp=Z,15µm,17.3s						
SSE	Sheshan	22.32	347	P	P	22 18 13.3	+0.9
SSE				S	S	22 22 17.6	+0.4
SSE				pmax	pmax		
	comp=Z,80nm,1.8s						
SSE				pmax	pmax		
	comp=Z,3µm,5.6s						
SSE				L	L		
	comp=Z,4µm,13.1s						
SSE				L	L		
	comp=Z,3µm,12.8s						
JSU	Suzuyama	22.39	8	P	P	22 18 15.7	+2.5
JSU	Suzuyama	22.39	8	P	P	22 18 11.6	-1.7
JSU				IAmb	IAmb	22 18 16.2	
	comp=Z,293nm,1.8s						
JSU	Suzuyama	22.39	8	P	P	22 18 15.7	+2.5
	comp=Z,84nm,1.1s						
MTN	Manton Dam	22.40	169	P	P	22 18 12.7	-0.6
	comp=Z,121nm,1.5s,comp=Z,0.0nm						
MTN	Manton Dam	22.40	169	P	P	22 18 11.9	-1.5
MTN				IAmb	IAmb	22 18 31.6	
	comp=Z,230nm,1.4s						
KDU	Kakadu	22.55	165	P	P	22 18 14.0	-0.9
	comp=Z,296nm,1.1s						
CNSH	ChangSha	22.87	327	⇑P	P	22 18 15.6	-2.7
CNSH				S	S	22 22 26.0	-1.1
CNSH				pmax	pmax		
	comp=Z,25nm,1.3s						
CNSH				L	L		
	comp=Z,9µm,17.9s						
CNSH				L	L		
	comp=Z,6µm,18.6s						
CNSH				L	L		
	comp=Z,11µm,18.6s						
SMRI	Semarang	22.95	226	P	P	22 18 22.5	+3.3
SMRI	Semarang	22.95	226	P	P	22 18 19.3	+0.1
SMRI	Semarang	22.95	226	P	P	22 18 21.3	+2.0
	comp=Z,406nm,2.5s						
JCJ	Chichijima	22.97	37	LR	LR	22 26 20.5	
	comp=Z,6µm,19.9s,baz=315,slow=34						
MANU	Manus Island	23.42	118	P	P	22 18 23.1	-0.9
NJ2	Nanjing	23.82	343	⇑P	P	22 18 28.4	+0.7
NJ2				pP	sP	22 18 32.3	-0.9
NJ2				S	S	22 22 45.5	+2.8
NJ2				pmax	pmax		
	comp=Z,68nm,0.7s						
NJ2				pmax	pmax		
	comp=Z,6µm,5.1s						
NJ2				L	L		
	comp=Z,7µm,17.8s						
NJ2				L	L		
	comp=Z,6µm,14.9s						
NJ2				L	L		
	comp=Z,9µm,19.7s						
MYKOM	Kota Tinggi	23.95	253	P	P	22 18 30.1	+1.0
MYKOM	Kota Tinggi	23.95	253	P	P	22 18 28.9	-0.3
MYKOM	Kota Tinggi	23.95	253	P	P	22 18 30.3	+1.1
	comp=Z,190nm,2.1s						
JNU	Nakatsue	24.04	9	P	P	22 18 29.4	-0.4
	comp=Z,106nm,0.9s,baz=187,slow=5.6,SNR=37						
	comp=Z,106nm,0.9s						
WHN	Wuhan	24.12	333	⇑P	P	22 18 30.6	+0.1
WHN				sP	pwP	22 18 38.9	-3.7
WHN				S	S	22 22 51.6	+4.1
WHN				pmax	pmax		
	comp=Z,130nm,0.8s						
WHN				pmax	pmax		
	comp=Z,9µm,6.8s						
WHN				L	L		
	comp=Z,7µm,13.0s						

WHN				L	L		
	comp=Z,24µm,14.2s						
WHN				L	L		
	comp=Z,32µm,16.1s						
BTDF	Bukit Timah Da	24.16	252	P	P	22 18 32.3	+1.2
KNRA	Kununurra	24.87	175	P	P	22 18 36.4	-1.0
	comp=Z,79nm,1.0s,comp=Z,0.0nm						
KNRA	Kununurra	24.87	175	P	P	22 18 36.5	-0.9
KNRA				IAmb	IAmb	22 18 55.0	
	comp=Z,104nm,0.9s						
PMBI	Palembang	25.02	242	P	P	22 18 41.8	+2.9
PMBI	Palembang	25.02	242	P	P	22 18 38.4	-0.5
PMBI	Palembang	25.02	242	P	P	22 18 42.7	+3.8
	comp=Z,755nm,1.2s						
SLVN	Son La	25.04	301	P	P	22 18 38.9	-0.2
SLVN	Son La	25.04	301	P	P	22 18 38.5	-0.6
SLVN				IAMs_20	IAMs_20	22 28 29.2	
	comp=Z,12µm,21.0s						
SLVN	Son La	25.04	301	P	P	22 18 38.1	-1.0
	comp=Z,87nm,1.0s						
JMN	Monobe	25.21	14	P	P	22 18 42.7	+2.2
JMN	Monobe	25.21	14	P	P	22 18 40.7	+0.2
JMN				IAmb	IAmb	22 18 46.0	
	comp=Z,173nm,1.1s						
JMN	Monobe	25.21	14	P	P	22 18 42.1	+1.7
	comp=Z,149nm,1.2s						
BBJI	Bungbulang	25.26	229	P	P	22 18 43.1	+2.0
BBJI	Bungbulang	25.26	229	P	P	22 18 40.6	-0.6
BBJI				IAmb	IAmb	22 19 07.2	
	comp=Z,256nm,1.6s						
BBJI	Bungbulang	25.26	229	P	P	22 18 40.7	-0.4
	comp=Z,83nm,1.0s						
GYA	Guiyang	25.57	315	P	P	22 18 42.4	-1.6
GYA				S	S	22 23 15.8	+4.6
GYA				pmax	pmax		
	comp=Z,20nm,2.0s						
GYA				pmax	pmax		
	comp=Z,2µm,10.3s						
GYA				L	L		
	comp=Z,7µm,18.3s						
GYA				L	L		
	comp=Z,7µm,14.6s						
GYA				L	L		
	comp=Z,12µm,17.4s						
IPM	Ipoh	25.96	261	P	P	22 18 49.0	+1.5
IPM	Ipoh	25.96	261	P	P	22 18 46.8	-0.8
IPM	Ipoh	25.96	261	P	P	22 18 48.4	+0.8
	comp=Z,307nm,1.2s						
ENH	Enshi	26.39	325	P	P	22 18 52.1	+0.9
ENH	Enshi	26.39	325	P	P	22 18 49.2	-2.0
JHJ	Hachijo jima 2	26.61	25	LR	LR	22 28 34.3	
	comp=Z,11µm,20.0s,baz=196,slow=35						
TJN	Taejon	26.99	1	P	P	22 18 57.5	+1.0
TJN	Taejon	26.99	1*c*	*i*P	P	22 18 56.6	+0.1
TJN				pmax	pmax		
	comp=Z,1.0nm,1.0s						
TJN	Taejon	26.99	1	P	P	22 18 57.0	+0.5
TJN				IAmb	IAmb	22 19 02.8	
	comp=Z,205nm,1.0s						
TJN	Taejon	26.99	1	P	P	22 18 57.6	+1.0
	comp=Z,217nm,1.1s						
BKNI	Bangkinang	27.08	252	P	P	22 18 59.2	+1.6
BKNI	Bangkinang	27.08	252	P	P	22 18 56.3	-1.3
BKNI				IAmb	IAmb	22 19 29.1	
	comp=Z,250nm,1.3s						
BKNI	Bangkinang	27.08	252	P	P	22 18 59.0	+1.3
	comp=Z,200nm,1.7s						
FITZ	Fitzroy Crossi	27.22	182	P	P	22 18 58.3	-0.4
PMG	Port Moresby	27.52	132	P	P	22 19 01.4	-0.1
PMG	Port Moresby	27.52	132	P	P	22 19 01.2	-0.3
PMG	Port Moresby	27.52	132	P	P	22 19 00.0	-1.5
PMG				pmax	pmax		
	comp=Z,238nm,1.3s						
PMG	Port Moresby	27.52	132	P	P	22 19 00.9	-0.6
PMG				IAmb	IAmb	22 19 02.7	
	comp=Z,238nm,1.3s						
PMG	Port Moresby	27.52	132	P	P	22 19 00.6	-0.9
	comp=Z,145nm,1.3s						
INU	Inuyama	27.60	18	P	P	22 19 02.1	+0.1
INU	Inuyama	27.60	18	P	P	22 19 02.1	+0.1
INU				IAMs_20	IAMs_20	22 29 04.6	
	comp=Z,12µm,19.0s						
INU	Inuyama	27.60	18	P	P	22 19 02.3	+0.2
	comp=Z,49nm,1.0s						
KMI2	Kunming	27.75	308	⇑P	P	22 19 03.0	-0.8
KMI2				S	S	22 23 47.4	+1.5
KMI2				pmax	pmax		
	comp=Z,14nm,1.2s						
KMI2				pmax	pmax		
	comp=Z,850nm,9.5s						
KMI2				L	L		
	comp=Z,7µm,16.3s						
KMI2				L	L		
	comp=Z,4µm,15.1s						
KMI2				L	L		
	comp=Z,8µm,22.3s						
JGF	Kuroka	27.94	19	P	P	22 19 07.5	+2.4
JGF	Kuroka	27.94	19	P	P	22 19 05.6	+0.5
KSAR	Wonju Array Be	28.07	2	P	P	22 19 06.7	+0.6
KSAR	Wonju Array Be	28.07	2	P	P	22 19 06.7	+0.6
KSRS	Korea Array	28.08	2	P	P	22 19 06.8	+0.6
	comp=Z,16nm,0.7s,baz=174,slow=10.0,SNR=43						
KSRS				PcP	PcP	22 22 21.7	+1.1
	comp=Z,7.8nm,1.0s,baz=178,slow=2.1,SNR=8.1						
KSRS				ScP	ScP	22 26 01.3	+0.5
	comp=Z,2.5nm,1.0s,baz=186,slow=3.3,SNR=5.0						
KSRS				LR	LR	22 31 22.0	
	comp=Z,8µm,19.3s,baz=195,slow=39						
	comp=Z,16nm,0.7s						
INCN	Inchon	28.09	360	P	P	22 19 03.0	-3.3
INCN				S	S	22 23 49.7	-0.7
INCN	Inchon	28.09	360	IAMs_20	IAMs_20	22 31 38.1	
	comp=Z,9µm,20.0s						
TIA	Tai'an	28.21	343	P	P	22 19 07.8	+0.3
TIA				pP	pP	22 19 10.0	-1.3
TIA				PcP	PcP	22 22 22.3	+1.3
TIA				S	S	22 23 51.9	-0.5
TIA				SS	SnSn	22 25 13.1	+3.8
TIA				ScP	ScP	22 26 02.8	+1.6
TIA				pmax	pmax		
	comp=Z,110nm,1.1s						
TIA				pmax	pmax		
	comp=Z,2µm,7.9s						
TIA				L	L		
	comp=Z,7µm,16.4s						
TIA				L	L		
	comp=Z,4µm,20.5s						
TIA				L	L		
	comp=Z,9µm,21.1s						
LYN	LuoYang	28.36	335	⇑P	P	22 19 09.1	+0.3
LYN				S	S	22 23 54.0	-0.8
LYN				pmax	pmax		
	comp=Z,59nm,0.7s						
LYN				pmax	pmax		
	comp=Z,2µm,8.7s						
LYN				L	L		
	comp=Z,8µm,15.8s						
LYN				L	L		
	comp=Z,7µm,12.0s						
LYN				L	L		
	comp=Z,12µm,15.1s						
PSI	Prapat	28.38	259	P	P	22 19 11.6	+2.2
PSI	Prapat	28.38	259	P	P	22 19 10.1	+0.7
PSI				pmax	pmax		
	comp=Z,706nm,1.8s						
RPSI	Rantau Prapat	28.41	258	P	P	22 19 08.9	-0.6
RPSI	Rantau Prapat	28.41	258	P	P	22 19 10.7	+1.2
	comp=Z,200nm,2.1s						
CM31	Chiang Mai Arr	28.45	292	P	P	22 19 09.6	-0.2
	SNR=7.9						
CM31	Chiang Mai Arr	28.45	292	IAmb	IAmb	22 19 25.6	
	comp=Z,154nm,1.7s						
CMAR	Chiang Mai Arr	28.45	292	P	P	22 19 09.9	+0.1
	comp=Z,12nm,0.8s,baz=100,slow=7.3,SNR=31						
CMAR				PcP	PcP	22 22 23.1	+1.2
	comp=Z,4.3nm,0.9s,baz=122,slow=0.8,SNR=5.4						
CMAR				ScP	ScP	22 26 02.4	0.0
	comp=Z,0.4nm,0.3s,baz=117,slow=2.2,SNR=4.2						
CMAR				LR	LR	22 30 56.8	
	comp=Z,4µm,19.2s,baz=110,slow=38						
	comp=Z,12nm,0.8s						
CMAR	Chiang Mai Arr	28.45	292	*i* P	P	22 19 10.1	+0.2
CMAR				pmax	pmax		
	comp=Z,12nm,0.8s						
CMAR	Chiang Mai Arr	28.45	292	P	P	22 19 09.6	-0.3
CMAR					PcP	22 22 20.8	-1.1
CMAR					ScP	22 26 01.1	-1.2
CHTO	Chiang Mai	28.55	292	P	P	22 19 10.8	+0.1
CHTO	Chiang Mai	28.55	292	P	P	22 19 10.3	-0.4
CHTO				S	S	22 24 01.7	+3.6
CHTO	Chiang Mai	28.55	292	P	P	22 19 10.4	-0.3
CHTO				pmax	pmax		
	comp=Z,45nm,1.3s						
CHTO	Chiang Mai	28.55	292	P	P	22 19 10.4	-0.3
CHTO	Chiang Mai	28.55	292	P	P	22 19 10.5	-0.2
	comp=Z,26nm,1.5s						
KRVT	Keravat (AS076	28.58	117	LR	LR	22 29 54.1	
	comp=Z,5µm,18.8s,baz=282,slow=35						
HJU	Haeju	28.66	358	P	P	22 19 11.4	0.0
HJU				S	S	22 24 00.0	+0.6
HJU				AmB			
	comp=Z,1µm,5.4s						
HJU				AMS	AMS		
	comp=Z,5µm,12.1s						
MAJO	Matsushiro	29.08	19	P	P	22 19 16.3	+1.1
MAJO	Matsushiro	29.08	19*c*	*i*P	P	22 19 13.7	-1.5
MAJO				pmax	pmax		
	comp=Z,32nm,1.2s						
MAJO	Matsushiro	29.08	19	P	P	22 19 15.3	+0.2
MAJO	Matsushiro	29.08	19	IAMs_20	IAMs_20	22 30 18.6	
	comp=Z,10µm,20.0s						
MAJO	Matsushiro	29.08	19	P	P	22 19 14.6	-0.6
	comp=Z,28nm,1.9s						
MJAR	Matsushiro Arr	29.08	19	P	P	22 19 13.5	-1.7
	comp=Z,14nm,1.0s,baz=192,slow=8.5,SNR=28						
MJAR				LR	LR	22 30 31.0	
	comp=Z,11µm,19.1s,baz=201,slow=36						
	comp=Z,14nm,1.0s						
MJAR	Matsushiro Arr	29.08	19	P	P	22 19 15.4	+0.2
MJAR				pmax	pmax		
	comp=Z,21nm,1.1s						
MJAR	Matsushiro Arr	29.08	19	P	P	22 19 15.4	+0.2
XAN	Xi'an	29.60	329	⇑P	P	22 19 18.3	-1.6
XAN				pP	pP	22 19 21.3	-2.4
XAN				S	S	22 24 11.8	-2.5
XAN				pmax	pmax		
	comp=Z,36nm,0.7s						
XAN				pmax	pmax		
	comp=Z,1µm,10.1s						
XAN				L	L		
	comp=Z,6µm,16.5s						
XAN				L	L		
	comp=Z,6µm,17.9s						
XAN				L	L		
	comp=Z,7µm,19.2s						
PYAG	Pyongyang	29.67	358	P	P	22 19 21.6	+1.3
PYAG				S	S	22 24 16.4	+1.3
PYAG				AmB			
	comp=Z,510nm,2.8s						
PYAG				AMS	AMS		
	comp=Z,3µm,12.2s						
WB0	Warramunga Arr	29.82	165	IAmb	IAmb	22 20 16.3	
	comp=Z,114nm,1.1s						
WB9	Warramunga Arr	29.84	165	P	P	22 19 20.1	-2.0
DL2	Dalian	29.86	352	P	P	22 19 23.1	+1.0
DL2				S	S	22 24 18.3	+0.1
DL2				ScP	ScP	22 26 07.3	+0.9
DL2				pmax	pmax		
	comp=Z,54nm,0.8s						
DL2				pmax	pmax		
	comp=Z,2µm,5.6s						
DL2				L	L		
	comp=Z,6µm,17.1s						
DL2				L	L		
	comp=Z,5µm,19.4s						
DL2				L	L		
	comp=Z,9µm,16.2s						
WB8	Warramunga Arr	29.86	165	P	P	22 19 21.2	-1.1
WB7	Warramunga Arr	29.89	165	P	P	22 19 21.4	-1.1
WB6	Warramunga Arr	29.90	165	P	P	22 19 21.3	-1.3
WB5	Warramunga Arr	29.92	166	P	P	22 19 20.8	-2.0
WRAB	Tennant Creek	29.97	166	P	P	22 19 22.8	-0.4
WRAB	Tennant Creek	29.97	166	*e*P	P	22 19 22.6	-0.6
WRAB				pmax	pmax		
	comp=Z,69nm,1.1s						
WRAB	Tennant Creek	29.97	166	P	P	22 19 22.6	-0.6
WRAB				IAmb	IAmb	22 19 36.3	
	comp=Z,102nm,1.1s						
WRAB	Tennant Creek	29.97	166	P	P	22 19 22.7	-0.6
	comp=Z,92nm,1.2s						
WRA	Warramunga Arr	29.98	166	P	P	22 19 21.1	-2.2
	comp=Z,26nm,0.8s,baz=348,slow=9.3,SNR=85						
	comp=Z,26nm,0.8s						
WRA	Warramunga Arr	29.98	166	*i* P	P	22 19 21.1	-2.2
WRA				pmax	pmax		
	comp=Z,19nm,0.5s						
WRA	Warramunga Arr	29.98	166	P	P	22 19 22.0	-1.3
WR2	Warramunga Arr	29.99	166	P	P	22 19 22.2	-1.2
WR8	Warramunga Arr	30.03	165	IAmb	IAmb	22 20 25.1	
	comp=Z,75nm,1.0s						
HNS	HongShan	30.05	341	⇑P	P	22 19 24.3	+0.6
HNS				PP	PnPn	22 20 25.1	+4.3
HNS				S	S	22 24 20.9	-0.2
HNS				pmax	pmax		
	comp=Z,120nm,1.4s						
HNS				pmax	pmax		
	comp=Z,2µm,5.7s						
HNS				L	L		
	comp=Z,6µm,15.9s						
HNS				L	L		
	comp=Z,7µm,15.7s						
HNS				L	L		
	comp=Z,9µm,16.9s						
GSI	Gunungsitoli	30.08	256	P	P	22 19 26.6	+2.3
GSI	Gunungsitoli	30.08	256	P	P	22 19 23.6	-0.7
GSI	Gunungsitoli	30.08	256	P	P	22 19 24.6	+0.3
	comp=Z,217nm,0.8s						
CD2	Chengdu	30.36	318	P	P	22 19 25.4	-1.3
CD2				sP	sP	22 19 32.3	+0.3
CD2				S	S	22 24 28.3	+1.9
CD2				pmax	pmax		
	comp=Z,980nm,9.0s						
CD2				L	L		
	comp=Z,15µm,17.3s						
CD2				L	L		
	comp=Z,14µm,18.4s						
CD2				L	L		
	comp=Z,18µm,17.5s						
HHU	Hamhung	30.54	1	P	P	22 19 28.8	+0.8
HHU				S	S	22 24 30.2	+1.4
HHU				AmB			
	comp=Z,996nm,3.2s						
HHU				AMS	AMS		
	comp=Z,3µm,15.3s						
SUJ	Sinuiju	30.77	357	P	P	22 19 31.7	+1.6
MBWA	Marble Bar	31.01	193	P	P	22 19 31.8	-0.6
	comp=Z,102nm,1.2s						
MBWA	Marble Bar	31.01	193	P	P	22 19 31.6	-0.8
MBWA	Marble Bar	31.01	193	P	P	22 19 31.9	-0.5
MBWA	Marble Bar	31.01	193	P	P	22 19 31.8	-0.6
MBWA				IAmb	IAmb	22 19 42.3	
	comp=Z,111nm,1.1s						
MBWA	Marble Bar	31.01	193	P	P	22 19 33.0	+0.6
	comp=Z,101nm,1.2s						
TNCH	TengChong	31.09	304	⇑P	P	22 19 32.3	-1.0
TNCH				pP	sP	22 19 39.3	+0.5
TNCH				sP	pwP	22 19 41.8	-2.0
TNCH				S	S	22 24 35.8	-2.4
TNCH				sS	sS	22 24 44.8	+1.8
TNCH				pmax	pmax		
	comp=Z,55nm,2.4s						
TNCH				pmax	pmax		
	comp=Z,640nm,3.4s						
TNCH				L	L		
	comp=Z,3µm,11.3s						
TNCH				L	L		
	comp=Z,3µm,12.8s						
TNCH				L	L		
	comp=Z,7µm,18.4s						
TIY	Taiyuan	31.12	338	P	P	22 19 34.8	+1.4
TIY				S	S	22 24 39.5	+1.3
TIY				pmax	pmax		
	comp=Z,1µm,5.3s						
TIY				L	L		
	comp=Z,6µm,12.4s						
TIY				L	L		
	comp=Z,4µm,18.6s						
TIY				L	L		
	comp=Z,3µm,19.2s						
BJI2	Beijing	32.04	345	P	P	22 19 42.3	+1.0
BJI2				S	S	22 24 52.4	+0.1
BJI2				ScP	ScP	22 26 15.1	+1.5
BJI2				pmax	pmax		
	comp=Z,87nm,1.6s						
BJI2				pmax	pmax		
	comp=Z,1µm,3.8s						
BJI2				L	L		
	comp=Z,3µm,17.2s						
BJI2				L	L		
	comp=Z,1µm,14.4s						
BJI2				L	L		
	comp=Z,3µm,15.8s						
BJT	Baijiatuau	32.04	345	P	P	22 19 42.4	+1.1
BJT	Baijiatuau	32.04	345	P	P	22 19 41.6	+0.3
BJT				pmax	pmax		
	comp=Z,349nm,1.5s						
BJT				MLR	MLR		
	comp=Z,5µm,20.0s						
BJT	Baijiatuau	32.04	345	P	P	22 19 41.6	+0.3
QIS	Mount Isa	32.23	157	P	P	22 19 41.6	-1.5
	comp=Z,556nm,1.0s						
QIS	Mount Isa	32.23	157	P	P	22 19 42.8	-0.4
QIS	Mount Isa	32.23	157	P	P	22 19 42.0	-1.1
	comp=Z,556nm,1.0s						
MTSU	Mount Surprise	32.29	147	P	P	22 19 43.9	+0.2
	comp=Z,24nm,0.8s						
MTSU	Mount Surprise	32.29	147	P	P	22 19 44.8	+1.1
MTSU	Mount Surprise	32.29	147	P	P	22 19 44.2	+0.5
	comp=Z,24nm,0.8s						
SNY	Shenyang	32.55	356	P	P	22 19 46.8	+1.1
SNY				S	S	22 24 57.8	-2.3
SNY				pmax	pmax		
	comp=Z,75nm,1.4s						
SNY				pmax	pmax		
	comp=Z,1µm,3.5s						
SNY				L	L		
	comp=Z,4µm,16.9s						
SNY				L	L		
	comp=Z,4µm,21.0s						
SNY				L	L		
	comp=Z,6µm,17.3s						
AS15	Alice Springs	33.45	168	P	P	22 19 53.7	-0.1
	comp=Z,76nm,1.3s						
AS16	Alice Springs	33.45	168	P	P	22 19 53.0	-0.9
	comp=Z,79nm,1.3s						
AS13	Alice Springs	33.46	168	P	P	22 19 53.0	-0.9
	comp=Z,52nm,1.0s						
AS14	Alice Springs	33.46	168	P	P	22 19 53.1	-0.8
	comp=Z,40nm,0.6s						
AS05	Alice Springs	33.47	168	P	P	22 19 53.1	-0.9
	comp=Z,57nm,1.1s						
AS06	Alice Springs	33.47	168	P	P	22 19 52.8	-1.2
	comp=Z,68nm,1.3s						
AS04	Alice Springs	33.47	168	P	P	22 19 52.5	-1.5
	comp=Z,52nm,0.7s						
AS31	Alice Springs	33.47	168	P	P	22 19 52.8	-1.2
	comp=Z,12nm,0.6s						
AS12	Alice Springs	33.48	168	P	P	22 19 52.5	-1.6
	comp=Z,39nm,1.0s						
ASAR	Alice Springs	33.48	168	P	P	22 19 52.0	-2.0
	comp=Z,22nm,0.7s,baz=354,slow=6.4,SNR=103						
ASAR				PcP	PcP	22 22 34.3	-0.8
	comp=Z,4.7nm,0.7s,baz=340,slow=3.2,SNR=4.4						
ASAR				LR	LR	22 38 20.9	
	comp=Z,2µm,18.1s,baz=356,slow=45						
	comp=Z,22nm,0.7s						
ASAR	Alice Springs	33.48	168	P	P	22 19 52.5	-1.6
ASAR						22 22 34.6	
ASAR	Alice Springs	33.48	168	P	P	22 19 52.5	-1.6
ASAR					PcP	22 22 34.6	-0.5
AS01	Alice Springs	33.48	168	P	P	22 19 53.3	-0.8
	comp=Z,49nm,0.8s						
AS01	Alice Springs	33.48	168	P	P	22 19 56.1	+2.0
AS03	Alice Springs	33.49	168	P	P	22 19 53.6	-0.6
	comp=Z,59nm,1.0s						
AS11	Alice Springs	33.49	168	P	P	22 19 53.5	-0.6
	comp=Z,67nm,0.8s						
AS07	Alice Springs	33.49	168	P	P	22 19 53.2	-1.0
	comp=Z,48nm,1.5s						
AS17	Alice Springs	33.49	168	P	P	22 19 52.6	-1.5
	comp=Z,47nm,1.1s						
AUALC	St Philip's Co	33.49	168	P	P	22 19 55.7	+1.5
AS02	Alice Springs	33.49	168	P	P	22 19 52.7	-1.5
	comp=Z,44nm,0.9s						
AS09	Alice Springs	33.52	168	P	P	22 19 54.4	0.0
	comp=Z,51nm,1.1s						
LZDM	Lanzhou Array	33.85	325	P	P	22 19 56.2	-1.3
	comp=Z,1.7nm,0.4s,baz=171,slow=11,SNR=4.1						
LZDM				LR	LR	22 35 28.2	
	comp=Z,6µm,18.6s,baz=115,slow=40						
	comp=Z,1.7nm,0.4s						
LZH	Lanzhou	33.86	326	P	P	22 19 56.4	-1.1
LZH				sP	pwP	22 20 06.6	-3.0
LZH				S	S	22 25 24.3	+3.2
LZH				SS	SnSn	22 27 32.9	+5.9
LZH				pmax	pmax		
	comp=Z,17nm,1.7s						
LZH				pmax	pmax		
	comp=Z,1µm,5.2s						
LZH				L	L		
	comp=Z,10µm,15.9s						
LZH				L	L		
	comp=Z,7µm,16.5s						
LZH				L	L		
	comp=Z,11µm,15.6s						
JTM	Tenmabayashi	33.87	20	P	P	22 20 00.8	+3.6
JTM	Tenmabayashi	33.87	20	P	P	22 19 59.4	+2.2
	comp=Z,41nm,0.9s						
GIRL	Giralia	34.00	201	P	P	22 20 00.1	+1.5
	comp=Z,157nm,1.3s						
VLA	Vladivostok	34.02	7	*e*P	P	22 19 58.8	+0.3
VLA				pmax	pmax		
	comp=Z,103nm,1.6s						
WRKA	Warakurna	34.13	177	P	P	22 19 59.3	-0.5
	comp=Z,42nm,1.2s						
HHC	Hu-ho-hao-te	34.21	339	⇑*i*P	P	22 20 01.0	+0.6
HHC				sP	pwP	22 20 13.3	+0.9
HHC				PP	PP	22 21 20.6	+2.6
HHC				S	S	22 25 28.9	+2.6
HHC				pmax	pmax		
	comp=Z,91nm,1.9s						
HHC				pmax	pmax		
	comp=Z,980nm,4.0s						
HHC				L	L		
	comp=Z,3µm,11.2s						
HHC				L	L		
	comp=Z,3µm,12.9s						
HHC				L	L		
	comp=Z,4µm,13.5s						
MORE	Moreh	34.33	300	IAMs_20	IAMs_20	22 35 07.2	
	comp=Z,8µm,19.0s						
CN2	Changchun	34.42	358	*e*P	P	22 20 02.3	+0.3
CN2				PP	PP	22 21 15.9	-4.2
CN2				*e*S	S	22 25 23.8	-5.4
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
CN2				pmax	pmax		
	comp=Z,400nm,8.0s						
CN2				L	L		
	comp=Z,2µm,14.0s						
CN2				L	L		
	comp=Z,1µm,14.0s						
CN2				L	L		
	comp=Z,2µm,17.6s						
TV1H	Townsville Har	34.56	145	P	P	22 20 05.5	+2.0
BTO2	Baotou	34.73	337	*e*P	P	22 20 06.1	+1.2
BTO2				PP	PP	22 21 24.4	+0.6
BTO2				S	S	22 25 32.9	-1.5
BTO2				SS	SnSn	22 27 49.8	+1.8
BTO2				pmax	pmax		
	comp=Z,110nm,1.9s						
BTO2				pmax	pmax		
	comp=Z,4µm,6.8s						
BTO2				L	L		
	comp=Z,9µm,15.4s						
BTO2				L	L		
	comp=Z,8µm,14.0s						
BTO2				L	L		
	comp=Z,6µm,18.4s						
IMP	Imphal	34.84	301	*e*P	P	22 20 00.5	-5.5
IMP				IAmb	IAmb	22 20 04.5	
	comp=Z,31nm,0.2s						
MOKO	MOKOCHONG	34.91	303	*e*P	P	22 20 01.3	-5.4
MOKO				IAmb	IAmb	22 20 12.3	
	comp=Z,20nm,0.7s						
SAIH	SAIHA	34.92	296	*e*P	P	22 20 01.4	-5.5
SAIH				IAmb	IAmb	22 20 09.9	
	comp=Z,124nm,1.3s						

CTA	**Charters Tower**	**34.93**	**147**	P	**P**	**22 20 06.2**	**-0.5**
	comp=Z,24nm,2.4s						
CTA	**Charters Tower**	**34.93**	**147**	P	**P**	**22 20 07.6**	**+0.9**
CTA	**Charters Tower**	**34.93**	**147**	P	**P**	**22 20 07.8**	**+1.1**
CTAO	**Charters Tower**	**34.93**	**147**	P	**P**	**22 20 07.7**	**+1.1**
CTAO	**Charters Tower**	**34.93**	**147**	P	**P**	**22 20 06.1**	**-0.6**
CTAO				pmax	pmax		
	comp=Z,158nm,1.8s						
CTAO				MLR	MLR		
	comp=Z,5µm,18.0s						
CTAO	**Charters Tower**	**34.93**	**147**	P	**P**	**22 20 06.1**	**-0.6**
CTAO				IAmb	IAmb	22 20 10.7	
	comp=Z,158nm,1.8s						
CTAO	**Charters Tower**	**34.93**	**147**	IAMs_20	IAMs_20	22 36 38.8	
	comp=Z,5µm,18.0s						
CTAO	**Charters Tower**	**34.93**	**147**	P	**P**	**22 20 07.1**	**+0.4**
	comp=Z,59nm,2.0s						
KOHI	**KOHIMA**	**35.02**	**302**	*e*P	P	22 20 02.6	-5.0
KOHI				IAmb	IAmb	22 20 09.5	
	comp=Z,30nm,0.5s						
USA0B	**Ussuriysk Arra**	**35.10**	**7***c*	*i*P	**P**	**22 20 08.5**	**+0.7**
USA0B	**Ussuriysk Arra**	**35.10**	**7**	IAmb	IAmb	22 20 30.3	
	comp=Z,56nm,0.9s						
USRK	**Ussuriysk Ar.**	**35.10**	**7**	P	**P**	**22 20 08.0**	**+0.2**
	comp=Z,32nm,0.8s,baz=187,slow=7.4,SNR=41						
	comp=Z,32nm,0.8s						
USRK	**Ussuriysk Ar.**	**35.10**	**7**	P	**P**	**22 20 08.4**	**+0.6**
USRK	**Ussuriysk Ar.**	**35.10**	**7**	P	**P**	**22 20 08.4**	**+0.6**
JORH	**JORHAT**	**35.30**	**304**	*e*P	P	22 20 04.6	-5.2
JORH				IAmb	IAmb	22 20 10.6	
MDJ	**Mudanjiang**	**35.30**	**4**	P	**P**	**22 20 10.6**	**+1.0**
MDJ				S	**S**	**22 25 46.0**	**+3.3**
MDJ				SS	**SnSn**	**22 28 06.1**	**+4.7**
MDJ				pmax	pmax		
	comp=Z,84nm,1.5s						
MDJ				L	L		
	comp=Z,3µm,17.9s						
MDJ				L	L		
	comp=Z,5µm,13.7s						
MDJ				L	L		
	comp=Z,4µm,15.5s						
MDJ	**Mudanjiang**	**35.30**	**4**	P	**P**	**22 20 11.2**	**+1.6**
AZL	**Aizawl**	**35.56**	**298**	*e*P	P	22 20 07.0	-5.3
AZL				IAmb	IAmb	22 20 14.5	
	comp=Z,26nm,0.5s						
ERM	**Erimo**	**35.68**	**21**	*e*P	**P**	**22 20 14.0**	**+1.2**
ERM				pmax	pmax		
	comp=Z,49nm,1.2s						
ERM	**Erimo**	**35.68**	**21**	IAMs_20	IAMs_20	22 35 06.1	
	comp=Z,8µm,20.0s						
XLT	**XiLinHaoTe**	**35.73**	**347**	*e*P	**P**	**22 20 14.4**	**+1.0**
XLT				PP	**PP**	**22 21 39.8**	**+5.1**
XLT				PcP	**PcP**	**22 22 40.1**	**-1.2**
XLT				S	**S**	**22 25 48.4**	**-1.1**
XLT				ScP	**ScP**	**22 26 22.1**	**-4.6**
XLT				ScS	**ScS**	**22 30 24.3**	**-7.3**
XLT				pmax	pmax		
	comp=Z,140nm,1.5s						
XLT				pmax	pmax		
	comp=Z,2µm,5.6s						
XLT				L	L		
	comp=Z,510nm,18.3s						
XLT				L	L		
	comp=Z,4µm,14.0s						
XLT				L	L		
	comp=Z,7µm,16.6s						
ZIRO	**ZIRO**	**35.94**	**305**	*e*P	P	22 20 10.6	-5.0
ZIRO				IAmb	IAmb	22 20 15.4	
	comp=Z,21nm,0.8s						
BRDH	**Bariadhala**	**36.17**	**296**	LR	LR	22 37 31.4	
	comp=Z,5µm,19.6s,baz=138,slow=40						
BNX	**BinXian**	**36.34**	**1**	⇑P	**P**	**22 20 18.4**	**-0.1**
BNX				sP	**pwP**	**22 20 33.1**	**+2.8**
BNX				PP	**PP**	**22 21 41.5**	**+0.1**
BNX				S	**S**	**22 26 00.0**	**+1.3**
BNX				sS	ScP	22 26 16.9	-12
BNX				pmax	pmax		
	comp=Z,39nm,0.9s						
BNX				pmax	pmax		
	comp=Z,990nm,5.5s						
BNX				L	L		
	comp=Z,7µm,19.1s						
BNX				L	L		
	comp=Z,3µm,18.6s						
BNX				L	L		
	comp=Z,10µm,19.2s						
TEZP	**TEZPUR**	**36.45**	**303**	*e*P	P	22 20 12.5	-7.2
TEZP				IAmb	IAmb	22 20 20.1	
	comp=Z,107nm,1.9s						
MEEK	**Meekatharra**	**36.56**	**192**	P	**P**	**22 20 20.1**	**-0.5**
	comp=Z,211nm,1.2s						
MEEK	**Meekatharra**	**36.56**	**192**	P	**P**	**22 20 20.5**	**-0.1**
MEEK	**Meekatharra**	**36.56**	**192**	P	**P**	**22 20 20.7**	**+0.1**
	comp=Z,211nm,1.2s						
TEY	**Ternei**	**36.64**	**12**⇑	*e*P	P	22 20 11.2	-10
TEY				pmax	pmax		
	comp=N,10.0nm,1.6s						
TEY				pmax	pmax		
	comp=Z,52nm,1.1s						
SHL	**Shillong**	**36.84**	**301**	P	**P**	**22 20 22.5**	**-0.8**
	SNR=20						
SHL	**Shillong**	**36.84**	**301**	P	**P**	**22 20 21.8**	**-1.5**
SHL				pmax	pmax		
	comp=Z,104nm,0.9s						
SHL	**Shillong**	**36.84**	**301**	IAmb	IAmb	22 20 35.8	
	comp=Z,98nm,1.0s						
SHL	**Shillong**	**36.84**	**301**	*e*P	P	22 20 18.0	-5.3
SHL				IAmb	IAmb	22 20 23.4	
	comp=Z,76nm,1.2s						
AGT	**Agartala**	**36.86**	**298**	*e*P	P	22 20 18.3	-5.0
AGT				IAmb	IAmb	22 20 24.0	
	comp=Z,69nm,0.5s						
TATA	**Tatamba Isabel**	**37.31**	**117**	P	**P**	**22 20 28.9**	**+1.7**
ASAJ	**Asahikawa**	**37.35**	**19**	LR	LR	22 35 14.1	
	comp=Z,9µm,19.8s,baz=208,slow=35						
JKA	**Kamikawa-asahi**	**37.35**	**19**	IAmb	IAmb	22 20 31.6	
	comp=Z,76nm,1.0s						
TAWA	**Tawang**	**37.58**	**304**	*e*P	**P**	**22 20 25.2**	**-4.6**
TAWA				IAmb	IAmb	22 20 42.6	
HNR	**Honiara**	**37.92**	**118**	LR	LR	22 35 07.6	
	comp=Z,4µm,19.2s,baz=18,slow=35						
YUK	**Yuzh-Kuril'sk**	**38.41**	**22**	*e*P	P	22 20 31.0	-5.1
YUK				*i*		22 22 45.0	
YUK				*i*		22 26 28.3	
YUK				pmax	pmax		
	comp=Z,342nm,1.0s						
YUK				pmax	pmax		
	comp=N,99nm,0.9s						
YUK				pmax	pmax		
	comp=E,141nm,0.3s						
YUK				pmax	pmax		
	comp=Z,379nm,1.8s						
YUK				MLR	MLR		
	comp=N,5µm,17.0s						
YUK				MLR	MLR		
	comp=Z,3µm,17.0s						
GTA2	**Gaotai**	**38.55**	**326**	*e*P	**P**	**22 20 36.3**	**-1.2**
GTA2				S	**S**	**22 26 34.8**	**+2.1**
GTA2				pmax	pmax		
	comp=Z,27nm,0.6s						
GTA2				pmax	pmax		
	comp=Z,1µm,8.9s						
GTA2				L	L		
	comp=Z,6µm,18.7s						
GTA2				L	L		
	comp=Z,6µm,19.0s						
GTA2				L	L		
	comp=Z,10µm,18.1s						
DHUB	**DHUBRI**	**38.60**	**300**	*e*P	P	22 20 33.0	-5.0
DHUB				IAmb	IAmb	22 20 37.8	
	comp=Z,61nm,0.2s						
LSA	**Lhasa**	**38.99**	**306**	P	**P**	**22 20 41.4**	**-0.3**
INKA	**Innaminka**	**39.21**	**160**	P	**P**	**22 20 42.8**	**-0.1**
QLP	**Quilpie**	**39.48**	**155**	P	**P**	**22 20 45.3**	**0.0**
	comp=Z,401nm,1.3s						
QLP	**Quilpie**	**39.48**	**155**	P	**P**	**22 20 46.6**	**+1.4**
QLP	**Quilpie**	**39.48**	**155**	P	**P**	**22 20 44.5**	**-0.7**
	comp=Z,401nm,1.3s						
GOMU	**GeErMu**	**39.49**	**318**	P	**P**	**22 20 44.5**	**-1.2**
GOMU				pP	pP	22 20 47.8	-1.8
GOMU				sP	sP	22 20 52.1	+1.0
GOMU				S	**S**	**22 26 44.3**	**-3.1**
GOMU				pmax	pmax		
	comp=Z,5.0nm,0.7s						
GOMU				L	L		
	comp=Z,3µm,15.6s						
GOMU				L	L		
	comp=Z,7µm,15.0s						
GOMU				L	L		
	comp=Z,13µm,15.1s						
MORW	**Morawa**	**39.49**	**195**	P	**P**	**22 20 45.0**	**-0.3**
	comp=Z,159nm,1.4s						
MORW	**Morawa**	**39.49**	**195**	P	**P**	**22 20 45.9**	**+0.6**
MORW	**Morawa**	**39.49**	**195**	P	**P**	**22 20 45.3**	**0.0**
MORW				IAmb	IAmb	22 20 46.8	
	comp=Z,102nm,1.0s						
MORW	**Morawa**	**39.49**	**195**	P	**P**	**22 20 45.2**	**-0.1**
	comp=Z,159nm,1.4s						
FORT	**Forrest**	**39.84**	**178**	P	**P**	**22 20 47.5**	**-0.6**
	comp=Z,108nm,1.1s						
FORT	**Forrest**	**39.84**	**178**	P	**P**	**22 20 48.4**	**+0.2**
FORT				IAmb	IAmb	22 20 51.2	
	comp=Z,100nm,1.1s						
AUNRC	**North Rockhamp**	**39.91**	**145**	P	**P**	**22 20 50.5**	**+1.7**
YSS	**Yuzhno-Sakhali**	**39.95**	**17**	*e*P	**P**	**22 20 51.1**	**+2.2**
YSS				*e*		22 22 21.3	
YSS				*e*PPP	PPP	22 22 49.6	
YSS				*e*S	**S**	**22 26 56.0**	**+2.7**
YSS				*e*SS	**SS**	**22 29 47.8**	**-2.6**
YSS				*e*SSS	SSS	22 30 50.9	
YSS				pmax	pmax		
	comp=Z,60nm,1.2s						
YSS				pmax	pmax		
	comp=Z,600nm,5.8s						
YSS				pmax	pmax		
	comp=N,500nm,5.0s						
YSS				pmax	pmax		
	comp=Z,1µm,5.0s						
YSS				pmax	pmax		
	comp=E,400nm,4.0s						
YSS				smax	smax		
	comp=E,1µm,4.2s						
YSS				MLR	MLR		
	comp=N,2µm,16.0s						
YSS	**Yuzhno-Sakhali**	**39.95**	**17**	P	**P**	**22 20 50.1**	**+1.2**
YSS				IAMs_20	IAMs_20	22 36 23.4	
	comp=Z,5µm,20.0s						
KLR	**Kul'dur**	**40.05**	**5**	LR	LR	22 37 26.1	
	comp=Z,4µm,19.0s,baz=189,slow=36						
KLR	**Kul'dur**	**40.05**	**5***c*	*i*P	**P**	**22 20 50.0**	**+0.3**
KLR				pmax	pmax		
	comp=Z,39nm,0.9s						
H11N1	**WAKE ISLAND Hy**	**40.14**	**70**	T	T	23 04 31.0	
	baz=265,slow=74,SNR=66						
H11N2	**WAKE ISLAND Hy**	**40.15**	**70**	T	T	23 04 31.8	
	baz=265,slow=74,SNR=60						
H11N3	**WAKE ISLAND Hy**	**40.16**	**70**	T	T	23 04 32.6	
	baz=265,slow=74,SNR=75						
KUR	**Kuril'sk**	**40.19**	**23**	*e*P	**P**	**22 20 52.1**	**+1.2**
KUR				*e*PPP	PPP	22 22 46.7	
KUR				*e*S	**S**	**22 26 59.7**	**+2.8**
KUR				pmax	pmax		
	comp=Z,317nm,1.1s						
HIA	**Hailar**	**40.30**	**353**	P	**P**	**22 20 53.3**	**+1.5**
HIA	**Hailar**	**40.30**	**353**	IAmb	IAmb	22 21 26.6	
	comp=Z,207nm,2.0s						
HIA	**Hailar**	**40.30**	**353**	IAMs_20	IAMs_20	22 40 01.9	
	comp=Z,5µm,18.0s						
HILR	**Hailar Array B**	**40.58**	**353**	P	**P**	**22 20 54.5**	**+0.3**
	comp=Z,10nm,0.7s,baz=164,slow=12,SNR=11						
HILR				PcP	**PcP**	**22 22 56.4**	**+0.2**
	comp=Z,10nm,0.7s,baz=153,slow=5.0,SNR=4.6						
HILR				LR	LR	22 39 44.2	
	comp=Z,2µm,18.9s,baz=75,slow=39						
	comp=Z,10nm,0.7s						
KMBL	**Kambalda**	**40.67**	**186**	P	**P**	**22 20 54.7**	**-0.4**
	comp=Z,91nm,0.9s						
BLDU	**Ballidu**	**40.81**	**193**	P	**P**	**22 20 56.3**	**+0.1**
	comp=Z,131nm,1.2s						
BLDU	**Ballidu**	**40.81**	**193**	P	**P**	**22 20 56.8**	**+0.6**
BLDU	**Ballidu**	**40.81**	**193**	P	**P**	**22 20 56.6**	**+0.4**
	comp=Z,130nm,1.2s						
HEH	**HeiHe**	**40.86**	**1**	*e*P	**P**	**22 20 57.0**	**+0.6**
HEH				PcP	**PcP**	**22 22 57.1**	**+0.1**
HEH				S	**S**	**22 27 05.1**	**-1.6**
HEH				pmax	pmax		
	comp=Z,42nm,1.5s						
HEH				pmax	pmax		
	comp=Z,2µm,6.9s						
HEH				L	L		
	comp=Z,6µm,17.8s						
HEH				L	L		
	comp=Z,4µm,17.1s						
HEH				L	L		
	comp=Z,10µm,19.1s						
BWNR	**Bhubaneshwar**	**40.94**	**290**	*e*P	**P**	**22 20 52.8**	**-4.7**
KLBR	**Kellerberrin**	**41.53**	**192**	P	**P**	**22 21 05.2**	**+3.1**
	comp=Z,234nm,0.8s						
KLBR	**Kellerberrin**	**41.53**	**192**	P	**P**	**22 21 03.5**	**+1.4**
KLBR	**Kellerberrin**	**41.53**	**192**	P	**P**	**22 21 03.2**	**+1.1**
	comp=Z,234nm,0.8s						
BOK	**Bokaro**	**41.57**	**295**	*e*P	P	22 20 57.1	-5.6
UGL	**Uglegorsk**	**41.71**	**15**	*e*P	**P**	**22 21 05.7**	**+2.4**
UGL				*e*S	**S**	**22 27 19.8**	**+0.5**
UGL				pmax	pmax		
	comp=Z,2µm,6.2s						
UGL				smax	smax		
	comp=E,5µm,10.0s						
UGL				smax	smax		
	comp=N,2µm,6.0s						
UGL				MLR	MLR		
	comp=E,3µm,14.0s						
UGL				MLR	MLR		
	comp=N,4µm,16.0s						
UGL				MLR	MLR		
	comp=Z,6µm,16.0s						
EIDS	**Eidsvold**	**41.80**	**146**	P	**P**	**22 21 04.4**	**-0.1**
	comp=Z,72nm,1.1s						
EIDS	**Eidsvold**	**41.80**	**146**	P	**P**	**22 21 04.2**	**-0.3**
EIDS	**Eidsvold**	**41.80**	**146**	P	**P**	**22 21 03.5**	**-0.9**
EIDS	**Eidsvold**	**41.80**	**146**	P	**P**	**22 21 03.6**	**-0.9**
	comp=Z,72nm,1.1s						
EVN	**Everest**	**41.90**	**302**	P	**P**	**22 21 05.7**	**-0.4**
ULN	**Ulaanbaatar**	**41.91**	**340**	P	**P**	**22 21 04.3**	**-1.0**
ULN				S	**S**	**22 27 23.0**	**+0.2**
ULN	**Ulaanbaatar**	**41.91**	**340***c*	*i*P	**P**	**22 21 05.7**	**+0.4**
ULN				pmax	pmax		
	comp=Z,202nm,3.5s						
ULN	**Ulaanbaatar**	**41.91**	**340**	P	**P**	**22 21 05.4**	**+0.1**
ULN				ScP	**ScP**	**22 26 50.4**	**0.0**
SONM	**Songino Array**	**42.11**	**340**	P	**P**	**22 21 07.3**	**+0.4**
	comp=Z,16nm,0.8s,baz=159,slow=10.0,SNR=37						
SONM				ScP	**ScP**	**22 26 52.4**	**+1.2**
	comp=Z,2.5nm,0.9s,baz=151,slow=3.6,SNR=7.4						
SONM				LR	LR	22 41 07.0	
	comp=Z,3µm,18.5s,baz=158,slow=40						
	comp=Z,16nm,0.8s						
SONM	**Songino Array**	**42.11**	**340**	P	**P**	**22 21 07.3**	**+0.4**
SONM					**ScP**	**22 26 51.2**	**+0.1**
GRNR	**Gornyy**	**42.14**	**9**⇑	*i*P	**P**	**22 21 08.6**	**+1.7**
GRNR				pmax	pmax		
	comp=Z,10.0nm,0.8s						
GRNR				MLR	MLR		
	comp=E,1µm,14.0s						
GRNR				MLR	MLR		
	comp=N,3µm,16.0s						
MUN	**Mundaring**	**42.23**	**193**	P	**P**	**22 21 09.3**	**+1.4**
	comp=Z,174nm,0.9s						
MUN	**Mundaring**	**42.23**	**193**	P	**P**	**22 21 08.3**	**+0.4**
MUN	**Mundaring**	**42.23**	**193**	P	**P**	**22 21 09.2**	**+1.4**
BBOO	**Buckleboo**	**42.78**	**168**	P	**P**	**22 21 12.3**	**0.0**
	comp=Z,218nm,1.4s						
BBOO	**Buckleboo**	**42.78**	**168**	P	**P**	**22 21 12.5**	**+0.2**
BBOO	**Buckleboo**	**42.78**	**168**	P	**P**	**22 21 12.1**	**-0.2**
NWAO	**Narrogin (SRO)**	**42.93**	**192**	P	**P**	**22 21 14.1**	**+0.6**
	comp=Z,181nm,0.8s						
NWAO	**Narrogin (SRO)**	**42.93**	**192**	P	**P**	**22 21 15.2**	**+1.7**
NWAO	**Narrogin (SRO)**	**42.93**	**192**	P	**P**	**22 21 14.3**	**+0.8**
NWAO	**Narrogin (SRO)**	**42.93**	**192**	P	**P**	**22 21 13.6**	**+0.1**
NWAO				pmax	pmax		
	comp=Z,128nm,0.9s						
NWAO	**Narrogin (SRO)**	**42.93**	**192**	P	**P**	**22 21 13.6**	**+0.1**
NWAO				IAmb	IAmb	22 21 28.0	
	comp=Z,128nm,0.9s						
STKA	**Stephens Creek**	**43.31**	**161**	P	**P**	**22 21 16.5**	**-0.1**
	comp=Z,293nm,1.3s						
STKA	**Stephens Creek**	**43.31**	**161**	P	**P**	**22 21 16.4**	**-0.3**
	comp=Z,39nm,0.9s,baz=335,slow=8.2,SNR=23						
STKA				LR	LR	22 43 40.1	
	comp=Z,2µm,18.9s,baz=332,slow=42						
	comp=Z,39nm,0.9s						
STKA	**Stephens Creek**	**43.31**	**161**	P	**P**	**22 21 16.5**	**-0.1**
STKA	**Stephens Creek**	**43.31**	**161**	*e*P	**P**	**22 21 16.9**	**+0.3**
TYV	**Tymovskoe**	**43.50**	**15**	*e*P	**P**	**22 21 20.0**	**+2.1**
TYV				*e*S	**S**	**22 27 49.5**	**+3.8**
TYV				pmax	pmax		
	comp=Z,19nm,1.1s						
TYV				pmax	pmax		
	comp=Z,800nm,4.2s						
TYV				smax	smax		
	comp=N,1µm,4.2s						
TYV				smax	smax		
	comp=E,3µm,4.2s						
AULRC	**Lightning Ridg**	**43.58**	**153**	P	**P**	**22 21 19.4**	**+0.6**
CIT	**Chita**	**43.97**	**348**	*e*P	**P**	**22 21 23.2**	**+1.4**
CIT				*e*		22 21 30.6	
CIT				*e*		22 23 08.8	
CIT				*e*		22 27 53.8	
CIT				pmax	pmax		
	comp=Z,702nm,2.5s						
TW1H	**Toowoomba 1 Ha**	**44.01**	**147**	P	**P**	**22 21 23.2**	**+0.8**
AUBSH	**Beerwah State**	**44.01**	**145**	P	**P**	**22 21 23.7**	**+1.4**
AUTOO	**Toowoomba Stat**	**44.01**	**147**	P	**P**	**22 21 23.5**	**+1.1**
HTT	**Hallett**	**44.02**	**165**	P	**P**	**22 21 23.5**	**+1.1**
	comp=Z,36nm,1.9s						
HTT	**Hallett**	**44.02**	**165**	P	**P**	**22 21 25.0**	**+2.6**
HTT	**Hallett**	**44.02**	**165**	P	**P**	**22 21 23.5**	**+1.1**
AUCAS	**Cummins Area S**	**44.12**	**169**	P	**P**	**22 21 24.7**	**+1.6**
CMSA	**Cobar Meteorol**	**44.45**	**157**	P	**P**	**22 21 25.8**	**0.0**
	comp=Z,151nm,1.3s						
CMSA	**Cobar Meteorol**	**44.45**	**157**	P	**P**	**22 21 26.4**	**+0.6**
RKGY	**Rocky Gully**	**44.61**	**191**	P	P	22 21 38.0	+11
	comp=Z,76nm,0.8s						
NKL	**Nikolayevsk**	**45.19**	**12**	*e*P	**P**	**22 21 32.9**	**+1.5**
NKL				*e*S	**S**	**22 28 08.5**	**-1.6**
NKL				pmax	pmax		
	comp=E,97nm,1.1s						
NKL				pmax	pmax		
	comp=N,69nm,1.2s						
NKL				pmax	pmax		
	comp=Z,301nm,1.2s						
NKL				smax	smax		
	comp=E,707nm,3.6s						
NKL				smax	smax		
	comp=N,605nm,3.2s						
NKL				MLR	MLR		
	comp=E,7µm,14.0s						
NKL				MLR	MLR		
	comp=N,15µm,21.0s						
NKL				MLR	MLR		
	comp=Z,24µm,21.0s						
ZAK	**Zakamensk**	**45.36**	**339**	*e*P	**P**	**22 21 32.4**	**-0.6**
ZAK				pmax	pmax		
	comp=Z,22nm,2.2s						
ALBI	**Allahabad**	**45.53**	**296**	*e*P	P	22 21 29.4	-5.2
PALK	**Pallekele**	**45.58**	**271**	P	**P**	**22 21 34.9**	**-0.3**
PALK				S	**S**	**22 28 22.5**	**+5.4**
PALK	**Pallekele**	**45.58**	**271**	P	**P**	**22 21 34.9**	**-0.3**
MDRS	**Chennai**	**45.72**	**279**	*e*P	**P**	**22 21 31.5**	**-4.7**
AUMBR	**Murray Bridge**	**45.73**	**166**	P	**P**	**22 21 37.1**	**+1.2**
ARMA	**Armidale**	**46.14**	**150**	P	**P**	**22 21 40.8**	**+1.4**
	comp=Z,124nm,1.3s						
ARMA	**Armidale**	**46.14**	**150**	P	**P**	**22 21 41.7**	**+2.3**
ARMA	**Armidale**	**46.14**	**150**	P	**P**	**22 21 39.7**	**+0.3**
BRCI	**Bahraich**	**46.23**	**299**	*e*P	P	22 21 34.3	-5.7
AUDCS	**Dubbo College**	**46.26**	**154**	P	**P**	**22 21 42.2**	**+2.0**
TLY	**Talaya**	**46.33**	**340**	P	**P**	**22 21 40.0**	**-0.5**
TLY				S	**S**	**22 28 28.5**	**+1.8**
TLY	**Talaya**	**46.33**	**340***c*	*i*P	**P**	**22 21 40.7**	**+0.2**
TLY				pmax	pmax		
	comp=Z,64nm,1.6s						
TLY	**Talaya**	**46.33**	**340**	P	**P**	**22 21 41.1**	**+0.6**
AUPHS	**Peel High Scho**	**46.34**	**151**	P	**P**	**22 21 42.3**	**+1.5**
IRK	**Irkutsk**	**46.60**	**341**	*e*P	**P**	**22 21 42.0**	**-0.6**
IRK				*e*S	**S**	**22 28 30.5**	**-0.1**
IRK				pmax	pmax		
	comp=Z,243nm,3.7s						
TARA	**Tarawa**	**46.60**	**97**	IAMs_20	IAMs_20	22 40 00.0	
	comp=Z,5µm,18.0s						
LKN	**LUCKNOW**	**46.66**	**298**	*e*P	P	22 21 37.8	-5.6
MOY	**Mondy**	**47.24**	**338**	*e*P	**P**	**22 21 48.7**	**+1.0**
MOY				pmax	pmax		
	comp=Z,336nm,4.0s						
NGP	**Nagpur**	**47.34**	**290**	*e*P	P	22 21 43.4	-5.5
HYB	**Hyderabad**	**47.48**	**285**	*e*P	P	22 21 43.2	-6.8
HYB	**Hyderabad**	**47.48**	**285**	*e*P	**P**	**22 21 49.4**	**-0.6**
HYB				*e*PcP	**PcP**	**22 23 19.9**	**-0.4**
HYB				*e*PP	**PP**	**22 23 40.6**	**-0.9**
HYB				*e*S	**S**	**22 28 44.8**	**+0.7**
HYB				*e*ScS	**ScS**	**22 31 42.8**	**-0.9**
KNGR	**Kungurtug, Tuv**	**47.76**	**335***c*	*i*P	**P**	**22 21 52.9**	**+1.1**
KNGR				pmax	pmax		
	comp=Z,20nm,1.1s						
SKR	**Severo-Kuril's**	**47.88**	**25**	*e*P	**P**	**22 21 51.7**	**-0.8**
SKR				*e*		22 23 40.5	
SKR				*e*S	**S**	**22 28 49.6**	**+0.8**
SKR				*e*SS	**ScS**	**22 31 39.5**	**-5.5**
SKR				pmax	pmax		
	comp=Z,400nm,4.1s						
ARPS	**Mount Arapiles**	**47.94**	**164**	P	**P**	**22 21 54.5**	**+1.3**
	comp=Z,53nm,1.6s						
WMQ	**Urumqi**	**48.29**	**322**	*e*P	**P**	**22 21 56.4**	**+0.4**
WMQ				PP	**PP**	**22 23 51.0**	**+2.5**
WMQ				ScP	**ScP**	**22 27 18.0**	**+1.3**
WMQ				S	**S**	**22 28 56.1**	**+1.0**
WMQ				ScS	**ScS**	**22 31 47.3**	**-1.0**
WMQ				pmax	pmax		
	comp=Z,32nm,1.9s						
WMQ				pmax	pmax		
	comp=Z,920nm,6.3s						
WMQ				L	L		
	comp=Z,9µm,21.1s						
WMQ				L	L		
	comp=Z,3µm,14.1s						
WMQ				L	L		
	comp=Z,3µm,22.5s						
SYDH	**Sydney Hard Ro**	**48.49**	**153**	P	**P**	**22 21 59.9**	**+2.4**
KOD	**Kodaikanal**	**48.53**	**275**	*e*P	P	22 21 52.5	-6.0
AUMTS	**Mt Stromlo**	**49.08**	**156**	P	**P**	**22 22 04.1**	**+2.0**
CAN	**Canberra**	**49.08**	**156**	P	**P**	**22 22 04.5**	**+2.5**
	comp=Z,90nm,2.0s						
CAN	**Canberra**	**49.08**	**156**	P	**P**	**22 22 03.7**	**+1.6**
CAN	**Canberra**	**49.08**	**156**	P	**P**	**22 22 02.9**	**+0.8**
CAN				pmax	pmax		
	comp=Z,133nm,1.3s						
CAN				MLR	MLR		
	comp=Z,4µm,19.0s						
CAN	**Canberra**	**49.08**	**156**	P	**P**	**22 22 02.9**	**+0.8**
CAN				IAMs_20	IAMs_20	22 44 38.4	
	comp=Z,4µm,19.0s						
WOLH	**Wollongong Har**	**49.10**	**153**	P	**P**	**22 22 04.5**	**+2.4**
BHPL	**Bhopal**	**49.11**	**293**	*e*P	P	22 21 56.9	-5.6
AUMHS	**Melrose High S**	**49.16**	**156**	P	**P**	**22 22 03.9**	**+1.3**
AKL	**Akola**	**49.18**	**289**	*e*P	P	22 21 57.9	-5.3
CNB	**Canberra Magne**	**49.23**	**155**	P	**P**	**22 22 04.1**	**+0.9**
	comp=Z,2.4nm,1.2s						
BRAT	**Ballarat**	**49.28**	**162**	P	**P**	**22 22 05.4**	**+2.0**
AUMTC	**Mt Clear Colle**	**49.32**	**162**	P	**P**	**22 22 06.3**	**+2.6**
AUUHS	**Ulladulla High**	**49.73**	**154**	P	**P**	**22 22 08.9**	**+2.0**
TOO	**Toolangi**	**49.80**	**160**	P	**P**	**22 22 09.9**	**+2.4**
	comp=Z,32nm,1.8s						
TOO	**Toolangi**	**49.80**	**160**	P	**P**	**22 22 08.5**	**+1.1**
TOO				pmax	pmax		
	comp=Z,56nm,1.5s						
TOO	**Toolangi**	**49.80**	**160**	P	**P**	**22 22 08.5**	**+1.1**
DZM	**Mont Dzumac**	**49.86**	**129**	LR	LR	22 43 46.3	
	comp=Z,1µm,19.4s,baz=272,slow=37						
AUSMG	**Snowy Mountain**	**49.89**	**157**	P	**P**	**22 22 09.6**	**+1.4**
KLP	**Kalpa**	**50.07**	**303**	*e*P	**P**	**22 22 05.3**	**-4.8**
YATNC	**Mamie plateau,**	**50.20**	**129**	P	**P**	**22 22 11.7**	**+1.0**
LDR	**Lodi Road**	**50.23**	**299**	*e*P	P	22 22 05.0	-6.0
NPLP	**NPLP New Delhi**	**50.28**	**300**	*e*P	P	22 22 06.1	-5.2
AYAN	**Aya Nagar**	**50.29**	**299**	*e*P	P	22 22 06.0	-5.4
PEA0B	**Petropavlovsk-**	**50.35**	**24**	*i* P	**P**	**22 22 11.5**	**0.0**
PEA0B	**Petropavlovsk-**	**50.35**	**24**	IAmb	IAmb	22 22 40.3	
	comp=Z,90nm,1.2s						
PETK	**Petropavlovsk-**	**50.35**	**24**	P	**P**	**22 22 12.1**	**+0.6**
	comp=Z,12nm,0.7s,baz=194,slow=2.6,SNR=12						
PETK				LR	LR	22 43 25.3	
	comp=Z,5µm,19.4s,baz=217,slow=36						
	comp=Z,12nm,0.7s						
PETK	**Petropavlovsk-**	**50.35**	**24**	P	**P**	**22 22 12.4**	**+0.9**
PETK	**Petropavlovsk-**	**50.35**	**24**	P	**P**	**22 22 12.4**	**+0.9**
MILA	**Mila**	**50.65**	**157**	P	**P**	**22 22 16.7**	**+2.7**
	comp=Z,19nm,1.6s						
PET	**Petropavlovsk**	**50.68**	**24**	P	**P**	**22 22 15.8**	**+1.9**

PET	**Petropavlovsk**	**50.68**	**24**	eP	**P**	**22 22 13.1**	**-0.8**
PET				e		22 23 30.1	
PET				e		22 24 08.1	
PET				eS	**S**	**22 29 26.6**	**-1.4**
PET				e		22 31 59.4	
PET				pmax	pmax		
	comp=Z,62nm,1.4s						
PET				pmax	pmax		
	comp=Z,600nm,7.2s						
PET				MLR	MLR		
	comp=Z,3µm,19.0s						
PET	**Petropavlovsk**	**50.68**	**24**	IAMs_20	IAMs_20	22 45 51.8	
	comp=Z,4µm,20.0s						
PET	**Petropavlovsk**	**50.68**	**24**	P	**P**	**22 22 14.0**	**+0.1**
	comp=Z,59nm,1.2s						
KUDL	**Kundal**	**50.77**	**299**	eP	P	22 22 09.0	-6.0
KAD	**Karad**	**51.64**	**285**	eP	P	22 22 13.1	-8.7
ALCI	**Alchi Leh**	**51.67**	**306**	eP	P	22 22 15.7	-6.5
DHRM	**DHARAMSHALA**	**51.85**	**304**	eP	P	22 22 18.1	-5.3
DGZ	**Jazzator, Alta**	**51.86**	**328**	c iP	**P**	**22 22 23.1**	**+0.1**
DGZ				pmax	pmax		
	comp=Z,35nm,1.6s						
ZSN	**Zaisan**	**51.95**	**325**	eP	**P**	**22 22 23.5**	**-0.1**
ZSN				eS	**S**	**22 29 47.5**	**+1.7**
ZSN	**Zaisan**	**51.95**	**325**	eP	**P**	**22 22 23.5**	**-0.1**
ZSN				eS	**S**	**22 29 47.5**	**+1.7**
POO	**Poona**	**52.00**	**286**	eP	P	22 22 19.1	-5.4
AJM	**Ajmer**	**52.09**	**296**	eP	P	22 22 19.4	-5.6
WUS	**Wushi**	**52.55**	**315**	IAMs_20	IAMs_20	22 47 18.0	
	comp=Z,5µm,20.0s						
YAK	**Yakutsk**	**52.71**	**2**	LR	LR	22 44 38.5	
	comp=Z,3µm,20.2s,baz=180,slow=36						
YAK	**Yakutsk**	**52.71**	**2**	eP	**P**	**22 22 29.2**	**+0.3**
YAK				e*PP	**pwP**	**22 22 39.9**	**-0.9**
YAK				e		22 23 39.9	
YAK				e		22 24 26.2	
YAK				ePPP	PPP	22 25 30.5	
YAK				eS	**S**	**22 29 55.9**	**+0.3**
YAK				e*SS	sS	22 30 10.9	+7.8
YAK				e		22 32 13.1	
YAK				eSS	**SS**	**22 33 28.5**	**-5.7**
YAK				eSSS	SSS	22 35 11.7	
YAK				pmax	pmax		
	comp=Z,105nm,1.3s						
YAK				pmax	pmax		
	comp=N,52nm,1.2s						
YAK				pmax	pmax		
	comp=E,20nm,1.3s						
YAK				pmax	pmax		
	comp=Z,339nm,4.0s						
YAK				pmax	pmax		
	comp=N,211nm,3.7s						
YAK				pmax	pmax		
	comp=E,82nm,3.3s						
YAK				smax	smax		
	comp=N,194nm,2.8s						
YAK				smax	smax		
	comp=E,897nm,4.3s						
YAK				MLR	MLR		
	comp=N,2µm,20.0s						
YAK				MLR	MLR		
	comp=E,1µm,20.0s						
YAK	**Yakutsk**	**52.71**	**2**	P	**P**	**22 22 29.4**	**+0.5**
YAK				IAmb	IAmb	22 22 33.0	
	comp=Z,97nm,1.1s						
YAK	**Yakutsk**	**52.71**	**2**	IAMs_20	IAMs_20	22 44 11.1	
	comp=Z,3µm,20.0s						
MK31	**Makanchi Array**	**53.10**	**323**	c iP	**P**	**22 22 31.9**	**-0.3**
MKAR	**Makanchi Array**	**53.10**	**323**	P	**P**	**22 22 31.9**	**-0.3**
	comp=Z,25nm,0.7s,baz=123,slow=8.0,SNR=174						
MKAR				ScP	**ScP**	**22 27 37.9**	**+0.6**
	comp=Z,2.0nm,1.1s,baz=103,slow=5.2,SNR=2.1						
MKAR				S	**S**	**22 30 01.6**	**0.0**
	comp=Z,1.4nm,1.0s,baz=119,slow=10.0,SNR=4.5						
MKAR				LR	LR	22 44 26.5	
	comp=Z,3µm,19.8s,baz=128,slow=35						
	comp=Z,25nm,0.7s						
MKAR	**Makanchi Array**	**53.10**	**323**	i P	**P**	**22 22 31.8**	**-0.4**
MKAR				pmax	pmax		
	comp=Z,25nm,0.7s						
MKAR	**Makanchi Array**	**53.10**	**323**	P	**P**	**22 22 31.7**	**-0.5**
MKAR					**ScP**	**22 27 37.3**	**+0.1**
SHLS	**Shalkode**	**53.19**	**318**	c iP	**P**	**22 22 30.6**	**-2.4**
SHLS				eS	**S**	**22 30 00.5**	**-2.7**
SHLS				pmax	pmax		
	comp=Z,62nm,1.6s						
SHLS	**Shalkode**	**53.19**	**318**	⇑iP	**P**	**22 22 30.6**	**-2.4**
	comp=Z,62nm,1.6s						
SHLS				eS	**S**	**22 30 00.5**	**-2.7**
MAKZ	**Makanchi**	**53.29**	**323**	P	**P**	**22 22 33.6**	**0.0**
MAKZ				pmax	pmax		
	comp=Z,164nm,1.7s						
MAKZ				MLR	MLR		
	comp=Z,3µm,20.0s						
MAKZ	**Makanchi**	**53.29**	**323**	P	**P**	**22 22 33.6**	**0.0**
MAKZ				IAmb	IAmb	22 22 34.9	
	comp=Z,164nm,1.6s						
MAKZ				IAMs_20	IAMs_20	22 44 11.5	
	comp=Z,3µm,20.0s						
MA2	**Magadan**	**53.37**	**15**	LR	LR	22 44 56.7	
	comp=Z,2µm,20.5s,baz=196,slow=36						
MA2	**Magadan**	**53.37**	**15**	c iP	**P**	**22 22 34.3**	**+0.4**
MA2				pmax	pmax		
	comp=Z,29nm,0.9s						
MA2	**Magadan**	**53.37**	**15**	P	**P**	**22 22 35.0**	**+1.1**
MA2	**Magadan**	**53.37**	**15**	P	**P**	**22 22 33.9**	**0.0**
	comp=Z,1µmcomp=Z,42nm,0.8s						
UZB	**Uzynbulak**	**53.48**	**318**	c iP	**P**	**22 22 34.8**	**-0.4**
UZB				eS	**S**	**22 30 08.2**	**+1.0**
UZB				pmax	pmax		
	comp=Z,71nm,1.7s						
UZB	**Uzynbulak**	**53.48**	**318**	⇑iP	**P**	**22 22 34.8**	**-0.4**
	comp=Z,70nm,1.7s						
UZB				eS	**S**	**22 30 08.2**	**+1.0**
BKNR	**BIKANER**	**53.53**	**298**	eP	P	22 22 30.6	-5.0
PRZ	**Przheval'sk**	**53.63**	**317**	IAmb	IAmb	22 22 37.8	
	comp=Z,58nm,0.8s						
KPKS	**Kokpek**	**53.84**	**318**	eP	**P**	**22 22 37.4**	**-0.3**
KPKS				eS	**S**	**22 30 12.9**	**+1.0**
KPKS	**Kokpek**	**53.84**	**318**	eP	**P**	**22 22 37.4**	**-0.3**
KPKS				eS	**S**	**22 30 13.0**	**+1.0**
SATY	**Saty**	**53.85**	**317**	c iP	**P**	**22 22 37.6**	**-0.3**
SATY				eS	**S**	**22 30 13.2**	**+1.0**
SATY				pmax	pmax		
	comp=Z,54nm,1.5s						
SATY	**Saty**	**53.85**	**317**	⇑iP	**P**	**22 22 37.6**	**-0.3**
	comp=Z,54nm,1.5s						
SATY				eS	**S**	**22 30 13.3**	**+1.0**
KDJ	**Kajisay**	**54.32**	**316**	P	**P**	**22 22 41.0**	**-0.4**
KDJ				pmax	pmax		
	comp=Z,35nm,0.8s						
KDJ	**Kajisay**	**54.32**	**316**	P	**P**	**22 22 41.0**	**-0.4**
KDJ				IAmb	IAmb	22 22 42.1	
	comp=Z,35nm,0.8s						
KSH2	**Kashi**	**54.42**	**312**	P	**P**	**22 22 41.9**	**-0.2**
KSH2				sP	pwP	22 22 52.8	-1.4
KSH2				PcP	**PcP**	**22 23 45.3**	**-0.4**
KSH2				S	**S**	**22 30 20.6**	**+0.6**
KSH2				ScS	**ScS**	**22 32 27.6**	**-3.4**
KSH2				pmax	pmax		
	comp=Z,37nm,1.5s						
KSH2				pmax	pmax		
	comp=Z,940nm,8.5s						
KSH2				L	L		
	comp=Z,4µm,16.2s						
KSH2				L	L		
	comp=Z,5µm,17.2s						
KSH2				L	L		
	comp=Z,5µm,16.1s						
TDK	**Taldyqorghan**	**54.67**	**319**	c iP	**P**	**22 22 43.5**	**-0.1**
TDK				pmax	pmax		
	comp=Z,35nm,0.7s						
TDK				MLR	MLR		
	comp=Z,2µm,17.0s						
TDK	**Taldyqorghan**	**54.67**	**319**	⇑iP	**P**	**22 22 43.6**	**-0.1**
	comp=Z,35nm,0.7s						
TDK				LR	LR	22 48 42.4	
	comp=Z,2µm,17.2s						
NIL	**Nilore**	**54.68**	**305**	P	**P**	**22 22 42.3**	**-1.7**
NIL	**Nilore**	**54.68**	**305**	P	**P**	**22 22 43.3**	**-0.7**
NIL				pmax	pmax		
	comp=Z,139nm,0.9s						
NIL	**Nilore**	**54.68**	**305**	P	**P**	**22 22 43.3**	**-0.7**
MDOK	**Medeo**	**54.81**	**317**	eP	**P**	**22 22 44.5**	**-0.3**
MDOK				eS	**S**	**22 30 26.1**	**+1.0**
MDOK	**Medeo**	**54.81**	**317**	eP	**P**	**22 22 44.6**	**-0.3**
MDOK				eS	**S**	**22 30 26.1**	**+1.0**
MDOK				LR	LR	22 48 48.2	
TNSS	**Tian-Shan**	**54.83**	**317**	eP	**P**	**22 22 44.7**	**-0.6**
TNSS	**Tian-Shan**	**54.83**	**317**	eP	**P**	**22 22 44.7**	**-0.6**
AAA	**Alma-Ata**	**54.92**	**317**	eP	**P**	**22 22 45.2**	**-0.3**
AAA				pmax	pmax		
	comp=Z,32nm,0.7s						
AAA	**Alma-Ata**	**54.92**	**317**	eP	**P**	**22 22 45.3**	**-0.3**
	comp=Z,32nm,0.7s						
AAA				LR	LR	22 48 50.8	
ULHL	**Ulahol**	**55.01**	**316**	P	**P**	**22 22 46.7**	**+0.2**
	SNR=14						
BOOM	**Boomskoye usch**	**55.31**	**316**	P	**P**	**22 22 48.4**	**-0.2**
BOOM				pmax	pmax		
	comp=Z,30nm,1.1s						
BOOM	**Boomskoye usch**	**55.31**	**316**	P	**P**	**22 22 48.4**	**-0.2**
KUU	**Kurty**	**55.57**	**318**	eP	**P**	**22 22 49.9**	**-0.2**
KUU				eS	**S**	**22 30 36.3**	**+1.3**
KUU				MLR	MLR		
	comp=Z,1µm,16.0s						
KUU	**Kurty**	**55.57**	**318**	eP	**P**	**22 22 50.0**	**-0.2**
	comp=Z,784nm,13.6s						
KUU				eS	**S**	**22 30 36.4**	**+1.3**
KUU				LR	LR	22 49 13.4	
	comp=Z,1µm,15.9s						
MIDW	**Midway**	**55.68**	**62**	IAMs_20	IAMs_20	22 45 37.3	
	comp=Z,3µm,19.0s						
TKM2	**Tokmak 2**	**55.70**	**316**	P	**P**	**22 22 51.4**	**0.0**
	SNR=40						
ZALV	**Zalesovo Beam**	**55.72**	**331**	P	**P**	**22 22 49.5**	**-1.5**
	comp=Z,18nm,0.8s,baz=121,slow=6.9,SNR=44						
ZALV				ScP	**ScP**	**22 27 49.7**	**+1.2**
	comp=Z,0.4nm,0.6s,baz=112,slow=1.6,SNR=1.7						
ZALV				LR	LR	22 48 53.1	
	comp=Z,4µm,18.0s,baz=128,slow=38						
ZALV				PKPPKP	**P'P'df**	**22 52 54.9**	**-0.5**
	comp=Z,1.1nm,0.8s,baz=256,slow=1.2,SNR=3.9						
	comp=Z,18nm,0.8s						
ZALV	**Zalesovo Beam**	**55.72**	**331**	i P	**P**	**22 22 50.2**	**-0.8**
ZALV				pmax	pmax		
	comp=Z,18nm,0.7s						
ZALV	**Zalesovo Beam**	**55.72**	**331**	P	**P**	**22 22 50.1**	**-1.0**
ZALV					**ScP**	**22 27 47.6**	**-0.9**
KBK	**Karagaybulak**	**56.05**	**316**	P	**P**	**22 22 53.7**	**-0.2**
	SNR=36						
CHMS	**Chumysh**	**56.31**	**316**	P	**P**	**22 22 55.3**	**-0.2**
	SNR=23						
AAK	**Ala-Archa**	**56.36**	**316**	P	**P**	**22 22 55.3**	**-0.7**
	comp=Z,11nm,0.7s,baz=127,slow=5.5,SNR=39						
AAK				LR	LR	22 49 55.3	
	comp=Z,4µm,20.7s,baz=79,slow=39						
	comp=Z,11nm,0.7s						
AAK	**Ala-Archa**	**56.36**	**316**	P	**P**	**22 22 56.2**	**+0.2**
	SNR=17						
AAK	**Ala-Archa**	**56.36**	**316**	P	**P**	**22 22 54.3**	**-1.8**
AAK				S	**S**	**22 30 45.3**	**-0.6**
AAK	**Ala-Archa**	**56.36**	**316**	c iP	**P**	**22 22 55.8**	**-0.3**
AAK				pmax	pmax		
	comp=Z,53nm,1.8s						
AAK	**Ala-Archa**	**56.36**	**316**	P	**P**	**22 22 55.7**	**-0.3**
AAK	**Ala-Archa**	**56.36**	**316**	IAMs_20	IAMs_20	22 46 06.7	
	comp=Z,4µm,21.0s						
AAK	**Ala-Archa**	**56.36**	**316**	i P	**P**	**22 22 55.9**	**-0.1**
	SNR=19						
SGDS	**Sogindy**	**56.55**	**316**	eP	**P**	**22 22 56.8**	**-0.6**
USP	**Ospenovka**	**56.58**	**316**	P	**P**	**22 22 57.3**	**-0.1**
	SNR=66						
SEY	**Seymchan**	**56.67**	**14**	LR	LR	22 49 08.7	
	comp=Z,2µm,18.5s,baz=222,slow=38						
SEY	**Seymchan**	**56.67**	**14**	c iP	**P**	**22 22 59.6**	**+1.9**
SEY				pmax	pmax		
	comp=Z,114nm,2.6s						
EKS2	**Erkin-Say**	**56.87**	**315**	P	**P**	**22 22 59.1**	**-0.5**
	SNR=60						
KURK	**Kurchatov**	**57.15**	**326**	P	**P**	**22 23 00.0**	**-1.2**
KURK				S	**S**	**22 30 55.6**	**-0.1**
KURK	**Kurchatov**	**57.15**	**326**	c iP	**P**	**22 23 01.1**	**-0.2**
KURK				pmax	pmax		
	comp=Z,70nm,0.9s						
KURK	**Kurchatov**	**57.15**	**326**	P	**P**	**22 23 00.2**	**-1.1**
KURK				IAmb	IAmb	22 23 01.7	
	comp=Z,51nm,0.8s						
KURBB	**Kurchatov Arra**	**57.16**	**326**	P	**P**	**22 23 00.2**	**-1.1**
	comp=Z,36nm,0.8s,baz=125,slow=6.8,SNR=148						
KURBB				PKPPKP	**P'P'df**	**22 52 52.8**	**-0.7**
	comp=Z,0.2nm,0.3s,baz=271,slow=3.7,SNR=4.7						
	comp=Z,36nm,0.8s						
DRK	**Karamyk**	**57.30**	**311**	IAmb	IAmb	22 23 14.5	
	comp=Z,46nm,0.8s						
MSVF	**Nonsavu**	**57.34**	**118**	LR	LR	22 45 53.2	
	comp=Z,2µm,20.0s,baz=346,slow=34						
MSVF	**Nonsavu**	**57.34**	**118**	P	**P**	**22 23 05.0**	**+1.8**
MSVF	**Nonsavu**	**57.34**	**118**	P	**P**	**22 23 03.4**	**+0.2**
MSVF				pmax	pmax		
	comp=Z,86nm,1.2s						
MSVF				MLR	MLR		
	comp=Z,3µm,19.0s						
MSVF	**Nonsavu**	**57.34**	**118**	P	**P**	**22 23 03.4**	**+0.2**
MSVF				IAmb	IAmb	22 23 07.1	
	comp=Z,86nm,1.1s						
MSVF	**Nonsavu**	**57.34**	**118**	IAMs_20	IAMs_20	22 45 31.6	
	comp=Z,3µm,19.0s						
SHEM	**Shemya Is, Ala**	**57.74**	**32**	LR	LR	22 52 38.6	
	comp=Z,650nm,18.0s,baz=261,slow=41						
KBL	**Kabul**	**58.28**	**305**	P	**P**	**22 23 09.1**	**-0.7**
	SNR=18						
KBL				S	**S**	**22 31 11.3**	**-0.2**
KBL	**Kabul**	**58.28**	**305**	P	**P**	**22 23 09.1**	**-0.7**
KBL				pmax	pmax		
	comp=Z,29nm,0.7s						
KBL	**Kabul**	**58.28**	**305**	P	**P**	**22 23 09.1**	**-0.7**
KBL				IAmb	IAmb	22 23 10.7	
	comp=Z,29nm,0.7s						
DZA	**Taraz**	**58.64**	**315**	eP	**P**	**22 23 11.7**	**-0.3**
DZA	**Taraz**	**58.64**	**315**	eP	**P**	**22 23 11.7**	**-0.3**
KK31	**Karatay Array**	**59.28**	**315**	i P	**P**	**22 23 15.3**	**-1.1**
KK31				pmax	pmax		
	comp=Z,23nm,0.7s						
KKAR	**Karatay Array**	**59.28**	**315**	P	**P**	**22 23 15.0**	**-1.4**
KKAR	**Karatay Array**	**59.28**	**315**	P	**P**	**22 23 15.0**	**-1.4**
IUG	**Iuzhnay**	**59.34**	**314**	c iP	**P**	**22 23 16.5**	**-0.4**
IUG				pmax	pmax		
	comp=Z,35nm,1.1s						
IUG	**Iuzhnay**	**59.34**	**314**	⇑iP	**P**	**22 23 16.6**	**-0.4**
	comp=Z,35nm,1.1s						
FUTU	**Fugatoga**	**59.49**	**113**	IAMs_20	IAMs_20	22 45 44.5	
	comp=Z,3µm,21.0s						
CHM	**Chimkent**	**59.70**	**314**	eP	**P**	**22 23 18.9**	**-0.3**
CHM	**Chimkent**	**59.70**	**314**	eP	**P**	**22 23 19.0**	**-0.3**
CHM				LR	LR	22 51 33.6	
	comp=Z,1µm,16.2s						
BRLS	**Borolday**	**59.73**	**315**	eP	**P**	**22 23 19.4**	**-0.1**
BRLS				pmax	pmax		
	comp=Z,53nm,1.7s						
BRLS	**Borolday**	**59.73**	**315**	eP	**P**	**22 23 19.5**	**-0.1**
	comp=Z,53nm,1.7s						
TIXI	**Tiksi**	**62.34**	**1**	LR	LR	22 50 58.0	
	comp=Z,5µm,20.2s,baz=195,slow=36						
TIXI	**Tiksi**	**62.34**	**1**	c iP	**P**	**22 23 36.4**	**-0.2**
TIXI				pmax	pmax		
	comp=Z,61nm,1.1s						
TIXI	**Tiksi**	**62.34**	**1**	P	**P**	**22 23 36.8**	**+0.2**
BVAR	**Borovoye Array**	**62.75**	**326**	P	**P**	**22 23 39.3**	**-0.4**
	comp=Z,22nm,0.6s,baz=130,slow=8.2,SNR=60						
	comp=Z,22nm,0.6s						
BORK	**Borovoye**	**62.79**	**326**	c iP	**P**	**22 23 39.7**	**-0.3**
BORK				pmax	pmax		
	comp=Z,52nm,0.9s						
BORK	**Borovoye**	**62.79**	**326**	P	**P**	**22 23 39.5**	**-0.6**
BORK				IAmb	IAmb	22 23 41.7	
	comp=Z,38nm,0.7s						
BORK				IAMs_20	IAMs_20	22 49 50.6	
	comp=Z,3µm,19.0s						
HRA	**Herat**	**63.80**	**304**	P	**P**	**22 23 46.6**	**-0.8**
NGCH	**Negor - Chabah**	**64.08**	**294**	P	**P**	**22 23 46.1**	**-3.0**
BILL	**Bilibino**	**64.24**	**15**	c iP	**P**	**22 23 49.7**	**+0.4**
BILL				pmax	pmax		
	comp=Z,70nm,1.4s						
BILL	**Bilibino**	**64.24**	**15**	P	**P**	**22 23 50.4**	**+1.1**
NRIK	**Noril'sk**	**65.09**	**346**	P	**P**	**22 23 54.8**	**0.0**
	comp=Z,77nm,1.0s,baz=130,slow=6.7,SNR=59						
NRIK				LR	LR	22 55 52.1	
	comp=Z,4µm,18.9s,baz=148,slow=39						
	comp=Z,77nm,1.0s						
NRIK	**Noril'sk**	**65.09**	**346**	c iP	**P**	**22 23 55.4**	**+0.6**
NRIK				pmax	pmax		
	comp=Z,97nm,1.0s						
NRIK	**Noril'sk**	**65.09**	**346**	P	**P**	**22 23 55.5**	**+0.6**
AFI	**Afiamalu**	**65.20**	**110**	LR	LR	22 48 41.5	
	comp=Z,3µm,19.5s,baz=298,slow=33						
AFI	**Afiamalu**	**65.20**	**110**	IAMs_20	IAMs_20	22 48 39.7	
	comp=Z,3µm,20.0s						
TOZ	**Tahuroa Road**	**65.27**	**139**	IAmb	IAmb	22 24 00.4	
	comp=Z,50nm,1.0s						
TOZ	**Tahuroa Road**	**65.27**	**139**	P	**P**	**22 23 59.1**	**+2.7**
QRZ	**Quartz Range**	**65.28**	**143**	P	**P**	**22 23 57.7**	**+1.1**
MSZ	**Milford Sound**	**65.30**	**149**	P	**P**	**22 23 58.4**	**+1.9**
MHEZ	**Mangahewa**	**65.30**	**141**	P	**P**	**22 24 01.0**	**+4.3**
HIZ	**Hauiti**	**65.31**	**140**	IAMs_20	IAMs_20	22 52 47.6	
	comp=Z,2µm,19.0s						
JCZ	**Jackson Bay**	**65.33**	**148**	P	**P**	**22 23 58.6**	**+1.7**
JCZ	**Jackson Bay**	**65.33**	**148**	P	**P**	**22 23 58.4**	**+1.5**
DSZ	**Denniston Nort**	**65.44**	**144**	P	**P**	**22 23 59.1**	**+1.4**
DCZ	**Deep Cove**	**65.47**	**150**	P	**P**	**22 23 58.7**	**+1.2**
FOZ	**Fox Glacier**	**65.51**	**147**	IAmb	IAmb	22 24 18.7	
	comp=Z,50nm,1.0s						
FOZ	**Fox Glacier**	**65.51**	**147**	P	**P**	**22 23 59.0**	**+1.1**
RAO	**Raoul Island**	**65.62**	**128**	LR	LR	22 53 40.0	
	comp=Z,758nm,18.2s,baz=352,slow=37						
JLN	**Jalan Bani Buh**	**65.63**	**290**	P	**P**	**22 23 57.2**	**-2.0**
WVZ	**Waitaha Valley**	**65.70**	**146**	P	**P**	**22 24 00.3**	**+1.1**
MRNZ	**Matariki Terra**	**65.78**	**144**	P	**P**	**22 23 59.5**	**-0.3**
INZ	**Inchbonnie**	**65.87**	**145**	IAmb	IAmb	22 24 03.9	
	comp=Z,42nm,0.9s						
INZ				IAMs_20	IAMs_20	22 54 20.3	
	comp=Z,3µm,20.0s						
INZ	**Inchbonnie**	**65.87**	**145**	P	**P**	**22 24 01.1**	**+0.8**
NNZ	**Nelson**	**66.03**	**143**	IAMs_20	IAMs_20	22 51 35.7	
	comp=Z,3µm,20.0s						
NNZ	**Nelson**	**66.03**	**143**	P	**P**	**22 24 01.4**	**+0.1**
WBK	**Wadi Bani Khal**	**66.03**	**291**	P	**P**	**22 23 59.4**	**-2.4**
THZ	**Tophouse**	**66.09**	**144**	P	**P**	**22 24 02.2**	**+0.4**
THZ				IAMs_20	IAMs_20	22 52 29.2	
	comp=Z,3µm,20.0s						
THZ	**Tophouse**	**66.09**	**144**	P	**P**	**22 24 01.1**	**-0.7**
NGZ	**Ngauruhoe**	**66.17**	**140**	P	**P**	**22 24 03.8**	**+1.4**
SNVZ	**South Ngauruho**	**66.20**	**140**	P	**P**	**22 24 03.9**	**+1.2**
WNVZ	**Wahianoa**	**66.25**	**140**	P	**P**	**22 24 05.8**	**+2.8**
LBZ	**Lake Benmore**	**66.28**	**147**	P	**P**	**22 24 03.4**	**+0.5**
LBZ	**Lake Benmore**	**66.28**	**147**	P	**P**	**22 24 02.7**	**-0.2**
RPZ	**Rata Peaks**	**66.30**	**146**	LR	LR	22 53 07.1	
	comp=Z,483nm,19.2s,baz=319,slow=36						
RPZ	**Rata Peaks**	**66.30**	**146**	P	**P**	**22 24 03.2**	**+0.2**
RPZ	**Rata Peaks**	**66.30**	**146**	P	**P**	**22 24 03.1**	**0.0**
WSAR	**Wadi Sarin**	**66.34**	**291**	P	**P**	**22 24 02.3**	**-1.5**
LTZ	**Lake Taylor**	**66.37**	**145**	P	**P**	**22 24 04.0**	**+0.4**
URZ	**Urewera**	**66.61**	**139**	LR	LR	22 52 56.5	
	comp=Z,3µm,20.1s,baz=300,slow=36						
BHHZ	**Black Hill Sta**	**66.64**	**140**	P	**P**	**22 24 05.2**	**-0.1**
TMZ	**Timaru**	**66.72**	**147**	P	**P**	**22 24 06.4**	**+0.7**
BKZ	**Black Stump Fm**	**66.72**	**140**	P	**P**	**22 24 07.0**	**+1.1**
BKZ	**Black Stump Fm**	**66.72**	**140**	P	**P**	**22 24 05.8**	**-0.1**
BIDO	**Bidbid**	**66.80**	**292**	P	**P**	**22 24 05.2**	**-1.5**
	SNR=17						
KWHZ	**Kaweka Forest**	**66.83**	**140**	P	**P**	**22 24 07.0**	**+0.4**
JMDO	**Jabal Madar**	**66.83**	**290**	P	**P**	**22 24 04.2**	**-2.8**
KHZ	**Kahutara**	**66.87**	**144**	P	**P**	**22 24 05.5**	**-1.2**
SMDO	**Samad**	**66.88**	**291**	P	**P**	**22 24 05.8**	**-1.5**
	SNR=7.0						
SMDO				S	**S**	**22 32 59.5**	**-0.3**
GVZ	**Greta Valley S**	**66.92**	**145**	P	**P**	**22 24 06.8**	**-0.3**
ODZ	**Otahua Downs**	**66.96**	**148**	P	**P**	**22 24 06.1**	**-1.1**
MHTO	**MHTO**	**66.99**	**289**	P	**P**	**22 24 06.6**	**-1.3**
	SNR=8.4						
MXZ	**Matakaoa Point**	**67.02**	**137**	IAmb	IAmb	22 24 20.5	
	comp=Z,70nm,1.2s						
MXZ				IAMs_20	IAMs_20	22 55 43.0	
	comp=Z,3µm,19.0s						
MRZ	**Mangatainoka R**	**67.02**	**142**	P	**P**	**22 24 08.2**	**+0.5**
MRZ	**Mangatainoka R**	**67.02**	**142**	P	**P**	**22 24 07.5**	**-0.2**
JASK	**Jask - Hormozg**	**67.05**	**294**	P	**P**	**22 24 08.3**	**+0.1**
	SNR=16						
MQZ	**McQueen's Vall**	**67.18**	**146**	P	**P**	**22 24 09.2**	**+0.6**
MQZ	**McQueen's Vall**	**67.18**	**146**	P	**P**	**22 24 09.2**	**+0.6**
BFZ	**Birch Farm**	**67.44**	**141**	P	**P**	**22 24 11.0**	**+0.6**
BFZ				IAMs_20	IAMs_20	22 55 36.1	
	comp=Z,2µm,19.0s						
BFZ	**Birch Farm**	**67.44**	**141**	P	**P**	**22 24 12.1**	**+1.7**
PXZ	**Pawanui**	**67.45**	**140**	P	**P**	**22 24 12.3**	**+1.9**
HOQ	**Hoqain**	**67.55**	**292**	P	**P**	**22 24 10.2**	**-1.3**
	SNR=10						
BSY	**Bisya**	**67.67**	**291**	P	**P**	**22 24 10.4**	**-1.8**
	SNR=9.2						
BSY				S	**S**	**22 33 09.0**	**-0.1**
AB31	**Akbulak array**	**67.93**	**319**	i P	**P**	**22 24 11.9**	**-1.5**
AB31				pmax	pmax		
	comp=Z,35nm,1.2s						
AB31	**Akbulak array**	**67.93**	**319**	P	**P**	**22 24 12.8**	**-0.5**
AB31				IAmb	IAmb	22 24 14.5	
	comp=Z,65nm,1.4s						
ABKAR	**Akbulak array**	**67.93**	**319**	P	**P**	**22 24 12.8**	**-0.6**
SOHO	**SOHO**	**68.26**	**292**	P	**P**	**22 24 13.9**	**-2.0**
SOHO				S	**S**	**22 33 14.7**	**-1.3**
SOHO	**SOHO**	**68.26**	**292**	i P	**P**	**22 24 14.2**	**-1.7**
	SNR=11						
ARQ	**Araqi**	**68.28**	**291**	P	**P**	**22 24 14.9**	**-1.2**
	SNR=7.2						
ARQ				S	**S**	**22 33 16.5**	**0.0**
BANOM	**Banah**	**68.46**	**294**	P	**P**	**22 24 15.8**	**-1.4**
MDH	**Madha**	**68.46**	**294**	P	**P**	**22 24 15.3**	**-1.8**
MDH	**Madha**	**68.46**	**294**	i P	**P**	**22 24 14.9**	**-2.3**
	SNR=6.5						
UOSS	**Minazif**	**68.55**	**293**	P	**P**	**22 24 16.2**	**-1.6**
UOSS	**Minazif**	**68.55**	**293**	P	**P**	**22 24 16.8**	**-1.0**
UOSS	**Minazif**	**68.55**	**293**	i P	**P**	**22 24 15.8**	**-1.9**
	SNR=13						
MSFE	**Esma-Masafi**	**68.59**	**294**	i P	**P**	**22 24 17.3**	**-0.7**
	SNR=8.1						
MASF	**Masafi**	**68.59**	**294**	P	**P**	**22 24 16.1**	**-2.0**
	SNR=7.3						
SHME	**Shamm**	**68.60**	**294**	P	**P**	**22 24 17.5**	**-0.6**
SHME				S	**S**	**22 33 20.0**	**-0.2**
SHME	**Shamm**	**68.60**	**294**	P	**P**	**22 24 17.4**	**-0.6**
HATD	**Hatta, Dubai**	**68.62**	**293**	P	**P**	**22 24 18.0**	**-0.2**
	SNR=11						
HATD	**Hatta, Dubai**	**68.62**	**293**	i P	**P**	**22 24 17.3**	**-0.8**
	SNR=25						
ASHO	**Ashiyiah**	**68.69**	**293**	P	**P**	**22 24 17.9**	**-0.7**
	SNR=11						
ASHO	**Ashiyiah**	**68.69**	**293**	i P	**P**	**22 24 18.0**	**-0.7**
	SNR=27						
ALNE	**Al Ain**	**68.97**	**292**	P	**P**	**22 24 19.6**	**-0.8**
	SNR=15						
ALNE	**Al Ain**	**68.97**	**292**	i P	**P**	**22 24 19.5**	**-0.8**
	SNR=43						
NAZ	**Nazwa, Dubai**	**69.04**	**293**	P	**P**	**22 24 19.8**	**-1.0**
	SNR=6.0						
NAZ	**Nazwa, Dubai**	**69.04**	**293**	i P	**P**	**22 24 19.6**	**-1.2**
	SNR=7.2						
FAQ	**Al Faqa, Dubai**	**69.11**	**293**	P	**P**	**22 24 20.2**	**-1.0**
SVE	**Sverdlovsk**	**69.30**	**327**	d eP	**P**	**22 24 21.8**	**0.0**
SVE				eS	**S**	**22 33 26.2**	**-1.1**
SVE				e		22 34 14.6	
SVE				pmax	pmax		
	comp=Z,95nm,1.4s						
SVE				MLR	MLR		
	comp=Z,2µm,17.0s						
SHAO	**Shalim**	**69.32**	**286**	P	**P**	**22 24 20.4**	**-2.2**
ASUD	**Al Ashush, Dub**	**69.35**	**293**	P	**P**	**22 24 20.9**	**-1.8**
ASUD	**Al Ashush, Dub**	**69.35**	**293**	P	**P**	**22 24 22.1**	**-0.6**
AKTO	**Aktyubinsk**	**69.39**	**320**	P	**P**	**22 24 21.3**	**-1.1**
	comp=Z,10nm,0.6s,baz=95,slow=6.3,SNR=33						
AKTO				LR	LR	22 57 21.0	
	comp=Z,3µm,18.9s,baz=97,slow=38						
	comp=Z,10nm,0.6s						
AKTO	**Aktyubinsk**	**69.39**	**320**	i P	**P**	**22 24 21.0**	**-1.4**
AKTO				pmax	pmax		
	comp=Z,12nm,0.8s						
UMZA	**Um Al Zommool**	**69.55**	**291**	P	**P**	**22 24 22.6**	**-1.3**
AJN	**Ajban**	**69.66**	**293**	P	**P**	**22 24 24.1**	**-0.5**
AJN	**Ajban**	**69.66**	**293**	i P	**P**	**22 24 23.8**	**-0.9**
	SNR=6.2						
ARTI	**Arti**	**70.40**	**327**	P	**P**	**22 24 27.0**	**-1.5**
	comp=Z,43nm,0.9s,baz=68,slow=2.6,SNR=27						
ARTI				LR	LR	22 58 43.1	
	comp=Z,2µm,18.7s,baz=110,slow=39						
	comp=Z,43nm,0.9s						
ARTI	**Arti**	**70.40**	**327**	c iP	**P**	**22 24 27.3**	**-1.2**
ARTI						22 24 50.4	

ARTI				S	**S**	**22 33 39.3**	**-0.9**
ARTI				SS	**SS**	**22 38 10.1**	**-0.9**
ARTI				pmax	pmax		
	comp=Z,75nm,1.4s						
ARTI	**Arti**	**70.40**	**327**	P	**P**	**22 24 27.7**	**-0.9**
ARTI				IAmb	IAmb	22 24 30.8	
	comp=Z,47nm,0.8s						
ARTI				IAMs_20	IAMs_20	22 58 21.6	
	comp=Z,2µm,18.0s						
MZWR	**Madinat Zayed**	**70.69**	**292**	P	**P**	**22 24 30.2**	**-0.8**
RBK	**Rabkut**	**70.70**	**285**	P	**P**	**22 24 31.1**	**-0.1**
M11K	**Mekoryuk**	**70.73**	**29**	IAMs_20	IAMs_20	22 58 45.0	
	comp=Z,2µm,19.0s						
WHFO	**Wadi Hawf**	**71.08**	**286**	P	**P**	**22 24 32.4**	**-1.1**
MZR	**Muzera**	**71.09**	**291**	P	**P**	**22 24 33.4**	**-0.1**
	SNR=22						
MZR	**Muzera**	**71.09**	**291**	*i* P	**P**	**22 24 33.1**	**-0.3**
	SNR=53						
TNA	**Tin City**	**71.52**	**23**	IAMs_20	IAMs_20	22 56 17.7	
	comp=Z,2µm,20.0s						
JRN	**Qarnain Island**	**71.59**	**293**	P	**P**	**22 24 35.1**	**-1.3**
	SNR=6.7						
GHWR	**Ruwais**	**71.61**	**292**	P	**P**	**22 24 35.8**	**-0.7**
ANM	**Nome**	**72.25**	**25**	IAmb	IAmb	22 24 43.9	
	comp=Z,45nm,1.2s						
ANM				IAMs_20	IAMs_20	22 56 18.1	
	comp=Z,2µm,19.0s						
MSEY	**Mahe Island**	**72.36**	**262**	P	**P**	**22 24 40.6**	**-0.7**
J14K	**Nanvaranak Lak**	**72.56**	**27**	IAmb	IAmb	22 24 45.9	
	comp=Z,63nm,1.2s						
F15K	**North Star Dit**	**72.86**	**24**	IAmb	IAmb	22 24 47.6	
	comp=Z,53nm,1.2s						
F15K				IAMs_20	IAMs_20	22 57 10.2	
	comp=Z,2µm,20.0s						
CNBA	**Chernabura Isl**	**73.07**	**35**	IAMs_20	IAMs_20	23 02 22.4	
	comp=Z,2µm,19.0s						
C16K	**Lisburne Hills**	**73.34**	**21**	IAmb	IAmb	22 24 50.8	
	comp=Z,84nm,1.2s						
O15K	**Ungalikthiuk R**	**73.61**	**31**	IAMs_20	IAMs_20	23 01 36.3	
	comp=Z,2µm,18.0s						
SAKB	**Bahrain**	**73.64**	**294**	P	**P**	**22 24 47.1**	**-1.5**
N15K	**Kwethluk River**	**73.65**	**30**	IAmb	IAmb	22 24 52.3	
	comp=Z,74nm,1.1s						
G16K	**Koyuk River**	**73.71**	**24**	IAMs_20	IAMs_20	22 57 01.5	
	comp=Z,2µm,20.0s						
CHGN	**Chignik**	**73.94**	**34**	P	**P**	**22 24 50.7**	**+1.0**
CHGN				IAmb	IAmb	22 25 21.8	
	comp=Z,117nm,1.4s						
J16K	**Anvik River**	**73.99**	**27**	IAmb	IAmb	22 24 54.5	
	comp=Z,63nm,1.2s						
I17K	**Unalakleet**	**74.07**	**26**	IAmb	IAmb	22 24 55.0	
	comp=Z,86nm,1.1s						
RDOG	**Red Dog Mine**	**74.15**	**22**	IAmb	IAmb	22 24 55.9	
	comp=Z,68nm,1.2s						
L16K	**Owhat River**	**74.21**	**28**	IAmb	IAmb	22 24 55.5	
	comp=Z,89nm,1.1s						
M16K	**Timber Creek**	**74.34**	**29**	IAmb	IAmb	22 24 56.4	
	comp=Z,87nm,1.1s						
O16K	**Kokwok River B**	**74.55**	**31**	IAmb	IAmb	22 24 57.4	
	comp=Z,85nm,1.1s						
H17K	**Granite Mounta**	**74.61**	**25**	IAmb	IAmb	22 24 58.0	
	comp=Z,55nm,1.1s						
H17K				IAMs_20	IAMs_20	22 57 51.5	
	comp=Z,2µm,20.0s						
J17K	**VABM Dome**	**74.69**	**27**	IAmb	IAmb	22 24 58.6	
	comp=Z,65nm,1.0s						
LKRN	**Lenkeran, Azer**	**74.89**	**308**	P	**P**	**22 24 56.0**	**+0.4**
K17K	**Iditarod**	**74.92**	**27**	IAMs_20	IAMs_20	23 03 03.8	
	comp=Z,1µm,18.0s						
N17K	**Nushagak Hills**	**75.13**	**30**	IAmb	IAmb	22 25 01.5	
	comp=Z,100nm,1.1s						
H18K	**Honhosa River**	**75.30**	**25**	IAMs_20	IAMs_20	22 58 12.6	
	comp=Z,2µm,20.0s						
CHIR	**Chirikof Islan**	**75.44**	**35**	IAMs_20	IAMs_20	23 03 37.8	
	comp=Z,3µm,19.0s						
KIRV	**Kirov**	**75.54**	**328**	P	**P**	**22 24 58.0**	**-0.8**
	comp=Z,87nm,0.7s,baz=68,slow=0.6,SNR=57						
	comp=Z,87nm,0.7s						
KIRV	**Kirov**	**75.54**	**328** *c*	*i*P	**P**	**22 24 58.5**	**-0.4**
L18K	**Granite Mounta**	**75.59**	**28**	IAmb	IAmb	22 25 03.9	
	comp=Z,74nm,1.1s						
AKT	**Akhty**	**75.70**	**310**	*e*P	**P**	**22 24 59.9**	**-0.5**
AKT				*e*		22 25 12.3	
AKT				*e*S	**S**	**22 34 40.2**	**-1.2**
AKT				*e*		22 35 11.9	
AKT				pmax	pmax		
	comp=Z,55nm,1.8s						
J18K	**Innoko River**	**75.75**	**27**	IAmb	IAmb	22 25 04.1	
	comp=Z,44nm,1.2s						
N18K	**Kilae Creek**	**75.78**	**30**	IAmb	IAmb	22 25 04.9	
	comp=Z,77nm,1.3s						
KNHH	**Kane Nui o Ham**	**75.81**	**72**	P	**P**	**22 25 01.3**	**-0.1**
ACHA	**Angle Creek He**	**75.82**	**32**	IAmb	IAmb	22 25 05.8	
	comp=Z,48nm,1.2s						
MAK	**Makhachkala**	**75.88**	**312** *c*	*i*P	P	22 24 55.9	-5.3
MAK				*e*		22 27 53.1	
MAK				*e*S	**S**	**22 34 34.4**	**-8.5**
MAK				*e*SSS	SSS	22 42 55.2	
MAK				pmax	pmax		
	comp=Z,53nm,1.0s						
G19K	**Purcell Mounta**	**75.99**	**24**	IAmb	IAmb	22 25 05.5	
	comp=Z,36nm,1.0s						
D19K	**Kuna River**	**75.99**	**22**	IAmb	IAmb	22 25 05.7	
	comp=Z,102nm,1.3s						
BELG	**Belogornoye**	**76.07**	**322**	P	**P**	**22 25 01.0**	**-1.1**
	comp=Z,71nm,0.9s,baz=18,slow=1.2,SNR=18						
BELG				LR	LR	22 58 31.9	
	comp=Z,786nm,20.4s,baz=87,slow=36						
	comp=Z,71nm,0.9s						
BELG	**Belogornoye**	**76.07**	**322** *c*	*i*P	**P**	**22 25 01.0**	**-1.1**
BELG				pmax	pmax		
	comp=Z,15nm,0.9s						
SEKA	**Sheki**	**76.10**	**310**	P	**P**	**22 25 02.3**	**-0.3**
E19K	**Redstone River**	**76.14**	**23**	IAmb	IAmb	22 25 06.7	
	comp=Z,78nm,1.1s						
MNGR	**Mingechevir, A**	**76.19**	**310**	P	**P**	**22 25 03.1**	**+0.1**
CASY	**Casey**	**76.28**	**187**	P	**P**	**22 25 02.9**	**0.0**
CASY				IAmb	IAmb	22 25 17.3	
	comp=Z,36nm,0.8s						
SII	**Sitkinak Islan**	**76.30**	**34**	IAMs_20	IAMs_20	22 56 09.5	
	comp=Z,2µm,21.0s						
J19K	**Poorman**	**76.30**	**26**	IAmb	IAmb	22 25 07.6	
	comp=Z,43nm,1.2s						
DRV	**Dumont d’Urvil**	**76.35**	**175**	P	**P**	**22 25 03.7**	**+0.4**
L19K	**White Mountain**	**76.44**	**28**	IAmb	IAmb	22 25 08.5	
	comp=Z,63nm,1.0s						
N19K	**Bonanza Creek**	**76.49**	**30**	IAmb	IAmb	22 25 09.0	
	comp=Z,81nm,1.1s						
D20K	**Etivluk River**	**76.57**	**21**	IAmb	IAmb	22 25 09.1	
	comp=Z,75nm,0.9s						
M19K	**Big River Lodg**	**76.63**	**29**	IAmb	IAmb	22 25 50.4	
	comp=Z,62nm,1.4s						
Q19K	**Cape Douglas,**	**76.75**	**32**	IAMs_20	IAMs_20	22 56 23.4	
	comp=Z,2µm,20.0s						
GANJ	**Ganja**	**76.77**	**310**	P	**P**	**22 25 06.5**	**+0.1**
OHAK	**Old Harbor**	**76.83**	**33**	P	**P**	**22 25 08.2**	**+1.9**
I20K	**Naaghedeneel**	**76.89**	**26**	IAMs_20	IAMs_20	22 59 14.6	
	comp=Z,2µm,20.0s						
K20K	**Telida**	**76.92**	**27**	IAmb	IAmb	22 25 11.4	
	comp=Z,58nm,1.2s						
L20K	**Farewell, AK**	**76.92**	**28**	IAmb	IAmb	22 25 51.9	
	comp=Z,120nm,1.9s						
J20K	**Nowinta River**	**76.97**	**26**	IAmb	IAmb	22 25 11.5	
	comp=Z,84nm,1.5s						
KDAK	**Kodiak Island**	**77.24**	**33**	LR	LR	22 56 01.9	
	comp=Z,3µm,21.2s,baz=245,slow=33						
KDAK	**Kodiak Island**	**77.24**	**33**	P	**P**	**22 25 09.4**	**+0.8**
KDAK				pmax	pmax		
	comp=Z,63nm,1.0s						
KDAK				MLR	MLR		
	comp=Z,3µm,21.0s						
KDAK	**Kodiak Island**	**77.24**	**33**	P	**P**	**22 25 09.4**	**+0.8**
KDAK				IAmb	IAmb	22 25 12.4	
	comp=Z,63nm,1.0s						
IMAR	**Indian Mountai**	**77.32**	**24**	P	**P**	**22 25 10.0**	**+1.1**
NAX	**Nakhchivan**	**77.44**	**308**	P	**P**	**22 25 10.0**	**-0.3**
G21K	**Allakaket**	**77.47**	**24**	IAmb	IAmb	22 25 14.2	
	comp=Z,70nm,1.1s						
H21K	**Melozitna Rive**	**77.67**	**25**	IAmb	IAmb	22 25 15.4	
	comp=Z,49nm,1.2s						
H21K				IAMs_20	IAMs_20	23 02 31.3	
	comp=Z,2µm,19.0s						
PPLA	**Purkeypile**	**77.73**	**28**	IAmb	IAmb	22 25 15.5	
	comp=Z,84nm,1.5s						
CAST	**Castle Rocks**	**77.81**	**27**	IAmb	IAmb	22 25 15.8	
	comp=Z,49nm,1.0s						
B22K	**Teshekpuk Lake**	**77.91**	**20**	IAmb	IAmb	22 25 16.4	
	comp=Z,107nm,1.4s						
TBLG	**Delisi**	**77.94**	**311**	P	**P**	**22 25 12.8**	**-0.1**
I21K	**Tanana**	**77.98**	**25**	IAmb	IAmb	22 25 17.1	
	comp=Z,65nm,1.0s						
I21K				IAMs_20	IAMs_20	22 59 56.4	
	comp=Z,2µm,19.0s						
SKT	**Skwentna**	**77.99**	**29**	IAmb	IAmb	22 25 15.8	
	comp=Z,41nm,1.1s						
GNI	**Garni**	**77.99**	**309**	P	**P**	**22 25 13.3**	**-0.1**
	comp=Z,8.7nm,0.6s,baz=230,slow=3.4,SNR=16						
GNI				LR	LR	23 06 38.5	
	comp=Z,883nm,18.1s,baz=94,slow=41						
	comp=Z,8.7nm,0.6s						
GNI	**Garni**	**77.99**	**309**	P	**P**	**22 25 14.3**	**+0.9**
GNI	**Garni**	**77.99**	**309** *c*	*i*P	**P**	**22 25 13.3**	**-0.1**
GNI				pmax	pmax		
	comp=Z,96nm,1.5s						
GNI	**Garni**	**77.99**	**309**	P	**P**	**22 25 13.2**	**-0.2**
GNI	**Garni**	**77.99**	**309**	P	**P**	**22 25 13.5**	**+0.1**
GNI	**Garni**	**77.99**	**309**	P	**P**	**22 25 13.2**	**-0.2**
	comp=Z,1µmcomp=Z,53nm,1.2s						
D22K	**Ayikyak River**	**78.01**	**21**	IAmb	IAmb	22 25 17.4	
	comp=Z,47nm,1.2s						
RAR	**Rarotonga**	**78.22**	**114**	LR	LR	22 54 37.3	
	comp=Z,598nm,19.3s,baz=293,slow=32						
H22K	**Ishtalitna Cre**	**78.28**	**25**	IAmb	IAmb	22 25 19.1	
	comp=Z,49nm,1.1s						
H22K				IAMs_20	IAMs_20	23 02 49.3	
	comp=Z,2µm,19.0s						
RAYN	**Ar Rayn**	**78.37**	**292**	P	**P**	**22 25 15.1**	**-0.6**
RAYN	**Ar Rayn**	**78.37**	**292**	⇑P	**P**	**22 25 15.2**	**-0.6**
RAYN	**Ar Rayn**	**78.37**	**292**	P	**P**	**22 25 14.9**	**-0.8**
RAYN				IAmb	IAmb	22 25 27.3	
	comp=Z,34nm,0.8s						
RAYN	**Ar Rayn**	**78.37**	**292**	*i* P	**P**	**22 25 14.6**	**-1.1**
	SNR=34						
MLY	**Manley**	**78.50**	**25**	IAmb	IAmb	22 25 19.7	
	comp=Z,43nm,1.1s						
MLY				IAMs_20	IAMs_20	23 00 23.0	
	comp=Z,2µm,19.0s						
SLKM	**Skilak Lake**	**78.56**	**30**	IAmb	IAmb	22 25 19.6	
	comp=Z,72nm,1.1s						
OZAP	**Van, Ozalp-Mer**	**78.63**	**308**	⇓P	**P**	**22 25 17.6**	**+0.5**
NCK	**Nalchik**	**78.73**	**313**	⇑*i*P	**P**	**22 25 15.5**	**-1.7**
NCK				pmax	pmax		
	comp=Z,23nm,0.8s						
D23K	**Nanushuk River**	**78.74**	**21**	IAmb	IAmb	22 25 21.7	
	comp=Z,63nm,1.1s						
O22K	**Cooper Landing**	**78.81**	**30**	IAMs_20	IAMs_20	22 58 12.9	
	comp=Z,2µm,20.0s						
RC01	**Rabbit Creek A**	**78.81**	**29**	IAMs_20	IAMs_20	23 04 55.7	
	comp=Z,1µm,20.0s						
C23K	**Itkillik River**	**78.82**	**21**	IAmb	IAmb	22 25 21.5	
	comp=Z,89nm,1.2s						
C23K				IAMs_20	IAMs_20	23 00 50.4	
	comp=Z,2µm,21.0s						
G23K	**Bananza Creek**	**78.87**	**24**	IAmb	IAmb	22 25 22.3	
	comp=Z,66nm,1.2s						
SEW	**Seward**	**78.94**	**30**	IAmb	IAmb	22 25 21.2	
	comp=Z,79nm,1.3s						
SEW				IAMs_20	IAMs_20	23 07 02.1	
	comp=Z,2µm,20.0s						
BWN	**Browne**	**79.01**	**26**	IAmb	IAmb	22 26 29.1	
	comp=Z,131nm,1.7s						
BWN				IAMs_20	IAMs_20	23 01 17.7	
	comp=Z,2µm,19.0s						
H23K	**Yukon River**	**79.03**	**25**	IAMs_20	IAMs_20	23 03 21.2	
	comp=Z,2µm,19.0s						
E23K	**Chandalar**	**79.08**	**22**	IAmb	IAmb	22 25 23.6	
	comp=Z,78nm,1.1s						
E23K				IAMs_20	IAMs_20	23 03 06.5	
	comp=Z,1µm,19.0s						
I23K	**Minto, Yukon-K**	**79.08**	**25**	IAmb	IAmb	22 25 22.9	
	comp=Z,115nm,1.8s						
I23K				IAMs_20	IAMs_20	23 01 08.6	
	comp=Z,2µm,20.0s						
PMR	**Palmer**	**79.11**	**29**	IAmb	IAmb	22 25 21.9	
	comp=Z,65nm,1.1s						
KBZ	**Khabaz**	**79.22**	**313**	P	**P**	**22 25 19.4**	**-0.5**
	comp=Z,14nm,1.0s,baz=82,slow=3.5,SNR=24						
KBZ				LR	LR	23 07 29.1	
	comp=Z,2µm,18.0s,baz=82,slow=41						
	comp=Z,14nm,1.0s						
KBZ	**Khabaz**	**79.22**	**313** *c*	*i*P	**P**	**22 25 19.2**	**-0.7**
KBZ				pmax	pmax		
	comp=Z,47nm,1.7s						
RND	**Reindeer**	**79.27**	**27**	IAMs_20	IAMs_20	23 05 40.5	
	comp=Z,1µm,19.0s						
KIV	**Kislovodsk**	**79.37**	**313**	P	**P**	**22 25 21.4**	**+0.6**
KIV	**Kislovodsk**	**79.37**	**313**	*e*P	**P**	**22 25 19.5**	**-1.3**
KIV				*e*S	**S**	**22 35 19.9**	**-1.0**
KIV				*e*SS	**SS**	**22 40 29.1**	**+1.1**
KIV				*e*SSS	SSS	22 43 53.8	
KIV				pmax	pmax		
	comp=Z,27nm,1.0s						
KIV	**Kislovodsk**	**79.37**	**313**	P	**P**	**22 25 20.8**	**0.0**
KIV				IAmb	IAmb	22 25 33.6	
	comp=Z,37nm,0.8s						
KIV	**Kislovodsk**	**79.37**	**313**	*i* P	**P**	**22 25 20.1**	**-0.7**
	SNR=13						
KIV	**Kislovodsk**	**79.37**	**313**	⇑P	**P**	**22 25 21.6**	**+0.7**
KIV	**Kislovodsk**	**79.37**	**313**	P	**P**	**22 25 20.6**	**-0.2**
	comp=Z,942nmcomp=Z,42nm,1.3s						
GEVA	**Gevas**	**79.38**	**307**	IAmb	IAmb	22 25 23.0	
	comp=Z,185nm,1.8s						
SHA1	**Shidzhatmaz**	**79.40**	**313** *c*	*i*P	**P**	**22 25 18.9**	**-2.3**
D24K	**Happy Valley**	**79.42**	**21**	IAmb	IAmb	22 25 25.0	
	comp=Z,82nm,1.1s						
KNK	**Knik Glacier**	**79.44**	**29**	IAMs_20	IAMs_20	22 58 38.2	
	comp=Z,2µm,21.0s						
C24K	**Franklin Bluff**	**79.48**	**21**	IAmb	IAmb	22 25 25.7	
	comp=Z,82nm,1.3s						
C24K				IAMs_20	IAMs_20	23 01 42.8	
	comp=Z,2µm,20.0s						
SML	**Sawmill**	**79.50**	**29**	IAmb	IAmb	22 25 24.6	
	comp=Z,87nm,1.0s						
SBV	**Sambava**	**79.52**	**254**	P	**P**	**22 25 23.6**	**+1.6**
WRH	**Wood River Hil**	**79.61**	**26**	IAMs_20	IAMs_20	23 01 00.7	
	comp=Z,2µm,20.0s						
H24K	**Noodor Dome**	**79.71**	**25**	IAMs_20	IAMs_20	23 04 01.2	
	comp=Z,2µm,19.0s						
COLA	**College**	**79.72**	**26**	P	**P**	**22 25 24.1**	**+2.0**
COLA	**College**	**79.72**	**26**	P	**P**	**22 25 22.7**	**+0.5**
COLA				pmax	pmax		
	comp=Z,22nm,0.8s						
COLA				MLR	MLR		
	comp=Z,2µm,20.0s						
COLA	**College**	**79.72**	**26**	P	**P**	**22 25 22.7**	**+0.5**
COLA	**College**	**79.72**	**26**	IAMs_20	IAMs_20	23 01 29.4	
	comp=Z,2µm,20.0s						
VRH	**Novokhopyorsk**	**79.73**	**320**	*e*P	**P**	**22 25 21.0**	**-1.5**
VRH				pmax	pmax		
	comp=Z,34nm,0.9s						
CCB	**Clear Creek Bu**	**79.74**	**26**	IAMs_20	IAMs_20	23 00 22.0	
	comp=Z,1µm,20.0s						
P23K	**Montague Islan**	**79.97**	**31**	IAmb	IAmb	22 25 53.1	
	comp=Z,120nm,1.2s						
P23K				IAMs_20	IAMs_20	22 58 20.3	
	comp=Z,3µm,21.0s						
GLI	**Glacier Island**	**80.10**	**30**	IAmb	IAmb	22 25 27.9	
	comp=Z,92nm,1.2s						
HDA	**Harding Lake**	**80.11**	**26**	IAMs_20	IAMs_20	23 00 44.8	
	comp=Z,1µm,20.0s						
ILAR	**Eielson Array**	**80.13**	**26**	P	**P**	**22 25 24.4**	**0.0**
	comp=Z,6.9nm,0.9s,baz=246,slow=5.4,SNR=29						
ILAR				PKKPbc	**PKKPbc**	**22 44 14.0**	**+3.2**
	comp=Z,0.6nm,0.8s,baz=71,slow=1.6,SNR=5.5						
ILAR				LR	LR	23 01 04.4	
	comp=Z,1µm,20.5s,baz=269,slow=36						
	comp=Z,6.9nm,0.9s						
ILAR	**Eielson Array**	**80.13**	**26**	P	**P**	**22 25 23.6**	**-0.9**
HOMI	**Horasan**	**80.17**	**309**	⇓P	**P**	**22 25 24.7**	**-0.8**
GURO	**Guroymak-BITLI**	**80.17**	**308**	IAmb	IAmb	22 25 43.0	
	comp=Z,68nm,0.8s						
D25K	**Kavik River**	**80.29**	**21**	IAmb	IAmb	22 25 29.5	
	comp=Z,55nm,1.1s						
FID	**Port Fidalgo**	**80.41**	**30**	IAmb	IAmb	22 25 29.6	
	comp=Z,74nm,1.2s						
FID				IAMs_20	IAMs_20	23 07 49.4	
	comp=Z,2µm,20.0s						
HIN	**Hinchinbrook I**	**80.41**	**30**	IAmb	IAmb	22 25 30.4	
	comp=Z,100nm,1.3s						
HIN				IAMs_20	IAMs_20	22 59 10.9	
	comp=Z,3µm,21.0s						
E25K	**Arctic Village**	**80.60**	**22**	IAMs_20	IAMs_20	23 04 53.6	
	comp=Z,1µm,19.0s						
KLMR	**Klimovskoe**	**80.62**	**330**	*e*P	**P**	**22 25 25.7**	**-1.4**
KLMR				S	**S**	**22 35 32.7**	**-0.6**
KLMR				pmax	pmax		
	comp=Z,182nm,1.5s						
K24K	**Donnelly Dome**	**80.64**	**27**	IAmb	IAmb	22 25 32.4	
	comp=Z,77nm,1.2s						
K24K				IAMs_20	IAMs_20	23 03 14.8	
	comp=Z,1µm,19.0s						
PRP	**Porcupine Dome**	**80.69**	**25**	IAMs_20	IAMs_20	23 01 58.1	
	comp=Z,2µm,20.0s						
LABN	**Labinsk**	**80.73**	**314**	*e*P	**P**	**22 25 30.7**	**+2.6**
LABN				*e*S	**S**	**22 35 34.8**	**-0.3**
LABN				pmax	pmax		
	comp=N,8.0nm,0.7s						
DIV	**Divide**	**80.74**	**29**	IAmb	IAmb	22 25 31.9	
	comp=Z,78nm,1.1s						
DIV				IAMs_20	IAMs_20	23 07 44.6	
	comp=Z,2µm,19.0s						
EYAK	**Cordova Ski Ar**	**80.77**	**30**	P	**P**	**22 25 29.2**	**+1.3**
FYU	**Fort Yukon**	**80.78**	**24**	IAmb	IAmb	22 25 46.4	
	comp=Z,131nm,1.6s						
ERBR	**Yeremizino-Bor**	**80.83**	**315**	*e*P	**P**	**22 25 27.0**	**-1.6**
ERBR				*e*S	**S**	**22 35 34.8**	**-1.3**
ERBR				pmax	pmax		
	comp=Z,54nm,1.5s						
HARP	**HAARP**	**80.98**	**28**	IAmb	IAmb	22 25 33.2	
	comp=Z,135nm,1.5s						
BMAR	**Burnt Mountain**	**81.00**	**23**	P	**P**	**22 25 30.2**	**+1.1**
RIDG	**Independent Ri**	**81.05**	**27**	IAmb	IAmb	22 25 33.6	
	comp=Z,108nm,1.2s						
RIDG				IAMs_20	IAMs_20	23 00 13.8	
	comp=Z,2µm,21.0s						
ADZR	**Andozero**	**81.06**	**333**	*e*P	**P**	**22 25 27.9**	**-1.5**
ADZR				pmax	pmax		
	comp=Z,80nm,1.3s						
C27K	**Jago River**	**81.22**	**21**	IAMs_20	IAMs_20	23 02 37.1	
	comp=Z,2µm,20.0s						
KOPT	**Kop Dagi**	**81.25**	**309**	IAmb	IAmb	22 25 53.6	
	comp=Z,35nm,0.9s						
VORR	**Voronezh**	**81.28**	**321**	*e*P	**P**	**22 25 29.7**	**-1.1**
VORR				pmax	pmax		
	comp=Z,25nm,0.5s						
BMRM	**Bremner River**	**81.31**	**30**	IAMs_20	IAMs_20	22 59 32.8	
	comp=Z,2µm,21.0s						
RAGM	**Ragged Mountai**	**81.31**	**30**	IAmb	IAmb	22 25 35.9	
	comp=Z,68nm,1.2s						
RAGM				IAMs_20	IAMs_20	23 06 03.9	
	comp=Z,1µm,19.0s						
VSLR	**Vesyoloye**	**81.32**	**313** *c*	*i*P	**P**	**22 25 29.9**	**-1.3**
VSLR				pmax	pmax		
	comp=Z,45nm,1.1s						
VSR	**Storozhevoye**	**81.33**	**321**	*e*P	**P**	**22 25 29.8**	**-1.3**
VSR				pmax	pmax		
	comp=Z,52nm,1.8s						
LPSR	**Galich'ya Gora**	**81.39**	**322**	*e*P	**P**	**22 25 30.4**	**-0.9**
LPSR				pmax	pmax		
	comp=Z,67nm,0.9s						
SOC	**Sochi**	**81.54**	**313** *c*	*i*P	**P**	**22 25 29.6**	**-2.8**
SOC				*e*S	**S**	**22 35 39.0**	**-4.5**
SOC				*e*SS	**SS**	**22 41 03.5**	**+3.3**
SOC				*e*SSS	SSS	22 44 17.6	
MENT	**Mentasta**	**81.61**	**28**	P	**P**	**22 25 33.7**	**+1.3**
MENT	**Mentasta**	**81.61**	**28**	IAmb	IAmb	22 25 52.6	
	comp=Z,36nm,1.0s						
GLB	**Gilahina Butte**	**81.67**	**29**	IAmb	IAmb	22 25 37.5	
	comp=Z,62nm,1.1s						
I26K	**Coal Creek Min**	**81.69**	**25**	IAMs_20	IAMs_20	23 05 33.6	
	comp=Z,2µm,20.0s						
L26K	**Log Cabin Wild**	**81.77**	**27**	IAMs_20	IAMs_20	23 03 57.8	
	comp=Z,1µm,19.0s						
BERG	**Berg Lake**	**81.80**	**30**	IAmb	IAmb	22 25 38.4	
	comp=Z,92nm,1.1s						
VRDI	**Verde Repeater**	**81.86**	**29**	IAMs_20	IAMs_20	22 59 30.1	
	comp=Z,2µm,21.0s						
MOS	**Moscow**	**81.92**	**325**	*e*P	**P**	**22 25 33.2**	**-0.9**
MOS				*e*		22 28 41.0	
MOS				*e*PPP	PPP	22 30 32.9	
MOS				*e*S	**S**	**22 35 44.9**	**-2.0**
MOS				*e*SS	**SS**	**22 41 06.4**	**+1.2**
MOS				*e*SSS	SSS	22 44 22.3	
MOS				pmax	pmax		
	comp=Z,64nm,0.8s						
MOS				smax	smax		
	comp=N,2µm,4.8s						
M26K	**Nabesna, AK**	**81.98**	**28**	IAmb	IAmb	22 25 38.6	
	comp=Z,46nm,1.2s						
CRQM	**Cirque**	**82.04**	**30**	IAMs_20	IAMs_20	23 07 44.8	
	comp=Z,2µm,19.0s						
MCARA	**McCarthy VSAT**	**82.05**	**29**	IAmb	IAmb	22 26 10.0	
	comp=Z,58nm,1.2s						
E27K	**Coleen River**	**82.08**	**22**	IAmb	IAmb	22 25 39.5	
	comp=Z,39nm,1.1s						
E27K				IAMs_20	IAMs_20	23 09 23.0	
	comp=Z,1µm,20.0s						
TGL	**Tana Glacier**	**82.20**	**30**	IAmb	IAmb	22 25 39.8	
	comp=Z,59nm,1.1s						
TGL				IAMs_20	IAMs_20	23 07 49.2	
	comp=Z,2µm,19.0s						
D27M	**Malcolm River**	**82.22**	**21**	IAMs_20	IAMs_20	23 06 39.2	
	comp=Z,1µm,20.0s						
K27K	**Chicken**	**82.26**	**26**	IAMs_20	IAMs_20	23 00 48.7	
	comp=Z,2µm,21.0s						
ATD	**Arta Tunnel**	**82.26**	**280**	P	**P**	**22 25 37.1**	**+0.3**
	SNR=12						
ATD	**Arta Tunnel**	**82.26**	**280**	IAmb	IAmb	22 25 50.2	
	comp=Z,45nm,1.1s						
LVZ	**Lovozero**	**82.27**	**338**	⇑*i*P	**P**	**22 25 35.4**	**-0.4**
LVZ				pmax	pmax		
	comp=Z,53nm,1.2s						
LVZ	**Lovozero**	**82.27**	**338**	P	**P**	**22 25 36.0**	**+0.2**
LVZ	**Lovozero**	**82.27**	**338**	P	**P**	**22 25 35.4**	**-0.4**
	comp=Z,4µmcomp=Z,85nm,1.3s						
I27K	**Kandik River**	**82.31**	**25**	IAMs_20	IAMs_20	23 04 11.9	
	comp=Z,1µm,19.0s						
L27K	**Beaver Creek,**	**82.46**	**27**	IAmb	IAmb	22 25 41.5	
	comp=Z,34nm,1.1s						
BCAR	**Beaver Creek A**	**82.48**	**27**	P	**P**	**22 25 38.0**	**+1.1**
M27K	**Edge Creek, AK**	**82.50**	**28**	IAmb	IAmb	22 25 41.6	
	comp=Z,45nm,1.2s						
OBN	**Obninsk**	**82.57**	**325** *c*	*i*P	**P**	**22 25 36.2**	**-1.3**
OBN				*e**SP	**pP**	**22 25 40.8**	**-1.0**
OBN				*e*		22 25 42.7	
OBN				*i*		22 28 41.6	
OBN				*i* S	**S**	**22 35 49.6**	**-4.0**
OBN				*i* SS	**SS**	**22 41 22.2**	**+7.3**
OBN				*e*SSS	SSS	22 44 41.6	
OBN				pmax	pmax		
	comp=Z,202nm,3.4s						
OBN	**Obninsk**	**82.57**	**325**	P	**P**	**22 25 36.9**	**-0.6**
OBN				IAmb	IAmb	22 25 50.7	
	comp=Z,77nm,1.2s						
OBN	**Obninsk**	**82.57**	**325**	⇑P	**P**	**22 25 37.0**	**-0.5**
OBN	**Obninsk**	**82.57**	**325**	P	**P**	**22 25 36.7**	**-0.8**
	comp=Z,2µmcomp=Z,62nm,1.1s						
GRNC	**Granite Creek**	**82.72**	**30**	IAmb	IAmb	22 25 43.0	
	comp=Z,64nm,1.2s						
GRNC				IAMs_20	IAMs_20	23 00 25.1	
	comp=Z,2µm,20.0s						
BARN	**Barnard Glacie**	**82.74**	**29**	IAmb	IAmb	22 25 43.2	
	comp=Z,75nm,1.1s						
BARN				IAMs_20	IAMs_20	23 07 30.4	
	comp=Z,1µm,19.0s						
YAH	**Yahtse**	**82.77**	**30**	IAMs_20	IAMs_20	22 59 57.3	
	comp=Z,2µm,22.0s						
APA	**Apatity**	**82.78**	**337**	⇓*i*P	**P**	**22 25 37.3**	**-1.1**
APA				*i*		22 28 42.9	
APA				*i* S	**S**	**22 35 53.8**	**-1.5**
APA				*i* SS	**SS**	**22 41 17.7**	**+0.3**
F28M	**Old Crow**	**82.79**	**23**	IAmb	IAmb	22 25 42.9	
	comp=Z,33nm,1.0s						
E28M	**Babbage River**	**82.80**	**22**	IAmb	IAmb	22 25 43.1	
	comp=Z,38nm,1.1s						
E28M				IAMs_20	IAMs_20	23 05 47.9	
	comp=Z,1µm,19.0s						
ARPR	**Arapgir-MALATY**	**83.00**	**308**	IAmb	IAmb	22 25 52.8	
	comp=Z,86nm,1.5s						
I28M	**Miner Creek**	**83.02**	**25**	IAMs_20	IAMs_20	23 03 19.9	
	comp=Z,2µm,20.0s						
ANN	**Anapa**	**83.06**	**314**	*e*P	**P**	**22 25 39.2**	**-1.1**
ANN				*e*S	**S**	**22 35 55.7**	**-3.3**
ANN				pmax	pmax		
	comp=Z,75nm,1.2s						
LOGN	**Logan Glacier**	**83.08**	**30**	IAMs_20	IAMs_20	23 00 47.5	
	comp=Z,2µm,21.0s						
ABPO	**Ambohimpanom**	**83.22**	**250**	*i* P	**P**	**22 25 40.8**	**-1.0**
ABPO	**Ambohimpanom**	**83.22**	**250**	P	**P**	**22 25 40.4**	**-1.4**
E29M	**Blow River**	**83.43**	**22**	IAmb	IAmb	22 26 05.2	

	comp=Z,106nm,1.9s						
DAWY	Dawson	83.43	26	IAmb	IAmb	22 25 59.4	
	comp=Z,44nm,1.2s						
O28M	Mount Upton	83.48	30	IAmb	IAmb	22 26 04.6	
	comp=Z,51nm,0.9s						
O28M				IAMs_20	IAMs_20	23 07 37.4	
	comp=Z,1µm,20.0s						
PCA	Pinnacle	83.53	30	IAMs_20	IAMs_20	23 01 58.7	
	comp=Z,2µm,21.0s						
H29M	Whitestone	83.56	24	IAmb	IAmb	22 26 32.2	
	comp=Z,58nm,1.1s						
I29M	Ogilvie Camp,	83.71	25	IAMs_20	IAMs_20	23 06 46.9	
	comp=Z,2µm,19.0s						
VADS	Vadso	83.86	340	*e*P	P	22 25 44.5	+0.6
J29N	Klondike Camp	83.88	26	IAMs_20	IAMs_20	23 02 49.7	
	comp=Z,2µm,21.0s						
PNL	Peninsula	84.02	31	P	P	22 25 47.0	+2.0
M29M	Somme Creek	84.07	28	IAmb	IAmb	22 25 50.4	
	comp=Z,66nm,1.1s						
GAZ	Gaziantep	84.10	307	IAmb	IAmb	22 26 00.1	
	comp=Z,64nm,1.2s						
VOI	Vohitsoka	84.22	247	P	P	22 25 45.1	-1.8
K29M	Barlow Dome	84.28	26	IAmb	IAmb	22 26 04.1	
	comp=Z,71nm,1.3s						
K29M				IAMs_20	IAMs_20	23 08 58.2	
	comp=Z,2µm,19.0s						
TOKA	Tokat	84.28	310	IAmb	IAmb	22 25 59.2	
	comp=Z,30nm,1.2s						
G30M	tAoh Zraii Nji	84.28	23	IAmb	IAmb	22 26 02.7	
	comp=Z,66nm,1.2s						
G30M				IAMs_20	IAMs_20	23 07 01.2	
	comp=Z,1µm,19.0s						
O29M	Mount Kennedy	84.34	30	IAmb	IAmb	22 26 04.9	
	comp=Z,67nm,1.2s						
O29M				IAMs_20	IAMs_20	23 10 28.0	
	comp=Z,2µm,19.0s						
I30M	Mount Dempster	84.53	25	IAMs_20	IAMs_20	23 04 27.9	
	comp=Z,2µm,20.0s						
J30M	Hart River	84.67	25	IAmb	IAmb	22 26 06.6	
	comp=Z,73nm,1.4s						
J30M				IAMs_20	IAMs_20	23 03 34.4	
	comp=Z,2µm,20.0s						
KEV	Kevo	84.72	340	P	P	22 25 48.6	+0.3
KEV				pmax	pmax		
	comp=Z,128nm,1.7s						
KEV	Kevo	84.72	340	P	P	22 25 48.5	+0.3
MSF	Maaselka	84.74	336	P	P	22 25 48.0	-0.5
N30M	Aishikik Lake	84.87	29	IAMs_20	IAMs_20	23 01 39.0	
	comp=Z,1µm,21.0s						
BNN	Bunyan	84.95	308	IAmb	IAmb	22 26 02.6	
	comp=Z,65nm,1.4s						
ASF	Jabal al Asfar	85.00	302	LR	LR	23 08 46.2	
	comp=Z,665nm,21.3s,baz=56,slow=39						
INK	Inuvik	85.04	22	LR	LR	23 07 20.7	
	comp=Z,763nm,19.2s,baz=264,slow=38						
INK	Inuvik	85.04	22	IAmb	IAmb	22 25 53.7	
	comp=Z,53nm,1.1s						
G31M	Satah River	85.05	23	IAmb	IAmb	22 25 53.6	
	comp=Z,67nm,1.1s						
G31M				IAMs_20	IAMs_20	23 07 23.4	
	comp=Z,1µm,20.0s						
SPA0	Spitsbergen Ar	85.08	349	*e*P	P	22 25 50.5	+0.4
SPITS	Spitsbergen Ar	85.08	349	P	P	22 25 49.8	-0.2
	comp=Z,95nm,1.0s,baz=84,slow=7.6,SNR=24						
SPITS				LR	LR	23 10 38.6	
	comp=Z,2µm,19.0s,baz=68,slow=40						
	comp=Z,95nm,1.0s						
SPITS	Spitsbergen Ar	85.08	349	P	P	22 25 50.4	+0.4
SPITS				pmax	pmax		
	comp=Z,120nm,1.1s						
F31M	Tsiigehtchic	85.14	22	IAmb	IAmb	22 26 06.9	
	comp=Z,51nm,1.1s						
BEIL	Beino	85.27	304	*e*P	P	22 25 51.9	+0.1
ARA0	ARCESS Array S	85.29	340	*e*P	P	22 25 51.2	+0.1
ARCES	ARCESS Array B	85.29	340	P	P	22 25 50.3	-0.9
	comp=Z,24nm,0.6s,baz=77,slow=4.4,SNR=80						
ARCES				LR	LR	23 08 26.4	
	comp=Z,1µm,19.9s,baz=78,slow=39						
	comp=Z,24nm,0.6s						
ARCES	ARCESS Array B	85.29	340	P	P	22 25 51.8	+0.7
ARCES				pmax	pmax		
	comp=Z,56nm,1.1s						
ARCES	ARCESS Array B	85.29	340	P	P	22 25 51.8	+0.7
ARCES				IAmb	IAmb	22 25 54.6	
	comp=Z,56nm,1.1s						
SIM	Simferopol'	85.38	315	*e*P	P	22 25 49.5	-2.6
SIM				*e*S	SKSac	22 36 13.0	-3.5
SIM				pmax	pmax		
	comp=Z,55nm,0.8s						
N31M	Braeburn, Yuko	85.48	29	IAMs_20	IAMs_20	23 01 35.2	
	comp=Z,2µm,22.0s						
HWQ	Hawqa	85.50	304	*e*P	P	22 25 52.7	-0.5
ZAHL	Zahle	85.61	303	*e*P	P	22 25 53.7	0.0
RCY	Rachaya	85.71	303	*e*P	P	22 25 54.1	-0.1
SHBL	Chebaa	85.80	303	*e*P	P	22 25 54.7	0.0
GEM	Giv'at Ha'Em	85.89	303	P	P	22 25 56.9	+2.0
M31M	Drury Creek, Y	85.98	28	IAMs_20	IAMs_20	23 02 14.4	
	comp=Z,1µm,21.0s						
QRNJ	Al-Qirein	86.09	302	P	P	22 25 59.1	+3.2
SKAG	Skagway	86.10	30	P	P	22 25 57.0	+1.7
OUL	Oulu	86.20	335	P	P	22 25 57.6	+1.9
OUL				pmax	pmax		
	comp=Z,54nm,2.0s						
KTK1	Kautokeino	86.20	339	*e*P	P	22 25 56.1	+0.4
GHAJ	Ghor Haditha	86.25	301	IAmb	IAmb	22 26 13.5	
	comp=Z,40nm,0.7s						
GHAJ	Ghor Haditha	86.25	301	P	P	22 25 57.2	+0.5
LISJ	El Lisan	86.33	301	P	P	22 25 58.9	+1.9
KIRS	Kirsehir-Merke	86.40	309	⇑P	P	22 25 57.7	+0.2
SALP	Salfit	86.45	302	P	P	22 25 59.4	+1.7
BR131	Keskin Array S	86.52	310	*e*P	P	22 25 57.3	-0.8
BRTR	Keskin Array B	86.52	310	P	P	22 25 57.0	-1.1
	comp=Z,2.2nm,0.8s,baz=104,slow=4.6,SNR=8.3						
BRTR				LR	LR	23 09 58.2	
	comp=Z,568nm,21.3s,baz=70,slow=39						
	comp=Z,2.2nm,0.8s						
BRTR	Keskin Array B	86.52	310	P	P	22 25 57.0	-1.1
BR104	Keskin Array S	86.52	309	P	P	22 25 56.6	-1.5
	comp=Z,70nmcomp=Z,7.7nm,1.1s						
BR106	Keskin Array S	86.54	310	P	P	22 25 57.4	-0.7
	comp=Z,78nmcomp=Z,6.7nm,0.9s						
BR105	Keskin Array S	86.54	310	P	P	22 25 57.4	-0.8
	comp=Z,87nmcomp=Z,8.3nm,1.1s						
PPT	Papeete	86.81	108	LR	LR	22 58 31.3	
	comp=Z,1µm,20.1s,baz=284,slow=31						
PPT2	Papeete2	86.82	108	*e*P	P	22 25 59.4	-0.4
	comp=Z,252nm,22.5s						
PPT2				*e*S	S	22 36 33.6	-3.8
	comp=Z,879nm,25.5s						
PPT2				*e*SS	SS	22 42 18.9	-0.9
	comp=Z,442nm,26.8s						
PPT2				*e*LQ	LQ	22 49 27.2	
	comp=Z,939nm,28.2s						
PPT2				*e*LR	LR	22 53 19.2	
	comp=Z,3µm,27.8s						
PPT2				*e*LR	LR	22 53 28.8	
	comp=Z,2µm,28.2s						
N32M	Quiet Lake	86.83	29	IAMs_20	IAMs_20	23 10 05.7	
	comp=Z,1µm,19.0s						
PRNI	Paran	86.87	300	P	P	22 26 00.3	+0.5
P32M	Atlin	86.87	30	IAMs_20	IAMs_20	23 12 00.1	
	comp=Z,2µm,19.0s						
HRFI	Mount Harif	86.89	300	P	P	22 26 00.7	+0.8
S32K	Killisnoo	86.90	32	IAMs_20	IAMs_20	23 10 05.8	
	comp=Z,1µm,19.0s						
AQBJ	Aqaba	86.93	299	P	P	22 26 02.3	+2.2
FINES	FINESS Array B	86.99	332	P	P	22 25 58.8	-0.9
	comp=Z,4.3nm,0.5s,baz=80,slow=5.3,SNR=32						
FINES				LR	LR	23 09 26.6	
	comp=Z,2µm,19.5s,baz=87,slow=39						
	comp=Z,4.3nm,0.5s						
FINES	FINESS Array B	86.99	332	P	P	22 25 59.5	-0.2
FINES	FINESS Array B	86.99	332	P	P	22 25 59.5	-0.2
JETT	Jettan, Norway	87.00	340	*e*P	P	22 25 59.4	-0.2
EIL	Elat	87.02	299	LR	LR	23 09 49.4	
	comp=Z,759nm,20.9s,baz=74,slow=39						
EIL	Elat	87.02	299	P	P	22 26 01.1	+0.6
P33M	Teslin, Yukon	87.17	29	IAMs_20	IAMs_20	23 03 26.9	
	comp=Z,1µm,21.0s						
MMPY	Sheldon Lake,	87.30	27	IAmb	IAmb	22 26 06.0	
	comp=Z,60nm,1.7s						
VSU	Vasula	87.36	329	*e*P	P	22 26 01.0	-0.5
VSU				pmax	pmax		
	comp=Z,123nm,2.4s						
CSS	Mathiatis	87.53	305	IAmb	IAmb	22 26 18.5	
	comp=Z,23nm,0.6s						
AK09	Malin Array Si	87.61	321	P	P	22 26 01.5	-1.4
AK08	Malin Array Si	87.62	321	P	P	22 26 01.1	-1.9
AK03	Malin Array Si	87.62	321	P	P	22 26 01.3	-1.7
AKASG	Malin Array Be	87.63	321	P	P	22 26 01.9	-1.1
	comp=Z,3.2nm,0.7s,baz=67,slow=4.7,SNR=22						
	comp=Z,3.2nm,0.7s						
AKASG	Malin Array Be	87.63	321	*i* P	P	22 26 02.5	-0.5
AKASG				pmax	pmax		
	comp=Z,4.0nm,0.7s						
AKASG	Malin Array Be	87.63	321	P	P	22 26 02.8	-0.2
AKASG				IAmb	IAmb	22 26 15.0	
	comp=Z,64nm,1.6s						
AKBB	Malin Array Si	87.63	321	*e*P	P	22 26 02.6	-0.4
AKBB				pmax	pmax		
	comp=Z,40nm,1.4s						
AKBB	Malin Array Si	87.63	321	IAmb	IAmb	22 26 47.6	
	comp=Z,57nm,1.4s						
AKBB	Malin Array Si	87.63	321	P	P	22 26 01.3	-1.7
AK10	Malin Array Si	87.63	321	P	P	22 26 01.3	-1.7
AK01	Malin Array Si	87.64	321	P	P	22 26 01.3	-1.7
KIEV	Kiev	87.64	321	⇑P	P	22 26 02.6	-0.5
KIEV	Kiev	87.64	321	P	P	22 26 02.4	-0.7
KIEV				IAmb	IAmb	22 26 47.6	
	comp=Z,51nm,1.4s						
KIEV	Kiev	87.64	321	*i* P	P	22 26 02.0	-1.1
	SNR=5.4						
KIEV	Kiev	87.64	321	⇑P	P	22 26 02.6	-0.5
KIEV	Kiev	87.64	321	P	P	22 26 01.3	-1.7
	comp=Z,94nm,1.6s						
AK02	Malin Array Si	87.65	321	P	P	22 26 01.6	-1.5
AK05	Malin Array Si	87.66	321	P	P	22 26 01.7	-1.4
AK04	Malin Array Si	87.66	321	P	P	22 26 01.6	-1.5
AK06	Malin Array Si	87.67	321	P	P	22 26 01.6	-1.6
AK11	Malin Array Si	87.67	321	P	P	22 26 01.5	-1.7
AK07	Malin Array Si	87.67	321	P	P	22 26 01.7	-1.5
AK23	Malin Array Si	87.68	321	P	P	22 26 01.9	-1.3
AK12	Malin Array Si	87.68	321	P	P	22 26 01.8	-1.5
AK15	Malin Array Si	87.69	321	P	P	22 26 02.2	-1.1
AK16	Malin Array Si	87.71	321	P	P	22 26 01.8	-1.6
AK22	Malin Array Si	87.71	321	P	P	22 26 01.7	-1.7
Q32M	Nakina River	87.74	31	IAMs_20	IAMs_20	23 07 49.1	
	comp=Z,1µm,19.0s						
BAL3X	Bal3x, Balta	87.94	318	P	P	22 26 03.7	-0.8
R33M	Jennings River	88.28	30	IAMs_20	IAMs_20	23 12 51.3	
	comp=Z,1µm,18.0s						
KEPZ	Antalya-Kepez	88.58	307	⇑P	P	22 26 09.4	+1.5
LUBAR	Lubar, Ukraine	88.71	320	P	P	22 26 07.5	-0.7
SORM	Soroca	88.72	318	⇓P	P	22 26 08.4	+0.2
SORM	Soroca	88.72	318	⇓P	P	22 26 08.4	+0.2
SORM	Soroca	88.72	318	P	P	22 26 07.4	-0.8
	comp=Z,1µmcomp=Z,17nm,1.0s						
VNDA	Vanda	88.89	173	P	P	22 26 07.7	-0.6
	comp=Z,11nm,0.9s,baz=316,slow=5.6,SNR=20						
VNDA				PP	PP	22 29 36.6	-1.2
	comp=Z,5.4nm,1.2s,baz=306,slow=6.4,SNR=3.0						
VNDA				LR	LR	23 06 43.2	
	comp=Z,1µm,18.8s,baz=346,slow=36						
	comp=Z,11nm,0.9s						
MAW	Mawson	88.92	200	P	P	22 26 08.8	+0.2
	comp=Z,5.1nm,1.4s						
MAW	Mawson	88.92	200	P	P	22 26 08.1	-0.5
	comp=Z,18nm,1.1s,baz=42,slow=7.5,SNR=14						
MAW				LR	LR	23 02 24.6	
	comp=Z,808nm,21.7s,baz=57,slow=33						
	comp=Z,18nm,1.1s						
MAW	Mawson	88.92	200	P	P	22 26 08.7	+0.1
MAW				pmax	pmax		
	comp=Z,16nm,1.7s						
MAW	Mawson	88.92	200	P	P	22 26 08.7	+0.1
DLBC	Dease Lake	89.01	31	LR	LR	23 08 35.5	
	comp=Z,544nm,18.3s,baz=277,slow=37						
KIBK	Kibwezi	89.08	267	P	P	22 26 10.6	-0.1
	SNR=9.0						
KIBK	Kibwezi	89.08	267	P	P	22 26 10.3	-0.5
KIBK				IAmb	IAmb	22 26 23.2	
	comp=Z,32nm,1.1s						
WTLY	Watson Lake, Y	89.14	29	IAmb	IAmb	22 26 14.3	
	comp=Z,30nm,1.2s						
STEI	Steigen	89.34	339	*e*P	P	22 26 10.0	-0.7
VLDR	Vladesti	89.40	316	⇑P	P	22 26 12.4	+1.0
TIRR	Tirgusor	89.47	315	IAMs_20	IAMs_20	23 13 25.8	
	comp=Z,2µm,19.0s						
CFR	Carcaliu	89.50	316	⇑P	P	22 26 13.0	+1.0
CFR	Carcaliu	89.50	316	⇑P	P	22 26 13.0	+1.0
FAUS	Fauske	89.55	339	*e*P	P	22 26 11.5	-0.1
RNPP8	Varash	89.56	322	P	P	22 26 11.9	-0.2
RNPP5	Staryi Chortor	89.57	322	P	P	22 26 11.3	-0.8
KMBO	Kilima Mbogo	89.67	269	P	P	22 26 12.9	-0.8
	baz=67,slow=4.6						
HARR	Harsova	89.75	315	⇑P	P	22 26 13.8	+0.7
HARR	Harsova	89.75	315	⇑P	P	22 26 13.8	+0.7
SBA	Scott Base	89.79	172	P	P	22 26 13.3	+0.8
SBA				pmax	pmax		
	comp=Z,28nm,1.2s						
SBA	Scott Base	89.79	172	P	P	22 26 13.3	+0.8
SBA				IAmb	IAmb	22 26 55.8	
	comp=Z,28nm,1.1s						
GIRR	Girov	90.21	318	⇑P	P	22 26 15.9	+0.7
TESR	Tescani	90.21	317	⇑P	P	22 26 15.8	+0.5
TESR	Tescani	90.21	317	P	P	22 26 14.4	-0.9
	comp=Z,17nm,3.0s						
VRI	Vrincioaia	90.31	317	⇓P	P	22 26 16.5	+0.7
VRI	Vrincioaia	90.31	317	⇓P	P	22 26 16.5	+0.7
VRI	Vrincioaia	90.31	317	P	P	22 26 14.3	-1.5
	comp=Z,939nmcomp=Z,17nm,2.3s						
PLOR	Plostina	90.37	317	⇑P	P	22 26 16.5	+0.4
PLOR	Plostina	90.37	317	⇑P	P	22 26 16.5	+0.4
SUW	Suwalki	90.42	325	*e*P	P	22 26 15.7	-0.4
BIZ	Bicaz	90.47	318	⇑P	P	22 26 16.7	+0.2
TURR	Turia	90.75	317	⇑P	P	22 26 18.3	+0.5
LODK	Lodwar	90.82	274	P	P	22 26 18.2	-0.6
LEIR	Leirfjorden	90.86	338	*e*P	P	22 26 17.0	-0.8
BURAR	Bucovina Array	90.89	318	⇑P	P	22 26 18.7	+0.1
BURAR	Bucovina Array	90.89	318	P	P	22 26 18.3	-0.3
BURAR	Bucovina Array	90.89	318	⇑P	P	22 26 18.7	+0.1
BUR08	Bucovina Ar. S	90.90	319	IAmb	IAmb	22 27 06.0	
	comp=Z,41nm,1.8s						
MLR	Muntele Rosu	90.94	316	LR	LR	23 13 30.3	
	comp=Z,2µm,18.1s,baz=60,slow=40						
MLR	Muntele Rosu	90.94	316	⇓P	P	22 26 19.5	+0.6
MLR	Muntele Rosu	90.94	316	IAMs_20	IAMs_20	23 13 56.5	
	comp=Z,2µm,19.0s						
MLR	Muntele Rosu	90.94	316	⇓P	P	22 26 19.5	+0.6
DAG	Danmarks Havn	91.80	352	P	P	22 26 21.8	-0.2
DAG				pmax	pmax		
	comp=Z,110nm,1.1s						
KWP	Kalwaria Pacla	91.95	321	*e*P	P	22 26 22.9	-0.3
KWP	Kalwaria Pacla	91.95	321	P	P	22 26 23.0	-0.3
	comp=Z,33nm,1.4s						
NSS	Namsos	91.98	337	*e*P	P	22 26 23.1	0.0
BMR	Baia Mare	92.00	319	P	P	22 26 23.4	-0.2
RES	Resolute Bay	92.39	10	LR	LR	23 11 29.8	
	comp=Z,961nm,19.2s,baz=340,slow=38						
LOT	Lotru	92.42	317	⇑P	P	22 26 26.9	+1.2
BEL	Belsk	92.45	323	*e*P	P	22 26 25.0	-0.5
MARR	Marisel-Cluj	92.52	318	⇑P	P	22 26 26.0	-0.1
GZR	Gura Zlata	93.11	317	⇑P	P	22 26 29.4	+0.6
GZR	Gura Zlata	93.11	317	⇑P	P	22 26 29.4	+0.6
HFS	Hagfors	93.14	333	P	P	22 26 27.4	-1.1
	comp=Z,4.1nm,0.6s,baz=132,slow=2.2,SNR=13						
	comp=Z,4.1nm,0.6s						
NIE	Niedzica	93.51	321	*e*P	P	22 26 30.1	-0.5
NIE	Niedzica	93.51	321	P	P	22 26 29.2	-1.4
OJC	Ojcow	93.56	322	*e*P	P	22 26 30.8	0.0
OJC	Ojcow	93.56	322	P	P	22 26 30.7	0.0
OJC	Ojcow	93.56	322	P	P	22 26 30.1	-0.6
	comp=Z,17nm,2.9s						
NB2	NORSAR Subarra	93.85	334	P	P	22 26 30.4	-1.4
	comp=Z,168nm,2.0s,baz=66,slow=4.6						
NB2	NORSAR Subarra	93.85	334	P	P	22 26 29.6	-2.3
NB2	NORSAR Subarra	93.85	334	P	P	22 26 30.4	-1.4
NOA	NORSAR Array B	93.85	334	P	P	22 26 30.5	-1.4
	comp=Z,2.9nm,0.7s,baz=65,slow=4.6,SNR=19						
NOA				LR	LR	23 13 15.2	
	comp=Z,2µm,18.5s,baz=60,slow=38						
	comp=Z,2.9nm,0.7s						
TULEG	Thule	93.85	4	IAMs_20	IAMs_20	23 10 21.3	
	comp=Z,2µm,20.0s						
LANS	Liptovska Anna	94.11	321	*e*P	P	22 26 35.0	+1.7
LANS	Liptovska Anna	94.11	321	*e*PDIFF	P	22 26 35.0	+1.7
IDI	Anoyia	94.23	307	LR	LR	23 14 17.8	
	comp=Z,374nm,20.5s,baz=96,slow=39						
TAOE	Nuku Hiva Isla	94.44	98	*e*S	S	22 37 44.4	-3.3
	comp=Z,1µm,26.2s						
TAOE				*e*LR	LR	22 56 53.3	
	comp=Z,4µm,30.5s						
YKA	Yellowknife Ar	94.47	24	P	P	22 26 34.5	-0.1
	comp=Z,6.6nm,0.9s,baz=297,slow=4.5,SNR=19						
YKA				PKKPbc	PKKPbc	22 43 38.4	+2.5
	comp=Z,1.2nm,0.9s,baz=136,slow=1.4,SNR=4.6						
YKA				LR	LR	23 08 19.9	
	comp=Z,646nm,21.9s,baz=298,slow=35						
	comp=Z,6.6nm,0.9s						
YKA	Yellowknife Ar	94.47	24	*i* P	P	22 26 36.2	+1.6
YKA				pmax	pmax		
	comp=Z,7.0nm,0.9s						
YKA	Yellowknife Ar	94.47	24	P	P	22 26 34.9	+0.3
JMIC	Jan Mayen	94.50	347	LR	LR	23 15 03.1	
	comp=Z,927nm,19.5s,baz=54,slow=39						
YKAW1	Yellowknife Wh	94.53	24	IAmb	IAmb	22 26 38.5	
	comp=Z,21nm,1.1s						
OSL	Oslo	94.57	333	*e*P	P	22 26 34.7	-0.4
MOL	Molde	94.65	336	*e*P	P	22 26 35.7	+0.3
VYHS	Vyhne	94.72	321	*e*P	P	22 26 37.4	+1.3
VYHS	Vyhne	94.72	321	*e*PDIFF	P	22 26 37.4	+1.3
STEB	Steborice	94.89	322	*e*P	P	22 26 27.5	-9.3
MAUC	Maruska	95.05	322	*e*P	P	22 26 46.5	+8.9
MORC	Moravsky Berou	95.08	322	*e*P	P	22 26 37.1	-0.7
KONO	Kongsberg	95.21	333	*e*P	P	22 26 37.5	-0.5
JAVC	Velka Javorina	95.33	321	*e*P	P	22 26 39.5	+0.6
KRLC	Kraliky	95.44	323	*e*P	P	22 26 55.1	+16
KRLC				AMS	AMS	23 14 30.0	
	comp=Z,1µm,15.8s						
KSP	Ksiaz	95.44	323	*e*P	P	22 26 36.2	-3.2
KSP	Ksiaz	95.44	323	P	P	22 26 38.7	-0.6
	comp=Z,8.5nm,1.9s						
OSTC	Ostas	95.60	323	AMS	AMS	23 17 50.0	
	comp=Z,2µm,19.8s						
DPC	Dobruska-Polom	95.61	323	*e*P	P	22 26 44.1	+3.9
DPC				*e*		22 37 12.7	
DPC				*e*S	ScS	22 38 00.1	+2.9
DPC				MLR	MLR		
	comp=Z,2µm,15.8s						
DPC	Dobruska-Polom	95.61	323	*e*P	P	22 26 44.1	+3.9
DPC				*e*SKS	SKSac	22 37 12.7	-2.9
DPC				*e*S	ScS	22 38 00.1	+2.9
DPC				AMS	AMS	23 18 00.0	
	comp=Z,2µm,15.8s						
DPC	Dobruska-Polom	95.61	323	P	P	22 26 39.5	-0.7
	comp=Z,7.4nm,1.8s						
MORH	Mrgy, Hungar	95.61	318	⇑P	P	22 26 41.6	+1.4
MORH	Mrgy, Hungar	95.61	318	P	P	22 26 39.2	-1.0
	comp=Z,3.1nm,1.0s						
CHVC	Chvalec	95.68	323	AMS	AMS	23 17 40.0	
	comp=Z,2µm,18.7s						
UPC	Upice	95.73	323	AMS	AMS	23 17 40.0	
	comp=Z,2µm,20.1s						
MODS	Modra-Piesok	95.74	321	*e*P	P	22 26 40.3	-0.5
MODS	Modra-Piesok	95.74	321	*e*PDIFF	P	22 26 40.3	-0.5
VRAC	Vranov	95.83	322	LR	LR	23 14 00.6	
	comp=Z,629nm,18.2s,baz=74,slow=38						
VRAC	Vranov	95.83	322	*e*P	P	22 26 41.0	-0.1
ZST	Bratislava	95.91	321	*e*P	P	22 26 40.2	-1.3
ZST	Bratislava	95.91	321	*e*PDIFF	P	22 26 40.2	-1.3
MPLH	Magyarpolny	96.00	320	P	P	22 26 41.3	-0.6
KRUC	Moravsky	96.04	322	*e*P	P	22 26 41.7	-0.4
LLLB	Lillooet	96.08	37	IAmb	IAmb	22 27 11.7	
	comp=Z,18nm,1.3s						
HOMB	Homborsund	96.37	332	*e*P	P	22 26 42.6	-0.7
E03A	Lebam	96.53	41	IAmb	IAmb	22 26 48.8	
	comp=Z,22nm,1.1s						
WINA	Alland / Wiene	96.59	321	*e*P	P	22 26 44.5	-0.1
	comp=Z,9.8nm,1.7s						
RONA	Rosalia, Austr	96.60	320	*e*P	P	22 26 44.5	-0.2
	comp=Z,1.9nm,0.9s						
BLS5	Blasjo	96.72	334	*e*P	P	22 26 44.7	-0.2
ABNA	Allensteig Bun	96.77	322	*e*P	P	22 26 45.3	-0.2
	comp=Z,3.5nm,0.9s						
CONA	Conrad Observa	96.79	321	*e*P	P	22 26 45.5	-0.1
	comp=Z,6.9nm,1.5s						
PRU	Pruhonice	96.81	323	AMS	AMS	23 19 20.0	
	comp=Z,3µm,17.1s						
BRG	Berggiesshubel	96.81	324	*e*P	P	22 26 45.0	-0.5
BRG				Amp		22 26 45.6	
	comp=Z,14nm,1.7s						
BRG	Berggiesshubel	96.81	324	S	S	22 38 12.0	+5.4
BRG	Berggiesshubel	96.81	324	SP	SP	22 39 26.0	-0.5
BRG	Berggiesshubel	96.81	324	SS	SS	22 44 44.0	+2.8
BLY	Banja Luka	97.08	317	IAMs_20	IAMs_20	23 17 06.9	
	comp=Z,1µm,20.0s						
CLL	Collm	97.17	325	*i* P	P	22 26 46.1	-1.0
CLL				*e*		22 37 26.0	
CLL				*e*S	ScS	22 38 14.0	+4.0
CLL				pmax	pmax		
	comp=Z,76nm,2.4s						
CLL				MLR	MLR		
	comp=Z,2µm,18.8s						
CLL	Collm	97.17	325	*i* P	P	22 26 46.1	-1.0
	comp=Z,76nm,2.4s						
CLL				*i* x	x	22 26 58.4	
	comp=Z,50nm,2.1s						
CLL				*e*PP	PP	22 30 48.0	+5.0
CLL				*e*SKSac	SKSac	22 37 26.0	+2.5
CLL				*e*S	ScS	22 38 14.0	+4.0
CLL				*e*PS	PS	22 39 34.0	+0.6
CLL				*e*PPS	PPS	22 40 14.0	
CLL				LH		22 59 00.0	
CLL				LV		23 01 00.0	
CLL				AMS	AMS	23 15 00.0	
	comp=N,2µm,19.0s						
CLL				AMS	AMS	23 15 00.0	
	comp=E,1µm,19.3s						
CLL				AMS	AMS	23 17 00.0	
	comp=Z,0.0nm,14.4s						
CLL				AMS	AMS	23 21 00.0	
	comp=Z,2µm,18.8s						
ZVC	Zvikov	97.23	323	*e*P	P	22 26 46.5	-1.0
ZVC				AMS	AMS	23 12 00.0	
	comp=Z,1µm,20.5s						
ARSA	Arzberg	97.25	320	*e*P	Pdif	22 26 47.6	-0.1
	comp=Z,4.7nm,1.2s						
COR	Corvallis	97.40	43	IAMs_20	IAMs_20	23 13 03.4	
	comp=Z,1µm,19.0s						
CKRC	Cesky Krumlov	97.40	322	AMS	AMS	23 19 00.0	
	comp=Z,2µm,17.1s						
JRO	Jston Ridge Ob	97.50	41	IAmb	IAmb	22 26 52.8	
	comp=Z,16nm,1.0s						
STD	Studebaker Rid	97.51	41	P	Pdif	22 26 49.5	+0.4
STD				IAmb	IAmb	22 26 52.9	
	comp=Z,18nm,1.1s						
SYO	Syowa Base	97.56	201	⇓*e*P	Pdif	22 26 48.6	+0.2
KHC	Kasperske Hory	97.72	322	*e*P	P	22 26 48.3	-1.5
KHC				*e**PP	pP	22 26 52.3	-1.8
KHC				*e*		22 37 25.7	
KHC				*e*S	ScS	22 38 16.5	+1.6
KHC				MLR	MLR		
	comp=Z,1µm,18.8s						
KHC	Kasperske Hory	97.72	322	*e*P	P	22 26 48.3	-1.5
	comp=Z,0.3nm,0.3s						
KHC				*e*pP	pP	22 26 52.3	-1.8
KHC				*e*SKS	SKSac	22 37 25.7	-0.9
KHC				*e*S	ScS	22 38 16.5	+1.6
KHC				AMS	AMS	23 22 00.0	
	comp=Z,1µm,18.8s						
KHC	Kasperske Hory	97.72	322	IAMs_20	IAMs_20	23 13 17.7	
	comp=Z,1µm,20.0s						
BUCK	Buck Mountain	97.75	43	P	Pdif	22 26 50.5	+0.4
BUCK				IAmb	IAmb	22 27 09.3	
	comp=Z,28nm,1.4s						
SUMG	Summit	97.75	356	P	Pdif	22 26 50.2	+0.3
SUMG				pmax	pmax		
	comp=Z,33nm,1.2s						
SUMG	Summit	97.75	356	P	Pdif	22 26 50.1	+0.2
GEC2	GERESS Array S	97.76	322	IAmb	IAmb	22 27 27.1	
	comp=Z,14nm,1.4s						
GERES	GERESS Array B	97.76	322	P	P	22 26 48.7	-1.3
	comp=Z,0.6nm,0.3s,baz=64,slow=3.1,SNR=7.3						
GERES				PP	PP	22 30 43.8	-3.9
	comp=Z,0.5nm,0.2s,baz=59,slow=12,SNR=4.0						
GERES				PKKPbc	PKKPbc	22 43 27.4	+0.7
	comp=Z,0.7nm,0.7s,baz=198,slow=2.8,SNR=4.4						
	comp=Z,0.6nm,0.3s						
GERES	GERESS Array B	97.76	322	P	P	22 26 49.4	-0.6
GERES	GERESS Array B	97.76	322	P	P	22 26 49.4	-0.6
SOKA	Soboth	97.78	320	*e*P	P	22 26 49.9	-0.3
	comp=Z,1.8nm,1.1s						
MOA	Molln	97.81	321	P	P	22 26 49.9	-0.2
	comp=Z,8.3nm,1.7s						
SESA	Seetaler Alpe,	97.91	320	*e*P	P	22 26 50.2	-0.6
	comp=Z,14nm,1.8s						

KSXB	Camp Six Broad	97.96	45	IAMs_20	IAMs_20	23 03 29.6	
	comp=Z,1µm,21.0s						
OBKA	Obir	98.15	320	*e*P	P	22 26 51.6	-0.2
	comp=Z,2.2nm,1.0s						
BIOA	Bad Ischl, Aus	98.26	321	*e*P	P	22 26 51.9	-0.3
	comp=Z,1.2nm,0.5s						
WIFE	Three Sisters-	98.58	43	IAmb	IAmb	22 27 22.2	
	comp=Z,31nm,1.8s						
KBA	Koelnbreinsper	98.69	321	*e*Pdiff	P	22 26 53.7	-0.6
	comp=Z,3.0nm,1.5s						
EPH	Ephrata	98.74	39	IAmb	IAmb	22 26 58.3	
	comp=Z,13nm,1.2s						
YBH	Yreka Blue Hor	98.81	45	IAmb	IAmb	22 27 23.2	
	comp=Z,25nm,1.9s						
KHBM	Hayfork Bally	98.83	46	IAMs_20	IAMs_20	23 16 34.6	
	comp=Z,1µm,18.0s						
M02C	Callahan	98.83	46	IAMs_20	IAMs_20	23 04 17.6	
	comp=Z,1µm,21.0s						
KCPM	Cahto Peak	98.90	47	IAMs_20	IAMs_20	23 04 51.6	
	comp=Z,2µm,20.0s						
LESA	Schwarzleotal	98.97	321	*e*Pdiff	Pdif	22 26 55.4	-0.1
	comp=Z,1.9nm,1.0s						
QSPA	South Pole Qui	99.14	180	P	Pdif	22 26 55.6	-0.2
	comp=Z,3.8nm,1.0s,baz=293,slow=1.1,SNR=11						
QSPA				PP	PP	22 30 56.5	-1.6
	comp=Z,3.2nm,0.9s,baz=186,slow=10,SNR=3.4						
QSPA				PKKPbc	PKKPbc	22 43 22.9	-1.4
	comp=Z,3.4nm,1.2s,baz=189,slow=0.9,SNR=5.2						
QSPA				LR	LR	23 13 47.7	
	comp=Z,993nm,18.4s,baz=351,slow=37						
	comp=Z,3.8nm,1.0s						
QSPA	South Pole Qui	99.14	180	P	Pdif	22 26 56.4	+0.7
QSPA				IAmb	IAmb	22 27 02.8	
	comp=Z,29nm,1.8s						
QSPA	South Pole Qui	99.14	180	IAMs_20	IAMs_20	23 14 04.4	
	comp=Z,1µm,19.0s						
PINE	Pine Mountain	99.27	43	IAmb	IAmb	22 27 00.9	
	comp=Z,22nm,1.7s						
D08A	Wollman Farm,	99.28	39	IAmb	IAmb	22 27 00.4	
	comp=Z,16nm,1.3s						
O02D	Mt. Diablo Mer	99.30	47	IAMs_20	IAMs_20	23 07 55.2	
	comp=Z,2µm,21.0s						
ABTA	Abfaltersbach	99.34	321	*e*Pdiff	Pdif	22 26 57.3	+0.2
	comp=Z,1.8nm,0.9s						
WTTA	Wattenberg	99.67	321	*e*Pdiff	Pdif	22 26 58.7	0.0
	comp=Z,12nm,1.5s						
NEW	Newport	99.87	38	IAMs_20	IAMs_20	23 15 40.5	
	comp=Z,1µm,18.0s						
AONC	Vina, CA USA	99.91	47	IAMs_20	IAMs_20	23 05 11.5	
	comp=Z,1µm,20.0s						
SQTA	Sankt Quirin	99.96	321	*e*Pdiff	Pdif	22 26 59.6	-0.3
	comp=Z,2.3nm,1.1s						
MOTA	Moosalm	99.97	322	*e*Pdiff	Pdif	22 27 00.1	+0.1
	comp=Z,5.6nm,1.6s						
RETA	Reutte	100.12	322	*e*Pdiff	Pdif	22 27 00.5	0.0
	comp=Z,4.3nm,1.5s						
FETA	Feichten	100.34	321	*e*Pdiff	Pdif	22 27 01.7	0.0
	comp=Z,2.6nm,1.3s						
SUTB	Sutter Butte	100.36	47	IAMs_20	IAMs_20	23 05 38.3	
	comp=Z,1µm,20.0s						
ORV	Oroville	100.45	47	IAMs_20	IAMs_20	23 05 13.6	
	comp=Z,1µm,20.0s						
STU	Stuttgart	100.49	323	IAMs_20	IAMs_20	23 16 51.7	
	comp=Z,1µm,20.0s						
LSZ	Lusaka	100.58	256	IAMs_20	IAMs_20	23 18 48.0	
	comp=Z,1µm,18.0s						
BFO	Black Forest	101.20	323	IAMs_20	IAMs_20	23 17 02.6	
	comp=Z,1µm,19.0s						
BMO	Blue Mountains	101.23	41	IAMs_20	IAMs_20	23 06 01.7	
	comp=Z,1µm,21.0s						
FORD	Fort Ord Natur	101.26	50	IAMs_20	IAMs_20	23 04 35.4	
	comp=Z,2µm,21.0s						
WVOR	Wild Horse Val	101.35	43	IAMs_20	IAMs_20	23 10 19.2	
	comp=Z,1µm,20.0s						
SAO	San Andreas Ge	101.49	50	IAMs_20	IAMs_20	23 05 04.3	
	comp=Z,2µm,21.0s						
HULI	Fort Hunter Li	101.91	50	IAMs_20	IAMs_20	23 04 52.6	
	comp=Z,2µm,21.0s						
MSO	Missoula	102.45	38	IAMs_20	IAMs_20	23 16 24.6	
	comp=Z,1µm,18.0s						
PKD	Bear Valley Ra	102.46	50	IAMs_20	IAMs_20	23 05 30.2	
	comp=Z,1µm,21.0s						
MFID	Camas Ranch	102.81	42	IAMs_20	IAMs_20	23 20 44.6	
	comp=Z,863nm,18.0s						
NVAR	Mina Array Bea	103.18	47	Pdiff	Pdif	22 27 14.8	+0.2
	comp=Z,0.8nm,0.6s,baz=266,slow=5.9,SNR=5.6						
NVAR				PP	PP	22 31 26.3	-3.0
	comp=Z,0.8nm,0.7s,baz=316,slow=10,SNR=3.6						
NVAR	Mina Array Bea	103.18	47	Pdif	Pdif	22 27 13.4	-1.2
EKA	Eskdalemuir Ar	103.32	333	Pdiff	Pdif	22 27 14.4	-0.1
	comp=Z,1.2nm,0.8s,baz=54,slow=6.3,SNR=3.5						
VES	Vestal, Richgr	103.60	50	IAMs_20	IAMs_20	23 05 56.3	
	comp=Z,1µm,21.0s						
HLID	Hailey	103.67	41	IAMs_20	IAMs_20	23 12 05.2	
	comp=Z,1µm,20.0s						
DLMT	Dillon	103.97	39	IAMs_20	IAMs_20	23 12 10.9	
	comp=Z,974nm,20.0s						
ISA	Isabella, Lake	104.13	50	IAMs_20	IAMs_20	23 06 33.2	
	comp=Z,1µm,21.0s						
EGMT	Eagleton	104.31	35	IAMs_20	IAMs_20	23 16 20.6	
	comp=Z,917nm,19.0s						
FFC	Flin Flon	104.33	27	IAMs_20	IAMs_20	23 19 08.2	
	comp=Z,1µm,19.0s						
OSI	Osito Audit: C	104.33	51	IAMs_20	IAMs_20	23 06 24.8	
	comp=Z,1µm,21.0s						
LRMC	Laurel Mtn Rad	104.79	50	IAMs_20	IAMs_20	23 06 22.8	
	comp=Z,1µm,21.0s						
PASC	Pasadena Art C	104.91	51	IAMs_20	IAMs_20	23 10 24.2	
	comp=Z,1µm,21.0s						
SSB	Saint Sauveur	104.95	322	IAMs_20	IAMs_20	23 22 32.1	
	comp=Z,1µm,19.0s						
MWC	Mount Wilson	104.99	51	IAMs_20	IAMs_20	23 10 27.2	
	comp=Z,1µm,21.0s						
FURC	Furnace Creek,	105.01	48	IAMs_20	IAMs_20	23 09 56.5	
	comp=Z,1µm,20.0s						
BFSC	Mount Baldy Ra	105.29	51	IAMs_20	IAMs_20	23 10 37.1	
	comp=Z,1µm,20.0s						
SHOC	Shoshone, Teco	105.68	49	IAMs_20	IAMs_20	23 14 12.2	
	comp=Z,1µm,20.0s						
DUG	Dugway, Tooele	106.28	43	IAMs_20	IAMs_20	23 13 51.5	
	comp=Z,1µm,19.0s						
HWUT	Hardware Ranch	106.44	42	IAMs_20	IAMs_20	23 23 26.7	
	comp=Z,1µm,19.0s						
PFO	Pinyon Flats O	106.45	51	IAMs_20	IAMs_20	23 11 09.0	
	comp=Z,2µm,21.0s						
BELC	Belle Mtn. Jos	106.65	50	IAMs_20	IAMs_20	23 11 20.1	
	comp=Z,2µm,21.0s						
PDAR	Pinedale Array	107.16	40	PP	PP	22 31 56.3	-2.2
	comp=Z,0.8nm,0.9s,baz=318,slow=9.5,SNR=4.1						
PDAR				PKKPbc	PKKPbc	22 43 02.5	+3.3
	comp=Z,1.2nm,0.7s,baz=130,slow=5.8,SNR=8.8						
BC3	Big Chuckawall	107.20	51	IAMs_20	IAMs_20	23 12 33.8	
	comp=Z,1µm,19.0s						
IRM	Iron Mountain	107.23	50	IAMs_20	IAMs_20	23 08 08.5	
	comp=Z,1µm,21.0s						
K22A	Casper	109.12	39	IAMs_20	IAMs_20	23 15 36.2	
	comp=Z,1µm,20.0s						
O20A	White River Ci	109.36	42	IAMs_20	IAMs_20	23 11 00.9	
	comp=Z,998nm,22.0s						
WUAZ	Wupatki	109.44	47	IAMs_20	IAMs_20	23 13 22.6	
	comp=Z,1µm,20.0s						
MDND	Maddock	109.92	31	IAMs_20	IAMs_20	23 16 52.6	
	comp=Z,1µm,21.0s						
SNAA	Sanae	110.54	195	PP	PP	22 32 21.2	-1.2
	comp=Z,4.3nm,1.0s,baz=196,slow=7.7,SNR=3.0						
SNAA	Sanae	110.54	195	IAMs_20	IAMs_20	23 22 34.5	
	comp=Z,1µm,20.0s						
TSUM	Tsumeb	111.01	253	IAMs_20	IAMs_20	23 23 46.1	
	comp=Z,997nm,18.0s						
TUC	Tucson	111.33	50	IAMs_20	IAMs_20	23 14 09.8	
	comp=Z,911nm,20.0s						
AGMN	Agassiz Nation	111.47	29	IAMs_20	IAMs_20	23 20 37.5	
	comp=Z,1µm,20.0s						
WIN	Windhoek	111.58	249	IAMs_20	IAMs_20	23 15 03.3	
	comp=Z,1µm,21.0s						
Q24A	Divide	112.01	41	IAMs_20	IAMs_20	23 23 22.8	
	comp=Z,995nm,19.0s						
SDCO	Great Sand Dun	112.43	43	IAMs_20	IAMs_20	23 13 50.3	
	comp=Z,1µm,21.0s						
OGNE	Ogallala	112.85	38	IAMs_20	IAMs_20	23 17 47.9	
	comp=Z,771nm,19.0s						
F33A	5 Mile Ranch,	112.95	31	IAMs_20	IAMs_20	23 29 00.8	
	comp=Z,1µm,20.0s						
K30B	Basset	113.23	36	IAMs_20	IAMs_20	23 17 50.5	
	comp=Z,926nm,21.0s						
TASM	ASL Pad, Albuq	113.23	46	IAMs_20	IAMs_20	23 24 06.9	
	comp=Z,1µm,19.0s						
TASM	ASL Pad, Albuq	113.23	46	IAMs_20	IAMs_20	23 24 06.9	
	comp=Z,1µm,19.0s						
TASM	ASL Pad, Albuq	113.23	46	IAMs_20	IAMs_20	23 24 06.8	
	comp=Z,1µm,19.0s						
TASM	ASL Pad, Albuq	113.23	46	IAMs_20	IAMs_20	23 24 06.9	
	comp=Z,1µm,19.0s						
ANMO	Albuquerque	113.23	46	IAMs_20	IAMs_20	23 24 06.9	
	comp=Z,999nm,19.0s						
ABQ	Albuquerque	113.24	46	IAMs_20	IAMs_20	23 24 16.0	
	comp=Z,985nm,19.0s						
ALQ	Albuquerque	113.24	46	IAMs_20	IAMs_20	23 24 06.9	
	comp=Z,996nm,19.0s						
ALQ	Albuquerque	113.24	46	IAMs_20	IAMs_20	23 24 06.9	
	comp=Z,992nm,19.0s						
ESDC	Sonseca Array	113.27	320	PP	PP	22 32 39.7	-2.7
	comp=Z,1.0nm,1.0s,baz=48,slow=8.0,SNR=4.4						
ESDC				PKKPbc	PKKPbc	22 42 38.9	-0.2
	comp=Z,0.3nm,0.7s,baz=256,slow=4.8,SNR=5.1						
PAB	San Pablo	113.59	321	IAMs_20	IAMs_20	23 29 28.7	
	comp=Z,1µm,19.0s						
EYMN	Ely	113.75	27	IAMs_20	IAMs_20	23 25 01.6	
	comp=Z,1µm,20.0s						
ECSD	EROS Data Cent	114.21	33	IAMs_20	IAMs_20	23 22 09.2	
	comp=Z,1µm,20.0s						
SPMN	Marine on St.	115.13	30	IAMs_20	IAMs_20	23 29 56.4	
	comp=Z,900nm,19.0s						
EDA	Edea	115.49	279	IAMs_20	IAMs_20	23 19 47.3	
	comp=Z,976nm,22.0s						
CBKS	Cedar Bluff	115.54	39	IAMs_20	IAMs_20	23 19 43.2	
	comp=Z,1µm,19.0s						
MSTX	Muleshoe	116.33	45	IAMs_20	IAMs_20	23 22 54.9	
	comp=Z,1µm,20.0s						
G40A	Rib Lake	116.35	28	IAMs_20	IAMs_20	23 26 58.4	
	comp=Z,978nm,20.0s						
R32A	Long Quarter,	116.41	39	IAMs_20	IAMs_20	23 19 59.3	
	comp=Z,1µm,20.0s						
I40A	Norwalk	117.17	30	IAMs_20	IAMs_20	23 23 31.4	
	comp=Z,1µm,20.0s						
I42A	Draeger Farm,	117.99	29	IAMs_20	IAMs_20	23 28 08.9	
	comp=Z,1µm,20.0s						
E46A	Sault Ste Mari	118.04	24	IAMs_20	IAMs_20	23 29 46.9	
	comp=Z,1µm,20.0s						
N38A	Joes South For	118.04	34	IAMs_20	IAMs_20	23 23 53.9	
	comp=Z,956nm,21.0s						
H43A	Windswept, Lux	118.08	27	IAMs_20	IAMs_20	23 27 09.0	
	comp=Z,1µm,20.0s						
JFWS	Jewell Farm	118.08	30	IAMs_20	IAMs_20	23 24 57.3	
	comp=Z,1µm,20.0s						
TXAR	Lajitas Array	118.12	50	PKP	PKPdf	22 32 02.4	-0.1
	comp=Z,0.8nm,0.6s,baz=272,slow=0.1,SNR=9.4						
TXAR				PKKPbc	PKKPab	22 42 24.3	-1.2
	comp=Z,0.8nm,0.8s,baz=134,slow=5.9,SNR=5.3						
TXAR	Lajitas Array	118.12	50		PKPdf	22 32 02.0	-0.4
L40A	Anamosa	118.21	31	IAMs_20	IAMs_20	23 25 44.0	
	comp=Z,971nm,20.0s						
WMOK	Wichita Mounta	118.61	42	IAMs_20	IAMs_20	23 16 57.7	
	comp=Z,1µm,20.0s						
L42A	Oliver, Polo	119.04	30	IAMs_20	IAMs_20	23 25 24.9	
	comp=Z,1µm,20.0s						
I45A	Fountain	119.10	27	IAMs_20	IAMs_20	23 27 58.2	
	comp=Z,1µm,20.0s						
K43A	Burlington	119.17	29	IAMs_20	IAMs_20	23 25 01.1	
	comp=Z,1µm,19.0s						
ABTX	Abilene, Hawle	119.26	44	IAMs_20	IAMs_20	23 20 36.2	
	comp=Z,1µm,20.0s						
P40A	Paris	119.58	34	IAMs_20	IAMs_20	23 18 08.4	
	comp=Z,1µm,20.0s						
L44A	Lake County Fo	119.77	29	IAMs_20	IAMs_20	23 25 19.0	
	comp=Z,1µm,19.0s						
S39A	Bolivar	120.12	36	IAMs_20	IAMs_20	23 30 21.2	
	comp=Z,881nm,20.0s						
HDIL	Hopedale	120.30	31	IAMs_20	IAMs_20	23 32 39.3	
	comp=Z,908nm,19.0s						
M44A	Midewin, Midew	120.31	30	IAMs_20	IAMs_20	23 32 35.3	
	comp=Z,1µm,19.0s						
R40A	Maddies Statio	120.32	35	IAMs_20	IAMs_20	23 32 43.2	
	comp=Z,934nm,19.0s						
U38A	Gravette	120.33	38		PKiKP	22 32 06.7	+0.3
U38A				IAMs_20	IAMs_20	23 25 54.8	
	comp=Z,1µm,20.0s						
JCT	Junction City	120.36	47	IAMs_20	IAMs_20	23 26 17.5	
	comp=Z,878nm,20.0s						
P43A	Skaggs, Pawnee	120.86	32	IAMs_20	IAMs_20	23 30 25.1	
	comp=Z,910nm,20.0s						
CCM	Cathedral Cave	121.06	35	PKIKP	PKiKP	22 32 07.8	0.0
CCM				pmax	pmax		
	comp=Z,1µm,19.0s						
CCM	Cathedral Cave	121.06	35		PKiKP	22 32 07.8	0.0
CCM	Cathedral Cave	121.06	35	IAMs_20	IAMs_20	23 36 03.8	
	comp=Z,1µm,19.0s						
TORD	Torodi Ar. Bea	121.06	291	PKP	PKPdf	22 32 07.1	-1.2
	comp=Z,2.4nm,0.6s,baz=75,slow=1.7,SNR=22						
TORD				PKKPbc	PKKPab	22 42 12.7	+0.3
	comp=Z,1.8nm,1.1s,baz=98,slow=3.0,SNR=3.7						
TORD	Torodi Ar. Bea	121.06	291		PKPdf	22 32 06.7	-1.6
WHTX	Lake Whitney,	121.13	44	IAMs_20	IAMs_20	23 20 38.7	
	comp=Z,1µm,21.0s						
T42A	Van Buren	121.86	35	IAMs_20	IAMs_20	23 30 26.2	
	comp=Z,1µm,19.0s						
P46A	Rosedale	122.06	31	IAMs_20	IAMs_20	23 32 22.9	
	comp=Z,859nm,19.0s						
S44A	Carbondale	122.42	34	IAMs_20	IAMs_20	23 24 20.6	
	comp=Z,945nm,19.0s						
N49A	Columbus Grove	122.50	27	IAMs_20	IAMs_20	23 36 19.0	
	comp=Z,1µm,19.0s						
M50A	Fremont	122.62	26	IAMs_20	IAMs_20	23 32 36.1	
	comp=Z,1µm,19.0s						
LONY	Lake Ozonia	123.00	18	IAMs_20	IAMs_20	23 31 56.5	
	comp=Z,1µm,20.0s						
T45A	Paducah	123.24	34	IAMs_20	IAMs_20	23 31 45.5	
	comp=Z,1µm,19.0s						
N51A	Ashland	123.31	26	IAMs_20	IAMs_20	23 36 15.3	
	comp=Z,1µm,19.0s						
ACSO	Alum Creek Sta	123.59	27		PKiKP	22 32 12.9	+0.2
ACSO				IAMs_20	IAMs_20	23 29 07.1	
	comp=Z,1µm,20.0s						
N53A	Lisbon	124.05	25	IAMs_20	IAMs_20	23 29 14.0	
	comp=Z,1µm,20.0s						
R49A	Shelbyville	124.10	30	IAMs_20	IAMs_20	23 28 20.7	
	comp=Z,1µm,20.0s						
O52A	Adamsville	124.20	26	IAMs_20	IAMs_20	23 30 47.0	
	comp=Z,1µm,19.0s						
WVT	Waverly	124.34	34	PKIKP	PKiKP	22 32 14.3	-0.1
WVT	Waverly	124.34	34		PKiKP	22 32 14.2	-0.1
Q51A	Peebles	124.40	28	IAMs_20	IAMs_20	23 30 04.2	
	comp=Z,1µm,20.0s						
R50A	Paris	124.52	30	IAMs_20	IAMs_20	23 32 00.8	
	comp=Z,1µm,19.0s						
OXF	Oxford	124.61	36	IAMs_20	IAMs_20	23 27 05.9	
	comp=Z,817nm,19.0s						
143A	Socs Landing,	124.64	39	IAMs_20	IAMs_20	23 36 34.2	
	comp=Z,1µm,19.0s						
BINY	Binghamton	124.71	20	IAMs_20	IAMs_20	23 30 21.0	
	comp=Z,1µm,21.0s						
J61A	Chester	124.76	17	IAMs_20	IAMs_20	23 32 58.1	
	comp=Z,1µm,20.0s						
P53A	Whipple	124.91	26	IAMs_20	IAMs_20	23 32 29.8	
	comp=Z,1µm,20.0s						
TRY	Troy	124.99	18	IAMs_20	IAMs_20	23 33 37.2	
	comp=Z,1µm,20.0s						
L59A	Walton	125.04	20	IAMs_20	IAMs_20	23 27 55.6	
	comp=Z,1µm,20.0s						
SSPA	Standing Stone	125.38	23	IAMs_20	IAMs_20	23 35 12.8	
	comp=Z,1µm,20.0s						
L61B	Northampton	125.55	18	IAMs_20	IAMs_20	23 36 07.9	
	comp=Z,1µm,19.0s						
X48A	Hartselle	126.00	35	IAMs_20	IAMs_20	23 30 29.7	
	comp=Z,814nm,21.0s						
R55A	Marlinton	126.46	26	IAMs_20	IAMs_20	23 28 33.9	
	comp=Z,1µm,20.0s						
X51A	Calhoun	127.12	33	IAMs_20	IAMs_20	23 29 20.9	
	comp=Z,1µm,21.0s						
V53A	Saluda	127.32	30	IAMs_20	IAMs_20	23 40 15.0	
	comp=Z,1µm,20.0s						
GOGA	Godfrey	128.74	33	IAMs_20	IAMs_20	23 33 25.0	
	comp=Z,1µm,20.0s						
DBIC	Dimbokro	129.24	286	PKP	PKPdf	22 32 23.2	-0.8
	comp=Z,4.3nm,0.8s,baz=57,slow=4.5,SNR=3.7						
TGUH	Tegucigalpa,Un	139.06	56	IAMs_20	IAMs_20	23 31 12.2	
	comp=Z,924nm,19.0s						
LCCY	Blossom Villag	140.95	42		PKPdf	22 32 45.1	-0.5
JTS	Las Juntas de	142.96	59	IAMs_20	IAMs_20	23 38 10.8	
	comp=Z,686nm,18.0s						
HDC	Heredia	143.81	59	IAMs_20	IAMs_20	23 32 01.5	
	comp=Z,786nm,19.0s						
PLCA	Paso Flores	145.11	157	PKPbc	PKPbc	22 32 52.0	+0.1
	comp=Z,48nm,1.1s,baz=202,slow=3.4,SNR=15						
PLCA	Paso Flores	145.11	157	PKIKP	PKPab	22 32 52.2	+0.2
PLCA	Paso Flores	145.11	157		PKPab	22 32 52.2	+0.2
PLCA	Paso Flores	145.11	157	*e*P	PKPdf	22 32 52.4	-0.1
BCIP	Isla Barro Col	147.82	56	PKP2	PKPdf	22 32 58.6	+0.9
CRPR	Cabo Rojo, PR	149.64	27	PKPdf	PKPdf	22 33 00.5	-0.1
SJG	San Juan	149.96	25	PKIKP	PKPbc	22 33 05.0	-1.0
OTAV	Otavalo	153.20	71	*e*P	PKPdf	22 33 06.8	+0.1
ROSC	El Rosal	154.76	57	PKP	PKPdf	22 33 09.3	+0.4
	comp=Z,10nm,0.7s,baz=330,slow=3.5,SNR=13						
SDV	Santo Domingo	155.01	44	IAMs_20	IAMs_20	23 49 43.1	
	comp=Z,787nm,21.0s						
CZSB	Cruzeiro do Su	160.71	87	*e*P	PKPdf	22 33 16.0	+0.3
CPUP	Villa Florida	162.60	168	PKPab	PKPab	22 34 04.8	-0.5
	comp=Z,8.2nm,1.1s,baz=201,slow=6.3,SNR=5.3						
CPUP	Villa Florida	162.60	168		PKPab	22 34 04.5	-0.7
SGC2	Sao Gabriel da	163.61	57	*e*P	PKPdf	22 33 19.1	+0.4
LPAZ	La Paz	163.91	117	PKP	PKPdf	22 33 20.1	+0.5
	comp=Z,14nm,1.1s,baz=280,slow=1.7,SNR=22						
LPAZ				PKPab	PKPab	22 34 13.3	+1.0
	comp=Z,9.8nm,0.9s,baz=307,slow=3.5,SNR=5.3						
LPAZ	La Paz	163.91	117		PKPdf	22 33 17.7	-1.9
LPAZ	La Paz	163.91	117	*e*P	PKPdf	22 33 19.8	+0.2
BOAV	Boa Vista	166.34	32	*e*P	PKPdf	22 33 19.8	-1.2
COIM	Forte Coimbra	168.55	158	*e*P	PKPdf	22 33 23.4	+1.1
MACA	Manacapuru-AM	170.45	51	*e*P	PKPdf	22 33 23.2	-0.5
PTLB	Pontes e Lacer	171.59	138	*e*P	PKPdf	22 33 25.5	+1.3
BDFB	Brasilia	171.86	218	PKPab	PKPab	22 34 46.1	-0.4
	comp=Z,4.7nm,0.8s,baz=158,slow=5.6,SNR=4.2						
BDFB	Brasilia	171.86	218		PKPab	22 34 45.6	-1.0
VILB	Vilhena	172.27	119	*e*P	PKPdf	22 33 25.8	+1.2
SALV	Santo Antonio	172.99	160	*e*P	PKPdf	22 33 25.4	+0.6
SMTB	Santa Maria do	174.38	274	*e*P	PKPdf	22 33 26.1	+0.7
ITTB	Itaituba	174.54	27	*e*P	PKPdf	22 33 26.1	+0.6
SNDB	Serra Nova Dou	176.69	216	*e*P	PKPdf	22 33 26.6	+0.6
CLDB	Colider	177.04	123	*e*P	PKPdf	22 33 25.8	-0.3

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*BJI **20** 22:21:44.4, 9°.01N×126°.93E, h10^{km}, mB5.8/12, mb4.8/57, Ms5.4/13, Ms7 5.3/13*

*IDC **20** 22:21:46.9±0.4, 9°.27N×126°.69E, h0^{km}, mb4.7/38, mbtmp4.7/41, ML4.5/2, MS4.9/1, Error ellipse: s-maj=14.2km s-min=8.6km az=83.0*

*MAN **20** 22:21:46.0, 9°.38N×127°.04E, h7^{km}, MS5.2*

*MOS **20** 22:21:46.1±0.8, 9°.26N×126°.70E, h10^{km}, mb5.3/51, Error ellipse: s-maj=10.1km s-min=5.4km az=112.4*

*GFZ **20** 22:21:49.0±0.2, 10°N±3°×12°7E±°, h10^{km}, M5.5/37, mb5.1/37*

*DJA **20** 22:21:49.1±0.3, 10°N±3°×12°7E±°, h10^{km}, M5.9/72, mb5.2/73, mB6.3/7, mB6.3/7, mb5.2/72, MLv6.1/3, MLv6.1/3, Mw(mB)6.0/7, Mw(mB)6.0/7*

*NEIC **20** 22:21:49.0±1.4, 9°.41N±0°.06×126°.94E±0°.08, h10^{km}±1^{km}, mb5.2/202, Mww5.3/10, Error ellipse: s-maj=13.6km s-min=10.8km az=84.0*

*GCMT **20** 22:21:54.0±0.2, 9°.25N±0°.01×127°.03E±0°.01, h19^{km}, MW5.4/128, Moment Tensor Solution. s48,c58; s128,c249; Duration: 1^{s}2 Moment tensor: Scale 10^{17} Nm; M_{rr}1.00±.04; $M_{\theta\theta}$-0.04±.02; $M_{\phi\phi}$-0.96±.03; $M_{r\theta}$0.10±.04; $M_{\theta\phi}$0.13±.01; $M_{\phi r}$0.94±.06; Best double couple: $M_0$1.36900×10^{17} NP1:ϕ_s164.00000°,δ24.00000°, λ74.00000°. NP2:ϕ_s1.00000°,δ67.00000°,λ97.00000°. Principal axes: T 1.3910, Plg67.0000°, Azm284.0000°; N -0.0430, Plg6.0000°, Azm179.0000°; P -1.3480, Plg22.0000°, Azm86.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 20 22:21:48.4±0.2**, 9°.35N**±0°.03×**126°.95E**±0°.04**, h10^{km}, n546, σ1^{s}65**/515**, mb5.1**/225**, MS5.3**/7**, 23C-3D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BIPH	Bislig	1.30	206	*i* P	Pn	22 22 10.2	-2.4
BIPH				*i* S	Sb	22 22 25.1	-4.6
CGP	Cagayan de Oro	2.40	248	*i* P	Pn	22 22 28.6	+0.8
CGP				*i* S	Sb	22 23 03.5	+2.2
DAV	Davao City (W)	2.64	211	Pg	Pn	22 22 32.5	+1.4
	25nm,0.3s,baz=261,slow=20,SNR=1.6						
DAV				Lg	Lg	22 23 06.3	
	228nm,0.3s,baz=145,slow=14,SNR=5.2						
DAV				LR	LR	22 23 34.8	
	comp=Z,25µm,19.3s,baz=60,slow=44						
DAV	Davao City (W)	2.64	211		Pn	22 22 33.7	+2.6
DAV	Davao City (W)	2.64	211	P	Pb	22 22 34.9	-0.9
DAV				AML	AML		
DAV				AML	AML		
DAV	Davao City (W)	2.64	211	P	Pb	22 22 35.5	-0.3
PLP	Palo	2.64	313	*e*P	Pn	22 22 31.4	+0.3
PLP				*e*S	Sn	22 23 03.1	-0.2
DMPH	Davao City--Mi	2.67	212	*e*P	Pg	22 22 47.5	+8.0
DMPH				*i* S	Sg	22 24 03.8	+50
KCP	Kidapawan	2.97	218	*e*P	Pn	22 22 36.5	+0.9
KCP				*e*S	Sb	22 23 19.2	+1.4
LLP	Lapu-Lapu	3.09	288	*e*P	Pn	22 22 38.6	+1.3
LLP				*i* S	Sg	22 23 25.0	-2.7
CTBH	Cotabato--PC H	3.41	232	*e*P	Pn	22 22 44.5	+2.9
DCPH	Dipolog City	3.63	258	*e*P	Pn	22 22 48.2	+3.5
SNPH	Sibulan	3.66	270	*i* P	Pn	22 22 46.5	+1.3
SNPH				*e*S	Sg	22 23 52.0	+5.9
GSPH	General Santos	3.80	212	*i* P	Pn	22 22 52.1	+4.9
GSPH				*i* S	Sb	22 23 40.8	-1.1
MMPH	Masbate	4.42	313	*e*P	Pn	22 22 59.4	+3.8
MMPH				*i* S	Sn	22 23 32.1	-15
IBAJ	Ibajay, Aklan	5.29	298	*e*P	Pn	22 23 09.1	+1.5
LQP	Lukban	7.10	312	*e*P	Pn	22 23 36.1	+3.5
MNI	Manado	8.13	195	P	Pn	22 23 53.5	+6.9
	114nm,0.6s,114nm,0.6s						
TNTI	Ternate	8.54	177		Pn	22 23 53.1	+0.9
TNTI	Ternate	8.54	177	P	Pn	22 23 52.5	+0.4
	302nm,1.2s,302nm,1.2s						
TNTI	Ternate	8.54	177	P	Pn	22 23 55.7	+3.5
	comp=Z,299nm,1.2s						
TOLI2	Tolitoli	10.23	217		Pn	22 24 17.6	+2.2
SWI	Sorong	11.02	157	P	Pn	22 24 26.9	+0.7
	comp=Z,64nm,1.0s,comp=Z,64nm,1.0s						
KKM	Kota Kinabalu	11.13	254		Pn	22 24 28.2	+0.4
KKM	Kota Kinabalu	11.13	254	P	Pn	22 24 31.5	+3.7
KKM	Kota Kinabalu	11.13	254	P	Pn	22 24 32.5	+4.7
	comp=Z,52nm,1.7s						
LUWI	Luwuk	11.13	202	Pn	Pn	22 24 29.8	+2.0
LUWI	Luwuk	11.13	202	P	Pn	22 24 36.1	+8.3
SANI	Sanana	11.37	185	P	Pn	22 24 35.9	+4.9
	comp=Z,105nm,1.0s,comp=Z,105nm,1.0s						
SANI	Sanana	11.37	185	P	Pn	22 24 36.7	+5.7
	comp=Z,103nm,1.1s						
APSI	Ampana	11.48	208	P	Pn	22 24 38.3	+5.8
	comp=Z,118nm,1.3s,comp=Z,118nm,1.3s						
PCI	Palu	12.41	215	P	Pn	22 24 54.2	+8.9
	comp=Z,77nm,1.1s,comp=Z,77nm,1.1s						
NLAI	Namlea	12.51	179	P	Pn	22 24 44.9	-1.7
	comp=Z,67nm,0.9s,comp=Z,67nm,0.9s						
FAKI	Fak Fak	13.29	156		Pn	22 24 57.1	-0.2
FAKI	Fak Fak	13.29	156	P	Pn	22 24 59.0	+1.7
	comp=Z,178nm,1.1s,comp=Z,178nm,1.1s						
FAKI	Fak Fak	13.29	156	P	Pn	22 25 01.0	+3.7
	comp=Z,178nm,1.1s						
BAKI	Biak	13.89	138	P	Pn	22 25 07.1	+1.6
	comp=Z,197nm,1.7s,comp=Z,197nm,1.7s						
KDI	Kendari	13.91	198	P	P	22 25 13.7	-0.3
BNDI	Bandanaira	14.10	168	P	P	22 25 15.1	-1.0
TWG	Pinlang	14.53	338	Pn	Pn	22 25 14.8	+0.7
BKB	Balikpapan	14.54	224	Pn	Pn	22 25 15.5	+1.1
BKB	Balikpapan	14.54	224	P	P	22 25 19.5	-1.5
	comp=Z,131nm,0.9s,comp=Z,131nm,0.9s						
TPUB	Ta-pu	15.13	337		Pn	22 25 22.9	+0.6
TPUB				IAmb	IAmb	22 25 28.2	
	comp=Z,93nm,1.1s						
BBSI	Bau Bau	15.37	197	P	P	22 25 33.0	+2.7
	comp=Z,146nm,1.0s,comp=Z,146nm,1.0s						
SSLB	Suanglung	15.45	339		Pn	22 25 26.2	-0.4
NACB	Ninganchiao	15.60	342	Pn	Pn	22 25 28.6	+0.1
KAPI	Kappang	15.97	207	Pn	Pn	22 25 31.8	-1.6
	comp=Z,0.8nm,0.3s,baz=62,slow=6.8,SNR=5.2						
	comp=Z,5.1nm,0.4s						
KAPI				AML	AML		
KAPI	Kappang	15.97	207	*i* P	Pn	22 25 30.5	-2.9
KAPI	Kappang	15.97	207		Pn	22 25 34.1	+0.8
KAPI	Kappang	15.97	207	P	P	22 25 41.8	+4.9
KAPI	Kappang	15.97	207	P	Pn	22 25 36.1	+2.8
	comp=Z,43nm,2.0s						
YHNB	Yeheng	16.13	341		Pn	22 25 34.5	-0.9
SBUM	Sibu	16.17	246	P	Pn	22 25 37.9	+2.1
SBUM	Sibu	16.17	246	P	P	22 25 40.8	+1.7
SBUM	Sibu	16.17	246	P	P	22 25 40.9	+1.8

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       comp=Z,40nm,1.7s
TATO   Taipei             16.38 342    Pn      Pn      22 25 36.7 -1.9
TATO                                   IAmb    IAmb    22 25 43.3
       comp=Z,400nm,1.8s
BSSI   Bau Bau, Buton     16.68 203    P       P       22 25 47.6 +2.8
       comp=Z,57nm,1.2s,comp=Z,57nm,1.2s
PKKI   Palangkaraya       17.31 229    P       P       22 26 13.6  +22
JOW    Kunigami           17.43   4    P       P       22 25 53.2 +0.1
       comp=Z,3.8nm,0.3s,baz=127,slow=24,SNR=4.9
       comp=Z,24nm,0.8s
JOW                                    AML     AML
JOW    Kunigami           17.43   4            Pn      22 25 51.3 -0.5
BBKI   Banjar Baru        17.54 224    P       P       22 26 11.9  +18
GENI   Genyem             17.73 131    P       P       22 25 59.5 +3.1
       comp=Z,178nm,1.5s,comp=Z,178nm,1.5s
GENI   Genyem             17.73 131    P       P       22 25 58.9 +2.5
       comp=Z,168nm,2.0s
SAUI   Saumlaki           17.76 166    Pn      Pn      22 25 54.8 -1.2
SAUI                                   IAmb    IAmb    22 25 59.9
       comp=Z,292nm,0.9s
STKI   Sintang            17.95 240    P       P       22 26 04.5 +5.6
GUMO   Guam               18.06  75    P       P       22 26 03.3 +3.2
       comp=Z,36nm,0.3s,baz=201,slow=0.5,SNR=6.0
GUMO   Guam               18.06  75    P       Pn      22 26 00.2 +0.5
GUMO                                   IAmb    IAmb    22 26 07.0
       comp=Z,266nm,1.4s
DLV     Lat               18.32 280    P       Pn      22 26 02.9 -0.1
DLV     Lat               18.32 280    P       P       22 26 04.9 +1.7
       comp=Z,48nm,1.4s
MMRI   Maumere            18.48 195            P       22 26 05.6 +1.0
MMRI                                   IAmb    IAmb    22 26 16.8
       comp=Z,129nm,0.9s
MMRI   Maumere            18.48 195    P       Pn      22 26 15.3  +11
       comp=Z,204nm,1.1s,comp=Z,204nm,1.1s
MMRI   Maumere            18.48 195    P       Pn      22 26 08.6 +3.8
       comp=Z,205nm,1.1s
EDFI   Ende, Flores       18.73 196    P       Pn      22 26 14.0 +6.1
       comp=Z,82nm,0.8s,comp=Z,82nm,0.8s
LBFI   Labuhan Bajo,      19.06 202    P       Pn      22 26 17.6 +5.8
QIZ    Qiongzhong         19.15 302    P       P       22 26 12.1  0.0
QIZ                                    S       Sn      22 29 47.8 +0.1
QIZ                                    pmax    pmax
       comp=Z,20nm,1.0s
SOEI   Soe                19.17 188            P       22 26 13.8 +1.4
SOEI                                   IAmb    IAmb    22 26 25.8
       comp=Z,145nm,0.9s
SOEI   Soe                19.17 188    P       Pn      22 26 15.7 +2.4
       comp=Z,308nm,0.9s
DBNI   Kabupaten Domp     19.71 206    P       Pn      22 26 26.3 +6.6
       comp=Z,64nm,0.9s,comp=Z,64nm,0.9s
PLAI   Plampang           20.24 207    P       Pn      22 26 28.7 +2.8
       comp=Z,156nm,0.9s,comp=Z,156nm,0.9s
PLAI   Plampang           20.24 207    P       Pn      22 26 28.7 +2.8
       comp=Z,157nm,0.9s
TWSI   Taliwang, Sumb     20.58 209    P       Pn      22 26 30.8 +0.9
       comp=Z,127nm,0.9s,comp=Z,127nm,0.9s
JAGI   Jajag, Banyuwa     21.82 216    P       P       22 26 38.4 -2.5
JAGI                                   IAmb    IAmb    22 26 53.2
       comp=Z,155nm,1.5s
JAGI   Jajag, Banyuwa     21.82 216    P       P       22 26 46.2 +5.2
       comp=Z,60nm,1.0s,comp=Z,60nm,1.0s
JAGI   Jajag, Banyuwa     21.82 216    P       P       22 26 38.5 -2.5
       comp=Z,61nm,1.0s
JSU    Suzuyama           22.28   8    P       P       22 26 45.7 -0.2
MTN    Manton Dam         22.44 169    P       P       22 26 49.4 +1.7
       comp=Z,41nm,1.0s
MTN    Manton Dam         22.44 169            P       22 26 47.9 +0.2
MTN                                    IAmb    IAmb    22 27 03.0
       comp=Z,128nm,1.6s
KDU    Kakadu             22.57 166    P       P       22 26 49.3 +0.2
       comp=Z,123nm,1.1s
MANU   Manus Island       23.28 118    P       P       22 26 55.5 -1.0
NJ2    Nanjing            23.80 343  eP        P       22 27 02.3 +0.9
NJ2                                    sP      pwP     22 27 13.5 +0.3
NJ2                                    pmax    pmax
       comp=Z,98nm,1.6s
TPRI   Tanjung Pinang     23.83 251    P       P       22 27 03.0 +1.1
       comp=Z,63nm,2.0s,comp=Z,63nm,2.0s
JNU    Nakatsue           23.93   8    P       P       22 27 04.1 +1.3
       comp=Z,25nm,1.0s,baz=95,slow=3.0,SNR=7.8
       comp=Z,25nm,1.0s
CTJI   Waduk Cacaban      24.03 228    P       P       22 27 10.9 +7.1
       comp=Z,158nm,2.4s,comp=Z,158nm,2.4s
WHN    Wuhan              24.14 333    P       P       22 27 04.8 +0.2
WHN                                    PP      PnPn    22 27 35.5 +1.6
WHN                                    S       S       22 31 29.9 +7.3
MYKOM  Kota Tinggi        24.17 253    P       P       22 27 04.3 -0.8
MYKOM  Kota Tinggi        24.17 253    P       P       22 27 05.6 +0.5
       comp=Z,86nm,1.9s,comp=Z,86nm,1.9s
MYKOM  Kota Tinggi        24.17 253    P       P       22 27 04.7 -0.4
       comp=Z,86nm,1.9s
BTDF   Bukit Timah Da     24.38 252    P       P       22 27 07.5 +0.4
       comp=Z,52nm,1.6s,comp=Z,52nm,1.6s
KPJI   Karang Pucung      24.43 228    P       P       22 27 18.5  +11
KNRA   Kununurra          24.93 176    P       P       22 27 11.1 -0.8
       comp=Z,53nm,1.0s
KNRA   Kununurra          24.93 176            P       22 27 11.7 -0.2
KNRA                                   IAmb    IAmb    22 27 44.9
       comp=Z,68nm,1.1s
JMN    Monobe             25.08  14    P       P       22 27 12.4 -0.9
JMN                                    IAmb    IAmb    22 27 39.6
       comp=Z,58nm,1.1s
SLVN   Son La             25.17 301    P       P       22 27 13.1 -1.1
SLVN   Son La             25.17 301    P       P       22 27 13.4 -0.8
       comp=Z,24nm,2.4s
CBJI   Citeko             25.43 233    P       P       22 27 24.0 +7.5
       comp=Z,100nm,1.0s,comp=Z,100nm,1.0s
BBJI   Bungbulang         25.47 230    P       P       22 27 15.9 -1.1
BBJI                                   IAmb    IAmb    22 27 39.5
       comp=Z,126nm,1.7s
SBJI   Serang             25.82 234    P       P       22 27 27.7 +7.6
IPM    Ipoh               26.18 261    P       P       22 27 22.6 -0.8
IPM                                    IAmb    IAmb    22 27 30.3
       comp=Z,80nm,1.0s
IPM    Ipoh               26.18 261    P       P       22 27 23.7 +0.3
       comp=Z,94nm,1.2s,comp=Z,94nm,1.2s
IPM    Ipoh               26.18 261    P       P       22 27 23.2 -0.2
       comp=Z,94nm,1.2s
MDSI   Maura Dua          26.53 240    P       P       22 27 30.1 +3.5
       comp=Z,54nm,1.9s,comp=Z,54nm,1.9s
TJN    Taejon             26.90   1    P       P       22 27 29.2 -0.5
TJN                                    pmax    pmax
       comp=Z,90nm,1.0s
TJN    Taejon             26.90   1    P       P       22 27 29.2 -0.5
TJN                                    IAmb    IAmb    22 27 35.8
       comp=Z,89nm,1.0s
FITZ   Fitzroy Crossi     27.31 183    P       P       22 27 33.6 +0.1
FITZ   Fitzroy Crossi     27.31 183    P       P       22 27 32.9 -0.6
FITZ   Fitzroy Crossi     27.31 183    P       P       22 27 33.9 +0.5
       comp=Z,13nm,1.5s
PMG    Port Moresby       27.43 132ceP         P       22 27 36.2 +1.6
PMG                                    pmax    pmax
       comp=Z,97nm,1.7s
PMG    Port Moresby       27.43 132            P       22 27 33.4 -1.2
PMG    Port Moresby       27.43 132    P       P       22 27 35.9 +1.3
       comp=Z,75nm,1.4s,comp=Z,75nm,1.4s
PMG    Port Moresby       27.43 132    P       P       22 27 35.2 +0.6
       comp=Z,77nm,1.4s
KSAR   Wonju Array Be     27.98   2    P       P       22 27 39.4 +0.1
KSAR   Wonju Array Be     27.98   2    P       P       22 27 39.4 +0.1
KSRS   Korea Array        27.99   2    P       P       22 27 41.0 +1.6
       comp=Z,4.2nm,0.7s,baz=173,slow=9.6,SNR=13
KSRS                                   PcP     PcP     22 30 56.0 +1.5
       comp=Z,3.0nm,1.0s,baz=190,slow=3.4,SNR=6.3
       comp=Z,4.2nm,0.7s
KSRS   Korea Array        27.99   2    P       P       22 27 41.0 +1.6
KSRS                                                   22 30 56.0
KS19   Wonju Array Si     28.04   2    P       P       22 27 39.3 -0.5
TIA    Tai'an             28.19 343    P       P       22 27 41.8 +0.6
TIA                                    pmax    pmax
       comp=Z,50nm,1.1s
TIA                                    L       L
       comp=Z,4µm,15.2s
TIA                                    L       L
       comp=Z,2µm,12.9s
TIA                                    L       L
       comp=Z,5µm,15.7s
LYN    LuoYang            28.38 334    P       P       22 27 44.4 +1.5
LYN                                    pmax    pmax
       comp=Z,32nm,1.0s
MNSI   Mandailing Nat     28.53 254    P       P       22 27 47.1 +2.6
       comp=Z,34nm,1.1s,comp=Z,34nm,1.1s
PSI    Prapat             28.60 259    P       P       22 27 44.3 -1.0
PSI                                    pmax    pmax
       comp=Z,112nm,1.4s
PSI    Prapat             28.60 259    P       P       22 27 45.4 +0.1

       comp=Z,47nm,1.5s,comp=Z,47nm,1.5s
CM31   Chiang Mai Arr     28.61 291    P       P       22 27 44.4 -0.8
CM31                                   IAmb    IAmb    22 28 28.4
       comp=Z,54nm,1.6s
CMAR   Chiang Mai Arr     28.61 291    P       P       22 27 43.1 -2.1
       comp=Z,7.7nm,1.0s,baz=108,slow=7.0,SNR=15
       comp=Z,7.7nm,1.0s
CMAR   Chiang Mai Arr     28.61 291  i P       P       22 27 44.5 -0.7
CMAR                                   pmax    pmax
       comp=Z,8.0nm,1.0s
CMAR   Chiang Mai Arr     28.61 291    P       P       22 27 43.9 -1.4
RPSI   Rantau Prapat      28.62 258    P       P       22 27 44.3 -1.1
RPSI                                   IAmb    IAmb    22 27 54.9
       comp=Z,112nm,1.4s
RPSI   Rantau Prapat      28.62 258    P       P       22 27 44.8 -0.6
       comp=Z,47nm,1.5s
MAJO   Matsushiro         28.93  19  i P       P       22 27 49.6 +1.7
MAJO                                   pmax    pmax
       comp=Z,5.0nm,0.7s
MAJO   Matsushiro         28.93  19    P       P       22 27 47.8 -0.1
MJAR   Matsushiro Arr     28.93  19    P       P       22 27 47.9  0.0
       comp=Z,3.1nm,1.0s,baz=191,slow=9.3,SNR=5.8
       comp=Z,3.1nm,1.0s
MJAR   Matsushiro Arr     28.93  19    P       P       22 27 45.9 -2.0
MJB9   Matsu-Tunnel       28.94  19    P       P       22 27 47.4 -0.5
PZH    PanZhiHua          29.33 309    P       P       22 27 53.5 +1.9
KCSI   Kotacane, Aceh     29.55 261    P       P       22 27 55.5 +1.9
       comp=Z,35nm,1.2s
XAN    Xi'an              29.63 329  ⇓P        P       22 27 52.8 -1.3
XAN                                    pmax    pmax
       comp=Z,17nm,1.0s
DL2    Dalian             29.81 352    P       P       22 27 57.1 +1.5
DL2                                    pmax    pmax
       comp=Z,23nm,1.0s
WB0    Warramunga Arr     29.85 166    P       P       22 27 55.3 -0.8
WB0                                    IAmb    IAmb    22 28 07.9
       comp=Z,46nm,0.9s
WB9    Warramunga Arr     29.87 166    P       P       22 27 55.8 -0.5
WB7    Warramunga Arr     29.92 166    P       P       22 27 55.5 -1.2
WB6    Warramunga Arr     29.93 166    P       P       22 27 55.6 -1.2
WB5    Warramunga Arr     29.95 166    P       P       22 27 57.2 +0.1
WB4    Warramunga Arr     29.98 166    P       P       22 27 57.4 +0.1
WC1    Warramunga Arr     29.99 166    P       P       22 27 57.0 -0.3
WB3    Warramunga Arr     29.99 166    P       P       22 27 57.1 -0.3
WC2    Warramunga Arr     30.00 166    P       P       22 27 56.9 -0.5
WRAB   Tennant Creek      30.00 166ceP         P       22 27 55.9 -1.6
WRAB                                   pmax    pmax
       comp=Z,26nm,0.9s
WRAB   Tennant Creek      30.00 166    P       P       22 27 56.9 -0.5
WRAB                                   IAmb    IAmb    22 28 09.5
       comp=Z,56nm,1.1s
WR1    Warramunga Arr     30.01 166    P       P       22 27 57.5  0.0
WRA    Warramunga Arr     30.01 166    P       P       22 27 55.7 -1.8
       comp=Z,37nm,1.2s,baz=348,slow=9.1,SNR=15
       comp=Z,37nm,1.2s
WRA    Warramunga Arr     30.01 166  i P       P       22 27 55.7 -1.8
WRA                                    pmax    pmax
       comp=Z,14nm,0.9s
WRA    Warramunga Arr     30.01 166    P       P       22 27 57.2 -0.3
WB2    Warramunga Arr     30.01 166    P       P       22 27 56.6 -1.0
HNS    HongShan           30.03 340  ⇑P        P       22 27 58.5 +0.9
HNS                                    pmax    pmax
       comp=Z,69nm,1.3s
GSI    Gunungsitoli       30.29 256    P       P       22 27 59.4 -0.8
TIY    Taiyuan            31.12 337    P       P       22 28 09.3 +2.0
MBWA   Marble Bar         31.14 193    P       P       22 28 05.5 -1.9
       comp=Z,55nm,1.2s
MBWA   Marble Bar         31.14 193    P       P       22 28 06.5 -0.9
BJI2   Beijing            32.01 344    P       P       22 28 16.0 +1.0
BJI2                                   pmax    pmax
       comp=Z,30nm,1.7s
QIS    Mount Isa          32.23 157    P       P       22 28 16.5 -0.6
       comp=Z,301nm,1.1s
QIS    Mount Isa          32.23 157    P       P       22 28 16.5 -0.6
       comp=Z,301nm,1.1s
MTSU   Mount Surprise     32.25 148    P       P       22 28 18.8 +1.4
       comp=Z,10.0nm,1.5s
AS15   Alice Springs      33.49 168    P       P       22 28 27.6 -0.5
       comp=Z,28nm,1.1s
AS31   Alice Springs      33.51 168    P       P       22 28 28.1 -0.2
       comp=Z,6.6nm,1.3s
ASAR   Alice Springs      33.52 168    P       P       22 28 27.4 -0.9
       comp=Z,5.6nm,0.4s,baz=352,slow=7.1,SNR=31
ASAR                                   S       S       22 33 44.0 -6.4
       comp=Z,1.0nm,0.9s,baz=337,slow=16,SNR=2.2
       comp=Z,5.6nm,0.4s
ASAR   Alice Springs      33.52 168            P       22 28 26.7 -1.7
AS17   Alice Springs      33.53 168    P       P       22 28 28.6  0.0
       comp=Z,32nm,1.1s
AS09   Alice Springs      33.55 168    P       P       22 28 28.7  0.0
LZDM   Lanzhou Array      33.90 325    P       P       22 28 32.0 +0.1
       comp=Z,0.9nm,0.3s,baz=48,slow=6.4,SNR=1.4
       comp=Z,0.9nm,0.3s
LZDM   Lanzhou Array      33.90 325    P       P       22 28 32.0 +0.1
LZH    Lanzhou            33.91 325  eP        P       22 28 36.3 +4.5
LZH                                    pP      pwP     22 28 42.3 -1.4
LZH                                    pmax    pmax
       comp=Z,12nm,1.6s
LZH                                    L       L
       comp=Z,6µm,14.3s
LZH                                    L       L
       comp=Z,5µm,13.3s
LZH                                    L       L
       comp=Z,6µm,13.3s
WRKA   Warakurna          34.21 178    P       P       22 28 34.2 -0.1
       comp=Z,13nm,1.0s
BTO2   Baotou             34.74 337  eP        P       22 28 40.0 +1.1
BTO2                                   pmax    pmax
       comp=Z,41nm,0.7s
BTO2                                   pmax    pmax
       comp=Z,3µm,7.0s
USA0B  Ussuriysk Arra     34.99   6  i P       P       22 28 41.9 +1.0
USA0B  Ussuriysk Arra     34.99   6    P       P       22 28 40.9  0.0
USA0B                                  IAmb    IAmb    22 28 47.1
       comp=Z,38nm,1.2s
USRK   Ussuriysk Ar.      34.99   6    P       P       22 28 42.4 +1.5
       comp=Z,26nm,1.1s,baz=187,slow=7.0,SNR=16
       comp=Z,26nm,1.1s
USRK   Ussuriysk Ar.      34.99   6            P       22 28 41.0 +0.1
SAIH   SAIHA              35.07 296  eP        P       22 28 37.0 -5.1
MDJ    Mudanjiang         35.21   3    P       P       22 28 44.6 +1.8
MDJ                                    pmax    pmax
       comp=Z,31nm,1.2s
XLT    XiLinHaoTe         35.69 346  eP        P       22 28 48.1 +1.0
XLT                                    pmax    pmax
       comp=Z,49nm,1.6s
AZL    Aizawl             35.70 298  eP        P       22 28 43.1 -4.3
ZIRO   ZIRO               36.05 305  eP        P       22 28 43.1 -7.4
BNX    BinXian            36.26   1  ⇑P        P       22 28 52.5 +0.7
BNX                                    pmax    pmax
       comp=Z,17nm,1.3s
MEEK   Meekatharra        36.68 193    P       P       22 28 54.5 -1.1
       comp=Z,50nm,1.3s
MEEK   Meekatharra        36.68 193    P       P       22 28 55.1 -0.5
       comp=Z,50nm,1.3s
SHL    Shillong           36.98 300    P       P       22 28 56.8 -1.6
SHL                                    pmax    pmax
       comp=Z,41nm,1.0s
SHL    Shillong           36.98 300  eP        P       22 28 51.3 -7.1
GTA2   Gaotai             38.59 325  eP        P       22 29 10.8 -1.1
GTA2                                   ScP     ScP     22 35 12.5 -0.2
GTA2                                   pmax    pmax
       comp=Z,6.0nm,1.1s
DHUB   DHUBRI             38.73 300  eP        P       22 29 07.6 -5.4
QLP    Quilpie            39.47 155    P       P       22 29 19.2 +0.1
       comp=Z,128nm,1.1s
QLP    Quilpie            39.47 155    P       P       22 29 19.6 +0.5
       comp=Z,128nm,1.1s
MORW   Morawa             39.62 195    P       P       22 29 18.0 -2.4
       comp=Z,54nm,1.5s
MORW   Morawa             39.62 195    P       P       22 29 17.9 -2.4
       comp=Z,54nm,1.5s
YSS    Yuzhno-Sakhali     39.82  17  eP        P       22 29 21.0 -0.8
YSS                                    pmax    pmax
       comp=Z,20nm,1.2s
YSS    Yuzhno-Sakhali     39.82  17    P       P       22 29 20.4 -1.4
YSS                                    IAmb    IAmb    22 29 27.9
       comp=Z,73nm,1.5s
FORT   Forrest            39.92 179    P       P       22 29 24.4 +1.6
       comp=Z,42nm,1.0s
FORT   Forrest            39.92 179    P       P       22 29 22.4 -0.4
FORT                                   IAmb    IAmb    22 29 25.3
       comp=Z,53nm,1.2s
KLR    Kul'dur            39.95   5ceP         P       22 29 24.0 +1.1
KLR                                    pmax    pmax
       comp=Z,46nm,1.5s

HIA    Hailar             40.24 353  i P       P       22 29 25.1 -0.2
HIA                                    pmax    pmax
       comp=Z,19nm,1.4s
HILR   Hailar Array B     40.52 353    P       P       22 29 28.4 +0.7
       comp=Z,1.8nm,0.4s,baz=181,slow=10,SNR=4.2
       comp=Z,1.8nm,0.4s
HEH    HeiHe              40.77   0  eP        P       22 29 30.3 +0.6
HEH                                    pmax    pmax
       comp=Z,16nm,1.5s
KMBL   Kambalda           40.78 187    P       P       22 29 30.7 +0.7
       comp=Z,29nm,1.1s
BLDU   Ballidu            40.94 194    P       P       22 29 31.2  0.0
       comp=Z,64nm,1.5s
KLBR   Kellerberrin       41.65 192    P       P       22 29 37.4 +0.3
       comp=Z,59nm,0.8s
EIDS   Eidsvold           41.76 146    P       P       22 29 38.9 +0.8
       comp=Z,19nm,2.2s
EIDS   Eidsvold           41.76 146    P       P       22 29 38.6 +0.5
ULN    Ulaanbaatar        41.91 340ceP         P       22 29 39.8 +0.6
ULN                                    pmax    pmax
       comp=Z,51nm,1.5s
ULN    Ulaanbaatar        41.91 340    P       P       22 29 39.0 -0.2
ULN                                    IAmb    IAmb    22 29 46.2
       comp=Z,59nm,1.4s
ULN    Ulaanbaatar        41.91 340    P       P       22 29 40.1 +0.9
       comp=Z,32nm,1.4s
EVN    Everest            42.03 302    P       P       22 29 39.1 -2.0
EVN                                    IAmb    IAmb    22 30 23.8
       comp=Z,76nm,1.6s
EVN    Everest            42.03 302    P       P       22 29 40.4 -0.7
       comp=Z,27nm,1.1s
SONM   Songino Array      42.11 339    P       P       22 29 41.4 +0.5
       comp=Z,5.9nm,0.8s,baz=156,slow=9.5,SNR=17
SONM                                   ScP     ScP     22 35 26.3 +0.1
       comp=Z,1.4nm,1.0s,baz=194,slow=4.0,SNR=5.8
       comp=Z,5.9nm,0.8s
SONM   Songino Array      42.11 339    P       P       22 29 40.1 -0.7
SONM                                   pmax    pmax
       comp=Z,26nm,1.4s
SONM   Songino Array      42.11 339    P       P       22 29 40.1 -0.7
SONM                                           ScP     22 35 25.3 -1.0
MUN    Mundaring          42.36 194    P       P       22 29 42.2 -0.7
       comp=Z,84nm,1.9s
MUN    Mundaring          42.36 194    P       P       22 29 42.2 -0.7
BBOO   Buckleboo          42.82 169    P       P       22 29 46.6  0.0
       comp=Z,88nm,1.2s
BBOO   Buckleboo          42.82 169    P       P       22 29 46.1 -0.5
BBOO   Buckleboo          42.82 169    P       P       22 29 47.2 +0.5
       comp=Z,88nm,1.2s
NWAO   Narrogin (SRO)     43.05 192    P       P       22 29 46.2 -2.3
NWAO                                   pmax    pmax
       comp=Z,285nm,1.8s
NWAO   Narrogin (SRO)     43.05 192    P       P       22 29 46.2 -2.3
STKA   Stephens Creek     43.33 162    P       P       22 29 50.9 +0.2
       comp=Z,136nm,1.9s
STKA   Stephens Creek     43.33 162    P       P       22 29 50.4 -0.3
       comp=Z,24nm,1.0s,baz=346,slow=8.5,SNR=9.9
       comp=Z,24nm,1.0s
STKA   Stephens Creek     43.33 162  i P       P       22 29 50.0 -0.7
STKA   Stephens Creek     43.33 162    P       P       22 29 51.7 +1.0
       comp=Z,135nm,1.9s
CIT    Chita              43.93 348  eP        P       22 29 56.8 +1.4
CIT                                  e                 22 31 40.4
CIT                                  e                 22 39 57.6
CIT                                    pmax    pmax
       comp=Z,252nm,2.2s
CMSA   Cobar Meteorol     44.45 157    P       P       22 30 00.3 +0.6
       comp=Z,52nm,1.2s
CMSA   Cobar Meteorol     44.45 157    P       P       22 30 00.5 +0.8
       comp=Z,52nm,1.2s
ZAK    Zakamensk          45.35 339  eP        P       22 30 06.1 -0.8
ZAK                                    pmax    pmax
       comp=Z,12nm,1.8s
ARMA   Armidale           46.11 150    P       P       22 30 13.4 +0.3
       comp=Z,48nm,1.3s
ARMA   Armidale           46.11 150            P       22 30 13.6 +0.5
IRK    Irkutsk            46.59 341  eP        P       22 30 15.2 -1.3
IRK                                    pmax    pmax
       comp=Z,91nm,3.0s
MOY    Mondy              47.24 338  eP        P       22 30 23.1 +1.4
MOY                                    pmax    pmax
       comp=Z,87nm,2.3s
HYB    Hyderabad          47.65 285  eP        P       22 30 25.0 -0.4
HYB                                  ePcP      PcP     22 31 54.2 -0.7
HYB                                  ePP       PP      22 32 16.6 -0.4
HYB                                  eS        S       22 37 21.5  0.0
HYB                                  eScS      ScS     22 40 18.7 -1.2
KNGR   Kungurtug, Tuv     47.77 335  i P       P       22 30 24.0 -1.9
KNGR                                   pmax    pmax
       comp=Z,21nm,1.7s
ARPS   Mount Arapiles     47.97 164    P       P       22 30 28.6 +1.3
       comp=Z,23nm,2.4s
WMQ    Urumqi             48.35 322  eP        P       22 30 30.4  0.0
WMQ                                    pmax    pmax
       comp=Z,11nm,1.3s
WMQ                                    L       L
       comp=Z,5µm,17.3s
WMQ                                    L       L
       comp=Z,2µm,14.5s
WMQ                                    L       L
       comp=Z,2µm,18.3s
CAN    Canberra           49.08 156    P       P       22 30 38.2 +2.2
       comp=Z,36nm,1.4s
CAN    Canberra           49.08 156    P       P       22 30 36.3 +0.3
CAN                                    pmax    pmax
       comp=Z,51nm,1.2s
CAN    Canberra           49.08 156            P       22 30 36.3 +0.3
CAN                                    IAmb    IAmb    22 30 39.6
       comp=Z,51nm,1.2s
CAN    Canberra           49.08 156    P       P       22 30 38.3 +2.2
       comp=Z,36nm,1.4s
CNB    Canberra Magne     49.22 156    P       P       22 30 39.5 +2.3
       comp=Z,1.1nm,1.4s
TOO    Toolangi           49.80 161    P       P       22 30 43.3 +1.7
       comp=Z,11nm,1.6s
TOO    Toolangi           49.80 161    P       P       22 30 41.8 +0.3
TOO                                    pmax    pmax
       comp=Z,21nm,1.5s
TOO    Toolangi           49.80 161            P       22 30 41.8 +0.3
PETK   Petropavlovsk-     50.20  24    P       P       22 30 46.6 +2.3
       comp=Z,4.7nm,0.7s,baz=192,slow=2.8,SNR=12
       comp=Z,4.7nm,0.7s
PETK   Petropavlovsk-     50.20  24    P       P       22 30 44.0 -0.4
DGZ    Jazzator, Alta     51.89 328  i P       P       22 30 56.8 -0.5
DGZ                                    pmax    pmax
       comp=Z,19nm,2.3s
ZSN    Zaisan             52.00 325  eP        P       22 30 57.4 -0.6
ZSN                                    pmax    pmax
       comp=Z,31nm,1.8s
ZSN    Zaisan             52.00 325  eP        P       22 30 57.5 -0.6
       comp=Z,31nm,1.8s
YAK    Yakutsk            52.62   2  eP        P       22 31 02.4 +0.2
YAK                                    pmax    pmax
       comp=Z,47nm,1.6s
YAK                                    pmax    pmax
       comp=N,22nm,1.3s
YAK                                    pmax    pmax
       comp=E,7.0nm,1.1s
YAK    Yakutsk            52.62   2    P       P       22 31 04.0 +1.7
       comp=Z,36nm,1.1s
MK31   Makanchi Array     53.16 323ceP         P       22 31 06.0 -0.6
MKAR   Makanchi Array     53.16 323    P       P       22 31 06.0 -0.6
       comp=Z,15nm,0.9s,baz=126,slow=6.8,SNR=29
       comp=Z,15nm,0.9s
MKAR   Makanchi Array     53.16 323  i P       P       22 31 06.0 -0.6
MKAR                                   pmax    pmax
       comp=Z,15nm,0.9s
MKAR   Makanchi Array     53.16 323            P       22 31 06.2 -0.4
SHLS   Shalkode           53.27 318c iP        P       22 31 04.5 -3.1
SHLS                                   pmax    pmax
       comp=Z,19nm,1.3s
SHLS   Shalkode           53.27 318⇑iP         P       22 31 04.6 -3.1
       comp=Z,19nm,1.3s
MAKZ   Makanchi           53.35 323    P       P       22 31 07.6 -0.4
MAKZ                                   pmax    pmax
       comp=Z,36nm,1.3s
MAKZ   Makanchi           53.35 323            P       22 31 07.6 -0.4
MAKZ                                   IAmb    IAmb    22 31 08.8
       comp=Z,36nm,1.2s
MAKZ   Makanchi           53.35 323    P       P       22 31 07.5 -0.5
       comp=Z,25nm,1.4s
UZB    Uzynbulak          53.56 318c iP        P       22 31 08.7 -1.0
UZB                                    pmax    pmax
       comp=Z,19nm,1.7s
UZB    Uzynbulak          53.56 318⇑iP         P       22 31 08.7 -1.0
       comp=Z,19nm,1.7s
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PRZ   Przheval'sk       53.70 317   IAmb     IAmb      22 31 12.4
      comp=Z,25nm,1.0s
TARG  Taragay, Kyrgy    53.82 315   P        P         22 31 11.8  -0.2
      comp=Z,12nm,1.1s
KPKS  Kokpek            53.91 318  eP        P         22 31 11.4  -0.9
KPKS  Kokpek            53.91 318  eP        P         22 31 11.4  -0.9
SATY  Saty              53.93 317c iP        P         22 31 11.4  -1.1
SATY                                pmax     pmax
      comp=Z,19nm,1.4s
SATY  Saty              53.93 317⇑iP        P         22 31 11.5  -1.1
      comp=Z,20nm,1.4s
KDJ   Kajisay           54.40 316   P        P         22 31 15.6  -0.4
      comp=Z,18nm,0.9s
ASAI  AK-SAY(Kyrgyzs    54.42 314   P        P         22 31 15.9  -0.4
      comp=Z,23nm,1.3s
KSH2  Kashi             54.51 312   P        P         22 31 16.3  -0.5
KSH2                                pmax     pmax
      comp=Z,18nm,1.3s
TDK   Taldyqorghan      54.73 319c iP        P         22 31 17.4  -0.8
TDK                                 pmax     pmax
      comp=Z,15nm,0.8s
TDK   Taldyqorghan      54.73 319⇑iP        P         22 31 17.4  -0.8
      comp=Z,15nm,0.8s
NIL   Nilore            54.80 305   P        P         22 31 17.9  -1.0
NIL                                 pmax     pmax
      comp=Z,64nm,1.1s
NIL   Nilore            54.80 305            P         22 31 17.9  -1.0
NIL   Nilore            54.80 305   P        P         22 31 17.7  -1.1
      comp=Z,73nm,1.2s
MDOK  Medeo             54.89 317  eP        P         22 31 18.5  -0.9
MDOK                               eS        S         22 39 00.0  -1.1
MDOK  Medeo             54.89 317  eP        P         22 31 18.6  -0.9
MDOK                               eS        S         22 39 00.1  -1.1
TNSS  Tian-Shan         54.91 317  eP        P         22 31 18.6  -1.3
TNSS  Tian-Shan         54.91 317  eP        P         22 31 18.6  -1.3
NRN   Naryn             54.97 315   IAmb     IAmb      22 31 20.7
      comp=Z,24nm,1.3s
AAA   Alma-Ata          54.99 317  eP        P         22 31 19.2  -0.9
AAA                                 pmax     pmax
      comp=Z,22nm,1.6s
AAA   Alma-Ata          54.99 317  eP        P         22 31 19.2  -0.9
      comp=Z,22nm,1.6s
BOOM  Boomskoye usch    55.39 316   P        P         22 31 22.3  -0.8
      comp=Z,11nm,1.6s
KUU   Kurty             55.64 317  eP        P         22 31 24.0  -0.7
KUU                                 pmax     pmax
      comp=Z,16nm,1.0s
KUU   Kurty             55.64 317  eP        P         22 31 24.1  -0.7
      comp=Z,16nm,1.0s
ZAA0  Zalesovo Array    55.74 331   IAmb     IAmb      22 32 30.5
      comp=Z,36nm,1.6s
ZALV  Zalesovo Beam     55.74 331   P        P         22 31 24.3  -1.0
      comp=Z,3.5nm,0.6s,baz=122,slow=6.1,SNR=13
      comp=Z,3.5nm,0.6s
ZALV  Zalesovo Beam     55.74 331            P         22 31 24.1  -1.1
TKM2  Tokmak 2          55.78 316   P        P         22 31 25.4  -0.6
      SNR=8.8
KBK   Karagaybulak      56.13 316   P        P         22 31 28.2  -0.3
      SNR=13
CHMS  Chumysh           56.39 316   P        P         22 31 29.6  -0.5
      SNR=14
AAK   Ala-Archa         56.44 315   P        P         22 31 30.1  -0.6
      comp=Z,2.8nm,0.6s,baz=196,slow=6.8,SNR=7.2
      comp=Z,2.8nm,0.6s
AAK   Ala-Archa         56.44 315ceP        P         22 31 29.2  -1.5
AAK                                 pmax     pmax
      comp=Z,4.0nm,0.8s
AAK   Ala-Archa         56.44 315            P         22 31 30.2  -0.4
AAK                                 IAmb     IAmb      22 31 36.7
      comp=Z,36nm,1.8s
AAK   Ala-Archa         56.44 315   P        P         22 31 30.2  -0.6
      comp=Z,11nm,2.0s
SEY   Seymchan          56.55  14  eP        P         22 31 34.9  +4.1
SEY                                 pmax     pmax
      comp=Z,18nm,1.7s
SGDS  Sogindy           56.63 316  eP        P         22 31 30.5  -1.4
USP   Ospenovka         56.66 316   P        P         22 31 31.3  -0.7
      SNR=18
EKS2  Erkin-Say         56.95 315   P        P         22 31 33.8  -0.4
      SNR=13
ARSB  Arslanbob         57.08 313   IAmb     IAmb      22 31 40.9
      comp=Z,37nm,1.4s
KURK  Kurchatov         57.20 326ceP        P         22 31 34.8  -0.8
KURK                                pmax     pmax
      comp=Z,44nm,1.0s
KURK  Kurchatov         57.20 326            P         22 31 35.0  -0.6
KURK                                IAmb     IAmb      22 31 36.8
      comp=Z,50nm,1.2s
KURK  Kurchatov         57.20 326   P        P         22 31 35.2  -0.4
      comp=Z,34nm,1.1s
MSVF  Nonsavu           57.20 118   P        P         22 31 37.8  +1.6
      comp=Z,19nm,0.9s,baz=239,slow=5.5,SNR=5.1
      comp=Z,19nm,0.9s
MSVF  Nonsavu           57.20 118   P        P         22 31 35.9  -0.4
MSVF                                IAmb     IAmb      22 31 41.4
      comp=Z,35nm,1.1s
KURBB Kurchatov Arra    57.20 325   P        P         22 31 35.0  -0.6
      comp=Z,14nm,0.9s,baz=125,slow=7.1,SNR=54
KURBB                               PKPPKP   P'P'df    23 01 29.9  +2.2
      comp=Z,0.2nm,0.2s,baz=255,slow=3.7,SNR=4.5
      comp=Z,14nm,0.9s
DRK   Karamyk           57.40 311   IAmb     IAmb      22 31 52.0
      comp=Z,23nm,1.0s
KBL   Kabul             58.40 305   P        P         22 31 42.9  -1.8
KBL                                 pmax     pmax
      comp=Z,39nm,1.5s
KBL   Kabul             58.40 305            P         22 31 42.9  -1.8
KBL                                 IAmb     IAmb      22 32 23.2
      comp=Z,38nm,1.5s
KBL   Kabul             58.40 305   P        P         22 31 43.4  -1.3
      comp=Z,13nm,1.3s
DZA   Taraz             58.73 315  eP        P         22 31 45.7  -0.9
DZA                                 pmax     pmax
      comp=Z,11nm,1.0s
DZA   Taraz             58.73 315  eP        P         22 31 45.8  -0.9
      comp=Z,11nm,1.0s
KK31  Karatay Array     59.37 315   IAmb     IAmb      22 31 51.1
      comp=Z,23nm,1.2s
KKAR  Karatay Array     59.37 315   P        P         22 31 49.2  -1.8
KKAR  Karatay Array     59.37 315            P         22 31 49.1  -1.8
IUG   Iuzhnay           59.43 314c iP        P         22 31 50.5  -1.0
IUG                                 pmax     pmax
      comp=Z,20nm,1.1s
IUG   Iuzhnay           59.43 314⇑iP        P         22 31 50.6  -1.0
      comp=Z,20nm,1.1s
CHM   Chimkent          59.78 314  eP        P         22 31 53.0  -0.9
CHM                                 pmax     pmax
      comp=Z,13nm,1.6s
CHM   Chimkent          59.78 314  eP        P         22 31 53.0  -0.9
      comp=Z,13nm,1.6s
BRLS  Borolday          59.82 315c iP        P         22 31 53.2  -0.9
BRLS                                pmax     pmax
      comp=Z,10.0nm,1.3s
BRLS  Borolday          59.82 315⇑iP        P         22 31 53.3  -0.9
      comp=Z,10nm,1.3s
TIXI  Tiksi             62.25   1ceP        P         22 32 10.0  -0.1
TIXI                                pmax     pmax
      comp=Z,43nm,1.2s
TIXI  Tiksi             62.25   1            P         22 32 10.4  +0.3
BVAR  Borovoye Array    62.79 325   P        P         22 32 13.8  -0.3
      comp=Z,26nm,1.0s,baz=116,slow=6.8,SNR=24
BVAR                                PKPPKP   P'P'df    23 01 20.0  +1.1
      comp=Z,0.9nm,0.9s,baz=309,slow=3.1,SNR=3.7
      comp=Z,26nm,1.0s
BORK  Borovoye          62.84 325  i P       P         22 32 13.5  -0.9
BORK                                pmax     pmax
      comp=Z,33nm,1.1s
BORK  Borovoye          62.84 325            P         22 32 14.0  -0.4
BORK                                IAmb     IAmb      22 32 16.1
      comp=Z,19nm,0.8s
HRA   Herat             63.93 304   IAmb     IAmb      22 33 30.6
      comp=Z,36nm,1.8s
NRIK  Noril'sk          65.06 346   P        P         22 32 29.4  +0.7
      comp=Z,29nm,1.0s,baz=130,slow=6.4,SNR=22
      comp=Z,29nm,1.0s
NRIK  Noril'sk          65.06 346  i P       P         22 32 29.0  +0.3
NRIK                                pmax     pmax
      comp=Z,77nm,1.2s
NRIK  Noril'sk          65.06 346            P         22 32 28.9  +0.2
RAO   Raoul Island      65.51 128   P        P         22 32 33.2  +0.9
      comp=Z,461nm,0.4s,baz=354,slow=21,SNR=4.9
RAO   Raoul Island      65.51 128   P        P         22 32 32.7  +0.5
THZ   Tophouse          66.04 144            P         22 32 35.7  +0.2
LBZ   Lake Benmore      66.24 148   P        P         22 32 36.1  -0.6
RPZ   Rata Peaks        66.26 147   P        P         22 32 37.2  +0.4
LTZ   Lake Taylor       66.32 145   P        P         22 32 37.8  +0.5
URZ   Urewera           66.54 139   P        P         22 32 40.8  +2.1
      comp=Z,19nm,1.6s
ABKAR Akbulak array     68.00 319            P         22 32 47.0  -0.9
UOSS  Minazif           68.70 293            P         22 32 52.3  -0.5
UOSS  Minazif           68.70 293   P        P         22 32 51.1  -1.7
      comp=Z,13nm,1.0s
SVE   Sverdlovsk        69.34 327  eP        P         22 32 55.4  -0.6
SVE                                 pmax     pmax
      comp=Z,28nm,1.0s
AKTO  Aktyubinsk        69.45 320   P        P         22 32 56.5  -0.3
      comp=Z,6.8nm,0.9s,baz=102,slow=5.2,SNR=12
      comp=Z,6.8nm,0.9s
ARTI  Arti              70.44 327   P        P         22 33 02.3  -0.6
      comp=Z,6.1nm,0.5s,baz=130,slow=3.7,SNR=11
      comp=Z,6.1nm,0.5s
ARTI  Arti              70.44 327d iP        P         22 33 00.6  -2.2
ARTI                                                   22 33 22.9
ARTI                                S        S         22 42 12.8  -2.9
ARTI                                pmax     pmax
      comp=Z,26nm,1.2s
ARTI  Arti              70.44 327            P         22 33 02.3  -0.6
ARTI                                IAmb     IAmb      22 33 03.1
      comp=Z,31nm,1.2s
J16K  Anvik River       73.83  27   IAmb     IAmb      22 33 43.8
      comp=Z,32nm,1.2s
H17K  Granite Mounta    74.45  25   IAmb     IAmb      22 33 33.2
      comp=Z,23nm,1.1s
J17K  VABM Dome         74.53  27   IAmb     IAmb      22 33 33.8
      comp=Z,34nm,1.2s
K17K  Iditarod          74.76  27   IAmb     IAmb      22 33 35.5
      comp=Z,48nm,1.1s
M17K  Holitna River     74.96  29   IAmb     IAmb      22 33 36.7
      comp=Z,50nm,1.1s
N17K  Nushagak Hills    74.96  30   IAmb     IAmb      22 33 37.5
      comp=Z,43nm,1.3s
LKRN  Lenkeran, Azer    75.00 308   P        P         22 33 30.2  -0.1
H18K  Honhosa River     75.14  25   P        P         22 33 32.6  +2.0
H18K                                IAmb     IAmb      22 34 43.6
      comp=Z,37nm,1.6s
G18K  Tagagawik         75.16  24   P        P         22 33 30.0  -0.7
P17K  Kvichak River     75.17  31   P        P         22 33 30.8   0.0
L18K  Granite Mounta    75.42  28   P        P         22 33 33.0  +0.7
L18K                                IAmb     IAmb      22 33 50.6
      comp=Z,28nm,1.1s
C19K  Lookout Ridge     75.44  21   P        P         22 33 32.9  +0.6
C19K                                IAmb     IAmb      22 33 39.2
      comp=Z,30nm,0.9s
KIRV  Kirov             75.57 328   P        P         22 33 32.7  -0.4
      comp=Z,31nm,0.7s,baz=288,slow=1.7,SNR=15
      comp=Z,31nm,0.7s
KIRV  Kirov             75.57 328  i P       P         22 33 31.8  -1.4
J18K  Innoko River      75.58  27   IAmb     IAmb      22 34 03.6
      comp=Z,38nm,1.6s
AKT   Akhty             75.80 310  eP        P         22 33 33.6  -1.4
AKT                                e                   22 33 46.4
AKT                                eS        S         22 43 17.4  -0.1
AKT                                 pmax     pmax
      comp=Z,27nm,1.3s
G19K  Purcell Mounta    75.83  24   IAmb     IAmb      22 33 40.7
      comp=Z,22nm,1.2s
D19K  Kuna River        75.84  22   IAmb     IAmb      22 34 02.4
      comp=Z,28nm,1.1s
E19K  Redstone River    75.98  23   IAmb     IAmb      22 33 42.0
      comp=Z,25nm,1.1s
BELG  Belogornoye       76.13 322   P        P         22 33 35.9  -0.6
      comp=Z,28nm,1.0s,baz=208,slow=3.9,SNR=7.4
      comp=Z,28nm,1.0s
BELG  Belogornoye       76.13 322  i P       P         22 33 35.1  -1.4
BELG                                pmax     pmax
      comp=Z,9.0nm,1.2s
SEKA  Sheki             76.20 310   P        P         22 33 37.1  -0.2
L19K  White Mountain    76.28  28   IAmb     IAmb      22 33 43.8
      comp=Z,43nm,1.3s
CASY  Casey             76.39 187            P         22 33 38.0  +0.4
CASY                                IAmb     IAmb      22 33 56.3
      comp=Z,41nm,1.7s
CASY  Casey             76.39 187   P        P         22 33 37.7  +0.1
      comp=Z,9.4nm,0.9s
DRV   Dumont d'Urvil    76.42 175   P        P         22 33 37.1  -0.6
D20K  Etivluk River     76.42  21   IAmb     IAmb      22 33 55.8
      comp=Z,31nm,1.1s
J20K  Nowinta River     76.80  26   IAmb     IAmb      22 33 47.7
      comp=Z,24nm,1.4s
GANJ  Ganja             76.87 310   P        P         22 33 41.5  +0.5
KDAK  Kodiak Island     77.06  33   P        P         22 33 42.0  +0.3
KDAK                                pmax     pmax
      comp=Z,78nm,1.5s
KDAK  Kodiak Island     77.06  33            P         22 33 42.0  +0.3
KDAK  Kodiak Island     77.06  33   P        P         22 33 45.7  +4.0
      comp=Z,38nm,1.2s
IMAR  Indian Mountai    77.16  24            P         22 33 42.5  +0.4
G21K  Allakaket         77.31  24   IAmb     IAmb      22 33 49.5
      comp=Z,26nm,1.1s
NAX   Nakhchivan        77.55 308   P        P         22 33 45.3  +0.4
CAST  Castle Rocks      77.65  27   IAmb     IAmb      22 33 51.0
      comp=Z,24nm,1.2s
I21K  Tanana            77.82  25   IAmb     IAmb      22 33 52.4
      comp=Z,27nm,1.1s
BRLK  Bradley Lake      78.03  31   IAmb     IAmb      22 33 54.5
      comp=Z,24nm,1.0s
GNI   Garni             78.09 309   P        P         22 33 47.1  -1.0
      comp=Z,7.5nm,1.1s,baz=135,slow=5.5,SNR=6.1
      comp=Z,7.5nm,1.1s
GNI   Garni             78.09 309  i P       P         22 33 46.1  -2.0
GNI                                 pmax     pmax
      comp=Z,19nm,1.3s
GNI   Garni             78.09 309            P         22 33 47.5  -0.6
GNI                                 IAmb     IAmb      22 33 54.6
      comp=Z,62nm,1.6s
GNI   Garni             78.09 309   P        P         22 33 46.6  -1.5
      comp=Z,21nm,1.6s
GNI   Garni             78.09 309   P        P         22 33 48.8  +0.7
      comp=Z,21nm,1.6s
H22K  Ishtalitna Cre    78.12  25   IAmb     IAmb      22 33 55.0
      comp=Z,42nm,1.7s
BPAW  Bear Paw Mtn.     78.18  26   IAmb     IAmb      22 33 53.9
      comp=Z,21nm,1.0s
KTH   Kantishna Hill    78.18  27   IAmb     IAmb      22 33 54.6
      comp=Z,21nm,1.3s
SLKM  Skilak Lake       78.39  30   IAmb     IAmb      22 33 54.2
      comp=Z,21nm,0.9s
CUT   Chulitna          78.43  28   P        P         22 33 51.1  +1.9
TRF   Thorofare Moun    78.46  27   P        P         22 33 50.2  +0.6
TRF                                 IAmb     IAmb      22 33 57.5
      comp=Z,31nm,1.4s
M22K  Willow            78.48  29   P        P         22 33 50.8  +1.4
RAYN  Ar Rayn           78.53 292   P        P         22 33 48.8  -1.9
RAYN                                pmax     pmax
      comp=Z,13nm,1.0s
RAYN  Ar Rayn           78.53 292            P         22 33 48.8  -1.9
RAYN  Ar Rayn           78.53 292   P        P         22 33 49.1  -1.5
      comp=Z,16nm,1.0s
RC01  Rabbit Creek A    78.64  29   P        P         22 33 50.5  +0.1
RC01                                IAmb     IAmb      22 34 22.6
      comp=Z,28nm,1.3s
COLD  Coldfoot          78.67  23   P        P         22 33 50.7  +0.3
C23K  Itkillik River    78.67  21   P        P         22 33 51.3  +0.9
C23K                                IAmb     IAmb      22 33 56.2
      comp=Z,23nm,1.0s
SEW   Seward            78.77  31   IAmb     IAmb      22 34 14.5
      comp=Z,24nm,1.0s
NCK   Nalchik           78.82 313  i P       P         22 33 50.2  -1.6
NCK                                 pmax     pmax
      comp=Z,14nm,1.3s
I23K  Minto, Yukon-K    78.92  25   P        P         22 33 53.1  +1.2
I23K                                IAmb     IAmb      22 34 25.4
      comp=Z,39nm,1.5s
E23K  Chandalar         78.93  22   P        P         22 33 53.0  +1.0
E23K                                IAmb     IAmb      22 33 58.9
      comp=Z,34nm,1.1s
PMR   Palmer            78.94  29   P        P         22 33 52.5  +0.4
PMR                                 pmax     pmax
      comp=Z,21nm,1.0s
PMR   Palmer            78.94  29   P        P         22 33 52.5  +0.4
PMR                                 IAmb     IAmb      22 33 57.2
      comp=Z,21nm,1.0s
GHO   Glory Hole Cre    79.05  29   IAmb     IAmb      22 34 24.2
      comp=Z,32nm,1.2s
MCK   McKinley          79.07  27   IAmb     IAmb      22 33 59.7
      comp=Z,59nm,1.4s
GOF   Gofitskoye        79.15 314ceP        P         22 33 53.2  -0.4
KNK   Knik Glacier      79.27  29   IAmb     IAmb      22 33 59.6
      comp=Z,28nm,1.0s
KBZ   Khabaz            79.31 313   P        P         22 33 53.7  -0.7
      comp=Z,5.8nm,1.0s,baz=69,slow=5.6,SNR=7.5
      comp=Z,5.8nm,1.0s
KBZ   Khabaz            79.31 313  i P       P         22 33 52.5  -1.9
KBZ                                 pmax     pmax
      comp=Z,13nm,1.3s
PWL   Port Wells        79.32  30   IAmb     IAmb      22 33 59.8
      comp=Z,43nm,1.0s
SML   Sawmill           79.33  29   IAmb     IAmb      22 33 60.0
      comp=Z,31nm,1.1s
KVAR  Kislovodsk Arr    79.45 313   P        P         22 33 54.7  -0.7
      comp=Z,3.8nm,0.9s,baz=32,slow=13,SNR=3.4
      comp=Z,3.8nm,0.9s
WRH   Wood River Hil    79.45  26   IAmb     IAmb      22 34 19.4
      comp=Z,30nm,1.4s
KIV   Kislovodsk        79.46 313  eP        P         22 33 54.2  -1.2
KIV                                 pmax     pmax
      comp=Z,13nm,1.1s
KIV   Kislovodsk        79.46 313            P         22 33 54.9  -0.5
KIV   Kislovodsk        79.46 313   P        P         22 33 54.4  -1.0
      comp=Z,16nm,1.1s
KIV   Kislovodsk        79.46 313   P        P         22 33 55.2  -0.2
      comp=Z,20nm,1.1s
NEUR  Neytrino          79.48 312  i P       P         22 33 54.0  -1.6
NEUR                                pmax     pmax
      comp=Z,8.0nm,1.2s
SHA1  Shidzhatmaz       79.49 313  i P       P         22 33 54.8  -0.9
COLA  College           79.56  26  i P       P         22 33 57.1  +1.8
COLA                                pmax     pmax
      comp=Z,5.0nm,0.9s
VRH   Novokhopyorsk     79.79 320  eP        P         22 33 55.0  -1.9
VRH                                 pmax     pmax
      comp=Z,23nm,1.3s
SCM   Sheep Creek Mo    79.80  29   IAmb     IAmb      22 34 02.8
      comp=Z,44nm,1.0s
GLI   Glacier Island    79.93  30   IAmb     IAmb      22 34 03.1
      comp=Z,24nm,1.0s
ILAR  Eielson Array     79.97  26   P        P         22 33 59.0  +1.4
      comp=Z,2.0nm,0.6s,baz=242,slow=4.9,SNR=19
      comp=Z,2.0nm,0.6s
ILAR  Eielson Array     79.97  26            P         22 33 58.0  +0.4
GURO  Guroymak-BITLI    80.28 308   IAmb     IAmb      22 34 21.5
      comp=Z,52nm,1.2s
KLU   Klutina           80.48  29   IAmb     IAmb      22 34 05.2
      comp=Z,40nm,1.7s
KLMR  Klimovskoe        80.65 330  eP        P         22 33 58.2  -3.1
KLMR                                pmax     pmax
      comp=Z,71nm,1.4s
KLMR                                MLR      MLR
      comp=Z,2μm,15.0s
BMAR  Burnt Mountain    80.85  23            P         22 34 02.9  +0.5
SCRK  Sand Creek        81.26  27   IAmb     IAmb      22 34 22.1
      comp=Z,30nm,1.4s
VORR  Voronezh          81.34 321  eP        P         22 34 04.1  -1.1
VORR                                pmax     pmax
      comp=Z,14nm,0.5s
KOPT  Kop Dagi          81.35 309   IAmb     IAmb      22 34 40.7
      comp=Z,23nm,1.3s
VSR   Storozhevoye      81.40 321  eP        P         22 34 03.6  -1.9
VSR                                 pmax     pmax
      comp=Z,8.0nm,0.9s
LPSR  Galich'ya Gora    81.44 322  eP        P         22 34 04.3  -1.4
LPSR                                pmax     pmax
      comp=Z,27nm,1.1s
SOC   Sochi             81.63 313  eP        P         22 34 06.1  -0.8
SOC                                e                   22 37 11.0
SOC                                ePPP      PPP       22 38 59.8
SOC                                eS        S         22 44 18.6  -0.9
SOC                                eSS       SS        22 49 41.2  +4.8
SOC                                eSSS      SSS       22 52 55.2
SOC                                 MLR      MLR
      comp=Z,633nm,15.0s
E27K  Coleen River      81.93  22   IAmb     IAmb      22 34 14.8
      comp=Z,19nm,1.1s
MOS   Moscow            81.97 325  eP        P         22 34 06.9  -1.5
MOS                                e                   22 37 17.7
MOS                                eS        S         22 44 20.9  -1.5
MOS                                 MLR      MLR
      comp=Z,2μm,17.0s
LVZ   Lovozero          82.27 338   P        P         22 34 10.1  +0.2
LVZ                                 pmax     pmax
      comp=Z,179nm,1.8s
LVZ   Lovozero          82.27 338   P        P         22 34 10.1  +0.2
LVZ   Lovozero          82.27 338   P        P         22 34 07.8  -2.1
      comp=Z,44nm,1.5s
L27K  Beaver Creek,     82.29  27   IAmb     IAmb      22 34 16.8
      comp=Z,18nm,1.1s
BCAR  Beaver Creek A    82.31  27            P         22 34 10.7  +0.5
OBN   Obninsk           82.62 325⇓eP        P         22 34 09.1  -2.7
OBN                                i *PP     sP        22 34 14.8  +2.4
OBN                                e*SP      PcP       22 34 16.6  -0.2
OBN                                eS        S         22 44 21.2  -7.9
OBN                                i PS      PnS       22 45 22.1  +3.3
OBN                                 PPS      PPS       22 45 46.0
OBN                                eSS       SS        22 49 45.2  -5.3
OBN                                i SSS     SSS       22 53 21.2
OBN                                 pmax     pmax
      comp=Z,10.0nm,0.9s
OBN                                 MLR      MLR
      comp=Z,1μm,17.0s
I28M  Miner Creek       82.86  25   IAmb     IAmb      22 34 32.6
      comp=Z,35nm,1.1s
K29M  Barlow Dome       84.11  26   P        P         22 34 20.5  +1.0
G30M  tAoh Zraii Nji    84.13  23   P        P         22 34 19.3  -0.2
G30M                                IAmb     IAmb      22 34 45.5
      comp=Z,37nm,1.4s
O29M  Mount Kennedy     84.17  30   P        P         22 34 19.8  -0.1
O29M                                IAmb     IAmb      22 34 27.8
      comp=Z,36nm,1.3s
F30M  Barrier River     84.19  22   P        P         22 34 19.1  -0.6
I30M  Mount Dempster    84.37  25   P        P         22 34 20.8   0.0
I30M                                IAmb     IAmb      22 34 27.1
      comp=Z,26nm,1.1s
TOKA  Tokat             84.38 310   P        P         22 34 20.8  -0.5
TOKA                                IAmb     IAmb      22 34 41.3
      comp=Z,26nm,1.6s
J30M  Hart River        84.50  26   P        P         22 34 22.0  +0.5
J30M                                IAmb     IAmb      22 34 49.6
      comp=Z,33nm,1.3s
HYT   Haines Junctio    84.61  29   P        P         22 34 23.1  +1.0
HYT                                 IAmb     IAmb      22 34 28.9
      comp=Z,27nm,1.1s
N30M  Aishikik Lake     84.70  29   pP       P         22 34 22.6  +0.1
INK   Inuvik            84.89  22   P        P         22 34 23.5  +0.3
INK                                 pmax     pmax
      comp=Z,20nm,1.2s
INK   Inuvik            84.89  22   P        P         22 34 23.5  +0.3
INK                                 IAmb     IAmb      22 34 40.4
      comp=Z,20nm,1.1s
G31M  Satah River       84.89  23   P        P         22 34 24.0  +0.7
F31M  Tsiigehtchic      84.99  22   P        P         22 34 23.5  -0.2
SPB2  Spitsbergen Ar    85.04 349   P        P         22 34 24.3  +0.4
SPITS Spitsbergen Ar    85.04 349   P        P         22 34 23.9   0.0
      comp=Z,22nm,0.9s,baz=64,slow=6.6,SNR=9.0
      comp=Z,22nm,0.9s
SPITS Spitsbergen Ar    85.04 349   P        P         22 34 24.0  +0.1
SPITS                               pmax     pmax
      comp=Z,72nm,1.2s
BNN   Bunyan            85.06 308   P        P         22 34 24.1  -0.8
BNN                                 IAmb     IAmb      22 35 10.9
      comp=Z,25nm,1.4s
ARCES ARCESS Array B    85.28 340   P        P         22 34 25.1   0.0
      comp=Z,5.9nm,0.6s,baz=77,slow=5.4,SNR=19
      comp=Z,5.9nm,0.6s
ARCES ARCESS Array B    85.28 340   P        P         22 34 25.4  +0.2
ARCES                               pmax     pmax
      comp=Z,87nm,1.8s
ARCES ARCESS Array B    85.28 340   P        P         22 34 25.4  +0.2
N31M  Braeburn, Yuko    85.31  29   P        P         22 34 26.0  +0.5
N31M                                IAmb     IAmb      22 34 32.5
      comp=Z,33nm,1.1s
M31M  Drury Creek, Y    85.82  28   P        P         22 34 28.0  -0.1
M31M                                IAmb     IAmb      22 34 34.4
      comp=Z,19nm,1.2s
WHY   Whitehorse        85.90  29   P        P         22 34 28.9  +0.3
BRTR  Keskin Array B    86.62 310   P        P         22 34 32.5  -0.2
      comp=Z,1.5nm,1.0s,baz=105,slow=1.4,SNR=4.4
      comp=Z,1.5nm,1.0s
BRTR  Keskin Array B    86.62 310   P        P         22 34 31.7  -0.9
FINES FINESS Array B    87.01 332   P        P         22 34 33.4  -0.5
      comp=Z,2.3nm,0.5s,baz=78,slow=3.9,SNR=22
      comp=Z,2.3nm,0.5s
FINES FINESS Array B    87.01 332   P        P         22 34 33.1  -0.7
AK09  Malin Array Si    87.67 321   P        P         22 34 36.0  -1.3
AK08  Malin Array Si    87.69 321   P        P         22 34 36.0  -1.3
AK03  Malin Array Si    87.69 321   P        P         22 34 36.1  -1.2
AKASG Malin Array Be    87.69 321   P        P         22 34 36.7  -0.7
      comp=Z,2.0nm,0.7s,baz=72,slow=4.0,SNR=7.8
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	comp=Z,2.0nm,0.7s						
AKASG	Malin Array Be	87.69	321	P	P	22 34 36.1	-1.3
AKASG				IAmb	IAmb	22 35 08.4	
	comp=Z,38nm,1.7s						
AKBB	Malin Array Si	87.69	321	*i* P	P	22 34 35.0	-2.4
AKBB	Malin Array Si	87.69	321	P	P	22 34 36.2	-1.2
AK10	Malin Array Si	87.69	321	P	P	22 34 36.5	-0.9
AK01	Malin Array Si	87.70	321	P	P	22 34 35.3	-2.1
KIEV	Kiev	87.70	321	P	P	22 34 36.4	-1.0
	comp=Z,31nm,2.1s						
AK02	Malin Array Si	87.71	321	P	P	22 34 36.6	-0.9
AK05	Malin Array Si	87.72	321	P	P	22 34 37.0	-0.5
AK06	Malin Array Si	87.73	321	P	P	22 34 36.4	-1.2
AK11	Malin Array Si	87.73	321	P	P	22 34 36.6	-1.0
AK07	Malin Array Si	87.73	321	P	P	22 34 36.7	-0.9
AK12	Malin Array Si	87.75	321	P	P	22 34 36.6	-1.0
AK16	Malin Array Si	87.77	321	P	P	22 34 36.9	-0.9
AK22	Malin Array Si	87.77	321	P	P	22 34 36.9	-0.9
AK14	Malin Array Si	87.78	321	P	P	22 34 35.8	-2.0
AK18	Malin Array Si	87.78	321	P	P	22 34 35.8	-2.0
AK21	Malin Array Si	87.79	321	P	P	22 34 36.9	-0.9
LUBAR	Lubar, Ukraine	88.78	320	P	P	22 34 41.4	-1.2
VNDA	Vanda	88.94	173	P	P	22 34 42.9	+0.2
	comp=Z,8.0nm,1.0s,baz=308,slow=4.9,SNR=19						
	comp=Z,8.0nm,1.0s						
VNDA	Vanda	88.94	173		P	22 34 42.4	-0.3
MAW	Mawson	89.07	200	P	P	22 34 42.4	-1.0
	comp=Z,1.6nm,1.5s						
MAW	Mawson	89.07	200	P	P	22 34 42.6	-0.7
	comp=Z,7.3nm,1.1s,baz=55,slow=10,SNR=6.1						
	comp=Z,7.3nm,1.1s						
MAW	Mawson	89.07	200		P	22 34 42.7	-0.7
KIBK	Kibwezi	89.29	268		P	22 34 44.5	-1.3
KIBK				IAmb	IAmb	22 35 18.0	
	comp=Z,30nm,1.8s						
RNPP9	Sopachiv	89.58	322	P	P	22 34 45.2	-1.1
RNPP8	Varash	89.62	322	P	P	22 34 45.1	-1.4
RNPP1	Kostyukhnivka	89.67	322	P	P	22 34 45.8	-0.9
KMBO	Kilima Mbogo	89.88	269	P	P	22 34 47.5	-1.3
	baz=90,slow=13						
DAG	Danmarks Havn	91.74	353	P	P	22 34 57.5	+1.6
DAG				pmax	pmax		
	comp=Z,43nm,1.2s						
DAG	Danmarks Havn	91.74	353	*i* P	P	22 34 55.7	-0.1
DAG				IAmb	IAmb	22 34 56.6	
	comp=Z,70nm,1.4s						
HFS	Hagfors	93.16	333	P	P	22 35 02.3	-0.4
	comp=Z,1.3nm,0.5s,baz=83,slow=3.7,SNR=5.5						
	comp=Z,1.3nm,0.5s						
NEEM	North Greenlan	93.34	360	*i* P	P	22 35 05.3	+1.7
NEEM				IAmb	IAmb	22 35 08.0	
	comp=Z,56nm,1.5s						
NB2	NORSAR Subarra	93.87	334	P	P	22 35 05.1	-0.9
	comp=Z,2.7nm,0.9s,baz=62,slow=4.6						
NOA	NORSAR Array B	93.87	334	P	P	22 35 05.3	-0.7
	comp=Z,1.5nm,0.9s,baz=62,slow=4.6,SNR=4.2						
	comp=Z,1.5nm,0.9s						
YKAW3	Yellowknife Wh	94.28	24	P	P	22 35 07.5	-0.3
YKAW3				IAmb	IAmb	22 35 14.9	
	comp=Z,17nm,1.8s						
YKA	Yellowknife Ar	94.32	24	P	P	22 35 08.2	+0.3
	comp=Z,2.1nm,0.7s,baz=302,slow=4.6,SNR=8.5						
	comp=Z,2.1nm,0.7s						
YKA	Yellowknife Ar	94.32	24	*i* P	P	22 35 09.8	+1.8
YKA	Yellowknife Ar	94.32	24	P	P	22 35 07.9	-0.1
YKAW1	Yellowknife Wh	94.37	24	P	P	22 35 08.4	+0.2
YKAW1				IAmb	IAmb	22 35 29.9	
	comp=Z,9.1nm,1.0s						
CLL	Collm	97.22	325	*e*P	P	22 35 21.0	-0.5
CLL	Collm	97.22	325	*e*P	P	22 35 21.0	-0.5
SUMG	Summit	97.69	356	*i* P	Pdif	22 35 24.9	+1.2
GERES	GERESS Array B	97.82	322	P	P	22 35 23.8	-0.5
	comp=Z,0.3nm,0.3s,baz=90,slow=2.7,SNR=3.6						
	comp=Z,0.3nm,0.3s						
GERES	GERESS Array B	97.82	322	P	P	22 35 23.5	-0.9
TXAR	Lajitas Array	117.91	50	PKP	PKPdf	22 40 36.8	+0.6
	comp=Z,0.8nm,0.9s,baz=347,slow=3.1,SNR=5.8						
TXAR	Lajitas Array	117.91	50	PKIKP	PKPdf	22 40 35.3	-0.9
TXAR	Lajitas Array	117.91	50		PKPdf	22 40 35.3	-0.9
TORD	Torodi Ar. Bea	121.22	292	PKP	PKPdf	22 40 41.6	-1.1
	comp=Z,1.8nm,0.8s,baz=62,slow=2.2,SNR=11						
PLCA	Paso Flores	145.11	156	PKPbc	PKPdf	22 41 27.1	+0.5
	comp=Z,23nm,1.0s,baz=196,slow=4.3,SNR=18						
CELP	Cerrillos	149.65	26	PKPdf	PKPdf	22 41 33.9	-0.9
ROSC	El Rosal	154.54	57	PKP	PKPdf	22 41 43.1	+0.4
	comp=Z,2.4nm,0.3s,baz=251,slow=9.3,SNR=4.7						
ROSC	El Rosal	154.54	57		PKPdf	22 41 41.0	-1.6
SDV	Santo Domingo	154.81	45	PKP	PKPdf	22 41 43.7	+0.9
	comp=Z,9.1nm,0.2s,baz=264,slow=4.0,SNR=4.3						
CPUP	Villa Florida	162.63	167	PKPab	PKPab	22 42 38.9	-0.6
	comp=Z,4.2nm,1.0s,baz=202,slow=3.2,SNR=5.0						
CPUP	Villa Florida	162.63	167		PKPab	22 42 38.4	-1.1
LPAZ	La Paz	163.77	117	PKP	PKPdf	22 41 53.8	+0.2
	comp=Z,6.7nm,1.1s,baz=258,slow=2.1,SNR=8.4						
LPAZ				PKPab	PKPab	22 42 46.5	+0.8
	comp=Z,3.8nm,0.9s,baz=267,slow=2.3,SNR=3.7						
LPAZ	La Paz	163.77	117		PKPab	22 42 43.8	-2.0

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*NEIC **20** 22:34:20.5±0.9, 17°.4S±0°.2×179°.28W±0°.07, h583^{km}±10^{km}, mb4.1/19, Error ellipse: s-maj=22.0km s-min=8.9km az=171.0*

*IDC **20** 22:34:23.5±20.0, 17°.75S×179°.76W, h569^{km}±72^{km}, mb3.5/3, mbtmp4.3/4, Error ellipse: s-maj=430.9km s-min=102.4km az=80.0*

ISC 20 22:34:21.7±1.0, **17°.3S**±0°.1×**179°.4W**±0°.2, **h600**^{km}**, n26,**
σ1^{s}.04/26, **mb4.0**/14, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	2.45	260	P	P	22 35 35.4	-2.6
	13nm,0.6s,baz=115,slow=3.8,SNR=9.0						
MSVF	Nonsavu	2.45	260	P	P	22 35 35.3	-2.8
KOUNC	Koumac, New Ca	15.75	256	P	P	22 37 36.7	0.0
RABL	Rabaul	30.76	292	P	P	22 39 50.9	+0.7
PYZ	Puysegur Point	30.98	199	P	P	22 39 51.3	-0.3
STKA	Stephens Creek	38.07	240	P	P	22 40 50.5	-0.2
	2.5nm,0.5s,baz=78,slow=9.3,SNR=7.9						
	2.5nm,0.5s						
INKA	Innaminka	38.08	247	P	P	22 40 51.3	+0.5
BBOO	Buckleboo	42.85	240	P	P	22 41 27.6	-0.9
BBOO				IAmb	IAmb	22 41 37.8	
	comp=Z,10nm,0.9s						
WR8	Warramunga Arr	43.64	259	P	P	22 41 34.9	0.0
WR8				IAmb	IAmb	22 41 46.6	
	comp=Z,3.1nm,1.0s						
WB0	Warramunga Arr	43.76	259	P	P	22 41 35.9	+0.1
WRA	Warramunga Arr	43.79	259	P	P	22 41 36.5	+0.4
	comp=Z,1.6nm,0.5s,baz=95,slow=7.2,SNR=31						
	comp=Z,1.6nm,0.5s						
WRA	Warramunga Arr	43.79	259	P	P	22 41 35.8	-0.3
AS31	Alice Springs	44.02	254	P	P	22 41 38.2	+0.3
AS31				IAmb	IAmb	22 41 39.1	
	comp=Z,3.8nm,0.6s						
ASAR	Alice Springs	44.02	254	P	P	22 41 38.2	+0.4
	comp=Z,12nm,0.6s,baz=89,slow=8.2,SNR=156						
	comp=Z,12nm,0.6s						
ASAR	Alice Springs	44.02	254	P	P	22 41 37.7	-0.2
MTN	Manton Dam	47.86	268	P	P	22 42 07.8	+0.9
MTN				IAmb	IAmb	22 42 40.1	
	comp=Z,6.0nm,1.1s						
FORT	Forrest	49.39	244	P	P	22 42 16.8	-1.2
FORT				IAmb	IAmb	22 42 53.8	
	comp=Z,19nm,1.1s						
KNRA	Kununurra	49.59	264	P	P	22 42 20.0	+0.4
KNRA				IAmb	IAmb	22 42 28.5	
	comp=Z,4.2nm,1.0s						
FITZ	Fitzroy Crossi	52.18	260	P	P	22 42 38.6	+0.3
MBWA	Marble Bar	57.28	256	P	P	22 43 13.5	-0.4
MBWA				IAmb	IAmb	22 43 43.5	
	comp=Z,10nm,1.0s						
SBA	Scott Base	60.92	183	P	P	22 43 37.6	+0.5
SBA				IAmb	IAmb	22 43 46.4	
	comp=Z,16nm,0.9s						
VNDA	Vanda	60.93	185	P	P	22 43 37.1	0.0
VNDA				IAmb	IAmb	22 43 46.6	
	comp=Z,7.9nm,1.1s						
CASY	Casey	66.25	205	P	P	22 44 13.2	+2.0
CASY				IAmb	IAmb	22 44 32.7	
	comp=Z,3.8nm,1.1s						
PMBI	Palembang	75.59	271	P	P	22 45 07.2	+0.5
USRK	Ussuriysk Ar.	75.61	326	P	P	22 45 06.9	+0.7
SAO	San Andreas Ge	76.69	44	P	P	22 45 11.9	-0.4
SAO				IAmb	IAmb	22 45 41.2	
	comp=Z,9.6nm,1.1s						

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*KRSC **20** 22:45:42.7±2.3, 49°.53N×156°.69E, h17^{km}±26^{km}, Ml4.3*

*MOS **20** 22:45:43.6±1.2, 49°.57N×155°.67E, h64^{km}, mb4.2/4, Error ellipse: s-maj=14.8km s-min=4.7km az=70.8*

*NEIC **20** 22:45:46.5±0.7, 49°.7N±0°.1×155°.6E±0°.2, h66^{km}±7^{km}, mb4.2/6, Error ellipse: s-maj=18.8km s-min=11.3km az=144.0*

*IDC **20** 22:45:46.3±2.8, 49°.71N×155°.59E, h69^{km}±25^{km}, mb3.5/14, mbtmp3.8/17, Error ellipse: s-maj=23.4km s-min=15.1km az=141.0*

ISC 20 22:45:44.3±0.6, **49°.55N**±0°.08×**155°.81E**±0°.09, **h54**^{km}**, n90,**
σ**1^{s}.49**/97, **mb3.8**/17, **1D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril’s	1.15	10	⇓ *i* PN	Pn	22 46 04.1	0.0
SKR				*i* S	Sn	22 46 18.4	-0.4
SKR				pmax	pmax		
	comp=Z,222nm,0.5s						
SKR				smax	smax		
	comp=E,1µm,0.3s						
SKR				smax	smax		
	comp=N,1µm,0.4s						
SKR	Severo-Kuril’s	1.15	10	*e*P	Pn	22 46 04.0	-0.1
SKR				*e*S	Sn	22 46 18.8	0.0
PAU	Pauzhetka	2.02	18	PN	Pn	22 46 15.9	+0.1
PAU				S	Sn	22 46 39.7	-0.2
PAU	Pauzhetka	2.02	18	*e*P	Pn	22 46 16.0	+0.1
PAU				*e*S	Sn	22 46 39.7	-0.2
KDTR	Khodutka, Kamc	2.68	32	PN	Pn	22 46 24.2	-0.7
KDTR				S	Sn	22 46 53.7	-2.4
KDTR	Khodutka, Kamc	2.68	32	*e*P	Pn	22 46 24.3	-0.7
KDTR				*e*S	Sn	22 46 53.8	-2.4
MIPR	Malaya Ipel'ka	2.79	12	PN	Pn	22 46 26.6	+0.2
MIPR	Malaya Ipel'ka	2.79	12	*e*P	Pn	22 46 26.7	+0.2
ASAK	Asacha	3.13	24	PN	Pn	22 46 32.2	+1.1
ASAK	Asacha	3.13	24	*e*P	Pn	22 46 32.3	+1.1
MTVR	Mutnovka	3.29	26	PN	Pn	22 46 34.2	+0.8
MTVR	Mutnovka	3.29	26	*e*P	Pn	22 46 34.3	+0.8
GRL	Gorelyy	3.33	25	PN	Pn	22 46 34.8	+1.0
GRL				S	Sn	22 47 11.3	-0.8
GRL	Gorelyy	3.33	25	*e*P	Pn	22 46 34.8	+1.0
GRL				*e*S	Sn	22 47 11.4	-0.8
RUS	Russkaya	3.35	30	PN	Pn	22 46 34.2	+0.2
RUS				S	Sn	22 47 10.5	-2.0
RUS	Russkaya	3.35	30	*e*P	Pn	22 46 34.3	+0.2
RUS				*e*S	Sn	22 47 10.6	-2.0
PEA0B	Petropavlovsk-	3.75	18	*i* PN	Pn	22 46 41.6	+2.0
PEA0B	Petropavlovsk-	3.75	18		Pn	22 46 40.5	+0.8
PETK	Petropavlovsk-	3.75	18	P	Pn	22 46 40.8	+1.1
	comp=N,8.3nm,0.4s,baz=180,slow=12,SNR=22						
PETK	Petropavlovsk-	3.75	18		Pn	22 46 40.2	+0.6
PET	Petropavlovsk	3.91	26	*e*PN	Pn	22 46 43.7	+2.0
PET				*e*S	Sn	22 47 28.0	+1.8
PET				smax	smax		
	comp=N,195nm,0.6s						
PET				smax	smax		
	comp=E,144nm,0.6s						
PET	Petropavlovsk	3.91	26	Pn	Pn	22 46 43.1	+1.5
UGLR	Uglovaya	4.12	26	PN	Pn	22 46 47.0	+2.3
UGLR	Uglovaya	4.12	26	*e*P	Pn	22 46 47.0	+2.3
KOK	Koryaka	4.14	24	PN	Pn	22 46 47.6	+2.6
KOK				S	Sn	22 47 34.8	+2.7
KOK	Koryaka	4.14	24	*e*P	Pn	22 46 47.6	+2.6
KOK				*e*S	Sn	22 47 34.8	+2.7
SMAR	Somma	4.16	26	PN	Pn	22 46 48.3	+2.9
SMAR	Somma	4.16	26	*e*P	Pn	22 46 48.3	+2.9
KRER	Koryakskii	4.18	25	PN	Pn	22 46 48.3	+2.7
KRER				S	Sn	22 47 36.4	+3.1
KRER	Koryakskii	4.18	25	*e*P	Pn	22 46 48.3	+2.7
KRER				*e*S	Sn	22 47 36.5	+3.1
SDLR	Sedlovina	4.20	26	PN	Pn	22 46 47.5	+1.8
SDLR	Sedlovina	4.20	26	*e*P	Pn	22 46 47.6	+1.8
KRX	Arik	4.20	24	PN	Pn	22 46 48.6	+2.7
KRX	Arik	4.20	24	*e*P	Pn	22 46 48.6	+2.7
GNL	Ganaly	4.36	17	PN	Pn	22 46 50.0	+2.1
GNL	Ganaly	4.36	17	*e*P	Pn	22 46 50.0	+2.1
SPN	Mys Shipunski	4.42	35	PN	Pn	22 46 49.8	+1.1
SPN	Mys Shipunski	4.42	35	*e*P	Pn	22 46 49.9	+1.1
MKZ	Mys Kozlova	6.20	34	PN	Pn	22 47 12.0	-1.0
MKZ	Mys Kozlova	6.20	34	*e*P	Pn	22 47 12.0	-1.0
TYV	Tymovskoe	8.54	284	*e*PN	Pn	22 47 47.5	+2.3
TYV				pmax	pmax		
	comp=Z,6.0nm,0.8s						
TYV				pmax	pmax		
	comp=Z,200nm,2.8s						
YUK	Yuzh-Kuril'sk	8.78	235	*i* PN	Pn	22 47 49.7	+1.3
YSS	Yuzhno-Sakhali	9.09	258	*i* PN	Pn	22 47 50.8	-1.9
JKA	Kamikawa-asahi	10.55	244		Pn	22 48 12.1	-0.6
ASAJ	Asahikawa	10.56	244	P	Pn	22 48 13.0	+0.3
	comp=Z,3.5nm,0.4s,baz=76,slow=20,SNR=5.9						
ERM	Erimo	11.60	234	*i* PN	Pn	22 48 25.8	-1.2
MJAR	Matsushiro Arr	18.23	231	P	P	22 49 53.2	+0.2
	comp=Z,1.0nm,0.7s,baz=26,slow=11,SNR=4.7						
MJAR	Matsushiro Arr	18.23	231	P	P	22 49 53.4	+0.4
MJAR				pmax	pmax		
	comp=Z,2.0nm,1.4s						
MJAR	Matsushiro Arr	18.23	231	P	P	22 49 53.4	+0.4
KSRS	Korea Array	23.42	249	P	P	22 50 49.4	+1.0
	comp=Z,0.7nm,0.3s,baz=45,slow=9.8,SNR=4.5						
	comp=Z,0.7nm,0.3s						
H11N2	WAKE ISLAND Hy	31.05	159	T	T	23 24 50.4	
	baz=346,slow=76,SNR=11						
H11N1	WAKE ISLAND Hy	31.07	159	T	T	23 24 49.4	
	baz=346,slow=76,SNR=13						
H11N3	WAKE ISLAND Hy	31.07	159	T	T	23 24 51.2	
	baz=346,slow=76,SNR=22						
H11S1	WAKE ISLAND Hy	32.19	160	T	T	23 26 12.8	
	baz=347,slow=76,SNR=162						
H11S3	WAKE ISLAND Hy	32.20	160	T	T	23 26 13.4	
	baz=347,slow=76,SNR=199						
H11S2	WAKE ISLAND Hy	32.21	160	T	T	23 26 18.4	
	baz=347,slow=76,SNR=67						
ILAR	Eielson Array	33.24	41	P	P	22 52 15.9	+0.1
	comp=Z,0.6nm,0.7s,baz=263,slow=7.5,SNR=3.5						
	comp=Z,0.6nm,0.7s						
ILAR	Eielson Array	33.24	41	*e*P	P	22 52 15.7	-0.1
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
L27K	Beaver Creek,	35.59	44	P	P	22 52 36.8	+0.6
L27K				IAmb	IAmb	22 52 38.3	
	comp=Z,4.0nm,0.9s						
MKAR	Makanchi Array	47.29	296	P	P	22 54 10.2	-1.9
	comp=Z,0.4nm,0.8s,baz=58,slow=7.5,SNR=4.0						
	comp=Z,0.4nm,0.8s						
MKAR	Makanchi Array	47.29	296	P	P	22 54 11.2	-0.9
MKAR	Makanchi Array	47.29	296	P	P	22 54 11.2	-0.9
KURK	Kurchatov	47.35	303	P	P	22 54 11.2	-1.2
KURK				pmax	pmax		
	comp=Z,3.0nm,1.2s						
KURK	Kurchatov	47.35	303	P	P	22 54 11.2	-1.2
KURK				IAmb	IAmb	22 54 34.9	
	comp=Z,2.6nm,1.1s						
KURBB	Kurchatov Arra	47.44	302	P	P	22 54 11.4	-1.8
	comp=Z,0.3nm,0.3s,baz=60,slow=7.1,SNR=2.8						
	comp=Z,0.3nm,0.3s						
BVAR	Borovoye Array	50.49	309	P	P	22 54 35.3	-1.2
	comp=Z,1.3nm,0.4s,baz=57,slow=8.4,SNR=6.8						
	comp=Z,1.3nm,0.4s						
CMAR	Chiang Mai Arr	54.78	257	P	P	22 55 09.2	+0.6
	comp=Z,1.2nm,0.4s,baz=34,slow=6.6,SNR=5.9						
	comp=Z,1.2nm,0.4s						
CMAR	Chiang Mai Arr	54.78	257	P	P	22 55 09.0	+0.5
AB31	Akbulak array	58.02	310	P	P	22 55 30.7	-0.5
AB31				IAmb	IAmb	22 55 44.0	
	comp=Z,3.9nm,1.4s						
ABKAR	Akbulak array	58.02	310	P	P	22 55 30.7	-0.5
PDAR	Pinedale Array	61.66	57	P	P	22 55 57.5	+0.9
	comp=Z,0.5nm,0.8s,baz=325,slow=2.3,SNR=5.0						
	comp=Z,0.5nm,0.8s						
PDAR	Pinedale Array	61.66	57	P	P	22 55 57.0	+0.4
FINES	FINESS Array B	62.26	335	P	P	22 55 58.3	-1.7
	comp=Z,3.0nm,1.0s,baz=32,slow=9.0,SNR=3.7						
	comp=Z,3.0nm,1.0s						
FINES	FINESS Array B	62.26	335	P	P	22 55 59.3	-0.7
FINES	FINESS Array B	62.26	335	P	P	22 55 59.3	-0.7
KBZ	Khabaz	70.19	315	P	P	22 56 50.8	-0.2
	comp=Z,1.0nm,0.7s,baz=306,slow=7.5,SNR=2.0						
	comp=Z,1.0nm,0.7s						
AKASG	Malin Array Be	70.20	327	P	P	22 56 49.9	-1.1
	comp=Z,0.3nm,0.3s,baz=34,slow=6.7,SNR=2.0						
	comp=Z,0.3nm,0.3s						
AKASG	Malin Array Be	70.20	327	P	P	22 56 50.3	-0.7
AKASG				pmax	pmax		
	comp=Z,3.0nm,1.2s						
AKASG	Malin Array Be	70.20	327	P	P	22 56 50.3	-0.7
AKASG				IAmb	IAmb	22 57 09.9	
	comp=Z,2.8nm,1.1s						
WB0	Warramunga Arr	71.59	201	P	P	22 57 01.1	+1.4
WRA	Warramunga Arr	71.77	201	P	P	22 57 00.7	0.0
	comp=Z,0.6nm,0.8s,baz=17,slow=6.3,SNR=3.0						
	comp=Z,0.6nm,0.8s						
EKA	Eskdalemuir Ar	74.01	348	P	P	22 57 13.2	-0.5
	comp=Z,0.2nm,0.4s,baz=13,slow=5.0,SNR=3.5						
	comp=Z,0.2nm,0.4s						
TXAR	Lajitas Array	74.57	63	P	P	22 57 18.1	+0.6
	comp=Z,0.4nm,0.7s,baz=281,slow=4.3,SNR=7.1						
	comp=Z,0.4nm,0.7s						
TXAR	Lajitas Array	74.57	63	*e*P	P	22 57 18.1	+0.6
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
TXAR	Lajitas Array	74.57	63	P	P	22 57 17.9	+0.4
ASAR	Alice Springs	75.46	201	P	P	22 57 23.4	+1.0
	comp=Z,0.6nm,0.7s,baz=12,slow=5.7,SNR=3.4						
	comp=Z,0.6nm,0.7s						
ASAR	Alice Springs	75.46	201	P	P	22 57 23.7	+1.3
ASAR	Alice Springs	75.46	201	P	P	22 57 23.7	+1.3
H03N2	Juan Fernandez	136.93	89	T	T	01 37 08.8	
	baz=313,slow=76,SNR=2.8						
H03N1	Juan Fernandez	136.95	89	T	T	01 37 11.1	
	baz=309,slow=76,SNR=3.6						

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*IDC **20** 22:58:51.6±2.2, 9°.49N×127°.49E, h0^{km}, mb3.8/7, mbtmp3.8/7, Error ellipse: s-maj=148.2km s-min=21.4km az=73.0*

*NEIC **20** 22:58:54.1±1.9, 9°.49N±0°.08×127°.4E±0°.2, h10^{km}±1^{km}, mb4.1/13, Error ellipse: s-maj=26.5km s-min=14.2km az=92.0*

*MAN **20** 22:58:57.0, 9°.31N×126°.78E, h17^{km}, MS3.8*

ISC 20 22:58:54.1±0.8, **9°.27N**±0°.05×**126°.96E**±0°.07, **h10**^{km}**, n31,**
σ**1^{s}.36**/32, **mb4.0**/14, **Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BIPH	Bislig	1.23	209	*e*P	Pb	22 59 16.3	-1.1
BIPH				*i* S	Sb	22 59 30.8	-2.5
CGP	Cagayan de Oro	2.38	250	*i* P	Pn	22 59 34.3	+1.0
CGP				*i* S	Sb	23 00 06.2	-0.4
DAV	Davao City (W)	2.58	212	Pn	Pb	22 59 41.9	+1.4
PLP	Palo	2.71	314	*e*P	Pn	22 59 38.8	+1.0
PLP				*e*S	Sn	23 00 11.5	+0.7
TBP	Tagbilaran	3.09	278	*e*P	Pn	22 59 45.3	+2.3
LLP	Lapu-Lapu	3.13	290	*e*P	Pb	22 59 49.8	-0.1
LLP				*i* S	Sg	23 00 32.4	-2.5
SNPH	Sibulan	3.68	271	*e*P	Pn	22 59 54.9	+3.8
TOLI2	Tolitoli	10.17	218	Pn	Pn	23 01 26.4	+6.1
TPUB	Ta-pu	15.22	337	Pn	Pn	23 02 29.6	+0.4
MTN	Manton Dam	22.35	169	P	P	23 03 53.3	+0.9
MTN				IAmb	IAmb	23 04 31.4	
	comp=Z,4.7nm,1.1s						
KNRA	Kununurra	24.85	176	P	P	23 04 16.8	-0.1
KNRA				IAmb	IAmb	23 04 46.5	
	comp=Z,9.3nm,1.1s						
FITZ	Fitzroy Crossi	27.22	183	P	P	23 04 40.2	+1.9
	comp=Z,3.0nm,0.9s,baz=346,slow=8.3,SNR=2.2						
	comp=Z,3.0nm,0.9s						
FITZ	Fitzroy Crossi	27.22	183	P	P	23 04 40.0	+1.6
WB0	Warramunga Arr	29.76	166	P	P	23 05 00.3	-0.8
WB0				IAmb	IAmb	23 05 11.6	
	comp=Z,2.5nm,1.1s						
WRA	Warramunga Arr	29.92	166	P	P	23 05 01.8	-0.7
	comp=Z,0.4nm,0.6s,baz=348,slow=8.6,SNR=2.8						
	comp=Z,0.4nm,0.6s						
WRA	Warramunga Arr	29.92	166	P	P	23 05 03.3	+0.9
WR8	Warramunga Arr	29.97	166	P	P	23 05 01.8	-1.1
WR8				IAmb	IAmb	23 05 45.4	
	comp=Z,2.5nm,1.0s						
EVN	Everest	42.09	302	P	P	23 06 46.9	-0.4
EVN				IAmb	IAmb	23 06 48.6	
	comp=Z,2.1nm,0.7s						
SONM	Songino Array	42.19	339	P	P	23 06 47.1	-0.2
	comp=Z,0.4nm,0.6s,baz=148,slow=8.4,SNR=2.4						
	comp=Z,0.4nm,0.6s						
SONM	Songino Array	42.19	339	P	P	23 06 45.4	-1.8
BBOO	Buckleboo	42.73	169	P	P	23 06 51.9	+0.3
MKAR	Makanchi Array	53.23	323	P	P	23 08 13.0	+0.1
	comp=Z,1.1nm,0.8s,baz=130,slow=7.9,SNR=9.4						
	comp=Z,1.1nm,0.8s						
MKAR	Makanchi Array	53.23	323	P	P	23 08 12.8	-0.1
ZALV	Zalesovo Beam	55.83	331	P	P	23 08 31.1	-0.6
	comp=Z,0.3nm,0.3s,baz=126,slow=7.3,SNR=2.3						
	comp=Z,0.3nm,0.3s						
ZALV	Zalesovo Beam	55.83	331	P	P	23 08 31.0	-0.6
KURK	Kurchatov	57.28	326	P	P	23 08 41.9	0.0
KURK				IAmb	IAmb	23 08 42.5	
	comp=Z,3.6nm,1.1s						
KURBB	Kurchatov Arra	57.28	325	P	P	23 08 40.8	-1.2
	comp=Z,0.9nm,0.5s,baz=126,slow=6.6,SNR=9.2						
	comp=Z,0.9nm,0.5s						
BVAR	Borovoye Array	62.87	325	P	P	23 09 20.5	+0.2
	comp=Z,0.8nm,0.6s,baz=120,slow=5.8,SNR=4.6						
	comp=Z,0.8nm,0.6s						
ABKAR	Akbulak array	68.08	319	P	P	23 09 54.2	+0.1
M14K	Bethel	72.75	29	P	P	23 10 20.6	-1.8
J16K	Anvik River	73.90	27	P	P	23 10 26.0	-3.2
J16K				IAmb	IAmb	23 10 44.8	
	comp=Z,3.9nm,1.1s						

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*NEIC **20** 23:09:05.0±1.3, 4°.47S±0°.09×153°.26E±0°.03, h44^{km}±6^{km}, mb4.4/18, Error ellipse: s-maj=12.8km s-min=3.2km az=196.0*

*IDC **20** 23:09:06.1±0.6, 4°.55S×153°.23E, h59^{km}±5^{km}, mb4.0/14, mbtmp4.3/16, MS3.8/2, Error ellipse: s-maj=12.0km s-min=7.1km az=18.0*

ISC 20 23:09:04.7±0.5, **4°.50S**±0°.06×**153°.27E**±0°.07, **h50**^{km}**, n49,**
σ**0^{s}.86**/57, **mb4.4**/21, **New Ireland region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RABL	Rabaul	1.14	285	Pn	Pn	23 09 24.9	+0.5
RABL				Sn	Sn	23 09 38.5	-0.4
KRVT	Keravat (AS076	1.25	279	P	Pn	23 09 25.6	-0.2
	2µm,0.3s,baz=288,slow=1.6,SNR=44						
KRVT				S	Sn	23 09 42.6	+1.0
	14µm,0.3s,baz=281,slow=23,SNR=26						
MANU	Manus Island	6.38	292	Pn	Pn	23 10 36.0	-0.1
PMG	Port Moresby	7.78	231	P	Pn	23 10 55.9	+0.5
	22nm,0.5s,baz=44,slow=18,SNR=7.7						
PMG				S	Sn	23 12 21.2	-1.0
	90nm,0.6s,baz=133,slow=11,SNR=8.9						
PMG	Port Moresby	7.78	231		Pn	23 10 55.6	+0.2
HNR	Honiara	8.24	127	P	Pn	23 11 01.8	+0.1
	36nm,0.3s,baz=287,slow=17,SNR=1.4						
HNR				LR	LR	23 14 20.1	
	comp=Z,880nm,19.4s,baz=16,slow=38						
PATS	Pohnpei	12.33	24	Pn	Pn	23 11 57.2	-0.4
GUMO	Guam	19.81	335	LR	LR	23 19 14.6	
	comp=Z,204nm,21.1s,baz=172,slow=31						
EIDS	Eidsvold	20.86	186	P	P	23 13 43.9	+1.4
EIDS				IAmb	IAmb	23 14 03.2	
	comp=Z,9.3nm,0.8s						
FAKI	Fak Fak	21.03	274	P	P	23 13 44.0	-0.5
FAKI				IAmb	IAmb	23 13 48.3	
	comp=Z,23nm,1.4s						
DZM	Mont Dzumac	21.64	145	P	P	23 13 50.3	-0.7
	comp=Z,19nm,0.5s,baz=288,slow=4.7,SNR=33						
	comp=Z,19nm,0.5s						
MTN	Manton Dam	23.38	248	P	P	23 14 09.0	-0.2
MTN				IAmb	IAmb	23 14 10.6	
	comp=Z,26nm,1.4s						
WB0	Warramunga Arr	23.85	229		P	23 14 12.9	-0.7
WB0				IAmb	IAmb	23 14 46.5	
	comp=Z,16nm,0.9s						
WR8	Warramunga Arr	23.88	228		P	23 14 13.5	-0.3
WR8				IAmb	IAmb	23 14 46.3	
	comp=Z,19nm,1.1s						
WRAB	Tennant Creek	23.98	229	P	P	23 14 14.5	-0.2
WRAB				IAmb	IAmb	23 14 26.5	
	comp=Z,16nm,1.1s						
WRA	Warramunga Arr	24.00	229	P	P	23 14 14.3	-0.6
	comp=Z,4.5nm,0.4s,baz=51,slow=10,SNR=84						
WRA				S	S	23 18 30.6	+2.0
	comp=Z,1.7nm,1.1s,baz=54,slow=17,SNR=4.8						
	comp=Z,4.5nm,0.4s						
WRA	Warramunga Arr	24.00	229		P	23 14 13.7	-1.2
ARMA	Armidale	25.83	183	P	P	23 14 32.5	+0.9

ARMA				IAmb	IAmb	23 14 51.1	
	comp=Z,10nm,0.8s						
INKA	Innaminka	26.02	206	P	P	23 14 33.1	-0.1
INKA				IAmb	IAmb	23 15 02.6	
	comp=Z,12nm,1.5s						
KNRA	Kununurra	26.52	243	P	P	23 14 39.4	+1.5
ASAR	Alice Springs	26.69	223	P	P	23 14 38.5	-0.8
	comp=Z,1.2nm,0.4s,baz=55,slow=9.0,SNR=11						
	comp=Z,1.2nm,0.4s						
STKA	Stephens Creek	29.36	201	P	P	23 15 01.8	-1.2
	comp=Z,3.1nm,0.7s,baz=23,slow=11,SNR=6.8						
	comp=Z,3.1nm,0.7s						
FITZ	Fitzroy Crossi	30.21	241	P	P	23 15 09.4	-1.3
FORT	Forrest	35.32	219	P	P	23 15 54.0	-1.2
THZ	Tophouse	41.05	157	P	P	23 16 43.4	+0.1
TUWZ	Tuamarina	41.17	156	P	P	23 16 45.0	+0.8
KSRS	Korea Array	47.94	333	P	P	23 17 38.6	+0.3
	comp=Z,0.6nm,0.4s,baz=145,slow=8.6,SNR=2.3						
	comp=Z,0.6nm,0.4s						
SONM	Songino Array	66.32	328	P	P	23 19 49.6	+1.5
	comp=Z,0.4nm,0.5s,baz=132,slow=4.7,SNR=3.9						
	comp=Z,0.4nm,0.5s						
SONM	Songino Array	66.32	328	P	P	23 19 48.5	+0.3
VNDA	Vanda	73.12	178	P	P	23 20 29.7	+0.3
	comp=Z,2.3nm,0.5s,baz=330,slow=6.8,SNR=28						
VNDA				pP	PcP	23 20 47.0	+1.2
	comp=Z,2.6nm,0.8s,baz=315,slow=7.7,SNR=7.2						
	comp=Z,2.3nm,0.5s						
VNDA	Vanda	73.12	178	P	P	23 20 30.0	+0.6
VNDA				IAmb	IAmb	23 20 47.6	
	comp=Z,3.0nm,0.8s						
MKAR	Makanchi Array	80.41	319	P	P	23 21 12.1	+1.0
	comp=Z,0.4nm,0.4s,baz=92,slow=7.3,SNR=8.5						
MKAR				pP	sP	23 21 29.3	-1.7
	comp=Z,0.4nm,0.4s,baz=92,slow=8.0,SNR=3.1						
	comp=Z,0.4nm,0.4s						
MKAR	Makanchi Array	80.41	319	P	P	23 21 11.9	+0.9
ZALV	Zalesovo Beam	81.16	326	P	P	23 21 15.8	+1.0
	comp=Z,0.9nm,0.5s,baz=114,slow=6.2,SNR=4.7						
	comp=Z,0.9nm,0.5s						
ZALV	Zalesovo Beam	81.16	326	P	P	23 21 15.3	+0.5
ILAR	Eielson Array	81.70	22	P	P	23 21 16.8	-0.7
	comp=Z,0.3nm,0.5s,baz=245,slow=6.4,SNR=4.5						
	comp=Z,0.3nm,0.5s						
QSPA	South Pole Qui	85.46	180	P	P	23 21 37.0	+0.1
	comp=Z,4.5nm,0.6s,baz=310,slow=0.6,SNR=42						
QSPA				pP	sP	23 21 54.2	-1.0
	comp=Z,3.6nm,0.6s,baz=148,slow=4.5,SNR=5.9						
	comp=Z,4.5nm,0.6s						
QSPA	South Pole Qui	85.46	180	P	P	23 21 37.4	+0.4
NRIK	Noril'sk	85.83	341	P	P	23 21 38.5	0.0
	comp=Z,2.2nm,0.5s,baz=85,slow=3.3,SNR=5.2						
	comp=Z,2.2nm,0.5s						
NRIK	Noril'sk	85.83	341	P	P	23 21 38.7	+0.2
NRIK				IAmb	IAmb	23 22 13.3	
	comp=Z,8.7nm,1.4s						
MAW	Mawson	86.03	203	P	P	23 21 39.5	0.0
	comp=Z,1.8nm,0.6s,baz=102,slow=7.6,SNR=7.8						
	comp=Z,1.8nm,0.6s						
MAW	Mawson	86.03	203	P	P	23 21 39.3	-0.2
BVAR	Borovoye Array	89.28	323	P	P	23 21 55.0	-0.4
	comp=Z,1.7nm,0.5s,baz=109,slow=5.0,SNR=10.0						
BVAR				pP	pwP	23 22 12.2	0.0
	comp=Z,1.7nm,0.8s,baz=100,slow=6.2,SNR=3.6						
	comp=Z,1.7nm,0.5s						
PLCA	Paso Flores	119.74	143	PKP	PKiKP	23 27 50.4	+0.5
	comp=Z,0.9nm,0.6s,baz=244,slow=4.0,SNR=3.0						
GERES	GERESS Array B	124.04	329	PKP	PKiKP	23 27 58.5	+0.5
	comp=Z,0.7nm,0.4s,baz=48,slow=2.0,SNR=11						
GERES				pPKP	sPKPdf	23 28 15.0	-2.3
	comp=Z,0.6nm,0.8s,baz=90,slow=1.3,SNR=3.0						
EKA	Eskdalemuir Ar	125.88	344	PKP	PKiKP	23 28 02.1	+0.8
	comp=Z,0.5nm,0.6s,baz=5.0,slow=3.6,SNR=4.3						
TORD	Torodi Ar. Bea	150.65	289	PKPbc	PKPbc	23 28 51.9	-0.4
	comp=Z,1.1nm,0.4s,baz=72,slow=2.0,SNR=24						
BDFB	Brasilia	150.94	134	PKPbc	PKPbc	23 28 53.4	+0.3
	comp=Z,1.6nm,0.4s,baz=252,slow=3.4,SNR=5.2						
BDFB	Brasilia	150.94	134		PKPbc	23 28 53.2	+0.1

SJA ***20*** *23:09:08.1±0.9, 24°.12S×67°.13W, h202^{km}±7^{km}, ML3.5, MW3.5*

GUC ***20*** *23:09:10.2±0.7, 24°.04S×67°.11W, h190^{km}±8^{km}, ML3.8*

ISC 20 23:09:05.7±1.8**, 24°.11S**±0°.03×**67°.06W**±0°.05**, h226**^{km}±15^{km}**, n35, σ2^{s}26**/66**, 5C-1D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SALTA		0.66	100	*e*P	Pn	23 09 37.2	+0.2
SALTA				*e*P		23 09 37.3	
SLA	San Lorenzo	1.54	114	*e*P	Pn	23 09 43.7	+1.5
SLA				*e*S	Sn	23 10 10.3	-0.5
SLA	San Lorenzo	1.54	114	*e*P	Pn	23 09 43.5	+1.3
SLA				*e*S	Sn	23 10 09.7	-1.1
AF01	San Pedro de A	1.54	318	*e*P	Pn	23 09 46.7	+4.2
AF01				*e*S	Sn	23 10 12.8	+1.6
HJA	Humahuaca	1.75	60	*e*P	Pn	23 09 45.7	+1.3
FSA	Cafayete	2.22	154	*e*P	Pn	23 09 49.9	+1.4
FSA				*e*S	Sn	23 10 13.9	-8.3
YJA	Yavi	2.39	37	*e*P	Pn	23 09 52.6	+2.0
PB06	IPOC Station P	2.70	301	*e*P	Pn	23 09 55.1	+1.5
PB06				*e*S	Sn	23 10 29.2	-2.0
PB06				IAML		23 10 30.4	
	comp=Z,191nm,0.3s						
PB06	IPOC Station P	2.70	301	⇑*e*P	Pn	23 09 55.1	+1.5
PB06				*e*S	Sn	23 10 28.7	-2.5
PB06				IAML		23 10 30.6	
	comp=N,362nm,0.2s						
PB09	IPOC Station P	3.06	318	*e*P	Pn	23 09 59.5	+1.9
PB09				*e*S	Sn	23 10 38.2	-0.2
PB09				IAML		23 10 42.6	
	comp=Z,64nm,0.2s						
PB09	IPOC Station P	3.06	318	⇑*e*P	Pn	23 09 59.6	+1.9
PB09				*e*S	Sn	23 10 37.3	-1.1
PB09				IAML		23 10 38.6	
	comp=N,87nm,0.6s						
AHML	Horco Molle	3.09	150	*e*P	Pn	23 09 58.9	+1.1
AHML				*e*S	Sn	23 10 35.9	-2.9
PB14	IPOC Station P	3.10	260	*e*P	Pn	23 09 59.4	+1.3
PB14				*e*S	Sn	23 10 37.0	-2.4
PB14				IAML		23 10 40.1	
	comp=Z,137nm,0.2s						
PB14	IPOC Station P	3.10	260	*e*P	Pn	23 09 59.4	+1.3
PB14				*e*S	Sn	23 10 36.4	-3.0
PB14				IAML		23 10 40.6	
	comp=E,96nm,0.3s						
PB05	IPOC Station P	3.15	293	*e*P	Pn	23 09 59.8	+1.3
PB05				*e*S	Sn	23 10 37.7	-2.4
PB05				IAML		23 10 43.0	
	comp=Z,74nm,0.4s						
PB05	IPOC Station P	3.15	293	⇑*e*P	Pn	23 09 59.8	+1.3
PB05				*e*S	Sn	23 10 36.8	-3.3
PB05				IAML		23 10 40.0	
	comp=N,130nm,0.3s						
PB03	IPOC Station P	3.22	309	*e*P	Pn	23 10 00.8	+1.4
PB03				*e*S	Sn	23 10 39.4	-2.3
PB03				IAML		23 10 40.6	
	comp=Z,141nm,0.2s						
PB03	IPOC Station P	3.22	309	⇑*e*P	Pn	23 10 00.8	+1.4
PB03				*e*S	Sn	23 10 39.1	-2.6
PB03				IAML		23 10 43.5	
	comp=E,198nm,0.2s						
AC02	Maricunga	3.30	214	*e*P	Pn	23 10 02.8	+2.1
AC02				*e*S	Sn	23 10 46.2	+2.3
AC02	Maricunga	3.30	214	⇓*e*P	Pn	23 10 03.0	+2.3
AC02				*e*S	Sn	23 10 45.3	+1.3
PB07	IPOC Station P	3.52	312	*e*P	Pn	23 10 04.6	+1.6
PB07				*e*S	Sn	23 10 45.8	-2.3
PB07				IAML		23 10 48.1	
	comp=Z,78nm,0.4s						
PB07	IPOC Station P	3.52	312	⇑*e*P	Pn	23 10 04.3	+1.3
PB07				*e*S	Sn	23 10 45.2	-3.0
AC01	Pan de Azucar	3.80	237	*e*P	Pn	23 10 07.1	+1.0
AC01				*e*S	Sn	23 10 51.2	-2.5
AC01				IAML		23 10 54.5	
	comp=Z,59nm,0.3s						
PB02	IPOC Station P	3.82	316	*e*P	Pn	23 10 07.9	+1.5
PB02				*e*S	Sn	23 10 52.0	-2.3
PB02				IAML		23 10 57.7	
	comp=Z,161nm,0.3s						
PB02	IPOC Station P	3.82	316	*e*P	Pn	23 10 07.4	+1.0
PB02				*i* S	Sn	23 10 51.0	-3.3
TINO	Tinogasta	3.97	187	*e*P	Pn	23 10 11.8	+3.7
PB08	IPOC Station P	4.40	333	*e*P	Pn	23 10 16.1	+2.4
PB08				*e*S	Sn	23 11 07.9	+0.4
PB08				IAML		23 11 08.3	
	comp=Z,32nm,0.4s						
GO03	Copiapo	4.50	219	*e*P	Pn	23 10 15.9	+1.3
GO03				*e*S	Sn	23 11 08.0	-1.3
GO03				IAML		23 11 09.3	
	comp=Z,29nm,0.1s						
GO03	Copiapo	4.50	219	*e*P	Pn	23 10 15.5	+0.9
GO03				*i* S	Sn	23 11 06.8	-2.5
GO01	Chusmiza	4.84	335	*e*P	Pn	23 10 21.4	+2.0
GO01				*e*S	Sn	23 11 17.4	-0.2
GO01				IAML		23 11 23.5	
	comp=Z,17nm,0.5s						
GO01	Chusmiza	4.84	335	*e*P	Pn	23 10 20.8	+1.4
GO01				*i* S	Sn	23 11 16.2	-1.4
GO01				IAML		23 11 19.1	
PB11	IPOC Station P	4.95	330	*e*P	Pn	23 10 21.4	+1.0
PB11				*e*S	Sn	23 11 18.0	-1.6
PB11				IAML		23 11 22.4	
	comp=Z,34nm,0.2s						
ACLC	CERRO LA CRUZ	5.30	179	*e*P	Pn	23 10 27.5	+2.9
ACLC				*e*S	Sn	23 11 29.0	+1.7
PSGCX	Pisagua	5.32	327	*e*P	Pn	23 10 24.8	-0.1
PSGCX				*e*S	Sn	23 11 25.2	-2.5
PSGCX				IAML		23 11 33.3	
	comp=Z,13nm,0.4s						
LCO	Las Campanas	5.88	213	*e*P	Pn	23 10 32.8	+0.8
LCO				*i* S	Sn	23 11 38.3	-2.3

IDC ***20*** *23:14:03.3±0.8, 9°.15N×126°.66E, h0^{km}, mb4.1/11, mbtmp4.1/11, Error ellipse: s-maj=29.6km s-min=12.7km az=92.0*

MAN ***20*** *23:14:05.0, 9°.26N×126°.98E, h21^{km}, MS4.1*

ISC 20 23:14:04.9±0.8**, 9°.25N**±0°.04×**127°.13E**±0°.07**, h10**^{km}**, n24, σ1^{s}91**/31**, mb4.1**/12**, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BIPH	Bislig	1.30	216	*i* P	Pb	23 14 26.9	-2.5
BIPH				*e*S	Sb	23 14 41.8	-4.4
CGP	Cagayan de Oro	2.53	252	*i* P	Pn	23 14 46.7	+0.6
CGP				*i* S	Sb	23 15 21.9	+0.2
DAV	Davao City (W)	2.65	215	Pg	Pn	23 14 46.6	-1.1
	45nm,0.3s,baz=81,slow=8.0,SNR=1.9						
DAV				Lg	Lg	23 15 15.8	
	44nm,0.3s,baz=100,slow=17,SNR=5.2						
DMPH	Davao City--Mi	2.68	217	*e*P	Pb	23 14 53.6	+0.5
DMPH				*i* S	Sg	23 15 35.7	+4.5
PLP	Palo	2.85	312	*e*P	Pn	23 14 49.4	-1.1
PLP				*e*S	Sn	23 15 22.6	-2.2
KCP	Kidapawan	3.00	222	*e*P	Pn	23 14 54.1	+1.5
KCP				*e*S	Sb	23 15 34.5	-0.8
TBP	Tagbilaran	3.25	278	*e*P	Pn	23 14 55.6	-0.4
LLP	Lapu-Lapu	3.29	289	*e*P	Pn	23 14 59.1	+2.6
LLP				*e*S	Sb	23 15 43.2	-0.4
CTBH	Cotabato--PC H	3.49	235	*i* P	Pn	23 15 01.8	+2.5
DCPH	Dipolog City	3.79	260	*i* P	Pn	23 15 02.9	-0.5
SNPH	Sibulan	3.84	272	*i* P	Pn	23 15 05.6	+1.4
SNPH				*e*S	Sb	23 15 57.0	-2.5
LQP	Lukban	7.30	312	*e*P	Pn	23 15 54.9	+2.9
WRA	Warramunga Arr	29.86	166	P	P	23 20 12.9	+0.1
	0.8nm,0.6s,baz=347,slow=9.0,SNR=4.4						
	0.8nm,0.6s						
ASAR	Alice Springs	33.38	169	P	P	23 20 43.7	0.0
	0.6nm,0.4s,baz=355,slow=6.9,SNR=6.1						
	0.6nm,0.4s						
SONM	Songino Array	42.27	339	P	P	23 21 59.0	+0.3
	0.4nm,0.5s,baz=144,slow=8.6,SNR=2.2						
	0.4nm,0.5s						
STKA	Stephens Creek	43.17	162	P	P	23 22 06.4	+0.4
	3.3nm,0.9s,baz=346,slow=8.3,SNR=2.9						
	3.3nm,0.9s						
MKAR	Makanchi Array	53.35	323	P	P	23 23 23.1	-1.4
	2.6nm,0.7s,baz=121,slow=8.0,SNR=16						
	2.6nm,0.7s						
KSH2	Kashi	54.72	312	P	P	23 23 36.6	+1.7
KSH2				pmax	pmax		
	comp=Z,4.0nm,3.0s						
ZALV	Zalesovo Beam	55.92	331	P	P	23 23 41.7	-1.4
	comp=Z,0.7nm,0.4s,baz=114,slow=7.7,SNR=5.0						
	comp=Z,0.7nm,0.4s						
KURBB	Kurchatov Arra	57.39	325	P	P	23 23 52.0	-1.6
	comp=Z,2.2nm,0.6s,baz=126,slow=6.7,SNR=16						
	comp=Z,2.2nm,0.6s						
BVAR	Borovoye Array	62.98	325	P	P	23 24 31.1	-0.8
	comp=Z,1.8nm,0.7s,baz=86,slow=7.8,SNR=3.5						
	comp=Z,1.8nm,0.7s						
ILAR	Eielson Array	79.99	26	P	P	23 26 15.7	+1.5
	comp=Z,0.5nm,0.8s,baz=262,slow=5.9,SNR=3.2						
	comp=Z,0.5nm,0.8s						
ARCES	ARCESS Array B	85.44	340	P	P	23 26 42.0	-0.5
	comp=Z,4.1nm,0.8s,baz=79,slow=6.5,SNR=5.7						
	comp=Z,4.1nm,0.8s						
FINES	FINESS Array B	87.19	332	P	P	23 26 50.0	-1.3
	comp=Z,3.3nm,1.0s,baz=90,slow=5.7,SNR=4.1						
	comp=Z,3.3nm,1.0s						

IDC ***20*** *23:54:45.8±0.7, 22°.33N×121°.67E, h0^{km}, mb4.0/23, mbtmp4.1/25, ML4.0/3, MS4.0/47, Error ellipse: s-maj=15.9km s-min=13.8km az=149.0*

ASIES ***20*** *23:54:47.5, 22°.43N×121°.63E, h17^{km}, Mw4.6, Fault plane solution: NP1:ϕ_s76.00000°, δ80.00000°, λ177.00000°. NP2:ϕ_s167.00000°, δ87.00000°, λ10.00000°.*

BJI ***20*** *23:54:47.9, 22°.40N×121°.62E, h10^{km}, mB4.7/14, mb4.4/34, Ms4.5/37, Ms7 4.3/38*

NIED ***20*** *23:54:48.7, 22°.51N×121°.67E, h26^{km}, MW4.8, Moment Tensor Solution. s2 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.81; $M_{\theta\theta}$0.69; $M_{\phi\phi}$0.12; $M_{r\theta}$1.59; $M_{\theta\phi}$-0.74; $M_{\phi r}$0.44; Fault plane solution: $M_0$1.94000×10^{16} NP1: ϕ_s152.00000°, δ28.00000°, λ-27.00000°. NP2: ϕ_s267.00000°, δ78.00000°, λ-115.00000°.*

TAP ***20*** *23:54:48.2, 22°.43N×121°.58E, h9^{km}, ML4.7, C*

JMA ***20*** *23:54:48.7±0.1, 22°.5N±0°.8×121°.7E±0°.3, h26^{km}, MV4.8/13, TAIWAN REGION*

GCMT ***20*** *23:54:51.1±0.4, 22°.42N±0°.02×121°.62E±0°.02, h15^{km}, MW4.9/95, Moment Tensor Solution. s12,c12; s95,c131; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.33±.09; $M_{\theta\theta}$0.79±.08; $M_{\phi\phi}$-0.46±.09; $M_{r\theta}$1.55±.26; $M_{\theta\phi}$-1.87±.05; $M_{\phi r}$0.04±.26; Best double couple: $M_0$2.50800×10^{16} NP1:ϕ_s171.00000°, δ51.00000°, λ-4.00000°. NP2: ϕ_s264.00000°, δ87.00000°, λ-141.00000°. Principal axes: T 2.6810, Plg24.0000°, Azm30.0000°; N -0.3460, Plg51.0000°, Azm268.0000°; P -2.3350, Plg29.0000°, Azm135.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

NEIC ***20*** *23:54:51.1±1.8, 22°.80N±0°.05×121°.65E±0°.04, h10^{km}±1^{km}, mb4.6/91 Error ellipse: s-maj=8.3km s-min=5.5km az=175.0*

ISC 20 23:54:48.3±0.7**, 22°.43N**±0°.02×**121°.67E**±0°.02**, h13**^{km}±4^{km}**, n349, σ1^{s}57**/430**, mb4.5**/70**, MS4.0**/52**, 7C-5D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LDUT	Ludao	0.31	323	*i* P	Pg	23 54 54.6	-0.1
LDUT				S	Sg	23 54 59.0	+0.1
LAY	Lan-yu	0.40	196	⇑*i*P	Pg	23 54 56.3	-0.1
LAY				S	Sg	23 55 02.3	+0.4
LYUB	Lan-yu	0.43	190	⇑*i*P	Pg	23 54 56.0	-0.9
LYUB				*e*S	Sg	23 55 01.6	-1.1
EDH	Donghe	0.64	328	P	Pg	23 54 60.0	-0.8
EDH				S	Sg	23 55 08.7	-0.6
TWGBT	Beinan	0.67	306	⇓*i*P	Pg	23 55 00.1	-1.3
TWGBT				S	Sg	23 55 09.9	-0.3
TWG	Pinlang	0.68	305		Pg	23 55 00.2	-1.4
TWG					Sg	23 55 08.4	-2.1
TWG	Pinlang	0.68	305	*i* P	Pg	23 55 00.1	-1.4
TWG				S	Sg	23 55 10.0	-0.5
ECL	Taimali	0.68	284	P	Pg	23 55 00.3	-1.3
ECL				*e*S	Sg	23 55 09.7	-1.0
LONT	Longtian	0.69	314	⇓P	Pg	23 55 00.3	-1.5
LONT				S	Sg	23 55 10.4	-0.5
TAW	Tawu	0.72	265	P	Pg	23 55 01.0	-1.3
TAW				*e*S	Sg	23 55 09.6	-2.2
CHKT	Chengkung	0.72	337	*i* P	Pg	23 55 01.1	-1.3
CHKT				S	Sg	23 55 10.7	-1.3
EAST	Anshuo	0.76	267	*i* P	Pg	23 55 01.7	-1.4
EAST				*i* S	Sg	23 55 10.5	-2.6
ECS	Chishang	0.78	328	*e*P	Pg	23 55 03.0	-0.6
ECS				S	Sb	23 55 14.3	-0.1
CHKH	Chenggong	0.80	342	⇑*i*P	Pg	23 55 02.5	-1.4
CHKH				*i* S	Sg	23 55 13.2	-1.2
SLIU	Shizi	0.83	256	⇑*i*P	Pg	23 55 02.6	-1.9
SLIU				*e*S	Sg	23 55 11.9	-3.5
EHD	Haiduan	0.83	329	P	Pg	23 55 03.5	-1.1
EHD				S	Sg	23 55 14.7	-0.9
FULB	Fuli	0.84	336	*e*P	Pg	23 55 03.1	-1.5
FULB				*i* S	Sg	23 55 14.4	-1.3
SMST	Manzhou Townsh	0.87	242	P	Pg	23 55 03.5	-1.7
SMST				S	Sg	23 55 13.9	-2.7
TSEB	Hengchuen, Pin	0.89	234	*i* P	Pg	23 55 04.4	-1.0
TSEB				S	Sg	23 55 16.1	-1.0
ECBN	Changbin	0.91	347	P	Pg	23 55 04.1	-1.8
ECBN				S	Sg	23 55 15.5	-2.3
TWKBT	Hengchun	0.93	239	⇑*i*P	Pg	23 55 04.5	-1.9
TWKBT				*e*S	Sg	23 55 15.9	-2.6
TWK1	Hengchun	0.93	239	*i* P	Pb	23 55 04.4	-2.0
TWK1				S	Sg	23 55 16.1	-2.5
HEN	Hengchun	0.96	244	*i* P	Pb	23 55 05.2	-1.7
HEN				*i* S	Sg	23 55 17.0	-2.5
ELDTW	Lidau	0.97	322	*e*P	Pg	23 55 05.0	-2.1
ELDTW				*e*S	Sg	23 55 17.2	-2.6
EYUL	Yuli	0.97	341	*e*P	Pb	23 55 05.5	-1.5
EYUL				*i* S	Sg	23 55 19.3	-0.5
SCZT	Fangliau	0.97	267	*i* P	Pb	23 55 05.2	-1.9
SCZT				S	Sb	23 55 16.5	-3.3
MASBT	Mashibuluo	0.97	281	⇓*e*P	Pb	23 55 05.1	-2.0
TSMG	Majia	0.99	286	⇓*e*P	Pb	23 55 05.3	-2.0
TSMG				*e*S	Sb	23 55 17.9	-2.3
SSD	Sandimen	1.01	289	*e*P	Pb	23 55 05.2	-2.4
HGSD	Ruisui	1.08	348	*e*P	Pb	23 55 06.6	-2.3
HGSD				*e*S	Sg	23 55 23.4	0.0
SLGT	Liugui	1.10	301	*e*P	Pb	23 55 08.0	-1.2
EHYH	Wanrong	1.10	344	P	Pb	23 55 07.4	-1.9
EHYH				S	Sb	23 55 22.4	-1.1
STYH	Taoyuan	1.11	312	⇓*i*P	Pb	23 55 07.6	-1.8
STYH				*e*S	Sb	23 55 21.2	-2.4
EHY	Hungye	1.12	343	*e*P	Pb	23 55 07.9	-1.7
EHY				*e*S	Sb	23 55 23.2	-0.9
SGLT	Jiouru	1.13	285	*e*P	Pb	23 55 09.6	-0.1
SCST	Cishan	1.18	293	*e*P	Pn	23 55 09.7	-0.8
SGST	Jiashian	1.20	303	*i* P	Pn	23 55 08.8	-1.9
SGST				*e*S	Sg	23 55 26.5	-0.4
WLCH	Liuqiu	1.20	267	*e*P	Pg	23 55 11.5	+0.1
TWP	Hsiaoliuchiu	1.21	266	*e*P	Pg	23 55 12.3	+0.7
TWM1	Shoushan	1.22	289	*e*P	Pn	23 55 11.1	0.0
YUS	Yu-Shan	1.25	328	*e*P	Pn	23 55 10.6	-1.3
WTP	Ta-pu	1.27	310	P	Pn	23 55 11.1	-0.8
WTP				*e*S	Sb	23 55 28.3	-0.1
TEGC	Jichi Village	1.28	355	*e*P	Pn	23 55 09.2	-2.7
TEGC				*e*S	Sb	23 55 26.6	-2.1
TPUB	Ta-pu	1.29	312		Pn	23 55 11.2	-0.9
TPUB				Sn	Sb	23 55 27.0	-2.1
TPUB	Ta-pu	1.29	312	P	Pn	23 55 11.3	-0.8
TPUB				S	Sn	23 55 29.3	0.0
CHN1	Nanshi	1.29	306	*i* P	Pn	23 55 11.8	-0.4
CHN1				*e*S	Sb	23 55 29.1	0.0
WARBT	Fenglin Townsh	1.31	349	P	Pn	23 55 10.0	-2.4
WSSB	Gushan	1.32	280	*e*P	Pg	23 55 14.4	+0.7
ALS	Alishan	1.34	324	*e*P	Pn	23 55 12.5	-0.5
SHUL	Shoufeng	1.36	356	P	Pn	23 55 11.3	-1.7
SHUL				*i* S	Sb	23 55 29.1	-1.8
CHN3	Shinhua	1.37	298	*e*P	Pg	23 55 14.4	-0.2
CHN3				*e*S	Sg	23 55 34.6	+2.2
TWK	Hsinying	1.37	308	*i* P	Pn	23 55 12.8	-0.4
TWK				*i* S	Sg	23 55 32.8	+0.1
ESL	Shilin	1.40	351	*e*P	Pn	23 55 12.0	-1.6
ESL				*e*S	Sn	23 55 29.4	-2.5
WCKO	Fanlu	1.41	316	P	Pn	23 55 13.5	-0.2
WCKO				*e*S	Sb	23 55 32.5	+0.2
VWDT	VWDT	1.41	340	*e*P	Pn	23 55 12.5	-1.1
TEYL	Yanliau Villag	1.44	357	*e*P	Pn	23 55 13.1	-1.0
TEYL				*e*S	Sn	23 55 32.4	-0.4
WHYT	Xinyi Township	1.47	329	*i* P	Pn	23 55 14.4	-0.1
WHYT				*e*S	Sb	23 55 33.9	-0.3
SSLB	Suanglung	1.50	334		Pn	23 55 12.8	-2.3
SSLB	Suanglung	1.50	334	*e*P	Pn	23 55 14.9	-0.1
ETM	Tongmen	1.54	354	*e*P	Pn	23 55 13.4	-2.1
HWA	Hwalien	1.54	358	P	Pn	23 55 14.5	-1.0
HWA				*e*S	Sn	23 55 32.9	-2.5
CHY	Chiayi	1.57	313	*e*P	Pn	23 55 16.0	+0.2
CHY				S	Sb	23 55 37.6	+0.7
ICHU	Yijhu	1.58	306	P	Pn	23 55 16.6	+0.5
ICHU				S	Sb	23 55 37.9	+0.5
OWD	Renai	1.59	343	*e*P	Pn	23 55 14.9	-1.3
OWD				*e*S	Sn	23 55 34.7	-2.0
LXIB	Xiulin Townshi	1.60	352	*e*P	Pn	23 55 14.8	-1.7
LXIB				*e*S	Sn	23 55 34.9	-2.3
SMLT	Sun Moon Lake	1.61	334	*e*P	Pn	23 55 16.7	+0.1
SMLT				*e*S	Sb	23 55 37.9	-0.5
CHN8	Yiju	1.63	305	*e*P	Pn	23 55 17.4	+0.7
CHN8				S	Sb	23 55 38.6	0.0
TSCK	Chigu Township	1.63	296	*e*P	Pn	23 55 16.9	+0.2
WDLH	Douliu	1.63	321	*e*P	Pb	23 55 17.7	-0.6
WDLH				S	Sb	23 55 39.5	+0.7
WJS	Zhushan	1.64	328	P	Pb	23 55 17.6	-0.8
WJS				*e*S	Sb	23 55 39.3	+0.3
WUSB	Renai	1.64	342	*e*P	Pn	23 55 16.1	-0.9
WUSB				*e*S	Sn	23 55 36.8	-1.2
TWD	Chiawan	1.65	358	*e*P	Pn	23 55 15.5	-1.5
TWD				*e*S	Sn	23 55 36.1	-1.8
TYC	Yuchr	1.65	333	*i* P	Pn	23 55 17.6	+0.6
TYC				*e*S	Sb	23 55 38.8	-0.5
WNT	Mingjian	1.71	328	*e*P	Pb	23 55 19.0	-0.5
WNT				S	Sb	23 55 41.4	+0.4
WSL	Shuilin Townsh	1.72	310	*e*P	Pn	23 55 18.2	+0.3
WSL				S	Sn	23 55 39.9	+0.2
WTK	Tuku	1.72	317	P	Pn	23 55 18.6	+0.6
WTK				S	Sb	23 55 40.7	-0.7
ETL	Fush Village	1.72	359	*e*P	Pn	23 55 17.2	-0.8
NACB	Ninganchiao	1.74	358		Pn	23 55 15.3	-2.9
NACB				Sn	Sn	23 55 34.5	-5.8
NACB	Ninganchiao	1.74	358	P	Pn	23 55 16.6	-1.7
NACB				*e*S	Sn	23 55 38.2	-2.1
WHF	Hehuan Shan	1.75	348	*e*P	Pn	23 55 18.8	0.0
WHF				*e*S	Sn	23 55 40.7	-0.5
WCS	Beigang Elemen	1.77	337	P	Pn	23 55 19.1	+0.5
WCS				*e*S	Sb	23 55 42.0	-0.7
ETLH	Xiulin Townshi	1.78	354	*e*P	Pn	23 55 17.4	-1.5
EOS4	EOS4	1.79	19	*i* P	Pn	23 55 17.7	-0.8
EOS4				S	Sn	23 55 39.2	-1.7
WSF	Szhu	1.80	312	*e*P	Pn	23 55 19.5	+0.4
WSF				S	Sn	23 55 42.2	+0.5
FUSS	Fushou	1.85	348	*e*P	Pn	23 55 19.5	-0.6
TWT	Tachien	1.87	346	*e*P	Pn	23 55 20.6	+0.4
TWT				S	Sn	23 55 43.1	-0.7
TDCB	Techi	1.88	346	*e*P	Pn	23 55 20.3	0.0
WRL	Guolierlin Hig	1.89	321	*e*P	Pn	23 55 20.7	+0.4
WRL				*e*S	Sb	23 55 46.3	+0.1
RLNB	Erlin	1.89	321	*e*P	Pn	23 55 20.2	-0.1
RLNB				*e*S	Sn	23 55 44.9	+0.9
EAHA	Aohua	1.89	2	*e*P	Pn	23 55 19.3	-1.1
EAHA				*e*S	Sn	23 55 43.3	-0.8
WCH1	Changhua City	1.94	328	*e*P	Pn	23 55 21.5	+0.6
WCH1				*e*S	Sb	23 55 47.0	-0.5
WCHH	Zhanghua	1.94	328	*e*P	Pn	23 55 21.9	+1.0
WCHH				S	Sb	23 55 47.5	0.0
TCU	Taichung	1.94	332	*e*P	Pn	23 55 21.6	+0.6
TCU				*e*S	Sb	23 55 48.7	+1.0
EOS3	EOS3	1.94	18	*e*P	Pn	23 55 20.6	-0.3
EOS3				S	Sn	23 55 43.4	-1.7
WHP	Taichung City	1.96	340	*e*P	Pb	23 55 23.1	-0.8
WHP				*e*S	Sb	23 55 48.9	+0.6
ENA	Nanau	1.99	2	*e*P	Pn	23 55 18.4	-3.4
ENA				*e*S	Sn	23 55 42.6	-3.9
NNSB	Datong	2.01	353	P	Pn	23 55 21.5	-0.6
NNSB				*e*S	Sn	23 55 46.8	-0.4
NNS	Nan Shan	2.02	352	*e*P	Pn	23 55 23.0	+0.7
NNS				*e*S	Sn	23 55 47.2	-0.2
WDGT	Dungji	2.03	294	*e*P	Pn	23 55 21.7	-0.6
WDGT				*e*S	Sn	23 55 45.6	-1.9
EOS2	EOS2	2.05	15	*e*P	Pn	23 55 23.4	+1.0
LATG	Datong	2.10	356	*e*P	Pn	23 55 22.8	-0.6
LATG				*e*S	Sn	23 55 49.0	-0.4
WDJ	Dajia District	2.13	334	*e*P	Pn	23 55 24.7	+1.0

WDJ				eS	Sb	23 55 52.4	-0.8
ESAO	Su ao	2.15	4	eP	Pn	23 55 23.5	-0.3
ESAO				eS	Sn	23 55 50.0	-0.2
NDT	Datong Townshi	2.17	356	eP	Pn	23 55 23.8	-0.4
TWC	Suao	2.18	4	eP	Pn	23 55 24.3	+0.1
TWC				eS	Sn	23 55 50.3	-0.8
NDS	Dongshan	2.20	1	eP	Pn	23 55 24.4	-0.2
VCHM	Qimei	2.21	291	eP	Pn	23 55 24.1	-0.6
VCHM				S	Sn	23 55 50.0	-1.8
PHUB	P'eng-hu	2.21	300	eP	Pn	23 55 24.0	-0.8
PHUB				eS	Sn	23 55 51.1	-0.9
YHNB	Yeheng	2.25	353		Pn	23 55 22.6	-2.8
YHNB	Yeheng	2.25	353	eP	Pn	23 55 25.5	+0.1
YHNB				eS	Sn	23 55 52.4	-0.6
NFF	Wufeng Townshi	2.25	347	eP	Pn	23 55 27.0	+1.6
PNG	Penghu	2.25	301	eP	Pn	23 55 24.6	-0.8
PNG				eS	Sn	23 55 50.8	-2.1
NSK	Sanguang	2.26	353	eP	Pn	23 55 25.6	+0.1
NSK				eS	Sn	23 55 51.8	-1.4
NSTT	Nanjuang	2.28	345	eP	Pb	23 55 28.5	-0.9
NSTT				eS	Sb	23 55 56.2	-1.2
TWE	Neicheng	2.28	360	eP	Pn	23 55 25.8	+0.1
TWE				eS	Sn	23 55 54.4	+0.7
LIOB	Emei	2.29	345	eP	Pn	23 55 27.1	+1.3
LIOB				eS	Sn	23 55 54.2	+0.4
FUSB	Fushanzhiwuyua	2.32	358	eP	Pn	23 55 26.4	+0.1
JYNG	Yonagunijimaku	2.33	30	P	Pn	23 55 26.0	-0.4
NWLT	Wulai	2.34	356	P	Pn	23 55 26.8	+0.2
NWLT				eS	Sn	23 55 55.9	+0.6
YOJ	Yonaguni jima	2.37	31		Pn	23 55 25.7	-1.2
YOJ	Yonaguni jima	2.37	31	eP	Pn	23 55 26.9	0.0
YOJ				eS	Sn	23 55 55.4	-0.5
YOJ	Yonaguni jima	2.37	31	P	Pn	23 55 26.6	-0.3
KSHI	Guanxi Townshi	2.38	349	eP	Pb	23 55 29.6	-1.5
KSHI				eS	Sb	23 55 58.4	-2.0
EGS		2.42	6	eP	Pn	23 55 28.8	+1.2
SBCB	Hsinchu	2.44	345	eP	Pn	23 55 28.8	+1.0
HSN	Hsinchu	2.45	345	eP	Pb	23 55 30.5	-1.8
HSN				eS	Sb	23 56 00.2	-2.2
NHDH	Xindian Distri	2.53	357	P	Pn	23 55 28.8	-0.3
NHDH				S	Sn	23 56 01.1	+1.3
TIPB	Shuangxi	2.54	3	eP	Pn	23 55 30.2	+0.9
TIPB				S	Sn	23 55 59.7	-0.4
TATO	Taipei	2.54	356		Pn	23 55 26.1	-3.2
TWA	Mucha	2.54	358	eP	Pn	23 55 29.9	+0.6
TWA				eS	Sn	23 56 01.8	+1.6
HATJ	Hateruma jima	2.55	50	P	Pn	23 55 29.1	-0.2
HATJ				S	Sn	23 55 58.3	-1.9
TWB1	Santiao Chiao	2.59	6	eP	Pn	23 55 30.7	+0.8
TWB1				eS	Sn	23 56 01.1	-0.1
WFSB	Wu-fen Shan	2.63	2	eP	Pn	23 55 31.8	+1.2
WFSB				eS	Sn	23 56 03.9	+1.5
SXI1	Grass Mountain	2.66	4	eP	Pn	23 55 31.9	+0.9
SXI1				S	Sn	23 56 05.6	+2.4
TWS1	Kuangyinshan	2.67	355	eP	Pn	23 55 32.7	+1.7
TWS1				eS	Sn	23 56 05.2	+1.9
IRIF	Iriomote-Funau	2.68	45	P	Pn	23 55 31.1	-0.1
YM01	YM01	2.71	358	eP	Pn	23 55 33.2	+1.6
YM01				eS	Sn	23 56 05.0	+0.7
TNOU	National Taiwa	2.71	2	eP	Pn	23 55 31.8	+0.2
ZUZH	Zhuzihu	2.73	358	P	Pn	23 55 32.5	+0.7
ZUZH				eS	Sn	23 56 05.6	+0.9
YM08	YM08	2.75	359	eP	Pn	23 55 32.9	+0.7
YM08				S	Sn	23 56 04.7	-0.5
JKRS	Kuro-shima	2.81	50	P	Pn	23 55 33.0	+0.1
JKRS				eS	Sn	23 56 05.3	-1.3
TWY	Chenhua	2.84	359	eP	Pn	23 55 34.9	+1.6
JIJ	Ishigaki jima	2.98	49	P	Pn	23 55 34.8	-0.5
JIJ				eS	Sn	23 56 08.5	-2.5
JISG	Ishigakijimahi	3.24	48	P	Pn	23 55 38.8	-0.1
JISG				S	Sn	23 56 15.7	-1.6
VWUC	VWUC	3.26	322	eP	Pn	23 55 38.6	-0.6
VWUC				eS	Sn	23 56 16.3	-1.6
PTMZ	Houxiangcun	3.50	319	eP	Pn	23 55 41.9	-0.5
PTMZ				eS	Sn	23 56 21.8	-1.8
JTJ	Tarama	3.55	51	P	Pn	23 55 43.0	-0.1
JTJ				S	Sn	23 56 23.7	-1.3
KNM	Kinmen	3.57	304	eP	Pn	23 55 44.2	+0.7
KNM				eS	Sn	23 56 26.0	+0.5
KNMB	Chin-men Tao	3.63	305	Pn	Pn	23 55 42.9	-1.4
QZH2	Quanzhou	3.77	312	Pn	Pn	23 55 45.1	-1.1
QZH2				Sn	Sn	23 56 26.0	-4.4
QZH2				L	L		
	comp=N,6µm,15.1s						
QZH2				L	L		
	comp=E,3µm,14.9s						
QZH2				L	L		
	comp=Z,2µm,17.9s						
ZPLA	Ao Xicun	3.90	293	eP	Pn	23 55 47.5	-0.5
ZPLA				eS	Sn	23 56 31.5	-2.2
MATB	Ma-tsu	4.03	337	eP	Pn	23 55 49.4	-0.3
MATB				eS	Sn	23 56 34.3	-2.4
DSXP	Dongshan	4.11	289	eP	Pn	23 55 49.9	-1.0
AXDP	Jialang	4.19	307	eP	Pn	23 55 51.0	-1.0
MHZQ	Yeshan	4.38	327	eP	Pn	23 55 53.6	-0.9
LYJJ	Jianjiangzhen	4.46	337	eP	Pn	23 55 56.0	+0.4
LYJJ				eS	Sn	23 56 46.3	-1.0
XPSS	Dashiqiu	4.68	344	eP	Pn	23 55 59.3	+0.6
XPSS				eS	Sn	23 56 51.0	-1.9
SZP	Santa	4.98	193	Pn	Pn	23 56 08.0	+5.1
SXFK	Yanhouchang	5.39	318	eP	Pn	23 56 07.8	-0.7
HKPS	Hong Kong Po S	6.97	270	Pn	Pn	23 56 31.8	+1.6
JOW	Kunigami	7.44	53	Pn	Pn	23 56 34.5	-2.1
	8.3nm,0.3s,baz=121,slow=17,SNR=18						
JOW				Sn	Sn	23 57 53.9	-7.0
	3.7nm,0.3s,baz=99,slow=23,SNR=2.2						
	23nm,0.2s						
JOW				AML	AML		
JOW	Kunigami	7.44	53	Pn	Pn	23 56 34.7	-1.9
JMZ	Minamidaito 2	9.36	67	Pn	Pn	23 57 03.2	+0.3
NJ2	Nanjing	9.91	346	eP	Pn	23 57 09.3	-1.1
NJ2				pmax	pmax		
	comp=Z,11nm,0.7s						
NJ2				L	L		
	comp=N,2µm,9.0s						
NJ2				L	L		
	comp=E,2µm,8.5s						
NJ2				L	L		
	comp=Z,2µm,11.8s						
QIZ	Qiongzhong	11.57	255	P	Pn	23 57 33.1	-0.2
QIZ				S	Sn	23 59 44.9	+2.5
QIZ				L	L		
	comp=N,2µm,12.4s						
QIZ				L	L		
	comp=E,360nm,9.0s						
QIZ				L	L		
	comp=Z,1µm,12.0s						
JNU	Nakatsue	13.41	35	Pn	Pn	23 57 58.2	-0.1
	0.4nm,0.3s,baz=180,slow=21,SNR=2.1						
JNU				LR	LR	00 04 09.4	
	comp=Z,524nm,19.2s,baz=194,slow=42						
	5.7nm,0.7s						
JNU				AML	AML		
JNU				AML	AML		
LYN	LuoYang	14.53	328	P	Pn	23 58 15.9	+2.3
LYN				pmax	pmax		
	comp=Z,11nm,0.7s						
LYN				L	L		
	comp=Z,3µm,10.0s						
DAV	Davao City (W)	15.73	166	LR	LR	00 04 28.2	
	comp=Z,1µm,19.4s,baz=356,slow=37						
KSAR	Wonju Array Be	15.90	18		P	23 58 34.3	-1.1
KSRS	Korea Array	15.92	18	Pn	Pn	23 58 32.4	+0.4
	0.8nm,0.3s,baz=201,slow=12,SNR=37						
KSRS				LR	LR	00 05 22.3	
	comp=Z,368nm,18.2s,baz=215,slow=40						
KSRS				AML	AML		
KSRS				AML	AML		
KS19	Wonju Array Si	15.95	18	P	P	23 58 35.8	-0.2
KS19				IAmb	IAmb	23 58 37.7	
	comp=Z,31nm,0.8s						
HNS	HongShan	16.09	340	⇑P	P	23 58 37.3	-0.2
HNS				S	Sn	00 01 32.5	+0.1
HNS				L	L		
	comp=Z,1µm,15.3s						
HNS				L	L		
	comp=Z,1µm,12.4s						
XAN	Xi'an	16.11	319	⇑P	P	23 58 40.3	+2.4
XAN				S	S	00 01 41.4	-5.1
XAN				pmax	pmax		
	comp=Z,7.0nm,0.6s						
XAN				pmax	pmax		
	comp=Z,390nm,10.1s						
XAN				L	L		
	comp=Z,2µm,17.5s						
XAN				L	L		
	comp=Z,1µm,11.0s						
DL2	Dalian	16.43	360	eP	Pn	23 58 38.1	-0.4
DL2				S	Sn	00 01 36.8	-3.9
DL2				pmax	pmax		
	comp=Z,20nm,0.6s						
DL2				pmax	pmax		
	comp=Z,170nm,4.6s						
DL2				L	L		
	comp=Z,930nm,11.6s						
DL2				L	L		
	comp=Z,710nm,10.3s						
DL2				L	L		
	comp=Z,1µm,11.7s						
SLVN	Son La	16.53	270		P	23 58 41.7	-0.9
BJI2	Beijing	18.15	346	P	P	23 59 03.3	+3.0
BJI2				S	Sn	00 02 23.0	+0.5
BJI2				pmax	pmax		
	comp=Z,3.0nm,0.5s						
BJI2				L	L		
	comp=Z,440nm,13.1s						
BJI2				L	L		
	comp=Z,300nm,15.1s						
BJI2				L	L		
	comp=Z,240nm,14.4s						
INU	Inuyama	18.58	43		P	23 59 03.7	-1.4
PZH	PanZhiHua	18.58	287	P	Pn	23 59 06.6	+1.0
JGF	Kuroka	18.95	43		P	23 59 07.5	-1.8
MAJO	Matsushiro	20.09	42		P	23 59 20.9	-0.7
MJAR	Matsushiro Arr	20.09	42	P	Pn	23 59 23.1	-0.4
	comp=Z,4.5nm,0.6s,baz=229,slow=8.8,SNR=15						
MJAR				LR	LR	00 07 20.9	
	comp=Z,353nm,21.3s,baz=220,slow=38						
	comp=Z,4.5nm,0.6s						
MJAR	Matsushiro Arr	20.09	42	P	P	23 59 21.5	-0.1
MJB9	Matsu-Tunnel	20.09	42	P	P	23 59 21.0	-0.6
LZH	Lanzhou	20.62	315	eP	Pn	23 59 28.9	-1.0
LZH				pP	pwP	23 59 33.5	-2.1
LZH				pmax	pmax		
	comp=Z,17nm,1.3s						
LZH				L	L		
	comp=Z,1µm,15.2s						
LZH				L	L		
	comp=Z,810nm,14.9s						
LZH				L	L		
	comp=Z,950nm,15.2s						
LZDM	Lanzhou Array	20.64	315	P	Pn	23 59 29.7	-0.6
	comp=Z,2.8nm,0.5s,baz=150,slow=12,SNR=6.4						
LZDM				LR	LR	00 07 57.0	
	comp=Z,527nm,19.2s,baz=205,slow=38						
	comp=Z,2.8nm,0.5s						
BTO2	Baotou	20.80	334	eP	Pn	23 59 32.8	+0.8
BTO2				pP	pwP	23 59 41.6	+4.5
BTO2				PP	PnPn	23 59 52.9	+5.1
BTO2				S	S	00 03 12.4	-9.1
BTO2				sS	Sn	00 03 26.4	-0.3
BTO2				SS	SnSn	00 03 42.3	+0.6
BTO2				pmax	pmax		
	comp=Z,24nm,0.9s						
BTO2				pmax	pmax		
	comp=Z,430nm,9.0s						
BTO2				L	L		
	comp=Z,5µm,12.0s						
JYT	Yasato	21.16	45	P	P	23 59 33.8	+0.6
CN2	Changchun	21.55	7	eP	P	23 59 38.0	+0.7
CN2				eS	S	00 03 32.3	-3.5
CN2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
CN2				pmax	pmax		
	comp=Z,100nm,5.0s						
CN2				L	L		
	comp=Z,400nm,15.0s						
CN2				L	L		
	comp=Z,400nm,15.0s						
CN2				L	L		
	comp=Z,500nm,15.1s						
CMAR	Chiang Mai Arr	21.65	264	P	P	23 59 37.6	-1.1
	comp=Z,0.8nm,0.3s,baz=66,slow=9.3,SNR=8.2						
CMAR				LR	LR	00 08 59.9	
	comp=Z,470nm,18.8s,baz=75,slow=40						
	comp=Z,0.8nm,0.3s						
MDJ	Mudanjiang	23.07	15	P	P	23 59 53.3	-0.3
MDJ				S	S	00 04 01.6	-2.6
MDJ				pmax	pmax		
	comp=Z,21nm,1.5s						
MDJ				L	L		
	comp=Z,740nm,15.1s						
MDJ				L	L		
	comp=Z,1µm,15.1s						
MDJ				L	L		
	comp=Z,940nm,13.7s						
USA0B	Ussuriysk Arra	23.33	19	P	P	23 59 54.5	-1.6
USRK	Ussuriysk Ar.	23.33	19	P	P	23 59 55.8	-0.3
	comp=Z,4.4nm,0.7s,baz=207,slow=14,SNR=8.9						
USRK				LR	LR	00 09 54.8	
	comp=Z,261nm,20.1s,baz=179,slow=39						
	comp=Z,4.4nm,0.7s						
GUMO	Guam	23.72	108	LR	LR	00 08 37.9	
	comp=Z,126nm,20.0s,baz=287,slow=35						
JTM	Tenmabayashi	24.56	37	P	P	00 00 07.7	-0.2
GTA2	Gaotai	25.24	317	eP	P	00 00 15.4	+1.2
GTA2				sP	pwP	00 00 22.9	+0.7
GTA2				pmax	pmax		
	comp=Z,4.0nm,1.1s						
GTA2				L	L		
	comp=Z,770nm,18.7s						
GTA2				L	L		
	comp=Z,630nm,18.4s						
GTA2				L	L		
	comp=Z,830nm,15.9s						
ERM	Erimo	26.55	38	P	P	00 00 26.3	+0.4
KAPI	Kappang	27.34	184	LR	LR	00 12 49.9	
	comp=Z,214nm,20.1s,baz=2.0,slow=40						
ASAJ	Asahikawa	27.67	34	LR	LR	00 12 31.7	
	comp=Z,322nm,20.1s,baz=253,slow=38						
JKA	Kamikawa-asahi	27.68	34	P	P	00 00 37.0	+1.0
BRDH	Bariadhala	27.71	276	LR	LR	00 12 39.1	
	comp=Z,254nm,18.6s,baz=142,slow=39						
KLR	Kul'dur	27.92	14	LR	LR	00 12 28.9	
	comp=Z,348nm,20.2s,baz=200,slow=38						
ULN	Ulaanbaatar	27.96	339		P	00 00 37.8	-0.8
HEH	HeiHe	28.14	8	eP	P	00 00 44.4	+4.4
HEH				L	L		
	comp=Z,360nm,12.5s						
HEH				L	L		
	comp=Z,670nm,13.4s						
HEH				L	L		
	comp=Z,670nm,12.4s						
SONM	Songino Array	28.15	338	P	P	00 00 40.2	-0.2
	comp=Z,3.8nm,0.7s,baz=157,slow=9.2,SNR=21						
SONM				LR	LR	00 12 25.5	
	comp=Z,310nm,20.2s,baz=149,slow=38						
	comp=Z,3.8nm,0.7s						
SONM	Songino Array	28.15	338	P	P	00 00 39.2	-1.2
YSS	Yuzhno-Sakhali	29.80	30	P	P	00 00 55.4	+0.6
TLY	Talaya	32.37	339	LR	LR	00 16 54.3	
	comp=Z,206nm,18.6s,baz=144,slow=41						
WMQ	Urumqi	35.20	315	eP	P	00 01 44.9	+2.6
WMQ				L	L		
	comp=Z,470nm,10.5s						
WMQ				L	L		
	comp=Z,130nm,16.3s						
KRVT	Keravat (AS076	39.84	128	LR	LR	00 17 49.4	
	comp=Z,104nm,19.2s,baz=158,slow=35						
MKAR	Makanchi Array	39.91	317	P	P	00 02 22.2	+0.1
	comp=Z,4.0nm,0.7s,baz=115,slow=9.5,SNR=25						
	comp=Z,4.0nm,0.7s						
YAK	Yakutsk	39.96	6	LR	LR	00 20 06.0	
	comp=Z,163nm,22.0s,baz=189,slow=38						
MAKZ	Makanchi	40.12	317	P	P	00 02 23.5	-0.3
MAKZ				IAmb	IAmb	00 02 34.7	
	comp=Z,14nm,1.1s						
PMG	Port Moresby	40.31	139	LR	LR	00 18 52.0	
	comp=Z,98nm,19.4s,baz=308,slow=36						
FITZ	Fitzroy Crossi	40.46	174	LR	LR	00 21 18.0	
	comp=Z,72nm,19.9s,baz=347,slow=39						
PDGK	Podgornoye	40.56	311	P	P	00 02 27.6	0.0
PETK	Petropavlovsk-	41.08	33	LR	LR	00 20 33.8	
	comp=Z,127nm,21.7s,baz=238,slow=38						
TARG	Taragay, Kyrgy	41.33	308	P	P	00 02 33.9	-0.5
PET	Petropavlovsk	41.52	33	P	P	00 02 34.7	-0.5
COEN	Coen	41.85	148	P	P	00 02 45.7	+7.3
ZAA0	Zalesovo Array	41.96	328	P	P	00 02 37.7	-1.1
ZAA0				IAmb	IAmb	00 02 41.1	
	comp=Z,8.2nm,0.8s						
ZALV	Zalesovo Beam	41.96	328	P	P	00 02 38.3	-0.5
	comp=Z,6.0nm,0.5s,baz=114,slow=7.3,SNR=23						
	comp=Z,6.0nm,0.5s						
ZALV	Zalesovo Beam	41.96	328	P	P	00 02 37.7	-1.1
COCO	West Island	42.15	218	P	P	00 02 46.4	+5.7
H11N1	WAKE ISLAND Hy	42.17	85	T	T	00 47 52.8	
	baz=282,slow=75,SNR=114						
H11N2	WAKE ISLAND Hy	42.17	85	T	T	00 47 52.9	
	baz=282,slow=75,SNR=221						
H11N3	WAKE ISLAND Hy	42.19	85	T	T	00 47 54.2	
	baz=282,slow=75,SNR=160						
PALK	Pallekele	42.20	256	LR	LR	00 19 48.4	
	comp=Z,241nm,21.6s,baz=68,slow=36						
PALK	Pallekele	42.20	256	P	P	00 02 45.1	+3.8
H11S3	WAKE ISLAND Hy	42.24	87	T	T	00 47 59.3	
	baz=284,slow=74,SNR=308						
H11S1	WAKE ISLAND Hy	42.25	87	T	T	00 47 59.7	
	baz=284,slow=74,SNR=251						
H11S2	WAKE ISLAND Hy	42.26	87	T	T	00 48 03.8	
	baz=284,slow=74,SNR=221						
MA2	Magadan	42.44	22	LR	LR	00 22 28.5	
	comp=Z,235nm,18.5s,baz=216,slow=39						
KSH2	Kashi	42.49	304	P	P	00 02 50.0	+6.4
KSH2				pmax	pmax		
	comp=Z,4.0nm,2.2s						
KSH2				L	L		
	comp=Z,220nm,10.7s						
KSH2				L	L		
	comp=Z,310nm,12.1s						
NRN	Naryn	42.59	307	P	P	00 02 44.7	+0.2
KURK	Kurchatov	43.73	321	P	P	00 02 53.8	+0.6
KURK				IAmb	IAmb	00 02 56.1	
	comp=Z,7.5nm,0.8s						
KURBB	Kurchatov Arra	43.74	321	P	P	00 02 53.7	+0.4
	comp=Z,4.3nm,0.7s,baz=115,slow=7.9,SNR=25						
	comp=Z,4.3nm,0.7s						
WRA	Warramunga Arr	43.89	163	P	P	00 02 53.1	-1.7
	comp=Z,0.9nm,0.6s,baz=345,slow=8.8,SNR=10						
	comp=Z,0.9nm,0.6s						
AAK	Ala-Archa	43.94	309	LR	LR	00 21 59.9	
	comp=Z,252nm,19.5s,baz=102,slow=37						
AAK	Ala-Archa	43.94	309	P	P	00 02 55.2	0.0
BTK	Batken	46.25	305	P	P	00 03 14.9	+1.3
BTK				IAmb	IAmb	00 03 34.9	
	comp=Z,6.0nm,1.2s						
KK31	Karatay Array	46.90	309	P	P	00 03 19.3	+0.7
KK31				IAmb	IAmb	00 03 27.8	
	comp=Z,3.8nm,0.9s						
KKAR	Karatay Array	46.90	309	P	P	00 03 19.3	+0.7
KBL	Kabul	47.33	297	P	P	00 03 22.6	+0.3
KBL				IAmb	IAmb	00 03 34.4	
	comp=Z,7.6nm,1.2s						
ASAR	Alice Springs	47.34	165	P	P	00 03 21.2	-0.9
	comp=Z,0.7nm,0.4s,baz=343,slow=7.9,SNR=10						
ASAR				LR	LR	00 23 04.6	
	comp=Z,89nm,21.7s,baz=300,slow=36						
	comp=Z,0.7nm,0.4s						
ASAR	Alice Springs	47.34	165	P	P	00 03 25.9	+3.8
CTA	Charters Tower	48.60	149	LR	LR	00 22 28.8	
	comp=Z,171nm,20.5s,baz=22,slow=34						
HNR	Honiara	49.09	126	LR	LR	00 22 50.4	
	comp=Z,38nm,19.5s,baz=31,slow=34						
BVAR	Borovoye Array	49.31	322	P	P	00 03 37.2	+0.2
	comp=Z,3.6nm,0.6s,baz=104,slow=8.0,SNR=13						
	comp=Z,3.6nm,0.6s						
BORK	Borovoye	49.36	322	P	P	00 03 37.6	+0.2
TIXI	Tiksi	49.42	3	LR	LR	00 26 31.2	
	comp=Z,320nm,18.8s,baz=203,slow=38						
SHEM	Shemya Is, Ala	49.89	39	LR	LR	00 23 48.8	
	comp=Z,60nm,21.8s,baz=310,slow=35						
NRIK	Noril'sk	51.21	345	P	P	00 03 51.1	0.0
	comp=Z,3.8nm,0.7s,baz=145,slow=8.3,SNR=3.6						
NRIK				LR	LR	00 27 12.1	
	comp=Z,354nm,18.1s,baz=148,slow=38						
	comp=Z,3.8nm,0.7s						
NRIK	Noril'sk	51.21	345	P	P	00 03 51.1	0.0
NRIK				IAmb	IAmb	00 03 53.2	
	comp=Z,6.7nm,1.0s						
FORT	Forrest	53.26	173	P	P	00 04 14.6	+7.9
AB31	Akbulak array	54.99	315	P	P	00 04 20.1	+0.8
ABKAR	Akbulak array	54.99	315	P	P	00 04 20.2	+0.9
AKTO	Aktyubinsk	56.34	316	LR	LR	00 30 30.3	
	comp=Z,198nm,18.1s,baz=60,slow=38						
ARTI	Arti	56.87	324	LR	LR	00 29 41.4	
	comp=Z,210nm,18.8s,baz=56,slow=37						
ARTI	Arti	56.87	324	P	P	00 04 32.1	-0.5
ARTI				IAmb	IAmb	00 04 37.2	
	comp=Z,7.7nm,1.0s						
STKA	Stephens Creek	57.27	160	LR	LR	00 30 51.8	
	comp=Z,57nm,20.5s,baz=11,slow=38						
D19K	Kuna River	65.76	23		P	00 05 33.5	+0.9
K17K	Iditarod	65.77	30	P	P	00 05 33.2	+0.5
K17K				IAmb	IAmb	00 05 40.5	
	comp=Z,7.1nm,1.0s						
GNI	Garni	66.17	305	LR	LR	00 39 08.5	
	comp=Z,119nm,18.6s,baz=54,slow=40						
D20K	Etivluk River	66.31	23		P	00 05 37.3	+1.1
D20K				IAmb	IAmb	00 05 43.6	
	comp=Z,3.8nm,0.8s						
N17K	Nushagak Hills	66.41	32	P	P	00 05 38.4	+1.4
R16K	Pilot Point	66.44	35	P	P	00 05 36.5	-0.7
J18K	Innoko River	66.45	29	P	P	00 05 38.5	+1.3
J18K				IAmb	IAmb	00 05 43.4	
	comp=Z,6.3nm,1.2s						
L18K	Granite Mounta	66.54	30	P	P	00 05 38.8	+1.1
L18K				IAmb	IAmb	00 05 56.2	
	comp=Z,8.6nm,1.4s						
F20K	Avaraart Lake	66.69	25	P	P	00 05 39.2	+0.6
F20K				IAmb	IAmb	00 05 50.7	
	comp=Z,7.7nm,1.4s						
J19K	Poorman	66.91	28	P	P	00 05 41.3	+1.2
KBZ	Khabaz	66.93	309	P	P	00 05 41.0	+0.5
	comp=Z,0.9nm,0.8s,baz=34,slow=3.6,SNR=1.6						
	comp=Z,0.9nm,0.8s						
E21K	Killik River	67.29	23	P	P	00 05 43.0	+0.5
E21K				IAmb	IAmb	00 05 52.7	
	comp=Z,3.2nm,0.8s						
L19K	White Mountain	67.40	30	P	P	00 05 43.8	+0.5
J20K	Nowinta River	67.54	28	P	P	00 05 45.0	+1.0
J20K				IAmb	IAmb	00 05 55.7	
	comp=Z,5.0nm,1.1s						
IMAR	Indian Mountai	67.55	26	P	P	00 05 40.6	-3.5
F21K	Alatna River	67.56	25	P	P	00 05 44.4	+0.2
G21K	Allakaket	67.61	26	P	P	00 05 46.2	+1.8
G21K				IAmb	IAmb	00 06 22.6	
	comp=Z,6.8nm,1.4s						
M19K	Big River Lodg	67.64	31	P	P	00 05 46.0	+1.3
M19K				IAmb	IAmb	00 06 27.8	
	comp=Z,9.4nm,1.4s						
K20K	Telida	67.65	29	P	P	00 05 46.0	+1.3
K20K				IAmb	IAmb	00 06 22.9	
	comp=Z,8.0nm,1.4s						
N19K	Bonanza Creek	67.71	32	P	P	00 05 46.8	+1.4
N19K				IAmb	IAmb	00 06 28.3	
	comp=Z,6.5nm,1.2s						
D22K	Ayikyak River	67.73	23	P	P	00 05 46.2	+1.0
D22K				IAmb	IAmb	00 06 12.1	
	comp=Z,7.5nm,1.1s						
H22K	Ishtalitna Cre	68.53	26	P	P	00 05 52.1	+1.8
H22K				IAmb	IAmb	00 06 01.8	
	comp=Z,3.3nm,0.7s						
CAST	Castle Rocks	68.53	29	P	P	00 05 51.7	+1.4
CAST				IAmb	IAmb	00 06 12.4	
	comp=Z,5.9nm,1.3s						
PPLA	Purkeypile	68.55	29	P	P	00 05 51.7	+1.1
MLY	Manley	68.90	27	P	P	00 05 54.1	+1.4
MLY				IAmb	IAmb	00 06 15.5	
	comp=Z,5.0nm,1.2s						
BPAW	Bear Paw Mtn.	68.92	28	P	P	00 05 54.2	+1.4
BPAW				IAmb	IAmb	00 06 13.9	
	comp=Z,8.7nm,1.5s						
G23K	Bananza Creek	68.97	25	P	P	00 05 54.1	+1.0
G23K				IAmb	IAmb	00 06 04.1	
	comp=Z,5.9nm,1.2s						
KDAK	Kodiak Island	69.08	35	LR	LR	00 35 12.0	
	comp=Z,80nm,22.0s,baz=123,slow=35						
KDAK	Kodiak Island	69.08	35	P	P	00 05 54.7	+0.9
TRF	Thorofare Moun	69.33	29	P	P	00 05 57.9	+2.4
TRF				IAmb	IAmb	00 06 18.8	
	comp=Z,9.6nm,1.4s						
I23K	Minto, Yukon-K	69.46	27	P	P	00 05 58.8	+2.8
I23K				IAmb	IAmb	00 06 42.8	
	comp=Z,5.0nm,1.4s						
F24K	Squaw Lake	69.67	24	P	P	00 05 58.8	+1.5

F24K				IAmb	IAmb	00 06 07.8	
	comp=Z,4.2nm,0.8s						
NEA2	Nenana	69.67	27	P	P	00 05 59.5	+2.1
NEA2				IAmb	IAmb	00 06 11.4	
	comp=Z,3.6nm,0.9s						
H24K	Noodor Dome	69.96	26	P	P	00 06 00.8	+1.6
H24K				IAmb	IAmb	00 06 31.3	
	comp=Z,9.5nm,1.4s						
G24K	Hadweenzic Riv	69.97	25	P	P	00 06 01.5	+2.3
G24K				IAmb	IAmb	00 06 10.7	
	comp=Z,10nm,1.5s						
RND	Reindeer	69.97	29	P	P	00 05 59.7	+0.4
RND				IAmb	IAmb	00 06 30.8	
	comp=Z,9.1nm,1.2s						
WRH	Wood River Hil	70.11	27	P	P	00 06 02.0	+2.0
WRH				IAmb	IAmb	00 06 11.1	
	comp=Z,4.2nm,1.0s						
SML	Sawmill	70.50	30	P	P	00 06 04.3	+1.7
SML				IAmb	IAmb	00 06 28.2	
	comp=Z,8.8nm,1.2s						
F25K	Christian Rive	70.51	24	P	P	00 06 04.5	+2.0
F25K				IAmb	IAmb	00 06 13.9	
	comp=Z,3.2nm,0.8s						
KNK	Knik Glacier	70.52	31	P	P	00 06 03.2	+0.5
ILAR	Eielson Array	70.57	27	P	P	00 06 02.9	0.0
	comp=Z,0.3nm,0.7s,baz=316,slow=3.8,SNR=4.2						
	comp=Z,0.3nm,0.7s						
ILAR	Eielson Array	70.57	27	P	P	00 06 03.5	+0.6
PWL	Port Wells	70.68	31	P	P	00 06 04.8	+1.1
DHY	Denali Highway	70.69	29	P	P	00 06 05.9	+2.1
C27K	Jago River	70.78	22	P	P	00 06 06.1	+2.0
BMAR	Burnt Mountain	70.94	24	P	P	00 06 07.2	+2.0
SCM	Sheep Creek Mo	70.96	30	P	P	00 06 07.3	+1.9
F26K	Sheenjek River	71.05	24	P	P	00 06 08.5	+2.7
F26K				IAmb	IAmb	00 06 18.7	
	comp=Z,4.7nm,1.1s						
J25K	Salcha River,	71.24	27	P	P	00 06 09.1	+2.0
GLI	Glacier Island	71.27	31	P	P	00 06 09.1	+1.9
SPITS	Spitsbergen Ar	71.29	348	P	P	00 06 07.1	+0.1
	comp=Z,8.2nm,1.0s,baz=44,slow=6.4,SNR=1.7						
SPITS				LR	LR	00 42 59.5	
	comp=Z,140nm,18.2s,baz=51,slow=40						
	comp=Z,8.2nm,1.0s						
ARCES	ARCESS Array B	71.33	338	P	P	00 06 07.9	+0.5
	comp=Z,2.0nm,0.7s,baz=57,slow=7.8,SNR=3.7						
ARCES				LR	LR	00 43 53.2	
	comp=Z,112nm,19.1s,baz=60,slow=41						
	comp=Z,2.0nm,0.7s						
ARCES	ARCESS Array B	71.33	338	P	P	00 06 08.3	+0.9
ARCES				IAmb	IAmb	00 06 12.8	
	comp=Z,8.9nm,1.4s						
RIDG	Independent Ri	71.66	28	P	P	00 06 12.6	+3.0
RIDG				IAmb	IAmb	00 06 33.1	
	comp=Z,5.8nm,1.3s						
KLU	Klutina	71.69	30	P	P	00 06 11.2	+1.3
SCRK	Sand Creek	71.97	28	P	P	00 06 14.1	+2.6
E28M	Babbage River	72.49	22	P	P	00 06 15.2	+0.8
E28M				IAmb	IAmb	00 06 46.1	
	comp=Z,6.8nm,1.4s						
I27K	Kandik River	72.54	26	P	P	00 06 16.4	+1.6
I27K				IAmb	IAmb	00 06 33.1	
	comp=Z,6.5nm,1.3s						
GLB	Gilahina Butte	72.69	30	P	P	00 06 16.4	+0.6
GLB				IAmb	IAmb	00 06 39.2	
	comp=Z,6.2nm,0.9s						
VRDI	Verde Repeater	72.91	30	P	P	00 06 18.5	+1.2
VRDI				IAmb	IAmb	00 06 27.9	
	comp=Z,6.2nm,0.9s						
L27K	Beaver Creek,	73.14	28	P	P	00 06 19.9	+1.5
L27K				IAmb	IAmb	00 06 30.5	
	comp=Z,6.0nm,1.2s						
BCAR	Beaver Creek A	73.16	28	P	P	00 06 20.4	+1.9
FINES	FINESS Array B	73.18	330	P	P	00 06 18.1	-0.5
	comp=Z,3.1nm,0.8s,baz=20,slow=6.1,SNR=9.9						
FINES				LR	LR	00 41 31.9	
	comp=Z,129nm,18.5s,baz=76,slow=38						
	comp=Z,3.1nm,0.8s						
FINES	FINESS Array B	73.18	330	P	P	00 06 19.3	+0.7
I28M	Miner Creek	73.25	26	P	P	00 06 21.6	+2.5
I28M				IAmb	IAmb	00 06 34.8	
	comp=Z,6.7nm,1.1s						
M27K	Edge Creek, AK	73.32	29	P	P	00 06 20.5	+0.9
M27K				IAmb	IAmb	00 06 31.8	
	comp=Z,6.4nm,1.2s						
G29M	Pine Creek	73.54	24	P	P	00 06 21.4	+0.7
G29M				IAmb	IAmb	00 06 32.9	
	comp=Z,6.2nm,1.0s						
H29M	Whitestone	73.63	25	P	P	00 06 23.1	+1.9
AKASG	Malin Array Be	74.47	319	P	P	00 06 26.6	+0.2
	comp=Z,0.2nm,0.3s,baz=60,slow=5.5,SNR=1.7						
AKASG				LR	LR	00 41 24.5	
	comp=Z,173nm,18.9s,baz=351,slow=38						
	comp=Z,0.2nm,0.3s						
AK11	Malin Array Si	74.52	319	P	P	00 06 28.0	+1.4
BRTR	Keskin Array B	74.57	307	P	P	00 06 27.2	-0.1
	comp=Z,0.5nm,0.6s,baz=116,slow=4.5,SNR=3.7						
	comp=Z,0.5nm,0.6s						
BRTR	Keskin Array B	74.57	307	P	P	00 06 27.6	+0.2
AK19	Malin Array Si	74.60	319	P	P	00 06 28.8	+1.7
AK19				pP	sP	00 06 31.8	+0.5
INK	Inuvik	74.68	22	LR	LR	00 43 02.1	
	comp=Z,152nm,18.1s,baz=63,slow=39						
HFS	Hagfors	79.31	331	LR	LR	00 44 20.7	
	comp=Z,152nm,18.4s,baz=62,slow=38						
NOA	NORSAR Array B	79.98	332	P	P	00 06 57.0	-0.2
	comp=Z,0.6nm,0.7s,baz=60,slow=7.1,SNR=4.1						
NOA				LR	LR	00 44 26.3	
	comp=Z,159nm,18.9s,baz=75,slow=37						
	comp=Z,0.6nm,0.7s						
JMIC	Jan Mayen	80.63	345	LR	LR	00 45 57.8	
	comp=Z,139nm,19.1s,baz=239,slow=38						
KSP	Ksiaz	82.08	322	P	P	00 07 10.4	+1.9
	comp=Z,5.5nm,2.2s						
DPC	Dobruska-Polom	82.28	321	P	P	00 07 11.4	+1.8
VRAC	Vranov	82.57	320	LR	LR	00 44 49.8	
	comp=Z,252nm,19.3s,baz=189,slow=36						
CLL	Collm	83.72	323	LH		00 38 00.0	
CLL				LV		00 43 00.0	
YKA	Yellowknife Ar	84.41	23	P	P	00 07 21.2	+0.9
	comp=Z,0.3nm,0.6s,baz=312,slow=5.0,SNR=6.8						
YKA				LR	LR	00 47 39.3	
	comp=Z,82nm,18.0s,baz=102,slow=38						
	comp=Z,0.3nm,0.6s						
GERES	GERESS Array B	84.48	321	P	P	00 07 20.6	-0.4
	comp=Z,0.3nm,0.3s,baz=42,slow=6.1,SNR=4.0						
	comp=Z,0.3nm,0.3s						
GERES	GERESS Array B	84.48	321	P	P	00 07 21.4	+0.4
DAVOX	Davos/Dischmat	87.73	320	P	P	00 07 36.4	-0.9
	comp=Z,0.6nm,0.7s,baz=18,slow=11,SNR=4.3						
	comp=Z,0.6nm,0.7s						
RAR	Rarotonga	88.00	114	LR	LR	00 41 35.2	
	comp=Z,54nm,20.1s,baz=108,slow=32						
SFJD	Kangerlussuaq	90.66	357	LR	LR	00 48 49.2	
	comp=Z,58nm,19.8s,baz=163,slow=36						
FRB	Frobisher Bay	93.74	5	LR	LR	00 54 30.3	
	comp=Z,166nm,19.4s,baz=128,slow=38						
PDAR	Pinedale Array	99.79	36	LR	LR	00 56 07.3	
	comp=Z,36nm,19.0s,baz=46,slow=37						

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*CATAC **21** 00:19:04.3±0.7, 14°N±6°×9°1W±°, h21^{km}±5^{km}, M3.4/12, MLv3.4/12, Error ellipse: s-maj=12.4km s-min=3.3km az=13.7, confirmed*

*GCG **21** 00:19:06.2±0.9, 13°.75N×90°.67W, h63^{km}±13^{km}, MD3.7, MW3.1, Presumed earthquake*

*SNET **21** 00:19:11.6±3.5, 13°.96N×90°.30W, h67^{km}, ML3.1, Presumed earthquake*

ISC 21 00:19:06.2±2.1**, 13°.6N**±0°.1×**90°.74W**±0°.08**, h58**^{km}±25^{km}**, n31, σ0^{s}.91**/47**, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PCG5	San Vicente Pa	0.73	29	*i* P	Pn	00 19 20.5	-0.3
FG16	Alotenango, Sa	0.73	17	*i* P	Pn	00 19 21.8	+0.9
FG16				*i* S	Sn	00 19 33.3	+1.8
FAME	Alcaldia de Sa	0.75	69	P	Pn	00 19 20.2	-0.7
FAME				S	Sn	00 19 31.5	-0.3
NUBE	Las Nubes	0.98	71	*i* P	Pn	00 19 23.3	-0.7
NUBE				*i* S	Sn	00 19 36.1	-1.2
NUBE	Las Nubes	0.98	71	*e*P	Pn	00 19 23.2	-0.9
NUBE				*e*S	Sn	00 19 36.5	-0.8
NUBE	Las Nubes	0.98	71	P	Pn	00 19 23.4	-0.7
NUBE				S	Sn	00 19 37.0	-0.4
SLOZ	Alcaldia de Sa	1.03	64	*e*P	Pn	00 19 24.0	-0.5
SLOZ	Alcaldia de Sa	1.03	64	P	Pn	00 19 24.0	-0.5
STG8	El Palmar, Qui	1.05	326	*i* P	Pn	00 19 29.0	+3.9
RTR	El Retiro	1.11	73	*e*P	Pn	00 19 25.5	-0.2
CEVE	Cerro Verde	1.11	77	*e*P	Pn	00 19 25.5	-0.3
CEVE	Cerro Verde	1.11	77	P	Pn	00 19 25.5	-0.3
CEVE				S	Sn	00 19 41.0	+0.6
SBLS	San Blas	1.11	76	*e*P	Pn	00 19 25.6	-0.3
SBLS				*e*S	Sn	00 19 40.3	-0.2
SNJE	San Jose	1.14	75	*e*P	Pn	00 19 25.6	-0.5
SNJE				*e*S	Sn	00 19 40.6	-0.4
UNIC	Universidad Ca	1.22	71	*e*P	Pn	00 19 26.2	-0.9
UNIC	Universidad Ca	1.22	71	P	Pn	00 19 26.5	-0.7
UNIC				S	Sn	00 19 43.7	+0.9
JAYA	Jayaque - finc	1.25	86	*i* P	Pn	00 19 27.2	-0.5
JAYA	Jayaque - finc	1.25	86	*e*P	Pn	00 19 27.3	-0.3
JAYA				*e*S	Sn	00 19 43.2	-0.5
JAYA	Jayaque - finc	1.25	86	P	Pn	00 19 27.2	-0.5
JAYA				S	Sn	00 19 43.7	0.0
CEDA	San Andres	1.32	80	S	Sn	00 19 45.5	+0.3
RTAL	Retalhuleu	1.33	316	P	Pn	00 19 27.8	-0.7
PMON	Piamonte	1.39	84	P	Pn	00 19 29.1	-0.3
PMON				S	Sn	00 19 47.5	+0.6
APG	El Apazote	1.45	10	*i* P	Pn	00 19 29.0	-1.3
UEES	Universidad Ev	1.46	84	*e*P	Pn	00 19 30.3	-0.1
UEES	Universidad Ev	1.46	84	P	Pn	00 19 30.2	-0.1
UEES				S	Sn	00 19 49.3	+0.7
LOMA	Loma Larga	1.52	87	*e*P	Pn	00 19 30.6	-0.6
LOMA				*e*S	Sn	00 19 50.5	+0.4
LOMA	Loma Larga	1.52	87	P	Pn	00 19 31.0	-0.3
LOMA				S	Sn	00 19 51.0	+0.8
MTO3	Montecristo	1.57	58	*i* P	Pn	00 19 30.4	-1.5
MTO3	Montecristo	1.57	58	P	Pn	00 19 30.6	-1.3
MTO3				S	Sn	00 19 53.8	+2.5
COEG	Centro de Oper	1.81	88	S	Sn	00 19 57.9	+1.0
PACA	Pacayal	2.35	92	P	Pn	00 19 42.5	0.0
PACA				S	Sn	00 20 12.8	+2.5

IDC 21 00:27:44.9±1.9**, 26°.16S**×**70°.34E, h0**^{km}**, mb4.0**/5**, mbtmp4.0**/5**, MS4.0**/1**, Error ellipse: s-maj=113.4km s-min=30.3km az=93.0, Indian Ocean Triple Junction**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
H08S1	Diego Carcia H	18.52	7	T	T	00 51 01.1	
	baz=185,slow=76,SNR=14						
H08S2	Diego Garcia H	18.53	7	T	T	00 50 58.7	
	baz=185,slow=76,SNR=18						
H08S3	Diego Garcia H	18.54	7	T	T	00 51 02.8	
	baz=185,slow=76,SNR=29						
H04N2	CROZET ISLANDS	24.84	212	T	T	00 59 08.4	
	baz=44,slow=73,SNR=146						
H04N1	CROZET ISLANDS	24.84	212	T	T	00 59 25.8	
	baz=44,slow=73,SNR=95						
H04N3	CROZET ISLANDS	24.86	212	T	T	00 59 07.8	
	baz=44,slow=73,SNR=116						
H04S1	CROZET ISLANDS	25.29	211	T	T	00 59 55.7	
	baz=34,slow=76						
H04S3	CROZET ISLANDS	25.29	211	T	T	00 59 55.5	
	baz=34,slow=76						
H04S2	CROZET ISLANDS	25.30	211	T	T	00 59 59.3	
	baz=34,slow=76						
H01W2	Cape Leeuwin H	38.47	114	T	T	01 15 24.5	
	baz=270,slow=75,SNR=11						
H01W3	Cape Leeuwin H	38.47	114	T	T	01 15 22.3	
	baz=270,slow=75,SNR=12						
H01W1	Cape Leeuwin H	38.49	114	T	T	01 15 25.3	
	baz=270,slow=75,SNR=14						
SUR	Sutherland	43.34	250	LR	LR	00 51 58.1	
	comp=Z,187nm,19.6s,baz=108,slow=34						
CMAR	Chiang Mai Arr	52.34	35	P	P	00 36 59.1	+0.2
	1.8nm,0.8s,baz=224,slow=7.4,SNR=8.5						
	1.8nm,0.8s						
VNDA	Vanda	64.99	166	P	P	00 38 26.2	+0.1
	0.8nm,0.8s,baz=275,slow=8.3,SNR=5.2						
	0.8nm,0.8s						
MKAR	Makanchi Array	73.41	9	P	P	00 39 18.7	0.0
	0.9nm,0.9s,baz=181,slow=4.9,SNR=5.3						
	0.9nm,0.9s						
KURBB	Kurchatov Arra	76.78	5	P	P	00 39 38.7	+0.7
	0.7nm,0.2s,baz=198,slow=5.9,SNR=2.0						
	0.7nm,0.2s						
SONM	Songino Array	80.47	24	P	P	00 39 57.5	-1.2
	0.9nm,1.0s,baz=197,slow=4.5,SNR=2.2						
	0.9nm,1.0s						

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*SOF **21** 00:30:19.8, 40°.40N±0°.06×20°.68E±0°.04, h2^{km}±14^{km}, MD2.7/6*

*BEO **21** 00:30:21.9±0.4, 40°.34N×20°.90E, h0^{km}, ML2.8/4*

*THE **21** 00:30:22.6, 40°.5N±0°.9×2°1E±°, h0^{km}±1^{km}, M2.5/16, MLh2.5/16*

*TIR **21** 00:30:22.6, 40°.47N×20°.78E, h17^{km}±1^{km}, Ml2.9/5*

*PDG **21** 00:30:23.2±0.5, 40°.51N×20°.85E, h10^{km}±1^{km}, ML2.8/10, Error ellipse: s-maj=0.7km s-min=1.2km az=0.0*

*SKO **21** 00:30:24.4, 40°.51N×20°.78E, h16^{km}, ML2.8*

ISC 21 00:30:22.7±1.1**, 40°.47N**±0°.02×**20°.77E**±0°.02**, h4**^{km}±9^{km}**, n73, σ0^{s}.87**/118**, 1C, Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBN	Korca	0.15	4	⇑Pg	Pg	00 30 26.1	+0.3
KBN				Sg	Sg	00 30 28.7	+0.9
KBN				AML	AML	00 30 29.2	
	22nm,0.3s						
KBN	Korca	0.15	4	P	Pg	00 30 26.0	+0.2
KBN				S	Sg	00 30 28.6	+0.7
KBN				AML	AML		
OHR	Ohrid	0.64	2	*i* Pg	Pg	00 30 35.4	+0.4
OHR				*i* Sg	Sb	00 30 45.9	+0.1
OHR				*e*Lg	Lg	00 30 46.3	
	comp=N,375nm,0.5s						
OHR				*e*Lg	Lg	00 30 46.4	
	comp=E,967nm,0.5s						
KPRO	Kipourio	0.69	139	P	Pg	00 30 35.5	-0.4
KPRO				S	Sb	00 30 46.8	-0.2
KPRO				AML	AML		
KZN	Kozani	0.78	102	P	Pg	00 30 37.4	-0.3
KZN				S	Sb	00 30 50.0	+0.2
KZN				AML	AML		
JAN	Janina	0.82	176	P	Pg	00 30 37.5	-0.9
JAN				S	Sb	00 30 49.7	-1.1
JAN				AML	AML		
SRN	Sarande	0.84	225	Pg	Pg	00 30 38.3	-0.4
SRN				Sg	Sb	00 30 51.9	+0.6
SRN	Sarande	0.84	225	P	Pg	00 30 38.3	-0.4
SRN				S	Sb	00 30 51.3	0.0
SRN				AML	AML		
PRMD	Pramanda	0.97	165	P	Pg	00 30 40.7	-0.7
PRMD				AML	AML		
VLO	Vlora	0.97	270	Pg	Pn	00 30 43.6	+0.5
VLO				Sg	Sn	00 30 59.3	+2.0
VLO				AML	AML	00 31 02.9	
	comp=E,2.6nm,0.3s						
IGT	Igoumenitsa	1.00	200	Pg	Pg	00 30 41.8	0.0
IGT				Sg	Sb	00 30 56.4	+0.4
IGT	Igoumenitsa	1.00	200	P	Pg	00 30 41.1	-0.7
IGT				AML	AML		
IGT	Igoumenitsa	1.00	200	*e*Pn	Pg	00 30 41.6	-0.2
KEK	Kerkira	1.06	225	Pg	Pg	00 30 41.0	-2.1
KEK				Sg	Sb	00 30 58.2	+0.3
TIR	Tirane	1.11	322	Pg	Pg	00 30 44.1	0.0
TIR				Sg	Sn	00 31 00.2	-0.6
TIR				AML	AML	00 31 07.9	
	comp=E,0.3nm,0.4s						
LFKM	Lefkimmi	1.16	208	P	Pg	00 30 45.0	0.0
PHP	Peshkopia	1.24	348	Pg	Pg	00 30 45.5	-1.0
PHP				Sg	Sb	00 31 03.3	+0.3
PHP				AML	AML	00 31 07.0	
	comp=E,0.9nm,0.4s						
PHP	Peshkopia	1.24	348	P	Pg	00 30 45.5	-1.0
PHP				S	Sn	00 31 03.5	-0.5
GRG	Griva	1.33	68	P	Pn	00 30 47.2	-0.9
GRG				S	Sn	00 31 06.4	+0.2
GRG				AML	AML		
TYRN	Tyrnavos	1.35	124	P	Pn	00 30 47.8	-0.5
TYRN				S	Sn	00 31 07.5	+0.8
TYRN				AML	AML		
SKO	Skopje	1.58	18	*i* Pn	Pb	00 30 52.3	-0.2
SKO				*i* Sn	Sg	00 31 14.1	+0.6
AMPL	Ampelaki	1.58	167	P	Pb	00 30 51.9	-0.6
AMPL				AML	AML		
VAY	Valandovo	1.61	57	*i* Pn	Pb	00 30 52.0	-0.9
VAY				*i* Sn	Sg	00 31 16.8	+2.5
VAY				*e*Lg	Lg	00 31 17.3	
	comp=N,50nm,0.7s						
VAY				*e*Lg	Lg	00 31 19.4	
	comp=E,40nm,0.5s						
LKD2	Lefkada island	1.68	183	Pn	Pb	00 30 54.4	+0.2
LKD2				Sn	Sg	00 31 17.5	+0.7
LKD2				AML	AML	00 31 24.0	
	comp=E,0.3nm,0.6s						
EVR	Evrytania	1.75	152	P	Pn	00 30 54.0	+0.2
EVR				AML	AML		
AGG	Agios Georgios	1.88	140	P	Pn	00 30 55.7	+0.1
AGG				AML	AML		
ULC	Ulcinj	1.89	323	*e*Pn	Pn	00 30 56.5	+0.8
ULC				*i* Sn	Sg	00 31 22.8	-0.5
ULC				AML	AML		
PEHC	Pehcevo	2.07	50	*i* Pn	Pb	00 30 59.4	-1.5
DRME	Dracevica, Mon	2.09	326	*e*Pn	Pn	00 30 59.4	+0.9
DRME				*i* Sn	Sb	00 31 27.8	+0.3
DRME				AML	AML		
XOR	Xorichti	2.16	120	P	Pn	00 30 59.3	-0.2
XOR				AML	AML		
PVY	Plav	2.21	344	*e*Pn	Pn	00 31 00.7	+0.5
PVY				*i* Sn	Sb	00 31 30.1	-0.9
PVY				AML	AML		
SRS	Serrai	2.24	72	*e*Pn	Pn	00 31 00.0	-0.5
KKB	Krupnik	2.25	52	*i* P	Pn	00 31 01.7	+1.1
PDG	Podgorica	2.27	330	Pn	Pb	00 31 02.7	-1.5
PDG				Sn	Sb	00 31 32.3	-0.2
PDG	Podgorica	2.27	330	*e*Pn	Pb	00 31 02.5	-1.6
PDG				*e*Sn	Sb	00 31 32.7	+0.2
PDG	Podgorica	2.27	330	*e*Pn	Pn	00 31 01.8	+0.9
PDG				*i* Sn	Sb	00 31 31.8	-0.7
PDG				AML	AML		
PAIG	Paliouri	2.29	103	P	Pn	00 31 01.0	-0.2
PAIG				AML	AML		
VLS	Valsamata	2.29	184	P	Pn	00 31 02.3	+1.0
VLS				AML	AML		
BUM	Brajici-Budva	2.31	323	*e*Pn	Pn	00 31 02.6	+1.0
BUM				*i* Sn	Sb	00 31 33.3	-0.6
BUM				AML	AML		
BOSS	Bosilegrad	2.40	32	*e*Pn	Pn	00 31 03.0	+0.3
BARS	Barje	2.47	18	*e*Pn	Pn	00 31 03.7	0.0
IVA	Berane	2.49	345	*e*Pn	Pn	00 31 04.5	+0.5
IVA				*i* Sn	Sn	00 31 36.7	+1.8
IVA				AML	AML		
MMB	Musomishta	2.50	64	*e*P	Pn	00 31 05.2	+1.1
CEME	Cevo	2.50	327	*e*Pn	Pn	00 31 05.0	+0.8
CEME				*i* Sn	Sb	00 31 37.6	-1.7
CEME				AML	AML		
NVR	Nevrokopi	2.50	68	P	Pn	00 31 04.3	+0.2
KOME	Kolasin	2.56	339	*e*Pn	Pn	00 31 05.5	+0.5
KOME				*i* Sn	Sn	00 31 38.5	+1.9
KOME				AML	AML		
HCY	Herceg Novi	2.61	320	*e*Pn	Pn	00 31 06.8	+1.1
HCY				*i* Sn	Sb	00 31 40.5	-2.0
HCY				AML	AML		
TRAN	Tran	2.75	30	*i* P	Pn	00 31 08.3	+0.7
SELS	Selova	2.76	5	*e*Pn	Pn	00 31 07.6	-0.1
SELS				*e*Sn	Sb	00 31 45.3	-1.4
PLNA	Plana	2.83	44	*i* P	Pn	00 31 09.3	+0.6
VTS	Vitosha	2.83	40	*e*P	Pn	00 31 09.4	+0.6
VTS	Vitosha	2.83	40	*e*Pn	Pn	00 31 08.9	+0.1
NOCI	Noci	2.84	278	Pn	Pn	00 31 09.8	+0.9
SJES	Sjenica	2.85	348	*e*Pn	Pn	00 31 10.0	+0.9
SJES				*e*Sn	Sb	00 31 49.0	-0.5
BRY	Bratogost	2.95	326	*e*Pn	Pn	00 31 11.4	+1.0
BRY				*i* Sn	Sn	00 31 48.4	+2.1
BRY				AML	AML		
DBRK	Dubrovnik	2.95	319	*e*Pn	Pn	00 31 10.2	-0.1
DBRK				Sn	Sn	00 31 46.8	+0.7
BLSH	Balsha	3.04	37	*e*P	Pn	00 31 13.1	+1.6
ZAPS	Zavoj	3.13	26	*e*Pn	Pn	00 31 13.2	+0.4
IVAS	Ivanjica	3.14	352	*e*Pn	Pn	00 31 12.3	-0.6
STON	Ston	3.32	317	*e*Pn	Pn	00 31 15.3	-0.1
STON				Sn	Sn	00 31 56.0	+0.7
STON	Ston	3.32	317	*e*Pn	Pn	00 31 17.1	+1.7
STON				*e*Sn	Sn	00 31 57.1	+1.8
GRUS	Gruza	3.42	359	*e*Pn	Pn	00 31 17.1	+0.4
BLKB	Belogradchik	3.45	24	*e*Pn	Pn	00 31 17.4	+0.1
ZAGS	Zajecar	3.51	18	*e*Pn	Pn	00 31 17.8	-0.2
LSTV	Lastovo	3.71	310	*e*Pn	Pn	00 31 20.1	-0.6
LSTV				Sn	Sn	00 32 05.1	+0.4
MAKA	Makarska	3.97	316	*e*Pn	Pn	00 31 24.6	+0.3
MAKA				Sn	Sn	00 32 11.7	+0.5
RICI	Ricice	4.06	319	*e*Pn	Pn	00 31 26.1	+0.5
RICI				Sn	Sn	00 32 14.4	+0.9
HVAR	Hvar	4.21	311	*e*Pn	Pn	00 31 27.1	-0.6
HVAR				Sn	Sn	00 32 17.2	0.0
ZIRJ	Zirje	4.97	311	*e*Pn	Pn	00 31 37.6	-0.5
ZIRJ				Sn	Sn	00 32 36.5	+0.6
MORI	Morici	5.07	314	*e*Pn	Pn	00 31 39.7	+0.3
MORI				Sn	Sn	00 32 37.9	-0.4
UDBI	Udbina	5.49	319	*i* Pn	Pn	00 31 46.3	+1.1
UDBI				Sn	Sn	00 32 49.7	+0.9
DUGI	Dugi Otok	5.51	312	*e*Pn	Pn	00 31 45.3	-0.2
DUGI				Sn	Sn	00 32 50.0	+0.8
VIRC	Vir	5.70	314	*e*Pn	Pn	00 31 48.0	-0.1
VIRC				Sn	Sn	00 32 54.1	+0.2

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*SNET **21** 00:46:31.8±0.9, 13°.73N×89°.21W, h163^{km}, ML2.5, Presumed earthquake*

*CATAC **21** 00:46:33.0±0.6, 14°N±4°×8°9W±°, h153^{km}±3^{km}, M2.4/15, MLv2.4/15, Error ellipse: s-maj=9.4km s-min=7.6km az=175.2, confirmed*

*GCG **21** 00:46:33.1±0.6, 13°.75N×89°.22W, h156^{km}±5^{km}, MD3.9, MW3.2, Presumed earthquake*

ISC 21 00:46:34.2±3.2**, 13°.74N**±0°.09×**89°.17W**±0°.07**, h151**^{km}±19^{km}**, n40, σ0^{s}.60**/56**, 1C, El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
UTEC	Universidad Te	0.05	223	P	Pn	00 46 53.7	-0.9
UTEC				S	Sn	00 47 09.9	-0.2
LFU	La Fuente	0.05	77	*e*P	Pn	00 46 54.1	-0.4
SEMO	Seminario San	0.06	239	P	Pn	00 46 53.7	-0.9
SEMO				S	Sn	00 47 10.5	+0.4
UEES	Universidad Ev	0.07	254	P	Pn	00 46 53.9	-0.7
PIC2	El Picacho	0.09	275	*e*P	Pn	00 46 54.3	-0.5
LOMA	Loma Larga	0.09	182	*e*P	Pn	00 46 54.2	-0.5
LOMA	Loma Larga	0.09	182	P	Pn	00 46 54.2	-0.5
BOQS	Boqueron	0.11	269	*e*P	Pn	00 46 54.3	-0.5
PMON	Piamonte	0.14	260	*i* P	Pn	00 46 54.1	-0.6
PMON	Piamonte	0.14	260	P	Pn	00 46 54.3	-0.4
LFRS	El Faro	0.15	138	*i* P	Pn	00 46 54.1	-0.7
PAVA	Las Pavas	0.23	96	P	Pn	00 46 54.5	-0.4
PAVA				S	Sn	00 47 11.2	+0.6
CEDA	San Andres	0.23	287	P	Pn	00 46 54.1	-0.7
CEDA				S	Sn	00 47 11.1	+0.7
JAYA	Jayaque - finc	0.29	253	*i* P	Pn	00 46 54.4	-0.7
JAYA	Jayaque - finc	0.29	253	*e*P	Pn	00 46 54.5	-0.7
JAYA	Jayaque - finc	0.29	253	P	Pn	00 46 54.3	-0.8
JAYA				S	Sn	00 47 11.4	+0.5
LALI	Alcalda de L	0.29	211	*i* P	Pn	00 46 54.3	-0.6
LALI				*i* S	Sn	00 47 11.2	+0.6
LALI	Alcalda de L	0.29	211	P	Pn	00 46 54.5	-0.4
LALI				S	Sn	00 47 11.6	+1.0
COEG	Centro de Oper	0.30	112	*e*P	Pn	00 46 54.5	-0.6
COEG				*e*S	Sn	00 47 11.5	+0.7
COEG	Centro de Oper	0.30	112	P	Pn	00 46 54.4	-0.6
COEG				S	Sn	00 47 11.1	+0.3
TECO	Alcaldia de Te	0.42	118	*e*P	Pn	00 46 54.7	-0.7
TECO				*e*S	Sn	00 47 12.0	+0.5
TECO	Alcaldia de Te	0.42	118	P	Pn	00 46 54.8	-0.6
TECO				S	Sn	00 47 11.9	+0.3
SNJE	San Jose	0.45	287	*i* P	Pn	00 46 55.2	-0.5
CEVE	Cerro Verde	0.45	282	*i* P	Pn	00 46 55.6	-0.3
CEVE	Cerro Verde	0.45	282	P	Pn	00 46 55.8	0.0
SBLS	San Blas	0.45	283	⇑*i*P	Pn	00 46 55.4	-0.4
NUBE	Las Nubes	0.62	286	*i* P	Pn	00 46 56.0	-0.5
NUBE				*i* S	Sn	00 47 14.1	+0.6
NUBE	Las Nubes	0.62	286	*i* P	Pn	00 46 56.1	-0.5
NUBE	Las Nubes	0.62	286	P	Pn	00 46 56.0	-0.5
NUBE				S	Sn	00 47 14.1	+0.6
SLOZ	Alcaldia de Sa	0.66	296	P	Pn	00 46 56.4	-0.3
MTO3	Montecristo	0.69	344	*i* P	Pn	00 46 56.6	-0.5
MTO3	Montecristo	0.69	344	P	Pn	00 46 56.4	-0.6
MTO3				S	Sn	00 47 14.3	-0.2

TECA	Tecapa	0.69	110	eP	Pn	00 46 56.5	-0.5
FAME	Alcaldia de Sa	0.83	277	P	Pn	00 46 57.1	-0.7
FAME				S	Sn	00 47 16.6	+0.9
PACA	Pacayal	0.86	108	i P	Pn	00 46 57.9	-0.3
PACA	Pacayal	0.86	108	P	Pn	00 46 57.9	-0.3
PACA				S	Sn	00 47 17.6	+1.2
SARH	Santa Rosa de	1.11	21	i P	Pn	00 46 60.0	-0.2
SARH	Santa Rosa de	1.11	21	P	Pn	00 46 60.0	-0.2
SARH				S	Sn	00 47 20.0	0.0
APG	El Apazote	1.78	315	i P	Pn	00 47 07.1	0.0
STG8	El Palmar, Qui	2.23	289	i P	Pn	00 47 15.9	+3.4

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*ATH **21** 00:53:01.7, 38°.16N×20°.31E, h6^{km}±1^{km}, ML2.8/19, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*

*THE **21** 00:53:02.2, 38°.2N±0°.8×2°0E±°, h10^{km}±1^{km}, M2.8/17, MLh2.8/17*

ISC 21 00:53:02.5±1.1**, 38°.17N**±0°.02×**20°.36E**±0°.04**, h11**^{km}±5^{km}**, n54, σ0^{s}.64**/101**, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LXR1	Lixouri, Cepha	0.07	68	P	Pg	00 53 05.0	+0.3
LXR1				S	Sg	00 53 06.6	+0.2
VLS	Valsamata	0.18	89	P	Pg	00 53 06.3	-0.1
VLS				S	Sg	00 53 09.0	-0.2
VLS				AML	AML		
VLS	Valsamata	0.18	89	P	Pg	00 53 06.2	-0.3
VLS				S	Sg	00 53 08.8	-0.4
VLS				AML	AML		
ORTH	Orthonies,Zaky	0.42	140	P	Pg	00 53 10.9	+0.1
ORTH				S	Sb	00 53 17.3	-1.0
ORTH				AML	AML		
ORTH	Orthonies,Zaky	0.42	140	P	Pg	00 53 10.5	-0.2
ORTH				S	Sg	00 53 17.1	+0.8
EVGI	Lefkada island	0.50	28	P	Pg	00 53 12.3	0.0
EVGI				S	Sb	00 53 20.2	-0.6
EVGI				AML	AML		
EVGI	Lefkada island	0.50	28	P	Pg	00 53 12.2	-0.1
EVGI				S	Sg	00 53 19.5	+0.5
DRAG	Dragano-Lefkad	0.54	19	P	Pg	00 53 13.0	0.0
DRAG				S	Sb	00 53 21.2	-0.5
DRAG				AML	AML		
DRAG	Dragano-Lefkad	0.54	19	P	Pg	00 53 12.9	0.0
DRAG				S	Sg	00 53 20.6	+0.5
LTHK	Lithakia	0.60	141	P	Pg	00 53 13.6	-0.5
LTHK				S	Sb	00 53 23.0	-0.5
LTHK				AML	AML		
LTHK	Lithakia	0.60	141	P	Pg	00 53 13.6	-0.5
LTHK				S	Sg	00 53 21.6	-0.3
NYDR	Nydri-Lefkada	0.60	26	P	Pg	00 53 13.8	-0.4
NYDR				S	Sg	00 53 22.8	+0.7
NYDR				AML	AML		
NYDR	Nydri-Lefkada	0.60	26	P	Pg	00 53 14.0	-0.2
NYDR				S	Sg	00 53 22.0	-0.1
LKD2	Lefkada island	0.66	21	P	Pg	00 53 15.0	-0.2
LKD2				S	Sg	00 53 24.6	+0.7
LKD2				AML	AML		
LKD2	Lefkada island	0.66	21	P	Pg	00 53 15.1	-0.2
LKD2				S	Sg	00 53 24.3	+0.4
LKD2				AML	AML		
CLEM	Kyllini,Ilia,G	0.68	115	P	Pb	00 53 16.2	-0.1
CLEM				S	Sg	00 53 25.1	+0.7
AST1	Astakos	0.68	57	P	Pg	00 53 15.4	-0.3
AST1				S	Sb	00 53 25.9	+0.1
TSLK	Tsoukalades, L	0.69	20	P	Pg	00 53 15.7	-0.2
TSLK				S	Sb	00 53 26.8	+0.6
TSLK				AML	AML		
TSLK	Tsoukalades, L	0.69	20	P	Pg	00 53 15.7	-0.2
TSLK				S	Sb	00 53 25.8	-0.3
TSLK				AML	AML		
PDO	Prodromos	0.78	57	P	Pg	00 53 17.0	-0.4
PDO				AML	AML		
AXS	Araxos	0.80	88	P	Pg	00 53 17.3	-0.7
AXS				S	Sb	00 53 30.2	+0.9
AXS				AML	AML		
PLEV	Plevrona-Mesol	0.86	74	P	Pg	00 53 18.6	-0.5
PLEV				S	Sb	00 53 31.9	+0.9
PLEV				AML	AML		
PLEV	Plevrona-Mesol	0.86	74	P	Pg	00 53 18.6	-0.5
PLEV				S	Sg	00 53 30.6	+0.3
PLEV				AML	AML		
MSL1	Messolongi	0.86	76	P	Pg	00 53 18.7	-0.5
MSL1				S	Sn	00 53 32.8	-0.4
RLS	Riolos of Patr	0.88	97	P	Pg	00 53 18.8	-0.7
RLS				AML	AML		
RLS	Riolos of Patr	0.88	97	P	Pg	00 53 18.8	-0.7
RLS				S	Sb	00 53 32.2	+0.6
RLS				AML	AML		
AMPL	Ampelaki	1.00	42	P	Pg	00 53 20.7	-1.1
AMPL				AML	AML		
AMPL	Ampelaki	1.00	42	P	Pg	00 53 20.7	-1.1
AMPL				S	Sg	00 53 35.3	+0.4
AMPL				AML	AML		
PVO	Paravola	1.02	64	P	Pg	00 53 21.8	-0.3
PVO				S	Sn	00 53 37.5	+0.4
PVO				AML	AML		
PVO	Paravola	1.02	64	P	Pg	00 53 21.6	-0.5
PVO				S	Sn	00 53 37.2	+0.1
PVO				AML	AML		
DRO	Drossia	1.09	101	P	Pg	00 53 22.6	-0.8
DRO				S	Sn	00 53 39.6	+0.7
DRO				AML	AML		
DRO	Drossia	1.09	101	P	Pg	00 53 22.8	-0.7
DRO				S	Sn	00 53 39.3	+0.4
DRO				AML	AML		
AGRP	Agrapidokambos	1.10	78	P	Pg	00 53 22.1	-1.4
AGRP				S	Sb	00 53 38.4	+0.5
AGRP				AML	AML		
VVK	Vomvokou	1.17	77	P	Pb	00 53 23.7	-1.1
VVK				AML	AML		
VVK	Vomvokou	1.17	77	P	Pb	00 53 23.4	-1.3
VVK				S	Sn	00 53 41.4	+0.5
VVK				AML	AML		
EFP	Efpalio	1.25	78	P	Pn	00 53 24.8	-1.0
EFP	Efpalio	1.25	78	P	Pn	00 53 24.9	-1.0
EFP				S	Sn	00 53 43.4	+0.7
EFP				AML	AML		
MG00	Magoula, Dorid	1.27	79	P	Pn	00 53 25.5	-0.7
MG00				S	Sn	00 53 45.3	+1.9
MG00				AML	AML		
LAKA	Lakka	1.28	87	P	Pn	00 53 25.5	-0.8
LAKA				S	Sn	00 53 44.4	+0.8
ANX	Ano Chora	1.30	71	P	Pn	00 53 26.9	+0.2
ANX				S	Sn	00 53 44.8	+0.7
ANX				AML	AML		
IGT	Igoumenitsa	1.36	359	P	Pg	00 53 28.3	-0.3
IGT				S	Sg	00 53 46.2	0.0
EVR	Evrytania	1.36	56	P	Pn	00 53 27.0	-0.5
EVR				S	Sg	00 53 47.3	+1.1
SERG	Sergoula	1.36	79	P	Pn	00 53 26.7	-0.8
SERG				S	Sb	00 53 45.9	+0.5
SERG				AML	AML		
TETR	Tetrakomo, Epi	1.37	31	P	Pb	00 53 28.5	+0.3
TETR				S	Sn	00 53 46.5	+0.6
KLV1	Kalavrita	1.39	95	P	Pg	00 53 28.9	-0.2
KLV1				S	Sn	00 53 47.0	+0.8
KLV1				AML	AML		
TEME	Temeni, Aigial	1.39	87	P	Pn	00 53 27.9	+0.1
TEME				S	Sg	00 53 48.2	+1.1
KALE	Kalithea	1.42	81	P	Pn	00 53 28.0	-0.3
KALE				AML	AML		
KLV	Kalavryta, Ach	1.42	95	P	Pn	00 53 28.2	-0.1
KLV				S	Sg	00 53 49.8	+1.6
PRMD	Pramanda	1.47	23	P	Pg	00 53 30.9	+0.2
PRMD				S	Sg	00 53 49.7	-0.1
PRMD				AML	AML		
GUR	Goura	1.59	98	P	Pn	00 53 30.8	+0.2
GUR				S	Sg	00 53 53.6	+0.2
GUR				AML	AML		
ITM	Ithomi	1.59	128	P	Pb	00 53 32.3	+0.3
ITM				S	Sb	00 53 52.2	+0.1
ITM				AML	AML		
KEK	Kerkira	1.60	344	P	Pn	00 53 30.5	-0.2
KEK				S	Sb	00 53 51.8	-0.4
PYL	PYLOS	1.69	139	P	Pb	00 53 33.8	+0.3
AXAR	Agios Charalam	1.90	71	P	Pb	00 53 36.4	-0.8
AXAR				S	Sb	00 54 01.2	+0.2

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*MOS **21** 01:07:34.6±0.8, 45°.62N×150°.05E, h62^{km}, mb4.5/1, Error ellipse: s-maj=25.8km s-min=16.2km az=149.3*

*SKHL **21** 01:07:34.8±0.2, 45°.20N×150°.20E, h73^{km}±5^{km}, mb4.8/3*

*IDC **21** 01:07:37.5±4.3, 45°.52N×150°.09E, h75^{km}±43^{km}, mb3.3/9, mbtmp3.7/11, ML3.5/2, MS2.9/1, Error ellipse: s-maj=55.0km s-min=21.0km az=173.0*

*JMA **21** 01:07:37.3±0.7, 45°N±3°×15°0E±°, h114^{km}, MV3.7/18, KURILE ISLANDS REGION*

ISC 21 01:07:35.1±0.8**, 45°.3N**±0°.1×**150°.18E**±0°.08**, h61**^{km}**, n40, σ1^{s}.24**/40**, mb3.6**/10**, 1D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
REI	Reidovoe	1.53	270	eP	Pn	01 07 59.5	-0.6
REI				AMB	AMB	01 08 00.7	
	130nm,0.3s						
REI				eS	Sn	01 08 18.0	-0.9
REI				A	A	01 08 19.0	
	240nm,0.3s						
REI				A	A	01 08 19.0	
	220nm,0.3s						
KUR	Kuril'sk	1.63	268	⇓iPN	Pn	01 08 01.4	-0.1
KUR				eS	Sn	01 08 21.2	-0.3
KUR				pmax	pmax		
	comp=Z,723nm,0.4s						
KUR				pmax	pmax		
	comp=N,244nm,0.2s						
KUR				smax	smax		
	comp=N,1µm,0.3s						
KUR				smax	smax		
	comp=E,481nm,0.2s						
KUR	Kuril'sk	1.63	268	i P	Pn	01 08 01.4	-0.1
KUR				AMB	AMB	01 08 02.3	
	comp=E,720nm,0.3s						
KUR				eS	Sn	01 08 21.2	-0.3
KUR				A	A	01 08 22.9	
	comp=E,1µm,0.3s						
KUR				A	A	01 08 22.9	
	comp=E,480nm,0.3s						
YUK	Yuzh-Kuril'sk	3.33	249	ePN	Pn	01 08 25.5	+0.9
NEM2	Nemuro 2	3.72	240	P	Pn	01 08 29.9	-0.1
NEM2				S	Sn	01 09 10.3	-2.3
NMR	Nemuro--Hokkai	3.73	240	eP	Pn	01 08 29.7	-0.4
JRA	Rausu	3.86	251	eP	Pn	01 08 34.0	+2.1
JNK	Nakash	4.27	248	P	Pn	01 08 39.0	+1.5
JNK				S	Sn	01 09 27.4	+1.4
AKK	Akkeshi	4.47	241	eP	Pn	01 08 39.8	-0.4
JAK	Akkeshi	4.57	242	P	Pn	01 08 41.4	-0.2
JAK				eS	Sn	01 09 31.7	-1.6
JTKR	Abashiri--Toko	4.67	256	eP	Pn	01 08 43.5	+0.5
JAR	Ashorobuto	5.02	249	P	Pn	01 08 49.7	+1.9
JAR				eS	Sn	01 09 46.9	+2.5
JOB	Onbets	5.16	245	eP	Pn	01 08 50.6	+0.9
JOB				eS	Sn	01 09 47.1	-0.7
JKK2	Kamakawa 2	5.50	258	eP	Pn	01 08 55.8	+1.5
JKA	Kamikawa-asahi	5.53	260	eP	Pn	01 08 57.1	+2.4
ASAJ	Asahikawa	5.53	260	P	Pn	01 08 57.0	+2.3
	comp=E,0.9nm,0.3s,baz=74,slow=18,SNR=4.0						
	comp=E,10.0nm,0.8s						
ASAJ				AML	AML		
JCH	Churui	5.60	244	P	Pn	01 08 56.4	+0.6
JCH				S	Sn	01 09 58.0	-0.8
USRK	Ussuriysk Ar.	12.98	272	P	Pn	01 10 33.6	-3.0
	comp=E,0.6nm,0.3s,baz=77,slow=14,SNR=1.3						
KLR	Kul'dur	13.11	294	LR	LR	01 15 15.4	
	comp=E,51nm,21.4s,baz=357,slow=35						
KSRS	Korea Array	18.41	253	P	Pn	01 11 46.8	+0.9
	comp=E,0.4nm,0.3s,baz=51,slow=12,SNR=1.7						
	comp=E,0.7nm,0.5s						
KSRS				AML	AML		
H11N2	WAKE ISLAND Hy	29.02	146	T	T	01 44 13.2	
	baz=335,slow=76,SNR=483						
H11N1	WAKE ISLAND Hy	29.03	146	T	T	01 44 18.3	
	baz=335,slow=76,SNR=484						
H11N3	WAKE ISLAND Hy	29.03	146	T	T	01 44 13.9	
	baz=335,slow=76,SNR=530						
H11S1	WAKE ISLAND Hy	30.05	147	T	T	01 45 29.5	
	baz=336,slow=76,SNR=660						
H11S3	WAKE ISLAND Hy	30.06	147	T	T	01 45 32.8	
	baz=336,slow=76,SNR=462						
H11S2	WAKE ISLAND Hy	30.07	147	T	T	01 45 30.8	
	baz=336,slow=76,SNR=579						
ILAR	Eielson Array	38.95	37	P	P	01 14 54.4	-0.2
	comp=E,0.3nm,0.5s,baz=272,slow=10,SNR=3.1						
	comp=E,0.3nm,0.5s						
MKAR	Makanchi Array	45.79	297	P	P	01 15 50.6	+0.1
	comp=E,0.5nm,0.6s,baz=64,slow=8.2,SNR=4.1						
MKAR				PcP	PcP	01 17 27.3	+0.3
	comp=E,0.4nm,0.6s,baz=60,slow=3.9,SNR=2.5						
	comp=E,0.5nm,0.6s						
KURK	Kurchatov	46.47	304	P	P	01 15 55.5	-0.1
KURK	Kurchatov	46.47	304	eP	P	01 15 55.5	-0.1
KURBB	Kurchatov Arra	46.55	304	P	P	01 15 55.5	-0.8
	comp=E,0.4nm,0.6s,baz=68,slow=8.8,SNR=3.9						
	comp=E,0.4nm,0.6s						
YKA	Yellowknife Ar	53.30	35	P	P	01 16 47.5	+0.2
	comp=E,0.7nm,0.7s,baz=298,slow=7.0,SNR=4.0						
	comp=E,0.7nm,0.7s						
NVAR	Mina Array Bea	64.92	60	P	P	01 18 08.9	+0.6
	comp=E,0.4nm,0.6s,baz=309,slow=9.4,SNR=4.8						
	comp=E,0.4nm,0.6s						
OBN	Obninsk	65.33	325	eP	P	01 18 18.1	+7.8
OBN				e		01 18 48.7	
OBN				pmax	pmax		
	comp=Z,3.0nm,0.9s						
NOA	NORSAR Array B	68.91	340	P	P	01 18 32.1	-0.9
	comp=Z,0.8nm,0.8s,baz=39,slow=8.6,SNR=1.9						
	comp=Z,0.8nm,0.8s						
BRTR	Keskin Array B	78.01	315	P	P	01 19 27.0	+0.1
	comp=Z,0.3nm,0.6s,baz=26,slow=8.0,SNR=1.6						
	comp=Z,0.3nm,0.6s						
GERES	GERESS Array B	78.83	332	P	P	01 19 30.8	-0.5
	comp=Z,0.4nm,0.2s,baz=25,slow=4.4,SNR=4.0						
	comp=Z,0.4nm,0.2s						
TXAR	Lajitas Array	79.99	58	P	P	01 19 38.3	+0.3
	comp=Z,0.4nm,0.5s,baz=307,slow=4.6,SNR=12						
	comp=Z,0.4nm,0.5s						
H03N2	Juan Fernandez	140.79	90	T	T	04 04 10.1	
	baz=313,slow=76,SNR=17						
H03N1	Juan Fernandez	140.81	90	T	T	04 04 12.1	
	baz=309,slow=76,SNR=13						

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*PDG **21** 01:21:16.5±0.4, 40°.47N×20°.78E, h7^{km}±1^{km}, ML2.9/10, Error ellipse: s-maj=0.7km s-min=0.9km az=0.0*

*THE **21** 01:21:16.2, 40°.5N±1°.0×2°1E±°, h0^{km}±2^{km}, M2.7/11, MLh2.7/11*

*TIR **21** 01:21:16.3, 40°.48N×20°.75E, h16^{km}±1^{km}, Ml3.0/4*

*ATH **21** 01:21:17.0, 40°.53N×20°.83E, h6^{km}±1^{km}, ML2.8/20, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*

*BEO **21** 01:21:17.9±0.6, 40°.34N×21°.05E, h37^{km}±2^{km}, ML2.6/5*

*SKO **21** 01:21:18.3, 40°.50N×20°.81E, h16^{km}, ML2.7*

ISC 21 01:21:16.2±0.9**, 40°.47N**±0°.01×**20°.83E**±0°.02**, h9**^{km}±7^{km}**, n83, σ1^{s}.30**/126**, 4C-4D, Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KBN	Korca	0.15	348	⇑Pg	Pg	01 21 19.9	+0.3
KBN				Sg	Sg	01 21 22.1	0.0
KBN				AML	AML	01 21 23.0	
	26nm,0.4s						
KBN	Korca	0.15	348	P	Pg	01 21 19.8	+0.1
KBN				S	Sg	01 21 22.3	+0.3
KBN				AML	AML		
PENT	Pentalofos	0.36	140	P	Pb	01 21 24.1	-0.8
PENT				S	Sb	01 21 30.5	-0.2
PENT	Pentalofos	0.36	140	P	Pb	01 21 24.3	-0.6
PENT				S	Sb	01 21 30.7	0.0
PENT				AML	AML		
LMS2	Laimos Florina	0.43	33	P	Pg	01 21 24.8	+0.1
OHR	Ohrid	0.64	358	i Pg	Pb	01 21 29.3	-0.3
OHR				i Sg	Sb	01 21 39.8	+1.1
OHR				eLg	Lg	01 21 40.1	
	comp=E,965nm,0.5s						
OHR				eLg	Lg	01 21 40.1	
	comp=N,365nm,0.5s						
KPRO	Kipourio	0.66	142	P	Pb	01 21 29.4	-0.6
KPRO				S	Sn	01 21 40.7	-1.6
KPRO				AML	AML		
KPRO	Kipourio	0.66	142	P	Pb	01 21 29.7	-0.2
KPRO				S	Sn	01 21 40.8	-1.5
KPRO				AML	AML		
KZN	Kozani	0.74	103	P	Pb	01 21 31.2	0.0
KZN				S	Sn	01 21 43.8	-0.5
KZN				AML	AML		
KZN	Kozani	0.74	103	P	Pb	01 21 31.8	+0.5
KZN				S	Sb	01 21 42.4	+0.9
KZN				AML	AML		
MSVA	Metsovo	0.75	159	P	Pg	01 21 30.8	+0.1
MSVA				S	Sn	01 21 44.1	-0.6
JAN	Janina	0.81	179	P	Pg	01 21 30.8	-1.1
JAN				AML	AML		
JAN	Janina	0.81	179	P	Pb	01 21 33.2	+0.7
JAN				S	Sn	01 21 45.2	-0.9
JAN				AML	AML		
SRN	Sarande	0.87	227	⇓Pg	Pg	01 21 32.3	-0.6
SRN				Sg	Sb	01 21 45.4	+0.3
PRMD	Pramanda	0.96	168	P	Pg	01 21 34.3	-0.4
PRMD				AML	AML		
PRMD	Pramanda	0.96	168	P	Pg	01 21 34.7	-0.1
PRMD				S	Sn	01 21 50.0	+0.1
PRMD				AML	AML		
IGT	Igoumenitsa	1.01	202	⇓Pg	Pg	01 21 35.5	-0.2
IGT				Sg	Sb	01 21 50.3	+1.0
IGT	Igoumenitsa	1.01	202	P	Pg	01 21 35.0	-0.7
IGT				S	Sb	01 21 50.4	+1.0
IGT				AML	AML		
IGT	Igoumenitsa	1.01	202	ePg	Pg	01 21 35.5	-0.2
IGT				eSg	Sn	01 21 51.5	+0.6
IGT	Igoumenitsa	1.01	202	P	Pg	01 21 35.5	-0.2
IGT				S	Sn	01 21 51.6	+0.6
IGT				AML	AML		
VLO	Vlora	1.02	270	⇓Pg	Pn	01 21 36.9	+0.2
VLO				Sg	Sn	01 21 53.3	+2.3
VLO				AML	AML	01 21 56.7	
	comp=N,2.6nm,0.3s						
VLO	Vlora	1.02	270	P	Pg	01 21 34.3	-1.5
VLO				AML	AML		
KEK	Kerkira	1.10	227	Pg	Pg	01 21 34.8	-2.5
KEK				⇓Pg	Pg	01 21 34.8	-2.5
KEK				Sg	Sg	01 21 51.7	+0.2
KEK				Sg	Sb	01 21 52.2	+0.5
KEK	Kerkira	1.10	227	P	Pg	01 21 35.1	-2.2
KEK				AML	AML		
KEK	Kerkira	1.10	227	P	Pn	01 21 39.1	+1.3
KEK				S	Sn	01 21 54.4	+1.4
KRK1	kERKIRA	1.10	220	P	Pn	01 21 38.6	+0.7
TIR	Tirane	1.14	320	Pg	Pg	01 21 37.7	-0.5
TIR				Sg	Sg	01 21 53.0	+0.1
TIR				AML	AML	01 22 02.0	
	comp=N,0.3nm,0.7s						
TETR	Tetrakomo, Epi	1.18	163	P	Pg	01 21 38.3	-0.6
TETR				AML	AML		
TETR	Tetrakomo, Epi	1.18	163	P	Pn	01 21 39.2	+0.3
TETR				S	Sn	01 21 56.7	+1.6
PHP	Peshkopia	1.25	346	⇑Pg	Pn	01 21 39.1	-0.8
PHP				Sg	Sn	01 21 56.9	0.0
PHP				AML	AML	01 22 00.8	
	comp=N,0.8nm,0.4s						
GRG	Griva	1.29	67	P	Pg	01 21 40.6	-0.4
GRG				AML	AML		
GRG	Griva	1.29	67	P	Pg	01 21 40.9	0.0
TYRN	Tyrnavos	1.32	125	P	Pg	01 21 41.4	-0.1
TYRN				S	Sn	01 22 01.6	+3.2
TYRN	Tyrnavos	1.32	125	P	Pg	01 21 41.8	+0.2
TYRN				AML	AML		
SKO	Skopje	1.57	17	i Pn	Pg	01 21 46.8	+0.5
VAY	Valandovo	1.57	57	i Pn	Pg	01 21 45.7	-0.6
VAY				i Sn	Sg	01 22 09.2	+2.5
VAY				eLg	Lg	01 22 10.8	
	comp=N,35nm,0.4s						
VAY				eLg	Lg	01 22 11.5	
	comp=E,36nm,0.8s						
AMPL	Ampelaki	1.58	169	P	Pb	01 21 45.8	+0.3
AMPL				AML	AML		
THE	Thessaloniki	1.63	84	P	Pb	01 21 45.9	-0.6
TSLK	Tsoukalades, L	1.65	185	P	Pg	01 21 48.0	+0.1
TSLK				AML	AML		
LKD2	Lefkada island	1.69	185	Pn	Pg	01 21 48.6	0.0
LKD2	Lefkada island	1.69	185	P	Pg	01 21 48.6	0.0
LKD2				AML	AML		
EVR	Evrytania	1.73	154	P	Pg	01 21 48.8	-0.6
EVR				AML	AML		
NYDR	Nydri-Lefkada	1.76	183	P	Pb	01 21 48.7	0.0
DRAG	Dragano-Lefkad	1.80	186	P	Pb	01 21 49.9	+0.5
AGG	Agios Georgios	1.85	141	P	Pb	01 21 49.8	-0.5
EVGI	Lefkada island	1.85	184	P	Pb	01 21 50.4	+0.1
EVGI				AML	AML		
PDO	Prodromos	1.89	172	P	Pb	01 21 50.4	-0.5
PDO				AML	AML		
ULC	Ulcinj	1.91	322	ePn	Pb	01 21 50.3	-1.0
ULC				i Sn	Sg	01 22 17.0	-0.7
ULC				AML	AML		
SOH	Sokhos	1.95	79	P	Pb	01 21 51.2	-0.8
PEHC	Pehcevo	2.04	49	i Pn	Pb	01 21 52.8	-0.6
PLEV	Plevrona-Mesol	2.10	168	P	Pb	01 21 53.4	-1.1
PLEV				AML	AML		
DRME	Dracevica, Mon	2.12	325	ePn	Pn	01 21 53.3	+1.5
DRME				i Sn	Sb	01 22 22.0	+0.9
DRME				AML	AML		
NEO	Neokhori	2.18	122	P	Pb	01 21 54.3	-1.5
NEO				AML	AML		
VVK	Vomvokou	2.18	159	P	Pb	01 21 56.5	+0.5
VVK				AML	AML		
AGRP	Agrapidokambos	2.19	161	P	Pb	01 21 54.8	-1.1
AGRP				AML	AML		
SRS	Serrai	2.19	72	ePn	Pn	01 21 48.2	-4.7
SRS				eSn	Sn	01 22 14.7	-5.4
SRS	Serrai	2.19	72	P	Pn	01 21 54.1	+1.2
AXAR	Agios Charalam	2.21	140	P	Pb	01 21 55.9	-0.5
PVY	Plav	2.22	343	ePn	Pn	01 21 54.7	+1.4
PVY				i Sn	Sb	01 22 24.6	+0.4
PVY				AML	AML		
MG00	Magoula, Dorid	2.23	157	P	Pb	01 21 55.5	-1.1
SERG	Sergoula	2.27	155	P	Pb	01 21 55.9	-1.4
SERG				AML	AML		
PDG	Podgorica	2.29	329	⇑Pn	Pb	01 21 56.5	-1.2
PDG				Sn	Sb	01 22 26.1	+0.1
PDG	Podgorica	2.29	329	ePn	Pb	01 21 56.2	-1.4
PDG				eSn	Sb	01 22 26.1	+0.1
PDG	Podgorica	2.29	329	P	Pb	01 21 56.1	-1.6
PDG	Podgorica	2.29	329	ePn	Pn	01 21 55.7	+1.6
PDG				i Sn	Sb	01 22 26.2	+0.1
PDG				AML	AML		
VLS	Valsamata	2.30	185	P	Pn	01 21 56.0	+1.7
VLS				AML	AML		
AXS	Araxos	2.31	169	P	Pn	01 21 56.2	+1.7
AXS				AML	AML		
BUM	Brajici-Budva	2.34	322	ePn	Pn	01 21 56.2	+1.3
BUM				i Sn	Sb	01 22 27.3	-0.2
BUM				AML	AML		
BOSS	Bosilegrad	2.37	31	ePn	Pn	01 21 56.4	+1.1
BARS	Barje	2.46	17	ePn	Pn	01 21 57.5	+1.0
BARS				eSn	Sn	01 22 26.1	-0.5
IVA	Berane	2.50	344	ePn	Pn	01 21 58.8	+1.7
IVA				i Sn	Sb	01 22 31.4	-0.8
IVA				AML	AML		
CEME	Cevo	2.52	326	⇑iPn	Pn	01 21 58.8	+1.4
CEME				i Sn	Sb	01 22 31.6	-1.3
CEME				AML	AML		
KOME	Kolasin	2.57	338	ePn	Pn	01 21 59.6	+1.4
KOME				i Sn	Sb	01 22 33.0	-1.3
KOME				AML	AML		
HCY	Herceg Novi	2.64	319	ePn	Pn	01 22 00.2	+1.2
HCY				i Sn	Sb	01 22 34.5	-1.7
HCY				AML	AML		
SELS	Selova	2.75	4	ePn	Pn	01 22 02.0	+1.4
SELS				eSn	Sn	01 22 36.1	+2.1
SJES	Sjenica	2.86	347	ePn	Pn	01 22 04.2	+2.1
NOCI	Noci	2.88	278	Pn	Pn	01 22 02.6	+0.3
BRY	Bratogost	2.97	325	ePn	Pn	01 22 05.3	+1.6
BRY				i Sn	Sn	01 22 42.4	+2.9
BRY				AML	AML		
IVAS	Ivanjica	3.14	351	ePn	Pn	01 22 06.1	+0.1
STON	Ston	3.35	317	ePn	Pn	01 22 09.4	+0.6
STON				eSn	Sn	01 22 48.0	-0.7
ITM	Ithomi	3.40	165	Pn	Pb	01 22 13.1	-3.5
ZAGS	Zajecar	3.50	17	ePn	Pn	01 22 11.8	+1.0
SGRT	San Giovanni R	4.05	290	Pn	Pn	01 22 18.7	+0.3

CATAC 21 01:33:15.8±0.4**, 10°N**±2°×**8°7W**±°**, h28**^{km}**, M3.5**/28,

MLv3.5/28, Error ellipse: s-maj=5.7km s-min=3.5km az=42.6, confirmed, Off coast of Costa Rica

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CARN	Rivas	1.80	66	P	Pn	01 33 45.4	+0.4
CARN				S	Sn	01 34 08.3	+1.3
COPN	Copaltepe	1.82	19	P	Pn	01 33 45.6	+0.3
NANN	Nandasmo	1.82	35	P	Pn	01 33 46.0	+0.7
JAPN	Al SSO del Vol	1.84	54	P	Pn	01 33 46.5	+1.0
MASN	Masaya	1.84	34	P	Pn	01 33 46.2	+0.7
MASN				S	Sb	01 34 10.2	-1.3
OMEN	Al SSO del Vol	1.87	56	P	Pn	01 33 46.4	+0.5
MORN	Al O del Volca	1.87	54	P	Pn	01 33 46.6	+0.6
MORN				S	Sn	01 34 10.5	+1.8
SAPS	Ciudad Sandino	1.88	24	P	Pn	01 33 46.5	+0.4
SAPS				S	Sn	01 34 08.4	-0.4
UNAN	Cigeo UNAN	1.89	29	P	Pn	01 33 46.6	+0.4
UNAN				S	Sn	01 34 09.2	+0.2
AMTN	Mateare	1.93	23	P	Pn	01 33 46.9	+0.2
AMTN				S	Sn	01 34 09.7	-0.4
APQ2	Apoyeque	1.94	26	S	Sn	01 34 08.2	-2.1
WILN	Americas 2	1.97	30	P	Pn	01 33 47.4	+0.1
WILN				S	Sn	01 34 11.2	+0.1
LEVN	Ruinas Leon Vi	2.02	16	P	Pn	01 33 48.5	+0.5
LEVN				S	Sn	01 34 11.6	-0.8
MOMN	Momotombo	2.05	18	P	Pn	01 33 48.4	0.0
MOMN				S	Sn	01 34 12.0	-1.1
CNGN	Cerro Negro	2.10	14	P	Pn	01 33 49.4	+0.3
CNGN				S	Sn	01 34 16.1	+1.8
PLRN	Geotermica Pol	2.16	11	P	Pn	01 33 50.0	+0.1
PLRN				S	Sn	01 34 15.3	-0.5
UPAL	Upala	2.20	78	P	Pn	01 33 50.0	-0.4
UPAL				S	Sn	01 34 17.3	+0.6
JTS	Las Juntas de	2.22	94	P	Pn	01 33 49.9	-0.8
JTS				S	Sn	01 34 16.0	-1.3
CRIN	San Cristobal	2.24	4	P	Pn	01 33 50.4	-0.7
BOAB	BOACO BROADBAN	2.49	37	P	Pn	01 33 54.3	-0.2
ACON	Acoyapa	2.50	53	P	Pn	01 33 54.6	0.0
ACON				S	Sn	01 34 24.3	+0.2
AESN	El Sauce Leon	2.51	15	P	Pn	01 33 54.6	-0.1
TRB2	Turrubares	2.76	101	P	Pn	01 33 57.3	-1.0
MATN	Matagalpa	2.76	27	P	Pn	01 33 58.4	+0.1
CNCH	Conchagua	2.88	348	P	Pn	01 33 58.9	-1.0
CNCH				S	Sn	01 34 33.0	-0.7
LCND	La Caada	2.92	347	P	Pn	01 34 00.4	+0.1
LCND				S	Sn	01 34 35.9	+1.3
HDC	Heredia	3.07	98	P	Pn	01 34 01.3	-1.3
HDC				S	Sn	01 34 39.0	+0.6
RCPN	Sur Rio San Ju	3.24	19	P	Pn	01 34 05.9	+0.9
RCVN	Varillal2	3.27	17	P	Pn	01 34 05.9	+0.6
RCVN				S	Sn	01 34 43.7	+0.4
TECO	Alcaldia de Te	3.44	333	P	Pn	01 34 07.4	-0.1

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*IDC **21** 01:39:30.4±1.1, 5°.78S×152°.43E, h0^{km}, mb4.2/6, mbtmp4.2/7, ML2.4/1, MS3.1/4, Error ellipse: s-maj=28.7km s-min=14.3km az=114.0*

*NEIC **21** 01:39:33.3±1.2, 5°.66S±0°.06×152°.4E±0°.1, h10^{km}±1^{km}, mb4.5/22, Error ellipse: s-maj=23.8km s-min=9.5km az=90.0*

ISC 21 01:39:37.1±0.7, 5°.67S±0°.07×152°.2E±0°.1, h45^{km}, n40, σ0ˢ.93/38, mb4.3/17, MS3.2/3, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KRVT	Keravat (AS076	1.37	351	Pn	Pn	01 39 58.9	-0.9
	360nm,0.3s,baz=120,slow=20,SNR=65						
KRVT				Sn	Sn	01 40 17.3	+0.5
	443nm,0.3s,baz=253,slow=19,SNR=17						
RABL	Rabaul	1.47	357		Pn	01 40 00.0	-1.2
PMG	Port Moresby	6.25	233	Pn	Pn	01 41 07.5	+0.6
	4.8nm,0.3s,baz=54,slow=14,SNR=9.8						
PMG				Sn	Sn	01 42 16.8	-0.2
	1.3nm,0.3s,baz=342,slow=20,SNR=1.3						
	40nm,0.7s						
PMG				AML	AML		
PMG	Port Moresby	6.25	233	Pn	Pn	01 41 06.9	0.0
HNR	Honiara	8.52	117	LR	LR	01 44 43.4	
	comp=Z,64nm,19.5s,baz=8.0,slow=38						
EIDS	Eidsvold	19.62	183		Pn	01 44 03.2	-0.4
WB0	Warramunga Arr	22.30	229	P	P	01 44 28.9	-2.0
WB0				IAmb	IAmb	01 44 33.2	
	comp=Z,12nm,1.3s						
WR8	Warramunga Arr	22.34	229	P	P	01 44 30.0	-1.4
WRA	Warramunga Arr	22.45	229	P	P	01 44 31.2	-1.4
	comp=Z,3.8nm,0.9s,baz=56,slow=11,SNR=14						
	comp=Z,3.8nm,0.9s						
WRA	Warramunga Arr	22.45	229	P	P	01 44 31.7	-0.8
INKA	Innaminka	24.52	205	P	P	01 44 52.9	+0.4
INKA				IAmb	IAmb	01 44 54.1	
	comp=Z,4.6nm,0.7s						
AS31	Alice Springs	25.13	223	P	P	01 44 57.5	-0.6
ASAR	Alice Springs	25.13	223	P	P	01 44 57.4	-0.8
	comp=Z,9.1nm,0.8s,baz=56,slow=9.1,SNR=58						
	comp=Z,9.1nm,0.8s						
ASAR	Alice Springs	25.13	223	P	P	01 44 58.3	+0.1
FITZ	Fitzroy Crossi	28.75	242	P	P	01 45 29.7	-1.0
BHW	Baring Head	40.93	154	P	P	01 47 14.0	-1.2
MJAR	Matsushiro Arr	43.99	344	LR	LR	02 03 36.5	
	comp=Z,38nm,21.5s,baz=193,slow=33						
KSRS	Korea Array	48.52	334	LR	LR	02 04 53.0	
	comp=Z,16nm,21.1s,baz=165,slow=31						
KLR	Kul'dur	57.52	344	LR	LR	02 12 40.1	
	comp=Z,20nm,19.8s,baz=202,slow=34						
K15K	Wolf Creek Mou	76.41	20	P	P	01 51 22.7	+1.1
Q19K	Cape Douglas,	77.38	26	P	P	01 51 27.2	0.0
CNPM	China Poot	78.74	26	P	P	01 51 35.5	+0.8
J19K	Poorman	79.56	21	P	P	01 51 39.7	+0.6
J19K				IAmb	IAmb	01 51 42.8	
	comp=Z,5.0nm,1.3s						
J20K	Nowinta River	80.19	21	P	P	01 51 43.9	+1.4
J20K				IAmb	IAmb	01 51 50.2	
	comp=Z,6.5nm,1.3s						
E19K	Redstone River	81.18	18	P	P	01 51 48.5	+0.8
E19K				IAmb	IAmb	01 52 17.8	
	comp=Z,4.2nm,1.0s						
C19K	Lookout Ridge	81.58	16	P	P	01 51 51.0	+1.2
MLY	Manley	81.89	21	P	P	01 51 52.0	+0.4
MLY				IAmb	IAmb	01 51 52.4	
	comp=Z,2.3nm,0.8s						
ILAR	Eielson Array	83.17	22	P	P	01 51 57.1	-1.1
	comp=Z,1.6nm,0.9s,baz=240,slow=4.1,SNR=8.4						
	comp=Z,1.6nm,0.9s						
H24K	Noodor Dome	83.33	21	P	P	01 51 59.3	+0.2
H24K				IAmb	IAmb	01 52 24.8	
	comp=Z,3.6nm,1.2s						
J25K	Salcha River,	83.67	23	P	P	01 52 00.7	-0.2
J25K				IAmb	IAmb	01 52 01.8	
	comp=Z,3.0nm,0.8s						
QSPA	South Pole Qui	84.30	180	P	P	01 52 04.0	-0.1
	comp=Z,1.5nm,1.0s,baz=359,slow=2.7,SNR=3.0						
	comp=Z,1.5nm,1.0s						
QSPA	South Pole Qui	84.30	180	P	P	01 52 04.6	+0.4
QSPA				IAmb	IAmb	01 52 17.8	
	comp=Z,4.9nm,1.4s						
G26K	Porcupine Rive	85.31	21	P	P	01 52 10.3	+1.3
G26K				IAmb	IAmb	01 52 11.8	
	comp=Z,4.9nm,1.1s						
K29M	Barlow Dome	86.50	25	P	P	01 52 15.8	+0.6
K29M				IAmb	IAmb	01 52 18.0	
	comp=Z,4.2nm,0.9s						
J30M	Hart River	87.23	24	P	P	01 52 20.2	+1.5
J30M				IAmb	IAmb	01 52 21.5	
	comp=Z,3.5nm,0.9s						
H31M	Peel River	88.42	23	P	P	01 52 24.7	+0.5
BVAR	Borovoye Array	89.59	323	P	P	01 52 30.3	+0.4
	comp=Z,0.5nm,0.6s,baz=90,slow=4.3,SNR=2.3						
	comp=Z,0.5nm,0.6s						
YKA	Yellowknife Ar	96.45	28	P	P	01 53 02.8	+1.5
	comp=Z,0.7nm,0.8s,baz=256,slow=5.4,SNR=4.7						
	comp=Z,0.7nm,0.8s						
MD01	Midelt array s	145.47	325		PKPab	01 59 11.5	+0.1
TORD	Torodi Ar. Bea	150.02	286	PKPbc	PKiKP	01 59 25.0	+0.2
	comp=Z,0.2nm,0.4s,baz=95,slow=1.5,SNR=4.5						

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*IDC **21** 01:47:13.2±1.0, 44°.26N×115°.29W, h0^{km}, mbtmp2.4/5, ML2.8/3, Error ellipse: s-maj=14.3km s-min=8.7km az=81.0*

*NEIC **21** 01:47:15.2±1.2, 44°.274N±0°.009×115°.20W±0°.03, h14^{km}±7^{km}, ML2.7/62, ML3.0/18(BUT), Error ellipse: s-maj=3.4km s-min=1.4km az=93.0*

*BUT **21** 01:47:15.9±1.9, 44°.28N±0°.01×115°.18W±0°.03, h10^{km}±8^{km}, Error ellipse: s-maj=3.4km s-min=1.9km az=81.0*

ISC 21 01:47:15.4±0.8, 44°.26N±0°.03×115°.21W±0°.03, h11^{km}, n46, σ0ˢ.82/54, Western Idaho

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HLID	Hailey	0.91	140	Pg	Pg	01 47 32.7	-0.2
HLID				Sg	Sg	01 47 44.5	-0.2
HLID				IAML		01 47 45.0	
	236nm,0.2s						
HLID				IAML		01 47 48.5	
	221nm,0.4s						
MFID	Camas Ranch	0.96	208	Pg	Pb	01 47 34.5	+0.3
MFID				Sg	Sb	01 47 47.6	+0.7
PLID	Pearl Lake	1.00	326	Pg	Pb	01 47 34.6	-0.3
PLID				Sg	Sb	01 47 47.7	-0.4
BMO	Blue Mountains	1.61	292	Pn	Pn	01 47 44.2	+0.4
BMO				IAML		01 48 11.8	
	62nm,0.2s						
MCMT	McKenzie Canyo	1.78	71	Pn	Pn	01 47 46.7	+0.3
MOMT	Monida	2.04	80		Pb	01 47 52.9	+0.2
DLMT	Dillon	2.16	59	Pn	Pn	01 47 51.5	0.0
F10A	Beach Ranch, E	2.23	321	Pn	Pn	01 47 51.6	-0.8
VCMT	Victor	2.29	18		Pn	01 47 54.0	+0.7
HBMT	Mount Humbug	2.40	49		Pn	01 47 55.1	+0.2
LRM	Limekiln Ridge	2.50	50		Pn	01 47 56.6	+0.4
BPMT	Black Pine Rid	2.50	29		Pn	01 47 56.6	+0.3
J08A	Circle Bar Ran	2.53	250	Pn	Pn	01 47 57.1	+0.5
J08A				IAML		01 48 44.8	
	comp=N,57nm,0.5s						
J08A				IAML		01 48 46.4	
	comp=E,52nm,0.4s						
LNOR	Lincton Mounta	2.71	307	Pn	Pn	01 47 59.9	+1.0
MSO	Missoula	2.72	19	Pn	Pn	01 47 59.3	+0.2
MSO				IAML		01 48 42.4	
	comp=E,26nm,0.5s						
MSO				IAML		01 48 53.3	
	comp=E,23nm,0.6s						
QLMT	Earthquake Lak	2.76	77	Pn	Pn	01 47 58.4	-1.4
BOZ	Bozeman (W)	2.87	61	Pn	Pn	01 48 01.3	+0.1
BOZ				IAML		01 48 44.1	
	comp=E,41nm,0.4s						
CHMT	Chamberlain Mo	2.98	27		Pn	01 48 03.2	+0.3
HVU	Hansel Valley	3.06	143	Pn	Pn	01 48 03.5	-0.3
PCMT	Pistol Creek	3.06	15		Pn	01 48 04.5	+0.6
WVOR	Wild Horse Val	3.10	235	Pn	Pn	01 48 04.7	+0.3
WVOR				IAML		01 48 55.7	
	comp=E,15nm,0.7s						
YHH	Holmes Hill	3.16	79	Pn	Pn	01 48 05.9	+0.5
YHH				IAML		01 48 55.6	
	comp=E,14nm,0.8s						
YHH				IAML		01 48 56.0	
	comp=N,23nm,0.8s						
YPT	Yellepit	3.20	305	Pn	Pn	01 48 05.9	+0.3
SLMT	Seeley Lake	3.21	21		Pn	01 48 06.6	+0.7
GBMT	Granite Butte,	3.24	36	Pn	Pn	01 48 06.0	-0.3
GBMT				IAML		01 48 57.5	
	comp=N,13nm,0.5s						
ELK	Elko	3.52	180	Pn	Pn	01 48 11.2	+1.0
	comp=N,0.7nm,0.3s,baz=324,slow=3.8,SNR=3.0						
ELK				Pg	Pb	01 48 16.0	-1.8
	comp=N,1.6nm,0.3s,baz=350,slow=17,SNR=22						
ELK				Lg	Lg	01 49 04.1	
	comp=N,1.7nm,0.3s,baz=199,slow=18,SNR=8.6						
JTMT	Jette	3.54	10	Pn	Pn	01 48 10.1	-0.4
BGU	Big Grassy Mou	3.70	154	Pn	Pn	01 48 12.4	-0.3
HAWA	Hanford	3.72	306	Pn	Pn	01 48 13.2	+0.4
HWUT	Hardware Ranch	3.77	134	Pn	Pn	01 48 14.1	+0.5
YNE	Yellowstone No	3.79	77	Pn	Pn	01 48 15.1	+1.2
YNE				IAML		01 48 53.9	
	comp=E,13nm,1.4s						
YNE				IAML		01 49 20.9	
	comp=N,15nm,0.5s						
E07A	Sunnyside	4.00	307	Pn	Pn	01 48 17.1	+0.5
E07A				IAML		01 49 07.1	
	comp=E,18nm,0.5s						
E07A				IAML		01 49 07.2	
	comp=N,17nm,0.5s						
PINE	Pine Mountain	4.16	265	Pn	Pn	01 48 20.1	+1.1
PINE				IAML		01 51 01.4	
	comp=N,9.1nm,0.1s						
LDM	Libby Dam	4.19	359	Pn	Pn	01 48 20.3	+1.0
LDM				IAML		01 49 37.7	
	comp=N,12nm,0.9s						
GCMT	Greycliff	4.21	67	Pn	Pn	01 48 19.7	0.0
NEW	Newport	4.22	342	Pn	Pn	01 48 20.5	+0.9
	comp=N,0.3nm,0.3s,baz=133,slow=10.0,SNR=2.3						
NEW				Pg	Pb	01 48 30.5	+0.9
	comp=N,0.8nm,0.3s,baz=168,slow=14,SNR=7.9						
NEW				Sn	Sn	01 49 07.7	-1.1
	comp=N,0.6nm,0.3s,baz=58,slow=23,SNR=3.7						
NEW				Lg	Lg	01 49 24.6	
	comp=N,1.2nm,0.3s,baz=90,slow=20,SNR=3.7						
	comp=N,0.6nm,0.3s						
NEW				AML	AML		
NEW	Newport	4.22	342	Pn	Pn	01 48 20.6	+1.0
NEW				IAML		01 49 28.7	
	comp=N,16nm,0.3s						
NEW				IAML		01 49 32.4	
	comp=N,8.6nm,0.9s						
MXC	Moxie City	4.26	305	Pn	Pn	01 48 22.1	+1.8
MXC				IAML		01 49 39.9	
	comp=E,7.7nm,1.1s						
MXC				IAML		01 49 42.1	
	comp=N,8.3nm,4.3s						
RLMT	Red Lodge	4.32	76	Pn	Pn	01 48 22.2	+1.0
RLMT				IAML		01 49 21.1	
	comp=N,9.1nm,4.2s						
RLMT				IAML		01 49 37.3	
	comp=N,9.5nm,0.4s						
PDAR	Pinedale Array	4.37	108	Pn	Pn	01 48 23.5	+1.5
	comp=N,0.1nm,0.3s,baz=359,slow=16,SNR=2.0						
PDAR				Pg	Pb	01 48 34.1	+1.7
	comp=N,0.1nm,0.3s,baz=285,slow=13,SNR=8.4						
PDAR				Lg	Lg	01 49 33.0	
	comp=N,0.1nm,0.3s,baz=58,slow=37,SNR=1.4						
	comp=N,0.1nm,0.3s						
PDAR				AML	AML		
K05A	Summer Lake	4.41	252	Pn	Pn	01 48 22.2	-0.3
K05A				IAML		01 49 56.8	
	comp=E,7.8nm,3.8s						
K05A				IAML		01 50 11.2	
	comp=N,11nm,4.5s						
WIFE	Three Sisters-	4.76	270	Pn	Pn	01 48 28.3	+1.1
WIFE				IAML		01 49 06.8	
	comp=E,9.7nm,3.7s						
WIFE				IAML		01 50 34.1	
	comp=N,7.9nm,4.3s						
LTY	Liberty	4.86	310	Pn	Pn	01 48 29.1	+0.6
LTY				IAML		01 49 54.5	
	comp=E,6.2nm,2.5s						
LTY				IAML		01 50 07.2	
	comp=N,6.1nm,1.9s						
B08A	Colville Reser	4.99	327	Pn	Pn	01 48 31.0	+0.7
NVAR	Mina Array Bea	6.28	203	Pn	Pn	01 48 49.3	+1.2
	comp=N,0.1nm,0.3s,baz=5.7,slow=18,SNR=2.0						
NVAR				Pg	Pb	01 49 05.5	+0.7
	comp=N,0.1nm,0.3s,baz=21,slow=15,SNR=3.0						
NVAR				Lg	Lg	01 50 29.5	
	comp=N,0.2nm,0.3s,baz=19,slow=28,SNR=1.3						
	comp=N,0.1nm,0.3s						
NVAR				AML	AML		
TXAR	Lajitas Array	17.51	144	P	Pn	01 51 18.7	-0.8
	baz=342,slow=16,SNR=3.5						

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*IDC **21** 01:49:14.5±1.2, 11°.00N×125°.01E, h0^{km}, mb3.6/7, mbtmp3.6/7, MS3.0/1, Error ellipse: s-maj=79.0km s-min=20.5km az=71.0*

*MAN **21** 01:49:14.0, 10°.96N×124°.78E, h1^{km}, MS3.7*

MAN INTENSITY III - ALBUERA LEYTE; ORMOC CITY; . INTENSITY II - BURAUEN DAGAMI AND LA PAZ LEYTE.

ISC 21 01:49:14.7±1.2, 10°.94N±0°.04×124°.72E±0°.05, h4^{km}±9^{km}, n15, σ1ˢ.57/20, mb3.6/7, Leyte

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLP	Palo	0.34	48	*e*P	Pg	01 49 21.2	+0.1
PLP				*e*S	Sg	01 49 26.0	+0.4
LLP	Lapu-Lapu	0.97	230	*e*P	Pn	01 49 33.4	-1.7
LLP				*i* S	Sn	01 49 48.2	-1.0
TBP	Tagbilaran	1.50	214	*e*P	Pg	01 49 43.1	-0.4
TBP				*i* S	Sg	01 50 07.3	+4.3
MMPH	Masbate	1.77	323	*e*P	Pg	01 49 49.8	+1.1
MMPH				*i* S	Sg	01 50 10.9	-0.8
LSIP	Lazi, Siquijor	2.09	211	*e*P	Pb	01 49 51.8	-1.5
LSIP				*i* S	Sg	01 50 21.6	-0.4
SNPH	Sibulan	2.16	223	*i* P	Pb	01 49 52.7	-1.7
SNPH				*i* S	Sg	01 50 25.4	+1.4
DAV	Davao City (W)	3.94	168	LR	LR	01 52 09.8	
	comp=Z,172nm,18.4s,baz=350,slow=44						
LQP	Lukban	4.43	316	*e*P	Pb	01 50 31.6	-1.5
KSRS	Korea Array	26.56	6	P	P	01 54 53.1	-0.6
	0.9nm,0.7s,baz=186,slow=6.1,SNR=2.6						
	0.9nm,0.7s						
WRA	Warramunga Arr	32.12	163	P	P	01 55 43.7	+0.4
	0.3nm,0.7s,baz=344,slow=8.2,SNR=1.6						
	0.3nm,0.7s						
ASAR	Alice Springs	35.55	165	P	P	01 56 13.2	0.0
	0.5nm,0.5s,baz=345,slow=8.7,SNR=4.2						
	0.5nm,0.5s						
SONM	Songino Array	39.88	341	P	P	01 56 50.9	+1.2
	0.3nm,0.4s,baz=165,slow=12,SNR=1.9						
	0.3nm,0.4s						
MKAR	Makanchi Array	50.58	323	P	P	01 58 16.0	+1.3
	0.3nm,0.5s,baz=126,slow=6.2,SNR=2.8						
	0.3nm,0.5s						
KURBB	Kurchatov Arra	54.66	326	P	P	01 58 45.9	+1.2
	0.4nm,0.3s,baz=126,slow=6.4,SNR=5.7						
	0.4nm,0.3s						
BVAR	Borovoye Array	60.26	326	P	P	01 59 25.0	+0.9
	0.9nm,0.7s,baz=106,slow=7.1,SNR=5.4						
	0.9nm,0.7s						

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*IDC **21** 02:06:03.0±1.4, 5°.57N×126°.57E, h0^{km}, mb3.9/7, mbtmp3.9/7, MS3.4/1, Error ellipse: s-maj=121.9km s-min=19.6km az=71.0*

*MAN **21** 02:06:14.0, 5°.13N×126°.29E, h94^{km}, MS3.6*

ISC 21 02:06:15.9±0.9, 5°.22N±0°.09×125°.9E±0°.3, h100^{km}, n9, σ0ˢ.77/10, mb4.0/7, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CDOP	Cateel, Davao	2.61	12	*i* P	Pn	02 06 56.4	-0.1
CDOP				*e*S	Sn	02 07 27.7	+0.2
FITZ	Fitzroy Crossi	23.17	181	P	P	02 11 14.9	+1.1
	1.5nm,0.8s,baz=17,slow=7.1,SNR=1.9						
	1.5nm,0.8s						
WRA	Warramunga Arr	26.35	162	P	P	02 11 43.4	+0.6
	0.1nm,0.3s,baz=343,slow=10.0,SNR=1.7						
	0.1nm,0.3s						
ASAR	Alice Springs	29.75	165	P	P	02 12 12.1	-1.0
	0.6nm,1.0s,baz=341,slow=8.4,SNR=2.1						
ASAR				PcP	PcP	02 15 15.6	+0.8
	0.3nm,0.5s,baz=1.7,slow=3.2,SNR=1.9						
	0.6nm,1.0s						
HILR	Hailar Array B	44.49	354	LR	LR	02 34 27.7	
	comp=Z,42nm,18.5s,baz=40,slow=39						
MKAR	Makanchi Array	55.86	325	P	P	02 15 43.5	+0.3
	0.9nm,0.4s,baz=121,slow=8.3,SNR=14						
	0.9nm,0.4s						
KURBB	Kurchatov Arra	60.04	327	P	P	02 16 12.3	+0.1
	0.9nm,0.7s,baz=123,slow=7.0,SNR=7.3						
	0.9nm,0.7s						
ARCES	ARCESS Array B	88.77	340	P	P	02 18 58.0	-0.1
	8.5nm,1.2s,baz=72,slow=5.0,SNR=2.1						
	8.5nm,1.2s						
FINES	FINESS Array B	90.13	332	P	P	02 19 03.8	-0.8
	1.9nm,0.9s,baz=68,slow=5.3,SNR=1.7						
	1.9nm,0.9s						

IDC 21 02:14:18.6±3.9, 14°.29N×147°.11E, h0^{km}, mb3.9/7, mbtmp3.9/7, Error ellipse: s-maj=153.6km s-min=31.8km az=85.0, Mariana Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	36.26	201	P	P	02 21 23.6	-0.3
	0.7nm,0.7s,baz=21,slow=8.5,SNR=3.5						
	0.7nm,0.7s						
SONM	Songino Array	47.44	323	P	P	02 22 54.0	-1.2
	0.2nm,0.4s,baz=107,slow=7.7,SNR=1.2						
	0.2nm,0.4s						
ZALV	Zalesovo Beam	62.34	324	P	P	02 24 42.4	-0.4
	0.5nm,0.5s,baz=102,slow=6.7,SNR=1.4						
	0.5nm,0.5s						
MKAR	Makanchi Array	62.51	316	P	P	02 24 45.2	+1.0
	0.3nm,0.5s,baz=103,slow=6.4,SNR=2.7						
	0.3nm,0.5s						
KURBB	Kurchatov Arra	65.51	319	P	P	02 25 04.3	+0.6
	1.5nm,0.5s,baz=99,slow=7.0,SNR=12						
	1.5nm,0.5s						
BVAR	Borovoye Array	70.73	321	P	P	02 25 36.0	-0.6
	0.8nm,0.4s,baz=90,slow=6.5,SNR=2.1						
	0.8nm,0.4s						
FINES	FINESS Array B	91.44	336	P	P	02 27 26.6	0.0
	1.3nm,0.6s,baz=67,slow=5.0,SNR=6.4						
	1.3nm,0.6s						

NNC 21 02:35:12.2±7.4, 36°.81N×71°.29E, h167^{km}±160^{km}, mb2.2, mpv3.1, 3C, Error ellipse: s-maj=77.0km s-min=41.4km az=10.0, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KK31	Karatay Array	6.31	355	P	Pn	02 36 42.8	-0.3
	0.5nm,0.2s,baz=177,slow=14,SNR=27						
KK31				⇑S	Sn	02 37 55.1	+0.5
	0.7nm,0.3s,baz=172,slow=23						
AAK	Ala-Archa	6.32	22	⇑P	Pn	02 36 43.5	+0.2
	0.5nm,0.4s						
AAK				⇑S	Sn	02 37 55.5	+0.5
	0.8nm,0.7s						
AB31	Akbulak array	14.93	330	P	Pn	02 38 34.8	+0.1
	0.1nm,0.2s,baz=27,slow=35,SNR=7.1						
NB2	NORSAR Subarra	44.27	323	P	P	02 43 12.7	+7.9
	comp=Z,0.4nm,0.5s,baz=94,slow=7.9						

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*IDC **21** 02:51:38.5±4.4, 53°.20N×163°.61W, h0^{km}, mb3.7/7, mbtmp3.6/8, ML2.8/1, Error ellipse: s-maj=103.9km s-min=24.2km az=161.0*

*NEIC **21** 02:51:43.9±1.3, 53°.51N±0°.05×163°.59W±0°.06, h22^{km}±3^{km}, mb3.7/14, ML3.2/16, ML3.0(AEIC), Error ellipse: s-maj=8.0km s-min=4.7km az=193.0*

*AEIC **21** 02:51:43.5±1.5, 53°.42N±0°.06×163°.56W±0°.05, h28^{km}±5^{km}, Error ellipse: s-maj=8.5km s-min=4.1km az=192.0*

ISC 21 02:51:43.6±1.1, 53°.4N±0°.1×163°.54W±0°.05, h29^{km}, n78, σ1ˢ.09/79, mb3.9/6, Unimak Island region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SSLS	Shishaldin Sou	1.35	349		Pn	02 52 06.3	-0.2
ISNN	Isanotski Nort	1.45	355		Pn	02 52 08.0	+0.1
ISNN					Sn	02 52 25.7	-0.2
AKUT	Akutan	1.52	300		Pn	02 52 08.2	-0.6
AKUT					Sn	02 52 26.6	-1.0
AKUT				IAML		02 52 31.1	
	comp=E,238nm,1.0s						
AKBBA	Akutan Broad B	1.59	297		Pn	02 52 09.5	-0.3
AKLV	Akutan Long Va	1.63	299		Pn	02 52 09.9	-0.4
AKLV					Sn	02 52 30.4	+0.1
AKGG	Akutan Green G	1.66	300		Pn	02 52 10.7	-0.1
AKGG					Sn	02 52 31.5	+0.3
AKGG					Sb	02 52 31.7	-2.4
LVA	Lava Point	1.67	298	Pn	Pn	02 52 10.0	-0.9
LVA				IAML		02 52 40.1	
	comp=N,403nm,0.7s						
LVA				IAML		02 52 44.3	
	comp=E,207nm,1.1s						
UNV	Unalaska Valle	1.82	286	Pn	Pn	02 52 11.7	-1.3
MNAT	Makushin Natee	1.94	286		Pn	02 52 14.7	+0.2
MREP	Makushin Rep’t	1.96	284		Pn	02 52 15.0	+0.2
MSW	Makushin Switc	2.00	286		Pn	02 52 15.9	+0.5
MSW					Sn	02 52 39.4	0.0
MGOD	Makushin Gods	2.03	283		Pn	02 52 16.3	+0.5
MAPS	Pakushin South	2.07	283		Pn	02 52 16.7	+0.3
PN7A	Pavlof North-7	2.23	23		Pn	02 52 18.4	-0.3
S12K	Black Hills	2.47	20	Pn	Pn	02 52 21.5	-0.4
S12K				IAML		02 53 06.2	
	comp=E,161nm,2.0s						
S12K				IAML		02 53 24.5	
	comp=N,157nm,2.3s						
SDPT	Sand Point	2.66	41	Pn	Pn	02 52 24.3	-0.1
SDPT				Sn	Sn	02 52 54.4	-1.2
SDPT				IAML		02 53 08.7	
	comp=E,128nm,1.6s						

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SDPT                           IAML              02 53 19.9
      comp=N,145nm,2.0s
CNBA  Chernabura Isl     2.73  57  Pn     Pn     02 52 24.9 -0.5
CNBA                               IAML          02 53 03.9
      comp=E,72nm,3.1s
VNFG  Fog Glacier, M     3.70  37  Pn     Pn     02 52 39.0 +0.1
CHGN  Chignik            4.16  43  Pn     Pn     02 52 45.9 +0.9
O14K  Tigyukauivet M     6.01  11  Pn     Pn     02 53 13.1 +2.6
O15K  Ungalikthiuk R     6.16  18  Pn     Pn     02 53 13.6 +1.2
O16K  Kokwok River B     6.91  24  Pn     Pn     02 53 21.1 -1.6
OHAK  Old Harbor         7.00  53  Pn     Pn     02 53 22.0 -2.0
N15K  Kwethluk River     7.05  14  Pn     Pn     02 53 25.2 +0.4
M14K  Bethel             7.43   6  Pn     Pn     02 53 31.2 +1.3
KDAK  Kodiak Island      7.61  50  Pn     Pn     02 53 31.1 -1.2
Q19K  Cape Douglas,      7.82  41  Pn     Pn     02 53 36.6 +1.2
M16K  Timber Creek       8.04  16  Pn     Pn     02 53 39.6 +1.3
L16K  Owhat River        8.62  13  Pn     Pn     02 53 47.2 +1.0
M17K  Holitna River      8.68  20  Pn     Pn     02 53 46.4 -0.6
K15K  Wolf Creek Mou     8.99   6  Pn     Pn     02 53 52.6 +1.3
L18K  Granite Mounta     9.57  20  Pn     Pn     02 53 59.3 +0.1
K17K  Iditarod           9.75  14  Pn     Pn     02 54 00.8 -0.9
M19K  Big River Lodg     9.83  26  Pn     Pn     02 54 03.1 +0.3
L19K  White Mountain     9.95  24  Pn     Pn     02 54 02.6 -1.9
SLKM  Skilak Lake       10.17  40  Pn     Pn     02 54 07.7 +0.2
SEW   Seward            10.23  43  Pn     Pn     02 54 06.9 -1.4
SUA   Susitna One       10.61  35  Pn     Pn     02 54 13.5 -0.1
K20K  Telida            11.14  23  Pn     Pn     02 54 22.3 +1.5
HIN   Hinchinbrook I    11.64  46  Pn     Pn     02 54 25.9 -1.6
SCM   Sheep Creek Mo    12.09  39  Pn     Pn     02 54 31.5 -2.3
KLU   Klutina           12.45  42  Pn     Pn     02 54 36.7 -2.0
MLY   Manley            13.35  24  Pn     Pn     02 54 51.5 +0.6
G21K  Allakaket         14.06  17  Pn     Pn     02 55 02.6 +2.1
RIDG  Independent Ri    14.17  36  Pn     Pn     02 55 01.4 -0.7
ILAR  Eielson Array     14.20  30  Pn     Pn     02 54 59.7 -2.7
      baz=234,slow=12,SNR=1.5
      comp=E,0.1nm,0.4s
ILAR  Eielson Array     14.20  30         Pn     02 55 01.2 -1.3
H23K  Yukon River       14.29  24  Pn     Pn     02 55 02.7 -1.0
E19K  Redstone River    14.44  10  P      P      02 55 12.4 +0.3
G23K  Bananza Creek     14.91  21  Pn     Pn     02 55 11.7 -0.4
COLD  Coldfoot          15.31  20  Pn     Pn     02 55 18.0 +0.6
COLD                               IAmb   IAmb   02 55 32.6
      comp=Z,5.8nm,1.4s
D20K  Etivluk River     15.72   9  Pn     Pn     02 55 23.5 +0.9
D20K                               IAmb   IAmb   02 55 53.4
      comp=Z,9.5nm,1.4s
M29M  Somme Creek       16.01  46  Pn     Pn     02 55 26.9 +0.4
M29M                               IAmb   IAmb   02 55 38.8
      comp=Z,5.0nm,0.8s
DAWY  Dawson            16.35  40  P      P      02 55 34.7 +1.2
DAWY                               IAmb   IAmb   02 55 39.1
      comp=Z,7.5nm,1.4s
L29M  L29M              16.42  44  P      P      02 55 35.5 +1.2
L29M                               IAmb   IAmb   02 55 38.5
      comp=Z,7.5nm,0.9s
I28M  Miner Creek       16.89  35  Pn     Pn     02 55 37.6  0.0
K29M  Barlow Dome       16.98  42  P      P      02 55 42.4 +1.9
K29M                               IAmb   IAmb   02 55 44.2
      comp=Z,3.6nm,0.8s
J30M  Hart River        17.77  40  Pn     Pn     02 55 47.9 -0.7
H29M  Whitestone        17.86  34         Pn     02 55 49.2 -0.3
H29M                               IAmb   IAmb   02 56 19.0
      comp=Z,5.4nm,1.1s
I30M  Mount Dempster    18.05  38         P      02 55 53.1 +0.8
D27M  Malcolm River     19.03  25  P      Pn     02 56 04.6 +0.7
H31M  Peel River        19.07  38  P      P      02 56 04.0 +0.6
MMPY  Sheldon Lake,     19.23  49  P      Pn     02 56 07.2 +0.9
MMPY                               IAmb   IAmb   02 56 35.1
      comp=Z,4.1nm,1.1s
INK   Inuvik            20.57  32  P      P      02 56 18.8 -0.9
      comp=Z,1.8nm,0.8s,baz=243,slow=9.0,SNR=2.0
      comp=Z,1.8nm,0.8s
INK   Inuvik            20.57  32  P      P      02 56 18.2 -1.5
PETK  Petropavlovsk-    23.00 285  P      P      02 56 45.2 -0.6
      comp=Z,1.0nm,0.6s,baz=77,slow=10,SNR=1.8
      comp=Z,1.0nm,0.6s
PETK  Petropavlovsk-    23.00 285  P      P      02 56 45.4 -0.4
YKA   Yellowknife Ar    26.88  51  P      P      02 57 22.3 +0.8
      comp=Z,0.4nm,0.8s,baz=276,slow=9.6,SNR=4.4
      comp=Z,0.4nm,0.8s
H11N2 WAKE ISLAND Hy    40.58 226  T      T      03 42 59.1
      baz=26,slow=76,SNR=19
H11N3 WAKE ISLAND Hy    40.59 226  T      T      03 42 59.7
      baz=26,slow=76,SNR=16
H11N1 WAKE ISLAND Hy    40.60 226  T      T      03 43 05.2
      baz=26,slow=76,SNR=13
H11S1 WAKE ISLAND Hy    41.75 225  T      T      03 44 31.8
      baz=26,slow=76,SNR=9.9
H11S2 WAKE ISLAND Hy    41.77 225  T      T      03 44 34.0
      baz=26,slow=76,SNR=8.1
H11S3 WAKE ISLAND Hy    41.77 225  T      T      03 44 34.5
      baz=26,slow=76,SNR=11
SONM  Songino Array     53.75 303  P      P      03 01 03.2 +0.3
      comp=Z,0.9nm,0.7s,baz=42,slow=7.6,SNR=4.1
      comp=Z,0.9nm,0.7s
BVAR  Borovoye Array    64.84 327  P      P      03 02 20.3 +0.9
      comp=Z,1.6nm,0.8s,baz=32,slow=7.0,SNR=3.6
      comp=Z,1.6nm,0.8s
FINES FINESS Array B    65.25 355  P      P      03 02 21.6 -0.2
      comp=Z,1.1nm,0.6s,baz=316,slow=17,SNR=1.6
      comp=Z,1.1nm,0.6s
MKAR  Makanchi Array    65.58 316  P      P      03 02 23.7 -0.7
      comp=Z,0.7nm,0.8s,baz=40,slow=6.7,SNR=3.6
      comp=Z,0.7nm,0.8s
```

NEIC ***21*** *03:05:06.1±1.0, 56°.4N±0°.1×148°.27W±0°.08, h10km±2km, ML3.6/68, ML3.4(AEIC), Error ellipse: s-maj=19.0km s-min=3.8km az=158.0*

IDC ***21*** *03:05:09.6±1.4, 56°.66N×148°.35W, h0km, mb3.1/1, mbtmp3.4/5, ML3.5/4, MS2.2/1, Error ellipse: s-maj=21.5km s-min=14.3km az=15.0*

AEIC ***21*** *03:05:11.1±1.0, 56°.4N±0°.1×148°.2W±0°.1, h12km±8km, Error ellipse: s-maj=18.5km s-min=8.5km az=152.0*

ISC 21 03:05:07.6±1.0**, 56°.49N**±0°.07×**148°.28W**±0°.05**, h10**km**,**
n174, σ1§21/181**, Gulf of Alaska**

```
Code  Station Name        Δ°   AZ°   Phase ID          Time     Res
                                     Op     ISC      h  m  s   ISC
KDAK  Kodiak Island      2.68 301  Pn     Pn     03 05 50.2 -0.5
      13nm,0.3s,baz=113,slow=14,SNR=155
KDAK                               LR     LR     03 06 16.8
      comp=Z,53nm,20.4s,baz=128,slow=26
KDAK                               Sn     Sn     03 06 20.0 -3.1
      8.1nm,0.3s,baz=120,slow=20,SNR=6.3
      24nm,0.3s
KDAK                               AML    AML
KDAK  Kodiak Island      2.68 301         Pn     03 05 50.1 -0.5
KDAK  Kodiak Island      2.68 301         Sn     03 06 19.9 -3.2
OHAK  Old Harbor         2.84 287  P      Pn     03 05 51.9 -1.1
OHAK  Old Harbor         2.84 287  Pn     Pn     03 05 51.7 -1.3
OHAK                               Sn     Sn     03 06 23.4 -3.9
MID   Middleton Isla     3.12  19  Pn     Pn     03 05 55.8 -0.9
MID                                IAML          03 06 41.0
      comp=N,156nm,1.4s
MID                                IAML          03 06 49.4
      comp=E,177nm,1.3s
MID   Middleton Isla     3.12  19         Sn     03 06 32.2 -1.8
SII   Sitkinak Islan     3.27 274  P      Pn     03 05 59.1 +0.2
SII   Sitkinak Islan     3.27 274  Pn     Pn     03 05 58.3 -0.6
SII                                IAML          03 06 45.3
      comp=N,154nm,1.1s
SII   Sitkinak Islan     3.27 274         Sn     03 06 34.3 -3.5
CNPM  China Poot         3.42 334  Pn     Pn     03 06 00.8 -0.2
CNPM                               Sn     Sn     03 06 40.3 -1.2
BRSE  Bradley Lake S     3.51 339         Pn     03 06 02.4 +0.3
BRSE                                      Sn     03 06 43.1 -0.5
P23K  Montague Islan     3.54   7  Pn     Pn     03 06 02.6  0.0
P23K                               Sn     Sn     03 06 42.2 -2.3
P23K                               IAML          03 06 45.6
      comp=N,88nm,0.5s
P23K                               IAML          03 06 47.1
      comp=E,103nm,0.4s
BRLK  Bradley Lake       3.56 338  Pn     Pn     03 06 02.8  0.0
BRLK                               IAML          03 06 47.0
      comp=E,93nm,0.3s
BRLK                               IAML          03 06 51.3
      comp=N,73nm,0.2s
HOM   Homer              3.64 332  Pn     Pn     03 06 04.5 +0.6
SEW   Seward             3.67 351  Pn     Pn     03 06 04.2 -0.2
Q19K  Cape Douglas,      3.77 313  Pn     Pn     03 06 06.9 +1.2
Q19K  Cape Douglas,      3.77 313         Sn     03 06 50.1 -0.1
Q19K  Cape Douglas,      3.77 313  IAML          03 06 57.3
      comp=N,174nm,0.7s
Q19K                               IAML          03 07 00.4
      comp=E,182nm,0.7s
KAPH  Katmai Pasha       3.89 305         Pn     03 06 08.7 +1.3
AUI   Augustine Isla     3.96 318         Pn     03 06 08.8 +0.5
AUJK  Augustine Jueg     3.96 318         Pn     03 06 09.5 +1.2
KAWH  Katmai             4.00 301         Pn     03 06 09.2 +0.3
KAIM  Kayak Island       4.00  29  Pn     Pn     03 06 08.8 -0.1
KAIM                               IAML          03 06 58.4
      comp=E,93nm,1.3s
HIN   Hinchinbrook I     4.02  13  Pn     Pn     03 06 09.5 +0.3
HIN                                Sn     Sn     03 06 54.2 -2.1
HIN                                IAML          03 06 56.2
      comp=E,99nm,0.7s
HIN                                IAML          03 07 01.8
      comp=N,89nm,0.6s
O22K  Cooper Landing     4.07 350         Pn     03 06 10.2 +0.4
KAKN  Katmai Knife C     4.09 299         Sn     03 06 57.6 -0.5
KAKN                                      Lg     03 06 59.5
P19K  Oil Pt             4.12 322         Pn     03 06 10.9 +0.5
P19K                                      Sn     03 06 59.1 +0.5
SLKM  Skilak Lake        4.15 347  Pn     Pn     03 06 11.1 +0.2
CHIR  Chirikof Islan     4.16 264         Pn     03 06 09.1 -1.9
CHIR  Chirikof Islan     4.16 264  IAML          03 08 07.6
      comp=E,94nm,1.2s
ACHA  Angle Creek He     4.19 297  Pn     Pn     03 06 11.2 -0.3
Q18K  Katmai Hardscr     4.22 304         Pn     03 06 12.5 +0.6
ANCK  Angle Creek        4.27 297         Pn     03 06 13.2 +0.6
O20K  Slope Mountain     4.27 329         Pn     03 06 12.8 +0.3
EYAK  Cordova Ski Ar     4.28  17  P      Pn     03 06 13.1 +0.5
EYAK  Cordova Ski Ar     4.28  17  Pn     Pn     03 06 12.8 +0.1
EYAK                               Sn     Sn     03 07 00.3 -2.2
EYAK                               IAML          03 07 02.0
      comp=E,61nm,0.6s
EYAK                               IAML          03 07 02.0
      comp=N,89nm,0.7s
ILS   Iliamna Low So     4.30 326         Pn     03 06 13.3 +0.3
ILS                                       Sn     03 07 02.2 -1.0
ILS                                       Lg     03 07 02.9
RAGM  Ragged Mountai     4.34  24  Pn     Pn     03 06 13.3 -0.2
ILSW  Iliamna Southw     4.34 326  Pn     Pn     03 06 13.8 +0.2
ILSW  Iliamna Southw     4.34 326         Sn     03 07 03.0 -1.3
ILSW  Iliamna Southw     4.34 326  IAML          03 07 07.0
      comp=N,61nm,0.4s
ILSW                               IAML          03 07 10.1
      comp=E,66nm,0.6s
ILIM  Iliamna            4.36 327         Pn     03 06 13.9  0.0
ILIM                                      Pn     03 06 14.1 +0.2
FID   Port Fidalgo       4.37  12  Pn     Pn     03 06 14.2 +0.2
FID                                IAML          03 07 04.3
      comp=N,54nm,0.3s
FID                                IAML          03 07 05.2
      comp=E,62nm,0.5s
PWL   Port Wells         4.38 360  Pn     Pn     03 06 14.2 +0.1
PWL                                IAML          03 07 04.2
      comp=E,65nm,0.4s
PWL                                IAML          03 07 04.5
      comp=N,49nm,0.2s
ILW   Iliamna West       4.40 326         Pn     03 06 14.6 +0.1
GLI   Glacier Island     4.44   7  Pn     Pn     03 06 15.1 +0.1
GLI                                IAML          03 07 05.2
      comp=E,57nm,1.1s
GOAT  Goat Mountain      4.50  23         Pn     03 06 16.1 +0.3
R17L  Mt. Peulik Vol     4.56 288         Pn     03 06 16.4 -0.1
BERG  Berg Lake          4.59  30  Pn     Pn     03 06 16.9 -0.1
RDSO  Redoubt South      4.61 331         Sn     03 07 10.5 -0.5
RDT   Redoubt            4.63 334         Pn     03 06 17.7 +0.2
RDT                                       Pn     03 06 18.1 +0.6
RDT                                       Sn     03 07 10.1 -1.2
RC01  Rabbit Creek A     4.67 351  Pn     Pn     03 06 18.8 +0.7
RC01                               IAML          03 07 11.8
      comp=E,67nm,0.5s
RC01                               IAML          03 07 13.4
      comp=N,48nm,0.4s
P18K  Big Mountain,      4.71 311         Pn     03 06 18.8 +0.2
DFR   Drift River        4.71 333         Pn     03 06 18.7  0.0
RDJH  Redoubt Jeurge     4.74 332         Pn     03 06 19.1  0.0
NCT   North Crescent     4.75 331         Pn     03 06 19.3 +0.1
NCT                                       Sn     03 07 13.6 -0.8
DIV   Divide             4.83  15  Pn     Pn     03 06 20.1 -0.2
BMRM  Bremner River      4.88  22  Pn     Pn     03 06 20.6 -0.3
BMRM                               IAML          03 07 18.0
      comp=E,33nm,0.4s
BMRM                               IAML          03 07 20.3
      comp=N,37nm,1.1s
KNK   Knik Glacier       4.94 359  Pn     Pn     03 06 22.8 +1.1
KNK                                IAML          03 07 21.3
      comp=N,28nm,0.8s
BARK  Barkley Ridge      4.96  35         Pn     03 06 21.8 -0.3
BARK                                      Pn     03 06 22.7 +0.5
CRQM  Cirque             5.05  30  Pn     Pn     03 06 23.3 -0.1
CRQM                               IAML          03 07 21.9
      comp=E,44nm,0.5s
P17K  Kvichak River      5.13 305  Pn     Pn     03 06 24.6 +0.2
PMR   Palmer             5.13 355  P      Pn     03 06 27.2 +2.8
PMR   Palmer             5.13 355  Pn     Pn     03 06 24.6 +0.2
PMR                                IAML          03 07 26.2
      comp=E,29nm,0.5s
TGL   Tana Glacier       5.13  31  Pn     Pn     03 06 24.4 -0.1
TGL                                       Sn     03 07 20.5 -3.3
TGL                                IAML          03 07 21.7
      comp=E,43nm,0.6s
TGL                                IAML          03 07 27.1
      comp=N,33nm,0.8s
SUA   Susitna One        5.14 347         Pn     03 06 24.9 +0.2
SUA   Susitna One        5.14 347  IAML          03 07 27.9
      comp=E,29nm,0.9s
SUA                                IAML          03 07 28.4
      comp=N,22nm,1.0s
KLU   Klutina            5.16  13  Pn     Pn     03 06 25.2 +0.4
KLU                                IAML          03 07 23.6
      comp=N,43nm,0.4s
KLU                                IAML          03 07 26.0
      comp=E,45nm,0.4s
YAH   Yahtse             5.18  39  Pn     Pn     03 06 25.1 -0.2
YAH                                IAML          03 07 28.6
      comp=N,28nm,0.7s
SPCP  Crater Peak Br     5.19 339         Pn     03 06 25.6 +0.3
CHX   Chaix Hills        5.20  44         Pn     03 06 25.0 -0.5
SPWE  Spurr West         5.28 337         Pn     03 06 26.8 +0.3
GHO   Glory Hole Cre     5.30 357  Pn     Pn     03 06 27.7 +0.9
M23K  Glacier View       5.32   3         Pn     03 06 28.5 +1.4
SML   Sawmill            5.33 360  Pn     Pn     03 06 28.2 +1.0
VRDI  Verde Repeater     5.37  26  Pn     Pn     03 06 27.3 -0.5
SAMH  Samovar Hills      5.38  44         Pn     03 06 28.4 +0.5
SCM   Sheep Creek Mo     5.38   5  Pn     Pn     03 06 26.9 -1.0
N19K  Bonanza Creek      5.41 326         Pn     03 06 28.2 -0.1
GRNC  Granite Creek      5.45  36  Pn     Pn     03 06 28.8 -0.1
N25K  Chitina, Valde     5.47  19         Pn     03 06 29.6 +0.5
GLB   Gilahina Butte     5.47  23  Pn     Pn     03 06 29.3 +0.2
PCA   Pinnacle           5.56  46         Pn     03 06 30.8 +0.4
PNL   Peninsula          5.69  52         Pn     03 06 32.0  0.0
O17K  Koliganek Bris     5.71 309         Pn     03 06 32.2 -0.1
BARN  Barnard Glacie     5.73  34  Pn     Pn     03 06 33.1 +0.4
SKT   Skwentna           5.75 344         Pn     03 06 33.7 +0.8
LOGN  Logan Glacier      5.77  38  Pn     Pn     03 06 33.3 +0.1
N18K  Kilae Creek        5.78 320  Pn     Pn     03 06 33.3  0.0
PS11  TAPS Pump St11     5.78  13         Pn     03 06 33.8 +0.5
P16K  Nushagak River     5.79 300         Pn     03 06 33.1 -0.2
WASW  Wrangell South     5.84  19         Pn     03 06 34.9 +0.6
WACK  Wrangell Chich     5.87  19         Pn     03 06 34.8 +0.1
M20K  Styx River         5.95 337         Pn     03 06 36.0 +0.3
WAZA  Wrangell Mount     5.98  19         Pn     03 06 36.6 +0.3
O28M  Mount Upton        6.02  41  Pn     Pn     03 06 37.3 +0.5
O16K  Kokwok River B     6.07 305  Pn     Pn     03 06 37.5 +0.4
WAT6  Susitna Watana     6.11   2         Pn     03 06 39.0 +1.0
HARP  HAARP              6.13  14  Pn     Pn     03 06 39.9 +1.8
N17K  Nushagak Hills     6.17 315         Pn     03 06 38.4 -0.2
M18K  Stony River        6.35 325         Pn     03 06 40.9 -0.1
WAT7  Susitna Watana     6.37 358         Pn     03 06 42.4 +1.0
O29M  Mount Kennedy      6.37  49  Pn     Pn     03 06 42.3 +0.8
YUK8  Steele Glacier     6.52  39         Pn     03 06 45.0 +1.4
CHNA  Chernabura Isl     6.61 260  P      Pn     03 06 43.6 -1.1
CNBA  Chernabura Isl     6.62 260         Pn     03 06 43.0 -1.8
DHY   Denali Highway     6.62   4  Pn     Pn     03 06 46.1 +1.2
L19K  White Mountain     6.62 332         Pn     03 06 44.6 -0.2
S31K  Pelican            6.71  72         Pn     03 06 44.1 -1.9
M27K  Edge Creek, AK     6.72  26  Pn     Pn     03 06 46.3  0.0
O15K  Ungalikthiuk R     6.72 298         Pn     03 06 46.4 +0.2
N16K  Nishlik Lake       6.79 310         Pn     03 06 47.5 +0.4
M17K  Holitna River      6.83 320         Pn     03 06 47.4 -0.2
RND   Reindeer           6.94 358  Pn     Pn     03 06 51.2 +2.0
SDPT  Sand Point         6.95 266  P      Pn     03 06 48.9 -0.4
P30M  Million Dollar     6.98  54         Pn     03 06 50.0 +0.1
PLBC  Pleasant Camp      7.00  60         Pn     03 06 50.2 +0.2
TRF   Thorofare Moun     7.05 353         Pn     03 06 52.2 +1.3
SIT   Sitka              7.14  80  P      Pn     03 06 49.4 -2.5
SIT   Sitka              7.14  80         Pn     03 06 49.6 -2.3
L18K  Granite Mounta     7.17 327         Pn     03 06 52.4 +0.1
M16K  Timber Creek       7.17 314  Pn     Pn     03 06 52.9 +0.6
KTH   Kantishna Hill     7.20 351         Pn     03 06 53.8 +0.9
N15K  Kwethluk River     7.22 306  Pn     Pn     03 06 54.3 +1.2
BC01  Beaver Creek A     7.34  24         Pn     03 06 55.1 +0.4
BC04  Beaver Creek A     7.38  24         Pn     03 06 55.6 +0.4
O14K  Tigyukauivet M     7.45 297  Pn     Pn     03 06 57.0 +0.8
RIDG  Independent Ri     7.47  12  Pn     Pn     03 06 57.5 +1.1
SKAG  Skagway            7.50  61  P      Pn     03 06 57.1 +0.3
S32K  Killisnoo          7.55  77         Pn     03 06 55.4 -2.1
N30M  Aishikik Lake      7.62  45         Pn     03 06 59.3 +0.7
JIS   Juneau Island      7.72  71  P      Pn     03 06 59.2 -0.6
BPAW  Bear Paw Mtn.      7.75 351  Pn     Pn     03 07 00.7 +0.4
S12K  Black Hills        7.75 270  Pn     Pn     03 07 00.2 -0.1
M29M  Somme Creek        7.78  36  Pn     Pn     03 07 01.4 +0.6
K17K  Iditarod           8.04 325  Pn     Pn     03 07 04.1 -0.1
NEA2  Nenana             8.14 358         Pn     03 07 06.2 +0.6
N31M  Braeburn, Yuko     8.16  47  Pn     Pn     03 07 06.7 +0.7
CCB   Clear Creek Bu     8.18   1  Pn     Pn     03 07 06.9 +0.7
P32M  Atlin              8.32  62         Pn     03 07 07.6 -0.6
IL31                     8.33   4         Pn     03 07 09.0 +0.7
ILAR  Eielson Array      8.33   4  Pn     Pn     03 07 08.5 +0.3
      comp=N,0.3nm,0.3s,baz=189,slow=13,SNR=9.7
ILAR                               Sn     Sn     03 08 39.5 -2.8
      comp=N,0.4nm,0.3s,baz=184,slow=23,SNR=5.4
      comp=N,0.5nm,0.3s
ILAR                               AML    AML
ILAR  Eielson Array      8.33   4  Pn     Pn     03 07 08.1 -0.1
J19K  Poorman            8.36 337  Pn     Pn     03 07 08.8 +0.2
L29M  L29M               8.37  33  Pn     Pn     03 07 09.5 +0.7
COLA  College            8.41   1  P      Pn     03 07 11.8 +2.5
U33K  Whale Pass         8.44  86         Pn     03 07 05.7 -4.0
CRAG  Craig              8.56  91  P      Pn     03 07 08.4 -3.0
J17K  VABM Dome          8.78 326  Pn     Pn     03 07 14.0 -0.3
L14K  Kuka Creek         8.89 309  Pn     Pn     03 07 17.3 +1.5
I21K  Tanana             8.90 350  Pn     Pn     03 07 17.6 +1.6
P33M  Teslin, Yukon      8.94  59  Pn     Pn     03 07 16.7 +0.1
K29M  Barlow Dome        9.10  32  Pn     Pn     03 07 19.7 +0.8
H24K  Noodor Dome        9.38   1  Pn     Pn     03 07 24.2 +1.6
R33M  Jennings River     9.65  65  Pn     Pn     03 07 25.2 -1.2
I28M  Miner Creek        9.85  21  Pn     Pn     03 07 29.8 +0.8
IMAR  Indian Mountai     9.88 347  Pn     Pn     03 07 29.2 -0.1
H18K  Honhosa River      9.97 335  Pn     Pn     03 07 29.7 -1.0
J30M  Hart River        10.00  31  Pn     Pn     03 07 32.5 +1.3
DLBC  Dease Lake        10.02  71  Pn     Pn     03 07 31.6 +0.1
      comp=N,0.5nm,0.3s,baz=258,slow=5.9,SNR=7.4
DLBC                               Sn     Sn     03 09 20.1 -3.7
      comp=N,0.2nm,0.3s,baz=172,slow=26,SNR=1.4
      comp=N,1.1nm,0.3s
DLBC                               AML    AML
G24K  Hadweenzic Riv    10.25   2  Pn     Pn     03 07 35.9 +1.4
G21K  Allakaket         10.36 348  Pn     Pn     03 07 36.8 +0.8
MMPY  Sheldon Lake,     10.57  48  Pn     Pn     03 07 40.4 +1.4
BMAR  Burnt Mountain    11.11   7  Pn     Pn     03 07 47.5 +1.3
YKA   Yellowknife Ar    17.96  57  P      P      03 09 18.7 +1.1
      comp=N,0.1nm,0.3s,baz=265,slow=11,SNR=6.2
      comp=N,0.6nm,0.8s
YKA                                AML    AML
NVAR  Mina Array Bea    26.82 120  P      P      03 10 52.7 +4.6
      comp=N,0.1nm,0.3s,baz=320,slow=6.7,SNR=3.6
      comp=N,0.1nm,0.3s
H11N2 WAKE ISLAND Hy    49.47 241  T      T      04 07 18.4
      baz=31
H11N3 WAKE ISLAND Hy    49.48 241  T      T      04 07 17.0
      baz=31
H11N1 WAKE ISLAND Hy    49.49 241  T      T      04 07 29.0
      baz=31
H11S1 WAKE ISLAND Hy    50.61 240  T      T      04 08 53.9
      baz=34
H11S2 WAKE ISLAND Hy    50.63 240  T      T      04 08 52.5
      baz=34
H11S3 WAKE ISLAND Hy    50.63 240  T      T      04 08 49.4
      baz=34
QSPA  South Pole Qui   146.29 180  PKPbc  PKiKP  03 24 50.0 +0.2
      comp=N,1.2nm,1.1s,baz=114,slow=3.3,SNR=2.1
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CFUSG ***21*** *03:37:29.9, 38°.00N×34°.01E, h1km, Mb3.1/3, MD3.3/5, MSH2.9/5*

ISK ***21*** *03:37:30.4, 38°.08N×34°.03E, h6km, ML4.2/32*

IDC ***21*** *03:37:30.3±0.6, 38°.05N×34°.10E, h0km, mb3.8/11, mbtmp3.8/22, ML3.9/8, MS3.6/27, Error ellipse: s-maj=13.1km s-min=8.8km az=75.0*

AFAD ***21*** *03:37:30.1, 38°.02N×34°.02E, h7km±1km, MW4.1*

GII ***21*** *03:37:34.1±0.0, 37°.811N±0°.004×33°.630E±0°.001, h0km, Mws4.0, confirmed*

GFZ ***21*** *03:37:35.1±0.2, 38°N±3°×3°4E±°, h10km, M4.0/19, mb4.0/19*

ISC 21 03:37:30.9±1.1**, 38°.06N**±0°.02×**34°.03E**±0°.02**, h1**km±8km**,**
n196, σ1§36/185**, mb3.9**/11**, MS3.5**/21**, 7C-7D, Turkey**

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Code  Station Name        Δ°   AZ°   Phase ID          Time     Res
                                     Op     ISC      h  m  s   ISC
BSIR  Belisirma, Guz     0.30  45  P      Pg     03 37 37.0 +0.4
BSIR                               IAML          03 37 43.0
      comp=E,1µm,0.6s
BSIR                               IAML          03 37 48.0
      comp=N,1µm,0.4s
GULA  Gulagac            0.33  30  Pg     Pg     03 37 37.2 -0.1
GULA                               Sg     Sg     03 37 42.9 +1.3
GULA                               AML    AML
YESY  Yesilyurt          0.35 219  Pg     Pg     03 37 38.5 +0.8
YESY                               AML    AML
NIDE  Nigde/Merkez-G     0.60  95  P      Pg     03 37 41.6 -0.7
NIDE                               S      Sg     03 37 50.6 +0.5
NIDE                               IAML          03 37 53.0
      comp=N,8µm,0.4s
NIDE                               IAML          03 37 54.0
      comp=E,1µm,0.2s
AKSY  AKSARAY - Alti     0.63 341  P      Pg     03 37 42.8 -0.1
AKSY                               S      Sg     03 37 52.5 +1.4
AKSY                               IAML          03 38 03.0
      comp=N,3µm,0.5s
AKSY                               IAML          03 38 03.0
      comp=E,5µm,0.6s
KERG  Konya-Eregli       0.65 173  P      Pg     03 37 42.3 -1.0
KERG                               S      Sg     03 37 52.6 +0.9
KERG                               IAML          03 37 55.0
      comp=E,3µm,0.7s
KERG                               IAML          03 38 07.0
      comp=N,3µm,0.7s
CMRD  Camardi-Nigde      0.86 117  Pg     Pg     03 37 46.9 -0.5
CMRD                               Sg     Sg     03 37 59.6 +1.0
CMRD                               AML    AML
SERE  Sereflikochisa     0.96 338  Pg     Pg     03 37 48.9 -0.4
SERE                               Sg     Sg     03 38 02.5 +0.8
SERE                               AML    AML
AVNS  Nevsehir-Avano     0.99  41  P      Pg     03 37 49.4 -0.5
AVNS                               S      Sb     03 38 04.6 +0.1
AVNS                               IAML          03 38 08.0
      comp=N,5µm,0.9s
AVNS                               IAML          03 38 11.0
      comp=E,5µm,0.6s
YAHY  KAYSERI_Yahyal     1.06  88  P      Pg     03 37 50.0 -1.2
YAHY                               S      Sg     03 38 05.1 +0.3
YAHY                               IAML          03 38 11.0
      comp=E,3µm,0.6s
YAHY                               IAML          03 38 12.0
      comp=N,3µm,0.5s
KRMN  Karaman            1.07 215  Pn     Pg     03 37 51.5 +0.1
KRMN                               AML    AML
KULU  Kulu               1.27 321  Pn     Pg     03 37 54.7 -0.6
KULU                               AML    AML
LADK  Ladik-KONYA        1.32 277  Pn     Pg     03 37 55.8 -0.4
LADK                               AML    AML
KONT  Konya--Tatoy       1.32 266  Pn     Pg     03 37 55.4 -0.8
KONT                               AML    AML
KOZK  Kozakli-Nevseh     1.33  30  Pn     Pg     03 37 55.9 -0.5
KOZK                               AML    AML
KAMT  Kaman              1.33 350  Pn     Pg     03 37 55.7 -0.8
KAMT                               AML    AML
CAYT  Sariam             1.35 130  P      Pn     03 37 55.4 -1.5
CAYT                               S      Sn     03 38 16.2 +0.6
CAYT                               IAML          03 38 22.0
      comp=N,5µm,0.7s
CAYT                               IAML          03 38 28.0
      comp=E,4µm,1.1s
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KKUL	Konya-Kulu	1.41	322	P	Pn	03 37 57.3	-0.6
GUNE	Kayseri	1.51	56	P	Pn	03 37 59.0	-0.3
GUNE				S	Sg	03 38 22.4	+2.9
GUNE				IAML		03 38 36.0	
	comp=E,3µm,0.9s						
GUNE				IAML		03 38 48.0	
	comp=N,2µm,0.8s						
KOZT	Kozan	1.54	111	Pn	Pn	03 37 58.7	-0.8
KOZT				AML	AML		
AFSR	Afar-Bala (An	1.57	332	Pn	Pn	03 37 59.3	-0.8
AFSR				AML	AML		
SAIM	ADANA	1.63	92	P	Pn	03 38 00.8	-0.1
SAIM				S	Sg	03 38 23.2	0.0
SAIM				IAML		03 38 26.0	
	comp=E,5µm,0.4s						
SAIM				IAML		03 38 27.0	
	comp=N,3µm,0.4s						
KEBE	Keben-Mersin	1.63	189	Pn	Pn	03 38 00.5	-0.3
KEBE				AML	AML		
BNN	Bunyan	1.64	60	Pn	Pn	03 38 00.2	-0.8
BNN				AML	AML		
HDMB	Hadim	1.64	229	Pn	Pn	03 38 00.7	-0.4
HDMB				AML	AML		
SLFK	Silifke-Mersin	1.66	182	Pn	Pn	03 38 01.1	-0.1
SLFK				AML	AML		
TEVE	Tevekalti-Mers	1.69	196	Pn	Pn	03 38 01.3	-0.3
TEVE				AML	AML		
SILI	Silifke-Mersin	1.69	183	Pn	Pn	03 38 01.4	-0.2
SILI				AML	AML		
BRTR	Keskin Array B	1.69	350	Pg	Pn	03 38 01.1	-0.7
	38nm,0.3s,baz=161,slow=15,SNR=184						
BRTR				Lg	Lg	03 38 26.9	
	162nm,0.3s,baz=164,slow=32,SNR=16						
BRTR				LR	LR	03 38 56.5	
	comp=Z,989nm,21.8s,baz=184,slow=50						
BR131	Keskin Array S	1.69	350	Pn	Pn	03 38 00.9	-0.9
BR131				AML	AML		
BR131	Keskin Array S	1.69	350	P	Pn	03 38 00.8	-0.9
	SNR=351						
BR131				S	Sn	03 38 22.9	-1.3
BERE	Bereket-Mersin	1.82	201	Pn	Pn	03 38 03.4	-0.2
BERE				AML	AML		
IKL	Isikli	1.84	189	Pn	Pn	03 38 03.6	0.0
IKL				AML	AML		
SEYD	Seydisehir-KON	1.85	250	Pn	Pn	03 38 03.6	-0.3
SEYD				AML	AML		
KARG	Kargicak-Mersi	1.87	188	Pn	Pn	03 38 04.2	+0.1
KARG				AML	AML		
TEPK	Tepekoy-MERSIN	1.87	192	Pn	Pn	03 38 04.3	+0.2
KIZT	Kizilcal	1.87	297	Pn	Pb	03 38 05.4	-0.6
KIZT				AML	AML		
YOZ	Yozgat	1.88	32	Pn	Pn	03 38 03.6	-0.7
YOZ				AML	AML		
YESI	Yesilovacik-Me	1.88	189	Pn	Pn	03 38 04.3	+0.1
ANDN	Andirin	1.90	104	P	Pn	03 38 04.8	+0.2
OREN	Orenkoy-Mersin	1.90	194	Pn	Pn	03 38 04.4	-0.1
TISA	Tisan-Mersin	1.91	188	Pn	Pn	03 38 04.7	+0.1
TISA				AML	AML		
SARI	SarD1z-Kayseri	1.92	79	Pn	Pn	03 38 04.7	-0.2
SARI				AML	AML		
BECE	Buyukeceli-Mer	1.94	191	Pn	Pn	03 38 05.3	+0.3
BECE				AML	AML		
AKK1	Akkuyu-Mersin	1.95	192	Pn	Pn	03 38 05.2	+0.1
AKK1				AML	AML		
YORU	Yoruktepe-Mers	1.96	195	Pn	Pn	03 38 05.4	0.0
TEKE	Tekeli-Mersin	2.05	201	Pn	Pn	03 38 06.6	+0.1
TEKE				AML	AML		
LOD	Lodumlu	2.08	332	Pn	Pn	03 38 06.4	-0.6
LOD				AML	AML		
KEPZ	Antalya-Kepez	2.25	240	⇓P	Pn	03 38 09.4	+0.1
GAZI	Gazipasa	2.28	217	Pn	Pn	03 38 09.7	0.0
GAZI				AML	AML		
CSS	Mathiatis	3.14	190	P	Pn	03 38 23.9	+2.3
CSS				AML	AML		
CSS	Mathiatis	3.14	190	P	Pn	03 38 23.1	+1.6
CSS	Mathiatis	3.14	190	P	Pn	03 38 21.0	-0.6
ARPR	Arapgir-MALATY	3.53	72	P	Pn	03 38 28.1	+1.0
SAHE	Sakarya_HENDEK	3.72	320	⇓P	Pg	03 38 42.5	+0.3
BZK	Bozkurt	3.90	360	⇓P	Pg	03 38 47.6	+2.0
CIDE	Kastamonu/Cide	3.91	348	⇑P	Pg	03 38 44.2	-1.6
BEIL	Beino	3.92	153	*e*P	Pn	03 38 32.0	-0.3
AKAS	Kas	3.97	244	P	Pb	03 38 38.2	-3.6
HWQ	Hawqa	4.08	157	*e*P	Pn	03 38 34.3	-0.3
TAVA	DENIZLI_Tavas	4.09	263	⇑P	Pn	03 38 34.7	-0.1
BHL	Bhannes	4.35	162	*e*P	Pn	03 38 35.8	-2.5
ZAHL	Zahle	4.46	160	*e*P	Pn	03 38 39.6	-0.1
DQRL	Deir Qamar	4.52	163	*e*P	Pn	03 38 40.1	-0.5
QRWL	Qaraoun	4.70	163	*e*P	Pn	03 38 42.5	-0.5
RCY	Rachaya	4.78	162	*e*P	Pn	03 38 43.3	-1.0
SHBL	Chebaa	4.90	163	*e*P	Pn	03 38 45.3	-0.7
NATI	Neve Ativ	4.98	163	P	Pn	03 38 48.5	+1.7
NATI				S	Sn	03 39 46.3	+1.2
GEM	Giv'at Ha'Em	5.02	164	P	Pn	03 38 49.2	+1.8
GEM				AML	AML		
GEM	Giv'at Ha'Em	5.02	164	P	Pn	03 38 48.3	+0.9
GEM				S	Sn	03 39 47.1	+1.1
HNTI	Hanita	5.05	169	P	Pn	03 38 49.0	+1.2
BAND	Balkesir-Ban	5.14	298	⇓P	Pg	03 39 09.3	-0.2
MMA0B	Mount Meron ar	5.16	167	P	Pn	03 38 50.8	+1.5
MMA0B				S	Sn	03 39 49.1	-0.4
ZEFT	Zefat	5.22	166	P	Pn	03 38 52.5	+2.3
KSHT	Keshet	5.27	163	P	Pn	03 38 53.4	+2.5
KSHT				S	Sn	03 39 52.8	+0.5
KNHM	Kefar Nahum	5.32	166	P	Pn	03 38 53.0	+1.6
KNHM				S	Sn	03 39 53.1	-0.3
KTUT	Trabzon	5.32	55	⇑P	Pg	03 39 13.1	+0.3
MMLI	Mount Malkishu	5.72	168	P	Pn	03 39 04.0	+6.9
	comp=Z,47nm,1.7s						
MMLI	Mount Malkishu	5.72	168	P	Pn	03 38 58.3	+1.2
QRNJ	Al-Qirein	5.85	167	P	Pn	03 39 05.8	+7.1
QRNJ				AML	AML		
ROII	Roi	5.92	168	P	Pn	03 39 01.8	+2.1
SALP	Salfit	6.05	171	P	Pn	03 39 05.5	+3.9
SALP				AML	AML		
ASF	Jabal al Asfar	6.33	157	Pn	Pn	03 39 05.6	+0.2
	comp=Z,1.1nm,0.3s,baz=295,slow=24,SNR=12						
ASF				Lg	Lg	03 40 42.4	
	comp=Z,1.5nm,0.3s,baz=146,slow=22,SNR=5.6						
	comp=Z,5.2nm,0.5s						
ASF				AML	AML		
YAL	Yalta	6.42	1	*e*P	Pn	03 39 06.5	-0.1
YAL				pmax	pmax	03 39 13.3	
	comp=Z,5.0nm,0.3s						
YAL				*e*x	x	03 40 23.0	
YAL				smax	smax	03 40 29.0	
	comp=N,2.0nm,0.3s						
YAL				smax	smax	03 40 29.0	
	comp=E,5.0nm,0.4s						
HOMI	Horasan	6.45	70	⇑P	Pg	03 39 33.5	-1.0
SEV	Sevastopol'	6.49	358	⇓*e*P	Pn	03 39 07.3	-0.2
SEV				pmax	pmax	03 39 12.6	
	comp=Z,10.0nm,0.3s						
SEV				*e*x	x	03 40 24.5	
SEV				smax	smax	03 40 33.7	
	comp=N,3.0nm,0.5s						
SEV				smax	smax	03 40 33.7	
	comp=E,1.0nm,0.5s						
MZS	Mizpe Shalem	6.57	170	P	Pn	03 39 09.6	+0.9
SUDU	Sudak	6.87	6	*e*P	Pn	03 39 13.8	+1.1
SUDU				pmax	pmax	03 39 17.1	
	comp=Z,6.0nm,0.3s						
SUDU				*e*S	Sn	03 40 34.4	+3.0
SUDU				smax	smax	03 40 41.8	
	comp=N,8.0nm,0.5s						
SUDU				smax	smax	03 40 41.8	
	comp=E,2.0nm,0.3s						
SIM	Simferopol'	6.88	1	*e*x	x	03 40 34.6	
SIM				smax	smax	03 40 43.8	
	comp=N,14nm,0.4s						
SIM				smax	smax	03 40 43.8	
	comp=E,5.0nm,0.2s						
KZIT	Kziot	7.14	177	P	Pb	03 39 36.6	+0.9
KZIT	Kziot	7.14	177	P	Pn	03 39 24.5	+7.9
	comp=Z,48nm,1.1s						
DNZ2	Donuzlav2	7.34	356	*e*P	Pn	03 39 20.6	+1.5
DNZ2				pmax	pmax	03 39 25.0	
	comp=Z,62nm,0.3s						
DNZ2				*e*x	x	03 40 50.8	
DNZ2				smax	smax	03 40 52.0	
	comp=N,9.0nm,0.5s						
DNZ2				smax	smax	03 40 52.0	
	comp=E,6.0nm,0.6s						
TARU	Tarkhankut	7.40	352	*e*x	Pn	03 39 20.9	+0.9
TARU				pmax	pmax	03 39 28.3	
	comp=Z,4.0nm,0.4s						
TARU				*e*x	x	03 40 54.1	
EPOS	Posof	7.53	60	P	Pn	03 39 27.8	+5.8
	comp=Z,19nm,1.2s						
PRNI	Paran	7.73	174	P	Pn	03 39 29.2	+4.6
PRNI				AML	AML		
IDI	Anoyia	7.84	252	Pn	Pn	03 39 27.9	+1.7
	comp=Z,14nm,1.1s,baz=58,slow=9.5,SNR=1.5						
EIL	Elat	8.40	174	Pn	Pn	03 39 35.9	+2.0
	comp=Z,1.2nm,0.3s,baz=352,slow=15,SNR=5.0						
EIL				LR	LR	03 43 45.6	
	comp=Z,245nm,18.4s,baz=347,slow=45						
	comp=Z,3.8nm,0.6s						
EIL				AML	AML		
EIL	Elat	8.40	174	P	Pb	03 39 54.2	-3.0
EIL	Elat	8.40	174	P	Pn	03 39 34.7	+0.8
GNI	Garni	8.59	73	Pn	Pn	03 39 37.6	+1.1
	comp=Z,1.7nm,0.3s,baz=270,slow=20,SNR=2.0						
GNI				LR	LR	03 43 00.2	
	comp=Z,207nm,19.2s,baz=276,slow=39						
	comp=Z,4.6nm,0.4s						
GNI				AML	AML		
KBZ	Khabaz	8.79	47	Pn	Pn	03 39 42.0	+3.0
	comp=Z,1.9nm,1.0s,baz=229,slow=8.4,SNR=3.6						
MLR	Muntele Rosu	9.56	323	Pn	Pn	03 39 50.1	+0.2
	comp=Z,0.3nm,0.3s,baz=125,slow=12,SNR=2.1						
MLR				LR	LR	03 44 18.2	
	comp=Z,819nm,18.1s,baz=148,slow=42						
	comp=Z,1.2nm,0.6s						
MLR				AML	AML		
COVR	Voineasa-Covas	9.71	326	⇓P	Pn	03 39 55.7	+3.9
TURR	Turia	9.96	326	⇑P	Pn	03 39 59.4	+4.2
VOIR		9.96	321	⇑P	Pn	03 39 57.3	+2.1
DOPR	Dopca	10.18	324	⇓P	Pn	03 40 01.7	+3.5
SORM	Soroca	10.89	339	⇑P	Pn	03 40 08.7	+0.9
AKASG	Malin Array Be	13.09	346	Pn	Pn	03 40 36.7	-1.3
	comp=Z,0.4nm,0.3s,baz=164,slow=13,SNR=7.4						
AKASG				LR	LR	03 47 03.7	
	comp=Z,116nm,20.6s,baz=169,slow=44						
	comp=Z,0.9nm,0.7s						
AKASG				AML	AML		
VAE	Valguarnera	15.53	274	LR	LR	03 47 00.9	
	comp=Z,248nm,18.3s,baz=39,slow=36						
MODS	Modra-Piesok	15.95	316	*e*P	P	03 41 18.8	-1.4
JAVC	Velka Javorina	16.01	318	*e*P	P	03 41 21.9	+0.9
RONA	Rosalia, Austr	16.14	312	*i* P	P	03 41 21.1	-1.3
	comp=Z,6.2nm,1.2s						
ARSA	Arzberg	16.39	310	*i* P	P	03 41 24.2	-0.9
	comp=Z,2.6nm,0.8s						
SOKA	Soboth	16.44	308	*i* P	P	03 41 24.4	-1.3
	comp=Z,4.3nm,1.2s						
CONA	Conrad Observa	16.51	312	*e*P	P	03 41 25.7	-0.9
	comp=Z,4.7nm,1.2s						
MORC	Moravsky Berou	16.64	320	*e*P	P	03 41 26.8	-1.1
MORC	Moravsky Berou	16.64	320	P	P	03 41 27.8	-0.1
	comp=Z,5.8nm,1.9s						
OBKA	Obir	16.67	307	*e*P	P	03 41 27.5	-0.8
	comp=Z,10nm,1.2s						
KRUC	Moravsky	16.82	316	*e*P	P	03 41 32.1	+2.3
VRAC	Vranov	16.85	317	Pn	P	03 41 30.3	+0.1
	comp=Z,0.3nm,0.3s,baz=126,slow=11,SNR=9.1						
VRAC				LR	LR	03 48 47.8	
	comp=Z,228nm,19.9s,baz=139,slow=40						
	comp=Z,4.0nm,0.8s						
VRAC				AML	AML		
VRAC	Vranov	16.85	317	*e*P	P	03 41 30.1	-0.1
VRAC	Vranov	16.85	317	P	P	03 41 32.1	+2.0
	comp=Z,4.1nm,1.3s						
ABNA	Allensteig Bun	17.14	314	*i* P	P	03 41 33.0	-0.4
	comp=Z,5.8nm,1.3s						
KRLC	Kraliky	17.21	320	AMS	AMS	03 49 30.0	
	comp=Z,600nm,12.7s						
KRLC	Kraliky	17.21	320	P	P	03 41 34.2	0.0
	comp=Z,7.4nm,2.1s						
ACOM	Acomizza, Ital	17.35	306	P	P	03 41 37.9	+2.0
	comp=Z,13nm,1.1s						
MOA	Molln	17.42	310	*i* Pn	P	03 41 36.4	-0.1
	comp=Z,8.6nm,1.3s						
MOA	Molln	17.42	310	P	P	03 41 39.7	+3.2
	comp=Z,8.8nm,2.7s						
TREC	Trest	17.44	316	P	P	03 41 36.4	-0.3
	comp=Z,4.5nm,1.1s						
RAYN	Ar Rayn	17.50	143	P	P	03 41 39.6	+2.0
RAYN	Ar Rayn	17.50	143	P	P	03 41 39.3	+1.7
	comp=Z,5.6nm,1.8s						
DPC	Dobruska-Polom	17.61	320	AMS	AMS	03 49 40.0	
	comp=Z,600nm,14.9s						
DPC	Dobruska-Polom	17.61	320	P	P	03 41 38.5	-0.1
	comp=Z,5.0nm,1.2s						
KBA	Koelnbreinsper	17.66	307	*i* Pn	P	03 41 39.3	0.0
	comp=Z,3.8nm,1.1s						
KBA	Koelnbreinsper	17.66	307	P	P	03 41 43.3	+4.0
	comp=Z,6.5nm,1.2s						
BIOA	Bad Ischl, Aus	17.73	309	*i* P	P	03 41 41.0	+1.0
	comp=Z,2.4nm,1.0s						
UPC	Upice	17.86	320	AMS	AMS	03 49 50.0	
	comp=Z,600nm,15.5s						
CHVC	Chvalec	17.89	320	AMS	AMS	03 49 50.0	
	comp=Z,600nm,12.8s						
ABTA	Abfaltersbach	18.06	306	*e*P	P	03 41 43.8	+0.1
	comp=Z,3.6nm,1.2s						
LESA	Schwarzleotal	18.21	308	*i* P	Pn	03 41 44.9	-0.1
	comp=Z,5.1nm,1.1s						
GERES	GERESS Array B	18.22	313	P	P	03 41 45.7	+0.4
	comp=Z,0.6nm,0.2s,baz=113,slow=10,SNR=10						
PRU	Pruhonice	18.34	317	P	P	03 41 47.4	+0.8
KHC	Kasperske Hory	18.43	313	*e*P	Pn	03 41 44.8	-2.8
WTTA	Wattenberg	18.81	306	*i* Pn	P	03 41 51.1	-0.8
	comp=Z,4.2nm,0.9s						
WET	Wettzell	18.84	313	P	P	03 41 52.2	+0.1
	comp=Z,3.2nm,1.1s						
SQTA	Sankt Quirin	19.06	306	*i* pP	P	03 41 54.8	+0.1
	comp=Z,9.7nm,1.3s						
BRG	Berggiesshubel	19.14	318	*e*P	Pn	03 41 59.7	+3.4
BRG				Amp		03 42 01.3	
	comp=Z,3.1nm,0.9s						
MOTA	Moosalm	19.18	306	*i* Pn	P	03 41 55.5	-0.5
	comp=Z,3.6nm,1.0s						
FETA	Feichten	19.30	305	*i* Pn	P	03 41 57.8	+0.4
	comp=Z,11nm,1.2s						
RETA	Reutte	19.44	306	*i* Pn	P	03 41 59.2	+0.3
	comp=Z,20nm,1.3s						
FUORN	Ofenpass-Fuorn	19.48	304	P	Pn	03 42 03.4	+2.8
	comp=Z,7.5nm,1.4s						
GRC2	Grafenberg Arr	19.60	311	P	Pn	03 42 02.4	+0.7
	comp=Z,22nm,0.9s						
TANN	Tannenbergstha	19.70	316	P	P	03 42 02.1	+0.6
	comp=Z,10.0nm,1.5s						
DAVOX	Davos/Dischmat	19.78	304	P	Pn	03 42 04.3	+0.2
	comp=Z,0.4nm,0.3s,baz=116,slow=8.8,SNR=13						
DAVOX				LR	LR	03 50 33.1	
	comp=Z,181nm,19.8s,baz=88,slow=40						
	comp=Z,14nm,1.1s						
DAVOX				AML	AML		
KEST	Kesra	19.86	271	P	Pn	03 42 05.0	-0.1
	comp=Z,0.2nm,0.3s,baz=76,slow=11,SNR=3.7						
	comp=Z,3.7nm,1.0s						
KEST				AML	AML		
CLL	Collm	19.88	319	*e*P	P	03 42 02.0	-1.5
CLL				*e*x	x	03 42 21.0	
CLL				*e*PPP	PPP	03 42 25.0	
CLL				*e*Sx	Sx	03 45 54.0	
CLL				L	L	03 47 00.0	
CLL				AMS	AMS	03 51 00.0	
	comp=N,300nm,14.7s						
CLL				AMS	AMS	03 51 00.0	
	comp=E,400nm,14.1s						
CLL				AMS	AMS	03 51 00.0	
	comp=Z,600nm,14.5s						
UBR	Ueberruh	19.92	306	P	P	03 42 04.6	+0.5
	comp=Z,15nm,1.1s						
DAVA	Damuels	19.94	305	*i* Pn	P	03 42 04.3	0.0
	comp=Z,22nm,1.0s						
DAVA	Damuels	19.94	305	P	Pn	03 42 05.7	-0.2
	comp=Z,34nm,1.1s						
TUE	Stuetta	20.05	303	P	Pn	03 42 10.0	+2.7
	comp=Z,6.5nm,1.0s						
NEUB	Neuenburg	20.48	317	P	Pn	03 42 11.4	-0.6
	comp=Z,17nm,1.0s						
BNALP	Bannalp	20.77	303	P	Pn	03 42 14.7	-1.0
	comp=Z,13nm,1.1s						
SLE	Schleitheim	20.98	306	P	P	03 42 16.5	+0.9
	comp=Z,9.8nm,1.1s						
AKTO	Aktyubinsk	21.07	46	P	P	03 42 15.8	-0.6
	comp=Z,2.5nm,0.7s,baz=244,slow=9.7,SNR=6.3						
	comp=Z,2.5nm,0.7s						
ECH	Echery	21.97	306	P	P	03 42 27.4	+1.2
	comp=Z,10nm,1.2s						
BANOM	Banah	22.37	116	P	P	03 42 30.4	-0.2
MZR	Muzera	22.43	126	P	P	03 42 30.8	-0.4
NAZ	Nazwa, Dubai	22.52	119	P	P	03 42 31.9	-0.2
MASF	Masafi	22.62	118	P	P	03 42 32.9	-0.3
FINES	FINESS Array B	23.93	351	P	P	03 42 45.6	-0.6
	comp=Z,5.4nm,1.1s,baz=153,slow=11,SNR=5.3						
FINES				LR	LR	03 52 31.0	
	comp=Z,62nm,20.4s,baz=238,slow=38						
	comp=Z,5.4nm,1.1s						
SMDO	Samad	25.42	119	P	P	03 42 59.5	-0.8
HFS	Hagfors	25.59	336	P	P	03 43 00.9	-0.4
	comp=Z,0.8nm,0.5s,baz=141,slow=9.1,SNR=6.0						
HFS				LR	LR	03 55 15.2	
	comp=Z,140nm,21.9s,baz=138,slow=42						
	comp=Z,0.8nm,0.5s						
NOA	NORSAR Array B	27.07	336	LR	LR	03 55 58.9	
	comp=Z,174nm,18.5s,baz=140,slow=41						
ATD	Arta Tunnel	27.57	161	LR	LR	03 53 32.4	
	comp=Z,6.6nm,18.9s,baz=354,slow=35						
ESDC	Sonseca Array	29.48	285	LR	LR	03 55 46.9	
	comp=Z,92nm,19.1s,baz=58,slow=37						
EKA	Eskdalemuir Ar	30.33	317	P	P	03 43 42.5	-1.3
	comp=Z,0.3nm,0.5s,baz=123,slow=9.9,SNR=2.3						
EKA				LR	LR	03 58 17.9	
	comp=Z,135nm,18.2s,baz=115,slow=41						
	comp=Z,0.3nm,0.5s						
AAK	Ala-Archa	30.97	69	LR	LR	03 57 08.3	
	comp=Z,82nm,19.2s,baz=287,slow=38						
MDT	Midelt	31.75	272	LR	LR	03 58 59.6	
	comp=Z,47nm,18.2s,baz=68,slow=40						
ARCES	ARCESS Array B	31.87	354	P	P	03 43 56.6	-0.7
	comp=Z,1.2nm,0.6s,baz=164,slow=9.3,SNR=9.7						
	comp=Z,1.2nm,0.6s						
KURBB	Kurchatov Arra	33.71	54	P	P	03 44 12.4	-1.2
	comp=Z,0.5nm,0.2s,baz=273,slow=9.4,SNR=5.7						
	comp=Z,0.5nm,0.2s						
MKAR	Makanchi Array	36.19	60	P	P	03 44 33.9	-1.1
	comp=Z,0.5nm,0.6s,baz=270,slow=8.6,SNR=3.7						
MKAR				LR	LR	04 00 48.7	
	comp=Z,71nm,20.4s,baz=248,slow=39						
	comp=Z,0.5nm,0.6s						
TORD	Torodi Ar. Bea	37.95	238	P	P	03 44 49.4	-0.9
	comp=Z,0.8nm,0.8s,baz=36,slow=8.3,SNR=4.2						
	comp=Z,0.8nm,0.8s						
MBAR	Mbarara	38.59	185	LR	LR	04 00 11.2	
	comp=Z,54nm,19.8s,baz=10.0,slow=35						
BORG	Borgarnes	41.66	328	LR	LR	04 04 56.9	
	comp=Z,124nm,19.4s,baz=111,slow=40						
NRIK	Noril'sk	42.23	25	LR	LR	04 07 53.0	
	comp=Z,52nm,18.1s,baz=272,slow=43						
SONM	Songino Array	52.07	54	P	P	03 46 41.5	-0.9
	comp=Z,0.3nm,0.5s,baz=270,slow=10,SNR=2.0						
	comp=Z,0.3nm,0.5s						
PALK	Pallekele	52.08	114	LR	LR	04 11 40.3	
	comp=Z,46nm,18.3s,baz=290,slow=39						
LSZ	Lusaka	53.33	187	LR	LR	04 09 34.2	
	comp=Z,73nm,18.1s,baz=44,slow=36						
SFJD	Kangerlussuaq	53.60	331	LR	LR	04 10 37.1	
	comp=Z,55nm,18.7s,baz=105,slow=37						
TIXI	Tiksi	55.86	22	LR	LR	04 13 39.2	
	comp=Z,40nm,19.1s,baz=348,slow=39						
CMAR	Chiang Mai Arr	59.28	90	LR	LR	04 19 17.5	
	comp=Z,22nm,18.6s,baz=280,slow=42						
FRB	Frobisher Bay	61.74	330	LR	LR	04 14 21.0	
	comp=Z,98nm,19.6s,baz=102,slow=36						
LBTB	Lobatse	63.24	189	LR	LR	04 15 40.6	
	comp=Z,58nm,18.2s,baz=20,slow=36						
BOSA	Boshof	66.83	188	P	P	03 48 25.7	+1.3
	comp=Z,4.4nm,0.9s,baz=17,slow=11,SNR=3.1						
BOSA				LR	LR	04 20 25.7	
	comp=Z,64nm,18.1s,baz=16,slow=38						
	comp=Z,4.4nm,0.9s						
MA2	Magadan	69.66	29	LR	LR	04 25 29.9	
	comp=Z,48nm,18.4s,baz=301,slow=41						
YKA	Yellowknife Ar	76.66	346	P	P	03 49 22.1	-1.0
	comp=Z,1.0nm,1.1s,baz=18,slow=5.0,SNR=3.7						
	comp=Z,1.0nm,1.1s						

*HLW **21** 03:44:20.5, 31°.85N×30°.73E, h20^{km}±4^{km}, Ml3.2*
*GII **21** 03:44:23.8±0.0, 31°.787N±0°.002×30°.975E±0°.001, h0^{km},*
Mws3.2, confirmed
ISC 21 03:44:18.0±1.1, **31°.81N**±0°.04×**30°.77E**±0°.04, **h10^{km}, n66,**
σ1^{s}.**46**/85, **Egypt**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
HLW	Helwan	2.01	166	P	Pn	03 44 53.5	+1.5
KOT	Kottamia	2.09	154	P	Pn	03 44 55.2	+2.0
HNAT	Natroun	2.18	183	P	Pn	03 44 56.2	+1.8
HNAT				S	Sn	03 45 21.3	-0.1
HHAG	Hagoal	2.18	148	P	Pn	03 44 56.5	+2.1
HHAG				S	Sn	03 45 21.2	-0.3
SUZ	Suez	2.65	137	P	Pn	03 45 02.8	+2.0
RYAN	Fayoum	2.76	189	P	Pn	03 45 03.6	+1.3
RYAN				S	Sn	03 45 34.4	-1.2
ZAF	Zafarana	2.95	148	P	Pn	03 45 06.6	+1.6
ZNM	Zenema	3.03	143	P	Pn	03 45 08.4	+2.2
MATC	Matruh	3.06	262	P	Pn	03 45 06.7	+0.3
NBNS	Bani Suef	3.21	172	P	Pn	03 45 10.2	+1.6
KZIT	Kziot	3.23	105	P	Pn	03 45 09.8	+0.9
KZIT				S	Sn	03 45 45.8	-1.6
AMAZ	Amatzia	3.55	93	P	Pn	03 45 14.1	+0.9
AMAZ				S	Sn	03 45 53.8	-1.4
RMNI	Mount Ramon	3.63	108	P	Pn	03 45 15.8	+1.4
RMNI				S	Sn	03 45 55.5	-1.9
CSS	Mathiatis	3.80	34	P	Pn	03 45 19.1	+2.4
CSS				S	Sn	03 46 02.1	+0.7
MSBI	Mazada	3.95	96	P	Pn	03 45 19.6	+1.0
MSBI				S	Sn	03 46 03.5	-1.5
MZS	Mizpe Shalem	3.96	92	P	Pn	03 45 19.9	+1.1
MZS				S	Sn	03 46 04.1	-1.1
YITV	Yitav	3.96	87	P	Pn	03 45 19.9	+1.0
YITV				S	Sn	03 46 04.1	-1.2
IDAN	Idan	3.98	103	P	Pn	03 45 19.7	+0.6
IDAN				S	Sn	03 46 03.1	-2.6
MMLI	Mount Malkishu	4.00	80	P	Pn	03 45 20.1	+0.7
MMLI				S	Sn	03 46 04.5	-1.8
RGMN	Argaman	4.05	84	P	Pn	03 45 20.8	+0.7
RGMN				S	Sn	03 46 05.1	-2.5
HRFI	Mount Harif	4.07	115	P	Pn	03 45 21.8	+1.4
HRFI				S	Sn	03 46 05.5	-2.7
MMA0B	Mount Meron ar	4.10	72	P	Pn	03 45 21.8	+1.0
MMA0B				S	Sn	03 46 08.1	-0.7
TAMRE	El Minia	4.12	178	P	Pn	03 45 22.5	+1.4
GHAJ	Ghor Haditha	4.13	96	P	Pn	03 45 22.2	+1.1
GHAJ				S	Sn	03 46 07.5	-2.0
EIL	Elat	4.19	120	P	Pn	03 45 23.9	+2.0
EIL				S	Sn	03 46 08.5	-2.5
KNHM	Kefar Nahum	4.21	74	P	Pn	03 45 23.3	+1.0
KNHM				S	Sn	03 46 09.5	-2.0
HBST	Basata	4.29	126	P	Pn	03 45 25.1	+1.7
GEM	Giv'at Ha'Em	4.36	70	P	Pn	03 45 25.8	+1.4
GEM				S	Sn	03 46 14.1	-1.2
KSHT	Keshet	4.42	73	P	Pn	03 45 26.5	+1.2
KSHT				S	Sn	03 46 15.5	-1.4
NATI	Neve Ativ	4.44	70	P	Pn	03 45 27.1	+1.7
NATI				S	Sn	03 46 15.8	-1.3
ASUT		4.46	171	P	Pn	03 45 27.1	+1.4
DQRL	Deir Qamar	4.46	64	*e*P	Pn	03 45 27.2	+1.3
SHBL	Chebaa	4.47	69	*e*P	Pn	03 45 27.8	+1.8
QRWL	Qaraoun	4.49	66	*e*P	Pn	03 45 28.3	+2.1
RCY	Rachaya	4.59	67	*e*P	Pn	03 45 29.7	+2.0
ZAHL	Zahle	4.76	63	*e*P	Pn	03 45 26.8	-3.2
ARG	Arkhangelos	4.91	334	*e*P	Pn	03 45 30.8	-1.1
ELL	Elmali	4.97	352	*e*P	Pn	03 45 34.0	+1.1
HWQ	Hawqa	4.99	59	*e*P	Pn	03 45 34.3	+1.1
FETY	Fethiye	5.01	344	*e*P	Pn	03 45 33.3	0.0
HFRF	Wahat Farafira	5.12	205	P	Pn	03 45 35.6	+0.8
KORT	Korkueli	5.19	356	*e*P	Pn	03 45 37.3	+1.5
CAME	Cameli-Denizli	5.26	347	*e*P	Pn	03 45 37.6	+0.8
DALY	Dalyan (Mula)	5.29	341	*e*P	Pn	03 45 36.9	-0.2
BEIL	Beino	5.29	58	*e*P	Pn	03 45 38.2	+1.0
HDMB	Hadim	5.33	15	*e*P	Pn	03 45 40.6	+2.7
TURN	Turunc	5.37	338	*e*P	Pn	03 45 37.9	-0.3
DAT	Datca	5.57	333	*e*P	Pn	03 45 40.6	-0.5
BCK	Bucak	5.63	359	*e*P	Pn	03 45 43.9	+1.9
SEYD	Seydisehir-KON	5.65	9	*e*P	Pn	03 45 42.2	0.0
YER	Yerkesik	5.69	340	*e*P	Pn	03 45 43.1	+0.4
APMY	Acipayam-Deniz	5.77	348	*e*P	Pn	03 45 45.2	+1.4
BODT	Bodrum	5.96	332	*e*P	Pn	03 45 46.1	-0.3

ISP	Isparta	6.00	358	eP	Pn	03 45 49.1	+2.1
MLSB	Milas	6.00	337	eP	Pn	03 45 46.9	0.0
BASM	Basmaki-Afyon	6.12	355	eP	Pn	03 45 50.5	+1.9
GVD	Gavdhos	6.35	300	eP	Pn	03 45 47.9	-3.9
NAZL	Nazilli-Aydin	6.46	342	eP	Pn	03 45 53.9	+0.6
GCAM	G?zelcaml?	6.55	335	eP	Pn	03 45 54.6	+0.1
AYDB	Zeytinkoy-Aydi	6.56	340	eP	Pn	03 45 54.9	+0.2
SDAG	Sultandagi-AFY	6.61	1	eP	Pn	03 45 57.4	+2.0
ODEM	Odemis-Izmir	6.81	342	eP	Pn	03 45 58.7	+0.6
KULA	Kula-Manisa	6.90	346	eP	Pn	03 46 00.2	+0.8
BLCB	Balcova	7.23	336	eP	Pn	03 46 03.6	-0.2
GORD	Gordes-Manisa	7.39	344	eP	Pn	03 46 06.4	+0.4
TVSB	Tavsanli	7.69	352	eP	Pn	03 46 10.9	+0.7

IDC **21** *04:22:08.7±0.7, 19°.64N×109°.42W, h0^{km}, mb4.1/10, mbtmp4.2/15, ML3.8/5, MS4.3/51, Error ellipse: s-maj=16.1km s-min=12.7km az=74.0*

MEX **21** *04:22:09.2±1.0, 19°.79N×109°.25W, h10^{km}, MD4.7, Presumed earthquake*

NEIC **21** *04:22:10.9±1.9, 19°.65N±0°.07×109°.43W±0°.05, h10^{km}±1^{km}, mb4.5/81, Error ellipse: s-maj=12.4km s-min=7.7km az=338.0*

GCMT **21** *04:22:11.9±0.2, 19°.84N±0°.01×109°.21W±0°.01, h22^{km}, MW5.2/141, Moment Tensor Solution. s84,c127; s141,c262; Duration: 1^{s}0 Moment tensor: Scale 10^{17} Nm; M_{rr}-0.15±.02; $M_{\theta\theta}$-0.84±.01; $M_{\phi\phi}$0.99±.02; $M_{r\theta}$-0.05±.02; $M_{\theta\phi}$-0.09±.01; $M_{\phi r}$0.13±.02; Best double couple: $M_0$0.93300×10^{17} NP1:ϕ_s42.00000°,δ83.00000°, λ2.00000°. NP2:ϕ_s312.00000°,δ88.00000°,λ173.00000°. Principal axes: T 1.0160, Plg7.0000°, Azm267.0000°; N -0.1660, Plg83.0000°, Azm115.0000°; P -0.8500, Plg3.0000°, Azm357.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

GFZ **21** *04:22:12.4, 19°.75N×109°.29W, h21^{km}, Mw5.2/30, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}-0.43; $M_{\theta\theta}$-7.28; $M_{\phi\phi}$7.71; $M_{r\theta}$-0.67; $M_{\theta\phi}$-0.51; $M_{\phi r}$0.05; Fault plane solution: $M_0$7.54784×10^{16} NP1: ϕ_s133.19282°,δ86.48565°,λ-175.75296°. NP2: ϕ_s42.93200°,δ85.76096°,λ-3.52400°. Principal axes: T 7.7239, Plg0.5113°, Azm268.0380°; N -0.3654, Plg84.4895°, Azm172.7307°; P -7.3585, Plg5.4866°, Azm358.0871°;*

GFZ **21** *04:22:12.4±0.4, 20°N±4°×10°9W±°, h10^{km}, M4.4/18, mb4.4/18 Error ellipse: s-maj=14.2km s-min=6.3km az=65.5, confirmed*

ISC 21 04:22:10.4±0.4**, 19°.72N**±0°.04×**109°.35W**±0°.04**, h10^{km}, n235,** σ1^s**85**/203**, mb4.5**/43**, MS4.4**/48**, Revilla Gigedo Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H06N1	SOCORRO T-PHAS	1.76	241	Pn	Pn	04 22 38.2	-2.8
H06N1				Sn	Sn	04 22 59.1	-4.3
H06N1				T	T	04 24 37.3	
	SNR=7.0						
H06N	Isla Socorro	1.76	241	eP	Pn	04 22 38.5	-2.5
H06N				eS	Sn	04 23 00.1	-3.5
H06N	Isla Socorro	1.76	241		Pn	04 22 38.5	-2.5
H06N					Sn	04 23 00.1	-3.5
H06S1	SOCORRO T	1.80	237	Pn	Pn	04 22 40.5	-1.0
H06S1				Sn	Sn	04 22 59.7	-4.8
H06S1				T	T	04 24 42.5	
	SNR=7.6						
H06S		1.81	237	eP	Pn	04 22 39.0	-2.7
H06S				eS	Sn	04 23 00.6	-4.0
H06S		1.81	237		Pn	04 22 39.0	-2.7
TOMAT	Tomatlan	3.88	86	eP	Pn	04 23 05.7	-4.4
TOMAT				eS	Sn	04 23 46.4	-10
CJM	Chamela	4.07	92	eP	Pn	04 23 08.3	-4.5
CJM				eS	Sn	04 23 52.0	-8.5
ESTA	Talpa de Allen	4.29	80	eP	Pn	04 23 12.9	-3.0
ESTA				eS	Sn	04 23 57.4	-8.8
CIHU	Emiliano Zapat	4.38	95	eP	Pn	04 23 12.4	-4.7
CIHU				eS	Sn	04 23 59.6	-8.6
LPIG	La Paz	4.45	349	Pn	Pn	04 23 16.9	-1.1
	29nm,0.3s,baz=174,slow=4.5,SNR=25						
LPIG				LR	LR	04 24 43.7	
	comp=Z,6µm,21.1s,baz=142,slow=34						
	90nm,0.5s						
LPIG				AML	AML		
LPIG	La Paz	4.45	349	eP	Pn	04 23 14.0	-4.0
LPIG				eS	Sn	04 24 04.3	-5.7
CEGR	Campo Tres	5.19	93	eP	Pn	04 23 25.8	-2.6
CEGR				eS	Sn	04 24 21.9	-6.7
INCO	Volcan de Coli	5.42	91	eP	Pn	04 23 29.7	-2.1
INCO				eS	Sn	04 24 29.8	-4.7
MMIG	Aquila	5.86	103	eP	Pn	04 23 34.1	-3.3
MMIG				eS	Sn	04 24 37.3	-7.4
TSIG	Topolobambo	5.86	3	eP	Pn	04 23 32.5	-4.9
TSIG				eS	Sn	04 24 39.2	-5.5
PDIG	Papasquiaro	6.44	34	eP	Pn	04 23 44.3	-1.3
PDIG				eS	Sn	04 24 53.0	-6.3
PDIG	Papasquiaro	6.44	34		Pn	04 23 44.3	-1.3
ZAIG	Zacatecas	7.02	63	eP	Pn	04 23 52.5	-1.1
ZAIG				eS	Sn	04 25 11.3	-2.4
ZAIG	Zacatecas	7.02	63		Pn	04 23 52.5	-1.1
ZAIG	Zacatecas	7.02	63	P	Pn	04 23 52.7	-1.0
	comp=Z,33nm,0.7s						
IGIG	Irapuato, Guan	7.61	81	eP	Pn	04 23 57.2	-4.4
IGIG				eS	Sn	04 25 18.1	-10
MOIG	Morelia	7.69	89	eP	Pn	04 24 04.5	+1.7
MOIG				eS	Sn	04 25 28.6	-1.6
MOIG	Morelia	7.69	89	Pn	Pn	04 24 03.2	+0.4
MOIG	Morelia	7.69	89		Sn	04 25 28.6	-1.6
ZIIG	Zihuatanejo	7.77	104	eP	Pn	04 23 57.9	-5.7
ZIIG				eS	Sn	04 25 24.9	-6.8
HPIG		7.94	25	eP	Pn	04 24 03.4	-2.9
HPIG				eS	Sn	04 25 31.7	-4.6
HPIG		7.94	25	Pn	Pn	04 24 07.0	+0.8
HPIG		7.94	25	P	Pn	04 24 08.8	+2.6
	comp=Z,12nm,1.0s						
CAIG	El Cayaco	9.03	106	eP	Pn	04 24 15.8	-5.1
CAIG				eS	Sn	04 26 00.7	-2.0
HSIG		9.38	351	Pn	Pn	04 24 27.3	+1.6
MEIG	Mezcala	9.39	99	eP	Pn	04 24 24.6	-1.4
MEIG				eS	Sn	04 26 08.6	-3.2
MEIG	Mezcala	9.39	99		Pn	04 24 24.6	-1.4
PLIG	Platanillo	9.41	96	eP	Pn	04 24 27.2	+0.9
PLIG				eS	Sn	04 26 13.3	+1.1
PLIG	Platanillo	9.41	96		Pn	04 24 27.2	+0.9
PLIG					Sn	04 26 13.3	+1.1
DAIG	Los Arroyos	9.60	105	eP	Pn	04 24 29.2	+0.5
DAIG				eS	Sn	04 26 13.2	-3.4
DAIG	Los Arroyos	9.60	105		Pn	04 24 29.2	+0.5
UNM	Universidad Na	9.61	91	Pn	Pn	04 24 31.0	+1.9
DEIG	Demacu	9.72	85	eP	Pn	04 24 29.9	-0.8
DEIG				eS	Sn	04 26 17.2	-2.8
DHIG	Demacu	9.72	85		Pn	04 24 29.9	-0.8
YAIG	Yautepec	9.75	93	eP	Pn	04 24 30.6	-0.5
YAIG				eS	Sn	04 26 19.2	-1.5
YAIG	Yautepec	9.75	93		Pn	04 24 30.6	-0.5
CRIG	Cruz Grande	10.16	105	eP	Pn	04 24 35.9	-0.5
CRIG				eS	Sn	04 26 27.9	-2.5
CRIG	Cruz Grande	10.16	105		Pn	04 24 35.9	-0.5
TLIG	Tlapa	10.45	100	eP	Pn	04 24 42.5	+2.0
TLIG				eS	Sn	04 26 36.7	-1.1
TLIG	Tlapa	10.45	100	Pn	Pn	04 24 41.2	+0.7
TLIG	Tlapa	10.45	100		Sn	04 26 36.7	-1.1
MGIG	Malinaltepec	10.47	102	eP	Pn	04 24 39.4	-1.5
MGIG				eS	Sn	04 26 34.2	-4.1
MGIG	Malinaltepec	10.47	102		Pn	04 24 39.4	-1.5
FTIG	Fresnillo de T	10.78	98	eP	Pn	04 24 44.5	-0.5
FTIG				eS	Sn	04 26 42.3	-3.6
FTIG	Fresnillo de T	10.78	98		Pn	04 24 44.5	-0.5
TX31	Lajitas Ar. Si	10.88	27	Pn	Pn	04 24 47.1	+0.7
TXAR	Lajitas Array	10.88	27	Pn	Pn	04 24 46.6	+0.2
	comp=Z,0.3nm,0.3s,baz=203,slow=13,SNR=35						
TXAR				LR	LR	04 28 30.4	
	comp=Z,3µm,18.4s,baz=207,slow=35						
	comp=Z,5.0nm,0.9s						
TXAR				AML	AML		
TXAR	Lajitas Array	10.88	27	Pn	Pn	04 24 47.7	+1.3
HLIG	Huajuapan de L	11.10	98	eP	Pn	04 24 47.9	-1.7
HLIG				eS	Sn	04 26 43.9	-10
TXIG	Tlaxiaco	11.26	101	eP	Pn	04 24 48.5	-3.3
TXIG				eS	Sn	04 26 56.6	-1.4
VHRN	Van Horn	11.71	19	Pn	Pn	04 24 59.6	+1.8
ALPN	Alpine	11.81	25	Pn	Pn	04 25 00.7	+1.6
TPB01	Permian Basin	12.26	23	Pn	Pn	04 25 06.2	+0.9
TPB05	Hovey Rd	12.41	25	Pn	Pn	04 25 09.3	+2.0
MNTX	Cornudas Mount	12.46	16	P	Pn	04 25 09.8	+1.9
	comp=Z,9.2nm,0.9s						
TPB28		12.68	19	Pn	Pn	04 25 12.6	+1.6
MNHN	Monahans	13.01	26	Pn	Pn	04 25 17.1	+1.6
TPB11	China Draw	13.07	20	Pn	Pn	04 25 18.0	+1.6
TPB06	Permian Basin	13.10	24	Pn	Pn	04 25 16.2	-0.5
HNDO	Hondo	13.38	41	Pn	Pn	04 25 21.4	+0.8
ODSA	Odessa	13.78	25	Pn	Pn	04 25 27.3	+1.3
CMIG	Matias Romero	13.98	98	Pn	Pn	04 25 29.0	+0.3
	comp=Z,0.4nm,0.3s,baz=278,slow=10,SNR=9.4						
CMIG				LR	LR	04 30 32.1	
	comp=Z,3µm,18.6s,baz=277,slow=36						
	comp=Z,12nm,0.9s						
CMIG				AML	AML		
CPRX	Cap Rock	14.14	19	Pn	Pn	04 25 29.6	-1.4
YUH	Yuha Desert	14.16	337	Pn	Pn	04 25 32.5	+1.4
SGCY	Sterling City	14.22	30	Pn	Pn	04 25 31.5	-0.5
128A	Castleberry Fa	14.25	24	Pn	Pn	04 25 31.6	-0.9
SBM	South Baldy	14.33	7	Pn	Pn	04 25 35.8	+1.9
BC3	Big Chuckawall	14.91	340	Pn	Pn	04 25 42.6	+1.1
PFO	Pinyon Flats O	15.22	337	Pn	Pn	04 25 45.4	-0.2
	comp=Z,0.1nm,0.3s,baz=149,slow=12,SNR=3.7						
PFO				LR	LR	04 31 20.3	
	comp=Z,2µm,18.3s,baz=150,slow=36						
	comp=Z,3.1nm,1.0s						
PFO				AML	AML		
PFO	Pinyon Flats O	15.22	337	P	Pn	04 25 47.1	+1.5
	comp=Z,11nm,0.9s						
IRM	Iron Mountain	15.28	341	Pn	Pn	04 25 46.9	+0.6
IRM				IAmb	IAmb	04 26 09.9	
	comp=Z,19nm,1.2s						
435B	Jarrell	15.31	42	Pn	Pn	04 25 46.7	0.0
435B				IAmb	IAmb	04 26 17.0	
	comp=Z,19nm,1.1s						
MSTX	Muleshoe	15.36	21	Pn	Pn	04 25 47.3	-0.1
MSTX				IAmb	IAmb	04 26 15.4	
	comp=Z,14nm,1.0s						
ANMO	Albuquerque	15.39	9	Pn	Pn	04 25 48.6	+0.7
	comp=Z,0.1nm,0.3s,baz=201,slow=9.6,SNR=10						
	comp=Z,4.6nm,1.0s						
ANMO				AML	AML		
ANMO	Albuquerque	15.39	9	Pn	Pn	04 25 49.4	+1.6
ANMO	Albuquerque	15.39	9	P	Pn	04 25 50.3	+2.4
	comp=Z,12nm,1.1s						
PLPT	Palo Pinto	16.36	35	Pn	Pn	04 26 00.5	+0.3
PLPT				IAmb	IAmb	04 26 10.3	
	comp=Z,50nm,1.3s						
MVCO	Mesa Verde	17.45	2	P	Pn	04 26 16.0	+1.8
	comp=Z,29nm,1.1s						
GWY	Greenwater Val	17.62	340		Pn	04 26 16.6	+0.3
WMOK	Wichita Mounta	17.65	30	P	Pn	04 26 16.9	+0.4
	comp=Z,12nm,1.1s						
FURC	Furnace Creek,	17.94	340		P	04 26 21.6	+1.0
HMU	Henry Mountain	18.20	356		Pn	04 26 23.8	+0.3
PV02	Paradox Valley	18.43	2	P	P	04 26 26.7	+0.4
PV02				IAmb	IAmb	04 26 35.1	
	comp=Z,29nm,1.0s						
APG	El Apazote	18.63	102	P	P	04 26 29.1	+0.6
	comp=Z,0.4nm,0.8s,baz=313,slow=18,SNR=4.2						
S11A	Rachel	18.71	344	P	Pn	04 26 30.8	+1.2
S11A				IAmb	IAmb	04 27 08.4	
	comp=Z,32nm,1.5s						
TCRU	Three Creeks R	19.02	353	P	P	04 26 34.1	+1.3
PSUT	Pine Spring	19.15	349	P	Pn	04 26 35.9	+0.9
PSUT				IAmb	IAmb	04 26 46.3	
	comp=Z,30nm,1.0s						
DEOK	Depew	19.65	33	P	P	04 26 39.4	-0.1
DEOK				IAmb	IAmb	04 27 11.9	
	comp=Z,18nm,1.0s						
ESQI	Esquipulas	19.80	102	P	P	04 26 42.9	+1.7
P18A	Preston Nutter	19.86	358	P	P	04 26 41.1	-0.9
P18A				IAmb	IAmb	04 26 58.6	
	comp=Z,19nm,1.2s						
TUL3	Leonard	20.07	34	P	P	04 26 45.1	+1.1
TUL3				IAmb	IAmb	04 26 51.8	
	comp=Z,41nm,1.2s						
LHV	Little Huntoon	20.11	339	P	Pn	04 26 46.4	+0.3
LHV				IAmb	IAmb	04 26 58.0	
	comp=Z,23nm,1.2s						
NVAR	Mina Array Bea	20.20	339	P	Pn	04 26 47.5	0.0
	comp=Z,7.9nm,0.9s,baz=165,slow=13,SNR=30						
NVAR				LR	LR	04 33 45.8	
	comp=Z,1µm,20.6s,baz=148,slow=34						
	comp=Z,7.9nm,0.9s						
NVAR	Mina Array Bea	20.20	339	P	P	04 26 46.8	+1.2
ISCO	Idaho Springs	20.27	8	P	P	04 26 48.2	+1.7
	comp=Z,12nm,1.0s						
MPU	Maple Canyon	20.33	355	P	P	04 26 48.5	+1.5
DUG	Dugway, Tooele	20.63	352	P	P	04 26 51.2	+1.0
DUG				IAmb	IAmb	04 27 01.2	
	comp=Z,20nm,1.1s						
DUG	Dugway, Tooele	20.63	352	P	P	04 26 52.1	+2.0
	comp=Z,24nm,1.1s						
KVN	Kaiserville	20.70	340	P	P	04 26 52.6	+1.6
BSUT	Blindstream Ca	20.79	357	P	P	04 26 52.9	+0.7
RDMU	Red Mountain	20.79	360	P	P	04 26 52.2	+0.2
RDMU				IAmb	IAmb	04 27 00.1	
	comp=Z,17nm,1.0s						
R32A	Long Quarter,	20.80	24	P	P	04 26 52.4	+0.4
R32A				IAmb	IAmb	04 27 08.3	
	comp=Z,35nm,1.1s						
YERR	Yerington	21.02	338	P	P	04 26 56.3	+1.8
YERR				IAmb	IAmb	04 27 09.3	
	comp=Z,16nm,1.0s						
BGU	Big Grassy Mou	21.37	352	P	P	04 26 59.0	+0.8
TCUT	Toone Canyon	21.41	356	P	P	04 26 58.9	+0.2
TCUT				IAmb	IAmb	04 27 09.9	
	comp=Z,30nm,1.1s						
ELK	Elko	21.56	348	P	P	04 27 01.1	+0.8
	comp=Z,3.9nm,0.9s,baz=183,slow=5.1,SNR=8.4						
ELK				LR	LR	04 34 54.2	
	comp=Z,692nm,19.3s,baz=167,slow=35						
	comp=Z,3.9nm,0.9s						
ELK	Elko	21.56	348	P	P	04 27 00.8	+0.5
PAHR	Pah Rah Range	21.71	339	P	P	04 27 03.6	+1.7
BMN	Battle Mountai	21.72	344	P	P	04 27 03.2	+1.2
TGUH	Tegucigalpa,Un	21.86	101	P	P	04 27 04.1	+0.5
TGUH	Tegucigalpa,Un	21.86	101	P	P	04 27 04.6	+1.0
	comp=Z,47nm,1.8s						
HWUT	Hardware Ranch	21.90	356	P	P	04 27 04.8	+0.9
	comp=Z,11nm,1.2s						
HVU	Hansel Valley	22.18	353	P	P	04 27 07.3	+0.4
PDAR	Pinedale Array	22.98	360	P	P	04 27 15.8	+0.3
	comp=Z,1.1nm,0.7s,baz=152,slow=10,SNR=9.5						
PDAR				LR	LR	04 35 59.5	
	comp=Z,491nm,18.7s,baz=158,slow=36						
	comp=Z,1.1nm,0.7s						
PDAR	Pinedale Array	22.98	360	P	P	04 27 15.1	-0.4
SNOW	Snow King Moun	23.70	357	P	P	04 27 22.8	0.0
SNOW				IAmb	IAmb	04 28 01.2	
	comp=Z,8.5nm,1.0s						
BOAB	BOACO BROADBAN	23.86	104	P	P	04 27 26.1	+1.9
	comp=Z,143nm,2.9s						
LRAL	Lakeview Retre	23.96	52	P	P	04 27 25.3	+0.3
LRAL				IAmb	IAmb	04 27 54.3	
	comp=Z,12nm,1.2s						
WVOR	Wild Horse Val	23.97	343	P	P	04 27 25.4	+0.3
WVOR				IAmb	IAmb	04 27 34.2	
	comp=Z,8.8nm,1.1s						
WVOR	Wild Horse Val	23.97	343	P	P	04 27 26.8	+1.6
	comp=Z,8.6nm,1.0s						
CCM	Cathedral Cave	24.12	37	P	P	04 27 26.6	+0.2
	comp=Z,10nm,1.2s						
HLID	Hailey	24.15	351	P	P	04 27 27.5	+0.6
	comp=Z,6.5nm,2.0s						
YBH	Yreka Blue Hor	24.71	336	LR	LR	04 36 38.7	
	comp=Z,598nm,20.6s,baz=158,slow=35						
RSSD	Black Hills	24.74	9	P	P	04 27 32.0	-0.3
JTS	Las Juntas de	25.33	108	LR	LR	04 36 07.3	
	comp=Z,287nm,20.7s,baz=297,slow=33						
JTS	Las Juntas de	25.33	108	P	P	04 27 39.6	+1.9
	comp=Z,17nm,2.2s						
J01E	Myrtle Point	26.40	336	P	P	04 27 47.6	+0.6
J01E				IAmb	IAmb	04 27 59.0	
	comp=Z,17nm,1.0s						
LAO	LASA Array	27.02	5	P	P	04 27 54.0	+1.2
LAO				IAmb	IAmb	04 28 00.5	
	comp=Z,13nm,0.9s						
ULM	Lac du Bonnet	32.30	16	P	P	04 28 38.9	-0.6
	comp=Z,7.9nm,1.1s,baz=226,slow=4.1,SNR=4.0						
ULM				LR	LR	04 41 10.2	
	comp=Z,872nm,18.1s,baz=196,slow=35						
	comp=Z,7.9nm,1.1s						
ULM	Lac du Bonnet	32.30	16	P	P	04 28 38.3	-1.2
SADO	Sadowa	35.38	38	LR	LR	04 43 03.6	
	comp=Z,533nm,21.5s,baz=256,slow=35						
BBB	Bella Bella	35.56	340	LR	LR	04 43 09.3	
	comp=Z,500nm,20.0s,baz=162,slow=35						
OTAV	Otavalo	35.93	119	P	P	04 29 12.1	+0.2
OTAV	Otavalo	35.93	119	P	P	04 29 14.5	+2.6
	comp=Z,19nm,1.3s						
SLOR	San Lorenzo -	36.45	120	P	P	04 29 15.9	-0.4
SLOR				IAmb	IAmb	04 29 51.8	
	comp=Z,7.2nm,1.1s						
SDV	Santo Domingo	38.94	100	LR	LR	04 46 14.2	
	comp=Z,354nm,21.9s,baz=298,slow=37						
SDV	Santo Domingo	38.94	100	P	P	04 29 36.8	-0.4
SDV				IAmb	IAmb	04 29 39.4	
	comp=Z,11nm,0.7s						
SDV	Santo Domingo	38.94	100	P	P	04 29 38.5	+1.3
	comp=Z,103nm,0.9s						
DLBC	Dease Lake	41.51	344	LR	LR	04 48 03.6	
	comp=Z,912nm,18.4s,baz=142,slow=37						
TAOE	Nuku Hiva Isla	41.54	230	eLR	LR	04 41 14.6	
	comp=Z,624nm,24.4s						
R32K	Eaglecrest	42.67	341	P	P	04 30 08.6	+1.5
YKA	Yellowknife Ar	42.90	356	P	P	04 30 08.3	-0.6
	comp=Z,1.8nm,0.7s,baz=179,slow=7.5,SNR=11						
YKA				LR	LR	04 48 20.2	
	comp=Z,647nm,19.1s,baz=176,slow=37						
	comp=Z,1.8nm,0.7s						
YKA	Yellowknife Ar	42.90	356	P	P	04 30 08.5	-0.4
WRGLY	Wrigley	44.54	351	P	P	04 30 24.1	+2.0
NNA	Nana	44.92	132	LR	LR	04 45 09.7	
	comp=Z,358nm,20.9s,baz=320,slow=31						
CZSB	Cruzeiro do Su	45.23	124	P	P	04 30 29.2	+0.9
H05S1	Guadeloupe/Mar	46.56	89	T	T	05 20 40.6	
	SNR=21						
SCHQ	Schefferville	47.53	32	LR	LR	04 50 26.6	
	comp=Z,354nm,18.5s,baz=254,slow=36						
L29M	L29M	47.61	343	P	P	04 30 47.6	+1.3
K29M	Barlow Dome	48.03	344	P	P	04 30 50.2	+0.5
KDAK	Kodiak Island	49.39	331	LR	LR	04 49 52.7	
	comp=Z,156nm,19.6s,baz=123,slow=34						
I28M	Miner Creek	49.94	344	P	P	04 31 05.3	+1.0
I28M				IAmb	IAmb	04 31 11.4	
	comp=Z,4.1nm,0.8s						
RIDG	Independent Ri	50.09	340	P	P	04 31 06.8	+1.4
INK	Inuvik	50.89	349	LR	LR	04 53 21.9	
	comp=Z,248nm,20.3s,baz=164,slow=37						
INK	Inuvik	50.89	349	P	P	04 31 11.6	+0.3
INK	Inuvik	50.89	349	P	P	04 31 11.9	+0.6
	comp=Z,13nm,1.0s						
STLK	Strandline Lak	51.13	335	P	P	04 31 15.8	+2.5
STLK				IAmb	IAmb	04 31 22.0	
	comp=Z,7.0nm,1.1s						
IL31		51.45	340	P	P	04 31 15.1	-0.5
IL31				IAmb	IAmb	04 31 24.9	
	comp=Z,13nm,1.4s						
ILAR	Eielson Array	51.45	340	P	P	04 31 15.5	-0.1
	comp=Z,2.1nm,0.7s,baz=149,slow=6.8,SNR=18						
	comp=Z,2.1nm,0.7s						
F28M	Old Crow	51.64	346	P	P	04 31 17.3	+0.3
F28M				IAmb	IAmb	04 31 26.6	
	comp=Z,9.9nm,1.0s						
TRF	Thorofare Moun	51.73	338	P	P	04 31 18.4	+0.5
E29M	Blow River	51.82	347	P	P	04 31 18.9	+0.6
FRB	Frobisher Bay	51.87	22	LR	LR	04 52 46.4	
	comp=Z,426nm,21.4s,baz=230,slow=35						
NEA2	Nenana	52.03	340	P	P	04 31 20.3	+0.3
NEA2				IAmb	IAmb	04 31 27.8	
	comp=Z,7.3nm,0.9s						
G26K	Porcupine Rive	52.10	344	P	P	04 31 20.5	+0.1
G26K				IAmb	IAmb	04 31 30.2	
	comp=Z,6.9nm,0.9s						
E28M	Babbage River	52.35	347	P	P	04 31 22.8	+0.5
E28M				IAmb	IAmb	04 31 27.4	
	comp=Z,4.3nm,0.8s						
E27K	Coleen River	52.49	345	P	P	04 31 24.0	+0.6
E27K				IAmb	IAmb	04 31 28.6	
	comp=Z,6.0nm,0.8s						
MACA	Manacapuru-AM	52.93	110	P	P	04 31 26.6	-0.7
MACA				IAmb	IAmb	04 31 39.5	
	comp=Z,6.5nm,0.8s						
F25K	Christian Rive	53.07	344	P	P	04 31 28.1	+0.5
F25K				IAmb	IAmb	04 31 33.1	
	comp=Z,4.8nm,0.8s						
I21K	Tanana	53.37	339	P	P	04 31 30.9	+1.0
I21K				IAmb	IAmb	04 31 37.5	
	comp=Z,5.8nm,1.0s						
J20K	Nowinta River	53.54	337	P	P	04 31 30.8	-0.3
J20K				IAmb	IAmb	04 31 40.9	
	comp=Z,5.0nm,0.8s						
H21K	Melozitna Rive	53.94	339	P	P	04 31 34.5	+0.5
LPAZ	La Paz	54.05	129	P	P	04 31 37.0	+0.7
	comp=Z,2.6nm,0.9s,baz=318,slow=6.0,SNR=7.6						
LPAZ				LR	LR	04 51 26.8	
	comp=Z,461nm,22.0s,baz=310,slow=32						
	comp=Z,2.6nm,0.9s						
LPAZ	La Paz	54.05	129	P	P	04 31 36.9	+0.7
LPAZ				IAmb	IAmb	04 31 41.5	
	comp=Z,5.4nm,1.1s						
LPAZ	La Paz	54.05	129	P	P	04 31 38.0	+1.8
	comp=Z,6.6nm,2.2s						
PPT	Papeete	54.16	229	LR	LR	04 48 31.2	
	comp=Z,282nm,18.8s,baz=12,slow=29						
PPT2	Papeete2	54.17	229	eS	S	04 39 15.4	+1.7
	comp=Z,110nm,26.8s						
PPT2				eLQ	LQ	04 44 51.6	
	comp=Z,417nm,25.5s						
PPT2				eLR	LR	04 47 11.0	
	comp=Z,391nm,25.5s						
PPT2				eLR	LR	04 47 11.2	
	comp=Z,640nm,26.8s						
PB16	IPOC Station P	54.40	132	P	P	04 31 40.8	+2.2
	comp=Z,8.2nm,1.9s						
IMAR	Indian Mountai	54.44	339	P	P	04 31 37.5	-0.2
E23K	Chandalar	54.48	343	P	P	04 31 38.5	+0.5
RES	Resolute Bay	55.55	5	LR	LR	04 56 10.0	
	comp=Z,959nm,18.2s,baz=198,slow=37						
MDP	Montagnes des	57.00	97	LR	LR	04 57 19.9	
	comp=Z,235nm,21.4s,baz=286,slow=37						
SFJD	Kangerlussuaq	59.96	23	LR	LR	04 56 11.6	
	comp=Z,390nm,19.7s,baz=246,slow=34						
AC02	Maricunga	60.52	138	P	P	04 32 22.8	+1.1
AC02				IAmb	IAmb	04 32 30.6	
	comp=Z,6.5nm,1.1s						
CLDB	Colider	60.87	115	P	P	04 32 23.1	-0.6
	comp=Z,8.5nm,1.9s						
RAR	Rarotonga	63.93	233	LR	LR	04 53 28.0	
	comp=Z,255nm,20.0s,baz=54,slow=29						
MT02	Curacav	64.08	145	P	P	04 32 46.7	+1.9
BO01	Tunca	64.97	146	P	P	04 32 52.7	+2.1
	comp=Z,9.1nm,1.9s						
BI02	San Fabin de	66.62	147	P	P	04 33 02.0	+0.8
	comp=Z,8.8nm,2.9s						
CPUP	Villa Florida	68.14	130	P	P	04 33 11.8	+0.8
	comp=Z,1.9nm,1.0s,baz=348,slow=6.3,SNR=3.9						
CPUP				LR	LR	05 01 32.1	
	comp=Z,171nm,19.1s,baz=282,slow=35						
	comp=Z,1.9nm,1.0s						
CPUP	Villa Florida	68.14	130	P	P	04 33 12.1	+1.1
CPUP				IAmb	IAmb	04 33 18.3	
	comp=Z,6.0nm,1.1s						
BDFB	Brasilia	69.79	116	P	P	04 33 22.5	+0.9
	comp=Z,1.0nm,0.3s,baz=290,slow=11,SNR=3.0						
BDFB				LR	LR	05 02 16.4	
	comp=Z,319nm,20.5s,baz=325,slow=34						
	comp=Z,1.0nm,0.3s						
AFI	Afiamalu	69.92	246	LR	LR	04 56 12.2	
	comp=Z,275nm,20.1s,baz=72,slow=29						
PLCA	Paso Flores	70.13	150	LR	LR	04 57 31.2	
	comp=Z,389nm,19.1s,baz=324,slow=30						
PLCA	Paso Flores	70.13	150	P	P	04 33 25.4	+2.2
BORG	Borgarnes	71.53	27	LR	LR	05 04 18.3	
	comp=Z,320nm,18.1s,baz=276,slow=35						
RCBR	Riachuelo	76.52	101	LR	LR	05 09 37.5	
	comp=Z,50nm,18.7s,baz=344,slow=37						
SPITS	Spitsbergen Ar	77.60	10	LR	LR	05 08 20.6	
	comp=Z,368nm,18.1s,baz=311,slow=36						
H11N3	WAKE ISLAND Hy	77.92	287	T	T	06 00 46.4	
	baz=69						
H11N2	WAKE ISLAND Hy	77.93	287	T	T	06 00 44.9	
	baz=69						
H11N1	WAKE ISLAND Hy	77.94	287	T	T	06 00 57.4	
	baz=69						
H11S1	WAKE ISLAND Hy	78.46	286	T	T	06 01 51.1	

	baz=65						
H11S2	**WAKE ISLAND Hy**	**78.46**	**286**	T	T	06 01 38.6	
	baz=65						
H11S3	**WAKE ISLAND Hy**	**78.47**	**286**	T	T	06 01 28.0	
	baz=65						
TIXI	**Tiksi**	**80.74**	**344**	LR	LR	05 13 21.7	
	comp=Z,191nm,19.4s,baz=23,slow=38						
RAO	**Raoul Island**	**82.08**	**235**	LR	LR	05 05 21.1	
	comp=Z,96nm,19.9s,baz=125,slow=32						
EKA	**Eskdalemuir Ar**	**82.81**	**34**	LR	LR	05 08 59.0	
	comp=Z,97nm,19.1s,baz=291,slow=34						
ARCES	**ARCESS Array B**	**85.40**	**14**	P	**P**	**04 34 46.9**	**-0.9**
	comp=Z,2.7nm,0.8s,baz=320,slow=4.9,SNR=3.8						
ARCES				LR	LR	05 13 02.6	
	comp=Z,210nm,20.0s,baz=318,slow=36						
	comp=Z,2.7nm,0.8s						
ARCES	**ARCESS Array B**	**85.40**	**14**	P	**P**	**04 34 47.1**	**-0.7**
YAK	**Yakutsk**	**86.14**	**336**	LR	LR	05 15 56.0	
	comp=Z,34nm,18.2s,baz=34,slow=37						
NOA	**NORSAR Array B**	**86.57**	**25**	LR	LR	05 13 52.1	
	comp=Z,108nm,19.1s,baz=310,slow=36						
HFS	**Hagfors**	**88.10**	**25**	LR	LR	05 14 41.1	
	comp=Z,192nm,18.4s,baz=304,slow=36						
ESDC	**Sonseca Array**	**88.84**	**48**	LR	LR	05 12 32.8	
	comp=Z,117nm,21.7s,baz=294,slow=34						
NRIK	**Noril'sk**	**90.36**	**354**	LR	LR	05 16 30.8	
	comp=Z,159nm,20.6s,baz=20,slow=36						
PMSA	**Palmer Station**	**91.09**	**162**	LR	LR	05 08 19.5	
	comp=Z,71nm,19.9s,baz=278,slow=30						
MDT	**Midelt**	**91.21**	**55**	LR	LR	05 13 21.4	
	comp=Z,80nm,19.5s,baz=308,slow=34						
KLR	**Kul'dur**	**92.59**	**325**	LR	LR	05 12 04.1	
	comp=Z,42nm,21.3s,baz=54,slow=32						
HNR	**Honiara**	**93.78**	**261**	LR	LR	05 08 16.6	
	comp=Z,297nm,21.8s,baz=157,slow=30						
DAVOX	**Davos/Dischmat**	**94.16**	**37**	LR	LR	05 16 34.3	
	comp=Z,295nm,18.7s,baz=300,slow=35						
MJAR	**Matsushiro Arr**	**95.21**	**312**	LR	LR	05 11 18.4	
	comp=Z,136nm,21.0s,baz=72,slow=31						
JHJ	**Hachijo jima 2**	**95.69**	**308**	LR	LR	05 13 31.3	
	comp=Z,139nm,19.2s,baz=5.5,slow=32						
VRAC	**Vranov**	**96.22**	**32**	LR	LR	05 19 14.4	
	comp=Z,195nm,18.1s,baz=306,slow=36						
GUMO	**Guam**	**99.83**	**288**	LR	LR	05 10 45.5	
	comp=Z,103nm,21.6s,baz=90,slow=29						
HHC	**Hu-ho-hao-te**	**108.75**	**328**	*e*P	**Pdif**	**04 36 31.9**	**-3.3**
WMQ	**Urumqi**	**114.87**	**346**	*e*PKP	PKPdf	04 40 53.0	+1.2
WMQ				LR	LR		
	comp=Z,190nm,24.2s						
WRA	**Warramunga Arr**	**120.43**	**258**	PKP	**PKPdf**	**04 41 01.2**	**-1.8**
	comp=Z,0.3nm,0.5s,baz=75,slow=2.3,SNR=5.3						
WRA	**Warramunga Arr**	**120.43**	**258**		**PKPdf**	**04 41 00.9**	**-2.0**
ASAR	**Alice Springs**	**121.50**	**254**	PKP	**PKPdf**	**04 41 03.6**	**-1.4**
	comp=Z,1.0nm,0.8s,baz=78,slow=2.1,SNR=5.8						
PZH	**PanZhiHua**	**125.03**	**326**	PKP	**PKPdf**	**04 41 12.3**	**+0.4**

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*YARS **21** 04:28:12.2, 63°.52N×150°.15E, h10^{km}, mb4.7/2, ML2.4/3*
*NERS **21** 04:28:18.2, 63°.37N×150°.38E, h0^{km}*
ISC 21 04:28:13.8±0.7**, 63°.49N**±0°.03×**150°.17E**±0°.03**, h10**^{km}**, n20,**
σ**1^{s}95**/41**, 1D, Eastern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SEY	**Seymchan**	**1.15**	**118**	⇓*e*Pg	**Pn**	**04 28 36.2**	**+0.4**
SEY				Pgmax		04 28 36.6	
	100nm,0.5s						
SEY				*e*Sg	**Sb**	**04 28 50.2**	**-0.3**
SEY				Sgmax		04 28 54.5	
	650nm,0.3s						
SEY	**Seymchan**	**1.15**	**118**	*e*Pg	**Pn**	**04 28 36.2**	**+0.4**
	100nm,0.5s						
SEY				*e*Sg	**Sb**	**04 28 50.3**	**-0.3**
	650nm,0.3s						
SEY				*e*Sg	**Sb**	**04 28 50.3**	**-0.3**
SUUS	**Susuman**	**1.15**	**233**	*e*Pg	**Pn**	**04 28 39.5**	**+3.5**
SUUS				Pgmax		04 28 46.6	
	100nm,0.7s						
SUUS				*e*Sg	**Sn**	**04 28 55.4**	**+3.6**
SUUS				Sgmax		04 28 58.6	
	620nm,0.3s						
TLAR	**Talaya**	**2.59**	**155**	*e*P	**Pb**	**04 28 59.9**	**-0.3**
TLAR				*e*Pg	**Pg**	**04 29 02.9**	**-0.4**
TLAR				Pgmax		04 29 05.8	
	40nm,0.4s						
TLAR				*e*Sg	**Sg**	**04 29 34.6**	**-2.1**
TLAR				Sgmax		04 29 38.7	
	490nm,0.4s						
TLAR	**Talaya**	**2.59**	**155**	*e*Pg	**Pg**	**04 29 02.9**	**-0.4**
	40nm,0.4s						
TLAR				*e*Sg	**Sg**	**04 29 38.8**	**+2.1**
TLAR				*e*Sg	**Sg**	**04 29 38.8**	**+2.1**
	490nm,0.4s						
OMS	**Omsukchan**	**2.74**	**108**	*e*Sg	**Sg**	**04 29 40.8**	**-0.8**
OMS				Sgmax		04 29 42.5	
	150nm,0.4s						
OMS	**Omsukchan**	**2.74**	**108**	*e*Sg	**Sg**	**04 29 42.5**	**+0.9**
	150nm,0.4s						
OMS				*e*Sg	**Sg**	**04 29 42.5**	**+0.9**
UNR	**Ust'-Nera**	**3.24**	**293**	*e*Pg	**Pb**	**04 29 09.3**	**-2.0**
	1.6nm,0.4s						
UNR				*e*Sg	**Sg**	**04 29 57.9**	**+0.2**
	8.8nm,0.0s						
UNR				*e*Sg	**Sg**	**04 29 57.9**	**+0.2**
	5.6nm,0.0s						
MGD	**Magadan 1**	**3.46**	**175**	*e*Pg	**Pg**	**04 29 19.7**	**-0.4**
MGD				*e*Sg	**Sg**	**04 30 03.9**	**-1.0**
MGD				Sgmax		04 30 08.6	
	140nm,0.4s						
MGD				Sgmax		04 30 08.6	
	60nm,0.4s						
MGD	**Magadan 1**	**3.46**	**175**	*e*Sg	**Sg**	**04 30 08.5**	**+3.6**
MGD				*e*Sg	**Sg**	**04 30 08.5**	**+3.6**
	140nm,0.4s						
TLON	**Talon**	**3.81**	**192**	*e*Sg	**Sg**	**04 30 15.0**	**-1.1**
TLON				Sgmax		04 30 24.5	
	130nm,0.4s						
GADL	**Gadlja**	**3.87**	**171**	*e*	**Pg**	**04 29 29.7**	**+1.8**
GADL				*e*S	**Sn**	**04 30 02.2**	**+3.5**
GADL				*e*Sg	**Sg**	**04 30 16.4**	**-1.6**
GADL				Sgmax		04 30 32.3	
	250nm,0.9s						
MA2	**Magadan**	**3.94**	**176**	*e*P	**Pb**	**04 29 19.2**	**-4.0**
MA2				*e*Pg	**Pg**	**04 29 28.8**	**-0.3**
MA2				Pgmax		04 29 30.5	
MA2				*e*Sg	**Sg**	**04 30 17.3**	**-2.7**
MA2				Sgmax		04 30 23.2	
	50nm,0.9s						
MA2	**Magadan**	**3.94**	**176**	*e*Pn	**Pn**	**04 29 13.2**	**-1.0**
	18nm,1.4s						
MA2				*e*Lg	Lg	04 30 18.3	
	151nm,0.6s						
MA2				*e*Lg	Lg	04 30 18.3	
MOMR	**Moma**	**4.20**	**318**	*e*Pn	**Pn**	**04 29 16.0**	**-1.8**
	0.3nm,0.5s						
MOMR				*e*Sg	**Sg**	**04 30 29.1**	**+0.6**
	2.7nm,0.7s						
MOMR				*e*Sg	**Sg**	**04 30 29.1**	**+0.6**
YBGR	**Belaya Gora**	**5.32**	**344**	*e*Pg	**Pb**	**04 29 49.0**	**+2.3**
	2.6nm,0.0s						
YBGR				*e*Lg	Lg	04 31 00.5	
YBGR				*e*Lg	Lg	04 31 00.5	
YBGR				*e*Sg	**Sg**	**04 31 07.1**	**+2.9**
YBGR				*e*Sg	**Sg**	**04 31 07.1**	**+2.9**
	1.2nm,0.5s						
USMR	**Ust'-Maya**	**7.98**	**254**	*i* Pn	**Pn**	**04 30 08.8**	**-0.7**
	0.9nm,2.2s						
USMR				*e*Lg	Lg	04 32 25.7	
USMR				*e*Lg	Lg	04 32 25.7	
	0.6nm,1.4s						
BILL	**Bilibino**	**8.03**	**48**	*i* Pn	**Pn**	**04 30 10.3**	**0.0**
	16nm,0.8s						
BILL				*e*Lg	Lg	04 32 26.5	
BILL				*e*Lg	Lg	04 32 26.5	
YAK	**Yakutsk**	**9.50**	**270**	*i* Pn	**Pn**	**04 30 29.2**	**-1.1**
	4.1nm,0.7s						
YAK				*e*Lg	Lg	04 33 14.3	
YAK				*e*Lg	Lg	04 33 14.3	
	5.0nm,0.9s						
CGD	**Chagda**	**10.56**	**252**	*i* Pn	**Pn**	**04 30 44.0**	**-0.9**
	0.9nm,1.9s						
CGD				*e*Lg	Lg	04 33 47.4	
CGD				*e*Lg	Lg	04 33 47.4	
	0.6nm,0.6s						

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*MAN **21** 04:28:58.0, 9°.25N×127°.03E, h10^{km}, MS4.6*
*NEIC **21** 04:28:59.4±1.1, 9°.23N±0°.07×126°.8E±0°.1, h10^{km}±1^{km}, mb4.6/25, Error ellipse: s-maj=22.7km s-min=11.0km az=75.0*
*IDC **21** 04:29:08.6±4.9, 9°.15N×126°.86E, h94^{km}±42^{km}, mb3.9/11, mbtmp4.2/12, MS3.9/7, Error ellipse: s-maj=52.8km s-min=13.5km az=67.0*
ISC 21 04:28:59.0±2.3**, 9°.24N**±0°.04×**126°.91E**±0°.07**, h12**^{km}±14^{km}**,**
n60, σ**1^{s}11**/64**, mb4.5**/21**, MS4.2**/7**, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CDOP	**Cateel, Davao**	**1.52**	**198**	*i* P	**Pn**	**04 29 26.1**	**+0.1**
CDOP				*i* S	**Sn**	**04 29 44.5**	**-1.2**
BUKP	**Musuan**	**2.27**	**234**	*e*P	**Pb**	**04 29 40.8**	**+0.8**
BUKP				*e*S	**Sb**	**04 30 07.5**	**-0.5**
DAV	**Davao City (W)**	**2.52**	**211**	P	**Pg**	**04 29 48.6**	**+1.2**
	192nm,0.4s,baz=60,slow=10.0,SNR=5.6						
DAV				S	**Sb**	**04 30 16.3**	**+1.0**
	407nm,0.4s,baz=246,slow=20,SNR=5.8						
DAV	**Davao City (W)**	**2.52**	**211**		**Pn**	**04 29 39.3**	**-0.5**
DAV	**Davao City (W)**	**2.52**	**211**	P	**Pb**	**04 29 44.0**	**-0.3**
PLP	**Palo**	**2.70**	**315**	*e*P	**Pn**	**04 29 43.5**	**+1.3**
PLP				*e*S	**Sn**	**04 30 16.9**	**+2.1**
TBP	**Tagbilaran**	**3.04**	**279**	*i* P	**Pb**	**04 29 50.1**	**-2.9**
TBP				*i* S	**Sb**	**04 30 31.2**	**+1.1**
LSIP	**Lazi, Siquijor**	**3.24**	**268**	*i* P	**Pb**	**04 29 53.3**	**-3.1**
LSIP				*e*S	**Sb**	**04 30 35.5**	**-0.3**
SNPH	**Sibulan**	**3.62**	**272**	*e*P	**Pn**	**04 29 58.1**	**+3.1**
SNPH				*e*S	**Sb**	**04 30 47.6**	**+0.5**
LQP	**Lukban**	**7.15**	**313**	*e*P	**Pn**	**04 30 43.1**	**-0.5**
TPUB	**Ta-pu**	**15.22**	**337**	P	**P**	**04 32 38.0**	**-0.9**
TPUB				IAmb	IAmb	04 32 50.6	
	comp=Z,48nm,1.3s						
SSLB	**Suanglung**	**15.55**	**339**	Pn	**Pn**	**04 32 37.6**	**-0.6**
SSLB				IAmb	IAmb	04 33 20.1	
	comp=Z,33nm,1.2s						
MTN	**Manton Dam**	**22.34**	**169**	P	**P**	**04 33 55.6**	**-1.3**
KNRA	**Kununurra**	**24.82**	**176**	P	**P**	**04 34 20.1**	**-1.2**
KNRA				IAmb	IAmb	04 34 23.9	
	comp=Z,5.6nm,0.6s						
FITZ	**Fitzroy Crossi**	**27.19**	**183**	P	**P**	**04 34 42.6**	**-0.1**
	comp=Z,1.6nm,0.4s,baz=1.0,slow=8.3,SNR=9.7						
	comp=Z,1.6nm,0.4s						
FITZ	**Fitzroy Crossi**	**27.19**	**183**	P	**P**	**04 34 41.4**	**-1.3**
CMAR	**Chiang Mai Arr**	**28.62**	**292**	P	**P**	**04 34 55.4**	**-0.2**
	comp=Z,1.3nm,0.7s,baz=94,slow=6.6,SNR=4.9						
CMAR				LR	LR	04 46 42.9	
	comp=Z,28nm,18.6s,baz=105,slow=37						
	comp=Z,1.3nm,0.7s						
MJAR	**Matsushiro Arr**	**29.05**	**19**	LR	LR	04 46 05.1	
	comp=Z,57nm,19.1s,baz=219,slow=35						
WB0	**Warramunga Arr**	**29.75**	**166**	P	**P**	**04 35 04.4**	**-1.2**
WB0				IAmb	IAmb	04 35 07.0	
	comp=Z,12nm,1.4s						
WRA	**Warramunga Arr**	**29.91**	**166**	P	**P**	**04 35 06.0**	**-0.9**
	comp=Z,1.1nm,0.5s,baz=347,slow=9.1,SNR=16						
	comp=Z,1.1nm,0.5s						
WRA	**Warramunga Arr**	**29.91**	**166**	P	**P**	**04 35 05.2**	**-1.8**
WB2	**Warramunga Arr**	**29.91**	**166**	P	**P**	**04 35 07.4**	**+0.4**
WB2				IAmb	IAmb	04 35 29.2	
	comp=Z,5.2nm,1.0s						
WR8	**Warramunga Arr**	**29.96**	**166**	P	**P**	**04 35 06.3**	**-1.1**
WR8				IAmb	IAmb	04 35 19.9	
	comp=Z,12nm,1.4s						
ASAR	**Alice Springs**	**33.41**	**168**	P	**P**	**04 35 36.8**	**-0.9**
	comp=Z,1.3nm,0.4s,baz=353,slow=6.5,SNR=24						
ASAR				PcP	**PcP**	**04 38 19.2**	**-0.1**
	comp=Z,1.2nm,1.1s,baz=327,slow=3.1,SNR=2.5						
	comp=Z,1.3nm,0.4s						
ASAR	**Alice Springs**	**33.41**	**168**	P	**P**	**04 35 37.4**	**-0.4**
MORW	**Morawa**	**39.50**	**195**	P	**P**	**04 36 29.5**	**-0.1**
MORW				IAmb	IAmb	04 36 43.8	
	comp=Z,21nm,1.2s						
FORT	**Forrest**	**39.80**	**178**	P	**P**	**04 36 32.4**	**+0.3**
FORT				IAmb	IAmb	04 36 38.2	
	comp=Z,16nm,1.0s						
SONM	**Songino Array**	**42.20**	**339**	P	**P**	**04 36 52.1**	**+0.2**
	comp=Z,1.1nm,0.6s,baz=154,slow=9.6,SNR=5.3						
SONM				PcP	**PcP**	**04 38 47.4**	**+1.4**
	comp=Z,0.4nm,0.6s,baz=122,slow=1.9,SNR=2.2						
	comp=Z,1.1nm,0.6s						
BBOO	**Buckleboo**	**42.72**	**169**	P	**P**	**04 36 56.2**	**+0.2**
NWAO	**Narrogin (SRO)**	**42.93**	**192**	P	**P**	**04 36 58.0**	**+0.2**
MK31	**Makanchi Array**	**53.22**	**323**	P	**P**	**04 38 16.8**	**-0.5**
MKAR	**Makanchi Array**	**53.22**	**323**	P	**P**	**04 38 17.3**	**-0.1**
	comp=Z,2.6nm,0.7s,baz=121,slow=8.6,SNR=21						
MKAR				PcP	**PcP**	**04 39 25.3**	**+0.1**
	comp=Z,0.9nm,0.6s,baz=119,slow=3.3,SNR=2.2						
	comp=Z,2.6nm,0.7s						
MKAR	**Makanchi Array**	**53.22**	**323**	P	**P**	**04 38 17.0**	**-0.4**
PDGK	**Podgornoye**	**53.38**	**318**	P	**P**	**04 38 18.0**	**-0.8**
MAKZ	**Makanchi**	**53.42**	**323**	P	**P**	**04 38 18.6**	**-0.2**
NIL	**Nilore**	**54.83**	**305**	P	**P**	**04 38 28.7**	**-0.7**
ZALV	**Zalesovo Beam**	**55.83**	**331**	P	**P**	**04 38 35.2**	**-0.9**
	comp=Z,0.9nm,0.3s,baz=108,slow=8.0,SNR=3.5						
	comp=Z,0.9nm,0.3s						
ZALV	**Zalesovo Beam**	**55.83**	**331**	P	**P**	**04 38 35.6**	**-0.5**
KURK	**Kurchatov**	**57.27**	**326**	P	**P**	**04 38 45.2**	**-1.2**
KURK				IAmb	IAmb	04 38 47.2	
	comp=Z,3.4nm,0.7s						
KURBB	**Kurchatov Arra**	**57.27**	**326**	P	**P**	**04 38 46.1**	**-0.3**
	comp=Z,2.7nm,0.6s,baz=126,slow=6.7,SNR=21						
	comp=Z,2.7nm,0.6s						
KKAR	**Karatay Array**	**59.42**	**315**	P	**P**	**04 39 01.1**	**-0.6**
BVAR	**Borovoye Array**	**62.87**	**326**	P	**P**	**04 39 25.1**	**+0.2**
	comp=Z,2.2nm,0.7s,baz=124,slow=7.4,SNR=6.7						
	comp=Z,2.2nm,0.7s						
BORK	**Borovoye**	**62.91**	**326**	P	**P**	**04 39 24.4**	**-0.7**
BORK				IAmb	IAmb	04 39 25.9	
	comp=Z,3.5nm,0.8s						
AB31	**Akbulak array**	**68.06**	**319**	P	**P**	**04 39 58.4**	**-0.2**
ABKAR	**Akbulak array**	**68.06**	**319**	P	**P**	**04 39 58.0**	**-0.5**
C19K	**Lookout Ridge**	**75.56**	**21**	P	**P**	**04 40 44.3**	**+1.0**
C19K				IAmb	IAmb	04 41 25.5	
	comp=Z,12nm,1.4s						
KIRV	**Kirov**	**75.65**	**328**	LR	LR	05 17 09.5	
	comp=Z,161nm,21.4s,baz=338,slow=38						
D19K	**Kuna River**	**75.96**	**22**	P	**P**	**04 40 46.2**	**+0.6**
CASY	**Casey**	**76.27**	**187**	P	**P**	**04 40 47.8**	**+0.6**
CASY				IAmb	IAmb	04 40 53.5	
	comp=Z,7.2nm,1.4s						
C23K	**Itkillik River**	**78.79**	**21**	P	**P**	**04 41 03.6**	**+2.2**
KVAR	**Kislovodsk Arr**	**79.50**	**313**	LR	LR	05 22 22.7	
	comp=Z,99nm,19.6s,baz=268,slow=40						
BMAR	**Burnt Mountain**	**80.97**	**23**	P	**P**	**04 41 15.3**	**+2.1**
OBN	**Obninsk**	**82.69**	**325**	LR	LR	05 18 41.3	
	comp=Z,222nm,21.1s,baz=354,slow=36						
G29M	**Pine Creek**	**83.56**	**23**	P	**P**	**04 41 27.8**	**+1.0**
ARCES	**ARCESS Array B**	**85.37**	**340**	P	**P**	**04 41 36.5**	**+0.6**
	comp=Z,3.3nm,0.7s,baz=76,slow=5.3,SNR=7.2						
	comp=Z,3.3nm,0.7s						
ARCES	**ARCESS Array B**	**85.37**	**340**	P	**P**	**04 41 36.1**	**+0.2**
ARCES				IAmb	IAmb	04 42 02.8	
	comp=Z,7.1nm,1.2s						
BRTR	**Keskin Array B**	**86.67**	**310**	LR	LR	05 24 43.7	
	comp=Z,100nm,21.9s,baz=314,slow=38						
FINES	**FINESS Array B**	**87.09**	**332**	P	**P**	**04 41 44.0**	**-0.6**
	comp=Z,0.8nm,0.5s,baz=90,slow=2.8,SNR=6.2						
	comp=Z,0.8nm,0.5s						
FINES	**FINESS Array B**	**87.09**	**332**	P	**P**	**04 41 44.1**	**-0.4**
AKASG	**Malin Array Be**	**87.75**	**321**	LR	LR	05 21 42.8	
	comp=Z,201nm,20.4s,baz=322,slow=36						

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*MEX **21** 04:35:48.5±0.5, 23°.92N×108°.77W, h10^{km}, MD4.2, Presumed earthquake*
*IDC **21** 04:35:50.0±0.8, 24°.37N×109°.09W, h0^{km}, mb4.1/7, mbtmp3.9/9, ML3.5/2, MS3.5/11, Error ellipse: s-maj=18.9km s-min=15.4km az=99.0*
*NEIC **21** 04:35:53.0±1.9, 23°.99N±0°.09×108°.58W±0°.09, h10^{km}±1^{km}, mb4.4/55, Error ellipse: s-maj=17.8km s-min=11.6km az=219.0*
ISC 21 04:35:51.1±0.5**, 24°.05N**±0°.05×**108°.67W**±0°.05**, h10**^{km}**,**
n120, σ**2^{s}08**/94**, mb4.4**/17**, MS3.7**/7**, Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LPIG	**La Paz**	**1.50**	**272**	Pn	Pn	04 36 10.7	-7.4
	89nm,0.3s,baz=106,slow=4.5,SNR=55						
LPIG				Sn	Sn	04 36 24.0	-14
	462nm,0.3s,baz=82,slow=9.1,SNR=14						
LPIG	**La Paz**	**1.50**	**272**	*e*P	Pn	04 36 11.1	-7.0
LPIG				*e*S	Sn	04 36 27.6	-10
TSIG	**Topolobambo**	**1.58**	**348**	*e*P	**Pn**	**04 36 14.9**	**-4.3**
TSIG				*e*S	**Sn**	**04 36 34.6**	**-5.0**
SSIG	**Sanalona**	**1.59**	**61**	*e*P	**Pn**	**04 36 15.5**	**-3.8**
SSIG				*e*S	**Sn**	**04 36 35.4**	**-4.6**
CSIG	**Choix**	**2.78**	**6**	*e*P	**Pn**	**04 36 33.7**	**-2.0**
HPIG		**3.95**	**43**		**Pn**	**04 36 52.2**	**+0.2**
SRIG	**Santa Rosalia**	**4.58**	**316**	Pn	**Pn**	**04 37 02.9**	**+2.5**
HSIG		**5.35**	**338**	Pn	**Pn**	**04 37 13.5**	**+2.4**
ZAIG	**Zacatecas**	**5.75**	**102**	Pn	**Pn**	**04 37 16.3**	**-0.5**
TX31	**Lajitas Ar. Si**	**6.91**	**39**	Pn	**Pn**	**04 37 32.7**	**+0.1**
TXAR	**Lajitas Array**	**6.91**	**39**	Pn	**Pn**	**04 37 33.0**	**+0.5**
	0.5nm,0.3s,baz=206,slow=14,SNR=31						
TXAR				Sn	**Sn**	**04 38 51.6**	**+0.4**
	0.6nm,0.3s,baz=227,slow=22,SNR=4.0						
TXAR				LR	LR	04 39 42.7	
	comp=Z,169nm,18.8s,baz=40,slow=34						
	0.8nm,0.3s						
TXAR				AML	AML		
TXAR	**Lajitas Array**	**6.91**	**39**	Pn	**Pn**	**04 37 33.8**	**+1.3**
VHRN	**Van Horn**	**7.46**	**25**	Pn	**Pn**	**04 37 41.3**	**+1.1**
ALPN	**Alpine**	**7.73**	**34**	Pn	**Pn**	**04 37 45.2**	**+1.3**
EPT	**El Paso**	**7.93**	**13**	Pn	**Pn**	**04 37 50.3**	**+3.8**
TPB01	**Permian Basin**	**8.12**	**31**	Pn	**Pn**	**04 37 51.7**	**+2.5**
MNTX	**Cornudas Mount**	**8.15**	**20**	Pn	**Pn**	**04 37 50.9**	**+1.4**
TPB05	**Hovey Rd**	**8.33**	**34**	Pn	**Pn**	**04 37 53.0**	**+1.0**
TPB28		**8.44**	**25**	Pn	**Pn**	**04 37 54.9**	**+1.3**
121A	**Cookes Peak, D**	**8.49**	**5**	Pn	**Pn**	**04 37 58.2**	**+4.0**
GDL2	**Guadalupe Moun**	**8.96**	**24**	Pn	**Pn**	**04 38 04.3**	**+3.5**
833A	**Chaparral WMA,**	**9.36**	**61**	Pn	**Pn**	**04 38 06.8**	**+0.8**
VTX	**Valle De La Tr**	**9.65**	**321**	Pn	**Pn**	**04 38 12.8**	**+2.6**
SBM	**South Baldy**	**9.97**	**7**	Pn	**Pn**	**04 38 18.8**	**+3.9**
HNDO	**Hondo**	**10.01**	**55**	Pn	**Pn**	**04 38 16.1**	**+1.1**
CRNM	**Carthage**	**10.01**	**9**	Pn	**Pn**	**04 38 17.0**	**+1.8**
BLYC	**Blythe**	**10.94**	**333**	Pn	Pn	04 38 31.3	+3.7
TASM	**ASL Pad, Albuq**	**11.03**	**10**	Pn	**Pn**	**04 38 32.2**	**+3.1**
ANMO	**Albuquerque**	**11.03**	**10**	Pn	**Pn**	**04 38 27.7**	**-1.4**
	0.1nm,0.3s,baz=186,slow=16,SNR=1.7						
ANMO				LR	LR	04 42 53.9	
	comp=Z,199nm,20.0s,baz=150,slow=39						
ANMO				AML	AML		
DKNS	**Dickens**	**11.74**	**34**	Pn	**Pn**	**04 38 41.1**	**+2.4**
MTPC	**Mountain Pass**	**12.86**	**334**	Pn	**Pn**	**04 38 56.9**	**+2.8**
MVCO	**Mesa Verde**	**13.12**	**1**	Pn	P	04 39 02.5	-5.5
GSC	**Goldstone, Bar**	**13.25**	**330**	Pn	P	04 39 03.8	-5.6
KNB	**Kanab**	**13.41**	**346**	Pn	P	04 39 05.8	-5.4
LCMT	**Little Creek M**	**13.50**	**344**	Pn	**P**	**04 39 07.7**	**-4.5**
SHOC	**Shoshone, Teco**	**13.52**	**333**	Pn	P	04 39 06.2	-6.0
LRMC	**Laurel Mtn Rad**	**13.81**	**328**	Pn	**P**	**04 39 11.2**	**-4.4**
QSM	**Queen of Sheba**	**13.83**	**331**	Pn	P	04 39 10.0	-5.7
PV05	**Paradox Valley**	**13.99**	**359**	Pn	**P**	**04 39 14.4**	**-3.3**
SZCU	**Shurtz Canyon**	**14.02**	**345**	Pn	P	04 39 12.9	-5.1
PRN	**Pahroc Range**	**14.39**	**339**	Pn	**P**	**04 39 18.3**	**-3.8**
CMIG	**Matias Romero**	**14.64**	**116**	LR	LR	04 45 50.3	
	comp=Z,170nm,18.8s,baz=315,slow=40						
S11A	**Rachel**	**14.84**	**338**	Pn	**P**	**04 39 24.9**	**-2.1**
GRAC	**Grapevine Rang**	**14.91**	**332**	Pn	**P**	**04 39 25.0**	**-2.7**
GRAC				IAmb	IAmb	04 39 37.8	
	comp=Z,33nm,1.3s						
Q16A	**Castle Valley**	**14.97**	**352**	Pn	**P**	**04 39 25.9**	**-2.7**
Q16A				IAmb	IAmb	04 39 34.5	
	comp=Z,22nm,1.3s						
W35A	**Tecumseh**	**15.07**	**40**	Pn	**P**	**04 39 26.8**	**-2.7**
W35A				IAmb	IAmb	04 39 41.0	
	comp=Z,12nm,0.9s						
SRU	**San Rafael Swe**	**15.10**	**354**	Pn	**P**	**04 39 27.5**	**-2.4**
SRU				IAmb	IAmb	04 39 29.9	
	comp=Z,9.3nm,1.1s						
PSUT	**Pine Spring**	**15.10**	**344**	Pn	**P**	**04 39 28.3**	**-1.7**
PSUT				IAmb	IAmb	04 39 36.8	
	comp=Z,31nm,1.1s						
P17A	**Butcher Ranch,**	**15.47**	**354**	Pn	**P**	**04 39 32.3**	**-1.8**
P17A				IAmb	IAmb	04 39 46.6	
	comp=Z,15nm,1.3s						
P18A	**Preston Nutter**	**15.59**	**355**	Pn	**P**	**04 39 34.2**	**-1.3**
P18A				IAmb	IAmb	04 39 44.5	
	comp=Z,20nm,1.2s						
TPH	**Tonopah**	**15.77**	**334**	Pn	**P**	**04 39 35.6**	**-1.9**
TPH				IAmb	IAmb	04 39 47.8	
	comp=Z,13nm,1.0s						
TUL3	**Leonard**	**16.23**	**40**	Pn	**P**	**04 39 41.4**	**-1.0**
TUL3				IAmb	IAmb	04 39 57.5	
	comp=Z,26nm,1.3s						
LHV	**Little Huntoon**	**16.45**	**332**	Pn	**P**	**04 39 45.6**	**+0.9**
LHV				IAmb	IAmb	04 39 55.2	
	comp=Z,25nm,1.3s						
RDMU	**Red Mountain**	**16.49**	**358**	Pn	**P**	**04 39 45.4**	**-0.1**
NVAR	**Mina Array Bea**	**16.52**	**332**	Pn	**Pn**	**04 39 40.6**	**-2.5**
	comp=Z,0.1nm,0.4s,baz=156,slow=13,SNR=9.4						
NVAR	**Mina Array Bea**	**16.52**	**332**		**P**	**04 39 44.7**	**-1.0**
KVN	**Kaiserville**	**16.96**	**334**	Pn	**P**	**04 39 50.4**	**-0.2**
WAKR	**Walker**	**17.07**	**330**	Pn	**P**	**04 39 52.9**	**+1.0**
WAKR				IAmb	IAmb	04 40 02.0	
	comp=Z,20nm,1.3s						
ELK	**Elko**	**17.54**	**343**	P	**P**	**04 39 57.7**	**+0.6**
	comp=Z,2.0nm,0.8s,baz=172,slow=8.5,SNR=8.3						
BMN	**Battle Mountai**	**17.85**	**338**		**P**	**04 40 01.9**	**+1.5**
HVU	**Hansel Valley**	**18.01**	**350**		**P**	**04 40 04.1**	**+2.0**
K22A	**Casper**	**18.64**	**5**	P	**Pn**	**04 40 11.6**	**+2.2**
K22A				IAmb	IAmb	04 40 20.6	
	comp=Z,71nm,1.3s						
BW06	**Boulder Array**	**18.68**	**358**	P	**Pn**	**04 40 11.4**	**+1.4**
PDAR	**Pinedale Array**	**18.68**	**358**	P	**Pn**	**04 40 10.1**	**+0.1**
	comp=Z,4.8nm,0.8s,baz=169,slow=11,SNR=46						
PDAR	**Pinedale Array**	**18.68**	**358**	P	**Pn**	**04 40 10.6**	**+0.6**
APG	**El Apazote**	**19.36**	**114**	LR	LR	04 48 13.2	
	comp=Z,26nm,21.6s,baz=250,slow=38						
LOHW	**Long Hollow**	**19.58**	**356**	P	**Pn**	**04 40 21.1**	**+0.4**
FXWY	**Fox Creek**	**19.63**	**355**	P	**Pn**	**04 40 21.8**	**+0.3**
K30B	**Basset**	**20.03**	**20**	P	Pn	04 40 26.6	+0.6
MOD	**Modoc Plateau**	**20.27**	**334**	P	Pn	04 40 28.7	-0.2
H17A	**Grant Village**	**20.35**	**356**	P	Pn	04 40 30.1	+0.1
YMR	**Madison River**	**20.65**	**355**	P	Pn	04 40 32.4	-1.1
YHL	**Hebgen Lake**	**20.85**	**355**	P	Pn	04 40 36.0	+0.2
QLMT	**Earthquake Lak**	**20.85**	**354**	P	Pn	04 40 35.5	-0.3
MCMT	**McKenzie Canyo**	**21.00**	**352**	P	**P**	**04 40 37.6**	**+2.6**
YBH	**Yreka Blue Hor**	**21.16**	**330**	LR	LR	04 47 19.6	
	comp=Z,171nm,20.2s,baz=146,slow=33						
SUSD	**Miller**	**21.84**	**19**	P	**P**	**04 40 45.1**	**+1.4**
GBMT	**Granite Butte,**	**22.96**	**353**	P	**P**	**04 40 56.3**	**+0.4**
EGMT	**Eagleton**	**23.94**	**358**	P	**P**	**04 41 06.7**	**+1.3**
EGMT				IAmb	IAmb	04 41 36.7	
	comp=Z,18nm,1.4s						
SIUN	**Universidad Ur**	**24.80**	**110**	P	**P**	**04 41 15.0**	**+1.5**
SIUN				IAmb	IAmb	04 41 22.8	
	comp=Z,8.2nm,1.2s						
I42A	**Draeger Farm,**	**25.57**	**34**	P	**P**	**04 41 23.9**	**+3.6**
U54A	**Nelsons Funny**	**26.21**	**55**	P	**P**	**04 41 27.6**	**+1.4**
BRU2	**Volcan**	**29.09**	**117**	P	**P**	**04 41 52.4**	**+0.1**
OTAV	**Otavalo**	**37.66**	**125**	P	**P**	**04 43 06.8**	**-0.5**
OTAV				IAmb	IAmb	04 43 16.8	
	comp=Z,10nm,1.1s						
ROSC	**El Rosal**	**38.18**	**115**	LR	LR	04 58 54.1	
	comp=Z,155nm,18.0s,baz=341,slow=36						
ROSC	**El Rosal**	**38.18**	**115**	P	**P**	**04 43 12.3**	**+0.7**
ROSC				IAmb	IAmb	04 43 22.4	
	comp=Z,9.9nm,1.1s						
SLOR	**San Lorenzo -**	**38.27**	**126**	P	**P**	**04 43 13.2**	**+0.8**
SLOR				IAmb	IAmb	04 43 37.3	
	comp=Z,5.2nm,0.9s						
YKA	**Yellowknife Ar**	**38.64**	**356**	P	**P**	**04 43 12.2**	**-2.2**
	comp=Z,1.5nm,0.9s,baz=172,slow=7.9,SNR=9.2						
	comp=Z,1.5nm,0.9s						
SDV	**Santo Domingo**	**39.31**	**106**	P	**P**	**04 43 21.4**	**+0.6**
SDV				IAmb	IAmb	04 43 29.6	
	comp=Z,9.1nm,0.8s						
KDAK	**Kodiak Island**	**45.97**	**329**	LR	LR	04 59 30.0	
	comp=Z,122nm,20.3s,baz=92,slow=31						
K24K	**Donnelly Dome**	**46.63**	**338**	P	**P**	**04 44 20.1**	**+0.7**
CZSB	**Cruzeiro do Su**	**47.23**	**128**	P	**P**	**04 44 24.6**	**+0.1**
ILAR	**Eielson Array**	**47.62**	**339**	P	**P**	**04 44 25.4**	**-1.6**
	comp=Z,1.2nm,0.9s,baz=141,slow=6.4,SNR=7.6						
	comp=Z,1.2nm,0.9s						
ILAR	**Eielson Array**	**47.62**	**339**	P	**P**	**04 44 27.1**	**+0.1**
TRF	**Thorofare Moun**	**48.00**	**336**	P	**P**	**04 44 30.3**	**+0.1**
PPLA	**Purkeypile**	**48.40**	**335**	P	**P**	**04 44 33.0**	**-0.2**
E27K	**Coleen River**	**48.49**	**344**	P	**P**	**04 44 34.1**	**+0.4**
E27K				IAmb	IAmb	04 44 43.1	
	comp=Z,5.2nm,1.0s						
CAST	**Castle Rocks**	**48.65**	**336**	P	**P**	**04 44 34.5**	**-0.5**
CAST				IAmb	IAmb	04 44 35.2	
	comp=Z,2.8nm,0.8s						
N18K	**Kilae Creek**	**48.82**	**331**	P	**P**	**04 44 35.8**	**-0.6**
J20K	**Nowinta River**	**49.83**	**336**	P	**P**	**04 44 42.9**	**-1.1**

J20K				IAmb	IAmb	04 44 50.7	
	comp=Z,4.3nm,0.8s						
J19K	Poorman	50.29	335	P	P	04 44 46.5	-1.0
J19K				IAmb	IAmb	04 44 54.7	
	comp=Z,4.0nm,0.9s						
BOAV	Boa Vista	51.23	107	P	P	04 44 55.1	-0.2
LPAZ	La Paz	56.34	131	P	P	04 45 37.2	+3.9
	comp=Z,2.8nm,1.0s,baz=332,slow=6.8,SNR=7.9						
	comp=Z,2.8nm,1.0s						
PPT	Papeete	57.48	228	LR	LR	05 03 50.8	
	comp=Z,62nm,21.5s,baz=8.5,slow=29						
PPT2	Papeete2	57.50	228	*e*LR	LR	05 02 17.1	
	comp=Z,152nm,28.0s						
SHEM	Shemya Is, Ala	63.60	319	LR	LR	05 08 55.5	
	comp=Z,56nm,19.7s,baz=310,slow=32						
BO01	Tunca	68.21	147	P	P	04 46 52.1	+0.2
CPUP	Villa Florida	70.51	132	P	P	04 47 11.4	+5.2
	comp=Z,3.4nm,0.8s,baz=311,slow=9.3,SNR=8.5						
	comp=Z,3.4nm,0.8s						
CPUP	Villa Florida	70.51	132	P	P	04 47 06.4	+0.1
CPUP				IAmb	IAmb	04 47 13.0	
	comp=Z,6.2nm,1.0s						
BDFB	Brasilia	71.16	117	P	P	04 47 15.5	+5.0
	comp=Z,4.5nm,0.8s,baz=319,slow=11,SNR=5.8						
	comp=Z,4.5nm,0.8s						
BDFB	Brasilia	71.16	117	P	P	04 47 10.3	-0.2
AFI	Afiamalu	72.26	245	LR	LR	05 13 26.8	
	comp=Z,76nm,19.6s,baz=62,slow=31						
PETK	Petropavlovsk-	73.23	321	LR	LR	05 13 29.1	
	comp=Z,37nm,21.0s,baz=50,slow=31						
PLCA	Paso Flores	73.55	151	P	P	04 47 26.0	+1.7
	comp=Z,2.5nm,1.0s,baz=341,slow=8.2,SNR=3.2						
	comp=Z,2.5nm,1.0s						
ESDC	Sonseca Array	85.49	48	P	P	04 48 30.2	+0.6
	comp=Z,0.4nm,0.8s,baz=305,slow=5.9,SNR=6.6						
	comp=Z,0.4nm,0.8s						
ESDC	Sonseca Array	85.49	48	P	P	04 48 29.4	-0.1
KSH2	Kashi	117.01	356	PKP	PKiKP	04 54 46.0	+9.2
PZH	PanZhiHua	121.78	328	PKP	PKiKP	04 54 47.3	+0.9
WRA	Warramunga Arr	121.85	261	PKP	PKiKP	04 54 44.3	-2.1
	comp=Z,0.4nm,0.9s,baz=77,slow=1.9,SNR=4.5						
ASAR	Alice Springs	123.22	257	PKP	PKiKP	04 54 46.7	-2.4
	comp=Z,0.2nm,0.4s,baz=67,slow=3.0,SNR=1.9						

*IDC **21** 04:44:34.5±10.0, 27°.65S×177°.22W, h0km, mb3.6/4, mbtmp3.6/4, Error ellipse: s-maj=283.5km s-min=34.1km az=40.0*

ISC 21 04:44:39.7±6.1**, 27°.4S**±0°.9×**177°.0W**±0°.7**, h55km, n7, σ0ˢ.23**/7**, mb3.9**/6**, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	Alice Springs	44.24	263	P	P	04 52 43.8	-0.2
	0.3nm,0.5s,baz=103,slow=7.5,SNR=1.6						
	0.3nm,0.5s						
WRA	Warramunga Arr	44.96	269	P	P	04 52 49.9	+0.2
	0.4nm,0.4s,baz=110,slow=7.9,SNR=7.0						
	0.4nm,0.4s						
VNDA	Vanda	51.21	186	P	P	04 53 37.2	+0.1
	0.4nm,0.7s,baz=19,slow=7.3,SNR=2.1						
	0.4nm,0.7s						
QSPA	South Pole Qui	62.75	180	P	P	04 54 59.0	0.0
	1.8nm,0.8s,baz=39,slow=6.9,SNR=14						
	1.8nm,0.8s						
TROLL	Troll, Antarti	80.92	180	P	P	04 56 47.9	+0.1
	comp=Z,68nm,0.8s						
VNA3	Neumayer Olymp	81.28	176	P	P	04 56 49.3	-0.3
	comp=Z,2.1nm,0.7s						
VNA2	Neumayer--Watz	81.73	177	P	P	04 56 52.1	+0.1
	comp=Z,1.5nm,0.6s,baz=174,slow=6.8						

*SDD **21** 04:46:08.5±2.5, 18°.76N×68°.94W, h107km±14km, MD3.9, ML2.9, MW3.2, Presumed earthquake*

*OSPL **21** 04:46:09.5±1.2, 18°.45N×68°.89W, h122km±7km, ML2.7, Presumed earthquake*

*RSPR **21** 04:46:10.0, 18°.51N×68°.91W, h110km±1km, MD3.7/6*

ISC 21 04:46:08.8±1.5**, 18°.59N**±0°.07×**68°.97W**±0°.04**, h116km**±9km**, n25, σ1ˢ.27**/42**, 24C-3D, Mona Passage**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HIDR	Higuey Centro	0.24	89	⇑*e*P	Pn	04 46 25.0	0.0
HIDR				*e*S	Sn	04 46 36.6	-0.7
HIDR	Higuey Centro	0.24	89	⇑*e*Pg	Pn	04 46 24.8	-0.3
HIDR				⇑*e*Sg	Sn	04 46 36.7	-0.5
HIDR				IAML		04 46 38.2	
	comp=N,663nm,0.2s						
HATOM	Hato Mayor del	0.44	297	⇑*e*Pg	Pn	04 46 25.6	-0.3
HATOM				⇓*e*Sg	Sn	04 46 38.2	-0.7
HATOM				IAML		04 46 38.9	
	comp=N,537nm,0.5s						
PCDR	Punta Cana, DR	0.56	97	⇑*e*P	Pn	04 46 26.6	-0.1
PCDR	Punta Cana, DR	0.56	97	*i* P	Pn	04 46 26.6	-0.1
PCDR				*e*S	Sn	04 46 39.6	-0.6
PCDR				IAML		04 46 45.6	
	comp=Z,59nm,0.2s						
PCDR	Punta Cana, DR	0.56	97	⇑*e*Pg	Pn	04 46 24.7	-2.0
PCDR				⇑*e*Sg	Sn	04 46 39.6	-0.6
PCDR				IAML		04 46 41.5	
	comp=N,71nm,0.8s						
SMDR	Samana, DR	0.73	344	⇑*e*P	Pn	04 46 28.7	+0.8
SMDR				*e*S	Sn	04 46 44.0	+1.5
SDD	Santo Domingo	0.90	262	*i* P	Pn	04 46 30.4	+0.9
SDD				*e*S	Sn	04 46 46.2	+1.1
SDD				IAML		04 46 48.0	
	comp=Z,127nm,0.2s						
SDD	Santo Domingo	0.90	262	⇑*e*Pg	Pn	04 46 30.6	+1.2
SDD				⇓*e*Sg	Sn	04 46 45.4	+0.2
SDD				IAML		04 46 47.5	
	comp=N,99nm,0.6s						
BANI	BANI	1.33	262	⇑*e*Pg	Pn	04 46 34.8	+0.7
BANI				⇑*e*Sg	Sn	04 46 55.5	+2.2
BANI				IAML		04 47 01.1	
	comp=N,296nm,0.3s						
ABDR	Alto Bandera	1.58	278	⇑*e*Pg	Pn	04 46 38.0	+0.7
ABDR				IAML		04 47 04.7	
	comp=N,178nm,0.2s						
LSP	Las Mesas	1.84	103	⇑*e*P	Pn	04 46 41.3	+1.3
SC01	Santiago de lo	1.86	297	*i* P	Pn	04 46 41.5	+1.2
SC01				*e*S	Sn	04 47 06.1	+1.7
SC01				IAML		04 47 15.2	
	comp=Z,85nm,0.3s						
CRPR	Cabo Rojo, PR	1.86	108	⇑*e*P	Pn	04 46 40.7	+0.4
MADR	Mao Valverde	2.24	296	⇑*e*Pg	Pn	04 46 45.9	+0.9
MADR				IAML		04 47 28.2	
	comp=N,92nm,0.2s						
LUDR	Luperon	2.28	305	⇑*e*Pg	Pn	04 46 43.0	-2.5
LUDR				⇑*e*Sg	Sn	04 47 12.2	-1.6
NEDR	Neiba UASD	2.32	268	⇑*e*Pg	Pn	04 46 46.2	+0.1
NEDR				⇑*e*Sg	Sn	04 47 15.9	+1.2
NEDR				IAML		04 47 21.9	
	comp=N,27nm,0.3s						
LONE3	El Aguacate, B	2.36	271	*i* P	Pn	04 46 47.2	+0.5
LONE3				*e*S	Sn	04 47 15.2	-0.6
LONE3				IAML		04 47 23.7	
	comp=Z,19nm,0.4s						
LODU1	El Espartillar	2.39	265	*i* P	Pn	04 46 47.6	+0.7
LODU1				IAML		04 47 19.9	
	comp=Z,22nm,2.2s						
LOVI	El Cajuil, Ovi	2.41	251	*i* P	Pn	04 46 46.7	-0.5
LOVI				*e*S	Sn	04 47 13.9	-2.9
LOVI				IAML		04 47 18.1	
	comp=Z,49nm,0.2s						
ECPR	Experimental S	2.49	96	⇑*e*P	Pn	04 46 49.2	+0.9
LOBH	Bahia de las A	2.63	255	*i* P	Pn	04 46 50.3	+0.1
LOBH				*e*S	Sn	04 47 20.2	-1.8
LOBH				IAML		04 47 29.2	
	comp=Z,24nm,0.3s						
JIDR	Jimani	2.73	268	⇑*e*Pg	Pn	04 46 52.7	+1.3
JIDR				⇑*e*Sg	Sn	04 47 23.2	-1.1
JIDR				IAML		04 47 44.9	
	comp=N,19nm,0.9s						
MCDR	Montecristi	2.85	298	⇑*e*Pg	Pn	04 46 53.7	+0.8
MCDR				⇑*e*Sg	Sn	04 47 24.2	-2.8
MCDR				IAML		04 47 44.4	
	comp=N,52nm,0.1s						
HUMP	Col San Antoni	3.00	98	⇓*e*P	Pn	04 46 55.7	+0.8

*TEH **21** 05:17:35.5, 31°.88N×50°.96E, h5km, ML3.2, Presumed earthquake*

*IDC **21** 05:17:37.1±2.4, 32°.01N×50°.70E, h0km, mb3.8/5, mbtmp3.7/6, ML3.4/1, Error ellipse: s-maj=49.0km s-min=32.2km az=159.0*

ISC 21 05:17:36.5±1.7**, 31°.91N**±0°.05×**50°.99E**±0°.04**, h1km**±13km**, n20, σ1ˢ.76**/20**, mb3.7**/4**, Northern and central Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IBRJ	Brojen	0.23	91	Pg	Pg	05 17 40.6	-0.2
ZNGN	Zangian	0.24	330	Pg	Pg	05 17 40.9	-0.1
JHBN	Jahan bin	0.42	319	Pg	Pg	05 17 44.3	-0.3
KLNJ	Kolanjah	1.04	150	Pg	Pb	05 17 56.6	-0.9
AMIS	Naft Sefid	1.47	261	Pg	Pb	05 18 05.7	+1.0
QAMS	Qamsar	1.85	10	Pn	Pb	05 18 11.1	-0.2
KRSH	Karshahi	2.27	25	Pn	Pb	05 18 17.3	-1.0
ANAR	Anarak	2.64	60	Pn	Pn	05 18 22.5	+2.2
IQOM	Qom	2.92	1	Pn	Pn	05 18 26.6	+2.2
DOBD	Dorbid, Yazd	2.99	88	Pn	Pn	05 18 27.3	+2.1
IKFM	Kafar-mosalman	3.10	302	Pn	Pn	05 18 28.5	+2.0
IMEH	Mehriz	3.13	99	Pn	Pn	05 18 29.6	+2.4
IBAF	Bafgh	3.91	94	Pn	Pn	05 18 39.8	+2.0
SNQR	Sonqor, Kerman	4.07	317	Pn	Pn	05 18 42.4	+2.2
BRTR	Keskin Array B	16.07	304	Pn	Pn	05 21 21.1	-2.7
	0.1nm,0.3s,baz=113,slow=13,SNR=2.4						
	0.3nm,0.5s						
BRTR				AML	AML		
AKASG	Malin Array Be	24.74	326	P	P	05 22 58.4	-0.9
	0.4nm,0.3s,baz=122,slow=7.5,SNR=4.2						
	0.4nm,0.3s						
MKAR	Makanchi Array	28.17	49	P	P	05 23 31.8	+1.4
	0.3nm,0.6s,baz=238,slow=8.0,SNR=2.7						
	0.3nm,0.6s						
FINES	FINESS Array B	33.70	339	P	P	05 24 19.4	+0.5
	2.7nm,0.9s,baz=150,slow=9.0,SNR=1.6						
	2.7nm,0.9s						
HFS	Hagfors	37.44	330	P	P	05 24 49.3	-1.7
	1.0nm,0.5s,baz=120,slow=8.5,SNR=4.9						
	1.0nm,0.5s						
TORD	Torodi Ar. Bea	48.77	259	P	P	05 26 22.3	-1.0
	1.1nm,0.8s,baz=54,slow=7.8,SNR=5.8						
	1.1nm,0.8s						

*CATAC **21** 05:23:55.0±0.3, 10°N±2°×8°4W±°, h4km±2km, M3.8/18, MLv3.8/18, Error ellipse: s-maj=5.5km s-min=2.5km az=47.0, confirmed*

*UPA **21** 05:23:55.5±1.5, 10°.15N×83°.46W, h10km±88km, MW3.4, Presumed earthquake*

*UCR **21** 05:23:56.0±0.8, 10°.01N×83°.56W, h15km±2km, MW3.9, Fault plane solution: NP1:φs75.64000°, δ66.60000°, λ68.12000°., Presumed earthquake*

ISC 21 05:23:55.9±0.8**, 9°.98N**±0°.02×**83°.56W**±0°.02**, h18km**±3km**, n121, σ0ˢ.63**/149**, 21C-25D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LCOCO	El Coco	0.10	3	*e*P	Pb	05 23 59.7	+0.3
LCOCO				*e*S	Sb	05 24 02.6	+1.0
RVLA	Villa Bonita	0.13	348	⇓*i*P	Pb	05 24 00.0	+0.2
VTCV	VTCV, Calle Va	0.16	270	⇑*e*P	Pb	05 24 00.8	+0.3
CVTR	Volcan Turrial	0.20	281	⇓*e*P	Pb	05 24 01.2	-0.1
VTR0	Volcan Turrial	0.20	280	*e*P	Pb	05 24 01.4	+0.1
VINA	Juan Vinas	0.20	244	⇓*e*P	Pb	05 24 01.1	-0.1
VINA				*e*S	Sb	05 24 04.9	+0.2
CVTQ	Turrialba Volc	0.20	276	⇓*e*P	Pb	05 24 01.5	+0.1
TAAN	Batan	0.23	64	⇑*e*P	Pb	05 24 01.7	-0.1
TAAN				*e*S	Sb	05 24 06.6	+1.0
PCAYA	Pacayas	0.25	255	⇓*e*P	Pb	05 24 02.1	-0.1
PCAYA				*e*S	Sb	05 24 06.5	+0.1
VICA	Volcano Irazu	0.28	270	⇓*e*P	Pb	05 24 02.5	-0.2
PILE	Guapiles	0.32	316	⇓*i*P	Pb	05 24 03.2	-0.1
PILE				*e*S	Sb	05 24 08.6	+0.5
REPA	Paraso	0.34	243	⇓*e*P	Pb	05 24 03.3	-0.3
REPA				*e*S	Sb	05 24 08.7	0.0
TAGO	Cartago	0.38	252	*e*P	Pb	05 24 03.9	-0.4
CVIMO	Finca Echandi	0.38	276	⇑*e*P	Pn	05 24 08.3	+1.5
TRIO	Tres Rios	0.43	260	⇓*e*P	Pg	05 24 04.7	-0.2
CORON	Coronado	0.43	269	*e*P	Pb	05 24 05.5	+0.3
BUS1	Rivas	0.46	203	⇓*e*P	Pg	05 24 05.3	-0.3
BUS1				*e*S	Sg	05 24 12.1	+0.1
ECI	Escuela Centro	0.48	265	*e*P	Pb	05 24 06.0	-0.1
SJS3	Mercedes San J	0.48	265	*e*P	Pb	05 24 05.9	-0.2
LUPE	Guadalupe	0.49	266	*e*P	Pg	05 24 05.8	-0.1
SJS	Escuela Geolog	0.49	265	*e*P	Pb	05 24 05.8	-0.3
AMPA	Desamparados	0.50	260	*e*P	Pg	05 24 05.8	-0.3
TIBA	Tibas	0.50	268	*e*P	Pb	05 24 06.5	+0.1
LUJA	Lujan	0.51	264	*e*P	Pb	05 24 06.3	-0.2
CENT	San Jose	0.51	264	*e*P	Pb	05 24 06.4	-0.1
MEXI	Barrio Mexico	0.52	265	*e*P	Pb	05 24 06.6	0.0
DOMI	Santo Domingo	0.52	270	*e*P	Pb	05 24 06.8	+0.1
PIEC	Cerro El Cedra	0.53	227	⇓*e*P	Pg	05 24 06.4	-0.3
VBV1	V. Barva	0.55	284	⇑*e*P	Pg	05 24 06.7	-0.2
PAVB	Pavas, San Jos	0.55	266	⇑*e*P	Pb	05 24 07.1	-0.1
PITB	Pirrs, San	0.56	235	⇓*e*P	Pg	05 24 06.8	-0.3
RAZU	San Marcos de	0.56	235	⇓*e*P	Pg	05 24 06.8	-0.3
ABE2	San Pablo	0.56	240	⇓*e*P	Pg	05 24 06.9	-0.3
HEME	Heredia, Merce	0.57	271	⇑*e*P	Pb	05 24 08.4	+1.0
SANTA	Santa Ana	0.62	265	⇑*i*P	Pg	05 24 07.9	-0.3
BELE	Belen	0.62	269	*e*P	Pg	05 24 08.0	-0.2
ACOS	Acosta	0.62	253	⇓*e*P	Pg	05 24 07.9	-0.5
SAJE	San Jernim	0.64	175	⇓*e*P	Pg	05 24 07.7	-0.9
ZEDO	Perez Zeledon	0.64	191	⇓*e*P	Pb	05 24 09.0	+0.4
POAS	San Pedro de P	0.68	278	⇑*e*P	Pb	05 24 09.6	+0.2
VPS5	V. Poas	0.69	287	*e*P	Pg	05 24 09.3	-0.4
VPS8	V Poas	0.70	286	⇑*e*P	Pg	05 24 09.5	-0.3
CEUA	Cerro Uatsi, L	0.71	120	*e*P	Pb	05 24 10.3	+0.4
TCS1	Tacares	0.73	275	P	Pb	05 24 10.4	+0.1
TCS1				S	Sb	05 24 21.2	+1.2
TCS1	Tacares	0.73	275	⇑*e*P	Pg	05 24 10.1	-0.2
ARTO	Ro Cuarto	0.74	299	*e*P	Pg	05 24 09.5	-0.9
GREC	Grecia	0.74	277	*e*P	Pb	05 24 10.5	+0.1
PURI	Puriscal	0.75	260	*e*P	Pg	05 24 10.2	-0.5
SARCI	Sarchi	0.78	278	⇓*i*P	Pb	05 24 11.3	+0.2
ATEO	Atenas	0.81	270	⇑*e*P	Pg	05 24 11.1	-0.6
QUEP	Quepos	0.81	227	P	Pg	05 24 11.3	-0.5
QUEP				S	Sb	05 24 23.2	+1.1
QUEP	Quepos	0.81	227	*e*P	Pg	05 24 11.1	-0.6
NARAN	Naranjo de Ala	0.81	278	⇑*e*P	Pb	05 24 11.7	+0.1
EDPE	Pejibaye, P	0.82	181	⇓*i*P	Pg	05 24 11.3	-0.7
VPL3	V. Platanar	0.82	296	*e*P	Pg	05 24 11.3	-0.7
BURE	Buenos Aires	0.83	165	⇓*e*P	Pg	05 24 11.1	-1.2
ZARE	Zarcero	0.84	284	*e*P	Pg	05 24 11.9	-0.5
ITAL	Pital	0.84	304	*e*P	Pg	05 24 11.3	-1.0
PALD	Palmares	0.86	275	⇑*i*P	Pg	05 24 12.0	-0.8
VPL2	V. Platanar	0.87	292	*e*P	Pg	05 24 12.0	-0.9
TRB2	Turrubares	0.88	266	P	Pg	05 24 12.4	-0.7
TRB2				S	Sb	05 24 25.0	+0.9
TRB2	Turrubares	0.88	266	*e*P	Pg	05 24 12.0	-1.0
RITA	Parrita	0.89	239	*e*P	Pb	05 24 12.8	0.0
RAMO	San Ramon	0.90	277	*e*P	Pg	05 24 12.7	-0.8
QUEU	Ciudad Quesada	0.92	291	*e*P	Pb	05 24 13.2	-0.4
OROT	Orotina	0.95	266	*e*P	Pb	05 24 13.2	-0.8
RGM0	Gandoca	1.02	112	*e*P	Pb	05 24 15.2	+0.1
PANP	Palmar Norte	1.02	174	⇓*e*P	Pg	05 24 15.6	-0.2
EDP2	Potrero Grande	1.03	158	*e*P	Pb	05 24 14.9	-0.4
ARZA	Esparza	1.09	271	⇑*e*P	Pb	05 24 15.8	-0.6
COVE	Coope Vega, Sa	1.10	312	P	Pb	05 24 15.7	-0.9
COVE				S	Sb	05 24 30.5	-0.2
FORC	Fortuna	1.19	294	*e*P	Pn	05 24 17.5	-0.3
VACR	Volcan Arenal	1.20	294	⇑*e*P	Pn	05 24 17.7	-0.2
CEDE	Laguna Cedeo	1.23	294	⇑*e*P	Pn	05 24 18.2	-0.2
ARE1	Arenal 1	1.23	293	⇑*e*P	Pn	05 24 18.2	-0.2
VARE2	V. Arenal	1.23	293	⇑*e*P	Pn	05 24 18.3	-0.1
CASO	Castillo	1.24	291	*e*P	Pn	05 24 18.2	-0.3
REZ	Monterrey de S	1.24	296	*e*P	Pn	05 24 18.5	-0.1
TABAC	Tabacon	1.29	293	*e*P	Pn	05 24 19.3	+0.1
VITO	San Vito	1.30	153	*e*P	Pb	05 24 19.9	0.0
VITO	San Vito	1.30	153	*e*P	Pb	05 24 20.0	+0.1
VITO				*e*S	Sg	05 24 39.7	+1.7
PAQE	Paquera	1.36	263	*e*P	Pn	05 24 19.9	-0.2
SCLRA	Santa Clara, W	1.38	146	*e*P	Pn	05 24 20.6	+0.2
SCLRA	Santa Clara, W	1.38	146	*e*P	Pn	05 24 20.9	+0.4
SCLRA				*e*S	Sg	05 24 40.8	+0.2
EDAD	Golfito	1.38	163	⇓*e*P	Pn	05 24 20.1	-0.3
JTS	Las Juntas de	1.40	283	P	Pn	05 24 20.9	+0.2
JTS				S	Sg	05 24 40.5	-0.8
JTS	Las Juntas de	1.40	283	*e*P	Pn	05 24 20.7	0.0
JIME	Puerto Jimenez	1.46	171	*e*P	Pn	05 24 18.5	-2.9
NELY	Ciudad Neily	1.46	155	*e*P	Pn	05 24 22.1	+0.6
NELY	Ciudad Neily	1.46	155	*e*P	Pb	05 24 22.2	-0.4
NELY				*e*S	Sg	05 24 43.0	-0.1
QUEB	Quebradon, Cot	1.46	296	*e*P	Pn	05 24 21.3	-0.2
BRU2	Volcan	1.46	144	P	Pn	05 24 22.1	+0.5
BRU2				S	Sb	05 24 41.7	+0.6
BRU2	Volcan	1.46	144	⇓*e*P	Pn	05 24 21.8	+0.1
BRU2	Volcan	1.46	144	⇓*e*P	Pn	05 24 22.2	+0.5
BRU2				*e*S	Sb	05 24 41.5	+0.4
CLLRA	Cordillera,	1.55	143	*e*P	Pn	05 24 23.2	+0.4
CLLRA	Cordillera,	1.55	143	⇑*e*P	Pn	05 24 23.5	+0.7
CLLRA				*e*S	Sg	05 24 45.1	-0.9
TIMP	Tierras Morena	1.55	293	*e*P	Pn	05 24 22.9	0.0
CDITO	Canoas	1.56	154	P	Pn	05 24 23.5	+0.7
CDITO				S	Sb	05 24 44.7	+1.0
TENO	El Achiote	1.57	297	*e*P	Pn	05 24 23.3	+0.3
CNAS	Canas	1.57	287	*e*P	Pb	05 24 25.2	+0.6
PIRO	Carate, Puerto	1.58	172	P	Pn	05 24 23.8	+0.6
PIRO				S	Sg	05 24 45.9	-1.2
PIRO	Carate, Puerto	1.58	172	*e*P	Pn	05 24 23.7	+0.6
BQTLY	Boquete Panama	1.63	138	*e*P	Pn	05 24 24.1	+0.1
BQTLY	Boquete Panama	1.63	138	⇑*e*P	Pn	05 24 24.4	+0.4
BQTLY				*e*S	Sb	05 24 45.9	-0.1
NYURE	Nandayure	1.67	271	*e*P	Pn	05 24 25.0	+0.7
UPAL	Upala	1.69	303	P	Pn	05 24 24.9	+0.3
UPAL				S	Sb	05 24 47.7	+0.1
CUI	Cuipilapa	1.71	293	⇑*e*P	Pn	05 24 25.2	+0.1
VMAR	Armenia, Volca	1.73	299	*e*P	Pn	05 24 25.3	0.0
RBALA	Bur	1.77	128	*e*P	Pn	05 24 25.6	-0.2
RBALA				*e*S	Sn	05 24 48.4	+0.5
CMARA	Lajas Hojancha	1.83	271	P	Pn	05 24 28.0	+1.3
CMARA				S	Sb	05 24 52.5	+0.7
BGUAL	Bijagual, Pana	1.90	140	⇓*e*P	Pb	05 24 29.2	-0.9
BGUAL				*e*S	Sb	05 24 54.1	+0.5
BLUN	Bluefields	2.02	354	P	Pn	05 24 29.8	+0.6
BLUN				S	Sn	05 24 54.9	+0.8
CARN	Rivas	2.27	302	P	Pn	05 24 33.4	+0.8
CARN				S	Sb	05 25 03.0	-1.3
PDCAN	Manzana , Fuen	2.49	132	*e*P	Pn	05 24 37.9	+2.2
PDCAN				*e*S	Sb	05 25 09.7	-1.0
ACON	Acoyapa	2.53	321	P	Pn	05 24 36.4	+0.2
OMEN	Al SSO del Vol	2.53	307	P	Pn	05 24 36.6	+0.3
MORN	Al O del Volca	2.57	307	P	Pn	05 24 37.1	+0.3
BOAB	BOACO BROADBAN	3.21	320	P	Pn	05 24 45.3	-0.2
MATN	Matagalpa	3.73	322	P	Pn	05 24 52.8	0.0
BCIP	Isla Barro Col	3.76	102	P	Pn	05 24 52.8	-0.3
PRVC	Isla de Provid	4.00	32	P	Pn	05 24 56.6	+0.1

*AEIC **21** 05:32:39.0±2.0, 55°.4N±0°.1×151°.8W±0°.1, h6km±8km, Error ellipse: s-maj=16.4km s-min=7.9km az=168.0*

NEIC 21 05:32:34.6±1.4**, 55°.41N**±0°.09×**151°.7W**±0°.1**, h10km**±2km**, ML3.5**/38**, ML3.3**(AEIC)**, Error ellipse: s-maj=16.1km s-min=11.6km az=171.0, South of Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SII	Sitkinak Islan	1.80	311		Pn	05 33 04.8	-0.9
SII					Sn	05 33 25.6	-3.1
SII				IAML		05 33 26.3	
	comp=N,194nm,0.5s						
SII				IAML		05 33 26.7	
	comp=E,296nm,0.8s						
OHAK	Old Harbor	2.02	335		Pn	05 33 07.8	-0.8
OHAK	Old Harbor	2.02	335		Sn	05 33 30.6	-3.2
CHIR	Chirikof Islan	2.25	282		Pn	05 33 10.9	-0.9
CHIR	Chirikof Islan	2.25	282	IAML		05 33 32.8	
	comp=N,134nm,1.2s						
KDAK	Kodiak Island	2.43	349	Pn	Pn	05 33 13.8	-0.5
MGLS	Mageik Landsli	3.32	327		Pn	05 33 26.9	+0.3
KAKN	Katmai Knife C	3.43	329		Pn	05 33 28.5	+0.4
KAWH	Katmai	3.43	332		Pn	05 33 28.5	+0.4
ACHA	Angle Creek He	3.44	326	Pn	Pn	05 33 28.6	+0.4
KAHG	Katmai Hook Gl	3.46	335		Pn	05 33 29.3	+0.8
ANCK	Angle Creek	3.48	325		Pn	05 33 29.5	+0.7
KARR	Katmai Rainbow	3.50	333		Pn	05 33 29.9	+0.9
KAPH	Katmai Pasha	3.50	337		Pn	05 33 30.2	+1.1
Q17K	Contact Creek	3.66	323		Pn	05 33 31.4	+0.1
Q19K	Cape Douglas,	3.68	344	Pn	Pn	05 33 32.2	+0.7
Q19K				IAML		05 34 17.3	
	comp=N,118nm,1.2s						
Q18K	Katmai Hardscr	3.71	332		Pn	05 33 32.1	+0.1
CHGN	Chignik	3.88	286	Pn	Pn	05 33 35.0	+0.9
CHGN				IAML		05 34 57.6	
	comp=N,143nm,0.1s						
AUJK	Augustine Jueg	4.05	348		Pn	05 33 36.3	-0.4
CNPM	China Poot	4.14	3		Pn	05 33 37.0	-0.8
CNPM	China Poot	4.14	3	IAML		05 34 23.4	
	comp=N,45nm,0.7s						
CNPM				IAML		05 34 23.4	
	comp=E,53nm,0.6s						
HOM	Homer	4.26	1		Pn	05 33 39.0	-0.5
P19K	Oil Pt	4.33	350		Pn	05 33 40.1	-0.4
P19K					Sn	05 34 28.6	-2.3
BRSE	Bradley Lake S	4.38	6		Pn	05 33 40.0	-1.0
P18K	Big Mountain,	4.42	336		Pn	05 33 41.4	-0.3
VNFG	Fog Glacier, M	4.50	284	Pn	Pn	05 33 43.9	+1.0
CNBA	Chernabura Isl	4.56	266		Pn	05 33 42.6	-0.9
CNBA	Chernabura Isl	4.56	266	IAML		05 34 43.9	
	comp=E,32nm,1.2s						
CNBA				IAML		05 34 46.0	
	comp=N,44nm,1.4s						
P17K	Kvichak River	4.58	328		Pn	05 33 44.0	+0.2
P17K	Kvichak River	4.58	328	IAML		05 35 13.3	
	comp=N,65nm,1.4s						
P17K				IAML		05 35 50.5	
	comp=E,57nm,1.3s						
ILSW	Iliamna Southw	4.65	351		Pn	05 33 44.8	-0.1
ILSW	Iliamna Southw	4.65	351	IAML		05 34 38.7	
	comp=N,36nm,0.5s						
ILSW				IAML		05 34 40.9	
	comp=E,31nm,0.9s						
IVE	Iliamna Volcan	4.67	352		Pn	05 33 44.9	-0.3
O20K	Slope Mountain	4.71	354		Pn	05 33 45.4	-0.3
O20K					Sn	05 34 36.8	-3.5
ILIM	Iliamna	4.73	352		Pn	05 33 45.6	-0.4
SEW	Seward	4.86	14	Pn	Pn	05 33 46.2	-1.5
P16K	Nushagak River	4.98	319	Pn	Pn	05 33 49.0	-0.3
O19K	Port Alsworth	5.00	345	Pn	Pn	05 33 49.7	+0.2
O19K				IAML		05 35 01.9	
	comp=N,62nm,0.5s						
SDPT	Sand Point	5.00	273	Pn	Pn	05 33 49.5	0.0
SDPT				IAML		05 34 29.8	
	comp=N,45nm,1.4s						
SDPT				IAML		05 34 52.2	
	comp=E,46nm,1.5s						
P23K	Montague Islan	5.15	25	Pn	Pn	05 33 50.5	-1.1
P23K				IAML		05 36 19.7	
	comp=E,34nm,1.5s						
P23K				IAML		05 36 29.4	
	comp=N,32nm,1.1s						
SLKM	Skilak Lake	5.17	8	Pn	Pn	05 33 50.5	-1.5
SLKM				IAML		05 34 49.8	
	comp=E,31nm,0.5s						
SLKM				IAML		05 34 55.9	
	comp=N,26nm,0.3s						
RDT	Redoubt	5.19	356		Pn	05 33 51.3	-1.0
DFR	Drift River	5.22	355		Pn	05 33 52.1	-0.6
DFR					Sn	05 34 48.7	-4.3
O17K	Koliganek Bris	5.24	329		Pn	05 33 53.0	+0.1
O16K	Kokwok River B	5.42	323		Pn	05 33 54.3	-1.1
N19K	Bonanza Creek	5.61	346		Pn	05 33 58.0	-0.2
HIN	Hinchinbrook I	5.72	27		Pn	05 33 58.4	-1.1
PWL	Port Wells	5.75	17		Pn	05 33 58.8	-1.1
S12K	Black Hills	5.88	277		Pn	05 34 01.4	-0.3
N17K	Nushagak Hills	5.90	333	Pn	Pn	05 34 01.8	-0.1
GLI	Glacier Island	6.00	22		Pn	05 34 02.3	-1.1
FID	Port Fidalgo	6.03	25		Pn	05 34 02.6	-1.2
STLK	Strandline Lak	6.11	359	Pn	Pn	05 34 04.9	0.0
GOAT	Goat Mountain	6.38	33		Pn	05 34 07.7	-0.9
M18K	Stony River	6.47	342		Pn	05 34 09.1	-0.6
N15K	Kwethluk River	6.54	320		Pn	05 34 10.5	-0.2
GHO	Glory Hole Cre	6.55	12		Pn	05 34 10.1	-0.8
BERG	Berg Lake	6.57	37		Pn	05 34 10.5	-0.7
SKT	Skwentna	6.59	1	Pn	Pn	05 34 10.8	-0.6
SML	Sawmill	6.66	14		Pn	05 34 11.2	-1.1
M17K	Holitna River	6.71	336		Pn	05 34 13.1	0.0
BMRM	Bremner River	6.72	31	Pn	Pn	05 34 12.8	-0.5
M16K	Timber Creek	6.80	329	Pn	Pn	05 34 14.8	+0.5
KLU	Klutina	6.81	24		Pn	05 34 13.9	-0.6
SCM	Sheep Creek Mo	6.84	18	Pn	Pn	05 34 14.3	-0.5
L19K	White Mountain	6.98	348		Pn	05 34 16.0	-0.8
BARK	Barkley Ridge	7.01	41		Pn	05 34 17.0	-0.3
CRQM	Cirque	7.03	37	Pn	Pn	05 34 17.3	-0.3
N25K	Chitina, Valde	7.24	28		Pn	05 34 20.2	-0.3
VRDI	Verde Repeater	7.27	33	Pn	Pn	05 34 20.7	-0.2

KIAG	Kiagna River	7.42	38		Pn	05 34 22.4	-0.5
BALM	Baldy	7.50	37		Pn	05 34 23.7	-0.3
L16K	Owhat River	7.50	331		Pn	05 34 23.5	-0.4
GRNC	Granite Creek	7.50	41		Pn	05 34 23.9	-0.2
PTPK	Patty Peak	7.56	36		Pn	05 34 24.9	0.0
PCA	Pinnacle	7.72	48		Pn	05 34 26.8	-0.2
BARN	Barnard Glacie	7.76	39	Pn	Pn	05 34 27.5	-0.1
LOGN	Logan Glacier	7.85	42		Pn	05 34 28.6	-0.2
PNL	Peninsula	7.88	52		Pn	05 34 29.3	+0.1
O28M	Mount Upton	8.13	44		Pn	05 34 32.6	-0.2
O29M	Mount Kennedy	8.55	50		Pn	05 34 38.3	-0.1
M27K	Edge Creek, AK	8.62	32	Pn	Pn	05 34 40.6	+1.2
J20K	Nowinta River	8.88	353		Pn	05 34 41.8	-0.9
S31K	Pelican	8.90	67		Pn	05 34 42.0	-1.0
RIDG	Independent Ri	9.05	20	Pn	Pn	05 34 46.6	+1.5
J16K	Anvik River	9.10	334	Pn	Pn	05 34 45.2	-0.5
IL31		9.69	12	Pn	Pn	05 34 53.7	-0.2
ILAR	Eielson Array	9.69	12	Pn	Pn	05 34 53.5	-0.4
M29M	Somme Creek	9.82	39	Pn	Pn	05 34 56.3	+0.6
L29M	L29M	10.37	36	Pn	Pn	05 35 03.9	+0.7

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*IDC **21** 05:35:42.5±1.2, 38°.52N×41°.97E, h0^{km}, mb3.7/7, mbtmp3.7/13, ML3.2/6, Error ellipse: s-maj=23.2km s-min=13.2km az=155.0*

*ISK **21** 05:35:43.7, 38°.69N×41°.99E, h6^{km}, ML3.7/13*

*AFAD **21** 05:35:43.8, 38°.71N×41°.98E, h7^{km}±2^{km}, MW3.8*

ISC 21 05:35:44.3±1.1**, 38°.69N**±0°.02×**41°.99E**±0°.02**, h7**^{km}±8^{km}**, n42,** σ1^{s}**00**/54**, mb3.8**/6**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GURO	Guroymak-BITLI	0.14	166	Pg	Pg	05 35 47.4	+0.1
BLIS	Bitlis-Merkez	0.29	160	P	Pg	05 35 50.4	+0.3
BLIS				S	Sb	05 35 55.3	-1.7
MUSM	Mu-Merkez	0.38	276	P	Pg	05 35 51.4	-0.2
MUSM				S	Sg	05 35 57.3	+0.7
ADCV	BITLIS_Adilcev	0.59	78	P	Pg	05 35 55.6	0.0
ADCV				S	Sb	05 36 05.6	0.0
MLAZ	Malazgirt-MUS	0.63	44	Pg	Pg	05 35 56.4	0.0
MLAZ				Sg	Sb	05 36 05.7	-1.0
VRTB	Varto-Mus	0.63	319	Pg	Pg	05 35 56.4	0.0
VRTB				Sg	Sb	05 36 05.6	-1.1
VRTB				AML	AML		
SRTM	Siirt_Merkez	0.70	184	P	Pb	05 35 58.7	-0.2
SRTM				S	Sn	05 36 09.9	-1.8
AKDM	Akdamar-Van	0.86	115	Pg	Pg	05 36 00.3	-0.5
PERV	Siirt/Pervari-	0.86	149	P	Pb	05 36 01.4	-0.2
PERV				S	Sn	05 36 15.4	-0.3
GEVA	Gevas	0.92	114	P	Pg	05 36 01.7	-0.2
GEVA				S	Sb	05 36 14.8	-0.3
DORK	Agr/Tutak/Do	0.93	41	P	Pg	05 36 01.2	-1.0
DORK				S	Sb	05 36 14.4	-1.0
KARO	Karliova-Bingo	0.96	311	Pg	Pb	05 36 02.5	-0.8
KARO				Sg	Sb	05 36 16.3	0.0
BTMN	Batman	0.98	216	P	Pn	05 36 04.2	-0.2
BTMN				S	Sn	05 36 18.4	-0.2
BNGB	Bingl	1.07	287	Pg	Pg	05 36 03.7	-1.1
BNGB				AML	AML		
VANB	Van	1.10	94	Pn	Pb	05 36 05.2	-0.5
VANB				AML	AML		
AGRB	Hanur-Agry	1.18	41	Pn	Pg	05 36 06.5	-0.4
AGRB				AML	AML		
KOPR	Koprukoy-ERZUR	1.30	355	Pn	Pn	05 36 08.3	-0.8
KOPR				AML	AML		
ATA5	Erzurum, Merke	1.34	335	Pn	Pg	05 36 09.6	-0.5
YEDI	Yedisu-Bingol	1.35	304	Pn	Pg	05 36 09.6	-0.6
YEDI				AML	AML		
CLDR	Caldiran	1.57	73	Pn	Pn	05 36 12.8	0.0
CLDR				AML	AML		
DYBB	Diyarbakir	1.63	244	Pn	Pb	05 36 13.8	-0.9
DYBB				AML	AML		
SENK	Senkaya-Erzuru	1.89	8	Pn	Pn	05 36 17.5	+0.4
SENK				AML	AML		
CUKT	Cukurca	1.93	138	Pn	Pn	05 36 18.1	+0.6
CUKT				AML	AML		
ERZN	Erzincan	1.98	298	Pn	Pn	05 36 18.7	+0.4
KARS	Kars	2.11	23	Pn	Pn	05 36 20.5	+0.4
KARS				AML	AML		
SVRC	Sivrice-ELAZID	2.13	262	Pn	Pn	05 36 20.9	+0.6
SVRC				AML	AML		
TASB	TASBURUN-IGDIR	2.17	53	Pn	Pn	05 36 21.4	+0.5
TASB				AML	AML		
ESGZ	Sivrice-Elazig	2.31	264	Pn	Pn	05 36 23.4	+0.6
MDYL	Doganyol-Malat	2.34	262	Pn	Pn	05 36 23.9	+0.6
GNI	Garni	2.58	55	Pn	Pn	05 36 28.3	+1.7
	14nm,0.3s,baz=315,slow=16,SNR=8.5						
GNI				Sn	Sg	05 37 06.0	-1.2
	9.6nm,0.3s,baz=210,slow=23,SNR=7.8 99nm,0.7s						
GNI				AML	AML		
KBZ	Khabaz	5.08	7	Pn	Pn	05 37 03.8	+3.0
	0.2nm,0.3s,baz=249,slow=8.7,SNR=2.1 1.7nm,0.8s						
KBZ				AML	AML		
BRTR	Keskin Array B	6.57	282	Pn	Pn	05 37 24.2	+2.9
	0.1nm,0.3s,baz=100,slow=14,SNR=4.8 0.6nm,0.6s						
BRTR				AML	AML		
ASF	Jabal al Asfar	7.71	214	Pn	Pn	05 37 35.1	-2.0
	0.4nm,0.3s,baz=9.1,slow=23,SNR=4.8 1.6nm,0.4s						
ASF				AML	AML		
AKASG	Malin Array Be	15.03	327	Pn	Pn	05 39 17.4	+0.5
	0.2nm,0.3s,baz=136,slow=12,SNR=4.7 0.4nm,0.5s						
AKASG				AML	AML		
AKTO	Aktyubinsk	16.34	39	Pn	Pn	05 39 34.9	+0.9
	0.3nm,0.3s,baz=230,slow=13,SNR=3.8 1.0nm,0.3s						
AKTO				AML	AML		
ARTI	Arti	20.79	26	P	P	05 40 26.4	+0.7
	0.8nm,0.3s,baz=177,slow=8.8,SNR=3.0 0.8nm,0.3s						
GERES	GERESS Array B	22.69	306	P	P	05 40 46.3	0.0
	0.5nm,0.2s,baz=104,slow=6.0,SNR=1.4 0.5nm,0.2s						
BVAR	Borovoye Array	24.22	44	P	P	05 41 00.8	-0.6
	0.4nm,0.3s,baz=243,slow=9.5,SNR=0.7 0.4nm,0.3s						
FINES	FINESS Array B	24.83	342	P	P	05 41 06.0	-0.7
	2.3nm,0.9s,baz=162,slow=15,SNR=1.8 2.3nm,0.9s						
KURBB	Kurchatov Arra	28.31	53	P	P	05 41 39.3	+1.0
	0.6nm,0.2s,baz=262,slow=9.2,SNR=5.4 0.6nm,0.2s						
MKAR	Makanchi Array	30.41	61	P	P	05 41 58.5	+1.4
	1.2nm,0.7s,baz=268,slow=7.3,SNR=9.1 1.2nm,0.7s						
EKA	Eskdalemuir Ar	34.28	314	P	P	05 42 30.7	-0.1
	0.6nm,0.5s,baz=110,slow=8.2,SNR=1.7 0.6nm,0.5s						

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*TEH **21** 05:51:29.9, 38°.72N×44°.66E, h9^{km}, ML2.7, Presumed earthquake*

*ISK **21** 05:51:30.2, 38°.75N×44°.77E, h5^{km}, ML2.6/6*

*AZER **21** 05:51:30.1, 38°.67N×44°.83E, h2^{km}, ml2.7*

*AFAD **21** 05:51:30.3, 38°.67N×44°.74E, h6^{km}±5^{km}, ML2.1*

ISC 21 05:51:31.4±1.1**, 38°.69N**±0°.03×**44°.73E**±0°.02**, h5**^{km}±10^{km}**, n28,** σ1^{s}**49**/49**, Turkey-Iran border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OZAP	Van, Ozalp-Mer	0.58	268	P	Pg	05 51 42.3	-0.3
OZAP				S	Sg	05 51 50.4	+0.2
OZAP				IAML		05 51 55.0	
	comp=E,141nm,0.5s						
OZAP				IAML		05 52 00.0	
	comp=N,111nm,0.5s						
IMRD	Marand	0.76	88	Pg	Pg	05 51 45.6	-0.4
IMRD				Sg	Sg	05 51 57.1	+1.2
NAX	Nakhchivan	0.77	50	P	Pg	05 51 46.4	+0.2
NAX				S	Sb	05 51 58.3	+0.2
CLDR	Caldiran	0.78	306	Pg	Pg	05 51 45.4	-1.1
CLDR				Sg	Sb	05 51 58.3	-0.3
CLDR				AML	AML		
CLDR	Caldiran	0.78	306	P	Pg	05 51 45.2	-1.3
CLDR				S	Sb	05 51 57.8	-0.9
CLDR				IAML		05 52 00.0	
	comp=N,269nm,0.6s						
CLDR				IAML		05 52 02.0	
	comp=E,269nm,0.6s						
ISHB	Shabestar	0.80	120	Pg	Pg	05 51 46.9	+0.1
SBZ	Shahbuz	0.95	42	P	Pg	05 51 50.1	+0.4
SBZ				S	Sn	05 52 05.8	+0.2
ORD	Ordubad	1.01	76	P	Pg	05 51 50.5	-0.4
ORD				S	Sb	05 52 05.2	0.0
HYR	Heyderabad	1.03	5	P	Pn	05 51 52.3	-0.4
HYR				S	Sn	05 52 07.8	+0.2
TVAN	Van	1.05	262	P	Pg	05 51 46.9	-4.7
TVAN				S	Sn	05 52 06.7	-1.4
TVAN				IAML		05 52 21.0	
	comp=N,60nm,0.7s						
TVAN				IAML		05 52 24.0	
	comp=E,41nm,0.4s						
VANB	Van	1.06	265	Pn	Pn	05 51 52.3	-0.7
VANB				Sn	Sn	05 52 08.5	+0.4
VANB				AML	AML		
ITBZ	Tabriz	1.20	112	Pg	Pb	05 51 53.1	-1.6
IGDI	IGDIR	1.28	337	Pn	Pg	05 51 57.0	+1.0
IGDI				Sn	Sn	05 52 19.2	+5.5
TASB	TASBURUN-IGDIR	1.35	344	Pn	Pn	05 51 56.3	-0.7
TASB				AML	AML		
GEVA	Gevas	1.36	255	P	Pn	05 51 49.5	-7.8
GEVA				S	Sb	05 52 13.2	-2.1
GEVA				IAML		05 52 22.0	
	comp=E,35nm,0.6s						
GEVA				IAML		05 52 27.0	
	comp=N,34nm,0.6s						
HAKT	HAKKARI	1.39	216	P	Pn	05 51 57.1	-0.5
HAKT				S	Sg	05 52 16.3	+0.3
HAKT				IAML		05 52 22.0	
	comp=N,36nm,0.5s						
HAKT				IAML		05 52 25.0	
	comp=E,28nm,0.8s						
HAKT	HAKKARI	1.39	216	Pn	Pg	05 51 58.9	+0.9
HAKT				Sn	Sg	05 52 20.4	+4.4
AKDM	Akdamar-Van	1.42	256	Pn	Pg	05 51 58.8	+0.1
AKDM				Sn	Sg	05 52 19.9	+2.8
AKDM				AML	AML		
GNI	Garni	1.46	0	Pn	Pn	05 51 57.9	-0.7
GNI				AML	AML		
AGRB	Hanur-Agry	1.62	304	Pn	Pb	05 52 00.9	-1.0
AGRB				AML	AML		
KOTA	Agri, Merkez-K	1.63	314	P	Pb	05 52 00.9	-1.1
KOTA				S	Sg	05 52 23.8	+0.1
KOTA				IAML		05 52 31.0	
	comp=E,20nm,0.8s						
KOTA				IAML		05 52 36.0	
	comp=N,12nm,0.7s						
PERV	Siirt/Pervari-	1.88	247	P	Pg	05 52 07.3	-0.1
PERV				S	Sg	05 52 33.4	+1.7
PERV				IAML		05 52 36.0	
	comp=N,34nm,0.7s						
PERV				IAML		05 52 37.0	
	comp=E,45nm,0.7s						
QRD	Qoradiz	2.16	68	Pn	Pb	05 52 09.7	-1.2
QRD				Sn	Sg	05 52 40.6	-0.2
GDB	GEDABAY	2.18	21	Pn	Pb	05 52 11.4	0.0
GDB				Sn	Sg	05 52 41.3	-0.2
GANJ	Ganja	2.31	32	Pn	Pb	05 52 13.6	0.0
GANJ				Sn	Sb	05 52 43.7	+1.3
QZX	Qazax, Azerbai	2.42	12	Pn	Pb	05 52 15.2	-0.3
QZX				Sn	Sg	05 52 48.8	-0.3
YRD	Yardimli	2.75	84	Pn	Pb	05 52 18.7	-2.5
YRD				Sn	Sb	05 52 56.8	+1.5
LRK	Lerik	2.83	90	Pn	Pb	05 52 20.3	-2.1
LRK				Sn	Sb	05 52 58.8	+1.4

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*IDC **21** 06:08:26.9±1.2, 55°.55S×123°.64W, h0^{km}, mb3.8/4, mbtmp3.8/4, MS3.8/28, Error ellipse: s-maj=50.1km s-min=30.6km az=150.0*

*GCMT **21** 06:08:32.0±0.3, 56°.07S±0°.02×123°.33W±0°.02, h16^{km}±1^{km}, MW4.9/100, Moment Tensor Solution. s29,c37; s100,c129; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-0.19±.10; M$_{\theta\theta}$1.39±.11; M$_{\phi\phi}$-1.20±.10; M$_{r\theta}$0.04±.27; M$_{\theta\phi}$2.46±.09; M$_{\phi r}$-0.28±.27; Best double couple: M$_0$2.79500×10^{16} NP1:φ$_s$284.00000°,δ84.00000°, λ-3.00000°. NP2:φ$_s$14.00000°,δ87.00000°,λ-174.00000°. Principal axes: T 2.8790, Plg2.0000°, Azm149.0000°; N -0.1680, Plg84.0000°, Azm40.0000°; P -2.7110, Plg6.0000°, Azm239.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Surface-wave location Triangular moment-rate function*

ISC 21 06:08:28.9±1.3**, 55°.6S**±0°.3×**123°.6W**±0°.3**, h10**^{km}**, n45,** σ1^{s}**06**/5**, mb3.9**/4**, MS3.9**/28**, Southern East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMSA	Palmer Station	29.86	132	LR	LR	06 23 10.4	
	comp=Z,191nm,21.8s,baz=252,slow=30						
VNDA	Vanda	33.22	203	LR	LR	06 24 16.4	
	comp=Z,94nm,21.3s,baz=80,slow=28						
QSPA	South Pole Qui	34.57	180	P	P	06 15 17.4	0.0
	1.5nm,0.8s,baz=107,slow=4.4,SNR=7.1						
QSPA				LR	LR	06 27 12.2	
	comp=Z,152nm,19.0s,baz=89,slow=32 1.5nm,0.8s						
H03S2	Juan Fernandez	37.60	74	T	T	06 55 29.8	
	baz=218,slow=74,SNR=33						
H03S1	Juan Fernandez	37.61	74	T	T	06 55 32.1	
	baz=218,slow=74,SNR=32						
H03S3	Juan Fernandez	37.62	74	T	T	06 55 29.3	
	baz=218,slow=74,SNR=42						
H03N2	Juan Fernandez	37.90	73	T	T	06 55 41.1	
	baz=222,slow=74,SNR=100						
H03N1	Juan Fernandez	37.91	73	T	T	06 55 41.6	
	baz=40,slow=74,SNR=63						
URZ	Urewera	42.62	268	LR	LR	06 30 01.0	
	comp=Z,126nm,19.3s,baz=126,slow=30						
PPT2	Papeete2	42.79	322	*e*LR	LR	06 27 50.3	
	250nm,23.0s						
PPT2				*e*LR	LR	06 27 54.7	
	450nm,25.8s						
PPT	Papeete	42.81	322	LR	LR	06 29 20.3	
	comp=Z,190nm,18.3s,baz=148,slow=29						
RAR	Rarotonga	43.65	307	LR	LR	06 29 00.5	
	comp=Z,114nm,21.6s,baz=138,slow=28						
SNAA	Sanae	46.42	158	LR	LR	06 35 09.3	
	comp=Z,141nm,20.3s,baz=268,slow=34						
CPUP	Villa Florida	55.37	87	LR	LR	06 37 17.8	
	comp=Z,48nm,20.4s,baz=230,slow=31						
AFI	Afiamalu	55.66	299	LR	LR	06 37 03.3	
	comp=Z,42nm,18.4s,baz=208,slow=31						
MAW	Mawson	57.01	183	LR	LR	06 40 50.4	
	comp=Z,177nm,20.9s,baz=164,slow=34						
LPAZ	La Paz	57.42	70	P	P	06 18 17.9	-0.5
	1.4nm,1.0s,baz=211,slow=9.7,SNR=4.0						
LPAZ				LR	LR	06 35 16.9	
	comp=Z,35nm,21.0s,baz=200,slow=28 1.4nm,1.0s						
ATAH	Atahualpa	60.11	54	LR	LR	06 38 04.6	
	comp=Z,88nm,19.0s,baz=212,slow=30						
STKA	Stephens Creek	66.90	247	LR	LR	06 43 06.2	
	comp=Z,72nm,18.4s,baz=198,slow=31						
JTS	Las Juntas de	73.14	40	LR	LR	06 42 23.4	
	comp=Z,36nm,19.2s,baz=256,slow=28						
CTA	Charters Tower	73.75	258	LR	LR	06 47 28.5	
	comp=Z,65nm,19.8s,baz=233,slow=32						
HNR	Honiara	74.63	276	LR	LR	06 49 38.7	
	comp=Z,16nm,18.6s,baz=288,slow=33						
H01W1	Cape Leeuwin H	77.29	225	T	T	07 46 00.0	
	baz=150,slow=76,SNR=14						
H01W2	Cape Leeuwin H	77.29	225	T	T	07 46 03.2	
	baz=150,slow=76,SNR=13						
H01W3	Cape Leeuwin H	77.30	225	T	T	07 46 01.2	
	baz=150,slow=76,SNR=12						
ASAR	Alice Springs	77.52	246	P	P	06 20 24.4	-0.4
	0.8nm,0.9s,baz=139,slow=5.6,SNR=4.5						
ASAR				LR	LR	06 49 11.4	
	comp=Z,69nm,20.9s,baz=138,slow=32 0.8nm,0.9s						
LPIG	La Paz	80.20	12	LR	LR	06 47 22.7	
	comp=Z,93nm,18.3s,baz=194,slow=29						
WRA	Warramunga Arr	80.35	249	P	P	06 20 40.1	-0.2
	0.7nm,0.7s,baz=141,slow=5.1,SNR=11 0.7nm,0.7s						
PMG	Port Moresby	81.89	265	LR	LR	06 50 21.5	
	comp=Z,59nm,21.8s,baz=166,slow=31						
MDP	Montagnes des	83.59	71	LR	LR	06 52 39.2	
	comp=Z,58nm,19.6s,baz=202,slow=32						
FITZ	Fitzroy Crossi	86.39	243	LR	LR	06 54 07.9	
	comp=Z,71nm,21.1s,baz=178,slow=32						
SUR	Sutherland	87.22	150	LR	LR	06 55 05.2	
	comp=Z,86nm,18.3s,baz=165,slow=32						
PFO	Pinyon Flats O	89.08	6	LR	LR	06 52 32.5	
	comp=Z,66nm,18.6s,baz=209,slow=30						
BOSA	Boshof	91.98	153	LR	LR	06 58 23.1	
	comp=Z,77nm,19.2s,baz=210,slow=33						
NVAR	Mina Array Bea	93.78	4	LR	LR	06 55 07.2	
	comp=Z,122nm,18.0s,baz=155,slow=30						
H11S2	WAKE ISLAND Hy	94.17	297	T	T	08 06 40.0	
	baz=148,slow=76,SNR=5.7						
H11S3	WAKE ISLAND Hy	94.19	297	T	T	08 06 39.4	
	baz=148,slow=76,SNR=7.1						
H11S1	WAKE ISLAND Hy	94.19	297	T	T	08 06 38.3	
	baz=148,slow=76,SNR=6.3						
H11N3	WAKE ISLAND Hy	95.10	298	T	T	08 07 52.9	
	baz=143						
H11N1	WAKE ISLAND Hy	95.11	298	T	T	08 07 43.1	
	baz=143						
H11N2	WAKE ISLAND Hy	95.12	298	T	T	08 07 49.2	
	baz=143						
LBTB	Lobatse	95.50	152	LR	LR	07 01 51.2	
	comp=Z,48nm,18.4s,baz=182,slow=34						
ELK	Elko	96.25	6	LR	LR	06 56 31.7	
	comp=Z,55nm,19.8s,baz=179,slow=30						
YBH	Yreka Blue Hor	96.98	1	LR	LR	06 56 50.8	
	comp=Z,66nm,18.8s,baz=189,slow=30						
EKA	Eskdalemuir Ar	147.14	65	PKPbc	PKPdf	06 28 10.0	+1.4
	0.6nm,0.5s,baz=255,slow=1.6,SNR=3.6						

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*SJA **21** 06:21:07.3±0.7, 33°.49S×70°.71W, h81^{km}±2^{km}, ML3.5, MW3.6*

*GUC **21** 06:21:07.6±0.7, 33°.48S×70°.68W, h77^{km}±2^{km}, ML3.8*

ISC 21 06:21:08.8±1.2**, 33°.47S**±0°.02×**70°.69W**±0°.03**, h77**^{km}±4^{km}**, n57,** σ1^{s}**37**/99**, 10C-11D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MT05	Renca	0.09	330	*e*P	Pn	06 21 19.8	-0.1
MT05				*e*S	Sn	06 21 28.9	+0.8
MT05				IAML		06 21 29.4	
	comp=Z,7µm,0.5s						
MT05	Renca	0.09	330	⇑*i*P	Pn	06 21 19.8	-0.1
MT05				*i* S	Sn	06 21 28.6	+0.6
MT16	CCHEN	0.14	73	⇓*i*P	Pn	06 21 19.9	-0.2
MT16				*i* S	Sn	06 21 28.5	+0.2
MT14	Cerro Cal¡n	0.14	60	⇓*i*P	Pn	06 21 19.9	-0.1
MT14				*i* S	Sn	06 21 28.8	+0.4
MT14				IAML		06 21 29.7	
	comp=E,10µm,0.6s						
MT03	Universidad Ad	0.15	99	*e*P	Pn	06 21 19.8	-0.3
MT03				*e*S	Sn	06 21 29.0	+0.5
MT03				IAML		06 21 29.7	
	comp=Z,4µm,0.2s						
MT03	Universidad Ad	0.15	99	⇑*i*P	Pn	06 21 19.8	-0.3
MT03				*i* S	Sn	06 21 28.6	+0.2
MT03				IAML		06 21 29.6	
	comp=E,13µm,0.2s						
MT15	Las Vizcachas	0.20	131	⇓*i*P	Pn	06 21 19.9	-0.4
MT15				*i* S	Sn	06 21 28.8	0.0
MT15				IAML		06 21 29.8	
	comp=E,14µm,0.2s						
MT10	Hacienda Santa	0.23	32	*i* P	Pn	06 21 20.3	-0.2
MT10				*i* S	Sn	06 21 29.9	+0.7
MT10				IAML		06 21 31.6	
	comp=E,4µm,0.6s						
MT12	Pirque	0.29	157	⇓*i*P	Pn	06 21 20.4	-0.3
MT12				*i* S	Sn	06 21 29.6	+0.1
MT12				IAML		06 21 30.4	
	comp=E,19µm,0.3s						
PEL	Peldehue	0.33	360	*e*P	Pn	06 21 20.6	-0.4
PEL				*e*S	Sn	06 21 30.6	+0.8
PEL				IAML		06 21 31.9	
	comp=Z,2µm,0.2s						
PEL	Peldehue	0.33	360	⇑*i*P	Pn	06 21 20.2	-0.7
PEL				*i* S	Sn	06 21 30.3	+0.5
PEL				IAML		06 21 30.7	
	comp=E,5µm,0.2s						
MT09	Talagante	0.40	220	⇑*i*P	Pn	06 21 21.2	-0.4
MT09				*i* S	Sn	06 21 30.9	0.0
MT09				IAML		06 21 31.9	
	comp=E,4µm,0.2s						
MT13	San Alfonso	0.43	130	*e*P	Pn	06 21 21.5	-0.3
MT13				*e*S	Sn	06 21 32.2	+0.9
MT13				IAML		06 21 33.6	
	comp=Z,2µm,0.2s						
MT13	San Alfonso	0.43	130	⇓*i*P	Pn	06 21 21.4	-0.3
MT13				*i* S	Sn	06 21 31.5	+0.1
MT02	Curacav	0.43	299	*e*P	Pn	06 21 21.3	-0.3
MT02				*e*S	Sn	06 21 31.7	+0.5
MT02				IAML		06 21 35.8	
	comp=Z,814nm,0.2s						
MT02	Curacav	0.43	299	⇑*i*P	Pn	06 21 21.5	-0.2
MT02				*i* S	Sn	06 21 31.2	+0.1
MT04	Ro Olivares	0.46	82	*e*P	Pn	06 21 21.9	-0.3
MT04				*e*S	Sn	06 21 32.7	+0.7
MT04				IAML		06 21 34.5	
	comp=Z,2µm,0.1s						
MT04	Ro Olivares	0.46	82	⇓*i*P	Pn	06 21 21.9	-0.2
MT04				*i* S	Sn	06 21 32.3	+0.3
BO04	La Punta	0.52	173	⇓*i*P	Pn	06 21 22.1	-0.4
BO04				*i* S	Sn	06 21 32.8	+0.1
BO04				IAML		06 21 33.8	
	comp=E,4µm,0.2s						
LMEL	Las Melosas	0.55	133	⇓*i*P	Pn	06 21 22.7	-0.2
LMEL				*i* S	Sn	06 21 33.8	+0.5
LMEL				IAML		06 21 36.4	
	comp=N,5µm,0.1s						
ROCH	El Roble	0.57	331	⇑*i*P	Pn	06 21 22.8	-0.4
ROCH				IAML		06 21 35.7	
	comp=N,3µm,0.2s						
MT01	Popeta	0.61	230	*e*P	Pn	06 21 22.6	-0.7
MT01				*e*S	Sn	06 21 36.1	+2.1
MT01				IAML		06 21 38.2	
	comp=Z,709nm,0.1s						
MT01	Popeta	0.61	230	⇑*i*P	Pn	06 21 22.7	-0.6
VA03	San Esteban	0.71	9	*e*P	Pn	06 21 24.4	0.0
VA03				*e*S	Sn	06 21 37.5	+1.5
VA03				IAML		06 21 39.8	
	comp=Z,2µm,0.1s						
VA03	San Esteban	0.71	9	⇑*i*P	Pn	06 21 24.2	-0.2
VA03				*i* S	Sn	06 21 36.7	+0.6
VA03				IAML		06 21 39.3	
	comp=E,5µm,0.3s						
VA05	Santo Domingo	0.80	256	⇑*i*P	Pn	06 21 25.0	-0.3
VA05				*i* S	Sn	06 21 37.4	-0.1
VA05				IAML		06 21 40.3	
	comp=E,5µm,0.2s						
VA01	Torpederas	0.92	299	*e*P	Pn	06 21 27.0	+0.3
VA01				IAML		06 21 46.4	
	comp=Z,848nm,0.2s						
VA01	Torpederas	0.92	299	*i* P	Pn	06 21 26.9	+0.2
VA01				*i* S	Sn	06 21 40.8	+0.8
VA01				IAML		06 21 47.0	
	comp=N,7µm,0.1s						
BO01	Tunca	0.98	200	*e*P	Pn	06 21 27.0	-0.4
BO01				*e*S	Sn	06 21 41.3	0.0
BO01				IAML		06 21 42.1	
	comp=Z,588nm,0.2s						
BO01	Tunca	0.98	200	⇑*i*P	Pn	06 21 26.9	-0.4
BO01				*i* S	Sn	06 21 41.2	0.0
BO02	Sierra Bellavi	1.32	183	*e*P	Pn	06 21 31.9	+0.2
BO02				*e*S	Sn	06 21 50.3	+1.3
BO02				IAML		06 21 53.7	
	comp=Z,1µm,0.1s						
BO02	Sierra Bellavi	1.32	183	⇓*i*P	Pn	06 21 31.8	0.0
BO02				*i* S	Sn	06 21 49.8	+0.8
BO02				IAML		06 21 53.1	
	comp=N,2µm,0.2s						
CO04	Los Peladeros	1.44	350	*i* P	Pn	06 21 33.1	-0.5
CO04				*i* S	Sn	06 21 52.0	-0.1
CO04				IAML		06 21 57.7	
	comp=N,1µm,0.5s						
BO03	Pichilemu	1.47	226	⇓*i*P	Pn	06 21 32.8	-0.8
BO03				*i* S	Sn	06 21 53.2	+0.8
BO03				IAML		06 21 58.6	
	comp=E,904nm,0.3s						
ARCO	CERRO ARCO	1.60	67	*e*P	Pn	06 21 36.5	+1.1
ARCO				*e*S	Sn	06 21 54.2	-1.3
AAGR	Agrelo	1.60	77	*e*P	Pn	06 21 36.6	+1.2
AVIZ	Vizcacheras	1.81	91	*e*P	Pn	06 21 38.4	+0.3
GO05	Hualane	1.85	214	*e*P	Pn	06 21 38.0	-0.6
GO05				*e*S	Sn	06 22 03.2	+1.9
GO05				IAML		06 22 08.8	
	comp=Z,278nm,0.2s						
GO05	Hualane	1.85	214	*i* P	Pn	06 21 37.6	-1.0

GO05				*i* S	Sn	06 22 02.2	+1.0
GO05				IAML		06 22 08.7	
	comp=E,681nm,0.2s						
RTLS	Leoncito	2.04	35	*e*P	Pn	06 21 43.3	+1.9
RTLS				*e*S	Sn	06 22 00.4	-5.7
RTLS				IAML		06 22 15.3	
	comp=Z,397nm,0.4s						
CO02	Combarbal	2.27	353	*e*P	Pn	06 21 44.6	+0.2
CO02				*e*S	Sn	06 22 15.8	+4.2
CO02				IAML		06 22 24.1	
	comp=Z,418nm,0.4s						
CO02	Combarbal	2.27	353	*i* P	Pn	06 21 44.4	0.0
CO02				IAML		06 22 23.2	
	comp=E,1µm,0.2s						
ML02	Panimavida	2.37	195	*e*P	Pn	06 21 45.4	-0.1
ML02				*e*S	Sn	06 22 13.5	-0.1
ML02				IAML		06 22 21.8	
	comp=Z,208nm,0.7s						
ML02	Panimavida	2.37	195	⇓*i*P	Pn	06 21 45.2	-0.3
ML02				*i* S	Sn	06 22 13.5	-0.1
ML02				IAML		06 22 19.3	
	comp=E,646nm,0.6s						
ZON	Zonda	2.56	42	*e*P	Pn	06 21 36.5	-12
ZON				*e*P		06 21 49.2	
ZON				*e*S	Sn	06 22 17.1	-1.3
SJA	San Juan	2.64	43	*e*P	Pn	06 21 38.1	-11
SJA				*e*S	Sn	06 22 27.4	+7.1
SJA				IAML		06 22 29.3	
	comp=Z,83nm,0.2s						
CFA	Coronel Fontan	2.78	49	*e*P	Pn	06 21 51.6	+0.4
CFA				*e*S	Sn	06 22 22.6	-1.1
CFA				IAML		06 22 31.1	
	comp=Z,162nm,0.4s						
RTLL	Cerro Villicun	2.84	42	*e*P	Pn	06 21 52.8	+0.9
RTLL				*e*S	Sn	06 22 24.8	-0.3
RTLL				IAML		06 22 33.4	
	comp=Z,169nm,0.3s						
CO06	Fray Jorge	2.90	344	*i* P	Pn	06 21 52.3	-0.4
CO06				IAML		06 22 37.5	
	comp=E,362nm,0.1s						
GO04	Tololo Observa	3.29	358	*i* P	Pn	06 21 58.5	+0.3
AROD	Rodeo	3.45	18	*e*S	Sn	06 22 43.2	+2.8
CO01	Juntas del Tor	3.52	8	*e*S	Sn	06 22 53.4	+11
ACDV	Cuesta del Vie	3.55	22	*e*S	Sn	06 22 44.8	+2.2
ACDV				*e*S	Sn	06 22 44.8	+2.2
ACDV				IAML		06 22 52.1	
	comp=Z,34nm,0.3s						
LCO	Las Campanas	4.45	360	*e*S	Sn	06 23 03.2	-1.4
LCO				*e*S	Sn	06 23 03.2	-1.4
LCO				IAML		06 23 19.0	
	comp=Z,139nm,0.6s						
AC05	El Transito	4.63	4	*e*S	Sn	06 23 07.8	-1.2
AC05				IAML		06 23 25.7	
	comp=Z,41nm,0.3s						
ACLC	CERRO LA CRUZ	5.14	39	*e*P	Pn	06 22 22.7	-0.7
ACLC				*e*S	Sn	06 23 19.5	-2.0
ACLC				IAML		06 23 27.1	
	comp=Z,24nm,1.0s						
VCA	Vinchina	5.17	25	*e*P	Pn	06 22 20.6	-3.3
VCA				IAML		06 23 32.8	
	comp=Z,59nm,0.5s						

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*IDC **21** 06:34:32.8±3.6, 7°.15S×129°.64E, h48^{km}±34^{km}, mb3.8/7, mbtmp4.2/10, ML4.5/3, MS3.4/4, Error ellipse: s-maj=47.2km s-min=18.8km az=66.0*

*NEIC **21** 06:34:34.5±2.1, 7°.11S±0°.07×129°.92E±0°.05, h85^{km}±9^{km}, mb4.1/11, Error ellipse: s-maj=10.3km s-min=6.6km az=156.0*

*GFZ **21** 06:34:37.0±0.3, 7°S±4°×13°0E±°, h161^{km}±8^{km}, mb4.3/3, Error ellipse: s-maj=11.7km s-min=8.3km az=74.1, confirmed*

*DJA **21** 06:34:38.5±0.5, 7°S±3°×13°0E±°, h119^{km}±15^{km}, M4.5/7, mB5.1/5, mB5.1/5, mb4.5/7, mb4.5/7, MLv4.6/6, MLv4.5/5, Mw(mB)4.5/5, Mw(mB)4.5/5*

ISC 21 06:34:37.1±0.5**, 7°.23S**±0°.05×**129°.64E**±0°.06**, h100**^{km}**, n76,** σ**2^{s}.28**/70**, mb4.0**/12**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SAUI	Saumlaki	1.81	115	P	Pn	06 35 09.5	+2.3
SAUI	Saumlaki	1.81	115		Pn	06 35 00.9	-6.3
SAUI	Saumlaki	1.81	115	P	Pn	06 35 09.6	+2.3
SAUI				S	Sn	06 35 32.8	+2.7
SAUI				AML	AML		
SAUI	Saumlaki	1.81	115	P	Pn	06 35 09.6	+2.3
BNDI	Bandanaira	2.70	6	P	Pn	06 35 19.7	+0.8
BNDI	Bandanaira	2.70	6	P	Pn	06 35 20.6	+1.7
BNDI				AML	AML		
BNDI				AML	AML		
BNDI	Bandanaira	2.70	6	P	Pn	06 35 20.5	+1.5
AAI	Ambon	3.80	338	P	Pn	06 35 34.1	+0.4
AAI				AML	AML		
AAI	Ambon	3.80	338	P	Pn	06 35 34.2	+0.4
MSAI	Masohi	3.92	349	P	Pn	06 35 37.7	+2.4
MSAI	Masohi	3.92	349	P	Pn	06 35 36.6	+1.3
NLAI	Namlea	4.70	327	P	Pn	06 35 47.5	+1.6
NLAI				AML	AML		
FAKI	Fak Fak	5.00	31	P	Pn	06 35 49.6	-0.3
FAKI	Fak Fak	5.00	31	S	Sn	06 36 45.3	-1.3
FAKI	Fak Fak	5.00	31		Pn	06 35 44.0	-5.9
FAKI	Fak Fak	5.00	31	P	Pn	06 35 49.1	-0.9
	0.7nm3µm3µm146nm,0.5s						
FAKI				AML	AML		
FAKI	Fak Fak	5.00	31	P	Pn	06 35 49.7	-0.3
	comp=Z,142nm,0.5s						
DRS	Darwin Rock St	5.32	167	P	Pn	06 35 54.7	+0.5
DRS	Darwin Rock St	5.32	167	S	Sn	06 36 54.4	+0.2
KMPI	Kaimana, Papua	5.37	49	P	Pn	06 35 55.5	+0.5
	comp=Z,233nm,0.7s,comp=Z,233nm,0.7s						
MTN	Manton Dam	5.77	165	Pn	Pn	06 35 59.5	-0.9
SOEI	Soe	5.88	244	P	Pn	06 36 04.6	+2.6
SOEI	Soe	5.88	244	Pn	Pn	06 36 04.0	+2.1
SOEI	Soe	5.88	244	P	Pn	06 36 04.1	+2.1
SOEI	Soe	5.88	244	P	Pn	06 36 04.8	+2.8
	comp=Z,217nm,0.7s						
SANI	Sanana	6.30	325	P	Pn	06 36 11.2	+3.6
SANI	Sanana	6.30	325	P	Pn	06 36 11.6	+4.0
	comp=Z,0.4nmcomp=Z,1µmcomp=Z,1µmcomp=Z,123nm,1.1s, comp=Z,123nm,1.1s						
SANI				AML	AML		
SANI	Sanana	6.30	325	P	Pn	06 36 11.3	+3.6
	comp=Z,123nm,1.1s						
SWI	Sorong	6.52	14	P	Pn	06 36 12.9	+2.3
	comp=Z,44nm,0.5s,comp=Z,44nm,0.5s						
KNRA	Kununurra	8.44	186		Pn	06 36 36.8	+0.1
FITZ	Fitzroy Crossi	11.49	199	P	Pn	06 37 16.1	-1.9
	comp=Z,3.4nm,0.3s,baz=22,slow=9.5,SNR=32						
FITZ				S	Sn	06 39 15.1	-9.3
	comp=Z,119nm,0.6s,baz=71,slow=17,SNR=8.5						
	comp=Z,7.3nm,0.3s						
FITZ				AML	AML		
FITZ	Fitzroy Crossi	11.49	199	Pn	Pn	06 37 16.6	-1.5
FITZ	Fitzroy Crossi	11.49	199	P	Pn	06 37 17.7	-0.3
	comp=Z,5.6nm,0.7s						
TOLI2	Tolitoli	12.12	313	Pn	Pn	06 37 26.2	-0.3
WB0	Warramunga Arr	13.29	160		Pn	06 37 39.0	-3.0
WRAB	Tennant Creek	13.43	161	P	Pn	06 37 40.9	-2.9
WRAB	Tennant Creek	13.43	161		Pn	06 37 41.1	-2.6
WRAB	Tennant Creek	13.43	161	P	Pn	06 37 39.7	-4.1
	comp=Z,19nm,0.6s						
WRA	Warramunga Arr	13.44	161	P	Pn	06 37 40.6	-3.2
	comp=Z,2.9nm,0.3s,baz=342,slow=13,SNR=78						
WRA				S	Sn	06 39 60.0	-12
	comp=Z,18nm,0.8s,baz=338,slow=22,SNR=12						
	comp=Z,11nm,0.6s						
WRA				AML	AML		
WRA	Warramunga Arr	13.44	161		Pn	06 37 39.3	-4.5
WR8	Warramunga Arr	13.50	160		Pn	06 37 41.7	-3.0
MBWA	Marble Bar	16.84	214		Pn	06 38 26.9	0.0
AS31	Alice Springs	16.85	166		Pn	06 38 26.3	-0.7
AS31				IAmb	IAmb	06 38 31.5	
	comp=Z,5.0nm,0.6s						
ASAR	Alice Springs	16.85	166	P	Pn	06 38 25.8	-1.2
	comp=Z,1.1nm,0.3s,baz=331,slow=9.3,SNR=46						
ASAR				S	Sn	06 41 24.3	-10
	comp=Z,5.0nm,0.7s,baz=343,slow=24,SNR=9.1						
	comp=Z,7.7nm,0.6s						
ASAR				AML	AML		
ASAR	Alice Springs	16.85	166		Pn	06 38 26.7	-0.3
KKM	Kota Kinabalu	18.80	314	P	P	06 38 46.4	-2.6
SBUM	Sibu	19.87	298	P	P	06 38 58.4	-2.2
CTA	Charters Tower	20.56	130	P	Pn	06 39 14.4	+3.2
	comp=Z,3.5nm,0.8s,baz=310,slow=11,SNR=5.8						
CTA				S	S	06 42 58.4	+5.8
	comp=Z,1.3nm,0.6s,baz=190,slow=17,SNR=3.3						
QLP	Quilpie	23.73	146	P	P	06 39 33.9	-6.4
	comp=Z,41nm,0.6s						
STKA	Stephens Creek	26.94	157	LR	LR	06 52 11.8	
	comp=Z,99nm,20.3s,baz=18,slow=39						
CMAR	Chiang Mai Arr	39.61	311	P	P	06 42 00.1	+0.9
	comp=Z,1.6nm,0.4s,baz=139,slow=6.9,SNR=6.9						
	comp=Z,1.6nm,0.4s						
SONM	Songino Array	58.55	342	P	P	06 44 25.1	+1.8
	comp=Z,0.8nm,0.5s,baz=145,slow=5.3,SNR=2.8						
	comp=Z,0.8nm,0.5s						
SONM	Songino Array	58.55	342	P	P	06 44 21.5	-1.8
SONM				IAmb	IAmb	06 44 25.9	
	comp=Z,1.1nm,0.8s						
PETK	Petropavlovsk-	64.65	18	P	P	06 45 05.2	+1.1
	comp=Z,1.3nm,0.7s,baz=202,slow=10.0,SNR=2.4						
PETK				LR	LR	07 14 34.9	
	comp=Z,28nm,19.2s,baz=157,slow=37						
	comp=Z,1.3nm,0.7s						
PETK	Petropavlovsk-	64.65	18	P	P	06 45 01.4	-2.6
MKAR	Makanchi Array	68.22	327	P	P	06 45 28.1	+1.1
	comp=Z,2.4nm,0.5s,baz=125,slow=7.6,SNR=19						
	comp=Z,2.4nm,0.5s						
MKAR	Makanchi Array	68.22	327	P	P	06 45 26.6	-0.5
MAKZ	Makanchi	68.40	327	P	P	06 45 27.4	-0.7
MAKZ				IAmb	IAmb	06 45 30.3	
	comp=Z,2.7nm,0.8s						
MA2	Magadan	68.69	11	LR	LR	07 14 48.3	
	comp=Z,26nm,21.2s,baz=118,slow=35						
ZAA0	Zalesovo Array	71.63	334	P	P	06 45 47.4	-0.3
ZAA0				IAmb	IAmb	06 45 49.2	
	comp=Z,2.5nm,0.9s						
ZALV	Zalesovo Beam	71.63	334	P	P	06 45 47.6	-0.1
	comp=Z,1.0nm,0.5s,baz=116,slow=5.0,SNR=4.8						
	comp=Z,1.0nm,0.5s						
ZALV	Zalesovo Beam	71.63	334	P	P	06 45 47.4	-0.3
KURBB	Kurchatov Arra	72.52	329	P	P	06 45 53.1	0.0
	comp=Z,0.6nm,0.4s,baz=122,slow=5.9,SNR=4.3						
	comp=Z,0.6nm,0.4s						
KURK	Kurchatov	72.53	329	P	P	06 45 52.0	-1.1
KURK				IAmb	IAmb	06 45 57.3	
	comp=Z,2.9nm,1.0s						
KK31	Karatay Array	73.28	319	P	P	06 45 57.7	-0.1
KK31				IAmb	IAmb	06 46 09.1	
	comp=Z,3.9nm,1.5s						
KKAR	Karatay Array	73.28	319	P	P	06 45 57.5	-0.3
AB31	Akbulak array	82.47	322	P	P	06 46 47.4	-1.1
ABKAR	Akbulak array	82.47	322	P	P	06 46 47.2	-1.3
QSPA	South Pole Qui	82.75	180	P	P	06 46 51.6	+1.8
	comp=Z,0.7nm,0.7s,baz=307,slow=2.1,SNR=5.7						
	comp=Z,0.7nm,0.7s						
QSPA	South Pole Qui	82.75	180	P	P	06 46 50.7	+0.8
QSPA				IAmb	IAmb	06 47 09.1	
	comp=Z,2.5nm,1.2s						
ASF	Jabal al Asfar	96.12	302	LR	LR	07 37 03.7	
	comp=Z,20nm,18.6s,baz=205,slow=39						
PDAR	Pinedale Array	117.30	45	PKP	PKPdf	06 53 12.7	+1.3
	comp=Z,0.3nm,0.6s,baz=329,slow=1.7,SNR=4.1						
TXAR	Lajitas Array	125.35	59	PKP	PKiKP	06 53 29.4	+1.9
	comp=Z,0.2nm,0.6s,baz=307,slow=1.8,SNR=2.5						
TORD	Torodi Ar. Bea	128.51	281	PKP	PKPdf	06 53 34.5	+1.1
	comp=Z,0.5nm,0.6s,baz=76,slow=2.3,SNR=3.1						
CPUP	Villa Florida	145.96	169	PKPbc	PKPab	06 54 08.1	+1.6
	comp=Z,1.5nm,0.8s,baz=183,slow=2.8,SNR=3.3						
LPAZ	La Paz	150.75	143	PKPbc	PKiKP	06 54 21.9	+1.6
	comp=Z,0.9nm,0.4s,baz=209,slow=2.6,SNR=16						

IDC 21 06:34:49.0±1.4**, 51°.55N**×**82°.40E, h0**^{km}**, mbtmp2.6**/2**, ML1.9**/2**, Error ellipse: s-maj=19.3km s-min=11.0km az=120.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KURBB	Kurchatov Arra	2.61	251	Pg	Pg	06 35 37.8	-1.2
	0.1nm,0.3s,baz=67,slow=26,SNR=1.5						
KURBB				Lg	Lg	06 36 12.7	
	0.2nm,0.3s,baz=75,slow=37,SNR=2.2						
ZALV	Zalesovo Beam	2.81	31	Pn	Pn	06 35 34.6	-0.5
	0.8nm,0.3s,baz=215,slow=15,SNR=12						
ZALV				Lg	Lg	06 36 20.9	
	0.5nm,0.3s,baz=208,slow=27,SNR=6.2						
	2.7nm,0.4s						
ZALV				AML	AML		
I46RU	ZALESOVO INFRA	2.81	31	I	I	06 49 20.0	
	baz=211,slow=316,SNR=1.8						
MKAR	Makanchi Array	4.77	181	Pn	Pn	06 36 03.9	+1.8
	0.1nm,0.3s,baz=0.8,slow=10,SNR=4.7						
MKAR				Lg	Lg	06 37 17.5	
	0.2nm,0.3s,baz=14,slow=26,SNR=15						
	0.5nm,0.6s						
MKAR				AML	AML		

MAN 21 06:35:34.0, 9°.27N×126°.90E, h22^{km}**, MS4.0, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CDOP	Cateel, Davao	1.55	197	*i* P	Pn	06 36 01.0	+0.8
CDOP				*i* S	Sb	06 36 20.5	-0.6
BUKP	Musuan	2.28	233	*i* P	Pb	06 36 13.5	-1.1
PLP	Palo	2.67	315	*e*P	Pn	06 36 17.1	+1.4
PLP				*e*S	Sn	06 36 49.5	+2.1
TBP	Tagbilaran	3.03	278	*e*P	Pn	06 36 23.2	+2.5
TBP				*e*S	Sb	06 37 07.6	+3.8
LLP	Lapu-Lapu	3.07	290	*e*P	Pn	06 36 23.5	+2.2
LLP				*i* S	Sb	06 37 08.2	+3.1
LQP	Lukban	7.12	313	*e*P	Pn	06 37 10.5	-6.6

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*AZER **21** 07:12:27.6, 38°.64N×44°.82E, h5^{km}, ml2.3*

*TEH **21** 07:12:29.7, 38°.64N×44°.74E, h10^{km}±990^{km}, ML2.6, Presumed earthquake*

*ISK **21** 07:12:29.1, 38°.73N×44°.69E, h5^{km}, ML2.4/4*

ISC 21 07:12:29.4±1.3**, 38°.68N**±0°.03×**44°.78E**±0°.03**, h2**^{km}±11^{km}**, n15,** σ**0^{s}.96**/27**, Turkey-Iran border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IMRD	Marand	0.73	87	Pg	Pg	07 12 44.2	+0.9
IMRD				Sg	Sb	07 12 55.2	-0.2
NAX	Nakhchivan	0.75	48	P	Pg	07 12 44.0	+0.3
NAX				S	Sb	07 12 56.5	+0.7
ISHB	Shabestar	0.77	121	Pg	Pb	07 12 45.4	-0.3
CLDR	Caldiran	0.81	305	Pg	Pg	07 12 44.1	-0.9
CLDR				Sg	Sg	07 12 55.8	+0.2
CLDR				AML	AML		
SBZ	Shahbuz	0.94	40	P	Pg	07 12 47.9	+0.6
SBZ				S	Sn	07 13 03.2	-0.6
ORD	Ordubad	0.98	75	P	Pg	07 12 48.8	+0.5
ORD				S	Sb	07 13 03.1	+0.4
HYR	Heyderabad	1.04	3	P	Pg	07 12 49.8	+0.5
HYR				S	Sn	07 13 06.8	+0.6
ITBZ	Tabriz	1.17	112	Pg	Pg	07 12 51.1	-0.6
ITBZ				Sg	Sn	07 13 08.3	-1.2
TASB	TASBURUN-IGDIR	1.37	342	Pn	Pn	07 12 55.3	-0.3
TASB				AML	AML		
HAKT	HAKKARI	1.40	217	Pn	Pg	07 12 56.9	+0.6
HAKT				Sn	Sn	07 13 17.6	+2.2
AKDM	Akdamar-Van	1.45	257	Pn	Pg	07 12 56.9	-0.3
AKDM				Sn	Sn	07 13 17.0	+0.4
AKDM				AML	AML		
AGRB	Hanur-Agry	1.65	303	Pn	Pn	07 12 59.2	-0.4
AGRB				AML	AML		
GDB	GEDABAY	2.17	20	Pn	Pb	07 13 09.0	-0.5
GDB				Sn	Sg	07 13 39.8	+0.6
QZX	Qazax, Azerbai	2.42	11	Pn	Pb	07 13 12.4	-1.3
QZX				Sn	Sb	07 13 46.0	+2.0
YRD	Yardimli	2.72	84	Pn	Pb	07 13 17.1	-1.7
YRD				Sn	Sg	07 13 57.3	+0.6

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*IDC **21** 07:43:12.2±2.3, 20°.39S×177°.58W, h538^{km}±22^{km}, mb3.3/5, mbtmp4.2/8, Error ellipse: s-maj=28.6km s-min=16.3km az=105.0*

ISC 21 07:43:12.8±0.9**, 20°.3S**±0°.1×**177°.7W**±0°.2**, h550**^{km}**, n11,** σ**1^{s}.09**/13**, mb4.2**/5**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	Nonsavu	4.77	301	P	P	07 44 39.9	-1.0
	9.5nm,0.5s,baz=150,slow=9.3,SNR=5.6						
DZM	Mont Dzumac	14.92	260	P	P	07 46 21.4	-0.2
	4.4nm,0.6s,baz=124,slow=21,SNR=6.1						
URZ	Urewera	18.48	193	P	P	07 46 55.3	+0.5
	4.3nm,0.3s,baz=291,slow=2.3,SNR=28						
URZ				S	S	07 49 54.0	-1.4
	2.6nm,0.6s,baz=114,slow=13,SNR=5.1						
ASAR	Alice Springs	44.86	256	P	P	07 50 39.5	+0.7
	6.1nm,0.6s,baz=97,slow=7.7,SNR=67						
ASAR				PcP	PcP	07 52 10.3	+1.6
	0.6nm,0.7s,baz=94,slow=3.3,SNR=3.3						
	6.1nm,0.6s						
WRA	Warramunga Arr	44.93	262	P	P	07 50 39.6	+0.2
	2.2nm,0.3s,baz=96,slow=7.8,SNR=83						
	2.2nm,0.3s						
ILAR	Eielson Array	88.04	13	P	P	07 55 04.2	-0.1
	0.3nm,0.8s,baz=222,slow=5.5,SNR=4.7						
	0.3nm,0.8s						
PDAR	Pinedale Array	88.60	43	P	P	07 55 08.1	+0.3
	0.2nm,0.6s,baz=244,slow=11,SNR=1.8						
	0.2nm,0.6s						
CMAR	Chiang Mai Arr	90.33	289	P	P	07 55 17.1	+1.1
	1.0nm,0.2s,baz=158,slow=2.6,SNR=4.2						
	1.0nm,0.2s						
ARCES	ARCESS Array B	128.76	350	PKP	PKiKP	08 01 18.1	+0.1
	3.5nm,0.9s,baz=26,slow=1.7,SNR=4.5						
AKASG	Malin Array Be	142.97	331	PKP	PKPdf	08 01 42.0	-1.9
	0.6nm,0.3s,baz=47,slow=3.8,SNR=6.2						
BRTR	Keskin Array B	146.92	313	PKPbc	PKiKP	08 01 55.4	-0.7
	1.0nm,0.6s,baz=142,slow=7.7,SNR=3.9						

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*SOME **21** 07:46:06.7, 43°.48N×84°.45E, h5^{km}*

*NNC **21** 07:46:08.2±1.9, 43°.74N×84°.46E, h16^{km}±11^{km}, mb3.6, mpv3.2, Error ellipse: s-maj=14.6km s-min=8.3km az=129.0*

ISC 21 07:46:07.6±2.2**, 43°.65N**±0°.10×**84°.47E**±0°.09**, h10**^{km}**, n23,** σ**2^{s}.54**/29**, 3C-2D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DJR	Jarkent	3.44	283	Pg	Pg	07 47 11.4	-2.2
	15nm,0.5s						
DJR				Lg	Lg	07 47 57.9	
	13nm,0.6s						
DJR	Jarkent	3.44	283	*e*P	Pg	07 47 11.4	-2.2
	15nm,0.5s						
DJR				*e*S	Sg	07 47 57.9	-0.3
	13nm,0.6s						
MK31	Makanchi Array	3.50	335	Pn	Pn	07 47 00.1	-2.0
	0.3nm,0.3s,baz=152,slow=15,SNR=58						
MK31				⇑Pg	Pb	07 47 09.9	+0.3
	5.1nm,0.5s,baz=145,slow=17,SNR=45						
MK31				⇑Lg	Lg	07 47 56.2	
	14nm,0.6s,baz=143,slow=29,SNR=6.4						
PDGK	Podgornoye	3.64	267	⇑Pn	Pn	07 47 04.7	+0.7
	1.3nm,0.4s						
PDGK				⇓Pg	Pb	07 47 14.4	+2.4
	4.2nm,0.6s						
PDGK				⇓Lg	Lg	07 48 01.3	
	14nm,0.5s						
SHLS	Shalkode	3.68	264	Pg	Pb	07 47 09.5	-3.3
	12nm,0.9s						
SHLS				Lg	Lg	07 47 54.9	
	52nm,0.7s						
SHLS	Shalkode	3.68	264	*e*P	Pb	07 47 09.5	-3.3
	12nm,0.9s						
SHLS				*e*S	Sb	07 47 54.9	-2.6
	52nm,0.7s						
KNOS	Konyrlen	3.88	282	Pg	Pg	07 47 19.3	-2.7
	5.9nm,0.6s						
KNOS				Lg	Lg	07 48 11.9	
	15nm,0.5s						
UZB	Uzynbulak	4.00	265	Pg	Pb	07 47 20.4	+2.1
	4.9nm,0.6s						
UZB				Lg	Lg	07 48 13.6	
	16nm,1.2s						
UZB	Uzynbulak	4.00	265	*e*P	Pb	07 47 20.4	+2.1
	4.9nm,0.6s						
UZB				*e*S	Sg	07 48 13.6	-2.5
	16nm,1.2s						
KAPS	Kapalarasan	4.01	296	Pg	Pg	07 47 22.0	-2.3
	4.4nm,0.4s						
KAPS				Lg	Lg	07 48 16.6	
	20nm,0.7s						
KAPS	Kapalarasan	4.01	296	*e*P	Pg	07 47 22.0	-2.3
	4.4nm,0.4s						
KAPS				*e*S	Sg	07 48 16.6	+0.4
	20nm,0.7s						
SATY	Saty	4.46	264	Pg	Pg	07 47 30.5	-2.5
	3.5nm,0.6s						
SATY				Lg	Lg	07 48 30.8	
	10nm,0.3s						
SATY	Saty	4.46	264	*e*P	Pb	07 47 29.7	+3.7
	4.2nm,0.3s						
SATY				*e*S	Sg	07 48 29.0	-1.8
	18nm,0.4s						
ARXS	Arharly	4.83	279	Pg	Pb	07 47 35.7	+3.4
	3.0nm,0.6s						
ARXS				Lg	Lg	07 48 40.0	
	16nm,0.6s						
ARXS	Arharly	4.83	279	*e*P	Pb	07 47 35.7	+3.4
	3.0nm,0.6s						
ARXS				*e*S	Sg	07 48 40.0	-2.6
	16nm,0.6s						
MDOK	Medeo	5.43	267	Pg	Pb	07 47 47.3	+4.7
	3.1nm,0.4s						
MDOK				Lg	Lg	07 48 59.3	
	4.4nm,0.4s						
MDOK	Medeo	5.43	267	*e*P	Pb	07 47 47.3	+4.7
	3.1nm,0.4s						
MDOK				*e*S	Sg	07 48 59.3	-2.5
	4.4nm,0.4s						
KTBS	Karatobe	5.65	273	Pg	Pg	07 47 53.3	-2.4
	0.3nm,0.2s						
KTBS				Lg	Lg	07 49 09.8	
	8.7nm,1.9s						
KTBS	Karatobe	5.65	273	*e*P	Pg	07 47 52.8	-2.9
	0.3nm,0.1s						
KTBS				*e*S	Sg	07 49 08.5	-0.3
	11nm,0.5s						
KST	Kastek	6.23	267	Pg	Pb	07 48 01.8	+5.6
	0.6nm,0.4s						
KST				Lg	Lg	07 49 24.4	
	5.5nm,0.7s						
KST	Kastek	6.23	267	*e*P	Pb	07 48 01.8	+5.6
	0.6nm,0.4s						
KST				*e*S	Sg	07 49 24.4	-3.2
	5.5nm,0.7s						
KRBS	Karabastau	6.38	273	Pg	Pg	07 48 05.2	-4.5
	0.7nm,0.4s						
KRBS				Lg	Lg	07 49 30.2	
	0.8nm,0.5s						
KRBS	Karabastau	6.38	273	*e*P	Pg	07 48 05.2	-4.5
	0.7nm,0.4s						
KRBS				*e*S	Sg	07 49 30.2	-2.0
	0.8nm,0.5s						

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*SDD **21** 08:03:14.6±6.0, 19°.12N×70°.15W, h15^{km}±999^{km}, MD2.9, ML1.5, MW2.2, Presumed earthquake*

*OSPL **21** 08:03:17.4±0.8, 19°.37N×69°.93W, h49^{km}±8^{km}, ML1.9, Presumed earthquake*

ISC 21 08:03:16.8±1.7**, 19°.24N**±0°.08×**70°.13W**±0°.05**, h12**^{km}±14^{km}**, n7,** σ**0^{s}.59**/13**, 8C, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SC01	Santiago de lo	0.59	288	*i* P	Pn	08 03 30.7	-0.3
SC01				*e*S	Sn	08 03 40.8	+0.3
SC01				IAML		08 03 42.3	
	comp=Z,32nm,5.6s						
ABDR	Alto Bandera	0.63	228	⇑*e*Pg	Pb	08 03 30.2	+0.3
ABDR				⇑*e*Sg	Sb	08 03 39.0	+0.1
ABDR				IAML		08 03 39.9	
	comp=N,26nm,0.5s						
SDD	Santo Domingo	0.81	165	*e*S	Sb	08 03 44.1	+0.6
SDD				IAML		08 03 44.3	
	comp=Z,37nm,0.8s						
HATOM	Hato Mayor del	0.84	122	⇑*e*Pg	Pg	08 03 33.1	0.0
HATOM				⇑*e*Sg	Sg	08 03 44.2	0.0
HATOM				IAML		08 04 16.0	
	comp=N,12nm,3.4s						
BANI	BANI	0.87	194	⇑*e*Pg	Pg	08 03 33.1	-0.5
BANI				⇑*e*Sg	Sg	08 03 45.7	+0.7
BANI				IAML		08 03 48.4	
	comp=N,39nm,0.1s						
LONE3	El Aguacate, B	1.41	243	*i* P	Pb	08 03 43.2	+0.2

LONE3				*e*S	Sg	08 04 02.3	+0.2
LONE3				IAML		08 04 02.4	
	comp=Z,10nm,3.0s						
PODR	Polo	1.52	226	⇑*e*Pg	Pn	08 03 42.9	-1.1
PODR				⇑*e*Sg	Sb	08 04 05.1	+0.7

IDC **21** *08:59:60.0±0.8, 19.°72N×109.°28W, h0^{km}, mb4.5/12, mbtmp4.5/16, ML3.7/4, MS4.3/56, Error ellipse: s-maj=25.0km s-min=12.8km az=61.0*

MEX **21** *09:00:01.6±0.4, 19.°68N×109.°20W, h10^{km}, MD4.6, Presumed earthquake*

NEIC **21** *09:00:01.6±2.5, 19.°68N±0.°06×109.°41W±0.°05, h10^{km}±1^{km}, mb4.9/468, Error ellipse: s-maj=11.1km s-min=7.9km az=154.0*

GCMT **21** *09:00:03.6±0.2, 19.°88N±0.°01×109.°19W±0.°01, h16^{km}, MW5.0/127, Moment Tensor Solution. s54,c68; s127,c212; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.21±.09; $M_{\theta\theta}$-4.20±.09; $M_{\phi\phi}$4.41±.10; $M_{r\theta}$-0.95±.26; $M_{\theta\phi}$-0.15±.07; $M_{\phi r}$1.96±.29; Best double couple: $M_0$4.78900×10^{16} NP1:ϕ_s46.00000°,δ65.00000°, λ5.00000°. NP2:ϕ_s314.00000°,δ85.00000°,λ155.00000°. Principal axes: T 5.1530, Plg21.0000°, Azm267.0000°; N -0.7280, Plg65.0000°, Azm124.0000°; P -4.4260, Plg14.0000°, Azm2.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

GFZ **21** *09:00:03.8, 19.°84N×109.°28W, h22^{km}, Mw5.0/27, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}0.27; $M_{\theta\theta}$-4.38; $M_{\phi\phi}$4.11; $M_{r\theta}$-0.37; $M_{\theta\phi}$-0.30; $M_{\phi r}$-0.66; Fault plane solution: $M_0$4.33055×10^{16} NP1: ϕ_s132.75005°,δ79.98932°,λ176.78463°. NP2: ϕ_s223.30955°,δ86.83363°,λ10.02614°. Principal axes: T 4.2305, Plg9.3215°, Azm88.4294°; N 0.1937, Plg79.4906°, Azm240.6595°; P -4.4241, Plg4.8105°, Azm357.6379°;*

GFZ **21** *09:00:04.2±0.4, 20°N±4°×10°9W±°, h10^{km}, M4.5/23, mb4.6/23*

ISC 21 09:00:01.3±0.5**, 19.°71N**±0.°06×**109.°35W**±0.°05**, h10^{km}, n374, σ1^{s}91**/141**, mb4.9**/148**, MS4.3**/54**, Revilla Gigedo Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H06N1	SOCORRO T-PHAS	1.76	242	T	T	09 02 34.0	
	SNR=17						
H06N	Isla Socorro	1.77	242	*i* P	Pn	09 00 30.5	-1.4
H06N				*e*S	Sn	09 00 51.9	-2.6
H06N	Isla Socorro	1.77	242		Pn	09 00 30.5	-1.4
H06S		1.81	238	*i* P	Pn	09 00 31.0	-1.5
H06S				*e*S	Sn	09 00 53.6	-1.9
H06S		1.81	238		Pn	09 00 31.0	-1.5
H06S					Sn	09 00 53.6	-1.9
TOMAT	Tomatlan	3.88	86	*e*P	Pn	09 00 56.8	-4.2
TOMAT				*e*S	Sn	09 01 38.8	-7.8
CJM	Chamela	4.07	92	*e*P	Pn	09 00 59.1	-4.4
CJM				*e*S	Sn	09 01 42.5	-8.7
ESTA	Talpa de Allen	4.29	80	*e*P	Pn	09 01 03.7	-3.0
ESTA				*e*S	Sn	09 01 51.0	-6.0
CIHU	Emiliano Zapat	4.38	95	*e*P	Pn	09 01 04.1	-3.8
CIHU				*e*S	Sn	09 01 51.9	-7.1
LPIG	La Paz	4.46	349	Pn	Pn	09 01 08.0	-1.0
	9.4nm,0.3s,baz=153,slow=2.3,SNR=40						
LPIG				LR	LR	09 02 34.5	
	comp=Z,7µm,18.3s,baz=156,slow=35						
	128nm,0.7s						
LPIG				AML	AML		
CDAR	Ciudad de Arme	5.10	98	*e*P	Pn	09 01 13.5	-4.3
CDAR				*e*S	Sn	09 02 10.2	-6.6
CEGR	Campo Tres	5.19	93	*e*P	Pn	09 01 15.5	-3.8
CEGR				*e*S	Sn	09 02 12.7	-6.6
INCO	Volcan de Coli	5.42	91	*e*P	Pn	09 01 19.4	-3.2
INCO				*e*S	Sn	09 02 19.8	-5.5
MMIG	Aquila	5.86	103	*e*P	Pn	09 01 23.9	-4.3
MMIG				*e*S	Sn	09 02 30.3	-5.2
ZAIG	Zacatecas	7.02	63		Pn	09 01 44.6	+0.1
ZAIG	Zacatecas	7.02	63	P	Pn	09 01 44.8	+0.3
	comp=Z,24nm,1.2s						
MOIG	Morelia	7.69	89	Pn	Pn	09 01 53.1	-0.5
HPIG		7.95	25		Pn	09 01 57.4	+0.3
HPIG		7.95	25	P	Pn	09 01 57.9	+0.7
	comp=Z,39nm,1.4s						
SRIG	Santa Rosalia	8.02	341		Pn	09 01 59.5	+1.5
SRIG	Santa Rosalia	8.02	341	P	Pn	09 02 00.1	+2.1
	comp=Z,62nm,1.4s						
RPIG	Rio Verde	9.03	75	*e*P	Pn	09 02 11.2	-0.6
RPIG				*e*S	Sn	09 03 51.1	-2.6
RPIG	Rio Verde	9.03	75		Pn	09 02 11.2	-0.6
HSIG		9.38	351		Pn	09 02 18.2	+1.6
MEIG	Mezcala	9.38	99	*e*P	Pn	09 02 17.2	+0.4
MEIG				*e*S	Sn	09 04 03.5	+1.0
MEIG	Mezcala	9.38	99		Pn	09 02 17.2	+0.4
MEIG					Sn	09 04 03.5	+1.0
PLIG	Platanillo	9.41	96	*e*P	Pn	09 02 15.2	-1.9
PLIG				*e*S	Sn	09 03 59.6	-3.4
PLIG	Platanillo	9.41	96		Pn	09 02 15.2	-1.9
UNM	Universidad Na	9.60	91	*e*P	Pn	09 02 19.8	-0.1
UNM				*e*S	Sn	09 04 07.1	-0.9
YAIG	Yautepec	9.75	93	*e*P	Pn	09 02 21.9	0.0
YAIG				*e*S	Sn	09 04 10.4	-1.1
YAIG	Yautepec	9.75	93		Pn	09 02 21.9	0.0
YAIG					Sn	09 04 10.4	-1.1
CRIG	Cruz Grande	10.15	105	*e*P	Pn	09 02 26.5	-0.7
CRIG				*e*S	Sn	09 04 21.6	+0.4
CRIG	Cruz Grande	10.15	105		Pn	09 02 26.5	-0.7
CRIG					Sn	09 04 21.6	+0.4
TLIG	Tlapa	10.44	100		Pn	09 02 32.4	+1.0
MGIG	Malinaltepec	10.46	102	*e*P	Pn	09 02 29.8	-1.8
MGIG				*e*S	Sn	09 04 28.9	-0.2
MGIG	Malinaltepec	10.46	102		Pn	09 02 29.8	-1.8
MGIG					Sn	09 04 28.9	-0.2
TXAR	Lajitas Array	10.88	27	Pn	Pn	09 02 37.1	-0.2
	comp=Z,0.3nm,0.3s,baz=203,slow=12,SNR=137						
TXAR				LR	LR	09 06 21.9	
	comp=Z,2µm,20.9s,baz=206,slow=35						
	comp=Z,24nm,0.9s						
TXAR				AML	AML		
TXAR	Lajitas Array	10.88	27		Pn	09 02 37.5	+0.2
VHRN	Van Horn	11.71	19		Pn	09 02 51.3	+2.6
ALPN	Alpine	11.81	25		Pn	09 02 52.1	+2.1
SAND	Sanderson	12.12	31		Pn	09 02 55.4	+1.1
TPB01	Permian Basin	12.26	23		Pn	09 02 58.2	+2.0
EPT	El Paso	12.28	11		Pn	09 02 57.4	+1.0
TPB05	Hovey Rd	12.41	25		Pn	09 03 00.3	+2.0
MNTX	Cornudas Mount	12.46	16		Pn	09 03 00.0	+1.2
MNTX	Cornudas Mount	12.46	16	P	Pn	09 03 01.7	+2.9
	comp=Z,34nm,1.8s						
833A	Chaparral WMA,	12.49	45		Pn	09 02 59.8	+0.5
TUC	Tucson	12.61	354		Pn	09 03 03.2	+2.3
PECS	Pecos	12.62	22		Pn	09 03 02.4	+1.4
TPB28		12.68	19		Pn	09 03 04.4	+2.5
121A	Cookes Peak, D	12.85	6		Pn	09 03 06.3	+2.1
MNHN	Monahans	13.01	26		Pn	09 03 08.4	+2.0
HNDO	Hondo	13.38	41		Pn	09 03 12.6	+1.1
OZNA	Ozona	13.40	32		Pn	09 03 11.9	+0.1
CMIG	Matias Romero	13.98	98	Pn	Pn	09 03 19.6	+0.1
	comp=Z,0.1nm,0.3s,baz=281,slow=9.5,SNR=7.8						
CMIG				LR	LR	09 08 21.9	
	comp=Z,2µm,18.2s,baz=276,slow=36						
	comp=Z,9.2nm,0.9s						
CMIG				AML	AML		
BLYC	Blythe	14.72	343		Pn	09 03 31.1	+1.4
POST	Post	15.04	26	IAmb	IAmb	09 03 35.7	
	comp=Z,117nm,1.6s						
PFO	Pinyon Flats O	15.22	337	Pn	Pn	09 03 35.9	-0.7
	comp=Z,0.1nm,0.3s,baz=162,slow=12,SNR=13						
PFO				LR	LR	09 09 10.0	
	comp=Z,2µm,18.2s,baz=148,slow=36						
	comp=Z,12nm,1.1s						
PFO				AML	AML		
PFO	Pinyon Flats O	15.22	337	Pn	Pn	09 03 37.2	+0.7
PFO	Pinyon Flats O	15.22	337	P	Pn	09 03 38.1	+1.5
	comp=Z,20nm,1.0s						
IRM	Iron Mountain	15.28	341	IAmb	IAmb	09 03 41.4	
	comp=Z,100nm,1.6s						
435B	Jarrell	15.31	42	Pn	Pn	09 03 38.0	+0.4
435B				IAmb	IAmb	09 03 44.1	
	comp=Z,54nm,1.1s						
SN07	Snyder 07	15.32	28	IAmb	IAmb	09 03 39.2	
	comp=Z,109nm,1.9s						
ALQ	Albuquerque	15.39	9	IAmb	IAmb	09 03 46.6	
	comp=Z,84nm,1.5s						
ALQ	Albuquerque	15.39	9	IAmb	IAmb	09 03 46.6	
	comp=Z,84nm,1.5s						
TASM	ASL Pad, Albuq	15.39	9	IAmb	IAmb	09 03 46.7	
	comp=Z,79nm,1.5s						
TASM	ASL Pad, Albuq	15.39	9	IAmb	IAmb	09 03 46.7	
	comp=Z,76nm,1.5s						
ANMO	Albuquerque	15.39	9	Pn	Pn	09 03 40.7	+1.9
	comp=Z,0.1nm,0.3s,baz=182,slow=11,SNR=19						
ANMO	Albuquerque	15.39	9	Pn	Pn	09 03 40.1	+1.3
ANMO	Albuquerque	15.39	9	P	Pn	09 03 40.8	+2.0
	comp=Z,36nm,1.5s						
BELC	Belle Mtn. Jos	15.41	339	IAmb	IAmb	09 03 47.5	
	comp=Z,60nm,1.0s						
ABTX	Abilene, Hawle	15.52	32	IAmb	IAmb	09 03 46.1	
	comp=Z,93nm,1.1s						
WUAZ	Wupatki	15.85	354		P	09 03 47.7	-0.8
WUAZ				IAmb	IAmb	09 03 52.1	
	comp=Z,70nm,1.1s						
HKT	Hockley	15.94	48	P	P	09 03 50.3	+1.0
	comp=Z,41nm,1.9s						
PLPT	Palo Pinto	16.36	35	IAmb	IAmb	09 03 55.4	
	comp=Z,92nm,1.3s						
FW13	Cleburne	16.51	38	IAmb	IAmb	09 03 57.9	
	comp=Z,203nm,1.8s						
MTPC	Mountain Pass	16.64	342	IAmb	IAmb	09 03 58.8	
	comp=Z,116nm,1.7s						
FW06	Azle	16.90	36	IAmb	IAmb	09 04 02.1	
	comp=Z,147nm,1.4s						
WTFS	Witchita Falls	17.02	33	IAmb	IAmb	09 04 00.4	
	comp=Z,105nm,1.2s						
CCCA	Chr Cany lake	17.27	337	IAmb	IAmb	09 04 11.3	
	comp=Z,206nm,1.7s						
MVCO	Mesa Verde	17.45	2	IAmb	IAmb	09 04 10.0	
	comp=Z,115nm,1.2s						
MVCO	Mesa Verde	17.45	2	P	P	09 04 06.8	+0.5
	comp=Z,87nm,1.4s						
KNB	Kanab	17.51	351	IAmb	IAmb	09 04 10.3	
	comp=Z,150nm,1.3s						
LCMT	Little Creek M	17.57	350	IAmb	IAmb	09 04 11.1	
	comp=Z,110nm,1.5s						
RTBA	Rita Blanca	17.65	18	IAmb	IAmb	09 04 11.2	
	comp=Z,150nm,1.7s						
WMOK	Wichita Mounta	17.65	30	P	Pn	09 04 07.1	-0.4
	comp=Z,33nm,1.8s						
NATX	Nacogdoches	17.84	45	IAmb	IAmb	09 04 13.0	
	comp=Z,159nm,1.6s						
PKCU	Pink Cliffs	17.86	352	IAmb	IAmb	09 04 14.7	
	comp=Z,126nm,1.3s						
T25A	Trinidad	17.89	13	IAmb	IAmb	09 04 15.5	
	comp=Z,146nm,1.6s						
X34A	Smith Ranch, M	18.00	32	IAmb	IAmb	09 04 16.8	
	comp=Z,134nm,1.7s						
TPNV	Topopah Spring	18.20	342	IAmb	IAmb	09 04 20.1	
	comp=Z,176nm,1.8s						
VES	Vestal, Richgr	18.21	334	IAmb	IAmb	09 04 18.3	
	comp=Z,208nm,1.6s						
SDCO	Great Sand Dun	18.28	10	IAmb	IAmb	09 04 20.4	
	comp=Z,133nm,1.5s						
PV13	Radium Mtn., P	18.39	1	IAmb	IAmb	09 04 21.0	
	comp=Z,78nm,1.1s						
PV02	Paradox Valley	18.44	2	IAmb	IAmb	09 04 21.7	
	comp=Z,111nm,1.3s						
PV18	Skein Mesa, Pa	18.47	1	IAmb	IAmb	09 04 22.0	
	comp=Z,95nm,1.2s						
PV03	Paradox Valley	18.48	1	IAmb	IAmb	09 04 22.1	
	comp=Z,106nm,1.3s						
ELIS	Ellis County	18.49	26	IAmb	IAmb	09 04 19.6	
	comp=Z,167nm,1.5s						
PV16	Nyswonger Mesa	18.54	1	IAmb	IAmb	09 04 22.8	
	comp=Z,114nm,1.5s						
PV20	West Nyswonger	18.57	1	IAmb	IAmb	09 04 27.2	
	comp=Z,197nm,1.6s						
PV15	Paradox Valley	18.58	2	IAmb	IAmb	09 04 23.8	
	comp=Z,152nm,1.4s						
PV14	Lion Creek, Pa	18.60	1	IAmb	IAmb	09 04 28.5	
	comp=Z,83nm,1.2s						
PV10	Paradox Valley	18.60	1	IAmb	IAmb	09 04 22.7	
	comp=Z,92nm,1.2s						
PV07	Paradox Valley	18.67	2	IAmb	IAmb	09 04 24.8	
	comp=Z,118nm,1.5s						
S11A	Rachel	18.72	344	IAmb	IAmb	09 04 28.1	
	comp=Z,132nm,1.6s						
FNO	Franklin	18.74	32	IAmb	IAmb	09 04 21.6	
	comp=Z,104nm,1.6s						
PKD	Bear Valley Ra	18.93	331	IAmb	IAmb	09 04 27.6	
	comp=Z,85nm,1.4s						
TCRU	Three Creeks R	19.02	353	IAmb	IAmb	09 04 30.9	
	comp=Z,133nm,1.9s						
OK038	West end E0370	19.12	27	IAmb	IAmb	09 04 27.0	
	comp=Z,108nm,1.5s						
OK029	Liberty Lake	19.14	31	IAmb	IAmb	09 04 27.7	
	comp=Z,101nm,1.6s						
Q16A	Castle Valley	19.20	356	IAmb	IAmb	09 04 30.5	
	comp=Z,90nm,1.5s						
SRU	San Rafael Swe	19.36	357	IAmb	IAmb	09 04 31.7	
	comp=Z,154nm,1.9s						
CROK	Carrier	19.48	28	IAmb	IAmb	09 04 30.7	
	comp=Z,78nm,1.5s						
Q24A	Divide	19.53	10	IAmb	IAmb	09 04 33.9	
	comp=Z,95nm,1.4s						
TPH	Tonopah	19.54	341	IAmb	IAmb	09 04 34.6	
	comp=Z,114nm,1.5s						
TMUT	Trail Mountain	19.58	356	IAmb	IAmb	09 04 35.2	
	comp=Z,162nm,1.9s						
OK052	Battle Ridge R	19.62	32	IAmb	IAmb	09 04 33.2	
	comp=Z,102nm,1.3s						
P17A	Butcher Ranch,	19.73	357	IAmb	IAmb	09 04 36.3	
	comp=Z,111nm,1.2s						
MDPB	Devils Postpil	19.77	337	IAmb	IAmb	09 04 38.7	
	comp=Z,99nm,1.5s						
ESQI	Esquipulas	19.79	102	P	P	09 04 31.9	-0.2
ESQI				IAmb	IAmb	09 04 44.6	
	comp=Z,113nm,1.7s						
OK048	Pawnee Station	19.89	31	IAmb	IAmb	09 04 35.6	
	comp=Z,99nm,1.4s						
Z41A	Richland Creek	20.00	44	IAmb	IAmb	09 04 35.1	
	comp=Z,51nm,1.0s						
BLOK	Blackwell	20.04	30	IAmb	IAmb	09 04 38.2	
	comp=Z,82nm,1.5s						
WLAR	White Oak Lake	20.07	43	IAmb	IAmb	09 04 35.7	
	comp=Z,47nm,1.1s						
TUL3	Leonard	20.07	34	IAmb	IAmb	09 04 37.0	
	comp=Z,47nm,1.0s						
KAN08	Anthony NE Sta	20.09	27	IAmb	IAmb	09 04 39.0	
	comp=Z,88nm,1.6s						
LHV	Little Huntoon	20.11	339	IAmb	IAmb	09 04 42.0	
	comp=Z,56nm,1.1s						
KAN01	Argonia South	20.12	28	IAmb	IAmb	09 04 39.1	
	comp=Z,121nm,1.6s						
NVAR	Mina Array Bea	20.21	339	P	Pn	09 04 38.6	+0.1
	comp=Z,22nm,1.0s,baz=164,slow=11,SNR=40						
NVAR				LR	LR	09 11 36.1	
	comp=Z,957nm,21.0s,baz=148,slow=34						
	comp=Z,22nm,1.0s						
ISCO	Idaho Springs	20.28	8	IAmb	IAmb	09 04 40.4	
	comp=Z,65nm,1.3s						
ISCO	Idaho Springs	20.28	8	P	Pn	09 04 39.1	-0.3
	comp=Z,42nm,1.7s						
NLU	North Lily Min	20.31	354	IAmb	IAmb	09 04 44.0	
	comp=Z,108nm,1.6s						
MPU	Maple Canyon	20.33	355	IAmb	IAmb	09 04 44.1	
	comp=Z,86nm,1.3s						
MIAR	Mount Ida	20.34	40	P	P	09 04 36.7	-1.1
	comp=Z,12nm,1.4s						
O20A	White River Ci	20.38	2	IAmb	IAmb	09 04 41.2	
	comp=Z,60nm,1.2s						
T35A	Sooner Cattle	20.50	31		P	09 04 38.8	-0.7
T35A				IAmb	IAmb	09 04 43.5	
	comp=Z,130nm,1.7s						
143A	Socs Landing,	20.62	48	IAmb	IAmb	09 04 41.9	
	comp=Z,89nm,1.3s						
DUG	Dugway, Tooele	20.63	352	P	Pn	09 04 43.0	-0.3
	comp=Z,63nm,1.8s						
KVN	Kaiserville	20.70	340	IAmb	IAmb	09 04 48.6	
	comp=Z,106nm,1.7s						
X40A	Basin Creek Fa	20.76	41	IAmb	IAmb	09 04 51.1	
	comp=Z,115nm,1.9s						
CBKS	Cedar Bluff	20.78	22	IAmb	IAmb	09 04 47.3	
	comp=Z,101nm,1.4s						
BSUT	Blindstream Ca	20.79	357	IAmb	IAmb	09 04 51.7	
	comp=Z,58nm,1.2s						
RDMU	Red Mountain	20.79	360	IAmb	IAmb	09 04 49.7	
	comp=Z,124nm,1.4s						
HAYD	Hayden	20.82	4	IAmb	IAmb	09 04 52.0	
	comp=Z,59nm,1.4s						
VBMS	Vicksburg	20.98	50	IAmb	IAmb	09 04 48.5	
	comp=Z,83nm,1.2s						
NOQ	North Oquirrh	21.01	354	IAmb	IAmb	09 04 52.8	
	comp=Z,79nm,1.4s						
YERR	Yerington	21.03	338	IAmb	IAmb	09 04 49.1	
	comp=Z,111nm,1.4s						
PNTR	Pine Nut	21.25	338	IAmb	IAmb	09 04 51.5	
	comp=Z,68nm,1.3s						
UALR	University of	21.25	42	IAmb	IAmb	09 04 51.7	
	comp=Z,42nm,1.1s						
HHAR	Hobbs	21.34	36	IAmb	IAmb	09 04 51.8	
	comp=Z,50nm,1.2s						
BGU	Big Grassy Mou	21.38	352	IAmb	IAmb	09 04 56.4	
	comp=Z,75nm,1.5s						
ELK	Elko	21.56	348	P	P	09 04 51.8	+0.6
	comp=Z,10nm,1.0s,baz=180,slow=8.5,SNR=36						
ELK				LR	LR	09 12 54.7	
	comp=Z,856nm,18.3s,baz=146,slow=36						
	comp=Z,10nm,1.0s						
MPK	Martis Peak	21.59	337	IAmb	IAmb	09 05 00.2	
	comp=Z,66nm,1.2s						
WHAR	Wooly Hollow	21.62	41	IAmb	IAmb	09 04 55.0	
	comp=Z,43nm,1.0s						
SPUT	South Promonto	21.69	354	IAmb	IAmb	09 04 57.4	
	comp=Z,78nm,1.3s						
PAHR	Pah Rah Range	21.72	339	IAmb	IAmb	09 04 57.4	
	comp=Z,59nm,1.5s						
BMN	Battle Mountai	21.73	344	IAmb	IAmb	09 04 56.8	
	comp=Z,84nm,1.6s						
CVS	Carmenet Viney	21.78	331	IAmb	IAmb	09 05 11.2	
	comp=Z,79nm,1.4s						
TGUH	Tegucigalpa,Un	21.85	101		P	09 04 56.3	+1.9
TGUH				IAmb	IAmb	09 04 58.6	
	comp=Z,97nm,1.4s						
TGUH	Tegucigalpa,Un	21.85	101	P	P	09 04 57.1	+2.7
	comp=Z,43nm,1.4s						
HWUT	Hardware Ranch	21.91	356	IAmb	IAmb	09 05 02.5	
	comp=Z,87nm,1.4s						
HWUT	Hardware Ranch	21.91	356	P	P	09 04 56.0	+1.1
	comp=Z,40nm,1.5s						
FCAR	Ozark Folk Cen	22.12	40	P	P	09 04 57.3	+0.3
HVU	Hansel Valley	22.19	353	IAmb	IAmb	09 05 06.7	
	comp=Z,69nm,1.4s						
GDXM	Geysers	22.30	331	P	P	09 04 58.8	-0.3
ORV	Oroville	22.38	335		P	09 05 01.1	+1.3
LCAR	Lake Charles	22.83	41	IAmb	IAmb	09 05 06.0	
	comp=Z,49nm,1.3s						
PDAR	Pinedale Array	22.99	360	P	P	09 05 06.3	-0.1
	comp=Z,5.8nm,0.9s,baz=160,slow=7.2,SNR=38						
PDAR				LR	LR	09 13 51.7	
	comp=Z,482nm,19.4s,baz=155,slow=36						
	comp=Z,5.8nm,0.9s						
PDAR	Pinedale Array	22.99	360		P	09 05 05.8	-0.6
T42A	Van Buren	23.50	39	IAmb	IAmb	09 05 12.3	
	comp=Z,43nm,1.1s						
R40A	Maddies Statio	23.72	35	IAmb	IAmb	09 05 14.1	
	comp=Z,52nm,1.4s						
PBMO	Poplar Bluff	23.74	40	IAmb	IAmb	09 05 14.3	
	comp=Z,54nm,1.4s						
LOHW	Long Hollow	23.85	358	IAmb	IAmb	09 05 17.9	
	comp=Z,57nm,1.9s						
BOAB	BOACO BROADBAN	23.86	104		P	09 05 16.1	+1.0
BOAB	BOACO BROADBAN	23.86	104	P	P	09 05 18.1	+3.0
	comp=Z,49nm,1.4s						
KMRM	Mail Ridge	23.87	332	IAmb	IAmb	09 05 18.9	
	comp=Z,79nm,1.5s						
WVOR	Wild Horse Val	23.98	343	P	P	09 05 17.2	+1.1
	comp=Z,38nm,1.6s						
MOD	Modoc Plateau	24.00	340	IAmb	IAmb	09 05 19.8	
	comp=Z,52nm,1.2s						
KHBM	Hayfork Bally	24.02	333	IAmb	IAmb	09 05 19.7	
	comp=Z,38nm,1.6s						
P38A	Dawn	24.07	31	IAmb	IAmb	09 05 24.8	
	comp=Z,57nm,1.7s						
CCM	Cathedral Cave	24.12	37	P	P	09 05 17.0	-0.4
	comp=Z,22nm,1.9s						
HLID	Hailey	24.16	351	IAmb	IAmb	09 05 19.9	
	comp=Z,27nm,1.1s						
HLID	Hailey	24.16	351	P	P	09 05 19.1	+1.3
	comp=Z,33nm,1.9s						
MFID	Camas Ranch	24.25	348	IAmb	IAmb	09 05 21.3	
	comp=Z,51nm,1.4s						
K30B	Basset	24.32	18	IAmb	IAmb	09 05 30.2	
	comp=Z,39nm,1.2s						
FVM	French Village	24.54	38	IAmb	IAmb	09 05 27.9	
	comp=Z,57nm,1.4s						
YBH	Yreka Blue Hor	24.71	336	LR	LR	09 15 00.2	
	comp=Z,441nm,18.7s,baz=158,slow=36						
RSSD	Black Hills	24.74	9		P	09 05 23.1	-0.1
RSSD				IAmb	IAmb	09 05 25.4	
	comp=Z,29nm,1.1s						
RSSD	Black Hills	24.74	9	P	P	09 05 23.1	-0.1
	comp=Z,23nm,1.4s						
J08A	Circle Bar Ran	24.79	344	IAmb	IAmb	09 05 27.3	
	comp=Z,35nm,1.3s						
K05A	Summer Lake	24.93	340	IAmb	IAmb	09 05 29.2	
	comp=Z,46nm,1.3s						
YNR	Norris Junctio	24.96	358	IAmb	IAmb	09 05 33.0	
	comp=Z,44nm,1.4s						
YMP	Mirror Lake Pl	24.97	359	IAmb	IAmb	09 05 45.9	
	comp=Z,52nm,1.4s						
WVT	Waverly	24.99	45	P	P	09 05 24.1	-1.2
YHH	Holmes Hill	25.04	357	IAmb	IAmb	09 05 29.7	
	comp=Z,42nm,1.2s						
S44A	Carbondale	25.04	40	IAmb	IAmb	09 05 26.2	
	comp=Z,20nm,1.0s						
YHL	Hebgen Lake	25.11	357	IAmb	IAmb	09 05 30.8	
	comp=Z,41nm,1.4s						
N38A	Joes South For	25.12	30	IAmb	IAmb	09 05 27.5	
	comp=Z,64nm,1.6s						
K04D	Chiloquin, OR	25.13	338	IAmb	IAmb	09 05 30.4	
	comp=Z,28nm,1.1s						
FPAL	Fort Paine	25.69	50	IAmb	IAmb	09 05 53.6	
	comp=Z,31nm,1.5s						
DLMT	Dillon	25.72	355	IAmb	IAmb	09 05 36.5	
	comp=Z,31nm,1.4s						
J04A	Umpqua Nationa	25.80	338	IAmb	IAmb	09 05 34.8	
	comp=Z,22nm,0.9s						
SWET	Sewanee	25.80	48	P	P	09 05 32.2	-0.5
PLID	Pearl Lake	25.90	349	IAmb	IAmb	09 05 35.3	
	comp=Z,22nm,1.1s						
BMO	Blue Mountains	25.93	347	IAmb	IAmb	09 05 38.8	
	comp=Z,43nm,1.8s						
Q44A	Meyer Farm, Va	25.97	38	IAmb	IAmb	09 05 36.5	
	comp=Z,46nm,1.2s						
P43A	Skaggs, Pawnee	26.18	36	IAmb	IAmb	09 05 37.1	
	comp=Z,23nm,1.0s						
ECSD	EROS Data Cent	26.22	21	P	P	09 05 34.1	-2.3
	comp=Z,11nm,1.4s						
W50A	Signal Mountai	26.23	49	IAmb	IAmb	09 05 37.2	
	comp=Z,39nm,1.0s						
J01E	Myrtle Point	26.40	336	IAmb	IAmb	09 05 55.6	
	comp=Z,33nm,1.1s						
CPCT	Cooper Cave	26.91	49	IAmb	IAmb	09 05 43.2	
	comp=Z,33nm,1.2s						
BUCK	Buck Mountain	26.94	338	IAmb	IAmb	09 06 08.2	
	comp=Z,26nm,1.3s						
WCI	Wyandotte Cave	27.21	42	P	P	09 05 44.0	-1.4
WCI				IAmb	IAmb	09 05 46.3	
	comp=Z,35nm,1.2s						
WCI	Wyandotte Cave	27.21	42	P	P	09 05 45.1	-0.3
	comp=Z,26nm,1.4s						
COR	Corvallis	27.39	338	P	P	09 05 46.4	-0.5
COR				IAmb	IAmb	09 05 53.0	
	comp=Z,53nm,1.8s						
COR	Corvallis	27.39	338	P	P	09 05 49.8	+2.9
	comp=Z,17nm,1.6s						
I37A	Lemond, Waseca	27.66	25	IAmb	IAmb	09 05 49.0	
	comp=Z,27nm,1.2s						
G03D	McMinnville, O	27.92	339	IAmb	IAmb	09 05 56.2	
	comp=Z,22nm,1.3s						
E07A	Sunnyside	28.13	345	IAmb	IAmb	09 05 56.1	
	comp=Z,34nm,1.7s						
MXC	Moxie City	28.26	344	IAmb	IAmb	09 05 57.5	
	comp=Z,40nm,1.8s						
STD	Studebaker Rid	28.50	341	IAmb	IAmb	09 05 59.2	
	comp=Z,28nm,1.8s						
JRO	Jston Ridge Ob	28.53	341	IAmb	IAmb	09 06 00.5	
	comp=Z,35nm,1.9s						
EPH	Ephrata	28.81	345	IAmb	IAmb	09 06 01.8	
	comp=Z,25nm,1.5s						
SPMN	Marine on St.	28.90	25	IAmb	IAmb	09 06 00.9	
	comp=Z,32nm,1.5s						
NEW	Newport	29.17	349	LR	LR	09 18 27.1	
	comp=Z,316nm,20.0s,baz=166,slow=38						
NEW	Newport	29.17	349	IAmb	IAmb	09 06 04.9	
	comp=Z,50nm,1.7s						
NEW	Newport	29.17	349	P	P	09 06 03.9	+1.1
	comp=Z,18nm,1.4s						

E03A	**Lebam**	**29.20**	**340**	IAmb	IAmb	09 06 06.7	
	comp=Z,35nm,1.3s						
Q51A	**Peebles**	**29.56**	**44**	IAmb	IAmb	09 06 06.9	
	comp=Z,27nm,1.0s						
B08A	**Colville Reser**	**29.70**	**347**	IAmb	IAmb	09 06 09.7	
	comp=Z,33nm,1.5s						
P51A	**Williamsport**	**30.00**	**43**	IAmb	IAmb	09 06 10.8	
	comp=Z,31nm,1.0s						
AGMN	**Agassiz Nation**	**30.53**	**18**	IAmb	IAmb	09 06 15.2	
	comp=Z,23nm,1.1s						
AGMN	**Agassiz Nation**	**30.53**	**18**	P	**P**	**09 06 12.6**	**-2.3**
	comp=Z,26nm,1.2s						
A04D	**Lummi Island**	**30.88**	**343**	IAmb	IAmb	09 06 20.1	
	comp=Z,16nm,1.0s						
A05A	**Maple Falls**	**30.96**	**344**	IAmb	IAmb	09 06 20.5	
	comp=Z,16nm,1.2s						
ULM	**Lac du Bonnet**	**32.30**	**16**	P	**P**	**09 06 29.1**	**-1.2**
	comp=Z,24nm,1.1s,baz=193,slow=9.4,SNR=9.5						
ULM				LR	LR	09 19 01.8	
	comp=Z,718nm,19.7s,baz=192,slow=35						
	comp=Z,24nm,1.1s						
SADO	**Sadowa**	**35.39**	**38**	LR	LR	09 21 52.4	
	comp=Z,406nm,18.7s,baz=256,slow=37						
FFC	**Flin Flon**	**35.40**	**7**	P	**P**	**09 06 56.2**	**-1.1**
FFC				IAmb	IAmb	09 06 57.8	
	comp=Z,25nm,1.2s						
FFC	**Flin Flon**	**35.40**	**7**	P	**P**	**09 06 56.2**	**-1.1**
	comp=Z,23nm,1.6s						
BBB	**Bella Bella**	**35.57**	**340**	LR	LR	09 20 59.6	
	comp=Z,445nm,20.7s,baz=161,slow=35						
OTAV	**Otavalo**	**35.93**	**119**		**P**	**09 07 03.9**	**+1.2**
OTAV				IAmb	IAmb	09 07 14.8	
	comp=Z,30nm,1.3s						
OTAV	**Otavalo**	**35.93**	**119**	P	**P**	**09 07 06.5**	**+3.7**
	comp=Z,17nm,1.2s						
SLOR	**San Lorenzo -**	**36.44**	**120**	P	**P**	**09 07 06.6**	**-0.5**
SLOR				IAmb	IAmb	09 07 42.7	
	comp=Z,23nm,1.6s						
J57A	**Williamstown**	**36.57**	**42**	IAmb	IAmb	09 07 07.0	
	comp=Z,23nm,1.0s						
TRQ	**Mont Tremblant**	**38.88**	**39**	IAmb	IAmb	09 07 27.2	
	comp=Z,25nm,1.1s						
SDV	**Santo Domingo**	**38.94**	**100**	LR	LR	09 24 04.2	
	comp=Z,266nm,21.5s,baz=293,slow=37						
SDV	**Santo Domingo**	**38.94**	**100**	P	**P**	**09 07 29.8**	**+1.8**
	comp=Z,95nm,1.2s						
ATAH	**Atahualpa**	**40.50**	**128**	LR	LR	09 20 47.7	
	comp=Z,342nm,18.7s,baz=306,slow=31						
HUMP	**Col San Antoni**	**41.10**	**85**		**P**	**09 07 45.0**	**-0.7**
HUMP				IAmb	IAmb	09 07 52.7	
	comp=Z,32nm,1.6s						
DLBC	**Dease Lake**	**41.52**	**344**	LR	LR	09 26 03.7	
	comp=Z,775nm,19.4s,baz=142,slow=38						
TAOE	**Nuku Hiva Isla**	**41.54**	**230**	*e*LR	LR	09 19 19.6	
	comp=Z,401nm,23.1s						
Q32M	**Nakina River**	**42.57**	**343**	IAmb	IAmb	09 08 02.1	
	comp=Z,33nm,1.4s						
R33M	**Jennings River**	**42.59**	**344**	IAmb	IAmb	09 08 00.7	
	comp=Z,26nm,1.1s						
YKA	**Yellowknife Ar**	**42.90**	**356**	P	**P**	**09 07 59.4**	**-0.4**
	comp=Z,6.0nm,0.8s,baz=173,slow=8.0,SNR=49						
YKA				LR	LR	09 26 11.7	
	comp=Z,917nm,18.0s,baz=178,slow=37						
	comp=Z,6.0nm,0.8s						
YKA	**Yellowknife Ar**	**42.90**	**356**		**P**	**09 07 59.1**	**-0.7**
N31M	**Braeburn, Yuko**	**45.66**	**343**	IAmb	IAmb	09 08 24.7	
	comp=Z,22nm,1.0s						
M31M	**Drury Creek, Y**	**45.87**	**344**	IAmb	IAmb	09 08 26.4	
	comp=Z,26nm,1.4s						
N30M	**Aishikik Lake**	**46.01**	**342**	IAmb	IAmb	09 08 27.9	
	comp=Z,37nm,1.8s						
GBN	**Guysborough**	**46.89**	**46**	P	**P**	**09 08 30.3**	**-1.5**
M29M	**Somme Creek**	**47.19**	**342**	IAmb	IAmb	09 08 37.2	
	comp=Z,18nm,1.1s						
SCHQ	**Schefferville**	**47.53**	**32**	P	P	09 08 32.5	-4.2
	comp=Z,4.7nm,0.7s,baz=225,slow=9.3,SNR=4.0						
SCHQ				LR	LR	09 29 41.4	
	comp=Z,319nm,19.0s,baz=248,slow=38						
GLB	**Gilahina Butte**	**48.14**	**339**	IAmb	IAmb	09 08 44.5	
	comp=Z,16nm,1.0s						
M27K	**Edge Creek, AK**	**48.16**	**340**	IAmb	IAmb	09 08 44.7	
	comp=Z,14nm,1.0s						
J30M	**Hart River**	**48.33**	**345**	IAmb	IAmb	09 08 51.2	
	comp=Z,18nm,1.4s						
BCAR	**Beaver Creek A**	**48.65**	**341**		**P**	**09 08 46.4**	**+1.1**
L27K	**Beaver Creek,**	**48.66**	**341**	IAmb	IAmb	09 08 48.0	
	comp=Z,25nm,1.8s						
DAWY	**Dawson**	**48.72**	**343**	IAmb	IAmb	09 08 48.2	
	comp=Z,21nm,1.3s						
I30M	**Mount Dempster**	**48.87**	**345**	IAmb	IAmb	09 08 48.9	
	comp=Z,10nm,1.1s						
L26K	**Log Cabin Wild**	**49.11**	**340**	IAmb	IAmb	09 08 51.5	
	comp=Z,24nm,1.6s						
KDAK	**Kodiak Island**	**49.40**	**331**	LR	LR	09 27 32.7	
	comp=Z,154nm,18.4s,baz=118,slow=33						
K27K	**Chicken**	**49.46**	**342**	IAmb	IAmb	09 08 54.5	
	comp=Z,16nm,0.9s						
I28M	**Miner Creek**	**49.95**	**344**	IAmb	IAmb	09 08 56.9	
	comp=Z,12nm,0.9s						
SCRK	**Sand Creek**	**50.00**	**341**	IAmb	IAmb	09 08 58.3	
	comp=Z,22nm,1.2s						
H29M	**Whitestone**	**50.17**	**345**	IAmb	IAmb	09 08 58.5	
	comp=Z,15nm,0.9s						
I27K	**Kandik River**	**50.52**	**343**	IAmb	IAmb	09 09 01.6	
	comp=Z,20nm,1.1s						
G29M	**Pine Creek**	**50.65**	**346**	IAmb	IAmb	09 09 02.3	
	comp=Z,26nm,1.4s						
SUA	**Susitna One**	**50.69**	**336**	IAmb	IAmb	09 09 03.4	
	comp=Z,21nm,0.9s						
J25K	**Salcha River,**	**50.88**	**341**	IAmb	IAmb	09 09 04.6	
	comp=Z,12nm,1.0s						
INK	**Inuvik**	**50.89**	**349**	LR	LR	09 30 51.6	
	comp=Z,299nm,21.2s,baz=166,slow=36						
INK	**Inuvik**	**50.89**	**349**	P	**P**	**09 09 03.3**	**+1.1**
	comp=Z,35nm,1.1s						
H27K	**Steamboat Moun**	**50.97**	**344**	IAmb	IAmb	09 09 05.1	
	comp=Z,28nm,1.2s						
STLK	**Strandline Lak**	**51.14**	**335**	IAmb	IAmb	09 09 06.4	
	comp=Z,13nm,0.9s						
RND	**Reindeer**	**51.20**	**338**	IAmb	IAmb	09 09 12.4	
	comp=Z,25nm,1.3s						
HDA	**Harding Lake**	**51.23**	**340**	IAmb	IAmb	09 09 06.5	
	comp=Z,37nm,1.9s						
SKT	**Skwentna**	**51.30**	**336**	IAmb	IAmb	09 09 07.6	
	comp=Z,16nm,1.0s						
ILAR	**Eielson Array**	**51.46**	**340**	P	**P**	**09 09 07.0**	**+0.4**
	comp=Z,9.1nm,0.8s,baz=151,slow=6.6,SNR=85						
	comp=Z,9.1nm,0.8s						
ILAR	**Eielson Array**	**51.46**	**340**		**P**	**09 09 06.6**	**+0.1**
PRP	**Porcupine Dome**	**51.56**	**342**	IAmb	IAmb	09 09 09.5	
	comp=Z,14nm,1.0s						
WRH	**Wood River Hil**	**51.64**	**340**	IAmb	IAmb	09 09 10.6	
	comp=Z,11nm,1.0s						
COLA	**College**	**51.83**	**340**	P	**P**	**09 09 09.8**	**+0.5**
FRB	**Frobisher Bay**	**51.87**	**22**	LR	LR	09 30 25.7	
	comp=Z,410nm,18.4s,baz=231,slow=35						
KTH	**Kantishna Hill**	**52.02**	**338**	IAmb	IAmb	09 09 12.6	
	comp=Z,25nm,1.2s						
CAST	**Castle Rocks**	**52.36**	**337**	IAmb	IAmb	09 09 14.2	
	comp=Z,12nm,1.0s						
E28M	**Babbage River**	**52.36**	**347**	IAmb	IAmb	09 09 14.9	
	comp=Z,20nm,0.9s						
H24K	**Noodor Dome**	**52.49**	**341**	IAmb	IAmb	09 09 16.4	
	comp=Z,20nm,1.2s						
L20K	**Farewell, AK**	**52.49**	**336**	IAmb	IAmb	09 09 16.0	
	comp=Z,21nm,1.0s						
BMAR	**Burnt Mountain**	**52.67**	**344**		**P**	**09 09 16.3**	**+0.7**
L19K	**White Mountain**	**52.71**	**335**	IAmb	IAmb	09 09 17.8	
	comp=Z,20nm,1.0s						
F26K	**Sheenjek River**	**52.76**	**344**	IAmb	IAmb	09 09 18.5	
	comp=Z,13nm,0.8s						
MLY	**Manley**	**52.87**	**339**	IAmb	IAmb	09 09 19.0	
	comp=Z,36nm,1.6s						
MACA	**Manacapuru-AM**	**52.92**	**110**	P	**P**	**09 09 18.2**	**0.0**
MACA				IAmb	IAmb	09 09 19.1	
	comp=Z,12nm,1.0s						
G24K	**Hadweenzic Riv**	**52.96**	**342**	IAmb	IAmb	09 09 19.8	
	comp=Z,22nm,1.3s						
H23K	**Yukon River**	**52.99**	**341**	IAmb	IAmb	09 09 19.4	
	comp=Z,11nm,1.0s						
K20K	**Telida**	**53.05**	**337**	IAmb	IAmb	09 09 20.0	
	comp=Z,22nm,1.0s						
F25K	**Christian Rive**	**53.08**	**344**	IAmb	IAmb	09 09 21.1	
	comp=Z,14nm,0.9s						
E25K	**Arctic Village**	**53.44**	**344**	IAmb	IAmb	09 09 23.6	
	comp=Z,15nm,1.1s						
H22K	**Ishtalitna Cre**	**53.62**	**340**	IAmb	IAmb	09 09 24.2	
	comp=Z,11nm,1.0s						
F24K	**Squaw Lake**	**53.64**	**343**	IAmb	IAmb	09 09 24.5	
	comp=Z,10nm,1.1s						
G23K	**Bananza Creek**	**53.72**	**341**	IAmb	IAmb	09 09 25.2	
	comp=Z,16nm,1.6s						
J19K	**Poorman**	**53.98**	**337**	IAmb	IAmb	09 09 26.4	
	comp=Z,16nm,1.0s						
LPAZ	**La Paz**	**54.05**	**129**	P	**P**	**09 09 27.9**	**+0.8**
	comp=Z,3.8nm,0.8s,baz=321,slow=7.3,SNR=14						
LPAZ				LR	LR	09 31 08.9	
	comp=Z,137nm,19.0s,baz=314,slow=35						
	comp=Z,3.8nm,0.8s						
LPAZ	**La Paz**	**54.05**	**129**		**P**	**09 09 28.1**	**+1.1**
J18K	**Innoko River**	**54.11**	**336**	IAmb	IAmb	09 09 27.4	
	comp=Z,20nm,1.1s						
PPT	**Papeete**	**54.16**	**229**	LR	LR	09 26 22.2	
	comp=Z,234nm,18.6s,baz=5.5,slow=29						
PPT2	**Papeete2**	**54.17**	**229**	*e*LQ	LQ	09 22 43.0	
	comp=Z,156nm,22.2s						
PPT2				*e*LR	LR	09 25 03.7	
	comp=Z,323nm,25.8s						
PPT2				*e*LR	LR	09 25 10.9	
	comp=Z,338nm,23.2s						
E24K	**Your Creek**	**54.19**	**343**	IAmb	IAmb	09 09 29.0	
	comp=Z,23nm,1.4s						
PB16	**IPOC Station P**	**54.39**	**132**		**P**	**09 09 29.1**	**-0.4**
PB16				IAmb	IAmb	09 09 45.0	
	comp=Z,17nm,1.4s						
IMAR	**Indian Mountai**	**54.45**	**339**	P	**P**	**09 09 28.2**	**-0.4**
D24K	**Happy Valley**	**55.01**	**344**	IAmb	IAmb	09 09 34.1	
	comp=Z,13nm,1.1s						
F21K	**Alatna River**	**55.10**	**341**	IAmb	IAmb	09 09 34.6	
	comp=Z,8.8nm,1.0s						
GO01	**Chusmiza**	**55.50**	**132**	P	**P**	**09 09 38.1**	**+0.7**
GO01				IAmb	IAmb	09 09 46.9	
	comp=Z,16nm,1.2s						
GO01	**Chusmiza**	**55.50**	**132**	P	**P**	**09 09 40.4**	**+3.0**
	comp=Z,12nm,1.2s						
RES	**Resolute Bay**	**55.55**	**5**	LR	LR	09 34 09.6	
	comp=Z,619nm,20.2s,baz=200,slow=37						
G19K	**Purcell Mounta**	**55.67**	**339**	IAmb	IAmb	09 09 38.5	
	comp=Z,13nm,1.1s						
F20K	**Avaraart Lake**	**55.71**	**340**	IAmb	IAmb	09 09 39.4	
	comp=Z,23nm,1.4s						
PB08	**IPOC Station P**	**55.85**	**133**	IAmb	IAmb	09 09 48.4	
	comp=Z,14nm,1.2s						
D22K	**Ayikyak River**	**55.88**	**343**	IAmb	IAmb	09 09 41.0	
	comp=Z,18nm,1.1s						
E19K	**Redstone River**	**56.43**	**340**	IAmb	IAmb	09 09 44.7	
	comp=Z,25nm,1.3s						
MDP	**Montagnes des**	**56.99**	**97**	LR	LR	09 35 10.4	
	comp=Z,174nm,20.5s,baz=266,slow=37						
SFJD	**Kangerlussuaq**	**59.97**	**23**	LR	LR	09 36 04.6	
	comp=Z,558nm,19.3s,baz=246,slow=36						
H03N2	**Juan Fernandez**	**60.30**	**151**	T	T	10 15 37.9	
	baz=314,slow=74,SNR=32						
H03N1	**Juan Fernandez**	**60.31**	**151**	T	T	10 15 44.9	
	baz=308,slow=74,SNR=61						
SALTA		**60.52**	**134**	P	**P**	**09 10 15.9**	**+3.3**
RAR	**Rarotonga**	**63.93**	**233**	LR	LR	09 31 07.8	
	comp=Z,155nm,19.6s,baz=63,slow=29						
SHEM	**Shemya Is, Ala**	**66.46**	**320**	LR	LR	09 35 25.7	
	comp=Z,41nm,18.4s,baz=112,slow=32						
CPUP	**Villa Florida**	**68.14**	**130**	P	**P**	**09 11 01.9**	**+0.1**
	comp=Z,3.9nm,0.9s,baz=328,slow=9.7,SNR=6.0						
CPUP				LR	LR	09 39 33.2	
	comp=Z,141nm,18.0s,baz=292,slow=35						
	comp=Z,3.9nm,0.9s						
CPUP	**Villa Florida**	**68.14**	**130**	IAmb	IAmb	09 11 07.9	
	comp=Z,25nm,1.6s						
BDFB	**Brasilia**	**69.78**	**116**	P	**P**	**09 11 13.1**	**+0.6**
	comp=Z,5.8nm,1.0s,baz=286,slow=8.3,SNR=3.9						
	comp=Z,5.8nm,1.0s						
BDFB	**Brasilia**	**69.78**	**116**	IAmb	IAmb	09 11 18.6	
	comp=Z,42nm,1.8s						
AFI	**Afiamalu**	**69.92**	**246**	LR	LR	09 34 02.4	
	comp=Z,220nm,19.6s,baz=58,slow=29						
PLCA	**Paso Flores**	**70.12**	**150**	LR	LR	09 35 21.4	
	comp=Z,338nm,19.6s,baz=322,slow=30						
BORG	**Borgarnes**	**71.53**	**27**	LR	LR	09 42 11.3	
	comp=Z,301nm,18.3s,baz=280,slow=35						
PETK	**Petropavlovsk-**	**76.22**	**322**	P	**P**	**09 11 49.9**	**0.0**
	comp=Z,3.9nm,0.9s,baz=76,slow=12,SNR=5.1						
	comp=Z,3.9nm,0.9s						
RCBR	**Riachuelo**	**76.52**	**101**	LR	LR	09 46 32.3	
	comp=Z,31nm,18.7s,baz=223,slow=36						
SPITS	**Spitsbergen Ar**	**77.61**	**10**	LR	LR	09 47 12.8	
	comp=Z,460nm,18.1s,baz=317,slow=36						
MSVF	**Nonsavu**	**80.39**	**247**	LR	LR	09 41 18.8	
	comp=Z,272nm,19.5s,baz=131,slow=31						
TIXI	**Tiksi**	**80.74**	**344**	LR	LR	09 51 02.0	
	comp=Z,134nm,20.0s,baz=37,slow=38						
RAO	**Raoul Island**	**82.08**	**235**	LR	LR	09 38 56.9	
	comp=Z,95nm,21.8s,baz=196,slow=28						
EKA	**Eskdalemuir Ar**	**82.82**	**34**	P	**P**	**09 12 25.0**	**-0.7**
	comp=Z,4.7nm,1.1s,baz=6.8,slow=8.4,SNR=3.5						
EKA				LR	LR	09 46 48.4	
	comp=Z,83nm,19.5s,baz=340,slow=34						
	comp=Z,4.7nm,1.1s						
ARCES	**ARCESS Array B**	**85.40**	**14**	P	**P**	**09 12 37.8**	**-0.9**
	comp=Z,3.3nm,0.6s,baz=321,slow=3.4,SNR=12						
ARCES				LR	LR	09 50 53.4	
	comp=Z,256nm,20.0s,baz=330,slow=36						
	comp=Z,3.3nm,0.6s						
ARCES	**ARCESS Array B**	**85.40**	**14**	IAmb	IAmb	09 12 38.6	
	comp=Z,94nm,2.0s						
YAK	**Yakutsk**	**86.15**	**336**	LR	LR	09 49 20.5	
	comp=Z,74nm,21.6s,baz=29,slow=34						
NOA	**NORSAR Array B**	**86.58**	**25**	LR	LR	09 51 35.5	
	comp=Z,135nm,18.0s,baz=315,slow=36						
HFS	**Hagfors**	**88.10**	**25**	LR	LR	09 52 41.6	
	comp=Z,197nm,18.1s,baz=312,slow=36						
ESDC	**Sonseca Array**	**88.84**	**48**	LR	LR	09 50 23.5	
	comp=Z,85nm,21.0s,baz=302,slow=34						
URZ	**Urewera**	**89.81**	**229**	LR	LR	09 45 36.7	
	comp=Z,176nm,19.3s,baz=52,slow=30						
NRIK	**Noril'sk**	**90.37**	**354**	LR	LR	09 54 01.3	
	comp=Z,122nm,20.9s,baz=14,slow=36						
PMSA	**Palmer Station**	**91.09**	**162**	LR	LR	09 43 34.7	
	comp=Z,164nm,20.6s,baz=320,slow=29						
MDT	**Midelt**	**91.21**	**55**	LR	LR	09 51 00.2	
	comp=Z,64nm,18.4s,baz=300,slow=34						
FINES	**FINESS Array B**	**91.63**	**20**	LR	LR	09 54 00.1	
	comp=Z,211nm,18.1s,baz=306,slow=35						
CLL	**Collm**	**93.18**	**32**	LH		09 41 00.0	
CLL				LV		09 45 00.0	
CLL				AMS	AMS	09 57 00.0	
	comp=Z,200nm,18.0s						
HNR	**Honiara**	**93.78**	**261**	LR	LR	09 46 17.7	
	comp=Z,205nm,21.4s,baz=168,slow=30						
DAVOX	**Davos/Dischmat**	**94.16**	**37**	LR	LR	09 54 25.4	
	comp=Z,195nm,19.8s,baz=264,slow=35						
MJAR	**Matsushiro Arr**	**95.21**	**312**	LR	LR	09 49 29.4	
	comp=Z,96nm,20.5s,baz=74,slow=31						
JHJ	**Hachijo jima 2**	**95.70**	**308**	LR	LR	09 50 42.8	
	comp=Z,120nm,19.6s,baz=324,slow=32						
VRAC	**Vranov**	**96.23**	**32**	LR	LR	09 56 12.0	
	comp=Z,176nm,18.5s,baz=313,slow=35						
KRVT	**Keravat (AS076**	**99.55**	**269**	LR	LR	09 50 32.3	
	comp=Z,276nm,21.1s,baz=98,slow=30						
GUMO	**Guam**	**99.84**	**288**	LR	LR	09 48 57.7	
	comp=Z,77nm,20.9s,baz=72,slow=29						
KEST	**Kesra**	**99.97**	**46**	LR	LR	09 58 38.9	
	comp=Z,123nm,18.9s,baz=269,slow=35						
OBN	**Obninsk**	**100.01**	**19**	LR	LR	09 58 29.3	
	comp=Z,231nm,20.6s,baz=17,slow=35						
WMQ	**Urumqi**	**114.88**	**346**	*e*PKP	PKPdf	09 18 47.8	+5.1
WMQ				LR	LR		
	comp=Z,160nm,23.8s						
WRA	**Warramunga Arr**	**120.43**	**258**	PKP	**PKPdf**	**09 18 53.9**	**+0.1**
	comp=Z,1.5nm,0.8s,baz=72,slow=2.2,SNR=13						
ASAR	**Alice Springs**	**121.50**	**254**	PKP	**PKPdf**	**09 18 55.5**	**-0.3**
	comp=Z,1.0nm,0.7s,baz=75,slow=2.0,SNR=11						
PZH	**PanZhiHua**	**125.04**	**326**	PKP	**PKiKP**	**09 19 04.6**	**+1.5**

SEA ***21*** *09:00:28.5±1.0, 48°.04N±0°.03×124°.8W±0°.1, h41^{km}±5^{km}, Error ellipse: s-maj=11.7km s-min=2.7km az=72.0*

PNSN ***21*** *09:00:28.5, 48°.04N×124°.78W, h41^{km}, MD2.5, Fault plane solution: NP1:φ$_s$320.00000°, δ25.00000°, λ50.00000°.*

PGC ***21*** *09:00:29.3, 48°.08N×124°.67W, h37^{km}, ML2.0/19, ML2.5(SEA), 56km south of Port Renfrew, Bc Vancouver Island, Canada Region*

NEIC ***21*** *09:00:29.1±0.7, 48°.06N±0°.04×124°.70W±0°.09, h33^{km}±3^{km}, ML2.2/28, ML2.5/12(SEA), Error ellipse: s-maj=9.6km s-min=4.4km az=65.0*

ISC 21 09:00:29.0±1.2, **48°.05N**±0°.03×**124°.71W**±0°.03, **h35^{km}, n58,** σ0^s.69/84, **Vancouver Island region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
C03A	**Quillayute Air**	**0.14**	**137**		**Pn**	**09 00 35.2**	**-0.1**
C03A					**Sn**	**09 00 39.6**	**+0.1**
C03A	**Quillayute Air**	**0.14**	**137**	IAML		09 00 39.8	
	comp=E,5µm,0.3s						
C03A				IAML		09 00 39.8	
	comp=N,7µm,0.3s						
OCP	**Olym-Cheeka Pk**	**0.26**	**12**		**Pn**	**09 00 36.5**	**0.0**
OCP					**Sn**	**09 00 41.6**	**+0.1**
P403	**Sandy Floe Qua**	**0.38**	**88**		**Pn**	**09 00 37.9**	**-0.1**
P403	**Sandy Floe Qua**	**0.38**	**88**		**Pn**	**09 00 37.9**	**-0.1**
SYMB	**Survey Mountai**	**0.79**	**49**	P	**Pn**	**09 00 43.3**	**-0.4**
SYMB				S	**Sn**	**09 00 53.3**	**-1.1**
SYMB	**Survey Mountai**	**0.79**	**49**		**Pn**	**09 00 43.3**	**-0.4**
B04A	**Port Angeles**	**0.81**	**89**		**Pn**	**09 00 43.7**	**-0.1**
OLQ	**Olympics--Lake**	**0.81**	**131**		**Pn**	**09 00 43.7**	**-0.1**
OLQ	**Olympics--Lake**	**0.81**	**131**		**Pn**	**09 00 43.8**	**0.0**
B928	**Bamfield**	**0.84**	**340**	P	**Pn**	**09 00 44.0**	**-0.2**
B928				S	**Sn**	**09 00 54.5**	**-0.7**
B928	**Bamfield**	**0.84**	**340**		**Pn**	**09 00 44.0**	**-0.2**
B928					**Sn**	**09 00 54.6**	**-0.7**
BFSB	**Bamfield**	**0.84**	**340**		**Pn**	**09 00 44.0**	**-0.2**
BFSB					**Sn**	**09 00 54.8**	**-0.5**
B926	**Mesachie Lake**	**0.86**	**26**	P	**Pn**	**09 00 44.4**	**-0.2**
B926				S	**Sn**	**09 00 55.1**	**-0.8**
B926	**Mesachie Lake**	**0.86**	**26**		**Pn**	**09 00 44.4**	**-0.2**
B926					**Sn**	**09 00 55.1**	**-0.8**
CLRS	**Cowichan Lake**	**0.86**	**26**	P	**Pn**	**09 00 44.4**	**-0.2**
CLRS				S	**Sn**	**09 00 55.1**	**-0.8**
CLRS	**Cowichan Lake**	**0.86**	**26**		**Pn**	**09 00 44.4**	**-0.2**
CLRS					**Sn**	**09 00 55.2**	**-0.8**
NLWA	**Neilton Lookou**	**0.87**	**139**		**Pn**	**09 00 44.7**	**0.0**
MGRB	**Mount Grey**	**0.95**	**0**	P	**Pn**	**09 00 45.8**	**-0.2**
MGRB				S	**Sn**	**09 00 57.9**	**-0.5**
VGZ	**Gonzales**	**0.99**	**68**	P	**Pn**	**09 00 45.9**	**-0.5**
VGZ				S	**Sn**	**09 00 57.7**	**-1.4**
B009	**North Saanich**	**1.03**	**54**	P	**Pn**	**09 00 46.9**	**0.0**
B009				S	**Sn**	**09 00 59.4**	**-0.6**
B010	**North Saanich**	**1.03**	**54**	P	**Pn**	**09 00 46.8**	**-0.1**
B010				S	**Sn**	**09 00 59.5**	**-0.5**
PGC	**Sidney**	**1.03**	**54**	P	**Pn**	**09 00 46.8**	**-0.1**
PGC				S	**Sn**	**09 00 59.3**	**-0.8**
PGC	**Sidney**	**1.03**	**54**		**Pn**	**09 00 46.9**	**0.0**
PGC	**Sidney**	**1.03**	**54**	IAML		09 01 00.3	
	comp=N,60nm,0.4s						
PGC				IAML		09 01 00.3	
	comp=E,68nm,0.5s						
B011	**North Saanich**	**1.03**	**54**	P	**Pn**	**09 00 46.8**	**-0.1**
B011				S	**Sn**	**09 00 59.2**	**-0.9**
B011	**North Saanich**	**1.03**	**54**		**Pn**	**09 00 46.8**	**-0.1**
B012	**Ucluelet**	**1.04**	**328**	P	**Pn**	**09 00 46.6**	**-0.4**
B012				S	**Sn**	**09 00 58.6**	**-1.7**
B012	**Ucluelet**	**1.04**	**328**		**Pn**	**09 00 46.6**	**-0.4**
B012					**Sn**	**09 00 59.1**	**-1.2**
OZB	**Mount Ozzard**	**1.05**	**330**	P	**Pn**	**09 00 47.1**	**-0.2**
OZB				S	**Sn**	**09 00 59.5**	**-1.3**
WISH	**Wishkah**	**1.13**	**145**		**Pn**	**09 00 48.5**	**+0.3**
WISH	**Wishkah**	**1.13**	**145**	IAML		09 01 03.5	
	comp=E,42nm,0.2s						
WISH				IAML		09 01 03.8	
	comp=N,26nm,0.2s						
B927	**Port Alberni**	**1.17**	**357**	P	**Pn**	**09 00 48.7**	**-0.1**
B927				S	**Sn**	**09 01 02.8**	**-0.8**
PABB	**Port Alberni**	**1.17**	**357**	P	**Pn**	**09 00 48.8**	**-0.1**
PABB				S	**Sn**	**09 01 02.7**	**-0.9**
SNB	**Saturna Island**	**1.25**	**54**	P	**Pn**	**09 00 50.4**	**+0.4**
NLLB	**Nanaimo Lost L**	**1.27**	**22**	P	**Pn**	**09 00 50.6**	**+0.4**
NLLB				S	**Sn**	**09 01 06.0**	**0.0**
GNW	**Green Mountain**	**1.36**	**110**	Pn	**Pn**	**09 00 51.6**	**+0.2**
TOFB	**Tofino**	**1.36**	**325**	P	**Pn**	**09 00 51.1**	**-0.3**
TOFB				S	**Sn**	**09 01 06.5**	**-1.8**
A04D	**Lummi Island**	**1.49**	**63**	Pn	**Pn**	**09 00 53.3**	**+0.1**
A04D				IAML		09 01 14.4	
	comp=E,32nm,0.3s						
A04D				IAML		09 01 14.5	
	comp=N,33nm,0.3s						
SHB	**Sechelt**	**1.64**	**19**	Pn	**Pn**	**09 00 56.2**	**+0.8**
SHB				Sn	**Sn**	**09 01 15.9**	**+0.5**
TXDB	**Texada**	**1.66**	**6**	Pn	**Pn**	**09 00 56.1**	**+0.5**
TXDB				Sn	**Sn**	**09 01 16.4**	**+0.8**
E03A	**Lebam**	**1.69**	**152**	Pn	**Pn**	**09 00 56.0**	**+0.1**
E03A				Sn	**Sn**	**09 01 15.3**	**-1.1**
E03A	**Lebam**	**1.69**	**152**		**Pn**	**09 00 56.1**	**+0.1**
E03A				IAML		09 01 16.9	
	comp=E,24nm,0.2s						
E03A				IAML		09 01 16.9	
	comp=N,21nm,0.3s						
RADR	**Rader Ridge**	**1.74**	**159**	Pn	**Pn**	**09 00 56.9**	**+0.2**
RADR				IAML		09 01 30.9	
	comp=E,18nm,4.4s						
WPB	**Watts Point**	**1.89**	**31**	Pn	**Pn**	**09 00 59.6**	**+0.9**
WPB				Sn	**Sn**	**09 01 21.6**	**+0.3**
GDR	**Gold River**	**1.94**	**334**	Pn	**Pn**	**09 00 60.0**	**+0.6**
A05A	**Maple Falls**	**1.98**	**60**	Pn	**Pn**	**09 01 01.2**	**+1.2**
A05A	**Maple Falls**	**1.98**	**60**	Pn	**Pn**	**09 01 00.2**	**+0.2**
A05A				IAML		09 01 27.3	
	comp=E,20nm,0.4s						
A05A				IAML		09 01 28.1	
	comp=N,18nm,0.4s						
CBB	**Campbell River**	**2.03**	**348**	Pn	**Pn**	**09 01 01.8**	**+1.1**
CBB				Sn	**Sn**	**09 01 25.3**	**+0.5**
CBB	**Campbell River**	**2.03**	**348**	Pn	**Pn**	**09 01 01.5**	**+0.8**
CBB				IAML		09 01 42.2	
	comp=E,14nm,2.8s						
CBB				IAML		09 01 47.1	
	comp=N,11nm,2.4s						
TAHB	**Tahsis**	**2.26**	**326**	Pn	**Pn**	**09 01 04.9**	**+1.2**
FMW	**Mount Fremont**	**2.34**	**117**	Pn	**Pn**	**09 01 06.0**	**+0.9**
LON	**Longmire**	**2.36**	**122**	Sn	**Sn**	**09 01 32.5**	**-0.4**
JRO	**Jston Ridge Ob**	**2.46**	**135**	Pn	**Pn**	**09 01 07.4**	**+0.8**
JRO				IAML		09 01 39.3	
	comp=N,23nm,0.1s						
STD	**Studebaker Rid**	**2.48**	**136**	Pn	**Pn**	**09 01 08.0**	**+1.1**
NCSB	**Newcastle Ridg**	**2.52**	**340**	Pn	**Pn**	**09 01 09.0**	**+1.5**
NCSB				Sn	**Sn**	**09 01 37.2**	**+0.3**
LTY	**Liberty**	**2.84**	**105**	Pn	**Pn**	**09 01 12.5**	**+0.7**
PHC	**Port Hardy**	**3.20**	**327**	Pn	**Pn**	**09 01 17.9**	**+1.2**

IDC ***21*** *09:22:12.0±2.8, 27°.69N×53°.20E, h0^{km}, mb3.8/7, mbtmp3.8/7, Error ellipse: s-maj=62.6km s-min=26.6km az=149.0*

TEH ***21*** *09:22:13.2, 27°.77N×53°.37E, h6^{km}, ML3.3, Presumed earthquake*

OMAN ***21*** *09:22:18.5±0.1, 27°.39N×53°.25E, h7^{km}, mb3.1/3, ml3.3/9, Error ellipse: s-maj=1.6km s-min=1.3km az=34.0*

ISC 21 09:22:14.1±1.3, **27°.75N**±0°.04×**53°.25E**±0°.06, **h10^{km}**±8^{km}, **n38,** σ**1^s.39**/55, **mb3.7**/6, **Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KHL1	**Khalili_Fars**	**0.12**	**160**	Pg	**Pg**	**09 22 16.4**	**-0.7**
LMD1	**Lamerd**	**0.42**	**191**	Pg	**Pg**	**09 22 22.9**	**+0.6**
JHRM	**Jahrom**	**0.81**	**21**	Pg	**Pg**	**09 22 28.8**	**-0.9**
DSBU	**Dashti - Bushe**	**1.86**	**290**	Pn	**Pn**	**09 22 49.3**	**+3.1**
SHI	**Shiraz**	**1.99**	**341**	Pn	**Pn**	**09 22 49.9**	**+1.8**
KAZ2	**Kazeron-Fars-I**	**2.32**	**323**	Pn	**Pn**	**09 22 55.3**	**+2.7**
SHME	**Shamm**	**3.08**	**123**	P	**Pn**	**09 23 05.7**	**+2.8**
SHME				S	**Sn**	**09 23 41.7**	**+1.9**
MASF	**Masafi**	**3.52**	**132**	P	**Pn**	**09 23 10.4**	**+1.4**
MASF				S	**Sn**	**09 23 51.6**	**+0.9**
KLNJ	**Kolanjah**	**3.56**	**336**	Pn	**Pn**	**09 23 11.6**	**+1.9**
MDH	**Madha**	**3.66**	**131**	P	**Pn**	**09 23 12.7**	**+1.9**
MDH				S	**Sn**	**09 23 54.6**	**+0.5**
IMEH	**Mehriz**	**3.82**	**18**	Pn	**Pn**	**09 23 14.9**	**+1.7**
KHGB	**Koh Gabri**	**3.85**	**46**	Pn	**Pn**	**09 23 14.6**	**+1.0**
UOSS	**Minazif**	**3.85**	**136**	P	**Pn**	**09 23 15.3**	**+1.9**
UOSS				S	**Sn**	**09 23 58.9**	**+0.2**
HATD	**Hatta, Dubai**	**3.89**	**138**	P	**Pn**	**09 23 16.0**	**+2.0**
HATD				S	**Sn**	**09 23 59.8**	**-0.1**
ASHO	**Ashiyiah**	**3.96**	**140**	P	**Pn**	**09 23 16.3**	**+1.3**
ASHO				P	Pb	09 23 17.0	-7.0
ASHO				S	**Sn**	**09 24 00.8**	**-0.7**
IBAF	**Bafgh**	**4.32**	**27**	Pn	**Pn**	**09 23 21.4**	**+1.3**
DOBD	**Dorbid, Yazd**	**4.37**	**14**	Pn	**Pn**	**09 23 21.9**	**+1.2**
JASK	**Jask - Hormozg**	**4.53**	**113**	S	**Sn**	**09 24 17.9**	**+2.4**
SOHO	**SOHO**	**4.66**	**140**	P	**Pn**	**09 23 25.6**	**+1.1**
SOHO				S	**Sn**	**09 24 19.2**	**+0.6**
ARQ	**Araqi**	**5.29**	**145**	S	**Sn**	**09 24 34.1**	**-0.3**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
UMZA	**Um Al Zommool**	**5.30**	**161**	P	**Pn**	**09 23 35.1**	**+1.7**
UMZA				S	**Sn**	**09 24 33.1**	**-1.5**
ANAR	**Anarak**	**5.44**	**4**	Pn	**Pn**	**09 23 36.9**	**+1.5**
HOQ	**Hoqain**	**5.53**	**138**	P	**Pn**	**09 23 36.9**	**+0.3**
HOQ				S	**Sn**	**09 24 39.9**	**-0.4**
BSY	**Bisya**	**6.13**	**144**	P	**Pn**	**09 23 46.3**	**+1.5**
BSY				S	**Sn**	**09 24 54.2**	**-0.9**
SMDO	**Samad**	**6.37**	**136**	P	**Pn**	**09 23 49.5**	**+1.3**
SMDO				S	**Sn**	**09 25 01.3**	**+0.2**
WSAR	**Wadi Sarin**	**6.62**	**132**	P	**Pn**	**09 23 52.2**	**+0.8**
WSAR				S	**Sn**	**09 25 06.2**	**-0.8**
JMDO	**Jabal Madar**	**6.93**	**140**	P	**Pn**	**09 23 56.9**	**+1.1**
JMDO				S	**Sn**	**09 25 14.1**	**-0.6**
WBK	**Wadi Bani Khal**	**7.28**	**133**	P	**Pn**	**09 24 01.8**	**+1.2**
WBK				S	**Sn**	**09 25 22.6**	**-0.7**
JLN	**Jalan Bani Buh**	**7.89**	**134**	P	**Pn**	**09 24 08.5**	**-0.5**
JLN				S	**Sn**	**09 25 37.8**	**-0.6**
MHTO	**MHTO**	**7.99**	**146**	P	**Pn**	**09 24 11.2**	**+0.9**
MHTO				S	**Sn**	**09 25 39.2**	**-1.5**
WHFO	**Wadi Hawf**	**9.80**	**177**	P	**Pn**	**09 24 34.8**	**-0.3**
WHFO				S	**Sn**	**09 26 23.2**	**-2.1**
AKTO	**Aktyubinsk**	**22.94**	**8**	P	**P**	**09 27 19.6**	**+1.3**
	1.7nm,0.6s,baz=180,slow=11,SNR=4.3 1.7nm,0.6s						
BVAR	**Borovoye Array**	**28.27**	**22**	P	**P**	**09 28 07.5**	**0.0**
	0.4nm,0.3s,baz=220,slow=8.7,SNR=2.3 0.4nm,0.3s						
MKAR	**Makanchi Array**	**29.67**	**42**	P	**P**	**09 28 19.8**	**-0.2**
	0.5nm,0.6s,baz=242,slow=11,SNR=5.9 0.5nm,0.6s						
FINES	**FINESS Array B**	**38.28**	**339**	P	**P**	**09 29 33.6**	**-0.7**
	1.3nm,0.7s,baz=142,slow=8.2,SNR=8.6 1.3nm,0.7s						
HFS	**Hagfors**	**42.02**	**332**	P	**P**	**09 30 04.3**	**-1.1**
	1.0nm,0.4s,baz=104,slow=9.3,SNR=5.0 1.0nm,0.4s						
ESDC	**Sonseca Array**	**48.33**	**300**	P	**P**	**09 30 55.5**	**-0.4**
	0.5nm,0.8s,baz=72,slow=7.5,SNR=5.0 0.5nm,0.8s						
TORD	**Torodi Ar. Bea**	**50.10**	**264**	P	**P**	**09 31 08.7**	**-1.0**
	0.8nm,0.6s,baz=62,slow=9.1,SNR=4.8 0.8nm,0.6s						

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*TRN **21** 09:22:51.4, 11°.46N×59°.92W, h91^{km}, MD4.1, East of Tobago.*

*FUNV **21** 09:22:53.5, 11°.54N×60°.03W, h25^{km}, MW3.9, Presumed earthquake*

ISC 21 09:22:50.7±2.0**, 11°.48N**±0°.06×**60°.00W**±0°.09**, h112**^{km}±15^{km}**, n24,** σ**1**^{s}**.46**/46**, Windward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TRN	**Trinidad (W)**	**1.61**	**239**	*e*P	**Pn**	**09 23 19.8**	**+0.9**
TRN				*e*S	**Sn**	**09 23 38.8**	**-1.6**
TRN	**Trinidad (W)**	**1.61**	**239**	*e*P	**Pn**	**09 23 19.7**	**+0.7**
TRN				*e*S	**Sn**	**09 23 39.2**	**-1.2**
BBGH	**Gun Hill**	**1.71**	**15**	*e*P	**Pn**	**09 23 21.1**	**+0.9**
BBGH				*e*S	**Sn**	**09 23 40.8**	**-1.8**
BBGH	**Gun Hill**	**1.71**	**15**	*e*P	**Pn**	**09 23 21.0**	**+0.8**
PSMG	**Mucurapo Girls**	**1.71**	**242**	*e*P	**Pn**	**09 23 21.4**	**+1.3**
PSMG				*e*S	**Sn**	**09 23 42.0**	**-0.5**
DMDM	**Guralp CMG5TDE**	**1.71**	**243**	*e*P	**Pn**	**09 23 21.7**	**+1.5**
DMDM				*e*S	**Sn**	**09 23 42.0**	**-0.7**
GRGR	**Grenville**	**1.74**	**292**	*e*P	**Pn**	**09 23 20.9**	**+0.3**
GRGR				*e*S	**Sn**	**09 23 41.6**	**-1.8**
GRGR	**Grenville**	**1.74**	**292**	*e*P	**Pn**	**09 23 21.5**	**+0.8**
GRGR				*e*S	**Sn**	**09 23 44.1**	**+0.7**
GRW	**Mount Saint Ca**	**1.76**	**293**	*e*P	**Pn**	**09 23 21.9**	**+1.0**
GRW				*e*S	**Sn**	**09 23 45.0**	**+1.2**
GRSS	**Sisters**	**1.77**	**297**	*e*P	**Pn**	**09 23 20.9**	**0.0**
GRSS				*e*S	**Sn**	**09 23 43.7**	**-0.3**
SLCP	**Castries, St.**	**2.69**	**339**	*e*P	**Pn**	**09 23 33.5**	**+0.8**
SLCP				*e*S	**Sn**	**09 24 05.1**	**+0.1**
SLBI	**Saint Lucia, B**	**2.70**	**339**	*e*P	**Pn**	**09 23 33.3**	**+0.5**
SLBI				*e*S	**Sn**	**09 24 04.9**	**-0.3**
BIM	**Bigot**	**3.19**	**341**	*e*P	**Pn**	**09 23 40.2**	**+0.9**
BIM				*e*S	**Sn**	**09 24 14.6**	**-2.3**
BIM	**Bigot**	**3.19**	**341**	*e*P	**Pn**	**09 23 40.3**	**+0.9**
BIM				*e*S	**Sn**	**09 24 15.7**	**-1.2**
ILAM	**Ilet Lapin Mar**	**3.38**	**346**	*e*P	**Pn**	**09 23 42.2**	**+0.4**
ILAM				*e*S	**Sn**	**09 24 20.7**	**-0.7**
SVN	**Savane Anatole**	**3.52**	**341**	*e*P	**Pn**	**09 23 45.7**	**+1.9**
SVN				*e*S	**Sn**	**09 24 25.4**	**+0.5**
DSLB	**Salisbury**	**4.17**	**341**	*e*P	**Pn**	**09 23 53.9**	**+1.5**
DSLB				*e*S	**Sn**	**09 24 39.7**	**-0.5**
DWS	**Wesley**	**4.25**	**343**	*e*P	**Pn**	**09 23 54.5**	**+0.9**
DWS				*e*S	**Sn**	**09 24 41.2**	**-1.1**
MAGL	**Barre de l'ile**	**4.61**	**344**	*e*P	**Pn**	**09 23 59.4**	**+1.1**
MAGL				*e*S	**Sn**	**09 24 49.4**	**-1.5**
DSDZ	**La Diserade, G**	**4.91**	**348**	*e*S	**Sn**	**09 24 55.6**	**-2.5**
DHSZ	**Broadband at M**	**5.06**	**340**	*e*P	**Pn**	**09 24 06.6**	**+2.2**
DHSZ				*e*S	**Sn**	**09 25 00.1**	**-1.6**
TACV	**Tcata**	**7.03**	**260**	*e*P	**Pn**	**09 24 33.4**	**+2.3**
TACV				*e*S	**Sn**	**09 25 46.6**	**-3.1**
SMRT	**St. Maarten**	**7.17**	**336**	*e*P	**Pn**	**09 24 34.0**	**+1.0**
SMRT				*e*S	**Sn**	**09 25 51.3**	**-1.7**
BENV	**Beln**	**7.62**	**259**	*e*P	**Pn**	**09 24 39.8**	**+0.7**
BENV				*e*S	**Sn**	**09 26 00.3**	**-3.7**

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*IDC **21** 10:21:17.5±1.1, 4°.12N×126°.80E, h0^{km}, mb3.9/7, mbtmp4.0/7, Error ellipse: s-maj=59.1km s-min=13.0km az=77.0*

*DJA **21** 10:21:20.5±1.3, 4°N±9°×12°7E±°, h10^{km}, M4.1/5, ML4.2/3, MLv4.2/3, MLv4.1/5*

ISC 21 10:21:19.2±1.3**, 4°.2N**±0°.1×**126°.9E**±0°.4**, h10**^{km}**, n9,** σ**1**^{s}**.38**/10**, mb4.0**/7**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TNTI	**Ternate**	**3.48**	**172**	P	**Pn**	**10 22 15.9**	**+2.4**
FITZ	**Fitzroy Crossi**	**22.23**	**183**	P	**P**	**10 26 15.6**	**-0.6**
	2.2nm,0.5s,baz=5.8,slow=9.2,SNR=9.3						
FITZ				S	**S**	**10 30 20.0**	**-1.1**
	3.5nm,0.8s,baz=102,slow=14,SNR=5.8 2.2nm,0.5s						
FITZ	**Fitzroy Crossi**	**22.23**	**183**		**S**	**10 30 19.7**	**-1.5**
WRA	**Warramunga Arr**	**25.13**	**163**	P	**P**	**10 26 42.9**	**-1.7**
	1.5nm,0.4s,baz=344,slow=9.3,SNR=23 1.5nm,0.4s						
ASAR	**Alice Springs**	**28.57**	**166**	P	**P**	**10 27 15.0**	**-0.7**
	0.5nm,0.5s,baz=347,slow=8.3,SNR=15 0.5nm,0.5s						
STKA	**Stephens Creek**	**38.55**	**160**	P	**P**	**10 28 41.8**	**-0.5**
	1.6nm,0.5s,baz=347,slow=7.1,SNR=4.1 1.6nm,0.5s						
MKAR	**Makanchi Array**	**57.22**	**325**	P	**P**	**10 31 07.0**	**+0.2**
	1.0nm,0.6s,baz=122,slow=8.6,SNR=12 1.0nm,0.6s						
KURBB	**Kurchatov Arra**	**61.39**	**327**	P	**P**	**10 31 35.5**	**0.0**
	0.6nm,0.4s,baz=127,slow=6.8,SNR=12 0.6nm,0.4s						
BVAR	**Borovoye Array**	**66.97**	**327**	P	**P**	**10 32 12.5**	**+0.3**
	0.7nm,0.4s,baz=120,slow=8.5,SNR=3.7 0.7nm,0.4s						

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*IDC **21** 10:26:30.8±1.5, 2°.61S×121°.33E, h0^{km}, mb4.1/4, mbtmp4.2/5, ML4.2/1, MS3.4/10, Error ellipse: s-maj=24.3km s-min=21.7km az=80.0*

*DJA **21** 10:26:33.4±0.2, 3°S±2°×12°1E±°, h10^{km}, M5.0/19, ML5.3/6, MLv5.0/23, MLv4.9/19*

*NEIC **21** 10:26:33.3±1.6, 2°.67S±0°.06×121°.24E±0°.03, h10^{km}±1^{km}, mb4.4/13, Error ellipse: s-maj=9.5km s-min=4.9km az=10.0*

ISC 21 10:26:32.9±0.6**, 2°.68S**±0°.05×**121°.21E**±0°.05**, h10**^{km}**, n48,** σ**1**^{s}**.13**/42**, mb4.2**/11**, MS3.4**/7**, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KKSI	**Kolaka, Sulawe**	**1.54**	**163**	P	**Pn**	**10 27 00.2**	**-0.3**
APSI	**Ampana**	**1.81**	**14**	P	**Pn**	**10 27 03.9**	**-0.3**
APSI				AML	AML		
KDI	**Kendari**	**1.89**	**132**	P	**Pb**	**10 27 08.5**	**+0.9**
SPSI	**Sidrap Palu**	**1.92**	**228**	P	**Pn**	**10 27 05.6**	**-0.1**
SPSI				AML	AML		
PCI	**Palu**	**2.24**	**322**	P	**Pn**	**10 27 11.0**	**+1.0**
PCI				AML	AML		
LUWI	**Luwuk**	**2.26**	**44**		**Pn**	**10 27 10.1**	**-0.2**
LUWI	**Luwuk**	**2.26**	**44**	P	**Pn**	**10 27 10.1**	**-0.2**
LUWI				AML	AML		
MMSI	**Mamuju**	**2.30**	**270**	P	**Pn**	**10 27 11.3**	**+0.4**
MMSI				AML	AML		
PMSI	**Majene**	**2.43**	**250**	P	**Pn**	**10 27 14.6**	**+1.9**
PMSI				AML	AML		
KAPI	**Kappang**	**2.73**	**212**	Pn	**Pn**	**10 27 18.4**	**+1.5**
	39nm,0.3s,baz=23,slow=7.2,SNR=26						
KAPI				Sn	**Sn**	**10 27 51.9**	**+1.9**
	75nm,0.3s,baz=72,slow=23,SNR=19						
KAPI				LR	LR	10 27 55.7	
	comp=Z,220nm,18.4s,baz=38,slow=30 102nm,0.3s						
KAPI				AML	AML		
KAPI	**Kappang**	**2.73**	**212**		**Pn**	**10 27 18.1**	**+1.2**
KAPI	**Kappang**	**2.73**	**212**	P	**Pn**	**10 27 18.1**	**+1.2**
KAPI				AML	AML		
MKS	**Makassar**	**3.06**	**215**	P	**Pb**	**10 27 25.6**	**-1.9**
MKS				AML	AML		
BBSI	**Bau Bau**	**3.10**	**154**	P	Pg	10 27 37.8	+5.4
MPSI	**Mapaga**	**3.27**	**336**	P	**Pn**	**10 27 25.2**	**+0.9**
MPSI				AML	AML		
BSSI	**Bau Bau, Buton**	**3.51**	**192**	P	**Pn**	**10 27 28.6**	**+1.0**
GTOI	**Gorontalo**	**3.76**	**29**	P	**Pn**	**10 27 31.5**	**+0.5**
GTOI				AML	AML		
TOLI2	**Tolitoli**	**3.79**	**354**		**Pn**	**10 27 33.2**	**+1.8**
BKB	**Balikpapan**	**4.54**	**288**		**Pn**	**10 27 42.9**	**+1.2**
MMRI	**Maumere**	**6.00**	**170**	Pn	**Pn**	**10 28 02.1**	**+0.2**
TNTI	**Ternate**	**7.05**	**61**	Pn	**Pn**	**10 28 17.1**	**+0.8**
SOEI	**Soe**	**7.66**	**157**		**Pn**	**10 28 26.1**	**+1.4**
KKM	**Kota Kinabalu**	**10.00**	**330**		**Pn**	**10 28 57.6**	**+0.7**
DAV	**Davao City (W)**	**10.62**	**24**	LR	LR	10 34 06.2	
	comp=Z,181nm,18.5s,baz=227,slow=43						
FITZ	**Fitzroy Crossi**	**15.92**	**164**	LR	LR	10 37 57.1	
	comp=Z,153nm,19.4s,baz=354,slow=43						
JAY	**Jayapura**	**19.48**	**90**	LR	LR	10 40 50.0	
	comp=Z,103nm,19.8s,slow=44						
WB0	**Warramunga Arr**	**21.31**	**144**	P	**P**	**10 31 19.1**	**-1.1**
WB0				IAmb	IAmb	10 31 33.4	
	comp=Z,9.2nm,1.0s						
IPM	**Ipoh**	**21.39**	**289**		**P**	**10 31 21.4**	**+0.4**
WRAB	**Tennant Creek**	**21.42**	**144**	P	**P**	**10 31 20.4**	**-0.9**
WRAB				IAmb	IAmb	10 31 34.6	
	comp=Z,14nm,1.1s						
WRA	**Warramunga Arr**	**21.42**	**144**	P	**P**	**10 31 20.2**	**-1.1**
	comp=Z,2.7nm,0.8s,baz=325,slow=11,SNR=15 comp=Z,2.7nm,0.8s						
WRA	**Warramunga Arr**	**21.42**	**144**	P	**P**	**10 31 19.1**	**-2.2**
WR8	**Warramunga Arr**	**21.52**	**144**	P	**P**	**10 31 21.7**	**-0.7**
WR8				IAmb	IAmb	10 32 05.0	
	comp=Z,10nm,0.9s						
KULM	**Kulim**	**22.01**	**291**		**P**	**10 31 27.4**	**-0.3**
KULM				IAmb	IAmb	10 31 33.7	
	comp=Z,30nm,1.1s						
RPSI	**Rantau Prapat**	**22.91**	**283**		**P**	**10 31 37.1**	**-0.2**
AS31	**Alice Springs**	**24.21**	**151**	P	**P**	**10 31 49.4**	**-0.6**
ASAR	**Alice Springs**	**24.21**	**151**	P	**P**	**10 31 49.5**	**-0.4**
	comp=Z,2.6nm,0.7s,baz=332,slow=9.0,SNR=18						
ASAR				LR	LR	10 42 40.6	
	comp=Z,127nm,18.2s,baz=308,slow=40 comp=Z,2.6nm,0.7s						
CTA	**Charters Tower**	**29.95**	**127**	LR	LR	10 46 00.6	
	comp=Z,76nm,18.1s,baz=186,slow=39						
CMAR	**Chiang Mai Arr**	**30.36**	**315**	P	**P**	**10 32 45.0**	**-0.3**
	comp=Z,2.6nm,0.7s,baz=139,slow=6.9,SNR=12						
CMAR				LR	LR	10 46 12.3	
	comp=Z,61nm,19.8s,baz=135,slow=39 comp=Z,2.6nm,0.7s						
CMAR	**Chiang Mai Arr**	**30.36**	**315**	P	**P**	**10 32 44.4**	**-0.9**
PZH	**PanZhiHua**	**34.58**	**328**	P	**P**	**10 33 24.8**	**+2.5**
STKA	**Stephens Creek**	**34.81**	**149**	P	**P**	**10 33 23.7**	**-0.3**
	comp=Z,7.3nm,0.9s,baz=313,slow=8.3,SNR=6.0						
STKA				LR	LR	10 49 18.8	
	comp=Z,116nm,19.8s,baz=21,slow=39 comp=Z,7.3nm,0.9s						
CD2	**Chengdu**	**37.32**	**335**	P	**P**	**10 33 45.0**	**-0.6**
CD2				pmax	pmax		
	comp=Z,20nm,0.8s						
KSRS	**Korea Array**	**40.42**	**8**	LR	LR	10 52 03.4	
	comp=Z,32nm,19.1s,baz=190,slow=38						
PALK	**Pallekele**	**41.61**	**284**	LR	LR	10 51 06.3	
	comp=Z,47nm,20.0s,baz=108,slow=35						
EVN	**Everest**	**44.97**	**315**		**P**	**10 34 49.4**	**+0.1**
GTA2	**Gaotai**	**46.37**	**337**	*e*P	**P**	**10 35 00.8**	**+1.2**
GTA2				sP	sP	10 35 08.5	+4.3
GTA2				pmax	pmax		
	comp=Z,4.0nm,0.8s						
GTA2				LR	LR		
	comp=N,110nm,15.5s						
GTA2				LR	LR		
	comp=E,100nm,18.1s						
GTA2				LR	LR		
	comp=Z,110nm,16.8s						
KBL	**Kabul**	**61.34**	**312**		**P**	**10 36 47.8**	**-1.6**
AAK	**Ala-Archa**	**61.70**	**322**	P	**P**	**10 36 50.6**	**-1.1**
AAK				IAmb	IAmb	10 37 34.0	
	comp=Z,2.4nm,0.5s						

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*KRNET **21** 10:27:50.4±0.1, 43°.01N×76°.91E, h22^{km}, mb2.0*

*SOME **21** 10:27:50.8, 43°.03N×76°.88E, h15^{km}*

*NNC **21** 10:27:51.2±0.4, 43°.08N×76°.89E, h0^{km}, mb2.5, mpv2.6, Error ellipse: s-maj=3.8km s-min=2.3km az=3.0*

ISC 21 10:27:50.4±0.8**, 43°.01N**±0°.02×**76°.90E**±0°.02**, h11**^{km}±5^{km}**, n42,** σ**0**^{s}**.66**/81**, 18C-4D, Lake Issyk-Kul region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TNSS	**Tian-Shan**	**0.04**	**56**	P	**Pg**	**10 27 53.0**	**+0.1**
	31nm,0.2s						
TNSS				S	**Sg**	**10 27 54.6**	**-0.1**
	247nm,0.2s						
TNSS	**Tian-Shan**	**0.04**	**56**	*e*P	**Pg**	**10 27 53.0**	**+0.1**
	31nm,0.2s						
TNSS				*e*S	**Sg**	**10 27 54.6**	**-0.1**
	247nm,0.2s						
MDOK	**Medeo**	**0.19**	**36**	Pg	**Pg**	**10 27 54.7**	**+0.2**
	14nm,0.2s						
MDOK				Lg	Lg	10 27 57.5	
	66nm,0.1s						
MDOK	**Medeo**	**0.19**	**36**	*e*P	**Pg**	**10 27 54.7**	**+0.2**
	14nm,0.2s						
MDOK				*e*S	**Sg**	**10 27 57.5**	**+0.1**
	66nm,0.1s						
KOTS	**Kotyrbulak**	**0.27**	**35**	P	**Pg**	**10 27 56.6**	**+0.5**
	9.0nm,0.6s						
KOTS				S	**Sg**	**10 28 00.7**	**+0.9**
	130nm,0.6s						
KOTS	**Kotyrbulak**	**0.27**	**35**	*e*P	**Pg**	**10 27 56.6**	**+0.5**
	9.0nm,0.6s						
KOTS				*e*S	**Sg**	**10 28 00.7**	**+0.9**
	130nm,0.6s						
MTBS	**Maitube**	**0.36**	**289**	P	**Pg**	**10 27 58.4**	**+0.7**
	8.9nm,0.1s						
MTBS				S	**Sb**	**10 28 03.7**	**-1.0**
	70nm,0.2s						
MTBS	**Maitube**	**0.36**	**289**	*e*P	**Pg**	**10 27 58.4**	**+0.7**
	8.9nm,0.1s						
MTBS				*e*S	**Sb**	**10 28 03.7**	**-1.0**
	70nm,0.2s						
ANVS	**Anan'yevo**	**0.61**	**112**	⇑*e*P	**Pg**	**10 28 02.1**	**-0.2**
ANVS				⇑*i*S	**Sg**	**10 28 10.2**	**-0.1**
KST	**Kastek**	**0.69**	**273**	P	**Pg**	**10 28 04.2**	**+0.5**
	0.7nm,0.3s						
KST				S	**Sb**	**10 28 13.6**	**-0.4**
	7.6nm,0.3s						
KST	**Kastek**	**0.69**	**273**	*e*P	**Pg**	**10 28 04.2**	**+0.5**
	0.7nm,0.3s						
KST				*e*S	**Sb**	**10 28 13.6**	**-0.4**
	7.6nm,0.3s						
KTBS	**Karatobe**	**0.72**	**347**	P	**Pg**	**10 28 03.5**	**-0.8**
	4.3nm,0.1s						
KTBS				S	**Sg**	**10 28 12.8**	**-0.9**
	16nm,0.3s						
KTBS	**Karatobe**	**0.72**	**347**	*e*P	**Pg**	**10 28 03.5**	**-0.8**
	4.3nm,0.1s						
KTBS				*e*S	**Sg**	**10 28 12.8**	**-0.9**
	16nm,0.3s						
BOOM	**Boomskoye usch**	**0.88**	**234**	⇑*i*P	**Pb**	**10 28 07.0**	**-0.7**
BOOM				⇑*e*S	**Sg**	**10 28 18.7**	**0.0**
KDJ	**Kajisay**	**0.91**	**167**	⇑*i*P	**Pb**	**10 28 07.5**	**-0.7**
KDJ				⇑*i*S	**Sb**	**10 28 19.7**	**-0.7**
ULHL	**Ulahol**	**0.91**	**212**	⇓*i*P	**Pb**	**10 28 07.5**	**-0.7**
ULHL				⇓*i*S	**Sb**	**10 28 19.7**	**-0.7**
TKM2	**Tokmak 2**	**0.96**	**265**	⇑*i*P	**Pb**	**10 28 08.5**	**-0.6**
TKM2				⇑*e*S	**Sb**	**10 28 21.8**	**-0.1**
KUU	**Kurty**	**0.97**	**335**	P	**Pb**	**10 28 08.7**	**-0.5**
	1.1nm,0.1s						
KUU				S	**Sb**	**10 28 21.4**	**-0.7**
	8.8nm,0.1s						
KUU	**Kurty**	**0.97**	**335**	*e*P	**Pb**	**10 28 08.7**	**-0.5**
	1.1nm,0.1s						
KUU				*e*S	**Sb**	**10 28 21.4**	**-0.7**
	8.8nm,0.1s						
KURS	**Kuram**	**1.04**	**62**	P	**Pb**	**10 28 09.4**	**-1.1**
	3.1nm,0.3s						
KURS				S	**Sb**	**10 28 22.6**	**-1.7**
	2.7nm,0.6s						
KURS	**Kuram**	**1.04**	**62**	*e*P	**Pb**	**10 28 09.4**	**-1.1**
	3.1nm,0.3s						
KURS				*e*S	**Sb**	**10 28 22.6**	**-1.7**
	2.7nm,0.6s						
SATY	**Saty**	**1.11**	**87**	P	**Pb**	**10 28 11.6**	**-0.1**
	1.7nm,0.1s						
SATY				S	**Sb**	**10 28 26.3**	**+0.2**
	16nm,0.1s						
SATY	**Saty**	**1.11**	**87**	*e*P	**Pb**	**10 28 11.6**	**-0.1**
	1.7nm,0.1s						
SATY				*e*S	**Sb**	**10 28 26.3**	**+0.2**
	16nm,0.1s						
KRBS	**Karabastau**	**1.12**	**308**	P	**Pn**	**10 28 11.8**	**-0.4**
	2.5nm,0.2s						
KRBS				S	**Sg**	**10 28 26.5**	**-0.1**
	5.1nm,0.2s						
KRBS	**Karabastau**	**1.12**	**308**	*e*P	**Pn**	**10 28 11.8**	**-0.4**
	2.5nm,0.2s						
KRBS				*e*S	**Sg**	**10 28 26.5**	**-0.1**
	5.1nm,0.2s						
PRZ	**Przheval'sk**	**1.23**	**115**	⇑*i*P	**Pn**	**10 28 12.8**	**-0.9**
PRZ				⇑*e*S	**Sb**	**10 28 29.0**	**-0.6**
ARXS	**Arharly**	**1.38**	**29**	P	**Pb**	**10 28 15.9**	**-0.3**
	3.1nm,0.2s						
ARXS				S	**Sb**	**10 28 33.9**	**0.0**
	6.1nm,0.1s						
ARXS	**Arharly**	**1.38**	**29**	*e*P	**Pb**	**10 28 15.9**	**-0.3**
	3.1nm,0.2s						
ARXS				*e*S	**Sb**	**10 28 33.9**	**0.0**
	6.1nm,0.1s						
KPKS	**Kokpek**	**1.38**	**70**	P	**Pb**	**10 28 16.6**	**+0.3**
	0.2nm,0.1s						
KPKS				S	**Sg**	**10 28 35.1**	**+0.2**
	22nm,0.3s						
KPKS	**Kokpek**	**1.38**	**70**	*e*P	**Pb**	**10 28 16.6**	**+0.3**
	0.2nm,0.1s						
KPKS				*e*S	**Sg**	**10 28 35.1**	**+0.2**
	22nm,0.3s						
TARG	**Taragay, Kyrgy**	**1.45**	**152**	⇑*i*P	**Pn**	**10 28 16.9**	**0.0**
TARG				⇑*i*S	**Sn**	**10 28 36.1**	**0.0**
UZB	**Uzynbulak**	**1.56**	**84**	P	**Pb**	**10 28 20.0**	**+0.6**
	1.1nm,0.2s						
UZB				S	**Sg**	**10 28 40.8**	**+0.2**
	3.8nm,0.1s						
UZB	**Uzynbulak**	**1.56**	**84**	*e*P	**Pb**	**10 28 20.0**	**+0.6**
	1.1nm,0.2s						
UZB				*e*S	**Sg**	**10 28 40.8**	**+0.2**
	3.8nm,0.1s						
CHMS	**Chumysh**	**1.57**	**270**	⇑*i*P	**Pb**	**10 28 19.2**	**-0.3**
CHMS				⇑*i*S	**Sb**	**10 28 40.0**	**+0.5**
BLB	**Baldybastay**	**1.58**	**46**	P	**Pb**	**10 28 19.5**	**-0.2**
	7.8nm,0.3s						
BLB				S	**Sb**	**10 28 40.0**	**+0.2**
	14nm,0.3s						
SGDS	**Sogindy**	**1.71**	**286**	P	**Pb**	**10 28 21.8**	**-0.1**
	1.6nm,0.3s						
SGDS				S	**Sb**	**10 28 44.3**	**+0.7**
	5.3nm,0.4s						
USP	**Ospenovka**	**1.77**	**279**	⇓*i*P	**Pb**	**10 28 22.3**	**-0.6**
USP				⇓*i*S	**Sb**	**10 28 45.6**	**+0.4**
AAK	**Ala-Archa**	**1.81**	**259**	⇑*i*P	**Pb**	**10 28 23.0**	**-0.6**
AAK				⇑*i*S	**Sb**	**10 28 46.5**	**+0.2**
KNOS	**Konyrlen**	**2.13**	**50**	Pg	**Pb**	**10 28 29.3**	**+0.1**
	0.7nm,0.2s						
KNOS				Lg	Lg	10 28 56.9	
	4.0nm,0.3s						
EKS2	**Erkin-Say**	**2.32**	**262**	⇑*e*P	**Pn**	**10 28 29.9**	**+1.2**
EKS2				⇑*i*S	**Sn**	**10 28 58.8**	**+1.5**
DJR	**Jarkent**	**2.48**	**57**	Pg	**Pb**	**10 28 35.3**	**+0.3**
	0.7nm,0.3s						
DJR				Lg	Lg	10 29 07.3	
	1.8nm,0.6s						
DJR	**Jarkent**	**2.48**	**57**	*e*P	**Pb**	**10 28 35.3**	**+0.3**
	0.7nm,0.3s						
DJR				*e*S	**Sb**	**10 29 07.3**	**+1.7**
	1.8nm,0.6s						

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*MOS **21** 10:28:37.4±0.8, 40°.32N×143°.04E, h44^{km}, mb4.6/16, Error ellipse: s-maj=8.9km s-min=5.6km az=93.9*

*NIED **21** 10:28:38.4, 40°.31N×142°.88E, h29^{km}, MW4.1, Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M_{rr}0.92; $M_{\theta\theta}$0.10; $M_{\phi\phi}$-1.02; $M_{r\theta}$0.60; $M_{\theta\phi}$-0.36; $M_{\phi r}$0.87; Fault plane solution: $M_0$1.48000×10^{15} NP1: ϕ_s179.00000°, δ25.00000°, λ61.00000°. NP2: ϕ_s30.00000°, δ69.00000°, λ102.00000°.*

*JMA **21** 10:28:38.4±0.1, 40°.3N±0°.4×142°.9E±0°.6, h29^{km}±1^{km}, MV4.0/38, NE OFF IWATE PREF*

*NEIC **21** 10:28:39.8±1.3, 40°.34N±0°.06×143°.0E±0°.1, h40^{km}±3^{km}, mb4.6/7, Error ellipse: s-maj=12.4km s-min=8.7km az=111.0*

*IDC **21** 10:28:40.6±2.3, 40°.33N×142°.90E, h51^{km}±18^{km}, mb3.9/16, mbtmp4.1/21, ML3.3/5, MS3.2/10, Error ellipse: s-maj=20.8km s-min=13.3km az=104.0*

ISC 21 10:28:34.8±0.6**, 40°.25N**±0°.05×**143°.06E**±0°.06**, h12**^{km}**, n96,** σ**1**^{s}**.68**/91**, mb4.4**/33**, MS3.4**/5**, 11C-14D, Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JTH	**Tanohata**	**0.97**	**252**	⇓*e*P	**Pg**	**10 28 53.0**	**-0.5**
MIYJ	**Miyakonagasawa**	**1.17**	**235**	⇓P	**Pn**	**10 28 56.2**	**-0.7**
JANG	**Nango**	**1.19**	**276**	⇓P	**Pb**	**10 28 55.8**	**-1.5**
JTM	**Tenmabayashi**	**1.61**	**290**		**Pn**	**10 29 02.5**	**-0.5**
ERM	**Erimo**	**1.76**	**2**	*c i*P	**Pn**	**10 29 05.3**	**+0.2**
ERM				pmax	pmax		
	comp=Z,72nm,0.8s						
ERM	**Erimo**	**1.76**	**2**		**Pb**	**10 29 06.4**	**-0.7**
NMR	**Nemuro--Hokkai**	**3.70**	**32**	⇓*i*P	**Pn**	**10 29 32.2**	**+0.5**
NMR				*i* S	**Sn**	**10 30 11.3**	**-3.9**
ASAJ	**Asahikawa**	**3.88**	**355**	P	**Pn**	**10 29 36.0**	**+1.8**
	comp=Z,3.2nm,0.3s,baz=217,slow=9.6,SNR=35						
ASAJ				S	**Sn**	**10 30 21.1**	**+1.4**
	comp=Z,36nm,0.6s,baz=178,slow=31,SNR=4.1						
ASAJ				LR	LR	10 30 49.8	
	comp=Z,56nm,18.2s,baz=194,slow=34 comp=Z,8.4nm,0.4s						
ASAJ				AML	AML		
JKA	**Kamikawa-asahi**	**3.88**	**355**		**Pn**	**10 29 34.5**	**+0.4**
JKA	**Kamikawa-asahi**	**3.88**	**355**		**Sn**	**10 30 21.1**	**+1.5**
RUSJ	**Misakicho**	**4.18**	**22**	*e*P	**Pn**	**10 29 40.0**	**+1.7**
RUSJ				*i* S	**Sn**	**10 30 25.3**	**-1.7**
YUK	**Yuzh-Kuril'sk**	**4.32**	**28**	*d i*P	**Pn**	**10 29 41.4**	**+1.2**
YUK				*i* S	**Sn**	**10 30 27.0**	**-3.4**
YUK				pmax	pmax		
	comp=Z,162nm,0.3s						
YUK				pmax	pmax		
	comp=N,44nm,0.2s						
YUK				smax	smax		
	comp=N,907nm,0.4s						
YUK				smax	smax		
	comp=E,433nm,0.4s						
MJAR	**Matsushiro Arr**	**5.31**	**227**	P	**Pn**	**10 29 57.1**	**+3.1**
	comp=E,0.5nm,0.3s,baz=30,slow=13,SNR=38						
MJAR				LR	LR	10 32 21.8	
	comp=E,149nm,19.8s,baz=60,slow=42 comp=E,14nm,0.8s						
MJAR				AML	AML		
MJAR	**Matsushiro Arr**	**5.31**	**227**		**Pn**	**10 29 56.7**	**+2.8**
MJB9	**Matsu-Tunnel**	**5.31**	**227**	Pn	**Pn**	**10 29 57.0**	**+3.0**
MAJO	**Matsushiro**	**5.32**	**227**	P	**Pn**	**10 29 57.1**	**+3.1**
MAJO	**Matsushiro**	**5.32**	**227**		**Pn**	**10 29 57.1**	**+3.1**
KUR	**Kuril'sk**	**6.11**	**34**	*e*P	**Pn**	**10 30 05.3**	**+0.5**
KUR				*i* S	**Sn**	**10 31 12.4**	**-2.1**
KUR				pmax	pmax		
	comp=E,19nm,0.4s						
KUR				pmax	pmax		
	comp=Z,63nm,0.4s						
KUR				pmax	pmax		
	comp=N,17nm,0.3s						
KUR				smax	smax		
	comp=N,113nm,0.7s						
KUR				smax	smax		

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         comp=E,79nm,0.3s
JGF   Kuroka              6.47 226        Pn     10 30 12.5 +2.6
YSS   Yuzhno-Sakhali      6.70 358  eP    Pn     10 30 15.2 +2.2
YSS                                 eS    Sn     10 31 26.2 -3.0
YSS                                  pmax pmax
         comp=Z,20nm,0.9s
YSS                                  MLR  MLR
         comp=Z,200nm,15.0s
YSS                                  MLR  MLR
         comp=N,200nm,16.0s
YSS                                  MLR  MLR
         comp=E,100nm,16.0s
TEY   Ternei              6.75 317  eP    Pn     10 30 04.0  -10
JHJ   Hachijo jima 2      7.59 201  P     Pn     10 30 25.7 +0.5
         comp=E,156nm,0.9s,baz=131,slow=22,SNR=7.7
JHJ                                 S     Sn     10 31 45.5 -5.6
         comp=E,108nm,0.8s,baz=246,slow=20,SNR=1.2
USA0B Ussuriysk Arra      9.11 299⥣eP    Pn     10 30 49.7 +3.7
USA0B Ussuriysk Arra      9.11 299  Pn    Pn     10 30 48.5 +2.5
USRK  Ussuriysk Ar.       9.11 299  P     Pn     10 30 47.8 +1.7
         comp=E,0.6nm,0.3s,baz=111,slow=13,SNR=16
USRK                                LR    LR     10 34 09.0
         comp=E,183nm,19.9s,baz=136,slow=37
         comp=E,2.7nm,0.6s
USRK                                AML   AML
PSTR  Posyet              9.51 289⥥eP    Pn     10 30 54.0 +2.5
TYV   Tymovskoe          10.62 359  eP    Pn     10 31 19.3  +13
TYV                                  pmax pmax
         comp=Z,7.0nm,0.8s
TYV                                  pmax pmax
         comp=Z,200nm,4.6s
KLR   Kul'dur            12.04 322  P     Pn     10 31 26.8 +0.7
         comp=Z,0.1nm,0.3s,baz=122,slow=13,SNR=4.6
KLR                                 LR    LR     10 36 15.5
         comp=Z,139nm,18.1s,baz=136,slow=38
         comp=Z,1.8nm,0.8s
KLR                                 AML   AML
KLR   Kul'dur            12.04 322⥣iP    Pn     10 31 27.6 +1.5
KLR                                  pmax pmax
         comp=Z,4.0nm,1.3s
JNU   Nakatsue           12.09 238  LR    LR     10 36 47.0
         comp=Z,87nm,20.1s,baz=51,slow=40
KSRS  Korea Array        12.13 262  P     Pn     10 31 29.3 +2.0
         comp=Z,0.2nm,0.3s,baz=61,slow=14,SNR=4.6
KSRS                                LR    LR     10 35 49.0
         comp=Z,157nm,18.6s,baz=50,slow=36
         comp=Z,0.9nm,0.7s
KSRS                                AML   AML
PET   Petropavlovsk      16.62  35⥥eP    Pn     10 32 28.1 +0.7
ZEA   Zeya               17.21 327  eP    Pn     10 32 34.3 -0.6
ZEA                                  pmax pmax
         comp=Z,10.0nm,0.5s
HILR  Hailar Array B     18.89 307  P     P      10 32 52.8 -2.2
         comp=Z,1.7nm,0.4s,baz=100,slow=15,SNR=4.5
MA2   Magadan            19.94  12⥣eP    Pn     10 33 07.5 -0.6
MA2                                  pmax pmax
         comp=Z,18nm,1.7s
SEY   Seymchan           23.39  11⥣eP    P      10 33 42.2 -0.9
SEY                                  pmax pmax
         comp=Z,6.0nm,0.9s
GUMO  Guam               26.61 176  LR    LR     10 44 37.1
         comp=Z,16nm,19.1s,baz=270,slow=36
ULN   Ulaanbaatar        26.78 299⥥iP    P      10 34 14.7  0.0
ULN                                  pmax pmax
         comp=Z,2.0nm,0.5s
SONM  Songino Array      27.22 298  P     P      10 34 18.4 -0.1
         comp=Z,2.0nm,0.7s,baz=88,slow=8.7,SNR=10
SONM                                LR    LR     10 45 34.9
         comp=Z,90nm,18.2s,baz=112,slow=38
         comp=Z,2.0nm,0.7s
SONM  Songino Array      27.22 298  IAmb  IAmb   10 34 20.0
         comp=Z,2.1nm,0.9s
H11N2 WAKE ISLAND Hy     28.90 128  T     T      11 05 33.1
         baz=318,slow=75,SNR=196
H11N1 WAKE ISLAND Hy     28.91 128  T     T      11 05 29.9
         baz=318,slow=75,SNR=170
H11N3 WAKE ISLAND Hy     28.92 128  T     T      11 05 34.4
         baz=318,slow=75,SNR=146
TLY   Talaya             29.33 306  LR    LR     10 47 02.7
         comp=Z,56nm,18.1s,baz=113,slow=38
H11S1 WAKE ISLAND Hy     29.73 130  T     T      11 06 23.5
         baz=321,slow=76,SNR=22
H11S3 WAKE ISLAND Hy     29.73 130  T     T      11 06 26.6
         baz=321,slow=76,SNR=20
H11S2 WAKE ISLAND Hy     29.75 130  T     T      11 06 15.3
         baz=321,slow=76,SNR=24
BILL  Bilibino           30.58  17⥣eP    P      10 34 47.3 -0.7
BILL                                 pmax pmax
         comp=Z,29nm,2.5s
LZH   Lanzhou            30.94 275  eP    P      10 34 54.6 +2.9
LZH                                 pP    pwP    10 35 07.3  +12
LZH                                  pmax pmax
         comp=Z,11nm,1.0s
KNGR  Kungurtug, Tuv     33.11 304⥥eP    P      10 35 10.2 -0.4
KNGR                                 pmax pmax
         comp=Z,3.0nm,0.5s
DGZ   Jazzator, Alta     39.64 303d iP    P      10 36 07.1 +0.7
DGZ                                  pmax pmax
         comp=Z,6.0nm,0.6s
ZALV  Zalesovo Beam      40.78 310  P     P      10 36 15.2 -0.4
         comp=Z,2.5nm,0.4s,baz=93,slow=9.2,SNR=10
ZALV                                PcP   PcP    10 38 16.1 -0.5
         comp=Z,0.8nm,0.5s,baz=33,slow=3.4,SNR=1.9
         comp=Z,2.5nm,0.4s
ZALV  Zalesovo Beam      40.78 310  i P   P      10 36 15.1 -0.5
ZALV                                 pmax pmax
         comp=Z,3.0nm,0.4s
MK31  Makanchi Array     43.58 300c iP    P      10 36 38.0 -0.6
MKAR  Makanchi Array     43.58 300  P     P      10 36 38.0 -0.6
         comp=Z,3.1nm,0.7s,baz=87,slow=9.6,SNR=30
         comp=Z,3.1nm,0.7s
MKAR  Makanchi Array     43.58 300        P      10 36 38.1 -1.6
MAKZ  Makanchi           43.78 300  IAmb  IAmb   10 36 43.5
         comp=Z,4.7nm,0.8s
MAKZ  Makanchi           43.78 300        P      10 36 40.1 -0.7
KURK  Kurchatov          45.03 306  P     P      10 36 50.0 -0.1
KURK  Kurchatov          45.03 306  P     P      10 36 49.4 -0.7
KURK                                IAmb  IAmb   10 36 54.1
         comp=Z,8.8nm,0.6s
KURBB Kurchatov Arra     45.11 306  P     P      10 36 50.0 -0.6
         comp=Z,7.6nm,0.5s,baz=80,slow=8.7,SNR=52
         comp=Z,7.6nm,0.5s
ILAR  Eielson Array      46.10  34  P     P      10 36 58.7 +0.3
         comp=Z,0.4nm,0.8s,baz=272,slow=8.0,SNR=2.6
         comp=Z,0.4nm,0.8s
BVAR  Borovoye Array     49.41 311  P     P      10 37 24.1 -0.1
         comp=Z,2.8nm,0.5s,baz=79,slow=8.0,SNR=11
         comp=Z,2.8nm,0.5s
BORK  Borovoye           49.45 311d iP    P      10 37 24.5  0.0
BORK                                 pmax pmax
         comp=Z,16nm,3.0s
AAK   Ala-Archa          50.15 297⥣eP    P      10 37 31.1 +0.9
AAK                                  pmax pmax
         comp=Z,5.0nm,1.3s
INK   Inuvik             50.94  28  P     P      10 37 36.5 +0.9
         comp=Z,1.9nm,0.8s,baz=270,slow=3.9,SNR=1.8
         comp=Z,1.9nm,0.8s
INK   Inuvik             50.94  28  P     P      10 37 36.5 +0.9
INK                                  pmax pmax
         comp=Z,9.0nm,1.3s
INK   Inuvik             50.94  28  IAmb  IAmb   10 37 50.3
         comp=Z,8.8nm,1.3s
ARTI  Arti               54.94 317  P     P      10 38 04.9 -0.3
         comp=Z,5.5nm,0.5s,baz=41,slow=4.6,SNR=5.9
         comp=Z,5.5nm,0.5s
ARTI  Arti               54.94 317c iP    P      10 38 05.1 -0.2
ARTI                                *PP   pwP    10 38 17.0 +8.4
ARTI                                             10 39 05.9
ARTI                                S     S      10 45 44.4 -2.1
ARTI                                SS    SS     10 49 25.0 -4.4
ARTI                                 pmax pmax
         comp=Z,9.0nm,0.9s
AB31  Akbulak array      56.89 309  P     P      10 38 19.1 -0.2
ABKAR Akbulak array      56.89 309  P     P      10 38 19.0 -0.3
KIRV  Kirov              58.48 322⥥eP    P      10 38 29.6 -0.7
WB0   Warramunga Arr     60.25 189  P     P      10 38 43.7 +0.8
WB0                                 IAmb  IAmb   10 39 14.3
         comp=Z,11nm,1.4s
WRAB  Tennant Creek      60.42 189⥥eP    P      10 38 43.0 -1.1
WRAB                                 pmax pmax
         comp=Z,12nm,1.0s
WR8   Warramunga Arr     60.42 189  P     P      10 38 44.8 +0.6
WR8                                 IAmb  IAmb   10 39 22.1
         comp=Z,3.6nm,1.0s
WRA   Warramunga Arr     60.43 189  P     P      10 38 45.0 +0.8
         comp=Z,0.5nm,0.7s,baz=8.3,slow=6.9,SNR=4.9
         comp=Z,0.5nm,0.7s
WRA   Warramunga Arr     60.43 189  i P   P      10 38 45.5 +1.3
BELG  Belogornoye        62.34 316⥣eP    P      10 38 57.1 +0.3
BELG                                 pmax pmax
         comp=Z,3.0nm,1.0s
ASAR  Alice Springs      64.16 189  P     P      10 39 10.5 +1.4
         comp=Z,0.3nm,0.6s,baz=4.4,slow=7.4,SNR=5.6
         comp=Z,0.3nm,0.6s
OBN   Obninsk            66.30 323  eP    P      10 39 21.7 -1.0
OBN                                 e*PP  pwP    10 39 36.5  +10
OBN                                 e            10 39 50.1
OBN                                 e            10 41 46.0
OBN                                 ePPP  PPP    10 43 22.8
OBN                                  pmax pmax
         comp=Z,3.0nm,0.7s
OBN                                  MLR  MLR
         comp=Z,101nm,15.0s
FINES FINESS Array B     66.57 332  P     P      10 39 23.9 -0.4
         comp=Z,4.0nm,0.8s,baz=72,slow=6.2,SNR=5.4
         comp=Z,4.0nm,0.8s
FINES FINESS Array B     66.57 332  i P   P      10 39 24.7 +0.4
FINES                                pmax pmax
         comp=Z,4.0nm,0.8s
VSU   Vasula             68.34 330⥣eP    P      10 39 35.2 -0.3
VSU                                  pmax pmax
         comp=Z,31nm,1.6s
KBZ   Khabaz             69.79 311  P     P      10 39 45.1 +0.3
         comp=Z,2.5nm,0.8s,baz=35,slow=8.7,SNR=5.4
         comp=Z,2.5nm,0.8s
HFS   Hagfors            71.69 336  P     P      10 39 55.9 -0.2
         comp=Z,1.4nm,0.6s,baz=31,slow=3.5,SNR=4.2
         comp=Z,1.4nm,0.6s
NOA   NORSAR Array B     71.72 338  P     P      10 39 56.1 -0.2
         comp=Z,1.2nm,0.8s,baz=38,slow=6.0,SNR=3.7
         comp=Z,1.2nm,0.8s
AKASG Malin Array Be     72.54 322  P     P      10 40 01.0 -0.4
         comp=Z,0.3nm,0.3s,baz=46,slow=6.0,SNR=4.3
         comp=Z,0.3nm,0.3s
AKASG Malin Array Be     72.54 322  i P   P      10 39 59.7 -1.7
PDAR  Pinedale Array     74.51  47  P     P      10 40 14.1 +0.7
         comp=Z,0.1nm,0.4s,baz=300,slow=4.8,SNR=1.5
KHC   Kasperske Hory     80.47 329⥥iP    P      10 40 47.0 +0.6
KHC                                  pmax pmax
         comp=Z,19nm,5.9s
GERES GERESS Array B     80.64 329  P     P      10 40 47.2 -0.2
         comp=Z,0.6nm,0.2s,baz=333,slow=4.7,SNR=3.5
         comp=Z,0.6nm,0.2s
EIL   Elat               83.69 304  LR    LR     11 23 53.1
         comp=Z,36nm,18.7s,baz=286,slow=40
KEST  Kesra              93.22 324  P     P      10 41 50.1 +0.8
         comp=Z,4.9nm,0.5s,baz=96,slow=4.2,SNR=4.9
VNA2  Neumayer--Watz    145.76 197  P     PKPdf  10 48 12.3 +0.3
         baz=85,slow=1.6
VNA3  Neumayer Olymp    146.00 195  P     PKPdf  10 48 13.1 +0.7
         comp=Z,1.8nm,0.7s
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IDC ***21*** *10:29:59.2±0.8, 56°.78N×149°.39W, h0km, mb3.9/15,*
mbtmp4.0/21, ML3.8/6, MS3.6/36, Error ellipse:
s-maj=19.2km s-min=9.9km az=18.0
NEIC ***21*** *10:30:00.4±2.0, 56°.89N±0°.05×149°.31W±0°.09, h8km±4km,*
mb4.3/28, ML4.1/88, ML4.0(AEIC), Error ellipse:
s-maj=8.6km s-min=5.6km az=217.0
AEIC ***21*** *10:30:02.5±3.3, 56°.74N±0°.07×149°.28W±0°.10, h8km±4km,*
Error ellipse: s-maj=10.7km s-min=7.7km az=167.0
ISC 21 10:30:00.4±0.6, **56°.88N**±0°.06×**149°.26W**±0°.04, **h10**km,
n250, σ1^s.**22**/202, **mb4.2**/27, **MS3.5**/32, **Gulf of Alaska**

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Code  Station Name        Δ°   AZ°   Phase ID      Time       Res
                                    Op    ISC     h  m  s    ISC
KDAK  Kodiak Island       2.02 298  Pn    Pn     10 30 32.7 -1.8
         6.8nm,0.3s,baz=31,slow=3.3,SNR=172
KDAK                                Sn    Sn     10 30 56.5 -3.2
         38nm,0.3s,baz=124,slow=18,SNR=8.8
KDAK                                LR    LR     10 31 30.3
         comp=Z,824nm,21.1s,baz=11,slow=45
         27nm,0.3s
KDAK                                AML   AML
KDAK  Kodiak Island       2.02 298        Pn     10 30 32.6 -1.8
KDAK  Kodiak Island       2.02 298        Sn     10 30 56.1 -3.6
OHAK  Old Harbor          2.23 281  P     Pn     10 30 34.6 -2.7
OHAK  Old Harbor          2.23 281        Pn     10 30 34.9 -2.5
SII   Sitkinak Islan      2.73 265  P     Pn     10 30 42.6 -1.7
CNPM  China Poot          2.85 339        Pn     10 30 45.4 -0.6
BRSE  Bradley Lake S      2.98 345        Pn     10 30 46.6 -1.0
BRSE                                      Sn     10 31 22.0 -1.4
MID   Middleton Isla      2.99  30        Pn     10 30 46.4 -1.4
MID   Middleton Isla      2.99  30  IAML         10 31 24.8
         comp=N,407nm,0.8s
MID                                 IAML         10 31 30.4
         comp=E,441nm,1.0s
BRLK  Bradley Lake        3.02 344        Pn     10 30 47.2 -1.0
BRLK                                IAML         10 31 27.9
         comp=E,408nm,0.5s
BRLK  Bradley Lake        3.02 344        Sn     10 31 22.6 -1.9
HOM   Homer               3.06 337        Pn     10 30 48.6 -0.2
HOM                                 IAML         10 31 47.0
         comp=E,732nm,0.7s
Q19K  Cape Douglas,       3.12 313        Pn     10 30 49.6  0.0
Q19K                                IAML         10 31 36.0
         comp=N,712nm,0.9s
Q19K  Cape Douglas,       3.12 313        Sn     10 31 24.7 -2.2
SEW   Seward              3.24 358        Pn     10 30 49.9 -1.3
KAHG  Katmai Hook Gl      3.27 302        Pn     10 30 51.5 -0.3
P23K  Montague Islan      3.28  17        Pn     10 30 50.5 -1.3
P23K                                IAML         10 31 29.6
         comp=N,554nm,0.4s
P23K                                IAML         10 31 32.4
         comp=E,529nm,0.6s
AUI   Augustine Isla      3.31 320        Pn     10 30 52.1 -0.1
AUI                                       Sn     10 31 30.5 -1.1
AUJK  Augustine Jueg      3.31 320        Pn     10 30 52.4 +0.1
AGU   Augustine-Summ      3.33 320        Pn     10 30 52.8 +0.2
AUCH  Augustine Cone      3.34 320        Pn     10 30 52.9 +0.2
KAWH  Katmai              3.34 299        Pn     10 30 52.2 -0.5
P19K  Oil Pt              3.48 325        Pn     10 30 54.4 -0.3
P19K                                      Sn     10 31 35.9  0.0
ACHA  Angle Creek He      3.53 295        Pn     10 30 55.8 +0.4
Q18K  Katmai Hardscr      3.56 302        Pn     10 30 55.2 -0.5
Q18K                                      Sn     10 31 34.5 -3.3
O22K  Cooper Landing      3.62 356        Pn     10 30 55.6 -0.8
O20K  Slope Mountain      3.67 333        Pn     10 30 56.2 -0.9
SLKM  Skilak Lake         3.67 353        Pn     10 30 56.2 -1.1
SLKM                                IAML         10 31 41.1
         comp=N,330nm,0.2s
SLKM                                IAML         10 31 43.2
         comp=E,303nm,0.7s
ILS   Iliamna Low So      3.68 329        Sn     10 31 39.2 -1.6
CHIR  Chirikof Islan      3.70 256  P     Pn     10 30 54.9 -2.7
CHIR  Chirikof Islan      3.70 256        Pn     10 30 54.8 -2.7
CHIR  Chirikof Islan      3.70 256  IAML         10 31 44.1
         comp=E,218nm,1.9s
CHIR                                IAML         10 32 05.2
         comp=N,253nm,2.2s
IVE   Iliamna Volcan      3.71 329        Sn     10 31 40.5 -1.2
ILSW  Iliamna Southw      3.72 328        Pn     10 30 57.0 -1.0
ILSW                                IAML         10 31 44.4
         comp=N,233nm,0.7s
ILSW                                IAML         10 31 51.4
         comp=E,187nm,0.6s
ILSW  Iliamna Southw      3.72 328        Sn     10 31 39.9 -2.0
ILIM  Iliamna             3.75 330        Pn     10 30 57.2 -1.2
ILIM                                      Sn     10 31 40.0 -2.5
HIN   Hinchinbrook I      3.81  21        Pn     10 30 58.5 -0.6
HIN   Hinchinbrook I      3.81  21        Sn     10 31 41.5 -2.4
Q17K  Contact Creek       3.83 294        Pn     10 30 59.1 -0.3
R17L  Mt. Peulik Vol      3.93 284        Pn     10 30 59.7 -1.1
KAIM  Kayak Island        3.98  38        Pn     10 31 00.9 -0.5
KAIM  Kayak Island        3.98  38        Sn     10 31 46.2 -1.8
PWL   Port Wells          4.02   6        Pn     10 31 01.1 -0.9
PWL                                 IAML         10 31 48.4
         comp=N,257nm,0.5s
PWL                                 IAML         10 31 48.6
         comp=E,323nm,0.5s
RDSO  Redoubt South       4.02 335        Pn     10 31 00.8 -1.4
P18K  Big Mountain,       4.04 311        Pn     10 31 01.2 -1.2
EYAK  Cordova Ski Ar      4.11  25  P     Pn     10 31 02.5 -0.7
EYAK  Cordova Ski Ar      4.11  25        Pn     10 31 02.5 -0.7
EYAK                                IAML         10 31 50.3
         comp=E,248nm,0.6s
EYAK                                IAML         10 32 01.3
         comp=N,288nm,0.6s
FID   Port Fidalgo        4.14  19        Pn     10 31 02.9 -0.8
FID                                 IAML         10 31 48.8
         comp=N,174nm,0.5s
FID                                 IAML         10 31 52.3
         comp=E,261nm,0.6s
RDJH  Redoubt Jeurge      4.16 335        Pn     10 31 02.9 -1.1
NCT   North Crescent      4.16 334        Pn     10 31 02.8 -1.2
GLI   Glacier Island      4.17  15        Pn     10 31 03.1 -0.9
GLI   Glacier Island      4.17  15  IAML         10 31 51.2
         comp=N,250nm,0.7s
RC01  Rabbit Creek A      4.23 357        Pn     10 31 04.0 -0.9
RC01  Rabbit Creek A      4.23 357  IAML         10 31 54.5
         comp=E,183nm,0.6s
RC01                                IAML         10 31 55.6
         comp=N,142nm,0.7s
O19K  Port Alsworth       4.25 324        Pn     10 31 04.4 -0.7
GOAT  Goat Mountain       4.40  31        Pn     10 31 06.8 -0.5
P17K  Kvichak River       4.47 304        Pn     10 31 08.1  0.0
KNK   Knik Glacier        4.57   5  IAML         10 32 09.2
         comp=N,143nm,0.8s
KNK                                 IAML         10 32 10.0
         comp=E,161nm,0.6s
DIV   Divide              4.63  21  IAML         10 32 17.3
         comp=N,92nm,0.9s
SPWE  Spurr West          4.72 340        Pn     10 31 11.1 -0.7
PMR   Palmer              4.73   1  P     Pn     10 31 11.3 -0.4
PMR   Palmer              4.73   1  IAML         10 32 08.0
         comp=E,98nm,0.7s
BMRM  Bremner River       4.75  29  IAML         10 32 14.0
         comp=N,183nm,0.9s
STLK  Strandline Lak      4.82 345  IAML         10 32 12.2
         comp=N,92nm,0.8s
STLK                                IAML         10 32 12.8
         comp=E,132nm,0.6s
GHO   Glory Hole Cre      4.91   2  IAML         10 32 25.7
         comp=E,172nm,0.7s
KLU   Klutina             4.93  19  IAML         10 32 13.2
         comp=N,159nm,0.5s
KLU                                 IAML         10 32 13.7
         comp=E,163nm,0.6s
SML   Sawmill             4.97   5  IAML         10 32 15.9
         comp=E,161nm,0.7s
SML                                 IAML         10 32 22.9
         comp=N,154nm,0.8s
O17K  Koliganek Bris      5.05 308        Pn     10 31 15.2 -0.8
SCM   Sheep Creek Mo      5.07  10  IAML         10 32 18.4
         comp=N,158nm,0.7s
SCM                                 IAML         10 32 28.4
         comp=E,155nm,1.0s
SKT   Skwentna            5.25 348  IAML         10 32 19.7
         comp=N,66nm,0.9s
SKT                                 IAML         10 32 22.4
         comp=E,82nm,0.5s
YAH   Yahtse              5.25  45  IAML         10 32 27.8
         comp=E,129nm,1.2s
VRDI  Verde Repeater      5.29  32        Pn     10 31 19.2 -0.4
VRDI                                IAML         10 32 26.4
         comp=N,113nm,0.9s
VRDI                                IAML         10 32 30.2
         comp=E,114nm,0.8s
GLB   Gilahina Butte      5.36  29  IAML         10 32 27.3
         comp=E,132nm,0.8s
GLB                                 IAML         10 32 37.7
         comp=N,83nm,0.7s
O16K  Kokwok River B      5.40 304        Pn     10 31 20.4 -0.6
O16K                                IAML         10 32 52.1
         comp=E,58nm,3.5s
MCARA McCarthy VSAT       5.54  33        Pn     10 31 22.2 -0.7
PS11  TAPS Pump St11      5.56  19        Pn     10 31 23.5 +0.4
PTPK  Patty Peak          5.56  36        Pn     10 31 22.8 -0.6
CUT   Chulitna            5.57 355        Pn     10 31 23.6 +0.5
WACK  Wrangell Chich      5.71  24        Pn     10 31 24.8 -0.5
PCA   Pinnacle            5.72  52        Pn     10 31 25.0 -0.3
BARN  Barnard Glacie      5.74  40        Pn     10 31 25.2 -0.6
LOGN  Logan Glacier       5.83  44        Pn     10 31 26.0 -1.0
PNL   Peninsula           5.91  58  P     Pn     10 31 27.2 -0.7
PNL   Peninsula           5.91  58        Pn     10 31 27.1 -0.8
HARP  HAARP               5.91  19        Pn     10 31 28.2 +0.2
L19K  White Mountain      6.03 334        Pn     10 31 28.1 -1.5
O15K  Ungalikthiuk R      6.07 297        Pn     10 31 29.7 -0.4
O28M  Mount Upton         6.11  47        Pn     10 31 30.0 -0.9
CHNA  Chernabura Isl      6.17 255  P     Pn     10 31 29.7 -1.8
CNBA  Chernabura Isl      6.17 255        Pn     10 31 29.4 -2.1
PPLA  Purkeypile          6.21 347        Pn     10 31 32.5 +0.3
DHY   Denali Highway      6.29   8        Pn     10 31 32.9 -0.3
M26K  Nabesna, AK         6.38  27        Pn     10 31 34.1 -0.3
SDPT  Sand Point          6.46 261  P     Pn     10 31 34.5 -1.0
SDPT  Sand Point          6.46 261        Pn     10 31 34.7 -0.7
YUK2  White River         6.54  38        Pn     10 31 36.7 +0.1
O29M  Mount Kennedy       6.55  54        Pn     10 31 36.4 -0.5
N15K  Kwethluk River      6.56 305        Pn     10 31 36.7 -0.2
YUK8  Steele Glacier      6.59  44        Pn     10 31 37.6 +0.1
TRF   Thorofare Moun      6.61 356        Pn     10 31 38.0 +0.3
YUK3  Moose Creek         6.66  39        Pn     10 31 38.6 +0.3
L26K  Log Cabin Wild      6.84  23        Pn     10 31 41.0 +0.3
MCK   McKinley            6.88   1        Pn     10 31 41.7 +0.5
YUK6  Outpost Mounta      6.96  50        Pn     10 31 42.6 +0.1
BVCY  Beaver Creek        6.99  34        Pn     10 31 43.2 +0.4
S31K  Pelican             7.12  76        Pn     10 31 42.1 -2.4
K24K  Donnelly Dome       7.16  12        Pn     10 31 45.4 +0.3
RIDG  Independent Ri      7.22  16        Pn     10 31 46.5 +0.6
L27K  Beaver Creek,       7.23  28        Pn     10 31 45.6 -0.4
BCAR  Beaver Creek A      7.25  28        Pn     10 31 46.1 -0.2
HYT   Haines Junctio      7.26  52        Pn     10 31 46.9 +0.3
PN7A  Pavlof North-7      7.26 264        Pn     10 31 45.3 -1.2
PLBC  Pleasant Camp       7.29  64        Pn     10 31 45.9 -1.0
BPAW  Bear Paw Mtn.       7.29 354        Pn     10 31 46.0 -1.0
J18K  Innoko River        7.58 334        Pn     10 31 50.3 -0.4
SCRK  Sand Creek          7.58  18        Pn     10 31 50.6 -0.3
SIT   Sitka               7.62  83        Pn     10 31 47.9 -3.4
HDA   Harding Lake        7.64   8        Pn     10 31 51.7 +0.1
WRH   Wood River Hil      7.64   4        Pn     10 31 51.0 -0.6
J20K  Nowinta River       7.71 344        Pn     10 31 51.7 -0.8
N30M  Aishikik Lake       7.75  49        Pn     10 31 52.5 -0.7
M29M  Somme Creek         7.80  40        Pn     10 31 53.8 -0.2
SKAG  Skagway             7.80  65  P     Pn     10 31 54.6 +0.7
SKAG  Skagway             7.80  65        Pn     10 31 53.9  0.0
CCB   Clear Creek Bu      7.83   5        Pn     10 31 53.9 -0.3
BESE  Bessie Mountai      7.90  72        Pn     10 31 53.4 -1.8
S32K  Killisnoo           8.00  80        Pn     10 31 53.8 -2.8
ILAR  Eielson Array       8.00   7  Pn    Pn     10 31 56.6  0.0
         comp=E,3.8nm,0.3s,baz=193,slow=13,SNR=52
ILAR                                Sn    Sn     10 33 23.3 -3.8
         comp=E,1.4nm,0.3s,baz=182,slow=18,SNR=6.7
ILAR                                LR    LR     10 35 19.6
         comp=E,372nm,21.3s,baz=152,slow=40
         comp=E,17nm,0.6s
ILAR                                AML   AML
ILAR  Eielson Array       8.00   7        Pn     10 31 56.0 -0.6
COLA  College             8.05   4  P     Pn     10 31 57.2  0.0
COLA  College             8.05   4        Pn     10 31 57.2  0.0
JIS   Juneau Island       8.12  74  P     Pn     10 31 57.5 -0.6
JIS   Juneau Island       8.12  74        Pn     10 31 55.6 -2.5
N31M  Braeburn, Yuko      8.31  51        Pn     10 32 00.4 -0.5
POKR  Poker Plat Res      8.31   5        Pn     10 32 01.1 +0.2
I20K  Naaghedeneel        8.34 344        Pn     10 32 00.8 -0.4
L29M  L29M                8.37  37        Pn     10 32 01.6  0.0
P32M  Atlin               8.64  65        Pn     10 32 04.1 -1.3
DAWY  Dawson              8.69  30        Pn     10 32 05.9 -0.2
I26K  Coal Creek Min      8.95  17        Pn     10 32 09.6  0.0
U33K  Whale Pass          8.96  88        Pn     10 32 05.7 -4.1
H24K  Noodor Dome         9.01   4        Pn     10 32 10.9 +0.4
K29M  Barlow Dome         9.07  35        Pn     10 32 11.2 -0.2
P33M  Teslin, Yukon       9.22  62        Pn     10 32 11.7 -1.7
M31M  Drury Creek, Y      9.23  49        Pn     10 32 13.0 -0.4
IMAR  Indian Mountai      9.38 349        Pn     10 32 14.7 -0.8
I28M  Miner Creek         9.69  24        Pn     10 32 19.4 -0.4
G23K  Bananza Creek       9.87 358        Pn     10 32 21.4 -0.8
J30M  Hart River          9.96  34        Pn     10 32 23.7 +0.2
R33M  Jennings River      9.99  68        Pn     10 32 23.4 -0.6
H27K  Steamboat Moun     10.07  18        Pn     10 32 24.7 -0.3
UNV   Unalaska Valle     10.27 260  P     Pn     10 32 25.5 -2.2
UNV   Unalaska Valle     10.27 260  Pn    Pn     10 32 26.2 -1.5
DLBC  Dease Lake         10.42  73  Pn    Pn     10 32 29.4 -0.4
         comp=E,0.9nm,0.3s,baz=219,slow=8.8,SNR=27
DLBC                                Sn    Sn     10 34 23.3 -3.1
         comp=E,0.3nm,0.3s,baz=158,slow=27,SNR=1.3
         comp=E,2.3nm,0.3s
DLBC                                AML   AML
G26K  Porcupine Rive     10.42  12        Pn     10 32 29.6 -0.1
F21K  Alatna River       10.56 351        Pn     10 32 31.1 -0.5
F20K  Avaraart Lake      10.64 346        Pn     10 32 32.6 -0.1
H29M  Whitestone         10.69  24        Pn     10 32 34.7 +1.3
MMPY  Sheldon Lake,      10.72  50        Pn     10 32 34.0 +0.1
F19K  Shaleruckik Mo     10.75 342        Pn     10 32 35.1 +0.9
BMAR  Burnt Mountain     10.81  10        Pn     10 32 34.9 -0.1
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F25K	Christian Rive	10.88	7		Pn	10 32 36.7	+0.7
EPYK	Eagle Plains	11.21	27		Pn	10 32 41.2	+0.8
G29M	Pine Creek	11.35	23		Pn	10 32 43.9	+1.5
H31M	Peel River	11.43	32		Pn	10 32 44.9	+1.4
G30M	tAoh Zraii Nji	11.81	26		Pn	10 32 50.8	+2.1
E27K	Coleen River	11.87	14		Pn	10 32 49.7	+0.2
G31M	Satah River	12.26	29		Pn	10 32 55.6	+0.8
F30M	Barrier River	12.42	25		Pn	10 32 58.3	+1.3
D27M	Malcolm River	12.95	13		Pn	10 33 05.5	+1.3
BBB	Bella Bella	13.13	102	Pn	Pn	10 33 04.9	-1.8
	comp=E,0.1nm,0.3s,baz=282,slow=15,SNR=1.2						
BBB				Sn	Sn	10 35 23.9	-8.6
	comp=E,0.2nm,0.3s,baz=2.1,slow=7.9,SNR=2.3						
BBB				LR	LR	10 36 59.1	
	comp=E,298nm,20.7s,baz=281,slow=32						
	comp=E,8.5nm,1.1s						
BBB				AML	AML		
INK	Inuvik	13.50	26	Pn	Pn	10 33 12.2	+0.5
	comp=E,0.4nm,0.3s,baz=221,slow=15,SNR=12						
INK				LR	LR	10 38 49.4	
	comp=E,182nm,18.6s,baz=230,slow=39						
	comp=E,6.4nm,0.7s						
INK				AML	AML		
NLWA	Neilton Lookou	18.15	111	P	P	10 34 12.9	+0.2
YKA	Yellowknife Ar	18.20	58	P	P	10 34 13.6	+0.5
	comp=E,0.3nm,0.3s,baz=268,slow=11,SNR=25						
	comp=E,7.8nm,0.9s						
YKA				AML	AML		
YKA	Yellowknife Ar	18.20	58		P	10 34 13.3	+0.2
NEW	Newport	21.18	100	P	P	10 34 46.3	+0.7
	comp=E,1.6nm,0.8s,baz=313,slow=11,SNR=3.0						
NEW				LR	LR	10 41 30.7	
	comp=E,155nm,21.8s,baz=296,slow=33						
	comp=E,1.6nm,0.8s						
WIFE	Three Sisters-	21.49	115	IAmb	IAmb	10 35 03.2	
	comp=Z,11nm,0.9s						
I05D	Terrebonne, OR	21.53	114	P	P	10 34 51.0	+1.5
I05D				IAmb	IAmb	10 35 03.2	
	comp=Z,12nm,1.1s						
K02D	Willamette Mer	21.61	120		P	10 34 50.6	+0.2
J04A	Umpqua Nationa	21.95	117	P	P	10 34 54.5	+0.4
LNOR	Lincton Mounta	22.05	107	IAmb	IAmb	10 35 11.3	
	comp=Z,14nm,1.5s						
L04D	Klamath Falls	22.62	119		P	10 35 02.0	+0.7
L04D				IAmb	IAmb	10 35 13.8	
	comp=Z,14nm,1.2s						
YBH	Yreka Blue Hor	22.80	120	LR	LR	10 41 41.3	
	comp=Z,159nm,19.1s,baz=321,slow=31						
YBH	Yreka Blue Hor	22.80	120		P	10 35 04.2	+1.0
BMO	Blue Mountains	23.24	107		P	10 35 07.8	+0.1
MOD	Modoc Plateau	23.83	117		P	10 35 14.3	+0.7
MOD				IAmb	IAmb	10 35 26.1	
	comp=Z,8.7nm,1.4s						
WVOR	Wild Horse Val	24.27	113	P	P	10 35 18.3	+0.7
WVOR				IAmb	IAmb	10 35 29.8	
	comp=Z,6.2nm,1.0s						
O03E	Paynes Creek	24.35	121	P	P	10 35 18.6	+0.3
AFDM	Forest Hills D	25.81	122	P	P	10 35 32.7	+1.2
AFDM				IAmb	IAmb	10 35 44.0	
	comp=Z,7.8nm,1.4s						
RES	Resolute Bay	27.03	28	LR	LR	10 47 14.8	
	comp=Z,124nm,18.1s,baz=236,slow=38						
RYN	Ryan	27.22	119	IAmb	IAmb	10 35 44.6	
	comp=Z,4.7nm,0.8s						
ELK	Elko	27.23	112	LR	LR	10 44 35.9	
	comp=Z,133nm,20.8s,baz=311,slow=32						
NVAR	Mina Array Bea	27.48	119	P	P	10 35 47.2	+0.3
	comp=Z,0.2nm,0.5s,baz=323,slow=12,SNR=2.1						
	comp=Z,0.2nm,0.5s						
PDAR	Pinedale Array	28.77	102	P	P	10 35 58.4	0.0
	comp=Z,0.1nm,0.4s,baz=309,slow=8.0,SNR=2.7						
PDAR				LR	LR	10 45 25.1	
	comp=Z,67nm,20.0s,baz=290,slow=32						
	comp=Z,0.1nm,0.4s						
SEY	Seymchan	28.96	306	LR	LR	10 49 33.2	
	comp=Z,130nm,19.2s,baz=148,slow=40						
PETK	Petropavlovsk-	30.02	286	P	P	10 36 08.7	-0.4
	comp=Z,1.2nm,0.6s,baz=70,slow=13,SNR=4.1						
PETK				LR	LR	10 47 32.3	
	comp=Z,60nm,21.4s,baz=87,slow=35						
	comp=Z,1.2nm,0.6s						
MA2	Magadan	30.76	301	LR	LR	10 49 30.3	
	comp=Z,77nm,21.0s,baz=82,slow=38						
SRU	San Rafael Swe	30.87	108	IAmb	IAmb	10 36 34.5	
	comp=Z,5.3nm,1.0s						
ULM	Lac du Bonnet	31.67	79	LR	LR	10 48 27.6	
	comp=Z,117nm,19.6s,baz=198,slow=35						
PFO	Pinyon Flats O	32.26	122	LR	LR	10 46 59.5	
	comp=Z,84nm,22.0s,baz=338,slow=32						
PV01	Paradox Valley	32.62	108	IAmb	IAmb	10 36 42.2	
	comp=Z,3.9nm,1.0s						
TIXI	Tiksi	35.18	327	LR	LR	10 53 33.6	
	comp=Z,65nm,18.1s,baz=104,slow=40						
ANMO	Albuquerque	36.15	109	LR	LR	10 49 53.3	
	comp=Z,77nm,20.1s,baz=323,slow=33						
NEEM	North Greenlan	37.02	21	*i* P	P	10 37 11.0	+1.1
FRB	Frobisher Bay	38.00	45	LR	LR	10 52 24.2	
	comp=Z,123nm,20.4s,baz=287,slow=35						
TXAR	Lajitas Array	42.03	111	P	P	10 37 52.5	+0.6
	comp=Z,0.7nm,1.0s,baz=322,slow=7.9,SNR=4.4						
TXAR				LR	LR	10 53 25.0	
	comp=Z,61nm,18.1s,baz=354,slow=33						
	comp=Z,0.7nm,1.0s						
SUMG	Summit	42.42	25		P	10 37 55.1	+0.1
SUMG	Summit	42.42	25	*i* P	P	10 37 56.0	+1.0
SFJD	Kangerlussuaq	42.59	35	LR	LR	10 54 43.1	
	comp=Z,90nm,18.9s,baz=314,slow=35						
SCHQ	Schefferville	43.65	56	LR	LR	10 57 38.0	
	comp=Z,83nm,18.3s,baz=52,slow=38						
SPITS	Spitsbergen Ar	44.91	4	LR	LR	10 55 49.3	
	comp=Z,53nm,18.6s,baz=314,slow=34						
KLR	Kul'dur	45.58	296	P	P	10 38 20.3	+0.1
	comp=Z,3.3nm,1.0s,baz=43,slow=9.0,SNR=5.6						
	comp=Z,3.3nm,1.0s						
HEH	HeiHe	47.01	299	*e*P	P	10 38 31.8	+0.4
TKL	Tuckaleechee C	47.89	87	LR	LR	10 57 44.3	
	comp=Z,116nm,18.9s,baz=337,slow=35						
USRK	Ussuriysk Ar.	48.88	291	LR	LR	10 59 59.0	
	comp=Z,49nm,20.0s,baz=72,slow=37						
H11N2	WAKE ISLAND Hy	49.20	240	T	T	11 31 51.9	
	baz=30,slow=76,SNR=25						
H11N3	WAKE ISLAND Hy	49.20	240	T	T	11 31 58.7	
	baz=30,slow=76,SNR=29						
H11N1	WAKE ISLAND Hy	49.21	240	T	T	11 31 59.9	
	baz=30,slow=76,SNR=26						
H11S1	WAKE ISLAND Hy	50.34	239	T	T	11 33 21.2	
	baz=29,slow=76,SNR=64						
H11S2	WAKE ISLAND Hy	50.36	239	T	T	11 33 07.9	
	baz=29,slow=76,SNR=67						
H11S3	WAKE ISLAND Hy	50.36	239	T	T	11 33 19.2	
	baz=29,slow=76,SNR=44						
BORG	Borgarnes	52.39	25	LR	LR	11 01 27.5	
	comp=Z,56nm,20.4s,baz=358,slow=36						
KSRS	Korea Array	55.89	288	LR	LR	11 02 29.5	
	comp=Z,18nm,21.8s,baz=230,slow=35						
TLY	Talaya	56.39	314	LR	LR	11 06 51.0	
	comp=Z,59nm,19.5s,baz=43,slow=39						
SONM	Songino Array	58.26	310	P	P	10 39 56.3	+1.5
	comp=Z,3.1nm,0.8s,baz=51,slow=6.9,SNR=13						
	comp=Z,3.1nm,0.8s						
SONM	Songino Array	58.26	310	IAmb	IAmb	10 39 58.0	
	comp=Z,2.6nm,0.8s						
ZALV	Zalesovo Beam	61.07	327	P	P	10 40 14.9	+1.0
	comp=Z,1.2nm,0.5s,baz=52,slow=7.7,SNR=4.4						
	comp=Z,1.2nm,0.5s						
NOA	NORSAR Array B	61.42	11	LR	LR	11 08 54.0	
	comp=Z,39nm,18.0s,baz=0.0,slow=38						
HHC	Hu-ho-hao-te	61.43	301	*e*P	P	10 40 19.4	+2.6
HHC				pmax	pmax		
	comp=Z,7.0nm,0.8s						
HHC				pmax	pmax		
	comp=Z,120nm,4.5s						
FINES	FINESS Array B	61.96	3	P	P	10 40 21.7	+1.9
	comp=Z,1.4nm,0.7s,baz=357,slow=7.6,SNR=4.7						
	comp=Z,1.4nm,0.7s						
EKA	Eskdalemuir Ar	64.81	21	LR	LR	11 10 05.9	
	comp=Z,54nm,18.2s,baz=335,slow=37						
ARTI	Arti	64.90	343	P	P	10 40 39.6	+0.3
	comp=Z,7.4nm,0.6s,baz=36,slow=3.1,SNR=9.3						
ARTI				LR	LR	11 11 29.4	
	comp=Z,55nm,18.2s,baz=2.5,slow=38						
	comp=Z,7.4nm,0.6s						
ARTI	Arti	64.90	343	P	P	10 40 38.7	-0.7
KURK	Kurchatov	65.72	329	P	P	10 40 45.5	+0.8
KURK	Kurchatov	65.72	329	IAmb	IAmb	10 40 49.7	
	comp=Z,1.8nm,0.8s						
BVAR	Borovoye Array	65.75	335	P	P	10 40 45.2	+0.3
	comp=Z,1.3nm,0.7s,baz=38,slow=7.5,SNR=4.2						
	comp=Z,1.3nm,0.7s						
KURBB	Kurchatov Arra	65.83	329	P	P	10 40 45.5	+0.1
	comp=Z,1.0nm,0.5s,baz=28,slow=6.3,SNR=4.8						
	comp=Z,1.0nm,0.5s						
MKAR	Makanchi Array	68.11	325	P	P	10 41 01.0	+0.9
	comp=Z,0.7nm,0.6s,baz=23,slow=6.2,SNR=5.2						
	comp=Z,0.7nm,0.6s						
AKASG	Malin Array Be	72.78	1	P	P	10 41 28.7	+0.2
	comp=Z,1.1nm,0.5s,baz=3.5,slow=6.3,SNR=6.7						
	comp=Z,1.1nm,0.5s						
AFI	Afiamalu	72.98	203	LR	LR	11 04 06.7	
	comp=Z,64nm,21.1s,baz=54,slow=28						
PPT	Papeete	74.16	180	LR	LR	11 04 42.4	
	comp=Z,72nm,20.2s,baz=359,slow=28						
DAVOX	Davos/Dischmat	75.25	15	LR	LR	11 18 42.2	
	comp=Z,25nm,19.4s,baz=336,slow=39						
ESDC	Sonseca Array	79.44	27	P	P	10 42 07.3	+0.6
	comp=Z,0.6nm,0.8s,baz=339,slow=5.4,SNR=4.4						
ESDC				LR	LR	11 18 53.9	
	comp=Z,37nm,19.3s,baz=0.5,slow=37						
	comp=Z,0.6nm,0.8s						
ESDC	Sonseca Array	79.44	27	IAmb	IAmb	10 42 29.4	
	comp=Z,4.5nm,1.1s						
GNI	Garni	82.61	349	LR	LR	11 25 02.2	
	comp=Z,27nm,18.1s,baz=24,slow=40						
CMAR	Chiang Mai Arr	86.01	298	LR	LR	11 24 24.4	
	comp=Z,19nm,18.3s,baz=280,slow=38						
ASF	Jabal al Asfar	91.14	355	LR	LR	11 31 31.9	
	comp=Z,20nm,18.1s,baz=33,slow=40						
QSPA	South Pole Qui	146.67	180	PKPbc	PKPbc	10 49 40.5	-0.3
	comp=Z,5.3nm,1.1s,baz=67,slow=1.2,SNR=9.3						
QSPA	South Pole Qui	146.67	180		PKPbc	10 49 40.8	0.0

IDC ***21*** *11:18:06.5±0.7, 43°.45N×81°.88E, h0^{km}, mb4.0/10, mbtmp4.0/19, ML3.8/9, MS3.3/14, Error ellipse: s-maj=10.8km s-min=8.9km az=93.0*
SOME ***21*** *11:18:06.7, 43°.48N×81°.85E, h10^{km}, MS3.4*
BJI ***21*** *11:18:07.5, 43°.44N×81°.95E, h8^{km}, mb4.3/10, ML4.6/9, Ms3.9/8, Ms7 3.6/7*
MOS ***21*** *11:18:08.0±1.1, 43°.55N×81°.89E, h12^{km}, mb4.0/4, Error ellipse: s-maj=6.1km s-min=5.4km az=153.9*
NEIC ***21*** *11:18:08.3±1.5, 43°.43N±0°.04×81°.80E±0°.09, h10^{km}±1^{km}, mb4.5/21, Error ellipse: s-maj=12.6km s-min=2.9km az=119.0*
NNC ***21*** *11:18:08.8±0.8, 43°.49N×81°.78E, h0^{km}, mb4.8, mpv4.6, Error ellipse: s-maj=7.3km s-min=3.0km az=140.0, Suspected Mining explosion.*
ISC 21 11:18:06.8±0.4, **43°.49N**±0°.03×**82°.00E**±0°.03, **h0^{km}, n204,** σ**1^{s}74**/236, **mb4.4**/23, **MS3.3**/10, **15C-15D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DJR	Jarkent	1.81	298	P	Pn	11 18 39.7	+0.4
	564nm,0.5s						
DJR				S	Sn	11 19 03.4	+0.4
	3μm,0.4s						
DJR	Jarkent	1.81	298	*e*P	Pn	11 18 39.7	+0.4
	564nm,0.5s						
DJR				*e*S	Sn	11 19 03.4	+0.4
	3μm,0.4s						
PDGK	Podgornoye	1.84	266	⇑P	Pn	11 18 39.4	-0.5
	630nm,0.4s						
PDGK				⇓S	Sn	11 19 03.2	-0.7
	7μm,0.6s						
PDGK	Podgornoye	1.84	266	PN	Pn	11 18 39.3	-0.5
PDGK	Podgornoye	1.84	266		Pn	11 18 39.3	-0.5
SHLS	Shalkode	1.88	261	P	Pn	11 18 35.5	-4.9
	2μm,0.2s						
SHLS				S	Sn	11 18 56.0	-8.9
	9μm,0.7s						
SHLS	Shalkode	1.88	261	*e*PG	Pn	11 18 35.8	-4.6
SHLS				*e*S	Sn	11 18 56.2	-8.7
SHLS	Shalkode	1.88	261	*e*P	Pn	11 18 35.9	-4.6
SHLS				*e*S	Sn	11 18 56.2	-8.7
SHLS	Shalkode	1.88	261	*e*P	Pn	11 18 35.5	-4.9
	2μm,0.2s						
SHLS				*e*S	Sn	11 18 56.0	-8.9
	9μm,0.7s						
UZB	Uzynbulak	2.20	262	Pg	Pn	11 18 45.6	+0.8
	2μm,0.8s						
UZB				Lg	Lg	11 19 14.2	
	4μm,0.3s						
UZB	Uzynbulak	2.20	262	*e*PN	Pn	11 18 45.9	+1.1
UZB				*e*S	Sn	11 19 13.4	+0.6
UZB	Uzynbulak	2.20	262	*e*P	Pn	11 18 45.9	+1.1
UZB				*e*S	Sn	11 19 13.5	+0.6
UZB	Uzynbulak	2.20	262	*e*P	Pn	11 18 45.6	+0.8
	2μm,0.8s						
UZB				*e*S	Sn	11 19 14.2	+1.3
	4μm,0.3s						
KNOS	Konyrlen	2.22	294	Pg	Pn	11 18 46.4	+1.4
	414nm,0.4s						
KNOS				Lg	Lg	11 19 15.1	
	2μm,0.3s						
KPKS	Kokpek	2.42	270	Pg	Pn	11 18 49.2	+1.5
	0.3nm,0.4s						
KPKS				Lg	Lg	11 19 20.0	
	3μm,0.4s						
KPKS	Kokpek	2.42	270	*e*PN	Pn	11 18 49.0	+1.3
KPKS				*e*S	Sn	11 19 18.9	+0.9
KPKS	Kokpek	2.42	270	*e*P	Pn	11 18 49.1	+1.5
KPKS				*e*S	Sn	11 19 19.0	+0.9
KPKS	Kokpek	2.42	270	*e*P	Pn	11 18 49.2	+1.5
	0.1nm,0.1s						
KPKS				*e*S	Sn	11 19 19.6	+1.6
	3μm,0.5s						
KAPS	Kapalarasan	2.61	314	Pg	Pb	11 18 54.1	-0.3
	84nm,0.2s						
KAPS				Lg	Lg	11 19 28.1	
	3μm,0.2s						
KAPS	Kapalarasan	2.61	314	*e*P	Pb	11 18 54.1	-0.3
	84nm,0.2s						
KAPS				*e*S	Sb	11 19 28.1	+1.0
	3μm,0.2s						
BLB	Baldybastay	2.62	284	Pg	Pn	11 18 52.4	+1.9
	336nm,0.5s						
BLB				Lg	Lg	11 19 25.7	
	3μm,0.6s						
SATY	Saty	2.66	262	Pg	Pb	11 18 53.8	-1.7
	526nm,0.4s						
SATY				Lg	Lg	11 19 27.5	
	3μm,0.6s						
SATY	Saty	2.66	262	*e*PN	Pn	11 18 52.3	+1.2
SATY				*e*S	Sn	11 19 24.9	+0.8
SATY	Saty	2.66	262	*e*P	Pn	11 18 52.3	+1.2
SATY				*e*S	Sn	11 19 24.9	+0.8
SATY	Saty	2.66	262	*e*P	Pb	11 18 53.8	-1.7
	526nm,0.4s						
SATY				*e*S	Sb	11 19 27.5	-1.2
	3μm,0.6s						
KURS	Kuram	2.79	271	Pg	Pb	11 18 55.6	-2.0
	261nm,0.9s						
KURS				Lg	Lg	11 19 31.1	
	866nm,0.8s						
KURS	Kuram	2.79	271	*e*P	Pb	11 18 55.6	-2.0
	261nm,0.9s						
KURS				*e*S	Sb	11 19 31.1	-1.2
	866nm,0.8s						
PRZ	Przheval'sk	2.83	250	PN	Pn	11 18 52.0	-1.5
PRZ	Przheval'sk	2.83	250	Pn	Pn	11 18 52.0	-1.5
TDK	Taldyqorghan	2.99	301	Pg	Pb	11 18 59.7	-1.3
	583nm,0.6s						
TDK				Lg	Lg	11 19 37.8	
	2μm,0.4s						
TDK	Taldyqorghan	2.99	301	*e*PN	Pn	11 18 56.4	+0.9
TDK	Taldyqorghan	2.99	301	*e*P	Pn	11 18 56.5	+0.9
TDK	Taldyqorghan	2.99	301	*e*P	Pb	11 18 59.7	-1.3
	583nm,0.6s						
TDK				*e*S	Sb	11 19 37.8	-0.3
	2μm,0.4s						
WUS	Wushi	3.09	223	Pn	Pn	11 18 56.0	-1.0
ARXS	Arharly	3.10	285	Pg	Pb	11 19 01.5	-1.4
	106nm,0.5s						
ARXS				Lg	Lg	11 19 41.0	
	599nm,0.5s						
ARXS	Arharly	3.10	285	*e*P	Pb	11 19 01.5	-1.4
	106nm,0.5s						
ARXS				*e*S	Sb	11 19 41.0	-0.4
	599nm,0.5s						
MK31	Makanchi Array	3.31	3	Pn	Pn	11 19 02.4	+2.5
	14nm,0.5s,baz=186,slow=1.3,SNR=1153						
MK31				⇑Pg	Pg	11 19 09.8	-0.4
	82nm,0.5s,baz=181,slow=16,SNR=43						
MK31				⇓Lg	Lg	11 19 53.9	
	230nm,0.7s,baz=177,slow=27,SNR=4.2						
MK31	Makanchi Array	3.31	3	PN	Pn	11 19 02.4	+2.5
MK31						11 19 09.7	
MK31						11 19 52.6	
MKAR	Makanchi Array	3.31	3	Pn	Pn	11 19 02.5	+2.7
	7.0nm,0.3s,baz=188,slow=14,SNR=238						
MKAR				Pg	Pg	11 19 10.1	0.0
	66nm,0.3s,baz=183,slow=16,SNR=48						
MKAR				Sn	Sn	11 19 41.6	+1.7
	31nm,0.3s,baz=167,slow=17,SNR=7.9						
MKAR				Lg	Lg	11 19 54.0	
	27nm,0.3s,baz=191,slow=24,SNR=6.8						
	27nm,0.5s						
MKAR				AML	AML		
MKAR	Makanchi Array	3.31	3	Pn	Pn	11 19 02.4	+2.5
MAKZ	Makanchi	3.31	360	⇑Pn	Pn	11 19 02.5	+2.6
	77nm,0.6s						
MAKZ				⇑Pg	Pg	11 19 10.3	0.0
	223nm,0.6s						
MAKZ				⇓Sn	Sb	11 19 43.8	-3.5
	58nm,0.3s						
MAKZ				⇓Lg	Lg	11 19 55.4	
	167nm,0.7s						
MAKZ	Makanchi	3.31	360	PN	Pn	11 19 02.5	+2.6
MAKZ	Makanchi	3.31	360	Pn	Pn	11 19 02.5	+2.6
TARG	Taragay, Kyrgy	3.56	242	PN	Pn	11 19 03.5	-0.3
TARG	Taragay, Kyrgy	3.56	242	Pn	Pn	11 19 03.5	-0.3
KOTS	Kotyrbulak	3.58	268	Pg	Pb	11 19 11.9	+0.9
	406nm,0.8s						
KOTS				Lg	Lg	11 19 58.6	
	1μm,0.9s						
KOTS	Kotyrbulak	3.58	268	*e*P	Pb	11 19 10.8	-0.3
	406nm,0.6s						
KOTS				*e*S	Sb	11 19 56.5	+1.4
	3μm,0.6s						
MDOK	Medeo	3.63	266	Pg	Pb	11 19 13.1	+1.1
	218nm,0.6s						
MDOK				Lg	Lg	11 20 00.5	
	656nm,0.8s						
MDOK	Medeo	3.63	266	*e*PN	Pn	11 19 05.6	+1.2
MDOK				*e*S	Sn	11 19 48.7	+0.7
MDOK	Medeo	3.63	266	*e*P	Pn	11 19 05.7	+1.2
MDOK				*e*S	Sn	11 19 48.7	+0.7
MDOK	Medeo	3.63	266	*e*P	Pb	11 19 11.7	-0.3
	240nm,0.4s						
MDOK				*e*S	Sb	11 19 58.1	+1.5
	1μm,0.6s						
KNDC	Almaty	3.68	267	⇓Pg	Pb	11 19 13.4	+0.6
	296nm,0.5s						
KNDC				⇑Lg	Lg	11 20 00.5	
	880nm,0.6s						
KNDC	Almaty	3.68	267	PN	Pb	11 19 14.4	+1.6
KNDC						11 19 58.1	
TNSS	Tian-Shan	3.72	265	Pg	Pb	11 19 12.4	-1.2
	25nm,0.8s						
TNSS				Lg	Lg	11 20 00.0	
	92nm,0.8s						
TNSS	Tian-Shan	3.72	265	*e*PN	Pn	11 19 07.2	+1.3
TNSS	Tian-Shan	3.72	265	*e*P	Pn	11 19 07.3	+1.3
TNSS	Tian-Shan	3.72	265	*e*P	Pb	11 19 12.4	-1.2
	25nm,0.8s						
TNSS				*e*S	Sb	11 20 00.0	+0.6
	92nm,0.8s						
AAA	Alma-Ata	3.72	267	*e*PN	Pn	11 19 07.1	+1.5
AAA	Alma-Ata	3.72	267	*e*P	Pn	11 19 07.1	+1.5
AAA	Alma-Ata	3.72	267	*e*P	Pb	11 19 12.2	-1.3
	90nm,0.1s						
AAA				*e*S	Sb	11 19 59.0	-0.2
	15nm,0.1s						
KDJ	Kajisay	3.80	251	PN	Pn	11 19 06.2	-0.6
KDJ	Kajisay	3.80	251		Pn	11 19 06.2	-0.6
KTBS	Karatobe	3.87	275	Pg	Pb	11 19 16.0	0.0
	6.3nm,0.2s						
KTBS				Lg	Lg	11 20 05.8	
	447nm,0.8s						
KTBS	Karatobe	3.87	275	*e*P	Pb	11 19 15.9	0.0
	6.3nm,0.2s						
KTBS				*e*S	Sb	11 20 05.8	+2.4
	447nm,0.8s						
MTBS	Maitube	4.08	267	Pg	Pb	11 19 20.5	+0.8
	169nm,1.0s						
MTBS				Lg	Lg	11 20 13.4	
	414nm,0.7s						
MTBS	Maitube	4.08	267	*e*P	Pb	11 19 20.5	+0.8
	169nm,1.0s						
MTBS				*e*S	Sb	11 20 13.4	+3.8
	414nm,0.7s						
KUU	Kurty	4.13	277	Pg	Pb	11 19 20.7	+0.4
	73nm,0.6s						
KUU				Lg	Lg	11 20 14.1	
	515nm,0.6s						
KUU	Kurty	4.13	277	*e*PN	Pn	11 19 12.0	+0.9
KUU	Kurty	4.13	277	*e*P	Pn	11 19 12.0	+0.9
KUU	Kurty	4.13	277	*e*P	Pb	11 19 20.7	+0.4
	73nm,0.6s						
KUU				*e*S	Sb	11 20 14.1	+3.4
	515nm,0.6s						
WMQ	Urumqi	4.14	84	Pn	Pb	11 19 17.8	-2.9
WMQ				Sn	Sn	11 20 06.1	+5.5
WMQ				smax	smax		
	comp=N,440nm,1.5s						
WMQ				smax	smax		
	comp=E,380nm,1.3s						
ULHL	Ulahol	4.41	256	P	Pn	11 19 16.0	+0.8
	SNR=12						
KST	Kastek	4.43	266	Pg	Pb	11 19 26.0	+0.4
	comp=E,115nm,1.0s						
KST				Lg	Lg	11 20 23.6	
	comp=E,567nm,0.6s						
KST	Kastek	4.43	266	*e*P	Pb	11 19 26.0	+0.4
	comp=E,115nm,1.0s						
KST				*e*S	Sb	11 20 23.6	+3.9
	comp=E,567nm,0.6s						
ZSN	Zaisan	4.44	26	Pg	Pg	11 19 29.8	-2.0
	comp=E,75nm,0.2s						
ZSN				Lg	Lg	11 20 29.2	
	comp=E,1000nm,1.3s						
ZSN	Zaisan	4.44	26	*e*P	Pg	11 19 29.8	-2.0
	comp=E,75nm,0.2s						
ZSN				*e*S	Sg	11 20 29.2	-0.1
	comp=E,1000nm,1.3s						
BOOM	Boomskoye usch	4.56	259	PN	Pn	11 19 17.7	+0.5
BOOM	Boomskoye usch	4.56	259	Pn	Pn	11 19 17.7	+0.5
KRBS	Karabastau	4.60	275	Pg	Pb	11 19 28.5	0.0
	comp=E,103nm,0.8s						
KRBS				Lg	Lg	11 20 26.9	
	comp=E,118nm,0.7s						
KRBS	Karabastau	4.60	275	*e*P	Pb	11 19 29.5	+1.0
	comp=E,103nm,0.8s						
KRBS				*e*S	Sb	11 20 28.5	+4.1
	comp=E,252nm,0.6s						
TKM2	Tokmak 2	4.72	265	P	Pn	11 19 22.2	+2.8
	SNR=106						
NRN	Naryn	4.89	247	PN	Pn	11 19 22.6	+0.6
NRN	Naryn	4.89	247	Pn	Pn	11 19 22.6	+0.6
KBK	Karagaybulak	5.24	263	P	Pn	11 19 28.2	+1.7
	SNR=23						
CHMS	Chumysh	5.32	267	P	Pn	11 19 28.7	+1.1
	SNR=5.5						
SGDS	Sogindy	5.37	272	Pg	Pb	11 19 42.9	+1.4
	comp=E,26nm,0.7s						
SGDS				Lg	Lg	11 20 51.9	
	comp=E,179nm,0.7s						
SGDS	Sogindy	5.37	272	*e*P	Pn	11 19 29.2	+1.0
AAK	Ala-Archa	5.57	264	Pn	Pn	11 19 32.5	+1.5
	comp=E,3.9nm,0.3s,baz=112,slow=7.2,SNR=28						
AAK				Pg	Pb	11 19 47.0	+2.1
	comp=E,9.5nm,0.3s,baz=98,slow=8.2,SNR=16						
AAK				Lg	Lg	11 20 59.7	
	comp=E,15nm,0.3s,baz=227,slow=21,SNR=8.3						
AAK				LR	LR	11 21 34.6	
	comp=E,79nm,21.8s,baz=59,slow=38						
	comp=E,13nm,0.4s						
AAK				AML	AML		
AAK	Ala-Archa	5.57	264	P	Pn	11 19 32.6	+1.5
	SNR=16						
AAK	Ala-Archa	5.57	264	⇑Pn	Pn	11 19 31.6	+0.5
	comp=E,4.6nm,0.5s						
AAK				⇓Pg	Pb	11 19 45.8	+0.9
	comp=E,21nm,0.6s						
AAK				⇓Lg	Lg	11 20 58.5	
	comp=E,68nm,0.6s						
AAK	Ala-Archa	5.57	264	*ce*PN	Pn	11 19 32.1	+1.1
AAK	Ala-Archa	5.57	264		Pn	11 19 30.0	-1.1
EKS2	Erkin-Say	6.08	265	P	Pn	11 19 39.3	+1.2

	SNR=14						
MRKS	Merke	6.47	266	Pg	Pb	11 20 04.0	+3.8
	comp=E,42nm,1.1s						
MRKS				Lg	Lg	11 21 28.4	
	comp=E,80nm,0.6s						
MRKS	Merke	6.47	266	eP	Pb	11 20 04.0	+3.8
	comp=E,42nm,1.1s						
MRKS				eS	Sg	11 21 28.4	-6.1
	comp=E,80nm,0.6s						
ARSB	Arslanbob	7.02	255	PN	Pn	11 19 49.6	-1.4
ARSB	Arslanbob	7.02	255	Pn	Pn	11 19 49.6	-1.4
DGZ	Jazzator, Alta	7.25	29	⇑eP	Pn	11 19 57.5	+3.4
KURBB	Kurchatov Arra	7.51	343	Pn	Pn	11 19 57.8	+0.2
	comp=E,1.2nm,0.3s,baz=165,slow=12,SNR=162						
KURBB				Sn	Sn	11 21 22.5	-0.9
	comp=E,1.7nm,0.3s,baz=156,slow=24,SNR=8.5						
KURBB				Lg	Lg	11 22 00.3	
	comp=E,2.7nm,0.3s,baz=161,slow=29,SNR=7.1						
KURBB				LR	LR	11 23 24.7	
	comp=E,55nm,21.8s,baz=185,slow=42						
	comp=E,26nm,0.7s						
KURBB				AML	AML		
KURBB	Kurchatov Arra	7.51	343	⇓Pn	Pn	11 19 57.5	-0.1
	comp=E,27nm,0.8s						
KURBB				⇑Sn	Sn	11 21 21.9	-1.6
	comp=E,106nm,0.8s						
KURBB				⇑Lg	Lg	11 22 03.3	
	comp=E,208nm,0.6s						
KURBB	Kurchatov Arra	7.51	343	P	Pn	11 19 57.4	-0.1
KURBB						11 21 21.4	
KURK	Kurchatov	7.58	343	d iP	Pn	11 19 58.9	+0.4
KURK				pmax	pmax		
	comp=Z,59nm,1.0s						
KURK	Kurchatov	7.58	343		Pn	11 19 58.6	+0.1
DZA	Taraz	7.82	269	eP	Pn	11 20 03.3	+1.4
DZA	Taraz	7.82	269	eP	Pn	11 20 03.3	+1.4
KK31	Karatay Array	8.39	271	⇓Pg	Pg	11 20 40.6	-6.9
	comp=Z,12nm,0.7s,baz=78,slow=16,SNR=9.2						
KK31				Lg	Lg	11 22 27.8	
	comp=Z,47nm,0.6s,baz=78,slow=27,SNR=5.4						
KKAR	Karatay Array	8.39	271	P	Pn	11 20 08.2	-1.5
KKAR	Karatay Array	8.39	271		Pn	11 20 08.2	-1.5
DRK	Karamyk	8.64	246	P	Pn	11 20 11.2	-2.2
DRK	Karamyk	8.64	246	Pn	Pn	11 20 11.2	-2.2
BRLS	Borolday	8.89	271	eP	Pn	11 20 20.4	+3.9
BRLS	Borolday	8.89	271	eP	Pn	11 20 20.5	+3.9
IUG	Iuzhnay	8.90	265	eP	Pn	11 20 18.6	+1.8
IUG	Iuzhnay	8.90	265	eP	Pn	11 20 18.6	+1.8
BTK	Batken	9.03	251	P	Pn	11 20 16.2	-2.4
BTK	Batken	9.03	251	Pn	Pn	11 20 16.1	-2.4
CHM	Chimkent	9.18	267	eP	Pn	11 20 22.3	+1.9
CHM	Chimkent	9.18	267	eP	Pn	11 20 22.4	+1.9
ZAA0	Zalesovo Array	10.62	9	⇑Pn	Pn	11 20 40.1	-0.1
	comp=Z,7.3nm,0.8s						
ZAA0				⇓Lg	Lg	11 23 47.1	
	comp=Z,34nm,0.8s						
ZAA0	Zalesovo Array	10.62	9	Pn	Pn	11 20 40.8	+0.6
ZALV	Zalesovo Beam	10.62	9	Pn	Pn	11 20 40.9	+0.7
	comp=Z,2.3nm,0.3s,baz=192,slow=13,SNR=43						
ZALV				Sn	Sn	11 22 36.2	-3.6
	comp=Z,0.9nm,0.3s,baz=194,slow=24,SNR=2.9						
ZALV				Lg	Lg	11 23 37.2	
	comp=Z,0.5nm,0.3s,baz=196,slow=30,SNR=2.2						
ZALV				LR	LR	11 25 06.1	
	comp=Z,93nm,18.8s,baz=210,slow=39						
	comp=Z,12nm,0.6s						
ZALV				AML	AML		
DZET	Dzherino	10.98	249	P	Pn	11 20 43.2	-2.0
DZET	Dzherino	10.98	249	Pn	Pn	11 20 43.2	-2.0
GOMU	GeErMu	12.24	122	P	Pn	11 21 01.5	-1.2
BVAR	Borovoye Array	12.27	325	Pn	Pn	11 21 01.8	-0.8
	comp=Z,0.1nm,0.3s,baz=153,slow=12,SNR=5.7						
BVAR				Sn	Sn	11 23 14.6	-5.3
	comp=Z,0.1nm,0.3s,baz=126,slow=17,SNR=3.6						
BVAR				Lg	Lg	11 24 29.1	
	comp=Z,0.3nm,0.3s,baz=126,slow=24,SNR=6.5						
	comp=Z,0.9nm,0.5s						
BVAR				AML	AML		
BORK	Borovoye	12.31	325	⇓eP	Pn	11 21 04.3	+1.1
BORK	Borovoye	12.31	325	Pn	Pn	11 21 02.2	-1.0
KNGR	Kungurtug, Tuv	12.73	51	⇓eP	Pn	11 21 13.5	+4.3
GTA2	Gaotai	13.90	101	eP	Pn	11 21 25.0	-0.1
GTA2				sP	P	11 21 34.9	+1.3
GTA2				pmax	pmax		
	comp=Z,6.0nm,0.7s						
GTA2				L	L		
	comp=Z,250nm,13.3s						
GTA2				L	L		
	comp=Z,230nm,13.3s						
GTA2				L	L		
	comp=Z,230nm,16.8s						
EVN	Everest	15.98	164		Pn	11 21 53.7	0.0
ZAK	Zakamensk	16.05	57	eP	Pn	11 21 55.5	+1.6
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.5s						
AB31	Akbulak array	16.25	298	P	Pn	11 21 53.1	-3.3
	comp=Z,4.6nm,0.8s,baz=103,slow=13,SNR=28						
AB31	Akbulak array	16.25	298	Pn	Pn	11 21 53.9	-2.5
ABKAR	Akbulak array	16.25	298	Pn	Pn	11 21 53.9	-2.4
SONM	Songino Array	17.57	67	P	P	11 22 15.6	+1.3
	comp=Z,0.6nm,0.3s,baz=264,slow=11,SNR=7.3						
SONM				Lg	Lg	11 27 24.2	
	comp=Z,0.3nm,0.3s,baz=267,slow=27,SNR=3.9						
SONM				LR	LR	11 29 40.2	
	comp=Z,62nm,18.9s,baz=270,slow=39						
	comp=Z,2.1nm,0.6s						
SONM				AML	AML		
SONM	Songino Array	17.57	67	P	P	11 22 14.8	+0.6
SONM				pmax	pmax		
	comp=Z,6.0nm,1.3s						
SONM	Songino Array	17.57	67		P	11 22 14.8	+0.6
AKTO	Aktyubinsk	17.73	301	P	Pn	11 22 14.7	-0.3
	comp=Z,0.5nm,0.3s,baz=92,slow=14,SNR=5.7						
AKTO				S	Sn	11 25 26.5	-6.6
	comp=Z,1.0nm,0.3s,baz=108,slow=15,SNR=1.5						
AKTO				Lg	Lg	11 27 23.7	
	comp=Z,0.4nm,0.3s,baz=187,slow=5.3,SNR=3.1						
AKTO				LR	LR	11 29 26.4	
	comp=Z,191nm,19.2s,baz=42,slow=38						
	comp=Z,1.9nm,0.4s						
AKTO				AML	AML		
ULN	Ulaanbaatar	18.01	67	⇑eP	P	11 22 20.5	+1.3
ULN				pmax	pmax		
	comp=Z,3.0nm,0.8s						
ULN	Ulaanbaatar	18.01	67		Pn	11 22 19.2	+0.5
LZDM	Lanzhou Array	18.27	107	P	P	11 22 23.7	+1.3
	baz=331,slow=8.6						
	comp=Z,1.5nm,0.4s						
LZH	Lanzhou	18.31	106	eP	P	11 22 30.5	+7.9
LZH				sP	Pn	11 22 36.0	+14
LZH				pmax	pmax		
	comp=Z,10.0nm,1.1s						
LZH				LR	LR		
	comp=N,270nm,12.7s						
LZH				LR	LR		
	comp=E,180nm,11.7s						
LZH				LR	LR		
	comp=Z,220nm,13.9s						
ARTI	Arti	19.81	319	P	P	11 22 38.7	+0.1
	comp=Z,0.7nm,0.3s,baz=122,slow=6.9,SNR=4.3						
ARTI				Lg	Lg	11 28 28.8	
	comp=Z,0.2nm,0.3s,baz=359,slow=22,SNR=4.0						
ARTI				LR	LR	11 30 37.8	
	comp=Z,214nm,18.6s,baz=148,slow=38						
	comp=Z,1.8nm,0.3s						
ARTI				AML	AML		
ARTI	Arti	19.81	319	c iP	Pn	11 22 41.1	+1.0
ARTI				S	Sn	11 26 22.8	-0.3
ARTI				pmax	pmax		
	comp=Z,37nm,4.8s						
ARTI	Arti	19.81	319	P	P	11 22 37.2	-1.4
ARTI				IAmb	IAmb	11 23 13.3	
	comp=Z,9.4nm,1.0s						
TNCH	TengChong	22.85	138	P	P	11 23 10.6	-1.2
TNCH				sP		11 23 18.0	
TNCH				pmax	pmax		
	comp=Z,29nm,0.5s						
XAN	Xi'an	22.93	105	eP	P	11 23 10.3	-2.2
XAN				L	L		
	comp=Z,220nm,13.7s						
XAN				L	L		
	comp=Z,120nm,9.6s						
XAN				L	L		
	comp=Z,150nm,12.4s						
BELG	Belogornoye	24.49	303	⇓eP	P	11 23 30.5	+3.1
BELG				pmax	pmax		
	comp=Z,3.0nm,1.3s						
KIRV	Kirov	25.12	318	⇑eP	P	11 23 33.8	+0.7
NRIK	Noril'sk	26.07	4	P	P	11 23 42.0	+0.5
	comp=Z,7.4nm,0.6s,baz=189,slow=5.7,SNR=8.1						
	comp=Z,7.4nm,0.6s						
NRIK	Noril'sk	26.07	4	P	P	11 23 42.1	+0.5
NRIK				pmax	pmax		
	comp=Z,9.0nm,0.6s						
NRIK	Noril'sk	26.07	4	P	P	11 23 42.1	+0.5
NRIK				IAmb	IAmb	11 23 44.3	
	comp=Z,8.7nm,0.6s						
HYB	Hyderabad	26.16	187	eP	P	11 23 41.9	-1.0
HYB				ePcP	PcP	11 27 08.4	-1.7
HYB				eS	S	11 28 14.1	-1.6
HILR	Hailar Array B	26.46	63	LR	LR	11 35 55.9	
	comp=Z,59nm,20.4s,baz=245,slow=40						
KBZ	Khabaz	28.14	284	LR	LR	11 36 42.8	
	comp=Z,43nm,21.2s,baz=71,slow=40						
KIV	Kislovodsk	28.24	285	eP	P	11 24 02.7	+1.2
KIV				pmax	pmax		
	comp=Z,7.0nm,1.0s						
KIV				MLR	MLR		
	comp=Z,48nm,15.0s						
CMAR	Chiang Mai Arr	28.76	145	P	P	11 24 06.3	+0.1
	comp=Z,0.7nm,0.5s,baz=319,slow=8.2,SNR=6.2						
	comp=Z,0.7nm,0.5s						
CMAR	Chiang Mai Arr	28.76	145	eP	P	11 24 10.2	+4.0
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
YAK	Yakutsk	33.30	39	LR	LR	11 40 03.3	
	comp=Z,38nm,18.2s,baz=272,slow=39						
KLR	Kul'dur	34.29	63	⇑eP	P	11 24 55.1	+0.5
KLR				pmax	pmax		
	comp=Z,7.0nm,2.1s						
BR131	Keskin Array S	35.95	281	⇓eP	P	11 25 12.6	+3.4
BRTR	Keskin Array B	35.95	281	LR	LR	11 42 05.9	
	comp=Z,32nm,18.2s,baz=338,slow=40						
KIEV	Kiev	35.99	300	P	P	11 25 08.2	-1.0
KIEV				pmax	pmax		
	comp=Z,10.0nm,1.4s						
KIEV	Kiev	35.99	300	P	P	11 25 08.2	-1.0
KIEV				IAmb	IAmb	11 25 51.4	
	comp=Z,9.7nm,1.4s						
PALK	Pallekele	36.10	182	LR	LR	11 41 01.1	
	comp=Z,58nm,18.4s,baz=5.0,slow=38						
FINES	FINESS Array B	37.12	319	P	P	11 25 17.1	-1.6
FINES	FINESS Array B	37.12	319	P	P	11 25 17.1	-1.6
ARCES	ARCESS Array B	38.44	332	P	P	11 25 29.7	0.0
	comp=Z,2.5nm,0.6s,baz=90,slow=8.6,SNR=8.3						
	comp=Z,2.5nm,0.6s						
ARCES	ARCESS Array B	38.44	332	P	P	11 25 28.7	-1.0
MLR	Muntele Rosu	39.35	293	LR	LR	11 43 23.5	
	comp=Z,68nm,18.2s,baz=358,slow=39						
HFS	Hagfors	43.25	317	P	P	11 26 08.4	-1.2
	comp=Z,1.2nm,0.5s,baz=94,slow=11,SNR=2.6						
	comp=Z,1.2nm,0.5s						
ERM	Erimo	44.03	70	P	P	11 26 16.6	+0.5
ERM				pmax	pmax		
	comp=Z,13nm,0.9s						
ERM	Erimo	44.03	70	P	P	11 26 16.6	+0.5
NC405	NORSAR Array S	44.05	319	P	P	11 26 15.5	-0.5
NC405				IAmb	IAmb	11 26 40.5	
	comp=Z,14nm,1.2s						
NC602	NORSAR Array S	44.20	318	P	P	11 26 17.0	-0.2
NC602				IAmb	IAmb	11 26 41.6	
	comp=Z,13nm,1.0s						
NOA	NORSAR Array B	44.30	319	P	P	11 26 17.7	-0.3
	comp=Z,1.2nm,0.6s,baz=83,slow=7.2,SNR=3.3						
NOA				LR	LR	11 45 30.5	
	comp=Z,57nm,19.5s,baz=355,slow=37						
	comp=Z,1.2nm,0.6s						
NOA	NORSAR Array B	44.30	319	eP	P	11 26 19.4	+1.4
NOA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
NC204	NORSAR Array S	44.47	319	P	P	11 26 19.4	-0.1
NC204				IAmb	IAmb	11 27 00.9	
	comp=Z,11nm,1.1s						
DAVOX	Davos/Dischmat	49.33	300	LR	LR	11 50 42.4	
	comp=Z,62nm,18.1s,baz=81,slow=40						
BFO	Black Forest	49.66	303	i P	P	11 27 04.1	+4.0
D19K	Kuna River	59.75	22	P	P	11 28 13.5	+0.6
E24K	Your Creek	62.50	19	P	P	11 28 32.3	+0.6
E24K				IAmb	IAmb	11 29 01.7	
	comp=Z,3.6nm,1.4s						
IMAR	Indian Mountai	62.73	22	P	P	11 28 33.5	+0.3
MTE	Manteigas	63.44	301	P	P	11 28 37.2	-1.2
BMAR	Burnt Mountain	63.92	18	P	P	11 28 41.1	0.0
CAST	Castle Rocks	65.13	24	P	P	11 28 49.7	+0.6
CAST				IAmb	IAmb	11 29 32.4	
	comp=Z,6.0nm,1.3s						
ILAR	Eielson Array	65.51	21	P	P	11 28 50.9	-0.6
	comp=Z,0.4nm,0.8s,baz=313,slow=4.9,SNR=5.5						
	comp=Z,0.4nm,0.8s						
ILAR	Eielson Array	65.51	21	P	P	11 28 51.4	0.0
ILAR	Eielson Array	65.51	21	P	P	11 28 51.4	0.0
G31M	Satah River	66.48	15	P	P	11 28 57.9	+0.3
H31M	Peel River	67.46	15	P	P	11 29 04.6	+0.7
H31M				IAmb	IAmb	11 29 16.0	
	comp=Z,6.0nm,1.1s						
BCAR	Beaver Creek A	68.20	20	P	P	11 29 09.3	+0.6
YKA	Yellowknife Ar	73.52	8	P	P	11 29 40.2	-0.7
	comp=Z,0.7nm,0.7s,baz=356,slow=5.0,SNR=5.6						
	comp=Z,0.7nm,0.7s						
YKA	Yellowknife Ar	73.52	8	P	P	11 29 40.1	-0.8
TORD	Torodi Ar. Bea	74.08	273	P	P	11 29 43.2	-1.7
	comp=Z,2.0nm,0.9s,baz=40,slow=6.2,SNR=7.0						
	comp=Z,2.0nm,0.9s						
TORD	Torodi Ar. Bea	74.08	273	P	P	11 29 43.0	-1.9
TORD				IAmb	IAmb	11 30 02.7	
	comp=Z,2.1nm,0.8s						
WRA	Warramunga Arr	79.29	131	P	P	11 30 13.9	-0.3
	comp=Z,0.5nm,0.8s,baz=331,slow=5.2,SNR=5.3						
	comp=Z,0.5nm,0.8s						
WRA	Warramunga Arr	79.29	131	eP	P	11 30 16.6	+2.4
WRA	Warramunga Arr	79.29	131	P	P	11 30 13.8	-0.5
ASAR	Alice Springs	82.07	133	P	P	11 30 28.6	-0.5
	comp=Z,0.5nm,0.9s,baz=315,slow=5.3,SNR=4.7						
	comp=Z,0.5nm,0.9s						
ASAR	Alice Springs	82.07	133	P	P	11 30 29.0	-0.1
ASAR	Alice Springs	82.07	133	P	P	11 30 29.0	-0.1
LDM	Libby Dam	87.17	11	P	P	11 30 54.6	-0.1
LDM				IAmb	IAmb	11 30 55.8	
	comp=Z,2.0nm,0.7s						
PDAR	Pinedale Array	93.50	9	P	P	11 31 24.8	+0.1

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*NNC **21** 11:19:29.9±4.6, 43°.52N×82°.06E, h0^{km}, mb5.0, mpv4.2, Error ellipse: s-maj=32.4km s-min=28.1km az=138.0, Suspected Mining explosion.*

SOME 21 11:19:28.8, 43°.37N×82°.05E, h10^{km}, Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
DJR	Jarkent	1.90	301	Pg	Pb	11 20 03.7	+0.1
	215nm,0.6s						
DJR				Lg	Lg	11 20 29.2	
	262nm,0.3s						
DJR	Jarkent	1.90	301	eP	Pb	11 20 03.7	+0.1
	215nm,0.6s						
DJR				eS	Sg	11 20 29.1	-0.7
	262nm,0.3s						
SHLS	Shalkode	1.90	265	P	Pn	11 20 00.4	-1.0
	456nm,0.3s						
SHLS				S	Sn	11 20 23.5	-2.0
	931nm,0.5s						
SHLS	Shalkode	1.90	265	eP	Pn	11 19 59.2	-2.3
	561nm,0.6s						
SHLS				eS	Sn	11 20 20.9	-4.6
	918nm,0.3s						
UZB	Uzynbulak	2.22	265	Pg	Pg	11 20 10.5	-0.9
	120nm,0.3s						
UZB				Lg	Lg	11 20 40.6	
	349nm,0.4s						
UZB	Uzynbulak	2.22	265	eP	Pg	11 20 10.5	-0.9
	120nm,0.3s						
UZB				eS	Sg	11 20 40.6	+0.4
	349nm,0.4s						
KPKS	Kokpek	2.46	273	Pg	Pb	11 20 12.9	-0.2
	0.2nm,0.1s						
KPKS				Lg	Lg	11 20 44.5	
	370nm,0.3s						
KPKS	Kokpek	2.46	273	eP	Pb	11 20 14.0	+0.9
	0.2nm,0.1s						
KPKS				eS	Sg	11 20 46.3	-1.4
	450nm,0.3s						
SATY	Saty	2.68	265	Pg	Pb	11 20 18.6	+1.6
	311nm,0.6s						
SATY				Lg	Lg	11 20 54.4	
	328nm,0.5s						
SATY	Saty	2.68	265	eP	Pb	11 20 18.6	+1.6
	311nm,0.6s						
SATY				eS	Sg	11 20 54.4	-0.6
	328nm,0.5s						

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*IDC **21** 11:27:09.3±1.2, 12°.22N×144°.71E, h0^{km}, mb3.7/8, mbtmp3.7/8, MS3.2/9, Error ellipse: s-maj=38.2km s-min=15.8km az=97.0*

ISC 21 11:27:14.6±0.9**, 12°.41N**±0°.08×**144°.8E**±0°.2**, h38^{km}, n23, σ1^{s}.63**/11**, mb3.7**/8**, MS3.2**/7**, South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
GUMO	Guam	1.17	4	Pn	Pn	11 27 32.9	-1.6
	114nm,0.3s,baz=244,slow=2.0,SNR=47						
GUMO				Sn	Sn	11 27 47.7	-1.6
	191nm,0.3s,baz=51,slow=22,SNR=28						
KRVT	Keravat (AS076	18.10	156	P	P	11 31 23.8	+0.5
	50nm,0.4s,baz=47,slow=23,SNR=4.6						
SIJI	Sorong	18.82	226	LR	LR	11 37 44.7	
	comp=Z,116nm,18.6s,baz=66,slow=34						
DAV	Davao City (W)	19.65	256	LR	LR	11 37 21.3	
	comp=Z,65nm,21.8s,baz=151,slow=31						
H11S3	WAKE ISLAND Hy	21.95	71	T	T	11 55 52.4	
	baz=241,slow=79,SNR=4.9						
H11S1	WAKE ISLAND Hy	21.96	71	T	T	11 55 54.2	
	baz=241,slow=79,SNR=3.3						
H11S2	WAKE ISLAND Hy	21.97	71	T	T	11 55 52.6	
	baz=241,slow=79,SNR=4.0						
H11N1	WAKE ISLAND Hy	22.43	68	T	T	11 56 23.7	
	baz=255,slow=75,SNR=7.6						
H11N2	WAKE ISLAND Hy	22.44	68	T	T	11 56 23.3	
	baz=255,slow=75,SNR=6.5						
H11N3	WAKE ISLAND Hy	22.45	68	T	T	11 56 24.9	
	baz=255,slow=75,SNR=5.9						
MJAR	Matsushiro Arr	24.74	347	P	P	11 32 34.0	+1.3
	4.0nm,1.1s,baz=174,slow=9.8,SNR=5.1						
MJAR				LR	LR	11 41 18.0	
	comp=Z,52nm,18.1s,baz=164,slow=34						
	4.0nm,1.1s						
KSRS	Korea Array	29.15	332	P	P	11 33 13.2	+1.1
	0.7nm,0.5s,baz=133,slow=10,SNR=5.2						
KSRS				LR	LR	11 45 17.2	
	comp=Z,11nm,18.2s,baz=140,slow=37						
	0.7nm,0.5s						
KAPI	Kappang	30.31	237	LR	LR	11 44 34.2	
	comp=Z,36nm,20.3s,baz=64,slow=35						
WRA	Warramunga Arr	33.76	198	P	P	11 33 50.8	-2.0
	0.9nm,0.7s,baz=21,slow=9.6,SNR=9.4						
	0.9nm,0.7s						
ASAR	Alice Springs	37.40	197	P	P	11 34 22.3	-1.8
	0.8nm,1.0s,baz=27,slow=13,SNR=4.0						
	0.8nm,1.0s						
KLR	Kul'dur	38.26	346	LR	LR	11 49 29.2	
	comp=Z,47nm,18.1s,baz=220,slow=35						
PETK	Petropavlovsk-	41.89	12	LR	LR	11 53 41.0	
	comp=Z,33nm,18.3s,baz=199,slow=38						
CMAR	Chiang Mai Arr	44.50	284	P	P	11 35 22.9	+0.2
	0.6nm,0.6s,baz=86,slow=4.2,SNR=4.2						
	0.6nm,0.6s						
SHEM	Shemya Is, Ala	46.56	24	LR	LR	11 55 18.8	
	comp=Z,38nm,18.4s,baz=288,slow=36						
MKAR	Makanchi Array	62.28	316	P	P	11 37 33.5	+0.6
	0.4nm,0.7s,baz=88,slow=8.6,SNR=4.1						
	0.4nm,0.7s						
KURBB	Kurchatov Arra	65.47	320	P	P	11 37 55.3	+1.5
	0.6nm,0.3s,baz=104,slow=6.4,SNR=6.6						
	0.6nm,0.3s						
ARTI	Arti	77.78	325	LR	LR	12 13 40.7	
	comp=Z,25nm,20.1s,baz=346,slow=36						
NVAR	Mina Array Bea	87.72	51	P	P	11 40 01.8	+1.7
	0.2nm,0.5s,baz=254,slow=5.5,SNR=5.5						
	0.2nm,0.5s						

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*IDC **21** 11:39:50.8±1.1, 2°.84S×129°.77E, h0^{km}, mb3.9/3, mbtmp3.8/6, ML3.6/3, Error ellipse: s-maj=30.9km s-min=16.5km az=110.0*

*NEIC **21** 11:39:50.2±0.7, 2°.92S±0°.06×129°.71E±0°.07, h10^{km}±1^{km}, mb4.2/11, Error ellipse: s-maj=11.9km s-min=10.0km az=96.0*

*DJA **21** 11:39:54.6±0.7, 3˚S±4˚×13˚0E±˚, h22^{km}±8^{km}, M3.5/11, ML3.6/10, MLv3.6/10, MLv3.5/11*

ISC 21 11:39:52.1±0.6**, 2°.90S**±0°.06×**129°.81E**±0°.05**, h25^{km}, n31, σ1^{s}.62**/32**, mb4.2**/7**, Seram**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
MSAI	Masohi	0.98	243	P	Pb	11 40 13.2	+2.7
MSAI				AML	AML		
MSAI				AML	AML		
MSAI				AML	AML		
BNDI	Bandanaira	1.61	177	P	Pb	11 40 22.4	+1.1
BNDI				AML	AML		
BNDI				AML	AML		
AAI	Ambon	1.79	244	P	Pb	11 40 24.9	+0.6
AAI				AML	AML		
AAI				AML	AML		
AAI				AML	AML		
FAKI	Fak Fak	2.44	91	Pn	Pn	11 40 31.5	+1.1
FAKI	Fak Fak	2.44	91	P	Pn	11 40 33.3	+2.9
SIJI	Sorong	2.49	36	Pn	Pn	11 40 32.3	+1.2
	11nm,0.3s,baz=260,slow=10.0,SNR=26						
SIJI				Sn	Sn	11 41 01.6	+0.9
	11nm,0.3s,baz=228,slow=23,SNR=14						
	24nm,0.3s						
SIJI				AML	AML		
SWI	Sorong	2.49	36	P	Pn	11 40 33.3	+2.2
SWI				AML	AML		
SWI				AML	AML		
SWI				AML	AML		
NLAI	Namlea	2.73	263	P	Pn	11 40 37.7	+3.4
NLAI				AML	AML		
NLAI				AML	AML		
NLAI				AML	AML		
SAUI	Saumlaki	5.26	164	Pn	Pn	11 41 09.0	-0.3
LUWI	Luwuk	7.27	285	Pn	Pn	11 41 36.2	-0.7
MTN	Manton Dam	9.97	173	Pn	Pn	11 42 13.6	-0.3
KNRA	Kununurra	12.74	185	Pn	Pn	11 42 50.8	-1.0
FITZ	Fitzroy Crossi	15.65	195	Pn	Pn	11 43 30.4	-0.7
	0.3nm,0.3s,baz=32,slow=14,SNR=6.4						
	1.3nm,0.7s						
FITZ				AML	AML		
FITZ	Fitzroy Crossi	15.65	195		Pn	11 43 29.9	-1.2
KKM	Kota Kinabalu	16.22	303	Pn	Pn	11 43 36.6	-2.1
KKM				IAmb	IAmb	11 44 17.1	
	comp=Z,6.3nm,0.9s						
WB0	Warramunga Arr	17.35	165	Pn	Pn	11 43 51.7	-1.1
WB0				IAmb	IAmb	11 44 18.1	
	comp=Z,11nm,1.4s						
WRA	Warramunga Arr	17.51	166	Pn	Pn	11 43 53.0	-1.8
	comp=Z,0.2nm,0.3s,baz=347,slow=12,SNR=12						
	comp=Z,0.7nm,0.6s						
WRA				AML	AML		
WRA	Warramunga Arr	17.51	166		Pn	11 43 51.5	-3.3
SBUM	Sibu	18.37	287	P	P	11 44 03.5	-1.7
SBUM				IAmb	IAmb	11 44 24.9	
	comp=Z,4.1nm,1.2s						
AS31	Alice Springs	21.02	169	P	P	11 44 33.6	-0.6
AS31				IAmb	IAmb	11 44 36.0	
	comp=Z,4.1nm,0.8s						
ASAR	Alice Springs	21.02	169	P	P	11 44 35.1	+1.0
	comp=Z,9.2nm,0.7s,baz=352,slow=10,SNR=124						
	comp=Z,9.2nm,0.7s						
ASAR	Alice Springs	21.02	169	P	P	11 44 33.2	-0.9
PATS	Pohnpei	30.05	71	P	P	11 45 59.9	+0.3
MKAR	Makanchi Array	64.73	326	P	P	11 50 30.1	+1.8
	comp=Z,0.2nm,0.5s,baz=108,slow=7.8,SNR=3.6						
	comp=Z,0.2nm,0.5s						
MKAR	Makanchi Array	64.73	326	P	P	11 50 28.0	-0.4
BOOM	Boomskoye usch	66.31	319	P	P	11 50 37.5	-1.4
BOOM				IAmb	IAmb	11 50 53.8	
	comp=Z,11nm,0.8s						
KURBB	Kurchatov Arra	68.95	328	P	P	11 50 57.2	+2.1
	comp=Z,0.7nm,0.6s,baz=131,slow=5.8,SNR=8.4						
	comp=Z,0.7nm,0.6s						
AB31	Akbulak array	79.20	321	P	P	11 51 54.6	-0.4
AB31				IAmb	IAmb	11 52 02.0	
	comp=Z,4.0nm,1.4s						
ABKAR	Akbulak array	79.20	321	P	P	11 51 54.5	-0.5
FOMA	Nahampoana Res	82.28	245	P	P	11 52 11.0	-1.1
FOMA				IAmb	IAmb	11 52 14.9	

	comp=Z,23nm,0.8s						
CNPM	**China Poot**	**86.89**	**30**	P	**P**	**11 52 35.0**	**+0.3**

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*NEIC **21** 11:42:53.2±0.9, 60°.77N±0°.02×150°.19W±0°.05, h47^{km}±8^{km}, ML3.6/194, ML3.4(AEIC), Error ellipse: s-maj=3.8km s-min=3.5km az=104.0*

*AEIC **21** 11:42:53.7±1.0, 60°.77N±0°.02×150°.16W±0°.05, h42^{km}±7^{km}, Error ellipse: s-maj=3.9km s-min=2.7km az=131.0*

ISC 21 11:42:53.3±1.2**, 60°.76N**±0°.03×**150°.15W**±0°.03**, h48**^{km}±9^{km}**, n179, σ0^{s}59**/176**, Kenai Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SLKM	**Skilak Lake**	**0.25**	**188**		**Pn**	**11 43 01.6**	**-0.3**
SLKM					**Sn**	**11 43 08.0**	**0.0**
O22K	**Cooper Landing**	**0.34**	**142**		**Pn**	**11 43 02.5**	**-0.2**
O22K					**Sn**	**11 43 09.7**	**+0.4**
RC01	**Rabbit Creek A**	**0.39**	**31**		**Pn**	**11 43 02.8**	**-0.4**
RC01					**Sn**	**11 43 10.0**	**-0.3**
CAPN	**Captain Cook N**	**0.49**	**272**		**Pn**	**11 43 04.8**	**+0.5**
SEW	**Seward**	**0.74**	**152**		**Pn**	**11 43 07.1**	**-0.3**
SEW					**Sn**	**11 43 18.0**	**+0.3**
SEW				IAML		11 43 20.3	
	comp=E,3µm,0.6s						
SUA	**Susitna One**	**0.77**	**338**		**Sn**	**11 43 17.9**	**-0.7**
SUA	**Susitna One**	**0.77**	**338**		**Pn**	**11 43 07.0**	**-1.0**
SUA				IAML		11 43 18.2	
	comp=N,1µm,0.3s						
SUA				IAML		11 43 18.6	
	comp=E,3µm,0.7s						
PWL	**Port Wells**	**0.90**	**82**		**Pn**	**11 43 09.5**	**-0.1**
PWL					**Sn**	**11 43 22.4**	**+0.9**
PWL				IAML		11 43 25.0	
	comp=E,2µm,0.5s						
PMR	**Palmer**	**0.97**	**30**	P	**Pn**	**11 43 10.1**	**-0.5**
PMR	**Palmer**	**0.97**	**30**	S	**Sn**	**11 43 23.2**	**-0.1**
PMR	**Palmer**	**0.97**	**30**		**Pn**	**11 43 10.1**	**-0.5**
PMR					**Sn**	**11 43 23.3**	**-0.1**
PMR				IAML		11 43 23.6	
	comp=E,1µm,0.6s						
PMR				IAML		11 43 24.7	
	comp=N,1µm,0.6s						
M22K	**Willow**	**1.00**	**1**		**Pn**	**11 43 10.3**	**-0.7**
M22K					**Sn**	**11 43 24.2**	**+0.3**
KNK	**Knik Glacier**	**1.05**	**50**		**Pn**	**11 43 11.7**	**0.0**
KNK					**Sn**	**11 43 26.1**	**+0.8**
BRSE	**Bradley Lake S**	**1.06**	**196**		**Pn**	**11 43 11.5**	**-0.2**
BRSE					**Sn**	**11 43 25.4**	**0.0**
BRLK	**Bradley Lake**	**1.06**	**201**		**Pn**	**11 43 11.9**	**+0.1**
BRLK				IAML		11 43 28.2	
	comp=E,2µm,0.2s						
BRLK				IAML		11 43 30.9	
	comp=N,2µm,0.1s						
SPCP	**Crater Peak Br**	**1.10**	**299**		**Pn**	**11 43 11.9**	**-0.5**
SPCP					**Sn**	**11 43 26.6**	**-0.1**
STLK	**Strandline Lak**	**1.11**	**313**		**Pn**	**11 43 11.8**	**-0.7**
STLK				IAML		11 43 27.7	
	comp=E,2µm,0.4s						
RDT	**Redoubt**	**1.13**	**262**		**Pn**	**11 43 11.9**	**-0.8**
RDT					**Sn**	**11 43 26.7**	**-0.4**
CKL	**Chakachamna La**	**1.16**	**294**		**Pn**	**11 43 12.2**	**-0.9**
GHO	**Glory Hole Cre**	**1.18**	**30**		**Pn**	**11 43 13.3**	**-0.2**
GHO				IAML		11 43 30.9	
	comp=N,1µm,0.3s						
DFR	**Drift River**	**1.26**	**264**		**Pn**	**11 43 13.7**	**-0.8**
DFR					**Sn**	**11 43 30.2**	**-0.1**
SPWE	**Spurr West**	**1.28**	**295**		**Pn**	**11 43 14.3**	**-0.5**
REF	**Redoubt East F**	**1.29**	**259**		**Pn**	**11 43 14.5**	**-0.5**
REF					**Sn**	**11 43 31.0**	**-0.2**
RDSO	**Redoubt South**	**1.31**	**258**		**Pn**	**11 43 14.8**	**-0.5**
RDSO					**Sn**	**11 43 31.9**	**+0.1**
RDJH	**Redoubt Jeurge**	**1.32**	**264**		**Pn**	**11 43 14.6**	**-0.7**
RDJH					**Sn**	**11 43 32.1**	**+0.3**
HOM	**Homer**	**1.33**	**215**		**Pn**	**11 43 15.6**	**+0.2**
CNPM	**China Poot**	**1.35**	**204**		**Pn**	**11 43 15.8**	**+0.1**
CNPM				IAML		11 43 36.9	
	comp=E,652nm,0.6s						
CNPM				IAML		11 43 37.2	
	comp=N,825nm,0.4s						
SML	**Sawmill**	**1.37**	**39**		**Pn**	**11 43 15.9**	**-0.2**
SML				IAML		11 43 39.3	
	comp=N,667nm,0.5s						
NCT	**North Crescent**	**1.38**	**263**		**Pn**	**11 43 15.6**	**-0.6**
NCT					**Sn**	**11 43 33.2**	**-0.2**
SPNN	**North Nagishla**	**1.38**	**297**		**Pn**	**11 43 16.1**	**-0.2**
SKT	**Skwentna**	**1.40**	**332**		**Pn**	**11 43 16.1**	**-0.2**
SKT					**Sn**	**11 43 34.0**	**+0.3**
O20K	**Slope Mountain**	**1.40**	**242**		**Pn**	**11 43 16.8**	**+0.3**
GLI	**Glacier Island**	**1.50**	**84**		**Pn**	**11 43 16.8**	**-1.0**
ILIM	**Iliamna**	**1.55**	**245**		**Pn**	**11 43 18.5**	**+0.1**
P23K	**Montague Islan**	**1.56**	**118**		**Pn**	**11 43 18.1**	**-0.4**
P23K				IAML		11 43 43.9	
	comp=E,1µm,0.6s						
P23K				IAML		11 43 44.2	
	comp=N,874nm,0.6s						
M23K	**Glacier View**	**1.57**	**47**		**Pn**	**11 43 18.6**	**0.0**
IVE	**Iliamna Volcan**	**1.60**	**244**		**Pn**	**11 43 18.9**	**-0.4**
IVE					**Sn**	**11 43 39.1**	**+0.3**
ILS	**Iliamna Low So**	**1.66**	**242**		**Pn**	**11 43 20.1**	**+0.1**
CUT	**Chulitna**	**1.66**	**358**		**Pn**	**11 43 19.5**	**-0.3**
CUT				Sn	**Sn**	**11 43 39.4**	**-0.5**
ILSW	**Iliamna Southw**	**1.68**	**244**		**Pn**	**11 43 20.0**	**-0.2**
ILSW					**Sn**	**11 43 40.8**	**+0.2**
ILSW				IAML		11 43 41.8	
	comp=N,464nm,0.4s						
ILSW				IAML		11 43 47.2	
	comp=E,690nm,0.7s						
SCM	**Sheep Creek Mo**	**1.74**	**50**		**Pn**	**11 43 21.0**	**-0.1**
SCM				IAML		11 43 51.2	
	comp=E,647nm,0.6s						
SCM				IAML		11 43 51.5	
	comp=N,782nm,0.7s						
FID	**Port Fidalgo**	**1.80**	**89**		**Pn**	**11 43 20.9**	**-0.9**
FID				IAML		11 43 49.4	
	comp=E,940nm,0.5s						
FID				IAML		11 43 51.3	
	comp=N,724nm,0.5s						
M20K	**Styx River**	**1.83**	**309**		**Pn**	**11 43 22.5**	**+0.2**
HIN	**Hinchinbrook I**	**1.84**	**100**		**Pn**	**11 43 22.1**	**-0.2**
HIN				IAML		11 43 56.8	
	comp=N,613nm,0.7s						
HIN				IAML		11 43 59.5	
	comp=E,480nm,0.7s						
P19K	**Oil Pt**	**1.90**	**236**		**Pn**	**11 43 23.5**	**+0.4**
N19K	**Bonanza Creek**	**2.13**	**273**		**Pn**	**11 43 25.9**	**-0.5**
N19K				IAML		11 44 04.8	
	comp=N,250nm,0.7s						
O19K	**Port Alsworth**	**2.14**	**257**		**Pn**	**11 43 25.7**	**-0.7**
AUJK	**Augustine Jueg**	**2.16**	**231**		**Pn**	**11 43 27.2**	**+0.5**
AGU	**Augustine-Summ**	**2.16**	**231**		**Pn**	**11 43 27.1**	**+0.3**
WAT6	**Susitna Watana**	**2.16**	**31**		**Pn**	**11 43 26.6**	**-0.3**
DIV	**Divide**	**2.17**	**78**		**Pn**	**11 43 26.2**	**-0.7**
DIV				IAML		11 44 01.3	
	comp=E,266nm,0.7s						
DIV				IAML		11 44 01.3	
	comp=N,545nm,0.4s						
AUI	**Augustine Isla**	**2.17**	**231**		**Pn**	**11 43 27.3**	**+0.3**
WAT7	**Susitna Watana**	**2.18**	**16**		**Pn**	**11 43 26.7**	**-0.4**
EYAK	**Cordova Ski Ar**	**2.18**	**94**	P	**Pn**	**11 43 26.0**	**-1.0**
EYAK	**Cordova Ski Ar**	**2.18**	**94**		**Pn**	**11 43 26.2**	**-0.7**
EYAK				IAML		11 44 03.4	
	comp=E,243nm,0.3s						
EYAK				IAML		11 44 03.5	
	comp=N,293nm,0.6s						
KLU	**Klutina**	**2.18**	**68**		**Pn**	**11 43 26.7**	**-0.4**
KLU				IAML		11 43 54.3	
	comp=N,459nm,0.4s						
KLU				IAML		11 43 55.2	
	comp=E,322nm,0.2s						
WAT1	**Susitna Watana**	**2.22**	**19**		**Pn**	**11 43 27.2**	**-0.4**
M19K	**Big River Lodg**	**2.35**	**301**		**Pn**	**11 43 29.0**	**-0.3**
PPLA	**Purkeypile**	**2.36**	**337**		**Pn**	**11 43 29.1**	**-0.5**
PPLA				IAML		11 44 02.9	
	comp=E,384nm,0.6s						
PPLA				IAML		11 44 10.0	
	comp=N,395nm,1.0s						
L20K	**Farewell, AK**	**2.48**	**316**		**Pn**	**11 43 31.0**	**-0.2**
L20K				IAML		11 44 06.1	
	comp=N,335nm,0.6s						
L20K				IAML		11 44 17.8	
	comp=E,305nm,0.8s						
Q19K	**Cape Douglas,**	**2.54**	**225**		**Pn**	**11 43 32.6**	**+0.6**
DHY	**Denali Highway**	**2.67**	**28**		**Pn**	**11 43 33.4**	**-0.6**
DHY				IAML		11 44 15.2	
	comp=E,159nm,0.7s						
L19K	**White Mountain**	**2.67**	**304**		**Pn**	**11 43 33.8**	**0.0**
GOAT	**Goat Mountain**	**2.67**	**91**		**Pn**	**11 43 32.9**	**-1.0**
TRF	**Thorofare Moun**	**2.71**	**359**		**Pn**	**11 43 34.9**	**+0.5**
TRF				IAML		11 44 20.0	
	comp=N,328nm,0.5s						
TRF				IAML		11 44 20.7	
	comp=E,266nm,0.9s						
BMRM	**Bremner River**	**2.72**	**83**		**Pn**	**11 43 33.8**	**-0.7**
RAGM	**Ragged Mountai**	**2.73**	**95**	Pn	**Pn**	**11 43 33.5**	**-1.1**
RND	**Reindeer**	**2.73**	**12**		**Pn**	**11 43 34.4**	**-0.2**
N25K	**Chitina, Valde**	**2.82**	**70**		**Pn**	**11 43 36.0**	**+0.1**
N18K	**Kilae Creek**	**2.82**	**271**		**Pn**	**11 43 35.3**	**-0.6**
CAST	**Castle Rocks**	**2.83**	**342**		**Pn**	**11 43 36.5**	**+0.6**
CAST				IAML		11 44 15.8	
	comp=E,173nm,0.4s						
CAST				IAML		11 44 26.7	
	comp=N,190nm,0.7s						
KTH	**Kantishna Hill**	**2.83**	**353**		**Pn**	**11 43 37.0**	**+0.9**
KTH				IAML		11 44 15.8	
	comp=E,295nm,0.9s						
M18K	**Stony River**	**2.85**	**287**		**Pn**	**11 43 35.6**	**-0.6**
HARP	**HAARP**	**2.90**	**53**		**Pn**	**11 43 37.4**	**+0.4**
KAIM	**Kayak Island**	**2.97**	**104**	Pn	**Pn**	**11 43 37.5**	**-0.4**
KAIM				IAML		11 44 33.0	
	comp=N,172nm,1.3s						
KAIM				IAML		11 44 38.9	
	comp=E,127nm,1.2s						
MCK	**McKinley**	**3.04**	**10**		**Pn**	**11 43 40.8**	**+1.9**
MCK				IAML		11 44 31.1	
	comp=N,148nm,0.8s						
WASW	**Wrangell South**	**3.11**	**65**		**Pn**	**11 43 40.6**	**+0.6**
GLB	**Gilahina Butte**	**3.15**	**75**		**Pn**	**11 43 41.3**	**+0.9**
GLB				IAML		11 44 26.4	
	comp=N,262nm,1.0s						
GLB				IAML		11 44 27.0	
	comp=E,194nm,0.9s						
K20K	**Telida**	**3.20**	**326**		**Pn**	**11 43 41.9**	**+0.9**
K20K				IAML		11 44 26.8	
	comp=E,103nm,0.5s						
KDAK	**Kodiak Island**	**3.23**	**204**		**Pn**	**11 43 40.6**	**-0.8**
KDAK				IAML		11 44 36.5	
	comp=E,97nm,1.0s						
Q18K	**Katmai Hardscr**	**3.24**	**231**		**Pn**	**11 43 40.7**	**-1.0**
VRDI	**Verde Repeater**	**3.30**	**79**		**Pn**	**11 43 41.5**	**-1.0**
VRDI				IAML		11 44 32.0	
	comp=N,154nm,0.6s						
CHUM	**Lake Minchumin**	**3.30**	**343**		**Pn**	**11 43 43.6**	**+1.2**
BPAW	**Bear Paw Mtn.**	**3.38**	**354**		**Pn**	**11 43 43.2**	**-0.3**
BPAW				IAML		11 44 28.5	
	comp=E,100nm,0.3s						
BPAW				IAML		11 44 30.9	
	comp=N,107nm,0.8s						
CRQM	**Cirque**	**3.44**	**87**	Pn	**Pn**	**11 43 44.2**	**-0.3**
CRQM				IAML		11 44 38.5	
	comp=E,188nm,1.0s						
CRQM				IAML		11 44 42.7	
	comp=N,198nm,0.7s						
BWN	**Browne**	**3.44**	**5**		**Pn**	**11 43 43.4**	**-1.0**
BWN				IAML		11 44 45.6	
	comp=E,220nm,0.8s						
L18K	**Granite Mounta**	**3.46**	**298**		**Pn**	**11 43 44.2**	**-0.4**
L18K				IAML		11 44 45.6	
	comp=N,80nm,0.8s						
N17K	**Nushagak Hills**	**3.47**	**269**		**Pn**	**11 43 44.2**	**-0.6**
N17K				IAML		11 44 25.1	
	comp=E,87nm,0.7s						
N17K				IAML		11 44 52.0	
	comp=N,92nm,0.9s						
KAKN	**Katmai Knife C**	**3.51**	**228**		**Pn**	**11 43 45.2**	**-0.2**
MCARA	**McCarthy VSAT**	**3.52**	**77**		**Pn**	**11 43 45.5**	**+0.1**
P17K	**Kvichak River**	**3.53**	**246**		**Pn**	**11 43 44.6**	**-0.9**
TGL	**Tana Glacier**	**3.59**	**87**	Pn	**Pn**	**11 43 45.9**	**-0.5**
TGL				IAML		11 44 47.3	
	comp=E,116nm,0.9s						
TGL				IAML		11 44 49.0	
	comp=N,161nm,0.9s						
M17K	**Holitna River**	**3.60**	**284**		**Pn**	**11 43 46.3**	**-0.1**
M17K				IAML		11 44 46.5	
	comp=E,147nm,0.9s						
M17K				IAML		11 44 53.1	
	comp=N,164nm,0.7s						
ACHA	**Angle Creek He**	**3.67**	**228**	Pn	**Pn**	**11 43 47.8**	**+0.3**
K24K	**Donnelly Dome**	**3.68**	**32**		**Pn**	**11 43 49.4**	**+1.8**
ANCK	**Angle Creek**	**3.74**	**229**		**Pn**	**11 43 48.5**	**+0.1**
MENT	**Mentasta**	**3.75**	**51**	IAML		11 44 51.2	
	comp=E,158nm,0.6s						
CAHL	**Cahill**	**3.78**	**226**		**Pn**	**11 43 49.2**	**+0.3**
M26K	**Nabesna, AK**	**3.80**	**61**		**Pn**	**11 43 49.5**	**+0.2**
M26K	**Nabesna, AK**	**3.80**	**61**	IAML		11 44 58.6	
	comp=N,75nm,0.6s						
M26K				IAML		11 44 59.1	
	comp=E,64nm,1.2s						
KIAG	**Kiagna River**	**3.82**	**84**		**Pn**	**11 43 48.8**	**-0.8**
Q17K	**Contact Creek**	**3.84**	**232**		**Pn**	**11 43 50.2**	**+0.3**
RIDG	**Independent Ri**	**3.89**	**37**	IAML		11 44 57.0	
	comp=N,102nm,0.9s						
RIDG				IAML		11 45 03.4	
	comp=E,99nm,0.7s						
OHAK	**Old Harbor**	**3.90**	**206**	P	**Pn**	**11 43 49.1**	**-1.4**
J20K	**Nowinta River**	**3.90**	**333**	IAML		11 44 38.2	
	comp=N,123nm,0.6s						
J20K				IAML		11 44 55.4	
	comp=E,82nm,0.6s						
L26K	**Log Cabin Wild**	**3.94**	**52**	IAML		11 45 03.0	
	comp=N,87nm,0.6s						
L26K				IAML		11 45 05.9	
	comp=E,96nm,0.5s						
HDA	**Harding Lake**	**3.96**	**21**	IAML		11 44 49.8	
	comp=N,81nm,0.5s						
HDA				IAML		11 45 01.2	
	comp=E,71nm,0.6s						
PS08	**TAPS Pump Stn8**	**4.10**	**21**		**Pn**	**11 43 54.0**	**+0.6**
GRNC	**Granite Creek**	**4.12**	**87**		**Pn**	**11 43 52.9**	**-0.9**
GRNC	**Granite Creek**	**4.12**	**87**	IAML		11 45 00.8	
	comp=N,75nm,0.6s						
J19K	**Poorman**	**4.13**	**324**		**Pn**	**11 43 54.0**	**+0.2**
J19K	**Poorman**	**4.13**	**324**	IAML		11 45 02.1	
	comp=N,61nm,0.7s						
J19K				IAML		11 45 04.0	
	comp=E,65nm,0.9s						
BARN	**Barnard Glacie**	**4.16**	**82**	IAML		11 45 01.2	
	comp=N,63nm,0.7s						
BARN				IAML		11 45 13.7	
	comp=E,62nm,1.0s						
COLA	**College**	**4.27**	**13**	P	**Pn**	**11 43 56.3**	**+0.7**
COLA	**College**	**4.27**	**13**		**Pn**	**11 43 55.9**	**+0.4**
COLA	**College**	**4.27**	**13**	IAML		11 45 15.5	
	comp=E,113nm,0.5s						
M27K	**Edge Creek, AK**	**4.27**	**64**		**Pn**	**11 43 55.8**	**0.0**
MLY	**Manley**	**4.30**	**357**		**Pn**	**11 43 56.7**	**+0.6**
M16K	**Timber Creek**	**4.31**	**277**	IAML		11 45 12.4	
	comp=N,56nm,1.4s						
SCRK	**Sand Creek**	**4.32**	**39**	IAML		11 45 07.1	
	comp=E,48nm,0.7s						
K17K	**Iditarod**	**4.35**	**300**		**Pn**	**11 43 56.8**	**+0.1**
K17K	**Iditarod**	**4.35**	**300**	IAML		11 45 16.1	
	comp=E,56nm,0.7s						
K17K				IAML		11 45 21.4	
	comp=N,46nm,1.0s						
I23K	**Minto, Yukon-K**	**4.42**	**4**	IAML		11 45 23.1	
	comp=N,57nm,0.7s						
J25K	**Salcha River,**	**4.45**	**28**	IAML		11 45 05.1	
	comp=E,40nm,0.5s						
J25K				IAML		11 45 06.7	
	comp=N,44nm,0.7s						
R17L	**Mt. Peulik Vol**	**4.47**	**228**		**Pn**	**11 43 58.4**	**0.0**
LOGN	**Logan Glacier**	**4.48**	**85**		**Pn**	**11 43 58.2**	**-0.6**
LOGN	**Logan Glacier**	**4.48**	**85**	IAML		11 45 08.9	
	comp=N,51nm,0.8s						
LOGN				IAML		11 45 15.3	
	comp=E,41nm,1.0s						
I20K	**Naaghedeneel**	**4.52**	**336**		**Pn**	**11 43 59.4**	**+0.4**
I21K	**Tanana**	**4.52**	**350**		**Pn**	**11 43 59.6**	**+0.5**
I21K	**Tanana**	**4.52**	**350**	IAML		11 45 20.6	
	comp=E,50nm,0.9s						
I21K				IAML		11 45 24.7	
	comp=N,55nm,0.8s						
POKR	**Poker Plat Res**	**4.55**	**15**		**Pn**	**11 43 59.9**	**+0.3**
BC03		**4.58**	**56**		**Pn**	**11 44 00.5**	**+0.6**
YUK2	**White River**	**4.61**	**73**		**Pn**	**11 44 00.3**	**-0.1**
PS07	**TAPS Pump Stn7**	**4.65**	**10**		**Pn**	**11 44 01.5**	**+0.6**
YUK3	**Moose Creek**	**4.79**	**73**		**Pn**	**11 44 03.1**	**+0.1**
O28M	**Mount Upton**	**4.88**	**85**	IAML		11 45 23.0	
	comp=E,27nm,0.5s						
O28M				IAML		11 45 34.0	
	comp=N,37nm,0.8s						
PCA	**Pinnacle**	**4.95**	**93**		**Pn**	**11 44 03.6**	**-1.5**
N15K	**Kwethluk River**	**4.96**	**268**	IAML		11 45 32.2	
	comp=N,67nm,1.1s						
N15K				IAML		11 45 33.7	
	comp=E,52nm,1.4s						
J17K	**VABM Dome**	**4.96**	**306**	IAML		11 45 43.8	
	comp=N,31nm,0.7s						
GCSA	**Galena City Sc**	**5.06**	**325**		**Pn**	**11 44 07.5**	**+1.1**
H21K	**Melozitna Rive**	**5.07**	**347**		**Pn**	**11 44 07.2**	**+0.6**
H21K	**Melozitna Rive**	**5.07**	**347**	IAML		11 45 39.9	
	comp=N,33nm,1.2s						
H21K				IAML		11 45 41.1	
	comp=E,32nm,0.9s						
YUK8	**Steele Glacier**	**5.08**	**79**		**Pn**	**11 44 07.5**	**+0.5**
H23K	**Yukon River**	**5.10**	**3**		**Pn**	**11 44 07.6**	**+0.6**
H23K	**Yukon River**	**5.10**	**3**	IAML		11 45 41.5	
	comp=E,30nm,0.9s						
M15K	**Kasigluk River**	**5.17**	**274**		**Pn**	**11 44 07.7**	**-0.3**
H22K	**Ishtalitna Cre**	**5.19**	**354**		**Pn**	**11 44 09.0**	**+0.7**
H24K	**Noodor Dome**	**5.20**	**10**		**Pn**	**11 44 09.1**	**+0.6**
H20K	**Anotleneega Mo**	**5.22**	**338**		**Pn**	**11 44 09.0**	**+0.4**
PRP	**Porcupine Dome**	**5.22**	**22**		**Pn**	**11 44 09.2**	**+0.4**
PRP	**Porcupine Dome**	**5.22**	**22**	IAML		11 45 18.1	
	comp=E,29nm,0.7s						
PRP				IAML		11 45 19.2	
	comp=N,37nm,0.6s						
PNL	**Peninsula**	**5.47**	**97**		**Pn**	**11 44 11.3**	**-0.8**
J16K	**Anvik River**	**5.54**	**302**		**Pn**	**11 44 12.3**	**-0.7**
L15K	**Ungalak Mounta**	**5.56**	**285**		**Pn**	**11 44 12.2**	**-1.1**
I26K	**Coal Creek Min**	**5.57**	**32**		**Pn**	**11 44 13.7**	**+0.3**
M29M	**Somme Creek**	**5.83**	**68**		**Pn**	**11 44 17.2**	**0.0**
G21K	**Allakaket**	**5.97**	**347**		**Pn**	**11 44 19.9**	**+0.9**
G23K	**Bananza Creek**	**5.98**	**0**		**Pn**	**11 44 18.9**	**-0.3**
DAWY	**Dawson**	**6.00**	**52**		**Pn**	**11 44 19.2**	**-0.2**
G24K	**Hadweenzic Riv**	**6.09**	**10**		**Pn**	**11 44 20.9**	**+0.4**
HYT	**Haines Junctio**	**6.19**	**84**		**Pn**	**11 44 21.9**	**-0.3**
I27K	**Kandik River**	**6.21**	**35**		**Pn**	**11 44 22.5**	**+0.2**
G25K	**Bearman Lake**	**6.29**	**15**		**Pn**	**11 44 23.6**	**+0.3**
N30M	**Aishikik Lake**	**6.37**	**78**		**Pn**	**11 44 23.4**	**-1.1**
G18K	**Tagagawik**	**6.42**	**327**		**Pn**	**11 44 25.8**	**+0.7**
I28M	**Miner Creek**	**6.60**	**40**		**Pn**	**11 44 27.3**	**-0.4**
F21K	**Alatna River**	**6.66**	**349**		**Pn**	**11 44 28.6**	**+0.3**
J14K	**Nanvaranak Lak**	**6.67**	**293**		**Pn**	**11 44 28.9**	**+0.4**
H27K	**Steamboat Moun**	**6.71**	**31**		**Pn**	**11 44 28.6**	**-0.5**
F20K	**Avaraart Lake**	**6.78**	**341**		**Pn**	**11 44 30.9**	**+1.0**
G26K	**Porcupine Rive**	**6.82**	**22**		**Pn**	**11 44 30.2**	**-0.4**
F24K	**Squaw Lake**	**6.86**	**7**		**Pn**	**11 44 31.7**	**+0.5**
F19K	**Shaleruckik Mo**	**6.97**	**334**		**Pn**	**11 44 32.7**	**+0.1**
BM05	**Burnt Mountain**	**7.13**	**18**		**Pn**	**11 44 35.0**	**+0.2**
F26K	**Sheenjek River**	**7.44**	**18**		**Pn**	**11 44 38.7**	**-0.4**
E25K	**Arctic Village**	**7.65**	**13**		**Pn**	**11 44 42.2**	**+0.2**
SDPT	**Sand Point**	**7.70**	**230**	P	**Pn**	**11 44 43.0**	**+0.4**
F28M	**Old Crow**	**8.20**	**29**		**Pn**	**11 44 48.9**	**-0.6**
E29M	**Blow River**	**9.28**	**29**		**Pn**	**11 45 03.1**	**-1.1**

NNC 21 11:48:08.3±5.8**, 38°.29N**×**71°.91E, h0**^{km}**, mb3.7, mpv3.5, 1C-3D, Error ellipse: s-maj=43.8km s-min=29.2km az=1.0, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IUG	**Iuzhnay**	**4.11**	**340**	Pg	Pg	11 49 25.4	-1.7
	11nm,0.2s						
IUG				Lg	Lg	11 50 20.8	
	39nm,0.6s						
MRKS	**Merke**	**4.56**	**12**	Pg	Pg	11 49 33.5	-2.2
	4.6nm,0.6s						
MRKS				Lg	Lg	11 50 34.7	
	24nm,1.1s						
AAK	**Ala-Archa**	**4.77**	**24**	⇓Pg	Pg	11 49 36.9	-2.8
	1.3nm,0.4s						
AAK				⇓Lg	Lg	11 50 39.7	
	7.5nm,0.6s						
KK31	**Karatay Array**	**4.92**	**348**	⇑Pg	Pb	11 49 36.7	+1.3
	0.9nm,0.2s,baz=178,slow=13,SNR=20						
KK31				⇓Lg	Lg	11 50 40.4	
	3.7nm,0.4s,baz=171,slow=22,SNR=7.9						
BRLS	**Borolday**	**4.99**	**342**	Pg	Pb	11 49 33.6	-3.0
	4.0nm,0.2s						
BRLS				Lg	Lg	11 50 34.4	
	17nm,1.0s						
SGDS	**Sogindy**	**5.55**	**21**	Pg	Pb	11 49 46.2	+0.1
	3.9nm,0.6s						
SGDS				Lg	Lg	11 50 56.6	
	15nm,0.8s						
KST	**Kastek**	**5.66**	**32**	Pg	Pb	11 49 48.5	+0.6
	1.5nm,0.7s						
KST				Lg	Lg	11 51 00.8	
	10nm,1.3s						
MK31	**Makanchi Array**	**11.43**	**39**	P	Pn	11 50 52.7	0.0
	0.5nm,0.6s,baz=223,slow=14,SNR=6.1						
AB31	**Akbulak array**	**13.94**	**326**	P	Pn	11 51 30.9	+3.9
	0.2nm,0.3s,baz=170,slow=9.2,SNR=12						

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*SJA **21** 11:59:24.6±0.7, 20°.92S×68°.91W, h119^{km}±4^{km}, ML4.0, MW3.9*

*GUC **21** 11:59:26.4±0.7, 20°.95S×68°.85W, h105^{km}±2^{km}, ML4.0*

*NEIC **21** 11:59:26.9±1.5, 20°.90S±0°.03×68°.97W±0°.08, h105^{km}±4^{km}, mb4.1/6, ML4.0(GUC), Error ellipse: s-maj=10.6km s-min=4.1km az=85.0*

*IDC **21** 11:59:29.5±2.6, 20°.80S×68°.41W, h124^{km}±26^{km}, mb3.8/4, mbtmp4.0/7, Error ellipse: s-maj=51.0km s-min=21.0km az=115.0*

ISC 21 11:59:26.4±0.7**, 20°.91S**±0°.03×**68°.93W**±0°.06**, h109**^{km}±6^{km}**, n73, σ1^{s}07**/100**, mb4.0**/4**, 8C-4D, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB08	**IPOC Station P**	**0.80**	**345**	*e*P	**Pn**	**11 59 46.0**	**-0.1**
PB08				*e*S	**Sn**	**12 00 01.2**	**+0.5**
PB08				IAML		12 00 03.1	
	comp=Z,2µm,0.2s						
PB08	**IPOC Station P**	**0.80**	**345**	⇑*e*P	**Pn**	**11 59 46.0**	**-0.1**
PB08				*e*S	**Sn**	**12 00 00.7**	**0.0**
PB08				IAML		12 00 01.8	
	comp=E,4µm,0.2s						
PB08	**IPOC Station P**	**0.80**	**345**		**Pn**	**11 59 46.0**	**-0.1**
PB08				Sn	**Sn**	**12 00 00.8**	**0.0**
PB09	**IPOC Station P**	**0.92**	**198**	*e*P	**Pn**	**11 59 46.8**	**-0.2**
PB09				*e*S	**Sn**	**12 00 03.3**	**+0.8**
PB09				IAML		12 00 05.7	
	comp=Z,1µm,0.7s						
PB09	**IPOC Station P**	**0.92**	**198**	⇑*e*P	**Pn**	**11 59 46.8**	**-0.2**
PB09				*e*S	**Sn**	**12 00 02.4**	**-0.1**
PB09				IAML		12 00 04.4	
	comp=N,2µm,0.3s						
PB09	**IPOC Station P**	**0.92**	**198**		**Pn**	**11 59 46.8**	**-0.2**
PB09				Sn	**Sn**	**12 00 02.7**	**+0.2**
PB02	**IPOC Station P**	**0.99**	**246**	*e*P	**Pn**	**11 59 47.3**	**-0.2**
PB02				*e*S	**Sn**	**12 00 04.1**	**+0.6**
PB02				IAML		12 00 05.2	
	comp=Z,5µm,0.2s						
PB02	**IPOC Station P**	**0.99**	**246**	⇑*e*P	**Pn**	**11 59 47.4**	**-0.2**
PB02				*e*S	**Sn**	**12 00 03.5**	**0.0**
PB02				IAML		12 00 06.1	
	comp=E,7µm,0.2s						
PB02	**IPOC Station P**	**0.99**	**246**		**Pn**	**11 59 47.3**	**-0.2**
PB02				Sn	**Sn**	**12 00 03.4**	**0.0**
PB07	**IPOC Station P**	**1.20**	**228**	*e*P	**Pn**	**11 59 49.6**	**-0.3**
PB07				*e*S	**Sn**	**12 00 08.3**	**+0.6**
PB07				IAML		12 00 09.7	
	comp=Z,2µm,0.5s						
PB07	**IPOC Station P**	**1.20**	**228**	⇑*e*P	**Pn**	**11 59 49.4**	**-0.5**
PB07				*e*S	**Sn**	**12 00 07.3**	**-0.4**
PB07				IAML		12 00 08.8	
	comp=N,4µm,0.3s						
PB07	**IPOC Station P**	**1.20**	**228**		**Pn**	**11 59 49.5**	**-0.5**
PB07				Sn	**Sn**	**12 00 07.7**	**0.0**
GO01	**Chusmiza**	**1.26**	**349**	*e*P	**Pn**	**11 59 50.9**	**0.0**
GO01				*e*S	**Sn**	**12 00 11.3**	**+1.9**
GO01				IAML		12 00 12.4	
	comp=Z,1µm,0.4s						
GO01	**Chusmiza**	**1.26**	**349**	⇓*e*P	**Pn**	**11 59 50.9**	**0.0**
GO01				*e*S	**Sn**	**12 00 09.3**	**-0.1**
GO01				IAML		12 00 12.2	
	comp=N,6µm,0.1s						

GO01	Chusmiza	1.26	349		Pn	11 59 51.0	0.0
TA02	Huaiquique	1.29	299	*e*P	Pn	11 59 50.9	+0.1
TA02				*e*S	Sn	12 00 10.2	+1.0
TA02				IAML		12 00 13.9	
	comp=Z,3µm,0.1s						
TA02	Huaiquique	1.29	299⇑	*e*P	Pn	11 59 51.0	+0.2
TA02				*e*S	Sn	12 00 09.6	+0.4
PB11	IPOC Station P	1.33	329	*e*P	Pn	11 59 51.2	-0.2
PB11				*e*S	Sn	12 00 11.7	+1.4
PB11				IAML		12 00 13.9	
	comp=Z,2µm,0.2s						
PB11	IPOC Station P	1.33	329⇓	*e*P	Pn	11 59 51.3	-0.2
PB11				*e*S	Sn	12 00 10.7	+0.4
PB11				IAML		12 00 12.3	
	comp=E,6µm,0.2s						
PB11	IPOC Station P	1.33	329		Pn	11 59 51.2	-0.2
PB11				Sn	Sn	12 00 10.7	+0.4
PB03	IPOC Station P	1.36	214	*e*P	Pn	11 59 51.4	-0.3
PB03				*e*S	Sn	12 00 11.1	+0.2
PB03				IAML		12 00 13.2	
	comp=Z,1µm,0.3s						
PB03	IPOC Station P	1.36	214⇑	*e*P	Pn	11 59 51.1	-0.6
PB03				*e*S	Sn	12 00 10.6	-0.3
PB03				IAML		12 00 12.5	
	comp=E,2µm,0.2s						
PB03	IPOC Station P	1.36	214		Pn	11 59 51.4	-0.3
PSGCX	Pisagua	1.72	319	*e*P	Pn	11 59 55.7	-0.4
PSGCX				*e*S	Sn	12 00 18.3	-0.2
PSGCX				IAML		12 00 19.6	
	comp=Z,1µm,0.5s						
PSGCX	Pisagua	1.72	319⇓	*e*P	Pn	11 59 55.6	-0.4
PSGCX				*e*S	Sn	12 00 18.6	+0.1
PSGCX	Pisagua	1.72	319		Pn	11 59 55.3	-0.7
PB06	IPOC Station P	1.88	198	*e*P	Pn	11 59 57.8	-0.2
PB06				*e*S	Sn	12 00 21.8	-0.3
PB06				IAML		12 00 24.1	
	comp=Z,760nm,0.4s						
PB06	IPOC Station P	1.88	198⇑	*i*P	Pn	11 59 57.5	-0.6
PB06				*i* S	Sn	12 00 21.4	-0.8
PB06				IAML		12 00 24.2	
	comp=N,832nm,0.3s						
PB06	IPOC Station P	1.88	198		Pn	11 59 57.9	-0.1
AF01	San Pedro de A	2.15	161	IAML		12 00 44.2	
	comp=E,621nm,0.3s						
AF01	San Pedro de A	2.15	161		Pn	12 00 02.4	+0.9
PB05	IPOC Station P	2.26	211	*e*P	Pn	12 00 02.3	-0.5
PB05				*e*S	Sn	12 00 31.3	+0.6
PB05				IAML		12 00 37.8	
	comp=Z,253nm,0.4s						
PB05	IPOC Station P	2.26	211	*e*P	Pn	12 00 02.6	-0.3
PB05				*e*S	Sn	12 00 28.7	-2.0
PB05				IAML		12 00 38.8	
	comp=E,437nm,0.5s						
PB05	IPOC Station P	2.26	211		Pn	12 00 03.0	+0.2
PX02	IPOC Station P	2.28	328⇑	*e*P	Pn	12 00 01.5	-1.5
PX02				*e*S	Sn	12 00 30.6	-0.5
PX02				IAML		12 00 35.1	
	comp=N,469nm,0.3s						
PB16	IPOC Station P	2.62	348	*e*P	Pn	12 00 08.9	+0.9
PB16				*e*S	Sn	12 00 36.8	-3.0
PB16	IPOC Station P	2.62	348⇓	*e*P	Pn	12 00 08.6	+0.6
PB16				*e*S	Sn	12 00 41.8	+2.0
PB16				IAML		12 00 45.9	
	comp=E,246nm,0.6s						
PB16	IPOC Station P	2.62	348		Pn	12 00 08.7	+0.6
PB12	IPOC Station P	2.64	330	*e*P	Pn	12 00 06.9	-0.9
PB12				*e*S	Sn	12 00 40.8	+1.3
PB12				IAML		12 00 47.5	
	comp=Z,337nm,0.3s						
PB12	IPOC Station P	2.64	330	*e*P	Pn	12 00 06.7	-1.1
PB12				*e*S	Sn	12 00 39.6	+0.1
PB12				IAML		12 00 48.9	
	comp=E,690nm,0.2s						
PB12	IPOC Station P	2.64	330		Pn	12 00 06.7	-1.1
AP01	Chacalluta	2.86	332	*e*P	Pn	12 00 10.1	-0.5
AP01				*e*S	Sn	12 00 44.3	-0.2
AP01				IAML		12 00 57.4	
	comp=Z,588nm,0.3s						
AP01	Chacalluta	2.86	332	*e*P	Pn	12 00 09.3	-1.2
AP01				*e*S	Sn	12 00 43.9	-0.6
AP01				IAML		12 00 57.0	
	comp=N,2µm,0.4s						
AP01	Chacalluta	2.86	332	Pn	Pn	12 00 09.3	-1.2
PB18	Visviri	3.35	351	Pn	Pn	12 00 20.7	+3.1
HJA	Humahuaca	3.98	126	*e*P	Pn	12 00 27.6	+1.7
LPAZ	La Paz	4.66	10	P	Pn	12 00 36.9	+1.5
	comp=N,8.0nm,0.4s,baz=198,slow=8.4,SNR=19						
LPAZ	La Paz	4.66	10	Pn	Pn	12 00 37.0	+1.7
AC01	Pan de Azucar	5.43	196	Pn	Pn	12 00 42.6	-2.5
AC02	Maricunga	5.90	182		Pn	12 00 50.2	-1.6
AC05	El Transito	7.98	189		Pn	12 01 19.9	+0.1
SIV	San Ignacio	8.92	58	P	Pn	12 01 28.4	-4.0
	comp=N,3.9nm,0.7s,baz=231,slow=10,SNR=19						
PLCA	Paso Flores	19.80	184	P	Pn	12 03 51.9	+1.0
	comp=N,1.7nm,0.8s,baz=18,slow=12,SNR=4.9						
VAO	Valinhos	20.48	100	P	P	12 03 53.9	-1.8
VAO				IAmb	IAmb	12 04 19.8	
	comp=Z,46nm,1.4s						
BOAV	Boa Vista	24.59	21	P	P	12 04 36.5	0.0
BOAV				IAmb	IAmb	12 04 38.2	
	comp=Z,4.5nm,1.1s						
SNAA	Sanae	62.84	161	P	P	12 09 43.3	+3.0
	comp=Z,1.4nm,0.5s,baz=252,slow=13,SNR=2.0						
	comp=Z,1.4nm,0.5s						
SNAA	Sanae	62.84	161	P	P	12 09 41.1	+0.8
SNAA				IAmb	IAmb	12 09 47.3	
	comp=Z,4.5nm,1.3s						
DBIC	Dimbokro	68.59	74	P	P	12 10 16.4	-1.7
	comp=Z,3.0nm,0.6s,baz=244,slow=11,SNR=3.8						
	comp=Z,3.0nm,0.6s						
DBIC	Dimbokro	68.59	74	P	P	12 10 16.9	-1.1
QSPA	South Pole Qui	69.27	180	P	P	12 10 22.9	+1.3
	comp=Z,0.7nm,0.4s,baz=272,slow=1.4,SNR=9.5						
	comp=Z,0.7nm,0.4s						
QSPA	South Pole Qui	69.27	180	P	P	12 10 22.6	+0.9
QSPA				IAmb	IAmb	12 11 01.9	
	comp=Z,2.4nm,1.2s						
TORD	Torodi Ar. Bea	77.18	70	P	P	12 11 07.3	-1.4
	comp=Z,0.7nm,0.4s,baz=256,slow=5.2,SNR=9.9						
	comp=Z,0.7nm,0.4s						
TORD	Torodi Ar. Bea	77.18	70	P	P	12 11 08.3	-0.4
H11S2	WAKE ISLAND Hy	127.78	278	T	T	14 38 24.7	
	baz=102,slow=74,SNR=31						
H11S1	WAKE ISLAND Hy	127.79	278	T	T	14 38 18.6	
	baz=102,slow=74,SNR=18						
H11S3	WAKE ISLAND Hy	127.80	278	T	T	14 38 23.2	
	baz=102,slow=74,SNR=16						
H11N3	WAKE ISLAND Hy	127.85	279	T	T	14 38 26.1	
	baz=102,slow=75,SNR=5.5						
H11N2	WAKE ISLAND Hy	127.86	279	T	T	14 38 26.1	
	baz=102,slow=75,SNR=6.0						
H11N1	WAKE ISLAND Hy	127.86	279	T	T	14 38 27.1	
	baz=102,slow=75,SNR=4.6						
JKA	Kamikawa-asahi	145.10	319	PKPbc	PKPbc	12 18 50.8	+0.1
MKAR	Makanchi Array	145.17	35	PKP	PKPdf	12 18 51.4	+0.3
	comp=Z,1.6nm,0.7s,baz=320,slow=3.6,SNR=16						
MKAR	Makanchi Array	145.17	35		PKPbc	12 18 50.7	-0.2
PDGK	Podgornoye	145.47	42	PKPdf	PKPdf	12 18 51.5	-0.4

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*IDC **21** 12:06:22.0±0.7, 3°.90S×104°.20W, h0^{km}, mb4.3/13, mbtmp4.3/13, MS4.6/17, Error ellipse: s-maj=30.5km s-min=14.3km az=59.0*

*NEIC **21** 12:06:24.5±0.9, 4°.03S±0°.10×104°.3W±0°.1, h10^{km}±1^{km}, mb4.7/272, Error ellipse: s-maj=19.7km s-min=16.5km az=271.0*

*GFZ **21** 12:06:24.2, 4°.03S×104°.26W, h13^{km}, Mw5.3/40, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}-0.16; $M_{\theta\theta}$0.34; $M_{\phi\phi}$-0.18; $M_{r\theta}$0.02; $M_{\theta\phi}$0.97; $M_{\phi r}$-0.09; Fault plane solution: $M_0$1.01996×10^{17} NP1: ϕ_s277.44173°, δ84.26527°, λ-3.04437°. NP2: ϕ_s7.74621°, δ86.97089°, λ-174.25722°. Principal axes: T 1.0888, Plg1.9077°, Azm142.4908°; N -0.1555, Plg83.5097°, Azm35.4660°; P -0.9333, Plg6.2013°, Azm232.6982°;*

*GFZ **21** 12:06:25.9±0.4, 4°S±5°×10°4W±°, h10^{km}, M4.7/24, mb4.7/24*

*GCMT **21** 12:06:26.5±0.1, 3°.94S±0°.01×104°.13W±0°.01, h12^{km}, MW5.3/141, Moment Tensor Solution. s105,c189; s141,c256; Duration: 1^{s}1 Moment tensor: Scale 10^{17} Nm; M_{rr}-0.09±.01; $M_{\theta\theta}$0.20±.01; $M_{\phi\phi}$-0.11±.01; $M_{r\theta}$0.17±.03; $M_{\theta\phi}$1.00±.01; $M_{\phi r}$-0.05±.03; Best double couple: $M_0$1.02800×10^{17} NP1: ϕ_s5.00000°, δ80.00000°, λ-177.00000°. NP2: ϕ_s274.00000°, δ87.00000°, λ-10.00000°. Principal axes: T 1.0630, Plg5.0000°, Azm320.0000°; N -0.0710, Plg80.0000°, Azm77.0000°; P -0.9930, Plg9.0000°, Azm229.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 21 12:06:24.7±0.4, **4°.02S**±0°.07×**104°.23W**±0°.07, **h18**^{km}**, n317,** σ**0^{s}98**/255**, mb4.7**/151**, MS4.7**/21**, Central East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PAYG	Puerto Ayora	14.32	77	Pn	Pn	12 09 47.4	+0.6
TLIG	Tlapa	22.16	14		P	12 11 20.7	+0.7
TLIG				IAmb	IAmb	12 11 44.3	
	comp=Z,40nm,1.5s						
CMIG	Matias Romero	22.92	24	LR	LR	12 18 21.4	
	comp=Z,3µm,20.0s,baz=206,slow=32						
APG	El Apazote	23.31	36	LR	LR	12 18 29.7	
	comp=Z,317nm,21.4s,baz=260,slow=31						
JUD3	Juan Diaz 3	23.35	53	P	P	12 11 33.0	+0.6
JUD3				IAmb	IAmb	12 11 42.6	
	comp=Z,21nm,1.2s						
RPN	Rapa Nui	23.49	191	LR	LR	12 18 14.2	
	comp=Z,951nm,20.7s,baz=2.0,slow=30						
MTO3	Montecristo	23.50	39	P	P	12 11 34.0	0.0
MTO3				IAmb	IAmb	12 11 51.4	
	comp=Z,39nm,1.5s						
VA02	Isla de Pascua	23.54	192	P	P	12 11 33.8	-0.3
H06S1	SOCORRO T	23.56	344	T	T	12 35 58.8	
	SNR=14						
ESQI	Esquipulas	23.64	38	P	P	12 11 36.2	+0.9
MOIG	Morelia	23.74	7	P	P	12 11 36.2	-0.1
JTS	Las Juntas de	23.89	53	LR	LR	12 18 26.0	
	comp=Z,4µm,20.8s,baz=275,slow=30						
JTS	Las Juntas de	23.89	53	P	P	12 11 38.1	+0.4
JTS				IAmb	IAmb	12 11 44.7	
	comp=Z,21nm,1.1s						
JTS	Las Juntas de	23.89	53	P	P	12 11 37.5	-0.1
	comp=Z,8.8nm,1.2s						
MGAN	Managua	24.03	48	P	P	12 11 39.0	0.0
TGUH	Tegucigalpa,Un	24.61	43	P	P	12 11 43.5	-0.9
TGUH				IAmb	IAmb	12 11 49.4	
	comp=Z,26nm,1.1s						
TGUH	Tegucigalpa,Un	24.61	43	P	P	12 11 45.7	+1.3
	comp=Z,24nm,1.5s						
BOAB	BOACO BROADBAN	24.66	48		P	12 11 44.9	+0.2
BOAB	BOACO BROADBAN	24.66	48	P	P	12 11 45.1	+0.4
	comp=Z,60nm,1.3s						
BRU2	Volcan	24.96	59	P	P	12 11 47.5	-0.1
BRU2	Volcan	24.96	59	P	P	12 11 49.4	+1.8
	comp=Z,25nm,1.6s						
ATAH	Atahualpa	25.89	98	P	P	12 11 55.9	-0.5
	comp=Z,5.2nm,0.7s,baz=286,slow=11,SNR=7.9						
ATAH				LR	LR	12 19 36.7	
	comp=Z,1µm,19.5s,baz=273,slow=31						
	comp=Z,5.2nm,0.7s						
OTAV	Otavalo	26.10	81		P	12 11 58.5	+0.2
OTAV	Otavalo	26.10	81	*e*P	P	12 11 58.8	+0.5
OTAV	Otavalo	26.10	81	P	P	12 12 00.4	+2.0
	comp=Z,23nm,1.3s						
ZAIG	Zacatecas	26.68	3	P	P	12 12 03.5	+0.4
ZAIG				IAmb	IAmb	12 12 15.1	
	comp=Z,13nm,1.1s						
ZAIG	Zacatecas	26.68	3	P	P	12 12 05.6	+2.4
	comp=Z,13nm,1.1s						
NNA	Nana	28.23	108	LR	LR	12 20 25.2	
	comp=Z,2µm,21.1s,baz=288,slow=30						
NNA	Nana	28.23	108	P	P	12 12 17.3	+0.3
LPIG	La Paz	28.57	348	LR	LR	12 20 47.8	
	comp=Z,2µm,20.6s,baz=166,slow=30						
HPIG		30.81	357	P	P	12 12 40.1	+0.3
HPIG				IAmb	IAmb	12 12 50.4	
	comp=Z,8.4nm,1.0s						
HPIG		30.81	357	P	P	12 12 46.2	+6.4
	comp=Z,8.0nm,0.8s						
ROSC	El Rosal	31.15	74	LR	LR	12 21 50.9	
	comp=Z,1µm,20.8s,baz=234,slow=30						
CZSB	Cruzeiro do Su	31.57	98		P	12 12 47.5	+1.0
CZSB	Cruzeiro do Su	31.57	98	*e*P	P	12 12 46.7	+0.2
TX31	Lajitas Ar. Si	33.17	1	P	P	12 13 00.6	+0.1
TX31				IAmb	IAmb	12 13 41.8	
	comp=Z,9.9nm,1.4s						
TXAR	Lajitas Array	33.17	1	P	P	12 13 00.1	-0.3
	comp=Z,0.8nm,0.9s,baz=188,slow=13,SNR=7.0						
TXAR				PcP	PcP	12 15 43.3	0.0
	comp=Z,0.7nm,0.9s,baz=174,slow=3.8,SNR=3.8						
	comp=Z,0.8nm,0.9s						
TXAR	Lajitas Array	33.17	1	P	P	12 13 01.1	+0.7
TXAR					PcP	12 15 43.9	+0.6
HSIG		33.48	349	P	P	12 13 03.6	+0.5
HSIG				IAmb	IAmb	12 13 15.1	
	comp=Z,8.3nm,1.1s						
SAND	Sanderson	33.84	3		P	12 13 06.9	+0.7
SAND				IAmb	IAmb	12 13 16.9	
	comp=Z,12nm,1.0s						
ALPN	Alpine	34.21	1		P	12 13 10.4	+0.8
ALPN				IAmb	IAmb	12 13 20.9	
	comp=Z,14nm,1.2s						
MTDJ	Mount Denham	34.37	49	P	P	12 13 11.6	+0.5
JCT	Junction City	34.57	7	P	P	12 13 12.8	+0.3
VHRN	Van Horn	34.62	359		P	12 13 13.5	+0.4
TPB05	Hovey Rd	34.76	1	P	P	12 13 14.6	+0.4
TPB05				IAmb	IAmb	12 13 29.1	
	comp=Z,21nm,1.4s						
TPB01	Permian Basin	34.77	1	P	P	12 13 15.1	+0.7
MNHN	Monahans	35.19	2	P	P	12 13 17.8	-0.2
PECS	Pecos	35.20	1	P	P	12 13 18.3	+0.3
TPB28		35.49	360	P	P	12 13 20.6	+0.1
TPB28				IAmb	IAmb	12 13 31.6	
	comp=Z,6.5nm,1.2s						
MNTX	Cornudas Mount	35.54	358	P	P	12 13 21.0	+0.2
MNTX	Cornudas Mount	35.54	358	P	P	12 13 24.9	+4.1
	comp=Z,7.5nm,2.1s						
TPB11	China Draw	35.76	0	P	P	12 13 23.6	+0.8
TPB11				IAmb	IAmb	12 13 34.3	
	comp=Z,13nm,1.3s						
SGCY	Sterling City	35.86	5	P	P	12 13 23.9	+0.3
229A	Bryant Ranch,	35.86	4	P	P	12 13 24.2	+0.5
229A				IAmb	IAmb	12 13 31.5	
	comp=Z,8.5nm,0.6s						
SDV	Santo Domingo	35.87	69	LR	LR	12 25 32.9	
	comp=Z,1µm,20.4s,baz=245,slow=32						
SDV	Santo Domingo	35.87	69	P	P	12 13 23.9	-0.2
SDV				IAmb	IAmb	12 13 40.2	
	comp=Z,9.4nm,0.7s						
SDV	Santo Domingo	35.87	69	P	P	12 13 23.9	-0.2
	comp=Z,83nm,0.7s						
ODSA	Odessa	35.98	2	P	P	12 13 24.3	-0.4
ODSA				IAmb	IAmb	12 13 35.0	
	comp=Z,14nm,1.1s						
TAOE	Nuku Hiva Isla	36.00	261	*e*SS	SS	12 21 41.8	+1.1
	comp=Z,665nm,24.4s						
TAOE				*e*LR	LR	12 22 57.7	
	comp=Z,1µm,24.3s						
GDL2	Guadalupe Moun	36.02	360	P	P	12 13 25.5	+0.4
128A	Castleberry Fa	36.48	2	P	P	12 13 29.4	+0.4
121A	Cookes Peak, D	36.51	355	P	P	12 13 29.6	+0.3
121A				IAmb	IAmb	12 13 51.2	
	comp=Z,18nm,1.2s						
129A	Stewart Farms,	36.52	3	P	P	12 13 29.7	+0.4
PB18	Visviri	36.61	114	P	P	12 13 31.7	+0.9
PB18	Visviri	36.61	114	P	P	12 13 33.4	+2.5
	comp=Z,38nm,1.3s						
SNAG	San Augustine	36.62	14	P	P	12 13 30.4	+0.4
ABTX	Abilene, Hawle	36.70	6	P	P	12 13 31.8	+1.0
ABTX				IAmb	IAmb	12 13 41.3	
	comp=Z,17nm,1.1s						
PB16	IPOC Station P	36.81	115	P	P	12 13 32.6	0.0
PB16	IPOC Station P	36.81	115	P	P	12 13 34.1	+1.5
	comp=Z,31nm,1.6s						
POST	Post	36.98	4	P	P	12 13 33.4	+0.2
POST				IAmb	IAmb	12 13 43.7	
	comp=Z,17nm,1.2s						
SN07	Snyder 07	37.05	5	P	P	12 13 33.7	0.0
SN07				IAmb	IAmb	12 13 43.2	
	comp=Z,13nm,1.1s						
PLPT	Palo Pinto	37.06	8	P	P	12 13 33.9	+0.1
PLPT				IAmb	IAmb	12 13 48.0	
	comp=Z,18nm,1.1s						
PB11	IPOC Station P	37.15	118	P	P	12 13 35.7	+0.7
PB11				IAmb	IAmb	12 13 36.6	
	comp=Z,16nm,0.8s						
LPAZ	La Paz	37.48	112	P	P	12 13 38.7	+0.3
	comp=Z,3.2nm,0.8s,baz=298,slow=7.0,SNR=9.6						
LPAZ				LR	LR	12 26 16.3	
	comp=Z,1µm,19.9s,baz=279,slow=32						
	comp=Z,3.2nm,0.8s						
LPAZ	La Paz	37.48	112		P	12 13 39.0	+0.6
LPAZ				IAmb	IAmb	12 13 54.7	
	comp=Z,14nm,1.4s						
GO01	Chusmiza	37.53	117	P	P	12 13 39.4	+0.8
GO01	Chusmiza	37.53	117	P	P	12 13 39.6	+1.1
	comp=Z,16nm,1.8s						
H03N2	Juan Fernandez	37.59	144	T	T	12 53 30.0	
	baz=313,slow=76,SNR=88						
H03N1	Juan Fernandez	37.61	144	T	T	12 53 31.2	
	baz=309,slow=76,SNR=115						
PB07	IPOC Station P	37.67	121	P	P	12 13 40.2	+0.8
NMDO	Nuevo Mundo	37.69	48	P	P	12 13 39.4	+0.1
NMDO				IAmb	IAmb	12 13 52.2	
	comp=Z,18nm,1.1s						
PB08	IPOC Station P	37.73	118	P	P	12 13 40.5	+0.3
PB08				IAmb	IAmb	12 13 42.0	
	comp=Z,12nm,1.0s						
Y22A	Socorro	37.84	356		P	12 13 40.9	+0.2
Y22A				IAmb	IAmb	12 13 53.2	
	comp=Z,27nm,1.5s						
SBM	South Baldy	37.89	356	P	P	12 13 42.0	+0.6
PB03	IPOC Station P	37.91	121	P	P	12 13 42.3	+0.8
PB03				IAmb	IAmb	12 13 43.4	
	comp=Z,25nm,1.2s						
PB03	IPOC Station P	37.91	121	P	P	12 13 42.5	+1.0
	comp=Z,23nm,1.7s						
LENM	Lemitar	38.07	356		P	12 13 43.5	+0.9
PB09	IPOC Station P	38.25	121	P	P	12 13 45.4	+1.0
PB09	IPOC Station P	38.25	121	P	P	12 13 46.0	+1.7
	comp=Z,24nm,1.6s						
AMTX	Amarillo	38.77	3	P	P	12 13 48.6	+0.3
AMTX				IAmb	IAmb	12 13 58.6	
	comp=Z,14nm,1.0s						
BLYC	Blythe	38.81	346	P	P	12 13 48.2	-0.4
ALQ	Albuquerque	38.81	357	P	P	12 13 49.1	+0.3
ALQ	Albuquerque	38.81	357	P	P	12 13 49.2	+0.4
ALQ				IAmb	IAmb	12 14 03.6	
	comp=Z,3.3nm,1.1s						
TASM	ASL Pad, Albuq	38.82	357	P	P	12 13 48.5	-0.4
ANMO	Albuquerque	38.82	357	LR	LR	12 27 39.8	
	comp=Z,347nm,19.2s,baz=180,slow=33						
ANMO	Albuquerque	38.82	357	P	P	12 13 49.0	+0.2
ANMO	Albuquerque	38.82	357	P	P	12 13 55.2	+6.3
	comp=Z,4.0nm,2.4s						
BORC	Borrego Spring	38.84	344	P	P	12 13 48.8	-0.1
BC3	Big Chuckawall	38.95	345	P	P	12 13 49.6	-0.2
AC01	Pan de Azucar	39.00	128	P	P	12 13 51.0	+0.6
AC01				IAmb	IAmb	12 13 52.3	
	comp=Z,30nm,1.3s						
SMWD	Samnorwood	39.10	5	P	P	12 13 51.6	+0.5
SMWD				IAmb	IAmb	12 14 03.0	
	comp=Z,23nm,1.1s						
PFO	Pinyon Flats O	39.18	344	LR	LR	12 26 18.7	
	comp=Z,2µm,18.2s,baz=148,slow=31						
PFO	Pinyon Flats O	39.18	344	P	P	12 13 52.2	+0.4
PMD	Palm Desert	39.19	344	P	P	12 13 51.8	0.0
PH02	Texas Public H	39.26	3	P	P	12 13 52.7	+0.2
PH02				IAmb	IAmb	12 14 00.3	
	comp=Z,12nm,0.8s						
IRM	Iron Mountain	39.35	346	P	P	12 13 53.7	+0.6
BELC	Belle Mtn. Jos	39.42	345	P	P	12 13 54.2	+0.3
W35A	Tecumseh	39.58	9	P	P	12 13 55.4	+0.4
MIAR	Mount Ida	39.65	14	P	P	12 13 56.1	+0.4
MIAR				IAmb	IAmb	12 14 07.4	
	comp=Z,29nm,1.3s						
MIAR	Mount Ida	39.65	14	P	P	12 13 56.2	+0.5
	comp=Z,22nm,1.8s						
AC06	Mina Casimiro	39.78	129	P	P	12 13 57.5	+0.6
AC06				IAmb	IAmb	12 13 59.0	
	comp=Z,24nm,1.1s						
WUAZ	Wupatki	39.90	351	P	P	12 13 58.2	+0.4
GO03	Copiapo	39.99	129	P	P	12 13 58.8	+0.1
GO03				IAmb	IAmb	12 14 14.5	
	comp=Z,11nm,0.9s						
BFSC	Mount Baldy Ra	40.11	343	P	P	12 13 59.9	+0.3
RTBA	Rita Blanca	40.27	2	P	P	12 14 01.0	+0.1
LCO	Las Campanas	40.36	132	P	P	12 14 02.4	+0.4
LCO				IAmb	IAmb	12 14 17.7	
	comp=Z,30nm,1.5s						
AC02	Maricunga	40.49	128	P	P	12 14 03.2	-0.1
AC02				IAmb	IAmb	12 14 05.8	
	comp=Z,21nm,1.4s						
AC02	Maricunga	40.49	128	P	P	12 14 04.1	+0.7
	comp=Z,20nm,2.3s						
AC05	El Transito	40.59	131	P	P	12 14 04.8	+1.1
AC05				IAmb	IAmb	12 14 11.1	
	comp=Z,30nm,1.2s						
AC05	El Transito	40.59	131	P	P	12 14 05.3	+1.6
	comp=Z,22nm,1.5s						
MTPC	Mountain Pass	40.71	346	P	P	12 14 05.4	+0.8
GSC	Goldstone, Bar	40.86	344	P	P	12 14 06.4	+0.6
GSC				IAmb	IAmb	12 14 17.4	
	comp=Z,20nm,1.4s						
TPO	Tropico Hills	40.87	342	P	P	12 14 05.9	0.0
TPO				IAmb	IAmb	12 14 22.8	
	comp=Z,16nm,1.3s						
GO04	Tololo Observa	40.91	133	P	P	12 14 06.8	+0.3
GO04				IAmb	IAmb	12 14 18.6	
	comp=Z,12nm,1.1s						
T25A	Trinidad	40.95	360	P	P	12 14 07.6	+1.0
T25A				IAmb	IAmb	12 14 31.5	
	comp=Z,20nm,1.5s						
MVCO	Mesa Verde	41.21	355		P	12 14 09.2	+0.4
MVCO				IAmb	IAmb	12 14 19.3	
	comp=Z,12nm,0.9s						
MVCO	Mesa Verde	41.21	355	P	P	12 14 09.4	+0.6
	comp=Z,16nm,1.3s						
CCCA	Chr Cany lake	41.23	344	P	P	12 14 09.1	+0.4
CCCA				IAmb	IAmb	12 14 20.5	
	comp=Z,18nm,1.3s						
LRMC	Laurel Mtn Rad	41.27	343	P	P	12 14 09.6	+0.4
SHOC	Shoshone, Teco	41.28	345	P	P	12 14 10.2	+1.0
SHOC				IAmb	IAmb	12 14 23.4	
	comp=Z,22nm,1.2s						
CO01	Juntas del Tor	41.32	132	P	P	12 14 10.5	+0.7
QSM	Queen of Sheba	41.50	344	P	P	12 14 11.6	+0.7
CLC	China Lake	41.56	344	P	P	12 14 11.2	-0.3
SDCO	Great Sand Dun	41.57	358	P	P	12 14 12.7	+0.9
SHPR	Sheep Range	41.59	347	P	P	12 14 12.8	+1.0
SHPR				IAmb	IAmb	12 14 23.7	
	comp=Z,13nm,1.1s						
SALTA		41.65	122	P	P	12 14 15.1	+2.1
	comp=Z,9.4nm,1.6s						
GWY	Greenwater Val	41.66	345		P	12 14 13.1	+0.8
LCMT	Little Creek M	41.68	349	P	P	12 14 13.3	+0.8
LCAR	Lake Charles	41.72	16	P	P	12 14 13.8	+1.2
LCAR				IAmb	IAmb	12 14 23.3	
	comp=Z,17nm,1.3s						
PKCU	Pink Cliffs	41.93	350	IAmb	IAmb	12 14 27.1	
	comp=Z,23nm,1.4s						
FURC	Furnace Creek,	41.97	345	IAmb	IAmb	12 14 37.8	
	comp=Z,17nm,1.4s						
PV05	Paradox Valley	42.13	354	IAmb	IAmb	12 14 47.5	
	comp=Z,18nm,1.1s						
PV01	Paradox Valley	42.13	355	P	P	12 14 16.3	0.0
HMU	Henry Mountain	42.18	352	IAmb	IAmb	12 14 31.4	
	comp=Z,22nm,1.4s						
PV13	Radium Mtn., P	42.18	355	P	P	12 14 16.7	0.0
WCT	Wildcat Mounta	42.22	345	P	P	12 14 17.9	+1.0
CCUT	Cedar City	42.22	349	P	P	12 14 18.0	+1.0
TPNV	Topopah Spring	42.27	346	P	P	12 14 17.8	+0.4
CWC	Cottonwood Cre	42.28	343	P	P	12 14 18.1	+0.6
PRN	Pahroc Range	42.43	347	P	P	12 14 19.7	+1.1
VA03	San Esteban	42.53	136	P	P	12 14 19.8	+0.2
VA03				IAmb	IAmb	12 14 48.6	
	comp=Z,22nm,1.2s						
PBMO	Poplar Bluff	42.58	16	P	P	12 14 20.3	+0.6
PBMO				IAmb	IAmb	12 14 31.3	
	comp=Z,31nm,1.3s						
GRAC	Grapevine Rang	42.61	344	P	P	12 14 21.0	+1.0
GRAC				IAmb	IAmb	12 14 32.1	
	comp=Z,33nm,1.5s						
T42A	Van Buren	42.64	16	P	P	12 14 20.9	+0.7
T42A				IAmb	IAmb	12 14 22.3	
	comp=Z,22nm,1.4s						
CRPR	Cabo Rojo, PR	42.65	58	P	P	12 14 21.5	+1.0
CRPR				IAmb	IAmb	12 14 26.9	
	comp=Z,19nm,1.3s						
PEL	Peldehue	42.65	137	P	P	12 14 21.0	+0.5
PEL				IAmb	IAmb	12 14 21.8	
	comp=Z,32nm,1.4s						

MT01	**Popeta**	**42.70**	**138**	P	**P**	**12 14 21.7**	**+0.9**
MT01				IAmb	IAmb	12 14 22.0	
	comp=Z,20nm,1.2s						
S39A	**Bolivar**	**42.72**	**13**	P	**P**	**12 14 22.1**	**+1.2**
S39A				IAmb	IAmb	12 14 32.1	
	comp=Z,20nm,1.3s						
MT05	**Renca**	**42.76**	**137**	P	**P**	**12 14 22.0**	**+0.6**
Q24A	**Divide**	**42.78**	**359**	P	**P**	**12 14 22.2**	**+0.5**
WVT	**Waverly**	**42.79**	**20**	P	**P**	**12 14 22.5**	**+1.1**
WVT				IAmb	IAmb	12 14 23.1	
	comp=Z,20nm,1.2s						
S11A	**Rachel**	**42.81**	**347**	P	**P**	**12 14 23.1**	**+1.4**
S11A				IAmb	IAmb	12 14 56.0	
	comp=Z,26nm,1.4s						
GMN	**Gold Mountain**	**42.86**	**345**	P	**P**	**12 14 23.0**	**+0.7**
MT16	**CCHEN**	**42.93**	**137**	P	**P**	**12 14 23.4**	**+0.6**
GO05	**Hualane**	**42.95**	**140**	P	**P**	**12 14 24.0**	**+1.1**
GO05	**Hualane**	**42.95**	**140**	P	**P**	**12 14 22.4**	**-0.5**
	comp=Z,36nm,1.3s						
MT03	**Universidad Ad**	**42.98**	**137**	P	**P**	**12 14 23.7**	**+0.6**
MT03				IAmb	IAmb	12 14 27.6	
	comp=Z,15nm,0.8s						
BO01	**Tunca**	**43.12**	**139**	P	**P**	**12 14 24.7**	**+0.5**
BO01				IAmb	IAmb	12 14 25.1	
	comp=Z,23nm,1.4s						
BO01	**Tunca**	**43.12**	**139**	P	**P**	**12 14 23.0**	**-1.2**
	comp=Z,14nm,1.7s						
CELP	**Cerrillos**	**43.13**	**58**	P	**P**	**12 14 24.1**	**-0.3**
CELP				IAmb	IAmb	12 14 25.1	
	comp=Z,20nm,1.1s						
ZON	**Zonda**	**43.18**	**133**	P	**P**	**12 14 25.1**	**+0.4**
ZON				IAmb	IAmb	12 14 32.2	
	comp=Z,27nm,1.4s						
PSUT	**Pine Spring**	**43.27**	**349**	P	**P**	**12 14 26.1**	**+0.5**
MT13	**San Alfonso**	**43.27**	**137**	P	**P**	**12 14 26.1**	**+0.6**
MT13				IAmb	IAmb	12 14 30.6	
	comp=Z,16nm,1.1s						
CGM3	**Cape Girardeau**	**43.29**	**17**	P	**P**	**12 14 26.6**	**+1.2**
CGM3				IAmb	IAmb	12 14 35.9	
	comp=Z,23nm,1.4s						
SRU	**San Rafael Swe**	**43.31**	**353**	P	**P**	**12 14 26.5**	**+0.7**
SRU				IAmb	IAmb	12 14 37.2	
	comp=Z,16nm,1.1s						
SJG	**San Juan**	**43.51**	**58**	P	**P**	**12 14 27.4**	**-0.1**
	comp=Z,25nm,1.5s						
CFA	**Coronel Fontan**	**43.53**	**133**	LR	LR	12 28 08.7	
	comp=Z,982nm,20.4s,baz=320,slow=30						
BO02	**Sierra Bellavi**	**43.56**	**139**	IAmb	IAmb	12 14 33.5	
	comp=Z,22nm,1.1s						
BO02	**Sierra Bellavi**	**43.56**	**139**	P	**P**	**12 14 27.7**	**-0.2**
	comp=Z,21nm,1.4s						
ISCO	**Idaho Springs**	**43.62**	**358**	IAmb	IAmb	12 14 45.6	
	comp=Z,15nm,1.4s						
ISCO	**Idaho Springs**	**43.62**	**358**	P	P	12 14 34.8	+6.3
	comp=Z,8.9nm,1.6s						
P17A	**Butcher Ranch,**	**43.69**	**353**	IAmb	IAmb	12 14 43.9	
	comp=Z,29nm,1.5s						
P18A	**Preston Nutter**	**43.79**	**353**	IAmb	IAmb	12 14 43.2	
	comp=Z,13nm,1.1s						
TKL	**Tuckaleechee C**	**43.88**	**24**	LR	LR	12 33 04.7	
	comp=Z,447nm,18.5s,baz=223,slow=37						
BOAV	**Boa Vista**	**44.14**	**82**	P	**P**	**12 14 33.1**	**+0.4**
BOAV	**Boa Vista**	**44.14**	**82**	*e*P	**P**	**12 14 32.7**	**0.0**
NVAR	**Mina Array Bea**	**44.20**	**344**	P	**P**	**12 14 32.4**	**-0.7**
	comp=Z,2.1nm,0.9s,baz=171,slow=9.5,SNR=9.3						
NVAR				LR	LR	12 28 59.1	
	comp=Z,1μm,21.9s,baz=163,slow=31						
	comp=Z,2.1nm,0.9s						
NVAR	**Mina Array Bea**	**44.20**	**344**	P	**P**	**12 14 32.7**	**-0.4**
MPU	**Maple Canyon**	**44.35**	**352**	P	**P**	**12 14 34.6**	**+0.4**
MPU				IAmb	IAmb	12 14 50.9	
	comp=Z,14nm,1.2s						
VILB	**Vilhena**	**44.38**	**104**	P	**P**	**12 14 34.8**	**+0.2**
VILB	**Vilhena**	**44.38**	**104**	*e*P	**P**	**12 14 33.3**	**-1.3**
WAKR	**Walker**	**44.59**	**343**		**P**	**12 14 36.6**	**+0.4**
WAKR				IAmb	IAmb	12 14 48.3	
	comp=Z,13nm,1.3s						
RDMU	**Red Mountain**	**44.65**	**354**	IAmb	IAmb	12 14 50.6	
	comp=Z,11nm,1.3s						
DUG	**Dugway, Tooele**	**44.70**	**351**	IAmb	IAmb	12 14 52.2	
	comp=Z,7.7nm,1.1s						
DUG	**Dugway, Tooele**	**44.70**	**351**	P	**P**	**12 14 38.1**	**+1.2**
	comp=Z,9.5nm,1.5s						
BSUT	**Blindstream Ca**	**44.74**	**353**	IAmb	IAmb	12 15 10.8	
	comp=Z,13nm,1.3s						
YERR	**Yerington**	**44.98**	**343**	IAmb	IAmb	12 14 41.3	
	comp=Z,8.2nm,1.1s						
BGU	**Big Grassy Mou**	**45.45**	**351**	IAmb	IAmb	12 14 57.0	
	comp=Z,11nm,1.4s						
AFDM	**Forest Hills D**	**45.47**	**342**		**P**	**12 14 43.1**	**+0.2**
AFDM				IAmb	IAmb	12 14 54.4	
	comp=Z,10nm,1.3s						
MPK	**Martis Peak**	**45.50**	**343**	P	**P**	**12 14 43.8**	**+0.4**
MPK				IAmb	IAmb	12 14 54.8	
	comp=Z,18nm,1.4s						
ELK	**Elko**	**45.68**	**348**	LR	LR	12 31 08.7	
	comp=Z,1μm,18.2s,baz=166,slow=33						
PAHR	**Pah Rah Range**	**45.70**	**344**	IAmb	IAmb	12 14 56.8	
	comp=Z,17nm,1.4s						
PTLB	**Pontes e Lacer**	**45.77**	**108**		**P**	**12 14 45.1**	**-0.5**
PTLB	**Pontes e Lacer**	**45.77**	**108**	*e*P	**P**	**12 14 43.9**	**-1.7**
HWUT	**Hardware Ranch**	**45.90**	**352**		**P**	**12 14 46.8**	**+0.3**
HWUT				IAmb	IAmb	12 15 06.9	
	comp=Z,14nm,1.2s						
HWUT	**Hardware Ranch**	**45.90**	**352**	P	**P**	**12 14 46.6**	**+0.1**
	comp=Z,10nm,1.3s						
GO06	**Curarrehue**	**46.17**	**145**	P	**P**	**12 14 49.7**	**+1.1**
GO06				IAmb	IAmb	12 14 50.4	
	comp=Z,11nm,1.1s						
ORV	**Oroville**	**46.19**	**341**	IAmb	IAmb	12 15 00.5	
	comp=Z,12nm,1.1s						
HVU	**Hansel Valley**	**46.24**	**351**	P	**P**	**12 14 49.1**	**0.0**
HVU				IAmb	IAmb	12 15 02.1	
	comp=Z,6.7nm,0.9s						
PPT2	**Papeete2**	**46.40**	**250**	*e*S	**S**	**12 21 35.9**	**-2.0**
	comp=Z,215nm,23.5s						
PPT2				*e*SS	**SS**	**12 25 09.0**	**+5.1**
	comp=Z,2μm,30.0s						
PPT2				*e*LR	LR	12 27 46.4	
	comp=Z,1μm,27.5s						
PPT2				*e*LR	LR	12 27 53.9	
	comp=Z,2μm,26.5s						
BW06	**Boulder Array**	**46.82**	**355**	P	**P**	**12 14 53.6**	**-0.2**
BW06				IAmb	IAmb	12 15 05.2	
	comp=Z,14nm,1.4s						
PD31	**Pinedale Array**	**46.82**	**355**	P	**P**	**12 14 53.0**	**-0.8**
PD31				IAmb	IAmb	12 15 05.2	
	comp=Z,13nm,1.4s						
PDAR	**Pinedale Array**	**46.82**	**355**	P	**P**	**12 14 52.7**	**-1.0**
	comp=Z,1.6nm,0.7s,baz=191,slow=6.8,SNR=20						
PDAR				PcP	**PcP**	**12 16 26.7**	**0.0**
	comp=Z,1.2nm,0.9s,baz=188,slow=3.5,SNR=3.1						
PDAR				LR	LR	12 32 12.8	
	comp=Z,400nm,18.4s,baz=170,slow=33						
	comp=Z,1.6nm,0.7s						
PDAR	**Pinedale Array**	**46.82**	**355**		**P**	**12 14 53.0**	**-0.8**
PDAR					**PcP**	**12 16 26.6**	**-0.2**
AHID	**Auburn Hatcher**	**46.98**	**353**	P	**P**	**12 14 54.8**	**-0.2**
AHID				IAmb	IAmb	12 14 56.3	
	comp=Z,4.0nm,0.8s						
PLCA	**Paso Flores**	**47.46**	**145**	P	**P**	**12 14 59.3**	**+0.7**
	comp=Z,13nm,1.2s,baz=314,slow=9.4,SNR=7.3						
	comp=Z,13nm,1.2s						
PLCA	**Paso Flores**	**47.46**	**145**		**P**	**12 14 59.0**	**+0.4**
FXWY	**Fox Creek**	**47.84**	**353**	IAmb	IAmb	12 15 14.1	
	comp=Z,9.2nm,1.1s						
COIM	**Forte Coimbra**	**47.90**	**113**	*e*P	**P**	**12 15 00.1**	**-2.2**
RSSD	**Black Hills**	**47.92**	**0**		**P**	**12 15 02.8**	**+0.5**
RSSD	**Black Hills**	**47.92**	**0**	P	**P**	**12 15 02.8**	**+0.5**
	comp=Z,11nm,0.8s						
M03C	**McCloud**	**47.95**	**342**	P	**P**	**12 15 02.3**	**-0.1**
MOD	**Modoc Plateau**	**47.99**	**344**		**P**	**12 15 03.6**	**+0.8**
WVOR	**Wild Horse Val**	**48.05**	**346**	IAmb	IAmb	12 15 17.4	
	comp=Z,9.4nm,1.4s						
WVOR	**Wild Horse Val**	**48.05**	**346**	P	**P**	**12 15 04.0**	**+0.8**
	comp=Z,9.3nm,2.2s						
HLID	**Hailey**	**48.25**	**350**	IAmb	IAmb	12 15 19.6	
	comp=Z,8.3nm,1.1s						
M02C	**Callahan**	**48.29**	**341**	IAmb	IAmb	12 15 25.6	
	comp=Z,13nm,1.2s						
ITTB	**Itaituba**	**48.36**	**92**	*e*P	**P**	**12 15 04.2**	**-1.7**
MFID	**Camas Ranch**	**48.37**	**349**		**P**	**12 15 05.8**	**+0.2**
MFID				IAmb	IAmb	12 15 18.2	
	comp=Z,7.2nm,1.0s						
LL02	**Futaleuf**	**48.42**	**148**		**P**	**12 15 05.5**	**-0.5**
YPP	**Pitchstone Pla**	**48.44**	**354**	P	**P**	**12 15 06.2**	**-0.1**
YPP				IAmb	IAmb	12 15 34.4	
	comp=Z,12nm,1.4s						
CLDB	**Colider**	**48.45**	**101**	*e*P	**P**	**12 15 04.2**	**-2.4**
CLDB	**Colider**	**48.45**	**101**	P	**P**	**12 15 04.9**	**-1.7**
	comp=Z,11nm,0.8s						
YBH	**Yreka Blue Hor**	**48.55**	**342**	IAmb	IAmb	12 15 07.4	
	comp=Z,6.8nm,1.1s						
YHB	**Horse Butte**	**48.95**	**353**	IAmb	IAmb	12 15 16.9	
	comp=Z,5.5nm,1.0s						
BDQN	**Bodoquena, MS**	**48.97**	**114**	*e*P	**P**	**12 15 08.4**	**-2.1**
QLMT	**Earthquake Lak**	**49.06**	**353**		**P**	**12 15 11.8**	**+0.8**
YNE	**Yellowstone No**	**49.08**	**355**	IAmb	IAmb	12 15 17.2	
	comp=Z,7.0nm,0.9s						
SALV	**Santo Antonio**	**49.11**	**107**	*e*P	**P**	**12 15 10.7**	**-1.0**
RLMT	**Red Lodge**	**49.13**	**355**	IAmb	IAmb	12 15 17.5	
	comp=Z,7.7nm,0.8s						
MCMT	**McKenzie Canyo**	**49.24**	**352**	P	**P**	**12 15 12.4**	**-0.1**
N53A	**Lisbon**	**49.48**	**23**	P	**P**	**12 15 14.7**	**+0.6**
DLMT	**Dillon**	**49.73**	**352**	IAmb	IAmb	12 15 51.0	
	comp=Z,12nm,1.4s						
PINE	**Pine Mountain**	**49.92**	**344**	P	**P**	**12 15 17.8**	**+0.2**
PINE				IAmb	IAmb	12 15 31.8	
	comp=Z,14nm,1.2s						
PLID	**Pearl Lake**	**50.01**	**349**	IAmb	IAmb	12 15 28.5	
	comp=Z,8.4nm,1.3s						
CPUP	**Villa Florida**	**50.03**	**121**	P	**P**	**12 15 18.9**	**+0.4**
	comp=Z,6.1nm,0.8s,baz=299,slow=9.8,SNR=11						
	comp=Z,6.1nm,0.8s						
CPUP	**Villa Florida**	**50.03**	**121**	IAmb	IAmb	12 15 19.6	
	comp=Z,9.7nm,1.0s						
PP1B	**Ponte de Pedra**	**50.15**	**110**	*e*P	**P**	**12 15 18.4**	**-1.2**
WIFE	**Three Sisters-**	**50.41**	**344**	IAmb	IAmb	12 15 22.6	
	comp=Z,9.9nm,1.0s						
I05D	**Terrebonne, OR**	**50.53**	**344**	P	**P**	**12 15 22.3**	**+0.2**
I05D				IAmb	IAmb	12 15 32.9	
	comp=Z,12nm,1.2s						
SJPY	**San Joaquin**	**50.69**	**119**	*e*P	**P**	**12 15 20.1**	**-3.4**
F10A	**Beach Ranch, E**	**51.10**	**348**	IAmb	IAmb	12 15 46.4	
	comp=Z,9.4nm,1.4s						
G05A	**Wamic**	**51.36**	**345**	IAmb	IAmb	12 15 49.0	
	comp=Z,13nm,1.0s						
G04A	**Mulino**	**51.65**	**344**	P	**P**	**12 15 30.5**	**+0.2**
HAWA	**Hanford**	**52.00**	**347**	IAmb	IAmb	12 15 46.6	
	comp=Z,17nm,1.5s						
STD	**Studebaker Rid**	**52.53**	**344**	P	**P**	**12 15 37.3**	**+0.3**
STD				IAmb	IAmb	12 15 48.8	
	comp=Z,15nm,1.3s						
JRO	**Jston Ridge Ob**	**52.56**	**344**		**P**	**12 15 37.6**	**+0.3**
JRO				IAmb	IAmb	12 15 49.0	
	comp=Z,12nm,1.1s						
F04D	**Rainier, OR**	**52.60**	**344**	P	**P**	**12 15 38.4**	**+1.0**
ARAG	**Araguaiana, MT**	**52.79**	**107**	*e*P	**P**	**12 15 38.5**	**-0.9**
C09A	**Chrisman Ranch**	**53.06**	**348**	P	**P**	**12 15 40.2**	**-0.6**
C09A				IAmb	IAmb	12 15 52.2	
	comp=Z,7.3nm,1.1s						
ULM	**Lac du Bonnet**	**54.53**	**7**	P	**P**	**12 15 50.1**	**-1.4**
	comp=Z,6.7nm,0.8s,baz=186,slow=8.2,SNR=5.0						
	comp=Z,6.7nm,0.8s						
LDASE	**Londrina, Braz**	**54.71**	**116**	*e*P	**P**	**12 15 51.9**	**-1.5**
A04D	**Lummi Island**	**54.94**	**345**	P	**P**	**12 15 54.6**	**+0.2**
BDFB	**Brasilia**	**56.42**	**106**	P	**P**	**12 16 06.0**	**+0.2**
	comp=Z,3.2nm,0.4s,baz=231,slow=4.4,SNR=4.5						
	comp=Z,3.2nm,0.4s						
SMTB	**Santa Maria do**	**56.44**	**98**	*e*P	**P**	**12 16 04.5**	**-1.5**
IPMB	**Ipameri, GO**	**56.49**	**109**	*e*P	**P**	**12 16 04.5**	**-1.8**
YKA	**Yellowknife Ar**	**66.80**	**355**	P	**P**	**12 17 14.0**	**-0.9**
	comp=Z,4.0nm,0.8s,baz=166,slow=6.4,SNR=13						
	comp=Z,4.0nm,0.8s						
YKA	**Yellowknife Ar**	**66.80**	**355**	P	**P**	**12 17 15.6**	**+0.7**
K29M	**Barlow Dome**	**72.11**	**345**	IAmb	IAmb	12 17 55.4	
	comp=Z,5.5nm,0.9s						
EPYK	**Eagle Plains**	**74.01**	**347**	P	**P**	**12 17 58.8**	**-0.2**
EPYK				IAmb	IAmb	12 17 59.3	
	comp=Z,13nm,1.2s						
I28M	**Miner Creek**	**74.03**	**345**	P	**P**	**12 17 59.9**	**+0.7**
I28M				IAmb	IAmb	12 18 07.4	
	comp=Z,5.2nm,1.0s						
RIDG	**Independent Ri**	**74.07**	**342**	P	**P**	**12 18 00.1**	**+0.7**
RIDG				IAmb	IAmb	12 18 11.4	
	comp=Z,13nm,1.1s						
H29M	**Whitestone**	**74.27**	**346**	IAmb	IAmb	12 18 17.0	
	comp=Z,11nm,1.0s						
J25K	**Salcha River,**	**74.87**	**343**	IAmb	IAmb	12 18 03.6	
	comp=Z,7.5nm,1.4s						
H27K	**Steamboat Moun**	**75.05**	**345**	IAmb	IAmb	12 18 12.3	
	comp=Z,7.2nm,1.0s						
ILAR	**Eielson Array**	**75.44**	**343**	P	**P**	**12 18 06.0**	**-1.2**
	comp=Z,3.3nm,0.8s,baz=151,slow=5.1,SNR=23						
	comp=Z,3.3nm,0.8s						
ILAR	**Eielson Array**	**75.44**	**343**	P	**P**	**12 18 06.4**	**-0.8**
PRP	**Porcupine Dome**	**75.58**	**344**	P	**P**	**12 18 08.3**	**0.0**
PRP				IAmb	IAmb	12 18 18.4	
	comp=Z,9.2nm,1.0s						
WRH	**Wood River Hil**	**75.59**	**342**	IAmb	IAmb	12 18 21.1	
	comp=Z,9.3nm,1.0s						
F28M	**Old Crow**	**75.75**	**347**	IAmb	IAmb	12 18 15.6	
	comp=Z,5.3nm,0.9s						
NEA2	**Nenana**	**75.98**	**342**	IAmb	IAmb	12 18 20.3	
	comp=Z,11nm,1.3s						
H24K	**Noodor Dome**	**76.49**	**343**	IAmb	IAmb	12 18 26.5	
	comp=Z,8.7nm,1.0s						
BMAR	**Burnt Mountain**	**76.75**	**345**	P	**P**	**12 18 14.4**	**-0.3**
MLY	**Manley**	**76.80**	**342**	P	**P**	**12 18 14.7**	**-0.3**
MLY				IAmb	IAmb	12 18 25.2	
	comp=Z,7.6nm,1.0s						
F25K	**Christian Rive**	**77.15**	**345**	IAmb	IAmb	12 18 30.8	
	comp=Z,5.8nm,1.0s						
H21K	**Melozitna Rive**	**77.87**	**341**	IAmb	IAmb	12 18 31.0	
	comp=Z,10nm,1.2s						
G18K	**Tagagawik**	**79.93**	**340**	IAmb	IAmb	12 18 44.4	
	comp=Z,7.2nm,1.1s						
BELA	**Belgrano 2**	**81.86**	**168**	P	**P**	**12 18 43.5**	**+1.1**
BELA				IAmb	IAmb	12 18 52.7	
	comp=Z,9.2nm,1.0s						
INZ	**Inchbonnie**	**83.12**	**228**	P	**P**	**12 18 49.7**	**0.0**
QSPA	**South Pole Qui**	**86.03**	**180**	P	**P**	**12 19 04.1**	**0.0**
	comp=Z,5.0nm,1.0s,baz=134,slow=1.6,SNR=7.3						
	comp=Z,5.0nm,1.0s						
QSPA	**South Pole Qui**	**86.03**	**180**	P	**P**	**12 19 04.4**	**+0.3**
VNDA	**Vanda**	**86.95**	**193**	P	**P**	**12 19 08.9**	**+0.7**
	comp=Z,1.3nm,1.1s,baz=52,slow=2.6,SNR=4.7						
	comp=Z,1.3nm,1.1s						
VNDA	**Vanda**	**86.95**	**193**	P	**P**	**12 19 09.0**	**+0.7**
H11N3	**WAKE ISLAND Hy**	**90.27**	**290**	T	T	13 59 23.0	
	baz=94,slow=75,SNR=63						
H11N2	**WAKE ISLAND Hy**	**90.28**	**290**	T	T	13 59 22.6	
	baz=94,slow=75,SNR=71						
H11N1	**WAKE ISLAND Hy**	**90.28**	**290**	T	T	13 59 21.6	
	baz=94,slow=75,SNR=63						
H11S2	**WAKE ISLAND Hy**	**90.37**	**288**	T	T	13 59 28.4	
	baz=95,slow=75,SNR=135						
H11S1	**WAKE ISLAND Hy**	**90.38**	**288**	T	T	13 59 28.9	
	baz=95,slow=75,SNR=231						
H11S3	**WAKE ISLAND Hy**	**90.39**	**288**	T	T	13 59 29.7	
	baz=95,slow=75,SNR=144						
CLL	**Collm**	**109.92**	**36**	LV		12 59 00.0	
BRTR	**Keskin Array B**	**127.94**	**41**	PKP	**PKiKP**	**12 25 30.7**	**0.0**
	comp=Z,0.8nm,0.7s,baz=273,slow=2.7,SNR=3.9						
SONM	**Songino Array**	**129.04**	**334**	PKP	**PKiKP**	**12 25 32.6**	**0.0**
	comp=Z,0.9nm,0.9s,baz=48,slow=2.2,SNR=4.9						
ZALV	**Zalesovo Beam**	**129.68**	**353**	PKP	**PKPdf**	**12 25 33.1**	**+0.4**
	comp=Z,1.2nm,0.8s,baz=347,slow=4.6,SNR=3.8						
BVAR	**Borovoye Array**	**130.95**	**4**	PKP	**PKiKP**	**12 25 36.2**	**0.0**
	comp=Z,0.9nm,0.5s,baz=316,slow=4.0,SNR=3.0						
NJ2	**Nanjing**	**130.96**	**310**	*e*P	**PKPdf**	**12 25 36.3**	**+0.5**
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.7s						
HHC	**Hu-ho-hao-te**	**131.24**	**324**	*e*P	**PKPdf**	**12 25 31.8**	**-4.5**
HHC				LR	LR		
	comp=N,240nm,15.5s						
HHC				LR	LR		
	comp=E,160nm,15.1s						
HHC				LR	LR		
	comp=Z,170nm,15.9s						
KURK	**Kurchatov**	**133.41**	**358**		**PKPdf**	**12 25 39.5**	**-0.5**
KURBB	**Kurchatov Arra**	**133.50**	**358**	PKP	**PKPdf**	**12 25 39.5**	**-0.7**
	comp=Z,0.8nm,0.2s,baz=354,slow=2.0,SNR=8.3						
MKAR	**Makanchi Array**	**137.02**	**353**	PKP	**PKPdf**	**12 25 47.2**	**+0.3**
	comp=Z,1.2nm,0.9s,baz=29,slow=2.8,SNR=7.3						
MKAR				PP	**PP**	**12 28 26.2**	**-3.1**
	comp=Z,0.7nm,0.8s,baz=0.0,slow=6.3,SNR=3.8						
XAN	**Xi'an**	**137.08**	**318**	*e*PKP	**PKPdf**	**12 25 45.8**	**-1.6**
XAN				LR	LR		
	comp=N,210nm,15.8s						
XAN				LR	LR		
	comp=E,290nm,16.5s						
XAN				LR	LR		
	comp=Z,390nm,22.0s						
WMQ	**Urumqi**	**138.99**	**347**	*e*PKP	**PKiKP**	**12 25 52.1**	**-0.7**
WMQ				LR	LR		
	comp=Z,270nm,19.1s						
RAYN	**Ar Rayn**	**144.93**	**54**	PKPbc	**PKPab**	**12 26 00.8**	**-0.1**
KSH2	**Kashi**	**145.04**	**0**	PKPbc	**PKPdf**	**12 26 02.1**	**+0.4**
KSH2				LR	LR		
	comp=N,500nm,17.3s						
KSH2				LR	LR		
	comp=E,250nm,18.1s						
KSH2				LR	LR		
	comp=Z,510nm,16.3s						
PZH	**PanZhiHua**	**146.57**	**315**	PKPbc	**PKPdf**	**12 26 04.1**	**-0.5**
HRA	**Herat**	**147.28**	**21**	PKPbc	**PKPbc**	**12 26 08.2**	**+0.3**
CMAR	**Chiang Mai Arr**	**153.18**	**304**	PKPbc	**PKiKP**	**12 26 23.2**	**+0.6**
	comp=Z,0.8nm,0.6s,baz=13,slow=1.7,SNR=7.8						
CMAR	**Chiang Mai Arr**	**153.18**	**304**		**PKPbc**	**12 26 21.0**	**-1.5**

SJA ***21*** *12:07:05.7±0.4, 20°.96S×69°.11W, h97^{km}±4^{km}, ML2.7,*
MW3.5
GUC ***21*** *12:07:06.5±0.6, 20°.95S×69°.01W, h95^{km}±4^{km}, ML2.6*
ISC 21 12:07:06.3±2.1**, 20°.93S**±0°.04×**69°.1W**±0°.1**, h101**^{km}±16^{km}**,**
n17, σ0^s.52/26**, 3C, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PB08	**IPOC Station P**	**0.79**	**359**	*i* P	**Pn**	**12 07 25.0**	**-0.1**
PB08				*e*S	**Sn**	**12 07 39.8**	**+0.6**
PB08				IAML		12 07 40.3	
	comp=Z,85nm,0.1s						
PB08	**IPOC Station P**	**0.79**	**359**	*e*P	**Pn**	**12 07 24.5**	**-0.6**
PB08				*e*S	**Sn**	**12 07 39.1**	**0.0**
PB02	**IPOC Station P**	**0.81**	**241**	*i* P	**Pn**	**12 07 25.1**	**+0.1**
PB02				*e*S	**Sn**	**12 07 39.1**	**+0.1**
PB02				IAML		12 07 43.4	
	comp=Z,265nm,0.2s						
PB02	**IPOC Station P**	**0.81**	**241**	⇑*i*P	**Pn**	**12 07 24.9**	**-0.1**
PB02				*e*S	**Sn**	**12 07 39.8**	**+0.8**
PB02				IAML		12 07 41.6	
	comp=E,276nm,0.1s						
PB09	**IPOC Station P**	**0.86**	**187**	*i* P	**Pn**	**12 07 25.4**	**-0.2**
PB09				*e*S	**Sn**	**12 07 39.7**	**-0.3**
PB09				IAML		12 07 41.6	
	comp=Z,122nm,0.2s						
PB09	**IPOC Station P**	**0.86**	**187**	*e*P	**Pn**	**12 07 25.4**	**-0.2**
PB09				*e*S	**Sn**	**12 07 39.8**	**-0.3**
PB09				IAML		12 07 43.9	
	comp=N,134nm,0.3s						
PB07	**IPOC Station P**	**1.05**	**221**	*i* P	**Pn**	**12 07 27.6**	**+0.1**
PB07				*e*S	**Sn**	**12 07 43.6**	**0.0**
PB07				IAML		12 07 49.6	
	comp=Z,101nm,0.1s						
PB07	**IPOC Station P**	**1.05**	**221**	⇑*i*P	**Pn**	**12 07 27.4**	**-0.2**
PB07				IAML		12 07 45.5	
	comp=E,260nm,0.4s						
PB03	**IPOC Station P**	**1.25**	**207**	*i* P	**Pn**	**12 07 29.7**	**-0.2**
PB03				*e*S	**Sn**	**12 07 47.8**	**+0.3**
PB03				IAML		12 08 28.9	
	comp=Z,141nm,0.3s						
PB03	**IPOC Station P**	**1.25**	**207**	*e*P	**Pn**	**12 07 29.6**	**-0.2**
PB03				IAML		12 07 48.7	
	comp=E,104nm,0.3s						
GO01	**Chusmiza**	**1.26**	**357**	*e*P	**Pn**	**12 07 30.1**	**-0.1**
GO01				IAML		12 07 49.9	
	comp=E,180nm,0.4s						
PB11	**IPOC Station P**	**1.27**	**337**	⇑*i*P	**Pn**	**12 07 29.9**	**-0.1**
PB11				*e*S	**Sn**	**12 07 48.0**	**+0.2**
PB11				IAML		12 07 49.1	
	comp=E,241nm,0.2s						
PSGCX	**Pisagua**	**1.62**	**325**	*e*P	**Pn**	**12 07 34.0**	**-0.2**
PB06	**IPOC Station P**	**1.81**	**193**	*e*P	**Pn**	**12 07 36.8**	**+0.1**
PB05	**IPOC Station P**	**2.15**	**207**	*e*P	**Pn**	**12 07 41.0**	**0.0**
PB05				IAML		12 08 25.9	
	comp=E,108nm,0.2s						
PB12	**IPOC Station P**	**2.57**	**334**	*e*P	**Pn**	**12 07 44.9**	**-1.6**
PB12				IAML		12 08 22.5	
	comp=E,25nm,0.2s						
PB16	**IPOC Station P**	**2.61**	**352**	*i* P	**Pn**	**12 07 48.6**	**+1.2**
PB16				IAML		12 08 25.4	
	comp=E,13nm,0.4s						

IDC ***21*** *12:21:25.1±1.1, 4°.02S×104°.24W, h0^{km}, mb3.9/9,*
mbtmp3.9/9, Error ellipse: s-maj=50.2km s-min=17.3km
az=63.0
GCMT ***21*** *12:21:26.9±0.4, 3°.96S±0°.02×104°.14W±0°.02, h12^{km},*
MW5.0/98, Moment Tensor Solution. s30,c39; s98,c129;
Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}0.32±.13;
$M_{\theta\theta}$1.09±.13; $M_{\phi\phi}$-1.41±.15; $M_{r\theta}$0.59±.39; $M_{\theta\phi}$3.84±.10;
$M_{\phi r}$-1.15±.36; Best double couple: $M_0$4.21300×10^{16}
NP1:ϕ_s278.00000°, δ77.00000°, λ-8.00000°. NP2:
ϕ_s10.00000°, δ82.00000°, λ-167.00000°. Principal axes:
T 3.8900, Plg3.0000°, Azm143.0000°; N 0.6480,
Plg75.0000°, Azm41.0000°; P -4.5360, Plg15.0000°,
Azm234.0000°; nsta1 refers to body waves, cutoff=40s.
nsta2 refers to surface waves, cutoff=50s. Triangular
moment-rate function
NEIC ***21*** *12:21:27.9±1.0, 4°.0S±0°.1×104°.3W±0°.1, h10^{km}±1^{km},*
mb4.6/51 Error ellipse: s-maj=25.3km s-min=18.6km
az=241.0
ISC 21 12:21:28.5±0.8**, 4°.0S**±0°.1×**104°.2W**±0°.1**, h18**^{km}**, n78,**
σ0^s.62/70**, mb4.5**/33**, Central East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PAYG	**Puerto Ayora**	**14.28**	**77**	Pn	**Pn**	**12 24 49.3**	**-0.6**
MTO3	**Montecristo**	**23.45**	**39**	P	**P**	**12 26 37.5**	**+0.2**
CRIN	**San Cristobal**	**23.76**	**46**	P	**P**	**12 26 41.1**	**+0.8**
BOAB	**BOACO BROADBAN**	**24.61**	**48**	P	**P**	**12 26 48.4**	**+0.4**
OTAV	**Otavalo**	**26.06**	**81**	P	**P**	**12 27 02.0**	**+0.2**
OTAV				IAmb	IAmb	12 27 15.9	
	comp=Z,15nm,1.2s						
TEIG	**Tepich**	**28.69**	**32**	P	**P**	**12 27 24.4**	**-0.3**
TEIG				IAmb	IAmb	12 27 28.8	
	comp=Z,28nm,1.5s						
CZSB	**Cruzeiro do Su**	**31.53**	**98**	P	**P**	**12 27 51.1**	**+1.0**
TXAR	**Lajitas Array**	**33.13**	**1**	P	**P**	**12 28 03.6**	**-0.4**
	comp=Z,0.5nm,0.8s,baz=177,slow=11,SNR=5.1						
	comp=Z,0.5nm,0.8s						
TXAR	**Lajitas Array**	**33.13**	**1**	P	**P**	**12 28 03.7**	**-0.2**
HSIG		**33.45**	**349**	P	**P**	**12 28 05.6**	**-1.0**
HSIG				IAmb	IAmb	12 28 27.9	
	comp=Z,7.4nm,1.3s						
SAND	**Sanderson**	**33.80**	**3**	P	**P**	**12 28 11.3**	**+1.6**
SAND				IAmb	IAmb	12 28 21.7	
	comp=Z,5.2nm,1.1s						
MNTX	**Cornudas Mount**	**35.50**	**358**	P	**P**	**12 28 24.9**	**+0.5**
MNTX				IAmb	IAmb	12 28 42.3	
	comp=Z,8.3nm,1.4s						
LPAZ	**La Paz**	**37.46**	**112**	P	**P**	**12 28 41.5**	**-0.5**
	comp=Z,1.7nm,0.5s,baz=285,slow=8.0,SNR=7.1						
	comp=Z,1.7nm,0.5s						
LPAZ	**La Paz**	**37.46**	**112**	P	**P**	**12 28 41.4**	**-0.7**
H03N2	**Juan Fernandez**	**37.60**	**144**	T	T	13 08 31.8	
	baz=313,slow=76,SNR=14						
H03N1	**Juan Fernandez**	**37.62**	**144**	T	T	13 08 32.7	
	baz=309,slow=76,SNR=16						
SBM	**South Baldy**	**37.86**	**356**	P	**P**	**12 28 45.1**	**+0.2**
LENM	**Lemitar**	**38.03**	**356**	P	**P**	**12 28 46.3**	**+0.2**
PB09	**IPOC Station P**	**38.24**	**121**	P	**P**	**12 28 49.3**	**+1.3**
PB09				IAmb	IAmb	12 28 59.6	
	comp=Z,15nm,1.2s						
TJX	**Tijuana**	**38.29**	**342**	P	**P**	**12 28 48.0**	**-0.1**
LOOK	**Love County**	**38.35**	**9**	P	**P**	**12 28 48.9**	**+0.3**
LOOK				IAmb	IAmb	12 29 25.8	
	comp=Z,30nm,1.4s						
ALQ	**Albuquerque**	**38.78**	**357**	P	**P**	**12 28 53.6**	**+1.3**
TASM	**ASL Pad, Albuq**	**38.78**	**357**	P	**P**	**12 28 52.8**	**+0.3**
X34A	**Smith Ranch, M**	**38.84**	**8**	P	**P**	**12 28 52.6**	**-0.1**
X34A				IAmb	IAmb	12 29 13.2	
	comp=Z,10nm,1.0s						
AC02	**Maricunga**	**40.48**	**128**	P	**P**	**12 29 07.2**	**+0.1**
Y52A	**Lilburn**	**42.17**	**25**	P	**P**	**12 29 19.5**	**-0.8**
PV02	**Paradox Valley**	**42.19**	**355**	P	**P**	**12 29 20.2**	**-0.4**
WCT	**Wildcat Mounta**	**42.19**	**345**	P	**P**	**12 29 20.6**	**+0.1**
PV12	**Saucer Basin,**	**42.30**	**355**	P	**P**	**12 29 23.2**	**+1.7**
PV12				IAmb	IAmb	12 29 41.0	
	comp=Z,12nm,1.2s						
NVAR	**Mina Array Bea**	**44.18**	**344**	P	**P**	**12 29 37.3**	**+0.6**
	comp=Z,0.4nm,0.8s,baz=162,slow=7.0,SNR=3.9						
	comp=Z,0.4nm,0.8s						

NVAR	Mina Array Bea	44.18	344	P	P	12 29 36.2	-0.5
MPU	Maple Canyon	44.31	352	P	P	12 29 38.2	+0.4
MPU				IAmb	IAmb	12 29 59.1	
	comp=Z,8.4nm,1.2s						
BI02	San Fabin de	44.41	141	P	P	12 29 38.7	+0.3
BI02				IAmb	IAmb	12 29 39.7	
	comp=Z,11nm,1.0s						
FARB	Farallon Islan	45.00	339	P	P	12 29 43.1	+0.1
PNTR	Pine Nut	45.16	343	P	P	12 29 45.9	+1.3
PNTR				IAmb	IAmb	12 30 01.4	
	comp=Z,6.5nm,1.1s						
PTLB	Pontes e Lacer	45.74	108	P	P	12 29 48.9	-0.4
HWUT	Hardware Ranch	45.87	352	P	P	12 29 51.0	+0.9
HWUT				IAmb	IAmb	12 30 03.7	
	comp=Z,4.7nm,1.0s						
BW06	Boulder Array	46.78	355	P	P	12 29 57.5	+0.2
BW06				IAmb	IAmb	12 30 15.2	
	comp=Z,7.5nm,1.4s						
PD31	Pinedale Array	46.78	355	P	P	12 29 56.9	-0.3
PDAR	Pinedale Array	46.78	355	P	P	12 29 57.0	-0.3
	comp=Z,1.2nm,0.6s,baz=181,slow=7.1,SNR=18						
	comp=Z,1.2nm,0.6s						
PDAR	Pinedale Array	46.78	355	P	P	12 29 57.3	+0.1
PLCA	Paso Flores	47.47	145	P	P	12 30 02.2	-0.3
	comp=Z,2.3nm,1.0s,baz=315,slow=10.0,SNR=3.5						
	comp=Z,2.3nm,1.0s						
YHL	Hebgen Lake	49.02	353	P	P	12 30 15.4	+0.8
QLMT	Earthquake Lak	49.02	353	P	P	12 30 14.7	+0.1
YNE	Yellowstone No	49.05	355	P	P	12 30 14.9	+0.1
RLMT	Red Lodge	49.10	355	P	P	12 30 15.2	0.0
RLMT				IAmb	IAmb	12 30 26.5	
	comp=Z,9.6nm,1.4s						
MCMT	McKenzie Canyo	49.21	352	P	P	12 30 16.1	+0.1
K02D	Willamette Mer	49.70	341	P	P	12 30 19.6	-0.1
K02D				IAmb	IAmb	12 30 29.3	
	comp=Z,4.0nm,1.0s						
GCMT	Greycliff	49.79	355	P	P	12 30 20.2	-0.1
PINE	Pine Mountain	49.89	344	P	P	12 30 21.3	0.0
PLID	Pearl Lake	49.98	349	P	P	12 30 22.3	+0.4
CPUP	Villa Florida	50.01	121	P	P	12 30 21.6	-0.7
	comp=Z,3.8nm,0.8s,baz=281,slow=9.9,SNR=7.0						
	comp=Z,3.8nm,0.8s						
CPUP	Villa Florida	50.01	121	P	P	12 30 22.1	-0.1
CPUP				IAmb	IAmb	12 30 23.0	
	comp=Z,6.2nm,0.9s						
WIFE	Three Sisters-	50.38	344	P	P	12 30 25.9	+0.9
WIFE				IAmb	IAmb	12 30 40.1	
	comp=Z,9.1nm,1.4s						
EDM	Edmonton	57.51	353	P	P	12 31 16.6	-0.1
YKA	Yellowknife Ar	66.77	355	P	P	12 32 18.0	-0.5
	comp=Z,0.7nm,0.7s,baz=164,slow=6.6,SNR=7.1						
	comp=Z,0.7nm,0.7s						
YKA	Yellowknife Ar	66.77	355	P	P	12 32 18.5	0.0
MMPY	Sheldon Lake,	69.54	347	P	P	12 32 36.5	+0.4
MMPY				IAmb	IAmb	12 32 43.0	
	comp=Z,7.7nm,1.5s						
BCAR	Beaver Creek A	72.63	343	P	P	12 32 54.2	-0.5
I30M	Mount Dempster	72.95	346	P	P	12 32 57.5	+0.8
I30M				IAmb	IAmb	12 33 24.4	
	comp=Z,6.0nm,1.4s						
H31M	Peel River	72.98	347	P	P	12 32 57.3	+0.5
K27K	Chicken	73.46	344	P	P	12 33 00.7	+1.2
K27K				IAmb	IAmb	12 33 08.9	
	comp=Z,9.9nm,1.4s						
G31M	Satah River	73.92	348	P	P	12 33 02.1	-0.1
RIDG	Independent Ri	74.05	342	P	P	12 33 03.5	+0.4
RIDG				IAmb	IAmb	12 33 15.5	
	comp=Z,9.2nm,1.1s						
H29M	Whitestone	74.24	346	P	P	12 33 04.1	-0.1
H29M				IAmb	IAmb	12 33 19.1	
	comp=Z,11nm,1.4s						
F31M	Tsiigehtchic	74.26	349	P	P	12 33 04.6	+0.4
G29M	Pine Creek	74.73	347	P	P	12 33 06.8	-0.2
G29M				IAmb	IAmb	12 33 20.1	
	comp=Z,8.3nm,1.3s						
ILAR	Eielson Array	75.41	343	P	P	12 33 10.0	-0.9
	comp=Z,0.8nm,0.7s,baz=158,slow=5.5,SNR=16						
	comp=Z,0.8nm,0.7s						
ILAR	Eielson Array	75.41	343	P	P	12 33 10.3	-0.6
M20K	Styx River	75.54	338	P	P	12 33 11.6	-0.3
M20K				IAmb	IAmb	12 33 15.3	
	comp=Z,8.2nm,1.3s						
QSPA	South Pole Qui	86.07	180	P	P	12 34 07.5	-0.6
	comp=Z,3.7nm,0.9s,baz=158,slow=1.8,SNR=11						
	comp=Z,3.7nm,0.9s						
QSPA	South Pole Qui	86.07	180	P	P	12 34 08.5	+0.4
QSPA				IAmb	IAmb	12 34 15.3	
	comp=Z,5.7nm,1.1s						
H11N3	WAKE ISLAND Hy	90.29	290	T	T	14 14 19.7	
	baz=94,slow=75,SNR=24						
H11N2	WAKE ISLAND Hy	90.31	290	T	T	14 14 20.7	
	baz=94,slow=75,SNR=36						
H11N1	WAKE ISLAND Hy	90.31	290	T	T	14 14 21.1	
	baz=94,slow=75,SNR=17						
H11S2	WAKE ISLAND Hy	90.40	288	T	T	14 14 31.5	
	baz=95,slow=75,SNR=61						
H11S1	WAKE ISLAND Hy	90.40	288	T	T	14 14 31.5	
	baz=95,slow=75,SNR=47						
H11S3	WAKE ISLAND Hy	90.42	288	T	T	14 14 33.0	
	baz=95,slow=75,SNR=55						

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*BEO **21** 12:22:16.9±2.0, 39°.06N×17°.00E, h52km±3km, ML3.5/4*

*ROM **21** 12:22:16.6±0.2, 39°.157N±0°.007×17°.31E±0°.01, h21km±1km, ML3.4/101, Mw3.5, Error ellipse: s-maj=1.1km s-min=0.7km az=283.0, Moment Tensor Solution. Moment tensor: Scale 10^{14}Nm; M_{rr}-0.04; $M_{\theta\theta}$2.10; $M_{\phi\phi}$-2.06; $M_{r\theta}$-0.44; $M_{\theta\phi}$0.99; $M_{\phi r}$-0.32; Fault plane solution: $M_0$2.36917×10^{14} NP1:ϕ_s212.00000°, δ86.00000°, λ168.00000°. NP2:ϕ_s303.00000°, δ78.00000°, λ4.00000°.*

*THE **21** 12:22:17.6, 39°N±5°×1°7E±°, h0km, M3.5/22, MLh3.5/22*

*PDG **21** 12:22:17.4±0.5, 39°.18N×17°.04E, h39km±3km, ML3.5/13, Error ellipse: s-maj=1.3km s-min=2.8km az=0.0*

ISC 21 12:22:19.3±1.0**, 39°.21N**±0°.03×**17°.21E**±0°.03**, h28**km±9km**, n140,** σ1s.03/144**, 2C-4D, Southern Italy**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LADO	San Nicola del	0.19	292	⇑P	Pb	12 22 23.2	-2.1
LADO				S	Sb	12 22 28.3	-1.1
LADO				AML	AML		
	comp=E,20200µm,1.5s						
LADO				AML	AML		
	comp=E,20200µm,0.5s						
LADO				AML	AML		
	comp=N,8494µm,2.6s						
LADO				AML	AML		
	comp=N,12300µm,1.3s						
TIP	Timpagrande	0.35	265	⇓P	Pb	12 22 25.2	-2.2
TIP				S	Sb	12 22 31.9	-1.1
TIP				AML	AML		
	comp=N,3140µm,1.0s						
TIP				AML	AML		
	comp=N,3200µm,1.0s						
TIP				AML	AML		
	comp=E,3130µm,0.8s						
TIP				AML	AML		
	comp=E,3100µm,0.8s						
TIP				AML	AML		
	comp=N,3200µm,1.0s						
TIP				AML	AML		
	comp=N,3140µm,1.0s						
SERS	Sersale	0.44	247	⇓P	Pb	12 22 26.5	-2.4
SERS				S	Sb	12 22 32.2	-3.1
SERS				AML	AML		
	comp=E,3090µm,0.8s						
SERS				AML	AML		
	comp=N,3105µm,0.6s						
SERS				AML	AML		
	comp=E,3130µm,0.6s						
SERS				AML	AML		
	comp=N,3010µm,0.8s						
SERS				AML	AML		
	comp=E,3085µm,0.8s						
SERS				AML	AML		
	comp=N,3010µm,1.2s						
SERS				AML	AML		
	comp=E,3085µm,1.2s						
SERS				AML	AML		
	comp=N,3110µm,0.6s						
ALB1	ALBI	0.51	249	⇓P	Pb	12 22 27.5	-2.4
CELI	Celico	0.58	289	⇓P	Pb	12 22 29.2	-1.8
CELI				S	Sb	12 22 39.7	+0.7
CELI				AML	AML		
	comp=E,2720µm,0.8s						
CELI				AML	AML		
	comp=E,2755µm,0.8s						
CELI				AML	AML		
	comp=E,2720µm,1.2s						
CELI				AML	AML		
	comp=N,2915µm,0.6s						
CELI				AML	AML		
	comp=N,2915µm,0.6s						
CELI				AML	AML		
	comp=E,2755µm,1.2s						
SPS2	Spezzano della	0.68	277	P	Pb	12 22 30.8	-1.9
SPS2				S	Sb	12 22 41.4	-0.5
SPS2				AML	AML		
	comp=E,1360µm,0.5s						
SPS2				AML	AML		
	comp=N,1170µm,0.8s						
SPS2				AML	AML		
	comp=N,1170µm,1.2s						
GRI	Girifalco	0.73	238	P	Pb	12 22 31.4	-2.1
GRI				AML	AML		
	comp=N,2380µm,0.6s						
GRI				AML	AML		
	comp=E,2455µm,0.6s						
GRI				AML	AML		
	comp=N,2375µm,0.6s						
GRI				AML	AML		
	comp=E,2455µm,1.4s						
CAR1	CAROLEI	0.78	273	P	Pn	12 22 32.7	-1.7
CAR1				AML	AML		
	comp=E,2530µm,1.3s						
CAR1				AML	AML		
	comp=N,2130µm,0.7s						
CAR1				AML	AML		
	comp=E,2535µm,1.3s						
CAR1				AML	AML		
	comp=N,2130µm,0.7s						
CAR1				AML	AML		
	comp=E,2680µm,0.9s						
CAR1				AML	AML		
	comp=E,2535µm,0.7s						
CAR1				AML	AML		
	comp=N,2155µm,0.7s						
CAR1				AML	AML		
	comp=N,2130µm,1.3s						
CAR1				AML	AML		
	comp=E,2680µm,1.1s						
TDS	Terranova Siba	0.81	304	P	Pn	12 22 33.5	-1.4
TDS				S	Sb	12 22 46.3	+0.9
TDS				AML	AML		
	comp=N,1610µm,1.0s						
TDS				AML	AML		
	comp=E,1124µm,0.9s						
TDS				AML	AML		
	comp=E,1124µm,1.1s						
GIZZ	Gizzeria	0.81	254	P	Pn	12 22 34.1	-0.9
SALB	San Lorenzo Be	0.94	315	⇑P	Pn	12 22 35.8	-1.0
PLAC	Placanica	0.97	219	P	Pn	12 22 36.0	-1.2
PLAC				AML	AML		
	comp=E,1475µm,1.2s						
PLAC				AML	AML		
	comp=N,1320µm,1.0s						
PLAC				AML	AML		
	comp=E,1335µm,1.0s						
PLAC				AML	AML		
	comp=N,1520µm,1.2s						
PLAC				AML	AML		
	comp=N,1315µm,1.0s						
CET2	Cetraro	1.02	288	P	Pn	12 22 37.2	-0.6
CET2				S	Sn	12 22 54.2	+2.9
CET2				AML	AML		
	comp=E,2615µm,0.9s						
CET2				AML	AML		
	comp=N,4720µm,0.7s						
CET2				AML	AML		
	comp=N,4715µm,0.7s						
ORI	Oriolo Calabro	1.03	326	P	Pn	12 22 37.5	-0.5
ORI				AML	AML		
	comp=E,6835µm,0.4s						
ORI				AML	AML		
	comp=N,8765µm,0.4s						
FERC	Galatro	1.14	228	P	Pn	12 22 38.5	-0.9
MMN	Mormanno	1.16	306	P	Pn	12 22 40.6	+0.9
MMN				AML	AML		
	comp=N,1705µm,0.9s						
MMN				AML	AML		
	comp=E,1520µm,1.5s						
MMN				AML	AML		
	comp=N,1705µm,1.1s						
GRIS	Grisolia	1.18	297	P	Pn	12 22 40.2	+0.2
JOPP	Joppolo	1.20	240	P	Pn	12 22 39.5	-0.7
JOPP				AML	AML		
	comp=N,799µm,0.9s						
JOPP				AML	AML		
	comp=E,753µm,1.0s						
CRAC	Craco	1.30	333	P	Pn	12 22 42.2	+0.6
TAR1	Taranto	1.31	2	P	Pn	12 22 40.9	-0.9
TAR1				AML	AML		
	comp=E,7155µm,0.7s						
TAR1				AML	AML		
	comp=N,4685µm,0.8s						
TAR1				AML	AML		
	comp=E,7155µm,1.3s						
SCHR	S. Chirico Rap	1.32	319	P	Pn	12 22 42.4	+0.4
SCHR				AML	AML		
	comp=N,766µm,1.3s						
SCHR				AML	AML		
	comp=E,1052µm,1.0s						
SCHR				AML	AML		
	comp=N,766µm,0.7s						
SCHR				AML	AML		
	comp=E,1052µm,1.0s						
CUC	Castrocucco	1.33	306	P	Pn	12 22 42.0	0.0
CUC				AML	AML		
	comp=E,1580µm,1.1s						
CUC				AML	AML		
	comp=E,1580µm,1.1s						
CUC				AML	AML		
	comp=N,1150µm,0.9s						
CUC				AML	AML		
	comp=N,1145µm,0.9s						
CUC				AML	AML		
	comp=E,1580µm,0.9s						
CUC				AML	AML		
	comp=E,1580µm,0.9s						
CUC				AML	AML		
	comp=N,1150µm,1.1s						
CUC				AML	AML		
	comp=N,1145µm,1.1s						
CEL	Celeste	1.40	228	P	Pn	12 22 42.3	-0.8
CEL				AML	AML		
	comp=E,643µm,1.0s						
CEL				AML	AML		
	comp=N,708µm,0.9s						
CEL				AML	AML		
	comp=E,678µm,1.5s						
CEL				AML	AML		
	comp=E,626µm,0.9s						
CEL				AML	AML		
	comp=N,700µm,0.9s						
SIRI	Monte Sirino -	1.42	313	P	Pn	12 22 43.3	-0.1
SIRI				AML	AML		
	comp=E,1172µm,1.3s						
SIRI				AML	AML		
	comp=N,1008µm,1.4s						
SIRI				AML	AML		
	comp=E,1174µm,1.3s						
SIRI				AML	AML		
	comp=N,1008µm,1.4s						
SIRI				AML	AML		
	comp=E,1194µm,1.3s						
SIRI				AML	AML		
	comp=N,1036µm,1.4s						
SIRI				AML	AML		
	comp=N,1008µm,0.6s						
SIRI				AML	AML		
	comp=N,1036µm,0.6s						
MASS	Massafra	1.42	358	P	Pn	12 22 42.2	-1.1
SOI	Samo	1.46	219	P	Pn	12 22 43.6	-0.2
SOI				AML	AML		
	comp=N,542µm,1.0s						
SOI				AML	AML		
	comp=E,440µm,0.8s						
SOI				AML	AML		
	comp=N,542µm,1.0s						
SOI				AML	AML		
	comp=N,542µm,1.0s						
MESG	Mesagne	1.46	20	P	Pn	12 22 43.0	-0.8
MATE	Matera	1.49	345	P	Pn	12 22 43.8	-0.4
MATE				AML	AML		
	comp=N,2805µm,0.6s						
MATE				AML	AML		
	comp=E,2330µm,0.4s						
GMB	Gambarie	1.50	226	P	Pn	12 22 43.9	-0.6
GMB				AML	AML		
	comp=N,1555µm,0.9s						
GMB				AML	AML		
	comp=N,1555µm,1.1s						
GMB				AML	AML		
	comp=E,1965µm,1.2s						
MIGL	Miglionico	1.51	337	P	Pn	12 22 44.4	-0.2
MIGL				AML	AML		
	comp=E,6690µm,1.3s						
MIGL				AML	AML		
	comp=N,8535µm,0.9s						
MIGL				AML	AML		
	comp=E,6690µm,0.7s						
MCEL	Monticello	1.55	316	P	Pn	12 22 45.6	+0.4
MGR	Morigerati	1.58	306	P	Pn	12 22 45.1	-0.3
MGR				AML	AML		
	comp=N,652µm,0.8s						
MGR				AML	AML		
	comp=E,728µm,0.7s						
MGR				AML	AML		
	comp=N,652µm,0.8s						
MGR				AML	AML		
	comp=N,652µm,1.2s						
MGR				AML	AML		
	comp=E,515µm,0.7s						
MGR				AML	AML		
	comp=N,741µm,0.6s						
NOCI	Noci	1.58	356	P	Pn	12 22 44.6	-0.9
NOCI				AML	AML		
	comp=N,3210µm,0.4s						
NOCI				AML	AML		
	comp=N,3210µm,1.6s						
NOCI				AML	AML		
	comp=E,2320µm,0.5s						
PTRP	Pietrapertosa	1.58	326	P	Pn	12 22 45.8	+0.3
MSRU	Castanea	1.63	235	P	Pn	12 22 45.0	-1.2
BULG	Bulgheria - Ca	1.66	302	P	Pn	12 22 46.2	-0.4
BULG				AML	AML		
	comp=E,552µm,0.9s						
BULG				AML	AML		
	comp=N,821µm,0.8s						
BULG				AML	AML		
	comp=N,856µm,0.8s						
BULG				AML	AML		
	comp=E,577µm,0.9s						
BULG				AML	AML		
	comp=N,821µm,1.2s						
BULG				AML	AML		
	comp=N,856µm,1.2s						
SLCN	Sala Consilina	1.69	315	P	Pn	12 22 47.0	-0.1
SLCN				AML	AML		
	comp=N,993µm,0.5s						
SLCN				AML	AML		
	comp=E,1215µm,1.4s						
SLCN				AML	AML		
	comp=N,996µm,0.5s						
SLCN				AML	AML		
	comp=E,1355µm,1.4s						
SLCN				AML	AML		
	comp=N,1065µm,0.5s						
SLCN				AML	AML		
	comp=E,1355µm,0.6s						
SLCN				AML	AML		
	comp=E,1215µm,0.6s						
MTTG	Motta San Giov	1.69	225	P	Pn	12 22 46.6	-0.5
MTTG				AML	AML		
	comp=E,690µm,1.3s						
MTTG				AML	AML		
	comp=N,902µm,0.9s						
PGN3	Pignola, Italy	1.74	322	P	Pn	12 22 47.8	0.0
AMUR	Altamura	1.75	345	P	Pn	12 22 47.4	-0.5
AMUR				AML	AML		
	comp=N,1291µm,1.5s						
AMUR				AML	AML		
	comp=E,1780µm,0.4s						
AMUR				AML	AML		
	comp=N,1291µm,0.5s						
MPNC	Port Mandanici	1.80	234	P	Pn	12 22 47.5	-1.1
MPNC				AML	AML		
	comp=N,839µm,1.1s						
MPNC				AML	AML		
	comp=E,1032µm,0.8s						
MPNC				AML	AML		
	comp=N,839µm,0.9s						
MILZ	Milazzo	1.81	239	P	Pn	12 22 47.4	-1.2
MILZ				AML	AML		
	comp=E,1890µm,1.6s						
MILZ				AML	AML		
	comp=N,825µm,0.7s						
MILZ				AML	AML		
	comp=E,1890µm,0.4s						
OT15	Bari, Italy	1.91	352	P	Pn	12 22 49.3	-0.7
IVUG	Vulcano Grillo	1.92	246	P	Pn	12 22 49.0	-1.1
ILOS	Lipari Osserat	1.93	247	P	Pn	12 22 49.1	-1.1
VPL	Vulcano Piano	1.93	245	P	Pn	12 22 49.0	-1.2
PALZ	Palazzo San Ge	1.98	331	P	Pn	12 22 50.9	0.0
AIO	Antillo	1.98	232	P	Pn	12 22 50.3	-0.7
AIO				AML	AML		
	comp=E,236µm,1.5s						
AIO				AML	AML		
	comp=N,208µm,0.4s						
AIO				AML	AML		
	comp=E,236µm,0.5s						
SGO	Sicignano	1.99	313	P	Pn	12 22 50.7	-0.4
NOV	Novara	2.01	235	P	Pn	12 22 50.6	-0.9
NOV				AML	AML		
	comp=E,1022µm,0.9s						
NOV				AML	AML		
	comp=N,669µm,1.3s						
NOV				AML	AML		
	comp=N,669µm,0.7s						
PST3	Postiglione	2.02	312	P	Pn	12 22 51.1	-0.5
MRLC	Muro Lucano	2.03	320	P	Pn	12 22 51.1	-0.6
KEK	Kerkira	2.06	75	P	Pn	12 22 49.6	-2.5
KEK				AML	AML		
	comp=N,870µm,0.9s						
KEK				AML	AML		
	comp=E,994µm,0.7s						
ECTS	Castiglione	2.11	232	P	Pn	12 22 51.6	-1.2
MUCR	Ucria	2.17	238	P	Pn	12 22 52.8	-0.9
MUCR				AML	AML		
	comp=E,208µm,1.0s						
MUCR				AML	AML		
	comp=N,275µm,0.9s						
MUCR				AML	AML		
	comp=E,208µm,1.0s						
CLT3	Calitri	2.18	321	P	Pn	12 22 54.5	+0.7
CAPA	Cerignola FG	2.22	332	P	Pn	12 22 56.9	+2.7
SRN	Sarande	2.26	72	P	Pn	12 22 53.3	-1.5
SRN				AML	AML		
EPZF	Pizzo Felice	2.31	234	P	Pn	12 22 55.6	+0.1
EPZF				AML	AML		
	comp=E,538µm,1.1s						
EPZF				AML	AML		
	comp=N,501µm,0.7s						
EPZF				AML	AML		
	comp=E,538µm,0.9s						
IGT	Igoumenitsa	2.44	82	*e*Pn	Pn	12 22 56.4	-0.9
HAGA	Augusta	2.52	221	P	Pn	12 22 56.3	-2.0
HAGA				AML	AML		
	comp=N,106µm,1.3s						
HAGA				AML	AML		
	comp=N,106µm,0.7s						
HAGA				AML	AML		
	comp=E,107µm,1.6s						
HLNI	Lentini	2.62	225	P	Pn	12 22 57.6	-2.2
HLNI				AML	AML		
	comp=N,117µm,1.4s						
HLNI				AML	AML		
	comp=E,122µm,1.6s						
HLNI				AML	AML		
	comp=N,117µm,0.6s						
SSY	Sortino	2.66	220	P	Pn	12 22 58.1	-2.2
DRAG	Dragano-Lefkad	2.68	100	P	Pn	12 22 59.2	-1.3
DRAG				AML	AML		
TSLK	Tsoukalades, L	2.71	97	P	Pn	12 23 00.3	-0.7
TSLK				S	Sn	12 23 33.8	+0.9
TSLK				AML	AML		
EVGI	Lefkada island	2.75	101	P	Pn	12 23 00.2	-1.4

EVGI				AML	AML		
NYDR	Nydri-Lefkada	2.77	99	P	Pn	12 23 00.6	-1.1
NYDR				AML	AML		
SGRT	San Giovanni R	2.77	337	P	Pn	12 23 01.7	-0.2
VLS	Valsamata	2.84	110	P	Pn	12 23 01.1	-1.7
VLS				AML	AML		
	comp=E,217µm,1.2s						
VLS				AML	AML		
	comp=N,370µm,0.6s						
APRC	Apricena	2.84	334	P	Pn	12 23 02.4	-0.5
APRC				AML	AML		
	comp=E,678µm,1.2s						
APRC				AML	AML		
	comp=E,678µm,0.8s						
APRC				AML	AML		
	comp=N,778µm,0.5s						
RAFF	Raffo Rosso	3.00	229	P	Pn	12 23 03.7	-1.3
RAFF				AML	AML		
	comp=N,86µm,1.0s						
RAFF				AML	AML		
	comp=E,139µm,1.4s						
ULC	Ulcinj	3.15	29	*e*Pn	Pn	12 23 06.4	-0.7
ULC				*i* Sn	Sn	12 23 43.8	0.0
ULC				AML	AML		
TETR	Tetrakomo, Epi	3.16	86	P	Pn	12 23 06.9	-0.3
TETR				AML	AML		
PDO	Prodromos	3.16	100	P	Pn	12 23 06.6	-0.5
PDO				S	Sn	12 23 43.8	-0.1
PDO				AML	AML		
KPRO	Kipourio	3.29	76	P	Pn	12 23 09.3	+0.2
KPRO				S	Sn	12 23 47.5	+0.1
KPRO				AML	AML		
DRME	Dracevica, Mon	3.33	26	*e*Pn	Pn	12 23 08.2	-1.3
DRME	Dracevica, Mon	3.33	26	*e*Pn	Pn	12 23 08.4	-1.1
DRME				*i* Sn	Sn	12 23 47.8	-0.3
DRME				AML	AML		
BUM	Brajici-Budva	3.34	22	*e*Pn	Pn	12 23 08.5	-1.2
BUM				*i* Sn	Sn	12 23 47.1	-1.4
BUM				AML	AML		
OHR	Ohrid	3.34	54	*i* Pn	Pb	12 23 20.9	+3.0
HCY	Herceg Novi	3.37	16	*e*Pn	Pn	12 23 08.4	-1.7
HCY	Herceg Novi	3.37	16	*e*Pn	Pn	12 23 09.2	-0.9
HCY				*i* Sn	Sn	12 23 48.4	-0.8
HCY				AML	AML		
PLEV	Plevrona-Mesol	3.38	102	P	Pn	12 23 09.9	-0.3
PLEV				S	Sn	12 23 49.0	-0.3
PLEV				AML	AML		
PHP	Peshkopia	3.49	44	P	Pn	12 23 11.1	-0.6
RLS	Riolos of Patr	3.53	108	P	Pn	12 23 11.5	-0.7
RLS				AML	AML		
PDG	Podgorica	3.57	25	*e*Pn	Pn	12 23 10.6	-2.2
PDG	Podgorica	3.57	25	*e*Pn	Pn	12 23 12.2	-0.6
PDG				*i* Sn	Sn	12 23 53.7	-0.3
PDG				AML	AML		
CEME	Cevo	3.57	21	*e*Pn	Pn	12 23 12.1	-0.8
CEME				*i* Sn	Sn	12 23 53.6	-0.6
CEME				AML	AML		
TREB	Trebinje	3.60	13	*e*Pn	Pn	12 23 11.7	-1.6
TREB				*e*Sn	Sn	12 23 52.8	-2.1
TREB	Trebinje	3.60	13	*e*Pn	Pn	12 23 11.9	-1.4
STON	Ston	3.67	6	*e*Pn	Pn	12 23 12.5	-1.7
STON				*e*Sn	Sn	12 23 54.3	-2.3
STON	Ston	3.67	6	P	Pn	12 23 12.5	-1.7
STON				AML	AML		
	comp=E,182µm,1.0s						
STON				AML	AML		
	comp=N,251µm,0.8s						
ANX	Ano Chora	3.73	98	P	Pn	12 23 15.1	0.0
ANX				AML	AML		
EFP	Efpalio	3.75	101	P	Pn	12 23 15.3	0.0
EFP				AML	AML		
NKME	Niksic	3.79	20	*e*Pn	Pn	12 23 15.2	-0.7
NKME				*e*Sn	Sn	12 23 58.5	-1.0
NKME				AML	AML		
BRY	Bratogost	3.82	15	*e*Pn	Pn	12 23 15.1	-1.3
BRY	Bratogost	3.82	15	*e*Pn	Pn	12 23 15.4	-1.0
BRY				*i* Sn	Sn	12 23 59.1	-1.3
BRY				AML	AML		
LAKA	Lakka	3.85	103	P	Pn	12 23 16.4	-0.4
LAKA				S	Sn	12 24 01.6	+0.5
LAKA				AML	AML		
SERG	Sergoula	3.87	100	P	Pn	12 23 17.1	+0.2
SERG				S	Sn	12 24 02.2	+0.7
SERG				AML	AML		
TYRN	Tyrnavos	3.92	81	P	Pn	12 23 17.4	-0.2
TYRN				S	Sn	12 24 01.9	-0.8
TYRN				AML	AML		
KALE	Kalithea	3.94	100	P	Pn	12 23 18.1	+0.1
KALE				S	Sn	12 24 03.9	+0.6
KALE				AML	AML		
PVY	Plav	3.97	31	*e*Pn	Pn	12 23 18.1	-0.3
PVY				*e*Sn	Sn	12 24 03.1	-1.0
PVY				AML	AML		
KOME	Kolasin	4.03	25	*e*Pn	Pn	12 23 18.5	-0.7
KOME				*e*Sn	Sn	12 24 04.7	-0.8
KOME				AML	AML		
KLV	Kalavryta, Ach	4.04	105	P	Pn	12 23 19.7	+0.3
KLV				AML	AML		
KLV	Kalavryta, Ach	4.04	105	P	Pn	12 23 19.4	0.0
KLINJ	Klinje	4.09	14	*e*Pn	Pn	12 23 17.8	-2.2
IVA	Berane	4.18	28	*e*Pn	Pn	12 23 20.9	-0.4
IVA				*i* Sn	Sn	12 24 08.4	-0.8
IVA				AML	AML		
UPM	Unac-Piva	4.19	17	*e*Pn	Pn	12 23 21.8	+0.3
UPM	Unac-Piva	4.19	17	*e*Pn	Pn	12 23 20.7	-0.8
UPM				*i* Sn	Sn	12 24 07.9	-1.6
UPM				AML	AML		
GUR	Goura	4.22	106	P	Pn	12 23 20.9	-0.9
GUR				AML	AML		
GRG	Griva	4.35	65	P	Pn	12 23 22.8	-0.7
PLE	Pljevlja	4.43	21	*e*Pn	Pn	12 23 24.2	-0.5
PLE				*i* Sn	Sn	12 24 14.0	-1.4
PLE				AML	AML		
SJES	Sjenica	4.55	26	*e*Pn	Pn	12 23 26.5	+0.1
SJES				*e*Sn	Sn	12 24 14.2	-4.2
SJES	Sjenica	4.55	26	*e*Pn	Pn	12 23 27.0	+0.6
IVAS	Ivanjica	4.89	26	*e*Pn	Pn	12 23 29.2	-1.8
IVAS				*e*Sn	Sn	12 24 24.5	-2.1
BBLS	Lazi&#263i	4.93	19	*e*Pn	Pn	12 23 31.1	-0.6
BBLS	Lazi&#263i	4.93	19	*e*Pn	Pn	12 23 31.0	-0.6
PLG	Polygyros	4.94	74	P	Pn	12 23 30.7	-1.0
PLG				AML	AML		
SELS	Selova	4.97	35	*e*Pn	Pn	12 23 31.6	-0.5
BARS	Barje	5.01	43	*e*Pn	Pn	12 23 32.0	-0.6
PAIG	Paliouri	5.05	80	P	Pn	12 23 32.1	-1.1
PAIG				AML	AML		
STFN	Stefani	5.06	100	P	Pn	12 23 33.4	0.0
STFN				AML	AML		
GOCS	Kraljevo Serbi	5.14	31	*e*Pn	Pn	12 23 32.2	-2.3
VLI	Veliai	5.17	117	P	Pn	12 23 34.3	-0.5
BOSS	Bosilegrad	5.17	49	*e*Pn	Pn	12 23 34.4	-0.4
AOS	Alonnisos	5.18	88	P	Pn	12 23 33.8	-1.2
DIVS	Divibare	5.31	22	*e*Pn	Pn	12 23 35.0	-1.8
VLY	Voula,Athens	5.34	103	P	Pn	12 23 36.5	-0.6
GRUS	Gruza	5.36	28	*e*Pn	Pn	12 23 36.6	-0.8
DION	Dionisos Attik	5.38	100	P	Pn	12 23 37.3	-0.5
KTHA	Kythira Island	5.50	121	P	Pn	12 23 39.0	-0.3
BLY	Banja Luka	5.53	360	*e*Pn	Pn	12 23 39.3	-0.5
BOVS	Bovan	5.56	36	*e*Pn	Pn	12 23 38.2	-2.0
TEKS	Tekeris	5.61	17	*e*Pn	Pn	12 23 39.2	-1.6
TEKS	Tekeris	5.61	17	*e*Pn	Pn	12 23 38.8	-2.0
ZAPS	Zavoj	5.76	43	*e*Pn	Pn	12 23 42.2	-0.7
ZAGS	Zajecar	5.94	38	*e*Pn	Pn	12 23 44.3	-1.1
FRGS	Fruska Gora	6.25	17	*e*Pn	Pn	12 23 47.6	-2.0
FRGS	Fruska Gora	6.25	17	*e*Pn	Pn	12 23 47.3	-2.3
MORH	Mrgy, Hungar	7.08	8	*e*Pn	Pn	12 23 58.7	-2.2
OBKA	Obir	7.55	346	*i* Pn	Pn	12 24 07.1	-0.4
	comp=N,3.0nm,0.3s						
OBKA				*i* Sn	Sn	12 25 30.7	-1.5
	comp=N,5.8nm,0.3s						

IDC ***21*** *12:27:53.9±0.7, 4°.01S×104°.27W, h0^{km}, mb4.2/12, mbtmp4.2/12, MS4.8/54, Error ellipse: s-maj=33.5km s-min=15.1km az=64.0*

NEIC ***21*** *12:27:56.9±1.2, 4°.09S±0°.10×104°.2W±0°.1, h10^{km}±1^{km}, mb4.8/262, Ms_20 5.0/241, Mww5.5/23, Error ellipse: s-maj=22.7km s-min=16.4km az=267.0*

NEIC ***21*** *12:27:57.3, 4°.08S×104°.22W, h10^{km}*

GFZ ***21*** *12:27:57.4, 3°.99S×104°.07W, h14^{km}, Mw5.4/83, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}-0.08; $M_{\theta\theta}$0.25; $M_{\phi\phi}$-0.17; $M_{r\theta}$-0.11; $M_{\theta\phi}$1.38; $M_{\phi r}$0.24; Fault plane solution: $M_0$1.42236×10^{17} NP1:ϕ_s93.77046°, δ80.36804°, λ-5.79000°. NP2:ϕ_s184.74245°, δ84.29190°, λ-170.31958°. Principal axes: T 1.4401, Plg2.7503°, Azm318.9966°; N -0.0361, Plg78.7758°, Azm214.9875°; P -1.4040, Plg10.8735°, Azm49.5253°;*

GFZ ***21*** *12:27:57.4±0.3, 4°S±4°×10°4W±°, h10^{km}, M4.6/33, mb4.6/33, confirmed*

NEIC ***21*** *12:27:57.6, 4°.18S×104°.42W, h26^{km}, Moment Tensor Solution. Duration: 2^{s}5 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.14; $M_{\theta\theta}$0.44; $M_{\phi\phi}$-0.30; $M_{r\theta}$-0.48; $M_{\theta\phi}$1.98; $M_{\phi r}$0.50; Fault plane solution: $M_0$2.13000×10^{17} NP1: ϕ_s186.86000°, δ75.77000°, λ-167.40000°. NP2: ϕ_s93.72000°, δ77.79000°, λ-14.57000°. Principal axes: T 2.0870, Plg1.0000°, Azm141.0000°; N 0.0928, Plg71.0000°, Azm235.0000°; P -2.1798, Plg19.0000°, Azm50.0000°;*

GCMT ***21*** *12:27:57.9±0.1, 3°.90S±0°.01×104°.21W±0°.01, h12^{km}, MW5.4/159, Moment Tensor Solution. s109,c173; s159,c307; Duration: 1^{s}2 Moment tensor: Scale 10^{17} Nm; M_{rr}-0.03±.02; $M_{\theta\theta}$0.28±.02; $M_{\phi\phi}$-0.25±.02; $M_{r\theta}$0.37±.05; $M_{\theta\phi}$1.47±.02; $M_{\phi r}$0.09±.04; Best double couple: $M_0$1.54000×10^{17} NP1:ϕ_s5.00000°, δ77.00000°, λ176.00000°. NP2:ϕ_s96.00000°, δ86.00000°, λ13.00000°. Principal axes: T 1.5790, Plg12.0000°, Azm321.0000°; N -0.0780, Plg76.0000°, Azm111.0000°; P -1.5010, Plg7.0000°, Azm229.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 21 12:27:57.3±0.4, **4°.06S**±0°.07×**104°.19W**±0°.08, **h18^{km}, n422, σ0^{s}88**/216, **mb4.8**/152, **MS5.0**/175, **Central East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TLIG	Tlapa	22.19	14		P	12 32 55.0	+2.1
CMIG	Matias Romero	22.94	23	LR	LR	12 39 54.3	
	comp=Z,4µm,20.4s,baz=200,slow=31						
APG	El Apazote	23.32	35	LR	LR	12 40 02.7	
	comp=Z,493nm,21.4s,baz=262,slow=31						
JUD3	Juan Diaz 3	23.34	53	P	P	12 33 05.7	+0.7
JUD3				IAmb	IAmb	12 33 07.9	
	comp=Z,31nm,1.4s						
MTO3	Montecristo	23.50	38	P	P	12 33 06.8	0.0
MTO3				IAmb	IAmb	12 33 25.5	
	comp=Z,42nm,1.4s						
H06S1	SOCORRO T	23.61	344	T	T	12 57 27.3	
	SNR=20						
ESQI	Esquipulas	23.64	38	P	P	12 33 08.0	+0.1
JTS	Las Juntas de	23.88	53	LR	LR	12 39 59.5	
	comp=Z,6µm,20.9s,baz=272,slow=30						
JTS	Las Juntas de	23.88	53		P	12 33 11.3	+1.2
JTS				IAmb	IAmb	12 33 13.4	
	comp=Z,47nm,1.4s						
JTS	Las Juntas de	23.88	53	IAMs_20	IAMs_20	12 39 48.1	
	comp=Z,6µm,20.0s						
JTS	Las Juntas de	23.88	53	P	P	12 33 09.8	-0.3
	comp=Z,34nm,2.3s						
HDC	Heredia	24.39	55	IAMs_20	IAMs_20	12 40 05.8	
	comp=Z,5µm,20.0s						
TGUH	Tegucigalpa,Un	24.61	43	P	P	12 33 17.6	+0.7
BOAB	BOACO BROADBAN	24.66	48		P	12 33 17.4	+0.1
BOAB	BOACO BROADBAN	24.66	48	P	P	12 33 16.3	-0.9
	comp=Z,62nm,1.7s						
BRU2	Volcan	24.95	59	P	P	12 33 19.8	-0.3
ATAH	Atahualpa	25.85	98	LR	LR	12 39 56.7	
	comp=Z,264nm,18.9s,baz=272,slow=28						
SLOR	San Lorenzo -	25.88	83	P	P	12 33 28.5	-0.4
SLOR				IAmb	IAmb	12 33 58.4	
	comp=Z,24nm,1.2s						
OTAV	Otavalo	26.07	81		P	12 33 31.0	+0.4
OTAV				IAmb	IAmb	12 33 45.0	
	comp=Z,20nm,1.1s						
OTAV	Otavalo	26.07	81	P	P	12 33 31.1	+0.4
	comp=Z,18nm,1.4s						
SIUN	Universidad Ur	26.14	47	P	P	12 33 30.4	-0.3
ZAIG	Zacatecas	26.71	3		P	12 33 36.7	+0.6
ZAIG	Zacatecas	26.71	3	P	P	12 33 37.6	+1.4
	comp=Z,13nm,1.8s						
NNA	Nana	28.18	108	LR	LR	12 41 59.2	
	comp=Z,2µm,21.3s,baz=292,slow=30						
LPIG	La Paz	28.62	348	LR	LR	12 42 18.8	
	comp=Z,2µm,20.9s,baz=167,slow=30						
TEIG	Tepich	28.75	32	IAMs_20	IAMs_20	12 43 28.1	
	comp=Z,4µm,19.0s						
HPIG		30.85	357	P	P	12 34 13.4	+0.6
ROSC	El Rosal	31.12	74	LR	LR	12 43 24.5	
	comp=Z,2µm,20.7s,baz=233,slow=30						
CZSB	Cruzeiro do Su	31.52	98		P	12 34 19.4	+0.6
SRIG	Santa Rosalia	32.15	346	P	P	12 34 23.7	-0.3
SRIG				IAmb	IAmb	12 34 41.0	
	comp=Z,16nm,1.0s						
TX31	Lajitas Ar. Si	33.21	1	P	P	12 34 33.5	+0.1
TX31				IAmb	IAmb	12 35 01.7	
	comp=Z,24nm,1.9s						
TXAR	Lajitas Array	33.21	1	P	P	12 34 33.4	0.0
	comp=Z,0.5nm,0.8s,baz=172,slow=9.9,SNR=10.0						
TXAR				LR	LR	12 46 27.9	
	comp=Z,942nm,18.1s,baz=178,slow=34						
	comp=Z,0.5nm,0.8s						
TXAR	Lajitas Array	33.21	1	P	P	12 34 34.6	+1.2
LCCY	Blossom Villag	33.43	44	P	P	12 34 35.7	+0.4
HSIG		33.52	349	P	P	12 34 36.4	+0.4
HSIG				IAmb	IAmb	12 34 42.9	
	comp=Z,25nm,1.5s						
SAND	Sanderson	33.88	3		P	12 34 39.2	0.0
ALPN	Alpine	34.24	1		P	12 34 43.1	+0.7
ALPN				IAmb	IAmb	12 34 53.3	
	comp=Z,30nm,1.7s						
JCT	Junction City	34.60	7	P	P	12 34 45.1	-0.3
VHRN	Van Horn	34.66	359	P	P	12 34 46.5	+0.4
VHRN				IAmb	IAmb	12 34 52.1	
	comp=Z,18nm,1.5s						
TPB05	Hovey Rd	34.79	1	P	P	12 34 46.8	-0.4
TPB05				IAmb	IAmb	12 34 53.8	
	comp=Z,36nm,1.7s						
TPB01	Permian Basin	34.81	1	P	P	12 34 47.6	+0.3
TPB01				IAmb	IAmb	12 34 58.1	
	comp=Z,27nm,1.9s						
MNHN	Monahans	35.23	2	P	P	12 34 51.9	+1.0
MNHN				IAmb	IAmb	12 35 02.5	
	comp=Z,28nm,1.7s						
PECS	Pecos	35.23	0	P	P	12 34 51.7	+0.8
BRDY	Brady	35.49	8	P	P	12 34 53.7	+0.6
TPB28		35.53	360	P	P	12 34 54.1	+0.6
TPB28				IAmb	IAmb	12 34 59.5	
	comp=Z,16nm,1.6s						
MNTX	Cornudas Mount	35.58	358	P	P	12 34 54.4	+0.5
MNTX				IAmb	IAmb	12 34 59.4	
	comp=Z,18nm,1.6s						
MNTX	Cornudas Mount	35.58	358	P	P	12 34 52.7	-1.1
	comp=Z,8.2nm,1.7s						
TPB11	China Draw	35.80	0	P	P	12 34 56.0	+0.2
TPB11				IAmb	IAmb	12 35 02.1	
	comp=Z,24nm,1.5s						
SDV	Santo Domingo	35.84	69	LR	LR	12 47 06.6	
	comp=Z,2µm,19.9s,baz=244,slow=32						
SDV	Santo Domingo	35.84	69	P	P	12 34 54.9	-1.6
SDV				IAmb	IAmb	12 34 56.7	
	comp=Z,14nm,0.7s						
SDV	Santo Domingo	35.84	69	P	P	12 34 55.6	-1.0
	comp=Z,113nm,0.9s						
SGCY	Sterling City	35.89	4	P	P	12 34 56.5	-0.1
SGCY				IAmb	IAmb	12 35 06.4	
	comp=Z,12nm,1.0s						
TAOE	Nuku Hiva Isla	36.03	261	*e*SS	SS	12 43 09.9	-4.2
	comp=Z,1µm,25.6s						
TAOE				*e*LR	LR	12 44 28.2	
	comp=Z,3µm,24.6s						
WHTX	Lake Whitney,	36.42	10	P	P	12 35 01.1	+0.1
WHTX				IAmb	IAmb	12 36 01.5	
	comp=Z,14nm,0.6s						
128A	Castleberry Fa	36.52	2	P	P	12 35 01.6	-0.3
121A	Cookes Peak, D	36.55	355	P	P	12 35 02.5	+0.2
PB18	Visviri	36.55	114	P	P	12 35 01.7	-1.3
PB18				IAMs_20	IAMs_20	12 46 10.6	
	comp=Z,2µm,20.0s						
PB18	Visviri	36.55	114	P	P	12 35 03.5	+0.5
	comp=Z,33nm,1.4s						
PSGCX	Pisagua	36.63	118	IAMs_20	IAMs_20	12 46 06.5	
	comp=Z,2µm,21.0s						
TUC	Tucson	36.71	351	P	P	12 35 03.2	-0.3
TUC				IAmb	IAmb	12 35 14.2	
	comp=Z,28nm,1.9s						
PB16	IPOC Station P	36.76	115	P	P	12 35 04.5	-0.3
PB16				IAmb	IAmb	12 35 07.7	
	comp=Z,18nm,1.0s						
PB16				IAMs_20	IAMs_20	12 46 09.0	
	comp=Z,2µm,20.0s						
PB16	IPOC Station P	36.76	115	P	P	12 35 05.9	+1.1
	comp=Z,21nm,1.1s						
POST	Post	37.01	4		P	12 35 06.1	0.0
POST				IAmb	IAmb	12 35 12.6	
	comp=Z,51nm,1.8s						
SN07	Snyder 07	37.08	5	P	P	12 35 06.7	0.0
SN07				IAmb	IAmb	12 35 17.4	
	comp=Z,28nm,1.6s						
PLPT	Palo Pinto	37.09	8	P	P	12 35 07.4	+0.7
PLPT				IAmb	IAmb	12 35 11.9	
	comp=Z,36nm,1.5s						
PB11	IPOC Station P	37.10	118	P	P	12 35 06.9	-0.3
PB11				IAmb	IAmb	12 35 09.2	
	comp=Z,16nm,1.0s						
PB11				IAMs_20	IAMs_20	12 46 21.0	
	comp=Z,2µm,21.0s						
PB11	IPOC Station P	37.10	118	P	P	12 35 08.1	+0.9
	comp=Z,22nm,1.3s						
GTBY	Guantanamo Bay	37.21	49	IAMs_20	IAMs_20	12 48 06.3	
	comp=Z,2µm,19.0s						
GTBY	Guantanamo Bay	37.21	49	P	P	12 35 08.1	+0.2
LPAZ	La Paz	37.43	112	P	P	12 35 11.7	+1.1
	comp=Z,2.4nm,0.7s,baz=282,slow=5.8,SNR=7.7						
LPAZ				LR	LR	12 47 50.3	
	comp=Z,1µm,20.3s,baz=280,slow=32						
	comp=Z,2.4nm,0.7s						
PB02	IPOC Station P	37.46	120	IAMs_20	IAMs_20	12 46 16.4	
	comp=Z,3µm,20.0s						
PB02	IPOC Station P	37.46	120	P	P	12 35 11.0	+0.9
	comp=Z,19nm,2.2s						
GO01	Chusmiza	37.48	117	IAmb	IAmb	12 35 13.6	
	comp=Z,37nm,1.7s						
GO01				IAMs_20	IAMs_20	12 46 16.0	
	comp=Z,2µm,21.0s						
H03N2	Juan Fernandez	37.54	144	T	T	13 15 12.7	
	baz=313,slow=76,SNR=58						
H03N1	Juan Fernandez	37.55	144	T	T	13 15 13.5	
	baz=309,slow=76,SNR=66						
ESJX	Sierra Juarez	37.57	344	IAmb	IAmb	12 35 41.2	
	comp=Z,23nm,1.7s						
PB07	IPOC Station P	37.62	121	P	P	12 35 12.6	+0.9
	comp=Z,17nm,1.7s						
PB08	IPOC Station P	37.67	118	IAmb	IAmb	12 35 15.0	
	comp=Z,18nm,1.2s						
PB08				IAMs_20	IAMs_20	12 46 28.2	
	comp=Z,2µm,20.0s						
PB08	IPOC Station P	37.67	118	P	P	12 35 13.0	+0.7
	comp=Z,16nm,1.3s						
MSTX	Muleshoe	37.85	2	P	P	12 35 13.5	+0.3
PB03	IPOC Station P	37.86	121	P	P	12 35 13.9	+0.3
PB03				IAmb	IAmb	12 35 16.3	
	comp=Z,39nm,1.5s						
PB03				IAMs_20	IAMs_20	12 46 09.0	
	comp=Z,2µm,22.0s						
PB03	IPOC Station P	37.86	121	P	P	12 35 14.8	+1.2
Y22A	Socorro	37.88	356	P	P	12 35 14.2	+0.6
Y22A				IAmb	IAmb	12 35 20.4	
	comp=Z,34nm,1.6s						
CRNM	Carthage	37.88	357	P	P	12 35 13.6	-0.1
YUH	Yuha Desert	38.17	344	P	P	12 35 16.8	+1.0
PB09	IPOC Station P	38.20	121	P	P	12 35 17.3	+0.8
PB09				IAmb	IAmb	12 35 19.9	
	comp=Z,36nm,1.3s						
PB09				IAMs_20	IAMs_20	12 46 20.1	
	comp=Z,3µm,22.0s						
PB09	IPOC Station P	38.20	121	P	P	12 35 17.5	+1.0
	comp=Z,23nm,1.3s						
PB06	IPOC Station P	38.27	122	P	P	12 35 17.7	+0.6
PB06				IAmb	IAmb	12 35 19.2	
	comp=Z,15nm,1.0s						
PB06				IAMs_20	IAMs_20	12 46 22.0	
	comp=Z,3µm,19.0s						
PB06	IPOC Station P	38.27	122	P	P	12 35 18.0	+0.8
	comp=Z,19nm,1.6s						
BAR	Barrett	38.41	343	IAMs_20	IAMs_20	12 46 51.2	
	comp=Z,2µm,22.0s						
AMTX	Amarillo	38.81	3	IAMs_20	IAMs_20	12 49 42.0	
	comp=Z,3µm,19.0s						
ANMO	Albuquerque	38.86	357	LR	LR	12 48 31.3	
	comp=Z,470nm,21.4s,baz=180,slow=32						
ANMO	Albuquerque	38.86	357	P	P	12 35 22.8	+0.9
	comp=Z,4.3nm,2.2s						
BC3	Big Chuckawall	38.99	345	IAMs_20	IAMs_20	12 47 29.7	
	comp=Z,3µm,20.0s						
SMWD	Samnorwood	39.13	5	IAmb	IAmb	12 35 34.7	
	comp=Z,53nm,1.8s						
PFO	Pinyon Flats O	39.22	344	LR	LR	12 47 49.5	
	comp=Z,2µm,18.1s,baz=153,slow=30						
PFO	Pinyon Flats O	39.22	344	P	P	12 35 26.0	+1.2
PFO	Pinyon Flats O	39.22	344	IAMs_20	IAMs_20	12 47 47.7	
	comp=Z,2µm,18.0s						
PFO	Pinyon Flats O	39.22	344	P	P	12 35 26.1	+1.2
	comp=Z,8.3nm,1.8s						
PMD	Palm Desert	39.23	344	P	P	12 35 25.3	+0.5
IRM	Iron Mountain	39.39	346	IAMs_20	IAMs_20	12 47 44.3	
	comp=Z,3µm,21.0s						
BELC	Belle Mtn. Jos	39.46	344	IAMs_20	IAMs_20	12 47 43.1	
	comp=Z,2µm,20.0s						
AC04	Llanos de Chal	39.60	131	IAMs_20	IAMs_20	12 47 19.0	
	comp=Z,3µm,18.0s						
SDDR	Presa de Saban	39.66	54	P	P	12 35 28.5	-0.1
	comp=Z,14nm,1.6s						
MIAR	Mount Ida	39.68	14	IAmb	IAmb	12 35 30.5	
	comp=Z,27nm,1.4s						
MIAR	Mount Ida	39.68	14	P	P	12 35 29.5	+1.0
	comp=Z,15nm,2.5s						
AC06	Mina Casimiro	39.73	129	IAMs_20	IAMs_20	12 47 14.3	
	comp=Z,2µm,20.0s						
GO03	Copiapo	39.94	129	IAMs_20	IAMs_20	12 47 38.8	
	comp=Z,3µm,19.0s						
AC02	Maricunga	40.43	128	P	P	12 35 36.4	+0.9
AC02				IAMs_20	IAMs_20	12 47 38.1	
	comp=Z,3µm,21.0s						
AC02	Maricunga	40.43	128	P	P	12 35 37.6	+2.1
	comp=Z,9.7nm,2.3s						
AC05	El Transito	40.53	131	P	P	12 35 36.5	+0.7
AC05	El Transito	40.53	131	P	P	12 35 35.8	0.0
	comp=Z,21nm,2.8s						
WHAR	Wooly Hollow	40.71	15	P	P	12 35 37.8	+0.8
WHAR				IAmb	IAmb	12 35 39.9	
	comp=Z,40nm,1.6s						
MTPC	Mountain Pass	40.76	346	P	P	12 35 38.4	+0.8
OSI	Osito Audit: C	40.83	342	IAMs_20	IAMs_20	12 47 55.3	
	comp=Z,2µm,21.0s						
GSC	Goldstone, Bar	40.91	344	P	P	12 35 39.0	+0.2
TPO	Tropico Hills	40.92	342	P	P	12 35 39.5	+0.6
T25A	Trinidad	40.99	360	P	P	12 35 39.8	+0.3
GRTK	Grand Turk	41.16	51	IAMs_20	IAMs_20	12 50 07.9	
	comp=Z,2µm,20.0s						
MVCO	Mesa Verde	41.25	355	P	P	12 35 42.1	+0.4
MVCO				IAmb	IAmb	12 35 51.5	
	comp=Z,19nm,1.2s						
MVCO	Mesa Verde	41.25	355	P	P	12 35 41.8	0.0
	comp=Z,15nm,1.5s						
CCCA	Chr Cany lake	41.27	344	P	P	12 35 43.2	+1.5
CCCA				IAmb	IAmb	12 35 55.0	
	comp=Z,22nm,1.3s						
LRMC	Laurel Mtn Rad	41.32	343	P	P	12 35 43.3	+1.1
SHOC	Shoshone, Teco	41.33	345	P	P	12 35 42.4	+0.3
SHOC				IAMs_20	IAMs_20	12 49 00.6	
	comp=Z,2µm,19.0s						
QSM	Queen of Sheba	41.55	344	P	P	12 35 44.3	+0.4
QSM				IAmb	IAmb	12 35 54.7	
	comp=Z,18nm,1.1s						
SALTA		41.60	122	P	P	12 35 46.9	+1.7
	comp=Z,7.1nm,1.5s						
CLC	China Lake	41.61	344	P	P	12 35 44.4	-0.1
CLC				IAmb	IAmb	12 36 12.8	
	comp=Z,29nm,1.9s						
SDCO	Great Sand Dun	41.61	358	P	P	12 35 45.0	+0.2
SHPR	Sheep Range	41.64	347	P	P	12 35 45.1	+0.3
SHPR				IAmb	IAmb	12 35 51.5	
	comp=Z,30nm,1.7s						
KNB	Kanab	41.65	350	P	P	12 35 46.0	+1.1
KNB				IAmb	IAmb	12 35 51.7	
	comp=Z,26nm,1.4s						
GWY	Greenwater Val	41.70	345		P	12 35 46.2	+0.8

GWY				IAmb	IAmb	12 35 56.0	
	comp=Z,23nm,1.3s						
LCMT	**Little Creek M**	41.72	349	P	P	12 35 46.6	+1.1
ISA	**Isabella, Lake**	41.72	342	P	P	12 35 46.1	+0.7
ISA				IAMs_20	IAMs_20	12 49 20.9	
	comp=Z,2µm,18.0s						
LCAR	**Lake Charles**	41.74	16	P	P	12 35 46.2	+0.8
LCAR				IAmb	IAmb	12 35 46.5	
	comp=Z,32nm,1.5s						
CO04	**Los Peladeros**	41.77	136	IAMs_20	IAMs_20	12 48 21.1	
	comp=Z,2µm,19.0s						
GNAR	**Gosnell**	41.97	17	P	P	12 35 47.5	+0.1
PKCU	**Pink Cliffs**	41.98	350	P	P	12 35 47.6	-0.2
PKCU				IAmb	IAmb	12 35 55.0	
	comp=Z,23nm,1.3s						
FURC	**Furnace Creek,**	42.02	345	IAMs_20	IAMs_20	12 49 19.8	
	comp=Z,2µm,19.0s						
PV05	**Paradox Valley**	42.17	354	IAmb	IAmb	12 35 59.3	
	comp=Z,34nm,1.1s						
PV01	**Paradox Valley**	42.18	355	P	P	12 35 49.7	+0.4
HMU	**Henry Mountain**	42.23	352	IAmb	IAmb	12 35 57.3	
	comp=Z,53nm,1.6s						
PV02	**Paradox Valley**	42.26	355	IAmb	IAmb	12 35 59.7	
	comp=Z,32nm,1.3s						
WCT	**Wildcat Mounta**	42.27	345	IAmb	IAmb	12 36 01.2	
	comp=Z,19nm,1.3s						
VA05	**Santo Domingo**	42.27	138	IAMs_20	IAMs_20	12 48 34.6	
	comp=Z,2µm,19.0s						
PV18	**Skein Mesa, Pa**	42.32	354	IAmb	IAmb	12 36 00.0	
	comp=Z,31nm,1.3s						
MT02	**Curacav**	42.36	137	IAmb	IAmb	12 35 53.1	
	comp=Z,18nm,1.1s						
MT02				IAMs_20	IAMs_20	12 48 19.8	
	comp=Z,3µm,21.0s						
PV14	**Lion Creek, Pa**	42.45	354	IAmb	IAmb	12 36 06.7	
	comp=Z,34nm,1.5s						
PV04	**Paradox Valley**	42.46	355	IAmb	IAmb	12 36 02.1	
	comp=Z,33nm,1.4s						
VA03	**San Esteban**	42.47	136	IAMs_20	IAMs_20	12 48 52.8	
	comp=Z,2µm,20.0s						
PRN	**Pahroc Range**	42.48	347	IAmb	IAmb	12 36 17.4	
	comp=Z,21nm,1.3s						
PV22	**Blue Mesa, Par**	42.59	355	P	P	12 35 53.8	+1.1
PV22				IAmb	IAmb	12 35 58.5	
	comp=Z,33nm,1.5s						
PEL	**Peldehue**	42.60	137	IAMs_20	IAMs_20	12 48 28.3	
	comp=Z,3µm,22.0s						
PEL	**Peldehue**	42.60	137	P	P	12 35 52.7	+0.1
	comp=Z,16nm,1.7s						
PBMO	**Poplar Bluff**	42.61	16	P	P	12 35 53.4	+0.9
PBMO				IAmb	IAmb	12 35 59.4	
	comp=Z,24nm,1.3s						
MT01	**Popeta**	42.64	138	P	P	12 35 53.4	+0.4
MT01				IAmb	IAmb	12 35 55.0	
	comp=Z,20nm,1.2s						
MT01				IAMs_20	IAMs_20	12 48 27.2	
	comp=Z,2µm,22.0s						
GRAC	**Grapevine Rang**	42.65	344	IAmb	IAmb	12 36 21.0	
	comp=Z,51nm,1.6s						
T42A	**Van Buren**	42.66	16	IAmb	IAmb	12 35 59.7	
	comp=Z,49nm,1.9s						
MT05	**Renca**	42.71	137	IAMs_20	IAMs_20	12 48 50.0	
	comp=Z,2µm,20.0s						
S39A	**Bolivar**	42.75	13	P	P	12 35 53.9	+0.3
S39A				IAmb	IAmb	12 35 58.3	
	comp=Z,24nm,1.5s						
MT09	**Talagante**	42.76	138	P	P	12 35 54.6	+0.5
MT09				IAMs_20	IAMs_20	12 48 30.5	
	comp=Z,2µm,22.0s						
WVT	**Waverly**	42.81	20	P	P	12 35 54.0	-0.2
WVT				IAmb	IAmb	12 36 07.8	
	comp=Z,24nm,1.2s						
WVT	**Waverly**	42.81	20	P	P	12 35 52.7	-1.5
	comp=Z,21nm,2.5s						
Q24A	**Divide**	42.82	359	P	P	12 35 55.0	+0.4
S11A	**Rachel**	42.86	346	IAmb	IAmb	12 36 17.6	
	comp=Z,52nm,1.8s						
KSCO	**Kaye Shedlock’**	42.88	2	IAMs_20	IAMs_20	12 52 12.8	
	comp=Z,1µm,18.0s						
GO05	**Hualane**	42.90	140	IAmb	IAmb	12 35 56.6	
	comp=Z,33nm,1.2s						
GO05				IAMs_20	IAMs_20	12 48 34.9	
	comp=Z,2µm,20.0s						
GO05	**Hualane**	42.90	140	P	P	12 35 55.3	+0.3
	comp=Z,26nm,1.2s						
GMN	**Gold Mountain**	42.91	345	P	P	12 35 55.4	+0.1
MT03	**Universidad Ad**	42.92	137	IAMs_20	IAMs_20	12 48 55.7	
	comp=Z,2µm,20.0s						
BO01	**Tunca**	43.07	139	IAMs_20	IAMs_20	12 49 08.5	
	comp=Z,2µm,19.0s						
BO01	**Tunca**	43.07	139	P	P	12 35 56.9	+0.5
	comp=Z,8.7nm,2.6s						
ZON	**Zonda**	43.12	133	IAmb	IAmb	12 35 59.4	
	comp=Z,23nm,1.4s						
MT13	**San Alfonso**	43.22	137	IAMs_20	IAMs_20	12 49 05.5	
	comp=Z,2µm,20.0s						
BI05	**Punta Hualpn**	43.23	143	IAMs_20	IAMs_20	12 49 02.6	
	comp=Z,3µm,20.0s						
MT08	**Bocatoma Ro**	43.23	137	IAMs_20	IAMs_20	12 49 19.1	
	comp=Z,3µm,20.0s						
ECPR	**Experimental S**	43.41	58	P	P	12 35 58.4	-0.9
CFA	**Coronel Fontan**	43.47	133	LR	LR	12 49 42.3	
	comp=Z,1µm,20.6s,baz=336,slow=30						
SJG	**San Juan**	43.49	58	P	P	12 35 59.9	-0.1
	comp=Z,11nm,1.3s						
BO02	**Sierra Bellavi**	43.51	139	P	P	12 35 59.8	-0.3
BO02				IAmb	IAmb	12 36 01.6	
	comp=Z,19nm,1.1s						
BO02				IAMs_20	IAMs_20	12 49 23.2	
	comp=Z,2µm,19.0s						
BO02	**Sierra Bellavi**	43.51	139	P	P	12 35 60.0	-0.1
ISCO	**Idaho Springs**	43.66	358	P	P	12 36 00.7	-0.7
	comp=Z,5.6nm,1.3s						
ML02	**Panimavida**	43.69	140	IAMs_20	IAMs_20	12 49 45.0	
	comp=Z,2µm,20.0s						
ML02	**Panimavida**	43.69	140	P	P	12 36 01.4	+0.1
	comp=Z,24nm,1.4s						
P17A	**Butcher Ranch,**	43.74	353	IAmb	IAmb	12 36 11.8	
	comp=Z,35nm,1.5s						
P18A	**Preston Nutter**	43.83	353	IAmb	IAmb	12 36 12.7	
	comp=Z,15nm,1.2s						
TKL	**Tuckaleechee C**	43.90	24	LR	LR	12 54 46.8	
	comp=Z,693nm,18.3s,baz=215,slow=37						
LHV	**Little Huntoon**	44.14	344	IAmb	IAmb	12 36 11.8	
	comp=Z,15nm,1.3s						
NVAR	**Mina Array Bea**	44.25	344	P	P	12 36 05.9	-0.2
	comp=Z,2.5nm,1.0s,baz=171,slow=8.5,SNR=13						
NVAR				LR	LR	12 50 29.6	
	comp=Z,1µm,21.4s,baz=162,slow=31						
	comp=Z,2.5nm,1.0s						
NVAR	**Mina Array Bea**	44.25	344	P	P	12 36 07.0	+0.9
MHC	**Mount Hamilton**	44.28	340	P	P	12 36 06.3	+0.1
MHC				IAmb	IAmb	12 36 09.3	
	comp=Z,18nm,1.4s						
MHC				IAMs_20	IAMs_20	12 49 53.6	
	comp=Z,2µm,19.0s						
BI02	**San Fabin de**	44.35	141	IAmb	IAmb	12 36 09.2	
	comp=Z,20nm,1.1s						
BI02				IAMs_20	IAMs_20	12 49 20.3	
	comp=Z,2µm,22.0s						
BI02	**San Fabin de**	44.35	141	P	P	12 36 05.7	-1.0
	comp=Z,20nm,1.2s						
MPU	**Maple Canyon**	44.39	352	IAmb	IAmb	12 36 22.7	
	comp=Z,12nm,1.1s						
CMB	**Columbia Colle**	44.50	342	IAMs_20	IAMs_20	12 50 47.4	
	comp=Z,2µm,18.0s						
JRSC	**Jasper Ridge**	44.54	339	IAMs_20	IAMs_20	12 49 39.5	
	comp=Z,3µm,21.0s						
RDMU	**Red Mountain**	44.69	354	IAmb	IAmb	12 36 15.1	
	comp=Z,20nm,1.5s						
DUG	**Dugway, Tooele**	44.74	351	IAmb	IAmb	12 36 16.5	
	comp=Z,19nm,1.3s						
DUG	**Dugway, Tooele**	44.74	351	P	P	12 36 12.0	+2.1
	comp=Z,13nm,1.4s						
KVN	**Kaiserville**	44.78	345		P	12 36 10.4	+0.1
KVN				IAmb	IAmb	12 36 25.8	
	comp=Z,14nm,1.4s						
BSUT	**Blindstream Ca**	44.79	353	IAmb	IAmb	12 36 21.1	
	comp=Z,20nm,1.3s						
P40A	**Paris**	44.80	13		P	12 36 10.2	+0.1
P40A				IAmb	IAmb	12 36 13.2	
	comp=Z,22nm,1.2s						
OGNE	**Ogallala**	44.83	2	P	P	12 36 11.9	+1.4
OGNE				IAMs_20	IAMs_20	12 53 33.4	
	comp=Z,2µm,18.0s						
Q44A	**Meyer Farm, Va**	44.99	17	P	P	12 36 12.5	+0.8
YERR	**Yerington**	45.03	343	P	P	12 36 12.9	+0.6
YERR				IAmb	IAmb	12 36 23.4	
	comp=Z,13nm,1.1s						
CTU	**Camp Tracy**	45.07	352	P	P	12 36 13.1	+0.5
FARB	**Farallon Islan**	45.08	339	IAMs_20	IAMs_20	12 49 50.6	
	comp=Z,2µm,20.0s						
PNTR	**Pine Nut**	45.23	343	IAmb	IAmb	12 36 29.7	
	comp=Z,21nm,1.1s						
CVS	**Carmenet Viney**	45.46	340	IAMs_20	IAMs_20	12 50 06.9	
	comp=Z,2µm,21.0s						
BGU	**Big Grassy Mou**	45.49	351	IAmb	IAmb	12 36 22.2	
	comp=Z,21nm,1.6s						
AFDM	**Forest Hills D**	45.52	342	IAmb	IAmb	12 36 26.6	
	comp=Z,16nm,1.5s						
BGNE	**Belgrade**	45.59	6	IAMs_20	IAMs_20	12 53 43.4	
	comp=Z,1µm,20.0s						
PTLB	**Pontes e Lacer**	45.72	108	P	P	12 36 17.2	-0.6
ELK	**Elko**	45.72	348	LR	LR	12 52 30.6	
	comp=Z,1µm,18.8s,baz=166,slow=32						
ELK	**Elko**	45.72	348	P	P	12 36 18.0	+0.2
ELK				IAMs_20	IAMs_20	12 52 36.9	
	comp=Z,1µm,18.0s						
PAHR	**Pah Rah Range**	45.74	344	IAmb	IAmb	12 36 33.6	
	comp=Z,17nm,1.3s						
SPUT	**South Promonto**	45.78	351	IAmb	IAmb	12 36 28.1	
	comp=Z,25nm,1.4s						
BMN	**Battle Mountai**	45.86	346	P	P	12 36 19.6	+0.9
HWUT	**Hardware Ranch**	45.94	352	IAmb	IAmb	12 36 29.2	
	comp=Z,15nm,1.2s						
HWUT	**Hardware Ranch**	45.94	352	P	P	12 36 20.7	+1.3
	comp=Z,11nm,1.3s						
V58A	**Windy Hill, Pi**	46.08	29	IAMs_20	IAMs_20	12 54 01.0	
	comp=Z,2µm,20.0s						
ORV	**Oroville**	46.24	341	IAmb	IAmb	12 36 32.6	
	comp=Z,14nm,1.2s						
HVU	**Hansel Valley**	46.29	351	IAmb	IAmb	12 36 28.2	
	comp=Z,21nm,1.5s						
PPT	**Papeete**	46.42	250	LR	LR	12 50 47.7	
	comp=Z,1µm,19.0s,baz=75,slow=30						
PPT2	**Papeete2**	46.42	250	*e*P	P	12 36 22.4	-1.1
	comp=Z,106nm,26.2s						
PPT2				*e*S	S	12 42 57.2	-14
	comp=Z,906nm,24.2s						
PPT2				*e*SS	SS	12 46 38.1	+1.2
	comp=Z,3µm,30.8s						
PPT2				*e*LR	LR	12 49 17.6	
	comp=Z,2µm,27.5s						
PPT2				*e*LR	LR	12 49 24.0	
	comp=Z,3µm,26.8s						
K22A	**Casper**	46.54	358		P	12 36 25.1	+1.0
K30B	**Basset**	46.70	5	IAMs_20	IAMs_20	12 54 31.9	
	comp=Z,2µm,20.0s						
S54A	**Dingess, Beckl**	46.76	25	IAMs_20	IAMs_20	12 55 42.8	
	comp=Z,1µm,18.0s						
AONC	**Vina, CA USA**	46.77	341	IAMs_20	IAMs_20	12 51 24.2	
	comp=Z,2µm,20.0s						
BW06	**Boulder Array**	46.86	355	P	P	12 36 26.2	-0.5
BW06				IAmb	IAmb	12 36 44.7	
	comp=Z,11nm,1.3s						
PD31	**Pinedale Array**	46.86	355	P	P	12 36 25.5	-1.2
PD31				IAmb	IAmb	12 36 44.7	
	comp=Z,11nm,1.3s						
PDAR	**Pinedale Array**	46.86	355	P	P	12 36 24.9	-1.7
	comp=Z,1.2nm,0.8s,baz=177,slow=7.0,SNR=12						
PDAR				LR	LR	12 53 43.9	
	comp=Z,486nm,18.6s,baz=170,slow=33						
	comp=Z,1.2nm,0.8s						
O03E	**Paynes Creek**	47.01	342	P	P	12 36 27.4	-0.2
O03E				IAmb	IAmb	12 36 56.0	
	comp=Z,16nm,1.4s						
KCPM	**Cahto Peak**	47.05	340	IAMs_20	IAMs_20	12 51 37.9	
	comp=Z,2µm,19.0s						
HATC	**Hat Creek Radi**	47.38	342	P	P	12 36 31.0	+0.4
GO07	**Milladeo Hill,**	47.38	150	P	P	12 36 31.6	+1.2
PLCA	**Paso Flores**	47.40	145	P	P	12 36 31.0	+0.2
	comp=Z,5.0nm,1.0s,baz=349,slow=6.7,SNR=5.5						
PLCA				LR	LR	12 52 02.9	
	comp=Z,2µm,18.0s,baz=321,slow=30						
	comp=Z,5.0nm,1.0s						
PLCA	**Paso Flores**	47.40	145		P	12 36 30.6	-0.2
R55A	**Marlinton**	47.67	26	IAMs_20	IAMs_20	12 55 40.0	
	comp=Z,1µm,20.0s						
S57A	**Dark Hollow, R**	47.76	27	IAMs_20	IAMs_20	12 55 16.3	
	comp=Z,2µm,20.0s						
FXWY	**Fox Creek**	47.88	353	IAmb	IAmb	12 36 39.9	
	comp=Z,18nm,1.6s						
RSSD	**Black Hills**	47.96	0	P	P	12 36 35.5	+0.3
RSSD				IAmb	IAmb	12 36 40.1	
	comp=Z,16nm,1.1s						
RSSD	**Black Hills**	47.96	0	P	P	12 36 34.5	-0.7
	comp=Z,12nm,1.3s						
M03C	**McCloud**	48.00	342	P	P	12 36 35.5	+0.1
MOD	**Modoc Plateau**	48.04	344	P	P	12 36 35.9	+0.2
ECSD	**EROS Data Cent**	48.06	7	P	P	12 36 35.8	0.0
	comp=Z,11nm,2.6s						
WVOR	**Wild Horse Val**	48.10	346	P	P	12 36 36.2	0.0
WVOR				IAmb	IAmb	12 36 46.2	
	comp=Z,20nm,1.5s						
WVOR				IAMs_20	IAMs_20	12 52 46.7	
	comp=Z,1µm,22.0s						
WVOR	**Wild Horse Val**	48.10	346	P	P	12 36 37.9	+1.7
	comp=Z,8.5nm,1.4s						
JCC	**Jacoby Creek,**	48.21	340	IAMs_20	IAMs_20	12 52 12.7	
	comp=Z,2µm,20.0s						
HLID	**Hailey**	48.29	350		P	12 36 37.9	+0.2
HLID				IAmb	IAmb	12 36 48.2	
	comp=Z,14nm,1.2s						
HLID	**Hailey**	48.29	350	P	P	12 36 39.4	+1.7
	comp=Z,11nm,1.4s						
M02C	**Callahan**	48.34	341		P	12 36 38.0	0.0
M02C				IAmb	IAmb	12 37 02.6	
	comp=Z,12nm,1.2s						
LL02	**Futaleuf**	48.37	148	IAmb	IAmb	12 36 40.2	
	comp=Z,18nm,1.3s						
LL02	**Futaleuf**	48.37	148	P	P	12 36 38.9	+0.7
	comp=Z,12nm,1.9s						
MFID	**Camas Ranch**	48.41	349	IAMs_20	IAMs_20	12 54 07.0	
	comp=Z,2µm,18.0s						
R58B	**Mineral**	48.42	28	IAMs_20	IAMs_20	12 55 22.8	
	comp=Z,2µm,20.0s						
YPP	**Pitchstone Pla**	48.48	354	IAmb	IAmb	12 36 45.4	
	comp=Z,16nm,1.5s						
YBH	**Yreka Blue Hor**	48.60	342	LR	LR	12 52 41.8	
	comp=Z,1µm,21.8s,baz=170,slow=31						
YBH	**Yreka Blue Hor**	48.60	342		P	12 36 39.9	-0.1
YBH				IAmb	IAmb	12 36 49.5	
	comp=Z,10.0nm,1.2s						
Q56A	**Snyder Ridge,**	48.71	26	IAMs_20	IAMs_20	12 56 02.4	
	comp=Z,2µm,19.0s						
K43A	**Burlington**	48.72	16	P	P	12 36 41.1	+0.4
LKWY	**Lake**	48.73	354	P	P	12 36 40.0	-1.1
LKWY				IAMs_20	IAMs_20	12 56 39.4	
	comp=Z,1µm,18.0s						
KRMB	**Red Mountain**	48.80	340	IAMs_20	IAMs_20	12 53 01.3	
	comp=Z,2µm,20.0s						
L04D	**Klamath Falls**	48.91	342	IAmb	IAmb	12 37 07.6	
	comp=Z,21nm,1.3s						
J08A	**Circle Bar Ran**	48.93	346	IAmb	IAmb	12 36 57.7	
	comp=Z,13nm,1.2s						
K05A	**Summer Lake**	48.97	344	IAmb	IAmb	12 36 58.7	
	comp=Z,17nm,1.2s						
YHB	**Horse Butte**	48.99	353	IAmb	IAmb	12 36 52.9	
	comp=Z,13nm,1.4s						
KSXB	**Camp Six Broad**	49.07	341	IAMs_20	IAMs_20	12 53 10.3	
	comp=Z,2µm,20.0s						
QLMT	**Earthquake Lak**	49.10	353		P	12 36 43.4	-0.6
J04A	**Umpqua Nationa**	49.79	343	P	P	12 36 49.2	0.0
BOZ	**Bozeman (W)**	49.88	353	IAmb	IAmb	12 36 55.3	
	comp=Z,16nm,1.8s						
AQDB	**Aquidauana**	49.89	113	P	P	12 36 49.4	-0.7
	comp=Z,21nm,1.7s						
PINE	**Pine Mountain**	49.97	344	IAmb	IAmb	12 37 01.3	
	comp=Z,18nm,1.2s						
CPUP	**Villa Florida**	49.97	121	P	P	12 36 49.6	-1.1
	comp=Z,7.0nm,0.9s,baz=291,slow=11,SNR=9.6						
CPUP				LR	LR	12 54 40.9	
	comp=Z,845nm,20.7s,baz=258,slow=32						
	comp=Z,7.0nm,0.9s						
CPUP	**Villa Florida**	49.97	121	IAmb	IAmb	12 36 52.0	
	comp=Z,20nm,1.2s						
PLID	**Pearl Lake**	50.05	349	IAMs_20	IAMs_20	12 54 42.5	
	comp=Z,1µm,20.0s						
BMO	**Blue Mountains**	50.09	348	IAMs_20	IAMs_20	12 54 39.4	
	comp=Z,2µm,20.0s						
WIFE	**Three Sisters-**	50.46	344		P	12 36 53.9	-0.4
WIFE				IAmb	IAmb	12 37 19.2	
	comp=Z,13nm,1.1s						
E28A	**Huff**	50.51	3	P	P	12 36 55.9	+1.5
E28A				IAMs_20	IAMs_20	12 56 51.7	
	comp=Z,2µm,19.0s						
SSPA	**Standing Stone**	50.59	26	IAMs_20	IAMs_20	12 56 57.7	
	comp=Z,2µm,19.0s						
BUCK	**Buck Mountain**	50.92	343		P	12 36 58.1	+0.5
BUCK				IAmb	IAmb	12 37 08.5	
	comp=Z,23nm,1.2s						
F10A	**Beach Ranch, E**	51.15	348	IAmb	IAmb	12 37 17.3	
	comp=Z,34nm,1.9s						
N58A	**Sunbury**	51.27	27	IAMs_20	IAMs_20	12 57 14.2	
	comp=Z,2µm,19.0s						
LNOR	**Lincton Mounta**	51.27	347	IAmb	IAmb	12 37 09.1	
	comp=Z,21nm,1.8s						
COR	**Corvallis**	51.37	343	P	P	12 37 01.2	+0.4
COR	**Corvallis**	51.37	343	P	P	12 37 01.3	+0.4
	comp=Z,17nm,1.4s						
G05A	**Wamic**	51.41	345	P	P	12 37 01.8	+0.6
G05A				IAmb	IAmb	12 37 17.9	
	comp=Z,16nm,1.1s						
MDND	**Maddock**	51.85	4	IAMs_20	IAMs_20	12 57 43.1	
	comp=Z,1µm,18.0s						
HAWA	**Hanford**	52.04	347	IAmb	IAmb	12 37 15.5	
	comp=Z,17nm,1.2s						
MDP	**Montagnes des**	52.29	80	LR	LR	12 57 13.7	
	comp=Z,1µm,19.5s,baz=270,slow=34						
WAH2	**Wahluke Slope**	52.39	347	P	P	12 37 08.9	+0.4
WAH2				IAmb	IAmb	12 37 14.3	
	comp=Z,28nm,1.4s						
JRO	**Jston Ridge Ob**	52.61	344		P	12 37 10.6	+0.4
JRO				IAmb	IAmb	12 37 20.4	
	comp=Z,21nm,1.3s						
AGMN	**Agassiz Nation**	52.65	7	P	P	12 37 10.5	+0.2
AGMN				IAMs_20	IAMs_20	12 58 09.3	
	comp=Z,1µm,18.0s						
AGMN	**Agassiz Nation**	52.65	7	P	P	12 37 10.1	-0.2
	comp=Z,13nm,1.6s						
J55A	**Hilton**	52.78	24	IAMs_20	IAMs_20	13 00 02.4	
	comp=Z,1µm,20.0s						
N62A	**Caumsett State**	52.85	29	IAMs_20	IAMs_20	12 57 33.3	
	comp=Z,2µm,21.0s						
K57A	**Scipio Center**	52.89	25	IAMs_20	IAMs_20	12 58 21.1	
	comp=Z,2µm,20.0s						
EPH	**Ephrata**	52.97	347	IAmb	IAmb	12 37 22.8	
	comp=Z,20nm,1.4s						
C09A	**Chrisman Ranch**	53.10	348	IAmb	IAmb	12 37 23.6	
	comp=Z,20nm,1.5s						
WSPT	**Westport, CT**	53.10	29	IAMs_20	IAMs_20	12 58 30.9	
	comp=Z,2µm,19.0s						
LTY	**Liberty**	53.12	346	IAmb	IAmb	12 37 39.0	
	comp=Z,24nm,1.9s						
E03A	**Lebam**	53.23	343	IAmb	IAmb	12 37 25.0	
	comp=Z,20nm,1.3s						
NEW	**Newport**	53.32	349	LR	LR	12 57 04.3	
	comp=Z,1µm,19.3s,baz=173,slow=33						
NEW	**Newport**	53.32	349		P	12 37 16.4	+1.0
NEW				IAmb	IAmb	12 37 24.1	
	comp=Z,23nm,1.5s						
NEW	**Newport**	53.32	349	IAMs_20	IAMs_20	12 56 53.0	
	comp=Z,2µm,20.0s						
NEW	**Newport**	53.32	349	P	P	12 37 16.1	+0.8
	comp=Z,6.9nm,1.1s						
D05A	**Enumclaw**	53.39	345	P	P	12 37 16.3	+0.5
SADO	**Sadowa**	53.53	22	LR	LR	13 00 12.1	
	comp=Z,504nm,18.2s,baz=231,slow=36						
GNW	**Green Mountain**	53.96	344	IAmb	IAmb	12 37 28.8	
	comp=Z,9.2nm,1.2s						
NLWA	**Neilton Lookou**	54.09	344	IAMs_20	IAMs_20	12 56 05.1	
	comp=Z,1µm,20.0s						
TRY	**Troy**	54.15	27	IAMs_20	IAMs_20	12 58 59.6	
	comp=Z,2µm,21.0s						
EPLO	**Experimental L**	54.28	8		P	12 37 22.5	+0.2
J59A	**Piesco**	54.35	26	IAMs_20	IAMs_20	12 59 09.9	
	comp=Z,1µm,20.0s						
ULM	**Lac du Bonnet**	54.57	7	P	P	12 37 23.4	-0.9
	comp=Z,7.8nm,0.9s,baz=185,slow=9.4,SNR=5.5						
ULM				LR	LR	12 59 26.2	
	comp=Z,1µm,18.6s,baz=195,slow=35						
	comp=Z,7.8nm,0.9s						
ULM	**Lac du Bonnet**	54.57	7		P	12 37 25.6	+1.2
A04D	**Lummi Island**	54.99	345	P	P	12 37 27.8	+0.4
PGC	**Sidney**	55.12	345	P	P	12 37 28.8	+0.4
PGC				IAmb	IAmb	12 37 37.7	
	comp=Z,12nm,1.2s						
J61A	**Chester**	55.15	28	IAMs_20	IAMs_20	12 59 15.9	
	comp=Z,2µm,20.0s						
BDFB	**Brasilia**	56.37	106	P	P	12 37 38.0	-0.1
	comp=Z,3.8nm,0.7s,baz=260,slow=12,SNR=5.2						
BDFB				LR	LR	12 59 58.2	
	comp=Z,732nm,19.2s,baz=283,slow=34						
	comp=Z,3.8nm,0.7s						
RAR	**Rarotonga**	56.54	247	LR	LR	12 55 54.4	
	comp=Z,371nm,18.3s,baz=104,slow=30						
E62A	**Clayton Lake**	59.03	27	IAMs_20	IAMs_20	13 01 37.9	
	comp=Z,1µm,21.0s						
BBB	**Bella Bella**	59.60	343	LR	LR	13 00 54.5	
	comp=Z,524nm,18.1s,baz=160,slow=33						
DLBC	**Dease Lake**	65.64	345	LR	LR	13 04 07.4	
	comp=Z,655nm,20.0s,baz=133,slow=33						
SCHQ	**Schefferville**	66.33	23	LR	LR	13 07 00.7	
	comp=Z,1µm,19.4s,baz=234,slow=35						
YKA	**Yellowknife Ar**	66.84	355	P	P	12 38 47.1	-0.7
	comp=Z,2.2nm,0.8s,baz=166,slow=6.8,SNR=8.8						
YKA				LR	LR	13 05 46.2	
	comp=Z,810nm,18.9s,baz=180,slow=34						
	comp=Z,2.2nm,0.8s						
YKA	**Yellowknife Ar**	66.84	355	P	P	12 38 47.7	-0.1
PMSA	**Palmer Station**	67.03	163	LR	LR	13 00 22.5	
	comp=Z,1µm,20.0s,baz=313,slow=29						
PMSA	**Palmer Station**	67.03	163	P	P	12 38 49.3	+0.3
AFI	**Afiamalu**	67.29	257	LR	LR	13 00 16.0	
	comp=Z,538nm,21.7s,baz=94,slow=29						
P32M	**Atlin**	67.60	344	IAMs_20	IAMs_20	13 05 27.6	
	comp=Z,864nm,19.0s						
RCBR	**Riachuelo**	68.02	95	LR	LR	13 07 34.3	
	comp=Z,368nm,18.2s,baz=307,slow=35						
SMAI	**San Martin Ant**	68.69	166	P	P	12 39 01.1	+1.6
O29M	**Mount Kennedy**	69.58	343	IAMs_20	IAMs_20	13 02 23.9	
	comp=Z,683nm,21.0s						
MMPY	**Sheldon Lake,**	69.62	347	P	P	12 39 06.2	+0.9
N31M	**Braeburn, Yuko**	69.75	344	IAMs_20	IAMs_20	13 06 15.5	
	comp=Z,788nm,20.0s						
M31M	**Drury Creek, Y**	70.00	345	IAMs_20	IAMs_20	13 05 59.9	
	comp=Z,654nm,20.0s						
N30M	**Aishikik Lake**	70.09	344	IAMs_20	IAMs_20	13 06 49.3	
	comp=Z,779nm,18.0s						
M29M	**Somme Creek**	71.27	344	IAMs_20	IAMs_20	13 07 34.6	
	comp=Z,904nm,18.0s						
CRQM	**Cirque**	71.36	341	IAMs_20	IAMs_20	13 03 26.4	
	comp=Z,705nm,19.0s						
BMRM	**Bremner River**	72.00	341	IAMs_20	IAMs_20	13 03 43.8	
	comp=Z,674nm,20.0s						
M27K	**Edge Creek, AK**	72.18	343	IAMs_20	IAMs_20	13 05 13.7	
	comp=Z,732nm,19.0s						
FRB	**Frobisher Bay**	72.69	16	LR	LR	13 10 51.8	
	comp=Z,438nm,18.0s,baz=201,slow=36						
L27K	**Beaver Creek,**	72.71	343	IAMs_20	IAMs_20	13 04 14.7	
	comp=Z,756nm,21.0s						
KDAK	**Kodiak Island**	72.82	335	LR	LR	13 03 26.2	
	comp=Z,1µm,21.0s,baz=127,slow=29						
L26K	**Log Cabin Wild**	73.13	342	IAMs_20	IAMs_20	13 05 06.8	
	comp=Z,660nm,18.0s						
K27K	**Chicken**	73.53	344	IAmb	IAmb	12 39 35.0	
	comp=Z,14nm,1.2s						
RAO	**Raoul Island**	73.83	241	LR	LR	13 03 52.1	
	comp=Z,291nm,19.3s,baz=94,slow=29						
G31M	**Satah River**	74.00	348	IAMs_20	IAMs_20	13 08 50.7	
	comp=Z,749nm,19.0s						
SCRK	**Sand Creek**	74.04	343	IAMs_20	IAMs_20	13 06 22.8	
	comp=Z,773nm,19.0s						
M22K	**Willow**	74.44	339	IAMs_20	IAMs_20	13 05 18.5	
	comp=Z,686nm,20.0s						
C36M	**Paulatuk**	74.51	353	IAMs_20	IAMs_20	13 10 11.2	
	comp=Z,849nm,19.0s						
I27K	**Kandik River**	74.63	345	IAmb	IAmb	12 40 03.7	
	comp=Z,11nm,1.2s						
INK	**Inuvik**	75.05	349	LR	LR	13 10 51.2	
	comp=Z,1µm,18.1s,baz=156,slow=34						
RND	**Reindeer**	75.14	341	IAmb	IAmb	12 39 39.6	
	comp=Z,19nm,1.2s						
N19K	**Bonanza Creek**	75.46	337	IAMs_20	IAMs_20	13 04 53.4	
	comp=Z,847nm,18.0s						
ILAR	**Eielson Array**	75.48	343	P	P	12 39 37.4	-2.7
	comp=Z,2.3nm,0.9s,baz=157,slow=4.8,SNR=15						
	comp=Z,2.3nm,0.9s						
ILAR	**Eielson Array**	75.48	343	P	P	12 39 39.2	-0.9
PRP	**Porcupine Dome**	75.63	343	P	P	12 39 41.2	+0.1
PRP				IAMs_20	IAMs_20	13 10 29.8	
	comp=Z,821nm,18.0s						

E29M	Blow River	75.99	348	IAMs_20	IAMs_20	13 09 17.3	
	comp=Z,583nm,20.0s						
NEA2	Nenana	76.03	342	IAmb	IAmb	12 39 47.1	
	comp=Z,21nm,1.7s						
FYU	Fort Yukon	76.32	344	IAMs_20	IAMs_20	13 08 22.1	
	comp=Z,782nm,20.0s						
H24K	Noodor Dome	76.54	343	P	P	12 39 45.9	-0.3
H24K				IAmb	IAmb	12 39 51.7	
	comp=Z,16nm,1.5s						
H24K				IAMs_20	IAMs_20	13 11 09.8	
	comp=Z,761nm,19.0s						
E27K	Coleen River	76.65	347	IAMs_20	IAMs_20	13 08 43.7	
	comp=Z,564nm,19.0s						
BMAR	Burnt Mountain	76.80	345	P	P	12 39 47.8	+0.2
MLY	Manley	76.85	342	P	P	12 39 48.0	0.0
G24K	Hadweenzic Riv	77.04	344	IAMs_20	IAMs_20	13 10 57.0	
	comp=Z,726nm,21.0s						
MSVF	Nonsavu	77.12	253	LR	LR	13 05 48.9	
	comp=Z,275nm,21.1s,baz=147,slow=30						
D27M	Malcolm River	77.34	347	IAMs_20	IAMs_20	13 09 34.0	
	comp=Z,703nm,22.0s						
F24K	Squaw Lake	77.73	344	IAMs_20	IAMs_20	13 11 38.4	
	comp=Z,773nm,18.0s						
E24K	Your Creek	78.29	344	IAMs_20	IAMs_20	13 09 24.1	
	comp=Z,763nm,21.0s						
E23K	Chandalar	78.58	344	IAMs_20	IAMs_20	13 12 04.9	
	comp=Z,603nm,19.0s						
URZ	Urewera	78.62	232	LR	LR	13 09 14.5	
	comp=Z,682nm,18.1s,baz=100,slow=32						
D25K	Kavik River	78.65	346	IAMs_20	IAMs_20	13 09 03.6	
	comp=Z,601nm,20.0s						
G21K	Allakaket	78.69	342	IAMs_20	IAMs_20	13 10 18.6	
	comp=Z,603nm,18.0s						
RES	Resolute Bay	78.82	3	LR	LR	13 14 03.9	
	comp=Z,740nm,19.2s,baz=194,slow=35						
F21K	Alatna River	79.13	343	IAMs_20	IAMs_20	13 08 20.4	
	comp=Z,635nm,20.0s						
SFJD	Kangerlussuaq	80.32	19	LR	LR	13 14 32.3	
	comp=Z,696nm,21.2s,baz=235,slow=35						
BELA	Belgrano 2	81.81	168	P	P	12 40 15.7	+0.8
BELA				IAmb	IAmb	12 40 24.8	
	comp=Z,7.2nm,1.1s						
RPZ	Rata Peaks	83.42	227	LR	LR	13 10 42.6	
	comp=Z,243nm,19.0s,baz=184,slow=31						
QSPA	South Pole Qui	85.99	180	P	P	12 40 35.8	-0.8
	comp=Z,2.4nm,0.8s,baz=124,slow=1.7,SNR=6.8						
QSPA				LR	LR	13 12 29.6	
	comp=Z,634nm,19.6s,baz=123,slow=31						
	comp=Z,2.4nm,0.8s						
QSPA	South Pole Qui	85.99	180		P	12 40 36.1	-0.4
QSPA	South Pole Qui	85.99	180	P	P	12 40 38.3	+1.7
	comp=Z,21nm,1.1s						
VNDA	Vanda	86.92	193	P	P	12 40 41.7	+0.9
	comp=Z,0.6nm,0.9s,baz=310,slow=1.9,SNR=2.3						
	comp=Z,0.6nm,0.9s						
VNDA	Vanda	86.92	193	P	P	12 40 41.2	+0.5
VNDA				IAmb	IAmb	12 40 56.1	
	comp=Z,7.0nm,1.3s						
SHEM	Shemya Is, Ala	88.19	323	LR	LR	13 11 58.3	
	comp=Z,1µm,20.9s,baz=104,slow=30						
SNAA	Sanae	89.74	162	LR	LR	13 12 52.6	
	comp=Z,384nm,21.2s,baz=261,slow=30						
H11N3	WAKE ISLAND Hy	90.32	290	T	T	14 20 45.0	
	baz=94,slow=75,SNR=67						
H11N2	WAKE ISLAND Hy	90.33	290	T	T	14 20 52.2	
	baz=94,slow=75,SNR=60						
H11N1	WAKE ISLAND Hy	90.34	290	T	T	14 20 42.8	
	baz=94,slow=75,SNR=61						
H11S2	WAKE ISLAND Hy	90.42	288	T	T	14 20 52.7	
	baz=95,slow=75,SNR=107						
H11S1	WAKE ISLAND Hy	90.43	288	T	T	14 20 53.2	
	baz=95,slow=75,SNR=141						
H11S3	WAKE ISLAND Hy	90.44	288	T	T	14 20 47.0	
	baz=95,slow=75,SNR=95						
BORG	Borgarnes	90.59	25	LR	LR	13 20 19.8	
	comp=Z,296nm,18.5s,baz=266,slow=35						
HNR	Honiara	95.11	260	LR	LR	13 15 56.1	
	comp=Z,227nm,18.7s,baz=155,slow=30						
JMIC	Jan Mayen	95.67	19	LR	LR	13 23 06.6	
	comp=Z,536nm,21.7s,baz=264,slow=35						
PETK	Petropavlovsk-	98.10	323	LR	LR	13 17 21.8	
	comp=Z,637nm,21.0s,baz=87,slow=30						
EKA	Eskdalemuir Ar	99.60	35	LR	LR	13 23 05.0	
	comp=Z,282nm,21.8s,baz=290,slow=33						
SEY	Seymchan	99.70	333	LR	LR	13 21 39.0	
	comp=Z,416nm,18.7s,baz=126,slow=32						
DBIC	Dimbokro	99.72	84	LR	LR	13 24 38.6	
	comp=Z,179nm,18.6s,baz=273,slow=34						
SPITS	Spitsbergen Ar	99.98	10	LR	LR	13 27 08.5	
	comp=Z,745nm,19.5s,baz=283,slow=36						
MA2	Magadan	101.09	330	IAMs_20	IAMs_20	13 20 43.1	
	comp=Z,405nm,19.0s						
MAHO	Mahon	106.73	50	IAMs_20	IAMs_20	13 22 04.9	
	comp=Z,351nm,19.0s						
CLL	Collm	109.93	36	LH		13 14 00.0	
CLL				LV		13 20 00.0	
WRA	Warramunga Arr	117.78	245	PKP	PKiKP	12 46 43.5	-0.1
	comp=Z,0.6nm,0.7s,baz=102,slow=2.2,SNR=5.3						
INCN	Inchon	122.95	313	IAMs_20	IAMs_20	13 33 37.1	
	comp=Z,419nm,20.0s						
BRTR	Keskin Array B	127.95	41	PKP	PKPdf	12 47 01.9	-0.9
	comp=Z,1.3nm,0.8s,baz=169,slow=1.3,SNR=4.3						
SONM	Songino Array	129.09	334	PKP	PKPdf	12 47 03.7	-1.0
	comp=Z,0.5nm,0.8s,baz=126,slow=2.6,SNR=3.5						
ZALV	Zalesovo Beam	129.72	353	PKP	PKPdf	12 47 05.4	0.0
	comp=Z,0.7nm,0.7s,baz=308,slow=3.5,SNR=2.2						
NJ2	Nanjing	131.01	310	*e*P	PKiKP	12 47 08.8	-0.7
NJ2				pmax	pmax		
	comp=Z,14nm,0.9s						
HHC	Hu-ho-hao-te	131.29	324	*e*P	PKPdf	12 47 04.8	-4.2
HHC				LR	LR		
	comp=N,210nm,15.8s						
HHC				LR	LR		
	comp=E,250nm,15.6s						
HHC				LR	LR		
	comp=Z,260nm,15.5s						
KURK	Kurchatov	133.45	358		PKiKP	12 47 13.1	-0.8
KURBB	Kurchatov Arra	133.54	358	PKP	PKPdf	12 47 13.1	+0.3
	comp=Z,1.3nm,0.2s,baz=354,slow=2.5,SNR=4.2						
MKAR	Makanchi Array	137.06	353	PKP	PKPdf	12 47 19.7	+0.2
	comp=Z,1.0nm,0.9s,baz=8.5,slow=2.5,SNR=4.9						
XAN	Xi'an	137.14	318	*e*PKP	PKiKP	12 47 24.6	+2.6
XAN				LR	LR		
	comp=N,480nm,22.0s						
XAN				LR	LR		
	comp=E,290nm,21.4s						
XAN				LR	LR		
	comp=Z,420nm,17.9s						
LZH	Lanzhou	138.98	325	*e*PKP	PKPdf	12 47 21.0	-2.6
LZH				sPKP	sPKPdf	12 47 32.5	+2.1
LZH				LR	LR		
	comp=N,300nm,17.7s						
LZH				LR	LR		
	comp=E,310nm,17.0s						
LZH				LR	LR		
	comp=Z,460nm,18.7s						
WMQ	Urumqi	139.03	347	*e*PKP	PKiKP	12 47 24.3	-1.3
WMQ				LR	LR		
	comp=Z,350nm,20.9s						
KKM	Kota Kinabalu	139.71	275	IAMs_20	IAMs_20	14 00 04.5	
	comp=Z,241nm,18.0s						
RAYN	Ar Rayn	144.92	54		PKPab	12 47 31.6	-1.9
KSH2	Kashi	145.07	0	PKPbc	PKPab	12 47 33.8	+0.1
KSH2				LR	LR		
	comp=N,620nm,13.5s						
KSH2				LR	LR		
	comp=E,210nm,13.3s						
KSH2				LR	LR		
	comp=Z,620nm,17.6s						
BBJI	Bungbulang	146.23	250	PKPdf	PKPdf	12 47 36.1	-0.8
PZH	PanZhiHua	146.63	315	PKPbc	PKPdf	12 47 37.8	+0.5
CMAR	Chiang Mai Arr	153.23	304	PKPbc	PKPbc	12 47 54.7	-0.6
	comp=Z,1.0nm,0.8s,baz=353,slow=1.7,SNR=6.7						
HYB	Hyderabad	166.46	349	*e*SKKSac	SKKSac	12 59 38.9	+0.1

NOU ***21*** *12:48:42.9, 39°.85S×174°.51E, h116km, MLv2.9/16, North Island, New Zealand*

WEL ***21*** *12:48:45.3±0.6, 40°S±3°×17°4E±°, h101km±5km, M2.6/24, ML2.6/21, MLv2.6/24, Error ellipse: s-maj=4.2km s-min=3.6km az=157.1, confirmed*

ISC 21 12:48:44.7±1.1**, 39°.88S**±0°.03×**174°.51E**±0°.03**, h100**km**, n104, σ1ˢ48**/132**, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WAZ	Wanganui	0.39	72	P	Pn	12 49 02.1	+2.3
WAZ				S	Sn	12 49 15.2	+4.2
WAZ				AML	AML		
WAZ				AML	AML		
WCDS	Wanganui Civil	0.42	98	P	Pn	12 49 01.7	+1.9
WCDS				S	Sn	12 49 15.5	+4.3
LREZ	Lake Rotokare	0.42	349	S	Sn	12 49 15.2	+3.8
PREZ	Palmer Road	0.60	333	P	Pn	12 49 03.9	+2.5
PREZ				S	Sn	12 49 15.9	+2.2
HUKS	Huiakama Schoo	0.62	4	S	Sn	12 49 16.1	+2.2
OPSS	Opunake Primar	0.66	310	S	Sn	12 49 17.5	+3.0
NMEZ	Namu Road	0.67	313	S	Sn	12 49 16.8	+2.1
NEZ	North Egmont	0.69	332	P	Pn	12 49 03.5	+1.4
NEZ				AML	AML		
KHEZ	Kahui Hut	0.70	326	P	Pn	12 49 03.1	+0.9
KHEZ	Kahui Hut	0.70	326	S	Sn	12 49 17.3	+2.0
KHEZ	Kahui Hut	0.70	326	P	Pn	12 49 03.4	+1.3
KHEZ				S	Sn	12 49 17.2	+2.0
KHEZ				AML	AML		
KHEZ				AML	AML		
OHWZ	Ohakea	0.70	118	P	Pn	12 49 04.4	+2.4
OHWZ				S	Sn	12 49 18.5	+3.4
OHWZ				AML	AML		
OHWZ				AML	AML		
DREZ	Durham Road	0.73	341	P	Pn	12 49 03.1	+0.7
DREZ				S	Sn	12 49 18.0	+2.4
DREZ				AML	AML		
INHS	Inglewood High	0.76	341	P	Pn	12 49 03.3	+0.7
INHS				S	Sn	12 49 18.2	+2.0
VRZ	Vera Road	0.78	14	P	Pn	12 49 03.9	+1.1
VRZ				S	Sn	12 49 18.3	+1.9
VRZ				AML	AML		
VRZ				AML	AML		
NBEZ	Newall Road No	0.79	320	P	Pn	12 49 04.1	+1.2
NBEZ				S	Sn	12 49 18.3	+1.8
NBEZ				AML	AML		
PKE	Pukeiti	0.79	329	P	Pn	12 49 04.3	+1.3
PKE				AML	AML		
PKE				AML	AML		
FXBS	Foxton Beach S	0.80	137	S	Sn	12 49 20.2	+3.4
MHEZ	Mangahewa	0.81	350	S	Sn	12 49 19.8	+2.7
PKVZ	Pokaka	0.87	48	P	Pn	12 49 04.9	+1.0
PKVZ				S	Sn	12 49 19.4	+1.2
PKVZ				AML	AML		
PKVZ				AML	AML		
FAHS	Feilding Agric	0.88	113	P	Pn	12 49 05.2	+1.4
NPCS	New Plymouth C	0.88	337	S	Sn	12 49 20.2	+2.0
MTVZ	Mangateitei	0.89	57	P	Pn	12 49 05.1	+1.1
MTVZ				S	Sn	12 49 19.7	+1.1
MTVZ				AML	AML		
MTVZ				AML	AML		
TRVZ	Turoa	0.99	55	P	Pn	12 49 05.4	+0.2
TRVZ				AML	AML		
WNVZ	Wahianoa	1.00	57	P	Pn	12 49 06.2	+0.9
WNVZ				S	Sn	12 49 21.6	+0.8
WNVZ				AML	AML		
WNVZ				AML	AML		
MAVZ	Matarangi	1.01	53	P	Pn	12 49 07.1	+1.5
MAVZ				S	Sn	12 49 21.0	-0.3
FWVZ	Far West T-bar	1.02	53	P	Pn	12 49 06.3	+0.7
FWVZ				S	Sn	12 49 21.9	+0.7
WHVZ	Whangaehu Hut	1.02	55	P	Pn	12 49 06.2	+0.6
WHVZ				S	Sn	12 49 23.1	+1.7
DUWZ	D'Urville Isla	1.03	206	P	Pn	12 49 07.0	+1.5
DUWZ				S	Sn	12 49 22.8	+1.7
DUWZ				AML	AML		
DUWZ				AML	AML		
KIW	Kapiti Island	1.03	163	P	Pn	12 49 06.9	+1.5
KIW				S	Sn	12 49 21.7	+0.6
KIW				AML	AML		
KIW				AML	AML		
COVZ	Chateau Observ	1.04	50	P	Pn	12 49 06.5	+0.8
COVZ				S	Sn	12 49 22.3	+0.7
COVZ				AML	AML		
COVZ				AML	AML		
OGWZ	Otaki Gorge	1.06	152	P	Pn	12 49 07.5	+1.7
OGWZ				S	Sn	12 49 23.4	+1.7
OGWZ				AML	AML		
OGWZ				AML	AML		
MOVZ	Moawhango	1.07	64	P	Pn	12 49 06.5	+0.6
MOVZ				S	Sn	12 49 22.3	+0.3
MOVZ				AML	AML		
MOVZ				AML	AML		
TWVZ	Taurewa	1.08	42	P	Pn	12 49 06.7	+0.6
TWVZ				S	Sn	12 49 22.0	-0.1
TWVZ				AML	AML		
TWVZ				AML	AML		
POWZ	Post Office Ro	1.09	119	P	Pn	12 49 07.6	+1.5
POWZ				AML	AML		
POWZ				AML	AML		
NGZ	Ngauruhoe	1.09	51	P	Pn	12 49 07.1	+0.8
NGZ				S	Sn	12 49 23.7	+1.1
SNVZ	South Ngauruho	1.11	52	P	Pn	12 49 07.4	+0.9
SNVZ				S	Sn	12 49 23.4	+0.4
TSZ	Takapari Road	1.13	100	P	Pn	12 49 07.6	+1.1
WTVZ	West Tongariro	1.13	48	P	Pn	12 49 07.4	+0.7
WTVZ				S	Sn	12 49 23.8	+0.6
WTVZ				AML	AML		
WTVZ				AML	AML		
MRZ	Mangatainoka R	1.13	134	P	Pn	12 49 08.0	+1.4
MRZ				S	Sn	12 49 23.9	+0.8
MRZ				AML	AML		
OTVZ	Oturere	1.14	52	P	Pn	12 49 07.7	+0.8
OTVZ				S	Sn	12 49 24.4	+0.8
KRVZ	Karewarewa	1.17	49	P	Pn	12 49 07.6	+0.4
KRVZ				S	Sn	12 49 24.5	+0.4
ETVZ	East Tongariro	1.19	52	P	Pn	12 49 08.2	+0.9
ETVZ				S	Sn	12 49 25.2	+0.8
NTVZ	North Tongarir	1.19	50	P	Pn	12 49 06.6	-0.8
TMVZ	Te Maari	1.20	51	P	Pn	12 49 08.4	+1.0
BHHZ	Black Hill Sta	1.26	73	P	Pn	12 49 08.3	+0.3
KATZ	Kakaramea	1.28	46	P	Pn	12 49 09.3	+0.8
PNHZ	Pukenui	1.30	92	P	Pn	12 49 09.6	+1.1
PNHZ				AML	AML		
PNHZ				AML	AML		
CAW	Cannon Point	1.30	161	P	Pn	12 49 10.1	+1.5
CAW				AML	AML		
CAW				AML	AML		
PRWZ	Pori Road	1.31	122	P	Pn	12 49 10.2	+1.6
PRWZ				AML	AML		
PRWZ				AML	AML		
DVHZ	Dannevirke	1.34	109	P	Pn	12 49 10.0	+1.0
DVHZ				AML	AML		
DVHZ				AML	AML		
TCW	Tory Channel	1.34	188	P	Pn	12 49 10.3	+1.2
TCW				AML	AML		
TCW				AML	AML		
HIZ	Hauiti	1.39	11	P	Pn	12 49 09.6	0.0
HIZ	Hauiti	1.39	11	S	Sn	12 49 28.7	+0.3
HIZ	Hauiti	1.39	11	P	Pn	12 49 09.9	+0.3
HIZ				AML	AML		
RATZ	Rangitukua	1.40	44	P	Pn	12 49 10.9	+1.0
WEL	Wellington	1.42	172	P	Pn	12 49 11.2	+1.3
WEL				AML	AML		
WEL				AML	AML		
SNZO	South Karori	1.44	174	P	Pn	12 49 11.1	+0.9
SNZO	South Karori	1.44	174	P	Sn	12 49 29.6	+0.1
KRHZ	Kereru	1.45	81	P	Pn	12 49 11.0	+0.6
MTW	Mount Morrison	1.49	150	P	Pn	12 49 11.9	+1.2
MTW				AML	AML		
MTW				AML	AML		
WPHZ	Waipukurau	1.49	98	P	Pn	12 49 11.9	+1.0
WPHZ				AML	AML		
WPHZ				AML	AML		
KWHZ	Kaweka Forest	1.54	74	P	Pn	12 49 12.6	+1.0
BFZ	Birch Farm	1.55	122	P	Pn	12 49 12.3	+0.7
BFZ	Birch Farm	1.55	122	P	Sn	12 49 31.8	-0.2
BFZ	Birch Farm	1.55	122	P	Pn	12 49 12.5	+0.9
BHW	Baring Head	1.55	170	P	Pn	12 49 12.6	+1.0
NNZ	Nelson	1.59	212	P	Pn	12 49 12.9	+0.9
NNZ				AML	AML		
ANWZ	Angora Road	1.61	112	P	Pn	12 49 13.7	+1.3
TMWZ	Te Maipa	1.62	140	P	Pn	12 49 13.5	+1.1
MSWZ	Moikau Station	1.64	160	P	Pn	12 49 13.6	+1.0
TKNZ	Takaka Hill	1.65	225	P	Pn	12 49 13.4	+0.5
TKNZ				AML	AML		
PAWZ	Paruwai Farm	1.66	155	P	Pn	12 49 13.9	+1.0
PRHZ	Porangahau	1.68	104	P	Pn	12 49 14.1	+1.0
BKZ	Black Stump Fm	1.69	66	P	Pn	12 49 13.1	-0.2
BKZ	Black Stump Fm	1.69	66	S	Sn	12 49 34.6	-0.5
BKZ	Black Stump Fm	1.69	66	P	Pn	12 49 13.3	0.0
TLZ	Tolley Road	1.74	28	P	Pn	12 49 14.2	+0.2
MCHZ	McNeill Hill	1.74	76	P	Pn	12 49 14.9	+1.0
PLWZ	Palliser	1.78	162	P	Pn	12 49 15.2	+0.6
QRZ	Quartz Range	1.79	237	P	Pn	12 49 14.3	-0.2
QRZ	Quartz Range	1.79	237	S	Sn	12 49 36.7	-0.5
QRZ	Quartz Range	1.79	237	P	Pn	12 49 14.5	0.0
MRHZ	Matea Rd	1.81	55	P	Pn	12 49 14.8	-0.1
PXZ	Pawanui	1.81	96	P	Pn	12 49 15.5	+0.7
KAHZ	Kahuranaki	1.82	88	P	Pn	12 49 15.3	+0.3
BSWZ	Blackbirch Sta	1.90	195	P	Pn	12 49 16.9	+1.0
MRNZ	Matariki Terra	2.02	221	P	Pn	12 49 18.0	+0.4
MRNZ				AML	AML		
MTHZ	Maungataniwha	2.08	61	P	Pn	12 49 17.9	-0.4
THZ	Tophouse	2.24	212	P	Pn	12 49 20.7	+0.3
TGRZ	Tauranga	2.54	33	P	Pn	12 49 24.8	+0.5
KHZ	Kahutara	2.64	196	P	Pn	12 49 25.6	0.0
KHZ	Kahutara	2.64	196	S	Sn	12 49 57.4	+0.3
KHZ	Kahutara	2.64	196	P	Pn	12 49 25.9	+0.3
DSZ	Denniston Nort	2.78	227	P	Pn	12 49 27.1	-0.4
MKAZ	Moumakai	2.81	11	P	Pn	12 49 27.7	-0.3
RUGZ	Raukumara Rang	3.12	53	P	Pn	12 49 30.4	-1.8
GVZ	Greta Valley S	3.28	199	P	Pn	12 49 33.5	-0.7
LTZ	Lake Taylor	3.36	209	P	Pn	12 49 33.8	-1.4
INZ	Inchbonnie	3.67	218	P	Pn	12 49 38.5	-0.8
OKCZ	Okains Bay	3.99	195	P	Pn	12 49 42.1	-1.7
MQZ	McQueen's Vall	4.07	199	P	Pn	12 49 42.4	-2.4
ODZ	Otahua Downs	5.90	208	P	Pn	12 50 08.4	-1.2
LKBA	Tubou, Lakemba	22.33	17	S	S	12 57 27.6	-5.4

BJI ***21*** *13:15:13.3, 32°.25N×141°.98E, h10km, mB4.8/7, mb4.4/26, Ms4.3/9, Ms7 4.3/10*

MOS ***21*** *13:15:15.6±0.9, 32°.26N×141°.79E, h9km, mb4.6/26, Error ellipse: s-maj=16.3km s-min=6.1km az=118.9*

IDC ***21*** *13:15:15.8±0.6, 32°.29N×141°.93E, h0km, mb4.2/16, mbtmp4.2/21, ML3.5/4, MS3.7/1, Error ellipse: s-maj=17.0km s-min=9.7km az=67.0*

NEIC ***21*** *13:15:17.7±1.4, 32°.29N±0°.09×141°.83E±0°.09, h10km±1km, mb4.6/16, Error ellipse: s-maj=15.9km s-min=12.8km az=162.0*

JMA ***21*** *13:15:20.7±0.3, 32°N±1°×14°2E±°, h60km, MV4.0/30, E OFF HACHIJOJIMA ISLAND*

ISC 21 13:15:17.3±0.5**, 32°.30N**±0°.06×**141°.81E**±0°.06**, h10**km**, n140, σ1ˢ39**/140**, mb4.5**/37**, MS4.1**/6**, 10C-12D, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAOM	Aogashimamukai	1.74	276	*e*P	Pn	13 15 48.7	+1.1
JHCJ	Hachijojimakas	1.86	295	*e*P	Pn	13 15 49.7	+0.4
JHJ2	Mitsune	1.87	296	P	Pn	13 15 49.9	+0.6
JHJ2	Mitsune	1.87	296		Pn	13 15 49.7	+0.4
JHJ2	Mitsune	1.87	296	*e*P	Pn	13 15 49.9	+0.6
JHJ	Hachijo jima 2	1.89	296	Pn	Pn	13 15 49.6	-0.1
	241nm,0.3s,baz=58,slow=9.5,SNR=286						
JHJ				Sn	Sn	13 16 08.8	-4.8
	93nm,0.3s,baz=22,slow=21,SNR=4.9						
JHJ				LR	LR	13 16 35.4	
	comp=Z,366nm,18.2s,baz=355,slow=40						
JMKN	Mikurajimanish	2.45	311	*e*P	Pn	13 15 57.7	+0.3
BSO1	Boso 1	2.45	344	*e*P	Pn	13 15 57.2	+0.3
BSO1				*e*S	Sn	13 16 26.7	+0.1
JMYK	Miyake Tsubota	2.59	313	*e*P	Pn	13 16 00.1	+0.9
BSO3	Boso 3	2.72	337	*e*P	Pn	13 16 01.3	+0.4
JIM2	Oshima 3	3.13	321	*e*P	Pn	13 16 06.3	-0.3
JIZS	Izushimoda	3.44	315	*e*P	Pn	13 16 10.7	-0.2
JOD2	Odawara 2	3.73	323	P	Pn	13 16 15.0	+0.1
JSG	Sagara	3.84	309	Pn	Pn	13 16 17.5	+1.0
SHZ3	Shizuoka 3	4.08	314	*e*P	Pn	13 16 22.1	+2.3
JYN	Shimob	4.19	320	*e*P	Pn	13 16 22.7	+1.4
JGF	Kuroka	4.95	313	P	Pn	13 16 34.2	+2.4
	28nm,0.8s						
JGF				AML	AML		
JGF	Kuroka	4.95	313		Pn	13 16 33.4	+1.6
INU	Inuyama	5.02	309	P	Pn	13 16 34.9	+2.3
	20nm,0.8s						
INU				AML	AML		
INU	Inuyama	5.02	309		Pn	13 16 33.6	+1.0
MJAR	Matsushiro Arr	5.17	326	Pn	Pn	13 16 35.8	+1.0
	0.7nm,0.3s,baz=154,slow=11,SNR=24						
MJAR				Sn	Sn	13 17 29.6	-5.0
	0.4nm,0.3s,baz=148,slow=12,SNR=4.5						
	9.9nm,0.6s						
MJAR				AML	AML		
MAJO	Matsushiro	5.18	326	P	Pn	13 16 37.0	+2.2
	34nm,0.9s						
MAJO				AML	AML		
MAJO	Matsushiro	5.18	326	*d i*P	Pn	13 16 36.2	+1.4
MAJO	Matsushiro	5.18	326		Pn	13 16 35.9	+1.1
JCJ	Chichijima	5.20	176	Pn	Pn	13 16 31.1	-4.0
	33nm,0.3s,baz=0.0,slow=0.0						
JCJ				Sn	Sn	13 17 25.2	-10
	baz=0.0,slow=0.0						
JMN	Monobe	6.81	284	P	Pn	13 17 00.5	+3.2
	26nm,2.0s						
JMN				AML	AML		
JTM	Tenmabayashi	8.49	356	P	Pn	13 17 20.8	+0.5
	20nm,0.6s						
JTM	Tenmabayashi	8.49	356	Pn	Pn	13 17 19.3	-1.0
ERM	Erimo	9.76	6	P	Pn	13 17 35.1	-2.6
	28nm,1.0s						
ERM	Erimo	9.76	6	⇑*e*P	Pn	13 17 35.3	-2.4
JEM	Erimo	9.76	6	P	Pn	13 17 35.0	-2.7
	14nm,0.9s						
ASAJ	Asahikawa	11.82	3	Pn	Pn	13 18 02.1	-3.7
	1.3nm,0.3s,baz=220,slow=14,SNR=17						
	4.3nm,0.5s						
ASAJ				AML	AML		
JKA	Kamikawa-asahi	11.82	3		Pn	13 18 02.1	-3.7
KSRS	Korea Array	12.51	298	Pn	Pn	13 18 16.2	+0.9
	0.1nm,0.3s,baz=110,slow=13,SNR=6.0						
	0.5nm,0.5s						
KSRS				AML	AML		
USA0B	Ussuriysk Arra	14.15	330	⇑*e*P	Pn	13 18 39.1	+1.3
USRK	Ussuriysk Ar.	14.15	330	Pn	Pn	13 18 36.4	-1.4
	0.1nm,0.3s,baz=134,slow=9.9,SNR=4.6						
	2.7nm,0.8s						
USRK				AML	AML		
YSS	Yuzhno-Sakhali	14.65	3	*e*P	Pn	13 18 43.8	-0.8
YSS				pmax	pmax		
	comp=Z,10.0nm,1.2s						
MDJ	Mudanjiang	15.56	326	P	Pn	13 18 57.1	+0.4
MDJ				pmax	pmax		
	comp=Z,5.0nm,1.0s						
SSE	Sheshan	17.59	272	P	Pn	13 19 22.5	-0.1
SSE				S	Sn	13 22 38.8	+0.2
SSE				pmax	pmax		
	comp=Z,13nm,0.7s						
SSE				pmax	pmax		
	comp=Z,150nm,3.6s						
SSE				L	L		
	comp=Z,200nm,20.8s						
SSE				L	L		
	comp=Z,240nm,20.8s						
KLR	Kul'dur	18.52	339	P	P	13 19 31.3	-2.5
	comp=Z,2.5nm,0.5s,baz=182,slow=4.6,SNR=10						
KLR	Kul'dur	18.52	339	*e*P	P	13 19 31.4	-2.3
KLR				pmax	pmax		
	comp=Z,1.0nm,1.3s						
NJ2	Nanjing	19.43	275	*e*P	P	13 19 44.8	+1.0
NJ2				pmax	pmax		
	comp=Z,12nm,0.7s						
YHNB	Yeheng	19.48	252		P	13 19 44.8	+0.2
YHNB				IAmb	IAmb	13 19 55.6	
	comp=Z,54nm,1.3s						
HEH	HeiHe	20.88	333	*e*P	P	13 20 00.0	+0.5
HEH				pmax	pmax		
	comp=Z,18nm,0.8s						
ZEA	Zeya	23.84	338	*e*P	P	13 20 31.3	+0.9
ZEA				pmax	pmax		
	comp=E,10.0nm,0.8s						
ZEA				pmax	pmax		
	comp=N,20nm,0.7s						
ZEA				pmax	pmax		
	comp=Z,30nm,0.7s						
ZEA				MLR	MLR		
	comp=Z,200nm,16.0s						
HHC	Hu-ho-hao-te	25.65	298	*e*P	P	13 20 47.0	-0.3
HHC				pmax	pmax		
	comp=Z,17nm,0.7s						
HHC				pmax	pmax		

	comp=Z,48nm,5.2s						
H11N2	WAKE ISLAND Hy	25.71	113	T	T	13 48 23.5	
	baz=306						
H11N1	WAKE ISLAND Hy	25.72	113	T	T	13 48 21.3	
	baz=306						
H11N3	WAKE ISLAND Hy	25.73	113	T	T	13 48 25.9	
	baz=306						
XAN	Xi'an	27.52	283	eP	P	13 21 02.5	-1.7
DAV	Davao City (W)	29.30	215	LR	LR	13 32 49.8	
	comp=Z,151nm,20.8s,baz=71,slow=36						
ULN	Ulaanbaatar	30.50	311	⇓eP	P	13 21 31.7	+1.1
ULN				pmax	pmax		
	comp=Z,5.0nm,0.8s						
ULN	Ulaanbaatar	30.50	311	P	P	13 21 29.7	-0.9
ULN				IAmb	IAmb	13 21 47.5	
	comp=Z,8.1nm,0.8s						
YAK	Yakutsk	30.76	349	⇓eP	P	13 21 34.3	+1.8
YAK				pmax	pmax		
	comp=Z,6.0nm,0.6s						
SONM	Songino Array	30.91	311	P	P	13 21 35.9	+1.7
	comp=Z,3.2nm,0.6s,baz=113,slow=8.9,SNR=14						
	comp=Z,3.2nm,0.6s						
SONM	Songino Array	30.91	311	P	P	13 21 35.4	+1.2
SONM				pmax	pmax		
	comp=Z,3.0nm,0.8s						
SONM	Songino Array	30.91	311	P	P	13 21 35.4	+1.2
LZH	Lanzhou	31.50	287	eP	P	13 21 38.0	-1.6
LZH				sP	sP	13 21 44.6	+3.8
LZH				pmax	pmax		
	comp=Z,14nm,1.0s						
LZH				L	L		
	comp=Z,210nm,15.5s						
LZH				L	L		
	comp=Z,250nm,16.5s						
LZH				L	L		
	comp=Z,480nm,19.9s						
ZAK	Zakamensk	33.63	314	eP	P	13 21 58.8	+0.8
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.0s						
GTA2	Gaotai	34.57	294	eP	P	13 22 02.8	-3.5
GTA2				sP	sP	13 22 12.6	+5.0
GTA2				pmax	pmax		
	comp=Z,1.0nm,1.0s						
GTA2				L	L		
	comp=Z,310nm,20.3s						
GTA2				L	L		
	comp=Z,300nm,21.9s						
GTA2				L	L		
	comp=Z,700nm,21.3s						
PZH	PanZhiHua	35.23	271	P	P	13 22 13.3	+1.1
KNGR	Kungurtug, Tuv	37.24	313	⇓eP	P	13 22 31.9	+2.8
KNGR				pmax	pmax		
	comp=Z,10.0nm,1.2s						
GOMU	GeErMu	38.75	289	P	P	13 22 40.5	-1.8
GOMU				pP	sP	13 22 44.3	+0.8
GOMU				sP	pP	13 22 47.9	+4.7
GOMU				S	S	13 28 29.1	-11
GOMU				pmax	pmax		
	comp=Z,9.0nm,0.6s						
GOMU				L	L		
	comp=Z,400nm,16.9s						
GOMU				L	L		
	comp=Z,240nm,16.4s						
GOMU				L	L		
	comp=Z,480nm,17.0s						
WMQ	Urumqi	43.43	301	eP	P	13 23 22.5	+2.1
WMQ				L	L		
	comp=Z,280nm,20.5s						
DGZ	Jazzator, Alta	43.56	310	⇑eP	P	13 23 22.1	+0.7
DGZ				pmax	pmax		
	comp=Z,8.0nm,0.9s						
ZALV	Zalesovo Beam	45.44	316	P	P	13 23 36.3	+0.1
	comp=Z,1.5nm,0.6s,baz=96,slow=7.4,SNR=7.4						
	comp=Z,1.5nm,0.6s						
ZALV	Zalesovo Beam	45.44	316	i P	P	13 23 36.0	-0.2
ZALV				pmax	pmax		
	comp=Z,2.0nm,0.6s						
ZALV	Zalesovo Beam	45.44	316	P	P	13 23 35.4	-0.8
MTN	Manton Dam	46.03	195	P	P	13 23 39.5	-1.7
MTN				IAmb	IAmb	13 24 04.4	
	comp=Z,5.9nm,1.2s						
MK31	Makanchi Array	47.04	306	d iP	P	13 23 49.2	+0.3
MKAR	Makanchi Array	47.04	306	P	P	13 23 49.3	+0.4
	comp=Z,3.6nm,0.8s,baz=89,slow=9.4,SNR=27						
	comp=Z,3.6nm,0.8s						
MKAR	Makanchi Array	47.04	306	P	P	13 23 48.8	-0.1
MAKZ	Makanchi	47.25	306	P	P	13 23 50.2	-0.4
MAKZ				pmax	pmax		
	comp=Z,4.0nm,0.8s						
MAKZ	Makanchi	47.25	306	P	P	13 23 50.2	-0.4
MAKZ				IAmb	IAmb	13 23 51.7	
	comp=Z,3.6nm,0.8s						
KURK	Kurchatov	49.21	311	⇓eP	P	13 24 05.7	+0.1
KURK				pmax	pmax		
	comp=Z,8.0nm,1.0s						
KURK	Kurchatov	49.21	311	P	P	13 24 06.2	+0.6
KURK	Kurchatov	49.21	311	IAmb	IAmb	13 24 08.3	
	comp=Z,8.3nm,0.8s						
KURBB	Kurchatov Arra	49.27	311	P	P	13 24 06.2	+0.1
	comp=Z,4.2nm,0.5s,baz=89,slow=7.6,SNR=40						
	comp=Z,4.2nm,0.5s						
KNRA	Kununurra	49.31	197	P	P	13 24 06.1	-0.5
PDGK	Podgornoye	49.41	302	P	P	13 24 06.7	-0.7
PDGK	Podgornoye	49.41	302	P	P	13 24 06.7	-0.7
WRAB	Tennant Creek	52.42	189	⇓iP	P	13 24 29.9	-0.2
WRAB				pmax	pmax		
	comp=Z,36nm,3.8s						
WRAB	Tennant Creek	52.42	189	P	P	13 24 29.6	-0.4
WRAB				IAmb	IAmb	13 24 30.7	
	comp=Z,11nm,1.2s						
WRA	Warramunga Arr	52.43	189	P	P	13 24 29.9	-0.2
	comp=Z,4.2nm,0.6s,baz=6.3,slow=7.6,SNR=78						
	comp=Z,4.2nm,0.6s						
WRA	Warramunga Arr	52.43	189	P	P	13 24 29.8	-0.4
FITZ	Fitzroy Crossi	52.45	200	P	P	13 24 30.0	-0.3
AAK	Ala-Archa	53.14	302	⇓eP	P	13 24 36.0	+0.5
AAK				pmax	pmax		
	comp=Z,11nm,3.8s						
KSH2	Kashi	53.16	297	P	P	13 24 35.1	-0.5
ILAR	Eielson Array	53.36	30	P	P	13 24 36.4	-0.2
	comp=Z,1.4nm,0.7s,baz=264,slow=5.9,SNR=12						
	comp=Z,1.4nm,0.7s						
ILAR	Eielson Array	53.36	30	P	P	13 24 36.8	+0.3
ILAR	Eielson Array	53.36	30	P	P	13 24 36.8	+0.3
BVAR	Borovoye Array	54.07	315	P	P	13 24 42.2	+0.3
	comp=Z,1.7nm,0.3s,baz=96,slow=8.1,SNR=7.7						
	comp=Z,1.7nm,0.3s						
BORK	Borovoye	54.11	315	⇓eP	P	13 24 44.1	+1.9
BORK				pmax	pmax		
	comp=Z,35nm,5.9s						
KKAR	Karatay Array	55.88	303	P	P	13 24 55.1	-0.1
KKAR	Karatay Array	55.88	303		P	13 24 55.1	-0.1
ASAR	Alice Springs	56.16	189	P	P	13 24 57.3	+0.1
	comp=Z,0.6nm,0.5s,baz=3.7,slow=6.3,SNR=29						
	comp=Z,0.6nm,0.5s						
ASAR	Alice Springs	56.16	189	P	P	13 24 56.7	-0.6
F30M	Barrier River	57.72	27	P	P	13 25 08.1	+0.3
INK	Inuvik	58.47	26	P	P	13 25 13.2	+0.1
INK				pmax	pmax		
	comp=Z,9.0nm,1.4s						
INK	Inuvik	58.47	26	P	P	13 25 13.2	+0.1
INK				IAmb	IAmb	13 25 24.6	
	comp=Z,9.0nm,1.4s						
INKA	Innaminka	59.72	181	P	P	13 25 22.4	+0.3
INKA				IAmb	IAmb	13 25 39.7	
	comp=Z,6.4nm,1.3s						
ARTI	Arti	60.27	320	c iP	P	13 25 25.5	-0.2
ARTI						13 27 38.4	
ARTI				S	S	13 33 42.7	+3.0
ARTI				SS	SS	13 37 34.9	-1.6
ARTI				pmax	pmax		
	comp=Z,51nm,4.7s						
ABKAR	Akbulak array	61.30	312	P	P	13 25 33.1	+0.2
KIRV	Kirov	64.25	324	⇓eP	P	13 25 52.9	+0.6
MORW	Morawa	65.75	205	P	P	13 26 02.3	0.0
BELG	Belogornoye	67.52	319	⇓eP	P	13 26 14.1	+0.6
BELG				pmax	pmax		
	comp=Z,3.0nm,0.9s						
YKA	Yellowknife Ar	67.75	29	P	P	13 26 15.2	+0.5
	comp=Z,1.6nm,0.7s,baz=299,slow=5.7,SNR=5.4						
	comp=Z,1.6nm,0.7s						
YKA	Yellowknife Ar	67.75	29	ceP	P	13 26 15.3	+0.5
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
OBN	Obninsk	72.10	324	eP	P	13 26 42.2	+0.6
OBN				e		13 26 58.5	
OBN				pmax	pmax		
	comp=Z,4.0nm,0.8s						
FINES	FINESS Array B	73.16	333	P	P	13 26 47.8	0.0
	comp=Z,1.4nm,0.6s,baz=24,slow=6.7,SNR=8.2						
	comp=Z,1.4nm,0.6s						
FINES	FINESS Array B	73.16	333	i P	P	13 26 47.4	-0.4
FINES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
KBZ	Khabaz	74.27	312	P	P	13 26 55.2	+0.6
	comp=Z,2.6nm,0.8s,baz=102,slow=3.5,SNR=6.5						
	comp=Z,2.6nm,0.8s						
KBZ	Khabaz	74.27	312	⇑eP	P	13 26 55.4	+0.8
KBZ				pmax	pmax		
	comp=Z,3.0nm,0.9s						
SUMG	Summit	75.41	0	P	P	13 27 01.1	-0.2
SUMG	Summit	75.41	0	P	P	13 27 01.1	-0.2
AKASG	Malin Array Be	78.25	323	P	P	13 27 17.1	-0.1
	comp=Z,1.2nm,0.4s,baz=49,slow=6.1,SNR=7.5						
	comp=Z,1.2nm,0.4s						
AKASG	Malin Array Be	78.25	323	IAmb	IAmb	13 27 17.6	
	comp=Z,2.3nm,0.9s						
AKBB	Malin Array Si	78.25	323	⇑eP	P	13 27 16.9	-0.3
AKBB				pmax	pmax		
	comp=Z,17nm,2.0s						
HFS	Hagfors	78.54	336	P	P	13 27 18.7	+0.1
	comp=Z,1.5nm,0.6s,baz=97,slow=5.8,SNR=2.3						
	comp=Z,1.5nm,0.6s						
NB2	NORSAR Subarra	78.68	338	P	P	13 27 19.3	-0.1
	comp=Z,1.4nm,0.7s,baz=40,slow=5.9						
NOA	NORSAR Array B	78.68	338	P	P	13 27 19.6	+0.1
	comp=Z,2.8nm,0.8s,baz=41,slow=5.6,SNR=6.6						
	comp=Z,2.8nm,0.8s						
BR131	Keskin Array S	82.25	312	⇑eP	P	13 27 38.8	-0.4
BRTR	Keskin Array B	82.25	312	P	P	13 27 39.8	+0.7
	comp=Z,1.5nm,0.8s,baz=116,slow=2.9,SNR=4.6						
	comp=Z,1.5nm,0.8s						
BRTR	Keskin Array B	82.25	312	ceP	P	13 27 40.2	+1.0
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
RAYN	Ar Rayn	82.78	293	P	P	13 27 41.7	-0.4
RAYN				pmax	pmax		
	comp=Z,4.0nm,0.7s						
RAYN	Ar Rayn	82.78	293	P	P	13 27 41.7	-0.4
RAYN				IAmb	IAmb	13 27 43.0	
	comp=Z,3.7nm,0.7s						
LANS	Liptovska Anna	84.05	326	eP	P	13 27 49.4	+1.2
LANS	Liptovska Anna	84.05	326	eP	P	13 27 49.4	+1.2
VYHS	Vyhne	84.81	326	eP	P	13 27 53.3	+1.3
VYHS	Vyhne	84.81	326	eP	P	13 27 53.3	+1.3
CLL	Collm	85.36	331	i P	P	13 27 54.6	0.0
CLL	Collm	85.36	331	i P	P	13 27 54.6	0.0
MODS	Modra-Piesok	85.63	327	eP	P	13 27 57.6	+1.5
MODS	Modra-Piesok	85.63	327	eP	P	13 27 57.6	+1.5
KHC	Kasperske Hory	86.75	329	⇑eP	P	13 28 02.6	+1.0
KHC				pmax	pmax		
	comp=Z,9.0nm,2.9s						
BMRD	Maredsous	89.39	334	dP	P	13 28 14.6	+0.5
TXAR	Lajitas Array	92.74	53	P	P	13 28 31.1	+0.9
	comp=Z,0.5nm,0.7s,baz=312,slow=3.4,SNR=5.9						
	comp=Z,0.5nm,0.7s						
TORD	Torodi Ar. Bea	120.85	313	PKP	PKPdf	13 34 10.0	-0.5
	comp=Z,0.3nm,0.4s,baz=25,slow=2.0,SNR=4.9						
QSPA	South Pole Qui	122.05	180	PKP	PKPdf	13 34 10.9	-0.4
	comp=Z,0.5nm,0.7s,baz=277,slow=0.8,SNR=1.5						
LPAZ	La Paz	148.54	67	PKPbc	PKPbc	13 35 05.2	-0.6
	comp=Z,1.2nm,0.7s,baz=135,slow=1.4,SNR=5.6						

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*IDC **21** 13:18:56.5±1.1, 3°.97S×104°.90W, h0^{km}, mb3.9/9, mbtmp3.9/9, MS4.0/4, Error ellipse: s-maj=50.6km s-min=18.7km az=67.0*

*GCMT **21** 13:19:00.1±0.4, 3°.91S±0°.02×104°.24W±0°.02, h12^{km}, MW4.9/70, Moment Tensor Solution. s44,c50; s70,c107; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-0.16±.10; M$_{θθ}$0.48±.09; M$_{φφ}$-0.31±.10; M$_{rθ}$0.91±.27; M$_{θφ}$2.76±.07; M$_{φr}$-0.30±.26; Best double couple: M$_0$2.95100×10^{16} NP1:φ$_s$5.00000°, δ72.00000°, λ-175.00000°. NP2: φ$_s$273.00000°, δ85.00000°, λ-19.00000°. Principal axes: T 2.9480, Plg9.0000°, Azm320.0000°; N 0.0050, Plg71.0000°, Azm79.0000°; P -2.9530, Plg17.0000°, Azm228.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*NEIC **21** 13:19:00.1±1.6, 4°.19S±0°.09×104°.4W±0°.2, h10^{km}±1^{km}, mb4.4/45 Error ellipse: s-maj=33.1km s-min=7.7km az=245.0*

ISC 21 13:18:59.5±0.9, **4°.0S**±0°.1×**104°.5W**±0°.2, **h10^{km}, n61, σ1^s.38**/46, **mb4.4**/29, **MS4.1**/4, **Central East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMIG	Matias Romero	23.03	24	LR	LR	13 30 56.5	
	comp=Z,840nm,20.2s,baz=194,slow=31						
APG	El Apazote	23.46	36	LR	LR	13 31 05.2	
	comp=Z,96nm,21.2s,baz=274,slow=31						
MTO3	Montecristo	23.66	39	P	P	13 24 11.5	-0.1
MTO3				IAmb	IAmb	13 24 12.3	
	comp=Z,11nm,1.1s						
BOAB	BOACO BROADBAN	24.84	48	P	P	13 24 22.7	+0.3
OTAV	Otavalo	26.33	81	P	P	13 24 36.6	+0.1
OTAV				IAmb	IAmb	13 24 39.6	
	comp=Z,15nm,1.4s						
NNA	Nana	28.44	108	LR	LR	13 33 11.9	
	comp=Z,437nm,18.5s,baz=260,slow=30						
LPIG	La Paz	28.55	349	LR	LR	13 33 20.7	
	comp=Z,464nm,21.3s,baz=160,slow=30						
HPIG		30.82	358	P	P	13 25 16.4	+0.4
CZSB	Cruzeiro do Su	31.79	98	P	P	13 25 24.2	-0.3
TXAR	Lajitas Array	33.19	1	P	P	13 25 34.9	-1.9
	comp=Z,0.2nm,0.8s,baz=201,slow=13,SNR=3.8						
	comp=Z,0.2nm,0.8s						
HSIG		33.46	350	P	P	13 25 39.4	+0.5
HSIG				IAmb	IAmb	13 25 40.5	
	comp=Z,7.0nm,1.2s						
SAND	Sanderson	33.88	4	P	P	13 25 44.3	+1.7
SAND				IAmb	IAmb	13 25 49.5	
	comp=Z,5.0nm,1.1s						
ALPN	Alpine	34.23	1	P	P	13 25 45.8	0.0
ALPN				IAmb	IAmb	13 26 12.3	
	comp=Z,6.9nm,1.2s						
VHRN	Van Horn	34.63	359	P	P	13 25 50.6	+1.3
MNTX	Cornudas Mount	35.55	359	P	P	13 25 58.0	+1.0
PB16	IPOC Station P	37.01	115	P	P	13 26 07.2	-3.2
PB16				IAmb	IAmb	13 26 13.6	
	comp=Z,6.0nm,0.9s						
APMT	Aspermont	37.39	6	P	P	13 26 13.1	+0.3
LPAZ	La Paz	37.69	111	P	P	13 26 18.1	+1.8
	comp=Z,1.1nm,0.6s,baz=306,slow=7.4,SNR=4.0						
	comp=Z,1.1nm,0.6s						
LPAZ	La Paz	37.69	111	P	P	13 26 15.0	-1.3
H03N2	Juan Fernandez	37.71	144	T	T	14 06 14.3	
	baz=313,slow=76,SNR=29						
H03N1	Juan Fernandez	37.73	144	T	T	14 06 16.5	
	baz=309,slow=76,SNR=45						
PFO	Pinyon Flats O	39.13	344	P	P	13 26 27.4	-0.1
GSC	Goldstone, Bar	40.82	344	P	P	13 26 43.5	+2.0
MVCO	Mesa Verde	41.21	355	P	P	13 26 46.4	+1.5
MVCO				IAmb	IAmb	13 26 48.3	
	comp=Z,10nm,1.2s						
T35A	Sooner Cattle	41.41	10	P	P	13 26 47.0	+0.7
SHPR	Sheep Range	41.56	347	P	P	13 26 47.9	+0.2
SHPR				IAmb	IAmb	13 26 51.9	
	comp=Z,6.3nm,1.3s						
FURC	Furnace Creek,	41.93	345	P	P	13 26 50.9	+0.4
FURC				IAmb	IAmb	13 27 00.3	
	comp=Z,6.2nm,1.2s						
PV05	Paradox Valley	42.13	355	P	P	13 26 53.7	+1.3
PV05				IAmb	IAmb	13 27 01.7	
	comp=Z,9.9nm,1.0s						
PV01	Paradox Valley	42.13	355	P	P	13 26 53.7	+1.3
PV01				IAmb	IAmb	13 27 01.0	
	comp=Z,7.5nm,1.3s						
WCT	Wildcat Mounta	42.18	345	P	P	13 26 53.1	+0.5
T42A	Van Buren	42.72	16	P	P	13 26 57.4	+0.5
T42A				IAmb	IAmb	13 27 31.7	
	comp=Z,8.6nm,1.3s						
GMN	Gold Mountain	42.82	345	P	P	13 26 58.6	+0.5
WAKR	Walker	44.55	343	P	P	13 27 12.9	+1.0
WAKR				IAmb	IAmb	13 27 21.4	
	comp=Z,7.5nm,1.3s						
HWUT	Hardware Ranch	45.89	353	P	P	13 27 23.4	+1.0
ORV	Oroville	46.13	342	P	P	13 27 25.7	+1.4
ORV				IAmb	IAmb	13 27 28.5	
	comp=Z,5.2nm,1.1s						
PD31	Pinedale Array	46.82	355	P	P	13 27 30.5	+0.7
PD31				IAmb	IAmb	13 27 53.1	
	comp=Z,4.9nm,1.4s						
PDAR	Pinedale Array	46.82	355	P	P	13 27 27.5	-2.3
	comp=Z,0.9nm,0.8s,baz=189,slow=7.3,SNR=7.4						
	comp=Z,0.9nm,0.8s						
PDAR	Pinedale Array	46.82	355	P	P	13 27 30.0	+0.2
PLCA	Paso Flores	47.57	145	P	P	13 27 37.5	+1.8
	comp=Z,1.7nm,1.0s,baz=298,slow=11,SNR=3.0						
	comp=Z,1.7nm,1.0s						
FXWY	Fox Creek	47.83	354	P	P	13 27 39.0	+1.4
HLID	Hailey	48.23	350	IAmb	IAmb	13 27 44.3	
	comp=Z,4.7nm,1.2s						
BCYI	Bear Canyon	48.80	351	IAmb	IAmb	13 27 53.4	
	comp=Z,5.5nm,1.3s						
YHH	Holmes Hill	48.95	354	P	P	13 27 47.8	+1.4
YHH				IAmb	IAmb	13 27 56.9	
	comp=Z,7.8nm,1.5s						
CPUP	Villa Florida	50.21	121	P	P	13 27 57.5	+1.5
	comp=Z,2.8nm,0.8s,baz=289,slow=10.0,SNR=5.7						
	comp=Z,2.8nm,0.8s						
WIFE	Three Sisters-	50.36	344	P	P	13 27 58.6	+1.5
WIFE				IAmb	IAmb	13 28 06.2	
	comp=Z,4.5nm,0.9s						
JRO	Jston Ridge Ob	52.52	345	P	P	13 28 14.2	+1.1
B04A	Port Angeles	54.50	344	P	P	13 28 29.2	+1.7
B04A				IAmb	IAmb	13 28 33.9	
	comp=Z,4.5nm,1.0s						
ULM	Lac du Bonnet	54.58	7	P	P	13 28 26.2	-1.8
	comp=Z,4.4nm,0.8s,baz=198,slow=6.4,SNR=4.3						
	comp=Z,4.4nm,0.8s						
ULM	Lac du Bonnet	54.58	7	IAmb	IAmb	13 28 29.8	
	comp=Z,16nm,1.3s						
WTLY	Watson Lake, Y	66.76	347	P	P	13 29 52.5	+1.5
WTLY				IAmb	IAmb	13 30 29.3	
	comp=Z,2.9nm,1.3s						
YKA	Yellowknife Ar	66.80	355	P	P	13 29 48.9	-2.2
	comp=Z,0.8nm,0.7s,baz=166,slow=6.5,SNR=3.5						
	comp=Z,0.8nm,0.7s						
YKA	Yellowknife Ar	66.80	355	P	P	13 29 52.5	+1.4
ILAR	Eielson Array	75.38	343	P	P	13 30 40.9	-2.3
	comp=Z,0.6nm,0.8s,baz=155,slow=5.6,SNR=7.9						
	comp=Z,0.6nm,0.8s						
QSPA	South Pole Qui	86.01	180	P	P	13 31 38.9	-1.3
	comp=Z,3.3nm,0.9s,baz=123,slow=1.7,SNR=12						
	comp=Z,3.3nm,0.9s						
QSPA	South Pole Qui	86.01	180	P	P	13 31 39.2	-1.0
H11N3	WAKE ISLAND Hy	90.06	290	T	T	15 11 47.6	
	baz=95,slow=74,SNR=20						
H11N2	WAKE ISLAND Hy	90.07	290	T	T	15 11 48.5	
	baz=95,slow=74,SNR=21						
H11N1	WAKE ISLAND Hy	90.08	290	T	T	15 11 47.0	
	baz=95,slow=74,SNR=13						
H11S2	WAKE ISLAND Hy	90.16	288	T	T	15 11 50.1	
	baz=95,slow=75,SNR=49						
H11S1	WAKE ISLAND Hy	90.17	288	T	T	15 11 50.0	
	baz=95,slow=75,SNR=53						
H11S3	WAKE ISLAND Hy	90.18	288	T	T	15 11 51.8	
	baz=95,slow=75,SNR=43						

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*IDC **21** 13:37:12.3±0.6, 4°.13S×104°.41W, h0^{km}, mb4.5/14, mbtmp4.5/14, MS5.4/56, Error ellipse: s-maj=27.0km s-min=14.0km az=68.0*

*MOS **21** 13:37:13.3±1.1, 4°.03S×104°.28W, h10^{km}, mb5.2/10, MS5.1/7, Error ellipse: s-maj=14.2km s-min=8.9km az=99.6*

*GFZ **21** 13:37:15.6, 4°.04S×104°.31W, h14^{km}, Mw5.8/100, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.61; M$_{θθ}$0.35; M$_{φφ}$0.27; M$_{rθ}$-0.55; M$_{θφ}$6.51; M$_{φr}$-0.14; Fault plane solution: M$_0$6.55274×10^{17} NP1: φ$_s$270.18449°, δ89.46475°, λ4.72453°. NP2:φ$_s$180.14025°, δ85.27568°, λ179.46292°. Principal axes: T 6.8439, Plg3.7179°, Azm135.2587°; N -0.6276, Plg85.2453°, Azm276.6335°; P -6.2164, Plg2.9597°, Azm45.0662°;*

*GFZ **21** 13:37:15.3±0.4, 4°S±4°×10°4W±°, h10^{km}, M4.9/29, mb4.8/29*

*NEIC **21** 13:37:15.1±1.6, 4°.0S±0°.1×104°.4W±0°.1, h10^{km}±1^{km}, mb5.0/350, Ms_20 5.6/693, Mwb5.7/63, Mww5.8/25, Error ellipse: s-maj=20.0km s-min=18.4km az=249.0, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M$_{rr}$0.10; M$_{θθ}$-0.20; M$_{φφ}$0.11; M$_{rθ}$-0.83; M$_{θφ}$4.36; M$_{φr}$-1.57; Fault plane solution: M$_0$4.71000×10^{17} NP1: φ$_s$270.66000°, δ71.42000°, λ9.39000°. NP2:φ$_s$177.65000°, δ81.10000°, λ161.18000°. Principal axes: T 4.9228, Plg20.0000°, Azm133.0000°; N -0.4508, Plg69.0000°, Azm333.0000°; P -4.4719, Plg7.0000°, Azm225.0000°;*

*NEIC **21** 13:37:15.1, 4°.06S×104°.39W, h10^{km}*

*GFZ **21** 13:37:15.5, 4°.07S×104°.43W, h12^{km}, MW5.8, Moment Tensor Solution. s59 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.43; M$_{θθ}$-0.06; M$_{φφ}$0.50; M$_{rθ}$-3.07; M$_{θφ}$5.88; M$_{φr}$0.05; Fault plane solution: NP1:φ$_s$179.00000°, δ62.00000°, λ-176.00000°. NP2:φ$_s$87.00000°, δ87.00000°, λ-27.00000°. Principal axes: T 6.7400, Plg17.0000°, Azm136.0000°; N -0.1900, Plg62.0000°, Azm262.0000°; P -6.5600, Plg21.0000°, Azm39.0000°;*

*NEIC **21** 13:37:15.1, 4°.05S×104°.39W, h10^{km}*

*GCMT **21** 13:37:20.1±0.1, 3°.91S×104°.32W, h12^{km}, MW5.8/174, Moment Tensor Solution. s157,c339; s174,c564; Duration: 2^s.0 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.38±.04; M$_{θθ}$0.34±.04; M$_{φφ}$0.03±.04; M$_{rθ}$0.29±.10; M$_{θφ}$6.98±.04; M$_{φr}$0.62±.10; Best double couple: M$_0$7.01300×10^{17} NP1:φ$_s$91.00000°, δ85.00000°, λ2.00000°. NP2:φ$_s$1.00000°, δ88.00000°, λ175.00000°. Principal axes: T 7.2250, Plg5.0000°, Azm316.0000°; N -0.4230, Plg85.0000°, Azm159.0000°; P -6.8010, Plg2.0000°, Azm46.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s. Triangular moment-rate function*

*NEIC **21** 13:37:26.5, 4°.06S×104°.29W, h12^{km}, Moment Tensor Solution. Duration: 4^s.4 Moment tensor: Scale 10^{17}Nm; M$_{rr}$0.23; M$_{θθ}$-0.43; M$_{φφ}$0.21; M$_{rθ}$0.30; M$_{θφ}$7.31; M$_{φr}$1.00; Fault plane solution: M$_0$7.40000×10^{17} NP1:φ$_s$88.92000°, δ82.17000°, λ2.76000°. NP2:φ$_s$358.55000°, δ87.27000°, λ172.16000°. Principal axes: T 7.3302, Plg7.0000°, Azm313.0000°; N 0.1332, Plg82.0000°, Azm159.0000°; P -7.4634, Plg4.0000°, Azm44.0000°;*

*RSNC **21** 13:37:33.9±3.8, 4°S±14°×10°3W±2°6, h135^{km}±19^{km}, M5.1, mB5.6, mb4.7, Mw(mB)5.1, MwMwp5.4, Mwp5.6*

ISC 21 13:37:14.1±0.3, **4°.08S**±0°.06×**104°.37W**±0°.05, **h10^{km}, n735, σ1^s.87**/254, **mb5.0**/224, **MS5.6**/414, **8C-7D, Central East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PAYG	Puerto Ayora	14.47	77	Pn	Pn	13 40 38.8	-0.3
PAYG	Puerto Ayora	14.47	77	P	Pn	13 40 40.5	+1.4
	15µm57nm,1.3s						
TLIG	Tlapa	22.25	15		P	13 42 10.5	-1.0
TLIG				IAmb	IAmb	13 42 30.8	
	comp=Z,53nm,1.2s						
CMIG	Matias Romero	23.03	24	P	P	13 42 21.1	+1.5
	comp=Z,13nm,1.0s,baz=212,slow=7.8,SNR=8.5						
CMIG				LR	LR	13 49 16.9	
	comp=Z,20µm,21.0s,baz=200,slow=31						
	comp=Z,13nm,1.0s						
RPN	Rapa Nui	23.41	191	LR	LR	13 49 12.2	
	comp=Z,3µm,19.2s,baz=7.5,slow=31						
APG	El Apazote	23.44	36	LR	LR	13 49 35.7	
	comp=Z,1µm,19.0s,baz=262,slow=32						
JUD3	Juan Diaz 3	23.49	53	P	P	13 42 25.7	+1.2
JUD3				IAmb	IAmb	13 42 43.0	
	comp=Z,64nm,1.7s						
MTO3	Montecristo	23.63	39	P	P	13 42 25.5	-0.4
MTO3				IAmb	IAmb	13 42 46.5	
	comp=Z,64nm,1.4s						
PPLP	Puerto Lpez	23.70	85	P	P	13 42 23.0	-3.4
CRIN	San Cristobal	23.96	46	P	P	13 42 32.9	+4.0
	comp=Z,12µmcomp=Z,350nm,0.7s						
JTS	Las Juntas de	24.03	53	LR	LR	13 49 23.5	
	comp=Z,22µm,21.6s,baz=267,slow=30						
JTS	Las Juntas de	24.03	53	d iP	P	13 42 30.3	+0.7
JTS				pmax	pmax		
	comp=Z,53nm,1.5s						
JTS	Las Juntas de	24.03	53	P	P	13 42 30.2	+0.6
JTS	Las Juntas de	24.03	53	IAMs_20	IAMs_20	13 49 12.9	
	comp=Z,20µm,20.0s						

JTS	Las Juntas de	24.03	53	P	P	13 42 35.0	+5.4
CNGN	Cerro Negro	24.07	47	P	P	13 42 31.1	+1.1
	comp=Z,20µmcomp=Z,401nm,2.7s						
MGAN	Managua	24.17	48	P	P	13 42 33.2	+2.4
	comp=Z,87nm,1.2s						
MCRA	Macar, Loja	24.35	92	P	P	13 42 31.3	-1.3
	comp=Z,564nmcomp=Z,12nm,1.4s						
PIRO	Carate, Puerto	24.37	59	P	P	13 42 32.8	+0.1
PIRO				IAmb	IAmb	13 42 59.2	
	comp=Z,61nm,1.2s						
HDC	Heredia	24.55	55	IAMs_20	IAMs_20	13 49 29.6	
	comp=Z,17µm,21.0s						
TGUH	Tegucigalpa,Un	24.74	43	P	P	13 42 37.0	+0.8
TGUH	Tegucigalpa,Un	24.74	43	P	P	13 42 39.1	+2.9
	comp=Z,27nm,0.5s						
FLF1	Flavio Alfaro-	24.78	82	P	P	13 42 30.8	-5.7
BOAB	BOACO BROADBAN	24.80	48	P	P	13 42 37.2	+0.6
BOAB	BOACO BROADBAN	24.80	48	P	P	13 42 41.3	+4.7
	comp=Z,61nm,1.5s						
BRU2	Volcan	25.11	59	P	P	13 42 41.3	+1.7
BRU2	Volcan	25.11	59	P	P	13 42 41.9	+2.3
	comp=Z,54nm,1.5s						
GMAL	Guarumal, Vera	25.91	63	P	P	13 42 47.3	+0.7
PAC1	Pacto, Paraso	25.92	81	P	P	13 42 37.0	-10
BLUN	Bluefields	25.97	52	P	P	13 42 57.0	+10
	comp=Z,3µmcomp=Z,15nm,0.9s						
ATAH	Atahualpa	26.02	98	LR	LR	13 50 38.2	
	comp=Z,5µm,21.7s,baz=272,slow=31						
CACAO	El Cacao, Vera	26.06	64	P	P	13 42 48.5	+0.5
	comp=Z,1µmcomp=Z,30nm,2.2s						
OTAV	Otavalo	26.25	81	P	P	13 42 49.9	-0.3
OTAV				pmax	pmax		
	comp=Z,68nm,1.4s						
OTAV	Otavalo	26.25	81		P	13 42 49.9	-0.3
OTAV				IAmb	IAmb	13 43 19.9	
	comp=Z,68nm,1.4s						
OTAV	Otavalo	26.25	81	*e*P	P	13 42 47.9	-2.3
OTAV	Otavalo	26.25	81	P	P	13 42 51.7	+1.5
	comp=Z,34nm,1.6s						
CUSE	Cuicocha Este	26.31	81	P	P	13 42 50.6	-0.2
	comp=Z,5µmcomp=Z,21nm,0.6s						
ZAIG	Zacatecas	26.74	4	P	P	13 42 54.0	-0.4
ZAIG	Zacatecas	26.74	4	P	P	13 42 56.8	+2.5
	comp=Z,18nm,1.1s						
AZU	Azuero	26.77	64	P	P	13 42 56.3	+1.8
	comp=Z,24nm,1.2s						
TULM	Tulcn-Chalpat	26.98	80	P	P	13 43 02.2	+5.3
	comp=Z,56nm,1.2s						
CASC	Dorado de Casc	27.33	82	P	P	13 43 00.3	+0.7
	comp=Z,1µmcomp=Z,28nm,1.0s						
BCIP	Isla Barro Col	27.77	62	IAMs_20	IAMs_20	13 51 27.9	
	comp=Z,16µm,20.0s						
BCIP	Isla Barro Col	27.77	62	P	P	13 43 06.0	+2.6
	comp=Z,26nm,1.6s						
BBAC	Balboa, Cauca	27.77	78	P	P	13 43 02.4	-1.3
	comp=Z,616nmcomp=Z,25nm,1.5s						
UPA	Univ. de Panam	27.95	62	P	P	13 43 12.3	+7.3
	comp=Z,1µmcomp=Z,7.7nm,1.1s						
NNA	Nana	28.34	108	LR	LR	13 51 24.7	
	comp=Z,11µm,21.7s,baz=284,slow=30						
POPC	Popayan, Colom	28.44	77	P	P	13 43 00.4	-9.3
	comp=Z,3µmcomp=Z,10nm,1.5s						
LPIG	La Paz	28.60	349	LR	LR	13 51 39.0	
	comp=Z,11µm,20.6s,baz=170,slow=30						
TEIG	Tepich	28.87	33	IAMs_20	IAMs_20	13 52 41.7	
	comp=Z,17µm,21.0s						
PTLC	Puerto Leguiza	29.85	83	P	P	13 43 22.2	+0.2
	comp=Z,2µmcomp=Z,16nm,1.6s						
CBOC	Ciudad Bolivar	29.99	71	P	P	13 43 23.8	+0.4
	comp=Z,727nmcomp=Z,17nm,1.6s						
ORTC	Ortega, Tolima	30.16	75	P	P	13 43 24.4	-0.4
	comp=Z,2µmcomp=Z,593nmcomp=Z,19nm,1.5s						
APAC	Apartado, Choc	30.17	67	P	P	13 43 23.6	-1.1
	comp=Z,5µmcomp=Z,12nm,1.6s						
PRAC	Prado	30.46	76	P	P	13 43 20.8	-6.6
	comp=Z,22nm,1.4s						
HPIG		30.86	358	P	P	13 43 32.7	+1.8
	comp=Z,15nm,1.3s						
NORC	Norcasia	30.98	72	P	P	13 43 34.5	+2.5
	comp=Z,3µmcomp=Z,12nm,2.9s						
ROSC	El Rosal	31.30	74	LR	LR	13 53 53.4	
	comp=Z,4µm,21.6s,baz=238,slow=32						
ROSC	El Rosal	31.30	74	P	P	13 43 40.5	+5.3
	comp=Z,13nm,0.6s						
CVER	Cruz Verde, Cu	31.45	75	P	P	13 43 33.6	-3.0
	comp=Z,26nm,0.5s						
PTBC	PUERTO BERRIO,	31.67	71	P	P	13 43 30.4	-7.6
	comp=Z,8.3nm,2.6s						
CZSB	Cruzeiro do Su	31.70	98		P	13 43 38.2	0.0
CZSB	Cruzeiro do Su	31.70	98	*e*P	P	13 43 35.0	-3.3
VILC	Villavicencio,	31.71	75	P	P	13 43 34.2	-4.3
	comp=Z,40nm,1.0s						
SPBC	San Pablo de B	31.76	72	P	P	13 43 33.6	-5.4
	comp=Z,816nmcomp=Z,14nm,1.6s						
KVTX	Kingsville	32.05	11	IAMs_20	IAMs_20	13 54 31.8	
	comp=Z,11µm,22.0s						
SJCC	San Jacinto, C	32.22	64	P	P	13 43 45.0	+2.1
	comp=Z,19nm,1.7s						
GUVC	San Jose del G	32.40	79	P	P	13 43 43.2	-1.2
BRJC	Barrancabermej	32.48	70	P	P	13 43 44.8	-0.3
	comp=Z,843nmcomp=Z,25nm,1.3s						
RUSC	La Rusia	32.77	73	P	P	13 43 46.4	-1.9
	comp=Z,40nm,1.5s						
BARC	Barichara	32.89	71	P	P	13 43 50.8	+1.8
	comp=Z,5µmcomp=Z,4µmcomp=Z,61nm,1.3s						
TXAR	Lajitas Array	33.23	1	P	P	13 43 52.5	+0.9
	comp=Z,1.7nm,0.9s,baz=195,slow=11,SNR=10						
TXAR				LR	LR	13 55 18.1	
	comp=Z,6µm,21.2s,baz=178,slow=33						
	comp=Z,1.7nm,0.9s						
TXAR	Lajitas Array	33.23	1		P	13 43 51.5	-0.1
OCAC	Ocana	33.30	68	P	P	13 43 51.7	-0.8
PAMC	Pamplona, Colo	33.58	70	P	P	13 43 51.1	-4.2
	comp=Z,5µmcomp=Z,11nm,0.4s						
SAND	Sanderson	33.91	3		P	13 43 57.4	0.0
SAND				IAmb	IAmb	13 44 09.4	
	comp=Z,18nm,1.1s						
ALPN	Alpine	34.27	1		P	13 44 00.1	-0.6
ALPN				IAmb	IAmb	13 44 13.2	
	comp=Z,17nm,1.1s						
JCT	Junction City	34.64	7	P	P	13 44 04.3	+0.5
JCT				pmax	pmax		
	comp=Z,19nm,1.0s						
JCT				MLR	MLR		
	comp=Z,3µm,19.0s						
JCT	Junction City	34.64	7	P	P	13 44 04.3	+0.5
JCT				IAmb	IAmb	13 44 15.1	
	comp=Z,19nm,0.9s						
VHRN	Van Horn	34.67	359		P	13 44 04.6	+0.4
VHRN				IAmb	IAmb	13 44 22.8	
	comp=Z,28nm,1.5s						
TPB05	Hovey Rd	34.82	2	IAmb	IAmb	13 44 29.6	
	comp=Z,21nm,1.2s						
OZNA	Ozona	34.94	5	IAmb	IAmb	13 44 08.6	
	comp=Z,49nm,1.8s						
BRDY	Brady	35.54	8		P	13 44 11.9	+0.4
TPB28		35.55	360	P	P	13 44 12.3	+0.6
TPB28				IAmb	IAmb	13 44 30.4	
	comp=Z,19nm,1.4s						
MNTX	Cornudas Mount	35.59	359		P	13 44 12.3	+0.3
MNTX	Cornudas Mount	35.59	359	P	P	13 44 12.3	+0.3
	comp=Z,11nm,1.4s						
TAOE	Nuku Hiva Isla	35.85	261	*e*P	P	13 44 12.7	-1.9
	comp=Z,168nm,25.2s						
TAOE				*e*S	S	13 49 44.6	-8.1
	comp=Z,240nm,23.6s						
TAOE				*e*SS	SS	13 52 28.2	-0.8
	comp=Z,5µm,26.1s						
TAOE				*e*LR	LR	13 53 46.2	
	comp=Z,9µm,24.7s						
CAIB	Caibarien	35.91	42		P	13 44 15.2	+0.4
CAIB				IAmb	IAmb	13 44 29.6	
	comp=Z,34nm,1.3s						
SGCY	Sterling City	35.93	5		P	13 44 13.4	-1.5
SGCY				IAmb	IAmb	13 44 32.7	
	comp=Z,19nm,0.8s						
SDV	Santo Domingo	36.01	69	LR	LR	13 56 30.8	
	comp=Z,5µm,19.2s,baz=247,slow=32						
SDV	Santo Domingo	36.01	69		P	13 44 15.9	-0.2
SDV				IAmb	IAmb	13 44 28.9	
	comp=Z,18nm,0.8s						
SDV	Santo Domingo	36.01	69	P	P	13 44 18.1	+2.1
	comp=Z,104nm,0.8s						
SDV	Santo Domingo	36.01	69	P	P	13 44 16.9	+0.8
	comp=Z,105nm,0.8s						
AP01	Chacalluta	36.17	116	IAMs_20	IAMs_20	13 54 59.4	
	comp=Z,8µm,22.0s						
121A	Cookes Peak, D	36.55	355		P	13 44 20.4	+0.1
121A				IAmb	IAmb	13 44 32.5	
	comp=Z,34nm,1.2s						
TUC	Tucson	36.70	351	IAMs_20	IAMs_20	13 56 07.8	
	comp=Z,6µm,20.0s						
PB18	Visviri	36.71	114	IAMs_20	IAMs_20	13 55 33.6	
	comp=Z,8µm,20.0s						
PB18	Visviri	36.71	114	P	P	13 44 25.4	+3.1
	comp=Z,22nm,1.2s						
ABTX	Abilene, Hawle	36.78	7		P	13 44 22.3	+0.2
ABTX				IAmb	IAmb	13 44 33.1	
	comp=Z,37nm,1.3s						
PSGCX	Pisagua	36.78	118	IAMs_20	IAMs_20	13 55 11.4	
	comp=Z,9µm,21.0s						
PB16	IPOC Station P	36.91	115		P	13 44 23.7	-0.4
PB16				IAmb	IAmb	13 44 32.4	
	comp=Z,22nm,0.9s						
PB16				IAMs_20	IAMs_20	13 55 33.9	
	comp=Z,9µm,21.0s						
PB16	IPOC Station P	36.91	115	P	P	13 44 25.6	+1.5
	comp=Z,27nm,0.9s						
SN07	Snyder 07	37.11	5	P	P	13 44 24.8	-0.1
PB11	IPOC Station P	37.25	118	P	P	13 44 26.2	-0.2
PB11				IAmb	IAmb	13 44 33.8	
	comp=Z,26nm,1.1s						
PB11				IAMs_20	IAMs_20	13 55 34.9	
	comp=Z,8µm,20.0s						
PB11	IPOC Station P	37.25	118	P	P	13 44 26.9	+0.4
	comp=Z,27nm,1.0s						
APMT	Aspermont	37.42	6	IAmb	IAmb	13 44 42.6	
	comp=Z,29nm,1.4s						
SGC2	Sao Gabriel da	37.56	85	P	P	13 44 33.8	+4.8
LPAZ	La Paz	37.59	111	P	P	13 44 30.4	+0.4
	comp=Z,3.2nm,1.0s,baz=289,slow=6.3,SNR=9.9						
LPAZ				LR	LR	13 57 15.3	
	comp=Z,5µm,20.4s,baz=279,slow=32						
	comp=Z,3.2nm,1.0s						
LPAZ	La Paz	37.59	111	*e*P	P	13 44 30.6	+0.7
LPAZ				pmax	pmax		
	comp=Z,3.0nm,1.0s						
LPAZ	La Paz	37.59	111		P	13 44 29.9	-0.1
PB02	IPOC Station P	37.60	120	IAMs_20	IAMs_20	13 55 42.2	
	comp=Z,10µm,21.0s						
GO01	Chusmiza	37.62	117	IAMs_20	IAMs_20	13 55 39.8	
	comp=Z,7µm,20.0s						
H03N2	Juan Fernandez	37.63	144	T	T	14 24 30.5	
	baz=313,slow=76,SNR=142						
H03N1	Juan Fernandez	37.64	144	T	T	14 24 34.6	
	baz=309,slow=76,SNR=219						
PB07	IPOC Station P	37.76	121		P	13 44 31.6	+0.8
PB07				IAmb	IAmb	13 44 33.5	
	comp=Z,45nm,1.4s						
PB07				IAMs_20	IAMs_20	13 55 37.5	
	comp=Z,7µm,20.0s						
PB07	IPOC Station P	37.76	121	P	P	13 44 32.7	+1.8
	comp=Z,27nm,2.4s						
PB08	IPOC Station P	37.82	118	P	P	13 44 31.2	-0.3
PB08				IAMs_20	IAMs_20	13 55 43.1	
	comp=Z,9µm,21.0s						
PB08	IPOC Station P	37.82	118	P	P	13 44 32.8	+1.2
	comp=Z,19nm,1.4s						
NMDO	Nuevo Mundo	37.83	49		P	13 44 30.7	-0.5
NMDO				IAmb	IAmb	13 44 45.8	
	comp=Z,42nm,1.4s						
VA04	Juan Fernndez	37.83	144	IAMs_20	IAMs_20	13 55 48.3	
	comp=Z,7µm,20.0s						
MSTX	Muleshoe	37.87	2	IAMs_20	IAMs_20	13 58 32.8	
	comp=Z,6µm,18.0s						
Y22A	Socorro	37.89	356	IAmb	IAmb	13 45 02.1	
	comp=Z,35nm,1.4s						
PB03	IPOC Station P	38.00	121	P	P	13 44 33.5	+0.7
PB03				IAmb	IAmb	13 44 35.5	
	comp=Z,44nm,1.5s						
PB03				IAMs_20	IAMs_20	13 55 52.8	
	comp=Z,6µm,20.0s						
PB03	IPOC Station P	38.00	121	P	P	13 44 34.6	+1.7
	comp=Z,20nm,2.0s						
YUH	Yuha Desert	38.14	344	IAmb	IAmb	13 45 01.3	
	comp=Z,55nm,2.0s						
PB09	IPOC Station P	38.34	120	P	P	13 44 36.7	+1.0
PB09				IAmb	IAmb	13 44 39.6	
	comp=Z,51nm,1.3s						
PB09				IAMs_20	IAMs_20	13 56 04.9	
	comp=Z,8µm,20.0s						
PB09	IPOC Station P	38.34	120	P	P	13 44 38.1	+2.4
	comp=Z,29nm,1.4s						
BAR	Barrett	38.38	343	IAMs_20	IAMs_20	13 56 11.1	
	comp=Z,10µm,22.0s						
LOOK	Love County	38.47	10	IAmb	IAmb	13 44 55.3	
	comp=Z,34nm,1.1s						
451A	Vernon	38.82	26	IAMs_20	IAMs_20	14 00 44.1	
	comp=Z,6µm,20.0s						
AMTX	Amarillo	38.84	4	IAmb	IAmb	13 44 54.9	
	comp=Z,74nm,1.6s						
AMTX				IAMs_20	IAMs_20	13 59 02.3	
	comp=Z,11µm,20.0s						
ALQ	Albuquerque	38.86	357	IAmb	IAmb	13 45 16.6	
	comp=Z,22nm,1.7s						
ALQ				IAMs_20	IAMs_20	13 57 58.0	
	comp=Z,2µm,20.0s						
ANMO	Albuquerque	38.87	357	LR	LR	13 57 52.4	
	comp=Z,2µm,21.8s,baz=180,slow=32						
ANMO	Albuquerque	38.87	357	⇑*e*P	P	13 44 38.8	-1.1
ANMO				pmax	pmax		
	comp=Z,15nm,2.2s						
ANMO	Albuquerque	38.87	357	P	P	13 44 39.2	-0.7
ANMO	Albuquerque	38.87	357	P	P	13 44 41.1	+1.2
	comp=Z,8.0nm,2.7s						
TASM	ASL Pad, Albuq	38.87	357	IAMs_20	IAMs_20	13 57 59.1	
	comp=Z,2µm,20.0s						
TASM	ASL Pad, Albuq	38.87	357	IAMs_20	IAMs_20	13 57 59.4	
	comp=Z,2µm,20.0s						
TASM	ASL Pad, Albuq	38.87	357	IAMs_20	IAMs_20	13 57 58.0	
	comp=Z,2µm,20.0s						
DWPF	Disney Wildern	38.89	33	IAMs_20	IAMs_20	13 58 33.1	
	comp=Z,7µm,22.0s						
WMOK	Wichita Mounta	38.97	7	P	P	13 44 41.1	+0.5
WMOK	Wichita Mounta	38.97	7	P	P	13 44 41.1	+0.5
	comp=Z,5.8nm,1.2s						
553A	Crawfordville	39.05	28	IAMs_20	IAMs_20	13 59 18.3	
	comp=Z,5µm,18.0s						
AC01	Pan de Azucar	39.08	128	IAMs_20	IAMs_20	13 56 24.3	
	comp=Z,10µm,20.0s						
SMWD	Samnorwood	39.17	5	IAmb	IAmb	13 44 53.8	
	comp=Z,48nm,1.4s						
PFO	Pinyon Flats O	39.19	344	LR	LR	13 57 09.6	
	comp=Z,10µm,18.4s,baz=156,slow=30						
PFO	Pinyon Flats O	39.19	344	*i* P	P	13 44 44.2	+1.6
PFO	Pinyon Flats O	39.19	344	P	P	13 44 43.4	+0.8
PFO	Pinyon Flats O	39.19	344	IAMs_20	IAMs_20	13 57 07.6	
	comp=Z,11µm,19.0s						
PFO	Pinyon Flats O	39.19	344	P	P	13 44 44.1	+1.6
	comp=Z,11nm,1.0s						
PH02	Texas Public H	39.33	3	IAmb	IAmb	13 44 55.4	
	comp=Z,27nm,1.0s						
BELC	Belle Mtn. Jos	39.44	345	IAMs_20	IAMs_20	13 57 02.1	
	comp=Z,10µm,20.0s						
AF01	San Pedro de A	39.69	122	IAMs_20	IAMs_20	13 56 39.6	
	comp=Z,7µm,21.0s						
AC04	Llanos de Chal	39.73	131	IAMs_20	IAMs_20	13 56 23.5	
	comp=Z,11µm,22.0s						
MIAR	Mount Ida	39.74	14	IAmb	IAmb	13 44 57.7	
	comp=Z,41nm,1.1s						
MIAR	Mount Ida	39.74	14	P	P	13 44 48.4	+1.4
	comp=Z,38nm,1.2s						
SDDR	Presa de Saban	39.82	54	P	P	13 44 49.1	+1.1
AC06	Mina Casimiro	39.85	129	IAMs_20	IAMs_20	13 56 46.8	
	comp=Z,9µm,19.0s						
WUAZ	Wupatki	39.93	351	IAMs_20	IAMs_20	13 57 59.3	
	comp=Z,6µm,19.0s						
GO03	Copiapo	40.06	129	IAMs_20	IAMs_20	13 56 44.4	
	comp=Z,9µm,20.0s						
BFSC	Mount Baldy Ra	40.12	343	IAMs_20	IAMs_20	13 57 41.3	
	comp=Z,7µm,18.0s						
ELIS	Ellis County	40.20	6	IAmb	IAmb	13 45 02.7	
	comp=Z,45nm,1.1s						
PASC	Pasadena Art C	40.22	342	IAMs_20	IAMs_20	13 57 25.8	
	comp=Z,8µm,19.0s						
MWC	Mount Wilson	40.23	342	IAMs_20	IAMs_20	13 57 27.1	
	comp=Z,7µm,19.0s						
LCO	Las Campanas	40.42	132	P	P	13 44 53.0	-0.1
LCO				pmax	pmax		
	comp=Z,60nm,1.7s						
LCO	Las Campanas	40.42	132	P	P	13 44 53.0	-0.1
LCO				IAmb	IAmb	13 45 08.4	
	comp=Z,60nm,1.7s						
OK052	Battle Ridge R	40.49	9	IAmb	IAmb	13 45 04.7	
	comp=Z,48nm,1.3s						
TIGA	Tifton	40.49	28	IAMs_20	IAMs_20	14 00 25.5	
	comp=Z,5µm,20.0s						
AC02	Maricunga	40.56	128		P	13 44 54.7	+0.1
AC02				IAmb	IAmb	13 45 07.5	
	comp=Z,31nm,1.4s						
AC02				IAMs_20	IAMs_20	13 57 01.7	
	comp=Z,10µm,20.0s						
AC02	Maricunga	40.56	128	P	P	13 44 57.0	+2.4
	comp=Z,13nm,1.6s						
CO06	Fray Jorge	40.64	134	IAmb	IAmb	13 45 02.0	
	comp=Z,38nm,1.3s						
CO06				IAMs_20	IAMs_20	13 56 50.7	
	comp=Z,10µm,21.0s						
AC05	El Transito	40.65	131		P	13 44 56.4	+1.5
AC05				IAmb	IAmb	13 45 04.4	
	comp=Z,56nm,1.3s						
AC05				IAMs_20	IAMs_20	13 57 02.1	
	comp=Z,8µm,19.0s						
AC05	El Transito	40.65	131	P	P	13 44 57.2	+2.3
	comp=Z,38nm,1.5s						
MTPC	Mountain Pass	40.73	346	IAmb	IAmb	13 45 16.8	
	comp=Z,42nm,1.7s						
OSI	Osito Audit: C	40.79	342	IAMs_20	IAMs_20	13 57 43.1	
	comp=Z,9µm,19.0s						
TPO	Tropico Hills	40.89	342	IAmb	IAmb	13 45 14.5	
	comp=Z,40nm,1.5s						
GO04	Tololo Observa	40.97	133	P	P	13 44 59.1	+1.5
	comp=Z,29nm,2.1s						
BLOK	Blackwell	41.17	9	IAmb	IAmb	13 45 17.3	
	comp=Z,42nm,1.2s						
CCCA	Chr Cany lake	41.24	344	IAmb	IAmb	13 45 27.8	
	comp=Z,39nm,1.5s						
MVCO	Mesa Verde	41.26	355	IAmb	IAmb	13 45 11.4	
	comp=Z,32nm,1.1s						
MVCO	Mesa Verde	41.26	355	P	P	13 45 00.6	+0.7
	comp=Z,30nm,1.2s						
GRTK	Grand Turk	41.31	51	IAMs_20	IAMs_20	13 59 43.5	
	comp=Z,8µm,20.0s						
CO01	Juntas del Tor	41.38	132	IAmb	IAmb	13 45 52.7	
	comp=Z,32nm,1.6s						
CO02	Combarbal	41.39	135	IAmb	IAmb	13 45 04.1	
	comp=Z,79nm,1.8s						
CO02	Combarbal	41.39	135	P	P	13 45 02.5	+1.6
	comp=Z,24nm,1.7s						
GWY	Greenwater Val	41.68	345	IAmb	IAmb	13 45 15.1	
	comp=Z,26nm,1.2s						
ISA	Isabella, Lake	41.69	343	IAMs_20	IAMs_20	13 58 40.8	
	comp=Z,8µm,18.0s						
SALTA		41.74	122	P	P	13 45 06.5	+2.2
	comp=Z,13nm,1.8s						
MPMC	Manual Prospec	41.78	344		P	13 45 03.8	-0.3
MPMC				IAMs_20	IAMs_20	13 58 27.1	
	comp=Z,6µm,19.0s						
LCAR	Lake Charles	41.81	16	IAmb	IAmb	13 45 15.0	
	comp=Z,42nm,1.3s						
CO04	Los Peladeros	41.88	136	IAMs_20	IAMs_20	13 57 27.4	
	comp=Z,10µm,21.0s						
PKCU	Pink Cliffs	41.97	351	IAmb	IAmb	13 45 18.5	
	comp=Z,50nm,1.4s						
VA01	Torpederas	41.98	137	IAMs_20	IAMs_20	13 57 47.4	
	comp=Z,8µm,20.0s						
FURC	Furnace Creek,	41.99	345	IAmb	IAmb	13 45 20.6	
	comp=Z,31nm,1.3s						
FURC				IAMs_20	IAMs_20	13 58 19.8	
	comp=Z,10µm,22.0s						
VES	Vestal, Richgr	42.04	342	IAmb	IAmb	13 45 17.7	
	comp=Z,60nm,1.4s						
VES				IAMs_20	IAMs_20	13 58 41.1	
	comp=Z,7µm,19.0s						
GOGA	Godfrey	42.21	26	IAMs_20	IAMs_20	14 02 08.8	
	comp=Z,5µm,19.0s						
PV13	Radium Mtn., P	42.23	355	IAmb	IAmb	13 45 19.2	
	comp=Z,47nm,1.2s						
PV02	Paradox Valley	42.27	355	IAmb	IAmb	13 45 19.6	
	comp=Z,45nm,1.2s						
TPNV	Topopah Spring	42.30	346	IAmb	IAmb	13 45 36.0	
	comp=Z,46nm,1.6s						
PV17	East Wray Mesa	42.36	355	IAmb	IAmb	13 45 20.9	
	comp=Z,39nm,1.4s						
PV11	David Mesa, Pa	42.37	355	IAmb	IAmb	13 45 21.2	
	comp=Z,40nm,1.3s						
PV15	Paradox Valley	42.38	355	IAmb	IAmb	13 45 20.8	
	comp=Z,51nm,1.2s						
VA05	Santo Domingo	42.38	138	IAMs_20	IAMs_20	13 57 40.7	
	comp=Z,8µm,21.0s						
PV12	Saucer Basin,	42.38	355	IAmb	IAmb	13 45 21.3	
	comp=Z,30nm,1.1s						
PV19	Morning Glory	42.39	355	IAmb	IAmb	13 45 20.6	
	comp=Z,49nm,1.4s						
PV20	West Nyswonger	42.42	355	IAmb	IAmb	13 45 20.7	
	comp=Z,38nm,1.3s						
PRN	Pahroc Range	42.45	347	IAmb	IAmb	13 45 37.0	
	comp=Z,24nm,1.1s						
PV10	Paradox Valley	42.46	355	IAmb	IAmb	13 45 20.5	
	comp=Z,39nm,1.2s						
MT02	Curacav	42.47	137	IAmb	IAmb	13 45 12.8	
	comp=Z,53nm,1.4s						
MT02				IAMs_20	IAMs_20	13 57 44.0	
	comp=Z,11µm,22.0s						
PV04	Paradox Valley	42.47	355	IAmb	IAmb	13 45 22.1	
	comp=Z,61nm,1.4s						
VA03	San Esteban	42.58	136	IAMs_20	IAMs_20	13 57 48.1	
	comp=Z,10µm,22.0s						
PV22	Blue Mesa, Par	42.60	355	IAmb	IAmb	13 45 22.2	
	comp=Z,25nm,1.2s						
PKD	Bear Valley Ra	42.60	340	P	P	13 45 10.4	-0.1
PKD				IAmb	IAmb	13 45 33.4	
	comp=Z,29nm,1.2s						
R32A	Long Quarter,	42.61	7	IAMs_20	IAMs_20	14 01 20.2	
	comp=Z,5µm,18.0s						
PBMO	Poplar Bluff	42.68	17	IAmb	IAmb	13 45 22.2	
	comp=Z,46nm,1.1s						
PEL	Peldehue	42.71	137	P	P	13 45 13.6	+2.1
PEL	Peldehue	42.71	137	IAmb	IAmb	13 45 14.5	
	comp=Z,44nm,1.3s						
PEL				IAMs_20	IAMs_20	13 57 51.6	
	comp=Z,9µm,22.0s						
PEL	Peldehue	42.71	137	P	P	13 45 13.2	+1.6
	comp=Z,30nm,1.6s						
T42A	Van Buren	42.73	16	P	P	13 45 10.5	-1.0
T42A				IAmb	IAmb	13 45 21.9	
	comp=Z,26nm,1.1s						
MT01	Popeta	42.75	138	IAmb	IAmb	13 45 14.5	
	comp=Z,41nm,1.4s						
MT01				IAMs_20	IAMs_20	13 57 52.4	
	comp=Z,8µm,21.0s						
S39A	Bolivar	42.81	13	P	P	13 45 12.4	+0.3
S39A				IAmb	IAmb	13 45 22.4	
	comp=Z,29nm,1.2s						
MT05	Renca	42.81	137	IAMs_20	IAMs_20	13 57 54.2	
	comp=Z,9µm,22.0s						
S11A	Rachel	42.84	347	IAmb	IAmb	13 45 34.4	
	comp=Z,52nm,1.4s						
MT09	Talagante	42.87	138	IAmb	IAmb	13 45 15.1	
	comp=Z,30nm,1.4s						
MT09				IAMs_20	IAMs_20	13 57 54.7	
	comp=Z,8µm,21.0s						
WVT	Waverly	42.89	20	P	P	13 45 13.0	+0.1
WVT				pmax	pmax		
	comp=Z,50nm,1.5s						
WVT				MLR	MLR		
	comp=Z,2µm,19.0s						
WVT	Waverly	42.89	20	P	P	13 45 13.0	+0.1
WVT				IAmb	IAmb	13 45 22.8	
	comp=Z,50nm,1.4s						
WVT	Waverly	42.89	20	P	P	13 45 14.0	+1.1
	comp=Z,24nm,1.5s						
V48A	Smith Brothers	42.89	21	IAmb	IAmb	13 45 26.4	
	comp=Z,43nm,1.5s						
CBKS	Cedar Bluff	42.89	5	IAMs_20	IAMs_20	14 01 23.7	
	comp=Z,9µm,20.0s						
KSCO	Kaye Shedlock'	42.91	2	IAMs_20	IAMs_20	14 01 33.0	
	comp=Z,6µm,19.0s						
TIN	Tinemaha, Big	42.91	344	IAMs_20	IAMs_20	13 58 44.2	
	comp=Z,5µm,20.0s						
MT16	CCHEN	42.98	137	IAMs_20	IAMs_20	13 57 59.7	
	comp=Z,9µm,22.0s						
GO05	Hualane	42.99	140	IAmb	IAmb	13 45 16.8	
	comp=Z,41nm,1.1s						
GO05				IAMs_20	IAMs_20	13 57 59.0	
	comp=Z,8µm,21.0s						
GO05	Hualane	42.99	140	P	P	13 45 15.3	+1.5
	comp=Z,36nm,1.4s						
MT03	Universidad Ad	43.03	137	IAMs_20	IAMs_20	13 58 19.9	
	comp=Z,7µm,20.0s						
BO01	Tunca	43.17	138	IAmb	IAmb	13 45 18.5	
	comp=Z,76nm,1.9s						

BO01				IAMs_20	IAMs_20	13 58 03.7	
	comp=Z,8µm,22.0s						
BO01	Tunca	43.17	138	P	P	13 45 16.9	+1.7
	comp=Z,18nm,1.6s						
ZON	Zonda	43.24	133	P	P	13 45 16.1	+0.2
ZON	Zonda	43.24	133	IAmb	IAmb	13 45 23.9	
	comp=Z,28nm,1.2s						
ZON	Zonda	43.24	133	P	P	13 45 16.1	+0.2
	comp=E,25nm,1.0s						
CELP	Cerrillos	43.27	58	P	P	13 45 15.6	-0.7
CELP				IAmb	IAmb	13 45 21.5	
	comp=Z,22nm,1.1s						
BI05	Punta Hualpn	43.32	143	IAMs_20	IAMs_20	13 58 07.5	
	comp=Z,8µm,20.0s						
MT13	San Alfonso	43.33	137	IAmb	IAmb	13 45 22.1	
	comp=Z,31nm,1.1s						
MT13				IAMs_20	IAMs_20	13 58 39.8	
	comp=Z,7µm,20.0s						
MT08	Bocatoma Ro	43.34	137	IAmb	IAmb	13 46 11.3	
	comp=Z,37nm,1.6s						
MT08				IAMs_20	IAMs_20	13 58 43.4	
	comp=Z,9µm,19.0s						
SRU	San Rafael Swe	43.35	353	IAmb	IAmb	13 45 28.6	
	comp=Z,30nm,1.3s						
CGM3	Cape Girardeau	43.38	17	IAmb	IAmb	13 45 27.0	
	comp=Z,33nm,1.0s						
KSU1	Kansas State U	43.56	9	IAmb	IAmb	13 45 19.8	
	comp=Z,25nm,0.9s						
ECPR	Experimental S	43.57	58	P	P	13 45 17.4	-1.2
CFA	Coronel Fontan	43.59	133	LR	LR	13 59 06.7	
	comp=Z,4µm,20.3s,baz=328,slow=30						
BO02	Sierra Bellavi	43.61	139	IAmb	IAmb	13 45 26.6	
	comp=Z,29nm,1.1s						
BO02				IAMs_20	IAMs_20	13 58 19.3	
	comp=Z,8µm,22.0s						
BO02	Sierra Bellavi	43.61	139	P	P	13 45 20.3	+1.4
	comp=Z,30nm,1.1s						
CCM	Cathedral Cave	43.66	15	P	P	13 45 19.8	+0.8
CCM	Cathedral Cave	43.66	15	P	P	13 45 19.8	+0.8
	comp=Z,20nm,1.2s						
ISCO	Idaho Springs	43.68	359	P	P	13 45 20.8	+1.2
ISCO	Idaho Springs	43.68	359	P	P	13 45 20.8	+1.2
	comp=Z,6.8nm,1.9s						
PDPR	Patillas Dam,	43.72	59	P	P	13 45 18.6	-1.2
PDPR				IAmb	IAmb	13 45 35.7	
	comp=Z,39nm,1.4s						
P17A	Butcher Ranch,	43.73	353	IAmb	IAmb	13 45 31.7	
	comp=Z,27nm,1.3s						
ML02	Panimavida	43.79	140	IAMs_20	IAMs_20	13 58 22.0	
	comp=Z,7µm,22.0s						
P18A	Preston Nutter	43.83	353	IAmb	IAmb	13 45 32.6	
	comp=Z,28nm,1.3s						
TKL	Tuckaleechee C	43.99	24	LR	LR	14 04 00.6	
	comp=Z,3µm,18.3s,baz=220,slow=36						
LHV	Little Huntoon	44.11	344	IAmb	IAmb	13 45 46.4	
	comp=Z,32nm,1.3s						
NVAR	Mina Array Bea	44.22	344	P	P	13 45 24.6	+0.8
	comp=Z,6.5nm,1.0s,baz=168,slow=8.9,SNR=25						
NVAR				LR	LR	13 59 49.5	
	comp=Z,7µm,21.8s,baz=164,slow=31						
	comp=Z,6.5nm,1.0s						
NVAR	Mina Array Bea	44.22	344	P	P	13 45 24.3	+0.4
BOAV	Boa Vista	44.29	82	P	P	13 45 23.7	-0.8
BOAV	Boa Vista	44.29	82	*e*P	P	13 45 24.5	0.0
MPU	Maple Canyon	44.38	352	IAmb	IAmb	13 45 27.8	
	comp=Z,17nm,1.1s						
NLU	North Lily Min	44.39	352	IAmb	IAmb	13 46 05.7	
	comp=Z,34nm,2.0s						
BI02	San Fabin de	44.44	141	IAMs_20	IAMs_20	13 59 12.3	
	comp=Z,7µm,19.0s						
CMB	Columbia Colle	44.46	342	IAmb	IAmb	13 45 44.7	
	comp=Z,32nm,1.8s						
WAKR	Walker	44.61	343	IAmb	IAmb	13 45 50.0	
	comp=Z,27nm,1.3s						
KMSC	Kings Mountain	44.62	27	IAMs_20	IAMs_20	14 03 10.6	
	comp=Z,7µm,19.0s						
RDMU	Red Mountain	44.69	354	IAmb	IAmb	13 46 04.3	
	comp=Z,25nm,1.3s						
DUG	Dugway, Tooele	44.74	351	IAmb	IAmb	13 45 30.7	
	comp=Z,27nm,1.4s						
KVN	Kaiserville	44.75	345	IAmb	IAmb	13 45 48.7	
	comp=Z,38nm,1.9s						
BSUT	Blindstream Ca	44.78	353	IAmb	IAmb	13 45 40.2	
	comp=Z,27nm,1.4s						
OGNE	Ogallala	44.86	3	IAMs_20	IAMs_20	14 02 53.7	
	comp=Z,7µm,18.0s						
YERR	Yerington	45.00	344	IAmb	IAmb	13 45 53.6	
	comp=Z,23nm,1.2s						
Y60A	Bolivia	45.21	31	IAMs_20	IAMs_20	14 02 07.5	
	comp=Z,9µm,22.0s						
V55A	Taylorsville	45.26	27	IAMs_20	IAMs_20	14 03 49.6	
	comp=Z,5µm,19.0s						
TCUT	Toone Canyon	45.44	353	IAmb	IAmb	13 45 52.7	
	comp=Z,23nm,1.2s						
AFDM	Forest Hills D	45.48	342	IAmb	IAmb	13 45 45.6	
	comp=Z,31nm,1.6s						
BGU	Big Grassy Mou	45.48	351	IAmb	IAmb	13 46 14.2	
	comp=Z,40nm,1.7s						
MPK	Martis Peak	45.52	343	IAmb	IAmb	13 46 12.8	
	comp=Z,37nm,1.4s						
BGNE	Belgrade	45.62	7	IAMs_20	IAMs_20	14 03 13.0	
	comp=Z,6µm,18.0s						
ELK	Elko	45.71	348	LR	LR	14 01 59.8	
	comp=Z,7µm,18.2s,baz=168,slow=32						
ELK	Elko	45.71	348	IAMs_20	IAMs_20	14 01 40.1	
	comp=Z,6µm,19.0s						
PAHR	Pah Rah Range	45.71	344	IAmb	IAmb	13 45 38.0	
	comp=Z,12nm,0.9s						
LR03	Panguipulli	45.73	145	IAMs_20	IAMs_20	13 59 22.4	
	comp=Z,10µm,22.0s						
PTLB	Pontes e Lacer	45.88	108	P	P	13 45 36.7	-0.5
PTLB	Pontes e Lacer	45.88	108	*e*P	P	13 45 35.9	-1.2
HWUT	Hardware Ranch	45.94	352	IAmb	IAmb	13 45 39.7	
	comp=Z,16nm,1.1s						
HWUT				IAMs_20	IAMs_20	14 01 48.3	
	comp=Z,6µm,20.0s						
U56A	King	46.05	27	IAMs_20	IAMs_20	14 03 45.5	
	comp=Z,6µm,20.0s						
ORV	Oroville	46.20	342	IAmb	IAmb	13 45 42.3	
	comp=Z,17nm,1.1s						
GO06	Curarrehue	46.20	144	IAmb	IAmb	13 46 02.7	
	comp=Z,20nm,1.1s						
GO06				IAMs_20	IAMs_20	14 00 07.9	
	comp=Z,8µm,19.0s						
GO06	Curarrehue	46.20	144	P	P	13 45 40.8	+1.3
	comp=Z,12nm,1.0s						
PPTF	Pamatai, Papee	46.24	250	IAMs_20	IAMs_20	14 00 11.5	
	comp=Z,6µm,19.0s						
PPT	Papeete	46.24	250	LR	LR	14 00 32.0	
	comp=Z,5µm,18.4s,baz=77,slow=30						
PPT2	Papeete2	46.25	250	*e*P	P	13 45 41.0	+0.9
	comp=Z,190nm,24.0s						
PPT2				*e*PP	PP	13 47 24.9	-3.8
	comp=Z,128nm,23.8s						
PPT2				*e*S	S	13 52 26.4	-0.8
	comp=Z,2µm,24.5s						
PPT2				*e*SS	SS	13 55 57.4	+4.6
	comp=Z,14µm,30.5s						
PPT2				*e*LR	LR	13 58 35.1	
	comp=Z,9µm,27.2s						
PPT2				*e*LR	LR	13 58 42.2	
	comp=Z,14µm,26.2s						
HVU	Hansel Valley	46.28	351	IAmb	IAmb	13 46 04.9	
	comp=Z,24nm,1.2s						
L34A	Svendsen Farm,	46.40	8	IAMs_20	IAMs_20	14 03 51.6	
	comp=Z,5µm,18.0s						
K22A	Casper	46.55	358	IAmb	IAmb	13 46 14.1	
	comp=Z,27nm,1.3s						
K22A				IAMs_20	IAMs_20	14 02 53.5	
	comp=Z,5µm,20.0s						
LL03	Petrohue	46.73	147	IAMs_20	IAMs_20	13 59 49.7	
	comp=Z,9µm,21.0s						
K30B	Basset	46.73	5	IAMs_20	IAMs_20	14 03 53.4	
	comp=Z,7µm,19.0s						
BLA	Blacksburg	46.74	26	IAMs_20	IAMs_20	14 04 18.9	
	comp=Z,5µm,20.0s						
BW06	Boulder Array	46.86	355	IAmb	IAmb	13 46 02.7	
	comp=Z,14nm,1.1s						
PDAR	Pinedale Array	46.86	355	P	P	13 45 44.5	-0.2
	comp=Z,3.4nm,0.8s,baz=169,slow=6.4,SNR=26						
PDAR				LR	LR	14 03 04.1	
	comp=Z,2µm,18.1s,baz=170,slow=33						
	comp=Z,3.4nm,0.8s						
PDAR	Pinedale Array	46.86	355	P	P	13 45 43.4	-1.3
AHID	Auburn Hatcher	47.02	353	IAMs_20	IAMs_20	14 02 33.8	
	comp=Z,5µm,19.0s						
O02D	Mt. Diablo Mer	47.18	341	IAmb	IAmb	13 45 59.7	
	comp=Z,32nm,1.6s						
V61A	Roper	47.45	31	IAMs_20	IAMs_20	14 03 23.6	
	comp=Z,7µm,22.0s						
PLCA	Paso Flores	47.49	145	P	P	13 45 48.8	-0.7
	comp=Z,16nm,1.2s,baz=318,slow=11,SNR=8.7						
PLCA				LR	LR	14 00 49.3	
	comp=Z,8µm,19.4s,baz=319,slow=30						
	comp=Z,16nm,1.2s						
SNOW	Snow King Moun	47.67	354	IAMs_20	IAMs_20	14 02 57.1	
	comp=Z,4µm,20.0s						
FXWY	Fox Creek	47.88	353	IAMs_20	IAMs_20	14 03 02.5	
	comp=Z,5µm,20.0s						
N47A	Urbana	47.90	19	IAmb	IAmb	13 45 54.2	
	comp=Z,17nm,0.9s						
RSSD	Black Hills	47.98	0	P	P	13 45 53.5	+0.1
RSSD				pmax	pmax		
	comp=Z,19nm,1.1s						
RSSD	Black Hills	47.98	0	P	P	13 45 53.5	+0.1
RSSD				IAmb	IAmb	13 45 55.1	
	comp=Z,19nm,1.1s						
MOD	Modoc Plateau	48.01	344	IAmb	IAmb	13 46 12.7	
	comp=Z,17nm,1.1s						
MOD				IAMs_20	IAMs_20	14 02 23.1	
	comp=Z,4µm,18.0s						
WVOR	Wild Horse Val	48.07	346	IAMs_20	IAMs_20	14 02 06.8	
	comp=Z,6µm,21.0s						
ECSD	EROS Data Cent	48.10	8	IAMs_20	IAMs_20	14 04 42.6	
	comp=Z,5µm,19.0s						
JCC	Jacoby Creek,	48.17	340	IAMs_20	IAMs_20	14 01 32.4	
	comp=Z,7µm,20.0s						
HLID	Hailey	48.28	350	IAMs_20	IAMs_20	14 03 44.3	
	comp=Z,4µm,18.0s						
HLID	Hailey	48.28	350	P	P	13 45 56.5	+0.8
	comp=Z,13nm,1.2s						
M02C	Callahan	48.30	341	IAmb	IAmb	13 46 16.7	
	comp=Z,19nm,1.1s						
MFID	Camas Ranch	48.40	349	IAmb	IAmb	13 46 21.2	
	comp=Z,22nm,1.2s						
LL02	Futaleuf	48.44	148	IAMs_20	IAMs_20	14 01 00.7	
	comp=Z,7µm,20.0s						
YPP	Pitchstone Pla	48.48	354	IAmb	IAmb	13 46 17.7	
	comp=Z,15nm,1.2s						
ITTB	Itaituba	48.49	92	*e*P	P	13 45 56.2	-1.5
R58B	Mineral	48.52	28	IAMs_20	IAMs_20	14 04 46.0	
	comp=Z,7µm,21.0s						
SUSD	Miller	48.55	5	IAMs_20	IAMs_20	14 05 00.3	
	comp=Z,7µm,19.0s						
YBH	Yreka Blue Hor	48.56	342	LR	LR	14 02 01.2	
	comp=Z,6µm,21.3s,baz=170,slow=31						
H17A	Grant Village	48.58	354	IAmb	IAmb	13 46 18.8	
	comp=Z,14nm,1.1s						
CLDB	Colider	48.58	101	*e*P	P	13 45 56.8	-1.5
CLDB	Colider	48.58	101	P	P	13 45 57.1	-1.2
	comp=Z,16nm,1.3s						
LKWY	Lake	48.73	354	IAMs_20	IAMs_20	14 03 45.9	
	comp=Z,4µm,20.0s						
KRMB	Red Mountain	48.76	340	IAMs_20	IAMs_20	14 02 21.0	
	comp=Z,8µm,20.0s						
Q56A	Snyder Ridge,	48.80	26	IAMs_20	IAMs_20	14 05 15.4	
	comp=Z,6µm,20.0s						
BCYI	Bear Canyon	48.85	351	IAmb	IAmb	13 46 19.1	
	comp=Z,25nm,1.3s						
YHH	Holmes Hill	48.99	354	IAmb	IAmb	13 46 12.9	
	comp=Z,26nm,1.4s						
YHB	Horse Butte	48.99	354	IAmb	IAmb	13 46 20.0	
	comp=Z,15nm,1.3s						
KSXB	Camp Six Broad	49.02	341	IAmb	IAmb	13 46 03.9	
	comp=Z,18nm,1.0s						
MCWV	Mont Chateau	49.03	25	IAMs_20	IAMs_20	14 06 04.4	
	comp=Z,4µm,19.0s						
BDQN	Bodoquena, MS	49.08	114	*e*P	P	13 45 59.8	-2.2
YNE	Yellowstone No	49.13	355	IAmb	IAmb	13 46 20.2	
	comp=Z,12nm,1.1s						
RLMT	Red Lodge	49.18	355	IAmb	IAmb	13 46 13.3	
	comp=Z,14nm,1.1s						
L02F	Cave Junction	49.19	341	IAmb	IAmb	13 46 14.1	
	comp=Z,17nm,1.3s						
SALV	Santo Antonio	49.23	107	*e*P	P	13 46 01.3	-1.9
P57A	Homestead Farm	49.69	27	IAMs_20	IAMs_20	14 05 36.8	
	comp=Z,6µm,21.0s						
K02D	Willamette Mer	49.73	341	IAmb	IAmb	13 46 31.9	
	comp=Z,20nm,1.2s						
DLMT	Dillon	49.77	352	IAmb	IAmb	13 46 11.1	
	comp=Z,16nm,1.2s						
PLID	Pearl Lake	50.04	349	IAMs_20	IAMs_20	14 04 11.8	
	comp=Z,5µm,19.0s						
AQDB	Aquidauana	50.04	113	P	P	13 46 08.7	-0.6
AQDB	Aquidauana	50.04	113	*e*P	P	13 46 07.5	-1.8
CPUP	Villa Florida	50.12	121	P	P	13 46 09.2	-0.7
	comp=Z,8.6nm,0.9s,baz=281,slow=9.7,SNR=12						
CPUP				LR	LR	14 04 05.5	
	comp=Z,3µm,20.8s,baz=280,slow=32						
	comp=Z,8.6nm,0.9s						
CPUP	Villa Florida	50.12	121	IAmb	IAmb	13 46 12.2	
	comp=Z,19nm,1.1s						
SPMN	Marine on St.	50.16	11	IAMs_20	IAMs_20	14 06 53.1	
	comp=Z,4µm,18.0s						
F33A	5 Mile Ranch,	50.22	7	IAMs_20	IAMs_20	14 05 56.5	
	comp=Z,6µm,19.0s						
J01E	Myrtle Point	50.24	341	IAmb	IAmb	13 46 24.0	
	comp=Z,16nm,1.0s						
PP1B	Ponte de Pedra	50.26	109	*e*P	P	13 46 08.2	-2.9
I04A	Tendick Farm,	50.35	343	IAmb	IAmb	13 46 38.6	
	comp=Z,19nm,1.2s						
WIFE	Three Sisters-	50.43	344	IAmb	IAmb	13 46 40.0	
	comp=Z,19nm,1.1s						
E28A	Huff	50.54	3	IAMs_20	IAMs_20	14 06 14.3	
	comp=Z,6µm,18.0s						
I05D	Terrebonne, OR	50.55	344	IAmb	IAmb	13 46 37.0	
	comp=Z,19nm,1.1s						
F10A	Beach Ranch, E	51.13	348	IAmb	IAmb	13 46 36.5	
	comp=Z,25nm,1.5s						
LNOR	Lincton Mounta	51.25	348	IAmb	IAmb	13 46 42.0	
	comp=Z,27nm,1.8s						
COR	Corvallis	51.34	343	P	P	13 46 19.7	+1.0
COR				pmax	pmax		
	comp=Z,92nm,1.8s						
COR	Corvallis	51.34	343	P	P	13 46 19.6	+1.0
N58A	Sunbury	51.37	27	IAMs_20	IAMs_20	14 06 37.4	
	comp=Z,7µm,20.0s						
MSO	Missoula	51.39	352	IAMs_20	IAMs_20	14 05 55.9	
	comp=Z,4µm,18.0s						
M57A	Sunshine Farm,	51.59	26	IAMs_20	IAMs_20	14 06 58.2	
	comp=Z,6µm,19.0s						
F07A	Phinny Hill Vi	51.65	346	IAmb	IAmb	13 46 45.2	
	comp=Z,31nm,1.5s						
E38A	The Farm, Brul	51.73	11	IAMs_20	IAMs_20	14 07 21.8	
	comp=Z,4µm,19.0s						
MDND	Maddock	51.88	4	IAMs_20	IAMs_20	14 07 03.7	
	comp=Z,5µm,19.0s						
HAWA	Hanford	52.02	347	IAmb	IAmb	13 46 49.1	
	comp=Z,17nm,1.2s						
L56A	Greenwood	52.05	25	IAMs_20	IAMs_20	14 07 06.6	
	comp=Z,5µm,20.0s						
STD	Studebaker Rid	52.55	344	IAmb	IAmb	13 46 39.2	
	comp=Z,32nm,1.2s						
AGMN	Agassiz Nation	52.69	7	IAmb	IAmb	13 46 29.7	
	comp=Z,23nm,0.9s						
AGMN				IAMs_20	IAMs_20	14 07 30.2	
	comp=Z,6µm,18.0s						
BINY	Binghamton	52.78	26	IAMs_20	IAMs_20	14 07 43.0	
	comp=Z,5µm,20.0s						
ARAG	Araguaiana, MT	52.91	107	*e*P	P	13 46 27.8	-3.1
N62A	Caumsett State	52.96	29	IAMs_20	IAMs_20	14 07 05.6	
	comp=Z,6µm,21.0s						
K57A	Scipio Center	52.98	26	IAMs_20	IAMs_20	14 07 53.2	
	comp=Z,6µm,20.0s						
SNDB	Serra Nova Dou	53.06	102	*e*P	P	13 46 31.6	-0.5
C09A	Chrisman Ranch	53.09	348	IAmb	IAmb	13 46 42.6	
	comp=Z,46nm,1.8s						
LTY	Liberty	53.10	346	IAmb	IAmb	13 46 43.9	
	comp=Z,34nm,1.7s						
E03A	Lebam	53.20	344	IAmb	IAmb	13 46 34.6	
	comp=Z,22nm,1.0s						
L59A	Walton	53.20	27	IAMs_20	IAMs_20	14 07 32.0	
	comp=Z,6µm,20.0s						
WSPT	Westport, CT	53.21	29	IAMs_20	IAMs_20	14 07 14.3	
	comp=Z,6µm,21.0s						
NEW	Newport	53.31	349	LR	LR	14 06 33.6	
	comp=Z,7µm,18.6s,baz=176,slow=33						
NEW	Newport	53.31	349	IAmb	IAmb	13 46 57.8	
	comp=Z,20nm,1.2s						
SADO	Sadowa	53.62	22	LR	LR	14 09 34.7	
	comp=Z,2µm,18.4s,baz=227,slow=36						
J57A	Williamstown	53.76	25	IAMs_20	IAMs_20	14 08 35.6	
	comp=Z,5µm,20.0s						
NLWA	Neilton Lookou	54.05	344	IAmb	IAmb	13 46 49.4	
	comp=Z,14nm,1.1s						
NLWA				IAMs_20	IAMs_20	14 05 25.4	
	comp=Z,6µm,20.0s						
TRY	Troy	54.25	28	IAMs_20	IAMs_20	14 08 01.9	
	comp=Z,6µm,21.0s						
PTGB	Pitanga	54.26	118	*e*P	P	13 46 40.6	-0.2
J59A	Piesco	54.45	26	IAMs_20	IAMs_20	14 08 33.1	
	comp=Z,6µm,20.0s						
L61B	Northampton	54.50	29	IAMs_20	IAMs_20	14 08 04.4	
	comp=Z,5µm,21.0s						
ULM	Lac du Bonnet	54.61	7	P	P	13 46 42.5	-0.3
	comp=Z,29nm,1.0s,baz=196,slow=7.5,SNR=13						
ULM				LR	LR	14 08 47.1	
	comp=Z,5µm,18.9s,baz=188,slow=35						
	comp=Z,29nm,1.0s						
ULM	Lac du Bonnet	54.61	7	*c* *i*P	P	13 46 42.2	-0.5
LDASE	Londrina, Braz	54.81	116	*e*P	P	13 46 44.0	-0.8
K62A	Royalston	54.88	29	IAMs_20	IAMs_20	14 08 15.4	
	comp=Z,4µm,22.0s						
HRV	Adam Dziewonsk	55.08	29	IAMs_20	IAMs_20	14 08 19.9	
	comp=Z,6µm,22.0s						
PGC	Sidney	55.09	345	IAmb	IAmb	13 46 57.1	
	comp=Z,33nm,1.6s						
LONY	Lake Ozonia	55.33	26	IAMs_20	IAMs_20	14 09 33.4	
	comp=Z,5µm,20.0s						
HNH	Hanover	55.65	28	IAMs_20	IAMs_20	14 09 21.8	
	comp=Z,6µm,20.0s						
FLET	Fletcher	56.13	27	IAmb	IAmb	13 46 54.7	
	comp=Z,26nm,1.2s						
I62A	Tamworth	56.22	28	IAMs_20	IAMs_20	14 10 30.8	
	comp=Z,3µm,18.0s						
LBNH	Lisbon	56.22	28	IAMs_20	IAMs_20	14 09 29.8	
	comp=Z,6µm,20.0s						
RAR	Rarotonga	56.37	247	LR	LR	14 05 12.5	
	comp=Z,2µm,18.6s,baz=86,slow=30						
BDFB	Brasilia	56.54	106	P	P	13 46 56.3	-1.1
	comp=Z,7.4nm,0.8s,baz=276,slow=11,SNR=7.4						
BDFB				LR	LR	14 09 33.1	
	comp=Z,3µm,19.2s,baz=282,slow=34						
	comp=Z,7.4nm,0.8s						
BDFB	Brasilia	56.54	106	IAmb	IAmb	13 47 03.9	
	comp=Z,26nm,1.2s						
SMTB	Santa Maria do	56.57	98	*e*P	P	13 46 58.3	+0.7
IPMB	Ipameri, GO	56.60	109	*e*P	P	13 46 57.1	-0.6
I63A	Otisfield	56.71	29	IAMs_20	IAMs_20	14 09 21.8	
	comp=Z,4µm,21.0s						
H62A	Milan	56.84	28	IAMs_20	IAMs_20	14 09 06.0	
	comp=Z,4µm,21.0s						
WVL	Waterville	57.54	29	IAMs_20	IAMs_20	14 09 45.6	
	comp=Z,6µm,21.0s						
G62A	West of Eustis	57.61	28	IAMs_20	IAMs_20	14 09 51.6	
	comp=Z,4µm,21.0s						
SPB	Sao Paulo	58.17	115	IAMs_20	IAMs_20	14 10 16.3	
	comp=Z,4µm,20.0s						
PKME	Peaks-Kenny Pk	58.23	29	IAMs_20	IAMs_20	14 09 56.2	
	comp=Z,6µm,22.0s						
KIP	Kipapa	58.31	298	IAMs_20	IAMs_20	14 05 30.7	
	comp=Z,6µm,21.0s						
USHA	Ushuaia	58.34	156	LR	LR	14 06 33.3	
	comp=Z,7µm,21.6s,baz=306,slow=30						
FFC	Flin Flon	58.63	2	*i* P	P	13 47 11.6	+0.3
F64A	Sherman	59.12	29	IAMs_20	IAMs_20	14 10 09.7	
	comp=Z,5µm,22.0s						
BBB	Bella Bella	59.57	343	LR	LR	14 10 05.6	
	comp=Z,3µm,18.8s,baz=160,slow=33						
D62A	Allapoint, All	59.69	27	IAMs_20	IAMs_20	14 11 28.9	
	comp=Z,5µm,20.0s						
V35K	Ketchikan	63.33	343	IAMs_20	IAMs_20	14 12 08.6	
	comp=Z,2µm,18.0s						
T35M	Bob Quinn	64.39	345	IAMs_20	IAMs_20	14 12 17.5	
	comp=Z,3µm,21.0s						
U33K	Whale Pass	64.45	343	IAMs_20	IAMs_20	14 12 45.1	
	comp=Z,3µm,18.0s						
WRAK	Wrangell Islan	64.48	343	IAMs_20	IAMs_20	14 13 54.0	
	comp=Z,3µm,18.0s						
S34M	Telegraph Cree	65.44	345	IAMs_20	IAMs_20	14 12 05.3	
	comp=Z,3µm,21.0s						
DLBC	Dease Lake	65.62	346	LR	LR	14 13 37.4	
	comp=Z,3µm,19.7s,baz=132,slow=33						
S32K	Killisnoo	66.03	343	IAMs_20	IAMs_20	14 13 30.8	
	comp=Z,3µm,18.0s						
SCHQ	Schefferville	66.42	23	LR	LR	14 16 23.6	
	comp=Z,5µm,19.5s,baz=221,slow=35						
Q32M	Nakina River	66.65	345	IAMs_20	IAMs_20	14 13 18.2	
	comp=Z,3µm,19.0s						
R33M	Jennings River	66.69	346	IAMs_20	IAMs_20	14 14 01.4	
	comp=Z,3µm,19.0s						
YKA	Yellowknife Ar	66.85	355	P	P	13 48 05.3	-0.6
	comp=Z,4.3nm,0.8s,baz=165,slow=6.2,SNR=15						
YKA				LR	LR	14 15 06.4	
	comp=Z,3µm,19.0s,baz=177,slow=34						
	comp=Z,4.3nm,0.8s						
YKA	Yellowknife Ar	66.85	355	P	P	13 48 05.2	-0.7
S31K	Pelican	66.93	342	IAMs_20	IAMs_20	14 10 23.8	
	comp=Z,3µm,22.0s						
BESE	Bessie Mountai	67.04	343	IAMs_20	IAMs_20	14 14 14.5	
	comp=Z,3µm,19.0s						
PMSA	Palmer Station	67.06	162	LR	LR	14 10 14.5	
	comp=Z,4µm,19.0s,baz=312,slow=30						
PMSA	Palmer Station	67.06	162	*e*P	P	13 48 16.6	+9.4
AFI	Afiamalu	67.11	257	LR	LR	14 09 33.6	
	comp=Z,2µm,21.7s,baz=89,slow=29						
P32M	Atlin	67.57	344	IAMs_20	IAMs_20	14 14 48.7	
	comp=Z,3µm,19.0s						
P33M	Teslin, Yukon	67.87	345	IAMs_20	IAMs_20	14 14 04.5	
	comp=Z,2µm,19.0s						
RCBR	Riachuelo	68.20	95	LR	LR	14 16 51.2	
	comp=Z,1µm,19.9s,baz=276,slow=35						
RCBR	Riachuelo	68.20	95	IAMs_20	IAMs_20	14 16 30.2	
	comp=Z,4µm,20.0s						
N32M	Quiet Lake	68.75	346	IAMs_20	IAMs_20	14 15 23.4	
	comp=Z,3µm,19.0s						
O29M	Mount Kennedy	69.54	343	IAMs_20	IAMs_20	14 11 25.8	
	comp=Z,3µm,20.0s						
N31M	Braeburn, Yuko	69.73	345	IAMs_20	IAMs_20	14 16 36.6	
	comp=Z,3µm,18.0s						
PCA	Pinnacle	69.89	342	IAMs_20	IAMs_20	14 11 15.0	
	comp=Z,4µm,22.0s						
M31M	Drury Creek, Y	69.97	346	IAMs_20	IAMs_20	14 15 20.1	
	comp=Z,3µm,20.0s						
N30M	Aishikik Lake	70.06	344	IAMs_20	IAMs_20	14 16 18.4	
	comp=Z,3µm,18.0s						
O28M	Mount Upton	70.40	342	IAMs_20	IAMs_20	14 11 47.5	
	comp=Z,2µm,19.0s						
YAH	Yahtse	70.57	341	IAMs_20	IAMs_20	14 11 30.6	
	comp=Z,4µm,22.0s						
LOGN	Logan Glacier	70.69	342	IAMs_20	IAMs_20	14 13 22.2	
	comp=Z,3µm,19.0s						
GRNC	Granite Creek	70.86	342	IAMs_20	IAMs_20	14 12 12.5	
	comp=Z,4µm,22.0s						
BARN	Barnard Glacie	71.08	342	IAMs_20	IAMs_20	14 12 22.4	
	comp=Z,3µm,22.0s						
TGL	Tana Glacier	71.22	341	IAMs_20	IAMs_20	14 11 49.0	
	comp=Z,3µm,22.0s						
BERG	Berg Lake	71.23	341	IAMs_20	IAMs_20	14 12 11.4	
	comp=Z,4µm,20.0s						
M29M	Somme Creek	71.24	344	IAMs_20	IAMs_20	14 16 54.6	
	comp=Z,4µm,19.0s						
CRQM	Cirque	71.32	341	IAMs_20	IAMs_20	14 13 54.2	
	comp=Z,3µm,18.0s						
RAGM	Ragged Mountai	71.55	340	IAMs_20	IAMs_20	14 12 36.9	
	comp=Z,4µm,20.0s						
L29M	L29M	71.69	345	IAmb	IAmb	13 49 01.5	
	comp=Z,19nm,1.2s						
L29M				IAMs_20	IAMs_20	14 17 37.5	
	comp=Z,3µm,19.0s						
VRDI	Verde Repeater	71.77	341	IAMs_20	IAMs_20	14 14 18.8	
	comp=Z,2µm,18.0s						
BMRM	Bremner River	71.96	341	IAMs_20	IAMs_20	14 13 04.6	
	comp=Z,3µm,20.0s						
ORCD	Orcadas	71.98	154	P	P	13 48 37.4	-0.3
GLB	Gilahina Butte	72.05	341	IAMs_20	IAMs_20	14 15 09.1	
	comp=Z,2µm,18.0s						
K29M	Barlow Dome	72.13	345	IAmb	IAmb	13 49 14.7	
	comp=Z,13nm,1.4s						
K29M				IAMs_20	IAMs_20	14 17 28.1	
	comp=Z,3µm,18.0s						
M27K	Edge Creek, AK	72.15	343	IAMs_20	IAMs_20	14 14 33.7	
	comp=Z,4µm,18.0s						
P23K	Montague Islan	72.22	339	IAMs_20	IAMs_20	14 12 46.7	
	comp=Z,4µm,20.0s						
FID	Port Fidalgo	72.43	340	IAMs_20	IAMs_20	14 12 59.8	
	comp=Z,3µm,20.0s						
DIV	Divide	72.46	340	IAMs_20	IAMs_20	14 13 18.0	
	comp=Z,4µm,20.0s						
M26K	Nabesna, AK	72.52	342	IAMs_20	IAMs_20	14 14 06.4	
	comp=Z,3µm,19.0s						
BCAR	Beaver Creek A	72.67	343	P	P	13 48 41.0	-0.9
L27K	Beaver Creek,	72.68	343	IAmb	IAmb	13 48 57.0	
	comp=Z,37nm,2.0s						

L27K				IAMs_20	IAMs_20	14 13 23.7	
	comp=Z,3µm,20.0s						
GLI	**Glacier Island**	**72.73**	**340**	IAMs_20	IAMs_20	14 13 18.2	
	comp=Z,3µm,21.0s						
FRB	**Frobisher Bay**	**72.76**	**16**	LR	LR	14 20 03.9	
	comp=Z,2µm,19.4s,baz=209,slow=35						
KDAK	**Kodiak Island**	**72.76**	**335**	LR	LR	14 12 45.7	
	comp=Z,7µm,21.0s,baz=132,slow=29						
KLU	**Klutina**	**72.78**	**341**	IAMs_20	IAMs_20	14 13 29.3	
	comp=Z,3µm,21.0s						
J29N	**Klondike Camp**	**72.81**	**345**	IAMs_20	IAMs_20	14 15 31.1	
	comp=Z,3µm,20.0s						
I30M	**Mount Dempster**	**73.00**	**346**	IAMs_20	IAMs_20	14 16 16.1	
	comp=Z,2µm,22.0s						
H31M	**Peel River**	**73.04**	**348**	IAmb	IAmb	13 49 09.9	
	comp=Z,18nm,1.3s						
H31M				IAMs_20	IAMs_20	14 17 27.1	
	comp=Z,2µm,20.0s						
SEW	**Seward**	**73.04**	**338**	IAMs_20	IAMs_20	14 14 37.4	
	comp=Z,3µm,18.0s						
L26K	**Log Cabin Wild**	**73.10**	**343**	IAMs_20	IAMs_20	14 15 00.8	
	comp=Z,3µm,19.0s						
PWL	**Port Wells**	**73.16**	**339**	IAMs_20	IAMs_20	14 13 47.3	
	comp=Z,3µm,19.0s						
HARP	**HAARP**	**73.19**	**341**	IAMs_20	IAMs_20	14 17 43.1	
	comp=Z,2µm,18.0s						
CNPM	**China Poot**	**73.33**	**337**	IAMs_20	IAMs_20	14 13 08.1	
	comp=Z,3µm,21.0s						
BRLK	**Bradley Lake**	**73.36**	**337**	IAMs_20	IAMs_20	14 14 36.6	
	comp=Z,3µm,19.0s						
O22K	**Cooper Landing**	**73.40**	**338**	IAMs_20	IAMs_20	14 14 58.7	
	comp=Z,3µm,18.0s						
SCM	**Sheep Creek Mo**	**73.49**	**340**	IAMs_20	IAMs_20	14 13 49.1	
	comp=Z,4µm,21.0s						
K27K	**Chicken**	**73.50**	**344**	IAMs_20	IAMs_20	14 18 06.1	
	comp=Z,4µm,20.0s						
I29M	**Ogilvie Camp,**	**73.57**	**346**	IAMs_20	IAMs_20	14 16 08.0	
	comp=Z,3µm,21.0s						
HOM	**Homer**	**73.58**	**337**	IAMs_20	IAMs_20	14 13 25.6	
	comp=Z,4µm,22.0s						
KNK	**Knik Glacier**	**73.58**	**340**	IAMs_20	IAMs_20	14 14 01.6	
	comp=Z,3µm,19.0s						
SLKM	**Skilak Lake**	**73.60**	**338**	IAMs_20	IAMs_20	14 15 05.1	
	comp=Z,2µm,18.0s						
RAO	**Raoul Island**	**73.67**	**241**	LR	LR	14 12 48.1	
	comp=Z,2µm,21.8s,baz=88,slow=29						
SML	**Sawmill**	**73.81**	**340**	IAMs_20	IAMs_20	14 14 30.7	
	comp=Z,3µm,19.0s						
RC01	**Rabbit Creek A**	**73.81**	**339**	IAMs_20	IAMs_20	14 15 22.7	
	comp=Z,2µm,18.0s						
G31M	**Satah River**	**73.98**	**348**	IAMs_20	IAMs_20	14 18 10.0	
	comp=Z,3µm,19.0s						
GHO	**Glory Hole Cre**	**73.99**	**340**	IAMs_20	IAMs_20	14 14 16.4	
	comp=Z,2µm,19.0s						
SCRK	**Sand Creek**	**74.01**	**343**	IAMs_20	IAMs_20	14 14 13.8	
	comp=Z,4µm,22.0s						
EPYK	**Eagle Plains**	**74.04**	**347**	IAmb	IAmb	13 49 10.5	
	comp=Z,21nm,1.2s						
I28M	**Miner Creek**	**74.05**	**345**	IAMs_20	IAMs_20	14 16 50.8	
	comp=Z,3µm,19.0s						
RIDG	**Independent Ri**	**74.08**	**343**	IAMs_20	IAMs_20	14 14 10.8	
	comp=Z,3µm,21.0s						
H29M	**Whitestone**	**74.29**	**346**	IAmb	IAmb	13 49 08.2	
	comp=Z,17nm,1.1s						
H29M				IAMs_20	IAMs_20	14 16 54.2	
	comp=Z,2µm,20.0s						
DHY	**Denali Highway**	**74.39**	**341**	IAMs_20	IAMs_20	14 14 22.8	
	comp=Z,3µm,22.0s						
M22K	**Willow**	**74.40**	**339**	IAMs_20	IAMs_20	14 14 37.1	
	comp=Z,2µm,19.0s						
K24K	**Donnelly Dome**	**74.41**	**342**	IAMs_20	IAMs_20	14 18 38.5	
	comp=Z,3µm,18.0s						
SUA	**Susitna One**	**74.43**	**339**	IAMs_20	IAMs_20	14 15 43.7	
	comp=Z,2µm,18.0s						
I27K	**Kandik River**	**74.60**	**345**	IAMs_20	IAMs_20	14 18 06.4	
	comp=Z,2µm,20.0s						
I26K	**Coal Creek Min**	**74.78**	**344**	IAMs_20	IAMs_20	14 19 23.2	
	comp=Z,3µm,18.0s						
F30M	**Barrier River**	**74.88**	**348**	IAMs_20	IAMs_20	14 18 14.6	
	comp=Z,3µm,21.0s						
J25K	**Salcha River,**	**74.89**	**343**	IAmb	IAmb	13 49 13.9	
	comp=Z,23nm,1.6s						
J25K				IAMs_20	IAMs_20	14 16 08.0	
	comp=Z,3µm,18.0s						
CUT	**Chulitna**	**74.89**	**340**	IAMs_20	IAMs_20	14 15 04.1	
	comp=Z,2µm,19.0s						
INK	**Inuvik**	**75.03**	**349**	LR	LR	14 19 53.3	
	comp=Z,5µm,18.1s,baz=151,slow=34						
SKT	**Skwentna**	**75.05**	**339**	IAMs_20	IAMs_20	14 14 57.4	
	comp=Z,2µm,20.0s						
H27K	**Steamboat Moun**	**75.07**	**345**	IAmb	IAmb	13 49 26.5	
	comp=Z,18nm,1.4s						
H27K				IAMs_20	IAMs_20	14 17 53.8	
	comp=Z,2µm,20.0s						
HDA	**Harding Lake**	**75.21**	**342**	IAMs_20	IAMs_20	14 19 01.5	
	comp=Z,2µm,18.0s						
MCK	**McKinley**	**75.35**	**341**	IAMs_20	IAMs_20	14 15 02.3	
	comp=Z,3µm,21.0s						
N19K	**Bonanza Creek**	**75.41**	**337**	IAMs_20	IAMs_20	14 14 02.9	
	comp=Z,4µm,22.0s						
ILAR	**Eielson Array**	**75.45**	**343**	P	**P**	**13 48 57.5**	**-0.5**
	comp=Z,4.0nm,0.8s,baz=153,slow=5.0,SNR=42						
	comp=Z,4.0nm,0.8s						
ILAR	**Eielson Array**	**75.45**	**343**	P	**P**	**13 48 57.2**	**-0.8**
G27K	**Doyon Strip**	**75.56**	**346**	IAMs_20	IAMs_20	14 17 47.5	
	comp=Z,2µm,20.0s						
M20K	**Styx River**	**75.57**	**338**	IAMs_20	IAMs_20	14 16 11.8	
	comp=Z,2µm,19.0s						
PRP	**Porcupine Dome**	**75.60**	**344**	IAmb	IAmb	13 49 19.6	
	comp=Z,22nm,1.3s						
TRF	**Thorofare Moun**	**75.60**	**341**	IAMs_20	IAMs_20	14 15 05.9	
	comp=Z,3µm,20.0s						
WRH	**Wood River Hil**	**75.60**	**342**	IAmb	IAmb	13 49 33.4	
	comp=Z,16nm,1.2s						
WRH				IAMs_20	IAMs_20	14 15 18.9	
	comp=Z,2µm,21.0s						
CCB	**Clear Creek Bu**	**75.64**	**342**	IAMs_20	IAMs_20	14 17 28.8	
	comp=Z,2µm,18.0s						
F28M	**Old Crow**	**75.77**	**347**	IAMs_20	IAMs_20	14 17 41.2	
	comp=Z,2µm,20.0s						
COLA	**College**	**75.81**	**342**	IAMs_20	IAMs_20	14 15 49.5	
	comp=Z,2µm,21.0s						
BWN	**Browne**	**75.82**	**341**	IAMs_20	IAMs_20	14 15 18.4	
	comp=Z,3µm,20.0s						
KTH	**Kantishna Hill**	**75.88**	**340**	IAMs_20	IAMs_20	14 15 14.3	
	comp=Z,2µm,19.0s						
PPLA	**Purkeypile**	**75.88**	**340**	IAMs_20	IAMs_20	14 16 43.3	
	comp=Z,3µm,18.0s						
E29M	**Blow River**	**75.97**	**348**	IAMs_20	IAMs_20	14 18 26.6	
	comp=Z,2µm,20.0s						
NEA2	**Nenana**	**75.99**	**342**	IAMs_20	IAMs_20	14 15 28.2	
	comp=Z,3µm,22.0s						
M19K	**Big River Lodg**	**76.05**	**338**	IAMs_20	IAMs_20	14 16 34.8	
	comp=Z,2µm,19.0s						
CAST	**Castle Rocks**	**76.18**	**340**	IAMs_20	IAMs_20	14 15 56.4	
	comp=Z,3µm,18.0s						
G26K	**Porcupine Rive**	**76.20**	**345**	IAMs_20	IAMs_20	14 19 17.6	
	comp=Z,2µm,20.0s						
L20K	**Farewell, AK**	**76.22**	**339**	IAMs_20	IAMs_20	14 16 50.2	
	comp=Z,3µm,18.0s						
BPAW	**Bear Paw Mtn.**	**76.27**	**341**	IAMs_20	IAMs_20	14 15 46.5	
	comp=Z,3µm,20.0s						
FYU	**Fort Yukon**	**76.29**	**344**	IAMs_20	IAMs_20	14 17 32.2	
	comp=Z,3µm,20.0s						
L19K	**White Mountain**	**76.39**	**338**	IAMs_20	IAMs_20	14 16 55.8	
	comp=Z,2µm,19.0s						
I23K	**Minto, Yukon-K**	**76.46**	**342**	IAMs_20	IAMs_20	14 16 04.7	
	comp=Z,3µm,20.0s						
E28M	**Babbage River**	**76.50**	**347**	IAMs_20	IAMs_20	14 18 29.4	
	comp=Z,2µm,21.0s						
E27K	**Coleen River**	**76.63**	**347**	IAMs_20	IAMs_20	14 17 54.8	
	comp=Z,2µm,20.0s						
MLY	**Manley**	**76.81**	**342**	IAmb	IAmb	13 49 28.6	
	comp=Z,11nm,1.0s						
MLY				IAMs_20	IAMs_20	14 16 00.9	
	comp=Z,3µm,20.0s						
K20K	**Telida**	**76.83**	**339**	IAmb	IAmb	13 49 29.9	
	comp=Z,21nm,1.3s						
K20K				IAMs_20	IAMs_20	14 16 39.5	
	comp=Z,2µm,18.0s						
F26K	**Sheenjek River**	**76.86**	**345**	IAmb	IAmb	13 49 50.8	
	comp=Z,36nm,1.9s						
F26K				IAMs_20	IAMs_20	14 17 03.1	
	comp=Z,2µm,22.0s						
M17K	**Holitna River**	**76.91**	**337**	IAMs_20	IAMs_20	14 15 18.6	
	comp=Z,4µm,22.0s						
MSVF	**Nonsavu**	**76.95**	**253**	LR	LR	14 14 56.0	
	comp=Z,1µm,21.8s,baz=59,slow=29						
H23K	**Yukon River**	**76.99**	**343**	IAMs_20	IAMs_20	14 20 08.2	
	comp=Z,3µm,20.0s						
G24K	**Hadweenzic Riv**	**77.01**	**344**	IAmb	IAmb	13 49 19.2	
	comp=Z,29nm,1.5s						
G24K				IAMs_20	IAMs_20	14 20 15.9	
	comp=Z,3µm,19.0s						
L18K	**Granite Mounta**	**77.10**	**338**	IAMs_20	IAMs_20	14 15 29.6	
	comp=Z,3µm,22.0s						
F25K	**Christian Rive**	**77.17**	**345**	IAmb	IAmb	13 49 30.5	
	comp=Z,13nm,1.4s						
F25K				IAMs_20	IAMs_20	14 16 47.1	
	comp=Z,3µm,21.0s						
I21K	**Tanana**	**77.31**	**341**	IAMs_20	IAMs_20	14 16 50.0	
	comp=Z,3µm,19.0s						
D27M	**Malcolm River**	**77.32**	**347**	IAMs_20	IAMs_20	14 18 54.2	
	comp=Z,3µm,21.0s						
J20K	**Nowinta River**	**77.37**	**340**	IAMs_20	IAMs_20	14 16 32.8	
	comp=Z,2µm,20.0s						
H22K	**Ishtalitna Cre**	**77.59**	**342**	IAMs_20	IAMs_20	14 16 38.4	
	comp=Z,3µm,21.0s						
F24K	**Squaw Lake**	**77.70**	**344**	IAMs_20	IAMs_20	14 18 14.3	
	comp=Z,3µm,20.0s						
G23K	**Bananza Creek**	**77.74**	**343**	IAMs_20	IAMs_20	14 21 09.2	
	comp=Z,3µm,19.0s						
J19K	**Poorman**	**77.77**	**339**	IAMs_20	IAMs_20	14 16 44.4	
	comp=Z,2µm,19.0s						
J18K	**Innoko River**	**77.84**	**339**	IAMs_20	IAMs_20	14 17 53.3	
	comp=Z,3µm,18.0s						
I20K	**Naaghedeneel**	**77.88**	**340**	IAMs_20	IAMs_20	14 17 01.9	
	comp=Z,2µm,19.0s						
H21K	**Melozitna Rive**	**77.88**	**342**	IAMs_20	IAMs_20	14 17 09.1	
	comp=Z,2µm,19.0s						
K17K	**Iditarod**	**78.00**	**338**	IAMs_20	IAMs_20	14 15 56.4	
	comp=Z,3µm,21.0s						
COLD	**Coldfoot**	**78.14**	**343**	IAMs_20	IAMs_20	14 21 40.8	
	comp=Z,3µm,18.0s						
C27K	**Jago River**	**78.23**	**347**	IAMs_20	IAMs_20	14 19 08.2	
	comp=Z,3µm,21.0s						
E24K	**Your Creek**	**78.26**	**345**	IAMs_20	IAMs_20	14 18 43.0	
	comp=Z,3µm,20.0s						
URZ	**Urewera**	**78.47**	**232**	LR	LR	14 18 33.1	
	comp=Z,3µm,18.1s,baz=98,slow=32						
E23K	**Chandalar**	**78.55**	**344**	IAmb	IAmb	13 49 37.3	
	comp=Z,23nm,1.4s						
E23K				IAMs_20	IAMs_20	14 21 24.8	
	comp=Z,2µm,19.0s						
D25K	**Kavik River**	**78.63**	**346**	IAMs_20	IAMs_20	14 18 12.6	
	comp=Z,3µm,22.0s						
G21K	**Allakaket**	**78.65**	**342**	IAMs_20	IAMs_20	14 17 08.5	
	comp=Z,3µm,21.0s						
J17K	**VABM Dome**	**78.68**	**338**	IAMs_20	IAMs_20	14 17 01.3	
	comp=Z,3µm,20.0s						
RES	**Resolute Bay**	**78.85**	**3**	LR	LR	14 23 24.7	
	comp=Z,3µm,18.9s,baz=190,slow=35						
F21K	**Alatna River**	**79.10**	**343**	IAmb	IAmb	13 49 36.1	
	comp=Z,15nm,1.3s						
F21K				IAMs_20	IAMs_20	14 17 39.3	
	comp=Z,3µm,22.0s						
D24K	**Happy Valley**	**79.11**	**345**	IAMs_20	IAMs_20	14 19 35.5	
	comp=Z,3µm,19.0s						
J16K	**Anvik River**	**79.19**	**338**	IAMs_20	IAMs_20	14 16 32.8	
	comp=Z,2µm,21.0s						
H18K	**Honhosa River**	**79.41**	**340**	IAMs_20	IAMs_20	14 17 46.6	
	comp=Z,2µm,21.0s						
D23K	**Nanushuk River**	**79.46**	**345**	IAMs_20	IAMs_20	14 19 31.8	
	comp=Z,3µm,20.0s						
C24K	**Franklin Bluff**	**79.48**	**346**	IAMs_20	IAMs_20	14 20 01.1	
	comp=Z,2µm,19.0s						
I17K	**Unalakleet**	**79.55**	**338**	IAMs_20	IAMs_20	14 16 58.2	
	comp=Z,3µm,21.0s						
G19K	**Purcell Mounta**	**79.56**	**341**	IAMs_20	IAMs_20	14 17 58.5	
	comp=Z,2µm,19.0s						
F20K	**Avaraart Lake**	**79.67**	**342**	IAmb	IAmb	13 49 43.1	
	comp=Z,17nm,1.4s						
F20K				IAMs_20	IAMs_20	14 18 18.4	
	comp=Z,3µm,20.0s						
H17K	**Granite Mounta**	**79.84**	**339**	IAMs_20	IAMs_20	14 19 16.8	
	comp=Z,3µm,18.0s						
D22K	**Ayikyak River**	**79.95**	**344**	IAMs_20	IAMs_20	14 22 20.6	
	comp=Z,3µm,20.0s						
E21K	**Killik River**	**80.02**	**343**	IAMs_20	IAMs_20	14 18 35.6	
	comp=Z,3µm,21.0s						
C23K	**Itkillik River**	**80.04**	**345**	IAMs_20	IAMs_20	14 18 29.1	
	comp=Z,3µm,21.0s						
F19K	**Shaleruckik Mo**	**80.19**	**341**	IAMs_20	IAMs_20	14 18 19.1	
	comp=Z,2µm,20.0s						
E19K	**Redstone River**	**80.39**	**342**	IAMs_20	IAMs_20	14 18 39.3	
	comp=Z,2µm,19.0s						
SFJD	**Kangerlussuaq**	**80.39**	**19**	LR	LR	14 23 44.7	
	comp=Z,3µm,21.9s,baz=238,slow=35						
D20K	**Etivluk River**	**80.95**	**343**	IAMs_20	IAMs_20	14 19 02.4	
	comp=Z,3µm,20.0s						
G16K	**Koyuk River**	**80.95**	**339**	IAMs_20	IAMs_20	14 18 37.3	
	comp=Z,2µm,20.0s						
B22K	**Teshekpuk Lake**	**81.10**	**345**	IAMs_20	IAMs_20	14 21 27.0	
	comp=Z,3µm,19.0s						
F17K	**Baldwin Pennin**	**81.12**	**340**	IAMs_20	IAMs_20	14 19 00.7	
	comp=Z,2µm,19.0s						
OUZ	**Omahuta**	**81.16**	**235**	IAMs_20	IAMs_20	14 16 45.7	
	comp=Z,3µm,20.0s						
D19K	**Kuna River**	**81.27**	**342**	IAMs_20	IAMs_20	14 22 45.4	
	comp=Z,3µm,19.0s						
NNZ	**Nelson**	**81.50**	**229**	IAMs_20	IAMs_20	14 18 55.5	
	comp=Z,3µm,19.0s						
ANM	**Nome**	**81.66**	**338**	IAMs_20	IAMs_20	14 18 13.0	
	comp=Z,2µm,20.0s						
THZ	**Tophouse**	**81.87**	**229**	P	**P**	**13 49 35.0**	**+1.0**
B20K	**Meade River**	**81.89**	**344**	IAMs_20	IAMs_20	14 20 01.9	
	comp=Z,3µm,19.0s						
F15K	**North Star Dit**	**81.94**	**339**	IAMs_20	IAMs_20	14 20 23.4	
	comp=Z,2µm,19.0s						
C19K	**Lookout Ridge**	**82.06**	**343**	IAMs_20	IAMs_20	14 19 34.4	
	comp=Z,3µm,20.0s						
QRZ	**Quartz Range**	**82.13**	**230**	IAMs_20	IAMs_20	14 18 51.3	
	comp=Z,3µm,18.0s						
RDOG	**Red Dog Mine**	**82.52**	**341**	IAMs_20	IAMs_20	14 19 54.6	
	comp=Z,3µm,21.0s						
TARA	**Tarawa**	**82.83**	**272**	IAMs_20	IAMs_20	14 16 50.8	
	comp=Z,2µm,21.0s						
INZ	**Inchbonnie**	**82.98**	**228**	P	**P**	**13 49 40.4**	**+0.7**
TULEG	**Thule**	**83.02**	**8**	IAMs_20	IAMs_20	14 27 06.0	
	comp=Z,2µm,18.0s						
TNA	**Tin City**	**83.08**	**338**	IAMs_20	IAMs_20	14 19 07.5	
	comp=Z,2µm,22.0s						
RPZ	**Rata Peaks**	**83.28**	**227**	LR	LR	14 20 10.9	
	comp=Z,1µm,18.9s,baz=136,slow=31						
C16K	**Lisburne Hills**	**83.42**	**341**	IAMs_20	IAMs_20	14 20 58.4	
	comp=Z,2µm,19.0s						
SBA	**Scott Base**	**85.80**	**192**	P	**P**	**13 49 53.5**	**+0.2**
SBA				pmax	pmax		
	comp=Z,47nm,1.9s						
SBA	**Scott Base**	**85.80**	**192**	P	**P**	**13 49 53.5**	**+0.2**
QSPA	**South Pole Qui**	**85.97**	**180**	P	**P**	**13 49 55.0**	**+0.5**
	comp=Z,12nm,1.0s,baz=132,slow=2.5,SNR=19						
QSPA				LR	LR	14 21 41.7	
	comp=Z,2µm,20.1s,baz=118,slow=31						
	comp=Z,12nm,1.0s						
QSPA	**South Pole Qui**	**85.97**	**180**	P	**P**	**13 49 55.5**	**+1.0**
VNDA	**Vanda**	**86.87**	**193**	P	**P**	**13 49 59.2**	**+0.7**
	comp=Z,0.6nm,0.7s,baz=95,slow=5.5,SNR=5.3						
VNDA				LR	LR	14 20 26.8	
	comp=Z,823nm,20.1s,baz=96,slow=30						
	comp=Z,0.6nm,0.7s						
VNDA	**Vanda**	**86.87**	**193**	P	**P**	**13 49 59.9**	**+1.3**
VNDA				IAmb	IAmb	13 50 13.8	
	comp=Z,23nm,1.8s						
VNA3	**Neumayer Olymp**	**87.68**	**161**	⇓P	**P**	**13 50 04.1**	**+1.4**
	comp=Z,4.0nm,0.8s						
DZM	**Mont Dzumac**	**87.74**	**248**	LR	LR	14 20 40.0	
	comp=Z,804nm,20.5s,baz=144,slow=30						
SHEM	**Shemya Is, Ala**	**88.10**	**323**	LR	LR	14 20 45.4	
	comp=Z,6µm,21.6s,baz=115,slow=30						
VNA2	**Neumayer--Watz**	**88.46**	**161**	⇓P	**P**	**13 50 07.8**	**+1.4**
	comp=Z,2.4nm,0.7s,baz=264,slow=4.6						
SNAA	**Sanae**	**89.77**	**162**	LR	LR	14 22 15.2	
	comp=Z,1µm,21.2s,baz=258,slow=30						
SNAA	**Sanae**	**89.77**	**162**	IAMs_20	IAMs_20	14 21 53.5	
	comp=Z,1µm,21.0s						
PMOZ	**Porto Moniz, M**	**89.81**	**57**	*e*S	S	14 01 17.7	+12
PMOZ				*e*LR	LR	14 19 32.1	
PMOZ				*i* IAMs_20	IAMs_20	14 22 40.8	
	comp=Z,639nm,22.0s						
H11N3	**WAKE ISLAND Hy**	**90.16**	**290**	T	T	15 29 56.0	
	baz=95,slow=74,SNR=107						
H11N2	**WAKE ISLAND Hy**	**90.17**	**290**	T	T	15 29 57.0	
	baz=95,slow=74,SNR=107						
H11N1	**WAKE ISLAND Hy**	**90.17**	**290**	T	T	15 29 57.3	
	baz=95,slow=74,SNR=59						
H11S2	**WAKE ISLAND Hy**	**90.26**	**288**	T	T	15 30 03.0	
	baz=94,slow=75,SNR=327						
H11S1	**WAKE ISLAND Hy**	**90.27**	**288**	T	T	15 30 03.5	
	baz=94,slow=75,SNR=239						
H11S3	**WAKE ISLAND Hy**	**90.28**	**288**	T	T	15 30 04.3	
	baz=94,slow=75,SNR=156						
BORG	**Borgarnes**	**90.69**	**25**	LR	LR	14 29 33.5	
	comp=Z,1µm,19.0s,baz=270,slow=35						
TROLL	**Troll, Antarti**	**91.31**	**163**	P	**P**	**13 50 21.1**	**+1.3**
	comp=Z,142nm,1.1s						
BILL	**Bilibino**	**93.51**	**338**	IAMs_20	IAMs_20	14 26 04.5	
	comp=Z,2µm,20.0s						
NVL	**N'lazarevskaya**	**94.55**	**163**	*e*P	P	13 50 21.7	-13
NVL				pmax	pmax		
	comp=Z,5.0nm,0.9s						
NVL				MLR	MLR		
	comp=Z,305nm,16.0s						
HNR	**Honiara**	**94.93**	**260**	LR	LR	14 23 15.3	
	comp=Z,988nm,21.4s,baz=146,slow=29						
JMIC	**Jan Mayen**	**95.75**	**19**	LR	LR	14 32 28.8	
	comp=Z,2µm,21.8s,baz=252,slow=35						
ELIB	**Princess Elisa**	**97.07**	**166**	*d*P	Pdif	13 50 46.9	+0.6
PGAV	**Gavieira, Arco**	**97.24**	**48**	*e*tx	tx	14 03 36.5	
PGAV				*e*SS	SS	14 08 54.5	+5.2
PGAV				*e*LR	LR	14 23 08.4	
PGAV				*i* IAMs_20	IAMs_20	14 29 02.0	
	comp=Z,1µm,20.0s						
PET	**Petropavlovsk**	**97.44**	**323**	*e*P	P	13 50 41.0	-7.0
PET				*e*		14 01 29.1	
PET				*e*S	S	14 02 02.5	-10
PET				*e*SS	**SS**	**14 08 58.9**	**+7.7**
PET				MLR	MLR		
	comp=Z,700nm,19.0s						
PVAQ	**Vaqueiros**	**97.74**	**53**	*e*tx	tx	14 03 44.4	
PVAQ				*e*SS	SS	14 09 05.0	+8.5
PVAQ				*e*LR	LR	14 23 13.4	
PVAQ				*i* IAMs_20	IAMs_20	14 28 10.2	
	comp=Z,966nm,22.0s						
MTE	**Manteigas**	**97.82**	**50**	*e*tx	tx	14 03 44.6	
MTE				*e*SS	SS	14 09 02.3	+4.8
MTE				*e*LR	LR	14 23 26.4	
MTE				*i* IAMs_20	IAMs_20	14 26 53.1	
	comp=Z,901nm,24.0s						
PMRV	**Marv??o**	**97.96**	**51**	*e*tx	tx	14 03 46.9	
PMRV				*e*LR	LR	14 23 29.6	
PMRV				*i* IAMs_20	IAMs_20	14 27 12.1	
	comp=Z,1µm,22.0s						
PETK	**Petropavlovsk-**	**98.01**	**323**	P	**P**	**13 50 50.0**	**-0.6**
	comp=Z,2.0nm,0.9s,baz=102,slow=12,SNR=4.5						
PETK				LR	LR	14 26 40.6	
	comp=Z,3µm,21.0s,baz=89,slow=30						
	comp=Z,2.0nm,0.9s						
AVE	**Averroes**	**98.03**	**57**	IAMs_20	IAMs_20	14 29 35.4	
	comp=Z,1µm,20.0s						
SEY	**Seymchan**	**99.64**	**333**	LR	LR	14 30 58.1	
	comp=Z,2µm,18.7s,baz=83,slow=32						
ESK	**Eskdalemuir**	**99.69**	**35**	IAMs_20	IAMs_20	14 34 46.2	
	comp=Z,1µm,19.0s						
EKA	**Eskdalemuir Ar**	**99.72**	**35**	LR	LR	14 34 57.1	
	comp=Z,965nm,19.1s,baz=286,slow=35						
DBIC	**Dimbokro**	**99.90**	**84**	LR	LR	14 35 14.3	
	comp=Z,897nm,18.2s,baz=266,slow=35						
PAB	**San Pablo**	**100.31**	**51**	IAMs_20	IAMs_20	14 28 20.1	
	comp=Z,2µm,21.0s						
MA2	**Magadan**	**101.02**	**330**	IAMs_20	IAMs_20	14 30 02.0	
	comp=Z,1µm,20.0s						
CAN	**Canberra**	**101.12**	**233**	IAMs_20	IAMs_20	14 27 19.2	
	comp=Z,2µm,22.0s						
TIXI	**Tiksi**	**104.84**	**345**	IAMs_20	IAMs_20	14 37 13.7	
	comp=Z,2µm,19.0s						
WLF	**Walferdange**	**106.31**	**39**	IAMs_20	IAMs_20	14 33 08.7	
	comp=Z,1µm,22.0s						
CTAO	**Charters Tower**	**106.68**	**248**	IAMs_20	IAMs_20	14 34 37.4	
	comp=Z,1µm,20.0s						
PMG	**Port Moresby**	**107.48**	**259**	IAMs_20	IAMs_20	14 30 20.2	
	comp=Z,1µm,22.0s						
BNI	**Bardonecchia**	**107.68**	**44**	IAMs_20	IAMs_20	14 36 20.4	
	comp=Z,1µm,22.0s						
SENIN	**Lac Senin/Sane**	**107.82**	**43**	IAMs_20	IAMs_20	14 35 59.9	
	comp=Z,1µm,20.0s						
TUE	**Stuetta**	**109.17**	**42**	IAMs_20	IAMs_20	14 38 06.5	
	comp=Z,1µm,22.0s						
FUORN	**Ofenpass-Fuorn**	**109.74**	**42**	IAMs_20	IAMs_20	14 38 36.6	
	comp=Z,1µm,21.0s						
CLL	**Collm**	**110.05**	**36**	*e*PS	PS	14 05 47.0	-1.4
CLL				*e*PPS	PPS	14 06 51.0	
CLL				*e*SS	SS	14 11 36.0	-8.5
CLL				*e*SSS	SSS	14 15 54.0	
CLL				LH		14 23 00.0	
CLL				L	L	14 29 00.0	
CLL				AMS	AMS	14 36 00.0	
	comp=N,400nm,24.8s						
CLL				AMS	AMS	14 36 00.0	
	comp=E,900nm,25.9s						
CLL				AMS	AMS	14 38 00.0	
	comp=N,400nm,25.3s						
CLL				AMS	AMS	14 38 00.0	
	comp=E,700nm,24.3s						
CLL				AMS	AMS	14 38 00.0	
	comp=Z,800nm,21.7s						
APA	**Apatity**	**110.41**	**16**	*i* PKIKP	**PKiKP**	**13 55 40.5**	**-5.7**
APA				pmax	pmax		
	comp=Z,8.0nm,0.7s						
KHC	**Kasperske Hory**	**111.12**	**38**	⇑*i*PKIKP	**PKiKP**	**13 55 47.8**	**-0.4**
KHC	**Kasperske Hory**	**111.12**	**38**	IAMs_20	IAMs_20	14 36 37.8	
	comp=Z,1µm,21.0s						
GUMO	**Guam**	**111.12**	**283**	IAMs_20	IAMs_20	14 32 24.5	
	comp=Z,2µm,21.0s						
BLY	**Banja Luka**	**114.93**	**42**	IAMs_20	IAMs_20	14 42 03.9	
	comp=Z,1µm,21.0s						
CUC	**Castrocucco**	**115.50**	**47**	IAMs_20	IAMs_20	14 40 04.6	
	comp=Z,1µm,21.0s						
INU	**Inuyama**	**115.55**	**307**	IAMs_20	IAMs_20	14 42 08.4	
	comp=Z,1µm,19.0s						
MNK	**Minsk**	**116.65**	**29**	*i* PKIKP	**PKiKP**	**13 55 58.8**	**+0.3**
MNK				*i*		13 57 06.0	
MNK				*i* PPP	PPP	13 59 31.8	
MNK				*i*		14 03 10.2	
MNK				*i* SS	SS	14 13 11.4	+0.1
MNK				*i* SSS	SSS	14 17 30.5	
MNK				pmax	pmax		
	comp=E,25nm,0.9s						
MNK				pmax	pmax		
	comp=Z,11nm,0.6s						
MNK				pmax	pmax		
	comp=N,21nm,0.9s						
MNK				MLR	MLR		
	comp=N,509nm,19.0s						
MNK				MLR	MLR		
	comp=Z,936nm,20.0s						
MNK				MLR	MLR		
	comp=E,533nm,19.0s						
MNK	**Minsk**	**116.65**	**29**	*i* PKP	**PKiKP**	**13 55 58.9**	**+0.3**
	comp=E,25nm,0.9s						
MNK				*i* PKP	**PKiKP**	**13 55 58.9**	**+0.3**
	comp=N,21nm,0.9s						
MNK				*i* PKP	**PKiKP**	**13 55 58.9**	**+0.3**
	comp=Z,11nm,0.6s,baz=124						
MNK				*i* PP	**PP**	**13 57 06.0**	**+0.3**
MNK				*i* PPP	PPP	13 59 31.8	
MNK				*i* SKS	**SKSdf**	**14 03 10.3**	**-0.4**
MNK				*i* SS	**SS**	**14 13 11.4**	**+0.1**
MNK				*i* SSS	SSS	14 17 30.6	
MNK				*i* LQ	LQ	14 38 54.3	
ASAR	**Alice Springs**	**116.92**	**241**	PKP	**PKPdf**	**13 55 58.8**	**-1.2**
	comp=Z,0.3nm,0.7s,baz=75,slow=2.1,SNR=5.5						
ASAR				PKKPbc	**PKKPbc**	**14 06 26.2**	**+0.3**
	comp=Z,1.0nm,1.0s,baz=320,slow=4.2,SNR=4.2						
WIN	**Windhoek**	**117.02**	**118**	IAMs_20	IAMs_20	14 38 49.7	
	comp=Z,2µm,21.0s						
WRAB	**Tennant Creek**	**117.60**	**245**	IAMs_20	IAMs_20	14 38 07.5	
	comp=Z,1µm,20.0s						
WRA	**Warramunga Arr**	**117.61**	**245**	PKP	**PKPdf**	**13 56 00.1**	**-1.3**
	comp=Z,0.6nm,0.7s,baz=101,slow=2.5,SNR=6.9						
TSUM	**Tsumeb**	**118.41**	**114**	IAMs_20	IAMs_20	14 40 56.9	
	comp=Z,2µm,20.0s						
OBN	**Obninsk**	**120.19**	**25**	*e*PKIKP	**PKiKP**	**13 56 08.3**	**+2.9**
OBN				*e*		13 57 31.1	
OBN				*e*PPP	PPP	14 00 03.8	
OBN				*e*		14 03 18.6	
OBN				*e*SS	SS	14 13 58.3	+1.5
OBN				pmax	pmax		
	comp=Z,3.0nm,0.8s						
OBN				MLR	MLR		
	comp=Z,1µm,18.0s						
OBN	**Obninsk**	**120.19**	**25**	IAMs_20	IAMs_20	14 41 17.1	

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        comp=Z,1µm,22.0s
MLR   Muntele Rosu      120.28  38    IAMs_20 IAMs_20  14 57 03.0
        comp=Z,1µm,20.0s
CN2   Changchun         120.98 320    PKP     PKPdf    13 56 05.5 -1.7
CN2                                   SKS     SKSac    14 03 11.5 +5.7
CN2                                   SS      SS       14 14 04.1 -4.0
CN2                                   L       L
        comp=Z,480nm,19.0s
CN2                                   L       L
        comp=Z,530nm,19.0s
CN2                                   L       L
        comp=Z,810nm,19.0s
KIRV  Kirov             121.93  16⇓iPKIKP   PKiKP    13 56 12.8 +4.1
TIRR  Tirgusor          122.31  38    IAMs_20 IAMs_20  14 43 04.8
        comp=Z,1µm,22.0s
DL2   Dalian            125.80 316  ePKP    PKPdf    13 56 16.0 -0.6
DL2                                   PP      PP       13 58 08.6  0.0
DL2                                   SS      SS       14 15 08.5 -0.8
DL2                                   PPMZ
        comp=Z,200nm,5.4s
DL2                                   L       L
        comp=Z,1µm,18.9s
DL2                                   L       L
        comp=Z,920nm,18.6s
DL2                                   L       L
        comp=Z,1µm,19.6s
ARTI  Arti              126.05  12  i PKIKP   PKiKP    13 56 20.6 +3.6
ARTI                                                   13 58 12.0
ARTI                                                   14 03 32.0
ARTI                                  SS      SS       14 15 06.4 -4.3
ARTI  Arti              126.05  12    IAMs_20 IAMs_20  14 45 35.3
        comp=Z,2µm,21.0s
BELG  Belogornoye       126.55  21⇓iPKIKP   PKiKP    13 56 20.9 +2.9
BRTR  Keskin Array B    128.08  41    PKP     PKPdf    13 56 21.2  0.0
        comp=Z,0.7nm,0.5s,baz=193,slow=1.8,SNR=4.3
ULN   Ulaanbaatar       128.71 333⇓ePKIKP   PKiKP    13 56 24.8 +2.0
ULN   Ulaanbaatar       128.71 333    IAMs_20 IAMs_20  14 46 59.4
        comp=Z,2µm,22.0s
SONM  Songino Array     129.03 334    PKP     PKPdf    13 56 22.5 -0.2
        comp=Z,0.2nm,0.4s,baz=35,slow=5.4,SNR=3.5
SSE   Sheshan           129.46 308    PKP     PKPdf    13 56 20.4 -3.4
SSE                                   PP      PP       13 58 33.6 +0.5
SSE                                   SS      SS       14 15 54.8 -0.7
SSE                                   PPMZ
        comp=Z,110nm,4.4s
SSE                                   L       L
        comp=Z,640nm,22.8s
SSE                                   L       L
        comp=Z,840nm,22.5s
SOEI  Soe               129.64 254    IAMs_20 IAMs_20  15 00 12.1
        comp=Z,1µm,18.0s
ZALV  Zalesovo Beam     129.72 353    PKP     PKPdf    13 56 23.3 -0.3
        comp=Z,0.5nm,0.7s,baz=12,slow=3.6,SNR=4.2
DAV   Davao City (W)    130.22 276    IAMs_20 IAMs_20  14 42 37.9
        comp=Z,1µm,21.0s
TIA   Tai'an            130.23 315    SS      SS       14 16 14.0 +10
TIA                                   LR      LR
        comp=N,1µm,17.5s
TIA                                   LR      LR
        comp=E,2µm,19.0s
TIA                                   LR      LR
        comp=Z,3µm,19.0s
KIV   Kislovodsk        130.80  31  i PKIKP   PKiKP    13 56 28.7 +1.7
KIV                                   pmax    pmax
        comp=Z,8.0nm,1.1s
KIV                                   MLR     MLR
        comp=Z,427nm,23.0s
NJ2   Nanjing           130.89 310  ePKP    PKPdf    13 56 26.4 -0.1
BORK  Borovoye          130.99   4⇑ePKIKP   PKPdf    13 56 26.7 +0.6
BVAR  Borovoye Array    131.02   4    PKP     PKPdf    13 56 26.4 +0.2
        comp=Z,2.4nm,0.9s,baz=40,slow=2.5,SNR=6.6
BVAR                                  PP      PP       13 58 41.4 -0.4
        comp=Z,0.7nm,0.7s,baz=0.0,slow=6.2,SNR=2.4
KBZ   Khabaz            131.07  31⇑ePKIKP   PKPdf    13 56 27.0 +0.5
HHC   Hu-ho-hao-te      131.21 324  ePKP    PKPdf    13 56 23.4 -3.6
HHC                                   L       L
        comp=Z,1µm,16.3s
HHC                                   L       L
        comp=Z,1µm,16.8s
YHNB  Yeheng            131.50 300    IAMs_20 IAMs_20  14 44 05.1
        comp=Z,2µm,22.0s
DGZ   Jazzator, Alta    133.45 349⇑ePKIKP   PKiKP    13 56 32.6 +0.3
KURK  Kurchatov         133.46 357    PKIKP   PKPdf    13 56 30.9 +0.1
KURK  Kurchatov         133.46 357            PKPdf    13 56 30.9 +0.1
KURBB Kurchatov Arra    133.55 357    PKP     PKPdf    13 56 30.9 -0.1
        comp=Z,0.2nm,0.3s,baz=339,slow=2.1,SNR=5.1
MAK   Makhachkala       133.93  29c iP      Pdif     13 53 28.0 -2.6
MAK                                   pmax    pmax
        comp=Z,299nm,1.1s
KNMB  Chin-men Tao      134.15 300    IAMs_20 IAMs_20  14 45 49.1
        comp=Z,1µm,20.0s
KAPI  Kappang           135.01 259    IAMs_20 IAMs_20  14 58 35.7
        comp=Z,708nm,19.0s
XAN   Xi'an             137.03 318    PKP     PKiKP    13 56 41.1 +1.2
XAN                                   L       L
        comp=Z,940nm,20.2s
XAN                                   L       L
        comp=Z,2µm,20.6s
MK31  Makanchi Array    137.06 353⇑ePKIKP   PKPdf    13 56 38.0 +0.3
MKAR  Makanchi Array    137.06 353    PKP     PKPdf    13 56 37.3 -0.4
        comp=Z,1.2nm,0.9s,baz=20,slow=0.9,SNR=7.2
MKAR                                  PP      PP       13 59 13.5 -6.8
        comp=Z,0.7nm,0.8s,baz=15,slow=6.0,SNR=3.7
MKAR  Makanchi Array    137.06 353  ePKIKP  PKiKP    13 56 39.2 -0.3
MKAR                                  pmax    pmax
        comp=Z,1.0nm,0.9s
MKAR  Makanchi Array    137.06 353            PKPdf    13 56 36.7 -1.0
MAKZ  Makanchi          137.08 354    IAMs_20 IAMs_20  15 00 42.6
        comp=Z,1µm,20.0s
BKB   Balikpapan        138.42 264    IAMs_20 IAMs_20  15 02 37.6
        comp=Z,1µm,19.0s
GTA2  Gaotai            138.53 331  ePKP    PKiKP    13 56 44.8 +1.9
GTA2                                  L       L
        comp=Z,1µm,22.5s
GTA2                                  L       L
        comp=Z,1µm,20.6s
GTA2                                  L       L
        comp=Z,3µm,22.5s
LZH   Lanzhou           138.89 324  ePKP    PKPdf    13 56 34.9 -6.7
LZH                                   L       L
        comp=Z,990nm,18.4s
LZH                                   L       L
        comp=Z,2µm,21.1s
WMQ   Urumqi            139.01 347  ePKP    PKPdf    13 56 42.1 +0.7
WMQ                                   SKS     SKSdf    14 03 45.4 -6.9
WMQ                                   L       L
        comp=Z,890nm,17.7s
WMQ                                   L       L
        comp=Z,2µm,17.7s
KKM   Kota Kinabalu     139.54 275    IAMs_20 IAMs_20  14 49 31.7
        comp=Z,1µm,21.0s
LODK  Lodwar            139.81  90    IAMs_20 IAMs_20  14 55 17.3
        comp=Z,962nm,20.0s
AAK   Ala-Archa         141.59   1  i PKIKP   PKiKP    13 56 49.8 +0.7
CD2   Chengdu           142.39 318    PKP     PKPdf    13 56 47.1 -0.8
CD2                                   PP      PP       13 59 54.1 -0.1
CD2                                   SKS     SKSdf    14 03 57.0 -1.3
CD2                                   PPMZ
        comp=Z,280nm,13.7s
CD2                                   L       L
        comp=Z,1µm,19.7s
CD2                                   L       L
        comp=Z,2µm,19.7s
QIZ   Qiongzhong        143.44 297    PKP     PKPdf    13 56 49.9 -0.1
QIZ                                   PP      PP       14 00 03.6 +2.2
QIZ                                   L       L
        comp=Z,690nm,16.1s
QIZ                                   L       L
        comp=Z,710nm,16.3s
QIZ                                   L       L
        comp=Z,1µm,17.9s
RAYN  Ar Rayn           145.08  54    PKIKP   PKPbc    13 56 51.8 -0.4
RAYN  Ar Rayn           145.08  54            PKPbc    13 56 51.8 -0.4
RAYN  Ar Rayn           145.08  54    IAMs_20 IAMs_20  15 12 04.7
        comp=Z,775nm,20.0s
KSH2  Kashi             145.09   0    PKPbc   PKPab    13 56 52.5 +0.6
KSH2                                  SS      SS       14 19 00.3 +1.4
KSH2                                  L       L
        comp=Z,2µm,18.4s
KSH2                                  L       L
        comp=Z,1µm,19.8s
KSH2                                  L       L
        comp=Z,2µm,21.6s
BBJI  Bungbulang        146.06 250    IAMs_20 IAMs_20  14 55 36.9
        comp=Z,612nm,20.0s
KMI2  Kunming           146.57 311    PKPbc   PKPbc    13 56 57.8 +0.8
KMI2                                  L       L
        comp=Z,1µm,20.8s
KMI2                                  L       L
        comp=Z,2µm,23.6s
KMI2                                  L       L
        comp=Z,3µm,26.7s
DLV    Lat              146.57 285    IAMs_20 IAMs_20  14 47 35.7
        comp=Z,859nm,21.0s
ATD   Arta Tunnel       146.71  75    IAMs_20 IAMs_20  15 05 36.5
        comp=Z,799nm,20.0s
TNCH  TengChong         149.70 316    PKPbc   PKPdf    13 57 00.8 +0.2
TNCH                                  pPKP    sPKPdf   13 57 04.4 +0.6
TNCH                                  PKPab   sPKPab   13 57 13.6 +0.1
TNCH                                  PP      PP       14 00 39.0 +1.2
TNCH                                  SKKS             14 07 29.8
TNCH                                  PPMZ
        comp=Z,290nm,4.8s
TNCH                                  L       L
        comp=Z,730nm,16.4s
TNCH                                  L       L
        comp=Z,420nm,21.1s
TNCH                                  L       L
        comp=Z,2µm,19.6s
UOSS  Minazif           152.08  40    IAMs_20 IAMs_20  15 19 25.2
        comp=Z,707nm,21.0s
CMAR  Chiang Mai Arr    153.10 304    PKPbc   PKPbc    13 57 12.8 -0.2
        comp=Z,2.7nm,0.9s,baz=357,slow=0.6,SNR=9.5
CMAR  Chiang Mai Arr    153.10 304    PKIKP   PKPdf    13 57 04.7 -1.0
CMAR  Chiang Mai Arr    153.10 304    PKPdf   PKPdf    13 57 04.7 -1.0
IPM   Ipoh              154.68 272    IAMs_20 IAMs_20  15 03 53.0
        comp=Z,1µm,21.0s
MSEY  Mahe Island       158.07 113    IAMs_20 IAMs_20  15 00 59.1
        comp=Z,1µm,21.0s
HYB   Hyderabad         166.44 348  eSKKSac SKKSac   14 08 56.5 -1.3
HYB                                   IVMs_BB IVMs_BB  14 11 57.7
        comp=Z,691nm,4.6s
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TAP ***21*** *14:05:31.8, 24°.35N×122°.79E, h22km, ML3.0, C*
JMA ***21*** *14:05:31.1±0.1, 24°.2N±0°.8×122°.8E±0°.3, h17km±1km, MV1.8/10, NW OFF ISHIGAKIJIMA IS*
ISC 21 14:05:31.1±1.1**, 24°.29N**±0°.03×**122°.80E**±0°.02**, h21**km±2km**, n87, σ0s.93**/151**, Taiwan region**

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Code  Station Name        Δ°   AZ°    Phase ID          Time      Res
                                    Op        ISC      h  m  s    ISC
JYNG  Yonagunijimaku     0.21  41   P         Pb       14 05 36.6 -0.4
JYNG                               eS         Sb       14 05 40.4 -0.6
YOJ   Yonaguni jima      0.26  49  i P        Pb       14 05 37.2 -0.1
YOJ                                i S        Sb       14 05 41.9 +0.3
YOJ   Yonaguni jima      0.26  49   P         Pb       14 05 37.4 +0.1
YOJ                                 S         Sb       14 05 41.8 +0.3
EOS3  EOS3               0.44 269  eP         Pb       14 05 39.3 -0.6
EOS4  EOS4               0.47 249  eP         Pb       14 05 39.4 -1.0
EOS4                               eS         Sb       14 05 47.3 +0.7
EOS2  EOS2               0.53 284  eP         Pb       14 05 41.6  0.0
EOS2                               eS         Sb       14 05 50.0 +1.2
IRIF  Iriomote-Funau     0.85  87   P         Pb       14 05 47.3 +0.1
TWC   Suao               0.92 290  eP         Pb       14 05 47.7 -0.5
TWC                                eS         Sb       14 05 59.2 -0.9
EWUT  Wuta               0.94 280  eP         Pb       14 05 48.1 -0.5
EWUT                               eS         Sb       14 06 00.8 +0.1
HATJ  Hateruma jima      0.95 104  eP         Pb       14 05 48.4 -0.5
HATJ                               eS         Sb       14 06 00.7 -0.3
EGS                      0.96 305   P         Pb       14 05 48.8 -0.2
EAHA  Aohua              0.96 272  eP         Pb       14 05 48.2 -0.9
NDS   Dongshan           1.04 289   P         Pb       14 05 50.3 -0.1
NDS                                eS         Sb       14 06 03.7 +0.1
NACB  Ninganchiao        1.10 264   P         Pn       14 05 51.1 -0.2
NACB                                S         Sn       14 06 06.0 +0.1
JKRS  Kuro-shima         1.11  93  eP         Pn       14 05 51.4  0.0
JKRS                               eS         Sb       14 06 04.9 -0.6
TIPB  Shuangxi           1.11 308  eP         Pb       14 05 52.2 +0.5
TWE   Neicheng           1.11 293  eP         Pb       14 05 51.7 +0.1
TWE                                eS         Sb       14 06 05.0 -0.6
TWD   Chiawan            1.11 259  eP         Pb       14 05 51.9 +0.2
SXI1  Grass Mountain     1.16 314  eP         Pn       14 05 51.1 -1.0
ENTT  Nioudou            1.17 287  eP         Pn       14 05 52.3  0.0
ENTT                               eS         Sb       14 06 07.2 -0.2
LATG  Datong             1.18 282   P         Pn       14 05 52.6 +0.1
LATG                               eS         Sn       14 06 08.2 +0.2
FUSB  Fushanzhiwuyua     1.19 293   P         Pb       14 05 53.1 +0.1
FUSB                                S         Sb       14 06 08.0 -0.1
ETLH  Xiulin Townshi     1.20 266  eP         Pn       14 05 53.0 +0.2
ETLH                                S         Sn       14 06 09.2 +0.7
NDT   Datong Townshi     1.21 285  eP         Pb       14 05 53.5 +0.2
NDT                                eS         Sb       14 06 08.2 -0.3
JIJ   Ishigaki jima      1.23  86   P         Pn       14 05 52.9 -0.1
JIJ                                eS         Sb       14 06 09.2 +0.1
ETM   Tongmen            1.23 255  eP         Pn       14 05 52.8 -0.3
ETM                                 S         Sn       14 06 09.8 +0.6
SHUL  Shoufeng           1.23 246   P         Pn       14 05 53.1  0.0
SHUL                                S         Sn       14 06 09.8 +0.6
NWLT  Wulai              1.27 293  eP         Pb       14 05 54.5 +0.2
NWLT                               eS         Sn       14 06 09.5 -0.6
LXIB  Xiulin Townshi     1.29 258  eP         Pn       14 05 54.2 +0.2
LXIB                               eS         Sn       14 06 10.8  0.0
NNSB  Datong             1.29 276   P         Pn       14 05 54.4 +0.3
NNSB                               eS         Sb       14 06 11.1  0.0
NNSH  Datong             1.29 276   P         Pn       14 05 54.3 +0.2
NNSH                               eS         Sb       14 06 11.1 +0.1
NNS   Nan Shan           1.30 277  eP         Pn       14 05 54.6 +0.3
NNS                                eS         Sb       14 06 11.5 +0.1
ESL   Shilin             1.33 249  eP         Pn       14 05 53.5 -0.9
ESL                                eS         Sn       14 06 11.1 -0.6
YHNB  Yeheng             1.35 287  eP         Pb       14 05 55.5 -0.2
NSK   Sanguang           1.36 287  eP         Pb       14 05 56.3 +0.3
NSK                                eS         Sn       14 06 12.5  0.0
TATO  Taipei             1.37 300  eP         Pb       14 05 56.2 +0.2
TATO                               eS         Sb       14 06 12.9 -0.1
YM01  YM01               1.40 308  eP         Pn       14 05 55.1 -0.4
YM01                               eS         Sn       14 06 11.9 -1.5
WHF   Hehuan Shan        1.41 264  eP         Pn       14 05 55.7 -0.2
WHF                                eS         Sb       14 06 14.6 +0.1
WARBT Fenglin Townsh     1.41 246  eP         Pn       14 05 54.6 -0.9
WARBT                              eS         Sn       14 06 12.2 -1.3
FUSS  Fushou             1.42 269   P         Pb       14 05 56.8 -0.1
FUSS                                S         Sn       14 06 14.5 +0.5
ANP   Anpu               1.46 308   P         Pn       14 05 55.6 -0.7
ANP                                 S         Sn       14 06 13.3 -1.7
NSM   Shimen             1.48 312   P         Pn       14 05 55.9 -0.6
NSM                                 S         Sn       14 06 14.3 -0.8
HGSD  Ruisui             1.49 238  eP         Pn       14 05 56.9 +0.3
HGSD                               eS         Sn       14 06 14.7 -0.6
TDCB  Techi              1.49 269   P         Pn       14 05 57.4 +0.5
TDCB                                S         Sb       14 06 16.8  0.0
NTST  Danshui            1.50 306   P         Pn       14 05 56.6 -0.2
NTST                                S         Sn       14 06 15.0 -0.7
OWD   Renai              1.52 258  eP         Pn       14 05 57.2  0.0
OWD                                i S        Sn       14 06 16.2 -0.2
EHYH  Wanrong            1.55 239  eP         Pn       14 05 57.5 +0.1
EHYH                               eS         Sn       14 06 16.3 -0.6
WUSB  Renai              1.56 259   P         Pn       14 05 57.8  0.0
WUSB                                S         Sn       14 06 18.0 +0.6
NFF   Wufeng Townshi     1.56 283  eP         Pb       14 05 59.6 +0.2
ECBN  Changbin           1.57 232  eP         Pn       14 05 58.6 +0.9
VWDT  VWDT               1.60 251  eP         Pn       14 05 58.6 +0.4
VWDT                               eS         Sn       14 06 18.9 +0.6
NCUH  Zhongli            1.61 295   P         Pn       14 05 58.2 -0.2
NCUH                                S         Sn       14 06 18.4 -0.1
EYUL  Yuli               1.65 235  eP         Pn       14 05 58.2 -0.6
EYUL                                S         Sn       14 06 19.7 +0.4
LIOB  Emei               1.66 283  eP         Pb       14 06 01.1 +0.1
TWF1  Yuli               1.66 236  eP         Pn       14 05 58.4 -0.7
TWF1                               eS         Sn       14 06 18.7 -1.1
NSTT  Nanjuang           1.67 282  eP         Pb       14 06 00.7 -0.4
WHP   Taichung City      1.69 270   P         Pb       14 06 00.9 -0.6
WHP                                eS         Sb       14 06 23.1 +0.8
HSN1  Hsinchu            1.69 287   P         Pn       14 05 59.9 +0.5
SBCB  Hsinchu            1.72 287   P         Pn       14 06 01.0 +1.2
SBCB                                S         Sn       14 06 22.0 +0.8
WCS   Beigang Elemen     1.74 263  eP         Pb       14 06 01.6 -0.7
HSN   Hsinchu            1.74 287   P         Pn       14 06 00.2 +0.1
HSN                                 S         Sn       14 06 21.4 -0.2
FULB  Fuli               1.75 232  eP         Pn       14 06 00.6 +0.2
FULB                               eS         Sn       14 06 20.6 -1.5
SSLB  Suanglung          1.76 254  eP         Pn       14 06 01.3 +0.9
SSLB                                S         Sn       14 06 22.7 +0.6
SMLT  Sun Moon Lake      1.78 257   P         Pn       14 06 01.6 +0.8
SMLT                                S         Sn       14 06 23.6 +0.9
TYC   Yuchr              1.81 258   P         Pn       14 06 02.1 +1.0
WHYT  Xinyi Township     1.87 252  eP         Pb       14 06 03.6 -1.0
WHYT                                S         Sb       14 06 27.3 -0.3
ELDTW Lidau              1.96 236  eP         Pn       14 06 02.7 -0.6
WNT   Mingjian           1.97 258  eP         Pn       14 06 04.9 +1.6
ALS   Alishan            1.98 247  eP         Pn       14 06 04.8 +1.2
ALS                                eS         Sn       14 06 28.4 +0.4
CHN5  Tsauling           2.06 251  eP         Pn       14 06 05.9 +1.3
CHN5                               eS         Sb       14 06 32.0 -0.9
WDLH  Douliu             2.15 254   P         Pn       14 06 07.6 +1.9
STYH  Taoyuan            2.16 239  eP         Pn       14 06 05.5 -0.4
STYH                                S         Sn       14 06 33.9 +1.8
WCKO  Fanlu              2.18 247   P         Pn       14 06 07.5 +1.4
WCKO                               eS         Sn       14 06 34.2 +1.7
STYT  Tauyuan            2.18 239  eP         Pn       14 06 05.2 -1.0
STYT                               eS         Sn       14 06 32.7 +0.1
TPUB  Ta-pu              2.21 244  eP         Pb       14 06 09.2 -1.3
CHN4  Tsaushan           2.22 246  eP         Pb       14 06 09.1 -1.5
WTP   Ta-pu              2.25 243  eP         Pn       14 06 07.9 +0.7
WTP                                eS         Sb       14 06 37.1 -1.4
TWK   Hsinying           2.35 245   P         Pn       14 06 10.0 +1.5
TWK                                eS         Sn       14 06 39.1 +2.4
CHN1  Nanshi             2.35 243   P         Pn       14 06 10.2 +1.6
CHN1                               eS         Sb       14 06 40.1 -1.3
SLGT  Liugui             2.36 237   P         Pn       14 06 10.3 +1.7
SLGT                               eS         Sb       14 06 39.5 -1.9
SGST  Jiashian           2.36 240   P         Pn       14 06 09.8 +1.2
SGST                               eS         Sn       14 06 38.7 +1.8
TSMG  Majia              2.53 232  eP         Pn       14 06 13.1 +2.2
TSMG                               eS         Sn       14 06 43.7 +2.6
MASBT Mashibuluo         2.60 230  eP         Pb       14 06 14.8 -2.1
MASBT                              eS         Sb       14 06 46.4 -2.0
SGLT  Jiouru             2.63 234   P         Pn       14 06 15.0 +2.7
SLIU  Shizi              2.76 222  eP         Pn       14 06 16.4 +2.2
SCZT  Fangliau           2.77 227  eP         Pn       14 06 16.2 +2.0
PHUB  P'eng-hu           3.05 256  eP         Pn       14 06 19.1 +1.0
PHUB                               eS         Sn       14 06 54.5 +0.5
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ASRS ***21*** *14:18:24.6±0.5, 48°N±3°×8°6E±°, h10km, MLh3.3/11, Error ellipse: s-maj=7.0km s-min=3.3km az=135.2, confirmed*
SOME ***21*** *14:18:27.4, 48°.78N×85°.63E, h10km*
NNC ***21*** *14:18:28.8±4.3, 48°.14N×86°.17E, h0km, mb3.0, mpv2.8, Error ellipse: s-maj=31.2km s-min=16.5km az=89.0*
ISC 21 14:18:27.4±1.4**, 48°.45N**±0°.05×**86°.48E**±0°.05**, h9**km±15km**, n20, σ1s.36**/37**, 7C-2D, Kazakhstan-Xinjiang border region**

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Code  Station Name        Δ°   AZ°    Phase ID          Time      Res
                                    Op        ISC      h  m  s    ISC
DGZ   Jazzator, Alta     1.40  26   Pg        Pg       14 18 54.5 +0.3
DGZ                                 Sg        Sg       14 19 14.5 +2.1
DGZ                                 AML       AML
ZSN   Zaisan             1.47 228   P         Pn       14 18 53.3 -0.8
        12nm,0.1s
ZSN                                 S         Sb       14 19 12.8 -0.9
        109nm,0.3s
ZSN   Zaisan             1.47 228  eP         Pn       14 18 53.3 -0.8
        12nm,0.1s
ZSN                                eS         Sb       14 19 12.8 -0.9
        109nm,0.3s
CHBI  Chibit, Altay      1.98  19   Pg        Pg       14 19 05.2 -0.1
CHBI                                Sg        Sg       14 19 32.9 +1.9
CHBI                                AML       AML
AKAR  Aktash             2.02  21   Pg        Pg       14 19 06.3 +0.4
AKAR                                Sg        Sg       14 19 34.0 +1.9
AKAR                                AML       AML
CUR   Chagan-Uzun        2.06  36   Pg        Pg       14 19 06.9 +0.1
CUR                                 Sg        Sg       14 19 34.9 +1.5
CUR                                 AML       AML
ULGR  Ulagan, Altay      2.38  23   Pg        Pg       14 19 12.3 -0.6
ULGR                                Sg        Sg       14 19 44.5 +0.7
ULGR                                AML       AML
UKR   Ust'-Kan           2.72 337   Pg        Pg       14 19 17.9 -1.6
UKR                                 Sg        Sg       14 19 53.7 -1.1
UKR                                 AML       AML
ELDR  Elanda             2.78 355   Pg        Pg       14 19 20.1 -0.5
ELDR                                Sg        Sg       14 19 56.3 -0.4
ELDR                                AML       AML
MK31  Makanchi Array     3.28 241   Pn        Pn       14 19 19.2 +0.3
        0.1nm,0.2s,baz=74,slow=14,SNR=48
MK31                                Pg        Pb       14 19 25.6 -0.1
        0.3nm,0.2s,baz=71,slow=17,SNR=18
MK31                               ⇑Sn        Sn       14 19 57.2 -0.8
        0.5nm,0.2s,baz=67,slow=26,SNR=4.2
MK31                               ⇑Lg        Lg       14 20 06.0
        2.9nm,0.3s,baz=62,slow=32,SNR=5.8
ARTR  Artybash           3.39   8   Pg        Pg       14 19 30.7 -1.6
ARTR                                Sg        Sg       14 20 14.9 -1.3
ARTR                                AML       AML
YALR  Yailyu, Altay      3.40  12   Pg        Pg       14 19 30.6 -1.9
YALR                                Sg        Sg       14 20 14.1 -2.4
YALR                                AML       AML
MAKZ  Makanchi           3.46 243   Pg        Pb       14 19 26.9 -1.8
MAKZ                                Sg        Sb       14 20 13.4 +2.6
MAKZ                                AML       AML
TEL   Teeli              3.53  42   Pg        Pg       14 19 33.6 -1.4
TEL                                 Sg        Sg       14 20 20.0 -0.6
TEL                                 AML       AML
SEM   Semipalatinsk      4.51 298   Pg        Pg       14 19 55.0 +1.2
        2.5nm,0.2s
SEM                                 Lg        Lg       14 20 58.4
        12nm,0.3s
SEM   Semipalatinsk      4.51 298  eP         Pn       14 19 36.5 +0.5
        3.3nm,0.2s
SEM                                eS         Sn       14 20 26.8 -1.8
        15nm,0.1s
KURK  Kurchatov          5.59 297  ⇓Pn        Pn       14 19 51.7 +1.1
        0.1nm,0.3s
KURK                               ⇓Sn        Sn       14 20 55.5 +0.6
        0.5nm,0.4s
KURK                               ⇑Lg        Lg       14 21 23.6
        6.0nm,0.6s
KURBB Kurchatov Arra     5.61 296  ⇑Pn        Pn       14 19 51.9 +1.1
        0.2nm,0.3s
KURBB                              ⇑Sn        Sn       14 20 56.9 +1.5
        0.9nm,0.3s
KURBB                              ⇑Lg        Lg       14 21 24.8
        29nm,0.6s
PDGK  Podgornoye         7.07 226  ⇑Lg        Lg       14 22 04.3
        4.9nm,0.8s
SHLS  Shalkode           7.21 225   Pg        Pb       14 20 34.3 +1.6
        1.5nm,0.4s
SHLS                                Lg        Lg       14 22 05.8
        4.9nm,0.9s
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BEO ***21*** *14:18:56.3±1.1, 48°.17N×25°.50E, h0km, ML3.2/2*
IDC ***21*** *14:19:02.0±1.1, 47°.62N×25°.30E, h0km, mb3.2/2, mbtmp3.3/7, ML2.9/4, MS2.7/1, Error ellipse: s-maj=16.9km s-min=11.0km az=111.0*
SIGU ***21*** *14:19:04.0±0.1, 47°.6N±0°.4×25°.2E±0°.6, h10km, mb2.7/6, MD3.0/14*
BUC ***21*** *14:19:04.4±0.1, 47°.60N×25°.17E, h1km, ml3.2/44, Error ellipse: s-maj=1.4km s-min=0.9km az=174.0*
ISC 21 14:19:03.9±0.8**, 47°.61N**±0°.02×**25°.23E**±0°.02**, h10**km±5km**, n82, σ1s.11**/121**, 43C-28D, Romania**

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Code  Station Name        Δ°   AZ°    Phase ID          Time      Res
                                    Op        ISC      h  m  s    ISC
BURAR Bucovina Array     0.01 292  ⇓P         Pg       14 19 05.8  0.0
BURAR                              ⇑S         Sg       14 19 07.7 +0.6
BURAR                               AML       AML
BURAR                               AML       AML
KSV   Kosov              0.71 351  ePn        Pb       14 19 18.7 +0.3
ARCR  ARCALIA            0.80 229  ⇑P         Pg       14 19 18.5 -0.7
ARCR                               ⇓S         Sg       14 19 29.4 -0.2
ARCR                                AML       AML
ARCR                                AML       AML
CHRU  Chernivtsi         0.83  34  ePn        Pb       14 19 19.9 -0.5
CHRU                                pmax      pmax     14 19 20.0
CHRU                               eSn        Sb       14 19 31.8 +0.2
CHRU                                smax      smax     14 19 33.7
RAKU  Rahkiv             0.83 300  ePn        Pb       14 19 20.6 +0.2
BIZ   Bicaz              0.90 138  ⇑S         Sb       14 19 34.6 +1.0
BIZ                                 AML       AML
GIRR  Girov              1.08 127  ⇑P         Pn       14 19 25.5 +0.3
GIRR                               ⇑S         Sn       14 19 41.3 +1.1
GIRR                                AML       AML
GIRR                                AML       AML
DRBR  Darabani           1.10  57  ⇓S         Sn       14 19 41.3 +0.6
DRBR                                AML       AML
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BMR   Baia Mare         1.18 274 ⇓P     Pb     14 19 26.1 -0.2
BMR                              ⇓S     Sb     14 19 42.2 +0.7
BMR                               AML   AML
BMR                               AML   AML
TGMR  Targu Mures       1.19 204 ⇑P     Pg     14 19 26.1 -0.5
TGMR                             ⇓S     Sb     14 19 42.7 +0.9
TGMR                              AML   AML
TGMR                              AML   AML
STNU  Starunia          1.20 336 ePn    Pg     14 19 26.0 -1.0
KMPD  K-Podol'skiy      1.26  40 ePn    Pn     14 19 27.5  0.0
KMPD                             eSn    Sn     14 19 44.7 +0.2
CJR   Cluj-Napoca       1.43 232 ⇓P     Pb     14 19 30.4 -0.2
CJR                              ⇓S     Sn     14 19 50.1 +1.2
CJR                               AML   AML
CJR                               AML   AML
MEZ   Mezhgor'ye        1.46 309 ePn    Pn     14 19 30.2 -0.2
MEZ                               pmax  pmax   14 19 44.1
MEZ                              eSn    Sb     14 19 49.4 -0.5
MEZ                               smax  smax   14 19 57.7
ONER  Baraj Valea Uz    1.50 148 ⇓S     Sg     14 19 54.0 +1.7
ONER                              AML   AML
KORU  Korolevo          1.51 292 ePn    Pn     14 19 30.6 -0.4
KORU                              pmax  pmax   14 19 39.4
KORU                             eSn    Sn     14 19 50.9 +0.1
KORU                              smax  smax   14 20 02.0
OZUR                    1.56 166 ⇓P     Pg     14 19 33.6 -0.3
OZUR                              AML   AML
BOSR  Bodos             1.56 169 ⇓S     Sg     14 19 54.9 +0.8
BOSR                              AML   AML
MDB   Medias            1.58 202 ⇑S     Sg     14 19 54.4 -0.2
MDB                               AML   AML
MESR  Meseseni          1.62 254 ⇑P     Pg     14 19 34.0 -0.9
MESR                             ⇑S     Sg     14 19 55.5 -0.4
MESR                              AML   AML
MESR                              AML   AML
DOPR  Dopca             1.65 176 ⇑P     Pb     14 19 34.0 -0.3
DOPR                             ⇑S     Sg     14 19 57.6 +0.8
DOPR                              AML   AML
DOPR                              AML   AML
BRIU  Brid              1.65 297 ePn    Pn     14 19 33.2 +0.3
BRIU                              pmax  pmax   14 19 45.3
BRIU                             eSn    Sn     14 19 54.5 +0.2
BRIU                              smax  smax   14 20 12.5
MARR  Marisel-Cluj      1.72 238 ⇑P     Pn     14 19 34.4 +0.5
MARR                             ⇓S     Sb     14 19 57.3 +0.1
MARR                              AML   AML
MARR                              AML   AML
NDNU  Novodnistrovsk    1.74  55 ePn    Pn     14 19 34.5 +0.4
NDNU                              pmax  pmax   14 19 37.7
NDNU                             eSn    Sn     14 19 56.8 +0.5
NDNU                              smax  smax   14 19 59.6
HORU  Horodok           1.79  26 ePn    Pn     14 19 35.4 +0.5
HORU                              pmax  pmax   14 19 40.0
HORU                             eSn    Sn     14 19 58.5 +0.8
HORU                              smax  smax   14 20 06.6
BERU  Beregovo          1.85 291 ePn    Pn     14 19 35.8 +0.2
BERU                             eSn    Sn     14 19 59.6 +0.6
COVR  Voineasa-Covas    1.89 159 ⇑P     Pn     14 19 37.3 +1.1
COVR                              AML   AML
DRGR                    1.90 245 ePn    Pn     14 19 37.2 +0.7
DRGR                             eSn    Sg     14 20 04.6 -0.4
DRGR                    1.90 245 ⇓P     Pn     14 19 37.2 +0.7
DRGR                             ⇓S     Sb     14 20 02.0 -0.6
DRGR                              AML   AML
DRGR                              AML   AML
MUKU  Mukachevo         1.90 297 ePn    Pn     14 19 36.6 +0.2
VASR  Vaslui            2.00 118 ⇑P     Pb     14 19 39.3 -1.0
VASR                              AML   AML
PLOR  Plostina          2.01 150 ⇑P     Pb     14 19 39.3 -1.3
PLOR                              AML   AML
VRI   Vrincioaia        2.03 149 ⇑S     Sb     14 20 06.7 +0.6
VRI                               AML   AML
SHIU  Shidnytsya        2.04 323 ePn    Pn     14 19 38.9 +0.6
SHIU                             eSn    Sn     14 20 05.0 +1.2
TNR   Turnu Rosu        2.07 199 ⇑P     Pb     14 19 40.3 -1.2
TNR                              ⇑S     Sb     14 20 06.6 -0.6
TNR                               AML   AML
TNR                               AML   AML
BIR   Birlad            2.12 128 ⇑P     Pb     14 19 42.3 -0.1
BIR                              ⇑S     Sg     14 20 10.4 -1.6
BIR                               AML   AML
BIR                               AML   AML
SAHR  Sahastru          2.13 151 ⇑P     Pb     14 19 41.5 -1.1
SAHR                             ⇓S     Sb     14 20 10.4 +1.1
SAHR                              AML   AML
SAHR                              AML   AML
GHRR                    2.15 135 ⇓P     Pb     14 19 41.6 -1.3
GHRR                             ⇑S     Sb     14 20 10.3 +0.6
GHRR                              AML   AML
GHRR                              AML   AML
SORM  Soroca            2.17  75 ⇑P     Pb     14 19 42.6 -0.5
SORM                             ⇓S     Sb     14 20 10.0  0.0
SORM                              AML   AML
SORM                              AML   AML
MLR   Muntele Rosu      2.18 167 Pn     Pn     14 19 40.0 -0.3
      6.1nm,0.4s,baz=241,slow=10,SNR=14
MLR                              Sn     Sb     14 20 09.7 -0.8
      1.9nm,0.3s,baz=94,slow=6.9,SNR=5.4
MLR                              LR     LR     14 20 50.2
      comp=Z,197nm,21.8s,baz=31,slow=50
MLR   Muntele Rosu      2.18 167 ePn    Pn     14 19 41.7 +1.4
MLR   Muntele Rosu      2.18 167 ⇓P     Pn     14 19 41.4 +1.2
MLR                              ⇑S     Sb     14 20 10.4 -0.1
MLR                               AML   AML
MLR                               AML   AML
VOIR                    2.18 183 ⇑P     Pb     14 19 42.0 -1.4
VOIR                             ⇑S     Sb     14 20 10.2 -0.2
VOIR                              AML   AML
VOIR                              AML   AML
STZU  Stuzhytsa         2.24 310 i Pn   Pn     14 19 41.7 +0.7
ARR   Arges             2.28 191 ⇓P     Pn     14 19 43.1 +1.5
ARR                              ⇓S     Sb     14 20 13.3 -0.2
ARR                               AML   AML
ARR                               AML   AML
BISRR Bisoca            2.30 153 ⇑P     Pb     14 19 43.9 -1.6
BISRR                             AML   AML
NEHR  Nehoiu            2.31 161 ⇑P     Pb     14 19 43.9 -1.6
DEV   Deva              2.36 224 ⇑P     Pn     14 19 44.4 +1.8
DEV                              ⇓S     Sb     14 20 14.2 -1.3
DEV                               AML   AML
DEV                               AML   AML
KOLS  Kolonicke sedl    2.38 305 ePN    Pb     14 19 45.3 -1.5
LOT   Lotru             2.39 206 ⇓S     Sb     14 20 15.9 -0.7
LOT                               AML   AML
VARL  Varlezi           2.48 133 ⇑P     Pb     14 19 46.4 -2.1
VARL                             ⇑S     Sb     14 20 18.6 -0.5
VARL                              AML   AML
VARL                              AML   AML
KIS   Kishinev          2.52 103 ⇓S     Sb     14 20 20.6 +0.4
KIS                               AML   AML
VLDR  Vladesti          2.64 131 ⇑P     Pn     14 19 48.5 +2.0
VLDR                             ⇓S     Sb     14 20 22.4 -1.3
VLDR                              AML   AML
VLDR                              AML   AML
SCTR  Scanteiesti       2.72 134 ⇑P     Pn     14 19 49.5 +2.0
SCTR                             ⇑S     Sb     14 20 24.1 -1.7
SCTR                              AML   AML
SCTR                              AML   AML
GZR   Gura Zlata        2.79 218 ePn    Pn     14 19 49.2 +0.5
GZR                              eSn    Sg     14 20 31.0 -2.5
GZR   Gura Zlata        2.79 218 ⇓P     Pn     14 19 49.1 +0.5
GZR                              ⇑S     Sn     14 20 25.3 +2.9
GZR                               AML   AML
GZR                               AML   AML
SIRR  Siria             2.79 243 ePn    Pn     14 19 49.7 +1.1
SIRR  Siria             2.79 243 ⇑P     Pn     14 19 49.8 +1.1
SIRR                             ⇑S     Sn     14 20 25.2 +2.8
SIRR                              AML   AML
SIRR                              AML   AML
SURR  Surduc            2.83 230 ⇑P     Pn     14 19 49.4 +0.3
SURR                             ⇑S     Sn     14 20 25.4 +2.0
CFR   Carcaliu          3.16 139 ⇓P     Pn     14 19 55.1 +1.5
BZS   Buzias            3.19 233 ePn    Pn     14 19 54.0 -0.1
BZS   Buzias            3.19 233 ⇑P     Pn     14 19 54.0 -0.1
BZS                               AML   AML
STHS  Stebnicka Huta    3.21 306 ePN    Pn     14 19 53.5 -0.8
KECS  Kecovo            3.30 287 ePN    Pn     14 19 56.7 +1.1
TLCR                    3.47 133 ⇑P     Pn     14 19 58.8 +0.9
TLCR                              AML   AML
TPGR  Topolog           3.53 140 ⇑S     Sn     14 20 44.4 +3.7
PSZ   Piszkesteto       3.61 277 ⇓P     Pn     14 20 00.6 +0.7
PSZ                              ⇓S     Sn     14 20 44.5 +1.8
VRSS  Vrsac             3.67 229 ePn    Pn     14 20 00.4 -0.3
MDVR  Moldovita         3.74 222 ePn    Pn     14 20 01.7  0.0
MDVR  Moldovita         3.74 222 ⇑P     Pn     14 20 01.9 +0.2
AKASG Malin Array Be    4.05  39  Pn    Pn     14 20 05.2 -0.7
      2.4nm,0.3s,baz=216,slow=13,SNR=8.7
AKASG                             Pg    Pb     14 20 16.9 +1.6
      8.7nm,0.3s,baz=223,slow=17,SNR=10
AKASG                             Sn    Sn     14 20 53.0 -0.5
      9.9nm,0.3s,baz=228,slow=23,SNR=7.9
AKASG                             Lg    Lg     14 21 08.6
      28nm,0.3s,baz=222,slow=27,SNR=19
      0.5nm,0.2s
AKASG                             AML   AML
LANS  Liptovska Anna    4.14 294 ePN    Pn     14 20 10.6 +3.5
ZAGS  Zajecar           4.34 210 ePn    Pn     14 20 09.9  0.0
VYHS  Vyhne             4.38 284 ePN    Pn     14 20 11.0 +0.6
ZAPS  Zavoj             4.71 204 ePn    Pn     14 20 15.2 +0.2
TRUS  Trudelj           4.78 227 ePn    Pn     14 20 16.2 +0.3
NACGM Naroch            7.37   7 eP     Pn     14 20 50.2 -1.2
      comp=Z,9.0nm,0.6s,baz=188
GERES GERESS Array B    7.80 283  Pn    Pn     14 20 58.1 +0.7
      baz=108,slow=14,SNR=4.6
      comp=Z,0.5nm,0.2s
BRTR  Keskin Array B    9.96 139  Pn    Pn     14 21 26.5 -0.5
      comp=Z,0.2nm,0.3s,baz=328,slow=13,SNR=2.2
      comp=Z,0.8nm,0.8s
BRTR                              AML   AML
FINES FINESS Array B   13.87   2  Pn    Pn     14 22 15.0 -5.3
      comp=Z,0.2nm,0.3s,baz=185,slow=12,SNR=6.1
      comp=Z,1.5nm,0.7s
FINES                             AML   AML
ARCES ARCESS Array B   21.99   0  P     P      14 23 57.0 -0.7
      comp=Z,1.4nm,0.8s,baz=183,slow=12,SNR=5.7
      comp=Z,1.4nm,0.8s
ESDC  Sonseca Array    22.47 260  P     P      14 24 03.5 +0.4
      comp=Z,0.2nm,0.3s,baz=61,slow=11,SNR=4.1
      comp=Z,0.2nm,0.3s
```

ASRS ***21*** *14:28:52.7±0.5, 48°N±3°×8°6E±°, h10^{km}, MLh3.2/9, Error ellipse: s-maj=8.6km s-min=3.4km az=130.6, confirmed*

SOME ***21*** *14:28:57.1, 48°.35N×86°.00E, h20^{km}*

NNC ***21*** *14:28:59.2±3.0, 47°.90N×86°.09E, h0^{km}, mb3.3, mpv3.1, Error ellipse: s-maj=20.3km s-min=11.8km az=85.0*

ISC 21 14:28:55.3±1.8**, 48°.41N**±0°.04×**86°.35E**±0°.06**, h7**^{km}±15^{km}**, n20,** σ**2**^{s}**.87**/37**, 5C-2D, Kazakhstan-Xinjiang border region**

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Code  Station Name       Δ°  AZ°   Phase ID        Time     Res
                                   Op    ISC      h  m  s   ISC
ZSN   Zaisan            1.38 227  P     Pn     14 29 20.4 -0.7
      6.9nm,0.2s
ZSN                               S     Sb     14 29 39.0 -0.3
      86nm,0.2s
ZSN   Zaisan            1.38 227 eP     Pn     14 29 18.4 -2.6
      11nm,0.1s
ZSN                              eS     Sb     14 29 34.9 -4.5
      143nm,0.3s
DGZ   Jazzator, Alta    1.48  28  Pg    Pn     14 29 21.2 -1.3
DGZ                               Sg    Sn     14 29 41.6 -0.6
DGZ                               AML   AML
CHBI  Chibit, Altay     2.05  21  Pg    Pb     14 29 32.8 -0.2
CHBI                              Sg    Sb     14 29 59.4 +0.7
CHBI                              AML   AML
AKAR  Aktash            2.09  23  Pg    Pb     14 29 33.2 -0.4
AKAR                              Sg    Sb     14 30 00.7 +0.9
AKAR                              AML   AML
ULGR  Ulagan, Altay     2.46  25  Pg    Pb     14 29 39.2 -0.6
ULGR                              Sg    Sb     14 30 10.8 +0.5
ULGR                              AML   AML
UKR   Ust'-Kan          2.73 339  Pn    Pn     14 29 41.0 +1.3
UKR                               Pg    Pb     14 29 45.8 +1.2
UKR                               Sg    Sg     14 30 22.9 -0.1
UKR                               AML   AML
ELDR  Elanda            2.82 357  Pn    Pn     14 29 42.5 +1.8
ELDR                              Pg    Pb     14 29 46.3 +0.3
ELDR                              Sg    Sb     14 30 22.9 +2.3
ELDR                              AML   AML
MK31  Makanchi Array    3.19 241  Pn    Pn     14 29 46.8 +1.0
      0.3nm,0.3s,baz=68,slow=14,SNR=51
MK31                             ⇓Pg    Pb     14 29 53.1 +0.8
      1.2nm,0.3s,baz=68,slow=15,SNR=12
MK31                              Lg    Lg     14 30 31.7
      1.3nm,0.2s,baz=65,slow=28,SNR=7.6
MAKZ  Makanchi          3.36 243  Pg    Pb     14 29 55.7 +0.5
MAKZ                              Sg    Sg     14 30 39.9 -3.4
MAKZ                              AML   AML
ARTR  Artybash          3.45  10  Pg    Pb     14 29 57.0 +0.4
ARTR                              Sg    Sg     14 30 42.7 -3.3
ARTR                              AML   AML
YALR  Yailyu, Altay     3.46  13  Pg    Pb     14 29 57.6 +0.7
YALR                              Sg    Sb     14 30 40.5 +1.3
TEL   Teeli             3.62  42  Pg    Pb     14 30 00.9 +1.2
TEL                               Sg    Sb     14 30 46.8 +3.1
TEL                               AML   AML
SEM   Semipalatinsk     4.46 299  Pg    Pg     14 30 22.2 +1.5
      1.7nm,0.2s
SEM                               Lg    Lg     14 31 24.9
      29nm,0.3s
SEM   Semipalatinsk     4.46 299 eP     Pb     14 30 14.5 +0.5
      2.6nm,0.1s
SEM                              eS     Sb     14 31 10.2 +2.2
      18nm,0.2s
KURK  Kurchatov         5.53 298 ⇓Sn    Sb     14 31 30.9 -7.8
      0.2nm,0.4s
KURK                             ⇑Lg    Lg     14 31 54.9
      10nm,0.8s
KURBB Kurchatov Arra    5.55 296 ⇑Sn    Sb     14 31 31.7 -7.6
      1.6nm,0.4s
KURBB                            ⇑Lg    Lg     14 31 56.6
      25nm,0.5s
PDGK  Podgornoye        6.98 226 ⇑Pg    Pb     14 30 58.1 +1.2
      0.7nm,0.5s
PDGK                             ⇑Lg    Lg     14 32 28.6
      2.4nm,0.6s
SHLS  Shalkode          7.12 225  Pg    Pb     14 30 59.9 +0.6
      2.6nm,0.2s
SHLS                              Lg    Lg     14 32 29.6
      2.6nm,0.6s
SHLS  Shalkode          7.12 225 eP     Pb     14 31 01.8 +2.5
      2.7nm,0.2s
SHLS                             eS     Sb     14 32 32.1 +7.6
      2.9nm,0.2s
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NEIC ***21*** *14:59:54.3±1.9, 4°.47N±0°.06×78°.42W±0°.04, h10^{km}±1^{km}, mb4.7/132, Error ellipse: s-maj=11.7km s-min=4.8km az=212.0*

RSNC ***21*** *14:59:54.1±0.0, 5°N±2°×7°9W±°, h29^{km}±7^{km}, M4.2, mB5.8, mb5.0, ML3.6, Mw(mB)5.3*

GFZ ***21*** *14:59:54.9±0.2, 5°N±3°×7°9W±°, h10^{km}, M4.7/19, mb4.7/19, confirmed*

CATAC ***21*** *14:59:57.6±0.7, 5°N±1°×7°9W±°, h36^{km}±12^{km}, M4.5/14, mb4.7/7, mB5.0/6, MLv4.6/14, Mw(mB)4.2/6, Error ellipse: s-maj=3.9km s-min=2.5km az=80.1, confirmed*

IDC ***21*** *14:59:59.1±1.8, 4°.50N×78°.43W, h54^{km}±16^{km}, mb4.0/18, mbtmp4.3/22, ML3.5/5, MS3.9/12, Error ellipse: s-maj=15.7km s-min=11.1km az=39.0*

ISC 21 14:59:57.5±0.3**, 4°.56N**±0°.03×**78°.44W**±0°.05**, h35**^{km}±3^{km}**, n232,** σ**1**^{s}**.71**/214**, mb4.6**/81**, MS3.9**/8**, South of Panama**

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Code  Station Name       Δ°  AZ°   Phase ID        Time     Res
                                   Op    ISC      h  m  s   ISC
PIZC  Pizarro, Choco    1.15  69  P     Pn     15 00 13.7 -3.4
PIZC                              S     Sn     15 00 27.7 -3.9
SOLC  Bahia Solano      1.95  32  P     Pn     15 00 19.0 -9.1
SOLC                              S     Sn     15 00 43.5 -7.9
POPC  Popayan, Colom    2.67 139  P     Pn     15 00 35.1 -3.1
POPC                              S     Sn     15 01 04.8 -4.6
CBOC  Ciudad Bolivar    2.75  62  P     Pn     15 00 35.9 -3.3
CBOC                              S     Sn     15 01 05.9 -5.3
ARMEC Armenia, Quind    2.77  90  P     Pn     15 00 38.1 -1.5
ARMEC                             S     Sn     15 01 09.7 -2.2
BBAC  Balboa, Cauca     2.78 155  P     Pn     15 00 36.1 -3.7
BBAC                              S     Sn     15 01 06.1 -6.2
GUY2C Guyana, Caldas    3.13  78  P     Pn     15 00 43.0 -1.8
GUY2C                             S     Sn     15 01 19.2 -2.1
ORTC  Ortega, Tolima    3.25 101  P     Pn     15 00 45.5 -0.5
ORTC                              S     Sn     15 01 23.4 -0.1
CRUC  La Cruz           3.32 153  P     Pn     15 00 46.2 -1.1
CRUC                              S     Sn     15 01 24.7 -1.0
HELC  Santa Helena      3.32  61  P     Pn     15 00 45.1 -2.2
HELC                              S     Sn     15 01 23.0 -2.8
BETC  Betania           3.52 122  P     Pn     15 00 50.4 +0.6
BETC                              S     Sn     15 01 30.6 +0.3
PRAC  Prado             3.64 103  P     Pn     15 00 50.8 -0.6
PRAC                              S     Sn     15 01 30.5 -2.7
PRAC  Prado             3.64 103  P     Pn     15 00 51.4  0.0
PRAC                              S     Sn     15 01 36.7 +3.5
CACAO El Cacao, Vera    3.67 319  P     Pn     15 00 46.7 -5.1
NORC  Norcasia          3.69  74  P     Pn     15 00 51.6 -0.6
NORC                              S     Sn     15 01 32.8 -1.7
AZU   Azuero            3.70 331  P     Pn     15 00 48.3 -3.8
GARC  Garzon, Huila     3.77 129  P     Pn     15 00 52.8 -0.5
APAC  Apartado, Choc    3.80  29  P     Pn     15 00 52.8 -0.8
APAC                              S     Sn     15 01 37.9 +0.8
ROSC  El Rosal          4.12  86  P     Pn     15 00 59.6 +1.3
      68nm,0.3s,baz=330,slow=4.7,SNR=42
ROSC                              S     Sn     15 01 48.2 +2.8
      118nm,0.6s,baz=36,slow=23,SNR=8.2
ROSC                              LR    LR     15 03 05.9
      comp=Z,2µm,21.5s,baz=274,slow=46
      169nm,0.4s
ROSC                              AML   AML
ROSC  El Rosal          4.12  86        Pn     15 00 58.2  0.0
ROSC  El Rosal          4.12  86  P     Pn     15 00 59.8 +1.5
CUSE  Cuicocha Este     4.22 179  P     Pn     15 00 57.7 -2.1
IMBA  Imbabura, San     4.26 177  P     Pn     15 01 01.7 +1.4
IMBA                              S     Sn     15 01 50.0 +1.0
PAC1  Pacto, Paraso     4.28 185  P     Pn     15 00 56.7 -3.5
OTAV  Otavalo           4.29 180        Pn     15 00 57.5 -3.2
OTAV  Otavalo           4.29 180  P     Pn     15 00 57.5 -3.2
OTAV  Otavalo           4.29 180  P     Pn     15 00 57.6 -3.1
UREC  San Jos de Ur     4.29  42  P     Pn     15 00 59.7 -0.7
UREC                              S     Sn     15 01 48.1 -1.2
CVER  Cruz Verde, Cu    4.35  90  P     Pn     15 01 02.0 +0.4
PTBC  PUERTO BERRIO,    4.43  63  P     Pn     15 01 01.2 -1.0
SPBC  San Pablo de B    4.49  76  P     Pn     15 01 02.6 -0.5
PULU  Pululahua         4.50 181  P     Pn     15 01 02.7 -0.9
PULU                              S     Sn     15 01 57.0 +2.1
CHIC  Chingaza          4.69  89  P     Pn     15 01 06.8 +0.6
GGPC  Guagua Pichinc    4.71 182  P     Pn     15 01 06.6 +0.1
GGPC                              S     Sn     15 02 02.6 +2.4
LCBC  Los crdobas,      4.74  26  P     Pn     15 01 07.4 +0.9
VILC  Villavicencio,    4.75  95  P     Pn     15 01 07.8 +1.0
BCIP  Isla Barro Col    4.79 343  P     Pn     15 01 05.7 -1.4
BCIP  Isla Barro Col    4.79 343  P     Pn     15 01 07.5 +0.3
BCIP                              S     Sn     15 02 00.0 -1.4
ANTS  Antisana-Sarah    5.03 177  P     Pn     15 01 12.3 +1.4
FLF1  Flavio Alfaro-    5.08 196  P     Pn     15 01 08.5 -2.7
MACC  Macarena, Meta    5.17 117  P     Pn     15 01 11.8 -0.6
      2µm190nm,0.8s
MACC                              AML   AML
SLOR  San Lorenzo -     5.25 181        Pn     15 01 12.5 -1.4
SLOR  San Lorenzo -     5.25 181  P     Pn     15 01 14.8 +0.9
SLOR                              S     Sn     15 02 15.3 +1.8
BRJC  Barrancabermej    5.25  63  P     Pn     15 01 13.1 -0.4
RUSC  La Rusia          5.50  76  P     Pn     15 01 17.6 +0.3
RUSC  La Rusia          5.50  76  P     Pn     15 01 17.8 +0.4
RUSC                              S     Sn     15 02 21.5 +1.9
BARC  Barichara         5.61  69  P     Pn     15 01 18.5 -0.2
PTLC  Puerto Leguiza    5.67 140  P     Pn     15 01 22.3 +2.9
CDITO Canoas            5.94 312  P     Pn     15 01 22.2 -0.8
CDITO                             S     Sn     15 02 29.5 -0.4
BRU2  Volcan            5.96 315        Pn     15 01 23.0 -0.5
CHSH  Refugio Sur-Vo    6.02 184  P     Pn     15 01 26.5 +1.8
CHSH                              S     Sn     15 02 34.0 +1.3
GUVC  San Jose del G    6.13 109  P     Pn     15 01 25.0 -0.7
      24µm69nm,0.6s
GUVC                              AML   AML
PIRO  Carate, Puerto    6.19 308        Pn     15 01 26.3 -0.1
PIRO  Carate, Puerto    6.19 308  P     Pn     15 01 24.7 -1.7
PIRO                              S     Sn     15 02 33.3 -2.7
SJCC  San Jacinto, C    6.21  31  P     Pn     15 01 25.9 -0.9
SJCC  San Jacinto, C    6.21  31  P     Pn     15 01 27.9 +1.1
SJCC                              S     Sn     15 02 36.1 -0.6
OCAC  Ocana             6.27  54  P     Pn     15 01 27.4 -0.2
PAMC  Pamplona, Colo    6.34  64  P     Pn     15 01 28.5 -0.5
JTS   Las Juntas de     8.61 312  P     Pn     15 02 01.9 +2.2
      0.8nm,0.3s,baz=109,slow=10,SNR=9.6
JTS                               LR    LR     15 04 58.4
      comp=Z,902nm,21.9s,baz=121,slow=35
      10.0nm,0.7s
JTS                               AML   AML
JTS   Las Juntas de     8.61 312  P     Pn     15 01 58.7 -1.0
      comp=Z,20nm,0.9s
SDV   Santo Domingo     8.87  61  P     Pn     15 02 03.7 +0.3
      comp=Z,6.5nm,0.3s,baz=231,slow=11,SNR=24
SDV                               S     Sn     15 03 39.8 -2.4
      comp=Z,20nm,0.4s,baz=5.3,slow=21,SNR=5.7
SDV                               LR    LR     15 05 56.8
      comp=Z,658nm,21.2s,baz=240,slow=40
      comp=Z,31nm,0.5s
SDV                               AML   AML
SDV   Santo Domingo     8.87  61        Pn     15 02 02.8 -0.5
SDV   Santo Domingo     8.87  61  P     Pn     15 02 02.1 -1.3
      comp=Z,292nm,0.7s
SDV   Santo Domingo     8.87  61  P     Pn     15 02 03.0 -0.3
      comp=Z,294nm,0.7s
URI   Uribia            9.54  42  P     Pn     15 02 12.1 -0.4
URIC  Uribia, Colomb    9.54  42  P     Pn     15 02 08.2 -4.3
ATAH  Atahualpa        11.61 180  P     Pn     15 02 41.7 +0.5
      comp=Z,1.4nm,0.3s,baz=7.9,slow=13,SNR=4.2
ATAH                              LR    LR     15 07 37.0
      comp=Z,362nm,18.1s,baz=349,slow=40
      comp=Z,5.1nm,0.4s
ATAH                              AML   AML
MTDJ  Mount Denham     13.62   4  P     Pn     15 03 09.7 +1.4
      comp=Z,15nm,0.7s
MTO3  Montecristo      14.54 313  P     P      15 03 29.0 +1.8
CHIV  Chivirico        15.46   7  P     P      15 03 38.5 +1.4
APG   El Apazote       15.74 312  P     Pn     15 03 38.1 +1.2
      baz=149,slow=11,SNR=5.6
NNA   Nana             16.51 174  P     P      15 03 49.9 +1.0
      comp=Z,13nm,0.3s,baz=353,slow=9.6,SNR=5.9
NNA   Nana             16.51 174  Pn    Pn     15 03 44.4 -2.1
NNA                               IAmb  IAmb   15 03 58.7
      comp=Z,75nm,0.9s
DR12  Loma Pena Alta   16.68  31        Pn     15 03 48.1 -0.6
CRPR  Cabo Rojo, PR    17.37  39        Pn     15 03 57.5 +0.3
CELP  Cerrillos        17.75  40        P      15 04 03.2 +0.6
AOPR  Arecibo Observ   17.84  39        Pn     15 04 02.6 -0.6
AOPR                              IAmb  IAmb   15 04 07.4
      comp=Z,31nm,0.7s
BOAV  Boa Vista        18.01  96  Pn    Pn     15 04 01.8 -3.5
SJG   San Juan         18.06  41  P     P      15 04 06.7 +0.8
      comp=Z,23nm,1.2s
ECPR  Experimental S   18.07  40  P     P      15 04 07.2 +1.2
HUMP  Col San Antoni   18.27  41        Pn     15 04 08.9 +0.6
TEIG  Tepich           18.29 329  P     Pn     15 04 09.4 +0.9
MACA  Manacapuru-AM    19.33 113        P      15 04 18.3 -1.6
MACA                              IAmb  IAmb   15 04 21.0
      comp=Z,46nm,0.9s
GDHS  Morne Mazeau,    20.09  53  P     P      15 04 28.8 +0.5
      comp=Z,92nm,1.2s
CBE   Ff, Capester     20.11  54  P     P      15 04 28.6 +0.2
CBE   Ff, Capester     20.11  54  P     Pn     15 04 31.2 +0.8
      comp=Z,120nm,1.5s
SMRT  St. Maarten      20.14  47  P     P      15 04 28.6 -0.2
SMRT                              IAmb  IAmb   15 04 34.5
      comp=Z,46nm,1.4s
SMRT  St. Maarten      20.14  47  P     P      15 04 28.8  0.0
      comp=Z,27nm,1.9s
CMIG  Matias Romero    20.37 309  P     Pn     15 04 32.2 -1.3
      comp=Z,4.2nm,0.8s,baz=107,slow=9.7,SNR=4.7
CMIG                              LR    LR     15 12 09.0
      comp=Z,265nm,19.8s,baz=140,slow=36
      comp=Z,4.2nm,0.8s
GDSD  La Dsirade Is    20.67  54        P      15 04 35.0 +0.4
GDSD                              IAmb  IAmb   15 04 36.2
      comp=Z,51nm,1.0s
GDSD  La Dsirade Is    20.67  54  P     P      15 04 35.1 +0.5
      comp=Z,53nm,1.2s
LPAZ  La Paz           23.08 154  P     P      15 04 60.0 -0.9
      comp=Z,6.9nm,0.8s,baz=335,slow=11,SNR=29
LPAZ                              LR    LR     15 14 34.7
      comp=Z,264nm,20.7s,baz=320,slow=38
      comp=Z,6.9nm,0.8s
LPAZ  La Paz           23.08 154        P      15 04 59.2 -1.7
PB12  IPOC Station P   24.37 161        P      15 05 11.8 -0.8
PB12                              IAmb  IAmb   15 05 20.7
      comp=Z,33nm,1.1s
```

PB12	IPOC Station P	24.37	161	P	P	15 05 12.8	+0.2
	comp=Z,34nm,1.5s						
PB16	IPOC Station P	24.39	159		P	15 05 11.9	-1.4
PB16				IAmb	IAmb	15 05 17.1	
	comp=Z,12nm,0.9s						
PB16	IPOC Station P	24.39	159	P	P	15 05 14.5	+1.2
	comp=Z,14nm,0.9s						
PSGCX	Pisagua	25.36	161	P	P	15 05 23.4	+1.9
	comp=Z,24nm,1.9s						
PB11	IPOC Station P	25.66	161	P	P	15 05 23.2	-1.2
PB11	IPOC Station P	25.66	161	P	P	15 05 25.2	+0.9
	comp=Z,55nm,0.8s						
MDP	Montagnes des	25.71	88	LR	LR	15 15 56.6	
	comp=Z,657nm,19.0s,baz=284,slow=37						
GO01	Chusmiza	25.73	160	P	P	15 05 23.6	-1.8
GO01				IAmb	IAmb	15 05 47.1	
	comp=Z,28nm,1.4s						
SIV	San Ignacio	26.68	140	P	P	15 05 31.9	-1.7
	comp=Z,3.2nm,0.6s,baz=321,slow=10.0,SNR=15						
	comp=Z,3.2nm,0.6s						
CLDB	Colider	27.26	124	P	P	15 05 42.2	+3.5
	comp=Z,12nm,1.0s						
PB07	IPOC Station P	27.43	163	P	P	15 05 39.3	-1.1
PB07				IAmb	IAmb	15 06 00.5	
	comp=Z,25nm,1.2s						
PB03	IPOC Station P	27.77	163	P	P	15 05 46.6	+3.2
	comp=Z,9.5nm,0.8s						
V53A	Saluda	31.23	353	P	P	15 06 15.2	+1.5
CPCT	Cooper Cave	31.25	350	P	P	15 06 15.1	+1.2
CPCT				IAmb	IAmb	15 06 16.1	
	comp=Z,8.6nm,0.7s						
TKL	Tuckaleechee C	31.34	352	P	P	15 06 16.0	+1.3
TKL				IAmb	IAmb	15 06 41.1	
	comp=Z,13nm,1.2s						
AC02	Maricunga	32.48	164	IAmb	IAmb	15 06 37.6	
	comp=Z,14nm,1.1s						
AC02	Maricunga	32.48	164	P	P	15 06 26.5	+1.1
	comp=Z,14nm,1.1s						
S51A	Beattyville	33.26	353	P	P	15 06 32.6	+1.0
S51A				IAmb	IAmb	15 06 40.0	
	comp=Z,13nm,0.9s						
LCAR	Lake Charles	33.48	341	P	P	15 06 33.0	-0.5
LCAR				IAmb	IAmb	15 06 33.2	
	comp=Z,4.7nm,0.8s						
TXAR	Lajitas Array	34.32	319	P	P	15 06 41.4	+0.4
	comp=Z,0.7nm,0.8s,baz=125,slow=8.8,SNR=7.0						
TXAR				PcP	PcP	15 09 15.4	-1.4
	comp=Z,0.3nm,0.7s,baz=172,slow=3.3,SNR=3.5						
TXAR				LR	LR	15 23 33.8	
	comp=Z,242nm,18.6s,baz=289,slow=41						
	comp=Z,0.7nm,0.8s						
T42A	Van Buren	34.34	342		P	15 06 40.2	-0.7
T42A				IAmb	IAmb	15 06 40.8	
	comp=Z,9.2nm,0.7s						
FVM	French Village	35.03	343	P	P	15 06 46.4	-0.4
TPB05	Hovey Rd	35.16	321	P	P	15 06 49.0	+0.7
CCM	Cathedral Cave	35.33	342	P	P	15 06 48.8	-0.7
CCM	Cathedral Cave	35.33	342	P	P	15 06 48.7	-0.7
	comp=Z,24nm,0.7s						
O52A	Adamsville	35.53	356	P	P	15 06 52.2	+1.1
O48B	Farmland	36.06	351	P	P	15 06 55.5	-0.2
BDFB	Brasilia	36.19	124	LR	LR	15 22 43.6	
	comp=Z,397nm,19.2s,baz=311,slow=38						
LPIG	La Paz	36.32	305	LR	LR	15 21 05.6	
	comp=Z,211nm,18.7s,baz=270,slow=35						
CPUP	Villa Florida	36.89	147	LR	LR	15 23 41.8	
	comp=Z,125nm,18.2s,baz=253,slow=39						
MNTX	Cornudas Mount	36.99	320	P	P	15 07 04.2	+0.4
	comp=Z,4.1nm,1.1s						
MT09	Talagante	38.77	170	IAmb	IAmb	15 07 14.3	
	comp=Z,10nm,0.6s						
ALQ	Albuquerque	39.83	323	IAmb	IAmb	15 07 31.3	
	comp=Z,2.1nm,0.8s						
ANMO	Albuquerque	39.83	323	P	P	15 07 28.5	+0.7
TASM	ASL Pad, Albuq	39.83	323	IAmb	IAmb	15 07 29.4	
	comp=Z,2.5nm,0.8s						
SADO	Sadowa	40.06	359	IAmb	IAmb	15 07 31.1	
	comp=Z,16nm,0.9s						
SDCO	Great Sand Dun	41.25	327	P	P	15 07 40.3	+0.7
GGN	Saint George	41.66	12	P	P	15 07 44.0	+1.5
GGN				IAmb	IAmb	15 07 55.1	
	comp=Z,27nm,1.4s						
F64A	Sherman	42.08	11	P	P	15 07 46.9	+1.0
ECSD	EROS Data Cent	42.19	340	IAmb	IAmb	15 07 46.0	
	comp=Z,11nm,0.7s						
ECSD	EROS Data Cent	42.19	340	P	P	15 07 45.6	-1.3
	comp=Z,21nm,0.7s						
K30B	Basset	42.37	337	P	P	15 07 48.2	-0.2
ISCO	Idaho Springs	42.82	329	P	P	15 07 53.3	+0.9
ISCO	Idaho Springs	42.82	329	P	P	15 07 53.9	+1.5
	comp=Z,6.2nm,0.7s						
PV02	Paradox Valley	43.39	325	IAmb	IAmb	15 07 59.2	
	comp=Z,15nm,0.8s						
PV13	Radium Mtn., P	43.41	325	P	P	15 07 58.2	+1.0
PV03	Paradox Valley	43.49	325	IAmb	IAmb	15 07 59.7	
	comp=Z,14nm,0.7s						
PV12	Saucer Basin,	43.51	325	IAmb	IAmb	15 08 00.1	
	comp=Z,12nm,0.8s						
PV05	Paradox Valley	43.52	324	P	P	15 07 58.8	+0.8
PV11	David Mesa, Pa	43.53	325	IAmb	IAmb	15 08 08.5	
	comp=Z,11nm,0.7s						
PV17	East Wray Mesa	43.57	325	IAmb	IAmb	15 08 00.3	
	comp=Z,12nm,0.7s						
PV19	Morning Glory	43.60	325	IAmb	IAmb	15 08 00.6	
	comp=Z,7.8nm,0.8s						
PV04	Paradox Valley	43.62	325	IAmb	IAmb	15 08 23.7	
	comp=Z,13nm,1.4s						
PV22	Blue Mesa, Par	43.65	325	IAmb	IAmb	15 08 00.8	
	comp=Z,9.9nm,0.7s						
PV14	Lion Creek, Pa	43.67	325	IAmb	IAmb	15 08 09.5	
	comp=Z,7.5nm,0.8s						
PV10	Paradox Valley	43.68	325	IAmb	IAmb	15 08 00.7	
	comp=Z,8.6nm,0.7s						
PV21	Cone Mtn., Par	43.77	325	IAmb	IAmb	15 08 09.0	
	comp=Z,5.2nm,0.7s						
BATG	Bathurst New B	43.88	12	P	P	15 08 01.6	+1.1
F33A	5 Mile Ranch,	43.97	342	IAmb	IAmb	15 08 00.1	
	comp=Z,6.2nm,0.7s						
HMU	Henry Mountain	44.40	323	IAmb	IAmb	15 08 15.8	
	comp=Z,8.4nm,0.8s						
O20A	White River Ci	44.45	327	IAmb	IAmb	15 08 07.9	
	comp=Z,6.5nm,0.9s						
SRU	San Rafael Swe	45.03	324	P	P	15 08 10.9	+0.8
P18A	Preston Nutter	45.22	325	IAmb	IAmb	15 08 13.8	
	comp=Z,6.1nm,0.7s						
RSSD	Black Hills	45.39	334	P	P	15 08 13.7	+0.8
RSSD	Black Hills	45.39	334	P	P	15 08 13.6	+0.7
	comp=Z,15nm,0.8s						
P17A	Butcher Ranch,	45.40	324	IAmb	IAmb	15 08 14.3	
	comp=Z,5.5nm,0.8s						
K22A	Casper	45.40	331	IAmb	IAmb	15 08 14.7	
	comp=Z,5.5nm,0.6s						
RDMU	Red Mountain	45.48	326	IAmb	IAmb	15 08 15.1	
	comp=Z,6.9nm,0.7s						
PLCA	Paso Flores	45.64	172	P	P	15 08 14.6	-0.1
	comp=Z,1.2nm,0.6s,baz=334,slow=9.6,SNR=4.8						
	comp=Z,1.2nm,0.6s						
BSUT	Blindstream Ca	46.12	326	P	P	15 08 20.0	+1.0
BSUT				IAmb	IAmb	15 08 20.8	
	comp=Z,5.7nm,0.8s						
PDAR	Pinedale Array	47.01	329	P	P	15 08 26.0	+0.3
	comp=Z,2.4nm,0.5s,baz=127,slow=10,SNR=34						
	comp=Z,2.4nm,0.5s						
PDAR	Pinedale Array	47.01	329	P	P	15 08 25.8	+0.1
HWUT	Hardware Ranch	47.29	326	IAmb	IAmb	15 08 28.6	
	comp=Z,3.9nm,0.8s						
HWUT	Hardware Ranch	47.29	326	P	P	15 08 28.2	+0.3
	comp=Z,7.3nm,0.7s						
ULM	Lac du Bonnet	47.85	345	P	P	15 08 30.4	-1.4
	comp=Z,6.1nm,0.6s,baz=162,slow=9.0,SNR=13						
	comp=Z,6.1nm,0.6s						
HVU	Hansel Valley	48.08	325	IAmb	IAmb	15 08 35.6	
	comp=Z,3.0nm,0.8s						
FXWY	Fox Creek	48.39	328	IAmb	IAmb	15 08 37.4	
	comp=Z,2.8nm,0.7s						
RLMT	Red Lodge	48.57	331	IAmb	IAmb	15 08 38.5	
	comp=Z,4.8nm,0.6s						
YHH	Holmes Hill	49.11	330	IAmb	IAmb	15 08 52.0	
	comp=Z,9.1nm,1.5s						
GCMT	Greycliff	49.25	331	P	P	15 08 43.2	+0.4
YHL	Hebgen Lake	49.32	330	IAmb	IAmb	15 08 46.4	
	comp=Z,5.8nm,0.6s						
NVAR	Mina Array Bea	49.47	319	P	P	15 08 45.8	+1.0
	comp=Z,1.6nm,0.6s,baz=131,slow=7.1,SNR=13						
	comp=Z,1.6nm,0.6s						
BOZ	Bozeman (W)	50.07	330	IAmb	IAmb	15 08 50.0	
	comp=Z,4.2nm,0.7s						
EGMT	Eagleton	50.94	333	P	P	15 08 55.5	+0.1
EGMT				IAmb	IAmb	15 08 58.4	
	comp=Z,7.6nm,1.2s						
SCHQ	Schefferville	51.00	9	P	P	15 08 56.1	+0.4
	comp=Z,5.9nm,0.6s,baz=206,slow=7.5,SNR=8.2						
	comp=Z,5.9nm,0.6s						
SCHQ	Schefferville	51.00	9	P	P	15 08 56.3	+0.5
SCHQ				IAmb	IAmb	15 08 56.7	
	comp=Z,9.9nm,0.9s						
WVOR	Wild Horse Val	51.92	323	P	P	15 09 03.6	+0.6
WVOR				IAmb	IAmb	15 09 17.3	
	comp=Z,6.1nm,1.1s						
WVOR	Wild Horse Val	51.92	323	P	P	15 09 03.5	+0.5
	comp=Z,5.4nm,1.8s						
E09A	Wood Farm, Sta	54.08	327	IAmb	IAmb	15 09 22.1	
	comp=Z,5.5nm,1.1s						
PINE	Pine Mountain	54.08	323	IAmb	IAmb	15 09 23.7	
	comp=Z,6.0nm,1.4s						
YBH	Yreka Blue Hor	54.09	320	LR	LR	15 37 01.9	
	comp=Z,102nm,19.1s,baz=307,slow=41						
J04A	Umpqua Nationa	54.49	322	IAmb	IAmb	15 09 23.9	
	comp=Z,6.5nm,0.6s						
NEW	Newport	54.64	329	IAmb	IAmb	15 09 23.1	
	comp=Z,3.6nm,0.8s						
KRMB	Red Mountain	54.76	319	P	P	15 09 24.0	+0.2
KRMB				IAmb	IAmb	15 09 37.6	
	comp=Z,10nm,1.2s						
K02D	Willamette Mer	55.19	320	P	P	15 09 27.1	+0.2
K02D				IAmb	IAmb	15 09 40.3	
	comp=Z,5.8nm,1.4s						
LTY	Liberty	55.91	326	P	P	15 09 32.6	+0.7
A04D	Lummi Island	57.87	327	IAmb	IAmb	15 09 46.9	
	comp=Z,8.3nm,0.7s						
BBB	Bella Bella	62.65	328	P	P	15 10 19.1	+0.6
YKA	Yellowknife Ar	63.67	342	P	P	15 10 24.1	-0.9
	comp=Z,1.4nm,0.7s,baz=132,slow=7.0,SNR=6.6						
	comp=Z,1.4nm,0.7s						
DIB	Dawson Inlet,	65.47	328	P	P	15 10 37.4	+0.5
MMPY	Sheldon Lake,	69.61	337	P	P	15 11 04.0	+1.0
MMPY				IAmb	IAmb	15 11 05.8	
	comp=Z,2.7nm,0.7s						
SUMG	Summit	72.22	12	P	P	15 11 19.0	-0.1
SUMG				IAmb	IAmb	15 11 44.0	
	comp=Z,11nm,1.3s						
SUMG	Summit	72.22	12	*i* P	P	15 11 19.0	-0.1
K29M	Barlow Dome	72.68	337	P	P	15 11 22.1	+0.5
F30M	Barrier River	73.80	340	P	P	15 11 27.9	-0.1
F30M				IAmb	IAmb	15 11 28.9	
	comp=Z,5.5nm,0.7s						
H29M	Whitestone	74.06	339	P	P	15 11 29.9	+0.4
H29M				IAmb	IAmb	15 11 58.9	
	comp=Z,4.3nm,1.1s						
NEEM	North Greenlan	74.30	6	*i* P	P	15 11 31.2	+0.1
E29M	Blow River	74.87	341	P	P	15 11 34.0	-0.2
ESDC	Sonseca Array	75.16	50	P	P	15 11 36.7	+0.1
	comp=Z,1.9nm,0.6s,baz=257,slow=5.6,SNR=16						
	comp=Z,1.9nm,0.6s						
ESDC	Sonseca Array	75.16	50	P	P	15 11 36.7	+0.1
RIDG	Independent Ri	75.63	335	P	P	15 11 39.4	+0.7
ILAR	Eielson Array	76.81	336	P	P	15 11 44.9	-0.5
	comp=Z,0.9nm,0.7s,baz=111,slow=4.6,SNR=17						
	comp=Z,0.9nm,0.7s						
RND	Reindeer	77.24	334	P	P	15 11 47.9	0.0
RND				IAmb	IAmb	15 12 24.9	
	comp=Z,10nm,1.4s						
I23K	Minto, Yukon-K	77.92	336	P	P	15 11 52.0	+0.5
TORD	Torodi Ar. Bea	79.38	78	P	P	15 11 59.5	-1.2
	comp=Z,0.9nm,0.5s,baz=282,slow=6.0,SNR=7.3						
	comp=Z,0.9nm,0.5s						
J19K	Poorman	80.31	334	P	P	15 12 05.5	+0.9
G18K	Tagagawik	81.86	336	P	P	15 12 13.2	+0.3
G18K				IAmb	IAmb	15 12 46.4	
	comp=Z,10nm,1.4s						
TAM	Tamanrasset	82.69	68	P	P	15 12 19.9	+1.6
	comp=Z,3.0nm,0.4s						
NOA	NORSAR Array B	85.88	29	P	P	15 12 33.6	+0.1
	comp=Z,1.8nm,0.9s,baz=271,slow=5.1,SNR=3.1						
	comp=Z,1.8nm,0.9s						
SALO	Salr	86.05	45	P	P	15 12 34.0	-0.7
SPITS	Spitsbergen Ar	86.56	12	P	P	15 12 36.9	+0.3
	comp=Z,2.2nm,0.5s,baz=224,slow=16,SNR=1.2						
	comp=Z,2.2nm,0.5s						
VNA3	Neumayer Olymp	87.58	162	P	P	15 12 40.7	-0.9
	comp=Z,2.7nm,0.9s						
GERES	GERESS Array B	88.02	41	P	P	15 12 43.9	-0.4
	comp=Z,0.6nm,0.2s,baz=266,slow=4.0,SNR=6.1						
	comp=Z,0.6nm,0.2s						
ARCES	ARCESS Array B	90.61	20	P	P	15 12 55.1	-0.8
	comp=Z,4.6nm,0.7s,baz=298,slow=2.6,SNR=11						
	comp=Z,4.6nm,0.7s						
ARCES	ARCESS Array B	90.61	20	P	P	15 12 55.7	-0.2
TROLL	Troll, Antarti	91.51	162	P	P	15 13 00.1	0.0
	comp=Z,48nm,0.6s						
QSPA	South Pole Qui	94.58	180	P	P	15 13 14.5	+0.1
	comp=Z,1.9nm,1.0s,baz=172,slow=3.3,SNR=4.5						
	comp=Z,1.9nm,1.0s						
QSPA	South Pole Qui	94.58	180	IAmb	IAmb	15 13 16.0	
	comp=Z,8.7nm,1.4s						
KURK	Kurchatov	121.52	17		PKPdf	15 18 47.0	-0.3
KURBB	Kurchatov Arra	121.57	17	PKP	PKPdf	15 18 47.0	-0.5
	comp=Z,0.5nm,0.5s,baz=324,slow=2.1,SNR=2.8						
MKAR	Makanchi Array	126.10	16	PKP	PKPdf	15 18 55.5	-0.9
	comp=Z,0.2nm,0.5s,baz=8.3,slow=3.2,SNR=2.3						
SONM	Songino Array	127.66	356	PKP	PKPdf	15 18 59.0	-0.5
	comp=Z,0.4nm,0.4s,baz=349,slow=1.5,SNR=4.8						
KSRS	Korea Array	131.53	332	PKP	PKPdf	15 19 06.5	-0.4
	comp=Z,0.8nm,0.5s,baz=4.5,slow=2.2,SNR=7.2						
LZH	Lanzhou	139.51	357	*e*P	PKPdf	15 19 15.4	-6.7
NJ2	Nanjing	140.05	337	*e*P	PKPdf	15 19 22.5	-0.4
NJ2				pmax	pmax		
	comp=Z,9.0nm,0.8s						
ASAR	Alice Springs	143.49	236	PKhKP	PKPpre	15 19 25.2	
	comp=Z,1.7nm,0.5s,baz=117,slow=3.3,SNR=60						
WRA	Warramunga Arr	144.61	242	PKP	PKPab	15 19 29.3	-0.6
	comp=Z,4.2nm,0.5s,baz=106,slow=3.1,SNR=110						
CMAR	Chiang Mai Arr	156.99	6	PKPab	PKPab	15 20 19.1	-1.2
	comp=Z,0.7nm,0.6s,baz=339,slow=5.4,SNR=4.6						

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*IDC **21** 15:02:03.5±2.1, 1°.07N×125°.70E, h0^{km}, mb3.3/3, mbtmp3.3/3, Error ellipse: s-maj=174.5km s-min=27.7km az=65.0*

*DJA **21** 15:02:18.1±0.2, 0°S±3°×12°4E±°, h65^{km}±6^{km}, M4.1/18, mb4.1/3, mb4.3/4, MLv4.0/13, MLv4.0/18*

ISC 21 15:02:18.4±1.4, **0°.41S**±0°.09×**123°.87E**±0°.08, **h88**^{km}, **n8**, σ**1^s.15**/7, **mb3.2**/3, **Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MNI	Manado	2.08	28	P	Pn	15 02 51.1	-0.6
MNI				AML	AML		
APSI	Ampana	2.27	257	P	Pn	15 02 53.9	-0.2
APSI				AML	AML		
APSI				AML	AML		
KDI	Kendari	3.74	199	P	Pn	15 03 13.1	-0.8
KDI				AML	AML		
NLAI	Namlea	4.28	131	P	Pn	15 03 20.8	-0.5
NLAI				AML	AML		
MMSI	Mamuju	5.45	245	P	Pn	15 03 36.6	-0.6
	22nm,0.8s						
WRA	Warramunga Arr	21.96	153	P	P	15 07 05.0	-0.1
	0.4nm,0.5s,baz=337,slow=10,SNR=9.0						
	0.4nm,0.5s						
ASAR	Alice Springs	25.09	158	P	P	15 07 37.0	+1.9
	0.9nm,1.0s,baz=351,slow=15,SNR=14						
	0.9nm,1.0s						
MKAR	Makanchi Array	59.41	328	P	P	15 12 06.4	-5.4
	0.2nm,0.4s,baz=122,slow=9.8,SNR=2.2						
	0.2nm,0.4s						

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*IDC **21** 15:15:52.2±1.0, 34°.27N×25°.90E, h0^{km}, mb3.8/8, mbtmp3.7/11, ML3.4/3, Error ellipse: s-maj=22.3km s-min=12.8km az=32.0*

*NEIC **21** 15:15:57.2±1.2, 34°.12N±0°.09×25°.99E±0°.05, h38^{km}±10^{km}, mb4.2/11, Error ellipse: s-maj=12.5km s-min=5.6km az=177.0*

*ATH **21** 15:15:57.8, 34°.26N×26°.00E, h53^{km}±13^{km}, ML3.0/6, Latitude uncertainty: 3 km; Longitude uncertainty: 1 km*

ISC 21 15:15:55.1±1.6, **34°.17N**±0°.06×**25°.97E**±0°.04, **h26**^{km}±11^{km}, **n57**, σ**1^s.63**/60, **mb3.9**/12, **2D**, **Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZKR	Zakros	0.97	12	P	Pb	15 16 12.0	-1.2
ZKR	Zakros	0.97	12	P	Pn	15 16 13.7	+0.7
ZKR				S	Sn	15 16 26.1	+0.2
ZKR				AML	AML		
AGNA	Agios Nikolaos	1.04	349	P	Pb	15 16 15.0	+0.5
AGNA				S	Sn	15 16 27.7	-0.1
AGNA				AML	AML		
NPS	Neapolis	1.13	345	P	Pn	15 16 14.3	-1.0
NPS	Neapolis	1.13	345	P	Pb	15 16 16.4	+0.4
NPS				S	Sn	15 16 30.2	+0.2
SIVA	Sivas	1.28	312	P	Pb	15 16 19.0	+0.4
SIVA	Sivas	1.28	312	P	Pb	15 16 19.2	+0.7
SIVA				S	Sb	15 16 34.7	+0.1
IDI	Anoyia	1.43	322	Pg	Pb	15 16 20.5	-0.6
	2.6nm,0.3s,baz=138,slow=20,SNR=20						
IDI				Lg	Lg	15 16 36.7	
	9.2nm,0.3s,baz=253,slow=14,SNR=10						
IDI	Anoyia	1.43	322	P	Pb	15 16 20.9	-0.2
IDI	Anoyia	1.43	322		Pb	15 16 20.7	-0.5
IDI	Anoyia	1.43	322	P	Pb	15 16 20.8	-0.3
IDI				S	Sb	15 16 38.0	-0.9
IDI				AML	AML		
KARP	Karpathos	1.69	35	P	Pb	15 16 25.8	+0.3
KARP	Karpathos	1.69	35		Pb	15 16 24.8	-0.7
KARP	Karpathos	1.69	35	P	Pb	15 16 24.1	-1.4
KARP				AML	AML		
GVD	Gavdhos	1.69	294	P	Pn	15 16 24.7	+1.7
GVD	Gavdhos	1.69	294	P	Pn	15 16 24.7	+1.7
GVD				AML	AML		
GVDS	Gavdos	1.71	294	P	Pb	15 16 25.5	-0.5
IMMV	Iera Moni Meta	2.08	309	P	Pb	15 16 30.6	-1.7
IMMV	Iera Moni Meta	2.08	309	P	Pn	15 16 29.9	+1.5
IMMV				AML	AML		
THERA	Ancient Thera,	2.23	350	P	Pn	15 16 31.9	+1.5
THERA	Ancient Thera,	2.23	350	P	Pn	15 16 31.3	+0.9
SNT5	Nea Kammeni, S	2.28	348	P	Pb	15 16 33.4	-2.2
VLI	Veliai	3.55	317	P	Pn	15 16 49.7	+1.2
AKAS	Kas	3.62	54	Pn	Pn	15 16 50.2	+0.6
ELL	Elmali	4.12	50		Pn	15 16 58.3	+1.8
DION	Dionisos Attik	4.24	338	P	Pn	15 16 59.7	+1.7
GHAJ	Ghor Haditha	8.57	107	Pn	Pn	15 17 58.8	+1.3
EIL	Elat	8.85	118	Pn	Pn	15 18 00.2	-1.2
	0.8nm,0.3s,baz=203,slow=6.0,SNR=8.2						
EIL				Sn	Sn	15 19 35.5	-4.8
	0.3nm,0.3s,baz=14,slow=17,SNR=1.6						
	2.3nm,0.4s						
EIL				AML	AML		
VAE	Valguarnera	9.95	293	Sn	Sn	15 19 58.9	-8.3
	2.8nm,0.3s,baz=322,slow=8.2,SNR=7.6						
CUC	Castrocucco	9.98	309		Pn	15 18 16.4	-0.4
NRCA	Norcia	13.26	314	Pn	Pn	15 19 03.2	+1.4
GNI	Garni	16.10	63	Pn	Pn	15 19 40.8	+1.0
GNI				IAmb	IAmb	15 20 02.5	
	comp=Z,22nm,1.2s						
AKASG	Malin Array Be	16.70	7	Pn	Pn	15 19 46.5	-0.6
	comp=Z,0.4nm,0.3s,baz=202,slow=11,SNR=1.5						
	comp=Z,0.2nm,0.3s						
AKASG				AML	AML		
AKASG	Malin Array Be	16.70	7	IAmb	IAmb	15 19 52.8	
	comp=Z,1.5nm,0.8s						
GERES	GERESS Array B	17.27	332	P	Pn	15 19 53.5	-0.9
	baz=163,slow=11,SNR=6.9						
	comp=Z,0.6nm,0.4s						
GERES	GERESS Array B	17.27	332	Pn	Pn	15 19 54.8	+0.4
MAHO	Mahon	18.23	295	P	P	15 20 07.5	+1.2
MAHO				IAmb	IAmb	15 20 27.5	
	comp=Z,22nm,0.9s						
DOU	Dourbes	22.34	322	*d*P	P	15 20 51.9	+1.1
BMRD	Maredsous	22.38	322	*d*P	P	15 20 51.6	+0.4
ESDC	Sonseca Array	24.49	292	P	P	15 21 12.5	+0.3
	comp=Z,0.7nm,0.6s,baz=84,slow=10,SNR=6.4						
	comp=Z,0.7nm,0.6s						
FINES	FINESS Array B	27.29	0	P	P	15 21 36.5	-0.8
	comp=Z,2.5nm,0.7s,baz=165,slow=7.9,SNR=6.6						
	comp=Z,2.5nm,0.7s						
NC405	NORSAR Array S	28.49	345	P	P	15 21 48.9	+1.0
NC405				IAmb	IAmb	15 22 28.7	
	comp=Z,21nm,1.3s						
EKA	Eskdalemuir Ar	29.23	325	P	P	15 21 55.3	+0.7
	comp=Z,0.7nm,0.6s,baz=122,slow=9.9,SNR=2.3						
	comp=Z,0.7nm,0.6s						
TORD	Torodi Ar. Bea	30.39	232	P	P	15 22 06.1	+1.0
	comp=Z,0.6nm,0.5s,baz=32,slow=7.7,SNR=4.8						
	comp=Z,0.6nm,0.5s						
TORD	Torodi Ar. Bea	30.39	232	IAmb	IAmb	15 22 46.7	
	comp=Z,4.2nm,0.8s						
BVAR	Borovoye Array	36.56	45	P	P	15 22 59.5	+1.0
	comp=Z,1.1nm,0.7s,baz=282,slow=7.4,SNR=4.6						
	comp=Z,1.1nm,0.7s						
KURBB	Kurchatov Arra	41.23	50	P	P	15 23 38.8	+1.1
	comp=Z,1.0nm,0.8s,baz=276,slow=8.9,SNR=5.6						
	comp=Z,1.0nm,0.8s						
KURK	Kurchatov	41.30	50	P	P	15 23 38.8	+0.6
KURK	Kurchatov	41.30	50	IAmb	IAmb	15 23 40.6	
	comp=Z,1.5nm,0.8s						
MKAR	Makanchi Array	43.77	56	P	P	15 23 59.9	+1.4
	comp=Z,0.5nm,0.7s,baz=270,slow=7.3,SNR=5.3						
	comp=Z,0.5nm,0.7s						
MKAR	Makanchi Array	43.77	56	P	P	15 23 58.5	+0.1
ZALV	Zalesovo Beam	45.22	45	P	P	15 24 09.9	+0.1
	comp=Z,0.9nm,0.4s,baz=262,slow=8.3,SNR=4.5						
	comp=Z,0.9nm,0.4s						
H29M	Whitestone	79.21	354	P	P	15 27 58.1	+0.7
J30M	Hart River	80.60	352	P	P	15 28 06.0	+0.9
J30M				IAmb	IAmb	15 28 41.8	
	comp=Z,3.6nm,1.3s						
WRH	Wood River Hil	81.58	357	P	P	15 28 10.8	+0.6
WRH				IAmb	IAmb	15 28 14.8	
	comp=Z,3.0nm,1.3s						
BCAR	Beaver Creek A	82.61	354	P	P	15 28 16.8	+1.1
PPLA	Purkeypile	83.26	359	P	P	15 28 19.6	+0.4

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*IDC **21** 15:23:52.3±0.7, 14°.04N×145°.28E, h109^{km}±5^{km}, mb3.5/16, mbtmp3.8/16, Error ellipse: s-maj=23.0km s-min=13.3km az=95.0*

*NEIC **21** 15:23:53.6±1.0, 13°.99N±0°.08×145°.2E±0°.1, h113^{km}±3^{km}, mb4.5/34, Error ellipse: s-maj=16.3km s-min=9.7km az=116.0*

ISC 21 15:23:53.8±0.5, **13°.94N**±0°.07×**145°.2E**±0°.1, **h125**^{km}, **n56**, σ**0^s.76**/60, **mb4.3**/33, **Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	0.47	221	P	Pn	15 24 11.3	-0.9
	2µm,0.3s,baz=135,slow=2.9,SNR=628						
GUMO				S	Sn	15 24 24.2	-1.7
	4µm,0.3s,baz=183,slow=24,SNR=27						
GUMO	Guam	0.47	221		Pn	15 24 10.9	-1.2
GUMO					Sn	15 24 23.6	-2.3
DPSS	Saipan	1.42	24		Pn	15 24 19.6	-1.0
PATS	Pohnpei	14.71	117	Pn	Pn	15 27 15.1	-0.7
RABL	Rabaul	19.30	158	P	P	15 28 09.8	+0.6
RABL				IAmb	IAmb	15 28 19.2	
	comp=Z,22nm,0.9s						
INU	Inuyama	22.55	342	P	P	15 28 44.0	+0.5
INU				IAmb	IAmb	15 28 45.7	
	comp=Z,14nm,0.9s						
JGF	Kuroka	22.69	343		P	15 28 45.1	+0.2
MJAR	Matsushiro Arr	23.36	346	P	P	15 28 50.6	-0.5
	comp=Z,4.3nm,0.9s,baz=180,slow=12,SNR=11						
	comp=Z,4.3nm,0.9s						
MJAR	Matsushiro Arr	23.36	346		P	15 28 51.4	+0.2
MAJO	Matsushiro	23.36	346		P	15 28 51.1	0.0
MJB9	Matsu-Tunnel	23.36	346	P	P	15 28 51.1	0.0
MJB9				IAmb	IAmb	15 28 52.3	
	comp=Z,9.6nm,0.8s						
KSRS	Korea Array	28.01	330	P	P	15 29 33.4	+0.3
	comp=Z,1.1nm,0.6s,baz=147,slow=9.2,SNR=5.5						
	comp=Z,1.1nm,0.6s						
USRK	Ussuriysk Ar.	32.20	342	P	P	15 30 09.7	-0.2
	comp=Z,3.1nm,0.7s,baz=172,slow=8.6,SNR=10						
	comp=Z,3.1nm,0.7s						
WR8	Warramunga Arr	35.29	198	P	P	15 30 37.6	+0.7
WR8				IAmb	IAmb	15 30 58.4	
	comp=Z,8.2nm,1.3s						
WRA	Warramunga Arr	35.32	198	P	P	15 30 37.9	+0.7
	comp=Z,0.3nm,0.8s,baz=13,slow=8.8,SNR=6.1						
WRA				PcP	PcP	15 33 06.2	+1.2
	comp=Z,0.7nm,0.9s,baz=18,slow=3.2,SNR=4.6						
	comp=Z,0.3nm,0.8s						
WRA	Warramunga Arr	35.32	198	P	P	15 30 36.6	-0.6
KLR	Kul'dur	36.88	345	P	P	15 30 49.7	-0.4
	comp=Z,0.5nm,0.3s,baz=170,slow=11,SNR=2.6						
	comp=Z,0.5nm,0.3s						
FITZ	Fitzroy Crossi	37.22	212	P	P	15 30 54.3	+1.0

	comp=Z,2.3nm,1.1s,baz=16,slow=9.1,SNR=1.7						
	comp=Z,2.3nm,1.1s						
FITZ	Fitzroy Crossi	37.22	212	P	P	15 30 54.1	+0.8
ASAR	Alice Springs	38.97	197	P	P	15 31 08.7	+0.7
	comp=Z,0.2nm,0.7s,baz=20,slow=13,SNR=6.0						
	comp=Z,0.2nm,0.7s						
HEH	HeiHe	39.01	342	eP	P	15 31 08.0	+0.1
HEH				pmax	pmax		
	comp=Z,14nm,1.0s						
PEA0B	Petropavlovsk-	40.32	12	P	P	15 31 18.1	-0.6
PETK	Petropavlovsk-	40.32	12	P	P	15 31 17.8	-1.0
	comp=Z,1.2nm,0.6s,baz=188,slow=5.4,SNR=7.7						
PETK				PcP	PcP	15 33 19.3	-0.5
	comp=Z,0.7nm,0.7s,baz=270,slow=0.9,SNR=2.1						
	comp=Z,1.2nm,0.6s						
PETK	Petropavlovsk-	40.32	12	P	P	15 31 18.2	-0.6
CMAR	Chiang Mai Arr	44.54	282	P	P	15 31 54.1	+0.6
	comp=Z,0.4nm,0.5s,baz=88,slow=7.9,SNR=5.6						
CMAR				PcP	PcP	15 33 35.9	+1.2
	comp=Z,0.5nm,0.4s,baz=78,slow=1.9,SNR=6.1						
	comp=Z,0.4nm,0.5s						
AMKA	Amchitka	46.34	29	P	P	15 32 07.8	+0.6
SONM	Songino Array	46.62	325	P	P	15 32 09.3	-0.3
	comp=Z,0.4nm,0.5s,baz=118,slow=5.2,SNR=1.7						
	comp=Z,0.4nm,0.5s						
ADK	Adak	48.60	31	P	P	15 32 24.9	+0.3
UNV	Unalaska Valle	54.87	33	P	P	15 33 10.6	-0.4
AKUT	Akutan	55.38	33	P	P	15 33 14.9	+0.1
SDPT	Sand Point	58.68	33	P	P	15 33 38.0	0.0
O15K	Ungalikthiuk R	60.52	29	P	P	15 33 51.0	+0.5
MKAR	Makanchi Array	61.45	316	P	P	15 33 57.5	+0.3
	comp=Z,0.6nm,0.5s,baz=98,slow=7.2,SNR=9.2						
	comp=Z,0.6nm,0.5s						
O16K	Kokwok River B	61.50	29	P	P	15 33 57.4	+0.2
O16K				IAmb	IAmb	15 34 41.3	
	comp=Z,17nm,1.3s						
N17K	Nushagak Hills	62.28	28	P	P	15 34 03.0	+0.7
N17K				IAmb	IAmb	15 34 44.5	
	comp=Z,13nm,1.2s						
M17K	Holitna River	62.50	27	P	P	15 34 04.8	+0.9
K17K	Iditarod	62.66	26	P	P	15 34 05.8	+0.9
K17K				IAmb	IAmb	15 34 40.1	
	comp=Z,7.6nm,1.1s						
KURK	Kurchatov	64.51	320	P	P	15 34 17.2	0.0
KURK	Kurchatov	64.51	320	IAmb	IAmb	15 34 46.0	
	comp=Z,3.3nm,0.3s						
KURBB	Kurchatov Arra	64.56	320	P	P	15 34 17.2	-0.3
	comp=Z,0.7nm,0.2s,baz=102,slow=6.7,SNR=9.9						
	comp=Z,0.7nm,0.2s						
K20K	Telida	64.68	26	P	P	15 34 18.9	+0.8
KTH	Kantishna Hill	66.08	26	P	P	15 34 27.7	+0.5
KTH				IAmb	IAmb	15 34 30.7	
	comp=Z,13nm,1.3s						
ILAR	Eielson Array	68.12	25	P	P	15 34 38.1	-1.9
	comp=Z,0.7nm,0.5s,baz=252,slow=6.5,SNR=9.8						
	comp=Z,0.7nm,0.5s						
E24K	Your Creek	68.39	22	P	P	15 34 41.7	0.0
BMAR	Burnt Mountain	69.66	23	P	P	15 34 49.9	+0.4
BVAR	Borovoye Array	69.84	322	P	P	15 34 50.5	-0.4
	comp=Z,1.1nm,0.6s,baz=107,slow=7.9,SNR=5.8						
	comp=Z,1.1nm,0.6s						
O28M	Mount Upton	70.43	30	P	P	15 34 55.3	+0.6
O28M				IAmb	IAmb	15 35 17.0	
	comp=Z,14nm,1.5s						
F30M	Barrier River	73.03	23	P	P	15 35 10.3	+0.6
F30M				IAmb	IAmb	15 35 40.0	
	comp=Z,8.8nm,1.2s						
HOLB	Holberg	77.27	41	P	P	15 35 35.4	+1.0
HOLB				IAmb	IAmb	15 35 36.6	
	comp=Z,29nm,1.3s						
L04D	Klamath Falls	82.61	48	P	P	15 36 03.6	+0.1
L04D				IAmb	IAmb	15 36 05.1	
	comp=Z,6.6nm,1.0s						
EPH	Ephrata	83.37	43	P	P	15 36 07.5	+0.4
EPH				IAmb	IAmb	15 36 07.7	
	comp=Z,4.2nm,0.7s						
NEW	Newport	84.76	42	P	P	15 36 14.5	+0.3
NEW				IAmb	IAmb	15 36 15.3	
	comp=Z,3.5nm,0.7s						
PLID	Pearl Lake	86.36	45	P	P	15 36 22.2	-0.2
PLID				IAmb	IAmb	15 36 23.0	
	comp=Z,3.6nm,0.7s						
NVAR	Mina Array Bea	86.46	51	P	P	15 36 23.4	+0.4
	comp=Z,1.0nm,0.7s,baz=254,slow=4.8,SNR=6.1						
	comp=Z,1.0nm,0.7s						
HLID	Hailey	87.88	46	P	P	15 36 30.1	+0.4
HLID				IAmb	IAmb	15 36 31.3	
	comp=Z,4.0nm,0.8s						
PDAR	Pinedale Array	91.50	45	P	P	15 36 47.1	+0.4
	comp=Z,0.3nm,0.5s,baz=256,slow=4.1,SNR=2.2						
	comp=Z,0.3nm,0.5s						

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*IDC **21** 15:30:11.7±1.2, 31°01N×78°41E, h0^{km}, mb3.5/7, mbtmp3.6/7, Error ellipse: s-maj=35.2km s-min=22.6km az=52.0*

*NDI **21** 15:30:14.2±1.6, 31°37N×78°43E, h10^{km}, ML3.8, MW3.7, Presumed earthquake*

ISC 21 15:30:12.1±2.2**, 31°30N**±0°09×**78°48E**±0°06**, h0**^{km}±14^{km}**, n14,** σ1^{s}**38**/20**, mb3.6**/6**, Western Xizang-India border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KLP	Kalpa	0.30	319	eP	Pg	15 30 17.6	-0.4
KLP				eS	Sg	15 30 21.6	-0.3
KLP				IAML		15 30 22.3	
	comp=N,24μm,0.1s						
KLP				IAML		15 30 22.4	
	comp=E,16μm,0.1s						
SMLA	Simla	1.14	262	eP	Pb	15 30 34.5	-0.2
SMLA				eS	Sb	15 30 50.4	+0.3
SMLA				IAML		15 30 51.1	
	comp=N,408nm,0.2s						
SMLA				IAML		15 30 51.1	
	comp=E,521nm,0.3s						
BHK	Bhakra	1.80	273	ex	Pn	15 30 45.3	+0.8
BHK				ex	Sn	15 31 09.6	+1.6
DHRM	DHARAMSHALA	2.08	297	eP	Pn	15 30 48.8	+0.3
DHRM				eS	Sn	15 31 14.2	-1.1
DHRM				IAML		15 31 21.3	
	comp=E,470nm,0.3s						
DHRM				IAML		15 31 22.0	
	comp=N,416nm,0.4s						
TLWR	Talawar	2.25	287	eP	Pn	15 30 51.3	+0.6
TLWR				eS	Sn	15 31 18.3	-0.8
TSSA	Tissa	2.50	308	eP	Pn	15 30 54.2	-0.1
TSSA				eS	Sn	15 31 23.6	-2.0
TSSA				IAML		15 31 32.1	
	comp=E,6μm,0.3s						
TSSA				IAML		15 31 32.2	
	comp=N,3μm,0.3s						
JMU	Jammu	3.43	296	eP	Pn	15 31 07.6	+0.7
LZDM	Lanzhou Array	21.48	71	P	P	15 35 03.3	+0.6
	comp=N,2.9nm,0.6s,baz=280,slow=8.9,SNR=4.6						
	comp=N,2.9nm,0.6s						
BVAR	Borovoye Array	22.49	347	P	P	15 35 15.9	+2.9
	comp=N,2.1nm,0.7s,baz=161,slow=9.4,SNR=6.6						
	comp=N,2.1nm,0.7s						
CMAR	Chiang Mai Arr	22.49	120	P	P	15 35 12.8	-0.5
	comp=N,0.6nm,0.5s,baz=296,slow=11,SNR=5.0						
	comp=N,0.6nm,0.5s						
ZALV	Zalesovo Beam	23.09	10	P	P	15 35 21.9	+2.6
	comp=N,0.4nm,0.3s,baz=208,slow=8.4,SNR=4.0						
	comp=N,0.4nm,0.3s						
TORD	Torodi Ar. Bea	72.10	275	P	P	15 41 37.9	-0.8
	comp=N,0.4nm,0.7s,baz=46,slow=6.1,SNR=1.8						
	comp=N,0.4nm,0.7s						
WRA	Warramunga Arr	73.94	126	P	P	15 41 48.3	-1.2
	comp=N,0.6nm,0.9s,baz=321,slow=6.1,SNR=6.6						
	comp=N,0.6nm,0.9s						
ASAR	Alice Springs	76.17	129	P	P	15 42 01.1	-1.2
	comp=N,0.3nm,0.8s,baz=315,slow=6.1,SNR=4.1						
	comp=N,0.3nm,0.8s						

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*BGSI **21** 15:56:05.4±1.9, 18°13S×26°39E, h32^{km}±999^{km}, ML2.6, Presumed earthquake*

*BUL **21** 15:56:05.1±1.4, 18°92S×25°78E, h10^{km}, MD2.9, Presumed earthquake*

ISC 21 15:56:00.7±1.2**, 18°43S**±0°05×**26°29E**±0°07**, h10**^{km}**, n7,** σ**1**^{s}**79**/12**, Zimbabwe**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSANE	Kasane	1.24	300	iP	Pn	15 56 24.9	+0.7
SOOWA	Sowa	2.12	182	iP	Pg	15 56 41.0	-0.5
SOOWA				iS	Sg	15 57 09.2	+0.2
SOOWA				IAML		15 57 12.4	
	comp=E,201nm,0.6s						
BLWY	Bulawayo	2.78	128	iP	Pb	15 56 49.2	-1.4
BLWY				iS	Sb	15 57 22.5	-2.2
BROLN	Tlhalogang	2.83	160	iP	Pb	15 56 52.0	+0.5
BROLN				iS	Sb	15 57 23.7	-2.6
BROLN				IAML		15 57 32.2	
	comp=E,15nm,0.7s						
MATP	Matopo	2.88	134	iP	Pb	15 56 53.8	+1.4
MATP				iS	Sb	15 57 26.4	-1.3
LSZ	Lusaka	3.63	30	iP	Pg	15 57 09.9	-0.3
MUSN	Musina, Limpop	5.10	139	iP	Pn	15 57 20.4	+3.1
MUSN				iS	Sn	15 58 15.6	-0.6

KRSC 21 15:57:44.3±0.4**, 55°67N**×**162°41E, h56**^{km}±13^{km}**, Ml3.7, Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBTR	Krutoberegovo	0.59	23	eP	Pn	15 57 57.6	+0.7
KBTR				eS	Sn	15 58 07.9	+1.8
ZLN	Zelenaya	0.97	292	iP	Pn	15 58 02.8	+1.0
BZGR	Bezymyannyi-Gr	1.01	287	eP	Pn	15 58 03.1	+0.8
CIRR	Tsirk	1.04	296	eP	Pn	15 58 03.8	+1.0
SMKR	Semkarok	1.06	330	eP	Pn	15 58 04.2	+1.2
SMKR				eS	Sn	15 58 18.5	+1.7
BZP	Bezymyannyi-Pe	1.09	284	eP	Pn	15 58 04.1	+0.7
BZMR	Bezymyannaya	1.12	285	eP	Pn	15 58 04.8	+1.0
BZWR	Bezymyannyi-We	1.12	286	eP	Pn	15 58 05.0	+1.1
MKZ	Mys Kozlova	1.18	200	eP	Pn	15 58 05.5	+1.0
MKZ				eS	Sn	15 58 20.5	+1.0
KLY	Klyuchi	1.18	304	eP	Pn	15 58 04.2	-0.4
KIRR	Kirishev	1.20	285	eP	Pn	15 58 06.3	+1.3
KIRR				eS	Sn	15 58 22.9	+2.6
KMNR	Kamenistaya	1.23	275	eP	Pn	15 58 06.9	+1.6
KMNR				eS	Sn	15 58 23.8	+2.7
TUMD	Tumrok D	1.24	249	eP	Pn	15 58 06.8	+1.5
TUMD				eS	Sn	15 58 22.5	+1.6
KPT	Kopyto	1.27	285	iP	Pn	15 58 07.5	+1.6
KOZ	Kozyrevsk	1.48	286	iP	Pn	15 58 11.1	+2.4
KOZ				eS	Sn	15 58 30.6	+3.6
SRDR	Sredinnyy	1.65	294	eP	Pn	15 58 13.3	+2.4
BKI	Bering	2.08	101	eP	Pn	15 58 19.8	+3.1
BKI				eS	Sn	15 58 45.6	+4.2
ESO	Esso	2.11	279	eP	Pn	15 58 18.7	+1.6
KII	Karymskiy	2.37	228	eP	Pn	15 58 22.3	+1.6
SPN	Mys Shipunski	2.93	209	eP	Pn	15 58 30.7	+2.4
NLC	Nalytchevo	3.08	217	eP	Pn	15 58 33.1	+2.8
SDLR	Sedlovina	3.15	222	eP	Pn	15 58 34.5	+3.0
KRX	Arik	3.19	225	eP	Pn	15 58 35.9	+3.9
KRER	Koryakskii	3.19	224	eP	Pn	15 58 36.1	+4.1
SMAR	Somma	3.20	223	eP	Pn	15 58 35.5	+3.3
AVH	Avacha	3.22	223	eP	Pn	15 58 36.0	+3.6
UGLR	Uglovaya	3.23	222	eP	Pn	15 58 36.0	+3.5
KOK	Koryaka	3.24	224	eP	Pn	15 58 35.9	+3.2
GNL	Ganaly	3.26	235	eP	Pn	15 58 35.6	+2.6
DALK	Dalny	3.40	221	eP	Pn	15 58 37.2	+2.5
PET	Petropavlovsk	3.44	221	eP	Pn	15 58 38.2	+2.9
PET				eS	Sn	15 59 17.0	+2.2
OSSR	Ossora	3.61	5	eP	Pn	15 58 40.6	+3.0
PALN	Palana	3.68	340	eP	Pn	15 58 41.5	+3.0
KRMR	Karymshinskiy	3.79	223	eP	Pn	15 58 44.5	+4.4
RUS	Russkaya	3.97	217	eP	Pn	15 58 45.1	+2.5
GRL	Gorelyy	4.03	221	eP	Pn	15 58 47.2	+3.7
MTVR	Mutnovka	4.04	220	eP	Pn	15 58 47.2	+3.5
ASAK	Asacha	4.23	221	eP	Pn	15 58 49.5	+3.4

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*IDC **21** 15:58:13.1±1.8, 5°15S×151°65E, h67^{km}±12^{km}, mb3.5/4, mbtmp3.8/5, Error ellipse: s-maj=78.9km s-min=12.3km az=127.0*

ISC 21 15:58:11.8±1.7**, 5°3S**±0°2×**151°9E**±0°3**, h50**^{km}**, n7,** σ**1**^{s}**63**/9**, mb3.6**/4**, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KRVT	Keravat (AS076	1.03	6	P	Pn	15 58 30.1	+0.2
	2μm,0.3s,baz=176,slow=16,SNR=61						
KRVT				S	Sn	15 58 44.1	+0.7
	5μm,0.4s,baz=292,slow=23,SNR=69						
KRVT				LR	LR	15 59 01.5	
	comp=Z,187nm,20.1s,baz=194,slow=52						
PMG	Port Moresby	6.22	229	P	Pn	15 59 42.1	+1.1
	9.8nm,0.3s,baz=44,slow=9.8,SNR=9.4						
PMG				S	Sn	16 00 51.6	+0.7
	22nm,0.6s,baz=240,slow=9.6,SNR=3.9						
WRA	Warramunga Arr	22.44	228	P	P	16 03 05.3	-1.3
	0.8nm,0.5s,baz=53,slow=10,SNR=12						
	0.8nm,0.5s						
ASAR	Alice Springs	25.17	222	P	P	16 03 31.9	-0.8
	1.3nm,0.6s,baz=54,slow=9.3,SNR=31						
	1.3nm,0.6s						
FITZ	Fitzroy Crossi	28.64	242	P	P	16 04 01.8	-2.1
	1.0nm,0.4s,baz=60,slow=9.1,SNR=7.3						
	1.0nm,0.4s						
ILAR	Eielson Array	82.98	22	P	P	16 10 31.1	-0.2
	0.3nm,0.5s,baz=249,slow=5.1,SNR=2.2						
	0.3nm,0.5s						
TORD	Torodi Ar. Bea	149.64	287	PKPbc	PKPdf	16 17 54.9	+2.6
	0.4nm,0.3s,baz=92,slow=2.3,SNR=8.5						

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*CRAAG **21** 16:08:15.4, 35°87N×0°41W, Ml2.9, Algrie 09km NW Arzew*

*MDD **21** 16:08:16.7±1.0, 35°93N×0°61W, h30^{km}±17^{km}, mb_Lg2.5/13, Error ellipse: s-maj=13.9km s-min=4.6km az=149.0*

ISC 21 16:08:13.0±1.6**, 35°98N**±0°05×**0°62W**±0°05**, h11**^{km}±14^{km}**, n25,** σ1^{s}**42**/40**, Northern Algeria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
USTO	Oran	0.25	167	P	Pg	16 08 18.0	-0.2
OFRG	Douar Fergoug	0.71	130	P	Pb	16 08 26.6	-0.8
ODJA	Bouhanifia	0.76	149	P	Pb	16 08 27.5	-0.7
OSBL	Sidi Abdelli	0.99	206	P	Pn	16 08 35.5	+2.6
ESMB	Sidi M'hamed B	1.06	112	P	Pb	16 08 32.7	-0.7
ENIJ	Nijar	1.61	308	Pn	Pn	16 08 42.6	+1.1
ENIJ	Nijar	1.61	308	Pn	Pn	16 08 42.6	+1.1
ENIJ				Sn	Sn	16 09 01.8	-0.4
ENIJ				IVmb_Lg		16 09 03.9	
CART	Cartagena	1.63	349	Pn	Pn	16 08 42.0	+0.4
CART				Sn	Sn	16 09 01.0	-1.6
TLOR	Lorca, Murcia	1.88	333	Pn	Pn	16 08 45.8	+0.8
EMUR	La Murta	1.92	345	Pn	Pn	16 08 47.1	+1.5
EMUR	La Murta	1.92	345	Pn	Pn	16 08 47.4	+1.7
EMUR				Sn	Sn	16 09 08.7	-1.1
EMUR				IVmb_Lg		16 09 12.1	
EALB	Alboran	1.96	269	Pn	Pn	16 08 46.4	+0.3
EALB				Sn	Sn	16 09 10.0	-0.6
EALB	Alboran	1.96	269	Pn	Pn	16 08 46.4	+0.3
EALB				Sn	Sn	16 09 10.0	-0.6
EALB				IVmb_Lg		16 09 10.8	
EBER	Berja	2.04	297	Pn	Pn	16 08 48.4	+0.9
EBER				Sn	Sn	16 09 13.6	+0.6
EBER	Berja	2.04	297	Pn	Pn	16 08 48.4	+0.9
EBER				Sn	Sn	16 09 12.6	-0.5
EBER				IVmb_Lg		16 09 18.6	
ELGU	Los Guajares,	2.58	291	Pn	Pn	16 08 55.3	+0.6
ELGU				Sn	Sn	16 09 25.4	-0.8
ELGU				IVmb_Lg		16 09 27.5	
AFON	Font Roja	2.68	1	Pn	Pn	16 08 58.6	+2.4
AFON				Sn	Sn	16 09 26.7	-1.9
AFON				IVmb_Lg		16 09 36.3	
EBEN2	Beniarda presa	2.71	7	Pn	Pn	16 08 58.3	+1.8
EBEN2				Sn	Sn	16 09 28.5	-0.8
EBEN2				IVmb_Lg		16 09 32.2	
ETOB	Tobarra	2.76	345	Pn	Pn	16 08 59.7	+2.5
ETOB				Sn	Sn	16 09 31.4	+0.9
ETOB	Tobarra	2.76	345	Pn	Pn	16 09 00.4	+3.2
ETOB				Sn	Sn	16 09 31.5	+0.9
ETOB				IVmb_Lg		16 09 34.8	
EMIJ	Mijas	3.40	281	Sn	Sn	16 09 45.0	-1.4
EIBI	Ibiza	3.42	27	Pn	Pn	16 09 07.4	+1.3
EIBI				Sn	Sn	16 09 44.6	-2.1
EIBI	Ibiza	3.42	27	Pn	Pn	16 09 07.5	+1.3
EIBI				Sn	Sn	16 09 45.4	-1.3
EIBI				IVmb_Lg		16 09 46.6	
ECAB	El Cabril	4.37	300	Pn	Pn	16 09 20.2	+0.9
EMOS	Mosqueruela	4.38	2	Pn	Pn	16 09 21.4	+1.8
EMOS				Sn	Sn	16 10 09.4	-1.2

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*TAP **21** 16:44:32.4, 24°05N×121°48E, h60^{km}, ML3.5, B*

*JMA **21** 16:44:32.2±0.1, 24°0N±0°6×121°5E±0°9, h57^{km}, MV2.8/9, TAIWAN REGION*

ISC 21 16:44:33.9±1.2**, 24°07N**±0°02×**121°52E**±0°02**, h53**^{km}±4^{km}**, n114,** σ**0**^{s}**74**/197**, 16C-1D, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TWD	Chiawan	0.07	79	⇑iP	Pn	16 44 41.5	-0.4
TWD				iS	Sn	16 44 47.7	0.0
ETM	Tongmen	0.10	192	⇑P	Pn	16 44 41.4	-0.7
ETM				S	Sn	16 44 47.5	-0.3
LXIB	Xiulin Townshi	0.10	245	⇑P	Pn	16 44 41.6	-0.6
LXIB				S	Sn	16 44 48.6	+0.4
HWA	Hwalien	0.12	137	eP	Pn	16 44 42.2	+0.1
HWA				eS	Sn	16 44 49.3	+1.4
NACB	Ninganchiao	0.13	33	⇑P	Pn	16 44 41.6	-0.6
NACB				iS	Sn	16 44 48.4	+0.4
ETL	Fush Village	0.14	46	⇓P	Pn	16 44 41.8	-0.5
ETL				S	Sn	16 44 48.4	+0.3
ETLH	Xiulin Townshi	0.14	347	iP	Pn	16 44 42.1	-0.2
ETLH				iS	Sn	16 44 48.8	+0.5
TEYL	Yanliau Villag	0.21	159	P	Pn	16 44 42.5	0.0
TEYL				iS	Sn	16 44 50.6	+1.9
WHF	Hehuan Shan	0.24	289	iP	Pn	16 44 43.3	-0.1
WHF				iS	Sn	16 44 50.4	+0.3
ESL	Shilin	0.26	197	⇑iP	Pn	16 44 41.8	-1.1
ESL				iS	Sn	16 44 48.6	-0.8
SHUL	Shoufeng	0.28	171	⇑P	Pn	16 44 42.8	-0.3
SHUL				iS	Sn	16 44 50.3	+0.7
FUSS	Fushou	0.31	306	⇑P	Pn	16 44 43.7	0.0
FUSS				eS	Sn	16 44 51.5	+0.9
OWD	Renai	0.33	251	⇑P	Pn	16 44 43.5	-0.2
OWD				iS	Sn	16 44 51.0	+0.3
EAHA	Aohua	0.33	38	eP	Pn	16 44 43.1	-0.4
EAHA				S	Sn	16 44 50.8	+0.3
TEGC	Jichi Village	0.35	177	eP	Pn	16 44 43.0	-0.8
TWT	Tachien	0.36	301	⇑P	Pn	16 44 44.1	+0.1
TWT				S	Sn	16 44 52.2	+0.9
WARBT	Fenglin Townsh	0.37	199	⇑P	Pn	16 44 42.5	-1.4
WARBT				iS	Sn	16 44 49.9	-1.2
WUSB	Renai	0.37	259	⇑P	Pn	16 44 43.9	-0.1
WUSB				iS	Sn	16 44 51.9	+0.5
TDCB	Techi	0.38	300	⇑P	Pn	16 44 44.0	-0.2
TDCB				eS	Sn	16 44 52.3	+0.8
NNSB	Datong	0.38	341	⇑P	Pn	16 44 44.1	0.0
NNSB				iS	Sn	16 44 52.2	+0.6
NNS	Nan Shan	0.40	341	⇑iP	Pn	16 44 44.2	-0.1
NNS				iS	Sn	16 44 52.4	+0.6
EWUT	Wuta	0.45	32	P	Pn	16 44 44.2	-0.5
EWUT				eS	Sn	16 44 52.4	-0.1
VWDT	VWDT	0.46	228	⇑P	Pn	16 44 44.8	-0.1
VWDT				eS	Sn	16 44 53.6	+0.8
LATG	Datong	0.47	1	P	Pn	16 44 44.8	-0.3
LATG				eS	Sn	16 44 53.3	+0.2
NDT	Datong Townshi	0.54	360	P	Pn	16 44 45.7	-0.1
NDT				iS	Sn	16 44 54.2	-0.1
WCS	Beigang Elemen	0.55	269	eP	Pn	16 44 45.9	-0.1
WCS				S	Sn	16 44 55.8	+1.2
WHP	Taichung City	0.56	292	P	Pn	16 44 45.8	-0.4
WHP				eS	Sn	16 44 55.0	0.0
ENTT	Nioudou	0.57	4	iP	Pn	16 44 46.0	-0.2
ENTT				iS	Sn	16 44 55.6	+0.5
HGSD	Ruisui	0.58	189	eP	Pn	16 44 45.4	-0.8
HGSD				eS	Sn	16 44 54.3	-0.8
EHY	Hungye	0.58	198	eP	Pn	16 44 45.0	-1.3
EHY				eS	Sn	16 44 55.2	-0.1
SSLB	Suanglung	0.58	242	iP	Pn	16 44 46.0	-0.3
SSLB				S	Sn	16 44 55.2	-0.2
ESAO	Su ao	0.59	30	eP	Pn	16 44 46.4	+0.1
ESAO				eS	Sn	16 44 55.5	+0.2
EHYH	Wanrong	0.59	195	eP	Pn	16 44 45.9	-0.5
SMLT	Sun Moon Lake	0.59	252	iP	Pn	16 44 46.4	-0.2
SMLT				iS	Sn	16 44 56.5	+0.9
NDS	Dongshan	0.59	18	eP	Pn	16 44 46.0	-0.5
NDS				iS	Sn	16 44 55.5	0.0
YHNB	Yeheng	0.61	348	P	Pn	16 44 46.5	-0.3
YHNB				eS	Sn	16 44 56.4	+0.3
TWC	Suao	0.62	29	iP	Pn	16 44 46.7	0.0
TWC				S	Sn	16 44 56.7	+0.6
TYC	Yuchr	0.62	255	P	Pn	16 44 46.5	-0.3
TYC				S	Sn	16 44 56.6	+0.4
NSK	Sanguang	0.62	347	eP	Pn	16 44 47.0	+0.1
NSK				eS	Sn	16 44 56.4	+0.1
TWE	Neicheng	0.67	12	⇑iP	Pn	16 44 47.1	-0.2
TWE				iS	Sn	16 44 57.6	+0.5
NFF	Wufeng Townshi	0.67	327	eP	Pn	16 44 47.2	-0.3
NFF				iS	Sn	16 44 57.9	+0.6
FUSB	Fushanzhiwuyua	0.69	5	iP	Pn	16 44 47.6	-0.1
FUSB				eS	Sn	16 44 58.1	+0.3
NWLT	Wulai	0.71	359	eP	Pn	16 44 48.0	+0.1
NWLT				eS	Sn	16 44 58.3	+0.3
WHYT	Xinyi Township	0.71	239	P	Pn	16 44 47.8	-0.1
WHYT				iS	Sn	16 44 58.1	0.0
ILA	Ilan	0.73	17	eS	Sn	16 44 59.7	+1.2
EOS4	EOS4	0.73	86	eP	Pn	16 44 47.8	0.0
NSTT	Nanjuang	0.73	320	iP	Pn	16 44 47.5	-0.7
NSTT				iS	Sn	16 44 58.5	-0.1
TWQ1	Liyutan	0.73	293	iP	Pn	16 44 47.1	-1.1
TWQ1				eS	Sn	16 44 57.8	-0.8
EYUL	Yuli	0.74	194	eP	Pn	16 44 48.6	+0.4
LIOB	Emei	0.74	322	eP	Pn	16 44 47.6	-0.6
LIOB				eS	Sn	16 44 58.5	-0.2
TWF1	Yuli	0.74	196	eP	Pn	16 44 47.7	-0.6
WJS	Zhushan	0.76	252	P	Pn	16 44 48.3	-0.2
WJS				S	Sn	16 45 00.4	+1.2
YUS	Yu-Shan	0.77	222	eP	Pn	16 44 49.7	+0.5
YUS				eS	Sn	16 45 01.4	+1.2
KSHI	Guanxi Townshi	0.77	336	eP	Pn	16 44 48.9	+0.2
KSHI				S	Sn	16 45 00.8	+1.3
TCU	Taichung	0.77	276	iP	Pn	16 44 47.9	-0.8
TCU				iS	Sn	16 44 59.1	-0.4
WNT	Mingjian	0.78	256	P	Pn	16 44 48.8	0.0
WNT				eS	Sn	16 45 00.2	+0.5
NMLH	Miaoli	0.81	306	eS	Sn	16 44 59.3	-1.1
WDJ	Dajia District	0.85	290	eP	Pn	16 44 48.6	-1.0
WDJ				S	Sn	16 45 00.6	-0.7
ALS	Alishan	0.85	230	iP	Pn	16 44 49.9	-0.1
ALS				iS	Sn	16 45 02.4	+0.6
SBCB	Hsinchu	0.87	326	eS	Sn	16 45 02.7	+0.9
WCHH	Zhanghua	0.88	271	iP	Pn	16 44 48.8	-1.2
WCHH				S	Sn	16 45 01.5	-0.4
CHKH	Chenggong	0.88	187	eS	Sn	16 45 01.6	-0.2
HSN	Hsinchu	0.89	326	eS	Sn	16 45 01.8	-0.3
WCH1	Changhua City	0.89	271	iP	Pn	16 44 49.2	-0.9
WCH1				iS	Sn	16 45 01.4	-0.7
NHDH	Xindian Distri	0.89	0	eP	Pn	16 44 50.2	-0.1
NHDH				eS	Sn	16 45 03.0	+0.7
CHN5	Tsauling	0.90	239	iP	Pn	16 44 49.9	-0.5
CHN5				iS	Sn	16 45 02.9	+0.3
TWA	Mucha	0.91	4	P	Pn	16 44 50.1	-0.4
TIPB	Shuangxi	0.94	17	eP	Pn	16 44 50.9	-0.1
TIPB				iS	Sn	16 45 03.6	+0.1
NCUH	Zhongli	0.95	341	eS	Sn	16 45 04.6	+1.0
WDL	Douliou City	0.96	249	eP	Pn	16 44 50.9	-0.2
WDL				eS	Sn	16 45 04.9	+1.0
TAP	Taipei	0.97	359	eS	Sn	16 45 05.0	+0.9
WDLH	Douliu	0.97	247	eP	Pn	16 44 50.8	-0.5
WDLH				iS	Sn	16 45 03.9	-0.2
CHKT	Chengkung	0.97	188	eS	Sn	16 45 03.1	-1.0
ELDTW	Lidau	0.98	208	P	Pn	16 44 52.4	+0.8
ELDTW				S	Sn	16 45 04.4	-0.2
TWB1	Santiao Chiao	1.03	24	eS	Sn	16 45 06.3	+0.8
TWS1	Kuangyinshan	1.03	355	eS	Sn	16 45 07.7	+2.1
WCKO	Fanlu	1.04	233	iP	Pn	16 44 52.0	-0.3
WCKO				iS	Sn	16 45 07.0	+1.1
WRL	Guolierlin Hig	1.05	261	eP	Pn	16 44 51.4	-1.0
WRL				iS	Sn	16 45 04.9	-1.2
RLNB	Erlin	1.07	261	eP	Pn	16 44 51.7	-0.9
RLNB				eS	Sn	16 45 06.3	-0.2
SXI1	Grass Mountain	1.07	18	eP	Pn	16 44 53.7	+0.9
SXI1				eS	Sn	16 45 06.7	0.0
YM01	YM01	1.08	3	eP	Pn	16 44 51.9	-0.9
ZUZH	Zhuzihu	1.09	1	P	Pn	16 44 52.6	-0.4
ZUZH				S	Sn	16 45 06.0	-1.1

NTST	Danshui	1.10	357	eS	Sn	16 45 07.0	-0.1
WTK	Tuku	1.10	250	eP	Pn	16 44 52.2	-0.7
WTK				eS	Sn	16 45 07.2	+0.1
EDH	Donghe	1.10	190	eP	Pn	16 44 51.3	-1.8
EDH				eS	Sn	16 45 05.7	-1.7
CHN4	Tsaushan	1.11	230	eP	Pn	16 44 52.7	-0.4
CHN4				eS	Sn	16 45 08.7	+1.4
TPUB	Ta-pu	1.11	227	eP	Pn	16 44 53.1	-0.1
TPUB				i S	Sn	16 45 08.8	+1.2
YM08	YM08	1.12	3	eP	Pn	16 44 53.8	+0.4
STYH	Taoyuan	1.12	217	i P	Pn	16 44 53.5	+0.2
STYH				i S	Sn	16 45 08.9	+1.2
WTCT	Ta-ch'eng	1.15	260	eS	Sn	16 45 08.5	+0.1
CHY	Chiayi	1.15	241	eP	Pn	16 44 53.8	+0.1
CHY				i S	Sn	16 45 09.5	+1.1
WTP	Ta-pu	1.16	226	P	Pn	16 44 53.6	-0.3
WTP				S	Sn	16 45 10.0	+1.2
TWK	Hsinying	1.23	230	eP	Pn	16 44 54.2	-0.7
WSF	Szhu	1.26	251	eS	Sn	16 45 11.7	+0.7
CHN1	Nanshi	1.26	226	P	Pn	16 44 54.8	-0.4
CHN1				eS	Sn	16 45 12.8	+1.7
WSL	Shuilin Townsh	1.30	246	eP	Pn	16 44 54.9	-0.8
WSL				eS	Sn	16 45 11.5	-0.4
SGST	Jiashian	1.30	221	eP	Pn	16 44 54.9	-0.8
SGST				S	Sn	16 45 12.1	0.0
TWG	Pinlang	1.30	198	eP	Pn	16 44 56.6	+0.8
ICHU	Yijhu	1.33	239	eP	Pn	16 44 56.4	+0.2
ICHU				eS	Sn	16 45 15.0	+2.2
JYNG	Yonagunijimaku	1.36	73	P	Pn	16 44 56.4	-0.1
JYNG				S	Sn	16 45 14.3	+0.9
CHN8	Yiju	1.40	239	eP	Pn	16 44 56.1	-0.8
CHN8				i S	Sn	16 45 16.2	+1.9
YOJ	Yonaguni jima	1.42	74	eP	Pn	16 44 57.5	+0.2
YOJ				i S	Sn	16 45 15.9	+1.0
SCST	Cishan	1.50	219	eP	Pn	16 44 58.8	+0.3
SSD	Sandimen	1.54	212	P	Pn	16 44 59.4	+0.3
TSMG	Majia	1.57	211	eP	Pn	16 44 59.9	+0.4
TSCK	Chigu Township	1.60	235	eS	Sn	16 45 20.9	+1.6
PCYT	Pengchaiyu	1.64	18	eP	Pn	16 44 58.4	-1.9
MASBT	Mashibuluo	1.66	209	eP	Pn	16 45 00.6	0.0
EAST	Anshuo	1.78	200	eP	Pn	16 45 03.7	+1.4
SCZT	Fangliau	1.88	206	eP	Pn	16 45 03.7	+0.1
IRIF	Iriomote-Funau	2.04	82	P	Pn	16 45 05.4	-0.3
IRIF				S	Sn	16 45 29.9	-0.2
JKRS	Kuro-shima	2.28	85	eP	Pn	16 45 09.1	0.0
JKRS				eS	Sn	16 45 36.6	+0.6
JIJ	Ishigaki jima	2.42	82	P	Pn	16 45 10.4	-0.5
JIJ				S	Sn	16 45 38.7	-0.6
JISG	Ishigakijimahi	2.60	78	eP	Pn	16 45 12.8	-0.7
JISG				S	Sn	16 45 43.1	-0.8

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*IDC **21** 16:56:47.4±1.3, 37°.07N×30°.77E, h94km±12km, mb3.6/11, mbtmp3.9/17, Error ellipse: s-maj=13.5km s-min=11.1km az=92.0*

*ISK **21** 16:56:48.3, 37°.17N×30°.65E, h105km, ML3.7/18*

*NEIC **21** 16:56:48.9±1.6, 37°.19N±0°.05×30°.80E±0°.07, h105km±4km, mb4.0/11, Error ellipse: s-maj=8.5km s-min=6.8km az=90.0*

*GII **21** 16:56:49.9±0.0, 36°.655N±0°.002×30°.529E±0°.001, h0km, Mws3.5, confirmed*

*AFAD **21** 16:56:49.6, 37°.22N×30°.66E, h90km±1km, MW3.7*

*NIC **21** 16:56:49.7, 36°.86N×30°.70E, h11km±31km, Ml3.6/7*

ISC 21 16:56:48.4±0.6**, 37°.10N**±0°.03×**30°.71E**±0°.03**, h106**km±5km**, n149, **σ1ˢ.**42**/196, **mb4.0**/14**, 1C-4D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ANTB	Antalya	0.21	193	Pg	Pn	16 57 03.5	+0.2
ANTB				Sg	Sn	16 57 15.2	+0.7
ANTB				AML	AML		
BUCA	Burdur, Bucak-	0.26	332	P	Pn	16 57 03.4	-0.2
BUCA				S	Sn	16 57 12.6	-2.4
BUCA				IAML		16 57 14.0	
	comp=E,3µm,0.5s						
BUCA				IAML		16 57 15.0	
	comp=N,2µm,0.2s						
KORT	Korkueli	0.31	251	Pg	Pn	16 57 04.0	+0.1
KORT				Sg	Sn	16 57 15.4	-0.1
KORT				AML	AML		
KORT	Korkueli	0.31	251	P	Pn	16 57 04.3	+0.4
BCK	Bucak	0.37	345	Pg	Pn	16 57 03.8	-0.4
BCK				Sg	Sn	16 57 15.2	-0.8
BCK				AML	AML		
ELL	Elmali	0.73	242	P	Pn	16 57 08.6	+1.7
ELL				S	Sn	16 57 23.8	+3.1
ELL	Elmali	0.73	242		Pn	16 57 08.5	+1.7
ISP	Isparta	0.74	348	Pg	Pn	16 57 06.4	-0.4
ISP				Sg	Sn	16 57 19.6	-1.1
ISP	Isparta	0.74	348		Pn	16 57 06.1	-0.7
KEPZ	Antalya-Kepez	0.74	105	P	Pn	16 57 07.7	+0.9
BRDR	BURDUR-Merkez	0.79	319	P	Pn	16 57 06.5	-0.8
BRDR				IAML		16 57 15.0	
	comp=E,244nm,0.4s						
BRDR				S	Sn	16 57 17.3	-4.2
BRDR				IAML		16 57 20.0	
	comp=N,2µm,0.4s						
AKUM	Antalya-Kumluc	0.83	201	P	Pn	16 57 09.2	+1.6
BAGO	Egridir - ISPA	0.89	4	P	Pn	16 57 08.0	-0.2
SEDI	Konya, Seydise	0.90	67	P	Pn	16 57 09.1	+0.6
GOLH	Golhisar	0.93	279	P	Pn	16 57 09.0	+0.3
KNIK	Mula-Seydike	0.95	255	P	Pn	16 57 09.9	+1.0
INCE	Denizli-Bozkur	1.09	304	P	Pn	16 57 09.8	-0.6
CAEL	Denizli, Camel	1.11	272	P	Pn	16 57 11.2	+0.6
APMY	Acipayam-Deniz	1.19	289	Pn	Pn	16 57 11.0	-0.4
APMY				Sn	Sn	16 57 27.6	-1.2
APMY				AML	AML		
KZIL	AFYON_Kizioren	1.24	339	P	Pn	16 57 11.3	-0.7
KZIL				S	Sn	16 57 26.8	-3.1
KZIL				IAML		16 57 29.0	
	comp=N,821nm,0.4s						
KZIL				IAML		16 57 29.0	
	comp=E,1µm,0.6s						
YVAC	Isparta, Yalva	1.24	20	P	Pn	16 57 12.0	0.0
AKAS	Kas	1.24	226	Pn	Pn	16 57 13.0	+0.9
AKAS				AML	AML		
AKAS	Kas	1.24	226	P	Pn	16 57 13.2	+1.1
AKAS	Kas	1.24	226		Pn	16 57 12.9	+0.9
DOGA	KONYA_Doganhis	1.26	37	P	Pn	16 57 12.7	+0.4
SDAG	Sultandagi-AFY	1.35	7	Pn	Pn	16 57 12.5	-0.8
SDAG				Sn	Sn	16 57 31.3	-0.8
SDAG				AML	AML		
IZZE	Mula-Seydike	1.37	241	P	Pn	16 57 14.6	+1.2
FETY	Fethiye	1.39	251	Pn	Pn	16 57 14.1	+0.5
FETY				Sn	Sn	16 57 32.7	-0.1
FETY				AML	AML		
FETY	Fethiye	1.39	251	P	Pn	16 57 15.1	+1.4
SABU	Mula-Dalaman	1.42	259	P	Pn	16 57 14.4	+0.3
HDMB	Hadim	1.43	95	Pn	Pn	16 57 15.5	+1.2
HDMB				AML	AML		
DNIZ	Denizli-Tavas-	1.43	292	P	Pn	16 57 14.0	-0.3
KMER	Konya-Meram	1.48	63	P	Pn	16 57 16.0	+1.2
TAVA	DENIZLI_Tavas	1.48	285	P	Pn	16 57 14.6	-0.2
GAZI	Gazipasa	1.55	123	Pn	Pn	16 57 17.4	+1.8
GAZI				AML	AML		
KONT	Konya--Tatoy	1.56	57	Pn	Pn	16 57 16.5	+0.8
KONT				AML	AML		
PASA	Karahalli, USA	1.58	322	P	Pn	16 57 15.2	-0.8
PASA				S	Sn	16 57 31.7	-5.3
PASA				IAML		16 57 36.0	
	comp=N,381nm,0.8s						
PASA				IAML		16 57 36.0	
	comp=E,380nm,0.3s						
UCKU	Afyonkarahisar	1.63	20	P	Pn	16 57 16.8	+0.1
KURO	Afyon-Bolvadin	1.64	6	P	Pn	16 57 16.4	-0.4
DALY	Dalyan (Mula)	1.67	261	Pn	Pn	16 57 17.2	+0.1
DALY				AML	AML		
BNAZ	Uak-Banaz	1.71	338	P	Pn	16 57 17.2	-0.5
LADK	Ladik-KONYA	1.71	50	Pn	Pn	16 57 18.2	+0.5
LADK				AML	AML		
AFYO	Afyonkarahisar	1.71	349	P	Pn	16 57 17.7	-0.1
AFYO				S	Sn	16 57 37.8	-2.3
AFYO				IAML		16 57 39.0	
	comp=E,545nm,1.0s						
AFYO				IAML		16 57 45.0	
	comp=N,530nm,0.6s						
YER	Yerkesik	1.94	272	Pn	Pn	16 57 20.6	+0.1
YER				AML	AML		
KIZT	Kizilcal	2.00	27	Pn	Pn	16 57 20.9	-0.4
KIZT				AML	AML		
TURN	Turunc	2.00	261	Pn	Pn	16 57 21.4	+0.2
TURN				AML	AML		
BERE	Bereket-Mersin	2.15	110	Pn	Pn	16 57 25.0	+1.7
BERE				AML	AML		
TEKE	Tekeli-Mersin	2.15	116	Pn	Pn	16 57 25.1	+1.9
TEKE				AML	AML		
MANT	Manisa	2.20	310		Pn	16 57 23.2	-0.8
ARG	Arkhangelos	2.26	248	Pn	Pn	16 57 25.2	+0.7
ARG				AML	AML		
ARG	Arkhangelos	2.26	248		Pn	16 57 25.3	+0.7
AKMS	Akamas	2.46	147	P	Pn	16 57 27.8	+0.6
AKMS				S	Sn	16 57 58.0	+1.1
AKMS				AML	AML	16 58 09.8	
	1.6nm,0.4s						
AKMS				AML	AML	16 58 11.2	
	1.5nm,0.5s						
ALFC	Alefka	2.47	141	P	Pn	16 57 27.6	+0.3
ALFC				S	Sn	16 57 58.2	+1.0
ALFC				AML	AML	16 58 02.7	
	1.4nm,0.4s						
ALFC				AML	AML	16 58 03.4	
	1.4nm,0.2s						
NATA	Nata	2.76	146	P	Pn	16 57 31.8	+0.6
TROD	Troodos	2.77	140	P	Pn	16 57 31.2	-0.3
TROD				S	Sn	16 58 04.6	+0.1
TROD				AML	AML	16 58 10.0	
	0.6nm,0.6s						
TROD				AML	AML	16 58 20.8	
	0.6nm,0.5s						
BORA	Eskisehir	2.78	356		Pn	16 57 29.3	-2.2
XYLS	Xyliatos	2.81	137	P	Pn	16 57 31.3	-0.6
XYLS				S	Sn	16 58 05.3	0.0
XYLS				AML	AML	16 58 15.1	
	0.7nm,0.2s						
XYLS				AML	AML	16 58 15.7	
	0.7nm,0.3s						
ATHAL	Athalassa	2.92	131	P	Pn	16 57 34.4	+1.2
ATHAL				S	Sn	16 58 09.2	+1.4
ATHAL				AML	AML	16 58 26.9	
	1.3nm,0.7s						
ATHAL				AML	AML	16 58 31.1	
	1.0nm,0.8s						
APOL	The Sanctuary	2.99	144	P	Pn	16 57 34.8	+0.6
APOL				S	Sn	16 58 06.6	-2.8
CSS	Mathiatis	3.01	134	P	Pn	16 57 34.6	+0.1
CSS	Mathiatis	3.01	134		Pn	16 57 34.2	-0.2
CSS	Mathiatis	3.01	134	P	Pn	16 57 34.4	0.0
CSS				AML	AML		
CSS	Mathiatis	3.01	134	P	Pn	16 57 33.4	-1.0
CSS				S	Sn	16 58 07.7	-2.2
ASGA	Asgata	3.09	138	P	Pn	16 57 36.0	+0.5
ASGA				S	Sn	16 58 12.4	+0.5
ASGA				AML	AML	16 58 27.7	
	0.3nm,0.4s						
ASGA				AML	AML	16 58 31.0	
	0.6nm,0.5s						
MVOU	Mavrovouni	3.15	130	P	Pn	16 57 35.7	-0.5
MVOU				S	Sn	16 58 12.2	-1.0
MVOU				AML	AML	16 58 22.5	
	0.4nm,0.5s						
MVOU				AML	AML	16 58 23.9	
	0.5nm,0.3s						
KARP	Karpathos	3.26	243	Pn	Pn	16 57 38.2	+0.4
KARP	Karpathos	3.26	243	P	Pn	16 57 38.1	+0.4
KARP				AML	AML		
BALB	Balikesir	3.37	320		Pn	16 57 39.4	+0.2
BRTR	Keskin Array B	3.48	40	P	Pn	16 57 41.0	+0.2
	0.9nm,0.3s,baz=222,slow=15,SNR=19						
BRTR				S	Sn	16 58 19.8	-1.7
	6.8nm,0.7s,baz=214,slow=17,SNR=6.7						
BRTR	Keskin Array B	3.48	40		Pn	16 57 38.8	-2.1
OSC1	CSNet OBS 1	3.62	173	P	Pn	16 57 42.3	-0.3
OSC1				S	Sn	16 58 21.4	-3.1
OSC2	CSNet OBS 4	4.21	162	P	Pn	16 57 51.3	+0.8
OSC2				S	Sn	16 58 38.9	+0.1
IDI	Anoyia	5.04	251	P	Pn	16 58 00.2	-1.6
	4.0nm,0.3s,baz=346,slow=7.3,SNR=10						
IDI				S	Sn	16 58 56.1	-2.8
	12nm,0.4s,baz=339,slow=16,SNR=6.0						
IDI	Anoyia	5.04	251	Pn	Pn	16 58 00.7	-1.2
HWQ	Hawqa	5.11	122	eP	Pn	16 58 02.6	-0.1
BEIL	Beino	5.13	118	eP	Pn	16 58 02.6	-0.3
BHL	Bhannes	5.14	127	eP	Pn	16 58 02.7	-0.4
DQRL	Deir Qamar	5.22	129	eP	Pn	16 58 03.1	-1.0
ALN	Alexandroupoli	5.25	318		Pn	16 58 04.5	0.0
ZAHL	Zahle	5.32	126	eP	Pn	16 58 06.0	+0.5
QRWL	Qaraoun	5.39	130	eP	Pn	16 58 06.9	+0.3
RCY	Rachaya	5.52	129	eP	Pn	16 58 08.6	+0.2
SHBL	Chebaa	5.56	131	eP	Pn	16 58 09.2	+0.2
MMA0B	Mount Meron ar	5.60	135	⇓P	Pn	16 58 09.3	-0.1
MMA0B				S	Sn	16 59 11.2	-1.3
GEM	Giv'at Ha'Em	5.61	132	P	Pn	16 58 09.9	+0.4
GEM	Giv'at Ha'Em	5.61	132	⇓P	Pn	16 58 09.5	0.0
GEM				S	Sn	16 59 11.9	-0.8
NATI	Neve Ativ	5.62	131	P	Pn	16 58 09.9	+0.3
NATI				S	Sn	16 59 11.8	-1.0
OFRI	`Ofer	5.68	141	P	Pn	16 58 09.5	-0.9
OFRI				S	Sn	16 59 11.5	-2.9
KNHM	Kefar Nahum	5.80	135	P	Pn	16 58 12.0	0.0
KNHM				S	Sn	16 59 15.0	-2.2
KSHT	Keshet	5.86	133	P	Pn	16 58 13.1	+0.2
KSHT				S	Sn	16 59 18.1	-0.7
MMLI	Mount Malkishu	6.05	139	⇓P	Pn	16 58 14.8	-0.7
MMLI				S	Sn	16 59 20.9	-2.5
QRNJ	Al-Qirein	6.21	138	P	Pn	16 58 17.7	+0.1
	68nm18µm,0.7s						
QRNJ				AML	AML		
SALP	Salfit	6.23	142	P	Pn	16 58 17.7	-0.2
	0.4nm83nm,0.5s						
SALP				AML	AML		
RGMN	Argaman	6.32	140	P	Pn	16 58 18.8	-0.2
RGMN				S	Sn	16 59 27.2	-2.5
YITV	Yitav	6.44	142	P	Pn	16 58 20.9	+0.2
YITV				S	Sn	16 59 30.9	-1.9
UJAP	Al Uja	6.46	141	P	Pn	16 58 21.2	+0.3
	0.7nm124nm,0.5s						
UJAP				AML	AML		
JER	Jerusalem	6.48	144	⇓P	Pn	16 58 21.0	-0.3
JER				S	Sn	16 59 31.2	-2.6
AMAZ	Amatzia	6.55	147	P	Pn	16 58 22.1	-0.1
	0.7nm75nm,0.7s						
AMAZ				AML	AML		
AMAZ	Amatzia	6.55	147	P	Pn	16 58 21.2	-1.1
AMAZ				S	Sn	16 59 32.9	-2.6
ALMO	Almog	6.59	142	P	Pn	16 58 22.1	-0.6
ALMO				S	Sn	16 59 33.8	-2.6
HSUJ	Al Zarqa	6.73	136	P	Pn	16 58 24.8	+0.2
	0.2nm38nm,0.7s						
HSUJ				AML	AML		
KZIT	Kziot	6.89	153	P	Pn	16 58 26.7	-0.2
	0.2nm29nm,0.6s						
KZIT				AML	AML		
KZIT	Kziot	6.89	153	P	Pn	16 58 25.3	-1.5
KZIT				S	Sn	16 59 39.2	-4.6
MSBI	Mazada	6.94	145	P	Pn	16 58 27.4	0.0
	0.1nm11nm,0.7s						
MSBI				AML	AML		
MSBI	Mazada	6.94	145	P	Pn	16 58 27.2	-0.2
MSBI				S	Sn	16 59 41.2	-3.5
GHAJ	Ghor Haditha	7.04	144		Pn	16 58 29.5	+0.7
GHAJ	Ghor Haditha	7.04	144	P	Pn	16 58 29.0	+0.2
GHAJ				AML	AML		
ASF	Jabal al Asfar	7.08	132	P	Pn	16 58 29.2	-0.3
	7.5nm,0.3s,baz=304,slow=7.5,SNR=34						
ASF				S	Sn	16 59 45.8	-2.7
	3.1nm,0.2s,baz=97,slow=21,SNR=1.8						
IDAN	Idan	7.31	147	P	Pn	16 58 31.6	-0.8
IDAN				S	Sn	16 59 50.2	-3.7
RMNI	Mount Ramon	7.31	151	P	Pn	16 58 31.6	-1.0
RMNI				S	Sn	16 59 50.9	-3.1
ZFRI	Zfri	7.51	149	P	Pn	16 58 33.8	-1.4
ZFRI				S	Sn	16 59 55.6	-3.2
PRNI	Paran	7.62	151	P	Pn	16 58 36.7	0.0
	0.3nm33nm,0.4s						
PRNI				AML	AML		
HRFI	Mount Harif	7.92	152	P	Pn	16 58 40.5	-0.2
	0.1nm17nm,0.6s						
HRFI				AML	AML		
HRFI	Mount Harif	7.92	152	⇑P	Pn	16 58 39.6	-1.1
HRFI				S	Sn	17 00 04.2	-4.4
EIL	Elat	8.21	153	P	Pn	16 58 43.8	-1.0
	12nm,0.5s,baz=257,slow=2.3,SNR=32						
EIL				S	Sn	17 00 11.9	-3.9
	10nm,0.3s,baz=113,slow=15,SNR=8.4						
EIL	Elat	8.21	153	P	Pn	16 58 44.7	-0.1
EIL				S	Sn	17 00 14.0	-1.9
EIL				AML	AML		
EIL	Elat	8.21	153	P	Pn	16 58 43.4	-1.4
EIL				S	Sn	17 00 12.2	-3.7
MLR	Muntele Rosu	9.12	338	P	Pn	16 58 56.3	-0.8
	1.6nm,0.5s,baz=100,slow=23,SNR=1.4						
KIEV	Kiev	13.63	356	P	P	17 00 01.7	-0.5
AKASG	Malin Array Be	13.64	356	P	Pn	16 59 58.4	+1.2
	0.1nm,0.3s,baz=174,slow=10,SNR=7.6						
AKASG	Malin Array Be	13.64	356	P	P	17 00 01.9	-0.5
OJC	Ojcow	15.28	333	Pn	Pn	17 00 17.6	-0.6
MORC	Moravsky Berou	15.84	327	Pn	Pn	17 00 25.4	+0.1
MORC				IAmb	IAmb	17 00 37.7	
	comp=Z,4.5nm,1.5s						
GERES	GERESS Array B	17.06	319	P	P	17 00 42.5	+2.0
	comp=Z,0.5nm,0.3s,baz=130,slow=9.1,SNR=9.7						
RAYN	Ar Rayn	18.57	133	P	P	17 00 58.2	+1.0
SENIN	Lac Senin/Sane	19.71	305	P	P	17 01 10.0	+0.4
BFO	Black Forest	19.83	312	P	P	17 01 11.3	+0.6
BFO				IAmb	IAmb	17 01 54.4	
	comp=Z,3.5nm,0.5s						
FINES	FINESS Array B	24.54	355	P	P	17 01 57.0	-0.7
	comp=Z,1.6nm,0.4s,baz=159,slow=11,SNR=13						
	comp=Z,1.6nm,0.4s						
FINES	FINESS Array B	24.54	355	P	P	17 01 57.3	-0.4
HFS	Hagfors	25.49	340	P	P	17 02 07.8	+1.3
	comp=Z,1.5nm,0.8s,baz=150,slow=12,SNR=4.4						
	comp=Z,1.5nm,0.8s						
BVAR	Borovoye Array	31.75	47	P	P	17 03 03.0	+0.9
	comp=Z,0.4nm,0.4s,baz=250,slow=7.5,SNR=4.2						
	comp=Z,0.4nm,0.4s						
ARCES	ARCESS Array B	32.62	357	P	P	17 03 08.9	-0.6
	comp=Z,3.3nm,1.0s,baz=168,slow=9.0,SNR=6.8						
	comp=Z,3.3nm,1.0s						
ARCES	ARCESS Array B	32.62	357	P	P	17 03 09.1	-0.4
TORD	Torodi Ar. Bea	35.23	235	P	P	17 03 33.4	+0.7
	comp=Z,0.4nm,0.6s,baz=31,slow=9.6,SNR=2.4						
	comp=Z,0.4nm,0.6s						
TORD	Torodi Ar. Bea	35.23	235	IAmb	IAmb	17 04 06.0	
	comp=Z,2.4nm,0.6s						
KURBB	Kurchatov Arra	36.39	53	P	P	17 03 42.8	+0.6
	comp=Z,2.3nm,0.5s,baz=275,slow=8.8,SNR=12						
	comp=Z,2.3nm,0.5s						
KURK	Kurchatov	36.45	53	P	P	17 03 42.8	+0.1
PDGK	Podgornoye	37.33	65	P	P	17 03 50.2	-0.3
MAKZ	Makanchi	38.72	59	P	P	17 04 02.5	+0.5
MAKZ				IAmb	IAmb	17 04 40.7	
	comp=Z,3.0nm,1.1s						
MKAR	Makanchi Array	38.94	59	P	P	17 04 04.3	+0.5
	comp=Z,2.7nm,0.6s,baz=269,slow=8.0,SNR=30						
	comp=Z,2.7nm,0.6s						
MKAR	Makanchi Array	38.94	59	P	P	17 04 04.4	+0.6
ZALV	Zalesovo Beam	40.40	48	P	P	17 04 15.4	-0.3
	comp=Z,0.8nm,0.3s,baz=268,slow=8.3,SNR=5.9						
	comp=Z,0.8nm,0.3s						
ZALV	Zalesovo Beam	40.40	48	P	P	17 04 15.2	-0.5
DBIC	Dimbokro	44.33	236	P	P	17 04 48.6	+0.6
DBIC				IAmb	IAmb	17 05 05.6	
	comp=Z,10nm,1.1s						
SONM	Songino Array	54.76	53	P	P	17 06 07.3	+0.4
	comp=Z,0.7nm,0.5s,baz=291,slow=7.7,SNR=5.1						
	comp=Z,0.7nm,0.5s						
SONM	Songino Array	54.76	53	P	P	17 06 07.0	+0.1
SONM				IAmb	IAmb	17 06 08.5	
	comp=Z,0.9nm,1.0s						
CMAR	Chiang Mai Arr	61.93	87	P	P	17 06 57.0	-0.1
	comp=Z,0.8nm,0.8s,baz=302,slow=7.5,SNR=6.0						
	comp=Z,0.8nm,0.8s						
KSRS	Korea Array	73.51	55	P	P	17 08 08.9	-0.6
	comp=Z,0.8nm,0.6s,baz=319,slow=4.3,SNR=5.6						
	comp=Z,0.8nm,0.6s						
M29M	Somme Creek	80.41	355	P	P	17 08 47.9	0.0
M29M				IAmb	IAmb	17 09 01.9	
	comp=Z,6.2nm,1.5s						

IDC 21 17:20:06.6±2.2**, 3°.25N**×**126°.46E, h0**km**, mb3.4**/4**, mbtmp3.4**/4**, MS3.6**/1**, Error ellipse: s-maj=140.0km s-min=27.6km az=69.0, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	21.23	182	P	P	17 24 53.8	-0.4
	1.9nm,0.9s,baz=11,slow=10,SNR=1.8						
	1.9nm,0.9s						
WRA	Warramunga Arr	24.31	162	P	P	17 25 25.8	-0.4
	0.4nm,0.5s,baz=342,slow=9.2,SNR=12						
	0.4nm,0.5s						
ASAR	Alice Springs	27.72	165	P	P	17 25 57.3	+0.4
	0.8nm,1.2s,baz=345,slow=8.3,SNR=1.5						
	0.8nm,1.2s						
HILR	Hailar Array B	46.49	354	LR	LR	17 49 09.8	
	comp=Z,80nm,21.6s,baz=45,slow=38						
MKAR	Makanchi Array	57.80	326	P	P	17 30 00.0	+0.2
	0.2nm,0.4s,baz=140,slow=7.1,SNR=2.2						
	0.2nm,0.4s						

IDC 21 17:45:55.6±2.9**, 4°.87S**×**134°.88E, h0**km**, mb3.4**/1**, mbtmp3.4**/3**, ML3.4**/2**, Error ellipse: s-maj=112.7km s-min=24.7km az=82.0, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	Warramunga Arr	14.99	182	Pn	Pn	17 49 25.1	-3.9
	0.1nm,0.3s,baz=3.0,slow=13,SNR=11						
WRA				Sn	Sn	17 52 03.2	-13
	0.1nm,0.3s,baz=360,slow=24,SNR=5.2						
	0.4nm,0.4s						
WRA				AML	AML		
ASAR	Alice Springs	18.71	183	Pn	P	17 50 15.0	-0.9
	0.2nm,0.3s,baz=6.4,slow=9.9,SNR=12						
ASAR				Sn	Sn	17 53 35.5	-11
	baz=4.5,slow=26,SNR=1.3						
	0.4nm,0.4s						
ASAR				AML	AML		
MKAR	Makanchi Array	69.23	324	P	P	17 57 04.4	0.0
	0.2nm,0.5s,baz=110,slow=8.0,SNR=2.6						
	0.2nm,0.5s						

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*IDC **21** 17:57:36.9±0.5, 21°.06S×174°.24W, h0km, mb4.3/18, mbtmp4.4/21, ML4.4/3, MS3.9/4, Error ellipse: s-maj=17.5km s-min=11.9km az=126.0*

*NEIC **21** 17:57:38.3±2.3, 21°.0S±0°.1×173°.8W±0°.1, h10km±1km, mb4.7/62, Error ellipse: s-maj=19.1km s-min=17.1km az=111.0*

ISC 21 17:57:37.0±0.4**, 20°.96S**±0°.07×**173°.73W**±0°.06**, h10**km**, n87, σ2ˢ.15**/76**, mb4.6**/43**, 2D, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NIUE	Niue	4.04	63	Pn	Pn	17 58 38.2	-0.7
NIUE				Sn	Sn	17 59 21.6	-4.7
AFI	Afiamalu	7.25	15	Pn	Pn	17 59 21.5	-1.7
	14nm,0.3s,baz=157,slow=5.9,SNR=13						
AFI				Sn	Sn	18 00 41.9	-3.8
	8.7nm,0.3s,baz=132,slow=23,SNR=2.6						
AFI				LR	LR	18 02 23.5	
	comp=Z,533nm,18.6s,baz=200,slow=38						
	36nm,0.4s						
AFI				AML	AML		
AFI	Afiamalu	7.25	15	Pn	Pn	17 59 23.6	+0.4
AFI				Sn	Sn	18 00 37.5	-8.2
MSVF	Nonsavu	8.39	291	Pn	Pn	17 59 43.2	+4.3
	2.0nm,0.3s,baz=126,slow=13,SNR=42						
MSVF				LR	LR	18 02 30.8	
	comp=Z,1µm,19.4s,baz=115,slow=37						
RAO	Raoul Island	9.09	204	Sn	Sn	18 01 18.4	-12
	94nm,0.3s,baz=254,slow=23,SNR=6.8						
RAR	Rarotonga	13.04	94	Pn	Pn	18 00 40.2	-2.2
	5.2nm,0.3s,baz=262,slow=8.0,SNR=9.4						
RAR				Sn	Sn	18 02 55.7	-12
	1.8nm,0.3s,baz=339,slow=14,SNR=1.7						
RAR				LR	LR	18 06 39.0	
	comp=Z,470nm,18.1s,baz=280,slow=40						
	17nm,0.5s						
RAR				AML	AML		
MARNC	Mare, Loyalty	17.01	265	Pn	Pn	18 01 33.4	-1.8
ONTNC	Ouen Toro	18.47	262	P	P	18 01 49.0	-4.2
ONTNC				IAmb	IAmb	18 01 56.5	
	comp=Z,48nm,1.1s						
DZM	Mont Dzumac	18.48	263	P	P	18 01 52.3	-1.0
	comp=Z,18nm,0.9s,baz=114,slow=17,SNR=6.0						

URZ	**Urewera**	**18.97**	**203**	P	**P**	**18 01 57.9**	**-0.6**
	comp=Z,1.6nm,0.3s,baz=5.8,slow=2.7,SNR=13						
URZ				S	Sn	18 05 15.5	-16
	comp=Z,9.0nm,0.7s,baz=289,slow=5.6,SNR=5.2						
	comp=Z,16nm,0.7s						
URZ				AML	AML		
TOZ	**Tahuroa Road**	**19.14**	**207**	P	**P**	**18 01 57.6**	**-2.9**
RTZ	**Ruatahuna**	**19.34**	**202**	P	**P**	**18 01 59.9**	**-2.7**
PPT2	**Papeete2**	**23.04**	**86**	*e*LR	LR	18 08 15.9	
	comp=Z,294nm,22.0s						
PPT2				*e*LR	LR	18 08 17.7	
	comp=Z,281nm,22.5s						
PPT	**Papeete**	**23.05**	**86**	LR	LR	18 10 33.2	
	comp=Z,303nm,18.1s,baz=235,slow=33						
LTZ	**Lake Taylor**	**24.73**	**205**	P	**P**	**18 03 00.1**	**+1.4**
LTZ				IAmb	IAmb	18 03 04.7	
	comp=Z,18nm,0.7s						
INZ	**Inchbonnie**	**25.02**	**206**	P	**P**	**18 02 58.2**	**-2.9**
INZ				IAmb	IAmb	18 03 04.8	
	comp=Z,36nm,1.1s						
FOZ	**Fox Glacier**	**26.37**	**208**	P	**P**	**18 03 13.2**	**-0.2**
HNR	**Honiara**	**27.81**	**290**	LR	LR	18 12 30.1	
	comp=Z,47nm,20.7s,baz=210,slow=33						
STKA	**Stephens Creek**	**41.21**	**245**	P	P	18 05 17.9	-4.3
	comp=Z,2.5nm,0.7s,baz=84,slow=15,SNR=5.4						
	comp=Z,2.5nm,0.7s						
ASAR	**Alice Springs**	**48.30**	**257**	P	**P**	**18 06 15.6**	**-3.4**
	comp=Z,13nm,0.8s,baz=99,slow=7.6,SNR=126						
ASAR				PcP	**PcP**	**18 07 46.1**	**+0.3**
	comp=Z,2.4nm,0.8s,baz=99,slow=3.5,SNR=5.7						
	comp=Z,13nm,0.8s						
ASAR	**Alice Springs**	**48.30**	**257**	P	P	18 06 14.9	-4.0
ASAR					**PcP**	**18 07 45.7**	**-0.1**
WRAB	**Tennant Creek**	**48.48**	**262**	P	**P**	**18 06 16.5**	**-3.8**
WRAB				IAmb	IAmb	18 06 26.0	
	comp=Z,7.4nm,0.9s						
WRA	**Warramunga Arr**	**48.49**	**262**	P	**P**	**18 06 16.6**	**-3.8**
	comp=Z,6.1nm,0.8s,baz=100,slow=8.5,SNR=46						
WRA				PcP	**PcP**	**18 07 46.8**	**+0.2**
	comp=Z,1.9nm,0.7s,baz=103,slow=3.7,SNR=3.8						
	comp=Z,6.1nm,0.8s						
WRA	**Warramunga Arr**	**48.49**	**262**	P	P	18 06 15.9	-4.5
WRA					**PcP**	**18 07 46.4**	**-0.1**
FORT	**Forrest**	**52.78**	**247**	P	**P**	**18 06 49.6**	**-3.1**
FORT				IAmb	IAmb	18 07 13.3	
	comp=Z,17nm,1.0s						
MTN	**Manton Dam**	**53.16**	**269**	P	**P**	**18 06 54.0**	**-1.6**
MTN				IAmb	IAmb	18 07 21.4	
	comp=Z,8.0nm,1.4s						
FITZ	**Fitzroy Crossi**	**56.92**	**262**	P	**P**	**18 07 19.9**	**-2.8**
	comp=Z,4.4nm,0.8s,baz=118,slow=10,SNR=3.5						
	comp=Z,4.4nm,0.8s						
FITZ	**Fitzroy Crossi**	**56.92**	**262**	P	**P**	**18 07 20.5**	**-2.3**
SBA	**Scott Base**	**57.72**	**185**	P	**P**	**18 07 29.6**	**+2.0**
SBA				IAmb	IAmb	18 07 59.4	
	comp=Z,8.1nm,1.2s						
VNDA	**Vanda**	**57.85**	**186**	P	**P**	**18 07 29.9**	**+1.5**
	comp=Z,0.8nm,0.7s,baz=355,slow=3.3,SNR=5.3						
	comp=Z,0.8nm,0.7s						
VNDA	**Vanda**	**57.85**	**186**	P	**P**	**18 07 29.6**	**+1.2**
SOEI	**Soe**	**60.50**	**270**		**P**	**18 07 47.7**	**-0.3**
TNTI	**Ternate**	**61.45**	**283**	P	**P**	**18 07 51.3**	**-2.9**
MBWA	**Marble Bar**	**61.64**	**257**	P	P	18 07 50.8	-4.7
QSPA	**South Pole Qui**	**69.12**	**180**	P	**P**	**18 08 44.7**	**+1.3**
	comp=Z,3.8nm,0.9s,baz=27,slow=4.1,SNR=9.4						
	comp=Z,3.8nm,0.9s						
QSPA	**South Pole Qui**	**69.12**	**180**		**P**	**18 08 44.0**	**+0.7**
QSPA				IAmb	IAmb	18 09 06.4	
	comp=Z,7.8nm,1.1s						
MJAR	**Matsushiro Arr**	**73.00**	**321**	P	**P**	**18 09 07.1**	**0.0**
	comp=Z,6.4nm,0.9s,baz=154,slow=6.5,SNR=16						
	comp=Z,6.4nm,0.9s						
MJAR	**Matsushiro Arr**	**73.00**	**321**		**P**	**18 09 05.5**	**-1.6**
MJAR				IAmb	IAmb	18 09 08.5	
	comp=Z,4.2nm,0.9s						
MAJO	**Matsushiro**	**73.00**	**321**		**P**	**18 09 06.9**	**-0.2**
MAJO				IAmb	IAmb	18 09 08.6	
	comp=Z,5.2nm,0.8s						
SMAI	**San Martin Ant**	**76.74**	**158**	P	**P**	**18 09 30.0**	**+1.7**
MDPB	**Devils Postpil**	**77.70**	**42**	P	**P**	**18 09 34.3**	**-0.1**
MDPB				IAmb	IAmb	18 09 42.1	
	comp=Z,6.5nm,1.1s						
MPMC	**Manual Prospec**	**77.73**	**44**	P	**P**	**18 09 36.2**	**+1.7**
MPMC				IAmb	IAmb	18 09 56.8	
	comp=Z,6.8nm,1.2s						
PETK	**Petropavlovsk-**	**77.81**	**343**	P	**P**	**18 09 35.8**	**+1.5**
	comp=Z,2.4nm,0.7s,baz=111,slow=8.2,SNR=18						
	comp=Z,2.4nm,0.7s						
PETK	**Petropavlovsk-**	**77.81**	**343**	P	**P**	**18 09 35.5**	**+1.2**
WAKR	**Walker**	**78.02**	**41**		**P**	**18 09 38.5**	**+2.3**
WAKR				IAmb	IAmb	18 09 44.1	
	comp=Z,8.2nm,1.2s						
YBH	**Yreka Blue Hor**	**78.21**	**36**	P	P	18 09 42.1	+5.1
	comp=Z,0.8nm,0.4s,baz=157,slow=7.7,SNR=4.2						
	comp=Z,0.8nm,0.4s						
LHV	**Little Huntoon**	**78.44**	**41**	P	**P**	**18 09 41.5**	**+3.4**
LHV				IAmb	IAmb	18 10 04.1	
	comp=Z,14nm,1.1s						
YERR	**Yerington**	**78.44**	**40**	P	**P**	**18 09 41.2**	**+2.8**
YERR				IAmb	IAmb	18 09 46.0	
	comp=Z,11nm,1.3s						
BELA	**Belgrano 2**	**78.57**	**172**	P	**P**	**18 09 38.3**	**-0.1**
NVAR	**Mina Array Bea**	**78.67**	**41**	P	**P**	**18 09 43.6**	**+3.9**
	comp=Z,2.0nm,0.6s,baz=223,slow=8.5,SNR=11						
	comp=Z,2.0nm,0.6s						
NVAR	**Mina Array Bea**	**78.67**	**41**	P	**P**	**18 09 41.5**	**+1.8**
K05A	**Summer Lake**	**79.88**	**37**		**P**	**18 09 47.6**	**+1.4**
K05A				IAmb	IAmb	18 10 20.5	
	comp=Z,6.5nm,1.1s						
KSRS	**Korea Array**	**79.92**	**317**	P	**P**	**18 09 46.8**	**+0.6**
	comp=Z,2.9nm,1.0s,baz=131,slow=4.7,SNR=9.0						
	comp=Z,2.9nm,1.0s						
PINE	**Pine Mountain**	**80.56**	**36**		**P**	**18 09 49.7**	**-0.2**
PINE				IAmb	IAmb	18 10 09.7	
	comp=Z,6.6nm,1.2s						
JRO	**Jston Ridge Ob**	**81.53**	**33**		**P**	**18 09 57.8**	**+2.9**
JRO				IAmb	IAmb	18 10 02.6	
	comp=Z,15nm,1.2s						
ELK	**Elko**	**81.95**	**41**	P	**P**	**18 10 00.6**	**+3.2**
	comp=Z,1.2nm,0.9s,baz=204,slow=5.8,SNR=4.7						
	comp=Z,1.2nm,0.9s						
MAW	**Mawson**	**82.46**	**199**	P	**P**	**18 09 59.4**	**0.0**
	comp=Z,2.4nm,0.7s,baz=128,slow=5.5,SNR=7.6						
	comp=Z,2.4nm,0.7s						
MAW	**Mawson**	**82.46**	**199**	P	**P**	**18 09 59.9**	**+0.6**
D08A	**Wollman Farm,**	**83.75**	**34**	IAmb	IAmb	18 10 13.0	
	comp=Z,4.2nm,0.7s						
TXAR	**Lajitas Array**	**83.98**	**56**	P	**P**	**18 10 11.6**	**+3.6**
	comp=Z,0.8nm,0.9s,baz=215,slow=5.7,SNR=5.2						
	comp=Z,0.8nm,0.9s						
TXAR	**Lajitas Array**	**83.98**	**56**	P	**P**	**18 10 10.2**	**+2.3**
HVU	**Hansel Valley**	**84.07**	**41**	IAmb	IAmb	18 10 14.9	
	comp=Z,3.2nm,0.9s						
PLID	**Pearl Lake**	**84.11**	**37**	IAmb	IAmb	18 10 13.6	
	comp=Z,7.2nm,1.4s						
HLID	**Hailey**	**84.12**	**39**		**P**	**18 10 11.3**	**+2.9**
HLID				IAmb	IAmb	18 10 30.3	
	comp=Z,5.8nm,1.1s						
TCUT	**Toone Canyon**	**84.55**	**42**	IAmb	IAmb	18 10 18.2	
	comp=Z,12nm,1.2s						
ALQ	**Albuquerque**	**84.61**	**50**	IAmb	IAmb	18 10 17.2	
	comp=Z,7.8nm,1.5s						
ALQ	**Albuquerque**	**84.61**	**50**	IAmb	IAmb	18 10 18.8	
	comp=Z,2.5nm,0.8s						
ANMO	**Albuquerque**	**84.61**	**50**	P	**P**	**18 10 10.8**	**-0.5**
ANMO				IAmb	IAmb	18 10 41.2	
	comp=Z,3.6nm,1.1s						
BSUT	**Blindstream Ca**	**84.63**	**43**		**P**	**18 10 15.2**	**+3.8**
BSUT				IAmb	IAmb	18 10 33.8	
	comp=Z,7.7nm,1.1s						
LOGN	**Logan Glacier**	**85.68**	**15**	IAmb	IAmb	18 10 19.6	
	comp=Z,8.7nm,0.9s						
PDAR	**Pinedale Array**	**86.60**	**42**	P	**P**	**18 10 23.4**	**+2.5**
	comp=Z,0.4nm,0.4s,baz=214,slow=5.0,SNR=5.7						
	comp=Z,0.4nm,0.4s						
PDAR	**Pinedale Array**	**86.60**	**42**	P	**P**	**18 10 22.9**	**+1.9**
ELIB	**Princess Elisa**	**86.60**	**185**	*d*P	**P**	**18 10 20.9**	**+0.5**
	comp=Z,4.3nm,1.0s						
IPM	**Ipoh**	**87.15**	**276**	P	**P**	**18 10 23.5**	**-0.5**
SNAA	**Sanae**	**87.40**	**177**	P	**P**	**18 10 24.8**	**+0.5**
	comp=Z,2.9nm,0.7s,baz=219,slow=7.0,SNR=4.5						
	comp=Z,2.9nm,0.7s						
SNAA	**Sanae**	**87.40**	**177**	IAmb	IAmb	18 10 34.0	
	comp=Z,4.3nm,1.1s						
ILAR	**Eielson Array**	**87.93**	**11**	P	**P**	**18 10 28.9**	**+2.3**
	comp=Z,1.3nm,1.0s,baz=214,slow=6.2,SNR=4.4						
	comp=Z,1.3nm,1.0s						
ILAR	**Eielson Array**	**87.93**	**11**	P	**P**	**18 10 27.5**	**+0.9**
GSI	**Gunungsitoli**	**89.24**	**272**		**P**	**18 10 34.2**	**+0.3**
CMAR	**Chiang Mai Arr**	**94.04**	**288**	P	**P**	**18 10 57.3**	**+1.2**
	comp=Z,3.2nm,0.9s,baz=128,slow=2.6,SNR=20						
	comp=Z,3.2nm,0.9s						
CMAR	**Chiang Mai Arr**	**94.04**	**288**		**P**	**18 10 56.5**	**+0.4**
CHTO	**Chiang Mai**	**94.16**	**288**		**P**	**18 10 57.3**	**+0.6**
PZH	**PanZhiHua**	**94.47**	**297**	P	**P**	**18 10 59.8**	**+1.7**
HFS	**Hagfors**	**140.50**	**354**	PKP	**PKPdf**	**18 17 05.6**	**-0.6**
	comp=Z,3.1nm,0.6s,baz=79,slow=7.5,SNR=1.6						
AKASG	**Malin Array Be**	**145.25**	**334**	PKPbc	**PKPbc**	**18 17 15.4**	**+0.8**
	comp=Z,8.7nm,0.5s,baz=40,slow=3.9,SNR=12						
AKASG	**Malin Array Be**	**145.25**	**334**		**PKPbc**	**18 17 15.0**	**+0.5**
BMRD	**Maredsous**	**150.69**	**2**	*d*PKP	**PKPbc**	**18 17 29.9**	**+0.6**

IDC ***21*** *18:04:56.6±0.3, 51°.75N×103°.33E, h0^{km}, mb4.7/35, mbtmp4.7/42, ML4.7/6, MS4.9/73, Error ellipse: s-maj=9.2km s-min=6.4km az=36.0*

MOS ***21*** *18:04:56.8±1.1, 51°.78N×103°.45E, h14^{km}, mb5.5/76, MS5.2/72, Error ellipse: s-maj=4.4km s-min=3.9km az=23.7 Broadband fault plane solution: P waves. NP1: φ$_s$289.00000°, δ86.00000°, λ-11.00000°. NP2:φ$_s$20.00000°, δ79.00000°, λ-176.00000°. Principal axes: T Plg5.0000°, Azm335.0000°; N Plg78.0000°, Azm90.0000°; P Plg10.0000°, Azm244.0000°;*

MOS Fault plane solution: P-wave C24, D44 . Felt (V-VI) at Slyudyanka, (V) at Irkutsk, Markovo, Dzerzhinsk, Mamony, Shelekhov, Vvedehschina, Chistye Klyuchi, Angarsk, Usol'ye-Sibirskoye, Zakamensk, (IV-V) at Malaya Topka, Cheremkhovo, Baykal'sk, Ust'-Kuda, Meget, Oyek, Sayansk, Bokhan, Moty, Zima, (IV) at Khomutovo, Molodyozhnyy, Svirsk, Osa, Sredniy Utulik, Kuda, Kyakhta, Kharanzhino, (III-IV) at Ol'zony, Listvyanka, Karluk, Bozoy, Elantsy.

BJI ***21*** *18:04:56.1, 51°.76N×103°.50E, h10^{km}, mB5.4/56, mb5.1/83, Ms5.9/88, Ms7 5.6/86*

NEIC ***21*** *18:04:57.7, 51°.86N×103°.48E, h10^{km}*

NEIC ***21*** *18:04:57.7, 51°.85N×103°.49E, h10^{km}*

NEIC ***21*** *18:04:57.7±1.4, 51°.86N±0°.07×103°.5E±0°.1, h10^{km}±1^{km}, mb5.3/358, Ms_20 5.2/500, Mwb5.4/40, Mww5.5/17, Error ellipse: s-maj=11.8km s-min=10.9km az=36.0, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.07; M$_{\theta\theta}$0.74; M$_{\phi\phi}$-0.68; M$_{r\theta}$0.12; M$_{\theta\phi}$1.53; M$_{\phi r}$-0.12; Fault plane solution: M$_0$1.70000×10^{17} NP1: φ$_s$282.31000°, δ86.50000°, λ-4.95000°. NP2:φ$_s$12.62000°, δ85.06000°, λ-176.49000°. Principal axes: T 1.7208, Plg1.0000°, Azm328.0000°; N -0.0500, Plg84.0000°, Azm67.0000°; P -1.6708, Plg6.0000°, Azm237.0000°;*

BYKL ***21*** *18:04:57.4±0.2, 51°.78N×103°.41E, h12^{km}±3^{km}, FELT I=VI-VII MSK at Kultuk, Bystraya; VI at Mamony, Listvyanka, Karluk, Slyudyanka; V at Irkutsk, Urik, Markova, Angarsk, Belorechensky, Usolye- Sibirskoye, Khomutovo, Maksimovshchina, Osa, Ust-Ordynsky, Angasolka.*

GFZ ***21*** *18:04:58.8, 51°.81N×103°.47E, h19^{km}, Mw5.4/47, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.11; M$_{\theta\theta}$0.91; M$_{\phi\phi}$-0.81; M$_{r\theta}$-0.41; M$_{\theta\phi}$1.23; M$_{\phi r}$-0.39; Fault plane solution: M$_0$1.60385×10^{17} NP1: φ$_s$288.79862°, δ72.96003°, λ6.85630°. NP2:φ$_s$196.78065°, δ83.44604°, λ162.84448°. Principal axes: T 1.7150, Plg16.7334°, Azm151.6523°; N -0.2523, Plg71.6704°, Azm356.4893°; P -1.4627, Plg7.2675°, Azm243.8496°;*

GCMT ***21*** *18:04:59.7±0.1, 51°.85N±0°.01×103°.50E±0°.01, h26^{km}, MW5.5/149, Moment Tensor Solution. s123,c233; s149,c314; Duration: 1^{s}4 Moment tensor: Scale 10^{17} Nm; M$_{rr}$-0.16±.03; M$_{\theta\theta}$1.22±.03; M$_{\phi\phi}$-1.07±.03; M$_{r\theta}$0.31±.06; M$_{\theta\phi}$2.18±.02; M$_{\phi r}$0.18±.06; Best double couple: M$_0$2.48600×10^{17} NP1:φ$_s$14.00000°, δ85.00000°, λ175.00000°. NP2:φ$_s$104.00000°, δ85.00000°, λ5.00000°. Principal axes: T 2.5840, Plg7.0000°, Azm329.0000°; N -0.2060, Plg83.0000°, Azm148.0000°; P -2.3870, Plg0.0000°, Azm239.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

GFZ ***21*** *18:04:59.1±0.2, 52°N±3°×10°3E±°, h10^{km}, M5.3/20, mb5.4/20*

NEIC ***21*** *18:05:02.8, 52°.06N×103°.48E, h26^{km}, Moment Tensor Solution. Duration: 2^{s}5 Moment tensor: Scale 10^{17}Nm; M$_{rr}$0.12; M$_{\theta\theta}$0.86; M$_{\phi\phi}$-0.99; M$_{r\theta}$0.90; M$_{\theta\phi}$1.60; M$_{\phi r}$-0.20; Fault plane solution: M$_0$2.07000×10^{17} NP1:φ$_s$14.49000°, δ63.40000°, λ177.00000°. NP2:φ$_s$105.84000°, δ87.31000°, λ26.63000°. Principal axes: T 2.0389, Plg20.0000°, Azm333.0000°; N 0.0536, Plg63.0000°, Azm111.0000°; P -2.0925, Plg16.0000°, Azm237.0000°;*

BGR ***21*** *18:05:03.9, 51°.77N×103°.20E, h33^{km}, mb5.3, Ms5.2*

ISC 21 18:04:58.0±0.4, **51°.82N**±0°.02×**103°.48E**±0°.01, **h11**^{km}±2^{km}, **h11**^{km}**:pP-P, n1311, σ1^{s}61**/1187, **mb5.3**/412, **MS5.2**/377, **53C-100D, Lake Baykal region**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
TLY	**Talaya**	**0.17**	**144**	Pg	**Pg**	**18 05 01.3**	**-0.5**
	30μm,0.3s,baz=280,slow=9.1						
TLY				Lg	Lg	18 05 04.7	
	60μm,0.3s,baz=165,slow=7.9,SNR=45						
TLY	**Talaya**	**0.17**	**144**	P	**Pg**	**18 05 01.5**	**-0.4**
TLY				S	**Sg**	**18 05 04.5**	**-0.1**
TLY	**Talaya**	**0.17**	**144**	⇑*i*Pg	**Pg**	**18 05 01.5**	**-0.4**
TLY				Pmax		18 05 02.0	
	71μm,0.1s						
TLY				*e*Sg	**Sg**	**18 05 04.7**	**+0.2**
TLY				Smax		18 05 06.2	
	1212μm,0.2s						
TLY	**Talaya**	**0.17**	**144**	P	**Pg**	**18 05 00.7**	**-1.1**
IVK	**Ivanovka**	**0.58**	**92**	⇓*i*Pg	**Pg**	**18 05 09.1**	**-0.2**
IVK				*e*Sg	**Sg**	**18 05 17.4**	**+0.5**
IVK	**Ivanovka**	**0.58**	**92**	⇓*i*PG	**Pg**	**18 05 09.1**	**-0.2**
IVK				*e*S	**Sg**	**18 05 16.9**	**0.0**
IRK	**Irkutsk**	**0.65**	**49**	⇓*i*Pg	**Pb**	**18 05 11.1**	**-0.2**
IRK				Pmax		18 05 12.9	
	104μm,0.2s						
IRK				*e*Sg	**Sb**	**18 05 20.7**	**+0.4**
IRK				Smax		18 05 22.5	
	827μm,0.6s						
IRK	**Irkutsk**	**0.65**	**49**	⇓*i*PG	**Pb**	**18 05 11.1**	**-0.2**
IRK				*e*		18 05 20.6	
IRK				pmax	pmax		
	comp=Z,107μm,0.2s						
IRK				smax	smax		
	comp=N,824μm,0.5s						
ARS	**Arshan**	**0.66**	**279**	⇓*i*Pg	**Pg**	**18 05 09.3**	**-1.6**
ARS				Pmax		18 05 10.0	
	comp=N,130μm,0.3s						
ARS				*e*Sg	**Sg**	**18 05 17.6**	**-2.0**
ARS				Smax		18 05 19.1	
	comp=N,2122μm,0.9s						
ARS	**Arshan**	**0.66**	**279**	*e*PG	**Pg**	**18 05 09.3**	**-1.6**
ARS				*e*		18 05 17.5	
ARS				pmax	pmax		
	comp=Z,115μm,0.3s						
LSTR	**Listvyanka**	**0.84**	**86**	⇓*i*Pg	**Pg**	**18 05 13.4**	**-0.8**
LSTR				Pmax		18 05 15.0	
	comp=Z,25μm,0.8s						
LSTR				*e*Sg	**Sg**	**18 05 25.3**	**+0.1**
LSTR				Smax		18 05 30.2	
	comp=Z,234μm,0.9s						
LSTR	**Listvyanka**	**0.84**	**86**	⇓*i*PG	**Pg**	**18 05 13.4**	**-0.8**
LSTR				*e*		18 05 25.2	
LSTR				pmax	pmax		
	comp=Z,11μm,0.2s						
LSTR				smax	smax		
	comp=N,308μm,0.7s						
BGT	**Bolshoye Golou**	**1.21**	**79**	⇓*i*Pg	**Pn**	**18 05 20.2**	**-0.7**
BGT				*e*Sg	**Sg**	**18 05 37.2**	**+0.1**
BGT	**Bolshoye Golou**	**1.21**	**79**	⇓*i*PG	**Pn**	**18 05 20.2**	**-0.7**
BGT				*e*S	**Sg**	**18 05 37.1**	**0.0**
ZAK	**Zakamensk**	**1.45**	**185**	⇑*i*Pg	**Pn**	**18 05 22.4**	**-1.8**
ZAK				Pmax		18 05 23.9	
	comp=N,6μm,0.1s						
ZAK				*e*Sg	**Sn**	**18 05 40.6**	**-2.6**
ZAK				Smax		18 05 44.8	
	comp=N,179μm,0.4s						
ZAK	**Zakamensk**	**1.45**	**185**	⇑*i*PG	**Pn**	**18 05 22.2**	**-2.0**
ZAK				*e*		18 05 40.2	
ZAK				pmax	pmax		
	comp=Z,7μm,0.1s						
ZAK				smax	smax		
	comp=N,184μm,0.5s						
MOY	**Mondy**	**1.55**	**265**	⇓*i*Pg	**Pn**	**18 05 24.3**	**-1.4**
MOY				Pmax		18 05 26.7	
	comp=N,115μm,0.5s						
MOY				*e*Sg	**Sn**	**18 05 44.2**	**-1.7**
MOY				Smax		18 05 47.7	
	comp=N,616μm,0.9s						
MOY	**Mondy**	**1.55**	**265**	⇓*i*PN	**Pn**	**18 05 24.4**	**-1.3**
MOY				*e*		18 05 44.2	
MOY				pmax	pmax		
	comp=Z,114μm,0.5s						
MOY				smax	smax		
	comp=N,629μm,1.0s						
KAB	**Kabansk**	**1.98**	**82**	⇓*i*Pn	**Pn**	**18 05 32.0**	**+0.6**
KAB				*e*Pg	**Pb**	**18 05 33.8**	**-0.2**
KAB				Pmax		18 05 35.9	
	comp=N,40μm,0.9s						
KAB				*e*Sg	**Sb**	**18 05 59.9**	**+1.3**
KAB				Smax		18 06 08.0	
	comp=N,190μm,0.7s						
TRG	**Tyrgan**	**2.00**	**61**	⇓*i*Pn	**Pn**	**18 05 31.6**	**-0.1**
TRG				*e*Pg	**Pb**	**18 05 34.0**	**-0.3**
TRG				Pmax		18 05 36.5	
	comp=N,13μm,0.3s						
TRG				*e*Sg	**Sg**	**18 06 01.4**	**-0.7**
TRG				Smax		18 06 03.5	
	comp=N,77μm,0.3s						
TRG	**Tyrgan**	**2.00**	**61**	⇓*i*PN	**Pn**	**18 05 31.8**	**+0.1**
TRG				*e*		18 05 33.9	
TRG				*e*		18 06 01.1	
TRG				pmax	pmax		
	comp=Z,14μm,0.4s						
TRG				smax	smax		
	comp=N,78μm,0.3s						
FFNB	**Fofonovo**	**2.04**	**82**	⇓*i*Pn	**Pn**	**18 05 32.6**	**+0.3**
FFNB				*e*Pg	**Pb**	**18 05 35.2**	**+0.1**
FFNB				*e*Sn	**Sn**	**18 05 58.3**	**+0.5**
FFNB				*e*Sg	**Sg**	**18 06 03.9**	**+0.2**
HRMR	**Khuramsha**	**2.17**	**94**	⇓*i*Pn	**Pn**	**18 05 34.7**	**+0.6**
HRMR				*e*Pg	**Pb**	**18 05 36.5**	**-0.8**
HRMR				Pmax		18 05 36.7	
	comp=N,14μm,0.4s						
HRMR				*e*		18 06 02.9	
HRMR				*e*Sg	**Sb**	**18 06 05.6**	**+1.4**
HRMR				Smax		18 06 10.0	
	comp=N,303μm,0.4s						
ORL	**Orlik**	**2.37**	**289**	⇓*i*Pn	**Pn**	**18 05 38.3**	**+1.4**
ORL				*e*		18 05 39.7	
ORL				max		18 05 43.4	
	comp=N,36μm,0.4s						
ORL				*e*Sn	**Sn**	**18 06 06.0**	**0.0**
ORL				*e*Sg	**Sb**	**18 06 09.6**	**-0.4**
ORL				Smax		18 06 10.9	
	comp=N,209μm,1.0s						
ORL	**Orlik**	**2.37**	**289**	*e*PN	**Pn**	**18 05 38.1**	**+1.2**
ORL				*e*		18 06 09.7	
ORL				pmax	pmax		
	comp=Z,35μm,0.7s						
ORL				smax	smax		
	comp=N,81μm,1.0s						
HTG	**Hatgal**	**2.49**	**238**	⇓*i*Pn	**Pn**	**18 05 37.9**	**-0.7**
HTG				*e*Pg	**Pb**	**18 05 40.3**	**-2.5**
HTG				*e*Sg	**Sb**	**18 06 12.1**	**-1.4**
UUDB	**Ulan-Yde**	**2.59**	**87**	⇓*i*Pn	**Pn**	**18 05 40.6**	**+0.7**
UUDB				*e*Pg	**Pb**	**18 05 45.1**	**+0.6**
UUDB				Pmax		18 05 47.2	
	comp=N,12μm,0.8s						
UUDB				*e*Sn	**Sn**	**18 06 11.5**	**+0.1**
UUDB				*e*Sg	**Sg**	**18 06 19.2**	**-2.1**
UUDB				Smax		18 06 38.1	
	comp=N,78μm,2.6s						
KELR	**Kotokel**	**2.98**	**70**	*e*Pn	**Pn**	**18 05 45.1**	**0.0**
KELR				*e*Pg	**Pb**	**18 05 51.1**	**+0.1**
KELR				*e*Sg	**Sg**	**18 06 31.0**	**-2.6**
OGRR	**Ongureny**	**3.10**	**52**	⇓*i*Pn	**Pn**	**18 05 46.6**	**-0.2**
OGRR				*e*Pg	**Pb**	**18 05 53.3**	**+0.3**
OGRR				*e*		18 05 55.4	
OGRR				max		18 05 57.1	
	comp=N,20μm,0.7s						
OGRR				*e*Sg	**Sb**	**18 06 33.7**	**+2.9**
OGRR				Smax		18 06 39.1	
	comp=N,58μm,0.6s						
OGRR	**Ongureny**	**3.10**	**52**	*e*PN	**Pn**	**18 05 46.6**	**-0.2**
OGRR				*e*		18 05 53.0	
OGRR				*e*		18 06 33.0	
OGRR				pmax	pmax		
	comp=Z,16μm,1.0s						
OGRR				smax	smax		
	comp=N,59μm,1.1s						
GORB	**Goryachinsk**	**3.17**	**66**	*e*Pn	**Pn**	**18 05 47.0**	**-0.7**
GORB				*e*Pg	**Pb**	**18 05 54.6**	**+0.4**
GORB				*e*Sg	**Sg**	**18 06 38.1**	**-1.5**
MXMB	**Maximikha**	**3.52**	**64**	*e*Pn	**Pn**	**18 05 52.8**	**+0.2**
MXMB				*e*Pg	**Pb**	**18 06 01.8**	**+1.5**
MXMB				*e*Sg	**Sg**	**18 06 48.7**	**-2.4**
KNGR	**Kungurtug, Tuv**	**3.94**	**254**	⇓*i*Pn	**Pn**	**18 06 00.0**	**+1.5**
KNGR				*e*Pg	**Pb**	**18 06 07.7**	**+0.2**
KNGR				*e*Sg	**Sb**	**18 06 59.3**	**+4.1**
KNGR	**Kungurtug, Tuv**	**3.94**	**254**	*d* *i*PN	**Pn**	**18 06 00.0**	**+1.5**
KNGR				MLR	MLR		
	comp=Z,24μm,2.0s						
SYVR	**Suvo**	**4.37**	**63**	*e*Pn	**Pn**	**18 06 04.2**	**0.0**
SYVR				*e*Pg	**Pb**	**18 06 15.6**	**+0.9**
SYVR				Pmax		18 06 26.6	
	comp=Z,4μm,1.2s						
SYVR				*e*Sg	**Sg**	**18 07 13.8**	**-4.3**
SYVR				Smax		18 07 24.1	
	comp=Z,13μm,0.8s						
SYVR	**Suvo**	**4.37**	**63**	*e*PN	**Pn**	**18 06 04.3**	**0.0**
SYVR				*e*		18 06 15.3	
SYVR				*e*		18 07 13.3	
SYVR				pmax	pmax		
	comp=Z,4μm,1.5s						
SYVR				smax	smax		
	comp=N,13μm,0.8s						
SONM	**Songino Array**	**4.41**	**154**	Pn	**Pn**	**18 06 04.2**	**-0.8**
	comp=N,80nm,0.3s,baz=328,slow=14,SNR=812						
SONM				Pg	**Pb**	**18 06 15.6**	**0.0**
	comp=N,922nm,0.3s,baz=335,slow=17,SNR=84						
SONM				Lg	Lg	18 07 14.8	
	comp=N,1μm,0.3s,baz=329,slow=30,SNR=13						
SONM				LR	LR	18 08 04.5	
	comp=N,9μm,18.7s,baz=78,slow=43						
	comp=N,117nm,0.3s						
SONM				AML	AML		
SONM	**Songino Array**	**4.41**	**154**		**Pn**	**18 06 03.9**	**-1.1**
I34MN	**SONGINO INFRAS**	**4.45**	**154**	Pg	**Pb**	**18 06 16.2**	**+0.1**
	baz=344,slow=129						
I34MN				Lg	Lg	18 07 15.0	
	baz=346,slow=149						
ULN	**Ulaanbaatar**	**4.58**	**148**	⇑*i*Pn	**Pn**	**18 06 06.3**	**-1.1**
ULN				*e*Pg	**Pb**	**18 06 19.6**	**+1.1**
ULN				Pmax		18 06 21.0	
	comp=N,12μm,0.8s						
ULN				*e*Sg	**Sg**	**18 07 20.5**	**-4.6**
ULN				Smax		18 07 26.5	
	comp=N,36μm,1.2s						
ULN	**Ulaanbaatar**	**4.58**	**148**	*c* *i*PN	**Pn**	**18 06 06.3**	**-1.1**
ULN				MLR	MLR		
	comp=Z,10μm,2.0s						
ULN	**Ulaanbaatar**	**4.58**	**148**		**Pn**	**18 06 06.5**	**-0.9**
ULN					**Pb**	**18 06 19.6**	**+1.1**
ULN	**Ulaanbaatar**	**4.58**	**148**	P	**Pb**	**18 06 19.0**	**+0.5**
ULN				AML	AML		
ULN				AML	AML		
ULN	**Ulaanbaatar**	**4.58**	**148**	P	**Pn**	**18 06 06.5**	**-0.9**
TDJR	**Todzha**	**4.59**	**280**	*e*Pn	**Pn**	**18 06 08.1**	**+0.8**
TDJR				*e*Pg	**Pb**	**18 06 18.4**	**-0.1**
TDJR				*e*Sg	**Sb**	**18 07 16.7**	**+3.0**
NIZB	**Nizh Angarsk**	**5.34**	**40**	*e*Pn	**Pn**	**18 06 17.4**	**-0.2**
NIZB				*e*Pg	**Pb**	**18 06 34.4**	**+3.1**
NIZB				Pmax		18 06 39.6	
	comp=Z,4μm,1.0s						
NIZB				*e*Sn	**Sn**	**18 07 17.6**	**-1.5**
NIZB				*e*Sg	**Sg**	**18 07 44.2**	**-5.2**
NIZB				Smax		18 07 54.6	
	comp=Z,54μm,0.7s						
YLYR	**Ulyunkhan**	**5.53**	**53**	*e*Pn	**Pn**	**18 06 20.1**	**-0.1**
YLYR				*e*Pg	**Pb**	**18 06 37.8**	**+3.4**
YLYR				Pmax		18 06 48.8	

	comp=Z,2µm,0.9s						
YLYR				*e*Sg	**Sg**	**18 07 50.5**	**-4.7**
YLYR				Smax		18 08 02.7	
	comp=Z,20µm,1.6s						
YLYR	**Ulyunkhan**	**5.53**	**53**	*e*PN	**Pn**	**18 06 20.0**	**-0.1**
YLYR				*e*		18 06 37.0	
YLYR				*e*		18 07 49.0	
YLYR				pmax	pmax		
	comp=Z,2µm,0.5s						
YLYR				smax	smax		
	comp=N,20µm,1.5s						
KZLR	**Kyzyl**	**5.61**	**272**	*e*Pn	**Pn**	**18 06 22.8**	**+1.5**
KZLR				*e*Pg	**Pb**	**18 06 35.9**	**+0.1**
KZLR				*e*Sg	**Sb**	**18 07 48.2**	**+5.2**
KPC	**Khapcheranga**	**6.03**	**107**	*e*Pn	**Pn**	**18 06 25.4**	**-1.7**
KPC				*e*Pg	**Pb**	**18 06 46.4**	**+3.3**
KPC				Pmax		18 06 52.7	
	comp=N,1µm,0.6s						
KPC				*e*Sn	**Sn**	**18 07 33.7**	**-2.4**
KPC				*e*Sg	**Sg**	**18 08 05.4**	**-6.1**
KPC				Smax		18 08 23.4	
	comp=N,34µm,1.7s						
KPC	**Khapcheranga**	**6.03**	**107**	*e*PN	**Pn**	**18 06 25.4**	**-1.7**
KPC				*e*		18 06 44.7	
KPC				*e*S	**Sn**	**18 07 33.7**	**-2.4**
KPC				*e*		18 08 05.2	
KPC				pmax	pmax		
	comp=Z,1µm,0.5s						
KPC				smax	smax		
	comp=N,34µm,1.7s						
KMO	**Kumora**	**6.12**	**45**	*e*Pn	**Pn**	**18 06 27.8**	**-0.5**
KMO				*e*Pg	**Pb**	**18 06 48.8**	**+4.3**
KMO				Pmax		18 06 53.2	
	comp=N,5µm,1.1s						
KMO				*e*Sg	**Sg**	**18 08 09.4**	**-4.8**
KMO				Smax		18 08 32.1	
	comp=N,34µm,1.3s						
KMO	**Kumora**	**6.12**	**45**	*e*PN	**Pn**	**18 06 28.2**	**-0.1**
KMO				*e*		18 06 48.7	
KMO				*e*S	**Sn**	**18 07 35.0**	**-3.2**
KMO				*e*		18 08 10.5	
KMO				pmax	pmax		
	comp=Z,495nm,0.3s						
KMO				smax	smax		
	comp=N,33µm,1.5s						
CIT	**Chita**	**6.24**	**84**	*e*Pn	**Pn**	**18 06 30.0**	**+0.1**
CIT				max		18 06 31.9	
	comp=N,3µm,0.5s						
CIT				*e*Sg	**Sg**	**18 08 11.9**	**-6.1**
CIT				Smax		18 08 23.1	
	comp=N,21µm,1.5s						
MINR	**Mina**	**6.35**	**303**	*e*Pn	**Pn**	**18 06 34.6**	**+3.1**
MINR				*e*Pg	**Pb**	**18 06 51.2**	**+2.7**
MINR				*e*Sg	**Sg**	**18 08 14.7**	**-7.0**
SVKR	**Severomuysk**	**7.34**	**50**	*e*Pn	**Pn**	**18 06 46.5**	**+1.5**
SVKR				*e*		18 07 13.2	
SVKR				max		18 07 15.3	
	comp=N,2µm,0.9s						
SVKR				*e*Sg	**Sg**	**18 08 46.5**	**-6.7**
SVKR				Smax		18 09 05.6	
	comp=N,35µm,1.8s						
BOD	**Bodaibo**	**8.54**	**41**	*e*Pn	**Pn**	**18 07 00.4**	**-1.0**
BOD				*e*Pg	Pg	18 07 32.9	-8.4
BOD				Pmax		18 07 58.5	
	comp=N,1µm,1.5s						
BOD				*e*Sg	**Sg**	**18 09 23.9**	**-7.8**
BOD				Smax		18 09 36.4	
	comp=N,35µm,1.6s						
NLYR	**Nelyaty**	**8.56**	**52**	*e*Pn	**Pn**	**18 07 01.9**	**+0.2**
NLYR				*e*Pg	Pg	18 07 31.5	-10
NLYR				*e*Sg	Sg	18 09 23.1	-9.3
DGZ	**Jazzator, Alta**	**10.39**	**265**	*d i*P	**Pn**	**18 07 28.4**	**+1.5**
DGZ				MLR	MLR		
	comp=Z,10µm,10.0s						
HILR	**Hailar Array B**	**10.57**	**96**	Pn	**Pn**	**18 07 27.3**	**-2.0**
	baz=295,slow=13						
HILR				Lg	Lg	18 10 30.2	
	baz=282,slow=21						
HIA	**Hailar**	**10.66**	**97**	P	**Pn**	**18 07 27.7**	**-2.9**
HIA	**Hailar**	**10.66**	**97**		**Pn**	**18 07 27.7**	**-2.9**
I46RU	**ZALESOVO INFRA**	**11.47**	**288**	Lg	Lg	18 10 55.0	
	baz=94,slow=30						
ZALV	**Zalesovo Beam**	**11.47**	**288**	Pn	**Pn**	**18 07 43.5**	**+1.9**
	comp=Z,37nm,0.9s,baz=98,slow=10,SNR=91						
ZALV				Lg	Lg	18 10 47.5	
	comp=Z,17nm,0.3s,baz=110,slow=22,SNR=11						
ZALV	**Zalesovo Beam**	**11.47**	**288**	*i* P	**Pn**	**18 07 44.4**	**+2.8**
ZALV				pmax	pmax		
	comp=Z,119nm,0.9s						
ZALV	**Zalesovo Beam**	**11.47**	**288**		**Pn**	**18 07 42.3**	**+0.7**
XLT	**XiLinHaoTe**	**11.58**	**128**	*e*P	**Pn**	**18 07 40.0**	**-3.2**
XLT				SS	Sn	18 10 02.8	+10
XLT				pmax	pmax		
	comp=Z,18nm,0.5s						
XLT				pmax	pmax		
	comp=Z,200nm,5.5s						
XLT				L	L		
	comp=Z,2µm,7.6s						
XLT				L	L		
	comp=Z,16µm,6.6s						
XLT				L	L		
	comp=Z,20µm,10.9s						
BTO2	**Baotou**	**11.92**	**156**	*e*P	**Pn**	**18 07 47.3**	**-0.6**
BTO2				pP		18 07 50.5	
BTO2				sP		18 07 53.6	
BTO2				PP		18 07 56.8	
BTO2				S	**Sn**	**18 10 00.3**	**-0.7**
BTO2				pmax	pmax		
	comp=Z,120nm,0.9s						
BTO2				pmax	pmax		
	comp=Z,1µm,5.8s						
BTO2				L	L		
	comp=Z,45µm,8.9s						
BTO2				L	L		
	comp=Z,28µm,6.0s						
BTO2				L	L		
	comp=Z,44µm,9.6s						
HHC	**Hu-ho-hao-te**	**12.30**	**150**	*e*P	**Pn**	**18 07 52.3**	**-0.8**
HHC				sP	P	18 07 58.8	-6.6
HHC				S	**Sn**	**18 10 15.3**	**+5.1**
HHC				SS		18 10 24.8	
HHC				pmax	pmax		
	comp=Z,96nm,1.0s						
HHC				pmax	pmax		
	comp=Z,670nm,4.6s						
HHC				L	L		
	comp=Z,18µm,10.8s						
HHC				L	L		
	comp=Z,11µm,11.4s						
HHC				L	L		
	comp=Z,19µm,11.2s						
GTA2	**Gaotai**	**12.61**	**193**	*e*P	**Pn**	**18 07 57.8**	**+0.5**
GTA2				pP	P	18 08 02.1	-6.7
GTA2				S	**Sn**	**18 10 17.4**	**-0.2**
GTA2				pmax	pmax		
	comp=Z,9.0nm,0.6s						
GTA2				L	L		
	comp=Z,27µm,9.5s						
GTA2				L	L		
	comp=Z,110µm,13.0s						
GTA2				L	L		
	comp=Z,17µm,11.7s						
ZSN	**Zaisan**	**12.83**	**257**	*e*P	**Pn**	**18 08 00.7**	**+0.6**
ZSN	**Zaisan**	**12.83**	**257**	*e*P	**Pn**	**18 08 00.7**	**+0.6**
WMQ	**Urumqi**	**13.27**	**239**	*e*P	**Pn**	**18 08 07.4**	**+1.2**
WMQ				PP	**P**	**18 08 18.0**	**+1.9**
WMQ				pmax	pmax		
	comp=Z,60nm,0.9s						
WMQ				pmax	pmax		
	comp=Z,330nm,3.7s						
WMQ				L	L		
	comp=Z,13µm,4.3s						
WMQ				L	L		
	comp=Z,14µm,7.1s						
WMQ				L	L		
	comp=Z,6µm,11.9s						
ZEA	**Zeya**	**14.50**	**73**	*e*P	**Pn**	**18 08 23.5**	**+0.6**
ZEA				*e*S	**Sn**	**18 10 57.8**	**-5.6**
ZEA				pmax	pmax		
	comp=E,20nm,1.3s						
ZEA				pmax	pmax		
	comp=N,10.0nm,1.0s						
ZEA				pmax	pmax		
	comp=Z,30nm,1.3s						
ZEA				smax	smax		
	comp=E,100nm,2.0s						
ZEA				MLR	MLR		
	comp=N,5µm,11.0s						
ZEA				MLR	MLR		
	comp=E,9µm,11.0s						
ZEA				MLR	MLR		
	comp=Z,10µm,12.0s						
MK31	**Makanchi Array**	**14.69**	**258**	*d i*P	**Pn**	**18 08 25.7**	**+0.1**
MKAR	**Makanchi Array**	**14.69**	**258**	Pn	**Pn**	**18 08 26.0**	**+0.4**
	comp=Z,3.5nm,0.3s,baz=80,slow=12,SNR=165						
MKAR				Lg	Lg	18 12 29.5	
	comp=Z,2.5nm,0.3s,baz=63,slow=26,SNR=4.1						
MKAR				LR	LR	18 14 08.7	
	comp=Z,6µm,18.5s,baz=54,slow=38						
	comp=Z,32nm,0.7s						
MKAR				AML	AML		
MKAR	**Makanchi Array**	**14.69**	**258**	*i* P	**Pn**	**18 08 25.7**	**+0.1**
MKAR				pmax	pmax		
	comp=Z,34nm,0.6s						
MKAR	**Makanchi Array**	**14.69**	**258**		**Pn**	**18 08 25.3**	**-0.3**
BJT	**Baijiatuau**	**14.71**	**138**	P	**Pn**	**18 08 23.3**	**-2.6**
BJT	**Baijiatuau**	**14.71**	**138**		**Pn**	**18 08 23.3**	**-2.6**
BJI2	**Beijing**	**14.71**	**138**	P	**Pn**	**18 08 23.3**	**-2.6**
BJI2				S	**Sn**	**18 11 10.3**	**+1.5**
BJI2				pmax	pmax		
	comp=Z,100nm,1.0s						
BJI2				pmax	pmax		
	comp=Z,140nm,3.5s						
BJI2				L	L		
	comp=Z,12µm,13.1s						
BJI2				L	L		
	comp=Z,19µm,11.0s						
BJI2				L	L		
	comp=Z,15µm,10.2s						
MAKZ	**Makanchi**	**14.87**	**259**	P	**Pn**	**18 08 27.5**	**-0.6**
MAKZ	**Makanchi**	**14.87**	**259**		**Pn**	**18 08 27.5**	**-0.6**
MAKZ	**Makanchi**	**14.87**	**259**	P	**Pn**	**18 08 28.1**	**0.0**
	comp=Z,406nm,0.9s						
HEH	**HeiHe**	**15.12**	**87**	*e*P	**Pn**	**18 08 29.9**	**-1.4**
HEH				S	**Sn**	**18 11 18.5**	**-0.2**
HEH				L	L		
	comp=Z,12µm,7.7s						
HEH				L	L		
	comp=Z,12µm,8.3s						
HEH				L	L		
	comp=Z,20µm,10.2s						
TIY	**Taiyuan**	**15.45**	**152**	P	**Pn**	**18 08 36.9**	**+1.0**
TIY				S	**Sn**	**18 11 33.8**	**+6.8**
TIY				SS	**S**	**18 11 47.8**	**+4.8**
TIY				pmax	pmax		
	comp=Z,860nm,4.5s						
TIY				L	L		
	comp=Z,11µm,8.4s						
TIY				L	L		
	comp=Z,6µm,7.2s						
TIY				L	L		
	comp=Z,11µm,10.2s						
KURK	**Kurchatov**	**15.58**	**276**	P	**Pn**	**18 08 37.4**	**0.0**
KURK	**Kurchatov**	**15.58**	**276**	*d i*P	**Pn**	**18 08 36.9**	**-0.5**
KURK				MLR	MLR		
	comp=Z,6µm,10.0s						
KURK	**Kurchatov**	**15.58**	**276**		**Pn**	**18 08 35.7**	**-1.7**
KURK				IAmb	IAmb	18 08 43.8	
	comp=Z,232nm,1.0s						
KURK	**Kurchatov**	**15.58**	**276**	P	**Pn**	**18 08 37.2**	**-0.2**
	comp=Z,286nm,1.2s						
KURBB	**Kurchatov Arra**	**15.66**	**275**	Pn	**Pn**	**18 08 38.2**	**-0.1**
	comp=Z,2.0nm,0.3s,baz=79,slow=13,SNR=213						
KURBB				Lg	Lg	18 13 01.7	
	comp=Z,0.3nm,0.3s,baz=72,slow=27,SNR=4.9						
KURBB				LR	LR	18 14 44.4	
	comp=Z,3µm,21.7s,baz=76,slow=38						
	comp=Z,80nm,0.7s						
KURBB				AML	AML		
KURBB	**Kurchatov Arra**	**15.66**	**275**	P	**Pn**	**18 08 37.2**	**-1.2**
LZH	**Lanzhou**	**15.73**	**179**	*e*P	**Pn**	**18 08 39.4**	**-0.2**
LZH				sP	pP	18 08 47.0	0.0
LZH				S	**Sn**	**18 11 33.3**	**-0.6**
LZH				SS	**S**	**18 11 52.0**	**+3.1**
LZH				pmax	pmax		
	comp=Z,160nm,1.1s						
LZH				pmax	pmax		
	comp=Z,1µm,4.1s						
LZH				L	L		
	comp=Z,21µm,7.6s						
LZH				L	L		
	comp=Z,73µm,8.2s						
LZH				L	L		
	comp=Z,22µm,8.8s						
LZDM	**Lanzhou Array**	**15.86**	**179**	Pn	**Pn**	**18 08 41.9**	**+0.5**
	baz=349,slow=12						
LZDM				LR	LR	18 15 09.2	
	comp=Z,4µm,19.8s,baz=355,slow=39						
	comp=Z,3.0nm,0.3s						
HNS	**HongShan**	**16.46**	**147**	⇓P	**Pn**	**18 08 48.0**	**-0.7**
HNS				S	**S**	**18 11 58.9**	**-4.4**
HNS				pmax	pmax		
	comp=Z,89nm,1.2s						
HNS				pmax	pmax		
	comp=Z,1µm,3.5s						
HNS				L	L		
	comp=Z,10µm,12.0s						
HNS				L	L		
	comp=Z,9µm,8.0s						
HNS				L	L		
	comp=Z,14µm,14.2s						
CN2	**Changchun**	**16.75**	**110**	P	**P**	**18 08 56.8**	**+2.2**
CN2				S	**Sn**	**18 11 55.6**	**-2.6**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.7s						
CN2				L	L		
	comp=Z,28µm,13.0s						
CN2				L	L		
	comp=Z,19µm,13.0s						
CN2				L	L		
	comp=Z,12µm,8.0s						
GOMU	**GeErMu**	**16.80**	**205**	P	**Pn**	**18 08 52.1**	**-1.3**
GOMU				pP	P	18 08 56.0	+0.4
GOMU				sP	sP	18 09 00.0	-0.5
GOMU				S	**Sn**	**18 11 56.4**	**-3.6**
GOMU				pmax	pmax		
	comp=Z,33nm,1.5s						
GOMU				L	L		
	comp=Z,19µm,11.0s						
GOMU				L	L		
	comp=Z,54µm,10.7s						
GOMU				L	L		
	comp=Z,7µm,10.0s						
BNX	**BinXian**	**16.86**	**102**	⇑P	**P**	**18 08 55.4**	**-0.4**
BNX				pP	**sP**	**18 09 00.8**	**0.0**
BNX				sP	**pP**	**18 09 02.3**	**+3.1**
BNX				S	**Sn**	**18 12 04.0**	**+3.1**
BNX				pmax	pmax		
	comp=Z,34nm,1.3s						
BNX				pmax	pmax		
	comp=Z,380nm,4.6s						
BNX				L	L		
	comp=Z,34µm,11.3s						
BNX				L	L		
	comp=Z,24µm,11.7s						
BNX				L	L		
	comp=Z,14µm,10.3s						
SNY	**Shenyang**	**16.95**	**118**	⇑P	**Pn**	**18 08 55.3**	**+0.4**
SNY				S	**Sn**	**18 12 03.8**	**+0.7**
SNY				L	L		
	comp=Z,29µm,10.8s						
SNY				L	L		
	comp=Z,21µm,9.7s						
SNY				L	L		
	comp=Z,10µm,9.2s						
YAK	**Yakutsk**	**17.44**	**44**	Pn	**Pn**	**18 08 58.6**	**-2.3**
	comp=Z,1.7nm,0.3s,baz=252,slow=18,SNR=19						
YAK				Lg	Lg	18 13 59.6	
	comp=Z,6.6nm,0.3s,baz=324,slow=22,SNR=4.0						
YAK				LR	LR	18 15 50.7	
	comp=Z,8µm,19.5s,baz=246,slow=37						
	comp=Z,126nm,0.9s						
YAK				AML	AML		
YAK	**Yakutsk**	**17.44**	**44**	*e*P	**P**	**18 09 03.3**	**+1.2**
YAK				*e*S	**Sn**	**18 12 18.6**	**+3.8**
YAK				pmax	pmax		
	comp=Z,366nm,1.5s						
YAK				pmax	pmax		
	comp=N,183nm,1.7s						
YAK				pmax	pmax		
	comp=E,220nm,1.0s						
YAK				pmax	pmax		
	comp=E,628nm,2.0s						
YAK				pmax	pmax		
	comp=N,130nm,1.4s						
YAK				pmax	pmax		
	comp=Z,326nm,1.6s						
YAK				smax	smax		
	comp=N,2µm,4.1s						
YAK				smax	smax		
	comp=E,1µm,3.3s						
YAK				MLR	MLR		
	comp=Z,10µm,20.0s						
YAK				MLR	MLR		
	comp=E,6µm,16.0s						
YAK				MLR	MLR		
	comp=N,2µm,25.0s						
YAK	**Yakutsk**	**17.44**	**44**		**Pn**	**18 08 55.2**	**-5.7**
YAK				IAmb	IAmb	18 09 09.7	
	comp=Z,253nm,0.7s						
YAK	**Yakutsk**	**17.44**	**44**	P	**Pn**	**18 08 57.8**	**-3.1**
	comp=Z,520nm,1.4s						
TDK	**Taldyqorghan**	**17.93**	**258**	*d i*P	**Pn**	**18 09 06.4**	**-0.8**
TDK				*e*S	**Sn**	**18 12 26.8**	**-0.2**
TDK				MLR	MLR		
	comp=Z,1µm,8.0s						
TDK	**Taldyqorghan**	**17.93**	**258**	⇓*i*P	**Pn**	**18 09 06.4**	**-0.8**
TDK				*e*S	**Sn**	**18 12 26.8**	**-0.2**
TDK				LR	LR	18 16 50.8	
	comp=Z,1µm,7.7s						
DL2	**Dalian**	**18.08**	**128**	P	**Pn**	**18 09 09.0**	**0.0**
DL2				S	**Sn**	**18 12 31.8**	**+1.2**
DL2				pmax	pmax		
	comp=Z,120nm,1.0s						
DL2				pmax	pmax		
	comp=Z,1µm,6.2s						
DL2				L	L		
	comp=Z,29µm,15.2s						
DL2				L	L		
	comp=Z,36µm,15.0s						
DL2				L	L		
	comp=Z,20µm,13.1s						
KLR	**Kul'dur**	**18.11**	**87**	Pn	**P**	**18 09 10.6**	**+1.0**
	comp=Z,0.8nm,0.3s,baz=286,slow=11,SNR=55						
KLR				Lg	Lg	18 14 29.7	
	comp=Z,1.2nm,0.3s,baz=234,slow=18,SNR=7.1						
KLR				LR	LR	18 15 30.8	
	comp=Z,3µm,19.4s,baz=288,slow=35						
	comp=Z,15nm,0.8s						
KLR				AML	AML		
KLR	**Kul'dur**	**18.11**	**87**	*d i*P	**P**	**18 09 10.9**	**+1.2**
KLR				MLR	MLR		
	comp=Z,6µm,11.0s						
XAN	**Xi'an**	**18.20**	**165**	P	**Pn**	**18 09 09.8**	**-0.8**
XAN				S	**Sn**	**18 12 34.0**	**+0.4**
XAN				pmax	pmax		
	comp=Z,66nm,1.4s						
XAN				pmax	pmax		
	comp=Z,2µm,6.8s						
XAN				L	L		
	comp=Z,13µm,9.3s						
XAN				L	L		
	comp=Z,11µm,10.3s						
XAN				L	L		
	comp=Z,11µm,9.1s						
PDGK	**Podgornoye**	**18.21**	**252**	P	**Pn**	**18 09 07.3**	**-3.4**
PDGK	**Podgornoye**	**18.21**	**252**	Pn	**Pn**	**18 09 07.3**	**-3.4**
SHLS	**Shalkode**	**18.33**	**251**	*e*P	**Pn**	**18 09 07.4**	**-4.7**
SHLS				*e*S	**Sn**	**18 12 29.8**	**-7.0**
SHLS	**Shalkode**	**18.33**	**251**	*e*P	**Pn**	**18 09 07.5**	**-4.7**
SHLS				*e*S	**Sn**	**18 12 29.9**	**-7.0**
TIA	**Tai'an**	**18.38**	**143**	P	**P**	**18 09 12.8**	**+0.1**
TIA				S	**Sn**	**18 12 40.0**	**+2.1**
TIA				PcS	**PcS**	**18 17 20.8**	**+0.8**
TIA				pmax	pmax		
	comp=Z,82nm,1.3s						
TIA				pmax	pmax		
	comp=Z,2µm,6.2s						
TIA				L	L		
	comp=Z,17µm,11.8s						
TIA				L	L		
	comp=Z,10µm,11.8s						
TIA				L	L		
	comp=Z,24µm,12.2s						
LYN	**LuoYang**	**18.44**	**156**	P	**P**	**18 09 12.3**	**-1.0**
LYN				sP	sP	18 09 20.8	+2.5
LYN				S	**Sn**	**18 12 34.8**	**-4.4**
LYN				sS	S	18 12 39.6	-4.0
LYN				SS	**SnSn**	**18 12 59.9**	**+7.0**
LYN				pmax	pmax		
	comp=Z,81nm,1.0s						
LYN				pmax	pmax		
	comp=Z,2µm,6.8s						
LYN				L	L		
	comp=Z,8µm,8.3s						
LYN				L	L		
	comp=Z,10µm,9.1s						
LYN				L	L		
	comp=Z,14µm,10.1s						
UZB	**Uzynbulak**	**18.60**	**252**	*d i*P	**P**	**18 09 13.5**	**-1.7**
UZB	**Uzynbulak**	**18.60**	**252**	⇓*i*P	**P**	**18 09 13.6**	**-1.7**
KPKS	**Kokpek**	**18.61**	**253**	*e*P	**P**	**18 09 14.4**	**-0.8**
KPKS	**Kokpek**	**18.61**	**253**	*e*P	**P**	**18 09 14.5**	**-0.8**
SUJ	**Sinuiju**	**18.65**	**121**	P	**Pn**	**18 09 16.7**	**+0.8**
MDJ	**Mudanjiang**	**18.76**	**102**	P	**Pn**	**18 09 18.3**	**+1.0**
MDJ				S	**S**	**18 12 52.1**	**+2.0**
MDJ				L	L		
	comp=Z,37µm,12.5s						
MDJ				L	L		
	comp=Z,31µm,10.0s						
MDJ				L	L		
	comp=Z,17µm,10.6s						
MDJ	**Mudanjiang**	**18.76**	**102**	P	**Pn**	**18 09 17.1**	**-0.2**
SATY	**Saty**	**19.01**	**252**	*d i*P	**P**	**18 09 19.1**	**-0.6**
SATY				*e*S	**Sn**	**18 12 53.2**	**0.0**
SATY	**Saty**	**19.01**	**252**	⇓*i*P	**P**	**18 09 19.2**	**-0.6**
SATY				*e*S	**Sn**	**18 12 53.2**	**0.0**
NRIK	**Noril'sk**	**19.12**	**343**	P	**P**	**18 09 18.3**	**-2.2**
	comp=Z,52nm,0.5s,baz=136,slow=12,SNR=34						
NRIK				Sn	**Sn**	**18 12 47.0**	**-8.1**
	comp=Z,17nm,0.3s,baz=46,slow=21,SNR=4.4						
NRIK				Lg	Lg	18 15 01.1	
	comp=Z,4.8nm,0.3s,baz=42,slow=9.5,SNR=6.6						
NRIK				LR	LR	18 17 58.8	
	comp=Z,426nm,21.8s,baz=155,slow=41						
NRIK	**Noril'sk**	**19.12**	**343**	*i* P	**P**	**18 09 15.5**	**-5.0**
NRIK				MLR	MLR		
	comp=Z,8µm,13.0s						
NRIK	**Noril'sk**	**19.12**	**343**	P	**P**	**18 09 15.6**	**-4.9**
NRIK				IAmb	IAmb	18 09 23.2	
	comp=Z,289nm,1.4s						
PRZ	**Przheval'sk**	**19.36**	**251**	P	**P**	**18 09 23.5**	**-0.1**
PRZ				pmax	pmax		
	comp=Z,374nm,0.8s						
PRZ	**Przheval'sk**	**19.36**	**251**	P	**P**	**18 09 23.5**	**-0.1**
PRZ	**Przheval'sk**	**19.36**	**251**	P	**Pn**	**18 09 24.5**	**-0.2**
	comp=Z,713nm,0.9s						
WUS	**Wushi**	**19.70**	**247**	P	**P**	**18 09 26.5**	**-0.8**
WUS				IAmb	IAmb	18 09 31.2	
	comp=Z,136nm,1.0s						
MDOK	**Medeo**	**19.76**	**254**	*e*P	**P**	**18 09 28.1**	**+0.2**
MDOK				*e*S	**Sn**	**18 13 10.9**	**-0.4**
MDOK				MLR	MLR		
	comp=Z,949nm,9.0s						
MDOK	**Medeo**	**19.76**	**254**	*e*P	**P**	**18 09 28.1**	**+0.2**
MDOK				*e*S	**Sn**	**18 13 10.9**	**-0.4**
MDOK				LR	LR	18 18 13.5	
	comp=Z,949nm,9.3s						
KUU	**Kurty**	**19.78**	**257**	*e*P	**P**	**18 09 27.5**	**-0.5**
KUU				*e*S	**S**	**18 13 10.3**	**-0.2**
KUU				MLR	MLR		
	comp=Z,1µm,7.0s						
KUU	**Kurty**	**19.78**	**257**	*e*P	**P**	**18 09 27.5**	**-0.5**
KUU				*e*S	**S**	**18 13 10.4**	**-0.2**
KUU				LR	LR	18 18 07.8	
	comp=Z,1µm,6.9s						
KNDC	**Almaty**	**19.78**	**255**	P	**P**	**18 09 28.1**	**+0.1**
AAA	**Alma-Ata**	**19.81**	**255**	*e*P	**P**	**18 09 28.5**	**+0.1**
AAA	**Alma-Ata**	**19.81**	**255**	*e*P	**P**	**18 09 28.6**	**+0.1**
AAA				LR	LR	18 18 07.8	
TNSS	**Tian-Shan**	**19.89**	**254**	*e*P	**P**	**18 09 29.4**	**-0.2**
TNSS	**Tian-Shan**	**19.89**	**254**	*e*P	**P**	**18 09 29.5**	**-0.2**
PYAG	**Pyongyang**	**20.09**	**121**	P	**P**	**18 09 31.8**	**+0.5**
PYAG				S	Sn	18 13 19.7	+0.8
PYAG				AmB			
	comp=Z,2µm,1.5s						

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PYAG                                AMS     AMS
      comp=Z,8µm,7.5s
BVAR  Borovoye Array     20.12 287   P       P       18 09 31.6   0.0
      comp=Z,250nm,0.9s,baz=92,slow=9.2,SNR=499
      comp=Z,250nm,0.9s
BORK  Borovoye           20.16 287d iP       P       18 09 32.3 +0.3
BORK                                pmax    pmax
      comp=Z,351nm,1.0s
BORK                                MLR     MLR
      comp=Z,3µm,8.0s
BORK  Borovoye           20.16 287           P       18 09 31.1  -1.0
TARG  Taragay, Kyrgy     20.18 250   P       P       18 09 31.9  -0.9
TARG                                pmax    pmax
      comp=Z,252nm,1.6s
TARG  Taragay, Kyrgy     20.18 250           P       18 09 31.9  -0.9
TARG                                IAmb    IAmb     18 09 40.1
      comp=Z,252nm,1.6s
TARG  Taragay, Kyrgy     20.18 250   P       P       18 09 32.9 +0.1
      comp=Z,90nm,1.6s
KDJ   Kajisay            20.29 252   P       P       18 09 33.1  -0.7
KDJ                                 pmax    pmax
      comp=Z,322nm,1.3s
KDJ   Kajisay            20.29 252   P       P       18 09 33.1  -0.7
KDJ                                 IAmb    IAmb     18 09 36.2
      comp=Z,322nm,1.3s
HHU   Hamhung            20.43 116   P       P       18 09 35.1 +0.1
HHU                                 S       Sn       18 13 26.3  -0.9
HHU                                 AmB
      comp=Z,1µm,2.6s
HHU                                 AMS     AMS
      comp=Z,13µm,10.2s
I45RU USSURIYSK INFR     20.43 101   Lg      Lg       18 15 49.1
      baz=298,slow=22
USRK  Ussuriysk Ar.      20.44 101   P       Pn       18 09 37.0  -0.3
      comp=Z,10nm,0.8s,baz=308,slow=9.4,SNR=24
USRK                                Lg      Lg       18 15 45.9
      comp=Z,0.3nm,0.3s,baz=299,slow=25,SNR=14
USRK                                LR      LR       18 17 04.4
      comp=Z,3µm,19.4s,baz=304,slow=36
      comp=Z,10nm,0.8s
USRK  Ussuriysk Ar.      20.44 101   P       Pn       18 09 37.0  -0.3
USRK  Ussuriysk Ar.      20.44 101   P       Pn       18 09 36.4  -0.9
GRNR  Gornyy             20.53  80⇓ iP       Pn       18 09 38.0  -0.3
GRNR                                pmax    pmax
      comp=Z,8.0nm,0.7s
GRNR                                MLR     MLR
      comp=N,4µm,10.0s
GRNR                                MLR     MLR
      comp=E,3µm,10.0s
GRNR                                MLR     MLR
      comp=Z,5µm,10.0s
TKM2  Tokmak 2           20.77 256   P       P       18 09 39.7 +0.7
      SNR=929
ULHL  Ulahol             20.78 253   P       Pn       18 09 40.6  -0.9
      SNR=10
HJU   Haeju              20.81 123   P       P       18 09 39.6 +0.4
HJU                                 AmB
      comp=Z,911nm,1.2s
HJU                                 AMS     AMS
      comp=Z,5µm,5.7s
BOOM  Boomskoye usch     20.82 254   P       P       18 09 39.9 +0.4
BOOM                                pmax    pmax
      comp=Z,954nm,1.2s
BOOM  Boomskoye usch     20.82 254   P       P       18 09 39.9 +0.4
CD2   Chengdu            20.89 179   P       P       18 09 40.3 +0.1
CD2                                 pP      pP       18 09 43.8 +0.2
CD2                                 sP      sP       18 09 44.8  -0.4
CD2                                 S       S        18 13 34.8 +1.8
CD2                                 sS      Sn       18 13 39.9 +1.4
CD2                                 pmax    pmax
      comp=Z,70nm,0.9s
CD2                                 L       L
      comp=Z,19µm,7.8s
CD2                                 L       L
      comp=Z,32µm,7.6s
CD2                                 L       L
      comp=Z,14µm,8.2s
VLA   Vladivostok        20.97 103d iP       Pn       18 09 44.8 +1.3
VLA                                 pmax    pmax
      comp=Z,93nm,1.0s
VLA                                 MLR     MLR
      comp=Z,8µm,11.0s
SGDS  Sogindy            21.05 258⇓ iP       P       18 09 41.9   0.0
      comp=Z,146nm,1.3s
SGDS                               eS       S        18 13 36.8 +0.7
CHMS  Chumysh            21.23 257   P       P       18 09 44.2 +0.4
      SNR=174
USP   Ospenovka          21.24 258   P       P       18 09 44.3 +0.5
      SNR=714
KBK   Karagaybulak       21.31 256   P       P       18 09 45.6 +0.8
      SNR=89
FRU1  Bishkek            21.42 257   P       P       18 09 45.9 +0.1
FRU1                                pmax    pmax
      comp=Z,492nm,1.2s
FRU1  Bishkek            21.42 257   P       P       18 09 45.9 +0.1
NRN   Naryn              21.42 252   P       P       18 09 45.8  -0.3
NRN                                 pmax    pmax
      comp=Z,158nm,0.8s
NRN   Naryn              21.42 252   P       P       18 09 45.8  -0.3
NRN                                 IAmb    IAmb     18 09 50.9
      comp=Z,158nm,0.8s
ASAI  AK-SAY(Kyrgyzs     21.44 250   P       P       18 09 47.2 +0.9
      comp=Z,399nm,1.0s
AAK   Ala-Archa          21.60 256   P       P       18 09 48.4 +0.5
      comp=Z,101nm,0.8s,baz=81,slow=8.1,SNR=103
AAK                                 Lg      Lg       18 16 14.2
      comp=Z,0.1nm,0.3s,baz=326,slow=22,SNR=6.9
      comp=Z,101nm,0.8s
AAK   Ala-Archa          21.60 256   P       P       18 09 48.4 +0.5
      SNR=115
AAK   Ala-Archa          21.60 256   P       P       18 09 48.5 +0.7
AAK                                 S       S        18 13 49.7 +2.8
AAK   Ala-Archa          21.60 256d iP       P       18 09 48.1 +0.3
AAK                                 pmax    pmax
      comp=Z,223nm,1.1s
AAK                                 MLR     MLR
      comp=Z,5µm,10.0s
AAK   Ala-Archa          21.60 256           P       18 09 47.4  -0.4
AAK                                 IAmb    IAmb     18 09 55.5
      comp=Z,188nm,1.1s
AAK   Ala-Archa          21.60 256  i P      P       18 09 48.3 +0.5
      SNR=57
AAK   Ala-Archa          21.60 256   P       P       18 09 48.4 +0.5
      comp=Z,208nm,1.1s
INCN  Inchon             21.71 122   P       P       18 09 46.1  -2.8
INCN                                S       S        18 13 50.0 +1.1
INCN  Inchon             21.71 122   P       P       18 09 46.8  -2.1
INCN                                pmax    pmax
      comp=Z,133nm,1.3s
INCN                                MLR     MLR
      comp=Z,3µm,19.0s
INCN  Inchon             21.71 122           P       18 09 46.8  -2.1
INCN                                IAmb    IAmb     18 09 53.6
      comp=Z,132nm,1.2s
INCN  Inchon             21.71 122   P       P       18 09 51.1 +2.2
      comp=Z,82nm,1.2s
ENH   Enshi              21.98 166   IAmb    IAmb     18 09 54.5
      comp=Z,194nm,1.4s
EKS2  Erkin-Say          22.02 257   P       P       18 09 52.9 +0.7
      SNR=438
KSRS  Korea Array        22.41 120   P       P       18 09 58.0 +1.6
      comp=Z,68nm,1.2s,baz=329,slow=11,SNR=5.0
KSRS                                Lg      Lg       18 16 50.9
      comp=Z,0.2nm,0.3s,baz=316,slow=27,SNR=7.3
KSRS                                LR      LR       18 18 39.2
      comp=Z,3µm,19.4s,baz=320,slow=37
      comp=Z,68nm,1.2s
KSRS  Korea Array        22.41 120   P       P       18 09 58.0 +1.6
NKL   Nikolayevsk        22.53  72  eP       P       18 09 58.3 +0.8
NKL                                eS       S        18 14 07.2 +2.9
NKL                                 pmax    pmax
      comp=E,217nm,3.2s
NKL                                 pmax    pmax
      comp=N,450nm,4.9s
NKL                                 pmax    pmax
      comp=Z,799nm,5.1s
NKL                                 smax    smax
      comp=N,8µm,3.2s
NKL                                 smax    smax
      comp=E,6µm,3.2s
NKL                                 MLR     MLR
      comp=E,12µm,11.0s
NKL                                 MLR     MLR
      comp=N,23µm,16.0s
NKL                                 MLR     MLR
      comp=Z,20µm,10.0s
WHN   Wuhan              22.73 155   P       P       18 09 59.3  -0.5
WHN                                 S       S        18 14 06.3  -1.8
WHN                                 pmax    pmax
      comp=Z,290nm,1.1s
WHN                                 pmax    pmax
      comp=Z,2µm,4.4s
WHN                                 L       L
      comp=Z,10µm,8.5s
WHN                                 L       L
      comp=Z,11µm,8.1s
WHN                                 L       L
      comp=Z,18µm,10.5s
NJ2   Nanjing            22.74 144 ⇓P       P       18 10 01.8 +1.9
NJ2                                 sP      sP       18 10 06.9 +2.0
NJ2                                 S       S        18 14 05.4  -2.9
NJ2                                 pmax    pmax
      comp=Z,110nm,1.0s
NJ2                                 pmax    pmax
      comp=Z,1µm,4.3s
NJ2                                 L       L
      comp=Z,12µm,12.9s
NJ2                                 L       L
      comp=Z,7µm,14.1s
NJ2                                 L       L
      comp=Z,14µm,13.4s
TEY   Ternei             22.86  94⇓eP       P       18 09 56.5  -4.6
TEY                                 pmax    pmax
      comp=E,20nm,1.4s
TEY                                 pmax    pmax
      comp=N,20nm,1.7s
TEY                                 pmax    pmax
      comp=Z,40nm,1.4s
TEY                                 pmax    pmax
      comp=E,500nm,8.9s
TEY                                 pmax    pmax
      comp=Z,800nm,8.6s
TIXI  Tiksi              22.88  20   P       P       18 10 00.9  -0.2
      comp=Z,19nm,0.5s,baz=246,slow=8.2,SNR=28
TIXI                                S       S        18 14 15.8 +5.6
      comp=Z,77nm,0.6s,baz=111,slow=22,SNR=6.0
TIXI                                LR      LR       18 18 34.8
      comp=Z,2µm,19.9s,baz=250,slow=36
      comp=Z,19nm,0.5s
TIXI  Tiksi              22.88  20deP       P       18 10 00.0  -1.1
TIXI                                pmax    pmax
      comp=Z,115nm,0.8s
TIXI                                MLR     MLR
      comp=Z,7µm,12.0s
TIXI  Tiksi              22.88  20           P       18 09 59.3  -1.8
TJN   Taejon             22.93 123c iP       P       18 10 03.3 +1.5
TJN   Taejon             22.93 123           P       18 10 00.9  -0.9
TJN   Taejon             22.93 123   P       P       18 10 03.8 +2.0
      comp=Z,680nm,1.3s
KSH2  Kashi              23.15 248   P       P       18 10 04.3  -0.1
KSH2                                S       S        18 14 09.5  -6.3
KSH2                                pmax    pmax
      comp=Z,220nm,1.2s
KSH2                                pmax    pmax
      comp=Z,1µm,3.2s
KSH2                                L       L
      comp=Z,8µm,7.2s
KSH2                                L       L
      comp=Z,11µm,11.3s
KSH2                                L       L
      comp=Z,8µm,14.1s
DZA   Taraz              23.38 260  eP       P       18 10 06.5 +0.1
DZA                                 pmax    pmax
      comp=Z,65nm,0.8s
DZA   Taraz              23.38 260  eP       P       18 10 06.6 +0.1
      comp=Z,65nm,0.8s
KK31  Karatay Array      23.76 262  i P      P       18 10 09.5  -0.7
KKAR  Karatay Array      23.76 262   P       P       18 10 09.3  -0.9
KKAR  Karatay Array      23.76 262   P       P       18 10 09.3  -0.9
OHH   Osh                23.89 254   P       P       18 10 10.8  -0.8
OHH   Osh                23.89 254   P       P       18 10 10.8  -0.8
      comp=Z,220nm,0.9s
LSA   Lhasa              23.93 207   P       P       18 10 13.1 +0.7
BRLS  Borolday           24.22 262d iP       P       18 10 16.6 +2.1
BRLS                                pmax    pmax
      comp=Z,50nm,1.4s
BRLS  Borolday           24.22 262⇓ iP       P       18 10 16.6 +2.1
      comp=Z,50nm,1.4s
TYV   Tymovskoe          24.30  77  eP       P       18 10 17.6 +2.5
TYV                                eS       S        18 14 39.7 +6.1
TYV                                 pmax    pmax
      comp=Z,1µm,2.6s
TYV                                 pmax    pmax
      comp=Z,115nm,1.4s
TYV                                 smax    smax
      comp=E,13nm,1.5s
TYV                                 smax    smax
      comp=N,2µm,9.9s
TYV                                 smax    smax
      comp=E,2µm,9.9s
TYV                                 MLR     MLR
      comp=Z,11µm,13.0s
SSE   Sheshan            24.47 141   P       P       18 10 16.8   0.0
SSE                                 pP      pP       18 10 19.8  -0.7
SSE                                 S       S        18 14 34.6  -2.1
SSE                                 pmax    pmax
      comp=Z,19nm,0.7s
SSE                                 pmax    pmax
      comp=Z,390nm,5.1s
SSE                                 L       L
      comp=Z,5µm,12.0s
UGL   Uglegorsk          24.53  81  eP       P       18 10 20.0 +2.8
UGL                                eSS               18 15 52.6
UGL                                 pmax    pmax
      comp=Z,200nm,0.9s
UGL                                 pmax    pmax
      comp=Z,2µm,3.0s
UGL                                 MLR     MLR
      comp=N,6µm,10.0s
UGL                                 MLR     MLR
      comp=E,7µm,10.0s
UGL                                 MLR     MLR
      comp=Z,7µm,9.0s
IUG   Iuzhnay            24.59 260d iP       P       18 10 18.2 +0.2
IUG                                 pmax    pmax
      comp=Z,93nm,1.3s
IUG   Iuzhnay            24.59 260⇓ iP       P       18 10 18.2 +0.2
      comp=Z,93nm,1.3s
CNSH  ChangSha           24.65 160   P       P       18 10 18.9 +0.4
CNSH                                S       S        18 14 39.1  -0.6
CNSH                                L       L
      comp=Z,7µm,11.1s
CNSH                                L       L
      comp=Z,4µm,9.4s
CNSH                                L       L
      comp=Z,8µm,12.5s
CHM   Chimkent           24.75 261  eP       P       18 10 19.6 +0.2
CHM                                 pmax    pmax
      comp=Z,45nm,0.9s
CHM                                 MLR     MLR
      comp=Z,1µm,9.0s
CHM   Chimkent           24.75 261  eP       P       18 10 19.6 +0.2
      comp=Z,45nm,0.9s
CHM                                 LR      LR       18 21 04.6
      comp=Z,1µm,9.1s
DRK   Karamyk            25.14 253   P       P       18 10 24.0 +0.9
      comp=Z,365nm,0.8s
SVE   Sverdlovsk         25.16 298deP       P       18 10 23.3 +0.4
SVE                                eS       S        18 14 49.8 +2.4
SVE                                 pmax    pmax
      comp=Z,169nm,0.8s
SVE                                 MLR     MLR
      comp=Z,6µm,16.0s
PZH   PanZhiHua          25.32 184   P       P       18 10 25.9 +1.2
PZH                                 S       S        18 14 55.0 +4.4
PZH                                 pmax    pmax
      comp=Z,30nm,1.2s
PZH                                 pmax    pmax
      comp=Z,430nm,4.0s
PZH                                 L       L
      comp=Z,4µm,15.5s
PZH                                 L       L
      comp=Z,22µm,17.6s
PZH                                 L       L
      comp=Z,4µm,11.3s
GYA   Guiyang            25.44 173 ⇓P       P       18 10 26.3 +0.5
GYA                                 pmax    pmax
      comp=Z,22nm,1.2s
YSS   Yuzhno-Sakhali     25.80  85ceP       P       18 10 32.4 +3.7
YSS                                eS       S        18 15 00.9 +3.2
YSS                                 pmax    pmax
      comp=Z,80nm,1.3s
YSS                                 pmax    pmax
      comp=Z,900nm,5.1s
YSS                                 pmax    pmax
      comp=N,300nm,4.8s
YSS                                 pmax    pmax
      comp=E,600nm,5.3s
YSS                                 smax    smax
      comp=N,1µm,6.5s
YSS                                 smax    smax
      comp=E,500nm,7.8s
YSS                                 MLR     MLR
      comp=Z,6µm,14.0s
YSS                                 MLR     MLR
      comp=N,12µm,13.0s
YSS                                 MLR     MLR
      comp=E,5µm,13.0s
YSS   Yuzhno-Sakhali     25.80  85   P       P       18 10 31.6 +2.8
ARTI  Arti               26.45 298   LR      LR       18 22 05.2
      comp=E,5µm,19.6s,baz=80,slow=39
ARTI  Arti               26.45 298   P       P       18 10 34.4  -0.2
ARTI                                                 18 11 15.0
ARTI                                S       S        18 15 11.5 +3.6
ARTI                                SS      SnSn     18 16 17.2 +8.5
ARTI                                MLR     MLR
      comp=Z,4µm,18.0s
ARTI  Arti               26.45 298   P       P       18 10 33.7  -0.9
KMI2  Kunming            26.64 181 ⇑P       P       18 10 38.8 +2.0
KMI2                                sP      sP       18 10 44.8 +2.9
KMI2                                S       S        18 15 11.9 +0.2
KMI2                                pmax    pmax
      comp=Z,78nm,1.3s
KMI2                                pmax    pmax
      comp=Z,260nm,4.0s
KMI2                                L       L
      comp=Z,7µm,12.3s
KMI2                                L       L
      comp=Z,49µm,13.8s
KMI2                                L       L
      comp=Z,6µm,12.3s
EVN   Everest            26.92 214   P       P       18 10 39.5  -0.2
EVN   Everest            26.92 214   P       P       18 10 40.9 +1.1
      comp=Z,112nm,1.3s
GULI  GuiLin             27.01 166   P       P       18 10 38.4  -1.4
GULI                                S       S        18 15 17.3 +0.2
TNCH  TengChong          27.02 190 ⇑P       P       18 10 41.3 +1.1
TNCH                                pP      sP       18 10 47.5 +2.2
TNCH                                sP      pP       18 10 50.3 +6.5
TNCH                                S       S        18 15 18.8 +1.1
TNCH                                sS      sS       18 15 25.4 +1.7
TNCH                                pmax    pmax
      comp=Z,39nm,1.1s
TNCH                                pmax    pmax
      comp=Z,180nm,2.6s
TNCH                                L       L
      comp=Z,5µm,11.6s
TNCH                                L       L
      comp=Z,40µm,13.3s
TNCH                                L       L
      comp=Z,8µm,12.1s
MA2   Magadan            27.23  55d iP       P       18 10 42.2 +0.6
MA2                                 pmax    pmax
      comp=Z,81nm,1.6s
MA2                                 MLR     MLR
      comp=Z,5µm,9.0s
MA2   Magadan            27.23  55   P       P       18 10 40.4  -1.2
MA2                                 IAmb    IAmb     18 11 09.1
      comp=Z,67nm,1.3s
MA2   Magadan            27.23  55   P       P       18 10 44.7 +3.1
      comp=Z,39nm,1.4s
JNU   Nakatsue           27.27 123   LR      LR       18 20 51.9
      comp=Z,1µm,18.9s,baz=316,slow=35
KLP   Kalpa              27.44 232  eP       P       18 10 42.6  -1.5
KLP                                 IAmb    IAmb     18 10 58.1
      comp=Z,55nm,1.1s
TSSA  Tissa              27.46 237  eP       P       18 10 41.9  -2.2
TSSA                                IAmb    IAmb     18 10 45.5
      comp=Z,98nm,1.2s
AB31  Akbulak array      27.48 282  i P      P       18 10 42.8  -1.2
ABKAR Akbulak array      27.48 282   P       P       18 10 43.7  -0.3
JOSI  Joshimath          27.62 229  eP       P       18 10 44.3  -1.3
SHL   Shillong           27.66 203   P       P       18 10 46.7 +0.7
      SNR=17
SHL   Shillong           27.66 203   P       P       18 10 46.3 +0.4
SHL                                 pmax    pmax
      comp=Z,87nm,1.1s
SHL   Shillong           27.66 203   P       P       18 10 46.3 +0.4
SHL                                 IAmb    IAmb     18 10 48.0
      comp=Z,87nm,1.1s
SHL   Shillong           27.66 203  eP       P       18 10 42.8  -3.1
SHL                                 IAmb    IAmb     18 10 47.7
      comp=Z,96nm,1.2s
DHRM  DHARAMSHALA        27.84 236  eP       P       18 10 45.6  -2.0
DHRM                                IAmb    IAmb     18 11 00.5
      comp=Z,64nm,0.9s
SEY   Seymchan           27.89  47   LR      LR       18 22 21.7
      comp=Z,5µm,19.3s,baz=276,slow=37
SEY   Seymchan           27.89  47d iP       P       18 10 48.7 +1.3
SEY                                 pmax    pmax
      comp=Z,47nm,1.8s
SEY                                 MLR     MLR
      comp=Z,7µm,17.0s
JTM   Tenmabayashi       27.91  98   P       P       18 10 47.9 +0.1
THN   Thein Dam          27.97 237  eP       P       18 10 45.8  -2.7
THN                                 IAmb    IAmb     18 11 20.3
      comp=Z,54nm,1.5s
UTK   UTTARKASHI         28.00 231  eP       P       18 10 47.5  -1.4
UTK                                 IAmb    IAmb     18 10 52.5
      comp=Z,43nm,1.3s
PTH   Pithoragarh        28.14 227  eP       P       18 10 49.2  -1.0
PTH                                 IAmb    IAmb     18 10 52.3
      comp=Z,41nm,1.6s
AKTO  Aktyubinsk         28.22 285   LR      LR       18 22 18.8
      comp=Z,4µm,20.8s,baz=64,slow=37
AKTO  Aktyubinsk         28.22 285   P       P       18 10 49.2  -1.3
SMLA  Simla              28.30 233  eP       P       18 10 50.1  -1.3
SMLA                                IAmb    IAmb     18 11 02.0
      comp=Z,38nm,0.7s
JSU   Suzuyama           28.33 125   P       P       18 10 53.1 +1.4
LGTI  Lohaghat           28.35 227  eP       P       18 10 54.6 +2.5
LGTI                                IAmb    IAmb     18 11 16.8
      comp=Z,31nm,1.4s
NIL   Nilore             28.38 242   P       P       18 10 52.9 +0.7
NIL   Nilore             28.38 242   P       P       18 10 51.2  -1.0
NIL                                 pmax    pmax
      comp=Z,226nm,1.3s
NIL   Nilore             28.38 242   P       P       18 10 51.2  -1.0
NIL   Nilore             28.38 242   P       P       18 10 52.7 +0.5
      comp=Z,166nm,1.6s
JMN   Monobe             28.42 118           P       18 10 52.8 +0.3
JMN                                 IAmb    IAmb     18 11 31.2
      comp=Z,105nm,1.6s
MORE  Moreh              28.43 198   P       P       18 10 51.7  -0.8
ERM   Erimo              28.50  94⇑ iP       P       18 10 54.7 +1.7
ERM                                 pmax    pmax
      comp=Z,115nm,1.2s
ERM                                 MLR     MLR
      comp=Z,4µm,12.0s
ERM   Erimo              28.50  94   P       P       18 10 54.9 +1.9
ERM                                 IAmb    IAmb     18 11 02.6
      comp=Z,92nm,1.1s
MAJO  Matsushiro         28.88 108c iP       P       18 10 59.2 +2.7
MAJO                                MLR     MLR
      comp=Z,2µm,11.0s
MJAR  Matsushiro Arr     28.88 108   P       P       18 10 56.8 +0.3
      comp=Z,7.0nm,0.9s,baz=310,slow=9.6,SNR=19
      comp=Z,7.0nm,0.9s
MJAR  Matsushiro Arr     28.88 108   P       P       18 10 56.3  -0.2
INU   Inuyama            29.01 111   P       P       18 10 56.6  -1.1
JGF   Kuroka             29.03 111   P       P       18 10 57.1  -0.8
YUK   Yuzh-Kuril'sk      29.10  89  eP       P       18 10 59.8 +1.4
YUK                                i S      S        18 15 48.7  -1.1
YUK                                 pmax    pmax
      comp=Z,197nm,1.3s
YUK                                 pmax    pmax
      comp=N,270nm,1.2s
YUK                                 pmax    pmax
      comp=E,132nm,1.2s
YUK                                 MLR     MLR
      comp=N,9µm,15.0s
YUK                                 MLR     MLR
      comp=Z,4µm,15.0s
YUK                                 MLR     MLR
      comp=E,8µm,16.0s
KUR   Kuril'sk           29.75  85  eP       P       18 11 04.9 +0.8
KUR                                eS       S        18 16 02.1 +2.2
KUR                                eSSS     SSS      18 17 50.3
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KUR                                     MLR      MLR
       comp=Z,2µm,15.0s
KUR                                     MLR      MLR
       comp=N,4µm,17.0s
KUR                                     MLR      MLR
       comp=E,2µm,13.0s
KBL    Kabul              30.11 249     P        P        18 11 06.0  -1.6
KBL                                     pmax     pmax
       comp=Z,24nm,0.8s
KBL    Kabul              30.11 249     P        P        18 11 06.0  -1.6
TATO   Taipei             30.12 146     IAMs_20  IAMs_20  18 24 18.2
       comp=Z,6µm,18.0s
YHNB   Yeheng             30.37 146     P        P        18 11 09.2  -0.6
SLVN   Son La             30.43 179     P        P        18 11 10.0  -0.4
SLVN                                    IAmb     IAmb     18 11 19.1
       comp=Z,76nm,1.8s
SLVN   Son La             30.43 179     P        P        18 11 11.8  +1.4
       comp=Z,15nm,0.9s
BRDH   Bariadhala         30.50 202     LR       LR       18 25 30.8
       comp=Z,4µm,18.5s,baz=6.5,slow=41
HKPS   Hong Kong Po S     30.63 160     P        P        18 11 11.4  -0.6
KIRV   Kirov              30.83 304     LR       LR       18 25 12.7
       comp=Z,5µm,18.8s,baz=85,slow=40
KIRV   Kirov              30.83 304c iP          P        18 11 13.2  -0.3
SSLB   Suanglung          31.04 148     P        P        18 11 15.5  -0.3
SSLB                                    IAmb     IAmb     18 11 26.0
       comp=Z,34nm,0.9s
SSLB   Suanglung          31.04 148     P        P        18 11 16.8  +1.0
       comp=Z,42nm,0.9s
BOK    Bokaro             31.07 212   eP         P        18 11 12.7  -3.3
BOK                                     IAmb     IAmb     18 11 17.9
       comp=Z,21nm,1.1s
KUDL   Kundal             31.09 231   eP         P        18 11 15.0  -1.1
KUDL                                    IAmb     IAmb     18 11 16.0
       comp=Z,34nm,1.9s
JOW    Kunigami           31.18 134     LR       LR       18 25 20.9
       comp=Z,3µm,19.8s,baz=334,slow=39
TPUB   Ta-pu              31.39 149     P        P        18 11 18.4  -0.4
TPUB                                    IAmb     IAmb     18 11 51.2
       comp=Z,69nm,1.2s
TPUB                                    IAMs_20  IAMs_20  18 25 05.6
       comp=Z,5µm,18.0s
TWG    Pinlang            31.98 148     P        P        18 11 23.5  -0.4
TWG                                     IAmb     IAmb     18 11 51.0
       comp=Z,50nm,1.2s
TWG                                     IAMs_20  IAMs_20  18 25 20.4
       comp=Z,5µm,21.0s
JHJ    Hachijo jima 2     32.20 111     LR       LR       18 24 18.5
       comp=Z,1µm,20.2s,baz=312,slow=36
SKR    Severo-Kuril's     32.37  71   eP         P        18 11 33.0  +5.8
SKR                                     pmax     pmax
       comp=Z,700nm,3.0s
SKR                                     pmax     pmax
       comp=Z,53nm,1.2s
SKR                                     MLR      MLR
       comp=N,5µm,15.0s
SKR                                     MLR      MLR
       comp=Z,7µm,15.0s
SKR                                     MLR      MLR
       comp=E,5µm,11.0s
PEA0B  Petropavlovsk-     32.40  66⇑eP           P        18 11 27.7  +0.3
PETK   Petropavlovsk-     32.40  66     P        P        18 11 28.1  +0.7
       comp=E,5.5nm,0.9s,baz=297,slow=6.3,SNR=12
PETK                                    LR       LR       18 24 21.0
       comp=E,1µm,21.0s,baz=289,slow=36
       comp=E,5.5nm,0.9s
PETK   Petropavlovsk-     32.40  66     P        P        18 11 27.6  +0.2
JHNI   Jhansi             32.41 225   eP         P        18 11 25.3  -2.4
NPW    Naypyitaw          32.49 193     P        P        18 11 29.5  +1.0
       comp=Z,41nm,1.1s
PET    Petropavlovsk      32.97  66   eP         P        18 11 34.6  +2.2
PET                                   e                   18 12 43.6
PET                                   eS         S        18 16 50.3  +0.2
PET                                     pmax     pmax
       comp=Z,300nm,4.8s
PET                                     pmax     pmax
       comp=Z,600nm,5.0s
PET                                     pmax     pmax
       comp=Z,93nm,1.3s
PET                                     MLR      MLR
       comp=Z,3µm,14.0s
PET                                     MLR      MLR
       comp=Z,4µm,16.0s
PET    Petropavlovsk      32.97  66     P        P        18 11 32.4  +0.1
PET    Petropavlovsk      32.97  66     P        P        18 11 33.1  +0.7
       comp=Z,89nm,1.5s
PET    Petropavlovsk      32.97  66     P        P        18 11 35.0  +2.6
       comp=Z,94nm,1.5s
QIZ    Qiongzhong         33.10 169     P        P        18 11 35.3  +1.5
QIZ                                     sP       sP       18 11 41.6  +2.6
QIZ                                     S        S        18 16 53.3  +0.6
QIZ                                     pmax     pmax
       comp=Z,15nm,0.8s
QIZ                                     pmax     pmax
       comp=Z,310nm,3.8s
QIZ                                     L        L
       comp=Z,3µm,7.1s
QIZ                                     L        L
       comp=Z,3µm,10.1s
QIZ                                     L        L
       comp=Z,5µm,11.5s
QIZ    Qiongzhong         33.10 169     IAmb     IAmb     18 11 43.7
       comp=Z,69nm,1.9s
CHTO   Chiang Mai         33.13 188     P        P        18 11 34.4  +0.3
CHTO   Chiang Mai         33.13 188     P        P        18 11 33.4  -0.7
CHTO                                    pmax     pmax
       comp=Z,29nm,0.9s
CHTO                                    MLR      MLR
       comp=Z,6µm,21.0s
CHTO   Chiang Mai         33.13 188     P        P        18 11 33.4  -0.7
CHTO                                    IAmb     IAmb     18 11 35.8
       comp=Z,29nm,0.9s
CHTO                                    IAMs_20  IAMs_20  18 24 31.8
       comp=Z,6µm,21.0s
CHTO   Chiang Mai         33.13 188     P        P        18 11 32.5  -1.6
       comp=Z,38nm,1.0s,comp=Z,38nm,1.0s
CHTO   Chiang Mai         33.13 188     P        P        18 11 34.9  +0.8
       comp=Z,38nm,1.0s
AJM    Ajmer              33.43 232   eP         P        18 11 34.0  -2.8
CM31   Chiang Mai Arr     33.48 188     P        P        18 11 37.2  +0.1
       SNR=6.3
CMAR   Chiang Mai Arr     33.48 188     P        P        18 11 37.3  +0.2
       comp=Z,18nm,0.9s,baz=360,slow=8.5,SNR=60
CMAR                                    LR       LR       18 25 03.1
       comp=Z,4µm,20.6s,baz=5.0,slow=36
       comp=Z,18nm,0.9s
CMAR   Chiang Mai Arr     33.48 188   i P        P        18 11 37.9  +0.7
CMAR                                    pmax     pmax
       comp=Z,19nm,0.9s
CMAR   Chiang Mai Arr     33.48 188     P        P        18 11 36.9  -0.3
BILL   Bilibino           33.57  37⇑iP           P        18 11 38.8  +1.3
BILL                                    pmax     pmax
       comp=Z,65nm,1.4s
BILL                                    MLR      MLR
       comp=Z,4µm,12.0s
BILL   Bilibino           33.57  37     P        P        18 11 38.5  +1.0
BILL                                    IAMs_20  IAMs_20  18 25 15.2
       comp=Z,4µm,18.0s
BELG   Belogornoye        33.58 294     LR       LR       18 25 50.4
       comp=Z,4µm,18.3s,baz=63,slow=37
BELG   Belogornoye        33.58 294c iP          P        18 11 36.8  -0.9
BELG                                    pmax     pmax
       comp=Z,37nm,1.2s
BELG                                    MLR      MLR
       comp=Z,251nm,9.0s
BILI   Bilibino, Chuk     33.63  37     P        P        18 11 39.8  +1.8
       comp=Z,28nm,0.6s
GUNA   GUNA               33.68 226   eP         P        18 11 36.0  -2.9
HRA    Herat              34.23 256     P        P        18 11 43.5  -0.3
HRA                                     IAmb     IAmb     18 11 46.4
       comp=Z,109nm,1.6s
BHPL   Bhopal             34.86 225   eP         P        18 11 46.5  -2.7
BHPL                                    IAmb     IAmb     18 11 50.2
       comp=Z,23nm,1.1s
ADZR   Andozero           35.07 316   eP         P        18 11 49.0  -1.5
ADZR                                    pmax     pmax
       comp=Z,95nm,1.6s
KLMR   Klimovskoe         35.21 310   eP         P        18 11 49.8  -1.9
KLMR                                    S        S        18 17 23.6  -1.0
KLMR                                    pmax     pmax
       comp=Z,176nm,1.5s
KLMR                                    MLR      MLR
       comp=Z,5µm,11.0s
LVZ    Lovozero           35.85 323⇓eP           P        18 11 56.5  -0.7
LVZ                                     pmax     pmax
       comp=Z,59nm,1.3s
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LVZ                                     MLR      MLR
       comp=Z,6µm,16.0s
APA    Apatity            36.37 323⇓iP           P        18 11 54.1  -7.5
APA                                   i                   18 13 21.6
APA                                   i                   18 14 23.3
APA                                   i SS       SS       18 20 04.6  -16
APA                                     pmax     pmax
       comp=Z,14nm,1.3s
APA                                     MLR      MLR
       comp=Z,7µm,14.8s
AKL    Akola              37.27 224   eP         P        18 12 05.8  -4.0
VADS   Vadso              37.36 327   eP         P        18 12 10.3  +0.3
VADS                                    IAmb     IAmb     18 12 17.6
       comp=Z,175nm,1.4s
VRH    Novokhopyorsk      37.42 294   eP         P        18 12 10.7   0.0
VRH                                     pmax     pmax
       comp=Z,181nm,0.9s
MOS    Moscow             37.80 303   eP         P        18 12 13.1  -0.7
MOS                                   e                   18 13 41.9
MOS                                   ePPP       PPP      18 14 03.2
MOS                                   eS         S        18 18 06.8  +2.7
MOS                                   eSS        SnSn     18 20 46.7  +2.7
MOS                                     pmax     pmax
       comp=Z,57nm,0.7s
MOS                                     MLR      MLR
       comp=Z,4µm,17.0s
MAK    Makhachkala        38.06 279   eP         P        18 12 10.2  -6.0
MAK                                   e                   18 13 39.7
MAK                                   eS         S        18 17 59.1  -9.3
MAK                                   eSS        SnSn     18 20 46.3  -4.5
MAK                                     pmax     pmax
       comp=Z,287nm,1.7s
MAK                                     MLR      MLR
       comp=Z,5µm,13.0s
KEV    Kevo               38.23 327     P        P        18 12 16.7  -0.6
KEV                                     pmax     pmax
       comp=Z,211nm,1.9s
KEV    Kevo               38.23 327     P        P        18 12 16.7  -0.6
KEV    Kevo               38.23 327     P        P        18 12 23.2  +5.9
       comp=Z,44nm,0.8s
LPSR   Galich'ya Gora     38.37 297   eP         P        18 12 17.8  -0.9
LPSR                                    pmax     pmax
       comp=Z,80nm,1.0s
OBN    Obninsk            38.59 302     LR       LR       18 29 35.5
       comp=Z,3µm,18.4s,baz=67,slow=38
OBN    Obninsk            38.59 302d iP          P        18 12 20.3  -0.2
OBN                                   e*PP       pP       18 12 24.2  -0.1
OBN                                   e                   18 13 48.9
OBN                                   e                   18 14 35.5
OBN                                   eS         S        18 18 17.8  +1.6
OBN                                   eSSS       SSS      18 21 23.4
OBN                                     pmax     pmax
       comp=Z,105nm,1.7s
OBN                                     MLR      MLR
       comp=Z,5µm,16.0s
OBN    Obninsk            38.59 302     P        P        18 12 19.9  -0.7
OBN                                     IAMs_20  IAMs_20  18 28 51.5
       comp=Z,5µm,21.0s
OBN    Obninsk            38.59 302     P        P        18 12 20.0  -0.5
       comp=Z,51nm,1.1s
VORR   Voronezh           38.62 296   eP         P        18 12 20.6  -0.2
VORR                                    pmax     pmax
       comp=Z,32nm,0.8s
ARA0   ARCESS Array S     38.79 327   eP         P        18 12 22.1   0.0
ARA0                                    IAmb     IAmb     18 12 22.9
       comp=Z,177nm,1.6s
ARCES  ARCESS Array B     38.79 327     P        P        18 12 21.7  -0.4
       comp=Z,6.3nm,0.6s,baz=71,slow=9.6,SNR=22
ARCES                                   LR       LR       18 30 05.3
       comp=Z,1µm,18.3s,baz=54,slow=39
       comp=Z,6.3nm,0.6s
ARCES  ARCESS Array B     38.79 327     P        P        18 12 21.5  -0.6
ARCES                                   IAmb     IAmb     18 12 23.2
       comp=Z,107nm,1.6s
VSR    Storozhevoye       38.85 295   eP         P        18 12 22.2  -0.6
VSR                                     pmax     pmax
       comp=Z,76nm,1.0s
SGF    Sodankyl           38.98 323     P        P        18 12 23.8  +0.2
       comp=Z,40nm,0.7s
HAMF   Hammerfest         39.12 329   eP         P        18 12 24.4  -0.4
HAMF                                    IAmb     IAmb     18 12 26.9
       comp=Z,264nm,2.0s
SEKA   Sheki              39.24 277     P        P        18 12 26.9  +0.7
SPA0   Spitsbergen Ar     39.32 341   eP         P        18 12 26.4   0.0
SPA0                                    IAmb     IAmb     18 12 27.4
       comp=Z,161nm,1.6s
SPITS  Spitsbergen Ar     39.32 341     P        P        18 12 26.3  -0.1
       comp=Z,7.3nm,0.5s,baz=93,slow=11,SNR=20
SPITS                                   LR       LR       18 30 58.4
       comp=Z,2µm,18.4s,baz=8.5,slow=40
       comp=Z,7.3nm,0.5s
LATR   Latur              39.52 223   eP         P        18 12 24.2  -4.5
LATR                                    IAmb     IAmb     18 12 30.3
       comp=Z,30nm,2.9s
MNGR   Mingechevir, A     39.56 277     P        P        18 12 31.0  +2.2
HYB    Hyderabad          39.59 219   eP         P        18 12 24.6  -4.7
HYB                                     IAmb     IAmb     18 12 30.2
       comp=Z,27nm,1.0s
HYB    Hyderabad          39.59 219   eP         P        18 12 29.0  -0.3
HYB                                   ePP        PnPn     18 14 11.4  +8.2
HYB                                   ePcP       PcP      18 14 35.9  -0.5
HYB                                   eS         S        18 18 33.0  +1.0
HYB                                   eScS       ScS      18 22 37.2  -0.2
GOF    Gofitskoye         39.63 285d iP          P        18 12 30.0  +0.6
GOF                                   eS         S        18 18 37.0  +4.9
PCPS   Palayan City       39.66 153   eP         P        18 12 23.4  -6.5
KTK1   Kautokeino         39.71 326   eP         P        18 12 29.8   0.0
KTK1                                    IAmb     IAmb     18 12 39.6
       comp=Z,34nm,0.9s
LKRN   Lenkeran, Azer     39.74 273     P        P        18 12 31.6  +1.3
PUL    Pulkovo            39.89 311⇓eP           P        18 12 33.0  +1.7
PUL                                     pmax     pmax
       comp=Z,94nm,0.8s
PUL                                     MLR      MLR
       comp=Z,4µm,11.0s
GANJ   Ganja              40.10 277     P        P        18 12 33.9  +0.5
NCK    Nalchik            40.15 282⇑iP           P        18 12 34.7  +1.0
NCK                                     pmax     pmax
       comp=Z,73nm,1.8s
NCK                                     MLR      MLR
       comp=Z,4µm,13.0s
LQP    Lukban             40.32 152   eP         P        18 12 33.2  -2.4
KBZ    Khabaz             40.44 283     P        P        18 12 36.2  +0.1
       comp=Z,6.6nm,0.8s,baz=64,slow=7.3,SNR=13
KBZ                                     LR       LR       18 30 23.7
       comp=Z,3µm,19.0s,baz=64,slow=38
       comp=Z,6.6nm,0.8s
KBZ    Khabaz             40.44 283d iP          P        18 12 36.4  +0.3
KBZ                                     pmax     pmax
       comp=Z,18nm,1.0s
KBZ                                     MLR      MLR
       comp=Z,3µm,17.0s
KIV    Kislovodsk         40.44 284     P        P        18 12 37.5  +1.3
KIV    Kislovodsk         40.44 284   eP         P        18 12 37.0  +0.7
KIV                                   eS         S        18 18 46.2  +1.7
KIV                                     pmax     pmax
       comp=Z,14nm,3.3s
KIV                                     pmax     pmax
       comp=Z,53nm,1.0s
KIV                                     MLR      MLR
       comp=Z,1µm,16.0s
KIV    Kislovodsk         40.44 284     P        P        18 12 35.7  -0.5
KIV                                     IAmb     IAmb     18 12 39.0
       comp=Z,71nm,1.1s
KIV    Kislovodsk         40.44 284   i P        P        18 12 37.1  +0.9
       SNR=13
KIV    Kislovodsk         40.44 284     P        P        18 12 36.4  +0.1
       comp=Z,823nmcomp=Z,39nm,1.1s
JETT   Jettan, Norway     40.50 328   eP         P        18 12 37.2  +0.8
SHA1   Shidzhatmaz        40.58 283deP           P        18 12 38.3  +0.7
GQP    Guinayangan        40.78 151   eP         P        18 12 38.1  -1.0
ERBR   Yeremizino-Bor     40.81 287   eP         P        18 12 39.5  +0.4
ERBR                                  e                   18 14 10.5
ERBR                                  eS         S        18 18 53.9  +4.2
ERBR                                    pmax     pmax
       comp=Z,78nm,1.0s
ERBR                                    MLR      MLR
       comp=Z,4µm,22.0s
NEUR   Neytrino           40.82 283d iP          P        18 12 41.3  +1.8
NEUR                                    MLR      MLR
       comp=Z,4µm,14.0s
TRO    Tromso             40.97 328   eP         P        18 12 41.0  +0.9
TRO                                     IAmb     IAmb     18 12 42.9
       comp=Z,86nm,1.6s
FINES  FINESS Array B     41.18 315     P        P        18 12 41.6  -0.4
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       comp=Z,28nm,0.5s,baz=71,slow=8.3,SNR=350
FINES                                   LR       LR       18 30 39.4
       comp=Z,1µm,20.1s,baz=85,slow=38
       comp=Z,28nm,0.5s
FINES  FINESS Array B     41.18 315     P        P        18 12 40.9  -1.0
LABN   Labinsk            41.25 286   eP         P        18 12 43.6  +0.9
LABN                                  e                   18 14 19.5
LABN                                  ePPP       PPP      18 14 43.4
LABN                                  eS         S        18 18 58.0  +1.8
LABN                                    pmax     pmax
       comp=Z,68nm,0.9s
LABN                                    MLR      MLR
       comp=Z,3µm,16.0s
GNI    Garni              41.37 278     P        P        18 12 44.4  +0.4
GNI    Garni              41.37 278d iP          P        18 12 45.8  +1.8
GNI                                     pmax     pmax
       comp=Z,93nm,1.2s
GNI                                     MLR      MLR
       comp=Z,2µm,11.0s
GNI    Garni              41.37 278     P        P        18 12 44.2  +0.2
GNI    Garni              41.37 278     IAMs_20  IAMs_20  18 29 15.7
       comp=Z,4µm,21.0s
GNI    Garni              41.37 278     P        P        18 12 45.8  +1.8
GNI    Garni              41.37 278     P        P        18 12 44.4  +0.4
       comp=Z,2µmcomp=Z,136nm,1.5s
NAX    Nakhchivan         41.49 276     P        P        18 12 46.9  +2.0
NGCH   Negor - Chabah     41.49 247     P        P        18 12 46.9  +2.0
KAD    Karad              41.50 225   eP         P        18 12 42.5  -2.6
KAD                                     IAmb     IAmb     18 12 46.0
       comp=Z,28nm,0.9s
SHEM   Shemya Is, Ala     41.61  60     LR       LR       18 30 56.0
       comp=Z,2µm,19.1s,baz=304,slow=37
VSU    Vasula             42.11 310c iP          P        18 12 48.5  -1.1
VSU                                     pmax     pmax
       comp=Z,154nm,1.6s
VSU                                     MLR      MLR
       comp=Z,5µm,11.0s
VSLR   Vesyoloye          42.32 285c iP          P        18 12 52.7  +1.2
VSLR                                    pmax     pmax
       comp=Z,59nm,1.4s
VSLR                                    MLR      MLR
       comp=Z,2µm,12.0s
SOC    Sochi              42.44 285   eP         P        18 12 54.8  +2.3
SOC                                   eS         S        18 19 17.0  +3.2
SOC                                   eSSS       SSS      18 22 55.9
SOC                                     pmax     pmax
       comp=Z,41nm,0.9s
SOC                                     MLR      MLR
       comp=Z,2µm,16.0s
JASK   Jask - Hormozg     43.00 251     P        P        18 12 58.5  +1.3
       SNR=7.9
ANN    Anapa              43.11 288   eP         P        18 12 58.0  +0.1
ANN                                   e                   18 14 34.5
ANN                                   eS         S        18 19 25.8  +2.1
ANN                                     pmax     pmax
       comp=Z,71nm,1.0s
ANN                                     MLR      MLR
       comp=Z,4µm,21.0s
NOR    Nord               43.14 349   i P        P        18 12 59.5  +1.7
NOR                                     IAmb     IAmb     18 13 06.4
       comp=Z,47nm,1.4s
MNK    Minsk              43.37 305   i P        P        18 13 00.6  +0.8
MNK                                   i                   18 14 40.9
MNK                                   i PPP      PPP      18 15 15.4
MNK                                   i S        S        18 19 30.0  +2.8
MNK                                   i SSS      SSS      18 23 20.9
MNK                                     pmax     pmax
       comp=Z,40nm,0.8s
MNK                                     pmax     pmax
       comp=N,31nm,1.0s
MNK                                     pmax     pmax
       comp=E,12nm,0.8s
MNK                                     MLR      MLR
       comp=Z,2µm,17.0s
MNK                                     MLR      MLR
       comp=N,2µm,15.0s
MNK                                     MLR      MLR
       comp=E,2µm,16.0s
MNK    Minsk              43.37 305   i P        P        18 13 00.7  +0.8
       comp=E,12nm,0.8s
MNK                                   i P        P        18 13 00.7  +0.8
       comp=N,31nm,1.0s
MNK                                   i P        P        18 13 00.7  +0.8
       comp=Z,40nm,0.8s,baz=61
MNK                                   i PP       PP       18 14 40.9  +0.5
MNK                                   i PPP      PPP      18 15 15.4
MNK                                   i S        S        18 19 30.1  +2.8
MNK                                   i SS       SS       18 22 44.9  +4.4
MNK                                   i SSS      SSS      18 23 20.9
MNK                                   i LQ       LQ       18 27 59.6
MNK                                   i LR       LR       18 30 53.3
MNK                                   i LRM      MLR      18 32 38.9
       comp=Z,2µm,16.6s
MNK                                   i LRM      MLR      18 32 48.8
       comp=N,2µm,14.7s
MNK                                   i LRM      MLR      18 33 10.8
       comp=E,2µm,16.1s
GEVA   Gevas              43.52 277     P        P        18 13 01.6   0.0
C16K   Lisburne Hills     43.70  33     P        P        18 13 01.1  -1.2
C16K                                    IAmb     IAmb     18 13 12.3
       comp=Z,93nm,1.3s
C16K                                    IAMs_20  IAMs_20  18 31 41.1
       comp=Z,3µm,21.0s
NACGM  Naroch             43.73 306⇑iP           P        18 13 02.8   0.0
       comp=Z,39nm,0.8s,baz=61
PPR    Puerto Princes     43.74 158   i P        P        18 13 04.1  +0.9
SHME   Shamm              43.88 253     P        P        18 13 05.2  +0.9
       SNR=10
SHME                                    S        S        18 19 37.6  +2.3
SHME   Shamm              43.88 253   i P        P        18 13 04.4  +0.1
       SNR=11
BANOM  Banah              43.88 252     P        P        18 13 04.9  +0.5
MOR8   Moi Rana           43.89 324   eP         P        18 13 02.2  -1.7
MOR8                                    IAmb     IAmb     18 13 03.7
       comp=Z,78nm,1.3s
RAUS   Rausandaksla       43.92 325   eP         P        18 13 03.8  -0.3
RAUS                                    IAmb     IAmb     18 13 05.1
       comp=Z,58nm,1.0s
TNA    Tin City           44.00  37     P        P        18 13 04.8  -0.1
TNA                                     IAmb     IAmb     18 13 14.4
       comp=Z,74nm,1.2s
TNA                                     IAMs_20  IAMs_20  18 32 37.2
       comp=Z,3µm,19.0s
GURO   Guroymak-BITLI     44.01 278     P        P        18 13 05.5   0.0
KOPT   Kop Dagi           44.05 280     P        P        18 13 06.3  +0.4
KOPT                                    IAmb     IAmb     18 13 21.1
       comp=Z,68nm,1.2s
VAGH   Vaagaholmen        44.06 325   eP         P        18 13 05.4  +0.2
VAGH                                    IAmb     IAmb     18 13 09.2
       comp=Z,644nm,2.3s
PLP    Palo               44.15 149   eP         P        18 13 06.0  -0.5
MDH    Madha              44.35 252     P        P        18 13 07.2  -0.9
MDH    Madha              44.35 252     P        P        18 13 08.5  +0.4
MASF   Masafi             44.38 252     P        P        18 13 08.8  +0.4
       SNR=5.5
MSFE   Esma-Masafi        44.38 252     P        P        18 13 08.4   0.0
WSAR   Wadi Sarin         44.57 248     LR       LR       18 34 13.5
       comp=Z,6.7nm,19.1s,baz=70,slow=40
WSAR   Wadi Sarin         44.57 248     P        P        18 13 11.5  +1.6
       SNR=6.7
AK03   Malin Array Si     44.57 299     P        P        18 13 08.7  -0.9
AKASG  Malin Array Be     44.59 299     P        P        18 13 09.1  -0.6
       comp=Z,12nm,0.5s,baz=54,slow=8.7,SNR=53
AKASG                                   LR       LR       18 32 47.5
       comp=Z,2µm,18.9s,baz=62,slow=38
       comp=Z,12nm,0.5s
AKASG  Malin Array Be     44.59 299     P        P        18 13 08.9  -0.8
AKBB   Malin Array Si     44.59 299c iP          P        18 13 08.9  -0.8
AKBB                                    pmax     pmax
       comp=Z,32nm,0.8s
AKBB                                    MLR      MLR
       comp=Z,2µm,10.0s
AKBB   Malin Array Si     44.59 299     P        P        18 13 08.8  -0.9
AK01   Malin Array Si     44.60 299     P        P        18 13 08.8  -1.0
KIEV   Kiev               44.60 299     P        P        18 13 08.9  -0.9
KIEV                                    pmax     pmax
       comp=Z,25nm,0.8s
KIEV                                    MLR      MLR
       comp=Z,3µm,20.0s
KIEV   Kiev               44.60 299     P        P        18 13 08.9  -0.9
KIEV                                    IAmb     IAmb     18 13 21.0
       comp=Z,25nm,0.8s
KIEV   Kiev               44.60 299     IAMs_20  IAMs_20  18 32 18.1
       comp=Z,3µm,20.0s
KIEV   Kiev               44.60 299   i P        P        18 13 09.5  -0.3
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           SNR=12
KIEV  Kiev             44.60 299   P        P        18 13 08.8 -1.0
           comp=Z,154nm,0.9s
AK09  Malin Array Si   44.60 299   P        P        18 13 09.1 -0.7
AK08  Malin Array Si   44.60 299   P        P        18 13 09.3 -0.5
AK04  Malin Array Si   44.60 299   P        P        18 13 09.2 -0.7
AK23  Malin Array Si   44.61 299   P        P        18 13 09.1 -0.8
RDOG  Red Dog Mine     44.61  32   IAMs_20  IAMs_20  18 32 00.2
           comp=Z,3µm,19.0s
AK02  Malin Array Si   44.62 299   P        P        18 13 08.9 -1.1
AK10  Malin Array Si   44.62 299   P        P        18 13 09.0 -1.0
AK11  Malin Array Si   44.63 299   P        P        18 13 08.6 -1.4
AK22  Malin Array Si   44.64 299   P        P        18 13 09.3 -0.8
AK05  Malin Array Si   44.64 299   P        P        18 13 09.0 -1.1
AK15  Malin Array Si   44.64 299   P        P        18 13 09.6 -0.6
BIDO  Bidbid           44.64 248   P        P        18 13 10.3 -0.1
AK21  Malin Array Si   44.64 299   P        P        18 13 09.0 -1.2
AK12  Malin Array Si   44.65 299   P        P        18 13 09.3 -0.9
AK18  Malin Array Si   44.66 299   P        P        18 13 09.4 -0.9
AK06  Malin Array Si   44.66 299   P        P        18 13 09.4 -0.9
AK16  Malin Array Si   44.67 299   P        P        18 13 09.7 -0.6
UOSS  Minazif          44.67 252   P        P        18 13 10.1 -0.6
UOSS  Minazif          44.67 252   P        P        18 13 09.9 -0.8
UOSS  Minazif          44.67 252   P        P        18 13 10.9 +0.2
AK07  Malin Array Si   44.67 299   P        P        18 13 09.7 -0.7
AK20  Malin Array Si   44.68 299   P        P        18 13 09.8 -0.6
AK17  Malin Array Si   44.68 299   P        P        18 13 09.8 -0.7
AK14  Malin Array Si   44.69 299   P        P        18 13 09.8 -0.7
AK19  Malin Array Si   44.69 299   P        P        18 13 09.6 -0.9
AK13  Malin Array Si   44.72 299   P        P        18 13 10.0 -0.8
HATD  Hatta, Dubai     44.81 252   P        P        18 13 10.3 -1.5
           SNR=8.7
HATD  Hatta, Dubai     44.81 252 i P        P        18 13 11.4 -0.4
           SNR=7.3
PABE  Paberze          44.84 308   P        P        18 13 11.2 -0.4
PABE                               IAMs_20  IAMs_20  18 32 08.6
           comp=Z,3µm,20.0s
WBK   Wadi Bani Khal   44.87 247   P        P        18 13 10.9 -1.4
ASHO  Ashiyiah         44.96 251   P        P        18 13 14.0 +1.0
           SNR=21
ASHO  Ashiyiah         44.96 251 i P        P        18 13 12.4 -0.6
           SNR=16
NAZ   Nazwa, Dubai     44.96 252   P        P        18 13 11.3 -1.7
           SNR=6.2
NAZ   Nazwa, Dubai     44.96 252   P        P        18 13 12.8 -0.1
SIM   Simferopol'      44.98 290 eP         P        18 13 19.2 +6.3
SIM                                pmax     pmax
           comp=Z,150nm,1.4s
JLN   Jalan Bani Buh   44.98 246   P        P        18 13 12.2 -1.0
SMDO  Samad            45.05 248   P        P        18 13 14.2 +0.4
           SNR=14
HOQ   Hoqain           45.07 249   P        P        18 13 13.6 -0.3
           SNR=12
SOHO  SOHO             45.10 250   P        P        18 13 14.5 +0.4
SOHO  SOHO             45.10 250   P        P        18 13 14.8 +0.7
C19K  Lookout Ridge    45.17  30   P        P        18 13 13.9 -0.3
C19K                               IAmb     IAmb     18 13 23.8
           comp=Z,63nm,1.4s
C19K                               IAMs_20  IAMs_20  18 34 04.9
           comp=Z,3µm,20.0s
FAQ   Al Faqa, Dubai   45.19 252   P        P        18 13 14.9 +0.2
FAQ   Al Faqa, Dubai   45.19 252   P        P        18 13 14.3 -0.5
TBP   Tagbilaran       45.19 151 eP         P        18 13 13.5 -1.4
MI28  Mi28,Pidlybu     45.30 300   P        P        18 13 13.7 -1.7
ASUD  Al Ashush, Dub   45.43 252   P        P        18 13 16.5 -0.2
ASUD  Al Ashush, Dub   45.43 252   P        P        18 13 17.3 +0.6
B20K  Meade River      45.45  28   IAMs_20  IAMs_20  18 32 30.3
           comp=Z,3µm,19.0s
NSS   Namsos           45.58 323 eP         P        18 13 17.8 +0.4
ALNE  Al Ain           45.62 251   P        P        18 13 18.6 +0.4
           SNR=13
AJN   Ajban            45.68 252   P        P        18 13 17.6 -1.1
ARQ   Araqi            45.72 250   P        P        18 13 19.9 +0.9
           SNR=19
BSY   Bisya            45.78 249   P        P        18 13 20.5 +0.9
           SNR=7.1
LUBAR Lubar, Ukraine   45.80 299   P        P        18 13 19.2 -0.1
ARPR  Arapgir-MALATY   45.94 281            P        18 13 20.9 +0.1
ARPR                               IAMs_20  IAMs_20  18 32 12.6
           comp=Z,3µm,21.0s
D19K  Kuna River       45.94  31   P        P        18 13 19.9 -0.5
D19K                               IAmb     IAmb     18 15 04.3
           comp=Z,36nm,0.8s
D19K                               IAMs_20  IAMs_20  18 34 41.3
           comp=Z,3µm,18.0s
F17K  Baldwin Pennin   45.97  34   P        P        18 13 19.6 -0.9
RNPP9 Sopachiv         45.99 302   P        P        18 13 20.3 -0.5
SUW   Suwalki          46.00 306 eP         P        18 13 16.7 -4.2
SUW                              eL         L        18 34 17.4
           comp=Z,4µm,16.9s
SUW   Suwalki          46.00 306   P        P        18 13 19.2 -1.7
SUW                                MLR      MLR
           comp=Z,4µm,20.0s
SUW   Suwalki          46.00 306   P        P        18 13 19.2 -1.7
SNOP  Sinop            46.05 286   P        P        18 13 21.1 -0.3
RNPP8 Varash           46.05 302   P        P        18 13 21.4 +0.1
G16K  Koyuk River      46.12  35   P        P        18 13 22.1 +0.4
G16K                               IAmb     IAmb     18 13 41.2
           comp=Z,26nm,1.1s
D20K  Etivluk River    46.30  30   P        P        18 13 22.0 -1.1
D20K                               IAMs_20  IAMs_20  18 35 15.6
           comp=Z,3µm,21.0s
TOKA  Tokat            46.31 283   P        P        18 13 22.5 -1.1
TOKA                               IAmb     IAmb     18 13 33.5
           comp=Z,86nm,1.7s
SORM  Soroca           46.46 297   P        P        18 13 23.9 -0.7
           comp=Z,33nm,1.4s
DAG   Danmarks Havn    46.61 344 i P        P        18 13 23.8 -1.6
DAG                                IAmb     IAmb     18 13 32.1
           comp=Z,24nm,1.2s
JRN   Qarnain Island   46.67 255   P        P        18 13 25.3 -1.2
MHTO  MHTO             46.72 246   P        P        18 13 26.6 -0.2
           SNR=11
LHMI  Lhok Sumawe      46.76 189   IAMs_20  IAMs_20  18 31 56.8
           comp=Z,3µm,21.0s
E19K  Redstone River   46.78  31   P        P        18 13 25.2 -1.6
E19K                               IAmb     IAmb     18 13 36.8
           comp=Z,54nm,1.1s
E19K                               IAMs_20  IAMs_20  18 33 42.5
           comp=Z,2µm,19.0s
KKM   Kota Kinabalu    46.84 163   P        P        18 13 27.3 -0.6
KKM   Kota Kinabalu    46.84 163   P        P        18 13 30.0 +2.1
           comp=Z,44nm,1.3s,comp=Z,44nm,1.3s
F19K  Shaleruckik Mo   46.94  32   P        P        18 13 27.8 -0.3
F19K                               IAmb     IAmb     18 13 37.5
           comp=Z,46nm,1.1s
F19K                               IAMs_20  IAMs_20  18 32 32.8
           comp=Z,2µm,18.0s
UMZA  Um Al Zommool    46.99 251   P        P        18 13 28.5 -0.5
K13K  Kusilvak Mount   47.06  40   P        P        18 13 28.5 -0.5
K13K                               IAmb     IAmb     18 13 38.3
           comp=Z,53nm,1.4s
K13K                               IAMs_20  IAMs_20  18 33 43.1
           comp=Z,3µm,20.0s
G18K  Tagagawik        47.16  34   P        P        18 13 29.5 -0.3
G18K                               IAmb     IAmb     18 15 04.4
           comp=Z,46nm,1.6s
HFS   Hagfors          47.16 317   P        P        18 13 29.6 -0.3
           comp=Z,9.3nm,0.6s,baz=71,slow=9.7,SNR=15
HFS                                LR       LR       18 34 16.9
           comp=Z,2µm,19.7s,baz=62,slow=37
           comp=Z,9.3nm,0.6s
IPM   Ipoh             47.23 183   P        P        18 13 29.4 -1.5
IPM                                IAMs_20  IAMs_20  18 32 22.4
           comp=Z,3µm,18.0s
M11K  Mekoryuk         47.25  43   P        P        18 13 28.5 -2.1
E21K  Killik River     47.26  29   IAmb     IAmb     18 13 40.3
           comp=Z,40nm,1.0s
E21K                               IAMs_20  IAMs_20  18 35 35.0
           comp=Z,3µm,19.0s
KMPD  K-Podol'skiy     47.26 298   P        P        18 13 29.4 -1.4
SAKB  Bahrain          47.29 258   P        P        18 13 30.8 -0.5
GHWR  Ruwais           47.39 254   P        P        18 13 30.2 -1.9
D22K  Ayikyak River    47.39  29   P        P        18 13 31.5 -0.2
D22K                               IAMs_20  IAMs_20  18 33 15.6
           comp=Z,3µm,19.0s
C23K  Itkillik River   47.44  27   P        P        18 13 31.8 -0.1
C23K                               IAMs_20  IAMs_20  18 33 47.7
           comp=Z,3µm,22.0s
F20K  Avaraart Lake    47.49  32   P        P        18 13 30.9 -1.4
F20K                               IAMs_20  IAMs_20  18 34 38.4
           comp=Z,3µm,18.0s
ILGA  Ilgaz            47.52 286   P        P        18 13 32.2 -1.0
G19K  Purcell Mounta   47.55  33   P        P        18 13 33.0 +0.1
G19K                               IAmb     IAmb     18 13 42.7
           comp=Z,49nm,1.4s
BNN   Bunyan           47.60 282   IAmb     IAmb     18 13 45.9
           comp=Z,23nm,1.0s
H18K  Honhosa River    47.67  34   P        P        18 13 33.5 -0.3
H18K                               IAmb     IAmb     18 13 43.9
           comp=Z,44nm,1.3s
H18K                               IAMs_20  IAMs_20  18 33 36.0
           comp=Z,2µm,19.0s
NB2   NORSAR Subarra   47.70 319   P        P        18 13 33.5 -0.7
           comp=Z,27nm,0.9s,baz=49,slow=7.9
NB2   NORSAR Subarra   47.70 319   P        P        18 13 33.5 -0.7
NOA   NORSAR Array B   47.70 319   P        P        18 13 33.6 -0.5
           comp=Z,11nm,0.8s,baz=46,slow=6.3,SNR=38
NOA                                LR       LR       18 34 58.0
           comp=Z,2µm,20.8s,baz=65,slow=38
           comp=Z,11nm,0.8s
NC602 NORSAR Array S   47.73 318 eP         P        18 13 34.3 -0.1
NC602                              IAmb     IAmb     18 13 41.6
           comp=Z,141nm,1.6s
GAZ   Gaziantep        47.84 279   P        P        18 13 34.9 -0.7
J16K  Anvik River      47.90  37   IAMs_20  IAMs_20  18 34 54.1
           comp=Z,3µm,20.0s
TLCR                   47.90 293   P        P        18 13 37.7 +1.9
TLCR                   47.90 293 ⇑P         P        18 13 37.8 +1.9
D23K  Nanushuk River   47.93  28   P        P        18 13 35.4 -0.4
D23K                               IAMs_20  IAMs_20  18 35 56.8
           comp=Z,3µm,19.0s
BIR   Birlad           47.94 295   P        P        18 13 37.2 +1.1
BIR   Birlad           47.94 295 ⇓P         P        18 13 37.3 +1.1
DOMB  Dombas           48.01 321 eP         P        18 13 36.2 -0.3
DOMB                               IAmb     IAmb     18 13 41.5
           comp=Z,96nm,1.6s
SLWR  Sila             48.02 255   P        P        18 13 36.4 -0.6
SCTR  Scanteiesti      48.08 294 ⇑P         P        18 13 38.8 +1.6
PRAR  RASCA            48.08 297 ⇓P         P        18 13 37.8 +0.6
F21K  Alatna River     48.11  31   P        P        18 13 37.9 +0.6
JURR  Jurilovca        48.11 293 ⇑P         P        18 13 39.5 +2.0
GIRR  Girov            48.16 296 ⇓P         P        18 13 38.5 +0.6
L14K  Kuka Creek       48.17  40   IAMs_20  IAMs_20  18 34 18.5
           comp=Z,3µm,21.0s
PALK  Pallekele        48.22 211   LR       LR       18 36 25.4
           comp=Z,2µm,19.4s,baz=31,slow=39
PALK  Pallekele        48.22 211 i P        P        18 13 40.1 +1.5
PALK  Pallekele        48.22 211   P        P        18 13 37.4 -1.2
NEGRR Negrea           48.23 294 ⇓P         P        18 13 40.7 +2.3
SCHL  Schela           48.27 294 ⇑P         P        18 13 40.4 +1.7
CFR   Carcaliu         48.29 294   P        P        18 13 40.3 +1.5
CFR   Carcaliu         48.29 294 ⇓P         P        18 13 40.3 +1.5
MOL   Molde            48.30 322 eP         P        18 13 40.2 +1.5
MOL                                IAmb     IAmb     18 13 57.2
           comp=Z,1µm,2.9s
BLEU  Blekinge         48.31 312 i P        P        18 13 37.5 -1.3
TPGR  Topolog          48.32 293 ⇓P         P        18 13 40.4 +1.3
TESR  Tescani          48.34 296 ⇑P         P        18 13 39.7 +0.5
TESR  Tescani          48.34 296   P        P        18 13 39.5 +0.2
           comp=Z,30nm,1.3s
JMIC  Jan Mayen        48.35 336   LR       LR       18 38 28.2
           comp=Z,634nm,18.1s,baz=64,slow=42
BR131 Keskin Array S   48.39 284   P        P        18 13 40.3 +0.4
           SNR=21
BR131 Keskin Array S   48.39 284d iP        P        18 13 40.0 +0.1
BRTR  Keskin Array B   48.39 284   P        P        18 13 40.6 +0.8
           comp=Z,19nm,1.1s,baz=84,slow=5.6,SNR=60
BRTR                               LR       LR       18 36 24.3
           comp=Z,2µm,18.4s,baz=31,slow=39
           comp=Z,19nm,1.1s
BRTR  Keskin Array B   48.39 284   P        P        18 13 39.6 -0.3
BIZ   Bicaz            48.39 297 ⇓P         P        18 13 40.5 +0.8
BR106 Keskin Array S   48.40 284   P        P        18 13 39.8 -0.1
           comp=Z,194nmcomp=Z,25nm,1.3s
BR104 Keskin Array S   48.40 284   P        P        18 13 40.0 +0.1
           comp=Z,261nmcomp=Z,36nm,1.0s
J17K  VABM Dome        48.40  37   P        P        18 13 38.7 -0.8
J17K                               IAMs_20  IAMs_20  18 33 28.5
           comp=Z,2µm,18.0s
BEL   Belsk            48.40 305 eP         P        18 13 40.1 +0.5
BEL                              eL         L        18 34 41.6
           comp=Z,4µm,16.8s
BR105 Keskin Array S   48.41 284   P        P        18 13 39.9 -0.1
           comp=Z,290nmcomp=Z,39nm,1.2s
BURAR Bucovina Array   48.49 298   P        P        18 13 40.9 +0.4
BURAR Bucovina Array   48.49 298   P        P        18 13 39.3 -1.2
BURAR                              IAmb     IAmb     18 14 10.1
           comp=Z,22nm,0.8s
BURAR Bucovina Array   48.49 298 ⇓P         P        18 13 41.0 +0.4
OSL   Oslo             48.52 318 eP         P        18 13 40.6 +0.2
OSL                                IAmb     IAmb     18 13 45.7
           comp=Z,83nm,1.3s
G21K  Allakaket        48.52  31   IAmb     IAmb     18 13 49.3
           comp=Z,32nm,1.5s
TIRR  Tirgusor         48.56 293   IAMs_20  IAMs_20  18 35 25.6
           comp=Z,3µm,21.0s
KIRS  Kirsehir-Merke   48.59 284 ⇓P         P        18 13 42.1 +0.7
DBG   Daneborg         48.64 342 i P        P        18 13 40.7 -0.5
DBG                                IAmb     IAmb     18 13 45.0
           comp=Z,174nm,2.3s
KWP   Kalwaria Pacla   48.67 301 eP         P        18 13 42.9 +1.1
KWP                              eL         L        18 33 16.5
           comp=Z,3µm,20.9s
KWP   Kalwaria Pacla   48.67 301   P        P        18 13 41.9 +0.1
           comp=Z,42nm,0.9s
VRI   Vrincioaia       48.68 295   P        P        18 13 43.2 +1.3
VRI   Vrincioaia       48.68 295 ⇑P         P        18 13 43.2 +1.3
HARR  Harsova          48.70 293   P        P        18 13 43.1 +1.1
HARR  Harsova          48.70 293 ⇑P         P        18 13 43.1 +1.1
PLOR  Plostina         48.73 295   P        P        18 13 43.9 +1.6
PLOR  Plostina         48.73 295 ⇑P         P        18 13 43.9 +1.6
SAHR  Sahastru         48.78 295 ⇓P         P        18 13 43.9 +1.1
E23K  Chandalar        48.80  29   P        P        18 13 43.1 +0.5
E23K                               IAmb     IAmb     18 13 51.6
           comp=Z,43nm,1.1s
E23K                               IAMs_20  IAMs_20  18 33 57.6
           comp=Z,2µm,20.0s
GRER                   48.83 294 ⇓P         P        18 13 45.1 +2.0
BISRR Bisoca           48.88 295 ⇑P         P        18 13 45.6 +2.2
D25K  Kavik River      48.93  26   P        P        18 13 42.8 -0.7
TURR  Turia            48.97 296 ⇓P         P        18 13 45.0 +0.9
COVR  Voineasa-Covas   48.98 295 ⇑P         P        18 13 45.4 +1.2
PSI   Prapat           49.00 186   P        P        18 13 44.1 -0.6
PSI                                pmax     pmax
           comp=Z,20nm,1.0s
PSI                                MLR      MLR
           comp=Z,3µm,18.0s
PSI   Prapat           49.00 186   P        P        18 13 44.7  0.0
           comp=Z,18nm,0.8s,comp=Z,18nm,0.8s
OZUR                   49.07 296 ⇓P         P        18 13 45.4 +0.5
SKAR  Skarslia         49.08 320 eP         P        18 13 45.7 +0.9
SKAR                               IAmb     IAmb     18 13 45.8
           comp=Z,128nm,1.6s
K17K  Iditarod         49.08  37   IAmb     IAmb     18 14 01.6
           comp=Z,45nm,1.0s
K17K                               IAMs_20  IAMs_20  18 34 43.5
           comp=Z,3µm,18.0s
RPSI  Rantau Prapat    49.11 186   P        P        18 13 44.1 -1.3
RPSI                               IAMs_20  IAMs_20  18 33 29.1
           comp=Z,3µm,18.0s
DEL   Delary           49.11 313 i P        P        18 13 44.2 -0.8
E24K  Your Creek       49.12  28   P        P        18 13 44.1 -0.9
E24K                               IAmb     IAmb     18 13 54.1
           comp=Z,53nm,1.3s
KONO  Kongsberg        49.15 318 eP         P        18 13 44.8 -0.4
TJOU  Tjoern           49.22 315 i P        P        18 13 46.1 +0.3
I20K  Naaghedeneel     49.22  34   P        P        18 13 43.9 -1.8
I20K                               IAMs_20  IAMs_20  18 34 38.1
           comp=Z,2µm,21.0s
L16K  Owhat River      49.22  39   P        P        18 13 45.9 +0.1
L16K                               IAmb     IAmb     18 14 02.3
           comp=Z,27nm,1.1s
J18K  Innoko River     49.23  36   P        P        18 13 45.0 -0.8
J18K                               IAmb     IAmb     18 14 06.5
           comp=Z,22nm,0.9s
J18K                               IAMs_20  IAMs_20  18 33 13.3
           comp=Z,3µm,22.0s
ISR   Istrita          49.23 294   P        P        18 13 48.0 +1.9
ISR   Istrita          49.23 294 ⇑P         P        18 13 48.1 +1.9
ISR   Istrita          49.23 294   P        P        18 13 46.3 +0.1
           comp=Z,86nm,1.3s
H21K  Melozitna Rive   49.27  32   P        P        18 13 44.9 -1.2
H21K                               IAmb     IAmb     18 13 55.4
           comp=Z,60nm,1.2s
ARCR  ARCALIA          49.27 298 ⇓P         P        18 13 48.1 +1.7
J19K  Poorman          49.30  35   P        P        18 13 46.3 -0.1
J19K                               IAmb     IAmb     18 13 56.8
           comp=Z,36nm,1.1s
J19K                               IAMs_20  IAMs_20  18 34 39.3
           comp=Z,2µm,18.0s
KOLS  Kolonicke sedl   49.31 301 eP         P        18 13 47.2 +0.5
KOLS                               pmax     pmax
           comp=Z,24nm,0.6s
KOLS  Kolonicke sedl   49.31 301 eP         P        18 13 47.2 +0.5
FABU  Falkenberg       49.33 314 i P        P        18 13 46.7 +0.1
MLR   Muntele Rosu     49.34 295   LR       LR       18 35 54.4
           comp=Z,3µm,19.1s,baz=54,slow=38
MLR   Muntele Rosu     49.34 295   P        P        18 13 49.4 +2.3
MLR   Muntele Rosu     49.34 295   P        P        18 13 46.6 -0.5
MLR   Muntele Rosu     49.34 295 ⇑P         P        18 13 48.5 +1.4
MLR   Muntele Rosu     49.34 295 ⇑P         P        18 13 49.4 +2.3
SAHE  Sakarya_HENDEK   49.35 287 ⇓P         P        18 13 48.8 +1.7
GKP   Gorka Klasztor   49.36 308 eP         P        18 13 47.8 +0.9
GKP                              eL         L        18 36 32.9
           comp=Z,9µm,15.8s
DOPR  Dopca            49.37 296 ⇓P         P        18 13 48.9 +1.7
MDUB  Mudurnu          49.38 287   P        P        18 13 46.8 -0.6
BMR   Baia Mare        49.39 299   P        P        18 13 48.6 +1.3
BMR   Baia Mare        49.39 299 ⇓P         P        18 13 48.6 +1.3
BSD   Bornholm Skovb   49.41 311 i P        P        18 13 46.7 -0.6
BSD                                IAmb     IAmb     18 13 47.5
           comp=Z,13nm,0.8s
C27K  Jago River       49.45  25   IAmb     IAmb     18 14 01.6
           comp=Z,22nm,0.8s
ONAU  Onsala           49.45 315 i P        P        18 13 47.0 -0.6
G23K  Bananza Creek    49.51  30   P        P        18 13 47.9 -0.1
G23K                               IAmb     IAmb     18 13 57.0
           comp=Z,27nm,1.1s
G23K                               IAMs_20  IAMs_20  18 36 14.5
           comp=Z,2µm,19.0s
STHS  Stebnicka Huta   49.57 302 eP         P        18 13 50.5 +1.8
STHS  Stebnicka Huta   49.57 302 eP         P        18 13 50.5 +1.8
H22K  Ishtalitna Cre   49.59  31   P        P        18 13 48.8 +0.2
H22K                               IAmb     IAmb     18 14 16.7
           comp=Z,48nm,1.6s
H22K                               IAMs_20  IAMs_20  18 34 00.7
           comp=Z,2µm,18.0s
HYA   Hoyanger         49.64 321 eP         P        18 13 49.9 +0.9
F24K  Squaw Lake       49.65  29   P        P        18 13 49.9 +0.9
F24K                               IAmb     IAmb     18 14 29.2
           comp=Z,18nm,0.7s
F24K                               IAMs_20  IAMs_20  18 34 34.2
           comp=Z,3µm,21.0s
J20K  Nowinta River    49.71  34   IAmb     IAmb     18 13 59.3
           comp=Z,72nm,1.6s
CLES  Cleveland East   49.81  52   P        P        18 13 47.3 -3.0
M16K  Timber Creek     49.83  39   P        P        18 13 51.1 +0.6
M16K                               IAMs_20  IAMs_20  18 34 56.3
           comp=Z,3µm,20.0s
I21K  Tanana           49.83  32   P        P        18 13 50.4  0.0
OJC   Ojcow            49.85 303 eP         P        18 13 51.1 +0.4
OJC                              eL         L        18 34 35.4
           comp=Z,2µm,19.2s
OJC   Ojcow            49.85 303   P        P        18 13 49.1 -1.7
OJC   Ojcow            49.85 303   P        P        18 13 49.1 -1.7
OJC   Ojcow            49.85 303   P        P        18 13 50.4 -0.4
           comp=Z,28nm,1.4s
MYKOM Kota Tinggi      49.86 180   P        P        18 13 50.3 -0.8
VOIR                   49.88 296   P        P        18 13 52.6 +1.5
VOIR                   49.88 296 ⇑P         P        18 13 52.6 +1.5
VOIR                   49.88 296   P        P        18 13 51.8 +0.7
           comp=Z,22nm,1.1s
L18K  Granite Mounta   49.98  37   P        P        18 13 49.7 -1.9
L18K                               IAMs_20  IAMs_20  18 34 47.3
           comp=Z,3µm,18.0s
NEEM  North Greenlan   50.02 353 i P        P        18 13 53.1 +1.1
NEEM                               IAmb     IAmb     18 14 00.4
           comp=Z,22nm,0.9s
NIE   Niedzica         50.07 302 eP         P        18 13 54.0 +1.6
NIE                              eL         L        18 35 48.7
           comp=Z,2µm,20.4s
NIE   Niedzica         50.07 302   P        P        18 13 52.8 +0.4
           comp=Z,8.3nm,1.1s
SGRR  Singureni        50.10 294 ⇓P         P        18 13 54.5 +1.8
ARR   Arges            50.15 296 ⇓P         P        18 13 54.7 +1.5
BORA  Eskisehir        50.20 287   P        P        18 13 51.8 -1.8
BORA                               IAmb     IAmb     18 14 02.0
           comp=Z,45nm,1.1s
RAZG  Razgrad          50.20 293 ⇑P         P        18 13 55.5 +2.0
ODD1  Odda             50.21 319 eP         P        18 13 52.5 -0.9
H23K  Yukon River      50.22  31   IAMs_20  IAMs_20  18 36 33.3
           comp=Z,2µm,20.0s
K20K  Telida           50.24  35   IAMs_20  IAMs_20  18 35 16.1
           comp=Z,2µm,18.0s
F25K  Christian Rive   50.26  28   P        P        18 13 53.7  0.0
G24K  Hadweenzic Riv   50.30  29   P        P        18 13 54.3 +0.4
G24K                               IAmb     IAmb     18 14 03.2
           comp=Z,36nm,1.2s
MLY   Manley           50.34  32   P        P        18 13 55.1 +0.8
MLY                                IAmb     IAmb     18 14 03.8
           comp=Z,61nm,1.6s
DRGR                   50.35 298   P        P        18 13 55.9 +1.2
DRGR                   50.35 298 ⇓P         P        18 13 55.9 +1.2
HOMB  Homborsund       50.42 317 eP         P        18 13 55.1 +0.2
HOMB                               IAmb     IAmb     18 14 04.1
           comp=Z,31nm,0.8s
D27M  Malcolm River    50.42  25   P        P        18 13 55.1 +0.2
ASK   Askoy            50.44 321 eP         P        18 13 54.1 -1.0
HUMR  Humele           50.47 295 ⇑P         P        18 13 56.6 +1.1
RGN   Rugen            50.49 311 eP         P        18 13 56.1 +0.6
           comp=Z,66nm,1.1s,baz=50,slow=7.3
GUMO  Guam             50.52 124   LR       LR       18 33 22.4
           comp=Z,640nm,20.7s,baz=348,slow=34
KECS  Kecovo           50.53 301 eP         P        18 13 57.0 +1.1
KECS                               pmax     pmax
           comp=Z,31nm,0.7s
KECS  Kecovo           50.53 301 eP         P        18 13 57.0 +1.1
BLS5  Blasjo           50.58 319 eP         P        18 13 57.2 +1.0
GSI   Gunungsitoli     50.58 188   P        P        18 13 55.8 -0.8
GSI                                IAmb     IAmb     18 14 22.4
           comp=Z,38nm,1.0s
GSI   Gunungsitoli     50.58 188   P        P        18 13 56.7 +0.1
           comp=Z,34nm,0.8s,comp=Z,34nm,0.8s
LOT   Lotru            50.59 296 ⇑P         P        18 13 57.5 +0.9
O15K  Ungalikthiuk R   50.59  41   IAMs_20  IAMs_20  18 35 33.5
           comp=Z,3µm,20.0s
F26K  Sheenjek River   50.62  27   P        P        18 13 56.9 +0.5
F26K                               IAmb     IAmb     18 14 05.5
           comp=Z,33nm,1.1s
F26K                               IAMs_20  IAMs_20  18 36 03.8
           comp=Z,3µm,21.0s
LANS  Liptovska Anna   50.66 302 eP         P        18 13 58.5 +1.5
LANS                               pmax     pmax
           comp=Z,7.0nm,1.0s
LANS  Liptovska Anna   50.66 302 eP         P        18 13 58.5 +1.5
BMAR  Burnt Mountain   50.67  28   P        P        18 13 57.0 +0.2
L19K  White Mountain   50.69  36   IAMs_20  IAMs_20  18 34 58.9
           comp=Z,2µm,20.0s
I23K  Minto, Yukon-K   50.71  31   P        P        18 13 58.0 +1.0
I23K                               IAmb     IAmb     18 14 06.8
           comp=Z,70nm,1.3s
TPRI  Tanjung Pinang   50.73 179   P        P        18 13 58.5 +0.8
           comp=Z,31nm,1.0s,comp=Z,31nm,1.0s
H24K  Noodor Dome      50.74  30   P        P        18 13 57.8 +0.5
H24K                               IAmb     IAmb     18 14 06.9
           comp=Z,51nm,1.4s
DEV   Deva             50.80 297   P        P        18 13 59.8 +1.8
DEV   Deva             50.80 297 ⇑P         P        18 13 59.8 +1.8
BPAW  Bear Paw Mtn.    50.85  33   P        P        18 13 57.8 -0.3
BPAW                               IAmb     IAmb     18 14 08.2
           comp=Z,64nm,1.6s
L20K  Farewell, AK     50.86  36   P        P        18 13 57.5 -0.7
CAST  Castle Rocks     50.90  34   P        P        18 13 57.9 -0.7
SNART Snartemo         50.92 318 eP         P        18 13 59.8 +1.1
MNSI  Mandailing Nat   50.95 185   P        P        18 13 58.6 -0.8
E27K  Coleen River     50.99  26   P        P        18 13 59.6 +0.5
E27K                               IAmb     IAmb     18 14 08.0
           comp=Z,43nm,1.1s
M19K  Big River Lodg   51.03  37   IAMs_20  IAMs_20  18 35 21.0
           comp=Z,2µm,20.0s
O16K  Kokwok River B   51.04  40   IAMs_20  IAMs_20  18 35 47.3
           comp=Z,3µm,21.0s
FYU   Fort Yukon       51.06  29   P        P        18 13 59.1 -0.5
FYU                                IAmb     IAmb     18 14 09.5
           comp=Z,85nm,1.4s
STEB  Steborice        51.07 304 eP         P        18 14 00.6 +0.6
NEA2  Nenana           51.17  32   P        P        18 13 60.0 -0.5
GZR   Gura Zlata       51.17 297   P        P        18 14 01.8 +1.0
GZR   Gura Zlata       51.17 297 ⇑P         P        18 14 01.9 +1.0
PSZ   Piszkesteto      51.19 301   P        P        18 14 02.8 +1.9
PSZ   Piszkesteto      51.19 301   P        P        18 13 59.6 -1.3
PSZ                                IAmb     IAmb     18 14 09.7
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	comp=Z,40nm,1.4s						
PSZ	Piszkesteto	51.19	301	⇑P	P	18 14 02.9	+1.9
PPLA	Purkeypile	51.20	35	P	P	18 13 59.6	-1.4
PPLA				IAMs_20	IAMs_20	18 35 49.4	
	comp=Z,2µm,18.0s						
KTH	Kantishna Hill	51.22	34	P	P	18 14 00.9	-0.1
KTH				IAMs_20	IAMs_20	18 37 45.9	
	comp=Z,2µm,18.0s						
G26K	Porcupine Rive	51.23	28	P	P	18 14 00.9	0.0
G26K				IAmb	IAmb	18 14 10.7	
	comp=Z,37nm,1.1s						
G26K				IAMs_20	IAMs_20	18 36 00.8	
	comp=Z,2µm,20.0s						
MUD	Monsted U'grnd	51.23	315	i P	P	18 14 01.1	+0.1
MUD				IAmb	IAmb	18 14 02.8	
	comp=Z,18nm,0.6s						
E28M	Babbage River	51.24	25	P	P	18 13 58.8	-2.3
E28M				IAMs_20	IAMs_20	18 36 24.2	
	comp=Z,2µm,20.0s						
SIRR	Siria	51.25	298	⇓P	P	18 14 02.8	+1.4
KSP	Ksiaz	51.27	306	eP	P	18 14 02.3	+0.9
KSP				eL	L	18 35 11.2	
	comp=Z,2µm,20.6s						
KSP	Ksiaz	51.27	306	P	P	18 14 01.6	+0.1
	comp=Z,40nm,0.8s						
MORC	Moravsky Berou	51.28	304	P	P	18 14 02.6	+1.0
MORC	Moravsky Berou	51.28	304	P	P	18 14 00.5	-1.1
MORC	Moravsky Berou	51.28	304	eP	P	18 14 01.9	+0.3
MORC	Moravsky Berou	51.28	304	⇓P	P	18 14 02.7	+1.0
SURR	Surduc	51.31	298	⇓P	P	18 14 02.8	+1.0
BWN	Browne	51.31	32	IAMs_20	IAMs_20	18 36 44.7	
	comp=Z,2µm,18.0s						
ASF	Jabal al Asfar	51.34	275	LR	LR	18 36 56.6	
	comp=Z,2µm,21.9s,baz=29,slow=38						
ASF	Jabal al Asfar	51.34	275	P	P	18 14 03.2	+0.8
	comp=Z,4µmcomp=Z,331nm,1.4s						
BKNI	Bangkinang	51.35	183	P	P	18 14 01.1	-1.3
COLA	College	51.38	31	c iP	P	18 14 03.9	+1.9
COLA				pmax	pmax		
	comp=Z,31nm,0.8s						
COLA				MLR	MLR		
	comp=Z,2µm,15.0s						
COLA	College	51.38	31	P	P	18 14 02.2	+0.1
PLVB	Pleven	51.38	294	⇑P	P	18 14 04.4	+2.0
MAUC	Maruska	51.39	303	eP	P	18 14 03.5	+1.1
VYHS	Vyhne	51.39	302	eP	P	18 14 03.6	+1.2
VYHS				pmax	pmax		
	comp=Z,22nm,0.8s						
VYHS	Vyhne	51.39	302	eP	P	18 14 03.6	+1.2
GEM	Giv'at Ha'Em	51.40	277	P	P	18 14 03.3	+0.6
KEPZ	Antalya-Kepez	51.43	283	⇑P	P	18 14 04.2	+1.4
ISP	Isparta	51.48	285	c iP	P	18 14 04.2	+0.9
ISP				pmax	pmax		
	comp=Z,61nm,0.8s						
OSTC	Ostas	51.48	305	eP	P	18 14 04.1	+1.0
OSTC				MLR	MLR		
	comp=Z,4µm,12.5s						
OSTC	Ostas	51.48	305	eP	P	18 14 04.1	+1.0
OSTC				AMS	AMS	18 36 50.0	
	comp=Z,4µm,12.5s						
KRLC	Kraliky	51.49	305	eP	P	18 14 03.8	+0.6
KRLC				MLR	MLR		
	comp=Z,2µm,16.7s						
KRLC	Kraliky	51.49	305	eP	P	18 14 03.8	+0.6
KRLC				AMS	AMS	18 36 50.0	
	comp=Z,2µm,16.7s						
TRF	Thorofare Moun	51.50	33	P	P	18 14 02.5	-0.7
TRF				IAmb	IAmb	18 14 12.7	
	comp=Z,75nm,1.3s						
TRF				IAMs_20	IAMs_20	18 37 55.4	
	comp=Z,2µm,19.0s						
M20K	Styx River	51.51	36	P	P	18 14 02.8	-0.4
M20K				IAmb	IAmb	18 14 20.4	
	comp=Z,40nm,1.0s						
M20K				IAMs_20	IAMs_20	18 35 24.6	
	comp=Z,3µm,19.0s						
RUE	Ruedersdorf	51.52	309	eP	P	18 14 03.8	+0.6
	comp=Z,45nm,1.0s,baz=50,slow=7.3						
CCB	Clear Creek Bu	51.54	31	P	P	18 14 03.3	0.0
CCB				IAmb	IAmb	18 14 12.4	
	comp=Z,98nm,1.5s						
CHVC	Chvalec	51.55	306	eP	P	18 14 04.4	+0.8
CHVC				MLR	MLR		
	comp=Z,4µm,13.2s						
CHVC	Chvalec	51.55	306	eP	P	18 14 04.4	+0.8
CHVC				ex	x	18 25 31.0	
CHVC				AMS	AMS	18 36 50.0	
	comp=Z,4µm,13.2s						
DPC	Dobruska-Polom	51.56	305	eP	P	18 14 04.8	+1.1
DPC				MLR	MLR		
	comp=Z,3µm,16.3s						
DPC	Dobruska-Polom	51.56	305	eP	P	18 14 04.8	+1.1
DPC				eSS	SKiKP	18 25 21.5	-9.5
DPC				AMS	AMS	18 36 40.0	
	comp=Z,3µm,16.3s						
WRH	Wood River Hil	51.57	32	P	P	18 14 02.8	-0.7
WRH				IAmb	IAmb	18 14 13.3	
	comp=Z,58nm,1.2s						
UPC	Upice	51.62	306	eP	P	18 14 04.8	+0.7
UPC				MLR	MLR		
	comp=Z,4µm,15.1s						
UPC	Upice	51.62	306	eP	P	18 14 04.8	+0.7
UPC				eSS	SKiKP	18 25 29.6	-1.4
UPC				AMS	AMS	18 36 50.0	
	comp=Z,4µm,15.1s						
CSS	Mathiatis	51.66	280	P	P	18 14 04.8	+0.2
	comp=Z,1µmcomp=Z,87nm,1.4s						
BZS	Buzias	51.67	298	P	P	18 14 05.2	+0.7
BZS	Buzias	51.67	298	⇓P	P	18 14 05.3	+0.7
PRP	Porcupine Dome	51.68	30	P	P	18 14 05.1	+0.6
PRP				IAmb	IAmb	18 14 14.1	
	comp=Z,50nm,1.2s						
PRP				IAMs_20	IAMs_20	18 38 34.9	
	comp=Z,2µm,19.0s						
N19K	Bonanza Creek	51.69	38	P	P	18 14 04.8	+0.3
N19K				IAmb	IAmb	18 14 14.4	
	comp=Z,47nm,1.3s						
HERR	Herculane	51.69	296	⇑P	P	18 14 05.5	+0.9
ILAR	Eielson Array	51.76	31	P	P	18 14 06.2	+1.3
	comp=Z,13nm,0.9s,baz=306,slow=5.5,SNR=46						
ILAR				LR	LR	18 37 23.2	
	comp=Z,2µm,18.6s,baz=316,slow=38						
	comp=Z,13nm,0.9s						
ILAR	Eielson Array	51.76	31	P	P	18 14 05.8	+0.9
MCK	McKinley	51.78	33	IAMs_20	IAMs_20	18 37 09.6	
	comp=Z,2µm,19.0s						
JAVC	Velka Javorina	51.78	303	eP	P	18 14 06.7	+1.3
E29M	Blow River	51.82	24	P	P	18 14 04.8	-0.5
E29M				IAmb	IAmb	18 14 14.4	
	comp=Z,46nm,0.9s						
E29M				IAMs_20	IAMs_20	18 36 44.5	
	comp=Z,2µm,22.0s						
SCO	Scoresbysund	51.86	340	P	P	18 14 04.9	-0.7
SCO				pmax	pmax		
	comp=Z,30nm,1.0s						
SCO	Scoresbysund	51.86	340	P	P	18 14 04.9	-0.7
SCO				IAmb	IAmb	18 14 12.3	
	comp=Z,30nm,1.0s						
BALB	Balikesir	51.87	288	P	P	18 14 05.8	-0.3
BALB				IAmb	IAmb	18 14 14.7	
	comp=Z,62nm,1.2s						
G27K	Doyon Strip	51.93	27	P	P	18 14 06.1	-0.1
G27K				IAMs_20	IAMs_20	18 36 53.5	
	comp=Z,2µm,20.0s						
P17K	Kvichak River	51.95	40	IAMs_20	IAMs_20	18 36 48.4	
	comp=Z,3µm,20.0s						
HDA	Harding Lake	51.98	31	P	P	18 14 06.2	-0.4
RND	Reindeer	52.02	33	P	P	18 14 06.8	-0.2
RND				pmax	pmax		
	comp=Z,23nm,1.2s						
RND				MLR	MLR		
	comp=Z,3µm,19.0s						
RND	Reindeer	52.02	33	P	P	18 14 06.8	-0.2
RND				IAMs_20	IAMs_20	18 37 16.0	
	comp=Z,3µm,19.0s						
SKT	Skwentna	52.02	35	P	P	18 14 06.8	-0.1
QRNJ	Al-Qirein	52.05	276	P	P	18 14 08.9	+1.4
	comp=Z,2µm,0.9s						
VRAC	Vranov	52.06	304	LR	LR	18 36 22.1	
	comp=Z,2µm,20.1s,baz=60,slow=36						
VRAC	Vranov	52.06	304	P	P	18 14 08.6	+1.2
VRAC	Vranov	52.06	304	eP	P	18 14 07.7	+0.3
VRAC	Vranov	52.06	304	⇓P	P	18 14 08.7	+1.2
SRO	Srobarova	52.09	302	eP	P	18 14 07.4	-0.2
SRO	Srobarova	52.09	302	eP	P	18 14 07.4	-0.2
DSRI	Dabo	52.12	179	P	P	18 14 08.0	-0.1
	comp=Z,41nm,1.2s,comp=Z,41nm,1.2s						
SMOL	Smolenice	52.12	303	eP	P	18 14 09.3	+1.5
SMOL				pmax	pmax		
	comp=Z,6.0nm,0.6s						
MDVR	Moldovita	52.14	297	⇓P	P	18 14 08.7	+0.6
RAYN	Ar Rayn	52.17	260	P	P	18 14 07.9	-0.7
RAYN	Ar Rayn	52.17	260	P	P	18 14 08.7	+0.1
RAYN	Ar Rayn	52.17	260	P	P	18 14 07.9	-0.7
RAYN				IAmb	IAmb	18 14 09.3	
	comp=Z,38nm,0.9s						
RAYN	Ar Rayn	52.17	260	i P	P	18 14 08.3	-0.3
	SNR=46						
CUT	Chulitna	52.20	34	P	P	18 14 09.3	+1.1
CUT				IAMs_20	IAMs_20	18 36 21.7	
	comp=Z,2µm,18.0s						
CAVK	Edirne/Enez-Ca	52.20	290	⇑P	P	18 14 09.8	+1.3
MANT	Manisa	52.22	287	P	P	18 14 08.9	-0.1
STLK	Strandline Lak	52.23	36	P	P	18 14 08.5	-0.1
BSEG	Bad Segeberg	52.26	312	eP	P	18 14 09.3	+0.5
	comp=Z,57nm,1.4s,baz=50,slow=7.3						
MODS	Modra-Piesok	52.28	303	eP	P	18 14 10.3	+1.2
MODS				pmax	pmax		
	comp=Z,76nm,1.9s						
MODS	Modra-Piesok	52.28	303	eP	P	18 14 10.3	+1.2
KRUC	Moravsky	52.31	304	eP	P	18 14 09.3	0.0
J25K	Salcha River,	52.34	31	P	P	18 14 09.3	-0.1
J25K				IAMs_20	IAMs_20	18 37 40.5	
	comp=Z,3µm,20.0s						
H27K	Steamboat Moun	52.38	28	P	P	18 14 09.7	+0.1
H27K				IAMs_20	IAMs_20	18 38 36.3	
	comp=Z,2µm,19.0s						
BRG	Berggiesshubel	52.43	307	eP	P	18 14 10.3	+0.2
	comp=Z,17nm,0.8s,baz=50,slow=7.3						
BRG	Berggiesshubel	52.43	307	i P	P	18 14 10.7	+0.7
BRG				Amp		18 14 11.3	
	comp=Z,17nm,0.8s						
BRG	Berggiesshubel	52.43	307	P	P	18 14 16.5	+6.4
BRG				Amp		18 14 19.8	
	comp=Z,17nm,0.9s						
BRG	Berggiesshubel	52.43	307	SS	SKiKP	18 25 21.0	-11
SALP	Salfit	52.47	276	P	P	18 14 11.8	+1.1
	comp=Z,642nmcomp=Z,49nm,1.0s						
ZST	Bratislava	52.49	303	eP	P	18 14 13.9	+3.3
ZST	Bratislava	52.49	303	eP	P	18 14 13.9	+3.3
I26K	Coal Creek Min	52.55	29	IAMs_20	IAMs_20	18 36 24.8	
	comp=Z,2µm,21.0s						
ELL	Elmali	52.55	284	P	P	18 14 11.2	-0.1
ELL				pmax	pmax		
	comp=Z,50nm,0.8s						
ELL	Elmali	52.55	284	P	P	18 14 11.2	-0.1
ELL				IAmb	IAmb	18 14 26.7	
	comp=Z,50nm,0.8s						
RICC	Richard	52.55	307	eP	P	18 14 12.1	+1.1
TOLI2	Tolitoli	52.58	158	P	P	18 14 11.4	-0.2
CLL	Collm	52.62	308	⇑iP	P	18 14 11.6	+0.1
CLL				i		18 14 16.9	
CLL				eS	S	18 21 39.0	+0.7
CLL				pmax	pmax		
	comp=Z,31nm,0.7s						
CLL	Collm	52.62	308	P	P	18 14 11.0	-0.5
CLL				IAmb	IAmb	18 14 12.7	
	comp=Z,27nm,0.6s						
CLL	Collm	52.62	308	eP	P	18 14 11.6	+0.1
	comp=Z,24nm,0.7s,baz=50,slow=7.3						
CLL	Collm	52.62	308	P	P	18 14 10.8	-0.7
	comp=Z,50nm,0.8s						
CLL	Collm	52.62	308	⇑iP	P	18 14 11.6	+0.1
	comp=Z,31nm,0.7s						
CLL				i x	x	18 14 16.9	
CLL				eS	S	18 21 39.0	+0.7
CLL				ex	x	18 23 00.0	
CLL				eSS	SS	18 25 23.0	+7.1
CLL				eSSS	SSS	18 27 00.0	
CLL				L	L	18 29 00.0	
CLL				AMS	AMS	18 34 00.0	
	comp=N,15µm,18.6s						
CLL				AMS	AMS	18 34 00.0	
	comp=E,9µm,20.3s						
CLL				AMS	AMS	18 39 00.0	
	comp=Z,8µm,16.5s						
CLL				AMS	AMS	18 39 00.0	
	comp=Z,0.0nm,14.6s						
SUA	Susitna One	52.65	36	IAMs_20	IAMs_20	18 39 57.6	
	comp=Z,2µm,19.0s						
TAVA	DENIZLI_Tavas	52.67	285	⇑P	P	18 14 13.8	+1.6
PRU	Pruhonice	52.68	306	eP	P	18 14 12.9	+0.9
PRU				pmax	pmax		
	comp=Z,5.0nm,0.6s						
PRU				MLR	MLR		
	comp=Z,3µm,14.1s						
PRU	Pruhonice	52.68	306	eP	P	18 14 12.9	+0.9
	comp=Z,4.7nm,0.6s						
PRU				ex	x	18 25 51.6	
PRU				AMS	AMS	18 37 30.0	
	comp=Z,3µm,14.1s						
ILSW	Iliamna Southw	52.73	38	P	P	18 14 12.2	-0.1
ILSW				IAmb	IAmb	18 14 22.7	
	comp=Z,30nm,0.9s						
DHY	Denali Highway	52.74	33	P	P	18 14 12.4	0.0
DHY				IAmb	IAmb	18 14 21.1	
	comp=Z,30nm,0.7s						
GHAJ	Ghor Haditha	52.76	275	P	P	18 14 12.4	-0.3
GHAJ				IAmb	IAmb	18 14 23.8	
	comp=Z,68nm,1.1s						
GHAJ	Ghor Haditha	52.76	275	P	P	18 14 13.9	+1.1
	comp=Z,646nmcomp=Z,53nm,1.4s						
K24K	Donnelly Dome	52.77	31	P	P	18 14 11.4	-1.1
K24K				IAmb	IAmb	18 14 39.5	
	comp=Z,30nm,0.9s						
K24K				IAMs_20	IAMs_20	18 37 25.7	
	comp=Z,3µm,21.0s						
I27K	Kandik River	52.80	28	IAmb	IAmb	18 14 22.6	
	comp=Z,62nm,1.3s						
FLTG	Flechtingen	52.83	310	eP	P	18 14 12.9	-0.1
	comp=Z,38nm,1.4s,baz=50,slow=7.3						
HSKC	Hora Svate Kat	52.85	307	eP	P	18 14 13.9	+0.7
HSKC				AMS	AMS	18 38 50.0	
	comp=Z,5µm,13.3s						
G29M	Pine Creek	52.86	26	P	P	18 14 14.3	+1.2
G29M				IAmb	IAmb	18 14 23.0	
	comp=Z,41nm,1.1s						
BOVS	Bovan	52.87	296	⇓P	P	18 14 14.2	+0.7
MPLH	Magyarpolny	52.90	301	P	P	18 14 14.3	+0.7
	comp=Z,120nm,1.4s						
MORH	Mrgy, Hungar	52.91	300	⇓P	P	18 14 14.1	+0.4
MORH	Mrgy, Hungar	52.91	300	P	P	18 14 13.8	+0.1
	comp=Z,20nm,1.4s						
F30M	Barrier River	52.93	24	P	P	18 14 14.3	+0.7
F30M				IAmb	IAmb	18 14 22.9	
	comp=Z,58nm,1.2s						
F30M				IAMs_20	IAMs_20	18 39 51.9	
	comp=Z,2µm,18.0s						
INK	Inuvik	52.97	23	LR	LR	18 39 19.6	
	comp=Z,885nm,19.6s,baz=330,slow=39						
ACHA	Angle Creek He	53.03	41	P	P	18 14 13.5	-1.0
WINA	Alland / Wiene	53.08	303	epP	P	18 14 16.2	+1.2
	comp=Z,18nm,1.5s,SNR=9.8						
SUMG	Summit	53.10	347	i P	P	18 14 16.4	+1.2
RIDG	Independent Ri	53.11	31	IAmb	IAmb	18 14 23.8	
	comp=Z,52nm,1.1s						
RIDG				IAMs_20	IAMs_20	18 38 02.8	
	comp=Z,3µm,18.0s						
PMR	Palmer	53.14	35	P	P	18 14 14.4	-0.7
PMR				pmax	pmax		
	comp=Z,47nm,1.2s						
PMR	Palmer	53.14	35	P	P	18 14 14.4	-0.7
PMR				IAmb	IAmb	18 14 24.6	
	comp=Z,47nm,1.2s						
ZVC	Zvikov	53.20	305	eP	P	18 14 16.7	+0.9
RONA	Rosalia, Austr	53.22	303	epP	P	18 14 17.2	+1.1
	comp=Z,33nm,1.1s,SNR=14						
SCRK	Sand Creek	53.22	31	P	P	18 14 15.4	-0.5
SCRK				IAMs_20	IAMs_20	18 38 16.7	
	comp=Z,2µm,19.0s						
ASSE	Asse, Remlinge	53.23	310	eP	P	18 14 16.2	+0.3
	comp=Z,63nm,1.5s,baz=50,slow=7.3						
RC01	Rabbit Creek A	53.26	35	P	P	18 14 16.0	-0.1
RC01				IAmb	IAmb	18 14 30.6	
	comp=Z,45nm,1.0s						
SML	Sawmill	53.27	34	P	P	18 14 16.3	+0.1
SML				IAmb	IAmb	18 14 26.1	
	comp=Z,57nm,1.0s						
H29M	Whitestone	53.28	26	P	P	18 14 15.7	-0.5
H29M				IAMs_20	IAMs_20	18 41 14.0	
	comp=Z,2µm,18.0s						
NEUB	Neuenburg	53.28	308	eP	P	18 14 16.4	0.0
	comp=Z,25nm,0.8s,baz=50,slow=7.3						
G30M	tAoh Zraii Nji	53.29	25	P	P	18 14 16.7	+0.4
G30M				IAmb	IAmb	18 14 25.1	
	comp=Z,59nm,1.3s						
CONA	Conrad Observa	53.30	303	epP	P	18 14 18.1	+1.4
	comp=Z,52nm,1.6s,SNR=15						
SMKI	Samarinda	53.35	163	P	P	18 14 27.3	+10
PEHC	Pehcevo	53.39	293	i P	P	18 14 23.9	+6.4
I28M	Miner Creek	53.40	28	P	P	18 14 17.2	0.0
TANN	Tannenbergstha	53.45	307	eP	P	18 14 18.1	+0.3
	comp=Z,16nm,1.1s,baz=50,slow=7.3						
RETH	Rethem/Aller,	53.46	311	eP	P	18 14 18.1	+0.5
	comp=Z,71nm,1.5s,baz=50,slow=7.3						
SLKM	Skilak Lake	53.48	36	P	P	18 14 18.1	+0.3
SLKM				IAmb	IAmb	18 15 18.9	
	comp=Z,47nm,1.3s						
KNK	Knik Glacier	53.50	35	P	P	18 14 17.4	-0.4
KNK				IAmb	IAmb	18 14 37.4	
	comp=Z,36nm,0.8s						
HOM	Homer	53.52	38	IAMs_20	IAMs_20	18 37 12.7	
	comp=Z,3µm,19.0s						
CKRC	Cesky Krumlov	53.53	305	eP	P	18 14 19.2	+0.9
CKRC				MLR	MLR		
	comp=Z,3µm,16.2s						
CKRC	Cesky Krumlov	53.53	305	eP	P	18 14 19.2	+0.9
CKRC				ex	x	18 26 08.2	
CKRC				AMS	AMS	18 35 50.0	
	comp=Z,3µm,16.2s						
PLN	Plauen	53.55	307	eP	P	18 14 18.9	+0.4
	comp=Z,6.0nm,0.8s,baz=50,slow=7.3						
CLZ	Clausthal	53.55	310	eP	P	18 14 19.0	+0.5
	comp=Z,27nm,1.0s,baz=50,slow=7.3						
NKC	Novy Kostel	53.57	307	ex	x	18 26 11.7	
NKC				AMS	AMS	18 39 20.0	
	comp=Z,5µm,12.8s						
F31M	Tsiigehtchic	53.58	24	P	P	18 14 18.2	-0.1
F31M				IAmb	IAmb	18 14 26.8	
	comp=Z,41nm,1.4s						
GTOI	Gorontalo	53.59	155	P	P	18 14 24.1	+5.1
	comp=Z,28nm,0.8s,comp=Z,28nm,0.8s						
SCM	Sheep Creek Mo	53.60	34	P	P	18 14 17.2	-1.5
SCM				pmax	pmax		
	comp=Z,133nm,1.6s						
SCM				MLR	MLR		
	comp=Z,2µm,19.0s						
SCM	Sheep Creek Mo	53.60	34	P	P	18 14 17.2	-1.5
SCM				IAMs_20	IAMs_20	18 37 34.9	
	comp=Z,2µm,19.0s						
EPYK	Eagle Plains	53.62	26	P	P	18 14 17.7	-1.0
EPYK				IAmb	IAmb	18 14 27.2	
	comp=Z,35nm,1.1s						
O22K	Cooper Landing	53.68	36	IAMs_20	IAMs_20	18 38 39.9	
	comp=Z,2µm,20.0s						
KHC	Kasperske Hory	53.71	305	c iP	P	18 14 20.0	+0.4
KHC				pmax	pmax		
	comp=Z,42nm,1.4s						
KHC				MLR	MLR		
	comp=Z,3µm,17.0s						
KHC	Kasperske Hory	53.71	305	eP	P	18 14 20.4	+0.8
	comp=Z,5.8nm,0.6s						
KHC				ex	x	18 26 11.0	
KHC				AMS	AMS	18 38 10.0	
	comp=Z,4µm,16.6s						
KHC	Kasperske Hory	53.71	305	IAmb	IAmb	18 14 28.9	
	comp=Z,40nm,1.3s						
KHC				IAMs_20	IAMs_20	18 39 31.2	
	comp=Z,3µm,20.0s						
MOX	Moxa	53.72	308	eP	P	18 14 20.1	+0.5
	comp=Z,24nm,0.8s,baz=50,slow=7.3						
MOX				eL	L	18 35 25.9	
	comp=Z,2µm,18.9s						
BEHE	Becsehely	53.75	301	P	P	18 14 19.3	-0.6
KZIT	Kziot	53.76	275	P	P	18 14 20.9	+0.7
	comp=Z,649nmcomp=Z,55nm,1.2s						
CNPM	China Poot	53.76	38	IAMs_20	IAMs_20	18 37 12.1	
	comp=Z,2µm,19.0s						
PRNI	Paran	53.77	275	P	P	18 14 21.5	+1.2
	comp=Z,2µmcomp=Z,140nm,1.2s						
K27K	Chicken	53.78	30	IAmb	IAmb	18 14 29.2	
	comp=Z,65nm,1.3s						
K27K				IAMs_20	IAMs_20	18 36 41.4	
	comp=Z,2µm,21.0s						
GEC2	GERESS Array S	53.83	305	eP	P	18 14 21.0	+0.5
	comp=Z,23nm,1.3s,baz=50,slow=7.3						
GERES	GERESS Array B	53.83	305	P	P	18 14 21.3	+0.7
	comp=Z,5.6nm,0.8s,baz=49,slow=6.1,SNR=35						
	comp=Z,5.6nm,0.8s						
GERES	GERESS Array B	53.83	305	P	P	18 14 19.8	-0.8
G31M	Satah River	53.84	24	P	P	18 14 19.4	-0.9
G31M				IAmb	IAmb	18 14 28.7	
	comp=Z,71nm,1.3s						
VAY	Valandovo	53.87	293	i P	P	18 14 27.5	+6.6
ARSA	Arzberg	53.91	303	epP	P	18 14 22.2	+1.1
	comp=Z,41nm,1.7s,SNR=9.7						
PWL	Port Wells	53.92	35	IAmb	IAmb	18 14 37.1	
	comp=Z,36nm,0.8s						
PWL				IAMs_20	IAMs_20	18 39 31.3	
	comp=Z,2µm,19.0s						
I29M	Ogilvie Camp,	53.93	27	IAMs_20	IAMs_20	18 40 48.2	
	comp=Z,2µm,19.0s						
GTTG	Gottingen	53.94	310	eP	P	18 14 21.9	+0.7
	comp=Z,37nm,1.0s,baz=50,slow=7.3						
HARP	HAARP	53.95	32	P	P	18 14 21.4	+0.2
HRFI	Mount Harif	53.97	274	P	P	18 14 22.7	+1.0
	comp=Z,629nmcomp=Z,46nm,1.1s						
ARG	Arkhangelos	53.98	285	P	P	18 14 20.4	-1.3
ARG				pmax	pmax		
	comp=Z,97nm,1.3s						
ARG	Arkhangelos	53.98	285	P	P	18 14 20.4	-1.3
SEW	Seward	54.03	36	IAMs_20	IAMs_20	18 38 32.3	
	comp=Z,2µm,18.0s						
MENT	Mentasta	54.04	31	IAmb	IAmb	18 14 33.2	
	comp=Z,27nm,1.1s						
WET	Wettzell	54.05	306	eP	P	18 14 22.8	+0.6
	comp=Z,50nm,1.4s,baz=50,slow=7.3						
AQBJ	Aqaba	54.17	274	P	P	18 14 24.5	+1.3
	comp=Z,126nm,1.1s						
MOA	Molln	54.18	304	epP	P	18 14 23.8	+0.7
	comp=Z,19nm,2.0s,SNR=7.4						
EIL	Elat	54.28	274	LR	LR	18 39 44.8	
	comp=Z,2µm,21.1s,baz=44,slow=38						
EIL	Elat	54.28	274	P	P	18 14 24.9	+0.9
	comp=Z,27nm,1.4s						
KLU	Klutina	54.33	34	IAMs_20	IAMs_20	18 38 23.0	
	comp=Z,2µm,22.0s						
PCI	Palu	54.33	160	P	P	18 14 31.6	+7.2
	comp=Z,48nm,0.9s,comp=Z,48nm,0.9s						
IBBN	Ibbenburen	54.49	311	eP	P	18 14 25.0	-0.2
	comp=Z,54nm,1.3s,baz=50,slow=7.3						
SESA	Seetaler Alpe,	54.50	303	epP	P	18 14 26.6	+1.0
	comp=Z,46nm,1.3s,SNR=10						
PERS	Pernice	54.52	302	i P	P	18 14 26.1	+0.5
GRA1	Grafenberg Arr	54.53	307	IAmb	IAmb	18 14 35.9	
	comp=Z,38nm,0.9s						
GRF	Grafenberg Arr	54.53	307	eP	P	18 14 26.4	+0.9
	comp=Z,115nm,1.5s,baz=50,slow=7.3						
GRF				eL	L	18 38 56.8	
	comp=Z,2µm,19.5s						
SOKA	Soboth	54.54	302	pP	P	18 14 26.1	+0.4
	comp=Z,30nm,1.4s,SNR=9.6						
PMBI	Palembang	54.55	178	IAMs_20	IAMs_20	18 38 36.8	
	comp=Z,3µm,19.0s						
L27K	Beaver Creek,	54.55	31	IAmb	IAmb	18 14 35.7	
	comp=Z,47nm,1.1s						
L27K				IAMs_20	IAMs_20	18 39 06.9	
	comp=Z,2µm,18.0s						
BCAR	Beaver Creek A	54.56	31	P	P	18 14 26.5	+0.9
DAWY	Dawson	54.57	29	IAmb	IAmb	18 14 34.6	
	comp=Z,26nm,1.0s						
I30M	Mount Dempster	54.57	27	IAmb	IAmb	18 14 34.6	
	comp=Z,38nm,1.1s						
BIOA	Bad Ischl, Aus	54.60	304	i pP	P	18 14 26.9	+0.7
	comp=Z,19nm,1.6s						
J29N	Klondike Camp	54.63	28	P	P	18 14 25.9	-0.2
J29N				IAMs_20	IAMs_20	18 39 37.8	
	comp=Z,2µm,19.0s						
DIV	Divide	54.63	34	P	P	18 14 26.6	+0.4
DIV				IAMs_20	IAMs_20	18 38 09.1	
	comp=Z,2µm,18.0s						
BLY	Banja Luka	54.64	299	P	P	18 14 25.9	-0.6
BLY				IAMs_20	IAMs_20	18 37 26.2	
	comp=Z,2µm,19.0s						
BLY	Banja Luka	54.64	299	⇓P	P	18 14 27.5	+1.1
M26K	Nabesna, AK	54.66	32	P	P	18 14 26.3	-0.1
M26K				IAmb	IAmb	18 14 39.1	

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      comp=Z,31nm,1.1s
M26K                           IAMs_20  IAMs_20  18 38 53.7
      comp=Z,2µm,19.0s
H31M  Peel River       54.68  25  P        P        18 14 25.8 -0.7
TNTI  Ternate          54.69 150  P        P        18 14 36.7 +10
      comp=Z,20nm,0.8s,comp=Z,20nm,0.8s
APSI  Ampana           54.74 158  P        P        18 14 34.5 +7.1
P23K  Montague Islan   54.85  36  IAMs_20  IAMs_20  18 37 22.9
      comp=Z,2µm,19.0s
HIN   Hinchinbrook I   54.89  35  IAMs_20  IAMs_20  18 38 17.0
      comp=Z,2µm,19.0s
OBKA  Obir             54.90 302 epP       P        18 14 29.0 +0.7
      comp=Z,58nm,1.7s,SNR=9.2
KASTN Kahler Asten     54.90 310 eP        P        18 14 28.6 +0.3
      comp=Z,38nm,1.6s,baz=50,slow=7.3
OHR   Ohrid            55.02 294 i P       P        18 14 35.6 +6.3
PDG   Podgorica        55.02 296  IAmb     IAmb     18 14 37.5
      comp=Z,22nm,0.9s
EYAK  Cordova Ski Ar   55.05  34  P        P        18 14 28.9 -0.2
M27K  Edge Creek, AK   55.05  31  P        P        18 14 29.2 -0.1
M27K                              IAMs_20  IAMs_20  18 39 13.0
      comp=Z,2µm,19.0s
J30M  Hart River       55.07  27  P        P        18 14 28.8 -0.7
GLB   Gilahina Butte   55.08  33  IAMs_20  IAMs_20  18 37 48.8
      comp=Z,2µm,18.0s
BMRM  Bremner River    55.15  33  P        P        18 14 28.9 -1.0
BMRM                              IAMs_20  IAMs_20  18 39 48.7
      comp=Z,2µm,18.0s
KBA   Koelnbreinsper   55.16 304 epP       P        18 14 31.5 +1.2
      comp=Z,44nm,1.2s,SNR=15
BOJS  Bojanci          55.19 301 i P       P        18 14 30.4  0.0
LESA  Schwarzleotal    55.27 304  pP       P        18 14 31.8 +0.8
      comp=Z,60nm,1.3s,SNR=18
BUG   Bochum--Univer   55.29 311 eP        P        18 14 31.1 +0.2
      comp=Z,18nm,1.0s,baz=50,slow=7.3
K29M  Barlow Dome      55.29  28  P        P        18 14 30.4 -0.5
K29M                              IAMs_20  IAMs_20  18 41 03.2
      comp=Z,2µm,18.0s
MYKA  Terra Mystica    55.30 303  pP       P        18 14 31.7 +0.5
      comp=Z,46nm,1.3s,SNR=14
VRDI  Verde Repeater   55.35  33  P        P        18 14 30.6 -0.9
VRDI                              IAmb     IAmb     18 14 40.9
      comp=Z,71nm,1.6s
PRED  Cave del Predi   55.46 303  P        P        18 14 31.6 -0.8
CEY   Cerknica         55.47 302 i P       P        18 14 32.2 -0.2
FUR   Furstenfeldbru   55.50 306 eP        P        18 14 33.5 +0.9
      comp=Z,38nm,0.7s,baz=50,slow=7.3
TNS   Taunus Mts       55.53 309 eP        P        18 14 33.3 +0.5
      comp=Z,19nm,1.0s,baz=50,slow=7.3
MID   Middleton Isla   55.64  36  IAMs_20  IAMs_20  18 36 14.7
      comp=Z,3µm,20.0s
L29M  L29M             55.66  29  P        P        18 14 33.6 +0.1
L29M                              IAmb     IAmb     18 14 43.3
      comp=Z,58nm,1.2s
L29M                              IAMs_20  IAMs_20  18 39 17.1
      comp=Z,2µm,19.0s
SABO  M.te Sabotino    55.74 302  IAmb     IAmb     18 14 42.7
      comp=Z,57nm,1.3s
CRQM  Cirque           55.80  33  P        P        18 14 35.3 +0.6
CRQM                              IAMs_20  IAMs_20  18 41 14.4
      comp=Z,2µm,18.0s
ABTA  Abfaltersbach    55.80 304 epP       P        18 14 34.9  0.0
      comp=Z,16nm,1.3s
TRI   Trieste          55.84 302  IAmb     IAmb     18 14 42.1
      comp=Z,33nm,1.0s
MMSI  Mamuju           55.87 161  P        P        18 14 42.6 +7.1
BERG  Berg Lake        55.87  34  IAMs_20  IAMs_20  18 40 10.8
      comp=Z,2µm,19.0s
WATA  Walderalm        55.89 305  pP       P        18 14 36.3 +0.7
      comp=Z,33nm,1.6s,SNR=7.7
TGL   Tana Glacier     55.90  33  P        P        18 14 36.4 +0.9
WTTA  Wattenberg       55.91 305  pP       P        18 14 36.6 +0.9
      comp=Z,15nm,0.7s,SNR=10
STAL  STALIGIAL        56.02 303  P        P        18 14 34.7 -1.7
STAL                              IAmb     IAmb     18 14 45.1
      comp=Z,24nm,0.9s
M29M  Somme Creek      56.06  30  P        P        18 14 37.2 +0.6
M29M                              IAMs_20  IAMs_20  18 41 19.7
      comp=Z,2µm,19.0s
BARN  Barnard Glacie   56.07  32  P        P        18 14 36.7  0.0
MOTA  Moosalm          56.13 305  pP       P        18 14 37.7 +0.4
      comp=Z,15nm,0.8s,SNR=11
STU   Stuttgart        56.13 307  P        P        18 14 37.0 -0.1
STU                               pmax     pmax
      comp=Z,40nm,0.7s
STU                               MLR      MLR
      comp=Z,3µm,19.0s
STU   Stuttgart        56.13 307  P        P        18 14 37.0 -0.1
STU   Stuttgart        56.13 307 eP        P        18 14 37.4 +0.3
      comp=Z,101nm,0.8s,baz=50,slow=7.3
SQTA  Sankt Quirin     56.16 305  pP       P        18 14 38.3 +0.8
      comp=Z,28nm,1.3s,SNR=11
BORG  Borgarnes        56.20 335  LR       LR       18 39 52.8
      comp=Z,676nm,18.4s,baz=39,slow=37
RETA  Reutte           56.21 305  pP       P        18 14 38.5 +0.8
      comp=Z,13nm,0.8s,SNR=11
GRNC  Granite Creek    56.28  32  IAMs_20  IAMs_20  18 39 04.7
      comp=Z,2µm,21.0s
UBR   Ueberruh         56.41 306 eP        P        18 14 39.4 +0.2
      comp=Z,48nm,1.6s,baz=50,slow=7.3
MEM   Membach          56.44 311 dP        P        18 14 39.3 +0.1
      comp=Z,14nm,1.0s
BMOL  Mol              56.46 312 dP        P        18 14 39.9 +0.6
LOGN  Logan Glacier    56.46  32  IAMs_20  IAMs_20  18 39 32.4
      comp=Z,2µm,21.0s
FETA  Feichten         56.53 305  pP       P        18 14 40.7 +0.5
      comp=Z,17nm,0.8s,SNR=12
IDI   Anoyia           56.54 286  LR       LR       18 41 39.9
      comp=Z,869nm,19.6s,baz=69,slow=39
YAH   Yahtse           56.56  33  IAMs_20  IAMs_20  18 39 05.0
      comp=Z,2µm,22.0s
CTI   Castel Tesino    56.71 304  IAmb     IAmb     18 14 41.9
      comp=Z,26nm,0.7s
O28M  Mount Upton      56.77  32  IAMs_20  IAMs_20  18 38 46.5
      comp=Z,2µm,22.0s
DAVA  Damuels          56.78 306  pP       P        18 14 42.6 +0.6
      comp=Z,78nm,1.5s,SNR=14
BFO   Black Forest     56.85 307 i P       P        18 14 40.4 -1.9
BFO   Black Forest     56.85 307  P        P        18 14 42.1 -0.2
BFO                               IAmb     IAmb     18 14 51.0
      comp=Z,75nm,1.7s
BFO   Black Forest     56.85 307 eP        P        18 14 42.4 +0.1
      comp=Z,68nm,1.6s,baz=50,slow=7.3
BCLA  Clavier          56.90 311 dP        P        18 14 42.3 -0.2
      comp=Z,6.4nm,1.0s
SANI  Sanana           56.96 153  P        P        18 14 50.1 +6.8
      comp=Z,582nmcomp=Z,582nmcomp=Z,25nm,1.1s,comp=Z,25nm,1.1s
WLF   Walferdange      57.01 310  IAMs_20  IAMs_20  18 37 42.3
      comp=Z,2µm,19.0s
WLF   Walferdange      57.01 310 dP        P        18 14 42.0 -1.3
      comp=Z,5.2nm,0.8s
FUORN Ofenpass-Fuorn   57.04 305  IAmb     IAmb     18 14 53.2
      comp=Z,32nm,1.0s
EDMD  Edmundbyers      57.05 318 eP        P        18 14 43.2 -0.3
EDMD                              IAmb     IAmb     18 14 44.1
      comp=Z,11nm,0.6s
UCC   Uccle            57.08 312 dP        P        18 14 43.2 -0.5
RCHB  Rochefort        57.11 311 dP        P        18 14 43.9 -0.1
      comp=Z,9.7nm,0.8s
TEOL  Teolo            57.17 303  IAmb     IAmb     18 15 05.5
      comp=Z,23nm,0.7s
EKA   Eskdalemuir Ar   57.19 319  P        P        18 14 44.6 +0.1
      comp=Z,6.9nm,0.6s,baz=41,slow=6.5,SNR=49
EKA                               LR       LR       18 41 00.9
      comp=Z,2µm,18.1s,baz=52,slow=38
      comp=Z,6.9nm,0.6s
ESK   Eskdalemuir      57.22 319 eP        P        18 14 44.4 -0.3
ESK                               IAmb     IAmb     18 14 45.8
      comp=Z,13nm,0.6s
BMRD  Maredsous        57.23 311 dP        P        18 14 44.4 -0.5
      comp=Z,7.0nm,1.1s
PCA   Pinnacle         57.25  32  IAMs_20  IAMs_20  18 40 07.4
      comp=Z,3µm,21.0s
BSKQ  Steenkerk        57.31 312 dP        P        18 14 45.2 -0.1
      comp=Z,10nm,0.9s
PGBU  Glenifferbraes   57.38 320 eP        P        18 14 46.1 +0.3
PGBU                              IAmb     IAmb     18 14 47.0
      comp=Z,32nm,0.7s
DOU   Dourbes          57.45 311 dP        P        18 14 45.8 -0.6
      comp=Z,6.2nm,1.0s
M31M  Drury Creek, Y   57.47  28  IAMs_20  IAMs_20  18 41 09.8
      comp=Z,2µm,19.0s
SWI   Sorong           57.50 146  P        P        18 14 55.2 +8.1
      comp=Z,25nm,1.5s,comp=Z,25nm,1.5s
ECH   Echery           57.51 308  IAmb     IAmb     18 14 55.8
      comp=Z,65nm,1.7s
ECH                               IAMs_20  IAMs_20  18 38 11.6
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      comp=Z,2µm,20.0s
HPK   Haverah Park     57.52 317 eP        P        18 14 46.1 -0.7
HPK                               IAmb     IAmb     18 14 47.9
      comp=Z,29nm,0.6s
TUE   Stuetta          57.61 305  P        P        18 14 46.9 -1.0
TUE   Stuetta          57.61 305  P        P        18 14 47.9 +0.1
      comp=Z,49nm,1.1s
N31M  Braeburn, Yuko   57.61  29  P        P        18 14 47.8 +0.3
N31M                              IAMs_20  IAMs_20  18 39 16.7
      comp=Z,2µm,20.0s
O29M  Mount Kennedy    57.65  31  P        P        18 14 46.9 -1.0
O29M                              IAMs_20  IAMs_20  18 40 48.7
      comp=Z,2µm,20.0s
GUMA  Gualdo di Mace   57.84 300  P        P        18 14 48.3 -1.0
GUMA                              IAmb     IAmb     18 15 14.7
      comp=Z,31nm,0.9s
KKSI  Kolaka, Sulawe   57.89 158  P        P        18 15 00.4 +11
      comp=Z,14nm,0.7s,comp=Z,14nm,0.7s
FDMO  Fiordimonte      57.99 300  P        P        18 14 50.3 -0.1
FDMO                              IAmb     IAmb     18 15 04.3
      comp=Z,25nm,1.0s
MMPY  Sheldon Lake,    58.02  26  P        P        18 14 50.4  0.0
MMPY                              IAmb     IAmb     18 15 37.5
      comp=Z,50nm,1.2s
NRCA  Norcia           58.12 300  IAmb     IAmb     18 15 12.7
      comp=Z,35nm,1.1s
MURB  Monte Urbino     58.14 301  P        P        18 14 52.1 +0.6
ZCCA  Zocca            58.21 303  P        P        18 14 51.6 -0.4
ZCCA                              IAmb     IAmb     18 15 14.9
      comp=Z,25nm,0.8s
INTR  Introdacqua      58.25 299  P        P        18 14 52.4 +0.1
INTR                              IAmb     IAmb     18 15 02.8
      comp=Z,26nm,1.0s
PRMA  PARMA            58.28 303  P        P        18 14 53.2 +0.9
AQU   L'Aquila         58.29 299  P        P        18 14 52.1 -0.4
AQU   L'Aquila         58.29 299  P        P        18 14 52.1 -0.4
AQU   L'Aquila         58.29 299  P        P        18 14 52.8 +0.3
      comp=Z,45nm,1.2s
KAPI  Kappang          58.30 161  P        P        18 14 53.5 +0.9
      comp=Z,10nm,0.6s,baz=34,slow=3.6,SNR=6.5
      comp=Z,10nm,0.6s
KAPI  Kappang          58.30 161  P        P        18 14 55.9 +3.2
KAPI  Kappang          58.30 161  P        P        18 14 51.6 -1.1
KAPI                              IAmb     IAmb     18 15 06.4
      comp=Z,40nm,1.1s
KAPI  Kappang          58.30 161  P        P        18 14 59.1 +6.4
      comp=Z,566nmcomp=Z,23nm,1.1s,comp=Z,23nm,1.1s
WHY   Whitehorse       58.53  29  P        P        18 14 53.9 -0.1
CLGH  Cloghs, Cushen   58.55 321 eP        P        18 14 54.0  0.0
CLGH                              IAmb     IAmb     18 14 55.2
      comp=Z,15nm,0.6s
CESX  Cesi             58.55 300  P        P        18 14 53.9 -0.4
CUC   Castrocucco      58.58 296  IAmb     IAmb     18 15 06.7
      comp=Z,36nm,1.0s
CUC                               IAMs_20  IAMs_20  18 39 10.5
      comp=Z,2µm,21.0s
TIP   Timpagrande      58.61 295  P        P        18 14 54.7 -0.1
TIP                               IAMs_20  IAMs_20  18 42 53.3
      comp=Z,2µm,20.0s
N32M  Quiet Lake       58.68  28  IAMs_20  IAMs_20  18 41 55.9
      comp=Z,2µm,18.0s
SENIN Lac Senin/Sane   58.71 306  P        P        18 14 55.0 -0.6
SENIN                             IAmb     IAmb     18 15 04.2
      comp=Z,29nm,1.4s
HLM1  Long Mynd        59.08 317 eP        P        18 14 57.6 -0.2
HLM1                              IAmb     IAmb     18 14 58.7
      comp=Z,8.5nm,0.6s
IDGL  Inch Island, C   59.10 321  P        P        18 14 58.6 +0.8
SKAG  Skagway          59.34  31  P        P        18 14 58.8 -0.6
SKAG                              IAmb     IAmb     18 15 10.0
      comp=Z,44nm,1.2s
BBSI  Bau Bau          59.38 158  P        P        18 15 16.4 +16
ILTH  Belurgan, Co L   59.41 320  P        P        18 15 00.3 +0.3
MCH1  Michaelchurch    59.51 317 eP        P        18 15 00.5 -0.3
MONM  Monmouth         59.54 316 eP        P        18 15 00.6 -0.4
MONM                              IAmb     IAmb     18 15 01.3
      comp=Z,9.5nm,0.7s
BSSI  Bau Bau, Buton   59.55 160  P        P        18 15 13.7 +12
CEL   Celeste          59.73 294  IAmb     IAmb     18 15 16.9
      comp=Z,37nm,1.0s
CEL                               IAMs_20  IAMs_20  18 43 15.1
      comp=Z,3µm,21.0s
P32M  Atlin            59.74  30  IAMs_20  IAMs_20  18 43 24.9
      comp=Z,2µm,20.0s
SFJD  Kangerlussuaq    59.90 349  LR       LR       18 40 32.2
      comp=Z,860nm,18.3s,baz=16,slow=36
SFJD  Kangerlussuaq    59.90 349  P        P        18 15 02.9 -0.3
SFJD                              pmax     pmax
      comp=Z,29nm,0.9s
SFJD  Kangerlussuaq    59.90 349  P        P        18 15 02.9 -0.3
SFJD                              IAmb     IAmb     18 15 11.3
      comp=Z,29nm,0.9s
BNI   Bardonecchia     59.94 306  IAmb     IAmb     18 15 21.2
      comp=Z,25nm,1.1s
DSB   Dublin           60.00 319  P        P        18 15 04.2 +0.1
BESE  Bessie Mountai   60.19  31  IAMs_20  IAMs_20  18 41 31.8
      comp=Z,2µm,20.0s
Q32M  Nakina River     60.69  29  IAMs_20  IAMs_20  18 43 55.0
      comp=Z,2µm,21.0s
R33M  Jennings River   60.73  29  P        P        18 15 09.3 +0.2
R33M                              IAMs_20  IAMs_20  18 44 10.0
      comp=Z,2µm,20.0s
IWEX  Carrickbyrne,    60.81 319  P        P        18 15 09.9 +0.3
DYA   Yadsworthy       61.05 316 eP        P        18 15 10.6 -0.8
DYA                               IAmb     IAmb     18 15 11.4
      comp=Z,9.0nm,0.7s
IGLA  Glengowla, Co    61.06 321  P        P        18 15 10.8 -0.5
VAE   Valguarnera      61.11 295  LR       LR       18 45 02.1
      comp=Z,1µm,20.4s,baz=98,slow=39
DLBC  Dease Lake       61.79  29  P        P        18 15 17.7 +1.4
      comp=Z,1.3nm,0.4s,baz=355,slow=14,SNR=5.5
      comp=Z,1.3nm,0.4s
YKA   Yellowknife Ar   62.12  19  P        P        18 15 20.9 +2.6
      comp=Z,5.5nm,0.8s,baz=332,slow=6.8,SNR=12
YKA                               LR       LR       18 44 56.7
      comp=Z,676nm,20.1s,baz=326,slow=39
      comp=Z,5.5nm,0.8s
YKA   Yellowknife Ar   62.12  19  P        P        18 15 17.1 -1.2
VSL   Villasalto       62.46 299  IAMs_20  IAMs_20  18 45 34.2
      comp=Z,1µm,18.0s
GENI  Genyem           62.48 138  P        P        18 15 29.9 +8.6
      comp=Z,41nm,1.1s
VAL   Valentia         62.54 320  P        P        18 15 20.8 -0.5
U33K  Whale Pass       62.73  32  IAMs_20  IAMs_20  18 43 55.1
      comp=Z,2µm,20.0s
WRAK  Wrangell Islan   62.73  31  IAMs_20  IAMs_20  18 43 30.2
      comp=Z,2µm,18.0s
T35M  Bob Quinn        62.93  30  IAMs_20  IAMs_20  18 45 43.3
      comp=Z,1µm,18.0s
ATD   Arta Tunnel      63.00 253  LR       LR       18 43 54.5
      comp=Z,51nm,20.5s,baz=26,slow=37
V35K  Ketchikan        63.87  31  IAMs_20  IAMs_20  18 44 38.2
      comp=Z,2µm,18.0s
SOEI  Soe              63.90 157  P        P        18 15 44.3 +14
CEST  Esterri de Car   64.42 307  P        P        18 15 33.4 -0.7
CEST                              IAmb     IAmb     18 15 41.5
      comp=Z,28nm,1.1s
CORI  Orista           64.49 306  P        P        18 15 34.0 -0.4
CORI                              IAmb     IAmb     18 15 43.2
      comp=Z,18nm,1.1s
FRB   Frobisher Bay    64.60 356  LR       LR       18 44 10.8
      comp=Z,720nm,18.4s,baz=354,slow=36
KEST  Kesra            65.20 297  P        P        18 15 39.8 +0.6
      comp=Z,4.4nm,0.5s,baz=39,slow=6.2,SNR=7.0
KEST                              LR       LR       18 45 56.4
      comp=Z,1µm,19.0s,baz=37,slow=38
      comp=Z,4.4nm,0.5s
KEST  Kesra            65.20 297  P        P        18 15 40.8 +1.6
      SNR=7.0
KEST  Kesra            65.20 297  IAmb     IAmb     18 15 50.7
      comp=Z,32nm,0.9s
BBB   Bella Bella      67.64  31  LR       LR       18 48 43.5
      comp=Z,980nm,18.4s,baz=336,slow=39
PBRG  Braganca         68.88 311 eP        P        18 16 03.0 +0.6
PBRG                             i IAmb    IAmb     18 16 04.8
      comp=Z,22nm,2.1s
ESDC  Sonseca Array    69.21 308  P        P        18 16 05.2 +0.7
      comp=Z,6.2nm,0.9s,baz=34,slow=6.3,SNR=40
      comp=Z,6.2nm,0.9s
ESDC  Sonseca Array    69.21 308  P        P        18 16 04.6 +0.1
CART  Cartagena        69.33 305  IAMs_20  IAMs_20  18 47 29.8
      comp=Z,1µm,19.0s
KRVT  Keravat (AS076   69.44 127  LR       LR       18 45 42.7
      comp=Z,249nm,19.4s,baz=332,slow=35
PGAV  Gavieira, Arco   69.46 312 eP        P        18 16 07.6 +1.4
PGAV                             eSS       SS       18 29 44.8 +5.2
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PGAV                             eLQ       LQ       18 42 46.3
PGAV                             eLR       LR       18 43 50.1
PGAV                             i IAMs_20 IAMs_20  18 50 29.5
      comp=Z,2µm,16.0s
PAB   San Pablo        69.50 308  P        P        18 16 06.2 -0.2
PAB                               pmax     pmax
      comp=Z,10.0nm,1.0s
PAB                               MLR      MLR
      comp=Z,2µm,18.0s
PAB   San Pablo        69.50 308  P        P        18 16 06.2 -0.2
PAB   San Pablo        69.50 308  IAMs_20  IAMs_20  18 50 32.9
      comp=Z,2µm,18.0s
PCAB  Cabril           69.55 312 eP        P        18 16 07.7 +1.1
PCAB                             i IAmb    IAmb     18 16 15.9
      comp=Z,50nm,1.7s
POLO  Lamas de Olo     69.71 312 eP        P        18 16 08.5 +0.9
POLO                             i IAmb    IAmb     18 16 10.2
      comp=Z,13nm,1.5s
PTO   Porto            70.27 312 eP        P        18 16 10.7 -0.2
PTO                              i IAmb    IAmb     18 16 20.8
      comp=Z,40nm,1.5s
PVIS  Viseu            70.27 311 eP        P        18 16 11.8 +0.7
MTE   Manteigas        70.36 311 eP        P        18 16 12.6 +1.0
MTE                              i IAmb    IAmb     18 16 21.2
      comp=Z,32nm,1.4s
MTE                              eSS       SS       18 30 05.1 +12
MTE                              eLQ       LQ       18 40 54.8
MTE                              eLR       LR       18 44 26.6
MTE                              i IAMs_20 IAMs_20  18 46 00.5
      comp=Z,2µm,20.0s
PCBR  Castelo Branco   70.77 310 eP        P        18 16 15.6 +1.5
PCBR                             i IAmb    IAmb     18 16 22.7
      comp=Z,22nm,1.5s
PMRV  Marv??o          71.05 310 eP        P        18 16 16.2 +0.4
PMRV                             i IAmb    IAmb     18 16 25.0
      comp=Z,21nm,1.5s
PMRV                             eSS       SS       18 30 15.0 +11
PMRV                             eLQ       LQ       18 40 14.9
PMRV                             eLR       LR       18 43 37.0
PMRV                             i IAMs_20 IAMs_20  18 51 43.2
      comp=Z,2µm,16.0s
PCAS  Casmilo, Conde   71.08 311 eP        P        18 16 16.9 +1.0
PCAS                             i IAmb    IAmb     18 16 24.7
      comp=Z,36nm,1.7s
PESTR Estremoz         71.59 310 eP        P        18 16 19.9 +0.8
PESTR                            i IAmb    IAmb     18 16 27.6
      comp=Z,17nm,1.5s
PMG   Port Moresby     71.60 134  LR       LR       18 47 03.2
      comp=Z,516nm,21.1s,baz=340,slow=35
FFC   Flin Flon        71.72  15  IAMs_20  IAMs_20  18 47 28.4
      comp=Z,1µm,19.0s
PMTG  Montargil        71.73 310 eP        P        18 16 19.9  0.0
PMTG                             i IAmb    IAmb     18 16 37.8
      comp=Z,27nm,1.4s
PARRA Arraiolos        71.84 310 eP        P        18 16 21.2 +0.6
PARRA                            i IAmb    IAmb     18 16 34.7
      comp=Z,19nm,2.0s
PBAR  Barrancos        71.87 309 eP        P        18 16 18.1 -2.6
PBAR                             i IAmb    IAmb     18 16 36.2
      comp=Z,36nm,1.6s
EVO   Evora            72.06 310 eP        P        18 16 22.5 +0.6
EVO                              i IAmb    IAmb     18 16 31.2
      comp=Z,32nm,1.5s
MOE   Montemor         72.22 310 eP        P        18 16 23.2 +0.3
MOE                              i IAmb    IAmb     18 16 32.3
      comp=Z,41nm,1.4s
FITZ  Fitzroy Crossi   72.26 158  P        P        18 16 23.6 +0.5
      comp=Z,5.7nm,0.8s,baz=354,slow=4.8,SNR=5.9
      comp=Z,5.7nm,0.8s
PBEJ  Beja             72.39 309 eP        P        18 16 24.9 +1.0
PBEJ                             i IAmb    IAmb     18 16 38.6
      comp=Z,20nm,1.8s
PLOUS Minas do Lousa   72.65 310 eP        P        18 16 26.1 +0.8
PLOUS                            i IAmb    IAmb     18 16 35.0
      comp=Z,36nm,1.3s
MESJ  Messejana        72.71 310 eP        P        18 16 25.8  0.0
MESJ                              IAMs_20  IAMs_20  18 45 43.3
      comp=N,5µm,21.8s
MESJ  Messejana        72.71 310 eP        P        18 16 26.0 +0.2
MESJ                             i IAmb    IAmb     18 16 35.5
      comp=N,24nm,1.3s
PCVE  Castro Verde     72.78 309 eP        P        18 16 27.0 +0.8
PCVE                             i IAmb    IAmb     18 16 35.7
      comp=N,21nm,1.6s
PVAQ  Vaqueiros        72.81 309 eP        P        18 16 27.1 +0.8
PVAQ                             i IAmb    IAmb     18 17 01.1
      comp=N,26nm,1.4s
PVAQ                             eS        SKiKP    18 25 58.8 -0.7
PVAQ                             eSS       SS       18 30 33.6 +2.6
PVAQ                             eLQ       LQ       18 41 37.1
PVAQ                             eLR       LR       18 45 58.3
PVAQ                             i IAMs_20 IAMs_20  18 54 00.7
      comp=N,966nm,16.0s
NLWA  Neilton Lookou   73.17  31  IAMs_20  IAMs_20  18 48 25.2
      comp=Z,1µm,20.0s
SCHQ  Schefferville    73.41 354  P        P        18 16 30.7 +1.1
      comp=Z,5.3nm,0.8s,baz=4.3,slow=8.7,SNR=5.4
      comp=Z,5.3nm,0.8s
SCHQ  Schefferville    73.41 354  IAmb     IAmb     18 17 04.3
      comp=Z,49nm,1.4s
LODK  Lodwar           73.89 255  P        P        18 16 32.5 -0.6
NEW   Newport          74.43  27  LR       LR       18 53 43.5
      comp=Z,1µm,18.6s,baz=342,slow=39
NEW   Newport          74.43  27  IAMs_20  IAMs_20  18 53 06.3
      comp=Z,1µm,19.0s
MDT   Midelt           74.89 304  LR       LR       18 52 26.7
      comp=Z,1µm,18.6s,baz=28,slow=38
COR   Corvallis        75.83  32  IAMs_20  IAMs_20  18 51 40.6
      comp=Z,1µm,20.0s
AVE   Averroes         75.93 306  IAMs_20  IAMs_20  18 52 49.4
      comp=Z,1µm,18.0s
WRAB  Tennant Creek    76.38 150⇑eP        P        18 16 48.5 +1.4
WRAB                              pmax     pmax
      comp=Z,23nm,1.0s
WRAB                              MLR      MLR
      comp=Z,331nm,20.0s
WRA   Warramunga Arr   76.38 150  P        P        18 16 46.0 -1.1
      comp=Z,1.9nm,0.5s,baz=344,slow=6.0,SNR=13
      comp=Z,1.9nm,0.5s
WRA   Warramunga Arr   76.38 150  IAmb     IAmb     18 16 55.4
      comp=Z,2.8nm,1.6s
KMBO  Kilima Mbogo     76.42 250  LR       LR       18 52 18.1
      comp=Z,1µm,20.8s,baz=88,slow=37
EGMT  Eagleton         76.55  22  IAmb     IAmb     18 16 54.5
      comp=Z,31nm,1.4s
KIBK  Kibwezi          76.94 249  P        P        18 16 50.5  0.0
ULM   Lac du Bonnet    76.98  13  P        P        18 16 49.6 -0.7
      comp=Z,1.8nm,0.5s,baz=343,slow=9.6,SNR=5.0
      comp=Z,1.8nm,0.5s
BMO   Blue Mountains   77.48  28  P        P        18 16 53.8 +0.5
BMO                               pmax     pmax
      comp=Z,29nm,1.3s
BMO                               MLR      MLR
      comp=Z,1µm,21.0s
BMO   Blue Mountains   77.48  28  P        P        18 16 53.8 +0.5
BMO                               IAmb     IAmb     18 17 02.8
      comp=Z,29nm,1.3s
PLID  Pearl Lake       77.64  27  IAmb     IAmb     18 17 03.8
      comp=Z,32nm,1.1s
PLID                              IAMs_20  IAMs_20  18 53 13.4
      comp=Z,1µm,18.0s
KSXB  Camp Six Broad   78.07  34  IAMs_20  IAMs_20  18 51 18.0
      comp=Z,1µm,20.0s
DLMT  Dillon           78.32  25  IAmb     IAmb     18 17 05.3
      comp=Z,28nm,1.1s
DLMT                              IAMs_20  IAMs_20  18 53 05.3
      comp=Z,1µm,19.0s
KRMB  Red Mountain     78.33  34  IAMs_20  IAMs_20  18 51 11.9
      comp=Z,1µm,21.0s
BOZ   Bozeman (W)      78.36  24  IAMs_20  IAMs_20  18 56 05.1
      comp=Z,1µm,20.0s
YBH   Yreka Blue Hor   78.56  33  LR       LR       18 51 56.2
      comp=Z,813nm,21.2s,baz=338,slow=36
MDND  Maddock          78.76  16  IAMs_20  IAMs_20  18 51 35.5
      comp=Z,910nm,19.0s
M02C  Callahan         78.81  34  IAMs_20  IAMs_20  18 50 39.6
      comp=Z,1µm,22.0s
KHMM  Horse Mountain   78.97  35  IAMs_20  IAMs_20  18 51 31.7
      comp=Z,968nm,19.0s
MFID  Camas Ranch      79.22  28  IAMs_20  IAMs_20  18 53 10.2
      comp=Z,1µm,21.0s
KHBM  Hayfork Bally    79.33  34  IAMs_20  IAMs_20  18 51 55.5
      comp=Z,1µm,22.0s
RLMT  Red Lodge        79.39  23  P        P        18 17 03.4 -0.6
RLMT                              IAmb     IAmb     18 17 10.9
      comp=Z,33nm,1.1s
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RLMT				IAMs_20	IAMs_20	18 54 00.4	
	comp=Z,1µm,19.0s						
YMR	**Madison River**	**79.39**	**24**	P	**P**	**18 17 02.8**	**-1.3**
YMR				IAmb	IAmb	18 18 19.8	
	comp=Z,18nm,0.4s						
YNR	**Norris Junctio**	**79.42**	**24**	P	**P**	**18 17 03.8**	**-0.4**
HLID	**Hailey**	**79.49**	**27**	P	**P**	**18 17 03.2**	**-1.3**
HLID				IAMs_20	IAMs_20	18 52 04.3	
	comp=Z,1µm,22.0s						
YMP	**Mirror Lake Pl**	**79.53**	**24**	P	**P**	**18 17 03.5**	**-1.4**
YFT	**Old Faithful**	**79.63**	**24**	P	**P**	**18 17 04.7**	**-0.6**
ASAR	**Alice Springs**	**79.76**	**152**	P	**P**	**18 17 04.9**	**-0.9**
	comp=Z,3.8nm,0.6s,baz=349,slow=5.9,SNR=13						
	comp=Z,3.8nm,0.6s						
EYMN	**Ely**	**79.79**	**10**	IAMs_20	IAMs_20	18 52 57.6	
	comp=Z,1µm,19.0s						
E28A	**Huff**	**79.80**	**17**	P	**P**	**18 17 05.7**	**-0.3**
E28A				IAmb	IAmb	18 17 13.4	
	comp=Z,40nm,1.1s						
YPP	**Pitchstone Pla**	**79.80**	**24**	P	**P**	**18 17 05.7**	**-0.7**
MBAR	**Mbarara**	**79.87**	**256**	LR	LR	18 57 05.8	
	comp=Z,654nm,18.2s,baz=32,slow=39						
MBAR	**Mbarara**	**79.87**	**256**	P	**P**	**18 17 06.1**	**-0.8**
MBAR				pmax	pmax		
	comp=Z,10.0nm,1.0s						
MBAR				MLR	MLR		
	comp=Z,1µm,19.0s						
MBAR	**Mbarara**	**79.87**	**256**	P	**P**	**18 17 06.1**	**-0.8**
O02D	**Mt. Diablo Mer**	**79.92**	**34**	IAMs_20	IAMs_20	18 53 27.9	
	comp=Z,1µm,21.0s						
O03E	**Paynes Creek**	**80.15**	**33**	P	**P**	**18 17 08.1**	**+0.1**
FXWY	**Fox Creek**	**80.34**	**25**	P	**P**	**18 17 08.0**	**-1.2**
FXWY				IAmb	IAmb	18 17 19.1	
	comp=Z,31nm,0.9s						
FXWY				IAMs_20	IAMs_20	18 54 32.6	
	comp=Z,1µm,19.0s						
SNOW	**Snow King Moun**	**80.57**	**25**	P	**P**	**18 17 10.6**	**+0.1**
SNOW				IAMs_20	IAMs_20	18 55 34.9	
	comp=Z,936nm,20.0s						
CTA	**Charters Tower**	**80.76**	**140**	P	**P**	**18 17 11.9**	**+0.7**
	comp=Z,3.2nm,0.9s,baz=328,slow=3.3,SNR=5.9						
CTA				LR	LR	18 54 19.9	
	comp=Z,241nm,20.2s,baz=326,slow=37						
	comp=Z,3.2nm,0.9s						
CTAO	**Charters Tower**	**80.76**	**140**	P	**P**	**18 17 11.5**	**+0.2**
CTAO				pmax	pmax		
	comp=Z,28nm,1.4s						
CTAO	**Charters Tower**	**80.76**	**140**	P	**P**	**18 17 11.5**	**+0.2**
ORV	**Oroville**	**80.92**	**34**	P	**P**	**18 17 11.8**	**-0.2**
ORV				pmax	pmax		
	comp=Z,8.0nm,1.1s						
ORV				MLR	MLR		
	comp=Z,600nm,19.0s						
ORV	**Oroville**	**80.92**	**34**	P	**P**	**18 17 11.8**	**-0.2**
PMOZ	**Porto Moniz, M**	**81.00**	**313**	*e*LQ	LQ	18 47 18.2	
PMOZ				*e*LR	LR	18 50 01.2	
PMOZ				*i* IAMs_20	IAMs_20	18 51 19.0	
	comp=Z,1µm,18.0s						
BEKR	**Beckworth**	**81.02**	**33**	P	**P**	**18 17 12.1**	**-0.7**
E38A	**The Farm, Brul**	**81.10**	**10**	P	**P**	**18 17 11.8**	**-1.1**
E38A				IAmb	IAmb	18 17 18.3	
	comp=Z,58nm,1.6s						
E38A				IAMs_20	IAMs_20	18 53 48.4	
	comp=Z,1µm,18.0s						
AHID	**Auburn Hatcher**	**81.13**	**25**	IAMs_20	IAMs_20	18 54 56.7	
	comp=Z,870nm,19.0s						
F33A	**5 Mile Ranch,**	**81.24**	**14**	P	**P**	**18 17 12.8**	**-0.8**
RSSD	**Black Hills**	**81.52**	**20**	P	**P**	**18 17 14.2**	**-1.2**
RSSD				pmax	pmax		
	comp=Z,17nm,1.0s						
RSSD				MLR	MLR		
	comp=Z,1µm,18.0s						
RSSD	**Black Hills**	**81.52**	**20**	P	**P**	**18 17 14.2**	**-1.2**
RSSD	**Black Hills**	**81.52**	**20**	IAMs_20	IAMs_20	18 54 09.6	
	comp=Z,975nm,18.0s						
BMN	**Battle Mountai**	**81.53**	**30**	P	**P**	**18 17 15.4**	**-0.1**
BMN				pmax	pmax		
	comp=Z,72nm,2.0s						
BMN	**Battle Mountai**	**81.53**	**30**	P	**P**	**18 17 15.4**	**-0.1**
BMN				IAmb	IAmb	18 17 25.6	
	comp=Z,72nm,2.0s						
BW06	**Boulder Array**	**81.53**	**24**	IAMs_20	IAMs_20	18 55 54.1	
	comp=Z,1µm,20.0s						
PDAR	**Pinedale Array**	**81.53**	**24**	P	**P**	**18 17 15.8**	**+0.3**
	comp=Z,0.6nm,0.6s,baz=19,slow=2.8,SNR=6.6						
PDAR				LR	LR	18 57 10.3	
	comp=Z,451nm,21.1s,baz=338,slow=38						
	comp=Z,0.6nm,0.6s						
PDAR	**Pinedale Array**	**81.53**	**24**	P	**P**	**18 17 14.9**	**-0.6**
HVU	**Hansel Valley**	**81.60**	**27**	P	**P**	**18 17 15.7**	**-0.1**
HVU				pmax	pmax		
	comp=Z,11nm,1.0s						
HVU	**Hansel Valley**	**81.60**	**27**	P	**P**	**18 17 15.7**	**-0.1**
AFDM	**Forest Hills D**	**81.64**	**34**	P	**P**	**18 17 15.7**	**-0.3**
MCCM	**Marconi Confer**	**81.69**	**35**	IAMs_20	IAMs_20	18 52 28.9	
	comp=Z,1µm,22.0s						
ELK	**Elko**	**81.85**	**29**	LR	LR	18 56 06.3	
	comp=Z,1µm,18.5s,baz=340,slow=38						
ELK	**Elko**	**81.85**	**29**	IAMs_20	IAMs_20	18 55 54.7	
	comp=Z,1µm,18.0s						
FARB	**Farallon Islan**	**82.04**	**36**	IAMs_20	IAMs_20	18 51 38.3	
	comp=Z,1µm,22.0s						
HWUT	**Hardware Ranch**	**82.09**	**26**	IAmb	IAmb	18 17 31.1	
	comp=Z,30nm,0.8s						
HWUT				IAMs_20	IAMs_20	18 58 46.0	
	comp=Z,924nm,20.0s						
SUSD	**Miller**	**82.17**	**16**	IAMs_20	IAMs_20	18 52 54.8	
	comp=Z,922nm,20.0s						
F42A	**Maple Grove Fa**	**82.28**	**8**	IAMs_20	IAMs_20	18 54 01.6	
	comp=Z,1µm,18.0s						
SPMN	**Marine on St.**	**82.32**	**12**	IAMs_20	IAMs_20	18 53 12.5	
	comp=Z,1µm,21.0s						
F64A	**Sherman**	**82.44**	**354**	IAMs_20	IAMs_20	18 54 29.7	
	comp=Z,1µm,19.0s						
G40A	**Rib Lake**	**82.57**	**10**	IAMs_20	IAMs_20	18 54 51.2	
	comp=Z,1µm,20.0s						
JRSC	**Jasper Ridge**	**82.58**	**35**	IAMs_20	IAMs_20	18 52 55.4	
	comp=Z,1µm,21.0s						
MHC	**Mount Hamilton**	**82.85**	**35**	IAMs_20	IAMs_20	18 53 17.5	
	comp=Z,1µm,21.0s						
NVAR	**Mina Array Bea**	**83.00**	**32**	P	**P**	**18 17 24.9**	**+1.6**
	comp=Z,1.0nm,0.3s,baz=207,slow=1.7,SNR=11						
NVAR				LR	LR	18 55 39.6	
	comp=Z,943nm,19.9s,baz=340,slow=37						
	comp=Z,1.0nm,0.3s						
DUG	**Dugway, Tooele**	**83.06**	**27**	IAMs_20	IAMs_20	18 56 52.7	
	comp=Z,834nm,18.0s						
ECSD	**EROS Data Cent**	**83.25**	**15**	IAMs_20	IAMs_20	18 54 27.2	
	comp=Z,1µm,20.0s						
I37A	**Lemond, Waseca**	**83.43**	**12**	IAMs_20	IAMs_20	18 58 14.0	
	comp=Z,1µm,19.0s						
SAO	**San Andreas Ge**	**83.43**	**35**	IAMs_20	IAMs_20	18 54 51.0	
	comp=Z,1µm,20.0s						
EMMW	**East Machias**	**83.53**	**354**	IAMs_20	IAMs_20	18 54 43.6	
	comp=Z,1µm,21.0s						
H43A	**Windswept, Lux**	**83.60**	**8**	IAMs_20	IAMs_20	18 54 34.3	
	comp=Z,1µm,18.0s						
SADO	**Sadowa**	**83.76**	**2**	LR	LR	18 55 52.9	
	comp=Z,570nm,19.1s,baz=10.0,slow=36						
K30B	**Basset**	**83.77**	**17**	IAMs_20	IAMs_20	18 54 29.2	
	comp=Z,1µm,20.0s						
I40A	**Norwalk**	**83.89**	**10**	IAMs_20	IAMs_20	18 55 42.1	
	comp=Z,1µm,19.0s						
I42A	**Draeger Farm,**	**84.06**	**9**	IAMs_20	IAMs_20	18 55 08.7	
	comp=Z,1µm,18.0s						
I45A	**Fountain**	**84.15**	**7**	IAMs_20	IAMs_20	18 55 50.0	
	comp=Z,891nm,19.0s						
O20A	**White River Ci**	**84.34**	**24**	IAMs_20	IAMs_20	18 59 24.4	
	comp=Z,1µm,19.0s						
PKD	**Bear Valley Ra**	**84.49**	**35**	IAMs_20	IAMs_20	18 52 58.9	
	comp=Z,999nm,21.0s						
CWC	**Cottonwood Cre**	**84.88**	**32**	IAMs_20	IAMs_20	18 55 14.3	
	comp=Z,977nm,20.0s						
OGNE	**Ogallala**	**84.98**	**19**	IAMs_20	IAMs_20	18 58 14.2	
	comp=Z,1µm,18.0s						
J47A	**Sunmer**	**85.05**	**6**	IAMs_20	IAMs_20	18 58 35.6	
	comp=Z,1µm,18.0s						
VES	**Vestal, Richgr**	**85.09**	**33**	IAMs_20	IAMs_20	18 55 04.7	
	comp=Z,931nm,20.0s						
NWAO	**Narrogin (SRO)**	**85.25**	**168**	LR	LR	18 58 32.7	
	comp=Z,704nm,19.9s,baz=317,slow=38						
FURC	**Furnace Creek,**	**85.26**	**32**	IAMs_20	IAMs_20	18 56 47.2	
	comp=Z,912nm,18.0s						
BGNE	**Belgrade**	**85.26**	**16**	IAMs_20	IAMs_20	18 56 57.5	
	comp=Z,1µm,19.0s						
J55A	**Hilton**	**85.29**	**1**	IAMs_20	IAMs_20	18 57 59.9	
	comp=Z,1µm,19.0s						
ISCO	**Idaho Springs**	**85.29**	**22**	IAMs_20	IAMs_20	18 58 49.6	
	comp=Z,922nm,19.0s						
K43A	**Burlington**	**85.30**	**9**	IAMs_20	IAMs_20	18 55 30.3	
	comp=Z,878nm,18.0s						
MPMC	**Manual Prospec**	**85.43**	**32**	IAMs_20	IAMs_20	18 55 43.7	
	comp=Z,885nm,21.0s						
GWY	**Greenwater Val**	**85.58**	**32**	IAmb	IAmb	18 17 46.4	
	comp=Z,42nm,1.7s						
L40A	**Anamosa**	**85.62**	**11**	IAMs_20	IAMs_20	18 55 02.1	
	comp=Z,1µm,20.0s						
K50A	**Casco**	**85.63**	**5**	IAMs_20	IAMs_20	18 54 56.2	
	comp=Z,1µm,20.0s						
HMU	**Henry Mountain**	**85.74**	**26**	IAmb	IAmb	18 17 51.6	
	comp=Z,19nm,1.0s						
L42A	**Oliver, Polo**	**85.86**	**10**	IAMs_20	IAMs_20	18 56 16.2	
	comp=Z,1µm,19.0s						
LRMC	**Laurel Mtn Rad**	**85.89**	**33**	IAMs_20	IAMs_20	18 55 42.9	
	comp=Z,1µm,19.0s						
AAM	**Ann Arbor**	**86.05**	**5**	IAMs_20	IAMs_20	18 54 57.2	
	comp=Z,1µm,20.0s						
Q24A	**Divide**	**86.20**	**22**	IAMs_20	IAMs_20	19 00 13.6	
	comp=Z,927nm,18.0s						
OSI	**Osito Audit: C**	**86.32**	**34**	IAMs_20	IAMs_20	18 54 20.5	
	comp=Z,1µm,22.0s						
L56A	**Greenwood**	**86.42**	**1**	IAMs_20	IAMs_20	18 57 26.9	
	comp=Z,1µm,20.0s						
M44A	**Midewin, Midew**	**86.63**	**9**	IAMs_20	IAMs_20	18 56 18.6	
	comp=Z,958nm,18.0s						
KSCO	**Kaye Shedlock'**	**86.71**	**20**	IAMs_20	IAMs_20	18 59 23.2	
	comp=Z,1µm,20.0s						
MWC	**Mount Wilson**	**86.91**	**33**	IAMs_20	IAMs_20	18 54 51.9	
	comp=Z,938nm,20.0s						
PASC	**Pasadena Art C**	**86.91**	**34**	IAMs_20	IAMs_20	18 54 50.0	
	comp=Z,1µm,22.0s						
M52A	**Chesterland**	**86.92**	**4**	IAMs_20	IAMs_20	18 55 25.3	
	comp=Z,1µm,20.0s						
TORD	**Torodi Ar. Bea**	**86.92**	**287**	P	**P**	**18 17 42.3**	**-0.7**
	comp=Z,1.5nm,0.6s,baz=37,slow=3.7,SNR=7.3						
TORD				LR	LR	19 00 43.5	
	comp=Z,335nm,18.9s,baz=40,slow=38						
	comp=Z,1.5nm,0.6s						
TORD	**Torodi Ar. Bea**	**86.92**	**287**	P	**P**	**18 17 41.8**	**-1.2**
M50A	**Fremont**	**86.98**	**5**	IAMs_20	IAMs_20	18 55 57.8	
	comp=Z,1µm,18.0s						
BFSC	**Mount Baldy Ra**	**87.03**	**33**	IAMs_20	IAMs_20	18 57 43.1	
	comp=Z,877nm,19.0s						
MVCO	**Mesa Verde**	**87.03**	**25**	IAMs_20	IAMs_20	19 01 48.1	
	comp=Z,776nm,18.0s						
SDCO	**Great Sand Dun**	**87.28**	**23**	P	**P**	**18 17 44.7**	**-0.1**
SDCO				IAMs_20	IAMs_20	18 59 28.1	
	comp=Z,797nm,18.0s						
HDIL	**Hopedale**	**87.33**	**10**	P	**P**	**18 17 42.4**	**-2.3**
N49A	**Columbus Grove**	**87.39**	**6**	IAMs_20	IAMs_20	18 55 58.8	
	comp=Z,1µm,19.0s						
CBKS	**Cedar Bluff**	**87.49**	**18**	IAMs_20	IAMs_20	18 56 42.6	
	comp=Z,876nm,21.0s						
ELS	**Elsinore Mount**	**87.64**	**33**	P	**P**	**18 17 46.2**	**-0.2**
ELS				IAmb	IAmb	18 17 56.0	
	comp=Z,24nm,1.6s						
N53A	**Lisbon**	**87.67**	**3**	IAMs_20	IAMs_20	18 54 21.1	
	comp=Z,1µm,21.0s						
N58A	**Sunbury**	**87.72**	**0**	IAMs_20	IAMs_20	18 57 20.3	
	comp=Z,885nm,20.0s						
KSU1	**Kansas State U**	**87.77**	**16**	P	**P**	**18 17 46.1**	**-0.7**
KSU1				IAmb	IAmb	18 17 58.1	
	comp=Z,11nm,0.8s						
BELC	**Belle Mtn. Jos**	**87.80**	**32**	P	**P**	**18 17 47.8**	**+0.5**
BELC				IAmb	IAmb	18 17 57.0	
	comp=Z,40nm,1.8s						
BELC				IAMs_20	IAMs_20	18 57 04.5	
	comp=Z,959nm,19.0s						
WUAZ	**Wupatki**	**87.82**	**28**	P	**P**	**18 17 48.4**	**+1.1**
WUAZ				IAmb	IAmb	18 18 09.3	
	comp=Z,25nm,1.3s						
SSPA	**Standing Stone**	**87.91**	**1**	IAMs_20	IAMs_20	18 54 40.4	
	comp=Z,964nm,22.0s						
IRM	**Iron Mountain**	**87.93**	**31**	P	**P**	**18 17 47.2**	**-0.5**
IRM				IAMs_20	IAMs_20	19 00 20.9	
	comp=Z,859nm,19.0s						
O48B	**Farmland**	**87.99**	**7**	P	**P**	**18 17 47.4**	**-0.4**
O48B				IAmb	IAmb	18 19 28.3	
	comp=Z,17nm,0.8s						
PMD	**Palm Desert**	**88.00**	**32**	P	**P**	**18 17 47.8**	**-0.2**
PMD				IAmb	IAmb	18 17 57.7	
	comp=Z,30nm,1.5s						
PFO	**Pinyon Flats O**	**88.00**	**32**	LR	LR	18 58 34.2	
	comp=Z,1µm,18.1s,baz=346,slow=36						
PFO	**Pinyon Flats O**	**88.00**	**32**	*i* P	**P**	**18 17 51.2**	**+3.0**
PFO				MLR	MLR		
	comp=Z,2µm,18.0s						
R32A	**Long Quarter,**	**88.06**	**17**	IAMs_20	IAMs_20	18 57 29.7	
	comp=Z,1µm,20.0s						
T25A	**Trinidad**	**88.11**	**22**	IAMs_20	IAMs_20	19 00 32.2	
	comp=Z,1µm,19.0s						
O49A	**Covington**	**88.11**	**6**	IAMs_20	IAMs_20	18 58 44.9	
	comp=Z,1µm,19.0s						
ACSO	**Alum Creek Sta**	**88.15**	**5**	IAMs_20	IAMs_20	18 55 57.8	
	comp=Z,1µm,19.0s						
P46A	**Rosedale**	**88.46**	**8**	IAMs_20	IAMs_20	18 57 26.1	
	comp=Z,971nm,19.0s						
P48A	**Milroy**	**88.76**	**7**	IAMs_20	IAMs_20	18 56 48.0	
	comp=Z,1µm,20.0s						
BAR	**Barrett**	**88.78**	**33**	IAMs_20	IAMs_20	18 58 20.6	
	comp=Z,812nm,19.0s						
MCWV	**Mont Chateau**	**88.85**	**3**	IAMs_20	IAMs_20	18 55 18.3	
	comp=Z,1µm,20.0s						
P57A	**Homestead Farm**	**89.06**	**1**	IAMs_20	IAMs_20	18 55 02.9	
	comp=Z,1µm,22.0s						
Q51A	**Peebles**	**89.33**	**5**	IAMs_20	IAMs_20	18 57 04.0	
	comp=Z,936nm,19.0s						
Q56A	**Snyder Ridge,**	**89.48**	**2**	IAMs_20	IAMs_20	18 54 27.1	
	comp=Z,1µm,22.0s						
CCM	**Cathedral Cave**	**89.58**	**12**	IAMs_20	IAMs_20	19 00 29.6	
	comp=Z,1µm,20.0s						
S39A	**Bolivar**	**89.66**	**13**	P	**P**	**18 17 55.2**	**-0.6**
S39A				IAmb	IAmb	18 18 07.3	
	comp=Z,19nm,0.9s						
ANMO	**Albuquerque**	**89.70**	**24**	LR	LR	19 02 12.0	
	comp=Z,583nm,20.5s,baz=342,slow=38						
ANMO	**Albuquerque**	**89.70**	**24**	⇓*i*P	**P**	**18 17 56.9**	**+0.7**
ANMO				pmax	pmax		
	comp=Z,14nm,1.4s						
ANMO				MLR	MLR		
	comp=Z,1µm,19.0s						
ANMO	**Albuquerque**	**89.70**	**24**	P	**P**	**18 17 55.7**	**-0.6**
ANMO	**Albuquerque**	**89.70**	**24**	IAMs_20	IAMs_20	19 02 00.4	
	comp=Z,1µm,18.0s						
TASM	**ASL Pad, Albuq**	**89.70**	**24**	P	**P**	**18 17 55.5**	**-0.7**
TASM	**ASL Pad, Albuq**	**89.70**	**24**	P	**P**	**18 17 55.4**	**-0.9**
TASM				IAmb	IAmb	18 18 18.3	
	comp=Z,9.2nm,1.0s						
TASM	**ASL Pad, Albuq**	**89.70**	**24**	IAMs_20	IAMs_20	19 02 00.4	
	comp=Z,1µm,18.0s						
TASM	**ASL Pad, Albuq**	**89.70**	**24**	IAMs_20	IAMs_20	19 02 00.4	
	comp=Z,1µm,18.0s						
TASM	**ASL Pad, Albuq**	**89.70**	**24**	IAMs_20	IAMs_20	19 02 00.5	
	comp=Z,1µm,18.0s						
ABQ	**Albuquerque**	**89.70**	**24**	IAMs_20	IAMs_20	19 02 00.5	
	comp=Z,1µm,18.0s						
ALQ	**Albuquerque**	**89.70**	**24**	P	**P**	**18 17 54.1**	**-2.2**
ALQ				IAMs_20	IAMs_20	19 01 59.5	
	comp=Z,1µm,18.0s						
FVM	**French Village**	**89.75**	**11**	P	**P**	**18 17 55.2**	**-0.9**
FVM				pmax	pmax		
	comp=Z,22nm,1.4s						
FVM	**French Village**	**89.75**	**11**	P	**P**	**18 17 55.2**	**-0.9**
FVM				IAmb	IAmb	18 18 03.6	
	comp=Z,22nm,1.4s						
NOKA	**Waynoka**	**89.75**	**18**	P	**P**	**18 17 54.3**	**-1.9**
STKA	**Stephens Creek**	**89.81**	**148**	P	**P**	**18 17 57.3**	**+1.2**
	comp=Z,3.4nm,0.8s,baz=324,slow=5.0,SNR=5.8						
	comp=Z,3.4nm,0.8s						
T35A	**Sooner Cattle**	**89.92**	**16**	P	**P**	**18 17 56.0**	**-1.0**
T35A				IAmb	IAmb	18 18 08.8	
	comp=Z,14nm,0.9s						
T35A				IAMs_20	IAMs_20	18 59 21.8	
	comp=Z,1µm,20.0s						
OK038	**West end E0370**	**89.94**	**18**	P	**P**	**18 17 56.1**	**-1.0**
OK038				IAMs_20	IAMs_20	18 58 46.5	
	comp=Z,1µm,20.0s						
R49A	**Shelbyville**	**89.94**	**7**	P	**P**	**18 17 56.2**	**-0.8**
R49A				IAmb	IAmb	18 18 08.0	
	comp=Z,26nm,1.1s						
R49A				IAMs_20	IAMs_20	18 57 23.3	
	comp=Z,1µm,20.0s						
BLOK	**Blackwell**	**89.95**	**16**	P	**P**	**18 17 55.9**	**-1.2**
BLOK				IAmb	IAmb	18 18 08.9	
	comp=Z,18nm,1.0s						
CROK	**Carrier**	**90.06**	**17**	P	**P**	**18 17 57.7**	**+0.1**
USIN	**University of**	**90.06**	**9**	P	**P**	**18 17 56.1**	**-1.5**
S44A	**Carbondale**	**90.16**	**10**	P	**P**	**18 17 56.6**	**-1.5**
S44A				IAmb	IAmb	18 18 10.4	
	comp=Z,29nm,0.9s						
OK051	**E0350 and S346**	**90.26**	**16**	P	**P**	**18 17 57.3**	**-1.2**
OK051				IAmb	IAmb	18 18 10.9	
	comp=Z,17nm,0.8s						
OK051				IAMs_20	IAMs_20	18 59 53.0	
	comp=Z,1µm,20.0s						
LENM	**Lemitar**	**90.31**	**25**	P	**P**	**18 17 58.5**	**-0.6**
OK048	**Pawnee Station**	**90.33**	**16**	P	**P**	**18 17 57.6**	**-1.3**
OK048				IAmb	IAmb	18 18 10.7	
	comp=Z,15nm,0.8s						
SBM	**South Baldy**	**90.43**	**25**	P	**P**	**18 17 58.3**	**-1.6**
CGM3	**Cape Girardeau**	**90.51**	**10**	P	**P**	**18 17 59.8**	**+0.1**
CGM3				IAmb	IAmb	18 18 11.4	
	comp=Z,32nm,1.4s						
Y22A	**Socorro**	**90.53**	**25**	P	**P**	**18 17 58.2**	**-1.9**
Y22A				IAmb	IAmb	18 18 22.2	
	comp=Z,24nm,1.3s						
CRNM	**Carthage**	**90.57**	**25**	P	**P**	**18 18 00.5**	**+0.2**
R58B	**Mineral**	**90.58**	**1**	IAMs_20	IAMs_20	18 56 11.1	
	comp=Z,1µm,22.0s						
T42A	**Van Buren**	**90.61**	**12**	P	**P**	**18 17 58.6**	**-1.5**
T42A				IAmb	IAmb	18 18 11.6	
	comp=Z,16nm,0.9s						
U38A	**Gravette**	**90.73**	**14**	P	**P**	**18 18 00.0**	**-0.7**
U38A				IAmb	IAmb	18 18 11.8	
	comp=Z,13nm,0.8s						
OK052	**Battle Ridge R**	**90.77**	**16**	P	**P**	**18 18 01.0**	**+0.1**
OK052				IAmb	IAmb	18 18 12.4	
	comp=Z,32nm,1.2s						
OK029	**Liberty Lake**	**90.84**	**17**	P	**P**	**18 18 01.5**	**+0.2**
OK029				IAmb	IAmb	18 18 13.6	
	comp=Z,21nm,0.8s						
PIX	**Pinacate**	**90.87**	**31**	P	**P**	**18 18 01.4**	**-0.1**
PIX				IAmb	IAmb	18 18 09.2	
	comp=Z,27nm,1.5s						
AMTX	**Amarillo**	**90.89**	**20**	P	**P**	**18 18 00.8**	**-0.9**
AMTX				IAmb	IAmb	18 21 29.9	
	comp=Z,39nm,1.7s						
AMTX				IAMs_20	IAMs_20	18 57 49.6	
	comp=Z,1µm,22.0s						
SMWD	**Samnorwood**	**90.98**	**19**	P	**P**	**18 18 01.4**	**-0.6**
SMWD				IAmb	IAmb	18 20 24.1	
	comp=Z,13nm,1.0s						
TUL3	**Leonard**	**91.02**	**16**	IAMs_20	IAMs_20	18 59 23.0	
	comp=Z,1µm,20.0s						
BLA	**Blacksburg**	**91.27**	**3**	IAMs_20	IAMs_20	18 59 47.5	
	comp=Z,1µm,20.0s						
MSTX	**Muleshoe**	**91.52**	**22**	IAMs_20	IAMs_20	19 02 17.5	
	comp=Z,716nm,19.0s						
FCAR	**Ozark Folk Cen**	**91.59**	**13**	P	**P**	**18 18 03.9**	**-0.9**
FCAR				IAmb	IAmb	18 18 15.9	
	comp=Z,10nm,0.9s						
WMOK	**Wichita Mounta**	**91.62**	**18**	P	**P**	**18 18 04.1**	**-0.9**
WMOK				pmax	pmax		
	comp=Z,10.0nm,1.0s						
WMOK				MLR	MLR		
	comp=Z,800nm,19.0s						
WMOK	**Wichita Mounta**	**91.62**	**18**	P	**P**	**18 18 04.0**	**-0.9**
WMOK	**Wichita Mounta**	**91.62**	**18**	IAMs_20	IAMs_20	18 59 19.1	
	comp=Z,778nm,19.0s						
121A	**Cookes Peak, D**	**91.63**	**26**	P	**P**	**18 18 04.9**	**-0.3**
WVT	**Waverly**	**91.86**	**9**	IAMs_20	IAMs_20	18 59 14.1	
	comp=Z,931nm,19.0s						
U56A	**King**	**92.14**	**3**	IAMs_20	IAMs_20	18 56 49.3	
	comp=Z,1µm,20.0s						
V48A	**Smith Brothers**	**92.34**	**8**	IAMs_20	IAMs_20	19 03 27.8	
	comp=Z,883nm,20.0s						
TKL	**Tuckaleechee C**	**92.66**	**6**	LR	LR	19 01 57.7	
	comp=Z,997nm,19.6s,baz=356,slow=37						
EPT	**El Paso**	**92.70**	**25**	IAMs_20	IAMs_20	19 02 22.8	
	comp=Z,1µm,20.0s						
LSZ	**Lusaka**	**93.05**	**249**	LR	LR	19 03 02.6	
	comp=Z,980nm,18.5s,baz=36,slow=38						
LSZ	**Lusaka**	**93.05**	**249**	IAMs_20	IAMs_20	18 59 11.3	
	comp=Z,1µm,22.0s						
Z35A	**Perchaven, San**	**93.28**	**17**	IAMs_20	IAMs_20	19 02 11.9	
	comp=Z,894nm,22.0s						
X48A	**Hartselle**	**93.60**	**9**	IAMs_20	IAMs_20	18 59 18.1	
	comp=Z,783nm,20.0s						
Y52A	**Lilburn**	**94.42**	**6**	IAMs_20	IAMs_20	19 02 39.9	
	comp=Z,899nm,20.0s						
WHTX	**Lake Whitney,**	**94.54**	**18**	IAMs_20	IAMs_20	19 01 33.4	
	comp=Z,806nm,19.0s						
MSVF	**Nonsavu**	**94.59**	**113**	LR	LR	18 58 29.4	
	comp=Z,266nm,19.6s,baz=236,slow=34						
143A	**Socs Landing,**	**94.83**	**13**	IAMs_20	IAMs_20	19 00 32.7	
	comp=Z,826nm,20.0s						
JCT	**Junction City**	**95.54**	**20**	IAMs_20	IAMs_20	18 59 30.8	
	comp=Z,1µm,22.0s						
TXAR	**Lajitas Array**	**95.75**	**24**	P	**P**	**18 18 26.0**	**+1.9**
	comp=Z,0.4nm,0.7s,baz=325,slow=0.4,SNR=4.0						
TXAR				LR	LR	19 05 50.8	
	comp=Z,508nm,20.7s,baz=350,slow=38						
	comp=Z,0.4nm,0.7s						
TXAR	**Lajitas Array**	**95.75**	**24**	P	**P**	**18 18 22.1**	**-2.1**
DBIC	**Dimbokro**	**95.94**	**289**	LR	LR	19 07 33.3	
	comp=Z,444nm,18.2s,baz=35,slow=39						
MATP	**Matopo**	**96.96**	**246**	LR	LR	19 06 59.2	
	comp=Z,273nm,18.1s,baz=345,slow=38						
AFI	**Afiamalu**	**97.59**	**103**	LR	LR	18 58 43.0	
	comp=Z,291nm,20.1s,baz=334,slow=33						
LPIG	**La Paz**	**98.80**	**31**	LR	LR	19 06 21.3	
	comp=Z,357nm,18.5s,baz=356,slow=37						
TEIG	**Tepich**	**107.53**	**12**	IAMs_20	IAMs_20	19 08 51.1	
	comp=Z,710nm,21.0s						
TAOE	**Nuku Hiva Isla**	**113.10**	**74**	*e*LR	LR	18 57 26.5	
	comp=Z,532nm,24.7s						
TGUH	**Tegucigalpa,Un**	**113.74**	**11**	IAMs_20	IAMs_20	19 15 52.5	
	comp=Z,534nm,19.0s						
PPT2	**Papeete2**	**114.08**	**88**	*e*S		18 31 09.8	
	comp=Z,117nm,29.0s						
PPT2				*e*SS	**SS**	**18 40 17.8**	**-4.5**
	comp=Z,158nm,26.2s						
PPT2				*e*LQ	LQ	18 52 57.1	
	comp=Z,1µm,30.2s						
PPT2				*e*LR	LR	18 57 45.2	
	comp=Z,435nm,32.2s						
PPT2				*e*LR	LR	18 57 51.2	
	comp=Z,715nm,29.0s						
JTS	**Las Juntas de**	**117.71**	**9**	IAMs_20	IAMs_20	19 18 32.0	
	comp=Z,509nm,19.0s						
HDC	**Heredia**	**118.08**	**8**	IAMs_20	IAMs_20	19 12 23.6	
	comp=Z,641nm,21.0s						
SDV	**Santo Domingo**	**119.33**	**353**	IAMs_20	IAMs_20	19 15 47.6	
	comp=Z,610nm,20.0s						
MAW	**Mawson**	**122.93**	**197**	PKIKP	**PKPdf**	**18 23 52.5**	**-0.1**
MAW	**Mawson**	**122.93**	**197**		**PKPdf**	**18 23 52.5**	**-0.1**
VNDA	**Vanda**	**133.99**	**165**	PKP	**PKPdf**	**18 24 13.7**	**+0.3**
	comp=Z,1.5nm,0.8s,baz=320,slow=3.5,SNR=7.8						
NNA	**Nana**	**140.27**	**0**	IAMs_20	IAMs_20	19 33 42.7	
	comp=Z,378nm,18.0s						
TROLL	**Troll, Antarti**	**141.43**	**209**	PKPdf	**PKPdf**	**18 24 25.1**	**-2.4**
	comp=Z,216nm,0.9s						
QSPA	**South Pole Qui**	**141.58**	**180**	PKhKP	PKPpre	18 24 20.2	
	comp=Z,0.7nm,0.5s,baz=290,slow=0.7,SNR=6.9						
QSPA	**South Pole Qui**	**141.58**	**180**		**PKPdf**	**18 24 28.6**	**+0.8**
SIV	**San Ignacio**	**142.19**	**335**	PKP	**PKPdf**	**18 24 29.1**	**-1.3**
	comp=Z,1.1nm,0.8s,baz=315,slow=8.6,SNR=4.4						
LPAZ	**La Paz**	**143.93**	**346**	PKhKP	PKPpre	18 24 30.6	
	comp=Z,1.5nm,0.6s,baz=276,slow=5.5,SNR=5.0						
VNA2	**Neumayer--Watz**	**144.41**	**212**	⇓PKPbc	**PKPab**	**18 24 29.8**	**-1.1**
	comp=Z,20nm,0.7s,baz=62,slow=4.2						
VNA1	**Neumayer--Stat**	**144.67**	**212**	PKPbc	**PKPab**	**18 24 30.8**	**-1.0**
	comp=Z,12nm,0.9s						
VNA3	**Neumayer Olymp**	**145.17**	**211**	⇓PKPbc	**PKPbc**	**18 24 31.8**	**-1.8**
	comp=Z,24nm,0.7s						
CPUP	**Villa Florida**	**150.69**	**323**	PKPbc	**PKPbc**	**18 24 48.6**	**-1.3**
	comp=Z,1.8nm,0.7s,baz=72,slow=3.2,SNR=4.3						
CPUP	**Villa Florida**	**150.69**	**323**		**PKPbc**	**18 24 49.2**	**-0.6**
PLCA	**Paso Flores**	**168.17**	**337**	PKPab	**PKPab**	**18 26 11.9**	**-0.2**
	comp=Z,1.8nm,0.8s,baz=45,slow=1.4,SNR=4.1						

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*IDC **21** 18:08:41.4±1.7, 5°.59S×130°.41E, h0^{km}, mb4.1/2, mbtmp3.9/5, ML3.9/3, MS4.4/1, Error ellipse: s-maj=48.0km s-min=16.8km az=82.0*

*DJA **21** 18:08:53.4±1.6, 6°S±3°×13°1E±°, h18^{km}±12^{km}, M4.6/12, mB5.2/4, mB5.2/4, mb4.8/4, mb4.8/4, MLv4.4/10, MLv4.5/12, Mw(mB)4.7/4, Mw(mB)4.6/4*

ISC 21 18:08:37.1±0.9**, 6°.12S**±0°.07×**131°.02E**±0°.09**, h10^{km}, n10,**

σ2^{s}22/10,**Tanimbar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NLAI	**Namlea**	**4.84**	**306**	P	**Pb**	**18 10 03.5**	**+1.4**
NLAI				AML	AML		
NLAI				AML	AML		
SWI	**Sorong**	**5.23**	**3**	P	**Pb**	**18 10 07.4**	**-1.2**
SWI				AML	AML		
SWI				AML	AML		
MWPI	**Manokwari, Pap**	**5.97**	**30**	P	**Pb**	**18 10 21.5**	**+0.2**
	0.4nm37nm,0.7s,37nm,0.7s						
MWPI				AML	AML		
BAKI	**Biak**	**7.05**	**46**	P	**Pb**	**18 10 38.4**	**-1.4**
FITZ	**Fitzroy Crossi**	**13.01**	**203**	Pn	Pn	18 11 47.2	+5.0
	0.9nm,0.3s,baz=19,slow=8.9,SNR=48						
FITZ				Sn	**Sn**	**18 14 02.4**	**-4.7**
	2.6nm,0.3s,baz=79,slow=21,SNR=10.0						
	2.0nm,0.3s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**14.12**	**167**	Pn	**P**	**18 12 05.6**	**+0.6**
	0.5nm,0.3s,baz=348,slow=14,SNR=34						
WRA				Sn	**Sn**	**18 14 35.4**	**+1.3**
	1.3nm,0.3s,baz=326,slow=23,SNR=8.3						
	0.5nm,0.3s						
WRA				AML	AML		
ASAR	**Alice Springs**	**17.67**	**171**	Pn	P	18 12 51.9	+7.5
	0.2nm,0.3s,baz=358,slow=8.3,SNR=18						
ASAR				Sn	**Sn**	**18 16 02.6**	**+2.1**
	0.4nm,0.3s,baz=350,slow=25,SNR=7.1						
	0.5nm,0.4s						
ASAR				AML	AML		
CMAR	**Chiang Mai Arr**	**39.96**	**308**	P	**P**	**18 16 12.2**	**+0.1**
	0.4nm,0.5s,baz=125,slow=8.2,SNR=4.3						
	0.4nm,0.5s						
LZDM	**Lanzhou Array**	**49.09**	**330**	LR	LR	18 38 30.7	
	comp=Z,401nm,20.7s,baz=295,slow=37						
MKAR	**Makanchi Array**	**68.05**	**326**	P	**P**	**18 19 37.2**	**+0.3**
	3.4nm,0.4s,baz=117,slow=7.0,SNR=20						
	3.4nm,0.4s						

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*BJI **21** 18:19:53.6,51°.88N×103°.74E,h9^{km},mb4.7/20,Ms4.9/10, Ms7 4.6/11*

*MOS **21** 18:19:53.6±0.9,51°.80N×103°.46E,h9^{km},mb4.7/20, MS4.2/9,Error ellipse: s-maj=6.5km s-min=5.1km az=153.3*

MOS Felt (IV) at Irkutsk.

*IDC **21** 18:19:53.6±0.5,51°.85N×103°.47E,h0^{km},mb4.0/22, mbtmp4.1/30,ML4.2/7,MS3.7/2,Error ellipse: s-maj=10.9km s-min=7.0km az=48.0*

*BYKL **21** 18:19:54.7±0.1,51°.77N×103°.41E,h12^{km}±2^{km},FELT I=V-VI MSK at Bystraya, Kultuk, Tibel'ti; V at Slyudyanka; IV at Angarsk, Baykal'sk, Irkutsk, Usol'ye-Sibirskoye, Shelekhov, Burdakovka, Granovshchina, Karluk, Novogrudinina, Molodezhnyy.*

*NEIC **21** 18:19:56.0±1.4,51°.79N±0°.06×103°.5E±0°.1,h10^{km}±1^{km}, mb4.6/46,Error ellipse: s-maj=14.9km s-min=7.4km az=234.0*

*GFZ **21** 18:19:55.5±0.3,52°N±4°×10°4E±°,h10^{km},M4.6/21, mb4.6/21,Error ellipse: s-maj=9.7km s-min=5.4km az=10.0,confirmed*

*GCMT **21** 18:19:58.0±0.3,51°.80N±0°.02×103°.48E±0°.03,h18^{km}±2^{km}, MW4.8/79,Moment Tensor Solution. s2,c2; s79,c107; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.69±.15; $M_{\theta\theta}$1.25±.13; $M_{\phi\phi}$-0.56±.09; $M_{r\theta}$-0.36±.24; $M_{\theta\phi}$1.67±.07; $M_{\phi r}$0.16±.20; Best double couple: $M_0$1.96200×10^{16} NP1:ϕ_s195.00000°,δ74.00000°,λ-170.00000°. NP2: ϕ_s103.00000°,δ80.00000°,λ-16.00000°. Principal axes: T 2.2610, Plg4.0000°, Azm150.0000°; N -0.6040, Plg71.0000°, Azm253.0000°; P -1.6620, Plg18.0000°, Azm58.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 21 18:19:54.6±0.9,**51°.85N**±0°.02×**103°.50E**±0°.02,**h5**^{km}±6^{km}, **n246**,σ**1^{s}66**/316,**mb4.5**/58,**MS4.0**/5,**11C-28D,Lake Baykal region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TLY	**Talaya**	**0.19**	**151**	⇑*i*Pg	**Pg**	**18 19 59.0**	**+0.7**
TLY				*e*Sg	**Sg**	**18 20 01.9**	**+1.2**
TLY				Pmax			
	21µm,0.1s						
TLY				Smax			
	455µm,0.2s						
TLY	**Talaya**	**0.19**	**151**	⇑*i*PG	**Pg**	**18 19 59.0**	**+0.7**
TLY				*e*		18 20 01.7	
TLY				pmax	pmax		
	comp=Z,28µm,0.3s						
TLY				smax	smax		
	comp=N,454µm,0.2s						
TLY	**Talaya**	**0.19**	**151**		**Pg**	**18 19 58.9**	**+0.7**
TLY				Sg	**Sg**	**18 20 01.6**	**+0.9**
TLY	**Talaya**	**0.19**	**151**	P	**Pg**	**18 19 58.6**	**+0.3**
IVK	**Ivanovka**	**0.57**	**94**	⇓*i*Pg	**Pb**	**18 20 06.7**	**-0.3**
IVK				*e*Sg	**Sb**	**18 20 14.7**	**-0.7**
IVK	**Ivanovka**	**0.57**	**94**	⇓*i*PG	**Pb**	**18 20 06.7**	**-0.3**
IVK				*e*S	**Sb**	**18 20 14.8**	**-0.7**
IRK	**Irkutsk**	**0.62**	**50**	⇓*i*Pg	**Pb**	**18 20 08.7**	**+0.8**
IRK				Pmax		18 20 09.1	
	comp=N,43µm,0.3s						
IRK				*e*Sg	**Sb**	**18 20 17.8**	**+0.8**
IRK				Smax		18 20 18.6	
	comp=N,240µm,0.5s						
IRK	**Irkutsk**	**0.62**	**50**	*e*PG	**Pb**	**18 20 08.7**	**+0.8**
IRK				*e*		18 20 18.2	
IRK				pmax	pmax		
	comp=Z,43µm,0.4s						
IRK				smax	smax		
	comp=N,240µm,0.6s						
ARS	**Arshan**	**0.67**	**277**	⇓*i*Pg	**Pg**	**18 20 06.7**	**-0.7**
ARS				Pmax		18 20 07.4	
	comp=N,12µm,0.6s						
ARS				*e*Sg	**Sg**	**18 20 15.3**	**-0.8**
ARS				Smax		18 20 16.9	
	comp=N,127µm,0.4s						
ARS	**Arshan**	**0.67**	**277**	⇓*i*PG	**Pg**	**18 20 06.6**	**-0.8**
ARS				*e*		18 20 15.6	
ARS				pmax	pmax		
	comp=Z,12µm,0.3s						
ARS				smax	smax		
	comp=N,127µm,0.4s						
LSTR	**Listvyanka**	**0.83**	**88**	⇓*i*Pg	**Pb**	**18 20 11.1**	**-0.4**
LSTR				Pmax		18 20 11.9	
	comp=N,6µm,0.6s						
LSTR				*e*Sg	**Sb**	**18 20 22.5**	**-0.4**
LSTR				Smax		18 20 23.1	
	comp=N,24µm,0.2s						
LSTR	**Listvyanka**	**0.83**	**88**	⇓*i*PG	**Pb**	**18 20 11.0**	**-0.4**
LSTR				*e*		18 20 22.4	
LSTR				pmax	pmax		
	comp=Z,6µm,0.6s						
LSTR				smax	smax		
	comp=N,49µm,0.5s						
BGT	**Bolshoye Golou**	**1.20**	**80**	⇓*i*Pg	**Pg**	**18 20 17.8**	**+0.3**
	comp=N,3µm,0.8s						
BGT				⇓*i*Pg	**Pg**	**18 20 17.8**	**+0.3**
	comp=N,8µm,0.8s						
BGT				⇓*i*Pg	**Pg**	**18 20 17.8**	**+0.3**
	comp=N,7µm,0.8s						
BGT				*e*Pb	**Pn**	**18 20 19.8**	**+1.8**
BGT				max		18 20 20.1	
	comp=N,7µm,0.2s						
BGT				*e*Sg	**Sn**	**18 20 34.3**	**-0.4**
BGT				*e*Sb	**Sb**	**18 20 36.8**	**+3.2**
BGT				max		18 20 38.4	
	comp=N,72µm,0.4s						
BGT	**Bolshoye Golou**	**1.20**	**80**	⇓*i*PG	**Pg**	**18 20 17.7**	**+0.3**
BGT				*e*		18 20 34.4	
BGT				pmax	pmax		
	comp=Z,8µm,0.2s						
BGT				smax	smax		
	comp=N,72µm,0.5s						
ZAK	**Zakamensk**	**1.47**	**185**	⇑*i*Pg	**Pn**	**18 20 19.9**	**-1.9**
ZAK				Pmax		18 20 21.2	
	comp=N,2µm,0.2s						
ZAK				*e*Sg	**Sn**	**18 20 37.8**	**-3.7**
ZAK				Smax		18 20 41.6	
	comp=N,33µm,0.4s						
ZAK	**Zakamensk**	**1.47**	**185**	⇑*i*PG	**Pn**	**18 20 19.9**	**-1.9**
ZAK				*e*		18 20 37.5	
ZAK				pmax	pmax		
	comp=Z,2µm,0.3s						
ZAK				smax	smax		
	comp=N,33µm,0.4s						
MOY	**Mondy**	**1.57**	**264**	⇓*i*Pg	**Pn**	**18 20 21.5**	**-1.7**
MOY				Pmax		18 20 23.9	
	comp=N,5µm,0.7s						
MOY				*e*Sg	**Sn**	**18 20 42.2**	**-1.7**
MOY				*e*		18 20 45.1	
MOY				max		18 20 45.4	
	comp=N,14µm,0.5s						
MOY	**Mondy**	**1.57**	**264**	*e*PG	**Pn**	**18 20 21.8**	**-1.4**
MOY				*e*		18 20 42.4	
MOY				pmax	pmax		
	comp=Z,5µm,0.4s						
MOY				smax	smax		
	comp=N,34µm,0.9s						
KAB	**Kabansk**	**1.96**	**83**	⇓*i*Pn	**Pb**	**18 20 29.6**	**-1.2**
KAB				*e*Pg	**Pg**	**18 20 31.6**	**-0.6**
KAB				Pmax		18 20 32.0	
	comp=N,11µm,0.7s						
KAB				*e*		18 20 35.8	
KAB				*e*Sn	**Sb**	**18 20 55.4**	**-0.2**
KAB				*e*Sg	**Sg**	**18 20 58.2**	**+0.6**
KAB				Smax		18 21 03.3	
	comp=N,51µm,0.8s						
TRG	**Tyrgan**	**1.98**	**61**	⇓*i*Pn	**Pn**	**18 20 29.2**	**+0.5**
TRG				⇑*i*Pg	**Pb**	**18 20 31.8**	**+0.8**
TRG				Pmax		18 20 32.0	
	comp=N,4µm,0.4s						
TRG				*e*Sn	**Sb**	**18 20 54.9**	**-1.0**
TRG				*e*Sg	**Sg**	**18 20 57.9**	**-0.1**
TRG				Smax		18 20 58.3	
	comp=N,12µm,0.6s						
TRG	**Tyrgan**	**1.98**	**61**	⇓*i*PN	**Pn**	**18 20 29.3**	**+0.5**
TRG				*e*		18 20 31.4	
TRG				*e*S	**Sb**	**18 20 54.9**	**-1.0**
TRG				*e*		18 20 58.6	
TRG				pmax	pmax		
	comp=Z,4µm,0.3s						
TRG				smax	smax		
	comp=N,12µm,0.5s						
FFNB	**Fofonovo**	**2.03**	**83**	⇓*i*Pn	**Pn**	**18 20 30.3**	**+0.8**
FFNB				*e*Pg	**Pb**	**18 20 32.4**	**+0.4**
FFNB				*e*Sn	**Sb**	**18 20 56.1**	**-1.4**
FFNB				*e*Sg	**Sg**	**18 20 59.7**	**-0.1**
HRMR	**Khuramsha**	**2.16**	**94**	⇓*i*Pn	**Pn**	**18 20 32.3**	**+1.1**
HRMR				*e*Pg	**Pb**	**18 20 34.5**	**+0.3**
HRMR				*e*		18 20 35.7	
HRMR				max		18 20 39.5	
	comp=N,4µm,0.4s						
HRMR				*e*Sn	**Sb**	**18 20 59.7**	**-1.5**
HRMR				*e*Sg	**Sg**	**18 21 03.8**	**-0.1**
HRMR				Smax		18 21 05.7	
	comp=N,83µm,0.4s						
ORL	**Orlik**	**2.37**	**288**	Smax		18 20 09.0	
	comp=N,19µm,0.9s						
ORL				*e*Pn	**Pn**	**18 20 35.5**	**+1.2**
ORL				*e*Pg	**Pb**	**18 20 36.9**	**-0.9**
ORL				Pmax		18 20 44.3	
	comp=N,2µm,0.6s						
ORL	**Orlik**	**2.37**	**288**	*e*PN	**Pb**	**18 20 37.4**	**-0.4**
ORL				*e*		18 21 07.9	
ORL				pmax	pmax		
	comp=Z,2µm,0.3s						
ORL				smax	smax		
	comp=N,19µm,0.8s						
HTG	**Hatgal**	**2.51**	**238**	⇓*i*Pn	**Pn**	**18 20 35.4**	**-0.8**
HTG				⇓*i*Pg	**Pb**	**18 20 37.6**	**-2.7**
HTG				*e*Sg	**Sn**	**18 21 08.8**	**+1.5**
UUDB	**Ulan-Yde**	**2.58**	**88**	⇓*i*Pn	**Pn**	**18 20 38.2**	**+1.2**
UUDB				*e*Pg	**Pb**	**18 20 42.2**	**+0.8**
UUDB				Pmax		18 20 43.4	
	comp=N,2µm,0.7s						
UUDB				*e*Sn	**Sn**	**18 21 09.8**	**+1.0**
UUDB				*e*Sg	**Sg**	**18 21 17.7**	**+0.2**
UUDB				Smax		18 21 19.7	
	comp=N,13µm,0.8s						
KELR	**Kotokel**	**2.96**	**70**	*e*Pn	**Pn**	**18 20 42.8**	**+0.6**
KELR				*e*Pg	**Pb**	**18 20 48.6**	**+0.9**
KELR				*e*Sn	**Sn**	**18 21 17.9**	**-0.2**
KELR				*e*Sg	**Sg**	**18 21 28.2**	**-1.3**
OGRR	**Ongureny**	**3.07**	**53**	*e*Pn	**Pn**	**18 20 44.3**	**+0.5**
OGRR				*e*Pg	**Pb**	**18 20 50.7**	**+1.0**
OGRR				Pmax		18 20 53.4	
	comp=N,5µm,0.8s						
OGRR				*e*Sg	**Sb**	**18 21 30.6**	**+3.1**
OGRR				Smax		18 21 34.1	
	comp=N,10µm,0.7s						
OGRR	**Ongureny**	**3.07**	**53**	*e*PN	**Pn**	**18 20 44.2**	**+0.5**
OGRR				*e*		18 20 50.5	
OGRR				*e*		18 21 30.7	
OGRR				pmax	pmax		
	comp=Z,5µm,0.8s						
OGRR				smax	smax		
	comp=N,10µm,0.5s						
GORB	**Goryachinsk**	**3.15**	**67**	*e*Pn	**Pn**	**18 20 44.7**	**-0.1**
GORB				*e*		18 20 51.9	
GORB				*e*Pg	**Pg**	**18 20 53.2**	**-1.6**
GORB				*e*Sn	**Sn**	**18 21 23.0**	**+0.3**
GORB				*e*Sg	**Sg**	**18 21 34.3**	**-1.2**
MXMB	**Maximikha**	**3.50**	**64**	*e*Pn	**Pn**	**18 20 50.1**	**+0.4**
MXMB				*e*Pg	**Pb**	**18 20 59.1**	**+2.1**
MXMB				*e*Sg	**Sg**	**18 21 46.1**	**-0.9**
KNGR	**Kungurtug, Tuv**	**3.96**	**254**	*e*	**Pn**	**18 20 57.8**	**+1.7**
KNGR				*e*Pg	**Pb**	**18 21 04.8**	**-0.1**
KNGR				*e*Sg	**Sb**	**18 21 56.3**	**+3.2**
KNGR	**Kungurtug, Tuv**	**3.96**	**254**	*c* *i*PN	**Pn**	**18 20 57.7**	**+1.7**
KNGR				MLR	MLR		
	comp=Z,4µm,2.0s						
SYVR	**Suvo**	**4.35**	**63**	*e*Pn	**Pn**	**18 21 02.6**	**+1.3**
SYVR				*e*Pg	**Pb**	**18 21 14.3**	**+2.9**
SYVR				Pmax		18 21 23.4	
	comp=Z,789nm,1.6s						
SYVR				*e*Sg	**Sg**	**18 22 11.6**	**-2.4**
SYVR				Smax		18 22 19.7	
	comp=Z,3µm,0.9s						
SYVR	**Suvo**	**4.35**	**63**	*e*PN	**Pn**	**18 21 02.7**	**+1.4**
SYVR				*e*		18 21 13.9	
SYVR				*e*		18 22 11.4	
SYVR				pmax	pmax		
	comp=Z,802nm,1.5s						
SYVR				smax	smax		
	comp=N,3µm,0.8s						
SONM	**Songino Array**	**4.43**	**154**	Pn	**Pn**	**18 21 01.9**	**-0.6**
	comp=N,35nm,0.3s,baz=329,slow=13,SNR=635						
SONM				Pg	**Pb**	**18 21 13.2**	**+0.3**
	comp=N,276nm,0.3s,baz=335,slow=17,SNR=91						
SONM				Lg	Lg	18 22 12.1	
	comp=N,301nm,0.3s,baz=328,slow=25,SNR=10.0						
	comp=N,45nm,0.3s						
SONM				AML	AML		
SONM	**Songino Array**	**4.43**	**154**	PN	**Pn**	**18 21 02.1**	**-0.4**
SONM	**Songino Array**	**4.43**	**154**		**Pn**	**18 21 02.1**	**-0.4**
SONM					**Pb**	**18 21 13.6**	**+0.7**
I34MN	**SONGINO INFRAS**	**4.46**	**154**	Pg	**Pb**	**18 21 14.2**	**+0.8**
	baz=340,slow=92						
TDJR	**Todzha**	**4.59**	**280**	*e*Pg	**Pb**	**18 21 15.9**	**+0.3**
TDJR				*e*Sg	**Sb**	**18 22 14.1**	**+2.9**
ULN	**Ulaanbaatar**	**4.60**	**149**	*e*Pn	**Pn**	**18 21 04.4**	**-0.5**
ULN				*e*Pg	**Pb**	**18 21 16.1**	**+0.3**
ULN				Pmax		18 21 17.4	
	comp=N,2µm,1.2s						
ULN				*e*Sn	**Sn**	**18 21 56.1**	**-2.7**
ULN				*e*Sg	**Sb**	**18 22 16.0**	**+4.4**
ULN				Smax		18 22 24.7	
	comp=N,4µm,0.7s						
ULN	**Ulaanbaatar**	**4.60**	**149**	*d* *i*PN	**Pn**	**18 21 04.5**	**-0.5**
ULN	**Ulaanbaatar**	**4.60**	**149**	Pn	**Pn**	**18 21 04.6**	**-0.3**
ULN					Pb	18 21 04.7	-11
ULN					Pg	18 21 16.8	-5.8
ULN	**Ulaanbaatar**	**4.60**	**149**	P	**Pn**	**18 21 04.3**	**-0.5**
NIZB	**Nizh Angarsk**	**5.32**	**40**	*e*Pn	**Pn**	**18 21 14.9**	**+0.3**
NIZB				*e*Pg	**Pg**	**18 21 32.8**	**-3.6**
NIZB				Pmax		18 21 35.9	
	comp=N,605nm,0.4s						
NIZB				*e*Sn	**Sn**	**18 22 16.2**	**0.0**
NIZB				*e*Sg	**Sg**	**18 22 43.5**	**-1.7**
NIZB				Smax		18 22 51.1	
	comp=N,5µm,1.0s						
YLYR	**Ulyunkhan**	**5.50**	**54**	*e*Pn	**Pn**	**18 21 18.3**	**+1.2**
YLYR				*e*Pg	**Pb**	**18 21 34.2**	**+3.2**
YLYR				Pmax		18 21 36.5	
	comp=N,470nm,0.7s						
YLYR				*e*Sg	**Sg**	**18 22 46.6**	**-4.5**
YLYR				Smax		18 22 53.9	
	comp=N,4µm,1.3s						
YLYR	**Ulyunkhan**	**5.50**	**54**	*e*PN	**Pn**	**18 21 17.6**	**+0.5**
YLYR				*e*		18 21 34.8	
YLYR				*e*		18 22 46.5	
YLYR				pmax	pmax		
	comp=Z,460nm,0.8s						
YLYR				smax	smax		
	comp=N,4µm,1.6s						
KZLR	**Kyzyl**	**5.62**	**272**	*e*Pg	**Pb**	**18 21 33.0**	**0.0**
KZLR				*e*Sg	**Sb**	**18 22 45.7**	**+5.0**
KPC	**Khapcheranga**	**6.03**	**107**	*e*Pn	**Pn**	**18 21 23.0**	**-1.4**
KPC				*e*Pg	**Pb**	**18 21 43.6**	**+3.5**
KPC				Pmax		18 21 48.8	
	comp=N,320nm,0.4s						
KPC				*e*Sg	**Sg**	**18 23 02.2**	**-5.8**
KPC				Smax		18 23 10.9	
	comp=N,6µm,1.3s						
KPC	**Khapcheranga**	**6.03**	**107**	*e*PN	**Pn**	**18 21 23.0**	**-1.4**
KPC				*e*		18 21 42.7	
KPC				*e*S	**Sn**	**18 22 31.9**	**-1.9**
KPC				*e*		18 23 00.3	
KPC				pmax	pmax		
	comp=Z,320nm,0.4s						
KPC				smax	smax		
	comp=N,6µm,1.2s						
KMO	**Kumora**	**6.09**	**45**	*e*Pn	**Pn**	**18 21 25.2**	**0.0**
KMO				*e*Pg	**Pb**	**18 21 45.6**	**+4.5**
KMO				Pmax		18 21 49.9	
	comp=N,847nm,1.2s						
KMO				*e*Sg	**Sg**	**18 23 05.4**	**-4.6**
KMO				Smax		18 23 19.7	
	comp=N,7µm,1.4s						
KMO	**Kumora**	**6.09**	**45**	*e*PN	**Pn**	**18 21 26.3**	**+1.1**
KMO				*e*		18 21 45.8	
KMO				*e*S	**Sn**	**18 22 32.3**	**-3.0**
KMO				*e*		18 23 05.5	
KMO				pmax	pmax		
	comp=Z,213nm,0.4s						
KMO				smax	smax		
	comp=N,7µm,1.3s						
CIT	**Chita**	**6.22**	**84**	*e*Pn	**Pn**	**18 21 27.4**	**+0.4**
CIT				max		18 21 28.0	
	comp=N,695nm,0.5s						
CIT				*e*Sg	**Sg**	**18 23 08.3**	**-5.9**
CIT				Smax			
	comp=N,5µm,1.2s						
MINR	**Mina**	**6.35**	**302**	*e*Pg	**Pb**	**18 21 49.8**	**+4.3**
MINR				*e*Sg	**Sg**	**18 23 12.4**	**-5.9**
UKT	**Uakit**	**7.04**	**55**	*e*PG	Pg	18 22 04.9	-4.3
UKT				*e*		18 23 35.0	
UKT				pmax	pmax		
	comp=Z,364nm,1.6s						
UKT				smax	smax		
	comp=N,2µm,1.8s						
SVKR	**Severomuysk**	**7.31**	**50**	*e*Pn	**Pn**	**18 21 43.1**	**+1.1**
SVKR				*e*		18 21 53.8	
SVKR				*e*Sg	**Sg**	**18 23 44.5**	**-4.6**
SVKR				Smax		18 24 00.5	
	comp=N,1µm,1.4s						
BOD	**Bodaibo**	**8.51**	**41**	*e*Pn	**Pn**	**18 21 59.9**	**+1.5**
BOD				*e*Pg	Pg	18 22 29.3	-8.1
BOD				*e*Sg	**Sg**	**18 24 20.4**	**-7.2**
BOD				Smax		18 24 36.8	
	comp=N,5µm,1.9s						
HILR	**Hailar Array B**	**10.56**	**96**	Pn	**Pn**	**18 22 24.7**	**-1.8**
	baz=296,slow=13						
HILR				Lg	Lg	18 25 28.9	
	baz=278,slow=23						
	comp=N,10nm,0.3s						
HIA	**Hailar**	**10.65**	**98**	⇑*e*P	**Pn**	**18 22 26.0**	**-1.8**
HIA	**Hailar**	**10.65**	**98**	Pn	**Pn**	**18 22 26.2**	**-1.5**
HIA	**Hailar**	**10.65**	**98**	P	**Pn**	**18 22 27.1**	**-0.6**
	comp=Z,23nm,0.9s						
ZALV	**Zalesovo Beam**	**11.48**	**288**	Pn	**Pn**	**18 22 40.9**	**+1.9**
	comp=Z,2.3nm,0.6s,baz=95,slow=9.2,SNR=4.2						
ZALV				Lg	Lg	18 25 48.8	
	comp=Z,2.0nm,0.3s,baz=106,slow=26,SNR=15						
ZALV				LR	LR	18 26 16.6	
	comp=Z,317nm,20.9s,baz=78,slow=33						
XLT	**XiLinHaoTe**	**11.59**	**128**	*e*P	Pn	18 22 45.3	+4.7
XLT				S	**Sn**	**18 24 55.8**	**+5.4**
XLT				pmax	pmax		
	comp=Z,32nm,2.1s						
XLT				L	L		
	comp=Z,2µm,9.5s						
XLT				L	L		
	comp=Z,2µm,13.4s						
BTO2	**Baotou**	**11.94**	**156**	*e*P	**Pn**	**18 22 46.5**	**+1.0**
BTO2				pP		18 22 50.0	
BTO2				sP		18 22 53.0	
BTO2				PP	**PnPn**	**18 22 56.1**	**+3.0**
BTO2				pmax	pmax		
	comp=Z,47nm,1.9s						
HHC	**Hu-ho-hao-te**	**12.32**	**150**	*e*P	**Pn**	**18 22 52.3**	**+1.7**
HHC				pmax	pmax		
	comp=Z,28nm,0.9s						
WMQ	**Urumqi**	**13.29**	**239**	*e*P	**Pn**	**18 23 07.5**	**+3.7**
WMQ				L	L		
	comp=Z,2µm,4.0s						
ZEA	**Zeya**	**14.48**	**73**	*e*P	**P**	**18 23 29.2**	**+2.4**
ZEA				pmax	pmax		
	comp=Z,40nm,1.4s						
ZEA				MLR	MLR		
	comp=N,800nm,12.0s						
ZEA				MLR	MLR		
	comp=Z,1µm,12.0s						
MK31	**Makanchi Array**	**14.71**	**258**	⇓*e*P	**Pn**	**18 23 23.9**	**+0.8**
MKAR	**Makanchi Array**	**14.71**	**258**	Pn	**Pn**	**18 23 24.3**	**+1.2**
	comp=Z,0.3nm,0.3s,baz=79,slow=13,SNR=9.5						
MKAR				Lg	Lg	18 27 27.3	
	comp=Z,0.2nm,0.3s,baz=51,slow=24,SNR=4.9						
	comp=Z,1.8nm,0.6s						
MKAR				AML	AML		
MKAR	**Makanchi Array**	**14.71**	**258**	Pn	**Pn**	**18 23 24.7**	**+1.6**
BJT	**Baijiatuau**	**14.72**	**138**	P	**Pn**	**18 23 21.6**	**-1.7**
BJT	**Baijiatuau**	**14.72**	**138**		**Pn**	**18 23 21.6**	**-1.7**
BJT	**Baijiatuau**	**14.72**	**138**	P	**Pn**	**18 23 21.9**	**-1.5**
	comp=Z,43nm,1.1s						
BJI2	**Beijing**	**14.72**	**138**	P	**Pn**	**18 23 21.8**	**-1.6**
BJI2				pmax	pmax		
	comp=Z,25nm,0.4s						
MAKZ	**Makanchi**	**14.89**	**259**	P	**Pn**	**18 23 27.0**	**+1.4**
MAKZ	**Makanchi**	**14.89**	**259**	Pn	**Pn**	**18 23 27.0**	**+1.4**
MAKZ	**Makanchi**	**14.89**	**259**	P	**Pn**	**18 23 26.2**	**+0.6**
	comp=Z,40nm,1.2s						
HEH	**HeiHe**	**15.11**	**87**	*e*P	**Pn**	**18 23 27.6**	**-0.9**
HEH				S	**Sn**	**18 26 16.0**	**-0.1**
KURK	**Kurchatov**	**15.59**	**276**	⇓*e*P	**Pn**	**18 23 34.7**	**-0.1**
KURK				MLR	MLR		
	comp=Z,609nm,11.0s						
KURK	**Kurchatov**	**15.59**	**276**	Pn	**Pn**	**18 23 35.1**	**+0.3**
KURK				IAmb	IAmb	18 23 47.1	
	comp=Z,58nm,1.4s						
KURK	**Kurchatov**	**15.59**	**276**	P	**Pn**	**18 23 35.1**	**+0.3**
	comp=Z,35nm,0.4s						
KURBB	**Kurchatov Arra**	**15.67**	**275**	Pn	**Pn**	**18 23 35.9**	**+0.1**
	comp=Z,0.1nm,0.3s,baz=79,slow=13,SNR=5.4						
KURBB				Lg	Lg	18 28 00.0	
	baz=294,slow=44,SNR=2.4						
	comp=Z,6.9nm,0.8s						
KURBB				AML	AML		
LZH	**Lanzhou**	**15.76**	**179**	*e*P	**Pn**	**18 23 38.1**	**+0.8**
LZH				sP	sP	18 23 47.6	+4.0
LZH				pmax	pmax		
	comp=Z,25nm,1.0s						
LZH				L	L		
	comp=Z,2µm,7.0s						
LZH				L	L		
	comp=Z,5µm,8.2s						
LZH				L	L		
	comp=Z,2µm,8.6s						
LZDM	**Lanzhou Array**	**15.89**	**179**	Pn	**Pn**	**18 23 40.2**	**+1.2**
	baz=358,slow=10						
	comp=Z,2.6nm,0.5s						
YAK	**Yakutsk**	**17.42**	**44**	Pn	**Pn**	**18 23 58.4**	**+0.4**
	comp=Z,2.9nm,0.3s,baz=62,slow=2.6,SNR=12						
YAK	**Yakutsk**	**17.42**	**44**	*c* *i*P	**P**	**18 24 00.2**	**+0.9**
YAK				pmax	pmax		
	comp=Z,73nm,0.9s						
YAK				MLR	MLR		
	comp=Z,693nm,10.0s						

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YAK    Yakutsk          17.42  44          P      18 24 00.2 +0.9
YAK    Yakutsk          17.42  44   P      Pn     18 23 58.4 +0.4
       comp=Z,81nm,0.9s
TDK    Taldyqorghan     17.95 257  eP      Pn     18 24 04.5 -0.2
TDK    Taldyqorghan     17.95 257  eP      Pn     18 24 04.5 -0.2
DL2    Dalian           18.09 129  eP      Pn     18 24 06.3 -0.2
DL2                                eS      S      18 27 30.8 -3.7
DL2                                 pmax   pmax
       comp=Z,26nm,0.8s
DL2                                 L      L
       comp=Z,2µm,12.6s
DL2                                 L      L
       comp=Z,3µm,14.6s
DL2                                 L      L
       comp=Z,3µm,12.0s
KLR    Kul'dur          18.10  87   Pn     P      18 24 07.0 +0.1
       comp=Z,0.2nm,0.3s,baz=268,slow=15,SNR=3.0
KLR                                 Lg     Lg     18 29 26.3
       comp=Z,0.9nm,0.3s,baz=34,slow=18,SNR=8.2
       comp=Z,8.5nm,0.9s
KLR                                 AML    AML
KLR    Kul'dur          18.10  87⇓eP      P      18 24 08.6 +1.6
KLR                                 pmax   pmax
       comp=Z,61nm,1.5s
KLR                                 MLR    MLR
       comp=Z,850nm,12.0s
XAN    Xi'an            18.23 165  eP      P      18 24 08.8 +0.3
XAN                                 L      L
       comp=Z,820nm,11.0s
XAN                                 L      L
       comp=Z,2µm,11.0s
XAN                                 L      L
       comp=Z,1µm,13.7s
PDGK   Podgornoye       18.23 252   P      Pn     18 24 08.4  0.0
PDGK   Podgornoye       18.23 252          Pn     18 24 08.4  0.0
SHLS   Shalkode         18.35 251  eP      Pn     18 24 05.6 -4.2
SHLS   Shalkode         18.35 251  eP      Pn     18 24 05.7 -4.2
UZB    Uzynbulak        18.61 252  eP      P      18 24 11.4 -1.4
UZB    Uzynbulak        18.61 252  eP      P      18 24 11.4 -1.4
KPKS   Kokpek           18.63 253  eP      P      18 24 12.7 -0.2
KPKS   Kokpek           18.63 253  eP      P      18 24 12.7 -0.2
SATY   Saty             19.03 252  eP      P      18 24 16.8 -0.6
SATY   Saty             19.03 252  eP      P      18 24 16.9 -0.6
NRIK   Noril'sk         19.10 343   Pn     P      18 24 15.4 -2.4
       comp=Z,1.5nm,0.3s,baz=146,slow=6.8,SNR=6.1
NRIK                                Sn     Sn     18 27 51.5 -0.9
       comp=Z,0.7nm,0.3s,baz=78,slow=3.5,SNR=4.1
NRIK                                Lg     Lg     18 29 53.8
       comp=Z,0.9nm,0.3s,baz=105,slow=6.4,SNR=3.9
       comp=Z,30nm,1.0s
NRIK                                AML    AML
NRIK   Noril'sk         19.10 343   IAmb   IAmb   18 24 18.4
       comp=Z,62nm,1.2s
PRZ    Przheval'sk      19.38 251   P      Pn     18 24 22.4 +0.1
PRZ                                 pmax   pmax
       comp=Z,33nm,0.7s
PRZ    Przheval'sk      19.38 251   P      Pn     18 24 22.4 +0.1
PRZ                                 IAmb   IAmb   18 24 24.8
       comp=Z,33nm,0.7s
PRZ    Przheval'sk      19.38 251   P      Pn     18 24 22.2 -0.1
       comp=Z,78nm,0.8s
ANVS   Anan'yevo        19.63 253   P      P      18 24 24.5 +0.5
ANVS   Anan'yevo        19.63 253   P      P      18 24 24.5 +0.5
       comp=Z,38nm,1.2s
WUS    Wushi            19.72 247   P      Pn     18 24 26.2 -0.1
       comp=Z,28nm,2.7s
MDOK   Medeo            19.78 254  eP      P      18 24 25.7 +0.1
MDOK   Medeo            19.78 254  eP      P      18 24 25.8 +0.1
KUU    Kurty            19.79 257  eP      P      18 24 26.2 +0.6
KUU    Kurty            19.79 257  eP      P      18 24 26.3 +0.6
AAA    Alma-Ata         19.83 255  eP      P      18 24 26.5 +0.5
AAA    Alma-Ata         19.83 255  eP      P      18 24 26.5 +0.5
TNSS   Tian-Shan        19.91 254  eP      P      18 24 26.6 -0.7
TNSS   Tian-Shan        19.91 254  eP      P      18 24 26.7 -0.7
BVAR   Borovoye Array   20.12 286   P      P      18 24 28.8 -0.3
       comp=Z,18nm,0.8s,baz=79,slow=11,SNR=21
       comp=Z,18nm,0.8s
BORK   Borovoye         20.16 287ceP      P      18 24 30.0 +0.5
BORK                                pmax   pmax
       comp=Z,41nm,1.4s
BORK   Borovoye         20.16 287   P      P      18 24 30.1 +0.5
TARG   Taragay, Kyrgy   20.19 250   P      P      18 24 30.1 -0.3
TARG                                pmax   pmax
       comp=Z,19nm,1.2s
TARG   Taragay, Kyrgy   20.19 250   P      P      18 24 30.1 -0.3
TARG   Taragay, Kyrgy   20.19 250   P      P      18 24 30.9 +0.5
KDJ    Kajisay          20.31 252   P      P      18 24 32.5 +1.1
KDJ                                 pmax   pmax
       comp=Z,48nm,1.4s
KDJ    Kajisay          20.31 252   P      P      18 24 32.5 +1.1
KDJ                                 IAmb   IAmb   18 24 33.3
       comp=Z,48nm,1.4s
KDJ    Kajisay          20.31 252   P      P      18 24 31.3 -0.2
       comp=Z,22nm,0.9s
USRK   Ussuriysk Ar.    20.44 101   P      Pn     18 24 34.2 -0.4
       comp=Z,1.9nm,0.9s,baz=304,slow=8.5,SNR=9.4
USRK                                Lg     Lg     18 30 41.7
       comp=Z,0.2nm,0.3s,baz=300,slow=28,SNR=9.4
       comp=Z,1.9nm,0.9s
BOOM   Boomskoye usch   20.83 254   P      P      18 24 38.3 +1.2
BOOM                                pmax   pmax
       comp=Z,49nm,1.1s
BOOM   Boomskoye usch   20.83 254   P      P      18 24 38.3 +1.2
BOOM   Boomskoye usch   20.83 254   P      P      18 24 36.6 -0.5
       comp=Z,50nm,1.0s
SGDS   Sogindy          21.07 258  eP      P      18 24 39.4 -0.1
NRN    Naryn            21.44 252   P      P      18 24 45.2 +1.4
NRN                                 pmax   pmax
       comp=Z,15nm,0.8s
NRN    Naryn            21.44 252   P      P      18 24 45.2 +1.4
NRN                                 IAmb   IAmb   18 24 48.1
       comp=Z,15nm,0.8s
ASAI   AK-SAY(Kyrgyzs   21.46 250   P      P      18 24 44.7 +0.7
       comp=Z,39nm,1.4s
AAK    Ala-Archa        21.61 256   P      P      18 24 46.5 +1.0
       comp=Z,11nm,0.9s,baz=56,slow=5.3,SNR=5.2
       comp=Z,11nm,0.9s
AAK    Ala-Archa        21.61 256⇓eP      P      18 24 45.7 +0.2
AAK                                 pmax   pmax
       comp=Z,41nm,1.4s
AAK                                 MLR    MLR
       comp=Z,300nm,13.0s
AAK    Ala-Archa        21.61 256   P      P      18 24 47.2 +1.8
AAK                                 IAmb   IAmb   18 24 47.8
       comp=Z,35nm,1.2s
AAK    Ala-Archa        21.61 256   P      P      18 24 46.3 +0.9
       comp=Z,30nm,1.5s
ENH    Enshi            22.01 166          P      18 24 49.5 -0.1
ENH                                 IAmb   IAmb   18 24 50.3
       comp=Z,24nm,1.0s
ENH    Enshi            22.01 166   P      P      18 24 48.8 -0.8
       comp=Z,30nm,1.1s
KSRS   Korea Array      22.42 120   P      P      18 24 54.9 +1.0
       comp=Z,4.0nm,0.9s,baz=315,slow=11,SNR=16
KSRS                                Lg     Lg     18 31 47.8
       comp=Z,0.1nm,0.3s,baz=319,slow=28,SNR=4.1
KSRS                                LR     LR     18 35 02.2
       comp=Z,200nm,18.1s,baz=270,slow=40
       comp=Z,4.0nm,0.9s
WHN    Wuhan            22.75 155   P      P      18 24 58.1 +0.7
NJ2    Nanjing          22.75 144  eP      P      18 24 58.8 +1.3
NJ2                                 pmax   pmax
       comp=Z,22nm,0.8s
TIXI   Tiksi            22.86  20   P      P      18 24 59.2 +1.0
       comp=Z,5.2nm,0.3s,baz=242,slow=5.9,SNR=9.1
TIXI                                S      S      18 29 08.1 +0.1
       comp=Z,8.4nm,0.6s,baz=353,slow=18,SNR=3.2
       comp=Z,5.2nm,0.3s
TIXI   Tiksi            22.86  20⇑eP      P      18 24 57.5 -0.8
TIXI                                pmax   pmax
       comp=Z,107nm,2.4s
TIXI                                MLR    MLR
       comp=Z,399nm,14.0s
TIXI   Tiksi            22.86  20   P      P      18 24 59.6 +1.4
TJN    Taejon           22.93 123   P      P      18 24 59.4 +0.1
       comp=Z,141nm,2.0s
ARSB   Arslanbob        23.30 255   P      P      18 25 04.0 +0.7
ARSB                                pmax   pmax
       comp=Z,51nm,1.3s
ARSB   Arslanbob        23.30 255   P      P      18 25 04.0 +0.7
DZA    Taraz            23.39 260  eP      P      18 25 04.4 +0.3
DZA                                 pmax   pmax
       comp=Z,16nm,1.3s
DZA    Taraz            23.39 260  eP      P      18 25 04.5 +0.3
       comp=Z,16nm,1.3s
ARK    Arkit            23.63 257   P      P      18 25 07.8 +1.2
       comp=Z,39nm,1.3s
KKAR   Karatay Array    23.78 262   P      P      18 25 08.3 +0.4
KKAR   Karatay Array    23.78 262   P      P      18 25 08.3 +0.4
LSA    Lhasa            23.95 207   P      P      18 25 10.2 +0.1
       comp=Z,7.4nm,2.1s
BRLS   Borolday         24.23 262  eP      P      18 25 14.0 +1.9
BRLS   Borolday         24.23 262  eP      P      18 25 14.1 +1.9
TRKS   Terek-Say        24.29 258   P      P      18 25 13.6 +0.7
IUG    Iuzhnay          24.60 260  eP      P      18 25 15.9 +0.3
IUG                                 pmax   pmax
       comp=Z,26nm,1.8s
IUG    Iuzhnay          24.60 260  eP      P      18 25 15.9 +0.3
       comp=Z,26nm,1.8s
CHM    Chimkent         24.77 261  eP      P      18 25 16.8 -0.2
CHM                                 pmax   pmax
       comp=Z,18nm,1.2s
CHM    Chimkent         24.77 261  eP      P      18 25 16.9 -0.2
       comp=Z,18nm,1.2s
DRK    Karamyk          25.15 253   P      P      18 25 23.1 +2.2
DRK                                 pmax   pmax
       comp=Z,26nm,0.8s
DRK    Karamyk          25.15 253   P      P      18 25 23.1 +2.2
DRK    Karamyk          25.15 253   P      P      18 25 21.1 +0.2
       comp=Z,37nm,0.9s
PZH    PanZhiHua        25.34 184   P      P      18 25 24.8 +2.4
BTK    Batken           25.37 255   P      P      18 25 23.6 +1.0
BTK                                 pmax   pmax
       comp=Z,38nm,1.3s
BTK    Batken           25.37 255   P      P      18 25 23.6 +1.0
YSS    Yuzhno-Sakhali   25.78  85  eP      P      18 25 32.6 +6.5
ARTI   Arti             26.45 298   P      P      18 25 32.1  0.0
       comp=Z,4.3nm,0.4s,baz=94,slow=6.5,SNR=8.0
       comp=Z,4.3nm,0.4s
ARTI   Arti             26.45 298   P      P      18 25 31.8 -0.3
ARTI                                S      S      18 30 06.9 +0.8
EVN    Everest          26.95 214          P      18 25 36.7 -0.9
EVN                                 IAmb   IAmb   18 25 42.4
       comp=Z,22nm,1.3s
EVN    Everest          26.95 214   P      P      18 25 37.7 +0.2
       comp=Z,13nm,1.2s
NIL    Nilore           28.41 242   P      P      18 25 49.7 -0.2
       comp=Z,17nm,1.8s
JMN    Monobe           28.42 118   P      P      18 25 48.1 -1.9
       comp=Z,31nm,1.4s
MAJO   Matsushiro       28.88 108   P      P      18 25 52.8 -1.2
       comp=Z,4.2nm,1.1s
SSLB   Suanglung        31.05 148   P      P      18 26 12.5 -0.8
PETK   Petropavlovsk-   32.38  66   P      P      18 26 24.6 -0.2
       comp=Z,2.2nm,0.9s,baz=256,slow=6.0,SNR=3.9
       comp=Z,2.2nm,0.9s
PETK   Petropavlovsk-   32.38  66   P      P      18 26 24.4 -0.4
CHTO   Chiang Mai       33.16 188   P      P      18 26 31.5 -0.4
       comp=Z,6.8nm,2.1s
CMAR   Chiang Mai Arr   33.51 188   P      P      18 26 34.8 -0.1
       comp=Z,2.1nm,0.8s,baz=1.3,slow=7.4,SNR=16
       comp=Z,2.1nm,0.8s
CMAR   Chiang Mai Arr   33.51 188 i P      P      18 26 35.0 +0.1
CMAR                                pmax   pmax
       comp=Z,2.0nm,0.8s
CMAR   Chiang Mai Arr   33.51 188   P      P      18 26 33.8 -1.1
BILL   Bilibino         33.54  37⇓eP      P      18 26 36.6 +1.8
BILL                                pmax   pmax
       comp=Z,57nm,3.0s
BILL                                MLR    MLR
       comp=Z,655nm,16.0s
APA    Apatity          36.36 323  eP      P      18 26 55.6 -3.4
APA                                 pmax   pmax
       comp=Z,6.0nm,1.3s
APA                                 MLR    MLR
       comp=Z,2µm,9.3s
OBN    Obninsk          38.59 302  eP      P      18 27 19.8 +1.8
OBN                                e              18 29 30.2
OBN                                 pmax   pmax
       comp=Z,8.0nm,1.0s
OBN                                 MLR    MLR
       comp=Z,648nm,17.0s
ARCES  ARCESS Array B   38.77 327   P      P      18 27 18.8 -0.7
       comp=Z,2.1nm,0.8s,baz=61,slow=6.4,SNR=4.1
       comp=Z,2.1nm,0.8s
ARCES  ARCESS Array B   38.77 327   P      P      18 27 19.4 -0.1
ARCES                               pmax   pmax
       comp=Z,4.0nm,1.0s
ARCES  ARCESS Array B   38.77 327   P      P      18 27 19.4 -0.1
FINES  FINESS Array B   41.17 315   P      P      18 27 38.3 -1.1
       comp=Z,3.1nm,0.4s,baz=72,slow=8.4,SNR=45
       comp=Z,3.1nm,0.4s
FINES  FINESS Array B   41.17 315   P      P      18 27 38.5 -0.9
VSU    Vasula           42.11 310⇓eP      P      18 27 46.1 -1.0
VSU                                 pmax   pmax
       comp=Z,115nm,3.4s
AKASG  Malin Array Be   44.58 299   P      P      18 28 06.7 -0.6
       comp=Z,1.3nm,0.5s,baz=53,slow=9.1,SNR=7.6
       comp=Z,1.3nm,0.5s
AKASG  Malin Array Be   44.58 299 i P      P      18 28 06.6 -0.6
AKASG                               pmax   pmax
       comp=Z,2.0nm,0.4s
AKASG  Malin Array Be   44.58 299   P      P      18 28 07.2  0.0
HFS    Hagfors          47.15 317   P      P      18 28 26.4 -0.9
       comp=Z,1.0nm,0.5s,baz=77,slow=6.5,SNR=4.3
       comp=Z,1.0nm,0.5s
NB2    NORSAR Subarra   47.69 319   P      P      18 28 31.0 -0.6
       comp=Z,0.8nm,0.5s,baz=56,slow=7.9
NOA    NORSAR Array B   47.69 319   P      P      18 28 31.1 -0.6
       comp=Z,1.2nm,0.7s,baz=51,slow=7.9,SNR=3.8
       comp=Z,1.2nm,0.7s
BRTR   Keskin Array B   48.39 284   P      P      18 28 37.1 -0.4
       comp=Z,3.7nm,1.1s,baz=30,slow=6.7,SNR=7.1
       comp=Z,3.7nm,1.1s
BRTR   Keskin Array B   48.39 284 i P      P      18 28 38.0 +0.5
BRTR                                pmax   pmax
       comp=Z,3.0nm,1.1s
BRTR   Keskin Array B   48.39 284          P      18 28 34.7 -2.8
BURAR  Bucovina Array   48.49 298   P      P      18 28 38.3 +0.2
D25K   Kavik River      48.90  26   P      P      18 28 41.8 +0.9
D25K                                IAmb   IAmb   18 28 53.9
       comp=Z,8.8nm,1.2s
K17K   Iditarod         49.06  37   P      P      18 28 43.7 +1.6
K17K                                IAmb   IAmb   18 29 03.2
       comp=Z,4.5nm,0.9s
E24K   Your Creek       49.09  28   P      P      18 28 43.0 +0.6
E24K                                IAmb   IAmb   18 29 02.6
       comp=Z,8.0nm,1.3s
H21K   Melozitna Rive   49.24  32   P      P      18 28 44.1 +0.6
H21K                                IAmb   IAmb   18 28 53.9
       comp=Z,7.4nm,1.2s
J19K   Poorman          49.28  35   P      P      18 28 45.0 +1.2
C27K   Jago River       49.42  25   P      P      18 28 45.9 +1.2
F24K   Squaw Lake       49.62  29   P      P      18 28 47.7 +1.3
F24K                                IAmb   IAmb   18 28 54.3
       comp=Z,4.2nm,0.9s
J20K   Nowinta River    49.69  34   P      P      18 28 48.1 +1.3
COLA   College          51.35  31ceP      P      18 29 00.8 +1.4
COLA                                pmax   pmax
       comp=Z,24nm,2.2s
WRH    Wood River Hil   51.54  32   P      P      18 29 02.0 +1.2
WRH                                 IAmb   IAmb   18 29 09.3
       comp=Z,5.0nm,0.8s
PRP    Porcupine Dome   51.65  30   P      P      18 29 03.4 +1.5
PRP                                 IAmb   IAmb   18 29 10.4
       comp=Z,4.8nm,0.8s
ILAR   Eielson Array    51.73  31   P      P      18 29 03.4 +1.1
       comp=Z,4.3nm,0.9s,baz=309,slow=5.5,SNR=27
       comp=Z,4.3nm,0.9s
E29M   Blow River       51.79  24   P      P      18 29 03.8 +1.1
E29M                                IAmb   IAmb   18 29 10.7
       comp=Z,4.4nm,0.7s
RAYN   Ar Rayn          52.19 260   P      P      18 29 06.0 -0.3
RAYN                                pmax   pmax
       comp=Z,4.0nm,0.9s
RAYN   Ar Rayn          52.19 260          P      18 29 06.0 -0.3
CLL    Collm            52.61 308  eP      P      18 29 09.0  0.0
CLL    Collm            52.61 308  eP      P      18 29 09.0  0.0
DHY    Denali Highway   52.71  33   P      P      18 29 10.7 +0.9
DHY                                 IAmb   IAmb   18 29 11.3
       comp=Z,6.0nm,0.6s
K24K   Donnelly Dome    52.74  31   P      P      18 29 10.3 +0.5
K24K                                IAmb   IAmb   18 29 18.0
       comp=Z,16nm,1.4s
I27K   Kandik River     52.77  28   P      P      18 29 12.1 +2.1
G29M   Pine Creek       52.84  26   P      P      18 29 12.1 +1.6
F30M   Barrier River    52.91  24   P      P      18 29 12.7 +1.7
F30M                                IAmb   IAmb   18 29 13.3
       comp=Z,13nm,1.4s
GHO    Glory Hole Cre   53.06  35   P      P      18 29 12.8 +0.5
RIDG   Independent Ri   53.09  31   P      P      18 29 12.2 -0.2
RIDG                                IAmb   IAmb   18 29 13.2
       comp=Z,8.9nm,1.0s
GERES  GERESS Array B   53.82 305   P      P      18 29 18.3 +0.2
       comp=Z,0.4nm,0.2s,baz=54,slow=6.6,SNR=3.6
       comp=Z,0.4nm,0.2s
M27K   Edge Creek, AK   55.02  31   P      P      18 29 27.4 +0.8
GLB    Gilahina Butte   55.05  33   P      P      18 29 27.7 +0.9
GLB                                 IAmb   IAmb   18 29 37.2
       comp=Z,7.3nm,1.3s
K29M   Barlow Dome      55.26  28   P      P      18 29 29.8 +1.4
VRDI   Verde Repeater   55.33  33   P      P      18 29 29.9 +0.9
VRDI                                IAmb   IAmb   18 29 35.2
       comp=Z,12nm,1.3s
EKA    Eskdalemuir Ar   57.17 319   P      P      18 29 41.7 -0.3
       comp=Z,0.6nm,0.5s,baz=40,slow=6.7,SNR=5.7
       comp=Z,0.6nm,0.5s
BMRD   Maredsous        57.22 311  dP      P      18 29 42.6 +0.3
YKA    Yellowknife Ar   62.09  19   P      P      18 30 16.3 +0.6
       comp=Z,0.6nm,0.6s,baz=349,slow=5.8,SNR=2.2
       comp=Z,0.6nm,0.6s
ESDC   Sonseca Array    69.20 308   P      P      18 31 02.2 +0.1
       comp=Z,0.3nm,0.4s,baz=36,slow=5.7,SNR=4.3
       comp=Z,0.3nm,0.4s
ESDC   Sonseca Array    69.20 308   IAmb   IAmb   18 31 09.4
       comp=Z,4.3nm,1.2s
WRA    Warramunga Arr   76.40 150   P      P      18 31 43.2 -1.6
       comp=Z,1.0nm,0.7s,baz=345,slow=6.1,SNR=15
       comp=Z,1.0nm,0.7s
WRA    Warramunga Arr   76.40 150 i P      P      18 31 42.2 -2.6
WRA                                 pmax   pmax
       comp=Z,1.0nm,0.7s
WRA    Warramunga Arr   76.40 150   IAmb   IAmb   18 31 51.8
       comp=Z,0.2nm,1.1s
PLID   Pearl Lake       77.61  27          P      18 31 52.6 +0.8
PLID                                IAmb   IAmb   18 32 02.5
       comp=Z,3.2nm,0.9s
ASAR   Alice Springs    79.78 152   P      P      18 32 02.6 -0.9
       comp=Z,1.9nm,0.6s,baz=348,slow=5.9,SNR=38
       comp=Z,1.9nm,0.6s
PDAR   Pinedale Array   81.50  24   P      P      18 32 12.6 -0.4
       comp=Z,0.1nm,0.3s,baz=24,slow=5.0,SNR=4.0
       comp=Z,0.1nm,0.3s
```

IDC **21** *18:55:28.4±0.9, 57°.79N×153°.79W, h45km±11km, mb4.0/30, mbtmp4.3/35, ML4.1/5, Error ellipse: s-maj=18.5km s-min=11.6km az=175.0*

GFZ **21** *18:55:28.5±0.3, 58°N±6°×15°4W±°, h36km, M4.7/30, mb4.7/30, confirmed*

NEIC **21** *18:55:30.6±0.5, 57°.81N±0°.02×153°.64W±0°.05, h55km±12km, mb4.5/10, ML4.2/126, ML4.1(AEIC), Error ellipse: s-maj=4.7km s-min=2.4km az=128.0*

AEIC **21** *18:55:31.3±0.5, 57°.80N±0°.03×153°.63W±0°.09, h52km±8km, Error ellipse: s-maj=7.8km s-min=3.2km az=61.0*

ISC 21 18:55:29.6±0.6**, 57°.81N**±0°.04×**153°.55W**±0°.03**, h59**km±6km**, n293,** σ1s.19/279**, mb4.5**/78**, 1D, Kodiak Island region**

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Code   Station Name      Δ°   AZ°    Phase ID          Time      Res
                                    Op     ISC        h  m  s   ISC
KDAK   Kodiak Island     0.52  93   P      Pn     18 55 42.6 +1.0
       2µm,0.3s,baz=274,slow=5.8
KDAK                                S      Sn     18 55 51.8 +1.4
       2µm,0.3s,baz=11,slow=20,SNR=5.9
KDAK   Kodiak Island     0.52  93          Pn     18 55 42.9 +1.2
KDAK                                Sn     Sn     18 55 51.9 +1.4
KDAK                                IAML          18 55 52.9
       12µm,0.2s
KDAK   Kodiak Island     0.52  93   P      Pn     18 55 43.0 +1.3
KDAK                                S      Sn     18 55 52.9 +2.4
OHAK   Old Harbor        0.61 166   P      Pn     18 55 43.4 +0.7
OHAK   Old Harbor        0.61 166          Pn     18 55 43.5 +0.7
OHAK                                Sn     Sn     18 55 52.9 +0.7
OHAK                                IAML          18 55 53.2
       comp=N,15µm,0.7s
OHAK                                IAML          18 55 53.8
       comp=E,13µm,0.7s
KAHG   Katmai Hook Gl    0.86 323          Pn     18 55 46.6 +0.7
KAWH   Katmai            0.88 311          Pn     18 55 46.2 +0.1
KAWH                                       Sn     18 55 57.8 -0.3
MGLS   Mageik Landsli    0.92 291          Pn     18 55 46.6 +0.1
KARR   Katmai Rainbow    0.92 319          Pn     18 55 47.3 +0.7
KARR                                       Sn     18 55 59.1  0.0
KAKN   Katmai Knife C    0.94 302          Pn     18 55 46.9  0.0
KAKN                                       Sn     18 55 59.6  0.0
ACHA   Angle Creek He    1.02 294          Pn     18 55 48.1 +0.1
ACHA                                Sn     Sn     18 56 01.5 -0.1
KABU   Katmai Buttres    1.03 297          Pn     18 55 48.5 +0.5
Q19K   Cape Douglas,     1.12 358          Pn     18 55 50.3 +1.1
Q18K   Katmai Hardscr    1.14 318          Sn     18 56 04.4 +0.1
SII    Sitkinak Islan    1.30 196   P      Pn     18 55 52.1 +0.5
SII    Sitkinak Islan    1.30 196          Pn     18 55 52.3 +0.6
SII                                 IAML          18 56 08.5
       comp=N,6µm,0.6s
SII    Sitkinak Islan    1.30 196          Sn     18 56 08.1 -0.1
Q17K   Contact Creek     1.32 291          Pn     18 55 52.2 +0.2
Q17K                                       Sn     18 56 08.7  0.0
R17L   Mt. Peulik Vol    1.52 264          Pn     18 55 55.1 +0.6
R17L                                       Sn     18 56 13.7 +0.5
AUJK   Augustine Jueg    1.54   3          Sn     18 56 15.3 +1.5
AGU    Augustine-Summ    1.55   2          Pn     18 55 56.5 +1.4
AUCH   Augustine Cone    1.56   2          Pn     18 55 56.6 +1.5
AUF    Augustine Flow    1.58   2          Pn     18 55 56.8 +1.5
PLK1   Peulik 1          1.64 271          Pn     18 55 56.5 +0.5
PLBL   Peulik Blue Cr    1.75 268          Pn     18 55 58.6 +0.9
PLK5   Peulik 5          1.79 277          Pn     18 55 58.6 +0.5
P18K   Big Mountain,     1.81 332          Pn     18 55 58.9 +0.4
P18K                                       Sn     18 56 19.4 -1.0
P19K   Oil Pt            1.85   5          Pn     18 56 00.3 +1.3
P17K   Kvichak River     2.05 314          Sn     18 56 26.2 +0.1
P17K   Kvichak River     2.05 314          Pn     18 56 02.5 +0.8
P17K   Kvichak River     2.05 314   IAML          18 56 27.2
       comp=N,5µm,0.7s
P17K                                IAML          18 56 35.5
       comp=E,5µm,0.8s
CNPM   China Poot        2.10  34          Pn     18 56 03.7 +1.3
CNPM   China Poot        2.10  34          Sn     18 56 28.2 +0.8
CNPM   China Poot        2.10  34   IAML          18 56 29.1
       comp=N,977nm,0.6s
CNPM                                IAML          18 56 29.2
       comp=E,1µm,0.3s
HOM    Homer             2.10  27          Pn     18 56 03.9 +1.5
HOM                                 IAML          18 56 44.5
       comp=E,3µm,0.7s
HOM                                 IAML          18 56 46.7
       comp=N,2µm,0.9s
R16K   Pilot Point       2.17 265          Pn     18 56 03.7 +0.3
R16K   Pilot Point       2.17 265          Sn     18 56 27.3 -1.8
R16K                                IAML          18 56 30.6
       comp=E,2µm,0.9s
R16K                                IAML          18 56 47.3
       comp=N,2µm,1.1s
ILSW   Iliamna Southw    2.19   5          Pn     18 56 04.6 +1.0
ILSW                                IAML          18 56 30.1
       comp=E,1µm,0.5s
ILSW   Iliamna Southw    2.19   5          Sn     18 56 29.7 +0.1
O18K   Koktuh Hills      2.22 338          Sn     18 56 29.7 -0.7
O18K   Koktuh Hills      2.22 338          Pn     18 56 04.7 +0.7
O18K   Koktuh Hills      2.22 338   IAML          18 56 31.1
       comp=N,1µm,0.6s
O18K                                IAML          18 56 44.2
       comp=E,892nm,1.2s
ILIM   Iliamna           2.29   7          Pn     18 56 05.8 +0.7
CHIR   Chirikof Islan    2.30 211   P      Pn     18 56 04.7 -0.4
CHIR   Chirikof Islan    2.30 211          Pn     18 56 05.0 -0.1
BRLK   Bradley Lake      2.40  34          Sn     18 56 33.8 -0.8
BRLK   Bradley Lake      2.40  34          Pn     18 56 07.4 +1.0
BRLK                                IAML          18 56 34.7
       comp=E,2µm,0.3s
BRLK                                IAML          18 56 34.8
       comp=N,1µm,0.3s
O19K   Port Alsworth     2.42 351          Pn     18 56 07.7 +1.0
P16K   Nushagak River    2.63 299          Pn     18 56 10.4 +0.7
P16K                                IAML          18 56 56.9
       comp=N,821nm,0.7s
P16K                                IAML          18 56 58.9
       comp=E,1µm,0.6s
O16K   Kokwok River B    2.97 309          Pn     18 56 14.7 +0.6
N19K   Bonanza Creek     3.05 351          Pn     18 56 16.2 +0.9
CHGN   Chignik           3.06 242          Pn     18 56 15.8 +0.4
CHGN                                IAML          18 56 49.8
       comp=E,727nm,0.5s
CHGN                                IAML          18 56 49.8
       comp=N,650nm,0.2s
N18K   Kilae Creek       3.12 338          Pn     18 56 17.2 +0.9
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N18K				IAML		18 57 09.4	
	comp=E,473nm,0.8s						
SEW	**Seward**	**3.13**	**41**		**Pn**	**18 56 16.8**	**+0.4**
SEW				IAML		18 56 50.1	
	comp=N,782nm,0.6s						
SEW				IAML		18 56 50.7	
	comp=E,683nm,0.8s						
SLKM	**Skilak Lake**	**3.20**	**31**		**Pn**	**18 56 18.1**	**+0.6**
SLKM				IAML		18 56 56.5	
	comp=E,600nm,0.2s						
SLKM				IAML		18 56 57.4	
	comp=N,395nm,0.5s						
N17K	**Nushagak Hills**	**3.30**	**327**		**Pn**	**18 56 19.4**	**+0.7**
O22K	**Cooper Landing**	**3.32**	**35**		**Pn**	**18 56 19.7**	**+0.7**
O15K	**Ungalikthiuk R**	**3.56**	**295**		**Pn**	**18 56 23.1**	**+0.8**
VNFG	**Fog Glacier, M**	**3.62**	**247**		**Pn**	**18 56 23.5**	**+0.3**
VNFG	**Fog Glacier, M**	**3.62**	**247**		**Pn**	**18 56 24.0**	**+0.8**
VNFG				IAML		18 57 14.2	
	comp=E,914nm,1.0s						
VNFG				IAML		18 57 20.1	
	comp=N,760nm,0.6s						
STLK	**Strandline Lak**	**3.80**	**13**		**Pn**	**18 56 26.6**	**+1.0**
RC01	**Rabbit Creek A**	**3.82**	**29**		**Pn**	**18 56 26.5**	**+0.7**
RC01				IAML		18 57 12.3	
	comp=E,318nm,0.3s						
RC01				IAML		18 57 12.5	
	comp=N,270nm,0.3s						
P23K	**Montague Islan**	**3.87**	**53**		**Pn**	**18 56 27.1**	**+0.6**
SUA	**Susitna One**	**3.93**	**20**		**Pn**	**18 56 28.2**	**+0.7**
SUA	**Susitna One**	**3.93**	**20**	IAML		18 57 24.4	
	comp=N,333nm,0.9s						
PWL	**Port Wells**	**4.06**	**39**		**Pn**	**18 56 29.7**	**+0.5**
PWL				IAML		18 57 14.5	
	comp=E,427nm,0.8s						
M20K	**Styx River**	**4.09**	**3**		**Pn**	**18 56 31.0**	**+1.4**
M17K	**Holitna River**	**4.10**	**333**		**Pn**	**18 56 31.0**	**+1.3**
MID	**Middleton Isla**	**4.10**	**64**	Pn	**Pn**	**18 56 29.9**	**+0.2**
MID				IAML		18 57 15.7	
	comp=E,294nm,1.1s						
MID				IAML		18 57 20.7	
	comp=N,283nm,0.7s						
M19K	**Big River Lodg**	**4.12**	**354**		**Pn**	**18 56 31.0**	**+1.0**
N15K	**Kwethluk River**	**4.13**	**308**		**Pn**	**18 56 31.3**	**+1.3**
N15K				IAML		18 57 22.1	
	comp=E,194nm,0.6s						
M16K	**Timber Creek**	**4.24**	**322**	IAML		18 57 48.9	
	comp=E,179nm,1.1s						
SKT	**Skwentna**	**4.30**	**13**	IAML		18 57 23.1	
	comp=E,224nm,0.4s						
SKT				IAML		18 57 27.2	
	comp=N,178nm,0.4s						
PMR	**Palmer**	**4.40**	**29**	P	**Pn**	**18 56 33.8**	**0.0**
PMR	**Palmer**	**4.40**	**29**		**Pn**	**18 56 34.0**	**+0.2**
L19K	**White Mountain**	**4.43**	**352**	IAML		18 57 52.3	
	comp=N,169nm,0.9s						
L19K				IAML		18 57 57.2	
	comp=E,160nm,1.0s						
KNK	**Knik Glacier**	**4.44**	**33**	IAML		18 57 29.1	
	comp=N,166nm,0.5s						
KNK				IAML		18 57 31.3	
	comp=E,207nm,0.5s						
CHNA	**Chernabura Isl**	**4.50**	**231**	P	**Pn**	**18 56 34.6**	**-0.5**
CNBA	**Chernabura Isl**	**4.50**	**231**	IAML		18 57 30.0	
	comp=E,196nm,0.5s						
CNBA				IAML		18 57 31.8	
	comp=N,158nm,0.8s						
GLI	**Glacier Island**	**4.51**	**44**		**Pn**	**18 56 35.1**	**-0.2**
GLI	**Glacier Island**	**4.51**	**44**	IAML		18 57 23.6	
	comp=N,227nm,1.0s						
GLI				IAML		18 57 24.9	
	comp=E,285nm,0.5s						
SDPT	**Sand Point**	**4.56**	**240**	P	**Pn**	**18 56 36.0**	**+0.1**
SDPT	**Sand Point**	**4.56**	**240**	IAML		18 57 29.7	
	comp=N,303nm,0.8s						
SDPT				IAML		18 57 32.1	
	comp=E,353nm,0.6s						
GHO	**Glory Hole Cre**	**4.61**	**29**	IAML		18 57 29.8	
	comp=E,217nm,0.8s						
GHO				IAML		18 57 34.8	
	comp=N,222nm,0.5s						
FID	**Port Fidalgo**	**4.67**	**48**	IAML		18 57 27.8	
	comp=N,285nm,0.4s						
FID				IAML		18 57 28.0	
	comp=E,282nm,0.7s						
L20K	**Farewell, AK**	**4.68**	**358**	IAML		18 58 00.8	
	comp=E,135nm,0.9s						
L20K				IAML		18 58 18.2	
	comp=N,131nm,0.8s						
L18K	**Granite Mounta**	**4.69**	**342**	IAML		18 58 01.1	
	comp=E,189nm,1.1s						
N14K	**Kuskokwak Cree**	**4.72**	**300**	IAML		18 58 06.2	
	comp=E,214nm,1.1s						
N14K				IAML		18 58 28.2	
	comp=N,240nm,1.1s						
SML	**Sawmill**	**4.79**	**31**	IAML		18 57 52.3	
	comp=E,116nm,0.5s						
SML				IAML		18 57 53.8	
	comp=N,135nm,0.8s						
EYAK	**Cordova Ski Ar**	**4.86**	**52**	P	**Pn**	**18 56 40.3**	**+0.3**
EYAK	**Cordova Ski Ar**	**4.86**	**52**	IAML		18 57 33.0	
	comp=E,136nm,0.8s						
EYAK				IAML		18 57 33.5	
	comp=N,127nm,0.5s						
L16K	**Owhat River**	**4.92**	**325**	IAML		18 57 37.2	
	comp=E,108nm,0.7s						
SCM	**Sheep Creek Mo**	**5.11**	**35**	IAML		18 57 42.2	
	comp=N,187nm,0.5s						
SCM				IAML		18 57 45.1	
	comp=E,223nm,0.7s						
PPLA	**Purkeypile**	**5.14**	**7**	IAML		18 58 22.2	
	comp=E,92nm,1.1s						
DIV	**Divide**	**5.17**	**47**	IAML		18 57 43.1	
	comp=E,99nm,0.6s						
DIV				IAML		18 57 43.6	
	comp=N,161nm,0.5s						
KAIM	**Kayak Island**	**5.19**	**62**		**Pn**	**18 56 45.7**	**+1.1**
M14K	**Bethel**	**5.22**	**308**	IAML		18 58 34.5	
	comp=E,90nm,1.1s						
PN7A	**Pavlof North-7**	**5.24**	**246**		**Pn**	**18 56 45.7**	**+0.4**
KLU	**Klutina**	**5.34**	**43**	IAML		18 57 47.0	
	comp=N,165nm,0.4s						
KLU				IAML		18 57 48.0	
	comp=E,118nm,0.5s						
K17K	**Iditarod**	**5.46**	**336**		**Pn**	**18 56 48.9**	**+0.7**
PS12	**TAPS Pump St12**	**5.63**	**46**		**Pn**	**18 56 51.4**	**+0.8**
M13K	**Dall Lake**	**5.68**	**301**		**Pn**	**18 56 51.9**	**+0.6**
PS11	**TAPS Pump St11**	**5.89**	**40**		**Pn**	**18 56 55.4**	**+1.2**
RND	**Reindeer**	**6.07**	**20**	Pn	**Pn**	**18 56 57.2**	**+0.6**
DHY	**Denali Highway**	**6.10**	**27**		**Pn**	**18 56 57.3**	**+0.2**
CHUM	**Lake Minchumin**	**6.12**	**5**		**Pn**	**18 56 57.6**	**+0.3**
TGL	**Tana Glacier**	**6.24**	**57**	Pn	**Pn**	**18 56 59.8**	**+0.8**
WASW	**Wrangell South**	**6.27**	**45**		**Pn**	**18 57 00.2**	**+0.7**
WAZA	**Wrangell Mount**	**6.37**	**44**		**Pn**	**18 57 02.0**	**+1.1**
YAH	**Yahtse**	**6.60**	**62**		**Pn**	**18 57 05.1**	**+1.0**
M11K	**Mekoryuk**	**7.00**	**297**		**Pn**	**18 57 09.8**	**+0.4**
J14K	**Nanvaranak Lak**	**7.01**	**319**		**Pn**	**18 57 10.3**	**+0.9**
I17K	**Unalakleet**	**7.02**	**333**		**Pn**	**18 57 09.8**	**+0.3**
I20K	**Naaghedeneel**	**7.02**	**357**		**Pn**	**18 57 10.5**	**+0.9**
K24K	**Donnelly Dome**	**7.11**	**29**		**Pn**	**18 57 12.0**	**+1.2**
GCSA	**Galena City Sc**	**7.14**	**348**		**Pn**	**18 57 11.4**	**+0.2**
M27K	**Edge Creek, AK**	**7.40**	**47**		**Pn**	**18 57 16.0**	**+1.0**
O28M	**Mount Upton**	**7.45**	**61**		**Pn**	**18 57 17.0**	**+1.2**
YUK2	**White River**	**7.54**	**53**		**Pn**	**18 57 18.4**	**+1.5**
COLA	**College**	**7.59**	**19**	P	**Pn**	**18 57 17.1**	**-0.3**
COLA	**College**	**7.59**	**19**	P	**Pn**	**18 57 17.4**	**0.0**
	comp=Z,41nm,0.6s						
PNL	**Peninsula**	**7.60**	**70**	P	**Pn**	**18 57 17.6**	**+0.1**
ILAR	**Eielson Array**	**7.68**	**22**	P	**Pn**	**18 57 17.9**	**-0.8**
	comp=Z,6.0nm,0.3s,baz=207,slow=14,SNR=87						
ILAR				S	**Sn**	**18 58 40.0**	**-4.0**
	comp=Z,7.3nm,0.4s,baz=220,slow=26,SNR=6.0						
	comp=Z,14nm,0.5s						
ILAR				AML	AML		
YUK3	**Moose Creek**	**7.70**	**53**		**Pn**	**18 57 20.3**	**+1.2**
H18K	**Honhosa River**	**7.71**	**345**		**Pn**	**18 57 20.0**	**+0.9**
YUK8	**Steele Glacier**	**7.82**	**58**		**Pn**	**18 57 22.5**	**+1.8**
L27K	**Beaver Creek,**	**7.82**	**43**		**Pn**	**18 57 20.4**	**-0.2**
BVCY	**Beaver Creek**	**7.83**	**49**		**Pn**	**18 57 21.7**	**+0.9**
BC04	**Beaver Creek A**	**7.86**	**43**		**Pn**	**18 57 21.9**	**+0.8**
AKBBA	**Akutan Broad B**	**7.88**	**247**		**Pn**	**18 57 20.7**	**-0.7**
POKR	**Poker Plat Res**	**7.89**	**19**		**Pn**	**18 57 21.4**	**-0.1**
PS07	**TAPS Pump Stn7**	**7.93**	**16**		**Pn**	**18 57 21.7**	**-0.3**
O29M	**Mount Kennedy**	**8.11**	**66**		**Pn**	**18 57 25.8**	**+1.1**
H22K	**Ishtalitna Cre**	**8.17**	**6**		**Pn**	**18 57 25.2**	**-0.2**
IM03		**8.20**	**359**		**Pn**	**18 57 26.2**	**+0.6**
H23K	**Yukon River**	**8.26**	**12**		**Pn**	**18 57 26.0**	**-0.5**
PS06	**TAPS Pump Stn6**	**8.27**	**11**		**Pn**	**18 57 26.3**	**-0.3**
YUK6	**Outpost Mounta**	**8.36**	**62**		**Pn**	**18 57 29.3**	**+1.2**
G18K	**Tagagawik**	**8.46**	**346**		**Pn**	**18 57 28.8**	**-0.5**
G19K	**Purcell Mounta**	**8.52**	**350**		**Pn**	**18 57 29.5**	**-0.6**
G16K	**Koyuk River**	**8.68**	**335**		**Pn**	**18 57 32.5**	**+0.3**
HYT	**Haines Junctio**	**8.74**	**63**		**Pn**	**18 57 34.3**	**+1.0**
M29M	**Somme Creek**	**8.84**	**52**		**Pn**	**18 57 35.7**	**+1.1**
ANM	**Nome**	**8.84**	**325**		**Pn**	**18 57 35.9**	**+1.3**
N30M	**Aishikik Lake**	**9.10**	**59**		**Pn**	**18 57 38.6**	**+0.6**
PLBC	**Pleasant Camp**	**9.11**	**72**		**Pn**	**18 57 38.6**	**+0.4**
F19K	**Shaleruckik Mo**	**9.26**	**350**		**Pn**	**18 57 39.8**	**-0.4**
L29M	**L29M**	**9.27**	**49**		**Pn**	**18 57 41.1**	**+0.7**
DAWY	**Dawson**	**9.30**	**42**		**Pn**	**18 57 41.4**	**+0.6**
F20K	**Avaraart Lake**	**9.32**	**355**		**Pn**	**18 57 41.3**	**+0.3**
F17K	**Baldwin Pennin**	**9.37**	**341**		**Pn**	**18 57 42.4**	**+0.7**
F21K	**Alatna River**	**9.44**	**0**		**Pn**	**18 57 42.2**	**-0.6**
SKAG	**Skagway**	**9.64**	**72**	P	**Pn**	**18 57 46.1**	**+0.7**
F22K	**John River**	**9.75**	**3**		**Pn**	**18 57 46.2**	**-0.7**
SIT	**Sitka**	**9.86**	**87**	P	**Pn**	**18 57 47.3**	**-1.1**
K29M	**Barlow Dome**	**9.87**	**46**		**Pn**	**18 57 49.3**	**+0.7**
JIS	**Juneau Island**	**10.17**	**79**	P	**Pn**	**18 57 53.9**	**+1.3**
G27K	**Doyon Strip**	**10.56**	**26**		**Pn**	**18 57 57.1**	**-0.9**
D19K	**Kuna River**	**10.91**	**351**	Pn	**Pn**	**18 58 04.4**	**+1.6**
P33M	**Teslin, Yukon**	**10.95**	**69**		**Pn**	**18 58 03.6**	**+0.3**
H29M	**Whitestone**	**11.01**	**34**		**Pn**	**18 58 04.2**	**+0.2**
D20K	**Etivluk River**	**11.03**	**354**	Pn	**Pn**	**18 58 04.7**	**+0.4**
I30M	**Mount Dempster**	**11.03**	**41**		**Pn**	**18 58 06.5**	**+2.1**
D22K	**Ayikyak River**	**11.12**	**2**		**Pn**	**18 58 07.7**	**+2.2**
Q32M	**Nakina River**	**11.22**	**75**	Pn	**Pn**	**18 58 08.3**	**+1.1**
D23K	**Nanushuk River**	**11.27**	**5**	Pn	**Pn**	**18 58 07.8**	**+0.2**
U33K	**Whale Pass**	**11.28**	**90**		**Pn**	**18 58 06.8**	**-0.9**
CRAG	**Craig**	**11.48**	**93**	Pn	**Pn**	**18 58 09.2**	**-1.4**
G29M	**Pine Creek**	**11.59**	**32**		**Pn**	**18 58 11.8**	**-0.2**
WRAK	**Wrangell Islan**	**11.60**	**88**	Pn	**Pn**	**18 58 11.8**	**-0.4**
EPYK	**Eagle Plains**	**11.61**	**35**		**Pn**	**18 58 12.7**	**+0.4**
C19K	**Lookout Ridge**	**11.64**	**349**	Pn	**Pn**	**18 58 12.6**	**-0.1**
E27K	**Coleen River**	**11.71**	**22**		**Pn**	**18 58 12.2**	**-1.4**
C16K	**Lisburne Hills**	**11.75**	**338**	Pn	**Pn**	**18 58 16.0**	**+1.8**
R33M	**Jennings River**	**11.87**	**73**		**Pn**	**18 58 17.2**	**+1.2**
S34M	**Telegraph Cree**	**11.93**	**80**	Pn	**Pn**	**18 58 18.4**	**+1.7**
D25K	**Kavik River**	**11.97**	**12**		**Pn**	**18 58 16.8**	**-0.4**
MMPY	**Sheldon Lake,**	**12.05**	**57**		**Pn**	**18 58 19.4**	**+1.1**
H31M	**Peel River**	**12.06**	**40**		**Pn**	**18 58 19.6**	**+1.2**
V35K	**Ketchikan**	**12.34**	**92**	Pn	**Pn**	**18 58 21.9**	**-0.3**
DLBC	**Dease Lake**	**12.44**	**77**	P	**Pn**	**18 58 25.9**	**+2.3**
	comp=Z,1.0nm,0.3s,baz=253,slow=7.2,SNR=10						
DLBC				S	**Sn**	**19 00 36.4**	**-4.0**
	comp=Z,1.9nm,0.5s,baz=126,slow=19,SNR=3.3						
	comp=Z,2.9nm,0.4s						
DLBC				AML	AML		
E28M	**Babbage River**	**12.49**	**24**	Pn	**Pn**	**18 58 24.7**	**+0.5**
H02S1	**DAWSON INLET T**	**12.78**	**102**	P	**Pn**	**18 58 27.9**	**-0.4**
	SNR=27						
H02S1				S	**Sn**	**19 00 43.2**	**-5.5**
H02S2	**DAWSON INLET T**	**12.78**	**102**	P	**Pn**	**18 58 28.2**	**-0.1**
	SNR=27						
H02S2				S	**Sn**	**19 00 43.4**	**-5.4**
	SNR=13						
ATKA	**Atka Island**	**13.09**	**253**	P	**Pn**	**18 58 31.6**	**-0.8**
INK	**Inuvik**	**13.80**	**32**	P	**Pn**	**18 58 42.3**	**+0.2**
	comp=Z,0.4nm,0.3s,baz=231,slow=12,SNR=13						
	comp=Z,11nm,0.8s						
INK				AML	AML		
INK	**Inuvik**	**13.80**	**32**	P	**Pn**	**18 58 42.1**	**0.0**
	comp=Z,27nm,0.8s						
ADK	**Adak**	**14.54**	**256**	P	**Pn**	**18 58 51.4**	**-0.5**
BBB	**Bella Bella**	**15.59**	**100**	P	**Pn**	**18 59 05.4**	**0.0**
	comp=Z,0.2nm,0.3s,baz=249,slow=22,SNR=1.3						
BBB				S	**Sn**	**19 01 52.0**	**-4.9**
	comp=Z,3.8nm,0.8s,baz=105,slow=16,SNR=4.7						
	comp=Z,3.8nm,0.9s						
BBB				AML	AML		
BBB	**Bella Bella**	**15.59**	**100**	IAmb	IAmb	18 59 30.5	
	comp=Z,24nm,1.3s						
YKA	**Yellowknife Ar**	**19.71**	**60**	P	**Pn**	**18 59 55.0**	**-0.7**
	comp=Z,0.8nm,0.3s,baz=272,slow=10,SNR=15						
	comp=Z,7.2nm,0.5s						
YKA				AML	AML		
SEY	**Seymchan**	**26.51**	**304**	P	**P**	**19 01 00.1**	**-1.0**
	comp=Z,1.8nm,0.6s,baz=84,slow=17,SNR=3.7						
	comp=Z,1.8nm,0.6s						
PETK	**Petropavlovsk-**	**27.54**	**281**	P	**P**	**19 01 08.8**	**-1.7**
	comp=Z,2.0nm,0.6s,baz=68,slow=13,SNR=10						
	comp=Z,2.0nm,0.6s						
NVAR	**Mina Array Bea**	**29.98**	**115**	P	**P**	**19 01 33.4**	**+0.9**
	comp=Z,0.2nm,0.5s,baz=323,slow=10,SNR=1.5						
	comp=Z,0.2nm,0.5s						
YAK	**Yakutsk**	**36.61**	**310**	P	**P**	**19 02 28.0**	**-1.6**
	comp=Z,12nm,0.6s,baz=69,slow=1.5,SNR=13						
	comp=Z,12nm,0.6s						
YAK	**Yakutsk**	**36.61**	**310**	P	**P**	**19 02 27.9**	**-1.6**
	comp=Z,15nm,0.7s						
JKA	**Kamikawa-asahi**	**40.90**	**279**	P	**P**	**19 03 05.2**	**-0.5**
	comp=Z,17nm,1.6s						
ASAJ	**Asahikawa**	**40.90**	**279**	P	**P**	**19 03 04.6**	**-1.1**
	comp=Z,5.8nm,0.7s,baz=95,slow=12,SNR=10						
	comp=Z,5.8nm,0.7s						
JEM	**Erimo**	**42.05**	**276**	P	**P**	**19 03 15.3**	**+0.2**
ERM	**Erimo**	**42.05**	**276**	P	**P**	**19 03 15.2**	**+0.1**
ERM	**Erimo**	**42.05**	**276**	P	**P**	**19 03 14.8**	**-0.3**
	comp=Z,16nm,1.2s						
DAG	**Danmarks Havn**	**42.69**	**14**	P	**P**	**19 03 19.9**	**+0.1**
KLR	**Kul'dur**	**43.07**	**292**	P	**P**	**19 03 22.6**	**-0.7**
	comp=Z,7.2nm,0.7s,baz=59,slow=8.5,SNR=20						
	comp=Z,7.2nm,0.7s						
TXAR	**Lajitas Array**	**44.53**	**108**	P	**P**	**19 03 36.6**	**+1.3**
	comp=Z,0.2nm,0.5s,baz=329,slow=8.2,SNR=1.6						
SCHQ	**Schefferville**	**45.03**	**55**	P	**P**	**19 03 39.8**	**+0.9**
	comp=Z,4.5nm,0.9s,baz=315,slow=7.1,SNR=2.1						
	comp=Z,4.5nm,0.9s						
SCHQ	**Schefferville**	**45.03**	**55**	IAmb	IAmb	19 04 15.0	
	comp=Z,20nm,1.5s						
NRIK	**Noril'sk**	**45.74**	**334**	P	**P**	**19 03 43.4**	**-0.9**
	comp=Z,3.1nm,0.5s,baz=46,slow=7.6,SNR=4.5						
	comp=Z,3.1nm,0.5s						
NRIK	**Noril'sk**	**45.74**	**334**	IAmb	IAmb	19 03 55.1	
	comp=Z,4.1nm,0.8s						
USRK	**Ussuriysk Ar.**	**46.37**	**287**	P	**P**	**19 03 47.4**	**-2.2**
	comp=Z,0.8nm,0.4s,baz=63,slow=8.9,SNR=1.5						
	comp=Z,0.8nm,0.4s						
BNX	**BinXian**	**47.61**	**291**	⇓P	**P**	**19 03 58.6**	**-0.6**
BNX				pmax	pmax		
	comp=Z,5.0nm,0.5s						
HILR	**Hailar Array B**	**48.62**	**300**	P	**P**	**19 04 06.4**	**-0.6**
	comp=Z,1.1nm,0.4s,baz=40,slow=10.0,SNR=2.2						
	comp=Z,1.1nm,0.4s						
MJAR	**Matsushiro Arr**	**48.66**	**275**	P	**P**	**19 04 07.2**	**-0.3**
	comp=Z,1.3nm,0.6s,baz=50,slow=6.9,SNR=10						
	comp=Z,1.3nm,0.6s						
MAJO	**Matsushiro**	**48.66**	**275**	P	**P**	**19 04 09.1**	**+1.7**
MAJO	**Matsushiro**	**48.66**	**275**	P	**P**	**19 04 06.6**	**-0.8**
	comp=Z,8.9nm,1.1s						
JGF	**Kuroka**	**49.82**	**275**	P	**P**	**19 04 16.9**	**+0.6**
JGF	**Kuroka**	**49.82**	**275**	P	**P**	**19 04 16.5**	**+0.1**
	comp=Z,11nm,1.7s						
ARCES	**ARCESS Array B**	**52.95**	**0**	P	**P**	**19 04 38.8**	**-0.5**
	comp=Z,0.7nm,0.4s,baz=12,slow=9.3,SNR=5.2						
	comp=Z,0.7nm,0.4s						
KSRS	**Korea Array**	**53.40**	**284**	P	**P**	**19 04 43.1**	**+0.2**
	comp=Z,4.0nm,0.9s,baz=41,slow=6.5,SNR=12						
	comp=Z,4.0nm,0.9s						
SONM	**Songino Array**	**55.86**	**307**	P	**P**	**19 05 01.3**	**+0.5**
	comp=Z,5.9nm,0.5s,baz=47,slow=6.5,SNR=41						
	comp=Z,5.9nm,0.5s						
SONM	**Songino Array**	**55.86**	**307**	IAmb	IAmb	19 05 02.0	
	comp=Z,5.8nm,0.7s						
HHC	**Hu-ho-hao-te**	**58.95**	**298**	*e*P	**P**	**19 05 21.9**	**-0.7**
HHC				pmax	pmax		
	comp=Z,12nm,0.8s						
HHC				pmax	pmax		
	comp=Z,58nm,4.1s						
ZALV	**Zalesovo Beam**	**58.98**	**324**	P	**P**	**19 05 22.3**	**-0.1**
	comp=Z,2.7nm,0.7s,baz=26,slow=8.2,SNR=11						
	comp=Z,2.7nm,0.7s						
NB2	**NORSAR Subarra**	**60.88**	**8**	P	**P**	**19 05 36.3**	**+0.8**
	comp=Z,0.7nm,0.6s,baz=351,slow=6.9						
NOA	**NORSAR Array B**	**60.88**	**8**	P	**P**	**19 05 35.6**	**+0.2**
	comp=Z,1.0nm,0.7s,baz=352,slow=6.8,SNR=4.4						
	comp=Z,1.0nm,0.7s						
FINES	**FINESS Array B**	**61.08**	**0**	P	**P**	**19 05 37.2**	**+0.5**
	comp=Z,1.3nm,0.4s,baz=5.4,slow=8.5,SNR=12						
	comp=Z,1.3nm,0.4s						
HFS	**Hagfors**	**61.97**	**7**	P	**P**	**19 05 42.9**	**+0.2**
	comp=Z,1.4nm,0.4s,baz=42,slow=4.6,SNR=13						
	comp=Z,1.4nm,0.4s						
ARBE	**Arbavere**	**63.09**	**0**	P	**P**	**19 05 48.1**	**-2.1**
	comp=Z,436nm,0.8s						
LYN	**LuoYang**	**63.50**	**293**	P	**P**	**19 05 53.8**	**+0.5**
LYN				pmax	pmax		
	comp=Z,27nm,0.7s						
KURK	**Kurchatov**	**63.68**	**326**	IAmb	IAmb	19 05 54.7	
	comp=Z,2.2nm,0.5s						
KURK	**Kurchatov**	**63.68**	**326**	P	**P**	**19 05 54.0**	**-0.3**
	comp=Z,4.5nm,2.1s						
KURBB	**Kurchatov Arra**	**63.79**	**326**	P	**P**	**19 05 54.4**	**-0.6**
	comp=Z,1.7nm,0.5s,baz=27,slow=6.5,SNR=29						
	comp=Z,1.7nm,0.5s						
BVAR	**Borovoye Array**	**63.87**	**332**	P	**P**	**19 05 54.9**	**-0.6**
	comp=Z,4.2nm,0.6s,baz=26,slow=6.1,SNR=21						
	comp=Z,4.2nm,0.6s						
EKA	**Eskdalemuir Ar**	**64.70**	**18**	P	**P**	**19 06 01.8**	**+0.9**
	comp=Z,1.1nm,0.4s,baz=330,slow=5.3,SNR=17						
	comp=Z,1.1nm,0.4s						
GTA2	**Gaotai**	**65.42**	**305**	P	**P**	**19 06 05.6**	**-0.3**
GTA2				pmax	pmax		
	comp=Z,13nm,0.8s						
MKAR	**Makanchi Array**	**65.97**	**322**	P	**P**	**19 06 08.7**	**-0.5**
	comp=Z,3.2nm,0.5s,baz=33,slow=6.8,SNR=50						
	comp=Z,3.2nm,0.5s						
MAKZ	**Makanchi**	**66.06**	**322**	P	**P**	**19 06 09.7**	**-0.1**
	comp=Z,7.5nm,1.1s						
LZH	**Lanzhou**	**66.38**	**300**	*e*P	**P**	**19 06 12.3**	**+0.1**
LZH				pmax	pmax		
	comp=Z,14nm,1.1s						
LZH				L	L		
	comp=Z,200nm,13.1s						
LZDM	**Lanzhou Array**	**66.55**	**300**	P	**P**	**19 06 13.2**	**-0.3**
	comp=Z,1.3nm,0.3s,baz=20,slow=4.6,SNR=2.1						
	comp=Z,1.3nm,0.3s						
PABE	**Paberze**	**67.02**	**2**	P	**P**	**19 06 16.6**	**+0.9**
	comp=Z,18nm,0.9s						
GOMU	**GeErMu**	**70.30**	**307**	P	**P**	**19 06 36.4**	**-0.6**
GOMU				pmax	pmax		
	comp=Z,10.0nm,0.8s						
RCHB	**Rochefort**	**70.98**	**14**	P	**P**	**19 06 41.8**	**+1.4**
	comp=Z,4.0nm,1.3s						
UPC	**Upice**	**71.70**	**7**	P	**P**	**19 06 46.5**	**+1.8**
AK21	**Malin Array Si**	**71.75**	**358**	P	**P**	**19 06 45.2**	**+0.2**
KDJ	**Kajisay**	**71.79**	**323**	P	**P**	**19 06 46.6**	**+0.9**
	comp=Z,11nm,1.1s						
AKASG	**Malin Array Be**	**71.82**	**358**	P	**P**	**19 06 45.7**	**+0.2**
	comp=Z,3.2nm,0.4s,baz=7.0,slow=5.9,SNR=22						
	comp=Z,3.2nm,0.4s						
AKASG	**Malin Array Be**	**71.82**	**358**	IAmb	IAmb	19 06 46.2	
	comp=Z,3.9nm,1.2s						
AKBB	**Malin Array Si**	**71.82**	**358**	P	**P**	**19 06 44.7**	**-0.7**
KIEV	**Kiev**	**71.83**	**358**	P	**P**	**19 06 45.4**	**-0.1**
	comp=Z,11nm,0.6s						
AK01	**Malin Array Si**	**71.83**	**358**	P	**P**	**19 06 45.5**	**0.0**
AK17	**Malin Array Si**	**71.84**	**358**	P	**P**	**19 06 45.4**	**-0.2**
BOOM	**Boomskoye usch**	**71.86**	**324**	P	**P**	**19 06 46.8**	**+0.7**
	comp=Z,13nm,0.7s						
TARG	**Taragay, Kyrgy**	**71.94**	**322**	P	**P**	**19 06 48.5**	**+1.7**
	comp=Z,7.3nm,0.7s						
WUS	**Wushi**	**71.95**	**321**	P	**P**	**19 06 47.6**	**+1.1**
	comp=Z,11nm,1.0s						
AAK	**Ala-Archa**	**72.18**	**325**	P	**P**	**19 06 48.5**	**+0.6**
	comp=Z,5.5nm,0.7s						
KRLC	**Kraliky**	**72.18**	**7**	P	**P**	**19 06 49.4**	**+1.8**
	comp=Z,8.4nm,2.2s						
LUBAR	**Lubar, Ukraine**	**72.62**	**359**	P	**P**	**19 06 50.4**	**+0.2**
TREC	**Trest**	**72.87**	**7**	P	**P**	**19 06 53.6**	**+1.8**
STHS	**Stebnicka Huta**	**73.05**	**4**	*e*P	**P**	**19 06 54.1**	**+1.3**
ASAI	**AK-SAY(Kyrgyzs**	**73.09**	**323**	P	**P**	**19 06 55.2**	**+1.6**
	comp=Z,5.9nm,1.0s						
ECH	**Echery**	**73.14**	**13**	P	**P**	**19 06 54.6**	**+1.3**
	comp=Z,4.7nm,1.0s						
GERES	**GERESS Array B**	**73.19**	**9**	P	**P**	**19 06 54.8**	**+1.1**
	comp=Z,0.9nm,0.5s,baz=343,slow=4.2,SNR=10						
	comp=Z,0.9nm,0.5s						
ARK	**Arkit**	**73.71**	**326**	P	**P**	**19 06 57.3**	**+0.3**
	comp=Z,3.4nm,0.7s						
VYHS	**Vyhne**	**73.87**	**5**	*e*P	**P**	**19 06 59.9**	**+2.3**
CONA	**Conrad Observa**	**74.26**	**7**	*i* P	**P**	**19 07 01.8**	**+1.8**
	comp=Z,1.1nm,0.5s						
TRPA	**Tarpa**	**74.37**	**3**	P	**P**	**19 07 02.0**	**+1.5**
	comp=Z,6.1nm,1.3s						
RONA	**Rosalia, Austr**	**74.52**	**7**	*i* P	**P**	**19 07 03.5**	**+2.1**
	comp=Z,1.3nm,0.5s						
WTTA	**Wattenberg**	**74.57**	**10**	*i* P	**P**	**19 07 04.4**	**+2.4**
	comp=Z,2.4nm,0.5s						
SQTA	**Sankt Quirin**	**74.57**	**11**	*i* P	**P**	**19 07 04.3**	**+2.4**
	comp=Z,2.5nm,0.8s						
KBA	**Koelnbreinsper**	**74.91**	**9**	*i* P	**P**	**19 07 06.0**	**+2.1**
	comp=Z,3.4nm,0.5s						
KBA	**Koelnbreinsper**	**74.91**	**9**	P	**P**	**19 07 05.3**	**+1.4**
KSH2	**Kashi**	**75.01**	**323**	P	**P**	**19 07 05.4**	**+0.8**
KSH2				pmax	pmax		
	comp=Z,12nm,0.7s						
MPLH	**Magyarpolny**	**75.12**	**6**	P	**P**	**19 07 07.2**	**+2.3**
	comp=Z,4.5nm,0.8s						
ABTA	**Abfaltersbach**	**75.16**	**10**	*e*P	**P**	**19 07 08.0**	**+2.7**
	comp=Z,1.2nm,0.5s						
MYKA	**Terra Mystica**	**75.38**	**9**	*i* P	**P**	**19 07 08.9**	**+2.4**
	comp=Z,1.2nm,0.6s						
SOKA	**Soboth**	**75.44**	**8**	*i* P	**P**	**19 07 09.1**	**+2.2**
	comp=Z,1.5nm,0.7s						
OBKA	**Obir**	**75.57**	**8**	*e*P	**P**	**19 07 09.3**	**+1.7**
	comp=Z,5.1nm,0.5s						
OBKA	**Obir**	**75.57**	**8**	P	**P**	**19 07 09.6**	**+1.9**
	comp=Z,13nm,0.6s						
BTK	**Batken**	**75.65**	**326**	P	**P**	**19 07 08.9**	**+0.7**
	comp=Z,6.6nm,1.0s						
DRK	**Karamyk**	**75.89**	**325**	P	**P**	**19 07 10.7**	**+0.9**
	comp=Z,10nm,0.8s						
CGRP	**Cima Grappa**	**75.96**	**10**	P	**P**	**19 07 10.9**	**+1.0**
	comp=Z,3.9nm,0.9s						
LSA	**Lhasa**	**77.44**	**306**	P	**P**	**19 07 20.2**	**+1.3**
	comp=Z,14nm,0.7s						
KBZ	**Khabaz**	**77.89**	**348**	P	**P**	**19 07 21.9**	**+1.3**
	comp=Z,4.2nm,0.8s,baz=352,slow=6.1,SNR=7.9						
	comp=Z,4.2nm,0.8s						
BBLS	**Lazi&#263i**	**78.52**	**5**	P	**P**	**19 07 25.6**	**+1.5**
	comp=Z,4.5nm,1.4s						
SLVN	**Son La**	**78.63**	**292**	P	**P**	**19 07 25.8**	**+0.7**
	comp=Z,8.8nm,1.9s						
ESDC	**Sonseca Array**	**79.58**	**23**	P	**P**	**19 07 31.1**	**+1.1**
	comp=Z,0.4nm,0.5s,baz=11,slow=5.7,SNR=4.7						
	comp=Z,0.4nm,0.5s						
PDG	**Podgorica**	**79.94**	**5**	P	**P**	**19 07 32.5**	**+0.7**
	comp=Z,5.4nm,0.8s						
NIL	**Nilore**	**80.78**	**322**	P	**P**	**19 07 37.5**	**+0.9**
	comp=Z,14nm,0.8s						
EVN	**Everest**	**80.80**	**309**	P	**P**	**19 07 38.3**	**+0.8**
	comp=Z,8.2nm,0.9s						
GRG	**Griva**	**81.53**	**3**	P	**P**	**19 07 42.0**	**+1.6**
	comp=Z,12nm,1.2s						
BRTR	**Keskin Array B**	**82.64**	**354**	P	**P**	**19 07 47.0**	**+0.6**
	comp=Z,0.9nm,0.6s,baz=341,slow=4.0,SNR=5.6						
	comp=Z,0.9nm,0.6s						
CMAR	**Chiang Mai Arr**	**83.51**	**294**	P	**P**	**19 07 51.0**	**0.0**
	comp=Z,2.4nm,0.7s,baz=12,slow=5.5,SNR=17						
	comp=Z,2.4nm,0.7s						
WRA	**Warramunga Arr**	**97.57**	**245**	P	**P**	**19 08 56.4**	**-0.8**
	comp=Z,0.2nm,0.6s,baz=32,slow=4.8,SNR=1.3						
	comp=Z,0.2nm,0.6s						
QSPA	**South Pole Qui**	**147.60**	**180**	PKPbc	**PKPdf**	**19 15 03.4**	**+0.6**
	comp=Z,0.6nm,0.9s,baz=113,slow=1.0,SNR=3.2						

SCB ***21*** *18:56:39.8±1.0, 18°.51S×66°.13W, h27^{km}±3^{km}, MB4.4, ML3.5/2, Error ellipse: s-maj=2.7km s-min=2.7km az=2.0*

IDC ***21*** *18:56:44.5±2.9, 18°.78S×66°.07W, h60^{km}±28^{km}, mb3.6/1, mbtmp4.0/4, ML4.2/3, Error ellipse: s-maj=32.5km s-min=13.6km az=20.0*

ISC 21 18:56:44.6±1.1**, 18°.50S**±0°.06×**66°.01W**±0°.04**, h35^{km}, n15, σ2^{s}.49**/18**, Central Bolivia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SOET	**ToroToro**	**0.42**	**27**	Pg	Pn	18 56 49.8	-4.8
SOET				Sg	**Sn**	**18 56 58.2**	**-3.1**
SOET				IAML		18 56 59.0	
	2µm,0.5s						
AOEA	**Aiquile**	**0.80**	**67**	Pg	**Pn**	**18 56 57.6**	**-2.1**
AOEA				Sg	**Sn**	**18 57 11.2**	**+0.6**
AOEA				IAML		18 57 18.0	
	2µm,0.5s						
SOEO	**Opoqueri**	**1.78**	**268**	Pg	**Pn**	**18 57 11.0**	**-2.4**
BBOJ	**La Paz, Jacaqu**	**2.57**	**306**	Pn	**Pn**	**18 57 24.4**	**+0.1**
SOEJ	**Jacaque**	**2.57**	**306**	Pn	**Pn**	**18 57 24.2**	**-0.1**
MOCB	**Mochara**	**2.76**	**173**	Pn	**Pn**	**18 57 28.1**	**+1.2**

LPAZ	La Paz	2.99	317	P	Pn	18 57 30.9	+0.8
	34nm,0.3s,baz=133,slow=14,SNR=335						
LPAZ				S	Sn	18 58 10.4	+5.4
	100nm,0.5s,baz=2.7,slow=19,SNR=7.1						
	104nm,0.4s						
LPAZ				AML	AML		
BBOD	La Paz, Gloria	3.08	306	Pn	Pn	18 57 31.3	-0.1
BBOB	La Paz, Bander	3.10	319	Pn	Pn	18 57 32.0	+0.5
PB16	IPOC Station P	3.33	272	Pn	Pn	18 57 34.1	-0.6
YJA	Yavi	3.69	173	Pn	Pn	18 57 41.2	+1.6
SIV	San Ignacio	5.33	63	P	Pn	18 58 03.1	+1.3
	0.7nm,0.3s,baz=258,slow=12,SNR=54						
SIV				S	Sn	18 59 07.4	+5.2
	8.0nm,0.3s,baz=319,slow=19,SNR=7.1						
	19nm,0.5s						
SIV				AML	AML		
SIV	San Ignacio	5.33	63	Pn	Pn	18 58 03.4	+1.5
CPUP	Villa Florida	11.19	136	P	Pn	18 59 20.4	-1.7
	0.2nm,0.3s,baz=308,slow=17,SNR=1.9						
	0.9nm,0.4s						
CPUP				AML	AML		
TORD	Torodi Ar. Bea	73.77	70	P	P	19 08 13.8	-2.1
	0.7nm,0.5s,baz=246,slow=6.8,SNR=5.5						
	0.7nm,0.5s						

IDC 21 19:08:29.6±2.3, 6°.10N×124°.56E, h0^{km}, mb3.5/4, mbtmp3.5/4, Error ellipse: s-maj=274.6km s-min=21.2km az=65.0, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	27.61	160	P	P	19 14 18.3	-0.7
	0.3nm,0.5s,baz=339,slow=9.8,SNR=7.9						
	0.3nm,0.5s						
ASAR	Alice Springs	30.96	163	P	P	19 14 49.4	+0.6
	0.3nm,0.5s,baz=342,slow=8.3,SNR=13						
	0.3nm,0.5s						
MKAR	Makanchi Array	54.39	325	P	P	19 17 58.8	+0.4
	0.4nm,0.5s,baz=124,slow=8.0,SNR=9.7						
	0.4nm,0.5s						
KURBB	Kurchatov Arra	58.59	328	P	P	19 18 27.7	-0.6
	0.5nm,0.7s,baz=126,slow=6.4,SNR=5.4						
	0.5nm,0.7s						

IDC 21 19:23:40.7±2.3, 1°.87N×127°.58E, h0^{km}, mb3.4/3, mbtmp3.4/4, ML3.5/1, Error ellipse: s-maj=137.5km s-min=26.9km az=69.0
DJA 21 19:23:47.5±0.3, 1°N±4°×12°6E±°, h10^{km}, M3.3/10, MLv3.3/10, MLv3.3/10
ISC 21 19:23:46.1±1.1, 1°.2N±0°.1×126°.02E±0°.07, h10^{km}, n9, σ2^{s}.31/10, mb3.5/3, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MNI	Manado	1.20	281	P	Pb	19 24 09.1	+0.1
MNI				S	Sb	19 24 23.8	-0.8
TNTI	Ternate	1.42	108	P	Pn	19 24 13.7	+1.7
TNTI				AML	AML		
TNTI				AML	AML		
GTOI	Gorontalo	3.06	259	P	Pn	19 24 36.1	+1.5
GTOI				AML	AML		
GTOI				AML	AML		
SANI	Sanana	3.25	181	P	Pn	19 24 36.6	-0.6
SANI				AML	AML		
SANI				AML	AML		
LUWI	Luwuk	3.95	235	P	Pn	19 24 48.3	+1.5
LUWI				AML	AML		
LUWI				AML	AML		
FITZ	Fitzroy Crossi	19.20	181	P	Pn	19 28 14.9	+3.7
	0.1nm,0.3s,baz=13,slow=9.0,SNR=1.4						
	1.5nm,0.8s						
FITZ				AML	AML		
WRA	Warramunga Arr	22.56	159	P	P	19 28 43.6	-3.0
	0.4nm,0.5s,baz=340,slow=11,SNR=24						
	0.4nm,0.5s						
ASAR	Alice Springs	25.90	163	P	P	19 29 16.5	-2.0
	0.4nm,0.4s,baz=346,slow=11,SNR=14						
	0.4nm,0.4s						
MKAR	Makanchi Array	59.22	326	P	P	19 33 46.2	-1.4
	0.2nm,0.6s,baz=115,slow=7.4,SNR=2.4						
	0.2nm,0.6s						

AFAD 21 19:40:48.8, 37°.98N×34°.05E, h13^{km}±2^{km}, ML3.5
ISK 21 19:40:48.6, 38°.04N×34°.08E, h6^{km}, ML3.4/35
ISC 21 19:40:48.8±1.1, 38°.00N±0°.02×34°.04E±0°.02, h6^{km}±11^{km}, n74, σ0^{s}.77/79, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YESY	Yesilyurt	0.32	227	Pg	Pb	19 40 56.3	-0.7
YESY				AML	AML		
BSIR	Belisirma, Guz	0.33	37	P	Pg	19 40 56.0	+0.6
GULA	Gulagac	0.38	24	Pg	Pg	19 40 55.6	-0.5
GULA				AML	AML		
NIDE	Nigde/Merkez-G	0.58	90	P	Pg	19 41 00.3	+0.2
NIDE				S	Sg	19 41 07.5	-0.2
NIDE				IAML		19 41 09.0	
	comp=N,3μm,0.5s						
KERG	Konya-Eregli	0.59	173	P	Pg	19 41 00.7	+0.5
KERG				S	Sg	19 41 08.5	+0.6
AKSY	AKSARAY - Alti	0.68	341	P	Pg	19 41 02.1	+0.1
CMRD	Camardi-Nigde	0.83	114	Pg	Pg	19 41 04.4	-0.3
CMRD				Sg	Sb	19 41 16.4	-0.7
CMRD				AML	AML		
GULE	Gulek	0.93	141	P	Pg	19 41 06.5	-0.1
ALIN	Konya, Altinte	0.96	288	P	Pg	19 41 07.2	-0.1
SERE	Sereflikochisa	1.01	339	Pg	Pg	19 41 08.2	-0.1
SERE				AML	AML		
AVNS	Nevsehir-Avano	1.02	38	P	Pb	19 41 09.2	+0.2
KRMN	Karaman	1.03	217	Pg	Pg	19 41 08.0	-0.6
KRMN				AML	AML		
YAHY	KAYSERI_Yahyal	1.05	85	P	Pg	19 41 08.5	-0.5
YAHY				S	Sg	19 41 21.8	-0.8
YAHY				IAML		19 41 25.0	
	comp=N,1μm,0.4s						
KIRS	Kirsehir-Merke	1.13	355	P	Pg	19 41 10.0	-0.6
KKBE	Karaman, Kazim	1.17	228	P	Pg	19 41 10.9	-0.4
CBEY	Konya-Cihanbey	1.20	305	P	Pb	19 41 10.3	-1.8
MCUR	KIREHR	1.22	18	P	Pb	19 41 11.9	-0.5
CAYT	Sariam	1.31	129	P	Pn	19 41 13.5	-0.2
KULU	Kulu	1.32	322	Pn	Pb	19 41 14.1	0.0
KONT	Konya--Tatoy	1.33	268	Pn	Pb	19 41 14.1	-0.1
KONT				AML	AML		
KONT	Konya--Tatoy	1.33	268	P	Pg	19 41 14.4	+0.2
LADK	Ladik-KONYA	1.33	279	Pn	Pn	19 41 13.9	-0.2
LADK				AML	AML		
KMER	Konya-Meram	1.34	260	P	Pg	19 41 14.7	+0.1
KAMT	Kaman	1.39	350	Pn	Pn	19 41 13.9	-1.0
KAMT				AML	AML		
KKUL	Konya-Kulu	1.46	323	P	Pg	19 41 17.3	+0.4
AKPI	Kirsehir/Akpin	1.50	359	P	Pb	19 41 17.1	0.0
KOZT	Kozan	1.51	110	Pn	Pn	19 41 16.5	0.0
KOZT				AML	AML		
GUNE	Kayseri	1.54	54	P	Pg	19 41 18.6	+0.3
KEBE	Keben-Mersin	1.57	190	Pn	Pb	19 41 18.2	-0.2
KEBE				AML	AML		
SIRC	Yozgat	1.59	33	P	Pn	19 41 18.3	+0.6
SLFK	Silifke-Mersin	1.61	183	Pn	Pb	19 41 18.9	0.0
SLFK				AML	AML		
HDMB	Hadim	1.61	230	Pn	Pb	19 41 18.9	-0.2
HDMB				AML	AML		
SAIM	ADANA	1.61	90	P	Pb	19 41 19.4	+0.3
SAIM				S	Sn	19 41 38.5	-0.6
SAIM				IAML		19 41 46.0	
	comp=N,837nm,0.3s						
AFSR	Afar-Bala (An	1.63	333	Pn	Pn	19 41 18.8	+0.6
AFSR				AML	AML		
SILI	Silifke-Mersin	1.64	183	Pn	Pb	19 41 19.3	-0.1
SILI				AML	AML		
TEVE	Tevekalti-Mers	1.64	197	Pn	Pb	19 41 19.3	-0.1
TEVE				AML	AML		
CDAG	Cicekdag	1.64	9	P	Pb	19 41 19.4	-0.2
BNN	Bunyan	1.65	59	Pn	Pn	19 41 18.3	-0.2
BNN				AML	AML		
KESK	Krkkale-Ke	1.67	348	P	Pn	19 41 19.2	+0.5
BR131	Keskin Array S	1.75	350	Pn	Pn	19 41 20.0	+0.1
BR131				AML	AML		
BERE	Bereket-Mersin	1.78	202	Pn	Pb	19 41 21.2	-0.7
BERE				AML	AML		
KRTS	Karatas	1.78	143	Pn	Pb	19 41 20.9	-1.0
KRTS				AML	AML		
IKL	Isikli	1.78	189	Pn	Pb	19 41 21.3	-0.6
IKL				AML	AML		
KARG	Kargicak-Mersi	1.82	188	Pn	Pb	19 41 21.9	-0.6
KARG				AML	AML		
TEPK	Tepekoy-MERSIN	1.82	193	Pn	Pb	19 41 21.9	-0.6
TEPK				AML	AML		
YESI	Yesilovacik-Me	1.83	190	Pn	Pb	19 41 22.0	-0.7
SEYD	Seydisehir-KON	1.84	252	Pn	Pb	19 41 22.6	-0.4
SEYD				AML	AML		
TISA	Tisan-Mersin	1.86	189	Pn	Pb	19 41 22.5	-0.7
YOZG	Bozok Univ. Me	1.87	18	P	Pn	19 41 22.4	+0.9
ANDN	Andirin	1.88	102	P	Pb	19 41 23.5	-0.1
BECE	Buyukeceli-Mer	1.88	192	Pn	Pb	19 41 22.9	-0.7
BECE				AML	AML		
AKK1	Akkuyu-Mersin	1.90	192	Pn	Pb	19 41 23.2	-0.7
AKK1				AML	AML		
KIZT	Kizilcal	1.91	298	Pn	Pb	19 41 24.7	+0.6
KIZT				AML	AML		
YOZ	Yozgat	1.92	31	Pn	Pn	19 41 22.2	0.0
YOZ				AML	AML		
SARI	SarD1z-Kayseri	1.92	77	Pn	Pn	19 41 22.2	0.0
SARI				AML	AML		
BOZY	Bozyazi-Mersin	2.08	205	Pn	Pb	19 41 25.7	-1.2
LOD	Lodumlu	2.13	333	Pn	Pn	19 41 25.8	+0.8
LOD				AML	AML		
HACI	Hacifakili, Ak	2.15	37	P	Pn	19 41 26.5	+1.1
ALAN	Alanya-ANTALYA	2.15	229	Pn	Pb	19 41 27.1	-1.1
CUSAR	Sarkisla-SIVAS	2.23	50	P	Pb	19 41 29.9	+0.2
POLA	Polatl-ANKAR	2.24	320	Pn	Pn	19 41 27.6	+1.1
POLA				AML	AML		
GAZI	Gazipasa	2.24	218	Pn	Pb	19 41 28.2	-1.5
GAZI				AML	AML		
KAMA	Osmaniye	2.24	111	P	Pn	19 41 27.6	+1.0
HASA	Hatay-Hassa-Ha	2.32	122	P	Pn	19 41 29.1	+1.5
KMRS	Kahramanmaras	2.32	101	Pn	Pn	19 41 28.1	+0.5
KMRS				AML	AML		
KHMR	Kahramanmara	2.37	105	P	Pn	19 41 29.1	+0.8
SVRH	Sivrihisar-ESK	2.44	307	Pn	Pn	19 41 30.5	+1.2
EREN	Erenkoy	2.47	178	Pn	Pn	19 41 31.1	+1.5
EREN				AML	AML		
SDAG	Sultandagi-AFY	2.50	281	Pn	Pn	19 41 31.8	+1.7
SDAG				AML	AML		
LFK	Lefkose	2.75	189	Pn	Pn	19 41 35.2	+1.7
LFK				AML	AML		
BEIL	Beino	3.87	153	eP	Pn	19 41 50.7	+1.8
HWQ	Hawqa	4.03	157	eP	Pn	19 41 52.3	+1.2
QRWL	Qaraoun	4.64	163	eP	Pn	19 41 59.8	+0.2
SHBL	Chebaa	4.85	163	eP	Pn	19 42 04.0	+1.5

JMA 21 19:42:60.0±0.1, 25°N±1°×124°.1E±0°.6, h96^{km}±2^{km}, MV3.1/14, NW OFF ISHIGAKIJIMA IS
IDC 21 19:42:59.7±8.2, 25°.17N×124°.19E, h106^{km}±91^{km}, mb3.3/6, mbtmp3.7/7, ML2.9/1, Error ellipse: s-maj=71.6km s-min=16.8km az=61.0
ISC 21 19:42:59.0±0.9, 25°.09N±0°.10×124°.12E±0°.05, h99^{km}±10^{km}, n19, σ0^{s}.59/32, mb3.7/6, Northeast of Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JISG	Ishigakijimahi	0.53	161	P	Pn	19 43 14.9	0.0
JISG				eS	Sn	19 43 26.3	-0.3
JTJ	Tarama	0.69	130	P	Pn	19 43 16.5	+0.3
JTJ				S	Sn	19 43 29.2	+0.1
JIJ	Ishigaki jima	0.72	178	P	Pn	19 43 16.2	-0.3
JIJ				S	Sn	19 43 28.3	-1.3
IRIF	Iriomote-Funau	0.83	205	P	Pn	19 43 17.4	-0.1
IRIF				eS	Sn	19 43 31.0	-0.4
JKRS	Kuro-shima	0.85	187	P	Pn	19 43 17.8	+0.1
JKRS				S	Sn	19 43 31.1	-0.7
JIRJ	Irabujima	1.01	104	P	Pn	19 43 19.7	+0.3
JIRJ				S	Sn	19 43 34.5	-0.3
JIKM	Ikemajima	1.04	99	P	Pn	19 43 20.3	+0.6
JIKM				S	Sn	19 43 35.6	+0.4
HATJ	Hateruma jima	1.06	196	P	Pn	19 43 19.9	-0.1
HATJ				S	Sn	19 43 35.7	-0.1
JMJ2	Miyako jima3	1.15	107	P	Pn	19 43 21.7	+0.7
JMJ2				S	Sn	19 43 37.9	+0.3
YOJ	Yonaguni jima	1.18	239	P	Pn	19 43 22.2	+0.8
YOJ				eS	Sn	19 43 38.1	-0.2
JOGS	Gusukube	1.21	105	P	Pn	19 43 22.5	+0.8
JOGS				S	Sn	19 43 39.5	+0.6
JYNG	Yonagunijimaku	1.24	240	P	Pn	19 43 22.9	+0.9
JYNG				eS	Sn	19 43 40.1	+0.7
JOW	Kunigami	4.12	64	P	Pn	19 43 59.3	-0.5
	1.4nm,0.3s,baz=288,slow=20,SNR=13						
JOW				S	Sn	19 44 46.5	-0.5
	15nm,0.7s,baz=279,slow=19,SNR=1.4						
	18nm,0.8s						
JOW				AML	AML		
MKAR	Makanchi Array	39.59	314	P	P	19 50 21.1	+0.5
	0.2nm,0.3s,baz=96,slow=9.4,SNR=9.2						
	0.2nm,0.3s						
ZALV	Zalesovo Beam	40.99	325	P	P	19 50 31.5	-0.4
	0.8nm,0.5s,baz=109,slow=8.0,SNR=2.2						
	0.8nm,0.5s						
KURBB	Kurchatov Arra	43.18	318	P	P	19 50 48.8	-1.0
	0.3nm,0.3s,baz=99,slow=5.9,SNR=1.5						
	0.3nm,0.3s						
WRA	Warramunga Arr	45.85	167	P	P	19 51 11.3	0.0
	0.4nm,0.6s,baz=348,slow=8.1,SNR=11						
	0.4nm,0.6s						
BVAR	Borovoye Array	48.70	320	P	P	19 51 32.6	-0.5
	0.4nm,0.3s,baz=99,slow=8.9,SNR=1.6						
	0.4nm,0.3s						
ASAR	Alice Springs	49.38	168	P	P	19 51 39.5	+0.9
	0.4nm,0.5s,baz=347,slow=8.4,SNR=7.0						
	0.4nm,0.5s						

SJA 21 19:57:58.3±0.7, 31°.38S×71°.27W, h84^{km}±3^{km}, ML3.3, MW3.5
GUC 21 19:57:58.6±0.9, 31°.41S×71°.18W, h85^{km}±6^{km}, ML3.6
ISC 21 19:57:59.4±1.5, 31°.40S±0°.03×71°.37W±0°.06, h80^{km}±9^{km}, n48, σ1^{s}.16/66, 6C-7D, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CO02	Combarbal	0.37	58	eP	Pn	19 58 12.3	0.0
CO02				eS	Sn	19 58 22.0	+0.2
CO02				IAML		19 58 23.1	
	comp=Z,3μm,0.1s						
CO02	Combarbal	0.37	58	⇓iP	Pn	19 58 12.7	+0.4
CO02				eS	Sn	19 58 22.2	+0.5
CO06	Fray Jorge	0.76	342	⇓iP	Pn	19 58 17.3	+1.7
CO06				IAML		19 58 31.4	
	comp=E,2μm,0.2s						
CO03	El Pedregal	0.81	46	eP	Pn	19 58 15.7	-0.6
CO03				eS	Sn	19 58 28.2	-0.6
CO03				IAML		19 58 28.5	
	comp=Z,2μm,0.3s						
CO03	El Pedregal	0.81	46	⇓iP	Pn	19 58 15.9	-0.4
CO03				eS	Sn	19 58 27.7	-1.1
CO03				IAML		19 58 28.3	
	comp=N,4μm,0.3s						
GO04	Tololo Observa	1.31	22	eP	Pn	19 58 22.3	-0.2
GO04				eS	Sn	19 58 39.8	-0.2
GO04	Tololo Observa	1.31	22	⇓eP	Pn	19 58 22.4	-0.2
VA03	San Esteban	1.53	153	eP	Pn	19 58 25.4	+0.3
VA03				eS	Sn	19 58 44.7	+0.1
VA03				IAML		19 58 48.2	
	comp=Z,346nm,0.3s						
VA03	San Esteban	1.53	153	⇓iP	Pn	19 58 25.1	0.0
VA03				IAML		19 58 46.8	
	comp=E,1μm,0.2s						
ROCH	El Roble	1.60	169	⇑eP	Pn	19 58 26.0	-0.2
ROCH				IAML		19 58 50.3	
	comp=N,784nm,0.4s						
VA01	Torpederas	1.64	188	eP	Pn	19 58 27.0	+0.5
VA01				IAML		19 58 50.9	
	comp=Z,103nm,0.2s						
VA01	Torpederas	1.64	188	⇑eP	Pn	19 58 26.5	+0.1
VA01				IAML		19 58 50.1	
	comp=E,604nm,0.1s						
CO01	Juntas del Tor	1.79	38	eP	Pn	19 58 28.4	-0.3
CO01				eS	Sn	19 58 49.8	-1.2
CO01				IAML		19 58 50.9	
	comp=Z,338nm,0.1s						
CO01	Juntas del Tor	1.79	38	⇑iP	Pn	19 58 28.4	-0.3
CO01				IAML		19 58 50.8	
	comp=N,631nm,0.3s						
RTLS	Leoncito	1.81	103	eP	Pn	19 58 28.9	-0.2
RTLS				eS	Sn	19 58 51.3	-0.2
RTLS				IAML		19 58 53.6	
	comp=Z,699nm,0.4s						
PEL	Peldehue	1.83	162	eP	Pn	19 58 29.2	+0.1
PEL				eS	Sn	19 58 48.1	-3.6
PEL				IAML		19 58 56.5	
	comp=Z,211nm,0.2s						
PEL	Peldehue	1.83	162	eP	Pn	19 58 28.9	-0.2
PEL				IAML		19 58 52.5	
	comp=N,360nm,0.2s						
MT02	Curacav	1.87	174	eP	Pn	19 58 28.6	-0.9
MT02				eS	Sn	19 58 41.9	-11
MT02				IAML		19 58 53.0	
	comp=Z,317nm,0.2s						
MT02	Curacav	1.87	174	eP	Pn	19 58 29.2	-0.3
MT10	Hacienda Santa	2.00	160	⇑eP	Pn	19 58 31.4	+0.1
MT10				IAML		19 58 56.2	
	comp=E,925nm,0.5s						
AROD	Rodeo	2.04	54	eP	Pn	19 58 32.7	+0.6
AROD				eS	Sn	19 58 57.9	+0.9
MT05	Renca	2.06	165	eP	Pn	19 58 32.3	+0.2
MT05				eS	Sn	19 58 52.3	-4.7
MT05				IAML		19 58 52.8	
	comp=Z,269nm,0.2s						
MT05	Renca	2.06	165	eP	Pn	19 58 32.2	+0.1
MT05				IAML		19 58 59.5	
	comp=E,1μm,0.3s						
MT14	Cerro Cal¡n	2.11	161	eP	Pn	19 58 32.8	0.0
MT14				IAML		19 59 00.2	
	comp=N,509nm,0.6s						
ACCO	Cerro Coronel	2.13	68	eP	Pn	19 58 33.3	0.0
ACCO				eS	Sn	19 59 00.6	+1.3
ACCO				IAML		19 59 01.6	
	comp=Z,174nm,0.6s						
MT03	Universidad Ad	2.21	161	eP	Pn	19 58 34.6	+0.4
MT03				eS	Sn	19 59 02.3	+1.5
MT03				IAML		19 59 04.1	
	comp=Z,357nm,0.1s						
MT03	Universidad Ad	2.21	161	⇓iP	Pn	19 58 34.5	+0.4
MT03				IAML		19 59 03.9	
	comp=E,785nm,0.1s						
MT04	Ro Olivares	2.25	153	eP	Pn	19 58 36.0	+1.1
MT04				eS	Sn	19 59 03.3	+1.3
MT04				IAML		19 59 06.3	
	comp=Z,191nm,0.4s						
MT04	Ro Olivares	2.25	153	eS	Sn	19 59 02.6	+0.6
MT04				IAML		19 59 05.2	
	comp=N,334nm,0.5s						
ACDV	Cuesta del Vie	2.29	58	eP	Pn	19 58 35.8	+0.5
ACDV				eS	Sn	19 59 01.0	-1.7
ACDV				IAML		19 59 08.1	
	comp=Z,110nm,0.3s						
ZON	Zonda	2.30	94	eP	Pn	19 58 35.0	-0.4
ZON				eS	Sn	19 59 01.9	-1.0
ZON				IAML		19 59 04.2	
	comp=Z,124nm,0.3s						
MT15	Las Vizcachas	2.31	162	⇑eP	Pn	19 58 35.6	+0.1
MT15				IAML		19 59 03.5	
	comp=E,881nm,0.3s						
MT08	Bocatoma Ro	2.34	151	eP	Pn	19 58 37.4	+1.4
MT08				eS	Sn	19 59 06.3	+2.3
MT08				IAML		19 59 07.7	
	comp=Z,163nm,0.5s						
MT08	Bocatoma Ro	2.34	151	⇓eP	Pn	19 58 37.2	+1.2
MT08				IAML		19 59 07.2	
	comp=E,261nm,0.3s						
MT09	Talagante	2.39	172	⇑eP	Pn	19 58 36.7	+0.1
MT09				IAML		19 59 06.0	
	comp=E,604nm,0.3s						
SJA	San Juan	2.40	94	eP	Pn	19 58 37.0	+0.3
SJA				eS	Sn	19 59 04.8	-0.5
SJA				IAML		19 59 06.8	
	comp=Z,144nm,0.3s						
LCO	Las Campanas	2.45	14	eP	Pn	19 58 37.7	+0.1
LCO				eS	Sn	19 59 07.4	+0.7
LCO				IAML		19 59 08.3	
	comp=Z,238nm,0.3s						
MT01	Popeta	2.46	178	eP	Pn	19 58 37.5	+0.1
MT01				eS	Sn	19 59 05.3	-1.3
MT01				IAML		19 59 07.5	
	comp=Z,142nm,0.2s						
MT01	Popeta	2.46	178	eP	Pn	19 58 37.4	0.0
MT01				IAML		19 59 07.1	
	comp=E,306nm,0.2s						
RTLL	Cerro Villicun	2.47	89	eP	Pn	19 58 37.1	-0.6
RTLL				eS	Sn	19 59 05.3	-1.7
RTLL				IAML		19 59 09.2	
	comp=Z,197nm,0.3s						
MT13	San Alfonso	2.51	159	eP	Pn	19 58 39.0	+0.7
ARCO	CERRO ARCO	2.52	126	eP	Pn	19 58 39.5	+1.1
ARCO				eS	Sn	19 59 11.4	+3.2
ARCO				IAML		19 59 13.1	
	comp=Z,144nm,0.3s						
CFA	Coronel Fontan	2.68	95	IAML		19 59 15.7	
	comp=Z,111nm,0.7s						
AAGR	Agrelo	2.73	129	IAML		19 59 16.5	
	comp=Z,74nm,0.3s						
BO01	Tunca	3.00	176	IAML		19 59 21.7	
	comp=Z,49nm,0.2s						
BO02	Sierra Bellavi	3.42	172	eP	Pn	19 58 51.0	+0.5
BO02				eP	Pn	19 58 51.0	+0.5
AVFE	Valle Fertil	3.44	79	IAML		19 59 27.8	
	comp=Z,48nm,0.7s						
AC02	Maricunga	4.95	24	eS	Sn	19 59 51.2	-17

IDC 21 19:58:32.8±0.5, 26°.18N×91°.24E, h39^{km}±4^{km}, mb3.8/22, mbtmp4.0/24, ML4.2/3, MS3.3/7, Error ellipse: s-maj=16.6km s-min=9.5km az=59.0
NDI 21 19:58:32.7±1.5, 26°.16N×91°.26E, h18^{km}±9^{km}, ML4.2, MW4.1, mb4.4(NEIC), Presumed earthquake
NEIC 21 19:58:34.6±2.4, 26°.28N±0°.09×91°.32E±0°.09, h40^{km}±6^{km}, mb4.4/25, Error ellipse: s-maj=14.3km s-min=9.2km az=218.0
GFZ 21 19:58:34.2±0.2, 26°N±4°×9°1E±°, h51^{km}, M4.5/24, mb4.5/24
ISC 21 19:58:33.0±0.4, 26°.17N±0°.04×91°.25E±0°.04, h35^{km}, h36^{km}:pP-P, n114, σ1^{s}.27/125, mb4.3/38, MS3.3/6, 1D, Northeastern India

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHL	Shillong	0.83	136	eP	Pn	19 58 49.4	+1.1
SHL				eS	Sn	19 59 01.4	+1.9
SHL				IAML		19 59 02.4	
	comp=N,7μm,0.1s						
SHL				IAML		19 59 03.1	
	comp=E,7μm,0.1s						
DHUB	DHUBRI	1.14	263	eP	Pn	19 58 53.6	+1.2
DHUB				eS	Sn	19 59 09.1	+2.3
TEZP	TEZPUR	1.46	72	eP	Pn	19 58 58.7	+1.8
TEZP				eS	Sn	19 59 16.1	+1.2
TEZP				IAML		19 59 19.9	
	comp=E,3μm,0.2s						
TEZP				IAML		19 59 20.3	
	comp=N,2μm,0.1s						
TAWA	Tawang	1.52	21	eP	Pn	19 58 59.8	+1.7
TAWA				eS	Sn	19 59 20.1	+3.2
TAWA				IAML		19 59 20.9	
	comp=N,3μm,0.3s						
TAWA				IAML		19 59 21.3	
	comp=E,3μm,0.2s						
AZL	Aizawl	2.75	151	eP	Pn	19 59 16.1	+1.4
AZL				eS	Sn	19 59 47.1	+0.3
AZL				IAML		19 59 48.0	
	comp=E,2μm,0.1s						
AZL				IAML		19 59 48.1	
	comp=N,2μm,0.1s						
MORE	Moreh	3.37	124		Pn	19 59 25.3	+2.1
BRDH	Bariadhala	3.49	174	Pn	Pn	19 59 26.4	+1.5
	comp=N,84nm,0.3s,baz=270,slow=20,SNR=2.7						
BRDH				Sn	Sn	20 00 05.8	+0.8
	comp=N,47nm,0.3s,baz=288,slow=20,SNR=4.8						
BRDH				AML	AML		
LSA	Lhasa	3.52	359		Pn	19 59 24.1	-1.5
LSA	Lhasa	3.52	359	P	Pn	19 59 27.8	+2.1
SAIH	SAIHA	3.99	156	eP	Pn	19 59 33.0	+1.2
SAIH				eS	Sn	20 00 17.8	+0.3
SAIH				IAML		20 00 19.8	
	comp=E,1μm,0.2s						
SAIH				IAML		20 00 20.8	
	comp=N,1μm,0.0s						

EVN	Everest	4.33	295		Pn	19 59 38.6	+1.6
EVN	Everest	4.33	295	P	Pn	19 59 37.9	+0.9
TNCH	TengChong	6.66	98	Pn	Pn	20 00 10.6	+2.0
TNCH				Pg		20 00 38.3	
TNCH				Sn	Sn	20 01 25.4	+2.0
TNCH				Sg		20 02 07.5	
TNCH				smax	smax		
	comp=N,58nm,1.3s						
TNCH				smax	smax		
	comp=E,34nm,1.0s						
TNCH				LR	LR		
	comp=N,190nm,2.9s						
TNCH				LR	LR		
	comp=E,260nm,2.8s						
TNCH				LR	LR		
	comp=Z,120nm,7.0s						
NPW	Naypyitaw	7.79	144	P	Pn	20 00 25.0	+1.1
	comp=Z,27nm,0.8s						
PZH	PanZhiHua	9.42	86	P	Pn	20 00 48.5	+2.1
GOMU	GeErMu	10.45	16	P	Pn	20 01 02.1	+1.4
GOMU				pP		20 01 05.6	
GOMU				sP		20 01 09.5	
GOMU				pmax	pmax		
	comp=Z,3.0nm,0.3s						
CMAR	Chiang Mai Arr	10.47	136	Pn	Pn	20 00 59.8	-0.8
	comp=Z,0.1nm,0.3s,baz=318,slow=14,SNR=6.4						
CMAR				LR	LR	20 06 30.2	
	comp=Z,45nm,19.5s,baz=295,slow=46						
	comp=Z,0.7nm,0.6s						
CMAR				AML	AML		
LZDM	Lanzhou Array	14.44	45	Pn	Pn	20 01 52.8	-2.5
	baz=224,slow=8.1						
	comp=Z,1.6nm,0.4s						
PBA	Port Blair	14.51	174	Pn	Pn	20 01 56.4	+0.5
LZH	Lanzhou	14.62	44	*e*P	P	20 02 02.3	-1.1
LZH				pP	Pn	20 02 11.3	+14
LZH				pmax	pmax		
	comp=Z,19nm,1.1s						
GTA2	Gaotai	15.07	26	P	Pn	20 02 00.9	-2.6
GTA2				sP	P	20 02 08.3	-0.1
GTA2				pmax	pmax		
	comp=Z,3.0nm,0.9s						
GTA2				LR	LR		
	comp=N,160nm,14.0s						
GTA2				LR	LR		
	comp=E,110nm,15.2s						
GTA2				LR	LR		
	comp=Z,210nm,14.6s						
ENH	Enshi	16.59	72	P	P	20 02 24.1	-1.0
ENH				IAmb	IAmb	20 02 39.4	
	comp=Z,21nm,1.0s						
ENH	Enshi	16.59	72	P	P	20 02 25.1	0.0
	comp=Z,21nm,0.8s						
XAN	Xi'an	17.17	59	*e*P	P	20 02 34.4	+2.8
NIL	Nilore	17.28	300		P	20 02 33.5	+0.7
NIL				IAmb	IAmb	20 02 34.5	
	comp=Z,23nm,0.7s						
NIL	Nilore	17.28	300	P	Pn	20 02 29.7	-1.9
	comp=Z,40nm,0.8s						
WMQ	Urumqi	17.85	352	*e*P	P	20 02 40.3	+1.3
WUS	Wushi	18.00	329		Pn	20 02 38.5	-2.0
WUS				IAmb	IAmb	20 02 42.7	
	comp=Z,30nm,0.7s						
WUS	Wushi	18.00	329	P	Pn	20 02 39.4	-1.2
	comp=Z,42nm,0.7s						
KSH2	Kashi	18.45	318	P	Pn	20 02 47.1	+1.0
KSH2				sP	pP	20 02 53.1	-1.9
KSH2				PP	sP	20 03 01.1	+1.7
KSH2				pmax	pmax		
	comp=Z,9.0nm,0.6s						
TARG	Taragay, Kyrgy	19.07	328	P	Pn	20 02 54.1	+0.2
TARG	Taragay, Kyrgy	19.07	328	P	Pn	20 02 54.0	+0.2
	comp=Z,9.8nm,0.6s						
ASAI	AK-SAY(Kyrgyzs	19.12	324	P	Pn	20 02 54.6	+0.3
	comp=Z,16nm,0.7s						
PRZ	Przheval'sk	19.39	330		Pn	20 02 56.6	-0.8
PRZ				IAmb	IAmb	20 02 59.2	
	comp=Z,21nm,0.6s						
PDGK	Podgornoye	19.62	334		Pn	20 02 59.5	-0.6
KDJ	Kajisay	19.68	328	P	Pn	20 03 01.1	+0.2
KDJ				IAmb	IAmb	20 03 01.9	
	comp=Z,11nm,0.7s						
KDJ	Kajisay	19.68	328	P	Pn	20 03 00.2	-0.7
	comp=Z,16nm,1.1s						
NRN	Naryn	19.76	324	P	Pn	20 03 01.8	-0.2
ANVS	Anan'yevo	19.96	330	P	P	20 03 01.9	-0.4
	comp=Z,8.0nm,0.9s						
ULHL	Ulahol	20.23	326	P	Pn	20 03 07.0	-0.4
	SNR=9.3						
BOOM	Boomskoye usch	20.56	326	P	Pn	20 03 10.4	-0.8
BOOM				IAmb	IAmb	20 03 11.2	
	comp=Z,20nm,0.7s						
BOOM	Boomskoye usch	20.56	326	P	Pn	20 03 09.2	-1.9
	comp=Z,28nm,0.7s						
KBL	Kabul	20.87	299		Pn	20 03 13.5	-1.4
OHH	Osh	20.98	318	P	P	20 03 12.6	-0.7
	comp=Z,16nm,0.8s						
DRK	Karamyk	21.00	314	P	P	20 03 14.1	+0.4
DRK				IAmb	IAmb	20 03 14.7	
	comp=Z,14nm,0.5s						
DRK	Karamyk	21.00	314	P	P	20 03 13.8	+0.1
	comp=Z,16nm,0.6s						
TKM2	Tokmak 2	21.05	327	P	P	20 03 15.6	+1.5
	SNR=25						
KBK	Karagaybulak	21.18	325	P	P	20 03 17.3	+1.7
	SNR=9.8						
AAK	Ala-Archa	21.41	324	P	P	20 03 18.2	+0.2
	comp=Z,5.8nm,0.8s,baz=147,slow=8.3,SNR=9.4						
AAK				LR	LR	20 12 21.9	
	comp=Z,95nm,18.7s,baz=5.5,slow=39						
	comp=Z,5.8nm,0.8s						
AAK	Ala-Archa	21.41	324	P	P	20 03 19.8	+1.9
	SNR=6.5						
AAK	Ala-Archa	21.41	324		P	20 03 18.6	+0.7
AAK				IAmb	IAmb	20 03 37.9	
	comp=Z,7.7nm,0.7s						
AAK	Ala-Archa	21.41	324	P	P	20 03 18.9	+1.0
	comp=Z,14nm,1.7s						
MKAR	Makanchi Array	21.78	343	P	P	20 03 21.5	-0.2
	comp=Z,8.4nm,0.6s,baz=150,slow=13,SNR=95						
MKAR				LR	LR	20 13 23.0	
	comp=Z,135nm,19.6s,baz=36,slow=41						
	comp=Z,8.4nm,0.6s						
MKAR	Makanchi Array	21.78	343	P	P	20 03 21.7	0.0
EKS2	Erkin-Say	21.80	323	P	P	20 03 23.6	+1.5
	SNR=13						
USP	Ospenovka	21.85	326	P	P	20 03 22.9	+0.3
	SNR=8.4						
MAKZ	Makanchi	21.88	343	P	P	20 03 23.0	+0.3
MAKZ				IAmb	IAmb	20 03 25.6	
	comp=Z,11nm,0.7s						
MAKZ	Makanchi	21.88	343	P	P	20 03 23.0	+0.3
	comp=Z,16nm,0.7s						
MAKZ				pP	sP	20 03 36.9	+0.4
BTK	Batken	21.95	314	P	P	20 03 24.5	+0.9
BTK	Batken	21.95	314	P	P	20 03 24.6	+0.9
	comp=Z,38nm,0.8s						
ARK	Arkit	22.26	319	P	P	20 03 26.8	-0.2
	comp=Z,13nm,1.0s						
HHC	Hu-ho-hao-te	22.32	44	*e*P	P	20 03 28.5	+0.9
HHC				pmax	pmax		
	comp=Z,11nm,0.6s						
HHC				pmax	pmax		
	comp=Z,62nm,4.7s						
KKAR	Karatay Array	23.91	320	P	P	20 03 43.8	+0.2
SONM	Songino Array	24.69	25	P	P	20 03 51.5	+0.7
	comp=Z,4.0nm,0.5s,baz=212,slow=9.6,SNR=39						
	comp=Z,4.0nm,0.5s						
SONM	Songino Array	24.69	25	P	P	20 03 51.9	+1.1
ULN	Ulaanbaatar	24.97	26	P	P	20 03 54.3	+1.0
	comp=Z,9.2nm,1.0s						
KURBB	Kurchatov Arra	26.30	342	P	P	20 04 04.4	-0.7
	comp=Z,3.5nm,0.6s,baz=155,slow=10,SNR=19						
	comp=Z,3.5nm,0.6s						
KURK	Kurchatov	26.35	342	P	P	20 04 05.6	-0.1
KURK				IAmb	IAmb	20 04 21.5	
	comp=Z,4.0nm,0.7s						
KURK	Kurchatov	26.35	342	P	P	20 04 05.9	+0.3
	comp=Z,6.1nm,0.9s						
TLY	Talaya	27.16	17	LR	LR	20 16 01.8	
	comp=Z,79nm,20.6s,baz=314,slow=39						
ZALV	Zalesovo Beam	28.16	352	P	P	20 04 20.3	-1.5
	comp=Z,0.8nm,0.5s,baz=178,slow=8.0,SNR=4.3						
ZALV				pP	pP	20 04 31.8	0.0
	comp=Z,0.8nm,0.4s,baz=175,slow=8.3,SNR=2.9						
	comp=Z,0.8nm,0.5s						
ZALV	Zalesovo Beam	28.16	352	P	P	20 04 21.2	-0.6
KAAM	Kaadhehdhoo	31.00	217	P	P	20 04 51.2	+3.9
BVAR	Borovoye Array	31.04	335	P	P	20 04 46.9	-0.4
	comp=Z,1.6nm,0.5s,baz=140,slow=10.0,SNR=10						
	comp=Z,1.6nm,0.5s						
BORK	Borovoye	31.08	335	P	P	20 04 47.6	-0.1
BORK				IAmb	IAmb	20 05 03.9	
	comp=Z,8.5nm,1.2s						
HIA	Hailar	31.92	36	P	P	20 04 55.4	+0.2
	comp=Z,7.5nm,0.6s						
HILR	Hailar Array B	32.09	36	P	P	20 04 57.3	+0.6
	comp=Z,1.9nm,0.5s,baz=224,slow=8.1,SNR=3.7						
	comp=Z,1.9nm,0.5s						
KSRS	Korea Array	32.94	61	LR	LR	20 17 51.6	
	comp=Z,22nm,21.4s,baz=335,slow=35						
ABKAR	Akbulak array	33.44	322	P	P	20 05 08.6	+0.2
BNX	BinXian	34.79	46	⇓P	P	20 05 21.3	+1.1
BNX				sP	pP	20 05 25.6	-4.8
BNX				S	S	20 10 49.4	+1.0
BNX				sS	sS	20 10 56.1	-9.1
BNX				pmax	pmax		
	comp=Z,14nm,0.7s						
HEH	HeiHe	36.67	39	*e*P	P	20 05 37.0	+0.7
HEH				pmax	pmax		
	comp=Z,12nm,1.0s						
JHS	Saijyo	36.88	66	P	P	20 05 38.2	-0.1
	comp=Z,0.2nm,0.8s						
JHS				pP	sP	20 05 52.5	-0.3
BBKI	Banjar Baru	37.27	139	P	P	20 05 41.5	-0.3
	comp=Z,20nm,1.5s						
USRK	Ussuriysk Ar.	37.40	51	P	P	20 05 41.0	-1.5
	comp=Z,1.8nm,0.6s,baz=252,slow=6.7,SNR=3.5						
	comp=Z,1.8nm,0.6s						
JMN	Monobe	37.49	68	P	P	20 05 43.4	-0.2
	comp=Z,26nm,1.6s						
APSI	Ampana	39.82	128	P	P	20 06 02.2	-1.0
	comp=Z,33nm,0.8s						
JSG	Sagara	41.05	66	P	P	20 06 11.8	-1.4
	comp=Z,146nm,1.8s						
MJAR	Matsushiro Arr	41.06	64	P	P	20 06 12.0	-1.3
	comp=Z,1.9nm,1.0s,baz=276,slow=10,SNR=5.0						
	comp=Z,1.9nm,1.0s						
KBZ	Khabaz	42.69	307	LR	LR	20 29 39.3	
	comp=Z,72nm,18.2s,baz=244,slow=44						
DBNI	Kabupaten Domp	43.35	139	pP	pP	20 06 43.0	+0.6
	comp=Z,8.3nm,1.3s						
FAKI	Fak Fak	49.07	120	P	P	20 07 19.2	+2.2
BRTR	Keskin Array B	49.42	301	P	P	20 07 18.6	-1.1
	comp=Z,0.4nm,0.7s,baz=99,slow=4.5,SNR=2.7						
	comp=Z,0.4nm,0.7s						
BRTR	Keskin Array B	49.42	301	P	P	20 07 20.1	+0.4
TIXI	Tiksi	50.09	15	P	P	20 07 24.7	+0.6
TIXI				IAmb	IAmb	20 07 39.7	
	comp=Z,3.9nm,0.8s						
AKASG	Malin Array Be	52.66	315	P	P	20 07 42.2	-1.4
	comp=Z,0.5nm,0.4s,baz=86,slow=6.6,SNR=4.7						
	comp=Z,0.5nm,0.4s						
AKASG	Malin Array Be	52.66	315	P	P	20 07 43.1	-0.6
FINES	FINESS Array B	55.53	328	P	P	20 08 03.6	-0.8
	comp=Z,1.4nm,0.8s,baz=108,slow=4.5,SNR=4.6						
FINES				pP	pP	20 08 15.4	+0.4
	comp=Z,4.1nm,0.9s,baz=163,slow=7.2,SNR=2.0						
	comp=Z,1.4nm,0.8s						
FINES	FINESS Array B	55.53	328	P	P	20 08 04.3	-0.1
ARCES	ARCESS Array B	57.28	338	P	P	20 08 16.1	-0.7
	comp=Z,4.3nm,0.9s,baz=88,slow=9.3,SNR=2.1						
	comp=Z,4.3nm,0.9s						
HFS	Hagfors	61.53	326	P	P	20 08 44.8	-1.4
	comp=Z,1.0nm,0.5s,baz=95,slow=6.2,SNR=7.6						
	comp=Z,1.0nm,0.5s						
WRA	Warramunga Arr	62.05	133	P	P	20 08 49.9	-0.4
	comp=Z,0.5nm,0.8s,baz=314,slow=7.2,SNR=8.5						
WRA				pP	pP	20 09 00.8	-0.2
	comp=Z,0.8nm,0.5s,baz=323,slow=7.2,SNR=5.9						
	comp=Z,0.5nm,0.8s						
WRA	Warramunga Arr	62.05	133	P	P	20 08 50.1	-0.1
NOA	NORSAR Array B	62.69	327	P	P	20 08 52.5	-1.5
	comp=Z,0.9nm,0.8s,baz=93,slow=7.2,SNR=2.4						
NOA				LR	LR	20 38 27.7	
	comp=Z,76nm,20.1s,baz=0.0,slow=38						
	comp=Z,0.9nm,0.8s						
GERES	GERESS Array B	62.79	314	P	P	20 08 54.3	-0.7
	comp=Z,1.1nm,0.5s,baz=80,slow=6.7,SNR=12						
	comp=Z,1.1nm,0.5s						
GERES	GERESS Array B	62.79	314	P	P	20 08 54.4	-0.6
ASAR	Alice Springs	64.47	136	P	P	20 09 06.2	-0.2
	comp=Z,0.5nm,0.6s,baz=318,slow=5.8,SNR=13						
ASAR				pP	pP	20 09 18.0	+0.9
	comp=Z,1.6nm,0.6s,baz=318,slow=6.6,SNR=11						
	comp=Z,0.5nm,0.6s						
ASAR	Alice Springs	64.47	136	P	P	20 09 06.3	0.0
KEST	Kesra	69.02	300	P	P	20 09 34.1	-1.2
	comp=Z,3.0nm,0.7s,baz=32,slow=18,SNR=4.1						
	comp=Z,3.0nm,0.7s						
KEST	Kesra	69.02	300	P	P	20 09 34.3	-1.0
KEST				IAmb	IAmb	20 09 35.7	
	comp=Z,3.2nm,0.8s						
EKA	Eskdalemuir Ar	71.31	323	P	P	20 09 47.8	-1.0
	comp=Z,0.3nm,0.4s,baz=73,slow=5.9,SNR=4.5						
EKA				pP	pP	20 09 59.7	0.0
	comp=Z,0.4nm,0.5s,baz=79,slow=8.6,SNR=2.0						
	comp=Z,0.3nm,0.4s						
ILAR	Eielson Array	78.87	22	P	P	20 10 31.3	-1.0
	comp=Z,1.5nm,0.6s,baz=306,slow=5.6,SNR=14						
ILAR				pP	pP	20 10 43.4	0.0
	comp=Z,0.5nm,0.7s,baz=307,slow=4.1,SNR=3.2						
	comp=Z,1.5nm,0.6s						
SKT	Skwentna	78.90	25	P	P	20 10 32.5	0.0
TORD	Torodi Ar. Bea	83.92	282	P	P	20 10 59.8	-0.1
	comp=Z,0.2nm,0.4s,baz=62,slow=4.1,SNR=1.6						
TORD				pP	pP	20 11 11.2	+0.2
	comp=Z,0.6nm,0.5s,baz=62,slow=4.2,SNR=3.5						
	comp=Z,0.2nm,0.4s						
TORD	Torodi Ar. Bea	83.92	282	IAmb	IAmb	20 11 09.9	
	comp=Z,10nm,1.1s						

DJA 21 19:59:00.1±0.9, 3°N±6°×12°9E±°, h10km, M4.1/2, mb4.3/1, mb4.3/1, MLv3.9/6, MLv4.0/2, North of Halmahera

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*IDC **21** 20:10:39.5±0.9, 3°.49S×128°.29E, h0km, mb3.8/6, mbtmp3.9/9, ML3.5/2, Error ellipse: s-maj=26.7km s-min=14.7km az=105.0*

*DJA **21** 20:10:42.8±0.2, 3°S±2°×12°8E±°, h10km, M4.4/7, mB4.8/2, mB4.8/2, mb4.8/6, mb4.8/6, MLv4.1/9, MLv3.8/6, Mw(mB)4.1/2, Mw(mB)4.1/2*

ISC 21 20:10:41.6±0.7, 3°.44S±0°.07×128°.39E±0°.06, h10km, n21, σ1s.73/22, mb3.8/5, Seram

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NLAI	Namlea	1.30	279	P	Pn	20 11 04.3	-1.6
NLAI				AML	AML		
BNDI	Bandanaira	1.86	125	P	Pn	20 11 11.8	-1.7
SIJI	Sorong	3.85	48	Pn	Pn	20 11 42.5	+1.6
	70nm,0.3s,baz=232,slow=19						
SIJI				Sn	Sn	20 12 25.6	-0.6
	baz=233,slow=20						
SWI	Sorong	3.85	48	P	Pn	20 11 42.6	+1.7
SWI				AML	AML		
FAKI	Fak Fak	3.89	82	P	Pn	20 11 42.6	+1.1
MWPI	Manokwari, Pap	6.17	66	P	Pn	20 12 15.8	+2.9
	70nm,0.8s,70nm,0.8s						
APSI	Ampana	7.19	290	P	Pn	20 12 29.8	+2.9
MMRI	Maumere	8.00	230	P	Pb	20 12 59.9	-0.6
FITZ	Fitzroy Crossi	14.81	190	Pn	Pn	20 14 07.2	-4.1
	0.1nm,0.3s,baz=0.0,slow=18,SNR=1.8						
	1.8nm,0.7s						
FITZ				AML	AML		
FITZ	Fitzroy Crossi	14.81	190	P	P	20 14 20.1	+2.8
WRAB	Tennant Creek	17.39	161	P	Pn	20 14 44.2	-0.4
WRA	Warramunga Arr	17.40	161	P	Pn	20 14 42.2	-2.5
	0.4nm,0.3s,baz=339,slow=11,SNR=16						
	2.8nm,1.1s						
WRA				AML	AML		
QIS	Mount Isa	20.22	148	P	P	20 15 17.3	+0.3
ASAR	Alice Springs	20.80	166	P	P	20 15 22.9	-0.5
	4.5nm,0.6s,baz=342,slow=9.8,SNR=28						
ASAR				PcP	PcP	20 19 30.1	-2.3
	0.4nm,0.5s,baz=3.4,slow=1.9,SNR=6.7						
	4.5nm,0.6s						
AS01	Alice Springs	20.81	166	P	P	20 15 25.3	+1.9
QLP	Quilpie	27.57	148	P	P	20 16 30.0	+1.0
STKA	Stephens Creek	30.89	158	P	P	20 16 57.4	-1.1
	2.7nm,0.9s,baz=336,slow=6.5,SNR=2.8						
	2.7nm,0.9s						
KSRS	Korea Array	40.69	359	P	P	20 18 22.8	+0.5
	0.5nm,0.6s,baz=166,slow=11,SNR=1.4						
	0.5nm,0.6s						
MJAR	Matsushiro Arr	40.82	12	P	P	20 18 22.8	-0.6
	1.2nm,0.8s,baz=191,slow=9.6,SNR=4.9						
	1.2nm,0.8s						
PETK	Petropavlovsk-	61.50	20	P	P	20 20 58.9	+0.4
	0.7nm,0.5s,baz=217,slow=7.0,SNR=1.9						
	0.7nm,0.5s						
MKAR	Makanchi Array	64.39	327	P	P	20 21 17.1	-0.8
	0.3nm,0.4s,baz=120,slow=8.1,SNR=6.5						
	0.3nm,0.4s						

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*YARS **21** 20:11:59.8, 66°.53N×145°.75E, h10km, mb5.3/3, ML2.5/3*

*IDC **21** 20:12:00.9±0.6, 66°.94N×145°.24E, h0km, mb3.7/13, mbtmp3.7/17, ML4.3/2, Error ellipse: s-maj=12.3km s-min=8.2km az=44.0*

*NEIC **21** 20:12:03.5±1.5, 66°.84N±0°.05×145°.1E±0°.2, h10km±1km, mb4.2/15, Error ellipse: s-maj=13.7km s-min=4.3km az=53.0*

ISC 21 20:12:02.5±0.5, 66°.79N±0°.03×145°.20E±0°.04, h10km, n43, σ1s.95/59, mb3.8/19, Eastern Siberia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MOMR	Moma	0.86	249	*i* Pg	Pb	20 12 20.2	+0.8
MOMR				*i* Pg	Pb	20 12 20.2	+0.8
MOMR				*i* Pg	Pb	20 12 20.2	+0.8
	374nm,0.6s						
MOMR				*e*Sg	Sn	20 12 32.0	-1.1
MOMR				*e*Sg	Sn	20 12 32.0	-1.1
	707nm,0.3s						
YBGR	Belaya Gora	1.79	12	*e*Pn	Pn	20 12 33.4	+0.1
	22nm,0.4s						
YBGR				*e*Sn	Sb	20 12 58.6	+0.9
	66nm,0.4s						
YBGR				*e*Sn	Sb	20 12 58.6	+0.9
UNR	Ust'-Nera	2.38	201	*e*Pg	Pn	20 12 39.7	-1.7
	8.9nm,1.0s						
UNR				*e*Sg	Sb	20 13 13.8	-0.8
	284nm,0.5s						
UNR				*e*Sg	Sb	20 13 13.8	-0.8
SEY	Seymchan	4.94	138	Pn	Pn	20 13 19.0	+2.5
	0.7nm,0.3s,baz=331,slow=19,SNR=5.0						
SEY				Pg	Pb	20 13 31.0	+2.1
	2.7nm,0.3s,baz=316,slow=18,SNR=12						
SEY				Sn	Sn	20 14 15.9	+2.3
	5.3nm,0.3s,baz=334,slow=16,SNR=4.6						
SEY				Lg	Lg	20 14 36.1	
	7.8nm,0.3s,baz=12,slow=20,SNR=3.5						
TIXI	Tiksi	7.56	317	Pn	Pn	20 13 52.5	0.0
	2.3nm,0.3s,baz=128,slow=19,SNR=19						
TIXI				Sn	Sn	20 15 12.7	-5.4
	7.8nm,0.3s,baz=48,slow=14,SNR=8.3						
TIXI				Lg	Lg	20 15 52.3	
	baz=66,slow=20						
	7.2nm,0.3s						
TIXI				AML	AML		
TIXI	Tiksi	7.56	317		Pn	20 13 53.8	+1.3
MA2	Magadan	7.67	158	Pn	Pn	20 13 55.7	+1.7
	0.5nm,0.3s,baz=348,slow=19,SNR=1.9						
MA2				Lg	Lg	20 16 05.8	
	1.7nm,0.3s,baz=15,slow=16,SNR=6.6						
	9.3nm,1.0s						
MA2				AML	AML		
MA2	Magadan	7.67	158	*e*Pn	Pn	20 13 46.2	-7.8
	16nm,0.7s						
MA2				*e*Sg	Sg	20 16 03.3	-4.9
	220nm,1.4s						
MA2				*e*Sg	Sg	20 16 03.3	-4.9
USMR	Ust'-Maya	7.96	222	*e*Pn	Pn	20 13 54.7	-3.2
	0.9nm,2.1s						
USMR				*e*Sg	Sg	20 16 21.3	+3.8
	7.7nm,2.3s						
USMR				*e*Sg	Sg	20 16 21.3	+3.8
BILL	Bilibino	8.19	72	*e*P	Pn	20 13 57.9	-3.3
	24nm,1.1s						
BILL				*e*Lg	Lg	20 16 17.6	
BILL				*e*Lg	Lg	20 16 17.6	
YAK	Yakutsk	8.23	242	Pn	Pn	20 14 02.6	+0.9
	3.4nm,0.4s,baz=37,slow=2.7,SNR=1.0						
YAK				Sn	Sn	20 15 33.5	-1.1
	1.7nm,0.3s,baz=49,slow=19,SNR=5.7						
YAK				Lg	Lg	20 16 19.3	
	2.8nm,0.3s,baz=72,slow=3.2,SNR=7.9						
YAK	Yakutsk	8.23	242	*e*Pn	Pn	20 14 00.3	-1.4
	18nm,0.7s						
YAK				*e*Sn	Sn	20 15 35.1	+0.5
YAK				*e*Sn	Sn	20 15 35.1	+0.5
	8.4nm,2.3s						
YAK				*e*Lg	Lg	20 16 24.9	
YAK				*e*Lg	Lg	20 16 24.9	
CGD	Chagda	10.45	226	*e*Pn	Pn	20 14 29.4	-2.7
	0.7nm,0.5s						
CGD				*e*Pg		20 15 10.0	
	1.1nm,0.8s						
CGD				*e*Sn	Sn	20 16 27.4	-1.6
	2.5nm,0.9s						
CGD				*e*Sn	Sn	20 16 27.4	-1.6
CGD				*e*Lg	Lg	20 17 32.0	
CGD				*e*Lg	Lg	20 17 32.0	
	3.5nm,0.7s						
CGD				*e*Lg	Lg	20 17 32.0	
C16K	Lisburne Hills	18.55	63	P	P	20 16 20.2	+1.3
C16K				IAmb	IAmb	20 16 35.4	
	comp=Z,26nm,1.1s						
D19K	Kuna River	20.98	59	P	P	20 16 46.8	+1.3
D19K				IAmb	IAmb	20 16 56.2	
	comp=Z,11nm,1.1s						
D20K	Etivluk River	21.41	58		P	20 16 51.0	+1.0
E19K	Redstone River	21.71	62		P	20 16 54.7	+1.5
F19K	Shaleruckik Mo	21.79	63	P	P	20 16 55.7	+1.7
F19K				IAmb	IAmb	20 17 05.8	
	comp=Z,10nm,1.2s						
E21K	Killik River	22.41	58	P	P	20 17 01.6	+1.0
E21K				IAmb	IAmb	20 17 13.2	
	comp=Z,8.7nm,0.7s						
ASAJ	Asahikawa	22.77	185	P	P	20 17 06.4	+1.7
	comp=Z,3.9nm,0.5s,baz=358,slow=6.5,SNR=6.1						
	comp=Z,3.9nm,0.5s						
JKA	Kamikawa-asahi	22.77	185	P	P	20 17 05.7	+1.0
F21K	Alatna River	23.11	60		P	20 17 07.9	-0.2
F21K				IAmb	IAmb	20 17 15.7	
	comp=Z,5.7nm,0.9s						
G21K	Allakaket	23.44	62	P	P	20 17 12.8	+1.4
G21K				IAmb	IAmb	20 17 44.5	
	comp=Z,10.0nm,1.1s						
USRK	Ussuriysk Ar.	23.74	204	P	P	20 17 16.5	+2.1
	comp=Z,3.0nm,0.6s,baz=8.7,slow=10,SNR=8.1						
	comp=Z,3.0nm,0.6s						
USRK	Ussuriysk Ar.	23.74	204	P	P	20 17 16.2	+1.7
I21K	Tanana	24.67	64	P	P	20 17 24.8	+1.9
I21K				IAmb	IAmb	20 17 30.1	
	comp=Z,9.8nm,0.9s						
F24K	Squaw Lake	24.87	57		P	20 17 26.8	+2.0
IL31		26.70	62	P	P	20 17 41.1	-0.1
IL31				IAmb	IAmb	20 18 15.6	
	comp=Z,7.8nm,1.4s						
ILAR	Eielson Array	26.70	62	P	P	20 17 41.9	+0.6
	comp=Z,0.4nm,0.6s,baz=285,slow=6.6,SNR=13						
	comp=Z,0.4nm,0.6s						
SONM	Songino Array	27.56	246	P	P	20 17 51.3	+1.9
	comp=Z,0.7nm,0.7s,baz=38,slow=8.0,SNR=6.7						
	comp=Z,0.7nm,0.7s						
SONM	Songino Array	27.56	246	IAmb	IAmb	20 17 59.9	
	comp=Z,3.3nm,1.0s						
KURK	Kurchatov	36.02	277	P	P	20 19 04.9	+1.7
KURBB	Kurchatov Arra	36.13	277	P	P	20 19 04.9	+0.8
	comp=Z,0.5nm,0.2s,baz=40,slow=8.2,SNR=7.3						
	comp=Z,0.5nm,0.2s						
BVAR	Borovoye Array	37.40	286	P	P	20 19 15.7	+0.6
	comp=Z,0.3nm,0.4s,baz=41,slow=11,SNR=4.5						
	comp=Z,0.3nm,0.4s						
MKAR	Makanchi Array	37.71	270	P	P	20 19 17.0	-0.8
	comp=Z,0.5nm,0.7s,baz=32,slow=8.5,SNR=3.1						
	comp=Z,0.5nm,0.7s						
MKAR	Makanchi Array	37.71	270	P	P	20 19 17.4	-0.4
CMAR	Chiang Mai Arr	56.70	235	P	P	20 21 46.6	+0.7
	comp=Z,0.3nm,0.6s,baz=22,slow=6.5,SNR=4.3						
	comp=Z,0.3nm,0.6s						
PDAR	Pinedale Array	57.01	58	P	P	20 21 47.0	-1.1
	comp=Z,0.4nm,0.8s,baz=325,slow=6.4,SNR=4.4						
	comp=Z,0.4nm,0.8s						
NVAR	Mina Array Bea	57.78	67	P	P	20 21 52.8	-0.8

	comp=Z,0.3nm,0.5s,baz=335,slow=5.6,SNR=2.5						
	comp=Z,0.3nm,0.5s						
BRTR	Keskin Array B	61.83	306	P	P	20 22 20.3	-1.0
	comp=Z,0.3nm,0.5s,baz=24,slow=11,SNR=1.3						
	comp=Z,0.3nm,0.5s						
ESDC	Sonseca Array	71.27	335	P	P	20 23 19.5	-2.1
	comp=Z,0.4nm,0.8s,baz=18,slow=9.0,SNR=4.1						
	comp=Z,0.4nm,0.8s						
WRA	Warramunga Arr	86.86	190	P	P	20 24 47.0	+0.2
	comp=Z,0.6nm,0.9s,baz=2.6,slow=5.7,SNR=6.0						
	comp=Z,0.6nm,0.9s						
WRA	Warramunga Arr	86.86	190	IAmb	IAmb	20 24 52.8	
	comp=Z,0.2nm,1.1s						

IDC ***21*** *20:18:47.6±0.8, 18°.54S×69°.53W, h109km±6km, mb3.7/9, mbtmp4.2/11, Error ellipse: s-maj=17.4km s-min=10.7km az=122.0*

GUC ***21*** *20:18:47.8±0.8, 18°.44S×69°.66W, h95km±4km, ML4.3*

NEIC ***21*** *20:18:47.5±2.0, 18°.49S±0°.04×69°.83W±0°.05, h103km±4km, mb4.1/14, ML4.3(GUC), Error ellipse: s-maj=7.3km s-min=5.6km az=103.0*

VAO ***21*** *20:18:51.7±2.7, 18°.63S×69°.22W, h163km±14km, mb4.5, Presumed earthquake*

ISC 21 20:18:46.3±0.5**, 18°.49S**±0°.03×**69°.65W**±0°.05**, h101**km±4km**, h102km:pP-P, n97, σ1s.52**/107**, mb4.0**/8**, 4C-4D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB16	IPOC Station P	0.20	42	⇓iP	Pn	20 19 02.5	+1.1
PB16				eS	Sn	20 19 13.7	+1.1
PB16				IAML		20 19 15.4	
	comp=N,19µm,0.5s						
PB16	IPOC Station P	0.20	42	Pn	Pn	20 19 02.3	+0.9
PB16				Sn	Sn	20 19 13.7	+1.1
PB12	IPOC Station P	0.66	259	⇑iP	Pn	20 19 03.6	+0.1
PB12				eS	Sn	20 19 16.2	-0.3
PB12				IAML		20 19 16.5	
	comp=N,7µm,0.2s						
PB12	IPOC Station P	0.66	259		Pn	20 19 02.9	-0.7
PB12				Sn	Sn	20 19 15.4	-1.1
AP01	Chacalluta	0.67	280	⇑iP	Pn	20 19 03.9	+0.3
AP01				eS	Sn	20 19 16.7	+0.3
AP01				IAML		20 19 17.8	
	comp=N,22µm,0.3s						
AP01	Chacalluta	0.67	280		Pn	20 19 03.4	-0.1
AP01				Sn	Sn	20 19 16.8	+0.3
PX02	IPOC Station P	0.70	228	⇓eP	Pn	20 19 03.6	-0.4
PB18	Visviri	0.91	10	⇓iP	Pn	20 19 09.1	+2.6
PB18	Visviri	0.91	10		Pn	20 19 09.1	+2.6
PB18				Sn	Sn	20 19 25.1	+3.6
PSGCX	Pisagua	1.19	202	⇑iP	Pn	20 19 09.7	+0.6
PSGCX				eS	Sn	20 19 26.7	+0.5
PSGCX	Pisagua	1.19	202		Pn	20 19 09.3	+0.3
PSGCX				Sn	Sn	20 19 26.5	+0.3
GO01	Chusmiza	1.25	160	i P	Pn	20 19 12.5	+2.4
GO01				IAML		20 19 36.9	
	comp=E,6µm,0.1s						
GO01	Chusmiza	1.25	160		Pn	20 19 12.5	+2.4
GO01				Sn	Sn	20 19 31.5	+3.4
PB11	IPOC Station P	1.27	180	⇑iP	Pn	20 19 11.3	+1.3
PB11				eS	Sn	20 19 29.8	+1.9
PB11				IAML		20 19 30.8	
	comp=E,6µm,0.3s						
PB11	IPOC Station P	1.27	180		Pn	20 19 11.3	+1.3
PB11				Sn	Sn	20 19 29.7	+1.9
PB08	IPOC Station P	1.71	164		Pn	20 19 17.9	+2.3
TA02	Huaiquique	1.83	194	eP	Pn	20 19 17.4	+0.7
LPAZ	La Paz	2.63	34	P	Pn	20 19 30.7	+3.0
	comp=E,135nm,0.3s,baz=205,slow=5.8,SNR=1102						
LPAZ				S	Sn	20 20 03.0	+3.6
	comp=E,73nm,0.7s,baz=210,slow=8.1,SNR=7.0						
LPAZ	La Paz	2.63	34		Pn	20 19 30.5	+2.8
LPAZ				Sn	Sn	20 20 01.4	+2.0
PB02	IPOC Station P	2.83	185	eP	Pn	20 19 31.0	+1.1
PB02				IAML		20 20 30.7	
	comp=E,1µm,0.5s						
PB02	IPOC Station P	2.83	185		Pn	20 19 31.2	+1.3
PB02				Sn	Sn	20 20 01.9	-1.5
PB07	IPOC Station P	3.23	184	eP	Pn	20 19 36.8	+1.5
PB07				IAML		20 20 24.9	
	comp=E,666nm,0.5s						
PB07	IPOC Station P	3.23	184		Pn	20 19 37.0	+1.7
PB09	IPOC Station P	3.31	173	eP	Pn	20 19 38.5	+2.0
PB09				IAML		20 20 41.8	
	comp=E,472nm,0.6s						
PB09	IPOC Station P	3.31	173		Pn	20 19 38.4	+2.0
PB03	IPOC Station P	3.54	182	⇓eP	Pn	20 19 41.1	+1.6
PB03	IPOC Station P	3.54	182		Pn	20 19 40.1	+0.6
PB06	IPOC Station P	4.20	179	eP	Pn	20 19 48.9	+0.5
PB06	IPOC Station P	4.20	179		Pn	20 19 49.1	+0.8
PB05	IPOC Station P	4.37	187	eP	Pn	20 19 50.2	-0.5
PB05	IPOC Station P	4.37	187		Pn	20 19 50.6	0.0
AC02	Maricunga	8.32	177		Pn	20 20 44.0	-0.7
SIV	San Ignacio	8.56	74	P	Pn	20 20 47.2	-0.3
	comp=E,17nm,0.3s,baz=264,slow=13,SNR=53						
SIV				S	Sn	20 22 20.6	-1.9
	comp=E,5.0nm,0.6s,baz=328,slow=19,SNR=1.3						
PTLB	Pontes e Lacer	10.50	75		Pn	20 21 14.7	+0.8
PTLB	Pontes e Lacer	10.50	75	eP	Pn	20 21 13.8	-0.1
VILB	Vilhena	10.63	60		Pn	20 21 15.1	-0.6
VILB	Vilhena	10.63	60	eP	Pn	20 21 15.0	-0.7
COIM	Forte Coimbra	11.30	99	eP	Pn	20 21 21.8	-2.8
MURT	Porto Murtinho	11.74	108	eP	Pn	20 21 29.7	-0.9
CO06	Fray Jorge	12.27	188	Pn	Pn	20 21 39.1	+1.6
CO03	El Pedregal	12.33	184	Pn	Pn	20 21 38.6	+0.2
CO04	Los Peladeros	13.55	185	Pn	Pn	20 21 54.7	+0.1
SALV	Santo Antonio	13.58	81	eP	Pn	20 21 53.3	-1.6
PP1B	Ponte de Pedra	14.08	89	eP	Pn	20 21 59.4	-1.9
MT02	Curacav	14.77	185	Pn	Pn	20 22 10.5	+0.4
MT08	Bocatoma Ro	14.90	181	P	P	20 22 14.4	-0.7
MT13	San Alfonso	15.20	182	P	P	20 22 17.4	-0.9
MT13				IAmb	IAmb	20 22 23.6	
	comp=Z,8.7nm,0.6s						
MT09	Talagante	15.27	184		Pn	20 22 17.1	+0.5
MT09				IAmb	IAmb	20 22 22.8	
	comp=Z,19nm,1.4s						
MT01	Popeta	15.38	185	Pn	Pn	20 22 18.6	+0.9
MT01				IAmb	IAmb	20 22 23.8	
	comp=Z,8.5nm,0.7s						
CLDB	Colider	15.38	62	eP	Pn	20 22 17.3	-0.7
BO04	La Punta	15.46	183	Pn	Pn	20 22 18.8	0.0
BO04				IAmb	IAmb	20 22 59.6	
	comp=Z,28nm,1.4s						
BO01	Tunca	15.89	184	Pn	Pn	20 22 23.9	-0.2
BO01				IAmb	IAmb	20 22 29.4	
	comp=Z,20nm,1.5s						
BO02	Sierra Bellavi	16.27	183	P	Pn	20 22 29.4	+0.5
H03N1	Juan Fernandez	17.05	207	T	T	20 40 05.8	
	baz=232,slow=74,SNR=11						
H03N2	Juan Fernandez	17.05	207	T	T	20 40 08.5	
	baz=30,slow=74,SNR=10						
VA04	Juan Fernndez	17.18	207		Pn	20 22 39.5	-0.5
PTGB	Pitanga	17.48	114	eP	P	20 22 40.7	-2.8
ITTB	Itaituba	19.55	46	eP	P	20 23 05.3	-0.8
BDFB	Brasilia	20.88	85	P	P	20 23 18.6	-1.9
	comp=Z,6.5nm,0.5s,baz=247,slow=7.7,SNR=10						
	comp=Z,6.5nm,0.5s						
BDFB	Brasilia	20.88	85	P	Pn	20 23 22.6	-1.4
BDFB				IAmb	IAmb	20 23 23.9	
	comp=Z,7.8nm,0.6s						
GO06	Curarrehue	21.08	184	P	P	20 23 23.9	+1.4
GO06				IAmb	IAmb	20 23 29.6	
	comp=Z,8.3nm,1.1s						
VAO	Valinhos	21.68	106	P	P	20 23 29.6	+0.6
CANS	Sao Roque de M	22.01	98	eP	P	20 23 29.1	-3.5
PMNB	Patos De Minas	22.01	94	eP	P	20 23 28.7	-3.9
PLCA	Paso Flores	22.18	182	P	P	20 23 36.2	+2.0
	comp=Z,4.5nm,0.8s,baz=6.7,slow=13,SNR=9.8						
	comp=Z,4.5nm,0.8s						
PLCA	Paso Flores	22.18	182	P	P	20 23 36.2	+2.0
BOAV	Boa Vista	22.61	24	P	P	20 23 38.8	0.0
BOAV	Boa Vista	22.61	24	eP	P	20 23 38.5	-0.3
SMTB	Santa Maria do	23.45	69	eP	P	20 23 44.6	-2.3
JANB	Januaria	24.49	86	eP	P	20 23 53.5	-2.9
GUA01	Guaratinga, BA	28.51	91	eP	P	20 24 26.9	-5.5
CMC01	Camacan, BA	28.98	88	eP	P	20 24 30.4	-6.2
TXAR	Lajitas Array	57.77	325	P	P	20 28 27.4	+0.3
	comp=Z,0.2nm,0.4s,baz=136,slow=3.2,SNR=2.3						
TXAR				pP	pP	20 28 53.0	+0.3
	comp=Z,0.2nm,0.5s,baz=156,slow=3.4,SNR=1.9						
	comp=Z,0.2nm,0.4s						
TXAR	Lajitas Array	57.77	325	P	P	20 28 27.0	-0.2
TXAR					pP	20 28 52.4	-0.4
DBIC	Dimbokro	68.59	75	P	P	20 29 37.0	-1.8
	comp=Z,2.8nm,0.5s,baz=236,slow=9.4,SNR=5.9						
	comp=Z,2.8nm,0.5s						
DBIC	Dimbokro	68.59	75	P	P	20 29 37.1	-1.7
PDAR	Pinedale Array	71.17	330	P	P	20 29 55.2	+0.9
	comp=Z,0.2nm,0.5s,baz=149,slow=4.3,SNR=3.7						
	comp=Z,0.2nm,0.5s						
PDAR	Pinedale Array	71.17	330	P	P	20 29 54.2	-0.1
QSPA	South Pole Qui	71.69	180	P	P	20 29 58.4	+1.3
	comp=Z,1.3nm,0.7s,baz=190,slow=0.7,SNR=10.0						
QSPA				pP	pP	20 30 24.8	+1.2
	comp=Z,1.4nm,0.9s,baz=280,slow=2.5,SNR=2.9						
	comp=Z,1.3nm,0.7s						
QSPA	South Pole Qui	71.69	180	P	P	20 29 59.1	+2.0
QSPA				IAmb	IAmb	20 30 24.7	
	comp=Z,4.2nm,1.3s						
TORD	Torodi Ar. Bea	77.03	71	P	P	20 30 27.9	-0.8
	comp=Z,6.7nm,1.0s,baz=250,slow=5.6,SNR=19						
TORD				pP	pP	20 30 56.4	+0.2
	comp=Z,1.2nm,0.7s,baz=252,slow=5.4,SNR=2.2						
	comp=Z,6.7nm,1.0s						
ESDC	Sonseca Array	84.20	45	P	P	20 31 07.1	+0.5
	comp=Z,1.6nm,0.8s,baz=243,slow=5.3,SNR=14						
	comp=Z,1.6nm,0.8s						
ESDC	Sonseca Array	84.20	45	P	P	20 31 07.3	+0.8
YKA	Yellowknife Ar	88.13	341	P	P	20 31 26.0	+0.8
	comp=Z,0.8nm,0.6s,baz=138,slow=4.8,SNR=3.7						
YKA				pP	pP	20 31 53.3	+0.5
	comp=Z,1.5nm,0.7s,baz=138,slow=4.7,SNR=4.5						
	comp=Z,0.8nm,0.6s						
H11S2	WAKE ISLAND Hy	126.75	280	T	T	22 57 02.5	
	baz=100,slow=75,SNR=24						
H11N3	WAKE ISLAND Hy	126.75	281	T	T	22 57 12.8	
	baz=100,slow=75,SNR=7.1						
H11S1	WAKE ISLAND Hy	126.76	280	T	T	22 57 04.8	
	baz=100,slow=75,SNR=12						
H11N2	WAKE ISLAND Hy	126.77	281	T	T	22 57 17.0	
	baz=100,slow=75,SNR=9.2						
H11S3	WAKE ISLAND Hy	126.77	280	T	T	22 57 04.5	
	baz=100,slow=75,SNR=26						
H11N1	WAKE ISLAND Hy	126.77	281	T	T	22 57 09.9	
	baz=100,slow=75,SNR=6.1						
PETK	Petropavlovsk-	129.73	325	PKP	PKPdf	20 37 44.0	+0.5
	comp=Z,1.0nm,0.4s,baz=81,slow=4.7,SNR=4.2						
PETK	Petropavlovsk-	129.73	325		PKPdf	20 37 43.4	-0.1
ASAR	Alice Springs	132.21	210	PKP	PKPdf	20 37 49.6	+0.4
	comp=Z,0.3nm,0.8s,baz=150,slow=2.0,SNR=2.0						
ASAR	Alice Springs	132.21	210		PKPdf	20 37 49.0	-0.3
WRA	Warramunga Arr	135.14	213	PKP	PKPdf	20 37 55.5	+0.7
	comp=Z,0.4nm,0.9s,baz=138,slow=1.9,SNR=7.4						
ZALV	Zalesovo Beam	139.50	23	PKP	PKPdf	20 38 02.6	+0.9
	comp=Z,0.3nm,0.3s,baz=334,slow=6.1,SNR=1.7						
ZALV	Zalesovo Beam	139.50	23		PKPdf	20 38 01.9	+0.3

IDC ***21*** *20:23:52.4±1.2, 6°.37N×125°.19E, h0km, mb3.3/4, mbtmp3.5/5, ML4.2/1, Error ellipse: s-maj=27.2km s-min=14.2km az=94.0*

MAN ***21*** *20:23:55.0, 7°.08N×126°.03E, h53km, MS3.7*

ISC 21 20:23:57.3±1.0**, 7°.08N**±0°.08×**126°.03E**±0°.08**, h50km, n12, σ1s.19**/13**, mb3.4**/4**, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DAV	Davao City (W)	0.45	269	Pg	Pn	20 24 08.4	+0.4
	23nm,0.3s,baz=207,slow=4.5,SNR=4.5						
DAV				Lg	Lg	20 24 17.8	
	377nm,0.3s,baz=144,slow=19,SNR=5.6						
CDOP	Cateel, Davao	0.81	30	i P	Pn	20 24 12.3	-0.1
BUKP	Musuan	1.25	310	i P	Pn	20 24 17.7	-0.7
BUKP				i S	Sn	20 24 34.0	-0.2
LSIP	Lazi, Siquijor	3.13	311	i P	Pn	20 24 43.8	-0.4
LSIP				i S	Sn	20 25 19.8	-0.6
TBP	Tagbilaran	3.37	321	eP	Pn	20 24 46.9	-0.6
SNPH	Sibulan	3.57	309	eP	Pn	20 24 50.4	+0.2
PLP	Palo	4.19	346	eP	Pn	20 24 58.3	-0.4
SIJI	Sorong	9.47	146	Pn	Pn	20 26 12.0	+0.9
	2.1nm,0.3s,baz=314,slow=18,SNR=8.7						
	5.2nm,0.3s						
SIJI				AML	AML		
WRA	Warramunga Arr	28.07	163	P	P	20 29 43.0	-1.2
	0.2nm,0.9s,baz=341,slow=9.1,SNR=6.5						
	0.2nm,0.9s						
ASAR	Alice Springs	31.51	166	P	P	20 30 12.4	-2.3
	0.2nm,0.3s,baz=341,slow=8.6,SNR=7.6						
	0.2nm,0.3s						
MKAR	Makanchi Array	54.44	324	P	P	20 33 22.3	+2.7
	0.4nm,0.8s,baz=122,slow=8.8,SNR=2.0						
	0.4nm,0.8s						
KURBB	Kurchatov Arra	58.57	327	P	P	20 33 51.0	+2.2
	0.2nm,0.5s,baz=124,slow=6.7,SNR=2.3						
	0.2nm,0.5s						

IDC ***21*** *20:48:18.3±0.7, 62°.01S×58°.33W, h0km, mb4.2/9, mbtmp4.1/10, ML3.7/1, MS3.4/7, Error ellipse: s-maj=24.2km s-min=18.2km az=101.0*

NEIC ***21*** *20:48:19.2±1.6, 62°.26S±0°.04×58°.24W±0°.06, h10km±1km, mb4.5/14, Error ellipse: s-maj=6.2km s-min=4.5km az=343.0*

ISC 21 20:48:19.3±0.5**, 62°.15S**±0°.07×**58°.40W**±0°.08**, h10km, n52, σ1s.23**/41**, mb4.3**/15**, MS3.2**/7**, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ESPZ	Base Esperanza	1.41	153	Pn	Pn	20 48 41.4	-3.5
PMSA	Palmer Station	3.65	221	Pn	Pn	20 49 15.7	-0.1
	5.6nm,0.3s,baz=54,slow=13,SNR=16						
PMSA				Sn	Sb	20 50 06.5	-1.6
	8.8nm,0.3s,baz=79,slow=5.2,SNR=4.9						
	6.1nm,0.3s						
PMSA				AML	AML		
PMSA	Palmer Station	3.65	221		Pn	20 49 14.8	-1.0
ORCD	Orcadas	6.71	84	Pn	Pn	20 49 55.6	-2.0
SMAI	San Martin Ant	7.03	208	Pn	Pn	20 50 01.5	-0.5
EFI	East Falkland	10.51	1	Pn	Pn	20 50 47.4	-2.3
BELA	Belgrano 2	17.49	164		Pn	20 52 21.1	-1.7
VNA3	Neumayer Olymp	20.67	136	P	Pn	20 52 59.7	-1.4
	comp=Z,16nm,0.7s						
VNA1	Neumayer--Stat	21.14	135	P	P	20 53 05.1	+1.3
	comp=Z,10nm,0.8s						
VNA2	Neumayer--Watz	21.42	136	P	P	20 53 06.8	-0.1
	comp=Z,8.0nm,0.7s,baz=267,slow=10						
PLCA	Paso Flores	22.67	335	P	P	20 53 18.2	-2.4
	comp=Z,1.3nm,0.9s,baz=168,slow=13,SNR=4.4						
PLCA				LR	LR	21 01 10.2	
	comp=Z,66nm,19.9s,baz=171,slow=34						
	comp=Z,1.3nm,0.9s						
PLCA	Paso Flores	22.67	335	P	P	20 53 20.7	+0.2
PLCA				IAmb	IAmb	20 53 29.7	
	comp=Z,14nm,1.3s						
SNAA	Sanae	22.85	138	P	P	20 53 22.9	+0.7
	comp=Z,126nm,0.7s						
SNAA	Sanae	22.85	138	P	P	20 53 21.9	-0.3
	comp=Z,3.5nm,0.9s,baz=268,slow=9.0,SNR=4.6						
SNAA				LR	LR	21 00 46.7	
	comp=Z,75nm,20.4s,baz=270,slow=33						
	comp=Z,3.5nm,0.9s						
SNAA	Sanae	22.85	138	P	P	20 53 20.9	-1.3
SNAA				IAmb	IAmb	20 53 27.5	
	comp=Z,6.2nm,0.8s						
TRQA	Tornquist	24.22	353	P	P	20 53 37.0	+1.1
TRQA				IAmb	IAmb	20 53 46.3	
	comp=Z,7.4nm,1.1s						
TROLL	Troll, Antarti	24.48	139	P	P	20 53 39.0	+0.8
	comp=Z,109nm,0.6s						
QSPA	South Pole Qui	28.07	180	P	P	20 54 11.0	+0.3
	comp=Z,4.3nm,1.1s,baz=160,slow=3.6,SNR=11						
QSPA				LR	LR	21 06 30.3	
	comp=Z,51nm,19.4s,baz=148,slow=39						
	comp=Z,4.3nm,1.1s						
QSPA	South Pole Qui	28.07	180	P	P	20 54 10.4	-0.2
QSPA				IAmb	IAmb	20 54 24.8	
	comp=Z,7.0nm,1.1s						
MT08	Bocatoma Ro	29.67	340	P	P	20 54 25.6	+0.5
MT08				IAmb	IAmb	20 54 40.3	
	comp=Z,6.9nm,0.9s						
CO02	Combarbal	32.02	339	P	P	20 54 46.3	+0.5
CO02				IAmb	IAmb	20 55 10.1	
	comp=Z,27nm,1.4s						
CO01	Juntas del Tor	33.08	341	P	P	20 54 56.2	+1.0
CO01				IAmb	IAmb	20 55 05.7	
	comp=Z,6.2nm,0.8s						
LCO	Las Campanas	34.12	341	P	P	20 55 05.3	+1.0
LCO				IAmb	IAmb	20 55 28.2	
	comp=Z,12nm,1.3s						
AC04	Llanos de Chal	34.97	340	P	P	20 55 11.8	+0.5
VNDA	Vanda	38.39	193	LR	LR	21 12 48.2	
	comp=Z,33nm,18.6s,baz=150,slow=38						
MAW	Mawson	43.77	152	P	P	20 56 26.1	+1.9
	comp=Z,2.5nm,0.9s,baz=219,slow=8.5,SNR=5.4						
MAW				LR	LR	21 14 12.4	
	comp=Z,97nm,19.9s,baz=223,slow=35						
	comp=Z,2.5nm,0.9s						
MAW	Mawson	43.77	152	P	P	20 56 25.1	+0.9
LPAZ	La Paz	46.32	347	LR	LR	21 16 49.8	
	comp=Z,26nm,18.7s,baz=149,slow=37						
H10S2	ASCENSION HYDR	61.86	51	T	T	22 05 51.9	
	baz=17,slow=74,SNR=18						
H10S3	ASCENSION HYDR	61.86	51	T	T	22 05 51.8	
	baz=203,slow=74,SNR=18						
BOSA	Boshof	62.21	99	P	P	20 58 41.6	+0.7
	comp=Z,11nm,1.3s,baz=216,slow=8.7,SNR=5.1						
	comp=Z,11nm,1.3s						
BOSA	Boshof	62.21	99	P	P	20 58 41.4	+0.5
H10N3	ASCENSION HYDR	62.94	50	T	T	22 07 12.6	
	baz=202,slow=75,SNR=31						
H10N1	ASCENSION HYDR	62.95	51	T	T	22 07 18.5	
	baz=202,slow=75,SNR=32						
H10N2	ASCENSION HYDR	62.96	50	T	T	22 07 12.8	
	baz=202,slow=75,SNR=29						
ROSC	El Rosal	67.92	343	P	P	20 59 18.2	-0.1
	comp=Z,7.1nm,0.3s,baz=117,slow=18,SNR=2.7						
	comp=Z,7.1nm,0.3s						
ROSC	El Rosal	67.92	343	IAmb	IAmb	20 59 24.1	
	comp=Z,20nm,0.4s						
SDV	Santo Domingo	71.46	347	LR	LR	21 34 20.9	
	comp=Z,47nm,18.5s,baz=84,slow=39						
TORD	Torodi Ar. Bea	88.37	58	P	P	21 01 11.5	+0.5
	comp=Z,0.4nm,0.7s,baz=204,slow=3.2,SNR=1.8						
	comp=Z,0.4nm,0.7s						
ASAR	Alice Springs	93.91	191	P	P	21 01 37.8	+0.8
	comp=Z,0.7nm,0.9s,baz=188,slow=4.7,SNR=4.5						
	comp=Z,0.7nm,0.9s						
WRA	Warramunga Arr	97.56	192	P	P	21 01 53.3	-0.2
	comp=Z,0.7nm,1.0s,baz=176,slow=4.3,SNR=4.9						
	comp=Z,0.7nm,1.0s						
WRA	Warramunga Arr	97.56	192	IAmb	IAmb	21 01 53.8	
	comp=Z,0.1nm,1.2s						
GERES	GERESS Array B	124.58	50	PKP	PKiKP	21 07 18.2	+0.2
	comp=Z,0.4nm,0.4s,baz=197,slow=1.0,SNR=4.9						
ARCES	ARCESS Array B	144.00	37	PKP	PKPbc	21 07 51.8	+0.7
	comp=Z,2.2nm,0.6s,baz=226,slow=3.6,SNR=7.2						
LZDM	Lanzhou Array	151.48	149	PKPbc	PKiKP	21 08 15.6	+2.1
	comp=Z,1.0nm,0.3s,baz=205,slow=3.0,SNR=4.6						
BVAR	Borovoye Array	151.80	85	PKPbc	PKiKP	21 08 14.1	+0.9
	comp=Z,3.3nm,0.6s,baz=242,slow=2.3,SNR=11						
MKAR	Makanchi Array	153.02	106	PKPbc	PKiKP	21 08 16.8	+0.9
	comp=Z,1.0nm,0.6s,baz=230,slow=3.1,SNR=7.3						
MKAR	Makanchi Array	153.02	106		PKiKP	21 08 16.7	+0.8
KURBB	Kurchatov Arra	154.04	96	PKPbc	PKiKP	21 08 18.4	+0.6
	comp=Z,0.7nm,0.8s,baz=225,slow=3.2,SNR=8.6						
KURK	Kurchatov	154.15	96		PKiKP	21 08 18.8	+0.8
SONM	Songino Array	163.28	142	PKPab	PKPab	21 09 12.7	+1.0
	comp=Z,0.8nm,0.8s,baz=182,slow=3.6,SNR=6.4						
SONM	Songino Array	163.28	142		PKPab	21 09 12.4	+0.8

AFAD ***21*** *20:58:00.0, 38°.91N×26°.00E, h7km±3km, ML2.6*

ISK ***21*** *20:58:00.2, 38°.96N×26°.04E, h6km, ML2.5/19*

ATH ***21*** *20:58:00.5, 38°.95N×26°.07E, h15km±1km, ML2.2/2, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*

ISC 21 20:58:00.4±1.0**, 38°.94N**±0°.02×**26°.03E**±0°.03**, h14**km±9km**, n58, σ0s.49**/69**, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PRK	Paraskevi	0.36	32	P	Pg	20 58 07.5	-0.2
PRK				S	Sg	20 58 12.8	+0.2
PRK				AML	AML		
KARB	zmir-Karabur	0.41	133	P	Pg	20 58 08.5	-0.1
KARB				S	Sg	20 58 13.8	-0.3
GPNR	Gulpinar-Canak	0.52	9	Pg	Pg	20 58 10.4	-0.3
GPNR				Sg	Sb	20 58 18.6	-0.1
GPNR				AML	AML		
KRBN	Karaburun	0.54	130	Pg	Pb	20 58 11.3	-0.3
KRBN				Sg	Sb	20 58 19.4	+0.2
KRBN				AML	AML		
CHOS	Chios island	0.55	178	Pg	Pb	20 58 11.8	-0.2
CHOS				AML	AML		
CHOS	Chios island	0.55	178	P	Pg	20 58 11.3	0.0
CHOS				S	Sb	20 58 19.6	-0.2
CHOS				AML	AML		
KOCA	Canakkale, Ayv	0.57	9	P	Pg	20 58 11.6	+0.1
FOCM	Foa	0.59	112	Pg	Pb	20 58 12.7	+0.1
FOCM				AML	AML		
AYVA	Ayvalik	0.63	54	P	Pg	20 58 12.5	-0.2
AYVA				S	Sb	20 58 22.7	+0.7
AYVA				IAML		20 58 24.0	
	comp=E,377nm,0.2s						
AYVA				IAML		20 58 24.0	
	comp=N,473nm,0.2s						
DKL	Dikili	0.69	79	Pg	Pg	20 58 13.8	-0.1
DKL				AML	AML		
DKL	Dikili	0.69	79	P	Pg	20 58 13.6	-0.3
DKL				S	Sg	20 58 22.9	-0.2
BAGT	Foa	0.70	114	P	Pb	20 58 14.8	+0.4
ZEYE	Izmir, Urla-Ze	0.79	152	P	Pb	20 58 16.8	+0.8
ZEYE				S	Sg	20 58 26.4	+0.2
ZEYE				IAML		20 58 29.0	
	comp=E,179nm,0.3s						
ZEDA	zmir-Bergama	0.82	88	P	Pb	20 58 16.9	+0.4
ZEDA				S	Sg	20 58 26.4	-0.6
ZEDA				IAML		20 58 28.0	
	comp=N,202nm,0.5s						
ZEDA				IAML		20 58 29.0	
	comp=E,205nm,0.3s						
EZNE	Ezine-Canakkal	0.85	18	Pg	Pg	20 58 16.8	-0.2
BAYC	CANAKKALE_Bayr	0.89	27	P	Pg	20 58 17.2	-0.5
BOZC	Bozcaada	0.90	1	Pg	Pg	20 58 17.4	-0.4
BOZC				AML	AML		
BOZC	Bozcaada	0.90	1	P	Pg	20 58 17.6	-0.2
EZN	Ezine	0.91	14	Pg	Pg	20 58 17.8	-0.3
EZN				AML	AML		
BLCB	Balcova	0.97	125	Pg	Pb	20 58 19.4	+0.4
BUHA	Balikesir, Bur	0.99	55	P	Pg	20 58 19.0	-0.4
CAMT	Merkez	1.02	100	P	Pb	20 58 20.3	+0.4
YAYO	Edremit-Balk	1.05	50	Pg	Pg	20 58 20.1	-0.6
YAYO				AML	AML		
ECEA	Canakkale, Ece	1.11	6	P	Pb	20 58 21.7	+0.4
DGB	zmir	1.11	143	P	Pg	20 58 21.0	-0.8
CNKL	anakkale-Mer	1.16	14	P	Pb	20 58 22.5	+0.3
LIA	Limnos Island	1.16	326	P	Pg	20 58 22.2	-0.5
LIA				S	Sb	20 58 38.0	+0.8
SOMA	Soma-Manisa	1.19	79	Pn	Pb	20 58 23.1	+0.3
SOMA				AML	AML		
COMU	Canakkale	1.21	16	Pn	Pb	20 58 23.3	+0.2
COMU				AML	AML		
GADA	Gvkgeada	1.25	355	Pn	Pn	20 58 23.6	+0.1
GADA				AML	AML		
CANM	Can-anakkale	1.33	36	Pn	Pb	20 58 25.3	+0.1
CANM				AML	AML		
YENI	Yenice-Canakka	1.37	43	Pn	Pg	20 58 26.3	-0.4
LAPS	Lapseki, ANA	1.45	25	P	Pn	20 58 26.3	0.0
BALY	Balya	1.47	57	P	Pb	20 58 27.8	+0.2
GELI	Tayfur-Gelibol	1.49	13	Pn	Pn	20 58 27.6	+0.8
GELI				AML	AML		
KYMI	Kymi, Euboea I	1.54	259	P	Pn	20 58 27.9	+0.4
KARY	Karystos	1.54	234	P	Pn	20 58 28.1	+0.5
GCAM	G?zelcaml?	1.56	142	Pn	Pb	20 58 29.3	+0.2
GCAM				AML	AML		
SMTH	Samothraki Isl	1.57	346	P	Pn	20 58 28.2	+0.2
BALB	Balikesir	1.60	64	Pn	Pn	20 58 29.1	+0.9
BALB				AML	AML		
BALB	Balikesir	1.60	64	P	Pn	20 58 28.0	-0.3
BALB				S	Sn	20 58 47.3	-1.4
KTTT	Salihli	1.63	98	P	Pn	20 58 28.9	+0.1
BKES	Balkesir-Mer	1.67	61	P	Pg	20 58 32.2	-0.3
GONE	Gonen-Balikesi	1.69	49	Pn	Pb	20 58 30.8	-0.5
IZMR	zmir-demi	1.71	117	P	Pg	20 58 33.0	-0.2
ODEM	Odemis-Izmir	1.73	112	Pn	Pn	20 58 31.3	+1.1
ODEM				AML	AML		
KRBG	Karabiga-Canak	1.75	34	Pn	Pn	20 58 31.4	+1.1
KRBG				AML	AML		
ERIK	Erikli-Kesan	1.77	12	Pn	Pn	20 58 31.7	+1.1
ERIK				AML	AML		
GOKT	Kean, EDRN	1.78	15	P	Pn	20 58 31.0	+0.3

CMHT	Manyas	1.84	54	P	Pn	20 58 32.1	+0.4
DION	Dionisos Attik	1.86	243	P	Pn	20 58 32.1	+0.2
SUSR	Susurluk-Balik	1.89	57	Pn	Pn	20 58 33.3	+1.0
SUSR				AML	AML		
THAS	Thassos island	1.94	329	P	Pn	20 58 33.0	0.0
ALN	Alexandroupoli	1.95	0	P	Pn	20 58 33.1	0.0
KIRA	zmir-Kiraz	2.00	111	P	Pn	20 58 34.0	0.0
DURS	Dursunbey	2.01	70	P	Pn	20 58 34.0	0.0
DEMI	Demirci	2.10	86	P	Pg	20 58 40.7	+0.1
SIMV	Simav	2.34	85	P	Pb	20 58 42.9	+0.5

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*IDC **21** 21:06:19.6±4.7, 27°.03S×177°.42W, h180^{km}±28^{km}, mb3.3/3, mbtmp3.9/5, Error ellipse: s-maj=66.8km s-min=26.6km az=42.0*

ISC 21 21:06:26.8±1.6**, 27°.9S**±0°.1×**178°.0W**±0°.2**, h200^{km}, n6, σ1^{s}84**/8**, mb3.4**/3**, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	1.35	177	P	Pn	21 06 59.2	+0.1
	238nm,0.3s,baz=307,slow=20,SNR=1.7						
RAO				S	Sn	21 07 21.1	-3.3
	618nm,0.3s,baz=35,slow=22,SNR=8.5						
URZ	Urewera	11.11	200	P	P	21 09 07.4	+1.0
	2.1nm,0.7s,baz=360,slow=20,SNR=1.0						
URZ				S	S	21 11 05.2	+0.9
	3.7nm,0.5s,baz=294,slow=18,SNR=3.8						
ASAR	Alice Springs	43.30	264	P	P	21 14 08.5	-0.6
	0.4nm,0.6s,baz=108,slow=7.9,SNR=6.7						
	0.4nm,0.6s						
WRA	Warramunga Arr	44.06	270	P	P	21 14 13.9	-1.3
	1.0nm,0.7s,baz=112,slow=6.9,SNR=7.7						
	1.0nm,0.7s						
QSPA	South Pole Qui	62.20	180	P	P	21 16 27.5	+0.7
	1.4nm,0.6s,baz=31,slow=3.5,SNR=12						
	1.4nm,0.6s						
BRTR	Keskin Array B	151.34	303	PKPbc	PKPdf	21 25 51.9	+1.2
	0.3nm,0.7s,baz=72,slow=4.7,SNR=1.6						

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*TRN **21** 22:43:20.0, 11°.23N×61°.80W, h59^{km}, MD3.2, North-west of Trinidad.*

*FUNV **21** 22:43:55.0, 11°.22N×61°.97W, h33^{km}, MW3.0, Presumed earthquake*

ISC 21 22:43:54.1±1.8**, 11°.21N**±0°.05×**62°.0W**±0°.1**, h56^{km}**±37^{km}**, n12, σ0^{s}79**/22**, Windward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DMDM	Guralp CMG5TDE	0.69	137	*e*P	Pn	22 44 08.4	+0.3
DMDM				*e*S	Sn	22 44 18.0	-0.2
PSKH	Kent House, Po	0.72	136	*e*P	Pn	22 44 09.1	+0.6
PSKH				*e*S	Sn	22 44 18.9	0.0
PSMG	Mucurapo Girls	0.72	137	*e*P	Pn	22 44 09.4	+0.9
PSMG				*e*S	Sn	22 44 18.6	-0.3
TRN	Trinidad (W)	0.83	132	*e*P	Pn	22 44 10.1	+0.3
TRN				*e*S	Sn	22 44 20.5	-0.8
TRN	Trinidad (W)	0.83	132	*e*P	Pn	22 44 10.3	+0.4
TRN				*e*S	Sn	22 44 19.8	-1.5
GRGR	Grenville	0.99	22	*e*P	Pn	22 44 11.5	-0.5
GRGR				*e*S	Sn	22 44 24.6	-0.5
GRGR	Grenville	0.99	22	*e*P	Pn	22 44 11.9	-0.1
GRGR				*e*S	Sn	22 44 25.2	+0.1
GRW	Mount Saint Ca	1.01	21	*e*P	Pn	22 44 12.6	+0.3
GRW				*e*S	Sn	22 44 26.0	+0.2
GRSS	Sisters	1.16	21	*e*P	Pn	22 44 14.3	+0.1
GRSS				*e*S	Sn	22 44 29.5	+0.4
SLBI	Saint Lucia, B	2.98	20	*e*P	Pn	22 44 40.4	+1.4
SLBI				*e*S	Sn	22 45 11.8	-1.8
TACV	Tcata	5.02	258	*e*P	Pn	22 45 07.7	+0.6
BENV	Beln	5.61	258	*e*P	Pn	22 45 14.9	-0.2

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*UPP **21** 23:19:40.5±0.1, 67°.84N×20°.21E, h0^{km}, ML2.7, Suspected explosion*

*HEL **21** 23:19:40.7±0.2, 67°.84N×20°.18E, h0^{km}, ML1.8, Suspected explosion*

*IDC **21** 23:19:42.3±1.8, 67°.89N×20°.33E, h0^{km}, mbtmp3.1/3, ML2.2/3, Error ellipse: s-maj=22.5km s-min=12.5km az=111.0*

ISC 21 23:19:40.8±0.8**, 67°.83N**±0°.03×**20°.25E**±0°.02**, h0^{km}, n33, σ1^{s}14**/54**, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RATU	Laukkuluspa	0.25	270	P	Pg	23 19 45.1	-0.5
RATU				S	Sg	23 19 48.5	-0.3
NIKU	Nikkaluokta	0.46	276	P	Pg	23 19 49.0	-0.6
NIKU				S	Sg	23 19 55.2	-0.4
LANU	Lannavaara	0.70	71	P	Pg	23 19 53.8	-0.3
LANU				S	Sg	23 20 03.2	0.0
LANU	Lannavaara	0.70	71	*e*P	Pg	23 19 53.8	-0.3
LANU	Lannavaara	0.70	71	PG	Pg	23 19 53.9	-0.3
LANU				SG	Sg	23 20 03.2	0.0
SALU	Saltoluokta	0.80	237	P	Pg	23 19 55.6	-0.6
SALU	Saltoluokta	0.80	237	*e*P	Pg	23 19 55.5	-0.7
PAJU	Pajala	1.37	125	P	Pg	23 20 05.9	-1.1
PAJU				S	Sg	23 20 24.8	+0.1
PAJU	Pajala	1.37	125	PG	Pg	23 20 05.7	-1.3
	baz=303						
PAJU				SG	Sg	23 20 24.8	+0.1
HEF	Hetta	1.41	64	*e*P	Pn	23 20 06.2	-1.5
HEF	Hetta	1.41	64	PG	Pn	23 20 06.1	-1.6
	baz=250						
HEF				smax	smax	23 20 23.5	
	comp=Z,11nm,0.2s						
HEF				SB	Sg	23 20 25.7	-0.2
ERTU	Ertsjaerv	1.49	148	P	Pn	23 20 08.2	-0.6
ERTU	Ertsjaerv	1.49	148	PG	Pn	23 20 08.0	-0.8
ERTU				SN	Sn	23 20 29.0	+0.1
KLF	Kolari	1.55	111	PG	Pn	23 20 08.8	-0.8
	baz=297						
KLF				smax	smax	23 20 27.9	
	comp=Z,6.6nm,0.2s						
KLF				SN	Sn	23 20 30.3	0.0
KTK1	Kautokeino	1.62	42	PG	Pn	23 20 10.0	-0.7
KTK1				SN	Sn	23 20 31.5	-0.8
TRO	Tromso	1.88	346	PG	Pn	23 20 14.0	-0.1
TOF	Tornio	2.38	136	PB	Pn	23 20 22.3	+1.3
TOF				smax	smax	23 20 52.0	
	comp=Z,5.2nm,0.2s						
TOF				SG	Sb	23 20 54.2	-0.1
SJUU	Sjulsmark	2.39	166	*e*P	Pb	23 20 23.1	-1.6
RNF	Rovaniemi	2.56	116	PB	Pn	23 20 25.2	+1.7
RNF				SB	Sb	23 20 59.0	-0.4
ARA0	ARCESS Array S	2.58	46	PB	Pn	23 20 24.2	+0.5
ARA0				SB	Sb	23 20 57.9	-2.2
ARCES	ARCESS Array B	2.58	46	Pn	Pn	23 20 23.9	+0.1
	comp=Z,1.2nm,0.3s,baz=226,slow=15,SNR=44						
ARCES				Sn	Sn	23 20 56.2	+0.4
	comp=Z,2.0nm,0.3s,baz=229,slow=25,SNR=13						
	comp=Z,2.2nm,0.3s						
ARCES				AML	AML		
RAJF	Raja-Jooseppi	3.08	74	PN	Pn	23 20 30.8	+0.1
RAJF				SG	Sb	23 21 14.4	-0.3
KEV	Kevo	3.13	49	PB	Pn	23 20 31.7	+0.4
KEV				SB	Sn	23 21 10.2	+0.9
RANF	Ranua	3.15	122	PB	Pn	23 20 33.4	+1.7
RANF				SG	Sb	23 21 19.2	+2.5
BURU	Burvik	3.29	171	PB	Pn	23 20 35.5	+2.0
	baz=357						
OUL	Oulu	3.57	138	PG	Pb	23 20 45.6	+0.9
	baz=324						
OUL				SG	Sg	23 21 32.2	-3.0
OLKF	Oulanka, Finla	3.89	109	PG	Pb	23 20 51.1	+0.9
OLKF				SG	Sb	23 21 39.8	+2.1
MSF	Maaselka	3.97	115	SN	Sn	23 21 31.2	+1.2
KU1	Kurvinen	4.34	117	PN	Pn	23 20 48.0	0.0
HUSU	Husum	4.53	186	PN	Pn	23 20 52.3	+1.8
HUSU				SN	Sn	23 21 44.4	+0.7
VAF	Ylistaro	4.91	167	*e*P	Pn	23 20 57.9	+2.1
FINES	FINESS Array B	6.88	156	Pn	Pn	23 21 23.7	+0.9
	comp=Z,0.1nm,0.3s,baz=344,slow=11,SNR=1.9						
FINES				Sn	Sn	23 22 40.5	-1.2
	comp=Z,0.2nm,0.3s,baz=348,slow=23,SNR=1.6						
FINES				Lg	Lg	23 23 13.1	
	comp=Z,0.3nm,0.3s,baz=348,slow=27,SNR=5.9						
	comp=Z,3.6nm,1.0s						
FINES				AML	AML		
NOA	NORSAR Array B	7.84	214	Pn	Pn	23 21 35.8	-0.2
	baz=23,slow=12,SNR=2.0						
NOA				Lg	Lg	23 23 44.5	
	baz=313,slow=25,SNR=1.3						
	comp=Z,0.7nm,0.8s						

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*NEIC **21** 23:42:54.4±1.2, 62°.31S±0°.07×58°.3W±0°.1, h10^{km}±1^{km}, mb4.5/28, Error ellipse: s-maj=14.2km s-min=7.2km az=32.0*

*IDC **21** 23:42:59.9±5.8, 62°.13S×58°.19W, h53^{km}±56^{km}, mb3.7/5, mbtmp4.0/5, MS3.4/5, Error ellipse: s-maj=61.0km s-min=19.5km az=72.0*

ISC 21 23:42:54.5±0.5**, 62°.25S**±0°.08×**58°.2W**±0°.1**, h10^{km}, n50, σ1^{s}04**/43**, mb4.5**/19**, MS3.3**/5**, 5C, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ESPZ	Base Esperanza	1.27	156		Pn	23 43 16.6	-1.7
ESPZ				Sn	Sb	23 43 20.8	-14
PMSA	Palmer Station	3.66	224	Pn	Pn	23 43 50.7	-0.3
BELA	Belgrano 2	17.36	164		Pn	23 46 54.8	-1.7
COYC	Coyhaique	18.54	328	P	Pn	23 47 11.6	+0.5
VNA3	Neumayer Olymp	20.53	136	⇑P	P	23 47 34.1	+1.6
	comp=Z,12nm,0.7s						
LL02	Futaleuf	20.73	331	P	P	23 47 35.3	+0.4
VNA1	Neumayer--Stat	20.99	135	⇑P	P	23 47 39.9	+2.4
	comp=Z,15nm,0.9s						
VNA2	Neumayer--Watz	21.27	135	⇑P	P	23 47 42.4	+1.9
	comp=Z,6.9nm,0.6s,baz=268,slow=11						
SNAA	Sanae	22.70	138	⇑P	P	23 47 57.4	+1.5
	comp=Z,205nm,1.0s						
SNAA	Sanae	22.70	138	P	P	23 47 56.9	+1.0
	comp=Z,10nm,0.9s,baz=258,slow=8.5,SNR=13						
SNAA				LR	LR	23 55 20.9	
	comp=Z,64nm,18.9s,baz=124,slow=32						
	comp=Z,10nm,0.9s						
SNAA	Sanae	22.70	138	P	P	23 47 55.7	-0.2
SNAA				IAmb	IAmb	23 48 00.1	
	comp=Z,11nm,0.9s						
LL05	Los Muermos	22.80	329	P	P	23 47 56.5	-0.5
PLCA	Paso Flores	22.80	335	P	P	23 47 56.2	-1.1
	comp=Z,2.2nm,0.9s,baz=175,slow=11,SNR=3.4						
PLCA				LR	LR	23 55 40.7	
	comp=Z,89nm,18.1s,baz=161,slow=34						
	comp=Z,2.2nm,0.9s						
PLCA	Paso Flores	22.80	335	P	P	23 47 57.8	+0.5
PLCA				IAmb	IAmb	23 48 04.0	
	comp=Z,13nm,1.4s						
GO06	Curarrehue	24.10	334	P	P	23 48 09.8	-0.3
GO06				IAmb	IAmb	23 48 15.2	
	comp=Z,15nm,1.0s						
TROLL	Troll, Antarti	24.34	139	⇑P	P	23 48 14.0	+1.9
	comp=Z,265nm,0.9s						
QSPA	South Pole Qui	27.98	180	P	P	23 48 46.5	+1.5
	comp=Z,2.1nm,0.7s,baz=167,slow=3.0,SNR=8.2						
	comp=Z,2.1nm,0.7s						
QSPA	South Pole Qui	27.98	180	P	P	23 48 46.2	+1.2
BO04	La Punta	29.37	339	P	P	23 48 56.6	-0.9
BO04				IAmb	IAmb	23 49 01.6	
	comp=Z,6.0nm,0.7s						
MT13	San Alfonso	29.55	339	P	P	23 48 58.5	-0.7
MT13				IAmb	IAmb	23 49 12.0	
	comp=Z,7.9nm,1.0s						
MT09	Talagante	29.64	338	P	P	23 48 59.8	-0.2
MT09				IAmb	IAmb	23 49 07.1	
	comp=Z,11nm,1.1s						
MT08	Bocatoma Ro	29.80	340	P	P	23 49 01.8	+0.2
MT05	Renca	29.97	339	P	P	23 49 03.6	+0.8
MT02	Curacav	30.17	338	P	P	23 49 04.5	-0.1
MT02				IAmb	IAmb	23 49 05.6	
	comp=Z,6.2nm,0.9s						
VA03	San Esteban	30.55	339	P	P	23 49 07.8	-0.2
VA03				IAmb	IAmb	23 49 11.7	
	comp=Z,9.4nm,1.1s						
CO02	Combarbal	32.15	339	P	P	23 49 22.4	+0.3
CO02				IAmb	IAmb	23 49 23.8	
	comp=Z,10nm,0.9s						
CO03	El Pedregal	32.46	340	P	P	23 49 25.2	+0.4
CO03				IAmb	IAmb	23 49 26.6	
	comp=Z,4.5nm,0.8s						
GO04	Tololo Observa	33.13	340	P	P	23 49 30.6	-0.2
GO04				IAmb	IAmb	23 49 32.4	
	comp=Z,12nm,0.9s						
CO01	Juntas del Tor	33.21	341	P	P	23 49 31.3	-0.3
CO01				IAmb	IAmb	23 49 40.7	
	comp=Z,11nm,1.2s						
LCO	Las Campanas	34.25	340	P	P	23 49 40.6	0.0
LCO				IAmb	IAmb	23 49 46.3	
	comp=Z,4.6nm,1.0s						
CPUP	Villa Florida	35.92	1	P	P	23 49 54.9	+0.2
	comp=Z,1.5nm,0.9s,baz=171,slow=13,SNR=2.3						
	comp=Z,1.5nm,0.9s						
VNDA	Vanda	38.32	193	LR	LR	00 05 28.1	
	comp=Z,53nm,21.6s,baz=202,slow=35						
MAW	Mawson	43.63	152	P	P	23 51 00.1	+1.7
	comp=Z,1.7nm,0.8s,baz=214,slow=11,SNR=4.3						
MAW				LR	LR	00 08 26.9	
	comp=Z,77nm,20.7s,baz=226,slow=35						
	comp=Z,1.7nm,0.8s						
MAW	Mawson	43.63	152	P	P	23 50 58.9	+0.5
PB16	IPOC Station P	44.58	345	P	P	23 51 07.1	-0.1
PB16				IAmb	IAmb	23 51 09.1	
	comp=Z,7.0nm,1.5s						
LPAZ	La Paz	46.45	347	LR	LR	00 13 01.4	
	comp=Z,31nm,18.2s,baz=152,slow=39						
H10S2	ASCENSION HYDR	61.83	51	T	T	01 00 25.9	
	baz=17,slow=74,SNR=13						
H10S3	ASCENSION HYDR	61.83	50	T	T	01 00 25.9	
	baz=203,slow=74,SNR=15						
H10N3	ASCENSION HYDR	62.92	50	T	T	01 01 49.6	
	baz=201,slow=75,SNR=20						
H10N1	ASCENSION HYDR	62.92	50	T	T	01 01 47.3	
	baz=201,slow=75,SNR=15						
H10N2	ASCENSION HYDR	62.94	50	T	T	01 01 50.7	
	baz=201,slow=75,SNR=18						
BOAV	Boa Vista	64.50	357	P	P	23 53 31.2	+0.1
BOAV				IAmb	IAmb	23 53 33.7	
	comp=Z,8.7nm,1.5s						
KOOLE	Kule	64.52	91	P	P	23 53 32.1	+0.6
PAYG	Puerto Ayora	66.00	324	P	P	23 53 40.5	-0.5
DCZ	Deep Cove	66.66	213	P	P	23 53 43.9	-0.9
LPHEP	Lephephe	66.84	96	P	P	23 53 46.3	-0.2
LTZ	Lake Taylor	67.75	218	P	P	23 53 51.7	-0.2
GERES	GERESS Array B	124.56	50	PKP	PKPdf	00 01 51.1	-1.8
	comp=Z,0.2nm,0.2s,baz=219,slow=1.3,SNR=3.7						
MKAR	Makanchi Array	152.88	106	PKPbc	PKPbc	00 02 49.4	-1.3
	comp=Z,0.8nm,0.8s,baz=219,slow=2.1,SNR=4.2						
MKAR	Makanchi Array	152.88	106		PKPbc	00 02 50.0	-0.7

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*IDC **22** 00:20:32.4±0.5, 12°.73N×143°.76E, h0^{km}, mb4.2/27, mbtmp4.3/29, ML3.9/1, MS4.5/7, Error ellipse: s-maj=15.8km s-min=10.3km az=83.0*

*MOS **22** 00:20:33.2±1.2, 12°.66N×143°.93E, h11^{km}, mb5.0/46, Error ellipse: s-maj=8.7km s-min=5.5km az=108.4*

*GFZ **22** 00:20:34.9±0.2, 13°N±3°×14°4E±°, h10^{km}, M4.8/25, mb4.9/25, confirmed*

*NEIC **22** 00:20:35.1±1.6, 12°.80N±0°.07×143°.87E±0°.07, h10^{km}±1^{km}, mb5.0/133, Error ellipse: s-maj=12.4km s-min=11.0km az=167.0*

*BJI **22** 00:20:35.0, 12°.96N×143°.97E, h8^{km}, mB5.1/16, mb4.7/36, Ms5.0/33, Ms7 4.9/32*

*DJA **22** 00:20:35.1±0.4, 13°N±10°×14°4E±1°0, h10^{km}, M5.0/18, mB5.5/12, mB5.5/14, mb5.0/18, mb5.0/18, ML4.7/1, MLv4.9/1, MLv4.9/1, Mw(mB)5.0/14, Mw(mB)5.0/12, MwMwp5.0/3, MwMwp5.0/3, Mwp5.3/3, Mwp5.3/3*

ISC 22 00:20:34.6±0.3**, 12°.66N**±0°.04×**143°.93E**±0°.05**, h10^{km}, n330, σ1^{s}56**/351**, mb4.9**/141**, MS4.7**/23**, 10C-12D, South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	1.30	45	Pn	Pn	00 20 57.4	-1.4
	665nm,0.3s,baz=220,slow=7.9,SNR=97						
GUMO				Sn	Sb	00 21 14.9	-1.0
	867nm,0.3s,baz=30,slow=20,SNR=6.4						
GUMO	Guam	1.30	45		Pn	00 20 56.8	-2.0
GUMO	Guam	1.30	45	P	Pn	00 20 57.6	-1.2
DPSS	Saipan	3.14	35		Pn	00 21 22.7	-1.4
MANU	Manus Island	15.00	167		Pn	00 24 08.6	+1.8
MANU				IAmb	IAmb	00 24 20.6	
	comp=Z,93nm,1.5s						
PATS	Pohnpei	15.30	111	Pn	Pn	00 24 11.9	+1.0
PATS				IAmb	IAmb	00 24 20.7	
	comp=Z,67nm,0.9s						
PATS	Pohnpei	15.30	111	P	Pn	00 24 08.3	-2.6
	comp=Z,82nm,1.2s						
JAY	Jayapura	15.41	192	Pn	Pn	00 24 11.2	-1.1
	comp=Z,8.1nm,0.9s,baz=7.6,slow=15						
GENI	Genyem	15.61	194	P	P	00 24 28.3	+9.2
BAKI	Biak	15.80	210	P	P	00 24 38.5	+17
MWPI	Manokwari, Pap	16.69	217	P	P	00 24 50.1	+19
SIJI	Sorong	18.40	224	P	P	00 24 47.9	-2.2
	comp=Z,0.4nm,0.3s,baz=42,slow=12,SNR=2.4						
SIJI				LR	LR	00 31 01.2	
	comp=Z,3µm,21.3s,baz=48,slow=34						
	comp=Z,3.1nm,0.4s						
SIJI				AML	AML		
SWI	Sorong	18.40	224	P	Pn	00 24 52.5	+2.5
RABL	Rabaul	18.63	153	P	P	00 24 54.4	+1.8
KRVT	Keravat (AS076	18.68	154	P	P	00 24 54.5	+1.4
	comp=Z,111nm,0.4s,baz=322,slow=17,SNR=0.7						
DAV	Davao City (W)	18.91	255	P	P	00 24 52.7	-3.0
	comp=Z,310nm,0.4s,baz=72,slow=6.4,SNR=2.0						
DAV				LR	LR	00 31 44.1	
	comp=Z,2µm,21.5s,baz=64,slow=36						
KMPI	Kaimana, Papua	19.14	213	P	P	00 24 57.2	-0.9
	comp=Z,132nm,0.8s						
FAKI	Fak Fak	19.34	218	P	P	00 25 00.5	0.0
FAKI				IAmb	IAmb	00 25 10.3	
	comp=Z,119nm,1.5s						
FAKI	Fak Fak	19.34	218	P	Pn	00 25 02.5	+1.0
	comp=Z,49nm,1.2s,comp=Z,49nm,1.2s						
FAKI	Fak Fak	19.34	218	P	P	00 25 00.2	-0.2
	comp=Z,49nm,1.9s						
TNTI	Ternate	20.23	236	P	P	00 25 10.0	-0.1
TNTI				IAmb	IAmb	00 25 27.9	
	comp=Z,104nm,1.3s						
TNTI	Ternate	20.23	236	P	P	00 25 10.0	-0.1
	comp=Z,65nm,1.4s						
JOW	Kunigami	20.36	316	P	P	00 25 09.1	-2.3
	comp=Z,16nm,0.8s,baz=159,slow=8.6,SNR=1.5						
	comp=Z,16nm,0.8s						
JOW	Kunigami	20.36	316	P	P	00 25 08.7	-2.8
MSAI	Masohi	21.79	224	P	P	00 25 30.3	+3.3
PMG	Port Moresby	22.16	172	P	P	00 25 32.0	+1.2
	comp=Z,4.1nm,0.3s,baz=19,slow=8.1,SNR=5.5						
	comp=Z,4.1nm,0.3s						
PMG	Port Moresby	22.16	172	P	P	00 25 31.1	+0.3
PMG				pmax	pmax		
	comp=Z,54nm,1.1s						
PMG	Port Moresby	22.16	172	P	P	00 25 31.1	+0.3
PMG				IAmb	IAmb	00 25 42.3	
	comp=Z,54nm,1.1s						
SANI	Sanana	23.04	232	P	P	00 25 39.8	-0.5
	comp=Z,24nm,1.3s						
INU	Inuyama	23.44	346	P	P	00 25 42.1	-2.0
INU	Inuyama	23.44	346	P	P	00 25 45.2	+1.1
	comp=Z,64nm,1.3s						
JNU	Nakatsue	23.61	332	P	P	00 25 44.6	-1.3
	comp=Z,42nm,1.0s,baz=110,slow=6.6,SNR=8.2						
JNU				LR	LR	00 32 06.1	
	comp=Z,441nm,20.7s,baz=140,slow=30						
	comp=Z,42nm,1.0s						
GTOI	Gorontalo	23.93	242	P	P	00 25 48.4	-0.7
	comp=Z,2µmcomp=Z,2µmcomp=Z,1µmcomp=Z,67nm,1.8s,						
	comp=Z,67nm,1.8s						
YULB	Yu-li	23.99	300	P	P	00 25 48.4	-1.2
YULB				IAmb	IAmb	00 26 04.3	
	comp=Z,99nm,1.5s						
YULB	Yu-li	23.99	300	P	P	00 25 49.2	-0.4
	comp=Z,54nm,1.8s						
MJA0	Matsu Arr-Jizo	24.32	349	*e*P	P	00 25 51.2	-1.4
MJA0				pmax	pmax		
	comp=Z,13nm,1.0s						
MJAR	Matsushiro Arr	24.33	349	P	P	00 25 51.5	-1.1
	comp=Z,13nm,1.0s,baz=172,slow=9.7,SNR=17						
	comp=Z,13nm,1.0s						
MJAR	Matsushiro Arr	24.33	349	P	P	00 25 50.3	-2.4
MAJO	Matsushiro	24.33	349	*de*P	P	00 25 50.9	-1.7
MAJO	Matsushiro	24.33	349	P	P	00 25 51.3	-1.3
	comp=Z,41nm,1.4s						
SSLB	Suanglung	24.43	300	P	P	00 25 53.2	-0.5
LUWI	Luwuk	25.02	239	P	P	00 25 58.2	-0.9
LUWI	Luwuk	25.02	239	P	P	00 25 58.8	-0.3
	comp=Z,254nm,1.1s						
TOLI2	Tolitoli	25.65	245	P	P	00 26 03.3	-1.5
TOLI2				IAmb	IAmb	00 26 29.8	
	comp=Z,34nm,1.2s						
TOLI2	Tolitoli	25.65	245	P	P	00 26 04.4	-0.4
	comp=Z,25nm,1.3s						
APSI	Ampana	25.90	240	P	P	00 26 07.8	+0.8
	comp=Z,991nmcomp=Z,991nmcomp=Z,91nm,1.5s,comp=Z,91nm,1.5s						
KDI	Kendari	26.85	233	P	P	00 26 17.0	+1.4
	comp=Z,4µmcomp=Z,4µmcomp=Z,21nm,0.5s,comp=Z,21nm,0.5s						
KNMB	Chin-men Tao	26.86	300	P	P	00 26 14.5	-1.1
SSE	Sheshan	27.86	315	P	P	00 26 25.8	+1.2
SSE				S	S	00 31 10.5	+2.5
SSE				pmax	pmax		
	comp=Z,11nm,0.7s						
SSE				pmax	pmax		
	comp=Z,110nm,5.1s						
SSE				L	L		
	comp=Z,360nm,20.3s						
SSE				L	L		
	comp=Z,340nm,23.8s						
TJN	Taejon	27.93	331	⇑*e*P	P	00 26 27.2	+2.1
TJN	Taejon	27.93	331	P	P	00 26 27.6	+2.6
	comp=Z,162nm,1.2s						
MTN	Manton Dam	28.34	207	P	P	00 26 29.0	+0.1
KSRS	Korea Array	28.54	333	P	P	00 26 30.1	-0.4
	comp=Z,2.8nm,0.8s,baz=145,slow=10,SNR=8.1						
	comp=Z,2.8nm,0.8s						
KAPI	Kappang	29.76	235	P	P	00 26 41.3	-0.3
	comp=Z,9.2nm,0.8s,baz=42,slow=9.8,SNR=3.8						
	comp=Z,9.2nm,0.8s						
BSSI	Bau Bau, Buton	29.86	233	P	P	00 26 44.3	+1.8
	comp=Z,602nmcomp=Z,35nm,1.2s						
ASAJ	Asahikawa	31.37	358	P	P	00 26 55.2	-0.3
	comp=Z,3.8nm,0.8s,baz=124,slow=15,SNR=1.7						
	comp=Z,3.8nm,0.8s						
CTAO	Charters Tower	32.62	176	P	P	00 27 06.5	-0.2
	comp=Z,16nm,2.3s						
DL2	Dalian	32.78	327	P	P	00 27 10.6	+2.6
DL2				S	S	00 32 30.0	+5.1
DL2				pmax	pmax		
	comp=Z,42nm,1.0s						
DL2				pmax	pmax		
	comp=Z,190nm,5.0s						
DL2				L	L		
	comp=Z,1µm,16.8s						
DL2				L	L		
	comp=Z,960nm,16.6s						
DL2				L	L		
	comp=Z,2µm,16.8s						
USA0B	Ussuriysk Arra	33.06	344	P	P	00 27 08.8	-1.5
USA0B				pmax	pmax		
	comp=Z,14nm,1.2s						
USA0B	Ussuriysk Arra	33.06	344	P	P	00 27 08.8	-1.5
USRK	Ussuriysk Ar.	33.06	344	P	P	00 27 09.2	-1.2
	comp=Z,1.0nm,0.5s,baz=173,slow=14,SNR=2.9						
	comp=Z,1.0nm,0.5s						
USRK	Ussuriysk Ar.	33.06	344	P	P	00 27 08.4	-1.9
QIS	Mount Isa	33.28	187	P	P	00 27 13.9	+1.3
	comp=Z,52nm,1.3s						
QIZ	Qiongzhong	33.36	285	P	P	00 27 15.3	+2.0
QIZ				S	S	00 32 31.5	-2.9
QIZ				L	L		
	comp=Z,630nm,13.1s						
QIZ				L	L		
	comp=Z,480nm,12.4s						
QIZ				L	L		
	comp=Z,780nm,18.5s						
WB0	Warramunga Arr	33.56	196	P	P	00 27 13.8	-1.2
WR8	Warramunga Arr	33.71	196	P	P	00 27 16.7	+0.4
WR8				IAmb	IAmb	00 27 36.6	
	comp=Z,39nm,1.3s						
WRAB	Tennant Creek	33.73	196	⇑*e*P	P	00 27 17.0	+0.5
WRAB				pmax	pmax		
	comp=Z,32nm,1.4s						
WRAB	Tennant Creek	33.73	196	P	P	00 27 16.6	+0.2
	comp=Z,16nm,0.8s						
WRA	Warramunga Arr	33.74	196	P	P	00 27 15.4	-1.2
	comp=Z,3.6nm,0.6s,baz=21,slow=9.8,SNR=44						
WRA				LR	LR	00 42 22.2	
	comp=Z,1µm,18.0s,baz=66,slow=39						
	comp=Z,3.6nm,0.6s						
WRA	Warramunga Arr	33.74	196	*i* P	P	00 27 16.1	-0.5
WRA				pmax	pmax		
	comp=Z,5.0nm,0.6s						
WRA	Warramunga Arr	33.74	196		P	00 27 16.6	0.0

MDJ	**Mudanjiang**	34.13	342	P	P	00 27 18.7	-1.0
MDJ				IAmb	IAmb	00 27 34.5	
	comp=Z,20nm,1.3s						
YSS	**Yuzhno-Sakhali**	34.20	359	eP	P	00 27 17.2	-3.0
YSS				pmax	pmax		
	comp=Z,20nm,1.1s						
CN2	**Changchun**	34.87	336	eP	P	00 27 29.0	+2.9
CN2				esP	pwP	00 27 36.0	+3.3
CN2				eS	S	00 32 59.6	+2.4
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
CN2				pmax	pmax		
	comp=Z,100nm,3.0s						
CN2				L	L		
	comp=Z,200nm,11.0s						
CN2				L	L		
	comp=Z,200nm,11.0s						
CN2				L	L		
	comp=Z,200nm,13.0s						
FITZ	**Fitzroy Crossi**	35.49	211	P	P	00 27 31.4	-0.3
BNX	**BinXian**	35.83	340	⇑P	P	00 27 34.6	+0.3
BNX				pP	sP	00 27 37.6	+0.4
BNX				PP	PP	00 28 58.8	+3.0
BNX				S	S	00 33 14.0	+2.1
BNX				sS	sS	00 33 20.8	+5.4
BNX				pmax	pmax		
	comp=Z,12nm,1.1s						
BNX				pmax	pmax		
	comp=Z,110nm,4.1s						
BNX				L	L		
	comp=Z,540nm,15.7s						
BNX				L	L		
	comp=Z,570nm,18.6s						
BNX				L	L		
	comp=Z,790nm,15.3s						
LYN	**LuoYang**	35.90	313	P	P	00 27 35.1	0.0
LYN				sP	pwP	00 27 41.9	+0.2
LYN				PP	PnPn	00 28 53.5	-1.9
LYN				S	S	00 33 12.0	-1.2
LYN				pmax	pmax		
	comp=Z,24nm,0.7s						
LYN				pmax	pmax		
	comp=Z,250nm,4.5s						
LYN				L	L		
	comp=Z,1µm,18.5s						
LYN				L	L		
	comp=Z,1µm,18.5s						
LYN				L	L		
	comp=Z,2µm,18.9s						
SANVU	**Saraoutou**	36.20	140	P	P	00 27 38.3	+0.5
ENH	**Enshi**	36.34	304	P	P	00 27 37.8	-1.2
ENH				IAmb	IAmb	00 27 47.9	
	comp=Z,32nm,1.2s						
ENH	**Enshi**	36.34	304	P	P	00 27 37.9	-1.1
	comp=Z,17nm,1.1s						
BJI2	**Beijing**	36.61	323	P	P	00 27 44.1	+3.0
BJI2				S	S	00 33 28.8	+4.8
BJI2				pmax	pmax		
	comp=Z,7.0nm,1.0s						
BJI2				pmax	pmax		
	comp=Z,82nm,3.6s						
BJI2				L	L		
	comp=Z,740nm,22.7s						
BJI2				L	L		
	comp=Z,320nm,22.0s						
BJI2				L	L		
	comp=Z,840nm,24.4s						
BJT	**Baijiatuau**	36.61	323	P	P	00 27 39.9	-1.2
BJT				pmax	pmax		
	comp=Z,16nm,0.9s						
BJT	**Baijiatuau**	36.61	323	P	P	00 27 39.9	-1.2
BJT	**Baijiatuau**	36.61	323	P	P	00 27 44.3	+3.2
	comp=Z,19nm,1.7s						
AS31	**Alice Springs**	37.41	195	P	P	00 27 49.4	+1.3
ASAR	**Alice Springs**	37.41	195	P	P	00 27 47.2	-0.8
	comp=Z,2.9nm,0.9s,baz=17,slow=7.3,SNR=16						
	comp=Z,2.9nm,0.9s						
ASAR	**Alice Springs**	37.41	195	P	P	00 27 47.7	-0.4
ASAR	**Alice Springs**	37.41	195	P	P	00 27 47.7	-0.4
KLR	**Kul'dur**	37.83	347⇓	eP	P	00 27 52.2	+0.9
KLR				pmax	pmax		
	comp=Z,15nm,1.3s						
TYV	**Tymovskoe**	38.11	359	eP	P	00 27 59.9	+6.3
TYV				pmax	pmax		
	comp=Z,15nm,1.1s						
TYV				pmax	pmax		
	comp=Z,200nm,5.3s						
XAN	**Xi'an**	38.27	310	P	P	00 27 55.8	+0.5
XAN				S	S	00 33 43.4	-6.1
XAN				pmax	pmax		
	comp=Z,16nm,1.4s						
XAN				L	L		
	comp=Z,690nm,19.9s						
XAN				L	L		
	comp=Z,1µm,19.9s						
XAN				L	L		
	comp=Z,2µm,18.6s						
XLT	**XiLinHaoTe**	39.26	328	eP	P	00 28 05.8	+2.3
XLT				pP	pwP	00 28 11.3	+1.2
XLT				S	S	00 34 05.8	+1.5
XLT				pmax	pmax		
	comp=Z,8.0nm,0.7s						
XLT				pmax	pmax		
	comp=Z,98nm,4.1s						
XLT				L	L		
	comp=Z,790nm,18.0s						
XLT				L	L		
	comp=Z,830nm,19.2s						
HEH	**HeiHe**	39.86	343	eP	P	00 28 08.9	+0.6
HEH				pP	pwP	00 28 14.6	-0.7
HEH				pmax	pmax		
	comp=Z,30nm,1.1s						
HEH				L	L		
	comp=Z,980nm,16.1s						
HEH				L	L		
	comp=Z,530nm,16.2s						
HEH				L	L		
	comp=Z,1µm,16.9s						
BTO2	**Baotou**	40.89	319	eP	P	00 28 19.3	+2.1
BTO2				pP	pwP	00 28 24.0	+0.2
BTO2				sP	sP	00 28 26.3	+6.3
BTO2				S	S	00 34 32.1	+3.3
BTO2				sS	sS	00 34 40.3	+8.3
BTO2				pmax	pmax		
	comp=Z,22nm,0.7s						
BTO2				pmax	pmax		
	comp=Z,280nm,5.0s						
BTO2				L	L		
	comp=Z,2µm,21.6s						
BTO2				L	L		
	comp=Z,3µm,19.7s						
BTO2				L	L		
	comp=Z,3µm,20.9s						
HIA	**Hailar**	41.60	336c	eP	P	00 28 24.4	+1.6
HIA				pmax	pmax		
	comp=Z,19nm,1.3s						
HIA	**Hailar**	41.60	336	P	P	00 28 22.5	-0.3
	comp=Z,13nm,1.1s						
HILR	**Hailar Array B**	41.83	336	P	P	00 28 22.2	-2.5
	comp=Z,0.9nm,0.4s,baz=152,slow=9.5,SNR=3.7						
	comp=Z,0.9nm,0.4s						
LZH	**Lanzhou**	42.90	310	eP	P	00 28 35.4	+1.7
LZH				sP	pwP	00 28 43.1	+2.7
LZH				S	S	00 35 00.8	+2.0
LZH				pmax	pmax		
	comp=Z,39nm,1.1s						
LZH				L	L		
	comp=Z,500nm,17.9s						
LZH				L	L		
	comp=Z,1µm,19.1s						
LZH				L	L		
	comp=Z,2µm,19.9s						
LZDM	**Lanzhou Array**	42.96	310	P	P	00 28 32.4	-2.0
	comp=Z,0.7nm,0.3s,baz=133,slow=10.0,SNR=4.7						
	comp=Z,0.7nm,0.3s						
ZEA	**Zeya**	43.06	346	eP	P	00 28 41.6	+7.0
ZEA				e		00 28 46.0	
ZEA				pmax	pmax		
	comp=N,10.0nm,0.4s						
ZEA				MLR	MLR		
	comp=N,300nm,17.0s						
ZEA				MLR	MLR		
	comp=Z,400nm,17.0s						
CMAR	**Chiang Mai Arr**	43.63	283	P	P	00 28 37.2	-2.5
	comp=Z,3.3nm,0.7s,baz=84,slow=6.2,SNR=17						
	comp=Z,3.3nm,0.7s						
CMAR	**Chiang Mai Arr**	43.63	283	eP	P	00 28 39.8	+0.1
CMAR				pmax	pmax		
	comp=Z,5.0nm,1.0s						
CMAR	**Chiang Mai Arr**	43.63	283		P	00 28 38.4	-1.4
STKA	**Stephens Creek**	44.34	183	P	P	00 28 44.5	-0.6
	comp=Z,3.0nm,0.7s,baz=17,slow=12,SNR=3.1						
	comp=Z,3.0nm,0.7s						
MSVF	**Nonsavu**	45.24	131	P	P	00 28 53.7	+1.1
MSVF				pmax	pmax		
	comp=Z,81nm,1.3s						
MSVF	**Nonsavu**	45.24	131		P	00 28 53.7	+1.1
MSVF	**Nonsavu**	45.24	131	P	P	00 28 53.9	+1.4
	comp=Z,70nm,1.2s						
FORT	**Forrest**	45.81	199	P	P	00 28 58.1	+1.3
FORT				IAmb	IAmb	00 29 12.7	
	comp=Z,28nm,1.1s						
CIT	**Chita**	46.25	334	eP	P	00 29 05.2	+5.1
CIT				e		00 30 47.8	
ULN	**Ulaanbaatar**	46.63	326⇓	eP	P	00 29 04.6	+1.3
ULN				pmax	pmax		
	comp=Z,8.0nm,0.9s						
ULN	**Ulaanbaatar**	46.63	326	P	P	00 29 02.0	-1.3
ULN	**Ulaanbaatar**	46.63	326	P	P	00 29 04.8	+1.5
	comp=Z,11nm,1.4s						
SONM	**Songino Array**	46.97	326	P	P	00 29 04.0	-1.9
	comp=Z,1.1nm,0.7s,baz=146,slow=8.4,SNR=13						
	comp=Z,1.1nm,0.7s						
SONM	**Songino Array**	46.97	326	P	P	00 29 05.0	-0.9
SONM				pmax	pmax		
	comp=Z,7.0nm,1.0s						
SONM	**Songino Array**	46.97	326		P	00 29 05.0	-0.9
MA2	**Magadan**	47.11	5⇓	eP	P	00 29 09.1	+2.5
MA2				pmax	pmax		
	comp=Z,33nm,1.8s						
GTA2	**Gaotai**	47.18	313	eP	P	00 29 07.8	+0.1
GTA2				pP	pwP	00 29 14.6	+0.2
GTA2				S	S	00 35 58.6	-2.1
GTA2				pmax	pmax		
	comp=Z,3.0nm,1.2s						
GTA2				L	L		
	comp=Z,680nm,16.8s						
GTA2				L	L		
	comp=Z,1µm,18.4s						
GTA2				L	L		
	comp=Z,2µm,20.0s						
ZAK	**Zakamensk**	50.11	327	eP	P	00 29 29.5	-0.5
ZAK				e		00 30 46.7	
ZAK				pmax	pmax		
	comp=Z,14nm,1.7s						
ZAK				pmax	pmax		
	comp=Z,12nm,1.6s						
SEY	**Seymchan**	50.56	5	eP	P	00 29 38.9	+5.8
SEY				pmax	pmax		
	comp=Z,11nm,1.4s						
TLY	**Talaya**	50.66	329⇑	eP	P	00 29 35.6	+1.5
TLY				pmax	pmax		
	comp=Z,11nm,1.4s						
TLY	**Talaya**	50.66	329	P	P	00 29 33.3	-0.7
TLY	**Talaya**	50.66	329	P	P	00 29 35.4	+1.3
	comp=Z,7.5nm,1.0s						
DGZ	**Jazzator, Alta**	58.98	321⇓	eP	P	00 30 35.6	+1.0
DGZ				pmax	pmax		
	comp=Z,6.0nm,0.9s						
RTZ	**Ruatahuna**	59.63	150		P	00 30 41.6	+2.5
TIXI	**Tiksi**	59.66	355	LR	LR	00 55 50.3	
	comp=Z,318nm,21.6s,baz=168,slow=36						
TIXI	**Tiksi**	59.66	355⇓	eP	P	00 30 37.7	-1.0
TIXI				pmax	pmax		
	comp=Z,7.0nm,1.1s						
ZSN	**Zaisan**	59.97	318	eP	P	00 30 42.9	+1.6
ZSN	**Zaisan**	59.97	318	eP	P	00 30 42.9	+1.6
MK31	**Makanchi Array**	61.53	317⇑	eP	P	00 30 52.3	+0.4
MKAR	**Makanchi Array**	61.53	317	P	P	00 30 50.5	-1.4
	comp=Z,0.6nm,0.6s,baz=96,slow=8.4,SNR=7.9						
	comp=Z,0.6nm,0.6s						
MKAR	**Makanchi Array**	61.53	317	eP	P	00 30 52.3	+0.4
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	**Makanchi Array**	61.53	317		P	00 30 52.4	+0.4
ZALV	**Zalesovo Beam**	61.85	325	P	P	00 30 51.9	-2.0
	comp=Z,0.7nm,0.4s,baz=101,slow=7.7,SNR=5.6						
	comp=Z,0.7nm,0.4s						
ZALV	**Zalesovo Beam**	61.85	325	eP	P	00 30 52.2	-1.7
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.5s						
ZALV	**Zalesovo Beam**	61.85	325	P	P	00 30 51.4	-2.5
SHLS	**Shalkode**	62.85	312	eP	P	00 31 00.5	-0.5
SHLS	**Shalkode**	62.85	312	eP	P	00 31 00.5	-0.5
PDGK	**Podgornoye**	62.86	312	P	P	00 31 02.5	+1.4
PDGK	**Podgornoye**	62.86	312		P	00 31 02.5	+1.4
HYB	**Hyderabad**	63.06	283	eP	P	00 31 01.5	-1.3
HYB				ePcP	PcP	00 31 39.5	-1.1
HYB				ePP	PP	00 33 20.0	-1.4
HYB				eS	S	00 39 32.5	-1.5
HYB				eSKSac	SKKSac	00 40 54.6	-1.8
UZB	**Uzynbulak**	63.17	312	eP	P	00 31 04.6	+1.5
UZB	**Uzynbulak**	63.17	312	eP	P	00 31 04.7	+1.5
KPKS	**Kokpek**	63.46	312	eP	P	00 31 06.4	+1.4
KPKS	**Kokpek**	63.46	312	eP	P	00 31 06.4	+1.4
TDK	**Taldyqorghan**	63.87	314	eP	P	00 31 09.2	+1.6
TDK				pmax	pmax		
	comp=Z,5.0nm,0.5s						
TDK	**Taldyqorghan**	63.87	314	eP	P	00 31 09.3	+1.6
	comp=Z,5.0nm,0.5s						
TARG	**Taragay, Kyrgy**	63.89	310	P	P	00 31 09.5	+1.2
	comp=Z,4.7nm,2.2s						
KDJ	**Kajisay**	64.40	311	P	P	00 31 12.9	+1.6
	comp=Z,7.1nm,1.5s						
MDOK	**Medeo**	64.61	312	eP	P	00 31 14.1	+1.5
MDOK	**Medeo**	64.61	312	eP	P	00 31 14.2	+1.5
TNSS	**Tian-Shan**	64.67	312	eP	P	00 31 14.5	+1.2
TNSS	**Tian-Shan**	64.67	312	eP	P	00 31 14.6	+1.2
KURK	**Kurchatov**	64.71	320⇓	eP	P	00 31 12.9	0.0
KURK				pmax	pmax		
	comp=Z,12nm,1.0s						
KURK	**Kurchatov**	64.71	320		P	00 31 11.9	-1.0
KURK				IAmb	IAmb	00 31 33.1	
	comp=Z,10nm,0.9s						
KURK	**Kurchatov**	64.71	320	P	P	00 31 12.5	-0.4
	comp=Z,16nm,1.6s						
AAA	**Alma-Ata**	64.71	312	eP	P	00 31 14.5	+1.3
AAA				pmax	pmax		
	comp=Z,4.0nm,0.5s						
AAA	**Alma-Ata**	64.71	312	eP	P	00 31 14.5	+1.3
	comp=Z,4.2nm,0.5s						
KURBB	**Kurchatov Arra**	64.74	320	P	P	00 31 10.9	-2.3
	comp=Z,3.4nm,0.7s,baz=104,slow=6.5,SNR=23						
	comp=Z,3.4nm,0.7s						
ASAI	**AK-SAY(Kyrgyzs**	64.77	309	P	P	00 31 13.6	-0.4
	comp=Z,4.0nm,1.1s						
KUU	**Kurty**	65.20	313	eP	P	00 31 17.9	+1.6
KUU	**Kurty**	65.20	313	eP	P	00 31 17.9	+1.6
AAK	**Ala-Archa**	66.43	311⇑	eP	P	00 31 26.4	+2.0
AAK				pmax	pmax		
	comp=Z,5.0nm,1.2s						
NRIK	**Noril'sk**	66.71	341	P	P	00 31 23.5	-2.0
	comp=Z,2.8nm,0.8s,baz=62,slow=9.1,SNR=1.6						
	comp=Z,2.8nm,0.8s						
NRIK	**Noril'sk**	66.71	341⇑	eP	P	00 31 25.5	0.0
NRIK				pmax	pmax		
	comp=Z,12nm,1.5s						
NRIK	**Noril'sk**	66.71	341	P	P	00 31 24.1	-1.4
NIL	**Nilore**	67.08	301	P	P	00 31 26.9	-1.7
	comp=Z,19nm,1.2s						
DZA	**Taraz**	68.77	311	eP	P	00 31 40.6	+1.6
DZA	**Taraz**	68.77	311	eP	P	00 31 40.6	+1.6
BTK	**Batken**	69.07	308	P	P	00 31 43.1	+2.0
	comp=Z,6.3nm,2.4s						
IUG	**Iuzhnay**	69.70	310	eP	P	00 31 46.3	+1.3
IUG	**Iuzhnay**	69.70	310	eP	P	00 31 46.3	+1.3
ILAR	**Eielson Array**	69.79	25	P	P	00 31 43.5	-1.5
	comp=Z,1.0nm,0.8s,baz=268,slow=4.6,SNR=5.6						
	comp=Z,1.0nm,0.8s						
ILAR	**Eielson Array**	69.79	25	eP	P	00 31 47.7	+2.7
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
ILAR	**Eielson Array**	69.79	25	P	P	00 31 43.0	-1.9
BRLS	**Borolday**	69.87	311	eP	P	00 31 47.9	+2.1
BRLS	**Borolday**	69.87	311	eP	P	00 31 48.0	+2.1
CHM	**Chimkent**	70.03	311	eP	P	00 31 48.6	+1.8
CHM	**Chimkent**	70.03	311	eP	P	00 31 48.7	+1.8
BVAR	**Borovoye Array**	70.09	322	P	P	00 31 45.0	-2.0
	comp=Z,3.8nm,0.7s,baz=101,slow=7.7,SNR=14						
	comp=Z,3.8nm,0.7s						
BORK	**Borovoye**	70.13	322⇓	eP	P	00 31 47.8	+0.6
BORK				pmax	pmax		
	comp=Z,11nm,0.9s						
BORK	**Borovoye**	70.13	322		P	00 31 46.4	-0.9
BORK				IAmb	IAmb	00 32 06.8	
	comp=Z,12nm,1.1s						
PPT2	**Papeete2**	72.19	113	eS	S	00 41 10.4	-13
	comp=Z,133nm,25.2s						
PPT2				eLQ	LQ	00 50 11.5	
	comp=Z,551nm,29.5s						
PPT2				eLR	LR	00 53 09.1	
	comp=Z,667nm,27.0s						
PPT2				eLR	LR	00 53 14.6	
	comp=Z,1µm,26.2s						
G31M	**Satah River**	75.22	24	P	P	00 32 17.7	+0.5
G31M				IAmb	IAmb	00 32 39.7	
	comp=Z,20nm,1.4s						
AB31	**Akbulak array**	76.61	318	P	P	00 32 24.4	-1.1
ABKAR	**Akbulak array**	76.61	318		P	00 32 25.3	-0.2
ARTI	**Arti**	77.11	325c	iP	P	00 32 26.6	-1.6
ARTI				S	S	00 42 12.1	-5.0
ARTI				pmax	pmax		
	comp=Z,21nm,2.8s						
KIRV	**Kirov**	81.65	328⇓	eP	P	00 32 56.3	+3.4
BELG	**Belogornoye**	83.89	322⇑	eP	P	00 33 04.9	+0.2
BELG				pmax	pmax		
	comp=Z,7.0nm,1.4s						
YKA	**Yellowknife Ar**	84.10	27	P	P	00 33 04.5	-1.0
	comp=Z,1.0nm,0.6s,baz=288,slow=5.1,SNR=3.8						
	comp=Z,1.0nm,0.6s						
M02C	**Callahan**	84.13	49	P	P	00 33 04.4	-1.9
YBH	**Yreka Blue Hor**	84.17	49	P	P	00 33 06.4	-0.1
YBH				pmax	pmax		
	comp=Z,7.0nm,1.0s						
YBH	**Yreka Blue Hor**	84.17	49	P	P	00 33 06.4	-0.1
WIFE	**Three Sisters-**	84.33	46		P	00 33 07.3	-0.1
WIFE				IAmb	IAmb	00 33 37.9	
	comp=Z,22nm,1.4s						
M03C	**McCloud**	84.69	49	P	P	00 33 08.0	-1.2
M03C				IAmb	IAmb	00 33 16.1	
	comp=Z,14nm,0.9s						
PINE	**Pine Mountain**	85.01	46		P	00 33 10.2	-0.6
PINE				IAmb	IAmb	00 33 21.0	
	comp=Z,11nm,1.0s						
B08A	**Colville Reser**	85.07	42	P	P	00 33 08.8	-2.1
B08A				IAmb	IAmb	00 33 22.6	
	comp=Z,8.8nm,1.1s						
EPH	**Ephrata**	85.13	43	IAmb	IAmb	00 33 19.9	
	comp=Z,15nm,1.5s						
O03E	**Paynes Creek**	85.14	50	P	P	00 33 10.9	-0.5
O03E				IAmb	IAmb	00 33 24.7	
	comp=Z,7.7nm,0.9s						
E07A	**Sunnyside**	85.14	44	P	P	00 33 11.4	+0.2
K05A	**Summer Lake**	85.28	47		P	00 33 11.5	-0.7
K05A				IAmb	IAmb	00 33 35.9	
	comp=Z,10nm,1.0s						
WAH2	**Wahluke Slope**	85.29	43	P	P	00 33 11.8	-0.1
WAH2				IAmb	IAmb	00 33 22.6	
	comp=Z,15nm,1.4s						
ORV	**Oroville**	85.53	51	P	P	00 33 12.2	-1.1
ORV				pmax	pmax		
	comp=Z,11nm,1.5s						
ORV	**Oroville**	85.53	51		P	00 33 12.2	-1.1
D08A	**Wollman Farm,**	85.65	43	P	P	00 33 13.0	-0.7
D08A				IAmb	IAmb	00 33 15.8	
	comp=Z,14nm,1.5s						
AFDM	**Forest Hills D**	86.06	51		P	00 33 16.2	+0.3
MAK	**Makhachkala**	86.12	313	eP	P	00 33 07.5	-8.6
MAK				e		00 36 31.7	
MAK				eSSS	SSS	00 52 57.5	
MAK				pmax	pmax		
	comp=Z,94nm,0.9s						
MAK				MLR	MLR		
	comp=Z,879nm,20.0s						
E09A	**Wood Farm, Sta**	86.30	43		P	00 33 17.3	+0.4
BEKR	**Beckworth**	86.31	50		P	00 33 16.8	-0.6
BEKR				IAmb	IAmb	00 33 26.6	
	comp=Z,10nm,1.2s						
LNOR	**Lincton Mounta**	86.36	44	P	P	00 33 17.5	+0.1
LNOR				IAmb	IAmb	00 33 45.0	
	comp=Z,13nm,1.5s						
HULI	**Fort Hunter Li**	86.51	54	P	P	00 33 17.7	-0.6
NEW	**Newport**	86.53	41	P	P	00 33 18.0	-0.1
NEW				pmax	pmax		
	comp=Z,8.0nm,1.0s						
NEW	**Newport**	86.53	41		P	00 33 18.0	-0.1
NEW				IAmb	IAmb	00 33 40.8	
	comp=Z,7.8nm,0.9s						
NEW	**Newport**	86.53	41	P	P	00 33 17.6	-0.5
	comp=Z,12nm,0.9s						
CMB	**Columbia Colle**	86.72	52	P	P	00 33 18.2	-1.0
CMB				pmax	pmax		
	comp=Z,6.0nm,1.1s						
CMB	**Columbia Colle**	86.72	52		P	00 33 18.2	-1.0
J08A	**Circle Bar Ran**	86.85	46	P	P	00 33 19.4	-0.5
J08A				IAmb	IAmb	00 33 32.7	
	comp=Z,16nm,1.5s						
PKD	**Bear Valley Ra**	87.08	54	P	P	00 33 21.9	+0.9
PKD				IAmb	IAmb	00 33 46.8	
	comp=Z,14nm,1.0s						
PAHR	**Pah Rah Range**	87.08	50		P	00 33 21.3	+0.2
BMO	**Blue Mountains**	87.29	45	P	P	00 33 21.9	-0.1
BMO				pmax	pmax		
	comp=Z,11nm,1.2s						
BMO	**Blue Mountains**	87.29	45		P	00 33 21.9	-0.1
BMO				IAmb	IAmb	00 33 24.0	
	comp=Z,10nm,1.1s						
LDM	**Libby Dam**	87.63	41	P	P	00 33 23.6	+0.2
LDM				IAmb	IAmb	00 33 44.3	
	comp=Z,15nm,1.4s						
LHV	**Little Huntoon**	88.10	51	P	P	00 33 25.7	-0.1
LHV				IAmb	IAmb	00 33 38.1	
	comp=Z,14nm,1.1s						
PLID	**Pearl Lake**	88.12	44		P	00 33 25.2	-0.9
PLID				IAmb	IAmb	00 33 34.4	
	comp=Z,10nm,1.3s						
KVN	**Kaiserville**	88.21	50	P	P	00 33 23.5	-3.1
KVN				pmax	pmax		
	comp=Z,16nm,1.3s						
KVN	**Kaiserville**	88.21	50	P	P	00 33 23.4	-3.1
KVN				IAmb	IAmb	00 33 36.1	
	comp=Z,16nm,1.3s						
NVAR	**Mina Array Bea**	88.21	51	P	P	00 33 26.0	-0.7
	comp=Z,6.6nm,1.0s,baz=264,slow=6.3,SNR=25						
	comp=Z,6.6nm,1.0s						
NVAR	**Mina Array Bea**	88.21	51	P	P	00 33 25.9	-0.8
JTMT	**Jette**	88.50	41	P	P	00 33 26.9	-0.8
BMN	**Battle Mountai**	88.50	49	P	P	00 33 25.5	-2.4
BMN				pmax	pmax		
	comp=Z,12nm,1.3s						
BMN	**Battle Mountai**	88.50	49	P	P	00 33 25.4	-2.4
BMN				IAmb	IAmb	00 33 36.8	
	comp=Z,12nm,1.3s						
MFID	**Camas Ranch**	88.70	46		P	00 33 27.8	-0.9
MFID				IAmb	IAmb	00 33 31.2	
	comp=Z,12nm,1.0s						
NCK	**Nalchik**	88.74	314⇓	eP	P	00 33 28.7	-0.1
NCK				pmax	pmax		
	comp=Z,44nm,4.5s						
ISA	**Isabella, Lake**	88.78	54	P	P	00 33 29.4	+0.2
ISA				pmax	pmax		
	comp=Z,6.0nm,1.1s						
ISA	**Isabella, Lake**	88.78	54	P	P	00 33 29.4	+0.2
CWC	**Cottonwood Cre**	88.89	53	P	P	00 33 28.5	-1.3
TPH	**Tonopah**	89.12	51	P	P	00 33 30.7	-0.2
TPH				pmax	pmax		
	comp=Z,17nm,1.2s						
TPH	**Tonopah**	89.12	51	P	P	00 33 30.7	-0.2
TPH				IAmb	IAmb	00 33 38.6	
	comp=Z,17nm,1.2s						
TPO	**Tropico Hills**	89.17	55	P	P	00 33 29.3	-1.8
KVAR	**Kislovodsk Arr**	89.24	315	LR	LR	01 18 16.5	
	comp=Z,175nm,19.2s,baz=260,slow=39						
KIV	**Kislovodsk**	89.25	315	eP	P	00 33 32.1	+0.9
KIV				pmax	pmax		
	comp=Z,2.0nm,1.0s						
KIV				MLR	MLR		
	comp=Z,361nm,20.0s						
GMN	**Gold Mountain**	89.30	52	P	P	00 33 31.6	-0.2
OBN	**Obninsk**	89.38	327	i P	P	00 33 29.6	-1.8
OBN				i		00 33 34.6	
OBN				pmax	pmax		
	comp=Z,4.0nm,0.9s						
CLC	**China Lake**	89.43	54	P	P	00 33 31.8	-0.4
CLC				pmax	pmax		
	comp=Z,8.0nm,1.0s						

CLC	China Lake	89.43	54	P	P	00 33 31.8	-0.4
CLC				IAmb	IAmb	00 33 40.0	
	comp=Z,8.3nm,1.0s						
LRMC	Laurel Mtn Rad	89.45	54	P	P	00 33 31.2	-1.2
LRMC				IAmb	IAmb	00 33 35.1	
	comp=Z,10nm,1.0s						
MPMC	Manual Prospec	89.45	53		P	00 33 32.4	-0.1
MPMC				IAmb	IAmb	00 33 39.8	
	comp=Z,8.9nm,1.1s						
MWC	Mount Wilson	89.47	55	P	P	00 33 31.8	-0.8
MWC				pmax	pmax		
	comp=Z,24nm,1.5s						
MWC	Mount Wilson	89.47	55	P	P	00 33 31.8	-0.8
HLID	Hailey	89.64	45		P	00 33 33.0	-0.2
CCCA	Chr Cany lake	89.69	54	P	P	00 33 32.5	-0.9
CCCA				IAmb	IAmb	00 33 40.9	
	comp=Z,12nm,1.1s						
FURC	Furnace Creek,	89.83	53	P	P	00 33 34.5	+0.5
ELK	Elko	89.87	48	P	P	00 33 33.8	-0.6
ELK				pmax	pmax		
	comp=Z,7.0nm,1.0s						
ELK	Elko	89.87	48		P	00 33 33.8	-0.6
ELK				IAmb	IAmb	00 33 42.1	
	comp=Z,6.8nm,0.9s						
WCT	Wildcat Mounta	89.92	52	P	P	00 33 32.3	-2.3
WCT				IAmb	IAmb	00 33 46.9	
	comp=Z,8.9nm,1.1s						
QSM	Queen of Sheba	89.96	53	P	P	00 33 33.7	-0.9
QSM				IAmb	IAmb	00 33 37.3	
	comp=Z,7.2nm,0.9s						
GWY	Greenwater Val	90.06	53		P	00 33 35.3	0.0
GWY				IAmb	IAmb	00 33 43.0	
	comp=Z,8.5nm,1.0s						
BCYI	Bear Canyon	90.12	44	P	P	00 33 35.2	-0.3
BCYI				IAmb	IAmb	00 33 48.5	
	comp=Z,13nm,1.4s						
TPNV	Topopah Spring	90.17	52	P	P	00 33 35.6	-0.3
TPNV				pmax	pmax		
	comp=Z,8.0nm,0.9s						
TPNV	Topopah Spring	90.17	52		P	00 33 35.5	-0.3
TPNV				IAmb	IAmb	00 33 43.6	
	comp=Z,7.7nm,0.9s						
GSC	Goldstone, Bar	90.19	54	P	P	00 33 34.8	-1.0
GSC				pmax	pmax		
	comp=Z,13nm,1.1s						
GSC	Goldstone, Bar	90.19	54	P	P	00 33 34.8	-1.0
GSC				IAmb	IAmb	00 33 43.8	
	comp=Z,13nm,1.1s						
MCMT	McKenzie Canyo	90.33	44	P	P	00 33 36.2	-0.3
SHOC	Shoshone, Teco	90.44	53	P	P	00 33 36.4	-0.5
SHOC				IAmb	IAmb	00 33 46.6	
	comp=Z,11nm,0.9s						
VNDA	Vanda	90.60	176	P	P	00 33 36.9	+0.3
	comp=Z,0.3nm,0.7s,baz=324,slow=5.2,SNR=5.5						
	comp=Z,0.3nm,0.7s						
VNDA	Vanda	90.60	176	P	P	00 33 36.3	-0.3
VNDA				pmax	pmax		
	comp=Z,4.0nm,1.3s						
VNDA	Vanda	90.60	176	P	P	00 33 36.3	-0.3
DPP	Dos Picos Cty	90.69	56	P	P	00 33 37.3	-0.8
DPP				IAmb	IAmb	00 33 45.7	
	comp=Z,12nm,0.9s						
DNR	Dunn Ranch,Anz	90.79	55	P	P	00 33 35.8	-2.9
DNR				IAmb	IAmb	00 33 51.0	
	comp=Z,11nm,0.9s						
BOZ	Bozeman (W)	90.91	43	P	P	00 33 38.5	-0.6
BOZ				pmax	pmax		
	comp=Z,6.0nm,1.4s						
BOZ	Bozeman (W)	90.91	43	P	P	00 33 38.5	-0.6
PFO	Pinyon Flats O	90.92	55	*de*P	P	00 33 41.2	+1.9
PFO	Pinyon Flats O	90.92	55		P	00 33 39.5	+0.2
PFO	Pinyon Flats O	90.92	55	P	P	00 33 41.9	+2.6
	comp=Z,15nm,1.1s						
PRN	Pahroc Range	90.96	51		P	00 33 37.5	-2.0
PRN				IAmb	IAmb	00 33 48.1	
	comp=Z,7.7nm,1.3s						
PMD	Palm Desert	90.97	55	P	P	00 33 38.6	-0.8
MTPC	Mountain Pass	91.12	53	P	P	00 33 40.2	0.0
MTPC				IAmb	IAmb	00 33 52.7	
	comp=Z,12nm,1.3s						
SHPR	Sheep Range	91.14	52		P	00 33 39.4	-0.9
BELC	Belle Mtn. Jos	91.18	55		P	00 33 39.7	-0.8
BELC				IAmb	IAmb	00 33 48.1	
	comp=Z,11nm,1.0s						
HVU	Hansel Valley	91.34	47	P	P	00 33 41.2	+0.1
HVU				pmax	pmax		
	comp=Z,7.0nm,1.1s						
HVU	Hansel Valley	91.34	47	P	P	00 33 41.2	+0.1
HVU				IAmb	IAmb	00 33 48.3	
	comp=Z,7.2nm,1.1s						
YHL	Hebgen Lake	91.45	43		P	00 33 40.9	-0.9
PSUT	Pine Spring	91.54	50	P	P	00 33 40.8	-1.4
FINES	FINESS Array B	91.61	335	P	P	00 33 39.2	-2.5
	comp=Z,1.3nm,0.5s,baz=68,slow=5.9,SNR=12						
	comp=Z,1.3nm,0.5s						
FINES	FINESS Array B	91.61	335	P	P	00 33 41.5	-0.2
YUH	Yuha Desert	91.61	56	P	P	00 33 41.6	-0.8
YHH	Holmes Hill	91.69	43	P	P	00 33 42.8	-0.1
BC3	Big Chuckawall	91.71	55		P	00 33 42.2	-0.8
SPUT	South Promonto	91.72	47	P	P	00 33 42.9	0.0
SPUT				IAmb	IAmb	00 34 10.7	
	comp=Z,8.9nm,1.3s						
ESJX	Sierra Juarez	91.77	57	P	P	00 33 43.0	-0.3
DUG	Dugway, Tooele	91.80	48	P	P	00 33 42.1	-1.2
DUG				pmax	pmax		
	comp=Z,6.0nm,1.1s						
DUG	Dugway, Tooele	91.80	48		P	00 33 42.1	-1.2
DUG				IAmb	IAmb	00 33 50.8	
	comp=Z,5.8nm,1.1s						
DUG	Dugway, Tooele	91.80	48	P	P	00 33 45.1	+1.8
	comp=Z,5.8nm,1.1s						
IRM	Iron Mountain	91.81	55		P	00 33 42.9	-0.4
FXWY	Fox Creek	91.96	45	P	P	00 33 43.9	-0.2
YMP	Mirror Lake Pl	92.17	43	P	P	00 33 45.8	+0.7
AHID	Auburn Hatcher	92.20	45	P	P	00 33 46.3	+1.2
AHID				IAmb	IAmb	00 33 52.5	
	comp=Z,7.5nm,1.1s						
CCUT	Cedar City	92.20	51		P	00 33 45.8	+0.4
HWUT	Hardware Ranch	92.25	47		P	00 33 44.3	-1.1
HWUT				IAmb	IAmb	00 33 47.4	
	comp=Z,5.9nm,0.9s						
HWUT	Hardware Ranch	92.25	47	P	P	00 33 45.0	-0.5
	comp=Z,7.4nm,1.0s						
NLU	North Lily Min	92.42	48	P	P	00 33 45.1	-1.1
NLU				IAmb	IAmb	00 33 50.2	
	comp=Z,8.1nm,1.4s						
BLYC	Blythe	92.43	55		P	00 33 45.4	-0.8
LCMT	Little Creek M	92.46	51	P	P	00 33 45.5	-0.9
ANN	Anapa	92.54	317	*e*P	P	00 33 47.0	+0.6
ANN				pmax	pmax		
	comp=Z,51nm,1.0s						
KNB	Kanab	92.78	51	P	P	00 33 48.3	+0.4
KNB				pmax	pmax		
	comp=Z,9.0nm,1.1s						
KNB	Kanab	92.78	51	P	P	00 33 48.3	+0.4
KNB				IAmb	IAmb	00 33 56.6	
	comp=Z,9.1nm,1.1s						
PDAR	Pinedale Array	93.26	45	P	P	00 33 48.5	-1.7
	comp=Z,0.5nm,0.7s,baz=239,slow=5.7,SNR=4.6						
	comp=Z,0.5nm,0.7s						
PDAR	Pinedale Array	93.26	45	P	P	00 33 47.9	-2.2
MNK	Minsk	94.19	328	*i* P	P	00 33 55.0	+1.2
MNK				*i*		00 37 41.3	
MNK				*i* PPP	PPP	00 39 42.1	
MNK				*i* S	SKSac	00 44 29.7	+0.8
MNK				*i* PS	PS	00 46 22.5	+2.0
MNK				*i* SS	SS	00 51 28.0	+3.2
MNK				*i* SSS	SSS	00 55 09.3	
MNK				pmax	pmax		
	comp=E,18nm,1.0s						
MNK				pmax	pmax		
	comp=N,6.0nm,0.6s						
MNK				pmax	pmax		
	comp=Z,5.0nm,0.7s						
MNK				MLR	MLR		
	comp=N,395nm,16.0s						
MNK	Minsk	94.19	328	*i* P	P	00 33 55.0	+1.2
	comp=E,18nm,1.0s						
MNK				*i* P	P	00 33 55.0	+1.2
	comp=N,6.0nm,0.6s						
MNK				*i* P	P	00 33 55.0	+1.2
	comp=Z,5.0nm,0.7s,baz=62						
MNK				*i* PP	PP	00 37 41.3	+1.4
MNK				*i* PPP	PPP	00 39 42.1	
MNK				*i* S	SKSac	00 44 29.7	+0.8
MNK				*i* PS	PS	00 46 22.6	+2.0
MNK				*i* SS	SS	00 51 28.0	+3.2
MNK				*i* SSS	SSS	00 55 09.3	
MNK				*i* LQ	LQ	01 11 33.2	
MNK				*i* LR	LR	01 17 19.6	
PV23	Carpenter Ridg	95.16	49	P	P	00 33 57.1	-1.9
PV14	Lion Creek, Pa	95.18	49	P	P	00 33 59.0	0.0
PV14				IAmb	IAmb	00 34 07.6	
	comp=Z,7.0nm,0.9s						
PV19	Morning Glory	95.23	49	P	P	00 33 57.9	-1.3
PV04	Paradox Valley	95.26	49	P	P	00 34 00.1	+0.8
PV17	East Wray Mesa	95.26	49	P	P	00 34 00.1	+0.7
PV18	Skein Mesa, Pa	95.31	49		P	00 33 59.4	-0.1
PV11	David Mesa, Pa	95.31	49	P	P	00 33 59.6	+0.1
BR131	Keskin Array S	97.03	313⇓	*e*P	P	00 34 09.4	+2.1
BRTR	Keskin Array B	97.03	313	P	P	00 34 05.2	-2.1
	comp=Z,0.4nm,0.9s,baz=76,slow=6.1,SNR=3.0						
	comp=Z,0.4nm,0.9s						
FRB	Frobisher Bay	99.85	14	LR	LR	01 22 30.0	
	comp=Z,200nm,19.8s,baz=314,slow=37						
TXAR	Lajitas Array	102.63	56	P	Pdif	00 34 32.2	-0.3
	comp=Z,0.7nm,1.0s,baz=311,slow=4.8,SNR=4.3						
CLL	Collm	103.40	331	LH		01 10 00.0	
CLL				LV		01 13 00.0	
CLL				AMS	AMS	01 18 00.0	
	comp=N,400nm,21.2s						
CLL				AMS	AMS	01 18 00.0	
	comp=E,400nm,19.8s						
CLL				AMS	AMS	01 24 00.0	
	comp=Z,400nm,17.9s						
TORD	Torodi Ar. Bea	134.62	303	PKP	PKPdf	00 39 53.2	-1.3
	comp=Z,1.7nm,1.0s,baz=47,slow=1.4,SNR=5.5						
PLCA	Paso Flores	138.84	139	PKP	PKPdf	00 40 01.3	-0.3
	comp=Z,2.8nm,0.9s,baz=214,slow=3.6,SNR=3.5						
DBIC	Dimbokro	143.51	300	PKP	PKPdf	00 40 09.8	-0.9
	comp=Z,6.0nm,1.0s,baz=22,slow=5.4,SNR=1.7						
AC01	Pan de Azucar	144.90	118	PKPbc	PKPbc	00 40 11.5	-0.4
CFA	Coronel Fontan	144.94	128	PKPbc	PKPbc	00 40 11.4	-0.6
	comp=Z,1.7nm,0.6s,baz=227,slow=0.8,SNR=6.1						
LPAZ	La Paz	148.77	101	PKPbc	PKPbc	00 40 24.2	+0.1
	comp=Z,2.1nm,0.6s,baz=233,slow=3.4,SNR=9.7						
SIV	San Ignacio	155.56	101	PKP	PKPdf	00 40 29.2	-0.5
	comp=Z,0.2nm,0.3s,baz=269,slow=5.0,SNR=1.4						
CPUP	Villa Florida	155.83	127	PKP	PKPdf	00 40 30.0	+0.2
	comp=Z,1.0nm,0.6s,baz=248,slow=2.3,SNR=2.9						
CPUP				PKPab	PKPab	00 40 55.3	-1.0
	comp=Z,3.4nm,1.1s,baz=180,slow=2.0,SNR=3.5						
BDFB	Brasilia	168.04	106	PKP	PKPdf	00 40 42.7	+0.1
	comp=Z,5.7nm,1.0s,baz=231,slow=1.2,SNR=4.7						

*GCMT **22** 00:21:50.7±0.2, 12°.55N±0°.01×143°.96E±0°.01, h20^{km}, MW5.2/144, Moment Tensor Solution. s52,c69; s144,c262; Duration: 1^{s}0 Moment tensor: Scale 10^{16} Nm; M_{rr}-2.49±.21; $M_{\theta\theta}$1.12±.15; $M_{\phi\phi}$1.37±.17; $M_{r\theta}$1.02±.31; $M_{\theta\phi}$-8.39±.15; $M_{\phi r}$0.46±.32; Best double couple: $M_0$8.51000×10^{16} NP1:ϕ_s180.00000°, δ80.00000°, λ-7.00000°. NP2:ϕ_s271.00000°, δ83.00000°, λ-170.00000°. Principal axes: T 9.6490, Plg2.0000°, Azm45.0000°; N -2.2770, Plg78.0000°, Azm307.0000°; P -7.3710, Plg12.0000°, Azm136.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*IDC **22** 00:21:51.3±0.5, 12°.67N×143°.88E, h0^{km}, mb4.3/26, mbtmp4.4/28, ML4.2/1, MS4.4/9 Error ellipse: s-maj=15.8km s-min=10.9km az=95.0*

*NEIC **22** 00:21:53.7±2.1, 12°.76N±0°.08×144°.0E±0°.1, h10^{km}±1^{km}, mb4.9/36, Error ellipse: s-maj=17.9km s-min=11.7km az=292.0*

ISC 22 00:21:55.3±0.3, **12°.73N**±0°.05×**144°.02E**±0°.07, **h27**^{km}, **n86**, σ**1^{s}16**/78, **mb4.6**/39, **MS4.5**/11, **South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GUMO	Guam	1.19	44	Pn	Pn	00 22 16.0	-0.2
	1µm,0.3s,baz=190,slow=17,SNR=16						
GUMO				Sn	Sn	00 22 30.4	-1.2
	2µm,0.3s,baz=174,slow=23,SNR=6.8						
DPSS	Saipan	3.03	34	Pn	Pn	00 22 41.1	-0.4
PATS	Pohnpei	15.25	111	Pn	Pn	00 25 26.5	-2.4
PATS				IAmb	IAmb	00 25 32.1	
	comp=Z,53nm,0.9s						
JAY	Jayapura	15.49	192	Pn	Pn	00 25 30.9	-1.2
	comp=Z,17nm,1.1s,baz=357,slow=14						
SIJI	Sorong	18.51	224	P	P	00 26 08.4	-1.2
	comp=Z,0.7nm,0.3s,baz=35,slow=13,SNR=1.6						
	comp=Z,16nm,1.0s						
SIJI				AML	AML		
FAKI	Fak Fak	19.45	218	P	P	00 26 19.1	-0.8
FAKI				IAmb	IAmb	00 26 31.0	
	comp=Z,58nm,1.1s						
JOW	Kunigami	20.37	316	P	P	00 26 30.2	+0.2
	comp=Z,38nm,0.9s,baz=144,slow=8.7,SNR=2.2						
	comp=Z,38nm,0.9s						
JOW	Kunigami	20.37	316	P	P	00 26 29.6	-0.4
JOW				IAmb	IAmb	00 26 41.3	
	comp=Z,107nm,1.1s						
PMG	Port Moresby	22.21	172	P	P	00 26 50.7	+0.9
	comp=Z,24nm,1.0s,baz=18,slow=10,SNR=3.8						
	comp=Z,24nm,1.0s						
H11N1	WAKE ISLAND Hy	23.02	69	T	T	00 50 58.0	
	baz=255,slow=75,SNR=161						
H11N2	WAKE ISLAND Hy	23.03	69	T	T	00 50 59.6	
	baz=255,slow=75,SNR=104						
H11N3	WAKE ISLAND Hy	23.04	69	T	T	00 51 01.8	
	baz=255,slow=75,SNR=158						
JNU	Nakatsue	23.59	332	P	P	00 27 04.6	+0.6
	comp=Z,47nm,1.0s,baz=125,slow=4.6,SNR=5.7						
	comp=Z,47nm,1.0s						
YULB	Yu-li	24.03	299	P	P	00 27 07.0	-1.2
YULB				IAmb	IAmb	00 27 25.5	
	comp=Z,42nm,1.0s						
MJAR	Matsushiro Arr	24.28	349	P	P	00 27 11.4	+1.0
	comp=Z,18nm,1.0s,baz=170,slow=8.3,SNR=4.3						
	comp=Z,18nm,1.0s						
MJAR	Matsushiro Arr	24.28	349	P	P	00 27 10.8	+0.4
MAJO	Matsushiro	24.28	349	P	P	00 27 11.1	+0.7
MAJO				IAmb	IAmb	00 27 18.9	
	comp=Z,24nm,0.8s						
MJB9	Matsu-Tunnel	24.29	349	P	P	00 27 11.9	+1.5
MJB9				IAmb	IAmb	00 27 19.9	
	comp=Z,25nm,0.8s						
SSLB	Suanglung	24.47	300	P	P	00 27 11.6	-0.6
HNR	Honiara	27.11	144	LR	LR	00 37 43.0	
	comp=Z,612nm,20.2s,baz=45,slow=35						
KSRS	Korea Array	28.52	332	P	P	00 27 49.4	+0.8
	comp=Z,6.1nm,1.0s,baz=144,slow=10,SNR=2.5						
KSRS				LR	LR	00 37 38.8	
	comp=Z,518nm,21.1s,baz=150,slow=33						
	comp=Z,6.1nm,1.0s						
KAPI	Kappang	29.87	235	P	P	00 27 59.8	-0.9
	comp=Z,8.9nm,0.8s,baz=71,slow=2.9,SNR=2.6						
	comp=Z,8.9nm,0.8s						
BATI	Baumata	30.46	222	LR	LR	00 40 06.0	
	comp=Z,1µm,21.6s,baz=53,slow=36						
KNRA	Kununurra	32.00	209	P	P	00 28 21.5	+2.0
KNRA				IAmb	IAmb	00 28 27.5	
	comp=Z,14nm,1.1s						
CTAO	Charters Tower	32.68	176	P	P	00 28 26.3	+0.9
CTAO				IAmb	IAmb	00 28 32.9	
	comp=Z,15nm,1.0s						
USRK	Ussuriysk Ar.	33.02	344	P	P	00 28 28.8	+0.6
	comp=Z,1.9nm,0.8s,baz=148,slow=9.6,SNR=1.3						
USRK				LR	LR	00 41 37.4	
	comp=Z,640nm,18.1s,baz=158,slow=36						
	comp=Z,1.9nm,0.8s						
WB0	Warramunga Arr	33.65	197	P	P	00 28 32.9	-1.1
WB0				IAmb	IAmb	00 28 41.3	
	comp=Z,13nm,0.7s						
WR0	Warramunga Arr	33.79	196	P	P	00 28 34.3	-0.9
WR0				IAmb	IAmb	00 28 41.9	
	comp=Z,14nm,0.6s						
WR8	Warramunga Arr	33.80	196	P	P	00 28 34.4	-0.9
WR8				IAmb	IAmb	00 28 42.8	
	comp=Z,12nm,0.8s						
WRAB	Tennant Creek	33.82	196	P	P	00 28 34.8	-0.6
WB2	Warramunga Arr	33.83	196	P	P	00 28 34.5	-1.0
WRA	Warramunga Arr	33.83	196	P	P	00 28 34.7	-0.8
	comp=Z,2.8nm,0.6s,baz=20,slow=9.6,SNR=7.1						
WRA				PcP	PcP	00 31 14.4	+0.1
	comp=Z,1.8nm,0.9s,baz=26,slow=3.4,SNR=1.6						
	comp=Z,2.8nm,0.6s						
WRA	Warramunga Arr	33.83	196	P	P	00 28 33.7	-1.8
MDJ	Mudanjiang	34.09	341	P	P	00 28 31.3	-6.2
MDJ				LR	LR		
	comp=N,780nm,20.6s						
MDJ				LR	LR		
	comp=E,1µm,16.5s						
MDJ				LR	LR		
	comp=Z,2µm,15.1s						
FITZ	Fitzroy Crossi	35.59	211	P	P	00 28 52.5	+1.7
BJI2	Beijing	36.60	323	P	P	00 29 07.6	+8.4
BJI2				S	S	00 34 42.3	+1.8
BJI2				pmax	pmax		
	comp=Z,13nm,1.0s						
BJI2				LR	LR		
	comp=N,710nm,18.6s						
BJI2				LR	LR		
	comp=E,550nm,17.9s						
BJI2				LR	LR		
	comp=Z,590nm,22.7s						
AS31	Alice Springs	37.50	195	P	P	00 29 07.5	+0.6
ASAR	Alice Springs	37.50	195	P	P	00 29 05.7	-1.2
	comp=Z,1.9nm,0.8s,baz=19,slow=13,SNR=4.1						
ASAR				PcP	PcP	00 31 25.7	+0.6
	comp=Z,1.5nm,0.7s,baz=22,slow=3.2,SNR=2.5						
	comp=Z,1.9nm,0.8s						
ASAR	Alice Springs	37.50	195	P	P	00 29 06.2	-0.8
EIDS	Eidsvold	38.49	170	P	P	00 29 14.6	-0.6
INKA	Innaminka	40.35	184	P	P	00 29 31.4	+0.6
MBWA	Marble Bar	41.27	216	P	P	00 29 38.7	+0.3
PETK	Petropavlovsk-	41.74	12	P	P	00 29 41.9	0.0
	comp=Z,1.2nm,0.9s,baz=206,slow=6.3,SNR=1.7						
	comp=Z,1.2nm,0.9s						
HILR	Hailar Array B	41.80	336	P	P	00 29 42.8	+0.2
	comp=Z,2.2nm,0.5s,baz=141,slow=9.3,SNR=1.9						
	comp=Z,2.2nm,0.5s						
LZDM	Lanzhou Array	42.98	310	P	P	00 29 52.1	-0.7
	comp=Z,1.5nm,0.3s,baz=102,slow=13,SNR=1.7						
	comp=Z,1.5nm,0.3s						
CMAR	Chiang Mai Arr	43.70	283	P	P	00 29 56.6	-1.8
	comp=Z,6.2nm,0.9s,baz=85,slow=6.0,SNR=6.5						
	comp=Z,6.2nm,0.9s						
STKA	Stephens Creek	44.41	183	P	P	00 30 04.3	+0.5
	comp=Z,1.8nm,0.3s,baz=2.0,slow=8.2,SNR=3.1						
STKA				LR	LR	00 50 01.3	
	comp=Z,595nm,18.9s,baz=357,slow=38						
	comp=Z,1.8nm,0.3s						
MSVF	Nonsavu	45.22	131	P	P	00 30 11.5	+0.9
FORT	Forrest	45.90	199		P	00 30 17.2	+1.6
FORT				IAmb	IAmb	00 30 24.4	
	comp=Z,10nm,0.8s						
BBOO	Buckleboo	45.91	189	P	P	00 30 15.0	-0.7
SHEM	Shemya Is, Ala	46.59	25	LR	LR	00 48 33.6	
	comp=Z,727nm,18.9s,baz=240,slow=34						
SONM	Songino Array	46.96	326	P	P	00 30 24.5	+0.5
	comp=Z,3.4nm,0.9s,baz=146,slow=7.2,SNR=4.4						
	comp=Z,3.4nm,0.9s						
SONM	Songino Array	46.96	326	P	P	00 30 24.3	+0.3
SONM				IAmb	IAmb	00 30 33.8	
	comp=Z,5.5nm,0.9s						
MORW	Morawa	49.57	213	P	P	00 30 42.8	-1.3
TOO	Toolangi	50.05	178	P	P	00 30 48.8	+1.2
BRDH	Bariadhala	50.65	289	LR	LR	00 53 10.3	
	comp=Z,666nm,20.1s,baz=130,slow=37						
ATKA	Atka Island	51.66	32	P	P	00 30 57.9	-1.8
NWAO	Narrogin (SRO)	52.11	209	P	P	00 31 04.4	+1.2
NWAO				IAmb	IAmb	00 31 09.9	
	comp=Z,10nm,0.9s						
UNV	Unalaska Valle	56.50	33	P	P	00 31 35.4	+0.6
URZ	Urewera	59.43	150	LR	LR	00 53 58.4	
	comp=Z,176nm,21.2s,baz=324,slow=32						
KHZ	Kahutara	61.21	155	P	P	00 32 08.2	+0.6
KHZ				IAmb	IAmb	00 32 16.4	
	comp=Z,5.2nm,0.7s						
MKAR	Makanchi Array	61.53	317	P	P	00 32 10.1	0.0
	comp=Z,1.8nm,0.5s,baz=90,slow=8.6,SNR=6.3						
	comp=Z,1.8nm,0.5s						
ZALV	Zalesovo Beam	61.84	325	P	P	00 32 11.7	-0.3
	comp=Z,1.7nm,0.6s,baz=107,slow=7.9,SNR=2.2						
	comp=Z,1.7nm,0.6s						
KURK	Kurchatov	64.71	320	P	P	00 32 31.2	+0.2
KURBB	Kurchatov Arra	64.75	320	P	P	00 32 31.2	0.0
	comp=Z,5.0nm,0.8s,baz=103,slow=7.0,SNR=5.7						
	comp=Z,5.0nm,0.8s						
NRIK	Noril'sk	66.67	341	P	P	00 32 42.6	-0.7
	comp=Z,3.5nm,0.7s,baz=165,slow=4.6,SNR=2.3						
	comp=Z,3.5nm,0.7s						
NRIK	Noril'sk	66.67	341	IAmb	IAmb	00 32 57.0	
	comp=Z,12nm,1.1s						
ILAR	Eielson Array	69.70	25	P	P	00 33 02.8	+0.4
	comp=Z,0.7nm,0.6s,baz=256,slow=5.7,SNR=0.9						
	comp=Z,0.7nm,0.6s						
BVAR	Borovoye Array	70.09	322	P	P	00 33 04.8	-0.2
	comp=Z,4.2nm,0.6s,baz=105,slow=7.0,SNR=5.1						
	comp=Z,4.2nm,0.6s						
INK	Inuvik	75.47	22	LR	LR	01 06 23.2	
	comp=Z,233nm,20.6s,baz=252,slow=35						
YKA	Yellowknife Ar	84.00	27	P	P	00 34 23.5	+0.5
	comp=Z,0.4nm,0.4s,baz=287,slow=5.0,SNR=4.6						
	comp=Z,0.4nm,0.4s						
SPITS	Spitsbergen Ar	84.76	351	P	P	00 34 27.0	+0.3
	comp=Z,1.4nm,0.3s,baz=71,slow=11,SNR=14						
	comp=Z,1.4nm,0.3s						
BMO	Blue Mountains	87.18	45		P	00 34 43.0	+3.6
BMO				IAmb	IAmb	00 34 50.0	
	comp=Z,9.2nm,0.9s						
NVAR	Mina Array Bea	88.11	51	P	P	00 34 45.3	+1.2
	comp=Z,2.8nm,0.8s,baz=266,slow=4.5,SNR=5.4						
	comp=Z,2.8nm,0.8s						
NVAR	Mina Array Bea	88.11	51	P	P	00 34 47.9	+3.8
VNDA	Vanda	90.67	176	P	P	00 34 53.5	-1.4
	comp=Z,0.7nm,0.8s,baz=27,slow=4.5,SNR=2.3						
	comp=Z,0.7nm,0.8s						
FINES	FINESS Array B	91.59	335	P	P	00 34 57.4	-2.2
	comp=Z,4.3nm,0.9s,baz=67,slow=3.6,SNR=5.5						
PDAR	Pinedale Array	93.16	45	P	P	00 35 08.3	+0.7
	comp=Z,0.7nm,0.9s,baz=226,slow=3.6,SNR=2.1						
	comp=Z,0.7nm,0.9s						
TXAR	Lajitas Array	102.52	56	P	Pdif	00 35 50.8	+0.9
	comp=Z,0.3nm,0.8s,baz=296,slow=5.3,SNR=1.7						
TORD	Torodi Ar. Bea	134.65	303	PKP	PKPdf	00 41 11.8	-0.6
	comp=Z,0.4nm,0.4s,baz=40,slow=2.6,SNR=4.1						
PLCA	Paso Flores	138.84	139	PKP	PKPdf	00 41 19.8	+0.3
	comp=Z,2.2nm,0.7s,baz=232,slow=2.9,SNR=3.8						
DBIC	Dimbokro	143.55	300	PKP	PKPdf	00 41 28.4	-0.2
	comp=Z,7.6nm,0.8s,baz=8.0,slow=3.1,SNR=4.1						
CFA	Coronel Fontan	144.91	128	PKP	PKPdf	00 41 30.9	+0.3
	comp=Z,10nm,1.2s,baz=247,slow=5.8,SNR=4.9						
LPAZ	La Paz	148.70	100	PKPbc	PKPbc	00 41 42.2	+0.4
	comp=Z,9.0nm,1.0s,baz=333,slow=5.9,SNR=3.5						
SIV	San Ignacio	155.49	101	PKPab	PKPab	00 42 11.5	-1.7
	comp=Z,0.6nm,0.6s,baz=255,slow=6.9,SNR=1.5						
CPUP	Villa Florida	155.81	127	PKPab	PKPab	00 42 14.1	-0.1
	comp=Z,5.1nm,1.0s,baz=229,slow=8.3,SNR=4.4						

*IDC **22** 00:26:38.5±0.7, 12°.59N×143°.94E, h0^{km}, mb4.0/17, mbtmp4.0/18, ML4.3/1, Error ellipse: s-maj=20.6km s-min=15.2km az=89.0*

*NEIC **22** 00:26:39.9±1.6, 12°.66N±0°.07×144°.07E±0°.06, h10^{km}±1^{km}, mb4.5/21, Error ellipse: s-maj=12.9km s-min=9.5km az=164.0*

*GCMT **22** 00:26:41.9±0.4, 12°.47N±0°.02×143°.89E±0°.02, h22^{km}±1^{km}, MW4.9/92, Moment Tensor Solution. s14,c16; s92,c119; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.32±.14; $M_{\theta\theta}$0.26±.11; $M_{\phi\phi}$0.06±.12; $M_{r\theta}$0.28±.17; $M_{\theta\phi}$-2.52±.11; $M_{\phi r}$0.57±.20; Best double couple: $M_0$2.61000×10^{16} NP1:ϕ_s270.00000°, δ77.00000°, λ-172.00000°. NP2: ϕ_s178.00000°, δ82.00000°, λ-14.00000°. Principal axes: T 2.6930, Plg4.0000°, Azm224.0000°; N -0.1650, Plg74.0000°, Azm328.0000°; P -2.5280, Plg15.0000°, Azm133.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 22 00:26:42.0±0.5, **12°.63N**±0°.08×**144°.05E**±0°.08, **h27**^{km}, **n57**, σ**0^{s}90**/58, **mb4.2**/29, **South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GUMO	Guam	1.24	40	Pn	Pn	00 27 02.8	-0.8
	458nm,0.3s,baz=205,slow=11,SNR=8.3						
GUMO				Sn	Sn	00 27 19.7	+0.2
	1µm,0.3s,baz=217,slow=20,SNR=19						
GUMO	Guam	1.24	40		Pn	00 27 02.5	-1.1
GUMO					Sn	00 27 19.3	-0.2
DPSS	Saipan	3.10	33	Pn	Pn	00 27 29.6	+0.4
DPSS					Sn	00 28 04.7	-0.6
PATS	Pohnpei	15.18	111	Pn	Pn	00 30 12.8	-1.9

SIJI	Sorong	18.46	224	P	P	00 30 55.6	-0.2
	1.0nm,0.3s,baz=23,slow=7.7,SNR=1.3						
	3.4nm,0.3s						
SIJI				AML	AML		
H11N1	WAKE ISLAND Hy	23.02	69	T	T	00 55 58.7	
	baz=255,slow=75,SNR=5.6						
H11N2	WAKE ISLAND Hy	23.03	69	T	T	00 55 56.8	
	baz=255,slow=75,SNR=6.5						
H11N3	WAKE ISLAND Hy	23.04	69	T	T	00 55 59.4	
	baz=255,slow=75,SNR=6.0						
JGF	Kuroka	23.66	346	P	P	00 31 50.6	-0.7
JNU	Nakatsue	23.69	332	P	P	00 31 52.0	+0.3
	11nm,0.8s,baz=144,slow=7.4,SNR=3.8						
	11nm,0.8s						
YULB	Yu-li	24.11	300	P	P	00 31 55.2	-0.5
YULB				IAmb	IAmb	00 32 02.3	
	comp=Z,20nm,1.1s						
MJAR	Matsushiro Arr	24.39	349	P	P	00 31 58.6	+0.5
	comp=Z,3.7nm,0.9s,baz=173,slow=8.8,SNR=5.7						
	comp=Z,3.7nm,0.9s						
MJAR	Matsushiro Arr	24.39	349	P	P	00 31 57.1	-1.0
MJAR				IAmb	IAmb	00 32 05.8	
	comp=Z,7.5nm,1.0s						
MAJO	Matsushiro	24.39	349	P	P	00 31 57.0	-1.1
MAJO				IAmb	IAmb	00 32 07.1	
	comp=Z,14nm,0.9s						
MJB9	Matsu-Tunnel	24.39	349	P	P	00 31 57.1	-1.0
LUWI	Luwuk	25.11	239	P	P	00 32 05.4	+0.6
TOLI2	Tolitoli	25.75	245	P	P	00 32 10.7	+0.1
TOLI2				IAmb	IAmb	00 32 19.3	
	comp=Z,13nm,1.0s						
KSRS	Korea Array	28.63	333	P	P	00 32 36.5	+0.3
	comp=Z,2.4nm,0.9s,baz=143,slow=10,SNR=4.7						
	comp=Z,2.4nm,0.9s						
USA0B	Ussuriysk Arra	33.13	344	P	P	00 33 16.1	+0.2
USA0B				IAmb	IAmb	00 33 25.9	
	comp=Z,7.3nm,0.9s						
USRK	Ussuriysk Ar.	33.13	344	P	P	00 33 17.8	+2.0
	comp=Z,1.1nm,0.5s,baz=156,slow=10.0,SNR=6.4						
	comp=Z,1.1nm,0.5s						
USRK	Ussuriysk Ar.	33.13	344	P	P	00 33 16.7	+0.9
WB0	Warramunga Arr	33.56	197	P	P	00 33 19.7	-0.2
WB0				IAmb	IAmb	00 33 34.7	
	comp=Z,10nm,1.0s						
WR8	Warramunga Arr	33.72	196	P	P	00 33 20.9	-0.3
WR8				IAmb	IAmb	00 33 33.6	
	comp=Z,9.3nm,1.1s						
WRAB	Tennant Creek	33.73	197	P	P	00 33 21.0	-0.4
WRAB				IAmb	IAmb	00 33 30.8	
	comp=Z,8.9nm,0.8s						
WRA	Warramunga Arr	33.75	197	P	P	00 33 21.1	-0.4
	comp=Z,3.3nm,0.6s,baz=21,slow=9.7,SNR=19						
	comp=Z,3.3nm,0.6s						
WRA	Warramunga Arr	33.75	197	P	P	00 33 20.4	-1.1
FITZ	Fitzroy Crossi	35.53	211	P	P	00 33 37.1	+0.3
BJT	Baijiatuau	36.71	323	P	P	00 33 46.2	-0.6
BJT				IAmb	IAmb	00 34 03.5	
	comp=Z,6.2nm,0.7s						
AS31	Alice Springs	37.41	195	P	P	00 33 52.2	-0.8
ASAR	Alice Springs	37.41	195	P	P	00 33 52.7	-0.3
	comp=Z,1.1nm,0.7s,baz=18,slow=12,SNR=4.6						
ASAR				PcP	PcP	00 36 13.1	+1.5
	comp=Z,0.7nm,0.6s,baz=29,slow=3.4,SNR=1.9						
	comp=Z,1.1nm,0.7s						
HEH	HeiHe	39.92	343	*e*P	P	00 34 14.0	+0.3
HEH				pmax	pmax		
	comp=Z,14nm,0.8s						
HEH	HeiHe	39.92	343	S	P	00 34 14.3	+0.6
LZDM	Lanzhou Array	43.08	310	P	P	00 34 40.4	+0.2
	comp=Z,0.6nm,0.3s,baz=126,slow=7.5,SNR=3.9						
	comp=Z,0.6nm,0.3s						
CMAR	Chiang Mai Arr	43.76	284	P	P	00 34 45.1	-0.5
	comp=Z,1.4nm,0.8s,baz=87,slow=6.4,SNR=6.0						
	comp=Z,1.4nm,0.8s						
CMAR	Chiang Mai Arr	43.76	284	P	P	00 34 44.1	-1.5
LHMI	Lhok Sumawe	47.05	265	P	P	00 35 12.2	+0.4
SONM	Songino Array	47.07	326	P	P	00 35 12.4	+0.9
	comp=Z,0.9nm,0.8s,baz=137,slow=6.1,SNR=5.1						
	comp=Z,0.9nm,0.8s						
SONM	Songino Array	47.07	326	P	P	00 35 11.0	-0.5
MKAR	Makanchi Array	61.63	317	P	P	00 36 57.7	+0.3
	comp=Z,0.6nm,0.7s,baz=94,slow=8.0,SNR=4.9						
	comp=Z,0.6nm,0.7s						
MKAR	Makanchi Array	61.63	317	P	P	00 36 55.8	-1.6
ZALV	Zalesovo Beam	61.94	325	P	P	00 37 00.6	+1.3
	comp=Z,0.4nm,0.4s,baz=120,slow=8.4,SNR=1.8						
	comp=Z,0.4nm,0.4s						
ZALV	Zalesovo Beam	61.94	325	P	P	00 36 59.7	+0.3
KURK	Kurchatov	64.81	320	P	P	00 37 17.4	-0.9
KURBB	Kurchatov Arra	64.85	320	P	P	00 37 17.9	-0.7
	comp=Z,1.2nm,0.7s,baz=105,slow=6.4,SNR=4.5						
	comp=Z,1.2nm,0.7s						
ILAR	Eielson Array	69.77	25	P	P	00 37 51.0	+1.5
	comp=Z,0.4nm,0.6s,baz=261,slow=5.9,SNR=2.2						
	comp=Z,0.4nm,0.6s						
BVAR	Borovoye Array	70.19	322	P	P	00 37 52.2	-0.1
	comp=Z,0.7nm,0.4s,baz=100,slow=6.2,SNR=4.5						
	comp=Z,0.7nm,0.4s						
M02C	Callahan	84.06	49	P	P	00 39 11.8	+1.1
M02C				IAmb	IAmb	00 39 19.2	
	comp=Z,1.3nm,0.8s						
YKA	Yellowknife Ar	84.07	27	P	P	00 39 10.8	+0.7
	comp=Z,0.5nm,0.5s,baz=290,slow=4.5,SNR=1.7						
	comp=Z,0.5nm,0.5s						
NVAR	Mina Array Bea	88.14	51	P	P	00 39 31.1	+0.1
	comp=Z,0.9nm,0.7s,baz=254,slow=6.3,SNR=3.8						
	comp=Z,0.9nm,0.7s						
NVAR	Mina Array Bea	88.14	51	P	P	00 39 30.7	-0.3
ELK	Elko	89.80	48	P	P	00 39 39.8	+1.0
ELK				IAmb	IAmb	00 39 48.0	
	comp=Z,2.6nm,1.1s						
FINES	FINESS Array B	91.69	335	P	P	00 39 44.6	-2.2
	comp=Z,3.2nm,1.0s,baz=72,slow=6.2,SNR=8.2						
PDAR	Pinedale Array	93.20	45	P	P	00 39 54.6	+0.1
	comp=Z,0.3nm,0.7s,baz=266,slow=3.1,SNR=2.1						
	comp=Z,0.3nm,0.7s						
CFA	Coronel Fontan	144.82	128	PKP	PKPdf	00 46 17.5	+0.4
	comp=Z,1.8nm,0.7s,baz=254,slow=3.4,SNR=5.5						
LPAZ	La Paz	148.64	101	PKPbc	PKiKP	00 46 30.0	+0.1
	comp=Z,1.2nm,0.5s,baz=269,slow=2.0,SNR=7.0						
LPAZ	La Paz	148.64	101		PKiKP	00 46 30.9	+1.0
CPUP	Villa Florida	155.72	127	PKPab	PKPab	00 47 02.2	+1.7
	comp=Z,1.2nm,0.7s,baz=225,slow=8.6,SNR=3.0						

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*IDC **22** 00:27:19.6±0.9, 12°.61N×143°.19E, h0^{km}, mb4.2/12, mbtmp4.2/12, Error ellipse: s-maj=24.9km s-min=18.9km az=93.0*

ISC 22 00:27:23.3±0.9**, 12°.6N**±0°.1×**143°.3E**±0°.1**, h27^{km}, n13, σ0^s.94**/13**, mb4.2**/12**, South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	1.83	59	Pn	Pn	00 27 52.7	-0.3
	219nm,0.3s,baz=233,slow=20,SNR=3.9						
JNU	Nakatsue	23.32	333	P	P	00 32 29.4	0.0
	19nm,1.0s,baz=172,slow=7.1,SNR=3.6						
	19nm,1.0s						
MJAR	Matsushiro Arr	24.23	350	P	P	00 32 37.5	-0.4
	6.6nm,1.0s,baz=170,slow=8.5,SNR=4.8						
	6.6nm,1.0s						
KSRS	Korea Array	28.26	334	P	P	00 33 14.3	0.0
	2.1nm,0.8s,baz=139,slow=10,SNR=2.2						
	2.1nm,0.8s						
WRA	Warramunga Arr	33.55	195	P	P	00 34 00.9	-0.1
	4.3nm,0.8s,baz=19,slow=9.6,SNR=5.3						
	4.3nm,0.8s						
ASAR	Alice Springs	37.23	194	P	P	00 34 32.4	-0.3
	4.0nm,1.0s,baz=15,slow=13,SNR=6.6						
	4.0nm,1.0s						
CMAR	Chiang Mai Arr	43.00	284	P	P	00 35 20.3	-0.5
	0.6nm,0.2s,baz=83,slow=8.2,SNR=1.8						
	0.6nm,0.2s						
SONM	Songino Array	46.62	326	P	P	00 35 48.0	-1.3
	0.9nm,0.5s,baz=134,slow=10,SNR=4.3						
	0.9nm,0.5s						
MKAR	Makanchi Array	61.09	317	P	P	00 37 36.2	+1.1
	2.6nm,0.9s,baz=93,slow=8.5,SNR=4.2						
	2.6nm,0.9s						
ZALV	Zalesovo Beam	61.49	325	P	P	00 37 38.4	+0.8
	0.4nm,0.4s,baz=90,slow=7.2,SNR=1.7						
	0.4nm,0.4s						
KURBB	Kurchatov Arra	64.34	320	P	P	00 37 58.4	+1.9
	2.7nm,0.8s,baz=104,slow=6.4,SNR=4.0						
	2.7nm,0.8s						
YKA	Yellowknife Ar	84.42	27	P	P	00 39 52.8	-0.4
	1.1nm,0.8s,baz=289,slow=5.0,SNR=2.4						
	1.1nm,0.8s						
NVAR	Mina Array Bea	88.73	51	P	P	00 40 16.0	+0.9
	2.2nm,0.8s,baz=266,slow=5.6,SNR=3.8						
	2.2nm,0.8s						

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*NNC **22** 01:10:12.1±13.0, 41°.94N×83°.21E, h0^{km}, mb3.2, mpv2.8, Error ellipse: s-maj=104.1km s-min=51.2km az=152.0*

*SOME **22** 01:10:15.7, 42°.20N×83°.02E, h5^{km}*

ISC 22 01:10:14.2±3.5**, 42°.2N**±0°.2×**83°.4E**±0°.1**, h15^{km}, n7, σ0^s.84**/11**, 5C-1D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHLS	Shalkode	3.05	289	*e*P	Pn	01 11 03.0	+1.0
	10nm,0.4s						
SHLS				*e*S	Sn	01 11 37.3	-1.0
	14nm,0.5s						
PDGK	Podgornoye	3.09	293	⇑Pg	Pb	01 11 08.3	-0.6
	2.0nm,0.6s						
PDGK				⇑Lg	Lg	01 11 45.8	
	8.3nm,0.7s						
UZB	Uzynbulak	3.36	288	*e*P	Pb	01 11 13.0	-0.5
	0.9nm,0.2s						
UZB				*e*S	Sb	01 11 54.3	+0.1
	2.8nm,0.5s						
DJR	Jarkent	3.38	310	*e*P	Pb	01 11 13.9	0.0
	1.7nm,0.5s						
DJR				*e*S	Sb	01 11 55.8	+1.0
	2.7nm,0.5s						
KPKS	Kokpek	3.69	291	*e*P	Pb	01 11 18.8	-0.2
	1.5nm,0.4s						
KPKS				*e*S	Sb	01 12 04.0	+0.5
	2.7nm,0.7s						
MK31	Makanchi Array	4.65	351	⇑Pg	Pg	01 11 43.5	+0.3
	1.1nm,0.7s,baz=168,slow=16,SNR=5.4						
MK31				⇑Lg	Lg	01 12 47.2	
	0.6nm,0.5s,baz=164,slow=21						
MAKZ	Makanchi	4.71	348	⇓Pg	Pg	01 11 43.0	-1.3
	0.9nm,0.6s						
MAKZ				⇑Lg	Lg	01 12 49.7	
	1.3nm,0.8s						

DJA 22 01:17:19.3±1.0**, 8°S**±8°×**10°7E**±°**, h27^{km}**±7^{km}**, M3.5**/14**, MLv3.5**/14**, Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CNJI	Cibinong	0.52	359	P	Pn	01 17 31.8	+0.9
CNJI	Cibinong	0.52	359	P	Pn	01 17 31.9	+1.0
CNJI				S	Sn	01 17 40.5	+1.6
CNJI				AML	AML		
CNJI				AML	AML		
CNJI				AML	AML		
CNJI	Cibinong	0.52	359	P	Pn	01 17 30.9	0.0
BBJI	Bungbulang	0.62	54	P	Pn	01 17 32.9	+0.4
BBJI	Bungbulang	0.62	54	P	Pn	01 17 33.1	+0.6
BBJI	Bungbulang	0.62	54	P	Pn	01 17 32.7	+0.2
SKJI	Sukabumi	1.00	325	P	Pb	01 17 38.7	+0.6
SKJI	Sukabumi	1.00	325	P	Pb	01 17 39.2	+1.1
SKJI	Sukabumi	1.00	325	P	Pb	01 17 38.5	+0.4
CMJI	Cimerak	1.30	88	P	Pn	01 17 42.3	+0.6
CMJI				AML	AML		
CMJI	Cimerak	1.30	88	P	Pn	01 17 42.1	+0.4
CMJI				AML	AML		
CGJI	Cibinong	1.88	310	P	Pn	01 17 49.5	-0.1
CGJI	Cibinong	1.88	310	P	Pn	01 17 49.2	-0.4
CGJI				AML	AML		
UGM	Wanagama	3.35	92	P	Pn	01 18 09.4	-0.6
PCJI	Pacitan	4.01	95	P	Pn	01 18 18.6	-0.5

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*IDC **22** 01:19:00.8±1.3, 6°.93S×129°.33E, h148^{km}±11^{km}, mb5.0/25, mbtmp5.4/30, MS3.8/11, Error ellipse: s-maj=10.2km s-min=6.7km az=79.0*

*MOS **22** 01:19:02.8±0.9, 6°.83S×129°.37E, h177^{km}, mb5.5/47, Error ellipse: s-maj=9.6km s-min=5.0km az=115.9*

*BJI **22** 01:19:02.1, 6°.96S×129°.56E, h188^{km}, mB5.0/21, mb5.1/75*

*DJA **22** 01:19:04.4±0.4, 7°S±4°×13°0E±°, h251^{km}±11^{km}, M5.1/18, mB5.5/13, mB5.6/12, mb5.4/18, mb5.4/18, Mw(mB)5.0/12, Mw(mB)5.0/13, MwMwp4.8/3, MwMwp4.5/1, Mwp4.9/1, Mwp5.1/3*

*NEIC **22** 01:19:04.3±1.9, 6°.84S±0°.07×129°.37E±0°.06, h174^{km}±4^{km}, mb5.3/214, Mww5.0/15, Error ellipse: s-maj=9.9km s-min=9.2km az=205.0*

*GFZ **22** 01:19:05.3±0.3, 7°S±2°×12°9E±°, h190^{km}±3^{km}, M5.0/46, mb5.3/46*

*GCMT **22** 01:19:05.3±0.2, 6°.98S±0°.01×129°.49E±0°.02, h188^{km}±1^{km}, MW5.1/126, Moment Tensor Solution. s78,c97; s126,c199; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}3.95±.11; $M_{\theta\theta}$-4.05±.13; $M_{\phi\phi}$0.10±.13; $M_{r\theta}$3.44±.11; $M_{\theta\phi}$-0.16±.15; $M_{\phi r}$1.78±.11; Best double couple: $M_0$5.56700×10^{16} NP1:ϕ_s283.00000°, δ26.00000°, λ119.00000°. NP2:ϕ_s71.00000°, δ67.00000°, λ77.00000°. Principal axes: T 5.6960, Plg65.0000°, Azm318.0000°; N -0.2510, Plg12.0000°, Azm76.0000°; P -5.4380, Plg21.0000°, Azm171.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 22 01:19:03.8±0.3**, 6°.95S**±0°.03×**129°.36E**±0°.03**, h179^{km}**±2^{km}**, h179^{km}:pP-P, n865, σ1^s.56**/848**, mb5.3**/232**, 61C-36D, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SAUI	Saumlaki	2.18	118	P	Pn	01 19 43.6	+0.8
SAUI	Saumlaki	2.18	118	Pn	Pn	01 19 43.9	+1.0
SAUI	Saumlaki	2.18	118	P	Pn	01 19 44.0	+1.2
BNDI	Bandanaira	2.47	13	P	Pn	01 19 48.4	+2.3
BNDI	Bandanaira	2.47	13	P	Pn	01 19 48.7	+2.5
MSAI	Masohi	3.60	353	P	Pn	01 20 03.0	+3.1
NLAI	Namlea	4.32	328	P	Pn	01 20 12.4	+3.4
FAKI	Fak Fak	4.93	36	P	Pn	01 20 15.6	-1.3
FAKI	Fak Fak	4.93	36	Pn	Pn	01 20 14.6	-2.3
FAKI	Fak Fak	4.93	36	P	Pn	01 20 15.2	-1.7
	comp=Z,1μm,0.7s						
KMPI	Kaimana, Papua	5.42	53	P	Pn	01 20 23.1	-0.1
	comp=Z,2μm,0.6s,comp=Z,2μm,0.6s						
DRS	Darwin Rock St	5.66	165	P	Pn	01 20 26.2	-0.2
SOEI	Soe	5.76	241	P	Pn	01 20 30.1	+2.2
SOEI	Soe	5.76	241	S	Sn	01 21 35.9	+1.9
SOEI	Soe	5.76	241	Pn	Pn	01 20 29.6	+1.8
SOEI	Soe	5.76	241	P	Pn	01 20 30.1	+2.2
	comp=Z,1μm,0.7s						
SANI	Sanana	5.91	325	P	Pn	01 20 33.0	+3.3
SANI	Sanana	5.91	325	S	Sn	01 21 40.4	+3.1
SANI	Sanana	5.91	325	P	Pn	01 20 33.2	+3.5
	comp=Z,381nm,0.8s						
MTN	Manton Dam	6.12	164	P	Pn	01 20 31.8	-0.6
	comp=Z,2μm,0.5s,comp=Z,0.0nm						
MTN				S	Sn	01 21 37.5	-4.7
MTN	Manton Dam	6.12	164	Pn	Pn	01 20 31.2	-1.1
SIJI	Sorong	6.33	18	P	Pn	01 20 32.6	-2.6
	comp=Z,178nm,0.3s,baz=193,slow=13,SNR=24						
SIJI				S	Sn	01 21 41.9	-5.4
	comp=Z,608nm,0.2s,baz=238,slow=23,SNR=6.6						
SWI	Sorong	6.33	17	P	Pn	01 20 34.9	-0.3
	comp=Z,2μmcomp=Z,2μmcomp=Z,14μmcomp=Z,14μm						
	comp=Z,342nm,0.7s,comp=Z,342nm,0.7s						
KDU	Kakadu	6.48	152	P	Pn	01 20 36.1	-1.0
KDU				S	Sn	01 21 43.9	-6.8
BATI	Baumata	6.50	240	P	Pn	01 20 34.0	-3.5
	comp=Z,783nm,0.6s,baz=112,slow=1.4,SNR=118						
BATI				S	Sn	01 21 45.0	-6.2
	comp=Z,2μm,0.5s,baz=84,slow=15,SNR=11						
BBSI	Bau Bau	6.90	282	P	Pn	01 20 48.0	+5.2
	comp=Z,3μmcomp=Z,3μmcomp=Z,225nm,0.9s,comp=Z,225nm,0.9s						
MMRI	Maumere	7.25	256	P	Pn	01 20 50.5	+3.1
MMRI	Maumere	7.25	256	S	Sn	01 22 10.9	+1.7
MMRI	Maumere	7.25	256	Pn	Pn	01 20 49.0	+1.6
MMRI	Maumere	7.25	256	P	Pn	01 20 51.1	+3.7
	comp=Z,361nm,0.6s						
KDI	Kendari	7.34	294	P	Pn	01 20 54.4	+5.9
MWPI	Manokwari, Pap	7.58	38	P	Pn	01 20 52.2	+0.5
EDFI	Ende, Flores	7.81	256	P	Pn	01 20 57.4	+2.6
	comp=Z,3μmcomp=Z,230nm,0.7s,comp=Z,230nm,0.7s						
TNTI	Ternate	7.92	345	P	Pn	01 20 57.9	+1.8
TNTI	Ternate	7.92	345	Pn	Pn	01 20 55.3	-0.9
TNTI	Ternate	7.92	345	P	Pn	01 20 58.2	+2.0
	comp=Z,303nm,1.0s						
KKSI	Kolaka, Sulawe	8.15	289	P	Pn	01 20 49.7	-10
KNRA	Kununurra	8.70	184	P	Pn	01 21 05.4	-1.0
	comp=Z,834nm,0.7s,comp=Z,0.0nm						
KNRA				S	Sn	01 22 36.3	-7.3
KNRA	Kununurra	8.70	184	Pn	Pn	01 21 04.8	-1.5
LUWI	Luwuk	8.81	311	P	Pn	01 21 10.6	+2.8
LUWI	Luwuk	8.81	311	Pn	Pn	01 21 12.0	+4.2
LUWI	Luwuk	8.81	311	P	Pn	01 21 13.4	+5.5
	comp=Z,502nm,1.2s						
BSSI	Bau Bau, Buton	8.85	275	P	Pn	01 21 11.6	+3.2
	comp=Z,125nm,0.6s,comp=Z,125nm,0.6s						
WSI	Waingapu	9.37	253	P	Pn	01 21 15.6	+0.4
KAPI	Kappang	9.75	281	P	Pn	01 21 22.8	+2.6
	comp=Z,40nm,0.7s,baz=105,slow=12,SNR=15						
KAPI	Kappang	9.75	281	P	Pn	01 21 23.1	+2.9
KAPI	Kappang	9.75	281	P	Pn	01 21 19.8	-0.3
KAPI	Kappang	9.75	281	Pn	Pn	01 21 19.8	-0.3
KAPI	Kappang	9.75	281	P	Pn	01 21 24.0	+3.8
	comp=Z,128nm,0.9s						
PLAI	Plampang	11.63	260	P	Pn	01 21 46.8	+2.2
PLAI	Plampang	11.63	260	P	Pn	01 21 43.6	-1.0
	comp=Z,336nm,0.7s						
FITZ	Fitzroy Crossi	11.66	198	P	Pn	01 21 42.9	-2.1
	comp=Z,67nm,0.7s						
FITZ				S	Sn	01 23 46.6	-8.0
FITZ	Fitzroy Crossi	11.66	198	P	Pn	01 21 42.8	-2.2
	comp=Z,212nm,0.3s,baz=30,slow=11,SNR=416						
FITZ				S	Sn	01 23 46.2	-8.5
	comp=Z,312nm,0.5s,baz=83,slow=19,SNR=4.7						
FITZ				LR	LR	01 27 21.8	
	comp=Z,756nm,18.0s,baz=9.5,slow=43						
FITZ	Fitzroy Crossi	11.66	198	Pn	Pn	01 21 42.7	-2.4
FITZ	Fitzroy Crossi	11.66	198	P	Pn	01 21 43.1	-1.9
	comp=Z,67nm,0.7s						
TOLI2	Tolitoli	11.72	313	P	P	01 21 49.0	-2.8
TOLI2	Tolitoli	11.72	313	S	S	01 24 00.5	-1.5
TOLI2	Tolitoli	11.72	313	Pn	P	01 21 49.0	-2.8
TOLI2	Tolitoli	11.72	313	P	P	01 21 49.4	-2.4
	comp=Z,99nm,0.7s						
JAY	Jayapura	12.13	69	P	P	01 21 54.7	-1.6
	comp=Z,13nm,0.3s,baz=222,slow=10,SNR=10						
BKB	Balikpapan	13.65	294	P	P	01 22 14.3	+1.1
WRAB	Tennant Creek	13.79	160	*d i*P	Pn	01 22 08.5	-3.6
WRAB				pmax	pmax		
	comp=Z,198nm,0.6s						
WRAB	Tennant Creek	13.79	160	Pn	Pn	01 22 08.4	-3.6
WRAB	Tennant Creek	13.79	160	P	Pn	01 22 08.8	-3.2
	comp=Z,1μm,0.8s						
WRA	Warramunga Arr	13.79	160	P	Pn	01 22 09.2	-2.9
	comp=Z,169nm,0.6s,baz=340,slow=13,SNR=273						
WRA				S	Sn	01 24 36.6	-9.2
	comp=Z,277nm,0.6s,baz=347,slow=22,SNR=12						
WRA	Warramunga Arr	13.79	160	Pn	Pn	01 22 08.1	-4.0
DAV	Davao City (W)	14.42	345	P	P	01 22 20.9	-0.9
	comp=Z,175nm,0.4s,baz=72,slow=6.4,SNR=1.0						
DAV				S	Sn	01 24 54.9	-5.9
	comp=Z,405nm,0.4s,baz=190,slow=8.5,SNR=2.4						
JAGI	Jajag, Banyuwa	15.15	263	P	P	01 22 30.0	+0.2
JAGI	Jajag, Banyuwa	15.15	263	Pn	Pn	01 22 26.2	-2.7
JAGI	Jajag, Banyuwa	15.15	263	P	P	01 22 30.1	+0.2
	comp=Z,104nm,0.5s						
QIS	Mount Isa	16.78	145	P	P	01 22 48.0	+0.1
	comp=Z,273nm,0.6s						
QIS				S	S	01 25 45.4	-8.3
QIS	Mount Isa	16.78	145	P	P	01 22 47.5	-0.4
QIS	Mount Isa	16.78	145	P	P	01 22 47.8	0.0
	comp=Z,273nm,0.6s						
MBWA	Marble Bar	16.93	212	P	Pn	01 22 51.1	+0.7
	comp=Z,180nm,0.8s						
MBWA				S	S	01 25 50.1	-6.6
MBWA	Marble Bar	16.93	212	P	Pn	01 22 50.7	+0.4
MBWA	Marble Bar	16.93	212	P	Pn	01 22 50.7	+0.4
MBWA	Marble Bar	16.93	212	P	Pn	01 22 49.9	-0.4
MBWA	Marble Bar	16.93	212	P	Pn	01 22 50.5	+0.2
	comp=Z,179nm,0.8s						
AS15	Alice Springs	17.16	166	P	Pn	01 22 53.4	+0.2
	comp=Z,1μm,0.7s						
AS31	Alice Springs	17.19	166	P	Pn	01 22 53.8	+0.3
	comp=Z,675nm,0.7s						
AS31	Alice Springs	17.19	166	P	Pn	01 22 54.0	+0.5
	comp=Z,675nm,0.7s						
AS31				S	S	01 25 59.7	-2.6
ASAR	Alice Springs	17.19	166	P	Pn	01 22 53.1	-0.4
	comp=Z,1μm,0.6s,baz=340,slow=10.0,SNR=1621						
ASAR				S	S	01 25 59.4	-2.9
	comp=Z,114nm,0.7s,baz=346,slow=25,SNR=5.0						
ASAR				LR	LR	01 30 18.6	
	comp=Z,597nm,21.2s,baz=344,slow=39						
ASAR	Alice Springs	17.19	166	P	Pn	01 22 53.4	-0.1
ASAR	Alice Springs	17.19	166		Pn	01 22 53.4	-0.1
AS01	Alice Springs	17.20	166	P	Pn	01 22 53.5	-0.2
	comp=Z,2μm,0.8s						
AS01	Alice Springs	17.20	166	P	Pn	01 22 53.4	-0.2
AUALC	St Philip's Co	17.21	166	P	Pn	01 22 53.5	-0.2
AUALC	St Philip's Co	17.21	166	S	S	01 26 02.6	0.0
AS17	Alice Springs	17.21	166	P	Pn	01 22 54.0	+0.2
	comp=Z,2μm,0.8s						
AS09	Alice Springs	17.23	166	P	Pn	01 22 54.2	+0.2
	comp=Z,2μm,0.8s						
PMG	Port Moresby	17.79	99	P	Pn	01 22 59.6	-1.0
	comp=Z,132nm,0.8s,baz=280,slow=7.2,SNR=29						
PMG				S	S	01 26 15.5	+1.2
	comp=Z,18nm,0.5s,baz=266,slow=22,SNR=1.5						
PMG				LR	LR	01 31 20.8	
	comp=Z,344nm,18.9s,baz=205,slow=42						
PMG	Port Moresby	17.79	99	P	P	01 22 58.8	-0.1
PMG	Port Moresby	17.79	99	S	S	01 26 15.2	+0.9
PMG	Port Moresby	17.79	99	P	P	01 22 58.7	-0.1
PMG	Port Moresby	17.79	99	S	S	01 26 15.1	+0.8
PMG	Port Moresby	17.79	99	P	Pn	01 23 01.7	+1.1
PMG	Port Moresby	17.79	99	Pn	Pn	01 23 01.7	+1.1
PMG	Port Moresby	17.79	99	P	Pn	01 23 02.7	+2.1
	comp=Z,226nm,1.1s						
WRKA	Warakurna	18.02	183	P	Pn	01 23 02.9	-0.4
	comp=Z,315nm,0.8s						
WRKA	Warakurna	18.02	183	P	Pn	01 23 02.7	-0.6
	comp=Z,315nm,0.8s						
MTSU	Mount Surprise	18.33	129	P	Pn	01 23 05.9	-1.2
	comp=Z,125nm,0.7s						
MTSU	Mount Surprise	18.33	129	P	P	01 23 05.6	+0.7
	comp=Z,125nm,0.7s						
MTSU	Mount Surprise	18.33	129	P	P	01 23 05.1	+0.2
MTSU	Mount Surprise	18.33	129	P	Pn	01 23 05.8	-1.2
	comp=Z,125nm,0.7s						
KKM	Kota Kinabalu	18.40	314	P	Pn	01 23 07.3	-0.6
KKM	Kota Kinabalu	18.40	314	S	S	01 26 29.9	+3.3
KKM	Kota Kinabalu	18.40	314	P	P	01 23 05.8	+0.1
KKM	Kota Kinabalu	18.40	314	P	Pn	01 23 07.3	-0.6
	comp=Z,93nm,0.8s						
MANU	Manus Island	18.59	76	P	P	01 23 06.5	-1.2
UGM	Wanagama	18.70	266	P	P	01 23 08.2	-0.7
SMRI	Semarang	18.78	269	P	Pn	01 23 12.3	0.0
SMRI	Semarang	18.78	269	P	Pn	01 23 14.7	+2.4
	comp=Z,198nm,0.8s						
SBUM	Sibu	19.49	298	P	Pn	01 23 20.1	-0.6
SBUM	Sibu	19.49	298	P	P	01 23 17.6	+0.3
SBUM	Sibu	19.49	298	P	Pn	01 23 21.2	+0.5
	comp=Z,130nm,1.0s						
TV1H	Townsville Har	20.91	128	P	P	01 23 32.7	+0.3
CTA	Charters Tower	20.96	130	P	P	01 23 34.1	+1.1
	comp=Z,68nm,1.0s						
CTA	Charters Tower	20.96	130	P	P	01 23 34.3	+1.3
	comp=Z,68nm,1.0s						
CTA	Charters Tower	20.96	130	P	P	01 23 33.7	+0.7
	comp=Z,82nm,0.6s,baz=299,slow=11,SNR=69						
CTA				S	S	01 27 20.9	+4.5
	comp=Z,16nm,0.8s,baz=282,slow=14,SNR=3.3						
	comp=Z,82nm,0.6s						
CTA	Charters Tower	20.96	130	P	P	01 23 33.3	+0.2
CTA	Charters Tower	20.96	130	S	S	01 27 18.8	+2.3
CTAO	Charters Tower	20.96	130	P	P	01 23 33.2	+0.2
CTAO	Charters Tower	20.96	130	S	S	01 27 18.9	+2.4
CTAO	Charters Tower	20.96	130	P	P	01 23 33.7	+0.7
CTAO	Charters Tower	20.96	130	P	P	01 23 33.6	+0.7
CTAO	Charters Tower	20.96	130	P	P	01 23 34.1	+1.1
	comp=Z,172nm,1.0s						
GIRL	Giralia	21.35	221	P	P	01 23 40.2	+3.0
	comp=Z,131nm,1.6s						
GIRL	Giralia	21.35	221	P	P	01 23 40.0	+2.9
	comp=Z,131nm,1.6s						
GIRL	Giralia	21.35	221	P	P	01 23 38.8	+1.6
BBJI	Bungbulang	21.55	267	P	P	01 23 40.9	+1.5
BBJI	Bungbulang	21.55	267	P	P	01 23 38.4	-1.0
BBJI	Bungbulang	21.55	267	P	P	01 23 39.4	0.0
	comp=Z,109nm,0.8s						
AUAYR	Ayr State High	21.56	127	P	P	01 23 39.7	+0.3

MEEK	Meekatharra	22.09	206	P	P	01 23 45.3	+0.5
	comp=Z,88nm,0.6s						
MEEK	Meekatharra	22.09	206	P	P	01 23 44.7	-0.1
	comp=Z,76nm,0.8s						
MEEK	Meekatharra	22.09	206	P	P	01 23 44.9	+0.1
MEEK	Meekatharra	22.09	206	P	P	01 23 45.2	+0.5
	comp=Z,88nm,0.6s						
INKA	Innaminka	23.33	154	P	P	01 23 57.0	+1.0
FORT	Forrest	23.74	183	P	P	01 24 00.7	+1.0
	comp=Z,432nm,0.7s						
FORT	Forrest	23.74	183	P	P	01 24 00.4	+0.7
	comp=Z,432nm,0.7s						
FORT	Forrest	23.74	183	P	P	01 24 00.5	+0.7
QLP	Quilpie	24.12	146	P	P	01 24 04.2	+0.9
	comp=Z,503nm,1.3s						
QLP	Quilpie	24.12	146	P	P	01 24 04.4	+1.1
	comp=Z,503nm,1.3s						
QLP	Quilpie	24.12	146	P	P	01 24 03.5	+0.2
QLP	Quilpie	24.12	146	P	P	01 24 04.1	+0.8
	comp=Z,503nm,1.3s						
KMBL	Kambalda	25.28	195	P	P	01 24 14.7	+1.0
	comp=Z,67nm,0.9s						
KMBL	Kambalda	25.28	195	P	P	01 24 14.4	+0.6
	comp=Z,67nm,0.9s						
MORW	Morawa	25.34	208	P	P	01 24 17.0	+2.7
	comp=Z,42nm,0.7s						
MORW	Morawa	25.34	208	P	P	01 24 15.5	+1.2
	comp=Z,43nm,0.7s						
MORW	Morawa	25.34	208	P	P	01 24 15.5	+1.2
MORW	Morawa	25.34	208	P	P	01 24 14.5	+0.2
MORW				IAmb	IAmb	01 24 49.7	
	comp=Z,61nm,0.9s						
MORW	Morawa	25.34	208	P	P	01 24 09.0	-5.4
	comp=Z,42nm,0.7s						
AUNRC	North Rockhamp	26.08	131	P	P	01 24 21.9	+0.9
BLDU	Ballidu	26.37	205	P	P	01 24 24.3	+0.7
	comp=Z,46nm,0.8s						
BLDU	Ballidu	26.37	205	P	P	01 24 24.7	+1.2
	comp=Z,46nm,0.8s						
BBOO	Buckleboo	26.48	167	P	P	01 24 24.8	+0.3
	comp=Z,166nm,0.7s						
BBOO	Buckleboo	26.48	167	P	P	01 24 25.0	+0.5
	comp=Z,166nm,0.7s						
BBOO	Buckleboo	26.48	167	P	P	01 24 24.3	-0.2
BBOO	Buckleboo	26.48	167	P	P	01 24 24.4	-0.1
BBOO	Buckleboo	26.48	167	P	P	01 24 24.8	+0.3
	comp=Z,166nm,0.7s						
KLBR	Kellerberrin	26.81	202	P	P	01 24 28.7	+1.2
	comp=Z,153nm,1.0s						
KLBR	Kellerberrin	26.81	202	P	P	01 24 28.9	+1.4
	comp=Z,153nm,1.0s						
KLBR	Kellerberrin	26.81	202	P	P	01 24 28.1	+0.6
KLBR	Kellerberrin	26.81	202	P	P	01 24 28.7	+1.2
	comp=Z,153nm,1.0s						
BTDF	Bukit Timah Da	26.84	287	P	P	01 24 30.5	+2.6
MYKOM	Kota Tinggi	26.90	288	P	P	01 24 29.8	+1.3
MYKOM	Kota Tinggi	26.90	288	P	P	01 24 28.9	+0.5
MYKOM	Kota Tinggi	26.90	288	P	P	01 24 29.8	+1.3
	comp=Z,136nm,1.1s						
STKA	Stephens Creek	27.31	157	P	P	01 24 32.5	+0.6
	comp=Z,722nm,0.7s						
STKA	Stephens Creek	27.31	157	P	P	01 24 32.5	+0.6
	comp=Z,722nm,0.7s						
STKA	Stephens Creek	27.31	157	P	P	01 24 32.2	+0.2
	comp=Z,130nm,0.7s,baz=331,slow=8.6,SNR=137						
	comp=Z,130nm,0.7s						
STKA	Stephens Creek	27.31	157	P	P	01 24 32.1	+0.2
STKA	Stephens Creek	27.31	157	*d i*P	P	01 24 32.3	+0.4
STKA	Stephens Creek	27.31	157	P	P	01 24 32.5	+0.6
	comp=Z,722nm,0.7s						
EIDS	Eidsvold	27.68	134	P	P	01 24 35.3	0.0
	comp=Z,15nm,2.4s						
EIDS	Eidsvold	27.68	134	P	P	01 24 35.6	+0.3
	comp=Z,15nm,2.4s						
EIDS	Eidsvold	27.68	134	P	P	01 24 34.8	-0.5
EIDS	Eidsvold	27.68	134	P	P	01 24 35.0	-0.3
EIDS	Eidsvold	27.68	134	P	P	01 24 35.4	0.0
	comp=Z,15nm,2.4s						
MUN	Mundaring	27.77	205	P	P	01 24 36.8	+0.9
	comp=Z,37nm,0.7s						
MUN	Mundaring	27.77	205	P	P	01 24 37.2	+1.3
	comp=Z,37nm,0.7s						
HTT	Hallett	27.81	163	P	P	01 24 37.4	+1.1
	comp=Z,29nm,0.7s						
HTT	Hallett	27.81	163	P	P	01 24 37.3	+0.9
	comp=Z,29nm,0.7s						
HTT	Hallett	27.81	163	P	P	01 24 37.2	+0.9
HTT	Hallett	27.81	163	P	P	01 24 36.7	+0.3
NWAO	Narrogin (SRO)	28.20	202	P	P	01 24 39.3	-0.5
	comp=Z,75nm,1.5s						
NWAO	Narrogin (SRO)	28.20	202	P	P	01 24 40.9	+1.0
	comp=Z,121nm,1.2s						
NWAO	Narrogin (SRO)	28.20	202	P	P	01 24 40.5	+0.7
	comp=Z,13nm,0.5s,baz=38,slow=8.7,SNR=14						
	comp=Z,13nm,0.5s						
NWAO	Narrogin (SRO)	28.20	202	P	P	01 24 41.0	+1.2
NWAO	Narrogin (SRO)	28.20	202	P	P	01 24 40.5	+0.7
NWAO				pmax	pmax		
	comp=Z,49nm,0.7s						
NWAO	Narrogin (SRO)	28.20	202	P	P	01 24 40.5	+0.7
NWAO				IAmb	IAmb	01 25 48.1	
	comp=Z,49nm,0.7s						
AULRC	Lightning Ridg	28.43	144	P	P	01 24 41.5	-0.3
CMSA	Cobar Meteorol	28.84	150	P	P	01 24 46.4	+0.9
	comp=Z,133nm,1.0s						
CMSA	Cobar Meteorol	28.84	150	P	P	01 24 46.4	+0.9
	comp=Z,133nm,1.0s						
CMSA	Cobar Meteorol	28.84	150	P	P	01 24 45.8	+0.3
CMSA	Cobar Meteorol	28.84	150	P	P	01 24 46.3	+0.9
	comp=Z,133nm,1.0s						
BKNI	Bangkinang	29.16	283	P	P	01 24 50.9	+2.3
AUMBR	Murray Bridge	29.50	163	P	P	01 24 52.2	+0.9
TW1H	Toowoomba 1 Ha	29.66	136	P	P	01 24 53.0	+0.1
AUTOO	Toowoomba Stat	29.66	136	P	P	01 24 53.6	+0.7
RKGY	Rocky Gully	29.81	201	P	P	01 24 56.2	+2.2
	comp=Z,20nm,1.3s						
SAVO	Savo Central	30.23	96	P	P	01 24 58.8	+0.8
HNR	Honiara	30.37	97	LR	LR	01 36 51.8	
	comp=Z,122nm,21.1s,baz=354,slow=35						
IPM	Ipoh	30.47	291	P	P	01 25 02.2	+2.0
IPM	Ipoh	30.47	291	P	P	01 24 59.8	-0.4
IPM				IAmb	IAmb	01 25 03.5	
	comp=Z,59nm,0.9s						
AUDCS	Dubbo College	30.91	147	P	P	01 25 04.0	+0.3
TPUB	Ta-pu	31.25	344	P	P	01 25 04.7	-2.1
ARMA	Armidale	31.34	141	P	P	01 25 09.2	+1.5
	comp=Z,54nm,1.3s						
ARMA	Armidale	31.34	141	P	P	01 25 09.6	+2.0
	comp=Z,54nm,1.3s						
ARMA	Armidale	31.34	141	P	P	01 25 07.7	0.0
ARMA	Armidale	31.34	141	P	P	01 25 09.1	+1.5
	comp=Z,54nm,1.3s						
AUPHS	Peel High Scho	31.36	143	P	P	01 25 08.7	+1.0
ARPS	Mount Arapiles	31.80	161	P	P	01 25 13.0	+1.5
	comp=Z,129nm,0.6s						
ARPS	Mount Arapiles	31.80	161	P	P	01 25 13.2	+1.7
	comp=Z,129nm,0.6s						
RPSI	Rantau Prapat	31.85	286	P	P	01 25 12.1	-0.2
	comp=Z,200nm,1.1s						
PSI	Prapat	31.89	287	P	P	01 25 13.0	+0.3
PATS	Pohnpei	31.96	65	P	P	01 25 17.2	+4.0
	comp=Z,33nm,2.3s						
QIZ	Qiongzhong	32.19	324	P	P	01 25 12.4	-2.7
QIZ				S	S	01 30 15.8	+0.9
QIZ				pmax	pmax		
	comp=Z,12nm,1.7s						
QIZ				pmax	pmax		
	comp=Z,160nm,3.8s						
QIZ				L	L		
	comp=Z,250nm,17.2s						
QIZ				L	L		
	comp=Z,230nm,18.6s						
QIZ				L	L		
	comp=Z,190nm,15.1s						
YHNB	Yeheng	32.37	346	P	P	01 25 15.9	-0.7
YNG	Young	32.40	150	P	P	01 25 18.6	+1.7
	comp=Z,78nm,1.0s						
GSI	Gunungsitoli	32.76	283	P	P	01 25 21.5	+1.3
GSI	Gunungsitoli	32.76	283	P	P	01 25 19.1	-1.1
GSI				PcP	PcP	01 28 01.6	+0.2
GSI	Gunungsitoli	32.76	283	P	P	01 25 19.7	-0.5
	comp=Z,249nm,0.9s						
KNMB	Chin-men Tao	33.00	341	P	P	01 25 21.1	-0.9
KNMB				IAmb	IAmb	01 25 22.1	
	comp=Z,72nm,0.8s						
MGCD	Mangrove Creek	33.02	145	P	P	01 25 24.5	+2.4
	comp=Z,69nm,0.7s						
MGCD	Mangrove Creek	33.02	145	P	P	01 25 24.6	+2.5
	comp=Z,69nm,0.7s						
BRAT	Ballarat	33.22	159	P	P	01 25 25.4	+1.6
SYDH	Sydney Hard Ro	33.22	146	P	P	01 25 24.7	+0.8
AUMTS	Mt Stromlo	33.51	150	P	P	01 25 27.9	+1.4
CAN	Canberra	33.51	150	P	P	01 25 28.4	+2.0
	comp=Z,184nm,0.9s						
CAN	Canberra	33.51	150	P	P	01 25 28.6	+2.0
	comp=Z,184nm,0.9s						
CAN	Canberra	33.51	150	P	P	01 25 27.9	+1.4
CAN	Canberra	33.51	150	P	P	01 25 28.4	+2.0
	comp=Z,184nm,0.9s						
CAN	Canberra	33.51	150	P	P	01 25 28.2	+1.8
CAN				pP	pP	01 26 06.4	+2.6
CAN				PcP	PcP	01 28 04.2	+1.1
AUMHS	Melrose High S	33.59	150	P	P	01 25 28.5	+1.4
JOW	Kunigami	33.59	358	LR	LR	01 39 40.6	
	comp=Z,131nm,19.3s,baz=178,slow=37						
CNB	Canberra Magne	33.69	150	P	P	01 25 29.7	+1.7
	comp=Z,1.8nm,1.0s						
CNB	Canberra Magne	33.69	150	P	P	01 25 29.9	+1.8
	comp=Z,1.8nm,1.0s						
WOLH	Wollongong Har	33.78	147	P	P	01 25 29.5	+0.8
TOO	Toolangi	33.83	157	P	P	01 25 31.6	+2.4
	comp=Z,32nm,0.8s						
TOO	Toolangi	33.83	157	P	P	01 25 31.6	+2.4
	comp=Z,32nm,0.8s						
LHMI	Lhok Sumawe	34.54	290	P	P	01 25 37.5	+2.0
LHMI	Lhok Sumawe	34.54	290	P	P	01 25 35.7	+0.2
	comp=Z,368nm,0.9s						
MILA	Mila	34.98	152	P	P	01 25 41.5	+2.4
	comp=Z,14nm,1.4s						
MILA	Mila	34.98	152	P	P	01 25 40.0	+0.9
	comp=Z,11nm,1.5s						
SLVN	Son La	37.60	319	P	P	01 26 01.9	+0.4
SLVN	Son La	37.60	319	P	P	01 26 02.5	+1.0
	comp=Z,27nm,1.5s						
SANVU	Saraoutou	38.02	106	P	P	01 26 05.4	+0.4
SANVU	Saraoutou	38.02	106	P	P	01 26 05.7	+0.7
SANVU				IAmb	IAmb	01 26 17.9	
	comp=Z,50nm,0.7s						
MOO	Moorlands	38.71	159	P	P	01 26 13.3	+2.9
	comp=Z,96nm,1.4s						
CM31	Chiang Mai Arr	39.21	311	P	P	01 26 16.2	+1.3
	SNR=24						
CMAR	Chiang Mai Arr	39.21	311	P	P	01 26 15.9	+1.0
	comp=Z,62nm,0.7s,baz=138,slow=7.2,SNR=245						
CMAR				PcP	PcP	01 28 21.1	+0.5
	comp=Z,8.6nm,0.8s,baz=160,slow=3.2,SNR=8.1						
	comp=Z,62nm,0.7s						
CMAR	Chiang Mai Arr	39.21	311	P	P	01 26 14.5	-0.4
CMAR					PcP	01 28 20.9	+0.4
CHTO	Chiang Mai	39.43	311	P	P	01 26 17.6	+0.9
CHTO	Chiang Mai	39.43	311	P	P	01 26 17.7	+1.0
CHTO	Chiang Mai	39.43	311	P	P	01 26 17.2	+0.6
CHTO				PcP	PcP	01 28 21.3	+0.1
CHTO	Chiang Mai	39.43	311	P	P	01 26 17.7	+1.0
	comp=Z,188nm,0.8s						
CHTO	Chiang Mai	39.43	311	P	P	01 26 17.6	+0.9
GYA	Guiyang	39.84	327	⇓P	P	01 26 20.4	+0.3
GYA				pmax	pmax		
	comp=Z,23nm,1.2s						
WHN	Wuhan	39.96	340	P	P	01 26 21.3	+0.5
WHN				pmax	pmax		
	comp=Z,190nm,1.0s						
WHN				pmax	pmax		
	comp=Z,1µm,3.1s						
NJ2	Nanjing	40.05	346	*e*P	P	01 26 24.9	+3.3
NJ2				pmax	pmax		
	comp=Z,12nm,0.7s						
JMN	Monobe	40.68	6	P	P	01 26 27.7	+0.9
JMN	Monobe	40.68	6	P	P	01 26 27.1	+0.4
JMN				IAmb	IAmb	01 26 28.2	
	comp=Z,66nm,0.9s						
JMN	Monobe	40.68	6	P	P	01 26 27.4	+0.6
	comp=Z,91nm,0.9s						
JHJ	Hachijo jima 2	41.06	13	LR	LR	01 41 54.6	
	comp=Z,171nm,18.4s,baz=168,slow=34						
KMI2	Kunming	41.09	322	P	P	01 26 31.3	+0.8
KMI2				pmax	pmax		
	comp=Z,28nm,1.3s						
ENH	Enshi	41.63	334	P	P	01 26 34.7	+0.1
NPW	Naypyitaw	42.12	310	P	P	01 26 39.9	+1.2
	comp=Z,197nm,0.9s						
INU	Inuyama	42.68	9	P	P	01 26 42.4	-0.6
INU	Inuyama	42.68	9	P	P	01 26 41.9	-1.0
INU	Inuyama	42.68	9	P	P	01 26 42.8	-0.2
	comp=Z,44nm,0.9s						
PZH	PanZhiHua	42.70	322	P	P	01 26 46.1	+2.7
JGF	Kuroka	42.98	10	P	P	01 26 45.0	-0.4
JGF	Kuroka	42.98	10	P	P	01 26 45.1	-0.3
	comp=Z,39nm,1.4s						
TJN	Taejon	43.13	358	P	P	01 26 47.1	+0.6
TJN	Taejon	43.13	358	*c i*P	P	01 26 47.2	+0.7
TJN	Taejon	43.13	358	P	P	01 26 45.8	-0.8
TJN	Taejon	43.13	358	P	P	01 26 47.6	+1.0
	comp=Z,372nm,1.2s						
TNCH	TengChong	43.72	318	⇑P	P	01 26 52.1	+0.4
TNCH				sP	sP	01 27 50.4	+1.6
TNCH				PcP	PP	01 28 36.9	-0.4
TNCH				S	S	01 33 04.5	-4.1
TNCH				sS	sS	01 34 19.3	+3.7
TNCH				SS	SS	01 36 24.9	-6.4
TNCH				pmax	pmax		
	comp=Z,48nm,0.8s						
TNCH				L	L		
	comp=Z,140nm,3.5s						
TNCH				L	L		
	comp=Z,240nm,4.4s						
TNCH				L	L		
	comp=Z,140nm,11.3s						
MJAR	Matsushiro Arr	44.05	10	P	P	01 26 52.4	-1.5
	comp=Z,52nm,0.8s,baz=188,slow=9.4,SNR=86						
	comp=Z,52nm,0.8s						
MJAR	Matsushiro Arr	44.05	10	P	P	01 26 52.4	-1.5
MJAR				pmax	pmax		
	comp=Z,50nm,0.9s						
MJAR	Matsushiro Arr	44.05	10	P	P	01 26 52.4	-1.5
MAJO	Matsushiro	44.05	10	P	P	01 26 52.6	-1.4
MAJO	Matsushiro	44.05	10	*c i*P	P	01 26 52.8	-1.1
MAJO				pmax	pmax		
	comp=Z,81nm,0.9s						
MAJO	Matsushiro	44.05	10	P	P	01 26 52.5	-1.4
MAJO	Matsushiro	44.05	10	P	P	01 26 52.9	-1.0
	comp=Z,89nm,1.1s						
MAJO	Matsushiro	44.05	10	P	P	01 26 52.9	-1.0
MAJO				sP	sP	01 27 51.4	+0.2
KSRS	Korea Array	44.19	358	P	P	01 26 55.5	+0.5
	comp=Z,15nm,0.7s,baz=174,slow=11,SNR=45						
KSRS				PcP	PcP	01 28 37.1	+0.6
	comp=Z,5.3nm,0.8s,baz=184,slow=3.2,SNR=5.2						
	comp=Z,15nm,0.7s						
LYN	LuoYang	44.25	340	P	P	01 26 55.6	0.0
LYN				pP	pP	01 27 35.3	+2.0
LYN				pmax	pmax		
	comp=Z,54nm,0.8s						
TIA	Tai'an	44.44	346	P	P	01 26 56.5	-0.5
TIA				PcP	PcP	01 28 38.8	+1.3
TIA				S	S	01 33 14.4	-3.9
TIA				pmax	pmax		
	comp=Z,27nm,0.9s						
CD2	Chengdu	44.92	328	P	P	01 27 00.3	-0.7
CD2				pP	pwP	01 27 42.9	-2.3
CD2				sP	sP	01 28 00.0	+1.8
CD2				S	S	01 33 28.3	+2.8
CD2				pmax	pmax		
	comp=Z,30nm,0.6s						
CD2				pmax	pmax		
	comp=Z,140nm,4.3s						
CD2				L	L		
	comp=Z,310nm,10.2s						
CD2				L	L		
	comp=Z,320nm,14.6s						
CD2				L	L		
	comp=Z,260nm,9.8s						
XAN	Xi'an	45.13	336	P	P	01 27 01.8	-0.7
XAN				pP	pwP	01 27 45.0	-1.8
XAN				PcP	PcP	01 28 41.1	+1.1
XAN				pmax	pmax		
	comp=Z,58nm,0.9s						
MORE	Moreh	46.15	313	P	P	01 27 09.9	-0.8
MORE				IAmb	IAmb	01 27 11.7	
	comp=Z,223nm,1.6s						
DL2	Dalian	46.18	352	P	P	01 27 11.1	+0.5
DL2				sP	sP	01 28 11.9	+3.7
DL2				S	S	01 33 44.0	+0.9
DL2				pmax	pmax		
	comp=Z,53nm,0.9s						
DL2				pmax	pmax		
	comp=Z,270nm,4.9s						
HNS	HongShan	46.19	344	⇑P	P	01 27 10.8	+0.1
HNS				sP	sP	01 28 10.4	+2.1
HNS				PcP	PcP	01 28 44.5	+1.0
HNS				pmax	pmax		
	comp=Z,85nm,0.8s						
BJI2	Beijing	48.29	346	P	P	01 27 27.3	+0.4
BJI2				PcP	PcP	01 28 52.0	+1.0
BJI2				sS	sS	01 35 29.4	+8.4
BJI2				pmax	pmax		
	comp=Z,49nm,0.6s						
BJI2				pmax	pmax		
	comp=Z,65nm,3.5s						
BJT	Baijiatuau	48.29	346	IAmb	IAmb	01 27 28.0	
	comp=Z,253nm,1.7s						
BJT	Baijiatuau	48.29	346	P	P	01 27 27.1	+0.2
BJT				PcP	PcP	01 28 52.2	+1.3
SHL	Shillong	48.70	313	P	P	01 27 30.8	+0.2
JTM	Tenmabayashi	48.70	12	P	P	01 27 30.2	+0.2
JTM	Tenmabayashi	48.70	12	IAmb	IAmb	01 27 31.2	
	comp=Z,66nm,0.7s						
JTM	Tenmabayashi	48.70	12	P	P	01 27 30.4	+0.3
	comp=Z,106nm,1.0s						
LZDM	Lanzhou Array	49.02	332	P	P	01 27 33.1	+0.1
	comp=Z,7.8nm,0.5s,baz=169,slow=11,SNR=13						
LZDM				PcP	PcP	01 28 54.8	+0.7
	comp=Z,4.9nm,0.5s,baz=127,slow=4.7,SNR=3.7						
	comp=Z,7.8nm,0.5s						
LZH	Lanzhou	49.06	332	*e*P	P	01 27 33.9	+0.8
LZH				pP	pwP	01 28 17.8	0.0
LZH				pmax	pmax		
	comp=Z,46nm,1.0s						
LZH				pmax	pmax		
	comp=Z,230nm,4.5s						
LZH				L	L		
	comp=Z,130nm,16.3s						
LZH				L	L		
	comp=Z,190nm,16.0s						
LZH				L	L		
	comp=Z,140nm,17.2s						
VLA	Vladivostok	49.88	2	⇓*i*P	P	01 27 39.5	+0.6
VLA				pmax	pmax		
	comp=Z,111nm,1.1s						
HALK	Hakmana	50.27	284	P	P	01 27 42.2	-0.2
	comp=Z,98nm,1.0s						
HHC	Hu-ho-hao-te	50.30	342	*e*P	P	01 27 42.8	+0.5
HHC				pmax	pmax		
	comp=Z,36nm,0.8s						
HHC				pmax	pmax		
	comp=Z,150nm,4.3s						
PALK	Pallekele	50.55	285	P	P	01 27 44.1	-0.5
PALK	Pallekele	50.55	285	*i* P	P	01 27 47.2	+2.7
PALK	Pallekele	50.55	285	P	P	01 27 43.4	-1.2
PALK	Pallekele	50.55	285	P	P	01 27 44.1	-0.5
PALK	Pallekele	50.55	285	P	P	01 27 44.4	-0.1
	comp=Z,52nm,0.7s						
CN2	Changchun	50.63	356	⇑P	P	01 27 44.1	-0.5
CN2				*e*pP	pP	01 28 24.0	+0.7
CN2				*e*S	S	01 34 44.8	-0.6
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
CN2				pmax	pmax		
	comp=Z,100nm,3.0s						
FOZ	Fox Glacier	50.81	142	P	P	01 27 46.9	+0.9
FOZ				IAmb	IAmb	01 28 35.2	
	comp=Z,188nm,1.8s						
MLZ	Mavora Lakes	50.88	145	P	P	01 27 47.4	+0.9
MLZ				IAmb	IAmb	01 28 19.5	
	comp=Z,236nm,2.0s						
USA0B	Ussuriysk Arra	50.96	2	*de*P	P	01 27 45.9	-1.1
USRK	Ussuriysk Ar.	50.96	2	P	P	01 27 47.3	+0.3
	comp=Z,40nm,0.7s,baz=186,slow=7.3,SNR=71						
	comp=Z,40nm,0.7s						
MALK	Mahakanadarawa	51.00	287	P	P	01 27 48.0	+0.1
	comp=Z,114nm,0.9s						
QRZ	Quartz Range	51.12	138	P	P	01 27 50.0	+1.7
QRZ				IAmb	IAmb	01 28 45.1	
	comp=Z,180nm,2.0s						
MDJ	Mudanjiang	51.32	0	P	P	01 27 50.1	+0.3
MDJ				pmax	pmax		
	comp=Z,63nm,0.9s						
MDJ	Mudanjiang	51.32	0	P	P	01 27 50.0	+0.3
MDJ	Mudanjiang	51.32	0	IAmb	IAmb	01 27 51.3	
	comp=Z,62nm,1.1s						
LBZ	Lake Benmore	51.51	143	P	P	01 27 51.8	+0.6
LBZ				IAmb	IAmb	01 28 22.3	
	comp=Z,89nm,1.6s						
RPZ	Rata Peaks	51.67	142	P	P	01 27 53.8	+1.4
RPZ				IAmb	IAmb	01 27 56.5	
	comp=Z,44nm,0.7s						
LSA	Lhasa	51.72	317	IAmb	IAmb	01 27 55.7	
	comp=Z,118nm,1.6s						
LSA	Lhasa	51.72	317	P	P	01 27 54.4	+0.9
XLT	XiLinHaoTe	52.02	348	*e*P	P	01 27 55.3	+0.3
XLT				pmax	pmax		
	comp=Z,55nm,1.1s						
XLT				pmax	pmax		
	comp=Z,130nm,3.6s						
ASAJ	Asahikawa	52.21	12	LR	LR	01 49 43.0	
	comp=Z,64nm,20.8s,baz=280,slow=35						
JKA	Kamikawa-asahi	52.21	12	IAmb	IAmb	01 27 57.5	
	comp=Z,50nm,0.9s						
JKA	Kamikawa-asahi	52.21	12	P	P	01 27 56.9	+0.6
	comp=Z,67nm,0.9s						
BNX	BinXian	52.48	358	⇑P	P	01 27 57.6	-0.6
BNX				pmax	pmax		
	comp=Z,27nm,1.0s						
BKZ	Black Stump Fm	53.09	135	P	P	01 28 03.1	+0.1
RTZ	Ruatahuna	53.21	134	P	P	01 28 04.7	+0.7
GTA2	Gaotai	53.71	332	P	P	01 28 08.3	+0.8
GTA2				pP	pP	01 28 48.3	+1.7
GTA2				PcP	PcP	01 29 12.9	+1.6
GTA2				pmax	pmax		
	comp=Z,34nm,0.8s						
EVN	Everest	53.77	312	P	P	01 28 09.6	+0.7
	comp=Z,125nm,1.1s						
GOMU	GeErMu	53.79	325	P	P	01 28 09.0	+0.6
GOMU				pmax	pmax		
	comp=Z,5.0nm,0.5s						
YSS	Yuzhno-Sakhali	54.97	11	P	P	01 28 16.1	-0.1
YSS	Yuzhno-Sakhali	54.97	11	*e*P	P	01 28 16.3	+0.1
YSS				pmax	pmax		
	comp=Z,50nm,0.6s						
YSS				pmax	pmax		
	comp=Z,200nm,2.9s						
YSS	Yuzhno-Sakhali	54.97	11	P	P	01 28 15.5	-0.7
YSS				IAmb	IAmb	01 28 17.2	
	comp=Z,38nm,0.8s						
YSS	Yuzhno-Sakhali	54.97	11	P	P	01 28 16.6	+0.3
	comp=Z,62nm,0.8s						
HYB	Hyderabad	55.72	296	*e*P	P	01 28 22.0	-0.3
HYB				*e*pP	pP	01 29 01.4	-0.2
HYB				*e*PcP	PcP	01 29 19.2	-0.3
HYB				*e*PP	PP	01 30 28.2	-0.5
HYB				*e*S	S	01 35 54.9	-0.2
HYB				*e*ScS	ScS	01 37 53.3	-0.6
KLR	Kul'dur	55.98	2	*c i*P	P	01 28 23.8	+0.4
KLR				pmax	pmax		
	comp=Z,65nm,1.0s						
UGL	Uglegorsk	56.89	10	*e*P	P	01 28 30.9	+1.1
HILR	Hailar Array B	56.89	353	P	P	01 28 30.3	+0.4
	comp=Z,6.5nm,0.4s,baz=171,slow=10,SNR=13						
HILR				PcP	PcP	01 29 24.1	+0.8
	comp=Z,7.8nm,0.4s,baz=182,slow=4.5,SNR=7.0						
	comp=Z,6.5nm,0.4s						
HEH	HeiHe	56.99	359	⇓P	P	01 28 31.0	+0.5
HEH				pP	pwP	01 29 12.9	-3.2
HEH				pmax	pmax		
	comp=Z,110nm,1.0s						
GRNR	Gornyy	57.80	5	⇑*i*P	P	01 28 36.9	+0.6
GRNR				pmax	pmax		
	comp=Z,20nm,1.0s						
GRNR				MLR	MLR		
	comp=E,120nm,15.0s						
GRNR				MLR	MLR		
	comp=N,100nm,11.0s						
GRNR				MLR	MLR		
	comp=Z,100nm,15.0s						
ULN	Ulaanbaatar	58.02	342	P	P	01 28 39.2	+1.2
ULN	Ulaanbaatar	58.02	342	*c i*P	P	01 28 39.2	+1.2

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ULN                                 pmax     pmax
      comp=Z,59nm,1.0s
ULN   Ulaanbaatar         58.02 342   P        P         01 28 38.9 +0.9
ULN                                 IAmb     IAmb      01 28 40.2
      comp=Z,49nm,0.9s
ULN   Ulaanbaatar         58.02 342   P        P         01 28 39.3 +1.3
      comp=Z,70nm,1.1s
ULN   Ulaanbaatar         58.02 342   P        P         01 28 39.2 +1.2
ULN                                 PcP      PcP       01 29 28.8 +0.9
ULN                                 sP       sP        01 29 39.2 +2.4
SONM  Songino Array       58.19 342   P        P         01 28 40.1 +0.9
      comp=Z,18nm,0.7s,baz=157,slow=6.9,SNR=98
SONM                                PcP      PcP       01 29 28.8 +0.2
      comp=Z,12nm,0.7s,baz=158,slow=5.0,SNR=9.8
SONM                                PKP2bc   P'P'bc    01 58 28.6 +0.3
      comp=Z,1.9nm,0.8s,baz=301,slow=0.9,SNR=4.2
      comp=Z,18nm,0.7s
SONM  Songino Array       58.19 342   P        P         01 28 39.8 +0.6
SONM                                IAmb     IAmb      01 28 41.4
      comp=Z,43nm,1.0s
SONM                                         PcP       01 29 28.2 -0.4
TYV   Tymovskoe           58.71  10  eP        P         01 28 43.4 +0.9
TYV                                 eS       S         01 36 32.7 -0.3
TYV                                 pmax     pmax
      comp=Z,26nm,0.6s
TYV                                 pmax     pmax
      comp=Z,100nm,2.6s
TYV                                 smax     smax
      comp=N,200nm,8.0s
TYV                                 smax     smax
      comp=E,200nm,8.0s
DRV   Dumont d'Urvil      60.08 175   P        P         01 28 52.5 +0.9
CIT   Chita               60.28 349  eP        P         01 28 54.2 +0.9
CIT                                 e                  01 29 35.4
CIT                                 e                  01 29 54.4
CIT                                 e                  01 31 07.4
CIT                                 pmax     pmax
      comp=Z,99nm,1.7s
ZEA   Zeya                60.48 359  eP        P         01 28 55.1 +0.5
ZEA                                 e                  01 29 38.2
ZEA                                 pmax     pmax
      comp=N,30nm,0.9s
ZEA                                 pmax     pmax
      comp=Z,80nm,0.8s
CASY  Casey               60.66 189   P        P         01 28 56.5 +0.8
ZAK   Zakamensk           61.41 341  eP        P         01 29 01.1 +0.1
ZAK                                 e                  01 29 36.8
ZAK                                 pmax     pmax
      comp=Z,29nm,1.2s
ZAK                                 pmax     pmax
      comp=Z,16nm,1.1s
TLY   Talaya              62.43 342   P        P         01 29 09.1 +1.4
TLY   Talaya              62.43 342c iP        P         01 29 08.8 +1.1
TLY                                 pmax     pmax
      comp=Z,39nm,0.9s
TLY   Talaya              62.43 342   P        P         01 29 08.7 +1.0
TLY                                 IAmb     IAmb      01 29 10.0
      comp=Z,34nm,0.9s
WMQ   Urumqi              63.00 327  eP        P         01 29 13.1 +1.3
WMQ                                 PcP      PcP       01 29 49.3 +1.3
WMQ                                 sP       sP        01 30 13.9 +3.0
WMQ                                 pmax     pmax
      comp=Z,37nm,0.9s
MOY   Mondy               63.25 341  eP        P         01 29 14.4 +1.1
MOY                                 pmax     pmax
      comp=Z,136nm,1.6s
KNGR  Kungurtug, Tuv      63.59 338⇑iP        P         01 29 17.7 +2.2
KNGR                                pmax     pmax
      comp=Z,33nm,1.0s
PEA0B Petropavlovsk-      64.47  18c iP        P         01 29 21.9 +0.8
PETK  Petropavlovsk-      64.47  18   P        P         01 29 21.7 +0.6
      comp=Z,44nm,0.9s,baz=183,slow=4.5,SNR=66
PETK                                PcP      PcP       01 29 53.3 -0.4
      comp=Z,7.2nm,0.6s,baz=181,slow=1.9,SNR=6.7
      comp=Z,44nm,0.9s
PETK  Petropavlovsk-      64.47  18   P        P         01 29 21.9 +0.8
PETK                                                   01 29 53.1
PETK  Petropavlovsk-      64.47  18   P        P         01 29 21.9 +0.8
PETK                                         PcP       01 29 53.1 -0.6
PET   Petropavlovsk       64.70  19   P        P         01 29 22.6 +0.1
PET   Petropavlovsk       64.70  19⇑eP        P         01 29 22.0 -0.5
PET                                 pmax     pmax
      comp=Z,45nm,1.3s
NIL   Nilore              66.70 311   P        P         01 29 36.1 +0.2
NIL   Nilore              66.70 311   P        P         01 29 36.0 +0.2
NIL                                 pmax     pmax
      comp=Z,30nm,1.0s
NIL   Nilore              66.70 311   P        P         01 29 36.0 +0.1
NIL   Nilore              66.70 311   P        P         01 29 36.3 +0.5
      comp=Z,45nm,0.7s
ZSN   Zaisan              66.90 329c iP        P         01 29 37.5 +0.8
ZSN   Zaisan              66.90 329⇑iP        P         01 29 37.6 +0.8
DGZ   Jazzator, Alta      67.16 332c iP        P         01 29 39.4 +0.9
DGZ                                 pmax     pmax
      comp=Z,90nm,0.7s
SHLS  Shalkode            67.29 323c iP        P         01 29 38.7 -0.7
SHLS  Shalkode            67.29 323⇑iP        P         01 29 38.7 -0.7
TARG  Taragay, Kyrgy      67.52 321   P        P         01 29 42.6 +1.3
      comp=Z,24nm,0.9s
UZB   Uzynbulak           67.55 322c iP        P         01 29 41.8 +0.7
UZB   Uzynbulak           67.55 322⇑iP        P         01 29 41.8 +0.7
PRZ   Przheval'sk         67.56 322   IAmb     IAmb      01 30 09.8
      comp=Z,51nm,0.6s
KSH2  Kashi               67.64 317   P        P         01 29 42.6 +0.9
KSH2                                PcP      PcP       01 30 09.3 +1.8
KSH2                                pmax     pmax
      comp=Z,18nm,0.7s
MK31  Makanchi Array      67.83 327deP        P         01 29 43.0 +0.3
MKAR  Makanchi Array      67.83 327   P        P         01 29 43.4 +0.7
      comp=Z,107nm,0.5s,baz=116,slow=8.2,SNR=797
      comp=Z,107nm,0.5s
MKAR  Makanchi Array      67.83 327   P        P         01 29 43.8 +1.2
MKAR  Makanchi Array      67.83 327   P        P         01 29 43.8 +1.2
KPKS  Kokpek              67.93 323  eP        P         01 29 44.1 +0.7
KPKS  Kokpek              67.93 323  eP        P         01 29 44.2 +0.7
MAKZ  Makanchi            68.01 327   P        P         01 29 44.4 +0.6
MAKZ                                pmax     pmax
      comp=Z,99nm,0.6s
MAKZ  Makanchi            68.01 327   P        P         01 29 44.4 +0.6
MAKZ  Makanchi            68.01 327   P        P         01 29 44.5 +0.8
MAKZ                                PcP      PcP       01 30 09.1 +0.4
KDJ   Kajisay             68.13 321   IAmb     IAmb      01 29 47.3
      comp=Z,29nm,0.7s
MA2   Magadan             68.47  12   P        P         01 29 47.2 +0.9
MA2   Magadan             68.47  12c iP        P         01 29 47.0 +0.7
MA2                                 pmax     pmax
      comp=Z,71nm,1.0s
MA2   Magadan             68.47  12   P        P         01 29 47.1 +0.7
MA2                                 IAmb     IAmb      01 29 48.3
      comp=Z,65nm,1.0s
MA2   Magadan             68.47  12   P        P         01 29 46.9 +0.7
      comp=Z,940nmcomp=Z,83nm,1.1s
TNSS  Tian-Shan           68.76 321  eP        P         01 29 49.4 +0.5
TNSS  Tian-Shan           68.76 321  eP        P         01 29 49.5 +0.5
MDOK  Medeo               68.76 322  eP        P         01 29 49.4 +0.8
MDOK  Medeo               68.76 322  eP        P         01 29 49.5 +0.8
YAK   Yakutsk             68.77   0c iP        P         01 29 48.1  0.0
YAK                                 e                  01 30 11.0
YAK                                 e*PP     pP        01 30 31.1 +1.8
YAK                                 e                  01 32 21.3
YAK                                 ePPP     PPP       01 34 11.2
YAK                                 eS       S         01 38 35.7 -1.0
YAK                                 e                  01 39 29.1
YAK                                 eSS      SS        01 43 05.7 +0.1
YAK                                 pmax     pmax
      comp=Z,284nm,1.1s
YAK                                 pmax     pmax
      comp=N,68nm,1.2s
YAK                                 pmax     pmax
      comp=E,20nm,1.1s
YAK                                 pmax     pmax
      comp=Z,191nm,5.3s
YAK                                 pmax     pmax
      comp=N,115nm,5.1s
YAK                                 pmax     pmax
      comp=E,77nm,3.3s
YAK                                 smax     smax
      comp=E,94nm,2.3s
YAK                                 smax     smax
      comp=N,46nm,2.3s
YAK   Yakutsk             68.77   0   P        P         01 29 47.9 -0.1
ULHL  Ulahol              68.78 320   P        P         01 29 49.9 +1.0
      SNR=7.7
AAA   Alma-Ata            68.87 322  eP        P         01 29 50.1 +0.9
AAA                                 pmax     pmax
      comp=Z,29nm,0.5s
AAA   Alma-Ata            68.87 322  eP        P         01 29 50.1 +0.9
      comp=Z,29nm,0.5s
TDK   Taldyqorghan        68.96 324  eP        P         01 29 50.5 +0.9
TDK                                 pmax     pmax
      comp=Z,68nm,0.9s
TDK   Taldyqorghan        68.96 324  eP        P         01 29 50.6 +0.9
      comp=Z,68nm,0.9s
TKM2  Tokmak 2            69.54 321   P        P         01 29 54.5 +1.0
      SNR=67
KUU   Kurty               69.59 322  eP        P         01 29 54.5 +1.0
KUU                                 pmax     pmax
      comp=Z,46nm,0.9s
KUU   Kurty               69.59 322  eP        P         01 29 54.6 +1.0
      comp=Z,46nm,0.9s
KBK   Karagaybulak        69.81 320   P        P         01 29 56.5 +1.4
      SNR=15
AAK   Ala-Archa           70.09 320   P        P         01 29 58.2 +1.3
      SNR=50
AAK   Ala-Archa           70.09 320   P        P         01 29 58.5 +1.7
AAK   Ala-Archa           70.09 320c iP        P         01 29 58.1 +1.3
AAK                                 pmax     pmax
      comp=Z,73nm,1.1s
AAK   Ala-Archa           70.09 320   P        P         01 29 56.9  0.0
AAK                                 IAmb     IAmb      01 29 60.0
      comp=Z,46nm,0.8s
AAK   Ala-Archa           70.09 320 i P        P         01 29 58.2 +1.3
      SNR=56
AAK   Ala-Archa           70.09 320   P        P         01 29 58.2 +1.3
AAK                                 PcP      PcP       01 30 18.9 +1.1
AAK                                 pP       pP        01 30 38.8 +0.7
CHMS  Chumysh             70.11 321   P        P         01 29 57.6 +0.8
      SNR=17
KBL   Kabul               70.24 310   P        P         01 29 58.5 +0.5
KBL                                 pmax     pmax
      comp=Z,19nm,0.8s
KBL   Kabul               70.24 310   P        P         01 29 58.5 +0.5
DRK   Karamyk             70.36 316   IAmb     IAmb      01 30 01.0
      comp=Z,94nm,1.4s
USP   Ospenovka           70.41 321   P        P         01 29 59.6 +1.0
      SNR=93
SGDS  Sogindy             70.42 321⇑iP        P         01 29 59.4 +0.7
SHEM  Shemya Is, Ala      70.52  27   LR       LR        01 55 50.1
      comp=Z,53nm,21.7s,baz=131,slow=31
EKS2  Erkin-Say           70.56 320   P        P         01 30 01.2 +1.5
      SNR=58
ZALV  Zalesovo Beam       71.25 334   P        P         01 30 03.2 -0.2
      comp=Z,80nm,0.8s,baz=121,slow=4.9,SNR=273
ZALV                                PKPPKP   P'P'df    01 57 55.0 -0.3
      comp=Z,0.4nm,0.3s,baz=213,slow=4.6,SNR=4.8
      comp=Z,80nm,0.8s
ZALV  Zalesovo Beam       71.25 334   P        P         01 30 02.8 -0.6
SEY   Seymchan            71.87  11c iP        P         01 30 07.8 +0.9
SEY                                 pmax     pmax
      comp=Z,113nm,0.9s
KURBB Kurchatov Arra      72.13 329   P        P         01 30 09.3 +0.7
      comp=Z,66nm,0.6s,baz=130,slow=4.8,SNR=586
      comp=Z,66nm,0.6s
KURK  Kurchatov           72.14 329   P        P         01 30 09.4 +0.7
KURK  Kurchatov           72.14 329   P        P         01 30 09.4 +0.7
KURK                                pmax     pmax
      comp=Z,124nm,1.0s
KURK  Kurchatov           72.14 329   P        P         01 30 09.4 +0.7
KURK  Kurchatov           72.14 329   P        P         01 30 09.5 +0.7
DZA   Taraz               72.25 319  eP        P         01 30 10.3 +0.7
DZA   Taraz               72.25 319  eP        P         01 30 10.4 +0.7
VNDA  Vanda               72.58 173   P        P         01 30 11.6 +0.6
      comp=Z,4.9nm,0.9s,baz=322,slow=5.5,SNR=22
VNDA                                LR       LR        02 01 36.7
      comp=Z,97nm,19.1s,baz=2.0,slow=35
      comp=Z,4.9nm,0.9s
VNDA  Vanda               72.58 173   P        P         01 30 10.9 -0.1
IUG   Iuzhnay             72.77 318c iP        P         01 30 13.7 +0.9
IUG                                 pmax     pmax
      comp=Z,63nm,1.1s
IUG   Iuzhnay             72.77 318⇑iP        P         01 30 13.7 +0.9
      comp=Z,63nm,1.1s
KKAR  Karatay Array       72.88 319   P        P         01 30 13.4  0.0
KKAR  Karatay Array       72.88 319   P        P         01 30 13.3  0.0
CHM   Chimkent            73.13 318  eP        P         01 30 15.8 +1.0
CHM                                 pmax     pmax
      comp=Z,48nm,0.9s
CHM   Chimkent            73.13 318  eP        P         01 30 15.8 +1.0
      comp=Z,48nm,0.9s
BRLS  Borolday            73.29 319c iP        P         01 30 16.4 +0.7
BRLS  Borolday            73.29 319⇑iP        P         01 30 16.5 +0.7
NGCH  Negor - Chabah      73.62 299   P        P         01 30 19.6 +1.7
JLN   Jalan Bani Buh      74.31 295   P        P         01 30 22.5 +0.4
MAW   Mawson              74.77 201   P        P         01 30 25.4 +1.6
      comp=Z,5.9nm,1.0s
MAW   Mawson              74.77 201   P        P         01 30 24.9 +1.0
      comp=Z,15nm,0.6s,baz=77,slow=5.3,SNR=79
      comp=Z,15nm,0.6s
MAW   Mawson              74.77 201   P        P         01 30 25.0 +1.2
MAW                                 pmax     pmax
      comp=Z,3.0nm,0.8s
MAW   Mawson              74.77 201   P        P         01 30 25.0 +1.2
WBK   Wadi Bani Khal      74.81 296   P        P         01 30 26.0 +0.9
WSAR  Wadi Sarin          75.27 296   P        P         01 30 28.9 +1.3
      SNR=7.3
MHTO  MHTO                75.33 294   P        P         01 30 28.2 +0.3
      SNR=8.7
MHTO                                P        P         01 30 29.0 +1.0
      SNR=6.3
JMDO  Jabal Madar         75.53 295   P        P         01 30 30.1 +1.0
SMDO  Samad               75.75 296   P        P         01 30 31.3 +0.8
      SNR=24
SMDO                                P        P         01 30 32.0 +1.5
      SNR=6.2
BIDO  Bidbid              75.79 296   P        P         01 30 32.0 +1.4
      SNR=16
BSY   Bisya               76.43 295   P        P         01 30 34.6 +0.4
HOQ   Hoqain              76.53 296   P        P         01 30 35.6 +0.9
      SNR=15
JASK  Jask - Hormozg      76.60 299   P        P         01 30 37.2 +2.1
      SNR=8.4
SHAO  Shalim              76.84 290   P        P         01 30 37.4 +0.8
SHAO  Shalim              76.84 290   P        P         01 30 37.0 +0.4
ARQ   Araqi               77.18 296   P        P         01 30 39.0 +0.6
      SNR=6.4
SOHO  SOHO                77.35 297   P        P         01 30 39.6 +0.3
SOHO  SOHO                77.35 297 i P        P         01 30 39.7 +0.3
      SNR=15
DMTO  DMTO                77.41 290   P        P         01 30 39.8  0.0
BVAR  Borovoye Array      77.68 328   P        P         01 30 40.9 +0.4
      comp=Z,97nm,0.9s,baz=123,slow=5.5,SNR=263
      comp=Z,97nm,0.9s
BORK  Borovoye            77.73 328c iP        P         01 30 41.0 +0.3
BORK                                pmax     pmax
      comp=Z,137nm,0.9s
BORK  Borovoye            77.73 328   P        P         01 30 40.8 +0.1
MDH   Madha               77.83 298   P        P         01 30 41.6 -0.4
UOSS  Minazif             77.83 297   P        P         01 30 42.5 +0.6
UOSS  Minazif             77.83 297   P        P         01 30 41.9  0.0
UOSS  Minazif             77.83 297 i P        P         01 30 42.1 +0.1
      SNR=12
UOSS  Minazif             77.83 297   P        P         01 30 42.4 +0.4
HATD  Hatta, Dubai        77.87 297   P        P         01 30 43.0 +0.8
      SNR=10
HATD  Hatta, Dubai        77.87 297 i P        P         01 30 42.7 +0.6
      SNR=14
ASHO  Ashiyiah            77.90 297   P        P         01 30 42.9 +0.5
      SNR=7.2
ASHO  Ashiyiah            77.90 297 i P        P         01 30 43.0 +0.6
      SNR=15
MSFE  Esma-Masafi         77.97 298 i P        P         01 30 43.7 +1.0
      SNR=6.7
MASF  Masafi              77.97 298   P        P         01 30 43.9 +1.1
      SNR=10
BANOM Banah               77.98 298   P        P         01 30 44.3 +1.5
BANOM Banah               77.98 298 i P        P         01 30 44.0 +1.2
      SNR=8.0
ALNE  Al Ain              78.03 296   P        P         01 30 43.8 +0.7
      SNR=7.9
ALNE  Al Ain              78.03 296 i P        P         01 30 43.7 +0.6
      SNR=6.4
RBK   Rabkut              78.07 289   P        P         01 30 43.9 +0.5
SHME  Shamm               78.15 298   P        P         01 30 44.8 +1.2
      SNR=7.3
SHME  Shamm               78.15 298 i P        P         01 30 44.7 +1.0
      SNR=12
UMZA  Um Al Zommool       78.26 295   P        P         01 30 44.3  0.0
NAZ   Nazwa, Dubai        78.32 297   P        P         01 30 44.9 +0.3
      SNR=6.5
NAZ   Nazwa, Dubai        78.32 297 i P        P         01 30 44.9 +0.3
      SNR=9.4
FAQ   Al Faqa, Dubai      78.33 297   P        P         01 30 45.3 +0.5
FAQ   Al Faqa, Dubai      78.33 297 i P        P         01 30 45.2 +0.5
      SNR=17
TIXI  Tiksi               78.43 360   LR       LR        02 09 16.9
      comp=Z,40nm,18.1s,baz=145,slow=38
TIXI  Tiksi               78.43 360⇓iP        P         01 30 43.6 -0.6
TIXI                                pmax     pmax
      comp=Z,44nm,0.9s
TIXI  Tiksi               78.43 360   P        P         01 30 43.7 -0.5
TIXI                                IAmb     IAmb      01 30 44.9
      comp=Z,41nm,0.9s
ASUD  Al Ashush, Dub      78.53 297   P        P         01 30 46.7 +0.9
ASUD  Al Ashush, Dub      78.53 297 i P        P         01 30 46.7 +0.9
      SNR=9.4
MLH   Mauna Loa           78.55  69   P        P         01 30 46.7 +0.4
WHFO  Wadi Hawf           78.55 290   P        P         01 30 46.0  0.0
      SNR=8.9
AJN   Ajban               78.82 297   P        P         01 30 47.9 +0.5
BILL  Bilibino            79.21  13⇓eP        P         01 30 48.8 +0.3
BILL                                pmax     pmax
      comp=Z,30nm,2.0s
MZWR  Madinat Zayed       79.64 296   P        P         01 30 52.3 +0.5
MZR   Muzera              79.84 295   P        P         01 30 54.0 +1.0
      SNR=7.3
MZR   Muzera              79.84 295 i P        P         01 30 53.6 +0.6
      SNR=12
ABPO  Ambohimpanom        80.36 252 i P        P         01 30 58.0 +2.0
ABPO  Ambohimpanom        80.36 252   P        P         01 30 56.4 +0.4
VOI   Vohitsoka           80.57 249   P        P         01 30 58.3 +1.2
VOI   Vohitsoka           80.57 249   P        P         01 30 57.1  0.0
VOI                                 IAmb     IAmb      01 30 59.1
      comp=Z,42nm,0.7s
GHWR  Ruwais              80.58 296   P        P         01 30 57.6 +0.8
JRN   Qarnain Island      80.80 297   P        P         01 30 58.4 +0.4
NRIK  Noril'sk            81.35 346   P        P         01 30 59.8 -0.2
      comp=Z,85nm,1.1s,baz=128,slow=5.7,SNR=34
      comp=Z,85nm,1.1s
NRIK  Noril'sk            81.35 346c iP        P         01 31 00.6 +0.7
NRIK                                pmax     pmax
      comp=Z,112nm,1.2s
NRIK  Noril'sk            81.35 346   IAmb     IAmb      01 31 01.8
      comp=Z,107nm,1.1s
ABKAR Akbulak array       82.07 322   P        P         01 31 04.1  0.0
QSPA  South Pole Qui      83.03 180   P        P         01 31 09.0  0.0
      comp=Z,11nm,0.7s,baz=271,slow=1.5,SNR=98
      comp=Z,11nm,0.7s
QSPA  South Pole Qui      83.03 180   P        P         01 31 09.0  0.0
QSPA  South Pole Qui      83.03 180   P        P         01 31 08.9  0.0
SAKB  Bahrain             83.06 297   P        P         01 31 10.2 +0.4
SVE   Sverdlovsk          84.39 329d iP        P         01 31 16.5 +0.7
SVE                                 pmax     pmax
      comp=Z,135nm,1.1s
SDPT  Sand Point          84.62  33   P        P         01 31 17.0  0.0
ARTI  Arti                85.40 328c iP        P         01 31 20.8 -0.1
ARTI                                *PP      pP        01 32 00.5 -3.2
ARTI                                                   01 34 40.5
ARTI                                S        SKSac     01 41 28.0 -0.8
ARTI                                SS       SS        01 47 09.4 -6.6
ARTI                                pmax     pmax
      comp=Z,129nm,0.7s
ARTI  Arti                85.40 328   P        P         01 31 20.4 -0.5
ARTI  Arti                85.40 328   P        P         01 31 20.4 -0.5
O14K  Tigyukauivet M      85.61  29   IAmb     IAmb      01 31 23.5
      comp=Z,63nm,1.0s
J14K  Nanvaranak Lak      85.91  25   IAmb     IAmb      01 31 25.3
      comp=Z,50nm,1.0s
N15K  Kwethluk River      86.49  28   IAmb     IAmb      01 31 27.9
      comp=Z,76nm,0.9s
K15K  Wolf Creek Mou      86.60  26   IAmb     IAmb      01 31 28.8
      comp=Z,50nm,0.9s
RAYN  Ar Rayn             87.14 294   P        P         01 31 31.1 +0.9
RAYN  Ar Rayn             87.14 294   P        P         01 31 30.0 -0.2
RAYN                                pmax     pmax
      comp=Z,58nm,1.0s
RAYN  Ar Rayn             87.14 294   P        P         01 31 30.0 -0.2
RAYN                                IAmb     IAmb      01 31 31.8
      comp=Z,58nm,0.9s
RAYN  Ar Rayn             87.14 294 i P        P         01 31 30.7 +0.6
      SNR=68
RAYN  Ar Rayn             87.14 294   P        P         01 31 30.8 +0.6
O16K  Kokwok River B      87.25  29   IAmb     IAmb      01 31 31.3
      comp=Z,30nm,0.8s
L16K  Owhat River         87.30  27   IAmb     IAmb      01 31 31.7
      comp=Z,32nm,0.9s
M16K  Timber Creek        87.30  28   IAmb     IAmb      01 31 31.9
      comp=Z,56nm,0.8s
J16K  Anvik River         87.36  25   IAmb     IAmb      01 31 32.4
      comp=Z,40nm,0.8s
G16K  Koyuk River         87.44  23   IAmb     IAmb      01 31 32.2
      comp=Z,30nm,0.9s
C16K  Lisburne Hills      87.54  20   IAmb     IAmb      01 31 31.9
      comp=Z,33nm,0.9s
I17K  Unalakleet          87.54  25   IAmb     IAmb      01 31 33.2
      comp=Z,26nm,0.9s
ATD   Arta Tunnel         87.98 282   P        P         01 31 36.2 +1.8
      SNR=5.2
J17K  VABM Dome           88.05  25   IAmb     IAmb      01 31 36.0
      comp=Z,61nm,0.9s
M17K  Holitna River       88.12  27   IAmb     IAmb      01 31 36.8
      comp=Z,40nm,1.1s
K17K  Iditarod            88.15  26   IAmb     IAmb      01 31 36.1
      comp=Z,35nm,0.8s
H17K  Granite Mounta      88.23  24   IAmb     IAmb      01 31 35.6
      comp=Z,31nm,0.8s
ELIB  Princess Elisa      88.35 197  dP        P         01 31 35.9 +0.8
      comp=Z,11nm,1.1s
ELIB                                dpP      pwP       01 32 23.1  0.0
L18K  Granite Mounta      88.71  27   IAmb     IAmb      01 31 39.5
      comp=Z,31nm,1.1s
J18K  Innoko River        89.07  26   IAmb     IAmb      01 31 39.3
      comp=Z,27nm,0.9s
N19K  Bonanza Creek       89.33  28   IAmb     IAmb      01 31 42.1
      comp=Z,34nm,1.2s
G19K  Purcell Mounta      89.74  23   IAmb     IAmb      01 31 42.5
      comp=Z,26nm,0.9s
E19K  Redstone River      90.09  22   IAmb     IAmb      01 31 44.0
      comp=Z,30nm,0.8s
D19K  Kuna River          90.10  21   IAmb     IAmb      01 31 43.9
      comp=Z,30nm,0.9s
K20K  Telida              90.19  26   IAmb     IAmb      01 31 45.0
      comp=Z,23nm,0.8s
GNI   Garni               90.33 310   LR       LR        02 18 46.1
      comp=Z,25nm,19.5s,baz=342,slow=40
GNI   Garni               90.33 310c iP        P         01 31 45.8 +0.8
GNI                                 pmax     pmax
      comp=Z,23nm,1.0s
GNI   Garni               90.33 310   P        P         01 31 44.9 -0.1
GNI                                 IAmb     IAmb      01 32 23.6
      comp=Z,74nm,1.7s
GNI   Garni               90.33 310   P        P         01 31 45.3 +0.3
GNI   Garni               90.33 310   P        P         01 31 44.8 -0.2
      comp=Z,20nm,0.8s
BELG  Belogornoye         90.43 323c iP        P         01 31 43.4 -1.5
BELG                                pmax     pmax
      comp=Z,10.0nm,0.9s
KIRV  Kirov               90.66 329ceP        P         01 31 44.3 -1.5
OZAP  Van, Ozalp-Mer      90.69 309 ⇑P        P         01 31 47.8 +1.0
D20K  Etivluk River       90.69  21   IAmb     IAmb      01 31 46.7
      comp=Z,28nm,0.9s
PPLA  Purkeypile          90.90  27   IAmb     IAmb      01 31 47.8
      comp=Z,49nm,1.4s
SKT   Skwentna            90.99  28   IAmb     IAmb      01 31 47.0
      comp=Z,32nm,1.4s
KIBK  Kibwezi             91.03 268   IAmb     IAmb      01 34 08.7
      comp=Z,9.8nm,0.5s
CAST  Castle Rocks        91.07  26   IAmb     IAmb      01 31 48.2
      comp=Z,39nm,1.7s
SUA   Susitna One         91.24  28   IAmb     IAmb      01 31 50.2
      comp=Z,26nm,0.9s
SLKM  Skilak Lake         91.30  29   IAmb     IAmb      01 31 49.0
      comp=Z,58nm,1.3s
I21K  Tanana              91.52  24   IAmb     IAmb      01 31 52.7
      comp=Z,22nm,1.2s
KTH   Kantishna Hill      91.61  26   IAmb     IAmb      01 31 50.4
      comp=Z,39nm,1.1s
NCK   Nalchik             91.66 313d iP        P         01 31 51.6 +0.7
NCK                                 pmax     pmax
      comp=Z,34nm,1.2s
KMBO  Kilima Mbogo        91.96 269   P        P         01 31 53.4 +0.1
      baz=86,slow=4.0
MLY   Manley              92.00  25   IAmb     IAmb      01 31 53.4
      comp=Z,18nm,0.8s
PMR   Palmer              92.03  28   P        P         01 31 51.8 -0.3
PMR   Palmer              92.03  28   IAmb     IAmb      01 31 52.9
      comp=Z,26nm,1.2s
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KBZ	Khabaz	92.20	314	P	P	01 31 52.9	-0.4
	comp=Z,7.5nm,0.9s,baz=84,slow=2.6,SNR=17						
	comp=Z,7.5nm,0.9s						
KBZ	Khabaz	92.20	314	c iP	P	01 31 53.2	-0.1
KBZ				pmax	pmax		
	comp=Z,12nm,0.9s						
NVL	N'lazarevskaya	92.22	197	eP	P	01 31 51.2	-1.7
NVL				eS	SKSac	01 42 15.8	+7.0
NVL				pmax	pmax		
	comp=Z,4.0nm,0.9s						
GOF	Gofitskoye	92.27	315	ceP	P	01 31 53.9	+0.3
NEUR	Neytrino	92.28	313	⇑eP	P	01 31 55.8	+1.8
NEUR				pmax	pmax		
	comp=Z,15nm,1.8s						
KNK	Knik Glacier	92.31	28	IAmb	IAmb	01 31 54.9	
	comp=Z,41nm,1.0s						
SHA1	Shidzhatmaz	92.37	314	d iP	P	01 31 54.6	+0.2
KIV	Kislovodsk	92.38	314	eP	P	01 31 54.3	0.0
KIV				pmax	pmax		
	comp=Z,9.0nm,1.1s						
HOMI	Horasan	92.47	310	⇓P	P	01 31 56.2	+1.2
MCK	McKinley	92.51	26	IAmb	IAmb	01 31 54.3	
	comp=Z,36nm,1.0s						
NEA2	Nenana	92.61	25	IAmb	IAmb	01 31 55.6	
	comp=Z,14nm,0.8s						
G23K	Bananza Creek	92.63	23	IAmb	IAmb	01 31 56.1	
	comp=Z,32nm,0.9s						
H23K	Yukon River	92.65	24	IAmb	IAmb	01 31 55.9	
	comp=Z,20nm,0.8s						
COLD	Coldfoot	92.66	23	IAmb	IAmb	01 31 56.1	
	comp=Z,23nm,1.0s						
D23K	Nanushuk River	92.84	21	IAmb	IAmb	01 31 57.3	
	comp=Z,26nm,1.1s						
DHY	Denali Highway	93.09	27	IAmb	IAmb	01 31 57.9	
	comp=Z,33nm,0.9s						
COLA	College	93.18	25	P	P	01 31 56.6	-0.7
COLA	College	93.18	25	deP	P	01 31 56.8	-0.5
COLA				pmax	pmax		
	comp=Z,18nm,0.9s						
HDA	Harding Lake	93.49	26	IAmb	IAmb	01 31 59.1	
	comp=Z,27nm,0.8s						
D24K	Happy Valley	93.53	21	IAmb	IAmb	01 32 00.8	
	comp=Z,22nm,1.1s						
DIV	Divide	93.55	29	IAmb	IAmb	01 32 00.2	
	comp=Z,29nm,0.8s						
ILAR	Eielson Array	93.57	25	P	P	01 31 57.7	-1.5
	comp=Z,12nm,0.8s,baz=273,slow=4.4,SNR=65						
ILAR				PP	PP	01 35 42.4	-3.9
	comp=Z,2.3nm,1.0s,baz=252,slow=6.8,SNR=6.6						
ILAR				PKKPbc	PKKPdf	01 49 04.2	-0.9
	comp=Z,1.0nm,0.7s,baz=23,slow=1.9,SNR=6.7						
	comp=Z,12nm,0.8s						
ILAR	Eielson Array	93.57	25	P	P	01 31 57.0	-2.2
F24K	Squaw Lake	93.59	22	IAmb	IAmb	01 32 00.7	
	comp=Z,27nm,0.9s						
G24K	Hadweenzic Riv	93.62	23	IAmb	IAmb	01 32 00.6	
	comp=Z,30nm,1.0s						
VRH	Novokhopyorsk	93.88	321	eP	P	01 31 59.3	-1.5
VRH				pmax	pmax		
	comp=Z,25nm,0.8s						
TROLL	Troll, Antarti	94.06	194	⇑P	P	01 32 02.7	+1.2
	comp=Z,577nm,0.7s						
BMRM	Bremner River	94.09	29	IAmb	IAmb	01 32 02.5	
	comp=Z,25nm,0.9s						
ERBR	Yeremizino-Bor	94.13	315	eP	P	01 32 00.7	-1.5
ERBR				eS	SKSac	01 42 17.7	-2.4
ERBR				pmax	pmax		
	comp=Z,18nm,0.8s						
J25K	Salcha River,	94.19	26	IAmb	IAmb	01 32 01.9	
	comp=Z,23nm,1.3s						
PRP	Porcupine Dome	94.24	25	IAmb	IAmb	01 33 39.3	
	comp=Z,31nm,1.9s						
SOC	Sochi	94.48	313	eP	P	01 31 59.9	-3.9
SOC				ePPP	PPP	01 38 02.9	
SOC				eS	SKSac	01 42 16.5	-5.5
SOC				eSSS	SSS	01 53 12.9	
MENT	Mentasta	94.73	27	P	P	01 32 03.9	-0.7
MENT	Mentasta	94.73	27	IAmb	IAmb	01 32 05.5	
	comp=Z,19nm,1.0s						
CRQM	Cirque	94.78	29	IAmb	IAmb	01 32 06.6	
	comp=Z,27nm,0.9s						
BELA	Belgrano 2	94.84	183	P	P	01 32 05.0	+0.1
BELA				IAmb	IAmb	01 32 05.7	
	comp=Z,11nm,0.6s						
BMAR	Burnt Mountain	94.84	23	P	P	01 32 04.8	-0.3
L26K	Log Cabin Wild	94.91	27	IAmb	IAmb	01 32 06.2	
	comp=Z,14nm,0.7s						
M26K	Nabesna, AK	95.01	28	IAmb	IAmb	01 32 07.8	
	comp=Z,47nm,2.0s						
F26K	Sheenjek River	95.04	22	IAmb	IAmb	01 32 07.4	
	comp=Z,30nm,1.4s						
ARPR	Arapgir-MALATY	95.12	309	IAmb	IAmb	01 32 40.4	
	comp=Z,11nm,0.8s						
I26K	Coal Creek Min	95.20	25	IAmb	IAmb	01 32 07.7	
	comp=Z,16nm,1.1s						
C27K	Jago River	95.39	21	IAmb	IAmb	01 32 08.1	
	comp=Z,11nm,0.8s						
VSR	Storozhevoye	95.48	321	eP	P	01 32 06.7	-1.5
VSR				pmax	pmax		
	comp=Z,33nm,0.9s						
VORR	Voronezh	95.49	321	eP	P	01 32 07.2	-1.0
VORR				pmax	pmax		
	comp=Z,45nm,0.9s						
M27K	Edge Creek, AK	95.52	28	IAmb	IAmb	01 32 09.5	
	comp=Z,14nm,1.0s						
BARN	Barnard Glacie	95.53	29	IAmb	IAmb	01 32 09.8	
	comp=Z,23nm,1.3s						
SNAA	Sanae	95.57	194	⇑P	P	01 32 09.2	+0.9
	comp=Z,102nm,0.6s						
SNAA	Sanae	95.57	194	P	P	01 32 08.5	+0.2
	comp=Z,5.3nm,0.8s,baz=113,slow=6.6,SNR=10						
	comp=Z,5.3nm,0.8s						
SNAA	Sanae	95.57	194	c iP	P	01 32 08.9	+0.6
SNAA				pmax	pmax		
	comp=Z,13nm,1.3s						
SNAA	Sanae	95.57	194	P	P	01 32 09.2	+0.9
SNAA				IAmb	IAmb	01 32 10.3	
	comp=Z,14nm,1.2s						
BCAR	Beaver Creek A	95.62	27	P	P	01 32 08.5	-0.1
LPSR	Galich'ya Gora	95.72	322	eP	P	01 32 07.8	-1.5
LPSR				pmax	pmax		
	comp=Z,29nm,1.0s						
ASF	Jabal al Asfar	95.73	302	P	P	01 32 11.1	+1.2
GAZ	Gaziantep	95.86	307	IAmb	IAmb	01 35 07.0	
	comp=Z,11nm,0.6s						
G27K	Doyon Strip	95.93	23	IAmb	IAmb	01 32 11.5	
	comp=Z,16nm,1.2s						
KLMR	Klimovskoe	95.94	331	eP	P	01 32 06.7	-3.3
KLMR				pmax	pmax		
	comp=Z,38nm,1.2s						
E27K	Coleen River	96.04	22	IAmb	IAmb	01 32 11.5	
	comp=Z,16nm,1.0s						
ANN	Anapa	96.21	314	eP	P	01 32 10.6	-1.0
ANN				e*PP	pP	01 32 56.2	+1.1
ANN				pmax	pmax		
	comp=Z,40nm,0.8s						
TOKA	Tokat	96.64	310	IAmb	IAmb	01 32 14.7	
	comp=Z,7.2nm,0.7s						
F28M	Old Crow	96.66	23	IAmb	IAmb	01 32 14.1	
	comp=Z,10nm,0.9s						
E28M	Babbage River	96.82	22	IAmb	IAmb	01 32 14.8	
	comp=Z,22nm,1.2s						
QRNJ	Al-Qirein	96.86	302	P	P	01 32 16.6	+1.8
VNA2	Neumayer--Watz	97.14	193	⇑P	Pdif	01 32 15.9	+0.4
	comp=Z,4.0nm,0.7s,baz=137,slow=4.1						
HRFI	Mount Harif	97.17	299	P	Pdif	01 32 18.3	+1.9
PRNI	Paran	97.21	300	P	Pdif	01 32 17.9	+1.3
OBN	Obninsk	97.24	325	c iP	P	01 32 14.5	-1.5
OBN				pmax	pmax		
	comp=Z,26nm,0.9s						
OBN	Obninsk	97.24	325	P	P	01 32 15.0	-1.1
OBN	Obninsk	97.24	325	P	P	01 32 14.5	-1.5
L29M	L29M	97.28	27	IAmb	IAmb	01 32 17.8	
	comp=Z,21nm,1.1s						
VNA3	Neumayer Olymp	97.40	192	⇑P	Pdif	01 32 16.8	+0.2
	comp=Z,3.1nm,0.7s						
E29M	Blow River	97.42	22	IAmb	IAmb	01 32 17.1	
	comp=Z,18nm,1.6s						
VNA1	Neumayer--Stat	97.54	193	P	Pdif	01 32 17.6	+0.4
	comp=Z,4.1nm,0.8s						
KZIT	Kziot	97.77	300	P	Pdif	01 32 20.1	+1.0
EPYK	Eagle Plains	97.89	24	IAmb	IAmb	01 32 20.0	
	comp=Z,17nm,1.2s						
I30M	Mount Dempster	98.05	25	IAmb	IAmb	01 32 20.4	
	comp=Z,8.7nm,1.0s						
G30M	tAoh Zraii Nji	98.08	23	IAmb	IAmb	01 32 19.8	

	comp=Z,12nm,0.9s						
J30M	Hart River	98.08	26	IAmb	IAmb	01 32 21.1	
	comp=Z,13nm,0.9s						
F30M	Barrier River	98.23	23	IAmb	IAmb	01 32 20.8	
	comp=Z,10nm,0.9s						
APA	Apatity	98.65	337	eP	Pdif	01 32 26.6	+4.5
APA				pmax	pmax		
	comp=Z,8.0nm,1.2s						
BR131	Keskin Array S	98.79	309	c iP	P	01 32 22.6	-1.0
BRTR	Keskin Array B	98.79	309	P	P	01 32 22.7	-0.9
	comp=Z,2.8nm,0.7s,baz=137,slow=5.6,SNR=23						
	comp=Z,2.8nm,0.7s						
G31M	Satah River	98.85	23	IAmb	IAmb	01 32 23.3	
	comp=Z,11nm,0.9s						
LSZ	Lusaka	98.87	253	P	Pdif	01 32 25.0	+0.5
LSZ	Lusaka	98.87	253	P	Pdif	01 32 24.7	+0.3
LSZ				pmax	pmax		
	comp=Z,7.0nm,1.0s						
LSZ	Lusaka	98.87	253	P	Pdif	01 32 24.7	+0.2
BOSA	Boshof	98.94	240	P	P	01 32 24.6	0.0
	comp=Z,7.1nm,1.0s,baz=94,slow=3.5,SNR=6.1						
	comp=Z,7.1nm,1.0s						
BOSA	Boshof	98.94	240	P	Pdif	01 32 24.7	+0.1
BOSA				pmax	pmax		
	comp=Z,50nm,1.7s						
BOSA	Boshof	98.94	240	P	Pdif	01 32 24.6	+0.1
INK	Inuvik	99.05	22	IAmb	IAmb	01 32 24.1	
	comp=Z,10nm,1.1s						
LBTB	Lobatse	99.43	243	P	Pdif	01 32 27.0	+0.2
	comp=Z,4.5nm,0.7s,baz=106,slow=4.7,SNR=10						
	comp=Z,4.5nm,0.7s						
LBTB	Lobatse	99.43	243	P	Pdif	01 32 27.0	+0.2
ARCES	ARCESS Array B	101.31	340	P	Pdif	01 32 33.1	-0.8
	comp=Z,3.4nm,0.5s,baz=82,slow=5.7,SNR=17						
ARCES	ARCESS Array B	101.31	340	i P	Pdif	01 32 32.8	-1.2
ARCES	ARCESS Array B	101.31	340		Pdif	01 32 32.8	-1.2
SPITS	Spitsbergen Ar	101.39	349	P	Pdif	01 32 34.2	0.0
	comp=Z,4.4nm,0.6s,baz=92,slow=6.8,SNR=9.3						
AKASG	Malin Array Be	101.76	320	P	Pdif	01 32 35.3	-1.0
	comp=Z,5.3nm,0.7s,baz=72,slow=4.6,SNR=13						
AKASG				PKiKP	PKiKP	01 36 57.7	-1.0
	comp=Z,2.4nm,0.9s,baz=85,slow=1.3,SNR=5.0						
AKASG	Malin Array Be	101.76	320		Pdif	01 32 34.8	-1.5
AKBB	Malin Array Si	101.76	320	⇓iP	Pdif	01 32 35.4	-0.9
AKBB				pmax	pmax		
	comp=Z,10.0nm,0.9s						
KIEV	Kiev	101.77	320	⇓P	Pdif	01 32 35.3	-1.1
KIEV	Kiev	101.77	320	P	Pdif	01 32 35.4	-0.9
KIEV	Kiev	101.77	320	⇓P	Pdif	01 32 35.3	-1.1
TLCR		102.32	315	⇓P	Pdif	01 32 38.8	-0.1
TLCR		102.32	315	⇓P	Pdif	01 32 38.8	-0.1
FINES	FINESS Array B	102.41	331	P	Pdif	01 32 38.5	-0.5
	comp=Z,3.7nm,0.9s,baz=53,slow=9.8,SNR=6.6						
FINES				PKiKP	PKiKP	01 36 59.9	+0.4
	comp=Z,2.6nm,0.7s,baz=149,slow=4.0,SNR=5.4						
FINES	FINESS Array B	102.41	331	i P	Pdif	01 32 40.2	+1.2
FINES				pmax	pmax		
	comp=Z,4.0nm,0.9s						
SORM	Soroca	102.48	318	⇑P	Pdif	01 32 38.8	-0.8
SORM	Soroca	102.48	318	⇑P	Pdif	01 32 38.8	-0.8
VSU	Vasula	102.49	328	⇑eP	Pdif	01 32 39.1	-0.3
VSU				pmax	pmax		
	comp=Z,100nm,3.3s						
CFR	Carcaliu	102.80	315	⇓P	Pdif	01 32 41.0	-0.1
CFR	Carcaliu	102.80	315	⇓P	Pdif	01 32 41.0	-0.1
VRI	Vrincioaia	103.75	315	⇑P	Pdif	01 32 46.3	+1.0
VRI	Vrincioaia	103.75	315	⇑P	Pdif	01 32 46.3	+1.0
TESR	Tescani	103.75	316	⇑P	Pdif	01 32 45.3	-0.1
SAHR	Sahastru	103.79	315	⇑P	Pdif	01 32 43.1	-2.5
NEHR	Nehoiu	104.08	315	⇑P	Pdif	01 32 47.4	+0.6
BIZ	Bicaz	104.09	317	⇓P	Pdif	01 32 46.7	-0.1
MLR	Muntele Rosu	104.32	315	⇑P	Pdif	01 32 47.8	-0.2
MLR	Muntele Rosu	104.32	315	⇑P	Pdif	01 32 47.8	-0.2
BURAR	Bucovina Array	104.63	317	⇓P	Pdif	01 32 50.2	+0.9
BURAR	Bucovina Array	104.63	317	⇓P	Pdif	01 32 50.2	+0.9
ARR	Arges	105.25	315	⇑P	Pdif	01 32 52.7	+0.5
LOT	Lotru	105.85	315	⇑P	Pdif	01 32 55.6	+0.7
MARR	Marisel-Cluj	106.16	317	⇓P	Pdif	01 32 55.7	-0.5
SRE	Strehaia	106.34	314	⇓P	Pdif	01 32 46.3	-11
HERR	Herculane	106.87	315	⇓P	Pdif	01 32 59.4	+0.2
SURR	Surduc	106.96	316	⇓P	Pdif	01 33 00.7	+1.1
SIRR	Siria	107.21	316	⇑P	Pdif	01 33 00.1	-0.6
BZS	Buzias	107.33	316	⇑P	Pdif	01 33 00.7	-0.5
BZS	Buzias	107.33	316	⇑P	Pdif	01 33 00.7	-0.5
BOVS	Bovan	107.53	313	⇓P	Pdif	01 33 02.5	+0.3
YKA	Yellowknife Ar	107.98	26	PKiKP	PKiKP	01 37 09.4	-0.3
	comp=Z,2.5nm,0.8s,baz=297,slow=1.9,SNR=6.0						
YKA				PKKPbc	PKKPbc	01 48 22.6	-2.8
	comp=Z,2.8nm,0.7s,baz=113,slow=3.5,SNR=8.6						
HFS	Hagfors	108.61	332	Pdiff	Pdif	01 33 06.1	-0.5
	comp=Z,2.0nm,0.8s,baz=95,slow=3.2,SNR=1.8						
MAUC	Maruska	109.22	320	ePKP	PKiKP	01 37 13.5	+0.9
MORC	Moravsky Berou	109.31	320	ePKIKP	PKiKP	01 37 13.8	+1.0
JAVC	Velka Javorina	109.42	319	ePKIKP	PKiKP	01 37 14.8	+1.8
NB2	NORSAR Subarra	109.44	333	P	Pdif	01 33 09.0	-1.3
	comp=Z,2.8nm,1.0s,baz=69,slow=4.4						
NB2				PKP	PKiKP	01 37 13.2	+0.5
	comp=Z,1.5nm,0.8s,baz=72,slow=3.4						
NB2	NORSAR Subarra	109.44	333	P	Pdif	01 33 09.0	-1.3
NOA	NORSAR Array B	109.44	333	Pdiff	Pdif	01 33 10.3	0.0
	comp=Z,2.0nm,0.8s,baz=68,slow=4.4,SNR=4.8						
KRLC	Kraliky	109.72	321	ePKP	PKiKP	01 37 13.6	+0.1
DPC	Dobruska-Polom	109.95	321	ePKP	PKiKP	01 37 14.8	+0.9
OSTC	Ostas	109.96	321	ePKP	PKiKP	01 37 14.6	+0.7
VRAC	Vranov	110.02	320	ePKIKP	PKiKP	01 37 14.9	+0.8
CHVC	Chvalec	110.06	321	ePKP	PKiKP	01 37 14.6	+0.5
KRUC	Moravsky	110.20	320	ePKIKP	PKiKP	01 37 14.4	0.0
RONA	Rosalia, Austr	110.57	318	ePKiKP	PKiKP	01 37 15.2	0.0
	comp=Z,3.3nm,1.0s						
RONA				epPKiKP	pPKiKP	01 37 58.3	-2.9
	comp=Z,5.2nm,1.5s						
CONA	Conrad Observa	110.80	319	ePKiKP	PKiKP	01 37 15.6	-0.1
	comp=Z,1.4nm,0.6s						
CONA				epPKiKP	pPKiKP	01 38 00.4	-1.3
	comp=Z,4.2nm,1.2s						
ABNA	Allensteig Bun	110.91	320	ePKiKP	PKiKP	01 37 16.0	+0.2
	comp=Z,2.3nm,0.8s						
PRU	Pruhonice	111.14	321	ePKIKP	PKiKP	01 37 16.6	+0.5
PRU	Pruhonice	111.14	321	ePKP	PKiKP	01 37 16.6	+0.5
ARSA	Arzberg	111.18	318	epPKiKP	pPKiKP	01 38 02.5	+0.1
	comp=Z,2.7nm,0.8s						
BRG	Berggiesshubel	111.28	322	eP	PKiKP	01 37 16.9	+0.6
BRG				Amp		01 37 17.6	
	comp=Z,2.2nm,0.8s						
ZVC	Zvikov	111.51	321	ePKP	PKiKP	01 37 17.0	+0.1
CKRC	Cesky Krumlov	111.59	320	ePKIKP	PKiKP	01 37 16.7	-0.4
CKRC	Cesky Krumlov	111.59	320	ePKP	PKiKP	01 37 16.7	-0.4
SOKA	Soboth	111.64	318	ePKiKP	PKiKP	01 37 17.0	-0.3
	comp=Z,3.1nm,0.9s						
CLL	Collm	111.73	323	i PKiKP	PKiKP	01 37 17.3	+0.1
NVAR	Mina Array Bea	111.76	51	PKiKP	PKiKP	01 37 18.7	+0.7
	comp=Z,0.7nm,0.4s,baz=258,slow=1.8,SNR=10						
NVAR				PKKPbc	PKKPbc	01 48 12.3	-0.4
	comp=Z,1.1nm,0.8s,baz=118,slow=4.7,SNR=5.9						
NVAR				PKKPab	PKKPab	01 48 22.5	+1.3
	comp=Z,1.6nm,0.7s,baz=113,slow=5.6,SNR=9.0						
SESA	Seetaler Alpe,	111.84	318	ePKiKP	PKiKP	01 37 17.4	-0.5
	comp=Z,8.2nm,0.8s						
MOA	Molln	111.86	319	ePKiKP	PKiKP	01 37 17.3	-0.3
	comp=Z,2.0nm,0.7s						
MOA				i pPKiKP	PP	01 38 07.1	+3.9
	comp=Z,3.8nm,1.1s						
GERES	GERESS Array B	111.97	320	PKiKP	PKiKP	01 37 17.8	-0.1
	comp=Z,6.2nm,0.6s,baz=90,slow=1.3,SNR=40						
GERES				PP	PP	01 38 05.2	+1.2
	comp=Z,1.7nm,0.7s,baz=90,slow=2.9,SNR=4.5						
KHC	Kasperske Hory	111.97	320	ePKIKP	PKiKP	01 37 17.9	+0.1
KHC	Kasperske Hory	111.97	320	ePKP	PKiKP	01 37 17.9	+0.1
OBKA	Obir	112.00	317	ePKiKP	PKiKP	01 37 17.7	-0.4
	comp=Z,3.5nm,1.1s						
LJU	Ljubljana	112.12	317	i PKiKP	PKiKP	01 37 18.2	+0.1
CRNS	Crni Vrh	112.30	317	ePKiKP	PKiKP	01 37 18.2	-0.3
BIOA	Bad Ischl, Aus	112.31	319	ePKiKP	PKiKP	01 37 17.9	-0.6
	comp=Z,3.4nm,0.9s						
BIOA				ePP	PP	01 38 10.6	+4.1
	comp=Z,3.6nm,1.0s						
VOJS	Vojsko	112.56	317	i PKiKP	PKiKP	01 37 18.6	-0.5
MYKA	Terra Mystica	112.58	318	ePKiKP	PKiKP	01 37 18.8	-0.3
	comp=Z,1.7nm,0.5s						
KBA	Koelnbreinsper	112.66	318	ePKiKP	PKiKP	01 37 19.1	-0.3
	comp=Z,2.1nm,0.7s						
LESA	Schwarzleotal	113.01	319	ePKiKP	PKiKP	01 37 19.3	-0.6
	comp=Z,4.3nm,0.6s						
LESA				i pPKiKP	PP	01 38 08.5	-3.0
	comp=Z,4.6nm,1.1s						

ABTA	Abfaltersbach	113.30	318	PKiKP	PKiKP	01 37 20.1	-0.4
	comp=Z,10nm,0.8s,SNR=5.1						
ELK	Elko	113.68	49	PKKPbc	PKKPbc	01 48 06.2	-0.1
	comp=Z,0.3nm,0.3s,baz=90,slow=2.0,SNR=2.4						
WTTA	Wattenberg	113.73	319	PKP	PKiKP	01 37 21.4	0.0
	comp=Z,10nm,0.5s,SNR=12						
WTTA				i PP	PP	01 38 16.0	-0.7
	comp=Z,4.3nm,0.7s						
WATA	Walderalm	113.75	319	ePKP	PKiKP	01 37 21.0	-0.4
	comp=Z,3.7nm,0.6s						
SQTA	Sankt Quirin	114.03	319	ePKP	PKPdf	01 37 21.6	-0.2
	comp=Z,2.7nm,0.6s						
MOTA	Moosalm	114.06	319	ePKP	PKPdf	01 37 21.6	-0.4
	comp=Z,7.0nm,0.5s						
MOTA				i PP	PP	01 38 18.2	-0.8
	comp=Z,4.8nm,1.0s						
RETA	Reutte	114.24	319	ePKP	PKPdf	01 37 22.0	-0.2
	comp=Z,2.7nm,0.6s						
FETA	Feichten	114.40	319	ePKP	PKPdf	01 37 22.6	-0.1
	comp=Z,3.0nm,0.6s						
DAVA	Damuels	114.87	319	PKP	PKPdf	01 37 23.6	0.0
	comp=Z,10nm,0.5s,SNR=8.1						
MEM	Membach	116.12	324	dPKPdf	PKPdf	01 37 25.4	-0.3
WLF	Walferdange	116.40	323	dPKPdf	PKiKP	01 37 26.2	0.0
BCLA	Clavier	116.61	324	dPKPdf	PKiKP	01 37 26.9	+0.3
SENIN	Lac Senin/Sane	116.85	319		PKPdf	01 37 27.0	-0.5
BMRD	Maredsous	116.98	324	dPKPdf	PKPdf	01 37 26.8	-0.5
DOU	Dourbes	117.16	324	dPKPdf	PKiKP	01 37 28.1	+0.4
PDAR	Pinedale Array	117.30	45	PKP	PKPdf	01 37 28.5	0.0
	comp=Z,2.9nm,0.7s,baz=243,slow=0.9,SNR=37						
PDAR				PKKPbc	PKKPbc	01 47 53.0	-0.9
	comp=Z,1.2nm,0.6s,baz=119,slow=2.5,SNR=4.9						
PDAR	Pinedale Array	117.30	45		PKPdf	01 37 28.2	-0.3
KEST	Kesra	118.29	307	PKP	PKiKP	01 37 30.9	+0.4
	comp=Z,9.6nm,0.9s,baz=207,slow=0.9,SNR=20						
KEST				PP	PP	01 38 46.4	-2.4
	comp=Z,15nm,0.8s,baz=8.4,slow=3.4,SNR=12						
INVG	Invergeldie, C	118.61	333	eP	PKPdf	01 37 30.1	-0.1
KPL	Plockton	118.79	334	eP	PKPdf	01 37 30.5	0.0
EKA	Eskdalemuir Ar	118.81	331	PKP	PKPdf	01 37 30.6	-0.1
	comp=Z,3.6nm,0.6s,baz=14,slow=2.5,SNR=16						
EKA				PKKPbc	PKKPbc	01 47 46.9	-1.7
	comp=Z,0.6nm,0.6s,baz=243,slow=3.7,SNR=3.8						
KESW	Keswick, Cumbr	119.19	331	eP	PKiKP	01 37 31.6	+0.1
CWF	Charnwood Fore	119.26	328	eP	PKPdf	01 37 31.4	-0.2
WOL	Wolverton	119.92	327	eP	PKPdf	01 37 33.0	0.0
SWN1	Swindon	120.14	327	eP	PKiKP	01 37 33.5	+0.1
FOEL	Foel Wylfa	120.16	329	eP	PKPdf	01 37 33.3	-0.1
HLM1	Long Mynd	120.19	328	eP	PKPdf	01 37 33.5	+0.1
MCH1	Michaelchurch	120.53	328	eP	PKPdf	01 37 33.8	-0.2
RSBS	Rosebush, Pemb	121.46	329	eP	PKPdf	01 37 35.7	-0.2
ANMO	Albuquerque	121.78	53	PKKPbc	PKKPbc	01 47 35.9	-1.3
	comp=Z,0.4nm,0.6s,baz=120,slow=5.9,SNR=4.2						
ANMO	Albuquerque	121.78	53	PKIKP	PKiKP	01 37 37.8	+0.3
ANMO	Albuquerque	121.78	53		PKiKP	01 37 37.8	+0.3
DYA	Yadsworthy	121.85	327	eP	PKPdf	01 37 36.3	-0.3
HTL	Hartland	121.85	328	eP	PKPdf	01 37 36.7	0.0
CEST	Esterri de Car	122.23	317	PKPdf	PKPdf	01 37 37.2	-0.6
CCA1	Carnmenellis	122.69	327	eP	PKPdf	01 37 38.3	0.0
ULM	Lac du Bonnet	122.75	33	PKP	PKPdf	01 37 37.6	-0.8
	comp=Z,11nm,0.8s,baz=319,slow=1.4,SNR=15						
TXAR	Lajitas Array	125.44	59	PKP	PKiKP	01 37 45.0	+0.3
	comp=Z,5.1nm,0.7s,baz=213,slow=1.4,SNR=59						
TXAR				PP	PP	01 39 37.5	+0.1
	comp=Z,1.0nm,0.9s,baz=248,slow=3.4,SNR=3.8						
TXAR				PKKPbc	PKKPab	01 47 21.8	+0.3
	comp=Z,0.3nm,0.5s,baz=111,slow=5.3,SNR=8.0						
TXAR	Lajitas Array	125.44	59		PKiKP	01 37 44.8	0.0
ECSD	EROS Data Cent	125.65	40		PKPdf	01 37 44.1	-0.1
EYMN	Ely	126.42	33		PKPdf	01 37 45.4	-0.1
ESDC	Sonseca Array	127.02	315	PKP	PKPdf	01 37 46.2	-0.9
	comp=Z,3.2nm,0.9s,baz=14,slow=3.5,SNR=22						
ESDC				PP	PP	01 39 47.1	-0.2
	comp=Z,3.0nm,0.9s,baz=60,slow=6.7,SNR=14						
ESDC	Sonseca Array	127.02	315		PKPdf	01 37 46.9	-0.1
PAB	San Pablo	127.34	315	PKIKP	PKiKP	01 37 48.3	+0.1
PAB	San Pablo	127.34	315		PKiKP	01 37 48.3	+0.1
PBRG	Braganca	127.92	319	ePKPdf	PKPdf	01 37 48.8	+0.1
TORD	Torodi Ar. Bea	128.18	281	PKP	PKPdf	01 37 49.9	+0.1
	comp=Z,11nm,0.7s,baz=71,slow=2.1,SNR=55						
TORD	Torodi Ar. Bea	128.18	281		PKPdf	01 37 50.0	+0.2
OK048	Pawnee Station	128.62	48		PKPdf	01 37 50.3	+0.2
PCAB	Cabril	128.81	319	ePKPdf	PKiKP	01 37 51.7	+0.7
PVRL	Vila Real	128.82	319	ePKPdf	PKiKP	01 37 51.8	+0.7
POLO	Lamas de Olo	128.82	319	ePKPdf	PKiKP	01 37 51.9	+0.7
PGAV	Gavieira, Arco	128.83	320	ePKPdf	PKiKP	01 37 51.8	+0.6
MTE	Manteigas	129.14	318	ePKPdf	PKiKP	01 37 52.4	+0.6
PLCA	Paso Flores	129.14	161	PKP	PKiKP	01 37 51.8	-0.1
	comp=Z,7.5nm,0.7s,baz=201,slow=3.0,SNR=16						
PLCA	Paso Flores	129.14	161		PKiKP	01 37 51.6	-0.2
PVIS	Viseu	129.22	318	ePKPdf	PKiKP	01 37 52.7	+0.8
PCBR	Castelo Branco	129.36	317	ePKPdf	PKiKP	01 37 52.8	+0.7
PTO	Porto	129.47	319	ePKPdf	PKiKP	01 37 53.0	+0.7
PMRV	Marv??o	129.50	317	ePKPdf	PKiKP	01 37 52.6	+0.1
PBAR	Barrancos	129.83	315	ePKPdf	PKiKP	01 37 53.5	+0.4
PSARD	Sardoal	129.94	317	ePKPdf	PKiKP	01 37 54.5	+1.2
PCAS	Casmilo, Conde	129.94	318	ePKPdf	PKiKP	01 37 53.7	+0.4
PARRA	Arraiolos	130.23	316	ePKPdf	PKiKP	01 37 54.8	+0.9
PMTG	Montargil	130.24	317	ePKPdf	PKiKP	01 37 54.2	+0.3
SCHQ	Schefferville	130.51	12	PKP	PKPdf	01 37 52.5	-0.6
	comp=Z,4.7nm,0.8s,baz=297,slow=4.5,SNR=2.9						
SCHQ	Schefferville	130.51	12		PKiKP	01 37 54.2	+0.2
MOE	Montemor	130.59	316	ePKPdf	PKiKP	01 37 55.3	+0.7
MESJ	Messejana	130.81	315	ePKPdf	PKiKP	01 37 56.0	+0.9
PLOUS	Minas do Lousa	130.87	315	ePKPdf	PKiKP	01 37 55.4	+0.2
L42A	Oliver, Polo	130.91	38		PKPdf	01 37 53.5	-0.8
MORF	Marmelete	131.37	315	ePKPdf	PKiKP	01 37 56.1	-0.2
CCM	Cathedral Cave	131.97	44	PKIKP	PKPdf	01 37 56.4	0.0
CCM	Cathedral Cave	131.97	44		PKPdf	01 37 56.4	0.0
DBIC	Dimbokro	134.55	273	PKP	PKPdf	01 38 02.1	+0.2
	comp=Z,16nm,0.7s,baz=101,slow=2.0,SNR=12						
DBIC	Dimbokro	134.55	273		PKPdf	01 38 01.8	-0.1
O48B	Farmland	134.69	38		PKPdf	01 38 02.0	+0.6
PEL	Peldehue	135.81	156	PKIKP	PKPdf	01 38 04.3	+0.4
PEL	Peldehue	135.81	156		PKPdf	01 38 04.3	+0.4
CO04	Los Peladeros	136.65	155		PKPdf	01 38 06.2	+0.4
PMAR	Madeira	139.52	314	ePKPdf	PKiKP	01 38 13.0	-0.2
PSAL	Palomas, Salto	141.60	170	eP	PKPdf	01 38 12.6	-1.9
CPSB	Cacapava Do Su	142.77	176	eP	PKPdf	01 38 13.9	-2.6
PB07	IPOC Station P	145.82	147		PKPdf	01 38 22.3	0.0
CPUP	Villa Florida	146.29	169	PKPbc	PKPbc	01 38 24.0	-0.2
	comp=Z,42nm,0.9s,baz=197,slow=2.7,SNR=66						
CPUP				PP	PP	01 41 45.8	-0.5
	comp=Z,11nm,1.0s,baz=198,slow=6.4,SNR=5.0						
CPUP	Villa Florida	146.29	169	PKP2	PKPbc	01 38 23.9	-0.2
CPUP	Villa Florida	146.29	169		PKPbc	01 38 23.9	-0.2
HDC	Heredia	146.76	82	eP	PKPdf	01 38 21.2	-2.8
BLUN	Bluefields	146.95	79	P	PKPdf	01 38 23.6	-0.5
	comp=Z,38nm,1.2s						
SJPY	San Joaquin	147.81	171	eP	PKPdf	01 38 25.0	-0.4
PTGB	Pitanga	148.50	178	eP	PKPdf	01 38 25.2	-1.3
PET01	Itanhaem-SP	148.78	186	eP	PKPdf	01 38 25.5	-1.4
SPB	Sao Paulo	149.49	186	eP	PKPdf	01 38 27.1	-1.0
LDASE	Londrina, Braz	149.84	179	eP	PKPdf	01 38 27.6	-1.0
FRTB	Fartura	149.88	182	eP	PKPdf	01 38 26.1	-2.6
VAO	Valinhos	150.02	187	eP	PKPdf	01 38 28.1	-0.9
CAM01	Campos-RJ	150.08	197	eP	PKPdf	01 38 28.1	-0.9
PNME	Penonome	150.54	85	P	PKPdf	01 38 29.4	-0.5
MURT	Porto Murtinho	150.76	167	eP	PKPdf	01 38 27.6	-2.5
LPAZ	La Paz	151.15	143	PKP	PKPdf	01 38 32.6	+1.1
	comp=Z,14nm,1.0s,baz=289,slow=0.7,SNR=31						
LPAZ				PKPbc	PKiKP	01 38 38.8	+0.7
	comp=Z,15nm,0.7s,baz=182,slow=8.1,SNR=9.9						
LPAZ	La Paz	151.15	143	PKIKP	PKPdf	01 38 31.2	-0.4
LPAZ	La Paz	151.15	143		PKPdf	01 38 31.1	-0.4
UPA	Univ. de Panam	151.32	84	P	PKiKP	01 38 37.7	0.0
	comp=Z,1µmcomp=Z,100nm,0.8s						
OTAV	Otavalo	151.47	102	eP	PKPdf	01 38 29.7	-2.2
AQDB	Aquidauana	152.30	170	eP	PKPdf	01 38 29.6	-2.8
COIM	Forte Coimbra	152.40	165	eP	PKPdf	01 38 31.7	-0.9
BBAC	Balboa, Cauca	153.03	99	P	PKPdf	01 38 35.2	+1.2
	comp=Z,33nm,0.8s						
CZSB	Cruzeiro do Su	153.60	123	P	PKPdf	01 38 35.2	+0.7
	comp=Z,93nm,0.8s						
CZSB	Cruzeiro do Su	153.60	123	eP	PKPdf	01 38 33.5	-1.0
POPC	Popayan, Colom	153.69	98	P	PKPdf	01 38 36.0	+1.0
	comp=Z,465nmcomp=Z,44nm,0.9s						
SALV	Santo Antonio	156.76	168	eP	PKPdf	01 38 37.6	-1.1
BDFB	Brasilia	157.41	187	PKP	PKPdf	01 38 40.5	+0.8
	comp=Z,3.7nm,0.7s,baz=148,slow=2.6,SNR=5.7						
ARAG	Araguaiana, MT	157.47	177	eP	PKPdf	01 38 39.1	-0.5
VILB	Vilhena	158.07	154	eP	PKPdf	01 38 38.0	-2.4
NBTA	Tacaratu-PE	159.71	218	eP	PKPdf	01 38 41.0	-1.3

ITTB	Itaituba	167.67	156	*e*P	PKPdf	01 38 49.5	-0.2
BOAV	Boa Vista	169.16	114	*e*P	PKPdf	01 38 50.3	-0.4

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*IDC **22** 01:39:14.3±1.1, 8.°35S×111.°13E, h0^{km}, mb3.9/8, mbtmp3.9/9, ML4.1/1, MS3.0/1, Error ellipse: s-maj=48.0km s-min=18.6km az=54.0*

*DJA **22** 01:39:23.9±0.5, 9°S±5°×11°1E±°, h10^{km}, M4.3/24, ML4.3/24, MLv4.3/25, MLv4.3/24*

*NEIC **22** 01:39:24.2±1.9, 8.°60S±0.°07×111.°13E±0.°06, h92^{km}±3^{km}, mb4.0/12, Error ellipse: s-maj=12.4km s-min=7.0km az=217.0*

ISC 22 01:39:21.9±0.5, **8.°71S**±0.°07×**111.°13E**±0.°05, **h69**^{km}, **n54**, σ**2.s00**/49, **mb4.0**/12, **Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCJI	Pacitan	0.51	5	P	Pn	01 39 35.6	+0.8
PCJI				AML	AML		
PCJI				AML	AML		
PCJI				AML	AML		
WOJI	Wonogiri, Jawa	0.89	347	P	Pn	01 39 40.5	+1.5
WOJI				AML	AML		
WOJI				AML	AML		
UGM	Wanagama	0.99	323		Pn	01 39 42.9	+2.5
UGM				Sn	Sn	01 39 56.2	+2.3
UGM	Wanagama	0.99	323	P	Pn	01 39 41.5	+1.2
UGM				AML	AML		
UGM				AML	AML		
UGM				AML	AML		
SNJI	Sawahan-Nganju	1.11	34	P	Pn	01 39 44.7	+2.7
SNJI				AML	AML		
SNJI				AML	AML		
SNJI				AML	AML		
SJI	Sawahan	1.15	33	P	Pn	01 39 44.1	+1.7
YOGI	Yogyakarta	1.21	317	P	Pn	01 39 46.5	+3.4
YOGI				AML	AML		
YOGI				AML	AML		
YOGI				AML	AML		
NGJI	Ngawi	1.37	14	P	Pn	01 39 49.8	+4.6
NGJI				AML	AML		
NGJI				AML	AML		
NGJI				AML	AML		
SMRI	Semarang	1.78	337		Pn	01 39 53.9	+3.2
SMRI				Sn	Sn	01 40 15.3	+2.9
SMRI	Semarang	1.78	337	P	Pn	01 39 53.9	+3.2
SMRI				AML	AML		
SMRI				AML	AML		
SMRI				AML	AML		
CTJI	Waduk Cacaban	2.56	311	P	Pn	01 40 05.3	+4.1
CTJI				AML	AML		
CTJI				AML	AML		
KPJI	Karang Pucung	2.57	302	P	Pn	01 40 06.3	+5.0
KPJI				AML	AML		
KPJI				AML	AML		
KPJI				AML	AML		
BLJI	Banyuglugur	2.62	69	P	Pn	01 40 04.9	+2.9
BLJI				AML	AML		
BLJI				AML	AML		
BLJI				AML	AML		
JAGI	Jajag, Banyuwa	3.00	86		Pn	01 40 10.2	+3.1
JAGI				Sn	Sn	01 40 42.9	+0.9
ABJI	Asem Bagus	3.20	74	P	Pn	01 40 14.8	+4.9
ABJI				AML	AML		
BBJI	Bungbulang	3.66	289		Pn	01 40 18.3	+2.1
BBJI				Sn	Sn	01 40 58.7	+0.4
SOEI	Soe	13.01	96	Pn	Pn	01 42 24.0	-0.1
BKNI	Bangkinang	13.47	311		Pn	01 42 29.4	-0.7
GIRL	Giralia	14.18	168	Pn	Pn	01 42 40.0	+0.6
MBWA	Marble Bar	14.90	147	Pn	Pn	01 42 47.9	-0.9
FITZ	Fitzroy Crossi	16.91	125	P	P	01 43 16.2	+1.0
	0.5nm,0.3s,baz=330,slow=14,SNR=8.1						
FITZ				S	Sn	01 46 09.9	-12
	2.4nm,0.8s,baz=306,slow=19,SNR=2.1						
	2.5nm,0.5s						
FITZ				AML	AML		
FITZ	Fitzroy Crossi	16.91	125		P	01 43 15.9	+0.7
WB0	Warramunga Arr	25.05	119	P	P	01 44 39.3	-0.7
WB0				IAmb	IAmb	01 45 24.5	
	comp=Z,8.7nm,1.4s						
WRA	Warramunga Arr	25.07	119	P	P	01 44 42.4	+2.2
	comp=Z,1.1nm,0.7s,baz=294,slow=11,SNR=15						
	comp=Z,1.1nm,0.7s						
WRA	Warramunga Arr	25.07	119	P	P	01 44 39.3	-0.9
WR8	Warramunga Arr	25.22	119	P	P	01 44 41.5	0.0
WR8				IAmb	IAmb	01 45 10.9	
	comp=Z,5.6nm,1.1s						
ASAR	Alice Springs	26.39	127	P	P	01 44 54.2	+2.1
	comp=Z,0.7nm,0.5s,baz=302,slow=9.9,SNR=11						
	comp=Z,0.7nm,0.5s						
ASAR	Alice Springs	26.39	127	P	P	01 44 53.0	+0.8
CMAR	Chiang Mai Arr	29.55	336	LR	LR	01 56 40.3	
	comp=Z,30nm,19.2s,baz=175,slow=36						
H08S2	Diego Garcia H	38.25	269	T	T	02 27 04.5	
	baz=94						
H08S3	Diego Garcia H	38.26	269	T	T	02 27 08.9	
	baz=94						
H08S1	Diego Carcia H	38.27	269	T	T	02 27 04.0	
	baz=94						
EVN	Everest	43.38	328	P	P	01 47 16.3	-2.2
USRK	Ussuriysk Ar.	55.95	18	P	P	01 48 51.0	-1.9
SONM	Songino Array	56.45	356	P	P	01 48 54.9	-1.8
	comp=Z,0.5nm,0.5s,baz=160,slow=8.8,SNR=2.7						
	comp=Z,0.5nm,0.5s						
SONM	Songino Array	56.45	356	P	P	01 48 55.6	-1.1
SONM				IAmb	IAmb	01 48 57.0	
	comp=Z,0.7nm,0.6s						
PYZ	Puysegur Point	60.21	139	P	P	01 49 23.8	+0.9
MKAR	Makanchi Array	60.94	338	P	P	01 49 27.1	-0.6
	comp=Z,0.9nm,0.4s,baz=151,slow=7.2,SNR=7.0						
	comp=Z,0.9nm,0.4s						
MKAR	Makanchi Array	60.94	338	P	P	01 49 26.4	-1.4
WHZ	Wether Hill Ro	60.95	138	P	P	01 49 27.7	-0.3
H04N2	CROZET ISLANDS	62.70	222	T	T	02 58 22.6	
	baz=73,slow=76,SNR=5.6						
H04N1	CROZET ISLANDS	62.72	222	T	T	02 58 22.7	
	baz=73,slow=76,SNR=7.4						
H04N3	CROZET ISLANDS	62.72	222	T	T	02 58 21.4	
	baz=73,slow=76,SNR=6.0						
KKAR	Karatay Array	63.43	328	P	P	01 49 42.5	-2.1
ZAA0	Zalesovo Array	66.26	343	P	P	01 50 01.4	-1.2
ZAA0				IAmb	IAmb	01 50 36.0	
	comp=Z,2.5nm,1.1s						
ZALV	Zalesovo Beam	66.26	343	P	P	01 50 01.4	-1.2
	comp=Z,1.0nm,0.3s,baz=157,slow=5.0,SNR=4.2						
	comp=Z,1.0nm,0.3s						
AB31	Akbulak array	73.00	328	P	P	01 50 43.9	-0.3
AB31				IAmb	IAmb	01 50 44.4	
	comp=Z,2.9nm,0.9s						
ABKAR	Akbulak array	73.00	328	P	P	01 50 43.8	-0.4
PEA0B	Petropavlovsk-	73.16	27	P	P	01 50 43.4	-1.7
PETK	Petropavlovsk-	73.16	27	P	P	01 50 45.0	0.0
	comp=Z,0.7nm,0.5s,baz=217,slow=6.4,SNR=5.8						
	comp=Z,0.7nm,0.5s						
PETK	Petropavlovsk-	73.16	27	P	P	01 50 44.7	-0.4
QSPA	South Pole Qui	81.29	180	P	P	01 51 34.2	+3.6
	comp=Z,2.0nm,1.0s,baz=305,slow=3.7,SNR=3.6						
	comp=Z,2.0nm,1.0s						
QSPA	South Pole Qui	81.29	180	P	P	01 51 30.1	-0.5
QSPA				IAmb	IAmb	01 51 43.2	
	comp=Z,6.0nm,1.5s						
BRTR	Keskin Array B	86.02	311	P	P	01 51 56.5	+1.1
	comp=Z,0.6nm,0.7s,baz=120,slow=8.5,SNR=2.8						
	comp=Z,0.6nm,0.7s						

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*CATAC **22** 01:43:42.0±0.3, 9°N±2°×8°5W±°, h3^{km}±1^{km}, M3.9/18, MLv3.9/18, Error ellipse: s-maj=5.8km s-min=2.4km az=36.7, confirmed*

*UCR **22** 01:43:41.9±1.0, 9.°42N×84.°62W, h22^{km}±4^{km}, MW3.8, Presumed earthquake*

ISC 22 01:43:41.3±1.1, **9.°40N**±0.°03×**84.°63W**±0.°02, **h13**^{km}±8^{km}, **n95**, σ**1.s05**/110, **Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BITO	Garabito Jaco	0.22	2	*e*P	Pg	01 43 47.2	+1.0
BITO				*e*S	Sg	01 43 51.5	+2.1
QUEP	Quepos	0.46	86	P	Pb	01 43 50.9	-0.4
QUEP				S	Sb	01 43 57.8	-0.3
QUEP	Quepos	0.46	86	*e*P	Pb	01 43 50.6	-0.7
QUEP				*e*S	Sb	01 43 58.3	+0.2
PAQE	Paquera	0.52	324	*e*P	Pb	01 43 52.0	-0.4
PAQE				*e*S	Sb	01 44 00.2	+0.4
OROT	Orotina	0.52	11	*e*P	Pb	01 43 51.5	-0.9
TRB2	Turrubares	0.55	19	*e*P	Pb	01 43 52.0	-0.8
PURI	Puriscal	0.55	35	*e*P	Pb	01 43 52.2	-0.7
ARZA	Esparza	0.59	356	*e*P	Pb	01 43 52.9	-0.7
ACOS	Acosta	0.61	49	*e*P	Pb	01 43 53.1	-0.8
ATEO	Atenas	0.63	23	*e*P	Pb	01 43 53.5	-0.8
RAZU	San Marcos de	0.65	66	*e*P	Pg	01 43 52.7	-1.4
PALD	Palmares	0.68	16	*e*P	Pb	01 43 54.4	-0.8
SANTA	Santa Ana	0.69	39	*e*P	Pb	01 43 54.4	-0.9
RAMO	San Ramon	0.70	13	*e*P	Pb	01 43 55.0	-0.6
TCS1	Tacares	0.72	27	P	Pb	01 43 55.5	-0.3
TCS1	Tacares	0.72	27	*e*P	Pb	01 43 55.4	-0.5
BELE	Belen	0.72	37	*e*P	Pg	01 43 53.8	-1.6
NARAN	Naranjo de Ala	0.74	20	*e*P	Pb	01 43 55.7	-0.5
GREC	Grecia	0.74	25	*e*P	Pb	01 43 55.7	-0.6
SARCI	Sarchi	0.74	22	*e*P	Pb	01 43 56.0	-0.2
CENT	San Jose	0.76	45	*e*P	Pg	01 43 49.9	-6.2
LUJA	Lujan	0.76	46	*e*P	Pb	01 43 55.6	-1.0
HEME	Heredia, Merce	0.77	39	*e*P	Pb	01 43 57.0	+0.4
POAS	San Pedro de P	0.78	29	*e*P	Pb	01 43 56.4	-0.4
ECI	Escuela Centro	0.78	46	*e*P	Pb	01 43 56.1	-0.8
SJS	Escuela Geolog	0.78	46	*e*P	Pb	01 43 56.1	-0.8
SJS3	Mercedes San J	0.78	46	*e*P	Pb	01 43 56.3	-0.6
TRIO	Tres Rios	0.81	51	*e*P	Pb	01 43 56.4	-0.9
ZARE	Zarcero	0.82	17	*e*P	Pb	01 43 57.3	-0.2
CORON	Coronado	0.84	47	*e*P	Pb	01 43 57.5	-0.4
NYURE	Nandayure	0.86	314	*e*P	Pg	01 43 57.6	-0.3
VPS8	V Poas	0.87	26	*e*P	Pb	01 43 57.9	-0.6
VPS5	V. Poas	0.88	26	*e*P	Pb	01 43 58.1	-0.7
BUS1	Rivas	0.88	80	*e*P	Pg	01 43 57.8	-0.7
VBV1	V. Barva	0.88	36	*e*P	Pb	01 43 58.0	-0.8
VPL1	V. Platanar	0.89	17	*e*P	Pg	01 43 58.0	-0.6
CVIMO	Finca Echandi	0.92	47	*e*P	Pn	01 44 02.9	+2.7
VPL2	V. Platanar	0.94	15	*e*P	Pb	01 43 59.0	-0.6
QUEU	Ciudad Quesada	0.94	12	*e*P	Pb	01 43 59.7	+0.1
JTS	Las Juntas de	0.94	340	P	Pg	01 43 58.7	-0.9
JTS				S	Sg	01 44 11.5	-0.5
JTS	Las Juntas de	0.94	340	*e*P	Pg	01 43 58.6	-1.0
PCAYA	Pacayas	0.96	57	*e*P	Pb	01 43 59.4	-0.6
VICA	Volcano Irazu	0.97	53	*e*P	Pb	01 43 59.5	-0.8
INDI	Punta indio, G	0.98	299	P	Pg	01 43 59.3	-1.0
INDI				S	Sn	01 44 15.8	+1.2
VPL3	V. Platanar	1.00	18	*e*P	Pb	01 44 00.1	-0.4
CMARA	Lajas Hojancha	1.00	308	P	Pg	01 43 59.7	-0.9
CMARA				S	Sb	01 44 14.8	+1.1
CMARA	Lajas Hojancha	1.00	308	*e*P	Pg	01 43 58.9	-1.7
VINA	Juan Vinas	1.00	60	*e*P	Pg	01 43 59.9	-0.8
ARTO	Ro Cuarto	1.02	23	*e*P	Pg	01 43 59.2	-2.0
CVTQ	Turrialba Volc	1.04	54	*e*P	Pb	01 44 00.9	-0.6
VTR0	Volcan Turrial	1.06	54	*e*P	Pb	01 44 01.2	-0.6
CVTR	Volcan Turrial	1.06	54	*e*P	Pb	01 44 01.2	-0.6
ARE1	Arenal 1	1.06	355	*e*P	Pb	01 44 01.3	-0.3
VARE2	V. Arenal	1.06	355	*e*P	Pb	01 44 01.4	-0.2
VTCV	VTCV, Calle Va	1.06	57	*e*P	Pb	01 44 01.2	-0.6
ITAL	Pital	1.11	18	*e*P	Pg	01 44 01.7	-0.9
CNAS	Canas	1.13	336	*e*P	Pb	01 44 02.7	+0.1
PILE	Guapiles	1.16	45	*e*P	Pb	01 44 02.9	-0.4
BAGA	Bagaces	1.29	331	*e*P	Pn	01 44 04.7	-0.4
BURE	Buenos Aires	1.29	100	*e*P	Pn	01 44 04.8	-0.3
COVE	Coope Vega, Sa	1.33	10	P	Pn	01 44 05.5	-0.2
COVE				S	Sn	01 44 24.8	+1.4
DRK0	Durika	1.37	95	*e*P	Pn	01 43 51.7	-15
COLC	Colonia	1.38	336	*e*P	Pn	01 44 06.2	-0.3
TAAN	Batan	1.44	61	*e*P	Pg	01 44 08.0	-1.0
ERIA	Liberia	1.47	327	*e*P	Pn	01 44 07.4	-0.2
ALIBA	Liberia Airpor	1.49	323	*e*P	Pn	01 44 08.2	+0.3
GPS3	Bodega del ICE	1.53	332	*e*P	Pg	01 44 10.3	-0.5
UPAL	Upala	1.54	346	P	Pb	01 44 09.2	-0.6
UPAL				S	Sg	01 44 30.0	-1.0
UPAL	Upala	1.54	346	*e*P	Pb	01 44 09.1	-0.6
JIME	Puerto Jimenez	1.54	123	*e*P	Pg	01 44 11.3	+0.3
VRLE	La Escondida,	1.56	332	*e*P	Pn	01 44 08.6	-0.3
PIRO	Carate, Puerto	1.61	128	P	Pg	01 44 12.8	+0.4
PIRO				S	Sg	01 44 32.6	-0.7
PIRO	Carate, Puerto	1.61	128	*e*P	Pg	01 44 11.7	-0.6
LCHIL	Los Chiles	1.63	357	*e*P	Pn	01 44 10.1	+0.3
CEUA	Cerro Uatsi, L	1.68	82	*e*P	Pg	01 44 12.3	-1.3
CDITO	Canoas	1.92	115	P	Pb	01 44 16.1	-0.1
CDITO				S	Sb	01 44 39.7	-0.4
CARN	Rivas	1.99	334	P	Pb	01 44 16.7	-0.7
CARN				S	Sg	01 44 44.0	-1.3
CARN	Rivas	1.99	334	*e*P	Pn	01 44 15.4	+0.7
RGM0	Gandoca	2.00	84	P	Pb	01 44 17.0	-0.6
RGM0				S	Sg	01 44 45.9	+0.1
RGM0	Gandoca	2.00	84	*e*P	Pb	01 44 17.5	-0.1
BRU2	Volcan	2.00	107	P	Pn	01 44 14.9	-0.2
BRU2				S	Sb	01 44 42.7	-0.1
BRU2	Volcan	2.00	107	*e*P	Pn	01 44 14.7	-0.4
CLLRA	Cordillera,	2.09	108	*e*P	Pn	01 44 15.5	-0.8
BQTLY	Boquete Panama	2.23	106	*e*P	Pn	01 44 18.9	+0.6
OMEN	Al SSO del Vol	2.32	335	P	Pb	01 44 21.2	-1.8
JAPN	Al SSO del Vol	2.35	334	P	Pb	01 44 22.2	-1.5
BGUAL	Bijagual, Pana	2.43	111	*e*P	Pn	01 44 20.9	+0.1
RBALA	Bur	2.50	102	*e*P	Pn	01 44 21.2	-0.5
ACON	Acoyapa	2.61	348	*e*P	Pn	01 44 23.6	+0.3
BLUN	Bluefields	2.73	18	P	Pn	01 44 26.1	+1.2
BLUN				S	Sn	01 45 00.1	+2.4
NANN	Nandasmo	2.92	330	P	Pb	01 44 30.9	-2.5
BOAB	BOACO BROADBAN	3.20	342	P	Pn	01 44 32.7	+1.3
BOAB				S	Sb	01 45 13.8	-3.3
SAPS	Ciudad Sandino	3.26	328	P	Pn	01 44 33.8	+1.6
SAPS				S	Sn	01 45 14.2	+3.2
CNGN	Cerro Negro	3.69	327	P	Pn	01 44 40.5	+2.2
MATN	Matagalpa	3.74	340	P	Pn	01 44 41.0	+2.1

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*NEIC **22** 01:50:13.7±1.1, 13.°19N±0.°04×143.°91E±0.°05, h10^{km}±1^{km}, mb4.3/10, Error ellipse: s-maj=9.0km s-min=5.6km az=233.0*

*IDC **22** 01:50:13.2±1.2, 13.°10N×143.°70E, h0^{km}, mb3.9/4, mbtmp3.9/4, MS3.2/3, Error ellipse: s-maj=36.0km s-min=18.8km az=140.0*

ISC 22 01:50:13.4±0.8, **13.°2N**±0.°1×**143.°86E**±0.°08, **h10**^{km}, **n25**, σ**1.s11**/20, **mb4.2**/10, **South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	1.06	68	Pn	Pg	01 50 33.7	-0.2
	54nm,0.3s,baz=213,slow=10.0,SNR=14						
GUMO				Sn	Sn	01 50 50.6	+1.3
	48nm,0.3s,baz=217,slow=20,SNR=5.5						
GUMO	Guam	1.06	68		Pg	01 50 32.8	-1.1
GUMO				Sn	Sb	01 50 48.4	+0.5
DPSS	Saipan	2.77	42	Pn	Pn	01 50 57.0	-1.0
DAV	Davao City (W)	18.98	253	LR	LR	01 59 58.3	
	comp=Z,65nm,20.4s,baz=102,slow=31						
H11N1	WAKE ISLAND Hy	23.01	71	T	T	02 19 17.8	
	baz=255						
H11N2	WAKE ISLAND Hy	23.02	71	T	T	02 19 12.7	
	baz=255						
H11N3	WAKE ISLAND Hy	23.03	71	T	T	02 19 14.8	
	baz=255						
MDJ	Mudanjiang	33.62	341	P	P	01 56 52.9	-1.1
MDJ				IAmb	IAmb	01 56 53.4	
	comp=Z,7.2nm,0.7s						
WB0	Warramunga Arr	34.04	196	P	P	01 56 52.8	-5.1
WB0				IAmb	IAmb	01 56 53.0	
	comp=Z,3.0nm,0.9s						
WR0	Warramunga Arr	34.19	196	P	P	01 56 59.0	-0.2
WR0				IAmb	IAmb	01 57 02.4	
	comp=Z,2.9nm,1.0s						
WR8	Warramunga Arr	34.19	196	P	P	01 56 58.4	-0.8
WR8				IAmb	IAmb	01 57 39.2	
	comp=Z,2.9nm,1.1s						
WB2	Warramunga Arr	34.22	196	P	P	01 56 59.0	-0.5
WB2				IAmb	IAmb	01 57 11.5	
	comp=Z,6.8nm,1.1s						
WRA	Warramunga Arr	34.22	196	P	P	01 56 59.1	-0.4
	comp=Z,1.1nm,0.7s,baz=18,slow=9.0,SNR=18						
	comp=Z,1.1nm,0.7s						
WRA	Warramunga Arr	34.22	196	P	P	01 56 58.7	-0.8
AS31	Alice Springs	37.89	195	P	P	01 57 31.4	+0.5
ASAR	Alice Springs	37.89	195	P	P	01 57 32.1	+1.1
	comp=Z,0.4nm,0.3s,baz=3.4,slow=6.4,SNR=2.9						
	comp=Z,0.4nm,0.3s						
KOUNC	Koumac, New Ca	39.08	149	P	P	01 57 41.1	+0.2
PETK	Petropavlovsk-	41.33	13	LR	LR	02 14 46.2	
	comp=Z,26nm,20.4s,baz=226,slow=36						
OUENC	Ouen Island, N	41.95	147	P	P	01 58 03.4	-1.2
KURK	Kurchatov	64.26	320	P	P	02 00 48.8	0.0
KURK				IAmb	IAmb	02 01 00.9	
	comp=Z,1.5nm,0.9s						
KURBB	Kurchatov Arra	64.30	320	P	P	02 00 50.3	+1.2
	comp=Z,0.7nm,0.2s,baz=102,slow=6.4,SNR=1.5						
	comp=Z,0.7nm,0.2s						
ABKAR	Akbulak array	76.18	318	P	P	02 02 02.5	+0.6
NVAR	Mina Array Bea	87.94	51	P	P	02 03 07.1	+2.9
	comp=Z,0.6nm,0.8s,baz=282,slow=5.8,SNR=4.0						
	comp=Z,0.6nm,0.8s						
NVAR	Mina Array Bea	87.94	51	P	P	02 03 03.5	-0.7
KBZ	Khabaz	88.75	315	LR	LR	02 47 14.3	
	comp=Z,12nm,19.3s,baz=342,slow=39						

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*NEIC **22** 03:33:39.6±1.3, 16.°45S±0.°09×174.°1W±0.°1, h77^{km}±7^{km}, mb4.4/8, Error ellipse: s-maj=16.8km s-min=12.9km az=103.0*

*IDC **22** 03:33:40.4±3.5, 16.°67S×174.°12W, h86^{km}±33^{km}, mb3.4/6, mbtmp3.8/7, Error ellipse: s-maj=35.2km s-min=22.9km az=133.0*

ISC 22 03:33:41.8±0.6, **16.°55S**±0.°09×**173.°95W**±0.°10, **h111**^{km}, **n24**, σ**1.s38**/25, **mb3.9**/10, **Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	3.36	39	P	Pn	03 34 33.5	+0.8
	26nm,0.3s,baz=203,slow=4.7,SNR=7.2						
AFI				S	Sn	03 35 08.9	-3.1
	214nm,0.3s,baz=234,slow=19,SNR=24						
AFI	Afiamalu	3.36	39		Pn	03 34 29.2	-3.5
AFI					Sn	03 35 09.0	-3.0
NIUE	Niue	4.58	124	Pn	Pn	03 34 48.6	-0.4
MARNC	Mare, Loyalty	17.73	251	P	P	03 37 39.9	-1.0
ARMA	Armidale	34.31	240	P	P	03 40 15.4	-2.5
ARMA				IAmb	IAmb	03 40 31.9	
	comp=Z,5.7nm,1.1s						
BBOO	Buckleboo	47.79	241	P	P	03 42 07.8	-0.3
BBOO				IAmb	IAmb	03 42 10.6	
	comp=Z,15nm,1.1s						
WR8	Warramunga Arr	48.92	258	P	P	03 42 16.6	-0.4
WR8				IAmb	IAmb	03 42 27.9	
	comp=Z,1.9nm,1.0s						
WB0	Warramunga Arr	49.04	258	P	P	03 42 17.8	-0.2
WRA	Warramunga Arr	49.08	258	P	P	03 42 17.6	-0.7
	comp=Z,0.2nm,0.5s,baz=95,slow=7.0,SNR=5.8						
	comp=Z,0.2nm,0.5s						
WRA	Warramunga Arr	49.08	258	P	P	03 42 18.2	0.0
ASAR	Alice Springs	49.26	253	P	P	03 42 19.2	-0.3
	comp=Z,3.4nm,0.7s,baz=88,slow=8.4,SNR=29						
	comp=Z,3.4nm,0.7s						
ASAR	Alice Springs	49.26	253	P	P	03 42 19.1	-0.5
MTN	Manton Dam	53.12	266	P	P	03 42 48.8	+0.3
MTN				IAmb	IAmb	03 43 05.9	
	comp=Z,5.3nm,1.1s						
VNDA	Vanda	62.19	186	P	P	03 43 51.4	+0.4
	comp=Z,0.6nm,0.6s,baz=359,slow=8.7,SNR=2.7						
	comp=Z,0.6nm,0.6s						
VNDA	Vanda	62.19	186	P	P	03 43 52.0	+1.0
MBWA	Marble Bar	62.54	254	P	P	03 43 54.3	0.0
QSPA	South Pole Qui	73.50	180	P	P	03 45 03.2	+0.9
	comp=Z,1.3nm,0.8s,baz=26,slow=1.4,SNR=5.3						
	comp=Z,1.3nm,0.8s						
QSPA	South Pole Qui	73.50	180	P	P	03 45 02.8	+0.6
PDAR	Pinedale Array	83.47	42	P	P	03 45 59.2	+1.8
	comp=Z,0.2nm,0.5s,baz=190,slow=4.5,SNR=3.8						
	comp=Z,0.2nm,0.5s						
PDAR	Pinedale Array	83.47	42	P	P	03 45 57.9	+0.5
ILAR	Eielson Array	83.67	11	P	P	03 46 00.1	+2.5
	comp=Z,0.3nm,0.5s,baz=212,slow=5.2,SNR=4.5						
	comp=Z,0.3nm,0.5s						
ILAR	Eielson Array	83.67	11	P	P	03 45 58.9	+1.3
BRTR	Keskin Array B	146.69	319	PKPbc	PKPab	03 53 12.5	0.0
	comp=Z,1.3nm,0.8s,baz=28,slow=3.7,SNR=6.9						
BRTR	Keskin Array B	146.69	319		PKPbc	03 53 11.9	+0.8

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*IDC **22** 03:38:10.2±6.1, 31.°70S×179.°88W, h196^{km}±47^{km}, mb4.0/3, mbtmp4.5/4, Error ellipse: s-maj=52.8km s-min=21.9km az=46.0*

*NEIC **22** 03:38:13.0±1.2, 31.°96S±0.°08×179.°9E±0.°1, h210^{km}±10^{km}, mb4.1/12, Error ellipse: s-maj=16.1km s-min=11.5km az=83.0*

*WEL **22** 03:38:12.8±0.5, 32°S±7°×18°0W±1°5, h12^{km}, M4.7/12, mB5.0/7, ML5.0/14, MLv5.0/12, Mw(mB)4.3/7, Error ellipse: s-maj=21.7km s-min=3.1km az=114.0, confirmed*

ISC 22 03:38:10.3±0.7, **31.°79S**±0.°06×**179.°9W**±0.°1, **h200**^{km}, **n63**, σ**2.s35**/86, **mb4.1**/11, **3C**, **Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GLKZ	Green Lake	3.06	35	P	Pn	03 39 00.2	-0.4
GLKZ				S	Sn	03 39 40.7	+0.8
GLKZ				AML	AML		
GLKZ				AML	AML		
RAO	Raoul Island	3.07	35	Pn	Pn	03 39 06.4	+5.7
RAO				Sn	Sn	03 39 41.1	+0.9
RIZ	Raoul Island	3.07	35	S	Sn	03 39 41.4	+1.3
MXZ	Matakaoa Point	5.94	194	Pn	Pn	03 39 35.0	-1.7
MXZ				Sn	Sn	03 40 44.2	-0.9
WMGZ	Waiomatatini S	6.17	192	P	Pn	03 39 41.2	+1.6
WMGZ				S	Sn	03 40 54.2	+3.8
WMGZ				AML	AML		
WMGZ				AML	AML		
PKGZ	Pakihiroa	6.28	195	P	Pn	03 39 44.6	+3.5
PKGZ				S	Sn	03 40 53.3	+0.2
PKGZ				AML	AML		
PKGZ				AML	AML		
RUGZ	Raukumara Rang	6.47	197	P	Pn	03 39 46.5	+2.9
RUGZ				S	Sn	03 40 52.5	-5.2
RUGZ				AML	AML		
RUGZ				AML	AML		
TWGZ	Tauwhareparae	6.60	194	S	Sn	03 41 02.7	+2.1
CNGZ	Carnagh Statio	6.85	192	S	Sn	03 41 08.4	+1.9
TKGZ	Te Karaka	6.88	195	P	Pn	03 39 53.2	+4.4
TKGZ				S	Sn	03 41 06.2	-0.9
TKGZ				AML	AML		
TKGZ				AML	AML		
URZ	Urewera	6.90	200	P	Pn	03 39 51.9	+2.9
	8.1nm,0.3s,baz=14,slow=19,SNR=14						
URZ				S	Sn	03 41 07.3	-0.2
	21nm,0.3s,baz=40,slow=19,SNR=12						
URZ	Urewera	6.90	200	P	Pn	03 39 52.4	+3.4
URZ				S	Sn	03 41 06.1	-1.5
URZ				AML	AML		
URZ				AML	AML		
TOZ	Tahuroa Road	7.02	211	Pn	Pn	03 39 51.6	+0.9
RAGZ	Rawiri	7.04	197	P	Pn	03 39 55.2	+4.2
RAGZ				S	Sn	03 41 14.8	+3.8
RAGZ				AML	AML		
RAGZ				AML	AML		
RIGZ	Rimuhau	7.16	195	P	Pn	03 39 55.9	+3.5
RIGZ				S	Sn	03 41 13.2	-0.5
RIGZ				AML	AML		
RIGZ				AML	AML		
MUGZ	Murupara	7.20	201	S	Sn	03 41 14.3	-0.3
RTZ	Ruatahuna	7.27	200	Pn	Pn	03 39 53.8	-0.1
PRGZ	Paritu Road	7.34	193	P	Pn	03 39 59.0	+4.1
PRGZ				S	Sn	03 41 15.6	-2.4
PRGZ				AML	AML		
PRGZ				AML	AML		
MTHZ	Maungataniwha	7.53	200	P	Pn	03 40 00.9	+3.7
MTHZ				S	Sn	03 41 20.6	-1.8
MTHZ				AML	AML		
MTHZ				AML	AML		
MHGZ	Mahia Peninsul	7.56	193	P	Pn	03 40 00.2	+2.5
MHGZ				S	Sn	03 41 17.9	-5.2
MHGZ				AML	AML		
MHGZ				AML	AML		
BKZ	Black Stump Fm	7.92	201	P	Pn	03 40 05.1	+2.7
BKZ				AML	AML		
TMVZ	Te Maari	8.13	205	P	Pn	03 40 09.6	+4.3
TMVZ				S	Sn	03 41 38.8	+1.9
TMVZ				AML	AML		
TMVZ				AML	AML		
ETVZ	East Tongariro	8.15	205	P	Pn	03 40 09.3	+3.8
ETVZ				S	Sn	03 41 39.0	+1.7
ETVZ				AML	AML		
ETVZ				AML	AML		
OTVZ	Oturere	8.19	205	P	Pn	03 40 10.0	+4.0
OTVZ				AML	AML		
SNVZ	South Ngauruho	8.22	205	P	Pn	03 40 10.4	+4.0

SNVZ				AML	AML		
SNVZ				AML	AML		
NGZ	**Ngauruhoe**	**8.22**	**205**	P	**Pn**	**03 40 09.4**	**+3.0**
NGZ				S	**Sn**	**03 41 41.2**	**+2.2**
FWVZ	**Far West T-bar**	**8.31**	**205**	P	**Pn**	**03 40 11.0**	**+3.3**
FWVZ				S	**Sn**	**03 41 43.1**	**+1.8**
FWVZ				AML	AML		
WHVZ	**Whangaehu Hut**	**8.32**	**205**	P	**Pn**	**03 40 12.2**	**+4.4**
WHVZ				S	**Sn**	**03 41 42.4**	**+0.9**
WHVZ				AML	AML		
BHHZ	**Black Hill Sta**	**8.35**	**202**	P	**Pn**	**03 40 09.5**	**+1.5**
BHHZ				S	**Sn**	**03 41 40.9**	**-1.0**
MOVZ	**Moawhango**	**8.37**	**204**	P	**Pn**	**03 40 09.5**	**+1.1**
MOVZ				S	**Sn**	**03 41 41.8**	**-0.8**
KRHZ	**Kereru**	**8.39**	**200**	P	**Pn**	**03 40 10.8**	**+2.3**
KRHZ				S	**Sn**	**03 41 39.9**	**-3.1**
KAHZ	**Kahuranaki**	**8.40**	**197**	P	**Pn**	**03 40 11.0**	**+2.4**
KAHZ				S	**Sn**	**03 41 37.7**	**-5.4**
PXZ	**Pawanui**	**8.63**	**197**	P	**Pn**	**03 40 12.6**	**+1.1**
PXZ				S	**Sn**	**03 41 44.9**	**-3.5**
BFZ	**Birch Farm**	**9.40**	**198**	Pn	**Pn**	**03 40 22.1**	**+0.5**
MRZ	**Mangatainoka R**	**9.57**	**201**	Pn	**Pn**	**03 40 24.1**	**+0.4**
MSWZ	**Moikau Station**	**10.36**	**201**	Pn	**Pn**	**03 40 33.0**	**-1.1**
BHW	**Baring Head**	**10.47**	**202**	Pn	**Pn**	**03 40 34.4**	**-1.0**
TCW	**Tory Channel**	**10.49**	**205**	Pn	**Pn**	**03 40 35.4**	**-0.4**
PLWZ	**Palliser**	**10.50**	**200**	Pn	**Pn**	**03 40 35.2**	**-0.7**
TUWZ	**Tuamarina**	**10.80**	**205**	Pn	**Pn**	**03 40 38.2**	**-1.6**
MQZ	**McQueen's Vall**	**13.26**	**204**	Pn	**Pn**	**03 41 09.6**	**-1.2**
MSVF	**Nonsavu**	**14.11**	**352**	Pn	**P**	**03 41 23.1**	**-0.5**
ODZ	**Otahua Downs**	**15.14**	**206**	P	**Pn**	**03 41 32.7**	**-1.4**
WKZ	**Wanaka**	**15.62**	**210**	P	**P**	**03 41 38.2**	**-1.7**
EIDS	**Eidsvold**	**26.20**	**277**	P	**P**	**03 43 26.0**	**-0.6**
EIDS				IAmb	IAmb	03 43 38.8	
	comp=Z,10nm,1.4s						
BBOO	**Buckleboo**	**37.02**	**256**	P	**P**	**03 44 59.8**	**-1.1**
AS31	**Alice Springs**	**41.41**	**269**	P	**P**	**03 45 37.3**	**0.0**
AS31				IAmb	IAmb	03 45 38.7	
	comp=Z,1.9nm,0.7s						
ASAR	**Alice Springs**	**41.41**	**269**	P	**P**	**03 45 38.0**	**+0.7**
	comp=Z,5.0nm,0.5s,baz=110,slow=8.3,SNR=24						
	comp=Z,5.0nm,0.5s						
ASAR	**Alice Springs**	**41.41**	**269**	P	**P**	**03 45 36.7**	**-0.6**
WR8	**Warramunga Arr**	**42.39**	**275**	P	**P**	**03 45 45.5**	**+0.3**
WR8				IAmb	IAmb	03 45 46.6	
	comp=Z,8.7nm,0.8s						
WRA	**Warramunga Arr**	**42.53**	**275**	P	**P**	**03 45 47.0**	**+0.6**
	comp=Z,8.3nm,0.5s,baz=115,slow=8.2,SNR=114						
	comp=Z,8.3nm,0.5s						
WRA	**Warramunga Arr**	**42.53**	**275**	P	**P**	**03 45 46.1**	**-0.3**
WB0	**Warramunga Arr**	**42.56**	**275**	P	**P**	**03 45 46.8**	**+0.2**
PATS	**Pohnpei**	**43.67**	**328**	P	**P**	**03 45 57.5**	**+2.1**
MTN	**Manton Dam**	**48.60**	**281**	P	**P**	**03 46 34.2**	**+0.3**
MTN				IAmb	IAmb	03 46 51.0	
	comp=Z,11nm,1.4s						
KNRA	**Kununurra**	**49.19**	**277**	P	**P**	**03 46 38.4**	**0.0**
KNRA				IAmb	IAmb	03 46 41.6	
	comp=Z,10nm,1.2s						
FITZ	**Fitzroy Crossi**	**50.73**	**272**	P	**P**	**03 46 50.0**	**0.0**
QSPA	**South Pole Qui**	**58.33**	**180**	P	**P**	**03 47 45.2**	**+1.2**
	comp=Z,1.5nm,0.6s,baz=78,slow=0.6,SNR=12						
	comp=Z,1.5nm,0.6s						
QSPA	**South Pole Qui**	**58.33**	**180**	P	**P**	**03 47 44.9**	**+0.8**
QSPA				IAmb	IAmb	03 47 45.6	
	comp=Z,5.2nm,1.2s						
VNA3	**Neumayer Olymp**	**77.03**	**177**	⇑P	**P**	**03 49 40.2**	**-0.4**
	comp=Z,4.3nm,0.8s						
VNA2	**Neumayer--Watz**	**77.44**	**177**	⇑P	**P**	**03 49 42.8**	**-0.1**
	comp=Z,2.2nm,0.5s,baz=184,slow=5.5						
VNA1	**Neumayer--Stat**	**77.68**	**177**	⇑P	**P**	**03 49 44.2**	**0.0**
	comp=Z,2.5nm,0.8s						
FINES	**FINESS Array B**	**145.84**	**338**	PKPbc	**PKPdf**	**03 57 23.9**	**-0.3**
	comp=Z,2.8nm,0.6s,baz=43,slow=4.7,SNR=17						

*NEIC **22** 03:46:51.5±2.0, 35°.70N±0°.04×77°.8E±0°.1, h62^{km}±11^{km}, mb4.1/5, Error ellipse: s-maj=13.2km s-min=3.4km az=64.0*

*IDC **22** 03:46:53.1±6.0, 35°.86N×77°.48E, h78^{km}±45^{km}, mb3.6/6, mbtmp3.9/11, ML3.5/5, MS3.2/3, Error ellipse: s-maj=43.5km s-min=24.1km az=176.0*

*NNC **22** 03:47:01.2±4.5, 36°.26N×77°.32E, h279^{km}±77^{km}, mb2.5, mpv3.6, Error ellipse: s-maj=41.8km s-min=27.4km az=155.0*

ISC 22 03:46:53.2±0.6**, 35°.74N**±0°.04×**77°.76E**±0°.06**, h100**^{km}**, n52, σ2^{s}.21**/63**, mb4.2**/6**, 6C-4D, Eastern Kashmir**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ALCI	**Alchi Leh**	**1.59**	**197**	*e*P	**Pn**	**03 47 23.1**	**+2.0**
ALCI				*e*S	**Sn**	**03 47 41.9**	**-0.1**
ALCI				IAML		03 47 44.4	
	comp=E,4μm,0.2s						
ALCI				IAML		03 47 44.5	
	comp=N,3μm,0.1s						
HNLY	**HANLEY**	**3.12**	**161**	*e*P	**Pn**	**03 47 42.8**	**+1.7**
HNLY				*e*S	**Sn**	**03 48 16.3**	**-1.6**
HNLY				IAML		03 48 24.1	
	comp=N,602nm,0.2s						
HNLY				IAML		03 48 27.5	
	comp=E,664nm,0.4s						
DHRM	**DHARAMSHALA**	**3.68**	**200**	*e*P	**Pn**	**03 47 50.8**	**+2.4**
DHRM				*e*S	**Sn**	**03 48 30.8**	**-0.3**
DHRM				IAML		03 48 35.5	
	comp=N,1μm,0.0s						
DHRM				IAML		03 48 36.2	
	comp=E,1μm,0.1s						
JMU	**Jammu**	**3.82**	**220**	*e*P	**Pn**	**03 47 53.0**	**+3.0**
JMU				*e*S	**Sn**	**03 48 33.8**	**-0.2**
JMU				IAML		03 48 34.6	
	comp=E,976nm,0.3s						
KSH2	**Kashi**	**3.82**	**333**	Pn	**Pn**	**03 47 49.3**	**-0.8**
KSH2				Sn	**Sn**	**03 48 32.5**	**-1.7**
KSH2				smax	smax		
	comp=N,130nm,0.6s						
KSH2				smax	smax		
	comp=E,130nm,0.6s						
NIL	**Nilore**	**4.26**	**242**		**Pn**	**03 47 54.1**	**-1.8**
BHK	**Bhakra**	**4.48**	**195**	*e*S	**Sn**	**03 48 46.7**	**-3.3**
BHK				IAML		03 48 51.0	
	comp=E,539nm,0.2s						
BHK				IAML		03 48 53.0	
	comp=N,561nm,0.0s						
SMLA	**Simla**	**4.62**	**186**	*e*P	**Pn**	**03 48 01.3**	**+0.5**
SMLA				*e*S	**Sn**	**03 48 51.9**	**-1.5**
SMLA				IAML		03 48 56.0	
	comp=N,257nm,0.4s						
SMLA				IAML		03 48 56.5	
	comp=E,226nm,0.3s						
NRN	**Naryn**	**5.85**	**347**		**Pn**	**03 48 16.2**	**-1.5**
TARG	**Taragay, Kyrgy**	**5.98**	**0**		**Pn**	**03 48 17.9**	**-1.7**
KDJ	**Kajisay**	**6.40**	**356**	Pn	**Pn**	**03 48 23.8**	**-1.3**
BOOM	**Boomskoye usch**	**6.89**	**349**	Pn	**Pn**	**03 48 31.1**	**-0.6**
AAK	**Ala-Archa**	**7.34**	**341**	P	**Pn**	**03 48 35.4**	**-2.4**
	comp=E,0.5nm,0.3s,baz=217,slow=5.1,SNR=2.6						
AAK				S	**Sn**	**03 49 54.2**	**-5.4**
	comp=E,2.5nm,0.4s,baz=167,slow=18,SNR=1.8						
	comp=E,1.1nm,0.3s						
AAK				AML	AML		
AAK	**Ala-Archa**	**7.34**	**341**	⇑P	**Pn**	**03 48 40.1**	**+2.3**
	comp=E,3.4nm,1.1s						
AAK				⇑S	**Sn**	**03 50 00.2**	**+0.6**
	comp=E,6.0nm,1.1s						
PDGK	**Podgornoye**	**7.70**	**9**	⇑P	**Pn**	**03 48 42.9**	**+0.3**
	comp=E,3.7nm,0.5s						
PDGK				⇑S	**Sn**	**03 50 08.8**	**+0.6**
	comp=E,13nm,0.7s						
PDGK	**Podgornoye**	**7.70**	**9**		**Pn**	**03 48 42.3**	**-0.4**
DANN	**Dangsing**	**8.95**	**144**	Pn	**Pn**	**03 49 00.1**	**+0.1**
	baz=150,slow=0.0						
DANN				Sn	**Sn**	**03 50 32.3**	**-6.9**
	comp=E,23nm,0.3s,baz=150,slow=0.0						
DANN				AML	AML		
KK31	**Karatay Array**	**9.25**	**325**	⇓P	**Pn**	**03 49 01.5**	**-2.1**
	comp=E,0.5nm,0.2s,baz=143,slow=13,SNR=8.5						
KK31				⇓S	**Sn**	**03 50 38.3**	**-7.4**
	comp=E,1.7nm,0.4s,baz=149,slow=24,SNR=4.3						
KKAR	**Karatay Array**	**9.25**	**325**	Pn	**Pn**	**03 49 01.1**	**-2.5**
KKN	**Kakani**	**10.18**	**139**	Pn	**Pn**	**03 49 16.8**	**+0.2**
	baz=145,slow=0.0						
KKN				Sn	Sn	03 50 58.2	-11
	comp=E,7.8nm,0.2s,baz=145,slow=0.0						
KKN				AML	AML		
DMN	**Daman**	**10.23**	**140**	Pn	**Pn**	**03 49 16.1**	**-1.3**
	baz=146,slow=0.0						
DMN				Sn	Sn	03 51 01.3	-9.0
	comp=E,14nm,0.3s,baz=146,slow=0.0						
DMN				AML	AML		
PKIN	**Phulchoki**	**10.41**	**139**	Pn	**Pn**	**03 49 19.1**	**-0.7**
	baz=145,slow=0.0						
PKIN				Sn	Sn	03 51 04.1	-11
	comp=E,11nm,0.3s,baz=145,slow=0.0						
PKIN				AML	AML		
PKI	**Pulchoki**	**10.43**	**139**	Pn	**Pn**	**03 49 19.5**	**-0.5**
	baz=145,slow=0.0						
PKI				Sn	Sn	03 51 04.7	-10
	comp=E,12nm,0.4s,baz=145,slow=0.0						
PKI				AML	AML		
EVN	**Everest**	**10.93**	**133**	Pn	**Pn**	**03 49 24.3**	**-2.8**
WMQ	**Urumqi**	**11.11**	**40**	*e*P	**Pn**	**03 49 29.5**	**+0.5**
MAKZ	**Makanchi**	**11.50**	**15**	⇓P	**Pn**	**03 49 34.9**	**+0.8**
	comp=E,3.8nm,0.5s						
MAKZ				⇓S	**Sn**	**03 51 36.6**	**-4.0**
	comp=E,1.6nm,0.7s						
MAKZ	**Makanchi**	**11.50**	**15**		**Pn**	**03 49 34.8**	**+0.6**
MK31	**Makanchi Array**	**11.56**	**16**	⇑P	**Pn**	**03 49 34.9**	**0.0**
	comp=E,0.4nm,0.3s,baz=198,slow=13,SNR=16						
MK31				⇑S	**Sn**	**03 51 39.4**	**-2.4**
	comp=E,1.1nm,0.6s,baz=196,slow=24,SNR=7.6						
MKAR	**Makanchi Array**	**11.56**	**16**	P	**Pn**	**03 49 35.0**	**+0.1**
	comp=E,0.7nm,0.3s,baz=200,slow=13,SNR=17						
MKAR				S	**Sn**	**03 51 39.8**	**-2.1**
	comp=E,1.6nm,0.5s,baz=194,slow=30,SNR=6.0						
MKAR				LR	LR	03 54 18.3	
	comp=E,44nm,19.1s,baz=18,slow=39						
	comp=E,1.2nm,0.3s						
MKAR				AML	AML		
MKAR	**Makanchi Array**	**11.56**	**16**		**Pn**	**03 49 32.9**	**-2.0**
KURBB	**Kurchatov Arra**	**14.89**	**2**	P	**Pn**	**03 50 18.6**	**+0.3**
	comp=E,0.2nm,0.3s,baz=191,slow=11,SNR=11						
	comp=E,1.4nm,0.7s						
KURBB				AML	AML		
KURK	**Kurchatov**	**14.98**	**2**		**P**	**03 50 22.9**	**+0.4**
KURK				IAmb	IAmb	03 50 25.4	
	comp=Z,3.5nm,0.6s						
BVAR	**Borovoye Array**	**18.05**	**346**	P	**Pn**	**03 50 56.8**	**-0.6**
	comp=Z,0.1nm,0.3s,baz=160,slow=12,SNR=21						
	comp=Z,6.3nm,0.6s						
BVAR				AML	AML		
BORK	**Borovoye**	**18.09**	**345**		**Pn**	**03 50 57.6**	**-0.1**
BORK				IAmb	IAmb	03 50 58.8	
	comp=Z,8.5nm,0.9s						
ABKAR	**Akbulak array**	**18.78**	**321**	P	**Pn**	**03 51 06.0**	**-0.1**
ZALV	**Zalesovo Beam**	**18.87**	**13**	P	**P**	**03 51 05.9**	**+0.5**
	comp=Z,0.6nm,0.3s,baz=199,slow=9.6,SNR=9.7						
	comp=Z,1.9nm,0.3s						
ZALV				AML	AML		
ZALV	**Zalesovo Beam**	**18.87**	**13**	P	**Pn**	**03 51 06.8**	**-0.2**
AKTO	**Aktyubinsk**	**20.49**	**322**	P	**P**	**03 51 21.7**	**-1.3**
	comp=Z,1.5nm,0.4s,baz=116,slow=13,SNR=7.0						
	comp=Z,1.5nm,0.4s						
SONM	**Songino Array**	**24.39**	**51**	P	**P**	**03 52 04.9**	**+2.7**
	comp=Z,2.8nm,0.8s,baz=251,slow=10,SNR=10						
	comp=Z,2.8nm,0.8s						
SONM	**Songino Array**	**24.39**	**51**	P	**P**	**03 52 02.8**	**+0.6**
HHC	**Hu-ho-hao-te**	**26.91**	**69**	*e*P	**P**	**03 52 26.8**	**+1.8**
HHC				pmax	pmax		
	comp=Z,8.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,39nm,4.9s						
KIRV	**Kirov**	**29.50**	**330**	LR	LR	04 04 27.3	
	comp=Z,104nm,20.5s,baz=156,slow=36						
BRTR	**Keskin Array B**	**34.86**	**290**	P	**P**	**03 53 37.8**	**+2.9**
FINES	**FINESS Array B**	**41.21**	**325**	P	**P**	**03 54 28.0**	**+0.3**
	comp=Z,3.6nm,0.8s,baz=120,slow=9.6,SNR=8.1						
	comp=Z,3.6nm,0.8s						
FINES	**FINESS Array B**	**41.21**	**325**	P	**P**	**03 54 28.8**	**+1.1**
JNU	**Nakatsue**	**43.45**	**77**	LR	LR	04 15 53.9	
	comp=Z,44nm,18.9s,baz=64,slow=40						
ARCES	**ARCESS Array B**	**43.99**	**336**	P	**P**	**03 54 51.6**	**+1.5**
	comp=Z,3.7nm,0.9s,baz=106,slow=8.9,SNR=5.4						
	comp=Z,3.7nm,0.9s						
ARCES	**ARCESS Array B**	**43.99**	**336**	P	P	03 54 54.9	+4.8
SUMG	**Summit**	**63.50**	**342**	P	**P**	**03 57 16.4**	**+3.6**
SUMG				IAmb	IAmb	03 57 51.9	
	comp=Z,8.9nm,1.5s						
TORD	**Torodi Ar. Bea**	**71.20**	**273**	P	**P**	**03 58 01.8**	**+0.1**
	comp=Z,0.3nm,0.5s,baz=55,slow=5.7,SNR=4.1						
	comp=Z,0.3nm,0.5s						
ILAR	**Eielson Array**	**73.90**	**18**	P	**P**	**03 58 18.4**	**+1.5**
	comp=Z,0.4nm,0.6s,baz=328,slow=5.2,SNR=5.2						
	comp=Z,0.4nm,0.6s						
ILAR	**Eielson Array**	**73.90**	**18**	P	**P**	**03 58 19.1**	**+2.2**

*NNC **22** 03:52:00.2±1.7, 43°.98N×84°.96E, h0^{km}, mb3.6, mpv3.3, Error ellipse: s-maj=13.9km s-min=6.1km az=130.0*

*SOME **22** 03:52:00.6, 44°.00N×85°.00E, h15^{km}*

ISC 22 03:52:02.6±2.7**, 44°.0N**±0°.1×**85°.2E**±0°.1**, h10**^{km}**, n17, σ1^{s}.96**/24**, 6C-2D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZSN	**Zaisan**	**3.44**	**356**	Pg	**Pb**	**03 53 03.5**	**0.0**
	6.9nm,0.2s						
ZSN				Lg	Lg	03 53 49.3	
	33nm,0.3s						
ZSN	**Zaisan**	**3.44**	**356**	*e*P	**Pb**	**03 53 03.8**	**+0.2**
	6.9nm,0.2s						
ZSN				*e*S	**Sb**	**03 53 49.3**	**+3.9**
	33nm,0.3s						
MK31	**Makanchi Array**	**3.45**	**324**	⇓Pn	**Pn**	**03 52 53.8**	**-2.6**
	0.4nm,0.3s,baz=233,slow=16,SNR=58						
MK31				⇑Pg	**Pb**	**03 53 02.5**	**-1.3**
	2.2nm,0.4s,baz=138,slow=16,SNR=6.7						
MK31				⇓Lg	Lg	03 53 48.9	
	24nm,0.7s,baz=141,slow=32,SNR=17						
MAKZ	**Makanchi**	**3.60**	**322**	⇑Pn	**Pn**	**03 52 56.0**	**-2.4**
	1.0nm,0.4s						
MAKZ				⇑Pg	**Pb**	**03 53 04.9**	**-1.4**
	3.5nm,0.5s						
MAKZ				⇑Lg	Lg	03 53 52.9	
	19nm,0.4s						
DJR	**Jarkent**	**3.91**	**276**	Pg	**Pb**	**03 53 09.7**	**-1.9**
	7.5nm,0.5s						
DJR				Lg	Lg	03 53 59.8	
	9.0nm,0.3s						
DJR	**Jarkent**	**3.91**	**276**	*e*P	**Pb**	**03 53 09.7**	**-1.9**
	7.5nm,0.5s						
DJR				*e*S	**Sb**	**03 53 59.8**	**+0.7**
	9.0nm,0.3s						
PDGK	**Podgornoye**	**4.21**	**263**	⇑Pg	Pb	03 53 13.1	-3.6
	7.0nm,0.7s						
PDGK				⇑Lg	Lg	03 54 05.4	
	17nm,0.6s						
SHLS	**Shalkode**	**4.26**	**260**	Pg	**Pn**	**03 53 08.4**	**+0.7**
	8.6nm,0.5s						
SHLS				Lg	Lg	03 53 57.1	
	27nm,0.5s						
SHLS	**Shalkode**	**4.26**	**260**	*e*P	**Pn**	**03 53 08.4**	**+0.7**
	8.6nm,0.5s						
SHLS				*e*S	**Sn**	**03 53 57.1**	**-0.5**
	27nm,0.5s						
KNOS	**Konyrlen**	**4.35**	**277**	Pg	**Pb**	**03 53 18.1**	**-1.1**
	3.8nm,0.2s						
KNOS				Lg	Lg	03 54 13.4	
	15nm,0.4s						
UZB	**Uzynbulak**	**4.58**	**261**	Pg	**Pb**	**03 53 21.3**	**-1.8**
	4.0nm,0.5s						
UZB				Lg	Lg	03 54 19.2	
	9.5nm,0.5s						
UZB	**Uzynbulak**	**4.58**	**261**	*e*P	**Pb**	**03 53 21.3**	**-1.8**
	4.0nm,0.5s						
UZB				*e*S	**Sb**	**03 54 19.2**	**+0.8**
	9.5nm,0.5s						
KPKS	**Kokpek**	**4.76**	**266**	Pg	**Pb**	**03 53 25.8**	**-0.4**
	0.2nm,0.2s						
KPKS				Lg	Lg	03 54 26.5	
	11nm,0.3s						
KPKS	**Kokpek**	**4.76**	**266**	*e*P	**Pb**	**03 53 25.8**	**-0.4**
	0.2nm,0.2s						
KPKS				*e*S	**Sb**	**03 54 26.5**	**+3.0**
	11nm,0.3s						
BLB	**Baldybastay**	**4.85**	**273**	Pg	**Pb**	**03 53 26.2**	**-1.6**
	6.6nm,0.3s						
BLB				Lg	Lg	03 54 27.3	
	17nm,0.5s						
ARXS	**Arharly**	**5.32**	**275**	Pg	**Pb**	**03 53 35.9**	**+0.2**
	4.2nm,0.5s						
ARXS				Lg	Lg	03 54 44.0	
	16nm,0.4s						
ARXS	**Arharly**	**5.32**	**275**	*e*P	**Pb**	**03 53 35.9**	**+0.2**
	4.2nm,0.5s						
ARXS				*e*S	**Sb**	**03 54 44.0**	**+4.4**
	16nm,0.4s						

IDC 22 04:00:05.1±3.9**, 5°.99S**×**151°.58E, h0**^{km}**, mb3.3**/2**, mbtmp3.3**/2**, MS3.3**/3**, Error ellipse: s-maj=159.7km s-min=50.8km az=120.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SIJI	**Sorong**	**20.90**	**283**	LR	LR	04 15 00.5	
	comp=Z,21nm,19.3s,baz=62,slow=43						
WRA	**Warramunga Arr**	**21.75**	**229**	P	P	04 04 58.0	-0.5
	0.4nm,0.5s,baz=54,slow=11,SNR=8.0						
	0.4nm,0.5s						
ASAR	**Alice Springs**	**24.46**	**222**	P	P	04 05 26.4	+0.4
	0.9nm,0.8s,baz=55,slow=10,SNR=8.0						
	0.9nm,0.8s						
RAO	**Raoul Island**	**36.94**	**132**	LR	LR	04 17 42.4	
	comp=Z,78nm,20.8s,baz=162,slow=29						
HILR	**Hailar Array B**	**61.86**	**337**	LR	LR	04 36 20.4	
	comp=Z,70nm,19.5s,baz=200,slow=35						
TORD	**Torodi Ar. Bea**	**149.49**	**286**	PKPbc	PKPbc	04 19 56.9	-0.6
	0.7nm,0.6s,baz=63,slow=3.7,SNR=5.6						

*IDC **22** 04:02:06.1±0.8, 18°.37N×147°.36E, h0^{km}, mb4.2/16, mbtmp4.2/18, ML4.1/2, MS3.3/9, Error ellipse: s-maj=26.5km s-min=13.5km az=91.0*

*NEIC **22** 04:02:12.7±1.1, 18°.34N±0°.07×147°.2E±0°.2, h43^{km}±8^{km}, mb4.3/13, Error ellipse: s-maj=23.2km s-min=2.2km az=114.0*

ISC 22 04:02:11.4±0.8**, 18°.34N**±0°.06×**147°.2E**±0°.2**, h35**^{km}**, n52, σ0^{s}.87**/45**, mb4.3**/20**, MS3.3**/8**, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DPSS	**Saipan**	**3.36**	**204**		**Pn**	**04 03 03.1**	**+1.5**
DPSS				Sn	**Sn**	**04 03 40.7**	**+0.4**
GUMO	**Guam**	**5.23**	**206**	Pn	**Pn**	**04 03 29.3**	**+2.1**
	35nm,0.3s,baz=336,slow=15,SNR=3.5						
GUMO				Sn	**Sn**	**04 04 23.1**	**-3.2**
	20nm,0.3s,baz=7.2,slow=22,SNR=1.6						
GUMO				LR	LR	04 05 18.6	
	comp=Z,122nm,18.1s,baz=15,slow=36						
	70nm,0.4s						
GUMO				AML	AML		
GUMO	**Guam**	**5.23**	**206**		**Pn**	**04 03 27.5**	**+0.3**
H11S3	**WAKE ISLAND Hy**	**18.50**	**86**	T	T	04 25 23.5	
	baz=275,slow=74,SNR=16						
H11S1	**WAKE ISLAND Hy**	**18.51**	**86**	T	T	04 25 20.5	
	baz=275,slow=74,SNR=17						
H11S2	**WAKE ISLAND Hy**	**18.51**	**86**	T	T	04 25 21.9	
	baz=275,slow=74,SNR=12						
H11N1	**WAKE ISLAND Hy**	**18.67**	**83**	T	T	04 25 40.3	
	baz=266						
H11N2	**WAKE ISLAND Hy**	**18.68**	**83**	T	T	04 25 32.2	
	baz=266						
H11N3	**WAKE ISLAND Hy**	**18.69**	**83**	T	T	04 25 36.2	
	baz=266						
JGF	**Kuroka**	**19.28**	**335**		**Pn**	**04 06 34.4**	**0.0**
JGF				IAmb	IAmb	04 06 41.2	
	comp=Z,14nm,0.8s						
JMN	**Monobe**	**19.41**	**325**	P	**P**	**04 06 34.5**	**-0.2**
JMN				IAmb	IAmb	04 07 00.9	
	comp=Z,47nm,1.3s						
MJAR	**Matsushiro Arr**	**19.79**	**338**	P	**P**	**04 06 38.9**	**+0.2**
	comp=Z,0.1nm,0.3s,baz=168,slow=11,SNR=6.3						
	comp=Z,2.1nm,0.6s						
MJAR				AML	AML		
MJAR	**Matsushiro Arr**	**19.79**	**338**	P	**P**	**04 06 38.6**	**-0.2**
MAJO	**Matsushiro**	**19.79**	**338**	P	**P**	**04 06 38.9**	**+0.1**
MAJO				IAmb	IAmb	04 07 04.6	
	comp=Z,5.8nm,0.7s						
JAY	**Jayapura**	**21.69**	**198**	P	**P**	**04 06 60.0**	**+0.5**
	comp=Z,11nm,0.9s,baz=1.3,slow=9.7,SNR=3.8						
JAY				LR	LR	04 16 23.9	
	comp=Z,51nm,18.7s,baz=244,slow=39						
	comp=Z,11nm,0.9s						
KSRS	**Korea Array**	**25.46**	**322**	P	**P**	**04 07 37.0**	**+0.9**
	comp=Z,4.8nm,0.8s,baz=147,slow=8.8,SNR=18						
KSRS				LR	LR	04 18 12.6	
	comp=Z,67nm,18.7s,baz=130,slow=38						
	comp=Z,4.8nm,0.8s						
USRK	**Ussuriysk Ar.**	**28.77**	**337**	P	**P**	**04 08 06.7**	**+0.8**
	comp=Z,1.2nm,0.6s,baz=123,slow=5.3,SNR=2.1						
	comp=Z,1.2nm,0.6s						
USRK	**Ussuriysk Ar.**	**28.77**	**337**	P	**P**	**04 08 05.7**	**-0.2**
HNR	**Honiara**	**30.33**	**154**	LR	LR	04 18 44.0	
	comp=Z,85nm,21.7s,baz=48,slow=33						
PETK	**Petropavlovsk-**	**35.65**	**11**	LR	LR	04 22 22.2	
	comp=Z,22nm,19.6s,baz=235,slow=34						
WB0	**Warramunga Arr**	**39.90**	**199**	P	**P**	**04 09 42.0**	**-0.2**
WB0				IAmb	IAmb	04 09 42.9	
	comp=Z,6.2nm,1.0s						
WR8	**Warramunga Arr**	**40.05**	**199**	P	**P**	**04 09 42.9**	**-0.5**
WR8				IAmb	IAmb	04 10 13.0	
	comp=Z,11nm,1.4s						
WRA	**Warramunga Arr**	**40.08**	**199**	P	**P**	**04 09 43.2**	**-0.5**
	comp=Z,3.5nm,0.9s,baz=20,slow=9.1,SNR=12						
WRA				PcP	**PcP**	**04 11 47.3**	**-0.9**
	comp=Z,0.5nm,0.7s,baz=26,slow=3.4,SNR=3.0						
	comp=Z,3.5nm,0.9s						
WRA	**Warramunga Arr**	**40.08**	**199**	P	**P**	**04 09 43.6**	**-0.1**
WRA					**PcP**	**04 11 48.2**	**+0.1**
LZDM	**Lanzhou Array**	**42.12**	**304**	P	**P**	**04 10 00.9**	**+0.2**
	comp=Z,1.2nm,0.4s,baz=86,slow=7.4,SNR=1.3						
	comp=Z,1.2nm,0.4s						
ASAR	**Alice Springs**	**43.72**	**198**	P	**P**	**04 10 13.4**	**0.0**
	comp=Z,1.3nm,0.7s,baz=20,slow=8.4,SNR=11						
	comp=Z,1.3nm,0.7s						
ASAR	**Alice Springs**	**43.72**	**198**	P	**P**	**04 10 12.9**	**-0.5**
SONM	**Songino Array**	**44.31**	**321**	P	**P**	**04 10 18.8**	**+0.6**
	comp=Z,1.8nm,0.6s,baz=139,slow=8.5,SNR=7.6						
	comp=Z,1.8nm,0.6s						
SONM	**Songino Array**	**44.31**	**321**	P	**P**	**04 10 18.3**	**+0.2**
CMAR	**Chiang Mai Arr**	**45.68**	**278**	P	**P**	**04 10 29.5**	**+0.2**
	comp=Z,0.8nm,0.3s,baz=68,slow=7.3,SNR=5.6						
CMAR				LR	LR	04 28 24.2	
	comp=Z,24nm,20.2s,baz=110,slow=34						
	comp=Z,0.8nm,0.3s						
CMAR	**Chiang Mai Arr**	**45.68**	**278**	P	**P**	**04 10 28.8**	**-0.4**
TLY	**Talaya**	**47.68**	**325**	LR	LR	04 31 34.9	
	comp=Z,35nm,18.4s,baz=99,slow=37						
ZALV	**Zalesovo Beam**	**59.17**	**322**	P	**P**	**04 12 08.8**	**+0.2**
	comp=Z,4.6nm,0.6s,baz=99,slow=7.2,SNR=17						
	comp=Z,4.6nm,0.6s						
ZALV	**Zalesovo Beam**	**59.17**	**322**		**P**	**04 12 08.0**	**-0.7**
MKAR	**Makanchi Array**	**59.74**	**314**	P	**P**	**04 12 13.3**	**+0.5**
	comp=Z,1.4nm,0.6s,baz=89,slow=9.1,SNR=12						
	comp=Z,1.4nm,0.6s						
MKAR	**Makanchi Array**	**59.74**	**314**	P	**P**	**04 12 12.3**	**-0.5**
KURK	**Kurchatov**	**62.49**	**318**		**P**	**04 12 30.5**	**-0.8**
KURK				IAmb	IAmb	04 12 33.6	
	comp=Z,2.8nm,0.8s						
KURBB	**Kurchatov Arra**	**62.54**	**318**	P	**P**	**04 12 31.8**	**+0.1**
	comp=Z,3.2nm,0.5s,baz=96,slow=7.2,SNR=28						
	comp=Z,3.2nm,0.5s						
KDJ	**Kajisay**	**63.23**	**308**	P	**P**	**04 12 35.6**	**-1.1**
ILAR	**Eielson Array**	**63.34**	**26**	P	**P**	**04 12 34.8**	**-2.0**
	comp=Z,0.4nm,0.7s,baz=252,slow=4.8,SNR=5.4						
	comp=Z,0.4nm,0.7s						
BMRM	**Bremner River**	**63.57**	**30**	P	**P**	**04 12 38.7**	**+0.3**
BVAR	**Borovoye Array**	**67.66**	**321**	P	**P**	**04 13 05.5**	**+0.6**
	comp=Z,6.0nm,0.5s,baz=93,slow=6.7,SNR=16						
	comp=Z,6.0nm,0.5s						
DLBC	**Dease Lake**	**70.80**	**34**	LR	LR	04 41 41.7	
	comp=Z,24nm,21.4s,baz=156,slow=34						
BBB	**Bella Bella**	**72.51**	**40**	LR	LR	04 40 58.7	
	comp=Z,43nm,20.0s,baz=155,slow=32						
AB31	**Akbulak array**	**74.57**	**317**	P	**P**	**04 13 46.3**	**-0.5**
AB31				IAmb	IAmb	04 13 55.9	
	comp=Z,2.2nm,0.7s						
ABKAR	**Akbulak array**	**74.57**	**317**	P	**P**	**04 13 46.5**	**-0.3**
NVAR	**Mina Array Bea**	**82.24**	**52**	P	**P**	**04 14 30.4**	**+0.8**
	comp=Z,0.6nm,0.7s,baz=275,slow=6.4,SNR=6.5						
	comp=Z,0.6nm,0.7s						
NVAR	**Mina Array Bea**	**82.24**	**52**	P	**P**	**04 14 29.5**	**-0.2**
ARCES	**ARCESS Array B**	**83.27**	**342**	P	**P**	**04 14 35.3**	**+1.1**
	comp=Z,5.4nm,1.0s,baz=62,slow=6.8,SNR=5.8						
	comp=Z,5.4nm,1.0s						
ARCES	**ARCESS Array B**	**83.27**	**342**	P	**P**	**04 14 33.4**	**-0.7**
FINES	**FINESS Array B**	**87.80**	**336**	P	**P**	**04 14 57.4**	**+0.6**
	comp=Z,1.9nm,0.5s,baz=71,slow=6.5,SNR=10						
	comp=Z,1.9nm,0.5s						

FINES	**FINESS Array B**	**87.80**	**336**	P	**P**	**04 14 57.1**	**+0.3**

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*IDC **22** 04:24:30.0±0.9, 4°.96S×127°.56E, h0^{km}, mb4.1/2, mbtmp4.0/7, ML3.9/5, MS2.9/1, Error ellipse: s-maj=20.6km s-min=13.8km az=108.0*

*DJA **22** 04:24:34.2±1.3, 5°S±4°×12°8E±°, h18^{km}±12^{km}, M4.1/12, mb4.6/4, mb4.6/4, ML3.8/11, MLv3.9/11, MLv3.9/12*

*NEIC **22** 04:24:34.2±1.4, 5°.20S±0°.04×127°.63E±0°.08, h58^{km}±9^{km}, mb4.2/11, Error ellipse: s-maj=13.0km s-min=3.4km az=112.0*

ISC 22 04:24:31.9±0.6**, 5°.21S**±0°.05×**127°.68E**±0°.06**, h35**^{km}**, n31, σ2^{s}.06**/37**, mb4.3**/5**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NLAI	**Namlea**	**2.04**	**343**	P	**Pn**	**04 25 03.8**	**0.0**
NLAI				S	**Sn**	**04 25 26.5**	**-1.6**
MSAI	**Masohi**	**2.23**	**34**	P	**Pn**	**04 25 04.4**	**-2.0**
MSAI				S	**Sn**	**04 25 31.2**	**-1.5**
MSAI				AML	AML		
MSAI				AML	AML		
MSAI				AML	AML		
BNDI	**Bandanaira**	**2.32**	**73**	P	**Pn**	**04 25 09.1**	**+1.5**
BNDI				AML	AML		
BNDI				AML	AML		
BNDI				AML	AML		
SANI	**Sanana**	**3.57**	**332**	P	**Pn**	**04 25 24.7**	**-0.1**
SANI				AML	AML		
SANI				AML	AML		
SANI				AML	AML		
FAKI	**Fak Fak**	**5.09**	**64**		**Pn**	**04 25 48.5**	**+2.7**
FAKI				Sn	**Sn**	**04 26 43.7**	**+0.3**
FAKI	**Fak Fak**	**5.09**	**64**	P	**Pn**	**04 25 47.1**	**+1.3**
FAKI				AML	AML		
FAKI				AML	AML		
FAKI				AML	AML		
SIJI	**Sorong**	**5.60**	**40**	Pn	**Pn**	**04 25 54.9**	**+2.0**
	4.5nm,0.3s,baz=225,slow=16,SNR=5.4						
SIJI				Sn	**Sn**	**04 26 55.4**	**-0.7**
	3.7nm,0.3s,baz=136,slow=18,SNR=4.9						
SIJI				LR	LR	04 28 41.8	
	comp=Z,120nm,18.8s,baz=25,slow=46						
	8.2nm,0.3s						
SIJI				AML	AML		
SWI	**Sorong**	**5.60**	**40**	P	**Pn**	**04 25 53.6**	**+0.8**
	0.2nm0.2nm37nm,0.6s,37nm,0.6s						
SWI				AML	AML		
SWI				AML	AML		
KAPI	**Kappang**	**7.90**	**271**	Pn	**Pn**	**04 26 26.2**	**+1.8**
	1.7nm,0.3s,baz=90,slow=19,SNR=3.9						
	3.2nm,0.4s						
KAPI				AML	AML		
KAPI	**Kappang**	**7.90**	**271**		**Pn**	**04 26 25.1**	**+0.6**
MTN	**Manton Dam**	**8.31**	**156**	Pn	**Pn**	**04 26 32.8**	**+2.8**
KNRA	**Kununurra**	**10.46**	**174**	Pn	**Pn**	**04 27 01.4**	**+1.9**
FITZ	**Fitzroy Crossi**	**12.96**	**189**	Pn	**Pn**	**04 27 34.9**	**+1.2**
	0.5nm,0.3s,baz=15,slow=11,SNR=7.2						
FITZ				Sn	**Sn**	**04 29 53.3**	**-3.5**
	0.3nm,0.3s,baz=113,slow=22,SNR=1.8						
	1.6nm,0.4s						
FITZ				AML	AML		
FITZ	**Fitzroy Crossi**	**12.96**	**189**		**Pn**	**04 27 34.3**	**+0.6**
WB0	**Warramunga Arr**	**15.88**	**156**	Pn	**Pn**	**04 28 12.9**	**+0.1**
WB0				IAmb	IAmb	04 28 26.2	
	comp=Z,12nm,1.2s						
WRA	**Warramunga Arr**	**16.01**	**157**	Pn	**Pn**	**04 28 14.3**	**-0.3**
	comp=Z,0.4nm,0.3s,baz=338,slow=14,SNR=18						
WRA				Sn	**Sn**	**04 31 02.8**	**-8.4**
	comp=Z,0.1nm,0.3s,baz=335,slow=22,SNR=2.6						
	comp=Z,0.9nm,0.6s						
WRA				AML	AML		
WRA	**Warramunga Arr**	**16.01**	**157**		**Pn**	**04 28 14.4**	**-0.2**
WB2	**Warramunga Arr**	**16.02**	**157**	Pn	**Pn**	**04 28 15.8**	**+1.1**
WB2				IAmb	IAmb	04 28 40.6	
	comp=Z,12nm,1.1s						
WR8	**Warramunga Arr**	**16.09**	**156**	Pn	**Pn**	**04 28 15.9**	**+0.3**
WR8				IAmb	IAmb	04 28 27.1	
	comp=Z,5.2nm,0.6s						
WR0	**Warramunga Arr**	**16.11**	**156**	Pn	**Pn**	**04 28 15.2**	**-0.6**
WR0				IAmb	IAmb	04 28 27.7	
	comp=Z,4.5nm,0.7s						
AS31	**Alice Springs**	**19.30**	**163**	P	**P**	**04 28 53.7**	**-0.4**
ASAR	**Alice Springs**	**19.30**	**163**	P	**Pn**	**04 28 58.0**	**+2.7**
	comp=Z,0.4nm,0.3s,baz=341,slow=11,SNR=57						
	comp=Z,4.5nm,0.6s						
ASAR				AML	AML		
ASAR	**Alice Springs**	**19.30**	**163**	P	**P**	**04 28 54.5**	**+0.4**
NWAO	**Narrogin (SRO)**	**29.25**	**198**	P	**P**	**04 30 29.2**	**-1.5**
NWAO				IAmb	IAmb	04 30 60.0	
	comp=Z,62nm,1.4s						
ONTNC	**Ouen Toro**	**41.14**	**118**	P	**P**	**04 32 13.0**	**-0.1**
CASY	**Casey**	**62.13**	**188**	P	**P**	**04 34 48.8**	**-0.3**
CASY				IAmb	IAmb	04 35 30.5	
	comp=Z,11nm,1.4s						
MKAR	**Makanchi Array**	**65.48**	**327**	P	**P**	**04 35 13.6**	**+2.0**
	comp=Z,1.4nm,0.5s,baz=119,slow=8.3,SNR=12						
	comp=Z,1.4nm,0.5s						
MKAR	**Makanchi Array**	**65.48**	**327**	P	**P**	**04 35 11.0**	**-0.6**
KURBB	**Kurchatov Arra**	**69.80**	**329**	P	**P**	**04 35 39.8**	**+1.1**
	comp=Z,1.3nm,0.7s,baz=132,slow=5.8,SNR=9.4						
	comp=Z,1.3nm,0.7s						
KURK	**Kurchatov**	**69.81**	**329**	P	**P**	**04 35 38.0**	**-0.8**
KURK				IAmb	IAmb	04 35 41.1	
	comp=Z,1.6nm,0.6s						
N14K	**Kuskokwak Cree**	**84.93**	**28**	P	**P**	**04 37 03.0**	**-0.1**

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*IDC **22** 04:29:29.6±7.3, 7°.54S×127°.68E, h114^{km}±66^{km}, mb3.5/2, mbtmp4.2/6, Error ellipse: s-maj=94.9km s-min=22.4km az=55.0*

*NEIC **22** 04:29:30.7±1.9, 7°.6S±0°.1×127°.74E±0°.09, h130^{km}±7^{km}, mb4.1/8, Error ellipse: s-maj=16.5km s-min=13.2km az=180.0*

ISC 22 04:29:33.4±0.8**, 7°.87S**±0°.08×**127°.56E**±0°.08**, h150**^{km}**, n28, σ1^{s}.72**/33**, mb3.9**/6**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SOEI	**Soe**	**3.76**	**240**	Pn	**Pn**	**04 30 33.6**	**+3.0**
SOEI				Sn	**Sn**	**04 31 14.5**	**-0.5**
BATI	**Baumata**	**4.50**	**239**	P	**Pn**	**04 30 39.5**	**-0.7**
	39nm,0.4s,baz=68,slow=5.4,SNR=1.8						
BATI				S	**Sn**	**04 31 29.1**	**-3.1**
	72nm,0.5s,baz=126,slow=22,SNR=8.6						
MTN	**Manton Dam**	**6.06**	**145**		**Pn**	**04 31 02.4**	**+1.5**
KNRA	**Kununurra**	**7.84**	**172**		**Pn**	**04 31 25.7**	**+1.0**
FITZ	**Fitzroy Crossi**	**10.33**	**190**	P	**Pn**	**04 31 59.1**	**+1.3**
	9.9nm,0.4s,baz=29,slow=13,SNR=25						
FITZ				S	**Sn**	**04 33 50.5**	**-1.7**
	3.8nm,0.3s,baz=301,slow=16,SNR=4.7						
FITZ	**Fitzroy Crossi**	**10.33**	**190**		**Pn**	**04 31 58.6**	**+0.8**
WB0	**Warramunga Arr**	**13.55**	**151**	Pn	**Pn**	**04 32 39.2**	**-0.5**
WRAB	**Tennant Creek**	**13.67**	**152**	Pn	**Pn**	**04 32 41.0**	**-0.3**
WRA	**Warramunga Arr**	**13.68**	**152**	P	**Pn**	**04 32 41.0**	**-0.3**
	3.1nm,0.5s,baz=328,slow=14,SNR=34						
WRA				S	Sn	04 35 03.8	-9.1
	4.6nm,0.7s,baz=329,slow=22,SNR=11						
WRA	**Warramunga Arr**	**13.68**	**152**	Pn	**Pn**	**04 32 40.3**	**-1.0**
WB2	**Warramunga Arr**	**13.68**	**152**	Pn	**Pn**	**04 32 40.5**	**-0.9**
WR8	**Warramunga Arr**	**13.76**	**151**	Pn	**Pn**	**04 32 41.2**	**-1.2**
WR0	**Warramunga Arr**	**13.79**	**151**	Pn	**Pn**	**04 32 41.6**	**-1.1**
AS31	**Alice Springs**	**16.84**	**160**		**Pn**	**04 33 21.9**	**+1.4**
ASAR	**Alice Springs**	**16.84**	**160**	P	**Pn**	**04 33 23.3**	**+2.8**
	5.6nm,0.7s,baz=339,slow=12,SNR=31						
ASAR				S	**S**	**04 36 23.8**	**-4.0**
	1.2nm,0.6s,baz=329,slow=20,SNR=5.2						
ASAR	**Alice Springs**	**16.84**	**160**	P	**P**	**04 33 19.0**	**-1.0**
UGM	**Wanagama**	**16.88**	**269**	P	**P**	**04 33 19.9**	**-0.7**
ARMA	**Armidale**	**31.79**	**138**	P	**P**	**04 35 43.8**	**-0.2**
CASY	**Casey**	**59.49**	**188**	P	**P**	**04 39 22.7**	**+2.4**
CASY				IAmb	IAmb	04 39 42.1	
	comp=Z,10nm,1.5s						
MKAR	**Makanchi Array**	**67.66**	**328**	P	**P**	**04 40 13.0**	**-1.3**
	comp=Z,0.4nm,0.5s,baz=128,slow=8.2,SNR=4.7						
	comp=Z,0.4nm,0.5s						
MKAR	**Makanchi Array**	**67.66**	**328**	P	**P**	**04 40 12.8**	**-1.4**
KURBB	**Kurchatov Arra**	**72.01**	**330**	P	**P**	**04 40 39.7**	**-1.0**
	comp=Z,1.1nm,0.6s,baz=134,slow=5.1,SNR=14						
	comp=Z,1.1nm,0.6s						
KURK	**Kurchatov**	**72.03**	**330**	P	**P**	**04 40 39.6**	**-1.2**
KURK				IAmb	IAmb	04 40 40.2	
	comp=Z,1.1nm,0.5s						
SBA	**Scott Base**	**72.80**	**172**	P	**P**	**04 40 46.5**	**+1.5**
AB31	**Akbulak array**	**81.70**	**322**	P	**P**	**04 41 32.5**	**-2.6**
AB31				IAmb	IAmb	04 42 07.3	
	comp=Z,3.5nm,1.5s						
ABKAR	**Akbulak array**	**81.70**	**322**	P	**P**	**04 41 33.6**	**-1.5**
QSPA	**South Pole Qui**	**82.11**	**180**	P	**P**	**04 41 38.6**	**+1.5**
QSPA				IAmb	IAmb	04 42 22.0	
	comp=Z,4.0nm,1.4s						
LPAZ	**La Paz**	**151.41**	**147**	PKPbc	**PKPbc**	**04 49 11.2**	**-0.1**
	comp=Z,0.4nm,0.4s,baz=104,slow=1.8,SNR=5.3						
LPAZ				PKPab	**PKPab**	**04 49 21.6**	**+1.7**
	comp=Z,1.2nm,0.6s,baz=225,slow=4.2,SNR=6.8						

ZUR 22 04:32:24.9, 45°.88N×6°.99E, h1^{km}±1^{km}**, MLh0.5**/3**, 3C, Error ellipse: s-maj=2172.8km s-min=764.5km az=234.0, France**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BLANC	**P.ta Helbronne**	**0.05**	**229**	⇑Pg	Pg	04 32 26.4	+0.5
BLANC				Sg	Sg	04 32 27.4	+0.8
BLANC				AML	AML		
MFERR	**Prayon, Val Fe**	**0.12**	**49**	⇑Pg	Pg	04 32 27.6	+0.3
MFERR				Sg	Sg	04 32 29.2	+0.5
MFERR				AML	AML		
MRGE	**Morge**	**0.12**	**154**	⇑Pg	Pg	04 32 27.5	+0.3
MRGE				Sg	Sg	04 32 29.4	+0.6
MRGE				AML	AML		

STR 22 04:32:26.6±0.1**, 44°.4N**±0°.4×**6°.7E**±0°.4**, h11**^{km}**, MLv0.2**/2**, LOCSAT earthModelID alpes_taup-2.11 preliminary, France**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAUF	**Jausiers**	**0.02**	**126**	Pg	Pg	04 32 28.6	-0.1
JAUF				Sg	Sg	04 32 30.1	-0.1
SURF	**Saint Ours**	**0.07**	**57**	Pg	Pg	04 32 29.1	-0.1
SURF				Sg	Sg	04 32 30.6	-0.4
CREF	**Crivoux**	**0.13**	**325**	Pg	Pg	04 32 29.8	-0.1
CREF				Sg	Sg	04 32 32.1	-0.1

IDC 22 04:45:45.3±5.9**, 21°.71S**×**147°.75E, h0**^{km}**, mbtmp3.1**/2**, ML2.3**/1**, Error ellipse: s-maj=70.9km s-min=49.8km az=175.0, Queensland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**12.67**	**276**	Pn	Pn	04 48 43.1	-3.8
	baz=99,slow=13,SNR=2.4						
WRA				Lg	Lg	04 52 24.6	
	0.1nm,0.3s,baz=83,slow=25,SNR=8.9						
	0.4nm,0.9s						
ASAR	**Alice Springs**	**12.93**	**259**	Pn	Pn	04 48 49.3	-1.2
	0.1nm,0.3s,baz=91,slow=14,SNR=1.5						
ASAR				Lg	Lg	04 52 31.3	
	0.1nm,0.3s,baz=86,slow=26,SNR=6.6						
I22FR	**PORTLAGUERRE I**	**17.72**	**95**	I	I	06 33 00.0	
	baz=268,slow=322,SNR=1.4						

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*AEIC **22** 05:15:45.1±1.4, 54°.07N±0°.09×164°.60W±0°.06, h30^{km}±6^{km}, Error ellipse: s-maj=13.6km s-min=4.2km az=169.0*

NEIC 22 05:15:45.6±1.1**, 54°.00N**±0°.09×**164°.62W**±0°.07**, h42**^{km}±12^{km}**, mb3.6**/21**, ML3.8**/18**, ML3.4**(AEIC)**, Error ellipse: s-maj=12.7km s-min=5.6km az=171.0, Unimak Island region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AKUT	**Akutan**	**0.69**	**282**		Pn	05 15 58.4	-0.5
AKUT					Sn	05 16 08.0	-0.6
AKUT				IAML		05 16 08.6	
	comp=E,6μm,0.3s						
AKBBA	**Akutan Broad B**	**0.78**	**278**		Pn	05 15 59.8	-0.4
AKBBA					Sn	05 16 10.9	+0.2
AKV	**Akutan Volcano**	**0.81**	**280**		Pn	05 16 00.2	-0.4
AKLV	**Akutan Long Va**	**0.81**	**282**		Pn	05 15 59.9	-0.6
AKLV					Sn	05 16 10.8	-0.6
AKGG	**Akutan Green G**	**0.83**	**284**		Pn	05 16 00.5	-0.4
AKGG					Sn	05 16 11.9	-0.1
LVA	**Lava Point**	**0.85**	**282**		Pn	05 16 00.9	-0.3
LVA					Sn	05 16 12.2	-0.2
LVA				IAML		05 16 16.4	
	comp=E,2μm,0.5s						
LVA				IAML		05 16 16.9	
	comp=N,4μm,0.6s						
AKRB	**Akutan Reef Bi**	**0.87**	**279**		Pn	05 16 01.4	+0.1
AKRB					Sn	05 16 13.1	+0.3
UNV	**Unalaska Valle**	**1.13**	**263**		Pn	05 16 04.8	-0.1
UNV					Sn	05 16 18.6	-0.5
MNAT	**Makushin Natee**	**1.23**	**265**		Pn	05 16 06.6	+0.4
MNAT					Sn	05 16 23.4	+1.7
MSW	**Makushin Switc**	**1.28**	**267**		Pn	05 16 07.6	+0.6
MSW					Sn	05 16 24.9	+1.8
MGOD	**Makushin Gods**	**1.35**	**262**		Pn	05 16 08.6	+0.6
MGOD					Sn	05 16 27.0	+2.3
MAPS	**Pakushin South**	**1.39**	**263**		Pn	05 16 08.8	+0.3
MAPS					Sn	05 16 28.0	+2.4
PN7A	**Pavlof North-7**	**2.09**	**46**		Pn	05 16 18.2	0.0
OKNC	**Okmok New Cone**	**2.15**	**257**		Pn	05 16 21.5	+2.5
S12K	**Black Hills**	**2.26**	**40**	Pn	Pn	05 16 20.4	0.0
S12K				IAML		05 16 57.0	
	comp=N,339nm,1.1s						
S12K				IAML		05 16 59.2	
	comp=E,461nm,0.6s						
SDPT	**Sand Point**	**2.76**	**59**	Pn	Pn	05 16 27.6	+0.3
SDPT					Sn	05 16 58.3	-1.0
SDPT				IAML		05 17 05.4	
	comp=N,428nm,0.6s						
SDPT				IAML		05 17 13.7	
	comp=E,296nm,1.0s						
CNBA	**Chernabura Isl**	**3.05**	**72**	Pn	Pn	05 16 31.8	+0.5
CLES	**Cleveland East**	**3.37**	**252**	Pn	Pn	05 16 34.9	-0.7
VNKR	**Veniaminof 5**	**3.64**	**54**		Pn	05 16 39.9	+0.4
VNFG	**Fog Glacier, M**	**3.70**	**50**	Pn	Pn	05 16 40.5	+0.3
VNFG				IAML		05 17 43.9	
	comp=N,234nm,1.0s						
CHGN	**Chignik**	**4.24**	**55**	Pn	Pn	05 16 48.1	+0.6
CHGN				IAML		05 17 44.8	
	comp=E,84nm,1.1s						
CHGN				IAML		05 17 45.8	
	comp=N,53nm,0.9s						
BPBCA	**Veniaminof**	**4.38**	**51**		Pn	05 16 50.0	+0.5
ANPB	**Aniakchak Plen**	**4.58**	**50**		Pn	05 16 52.6	+0.3
CHIR	**Chirikof Islan**	**5.50**	**67**	Pn	Pn	05 17 05.2	+0.3
O14K	**Tigyukauivet M**	**5.58**	**18**	Pn	Pn	05 17 06.4	+0.4
O15K	**Ungalikthiuk R**	**5.83**	**25**	Pn	Pn	05 17 09.7	+0.4
N14K	**Kuskokwak Cree**	**6.15**	**14**	Pn	Pn	05 17 13.7	-0.1
M11K	**Mekoryuk**	**6.46**	**353**	Pn	Pn	05 17 19.0	+1.0
M13K	**Dall Lake**	**6.47**	**6**	Pn	Pn	05 17 17.2	-0.9
O16K	**Kokwok River B**	**6.65**	**30**	Pn	Pn	05 17 21.2	+0.6
N15K	**Kwethluk River**	**6.66**	**20**	Pn	Pn	05 17 20.5	-0.2
L14K	**Kuka Creek**	**7.44**	**7**	Pn	Pn	05 17 32.4	+1.1
M16K	**Timber Creek**	**7.67**	**21**	Pn	Pn	05 17 34.9	+0.3
N17K	**Nushagak Hills**	**7.68**	**29**	Pn	Pn	05 17 35.4	+0.7
O29M	**Mount Kennedy**	**15.40**	**55**	Pn	Pn	05 19 20.8	+0.9
I26K	**Coal Creek Min**	**15.58**	**35**	Pn	Pn	05 19 21.8	-0.1
FYU	**Fort Yukon**	**15.74**	**29**	Pn	Pn	05 19 24.3	+0.3
FYU				IAmb	IAmb	05 19 26.0	
	comp=Z,9.5nm,1.4s						
E24K	**Your Creek**	**16.05**	**22**	Pn	Pn	05 19 26.9	-1.1
E24K				IAmb	IAmb	05 19 48.1	
	comp=Z,5.5nm,1.3s						
M29M	**Somme Creek**	**16.06**	**48**	Pn	Pn	05 19 28.1	-0.1
M29M				IAmb	IAmb	05 19 46.5	
	comp=Z,7.4nm,1.3s						
S31K	**Pelican**	**16.31**	**64**	Pn	Pn	05 19 31.1	-0.2
N30M	**Aishikik Lake**	**16.39**	**52**	Pn	Pn	05 19 32.2	-0.1
N30M				IAmb	IAmb	05 19 37.5	
	comp=Z,4.7nm,0.8s						
L29M	**L29M**	**16.44**	**46**	Pn	Pn	05 19 33.4	+0.5
L29M				IAmb	IAmb	05 19 46.0	
	comp=Z,5.1nm,1.4s						
BMAR	**Burnt Mountain**	**16.53**	**28**	Pn	Pn	05 19 34.0	-0.1
I28M	**Miner Creek**	**16.78**	**37**	Pn	Pn	05 19 37.4	+0.1
F26K	**Sheenjek River**	**16.84**	**27**	Pn	Pn	05 19 37.9	0.0
K29M	**Barlow Dome**	**16.97**	**44**	Pn	Pn	05 19 39.3	-0.3
K29M				IAmb	IAmb	05 20 07.3	
	comp=Z,6.2nm,1.5s						
H29M	**Whitestone**	**17.73**	**36**		P	05 19 49.3	-0.1
H29M				IAmb	IAmb	05 19 55.6	
	comp=Z,9.8nm,1.4s						
J30M	**Hart River**	**17.74**	**42**	Pn	Pn	05 19 47.9	-1.3
I30M	**Mount Dempster**	**17.98**	**40**		Pn	05 19 51.6	-0.6
G29M	**Pine Creek**	**18.21**	**34**		P	05 19 54.0	-0.7
G29M				IAmb	IAmb	05 20 13.3	
	comp=Z,8.8nm,1.4s						
P33M	**Teslin, Yukon**	**18.22**	**57**		P	05 19 54.5	-0.5
P33M				IAmb	IAmb	05 20 20.6	
	comp=Z,4.7nm,1.2s						
G30M	**tAoh Zraii Nji**	**18.86**	**35**	P	P	05 20 01.7	-0.1
G30M				IAmb	IAmb	05 20 09.1	
	comp=Z,9.3nm,1.4s						
MMPY	**Sheldon Lake,**	**19.32**	**50**	P	P	05 20 06.2	-0.7
MMPY				IAmb	IAmb	05 20 11.2	
	comp=Z,2.1nm,0.6s						
G31M	**Satah River**	**19.51**	**37**	P	P	05 20 08.9	+0.1
PETK	**Petropavlovsk-**	**22.24**	**283**	P	P	05 20 37.5	-1.0
AB31	**Akbulak array**	**70.48**	**331**	P	P	05 26 55.9	+0.6

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*IDC **22** 05:36:25.1±1.1, 0°.72N×26°.74W, h0^{km}, mb3.7/6, mbtmp3.8/7, ML3.3/1, MS3.4/5, Error ellipse: s-maj=50.8km s-min=16.7km az=148.0*

*NEIC **22** 05:36:27.4±2.2, 0°.8N±0°.1×26°.93W±0°.10, h10^{km}±1^{km}, mb4.5/12, Error ellipse: s-maj=21.8km s-min=15.2km az=152.0*

ISC 22 05:36:25.6±0.6**, 0°.78N**±0°.09×**26°.88W**±0°.08**, h10**^{km}**, n29, σ1^{s}.25**/25**, mb4.2**/10**, MS3.5**/5**, Central Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RCBR	**Riachuelo**	**11.14**	**234**	Pn	**Pn**	**05 39 03.6**	**-1.5**
	0.2nm,0.3s,baz=61,slow=21,SNR=21						
RCBR				Sn	Sn	05 40 57.1	-13
	0.1nm,0.3s,baz=283,slow=22,SNR=1.4						
	2.3nm,0.6s						
RCBR				AML	AML		
RCBR	**Riachuelo**	**11.14**	**234**		**Pn**	**05 39 03.8**	**-1.4**
SACV	**Santiago Islan**	**14.47**	**13**		**Pn**	**05 39 49.2**	**-1.5**
H10N3	**ASCENSION HYDR**	**15.02**	**125**	Pn	**P**	**05 40 01.8**	**-1.6**
	baz=299,slow=13						
H10N3				T	T	05 55 18.3	
	baz=304,slow=75,SNR=58						
H10N2	**ASCENSION HYDR**	**15.03**	**125**	Pn	**P**	**05 40 02.0**	**-1.4**
	baz=299,slow=13						
H10N2				T	T	05 55 13.9	
	baz=304,slow=75,SNR=203						
H10N1	**ASCENSION HYDR**	**15.04**	**125**	Pn	**Pn**	**05 40 00.7**	**+2.5**
	baz=299,slow=13						
H10N1				T	T	05 55 19.2	
	baz=304,slow=75,SNR=368						
ASCN	**Ascension**	**15.19**	**125**	Pn	**Pn**	**05 40 01.1**	**+0.7**
H10S3	**ASCENSION HYDR**	**15.54**	**129**	Pn	**P**	**05 40 07.7**	**-1.5**
H10S2	**ASCENSION HYDR**	**15.56**	**129**	Pn	**P**	**05 40 07.9**	**-1.5**
DBIC	**Dimbokro**	**22.74**	**75**	P	**P**	**05 41 27.0**	**-1.1**
	2.6nm,0.6s,baz=266,slow=9.8,SNR=3.7						
DBIC				LR	LR	05 48 04.8	
	comp=Z,70nm,20.5s,baz=243,slow=31						
	2.6nm,0.6s						
DBIC	**Dimbokro**	**22.74**	**75**	P	**P**	**05 41 27.4**	**-0.7**
DBIC				IAmb	IAmb	05 41 46.2	
	comp=Z,16nm,1.2s						
MACI	**Morro de la Ar**	**29.07**	**19**	P	**P**	**05 42 25.9**	**-0.7**
TORD	**Torodi Ar. Bea**	**30.86**	**65**	P	**P**	**05 42 43.1**	**+0.6**
	comp=Z,3.2nm,0.7s,baz=253,slow=9.4,SNR=15						
	comp=Z,3.2nm,0.7s						
BOAV	**Boa Vista**	**33.66**	**273**	P	**P**	**05 43 07.6**	**+0.5**
BOAV				IAmb	IAmb	05 43 32.1	
	comp=Z,3.9nm,1.1s						
EDA	**Edea**	**37.12**	**85**	P	**P**	**05 43 36.3**	**-0.6**
EDA				IAmb	IAmb	05 43 50.1	
	comp=Z,22nm,1.4s						
MD31	**MD31**	**38.11**	**31**	P	**P**	**05 43 45.7**	**+0.7**
MDT	**Midelt**	**38.15**	**31**	P	**P**	**05 43 46.0**	**+0.6**
	comp=Z,1.0nm,0.7s,baz=279,slow=13,SNR=4.0						
	comp=Z,1.0nm,0.7s						
ESDC	**Sonseca Array**	**44.00**	**26**	P	**P**	**05 44 34.3**	**+0.9**
	comp=Z,0.4nm,0.5s,baz=223,slow=8.0,SNR=4.5						
	comp=Z,0.4nm,0.5s						
LPAZ	**La Paz**	**44.09**	**246**	P	**P**	**05 44 35.8**	**+0.7**
	comp=Z,1.0nm,0.7s,baz=56,slow=11,SNR=4.7						
	comp=Z,1.0nm,0.7s						
LPAZ	**La Paz**	**44.09**	**246**	P	**P**	**05 44 34.8**	**-0.3**
GO01	**Chusmiza**	**46.19**	**242**	P	**P**	**05 44 51.4**	**-0.2**
GO01				IAmb	IAmb	05 45 04.1	
	comp=Z,8.8nm,1.4s						
PB08	**IPOC Station P**	**46.32**	**241**	P	**P**	**05 44 52.7**	**+0.1**
PB08				IAmb	IAmb	05 45 13.8	
	comp=Z,3.8nm,1.1s						
CEST	**Esterri de Car**	**48.69**	**28**	P	**P**	**05 45 11.7**	**+1.4**
CEST				IAmb	IAmb	05 45 17.6	
	comp=Z,5.0nm,1.1s						
AC01	**Pan de Azucar**	**49.93**	**234**	P	**P**	**05 45 21.0**	**+1.0**
VAE	**Valguarnera**	**52.71**	**41**	LR	LR	06 08 02.5	
	comp=Z,73nm,18.1s,baz=46,slow=36						
DAVOX	**Davos/Dischmat**	**55.92**	**30**	LR	LR	06 08 36.6	
	comp=Z,21nm,19.6s,baz=298,slow=35						
EIL	**Elat**	**65.33**	**58**	LR	LR	06 15 01.1	
	comp=Z,30nm,18.6s,baz=272,slow=36						
TXAR	**Lajitas Array**	**78.10**	**300**	P	**P**	**05 48 27.5**	**+2.0**
	comp=Z,0.1nm,0.6s,baz=82,slow=8.7,SNR=3.5						
	comp=Z,0.1nm,0.6s						
ANMO	**Albuquerque**	**81.01**	**305**	LR	LR	06 19 43.5	
	comp=Z,20nm,20.1s,baz=116,slow=32						

OTT 22 05:52:09.5±0.3**, 57°.51N**×**59°.58W, h18**^{km}**, ML3.7**/9**, 138km east from Nutak, NI Boothia Ungava Seismic Zone., Labrador Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NINL	**Nain**	**1.51**	**231**	PN	Pn	05 52 34.9	-0.7
NINL				SN	Sn	05 52 54.7	-0.1
NINL				Trac		05 52 55.6	
	comp=Z,133nm,0.1s						
SCHQ	**Schefferville**	**4.86**	**240**	PN	Pn	05 53 21.8	+0.1
SCHQ				SN	Sn	05 54 14.9	-2.6
BJBQ	**Baie Johan-Bee**	**7.48**	**196**	PN	Pn	05 53 56.8	-0.9
BJBQ				SN	Sn	05 55 16.2	-5.7
BJBQ				Trac		05 55 24.6	
	comp=Z,3.2nm,0.2s						
FRB	**Frobisher Bay**	**7.65**	**329**	PN	Pn	05 53 59.0	-0.8
FRB				SN	Sn	05 55 19.9	-6.0
FRB				Trac		05 55 24.2	
	comp=Z,0.7nm,0.2s						
PMAQ	**Port Menier**	**8.19**	**202**	PN	Pn	05 54 06.9	-0.5
PMAQ				Trac		05 55 36.9	
	comp=Z,2.9nm,0.2s						
DRLN	**Deer Lake**	**8.36**	**171**	PN	Pn	05 54 08.5	-1.2
DRLN				SN	Sn	05 55 37.2	-6.3
DRLN				Trac		05 55 43.6	
	comp=Z,78nm,1.3s						
ICQ	**Pointe Anglais**	**9.21**	**213**	PN	Pn	05 54 19.6	-1.7
ICQ				SN	Sn	05 55 57.6	-6.8
ICQ				Trac		05 56 02.6	
	comp=Z,2.2nm,0.2s						
SNFQ	**Sainte-Felicit**	**9.81**	**212**	PN	Pn	05 54 28.8	-0.7
SNFQ				SN	Sn	05 56 11.1	-7.9
SNFQ				Trac		05 56 20.2	
	comp=Z,54nm,1.1s						
HSNB	**Heath Steele M**	**10.98**	**204**	PN	Pn	05 54 44.0	-1.6
HSNB				SN	Sn	05 56 38.9	-8.9
HSNB				Trac		05 56 46.7	
	comp=Z,96nm,1.7s						
CACQ	**Cacouna**	**11.29**	**216**	PN	Pn	05 54 47.5	-2.3
CACQ				SN	Sn	05 56 46.7	-8.8
CACQ				Trac		05 56 54.4	
	comp=Z,2.7nm,0.2s						

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*IDC **22** 05:53:30.7±2.2, 23°.45S×177°.24W, h118^{km}±19^{km}, mb4.0/15, mbtmp4.4/18, MS3.3/4, Error ellipse: s-maj=15.6km s-min=13.5km az=119.0*

*NEIC **22** 05:53:32.7±1.4, 23°.45S±0°.08×177°.14W±0°.05, h130^{km}±4^{km}, mb4.7/36, Error ellipse: s-maj=11.2km s-min=7.4km az=182.0*

*GFZ **22** 05:53:33.6±0.3, 24°S±5°×17°7W±°, h154^{km}, M4.8/24, mb4.8/24, confirmed*

*GCMT **22** 05:53:35.7±0.5, 23°.63S±0°.03×177°.02W±0°.03, h187^{km}±5^{km}, MW4.9/75, Moment Tensor Solution.*

s12,c12; s75,c91; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}0.44±.15; $M_{\theta\theta}$0.07±.17; $M_{\phi\phi}$-0.51±.15; $M_{r\theta}$-1.23±.12; $M_{\theta\phi}$-0.23±.15; $M_{\phi r}$-2.07±.11; Best double couple: $M_0$2.46400×10^{16} NP1:ϕ_s0.00000°,δ7.00000°, λ60.00000°. NP2:ϕ_s211.00000°,δ84.00000°,λ93.00000°. Principal axes: T 2.4020, Plg51.0000°, Azm124.0000°; N 0.1230, Plg3.0000°, Azm30.0000°; P -2.5260, Plg39.0000°, Azm298.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function

ISC 22 05:53:35.7±0.3**,23°.56S**±0°.05×**177°.12W**±0°.06**,h167**km**,n175,**σ**2.s05**/181**,mb4.6**/59**,7C-1D,South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	Raoul Island	5.72	187	Pn	Pn	05 54 56.6	-2.2
RAO				Sn	Sn	05 56 02.1	-2.0
MSVF	Nonsavu	7.35	321	P	Pn	05 55 22.9	+2.3
	42nm,0.7s,baz=167,slow=17,SNR=27						
MSVF	Nonsavu	7.35	321	P	Pn	05 55 23.1	+2.5
	comp=Z,93nm,0.9s						
NIUE	Niue	8.05	58	Pn	Pn	05 55 26.3	-3.5
NIUE	Niue	8.05	58	P	Pn	05 55 25.4	-4.3
	comp=Z,250nm,1.0s						
FUTU	Fugatoga	9.25	354	Pn	Pn	05 55 42.5	-3.1
AFI	Afiamalu	10.84	29	P	Pn	05 56 00.2	-6.5
	comp=Z,36nm,0.5s,baz=165,slow=1.4,SNR=4.5						
AFI				S	Sn	05 57 50.1	-17
	comp=Z,46nm,0.3s,baz=68,slow=22,SNR=6.8						
AFI	Afiamalu	10.84	29		Pn	05 56 01.1	-5.6
MARNC	Mare, Loyalty	13.88	276	Pn	Pn	05 56 43.4	-2.1
OUENC	Ouen Island, N	14.82	271	Pn	Pn	05 56 55.3	-1.9
DZM	Mont Dzumac	15.23	272	P	P	05 57 03.1	-0.4
	comp=Z,53nm,0.8s,baz=103,slow=15,SNR=26						
URZ	Urewera	15.46	197	P	Pn	05 57 01.4	-3.6
	comp=Z,7.7nm,0.3s,baz=273,slow=2.3,SNR=27						
URZ				S	Sn	05 59 37.9	-20
	comp=Z,9.6nm,0.4s,baz=40,slow=21,SNR=10						
URZ				LR	LR	06 02 31.1	
	comp=Z,111nm,18.6s,baz=26,slow=35						
URZ	Urewera	15.46	197	P	Pn	05 56 59.6	-5.4
	comp=Z,17nm,0.8s						
RAR	Rarotonga	16.21	85	P	P	05 57 14.1	-0.1
	comp=Z,16nm,0.6s,baz=229,slow=2.9,SNR=3.1						
RAR				S	S	06 00 01.3	-13
	comp=Z,16nm,0.6s,baz=129,slow=19,SNR=3.5						
RAR				LR	LR	06 02 04.5	
	comp=Z,128nm,20.8s,baz=280,slow=32						
RAR	Rarotonga	16.21	85	P	P	05 57 12.8	-1.4
RAR				IAmb	IAmb	05 57 16.6	
	comp=Z,55nm,1.1s						
SANVU	Saraoutou	16.83	296		P	05 57 18.9	-2.1
SANVU	Saraoutou	16.83	296	P	Pn	05 57 21.4	-0.4
	comp=Z,91nm,1.1s						
KOUNC	Koumac, New Ca	17.50	276	P	P	05 57 26.9	-1.5
KOUNC				IAmb	IAmb	05 57 49.2	
	comp=Z,88nm,1.0s						
PPT	Papeete	26.44	82	LR	LR	06 06 46.1	
	comp=Z,64nm,21.2s,baz=322,slow=30						
EIDS	Eidsvold	28.97	260	P	P	05 59 20.1	+0.5
	comp=Z,7.5nm,1.1s						
CTAO	Charters Tower	34.12	269		P	06 00 05.5	+0.6
CTAO	Charters Tower	34.12	269	P	P	06 00 04.9	0.0
	comp=Z,27nm,0.7s						
TOO	Toolangi	34.86	238	P	P	06 00 12.1	+1.1
TOO				IAmb	IAmb	06 00 41.3	
	comp=Z,14nm,1.4s						
QLP	Quilpie	35.05	257	P	P	06 00 12.1	-0.6
	comp=Z,21nm,0.9s						
MCQ	Macquarie Isla	35.70	204	P	P	06 00 19.3	+1.4
MCQ				IAmb	IAmb	06 00 37.4	
	comp=Z,14nm,1.0s						
MTSU	Mount Surprise	36.37	271	P	P	06 00 24.3	+0.3
	comp=Z,11nm,0.9s						
PMG	Port Moresby	36.91	286		P	06 00 28.8	+0.1
PMG	Port Moresby	36.91	286	P	P	06 00 28.9	+0.2
	comp=Z,59nm,0.9s						
STKA	Stephens Creek	37.30	248	P	P	06 00 31.4	-0.4
	comp=Z,3.6nm,0.4s,baz=91,slow=8.3,SNR=9.2						
	comp=Z,3.6nm,0.4s						
QIS	Mount Isa	40.11	266	P	P	06 00 55.0	-0.3
	comp=Z,11nm,1.4s						
BBOO	Buckleboo	42.01	247	P	P	06 01 09.4	-1.2
ASAR	Alice Springs	44.70	260	P	P	06 01 31.1	-1.2
	comp=Z,3.4nm,0.4s,baz=100,slow=7.2,SNR=36						
ASAR				PcP	PcP	06 03 11.9	0.0
	comp=Z,1.4nm,0.6s,baz=101,slow=3.4,SNR=7.1						
ASAR				ScP	ScP	06 06 53.3	+4.8
	comp=Z,0.7nm,0.7s,baz=101,slow=4.0,SNR=3.0						
	comp=Z,3.4nm,0.4s						
WR8	Warramunga Arr	44.92	265	P	P	06 01 32.5	-1.6
WB0	Warramunga Arr	45.06	265	P	P	06 01 33.8	-1.5
WB0				IAmb	IAmb	06 01 34.6	
	comp=Z,13nm,0.8s						
WRAB	Tennant Creek	45.06	265	P	P	06 01 32.9	-2.4
	comp=Z,17nm,1.3s						
WRA	Warramunga Arr	45.07	265	P	P	06 01 33.9	-1.4
	comp=Z,9.8nm,0.8s,baz=89,slow=5.8,SNR=156						
WRA				PcP	PcP	06 03 13.4	+0.2
	comp=Z,1.0nm,0.5s,baz=103,slow=3.2,SNR=3.8						
WRA				ScP	ScP	06 06 53.3	+3.2
	comp=Z,0.6nm,0.7s,baz=98,slow=3.7,SNR=4.0						
	comp=Z,9.8nm,0.8s						
FORT	Forrest	48.90	249	P	P	06 02 03.7	-1.2
FORT				IAmb	IAmb	06 02 04.8	
	comp=Z,9.2nm,0.6s						
KNRA	Kununurra	51.33	268	P	P	06 02 23.7	+0.4
FAKI	Fak Fak	53.03	285	P	P	06 02 34.9	-1.0
FAKI				IAmb	IAmb	06 02 35.4	
	comp=Z,16nm,0.9s						
FITZ	Fitzroy Crossi	53.49	264	P	P	06 02 38.4	-0.8
FITZ	Fitzroy Crossi	53.49	264	P	P	06 02 38.7	-0.5
	comp=Z,2.1nm,1.0s						
SIJI	Sorong	54.85	287	P	P	06 02 48.5	-0.6
	comp=Z,61nm,0.8s,baz=86,slow=5.8,SNR=39						
SBA	Scott Base	54.89	184		P	06 02 51.0	+2.6
SBA	Scott Base	54.89	184	P	P	06 02 50.9	+2.5
	comp=Z,7.6nm,0.8s						
VNDA	Vanda	54.96	185	P	P	06 02 50.1	+1.2
	comp=Z,0.7nm,0.6s,baz=336,slow=3.3,SNR=4.7						
	comp=Z,0.7nm,0.6s						
VNDA	Vanda	54.96	185	P	P	06 02 50.3	+1.4
SOEI	Soe	57.45	273	P	P	06 03 07.7	-0.1
SOEI	Soe	57.45	273	P	P	06 03 08.6	+0.9
	comp=Z,40nm,1.2s						
KLBR	Kellerberrin	57.55	247	P	P	06 03 05.5	-2.6
	comp=Z,19nm,0.8s						
SANI	Sanana	59.00	282	P	P	06 03 17.0	-1.3
	comp=Z,31nm,1.0s						
TNTI	Ternate	59.06	286	P	P	06 03 18.4	-0.3
EDFI	Ende, Flores	60.19	273	P	P	06 03 25.5	-1.0
	comp=Z,19nm,1.1s						
CASY	Casey	61.58	206	P	P	06 03 35.1	+0.2
CASY				IAmb	IAmb	06 03 36.6	
	comp=Z,3.9nm,0.6s						
CASY	Casey	61.58	206	P	P	06 03 34.5	-0.4
	comp=Z,7.1nm,0.7s						
PLAI	Plampang	63.74	272	P	P	06 03 49.4	-0.8
	comp=Z,33nm,1.0s						
TWSI	Taliwang, Sumb	64.60	271	P	P	06 03 55.9	+0.1
	comp=Z,34nm,1.5s						
TOLI2	Tolitoli	65.06	283		P	06 03 57.6	-1.1
TOLI2				IAmb	IAmb	06 03 58.7	
	comp=Z,11nm,0.9s						
TOLI2	Tolitoli	65.06	283	P	P	06 03 57.7	-1.0
	comp=Z,13nm,0.8s						
MPSI	Mapaga	65.51	282	P	P	06 03 60.0	-1.6
	comp=Z,20nm,0.9s						
QSPA	South Pole Qui	66.53	180	P	P	06 04 08.5	+1.1
	comp=Z,5.6nm,0.6s,baz=357,slow=0.7,SNR=76						
	comp=Z,5.6nm,0.6s						
QSPA	South Pole Qui	66.53	180		P	06 04 08.6	+1.1
QSPA				IAmb	IAmb	06 04 09.0	
	comp=Z,7.0nm,0.7s						
QSPA	South Pole Qui	66.53	180	P	P	06 04 08.8	+1.3
	comp=Z,15nm,1.0s						
PCJI	Pacitan	70.04	270	P	P	06 04 30.0	+0.1
	comp=Z,101nm,2.1s						
JGF	Kuroka	72.92	323		P	06 04 47.0	+0.2
JGF				IAmb	IAmb	06 04 52.4	
	comp=Z,19nm,1.4s						
MJAR	Matsushiro Arr	73.14	324	P	P	06 04 47.0	-1.0
	comp=Z,1.9nm,0.7s,baz=150,slow=6.3,SNR=5.2						
	comp=Z,1.9nm,0.7s						
AMKA	Amchitka	74.67	358	P	P	06 04 55.9	-0.5
AMKA				IAmb	IAmb	06 05 22.4	
	comp=Z,21nm,1.1s						
KIWB	Kanaga Island	75.08	360	P	P	06 04 59.2	+0.4
KIWB				IAmb	IAmb	06 05 26.5	
	comp=Z,28nm,1.0s						
ADK	Adak	75.11	0	P	P	06 04 59.0	0.0
SMAI	San Martin Ant	75.48	159	P	P	06 05 02.8	+1.7
TWG	Pinlang	75.72	303	P	P	06 05 02.0	-1.1
	comp=Z,29nm,0.6s						
TPUB	Ta-pu	76.32	303	P	P	06 05 06.3	-0.2
TPUB	Ta-pu	76.32	303	P	P	06 05 05.4	-1.2
	comp=Z,45nm,1.4s						
SSLB	Suanglung	76.34	304	P	P	06 05 06.2	-0.4
	comp=Z,25nm,1.3s						
SHEM	Shemya Is, Ala	76.34	355	LR	LR	06 34 59.6	
	comp=Z,15nm,19.9s,baz=115,slow=33						
BELA	Belgrano 2	76.44	172	P	P	06 05 06.6	+0.2
BELA				IAmb	IAmb	06 05 07.2	
	comp=Z,7.2nm,0.7s						
UNV	Unalaska Valle	77.62	6	P	P	06 05 13.2	+0.2
MAW	Mawson	78.98	200	P	P	06 05 21.7	+1.2
	comp=Z,2.3nm,0.5s,baz=144,slow=5.4,SNR=9.3						
	comp=Z,2.3nm,0.5s						
MAW	Mawson	78.98	200	P	P	06 05 22.2	+1.7
PEA0B	Petropavlovsk-	79.42	345	P	P	06 05 23.8	+0.8
PEA0B				IAmb	IAmb	06 05 26.6	
	comp=Z,21nm,1.5s						
PETK	Petropavlovsk-	79.42	345	P	P	06 05 22.8	-0.2
	comp=Z,1.3nm,0.4s,baz=124,slow=6.5,SNR=4.8						
	comp=Z,1.3nm,0.4s						
MHC	Mount Hamilton	79.95	42	P	P	06 05 27.2	+0.8
MYKOM	Kota Tinggi	80.67	276	P	P	06 05 31.4	+0.8
	comp=Z,14nm,0.8s						
USRK	Ussuriysk Ar.	81.94	326	P	P	06 05 36.7	+0.1
	comp=Z,2.6nm,0.7s,baz=90,slow=7.6,SNR=7.3						
	comp=Z,2.6nm,0.7s						
NVAR	Mina Array Bea	82.69	43	P	P	06 05 42.2	+1.3
	comp=Z,1.1nm,1.0s,baz=225,slow=8.2,SNR=7.0						
	comp=Z,1.1nm,1.0s						
H03S2	Juan Fernandez	83.60	124	T	T	07 38 23.6	
	baz=247,slow=75,SNR=45						
H03S1	Juan Fernandez	83.62	124	T	T	07 38 22.9	
	baz=247,slow=75,SNR=37						
H03S3	Juan Fernandez	83.62	124	T	T	07 38 21.8	
	baz=247,slow=75,SNR=38						
IPM	Ipoh	84.33	277	P	P	06 05 50.5	+0.9
	comp=Z,20nm,0.9s						
TROLL	Troll, Antarti	84.69	180	⇑P	P	06 05 50.7	+0.2
	comp=Z,354nm,0.7s						
SNAA	Sanae	84.95	178	P	P	06 05 51.8	+0.1
	comp=Z,2.2nm,0.6s,baz=90,slow=14,SNR=4.2						
	comp=Z,2.2nm,0.6s						
SNAA	Sanae	84.95	178	P	P	06 05 52.0	+0.3
VNA3	Neumayer Olymp	85.05	176	⇑P	P	06 05 51.9	-0.3
	comp=Z,6.2nm,0.7s						
CN2	Changchun	85.21	322	*e*P	P	06 05 55.8	+2.6
CN2				pmax	pmax		
	comp=Z,10.0nm,0.7s						
BNX	BinXian	85.38	325	⇓P	P	06 05 56.0	+2.0
BNX				pmax	pmax		
	comp=Z,5.0nm,0.7s						
VNA2	Neumayer--Watz	85.50	177	⇑P	P	06 05 54.5	+0.1
	comp=Z,3.7nm,0.6s,baz=182,slow=4.2						
VNA1	Neumayer--Stat	85.72	176	⇑P	P	06 05 56.1	+0.7
	comp=Z,3.4nm,0.6s						
PLCA	Paso Flores	86.59	133	P	P	06 06 01.8	+1.4
	comp=Z,1.6nm,1.0s,baz=176,slow=1.8,SNR=3.9						
	comp=Z,1.6nm,1.0s						
TXAR	Lajitas Array	88.02	57	P	P	06 06 08.4	+1.0
	comp=Z,0.3nm,0.6s,baz=265,slow=6.8,SNR=7.1						
	comp=Z,0.3nm,0.6s						
TRF	Thorofare Moun	89.26	12	P	P	06 06 12.9	+0.5
TRF				IAmb	IAmb	06 06 14.1	
	comp=Z,9.0nm,0.9s						
RND	Reindeer	89.49	12	P	P	06 06 14.1	+0.7
RND				IAmb	IAmb	06 06 15.0	
	comp=Z,6.0nm,0.8s						
CCB	Clear Creek Bu	90.81	12	P	P	06 06 19.8	+0.4
CCB				IAmb	IAmb	06 06 26.3	
	comp=Z,7.3nm,1.5s						
ILAR	Eielson Array	91.10	12	P	P	06 06 20.7	0.0
	comp=Z,0.6nm,0.5s,baz=225,slow=5.5,SNR=9.3						
	comp=Z,0.6nm,0.5s						
CMAR	Chiang Mai Arr	91.89	289	P	P	06 06 26.2	+0.6
	comp=Z,0.8nm,0.3s,baz=130,slow=3.6,SNR=8.7						
	comp=Z,0.8nm,0.3s						
LZH	Lanzhou	95.26	307	*e*P	P	06 06 39.4	-1.4
LZH				pP	pP	06 07 21.0	-1.1
LZH				pmax	pmax		
	comp=Z,15nm,0.9s						
MKAR	Makanchi Array	113.87	312	PKiKP	PKiKP	06 11 54.1	-0.5
	comp=Z,0.3nm,0.4s,baz=90,slow=1.3,SNR=7.1						
BVAR	Borovoye Array	121.92	319	PKP	PKiKP	06 12 10.0	+0.1
	comp=Z,0.9nm,0.3s,baz=48,slow=2.1,SNR=2.3						
SPITS	Spitsbergen Ar	124.95	357	PKP	PKPdf	06 12 14.5	-0.5
	comp=Z,15nm,1.0s,baz=124,slow=20,SNR=1.6						
ARCES	ARCESS Array B	132.06	350	PKP	PKPdf	06 12 29.3	+0.6
	comp=Z,1.3nm,0.4s,baz=12,slow=1.8,SNR=6.6						
FINES	FINESS Array B	138.92	343	PKhKP	PKPpre	06 12 31.6	
	comp=Z,1.6nm,0.7s,baz=48,slow=2.8,SNR=5.9						
FINES				PKP	PKiKP	06 12 42.9	-1.0
	comp=Z,4.1nm,1.0s,baz=64,slow=3.2,SNR=8.0						
NOA	NORSAR Array B	142.10	353	PKhKP	PKPpre	06 12 41.8	
	comp=Z,0.3nm,0.5s,baz=22,slow=3.2,SNR=3.5						
HFS	Hagfors	142.67	351	PKhKP	PKPpre	06 12 43.5	
	comp=Z,2.6nm,0.5s,baz=66,slow=3.6,SNR=12						
PABE	Paberze	144.48	339	PKPdf	PKPdf	06 12 51.8	+0.1
TJOU	Tjoern	144.99	352	*i* P	PKPab	06 12 52.4	0.0
HOMB	Homborsund	145.08	355	*i* P	PKPab	06 12 53.2	+0.5
SNART	Snartemo	145.11	356	*i* P	PKPdf	06 12 52.8	0.0
ONAU	Onsala	145.56	351	*i* P	PKPbc	06 12 53.9	-0.1
FABU	Falkenberg	145.83	350	*i* P	PKPbc	06 12 54.9	0.0
BLEU	Blekinge	145.94	347	*i* P	PKPbc	06 12 55.5	+0.3
SUW	Suwalki	145.97	339	*e*PKP	PKPdf	06 12 54.2	-0.1
SUW	Suwalki	145.97	339	PKPdf	PKPdf	06 12 54.2	-0.1
AK03	Malin Array Si	146.04	330	PKP	PKPdf	06 12 54.9	+0.3
AKASG	Malin Array Be	146.06	330	PKPbc	PKPbc	06 12 55.3	-0.5
	comp=Z,9.1nm,0.5s,baz=44,slow=4.0,SNR=66						
AKBB	Malin Array Si	146.06	330	PKPdf	PKPbc	06 12 55.3	-0.4
AKBB	Malin Array Si	146.06	330	PKP	PKPdf	06 12 55.2	+0.6
AK23	Malin Array Si	146.06	330	PKP	PKPdf	06 12 55.1	+0.5
AK01	Malin Array Si	146.07	330	PKP	PKPdf	06 12 55.0	+0.4
AK04	Malin Array Si	146.07	330	PKP	PKPdf	06 12 55.1	+0.5
KIEV	Kiev	146.07	330	PKPdf	PKPdf	06 12 55.1	+0.5
KIEV	Kiev	146.07	330	PKP	PKPbc	06 12 55.4	-0.4
AK22	Malin Array Si	146.09	330	PKP	PKPdf	06 12 55.1	+0.5
AK09	Malin Array Si	146.09	329	PKP	PKPdf	06 12 55.2	+0.5
AK16	Malin Array Si	146.14	330	PKP	PKPdf	06 12 55.4	+0.7
DEL	Delary	146.15	349	*i* P	PKPbc	06 12 56.4	+0.6
MUD	Monsted U'grnd	146.81	354	*i* P	PKPbc	06 12 57.3	-0.4
RNPP9	Sopachiv	147.01	333	PKP	PKPbc	06 12 58.0	-0.5
RNPP8	Varash	147.08	333	PKP	PKPbc	06 12 58.2	-0.5
RNPP5	Staryi Chortor	147.15	333	PKP	PKPbc	06 12 58.4	-0.5
BSD	Bornholm Skovb	147.23	347	*i* P	PKPbc	06 12 59.6	+0.6
SSRD	Sdr. Stenderup	147.72	353	*i* P	PKPbc	06 12 59.8	-0.4
EKA	Eskdalemuir Ar	147.95	7	PKPbc	PKPbc	06 13 01.0	+0.2
	comp=Z,3.0nm,0.7s,baz=328,slow=3.0,SNR=5.8						
KMPD	K-Podol'skiy	148.84	329	PKP	PKPbc	06 13 02.0	-1.4
BRTR	Keskin Array B	149.44	309	PKPbc	PKPbc	06 13 05.4	0.0
	comp=Z,2.3nm,0.5s,baz=141,slow=4.7,SNR=13						
BRTR				PKPab	PKPab	06 13 10.4	-0.3
	comp=Z,1.0nm,0.5s,baz=33,slow=3.4,SNR=6.3						
KWP	Kalwaria Pacla	149.68	334	*e*PKP	PKPbc	06 13 04.3	-1.2
KWP	Kalwaria Pacla	149.68	334	PKP	PKPbc	06 13 03.8	-1.7
OJC	Ojcow	150.29	338	*e*PKP	PKPbc	06 13 05.6	-1.3
NIE	Niedzica	150.78	336	*e*PKP	PKPab	06 13 14.6	-1.2
KSP	Ksiaz	150.84	342	*e*PKP	PKiKP	06 13 09.6	+0.9
OSTC	Ostas	151.12	342	*e*PKPAB	PKiKP	06 13 10.2	+0.9
STEB	Steborice	151.20	340	*e*PKPAB	PKiKP	06 13 10.1	+0.6
CLL	Collm	151.21	347	*i* PKPbc	PKiKP	06 13 09.5	0.0
	comp=Z,7.0nm,0.6s						
CLL				*i* PKPab	PKPab	06 13 18.5	+1.1
CLL				*e*SKPdf	SKPdf	06 16 24.0	+3.3
DPC	Dobruska-Polom	151.27	342	⇑*e*PKP	PKiKP	06 13 10.1	+0.4
DPC				*e*PKPAB	PKPab	06 13 16.0	-1.8
KRLC	Kraliky	151.38	341	*e*PKPAB	PKiKP	06 13 10.5	+0.5
BRG	Berggiesshubel	151.41	345	⇑*i*PKPb	PKPbc	06 13 10.3	+0.8
BRG				Amp		06 13 10.8	
	comp=Z,4.2nm,0.7s						
BRG				PKPab	PKPab	06 13 16.1	-2.1
BRG				Amp		06 13 17.0	
	comp=Z,14nm,0.6s						
MORC	Moravsky Berou	151.41	340	*e*PKP	PKPab	06 13 15.5	-2.9
MAUC	Maruska	151.68	339	*e*PKPAB	PKPab	06 13 16.4	-3.1
HSKC	Hora Svate Kat	151.77	346	*e*PKPAB	PKiKP	06 13 13.1	+2.4
VRAC	Vranov	152.12	341	*e*PKP	PKPab	06 13 17.6	-3.7
JAVC	Velka Javorina	152.17	339	*e*PKP	PKPab	06 13 18.5	-3.1
KRUC	Moravsky	152.40	341	*e*PKP	PKPab	06 13 17.4	-5.1
ZVC	Zvikov	152.68	344	*e*PKPAB	PKPab	06 13 18.8	-4.8
ABNA	Allensteig Bun	153.04	341	*e*PKP	PKPab	06 13 19.8	-5.4
	comp=Z,4.0nm,0.6s						
KHC	Kasperske Hory	153.12	344	⇑*e*PKP	PKiKP	06 13 14.2	+0.7
KHC				*e*PKPAB	PKPbc	06 13 18.7	+5.3
CKRC	Cesky Krumlov	153.21	343	*e*PKPAB	PKiKP	06 13 18.6	+4.9
WINA	Alland / Wiene	153.34	340	*e*PKP	PKiKP	06 13 20.3	+6.3
	comp=Z,6.1nm,1.0s						
GERES	GERESS Array B	153.35	344	PKPbc	PKiKP	06 13 15.3	+1.1
	comp=Z,1.2nm,0.2s,baz=35,slow=3.6,SNR=3.7						
CONA	Conrad Observa	153.57	340	*e*PKiKP	PKiKP	06 13 20.4	+5.8
	comp=Z,7.5nm,0.9s						
RONA	Rosalia, Austr	153.63	339	*e*PKiKP	PKiKP	06 13 20.5	+5.8
	comp=Z,13nm,1.1s						
MOA	Molln	154.11	342	*e*PKP	PKiKP	06 13 22.3	+6.6
	comp=Z,3.5nm,1.0s						
MOA				*e*PKP	PKPab	06 13 31.7	+1.8
	comp=Z,8.8nm,1.5s						
BIOA	Bad Ischl, Aus	154.43	343	*e*PKiKP	PKiKP	06 13 22.7	+6.4
	comp=Z,1.3nm,0.4s						
BIOA				*e*PKP	PKPab	06 13 31.7	+0.6
	comp=Z,7.8nm,1.0s						
SESA	Seetaler Alpe,	154.69	341	*e*PKiKP	PKiKP	06 13 22.4	+5.3
	comp=Z,18nm,1.0s						
LESA	Schwarzleotal	154.92	344	*e*PKiKP	PKiKP	06 13 23.0	+5.6
	comp=Z,3.0nm,0.8s						
LESA				*e*PKP	PKPab	06 13 33.3	0.0
	comp=Z,6.3nm,1.3s						
SOKA	Soboth	154.94	340	*e*PKiKP	PKiKP	06 13 22.3	+4.8
	comp=Z,4.1nm,1.1s						
RETA	Reutte	155.30	347	*e*PKP	PKPab	06 13 34.3	-0.6
	comp=Z,4.9nm,1.0s						
ESDC	Sonseca Array	162.92	18	PKPab	PKPab	06 14 07.9	-0.3
	comp=Z,0.5nm,0.7s,baz=339,slow=3.1,SNR=2.7						
TORD	Torodi Ar. Bea	169.59	174	PKP	PKPdf	06 13 24.8	+0.8
	comp=Z,0.7nm,0.8s,baz=203,slow=0.6,SNR=3.5						
TORD				PKPab	PKPab	06 14 38.6	+0.5
	comp=Z,0.8nm,0.7s,baz=184,slow=2.9,SNR=3.5						

IDC 22 06:04:06.0±2.0**,1°.78N**×**124°.85E,h0**km**,mb3.6**/3**, mbtmp3.6**/4**,ML3.7**/1**,Error ellipse: s-maj=129.3km s-min=26.9km az=67.0,Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	19.77	178	P	P	06 08 37.5	-0.3
	0.2nm,0.3s,baz=351,slow=9.4,SNR=2.3						
	1.0nm,0.4s						
FITZ				AML	AML		
WRA	Warramunga Arr	23.51	157	P	P	06 09 18.6	+0.7
	1.3nm,0.4s,baz=336,slow=10,SNR=22						
	1.3nm,0.4s						
ASAR	Alice Springs	26.78	161	P	P	06 09 47.1	-0.9
	0.1nm,0.3s,baz=341,slow=8.6,SNR=1.7						
	0.1nm,0.3s						
MKAR	Makanchi Array	58.11	327	P	P	06 14 01.5	+0.1
	0.2nm,0.3s,baz=119,slow=7.9,SNR=2.5						
	0.2nm,0.3s						

IDC ***22*** *06:06:19.2±0.6, 0°.48S×127°.64E, h0km, mb4.1/13, mbtmp4.2/16, ML3.9/3, MS2.9/2, Error ellipse: s-maj=14.2km s-min=13.1km az=48.0*

NEIC ***22*** *06:06:21.6±1.5, 0°.55S±0°.03×127°.69E±0°.05, h10km±1km, mb4.6/32, Error ellipse: s-maj=9.4km s-min=3.1km az=247.0*

DJA ***22*** *06:06:23.3±0.2, 0°S±2°×12°8E±°, h10km, M4.7/18, mB5.4/7, mb4.9/8, mb5.0/7, mB5.2/4, ML4.5/10, MLv4.6/18, MLv4.6/18, Mw(mB)4.8/7, Mw(mB)4.5/4*

ISC 22 06:06:25.0±0.4**,0°.55S**±0°.05×**127°.70E**±0°.05**,h41**km**,n80,** σ**1.s53**/82**,mb4.5**/26**,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TNTI	Ternate	1.35	346		Pn	06 06 46.3	-1.0
TNTI				Sn	Sn	06 07 06.2	+2.1
TNTI	Ternate	1.35	346	P	Pn	06 06 46.2	-1.1
SANI	Sanana	2.27	229	P	Pn	06 07 00.1	+0.1
GAMI	Galela, Maluku	2.37	2	P	Pn	06 07 06.7	+5.3
NLAI	Namlea	2.74	193	P	Pn	06 07 09.3	+2.8
NLAI				AML	AML		
NLAI				AML	AML		
NLAI				AML	AML		
MSAI	Masohi	3.04	156	P	Pn	06 07 12.4	+1.8
MSAI				AML	AML		
MSAI				AML	AML		
MSAI				AML	AML		
MNI	Manado	3.47	305	P	Pn	06 07 18.3	+1.7
MNI				AML	AML		
MNI				AML	AML		
MNI				AML	AML		
SWI	Sorong	3.58	95	P	Pn	06 07 17.9	0.0
SWI				AML	AML		
SWI				AML	AML		
SWI				AML	AML		
SIJI	Sorong	3.58	95	Pn	Pn	06 07 17.2	-0.9
	9.4nm,0.3s,baz=296,slow=10,SNR=13						
SIJI				Sn	Sn	06 08 00.3	+1.2
	16nm,0.3s,baz=247,slow=22,SNR=8.9						
	22nm,0.3s						
SIJI				AML	AML		
GTOI	Gorontalo	4.83	284	P	Pn	06 07 39.3	+4.1
	1.5nm2μm2μm203nm,0.8s						
GTOI				AML	AML		
LUWI	Luwuk	4.95	264	Pn	Pn	06 07 34.7	-2.2
LUWI				Sn	Sn	06 08 35.4	+2.6
FAKI	Fak Fak	5.12	117	Pn	Pn	06 07 37.8	-1.4
FAKI	Fak Fak	5.12	117	P	Pn	06 07 38.5	-0.7
FAKI				AML	AML		
APSI	Ampana	6.06	267	P	Pn	06 07 53.4	+1.3
	2μm2μm89nm,0.8s,89nm,0.8s						
TOLI2	Tolitoli	7.11	283	Pn	Pn	06 08 05.8	-0.7
MPSI	Mapaga	7.85	276	P	Pn	06 08 20.6	+3.9
SAUI	Saumlaki	8.21	154	Pn	Pn	06 08 20.2	-1.5
BSSI	Bau Bau, Buton	9.09	232	P	Pn	06 08 40.0	+6.3
KAPI	Kappang	9.09	241	Pn	Pn	06 08 33.8	+0.1
	1.5nm,0.3s,baz=48,slow=10.0,SNR=6.0						
KAPI				Sn	Sn	06 10 11.0	-3.9
	baz=1.1,slow=22						
	7.9nm,0.4s						
KAPI				AML	AML		
KAPI	Kappang	9.09	241		Pn	06 08 32.2	-1.5
SOEI	Soe	9.77	200	Pn	Pn	06 08 41.3	-1.8
EDFI	Ende, Flores	10.11	216	P	Pn	06 08 52.8	+5.0
BKB	Balikpapan	10.82	266	Pn	Pn	06 08 54.9	-2.6
MTN	Manton Dam	12.68	165		Pn	06 09 21.6	-1.2
FITZ	Fitzroy Crossi	17.56	186	P	P	06 10 27.6	+0.1
	0.4nm,0.3s,baz=19,slow=8.7,SNR=14						
	5.5nm,0.7s						
FITZ				AML	AML		
FITZ	Fitzroy Crossi	17.56	186	P	Pn	06 10 26.1	-0.7
SMRI	Semarang	18.38	249	P	P	06 10 35.5	-1.1
SMRI				IAmb	IAmb	06 11 04.3	
	comp=Z,55nm,1.0s						
WB0	Warramunga Arr	20.20	161	P	P	06 10 55.8	-0.6
WRAB	Tennant Creek	20.34	162	P	P	06 10 58.1	+0.1
WRA	Warramunga Arr	20.34	162	P	P	06 10 57.4	-0.6
	comp=Z,3.2nm,0.8s,baz=341,slow=12,SNR=16						
WRA				S	S	06 14 38.3	-5.6
	comp=Z,1.0nm,0.9s,baz=337,slow=22,SNR=4.0						
	comp=Z,3.2nm,0.8s						
WR8	Warramunga Arr	20.41	161	P	P	06 10 58.3	-0.4
WR8				IAmb	IAmb	06 11 03.9	
	comp=Z,23nm,1.5s						
BBJI	Bungbulang	21.14	251	P	P	06 11 06.8	+0.1
BBJI				IAmb	IAmb	06 11 13.6	
	comp=Z,30nm,1.2s						
MBWA	Marble Bar	21.91	200	P	P	06 11 14.6	-0.3
MBWA				IAmb	IAmb	06 11 27.2	
	comp=Z,32nm,1.3s						
GUMO	Guam	22.06	50	LR	LR	06 18 42.7	
	comp=Z,40nm,20.8s,baz=214,slow=34						
AS31	Alice Springs	23.76	166	P	P	06 11 34.3	+0.5
ASAR	Alice Springs	23.76	166	P	P	06 11 34.0	+0.1
	comp=Z,16nm,0.8s,baz=343,slow=8.8,SNR=77						
ASAR				PcP	PcP	06 15 17.8	+0.8
	comp=Z,0.3nm,0.7s,baz=350,slow=1.7,SNR=4.6						
ASAR				S	S	06 15 48.8	+2.2
	comp=Z,1.0nm,0.9s,baz=346,slow=19,SNR=4.9						
	comp=Z,16nm,0.8s						
MYKOM	Kota Tinggi	23.96	276	P	P	06 11 34.8	-0.9

MYKOM				IAmb	IAmb	06 11 39.6	
	comp=Z,12nm,1.0s						
TPUB	Ta-pu	24.68	344	P	P	06 11 42.5	+0.3
NACB	Ninganchiao	25.28	347	P	P	06 11 47.2	-0.3
NACB				IAmb	IAmb	06 12 07.3	
	comp=Z,11nm,0.8s						
GIRL	Giralia	25.57	210	P	P	06 11 50.2	-0.1
CTAO	Charters Tower	26.59	138	P	P	06 11 59.8	+0.2
CTAO				IAmb	IAmb	06 12 04.3	
	comp=Z,18nm,1.4s						
RPSI	Rantau Prapat	28.94	277	P	P	06 12 20.4	-0.3
RPSI				IAmb	IAmb	06 12 31.2	
	comp=Z,7.6nm,0.9s						
FORT	Forrest	30.07	179	P	P	06 12 30.3	-0.2
FORT				IAmb	IAmb	06 12 33.5	
	comp=Z,10nm,1.0s						
GSI	Gunungsitoli	30.18	274	P	P	06 12 31.7	0.0
GSI				IAmb	IAmb	06 12 57.3	
	comp=Z,12nm,1.1s						
BBOO	Buckleboo	33.05	167	P	P	06 12 56.2	-0.5
STKA	Stephens Creek	33.82	158	P	P	06 13 04.5	+1.1
	comp=Z,11nm,0.8s,baz=329,slow=8.1,SNR=10						
	comp=Z,11nm,0.8s						
CMAR	Chiang Mai Arr	33.99	305	LR	LR	06 29 28.8	
	comp=Z,17nm,18.0s,baz=185,slow=41						
CHTO	Chiang Mai	34.17	306	P	P	06 13 06.0	-0.6
CHTO				IAmb	IAmb	06 13 14.9	
	comp=Z,3.5nm,0.9s						
MAJO	Matsushiro	38.17	14	P	P	06 13 39.2	-1.3
MJAR	Matsushiro Arr	38.17	14	P	P	06 13 38.1	-2.5
	comp=Z,1.0nm,0.8s,baz=179,slow=7.3,SNR=1.8						
	comp=Z,1.0nm,0.8s						
MJB9	Matsu-Tunnel	38.17	14	P	P	06 13 40.0	-0.6
MJB9				IAmb	IAmb	06 13 51.8	
	comp=Z,16nm,1.5s						
MDJ	Mudanjiang	45.00	2	P	P	06 14 36.8	+0.5
EVN	Everest	48.37	309	P	P	06 15 02.1	-1.6
SONM	Songino Array	51.63	342	P	P	06 15 26.9	-0.7
	comp=Z,0.4nm,0.5s,baz=157,slow=9.1,SNR=2.8						
	comp=Z,0.4nm,0.5s						
FUNA	Funafuti	51.90	100	P	P	06 15 29.6	-0.4
PETK	Petropavlovsk-	59.03	21	P	P	06 16 19.4	-1.3
	comp=Z,1.3nm,0.8s,baz=214,slow=7.6,SNR=2.0						
	comp=Z,1.3nm,0.8s						
TARG	Taragay, Kyrgy	61.58	319	P	P	06 16 38.5	-0.3
TARG				IAmb	IAmb	06 16 58.9	
	comp=Z,3.0nm,0.8s						
MKAR	Makanchi Array	61.61	326	P	P	06 16 38.6	+0.2
	comp=Z,1.3nm,0.7s,baz=118,slow=8.0,SNR=9.0						
	comp=Z,1.3nm,0.7s						
KSH2	Kashi	61.88	316	P	P	06 16 43.8	+3.3
NIUE	Niue	63.80	111	P	P	06 16 54.1	+0.7
ZALV	Zalesovo Beam	64.82	334	P	P	06 17 01.0	+1.5
	comp=Z,0.4nm,0.3s,baz=131,slow=6.1,SNR=1.1						
	comp=Z,0.4nm,0.3s						
KURBB	Kurchatov Arra	65.85	328	P	P	06 17 05.9	-0.3
	comp=Z,2.4nm,0.2s,baz=127,slow=5.9,SNR=5.0						
	comp=Z,2.4nm,0.2s						
KURK	Kurchatov	65.85	328	P	P	06 17 06.2	0.0
CASY	Casey	66.72	187	P	P	06 17 13.2	+1.7
CASY				IAmb	IAmb	06 17 13.9	
	comp=Z,6.0nm,0.9s						
BVAR	Borovoye Array	71.42	328	P	P	06 17 41.0	0.0
	comp=Z,0.7nm,0.4s,baz=123,slow=11,SNR=4.5						
	comp=Z,0.7nm,0.4s						
VNDA	Vanda	79.09	173	P	P	06 18 25.5	+0.9
	comp=Z,0.5nm,0.5s,baz=305,slow=5.1,SNR=3.9						
	comp=Z,0.5nm,0.5s						
VNDA	Vanda	79.09	173	P	P	06 18 25.4	+0.9
ARTI	Arti	79.13	328	P	P	06 18 24.4	-0.8
ARTI				IAmb	IAmb	06 18 37.7	
	comp=Z,5.2nm,0.4s						
MAW	Mawson	80.11	201	P	P	06 18 31.4	+1.2
	comp=Z,1.6nm,0.5s,baz=11,slow=5.2,SNR=3.1						
	comp=Z,1.6nm,0.5s						
MAW	Mawson	80.11	201	P	P	06 18 31.5	+1.2
N17K	Nushagak Hills	83.18	29	P	P	06 18 47.6	+1.0
QSPA	South Pole Qui	89.39	180	P	P	06 19 18.2	+1.0
	comp=Z,3.0nm,0.9s,baz=316,slow=2.0,SNR=7.6						
	comp=Z,3.0nm,0.9s						
QSPA	South Pole Qui	89.39	180	P	P	06 19 18.4	+1.2
QSPA				IAmb	IAmb	06 19 19.5	
	comp=Z,4.5nm,1.1s						
M31M	Drury Creek, Y	94.18	28	P	P	06 19 39.8	+0.5
M31M				IAmb	IAmb	06 19 40.3	
	comp=Z,5.2nm,1.1s						
CO03	El Pedregal	144.23	152	PKPdf	PKPdf	06 25 57.2	-0.1
ZON	Zonda	144.51	156	PKPdf	PKPdf	06 25 58.0	+0.2
BOAB	BOACO BROADBAN	144.87	69	PKPdf	PKPab	06 25 57.2	-0.5
CO01	Juntas del Tor	145.23	152	PKPbc	PKPbc	06 25 58.9	-0.1
AC05	El Transito	146.10	151	PKPdf	PKPdf	06 25 59.7	-0.9
CPUP	Villa Florida	152.84	170	PKPbc	PKiKP	06 26 18.9	+0.3
	comp=Z,1.5nm,0.8s,baz=207,slow=4.5,SNR=5.0						

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*IDC **22** 06:13:24.6±4.8, 18°.57N×123°.63E, h0^{km}, mb3.8/4, mbtmp3.8/4, MS2.9/1, Error ellipse: s-maj=399.3km s-min=23.1km az=63.0*

*NEIC **22** 06:13:24.9±1.1, 18°.63N±0°.09×123°.6E±0°.1, h10^{km}±1^{km}, mb4.4/15, Error ellipse: s-maj=17.8km s-min=14.4km az=98.0*

*MAN **22** 06:13:30.0, 17°.99N×122°.30E, h1^{km}, MS2.8*

ISC 22 06:13:24.5±0.7**, 18°.60N**±0°.08×**123°.6E**±0°.1**, h10^{km}, n33, σ0^{s}.99**/23**, mb4.3**/13**, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PACPP	Pamplona Cagay	2.15	267	*e*P	Pn	06 13 50.4	-10
PACPP				*i* S	Sn	06 14 06.0	-21
TWG	Pinlang	4.83	331	Pn	Pn	06 14 36.4	-0.8
LQP	Lukban	4.89	204	*e*P	Pn	06 14 30.9	-7.3
TPUB	Ta-pu	5.45	330	Pn	Pn	06 14 45.2	-0.6
JMZ	Minamidaito 2	10.06	43	Pn	Pn	06 15 48.0	-1.1
KKM	Kota Kinabalu	14.42	211	Pn	Pn	06 16 48.6	-0.2
TOLI2	Tolitoli	17.60	189	Pn	Pn	06 17 29.3	-0.7
JYT	Yasato	22.85	36	P	P	06 18 27.9	0.0
CHTO	Chiang Mai	23.36	274	P	P	06 18 32.6	-0.8
CHTO				IAmb	IAmb	06 18 36.3	
	comp=Z,3.1nm,0.3s						
USA0B	Ussuriysk Arra	26.47	14	P	P	06 19 02.7	+0.9
USA0B				IAmb	IAmb	06 19 04.0	
	comp=Z,3.4nm,0.7s						
JKA	Kamikawa-asahi	30.02	28	P	P	06 19 34.1	+0.7
JKA				IAmb	IAmb	06 19 57.4	
	comp=Z,23nm,1.4s						
WB0	Warramunga Arr	39.57	164	P	P	06 20 55.7	-0.4
WB0				IAmb	IAmb	06 21 04.6	
	comp=Z,4.2nm,1.1s						
WRA	Warramunga Arr	39.72	164	P	P	06 20 57.9	+0.6
	comp=Z,0.4nm,0.6s,baz=343,slow=9.0,SNR=4.1						
	comp=Z,0.4nm,0.6s						
WR8	Warramunga Arr	39.78	164	P	P	06 20 57.3	-0.5
WR8				IAmb	IAmb	06 20 58.1	
	comp=Z,10nm,1.4s						
H11S3	WAKE ISLAND Hy	40.76	83	T	T	07 06 29.0	
	baz=277,slow=75,SNR=31						
H11S1	WAKE ISLAND Hy	40.77	83	T	T	07 06 26.6	
	baz=277,slow=75,SNR=15						
H11S2	WAKE ISLAND Hy	40.78	83	T	T	07 06 26.0	
	baz=277,slow=75,SNR=17						
H11N1	WAKE ISLAND Hy	40.81	81	T	T	07 06 28.9	
	baz=275,slow=75,SNR=8.1						
H11N2	WAKE ISLAND Hy	40.82	81	T	T	07 06 27.8	
	baz=275,slow=75,SNR=7.0						
H11N3	WAKE ISLAND Hy	40.83	81	T	T	07 06 27.9	
	baz=275,slow=75,SNR=6.2						
AS31	Alice Springs	43.19	166	P	P	06 21 25.2	-0.6
ASAR	Alice Springs	43.19	166	P	P	06 21 27.5	+1.7
	comp=Z,0.6nm,0.6s,baz=347,slow=9.2,SNR=9.2						
	comp=Z,0.6nm,0.6s						
PET	Petropavlovsk	43.80	30	P	P	06 21 30.7	+0.4
MKAR	Makanchi Array	43.97	319	P	P	06 21 34.7	+2.8
	comp=Z,0.3nm,0.7s,baz=120,slow=8.5,SNR=2.6						
	comp=Z,0.3nm,0.7s						
MA2	Magadan	45.38	19	LR	LR	06 40 32.7	
	comp=Z,14nm,21.7s,baz=296,slow=36						
ZAA0	Zalesovo Array	46.16	329	P	P	06 21 49.4	+0.2
ZAA0				IAmb	IAmb	06 22 16.1	
	comp=Z,3.8nm,1.3s						
KURK	Kurchatov	47.85	323	P	P	06 22 00.8	-1.5
KURK				IAmb	IAmb	06 22 13.9	
	comp=Z,2.4nm,0.6s						
KURBB	Kurchatov Arra	47.86	323	P	P	06 22 03.0	+0.5
	comp=Z,2.6nm,0.2s,baz=113,slow=9.3,SNR=2.6						
	comp=Z,2.6nm,0.2s						
ARTI	Arti	61.02	325	P	P	06 23 38.2	+0.1
ARTI				IAmb	IAmb	06 23 44.3	
	comp=Z,5.2nm,0.9s						
BRLK	Bradley Lake	71.87	32	P	P	06 24 48.0	+0.4
SML	Sawmill	72.88	30	P	P	06 24 54.0	+0.4
IL31		73.14	27	P	P	06 24 55.2	+0.2
IL31				IAmb	IAmb	06 25 34.4	
	comp=Z,4.5nm,1.3s						
KEST	Kesra	97.63	312	P	Pdif	06 27 02.1	+2.2
	comp=Z,2.8nm,0.7s,baz=65,slow=11,SNR=3.8						

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*IDC **22** 06:22:07.5±0.8, 62°.15S×58°.28W, h0^{km}, mb4.0/10, mbtmp4.0/10, MS3.4/9, Error ellipse: s-maj=45.4km s-min=16.9km az=77.0*

*NEIC **22** 06:22:09.5±1.8, 62°.20S±0°.07×58°.08W±0°.05, h10^{km}±1^{km}, mb4.8/45, Error ellipse: s-maj=11.9km s-min=4.2km az=172.0*

ISC 22 06:22:09.4±0.4**, 62°.19S**±0°.06×**58°.14W**±0°.08**, h10^{km}, n92, σ0^{s}.88**/77**, mb4.7**/31**, MS3.5**/8**, 4C, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMSA	Palmer Station	3.71	223	LR	LR	06 24 33.5	
	comp=Z,267nm,21.8s,baz=88,slow=40						
PMSA	Palmer Station	3.71	223		Pn	06 23 06.2	-0.4
ORCD	Orcadas	6.58	83	Pn	Pn	06 23 45.1	-1.0
SMAI	San Martin Ant	7.05	208	Pn	Pn	06 23 52.3	-0.1
EFI	East Falkland	10.54	0	Pn	Pn	06 24 39.6	-0.7
MG03	Isla Dawson	10.59	317	Pn	Pn	06 24 39.9	-1.1
HOPE	Hope Point	13.82	65	Pn	Pn	06 25 24.5	-0.6
BELA	Belgrano 2	17.42	164	P	Pn	06 26 12.4	+0.4
COYC	Coyhaique	18.49	328	P	Pn	06 26 25.2	-0.3
VNA3	Neumayer Olymp	20.56	136	⇑P	Pn	06 26 49.3	-0.7
	comp=Z,11nm,0.8s						
LL02	Futaleuf	20.68	331	P	Pn	06 26 50.1	-1.4
VNA1	Neumayer--Stat	21.02	135	P	P	06 26 53.9	+1.2
	comp=Z,8.7nm,0.9s						
VNA2	Neumayer--Watz	21.30	136	⇑P	P	06 26 56.7	+1.0
	comp=Z,4.8nm,0.6s,baz=270,slow=11						
SNAA	Sanae	22.73	138	⇑P	P	06 27 12.9	+1.7
	comp=Z,176nm,1.0s						
SNAA	Sanae	22.73	138	P	P	06 27 12.2	+1.1
	comp=Z,4.7nm,0.8s,baz=268,slow=5.4,SNR=8.2						
SNAA				LR	LR	06 34 12.2	
	comp=Z,66nm,20.6s,baz=243,slow=32						
	comp=Z,4.7nm,0.8s						
SNAA	Sanae	22.73	138	P	P	06 27 11.1	0.0
PLCA	Paso Flores	22.75	335	P	P	06 27 11.6	0.0
	comp=Z,7.3nm,1.1s,baz=176,slow=10.0,SNR=5.4						
	comp=Z,7.3nm,1.1s						
PLCA	Paso Flores	22.75	335	P	P	06 27 14.0	+2.5
PLCA				IAmb	IAmb	06 27 14.8	
	comp=Z,17nm,1.2s						
GO06	Curarrehue	24.05	334	P	P	06 27 25.1	+0.5
GO06				IAmb	IAmb	06 27 30.9	
	comp=Z,20nm,1.1s						
LR03	Panguipulli	24.19	332	P	P	06 27 25.5	-0.2
LR03				IAmb	IAmb	06 27 43.1	
	comp=Z,22nm,1.5s						
TROLL	Troll, Antarti	24.38	139	⇑P	P	06 27 29.3	+2.0
	comp=Z,296nm,0.9s						
QSPA	South Pole Qui	28.04	180	P	P	06 28 01.8	+1.4
	comp=Z,2.2nm,0.7s,baz=178,slow=6.6,SNR=5.3						
	comp=Z,2.2nm,0.7s						
QSPA	South Pole Qui	28.04	180	P	P	06 28 00.5	+0.1
BO02	Sierra Bellavi	28.56	338	P	P	06 28 05.1	-0.1
GO05	Hualane	28.56	336	P	P	06 28 04.5	-0.6
GO05				IAmb	IAmb	06 28 24.6	
	comp=Z,22nm,1.2s						
BO04	La Punta	29.31	338	P	P	06 28 11.6	-0.3
BO04				IAmb	IAmb	06 28 14.1	
	comp=Z,11nm,0.9s						
MT08	Bocatoma Ro	29.75	340	P	P	06 28 17.1	+1.2
MT08				IAmb	IAmb	06 28 19.0	
	comp=Z,7.7nm,0.9s						
PEL	Peldehue	30.15	339	P	P	06 28 19.6	+0.3
PEL				IAmb	IAmb	06 28 26.8	
	comp=Z,17nm,1.2s						
VA03	San Esteban	30.50	339	P	P	06 28 22.8	+0.3
VA03				IAmb	IAmb	06 28 45.7	
	comp=Z,11nm,0.9s						
CO04	Los Peladeros	31.28	339	P	P	06 28 28.3	-1.2
CO04				IAmb	IAmb	06 28 32.5	
	comp=Z,14nm,1.1s						
CO03	El Pedregal	32.41	340	P	P	06 28 39.1	-0.1
CO03				IAmb	IAmb	06 28 41.9	
	comp=Z,9.4nm,0.8s						
GO04	Tololo Observa	33.08	340	P	P	06 28 44.5	-0.8
GO04				IAmb	IAmb	06 29 01.0	
	comp=Z,10nm,0.7s						
CO01	Juntas del Tor	33.16	341	P	P	06 28 46.5	+0.6
CO01				IAmb	IAmb	06 28 49.6	
	comp=Z,21nm,1.4s						
AC04	Llanos de Chal	35.05	340	P	P	06 29 01.9	-0.1
AC04				IAmb	IAmb	06 29 04.8	
	comp=Z,13nm,0.8s						
GO03	Copiapo	35.52	341	P	P	06 29 06.3	+0.2
GO03				IAmb	IAmb	06 29 26.5	
	comp=Z,7.3nm,0.6s						
AC06	Mina Casimiro	35.77	341	P	P	06 29 08.1	-0.2
CPUP	Villa Florida	35.86	1	P	P	06 29 09.8	+0.8
	comp=Z,1.3nm,0.8s,baz=180,slow=4.0,SNR=3.5						
CPUP				LR	LR	06 45 09.8	
	comp=Z,25nm,18.7s,baz=248,slow=39						
	comp=Z,1.3nm,0.8s						
CPUP	Villa Florida	35.86	1	P	P	06 29 09.6	+0.6
CPUP				IAmb	IAmb	06 29 19.7	
	comp=Z,9.1nm,1.4s						
TRIS	Tristan da Cun	37.67	70	P	P	06 29 24.6	+0.2
AF01	San Pedro de A	39.81	345	P	P	06 29 42.7	-0.1
AF01				IAmb	IAmb	06 30 10.5	
	comp=Z,27nm,0.7s						
PB02	IPOC Station P	41.64	343	P	P	06 29 58.1	+0.4
MAW	Mawson	43.68	152	P	P	06 30 12.5	-1.2
	comp=Z,0.8nm,0.4s,baz=245,slow=17,SNR=3.6						
	comp=Z,0.8nm,0.4s						
MAW	Mawson	43.68	152	P	P	06 30 13.1	-0.6
LPAZ	La Paz	46.39	347	P	P	06 30 34.2	-2.2
	comp=Z,0.3nm,0.3s,baz=170,slow=6.4,SNR=7.6						
LPAZ				LR	LR	06 51 27.6	
	comp=Z,32nm,19.9s,baz=180,slow=38						
	comp=Z,0.3nm,0.3s						
LPAZ	La Paz	46.39	347	P	P	06 30 35.8	-0.6
BDFB	Brasilia	47.04	13	P	P	06 30 40.7	-0.2
	comp=Z,2.9nm,0.7s,baz=90,slow=2.8,SNR=3.8						
	comp=Z,2.9nm,0.7s						
BDFB	Brasilia	47.04	13	P	P	06 30 41.0	0.0
BDFB				IAmb	IAmb	06 31 02.0	
	comp=Z,6.0nm,1.2s						
RCBR	Riachuelo	58.60	26	P	P	06 32 07.0	+0.7
H10S3	ASCENSION HYDR	61.78	50	T	T	07 39 43.3	
	baz=202,slow=74,SNR=21						
H10S2	ASCENSION HYDR	61.78	51	T	T	07 39 43.4	
	baz=18,slow=74,SNR=19						
BOSA	Boshof	62.08	99	P	P	06 32 30.7	+0.6
BOSA				IAmb	IAmb	06 32 49.0	
	comp=Z,16nm,1.4s						
H10N3	ASCENSION HYDR	62.87	50	T	T	07 41 02.8	
	baz=200,slow=75,SNR=50						
H10N1	ASCENSION HYDR	62.87	50	T	T	07 41 03.4	
	baz=200,slow=75,SNR=32						
H10N2	ASCENSION HYDR	62.89	50	T	T	07 41 04.2	
	baz=200,slow=75,SNR=38						
BOAV	Boa Vista	64.44	357	P	P	06 32 46.2	+0.6
LBTB	Lobatse	65.30	97	LR	LR	06 55 10.8	
	comp=Z,28nm,20.2s,baz=185,slow=30						
KDWAN	Kaudwane	66.26	95	P	P	06 32 56.4	-1.2
KDWAN				IAmb	IAmb	06 32 58.1	
	comp=Z,14nm,1.0s						
GRTLG	Ghanzi	66.38	91	P	P	06 32 56.9	-1.5
GRTLG				IAmb	IAmb	06 33 10.2	
	comp=Z,12nm,1.1s						
MLZ	Mavora Lakes	66.56	214	P	P	06 32 58.1	-1.0
GVZ	Greta Valley S	67.42	218	P	P	06 33 05.1	+0.5
ROSC	El Rosal	67.99	343	LR	LR	07 03 06.4	
	comp=Z,35nm,19.2s,baz=217,slow=36						
SDV	Santo Domingo	71.52	347	LR	LR	07 09 22.0	
	comp=Z,31nm,18.1s,baz=42,slow=40						
FOMA	Nahampoana Res	74.94	115	P	P	06 33 50.2	-0.2
JUD3	Juan Diaz 3	75.22	332	P	P	06 33 52.5	+0.5
JUD3				IAmb	IAmb	06 34 12.1	
	comp=Z,8.2nm,1.2s						
ILAM	Ilet Lapin Mar	76.74	357	P	P	06 34 00.0	-0.5
BOAB	BOACO BROADBAN	77.46	332	P	P	06 34 04.5	-0.1
BOAB				IAmb	IAmb	06 34 04.7	
	comp=Z,12nm,1.0s						
SMRT	St. Maarten	80.06	355	P	P	06 34 18.7	-0.1
SMRT				IAmb	IAmb	06 34 47.4	
	comp=Z,31nm,1.2s						
TORD	Torodi Ar. Bea	88.28	57	P	P	06 35 01.5	+0.8
	comp=Z,0.2nm,0.5s,baz=221,slow=4.9,SNR=2.0						
	comp=Z,0.2nm,0.5s						
KMBO	Kilima Mbogo	91.53	95	LR	LR	07 11 38.8	
	comp=Z,26nm,20.3s,baz=103,slow=32						
ASAR	Alice Springs	93.90	191	P	P	06 35 27.8	+0.8
	comp=Z,0.3nm,0.6s,baz=165,slow=4.2,SNR=1.9						
	comp=Z,0.3nm,0.6s						
BBSR	BB Station	94.38	354	P	P	06 35 29.4	+0.8
456A	Hilliard	94.57	340	P	P	06 35 30.0	+0.5
MSEY	Mahe Island	96.65	113	P	P	06 35 38.9	-0.8
WRA	Warramunga Arr	97.55	192	P	P	06 35 42.4	-1.2
	comp=Z,0.5nm,0.9s,baz=162,slow=4.7,SNR=2.5						
	comp=Z,0.5nm,0.9s						
TKL	Tuckaleechee C	99.69	339	LR	LR	07 24 52.3	
	comp=Z,31nm,18.1s,baz=120,slow=38						
GERES	GERESS Array B	124.50	50	PKP	PKPdf	06 41 06.4	-1.2
	comp=Z,1.0nm,0.2s,baz=222,slow=1.8,SNR=3.5						
CLL	Collm	126.33	47	*e*PKPdf	PKiKP	06 41 14.0	+2.7
ARCES	ARCESS Array B	143.95	36	PKP	PKPab	06 41 40.0	-0.4
	comp=Z,3.0nm,0.6s,baz=248,slow=2.0,SNR=3.8						
AKTO	Aktyubinsk	144.21	79	PKP	PKPab	06 41 41.5	-0.4
	comp=Z,1.4nm,0.4s,baz=136,slow=3.1,SNR=4.3						
AB31	Akbulak array	144.28	82	PKPdf	PKPab	06 41 41.7	-0.5
KEV	Kevo	144.50	37	PKPdf	PKPbc	06 41 42.3	-0.4
J20K	Nowinta River	144.64	311	PKPdf	PKPdf	06 41 43.5	-0.9
J19K	Poorman	145.05	310	PKPbc	PKPdf	06 41 45.2	+0.1
K17K	Iditarod	145.28	307	PKPbc	PKPdf	06 41 46.0	+0.5
LVZ	Lovozero	145.71	42	PKPdf	PKPab	06 41 46.9	-0.1
G21K	Allakaket	145.77	315	PKPdf	PKPab	06 41 47.1	-0.2
AAK	Ala-Archa	146.15	103	PKPbc	PKPbc	06 41 48.3	-0.7
	comp=Z,1.6nm,0.4s,baz=213,slow=3.6,SNR=3.9						
AAK	Ala-Archa	146.15	103	PKPdf	PKPdf	06 41 48.0	+0.1
BOOM	Boomskoye usch	146.69	105	PKPdf	PKPdf	06 41 49.3	+0.4
TARG	Taragay, Kyrgy	146.92	107	PKPdf	PKPbc	06 41 51.0	-0.5
BVAR	Borovoye Array	151.68	85	PKPbc	PKPbc	06 42 02.4	-0.2
	comp=Z,1.8nm,0.4s,baz=270,slow=0.3,SNR=7.4						
MKAR	Makanchi Array	152.89	106	PKPbc	PKPbc	06 42 05.2	-0.4
	comp=Z,0.8nm,0.6s,baz=201,slow=1.9,SNR=7.0						

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*SJA **22** 06:40:18.0±1.0, 31°.80S×72°.77W, h15^{km}, ML3.7, MW3.7*

*IDC **22** 06:40:22.0±0.9, 31°.72S×72°.41W, h0^{km}, mb4.0/5, mbtmp3.8/10, ML3.6/5, Error ellipse: s-maj=18.2km s-min=14.0km az=156.0*

*NEIC **22** 06:40:22.5±1.2, 31°.80S±0°.04×72°.36W±0°.08, h11^{km}±5^{km}, mb4.3/6, ML3.8(GUC), Error ellipse: s-maj=9.8km s-min=5.8km az=96.0*

*GUC **22** 06:40:25.4±0.8, 31°.83S×72°.13W, h41^{km}±4^{km}, ML3.8*

ISC 22 06:40:22.2±0.6**, 31°.84S**±0°.02×**72°.33W**±0°.04**, h10^{km}, n125, σ1^{s}.67**/157**, mb4.2**/7**, 7C-12D, Off coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CO04	Los Peladeros	1.17	101	⇓*i*P	Pg	06 40 44.3	-0.3
CO04				*i* S	Sb	06 40 57.6	-2.3
CO04				IAML		06 40 59.1	
	comp=N,10μm,0.4s						
CO04	Los Peladeros	1.17	101		Pg	06 40 44.4	-0.3
CO04				Sg	Sb	06 40 57.8	-2.1
CO02	Combarbal	1.30	61	*e*P	Pg	06 40 46.1	-1.0
CO02				*e*S	Sb	06 41 03.1	-0.4
CO02				IAML		06 41 04.4	
	comp=Z,3μm,0.5s						
CO02	Combarbal	1.30	61	⇑*i*P	Pb	06 40 46.0	-0.7
CO02				*i* S	Sb	06 41 00.4	-3.0
CO02				IAML		06 41 05.0	
	comp=E,6μm,0.3s						
CO02	Combarbal	1.30	61		Pg	06 40 46.1	-1.0
CO02				Sn	Sb	06 41 02.5	-0.9
CO06	Fray Jorge	1.30	27	⇑*i*P	Pg	06 40 46.3	-0.8
CO06				*i* S	Sb	06 41 01.9	-1.6
CO06	Fray Jorge	1.30	27		Pg	06 40 46.3	-0.8
CO06				Sn	Sb	06 41 02.0	-1.5
VA01	Torpederas	1.32	154	*e*P	Pb	06 40 46.0	-1.0
VA01				*i* S	Sb	06 41 02.2	-1.7
VA01	Torpederas	1.32	154		Pg	06 40 47.0	-0.4
ROCH	El Roble	1.59	136	⇓*i*P	Pb	06 40 50.9	-0.8
ROCH				*i* S	Sn	06 41 09.2	-2.1
CO03	El Pedregal	1.72	55	*e*P	Pb	06 40 52.7	-1.1
CO03				*e*S	Sb	06 41 14.4	-1.2
CO03				IAML		06 41 16.1	
	comp=Z,944nm,0.3s						
CO03	El Pedregal	1.72	55	⇑*i*P	Pb	06 40 52.5	-1.3
CO03				*e*S	Sn	06 41 13.2	-1.0
CO03				IAML		06 41 18.5	
	comp=E,978nm,0.3s						
CO03	El Pedregal	1.72	55		Pb	06 40 52.5	-1.3
CO03				Sn	Sn	06 41 13.3	-1.0
MT02	Curacav	1.74	145	*e*P	Pb	06 40 53.2	-1.0
MT02				IAML		06 41 25.7	
	comp=Z,298nm,0.3s						
MT02	Curacav	1.74	145	⇓*i*P	Pb	06 40 53.1	-1.0
MT02				*i* S	Sn	06 41 12.9	-1.8
MT02	Curacav	1.74	145		Pb	06 40 53.1	-1.0
VA03	San Esteban	1.77	122	*e*P	Pb	06 40 53.6	-1.1
VA03				IAML		06 41 24.8	
	comp=Z,498nm,0.4s						
VA03	San Esteban	1.77	122	⇓*i*P	Pb	06 40 53.4	-1.3
VA03				*i* S	Sn	06 41 14.3	-1.1
VA03				IAML		06 41 19.2	
	comp=E,2μm,0.2s						
VA03	San Esteban	1.77	122		Pb	06 40 53.4	-1.3
PEL	Peldehue	1.90	134	⇓*i*P	Pb	06 40 55.5	-1.5
PEL				*e*S	Sn	06 41 18.2	-0.6
PEL				IAML		06 41 25.5	
	comp=N,898nm,0.3s						
PEL	Peldehue	1.90	134		Pb	06 40 55.5	-1.5
VA05	Santo Domingo	1.91	162	⇓*i*P	Pb	06 40 55.5	-1.7
VA05				*i* S	Sn	06 41 17.7	-1.3
VA05	Santo Domingo	1.91	162		Pb	06 40 55.4	-1.7
MT05	Renca	2.05	140	*e*P	Pb	06 40 57.9	-1.6
MT05				IAML		06 41 38.4	
	comp=Z,371nm,1.3s						
MT05	Renca	2.05	140	⇓*i*P	Pb	06 40 57.6	-1.9
MT05				*i* S	Sn	06 41 22.1	-0.4
MT05				IAML		06 41 27.5	
	comp=E,2μm,0.3s						
MT05	Renca	2.05	140		Pb	06 40 57.6	-1.9
MT10	Hacienda Santa	2.08	134	⇓*i*P	Pb	06 40 58.3	-1.9
MT10				*i* S	Sn	06 41 21.7	-1.7
MT10				IAML		06 41 38.8	
	comp=E,1μm,0.3s						
GO04	Tololo Observa	2.11	39	*e*P	Pb	06 40 58.4	-2.4
GO04				IAML		06 41 37.9	
	comp=Z,597nm,0.3s						
GO04	Tololo Observa	2.11	39	*e*P	Pn	06 40 58.1	+0.3
GO04	Tololo Observa	2.11	39		Pn	06 40 58.0	+0.3
MT14	Cerro Cal¡n	2.17	136	⇓*i*P	Pb	06 40 59.5	-2.1
MT14				*i* S	Sn	06 41 25.1	-0.3
MT14				IAML		06 41 30.6	
	comp=N,974nm,0.5s						
MT16	CCHEN	2.20	137	⇓*i*P	Pb	06 40 59.9	-2.1
MT16				*i* S	Sn	06 41 25.2	-1.0
MT16	CCHEN	2.20	137		Pb	06 40 60.0	-2.1
MT01	Popeta	2.22	156	*e*P	Pb	06 40 59.9	-2.5
MT01	Popeta	2.22	156	⇓*i*P	Pb	06 40 59.8	-2.5
MT01				*i* S	Sn	06 41 25.1	-1.4
MT01	Popeta	2.22	156		Pb	06 40 59.8	-2.5
MT09	Talagante	2.24	150	*e*P	Pb	06 41 00.6	-2.2
MT09				*i* S	Sn	06 41 26.1	-1.2
MT09				IAML		06 41 32.1	
	comp=N,513nm,0.2s						
MT09	Talagante	2.24	150		Pb	06 41 00.6	-2.2
MT03	Universidad Ad	2.25	138	*e*P	Pb	06 41 00.9	-2.2
MT03				IAML		06 41 43.3	
	comp=Z,405nm,0.8s						
MT03	Universidad Ad	2.25	138	*e*P	Pb	06 41 00.7	-2.3
MT03				*i* S	Sn	06 41 25.9	-1.7
MT03				IAML		06 41 35.0	
	comp=E,1μm,0.2s						
MT03	Universidad Ad	2.25	138		Pb	06 41 00.7	-2.3
MT15	Las Vizcachas	2.33	139	*e*P	Pb	06 41 01.9	-2.4
MT15				*i* S	Sn	06 41 29.5	+0.1
MT15				IAML		06 41 38.2	
	comp=E,579nm,0.3s						
MT12	Pirque	2.41	142	⇓*i*P	Pb	06 41 03.1	-2.6
MT12				*i* S	Sn	06 41 31.0	-0.4

MT12				IAML		06 41 43.3	
	comp=E,814nm,0.5s						
MT04	**Ro Olivares**	**2.42**	**131**	*e*P	**Pb**	**06 41 03.6**	**-2.4**
MT04	**Ro Olivares**	**2.42**	**131**	*e*P	**Pb**	**06 41 03.3**	**-2.6**
MT04				*i* S	**Sn**	**06 41 30.7**	**-1.2**
MT13	**San Alfonso**	**2.56**	**138**	*e*P	**Pb**	**06 41 05.7**	**-2.6**
MT13				IAML		06 41 52.1	
	comp=Z,164nm,0.6s						
MT13	**San Alfonso**	**2.56**	**138**	*e*P	**Pb**	**06 41 05.4**	**-2.9**
MT13				*i* S	**Sn**	**06 41 33.8**	**-1.4**
MT13				IAML		06 41 49.8	
	comp=E,393nm,0.3s						
MT13	**San Alfonso**	**2.56**	**138**		**Pn**	**06 41 05.1**	**+1.2**
RTLS	**Leoncito**	**2.58**	**90**	*e*P	**Pb**	**06 41 07.4**	**-1.3**
RTLS				IAML		06 41 53.9	
	comp=Z,395nm,0.5s						
BO04	**La Punta**	**2.59**	**147**	*e*P	**Pb**	**06 41 05.8**	**-2.9**
BO04	**La Punta**	**2.59**	**147**		**Pb**	**06 41 05.8**	**-2.9**
CO01	**Juntas del Tor**	**2.67**	**47**	*e*P	**Pb**	**06 41 07.0**	**-3.2**
CO01				*e*S	**Sn**	**06 41 37.9**	**0.0**
CO01				IAML		06 41 50.0	
	comp=Z,218nm,1.4s						
CO01	**Juntas del Tor**	**2.67**	**47**	*e*P	**Pn**	**06 41 06.7**	**+1.3**
CO01	**Juntas del Tor**	**2.67**	**47**		**Pn**	**06 41 06.7**	**+1.3**
BO03	**Pichilemu**	**2.67**	**174**	*e*P	**Pn**	**06 41 06.0**	**+0.8**
LMEL	**Las Melosas**	**2.69**	**139**	*e*P	**Pn**	**06 41 07.2**	**+1.6**
LMEL				*e*S	**Sn**	**06 41 37.9**	**-0.4**
LMEL				IAML		06 41 41.2	
	comp=N,451nm,0.2s						
BO01	**Tunca**	**2.75**	**158**	*e*P	**Pn**	**06 41 07.5**	**+1.1**
BO01				*e*S	**Sb**	**06 41 45.3**	**0.0**
BO01	**Tunca**	**2.75**	**158**	*e*P	**Pn**	**06 41 07.3**	**+0.9**
BO01	**Tunca**	**2.75**	**158**		**Pn**	**06 41 07.3**	**+0.9**
AROD	**Rodeo**	**2.96**	**57**	*e*P	**Pb**	**06 41 12.7**	**-2.5**
AROD				*e*S	**Sb**	**06 41 52.0**	**+0.4**
ARCO	**CERRO ARCO**	**3.04**	**110**	*e*P	**Pb**	**06 41 14.9**	**-1.6**
ARCO				*e*S	**Sb**	**06 41 56.5**	**+2.7**
ARCO				IAML		06 42 07.4	
	comp=Z,127nm,1.1s						
ACCO	**Cerro Coronel**	**3.06**	**67**	*e*P	**Pb**	**06 41 14.6**	**-2.3**
ACCO				*e*S	**Sb**	**06 41 56.0**	**+1.6**
ACCO				IAML		06 42 00.5	
	comp=Z,184nm,0.4s						
ZON	**Zonda**	**3.12**	**86**		**Pn**	**06 41 12.1**	**+0.5**
LCO	**Las Campanas**	**3.15**	**27**	*e*P	**Pn**	**06 41 12.6**	**+0.6**
LCO				IAML		06 42 14.7	
	comp=Z,136nm,0.9s						
LCO	**Las Campanas**	**3.15**	**27**		**Pn**	**06 41 11.9**	**-0.1**
GO05	**Hualane**	**3.18**	**174**	*e*P	**Pn**	**06 41 13.1**	**+0.8**
GO05	**Hualane**	**3.18**	**174**	*e*P	**Pn**	**06 41 13.0**	**+0.7**
GO05	**Hualane**	**3.18**	**174**		**Pn**	**06 41 12.9**	**+0.6**
AAGR	**Agrelo**	**3.21**	**114**	*e*P	**Pb**	**06 41 16.8**	**-2.5**
AAGR				*e*S	**Sg**	**06 42 06.0**	**+0.8**
AAGR				IAML		06 42 13.9	
	comp=Z,100nm,0.9s						
ACDV	**Cuesta del Vie**	**3.21**	**60**	*e*P	**Pb**	**06 41 16.3**	**-3.2**
ACDV				*e*S	**Sb**	**06 42 00.4**	**+1.7**
ACDV				IAML		06 42 09.2	
	comp=Z,116nm,1.2s						
BO02	**Sierra Bellavi**	**3.22**	**157**	*e*P	**Pn**	**06 41 14.3**	**+1.4**
BO02				*e*S	**Sb**	**06 41 55.0**	**-3.8**
BO02				IAML		06 41 57.8	
	comp=Z,135nm,0.2s						
BO02	**Sierra Bellavi**	**3.22**	**157**	*e*P	**Pn**	**06 41 14.1**	**+1.2**
BO02	**Sierra Bellavi**	**3.22**	**157**		**Pn**	**06 41 13.8**	**+1.0**
RTLL	**Cerro Villicun**	**3.33**	**82**	*e*P	**Pb**	**06 41 19.6**	**-1.6**
RTLL				IAML		06 42 17.2	
	comp=Z,151nm,0.5s						
AC05	**El Transito**	**3.48**	**31**	*e*P	**Pn**	**06 41 17.8**	**+1.3**
AC05				*e*S	**Sn**	**06 41 58.4**	**+0.7**
AC05				IAML		06 42 20.6	
	comp=Z,137nm,0.9s						
AC05	**El Transito**	**3.48**	**31**	⇑*i*P	**Pn**	**06 41 17.8**	**+1.3**
AC05	**El Transito**	**3.48**	**31**		**Pn**	**06 41 16.0**	**-0.4**
CFA	**Coronel Fontan**	**3.49**	**87**	Pn	**Pb**	**06 41 19.8**	**-4.3**
	comp=Z,1.0nm,0.3s,baz=241,slow=12,SNR=34						
CFA				Sn	**Sn**	**06 41 59.5**	**+1.5**
	comp=Z,5.8nm,0.3s,baz=336,slow=19,SNR=6.0						
CFA				Lg	Lg	06 42 10.3	
	comp=Z,11nm,0.3s,baz=18,slow=9.1,SNR=5.9						
	comp=Z,2.8nm,0.3s						
CFA				AML	AML		
CFA	**Coronel Fontan**	**3.49**	**87**	*e*P	**Pb**	**06 41 20.3**	**-3.8**
CFA				*e*S	**Sb**	**06 42 03.0**	**-3.6**
CFA				IAML		06 42 14.5	
	comp=Z,113nm,1.5s						
AC04	**Llanos de Chal**	**3.78**	**17**	⇑*i*P	**Pn**	**06 41 20.2**	**-0.2**
AC04	**Llanos de Chal**	**3.78**	**17**		**Pn**	**06 41 20.6**	**+0.1**
ML02	**Panimavida**	**3.99**	**169**	*e*P	**Pn**	**06 41 24.9**	**+1.5**
ML02				IAML		06 42 32.5	
	comp=Z,44nm,0.6s						
ML02	**Panimavida**	**3.99**	**169**		**Pn**	**06 41 24.2**	**+0.8**
GO03	**Copiapo**	**4.60**	**24**	Pn	**Pn**	**06 41 32.0**	**+0.2**
VCA	**Vinchina**	**4.72**	**50**	*e*P	Pn	06 41 37.5	+4.0
VCA				IAML		06 43 00.4	
	comp=Z,97nm,0.5s						
AC06	**Mina Casimiro**	**4.78**	**22**		**Pn**	**06 41 33.7**	**-0.6**
BI02	**San Fabin de**	**4.89**	**170**		**Pn**	**06 41 36.0**	**+0.1**
BI05	**Punta Hualpn**	**4.95**	**188**		**Pn**	**06 41 36.4**	**-0.2**
AC02	**Maricunga**	**5.71**	**30**		**Pn**	**06 41 47.0**	**-0.5**
AC01	**Pan de Azucar**	**5.87**	**15**	Pn	**Pn**	**06 41 49.6**	**+0.4**
GO06	**Curarrehue**	**7.76**	**175**	Pn	**Pn**	**06 42 15.6**	**+0.3**
LR03	**Panguipulli**	**7.78**	**180**	Pn	**Pn**	**06 42 16.3**	**+0.9**
PLCA	**Paso Flores**	**8.99**	**171**	Pn	**Pn**	**06 42 34.1**	**+1.9**
	comp=Z,0.7nm,0.3s,baz=335,slow=11,SNR=32						
	comp=Z,1.6nm,0.3s						
PLCA				AML	AML		
PB05	**IPOC Station P**	**9.14**	**12**	Pn	**Pn**	**06 42 32.5**	**-1.8**
PB06	**IPOC Station P**	**9.42**	**16**	Pn	**Pn**	**06 42 36.6**	**-1.5**
LL05	**Los Muermos**	**9.60**	**185**	Pn	**Pn**	**06 42 39.9**	**-0.4**
PB11	**IPOC Station P**	**12.26**	**12**	Pn	**Pn**	**06 43 17.1**	**+0.1**
GO01	**Chusmiza**	**12.44**	**14**	Pn	**Pn**	**06 43 19.4**	**-0.3**
PB16	**IPOC Station P**	**13.68**	**11**	Pn	**Pn**	**06 43 34.5**	**-2.4**
CPUP	**Villa Florida**	**14.21**	**71**	Pn	**Pn**	**06 43 45.6**	**+2.2**
	baz=252,slow=18,SNR=2.0						
	comp=Z,1.8nm,1.1s						
LPAZ	**La Paz**	**15.94**	**15**	Pn	**P**	**06 44 08.2**	**-2.7**
	comp=Z,0.2nm,0.3s,baz=197,slow=9.5,SNR=12						
	comp=Z,1.9nm,0.7s						
LPAZ				AML	AML		
LPAZ	**La Paz**	**15.94**	**15**	P	**P**	**06 44 09.5**	**-1.4**
SIV	**San Ignacio**	**18.81**	**36**	P	**Pn**	**06 44 42.5**	**0.0**
	baz=190,slow=11,SNR=4.2						
	comp=Z,0.8nm,0.8s						
VAO	**Valinhos**	**24.12**	**75**	P	**P**	**06 45 37.5**	**-0.9**
BDFB	**Brasilia**	**27.38**	**60**	P	**P**	**06 46 08.5**	**+0.6**
	comp=Z,3.8nm,0.8s,baz=158,slow=11,SNR=4.7						
	comp=Z,3.8nm,0.8s						
BDFB	**Brasilia**	**27.38**	**60**	P	**P**	**06 46 08.1**	**+0.1**
BDFB				IAmb	IAmb	06 46 10.0	
	comp=Z,9.8nm,1.1s						
PMSA	**Palmer Station**	**33.36**	**174**	P	**P**	**06 47 00.2**	**+0.1**
PMSA				IAmb	IAmb	06 47 08.8	
	comp=Z,1.6nm,0.9s						
VNA3	**Neumayer Olymp**	**51.45**	**158**	⇑P	**P**	**06 49 29.5**	**+2.4**
	comp=Z,2.4nm,0.7s						
VNA2	**Neumayer--Watz**	**52.10**	**158**	⇑P	**P**	**06 49 34.3**	**+2.3**
	comp=Z,2.0nm,0.5s,baz=281,slow=7.9						
SNAA	**Sanae**	**53.68**	**158**	P	**P**	**06 49 45.9**	**+2.2**
SNAA	**Sanae**	**53.68**	**158**	P	**P**	**06 49 45.9**	**+2.2**
	comp=Z,1.8nm,0.6s,baz=202,slow=9.2,SNR=3.7						
	comp=Z,1.8nm,0.6s						
SNAA	**Sanae**	**53.68**	**158**	P	**P**	**06 49 44.0**	**+0.3**
SNAA				IAmb	IAmb	06 49 46.6	
	comp=Z,2.5nm,0.8s						
QSPA	**South Pole Qui**	**58.39**	**180**	P	**P**	**06 50 20.3**	**+2.7**
	comp=Z,4.2nm,1.0s,baz=162,slow=1.4,SNR=15						
	comp=Z,4.2nm,1.0s						
QSPA	**South Pole Qui**	**58.39**	**180**	P	**P**	**06 50 18.3**	**+0.7**
QSPA				IAmb	IAmb	06 50 21.1	
	comp=Z,2.8nm,0.8s						
NVAR	**Mina Array Bea**	**81.97**	**325**	P	**P**	**06 52 43.1**	**+0.7**
	comp=Z,0.2nm,0.5s,baz=147,slow=4.3,SNR=2.1						
	comp=Z,0.2nm,0.5s						
TORD	**Torodi Ar. Bea**	**83.71**	**70**	P	**P**	**06 52 52.7**	**+1.1**
	comp=Z,0.3nm,0.7s,baz=270,slow=5.7,SNR=2.0						
	comp=Z,0.3nm,0.7s						
WRA	**Warramunga Arr**	**122.52**	**210**	PKP	**PKiKP**	**06 59 19.6**	**+0.9**
	comp=Z,0.4nm,0.9s,baz=161,slow=1.6,SNR=5.1						
H11S2	**WAKE ISLAND Hy**	**125.53**	**271**	T	T	09 18 22.0	
	baz=117,slow=75,SNR=5.2						
H11S1	**WAKE ISLAND Hy**	**125.54**	**271**	T	T	09 18 17.1	
	baz=117,slow=75,SNR=4.6						
H11S3	**WAKE ISLAND Hy**	**125.55**	**271**	T	T	09 18 24.0	
	baz=117,slow=75,SNR=4.4						
H11N3	**WAKE ISLAND Hy**	**125.89**	**272**	T	T	09 18 41.5	
	baz=116						
H11N1	**WAKE ISLAND Hy**	**125.90**	**272**	T	T	09 18 49.1	
	baz=116						
H11N2	**WAKE ISLAND Hy**	**125.91**	**272**	T	T	09 18 46.1	
	baz=116						
KURBB	**Kurchatov Arra**	**151.42**	**40**	PKPbc	**PKiKP**	**07 00 16.9**	**+0.6**
	comp=Z,0.2nm,0.3s,baz=306,slow=2.7,SNR=4.3						
ZALV	**Zalesovo Beam**	**152.50**	**30**	PKPbc	**PKiKP**	**07 00 18.0**	**-0.5**
	comp=Z,0.7nm,0.5s,baz=8.2,slow=1.5,SNR=2.7						

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*NEIC **22** 06:49:36.7±1.1, 14°.26S±0°.05×72°.8W±0°.1, h66^{km}±12^{km}, mb4.0/10, Error ellipse: s-maj=15.6km s-min=4.7km az=66.0*

*IDC **22** 06:49:37.5±1.5, 14°.30S×72°.88W, h76^{km}±21^{km}, mb3.5/2, mbtmp3.9/7, Error ellipse: s-maj=38.8km s-min=10.7km az=29.0*

ISC 22 06:49:37.3±0.7**, 14°.27S**±0°.08×**72°.87W**±0°.07**, h83**^{km}**, n36,** σ**1ˢ.40**/39**, mb3.9**/4**, Central Peru**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NNA	**Nana**	**4.49**	**300**	P	**Pn**	**06 50 43.7**	**+0.8**
	41nm,0.4s,baz=129,slow=13,SNR=18						
NNA				S	**Sn**	**06 51 34.5**	**+0.6**
	36nm,0.4s,baz=301,slow=16,SNR=6.6						
NNA	**Nana**	**4.49**	**300**		**Pn**	**06 50 42.0**	**-0.9**
NNA				Sn	**Sn**	**06 51 32.9**	**-1.1**
PB18	**Visviri**	**4.64**	**136**	Pn	**Pn**	**06 50 44.4**	**-1.0**
AP01	**Chacalluta**	**4.74**	**150**	Pn	**Pn**	**06 50 45.2**	**-1.1**
PB12	**IPOC Station P**	**4.96**	**151**		**Pn**	**06 50 48.8**	**-0.6**
LPAZ	**La Paz**	**4.99**	**114**	P	**Pn**	**06 50 52.5**	**+2.1**
	15nm,0.4s,baz=295,slow=8.6,SNR=52						
LPAZ				S	**Sn**	**06 51 47.3**	**+0.2**
	5.5nm,0.7s,baz=27,slow=24,SNR=6.3						
LPAZ	**La Paz**	**4.99**	**114**		**Pn**	**06 50 53.0**	**+2.7**
PB16	**IPOC Station P**	**5.17**	**142**		**Pn**	**06 50 54.6**	**+1.9**
PSGCX	**Pisagua**	**5.91**	**154**		**Pn**	**06 51 01.5**	**-0.9**
PB11	**IPOC Station P**	**6.26**	**151**		**Pn**	**06 51 06.6**	**-0.7**
GO01	**Chusmiza**	**6.41**	**147**		**Pn**	**06 51 08.9**	**-0.7**
CZSB	**Cruzeiro do Su**	**6.51**	**1**		**Pn**	**06 51 10.1**	**-0.4**
PB08	**IPOC Station P**	**6.83**	**149**		**Pn**	**06 51 14.7**	**-0.5**
PB02	**IPOC Station P**	**7.56**	**158**	Pn	**Pn**	**06 51 24.5**	**-0.3**
PB07	**IPOC Station P**	**7.94**	**159**	Pn	**Pn**	**06 51 29.5**	**-0.6**
PB09	**IPOC Station P**	**8.24**	**156**	Pn	**Pn**	**06 51 33.4**	**-0.8**
PB03	**IPOC Station P**	**8.28**	**159**	Pn	**Pn**	**06 51 32.5**	**-2.3**
PB05	**IPOC Station P**	**8.90**	**164**	Pn	**Pn**	**06 51 40.1**	**-3.1**
SIV	**San Ignacio**	**11.52**	**100**	P	**Pn**	**06 52 18.3**	**-0.6**
	1.6nm,0.4s,baz=277,slow=13,SNR=18						
VILB	**Vilhena**	**12.39**	**85**	Pn	**Pn**	**06 52 28.7**	**-1.9**
PTLB	**Pontes e Lacer**	**13.33**	**97**	Pn	**Pn**	**06 52 40.6**	**-2.6**
MACA	**Manacapuru-AM**	**16.33**	**49**	Pn	**Pn**	**06 53 19.8**	**-1.8**
CO02	**Combarbal**	**16.94**	**174**	Pn	**Pn**	**06 53 27.7**	**-1.4**
CO02				IAmb	IAmb	06 53 43.6	
	comp=Z,12nm,1.0s						
AQDB	**Aquidauana**	**17.50**	**113**		**Pn**	**06 53 35.2**	**-0.8**
CFA	**Coronel Fontan**	**17.77**	**167**	P	**P**	**06 53 39.0**	**+0.1**
	comp=Z,0.7nm,0.5s,baz=332,slow=14,SNR=3.6						
VA01	**Torpederas**	**18.70**	**177**	P	**P**	**06 53 49.2**	**+0.2**
CPUP	**Villa Florida**	**18.85**	**132**	P	**P**	**06 53 51.5**	**+0.7**
	comp=Z,5.0nm,0.8s,baz=307,slow=12,SNR=14						
CPUP	**Villa Florida**	**18.85**	**132**	P	**P**	**06 53 51.7**	**+0.9**
CPUP				IAmb	IAmb	06 53 52.8	
	comp=Z,5.1nm,0.8s						
CPSB	**Cacapava Do Su**	**24.04**	**135**	P	**P**	**06 54 46.4**	**+1.7**
GO06	**Curarrehue**	**25.24**	**177**	P	**P**	**06 54 56.5**	**+0.8**
GO06				IAmb	IAmb	06 55 14.1	
	comp=Z,6.5nm,1.2s						
PLCA	**Paso Flores**	**26.44**	**176**	P	**P**	**06 55 06.4**	**0.0**
	comp=Z,2.3nm,1.1s,baz=336,slow=10.0,SNR=2.9						
	comp=Z,2.3nm,1.1s						
PLCA	**Paso Flores**	**26.44**	**176**	P	**P**	**06 55 06.9**	**+0.4**
PLCA				IAmb	IAmb	06 55 17.3	
	comp=Z,4.4nm,1.2s						
JTS	**Las Juntas de**	**27.19**	**333**	P	**P**	**06 55 13.5**	**+0.2**
JTS				IAmb	IAmb	06 55 37.5	
	comp=Z,12nm,1.4s						
QSPA	**South Pole Qui**	**75.88**	**180**	P	**P**	**07 01 16.2**	**+1.7**
	comp=Z,0.4nm,0.5s,baz=142,slow=3.8,SNR=1.6						
	comp=Z,0.4nm,0.5s						
QSPA	**South Pole Qui**	**75.88**	**180**	P	**P**	**07 01 16.6**	**+2.0**
QSPA				IAmb	IAmb	07 01 34.5	
	comp=Z,3.9nm,1.4s						
SONM	**Songino Array**	**146.53**	**1**	PKPbc	**PKPdf**	**07 09 09.4**	**+1.6**
	comp=Z,0.2nm,0.3s,baz=96,slow=1.4,SNR=3.5						

WEL 22 07:36:25.1±1.0**, 33°S**±23°×**17°9E**±3°8**, h339**^{km}±37^{km}**, M3.9**/10**, mB4.5**/8**, MLv4.2**/10**, Mw(mB)3.6**/8**, Error ellipse: s-maj=55.6km s-min=14.2km az=119.0, confirmed, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	**Matakaoa Point**	**4.83**	**188**	P	Pn	07 37 42.7	+0.5
MXZ				S	S	07 38 45.3	+0.9
WMGZ	**Waiomatatini S**	**5.07**	**187**	P	Pn	07 37 45.6	+0.8
WMGZ				AML	AML		
HAZ	**Te Kaha**	**5.10**	**193**	P	Pn	07 37 44.7	-0.5
HAZ				S	S	07 38 47.7	-2.2
PKGZ	**Pakihiroa**	**5.16**	**190**	P	Pn	07 37 47.0	+1.1
PKGZ				AML	AML		
RUGZ	**Raukumara Rang**	**5.32**	**193**	P	Pn	07 37 47.6	-0.2
RUGZ				S	S	07 38 55.7	+1.1
RUGZ				AML	AML		
PUZ	**Puketiti**	**5.34**	**188**	P	Pn	07 37 47.2	-0.7
PUZ				S	S	07 38 54.6	-0.2
PUZ				AML	AML		
MWZ	**Matawai**	**5.71**	**193**	P	Pn	07 37 52.1	0.0
MWZ				S	S	07 39 07.2	+4.7
MWZ				AML	AML		
URZ	**Urewera**	**5.72**	**197**	P	Pn	07 37 51.6	-0.6
URZ				S	S	07 39 03.9	+1.1
TKGZ	**Te Karaka**	**5.75**	**191**	P	Pn	07 37 52.1	-0.5
TKGZ				S	S	07 39 03.7	+0.3
TKGZ				AML	AML		
MUGZ	**Murupara**	**6.02**	**198**	P	Pn	07 37 55.9	+0.3
MUGZ				S	S	07 39 09.4	+0.4
MUGZ				AML	AML		
ALRZ	**Allen Road**	**6.22**	**201**	P	Pn	07 37 59.0	+1.0
ALRZ				AML	AML		
KUTZ	**Kaahu Road**	**6.32**	**205**	P	Pn	07 37 59.9	+0.7
KUTZ				AML	AML		
MRHZ	**Matea Rd**	**6.45**	**200**	P	Pn	07 38 00.7	0.0
MRHZ				AML	AML		
NMHZ	**Naumai**	**6.59**	**196**	P	Pn	07 38 03.2	+0.8
NMHZ				S	S	07 39 21.1	-0.3
NMHZ				AML	AML		
ARHZ	**Aropaoanui**	**6.71**	**195**	P	Pn	07 38 03.4	-0.3
ARHZ				S	S	07 39 23.6	-0.1
BKZ	**Black Stump Fm**	**6.74**	**198**	P	Pn	07 38 03.1	-1.0
BKZ				S	S	07 39 21.9	-2.5
MCHZ	**McNeill Hill**	**6.95**	**196**	P	Pn	07 38 06.4	-0.1
MCHZ				S	S	07 39 31.2	+2.3
OTVZ	**Oturere**	**6.98**	**203**	P	Pn	07 38 06.9	-0.1
KWHZ	**Kaweka Forest**	**7.00**	**198**	P	Pn	07 38 07.0	-0.2
KWHZ				S	S	07 39 31.8	+1.7
KWHZ				AML	AML		
FWVZ	**Far West T-bar**	**7.10**	**204**	P	Pn	07 38 08.3	-0.2

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*SOME **22** 07:41:08.6, 41°.13N×83°.43E, h10^{km}*

*NNC **22** 07:41:12.9±2.3, 41°.17N×83°.23E, h0^{km}, mb3.8, mpv3.6, Error ellipse: s-maj=20.5km s-min=12.5km az=6.0*

ISC 22 07:41:19.7±2.5**, 41°.7N**±0°.1×**83°.16E**±0°.08**, h10**^{km}**, n18,** σ**1ˢ.41**/29**, 7C-3D, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SHLS	**Shalkode**	**3.12**	**300**	Pg	**Pn**	**07 42 09.6**	**+0.5**
	38nm,0.3s						
SHLS				Lg	Lg	07 42 54.3	
	328nm,0.5s						
SHLS	**Shalkode**	**3.12**	**300**	*e*P	**Pn**	**07 42 09.6**	**+0.5**
	38nm,0.3s						
SHLS				*e*S	**Sb**	**07 42 54.3**	**+0.6**
	328nm,0.5s						
PDGK	**Podgornoye**	**3.19**	**303**	⇑Pn	**Pn**	**07 42 09.2**	**-0.8**
	5.9nm,0.5s						
PDGK				⇑Pg	**Pg**	**07 42 19.3**	**-1.5**
	15nm,0.5s						
PDGK				⇑Sn	**Sb**	**07 42 53.8**	**-1.7**
	37nm,0.5s						
PDGK				⇑Lg	Lg	07 43 03.2	
	83nm,0.8s						
UZB	**Uzynbulak**	**3.41**	**297**	Pg	**Pb**	**07 42 18.5**	**-1.8**
	16nm,0.6s						
UZB				Lg	Lg	07 43 09.2	
	63nm,0.6s						
UZB	**Uzynbulak**	**3.41**	**297**	*e*P	**Pb**	**07 42 18.5**	**-1.8**
	16nm,0.6s						
UZB				*e*S	**Sg**	**07 43 09.2**	**0.0**
	63nm,0.6s						
DJR	**Jarkent**	**3.64**	**318**	Pg	**Pb**	**07 42 25.4**	**+1.2**
	32nm,0.4s						
DJR				Lg	Lg	07 43 19.4	
	15nm,0.4s						
DJR	**Jarkent**	**3.64**	**318**	*e*P	**Pb**	**07 42 24.4**	**+0.1**
	32nm,0.4s						
DJR				*e*S	**Sg**	**07 43 19.4**	**+2.7**
	15nm,0.4s						
KPKS	**Kokpek**	**3.77**	**300**	Pg	**Pb**	**07 42 25.3**	**-1.1**
	0.6nm,0.6s						
KPKS				Lg	Lg	07 43 21.0	
	60nm,0.4s						
KPKS	**Kokpek**	**3.77**	**300**	*e*P	**Pb**	**07 42 25.3**	**-1.1**
	0.6nm,0.6s						
KPKS				*e*S	**Sg**	**07 43 21.0**	**+0.2**
	60nm,0.4s						
SATY	**Saty**	**3.79**	**293**	Pg	**Pb**	**07 42 26.7**	**-0.1**
	9.9nm,0.8s						
SATY				Lg	Lg	07 43 22.7	
	70nm,0.4s						
SATY	**Saty**	**3.79**	**293**	*e*P	**Pb**	**07 42 26.7**	**-0.1**
	9.9nm,0.8s						
SATY				*e*S	**Sg**	**07 43 22.7**	**+1.2**
	70nm,0.4s						
BLB	**Baldybastay**	**4.22**	**307**	Pg	**Pb**	**07 42 36.0**	**+1.9**
	24nm,0.3s						
BLB				Lg	Lg	07 43 36.5	
	30nm,0.4s						
ARXS	**Arharly**	**4.68**	**305**	Pg	**Pb**	**07 42 42.2**	**+0.4**
	4.3nm,0.2s						
ARXS				Lg	Lg	07 43 50.3	
	27nm,0.6s						
ARXS	**Arharly**	**4.68**	**305**	*e*P	**Pb**	**07 42 42.2**	**+0.4**
	4.3nm,0.2s						
ARXS				*e*S	**Sg**	**07 43 50.3**	**+0.4**
	27nm,0.6s						
MK31	**Makanchi Array**	**5.18**	**353**	⇑Pn	**Pn**	**07 42 38.4**	**+1.2**
	0.2nm,0.3s,baz=75,slow=17,SNR=19						
MK31				⇓Pg	**Pg**	**07 42 57.0**	**-1.7**
	1.5nm,0.5s,baz=172,slow=15,SNR=8.3						
MK31				⇓Lg	Lg	07 44 12.6	
	3.9nm,0.4s,baz=166,slow=27,SNR=4.3						
MAKZ	**Makanchi**	**5.22**	**351**	⇓Pn	**Pn**	**07 42 38.0**	**+0.2**
	0.4nm,0.3s						
MAKZ				⇑Pg	**Pg**	**07 42 58.7**	**-1.0**
	4.9nm,0.8s						
MAKZ				⇑Lg	Lg	07 44 15.5	
	16nm,0.9s						
KST	**Kastek**	**5.51**	**287**	Pg	**Pb**	**07 42 59.5**	**+3.4**
	4.0nm,0.8s						
KST				Lg	Lg	07 44 17.4	
	47nm,0.6s						
KST	**Kastek**	**5.51**	**287**	*e*P	**Pb**	**07 42 58.1**	**+2.0**
	4.0nm,0.8s						
KST				*e*S	**Sg**	**07 44 17.4**	**+0.7**
	47nm,0.6s						

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*NEIC **22** 07:53:33.0±1.9, 4°.70S±0°.07×125°.4E±0°.1, h430^{km}±13^{km}, mb4.3/8, Error ellipse: s-maj=17.8km s-min=6.3km az=117.0*

*IDC **22** 07:53:33.2±1.3, 4°.58S×125°.59E, h452^{km}±16^{km}, mb3.1/5, mbtmp4.1/9, Error ellipse: s-maj=20.6km s-min=13.4km az=70.0*

*DJA **22** 07:53:33.9±0.6, 5°S±6°×12°6E±°, h417^{km}±8^{km}, M4.2/15, mB4.6/5, mB4.6/6, mb4.3/9, mb4.3/9, MLv4.3/11, MLv4.3/15, Mw(mB)3.8/5, Mw(mB)3.8/6*

ISC 22 07:53:32.1±0.7**, 4°.66S**±0°.07×**125°.50E**±0°.08**, h441**^{km}**, n31,** σ**1ˢ.52**/36**, mb3.5**/5**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NLAI	**Namlea**	**2.14**	**49**	P	**P**	**07 54 32.8**	**+0.2**
NLAI				S	**S**	**07 55 19.4**	**-2.2**
MSAI	**Masohi**	**3.67**	**69**	P	**P**	**07 54 43.5**	**-0.3**
MSAI				AML	AML		
MSAI				AML	AML		
KKSI	**Kolaka, Sulawe**	**3.86**	**277**	P	**P**	**07 54 45.4**	**-0.1**
KKSI				AML	AML		
KKSI				AML	AML		
LUWI	**Luwuk**	**4.51**	**323**	P	**P**	**07 54 50.0**	**-1.3**
BSSI	**Bau Bau, Buton**	**5.20**	**253**	P	**P**	**07 54 59.3**	**+1.4**
	0.3nm0.3nm964nm964nm90nm,0.8s,90nm,0.8s						
BSSI				AML	AML		
BSSI				AML	AML		
SOEI	**Soe**	**5.20**	**193**	P	**P**	**07 54 58.3**	**+0.2**
EDFI	**Ende, Flores**	**5.55**	**223**	P	**P**	**07 55 03.0**	**+1.5**
	6.9nm,0.4s,6.9nm,0.4s						
KAPI	**Kappang**	**5.74**	**266**	P	**P**	**07 55 04.5**	**+1.2**
	21nm,0.5s,baz=85,slow=7.4,SNR=11						
KAPI	**Kappang**	**5.74**	**266**	P	**P**	**07 55 03.3**	**0.0**
BATI	**Baumata**	**5.80**	**198**	P	**P**	**07 55 00.8**	**-3.3**
	78nm,0.5s,baz=301,slow=5.9,SNR=8.4						
BATI				S	**S**	**07 56 15.1**	**-4.0**
	51nm,0.4s,baz=121,slow=21,SNR=6.9						
GTOI	**Gorontalo**	**5.82**	**335**	P	**P**	**07 55 07.4**	**+3.2**
	0.3nm0.3nm106nm,0.7s,106nm,0.7s						
GTOI				AML	AML		
GTOI				AML	AML		
SWI	**Sorong**	**6.88**	**57**	P	**P**	**07 55 16.1**	**+0.6**
	0.2nm0.2nm59nm,0.7s,59nm,0.7s						
SWI				AML	AML		
SWI				AML	AML		
SIJI	**Sorong**	**6.89**	**57**	P	**P**	**07 55 16.9**	**+1.4**
	26nm,0.4s,baz=272,slow=12,SNR=16						
SIJI				S	**S**	**07 56 38.8**	**-1.2**
	13nm,0.7s,baz=94,slow=22,SNR=8.6						
FAKI	**Fak Fak**	**6.96**	**76**	P	**P**	**07 55 16.5**	**+0.2**
TOLI2	**Tolitoli**	**7.42**	**320**	P	**P**	**07 55 21.1**	**-0.2**
MTN	**Manton Dam**	**9.85**	**146**		**P**	**07 55 49.1**	**+1.5**
KNRA	**Kununurra**	**11.41**	**164**		**P**	**07 56 05.2**	**+0.7**
FITZ	**Fitzroy Crossi**	**13.35**	**179**	P	**P**	**07 56 27.2**	**+1.5**
	8.5nm,0.3s,baz=10,slow=12,SNR=98						
MBWA	**Marble Bar**	**17.33**	**198**	P	**P**	**07 57 08.2**	**+0.1**
WB0	**Warramunga Arr**	**17.34**	**151**	P	**P**	**07 57 09.1**	**+0.8**
WB0				IAmb	IAmb	07 57 10.9	
	comp=Z,7.1nm,0.5s						
WRAB	**Tennant Creek**	**17.46**	**151**	P	**P**	**07 57 10.2**	**+0.7**
WRAB				IAmb	IAmb	07 57 12.7	
	comp=Z,11nm,1.3s						
WRA	**Warramunga Arr**	**17.46**	**151**	P	**P**	**07 57 10.1**	**+0.5**
	comp=Z,4.1nm,0.5s,baz=336,slow=9.7,SNR=39						
WRA				S	**S**	**08 00 09.2**	**+0.2**
	comp=Z,1.9nm,0.8s,baz=323,slow=19,SNR=6.5						
WR8	**Warramunga Arr**	**17.55**	**151**	P	**P**	**07 57 11.1**	**+0.6**
WR8				IAmb	IAmb	07 57 13.3	
	comp=Z,5.2nm,0.6s						
BBJI	**Bungbulang**	**17.96**	**260**	P	**P**	**07 57 14.5**	**-0.5**
AS31	**Alice Springs**	**20.56**	**158**	P	**P**	**07 57 40.9**	**+1.7**
ASAR	**Alice Springs**	**20.56**	**158**	P	**P**	**07 57 41.3**	**+2.1**
	comp=Z,2.2nm,0.5s,baz=338,slow=7.5,SNR=51						
ASAR				S	**S**	**08 01 01.6**	**+1.2**
	comp=Z,2.2nm,0.8s,baz=345,slow=22,SNR=11						
	comp=Z,2.2nm,0.5s						
FORT	**Forrest**	**26.09**	**175**	P	**P**	**07 58 29.8**	**+1.1**
FORT				IAmb	IAmb	07 58 35.3	
	comp=Z,17nm,1.2s						
STKA	**Stephens Creek**	**31.00**	**153**	P	**P**	**07 59 12.8**	**+1.1**
	comp=Z,3.0nm,0.8s,baz=333,slow=11,SNR=3.1						
	comp=Z,3.0nm,0.8s						
MKAR	**Makanchi Array**	**63.87**	**328**	P	**P**	**08 03 21.1**	**+1.1**
	comp=Z,0.4nm,0.5s,baz=134,slow=8.3,SNR=4.4						
	comp=Z,0.4nm,0.5s						
QSPA	**South Pole Qui**	**85.30**	**180**	P	**P**	**08 05 20.9**	**-0.2**
	comp=Z,0.5nm,0.5s,baz=284,slow=4.2,SNR=8.0						
	comp=Z,0.5nm,0.5s						
ILAR	**Eielson Array**	**93.17**	**25**	P	**P**	**08 05 55.4**	**-2.2**
	comp=Z,0.3nm,0.6s,baz=257,slow=5.5,SNR=1.8						
	comp=Z,0.3nm,0.6s						

KRSC 22 07:54:23.3±1.6**, 54°.10N**×**166°.20E, h39**^{km}±23^{km}**, Ml3.7, Komandorsky Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BKI	**Bering**	**1.12**	**353**	*e*P	Pn	07 54 42.5	+0.2
BKI				*e*S	Sn	07 54 56.7	+0.3
MKZ	**Mys Kozlova**	**2.66**	**282**	*e*P	Pn	07 55 07.5	+4.0
MKZ				*e*S	Sn	07 55 37.9	+3.5
KBTR	**Krutoberegovo**	**2.87**	**319**	*e*P	Pn	07 55 08.1	+1.7
ZLN	**Zelenaya**	**3.65**	**304**	*e*P	Pn	07 55 21.8	+4.6
BZGR	**Bezymyannyi-Gr**	**3.67**	**302**	*e*P	Pn	07 55 22.1	+4.6
BZGR				*e*S	Sn	07 56 04.8	+5.4
CIRR	**Tsirk**	**3.73**	**305**	*e*P	Pn	07 55 22.3	+4.0
BZMR	**Bezymyannaya**	**3.77**	**302**	*e*P	Pn	07 55 23.4	+4.6
BZWR	**Bezymyannyi-We**	**3.78**	**302**	*e*P	Pn	07 55 23.8	+4.7
SPN	**Mys Shipunski**	**3.81**	**257**	*e*P	Pn	07 55 23.9	+4.5
SPN				*e*S	Sn	07 56 06.6	+3.6
KMNR	**Kamenistaya**	**3.82**	**298**	*e*P	Pn	07 55 23.9	+4.4
KMNR				*e*S	Sn	07 56 07.6	+4.3
KIRR	**Kirishev**	**3.85**	**301**	*e*P	Pn	07 55 24.8	+4.8
KIRR				*e*S	Sn	07 56 09.9	+5.9
KPT	**Kopyto**	**3.92**	**301**	*e*P	Pn	07 55 26.2	+5.3
KPT				*e*S	Sn	07 56 12.5	+6.9
KII	**Karymskiy**	**3.98**	**272**	*e*P	Pn	07 55 26.2	+4.5
NLC	**Nalytchevo**	**4.18**	**260**	*e*P	Pn	07 55 28.7	+4.2
NLC				*e*S	Sn	07 56 15.0	+3.0
SDLR	**Sedlovina**	**4.43**	**262**	*e*P	Pn	07 55 32.4	+4.5
UGLR	**Uglovaya**	**4.48**	**262**	*e*P	Pn	07 55 33.5	+4.9
SMAR	**Somma**	**4.48**	**262**	*e*P	Pn	07 55 33.3	+4.6
KRER	**Koryakskii**	**4.50**	**263**	*e*P	Pn	07 55 33.9	+4.9
AVH	**Avacha**	**4.51**	**262**	*e*P	Pn	07 55 34.6	+5.5
KRX	**Arik**	**4.55**	**264**	*e*P	Pn	07 55 34.6	+5.0
DALK	**Dalny**	**4.57**	**259**	*e*P	Pn	07 55 34.1	+4.4
KOK	**Koryaka**	**4.57**	**263**	*e*P	Pn	07 55 34.6	+4.8
PET	**Petropavlovsk**	**4.63**	**260**	*e*P	Pn	07 55 34.9	+4.4
ESO	**Esso**	**4.69**	**296**	*e*P	Pn	07 55 35.1	+3.6
RUS	**Russkaya**	**4.91**	**253**	*e*P	Pn	07 55 38.4	+4.0
KRMR	**Karymshinskiy**	**4.99**	**259**	*e*P	Pn	07 55 40.3	+4.8
KRMR				*e*S	Sn	07 56 35.1	+3.3
MTVR	**Mutnovka**	**5.08**	**255**	*e*P	Pn	07 55 41.6	+4.7
MTVR				*e*S	Sn	07 56 37.0	+2.8
GRL	**Gorelyy**	**5.11**	**256**	*e*P	Pn	07 55 42.6	+5.2
ASAK	**Asacha**	**5.27**	**254**	*e*P	Pn	07 55 44.6	+5.1
KDTR	**Khodutka, Kamc**	**5.42**	**248**	*e*P	Pn	07 55 45.4	+4.0

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*IDC **22** 08:12:41.8±0.9, 12°.71N×143°.77E, h0^{km}, mb3.6/8, mbtmp3.6/8, MS2.9/7, Error ellipse: s-maj=27.7km s-min=16.4km az=122.0*

ISC 22 08:12:45.4±1.0**, 12°.7N**±0°.2×**144°.0E**±0°.2**, h27**^{km}**, n21, σ0^{s}61**/10**, mb3.7**/8**, MS2.6**/5**, South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GUMO	**Guam**	**1.21**	**45**	Pn	**Pn**	**08 13 06.8**	**+0.1**
	173nm,0.3s,baz=76,slow=1.8,SNR=66						
GUMO				Sn	**Sn**	**08 13 22.0**	**-0.2**
	444nm,0.3s,baz=162,slow=23,SNR=9.9						
SIJI	**Sorong**	**18.49**	**224**	LR	LR	08 23 30.5	
	comp=Z,49nm,18.5s,baz=278,slow=35						
DAV	**Davao City (W)**	**18.98**	**255**	LR	LR	08 23 17.1	
	comp=Z,35nm,19.8s,baz=160,slow=34						
H11S3	**WAKE ISLAND Hy**	**22.59**	**72**	T	T	08 41 23.3	
	baz=258						
H11S1	**WAKE ISLAND Hy**	**22.61**	**72**	T	T	08 41 22.5	
	baz=258,slow=74						
H11S2	**WAKE ISLAND Hy**	**22.61**	**72**	T	T	08 41 22.0	
	baz=258,slow=74						
H11N1	**WAKE ISLAND Hy**	**23.05**	**69**	T	T	08 41 49.6	
	baz=255,slow=75,SNR=15						
H11N2	**WAKE ISLAND Hy**	**23.06**	**69**	T	T	08 41 49.1	
	baz=255,slow=75,SNR=8.7						
H11N3	**WAKE ISLAND Hy**	**23.07**	**69**	T	T	08 41 50.0	
	baz=255,slow=75,SNR=12						
JNU	**Nakatsue**	**23.57**	**332**	LR	LR	08 26 20.8	
	comp=Z,13nm,18.4s,baz=199,slow=35						
MJAR	**Matsushiro Arr**	**24.27**	**349**	P	**P**	**08 17 59.9**	**-0.6**
	1.4nm,0.7s,baz=168,slow=12,SNR=2.6						
MJAR				LR	LR	08 26 29.2	
	comp=Z,8.0nm,20.8s,baz=191,slow=34						
	1.4nm,0.7s						
HNR	**Honiara**	**27.13**	**143**	LR	LR	08 28 32.0	
	comp=Z,27nm,18.2s,baz=46,slow=35						
KSRS	**Korea Array**	**28.50**	**333**	LR	LR	08 29 08.3	
	comp=Z,16nm,18.5s,baz=145,slow=35						
WRA	**Warramunga Arr**	**33.83**	**196**	P	**P**	**08 19 25.1**	**-0.5**
	0.8nm,0.7s,baz=22,slow=9.7,SNR=14						
	0.8nm,0.7s						
ASAR	**Alice Springs**	**37.49**	**195**	P	**P**	**08 19 57.3**	**+0.2**
	0.5nm,0.9s,baz=21,slow=14,SNR=8.0						
	0.5nm,0.9s						
MKAR	**Makanchi Array**	**61.51**	**317**	P	**P**	**08 23 01.3**	**+1.3**
	0.2nm,0.5s,baz=94,slow=5.8,SNR=1.6						
	0.2nm,0.5s						
KURBB	**Kurchatov Arra**	**64.72**	**320**	P	**P**	**08 23 20.9**	**-0.3**
	0.2nm,0.3s,baz=105,slow=6.8,SNR=3.1						
	0.2nm,0.3s						
ILAR	**Eielson Array**	**69.71**	**25**	P	**P**	**08 23 52.8**	**+0.1**
	0.2nm,0.8s,baz=253,slow=5.3,SNR=1.7						
	0.2nm,0.8s						
BVAR	**Borovoye Array**	**70.07**	**322**	P	**P**	**08 23 54.7**	**-0.3**
	0.4nm,0.4s,baz=95,slow=6.1,SNR=2.0						
	0.4nm,0.4s						
ARTI	**Arti**	**77.08**	**325**	LR	LR	09 00 25.3	
	comp=Z,23nm,18.1s,baz=70,slow=37						
NVAR	**Mina Array Bea**	**88.13**	**51**	P	**P**	**08 25 34.6**	**+0.2**
	0.3nm,0.7s,baz=256,slow=6.8,SNR=4.6						
	0.3nm,0.7s						

KRSC 22 08:24:16.7±1.3**, 49°.16N×158°.14E, h40**^{km}±26^{km}**, Ml3.8, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	**2.01**	**320**	*e*P	Pn	08 24 49.7	+1.6
SKR				*e*S	Sn	08 25 13.3	+1.3
PAU	**Pauzhetka**	**2.47**	**340**	*e*S	Sn	08 25 27.5	+4.3
KDTR	**Khodutka, Kamc**	**2.66**	**359**	*e*P	Pn	08 25 00.3	+3.3
KDTR				*e*S	Sn	08 25 31.6	+3.7
ASAK	**Asacha**	**3.23**	**357**	*e*P	Pn	08 25 09.0	+4.0
RUS	**Russkaya**	**3.29**	**4**	*e*P	Pn	08 25 09.3	+3.7
MTVR	**Mutnovka**	**3.33**	**0**	*e*P	Pn	08 25 10.3	+4.0
MTVR				*e*S	Sn	08 25 48.4	+3.7
GRL	**Gorelyy**	**3.40**	**359**	*e*P	Pn	08 25 11.7	+4.3
GRL				*e*S	Sn	08 25 50.8	+4.4
KRMR	**Karymshinskiy**	**3.68**	**360**	*e*S	Sn	08 25 58.5	+5.4
UGLR	**Uglovaya**	**4.08**	**6**	*e*P	Pn	08 25 21.7	+5.0
SPN	**Mys Shipunski**	**4.12**	**16**	*e*S	Sn	08 26 09.1	+5.2
SMAR	**Somma**	**4.13**	**6**	*e*P	Pn	08 25 21.4	+3.9
KOK	**Koryaka**	**4.15**	**4**	*e*P	Pn	08 25 22.3	+4.7
SDLR	**Sedlovina**	**4.15**	**6**	*e*P	Pn	08 25 21.7	+4.0
KRER	**Koryakskii**	**4.17**	**5**	*e*S	Sn	08 26 11.2	+5.7
KRX	**Arik**	**4.22**	**4**	*e*P	Pn	08 25 23.2	+4.6
GNL	**Ganaly**	**4.55**	**359**	*e*P	Pn	08 25 27.9	+4.9
MKZ	**Mys Kozlova**	**5.85**	**21**	*e*P	Pn	08 25 44.4	+3.6

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*IDC **22** 08:25:19.8±0.6, 62°.16S×57°.83W, h0^{km}, mb4.3/10, mbtmp4.2/11, ML3.4/1, MS3.8/25, Error ellipse: s-maj=25.2km s-min=15.1km az=90.0*

*NEIC **22** 08:25:21.0±1.3, 62°.32S±0°.06×57°.86W±0°.09, h10^{km}±1^{km}, mb4.9/30, Error ellipse: s-maj=10.8km s-min=7.3km az=175.0*

*GCMT **22** 08:25:24.0±0.4, 62°.33S±0°.04×58°.0W±0°.1, h17^{km}±1^{km}, MW4.8/65, Moment Tensor Solution. s20,c23; s65,c79; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-1.71±.17; M$_{\theta\theta}$0.99±.11; M$_{\phi\phi}$0.71±.15; M$_{r\theta}$-0.72±.30; M$_{\theta\phi}$0.84±.08; M$_{\phi r}$-0.96±.38; Best double couple: M$_0$2.08600×10^{16} NP1:φ$_s$237.00000°, δ28.00000°, λ-77.00000°. NP2: φ$_s$43.00000°, δ63.00000°, λ-97.00000°. Principal axes: T 2.0700, Plg17.0000°, Azm137.0000°; N 0.0270, Plg6.0000°, Azm46.0000°; P -2.1010, Plg72.0000°, Azm297.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*GFZ **22** 08:25:25.5±0.2, 62°S±3°×5°8W±°, h28^{km}, M4.8/25, mb4.8/25, confirmed*

ISC 22 08:25:21.1±0.4**, 62°.24S**±0°.04×**58°.12W**±0°.05**, h10**^{km}**, n128, σ1^{s}65**/98**, mb4.8**/36**, MS3.9**/24**, 6C, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JUBA	**Jubany**	**0.26**	**270**	*i* P	**Pg**	**08 25 23.8**	**-2.4**
JUBA				*i* S	**Sg**	**08 25 26.1**	**-3.6**
JUBA				IAML		08 25 33.2	
	comp=Z,89μm,0.8s						
ESPZ	**Base Esperanza**	**1.27**	**157**	*e*P	**Pn**	**08 25 42.7**	**-2.1**
ESPZ				*i* S	**Sg**	**08 25 59.7**	**-2.2**
ESPZ	**Base Esperanza**	**1.27**	**157**		**Pn**	**08 25 42.8**	**-2.1**
PMSA	**Palmer Station**	**3.68**	**224**	Pn	**Pn**	**08 26 17.0**	**-0.9**
	comp=Z,2.5nm,0.3s,baz=40,slow=10.0,SNR=6.9						
PMSA				Sn	**Sn**	**08 27 06.0**	**+4.8**
	comp=Z,8.2nm,0.3s,baz=139,slow=22,SNR=5.9						
PMSA				LR	LR	08 27 34.7	
	comp=Z,544nm,20.4s,baz=74,slow=35						
	comp=Z,5.0nm,0.3s						
PMSA				AML	AML		
PMSA	**Palmer Station**	**3.68**	**224**	*e*P	**Pn**	**08 26 18.5**	**+0.6**
PMSA				*i* S	**Sb**	**08 27 08.4**	**-2.2**
PMSA	**Palmer Station**	**3.68**	**224**	Pn	**Pn**	**08 26 17.6**	**-0.3**
PMSA	**Palmer Station**	**3.68**	**224**	P	**Pn**	**08 26 18.2**	**+0.3**
ORCD	**Orcadas**	**6.58**	**83**	Pn	**Pn**	**08 26 55.9**	**-1.8**
SMAI	**San Martin Ant**	**7.01**	**209**	*e*P	**Pn**	**08 27 03.4**	**-0.1**
SMAI				*i* S	**Sn**	**08 28 26.2**	**+2.9**
SMAI				IAML		08 29 08.7	
	comp=Z,24nm,2.2s						
SMAI	**San Martin Ant**	**7.01**	**209**	Pn	**Pn**	**08 27 03.5**	**-0.1**
EFI	**East Falkland**	**10.59**	**0**	*e*P	**Pn**	**08 27 55.2**	**+2.5**
EFI				*e*S	**Sn**	**08 29 48.8**	**-2.4**
EFI				IAML		08 30 12.6	
	comp=Z,68nm,1.8s						
EFI	**East Falkland**	**10.59**	**0**	P	**Pn**	**08 27 56.1**	**+3.4**
	comp=Z,68nm,1.9s						
MG02	**Cerro Sombrero**	**11.19**	**323**	*e*P	**Pn**	**08 28 01.9**	**+1.1**
MG02	**Cerro Sombrero**	**11.19**	**323**	Pn	**Pn**	**08 28 03.5**	**+2.8**
BELA	**Belgrano 2**	**17.37**	**164**	Pn	**Pn**	**08 29 20.7**	**-2.3**
VNA3	**Neumayer Olymp**	**20.52**	**136**	⇑P	Pn	08 30 00.3	-0.8
	comp=Z,12nm,0.8s						
VNA3	**Neumayer Olymp**	**20.52**	**136**	P	Pn	08 30 01.3	+0.1
	comp=Z,22nm,1.0s						
LL02	**Futaleuf**	**20.73**	**331**		Pn	08 30 02.8	-1.0
LL02	**Futaleuf**	**20.73**	**331**	P	Pn	08 30 03.6	-0.2
	comp=Z,30nm,1.4s						
VNA1	**Neumayer--Stat**	**20.98**	**135**	⇑P	Pn	08 30 07.1	+0.6
	comp=Z,15nm,1.0s						
VNA2	**Neumayer--Watz**	**21.26**	**135**	⇑P	**P**	**08 30 08.7**	**+1.7**
	comp=Z,6.0nm,0.7s,baz=265,slow=11						
VNA2	**Neumayer--Watz**	**21.26**	**135**	P	**P**	**08 30 09.0**	**+2.0**
	comp=Z,21nm,2.0s						
LL06	**Loncomilla**	**22.08**	**328**	P	**P**	**08 30 15.7**	**-0.2**
	comp=Z,562nm,1.1s						
SNAA	**Sanae**	**22.69**	**138**	⇑P	**P**	**08 30 24.0**	**+1.6**
	comp=Z,304nm,1.0s						
SNAA				⇑S	Sn	08 34 42.2	-2.1
	comp=E,24nm,0.3s						
SNAA	**Sanae**	**22.69**	**138**	P	**P**	**08 30 22.3**	**0.0**
	comp=E,8.0nm,1.1s,baz=259,slow=11,SNR=16						
SNAA				LR	LR	08 37 49.3	
	comp=E,343nm,21.7s,baz=240,slow=33						
	comp=E,8.0nm,1.1s						
SNAA	**Sanae**	**22.69**	**138**		**P**	**08 30 22.0**	**-0.4**
SNAA				IAmb	IAmb	08 30 30.1	
	comp=Z,39nm,1.2s						
SNAA	**Sanae**	**22.69**	**138**	P	**P**	**08 30 24.6**	**+2.2**
	comp=Z,30nm,1.3s						
LL05	**Los Muermos**	**22.80**	**329**	P	**P**	**08 30 25.0**	**+1.3**
LL05				IAmb	IAmb	08 30 29.9	
	comp=Z,52nm,0.9s						
LL05	**Los Muermos**	**22.80**	**329**	P	**P**	**08 30 26.5**	**+2.8**
	comp=Z,94nm,1.9s						
PLCA	**Paso Flores**	**22.80**	**335**	P	**P**	**08 30 24.4**	**+0.6**
	comp=Z,16nm,1.0s,baz=168,slow=11,SNR=10.0						
PLCA				LR	LR	08 38 50.9	
	comp=Z,280nm,18.9s,baz=166,slow=36						
	comp=Z,16nm,1.0s						
PLCA	**Paso Flores**	**22.80**	**335**	P	**P**	**08 30 23.2**	**-0.6**
PLCA				IAmb	IAmb	08 30 28.9	
	comp=Z,29nm,1.1s						
GO06	**Curarrehue**	**24.10**	**334**		**P**	**08 30 37.5**	**+0.8**
GO06				IAmb	IAmb	08 30 43.4	
	comp=Z,48nm,1.1s						
GO06	**Curarrehue**	**24.10**	**334**	P	**P**	**08 30 37.2**	**+0.5**
	comp=Z,49nm,1.1s						
TROLL	**Troll, Antarti**	**24.33**	**139**	⇑P	**P**	**08 30 40.3**	**+1.7**
	comp=Z,211nm,0.8s						
BI02	**San Fabin de**	**26.88**	**336**		**P**	**08 31 01.5**	**-0.3**
BI02				IAmb	IAmb	08 31 07.3	
	comp=Z,70nm,1.8s						
BI02	**San Fabin de**	**26.88**	**336**	P	**P**	**08 31 02.2**	**+0.4**
	comp=Z,18nm,1.4s						
ML02	**Panimavida**	**27.78**	**336**	P	**P**	**08 31 11.0**	**+1.2**
ML02				IAmb	IAmb	08 31 18.5	
	comp=Z,28nm,1.1s						
ML02	**Panimavida**	**27.78**	**336**	P	**P**	**08 31 08.8**	**-1.0**
	comp=Z,27nm,0.9s						
QSPA	**South Pole Qui**	**27.99**	**180**	P	**P**	**08 31 13.3**	**+1.6**
	comp=Z,5.2nm,1.0s,baz=193,slow=1.8,SNR=13						
QSPA				LR	LR	08 43 54.1	
	comp=Z,117nm,19.6s,baz=161,slow=40						
	comp=Z,5.2nm,1.0s						
QSPA	**South Pole Qui**	**27.99**	**180**	P	**P**	**08 31 10.3**	**-1.4**
QSPA	**South Pole Qui**	**27.99**	**180**	P	**P**	**08 31 14.5**	**+2.8**
	comp=Z,14nm,1.9s						
BO02	**Sierra Bellavi**	**28.61**	**338**	P	**P**	**08 31 18.1**	**+0.8**
BO02				IAmb	IAmb	08 31 25.5	
	comp=Z,16nm,1.1s						
BO02	**Sierra Bellavi**	**28.61**	**338**	P	**P**	**08 31 21.5**	**+4.2**
	comp=Z,18nm,1.1s						
GO05	**Hualane**	**28.61**	**336**	P	**P**	**08 31 20.1**	**+2.8**
	comp=Z,32nm,1.3s						
BO01	**Tunca**	**29.05**	**338**	P	**P**	**08 31 22.1**	**+0.9**
BO01				IAmb	IAmb	08 31 26.9	
	comp=Z,22nm,1.2s						
BO01	**Tunca**	**29.05**	**338**	P	**P**	**08 31 22.1**	**+0.9**
	comp=Z,16nm,1.2s						
BO04	**La Punta**	**29.36**	**339**	P	**P**	**08 31 24.4**	**+0.3**
BO04				IAmb	IAmb	08 31 33.6	
	comp=Z,17nm,1.0s						
MT09	**Talagante**	**29.64**	**338**		**P**	**08 31 26.8**	**+0.2**
MT08	**Bocatoma Ro**	**29.80**	**340**	IAmb	IAmb	08 31 33.3	
	comp=Z,25nm,1.2s						
PEL	**Peldehue**	**30.20**	**339**	P	**P**	**08 31 30.3**	**-1.2**
PEL				IAmb	IAmb	08 31 42.1	
	comp=Z,25nm,1.0s						
PEL	**Peldehue**	**30.20**	**339**	P	**P**	**08 31 30.9**	**-0.5**
	comp=Z,30nm,1.0s						
VA03	**San Esteban**	**30.55**	**339**	P	**P**	**08 31 35.5**	**+1.0**
VA03	**San Esteban**	**30.55**	**339**	P	**P**	**08 31 37.7**	**+3.1**
	comp=Z,41nm,1.0s						
CO04	**Los Peladeros**	**31.33**	**339**	P	**P**	**08 31 44.1**	**+2.5**
	comp=Z,16nm,1.4s						
CFA	**Coronel Fontan**	**31.34**	**343**	LR	LR	08 44 06.8	
	comp=Z,116nm,21.6s,baz=138,slow=36						
ZON	**Zonda**	**31.46**	**343**		**P**	**08 31 42.5**	**-0.1**
ZON				IAmb	IAmb	08 31 46.9	
	comp=Z,25nm,1.5s						
CO02	**Combarbal**	**32.15**	**339**	P	**P**	**08 31 49.1**	**+0.4**
CO02	**Combarbal**	**32.15**	**339**	P	**P**	**08 31 50.1**	**+1.4**
	comp=Z,24nm,1.1s						
CO03	**El Pedregal**	**32.46**	**340**	P	**P**	**08 31 52.4**	**+1.1**
	comp=Z,19nm,1.4s						
GO04	**Tololo Observa**	**33.13**	**340**	P	**P**	**08 31 58.2**	**+0.8**
GO04	**Tololo Observa**	**33.13**	**340**	P	**P**	**08 31 57.0**	**-0.4**
	comp=Z,24nm,1.1s						
CO01	**Juntas del Tor**	**33.21**	**341**	P	**P**	**08 31 58.8**	**+0.7**
CO01				IAmb	IAmb	08 32 03.9	
	comp=Z,28nm,1.3s						
CO01	**Juntas del Tor**	**33.21**	**341**	P	**P**	**08 32 00.1**	**+2.0**
	comp=Z,15nm,1.3s						
AC05	**El Transito**	**34.35**	**341**	P	**P**	**08 32 08.2**	**+0.3**
	comp=Z,21nm,1.3s						
AC04	**Llanos de Chal**	**35.10**	**340**	P	**P**	**08 32 14.6**	**+0.3**
AC04	**Llanos de Chal**	**35.10**	**340**	P	**P**	**08 32 15.2**	**+1.0**
	comp=Z,32nm,1.2s						
CPUP	**Villa Florida**	**35.91**	**1**	P	**P**	**08 32 20.4**	**-0.7**
	comp=Z,2.7nm,1.1s,baz=187,slow=13,SNR=2.9						
	comp=Z,2.7nm,1.1s						
CPUP	**Villa Florida**	**35.91**	**1**	IAmb	IAmb	08 32 25.6	
	comp=Z,7.2nm,1.2s						
AC02	**Maricunga**	**36.15**	**343**		**P**	**08 32 24.5**	**+0.7**
AC02				IAmb	IAmb	08 32 26.2	
	comp=Z,23nm,1.4s						
AC02	**Maricunga**	**36.15**	**343**	P	**P**	**08 32 25.0**	**+1.1**
	comp=Z,16nm,1.5s						
SBA	**Scott Base**	**37.51**	**194**	P	**P**	**08 32 36.8**	**+2.5**
	comp=Z,7.2nm,2.0s						
VNDA	**Vanda**	**38.34**	**193**	LR	LR	08 49 03.2	
	comp=Z,96nm,19.6s,baz=160,slow=37						
SALTA		**38.41**	**348**	P	**P**	**08 32 44.6**	**+1.6**
	comp=Z,5.9nm,1.2s						
MAW	**Mawson**	**43.63**	**152**	P	**P**	**08 33 26.0**	**+1.1**
	comp=Z,4.0nm,0.9s,baz=238,slow=10.0,SNR=8.3						
MAW				LR	LR	08 51 36.4	
	comp=Z,339nm,19.3s,baz=230,slow=36						
	comp=Z,4.0nm,0.9s						
MAW	**Mawson**	**43.63**	**152**	IAmb	IAmb	08 33 34.1	
	comp=Z,1.5nm,1.1s						
MAW	**Mawson**	**43.63**	**152**	P	P	08 33 28.8	+3.8
	comp=Z,1.6nm,2.0s						
PB16	**IPOC Station P**	**44.58**	**344**	P	**P**	**08 33 34.0**	**+0.3**
LPAZ	**La Paz**	**46.44**	**347**	P	**P**	**08 33 49.3**	**+0.8**
	comp=Z,0.8nm,0.8s,baz=161,slow=7.0,SNR=4.5						
LPAZ				LR	LR	08 55 10.6	
	comp=Z,128nm,18.4s,baz=173,slow=39						
	comp=Z,0.8nm,0.8s						
BDFB	**Brasilia**	**47.09**	**13**	P	**P**	**08 33 52.4**	**-0.6**
	comp=Z,1.6nm,0.4s,baz=210,slow=11,SNR=3.3						
BDFB				LR	LR	08 55 43.1	
	comp=Z,57nm,18.2s,baz=182,slow=39						
	comp=Z,1.6nm,0.4s						
CLDB	**Colider**	**51.30**	**3**	P	**P**	**08 34 24.7**	**-0.5**
	comp=Z,7.9nm,2.2s						
SUR	**Sutherland**	**56.84**	**97**	LR	LR	08 53 48.2	
	comp=Z,78nm,21.6s,baz=188,slow=30						
ATAH	**Atahualpa**	**56.98**	**336**	LR	LR	08 56 15.3	
	comp=Z,62nm,20.2s,baz=169,slow=33						
H10S3	**ASCENSION HYDR**	**61.81**	**50**	T	T	09 42 59.7	
	baz=203,slow=74,SNR=13						
H10S2	**ASCENSION HYDR**	**61.81**	**50**	T	T	09 42 59.9	
	baz=17,slow=74,SNR=13						
BOSA	**Boshof**	**62.06**	**99**	LR	LR	08 56 46.8	
	comp=Z,53nm,20.5s,baz=214,slow=30						
H10N3	**ASCENSION HYDR**	**62.90**	**50**	T	T	09 44 11.6	
	baz=201,slow=75,SNR=37						
H10N1	**ASCENSION HYDR**	**62.90**	**50**	T	T	09 44 11.9	
	baz=201,slow=75,SNR=30						
H10N2	**ASCENSION HYDR**	**62.91**	**50**	T	T	09 44 12.9	
	baz=201,slow=75,SNR=37						
OTAV	**Otavalo**	**64.19**	**337**		**P**	**08 35 56.2**	**0.0**
OTAV				IAmb	IAmb	08 35 58.4	
	comp=Z,8.7nm,1.2s						
OTAV	**Otavalo**	**64.19**	**337**	P	**P**	**08 35 57.3**	**+1.0**
	comp=Z,7.0nm,1.3s						
BOAV	**Boa Vista**	**64.48**	**357**	P	**P**	**08 35 57.8**	**+0.2**
BOAV				IAmb	IAmb	08 36 55.8	
	comp=Z,8.7nm,1.5s						
LBTB	**Lobatse**	**65.29**	**97**	LR	LR	08 58 59.4	
	comp=Z,81nm,21.5s,baz=194,slow=31						
MDP	**Montagnes des**	**67.28**	**6**	LR	LR	09 06 16.0	
	comp=Z,57nm,19.7s,baz=231,slow=37						
ROSC	**El Rosal**	**68.04**	**343**	LR	LR	09 07 04.7	
	comp=Z,157nm,20.4s,baz=178,slow=37						
MATP	**Matopo**	**70.58**	**97**	LR	LR	09 02 45.6	
	comp=Z,61nm,19.0s,baz=227,slow=32						
SDV	**Santo Domingo**	**71.57**	**347**	LR	LR	09 10 51.1	
	comp=Z,119nm,18.1s,baz=100,slow=38						
LSZ	**Lusaka**	**74.90**	**94**	LR	LR	09 05 45.6	
	comp=Z,73nm,19.3s,baz=188,slow=32						
JTS	**Las Juntas de**	**75.26**	**333**	LR	LR	09 06 37.1	
	comp=Z,59nm,18.2s,baz=158,slow=33						
PPT2	**Papeete2**	**75.28**	**260**	*e*LR	LR	09 00 09.9	
	comp=Z,124nm,25.5s						
PPT2				*e*LR	LR	09 00 11.8	
	comp=Z,118nm,27.8s						
OPO	**Ambohidratompo**	**80.65**	**112**	LR	LR	09 08 25.4	
	comp=Z,41nm,18.9s,baz=271,slow=32						
CMIG	**Matias Romero**	**84.22**	**325**	LR	LR	09 08 45.3	
	comp=Z,44nm,18.9s,baz=156,slow=31						
TORD	**Torodi Ar. Bea**	**88.30**	**57**	P	**P**	**08 38 13.0**	**+0.5**
	comp=Z,0.8nm,1.0s,baz=183,slow=5.9,SNR=3.7						
	comp=Z,0.8nm,1.0s						
QLP	**Quilpie**	**89.69**	**200**	P	**P**	**08 38 19.2**	**+0.1**
	comp=Z,34nm,1.2s						
KMBO	**Kilima Mbogo**	**91.52**	**95**	LR	LR	09 14 50.4	
	comp=Z,125nm,21.0s,baz=100,slow=32						
ASAR	**Alice Springs**	**93.85**	**191**	P	**P**	**08 38 39.1**	**+0.7**
	comp=Z,1.8nm,0.9s,baz=171,slow=5.0,SNR=10						
	comp=Z,1.8nm,0.9s						
WRA	**Warramunga Arr**	**97.50**	**192**	P	Pdif	08 38 55.9	+0.7
	comp=Z,1.7nm,0.9s,baz=176,slow=4.2,SNR=6.9						
	comp=Z,1.7nm,0.9s						
TXAR	**Lajitas Array**	**98.30**	**321**	LR	LR	09 17 24.2	
	comp=Z,41nm,20.7s,baz=150,slow=32						
TKL	**Tuckaleechee C**	**99.73**	**339**	LR	LR	09 28 53.1	
	comp=Z,44nm,18.3s,baz=160,slow=38						
FITZ	**Fitzroy Crossi**	**99.88**	**184**	LR	LR	09 26 10.4	
	comp=Z,103nm,18.1s,baz=184,slow=36						
GERES	**GERESS Array B**	**124.53**	**50**	PKP	**PKiKP**	**08 44 19.4**	**-0.3**
	comp=Z,1.0nm,0.2s,baz=151,slow=3.0,SNR=4.2						
CLL	**Collm**	**126.35**	**48**	*e*PKPdf	**PKiKP**	**08 44 24.0**	**+0.9**
KSH2	**Kashi**	**143.81**	**108**	PKP	PKPbc	08 44 52.9	-0.5
ARCES	**ARCESS Array B**	**143.99**	**36**	PKP	PKPbc	08 44 52.4	-0.4
	comp=Z,3.8nm,0.8s,baz=267,slow=2.4,SNR=4.6						
AAK	**Ala-Archa**	**146.13**	**103**		**PKPbc**	**08 44 59.4**	**-1.1**
PDGK	**Podgornoye**	**148.93**	**108**		**PKPbc**	**08 45 07.0**	**-1.2**
GOMU	**GeErMu**	**148.96**	**134**	PKPbc	**PKPdf**	**08 45 03.3**	**-1.5**
NJ2	**Nanjing**	**149.74**	**175**	*e*P	**PKPdf**	**08 45 05.8**	**+0.2**
NJ2				pmax	pmax		
	comp=Z,14nm,0.7s						
XAN	**Xi'an**	**150.60**	**158**	PKPbc	**PKPdf**	**08 45 07.8**	**+0.8**
LZDM	**Lanzhou Array**	**151.34**	**148**	PKPbc	**PKiKP**	**08 45 14.6**	**-0.4**
	comp=Z,1.5nm,0.3s,baz=90,slow=2.9,SNR=3.7						
LZH	**Lanzhou**	**151.50**	**148**	*e*PKPbc	**PKiKP**	**08 45 14.5**	**-0.6**
LZH				pPKP	sPKPab	08 45 25.8	-1.0
BVAR	**Borovoye Array**	**151.68**	**85**	PKPbc	**PKPbc**	**08 45 13.2**	**-1.1**
	comp=Z,2.4nm,0.5s,baz=219,slow=1.9,SNR=9.2						
MJAR	**Matsushiro Arr**	**152.34**	**209**	PKPbc	**PKiKP**	**08 45 15.7**	**-0.9**
	comp=Z,1.0nm,0.8s,baz=97,slow=5.5,SNR=4.5						
MKAR	**Makanchi Array**	**152.87**	**106**	PKPbc	**PKiKP**	**08 45 16.7**	**-0.7**
	comp=Z,1.1nm,0.8s,baz=242,slow=2.6,SNR=8.0						
WMQ	**Urumqi**	**152.88**	**117**	*e*PKPbc	**PKPdf**	**08 45 10.4**	**+0.2**
GTA2	**Gaotai**	**153.55**	**139**	*e*PKPbc	**PKiKP**	**08 45 19.1**	**-0.1**
KURBB	**Kurchatov Arra**	**153.90**	**96**	PKPbc	**PKiKP**	**08 45 19.6**	**+0.3**
	comp=Z,0.8nm,0.8s,baz=228,slow=2.8,SNR=6.0						
HHC	**Hu-ho-hao-te**	**157.69**	**159**	*e*P	**PKPdf**	**08 45 12.0**	**-4.8**
SONM	**Songino Array**	**163.13**	**142**	PKPab	**PKPab**	**08 46 13.1**	**+0.3**
	comp=Z,0.7nm,0.4s,baz=213,slow=5.3,SNR=6.4						

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*NEIC **22** 08:32:14.7±0.8, 51°.86N±0°.09×0°.8W±0°.2, h10^{km}±2^{km}, ML3.1/8, Error ellipse: s-maj=24.4km s-min=5.9km az=233.0*

*BGS **22** 08:32:15.9±1.5, 51°.92N×0°.68W, h10^{km}, ML3.0*

*LDG **22** 08:32:17.6±0.1, 51°.73N×0°.81W, h4^{km}, Ml3.5/12, Error ellipse: s-maj=2.6km s-min=1.6km az=9.0*

ISC 22 08:32:13.7±1.2**, 51°.76N**±0°.03×**0°.79W**±0°.02**, h1**^{km}±11^{km}**, n57, σ1^{s}65**/90**, 4C-8D, United Kingdom**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BUW	**Bucklebury Wes**	**0.44**	**217**	⇑*i*P	**Pn**	**08 32 26.4**	**-0.7**
BUW				*e*S	**Sb**	**08 32 34.9**	**+3.6**
BUW				IAML		08 32 37.6	
	comp=E,1μm,0.4s						
BUW				IAML		08 32 38.5	
	comp=N,1μm,0.4s						
WOL	**Wolverton**	**0.52**	**211**	⇑*i*P	**Pn**	**08 32 27.9**	**-0.3**
WOL				*e*S	**Sn**	**08 32 37.5**	**-0.2**
WOL				IAML		08 32 43.2	
	comp=N,341nm,0.2s						
WOL				IAML		08 32 43.5	
	comp=E,329nm,0.4s						
SWN1	**Swindon**	**0.67**	**249**	⇑*i*P	**Pn**	**08 32 30.4**	**+0.1**
SWN1				*e*S	**Sn**	**08 32 42.0**	**+0.5**
SWN1				IAML		08 32 47.5	
	comp=N,419nm,0.2s						
SWN1				IAML		08 32 50.1	
	comp=E,301nm,0.5s						
STRD	**Stroud**	**0.85**	**272**	*e*P	**Pn**	**08 32 32.6**	**-0.2**
STRD				*e*S	**Sn**	**08 32 46.9**	**+1.0**
STRD				IAML		08 32 51.6	
	comp=N,277nm,0.2s						
STRD				IAML		08 32 52.2	
	comp=E,396nm,0.4s						
CWF	**Charnwood Fore**	**1.03**	**342**	⇓*i*P	**Pg**	**08 32 32.3**	**-1.0**
CWF				*e*S	**Sg**	**08 32 44.1**	**-2.5**
CWF				IAML		08 32 45.8	
	comp=E,368nm,0.2s						
CWF				IAML		08 32 45.9	
	comp=N,240nm,0.2s						
OLDB	**Oldbury-Upon-S**	**1.10**	**265**	*e*P	**Pn**	**08 32 37.0**	**+0.9**
OLDB				*e*S	**Sn**	**08 32 52.4**	**+0.5**
OLDB				IAML		08 32 55.5	
	comp=N,2μm,0.4s						

OLDB				IAML		08 32 56.6	
	comp=E,820nm,0.4s						
HMNX	Herstmonceux	1.14	141	eP	Pn	08 32 38.5	+1.7
ELSH	Elham, Standar	1.35	116	⇑iP	Pb	08 32 41.4	+1.6
MCH1	Michaelchurch	1.39	281	eP	Pg	08 32 41.2	+1.0
MCH1				eS	Sn	08 32 59.4	+0.3
MCH1				IAML		08 33 01.5	
	comp=N,300nm,0.2s						
MCH1				IAML		08 33 01.8	
	comp=E,341nm,0.4s						
HLM1	Long Mynd	1.49	301	eP	Pn	08 32 41.7	+0.1
FOEL	Foel Wylfa	1.86	308	eP	Pn	08 32 47.5	+0.9
DYA	Yadsworthy	2.38	237	eP	Pb	08 32 56.3	-1.0
HTL	Hartland	2.44	253	eP	Pn	08 32 56.2	+1.7
SBD	Saint Breward	2.73	245	eP	Pn	08 33 00.0	+1.5
SBD				IAML		08 33 50.7	
	comp=N,42nm,0.3s						
SBD				IAML		08 33 50.7	
	comp=E,41nm,0.4s						
FLN	La Foliniere	3.01	176	ePn	Pn	08 33 04.1	+1.7
FLN				eSn	Sn	08 33 39.4	+0.3
FLN				eSg	Sg	08 33 50.2	-0.1
	comp=E,75nm,0.3s						
FLN				AML	AML		
LDF	La Druitiere	3.20	172	ePn	Pn	08 33 06.3	+1.2
LDF				eSn	Sn	08 33 42.7	-1.1
LDF				eSg	Sg	08 33 55.4	-1.0
	comp=E,42nm,0.3s						
LDF				AML	AML		
CCA1	Carnmenellis	3.21	242	eP	Pn	08 33 06.9	+1.7
GRR	Gorron	3.38	181	ePn	Pn	08 33 09.3	+1.8
GRR				eSg	Sg	08 34 01.6	-0.5
	comp=E,41nm,0.2s						
GRR				AML	AML		
UCC	Uccle	3.38	105	Pn	Pn	08 33 05.9	-1.6
UCC				IAML		08 34 05.3	
	comp=N,49nm,0.6s						
BAIF	Baives	3.59	116	ePn	Pn	08 33 13.1	+2.6
BAIF				eSn	Sn	08 33 53.4	-0.1
BAIF				eSg	Sg	08 34 09.6	+0.5
SGMF	Saint Gilles	3.69	199	ePn	Pn	08 33 13.4	+1.6
SGMF				eSn	Sn	08 33 53.8	-2.1
	comp=N,12nm,0.2s						
SGMF				AML	AML		
BMOL	Mol	3.72	96	dP	Pn	08 33 13.2	+1.0
BMOL				dS	Sn	08 33 55.9	-0.5
DSB	Dublin	3.72	296	Pn	Pn	08 33 11.7	-0.5
DSB				IAML		08 33 41.0	
	comp=E,28nm,3.3s						
ROSF	Rostrenen	3.78	206	ePn	Pn	08 33 14.4	+1.4
DOU	Dourbes	3.79	114	dP	Pn	08 33 15.2	+2.0
DOU				dS	Sn	08 33 58.9	+0.4
ESK	Eskdalemuir	3.84	339	Pn	Pn	08 33 12.6	-1.2
ESK				IAML		08 34 26.9	
	comp=E,30nm,4.5s						
ESK				IAML		08 34 41.1	
	comp=E,29nm,3.6s						
EKB	Eskdalemuir	3.85	339	Pn	Pn	08 33 12.6	-1.5
GIVF	Givet	3.92	113	ePn	Pn	08 33 17.0	+2.0
GIVF				eSn	Sn	08 34 01.9	+0.3
GIVF				eSg	Sg	08 34 19.9	+0.3
BCLA	Clavier	4.07	107	dP	Pn	08 33 19.3	+2.3
BCLA				dS	Sn	08 34 04.8	-0.5
QUIF	Quistinic	4.14	203	ePn	Pn	08 33 19.0	+1.0
QUIF				eSg	Sg	08 34 26.2	-0.5
	comp=E,35nm,0.5s						
QUIF				AML	AML		
MEM	Membach	4.43	102	dS	Sn	08 34 13.1	-1.1
WLF	Walferdange	4.89	113	Pn	Pn	08 33 28.7	+0.4
HYF	Humbligny	5.02	152	ePn	Pn	08 33 31.1	+1.0
SFTF	Sexfontaines	5.18	131	ePn	Pn	08 33 33.7	+1.5
MFF	Saint Martin d	5.18	175	ePn	Pn	08 33 33.3	+1.0
MFF	Saint Martin d	5.18	175	ePn	Pn	08 33 33.5	+1.2
MFF				eSn	Sn	08 34 27.7	-4.9
MFF				eSn	Sn	08 34 30.0	-2.6
MFF				eSg	Sg	08 34 58.3	-1.7
	comp=E,30nm,0.6s						
MFF				eSg	Sg	08 34 59.3	-0.7
MFF				AML	AML		
PAGF	Fort de Pagny	5.28	125	ePn	Pn	08 33 34.9	+1.3
PAGF	Fort de Pagny	5.28	125	ePn	Pn	08 33 35.1	+1.5
PAGF				eSn	Sn	08 34 33.0	-2.0
LOR	Lormes	5.42	144	ePn	Pn	08 33 36.4	+0.8
LOR				eSn	Sn	08 34 35.3	-3.3
	comp=E,5.7nm,0.2s						
LOR				AML	AML		
SSF	Saint Saulge	5.48	148	ePn	Pn	08 33 37.0	+0.7
SSF				eSn	Sn	08 34 37.4	-2.5
	comp=E,5.7nm,0.3s						
SSF				AML	AML		
AVF	Avril sur Loir	5.67	150	ePn	Pn	08 33 40.0	+1.1
AVF				eSn	Sn	08 34 39.7	-4.9
	comp=E,4.8nm,0.3s						
AVF				eSg	Sg	08 35 13.6	-2.0
AVF				AML	AML		
BGF	Bois d'Agland	5.73	154	ePn	Pn	08 33 41.4	+1.6
BGF				eSg	Sg	08 35 17.2	-0.4
TCF	Toulx Ste Croi	5.82	159	ePn	Pn	08 33 42.9	+1.8
TCF				eSn	Sn	08 34 45.4	-3.1
	comp=E,4.0nm,0.3s						
TCF				AML	AML		
HAU	Haudompre	5.95	126	ePn	Pn	08 33 43.7	+0.8
HAU				eSn	Sn	08 34 48.4	-3.3
	comp=E,8.4nm,0.3s						
HAU				AML	AML		
SMF	Signal de Mont	5.95	148	ePn	Pn	08 33 45.2	+2.3
CDF	Champ du Feu	6.18	120	ePn	Pn	08 33 47.3	+1.2
ECH	Echery	6.24	122	Pn	Pn	08 33 47.8	+1.0
HINF	Hinteralfeld	6.33	126	eSn	Sn	08 34 58.2	-2.8
RJF	Les Rejaudoux	6.64	166	ePn	Pn	08 33 52.6	+0.3
BFO	Black Forest	6.80	117	Pn	Pn	08 33 54.4	-0.1
CABF	La Chapelle	6.85	136	ePn	Pn	08 33 56.4	+1.2
LFF	La Frestale	6.90	171	ePn	Pn	08 33 57.0	+1.1
CAF	Calviac	7.10	163	ePn	Pn	08 33 59.8	+1.1
SSB	Saint Sauveur	7.39	149	Pn	Pn	08 34 03.1	+0.5
SENIN	Lac Senin/Sane	7.58	132	Pn	Pn	08 34 06.3	+0.9
CLL	Collm	8.62	88	Pn	Pn	08 34 19.8	+0.5
CEST	Esterri de Car	9.27	171	Pn	Pn	08 34 28.7	+0.2

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*MOS **22** 08:35:44.6, 41°.89N×46°.32E, h18^{km}, MPVA4.2*
*NSSP **22** 08:35:44.2, 41°.78N×46°.10E, h10^{km}, Ms3.0*
*TIF **22** 08:35:44.1, 41°.87N×46°.31E, h15^{km}*
*DRS **22** 08:35:45.4, 41°.91N×46°.33E, h9^{km}*
*NORS **22** 08:35:45.4, 41°.86N×46°.30E, h8^{km}, MPVA3.9*
*AZER **22** 08:35:46.0, 41°.65N×46°.35E, h7^{km}, ml3.2*
ISC 22 08:35:45.6±0.7, **41°.85N**±0°.01×**46°.28E**±0°.01, **h11**^{km}±4^{km},
n124, σ**1^{s}28**/226, **12C-5D, Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LGD	Lagodekhi	0.03	237	P	Pg	08 35 47.5	-0.1
LGD				S	Sg	08 35 49.5	+0.4
LGD	Lagodekhi	0.03	237	PG	Pg	08 35 47.5	-0.1
TLTR	Tlyarata	0.26	12	i Pg	Pg	08 35 50.7	-0.3
TLTR				eSg	Sg	08 35 54.9	+0.3
TLTR	Tlyarata	0.26	12	i PG	Pg	08 35 50.7	-0.3
TLTR				eS	Sg	08 35 54.9	+0.3
ZKTA	Zakatala	0.33	130	P	Pg	08 35 51.7	-0.7
ZKTA				S	Sg	08 35 56.7	-0.1
DDFL	Dedoflistskaro	0.42	197	P	Pg	08 35 53.5	-0.5
DDFL	Dedoflistskaro	0.42	197	PG	Pg	08 35 53.5	-0.5
VSHL	Vashlovani	0.63	172	P	Pb	08 35 58.5	-0.2
KMKR	Kumukh	0.67	65	i Pg	Pb	08 35 58.5	-1.0
KMKR				eSg	Sb	08 36 08.2	-0.7
KMKR	Kumukh	0.67	65	i PG	Pb	08 35 58.5	-1.0
KMKR				eS	Sb	08 36 08.2	-0.7
GNBR	Gunib	0.74	43	i Pg	Pb	08 35 59.8	-0.8
GNBR				eSg	Sb	08 36 10.5	-0.3
GNBR	Gunib	0.74	43	⇓iPG	Pb	08 35 59.8	-0.8
GNBR				eS	Sb	08 36 10.5	-0.3
XNZR	Khunzakh	0.76	25	i Pg	Pb	08 36 00.6	-0.4
XNZR				eSg	Sb	08 36 11.4	0.0
HNZR	Khunzah	0.78	25	i PG	Pb	08 36 00.6	-0.7
HNZR				eS	Sb	08 36 11.4	-0.6
DGRG	David-gareji	0.79	240	P	Pg	08 36 00.8	-0.1
DGRG				S	Sg	08 36 11.6	+0.4
DGRG	David-gareji	0.79	240	PG	Pg	08 36 00.8	-0.1
DGRG				S	Sg	08 36 11.6	+0.4
BTLR	Botlikh	0.81	357	ePg	Pg	08 36 01.0	-0.3
BTLR				eSg	Sb	08 36 12.2	-0.7
BTLR	Botlikh	0.81	357	ePG	Pg	08 36 01.0	-0.3
BTLR				eS	Sb	08 36 12.2	-0.7
ARKR	Arakani	0.92	35	i Pg	Pb	08 36 03.2	-0.4
ARKR				eSg	Sn	08 36 16.1	-1.8
ARKR	Arakani	0.92	35	i PG	Pb	08 36 03.2	-0.4
ARKR				eS	Sn	08 36 16.1	-1.8
UNCR	Uncukul	0.94	24	ePg	Pb	08 36 03.6	-0.5
UNCR				eSg	Sb	08 36 16.4	-0.1
UNCR	Uncukul	0.94	24	ePG	Pb	08 36 03.6	-0.5
UNCR				eS	Sb	08 36 16.5	-0.1
SEKA	Sheki	0.94	133	P	Pg	08 36 02.6	-1.2
SEKA				S	Sb	08 36 17.1	+0.5
QZX	Qazax, Azerbai	1.05	221	P	Pg	08 36 04.0	-1.8
QZX				S	Sn	08 36 21.5	+0.5
URKR	Urkarakh	1.06	72	ePg	Pn	08 36 05.6	-1.0
URKR				eSg	Sn	08 36 20.8	-0.6
URKR	Urkarakh	1.06	72	ePG	Pn	08 36 05.6	-1.0
URKR				eS	Sn	08 36 20.8	-0.6
KRNR	Karanay	1.08	25	ePg	Pb	08 36 05.8	-0.6
KRNR				eSg	Sn	08 36 20.3	-1.6
KRNR	Karanay	1.08	25	ePG	Pb	08 36 05.8	-0.6
KRNR				eS	Sn	08 36 20.3	-1.6
SEAG	Tbilisi Sea	1.11	266	P	Pb	08 36 06.0	-0.9
SEAG				S	Sg	08 36 22.3	+1.0
SEAG	Tbilisi Sea	1.11	266	PG	Pb	08 36 06.0	-0.9
SEAG				S	Sg	08 36 22.3	+1.0
DVE	Vedeno	1.11	354	ePg	Pg	08 36 06.4	-0.6
DVE				eSg	Sn	08 36 22.1	-0.5
DVE	Vedeno	1.11	354	⇑ePG	Pg	08 36 06.4	-0.6
DVE				eS	Sn	08 36 22.1	-0.5
CHRG	Chargali	1.11	296	P	Pb	08 36 05.3	-1.8
CHRG				S	Sg	08 36 21.2	-0.3
AKT	Akhty	1.15	108	ePg	Pb	08 36 06.0	-1.6
AKT				eSg	Sn	08 36 22.6	-1.0
AKT	Akhty	1.15	108	ePG	Pb	08 36 06.0	-1.6
AKT				eS	Sn	08 36 22.6	-1.0
BUJR	Buynaksk	1.15	32	ePG	Pn	08 36 07.2	-0.6
BUJR				eS	Sn	08 36 22.9	-0.6
TBLG	Delisi	1.16	264	P	Pb	08 36 06.5	-1.2
TBLG				S	Sb	08 36 23.2	+0.4
TBLG	Delisi	1.16	264	PG	Pb	08 36 06.5	-1.2
TBLG				S	Sb	08 36 23.2	+0.4
SHTL	Shatili	1.16	314	P	Pb	08 36 06.0	-1.8
SHTL				S	Sg	08 36 23.1	+0.1
SHTL	Shatili	1.16	314	PG	Pb	08 36 06.0	-1.8
SHTL				S	Sg	08 36 23.1	+0.1
SGKR	Sergokala	1.19	59	ePg	Pn	08 36 08.2	-0.1
SGKR				eSg	Sn	08 36 25.1	+0.5
SGKR	Sergokala	1.19	59	ePG	Pn	08 36 08.2	-0.1
SGKR				eS	Sn	08 36 25.1	+0.5
GDB	GEDABAY	1.20	199	P	Pn	08 36 05.8	-2.7
GDB				S	Sb	08 36 22.0	-2.0
GANJ	Ganja	1.21	178	P	Pn	08 36 06.2	-2.3
GANJ				S	Sb	08 36 22.7	-1.5
DBC	Dubki	1.23	19	ePg	Pg	08 36 08.8	-0.7
DBC				eSg	Sn	08 36 26.2	+0.4
DBC	Dubki	1.23	19	ePG	Pg	08 36 08.7	-0.7
DBC				eS	Sn	08 36 26.0	+0.3
MNGR	Mingechevir, A	1.24	150	P	Pb	08 36 08.9	-0.2
MNGR				S	Sn	08 36 26.8	+1.2
DLMR	Dylym	1.24	12	ePg	Pg	08 36 09.1	-0.4
DLMR				eSg	Sn	08 36 26.4	+0.5
DLMR	Dylym	1.24	12	ePG	Pg	08 36 09.1	-0.4
DLMR				eS	Sn	08 36 26.4	+0.5
LSVT	Lusahovit	1.24	222	⇑iP	Pn	08 36 06.8	-2.3
LSVT				⇑iS	Sb	08 36 23.7	-1.6
GROC	Groznyy	1.40	345	ePg	Pn	08 36 10.8	-0.3
GROC				eSg	Sg	08 36 31.8	+1.3
GROC	Groznyy	1.40	345	ePG	Pg	08 36 12.2	-0.2
GROC				eS	Sg	08 36 31.3	+0.7
KSMR	Kasumkent	1.41	100	ePg	Pb	08 36 11.1	-0.9
KSMR				eSg	Sg	08 36 29.9	-1.0
KSMR	Kasumkent	1.41	100	ePG	Pb	08 36 11.1	-0.9
KSMR				eS	Sg	08 36 29.9	-1.0
MAK	Makhachkala	1.43	39	⇓iPG	Pn	08 36 11.1	-0.5
MAK				eS	Sg	08 36 30.8	-0.9
MAK				pmax	pmax		
	comp=Z,246nm,0.3s						
MAK				smax	smax		
	comp=N,885nm,0.4s						
MAK				smax	smax		
	comp=N,1µm,0.4s						
QBL	Gabala	1.48	127	Pn	Pb	08 36 12.4	-0.8
QBL				Sn	Sg	08 36 33.0	-0.3
KZRT	Kazreti	1.48	252	P	Pn	08 36 05.3	-7.1
KZRT				S	Sn	08 36 24.9	-6.9
KZRT	Kazreti	1.48	252	PG	Pn	08 36 05.3	-7.1
QSAR	Qusar	1.52	102	Pn	Pg	08 36 15.1	+0.2
QSAR				Sn	Sg	08 36 38.9	+4.2
DRN	Derbent	1.54	83	ePg	Pg	08 36 13.9	-1.2
DRN				eSg	Sg	08 36 35.8	+0.6
DRN	Derbent	1.54	83	ePG	Pg	08 36 13.9	-1.2
DRN				eS	Sg	08 36 35.8	+0.6
XNQ	Khinaliq	1.55	115	Pn	Pb	08 36 13.9	-0.7
XNQ				Sn	Sg	08 36 37.8	+2.2
KMGR	Komgaron	1.59	319	ePg	Pb	08 36 15.0	-0.2
KMGR				eSg	Sg	08 36 38.2	+1.2
KMGR	Komgaron	1.59	319	ePN	Pg	08 36 17.4	+1.2
KMGR				eS	Sg	08 36 38.2	+1.2
TRLG	Trialeti	1.66	260	P	Pg	08 36 28.6	+11
TRLG				S	Sg	08 36 50.9	+12
TRLG	Trialeti	1.66	260	PN	Pg	08 36 28.6	+11
VLKR	Vladikavkaz	1.68	316	ePg	Pb	08 36 17.1	+0.5
VLKR				eSg	Sg	08 36 40.6	+0.9
VLKR	Vladikavkaz	1.68	316	ePN	Pb	08 36 17.1	+0.5
VLKR				eS	Sg	08 36 40.6	+0.9
BRDA	Brd	1.73	157	Pn	Pb	08 36 16.9	-0.5
BRDA				Sn	Sg	08 36 42.2	+1.0
QUBA	Quba, Azerbaij	1.73	106	Pn	Pg	08 36 17.7	-1.2
QUBA				Sn	Sg	08 36 43.9	+2.6
LACR	Lac	1.76	304	ePg	Pb	08 36 17.5	-0.6
LACR				eSg	Sb	08 36 40.7	+0.4
LACR	Lac	1.76	304	ePN	Pb	08 36 17.5	-0.6
LACR				eS	Sb	08 36 40.7	+0.4
AYRK	Ayrk	1.77	192	⇓iP	Pn	08 36 15.7	-0.8
AYRK				⇑iS	Sn	08 36 38.8	-0.5
IML	Ismayilli	1.78	126	Pn	Pg	08 36 18.7	-1.1
IML				Sn	Sg	08 36 43.6	+0.7
AGDM	Agdam	1.85	160	Pn	Pn	08 36 17.7	+0.3
AGDM				Sn	Sg	08 36 44.3	-0.9
KAPZ	Kaputan	1.94	219	eP	Pn	08 36 18.8	0.0
KAPZ				eS	Sn	08 36 44.0	+0.7
ARNR	Ardon	1.98	313	ePg	Pn	08 36 19.9	+0.7
ARNR				eSg	Sb	08 36 47.5	+0.9
ARNR	Ardon	1.98	313	ePN	Pn	08 36 19.9	+0.7
BTKR	Batakoyurt	1.99	320	ePg	Pb	08 36 21.3	-0.6
BTKR				eSg	Sb	08 36 47.7	+1.0
BTKR	Batakoyurt	1.99	320	ePN	Pb	08 36 21.3	-0.6
PQL	Pirkuli	2.04	121	Pn	Pb	08 36 22.0	-0.9
PQL				Sn	Sg	08 36 51.6	+0.4
KORR	Kora	2.05	308	ePg	Pb	08 36 22.1	-0.8
KORR				eSg	Sg	08 36 50.6	-0.9
KORR	Kora	2.05	308	ePN	Pb	08 36 22.1	-0.8
KORR				eS	Sg	08 36 50.6	-0.9
KDMR	Kurdemir	2.06	135	Sn	Sg	08 36 50.2	-1.7
GNI	Garni	2.06	215	⇑iP	Pn	08 36 21.3	+0.9
GNI				⇑iS	Sb	08 36 48.4	-0.6
GNI	Garni	2.06	215	ePg	Pn	08 36 22.0	+1.6
GNI				eSg	Sb	08 36 49.6	+0.7
GNI	Garni	2.06	215	ePN	Pn	08 36 22.0	+1.6
GNI				eS	Sb	08 36 49.6	+0.7
BGD	Bogdanovka	2.10	255	P	Pn	08 36 20.1	-0.8
BGD				S	Sb	08 36 49.5	-0.5
BGD	Bogdanovka	2.10	255	PN	Pn	08 36 20.1	-0.8
BGD				S	Sb	08 36 49.5	-0.5
AMBZ	Amberd	2.12	227	eP	Pn	08 36 22.0	+0.8
AMBZ				eS	Sn	08 36 49.4	+1.7
SIZA	Siyzn	2.12	111	Pn	Pb	08 36 24.4	+0.3
SIZA				Sn	Sg	08 36 57.4	+3.7
GARIG	Gari	2.22	291	P	Pb	08 36 24.9	-0.9
GARIG				S	Sb	08 36 53.5	+0.2
STDR	Stavd-Durt	2.23	314	ePg	Pb	08 36 24.6	-1.4
STDR				eSg	Sg	08 36 55.9	-1.4
STDR	Stavd-Durt	2.23	314	ePN	Pb	08 36 24.6	-1.4
STDR				eS	Sg	08 36 55.9	-1.4
ATGJ	Altiaghaj	2.23	115	Pn	Pb	08 36 26.0	-0.1
ATGJ				Sn	Sg	08 36 58.7	+1.3
DIGR	Digorskoe uzhe	2.26	299	ePn	Pb	08 36 25.2	-1.3
DIGR				eSn	Sb	08 36 54.1	-0.5
DIGR	Digorskoe uzhe	2.26	299	ePN	Pb	08 36 25.2	-1.3
DIGR				eS	Sb	08 36 54.1	-0.5
ARUZ	Aruch	2.28	227	⇑iP	Pn	08 36 24.6	+1.3
ARUZ				⇑iS	Sn	08 36 53.8	+2.3
LSNR	Lesken	2.31	309	ePN	Pb	08 36 25.5	-1.8
LSNR				eS	Sb	08 36 55.4	-0.4
BLQ	Beylaqan	2.34	155	Pn	Pb	08 36 25.9	-2.0
BLQ				Sn	Sb	08 36 57.1	+0.3
HYR	Heyderabad	2.39	207	Pn	Pb	08 36 27.3	-1.5
SBZ	Shahbuz	2.52	193	Pn	Pb	08 36 29.3	-1.6
SBZ				Sn	Sb	08 37 02.6	+0.6
QRD	Qoradiz	2.52	161	Pn	Pn	08 36 28.3	+1.8
QRD				Sn	Sb	08 37 02.5	+0.7
NCK	Nalchik	2.57	311	i PN	Pn	08 36 29.1	+1.8
NCK				pmax	pmax		
	comp=Z,94nm,0.2s						
EGVZ	Egvard	2.63	176	⇑iP	Pn	08 36 29.4	+1.2
EGVZ				⇑iS	Sn	08 37 02.1	+1.8
NAX	Nakhchivan	2.74	193	Pn	Pb	08 36 33.5	-1.2
NAX				Sg	Sb	08 37 10.4	+2.0
GLBA	Clilabad	3.06	148	Pg	Pb	08 36 38.1	-2.1
GLBA				Sn	Sn	08 37 13.7	+3.0
KBZ	Khabaz	3.12	308	ePn	Pn	08 36 37.3	+2.6
KBZ				eSn	Sb	08 37 16.0	-3.1
KBZ	Khabaz	3.12	308	ePN	Pn	08 36 37.3	+2.6
KBZ				eS	Sb	08 37 16.0	-3.1
PYA1	Pyatigorsk	3.21	314	i PN	Pn	08 36 37.6	+1.4
SHA1	Shidzhatmaz	3.26	306	ePn	Pn	08 36 37.2	+0.2
SHA1				eSn	Sn	08 37 16.9	+0.9
SHA1	Shidzhatmaz	3.26	306	ePN	Pn	08 36 37.2	+0.2
SHA1				eS	Sn	08 37 16.9	+0.9
YRD	Yardimli	3.29	152	Pn	Pn	08 36 37.7	+0.3
YRD				Sn	Sn	08 37 16.6	-0.1
LRK	Lerik	3.57	153	Pn	Pn	08 36 42.1	+0.9
LRK				Sn	Sn	08 37 25.7	+2.1
ASTR	Astara	3.81	149	Pn	Pn	08 36 42.5	-1.7
ASTR				Sn	Sn	08 37 31.1	+2.0
SOC	Sochi	5.13	292	i PN	Pn	08 37 03.9	+1.4
SOC				i S	Sn	08 38 04.0	+2.2
SOC				pmax	pmax		
	comp=Z,23nm,0.4s						
SOC				smax	smax		
	comp=Z,25nm,0.8s						
BELG	Belogornoye	10.59	4	i P	Pn	08 38 18.7	+1.5
BELG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AKTO	Aktyubinsk	11.82	39	⇓P	Pn	08 38 33.0	-1.0
	comp=Z,1.7nm,0.9s						
AKTO				⇑S	Sn	08 40 47.8	+2.0
	comp=Z,1.1nm,0.8s						
AKTO	Aktyubinsk	11.82	39	P	Pn	08 38 33.3	-0.8
AKTO				S	Sn	08 40 47.8	+2.0
AB31	Akbulak array	12.09	48	⇑P	Pn	08 38 39.5	+1.7
	comp=Z,0.3nm,0.4s,baz=243,slow=12,SNR=8.6						
AB31				⇓S	Sn	08 40 51.1	-1.5
	comp=Z,0.9nm,0.7s,baz=237,slow=16,SNR=4.8						
AB31	Akbulak array	12.09	48	P	Pn	08 38 39.5	+1.7
AB31				S	Sn	08 40 51.7	-0.9
OBN	Obninsk	14.73	338	i P	Pn	08 39 14.2	+0.4
OBN				pmax	pmax		
	comp=Z,6.0nm,1.0s						
ARTI	Arti	16.52	24	i P	Pn	08 39 37.0	-0.2
ARTI				pmax	pmax		
	comp=Z,3.0nm,1.2s						
AAK	Ala-Archa	20.87	78	i P	Pn	08 40 28.7	-1.6

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*IDC **22** 08:51:14.4±2.8, 44°.90S×167°.55E, h89^{km}±28^{km}, mb4.0/6, mbtmp4.2/8, MS3.4/9, Error ellipse: s-maj=26.0km s-min=19.4km az=33.0*
*WEL **22** 08:51:14.6, 45°.07S×167°.42E, ML4.9, Mw4.6, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M$_{rr}$3.04; M$_{\theta\theta}$-7.44; M$_{\phi\phi}$-3.69; M$_{r\theta}$0.90; M$_{\theta\phi}$-3.82; M$_{\phi r}$4.22; Fault plane solution: M$_{0}$8.50000×10^{15} NP1:φ$_{s}$34.00000°, δ62.00000°, λ63.00000°. NP2:φ$_{s}$262.00000°, δ38.00000°, λ131.00000°. Principal axes: T 7.8284, Plg62.0000°, Azm261.0000°; N 0.0123, Plg24.0000°, Azm47.0000°; P -7.8407, Plg13.0000°, Azm143.0000°; Stations used: APZ CVZ EAZ FOZ JCZ LBZ MSZ ODZ OPZ PYZ SYZ TUZ REVERSE FAULTING*
*NEIC **22** 08:51:14.2±1.9, 45°.02S±0°.09×167°.6E±0°.1, h80^{km}±4^{km}, mb4.4/5 Error ellipse: s-maj=14.8km s-min=8.3km az=141.0*
*WEL **22** 08:51:14.3±0.7, 45°S±4°×16°7E±°, h67^{km}±6^{km}, M4.8/12, ML4.8/12, MLv4.8/12, Error ellipse: s-maj=6.2km s-min=4.4km az=129.8, confirmed*
*NOU **22** 08:51:15.2, 45°.13S×167°.81E, h90^{km}, mb4.7/24, South Island, New Zealand*
ISC 22 08:51:14.5±0.7, **45°.10S**±0°.04×**167°.59E**±0°.04, **h88**^{km}±5^{km},
n164, σ**1^{s}44**/160, **mb4.4**/7, **South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TAFS	Te Anau Fire S	0.33	165	P	Pn	08 51 27.3	-0.5
TAFS				S	Sn	08 51 37.8	+0.1
MLZ	Mavora Lakes	0.46	126		Pn	08 51 28.7	0.0
MLZ	Mavora Lakes	0.46	126	P	Pn	08 51 28.8	0.0
MLZ				S	Sn	08 51 39.6	+0.3
MLZ				AML	AML		
MLZ				AML	AML		
DCZ	Deep Cove	0.48	220		Pn	08 51 27.6	-1.2
DCZ	Deep Cove	0.48	220	P	Pn	08 51 27.3	-1.5
DCZ				S	Sn	08 51 37.0	-2.5
DCZ				AML	AML		
DCZ				AML	AML		
MSZ	Milford Sound	0.48	29	P	Pn	08 51 28.7	-0.1
MSZ				S	Sn	08 51 39.4	-0.1
MSZ				AML	AML		
MSZ				AML	AML		
GLNY	Glenorchy	0.62	68	P	Pn	08 51 30.1	+0.1
MOSS	Mossburn Schoo	0.73	142	P	Pn	08 51 31.5	+0.4
QTPS	Queenstown Pol	0.76	86	P	Pn	08 51 32.3	+0.9
QTPS				S	Sn	08 51 45.8	+1.8
WHZ	Wether Hill Ro	0.83	163		Pn	08 51 32.1	-0.1
WHZ	Wether Hill Ro	0.83	163	P	Pn	08 51 32.0	-0.1
WHZ				S	Sn	08 51 44.8	-0.6
WHZ				AML	AML		
WHZ				AML	AML		
WKZ	Wanaka	1.05	76		Pn	08 51 35.7	+1.1
WKZ	Wanaka	1.05	76	P	Pn	08 51 35.7	+1.1
WKZ				S	Sn	08 51 51.0	+1.4
WKZ				AML	AML		
WKZ				AML	AML		
RRKS	Rarakau	1.06	185	P	Pn	08 51 34.4	-0.2
RRKS				S	Sn	08 51 49.2	-0.6
EAZ	Earnscleugh	1.22	97	P	Pn	08 51 37.7	+1.1
EAZ				S	Sn	08 51 54.1	+0.8
EAZ				AML	AML		
EAZ				AML	AML		
PYZ	Puysegur Point	1.25	211	P	Pn	08 51 37.0	+0.1
PYZ	Puysegur Point	1.25	211		Pn	08 51 36.6	-0.3
PYZ	Puysegur Point	1.25	211	P	Pn	08 51 36.1	-0.8
PYZ				AML	AML		
PYZ				AML	AML		
JCZ	Jackson Bay	1.33	40	P	Pn	08 51 38.3	+0.2
JCZ	Jackson Bay	1.33	40	P	Sn	08 51 56.4	+0.6
JCZ	Jackson Bay	1.33	40	P	Pn	08 51 38.1	0.0
JCZ				AML	AML		
JCZ				AML	AML		
TUZ	Tuapeka	1.67	122	P	Pn	08 51 43.1	+0.8
TUZ				S	Sn	08 52 04.0	+0.7
TUZ				AML	AML		
TUZ				AML	AML		
APZ	The Paps	1.76	171	P	Pn	08 51 42.9	-0.5
APZ				AML	AML		
APZ				AML	AML		
SYZ	Scrubby Hill	1.80	144	P	Pn	08 51 44.0	+0.1
SYZ	Scrubby Hill	1.80	144	P	Sn	08 52 05.5	-0.9
SYZ	Scrubby Hill	1.80	144	P	Pn	08 51 44.3	+0.4
SYZ				S	Sn	08 52 06.6	+0.3
SYZ				AML	AML		
SYZ				AML	AML		
LBZ	Lake Benmore	1.98	70		Pn	08 51 46.2	-0.1
LBZ	Lake Benmore	1.98	70	P	Pn	08 51 46.2	-0.1
LBZ				AML	AML		
LBZ				AML	AML		
ODZ	Otahua Downs	2.16	90	P	Pn	08 51 48.7	0.0
ODZ	Otahua Downs	2.16	90	S	Sn	08 52 12.6	-2.3

ODZ	Otahua Downs	2.16	90		Pn	08 51 49.0	+0.3
ODZ	Otahua Downs	2.16	90	P	Pn	08 51 49.1	+0.3
ODZ				AML	AML		
ODZ				AML	AML		
FOZ	Fox Glacier	2.23	46		Pn	08 51 49.3	-0.4
FOZ	Fox Glacier	2.23	46	P	Pn	08 51 48.9	-0.8
FOZ				AML	AML		
FOZ				AML	AML		
HHSZ	Highcliff Hill	2.26	112	P	Pn	08 51 50.9	+1.0
HHSZ				AML	AML		
HHSZ				AML	AML		
TMZ	Timaru	2.53	75	P	Pn	08 51 53.1	-0.5
TMZ				AML	AML		
TMZ				AML	AML		
RPZ	Rata Peaks	2.84	62	P	Pn	08 51 56.6	-1.1
	98nm,0.4s,baz=232,slow=9.0,SNR=66						
RPZ				S	Sn	08 52 30.5	-0.5
	159nm,0.4s,baz=341,slow=21,SNR=18						
RPZ	Rata Peaks	2.84	62	P	Pn	08 51 56.6	-1.1
RPZ	Rata Peaks	2.84	62	S	Sn	08 52 29.7	-1.4
RPZ	Rata Peaks	2.84	62		Pn	08 51 56.9	-0.9
RPZ	Rata Peaks	2.84	62	P	Pn	08 51 56.8	-0.9
WVZ	Waitaha Valley	3.04	49	P	Pn	08 51 59.0	-1.3
WACZ	Wakanui South	3.25	71	P	Pn	08 52 02.2	-1.0
MHCZ	Mount Hutt	3.25	63	P	Pn	08 52 01.8	-1.5
RACZ	Rakaia	3.53	69	P	Pn	08 52 05.9	-1.2
OXZ	Oxford	3.65	63		Pn	08 52 06.8	-1.9
OXZ	Oxford	3.65	63	P	Pn	08 52 06.7	-2.0
INZ	Inchbonnie	3.66	51		Pn	08 52 07.9	-0.8
MQZ	McQueen's Vall	3.88	71		Pn	08 52 10.7	-1.1
MQZ	McQueen's Vall	3.88	71	P	Pn	08 52 10.4	-1.4
AKCZ	Akaroa Harbour	4.00	74	P	Pn	08 52 12.5	-0.9
LTZ	Lake Taylor	4.09	57		Pn	08 52 12.9	-1.8
LTZ	Lake Taylor	4.09	57	P	Pn	08 52 12.9	-1.8
AMCZ	Amberley	4.12	64		Pn	08 52 13.9	-1.1
AMCZ	Amberley	4.12	64	P	Pn	08 52 13.6	-1.3
OKCZ	Okains Bay	4.15	73	P	Pn	08 52 14.9	-0.6
GVZ	Greta Valley S	4.46	63		Pn	08 52 18.1	-1.7
GVZ	Greta Valley S	4.46	63	P	Pn	08 52 18.0	-1.7
DSZ	Denniston Nort	4.54	44		Pn	08 52 19.5	-1.3
DSZ	Denniston Nort	4.54	44	P	Pn	08 52 19.2	-1.6
KHZ	Kahutara	5.07	60	P	Pn	08 52 25.9	-2.1
KHZ	Kahutara	5.07	60	S	Sn	08 53 23.4	-1.8
KHZ	Kahutara	5.07	60		Pn	08 52 26.5	-1.5
KHZ	Kahutara	5.07	60	P	Pn	08 52 26.0	-1.9
THZ	Tophouse	5.10	51		Pn	08 52 26.6	-1.9
THZ	Tophouse	5.10	51	P	Pn	08 52 26.2	-2.3
MRNZ	Matariki Terra	5.28	47		Pn	08 52 30.2	-0.6
MRNZ	Matariki Terra	5.28	47	P	Pn	08 52 29.7	-1.2
QRZ	Quartz Range	5.60	42	P	Pn	08 52 34.3	-0.8
QRZ	Quartz Range	5.60	42		Pn	08 52 34.8	-0.3
QRZ	Quartz Range	5.60	42	P	Pn	08 52 33.7	-1.4
TKNZ	Takaka Hill	5.65	46		Pn	08 52 35.2	-0.7
TKNZ	Takaka Hill	5.65	46	P	Pn	08 52 35.3	-0.6
BSWZ	Blackbirch Sta	5.69	56	P	Pn	08 52 37.0	+0.6
NNZ	Nelson	5.74	50	Pn	Pn	08 52 36.8	-0.2
NNZ	Nelson	5.74	50	P	Pn	08 52 35.4	-1.7
TUWZ	Tuamarina	5.91	54	P	Pn	08 52 40.0	+0.6
TCW	Tory Channel	6.24	54		Pn	08 52 44.1	+0.2
TCW	Tory Channel	6.24	54	P	Pn	08 52 43.3	-0.6
DUWZ	D'Urville Isla	6.32	49	P	Pn	08 52 44.2	-0.8
KIW	Kapiti Island	6.83	54	P	Pn	08 52 50.2	-1.8
MTW	Mount Morrison	7.00	59	P	Pn	08 52 51.4	-2.8
OGWZ	Otaki Gorge	7.01	55	P	Pn	08 52 52.2	-2.3
HOWZ	Holdsworth Sta	7.16	57	P	Pn	08 52 55.8	-0.7
MRZ	Mangatainoka R	7.35	56	Pn	Pn	08 52 56.9	-2.2
MRZ	Mangatainoka R	7.35	56	P	Pn	08 52 56.5	-2.6
NBEZ	Newall Road No	7.46	41	P	Pn	08 53 00.2	-0.3
KHEZ	Kahui Hut	7.50	42	P	Pn	08 53 01.3	+0.1
PREZ	Palmer Road	7.53	43	P	Pn	08 53 02.9	+1.3
NEZ	North Egmont	7.56	42	P	Pn	08 53 02.5	+0.5
LREZ	Lake Rotokare	7.56	44	P	Pn	08 53 03.4	+1.5
PKE	Pukeiti	7.57	41	P	Pn	08 53 02.6	+0.5
WAZ	Wanganui	7.64	48	P	Pn	08 53 05.7	+2.8
VRZ	Vera Road	8.00	44	P	Pn	08 53 08.2	+0.4
TRVZ	Turoa	8.27	48	P	Pn	08 53 15.4	+3.6
WNVZ	Wahianoa	8.27	49	P	Pn	08 53 13.5	+1.7
WHVZ	Whangaehu Hut	8.30	48	P	Pn	08 53 15.1	+2.9
FWVZ	Far West T-bar	8.30	48	P	Pn	08 53 14.7	+2.4
COVZ	Chateau Observ	8.34	48	P	Pn	08 53 17.2	+4.6
TWVZ	Taurewa	8.38	47	P	Pn	08 53 13.0	-0.2
NGZ	Ngauruhoe	8.39	48	P	Pn	08 53 16.6	+3.3
BHHZ	Black Hill Sta	8.41	51	P	Pn	08 53 12.8	-0.7
WTVZ	West Tongariro	8.43	48	P	Pn	08 53 16.2	+2.4
OTVZ	Oturere	8.43	48	P	Pn	08 53 16.2	+2.3
ETVZ	East Tongariro	8.47	48	P	Pn	08 53 17.5	+3.0
TMVZ	Te Maari	8.48	48	P	Pn	08 53 19.0	+4.4
HIZ	Hauiti	8.52	42	P	Pn	08 53 14.8	-0.2
HIZ	Hauiti	8.52	42		Pn	08 53 13.9	-1.1
HIZ	Hauiti	8.52	42	P	Pn	08 53 13.9	-1.1
KAHZ	Kahuranaki	8.67	56	P	Pn	08 53 15.1	-1.9
RATZ	Rangitukua	8.71	47	P	Pn	08 53 20.6	+3.0
TLZ	Tolley Road	9.00	44	P	Pn	08 53 20.0	-1.5
TOZ	Tahuroa Road	9.45	42		Pn	08 53 27.6	-0.1
TOZ	Tahuroa Road	9.45	42	P	Pn	08 53 29.8	+2.1
AWAZ	Awhitu Peninsu	9.62	36	P	Pn	08 53 31.0	+0.9
WTAZ	Waiatarua	9.71	35	P	Pn	08 53 31.6	+0.4
MKAZ	Moumakai	9.81	38	P	Pn	08 53 33.8	+1.2
RVAZ	Riverhead Bore	9.85	35	P	Pn	08 53 33.5	+0.4
URZ	Urewera	9.86	49	P	Pn	08 53 30.8	-2.4
	4.8nm,0.8s,baz=245,slow=2.8,SNR=6.3						
URZ				S	Sn	08 55 11.5	-11
	8.0nm,0.5s,baz=242,slow=17,SNR=2.0						
MBAZ	Motutapu North	9.98	36	P	Pn	08 53 36.1	+1.2
WCZ	Waipu Caves	10.49	32	P	Pn	08 53 41.5	-0.3
OUZ	Omahuta	10.88	27	P	Pn	08 53 47.4	+0.3
TAU	Tasmania Unive	14.75	271	Pn	Pn	08 54 38.6	+0.2
GLAD	Gladstone	14.89	279	P	P	08 54 43.5	-0.2
CAN	Canberra	17.20	298		Pn	08 55 08.7	-0.4
CAN				IAmb	IAmb	08 55 27.8	
	comp=Z,36nm,1.2s						
TOO	Toolangi	18.19	287	P	Pn	08 55 21.0	0.0
TOO				IAmb	IAmb	08 55 30.9	
	comp=Z,15nm,1.2s						
AUMAG	Moama Anglican	19.48	290	P	Pn	08 55 36.2	-0.2
CMSA	Cobar Meteorol	21.79	301	P	P	08 56 01.3	+2.2
AULRC	Lightning Ridg	22.01	309	P	P	08 56 04.4	+2.9
EIDS	Eidsvold	23.77	320	P	P	08 56 21.1	+2.2
EIDS	Eidsvold	23.77	320	P	P	08 56 19.6	+0.7
EIDS				IAmb	IAmb	08 56 21.8	
	comp=Z,23nm,1.1s						
STKA	Stephens Creek	24.13	294	P	P	08 56 21.3	-0.8
	comp=Z,5.5nm,1.0s,baz=135,slow=11,SNR=3.5						
STKA				LR	LR	09 04 23.0	
	comp=Z,72nm,19.2s,baz=187,slow=33						
	comp=Z,5.5nm,1.0s						
QLP	Quilpie	26.30	307	P	P	08 56 43.5	+1.7
CTA	Charters Tower	30.56	318	LR	LR	09 08 36.4	
	comp=Z,52nm,18.3s,baz=212,slow=34						
VNDA	Vanda	32.62	182	LR	LR	09 09 00.4	
	comp=Z,43nm,19.0s,baz=354,slow=32						
QIS	Mount Isa	33.64	307	P	P	08 57 47.4	+0.7
AS01	Alice Springs	34.67	297	P	P	08 57 57.0	+1.4
AUALC	St Philip's Co	34.70	297	P	P	08 57 57.1	+1.2
ASAR	Alice Springs	34.70	297	P	P	08 57 54.5	-1.4
	comp=Z,8.9nm,1.1s,baz=142,slow=7.4,SNR=21						
ASAR				LR	LR	09 10 41.3	
	comp=Z,71nm,19.7s,baz=123,slow=34						
	comp=Z,8.9nm,1.1s						
RAR	Rarotonga	35.86	59	LR	LR	09 13 59.5	
	comp=Z,70nm,18.2s,baz=288,slow=38						
HNR	Honiara	36.14	347	LR	LR	09 12 16.4	
	comp=Z,45nm,18.8s,baz=248,slow=35						
WRA	Warramunga Arr	37.20	301	P	P	08 58 15.7	-1.5
	comp=Z,8.1nm,1.1s,baz=138,slow=8.0,SNR=27						
	comp=Z,8.1nm,1.1s						
H01W1	Cape Leeuwin H	41.51	265	T	T	09 42 58.3	
	baz=119,slow=75,SNR=1360						
H01W2	Cape Leeuwin H	41.52	265	T	T	09 42 59.1	
	baz=119,slow=75,SNR=1300						
H01W3	Cape Leeuwin H	41.53	265	T	T	09 42 59.6	
	baz=119,slow=75,SNR=1130						
QSPA	South Pole Qui	45.03	180	P	P	08 59 22.5	+1.5
	comp=Z,2.1nm,0.9s,baz=38,slow=3.8,SNR=6.0						
QSPA				LR	LR	09 15 39.0	
	comp=Z,48nm,21.6s,baz=52,slow=32						
	comp=Z,2.1nm,0.9s						
QSPA	South Pole Qui	45.03	180	IAmb	IAmb	08 59 23.9	
	comp=Z,13nm,1.4s						
MAW	Mawson	54.34	207	P	P	09 00 32.1	+0.8
	comp=Z,0.9nm,0.5s,baz=113,slow=6.1,SNR=3.8						
	comp=Z,0.9nm,0.5s						
PMSA	Palmer Station	63.29	158	LR	LR	09 25 28.6	
	comp=Z,45nm,18.3s,baz=97,slow=32						
SNAA	Sanae	63.34	183	LR	LR	09 28 19.5	
	comp=Z,33nm,18.2s,baz=188,slow=35						
H04S1	CROZET ISLANDS	72.39	220	T	T	10 22 55.4	
	baz=135,slow=74,SNR=15						
H04S2	CROZET ISLANDS	72.39	220	T	T	10 22 56.6	
	baz=135,slow=74,SNR=13						
H04S3	CROZET ISLANDS	72.40	220	T	T	10 22 54.1	
	baz=135,slow=74,SNR=18						
H08S2	Diego Garcia H	88.23	261	T	T	10 41 14.3	
	baz=135,slow=76,SNR=598						
H08S1	Diego Carcia H	88.24	261	T	T	10 41 14.4	
	baz=135,slow=76,SNR=274						
H08S3	Diego Garcia H	88.25	261	T	T	10 41 15.8	
	baz=135,slow=76,SNR=698						
CMAR	Chiang Mai Arr	88.70	298	P	P	09 03 58.3	+0.2
	comp=Z,1.0nm,0.3s,baz=147,slow=3.5,SNR=10						
	comp=Z,1.0nm,0.3s						
KURBB	Kurchatov Arra	122.47	311	PKP	PKPdf	09 09 57.3	-1.3
	comp=Z,0.6nm,0.5s,baz=121,slow=2.0,SNR=4.3						
KURK	Kurchatov	122.47	311		PKPdf	09 09 57.3	-1.3
AKTO	Aktyubinsk	133.99	303	PKP	PKPdf	09 10 19.6	-1.0
	comp=Z,2.0nm,0.5s,baz=170,slow=6.1,SNR=5.1						
BRTR	Keskin Array B	145.95	277	PKPbc	PKPdf	09 10 42.9	+0.1
	comp=Z,1.6nm,0.9s,baz=145,slow=4.5,SNR=5.4						
TORD	Torodi Ar. Bea	145.97	205	PKPbc	PKPdf	09 10 43.3	-0.1
	comp=Z,3.2nm,0.8s,baz=146,slow=2.1,SNR=16						
AKASG	Malin Array Be	151.82	297	PKPbc	PKPbc	09 10 57.4	-0.7
	comp=Z,0.5nm,0.3s,baz=81,slow=2.3,SNR=4.9						
FINES	FINESS Array B	152.31	320	PKPbc	PKPbc	09 10 58.1	-0.8
	comp=Z,2.6nm,0.9s,baz=76,slow=8.0,SNR=9.0						

IDC 22 08:56:27.7±2.8, 7°.01S×129°.28E, h161^{km}±38^{km}, mb3.4/1, mbtmp3.8/5, Error ellipse: s-maj=62.0km s-min=20.3km az=90.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SIJI	Sorong	6.42	18	P	Pn	08 57 59.9	-0.2
	3.1nm,0.5s,baz=226,slow=17,SNR=8.2						
SIJI				S	Sn	08 59 05.9	-6.7
	6.9nm,0.2s,baz=243,slow=23,SNR=6.1						
FITZ	Fitzroy Crossi	11.58	198	P	Pn	08 59 07.5	-0.7
	3.1nm,1.0s,baz=17,slow=11,SNR=8.9						
FITZ				S	Sn	09 01 09.2	-7.2
	1.4nm,0.3s,baz=282,slow=23,SNR=6.4						
WRA	Warramunga Arr	13.76	160	P	Pn	08 59 35.0	-1.2
	0.9nm,0.5s,baz=339,slow=11,SNR=9.4						
WRA				S	Sn	09 02 00.5	-8.5
	0.6nm,0.3s,baz=333,slow=22,SNR=5.5						
ASAR	Alice Springs	17.15	165	P	Pn	09 00 18.5	+0.7
	2.1nm,0.5s,baz=339,slow=9.2,SNR=37						
MKAR	Makanchi Array	67.84	327	P	P	09 07 08.7	+0.1
	0.5nm,0.5s,baz=118,slow=7.6,SNR=5.9						
	0.5nm,0.5s						

HEL 22 09:06:59.0±0.2, 61°.10N×29°.88E, h0^{km}, ML1.5, Suspected explosion, Finland-Karelia border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RUF	Ruokolahti	0.55	307	PG	Pg	09 07 09.0	-0.6
RUF				SG	Sg	09 07 16.0	-0.8
RUF				smax	smax	09 07 16.9	
	comp=Z,3.2nm,0.2s						
VJF	Virojoki	1.27	245	PG	Pg	09 07 22.0	-1.3
VJF				smax	smax	09 07 37.4	
	comp=Z,3.8nm,0.2s						
VJF				SN	Sn	09 07 44.3	+2.7
FIA0	FINESS Array S	1.87	282	PG	Pn	09 07 32.4	+0.2
	baz=100						
FIA0				smax	smax	09 07 54.7	
	comp=Z,2.5nm,0.2s						
FIA0				SG	Sn	09 07 56.6	+0.2
JOF	Joensuu	1.95	20	PG	Pn	09 07 33.9	+0.7
JOF				SG	Sn	09 07 58.5	+0.1
KAF	Kangasniemi	1.99	302	PG	Pb	09 07 35.0	-1.0
KAF				smax	smax	09 07 58.1	
	comp=Z,3.0nm,0.2s						
PVF	Pernaja	2.04	256	PG	Pn	09 07 35.4	+0.8
	baz=72						
PVF				smax	smax	09 07 59.6	
	comp=Z,4.3nm,0.2s						
PVF				SG	Sg	09 08 03.9	-0.6
SUF	Sumiainen	2.40	314	PG	Pb	09 07 41.8	-1.2
SUF				smax	smax	09 08 10.0	
	comp=Z,0.9nm,0.2s						
SUF				SG	Sb	09 08 13.9	+0.8
NIF	Nilsia	2.50	338	PG	Pb	09 07 44.0	-0.6
NIF				smax	smax	09 08 12.6	
	comp=Z,2.4nm,0.2s						
KEF	Keuruu	2.62	296	PB	Pn	09 07 44.2	+1.7
KEF				smax	smax	09 08 16.2	
	comp=Z,1.0nm,0.2s						
KEF				SG	Sb	09 08 19.6	+0.2
RMF	Romuvaara	3.13	0	SN	Sn	09 08 23.1	-4.5
RMF				smax	smax	09 08 31.0	
	comp=Z,0.8nm,0.2s						

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*HEL **22** 09:07:15.3±0.1, 64°.78N×25°.16E, h0^{km}, ML1.3, Explosion*
*UPP **22** 09:07:15.1±1.2, 64°.77N×25°.14E, h0^{km}, ML1.8, Presumed earthquake*

ISC 22 09:07:14.9±0.8, 64°.77N±0°.02×25°.17E±0°.02, h0^{km}, n26, σ0^{s}.68/39, Finland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OBF4	Vikkela, Lumij	0.05	328	PG	Pg	09 07 16.1	+0.2
	baz=143						
OUL	Oulu	0.44	44	PG	Pg	09 07 23.3	-0.1
	baz=221						
OUL				SG	Sg	09 07 29.4	+0.3
OUF	Merijarvi	0.45	205	PG	Pg	09 07 23.2	-0.2
OUF				SG	Sg	09 07 29.4	+0.2
OUF				smax	smax	09 07 30.1	
	comp=Z,3.6nm,0.2s						
OBF0	Syolatti, Pyha	0.48	236	PG	Pg	09 07 24.1	0.0
OBF0				SG	Sg	09 07 31.1	+0.7
OBF0				smax	smax	09 07 31.1	
	comp=Z,3.1nm,0.2s						
TOF	Tornio	1.36	345	PN	Pg	09 07 40.5	-0.5
TOF				smax	smax	09 07 56.0	
	comp=Z,1.5nm,0.2s						
TOF				SN	Sg	09 07 58.6	-0.1
RANF	Ranua	1.42	28	PN	Pn	09 07 41.6	-0.4
RANF				SB	Sg	09 08 00.0	-0.6
BURU	Burvik	1.64	265	P	Pn	09 07 45.0	+0.1
BURU				S	Sg	09 08 07.6	+0.1
BURU	Burvik	1.64	265	PN	Pn	09 07 45.2	+0.3
BURU				SN	Sg	09 08 08.3	+0.8
SJUU	Sjulsmark	1.68	298	P	Pn	09 07 45.8	+0.3
SJUU				S	Sb	09 08 08.1	-0.1
NIF	Nilsia	1.81	139	smax	smax	09 08 09.5	
	comp=Z,2.4nm,0.2s						
NIF				SG	Sb	09 08 12.0	+0.1
RNF	Rovaniemi	1.88	10	PG	Pn	09 07 49.1	+0.9
RNF				SG	Sb	09 08 13.6	-0.5
ODEU	Stanfors	1.95	261	P	Pn	09 07 49.6	+0.4
MSF	Maaselka	1.99	53	SG	Sn	09 08 16.6	+1.3
KU1	Kurvinen	2.02	65	PG	Pn	09 07 51.6	+1.4
KU1				SG	Sn	09 08 17.0	+1.0
VAF	Ylistaro	2.06	214	PG	Pb	09 07 52.2	-0.8
VAF				smax	smax	09 08 16.5	
	comp=Z,1.0nm,0.2s						
RMF	Romuvaara	2.13	103	PG	Pb	09 07 53.7	-0.7
RMF				smax	smax	09 08 18.8	
	comp=Z,2.4nm,0.2s						
RMF				SG	Sb	09 08 21.1	-0.3
RMF	Romuvaara	2.13	103	PG	Pb	09 07 53.7	-0.7
UMAU	Umeaa	2.15	248	P	Pn	09 07 52.2	+0.3
UMAU	Umeaa	2.15	248	PG	Pb	09 07 53.5	-1.1
	baz=59						
ERTU	Ertsjaerv	2.18	327	PG	Pb	09 07 54.5	-0.6
OLKF	Oulanka, Finla	2.35	47	PG	Pb	09 07 57.0	-1.1
OLKF				smax	smax	09 08 24.8	
	comp=Z,1.4nm,0.2s						
OLKF				SG	Sb	09 08 26.8	-0.8
KLF	Kolari	2.52	349	SB	Sn	09 08 28.2	-0.3
KLF				smax	smax	09 08 29.7	
	comp=Z,0.9nm,0.2s						
KAF	Kangasniemi	2.72	169	PN	Pn	09 08 00.3	+0.6
KAF				smax	smax	09 08 35.6	
	comp=Z,1.7nm,0.2s						
KAF				SG	Sb	09 08 37.8	-0.3
FIA0	FINESS Array S	3.36	173	PN	Pn	09 08 08.7	+0.1
HEF	Hetta	3.71	351	SG	Sb	09 09 08.2	+1.7
HEMU	Hemsoen	3.80	240	SN	Sn	09 09 00.4	+0.4

ISC 22 09:13:08.4±1.1, 48°.99N±0°.05×18°.09E±0°.04, h10^{km}, n7, σ0^{s}.58/11, Czech and Slovak Republics

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAVC	Velka Javorina	0.30	245	*e*PG	Pg	09 13 14.3	-0.2
JAVC				*e*SG	Sg	09 13 18.6	+0.1
VYHS	Vyhne	0.70	135	*e*PG	Pg	09 13 21.1	-0.8
VYHS				*e*SG	Sb	09 13 32.0	-0.3
MODS	Modra-Piesok	0.81	222	*e*PG	Pb	09 13 25.3	+0.7
MODS				*e*SG	Sn	09 13 38.4	+0.3
MODS				*e*LG	Lg	09 13 39.9	
MORC	Moravsky Berou	0.87	336	*e*PG	Pg	09 13 24.9	-0.2
LANS	Liptovska Anna	0.92	79	*e*PG	Pb	09 13 26.7	+0.2
LANS				*e*SG	Sn	09 13 41.7	+0.9
VRAC	Vranov	1.03	289	*e*PG	Pg	09 13 28.0	-0.2
KRUC	Moravsky	1.12	275	*e*PG	Pb	09 13 29.1	-0.7

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*IDC **22** 09:25:29.4±1.0, 64°.98N×139°.52W, h0^{km}, mb3.3/2, mbtmp3.3/6, ML3.3/4, Error ellipse: s-maj=12.5km s-min=9.8km az=173.0*
*PGC **22** 09:25:30.6±0.1, 64°.95N×139°.51W, h6^{km}, ML3.3/37, 97km northeast of Dawson, Yt Southern Yukon Territory, Canada*

ISC 22 09:25:30.1±1.1, 64°.95N±0°.02×139°.36W±0°.03, h12^{km}±9^{km}, n64, σ1^{s}.35/88, Southern Yukon Territory

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I28M	Miner Creek	0.55	334	P	Pg	09 25 39.9	-1.0
I29M	Ogilvie Camp,	0.60	47	P	Pg	09 25 42.0	+0.1
I29M				S	Sb	09 25 51.2	+0.1
J29N	Klondike Camp	0.70	135	P	Pg	09 25 43.5	-0.2
J29N				S	Sb	09 25 53.4	-0.6
DAWY	Dawson	0.89	181	P	Pg	09 25 45.7	-1.6
DAWY				S	Sg	09 25 57.5	-1.4
I30M	Mount Dempster	1.29	77	P	Pg	09 25 54.7	-0.2
I30M				S	Sn	09 26 12.6	+1.3
H29M	Whitestone	1.33	17	P	Pn	09 25 55.1	+0.6
H29M				S	Sb	09 26 12.2	+0.1
J30M	Hart River	1.35	105	P	Pb	09 25 55.1	-0.3
J30M				S	Sn	09 26 15.4	+2.6
K29M	Barlow Dome	1.37	144	P	Pb	09 25 55.5	-0.2
K29M				S	Sg	09 26 15.5	+1.3
H27K	Steamboat Moun	1.57	326	Pn	Pn	09 25 58.4	+0.6
H27K				Sn	Sn	09 26 19.1	+1.0
EPYK	Eagle Plains	1.79	36	Pn	Pn	09 26 01.6	+0.7
EPYK				Sn	Sb	09 26 26.1	+0.8
L29M	L29M	1.93	163	Pn	Pn	09 26 03.0	+0.2
G29M	Pine Creek	2.04	15	Pn	Pn	09 26 04.5	+0.3
G27K	Doyon Strip	2.09	334	Pn	Pn	09 26 05.4	+0.5
L27K	Beaver Creek,	2.19	211	Pn	Pn	09 26 05.8	-0.5
H31M	Peel River	2.27	66	Pn	Pn	09 26 08.3	+1.0
G30M	tAoh Zraii Nji	2.41	31	Pn	Pn	09 26 09.7	+0.4
G30M				Pg	Pb	09 26 14.2	+0.9
G30M				Sn	Sn	09 26 40.4	+1.8
M29M	Somme Creek	2.55	171	Pn	Pn	09 26 11.6	+0.2
BVCY	Beaver Creek	2.64	195	Pn	Pn	09 26 12.5	0.0
BVCY				Pg	Pb	09 26 17.1	-0.1
F28M	Old Crow	2.68	356	Pn	Pn	09 26 13.5	+0.4
F28M				Sg	Sb	09 26 53.3	+2.6
G26K	Porcupine Rive	2.70	320	Pn	Pn	09 26 13.2	-0.1
G31M	Satah River	2.87	44	Pn	Pn	09 26 16.1	+0.5
G31M				Sn	Sn	09 26 51.0	+0.9
F30M	Barrier River	3.03	27	Pn	Pn	09 26 18.1	+0.2
ILAR	Eielson Array	3.22	270	Pn	Pn	09 26 20.1	-0.3
	0.9nm,0.3s,baz=86,slow=11,SNR=33						
ILAR				Sn	Sn	09 26 57.3	-1.4
	1.7nm,0.3s,baz=80,slow=20,SNR=6.4						
ILAR				Lg	Lg	09 27 06.4	
	4.3nm,0.3s,baz=81,slow=29,SNR=7.9						
	6.1nm,0.7s						
ILAR				AML	AML		
YUK3	Moose Creek	3.23	189	Pn	Pn	09 26 20.6	-0.2
YUK2	White River	3.25	193	Pn	Pn	09 26 21.2	+0.3
G25K	Bearman Lake	3.31	306	Pn	Pn	09 26 21.7	0.0
G25K				Pg	Pb	09 26 29.1	+0.3
F26K	Sheenjek River	3.36	327	Pn	Pn	09 26 23.2	+0.8
F26K				Pg	Pb	09 26 30.1	+0.6
E27K	Coleen River	3.37	346	Pn	Pn	09 26 22.7	+0.2
F31M	Tsiigehtchic	3.38	40	Pn	Pn	09 26 22.9	+0.3
F31M				Sn	Sn	09 27 03.5	+1.0
E29M	Blow River	3.50	9	Pn	Pn	09 26 24.4	+0.2
BRWY	Burwash Landin	3.60	178	Sg	Sb	09 27 20.6	+3.3
YUK4	Talbot Arm	3.64	175	Pn	Pn	09 26 25.9	-0.5
N30M	Aishikik Lake	3.66	163	Pn	Pn	09 26 26.9	+0.4
N30M				Sg	Sb	09 27 22.9	+4.0
E28M	Babbage River	3.67	359	Pn	Pn	09 26 26.6	0.0
F25K	Christian Rive	3.67	319	Pn	Pn	09 26 27.0	+0.3
YUK8	Steele Glacier	3.69	183	Pn	Pn	09 26 27.4	+0.3
YUK8				Sg	Sb	09 27 23.3	+3.3
N31M	Braeburn, Yuko	3.84	153	Pn	Pn	09 26 29.3	+0.3
N31M				Sn	Sn	09 27 15.0	+1.0
MCARA	McCarthy VSAT	3.95	207	Pn	Pn	09 26 31.2	+0.8
E25K	Arctic Village	4.03	325	Pn	Pn	09 26 32.5	+0.9
PTPK	Patty Peak	4.04	202	Pn	Pn	09 26 32.5	+0.7
YUK6	Outpost Mounta	4.05	173	Pn	Pn	09 26 32.9	+0.8
INK	Inuvik	4.09	32	Pn	Pn	09 26 32.0	-0.3
	0.5nm,0.3s,baz=215,slow=19,SNR=30						
INK				Sn	Sn	09 27 19.4	-0.6
	2.7nm,0.3s,baz=266,slow=8.5,SNR=4.4						
INK				Lg	Lg	09 27 39.3	
	2.3nm,0.3s,baz=288,slow=12,SNR=4.4						
	0.9nm,0.3s						
INK				AML	AML		
INK	Inuvik	4.09	32	Pn	Pn	09 26 32.6	+0.3
INK				Sn	Sn	09 27 19.9	-0.1
BALM	Baldy	4.16	200	Pn	Pn	09 26 34.2	+0.7
LOGN	Logan Glacier	4.21	191	Pn	Pn	09 26 34.9	+0.7
O28M	Mount Upton	4.22	186	Pn	Pn	09 26 35.4	+1.0
HYT	Haines Junctio	4.23	168	Pn	Pn	09 26 35.2	+0.7
MMPY	Sheldon Lake,	4.29	119	Pn	Pn	09 26 36.5	+1.4
D27M	Malcolm River	4.35	352	Pn	Pn	09 26 36.9	+0.8
GRNC	Granite Creek	4.38	196	Pn	Pn	09 26 37.6	+1.1
O29M	Mount Kennedy	4.68	175	Pn	Pn	09 26 41.6	+0.9
N32M	Quiet Lake	4.76	140	Pn	Pn	09 26 42.8	+1.1
WHY	Whitehorse	4.77	153	Sn	Sn	09 27 37.0	-0.1
C27K	Jago River	4.99	342	Pn	Pn	09 26 45.7	+1.0
Q32M	Nakina River	6.88	148	Pn	Pn	09 27 12.1	+1.3
C36M	Paulatuk	7.39	47	Pn	Pn	09 27 17.0	-0.6
DLBC	Dease Lake	7.89	142	Pn	Pn	09 27 25.6	+1.0
	0.5nm,0.3s,baz=353,slow=13,SNR=12						
DLBC				Lg	Lg	09 29 36.0	
	0.5nm,0.3s,baz=244,slow=22,SNR=4.9						
	1.5nm,0.4s						
DLBC				AML	AML		
DLBC	Dease Lake	7.89	142	Pn	Pn	09 27 24.6	0.0
KUKN	Kugluktuk,NWT	10.12	63	P	Pn	09 27 54.4	-0.5
YKAW3	Yellowknife Wh	11.18	91	P	Pn	09 28 08.4	-1.1
YKA	Yellowknife Ar	11.21	91	Pn	Pn	09 28 09.2	-0.7
	0.3nm,0.3s,baz=293,slow=13,SNR=22						
YKA				Sn	Sn	09 30 07.7	-7.3
	0.4nm,0.3s,baz=300,slow=22,SNR=12						
	1.4nm,0.5s						
YKA				AML	AML		
YKAW1	Yellowknife Wh	11.27	91	P	Pn	09 28 08.8	-1.9
PDAR	Pinedale Array	27.84	128	P	P	09 31 21.2	+1.8
	0.4nm,0.9s,baz=338,slow=8.4,SNR=2.6						
	0.4nm,0.9s						
NVAR	Mina Array Bea	29.29	145	P	P	09 31 32.5	+0.2
	0.2nm,0.5s,baz=338,slow=9.4,SNR=2.7						
	0.2nm,0.5s						

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*ISK **22** 09:46:02.7, 37°.17N×37°.75E, h5^{km}, ML2.6/10*
*AFAD **22** 09:46:04.0, 37°.29N×37°.73E, h7^{km}±3^{km}, ML2.2*

ISC 22 09:46:02.9±1.6, 37°.23N±0°.07×37°.75E±0°.03, h9^{km}±9^{km}, n18, σ0^{s}.59/26, Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GZT	Gaziantep	0.19	311	P	Pg	09 46 07.1	+0.1
GZT				IAML		09 46 10.0	
	comp=N,3μm,0.3s						

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
GZT				IAML		09 46 10.0	
	comp=E,2µm,0.4s						
GZT				S	Sg	09 46 10.1	+0.3
GAZ	**Gaziantep**	0.43	263	Pg	Pb	09 46 12.3	-0.4
GAZ				Sg	Sb	09 46 19.5	+0.1
GAZ				AML	AML		
KHMN	**Narli-Kahraman**	0.50	289	Pg	Pb	09 46 13.8	-0.1
KHMN				AML	AML		
KHMN	**Narli-Kahraman**	0.50	289	P	Pb	09 46 13.2	-0.7
KHMN				S	Sb	09 46 21.1	-0.2
KHMN				IAML		09 46 26.0	
	comp=N,132nm,0.2s						
KHMN				IAML		09 46 30.0	
	comp=E,139nm,0.5s						
ATAB	**Bozova**	0.50	61	P	Pb	09 46 13.9	0.0
ATAB				S	Sb	09 46 20.6	-0.7
ATAB				IAML		09 46 25.0	
	comp=N,305nm,0.4s						
ATAB				IAML		09 46 25.0	
	comp=E,407nm,0.5s						
AKCA	**Adyaman/G¶l**	0.57	355	P	Pg	09 46 14.0	0.0
AKCA				S	Sg	09 46 21.2	-0.3
AKCA				IAML		09 46 22.0	
	comp=E,228nm,0.8s						
AKCA				IAML		09 46 26.0	
	comp=N,149nm,0.2s						
KAHM	**Kahramanmaras,**	0.67	296	P	Pb	09 46 16.1	-0.7
KAHM				S	Sn	09 46 28.4	-0.9
KAHM				IAML		09 46 29.0	
	comp=N,74nm,0.4s						
AZEY	**Adyaman-Merk**	0.71	34	P	Pb	09 46 17.0	-0.5
AZEY				S	Sn	09 46 30.3	+0.1
AZEY				IAML		09 46 31.0	
	comp=N,79nm,0.1s						
AZEY				IAML		09 46 31.0	
	comp=E,80nm,0.4s						
KMRS	**Kahramanmaras**	0.73	293	Pg	Pb	09 46 17.7	-0.1
KMRS				AML	AML		
AKCD	**Akcadag**	1.08	7	P	Pn	09 46 25.1	+0.8
AKCD				S	Sn	09 46 40.6	+1.2
AKCD				IAML		09 46 41.0	
	comp=E,179nm,0.3s						
AKCD				IAML		09 46 42.0	
	comp=N,127nm,0.3s						
MDYL	**Doganyol-Malat**	1.49	43	Pn	Pg	09 46 32.3	+0.8
KOZT	**Kozan**	1.55	280	Pn	Pg	09 46 32.7	0.0
KOZT				AML	AML		
SARI	**SarD1z-Kayseri**	1.58	319	Pn	Pg	09 46 33.7	+0.5
SARI				AML	AML		
ESGZ	**Sivrice-Elazig**	1.59	41	Pn	Pg	09 46 33.7	+0.3
ESGZ				AML	AML		
SVRC	**Sivrice-ELAZID**	1.69	47	Pn	Pg	09 46 34.9	-0.4
SVRC				AML	AML		
ARPR	**Arapgir-MALATY**	1.92	14	Pn	Pg	09 46 38.7	-1.0
ARPR				AML	AML		
DYBB	**Diyarbakir**	2.03	68	Pn	Pb	09 46 39.5	-0.6
DYBB				AML	AML		
BNN	**Bunyan**	2.21	318	Pn	Pb	09 46 42.7	-0.4
BNN				AML	AML		

IDC 22 09:46:20.2±1.7**, 23°.46N**×**94°.91E, h0**^{km}**, mb3.2**/3**, mbtmp3.2**/4**, ML3.6**/1**, Error ellipse: s-maj=62.8km s-min=17.4km az=57.0, Myanmar-India border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	6.25	142	Pn	Pn	09 47 55.3	+1.6
	0.4nm,0.3s,baz=322,slow=14,SNR=1.1						
CMAR				Pg	Pg	09 48 16.4	-3.5
	0.3nm,0.3s,baz=323,slow=17,SNR=5.5						
CMAR				Lg	Lg	09 49 34.9	
	0.5nm,0.3s,baz=317,slow=28,SNR=1.4						
	0.5nm,0.3s						
CMAR				AML	AML		
MKAR	**Makanchi Array**	25.40	340	P	P	09 51 49.0	-0.2
	0.3nm,0.6s,baz=141,slow=9.3,SNR=2.6						
	0.3nm,0.6s						
WRA	**Warramunga Arr**	57.79	135	P	P	09 56 13.4	-0.1
	0.2nm,0.6s,baz=321,slow=7.6,SNR=4.9						
	0.2nm,0.6s						
ASAR	**Alice Springs**	60.24	138	P	P	09 56 30.8	+0.2
	0.2nm,0.8s,baz=323,slow=7.2,SNR=1.9						
	0.2nm,0.8s						

KRSC 22 10:00:08.4±2.6**, 48°.79N**×**156°.71E, h6**^{km}±41^{km}**, Ml4.1, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	1.94	349	*e*P	Pn	10 00 40.3	-1.5
SKR				*e*S	Sn	10 01 04.3	-2.0
PAU	**Pauzhetka**	2.69	1	*e*P	Pn	10 00 53.9	+1.9
PAU				*e*S	Sn	10 01 27.3	+2.5
KDTR	**Khodutka, Kamc**	3.15	16	*e*P	Pn	10 01 01.3	+2.9
ASAK	**Asacha**	3.68	11	*e*P	Pn	10 01 09.2	+3.4
MTVR	**Mutnovka**	3.82	14	*e*P	Pn	10 01 11.4	+3.6
MTVR				*e*S	Sb	10 01 58.7	-4.0
RUS	**Russkaya**	3.83	17	*e*P	Pn	10 01 10.8	+3.1
GRL	**Gorelyy**	3.87	12	*e*P	Pn	10 01 12.2	+3.8
KRMR	**Karymshinskiy**	4.15	12	*e*P	Pn	10 01 16.6	+4.5
DALK	**Dalny**	4.44	16	*e*P	Pn	10 01 19.9	+3.7
DALK				*e*S	Sb	10 02 15.1	-5.4
UGLR	**Uglovaya**	4.63	16	*e*P	Pn	10 01 23.9	+5.1
AVH	**Avacha**	4.67	15	*e*P	Pn	10 01 24.2	+4.9
KOK	**Koryaka**	4.67	14	*e*P	Pn	10 01 24.2	+4.8
SMAR	**Somma**	4.67	16	*e*P	Pn	10 01 23.9	+4.3
SDLR	**Sedlovina**	4.70	16	*e*P	Pn	10 01 23.1	+3.2
KRER	**Koryakskii**	4.71	15	*e*P	Pn	10 01 25.5	+5.5
KRX	**Arik**	4.74	14	*e*P	Pn	10 01 24.6	+4.1
SPN	**Mys Shipunski**	4.80	25	*e*P	Pb	10 01 27.4	-5.4
GNL	**Ganaly**	4.98	8	*e*P	Pn	10 01 28.3	+4.7
MKZ	**Mys Kozlova**	6.57	26	*e*P	Pn	10 01 48.7	+3.4

IDC ***22*** *10:02:11.1±1.2, 6°.95S×126°.77E, h401^{km}±15^{km}, mb3.2/8, mbtmp3.9/12, Error ellipse: s-maj=22.8km s-min=10.6km az=75.0*

NEIC ***22*** *10:02:12.5±1.2, 6°.8S±0°.1×127°.00E±0°.09, h410^{km}±15^{km}, mb4.2/4, Error ellipse: s-maj=19.3km s-min=13.2km az=169.0*

ISC 22 10:02:11.5±0.6**, 6°.92S**±0°.06×**126°.87E**±0°.09**, h407**^{km}**, n31,** σ**1**^{s}**.48**/34**, mb3.6**/8**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SOEI	**Soe**	3.82	222	Pn	P	10 03 25.2	+2.9
SAUI	**Saumlaki**	4.52	104	Pn	P	10 03 29.2	+0.4
BATI	**Baumata**	4.55	224	P	P	10 03 27.1	-2.0
	223nm,0.5s,baz=67,slow=7.7,SNR=22						
BATI				S	S	10 04 29.8	-2.8
	78nm,0.5s,baz=337,slow=19,SNR=5.5						
FAKI	**Fak Fak**	6.67	54	Pn	P	10 03 50.7	-1.6
MTN	**Manton Dam**	7.23	145	P	P	10 03 59.8	+1.5
SIJI	**Sorong**	7.44	36	P	P	10 04 01.1	+0.3
	3.6nm,0.3s,baz=207,slow=9.0,SNR=2.1						
KNRA	**Kununurra**	8.90	168		P	10 04 19.1	+2.3
TOLI2	**Tolitoli**	10.03	322		P	10 04 28.6	-0.7
FITZ	**Fitzroy Crossi**	11.18	186	P	P	10 04 43.1	+1.2
	5.1nm,1.1s,baz=10,slow=11,SNR=3.0						
FITZ	**Fitzroy Crossi**	11.18	186	P	P	10 04 44.0	+2.1
WRA	**Warramunga Arr**	14.84	151	P	P	10 05 22.6	+0.6
	0.6nm,0.4s,baz=322,slow=12,SNR=15						
WRA				S	S	10 07 55.2	-4.5
	0.6nm,0.5s,baz=64,slow=24,SNR=5.6						
WRA	**Warramunga Arr**	14.84	151	P	P	10 05 21.7	-0.3
WR8	**Warramunga Arr**	14.93	151	P	P	10 05 23.7	+0.7
WR0	**Warramunga Arr**	14.95	151	P	P	10 05 24.0	+0.8
MBWA	**Marble Bar**	15.75	205	P	P	10 05 33.4	+1.5
MBWA				IAmb	IAmb	10 05 48.3	
	comp=Z,25nm,1.5s						
AS31	**Alice Springs**	17.97	159	P	P	10 05 55.9	+0.4
AS31				IAmb	IAmb	10 05 59.9	
	comp=Z,2.0nm,0.3s						
ASAR	**Alice Springs**	17.97	159	P	P	10 05 56.5	+1.0
	comp=Z,1.0nm,0.3s,baz=337,slow=8.1,SNR=28						
ASAR				S	S	10 09 00.3	-0.4
	comp=Z,0.4nm,0.6s,baz=347,slow=26,SNR=5.3						
ASAR	**Alice Springs**	17.97	159	P	P	10 05 55.9	+0.4
STKA	**Stephens Creek**	28.38	153	P	P	10 07 31.8	+1.3
	comp=Z,1.2nm,0.4s,baz=324,slow=13,SNR=1.8						
	comp=Z,1.2nm,0.4s						
MJAR	**Matsushiro Arr**	44.52	13	P	P	10 09 43.8	-1.1
	comp=Z,2.0nm,0.8s,baz=196,slow=8.6,SNR=5.0						
	comp=Z,2.0nm,0.8s						
SONM	**Songino Array**	57.44	344	P	P	10 11 19.9	+0.3
	comp=Z,0.4nm,0.4s,baz=155,slow=6.5,SNR=3.0						
	comp=Z,0.4nm,0.4s						
PEA0B	**Petropavlovsk-**	65.26	20	P	P	10 12 11.6	+0.5
PETK	**Petropavlovsk-**	65.26	20	P	P	10 12 11.8	+0.7
	comp=Z,1.1nm,0.5s,baz=199,slow=3.0,SNR=11						
	comp=Z,1.1nm,0.5s						
PETK	**Petropavlovsk-**	65.26	20	P	P	10 12 12.1	+0.9
MKAR	**Makanchi Array**	66.49	328	P	P	10 12 19.3	+0.3
	comp=Z,0.4nm,0.6s,baz=127,slow=7.2,SNR=2.7						
	comp=Z,0.4nm,0.6s						
MKAR	**Makanchi Array**	66.49	328	P	P	10 12 19.1	+0.1
ZAA0	**Zalesovo Array**	70.17	335	P	P	10 12 41.3	-0.1
ZALV	**Zalesovo Beam**	70.17	335	P	P	10 12 40.8	-0.5
	comp=Z,0.9nm,0.4s,baz=152,slow=6.1,SNR=2.8						
	comp=Z,0.9nm,0.4s						
ZALV	**Zalesovo Beam**	70.17	335	P	P	10 12 41.2	-0.1
KURBB	**Kurchatov Arra**	70.85	330	P	P	10 12 45.5	+0.1
	comp=Z,1.1nm,0.7s,baz=136,slow=5.2,SNR=8.7						
	comp=Z,1.1nm,0.7s						
QSPA	**South Pole Qui**	83.06	180	P	P	10 13 53.3	+0.7
	comp=Z,0.5nm,0.7s,baz=327,slow=0.9,SNR=1.7						
	comp=Z,0.5nm,0.7s						

KOLA ***22*** *10:07:39.3, 64°.76N×30°.71E, h0^{km}, ML2.5, Error ellipse: s-maj=14.9km s-min=11.3km az=170.0, Kostomuksha, Karelia*

HEL ***22*** *10:07:39.4±0.2, 64°.78N×30°.65E, h0^{km}, ML2.0, Explosion*

IDC ***22*** *10:07:40.0±2.9, 64°.76N×30°.70E, h0^{km}, mbtmp2.9/3, ML2.2/3, Error ellipse: s-maj=40.9km s-min=11.7km az=97.0*

ISC 22 10:07:39.2±0.8**, 64°.80N**±0°.02×**30°.73E**±0°.04**, h0**^{km}**, n39,** σ**1**^{s}**.42**/56**, Finland-Karelia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RMF	**Romuvaara**	0.68	211	PG	Pg	10 07 51.4	-0.8
RMF				SG	Sg	10 07 59.7	-1.3
RMF				smax	smax	10 07 59.9	
	comp=Z,28nm,0.2s						
KU1	**Kurvinen**	0.91	328	PG	Pg	10 07 55.7	-0.9
MSF	**Maaselka**	1.32	328	PG	Pg	10 08 03.4	-1.1
OLKF	**Oulanka, Finla**	1.62	341	PG	Pn	10 08 08.5	-0.5
OLKF				smax	smax	10 08 28.1	
	comp=Z,11nm,0.2s						
OLKF				SN	Sg	10 08 32.0	+0.8
JOF	**Joensuu**	1.91	172	*e*P	Pb	10 08 14.9	+0.1
JOF	**Joensuu**	1.91	172	PB	Pn	10 08 12.2	-0.7
	baz=348						
JOF				SG	Sb	10 08 39.0	-0.1
NIF	**Nilsia**	1.91	223	PG	Pn	10 08 13.1	+0.1
	baz=42						
NIF				smax	smax	10 08 35.1	
	comp=Z,12nm,0.2s						
RANF	**Ranua**	2.05	308	PG	Pn	10 08 15.7	+0.8
	baz=124						
RANF				SG	Sb	10 08 42.5	-0.7
OUL	**Oulu**	2.08	280	PG	Pn	10 08 15.8	+0.6
OUL				SG	Sn	10 08 42.3	+0.6
KVDA	**Kovda**	2.09	24	P	Pn	10 08 15.6	+0.2
KVDA				S	Sn	10 08 42.5	+0.4
OBF4	**Vikkela, Lumij**	2.41	273	PG	Pn	10 08 21.5	+1.7
OBF4				smax	smax	10 08 49.6	
	comp=Z,10nm,0.2s						
OUF	**Merijarvi**	2.63	263	PB	Pn	10 08 23.8	+1.1
	baz=76						
OUF				smax	smax	10 08 55.6	
	comp=Z,7.4nm,0.2s						
OUF				SG	Sb	10 08 59.0	-0.8
RNF	**Rovaniemi**	2.67	315	PG	Pn	10 08 25.4	+2.1
RNF				SG	Sb	10 09 01.4	+0.5
OBF0	**Syolatti, Pyha**	2.81	267	PG	Pb	10 08 30.3	+0.1
OBF0				smax	smax	10 09 01.0	
	comp=Z,6.4nm,0.2s						
SUF	**Sumiainen**	2.92	226	*e*P	Pn	10 08 28.1	+1.4
SUF	**Sumiainen**	2.92	226	PB	Pn	10 08 28.0	+1.2
SUF				smax	smax	10 09 04.1	
	comp=Z,3.7nm,0.2s						
APA0	**Apatity Array**	2.96	17	P	Pn	10 08 28.0	+0.6
APA0				S	Sn	10 09 04.8	+1.3
TOF	**Tornio**	2.97	298	PG	Pb	10 08 31.6	-1.2
TOF				smax	smax	10 09 05.9	
	comp=Z,3.9nm,0.2s						
TOF				SG	Sb	10 09 08.8	-0.7
KAF	**Kangasniemi**	3.35	218	PB	Pn	10 08 35.2	+2.5
KAF				SG	Sb	10 09 20.2	-0.4
RUF	**Ruokolahti**	3.49	194	PN	Pn	10 08 35.2	+0.6
LVZ	**Lovozero**	3.49	25	S	Sn	10 09 15.8	-0.7
LVZ	**Lovozero**	3.49	25	PN	Pn	10 08 35.8	+1.1
LVZ				SG	Sg	10 09 29.2	-1.8
KLF	**Kolari**	3.69	315	PG	Pb	10 08 45.5	+0.4
	baz=126						
KEF	**Keuruu**	3.73	228	*e*P	Pn	10 08 39.7	+1.8
KEF	**Keuruu**	3.73	228	PB	Pn	10 08 39.7	+1.8
KEF				SG	Sb	10 09 33.5	+2.0
RAJF	**Raja-Jooseppi**	3.81	346	PN	Pn	10 08 39.8	+0.8
PAJU	**Pajala**	3.84	309	PB	Pn	10 08 42.2	+2.7
PAJU				SG	Sb	10 09 38.0	+3.4
SJUU	**Sjulsmark**	3.92	285	*e*P	Pn	10 08 41.4	+0.9
ERTU	**Ertsjaerv**	3.95	300	PG	Pb	10 08 51.4	+1.9
VAF	**Ylistaro**	3.97	247	*e*P	Pn	10 08 43.0	+1.8
FIA0	**FINESS Array S**	3.98	214	PN	Pn	10 08 41.5	+0.2
FIA0				SG	Sb	10 09 42.0	+3.4
FINES	**FINESS Array B**	3.98	214	Pn	Pn	10 08 41.1	-0.2
	comp=Z,0.2nm,0.3s,baz=32,slow=14,SNR=11						
FINES				Lg	Lg	10 09 41.1	
	comp=Z,1.0nm,0.3s,baz=32,slow=28,SNR=9.7						
	comp=Z,1.0nm,0.6s						
FINES				AML	AML		
UMAU	**Umeaa**	4.47	263	PN	Pn	10 08 47.3	-0.7
ARCES	**ARCESS Array B**	5.17	339	Pn	Pn	10 08 56.9	-0.7
	comp=Z,0.4nm,0.3s,baz=156,slow=12,SNR=18						
ARCES				Sn	Sn	10 09 54.9	-3.1
	comp=Z,0.1nm,0.3s,baz=155,slow=22,SNR=2.4						
ARCES				Lg	Lg	10 10 17.6	
	comp=Z,0.6nm,0.3s,baz=158,slow=33,SNR=6.6						
	comp=Z,0.7nm,0.2s						
ARCES				AML	AML		
ARCES	**ARCESS Array B**	5.17	339	P	Pn	10 08 56.5	-1.1
ARCES				S	Sn	10 09 55.5	-2.5
VADS	**Vadso**	5.37	355	P	Pn	10 08 59.9	-0.5
MEF	**Metsahovi**	5.46	215	*e*P	Pn	10 09 02.1	+0.5
RAF	**Rauma**	5.58	231	*e*P	Pn	10 09 04.1	+0.8
NOA	**NORSAR Array B**	9.65	256	Pn	Pn	10 09 57.8	-1.4
	baz=54,slow=15,SNR=1.2						
	comp=Z,0.2nm,0.4s						

IDC ***22*** *10:15:55.7±1.7, 7°.59S×128°.28E, h113^{km}±18^{km}, mb3.9/4, mbtmp4.3/9, Error ellipse: s-maj=20.7km s-min=13.7km az=111.0*

NEIC ***22*** *10:15:58.1±2.1, 7°.6S±0°.1×128°.55E±0°.08, h152^{km}±10^{km}, mb4.2/3, Error ellipse: s-maj=19.2km s-min=10.6km az=163.0*

DJA ***22*** *10:16:00.1±0.5, 7°S±7°×12°8E±°, h126^{km}±36^{km}, M4.2/9, mB5.2/1, mB5.2/1, mb4.1/6, mb4.1/6, MLv4.2/8, MLv4.2/9, Mw(mB)4.6/1, Mw(mB)4.6/1*

ISC 22 10:15:58.3±0.7**, 7°.72S**±0°.06×**128°.41E**±0°.07**, h151**^{km}**, n34,** σ**2**^{s}**.94**/38**, mb4.0**/5**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SAUI	**Saumlaki**	2.87	95	Pn	Pn	10 16 42.1	-2.0
SOEI	**Soe**	4.57	243	Pn	Pn	10 17 07.7	+1.5
DRS	**Darwin Rock St**	5.29	153	P	Pn	10 17 17.6	+2.0
BATI	**Baumata**	5.30	242	P	Pn	10 17 11.8	-4.1
	225nm,0.4s,baz=121,slow=3.5,SNR=29						
BATI				S	Sn	10 18 12.1	-4.2
	26nm,0.3s,baz=262,slow=12,SNR=1.2						
MTN	**Manton Dam**	5.76	153	Pn	Pn	10 17 23.5	+1.7
FAKI	**Fak Fak**	6.11	39	Pn	Pn	10 17 23.5	-3.0
EDFI	**Ende, Flores**	6.73	261	P	Pn	10 17 36.1	+1.2
EDFI				AML	AML		
EDFI				AML	AML		
SIJI	**Sorong**	7.37	23	P	Pn	10 17 40.6	-2.9
	7.8nm,0.3s,baz=198,slow=20,SNR=33						
SIJI				S	Sn	10 19 02.3	-3.7
	2.8nm,0.3s,baz=197,slow=23,SNR=1.6						
SWI	**Sorong**	7.38	23	P	Pn	10 17 42.8	-0.7
	0.1nm0.1nm26nm,0.8s,26nm,0.8s						
SWI				AML	AML		
SWI				AML	AML		
KNRA	**Kununurra**	7.92	178		Pn	10 17 52.0	+1.3
BAKI	**Biak**	10.04	50	P	Pn	10 18 19.9	+0.9
FITZ	**Fitzroy Crossi**	10.67	194	P	Pn	10 18 25.8	-1.3
	2.9nm,0.3s,baz=29,slow=14,SNR=26						
FITZ				S	Sn	10 20 18.6	-6.6
	5.2nm,0.4s,baz=149,slow=21,SNR=6.6						
FITZ	**Fitzroy Crossi**	10.67	194	P	Pn	10 18 26.0	-1.2
FITZ	**Fitzroy Crossi**	10.67	194		Pn	10 18 26.4	-0.8
WB0	**Warramunga Arr**	13.31	155	Pn	Pn	10 19 01.1	-0.5
WRAB	**Tennant Creek**	13.44	155	P	Pn	10 19 03.1	-0.1
WRA	**Warramunga Arr**	13.44	155	P	Pn	10 19 03.0	-0.3
	1.0nm,0.6s,baz=337,slow=13,SNR=12						
WRA				S	Sn	10 21 24.9	-7.2
	4.4nm,0.6s,baz=329,slow=22,SNR=12						
WRA	**Warramunga Arr**	13.44	155		Pn	10 19 01.1	-2.2
AS31	**Alice Springs**	16.71	162	P	Pn	10 19 45.6	+1.8
AS31				IAmb	IAmb	10 19 48.5	
	comp=Z,2.1nm,0.6s						
ASAR	**Alice Springs**	16.71	162	P	Pn	10 19 46.1	+2.3
	comp=Z,3.7nm,0.7s,baz=342,slow=11,SNR=55						
ASAR				S	S	10 22 45.3	-4.4
	comp=Z,0.8nm,0.4s,baz=316,slow=21,SNR=5.2						
ASAR	**Alice Springs**	16.71	162		Pn	10 19 45.5	+1.7
AS01	**Alice Springs**	16.73	162	P	P	10 19 43.3	-0.3
QIS	**Mount Isa**	16.74	141	P	Pn	10 19 47.0	+2.8
MEEK	**Meekatharra**	21.00	205	P	P	10 20 34.0	+4.0
QLP	**Quilpie**	24.05	143	P	P	10 21 05.5	+5.9
BBOO	**Buckleboo**	25.96	165	P	P	10 21 19.6	+2.7
BBOO	**Buckleboo**	25.96	165	P	P	10 21 17.2	+0.3
BBOO				IAmb	IAmb	10 21 42.8	
	comp=Z,54nm,1.4s						
STKA	**Stephens Creek**	27.00	155	P	P	10 21 29.1	+2.9
	comp=Z,2.2nm,0.6s,baz=326,slow=10.0,SNR=4.0						
	comp=Z,2.2nm,0.6s						
CMSA	**Cobar Meteorol**	28.66	148	P	P	10 21 45.1	+4.1
MKAR	**Makanchi Array**	67.97	328	P	P	10 26 41.4	+0.3
	comp=Z,0.3nm,0.4s,baz=125,slow=7.7,SNR=6.4						
	comp=Z,0.3nm,0.4s						
MKAR	**Makanchi Array**	67.97	328	P	P	10 26 39.9	-1.1
KURBB	**Kurchatov Arra**	72.30	329	P	P	10 27 07.8	+0.5
	comp=Z,4.8nm,0.2s,baz=137,slow=4.7,SNR=1.6						
	comp=Z,4.8nm,0.2s						
QSPA	**South Pole Qui**	82.27	180	P	P	10 28 05.4	+2.6
	comp=Z,1.3nm,0.9s,baz=348,slow=5.3,SNR=3.1						
	comp=Z,1.3nm,0.9s						
QSPA	**South Pole Qui**	82.27	180	P	P	10 28 03.8	+1.1
QSPA				IAmb	IAmb	10 28 16.3	
	comp=Z,4.7nm,1.4s						

IDC ***22*** *10:17:30.5±1.0, 61°.96S×57°.74W, h0^{km}, mb4.0/6, mbtmp4.0/6, MS3.6/13, Error ellipse: s-maj=54.3km s-min=24.0km az=69.0*

NEIC ***22*** *10:17:31.6±1.1, 62°.38S±0°.04×58°.5W±0°.2, h10^{km}±1^{km}, mb4.5/12, Error ellipse: s-maj=13.8km s-min=4.6km az=241.0*

ISC 22 10:17:31.9±0.7**, 62°.34S**±0°.08×**58°.51W**±0°.10**, h10**^{km}**, n45,** σ**1**^{s}**.43**/30**, mb4.3**/11**, MS3.5**/13**, 5C, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ESPZ	**Base Esperanza**	1.27	148		Pn	10 17 54.8	-0.8
ESPZ					Sb	10 18 11.3	-0.9
PMSA	**Palmer Station**	3.48	223		Pn	10 18 25.3	-0.7
ORCD	**Orcadas**	6.78	82	Pn	Pn	10 19 09.9	-1.3
SMAI	**San Martin Ant**	6.84	208	Pn	Pn	10 19 10.6	-1.5
BELA	**Belgrano 2**	17.32	163	P	Pn	10 21 31.1	-2.3
VNA3	**Neumayer Olymp**	20.57	136	⥣P	P	10 22 12.1	+1.7
	comp=Z,6.1nm,0.7s						
LL02	**Futaleuf**	20.73	332	P	P	10 22 11.2	-1.0
VNA1	**Neumayer--Stat**	21.04	134	⥣P	P	10 22 17.1	+1.8
	comp=Z,13nm,1.0s						
VNA2	**Neumayer--Watz**	21.32	135	⥣P	P	10 22 20.4	+2.0
	comp=Z,3.4nm,0.6s,baz=269,slow=11						
SNAA	**Sanae**	22.74	137	⥣P	P	10 22 35.3	+1.6
	comp=Z,87nm,0.6s						
SNAA	**Sanae**	22.74	137	P	P	10 22 35.4	+1.7
	comp=Z,5.6nm,0.8s,baz=256,slow=9.0,SNR=11						
SNAA				LR	LR	10 30 00.4	
	comp=Z,164nm,21.4s,baz=221,slow=33						
	comp=Z,5.6nm,0.8s						
SNAA	**Sanae**	22.74	137	P	P	10 22 32.5	-1.2
SNAA				IAmb	IAmb	10 22 38.3	
	comp=Z,19nm,1.2s						
PLCA	**Paso Flores**	22.82	336	P	P	10 22 33.5	-1.3
	comp=Z,2.0nm,0.8s,baz=164,slow=10,SNR=5.2						
PLCA				LR	LR	10 30 52.5	
	comp=Z,142nm,19.1s,baz=165,slow=35						
	comp=Z,2.0nm,0.8s						
PLCA	**Paso Flores**	22.82	336	P	P	10 22 34.8	0.0
PLCA				IAmb	IAmb	10 23 14.2	
	comp=Z,19nm,1.5s						
GO06	**Curarrehue**	24.11	335	P	P	10 22 47.4	-0.3
GO06				IAmb	IAmb	10 22 54.9	
	comp=Z,14nm,1.1s						
TROLL	**Troll, Antarti**	24.37	139	⥣P	P	10 22 49.5	-0.3
	comp=Z,107nm,0.3s						
ML02	**Panimavida**	27.80	337	P	P	10 23 20.3	-0.5
QSPA	**South Pole Qui**	27.89	180	P	P	10 23 24.5	+2.9
	comp=Z,1.3nm,0.8s,baz=166,slow=8.1,SNR=8.0						
	comp=Z,1.3nm,0.8s						
QSPA	**South Pole Qui**	27.89	180	P	P	10 23 20.3	-1.3
MT08	**Bocatoma Ro**	29.83	340	P	P	10 23 38.4	-0.7
MT08				IAmb	IAmb	10 23 45.7	
	comp=Z,11nm,1.1s						
VA03	**San Esteban**	30.58	340	P	P	10 23 45.9	+0.2
GO04	**Tololo Observa**	33.16	340	P	P	10 24 08.6	+0.1
CO01	**Juntas del Tor**	33.24	341	P	P	10 24 09.7	+0.4
CO01				IAmb	IAmb	10 24 19.2	
	comp=Z,13nm,1.1s						
CPUP	**Villa Florida**	36.01	2	LR	LR	10 38 03.3	
	comp=Z,38nm,19.8s,baz=136,slow=35						
VNDA	**Vanda**	38.20	193	LR	LR	10 40 20.4	
	comp=Z,82nm,19.8s,baz=151,slow=35						
MAW	**Mawson**	43.63	152	P	P	10 25 37.1	+1.4
	comp=Z,2.1nm,0.9s,baz=233,slow=5.1,SNR=3.9						
MAW				LR	LR	10 43 56.5	
	comp=Z,151nm,18.3s,baz=238,slow=36						
	comp=Z,2.1nm,0.9s						
PB16	**IPOC Station P**	44.63	345	P	P	10 25 46.0	+1.1
PB16				IAmb	IAmb	10 25 50.5	
	comp=Z,12nm,1.5s						
LPAZ	**La Paz**	46.50	347	LR	LR	10 46 31.3	
	comp=Z,57nm,18.4s,baz=156,slow=38						
ATAH	**Atahualpa**	57.00	336	LR	LR	10 47 43.9	
	comp=Z,28nm,19.6s,baz=147,slow=32						
SUR	**Sutherland**	57.01	98	LR	LR	10 46 45.5	
	comp=Z,25nm,20.9s,baz=214,slow=31						
H10S2	**ASCENSION HYDR**	62.01	51	T	T	11 35 05.1	
	baz=18,slow=74,SNR=12						
H10S3	**ASCENSION HYDR**	62.01	51	T	T	11 35 04.7	
	baz=202,slow=74,SNR=16						
BOSA	**Boshof**	62.23	99	LR	LR	10 49 57.4	
	comp=Z,36nm,18.1s,baz=208,slow=31						
H10N3	**ASCENSION HYDR**	63.10	51	T	T	11 36 23.7	
	baz=201,slow=75,SNR=37						
H10N1	**ASCENSION HYDR**	63.10	51	T	T	11 36 25.0	
	baz=201,slow=75,SNR=23						
H10N2	**ASCENSION HYDR**	63.12	51	T	T	11 36 25.9	
	baz=201,slow=75,SNR=33						
LBTB	**Lobatse**	65.45	97	LR	LR	10 51 21.6	
	comp=Z,40nm,20.5s,baz=192,slow=31						
SDV	**Santo Domingo**	71.63	347	LR	LR	11 02 08.5	
	comp=Z,50nm,18.7s,baz=87,slow=38						
CMIG	**Matias Romero**	84.20	325	LR	LR	11 00 07.0	
	comp=Z,63nm,20.4s,baz=144,slow=30						
ASAR	**Alice Springs**	93.72	191	P	P	10 30 51.2	+2.5
	comp=Z,0.7nm,0.9s,baz=188,slow=4.7,SNR=3.5						
	comp=Z,0.7nm,0.9s						
WRA	**Warramunga Arr**	97.36	192	P	Pdif	10 31 08.6	+3.2
	comp=Z,0.4nm,0.8s,baz=167,slow=4.4,SNR=1.5						
	comp=Z,0.4nm,0.8s						
TKL	**Tuckaleechee C**	99.77	339	LR	LR	11 23 10.4	
	comp=Z,24nm,18.0s,baz=138,slow=40						
BVAR	**Borovoye Array**	151.87	86	PKPbc	PKPbc	10 37 24.5	-1.1
	comp=Z,1.9nm,0.6s,baz=250,slow=1.5,SNR=7.7						
MKAR	**Makanchi Array**	153.01	107	PKPbc	PKPbc	10 37 27.9	-0.4
	comp=Z,0.6nm,0.5s,baz=225,slow=3.3,SNR=5.0						
KURBB	**Kurchatov Arra**	154.07	97	PKPbc	PKPbc	10 37 28.8	-1.7
	comp=Z,0.4nm,0.6s,baz=225,slow=1.2,SNR=2.1						

DNK 22 10:27:16.4±2.1**,55°.68N**×**13°.37E,h0^{km},ML1.5,1C, Explosion,Sweden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LUNU	Lund	0.07	140	⇑iP	Pg	10 27 17.8	+0.1
LUNU				S	Sg	10 27 18.8	+0.2
DEL	Delary	0.84	19	P	Pg	10 27 32.7	+0.3
DEL				iS	Sg	10 27 42.7	-0.5
DEL	Delary	0.84	19	S	Sg	10 27 42.7	-0.6
BSD	Bornholm Skovb	1.05	122	iP	Pg	10 27 35.6	-0.9
BSD				iS	Sg	10 27 48.4	-1.7
BSD				IAML		10 27 50.0	
	comp=Z,3.6nm,0.1s						
FABU	Falkenberg	1.37	345	iP	Pg	10 27 39.1	-3.6
BLEU	Blekinge	1.51	65	P	Pn	10 27 44.4	-0.2
VXJU	Vaexsjoe	1.52	35	P	Pn	10 27 44.9	+0.1
ONAU	Onsala	1.90	336	iP	Pn	10 27 48.8	-1.2

DNK 22 10:27:27.1±1.0**,56°.32N**×**13°.05E,h0^{km},ML1.2**(UPP)**, Explosion,Sweden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DEL	Delary	0.48	71	P	Pg	10 27 35.5	-0.8
	baz=256						
FABU	Falkenberg	0.71	345	P	Pg	10 27 39.9	-0.7
FABU				S	Sg	10 27 50.2	+0.3
VXJU	Vaexsjoe	1.21	59	P	Pg	10 27 49.0	-1.2
BLEU	Blekinge	1.54	89	P	Pn	10 27 54.5	-1.3

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*BKK **22** 10:43:03.3±2.1,7°N±7°×9°3E±1°8,h10^{km},M4.5/11, mB5.2/7,mb4.6/10,Mjma4.2/11,MLv4.5/6,Mw(mB)4.6/7*
*NEIC **22** 10:43:16.3±0.9,7°.4N±0°.1×94°.5E±0°.1,h10^{km}±2^{km}, mb4.4/15,Error ellipse: s-maj=22.7km s-min=16.7km az=232.0*
*IDC **22** 10:43:20.5±0.9,7°.98N×94°.83E,h0^{km},mb4.1/11, mbtmp4.0/12,ML3.9/1,MS3.3/11,Error ellipse: s-maj=34.2km s-min=17.6km az=61.0*
*NDI **22** 10:43:27.1±0.8,7°.34N×94°.65E,h10^{km},ML4.3, mb4.4(NEIC),Presumed earthquake*
*DJA **22** 10:43:36.7±1.4,5°N±12°×9°4E±1°5,h174^{km}±8^{km},M4.0/14, mB5.1/1,mB5.5/2,mb4.2/1,mb4.2/2,MLv3.9/11,MLv3.9/14, Mw(mB)4.5/1,Mw(mB)5.0/2*
ISC 22 10:43:16.8±0.6**,7°.29N**±0°.07×**94°.60E**±0°.09**,h10^{km},n66,** σ**2^{s}.53**/43**,mb4.3**/20**,MS3.2**/8**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LHMI	Lhok Sumawe	3.10	131	Pn	Pn	10 44 06.8	+1.0
MLSI	Meulaboh, Aceh	3.50	149	P	Pb	10 44 17.5	-1.3
MLSI				AML	AML		
MLSI				AML	AML		
PKDT	Phuket	3.75	81	P	Pn	10 44 18.4	+3.6
RNTT	Ranong	4.37	61	P	Pn	10 44 26.4	+3.1
	0.2nm0.6nm970nm52nm,0.6s						
RNTT				AML	AML		
TPTI		4.75	147	P	Pn	10 44 32.6	+4.0
TPTI				AML	AML		
TPTI				AML	AML		
KCSI	Kotacane, Aceh	4.89	140	P	Pb	10 44 37.8	-4.9
KCSI				AML	AML		
KCSI				AML	AML		
SNSI	Sinabang, Aceh	5.14	160	P	Pn	10 44 32.5	-1.4
SNSI				AML	AML		
SNSI				AML	AML		
DGPR	DIGLIPUR	6.08	344	eP	Pb	10 44 56.8	-6.1
DGPR				eS	Sn	10 46 01.5	+5.0
DGPR				IAML		10 46 04.0	
	comp=E,416nm,0.0s						
DGPR				IAML		10 46 04.4	
	comp=N,412nm,0.1s						
RPSI	Rantau Prapat	6.27	136		Pn	10 44 50.4	+0.9
IPM	Ipoh	6.97	113	Pn	Pn	10 44 59.3	+0.2
KHLT	Khaolaem Dam	8.43	27	P	Pn	10 45 17.3	-1.8
MYKOM	Kota Tinggi	10.71	120	Pn	Pn	10 45 50.2	-0.2
CMAR	Chiang Mai Arr	11.88	20	Pn	Pn	10 46 04.8	-1.6
	comp=N,0.2nm,0.3s,baz=205,slow=13,SNR=5.6						
CMAR				LR	LR	10 50 54.9	
	comp=N,58nm,18.9s,baz=220,slow=41						
	comp=N,0.3nm,0.3s						
CMAR				AML	AML		
PALK	Pallekele	13.79	271	LR	LR	10 51 49.0	
	comp=N,95nm,18.7s,baz=105,slow=36						
SAIH	SAIHA	15.20	354	eP	P	10 46 59.4	+2.6
MDRS	Chennai	15.25	293	eP	P	10 47 01.4	+4.2
TRD	Trivandrum	17.52	275	eP	P	10 47 32.8	+10
LEM	Lembang	19.11	137	LR	LR	10 56 18.1	
	comp=N,103nm,18.5s,baz=314,slow=40						
EVN	Everest	21.84	341	P	P	10 48 07.7	-2.6
EVN				IAmb	IAmb	10 48 24.2	
	comp=Z,21nm,1.5s						
H08S3	Diego Garcia H	26.57	237	T	T	11 15 35.4	
	baz=55,slow=75,SNR=130						
H08S2	Diego Garcia H	26.57	237	T	T	11 15 36.1	
	baz=55,slow=75,SNR=74						
H08S1	Diego Carcia H	26.58	237	T	T	11 15 36.9	
	baz=55,slow=75,SNR=35						
TOLI2	Tolitoli	26.81	102	P	P	10 48 57.0	-0.6
TOLI2				IAmb	IAmb	10 49 37.5	
	comp=Z,7.1nm,0.8s						
SIJI	Sorong	37.46	101	LR	LR	11 07 13.9	
	comp=Z,34nm,18.2s,baz=188,slow=38						
DRK	Karamyk	38.04	331	P	P	10 50 33.6	-2.2
BTK	Batken	38.97	331	P	P	10 50 39.9	-3.5
BTK				IAmb	IAmb	10 50 45.4	
	comp=Z,8.1nm,1.1s						
ARSB	Arslanbob	38.97	334	P	P	10 50 41.4	-2.0
ARSB				IAmb	IAmb	10 50 52.8	
	comp=Z,6.5nm,1.1s						
AAK	Ala-Archa	39.42	336	LR	LR	11 09 34.3	
	comp=Z,27nm,19.8s,baz=168,slow=40						
AAK	Ala-Archa	39.42	336	P	P	10 50 43.9	-3.3
MK31	Makanchi Array	40.76	347	P	P	10 50 56.5	-1.6
MKAR	Makanchi Array	40.76	347	P	P	10 50 56.9	-1.2
	comp=Z,2.6nm,0.8s,baz=166,slow=8.7,SNR=11						
	comp=Z,2.6nm,0.8s						
MKAR	Makanchi Array	40.76	347	P	P	10 50 56.3	-1.8
MAKZ	Makanchi	40.84	347	P	P	10 50 56.6	-2.1
MAKZ				IAmb	IAmb	10 51 05.6	
	comp=Z,3.0nm,0.6s						
KKAR	Karatay Array	41.49	333	P	P	10 51 02.3	-1.8
SONM	Songino Array	41.64	12	P	P	10 51 04.3	-1.1
	comp=Z,0.7nm,0.7s,baz=201,slow=7.4,SNR=2.5						
	comp=Z,0.7nm,0.7s						
SONM	Songino Array	41.64	12	P	P	10 51 03.5	-1.9
JNU	Nakatsue	42.30	48	LR	LR	11 09 09.2	
	comp=Z,27nm,19.4s,baz=220,slow=37						
TLY	Talaya	44.88	8	LR	LR	11 11 20.8	
	comp=Z,28nm,18.9s,baz=241,slow=38						
KURBB	Kurchatov Arra	45.23	346	P	P	10 51 33.6	-0.6
	comp=Z,3.3nm,0.7s,baz=165,slow=7.1,SNR=19						
	comp=Z,3.3nm,0.7s						
KURK	Kurchatov	45.29	346	P	P	10 51 33.3	-1.4
KURK				IAmb	IAmb	10 51 42.5	
	comp=Z,5.2nm,0.8s						
ZAA0	Zalesovo Array	47.20	352	P	P	10 51 48.5	-1.2
ZALV	Zalesovo Beam	47.20	352	P	P	10 51 49.6	0.0
	comp=Z,1.6nm,0.8s,baz=163,slow=7.7,SNR=5.3						
	comp=Z,1.6nm,0.8s						
ZALV	Zalesovo Beam	47.20	352	P	P	10 51 48.5	-1.2
WRA	Warramunga Arr	47.55	125	P	P	10 51 59.8	+6.9
	comp=Z,0.7nm,0.6s,baz=301,slow=10,SNR=5.9						
	comp=Z,0.7nm,0.6s						
ASAR	Alice Springs	49.19	130	P	P	10 52 12.7	+7.1
	comp=Z,1.5nm,0.7s,baz=309,slow=7.8,SNR=6.8						
ASAR				PcP	PcP	10 53 35.0	+6.1
	comp=Z,0.5nm,0.6s,baz=314,slow=3.1,SNR=1.9						
	comp=Z,1.5nm,0.7s						
BVAR	Borovoye Array	49.69	341	P	P	10 52 07.9	-1.0
	comp=Z,6.8nm,1.2s,baz=152,slow=6.5,SNR=6.4						
	comp=Z,6.8nm,1.2s						
BORK	Borovoye	49.73	341	P	P	10 52 06.8	-2.4
BORK				IAmb	IAmb	10 52 08.7	
	comp=Z,2.2nm,0.8s						
RAYN	Ar Rayn	49.74	295	P	P	10 52 07.5	-2.4
RAYN				IAmb	IAmb	10 52 17.7	
	comp=Z,4.2nm,0.7s						
AB31	Akbulak array	50.96	331	P	P	10 52 15.2	-3.4
AB31				IAmb	IAmb	10 52 25.9	
	comp=Z,6.7nm,1.1s						
ABKAR	Akbulak array	50.96	331	P	P	10 52 15.2	-3.4
ARTI	Arti	56.65	337	P	P	10 52 58.5	-1.5
BRTR	Keskin Array B	63.16	311	P	P	10 53 48.9	+3.6
	comp=Z,0.4nm,0.5s,baz=116,slow=6.6,SNR=1.8						
BRTR				LR	LR	11 23 37.6	
	comp=Z,22nm,18.2s,baz=112,slow=38						
	comp=Z,0.4nm,0.5s						
H04N2	CROZET ISLANDS	65.46	211	T	T	12 04 41.8	
	baz=46,slow=75,SNR=9.1						
H04N1	CROZET ISLANDS	65.47	211	T	T	12 04 42.6	
	baz=46,slow=75,SNR=7.9						
H04N3	CROZET ISLANDS	65.48	211	T	T	12 04 41.1	
	baz=46,slow=75,SNR=8.9						
H04S1	CROZET ISLANDS	65.86	211	T	T	12 05 09.8	
	baz=48						
H04S3	CROZET ISLANDS	65.87	211	T	T	12 04 54.9	
	baz=48,SNR=4.8						
H04S2	CROZET ISLANDS	65.88	211	T	T	12 05 05.2	
	baz=48						
HNR	Honiara	67.19	103	LR	LR	11 27 59.0	
	comp=Z,45nm,18.2s,baz=43,slow=40						
MLR	Muntele Rosu	69.91	316	LR	LR	11 31 10.0	
	comp=Z,11nm,18.0s,baz=302,slow=41						
FINES	FINESS Array B	73.44	332	P	P	10 54 51.3	+2.1
	comp=Z,2.8nm,0.8s,baz=116,slow=8.7,SNR=3.6						
	comp=Z,2.8nm,0.8s						
LBTB	Lobatse	74.36	242	LR	LR	11 24 34.8	
	comp=Z,24nm,18.3s,baz=109,slow=33						
GERES	GERESS Array B	78.56	318	P	P	10 55 24.0	+5.2
	comp=Z,0.9nm,0.2s,baz=94,slow=5.4,SNR=8.0						
	comp=Z,0.9nm,0.2s						
HFS	Hagfors	79.19	330	P	P	10 55 26.1	+4.2
	comp=Z,0.9nm,0.5s,baz=93,slow=6.0,SNR=4.2						
	comp=Z,0.9nm,0.5s						
TXAR	Lajitas Array	139.57	25	PKP	PKiKP	11 02 47.8	-0.2
	comp=Z,0.3nm,0.8s,baz=353,slow=3.4,SNR=3.6						
PLCA	Paso Flores	144.15	199	PKP	PKiKP	11 02 58.2	+1.3
	comp=Z,1.2nm,0.8s,baz=150,slow=8.1,SNR=3.4						

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*IDC **22** 10:47:01.2±1.1,4°.51S×126°.46E,h349^{km}±12^{km},mb3.3/9, mbtmp4.1/13,Error ellipse: s-maj=18.3km s-min=8.9km az=87.0*
*DJA **22** 10:47:03.8±0.5,5°S±4°×12°7E±°,h348^{km}±7^{km},M4.0/10, mB4.5/4,mB4.6/5,mb4.1/10,mb4.1/10,MLv4.0/7,MLv4.0/7, Mw(mB)3.7/4,Mw(mB)3.8/5*
ISC 22 10:47:01.9±0.6**,4°.59S**±0°.06×**126°.65E**±0°.09**,h350^{km},n21,** σ**2^{s}.09**/25**,mb3.6**/9**,Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NLAI	Namlea	1.41	18	P	Pn	10 47 51.3	+1.7
NLAI				AML	AML		
NLAI				AML	AML		
AAI	Ambon	1.78	60	P	Pn	10 47 53.4	+1.6
AAI				AML	AML		
AAI				AML	AML		
MSAI	Masohi	2.58	62	P	Pn	10 47 58.7	+1.0
MSAI				AML	AML		
MSAI				AML	AML		
SANI	Sanana	2.61	345	P	Pn	10 47 58.6	+0.7
SANI				AML	AML		
FAKI	Fak Fak	5.83	74	P	Pn	10 48 31.7	+0.9
	1µm70nm,0.5s						
SWI	Sorong	5.91	51	P	Pn	10 48 33.1	+1.4
	2µm34nm,0.6s						
SIJI	Sorong	5.91	51	P	Pn	10 48 32.9	+1.2
	24nm,0.5s,baz=32,slow=9.2,SNR=32						
SIJI				S	S	10 49 45.0	+0.5
	11nm,0.3s,baz=213,slow=22,SNR=10						
BATI	Baumata	6.32	208	P	Pn	10 48 34.2	-2.2
	59nm,0.5s,baz=89,slow=3.6,SNR=7.8						
BATI				S	S	10 49 53.0	-0.1
	13nm,0.3s,baz=216,slow=20,SNR=1.4						
EDFI	Ende, Flores	6.43	230	P	Pn	10 48 41.2	+3.4
	17nm,0.8s,17nm,0.8s						
FITZ	Fitzroy Crossi	13.46	184	P	Pn	10 50 01.2	+0.3
	1.9nm,0.4s,baz=16,slow=7.8,SNR=21						
WRA	Warramunga Arr	17.00	155	P	P	10 50 39.4	+1.1
	3.2nm,0.5s,baz=332,slow=12,SNR=74						
WRA				S	S	10 53 36.3	-1.4
	0.6nm,0.4s,baz=312,slow=27,SNR=5.1						
ASAR	Alice Springs	20.22	160	P	P	10 51 13.0	+0.9
	2.7nm,0.5s,baz=337,slow=7.9,SNR=92						
ASAR				S	S	10 54 38.5	+1.9
	2.6nm,0.6s,baz=350,slow=21,SNR=14						
	2.7nm,0.5s						
STKA	Stephens Creek	30.55	154	P	P	10 52 45.4	+1.1
	5.6nm,0.7s,baz=336,slow=8.1,SNR=15						
	5.6nm,0.7s						
KSRS	Korea Array	41.84	2	P	P	10 54 17.5	-1.3
	0.7nm,0.6s,baz=173,slow=10,SNR=4.1						
	0.7nm,0.6s						
USRK	Ussuriysk Ar.	48.80	5	P	P	10 55 10.6	-2.2
	1.6nm,0.6s,baz=193,slow=5.8,SNR=3.2						
	1.6nm,0.6s						
SONM	Songino Array	55.16	343	P	P	10 55 57.9	-1.5
	0.5nm,0.5s,baz=152,slow=6.5,SNR=2.9						
	0.5nm,0.5s						
PETK	Petropavlovsk-	63.16	20	P	P	10 56 53.4	-0.1
	0.8nm,0.5s,baz=153,slow=3.8,SNR=5.1						
	0.8nm,0.5s						
KSH2	Kashi	64.09	318	P	P	10 57 07.8	+7.9
KSH2				S	S	11 05 15.0	+6.6
KSH2				pmax	pmax		
	comp=Z,6.0nm,0.5s						
MKAR	Makanchi Array	64.41	328	P	P	10 57 00.0	-1.7
	comp=Z,0.5nm,0.5s,baz=122,slow=6.6,SNR=5.1						
	comp=Z,0.5nm,0.5s						
KURBB	Kurchatov Arra	68.74	329	P	P	10 57 26.6	-2.0
	comp=Z,1.3nm,0.2s,baz=131,slow=6.6,SNR=2.2						
	comp=Z,1.3nm,0.2s						
QSPA	South Pole Qui	85.37	180	P	P	10 58 59.7	-0.6
	comp=Z,0.7nm,0.5s,baz=309,slow=1.0,SNR=8.2						
	comp=Z,0.7nm,0.5s						

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*NEIC **22** 11:20:51.8±1.0,31°.50N±0°.02×115°.72W±0°.01,h10^{km}±2^{km}, ML2.9/32,ML3.1/49(PAS),Error ellipse: s-maj=3.4km s-min=2.8km az=154.0*
*ECX **22** 11:20:52.0±0.5,31°.49N×115°.65W,h5^{km}±2^{km},MD2.9, ML3.1*
*PAS **22** 11:20:52±1.1,31°.48N±0°.03×115°.71W±0°.02,h12^{km}±6^{km}, Error ellipse: s-maj=4.3km s-min=2.2km az=180.0*
*MEX **22** 11:20:53.1±0.8,31°.45N×115°.58W,h20^{km}±999^{km},MD3.7, Presumed earthquake*
ISC 22 11:20:50.8±0.8**,31°.49N**±0°.02×**115°.65W**±0°.02**,h16**^{km}±6^{km}**, n39,** σ**0^{s}.79**/57**,8C-5D,Baja California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VTX	Valle De La Tr	0.15	231	⇑iP	Pg	11 20 55.0	+0.1
VTX				eS	Sg	11 20 57.2	-0.4
VTX				IAML		11 20 57.8	
	comp=E,3µm,0.1s						
VTX				⇑e		11 20 57.8	
VTX	Valle De La Tr	0.15	231		Pg	11 20 55.0	+0.1
VTX					Sg	11 20 57.5	-0.1
VTX	Valle De La Tr	0.15	231	IAML		11 20 57.8	
	comp=E,3µm,0.2s						
VTX				IAML		11 20 58.3	
	comp=N,3µm,0.1s						
SJX	San Joaquin	0.38	316	⇓iP	Pn	11 21 02.2	+0.5
SJX				eS	Sn	11 21 09.9	+1.1
SJX				IAML		11 21 10.4	
	comp=N,2µm,0.1s						
SJX				⇑e		11 21 10.4	
SJX				IAML		11 21 10.6	
	comp=E,2µm,0.1s						
ECBX	El Chinero	0.51	92	⇑iP	Pg	11 21 01.2	+0.3
ECBX				eS	Sg	11 21 08.0	+0.3
ALAMX	Rancho Alamar	0.52	354	⇓iP	Pg	11 21 01.3	+0.1
ALAMX				eS	Sg	11 21 08.1	0.0
SV2X	San Vicente	0.53	254	⇑iP	Pg	11 21 01.4	+0.1
SV2X				eS	Sg	11 21 08.5	+0.1
ESJX	Sierra Juarez	0.57	333		Pg	11 21 02.2	0.0
ESJX					Sb	11 21 10.1	-0.7
ESJX	Sierra Juarez	0.57	333	IAML		11 21 10.6	
	comp=N,2µm,0.1s						
ESJX				IAML		11 21 10.7	
	comp=E,2µm,0.1s						
RHX	Rio Hardy	0.71	25	eP	Pg	11 21 04.7	-0.1
RHX				eS	Sb	11 21 14.3	-0.2
RITX	Riito Sonora	0.89	41		Pn	11 21 09.1	+0.4
RITX					Sn	11 21 22.0	+0.7
EDOMX	El Doctor, EDO	0.90	58		Pn	11 21 09.2	+0.3
EDOMX					Sn	11 21 21.8	+0.3
SQX	San Quintin	0.93	192	⇓eP	Pb	11 21 08.3	-0.3
SQX				eS	Sb	11 21 20.4	-0.3
SQX				IAML		11 21 21.9	
	comp=N,441nm,0.3s						
SQX				⇓e		11 21 21.9	
GUVIX	Guadalupe Vict	0.94	31		Sn	11 21 24.0	+1.3
CCX	Cicese	0.95	294	⇑eP	Pb	11 21 08.6	-0.3
CCX				eS	Sb	11 21 21.4	+0.2
CCX	Cicese	0.95	294		Pb	11 21 08.6	-0.3
CCX	Cicese	0.95	294	Sg	Sb	11 21 21.4	+0.2
CCX				IAML		11 21 21.9	
	comp=E,309nm,0.5s						
CCX				IAML		11 21 22.1	
	comp=N,312nm,0.4s						
PBX	Punta Banda	0.95	286	eP	Pb	11 21 08.7	-0.3
PBX				eS	Sb	11 21 21.8	+0.3
CPBX	Cerro Prieto	0.97	17		Pn	11 21 10.4	+0.6
CPBX				Sg	Sn	11 21 23.9	+0.5
MBIG	Mexicali	0.99	22	eP	Pn	11 21 10.4	+0.3
MBIG				eS	Sg	11 21 22.7	-0.3
SGL	Mount Signal	1.16	357		Pb	11 21 12.1	-0.4
SGL					Sn	11 21 27.6	-0.3
RMX	La Rumorosa	1.17	342	eP	Pb	11 21 11.8	-1.0
RMX	La Rumorosa	1.17	342		Pb	11 21 11.9	-1.0
RMX					Sb	11 21 26.0	-1.8
YUH	Yuha Desert	1.18	349	Pg	Pn	11 21 12.7	0.0
YUH				IAML		11 21 29.8	
	comp=E,139nm,0.1s						
YUH	Yuha Desert	1.18	349		Sn	11 21 28.3	-0.2
CBX	Cerro Bola	1.19	314	eP	Pn	11 21 13.0	0.0
CBX				eS	Sb	11 21 28.6	+0.1
CBX				⇑e		11 21 29.6	
CBX				IAML		11 21 29.6	
	comp=N,339nm,0.2s						
CBX				IAML		11 21 29.9	
	comp=E,416nm,0.2s						
CBX				⇑e		11 21 29.9	
CBX	Cerro Bola	1.19	314	eP	Pn	11 21 13.1	0.0
CBX				eS	Sb	11 21 28.3	-0.1
CBX	Cerro Bola	1.19	314		Pn	11 21 12.9	0.0
CBX				IAML		11 21 29.6	
	comp=N,287nm,0.2s						
CBX				IAML		11 21 30.1	
	comp=E,402nm,0.5s						
CBX	Cerro Bola	1.19	314		Sb	11 21 28.6	+0.1
IKP	In-Ko-Pah, Jac	1.22	341		Pn	11 21 13.6	+0.2
IKP					Sb	11 21 29.1	-0.1
TJIG	Tijuana	1.28	317	eP	Pn	11 21 14.3	+0.2
TJIG				eS	Sn	11 21 30.9	-0.2
TJIG				IAML		11 21 31.9	
	comp=N,333nm,0.1s						
TJIG				⇓e		11 21 31.9	
TJIG	Tijuana	1.28	317	eP	Pb	11 21 14.7	0.0
TJIG				eS	Sn	11 21 31.0	-0.2
BAR	Barrett	1.47	324	IAML		11 21 38.8	
	comp=N,175nm,0.2s						
DPP	Dos Picos Cty	1.86	324	IAML		11 21 49.0	
	comp=E,191nm,0.2s						
DPP				IAML		11 21 50.3	
	comp=N,90nm,0.1s						
PFO	Pinyon Flats O	2.23	342	Pn	Pn	11 21 27.6	+0.4
BELC	Belle Mtn. Jos	2.52	353	Pn	Pn	11 21 32.3	+1.0
ELS	Elsinore Mount	2.63	326	Pn	Pn	11 21 33.8	+1.2
ELS				IAML		11 22 12.4	
	comp=E,38nm,0.5s						
ELS				IAML		11 22 13.4	
	comp=N,29nm,0.5s						
BAHB	Baha de los	3.11	144	eP	Pn	11 21 41.3	+2.0
BAHB				eS	Sn	11 22 12.3	-3.8
GSC	Goldstone, Bar	3.92	346	IAML		11 22 59.7	
	comp=E,9.3nm,1.6s						

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*KRSC **22** 11:45:27.9±0.7,52°.02N×158°.33E,h91^{km}±6^{km},Ml4.0*
*MOS **22** 11:45:28.8±1.1,52°.08N×158°.43E,h93^{km},mb3.6/4,Error ellipse: s-maj=20.2km s-min=11.2km az=89.9*
*IDC **22** 11:45:32.1±1.3,52°.44N×157°.78E,h117^{km}±11^{km},mb3.0/7, mbtmp3.4/7,Error ellipse: s-maj=41.9km s-min=19.1km az=144.0*
ISC 22 11:45:29.9±0.7**,52°.02N**±0°.05×**158°.33E**±0°.05**,h85**^{km}±5^{km}**, n65,** σ**0^{s}.90**/72**,mb3.5**/11**,2C,Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KDTR	Khodutka, Kamc	0.26	216	iP	Pn	11 45 42.4	-0.1
KDTR				eS	Sn	11 45 52.2	+0.4
RUS	Russkaya	0.43	16	eP	Pn	11 45 43.3	-0.2
RUS				eS	Sn	11 45 54.0	+0.4
ASAK	Asacha	0.45	324	eP	Pn	11 45 43.7	-0.1
ASAK				eS	Sn	11 45 54.7	+0.6
MTVR	Mutnovka	0.47	349	eP	Pn	11 45 43.7	-0.3
MTVR				eS	Sn	11 45 54.9	+0.3
GRL	Gorelyy	0.55	344	eP	Pn	11 45 44.6	-0.1
KRMR	Karymshinskiy	0.82	352	iP	Pn	11 45 46.9	-0.3
MIPR	Malaya Ipel'ka	1.00	285	eP	Pn	11 45 48.8	-0.4
PET	Petropavlovsk	1.02	11	⇑iPN	Pn	11 45 49.1	-0.3
PET				eS	Sn	11 46 04.0	-0.1
PET				pmax	pmax		
	comp=Z,176nm,0.7s						
PET				smax	smax		
	comp=N,1µm,0.6s						
PET				smax	smax		
	comp=E,484nm,0.7s						
PET	Petropavlovsk	1.02	11	iP	Pn	11 45 49.1	-0.3
PET				eS	Sn	11 46 04.1	0.0
DALK	Dalny	1.04	14	eP	Pn	11 45 49.6	-0.1
DALK				eS	Sn	11 46 04.8	+0.3
INSR	Institute	1.06	9	eP	Pn	11 45 49.7	-0.2
INSR				eS	Sn	11 46 05.2	+0.3
PAU	Pauzhetka	1.09	240	eP	Pn	11 45 50.5	+0.2
PAU				eS	Sn	11 46 06.2	+0.5
APC	Apacha	1.15	322	iP	Pn	11 45 50.5	-0.5
PEA0B	Petropavlovsk-	1.15	341	c iPN	Pn	11 45 50.7	-0.3
PETK	Petropavlovsk-	1.15	341	P	Pn	11 45 50.7	-0.4
	comp=E,295nm,0.4s,baz=139,slow=14,SNR=2469						
PETK				S	Sn	11 46 06.7	-0.3
	comp=E,57nm,0.8s,baz=273,slow=28,SNR=7.0						
UGLR	Uglovaya	1.23	14	eP	Pn	11 45 52.5	+0.4
AVH	Avacha	1.27	11	eP	Pn	11 45 53.0	+0.5
SMAR	Somma	1.27	13	eP	Pn	11 45 52.9	+0.1
KOK	Koryaka	1.28	8	eP	Pn	11 45 53.4	+0.6
SDLR	Sedlovina	1.30	15	eP	Pn	11 45 52.9	-0.1
NLC	Nalytchevo	1.31	28	eP	Pn	11 45 52.0	-0.9
NLC				eS	Sn	11 46 08.7	-1.5
KRER	Koryakskii	1.31	11	iP	Pn	11 45 53.5	+0.3
KRER				eS	Sn	11 46 11.4	+0.8
KRX	Arik	1.35	8	eP	Pn	11 45 53.8	+0.2
SPN	Mys Shipunski	1.49	43	eP	Pn	11 45 56.5	+1.2
SPN				eS	Sn	11 46 15.9	+1.4
GNL	Ganaly	1.69	352	eP	Pn	11 45 57.5	-0.4
SKR	Severo-Kuril’s	1.93	227	ePN	Pn	11 46 00.7	-0.2
SKR				eS	Sn	11 46 23.5	-1.0
SKR				pmax	pmax		
	comp=Z,79nm,0.7s						
SKR				smax	smax		
	comp=E,228nm,0.2s						
SKR				smax	smax		
	comp=N,221nm,0.4s						
SKR	Severo-Kuril’s	1.93	227	eP	Pn	11 46 01.2	+0.3
SKR				eS	Sn	11 46 24.8	+0.3
KII	Karymskiy	2.13	18	eP	Pn	11 46 04.7	+1.1
MKZ	Mys Kozlova	3.26	37	eP	Pn	11 46 18.0	-0.6
KMNR	Kamenistaya	3.91	16	eP	Pn	11 46 29.1	+1.5
ESO	Esso	3.92	3	eP	Pn	11 46 28.0	+0.4
KPT	Kopyto	4.11	15	eP	Pn	11 46 31.0	+0.7
BZMR	Bezymyannaya	4.12	17	eP	Pn	11 46 31.9	+1.3
KOZ	Kozyrevsk	4.14	12	eP	Pn	11 46 30.6	-0.1
BZWR	Bezymyannyi-We	4.15	17	eP	Pn	11 46 32.2	+1.2
BZGR	Bezymyannyi-Gr	4.17	19	eP	Pn	11 46 32.0	+0.9
ZLN	Zelenaya	4.26	19	eP	Pn	11 46 34.0	+1.6
CIRR	Tsirk	4.34	18	eP	Pn	11 46 35.8	+2.3
KBTR	Krutoberegovo	4.96	30	eP	Pn	11 46 41.7	0.0
BKI	Bering	5.55	52	eP	Pn	11 46 49.3	-0.5
BILL	Bilibino	16.52	11	iP	P	11 49 16.7	-0.4
BILL				pmax	pmax		
	comp=Z,3.0nm,0.7s						
KLR	Kul'dur	17.06	271	iP	Pn	11 49 23.1	+0.4
KLR				pmax	pmax		
	comp=Z,2.0nm,1.1s						
YAK	Yakutsk	18.37	314	iP	P	11 49 36.8	-0.7

YAK				pmax	pmax		
	comp=Z,7.0nm,0.9s						
MJA0	Matsu Arr-Jizo	21.01	230	*e*P	P	11 50 09.9	+3.5
MJA0				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MJAR	Matsushiro Arr	21.03	231	P	P	11 50 08.0	+1.4
	comp=Z,0.7nm,0.5s,baz=23,slow=12,SNR=4.8						
	comp=Z,0.7nm,0.5s						
MJAR	Matsushiro Arr	21.03	231	P	P	11 50 08.0	+1.4
ILAR	Eielson Array	30.34	44	P	P	11 51 31.7	-1.2
	comp=Z,0.5nm,0.7s,baz=265,slow=6.6,SNR=6.9						
	comp=Z,0.5nm,0.7s						
ILAR	Eielson Array	30.34	44	*e*P	P	11 51 31.2	-1.7
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ULN	Ulaanbaatar	32.69	283	*i* P	P	11 51 54.7	+0.8
ULN				pmax	pmax		
	comp=Z,1.0nm,1.1s						
H11N2	WAKE ISLAND Hy	32.92	165	T	T	12 27 11.2	
	baz=351,slow=76,SNR=16						
H11N3	WAKE ISLAND Hy	32.93	165	T	T	12 27 13.4	
	baz=351,slow=76,SNR=22						
H11N1	WAKE ISLAND Hy	32.94	165	T	T	12 27 13.5	
	baz=351,slow=76,SNR=20						
H11S1	WAKE ISLAND Hy	34.09	166	T	T	12 28 35.7	
	baz=351,slow=74						
H11S3	WAKE ISLAND Hy	34.10	166	T	T	12 28 36.3	
	baz=351						
H11S2	WAKE ISLAND Hy	34.11	166	T	T	12 28 40.1	
	baz=351,slow=74						
NRIK	Noril'sk	36.17	325	*i* P	P	11 52 24.0	+0.5
NRIK				pmax	pmax		
	comp=Z,5.0nm,1.0s						
KURK	Kurchatov	47.38	302	P	P	11 53 50.4	-4.6
KURBB	Kurchatov Arra	47.48	302	P	P	11 53 50.4	-5.4
	comp=Z,0.3nm,0.6s,baz=68,slow=9.2,SNR=2.5						
	comp=Z,0.3nm,0.6s						
NVAR	Mina Array Bea	57.13	68	P	P	11 55 07.9	+0.3
	comp=Z,0.2nm,0.5s,baz=314,slow=6.4,SNR=2.3						
	comp=Z,0.2nm,0.5s						
PDAR	Pinedale Array	58.99	59	P	P	11 55 20.1	-0.4
	comp=Z,0.5nm,0.9s,baz=308,slow=7.9,SNR=3.6						
	comp=Z,0.5nm,0.9s						
KIV	Kislovodsk	69.47	316	*e*P	P	11 56 28.3	-0.5
KIV				pmax	pmax		
	comp=Z,6.0nm,1.1s						
KBZ	Khabaz	69.56	316	*i* P	P	11 56 29.7	+0.5
KBZ				pmax	pmax		
	comp=Z,2.0nm,1.0s						
SHA1	Shidzhatmaz	69.66	316	*i* P	P	11 56 28.5	-1.6
TXAR	Lajitas Array	72.06	65	P	P	11 56 44.3	-0.4
	comp=Z,0.2nm,0.6s,baz=296,slow=4.3,SNR=4.3						
	comp=Z,0.2nm,0.6s						
ASAR	Alice Springs	78.34	203	P	P	11 57 19.9	-0.6
	comp=Z,0.2nm,0.5s,baz=15,slow=6.2,SNR=1.7						
	comp=Z,0.2nm,0.5s						

VAO **22** *11:52:47.2±0.5, 21°.80S×69°.21W, h10^{km}, mb5.0, Presumed earthquake*

GFZ **22** *11:53:05.5±0.2, 22°S±2°×6°8W±°, h143^{km}±5^{km}, M4.8/15, mb4.8/15*

SJA **22** *11:53:05.6±0.8, 21°.81S×68°.51W, h137^{km}, ML4.5, MW4.4*

NEIC **22** *11:53:06.8±1.4, 21°.81S±0°.04×68°.45W±0°.06, h127^{km}±5^{km}, mb4.5/114, Mww4.9/10, Mwr4.6(GUC), Error ellipse: s-maj=8.8km s-min=6.2km az=70.0*

GUC **22** *11:53:06.5±0.8, 21°.91S×68°.40W, h126^{km}±4^{km}, ML4.7*

IDC **22** *11:53:07.2±0.6, 21°.79S×68°.29W, h138^{km}±5^{km}, mb3.9/11, mbtmp4.4/16, MS3.1/4, Error ellipse: s-maj=16.8km s-min=12.1km az=61.0*

ISC 22 11:53:05.7±0.4**, 21°.79S**±0°.03×**68°.37W**±0°.04**, h130**^{km}±4^{km}**, n270,** σ1^{s}**.80**/264**, mb4.5**/57**, 6C-8D, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PB09	IPOC Station P	0.81	269	*i* P	Pn	11 53 27.6	+0.5
PB09				*i* S	Sn	11 53 43.6	+0.4
PB09				IAML		11 53 45.9	
	comp=Z,10μm,0.6s						
PB09	IPOC Station P	0.81	269	⇑*i*P	Pn	11 53 27.5	+0.5
PB09				*i* S	Sn	11 53 43.5	+0.2
PB09				IAML		11 53 46.3	
	comp=E,18μm,0.6s						
PB09	IPOC Station P	0.81	269		Pn	11 53 27.5	+0.5
PB09				Sn	Sn	11 53 43.1	-0.1
PB09	IPOC Station P	0.81	269	P	Pn	11 53 27.6	+0.5
AF01	San Pedro de A	1.17	171	*i* P	Pn	11 53 32.0	+1.5
AF01				IAML		11 54 14.0	
	comp=Z,14μm,0.8s						
AF01	San Pedro de A	1.17	171	⇓*i*P	Pn	11 53 31.7	+1.2
AF01				*i* S	Sn	11 53 47.2	-2.2
AF01				IAML		11 54 08.6	
	comp=N,17μm,0.6s						
AF01	San Pedro de A	1.17	171		Pn	11 53 31.7	+1.2
AF01				Sn	Sn	11 53 51.0	+1.6
PB03	IPOC Station P	1.31	258	*i* P	Pn	11 53 31.8	0.0
PB03				*i* S	Sn	11 53 50.7	-0.9
PB03				IAML		11 53 51.9	
	comp=Z,17μm,0.4s						
PB03	IPOC Station P	1.31	258	⇑*i*P	Pn	11 53 31.7	-0.1
PB03				*i* S	Sn	11 53 50.8	-0.9
PB03				IAML		11 53 51.9	
	comp=E,15μm,0.2s						
PB03	IPOC Station P	1.31	258		Pn	11 53 31.7	-0.1
PB03				Sn	Sn	11 53 50.8	-0.9
PB03	IPOC Station P	1.31	258	P	Pn	11 53 31.8	-0.1
PB07	IPOC Station P	1.41	272	*i* P	Pn	11 53 32.9	-0.1
PB07				*i* S	Sn	11 53 52.5	-1.1
PB07				IAML		11 53 54.0	
	comp=Z,17μm,0.4s						
PB07	IPOC Station P	1.41	272	⇑*i*P	Pn	11 53 32.8	-0.1
PB07				*e*S	Sn	11 53 52.6	-1.1
PB07	IPOC Station P	1.41	272		Pn	11 53 32.5	-0.4
PB07				Sn	Sn	11 53 52.9	-0.7
PB07	IPOC Station P	1.41	272	P	Pn	11 53 32.9	-0.1
PB06	IPOC Station P	1.44	230	⇑*i*P	Pn	11 53 33.4	+0.2
PB06				*i* S	Sn	11 53 53.9	-0.3
PB06	IPOC Station P	1.44	230		Pn	11 53 33.4	+0.2
PB06				Sn	Sn	11 53 53.9	-0.3
PB06	IPOC Station P	1.44	230	P	Pn	11 53 33.6	+0.3
PB02	IPOC Station P	1.50	288	*i* P	Pn	11 53 33.8	0.0
PB02				IAML		11 54 01.4	
	comp=Z,26μm,0.5s						
PB02	IPOC Station P	1.50	288	⇑*i*P	Pn	11 53 33.7	-0.1
PB02				*i* S	Sn	11 53 54.0	-1.2
PB02	IPOC Station P	1.50	288		Pn	11 53 33.5	-0.2
PB02				Sn	Sn	11 53 54.4	-0.7
PB02	IPOC Station P	1.50	288	P	Pn	11 53 33.8	0.0
PB08	IPOC Station P	1.80	336	*i* P	Pn	11 53 38.8	+1.2
PB08				IAML		11 54 07.3	
	comp=Z,4μm,1.1s						
PB08	IPOC Station P	1.80	336	⇓*i*P	Pn	11 53 38.7	+1.2
PB08				*i* S	Sn	11 54 02.7	+0.8
PB08	IPOC Station P	1.80	336		Pn	11 53 38.7	+1.2
PB08				Sn	Sn	11 54 03.0	+1.0
PB08	IPOC Station P	1.80	336	P	Pn	11 53 38.8	+1.2
PB05	IPOC Station P	2.00	238	*i* P	Pn	11 53 39.5	-0.2
PB05				IAML		11 54 11.9	
	comp=Z,4μm,0.4s						
PB05	IPOC Station P	2.00	238	⇑*i*P	Pn	11 53 39.3	-0.4
PB05				*i* S	Sn	11 54 03.1	-2.7
PB05				IAML		11 54 05.1	
	comp=N,5μm,0.3s						
PB05	IPOC Station P	2.00	238		Pn	11 53 39.3	-0.4
PB05				Sn	Sn	11 54 04.0	-1.8
PB05	IPOC Station P	2.00	238	P	Pn	11 53 39.5	-0.2
TA02	Huaiquique	2.23	312	*e*P	Pn	11 53 41.6	-0.9
GO01	Chusmiza	2.25	340	⇓*i*P	Pn	11 53 43.7	+0.5
GO01				*e*S	Sn	11 54 13.5	+1.6
GO01	Chusmiza	2.25	340		Pn	11 53 43.8	+0.5
GO01	Chusmiza	2.25	340	P	Pn	11 53 43.8	+0.6
PB11	IPOC Station P	2.35	329	*i* P	Pn	11 53 44.2	0.0
PB11				*e*S	Sn	11 54 13.3	-0.3
PB11				IAML		11 54 14.4	
	comp=Z,8μm,0.4s						
PB11	IPOC Station P	2.35	329	⇓*i*P	Pn	11 53 43.9	-0.3
PB11				*i* S	Sn	11 54 12.8	-0.8
PB11	IPOC Station P	2.35	329		Pn	11 53 43.8	-0.3
PB11	IPOC Station P	2.35	329	P	Pn	11 53 44.0	-0.1
YJA	Yavi	2.68	99	*i* P	Pn	11 53 52.2	+3.6
YJA				IAML		11 54 30.2	
	comp=Z,60nm,0.7s						
YJA	Yavi	2.68	99	*e*P	Pn	11 53 51.0	+2.4
PSGCX	Pisagua	2.73	323	⇓*e*P	Pn	11 53 47.5	-1.3
PSGCX	Pisagua	2.73	323		Pn	11 53 47.6	-1.3
PSGCX	Pisagua	2.73	323	P	Pn	11 53 47.6	-1.3
SALTA		3.06	143	*i* P	Pn	11 53 55.7	+2.2
SALTA				IAML		11 54 42.8	
	comp=Z,223nm,1.2s						
SALTA		3.06	143	P	Pn	11 53 55.9	+2.3
HJA	Humahuaca	3.08	118	*i* P	Pn	11 53 56.4	+2.7
HJA				IAML		11 54 41.4	
	comp=Z,145nm,1.7s						
PX02	IPOC Station P	3.29	328	*e*P	Pn	11 53 54.0	-2.3
PB16	IPOC Station P	3.60	343	⇓*e*P	Pn	11 54 01.1	+0.4
PB16	IPOC Station P	3.60	343		Pn	11 54 01.2	+0.5
PB16	IPOC Station P	3.60	343	P	Pn	11 54 01.2	+0.5
PB12	IPOC Station P	3.66	329	⇓*e*P	Pn	11 53 59.2	-1.8
PB12	IPOC Station P	3.66	329		Pn	11 53 59.2	-1.8
PB12	IPOC Station P	3.66	329	P	Pn	11 53 59.3	-1.7
AP01	Chacalluta	3.87	331	*e*P	Pn	11 54 02.1	-1.6
AP01	Chacalluta	3.87	331		Pn	11 54 02.3	-1.5
AP01	Chacalluta	3.87	331	P	Pn	11 54 02.7	-1.0
SLA	San Lorenzo	3.93	138	*i* P	Pn	11 54 07.0	+2.4
SLA				IAML		11 54 56.5	
	comp=Z,23nm,1.8s						
SLA	San Lorenzo	3.93	138	⇓*e*P	Pn	11 54 07.0	+2.4
PB18	Visviri	4.31	346		Pn	11 54 11.3	+1.2
PB18	Visviri	4.31	346	P	Pn	11 54 11.8	+1.7
AC01	Pan de Azucar	4.79	205	*i* P	Pn	11 54 14.0	-2.0
AC01				IAML		11 55 29.5	
	comp=Z,707nm,0.3s						
AC01	Pan de Azucar	4.79	205		Pn	11 54 13.9	-2.0
AC01	Pan de Azucar	4.79	205	P	Pn	11 54 14.2	-1.8
FSA	Cafayete	4.83	154	*i* P	Pn	11 54 18.6	+2.0
AC02	Maricunga	5.07	188	*i* P	Pn	11 54 19.8	-0.4
AC02				IAML		11 55 49.9	
	comp=Z,575nm,0.8s						
AC02	Maricunga	5.07	188	P	Pn	11 54 19.7	-0.4
	comp=Z,155nm,0.5s						
LPAZ	La Paz	5.48	2	P	Pn	11 54 26.7	+0.9
	comp=Z,170nm,0.5s,baz=173,slow=2.9,SNR=312						
LPAZ				S	Sn	11 55 25.1	-3.1
	comp=Z,40nm,0.6s,baz=292,slow=22,SNR=1.6						
LPAZ				LR	LR	11 56 31.4	
	comp=Z,101nm,21.8s,baz=180,slow=37						
GO03	Copiapo	6.02	196	P	Pn	11 54 29.9	-2.7
	comp=Z,104nm,0.6s						
AC04	Llanos de Chal	6.84	200	P	Pn	11 54 39.2	-4.3
	comp=Z,143nm,1.0s						
AC05	El Transito	7.22	193	P	Pn	11 54 45.7	-3.1
	comp=Z,87nm,0.5s						
CO01	Juntas del Tor	8.30	190	P	Pn	11 55 00.6	-2.8
	comp=Z,20nm,0.6s						
GO04	Tololo Observa	8.63	194	P	Pn	11 55 04.3	-3.5
	comp=Z,54nm,0.7s						
SIV	San Ignacio	9.00	51	P	Pn	11 55 09.8	-2.8
	comp=Z,131nm,0.5s,baz=231,slow=11,SNR=434						
SIV				S	Sn	11 56 44.3	-8.0
	comp=Z,26nm,0.7s,baz=164,slow=19,SNR=4.2						
CO03	El Pedregal	9.25	193	P	Pn	11 55 11.5	-4.5
	comp=Z,38nm,1.0s						
ZON	Zonda	9.72	182	P	Pn	11 55 22.0	-0.3
	comp=E,19nm,0.8s						
CFA	Coronel Fontan	9.78	179	P	Pn	11 55 19.7	-3.3
	comp=E,13nm,0.3s,baz=354,slow=14,SNR=46						
CFA				S	Sn	11 57 02.9	-8.1
	comp=E,5.8nm,0.4s,baz=197,slow=20,SNR=3.6						
MURT	Porto Murtinho	10.01	91	*e*P	Pn	11 55 22.9	-3.2
COIM	Forte Coimbra	10.07	81	*e*P	Pn	11 55 23.1	-3.9
PTLB	Pontes e Lacer	10.79	56	*e*P	Pn	11 55 30.2	-6.4
BDQN	Bodoquena, MS	10.93	85	*e*P	Pn	11 55 35.3	-3.2
CPUP	Villa Florida	11.05	116	P	Pn	11 55 39.2	-0.9
	comp=E,1.3nm,0.5s,baz=299,slow=15,SNR=4.8						
CPUP				LR	LR	12 00 32.5	
	comp=E,52nm,20.2s,baz=257,slow=40						
VA03	San Esteban	11.10	190	P	Pn	11 55 41.0	+0.2
	comp=Z,46nm,0.7s						
SJPY	San Joaquin	11.71	108	*e*P	Pn	11 55 44.4	-4.3
VILB	Vilhena	11.75	43	*e*P	Pn	11 55 42.6	-6.8
AQDB	Aquidauana	11.90	86	*e*P	Pn	11 55 48.7	-2.6
AQDB	Aquidauana	11.90	86	P	Pn	11 55 49.0	-2.3
	comp=Z,33nm,0.5s						
NNA	Nana	12.67	319	P	Pn	11 56 02.0	+0.5
	comp=Z,9.3nm,0.4s,baz=160,slow=13,SNR=4.9						
NNA				S	Sn	11 58 16.0	-5.3
	comp=Z,9.5nm,0.5s,baz=193,slow=18,SNR=1.9						
BO01	Tunca	12.78	190	P	Pn	11 56 01.5	-1.2
	comp=Z,25nm,0.6s						
BO02	Sierra Bellavi	13.13	189	P	Pn	11 56 08.2	+1.0
	comp=Z,30nm,1.0s						
SALV	Santo Antonio	13.35	66	*e*P	Pn	11 56 08.0	-2.1
PP1B	Ponte de Pedra	13.37	74	*e*P	Pn	11 56 07.6	-2.8
ML02	Panimavida	14.18	190	P	Pn	11 56 20.0	-0.6
	comp=Z,81nm,1.1s						
CZSB	Cruzeiro do Su	14.59	343	P	Pn	11 56 21.2	-4.8
	comp=Z,3μmcomp=Z,229nm,0.5s						
CZSB	Cruzeiro do Su	14.59	343	*e*P	Pn	11 56 11.9	-14
C2SB	Chapadao do Su	14.88	81	*e*P	Pn	11 56 29.3	-0.3
C2SB	Chapadao do Su	14.88	81	P	P	11 56 32.4	+0.3
	comp=Z,218nm,1.0s						
BI02	San Fabin de	15.03	189		Pn	11 56 31.0	-0.5
BI02				IAmb	IAmb	11 56 32.9	
	comp=Z,42nm,0.8s						
BI02	San Fabin de	15.03	189	P	Pn	11 56 31.1	-0.3
	comp=Z,62nm,0.9s						
PTGB	Pitanga	15.27	104	*e*P	Pn	11 56 33.4	-1.1
ANCO	Parque Anchore	15.45	146	*e*P	Pn	11 56 31.5	-5.1
BI05	Punta Hualpn	15.48	195	Pn	Pn	11 56 37.2	+0.3
CPSB	Cacapava Do Su	15.91	126		P	11 56 43.9	+0.5
CPSB				IAmb	IAmb	11 56 44.5	
	comp=Z,34nm,0.7s						
CPSB	Cacapava Do Su	15.91	126	*e*P	Pn	11 56 40.6	-1.7
CPSB	Cacapava Do Su	15.91	126	P	P	11 56 43.9	+0.5
	comp=Z,68nm,0.7s						
LDASE	Londrina, Braz	16.02	99	*e*P	Pn	11 56 43.2	-0.5
CLDB	Colider	16.22	50	*e*P	Pn	11 56 44.0	-2.3
CLDB	Colider	16.22	50	P	Pn	11 56 46.7	+0.4
	comp=Z,251nm,0.8s						
ARAG	Araguaiana, MT	16.80	72	*e*P	P	11 56 53.0	-0.4
FRTB	Fartura	17.44	99	*e*P	Pn	11 57 01.0	-0.1
CNLB	Canela	17.48	119	*e*P	P	11 57 00.8	0.0
ATAH	Atahualpa	17.49	325	P	Pn	11 57 02.7	+0.6
	comp=Z,12nm,0.8s,baz=154,slow=12,SNR=7.7						
GO06	Curarrehue	17.93	188	P	Pn	11 57 06.4	-0.5
GO06				IAmb	IAmb	11 57 07.4	
	comp=Z,45nm,0.9s						
GO06	Curarrehue	17.93	188	P	Pn	11 57 06.6	-0.3
	comp=Z,53nm,0.9s						
LR03	Panguipulli	18.11	190	P	Pn	11 57 08.2	-0.7
BB19B	Bebedouro	18.49	91	*e*P	P	11 57 12.1	+0.2
LR04	Corral	18.54	192	P	P	11 57 11.2	-1.0
LR04				IAmb	IAmb	11 57 13.2	
	comp=Z,46nm,1.3s						
TER01	Tubaro-SC	18.66	115	*e*P	P	11 57 13.8	+0.2
PLCA	Paso Flores	18.98	185	P	P	11 57 16.9	-0.1
	comp=Z,3.2nm,0.6s,baz=11,slow=12,SNR=15						
PLCA	Paso Flores	18.98	185	P	Pn	11 57 18.1	-1.1
PLCA				IAmb	IAmb	11 57 45.0	
	comp=Z,43nm,1.8s						
SNDB	Serra Nova Dou	19.02	62	*e*P	P	11 57 16.9	-0.7
IPMB	Ipameri, GO	19.33	82	*e*P	P	11 57 20.5	-0.6
SPB	Sao Paulo	19.40	99	P	P	11 57 22.1	+0.4
SPB				IAmb	IAmb	11 57 22.4	
	comp=Z,35nm,0.8s						
SPB	Sao Paulo	19.40	99	*e*P	P	11 57 22.0	+0.3
PET01	Itanhaem-SP	19.57	101	*e*P	P	11 57 23.4	-0.2
LL03	Petrohue	19.59	189	P	P	11 57 24.7	+1.1
VAO	Valinhos	19.83	98	P	P	11 57 26.6	+0.1
VAO	Valinhos	19.83	98	*e*P	P	11 57 25.9	-0.6
MACA	Manacapuru-AM	19.97	23	P	P	11 57 26.9	-1.0
MACA	Manacapuru-AM	19.97	23	*e*P	P	11 57 23.8	-4.1
LL05	Los Muermos	20.03	191	P	P	11 57 28.3	0.0
BDFB	Brasilia	20.22	76	P	P	11 57 29.8	-0.9
	comp=Z,14nm,0.4s,baz=241,slow=14,SNR=17						
	comp=Z,14nm,0.4s						
BDFB	Brasilia	20.22	76	P	P	11 57 29.9	-0.8
BDFB				IAmb	IAmb	11 57 32.4	
	comp=Z,41nm,1.1s						
CANS	Sao Roque de M	20.57	90	*e*P	P	11 57 33.4	-1.1
MCRA	Macar, Loja	20.64	325	P	P	11 57 37.1	+1.9
	comp=Z,571nmcomp=Z,66nm,0.7s						
PMNB	Patos De Minas	20.84	85	*e*P	P	11 57 35.6	-1.7
PMNB	Patos De Minas	20.84	85	P	P	11 57 34.4	-2.9
	comp=Z,51nm,0.7s						
ITTB	Itaituba	21.22	37	*e*P	P	11 57 39.9	-1.4
SGC2	Sao Gabriel da	21.55	4	P	P	11 57 43.6	-1.3
	comp=Z,36nm,0.7s						
SGC2	Sao Gabriel da	21.55	4	*e*P	P	11 57 37.9	-7.0
GO07	Milladeo Hill,	21.72	191	P	P	11 57 43.8	-2.6
BSCB	Bom Sucesso	21.98	92	*e*P	P	11 57 49.8	+0.3
SLOR	San Lorenzo -	23.14	333		P	11 58 06.2	+4.9
DIAM	Diamantina, MG	23.45	86	*e*P	P	11 58 02.7	-1.1
SMTB	Santa Maria do	23.77	60	*e*P	P	11 58 05.1	-1.4
JANB	Januaria	23.77	78	*e*P	P	11 58 06.5	-0.1
OTAV	Otavalo	24.00	335	P	P	11 58 07.0	-2.0
OTAV				IAmb	IAmb	11 58 43.4	
	comp=Z,21nm,0.9s						
OTAV	Otavalo	24.00	335	*e*P	P	11 58 00.1	-9.0
SDBA	SAO DESIDERIO	24.26	71	*e*P	P	11 58 10.8	-0.2
CAM01	Campos-RJ	24.79	95	*e*P	P	11 58 17.5	+1.8
BBAC	Balboa, Cauca	25.21	339	P	P	11 58 20.4	+0.7
	comp=Z,671nmcomp=Z,56nm,0.9s						
BOAV	Boa Vista	25.23	19	P	P	11 58 19.1	-0.6
BOAV				IAmb	IAmb	11 58 22.3	
	comp=Z,9.1nm,0.7s						
BOAV	Boa Vista	25.23	19	*e*P	P	11 58 17.4	-2.4
POPC	Popayan, Colom	25.51	340	P	P	11 58 25.2	+2.7
	comp=Z,23nm,1.1s						
SJMB	Sao Joao De Ma	25.68	88	*e*P	P	11 58 23.7	-0.1
BSFB	Barra de Sao F	25.97	88	*e*P	P	11 58 26.5	+0.1
RIB01	Linhares ES	26.30	90	*e*P	P	11 58 29.2	-0.2
ORTC	Ortega, Tolima	26.41	344	P	P	11 58 31.6	+1.2
	comp=Z,52nm,0.9s						
GUA01	Guaratinga, BA	27.45	84	*e*P	P	11 58 39.1	-0.6
RUSC	La Rusia	27.90	350	P	P	11 58 43.8	-0.3
	comp=Z,35nm,0.8s						
CMC01	Camacan, BA	28.06	82	*e*P	P	11 58 44.8	-0.3
NBIT	Itapeh - BA	28.27	81	*e*P	P	11 58 46.9	0.0
CBOC	Ciudad Bolivar	28.49	344	P	P	11 58 47.5	-1.5
	comp=Z,13nm,0.9s						
NBPN	Ponto Novo - B	29.09	73	*e*P	P	11 58 53.2	-1.1
PAMC	Pamplona, Colo	29.26	351	P	P	11 58 56.3	+0.1
SDV	Santo Domingo	30.57	356	P	P	11 59 07.1	-0.4
SDV				IAmb	IAmb	12 00 06.5	
	comp=Z,7.7nm,0.9s						
SDV	Santo Domingo	30.57	356	P	P	11 59 07.3	-0.1
	comp=Z,45nm,0.8s						
MDP	Montagnes des	30.85	32	LR	LR	12 13 40.4	
	comp=Z,54nm,20.1s,baz=74,slow=40						
MG02	Cerro Sombrero	30.94	181	P	P	11 59 11.0	+0.9
NBPS	Pedro II - PI	31.31	60	*e*P	P	11 59 13.7	-0.3
NBTA	Tacaratu-PE	31.73	71	*e*P	P	11 59 17.2	-0.5
NBMA	Muriti-CE	31.95	68	*e*P	P	11 59 18.7	-0.8
BCIP	Isla Barro Col	32.76	339	P	P	11 59 29.2	+2.8
URIC	Uribia, Colomb	33.47	354	P	P	11 59 28.5	-4.1
RCBR	Riachuelo	35.18	68	P	P	11 59 47.8	+0.3
MPOM	Morne Pois Mar	36.76	12	P	P	12 00 00.7	-0.1
BIM	Bigot	36.79	12	P	P	12 00 03.6	+2.5
MGAN	Managua	38.02	331	P	P	12 00 13.5	+2.0
MLPR	Magueyes Islan	39.54	2	P	P	12 00 24.5	+0.5
MLPR				IAmb	IAmb	12 00 53.3	
	comp=Z,16nm,0.9s						
PDPR	Patillas Dam,	39.63	4	P	P	12 00 23.0	-1.8
PDPR				IAmb	IAmb	12 00 28.6	
	comp=Z,12nm,1.0s						
CELP	Cerrillos	39.66	3	P	P	12 00 25.4	+0.3
ECPR	Experimental S	39.91	3	P	P	12 00 25.6	-1.5
MTO3	Montecristo	41.44	328	P	P	12 00 42.3	+2.3
MTO3				IAmb	IAmb	12 00 43.0	
	comp=Z,10nm,0.8s						
ZAIG	Zacatecas	55.42	321		P	12 02 29.6	+2.4
ZAIG				IAmb	IAmb	12 02 30.7	
	comp=Z,6.5nm,0.9s						
SWET	Sewanee	59.09	343	P	P	12 02 53.1	+0.6
WLAR	White Oak Lake	60.00	336	P	P	12 03 00.6	+2.0
WVT	Waverly	60.48	342	P	P	12 03 01.9	+0.1
WVT	Waverly	60.48	342	P	P	12 03 01.7	-0.1
TXAR	Lajitas Array	61.15	325	P	P	12 03 07.4	+0.7
	comp=Z,0.6nm,0.6s,baz=152,slow=8.5,SNR=8.6						
TXAR				pP	pP	12 03 40.0	+0.9
	comp=Z,0.4nm,0.7s,baz=157,slow=6.8,SNR=2.8						
	comp=Z,0.6nm,0.6s						
TXAR	Lajitas Array	61.15	325	P	P	12 03 07.6	+0.9
TX31	Lajitas Ar. Si	61.15	325	P	P	12 03 07.5	+0.9
TX31				IAmb	IAmb	12 03 33.5	
	comp=Z,17nm,1.9s						
MNHN	Monahans	62.28	327		P	12 03 15.5	+1.3
TPB01	Permian Basin	62.48	326	P	P	12 03 16.7	+1.1
TPB01				IAmb	IAmb	12 03 17.9	
	comp=Z,4.0nm,0.8s						
SN07	Snyder 07	62.79	330	IAmb	IAmb	12 03 18.9	
	comp=Z,6.8nm,0.8s						
VHRN	Van Horn	63.00	325	IAmb	IAmb	12 03 20.7	
	comp=Z,4.3nm,0.6s						
CCM	Cathedral Cave	63.29	340	P	P	12 03 21.1	+0.5
CCM				IAmb	IAmb	12 03 23.1	
	comp=Z,6.0nm,0.8s						
TPB11	China Draw	63.40	326	IAmb	IAmb	12 03 24.8	
	comp=Z,16nm,1.4s						
TPB28		63.43	326	IAmb	IAmb	12 03 24.3	
	comp=Z,4.7nm,1.0s						
S39A	Bolivar	63.66	338	IAmb	IAmb	12 03 24.4	
	comp=Z,8.6nm,0.9s						
OK051	E0350 and S346	63.91	335	IAmb	IAmb	12 03 27.0	
	comp=Z,10nm,0.9s						
SMWD	Samnorwood	64.16	331	IAmb	IAmb	12 03 28.5	
	comp=Z,13nm,1.2s						
P40A	Paris	64.89	340	IAmb	IAmb	12 04 05.0	
	comp=Z,8.2nm,1.0s						
ALQ	Albuquerque	67.01	327	IAmb	IAmb	12 03 47.7	
	comp=Z,2.5nm,0.8s						
ANMO	Albuquerque	67.02	327	P	P	12 03 45.8	+0.8
TASM	ASL Pad, Albuq	67.02	327	IAmb	IAmb	12 03 47.8	
	comp=Z,2.2nm,0.8s						
DBIC	Dimbokro	68.34	73	P	P	12 03 53.8	+0.4
	comp=Z,33nm,0.7s,baz=246,slow=6.2,SNR=28						
DBIC	Dimbokro	68.34	73		P	12 03 53.9	+0.4
DBIC	Dimbokro	68.34	73	P	P	12 03 53.9	+0.4
QSPA	South Pole Qui	68.40	180	P	P	12 03 54.4	+1.1
	comp=Z,1.4nm,0.6s,baz=146,slow=6.5,SNR=14						
QSPA				pP	pP	12 04 27.4	+1.5
	comp=Z,2.3nm,0.6s,baz=157,slow=1.2,SNR=4.9						
QSPA				LR	LR	12 34 07.1	
	comp=Z,20nm,19.1s,baz=328,slow=36						
	comp=Z,1.4nm,0.6s						
QSPA	South Pole Qui	68.40	180	P	P	12 03 54.6	+1.3
QSPA				IAmb	IAmb	12 04 30.5	
	comp=Z,16nm,1.8s						
SDCO	Great Sand Dun	68.75	329		P	12 03 58.1	+2.1
SDCO				IAmb	IAmb	12 03 58.8	
	comp=Z,20nm,1.7s						
WUAZ	Wupatki	70.06	324	IAmb	IAmb	12 04 07.5	
	comp=Z,10nm,1.1s						
BLYC	Blythe	70.59	320	IAmb	IAmb	12 04 10.5	
	comp=Z,6.5nm,0.9s						
PV15	Paradox Valley	70.67	328	IAmb	IAmb	12 04 11.1	
	comp=Z,10nm,1.0s						
PV22	Blue Mesa, Par	70.98	327	IAmb	IAmb	12 04 12.4	
	comp=Z,4.5nm,0.8s						
BC3	Big Chuckawall	71.08	320		P	12 04 12.0	+2.0
BC3				IAmb	IAmb	12 04 13.4	
	comp=Z,6.0nm,0.9s						
HMU	Henry Mountain	71.52	326	IAmb	IAmb	12 05 17.3	
	comp=Z,6.7nm,0.8s						
ELS	Elsinore Mount	72.27	319	P	P	12 04 19.9	+2.8
SRU	San Rafael Swe	72.29	327	IAmb	IAmb	12 04 20.1	
	comp=Z,6.9nm,0.7s						
P18A	Preston Nutter	72.54	327	IAmb	IAmb	12 04 22.1	
	comp=Z,6.5nm,0.7s						
P17A	Butcher Ranch,	72.67	327	IAmb	IAmb	12 04 22.5	
	comp=Z,5.2nm,0.8s						
SHPR	Sheep Range	72.90	322		P	12 04 23.8	+2.9
RDMU	Red Mountain	72.93	328	P	P	12 04 22.6	+1.6
BSUT	Blindstream Ca	73.49	328	IAmb	IAmb	12 04 27.3	
	comp=Z,4.8nm,0.8s						
GWY	Greenwater Val	73.55	321	IAmb	IAmb	12 04 27.9	
	comp=Z,6.7nm,1.1s						
NLU	North Lily Min	73.72	326	IAmb	IAmb	12 04 29.3	
	comp=Z,14nm,1.7s						
ISA	Isabella, Lake	74.26	320	P	P	12 04 31.6	+2.8
ISA				IAmb	IAmb	12 04 32.3	
	comp=Z,5.6nm,0.9s						
PDAR	Pinedale Array	74.61	330	P	P	12 04 31.8	+1.0
	comp=Z,0.6nm,0.7s,baz=131,slow=7.1,SNR=6.7						
	comp=Z,0.6nm,0.7s						
PDAR	Pinedale Array	74.61	330	P	P	12 04 31.4	+0.6
ULM	Lac du Bonnet	75.74	342	P	P	12 04 36.9	+0.1
	comp=Z,1.4nm,0.5s,baz=141,slow=5.3,SNR=5.9						
	comp=Z,1.4nm,0.5s						
NVAR	Mina Array Bea	76.03	322	P	P	12 04 40.1	+1.1

	comp=Z,1.1nm,0.8s,baz=159,slow=7.3,SNR=7.8						
NVAR				pP	**pP**	**12 05 13.7**	**+1.1**
	comp=Z,1.0nm,0.8s,baz=168,slow=7.3,SNR=3.3						
	comp=Z,1.1nm,0.8s						
NVAR	**Mina Array Bea**	**76.03**	**322**	P	**P**	**12 04 41.0**	**+2.0**
YNE	**Yellowstone No**	**76.55**	**331**	IAmb	IAmb	12 05 18.0	
	comp=Z,5.4nm,0.8s						
YHH	**Holmes Hill**	**76.76**	**330**	IAmb	IAmb	12 04 46.8	
	comp=Z,7.0nm,1.2s						
TORD	**Torodi Ar. Bea**	**76.98**	**70**	P	**P**	**12 04 44.7**	**+0.1**
	comp=Z,5.1nm,0.3s,baz=256,slow=5.1,SNR=102						
	comp=Z,5.1nm,0.3s						
PAHR	**Pah Rah Range**	**77.51**	**322**	IAmb	IAmb	12 04 50.8	
	comp=Z,8.0nm,0.9s						
ORV	**Oroville**	**78.64**	**321**	IAmb	IAmb	12 04 56.2	
	comp=Z,12nm,1.4s						
TSUM	**Tsumeb**	**79.48**	**107**		**P**	**12 04 59.9**	**+1.4**
TSUM	**Tsumeb**	**79.48**	**107**	P	**P**	**12 05 00.0**	**+1.5**
PINE	**Pine Mountain**	**81.11**	**324**	IAmb	IAmb	12 05 10.1	
	comp=Z,5.5nm,0.8s						
I05D	**Terrebonne, OR**	**81.69**	**325**	IAmb	IAmb	12 05 46.7	
	comp=Z,7.7nm,0.9s						
GRTLG	**Ghanzi**	**81.96**	**110**		**P**	**12 05 12.4**	**+0.7**
GRTLG				IAmb	IAmb	12 05 14.1	
	comp=Z,20nm,1.4s						
C09A	**Chrisman Ranch**	**82.47**	**329**	IAmb	IAmb	12 05 16.2	
	comp=Z,5.0nm,0.8s						
BOSA	**Boshof**	**82.87**	**118**	P	**P**	**12 05 16.7**	**+0.3**
	comp=Z,6.2nm,0.7s,baz=245,slow=5.7,SNR=7.1						
	comp=Z,6.2nm,0.7s						
BOSA	**Boshof**	**82.87**	**118**	P	**P**	**12 05 17.3**	**+1.0**
MAW	**Mawson**	**83.91**	**163**	P	**P**	**12 05 20.4**	**-0.3**
	comp=Z,1.6nm,0.8s,baz=222,slow=4.9,SNR=3.9						
	comp=Z,1.6nm,0.8s						
PAB	**San Pablo**	**85.37**	**44**	P	**P**	**12 05 30.0**	**+1.4**
PAB				IAmb	IAmb	12 05 30.6	
	comp=Z,5.8nm,0.8s						
PAB	**San Pablo**	**85.37**	**44**	P	**P**	**12 05 30.0**	**+1.5**
ESDC	**Sonseca Array**	**85.69**	**44**	P	**P**	**12 05 30.6**	**+0.6**
	comp=Z,2.6nm,1.0s,baz=243,slow=4.7,SNR=14						
ESDC				pP	**pP**	**12 06 06.0**	**+1.4**
	comp=Z,0.9nm,0.8s,baz=242,slow=6.4,SNR=2.6						
	comp=Z,2.6nm,1.0s						
ESDC	**Sonseca Array**	**85.69**	**44**	P	**P**	**12 05 31.2**	**+1.1**
ESDC				IAmb	IAmb	12 06 39.2	
	comp=Z,11nm,1.6s						
YKA	**Yellowknife Ar**	**91.63**	**340**	P	**P**	**12 05 58.1**	**+0.5**
	comp=Z,1.7nm,0.6s,baz=137,slow=4.6,SNR=19						
YKA				pP	**pP**	**12 06 33.6**	**+1.5**
	comp=Z,1.8nm,0.7s,baz=128,slow=4.3,SNR=5.4						
	comp=Z,1.7nm,0.6s						
YKAW3	**Yellowknife Wh**	**91.68**	**340**	P	**P**	**12 05 59.1**	**+1.3**
H11S2	**WAKE ISLAND Hy**	**128.41**	**277**	T	T	14 32 11.5	
	baz=103,slow=74,SNR=120						
H11S1	**WAKE ISLAND Hy**	**128.42**	**277**	T	T	14 32 10.5	
	baz=103,slow=74,SNR=59						
H11S3	**WAKE ISLAND Hy**	**128.43**	**277**	T	T	14 32 12.8	
	baz=103,slow=74,SNR=72						
H11N3	**WAKE ISLAND Hy**	**128.50**	**278**	T	T	14 32 25.9	
	baz=103,slow=75,SNR=58						
H11N2	**WAKE ISLAND Hy**	**128.51**	**278**	T	T	14 32 32.0	
	baz=103,slow=75,SNR=48						
H11N1	**WAKE ISLAND Hy**	**128.51**	**278**	T	T	14 32 27.1	
	baz=103,slow=75,SNR=42						
ASAR	**Alice Springs**	**129.88**	**207**	PKP	**PKPdf**	**12 12 00.9**	**+0.3**
	comp=Z,0.3nm,0.4s,baz=129,slow=2.0,SNR=7.2						
ASAR				pPKP	**pPKPdf**	**12 12 37.4**	**+0.7**
	comp=Z,0.7nm,0.8s,baz=146,slow=2.0,SNR=4.0						
WRA	**Warramunga Arr**	**132.96**	**210**	PKP	**PKPdf**	**12 12 06.4**	**-0.1**
	comp=Z,0.3nm,0.6s,baz=146,slow=2.1,SNR=0.8						
KURBB	**Kurchatov Arra**	**141.30**	**34**	PKP	**PKPdf**	**12 12 20.8**	**0.0**
	comp=Z,0.3nm,0.5s,baz=312,slow=2.9,SNR=4.9						
KURBB				pPKP	**pPKPdf**	**12 12 57.1**	**0.0**
	comp=Z,0.7nm,0.8s,baz=301,slow=3.0,SNR=3.5						
ZALV	**Zalesovo Beam**	**142.00**	**26**	PKP	**PKPdf**	**12 12 22.4**	**+0.4**
	comp=Z,1.2nm,0.6s,baz=327,slow=2.5,SNR=3.8						
ZALV				pPKP	**pPKPdf**	**12 13 00.4**	**+2.2**
	comp=Z,1.5nm,0.6s,baz=13,slow=4.4,SNR=4.1						
KSH2	**Kashi**	**144.71**	**52**	PKP	**PKPdf**	**12 12 28.5**	**+1.0**
KDJ	**Kajisay**	**144.76**	**47**	PKPdf	**PKPdf**	**12 12 28.5**	**+0.9**
MAKZ	**Makanchi**	**145.39**	**37**	PKPdf	**PKPab**	**12 12 29.5**	**+0.8**
MKAR	**Makanchi Array**	**145.57**	**37**	PKPbc	**PKPab**	**12 12 30.2**	**+0.8**
	comp=Z,2.7nm,0.8s,baz=308,slow=3.4,SNR=16						
MKAR	**Makanchi Array**	**145.57**	**37**		**PKPab**	**12 12 29.6**	**+0.2**
HHC	**Hu-ho-hao-te**	**161.00**	**0**	*e*P	**PKPdf**	**12 12 46.3**	**-4.5**
XAN	**Xi'an**	**167.56**	**10**	*e*PKP	**PKPdf**	**12 12 58.8**	**+2.0**
NJ2	**Nanjing**	**167.92**	**329**	*e*P	**PKPdf**	**12 12 58.6**	**+1.6**
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.7s						
PZH	**PanZhiHua**	**169.83**	**61**	PKP	**PKPdf**	**12 12 57.6**	**-1.0**

*SOME **22** 12:12:32.7,41°.33N×83°.38E,h15^{km}*

*NNC **22** 12:12:35.6±1.5,41°.47N×83°.24E,h3^{km}±5^{km},mb3.9, mpv3.5,Error ellipse: s-maj=11.4km s-min=7.2km az=159.0*

ISC 22 12:12:38.9±2.3,41°.6N±0°.1×83°.18E±0°.07,h10^{km},n30, σ2^s.58/49,13C-7D,Southern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SHLS	**Shalkode**	**3.15**	**300**	Pg	**Pn**	**12 13 30.1**	**+1.4**
	39nm,0.3s						
SHLS				Lg	Lg	12 14 12.7	
	365nm,0.3s						
SHLS	**Shalkode**	**3.15**	**300**	*e*P	**Pn**	**12 13 29.3**	**+0.6**
	39nm,0.3s						
SHLS				*e*S	**Sn**	**12 14 09.9**	**+3.4**
	365nm,0.3s						
PDGK	**Podgornoye**	**3.22**	**303**	⇑Pn	**Pn**	**12 13 28.3**	**-1.4**
	4.9nm,0.5s						
PDGK				⇑Pg	**Pg**	**12 13 38.1**	**-2.5**
	21nm,0.7s						
PDGK				⇑Sn	**Sn**	**12 14 10.9**	**+2.7**
	48nm,0.8s						
PDGK				⇓Lg	Lg	12 14 21.6	
	103nm,0.6s						
UZB	**Uzynbulak**	**3.44**	**298**	Pg	**Pb**	**12 13 39.7**	**-0.3**
	9.0nm,0.3s						
UZB				Lg	Lg	12 14 27.7	
	101nm,0.4s						
UZB	**Uzynbulak**	**3.44**	**298**	*e*P	**Pb**	**12 13 39.7**	**-0.3**
	9.0nm,0.3s						
UZB				*e*S	**Sg**	**12 14 27.7**	**-1.6**
	101nm,0.4s						
DJR	**Jarkent**	**3.68**	**319**	Pg	**Pb**	**12 13 43.7**	**-0.3**
	21nm,0.5s						
DJR				Lg	Lg	12 14 33.9	
	14nm,0.6s						
DJR	**Jarkent**	**3.68**	**319**	*e*P	**Pb**	**12 13 43.7**	**-0.3**
	21nm,0.5s						
DJR				*e*S	**Sg**	**12 14 33.9**	**-3.1**
	14nm,0.6s						
KPKS	**Kokpek**	**3.80**	**301**	Pg	**Pb**	**12 13 45.0**	**-1.1**
	0.2nm,0.1s						
KPKS				Lg	Lg	12 14 36.3	
	46nm,0.2s						
KPKS	**Kokpek**	**3.80**	**301**	*e*P	**Pb**	**12 13 45.0**	**-1.1**
	0.2nm,0.1s						
KPKS				*e*S	**Sb**	**12 14 36.3**	**+4.1**
	46nm,0.2s						
SATY	**Saty**	**3.82**	**294**	Pg	**Pb**	**12 13 46.7**	**+0.3**
	13nm,0.5s						
SATY				Lg	Lg	12 14 39.1	
	118nm,0.8s						
SATY	**Saty**	**3.82**	**294**	*e*P	**Pb**	**12 13 46.7**	**+0.3**
	13nm,0.5s						
SATY				*e*S	**Sg**	**12 14 39.1**	**-2.5**
	118nm,0.8s						
KNOS	**Konyrlen**	**4.01**	**314**	Pg	**Pb**	**12 13 50.9**	**+1.2**
	19nm,0.5s						
KNOS				Lg	Lg	12 14 46.5	
	9.4nm,0.4s						
ARXS	**Arharly**	**4.71**	**305**	Pg	**Pb**	**12 14 02.8**	**+1.3**
	7.3nm,0.3s						
ARXS				Lg	Lg	12 15 08.9	
	31nm,0.7s						
ARXS	**Arharly**	**4.71**	**305**	*e*P	**Pb**	**12 14 02.8**	**+1.3**
	7.3nm,0.3s						
ARXS				*e*S	**Sg**	**12 15 07.6**	**-2.4**
	31nm,0.7s						
KOTS	**Kotyrbulak**	**4.77**	**292**	*e*P	**Pb**	**12 14 05.6**	**+2.9**
	6.0nm,0.3s						
KOTS				*e*S	**Sg**	**12 15 11.3**	**-0.8**
	50nm,0.7s						
MDOK	**Medeo**	**4.80**	**291**	Pg	**Pb**	**12 14 05.7**	**+2.6**
	12nm,0.5s						
MDOK				Lg	Lg	12 15 13.2	
	43nm,0.6s						
MDOK	**Medeo**	**4.80**	**291**	*e*P	**Pb**	**12 14 05.7**	**+2.6**
	12nm,0.5s						
MDOK				*e*S	**Sg**	**12 15 12.0**	**-0.8**
	43nm,0.6s						
TNSS	**Tian-Shan**	**4.83**	**289**	Pg	**Pg**	**12 14 08.0**	**-3.4**
	1.9nm,0.4s						
TNSS				Lg	Lg	12 15 15.7	
	7.9nm,0.5s						
TNSS	**Tian-Shan**	**4.83**	**289**	*e*P	**Pg**	**12 14 08.1**	**-3.4**
	1.9nm,0.4s						
TNSS				*e*S	**Sg**	**12 15 15.7**	**+1.6**
	7.9nm,0.5s						
MK31	**Makanchi Array**	**5.21**	**353**	⇓Pn	**Pn**	**12 13 56.1**	**-0.8**
	0.4nm,0.6s,baz=181,slow=11,SNR=14						
MK31				⇓Pg	**Pg**	**12 14 15.4**	**-3.3**
	0.6nm,0.3s						
MK31				⇑Sn	**Sn**	**12 15 00.1**	**+2.9**
	1.7nm,0.5s						
MK31				⇑Lg	Lg	12 15 27.8	
	9.4nm,0.6s,baz=170,slow=27,SNR=5.0						
MAKZ	**Makanchi**	**5.26**	**351**	⇓Pn	**Pn**	**12 13 56.6**	**-1.0**
	0.6nm,0.4s						
MAKZ				⇑Pg	**Pb**	**12 14 14.4**	**+3.5**
	3.2nm,0.6s						
MAKZ				⇓Sn	**Sn**	**12 14 59.7**	**+1.5**
	2.8nm,0.5s						
MAKZ				⇑Lg	Lg	12 15 30.5	
	9.1nm,0.6s						
KST	**Kastek**	**5.54**	**287**	*e*P	**Pb**	**12 14 17.1**	**+1.5**
	5.5nm,0.5s						
KST				*e*S	**Sg**	**12 15 31.0**	**-5.5**
	24nm,0.7s						
KRBS	**Karabastau**	**5.91**	**293**	Pg	**Pb**	**12 14 25.6**	**+3.6**
	3.1nm,0.5s						
KRBS				Lg	Lg	12 15 45.8	
	3.8nm,0.6s						
KRBS	**Karabastau**	**5.91**	**293**	*e*P	**Pb**	**12 14 25.6**	**+3.6**
	3.1nm,0.5s						
KRBS				*e*S	**Sg**	**12 15 45.8**	**-2.8**
	3.8nm,0.6s						
ZSN	**Zaisan**	**5.96**	**11**	Pg	**Pg**	**12 14 28.7**	**-4.1**
	5.4nm,0.5s						
ZSN				Lg	Lg	12 15 51.3	
	15nm,0.5s						
ZSN	**Zaisan**	**5.96**	**11**	*e*P	**Pg**	**12 14 28.7**	**-4.1**
	5.4nm,0.5s						
ZSN				*e*S	**Sg**	**12 15 51.3**	**+1.3**
	15nm,0.5s						
AAK	**Ala-Archa**	**6.54**	**282**	⇑Pg	Pg	12 14 38.3	-5.7
	2.7nm,0.8s						
AAK				⇑Lg	Lg	12 16 06.0	
	22nm,1.2s						
SGDS	**Sogindy**	**6.58**	**289**	Pg	**Pb**	**12 14 36.5**	**+3.1**
	1.1nm,0.5s						
SGDS				Lg	Lg	12 16 04.4	
	8.9nm,0.7s						
KURBB	**Kurchatov Arra**	**9.57**	**342**	⇑Pn	**Pn**	**12 14 55.8**	**-0.8**
	1.4nm,0.8s						
KURBB				⇓Sn	**Sn**	**12 16 48.8**	**+4.8**
	4.8nm,0.6s						
KURBB				⇑Lg	Lg	12 17 44.5	
	10nm,0.7s						
KURK	**Kurchatov**	**9.63**	**342**	⇑Pn	**Pn**	**12 14 56.1**	**-1.3**
	0.5nm,0.9s						
KURK				⇑Sn	**Sn**	**12 16 48.4**	**+2.8**
	2.5nm,1.1s						
KURK				⇓Lg	Lg	12 17 46.6	
	4.7nm,1.1s						

*SNET **22** 12:17:44.3±1.4,12°.97N×89°.01W,h45^{km},ML3.5, Presumed earthquake*

*CATAC **22** 12:17:44.1±0.5,13°N±3°×8°9W±°,h26^{km}±2^{km},M3.6/22, MLv3.6/22,Error ellipse: s-maj=6.2km s-min=2.6km az=23.6,confirmed*

*GCG **22** 12:17:48.6±0.8,13°.26N×89°.11W,h45^{km}±7^{km},MD4.3, Presumed earthquake*

ISC 22 12:17:42.9±1.8,12°.98N±0°.08×89°.04W±0°.03,h16^{km}±10^{km}, n45,σ0^s.44/76,Off coast of central America

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LALI	**Alcalda de L**	**0.57**	**332**	*i* S	**Sn**	**12 18 04.0**	**-1.5**
LALI	**Alcalda de L**	**0.57**	**332**	S	**Sn**	**12 18 05.0**	**-0.5**
ALJI	**Alcalda de J**	**0.57**	**53**	P	**Pn**	**12 17 56.8**	**+0.4**
ALJI				S	**Sn**	**12 18 05.8**	**+0.2**
TECO	**Alcaldia de Te**	**0.61**	**25**	P	**Pn**	**12 17 57.1**	**+0.1**
TECO				S	**Sn**	**12 18 06.4**	**-0.1**
SJTE	**Alcalda de S**	**0.63**	**3**	*i* P	**Pn**	**12 17 57.3**	**0.0**
SJTE				*e*S	**Sn**	**12 18 06.7**	**-0.4**
PANCS	**Alcalda de**	**0.64**	**348**	S	**Sn**	**12 18 06.5**	**-0.8**
COEG	**Centro de Oper**	**0.65**	**14**	*i* P	**Pn**	**12 17 57.7**	**0.0**
COEG				*e*S	**Sn**	**12 18 06.9**	**-0.8**
COEG	**Centro de Oper**	**0.65**	**14**	P	**Pn**	**12 17 57.6**	**0.0**
COEG				S	**Sn**	**12 18 07.4**	**-0.3**
LOMA	**Loma Larga**	**0.67**	**349**	*i* P	**Pn**	**12 17 57.9**	**-0.1**
LOMA				*e*S	**Sn**	**12 18 07.5**	**-0.7**
LOMA	**Loma Larga**	**0.67**	**349**	P	**Pn**	**12 17 58.1**	**+0.2**
LOMA				S	**Sn**	**12 18 08.0**	**-0.2**
UTEC	**Universidad Te**	**0.73**	**348**	S	**Sn**	**12 18 09.6**	**0.0**
PAVA	**Las Pavas**	**0.73**	**8**	*i* P	**Pn**	**12 17 59.0**	**+0.2**
PAVA				*e*S	**Sn**	**12 18 09.7**	**0.0**
PAVA	**Las Pavas**	**0.73**	**8**	P	**Pn**	**12 17 58.9**	**+0.2**
PAVA				S	**Sn**	**12 18 09.9**	**+0.2**
IGN	**Direccin Gen**	**0.74**	**350**	P	**Pn**	**12 17 59.0**	**+0.2**
IGN				S	**Sn**	**12 18 09.6**	**-0.2**
UEES	**Universidad Ev**	**0.75**	**345**	P	**Pn**	**12 17 59.2**	**+0.2**
UEES				S	**Sn**	**12 18 10.0**	**-0.1**
LFU	**La Fuente**	**0.76**	**355**	*i* P	**Pn**	**12 17 59.2**	**0.0**
LFU				*e*S	**Sn**	**12 18 10.7**	**+0.2**
PMON	**Piamonte**	**0.77**	**340**	P	**Pn**	**12 17 59.5**	**+0.2**
PMON				S	**Sn**	**12 18 10.8**	**+0.2**
JAYA	**Jayaque - finc**	**0.78**	**329**	*i* P	**Pn**	**12 17 59.6**	**+0.2**
JAYA				*i* S	**Sb**	**12 18 08.7**	**+0.1**
JAYA	**Jayaque - finc**	**0.78**	**329**	*i* P	**Pn**	**12 17 59.6**	**+0.2**
JAYA				*e*S	**Sn**	**12 18 10.5**	**-0.4**
JAYA	**Jayaque - finc**	**0.78**	**329**	P	**Pn**	**12 17 59.6**	**+0.2**
JAYA				S	**Sn**	**12 18 10.4**	**-0.4**
SCLA	**Alcaldia de Sa**	**0.78**	**23**	S	**Sn**	**12 18 10.9**	**+0.2**
PQSS	**Presa 15 de Se**	**0.79**	**36**	*i* P	**Pn**	**12 17 59.8**	**+0.2**
PQSS				*e*S	**Sn**	**12 18 11.6**	**+0.6**
PQSS	**Presa 15 de Se**	**0.79**	**36**	P	**Pn**	**12 17 59.7**	**+0.2**
PQSS				S	**Sn**	**12 18 11.0**	**0.0**
PACA	**Pacayal**	**0.85**	**55**	P	**Pn**	**12 18 00.6**	**+0.2**
PACA				S	**Sn**	**12 18 12.8**	**+0.1**
RANC	**El Ranchito**	**0.86**	**59**	P	**Pn**	**12 18 00.6**	**0.0**
RANC				S	**Sn**	**12 18 13.3**	**+0.4**
CEDA	**San Andres**	**0.88**	**337**	S	**Sn**	**12 18 13.6**	**+0.3**
INTP	**Intipuca**	**0.99**	**77**	*i* P	**Pb**	**12 18 02.0**	**+0.3**
INTP				*e*S	**Sb**	**12 18 14.6**	**+0.1**
CEVE	**Cerro Verde**	**1.01**	**326**	*i* P	**Pn**	**12 18 03.3**	**+0.6**
CEVE				*e*S	**Sn**	**12 18 18.0**	**+1.2**
CEVE	**Cerro Verde**	**1.01**	**326**	P	**Pn**	**12 18 03.8**	**+1.1**
CEVE				S	**Sn**	**12 18 17.4**	**+0.6**
P5NO	**Presa 5 de nov**	**1.03**	**16**	P	**Pg**	**12 18 02.9**	**-0.1**
P5NO				S	**Sn**	**12 18 16.9**	**-0.1**
UNIC	**Universidad Ca**	**1.11**	**334**	P	**Pg**	**12 18 04.5**	**+0.1**
UNIC				S	**Sn**	**12 18 19.4**	**+0.5**
NUBE	**Las Nubes**	**1.16**	**322**	*i* P	**Pn**	**12 18 05.1**	**+0.4**
NUBE				*i* S	**Sb**	**12 18 19.0**	**-0.7**
NUBE	**Las Nubes**	**1.16**	**322**	*i* P	**Pb**	**12 18 04.8**	**+0.1**
NUBE				*e*S	**Sn**	**12 18 20.1**	**-0.2**
NUBE	**Las Nubes**	**1.16**	**322**	P	**Pn**	**12 18 05.1**	**+0.4**
NUBE				S	**Sn**	**12 18 20.0**	**-0.4**
LCND	**La Caada**	**1.17**	**74**	P	**Pn**	**12 18 04.7**	**0.0**
LLGN	**La Laguna**	**1.18**	**5**	P	**Pn**	**12 18 05.0**	**+0.1**
LLGN				S	**Sg**	**12 18 21.0**	**-0.1**
CNCH	**Conchagua**	**1.22**	**76**	P	**Pn**	**12 18 05.1**	**-0.3**
CNCH				S	**Sb**	**12 18 20.7**	**-0.4**
FAME	**Alcaldia de Sa**	**1.27**	**312**	P	**Pn**	**12 18 06.4**	**+0.3**
FAME				S	**Sb**	**12 18 22.1**	**-0.7**
MTO3	**Montecristo**	**1.44**	**348**	*i* P	**Pn**	**12 18 08.9**	**+0.2**
MTO3	**Montecristo**	**1.44**	**348**	P	**Pn**	**12 18 08.9**	**+0.2**
ESQI	**Esquipulas**	**1.59**	**350**	P	**Pn**	**12 18 11.3**	**+0.7**
SARH	**Santa Rosa de**	**1.80**	**9**	*i* P	**Pn**	**12 18 14.3**	**+0.8**
SARH	**Santa Rosa de**	**1.80**	**9**	P	**Pn**	**12 18 14.2**	**+0.8**
TGUH	**Tegucigalpa,Un**	**2.03**	**58**	P	**Pn**	**12 18 16.7**	**+0.1**
RCVN	**Varillal2**	**2.84**	**78**	P	**Pn**	**12 18 27.3**	**-0.5**

*SJA **22** 12:22:59.7±0.7,24°.04S×66°.89W,h207^{km}±8^{km},ML3.5, MW3.3*

*GUC **22** 12:23:01.8±0.7,23°.99S×67°.35W,h228^{km}±14^{km},ML3.4*

ISC 22 12:23:01.0±1.3,24°.04S±0°.04×66°.90W±0°.05,h181^{km},n27, σ1^s.77/30,Salta Province

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SALTA		**0.54**	**110**	*e*P	**Pn**	**12 23 28.9**	**+2.1**
SALTA				*e*P		12 23 29.1	
SALTA				*e*P		12 23 29.2	
AF01	**San Pedro de A**	**1.60**	**312**	*e*P	Pn	12 23 43.4	+9.0
HJA	**Humahuaca**	**1.60**	**59**	*e*P	**Pn**	**12 23 36.0**	**+1.6**
HJA				*e*S	**Sn**	**12 23 58.1**	**-2.1**
FSA	**Cafayete**	**2.23**	**158**	*e*P	**Pn**	**12 23 41.5**	**+0.6**
PB06	**IPOC Station P**	**2.79**	**298**	*e*P	**Pn**	**12 23 48.2**	**+0.8**
PB06				*e*S	**Sn**	**12 24 23.6**	**+0.2**
PB06	**IPOC Station P**	**2.79**	**298**	*i* P	**Pn**	**12 23 48.2**	**+0.8**
AHML	**Horco Molle**	**3.08**	**153**	*e*P	**Pn**	**12 23 47.4**	**-3.4**
AHML				*e*S	Sn	12 24 15.6	-14
PB09	**IPOC Station P**	**3.10**	**315**	*e*P	**Pn**	**12 23 52.7**	**+1.4**
PB09	**IPOC Station P**	**3.10**	**315**	*e*P	**Pn**	**12 23 52.1**	**+0.9**
PB09				*e*S	**Sn**	**12 24 30.9**	**+0.6**
PB09				IAML		12 24 35.1	
	comp=E,21nm,0.2s						
PB05	**IPOC Station P**	**3.25**	**291**	*e*P	**Pn**	**12 23 53.2**	**+0.2**
PB05				IAML		12 24 39.6	
	comp=Z,46nm,0.3s						
PB05	**IPOC Station P**	**3.25**	**291**	*e*P	**Pn**	**12 23 53.1**	**+0.2**
PB05				*e*S	**Sn**	**12 24 31.5**	**-1.9**
PB05				IAML		12 24 34.1	
	comp=E,73nm,0.4s						
PB03	**IPOC Station P**	**3.29**	**306**	*e*P	**Pn**	**12 23 53.9**	**+0.5**
PB03				IAML		12 25 11.0	
	comp=Z,142nm,0.2s						
PB03	**IPOC Station P**	**3.29**	**306**	*e*P	**Pn**	**12 23 53.6**	**+0.1**
PB03				IAML		12 24 35.9	
	comp=E,60nm,0.2s						
AC02	**Maricunga**	**3.44**	**215**	*e*P	**Pn**	**12 23 56.1**	**+0.5**
AC02				*e*S	**Sn**	**12 24 44.4**	**+6.2**
PB07	**IPOC Station P**	**3.59**	**309**	*e*P	**Pn**	**12 23 57.3**	**+0.1**
PB07	**IPOC Station P**	**3.59**	**309**	*e*P	**Pn**	**12 23 57.1**	**-0.1**
PB02	**IPOC Station P**	**3.87**	**314**	*e*P	**Pn**	**12 24 01.2**	**+0.5**
PB02				IAML		12 25 33.5	
	comp=Z,217nm,0.4s						
PB02	**IPOC Station P**	**3.87**	**314**	*e*P	**Pn**	**12 24 00.1**	**-0.6**
AC01	**Pan de Azucar**	**3.96**	**237**	*e*P	**Pn**	**12 24 00.4**	**-1.3**
AC01				IAML		12 24 48.2	
	comp=Z,18nm,0.1s						
AC01	**Pan de Azucar**	**3.96**	**237**	*e*P	**Pn**	**12 24 00.3**	**-1.3**
TINO	**Tinogasta**	**4.05**	**188**	*e*P	**Pn**	**12 24 03.8**	**+0.8**
PB08	**IPOC Station P**	**4.40**	**331**	*e*P	**Pn**	**12 24 08.6**	**+0.8**
PB08				IAML		12 25 22.1	
	comp=Z,38nm,0.1s						
GO03	**Copiapo**	**4.65**	**220**	*e*P	**Pn**	**12 24 09.1**	**-1.4**
GO03				*e*S	**Sn**	**12 25 03.2**	**-1.8**
GO01	**Chusmiza**	**4.84**	**333**	*e*P	Pn	12 24 01.5	-12
GO01				IAML		12 25 28.7	
	comp=Z,29nm,0.1s						
PB11	**IPOC Station P**	**4.96**	**328**	*e*P	**Pn**	**12 24 13.7**	**-1.1**
PB11				IAML		12 25 57.4	
	comp=Z,28nm,0.1s						
PSGCX	**Pisagua**	**5.34**	**325**	*e*P	**Pn**	**12 24 18.0**	**-1.6**
PSGCX				IAML		12 26 02.9	
	comp=Z,15nm,0.3s						
ACLC	**CERRO LA CRUZ**	**5.37**	**180**	*e*P	Pn	12 24 13.7	-6.3

*IDC **22** 12:51:58.3±1.7,36°.05N×141°.78E,h0^{km},mb3.5/4, mbtmp3.6/7,ML3.1/3,MS2.4/2,Error ellipse: s-maj=33.5km s-min=19.6km az=96.0*

*JMA **22** 12:52:01.2±0.1,36°.1N±0°.3×141°.7E±0°.2,h19^{km},MV3.2/40, FAR E OFF IBARAKI PREF*

ISC 22 12:52:02.3±1.5,36°.11N±0°.09×141°.6E±0°.1,h26^{km},n18, σ1^s.08/13,mb3.5/4,Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JHYU	**Hitachinakayam**	**0.87**	**286**	*i* P	**Pn**	**12 52 17.8**	**-1.0**
JHYU				S	**Sb**	**12 52 30.2**	**+0.3**
JIHU	**Itakohorinouch**	**0.90**	**261**	P	**Pn**	**12 52 18.3**	**-0.9**
JHO	**Hitachi**	**0.98**	**301**	P	**Pn**	**12 52 19.4**	**-1.1**
JSMT	**Sammumatsuo**	**1.06**	**244**	P	**Pn**	**12 52 21.4**	**0.0**
MJAR	**Matsushiro Arr**	**2.79**	**280**	Pn	**Pn**	**12 52 45.1**	**-0.1**
	0.6nm,0.3s,baz=94,slow=8.6,SNR=26						
MJAR				Sn	**Sb**	**12 53 25.3**	**+0.2**
	0.3nm,0.3s,baz=86,slow=18,SNR=4.8						
MJAR				LR	LR	12 54 09.4	
	comp=Z,62nm,18.1s,baz=166,slow=45						
	2.2nm,0.4s						
MJAR				AML	AML		
JHJ	**Hachijo jima 2**	**3.35**	**207**	Pn	**Pn**	**12 52 51.7**	**-1.2**
	22nm,0.3s,baz=32,slow=19,SNR=1.5						
	113nm,0.3s						
JHJ				AML	AML		
ASAJ	**Asahikawa**	**8.03**	**5**	Pn	**Pn**	**12 53 56.1**	**-1.1**
	0.3nm,0.3s,baz=200,slow=19,SNR=5.2						
	9.1nm,1.2s						
ASAJ				AML	AML		
KSRS	**Korea Array**	**11.07**	**281**	LR	LR	12 58 32.1	
	comp=Z,21nm,20.4s,baz=120,slow=35						
H11N2	**WAKE ISLAND Hy**	**27.54**	**120**	T	T	13 26 47.4	
	baz=311,slow=74						
H11N1	**WAKE ISLAND Hy**	**27.55**	**120**	T	T	13 26 46.2	
	baz=311						
H11N3	**WAKE ISLAND Hy**	**27.56**	**120**	T	T	13 26 48.6	
	baz=311,slow=74						
H11S1	**WAKE ISLAND Hy**	**28.23**	**122**	T	T	13 27 15.6	
	baz=313,slow=74						
H11S3	**WAKE ISLAND Hy**	**28.23**	**122**	T	T	13 27 22.0	
	baz=313						
H11S2	**WAKE ISLAND Hy**	**28.24**	**122**	T	T	13 27 29.2	
	baz=313,slow=74						
ZALV	**Zalesovo Beam**	**42.66**	**313**	P	**P**	**12 59 58.4**	**+1.9**
	0.4nm,0.4s,baz=111,slow=8.2,SNR=2.1						
	0.4nm,0.4s						
MKAR	**Makanchi Array**	**44.75**	**303**	P	**P**	**13 00 14.8**	**+1.3**
	0.3nm,0.7s,baz=87,slow=9.1,SNR=3.8						
	0.3nm,0.7s						
KURBB	**Kurchatov Arra**	**46.70**	**309**	P	**P**	**13 00 28.6**	**-0.1**
	0.5nm,0.5s,baz=84,slow=8.1,SNR=3.2						
	0.5nm,0.5s						
WRA	**Warramunga Arr**	**56.17**	**188**	P	**P**	**13 01 39.3**	**-0.6**
	0.4nm,0.8s,baz=2.6,slow=7.5,SNR=2.2						
	0.4nm,0.8s						

IDC 22 13:15:09.1±6.3,2°.99S×139°.65E,h0^{km},mb3.5/2, mbtmp3.4/3,ML3.0/1,Error ellipse: s-maj=137.5km s-min=15.9km az=138.0,Near north coast of Irian Jaya

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JAY	**Jayapura**	**1.15**	**66**	Pg	Pb	13 15 32.2	+0.3
	2.3nm,0.3s,baz=245,slow=13,SNR=17						
JAY				Lg	Lg	13 15 49.8	
	3.9nm,0.3s,baz=290,slow=23,SNR=7.1						
WRA	**Warramunga Arr**	**17.63**	**197**	P	Pn	13 19 16.8	+0.5
	0.1nm,0.3s,baz=19,slow=13,SNR=6.1						
	0.3nm,0.7s						
WRA				AML	AML		
ASAR	**Alice Springs**	**21.29**	**195**	P	P	13 19 58.1	+0.7
	0.2nm,0.6s,baz=20,slow=10,SNR=4.9						
	0.2nm,0.6s						
STKA	**Stephens Creek**	**28.79**	**177**	P	P	13 21 08.1	-0.8
	2.8nm,0.9s,baz=350,slow=11,SNR=2.5						
	2.8nm,0.9s						

*RSNC **22** 13:22:55.9±0.0,5°N±3°×7°3W±°,h78^{km}±6^{km},M3.6,mb3.9, ML3.4,MLv4.0*

*IDC **22** 13:22:56.3±1.4,4°.08N×75°.46W,h0^{km},mb3.2/1, mbtmp3.4/1,Error ellipse: s-maj=51.0km s-min=19.9km az=140.0*

*FUNV **22** 13:22:56.9,5°.37N×72°.90W,h5^{km},MW3.4,Presumed earthquake*

ISC 22 13:22:54.2±1.2,5°.23N±0°.02×72°.93W±0°.04,h23^{km}±12^{km}, n37,σ1^s.94/64,1C,Colombia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RUSC	**La Rusia**	**0.67**	**347**	P	**Pb**	**13 23 07.0**	**-0.6**
RUSC				S	**Sb**	**13 23 16.6**	**-0.1**
RUSC	**La Rusia**	**0.67**	**347**	⇑*i*P	**Pb**	**13 23 07.2**	**-0.4**

RUSC				*e*S	**Sb**	**13 23 16.7**	**-0.1**
CHIC	**Chingaza**	**1.00**	**233**	P	**Pb**	**13 23 10.9**	**-2.2**
CHIC				S	**Sb**	**13 23 23.3**	**-2.7**
SPBC	**San Pablo de B**	**1.21**	**290**	P	**Pn**	**13 23 15.9**	**+0.1**
SPBC				S	**Sn**	**13 23 31.1**	**-0.5**
CVER	**Cruz Verde, Cu**	**1.34**	**238**	P	**Pb**	**13 23 18.8**	**-0.2**
CVER				S	**Sb**	**13 23 38.9**	**+3.0**
CVER				AML	AML		
CVER				AML	AML		
VILC	**Villavicencio,**	**1.35**	**215**	P	**Pn**	**13 23 17.8**	**0.0**
VILC				S	**Sb**	**13 23 37.2**	**+1.4**
VILC				AML	AML		
VILC				AML	AML		
BARC	**Barichara**	**1.38**	**349**	P	**Pb**	**13 23 19.4**	**0.0**
BARC				S	**Sb**	**13 23 37.0**	**+0.3**
BARC				AML	AML		
BARC				AML	AML		
ROSC	**El Rosal**	**1.44**	**254**	Pg	**Pb**	**13 23 22.0**	**+1.4**
	94nm,0.3s,baz=114,slow=20,SNR=85						
ROSC				Lg	Lg	13 23 44.2	
	239nm,0.3s,baz=192,slow=22,SNR=8.6						
ROSC	**El Rosal**	**1.44**	**254**	P	**Pb**	**13 23 21.1**	**+0.5**
ROSC				S	**Sb**	**13 23 40.8**	**+2.1**
ROSC				AML	AML		
ROSC				AML	AML		
BRJC	**Barrancabermej**	**1.91**	**335**	P	**Pb**	**13 23 28.5**	**+0.1**
BRJC				S	**Sb**	**13 23 54.2**	**+2.3**
BRJC				AML	AML		
BRJC				AML	AML		
NORC	**Norcasia**	**1.96**	**280**	P	**Pb**	**13 23 28.2**	**-1.1**
NORC				S	**Sb**	**13 23 53.8**	**+0.4**
NORC				AML	AML		
NORC				AML	AML		
PTBC	**PUERTO BERRIO,**	**2.00**	**311**	P	**Pn**	**13 23 28.0**	**+1.4**
PTBC				S	**Sb**	**13 23 54.5**	**+0.1**
PTBC				AML	AML		
PTBC				AML	AML		
PAMC	**Pamplona, Colo**	**2.11**	**6**	P	**Pb**	**13 23 31.2**	**-0.8**
PAMC				S	**Sb**	**13 23 59.1**	**+1.2**
PAMC				AML	AML		
PAMC				AML	AML		
GUY2C	**Guyana, Caldas**	**2.43**	**270**	P	**Pb**	**13 23 35.4**	**-2.1**
GUY2C				S	**Sb**	**13 24 07.1**	**-0.1**
GUY2C				AML	AML		
GUY2C				AML	AML		
PRAC	**Prado**	**2.47**	**232**	P	**Pb**	**13 23 35.2**	**-2.7**
PRAC				S	**Sb**	**13 24 07.6**	**-0.3**
PRAC				AML	AML		
PRAC				AML	AML		
ORTC	**Ortega, Tolima**	**2.66**	**240**	P	**Pn**	**13 23 37.1**	**+1.4**
ORTC				S	**Sb**	**13 24 12.9**	**-0.5**
ORTC				AML	AML		
ORTC				AML	AML		
GUVC	**San Jose del G**	**2.69**	**174**	P	**Pn**	**13 23 37.1**	**+1.0**
GUVC				S	**Sb**	**13 24 12.1**	**-2.1**
GUVC				AML	AML		
GUVC				AML	AML		
HELC	**Santa Helena**	**2.76**	**290**	P	**Pn**	**13 23 39.6**	**+2.2**
HELC				S	**Sb**	**13 24 15.5**	**-1.1**
HELC				AML	AML		
HELC				AML	AML		
HELC	**Santa Helena**	**2.76**	**290**	*e*P	**Pb**	**13 23 41.1**	**-2.0**
HELC				*e*S	**Sb**	**13 24 14.9**	**-1.8**
CBOC	**Ciudad Bolivar**	**3.13**	**282**	P	**Pb**	**13 23 46.9**	**-2.5**
CBOC				S	**Sb**	**13 24 25.0**	**-2.2**
CBOC				AML	AML		
CBOC				AML	AML		
MACC	**Macarena, Meta**	**3.20**	**197**	P	**Pn**	**13 23 43.8**	**+0.7**
MACC				S	**Sb**	**13 24 29.9**	**+0.9**
MACC				AML	AML		
MACC				AML	AML		
BETC	**Betania**	**3.56**	**225**	P	**Pn**	**13 23 49.3**	**+1.1**
BETC				S	**Sb**	**13 24 43.0**	**+3.4**
BETC				AML	AML		
BETC				AML	AML		
UREC	**San Jos de Ur**	**3.60**	**314**	P	**Pb**	**13 23 53.8**	**-3.4**
GARC	**Garzon, Huila**	**3.96**	**220**	P	**Pn**	**13 23 54.8**	**+1.0**
GARC				S	**Sb**	**13 24 53.8**	**+2.6**
GARC				AML	AML		
GARC				AML	AML		
SDV	**Santo Domingo**	**4.29**	**32**	*e*P	**Pn**	**13 23 59.6**	**+1.4**
SDV				*e*S	**Sn**	**13 24 47.2**	**-0.4**
POPC	**Popayan, Colom**	**4.60**	**235**	P	**Pn**	**13 24 05.0**	**+2.4**
POPC				S	**Sb**	**13 25 15.6**	**+6.2**
POPC				AML	AML		
POPC				AML	AML		
SJCC	**San Jacinto, C**	**5.14**	**334**	P	**Pn**	**13 24 12.6**	**+2.7**
	0.1nm14nm,1.4s						
SJCC				S	**Sn**	**13 25 13.9**	**+5.3**
	0.1nm14nm,1.4s						
SJCC				AML	AML		
SJCC				AML	AML		
SJCC	**San Jacinto, C**	**5.14**	**334**	*e*P	**Pn**	**13 24 12.0**	**+2.1**
SJCC				*e*S	**Sn**	**13 25 07.4**	**-1.3**
URIC	**Uribia, Colomb**	**6.49**	**8**	P	**Pn**	**13 24 27.7**	**-0.7**
URIC				S	**Sn**	**13 25 39.1**	**-2.7**
URIC	**Uribia, Colomb**	**6.49**	**8**	*e*P	**Pn**	**13 24 28.3**	**-0.1**
BENV	**Beln**	**7.07**	**48**	*e*P	**Pn**	**13 24 37.3**	**+0.9**
TURV	**Turiamo**	**7.23**	**44**	*e*P	**Pn**	**13 24 39.6**	**+1.1**
TACV	**Tcata**	**7.61**	**50**	*e*P	**Pn**	**13 24 44.7**	**+0.9**
FUNV	**FUNVISIS**	**7.99**	**49**	*e*P	**Pn**	**13 24 49.7**	**+0.7**
LPAZ	**La Paz**	**21.90**	**168**	P	**P**	**13 27 47.5**	**+1.0**
	0.8nm,0.6s,baz=335,slow=8.2,SNR=4.6						
	0.8nm,0.6s						
ASAR	**Alice Springs**	**148.32**	**232**	PKPbc	**PKPbc**	**13 42 37.5**	**-2.0**
	0.8nm,0.8s,baz=121,slow=3.3,SNR=6.7						
WRA	**Warramunga Arr**	**149.71**	**239**	PKPbc	**PKPbc**	**13 42 41.1**	**-2.0**
	1.3nm,0.5s,baz=108,slow=2.8,SNR=29						

JMA ***22*** *13:24:33.5±0.1, 23°.3N±0°.6×12°2E±°, h42^{km}±4^{km}, MV2.4/12, TAIWAN REGION*

TAP ***22*** *13:24:34.4, 23°.26N×121°.97E, h34^{km}, ML3.0, D*

ISC 22 13:24:32.5±1.3**, 23°.25N**±0°.02×**121°.99E**±0°.02**, h21**^{km}±4^{km}**, n94,** σ**0^{s}.96**/168**, 1C-4D, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ECBN	**Changbin**	**0.50**	**277**	⇓P	**Pn**	**13 24 44.0**	**-0.4**
ECBN				*i* S	**Sn**	**13 24 50.9**	**-1.4**
CHKH	**Chenggong**	**0.55**	**264**	*i* P	**Pn**	**13 24 44.2**	**-0.8**
CHKH				S	**Sn**	**13 24 51.6**	**-2.0**
HGSD	**Ruisui**	**0.57**	**295**	⇓P	**Pn**	**13 24 44.5**	**-0.9**
HGSD				S	**Sn**	**13 24 52.1**	**-2.1**
CHKT	**Chengkung**	**0.59**	**255**	⇓*i*P	**Pn**	**13 24 44.8**	**-0.9**
CHKT				*i* S	**Sb**	**13 24 52.4**	**+0.1**
TEGC	**Jichi Village**	**0.61**	**318**	*e*P	**Pn**	**13 24 46.6**	**+0.7**
TEGC				*e*S	**Sn**	**13 24 53.4**	**-1.8**
EYUL	**Yuli**	**0.62**	**279**	*i* P	**Pn**	**13 24 45.6**	**-0.5**
EYUL				*e*S	**Sn**	**13 24 54.2**	**-1.3**
EHYH	**Wanrong**	**0.64**	**292**	*e*P	**Pn**	**13 24 45.9**	**-0.4**
EHYH				*e*S	**Sn**	**13 24 54.8**	**-1.0**
FULB	**Fuli**	**0.64**	**265**	*e*P	**Pb**	**13 24 44.5**	**-0.6**
FULB				*i* S	**Sb**	**13 24 53.8**	**+0.1**
TWF1	**Yuli**	**0.64**	**279**	*e*P	**Pn**	**13 24 45.8**	**-0.6**
TWF1				S	**Sn**	**13 24 54.4**	**-1.6**
YULB	**Yu-li**	**0.65**	**282**	*e*P	**Pn**	**13 24 45.9**	**-0.5**
YULB				*i* S	**Sn**	**13 24 55.2**	**-0.9**
SHUL	**Shoufeng**	**0.66**	**324**	*e*P	**Pn**	**13 24 46.6**	**0.0**
SHUL				*i* S	**Sn**	**13 24 55.2**	**-1.1**
EHY	**Hungye**	**0.66**	**292**	*e*P	**Pn**	**13 24 46.2**	**-0.4**
EHY				*e*S	**Sn**	**13 24 55.8**	**-0.6**
EDH	**Donghe**	**0.69**	**246**	*e*P	**Pn**	**13 24 46.4**	**-0.6**
EDH				*e*S	**Sn**	**13 24 55.2**	**-1.9**
TEYL	**Yanliau Villag**	**0.71**	**330**	*e*S	**Sn**	**13 24 56.7**	**-0.8**
WARBT	**Fenglin Townsh**	**0.72**	**310**	⇑P	**Pn**	**13 24 47.0**	**-0.5**
WARBT				S	**Sn**	**13 24 56.4**	**-1.5**
ECS	**Chishang**	**0.73**	**258**	*e*P	**Pn**	**13 24 47.8**	**+0.3**
ECS				S	**Sn**	**13 24 58.1**	**+0.1**
EHD	**Haiduan**	**0.73**	**262**	*e*P	**Pn**	**13 24 46.9**	**-0.6**
EHD				S	**Sn**	**13 24 56.8**	**-1.3**
LDUT	**Ludao**	**0.75**	**220**	*e*P	**Pn**	**13 24 48.0**	**+0.2**
LDUT				*e*S	**Sb**	**13 24 56.4**	**-0.2**
ESL	**Shilin**	**0.76**	**318**	*i* P	**Pn**	**13 24 47.1**	**-0.8**
ESL				*i* S	**Sb**	**13 24 56.5**	**-0.3**
HWA	**Hwalien**	**0.80**	**334**	*e*S	**Sn**	**13 24 59.6**	**-0.2**
ETM	**Tongmen**	**0.84**	**327**	*e*P	**Pn**	**13 24 48.8**	**-0.3**
ETM				*e*S	**Sb**	**13 24 59.0**	**-0.3**
LONT	**Longtian**	**0.86**	**247**	*i* P	**Pn**	**13 24 49.6**	**+0.2**
LONT				*e*S	**Sn**	**13 25 00.6**	**-0.8**
ELDTW	**Lidau**	**0.90**	**266**	*i* P	**Pn**	**13 24 49.4**	**-0.6**
ELDTW				S	**Sb**	**13 25 00.5**	**-0.5**
TWD	**Chiawan**	**0.90**	**336**	*i* P	**Pn**	**13 24 49.5**	**-0.4**
TWD				*i* S	**Sb**	**13 25 00.7**	**-0.2**
EOS4	**EOS4**	**0.91**	**19**	*i* P	**Pn**	**13 24 50.3**	**+0.6**
EOS4				*i* S	**Sn**	**13 25 01.7**	**-0.4**
TTN	**Taitung**	**0.92**	**237**	*e*S	**Sn**	**13 25 02.6**	**-0.2**
VWDT	**VWDT**	**0.92**	**303**	*i* P	**Pn**	**13 24 50.5**	**+0.3**
VWDT				*i* S	**Sn**	**13 25 02.3**	**-0.6**
LXIB	**Xiulin Townshi**	**0.93**	**325**	*e*P	**Pn**	**13 24 50.4**	**-0.1**
LXIB				S	**Sb**	**13 25 01.6**	**-0.4**
TWGBT	**Beinan**	**0.94**	**243**	P	**Pn**	**13 24 50.3**	**-0.2**
TWGBT				*i* S	**Sb**	**13 25 01.7**	**-0.5**
TWG	**Pinlang**	**0.95**	**243**	*i* P	**Pn**	**13 24 50.3**	**-0.3**
TWG				*e*S	**Sb**	**13 25 01.9**	**-0.4**
ETL	**Fush Village**	**0.96**	**340**	*e*P	**Pn**	**13 24 50.4**	**-0.4**
ETL				*e*S	**Sb**	**13 25 02.5**	**-0.2**
YUS	**Yu-Shan**	**0.98**	**284**	*e*P	**Pn**	**13 24 51.1**	**-0.4**
YUS				S	**Sn**	**13 25 04.1**	**-0.9**
NACB	**Ninganchiao**	**0.98**	**339**	P	**Pn**	**13 24 50.6**	**-0.4**
NACB				S	**Sb**	**13 25 02.5**	**-0.9**
OWD	**Renai**	**1.02**	**313**	*e*P	**Pn**	**13 24 51.7**	**0.0**
OWD				S	**Sb**	**13 25 03.6**	**-1.0**
ETLH	**Xiulin Townshi**	**1.06**	**334**	*i* P	**Pn**	**13 24 52.0**	**-0.1**
ETLH				*i* S	**Sb**	**13 25 04.5**	**-1.0**
EOS3	**EOS3**	**1.07**	**16**	*e*P	**Pb**	**13 24 53.2**	**+1.0**
EOS3				*i* S	**Sn**	**13 25 06.8**	**+0.5**
WUSB	**Renai**	**1.08**	**313**	P	**Pn**	**13 24 53.1**	**+0.5**
WUSB				S	**Sn**	**13 25 06.0**	**-1.0**
SSLB	**Suanglung**	**1.09**	**299**	*e*P	**Pn**	**13 24 52.8**	**+0.3**
SSLB				*e*S	**Sn**	**13 25 06.4**	**-0.6**
EAHA	**Aohua**	**1.09**	**348**	*e*P	**Pb**	**13 24 52.5**	**-0.2**
EAHA				S	**Sb**	**13 25 05.8**	**-0.7**
WHF	**Hehuan Shan**	**1.11**	**323**	*i* P	**Pn**	**13 24 53.4**	**+0.2**
WHF				*i* S	**Sb**	**13 25 06.0**	**-1.4**
ALS	**Alishan**	**1.12**	**283**	*i* P	**Pn**	**13 24 54.0**	**+0.8**
ALS				*i* S	**Sn**	**13 25 08.3**	**+0.2**
STYH	**Taoyuan**	**1.12**	**266**	*e*P	**Pb**	**13 24 53.4**	**+0.3**
STYH				*i* S	**Sn**	**13 25 07.0**	**-0.7**
WHYT	**Xinyi Township**	**1.13**	**293**	*i* P	**Pb**	**13 24 54.2**	**+0.8**
WHYT				*e*S	**Sn**	**13 25 08.0**	**-0.1**
ECL	**Taimali**	**1.16**	**236**	*i* P	**Pn**	**13 24 52.9**	**-0.5**
ECL				*e*S	**Sb**	**13 25 05.6**	**-2.7**
SMLT	**Sun Moon Lake**	**1.18**	**302**	*i* P	**Pb**	**13 24 54.7**	**+0.5**
SMLT				*i* S	**Sn**	**13 25 08.5**	**-0.8**
EOS2	**EOS2**	**1.18**	**11**	*e*P	**Pb**	**13 24 55.2**	**+1.1**
EWUT	**Wuta**	**1.20**	**351**	*e*P	**Pb**	**13 24 54.5**	**-0.1**
EWUT				S	**Sb**	**13 25 08.2**	**-1.4**
FUSS	**Fushou**	**1.20**	**326**	*e*P	**Pb**	**13 24 54.8**	**+0.2**
FUSS				S	**Sb**	**13 25 08.8**	**-1.1**
TYC	**Yuchr**	**1.22**	**302**	*e*P	**Pb**	**13 24 55.9**	**+1.0**
TYC				*e*S	**Sn**	**13 25 11.0**	**+0.8**
TPUB	**Ta-pu**	**1.25**	**272**	*i* P	**Pb**	**13 24 56.2**	**+0.9**
TPUB				*i* S	**Sn**	**13 25 12.4**	**+1.4**
CHN5	**Tsauling**	**1.25**	**286**	*e*P	**Pb**	**13 24 56.5**	**+1.1**
CHN5				*i* S	**Sn**	**13 25 12.7**	**+1.6**
SLGT	**Liugui**	**1.26**	**258**	P	**Pb**	**13 24 56.2**	**+0.6**
SLGT				*e*S	**Sn**	**13 25 12.5**	**+1.3**
WTP	**Ta-pu**	**1.27**	**270**	⇓*i*P	**Pb**	**13 24 56.4**	**+0.8**
WTP				*e*S	**Sn**	**13 25 12.7**	**+1.3**
WCS	**Beigang Elemen**	**1.27**	**309**	*e*P	**Pb**	**13 24 56.0**	**+0.3**
LAY	**Lan-yu**	**1.28**	**199**	*e*P	**Pb**	**13 24 55.6**	**-0.2**
LAY				*e*S	**Sb**	**13 25 11.6**	**-0.2**
WCKO	**Fanlu**	**1.29**	**278**	*i* P	**Pb**	**13 24 57.5**	**+1.6**
WCKO				*e*S	**Sn**	**13 25 14.6**	**+2.8**
CHN4	**Tsaushan**	**1.29**	**275**	*e*P	**Pb**	**13 24 57.4**	**+1.4**
WJS	**Zhushan**	**1.29**	**296**	*e*S	**Sb**	**13 25 13.1**	**+0.9**
NNSB	**Datong**	**1.29**	**335**	P	**Pb**	**13 24 56.1**	**-0.1**
NNSB				*e*S	**Sn**	**13 25 11.1**	**-1.1**
LYUB	**Lan-yu**	**1.30**	**197**	*e*P	**Pb**	**13 24 56.2**	**-0.1**
LYUB				*e*S	**Sn**	**13 25 09.7**	**-2.5**
SGST	**Jiashian**	**1.30**	**263**	*e*P	**Pb**	**13 24 56.5**	**+0.2**
SGST				*i* S	**Sb**	**13 25 12.8**	**+0.2**
NNS	**Nan Shan**	**1.31**	**335**	*i* P	**Pb**	**13 24 56.3**	**-0.2**
NNS				*i* S	**Sn**	**13 25 10.7**	**-1.9**
LATG	**Datong**	**1.34**	**342**	*e*P	**Pb**	**13 24 56.5**	**-0.5**
LATG				*e*S	**Sn**	**13 25 12.7**	**-0.7**
CHN1	**Nanshi**	**1.35**	**267**	P	**Pb**	**13 24 57.9**	**+0.9**
CHN1				*i* S	**Sb**	**13 25 15.8**	**+2.0**
WNT	**Mingjian**	**1.35**	**298**	*e*P	**Pb**	**13 24 58.3**	**+1.3**
TWC	**Suao**	**1.35**	**355**	*i* P	**Pb**	**13 24 57.2**	**+0.1**
TWC				S	**Sb**	**13 25 13.5**	**-0.5**
EAST	**Anshuo**	**1.36**	**231**	*e*P	**Pb**	**13 24 56.5**	**-0.9**
TWK	**Hsinying**	**1.38**	**271**	*e*P	**Pb**	**13 24 58.3**	**+0.7**
TWK				*i* S	**Sb**	**13 25 16.9**	**+2.1**
NDS	**Dongshan**	**1.40**	**350**	*e*P	**Pb**	**13 24 57.5**	**-0.3**
NDS				*e*S	**Sn**	**13 25 14.2**	**-0.3**
WDLH	**Douliu**	**1.40**	**288**	*e*P	**Pb**	**13 24 59.5**	**+1.6**
MASBT	**Mashibuluo**	**1.40**	**243**	*e*P	**Pb**	**13 24 57.8**	**-0.2**
MASBT				*i* S	**Sn**	**13 25 14.1**	**-0.7**
SCST	**Cishan**	**1.43**	**255**	*i* P	**Pb**	**13 24 59.7**	**+1.3**
SCST				*e*S	**Sb**	**13 25 18.1**	**+2.1**
CHY	**Chiayi**	**1.46**	**280**	*e*P	**Pb**	**13 25 00.8**	**+1.9**
CHY				*e*S	**Sb**	**13 25 18.7**	**+1.7**
JYNG	**Yonagunijimaku**	**1.48**	**36**	P	**Pb**	**13 24 58.9**	**-0.4**
JYNG				*e*S	**Sn**	**13 25 16.7**	**+0.1**
TWE	**Neicheng**	**1.49**	**349**	P	**Pb**	**13 24 59.3**	**-0.1**
TWE				*e*S	**Sb**	**13 25 17.8**	**-0.1**
TWM1	**Shoushan**	**1.51**	**254**	*e*P	**Pb**	**13 25 01.9**	**+2.2**
SLIU	**Shizi**	**1.51**	**227**	*e*P	**Pn**	**13 24 58.3**	**0.0**
YHNB	**Yeheng**	**1.52**	**338**	*i* P	**Pb**	**13 24 59.6**	**-0.4**
YHNB				*i* S	**Sn**	**13 25 17.1**	**-0.5**
SSPT	**Xinbi**	**1.52**	**240**	*e*P	**Pb**	**13 25 00.8**	**+0.9**
NSK	**Sanguang**	**1.53**	**338**	*e*P	**Pb**	**13 24 59.5**	**-0.6**
NSK				*e*S	**Sn**	**13 25 17.6**	**-0.3**
SCZT	**Fangliau**	**1.54**	**235**	*e*P	**Pb**	**13 25 00.8**	**+0.5**
FUSB	**Fushanzhiwuyua**	**1.54**	**346**	*e*P	**Pb**	**13 25 00.0**	**-0.4**
FUSB				S	**Sb**	**13 25 18.8**	**-0.8**
TWQ1	**Liyutan**	**1.56**	**315**	*e*P	**Pb**	**13 25 02.1**	**+1.5**
NWLT	**Wulai**	**1.58**	**344**	*e*P	**Pb**	**13 25 01.1**	**+0.1**
NFF	**Wufeng Townshi**	**1.59**	**330**	*e*P	**Pb**	**13 25 02.1**	**+0.9**
WRL	**Guolierlin Hig**	**1.61**	**294**	*e*P	**Pb**	**13 25 02.4**	**+0.8**
WRL				S	**Sb**	**13 25 23.1**	**+1.6**
LIOB	**Emei**	**1.65**	**327**	*e*P	**Pb**	**13 25 02.9**	**+0.8**
TIPB	**Shuangxi**	**1.72**	**355**	*i* P	**Pb**	**13 25 03.0**	**-0.3**
TIPB				*i* S	**Sb**	**13 25 23.5**	**-1.0**
SXI1	**Grass Mountain**	**1.83**	**357**	*i* P	**Pb**	**13 25 04.6**	**-0.8**
SXI1				*e*S	**Sn**	**13 25 26.4**	**+0.9**
HATJ	**Hateruma jima**	**1.85**	**64**	*e*S	**Sn**	**13 25 25.4**	**-0.2**
IRIF	**Iriomote-Funau**	**1.92**	**56**	P	**Pn**	**13 25 04.9**	**+0.9**
IRIF				*e*S	**Sn**	**13 25 28.0**	**+0.5**
JKRS	**Kuro-shima**	**2.09**	**62**	P	**Pn**	**13 25 07.7**	**+1.3**
JKRS				*e*S	**Sn**	**13 25 32.3**	**+0.5**
JIJ	**Ishigaki jima**	**2.26**	**60**	P	**Pn**	**13 25 09.8**	**+1.2**
JIJ				S	**Sn**	**13 25 35.7**	**-0.1**
JISG	**Ishigakijimahi**	**2.50**	**58**	*e*S	**Sn**	**13 25 41.5**	**-0.4**

NEIC ***22*** *13:27:19.7±0.8, 18°.2S±0°.1×178°.8W±0°.2, h532^{km}±9^{km}, mb4.0/7, Error ellipse: s-maj=32.7km s-min=18.8km az=67.0*

IDC ***22*** *13:27:20.3±29.0, 18°.22S×178°.98W, h528^{km}±54^{km}, mb3.0/3, mbtmp3.8/4, Error ellipse: s-maj=566.4km s-min=110.3km az=85.0*

ISC 22 13:27:21.8±1.9**, 18°.2S**±0°.2×**178°.9W**±0°.3**, h562**^{km}**, n13,** σ**0^{s}.36**/12**, mb3.8**/5**, 1D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**2.91**	**278**	P	P	13 28 32.8	-4.6
	6.1nm,0.7s,baz=93,slow=14,SNR=2.8						
TARA	**Tarawa**	**20.99**	**337**	P	**P**	**13 31 25.7**	**-0.7**
TARA				IAmb	IAmb	13 31 26.2	
	comp=Z,7.2nm,0.6s						
GVZ	**Greta Valley S**	**25.65**	**194**	P	**P**	**13 32 07.1**	**-0.4**
STKA	**Stephens Creek**	**38.08**	**241**	P	**P**	**13 33 53.4**	**+0.2**
	comp=Z,2.9nm,0.8s,baz=90,slow=7.1,SNR=3.1						
	comp=Z,2.9nm,0.8s						
WB0	**Warramunga Arr**	**44.07**	**260**	P	**P**	**13 34 41.0**	**+0.2**
WB0				IAmb	IAmb	13 34 56.5	
	comp=Z,7.3nm,1.2s						
WRA	**Warramunga Arr**	**44.10**	**260**	P	**P**	**13 34 41.2**	**+0.1**
	comp=Z,0.2nm,0.3s,baz=97,slow=7.4,SNR=11						
	comp=Z,0.2nm,0.3s						
WRA	**Warramunga Arr**	**44.10**	**260**	P	**P**	**13 34 40.9**	**-0.3**
AS31	**Alice Springs**	**44.25**	**255**	P	**P**	**13 34 42.4**	**+0.1**
AS31				IAmb	IAmb	13 34 43.4	
	comp=Z,1.0nm,0.8s						
ASAR	**Alice Springs**	**44.25**	**255**	P	**P**	**13 34 42.3**	**0.0**
	comp=Z,1.9nm,0.7s,baz=89,slow=8.3,SNR=31						
	comp=Z,1.9nm,0.7s						
ASAR	**Alice Springs**	**44.25**	**255**	P	**P**	**13 34 42.0**	**-0.2**
JMN	**Monobe**	**68.46**	**319**	P	**P**	**13 37 28.7**	**+0.3**
JKA	**Kamikawa-asahi**	**71.26**	**332**	P	**P**	**13 37 44.8**	**0.0**
BMRD	**Maredsous**	**147.80**	**356**	*d*PKPdf	**PKPdf**	**13 46 00.5**	**+0.5**

THE ***22*** *13:30:46.8, 43°N±2°×2°6E±°, h3^{km}±3^{km}, M2.8/11, MLh2.8/11*

SOF ***22*** *13:30:46.1, 42°.60N×26°.45E, h12^{km}±14^{km}, MD3.2/9*

BEO ***22*** *13:30:46.0±0.3, 42°.60N×26°.44E, h2^{km}±4^{km}, ML2.8/13*

AFAD ***22*** *13:30:48.3, 42°.53N×26°.69E, h5^{km}±2^{km}, ML2.8*

ISK ***22*** *13:30:50.7, 42°.34N×26°.57E, h2^{km}, ML3.1/19*

ISC 22 13:30:46.8±1.1**, 42°.57N**±0°.01×**26°.39E**±0°.02**, h0**^{km}±10^{km}**, n110,** σ**1^{s}.21**/173**, 32C-26D, Bulgaria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JMB	**Yambol**	**0.13**	**126**	P	**Pg**	**13 30 49.3**	**+0.1**
JMB				S	**Sg**	**13 30 51.4**	**+0.5**
JMB	**Yambol**	**0.13**	**126**	Pg	**Pg**	**13 30 49.4**	**+0.1**
JMB				Sg	**Sg**	**13 30 51.6**	**+0.7**
JMB	**Yambol**	**0.13**	**126**	*e*Pg	**Pg**	**13 30 48.8**	**-0.4**
JMB				*e*Sg	**Sg**	**13 30 51.3**	**+0.4**
SZH	**Strazhitsa**	**0.76**	**337**	P	**Pg**	**13 31 01.1**	**-0.3**
SZH				S	**Sg**	**13 31 11.5**	**+0.3**
SZH				AML	AML		
SZH	**Strazhitsa**	**0.76**	**337**	Pg	**Pg**	**13 31 01.1**	**-0.3**
SZH				Sg	**Sg**	**13 31 10.8**	**-0.4**
EDRB	**Edirne**	**0.77**	**160**	Pg	**Pg**	**13 31 01.0**	**-0.5**
DIM	**Dimitrovgrad**	**0.80**	**229**	P	**Pg**	**13 31 02.9**	**+0.9**
DIM				S	**Sb**	**13 31 14.5**	**-0.2**
DIM				AML	AML		
DIM	**Dimitrovgrad**	**0.80**	**229**	Pg	**Pb**	**13 31 03.1**	**-0.3**
DIM				Sg	**Sb**	**13 31 14.6**	**-0.1**
ROIA	**ROIAK**	**0.90**	**54**	Pg	**Pg**	**13 31 02.8**	**-1.2**
KIRK	**Kırklareli**	**0.95**	**146**	P	**Pg**	**13 31 04.0**	**-0.8**
KIRK				S	**Sg**	**13 31 16.1**	**-1.1**
KIRK				IAML		13 31 17.0	
	comp=N,340nm,0.2s						
KIRK				IAML		13 31 17.0	
	comp=E,426nm,0.2s						
NEF	**NEVSHA**	**0.95**	**43**	Pg	**Pg**	**13 31 03.7**	**-1.4**
NEF				Sg	**Sg**	**13 31 16.2**	**-1.2**
PRD	**Provadia**	**0.96**	**51**	Pg	**Pg**	**13 31 04.6**	**-0.5**
PRD				Sg	**Sg**	**13 31 16.0**	**-1.5**
ARMN	**Kirklareli, Me**	**1.04**	**132**	P	**Pg**	**13 31 05.3**	**-1.5**
ARMN				S	**Sg**	**13 31 18.4**	**-2.0**
ARMN				IAML		13 31 19.0	
	comp=N,262nm,0.3s						
ARMN				IAML		13 31 19.0	
	comp=E,327nm,0.2s						
PVL	**Pavlikeni**	**1.05**	**302**	P	**Pg**	**13 31 07.3**	**+0.4**
PVL				S	**Sb**	**13 31 22.0**	**-0.1**
KDZ	**Kurdzhali**	**1.22**	**220**	P	**Pg**	**13 31 10.5**	**+0.4**
KDZ				S	**Sb**	**13 31 27.3**	**+0.3**
KDZ				AML	AML		
KDZ	**Kurdzhali**	**1.22**	**220**	P	**Pb**	**13 31 10.9**	**+0.2**
KDZ				S	**Sb**	**13 31 27.3**	**+0.3**
PHSR	**Pinarhisar**	**1.26**	**138**	Pg	**Pg**	**13 31 09.5**	**-1.4**
PHSR				Sg	**Sg**	**13 31 26.0**	**-1.3**
PHSR				AML	AML		
PLD	**Plovdiv**	**1.29**	**251**	*e*Pg	**Pg**	**13 31 11.7**	**+0.3**
PLD				*e*Sg	**Sn**	**13 31 29.4**	**-0.5**
ZIMR		**1.32**	**326**	⇓P	**Pb**	**13 31 13.9**	**+1.5**
UKOP	**Uzunkopru-Edir**	**1.45**	**173**	Pn	**Pn**	**13 31 14.5**	**+0.3**
UKOP				AML	AML		
VIZE	**Kirklareli, Vi**	**1.47**	**132**	P	**Pn**	**13 31 12.9**	**-1.6**
VIZE				S	**Sn**	**13 31 31.0**	**-3.3**
VIZE				IAML		13 31 32.0	
	comp=N,209nm,0.5s						
VIZE				IAML		13 31 32.0	
	comp=E,227nm,0.4s						
RZN	**Rozhen**	**1.50**	**235**	P	**Pn**	**13 31 14.8**	**-0.3**
RZN				S	**Sn**	**13 31 35.2**	**-0.3**
RZN				AML	AML		
RZN	**Rozhen**	**1.50**	**235**	P	**Pn**	**13 31 15.1**	**-0.1**
RZN				S	**Sn**	**13 31 36.2**	**+0.6**
PLVB	**Pleven**	**1.53**	**303**	⇓P	**Pg**	**13 31 16.9**	**+0.7**
PLVB				⇓S	**Sg**	**13 31 38.0**	**+1.9**
MURA	**Muratl, TEK**	**1.64**	**150**	P	**Pn**	**13 31 16.8**	**0.0**
MURA				S	**Sn**	**13 31 39.6**	**+1.1**
MURA				IAML		13 31 43.0	
	comp=E,99nm,0.7s						
MURA				IAML		13 31 50.0	
	comp=N,84nm,0.9s						
PSN	**Preselentsi**	**1.67**	**50**	P	**Pn**	**13 31 15.7**	**-1.5**
PSN				S	**Sn**	**13 31 38.0**	**-1.3**
SGRR	**Singureni**	**1.68**	**350**	⇑P	**Pn**	**13 31 17.9**	**+0.5**
SGRR				⇑S	**Sn**	**13 31 40.6**	**+1.0**
ALN	**Alexandroupoli**	**1.69**	**189**	P	**Pn**	**13 31 16.8**	**-0.7**
ALN				S	**Sn**	**13 31 40.0**	**+0.3**
ALN				AML	AML		
KALB	**Balgarevo**	**1.71**	**60**	⇑P	**Pn**	**13 31 17.3**	**-0.5**
KALB				⇑S	**Sn**	**13 31 39.7**	**-0.6**
CTYL	**Yalikoy Yolu**	**1.79**	**127**	Pn	**Pn**	**13 31 19.8**	**+0.9**
CTYL				AML	AML		
BUC1	**Bucharest**	**1.80**	**352**	⇑S	**Sb**	**13 31 43.9**	**+0.3**
CAVK	**Edirne/Enez-Ca**	**1.88**	**185**	⇓P	**Pb**	**13 31 22.4**	**+0.4**
CAVK				⇑S	**Sg**	**13 31 48.0**	**+0.9**
SLVT	**Silivri**	**1.91**	**134**	Pn	**Pn**	**13 31 21.6**	**+1.1**
SLVT				AML	AML		
CATL	**atalca, ST**	**1.91**	**129**	P	**Pn**	**13 31 19.6**	**-1.0**
CATL				S	**Sn**	**13 31 44.8**	**-0.6**
CATL				IAML		13 31 50.0	
	comp=E,182nm,0.4s						
CATL				IAML		13 31 51.0	
	comp=N,156nm,0.4s						
GAZK	**Gazikoy-TEKIRD**	**1.95**	**159**	Pn	**Pn**	**13 31 22.2**	**+1.1**
GAZK				AML	AML		
VLAD	**Vladila**	**2.04**	**315**	⇑P	**Pn**	**13 31 23.7**	**+1.5**
VLAD				⇑S	**Sb**	**13 31 51.2**	**+0.8**
MANR	**Mangalia**	**2.04**	**51**	⇑P	**Pn**	**13 31 23.2**	**+0.9**
MANR				⇑S	**Sn**	**13 31 48.1**	**-0.3**
CTKS	**Kestanelik-??a**	**2.07**	**129**	Pn	**Pn**	**13 31 23.8**	**+1.1**
CTKS				AML	AML		
ELBA	**Catalca**	**2.08**	**132**	P	**Pn**	**13 31 24.4**	**+1.4**
ELBA				S	**Sn**	**13 31 50.6**	**+1.1**
ELBA				IAML		13 31 52.0	
	comp=N,179nm,0.2s						
ELBA				IAML		13 31 56.0	
	comp=E,128nm,0.5s						
KAVA	**Kavala**	**2.10**	**222**	P	**Pn**	**13 31 23.2**	**0.0**
KAVA				S	**Sb**	**13 31 52.9**	**+0.5**
KAVA				AML	AML		
KAVA	**Kavala**	**2.10**	**222**	Pn	**Pg**	**13 31 30.0**	**+2.9**
KAVA				AML	AML		
SULR		**2.11**	**357**	⇑P	**Pn**	**13 31 23.9**	**+0.6**
SULR				⇑S	**Sn**	**13 31 51.9**	**+1.7**
CVDA	**Cernavoda**	**2.14**	**34**	⇓S	**Sn**	**13 31 51.5**	**+0.7**
AMRR	**Amara**	**2.15**	**18**	⇑P	**Pn**	**13 31 24.7**	**+0.8**
AMRR				⇓S	**Sn**	**13 31 52.3**	**+1.0**
MRMT	**Marmara Adasi**	**2.16**	**155**	Pn	**Pn**	**13 31 25.1**	**+1.0**
MFTR	**Murfatlar**	**2.19**	**42**	⇓P	**Pn**	**13 31 24.7**	**+0.3**
MFTR				⇓S	**Sn**	**13 31 52.7**	**+0.5**
SMTH	**Samothraki Isl**	**2.19**	**197**	P	**Pn**	**13 31 24.4**	**-0.1**
SMTH				S	**Sb**	**13 31 55.6**	**+0.7**
SMTH				AML	AML		
HUMR	**Humele**	**2.21**	**333**	⇑P	**Pn**	**13 31 26.1**	**+1.4**
HUMR				⇓S	**Sb**	**13 31 54.8**	**-0.7**
MMB	**Musomishta**	**2.21**	**243**	P	**Pn**	**13 31 25.2**	**+0.4**
MMB				S	**Sb**	**13 31 54.0**	**-1.6**
MMB				AML	AML		
MMB	**Musomishta**	**2.21**	**243**	P	**Pb**	**13 31 27.4**	**-0.3**
MMB				S	**Sb**	**13 31 54.0**	**-1.6**
SINB	**Sinanoba-Istan**	**2.25**	**134**	Pn	**Pn**	**13 31 26.6**	**+1.5**
BGKT	**Bogazkoy**	**2.26**	**127**	Pn	**Pn**	**13 31 26.8**	**+1.5**
BGKT				AML	AML		
KRBG	**Karabiga-Canak**	**2.28**	**162**	Pn	**Pn**	**13 31 26.9**	**+1.3**
TLBR	**Topalu**	**2.31**	**31**	⇓P	**Pn**	**13 31 26.9**	**+0.8**
TLBR				⇓S	**Sn**	**13 31 55.9**	**+0.7**
THAS	**Thassos island**	**2.33**	**213**	P	**Pn**	**13 31 26.1**	**-0.1**
THAS				S	**Sg**	**13 32 01.2**	**-0.2**
THAS				AML	AML		
VTS	**Vitosha**	**2.33**	**272**	P	**Pn**	**13 31 26.9**	**+0.5**
VTS				S	**Sn**	**13 31 55.8**	**0.0**
VTS				AML	AML		
VTS	**Vitosha**	**2.33**	**272**	*e*Pn	**Pn**	**13 31 26.6**	**+0.2**
VTS				*e*Sn	**Sn**	**13 31 55.7**	**-0.1**
KLYT	**Kilyos**	**2.38**	**123**	Pn	**Pn**	**13 31 28.2**	**+1.3**

KLYT				AML	AML		
TIRR	Tirgusor	2.40	37	⇑P	Pn	13 31 27.2	0.0
TIRR				⇑S	Sn	13 31 57.9	+0.7
HARR	Harsova	2.40	27	⇑P	Pn	13 31 27.4	+0.2
HARR				⇑S	Sn	13 31 58.3	+1.0
EDC	Edincik	2.48	153	Pn	Pn	13 31 29.9	+1.5
EDC				AML	AML		
ISK	Istanbul-Kandi	2.50	126	Pn	Pn	13 31 29.9	+1.3
ISK				AML	AML		
KAVV	Kandilli-Istan	2.50	126	Pn	Pn	13 31 29.9	+1.3
KAVV				AML	AML		
SRS	Serrai	2.54	236	P	Pn	13 31 29.1	-0.2
SRS				S	Sb	13 32 03.4	-1.6
SRS	Serrai	2.54	236	*e*Pn	Pn	13 31 28.5	-0.8
SRS				*e*Sn	Sn	13 32 01.1	+0.2
ISR	Istrita	2.55	2	⇑P	Pn	13 31 30.4	+0.9
ISR				⇓S	Sn	13 32 02.6	+1.4
BAND	Balkesir-Ban	2.56	149	⇑P	Pn	13 31 31.1	+1.7
BAND				⇑S	Sn	13 32 03.4	+2.2
BRGA	Burgazada-Ista	2.62	129	Pn	Pn	13 31 31.6	+1.4
BRGA				AML	AML		
HYBA	Heybeliada-Ist	2.63	129	Pn	Pn	13 31 31.8	+1.3
HYBA				AML	AML		
TPGR	Topolog	2.72	32	⇓P	Pn	13 31 32.3	+0.5
TPGR				⇑S	Sn	13 32 06.0	+0.7
ARMT	Armutlu	2.73	136	Pn	Pn	13 31 33.1	+1.3
ARMT				AML	AML		
SILT	Sile	2.81	119	Pn	Pn	13 31 34.5	+1.6
SILT				AML	AML		
SILT	Sile	2.81	119	⇑P	Pn	13 31 33.6	+0.7
SILT				⇑S	Sn	13 32 08.7	+1.2
ZAPS	Zavoj	2.85	286	*e*Pn	Pn	13 31 32.0	-1.5
ZAPS				*e*Sn	Sn	13 32 08.5	+0.1
BOSS	Bosilegrad	2.89	270	*e*Pn	Pn	13 31 34.5	+0.5
BOSS				*e*Sn	Sn	13 32 08.2	-1.3
CFR	Carcaliu	2.90	25	⇑P	Pn	13 31 34.8	+0.6
CFR				⇑S	Sn	13 32 10.6	+0.9
YLVH	Yalova	2.92	129	Pn	Pn	13 31 35.9	+1.6
YLVH				AML	AML		
BLKB	Belogradchik	2.92	292	*e*Pn	Pn	13 31 33.4	-1.0
BLKB	Belogradchik	2.92	292	⇓S	Sb	13 32 13.1	-2.7
MLR	Muntele Rosu	2.94	354	*e*Pn	Pn	13 31 34.8	0.0
MLR	Muntele Rosu	2.94	354	⇓P	Pn	13 31 35.6	+0.8
MLR				⇑S	Sn	13 32 12.5	+1.6
GEML	Gemlik-BURSA	2.98	134	Pn	Pn	13 31 37.3	+2.0
GEML				AML	AML		
YLV	Yalova	3.00	131	Pn	Pn	13 31 37.0	+1.4
HRT	Hereke	3.01	124	Pn	Pn	13 31 37.8	+2.0
HRT				AML	AML		
VOIR		3.03	342	⇓P	Pn	13 31 36.3	+0.3
ARR	Arges	3.07	336	⇓P	Pn	13 31 37.9	+1.3
ARR				⇓S	Sn	13 32 16.2	+2.1
TLCR		3.15	33	⇓P	Pn	13 31 38.0	+0.4
TLCR				⇑S	Sn	13 32 16.4	+0.6
COVR	Voineasa-Covas	3.28	358	⇑P	Pn	13 31 39.8	+0.3
ZAGS	Zajecar	3.28	294	*e*Pn	Pn	13 31 37.9	-1.5
ZAGS				*e*Sn	Sn	13 32 17.4	-1.7
PLOR	Plostina	3.29	3	⇑P	Pn	13 31 41.0	+1.5
VRI	Vrincioaia	3.31	4	⇓P	Pn	13 31 40.6	+0.8
BARS	Barje	3.38	276	*e*Sn	Sn	13 32 21.5	-0.1
LOT	Lotru	3.44	328	⇓P	Pn	13 31 42.5	+0.8
TURR	Turia	3.50	356	⇑P	Pn	13 31 42.8	+0.4
BORS2	Bor- Borsko je	3.53	297	*e*Sn	Sn	13 32 24.2	-1.1
BOVS	Bovan	3.59	289	*e*Pn	Pn	13 31 43.7	+0.1
BOVS				*e*Sn	Sn	13 32 25.1	-1.6
ONER	Baraj Valea Uz	3.77	0	⇑P	Pn	13 31 47.0	+0.9
GZR	Gura Zlata	3.84	319	*e*Pn	Pn	13 31 45.1	-2.1
GZR				*e*Sn	Sn	13 32 29.7	-3.4
GZR	Gura Zlata	3.84	319	⇓P	Pn	13 31 48.6	+1.4
SELS	Selova	3.92	281	*e*Pn	Pn	13 31 48.3	0.0
SELS				*e*Sn	Sn	13 32 33.2	-1.9
MDVR	Moldovita	4.05	305	*e*Pn	Pn	13 31 47.8	-2.2
MDVR	Moldovita	4.05	305	⇓P	Pn	13 31 51.7	+1.7
GOCS	Kraljevo Serbi	4.16	286	*e*Pn	Pn	13 31 50.4	-1.2
GOCS				*e*Sn	Sn	13 32 37.7	-3.2
GRUS	Gruza	4.35	290	*e*Pn	Pn	13 31 53.5	-0.6
GRUS				*e*Sn	Sn	13 32 42.3	-3.2
SURR	Surduc	4.42	318	⇓P	Pn	13 31 57.1	+2.0
VRSS	Vrsac	4.46	307	*e*Sn	Sn	13 32 45.8	-2.5
BZS	Buzias	4.59	313	⇓P	Pn	13 31 58.6	+1.2
IVAS	Ivanjica	4.68	285	*e*Pn	Pn	13 31 57.7	-1.0
IVAS				*e*Sn	Sn	13 32 52.2	-1.4
MARR	Marisel-Cluj	4.72	332	⇓P	Pn	13 32 00.5	+1.2
DIVS	Divibare	4.91	290	*e*Pn	Pn	13 32 00.8	-1.1

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*IDC **22** 14:05:20.8±1.6, 4°.80S×153°.61E, h0km, mb3.6/5, mbtmp3.6/5, Error ellipse: s-maj=30.2km s-min=27.2km az=43.0*

ISC 22 14:05:26.3±1.5**, 4°.8S**±0°.2×**153°.5E**±0°.2**, h35km, n7,** σ**0ˢ.60**/8**, mb3.5**/5**, New Ireland region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRVT	Keravat (AS076	1.58	287	Pn	Pn	14 05 52.1	+0.2
	72nm,0.3s,baz=225,slow=4.3,SNR=14						
KRVT				Sn	Sn	14 06 10.9	-0.3
	154nm,0.3s,baz=84,slow=23,SNR=14						
WRA	Warramunga Arr	24.02	229	P	P	14 10 37.4	-0.7
	0.1nm,0.3s,baz=54,slow=10.0,SNR=12						
	0.1nm,0.3s						
ASAR	Alice Springs	26.67	223	P	P	14 11 02.2	0.0
	0.3nm,0.9s,baz=51,slow=9.0,SNR=10						
	0.3nm,0.9s						
FITZ	Fitzroy Crossi	30.32	242	P	P	14 11 35.2	+0.5
	3.5nm,1.1s,baz=67,slow=7.7,SNR=6.3						
	3.5nm,1.1s						
MKAR	Makanchi Array	80.80	319	P	P	14 17 37.1	+0.7
	0.3nm,0.5s,baz=108,slow=6.9,SNR=4.4						
	0.3nm,0.5s						
BVAR	Borovoye Array	89.67	323	P	P	14 18 20.0	-0.7
	1.0nm,0.6s,baz=86,slow=4.5,SNR=3.8						
	1.0nm,0.6s						
TORD	Torodi Ar. Bea	151.00	289	PKPbc	PKPbc	14 25 16.5	-0.2
	1.2nm,1.0s,baz=58,slow=2.8,SNR=4.0						

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*IDC **22** 14:09:44.9±1.1, 2°.69N×127°.09E, h0km, mb3.4/5, mbtmp3.5/6, ML3.4/1, Error ellipse: s-maj=44.3km s-min=15.6km az=52.0*

*DJA **22** 14:09:50.3±1.8, 3°N±6°×12°7E±°, h23km±18km, M3.3/4, ML3.3/4, MLv3.3/4, MLv3.3/4*

ISC 22 14:09:50.8±1.0**, 2°.8N**±0°.2×**127°.3E**±0°.2**, h49km, n7,** σ**1ˢ.33**/9**, mb3.4**/4**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DDMP	Don Marcelino,	3.64	335	*e*P	Pn	14 10 45.4	+0.7
DDMP				*e*S	Sn	14 11 24.4	-2.0
SIJI	Sorong	5.41	132	Pn	Pn	14 11 09.4	+0.4
	1.3nm,0.3s,baz=319,slow=20,SNR=12						
SIJI				Sn	Sn	14 12 09.3	-0.6
	0.4nm,0.3s,baz=193,slow=23,SNR=1.2						
	3.7nm,0.3s						
SIJI				AML	AML		
FITZ	Fitzroy Crossi	20.81	184	P	P	14 14 27.5	-0.7
	1.6nm,0.9s,baz=5.7,slow=10,SNR=1.7						
	1.6nm,0.9s						
WRA	Warramunga Arr	23.63	163	P	P	14 14 55.8	-1.9
	0.3nm,0.4s,baz=346,slow=11,SNR=7.3						
	0.3nm,0.4s						
ASAR	Alice Springs	27.08	167	P	P	14 15 29.2	+0.2
	0.2nm,0.7s,baz=341,slow=9.3,SNR=6.1						
	0.2nm,0.7s						
MKAR	Makanchi Array	58.63	325	P	P	14 19 43.9	+0.9
	0.2nm,0.4s,baz=124,slow=7.2,SNR=4.6						
	0.2nm,0.4s						
KURBB	Kurchatov Arra	62.81	327	P	P	14 20 12.2	+0.9
	0.7nm,0.3s,baz=126,slow=6.1,SNR=6.0						
	0.7nm,0.3s						

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*IDC **22** 14:27:47.6±1.2, 62°.19S×57°.64W, h0km, mb3.9/4, mbtmp4.0/4, MS3.4/6, Error ellipse: s-maj=66.0km s-min=23.8km az=67.0*

*NEIC **22** 14:27:47.7±1.4, 62°.31S±0°.05×58°.26W±0°.10, h5km±5km, mb4.4/8, Error ellipse: s-maj=9.1km s-min=3.6km az=222.0*

ISC 22 14:27:48.6±0.8**, 62°.29S**±0°.09×**58°.1W**±0°.1**, h10km, n29,** σ**1ˢ.35**/19**, mb4.1**/7**, MS3.2**/5**, 4C, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ESPZ	Base Esperanza	1.22	156	Pn	Pn	14 28 10.4	-1.3
ESPZ				Sg	Sb	14 28 27.0	-0.6
PMSA	Palmer Station	3.64	224	LR	LR	14 30 13.5	
	comp=Z,455nm,18.4s,baz=352,slow=38						
PMSA	Palmer Station	3.64	224	Pn	Pn	14 28 44.1	-0.8
VNA3	Neumayer Olymp	20.48	136	⇑P	Pn	14 32 28.5	+0.3
	comp=Z,8.1nm,0.6s						
VNA1	Neumayer--Stat	20.94	135	⇑P	Pn	14 32 33.9	+0.3
	comp=Z,14nm,1.0s						
VNA2	Neumayer--Watz	21.22	135	⇑P	P	14 32 36.5	+2.4
	comp=Z,3.9nm,0.7s,baz=251,slow=11						
SNAA	Sanae	22.65	138	P	P	14 32 51.2	+1.7
SNAA	Sanae	22.65	138	P	P	14 32 50.5	+1.0
	comp=Z,6.0nm,0.8s,baz=251,slow=9.8,SNR=11						
SNAA				LR	LR	14 40 25.9	
	comp=Z,63nm,18.2s,baz=197,slow=34						
	comp=Z,6.0nm,0.8s						
SNAA	Sanae	22.65	138	P	P	14 32 50.0	+0.5
SNAA				IAmb	IAmb	14 32 54.1	
	comp=Z,17nm,1.1s						
PLCA	Paso Flores	22.85	335	P	P	14 32 53.3	+1.4
	comp=Z,2.4nm,0.8s,baz=146,slow=8.0,SNR=6.2						
PLCA				LR	LR	14 41 35.4	
	comp=Z,56nm,18.3s,baz=158,slow=36						
	comp=Z,2.4nm,0.8s						
PLCA	Paso Flores	22.85	335	P	P	14 32 50.9	-0.9
GO06	Curarrehue	24.14	334	P	P	14 33 05.8	+1.1
GO06				IAmb	IAmb	14 33 09.3	
	comp=Z,8.6nm,1.0s						
TROLL	Troll, Antarti	24.29	139	⇑P	P	14 33 07.8	+2.0
	comp=Z,240nm,0.8s						
QSPA	South Pole Qui	27.93	180	P	P	14 33 40.2	+1.5
	comp=Z,1.3nm,0.8s,baz=157,slow=9.2,SNR=8.8						
	comp=Z,1.3nm,0.8s						
QSPA	South Pole Qui	27.93	180	P	P	14 33 40.1	+1.3
QSPA				IAmb	IAmb	14 33 57.1	
	comp=Z,11nm,1.4s						
CO03	El Pedregal	32.51	340	P	P	14 34 20.0	+0.7
MAW	Mawson	43.59	152	P	P	14 35 52.2	+0.1
	comp=Z,1.8nm,0.8s,baz=244,slow=9.1,SNR=4.5						
MAW				LR	LR	14 53 42.7	
	comp=Z,62nm,20.6s,baz=118,slow=36						
	comp=Z,1.8nm,0.8s						
MAW	Mawson	43.59	152	IAmb	IAmb	14 35 56.6	
	comp=Z,0.8nm,1.0s						
PB16	IPOC Station P	44.63	345	P	P	14 36 00.7	-1.0
PB16				IAmb	IAmb	14 36 12.0	
	comp=Z,7.1nm,1.5s						
LPAZ	La Paz	46.49	347	LR	LR	14 57 48.1	
	comp=Z,26nm,18.0s,baz=117,slow=39						
H10S3	ASCENSION HYDR	61.84	50	T	T	15 45 22.0	
	baz=18,slow=74,SNR=5.6						
H10S2	ASCENSION HYDR	61.84	50	T	T	15 45 21.5	
	baz=202,slow=74,SNR=3.8						
H10N3	ASCENSION HYDR	62.93	50	T	T	15 46 40.1	
	baz=200,slow=74,SNR=9.1						
H10N1	ASCENSION HYDR	62.93	50	T	T	15 46 41.4	
	baz=200,slow=74,SNR=7.5						
H10N2	ASCENSION HYDR	62.95	50	T	T	15 46 41.7	
	baz=200,slow=74,SNR=7.8						
SDV	Santo Domingo	71.62	347	LR	LR	15 11 51.6	
	comp=Z,39nm,19.2s,baz=62,slow=37						
RER	Riviere de l'E	81.91	120	P	P	14 40 07.5	-0.8
BVAR	Borovoye Array	151.68	85	PKPbc	PKiKP	14 47 41.7	-0.5
	comp=Z,1.5nm,0.7s,baz=252,slow=1.8,SNR=5.8						
MKAR	Makanchi Array	152.85	106	PKPbc	PKPbc	14 47 43.3	-1.4
	comp=Z,0.2nm,0.5s,baz=210,slow=2.3,SNR=4.6						

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*NNC **22** 14:28:10.4±2.5, 42°.74N×78°.28E, h0km, mb1.4, mpv2.5, Error ellipse: s-maj=15.1km s-min=11.1km az=50.0*

*KRNET **22** 14:28:11.6±0.1, 42°.78N×78°.08E, h26km, mb2.4*

*SOME **22** 14:28:11.0, 42°.83N×78°.10E, h20km*

ISC 22 14:28:10.3±0.9**, 42°.85N**±0°.04×**78°.15E**±0°.03**, h28km**±8km**, n17,** σ**0ˢ.45**/30**, 10C-7D, Lake Issyk-Kul region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SATY	Saty	0.28	42	P	Pb	14 28 17.6	+0.1
	12nm,0.1s						
SATY				S	Sb	14 28 21.9	-0.4
	48nm,0.1s						
SATY	Saty	0.28	42	⇑*e*P	Pb	14 28 17.6	+0.1
	12nm,0.1s						
SATY				*e*S	Sb	14 28 22.4	0.0
	48nm,0.1s						
ANVS	Anan'yevo	0.36	259	⇓*i*P	Pb	14 28 18.6	0.0
ANVS				⇓*i*S	Sb	14 28 23.8	-0.4
PRZ	Przheval'sk	0.41	153	⇑*e*P	Pb	14 28 19.8	+0.4
PRZ				⇑*e*S	Sb	14 28 25.5	0.0
KURS	Kuram	0.64	1	*e*P	Pn	14 28 23.7	+0.1
	2.4nm,0.2s						
KURS				*e*S	Sn	14 28 32.1	-0.7
	6.7nm,0.1s						
UZB	Uzynbulak	0.71	65	P	Pn	14 28 24.3	-0.2
	2.9nm,0.1s						
UZB				S	Sb	14 28 33.5	-0.1
	18nm,0.1s						
UZB	Uzynbulak	0.71	65	*e*P	Pn	14 28 24.3	-0.2
	2.9nm,0.1s						
UZB				*e*S	Sn	14 28 33.8	-0.8
	18nm,0.1s						
KPKS	Kokpek	0.73	32	P	Pn	14 28 25.5	+0.6
	0.2nm,0.1s						
KPKS				S	Sn	14 28 35.6	+0.5
	6.8nm,0.2s						
KPKS	Kokpek	0.73	32	*e*P	Pn	14 28 25.5	+0.6
	0.2nm,0.1s						
KPKS				*e*S	Sn	14 28 35.6	+0.5
	6.8nm,0.2s						
SHLS	Shalkode	1.01	72	P	Pb	14 28 35.2	+5.9
	1.5nm,0.1s						
SHLS				S	Sb	14 28 52.2	+10
	4.8nm,0.2s						
SHLS	Shalkode	1.01	72	*e*P	Pb	14 28 35.2	+5.9
	1.5nm,0.1s						
SHLS				*e*S	Sb	14 28 52.2	+10
	4.8nm,0.2s						
KDJ	Kajisay	1.01	225	⇑*i*P	Pn	14 28 28.8	0.0
KDJ				⇑*i*S	Sn	14 28 41.8	-0.5
PDGK	Podgornoye	1.09	64	⇑P	Pn	14 28 29.4	-0.5
	0.5nm,0.4s						
PDGK				⇓S	Sb	14 28 45.0	+0.4
	2.8nm,0.7s						
TARG	Taragay, Kyrgy	1.15	193	⇓*i*P	Pn	14 28 31.1	+0.2
TARG				⇓*i*S	Sn	14 28 45.7	-0.2
ULHL	Ulahol	1.53	247	⇓*i*P	Pb	14 28 38.1	0.0
ULHL				⇓*i*S	Sb	14 28 57.9	+0.7
BOOM	Boomskoye usch	1.67	258	⇑*i*P	Pb	14 28 40.2	-0.2
BOOM				⇑*i*S	Sb	14 29 01.9	+0.8
TKM2	Tokmak 2	1.88	273	⇑*i*P	Pb	14 28 43.5	-0.5
TKM2				⇑*i*S	Sb	14 29 07.5	+0.4

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*NOU **22** 14:31:40.8, 44°.42S×168°.36E, h2km, MLv3.6/11, South Island, New Zealand*

*WEL **22** 14:31:40.2±0.4, 44°S±2°×16°8E±°, h5km, M3.3/7, ML3.1/10, MLv3.3/7, Error ellipse: s-maj=4.2km s-min=2.3km az=127.0, confirmed*

ISC 22 14:31:40.4±1.1**, 44°.47S**±0°.02×**168°.34E**±0°.03**, h3km**±10km**, n42,** σ**0ˢ.68**/54**, South Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSZ	Milford Sound	0.36	235	P	Pg	14 31 47.9	+0.6
MSZ				S	Sg	14 31 52.8	+0.9
MSZ				AML	AML		
MSZ				AML	AML		
GLNY	Glenorchy	0.40	173	P	Pg	14 31 48.2	+0.1
GLNY				S	Sg	14 31 53.3	0.0
JCZ	Jackson Bay	0.51	40	P	Pg	14 31 49.7	-0.4
JCZ	Jackson Bay	0.51	40	S	Sg	14 31 56.3	-0.4
JCZ	Jackson Bay	0.51	40	P	Pg	14 31 49.8	-0.3
JCZ				S	Sg	14 31 56.4	-0.4
JCZ				AML	AML		
JCZ				AML	AML		
NSBS	Neils Beach	0.53	27	P	Pg	14 31 50.2	-0.2
NSBS				S	Sg	14 31 57.4	+0.2
WKZ	Wanaka	0.61	127	P	Pg	14 31 52.1	+0.2
WKZ				S	Sg	14 31 59.8	0.0
WKZ				AML	AML		
WKZ				AML	AML		
QTPS	Queenstown Pol	0.61	158	P	Pg	14 31 51.9	-0.2
MECS	Makarora Emerg	0.69	70	P	Pg	14 31 53.9	+0.4
MECS				S	Sg	14 32 02.9	+0.5
HDWS	Haast DOC Work	0.78	41	P	Pg	14 31 54.6	-0.6
MLZ	Mavora Lakes	0.91	190	P	Pg	14 31 57.4	-0.5
MLZ				AML	AML		
MLZ				AML	AML		
EAZ	Earnscleugh	1.03	138	P	Pg	14 31 59.9	-0.3
EAZ				S	Sg	14 32 12.7	-0.8
EAZ				AML	AML		
EAZ				AML	AML		
TAFS	Te Anau Fire S	1.04	205	S	Sb	14 32 16.1	+1.0
MOSS	Mossburn Schoo	1.20	183	P	Pg	14 32 02.8	-0.7
TWAS	Twizel Area Sc	1.28	81	P	Pn	14 32 05.6	+0.4
TWAS				S	Sg	14 32 20.8	-0.7
DCZ	Deep Cove	1.30	220	P	Pn	14 32 04.0	-1.4
DCZ				S	Sg	14 32 21.4	-0.8
DCZ				AML	AML		
DCZ				AML	AML		
LBZ	Lake Benmore	1.33	87	P	Pg	14 32 05.5	-0.3
LBZ				S	Sg	14 32 22.3	-0.7
LBZ				AML	AML		
LBZ				AML	AML		
FOZ	Fox Glacier	1.42	49	P	Pn	14 32 06.3	-0.7
FOZ				S	Sn	14 32 25.5	-0.7
FOZ				AML	AML		
FOZ				AML	AML		
WHZ	Wether Hill Ro	1.45	191	P	Pn	14 32 06.8	-0.7
WHZ				AML	AML		
ODZ	Otahua Downs	1.74	110	P	Pn	14 32 12.1	+0.6
ODZ	Otahua Downs	1.74	110	S	Sb	14 32 35.0	-0.2
ODZ	Otahua Downs	1.74	110	P	Pn	14 32 11.9	+0.4
ODZ				AML	AML		
TUZ	Tuapeka	1.75	149	P	Pn	14 32 12.3	+0.8
TUZ				S	Sn	14 32 34.7	+0.5
TUZ				AML	AML		
TUZ				AML	AML		
TMZ	Timaru	1.92	88	P	Pn	14 32 14.3	+0.4
TMZ				AML	AML		
PYZ	Puysegur Point	2.06	214	P	Pn	14 32 16.6	+0.8
PYZ	Puysegur Point	2.06	214	S	Sb	14 32 44.5	+0.1
PYZ	Puysegur Point	2.06	214	P	Pn	14 32 14.6	-1.2
RPZ	Rata Peaks	2.10	70	P	Pb	14 32 19.6	+0.5
ARCZ	Arundel	2.11	77	P	Pg	14 32 20.0	-0.8
HHSZ	Highcliff Hill	2.14	132	P	Pb	14 32 19.1	-0.6
SYZ	Scrubby Hill	2.15	165	P	Pn	14 32 17.8	+0.8
SYZ	Scrubby Hill	2.15	165	S	Sb	14 32 46.2	-0.6
SYZ	Scrubby Hill	2.15	165	P	Pn	14 32 17.9	+1.0
WVZ	Waitaha Valley	2.23	52	P	Pb	14 32 21.7	+0.5
APZ	The Paps	2.38	186	P	Pn	14 32 21.1	+0.8
MHCZ	Mount Hutt	2.51	69	P	Pg	14 32 28.7	+0.2
WACZ	Wakanui South	2.57	79	P	Pn	14 32 23.2	+0.3
INZ	Inchbonnie	2.85	53	P	Pn	14 32 28.7	+2.0
OXZ	Oxford	2.91	68	P	Pg	14 32 35.7	-0.4
QRZ	Quartz Range	4.78	42	P	Pn	14 32 52.9	-0.2
QRZ	Quartz Range	4.78	42	S	Sn	14 33 48.6	-0.4
OUZ	Omahuta	10.08	25	P	Pn	14 34 06.7	+0.8

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*SOME **22** 14:34:11.7, 38°.88N×72°.90E, h10km*

*NNC **22** 14:34:16.0±4.5, 39°.04N×73°.18E, h0km, mb4.0, mpv3.5, Error ellipse: s-maj=32.9km s-min=20.2km az=167.0*

ISC 22 14:34:09.0±3.6**, 38°.5N**±0°.2×**72°.87E**±0°.07**, h10km, n13,** σ**1ˢ.47**/19**, 1C-2D, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IUG	Iuzhnay	4.24	330	Pg	Pb	14 35 24.2	+0.4
	101nm,0.4s						
IUG				Lg	Lg	14 36 16.2	
	19nm,0.2s						
IUG	Iuzhnay	4.24	330	*e*P	Pb	14 35 24.1	+0.4
	101nm,0.4s						
IUG				*e*S	Sb	14 36 16.2	+1.1
	19nm,0.2s						
MRKS	Merke	4.25	4	Pg	Pb	14 35 23.6	-0.4
	4.4nm,0.3s						
MRKS				Lg	Lg	14 36 15.6	
	13nm,0.5s						
MRKS	Merke	4.25	4	*e*P	Pb	14 35 23.6	-0.4
	4.4nm,0.3s						
MRKS				*e*S	Sb	14 36 15.6	+0.2
	13nm,0.5s						
AAK	Ala-Archa	4.32	16	⇓Pn	Pn	14 35 14.4	-0.5
	2.5nm,0.6s						
AAK				⇓Sn	Sn	14 36 01.0	-4.4
	8.4nm,1.0s						
KK31	Karatay Array	4.94	340	Pn	Pn	14 35 27.1	+3.9
	3.1nm,0.5s,baz=147,slow=12,SNR=19						
KK31				⇑Sn	Sn	14 36 21.6	+1.1
	11nm,0.7s,baz=145,slow=25,SNR=7.2						
BRLS	Borolday	5.08	334	Pg	Pb	14 35 37.8	-0.2
	3.4nm,0.3s						
BRLS				Lg	Lg	14 36 39.7	
	2.8nm,0.3s						
BRLS	Borolday	5.08	334	*e*P	Pb	14 35 37.8	-0.2
	3.4nm,0.3s						
BRLS				*e*S	Sb	14 36 39.7	+0.6
	2.8nm,0.3s						
KST	Kastek	5.11	26	Pg	Pb	14 35 39.6	+1.0
	1.5nm,0.3s						
KST				Lg	Lg	14 36 42.8	
	7.6nm,0.4s						
KST	Kastek	5.11	26	*e*P	Pb	14 35 39.6	+1.0
	1.5nm,0.3s						
KST				*e*S	Sb	14 36 42.8	+2.6
	7.6nm,0.4s						
SGDS	Sogindy	5.13	15	Pg	Pb	14 35 40.0	+1.2
	2.5nm,0.5s						
SGDS				Lg	Lg	14 36 43.5	
	3.8nm,0.6s						
KRBS	Karabastau	5.61	21	Pg	Pb	14 35 46.9	-0.1
	3.3nm,0.6s						
KRBS				Lg	Lg	14 36 55.5	
	9.2nm,0.5s						
KRBS	Karabastau	5.61	21	*e*P	Pb	14 35 46.9	-0.1
	3.3nm,0.6s						
KRBS				*e*S	Sb	14 36 55.5	+1.1
	9.2nm,0.5s						

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*ATH **22** 14:44:19.5, 34°.96N×26°.75E, h5km±1km, ML3.7/11, Latitude uncertainty: 4 km; Longitude uncertainty: 1 km*

*IDC **22** 14:44:19.6±0.9, 35°.09N×26°.69E, h0km, mb3.8/6, mbtmp3.8/8, ML3.4/2, MS2.4/1, Error ellipse: s-maj=23.7km s-min=13.2km az=7.0*

*THE **22** 14:44:20.9, 35°N±6°×2°7E±°, h0km±2km, M3.4/6, MLh3.4/6*

*ISK **22** 14:44:20.5, 35°.12N×26°.67E, h5km, ML3.5/11*

ISC 22 14:44:21.0±1.3**, 35°.06N**±0°.06×**26°.70E**±0°.03**, h11km**±9km**, n55,** σ**0ˢ.97**/67**, mb3.8**/5**, Crete**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZKR	Zakros	0.40	278	P	Pg	14 44 28.6	-0.3
ZKR				S	Sb	14 44 35.3	-0.8
ZKR	Zakros	0.40	278	Pg	Pg	14 44 28.7	-0.2
ZKR				Sg	Sb	14 44 35.3	-0.8
ZKR				AML	AML		
ZKR	Zakros	0.40	278	P	Pg	14 44 28.6	-0.3
ZKR				S	Sb	14 44 35.3	-0.8
ZKR				AML	AML		
SIT2	Siteia	0.50	287	P	Pg	14 44 30.7	-0.1
SIT2				S	Sb	14 44 38.4	-0.8
KARP	Karpathos	0.61	38	P	Pb	14 44 32.8	-1.0
KARP				S	Sb	14 44 43.7	+1.2
KARP				AML	AML		
KARP	Karpathos	0.61	38	Pg	Pb	14 44 32.9	-1.0
KARP	Karpathos	0.61	38	P	Pg	14 44 32.7	-0.3
KARP				S	Sb	14 44 42.3	-0.2
KARP				AML	AML		
AGNA	Agios Nikolaos	0.81	279	P	Pg	14 44 36.2	-0.5
AGNA				S	Sb	14 44 48.4	+0.3
AGNA				AML	AML		
NPS	Neapolis	0.91	283	P	Pg	14 44 38.1	-0.4
NPS				S	Sn	14 44 52.1	-0.8
NPS				AML	AML		
NPS	Neapolis	0.91	283	P	Pg	14 44 38.1	-0.4
NPS				AML	AML		
IACM	Heraklion	1.35	281	P	Pg	14 44 46.9	-0.1
IDI	Anoyia	1.50	279	Pn	Pb	14 44 48.7	-0.1
	26nm,0.3s,baz=82,slow=13,SNR=86						
IDI				Sn	Sg	14 45 10.7	+1.5
	60nm,0.3s,baz=2.8,slow=20,SNR=9.6						

IDI	Anoyia	1.50	279	P	Pb	14 44 48.8	-0.1
IDI				S	Sg	14 45 09.8	+0.6
IDI				AML	AML		
IDI	Anoyia	1.50	279	Pn	Pg	14 44 49.1	-0.6
IDI				AML	AML		
IDI	Anoyia	1.50	279	P	Pb	14 44 48.6	-0.3
ASTA	Astypalaia	1.50	349	P	Pb	14 44 48.5	-0.5
ASTA				AML	AML		
SIVA	Sivas	1.55	269	P	Pb	14 44 49.4	-0.3
SIVA				S	Sg	14 45 11.3	+0.5
SIVA				AML	AML		
SIVA	Sivas	1.55	269	P	Pn	14 44 48.7	+0.2
SIVA				AML	AML		
THERA	Ancient Thera,	1.64	323	P	Pb	14 44 50.3	-0.9
THERA	Ancient Thera,	1.64	323	P	Pb	14 44 50.3	-0.9
ARG	Arkhangelos	1.64	45	P	Pg	14 44 51.7	-0.7
ARG				S	Sg	14 45 14.0	+0.2
ARG				AML	AML		
ARG	Arkhangelos	1.64	45	Pn	Pb	14 44 51.2	0.0
ARG				AML	AML		
ARG	Arkhangelos	1.64	45	P	Pb	14 44 50.8	-0.4
ARG				AML	AML		
THR8	Santorini-Mono	1.67	324	P	Pb	14 44 50.7	-0.9
THR8	Santorini-Mono	1.67	324	P	Pb	14 44 50.8	-0.9
THR6	Thira Island,	1.67	321	P	Pb	14 44 51.3	-0.5
THR6	Thira Island,	1.67	321	P	Pb	14 44 51.0	-0.8
THR9	Santorini-Faro	1.69	320	P	Pb	14 44 51.8	-0.3
SNT5	Nea Kammeni, S	1.70	322	P	Pb	14 44 52.3	-0.1
THR3	Thira Island,	1.71	322	P	Pb	14 44 51.5	-0.9
THR2	Thira island,	1.72	324	P	Pb	14 44 51.9	-0.7
THR5	Thira Island,	1.74	321	P	Pn	14 44 51.7	+0.5
CMBO	Columbo, Santo	1.75	324	P	Pb	14 44 52.1	-1.1
CMBO				AML	AML		
DAT	Datca	1.81	23	Pn	Pb	14 44 53.3	-1.0
DAT				AML	AML		
BODT	Bodrum	2.06	14	Pn	Pn	14 44 56.7	+1.1
BODT				Sn	Sb	14 45 23.0	-1.0
BODT				AML	AML		
TURN	Turunc	2.12	36	Pn	Pb	14 44 57.9	-1.6
TURN				AML	AML		
GVD	Gavdhos	2.15	265	Pn	Pb	14 44 59.1	-0.9
GVD				AML	AML		
IMMV	Iera Moni Meta	2.26	281	Pn	Pb	14 45 00.1	-1.7
IMMV				AML	AML		
DALY	Dalyan (Mula)	2.36	42	Pn	Pn	14 45 01.5	+1.8
DALY				AML	AML		
MLSB	Milas	2.39	21	Pn	Pn	14 45 01.5	+1.3
MLSB				AML	AML		
YER	Yerkesik	2.43	31	Pn	Pb	14 45 02.7	-2.2
YER				AML	AML		
ANKY	Antikythira Is	2.88	287	P	Pn	14 45 08.5	+1.6
KTHA	Kythira Island	3.19	293	P	Pn	14 45 12.2	+1.0
CHOS	Chios island	3.36	351	P	Pn	14 45 14.4	+0.9
VLY	Voula,Athens	3.63	321	P	Pn	14 45 19.2	+1.9
DION	Dionisos Attik	3.74	324	P	Pn	14 45 21.1	+2.3
BRTR	Keskin Array B	7.22	48	LR	LR	14 49 48.0	
	comp=Z,30nm,19.7s,baz=240,slow=46						
EIL	Elat	8.81	125	Pn	Pn	14 46 28.7	+0.3
	0.4nm,0.3s,baz=299,slow=10,SNR=2.0						
EIL				Sn	Sn	14 47 58.5	-9.2
	0.3nm,0.3s,baz=28,slow=23,SNR=1.9						
	3.4nm,0.7s						
EIL				AML	AML		
GERES	GERESS Array B	16.79	329	Pn	Pn	14 48 16.4	+0.3
	baz=156,slow=10,SNR=4.4						
	1.1nm,0.2s						
ESDC	Sonseca Array	24.73	290	P	P	14 49 40.8	-1.7
	0.5nm,0.6s,baz=88,slow=11,SNR=4.7						
	0.5nm,0.6s						
TORD	Torodi Ar. Bea	31.41	232	P	P	14 50 41.8	-0.5
	1.1nm,0.6s,baz=35,slow=9.5,SNR=5.9						
	1.1nm,0.6s						
KURBB	Kurchatov Arra	40.20	51	P	P	14 51 56.0	-1.3
	0.8nm,0.2s,baz=278,slow=8.9,SNR=6.3						
	0.8nm,0.2s						
MKAR	Makanchi Array	42.78	57	P	P	14 52 18.6	0.0
	0.6nm,0.6s,baz=269,slow=9.0,SNR=11						
	0.6nm,0.6s						
ZALV	Zalesovo Beam	44.16	46	P	P	14 52 30.5	+0.9
	0.9nm,0.4s,baz=267,slow=7.9,SNR=5.3						
	0.9nm,0.4s						
SONM	Songino Array	58.57	51	P	P	14 54 19.2	+1.4
	0.3nm,0.4s,baz=259,slow=6.9,SNR=1.2						
	0.3nm,0.4s						

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*IDC **22** 14:51:23.9±0.7, 9°.17N×126°.79E, h0^{km}, mb3.9/13, mbtmp4.0/14, ML4.9/1, MS3.3/2, Error ellipse: s-maj=32.2km s-min=15.3km az=76.0*

*MAN **22** 14:51:25.0, 9°.33N×127°.02E, h2^{km}, MS4.2*

*NEIC **22** 14:51:26.6±1.3, 9°.26N±0°.04×126°.8E±0°.1, h10^{km}±1^{km}, mb4.4/14, Error ellipse: s-maj=21.2km s-min=5.9km az=100.0*

ISC 22 14:51:26.3±1.6**, 9°.24N**±0°.03×**126°.80E**±0°.05**, h12**^{km}±10^{km}**, n58, σ1^{s}.74**/67**, mb4.2**/19**, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TSSP	Tandag City	0.63	252	*e*P	Pn	14 51 42.0	+0.9
TSSP				*i* S	Sn	14 51 52.2	+1.2
GLSP	General Luna,	0.85	309	*i* P	Pn	14 51 45.0	+0.8
GLSP				*e*S	Sn	14 51 57.8	+1.1
BIPH	Bislig	1.14	202	*i* P	Pn	14 51 49.2	+1.1
BIPH				*i* S	Sn	14 52 04.1	+0.4
CDOP	Cateel, Davao	1.49	194	*e*P	Pg	14 51 54.6	-0.5
CDOP				*i* S	Sn	14 52 08.8	-3.6
CGP	Cagayan de Oro	2.23	250	*i* P	Pg	14 52 07.8	-1.2
CGP				*i* S	Sg	14 52 38.0	+0.2
DAV	Davao City (W)	2.48	209	Pn	Pb	14 52 11.1	+0.3
	80nm,0.3s,baz=109,slow=11,SNR=3.6						
DAV	Davao City (W)	2.48	209		Pn	14 52 06.3	-0.2
DAV				Sn	Sn	14 52 38.4	+1.7
DMPH	Davao City--Mi	2.50	211	*e*P	Pg	14 52 17.1	+2.8
DMPH				*i* S	Sg	14 52 49.8	+3.1
PLP	Palo	2.62	317	*e*P	Pn	14 52 10.3	+1.8
PLP				*e*S	Sb	14 52 44.7	-0.7
KCP	Kidapawan	2.79	217	*e*P	Pb	14 52 15.2	-1.0
KCP				*i* S	Sg	14 52 53.4	-2.7
TBP	Tagbilaran	2.93	279	*e*P	Pb	14 52 16.3	-2.3
TBP				*e*S	Sb	14 52 55.6	+1.2
LLP	Lapu-Lapu	2.99	291	*e*P	Pb	14 52 16.6	-3.0
LLP				*i* S	Sg	14 53 01.4	-1.1
LSIP	Lazi, Siquijor	3.13	268	*e*P	Pb	14 52 18.9	-3.0
LSIP				*i* S	Sb	14 52 59.8	-0.4
CTBH	Cotabato--PC H	3.23	232	*i* P	Pb	14 52 21.4	-2.2
DDMP	Don Marcelino,	3.30	199	*e*P	Pb	14 52 23.3	-1.5
DDMP				*e*S	Sb	14 53 03.4	-1.6
DCPH	Dipolog City	3.47	259	*i* P	Pb	14 52 26.4	-1.3
SNPH	Sibulan	3.52	272	*e*P	Pb	14 52 25.8	-2.8
SNPH				*e*S	Sb	14 53 14.8	+3.4
PAGZ	Pagadian	3.66	248	*e*P	Pb	14 52 29.2	-1.6
PAGZ				*e*S	Sb	14 53 14.2	-1.0
CADP	Cadiz City	3.84	296	*e*P	Pn	14 52 28.6	+3.4
GUIM	Jordan	4.37	289	*i* P	Pn	14 52 36.9	+4.3
GUIM				*i* S	Sn	14 53 08.0	-16
MMPH	Masbate	4.40	315	*i* P	Pg	14 52 58.0	+7.5
MMPH				*i* S	Sn	14 53 25.3	+1.2
IBAJ	Ibajay, Aklan	5.22	300	*e*P	Pn	14 52 49.9	+5.6
LQP	Lukban	7.07	314	*e*P	Pn	14 53 17.2	+7.3
TNTI	Ternate	8.44	176	Pn	Pn	14 53 29.4	+1.0
SIJI	Sorong	10.99	156	Pn	Pn	14 54 07.4	+4.0
	0.9nm,0.3s,baz=328,slow=19,SNR=5.2						
YULB	Yu-li	15.02	340		P	14 55 02.4	-1.6
YULB				IAmb	IAmb	14 55 43.4	
	comp=Z,25nm,1.2s						
BATI	Baumata	19.57	189	P	P	14 55 52.0	-2.3
	comp=Z,3.3nm,0.3s,baz=28,slow=9.8,SNR=4.0						
	comp=Z,21nm,0.4s						
BATI				AML	AML		
KNRA	Kununurra	24.84	175	P	P	14 56 49.1	+0.4
KNRA				IAmb	IAmb	14 57 14.2	
	comp=Z,9.5nm,1.4s						
FITZ	Fitzroy Crossi	27.19	182	P	P	14 57 09.9	-0.1
CMAR	Chiang Mai Arr	28.52	292	P	P	14 57 22.5	+0.5
	comp=Z,0.3nm,0.6s,baz=98,slow=8.1,SNR=4.1						
	comp=Z,0.3nm,0.6s						
JYT	Yasato	29.50	22	P	P	14 57 31.5	+1.1
WB0	Warramunga Arr	29.78	165	P	P	14 57 33.1	0.0
WB0				IAmb	IAmb	14 58 01.5	
	comp=Z,6.2nm,1.2s						
WRA	Warramunga Arr	29.94	166	P	P	14 57 34.2	-0.3
	comp=Z,0.5nm,0.6s,baz=344,slow=9.9,SNR=9.5						
	comp=Z,0.5nm,0.6s						
WRA	Warramunga Arr	29.94	166	P	P	14 57 33.1	-1.4
WR8	Warramunga Arr	29.99	165	P	P	14 57 34.9	0.0
WR8				IAmb	IAmb	14 57 44.5	
	comp=Z,5.5nm,1.3s						
ASAR	Alice Springs	33.44	168	P	P	14 58 04.8	-0.5
	comp=Z,0.3nm,0.3s,baz=351,slow=7.1,SNR=14						
	comp=Z,0.3nm,0.3s						
ASAJ	Asahikawa	37.36	19	P	P	14 58 40.0	+1.2
	comp=Z,7.9nm,1.1s,baz=217,slow=20,SNR=2.1						
	comp=Z,7.9nm,1.1s						
JKA	Kamikawa-asahi	37.36	19	P	P	14 58 40.0	+1.2
HNR	Honiara	37.86	118	LR	LR	15 11 49.1	
	comp=Z,40nm,21.2s,baz=44,slow=32						
MORW	Morawa	39.48	195	P	P	14 58 56.6	-0.2
MORW				IAmb	IAmb	14 59 21.3	
	comp=Z,26nm,1.4s						
FORT	Forrest	39.81	178	P	P	14 58 59.4	-0.1
FORT				IAmb	IAmb	14 59 36.4	
	comp=Z,18nm,1.3s						
STKA	Stephens Creek	43.27	162	P	P	14 59 25.0	-2.9
	comp=Z,1.7nm,0.9s,baz=319,slow=11,SNR=1.3						
	comp=Z,1.7nm,0.9s						
PETK	Petropavlovsk-	50.36	24	P	P	15 00 22.0	-1.1
	comp=Z,1.3nm,1.0s,baz=198,slow=3.9,SNR=5.2						
	comp=Z,1.3nm,1.0s						
MKAR	Makanchi Array	53.16	323	P	P	15 00 43.4	-0.8
	comp=Z,0.8nm,0.7s,baz=126,slow=7.8,SNR=6.9						
	comp=Z,0.8nm,0.7s						
MKAR	Makanchi Array	53.16	323	P	P	15 00 44.1	-0.1
ZALV	Zalesovo Beam	55.77	331	P	P	15 01 02.3	-0.7
	comp=Z,0.3nm,0.4s,baz=122,slow=7.0,SNR=2.0						
	comp=Z,0.3nm,0.4s						
AAK	Ala-Archa	56.42	316	LR	LR	15 26 35.0	
	comp=Z,25nm,18.1s,baz=131,slow=37						
KURK	Kurchatov	57.20	326	P	P	15 01 12.5	-0.8
KURK	Kurchatov	57.20	326	IAmb	IAmb	15 01 26.0	
	comp=Z,3.2nm,0.7s						
KURBB	Kurchatov Arra	57.21	326	P	P	15 01 12.5	-0.8
	comp=Z,2.1nm,0.2s,baz=128,slow=7.2,SNR=1.8						
	comp=Z,2.1nm,0.2s						
BVAR	Borovoye Array	62.80	326	P	P	15 01 51.4	-0.3
	comp=Z,0.5nm,0.4s,baz=116,slow=9.8,SNR=3.8						
	comp=Z,0.5nm,0.4s						
TOZ	Tahuroa Road	65.21	139	P	P	15 02 07.5	-0.2
ABKAR	Akbulak array	67.99	319	P	P	15 02 25.6	+0.2
I20K	Naaghedeneel	76.89	26	P	P	15 03 18.0	-0.1
ILAR	Eielson Array	80.13	26	P	P	15 03 36.3	+0.2
	comp=Z,0.2nm,0.6s,baz=242,slow=4.7,SNR=4.3						
	comp=Z,0.2nm,0.6s						
ARCES	ARCESS Array B	85.33	340	P	P	15 04 04.5	+1.4
	comp=Z,2.1nm,0.8s,baz=98,slow=7.5,SNR=3.9						
	comp=Z,2.1nm,0.8s						
ARCES	ARCESS Array B	85.33	340	IAmb	IAmb	15 04 18.7	
	comp=Z,2.0nm,0.9s						
FINES	FINESS Array B	87.04	332	P	P	15 04 11.4	-0.2
	comp=Z,3.1nm,1.0s,baz=90,slow=6.9,SNR=4.2						
	comp=Z,3.1nm,1.0s						

IDC 22 15:40:49.4±39.0**, 14°.07S**×**166°.20E, h0**^{km}**, mb3.8**/4**, mbtmp3.8**/4**, Error ellipse: s-maj=675.6km s-min=98.8km az=67.0, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	28.65	228	P	P	15 46 47.5	-0.4
	1.4nm,0.5s,baz=55,slow=7.0,SNR=4.7						
	1.4nm,0.5s						
WRA	Warramunga Arr	30.99	255	P	P	15 47 09.3	+0.5
	0.3nm,0.5s,baz=84,slow=9.3,SNR=8.2						
	0.3nm,0.5s						
ASAR	Alice Springs	31.95	248	P	P	15 47 17.3	0.0
	0.6nm,0.5s,baz=75,slow=9.4,SNR=32						
	0.6nm,0.5s						
FITZ	Fitzroy Crossi	39.12	259	P	P	15 48 18.5	-0.4
	2.3nm,1.0s,baz=114,slow=10.0,SNR=2.0						
	2.3nm,1.0s						

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*IDC **22** 15:49:05.2±3.7, 3°.79S×129°.29E, h94^{km}±49^{km}, mb3.4/3, mbtmp3.8/6, MS2.8/1, Error ellipse: s-maj=50.6km s-min=16.3km az=89.0*

*DJA **22** 15:49:06.9±0.7, 4°S±5°×12°9E±°, h108^{km}±11^{km}, M3.7/11, MLv3.7/12, MLv3.8/9*

ISC 22 15:49:04.4±0.8**, 3°.97S**±0°.07×**129°.26E**±0°.07**, h100**^{km}**, n12, σ2^{s}.58**/13**, Seram**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BNDI	Bandanaira	0.85	131	P	Pn	15 49 28.3	+5.0
BNDI				AML	AML		
BNDI				AML	AML		
NLAI	Namlea	2.27	288	P	Pn	15 49 42.7	+2.2
NLAI				AML	AML		
NLAI				AML	AML		
FAKI	Fak Fak	3.16	71	P	Pn	15 49 55.3	+2.9
SIJI	Sorong	3.67	33	P	Pn	15 49 59.5	+0.2
	9.2nm,0.3s,baz=50,slow=9.9,SNR=85						
SIJI				S	Sn	15 50 38.4	-3.3
	58nm,0.2s,baz=310,slow=24,SNR=19						
SWI	Sorong	3.67	33	P	Pn	15 49 59.8	+0.5
SWI				AML	AML		
SWI				AML	AML		
SANI	Sanana	3.78	300	P	Pn	15 49 59.5	-1.1
SANI				AML	AML		
FITZ	Fitzroy Crossi	14.48	194	P	P	15 52 29.9	+1.4
	2.1nm,0.9s,baz=31,slow=9.9,SNR=8.6						
WRA	Warramunga Arr	16.63	163	P	P	15 52 54.4	+2.0
	2.0nm,0.5s,baz=339,slow=12,SNR=47						
WRA				S	Sn	15 55 50.8	-5.5
	0.1nm,0.6s,baz=351,slow=28,SNR=1.5						
ASAR	Alice Springs	20.09	168	P	Pn	15 53 33.0	+0.1
	6.1nm,0.5s,baz=349,slow=12,SNR=174						
ASAR				S	S	15 57 08.9	-1.7
	0.7nm,0.9s,baz=354,slow=25,SNR=4.6						
	6.1nm,0.5s						
JNU	Nakatsue	36.92	2	LR	LR	16 12 26.2	
	comp=Z,14nm,18.4s,baz=129,slow=38						
CMAR	Chiang Mai Arr	37.27	308	P	P	15 56 07.8	+1.0
	0.5nm,0.6s,baz=133,slow=7.2,SNR=4.8						
	0.5nm,0.6s						
MKAR	Makanchi Array	65.30	326	P	P	15 59 35.9	+0.1
	0.2nm,0.4s,baz=116,slow=8.1,SNR=5.7						
	0.2nm,0.4s						

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*KOLA **22** 16:00:58.8, 69°.47N×30°.49E, h0^{km}, ML1.4, Zapolyarny City, Mines*

HEL 22 16:00:57.0±0.4**, 69°.37N**×**30°.66E, h0**^{km}**, ML1.3, Explosion, Norway-Murmansk border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAJF	Raja-Jooseppi	1.24	224	PG	Pg	16 01 19.2	-1.5
RAJF				SG	Sg	16 01 35.0	-1.7
KEV	Kevo	1.34	289	PG	Pg	16 01 21.0	-1.7
KEV				SB	Sg	16 01 38.3	-1.6
VRF	Varrio	1.68	194	smax	smax	16 01 47.0	
	comp=Z,1.6nm,0.2s						
VRF				SN	Sb	16 01 50.4	+0.1
ARA0	ARCESS Array S	1.83	278	PG	Pn	16 01 29.8	+0.2
	baz=92						
ARA0				SG	Sn	16 01 53.1	-0.4
ARCES	ARCESS Array B	1.83	278	P	Pn	16 01 29.5	-0.1
ARCES				S	Sn	16 01 52.9	-0.5
KTK1	Kautokeino	2.67	266	SG	Sb	16 02 19.8	+0.8
HEF	Hetta	2.71	252	smax	smax	16 02 16.8	
	comp=Z,0.8nm,0.2s						
HEF				SB	Sb	16 02 18.6	-1.4
KVDA	Kovda	2.82	162	S	Sb	16 02 21.0	-2.1

HEL 22 16:01:42.4±0.2**, 65°.82N**×**24°.61E, h0**^{km}**, ML1.1, Suspected explosion, Finland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TOF	Tornio	0.29	336	PG	Pg	16 01 47.8	-0.1
TOF				SG	Sg	16 01 48.3	-3.3
TOF				smax	smax	16 01 52.5	
	comp=Z,4.7nm,0.2s						
OUL	Oulu	0.91	143	PG	Pg	16 01 58.2	-1.6
OUL				SG	Sg	16 02 11.0	-0.5
RANF	Ranua	0.91	77	PB	Pg	16 01 59.2	-0.7
RANF	Ranua	0.91	77	PG	Pg	16 01 59.2	-0.7
RANF				SB	Sg	16 02 11.2	-0.6
RNF	Rovaniemi	0.98	35	PB	Pn	16 02 03.2	-0.2
OBF4	Vikkela, Lumij	1.03	168	PG	Pg	16 02 00.8	-1.3
OBF4				smax	smax	16 02 13.8	
	comp=Z,1.3nm,0.2s						
ERTU	Ertsjaerv	1.23	308	PN	Pg	16 02 06.1	+0.1
	baz=123						
ERTU				SN	Sn	16 02 23.6	-0.5
OBF0	Syolatti, Pyha	1.34	187	PG	Pg	16 02 05.7	-2.3
OBF0				smax	smax	16 02 22.6	
	comp=Z,2.2nm,0.2s						
KLF	Kolari	1.45	350	PN	Pn	16 02 09.8	0.0
	baz=172						
KLF				smax	smax	16 02 25.9	
	comp=Z,1.3nm,0.2s						
KLF				SN	Sn	16 02 29.4	-0.1
OUF	Merijarvi	1.46	178	PG	Pn	16 02 09.0	-0.9
OUF				smax	smax	16 02 26.2	
	comp=Z,1.5nm,0.2s						
OUF				SN	Sn	16 02 31.4	+1.7
MSF	Maaselka	1.82	85	SB	Sn	16 02 39.0	+0.2
MSF	Maaselka	1.82	85	SN	Sn	16 02 39.0	+0.2
BURU	Burvik	1.84	229	PG	Pb	16 02 16.2	-0.8
BURU				SN	Sb	16 02 41.0	+0.5
OLKF	Oulanka, Finla	2.02	73	smax	smax	16 02 42.3	
	comp=Z,1.1nm,0.2s						
OLKF				SG	Sb	16 02 44.8	-0.6
KU1	Kurvinen	2.06	95	SG	Sn	16 02 44.8	+0.1
LANU	Lannavaara	2.46	336	PG	Pb	16 02 27.2	-0.4
UMAU	Umeaa	2.57	223	PB	Pn	16 02 25.9	+0.7

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*IDC **22** 16:10:24.4±6.9, 33°.74N×74°.73E, h0^{km}, mb4.0/3, mbtmp3.9/7, ML3.2/4, MS3.6/2, Error ellipse: s-maj=103.1km s-min=45.2km az=151.0*

*NEIC **22** 16:10:29.2±0.6, 34°.08N±0°.05×74°.80E±0°.09, h10^{km}±2^{km}, mb4.4/3, Error ellipse: s-maj=14.0km s-min=6.2km az=63.0*

*NDI **22** 16:10:32.9±1.4, 34°.09N×74°.79E, h10^{km}, ML4.1, MW3.8, mb4.4(NEIC), Presumed earthquake*

ISC 22 16:10:31.8±1.4**, 34°.09N**±0°.05×**74°.65E**±0°.05**, h27**^{km}±14^{km}**, n36, σ1^{s}.67**/43**, 1C-3D, Southwestern Kashmir**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NIL	Nilore	1.24	250	Pn	Pb	16 10 54.1	-0.5
JMU	Jammu	1.31	173	*e*P	Pb	16 10 57.1	+1.2
JMU				*e*S	Sb	16 11 15.3	+3.0
JMU				IAML		16 11 18.9	
	comp=N,8µm,0.3s						
JMU				IAML		16 11 19.1	
	comp=E,7µm,0.3s						
TSSA	Tissa	1.77	134	*e*P	Pb	16 11 03.8	+0.1
TSSA				*e*S	Sb	16 11 26.1	+0.4
TSSA				IAML		16 11 27.1	
	comp=N,19µm,0.3s						
TSSA				IAML		16 11 27.9	
	comp=E,17µm,0.1s						
THN	Thein Dam	1.89	150	*e*P	Pb	16 11 04.3	-1.3
THN				*e*S	Sb	16 11 29.2	+0.4
THN				IAML		16 11 31.3	
	comp=N,4µm,0.1s						
THN				IAML		16 11 31.5	
	comp=E,6µm,0.2s						
ALCI	Alchi Leh	2.11	86	*e*P	Pn	16 11 07.2	+1.5
ALCI				*e*S	Sn	16 11 32.2	+1.0
ALCI				IAML		16 11 37.3	
	comp=E,2µm,0.2s						
ALCI				IAML		16 11 38.6	
	comp=N,2µm,0.1s						
DHRM	DHARAMSHALA	2.30	142	*e*P	Pn	16 11 10.4	+2.2
DHRM				*e*S	Sn	16 11 37.8	+2.0
DHRM				IAML		16 11 44.1	
	comp=E,418nm,0.2s						
DHRM				IAML		16 11 44.6	
	comp=N,446nm,0.7s						
TLWR	Talawar	2.40	152	*e*S	Sb	16 11 40.9	-2.5
TLWR				IAML		16 11 47.0	
	comp=N,1µm,0.2s						
TLWR				IAML		16 11 47.4	
	comp=E,636nm,0.2s						
BHK	Bhakra	3.06	151	*e*P	Pb	16 11 23.8	-1.7
BHK				*e*S	Sb	16 12 01.6	-0.9
BHK				IAML		16 12 10.7	
	comp=E,3µm,0.5s						
BHK				IAML		16 12 10.9	
	comp=N,2µm,0.6s						
SMLA	Simla	3.64	144	*e*P	Pn	16 11 27.1	+0.7
SMLA				*e*S	Sn	16 12 08.9	+0.5
SMLA				IAML		16 12 23.6	
	comp=E,154nm,0.3s						
SMLA				IAML		16 12 24.7	
	comp=N,171nm,0.1s						
KLP	Kalpa	3.96	129	*e*P	Pn	16 11 31.4	+0.3
KLP				*e*S	Sn	16 12 17.1	+0.2
KLP				IAML		16 12 18.9	
	comp=E,1µm,0.2s						
KLP				IAML		16 12 19.2	
	comp=N,1µm,0.4s						
KBL	Kabul	4.66	277	Pn	Pn	16 11 41.3	+0.7
DRK	Karamyk	5.84	338	Pn	Pn	16 11 56.5	-0.4
KUDL	Kundal	6.13	165	*e*P	Pn	16 12 02.5	+1.8
KUDL				*e*S	Sn	16 13 08.6	-1.4
KUDL				IAML		16 13 12.3	
	comp=N,260nm,0.2s						
KUDL				IAML		16 13 12.5	
	comp=E,264nm,0.1s						
DZET	Dzherino	6.64	317	Pn	Pn	16 12 08.2	+0.4
BTK	Batken	6.70	334	Pn	Pn	16 12 10.3	+1.9
ARSB	Arslanbob	7.34	350	Pn	Pn	16 12 16.9	-0.4
NRN	Naryn	7.41	8	Pn	Pn	16 12 20.3	+1.9
WUS	Wushi	7.97	26	Pn	Pn	16 12 26.4	+0.4
BOOM	Boomskoye usch	8.45	7	Pn	Pn	16 12 34.1	+1.5
AAK	Ala-Archa	8.54	359	Pn	Pn	16 12 36.4	+2.7
	comp=E,0.3nm,0.3s,baz=195,slow=16,SNR=3.9						
	comp=E,1.3nm,0.4s						
AAK				AML	AML		
AAK	Ala-Archa	8.54	359	⇓P	Pn	16 12 35.3	+1.6
	comp=E,0.5nm,0.5s						
AAK				⇑S	Sn	16 14 14.2	+5.0
	comp=E,2.1nm,1.2s						
KK31	Karatay Array	9.56	341	⇓P	Pn	16 12 47.1	-0.6
	comp=E,0.9nm,0.2s,baz=148,slow=12,SNR=14						
KK31				⇓S	Sn	16 14 31.8	-2.4
	comp=E,1.3nm,0.3s,baz=154,slow=23,SNR=7.0						
EVN	Everest	12.09	117	Pn	Pn	16 13 20.1	-2.8
MKAR	Makanchi Array	13.95	22	Pn	Pn	16 13 48.6	+1.0
	comp=E,0.1nm,0.3s,baz=205,slow=14,SNR=3.5						
	comp=E,0.1nm,0.4s						
MKAR				AML	AML		
KURBB	Kurchatov Arra	16.77	9	Pn	Pn	16 14 24.7	+0.1
	baz=195,slow=9.7,SNR=1.3						
	comp=E,1.3nm,0.2s						
KURK	Kurchatov	16.87	9		Pn	16 14 24.7	-1.2
KURK	Kurchatov	16.87	9	IAmb	IAmb	16 14 31.1	
	comp=Z,9.0nm,0.2s						
ABKAR	Akbulak array	18.66	329	P	P	16 14 47.4	-0.1
BVAR	Borovoye Array	19.17	352	P	P	16 14 52.8	-0.3
	comp=Z,0.1nm,0.3s,baz=157,slow=9.9,SNR=12						
	comp=Z,1.8nm,0.4s						
BVAR				AML	AML		
BORK	Borovoye	19.20	352	P	P	16 14 53.4	0.0
BORK				IAmb	IAmb	16 14 53.9	
	comp=Z,2.2nm,0.5s						
AKTO	Aktyubinsk	20.37	328	P	P	16 15 05.5	-0.8
	comp=Z,3.8nm,0.4s,baz=129,slow=9.2,SNR=14						
	comp=Z,3.8nm,0.4s						
ZALV	Zalesovo Beam	21.11	17	P	P	16 15 12.0	-2.2
	comp=Z,1.8nm,0.5s,baz=205,slow=9.4,SNR=7.9						
	comp=Z,1.8nm,0.5s						
ARCES	ARCESS Array B	44.50	338	P	P	16 18 40.6	+0.1
	comp=Z,1.3nm,0.4s,baz=113,slow=6.5,SNR=14						
	comp=Z,1.3nm,0.4s						
ARCES	ARCESS Array B	44.50	338	IAmb	IAmb	16 18 47.9	
	comp=Z,10nm,1.2s						
DAV	Davao City (W)	54.03	108	LR	LR	16 43 08.3	
	comp=Z,116nm,19.5s,baz=344,slow=36						
ESDC	Sonseca Array	61.23	300	LR	LR	16 52 06.4	
	comp=Z,18nm,18.6s,baz=316,slow=41						

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*IDC **22** 16:50:31.2±1.9, 13°.24N×50°.97E, h0^{km}, mb3.5/6, mbtmp3.5/7, ML2.7/1, MS3.2/9, Error ellipse: s-maj=57.4km s-min=20.3km az=160.0*

ISC 22 16:50:33.5±1.6**, 13°.2N**±0°.3×**51°.0E**±0°.2**, h16**^{km}**, n16,**

σ**0^s.97**/7, **mb3.5**/5, **MS3.1**/9, **Eastern Gulf of Aden**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ATD	**Arta Tunnel**	**8.12**	**259**	Pn	**Pn**	**16 52 30.2**	**-0.5**
	0.1nm,0.3s,baz=251,slow=20,SNR=2.8						
	0.2nm,0.2s						
ATD				AML	AML		
MBAR	**Mbarara**	**24.31**	**237**	LR	LR	17 05 28.6	
	comp=Z,30nm,18.6s,baz=100,slow=37						
GNI	**Garni**	**27.40**	**350**	LR	LR	17 08 56.0	
	comp=Z,45nm,20.3s,baz=157,slow=40						
KBZ	**Khabaz**	**31.20**	**349**	LR	LR	17 11 33.6	
	comp=Z,46nm,21.3s,baz=154,slow=40						
LSZ	**Lusaka**	**36.18**	**219**	LR	LR	17 12 49.7	
	comp=Z,37nm,19.9s,baz=179,slow=37						
AKASG	**Malin Array Be**	**41.38**	**339**	LR	LR	17 16 26.2	
	comp=Z,24nm,19.7s,baz=343,slow=38						
MKAR	**Makanchi Array**	**42.56**	**32**	P	**P**	**16 58 29.0**	**+0.4**
	0.5nm,0.5s,baz=219,slow=8.1,SNR=8.3						
	0.5nm,0.5s						
BVAR	**Borovoye Array**	**42.63**	**17**	P	**P**	**16 58 29.4**	**+0.4**
	1.0nm,0.7s,baz=194,slow=6.9,SNR=3.9						
	1.0nm,0.7s						
LBTB	**Lobatse**	**45.34**	**213**	LR	LR	17 20 15.7	
	comp=Z,35nm,19.3s,baz=137,slow=39						
TSUM	**Tsumeb**	**46.03**	**226**	LR	LR	17 16 21.8	
	comp=Z,54nm,18.7s,baz=68,slow=34						
CMAR	**Chiang Mai Arr**	**46.34**	**77**	P	**P**	**16 58 59.2**	**0.0**
	0.4nm,0.7s,baz=275,slow=8.5,SNR=4.7						
	0.4nm,0.7s						
TORD	**Torodi Ar. Bea**	**47.92**	**276**	P	**P**	**16 59 12.7**	**+1.2**
	0.2nm,0.5s,baz=86,slow=8.1,SNR=2.0						
	0.2nm,0.5s						
BOSA	**Boshof**	**48.45**	**211**	LR	LR	17 18 21.3	
	comp=Z,20nm,20.4s,baz=337,slow=34						
ZALV	**Zalesovo Beam**	**48.61**	**26**	P	**P**	**16 59 15.0**	**-1.2**
	0.5nm,0.5s,baz=246,slow=11,SNR=2.3						
	0.5nm,0.5s						
ESDC	**Sonseca Array**	**54.83**	**309**	P	**P**	**17 00 02.6**	**-0.5**
	0.3nm,0.6s,baz=97,slow=8.1,SNR=4.0						
	0.3nm,0.6s						
ARCES	**ARCESS Array B**	**58.56**	**350**	LR	LR	17 28 56.5	
	comp=Z,33nm,20.8s,baz=307,slow=39						

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*IDC **22** 17:02:55.8±1.0, 5°.66S×149°.66E, h0^{km}, mb3.6/3, mbtmp3.8/5, ML1.9/1, MS3.2/5, Error ellipse: s-maj=41.1km s-min=12.2km az=134.0*

ISC 22 17:02:55.5±0.9, **5°.9S**±0°.3×**150°.2E**±0°.3, **h10**^{km}, **n10**, σ**0^s.69**/9, **MS3.3**/3, **New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRVT	**Keravat (AS076**	**2.41**	**49**	Pn	**Pg**	**17 03 41.0**	**-0.7**
	227nm,0.6s,baz=301,slow=0.3,SNR=30						
KRVT				Sn	**Sg**	**17 04 13.6**	**+0.7**
	86nm,0.3s,baz=290,slow=9.8,SNR=4.8						
PMG	**Port Moresby**	**4.61**	**221**	Pn	**Pn**	**17 04 05.7**	**+0.5**
	3.9nm,0.3s,baz=31,slow=8.1,SNR=19						
PMG				Sn	**Sn**	**17 04 57.9**	**-1.0**
	6.2nm,0.3s,baz=279,slow=14,SNR=6.8						
	17nm,0.4s						
PMG				AML	AML		
HNR	**Honiara**	**10.27**	**111**	LR	LR	17 08 36.5	
	comp=Z,75nm,21.9s,baz=340,slow=31						
CTA	**Charters Tower**	**14.62**	**195**	LR	LR	17 10 53.3	
	comp=Z,44nm,18.4s,baz=34,slow=32						
WRA	**Warramunga Arr**	**20.80**	**226**	P	**P**	**17 07 37.6**	**+0.5**
	3.2nm,0.7s,baz=52,slow=11,SNR=27						
	3.2nm,0.7s						
ASAR	**Alice Springs**	**23.63**	**220**	P	**P**	**17 08 07.5**	**+0.4**
	0.5nm,0.6s,baz=55,slow=9.1,SNR=20						
ASAR				LR	LR	17 16 53.5	
	comp=Z,75nm,19.2s,baz=105,slow=36						
	0.5nm,0.6s						
STKA	**Stephens Creek**	**27.07**	**196**	LR	LR	17 18 40.4	
	comp=Z,78nm,19.3s,baz=27,slow=35						
PETK	**Petropavlovsk-**	**59.13**	**5**	P	**P**	**17 12 56.1**	**-0.1**
	1.1nm,0.8s,baz=202,slow=7.6,SNR=2.4						
PETK				LR	LR	17 32 51.8	
	comp=Z,24nm,19.9s,baz=215,slow=30						
	1.1nm,0.8s						
GERES	**GERESS Array B**	**123.60**	**327**	PKP	**PKPdf**	**17 21 53.9**	**+0.3**
	0.5nm,0.2s,baz=64,slow=3.1,SNR=3.7						
TORD	**Torodi Ar. Bea**	**148.15**	**285**	PKPbc	**PKPbc**	**17 22 42.3**	**-0.4**
	1.5nm,0.7s,baz=68,slow=2.1,SNR=8.2						

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*IDC **22** 17:35:45.5±3.6, 19°.05S×177°.47W, h565^{km}±44^{km}, mb3.7/3, mbtmp4.7/3, Error ellipse: s-maj=105.9km s-min=39.7km az=161.0*

*NEIC **22** 17:35:46.1±1.4, 19°.1S±0°.2×177°.2W±0°.2, h585^{km}±12^{km}, mb4.1/20, Error ellipse: s-maj=24.3km s-min=21.1km az=148.0*

ISC 22 17:35:46.0±1.0, **19°.1S**±0°.1×**177°.3W**±0°.1, **h585**^{km}±14^{km}, **n26**, σ**0^s.78**/32, **mb4.2**/13, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	**4.62**	**286**	P	**P**	**17 37 15.5**	**+0.4**
AFI	**Afiamalu**	**7.40**	**47**	P	**P**	**17 37 39.0**	**-0.3**
WHZ	**Wether Hill Ro**	**29.37**	**201**	P	**P**	**17 41 02.6**	**-0.2**
ARMA	**Armidale**	**30.28**	**242**	P	**P**	**17 41 11.5**	**+0.4**
CAN	**Canberra**	**33.84**	**235**	P	**P**	**17 41 40.8**	**-0.3**
CTAO	**Charters Tower**	**34.31**	**262**	P	**P**	**17 41 44.7**	**-0.5**
CTAO				IAmb	IAmb	17 41 45.9	
	comp=Z,11nm,1.1s						
TOO	**Toolangi**	**37.26**	**233**	P	**P**	**17 42 09.1**	**-0.1**
STKA	**Stephens Creek**	**39.00**	**243**	P	**P**	**17 42 23.1**	**-0.2**
	comp=Z,4.5nm,0.4s,baz=78,slow=9.3,SNR=14						
	comp=Z,4.5nm,0.4s						
INKA	**Innaminka**	**39.29**	**249**	P	**P**	**17 42 26.7**	**+1.0**
INKA				IAmb	IAmb	17 42 27.1	
	comp=Z,3.1nm,0.8s						
WR8	**Warramunga Arr**	**45.31**	**261**	P	**P**	**17 43 12.3**	**-0.7**
WR8				IAmb	IAmb	17 43 13.4	
	comp=Z,4.0nm,0.5s						
WR8				PcP	**PcP**	**17 44 38.2**	**-1.9**
WRA	**Warramunga Arr**	**45.46**	**261**	P	**P**	**17 43 13.7**	**-0.5**
	comp=Z,3.6nm,0.4s,baz=98,slow=7.1,SNR=139						
WRA				PcP	**PcP**	**17 44 41.3**	**+0.7**
	comp=Z,0.2nm,0.4s,baz=97,slow=4.0,SNR=1.6						
	comp=Z,3.6nm,0.4s						
WRA	**Warramunga Arr**	**45.46**	**261**		**P**	**17 43 12.9**	**-1.2**
WRA					**PcP**	**17 44 39.9**	**-0.8**
AS31	**Alice Springs**	**45.49**	**255**	P	**P**	**17 43 14.1**	**-0.2**
AS31				IAmb	IAmb	17 43 15.6	
	comp=Z,2.8nm,0.5s						
ASAR	**Alice Springs**	**45.49**	**255**	P	**P**	**17 43 14.1**	**-0.3**
	comp=Z,6.9nm,0.5s,baz=86,slow=8.5,SNR=238						
ASAR				PcP	**PcP**	**17 44 41.4**	**+0.7**
	comp=Z,0.7nm,0.7s,baz=101,slow=4.2,SNR=3.5						
ASAR				S	**S**	**17 49 14.9**	**+0.4**
	comp=Z,0.5nm,0.9s,baz=93,slow=15,SNR=4.4						
	comp=Z,6.9nm,0.5s						
ASAR	**Alice Springs**	**45.49**	**255**	P	**P**	**17 43 13.6**	**-0.8**
ASAR					**PcP**	**17 44 40.6**	**-0.1**
MTN	**Manton Dam**	**49.82**	**269**	P	**P**	**17 43 46.3**	**-0.4**
MTN				IAmb	IAmb	17 44 29.6	
	comp=Z,9.3nm,1.2s						
FORT	**Forrest**	**50.46**	**246**	P	**P**	**17 43 50.3**	**-0.8**
FORT				IAmb	IAmb	17 43 54.1	
	comp=Z,8.5nm,1.0s						
KNRA	**Kununurra**	**51.42**	**265**	P	**P**	**17 43 58.0**	**-0.3**
KNRA				IAmb	IAmb	17 43 58.8	
	comp=Z,4.6nm,0.7s						
FAKI	**Fak Fak**	**51.84**	**282**	P	**P**	**17 44 01.7**	**+0.3**
FITZ	**Fitzroy Crossi**	**53.88**	**261**	P	**P**	**17 44 15.9**	**+0.2**
SOEI	**Soe**	**57.13**	**271**	P	**P**	**17 44 39.2**	**+0.8**
SOEI				IAmb	IAmb	17 44 40.8	
	comp=Z,15nm,0.8s						
MBWA	**Marble Bar**	**58.81**	**256**	P	**P**	**17 44 48.8**	**-0.8**
MBWA				IAmb	IAmb	17 45 22.8	
	comp=Z,12nm,1.2s						
SBA	**Scott Base**	**59.30**	**184**	P	**P**	**17 44 53.5**	**+1.7**
CASY	**Casey**	**65.50**	**205**	P	**P**	**17 45 32.2**	**+0.3**
QSPA	**South Pole Qui**	**70.95**	**180**	P	**P**	**17 46 04.0**	**-1.1**
QSPA				IAmb	IAmb	17 46 04.8	
	comp=Z,5.8nm,1.5s						
MCK	**McKinley**	**85.48**	**12**	P	**P**	**17 47 22.8**	**+0.5**

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*NEIC **22** 18:13:30.3±1.5, 43°.78N±0°.06×105°.30W±0°.09, h0^{km}±1^{km}, ML3.6/62, Error ellipse: s-maj=11.7km s-min=8.5km az=55.0*

*IDC **22** 18:13:33.2±1.1, 44°.03N×105°.53W, h0^{km}, mb4.0/2, mbtmp3.6/9, ML3.5/7, Error ellipse: s-maj=20.6km s-min=10.4km az=148.0*

ISC 22 18:13:31.6±0.8, **43°.80N**±0°.06×**105°.35W**±0°.07, **h0**^{km}, **n88**, σ**0^s.98**/87, **Wyoming**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RSSD	**Black Hills**	**1.00**	**71**		**Pg**	**18 13 50.9**	**0.0**
K22A	**Casper**	**1.43**	**217**		**Pn**	**18 13 58.3**	**-0.7**
K22A				IAML		18 14 22.6	
	835nm,0.3s						
K22A				IAML		18 14 24.6	
	784nm,0.3s						
LAO	**LASA Array**	**2.96**	**348**		**Pn**	**18 14 20.3**	**+0.4**
RLMT	**Red Lodge**	**3.10**	**297**		**Pn**	**18 14 23.4**	**+1.4**
RLMT				IAML		18 15 16.1	
	105nm,0.9s						
RLMT				IAML		18 15 16.8	
	128nm,1.2s						
BW06	**Boulder Array**	**3.24**	**253**		**Pn**	**18 14 25.1**	**+1.1**
BW06				IAML		18 15 14.7	
	103nm,0.3s						
BW06				IAML		18 15 19.4	
	83nm,0.6s						
PDAR	**Pinedale Array**	**3.24**	**253**	Pn	**Pn**	**18 14 25.6**	**+1.6**
	5.2nm,0.3s,baz=62,slow=16,SNR=123						
PDAR				Lg	Lg	18 15 11.9	
	8.2nm,0.3s,baz=70,slow=28,SNR=6.1						
	18nm,0.4s						
PDAR				AML	AML		
PDAR	**Pinedale Array**	**3.24**	**253**		**Pn**	**18 14 25.1**	**+1.1**
YNE	**Yellowstone No**	**3.55**	**292**		**Pn**	**18 14 29.7**	**+1.5**
YNE				IAML		18 15 27.2	
	comp=N,171nm,0.4s						
HAYD	**Hayden**	**3.57**	**204**		**Pn**	**18 14 28.3**	**-0.2**
HAYD				IAML		18 15 39.6	
	comp=E,93nm,2.0s						
YMP	**Mirror Lake Pl**	**3.58**	**287**		**Pn**	**18 14 29.7**	**+1.1**
GCMT	**Greycliff**	**3.66**	**304**		**Pn**	**18 14 31.0**	**+1.3**
OGNE	**Ogallala**	**3.76**	**138**		**Pn**	**18 14 30.4**	**-0.6**
LOHW	**Long Hollow**	**3.81**	**269**		**Pn**	**18 14 33.8**	**+1.9**
YNR	**Norris Junctio**	**3.94**	**285**		**Pn**	**18 14 33.1**	**-0.5**
SNOW	**Snow King Moun**	**3.94**	**267**		**Pn**	**18 14 33.9**	**+0.3**
SNOW				IAML		18 15 54.2	
	comp=E,107nm,1.6s						
SNOW				IAML		18 15 58.5	
	comp=E,67nm,0.8s						
YPP	**Pitchstone Pla**	**3.96**	**279**		**Pn**	**18 14 34.6**	**+0.7**
YPP				IAML		18 15 43.4	
	comp=E,46nm,2.6s						
ISCO	**Idaho Springs**	**4.00**	**183**		**Pn**	**18 14 35.0**	**+0.6**
ISCO				IAML		18 15 43.1	
	comp=E,44nm,1.6s						
YFT	**Old Faithful**	**4.00**	**281**		**Pn**	**18 14 35.8**	**+1.4**
YHH	**Holmes Hill**	**4.07**	**286**		**Pn**	**18 14 37.1**	**+1.6**
FXWY	**Fox Creek**	**4.12**	**270**		**Pn**	**18 14 36.9**	**+0.8**
YMR	**Madison River**	**4.13**	**284**	Pn	**Pn**	**18 14 36.4**	**+0.2**
YMR				IAML		18 16 15.3	
	comp=E,99nm,1.0s						
YMR				IAML		18 16 16.3	
	comp=N,77nm,1.0s						
O20A	**White River Ci**	**4.25**	**211**		**Pn**	**18 14 39.6**	**+1.8**
O20A				IAML		18 16 29.4	
	comp=N,98nm,1.9s						
YHB	**Horse Butte**	**4.31**	**285**		**Pn**	**18 14 39.9**	**+1.3**
YHL	**Hebgen Lake**	**4.32**	**286**		**Pn**	**18 14 40.1**	**+1.3**
YHL				IAML		18 15 57.4	
	comp=E,53nm,1.0s						
YHL				IAML		18 16 03.8	
	comp=N,55nm,1.7s						
K30B	**Basset**	**4.34**	**103**		**Pn**	**18 14 39.4**	**+0.5**
QLMT	**Earthquake Lak**	**4.49**	**285**		**Pn**	**18 14 41.4**	**+0.3**
RDMU	**Red Mountain**	**4.50**	**226**		**Pn**	**18 14 41.4**	**+0.2**
RDMU				IAML		18 15 56.5	
	comp=N,45nm,1.0s						
RDMU				IAML		18 16 08.8	
	comp=E,62nm,1.9s						
BOZ	**Bozeman (W)**	**4.83**	**294**		**Pn**	**18 14 46.4**	**+0.8**
BOZ				IAML		18 16 05.8	
	comp=E,29nm,1.3s						
BOZ				IAML		18 16 10.0	
	comp=E,37nm,1.1s						
HWUT	**Hardware Ranch**	**5.08**	**247**		**Pn**	**18 14 50.0**	**+0.9**
HWUT				IAML		18 16 18.8	
	comp=E,55nm,1.0s						
HWUT				IAML		18 16 25.2	
	comp=E,54nm,1.9s						
BSUT	**Blindstream Ca**	**5.18**	**233**		**Pn**	**18 14 51.7**	**+1.0**
BSUT				IAML		18 16 27.9	
	comp=N,31nm,2.2s						
BSUT				IAML		18 16 36.7	
	comp=E,27nm,3.0s						
KSCO	**Kaye Shedlock'**	**5.20**	**156**		**Pn**	**18 14 50.8**	**0.0**
TCUT	**Toone Canyon**	**5.22**	**241**		**Pn**	**18 14 52.1**	**+0.9**
MCMT	**McKenzie Canyo**	**5.48**	**283**		**Pn**	**18 14 55.6**	**+0.8**
P18A	**Preston Nutter**	**5.55**	**223**		**Pn**	**18 14 57.2**	**+1.4**
SPUT	**South Promonto**	**5.80**	**247**		**Pn**	**18 15 00.5**	**+1.4**
HVU	**Hansel Valley**	**5.83**	**252**		**Pn**	**18 14 59.8**	**+0.4**
BCYI	**Bear Canyon**	**5.83**	**278**		**Pn**	**18 15 00.1**	**+0.5**
PV22	**Blue Mesa, Par**	**5.86**	**207**		**Pn**	**18 15 01.0**	**+1.0**
GBMT	**Granite Butte,**	**5.87**	**304**		**Pn**	**18 15 01.1**	**+1.0**
PV21	**Cone Mtn., Par**	**5.90**	**209**		**Pn**	**18 15 00.4**	**-0.1**
PV07	**Paradox Valley**	**5.91**	**206**		**Pn**	**18 15 01.0**	**+0.5**
P17A	**Butcher Ranch,**	**5.92**	**225**		**Pn**	**18 15 00.9**	**+0.2**
PV15	**Paradox Valley**	**5.94**	**205**		**Pn**	**18 15 01.2**	**+0.1**
PV23	**Carpenter Ridg**	**6.01**	**209**		**Pn**	**18 15 02.5**	**+0.4**
MPU	**Maple Canyon**	**6.02**	**233**		**Pn**	**18 15 03.3**	**+1.2**
PV04	**Paradox Valley**	**6.03**	**208**		**Pn**	**18 15 02.7**	**+0.4**
SDCO	**Great Sand Dun**	**6.05**	**181**		**Pn**	**18 15 02.8**	**+0.2**
PV12	**Saucer Basin,**	**6.07**	**207**		**Pn**	**18 15 02.6**	**-0.2**
SRU	**San Rafael Swe**	**6.09**	**221**		**Pn**	**18 15 03.4**	**+0.4**
PV14	**Lion Creek, Pa**	**6.09**	**208**		**Pn**	**18 15 02.9**	**-0.2**
PV10	**Paradox Valley**	**6.09**	**208**		**Pn**	**18 15 03.6**	**+0.5**
PV20	**West Nyswonger**	**6.10**	**208**	Pn	**Pn**	**18 15 03.2**	**0.0**
PV11	**David Mesa, Pa**	**6.11**	**207**		**Pn**	**18 15 03.5**	**+0.2**
PV16	**Nyswonger Mesa**	**6.11**	**207**		**Pn**	**18 15 03.0**	**-0.3**
PV19	**Morning Glory**	**6.13**	**208**		**Pn**	**18 15 02.8**	**-0.9**
PV03	**Paradox Valley**	**6.14**	**207**		**Pn**	**18 15 02.8**	**-0.9**
PV02	**Paradox Valley**	**6.14**	**206**		**Pn**	**18 15 04.1**	**+0.2**
PV17	**East Wray Mesa**	**6.15**	**208**		**Pn**	**18 15 04.2**	**+0.3**
PV01	**Paradox Valley**	**6.16**	**204**		**Pn**	**18 15 04.0**	**-0.1**
PV18	**Skein Mesa, Pa**	**6.17**	**207**		**Pn**	**18 15 04.0**	**-0.1**
PV13	**Radium Mtn., P**	**6.22**	**206**		**Pn**	**18 15 06.1**	**+1.3**
TMUT	**Trail Mountain**	**6.29**	**226**		**Pn**	**18 15 06.2**	**+0.3**
ECSD	**EROS Data Cent**	**6.33**	**88**		**Pn**	**18 15 06.6**	**+0.5**
BGU	**Big Grassy Mou**	**6.37**	**246**		**Pn**	**18 15 06.9**	**0.0**
PV05	**Paradox Valley**	**6.38**	**208**		**Pn**	**18 15 05.6**	**-1.5**
CBKS	**Cedar Bluff**	**6.53**	**138**		**Pn**	**18 15 07.9**	**-1.0**
Q16A	**Castle Valley**	**6.55**	**224**		**Pn**	**18 15 10.7**	**+1.2**
HLID	**Hailey**	**6.58**	**271**		**Pn**	**18 15 09.3**	**-0.4**
DUG	**Dugway, Tooele**	**6.62**	**240**		**Pn**	**18 15 11.1**	**+0.7**
T25A	**Trinidad**	**6.69**	**174**		**Pn**	**18 15 10.1**	**-1.3**
MSO	**Missoula**	**6.77**	**300**		**Pn**	**18 15 10.2**	**-2.2**
MVCO	**Mesa Verde**	**7.00**	**201**	Pn	**Pn**	**18 15 14.2**	**-1.4**
HMU	**Henry Mountain**	**7.14**	**217**		**Pn**	**18 15 17.1**	**-0.4**
JTMT	**Jette**	**7.39**	**305**	Pn	**Pn**	**18 15 19.1**	**-1.8**
RTBA	**Rita Blanca**	**7.62**	**164**		**Pn**	**18 15 23.1**	**-0.9**
PLID	**Pearl Lake**	**7.73**	**283**	Pn	**Pn**	**18 15 24.0**	**-1.6**
ELK	**Elko**	**7.94**	**251**	Pn	**Pn**	**18 15 29.8**	**+1.3**
	comp=E,0.6nm,0.3s,baz=58,slow=7.4,SNR=9.8						
ELK				Lg	Lg	18 17 43.0	
	comp=E,0.1nm,0.3s,baz=106,slow=16,SNR=3.4						
	comp=E,1.1nm,0.3s						
ELK				AML	AML		
ELK	**Elko**	**7.94**	**251**		**Pn**	**18 15 28.0**	**-0.6**
PSUT	**Pine Spring**	**8.29**	**234**		**Pn**	**18 15 32.1**	**-1.2**
CCUT	**Cedar City**	**8.72**	**227**		**Pn**	**18 15 38.1**	**-1.1**
ULM	**Lac du Bonnet**	**9.13**	**42**	Pn	**Pn**	**18 15 45.0**	**+0.4**
	comp=E,1.8nm,0.3s,baz=231,slow=12,SNR=12						
ULM				Lg	Lg	18 18 16.1	
	comp=E,0.4nm,0.3s,baz=131,slow=22,SNR=5.9						
	comp=E,4.4nm,0.4s						
ULM				AML	AML		
NEW	**Newport**	**9.33**	**303**	Pn	**Pn**	**18 15 45.2**	**-2.1**
	comp=E,0.2nm,0.3s,baz=131,slow=9.3,SNR=2.5						
NEW				Lg	Lg	18 18 14.3	
	comp=E,0.1nm,0.3s,baz=263,slow=22,SNR=1.7						
	comp=E,1.4nm,0.5s						
NEW				AML	AML		
I56US	**NEWPORT INFRAS**	**9.33**	**303**	I	I	19 19 16.6	
	baz=115,slow=320,SNR=1.0						
NVAR	**Mina Array Bea**	**11.14**	**246**	Pn	**Pn**	**18 16 13.1**	**+0.7**
	comp=E,0.3nm,0.3s,baz=35,slow=13,SNR=3.4						
	comp=E,0.4nm,0.3s						
NVAR				AML	AML		
YBH	**Yreka Blue Hor**	**12.93**	**267**	Pn	**Pn**	**18 16 38.3**	**+1.7**
	comp=E,0.2nm,0.3s,baz=85,slow=8.8,SNR=3.6						
	comp=E,0.6nm,0.5s						
YBH				AML	AML		
TXAR	**Lajitas Array**	**14.50**	**174**	Pn	**P**	**18 17 06.0**	**+0.9**
	baz=350,slow=13,SNR=2.5						
	comp=E,0.3nm,0.7s						
ZALV	**Zalesovo Beam**	**82.24**	**354**	P	**P**	**18 25 53.6**	**-0.8**
	comp=E,0.4nm,0.3s,baz=14,slow=6.7,SNR=4.0						
	comp=E,0.4nm,0.3s						
MKAR	**Makanchi Array**	**89.54**	**355**	P	**P**	**18 26 30.9**	**+0.2**
	comp=E,0.6nm,0.7s,baz=0.0,slow=4.2,SNR=5.5						
	comp=E,0.6nm,0.7s						

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*ISK **22** 18:22:45.9, 38°.04N×34°.04E, h5^{km}, ML3.4/26*

*AFAD **22** 18:22:46.7, 38°.02N×34°.02E, h7^{km}±1^{km}, MW3.6*

ISC 22 18:22:47.2±1.2, **38°.04N**±0°.02×**34°.04E**±0°.02, **h6**^{km}±11^{km}, **n43**, σ**1^s.25**/55, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BSIR	**Belisirma, Guz**	**0.31**	**41**	P	**Pg**	**18 22 53.3**	**+0.1**
BSIR				IAML		18 23 04.0	
	comp=N,2µm,0.5s						
BSIR				IAML		18 23 05.0	
	comp=E,2µm,0.5s						
YESY	**Yesilyurt**	**0.34**	**223**	Pg	**Pb**	**18 22 54.4**	**-1.4**
YESY				AML	AML		
GULA	**Gulagac**	**0.35**	**27**	Pg	**Pg**	**18 22 53.8**	**-0.2**
GULA				Sg	**Sb**	**18 22 59.6**	**-2.1**
GULA				AML	AML		
NIDE	**Nigde/Merkez-G**	**0.59**	**93**	P	**Pg**	**18 22 58.3**	**-0.2**
NIDE				S	**Sb**	**18 23 07.0**	**-1.6**
NIDE				IAML		18 23 08.0	
	comp=N,3µm,0.5s						
NIDE				IAML		18 23 10.0	
	comp=E,3µm,0.6s						
KERG	**Konya-Eregli**	**0.62**	**173**	P	**Pb**	**18 22 59.2**	**-1.4**
KERG				S	**Sb**	**18 23 09.7**	**+0.1**
KERG				IAML		18 23 11.0	
	comp=E,936nm,0.8s						
KERG				IAML		18 23 14.0	
	comp=N,660nm,0.4s						
AKSY	**AKSARAY - Alti**	**0.65**	**341**	P	**Pg**	**18 22 59.4**	**-0.4**
AKSY				IAML		18 23 16.0	
	comp=N,892nm,0.3s						
AKSY				IAML		18 23 20.0	
	comp=E,854nm,0.8s						
CMRD	**Camardi-Nigde**	**0.84**	**116**	Pg	**Pg**	**18 23 02.8**	**-0.6**
CMRD				Sg	**Sb**	**18 23 15.9**	**0.0**
CMRD				AML	AML		
GULE	**Gulek**	**0.95**	**142**	P	**Pg**	**18 23 04.9**	**-0.6**
GULE				S	**Sn**	**18 23 20.4**	**-0.8**
GULE				IAML		18 23 29.0	
	comp=N,1µm,0.6s						
GULE				IAML		18 23 32.0	
	comp=E,1µm,0.6s						
SERE	**Sereflikochisa**	**0.98**	**338**	Pg	**Pg**	**18 23 05.4**	**-0.7**
SERE				AML	AML		
AVNS	**Nevsehir-Avano**	**1.00**	**39**	P	**Pg**	**18 23 05.5**	**-0.9**
AVNS				IAML		18 23 28.0	
	comp=N,917nm,0.5s						
AVNS				IAML		18 23 31.0	
	comp=E,1µm,0.7s						
YAHY	**KAYSERI_Yahyal**	**1.05**	**86**	P	**Pg**	**18 23 06.7**	**-0.7**
YAHY				S	**Sn**	**18 23 22.0**	**-1.6**
YAHY				IAML		18 23 23.0	
	comp=N,773nm,0.4s						
YAHY				IAML		18 23 31.0	
	comp=E,703nm,0.6s						
KRMN	**Karaman**	**1.06**	**216**	Pg	**Pb**	**18 23 07.2**	**-0.8**
KRMN				AML	AML		
MCUR	**KIREHR**	**1.19**	**19**	P	**Pg**	**18 23 08.5**	**-1.6**
MCUR				S	**Sn**	**18 23 26.9**	**-0.2**
KULU	**Kulu**	**1.29**	**321**	Pn	**Pg**	**18 23 11.9**	**-0.1**
KULU				Sn	**Sn**	**18 23 30.6**	**+1.0**
KULU				AML	AML		
KONT	**Konya--Tatoy**	**1.33**	**267**	Pn	**Pg**	**18 23 11.7**	**-0.9**
KONT				AML	AML		
LADK	**Ladik-KONYA**	**1.33**	**278**	Pn	**Pg**	**18 23 12.1**	**-0.6**
LADK				AML	AML		
CAYT	**Sariam**	**1.33**	**130**	P	**Pg**	**18 23 11.8**	**-0.9**
CAYT				S	**Sn**	**18 23 32.8**	**+2.4**
CAYT				IAML		18 23 37.0	
	comp=N,1µm,0.6s						
CAYT				IAML		18 23 47.0	
	comp=E,1µm,0.8s						
KOZK	**Kozakli-Nevseh**	**1.34**	**29**	Pn	**Pg**	**18 23 12.4**	**-0.5**
KOZK				Sn	**Sn**	**18 23 32.1**	**+1.3**
KOZK				AML	AML		
KAMT	**Kaman**	**1.35**	**349**	Pn	**Pg**	**18 23 12.3**	**-0.9**
KAMT				AML	AML		
GUNE	**Kayseri**	**1.52**	**55**	P	**Pg**	**18 23 15.7**	**-0.6**
GUNE				IAML		18 23 46.0	
	comp=N,337nm,0.5s						
GUNE				IAML		18 23 49.0	
	comp=E,385nm,0.7s						
KOZT	**Kozan**	**1.52**	**111**	Pn	**Pb**	**18 23 14.6**	**-1.3**
KOZT				AML	AML		
AFSR	**Afar-Bala (An**	**1.60**	**332**	Pn	**Pb**	**18 23 16.6**	**-0.6**
AFSR				AML	AML		
KEBE	**Keben-Mersin**	**1.61**	**189**	Pn	**Pb**	**18 23 16.3**	**-1.0**
KEBE				AML	AML		
SAIM	**ADANA**	**1.62**	**91**	P	**Pg**	**18 23 17.4**	**-0.8**
SAIM				S	**Sg**	**18 23 39.3**	**+0.2**
SAIM				IAML		18 23 41.0	
	comp=N,1µm,0.7s						
SAIM				IAML		18 23 42.0	
	comp=E,2µm,0.4s						
HDMB	**Hadim**	**1.63**	**230**	Pn	**Pg**	**18 23 17.3**	**-1.2**
HDMB				AML	AML		
BNN	**Bunyan**	**1.64**	**60**	Pn	**Pb**	**18 23 17.3**	**-0.6**
BNN				AML	AML		
SLFK	**Silifke-Mersin**	**1.64**	**183**	Pn	**Pb**	**18 23 16.9**	**-0.9**
SLFK				AML	AML		
TEVE	**Tevekalti-Mers**	**1.67**	**197**	Pn	**Pb**	**18 23 17.7**	**-0.6**
TEVE				AML	AML		
SILI	**Silifke-Mersin**	**1.67**	**183**	Pn	**Pg**	**18 23 17.8**	**-1.4**
SILI				AML	AML		
BR131	**Keskin Array S**	**1.72**	**350**	Pn	**Pb**	**18 23 17.9**	**-1.3**
BR131				AML	AML		
BERE	**Bereket-Mersin**	**1.81**	**201**	Pn	**Pb**	**18 23 19.4**	**-1.4**
BERE				AML	AML		
KRTS	**Karatas**	**1.81**	**143**	Pn	**Pb**	**18 23 19.5**	**-1.2**
KRTS				AML	AML		
IKL	**Isikli**	**1.81**	**189**	Pn	**Pb**	**18 23 19.8**	**-1.0**
IKL				AML	AML		
KARG	**Kargicak-Mersi**	**1.85**	**188**	Pn	**Pb**	**18 23 20.3**	**-1.1**
KARG				AML	AML		
SEYD	**Seydisehir-KON**	**1.85**	**251**	Pn	**Pb**	**18 23 20.7**	**-0.8**
SEYD				AML	AML		
ANDN	**Andirin**	**1.88**	**103**	P	**Pg**	**18 23 21.9**	**-1.5**
ANDN				S	**Sg**	**18 23 51.5**	**+3.8**
ANDN				IAML		18 23 53.0	
	comp=E,435nm,0.7s						
ANDN				IAML		18 23 55.0	
	comp=N,592nm,0.6s						
YOZ	**Yozgat**	**1.89**	**32**	Pn	**Pb**	**18 23 20.6**	**-1.6**
YOZ				AML	AML		
KIZT	**Kizilcal**	**1.89**	**297**	Pn	**Pb**	**18 23 21.7**	**-0.5**
KIZT				AML	AML		
BEIL	**Beino**	**3.90**	**153**	*e*P	**Pn**	**18 23 48.2**	**+0.6**
HWQ	**Hawqa**	**4.06**	**157**	*e*P	**Pn**	**18 23 51.9**	**+2.0**
ZAHL	**Zahle**	**4.43**	**160**	*e*P	**Pn**	**18 23 56.9**	**+1.9**
RCY	**Rachaya**	**4.76**	**162**	*e*P	**Pn**	**18 24 01.7**	**+2.1**
SHBL	**Chebaa**	**4.88**	**163**	*e*P	**Pn**	**18 24 02.2**	**+0.9**

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*GCG **22** 18:25:12.2±1.5, 13°.91N×89°.55W, h6^{km}±64^{km}, MD3.6, Presumed earthquake*

*SNET **22** 18:25:13.0±0.9, 14°.09N×89°.73W, h6^{km}±2^{km}, ML2.3, Presumed earthquake*

*CATAC **22** 18:25:13.0±0.3, 14°N±2°×9°0W±°, h2^{km}±1^{km}, M2.4/13, MLv2.4/13, Error ellipse: s-maj=4.0km s-min=3.2km az=101.2, confirmed*

ISC 22 18:25:13.1±1.0, **14°.09N**±0°.03×**89°.71W**±0°.03, **h9**^{km}±7^{km}, **n21**, σ**0^s.91**/30, **1C-3D**, **Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC

RBDL	Robledal	0.03	42	⇑*i*P	Pg	18 25 15.5	+0.4
SLOZ	Alcaldia de Sa	0.10	229	*e*P	Pg	18 25 15.7	0.0
SLOZ				*e*S	Sg	18 25 17.6	+0.1
SLOZ	Alcaldia de Sa	0.10	229	P	Pg	18 25 15.7	0.0
LOAL	Lomas de Alarc	0.12	218	P	Pg	18 25 16.2	+0.2
LOAL				S	Sg	18 25 17.9	-0.1
UNIC	Universidad Ca	0.19	126	P	Pg	18 25 17.8	+0.7
UNIC				S	Sg	18 25 20.9	+1.1
NUBE	Las Nubes	0.20	201	⇓*i*P	Pg	18 25 17.8	+0.4
NUBE				*e*S	Sg	18 25 20.9	+0.6
NUBE	Las Nubes	0.20	201	P	Pg	18 25 17.8	+0.4
NUBE				S	Sg	18 25 20.9	+0.6
RTR	El Retiro	0.20	164	⇓*e*P	Pg	18 25 18.4	+0.9
SNJE	San Jose	0.24	157	⇓*e*P	Pg	18 25 19.0	+0.8
SBLS	San Blas	0.26	162	*e*P	Pg	18 25 19.2	+0.7
CEVE	Cerro Verde	0.28	163	P	Pg	18 25 19.5	+0.8
CEVE				S	Sg	18 25 23.6	+1.1
FAME	Alcaldia de Sa	0.39	231	P	Pg	18 25 20.8	0.0
FAME				S	Sg	18 25 26.3	+0.3
MTO3	Montecristo	0.45	48	*e*P	Pb	18 25 22.6	-0.8
MTO3	Montecristo	0.45	48	P	Pg	18 25 21.8	-0.2
JAYA	Jayaque - finc	0.50	150	*e*P	Pg	18 25 23.5	+0.5
JAYA	Jayaque - finc	0.50	150	P	Pb	18 25 23.7	-0.6
PMON	Piamonte	0.54	135	P	Pb	18 25 24.4	-0.3
PMON				S	Sb	18 25 32.1	-0.6
ESQI	Esquipulas	0.58	37	P	Pg	18 25 24.7	+0.2
UEES	Universidad Ev	0.59	130	P	Pg	18 25 25.0	+0.5
APG	El Apazote	1.17	321	*e*P	Pg	18 25 38.6	+3.0
APG				*e*S	Sb	18 25 49.3	-1.6
RANC	El Ranchito	1.52	115	P	Pb	18 25 40.9	-0.8

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*NEIC **22** 18:41:05.7±2.0,23°.44S±0°.10×179°.8W±0°.1,h543^{km}±2^{km}, mb4.4/44,Error ellipse: s-maj=15.2km s-min=13.7km az=98.0*

*NOU **22** 18:41:06.4,23°.22S×179°.67W,h570^{km},mb4.0/14,South of Fiji Islands*

*IDC **22** 18:41:07.1±1.3,23°.34S×180°.00W,h558^{km}±14^{km}, mb3.4/16,mbtmp4.3/18,Error ellipse: s-maj=13.0km s-min=11.8km az=139.0*

ISC 22 18:41:04.6±0.4,**23°.39S**±0°.06×**179°.81W**±0°.07,**h532**^{km},**n132,**σ**1^{s}.28**/133,**mb4.3**/35,**1C-1D,South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LKBA	Tubou, Lakemba	5.22	10	P	P	18 42 38.3	+2.9
MSVF	Nonsavu	5.98	340	P	P	18 42 44.5	+2.2
	12nm,0.7s,baz=197,slow=8.3,SNR=11						
MSVF	Nonsavu	5.98	340	P	P	18 42 45.0	+2.7
MSVF	Nonsavu	5.98	340	P	P	18 42 44.3	+2.0
RAO	Raoul Island	6.08	164	P	P	18 42 45.2	+2.3
DGTI	Dogotuki	7.07	356	P	P	18 42 53.6	+0.9
MARNC	Mare, Loyalty	11.40	277	P	P	18 43 39.5	+2.6
MARNC	Mare, Loyalty	11.40	277	P	P	18 43 38.9	+2.0
YATNC	Mamie plateau,	12.34	274	P	P	18 43 51.2	+4.5
URZ	Urewera	15.05	189	P	P	18 44 14.9	+0.3
	5.5nm,0.3s,baz=269,slow=4.4,SNR=12						
URZ				S	S	18 46 51.0	-0.3
	5.8nm,0.5s,baz=51,slow=23,SNR=5.9						
RTZ	Ruatahuna	15.42	189	P	P	18 44 16.3	-2.3
RTZ				IAmb	IAmb	18 44 46.0	
	comp=Z,15nm,1.0s						
MSWZ	Moikau Station	18.44	192	P	P	18 44 46.3	-0.8
TCW	Tory Channel	18.45	194	P	P	18 44 46.4	-0.7
QRZ	Quartz Range	18.54	199	P	P	18 44 49.8	+1.8
QRZ	Quartz Range	18.54	199	P	P	18 44 49.0	+1.0
TKNZ	Takaka Hill	18.61	197	P	P	18 44 48.8	+0.2
NNZ	Nelson	18.67	196	P	P	18 44 49.4	+0.2
MRNZ	Matariki Terra	19.00	197	P	P	18 44 52.4	+0.2
THZ	Tophouse	19.30	197	P	P	18 44 55.4	+0.4
LTZ	Lake Taylor	20.42	197	P	P	18 45 04.2	-0.9
MLZ	Mavora Lakes	24.02	201	P	P	18 45 37.8	+0.4
WHZ	Wether Hill Ro	24.54	201	P	P	18 45 42.5	+0.6
WHZ				IAmb	IAmb	18 45 44.1	
	comp=Z,19nm,0.8s						
ARMA	Armidale	26.36	248	P	P	18 46 00.2	+1.8
ARMA	Armidale	26.36	248	P	P	18 45 59.1	+0.7
ARMA				IAmb	IAmb	18 46 08.8	
	comp=Z,28nm,1.5s						
EIDS	Eidsvold	26.56	260	P	P	18 46 00.1	0.0
EIDS				IAmb	IAmb	18 46 02.0	
	comp=Z,15nm,1.2s						
CAN	Canberra	29.54	239	P	P	18 46 27.7	+1.6
CAN	Canberra	29.54	239	P	P	18 46 27.0	+0.9
CAN				IAmb	IAmb	18 46 58.4	
	comp=Z,13nm,1.1s						
CMSA	Cobar Meteorol	31.56	247	P	P	18 46 44.4	+0.9
CTA	Charters Tower	31.65	269	P	P	18 46 45.4	+1.1
CTAO	Charters Tower	31.65	269	P	P	18 46 45.5	+1.1
CTAO	Charters Tower	31.65	269	P	P	18 46 45.2	+0.8
CTAO				IAmb	IAmb	18 46 45.9	
	comp=Z,7.9nm,0.4s						
TOO	Toolangi	32.87	236	P	P	18 46 55.1	+0.6
TOO				IAmb	IAmb	18 47 12.8	
	comp=Z,11nm,1.4s						
PMG	Port Moresby	34.49	288	P	P	18 47 08.8	+0.3
PMG				IAmb	IAmb	18 47 28.2	
	comp=Z,15nm,0.9s						
STKA	Stephens Creek	35.07	247	P	P	18 47 13.6	+0.5
	comp=Z,4.3nm,0.5s,baz=77,slow=8.7,SNR=8.3						
	comp=Z,4.3nm,0.5s						
INKA	Innaminka	35.74	255	P	P	18 47 19.7	+1.0
HTT	Hallett	37.44	245	P	P	18 47 33.3	+0.6
BBOO	Buckleboo	39.80	246	P	P	18 47 51.6	-0.2
BBOO	Buckleboo	39.80	246	P	P	18 47 51.1	-0.6
AS31	Alice Springs	42.29	260	P	P	18 48 11.3	-0.4
ASAR	Alice Springs	42.29	260	P	P	18 48 11.3	-0.3
	comp=Z,2.0nm,0.4s,baz=98,slow=7.0,SNR=42						
ASAR				S	S	18 53 52.1	-2.0
	comp=Z,0.9nm,0.7s,baz=96,slow=15,SNR=7.2						
	comp=Z,2.0nm,0.4s						
WR8	Warramunga Arr	42.46	266	P	P	18 48 12.7	-0.4
WR8				IAmb	IAmb	18 48 35.4	
	comp=Z,9.5nm,1.4s						
WRA	Warramunga Arr	42.61	266	P	P	18 48 13.6	-0.7
	comp=Z,2.1nm,0.5s,baz=95,slow=9.7,SNR=101						
WRA				S	S	18 53 54.0	-4.9
	comp=Z,0.9nm,0.8s,baz=103,slow=12,SNR=5.0						
	comp=Z,2.1nm,0.5s						
WRA	Warramunga Arr	42.61	266	P	P	18 48 13.3	-1.0
JAY	Jayapura	43.48	293	P	P	18 48 20.9	-0.2
	comp=Z,4.8nm,0.6s,baz=105,slow=19,SNR=1.9						
	comp=Z,4.8nm,0.6s						
PTCN	Pitcairn Islan	45.16	103	P	P	18 48 33.5	-0.5
FORT	Forrest	46.65	249	P	P	18 48 44.7	-0.4
FORT				IAmb	IAmb	18 48 45.8	
	comp=Z,8.3nm,0.8s						
MTN	Manton Dam	47.59	274	P	P	18 48 52.0	-0.5
HMH	Humu‘ula Sheep	48.89	31	P	P	18 49 01.6	-0.7
GUMO	Guam	50.45	313	P	P	18 49 13.4	-0.1
	comp=Z,17nm,0.5s,baz=143,slow=12,SNR=2.2						
	comp=Z,17nm,0.5s						
GUMO	Guam	50.45	313	P	P	18 49 13.6	+0.1
FAKI	Fak Fak	50.60	286	P	P	18 49 14.2	-0.6
FAKI				IAmb	IAmb	18 49 43.9	
	comp=Z,22nm,1.1s						
FITZ	Fitzroy Crossi	51.04	265	P	P	18 49 18.4	+0.6
SIJI	Sorong	52.44	288	P	P	18 49 26.7	-1.4
	comp=Z,16nm,0.7s,baz=119,slow=5.9,SNR=8.3						
	comp=Z,16nm,0.7s						
VNDA	Vanda	54.90	185	P	P	18 49 45.8	+1.4
	comp=Z,0.5nm,0.5s,baz=7.3,slow=7.0,SNR=8.6						
	comp=Z,0.5nm,0.5s						
VNDA	Vanda	54.90	185	P	P	18 49 45.8	+1.4
MBWA	Marble Bar	55.63	260	P	P	18 49 49.5	-1.0
MBWA				IAmb	IAmb	18 49 58.5	
	comp=Z,14nm,1.2s						
MORW	Morawa	57.21	250	P	P	18 50 00.4	-0.8
MORW				IAmb	IAmb	18 50 32.8	
	comp=Z,23nm,1.4s						
CASY	Casey	60.64	206	P	P	18 50 22.6	-0.9
TOLI2	Tolitoli	62.62	284	P	P	18 50 38.0	+0.6
TOLI2				IAmb	IAmb	18 50 44.2	
	comp=Z,7.7nm,0.9s						
QSPA	South Pole Qui	66.69	180	P	P	18 51 03.2	+0.9
	comp=Z,1.8nm,0.8s,baz=347,slow=1.1,SNR=17						
	comp=Z,1.8nm,0.8s						
QSPA	South Pole Qui	66.69	180	P	P	18 51 02.8	+0.4
QSPA				IAmb	IAmb	18 51 39.9	
	comp=Z,7.0nm,1.5s						
JGF	Kuroka	71.32	324	P	P	18 51 29.8	-0.8
JGF				IAmb	IAmb	18 51 37.4	
	comp=Z,14nm,1.2s						
MJAR	Matsushiro Arr	71.58	325	P	P	18 51 31.3	-0.7
	comp=Z,2.2nm,0.9s,baz=163,slow=5.7,SNR=3.6						
	comp=Z,2.2nm,0.9s						
AMKA	Amchitka	74.45	359	P	P	18 51 47.2	-0.8
AMKA				IAmb	IAmb	18 52 20.4	
	comp=Z,15nm,1.0s						
KIWB	Kanaga Island	74.96	2	P	P	18 51 50.4	-0.6
KIWB				IAmb	IAmb	18 51 60.0	
	comp=Z,38nm,1.3s						
ADK	Adak	75.00	2	P	P	18 51 51.0	-0.1
ATKA	Atka Island	75.43	4	P	P	18 51 53.1	-0.4
JKA	Kamikawa-asahi	75.49	333	P	P	18 51 55.6	+1.5
JKA				IAmb	IAmb	18 52 29.9	
	comp=Z,55nm,1.5s						
BELA	Belgrano 2	76.91	173	P	P	18 52 00.9	-0.6
KSRS	Korea Array	77.97	320	P	P	18 52 07.6	-0.2
	comp=Z,1.3nm,0.7s,baz=122,slow=5.8,SNR=4.6						
	comp=Z,1.3nm,0.7s						
PEA0B	Petropavlovsk-	78.65	346	P	P	18 52 10.6	-0.5
PEA0B				IAmb	IAmb	18 52 11.6	
	comp=Z,4.5nm,0.8s						
PETK	Petropavlovsk-	78.65	346	P	P	18 52 11.0	-0.1
	comp=Z,3.4nm,0.6s,baz=126,slow=6.9,SNR=13						
	comp=Z,3.4nm,0.6s						
PETK	Petropavlovsk-	78.65	346	P	P	18 52 10.6	-0.5
USRK	Ussuriysk Ar.	80.43	327	P	P	18 52 21.6	+0.9
	comp=Z,2.2nm,0.7s,baz=137,slow=5.3,SNR=2.7						
	comp=Z,2.2nm,0.7s						
USRK	Ussuriysk Ar.	80.43	327	P	P	18 52 21.2	+0.5
KSXB	Camp Six Broad	82.98	39		P	18 52 35.2	+1.3
KSXB				IAmb	IAmb	18 52 52.2	
	comp=Z,14nm,1.3s						
M02C	Callahan	83.29	39	P	P	18 52 37.0	+1.6
ILSW	Iliamna Southw	85.90	13	P	P	18 52 46.7	-1.1
CMAR	Chiang Mai Arr	89.51	290	P	P	18 53 06.0	+0.4
	comp=Z,1.4nm,0.9s,baz=132,slow=3.2,SNR=9.5						
	comp=Z,1.4nm,0.9s						
CMAR	Chiang Mai Arr	89.51	290	P	P	18 53 06.2	+0.7
TXAR	Lajitas Array	90.02	58	P	P	18 53 08.5	+0.7
	comp=Z,0.3nm,0.6s,baz=200,slow=6.9,SNR=4.0						
	comp=Z,0.3nm,0.6s						
ILAR	Eielson Array	91.50	13	P	P	18 53 15.4	+1.8
	comp=Z,0.4nm,0.6s,baz=215,slow=5.6,SNR=1.9						
	comp=Z,0.4nm,0.6s						
PDAR	Pinedale Array	92.21	44	P	P	18 53 17.2	-0.6
	comp=Z,0.3nm,0.6s,baz=208,slow=2.9,SNR=2.8						
	comp=Z,0.3nm,0.6s						
T25A	Trinidad	93.00	51	P	P	18 53 22.5	+1.0
ISCO	Idaho Springs	93.38	48	P	P	18 53 24.1	+0.8
MKAR	Makanchi Array	111.94	313	PKiKP	PKiKP	18 58 37.5	-1.6
	comp=Z,0.4nm,0.5s,baz=75,slow=1.4,SNR=5.0						
KURK	Kurchatov	114.95	317		PKPdf	18 58 43.1	-1.6
KURBB	Kurchatov Arra	115.00	317	PKP	PKPdf	18 58 43.1	-1.7
	comp=Z,1.6nm,0.7s,baz=116,slow=2.2,SNR=11						
BVAR	Borovoye Array	120.17	319	PKP	PKPdf	18 58 53.5	-1.2
	comp=Z,1.0nm,0.3s,baz=127,slow=2.2,SNR=5.4						
ARCES	ARCESS Array B	131.43	348	PKP	PKPdf	18 59 14.0	-1.8
	comp=Z,1.7nm,0.6s,baz=32,slow=2.7,SNR=7.9						
FINES	FINESS Array B	138.02	342	PKhKP	PKPpre	18 59 15.5	
	comp=Z,2.7nm,0.9s,baz=45,slow=3.0,SNR=4.0						
FINES				PKP	PKPdf	18 59 27.7	-0.5
	comp=Z,2.6nm,1.1s,baz=357,slow=2.8,SNR=4.9						
FINES				SKP	SKPbc	19 02 10.3	-2.0
	comp=Z,1.2nm,0.6s,baz=31,slow=3.2,SNR=3.5						
NB2	NORSAR Subarra	141.61	351	PKP	PKPpre	18 59 29.5	
	comp=Z,0.5nm,0.5s,baz=22,slow=3.7						
NOA	NORSAR Array B	141.61	351	PKhKP	PKPpre	18 59 29.0	
	comp=Z,0.5nm,0.6s,baz=50,slow=5.5,SNR=4.6						
HFS	Hagfors	142.09	349	PKhKP	PKPpre	18 59 30.9	
	comp=Z,4.5nm,0.3s,baz=64,slow=3.4,SNR=53						
AK03	Malin Array Si	144.62	328	PKP	PKPdf	18 59 38.8	-1.5
AKASG	Malin Array Be	144.64	328	PKP	PKPdf	18 59 39.4	-1.0
	comp=Z,2.6nm,0.4s,baz=45,slow=4.0,SNR=27						
AKASG	Malin Array Be	144.64	328		PKPdf	18 59 38.8	-1.5
AKBB	Malin Array Si	144.64	328	PKP	PKPdf	18 59 38.8	-1.5
AK23	Malin Array Si	144.65	328	PKP	PKPdf	18 59 38.9	-1.4
AK01	Malin Array Si	144.65	328	PKP	PKPdf	18 59 39.1	-1.3
KIEV	Kiev	144.65	328		PKPdf	18 59 38.4	-1.9
KIEV	Kiev	144.65	328	PKP	PKPdf	18 59 39.0	-1.3
AK04	Malin Array Si	144.65	328	PKP	PKPdf	18 59 39.1	-1.3
AK09	Malin Array Si	144.66	328	PKP	PKPdf	18 59 39.1	-1.3
AK08	Malin Array Si	144.66	328	PKP	PKPdf	18 59 39.0	-1.4
AK22	Malin Array Si	144.67	328	PKP	PKPdf	18 59 39.0	-1.4
AK13	Malin Array Si	144.77	328	PKP	PKPdf	18 59 39.2	-1.4
RNPP9	Sopachiv	145.72	331	PKP	PKPdf	18 59 42.5	+0.4
RNPP8	Varash	145.78	331	PKP	PKPdf	18 59 41.0	-1.3
RNPP1	Kostyukhnivka	145.81	331	PKP	PKPdf	18 59 40.9	-1.4
LUBAR	Lubar, Ukraine	145.86	328	PKP	PKPdf	18 59 42.4	-0.1
KMPD	K-Podol'skiy	147.39	327	PKP	PKPdf	18 59 45.4	+0.4
EKA	Eskdalemuir Ar	148.00	4	PKPbc	PKPbc	18 59 48.8	-0.9
	comp=Z,1.1nm,0.4s,baz=342,slow=2.6,SNR=12						
STEB	Steborice	150.14	337	*e*PKP	PKPbc	18 59 54.9	-0.2
OSTC	Ostas	150.15	339	*e*PKP	PKPbc	18 59 55.3	+0.2
DPC	Dobruska-Polom	150.29	339	*e*PKP	PKPbc	18 59 55.6	+0.1
MORC	Moravsky Berou	150.35	337	*e*PKP	PKPbc	18 59 55.3	-0.4
KRLC	Kraliky	150.37	338	*e*PKP	PKPbc	18 59 54.8	-0.9
CLL	Collm	150.42	344		PKPbc	18 59 54.4	-1.3
CLL	Collm	150.42	344	⇓*e*PKPbc	PKPbc	18 59 55.0	-0.7
	comp=Z,8.0nm,0.7s						
CLL				⇑*i*PKPab	PKPab	19 00 04.2	-0.3
	comp=Z,5.0nm,0.9s						
BRG	Berggiesshubel	150.56	342	*i* P	PKPbc	18 59 55.9	-0.2
BRG				Amp		18 59 56.3	
	comp=Z,5.7nm,0.6s						
KHC	Kasperske Hory	152.22	341	*e*PKP	PKPbc	18 59 59.5	-0.4
GERES	GERESS Array B	152.44	341	PKPbc	PKPbc	18 59 59.5	-1.0
	comp=Z,0.4nm,0.3s,baz=354,slow=1.0,SNR=4.2						
GERES	GERESS Array B	152.44	341		PKPbc	18 59 58.5	-2.0
CONA	Conrad Observa	152.51	337	*e*PKP	PKPab	19 00 14.1	+0.5
	comp=Z,1.5nm,0.5s						
SESA	Seetaler Alpe,	153.67	338	*e*PKP	PKPab	19 00 18.6	-0.1
	comp=Z,3.0nm,0.4s						
KBA	Koelnbreinsper	154.11	339	*e*PKP	PKPab	19 00 18.6	-2.0
	comp=Z,0.6nm,0.4s						
WTTA	Wattenberg	154.47	342	*e*PKP	PKPab	19 00 21.7	-0.4
	comp=Z,1.8nm,0.4s						
MOTA	Moosalm	154.55	343	*e*PKP	PKPab	19 00 21.9	-0.5
	comp=Z,1.2nm,0.3s						
FUORN	Ofenpass-Fuorn	155.44	343		PKPab	19 00 25.8	-0.6
ESDC	Sonseca Array	163.39	11	PKPab	PKPab	19 01 00.3	-0.7
	comp=Z,0.4nm,0.8s,baz=348,slow=4.2,SNR=2.6						
TORD	Torodi Ar. Bea	169.71	188	PKP	PKPdf	19 00 09.3	-2.5
	comp=Z,0.3nm,0.5s,baz=158,slow=3.2,SNR=1.6						

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*IDC **22** 18:44:43.1±4.5,18°.41S×177°.85W,h519^{km}±32^{km},mb3.2/5, mbtmp4.1/6,Error ellipse: s-maj=136.4km s-min=29.2km az=26.0*

ISC 22 18:44:45.7±7.9,**18°S**±1°×**177°.9W**±0°.7,**h557**^{km},**n6,**σ**0^{s}.21**/5, **mb3.9**/5,**Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	Nonsavu	3.88	278	P	P	18 46 02.6	-4.8
	13nm,0.8s,baz=220,slow=7.8,SNR=4.4						
CTA	Charters Tower	33.84	261	P	P	18 50 42.8	+0.1
	1.5nm,0.5s,baz=188,slow=10,SNR=2.0						
	1.5nm,0.5s						
STKA	Stephens Creek	38.85	242	P	P	18 51 23.6	-0.1
	1.2nm,0.3s,baz=89,slow=8.6,SNR=6.4						
	1.2nm,0.3s						
WRA	Warramunga Arr	45.02	260	P	P	18 52 12.3	-0.2
	0.6nm,0.5s,baz=97,slow=6.9,SNR=8.4						
	0.6nm,0.5s						
ASAR	Alice Springs	45.14	255	P	P	18 52 13.5	+0.2
	5.8nm,0.6s,baz=91,slow=8.4,SNR=61						
	5.8nm,0.6s						
QSPA	South Pole Qui	71.76	180	P	P	18 55 11.9	0.0
	1.9nm,0.8s,baz=346,slow=2.3,SNR=11						
	1.9nm,0.8s						

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*AZER **22** 19:12:13.3,38°.82N×45°.61E,h11^{km},ml1.7*

*TEH **22** 19:12:14.1,38°.71N×45°.82E,h10^{km},ML2.6,Presumed earthquake*

ISC 22 19:12:14.0±1.1,**38°.74N**±0°.04×**45°.66E**±0°.04,**h16**^{km}±8^{km}, **n13,**σ**1^{s}.29**/21,**Iran-Armenia-Azerbaijan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IMRD	Marand	0.05	128	Pg	Pg	19 12 17.0	-0.3
ORD	Ordubad	0.32	55	P	Pb	19 12 21.1	-0.3
ORD				S	Sb	19 12 26.7	+0.3
NAX	Nakhchivan	0.45	344	P	Pg	19 12 22.3	-0.9
NAX				S	Sg	19 12 28.5	-0.8
ISHB	Shabestar	0.46	184	Pg	Pg	19 12 23.5	+0.2
ITBZ	Tabriz	0.64	143	Pg	Pg	19 12 25.1	-1.6
SBZ	Shahbuz	0.66	353	P	Pg	19 12 26.1	-1.0
SBZ				S	Sg	19 12 35.5	-0.4
IAZR	Azarshahr	1.09	166	Pg	Pg	19 12 34.1	-1.1
HYR	Heyderabad	1.16	328	P	Pn	19 12 34.7	-0.9
HYR				S	Sb	19 12 50.8	+0.3
QRD	Qoradiz	1.48	60	Pn	Pg	19 12 41.7	-0.8
QRD				Sn	Sg	19 13 03.7	+1.9
AGDM	Agdam	1.77	39	Sn	Sg	19 13 11.4	+0.4
GDB	GEDABAY	1.98	2	Pn	Pn	19 12 49.5	+2.5
GDB				Sn	Sb	19 13 15.4	+1.2
YRD	Yardimli	2.03	84	Pn	Pg	19 12 51.0	-1.9
YRD				Sn	Sg	19 13 19.2	-0.1
LRK	Lerik	2.10	92	Pn	Pg	19 12 52.5	-1.9
LRK				Sn	Sg	19 13 22.7	+1.0

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*SKHL **22** 19:12:56.9±0.7,45°.10N×151°.10E,h66^{km}±3^{km},mb4.9/3*

*MOS **22** 19:12:57.6±1.1,45°.28N×150°.94E,h62^{km},mb4.5/1,Error ellipse: s-maj=12.3km s-min=10.8km az=171.4*

*JMA **22** 19:12:57.6±0.8,45°N±3°×15°1E±°,h30^{km},MV4.5/18, KURILE ISLANDS REGION*

*IDC **22** 19:13:00.8±3.0,45°.38N×150°.89E,h71^{km}±25^{km},mb3.5/14, mbtmp3.8/18,MS2.9/5,Error ellipse: s-maj=25.0km s-min=17.8km az=109.0*

ISC 22 19:12:56.3±0.8,**45°.14N**±0°.07×**151°.13E**±0°.08,**h35**^{km},**n55,** σ**1^{s}.54**/60,**mb3.9**/14,**1C,Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
REI	Reidovoe	2.21	274	*e*P	Pn	19 13 30.8	+0.4
REI				AMB	AMB	19 13 33.0	
	70nm,0.3s						
REI				*e*S	Sn	19 13 55.7	-0.7
REI				A	A	19 13 57.6	
	220nm,0.2s						
REI				A	A	19 13 57.6	
	260nm,0.2s						
KUR	Kuril'sk	2.31	273	*e*PN	Pn	19 13 32.0	+0.2
KUR				*e*S	Sn	19 13 59.8	+0.8
KUR				pmax	pmax		
	comp=N,188nm,0.2s						
KUR				pmax	pmax		
	comp=E,59nm,0.2s						
KUR				pmax	pmax		
	comp=Z,328nm,0.2s						
KUR				smax	smax		
	comp=N,565nm,0.3s						
KUR				smax	smax		
	comp=E,649nm,0.3s						
KUR	Kuril'sk	2.31	273	*e*P	Pn	19 13 32.0	+0.2
KUR				AMB	AMB	19 13 33.1	
	comp=E,330nm,0.4s						
KUR				*e*S	Sn	19 13 59.5	+0.5
KUR				A	A	19 14 04.6	
	comp=E,570nm,0.3s						
KUR				A	A	19 14 04.6	
	comp=E,650nm,0.3s						
YUK	Yuzh-Kuril'sk	3.92	255	*c* *i*PN	Pn	19 13 54.8	+0.8
YUK				*e*S	Sn	19 14 42.1	+3.3
YUK				pmax	pmax		
	comp=N,18nm,0.2s						
YUK				pmax	pmax		
	comp=E,84nm,0.2s						
YUK				pmax	pmax		
	comp=Z,246nm,0.2s						
YUK				smax	smax		
	comp=N,153nm,0.4s						
YUK				smax	smax		
	comp=E,415nm,0.4s						
YUK	Yuzh-Kuril'sk	3.92	255	*i* P	Pn	19 13 54.8	+0.8
YUK				AMB	AMB	19 13 57.3	
	comp=E,80nm,0.4s						
YUK				AMB	AMB	19 13 57.3	
	comp=E,250nm,0.4s						
YUK				*e*S	Sn	19 14 38.8	0.0
YUK				A	A	19 14 55.0	
	comp=E,150nm,0.4s						
YUK				A	A	19 14 55.0	
	comp=E,420nm,0.4s						
NEM2	Nemuro 2	4.26	247	*e*P	Pn	19 13 58.7	+0.1
NEM2				*e*S	Sn	19 14 46.4	-0.6
NMR	Nemuro--Hokkai	4.27	247	*e*PN	Pn	19 13 58.6	-0.1
NMR				*e*S	Sn	19 14 47.1	-0.1
NMR	Nemuro--Hokkai	4.27	247	*e*P	Pn	19 13 58.8	+0.1
NMR				*e*S	Sn	19 14 46.6	-0.6
RUSJ	Misakicho	4.33	258	*e*PN	Pn	19 14 02.1	+2.6
RUSJ				*e*S	Sn	19 14 53.9	+5.2
JRA	Rausu	4.46	256	*e*P	Pn	19 14 03.4	+2.0
JNK	Nakash	4.85	254	*e*P	Pn	19 14 08.0	+1.2
AKK	Akkeshi	5.00	247	*e*P	Pn	19 14 08.8	-0.1
JAK	Akkeshi	5.11	247	*e*P	Pn	19 14 10.2	-0.1
JAK				*e*S	Sn	19 15 07.0	-0.9
JTKR	Abashiri--Toko	5.29	260	*e*P	Pn	19 14 14.8	+2.0
JAR	Ashorobuto	5.60	253	*e*P	Pn	19 14 18.6	+1.5
JOB	Onbets	5.72	250	*e*P	Pn	19 14 19.4	+0.8
YSS	Yuzhno-Sakhali	6.11	290	*e*PN	Pn	19 14 25.3	+1.3
YSS				*e*S	Sn	19 15 31.3	-1.2
YSS				pmax	pmax		
	comp=Z,10.0nm,1.0s						
YSS				smax	smax		
	comp=N,10.0nm,0.5s						
YSS				smax	smax		
	comp=E,10.0nm,0.7s						
YSS				MLR	MLR		
	comp=Z,200nm,19.0s						
YSS				MLR	MLR		
	comp=N,100nm,13.0s						
YSS				MLR	MLR		
	comp=E,100nm,15.0s						
YSS	Yuzhno-Sakhali	6.11	290	*e*P	Pn	19 14 25.3	+1.3
YSS				*e*S	Sn	19 15 31.3	-1.2
JKK2	Kamakawa 2	6.13	261	*e*P	Pn	19 14 26.7	+2.4
JCH	Churui	6.16	249	*e*P	Pn	19 14 25.6	+0.9
JCH				*e*S	Sn	19 15 32.7	-1.1
JKA	Kamikawa-asahi	6.17	263	*e*P	Pn	19 14 27.6	+2.7
ASAJ	Asahikawa	6.18	263	P	Pn	19 14 27.6	+2.7
	comp=E,11nm,0.7s,baz=66,slow=22,SNR=17						
TYV	Tymovskoe	8.06	318	*e*PN	Pn	19 14 52.4	+1.6
TYV				pmax	pmax		
	comp=Z,7.0nm,0.9s						
TYV				pmax	pmax		
	comp=Z,100nm,4.0s						
TYV	Tymovskoe	8.06	318	*e*P	Pn	19 14 52.4	+1.6
PETK	Petropavlovsk-	9.06	26	P	Pn	19 15 07.2	+2.7
	comp=Z,2.3nm,0.8s,baz=201,slow=12,SNR=6.2						
USRK	Ussuriysk Ar.	13.66	273	P	Pn	19 16 09.2	+1.8
	comp=Z,1.0nm,0.5s,baz=82,slow=13,SNR=1.4						
USRK				LR	LR	19 21 57.0	
	comp=Z,84nm,18.6s,baz=161,slow=40						
KLR	Kul'dur	13.79	294	LR	LR	19 21 11.6	
	comp=Z,30nm,21.0s,baz=55,slow=36						
MA2	Magadan	14.46	359	LR	LR	19 22 12.8	
	comp=Z,47nm,19.3s,baz=105,slow=39						
KSRS	Korea Array	19.01	254	P	P	19 17 15.0	0.0
	comp=Z,1.6nm,0.8s,baz=76,slow=10,SNR=4.5						
KSRS				LR	LR	19 24 27.0	
	comp=Z,40nm,18.1s,baz=45,slow=36						
KSRS	Korea Array	19.01	254	P	P	19 17 15.0	0.0
KSRS	Korea Array	19.01	254	*e*P	P	19 17 15.0	0.0
YAK	Yakutsk	21.00	331	LR	LR	19 26 32.1	
	comp=Z,31nm,18.6s,baz=38,slow=39						
H11N2	WAKE ISLAND Hy	28.51	148	T	T	19 49 32.1	
	baz=337,slow=75,SNR=141						
H11N1	WAKE ISLAND Hy	28.53	148	T	T	19 49 33.1	
	baz=337,slow=75,SNR=101						
H11N3	WAKE ISLAND Hy	28.53	148	T	T	19 49 38.9	
	baz=337,slow=75,SNR=126						
H11S1	WAKE ISLAND Hy	29.56	149	T	T	19 50 53.7	
	baz=337						
H11S3	WAKE ISLAND Hy	29.57	149	T	T	19 50 53.7	
	baz=337						
H11S2	WAKE ISLAND Hy	29.58	149	T	T	19 50 53.7	
	baz=337						
MKAR	Makanchi Array	46.46	298	P	P	19 21 18.9	-0.8
	comp=Z,0.7nm,0.6s,baz=77,slow=8.2,SNR=7.9						
MKAR				PcP	PcP	19 22 53.6	-0.2
	comp=Z,0.3nm,0.6s,baz=97,slow=1.6,SNR=2.4						
	comp=Z,0.7nm,0.6s						
KURK	Kurchatov	47.11	304	P	P	19 21 24.1	-0.5
KURK	Kurchatov	47.11	304	*e*P	P	19 21 24.1	-0.5
KURBB	Kurchatov Arra	47.20	304	P	P	19 21 24.1	-1.2
	comp=Z,0.4nm,0.3s,baz=73,slow=8.4,SNR=3.6						
	comp=Z,0.4nm,0.3s						

CMAR	Chiang Mai Arr	50.64	256	P	P	19 21 52.1	0.0
	comp=Z,0.4nm,0.7s,baz=29,slow=9.1,SNR=2.4						
	comp=Z,0.4nm,0.7s						
FINES	FINESS Array B	64.90	334	P	P	19 23 28.9	-2.7
	comp=Z,2.3nm,0.8s,baz=23,slow=6.2,SNR=6.4						
	comp=Z,2.3nm,0.8s						
WRA	Warramunga Arr	66.55	197	P	P	19 23 43.7	+1.0
	comp=Z,0.6nm,0.8s,baz=15,slow=6.6,SNR=5.4						
	comp=Z,0.6nm,0.8s						
NB2	NORSAR Subarra	69.29	340	P	P	19 23 58.0	-1.5
	comp=Z,3.4nm,0.9s,baz=29,slow=6.5						
NOA	NORSAR Array B	69.29	340	P	P	19 23 57.7	-1.9
	comp=Z,0.9nm,0.6s,baz=28,slow=6.5,SNR=4.7						
	comp=Z,0.9nm,0.6s						
HFS	Hagfors	69.47	339	P	P	19 23 59.5	-1.0
	comp=Z,2.3nm,0.9s,baz=33,slow=5.5,SNR=2.3						
	comp=Z,2.3nm,0.9s						
ASAR	Alice Springs	70.26	197	P	P	19 24 07.8	+2.0
	comp=Z,0.7nm,0.9s,baz=9.6,slow=6.6,SNR=5.9						
	comp=Z,0.7nm,0.9s						
KBZ	Khabaz	70.97	313	P	P	19 24 09.7	-0.3
	comp=Z,3.4nm,0.8s,baz=58,slow=2.7,SNR=9.5						
	comp=Z,3.4nm,0.8s						
AKASG	Malin Array Be	72.10	325	P	P	19 24 15.1	-1.6
	comp=Z,0.6nm,0.4s,baz=39,slow=6.3,SNR=4.8						
	comp=Z,0.6nm,0.4s						
EKA	Eskdalemuir Ar	77.56	345	P	P	19 24 47.3	-0.9
	comp=Z,1.1nm,0.7s,baz=21,slow=6.1,SNR=1.5						
	comp=Z,1.1nm,0.7s						
BRTR	Keskin Array B	78.59	316	P	P	19 24 54.1	-0.3
	comp=Z,0.7nm,0.8s,baz=120,slow=7.2,SNR=4.0						
	comp=Z,0.7nm,0.8s						
GERES	GERESS Array B	79.28	333	P	P	19 24 56.4	-1.6
	comp=Z,0.8nm,0.5s,baz=39,slow=5.1,SNR=8.0						
	comp=Z,0.8nm,0.5s						
TXAR	Lajitas Array	79.50	59	P	P	19 25 00.6	+1.1
	comp=Z,0.1nm,0.4s,baz=307,slow=5.4,SNR=2.1						
	comp=Z,0.1nm,0.4s						

IDC ***22*** *19:13:35.9±0.8, 6°.67N×72°.92W, h161^{km}±8^{km}, mb2.8/2, mbtmp3.7/5, Error ellipse: s-maj=30.9km s-min=7.5km az=132.0*

RSNC ***22*** *19:13:37.3±0.0, 7°N±1°×7°3W±°, h147^{km}±2^{km}, M3.6, mb3.3, ML3.2*

FUNV ***22*** *19:13:39.0, 6°.95N×73°.09W, h127^{km}, MW3.8, Presumed earthquake*

ISC 22 19:13:36.9±0.8**, 6°.87N**±0°.03×**73°.12W**±0°.03**, h144**^{km}±6^{km}**, n42, σ2^{s}.17**/77**, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BARC	Barichara	0.28	194	P	Pn	19 13 57.3	+0.3
BARC				S	Sn	19 14 12.5	+0.2
PAMC	Pamplona, Colo	0.62	41	P	Pn	19 14 00.2	+1.3
PAMC				S	Sn	19 14 17.3	+1.8
BRJC	Barrancabermej	0.63	280	P	Pn	19 13 59.0	+0.7
BRJC				S	Sn	19 14 16.0	+1.4
RUSC	La Rusia	0.97	178	P	Pn	19 14 01.2	-0.3
RUSC				S	Sn	19 14 18.8	-1.3
RUSC	La Rusia	0.97	178	*e*P	Pn	19 14 01.4	0.0
RUSC				*e*S	Sn	19 14 18.8	-1.3
PTBC	PUERTO BERRIO,	1.37	256	P	Pn	19 14 03.7	-1.0
PTBC				S	Sn	19 14 24.9	-1.0
OCAC	Ocana	1.38	352	P	Pn	19 14 05.4	+0.4
OCAC				S	Sn	19 14 26.5	+0.1
SPBC	San Pablo de B	1.54	218	P	Pn	19 14 06.0	-0.6
SPBC				S	Sn	19 14 27.9	-1.3
NORC	Norcasia	2.17	233	P	Pn	19 14 13.2	-0.6
NORC				S	Sn	19 14 40.4	-1.8
CHIC	Chingaza	2.31	195	P	Pn	19 14 15.4	-0.4
CHIC				S	Sn	19 14 44.3	-1.4
ROSC	El Rosal	2.34	211	P	Pn	19 14 16.9	+0.6
	63nm,0.3s,baz=83,slow=24,SNR=49						
ROSC				S	Sn	19 14 46.1	-0.4
	361nm,0.3s,baz=83,slow=24,SNR=15						
ROSC	El Rosal	2.34	211	P	Pn	19 14 16.6	+0.3
ROSC				S	Sn	19 14 46.7	+0.3
HELC	Santa Helena	2.49	254	P	Pn	19 14 17.8	-0.2
HELC				S	Sn	19 14 48.0	-1.6
HELC	Santa Helena	2.49	254	*e*P	Pn	19 14 19.4	+1.4
HELC				*e*S	Sn	19 14 48.2	-1.4
CVER	Cruz Verde, Cu	2.52	202	P	Pn	19 14 18.9	+0.4
CVER				S	Sn	19 14 48.9	-1.5
UREC	San Jos de Ur	2.55	290	P	Pn	19 14 17.2	-1.3
UREC				S	Sn	19 14 48.1	-2.3
GUY2C	Guyana, Caldas	2.77	234	P	Pn	19 14 21.3	-0.3
GUY2C				S	Sn	19 14 55.4	-0.6
VILC	Villavicencio,	2.80	192	P	Pn	19 14 21.0	-0.7
VILC				S	Sn	19 14 55.0	-1.2
CBOC	Ciudad Bolivar	3.05	251	P	Pn	19 14 25.1	+0.2
CBOC				S	Sn	19 15 00.0	-1.8
SDV	Santo Domingo	3.17	51	P	Pn	19 14 27.2	+0.7
	17nm,0.3s,baz=241,slow=13,SNR=11						
SDV				S	Sn	19 15 04.7	0.0
	78nm,0.4s,baz=252,slow=21,SNR=43						
SDV	Santo Domingo	3.17	51	P	Pn	19 14 27.2	+0.7
SDV				S	Sn	19 15 04.4	-0.4
SDV	Santo Domingo	3.17	51	*e*P	Pn	19 14 27.3	+0.7
SDV				*e*S	Sn	19 15 00.8	-4.0
ARGC	Ariguani, Magd	3.17	339	P	Pn	19 14 27.7	+1.3
ARGC				S	Sn	19 15 06.4	+1.8
APAC	Apartado, Choc	3.59	287	P	Pn	19 14 32.4	+0.8
APAC				S	Sn	19 15 12.2	-1.8
PRAC	Prado	3.59	209	P	Pn	19 14 30.8	-1.0
PRAC				S	Sn	19 15 12.5	-1.9
ORTC	Ortega, Tolima	3.62	216	P	Pn	19 14 31.8	-0.4
ORTC				S	Sn	19 15 14.5	-0.6
SJCC	San Jacinto, C	3.64	326	P	Pn	19 14 31.8	-0.6
SJCC				S	Sn	19 15 12.2	-3.2
SJCC	San Jacinto, C	3.64	326	*e*P	Pn	19 14 31.9	-0.5
SJCC				*e*S	Sn	19 15 11.7	-3.7
LCBC	Los crdobas,	3.78	302	P	Pn	19 14 32.7	-1.5
LCBC				S	Sn	19 15 19.7	+1.1
GUVC	San Jose del G	4.32	174	P	Pn	19 14 38.9	-2.4
GUVC				S	Sn	19 15 28.8	-2.6
PIZC	Pizarro, Choco	4.63	246	P	Pn	19 14 46.4	+1.1
PIZC				S	Sn	19 15 37.7	-0.8
URIC	Uribia, Colomb	4.93	13	P	Pn	19 14 48.4	-1.0
	6.5nm,1.3s						
URIC				AML	AML		
URIC	Uribia, Colomb	4.93	13	*e*P	Pn	19 14 48.4	-1.0
URIC				*e*S	Sn	19 15 39.3	-6.5
GARC	Garzon, Huila	5.22	207	P	Pn	19 14 51.6	-1.9
GARC				S	Sn	19 15 48.0	-5.1
BENV	Beln	6.26	60	*e*P	Pn	19 15 05.8	-1.4
BENV				*e*S	Sn	19 16 10.2	-7.6
TURV	Turiamo	6.31	55	*e*P	Pn	19 15 07.0	-0.8
TURV				*e*S	Sn	19 16 11.1	-7.8
JTS	Las Juntas de	12.19	287	P	Pn	19 16 28.6	+2.7
	3.0nm,0.3s,baz=127,slow=15,SNR=1.1						
TXAR	Lajitas Array	36.44	312	P	P	19 20 27.5	-0.6
	0.2nm,0.5s,baz=116,slow=8.0,SNR=3.4						
	0.2nm,0.5s						
PDAR	Pinedale Array	48.04	324	P	P	19 22 00.9	-1.1
	0.2nm,0.6s,baz=141,slow=8.3,SNR=2.1						
	0.2nm,0.6s						
ASAR	Alice Springs	149.14	234	PKPbc	PKPdf	19 33 06.3	+1.3
	0.4nm,0.8s,baz=121,slow=3.5,SNR=5.0						
WRA	Warramunga Arr	150.36	241	PKPbc	PKPdf	19 33 09.3	+2.4
	0.3nm,0.4s,baz=111,slow=2.1,SNR=12						
CMAR	Chiang Mai Arr	153.64	17	PKPbc	PKPdf	19 33 15.9	+4.0
	0.1nm,0.4s,baz=358,slow=2.2,SNR=1.8						

JMA ***22*** *19:15:45.9±1.1, 45°N±4°×15°1E±°, h30^{km}, MV3.8/13, KURILE ISLANDS REGION*

SKHL 22 19:15:45.1±0.3**, 45°.30N×151°.20E, h45**^{km}±3^{km}**, mb4.7**/2**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
REI	Reidovoe	2.25	270	*e*P	Pn	19 16 19.8	+0.1
REI				*e*S	Sn	19 16 45.7	-0.5
KUR	Kuril'sk	2.35	270	*e*P	Pn	19 16 20.9	-0.3
KUR				AMB	AMB	19 16 22.0	
	80nm,0.3s						
KUR				*e*S	Sn	19 16 48.0	-0.9
KUR				A	A	19 16 53.4	
	150nm,0.2s						
KUR				A	A	19 16 53.4	
	150nm,0.2s						
YUK	Yuzh-Kuril'sk	4.01	254	*e*P	Pn	19 16 44.6	+0.6
YUK				AMB	AMB	19 16 45.4	
	80nm,0.3s						
YUK				*e*S	Sn	19 17 29.2	-0.5
YUK				A	A	19 17 43.0	
	60nm,0.3s						
YUK				A	A	19 17 43.0	
	100nm,0.3s						
NEM2	Nemuro 2	4.37	246	*e*P	Pn	19 16 47.8	-1.1
NEM2				*e*S	Sn	19 17 35.4	-3.1
NMR	Nemuro--Hokkai	4.37	246	*e*P	Pn	19 16 47.4	-1.5
NMR				*e*S	Sn	19 17 35.2	-3.4
JRA	Rausu	4.55	255	*e*P	Pn	19 16 52.6	+1.3
JNK	Nakash	4.95	252	*e*P	Pn	19 16 57.2	+0.4
AKK	Akkeshi	5.11	246	*e*P	Pn	19 17 00.1	+1.0
JAK	Akkeshi	5.21	246	*e*P	Pn	19 16 59.2	-1.2
JAR	Ashorobuto	5.70	252	*e*P	Pn	19 17 07.8	+0.7

SJA ***22*** *19:30:53.2±0.8, 21°.90S×68°.67W, h121^{km}±5^{km}, ML3.7, MW3.7*

NEIC ***22*** *19:30:53.8±0.9, 21°.92S±0°.04×68°.69W±0°.06, h119^{km}±6^{km}, mb4.0/4, ML3.7(GUC), Error ellipse: s-maj=7.9km s-min=5.7km az=75.0*

GUC ***22*** *19:30:54.8±0.8, 21°.89S×68°.64W, h108^{km}±4^{km}, ML3.7*

ISC 22 19:30:53.8±0.9**, 21°.90S**±0°.03×**68°.71W**±0°.05**, h120**^{km}±7^{km}**, n56, σ1^{s}.41**/83**, 9C, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB09	IPOC Station P	0.50	281	*e*P	Pn	19 31 12.3	+0.2
PB09				*e*S	Sn	19 31 26.1	+0.5
PB09				IAML		19 31 26.8	
	comp=Z,3μm,0.6s						
PB09	IPOC Station P	0.50	281	⇑*e*P	Pn	19 31 12.2	+0.2
PB09				*e*S	Sn	19 31 25.8	+0.2
PB09				IAML		19 31 27.4	
	comp=N,3μm,0.3s						
PB09	IPOC Station P	0.50	281		Pn	19 31 11.7	-0.3
PB09				Sn	Sn	19 31 25.8	+0.2
PB03	IPOC Station P	0.98	261	*e*P	Pn	19 31 16.1	+0.2
PB03				*e*S	Sn	19 31 34.0	+1.5
PB03				IAML		19 31 34.4	
	comp=Z,3μm,0.2s						
PB03	IPOC Station P	0.98	261	⇑*e*P	Pn	19 31 16.0	+0.2
PB03				*e*S	Sn	19 31 32.7	+0.3
PB03				IAML		19 31 34.2	
	comp=N,2μm,0.1s						
PB03	IPOC Station P	0.98	261		Pn	19 31 15.6	-0.2
PB03				Sn	Sn	19 31 32.8	+0.3
PB07	IPOC Station P	1.11	279	*e*P	Pn	19 31 17.7	+0.6
PB07				*e*S	Sn	19 31 36.1	+1.5
PB07				IAML		19 31 40.0	
	comp=Z,1μm,0.4s						
PB07	IPOC Station P	1.11	279		Pn	19 31 17.4	+0.3
PB07				Sn	Sn	19 31 35.2	+0.5
PB06	IPOC Station P	1.14	225	*e*P	Pn	19 31 17.7	+0.3
PB06				*e*S	Sn	19 31 36.5	+1.3
PB06				IAML		19 31 37.6	
	comp=Z,2μm,0.3s						
PB06	IPOC Station P	1.14	225	⇑*e*P	Pn	19 31 17.6	+0.3
PB06				*e*S	Sn	19 31 35.6	+0.4
PB06				IAML		19 31 36.7	
	comp=N,2μm,0.3s						
PB06	IPOC Station P	1.14	225		Pn	19 31 17.3	-0.1
PB06				Sn	Sn	19 31 35.5	+0.3
AF01	San Pedro de A	1.16	155	*e*P	Pn	19 31 18.0	+0.2
AF01				IAML		19 31 59.4	
	comp=Z,1μm,0.6s						
AF01	San Pedro de A	1.16	155	⇑*e*P	Pn	19 31 17.0	-0.8
AF01				*e*S	Sn	19 31 34.8	-1.1
AF01				IAML		19 31 45.5	
	comp=E,1μm,0.4s						
AF01				IAML		19 31 52.8	
	comp=N,2μm,0.5s						
AF01	San Pedro de A	1.16	155		Pn	19 31 17.4	-0.5
AF01				Sn	Sn	19 31 35.8	-0.2
PB02	IPOC Station P	1.24	297	*e*P	Pn	19 31 19.0	+0.5
PB02				*e*S	Sn	19 31 39.1	+1.9
PB02				IAML		19 31 40.5	
	comp=Z,3μm,0.2s						
PB02	IPOC Station P	1.24	297	⇑*e*P	Pn	19 31 18.7	+0.1
PB02				*e*S	Sn	19 31 36.7	-0.5
PB02				IAML		19 31 40.8	
	comp=E,2μm,0.1s						
PB02	IPOC Station P	1.24	297		Pn	19 31 18.6	+0.1
PB05	IPOC Station P	1.68	235	*e*P	Pn	19 31 23.7	+0.3
PB05				*e*S	Sn	19 31 47.2	+1.2
PB05				IAML		19 31 51.6	
	comp=Z,370nm,0.2s						
PB05	IPOC Station P	1.68	235	⇑*e*P	Pn	19 31 23.5	0.0
PB05				*e*S	Sn	19 31 45.9	-0.1
PB05				IAML		19 31 51.9	
	comp=N,635nm,0.2s						
PB05	IPOC Station P	1.68	235		Pn	19 31 23.3	-0.1
PB05				Sn	Sn	19 31 45.7	-0.4
PB08	IPOC Station P	1.79	347		Pn	19 31 26.4	+1.2
PB08				Sn	Sn	19 31 49.7	+0.7
TA02	Huaiquique	2.09	320	*e*P	Pn	19 31 29.6	+1.1
TA02				*e*S	Sn	19 31 56.7	+1.8
TA02				IAML		19 31 59.2	
	comp=Z,366nm,0.1s						
TA02	Huaiquique	2.09	320	*e*P	Pn	19 31 28.8	+0.4
TA02				*e*S	Sn	19 31 54.5	-0.4
TA02				IAML		19 31 57.0	
	comp=E,1μm,0.2s						
GO01	Chusmiza	2.26	348	*e*P	Pn	19 31 32.3	+1.2
GO01				*e*S	Sn	19 32 01.9	+2.4
GO01				IAML		19 32 09.6	
	comp=Z,136nm,0.2s						
GO01	Chusmiza	2.26	348	⇑*e*P	Pn	19 31 32.0	+0.9
GO01				*e*S	Sn	19 31 59.6	+0.1
GO01				IAML		19 32 05.4	
	comp=N,675nm,0.2s						
GO01	Chusmiza	2.26	348		Pn	19 31 32.0	+0.9
PB11	IPOC Station P	2.30	337	*e*P	Pn	19 31 31.6	+0.3
PB11				*e*S	Sn	19 32 00.8	+0.9
PB11				IAML		19 32 04.7	
	comp=Z,166nm,0.2s						
PB11	IPOC Station P	2.30	337	⇑*e*P	Pn	19 31 31.4	+0.1
PB11				*e*S	Sn	19 31 59.4	-0.5
PB11				IAML		19 32 08.7	
	comp=E,474nm,0.2s						
PB11	IPOC Station P	2.30	337		Pn	19 31 31.4	+0.1
PSGCX	Pisagua	2.64	330	*e*P	Pn	19 31 35.0	-0.5
PSGCX				*e*S	Sn	19 32 05.6	-2.0
PSGCX				IAML		19 32 10.1	
	comp=Z,152nm,0.3s						
PSGCX	Pisagua	2.64	330	⇑*e*P	Pn	19 31 34.6	-0.9
PSGCX				*e*S	Sn	19 32 04.9	-2.8
PSGCX	Pisagua	2.64	330		Pn	19 31 34.5	-1.1
SALTA		3.18	137	*e*P	Pn	19 31 44.1	+1.1
HJA	Humahuaca	3.32	114	*e*P	Pn	19 31 45.4	+0.7
PB12	IPOC Station P	3.60	335	*e*P	Pn	19 31 47.3	-0.9
PB12				*e*S	Sn	19 32 29.6	-0.6
PB12				IAML		19 32 30.1	
	comp=Z,71nm,0.5s						
PB12	IPOC Station P	3.60	335	*e*P	Pn	19 31 46.8	-1.3
PB12				*e*S	Sn	19 32 27.7	-2.5
PB12				IAML		19 32 29.3	
	comp=E,91nm,0.5s						
PB12	IPOC Station P	3.60	335		Pn	19 31 46.9	-1.3
PB16	IPOC Station P	3.62	348	*e*P	Pn	19 31 50.0	+1.1
PB16	IPOC Station P	3.62	348		Pn	19 31 48.7	-0.2
AP01	Chacalluta	3.83	336	Pn	Pn	19 31 51.1	0.0
AC01	Pan de Azucar	4.57	202		Pn	19 31 58.8	-2.2
AC02	Maricunga	4.93	184	*e*P	Pn	19 32 06.1	-0.2
AC02				*e*S	Sn	19 33 06.5	+3.9
AC02				IAML		19 33 35.0	
	comp=Z,36nm,0.5s						
AC02	Maricunga	4.93	184		Pn	19 32 05.5	-0.9
LPAZ	La Paz	5.61	6		Pn	19 32 13.4	-2.2
AC06	Mina Casimiro	5.64	195	Pn	Pn	19 32 13.1	-2.4
GO03	Copiapo	5.84	193	Pn	Pn	19 32 15.1	-3.1
AC05	El Transito	7.05	191	Pn	Pn	19 32 30.9	-3.8
LCO	Las Campanas	7.31	194	Pn	Pn	19 32 33.9	-4.3
CO01	Juntas del Tor	8.14	189	Pn	Pn	19 32 45.2	-4.3
GO04	Tololo Observa	8.45	192	Pn	Pn	19 32 48.5	-5.2
CO03	El Pedregal	9.08	191	Pn	Pn	19 32 56.5	-5.5
CO02	Combarbal	9.49	192	Pn	Pn	19 33 02.5	-5.1
CPSB	Cacapava Do Su	16.11	125	Pn	Pn	19 34 31.9	-1.5
CPSB				IAmb	IAmb	19 34 33.8	
	comp=Z,5.2nm,0.6s						
PLCA	Paso Flores	18.84	184	P	P	19 35 04.4	-0.1
BOAV	Boa Vista	25.43	19	P	P	19 36 10.9	+0.3
BOAV				IAmb	IAmb	19 36 23.7	
	comp=Z,7.2nm,1.5s						
QSPA	South Pole Qui	68.30	180	P	P	19 41 43.3	+1.5

NNC 22 19:35:21.3±4.2**, 36°.85N×70°.91E, h201**^{km}±45^{km}**, mb2.6, mpv3.6, 6C-2D, Error ellipse: s-maj=39.6km s-min=30.0km az=48.0, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KK31	Karatay Array	6.26	357	⇑P	Pn	19 36 51.3	-0.5
	7.1nm,0.3s,baz=174,slow=12,SNR=94						
KK31				⇑S	S	19 38 04.9	+1.5
	1.0nm,0.3s,baz=180,slow=22,SNR=6.1						
AAK	Ala-Archa	6.41	24	⇑P	Pn	19 36 54.1	+0.2
	0.6nm,0.4s						
AAK				⇑S	S	19 38 07.5	+0.3
	0.7nm,0.4s						
AB31	Akbulak array	14.75	331	⇑P	P	19 38 42.1	+1.0
	0.4nm,0.3s,baz=148,slow=14,SNR=28						
AB31				⇓S	S	19 41 20.0	-3.9
	1.2nm,0.7s,baz=150,slow=23,SNR=7.3						
AKTO	Aktyubinsk	16.45	330	⇑P	P	19 38 59.1	-0.7
	0.7nm,0.7s						
AKTO				⇓S	S	19 42 03.7	+2.1
	1.9nm,0.8s						

IDC ***22*** *19:43:29.7±0.7, 27°.27N×55°.37E, h0^{km}, mb4.1/22, mbtmp4.1/25, ML4.0/3, MS3.2/6, Error ellipse: s-maj=18.3km s-min=13.4km az=10.0*

TEH ***22*** *19:43:31.6, 27°.27N×55°.40E, h11^{km}±16^{km}, ML4.1, Presumed earthquake*

NEIC ***22*** *19:43:31.8±1.4, 27°.39N±0°.06×55°.33E±0°.08, h10^{km}±1^{km}, mb4.1/35, Error ellipse: s-maj=12.2km s-min=10.3km az=260.0*

GFZ ***22*** *19:43:32.2±0.2, 27°N±4°×5°5E±°, h10^{km}, M4.5/36, mb4.5/36, Error ellipse: s-maj=8.0km s-min=6.2km az=179.1, confirmed*

THR ***22*** *19:43:33.8±0.0, 27°.40N×55°.55E, h21^{km}±3^{km}, ML4.1, Presumed earthquake*

DSN ***22*** *19:43:33.4±1.3, 27°.32N×55°.38E, h10^{km}, ML4.1/17, Error ellipse: s-maj=16.1km s-min=5.6km az=27.0*

OMAN ***22*** *19:43:33.9±0.1, 27°.31N×55°.42E, h13^{km}, mb4.1/8, ml4.2/22, Error ellipse: s-maj=1.6km s-min=0.9km az=34.0*

ISC 22 19:43:31.8±1.1**, 27°.30N**±0°.03×**55°.39E**±0°.03**, h14**^{km}±7^{km}**, n316, σ1^{s}.53**/335**, mb4.2**/94**, MS3.0**/5**, 12C-16D, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BNDS	Bandar-Abbas	0.70	82	*e*Pg	Pg	19 43 44.9	-0.7
BNDS				IAML		19 44 01.9	
	comp=Z,7μm,1.0s						
GENO	Geno	0.70	82	Pg	Pg	19 43 45.1	-0.5
GENO				Sg	Sb	19 43 55.7	0.0
IBND	Bandar-abas	1.03	82	Pg	Pg	19 43 51.7	-0.1
SHME	Shamm	1.42	151	P	Pg	19 43 59.0	-0.1
	SNR=115						
SHME				S	Sg	19 44 19.1	+1.5
SHME	Shamm	1.42	151	*e*P	Pg	19 43 58.9	-0.2
	SNR=26						
SHME				S	Sg	19 44 19.3	+1.7
BANOM	Banah	1.60	149	P	Pg	19 44 02.6	0.0
BANOM				S	Sg	19 44 23.5	+0.2
BANOM	Banah	1.60	149	*e*P	Pg	19 44 01.9	-0.6
	SNR=160						
BANOM				S	Sg	19 44 23.8	+0.5
UMQ	Umm Al-Quwin	1.79	172	P	Pb	19 44 04.1	-0.3
KHL1	Khalili_Fars	1.88	281	Pn	Pb	19 44 05.5	-0.5
LMD1	Lamerd	1.98	272	Pn	Pb	19 44 07.6	-0.1
JHRM	Jahrom	2.00	307	Pn	Pb	19 44 07.6	-0.5
MASF	Masafi	2.05	160	P	Pb	19 44 08.9	+0.1
	SNR=26						
MASF				S	Sb	19 44 34.9	+0.7
MSFE	Esma-Masafi	2.06	160	*e*P	Pb	19 44 08.8	-0.2
	SNR=26						
KHNJ	Kahnooj	2.15	72	Pn	Pn	19 44 08.5	+1.1
MDH	Madha	2.16	158	P	Pb	19 44 10.0	-0.7
	SNR=18						
MDH				S	Sb	19 44 37.2	-0.1
MDH	Madha	2.16	158	*e*P	Pb	19 44 09.8	-0.9
	SNR=18						
NAZ	Nazwa, Dubai	2.32	174	P	Pb	19 44 13.2	-0.3
	SNR=42						
NAZ				S	Sb	19 44 41.0	-1.0
NAZ	Nazwa, Dubai	2.32	174	*e*P	Pb	19 44 13.0	-0.5
	SNR=42						
UOSS	Minazif	2.46	162	P	Pb	19 44 14.3	-1.6
UOSS	Minazif	2.46	162		Pn	19 44 13.2	+1.6
UOSS				Sn	Sb	19 44 45.2	-0.9
UOSS	Minazif	2.46	162	*e*P	Pb	19 44 14.0	-1.9
	SNR=55						
UOSS	Minazif	2.46	162	Pn	Pn	19 44 13.2	+1.6
UOSS	Minazif	2.46	162	P	Pb	19 44 14.6	-1.3
FAQ	Al Faqa, Dubai	2.56	176	P	Pb	19 44 16.6	-0.9
	SNR=14						
FAQ				S	Sb	19 44 47.1	-1.7
FAQ	Al Faqa, Dubai	2.56	176	*e*P	Pb	19 44 16.1	-1.4
	SNR=14						
HATD	Hatta, Dubai	2.56	165	P	Pb	19 44 16.0	-1.5
	SNR=16						
HATD				S	Sb	19 44 47.1	-1.7
HATD	Hatta, Dubai	2.56	165	*e*P	Pb	19 44 15.9	-1.6
	SNR=16						
JASK	Jask - Hormozg	2.64	122	P	Pn	19 44 15.5	+1.4
	SNR=15						
JASK				S	Sb	19 44 49.1	-2.2
JASK	Jask - Hormozg	2.64	122	Pn	Pn	19 44 15.4	+1.3
ASUD	Al Ashush, Dub	2.67	181	P	Pb	19 44 18.4	-1.0
	SNR=20						
ASUD	Al Ashush, Dub	2.67	181	*e*P	Pb	19 44 16.8	-2.6
	SNR=20						
ASHO	Ashiyiah	2.68	167	P	Pb	19 44 17.6	-2.0
	SNR=248						
ASHO				S	Sb	19 44 50.4	-2.0
ASHO	Ashiyiah	2.68	167	*e*P	Pb	19 44 17.5	-2.1
	SNR=248						
AJN	Ajban	2.75	188	P	Pb	19 44 19.3	-1.6
	SNR=6.6						
AJN				S	Sb	19 44 52.0	-2.5
AJN	Ajban	2.75	188	*e*P	Pb	19 44 18.5	-2.4
	SNR=8.8						
CHMN	Cheshme madani	3.17	36	Pn	Pn	19 44 24.2	+2.5
KHGB	Koh Gabri	3.21	17	Pn	Pn	19 44 24.6	+2.5
ALNE	Al Ain	3.25	174	P	Pb	19 44 25.8	-3.5
	SNR=15						
ALNE				S	Sn	19 45 04.1	+3.0
ALNE	Al Ain	3.25	174	*i* P	Pn	19 44 25.2	+2.7
	SNR=15						
KBAM	BAM	3.26	55	Pn	Pn	19 44 25.1	+2.4
SOHO	SOHO	3.32	162	P	Pn	19 44 25.0	+1.6
SOHO				S	Sn	19 45 05.9	+3.2
SOHO	SOHO	3.32	162	*i* P	Pn	19 44 24.7	+1.3
	SNR=15						
SHI	Shiraz	3.44	313	Pn	Pn	19 44 27.4	+2.2
KRM1	Kerman Provinc	3.59	27	Pn	Pn	19 44 29.7	+2.4
MZWR	Madinat Zayed	3.78	201	P	Pn	19 44 32.8	+3.1
GHWR	Ruwais	4.03	215	P	Pn	19 44 35.0	+1.9
GHWR				S	Sn	19 45 20.3	+0.2
ARQ	Araqi	4.08	165	P	Pn	19 44 36.0	+2.1
	SNR=71						
ARQ				S	Sn	19 45 24.6	+3.1
HOQ	Hoqain	4.09	154	P	Pn	19 44 34.9	+0.8
	SNR=7.1						
IMEH	Mehriz	4.13	351	Pn	Pn	19 44 37.4	+2.7
IBAF	Bafgh	4.27	2	Pn	Pn	19 44 39.2	+2.5
BIDO	Bidbid	4.51	146	P	Pn	19 44 41.2	+1.5
TAFT	Taft - Yazd	4.53	347	Pn	Pn	19 44 43.2	+3.0
SAKB	Bahrain	4.54	254	P	Pn	19 44 42.6	+2.5
SAKB				S	Sn	19 45 33.0	+0.2
UMZA	Um Al Zommool	4.58	183	P	Pn	19 44 43.1	+2.5
BSY	Bisya	4.83	160	P	Pn	19 44 46.3	+2.2
	SNR=20						
BSY				S	Sn	19 45 43.9	+3.9
SMDO	Samad	4.87	150	P	Pn	19 44 48.0	+3.3
	SNR=18						
SMDO				S	Sn	19 45 43.9	+2.9
CHBR	Chabahar	4.87	109	*e*Pn	Pn	19 44 46.7	+1.9
CHBR				IAML		19 45 19.0	

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      comp=Z,93nm,1.0s
CHBR  Chabahar           4.87 109  Pn    Pn    19 44 46.5 +1.8
KLNJ  Kolanjah           4.96 319 ePn    Pn    19 44 48.7 +2.4
WSAR  Wadi Sarin         5.00 143  P     Pn    19 44 49.1 +2.6
WSAR                               S     Sn    19 45 46.6 +2.4
YZKH  Yazd               5.12 352 ePn    Pn    19 44 51.3 +3.1
YZKH                               IAML        19 46 35.5
      comp=Z,61nm,1.0s
ZHSF  Zahedan            5.27  63 ePn    Pn    19 44 51.6 +1.2
ZHSF                               IAML        19 46 01.7
      comp=Z,15nm,1.0s
JMDO  Jabal Madar        5.50 153  P     Pn    19 44 56.3 +2.9
NGCH  Negor - Chabah     5.51 109  P     Pn    19 44 55.5 +2.0
      SNR=44
NGCH  Negor - Chabah     5.51 109  Pn    Pn    19 44 55.5 +2.0
BSRN  Basiran            5.67  34 ePn    Pn    19 44 57.1 +1.2
BSRN                               IAML        19 46 44.3
      comp=Z,55nm,1.0s
WBK   Wadi Bani Khal     5.69 144  P     Pn    19 44 57.3 +1.2
      SNR=57
NASN  Na'in              5.92 338 ePn    Pn    19 45 01.1 +1.7
NASN                               IAML        19 47 00.3
      comp=Z,22nm,1.0s
SRVN  Saravan            6.24  87 ePn    Pn    19 45 05.7 +2.1
SRVN                               IAML        19 45 17.6
      comp=Z,21nm,1.0s
SRVN  Saravan            6.24  87  Pn    Pn    19 45 05.7 +2.1
JLN   Jalan Bani Buh     6.30 144  P     Pn    19 45 05.6 +1.2
      SNR=23
TABS  Tabas              6.50  13 ePn    Pn    19 45 09.6 +2.4
TABS                               IAML        19 47 21.3
      comp=Z,44nm,1.0s
MHTO  MHTO               6.72 159  P     Pn    19 45 11.7 +1.6
SHRT  Shahrakht          7.61  33 ePn    Pn    19 45 25.0 +2.6
SHRT                               IAML        19 47 51.5
      comp=Z,16nm,1.0s
KHMZ  Khomeyn            7.94 325 ePn    Pn    19 45 29.8 +2.7
KHMZ                               IAML        19 47 02.3
      comp=Z,19nm,1.0s
ASAO  Ashtian            8.56 329 ePn    Pn    19 45 38.1 +2.5
ASAO                               IAML        19 45 45.1
      comp=Z,29nm,0.7s
DAMV  Damavand           8.80 341 ePn    Pn    19 45 41.1 +2.2
DAMV                               IAML        19 45 43.8
      comp=Z,26nm,0.8s
HRA   Herat              9.19  38  Pn    Pn    19 45 44.0 -0.2
SHAO  Shalim             9.24 179  P     Pn    19 45 45.6 +0.9
      SNR=15
SHAO  Shalim             9.24 179 i P    Pn    19 45 45.7 +0.9
      SNR=15
SBZV  Sabzevar           9.25  11 ePn    Pn    19 45 47.5 +2.4
SBZV                               IAML        19 45 55.2
      comp=Z,5.3nm,0.6s
CHTH  Charan             9.31 338 ePn    Pn    19 45 50.2 +4.2
CHTH                               IAML        19 46 03.4
      comp=Z,8.3nm,0.7s
WHFO  Wadi Hawf          9.46 189  P     Pn    19 45 48.5 +0.7
      SNR=25
DMTO  DMTO               9.55 183  P     Pn    19 45 49.7 +0.7
      SNR=12
RAYN  Ar Rayn            9.70 249  P     Pn    19 45 51.2 +0.2
RAYN  Ar Rayn            9.70 249        Pn    19 45 50.9 -0.2
RAYN  Ar Rayn            9.70 249  P     Pn    19 45 51.0 -0.1
      comp=Z,7.6nm,0.9s
RBK   Rabkut             9.81 187  P     Pn    19 45 52.1 -0.6
ABTO  Aybut             10.09 191  P     Pn    19 45 57.0 +0.5
      SNR=20
KBL   Kabul             13.76  55  Pn    Pn    19 46 42.5 -4.2
HAKT  HAKKARI           14.19 319  P     Pn    19 46 50.9 -1.8
      comp=Z,45nm,0.8s
GEVA  Gevas             15.08 320  Pn    Pn    19 47 02.7 -2.0
GNI   Garni             15.56 328  Pn    P     19 47 13.8 -1.4
      comp=Z,1.7nm,0.3s,baz=246,slow=1.5,SNR=16
GNI                                LR    LR    19 53 52.5
      comp=Z,52nm,19.5s,baz=128,slow=40
      comp=Z,9.0nm,0.6s
GNI                                AML   AML
GNI   Garni             15.56 328        Pn    19 47 10.5 -0.4
ASF   Jabal al Asfar    16.77 291  Pn    Pn    19 47 26.0 -0.5
      comp=Z,0.2nm,0.3s,baz=262,slow=23,SNR=4.1
      comp=Z,1.7nm,0.7s
ASF                                AML   AML
KOPT  Kop Dagi          17.70 320  P     Pn    19 47 37.8 -0.5
GHAJ  Ghor Haditha      17.74 288  P     Pn    19 47 38.4 -0.1
GHAJ                               IAmb  IAmb  19 48 12.2
      comp=Z,14nm,0.9s
BTK   Batken            18.04  41        Pn    19 47 38.9 -3.3
BTK   Batken            18.04  41  P     Pn    19 47 42.1 -0.2
      comp=Z,6.7nm,1.1s
GAZ   Gaziantep         18.23 307        Pn    19 47 40.5 -4.1
DRK   Karamyk           18.27  44        Pn    19 47 42.3 -3.0
DRK                                IAmb  IAmb  19 47 54.4
      comp=Z,7.2nm,0.6s
ARPR  Arapgir-MALATY    18.45 314  P     P     19 47 44.3 -3.0
ARPR                               IAmb  IAmb  19 48 13.3
      comp=Z,11nm,1.0s
CHM   Chimkent          18.95  34 eP     Pn    19 47 53.5 +0.3
ANDN  Andirin           19.03 307  P     Pn    19 47 55.4 +1.1
      comp=Z,72nm,1.1s
IUG   Iuzhnay           19.04  35 eP     Pn    19 47 54.4  0.0
KBZ   Khabaz            19.25 332  Pn    Pn    19 47 59.0 +2.2
      comp=Z,0.4nm,0.3s,baz=142,slow=8.5,SNR=9.8
      comp=Z,4.7nm,0.7s
KBZ                                AML   AML
KIV   Kislovodsk        19.52 332        P     19 47 57.2 -1.7
BRLS  Borolday          19.59  33 eP     P     19 47 57.7 -1.9
ATD   Arta Tunnel       19.62 219  P     P     19 47 60.0 -0.2
ATD                                IAmb  IAmb  19 48 08.9
      comp=Z,15nm,1.1s
ATD   Arta Tunnel       19.62 219  P     P     19 47 57.4 -2.7
      comp=Z,11nm,0.9s
ARK   Arkit             19.83  39  P     P     19 48 02.8 +0.4
      comp=Z,6.9nm,1.0s
BNN   Bunyan            19.97 310  P     P     19 48 01.4 -2.5
BNN                                IAmb  IAmb  19 48 09.3
      comp=Z,9.8nm,1.0s
KKAR  Karatay Array     19.98  34        P     19 48 02.5 -1.4
ARSB  Arslanbob         20.11  41        P     19 48 04.4 -1.1
DZA   Taraz             20.24  36 eP     P     19 48 07.4 +0.7
      comp=Z,6.4nm,0.8s
CSS   Mathiatis         20.34 297  P     P     19 48 07.1 -0.7
      comp=Z,12nm,1.1s
KSH2  Kashi             20.55  50  P     P     19 48 09.3 -0.9
KSH2                               S     S     19 51 53.0 -6.9
KSH2                               pmax  pmax
      comp=Z,8.0nm,0.8s
KIRS  Kirsehir-Merke    21.43 309 ⇓P     P     19 48 21.2 +1.6
AAK   Ala-Archa         21.81  41  P     P     19 48 24.9 +1.1
      comp=Z,5.5nm,0.8s,baz=196,slow=10,SNR=13
AAK                                LR    LR    19 58 17.4
      comp=Z,54nm,18.5s,baz=254,slow=41
      comp=Z,5.5nm,0.8s
AAK   Ala-Archa         21.81  41        P     19 48 22.8 -1.0
AAK                                IAmb  IAmb  19 48 32.8
      comp=Z,8.5nm,1.1s
AAK   Ala-Archa         21.81  41  P     P     19 48 25.1 +1.3
      comp=Z,8.5nm,1.1s
BR104 Keskin Array S    21.89 310  P     P     19 48 24.3 -0.3
      comp=Z,67nmcomp=Z,8.6nm,0.9s
BRTR  Keskin Array B    21.89 310  P     P     19 48 25.4 +0.7
      comp=Z,5.2nm,0.8s,baz=128,slow=12,SNR=17
      comp=Z,5.2nm,0.8s
BRTR  Keskin Array B    21.89 310        P     19 48 22.6 -2.1
BR105 Keskin Array S    21.91 310  P     P     19 48 24.0 -0.8
      comp=Z,54nmcomp=Z,8.1nm,0.8s
BR106 Keskin Array S    21.91 310  P     P     19 48 25.4 +0.5
      comp=Z,57nmcomp=Z,7.9nm,1.0s
NRN   Naryn             22.02  45        P     19 48 24.8 -1.4
NRN                                IAmb  IAmb  19 48 34.2
      comp=Z,5.4nm,0.6s
ASAI  AK-SAY(Kyrgyzs    22.07  47  P     P     19 48 27.4 +0.6
      comp=Z,12nm,1.1s
KKUL  Konya-Kulu        22.15 308  P     P     19 48 28.5 +1.1
      comp=Z,25nm,1.0s
ABKAR Akbulak array     22.20   8        P     19 48 26.7 -0.9
KEPZ  Antalya-Kepez     22.25 301 ⇓P     P     19 48 31.6 +3.2
SGDS  Sogindy           22.40  39 eP     P     19 48 30.6 +0.6
BOOM  Boomskoye usch    22.58  43  P     P     19 48 31.4 -0.6
BOOM                               IAmb  IAmb  19 48 36.4
      comp=Z,14nm,1.5s
KDJ   Kajisay           23.14  45  P     P     19 48 37.8 -0.1
KDJ                                IAmb  IAmb  19 48 40.6
      comp=Z,13nm,1.2s
KDJ   Kajisay           23.14  45  P     P     19 48 39.8 +1.9
      comp=Z,6.7nm,0.9s
TARG  Taragay, Kyrgy    23.32  46  P     P     19 48 39.3 -0.7
TARG                               IAmb  IAmb  19 49 04.2
      comp=Z,9.0nm,1.4s
TARG  Taragay, Kyrgy    23.32  46  P     P     19 48 39.7 -0.3
      comp=Z,3.4nm,0.6s
TNSS  Tian-Shan         23.50  43 eP     P     19 48 41.8  0.0
AAA   Alma-Ata          23.58  42 eP     P     19 48 42.9 +0.7
      comp=Z,4.2nm,0.5s
MDOK  Medeo             23.63  42 eP     P     19 48 43.3 +0.6
WUS   Wushi             23.99  49  P     P     19 48 45.3 -0.9
WUS                                IAmb  IAmb  19 48 50.1
      comp=Z,5.0nm,0.8s
WUS   Wushi             23.99  49  P     P     19 48 48.6 +2.4
      comp=Z,6.4nm,1.0s
SATY  Saty              24.40  44 eP     P     19 48 50.4 +0.5
KPKS  Kokpek            24.79  43 eP     P     19 48 54.0 +0.5
UZB   Uzynbulak         24.83  44 eP     P     19 48 54.5 +0.6
SHLS  Shalkode          25.11  45 eP     P     19 48 59.2 +2.8
      comp=Z,5.9nm,1.3s
PDGK  Podgornoye        25.22  44        P     19 48 57.3 -0.1
TDK   Taldyqorghan      25.50  40 eP     P     19 49 00.5 +0.7
      comp=Z,5.3nm,0.7s
TPGR  Topolog           27.77 316 ⇓P     P     19 49 21.5 +1.3
EVN   Everest           27.82  81        P     19 49 20.9 -0.7
TLBR  Topalu            27.85 315 ⇑P     P     19 49 22.0 +1.1
BVAR  Borovoye Array    28.02  19  P     P     19 49 22.8 +0.4
      comp=Z,4.8nm,0.8s,baz=198,slow=35,SNR=14
BVAR                               PcP   PcP   19 52 36.9  0.0
      comp=Z,0.5nm,0.3s,baz=220,slow=2.3,SNR=5.1
      comp=Z,4.8nm,0.8s
CFR   Carcaliu          28.11 317 ⇑P     P     19 49 24.8 +1.6
MKAR  Makanchi Array    28.75  40  P     P     19 49 29.4 +0.4
      comp=Z,0.7nm,0.5s,baz=231,slow=8.5,SNR=9.3
MKAR                               LR    LR    20 02 59.8
      comp=Z,28nm,19.3s,baz=124,slow=41
      comp=Z,0.7nm,0.5s
GHRR                    28.99 318  P     P     19 49 30.2 -0.9
PAIG  Paliouri          29.09 304  P     P     19 49 34.1 +2.1
      comp=Z,4.5nm,0.9s
KURBB Kurchatov Arra    29.20  31  P     P     19 49 33.5 +0.7
      comp=Z,1.0nm,0.2s,baz=230,slow=8.8,SNR=8.5
      comp=Z,1.0nm,0.2s
SAHR  Sahastru          29.27 317 ⇓P     P     19 49 34.2 +0.6
KURK  Kurchatov         29.30  31  P     P     19 49 33.5 -0.2
KURK  Kurchatov         29.30  31  IAmb  IAmb  19 49 39.3
      comp=Z,1.6nm,0.7s
VRI   Vrincioaia        29.31 317 ⇓P     P     19 49 34.9 +1.0
PLOR  Plostina          29.35 317 ⇓P     P     19 49 35.6 +1.3
NEHR  Nehoiu            29.36 316 ⇓P     P     19 49 36.0 +1.6
SRS   Serrai            29.50 306  P     P     19 49 36.6 +0.9
      comp=Z,10nm,0.7s
SORM  Soroca            29.57 322 ⇑P     P     19 49 35.7 -0.5
SORM  Soroca            29.57 322  P     P     19 49 35.1 -1.1
SOH   Sokhos            29.59 305  P     P     19 49 38.2 +1.7
      comp=Z,8.8nm,1.0s
MLR   Muntele Rosu      29.61 316  P     P     19 49 36.9 +0.2
MLR   Muntele Rosu      29.61 316 ⇓P     P     19 49 38.3 +1.6
MLR   Muntele Rosu      29.61 316  P     P     19 49 38.8 +2.1
      comp=Z,7.6nm,1.8s
COVR  Voineasa-Covas    29.62 316 ⇑P     P     19 49 38.4 +1.7
TESR  Tescani           29.68 318 ⇓P     P     19 49 37.9 +0.7
TESR  Tescani           29.68 318  P     P     19 49 36.9 -0.3
      comp=Z,10nm,0.8s
TESR  Tescani           29.68 318  P     P     19 49 37.6 +0.5
      comp=Z,10nm,0.8s
ONER  Baraj Valea Uz    29.74 317 ⇓P     P     19 49 38.5 +0.7
TURR  Turia             29.83 317 ⇑P     P     19 49 38.9 +0.3
VOIR                    30.15 315 ⇓P     P     19 49 41.9 +0.5
VOIR                    30.15 315  P     P     19 49 40.9 -0.5
      comp=Z,7.5nm,1.8s
VOIR                    30.15 315  P     P     19 49 42.2 +0.7
      comp=Z,7.4nm,1.8s
DOPR  Dopca             30.18 316 ⇑P     P     19 49 43.0 +1.4
BIZ   Bicaz             30.21 318 ⇓P     P     19 49 42.1 +0.2
GRG   Griva             30.32 305  P     P     19 49 43.6 +0.7
      comp=Z,14nm,2.4s
AK07  Malin Array Si    30.59 326  P     P     19 49 43.6 -1.6
AK09  Malin Array Si    30.60 327  P     P     19 49 44.2 -1.0
AK10  Malin Array Si    30.60 327  P     P     19 49 44.2 -1.1
AK06  Malin Array Si    30.62 326  P     P     19 49 44.2 -1.2
AK08  Malin Array Si    30.62 327  P     P     19 49 44.4 -1.0
AKASG Malin Array Be    30.68 327  P     P     19 49 45.7 -0.2
      comp=Z,3.3nm,0.7s,baz=135,slow=8.2,SNR=13
      comp=Z,3.3nm,0.7s
AKASG Malin Array Be    30.68 327  IAmb  IAmb  19 50 02.3
      comp=Z,2.2nm,1.1s
AKBB  Malin Array Si    30.68 327  P     P     19 49 44.8 -1.2
KIEV  Kiev              30.68 327  P     P     19 49 44.6 -1.4
KIEV  Kiev              30.68 327 ⇓P     P     19 49 45.7 -0.3
KIEV  Kiev              30.68 327  P     P     19 49 44.9 -1.1
      comp=Z,52nm,0.9s
KIEV  Kiev              30.68 327  P     P     19 49 45.5 -0.5
      comp=Z,13nm,0.9s
AK14  Malin Array Si    30.69 326  P     P     19 49 45.0 -1.1
WMQ   Urumqi            30.77  49 eP     P     19 49 49.3 +2.3
WMQ                                pmax  pmax
      comp=Z,24nm,0.9s
KMPD  K-Podol'skiy      30.86 321  P     P     19 49 46.5 -1.1
LUBAR Lubar, Ukraine    30.94 324  P     P     19 49 47.3 -0.9
BURAR Bucovina Array    31.08 319 ⇓P     P     19 49 50.3 +0.7
MI29  MI29, Kamyanyy    31.19 325  P     P     19 49 50.2 -0.3
      comp=Z,61nm,1.3s
PALK  Pallekele         31.20 125  LR    LR    20 00 25.3
      comp=Z,34nm,21.1s,baz=292,slow=33
MI30  MI30,Zelenitsa    31.22 326  P     P     19 49 49.4 -1.3
      comp=Z,22nm,0.8s
KAAM  Kaadhehdhoo       31.57 145  P     P     19 49 55.0 +0.9
      comp=Z,92nm,2.7s
GZR   Gura Zlata        31.58 314 ⇑P     P     19 49 55.7 +1.7
MARR  Marisel-Cluj      31.90 316 ⇑P     P     19 49 57.2 +0.3
PHP   Peshkopia         31.94 306  P     P     19 49 56.6 -0.7
      comp=Z,11nm,0.6s
MDVR  Moldovita         32.04 312 ⇑P     P     19 49 59.3 +1.2
SURR  Surduc            32.14 314 ⇑P     P     19 50 00.1 +1.1
SIRR  Siria             32.65 314 ⇑P     P     19 50 04.0 +0.6
RNPP9 Sopachiv          32.78 325  P     P     19 50 03.3 -1.1
TRPA  Tarpa             32.91 318  P     P     19 50 05.9 +0.4
      comp=Z,6.8nm,2.8s
FRGS  Fruska Gora       33.44 312  P     P     19 50 10.2  0.0
      comp=Z,6.5nm,1.1s
KOLS  Kolonicke sedl    33.44 319  P     P     19 50 12.0 +1.7
      comp=Z,12nm,0.8s
TIP   Timpagrande       34.17 300  P     P     19 50 17.1 +0.3
      comp=Z,8.7nm,1.1s
ZALV  Zalesovo Beam     34.30  31  P     P     19 50 17.6 +0.1
      comp=Z,7.9nm,0.5s,baz=241,slow=9.0,SNR=41
ZALV                               PcP   PcP   19 52 52.2 -1.5
      comp=Z,0.3nm,0.3s,baz=194,slow=3.1,SNR=2.1
      comp=Z,7.9nm,0.5s
ZALV  Zalesovo Beam     34.30  31        P     19 50 16.7 -0.9
NACGM Naroch            34.55 331 eP     P     19 50 20.7 +1.0
      comp=Z,14nm,1.0s,baz=131
MORH  Mrgy, Hungar      34.57 313 ⇑P     P     19 50 20.9 +0.9
MORH  Mrgy, Hungar      34.57 313  P     P     19 50 19.7 -0.3
      comp=Z,4.0nm,1.8s
CUC   Castrocucco       35.01 301  P     P     19 50 23.3 -0.7
CUC   Castrocucco       35.01 301  P     P     19 50 26.6 +2.6
      comp=Z,13nm,0.9s
MARCO Tramutola         35.07 302  P     P     19 50 26.4 +1.9
      comp=Z,20nm,1.2s
OJC   Ojcow             35.46 320        P     19 50 27.1 -0.6
OJC   Ojcow             35.46 320  P     P     19 50 27.5 -0.2
      comp=Z,12nm,1.1s
OJC   Ojcow             35.46 320  P     P     19 50 28.4 +0.7
      comp=Z,12nm,1.1s
MPLH  Magyarpolny       35.61 314  P     P     19 50 28.5 -0.5
      comp=Z,19nm,1.3s
MAUC  Maruska           36.25 318 eP     P     19 50 35.5 +0.9
MBAR  Mbarara           36.49 225  LR    LR    20 07 24.5
      comp=Z,51nm,20.6s,baz=40,slow=39
STEB  Steborice         36.52 318 eP     P     19 50 36.7  0.0
RONA  Rosalia, Austr    36.59 314 eP     P     19 50 38.4 +1.0
      comp=Z,0.7nm,0.3s
MORC  Moravsky Berou    36.59 318        P     19 50 36.5 -1.0
MORC  Moravsky Berou    36.59 318 eP     P     19 50 37.5 +0.1
MORC  Moravsky Berou    36.59 318 ⇓P     P     19 50 38.3 +0.9
MORC  Moravsky Berou    36.59 318  P     P     19 50 37.9 +0.4
      comp=Z,12nm,2.7s
WINA  Alland / Wiene    36.87 315 eP     P     19 50 39.8  0.0
      comp=Z,1.3nm,0.4s
ARSA  Arzberg           36.94 313 epP    P     19 50 42.1 +1.7
      comp=Z,2.1nm,0.6s
VRAC  Vranov            36.98 317 eP     P     19 50 39.8 -0.9
VRAC  Vranov            36.98 317 ⇓P     P     19 50 41.3 +0.6
VRAC  Vranov            36.98 317  P     P     19 50 41.5 +0.8
      comp=Z,2.0nm,0.7s
KRUC  Moravsky          37.00 317 eP     P     19 50 40.5 -0.4
KRUC  Moravsky          37.00 317  P     P     19 50 40.7 -0.3
      comp=Z,6.7nm,1.8s
SESA  Seetaler Alpe,    37.51 313 i pP   P     19 50 48.8 +3.2
      comp=Z,1.7nm,0.4s
DPC   Dobruska-Polom    37.54 318 eP     P     19 50 45.6 +0.1
DPC   Dobruska-Polom    37.54 318  P     P     19 50 44.3 -1.2
      comp=Z,9.8nm,1.1s
DPC   Dobruska-Polom    37.54 318  P     P     19 50 45.4 -0.1
      comp=Z,9.8nm,1.1s
TREC  Trest             37.64 317  P     P     19 50 47.0 +0.6
      comp=Z,11nm,1.2s
OSTC  Ostas             37.68 319 eP     P     19 50 47.0 +0.3
CHVC  Chvalec           37.79 319 eP     P     19 50 47.7 +0.1
MOA   Molln             37.93 314 i P    P     19 50 49.3 +0.5
      comp=Z,0.3nm,0.3s
MOA   Molln             37.93 314  P     P     19 50 48.7 -0.1
BIOA  Bad Ischl, Aus    38.29 313 i pP   P     19 50 55.6 +3.7
      comp=Z,1.9nm,0.4s
KBA   Koelnbreinsper    38.30 312 i pP   P     19 50 54.9 +2.7
      comp=Z,3.3nm,0.8s
ZVC   Zvikov            38.49 316 eP     P     19 50 53.6 +0.1
STAL  STALIGIAL         38.51 311  P     P     19 50 52.3 -1.5
GERES GERESS Array B    38.60 315  P     P     19 50 53.7 -0.8
      comp=Z,0.7nm,0.4s,baz=111,slow=7.6,SNR=9.4
      comp=Z,0.7nm,0.4s
GTA2  Gaotai            38.63  60  P     P     19 50 56.4 +1.5
GTA2                               pmax  pmax
      comp=Z,9.0nm,1.0s
KHC   Kasperske Hory    38.77 316 eP     P     19 50 54.9 -1.0
KHC   Kasperske Hory    38.77 316  P     P     19 50 54.8 -1.1
KHC                                IAmb  IAmb  19 50 59.3
      comp=Z,8.1nm,1.3s
KHC   Kasperske Hory    38.77 316  P     P     19 50 54.9 -1.0
      comp=Z,8.6nm,2.7s
KHC   Kasperske Hory    38.77 316  P     P     19 50 55.2 -0.6
      comp=Z,8.6nm,2.7s
ABTA  Abfaltersbach     38.77 312 i pP   P     19 50 58.8 +2.9
      comp=Z,1.5nm,0.5s
LESA  Schwarzleotal     38.84 313 i P    P     19 50 56.2 -0.3
      comp=Z,1.2nm,0.3s
CGRP  Cima Grappa       39.04 310  P     P     19 50 57.9 -0.4
      comp=Z,9.9nm,1.7s
BRG   Berggiesshubel    39.14 318 eP     P     19 50 59.3 +0.4
      comp=Z,3.8nm,0.9s,baz=107,slow=8.8
BRG   Berggiesshubel    39.14 318  P     P     19 50 58.9 +0.1
      comp=Z,7.1nm,1.1s
BRG   Berggiesshubel    39.14 318 eP     P     19 50 59.0 +0.1
BRG                                Amp         19 51 03.1
      comp=Z,5.2nm,1.0s
WET   Wettzell          39.21 315 eP     P     19 50 58.5 -1.1
      comp=Z,1.3nm,0.7s,baz=107,slow=8.8
FINES FINESS Array B    39.38 338  P     P     19 51 00.2 -0.5
      comp=Z,2.4nm,0.6s,baz=139,slow=11,SNR=11
      comp=Z,2.4nm,0.6s
WTTA  Wattenberg        39.48 312 i P    P     19 51 01.6 -0.4
      comp=Z,1.8nm,0.3s
WTTA  Wattenberg        39.48 312  P     P     19 51 02.0  0.0
      comp=Z,9.4nm,1.6s
WATA  Walderalm         39.53 312 i P    P     19 51 01.6 -0.8
      comp=Z,1.8nm,0.4s
SQTA  Sankt Quirin      39.75 312 i P    P     19 51 03.5 -0.7
      comp=Z,2.7nm,0.4s
CLL   Collm             39.85 319        P     19 51 04.5 -0.3
CLL                                IAmb  IAmb  19 51 09.7
      comp=Z,7.7nm,1.1s
CLL   Collm             39.85 319 eP     P     19 51 05.6 +0.9
      comp=Z,4.9nm,0.9s,baz=107,slow=8.8
CLL   Collm             39.85 319  P     P     19 51 03.6 -1.2
      comp=Z,7.4nm,1.8s
CLL   Collm             39.85 319  P     P     19 51 05.4 +0.7
      comp=Z,7.4nm,1.8s
CLL   Collm             39.85 319 i P    P     19 51 05.2 +0.4
      comp=Z,7.0nm,1.0s
CLL                               ePPPP        19 53 08.0
MOTA  Moosalm           39.85 312 i P    P     19 51 04.7 -0.3
      comp=Z,3.2nm,0.8s
FETA  Feichten          40.02 312 i P    P     19 51 06.2 -0.3
      comp=Z,1.2nm,0.3s
GRF   Grafenberg Arr    40.40 316 eP     P     19 51 09.7 +0.2
      comp=Z,4.4nm,0.7s,baz=107,slow=8.8
UBR   Ueberruh          40.59 312 eP     P     19 51 10.8 -0.2
      comp=Z,4.8nm,0.8s,baz=107,slow=8.8
UBR   Ueberruh          40.59 312  P     P     19 51 10.3 -0.7
      comp=Z,12nm,1.9s
DAVA  Damuels           40.64 312 i P    P     19 51 11.2 -0.5
      comp=Z,10nm,0.5s
DAVA  Damuels           40.64 312  P     P     19 51 11.0 -0.7
      comp=Z,23nm,0.6s
TUE   Stuetta           40.83 310  P     P     19 51 12.3 -1.0
CMAR  Chiang Mai Arr    40.91  93  P     P     19 51 15.1 +1.1
      comp=Z,0.3nm,0.5s,baz=291,slow=7.1,SNR=4.1
CMAR                               PcP   PcP   19 53 14.6  0.0
      comp=Z,0.6nm,0.7s,baz=288,slow=4.9,SNR=4.3
      comp=Z,0.3nm,0.5s
FLTG  Flechtingen       41.23 320 eP     P     19 51 16.7 +0.6
      comp=Z,13nm,1.0s,baz=107,slow=8.8
FLTG  Flechtingen       41.23 320  P     P     19 51 17.0 +0.8
      comp=Z,12nm,1.0s
ASSE  Asse, Remlinge    41.49 319 eP     P     19 51 22.1 +3.8
      comp=Z,7.3nm,1.1s,baz=107,slow=8.8
ASSE  Asse, Remlinge    41.49 319  P     P     19 51 19.8 +1.5
      comp=Z,10nm,1.3s
CLZ   Clausthal         41.57 319 eP     P     19 51 20.2 +1.1
      comp=Z,8.0nm,0.7s,baz=107,slow=8.8
CLZ   Clausthal         41.57 319  P     P     19 51 20.3 +1.1
      comp=Z,14nm,0.8s
KMI2  Kunming           42.34  82  P     P     19 51 26.1 +0.1
KMI2                               pmax  pmax
      comp=Z,12nm,0.6s
KASTN Kahler Asten      42.55 317 eP     P     19 51 28.0 +0.9
      comp=Z,4.3nm,1.1s,baz=107,slow=8.8
ECH   Echery            42.64 313        P     19 51 27.5 -0.3
ECH                                IAmb  IAmb  19 51 31.2
      comp=Z,6.3nm,1.1s
ECH   Echery            42.64 313  P     P     19 51 27.1 -0.7
      comp=Z,7.0nm,1.0s
HFS   Hagfors           43.32 331  P     P     19 51 33.1  0.0
      comp=Z,3.6nm,0.8s,baz=164,slow=5.7,SNR=4.6
      comp=Z,3.6nm,0.8s
WLF   Walferdange       43.58 314 eP     P     19 51 37.7 +2.3
      comp=Z,7.6nm,1.0s,baz=107,slow=8.8
SONM  Songino Array     44.41  48  P     P     19 51 42.5 +0.3
      comp=Z,1.5nm,1.0s,baz=244,slow=6.4,SNR=4.4
SONM                               LR    LR    20 12 36.1
      comp=Z,62nm,18.3s,baz=261,slow=39
      comp=Z,1.5nm,1.0s
SONM  Songino Array     44.41  48  IAmb  IAmb  19 51 45.5
      comp=Z,1.9nm,1.1s
NB2   NORSAR Subarra    44.83 331  P     P     19 51 44.5 -0.8
      comp=Z,2.0nm,0.8s,baz=116,slow=7.9
NOA   NORSAR Array B    44.83 331  P     P     19 51 44.6 -0.6
      comp=Z,2.0nm,0.8s,baz=119,slow=7.9,SNR=5.6
      comp=Z,2.0nm,0.8s
ARCES ARCESS Array B    45.69 346  P     P     19 51 52.5 +0.5
      comp=Z,7.0nm,1.1s,baz=142,slow=10,SNR=2.0
      comp=Z,7.0nm,1.1s
ARCES ARCESS Array B    45.69 346  IAmb  IAmb  19 51 55.0
      comp=Z,34nm,1.4s
HHC   Hu-ho-hao-te      47.70  58 eP     P     19 52 06.9 -1.3
HHC                                pmax  pmax
      comp=Z,7.0nm,0.5s
HHC                                pmax  pmax
      comp=Z,60nm,4.4s
ESDC  Sonseca Array     50.19 300  P     P     19 52 27.5 +0.1
      comp=Z,0.8nm,0.9s,baz=86,slow=7.3,SNR=9.7
      comp=Z,0.8nm,0.9s
ESDC  Sonseca Array     50.19 300  IAmb  IAmb  19 52 31.8
      comp=Z,9.3nm,1.4s
EKA   Eskdalemuir Ar    50.23 321  P     P     19 52 26.6 -0.6
      comp=Z,0.2nm,0.3s,baz=102,slow=7.1,SNR=3.6
      comp=Z,0.2nm,0.3s
TORD  Torodi Ar. Bea    51.95 265  P     P     19 52 40.7 -0.1
      comp=Z,4.5nm,0.6s,baz=67,slow=7.4,SNR=29
      comp=Z,4.5nm,0.6s
TIA   Tai'an            52.47  64  P     P     19 52 44.8 +0.4
TIA                                pmax  pmax
      comp=Z,6.0nm,0.8s
SPITS Spitsbergen Ar    53.91 351  P     P     19 52 54.9 +0.5
      comp=Z,7.6nm,0.8s,baz=119,slow=8.7,SNR=4.3
      comp=Z,7.6nm,0.8s
KSRS  Korea Array       60.74  60  P     P     19 53 43.0 -0.1
      comp=Z,3.4nm,0.6s,baz=280,slow=6.7,SNR=12
      comp=Z,3.4nm,0.6s
BOSA  Boshof            62.66 210  P     P     19 53 56.7 +0.4
      comp=Z,1.5nm,0.9s,baz=10,slow=11,SNR=1.4
      comp=Z,1.5nm,0.9s
SUMG  Summit            65.35 341        P     19 54 13.4 -0.4
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WRA	Warramunga Arr	89.67	113	P	P	19 56 29.8	-0.1
	comp=Z,0.4nm,0.7s,baz=310,slow=4.2,SNR=5.0						
	comp=Z,0.4nm,0.7s						
ASAR	Alice Springs	91.13	116	P	P	19 56 36.5	-0.2
	comp=Z,0.4nm,0.7s,baz=308,slow=4.9,SNR=2.7						
	comp=Z,0.4nm,0.7s						

*REN **22** 19:43:42.6±2.1, 38°.16N±0°.01×117°.90W±0°.02, h10^{km}±2^{km}, Error ellipse: s-maj=2.2km s-min=1.8km az=211.0*

NEIC 22 19:43:42.6±2.0, 38°.172N±0°.007×117°.88W±0°.02, h9^{km}±3^{km}, ML3.2/138, ML3.6/18(REN), Error ellipse: s-maj=2.0km s-min=1.0km az=76.0, Nevada

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COLR	Columbus	0.14	259		Pg	19 43 46.0	+0.1
COLR					Sg	19 43 48.4	+0.2
NVAR	Mina Array Bea	0.42	308		Pg	19 43 51.0	0.0
LHV	Little Huntoon	0.50	279		Pg	19 43 52.5	+0.2
LHV				Sg	Sg	19 43 59.3	+0.4
TPH	Tonopah	0.53	100		Pg	19 43 53.1	+0.2
TPH				Sg	Sg	19 44 00.7	+0.8
TPH				IAML		19 44 01.1	
	comp=E,2μm,0.4s						
RYN	Ryan	0.68	312		Pg	19 43 55.8	+0.1
RYN				IAML		19 44 05.6	
	comp=E,1μm,0.6s						
RYN				IAML		19 44 06.3	
	comp=N,985nm,0.2s						
RYN	Ryan	0.68	312		Sg	19 44 05.4	+0.7
Q09A	Carvers	0.86	39		Pb	19 43 59.5	-0.3
Q09A				IAML		19 44 15.8	
	comp=N,1μm,0.4s						
KVN	Kaiserville	0.89	349		Pg	19 43 59.6	-0.3
KVN				Sg	Sg	19 44 11.6	+0.1
KVN				IAML		19 44 15.7	
	comp=E,997nm,0.5s						
KVN				IAML		19 44 16.5	
	comp=N,1μm,0.5s						
MLAC	Mammoth, Mammo	0.93	235		Pg	19 44 00.5	-0.1
MLAC					Sb	19 44 13.2	-0.3
MCBM	Casa Benchmark	0.96	237		Pg	19 44 01.0	-0.1
MCBM					Sb	19 44 14.7	+0.2
GMN	Gold Mountain	1.00	150		Pg	19 44 01.8	-0.1
GMN				Sg	Sg	19 44 15.1	+0.2
GMN				IAML		19 44 18.6	
	comp=E,1μm,0.4s						
MDYM	Dry Creek	1.03	241		Pb	19 44 02.6	-0.1
MDYM					Sb	19 44 16.7	+0.2
MDPB	Devils Postpil	1.09	241		Pg	19 44 03.0	-0.6
MDPB				Sg	Sg	19 44 17.2	-0.5
MDPB				IAML		19 44 17.9	
	comp=N,396nm,0.5s						
TIN	Tinemaha, Big	1.15	194		Pb	19 44 04.5	-0.2
TIN				Sg	Sb	19 44 19.9	+0.2
TIN				IAML		19 44 24.0	
	comp=E,849nm,0.7s						
GRAC	Grapevine Rang	1.24	161		Pb	19 44 06.2	0.0
GRAC	Grapevine Rang	1.24	161	Sg	Sn	19 44 22.9	-0.1
GRAC	Grapevine Rang	1.24	161	Pg	Pn	19 44 06.0	-0.2
WAKR	Walker	1.27	286		Pn	19 44 06.2	-0.5
WAKR				IAML		19 44 28.3	
	comp=E,246nm,0.5s						
WAKR				IAML		19 44 28.9	
	comp=N,237nm,1.0s						
WAKR	Walker	1.27	286		Sg	19 44 23.6	+0.2
YERR	Yerington	1.34	308		Pn	19 44 07.1	-0.5
YERR				IAML		19 44 28.0	
	comp=N,359nm,0.7s						
YERR	Yerington	1.34	308		Sg	19 44 25.9	+0.1
BFC	Buffalo Canyon	1.53	299		Pb	19 44 10.9	-0.4
BFC					Sg	19 44 31.7	-0.3
EBP	Ebbets Pass	1.57	286		Pb	19 44 12.0	+0.1
EBP					Sb	19 44 32.5	+0.6
PNTR	Pine Nut	1.63	305		Pn	19 44 11.3	-0.3
PNTR				IAML		19 44 43.1	
	comp=N,234nm,0.6s						
PNTR				IAML		19 44 46.6	
	comp=E,240nm,0.7s						
WCT	Wildcat Mounta	1.70	144		Pn	19 44 12.4	-0.1
WCT				IAML		19 44 40.0	
	comp=E,370nm,0.5s						
WCT				IAML		19 44 40.0	
	comp=N,227nm,0.5s						
CWC	Cottonwood Cre	1.74	185		Pb	19 44 13.9	-0.8
S11A	Rachel	1.77	107		Pn	19 44 14.0	+0.5
TPNV	Topopah Spring	1.78	133		Pn	19 44 14.2	+0.5
TPNV				IAML		19 44 44.9	
	comp=N,220nm,0.6s						
TPNV				IAML		19 44 47.4	
	comp=N,258nm,0.7s						
FURC	Furnace Creek,	1.89	154		Pn	19 44 15.6	+0.7
CPY	CP-1	1.91	130		Pb	19 44 17.6	0.0
PAHR	Pah Rah Range	1.93	323		Pn	19 44 15.6	0.0
SDH	Striped Hills	1.96	141		Pg	19 44 19.5	-0.7
CMB	Columbia Colle	1.98	267	Pn	Pn	19 44 16.1	-0.3
CMB				IAML		19 44 45.7	
	comp=N,165nm,0.5s						
MPK	Martis Peak	2.02	304		Pn	19 44 17.2	+0.1
MPK				IAML		19 44 50.4	
	comp=E,167nm,0.8s						
MPK				IAML		19 44 50.0	
	comp=N,163nm,0.6s						
MPMC	Manual Prospec	2.13	171		Pn	19 44 18.1	-0.4
PEAR	Peavine Mounta	2.17	312		Pb	19 44 21.0	-1.1
GWY	Greenwater Val	2.21	154		Pn	19 44 19.5	0.0
GWY	Greenwater Val	2.21	154	IAML		19 44 55.7	
	comp=N,188nm,0.4s						
GWY				IAML		19 44 56.9	
	comp=E,196nm,0.6s						
DONR	Donner Summit	2.24	302		Pb	19 44 22.7	-0.7
BMN	Battle Mountai	2.31	13		Pn	19 44 21.1	+0.1
BMN				IAML		19 44 57.1	
	comp=E,152nm,0.5s						
QSM	Queen of Sheba	2.35	160		Pn	19 44 21.3	0.0
QSM				IAML		19 45 03.1	
	comp=N,94nm,0.5s						
QSM				IAML		19 45 03.5	
	comp=E,75nm,0.5s						
TOW	Tower One	2.36	178		Pn	19 44 22.7	+1.2
CLC	China Lake	2.36	174		Pn	19 44 21.7	+0.1
PRN	Pahroc Range	2.37	108		Pn	19 44 21.7	0.0
PRN				IAML		19 45 05.1	
	comp=E,214nm,0.6s						
VES	Vestal, Richgr	2.52	203		Pn	19 44 24.3	+0.7
VES				IAML		19 45 11.8	
	comp=N,156nm,0.9s						
VES				IAML		19 45 13.2	
	comp=E,136nm,0.9s						
AFDM	Forest Hills D	2.54	289		Pn	19 44 24.3	+0.3
AFDM				IAML		19 45 04.2	
	comp=N,70nm,0.3s						
AFDM				IAML		19 45 05.1	
	comp=E,63nm,0.7s						
ISA	Isabella, Lake	2.55	191		Pn	19 44 24.6	+0.5
ISA				IAML		19 45 05.1	
	comp=E,60nm,0.7s						
BEKR	Beckworth	2.57	312		Pn	19 44 24.9	+0.4
SHOC	Shoshone, Teco	2.61	150		Pn	19 44 26.6	+1.7
CCCA	Chr Cany lake	2.67	171		Pn	19 44 27.0	+1.1
CCCA				IAML		19 45 12.2	
	comp=N,124nm,0.8s						
CCCA				IAML		19 45 12.6	
	comp=E,139nm,1.1s						
LRMC	Laurel Mtn Rad	2.69	177		Pn	19 44 27.5	+1.3
LRMC				IAML		19 45 10.7	
	comp=E,61nm,0.6s						
SHPR	Sheep Range	2.73	127		Pn	19 44 27.3	+0.5
SHPR				IAML		19 45 12.8	
	comp=E,53nm,0.4s						
BBGB	Big Mountain B	2.98	239		Pn	19 44 29.6	-0.4
GSC	Goldstone, Bar	2.99	163		Pn	19 44 30.4	+0.2
GSC				IAML		19 45 21.6	
	comp=E,83nm,0.7s						
GSC				IAML		19 45 22.6	
	comp=N,64nm,0.8s						
PMPB	Monarch Peak	3.04	231		Pn	19 44 31.1	+0.2
PMPB				IAML		19 45 27.3	
	comp=E,62nm,1.1s						
PMPB				IAML		19 45 33.1	
	comp=N,85nm,1.0s						
PKD	Bear Valley Ra	3.08	225		Pn	19 44 30.9	-0.4
MHC	Mount Hamilton	3.09	256		Pn	19 44 31.9	+0.2
MHC				IAML		19 45 21.8	
	comp=N,95nm,0.8s						
MHC				IAML		19 45 24.3	
	comp=E,80nm,1.0s						
ORV	Oroville	3.15	297		Pn	19 44 31.6	-0.6
SAO	San Andreas Ge	3.17	245		Pn	19 44 31.6	-0.9
PSUT	Pine Spring	3.19	82		Pn	19 44 34.4	+1.4
PSUT				IAML		19 45 25.1	
	comp=E,85nm,0.4s						
PSUT				IAML		19 45 25.7	
	comp=N,67nm,0.4s						
SUTB	Sutter Butte	3.23	290		Pn	19 44 33.0	-0.4
SUTB				IAML		19 45 30.0	
	comp=N,97nm,0.4s						
MTPC	Mountain Pass	3.27	144		Pn	19 44 34.6	+0.5
MTPC				IAML		19 45 29.9	
	comp=E,37nm,0.5s						
MTPC				IAML		19 45 30.2	
	comp=N,36nm,0.7s						
ELK	Elko	3.28	38		Pn	19 44 34.4	0.0
ELK				IAML		19 45 30.1	
	comp=N,32nm,0.5s						
TPO	Tropico Hills	3.30	185		Pn	19 44 34.8	+0.3
TPO				IAML		19 45 35.4	
	comp=E,33nm,1.1s						
TPO				IAML		19 45 37.2	
	comp=N,32nm,1.2s						
HULI	Fort Hunter Li	3.44	232	Pn	Pn	19 44 37.0	+0.7
HULI				IAML		19 45 04.8	
	comp=N,35nm,4.1s						
HULI				IAML		19 45 43.0	
	comp=E,39nm,1.7s						
CCUT	Cedar City	3.63	98		Pn	19 44 39.7	+0.6
CCUT				IAML		19 45 40.5	
	comp=N,26nm,0.4s						
CCUT				IAML		19 45 45.5	
	comp=E,27nm,0.6s						
O03E	Paynes Creek	3.71	306		Pn	19 44 39.7	-0.4
O03E				IAML		19 46 05.8	
	comp=E,29nm,0.9s						
HATC	Hat Creek Radi	3.83	315	Pn	Pn	19 44 42.7	+1.0
HATC				IAML		19 46 34.1	
	comp=E,33nm,4.2s						
HATC				IAML		19 46 42.0	
	comp=N,25nm,4.2s						
SZCU	Shurtz Canyon	3.84	97		Pn	19 44 43.2	+1.3
LCMT	Little Creek M	3.86	106		Pn	19 44 42.2	0.0
BFSC	Mount Baldy Ra	3.93	177	Pn	Pn	19 44 39.4	-3.7
MOD	Modoc Plateau	4.16	334		Pn	19 44 42.9	-3.5
MOD				IAML		19 45 58.8	
	comp=E,28nm,0.8s						
MOD				IAML		19 46 03.2	
	comp=N,24nm,0.7s						
TCRU	Three Creeks R	4.29	82	Pn	Pn	19 44 46.9	-1.4
WVOR	Wild Horse Val	4.30	353		Pn	19 44 45.4	-2.8
WVOR				IAML		19 46 01.5	
	comp=N,23nm,0.7s						
WVOR				IAML		19 46 04.0	
	comp=N,22nm,0.6s						
O02D	Mt. Diablo Mer	4.31	299		Pn	19 44 45.3	-3.0
DUG	Dugway, Tooele	4.42	61		Pn	19 44 48.2	-1.8
BELC	Belle Mtn. Jos	4.43	159	Pn	Pn	19 44 47.7	-2.4
PKCU	Pink Cliffs	4.47	98	Pn	Pn	19 44 49.3	-1.5
MTPU	Mount Pierson	4.50	90		Pn	19 44 51.0	-0.1
IRM	Iron Mountain	4.58	150		Pn	19 44 49.8	-2.1
BGU	Big Grassy Mou	4.65	52		Pn	19 44 53.2	+0.1
PFO	Pinyon Flats O	4.69	165		Pn	19 44 51.4	-2.3
U15A	North Rim	4.78	110		Pn	19 44 53.5	-1.6
NLU	North Lily Min	4.86	67		Pn	19 44 54.3	-1.7
BC3	Big Chuckawall	4.92	156		Pn	19 44 53.7	-3.0
M02C	Callahan	5.00	312	Pn	Pn	19 44 55.3	-2.5
BORC	Borrego Spring	5.04	166		Pn	19 44 56.0	-2.2
K05A	Summer Lake	5.10	334		Pn	19 44 56.6	-2.6
J08A	Circle Bar Ran	5.20	355		Pn	19 44 57.9	-2.7
SPUT	South Promonto	5.23	51		Pn	19 44 58.5	-2.6
L04D	Klamath Falls	5.27	321	Pn	Pn	19 44 59.0	-2.6
HVU	Hansel Valley	5.33	46		Pn	19 45 01.1	-1.3
TMUT	Trail Mountain	5.34	76		Pn	19 44 59.5	-3.2
MFID	Camas Ranch	5.46	16		Pn	19 45 03.0	-1.3
HLID	Hailey	5.99	25		Pn	19 45 07.5	-4.1

*NEIC **22** 19:48:11.2±1.1, 19°.5S±0°.1×175°.6W±0°.1, h494^{km}±9^{km}, mb4.1/11, Error ellipse: s-maj=23.7km s-min=15.8km az=144.0*

*IDC **22** 19:48:16.6±2.0, 19°.40S×175°.89W, h562^{km}±23^{km}, mb3.4/5, mbtmp4.3/7, Error ellipse: s-maj=34.4km s-min=20.8km az=153.0*

ISC 22 19:48:09.8±4.8, 19°.6S±0°.3×175°.4W±0°.6, h500^{km}, n23, σ1^{s}.53/17, mb3.9/10, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	6.52	286	P	P	19 49 55.1	+3.6
	7.0nm,0.4s,baz=82,slow=22,SNR=18						
MSVF	Nonsavu	6.52	286	P	P	19 49 53.5	+2.1
AFI	Afiamalu	6.63	32	P	P	19 49 51.4	-1.2
RAO	Raoul Island	9.87	193	P	P	19 50 35.2	+10
	485nm,0.5s,baz=307,slow=22,SNR=6.7						
RAO	Raoul Island	9.87	193	P	P	19 50 28.9	+3.2
DZM	Mont Dzumac	17.18	259	P	P	19 51 41.7	-1.1
	3.1nm,0.7s,baz=185,slow=17,SNR=1.9						
THZ	Tophouse	24.22	202	P	P	19 52 48.6	+2.3
HNR	Honiara	25.93	289	P	P	19 53 01.3	-0.4
	26nm,0.4s,baz=265,slow=4.8,SNR=2.0						
	26nm,0.4s						
STKA	Stephens Creek	40.40	244	P	P	19 55 03.1	-0.9
	1.4nm,0.6s,baz=97,slow=12,SNR=5.9						
	1.4nm,0.6s						
BBOO	Buckleboo	45.16	243	P	P	19 55 40.8	-0.6
WR8	Warramunga Arr	47.04	261		P	19 55 54.9	-1.0
WR8				IAmb	IAmb	19 56 40.8	
	comp=Z,16nm,1.6s						
AS31	Alice Springs	47.14	256		P	19 55 56.1	-0.5
ASAR	Alice Springs	47.14	256	P	P	19 55 55.8	-0.9
	comp=Z,2.6nm,0.6s,baz=94,slow=7.5,SNR=38						
	comp=Z,2.6nm,0.6s						
WRA	Warramunga Arr	47.19	261	P	P	19 55 55.6	-1.4
	comp=Z,1.0nm,0.3s,baz=97,slow=7.1,SNR=41						
	comp=Z,1.0nm,0.3s						
WRA	Warramunga Arr	47.19	261	IAmb	IAmb	19 55 56.3	
	comp=Z,0.6nm,1.2s						
MIDW	Midway	47.59	358	P	P	19 55 59.7	-0.1
FORT	Forrest	51.92	246	P	P	19 56 31.4	-0.4
FORT				IAmb	IAmb	19 57 12.4	
	comp=Z,9.4nm,0.9s						
KNRA	Kununurra	53.20	265	P	P	19 56 40.9	-0.3
KNRA				IAmb	IAmb	19 57 45.5	
	comp=Z,7.0nm,1.2s						
FAKI	Fak Fak	53.74	281	P	P	19 56 43.7	-1.4
FAKI				IAmb	IAmb	19 58 31.3	
	comp=Z,22nm,1.1s						
FITZ	Fitzroy Crossi	55.61	261		P	19 56 58.4	+0.3
FITZ				IAmb	IAmb	19 57 28.3	
	comp=Z,7.0nm,1.9s						
TNTI	Ternate	59.66	283	P	P	19 57 24.8	-1.0
MBWA	Marble Bar	60.47	256	P	P	19 57 30.8	-0.3
NVAR	Mina Array Bea	78.69	42	P	P	19 59 22.3	+2.1
	comp=Z,0.3nm,0.3s,baz=216,slow=10,SNR=7.4						
	comp=Z,0.3nm,0.3s						

*DJA **22** 19:49:03.6±0.3, 1°N±5°×12°6E±°, h10^{km}, M3.3/8, ML3.3/6, MLv3.3/8, MLv3.3/8*

ISC 22 19:49:04.8±1.6, 1°.27N±0°.07×126°.17E±0°.09, h54^{km}, n4, σ2^{s}.84/5, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TNTI	Ternate	1.29	113	P	Pn	19 49 27.3	+0.7
TNTI				AML	AML		
TNTI				AML	AML		
TNTI				AML	AML		
MNI	Manado	1.34	277	P	Pn	19 49 28.1	+0.8
SANI	Sanana	3.31	183	P	Pn	19 49 54.6	+0.5
SANI				AML	AML		
SANI				AML	AML		
DDMP	Don Marcelino,	4.82	355	*e*P	Pn	19 50 17.1	+2.1
DDMP				*e*S	Sn	19 51 06.3	-3.2

*NEIC **22** 20:06:46.8±1.4, 5°.60S±0°.05×152°.66E±0°.09, h10^{km}±1^{km}, mb4.2/20, Error ellipse: s-maj=15.8km s-min=6.8km az=288.0*

*IDC **22** 20:06:51.0±3.3, 5°.62S×152°.69E, h46^{km}±24^{km}, mb3.8/10, mbtmp4.0/12, ML2.8/2, MS3.4/8, Error ellipse: s-maj=36.8km s-min=10.3km az=100.0*

ISC 22 20:06:49.9±0.7, 5°.59S±0°.05×152°.7E±0°.1, h40^{km}, n49, σ1^{s}.16/45, mb4.1/17, MS3.4/6, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KRVT	Keravat (AS076	1.43	333	P	Pn	20 07 13.2	-0.2
	2μm,0.4s,baz=83,slow=0.4,SNR=172						
KRVT				S	Sn	20 07 33.0	+2.0
	2μm,0.4s,baz=124,slow=20,SNR=16						
RABL	Rabaul	1.48	340		Pn	20 07 13.8	-0.3
RABL				Sn	Sn	20 07 31.1	-1.1
MANU	Manus Island	6.36	303	Pn	Pn	20 08 20.0	-1.2
PMG	Port Moresby	6.65	235	P	Pn	20 08 27.3	+2.1
	2.2nm,0.3s,baz=73,slow=6.0,SNR=7.9						
PMG				S	Sn	20 09 40.8	+0.9
	80nm,0.7s,baz=91,slow=15,SNR=9.2						
	20nm,0.7s						
PMG				AML	AML		
PMG	Port Moresby	6.65	235		Pn	20 08 24.6	-0.7
PMG				Sn	Sn	20 09 38.7	-1.1
HNR	Honiara	8.16	118	LR	LR	20 11 48.3	
	comp=Z,150nm,18.8s,baz=12,slow=36						
CTA	Charters Tower	15.71	203	P	Pn	20 10 28.5	0.0
	0.1nm,0.3s,baz=25,slow=12,SNR=5.4						
CTA				LR	LR	20 16 45.2	
	comp=Z,82nm,18.7s,baz=36,slow=38						
	1.5nm,0.8s						
CTA				AML	AML		
KOUNC	Koumac, New Ca	18.67	144	P	P	20 11 02.9	-1.8
EIDS	Eidsvold	19.73	184	P	P	20 11 15.7	-0.6
EIDS				IAmb	IAmb	20 11 36.3	
	comp=Z,17nm,1.4s						
DZM	Mont Dzumac	21.12	142	LR	LR	20 19 07.0	
	comp=Z,71nm,18.4s,baz=13,slow=35						
MTN	Manton Dam	22.44	250	P	P	20 11 44.6	-1.1
WR8	Warramunga Arr	22.72	229	P	P	20 11 48.4	-0.3
WR8				IAmb	IAmb	20 12 15.1	
	comp=Z,7.6nm,1.1s						
WRA	Warramunga Arr	22.84	230	P	P	20 11 49.4	-0.5
	comp=Z,1.3nm,0.5s,baz=55,slow=10,SNR=21						
	comp=Z,1.3nm,0.5s						
WRA	Warramunga Arr	22.84	230	P	P	20 11 47.7	-2.1
INKA	Innaminka	24.78	206	P	P	20 12 08.4	+0.2
INKA				IAmb	IAmb	20 12 16.4	
	comp=Z,5.0nm,1.1s						
AS31	Alice Springs	25.49	223	P	P	20 12 15.2	+0.5
ASAR	Alice Springs	25.49	223	P	P	20 12 16.6	+1.9
	comp=Z,2.5nm,0.7s,baz=60,slow=8.9,SNR=32						
	comp=Z,2.5nm,0.7s						
ASAR	Alice Springs	25.49	223	P	P	20 12 14.4	-0.3
KNRA	Kununurra	25.52	245	P	P	20 12 15.7	+0.7
KNRA				IAmb	IAmb	20 12 39.5	
	comp=Z,9.3nm,1.1s						
STKA	Stephens Creek	28.14	200	LR	LR	20 24 47.3	
	comp=Z,83nm,18.0s,baz=25,slow=38						
SOEI	Soe	28.45	260	P	P	20 12 41.8	+0.3
FITZ	Fitzroy Crossi	29.18	242	P	P	20 12 47.0	-0.8
AFI	Afiamalu	35.96	106	LR	LR	20 26 18.1	
	comp=Z,88nm,18.1s,baz=12,slow=32						
MJAR	Matsushiro Arr	44.04	343	LR	LR	20 32 28.4	
	comp=Z,29nm,21.5s,baz=119,slow=35						
LEM	Lembang	44.80	266	LR	LR	20 38 11.6	
	comp=Z,37nm,18.1s,baz=269,slow=42						
CMAR	Chiang Mai Arr	58.10	296	P	P	20 16 38.5	-1.4
	comp=Z,0.3nm,0.3s,baz=123,slow=8.9,SNR=2.8						
	comp=Z,0.3nm,0.3s						
PETK	Petropavlovsk-	58.63	4	P	P	20 16 42.5	-0.4
	comp=Z,1.2nm,0.8s,baz=185,slow=6.7,SNR=3.6						
	comp=Z,1.2nm,0.8s						
PETK	Petropavlovsk-	58.63	4	P	P	20 16 42.0	-0.9
SONM	Songino Array	66.92	328	P	P	20 17 38.1	-0.3
	comp=Z,0.6nm,0.3s,baz=156,slow=5.1,SNR=3.0						
	comp=Z,0.6nm,0.3s						
SONM	Songino Array	66.92	328	IAmb	IAmb	20 17 40.8	
	comp=Z,1.4nm,0.9s						
G18K	Tagagawik	79.53	18	P	P	20 18 54.0	+1.7
J20K	Nowinta River	79.96	21	P	P	20 18 56.5	+1.8
CAST	Castle Rocks	80.28	22	P	P	20 18 57.4	+1.0
CAST				IAmb	IAmb	20 18 59.3	
	comp=Z,3.1nm,1.0s						
F19K	Shaleruckik Mo	80.41	18	P	P	20 18 58.5	+1.5
MKAR	Makanchi Array	80.83	319	P	P	20 19 01.8	+2.0
	comp=Z,0.3nm,0.5s,baz=110,slow=5.4,SNR=3.2						
	comp=Z,0.3nm,0.5s						
MKAR	Makanchi Array	80.83	319	P	P	20 19 00.5	+0.7
SML	Sawmill	80.89	24	P	P	20 19 00.5	+0.7
MLY	Manley	81.66	21	P	P	20 19 05.5	+1.7
MLY				IAmb	IAmb	20 19 07.2	
	comp=Z,2.5nm,0.7s						
ZAA0	Zalesovo Array	81.73	326	P	P	20 19 04.7	+0.4
ZAA0				IAmb	IAmb	20 19 05.2	
	comp=Z,1.9nm,0.7s						
ZALV	Zalesovo Beam	81.73	326	P	P	20 19 04.8	+0.5
	comp=Z,1.8nm,0.6s,baz=113,slow=5.5,SNR=10						
	comp=Z,1.8nm,0.6s						
ZALV	Zalesovo Beam	81.73	326	P	P	20 19 04.6	+0.3
ILAR	Eielson Array	82.93	22	P	P	20 19 11.3	+1.0
	comp=Z,1.4nm,0.7s,baz=251,slow=5.7,SNR=11						
	comp=Z,1.4nm,0.7s						
H24K	Noodor Dome	83.10	21	P	P	20 19 12.6	+1.3
H24K				IAmb	IAmb	20 19 28.3	
	comp=Z,2.4nm,1.2s						
KURK	Kurchatov	84.31	322	P	P	20 19 18.7	+1.0
KURBB	Kurchatov Arra	84.34	322	P	P	20 19 18.7	+0.9
	comp=Z,1.1nm,0.6s,baz=111,slow=4.3,SNR=8.2						
	comp=Z,1.1nm,0.6s						
MAW	Mawson	84.80	203	LR	LR	20 54 08.4	
	comp=Z,99nm,19.9s,baz=254,slow=34						
BMAR	Burnt Mountain	85.03	20	P	P	20 19 22.7	+1.7
BVAR	Borovoye Array	89.79	323	P	P	20 19 44.6	+0.3
	comp=Z,1.6nm,0.5s,baz=116,slow=5.8,SNR=9.2						
	comp=Z,1.6nm,0.5s						
TORD	Torodi Ar. Bea	150.42	287	PKPbc	PKPbc	20 26 38.3	+0.1
	comp=Z,1.3nm,0.7s,baz=71,slow=3.6,SNR=3.7						

*IDC **22** 20:10:10.4±1.9, 21°.53S×66°.60W, h218^{km}±23^{km}, mb3.1/1, mbtmp3.7/4, Error ellipse: s-maj=38.5km s-min=20.7km az=91.0*

*SCB **22** 20:10:11.5±1.4, 21°.48S×66°.78W, h216^{km}±11^{km}, ML3.8/2, Error ellipse: s-maj=7.1km s-min=4.7km az=0.0*

ISC 22 20:10:10.6±1.0, 21°.52S±0°.07×66°.74W±0°.06, h219^{km}, n21, σ1^{s}.15/24, Southern Bolivia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MOCB	Mochara	1.06	76	P	Pn	20 10 44.4	+1.1
MOCB				S	S	20 11 09.3	+0.7
YJA	Yavi	1.31	120	P	Pn	20 10 46.5	+1.4
PB09	IPOC Station P	2.34	263	P	Pn	20 10 55.0	+0.7
PB06	IPOC Station P	2.88	245	P	Pn	20 11 01.8	+1.7
GO01	Chusmiza	2.94	308	P	Pn	20 11 02.1	+0.9
PB02	IPOC Station P	2.95	273	P	Pn	20 11 01.6	+0.8
PB02				S	S	20 11 38.8	-1.0
PB02				IAML		20 11 41.2	
	186nm,0.2s						
SOEO	Opoqueri	3.13	340	P	Pn	20 11 04.8	+1.4
PB11	IPOC Station P	3.24	302	P	Pn	20 11 04.8	+0.5
PB11				S	S	20 11 44.5	-1.6
PB11				IAML		20 11 47.3	
	173nm,0.2s						
SOET	ToroToro	3.50	15	P	Pn	20 11 08.4	+0.9
AOEA	Aiquile	3.61	23	P	Pn	20 11 09.2	+0.4
PB16	IPOC Station P	4.10	320	P	Pn	20 11 16.5	+1.5
BBOJ	La Paz, Jacaqu	4.72	343	P	Pn	20 11 23.8	+1.2
SOEJ	Jacaque	4.72	343	P	Pn	20 11 23.5	+0.9
BBOD	La Paz, Gloria	5.16	340	P	Pn	20 11 29.3	+1.1
LPAZ	La Paz	5.37	346	P	Pn	20 11 31.8	+1.0
	4.3nm,0.5s,baz=192,slow=16,SNR=27						
LPAZ				S	S	20 12 34.9	+0.8
	2.8nm,0.9s,baz=339,slow=15,SNR=4.9						
BBOB	La Paz, Bander	5.51	346	P	Pn	20 11 33.7	+1.2
SIV	San Ignacio	7.69	45	P	Pn	20 11 58.6	-1.3
	2.8nm,0.3s,baz=235,slow=12,SNR=16						
SIV	San Ignacio	7.69	45	P	Pn	20 11 59.1	-0.8
CFA	Coronel Fontan	10.13	187	P	Pn	20 12 30.9	-0.4
	0.7nm,0.3s,baz=17,slow=14,SNR=12						
TORD	Torodi Ar. Bea	75.47	69	P	P	20 21 30.2	-1.0
	0.2nm,0.4s,baz=252,slow=4.6,SNR=5.4						
	0.2nm,0.4s						
MKAR	Makanchi Array	144.44	37	PKP	PKPbc	20 29 20.4	+0.5

0.4nm,0.6s,baz=304,slow=2.1,SNR=4.3

SJA ***22*** *20:13:15.3±1.2, 30°.66S×71°.88W, h8^{km}±4^{km}, ML4.6, MW4.1*

GUC ***22*** *20:13:19.5±0.8, 30°.70S×71°.56W, h27^{km}±2^{km}, ML4.7*

NEIC ***22*** *20:13:19.4±1.4, 30°.70S±0°.04×71°.67W±0°.05, h31^{km}±4^{km}, mb4.7/34, ML4.7(GUC), Error ellipse: s-maj=6.9km s-min=4.4km az=48.0*

IDC ***22*** *20:13:21.5±2.9, 30°.74S×71°.83W, h54^{km}±24^{km}, mb4.1/11, mbtmp4.3/15, ML4.0/4, MS3.8/10, Error ellipse: s-maj=20.5km s-min=15.3km az=79.0*

ISC 22 20:13:17.4±1.0, **30°.71S**±0°.03×**71°.85W**±0°.04, **h24**^{km}±6^{km}, **n191**, σ**1^{s}.69**/198, **mb4.6**/24, **MS3.8**/8, **10C-6D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CO06	Fray Jorge	0.19	78	⇑eP	Pn	20 13 24.6	-0.1
CO06				eS	Sb	20 13 28.2	+1.7
CO06				IAML		20 13 29.7	
	comp=E,197µm,0.2s						
CO06	Fray Jorge	0.19	78		Pn	20 13 24.3	-0.4
CO06				Sg	Sb	20 13 27.9	+1.5
CO02	Combarbal	0.88	124	iP	Pn	20 13 33.8	-0.6
CO02				IAML		20 13 47.4	
	comp=Z,12µm,0.4s						
CO02	Combarbal	0.88	124	⇓iP	Pn	20 13 33.7	-0.6
CO02				eS	Sb	20 13 44.2	-1.2
CO02				IAML		20 13 45.0	
	comp=N,69µm,0.5s						
CO02	Combarbal	0.88	124		Pn	20 13 33.7	-0.6
CO02				Sg	Sb	20 13 43.7	-1.7
CO03	El Pedregal	1.01	97	⇓iP	Pn	20 13 35.1	-1.0
CO03				eS	Sb	20 13 46.0	-3.1
CO03	El Pedregal	1.01	97		Pn	20 13 35.1	-1.0
CO03					Sb	20 13 46.7	-2.3
GO04	Tololo Observa	1.05	60	iP	Pn	20 13 36.8	-0.1
GO04				eS	Sb	20 13 50.5	-0.1
GO04				IAML		20 13 51.0	
	comp=Z,34µm,0.5s						
GO04	Tololo Observa	1.05	60	⇓iP	Pn	20 13 36.8	-0.1
GO04				eS	Sn	20 13 49.6	-1.3
GO04	Tololo Observa	1.05	60		Pn	20 13 36.7	-0.1
GO04				Sg	Sn	20 13 49.5	-1.5
CO04	Los Peladeros	1.52	151	⇑eP	Pn	20 13 44.3	+0.9
CO04				IAML		20 14 08.6	
	comp=N,14µm,0.7s						
CO04	Los Peladeros	1.52	151		Pn	20 13 43.9	+0.5
CO04				Sg	Sn	20 14 03.5	+0.9
CO01	Juntas del Tor	1.69	65	iP	Pb	20 13 46.8	-1.1
CO01				IAML		20 14 13.2	
	comp=Z,2µm,0.3s						
CO01	Juntas del Tor	1.69	65	⇓iP	Pn	20 13 46.6	+1.0
CO01	Juntas del Tor	1.69	65		Pn	20 13 46.5	+1.0
LCO	Las Campanas	1.97	31	iP	Pn	20 13 50.8	+1.3
LCO				eS	Sb	20 14 17.7	+0.8
LCO				IAML		20 14 22.8	
	comp=Z,6µm,0.8s						
LCO	Las Campanas	1.97	31	⇑eP	Pn	20 13 50.4	+0.9
LCO	Las Campanas	1.97	31		Pn	20 13 50.6	+1.1
AROD	Rodeo	2.12	76	iP	Pb	20 13 54.6	-0.7
AROD				eS	Sb	20 14 21.4	0.0
VA01	Torpederas	2.31	176	eP	Pn	20 13 55.1	+1.3
VA01	Torpederas	2.31	176		Pn	20 13 54.8	+1.0
AC05	El Transito	2.32	37	iP	Pn	20 13 56.2	+2.0
AC05				eS	Sb	20 14 25.9	-1.0
AC05				IAML		20 14 32.6	
	comp=Z,2µm,0.5s						
AC05	El Transito	2.32	37	⇑eP	Pn	20 13 56.2	+2.0
AC05				IAML		20 14 33.3	
	comp=N,5µm,0.6s						
AC05	El Transito	2.32	37		Pn	20 13 56.2	+2.0
VA03	San Esteban	2.32	152	iP	Pn	20 13 56.7	+2.5
VA03				eS	Sb	20 14 27.8	+0.9
VA03				IAML		20 14 34.5	
	comp=Z,4µm,0.6s						
VA03	San Esteban	2.32	152	eP	Pb	20 13 57.8	-0.9
VA03				IAML		20 14 32.4	
	comp=N,7µm,0.4s						
VA03	San Esteban	2.32	152		Pn	20 13 56.0	+1.8
ROCH	El Roble	2.36	163	eP	Pn	20 13 56.3	+1.5
ROCH				iP	Pb	20 13 59.2	-0.1
ROCH				IAML		20 14 34.5	
	comp=N,4µm,0.4s						
ACCO	Cerro Coronel	2.40	88	iP	Pb	20 13 58.5	-1.6
ACCO				eS	Sb	20 14 30.8	+1.3
ACCO				IAML		20 14 44.4	
	comp=Z,2µm,0.6s						
ACDV	Cuesta del Vie	2.42	78	eP	Pb	20 13 58.2	-2.1
ACDV				IAML		20 14 31.8	
	comp=Z,1µm,0.7s						
RTLS	Leoncito	2.44	117	iP	Pb	20 13 59.1	-1.6
RTLS				IAML		20 14 40.0	
	comp=Z,7µm,0.7s						
AC04	Llanos de Chal	2.59	15	iP	Pn	20 13 59.0	+1.2
AC04				eS	Sb	20 14 32.2	-2.4
AC04				IAML		20 14 39.9	
	comp=Z,1µm,0.8s						
AC04	Llanos de Chal	2.59	15	eP	Pn	20 13 58.5	+0.7
AC04	Llanos de Chal	2.59	15		Pn	20 13 58.7	+0.9
MT02	Curacav	2.61	167	iP	Pn	20 14 00.6	+2.5
MT02				IAML		20 14 43.1	
	comp=Z,2µm,0.5s						
MT02	Curacav	2.61	167	eP	Pn	20 13 59.8	+1.7
MT02				IAML		20 14 41.8	
	comp=E,4µm,0.4s						
MT02	Curacav	2.61	167		Pn	20 13 59.3	+1.3
PEL	Peldehue	2.62	158	⇑eP	Pn	20 14 00.1	+1.9
PEL				IAML		20 14 41.1	
	comp=E,5µm,0.3s						
PEL	Peldehue	2.62	158		Pn	20 14 00.0	+1.8
MT10	Hacienda Santa	2.78	157	⇑eP	Pn	20 14 02.6	+2.0
MT05	Renca	2.83	161	iP	Pn	20 14 03.9	+2.7
MT05				eS	Sb	20 14 40.5	-1.1
MT05				IAML		20 14 50.5	
	comp=Z,2µm,0.6s						
MT05	Renca	2.83	161	eP	Pn	20 14 03.4	+2.2
MT05				IAML		20 14 55.9	
	comp=E,5µm,0.3s						
MT05	Renca	2.83	161		Pn	20 14 03.1	+1.9
ZON	Zonda	2.84	108	iP	Pn	20 14 04.3	+3.1
ZON				IAML		20 14 50.9	
	comp=Z,1µm,0.6s						
ZON	Zonda	2.84	108		Pn	20 14 04.4	+3.1
MT14	Cerro Cal¡n	2.90	158	eP	Pn	20 14 05.1	+3.0
MT16	CCHEN	2.93	158	eP	Pn	20 14 05.5	+3.0
MT16				IAML		20 14 53.7	
	comp=E,2µm,0.6s						
MT16	CCHEN	2.93	158		Pn	20 14 04.5	+2.0
VA05	Santo Domingo	2.94	176	eP	Pn	20 14 04.5	+1.9
VA05	Santo Domingo	2.94	176		Pn	20 14 04.0	+1.4
RTLL	Cerro Villicun	2.96	103	iP	Pn	20 14 05.8	+2.9
RTLL				eS	Sb	20 14 43.3	-1.9
RTLL				IAML		20 14 53.4	
	comp=Z,2µm,0.4s						
MT03	Universidad Ad	3.00	158	iP	Pn	20 14 06.2	+2.7
MT03				eS	Sb	20 14 44.6	-1.7
MT03				IAML		20 14 56.1	
	comp=Z,2µm,0.5s						
MT03	Universidad Ad	3.00	158	eP	Pn	20 14 06.1	+2.7
MT03				IAML		20 14 55.5	
	comp=N,3µm,0.4s						
MT03	Universidad Ad	3.00	158		Pn	20 14 06.0	+2.6
MT04	Ro Olivares	3.05	152	iP	Pn	20 14 07.8	+3.5
MT04				IAML		20 14 56.7	
	comp=Z,2µm,0.5s						
MT04	Ro Olivares	3.05	152	eP	Pn	20 14 07.3	+3.0
MT04				IAML		20 14 58.2	
	comp=E,2µm,0.5s						
MT15	Las Vizcachas	3.09	159	eP	Pn	20 14 07.0	+2.2
MT08	Bocatoma Ro	3.14	151	iP	Pn	20 14 09.0	+3.5
MT08				IAML		20 15 00.5	
	comp=Z,2µm,0.6s						
MT08	Bocatoma Ro	3.14	151	eP	Pn	20 14 09.3	+3.8
MT08				IAML		20 15 05.8	
	comp=N,2µm,0.7s						
MT08	Bocatoma Ro	3.14	151		Pn	20 14 09.1	+3.6
MT09	Talagante	3.14	167	⇓eP	Pn	20 14 07.5	+2.0
MT09				IAML		20 14 58.2	
	comp=N,2µm,0.4s						
MT09	Talagante	3.14	167		Pn	20 14 07.5	+2.0
MT01	Popeta	3.18	171	iP	Pn	20 14 08.8	+2.9
MT01				IAML		20 14 59.5	
	comp=Z,1µm,1.1s						
MT01	Popeta	3.18	171	eP	Pn	20 14 07.5	+1.6
MT01	Popeta	3.18	171		Pn	20 14 06.7	+0.8
MT12	Pirque	3.21	160	eP	Pn	20 14 08.4	+2.1
MT12				IAML		20 15 07.6	
	comp=E,4µm,0.5s						
CFA	Coronel Fontan	3.22	107	P	Pn	20 14 09.1	+2.6
	comp=E,46nm,0.3s,baz=295,slow=14,SNR=193						
CFA				S	Sb	20 14 48.0	-4.7
	comp=E,363nm,0.5s,baz=218,slow=23,SNR=3.7						
	comp=E,191nm,0.5s						
CFA				AML	AML		
CFA	Coronel Fontan	3.22	107	iP	Pn	20 14 09.1	+2.6
CFA				IAML		20 15 02.2	
	comp=Z,1µm,0.5s						
ARCO	CERRO ARCO	3.27	131	iP	Pn	20 14 11.4	+4.2
ARCO				IAML		20 15 02.1	
	comp=Z,2µm,0.5s						
MT13	San Alfonso	3.30	157	iP	Pn	20 14 11.0	+3.4
MT13				IAML		20 15 04.4	
	comp=Z,1µm,0.6s						
MT13	San Alfonso	3.30	157		Pn	20 14 08.7	+1.1
GO03	Copiapo	3.42	25	iP	Pn	20 14 10.9	+1.7
GO03				IAML		20 15 13.0	
	comp=Z,2µm,0.8s						
GO03	Copiapo	3.42	25	eP	Pn	20 14 10.3	+1.1
GO03	Copiapo	3.42	25		Pn	20 14 10.0	+0.8
LMEL	Las Melosas	3.42	156	eP	Pn	20 14 11.9	+2.6
BO04	La Punta	3.43	163	eP	Pn	20 14 13.2	+3.8
BO04				IAML		20 15 04.0	
	comp=E,1µm,0.3s						
BO04	La Punta	3.43	163		Pn	20 14 11.1	+1.8
AAGR	Agrelo	3.49	133	iP	Pn	20 14 14.4	+4.1
AAGR				IAML		20 15 09.5	
	comp=Z,934nm,0.7s						
AC06	Mina Casimiro	3.59	22	eP	Pn	20 14 12.4	+0.8
AC06	Mina Casimiro	3.59	22		Pn	20 14 11.9	+0.3
BO01	Tunca	3.72	170	iP	Pn	20 14 16.3	+3.0
BO01				IAML		20 15 24.1	
	comp=Z,490nm,0.8s						
BO01	Tunca	3.72	170	eP	Pn	20 14 15.0	+1.6
BO01	Tunca	3.72	170		Pn	20 14 14.7	+1.3
BO03	Pichilemu	3.77	181	eP	Pn	20 14 14.4	+0.4
AVIZ	Vizcacheras	3.94	135	iP	Pn	20 14 19.9	+3.4
BO02	Sierra Bellavi	4.17	168		Pn	20 14 21.6	+2.0
GO05	Hualane	4.28	181		Pn	20 14 21.0	-0.1
AC02	Maricunga	4.54	32	eP	Pn	20 14 26.6	+1.6
AC02	Maricunga	4.54	32		Pn	20 14 26.4	+1.3
TINO	Tinogasta	4.58	56	iP	Pn	20 14 28.3	+3.1
TINO				eS	Sn	20 15 22.3	+4.6
TINO				IAML		20 15 38.0	
	comp=Z,886nm,0.6s						
AC01	Pan de Azucar	4.68	14		Pn	20 14 25.5	-1.1
ML02	Panimavida	5.05	176	Pn	Pn	20 14 32.5	+0.9
CYA	Choya	5.73	68	eP	Pn	20 14 42.6	+1.6
BI02	San Fabin de	5.95	176		Pn	20 14 44.9	+0.8
BI05	Punta Hualpn	6.12	190		Pn	20 14 45.9	-0.4
TCA	Tanti	6.26	98	⇓eP	Pn	20 14 48.6	+0.3
H03N1	Juan Fernandez	6.58	244	P	Pn	20 14 54.1	+1.7
	baz=55,slow=74,SNR=133						
H03N1				S	Sn	20 16 04.9	-1.6
H03N2	Juan Fernandez	6.60	244	P	Pn	20 14 54.4	+1.9
	baz=207,slow=74,SNR=142						
H03N2				S	Sn	20 16 05.4	-1.4
H03N3	Juan Fernandez	6.60	244	S	Sn	20 16 05.2	-1.8
VA04	Juan Fernndez	6.60	242		Pn	20 14 53.4	+0.6
H03S3	Juan Fernandez	6.74	241	P	Pn	20 14 54.8	+0.3
	baz=48,slow=15,SNR=26						
H03S3				S	Sn	20 16 05.4	-4.9
H03S1	Juan Fernandez	6.74	241	P	Pn	20 14 54.9	+0.3
	baz=48,slow=15,SNR=26						
H03S1				S	Sn	20 16 05.2	-5.3
H03S2	Juan Fernandez	6.75	241	P	Pn	20 14 54.8	0.0
	baz=48,slow=15,SNR=33						
H03S2				S	Sn	20 16 05.4	-5.4
PB05	IPOC Station P	7.97	11	Pn	Pn	20 15 10.7	-1.1
PB06	IPOC Station P	8.23	15	Pn	Pn	20 15 14.5	-1.0
PB03	IPOC Station P	8.83	13	Pn	Pn	20 15 22.9	-0.8
GO06	Curarrehue	8.86	178	Pn	Pn	20 15 25.3	+1.3
PB07	IPOC Station P	9.12	12	Pn	Pn	20 15 27.1	-0.6
PB09	IPOC Station P	9.18	15	Pn	Pn	20 15 27.7	-0.9
PB02	IPOC Station P	9.52	11	Pn	Pn	20 15 32.2	-0.9
PLCA	Paso Flores	10.05	174	P	Pn	20 15 41.6	+1.3
	comp=Z,0.2nm,0.3s,baz=345,slow=13,SNR=5.9						
PLCA				LR	LR	20 20 09.2	
	comp=Z,203nm,18.2s,baz=348,slow=41						
	comp=Z,0.7nm,0.4s						
PLCA				AML	AML		
PLCA	Paso Flores	10.05	174	Pn	Pn	20 15 40.4	+0.1
PB11	IPOC Station P	11.09	11	Pn	Pn	20 15 55.5	+0.9
PSGCX	Pisagua	11.18	8	Pn	Pn	20 15 54.0	-1.8
GO01	Chusmiza	11.26	13	Pn	Pn	20 15 56.0	-1.2
PB12	IPOC Station P	12.13	7	Pn	Pn	20 16 07.5	-1.3
PB16	IPOC Station P	12.51	10	Pn	Pn	20 16 13.0	-1.4
CPUP	Villa Florida	13.49	75	P	Pn	20 16 26.9	-0.4
	comp=Z,1.6nm,0.5s,baz=256,slow=11,SNR=5.1						
CPUP				LR	LR	20 22 14.3	
	comp=Z,338nm,18.6s,baz=256,slow=40						
CPUP	Villa Florida	13.49	75		Pn	20 16 25.5	-1.7
LPAZ	La Paz	14.76	14	P	Pn	20 16 47.4	+2.2
	comp=Z,0.3nm,0.3s,baz=185,slow=8.8,SNR=13						
	comp=Z,5.1nm,0.9s						
LPAZ				AML	AML		
LPAZ	La Paz	14.76	14		Pn	20 16 43.9	-1.3
COYC	Coyhaique	14.84	181	Pn	Pn	20 16 45.3	-0.2
SIV	San Ignacio	17.66	36	P	P	20 17 23.0	+0.2
	baz=209,slow=11,SNR=24						
	comp=Z,14nm,1.1s						
AQDB	Aquidauana	17.76	59	Pn	Pn	20 17 21.3	-1.8
PTLB	Pontes e Lacer	19.15	40	P	P	20 17 38.3	-0.7
VILB	Vilhena	20.69	34	P	P	20 17 54.6	-1.3
VILB				IAmb	IAmb	20 18 12.6	
	comp=Z,18nm,0.8s						
CZSB	Cruzeiro do Su	22.88	358		P	20 18 18.0	-1.3
CZSB				IAmb	IAmb	20 18 36.2	
	comp=Z,23nm,1.0s						
BDFB	Brasilia	26.47	61	P	P	20 18 52.1	-0.9
	comp=Z,7.2nm,0.5s,baz=235,slow=7.8,SNR=3.5						
BDFB				LR	LR	20 30 31.4	
	comp=Z,317nm,19.0s,baz=121,slow=39						
	comp=Z,7.2nm,0.5s						
BDFB	Brasilia	26.47	61	P	P	20 18 51.6	-1.3
BDFB				IAmb	IAmb	20 18 54.8	
	comp=Z,8.2nm,0.6s						
PMSA	Palmer Station	34.43	174	LR	LR	20 33 58.7	
	comp=Z,94nm,19.8s,baz=35,slow=36						
BOAV	Boa Vista	34.65	20	P	P	20 20 04.5	-0.5
BOAV				IAmb	IAmb	20 20 06.4	
	comp=Z,6.1nm,0.8s						
SDV	Santo Domingo	39.39	2	P	P	20 20 44.3	-1.2
SDV				IAmb	IAmb	20 21 01.7	
	comp=Z,11nm,1.1s						
MDP	Montagnes des	40.07	31	LR	LR	20 39 05.9	
	comp=Z,142nm,18.2s,baz=124,slow=38						
JUD3	Juan Diaz 3	42.72	340	P	P	20 21 12.9	+0.2
BOAB	BOACO BROADBAN	44.92	341	P	P	20 21 29.5	-0.8
BOAB				IAmb	IAmb	20 21 31.3	
	comp=Z,12nm,1.0s						
MPOM	Morne Pois Mar	46.13	15	P	P	20 21 39.7	-0.2
GDHS	Morne Mazeau,	47.71	13	P	P	20 21 52.5	+0.2
MLPR	Magueyes Islan	48.62	6	P	P	20 21 59.6	+0.4
CRPR	Cabo Rojo, PR	48.65	6	P	P	20 22 00.4	+0.9
CELP	Cerrillos	48.77	7		P	20 22 00.4	-0.1
PDPR	Patillas Dam,	48.77	7		P	20 22 00.1	-0.3
SJG	San Juan	48.85	7	P	P	20 22 00.7	-0.3
BELA	Belgrano 2	50.08	170	P	P	20 22 10.8	+1.0
VNA3	Neumayer Olymp	52.34	159	⇑P	P	20 22 27.6	+0.7
	comp=Z,2.5nm,0.7s						
VNA1	Neumayer--Stat	52.64	158	⇑P	P	20 22 30.0	+1.0
	comp=Z,2.7nm,1.0s						
VNA2	Neumayer--Watz	52.98	158	⇑P	P	20 22 32.4	+0.8
	comp=Z,2.1nm,0.5s,baz=281,slow=7.6						
SNAA	Sanae	54.57	159	P	P	20 22 42.6	-0.6
	comp=Z,1.2nm,0.4s,baz=270,slow=2.0,SNR=4.5						
	comp=Z,1.2nm,0.4s						
SNAA	Sanae	54.57	159	P	P	20 22 42.9	-0.3
SNAA				IAmb	IAmb	20 22 53.2	
	comp=Z,5.7nm,1.0s						
TROLL	Troll, Antarti	56.28	159	⇑P	P	20 22 57.1	+1.4
	comp=Z,118nm,0.8s						
QSPA	South Pole Qui	59.51	180	P	P	20 23 19.0	+0.5
	comp=Z,2.7nm,0.9s,baz=151,slow=2.4,SNR=15						
	comp=Z,2.7nm,0.9s						
TXAR	Lajitas Array	66.97	330	P	P	20 24 09.7	+1.6
	comp=Z,0.6nm,0.8s,baz=147,slow=8.2,SNR=6.3						
	comp=Z,0.6nm,0.8s						
R40A	Maddies Statio	71.25	343	P	P	20 24 35.2	+0.8
R40A				IAmb	IAmb	20 24 36.6	
	comp=Z,8.7nm,0.9s						
P40A	Paris	72.37	344	P	P	20 24 41.2	+0.2
P40A				IAmb	IAmb	20 24 43.5	
	comp=Z,9.4nm,0.9s						
DBIC	Dimbokro	74.00	72	P	P	20 24 51.4	0.0
	comp=Z,6.0nm,0.5s,baz=228,slow=6.6,SNR=12						
DBIC				LR	LR	20 54 48.5	
	comp=Z,51nm,20.1s,baz=293,slow=34						
	comp=Z,6.0nm,0.5s						
DBIC	Dimbokro	74.00	72	IAmb	IAmb	20 24 52.3	
	comp=Z,8.9nm,0.6s						
MAW	Mawson	76.28	164	P	P	20 25 04.2	+0.6
	comp=Z,3.6nm,0.8s,baz=211,slow=7.0,SNR=14						
	comp=Z,3.6nm,0.8s						
MAW	Mawson	76.28	164	IAmb	IAmb	20 25 13.7	
	comp=Z,0.9nm,0.9s						
ECSD	EROS Data Cent	77.48	342	P	P	20 25 11.0	+0.5
ECSD				IAmb	IAmb	20 25 13.8	
	comp=Z,6.6nm,0.9s						
TSUM	Tsumeb	79.97	106	LR	LR	20 56 29.0	
	comp=Z,41nm,18.6s,baz=128,slow=32						
TSUM	Tsumeb	79.97	106	P	P	20 25 24.8	-0.3
TSUM				IAmb	IAmb	20 25 26.8	
	comp=Z,6.6nm,0.9s						
KOOLE	Kule	80.27	111	P	P	20 25 26.6	-0.1
KOOLE				IAmb	IAmb	20 25 28.4	
	comp=Z,19nm,1.3s						
HWUT	Hardware Ranch	80.76	331	P	P	20 25 30.2	+1.4
PDAR	Pinedale Array	80.92	333	P	P	20 25 30.5	+0.8
	comp=Z,0.3nm,0.7s,baz=116,slow=10,SNR=3.7						
	comp=Z,0.3nm,0.7s						
NVAR	Mina Array Bea	81.29	325	P	P	20 25 31.6	-0.2
	comp=Z,2.4nm,0.3s,baz=54,slow=2.4,SNR=1.8						
	comp=Z,2.4nm,0.3s						
BOSA	Boshof	81.46	118	P	P	20 25 32.9	-0.1
	comp=Z,4.9nm,0.7s,baz=252,slow=3.6,SNR=11						
	comp=Z,4.9nm,0.7s						
BOSA	Boshof	81.46	118	IAmb	IAmb	20 25 34.0	
	comp=Z,5.5nm,0.7s						
TORD	Torodi Ar. Bea	82.95	70	P	P	20 25 40.4	-0.3
	comp=Z,2.8nm,0.5s,baz=284,slow=5.1,SNR=48						
	comp=Z,2.8nm,0.5s						
TORD	Torodi Ar. Bea	82.95	70	IAmb	IAmb	20 25 54.9	
	comp=Z,6.9nm,0.7s						
ULM	Lac du Bonnet	83.38	345	P	P	20 25 42.4	+0.3
	comp=Z,4.1nm,0.8s,baz=146,slow=7.2,SNR=3.9						
	comp=Z,4.1nm,0.8s						
ULM	Lac du Bonnet	83.38	345	IAmb	IAmb	20 25 45.1	
	comp=Z,16nm,1.5s						
LBTB	Lobatse	83.54	115	LR	LR	21 00 15.0	
	comp=Z,72nm,18.0s,baz=224,slow=34						
LBTB	Lobatse	83.54	115	P	P	20 25 43.7	-0.2
LBTB				IAmb	IAmb	20 25 44.8	
	comp=Z,9.8nm,0.9s						
MDT	Midelt	89.63	51	LR	LR	21 04 01.5	
	comp=Z,31nm,21.9s,baz=264,slow=34						
AFI	Afiamalu	91.31	253	LR	LR	20 58 49.4	
	comp=Z,78nm,18.3s,baz=174,slow=30						
WRA	Warramunga Arr	123.69	210	PKP	PKPdf	20 32 13.5	-0.1
	comp=Z,0.5nm,0.6s,baz=147,slow=1.9,SNR=9.6						
H11S2	WAKE ISLAND Hy	125.92	271	T	T	22 51 04.7	
	baz=116,slow=74,SNR=94						
H11S1	WAKE ISLAND Hy	125.93	271	T	T	22 51 04.1	
	baz=116,slow=74,SNR=72						
H11S3	WAKE ISLAND Hy	125.93	271	T	T	22 51 06.0	
	baz=116,slow=74,SNR=53						
H11N3	WAKE ISLAND Hy	126.25	273	T	T	22 51 28.6	
	baz=116,slow=75,SNR=16						
H11N1	WAKE ISLAND Hy	126.26	273	T	T	22 51 35.0	
	baz=116,slow=75,SNR=7.1						
H11N2	WAKE ISLAND Hy	126.26	273	T	T	22 51 36.1	
	baz=116,slow=75,SNR=45						
BVAR	Borovoye Array	144.72	40	PKP	PKPdf	20 32 51.7	+0.1
	comp=Z,3.0nm,0.5s,baz=292,slow=2.8,SNR=16						
KURBB	Kurchatov Arra	150.31	39	PKPbc	PKPbc	20 33 06.8	+0.7
	comp=Z,1.9nm,0.8s,baz=301,slow=3.4,SNR=15						
KURK	Kurchatov	150.31	39		PKiKP	20 33 07.2	+0.3
ZALV	Zalesovo Beam	151.33	29	PKPbc	PKiKP	20 33 09.1	+0.2
	comp=Z,4.8nm,0.6s,baz=298,slow=3.2,SNR=28						
MKAR	Makanchi Array	154.39	44	PKPbc	PKiKP	20 33 16.2	+0.6
	comp=Z,0.9nm,0.9s,baz=323,slow=2.2,SNR=5.2						
SONM	Songino Array	162.85	4	PKPab	PKPab	20 34 07.8	+1.4
	comp=Z,0.2nm,0.3s,baz=355,slow=3.2,SNR=1.6						
CMAR	Chiang Mai Arr	165.21	143	PKPab	PKPab	20 34 16.9	-0.4
	comp=Z,1.4nm,1.0s,baz=230,slow=6.0,SNR=8.0						
HHC	Hu-ho-hao-te	169.51	346	eP	PKPdf	20 33 22.3	-0.5
NJ2	Nanjing	170.75	281	eP	PKPdf	20 33 24.5	+0.9
NJ2				pmax	pmax		
	comp=Z,6.0nm,0.8s						
PZH	PanZhiHua	172.98	125	PKP	PKPdf	20 33 24.8	-0.2

NEIC ***22*** *20:27:54.3±1.9, 62°.28S±0°.04×58°.28W±0°.08, h10^{km}±1^{km}, mb4.5/23, Error ellipse: s-maj=8.6km s-min=4.5km az=36.0*

IDC ***22*** *20:28:02.6±6.1, 62°.03S×57°.73W, h80^{km}±55^{km}, mb3.7/7, mbtmp4.0/7, MS3.2/2, Error ellipse: s-maj=39.0km s-min=20.1km az=81.0*

ISC 22 20:27:53.8±0.6, **62°.27S**±0°.07×**58°.22W**±0°.10, **h10**^{km}, **n46**, σ**1^{s}.79**/41, **mb4.5**/17, **5D, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ESPZ	Base Esperanza	1.26	154		Pn	20 28 16.5	-1.0
ESPZ				Sg	Sb	20 28 32.4	-1.6
PMSA	Palmer Station	3.62	224		Pn	20 28 49.0	-0.8
ORCD	Orcadas	6.64	83	Pn	Pn	20 29 30.4	-0.8
SMAI	San Martin Ant	6.96	209	Pn	Pn	20 29 33.8	-1.8
GO08	Villa O'Higgin	15.99	323		P	20 31 41.0	-1.1
BELA	Belgrano 2	17.35	164		Pn	20 31 51.4	-4.2
VNA3	Neumayer Olymp	20.53	136	⇓P	P	20 32 35.0	+3.2
	comp=Z,6.2nm,0.8s						
VNA1	Neumayer--Stat	21.00	135	⇓P	P	20 32 40.5	+3.7
	comp=Z,9.7nm,0.9s						
VNA2	Neumayer--Watz	21.27	135	⇓P	P	20 32 43.1	+3.3
	comp=Z,4.5nm,0.7s,baz=267,slow=10						
SNAA	Sanae	22.70	138	⇓P	P	20 32 58.0	+2.8
	comp=Z,38nm,0.3s						
SNAA	Sanae	22.70	138	P	P	20 32 57.2	+2.0
	comp=Z,4.5nm,0.8s,baz=257,slow=9.8,SNR=8.1						
SNAA				LR	LR	20 40 34.1	
	comp=Z,50nm,20.9s,baz=259,slow=33						
	comp=Z,4.5nm,0.8s						
SNAA	Sanae	22.70	138	P	P	20 32 56.3	+1.1
SNAA				IAmb	IAmb	20 33 00.4	
	comp=Z,11nm,1.1s						
PLCA	Paso Flores	22.81	335	P	P	20 32 57.2	+0.6
	comp=Z,8.6nm,1.1s,baz=162,slow=8.9,SNR=8.3						
PLCA				LR	LR	20 41 34.2	
	comp=Z,67nm,18.8s,baz=152,slow=36						
	comp=Z,8.6nm,1.1s						
PLCA	Paso Flores	22.81	335		P	20 32 57.1	+0.6
GO06	Curarrehue	24.10	334	P	P	20 33 09.7	+0.3
GO06				IAmb	IAmb	20 33 16.7	
	comp=Z,17nm,0.9s						
TROLL	Troll, Antarti	24.34	139	⇓P	P	20 33 14.6	+3.2
	comp=Z,165nm,0.8s						
QSPA	South Pole Qui	27.95	180	P	P	20 33 46.5	+2.3
	comp=Z,1.2nm,0.7s,baz=156,slow=2.1,SNR=12						
	comp=Z,1.2nm,0.7s						
QSPA	South Pole Qui	27.95	180	P	P	20 33 45.2	+1.0
QSPA				IAmb	IAmb	20 34 00.1	
	comp=Z,4.0nm,0.9s						
GO05	Hualane	28.62	336	P	P	20 33 50.5	+0.4
BO02	Sierra Bellavi	28.62	338	P	P	20 33 50.4	+0.2
BO02				IAmb	IAmb	20 34 01.9	
	comp=Z,10nm,1.1s						
BO04	La Punta	29.38	339	P	P	20 33 56.2	-0.6
BO04				IAmb	IAmb	20 33 58.4	
	comp=Z,9.1nm,0.8s						
MT09	Talagante	29.65	338	P	P	20 33 59.1	-0.2
MT08	Bocatoma Ro	29.81	340	P	P	20 34 01.6	+0.8
MT08				IAmb	IAmb	20 34 03.6	
	comp=Z,8.6nm,0.9s						
CO03	El Pedregal	32.47	340	P	P	20 34 24.8	+0.6
GO04	Tololo Observa	33.14	340	P	P	20 34 30.7	+0.5
CO01	Juntas del Tor	33.22	341	P	P	20 34 32.3	+1.4
LCO	Las Campanas	34.26	340	P	P	20 34 40.6	+0.6
LCO				IAmb	IAmb	20 34 41.9	
	comp=Z,11nm,1.0s						

AC05	**El Transito**	34.37	341	P	P	20 34 40.9	+0.1
AC05				IAmb	IAmb	20 34 46.9	
	comp=Z,7.5nm,0.8s						
AC06	**Mina Casimiro**	35.83	341	P	P	20 34 52.8	-0.5
AC06				IAmb	IAmb	20 35 02.4	
	comp=Z,7.7nm,0.8s						
AC02	**Maricunga**	36.17	343	P	P	20 34 56.3	-0.4
AC02				IAmb	IAmb	20 35 01.1	
	comp=Z,11nm,1.4s						
VNDA	**Vanda**	38.29	193	P	P	20 35 18.8	+5.1
	comp=Z,0.7nm,0.4s,baz=270,slow=10,SNR=17						
	comp=Z,0.7nm,0.4s						
VNDA	**Vanda**	38.29	193	P	P	20 35 17.5	+3.9
PB16	**IPOC Station P**	44.60	345	P	P	20 36 07.7	+1.1
PB16				IAmb	IAmb	20 36 33.7	
	comp=Z,5.1nm,1.2s						
H10S2	**ASCENSION HYDR**	61.87	51	T	T	21 45 27.3	
	baz=202,slow=74,SNR=11						
H10S3	**ASCENSION HYDR**	61.87	51	T	T	21 45 28.0	
	baz=18,slow=74,SNR=8.5						
H10N3	**ASCENSION HYDR**	62.95	50	T	T	21 46 46.0	
	baz=202,slow=75,SNR=26						
H10N1	**ASCENSION HYDR**	62.96	50	T	T	21 46 48.9	
	baz=202,slow=75,SNR=21						
H10N2	**ASCENSION HYDR**	62.97	50	T	T	21 46 49.9	
	baz=202,slow=75,SNR=21						
BOAV	**Boa Vista**	64.52	357	P	P	20 38 30.2	-0.3
BOAV				IAmb	IAmb	20 38 50.3	
	comp=Z,6.7nm,1.4s						
TORD	**Torodi Ar. Bea**	88.36	57	P	P	20 40 45.7	+0.2
	comp=Z,0.6nm,1.0s,baz=222,slow=2.5,SNR=2.1						
	comp=Z,0.6nm,1.0s						
ASAR	**Alice Springs**	93.81	191	P	P	20 41 11.3	+0.3
	comp=Z,0.6nm,0.8s,baz=162,slow=4.8,SNR=4.6						
	comp=Z,0.6nm,0.8s						
WRA	**Warramunga Arr**	97.46	192	P	P	20 41 26.6	-1.1
	comp=Z,0.6nm,0.8s,baz=175,slow=4.2,SNR=4.5						
	comp=Z,0.6nm,0.8s						
GERES	**GERESS Array B**	124.59	50	PKP	PKPdf	20 46 51.2	-1.0
	comp=Z,0.4nm,0.2s,baz=212,slow=4.6,SNR=3.9						
BRTR	**Keskin Array B**	125.06	70	PKP	PKPdf	20 46 51.3	-2.2
	comp=Z,0.4nm,0.6s,baz=258,slow=6.8,SNR=2.1						
ARCES	**ARCESS Array B**	144.04	37	PKP	PKPab	20 47 24.6	-0.6
	comp=Z,4.2nm,0.8s,baz=224,slow=3.8,SNR=6.2						
MKAR	**Makanchi Array**	152.90	106	PKPbc	PKPbc	20 47 48.7	-1.3
	comp=Z,0.8nm,0.6s,baz=242,slow=2.1,SNR=7.2						

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*IDC **22** 20:58:16.3±3.8, 11°.03S×118°.37E, h0^{km}, mb3.4/1, mbtmp3.0/3, ML3.0/2, Error ellipse: s-maj=264.2km s-min=31.4km az=47.0*

*DJA **22** 20:58:22.9±0.8, 11°S±5°×11°8E±°, h10^{km}, M3.5/7, ML3.5/7, MLv3.4/6, MLv3.4/6*

ISC 22 20:58:21.2±1.3**, 11°.16S**±0°.10×**118°.31E**±0°.09**, h33^{km}, n9,** σ**1^{s}.84**/12**, South of Sumbawa**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PLAI	**Plampang**	2.38	347	P	Pn	20 58 58.8	+0.9
PLAI				S	Sn	20 59 24.5	-1.5
PLAI				AML	AML		
PLAI				AML	AML		
DBNI	**Kabupaten Domp**	2.64	360	P	Pn	20 59 03.4	+1.8
DBNI				S	Sn	20 59 32.5	0.0
DBNI				AML	AML		
DBNI				AML	AML		
DBNI				AML	AML		
TWSI	**Taliwang, Sumb**	2.79	330	P	Pn	20 59 03.9	+0.3
TWSI				S	Sn	20 59 33.5	-2.6
TWSI				AML	AML		
TWSI				AML	AML		
TWSI				AML	AML		
LBFI	**Labuhan Bajo,**	3.08	30	P	Pn	20 59 09.8	+2.2
EDFI	**Ende, Flores**	4.10	55	P	Pn	20 59 22.2	+0.5
EDFI				AML	AML		
EDFI				AML	AML		
EDFI				AML	AML		
SRBI	**Singaraja**	4.32	315	P	Pn	20 59 27.3	+2.6
SRBI				AML	AML		
SRBI				AML	AML		
SRBI				AML	AML		
WRA	**Warramunga Arr**	17.72	121	P	Pn	21 02 23.7	-1.9
	baz=293,slow=14,SNR=5.6						
	0.2nm,0.8s						
ASAR	**Alice Springs**	19.36	132	P	P	21 02 45.4	+1.1
	0.1nm,0.3s,baz=303,slow=10,SNR=5.1						
	0.2nm,0.6s						
ASAR				AML	AML		
MKAR	**Makanchi Array**	66.07	334	P	P	21 09 04.5	-0.4
	0.2nm,0.5s,baz=160,slow=8.2,SNR=2.5						
	0.2nm,0.5s						

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*CNRM **22** 21:03:31.6, 35°.14N×6°.03W, h55^{km}, ML2.9*

*SFS **22** 21:03:32.8, 35°.19N×5°.93W, h69^{km}, mb4.0/4, ML3.3/27, ML3.4/28, MLv3.2/28*

*IGIL **22** 21:03:32.9, 35°.22N×5°.93W, h35^{km}, ML2.8*

*MDD **22** 21:03:32.9±0.3, 35°.22N×5°.91W, h34^{km}±1^{km}, mb_Lg3.0/38, Error ellipse: s-maj=2.6km s-min=2.3km az=148.0*

*INMG **22** 21:03:33.1±1.1, 35°.25N×5°.93W, h31^{km}±11^{km}, ML2.7, Error ellipse: s-maj=2.6km s-min=1.8km az=43.0, #DIST_RANGE: REGIONAL #IPMA_REGION: SW Tanger (MARR)*

ISC 22 21:03:31.1±1.1**, 35°.21N**±0°.02×**5°.93W**±0°.02**, h69^{km}**±7^{km}**, n113,** σ**1^{s}.67**/218**, 17D, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RSA	**Sarsar**	0.34	164	P	Pn	21 03 41.4	-1.1
RSA				S	Sn	21 03 48.7	-2.1
CHEFC	**Chefchaouen**	0.49	102	P	Pn	21 03 44.2	+0.4
CHEFC				S	Sn	21 03 53.3	+0.1
CPS	**Cap Spartel**	0.58	2	P	Pn	21 03 45.6	+1.1
CPS				S	Sn	21 03 55.3	+0.8
SMIR	**Smir Dam**	0.65	43	P	Pn	21 03 46.2	+0.9
SMIR				S	Sn	21 03 56.0	+0.2
ECEU	**Ceuta**	0.82	33	Pn	Pn	21 03 48.8	+1.5
ECEU				Sn	Sn	21 04 00.3	+0.9
ECEU	**Ceuta**	0.82	33	Pg	Pn	21 03 48.6	+1.3
ECEU				Sg	Sn	21 03 57.5	-1.9
CNIL	**Conil**	1.16	355	Pn	Pn	21 03 53.9	+2.3
CNIL				Sn	Sn	21 04 08.2	+1.4
SICH	**Sidi Chahed**	1.21	155	P	Pn	21 03 52.9	+0.7
SICH				S	Sn	21 04 08.1	0.0
EJIF	**Jimena Fronter**	1.29	17	⇓Pg	Pn	21 03 55.6	+2.3
EJIF				Sg	Sn	21 04 09.3	-0.7
RTC	**Rabat Centre**	1.44	212	Pn	Pn	21 03 55.8	+0.7
RTC				Sn	Sn	21 04 13.5	+0.2
PALE	**Palemas**	1.63	89	P	Pn	21 03 59.1	+1.3
PALE				S	Sn	21 04 19.9	+2.0
EMIJ	**Mijas**	1.65	34	Pn	Pn	21 03 58.5	+0.5
EMIJ				Sn	Sn	21 04 20.2	+1.8
EMIJ	**Mijas**	1.65	34	Pn	Pn	21 03 58.6	+0.5
EMIJ				Sn	Sn	21 04 16.5	-1.8
EMIJ				IVmb_Lg		21 04 23.2	
ESPR	**Espera**	1.66	2	Pn	Pn	21 03 59.6	+1.5
ESPR				Sn	Sn	21 04 20.0	+1.5
ESPR	**Espera**	1.66	2	⇓Pn	Pn	21 03 59.6	+1.5
ESPR				Sn	Sn	21 04 17.7	-0.8
ESPR				Sg		21 04 18.9	
ESPR				IVmb_Lg		21 04 21.4	
LCRM	**LCR**	1.76	149	P	Pn	21 03 59.5	-0.1
LCRM				S	Sn	21 04 23.0	+1.8
IFR	**Ifrane**	1.81	158	Pn	Pn	21 04 00.4	0.0
IFR				Sn	Sn	21 04 20.7	-1.8
AKLM	**AKL**	1.84	112	P	Pn	21 04 01.2	+0.6
AKLM				S	Sn	21 04 22.4	-0.5
ZHG	**ZHG**	1.85	199	P	Pn	21 04 01.4	+0.6
ZHG				S	Sn	21 04 25.7	+2.3
EMAL	**Malaga-Limoner**	1.97	38	Pn	Pn	21 04 02.9	+0.6
EMAL				Sn	Sn	21 04 26.3	+0.3
ARNO	**Arenosillo**	1.99	341	Pn	Pn	21 04 04.1	+1.5
ARNO				Sn	Sn	21 04 26.5	-0.1
AVE	**Averroes**	2.27	213	Pn	Pn	21 04 07.4	+1.1
AVE	**Averroes**	2.27	213	P	Pn	21 04 05.9	-0.4
AVE				S	Sn	21 04 32.0	-1.3
CZD	**Col de Zad**	2.29	161	P	Pn	21 04 07.2	+0.3
CZD				S	Sn	21 04 33.6	-0.7
EGOR	**Sierra Gorda,**	2.40	37	Pn	Pn	21 04 10.9	+2.7
EGOR				Sn	Sn	21 04 38.1	+1.4
EGOR	**Sierra Gorda,**	2.40	37	Pn	Pn	21 04 09.4	+1.2
EGOR				Sn	Sn	21 04 37.3	+0.6
EGOR				IVmb_Lg		21 04 44.9	
WMELI	**Melilla**	2.44	87	Pn	Pn	21 04 09.7	+1.1
EMLI	**Melilla**	2.44	87	Pn	Pn	21 04 10.5	+1.9
EALB	**Alboran**	2.47	72	Pn	Pn	21 04 09.8	+0.8
EALB				Sn	Sn	21 04 37.3	-0.8
EALB	**Alboran**	2.47	72	Pn	Pn	21 04 10.0	+1.0
EALB				Sn	Sn	21 04 38.0	-0.2
EALB				IVmb_Lg		21 04 39.6	
ELGU	**Los Guajares,**	2.50	48	Pn	Pn	21 04 09.6	+0.2
ELGU				Sn	Sn	21 04 38.0	-0.8
ELGU				IVmb_Lg		21 04 44.5	
MD31	**MD31**	2.53	157	P	Pn	21 04 11.0	+1.0
MD31				S	Sn	21 04 39.2	-0.5
PBDV	**Barranco-do-Ve**	2.60	322	Pn	Pn	21 04 11.7	+0.9
PBDV				Sn	Sn	21 04 40.0	-1.3
PBDV	**Barranco-do-Ve**	2.60	322	⇓*e*P	Pn	21 04 11.7	+0.9
PBDV				*e*S	Sn	21 04 40.6	-0.7
PBDV				*i* IAML		21 04 41.1	
PBDV				*i* IAML		21 04 41.8	
PBDV				*i* IAML		21 04 42.4	
EMIN	**Mina Concepcio**	2.62	347	Pn	Pn	21 04 12.1	+1.0
EMIN				Sn	Sn	21 04 41.4	-0.4
EMIN	**Mina Concepcio**	2.62	347	⇓Pn	Pn	21 04 12.1	+1.0
EMIN				Sn	Sn	21 04 40.6	-1.2
PVAQ	**Vaqueiros**	2.62	327	⇓*e*P	Pn	21 04 12.3	+1.2
PVAQ				*e*S	Sn	21 04 40.8	-1.1
PVAQ				*i* IAML		21 04 42.0	
PVAQ				*i* IAML		21 04 42.2	
PVAQ				*i* IAML		21 04 42.7	
PVAQ	**Vaqueiros**	2.62	327	P	Pn	21 04 12.3	+1.2
PVAQ				S	Sn	21 04 41.9	+0.1
MDT	**Midelt**	2.63	155	P	Pn	21 04 11.9	+0.6
MDT				S	Sn	21 04 41.8	-0.3
EGRO	**El Granado**	2.64	332	Pn	Pn	21 04 12.5	+1.2
EGRO				Sn	Sn	21 04 41.9	-0.3
EGRO	**El Granado**	2.64	332	⇓Pn	Pn	21 04 12.5	+1.2
EGRO				Sn	Sn	21 04 41.5	-0.7
EGRO				IVmb_Lg		21 04 45.1	
EQTA	**Presa de Quent**	2.83	45	Pn	Pn	21 04 15.7	+1.7
ECAB	**El Cabril**	2.89	8	Pn	Pn	21 04 15.7	+0.9
ECAB				Sn	Sn	21 04 46.2	-2.2
ECAB	**El Cabril**	2.89	8	Pn	Pn	21 04 15.7	+0.9
ECAB				Sn	Sn	21 04 45.5	-2.9
ECAB				IVmb_Lg		21 04 53.4	
JBK	**JBK**	2.90	107	P	Pn	21 04 15.5	+0.4
JBK				S	Sn	21 04 48.6	-0.4
PCVE	**Castro Verde**	2.96	326	Pn	Pn	21 04 16.8	+1.2
PCVE				Sn	Sn	21 04 49.4	-0.5
PCVE	**Castro Verde**	2.96	326	*e*P	Pn	21 04 16.9	+1.2
PCVE				*e*S	Sn	21 04 49.4	-0.5
PCVE				*i* IAML		21 04 52.6	
PCVE				*i* IAML		21 04 53.9	
PCVE				*i* IAML		21 04 54.8	
EBER	**Berja**	2.98	55	Pn	Pn	21 04 17.1	+0.9
EBER				Sn	Sn	21 04 51.7	+0.7
EBER	**Berja**	2.98	55	Pn	Pn	21 04 17.1	+0.9
EBER				Sn	Sn	21 04 50.9	0.0
EBER				IVmb_Lg		21 04 55.3	
PFVI	**Vila Bisbo**	3.03	310	Pn	Pn	21 04 17.2	+0.6
PFVI				Sn	Sn	21 04 51.9	+0.1
PFVI	**Vila Bisbo**	3.03	310	⇓*e*P	Pn	21 04 17.3	+0.6
PFVI				*e*S	Sn	21 04 50.7	-1.1
PFVI				*i* IAML		21 04 52.4	
PFVI				*i* IAML		21 04 55.9	
PFVI				*i* IAML		21 04 56.2	
PFVI	**Vila Bisbo**	3.03	310	P	Pn	21 04 17.3	+0.6
PFVI				S	Sn	21 04 52.4	+0.6
MORF	**Marmelete**	3.04	314	*e*P	Pn	21 04 17.3	+0.6
MORF				*e*S	Sn	21 04 50.1	-1.9
MORF				IAML		21 04 51.9	
	comp=N,33nm,0.2s						
MORF	**Marmelete**	3.04	314	⇓*e*P	Pn	21 04 17.3	+0.6
MORF				*e*S	Sn	21 04 51.0	-1.0
MORF				*i* IAML		21 04 54.5	
MORF				*i* IAML		21 04 54.5	
MORF				*i* IAML		21 04 56.4	
PBAR	**Barrancos**	3.09	344	Pn	Pn	21 04 18.5	+1.1
PBAR				Sn	Sn	21 04 51.4	-1.8
PBAR	**Barrancos**	3.09	344	*e*P	Pn	21 04 18.6	+1.1
PBAR				*e*S	Sn	21 04 51.5	-1.8
PBAR				*i* IAML		21 04 52.8	
PBAR				*i* IAML		21 04 55.7	
PBAR				*i* IAML		21 04 56.3	
EADA	**Adamuz**	3.15	20	Pn	Pn	21 04 19.6	+1.3
EADA				Sn	Sn	21 04 52.2	-2.5
EADA	**Adamuz**	3.15	20	Pn	Pn	21 04 19.6	+1.3
EADA				Sn	Sn	21 04 52.6	-2.1
EADA				IVmb_Lg		21 04 56.8	
MESJ	**Messejana**	3.21	326	*e*P	Pn	21 04 20.0	+1.0
MESJ				*e*S	Sn	21 04 54.1	-2.1
MESJ				IAML		21 04 56.8	
	comp=N,26nm,0.5s						
MESJ	**Messejana**	3.21	326	⇓*e*P	Pn	21 04 20.3	+1.3
MESJ				*e*S	Sn	21 04 55.1	-1.0
MESJ				*i* IAML		21 04 56.8	
MESJ				*i* IAML		21 04 57.1	
MESJ				*i* IAML		21 04 59.0	
PBEJ	**Beja**	3.21	332	*e*P	Pn	21 04 20.2	+1.1
PBEJ				*e*S	Sn	21 04 55.3	-1.0
PBEJ				*i* IAML		21 04 57.5	
PBEJ				*i* IAML		21 04 57.7	
PBEJ				*i* IAML		21 04 59.2	
PTEO	**Sao Teotonio**	3.24	317	⇓*e*P	Pn	21 04 20.6	+1.1
PTEO				*e*S	Sn	21 04 56.0	-1.0
PTEO				*i* IAML		21 04 57.5	
PTEO				*i* IAML		21 04 58.5	
PTEO				*i* IAML		21 05 00.1	
PLOUS	**Minas do Lousa**	3.46	325	⇓*e*P	Pn	21 04 23.7	+1.3
PLOUS				*e*S	Sn	21 05 02.2	+0.1
PLOUS				*i* IAML		21 05 02.3	
PLOUS				*i* IAML		21 05 05.6	
PLOUS				*i* IAML		21 05 06.6	
EQES	**Quesada**	3.46	41	Pn	Pn	21 04 24.5	+1.9
EQES				Sn	Sn	21 05 01.8	-0.8
EQES				IVmb_Lg		21 05 06.4	
ENIJ	**Nijar**	3.49	59	Pn	Pn	21 04 23.6	+0.7
ENIJ	**Nijar**	3.49	59	Pn	Pn	21 04 24.5	+1.5
ENIJ				Sn	Sn	21 05 02.1	-1.0
ENIJ				IVmb_Lg		21 05 06.0	
TISM	**Timmit**	3.50	187	P	Pn	21 04 22.1	-1.0
TISM				S	Sn	21 05 00.4	-2.9
EBAD	**Badajoz**	3.65	347	Pn	Pn	21 04 26.0	+1.0
EBAD				Sn	Sn	21 05 05.5	-1.3
EBAD	**Badajoz**	3.65	347	Pn	Pn	21 04 26.2	+1.2
EBAD				Sn	Sn	21 05 04.5	-2.2
EBAD				IVmb_Lg		21 05 08.8	
EVO	**Evora**	3.71	334	Pn	Pn	21 04 27.3	+1.4
EVO	**Evora**	3.71	334	⇓*e*P	Pn	21 04 27.3	+1.4
EVO				*e*S	Sn	21 05 07.5	-1.0
EVO				*i* IAML		21 05 07.8	
EVO				*i* IAML		21 05 08.2	
EVO				*i* IAML		21 05 08.7	
MOE	**Montemor**	3.83	330	⇓*e*P	Pn	21 04 29.0	+1.4
MOE				*e*S	Sn	21 05 10.6	-0.9
MOE				*i* IAML		21 05 11.3	
MOE				*i* IAML		21 05 11.9	
MOE				*i* IAML		21 05 12.4	
PESTR	**Estremoz**	3.88	341	Pn	Pn	21 04 29.5	+1.2
PESTR				Sn	Sn	21 05 11.3	-1.4
PESTR	**Estremoz**	3.88	341	*e*P	Pn	21 04 29.6	+1.3
PESTR				*e*S	Sn	21 05 10.9	-1.8
PESTR				*i* IAML		21 05 14.0	
PESTR				*i* IAML		21 05 14.7	
PESTR				*i* IAML		21 05 14.8	
PESTR	**Estremoz**	3.88	341	P	Pn	21 04 29.7	+1.3
PESTR				S	Sn	21 05 13.7	+1.0
PMTG	**Montargil**	4.27	335	⇓*e*P	Pn	21 04 34.7	+1.2
PMTG				*e*S	Sn	21 05 20.7	-1.3
PMTG				*i* IAML		21 05 22.3	
PMTG				*i* IAML		21 05 22.6	
PMTG				*i* IAML		21 05 23.2	
OUK	**Oukaimeden**	4.31	203	P	Pn	21 04 34.5	+0.1
OUK				P		21 04 34.6	
OUK				S	Sn	21 05 22.3	-1.3
OUK				S		21 05 22.4	
OUZM	**OUZ**	4.34	189	P	Pn	21 04 36.0	+1.3
OUZM				S	Sn	21 05 25.9	+1.7
PMRV	**Marv??o**	4.37	345	*e*P	Pn	21 04 36.3	+1.4
PMRV				*e*S	Sn	21 05 23.6	-1.0
PMRV				*i* IAML		21 05 24.1	
PMRV				*i* IAML		21 05 25.5	
PMRV				*i* IAML		21 05 26.4	
TIO	**Tiouine**	4.41	195	Pn	Pn	21 04 36.5	+0.8
TIO				Sn	Sn	21 05 23.8	-2.1
TIO	**Tiouine**	4.41	195	P	Pn	21 04 36.4	+0.7
TIO				S	Sn	21 05 25.5	-0.4
TZRR	**Tazzarine**	4.42	176	P	Pn	21 04 36.5	+0.7
TZRR				S	Sn	21 05 27.2	+1.2
CIBOR	**Castaar de lb**	4.44	5	Pn	Pn	21 04 36.9	+1.1
CIBOR				Sn	Sn	21 05 23.5	-2.7
PAB	**San Pablo**	4.51	16	Pn	Pn	21 04 37.8	+0.9
PAB				Sn	Sn	21 05 24.3	-3.8
PAB				IVmb_Lg		21 05 25.9	
PMAFR	**Mafra**	4.60	325	Pn	Pn	21 04 39.6	+1.6
PMAFR				Sn	Sn	21 05 30.0	-0.2
PMAFR	**Mafra**	4.60	325	⇓*e*P	Pn	21 04 39.7	+1.6
PMAFR				*e*S	Sn	21 05 29.4	-0.8
PMAFR				*i* IAML		21 05 31.5	
PMAFR				*i* IAML		21 05 33.5	
PMAFR				*i* IAML		21 05 33.5	
EMUR	**La Murta**	4.60	54	Pn	Pn	21 04 39.9	+1.8
ESDC	**Sonseca Array**	4.72	19	Pn	Pn	21 04 41.2	+1.4
ESDC				Sn	Sn	21 05 28.9	-4.4
ESDC				IVmb_Lg		21 05 29.6	
ESBB	**Sonseca Array**	4.73	19	Pn	Pn	21 04 41.0	+1.1
ESBB				Sn	Sn	21 05 28.9	-4.4
PSARD	**Sardoal**	4.73	339	⇓*e*P	Pn	21 04 41.3	+1.4
PSARD				*e*S	Sn	21 05 31.4	-1.9
PSARD				*i* IAML		21 05 33.0	
PSARD				*i* IAML		21 05 34.5	
PSARD				*i* IAML		21 05 35.0	
PCBR	**Castelo Branco**	4.78	346	*e*P	Pn	21 04 42.0	+1.5
PCBR				*e*S	Sn	21 05 31.4	-3.3
PCBR				*i* IAML		21 05 34.5	
PCBR				*i* IAML		21 05 34.6	
PCBR				*i* IAML		21 05 35.0	
PSBE	**So Bento**	4.87	333	⇓*e*P	Pn	21 04 43.4	+1.6
PSBE				*e*S	Sn	21 05 35.5	-1.3
PSBE				*i* IAML		21 05 37.6	
PSBE				*i* IAML		21 05 38.6	
PSBE				*i* IAML		21 05 39.4	
ETOB	**Tobarra**	4.91	44	Pn	Pn	21 04 43.7	+1.3
ETOB				Sn	Sn	21 05 35.5	-2.3
ETOB	**Tobarra**	4.91	44	Pn	Pn	21 04 43.9	+1.5
ETOB				Sn	Sn	21 05 34.6	-3.3
ETOB				IVmb_Lg		21 05 37.9	
FIGM	**Figuig**	4.96	127	P	Pn	21 04 44.0	+1.0
FIGM				S	Sn	21 05 39.9	+0.8
ZGR	**Zagora**	5.08	177	P	Pn	21 04 45.3	+0.5
ZGR				S	Sn	21 05 43.6	+1.4
PCAS	**Casmilo, Conde**	5.25	338	*e*P	Pn	21 04 48.3	+1.4
PCAS				*e*S	Sn	21 05 44.4	-1.6
PCAS				*i* IAML		21 05 46.2	
PCAS				*i* IAML		21 05 47.3	
PCAS				*i* IAML		21 05 49.0	
MTE	**Manteigas**	5.34	347	*e*P	Pn	21 04 49.6	+1.4
MTE				*e*S	Sn	21 05 46.9	-1.4
MTE				*i* IAML		21 05 47.8	
MTE				*i* IAML		21 05 48.2	
MTE				*i* IAML		21 05 49.4	
UCM	**Universidad Co**	5.52	22	Pn	Pn	21 04 52.4	+1.8
UCM				Sn	Sn	21 05 49.4	-3.3
EVIV	**Cofrentes, Val**	5.58	42	Pn	Pn	21 04 52.4	+0.9
EVIV				Sn	Sn	21 05 49.5	-4.7
EVIV				IVmb_Lg		21 05 56.2	
PVIS	**Viseu**	5.71	345	*e*P	Pn	21 04 55.0	+1.7
PVIS				*e*S	Sn	21 05 55.7	-1.8
ECHE	**Chera**	5.89	41	Pn	Pn	21 04 56.8	+1.1
ECHE				Sn	Sn	21 05 58.1	-3.8
ECHE	**Chera**	5.89	41	Pn	Pn	21 04 56.9	+1.1
ECHE				Sn	Sn	21 05 56.6	-5.3
POLO	**Lamas de Olo**	6.33	347	*e*P	Pn	21 05 03.5	+1.8
POLO				*e*S	Sn	21 06 09.9	-2.7
POLO				*i* IAML		21 06 13.4	
POLO				*i* IAML		21 06 13.6	
POLO				*i* IAML		21 06 13.8	
ETOR	**Torete**	6.38	27	Pn	Pn	21 05 03.7	+1.2
ETOR				Sn	Sn	21 06 09.3	-4.7
ETOR				IVmb_Lg		21 06 14.9	
E0901	**Celadas (Terue**	6.49	34	Pn	Pn	21 05 05.9	+1.9
E0901				Sn	Sn	21 06 12.6	-4.0
E0901				IVmb_Lg		21 06 19.7	
PCAB	**Cabril**	6.70	346	*e*P	Pn	21 05 08.5	+1.7
PCAB				*e*S	Sn	21 06 17.4	-4.2
PCAB				*i* IAML		21 06 20.2	
PCAB				*i* IAML		21 06 23.3	
PCAB				*i* IAML		21 06 23.7	
EMOS	**Mosqueruela**	6.72	38	Pn	Pn	21 05 08.8	+1.6
EMOS				Sn	Sn	21 06 17.5	-4.9
EMOS				IVmb_Lg		21 06 23.8	
ECAL	**Calabor**	6.75	355	Pn	Pn	21 05 09.2	+1.7
ECAL				Sn	Sn	21 06 21.0	-2.0
ECAL	**Calabor**	6.75	355	Pn	Pn	21 05 09.1	+1.5
ECAL				Sn	Sn	21 06 20.7	-2.3
ECAL				IVmb_Lg		21 06 22.5	
ELOB	**Lobios**	6.85	347	Pn	Pn	21 05 10.2	+1.3
ELOB				Sn	Sn	21 06 21.7	-3.8
ELOB				IVmb_Lg		21 06 28.6	
EIBI	**Ibiza**	6.95	55	Pn	Pn	21 05 11.8	+1.6
PGAV	**Gavieira, Arco**	6.99	346	*e*P	Pn	21 05 12.6	+1.8
PGAV				*e*S	Sn	21 06 27.1	-1.8
PGAV				*i* IAML		21 06 28.4	
PGAV				*i* IAML		21 06 29.8	
PGAV				*i* IAML		21 06 31.0	

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*OTT **22** 21:12:08.0±0.1, 67°.23N×66°.69W, h18^{km}, MN3.1/2, 120km west from Qikiqtarjuaq, Nu*

ISC 22 21:12:02.9±1.2**, 67°.38N**±0°.07×**66°.50W**±0°.07**, h10^{km}, n4,** σ**1^{s}.98**/7**, Baffin Island region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FRB	**Frobisher Bay**	3.75	194	PN	Pn	21 13 02.2	+1.5
FRB				SN	Sn	21 13 42.7	-2.1
FRB				LG	Lg	21 13 58.2	
FRB				Trac		21 14 01.8	
	comp=Z,12nm,0.1s						
ILON	**Igloolik, Nuna**	6.00	296	PN	Pn	21 13 31.1	-0.5
ILON				SN	Sn	21 14 39.9	-0.5
ILON				LG	Lg	21 15 15.2	
ILON				Trac		21 15 16.3	
	comp=Z,4.0nm,0.2s						
SFJD	**Kangerlussuaq**	6.18	86	*i* P	Pn	21 13 35.8	+1.6
SFJD				*i* S	Sn	21 14 42.6	-2.1
POIN	**Pond Inlet**	6.62	329	SN	Sn	21 14 56.5	+1.1
POIN				LG	Lg	21 15 34.5	

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*MAN **22** 21:27:59.0, 9°.18N×126°.96E, h15^{km}, MS4.0*

*NEIC **22** 21:27:59.3±1.8, 9°.11N±0°.10×126°.6E±0°.2, h10^{km}±1^{km}, mb4.1/8, Error ellipse: s-maj=27.8km s-min=16.4km az=91.0*

*IDC **22** 21:28:10.1±6.2, 8°.98N×126°.73E, h113^{km}±55^{km}, mb3.6/6, mbtmp3.9/7, MS3.1/3, Error ellipse: s-maj=79.3km s-min=16.7km az=66.0*

ISC 22 21:27:58.4±1.7**, 9°.06N**±0°.03×**126°.91E**±0°.06**, h11^{km}**±10^{km}**, n44,** σ**1^{s}.65**/55**, mb4.1**/10**, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TSSP	**Tandag City**	0.70	269	*i* P	Pn	21 28 14.0	-0.3
TSSP				*i* S	Sb	21 28 23.9	+1.5
BIPH	**Bislig**	1.02	212	*i* P	Pn	21 28 19.5	+0.7
BIPH				*i* S	Sn	21 28 32.8	-0.3
GLSP	**General Luna,**	1.06	313	*i* P	Pg	21 28 18.8	-0.1
GLSP				*i* S	Sn	21 28 37.7	+3.6
CDOP	**Cateel, Davao**	1.34	200	*e*P	Pg	21 28 24.6	+0.2
CDOP				*i* S	Sb	21 28 38.8	-2.2
BUKP	**Musuan**	2.17	238	*i* P	Pg	21 28 39.2	-0.8
BUKP				*i* S	Sg	21 29 07.4	-0.8
CGP	**Cagayan de Oro**	2.27	255	*i* P	Pb	21 28 38.1	-1.4
CGP				*i* S	Sb	21 29 07.6	0.0
DAV	**Davao City (W)**	2.37	214	P	Pg	21 28 45.4	+1.4
	88nm,0.4s,baz=358,slow=7.6,SNR=4.0						
DAV				S	Sg	21 29 14.2	-0.5
	134nm,0.5s,baz=248,slow=18,SNR=4.8						
DAV				LR	LR	21 29 48.7	
	comp=Z,453nm,20.3s,baz=46,slow=45						

DAV	**Davao City (W)**	**2.37**	**214**		**Pn**	**21 28 36.9**	**-0.5**
DMPH	**Davao City--Mi**	**2.40**	**215**	*e*P	**Pg**	**21 28 44.8**	**+0.3**
DMPH				*i* S	**Sg**	**21 29 18.8**	**+3.2**
KCP	**Kidapawan**	**2.71**	**222**	*e*P	**Pg**	**21 28 49.4**	**-1.2**
KCP				*e*S	**Sb**	**21 29 19.5**	**-1.0**
PLP	**Palo**	**2.83**	**318**	*e*P	**Pn**	**21 28 43.7**	**0.0**
PLP				*e*S	**Sn**	**21 29 17.0**	**-0.8**
TBP	**Tagbilaran**	**3.07**	**282**	*e*P	**Pn**	**21 28 48.8**	**+1.8**
TBP				*e*S	**Sn**	**21 29 25.3**	**+1.5**
LLP	**Lapu-Lapu**	**3.16**	**294**	*e*P	**Pn**	**21 28 50.1**	**+1.9**
LLP				*e*S	**Sb**	**21 29 33.6**	**+0.4**
DDMP	**Don Marcelino,**	**3.16**	**202**	*e*P	**Pb**	**21 28 52.9**	**-1.8**
DDMP				*e*S	**Sn**	**21 29 27.9**	**+1.9**
CTBH	**Cotabato--PC H**	**3.20**	**236**	*i* P	**Pg**	**21 29 00.2**	**+0.3**
LSIP	**Lazi, Siquijor**	**3.24**	**272**	*i* P	**Pn**	**21 28 51.8**	**+2.6**
LSIP				*e*S	**Sn**	**21 29 21.8**	**-6.1**
DCPH	**Dipolog City**	**3.54**	**263**	*e*P	**Pn**	**21 28 55.6**	**+2.1**
SNPH	**Sibulan**	**3.64**	**275**	*e*P	**Pn**	**21 28 57.7**	**+2.8**
SNPH				*e*S	**Sn**	**21 29 40.0**	**+2.1**
CADP	**Cadiz City**	**4.01**	**298**	*e*P	**Pn**	**21 29 00.9**	**+1.0**
CADP				*e*S	**Sb**	**21 29 56.5**	**-1.4**
TNTI	**Ternate**	**8.24**	**177**	Pn	**Pn**	**21 30 00.4**	**+2.3**
KNRA	**Kununurra**	**24.64**	**176**	P	**P**	**21 33 20.3**	**+1.0**
KNRA				IAmb	IAmb	21 33 49.0	
	comp=Z,10.0nm,1.4s						
FITZ	**Fitzroy Crossi**	**27.01**	**183**	P	**P**	**21 33 41.5**	**+0.8**
KSRS	**Korea Array**	**28.29**	**2**	LR	LR	21 46 10.4	
	comp=Z,23nm,19.7s,baz=15,slow=38						
MJAR	**Matsushiro Arr**	**29.23**	**19**	LR	LR	21 45 10.8	
	comp=Z,42nm,20.0s,baz=207,slow=35						
WB0	**Warramunga Arr**	**29.57**	**166**	P	**P**	**21 34 04.0**	**+0.3**
WB0				IAmb	IAmb	21 34 23.4	
	comp=Z,4.2nm,1.1s						
WRA	**Warramunga Arr**	**29.73**	**166**	P	**P**	**21 34 05.3**	**+0.3**
	comp=Z,0.4nm,0.4s,baz=345,slow=9.7,SNR=10						
	comp=Z,0.4nm,0.4s						
WRA	**Warramunga Arr**	**29.73**	**166**	P	**P**	**21 34 04.4**	**-0.6**
WR8	**Warramunga Arr**	**29.78**	**166**	P	**P**	**21 34 05.8**	**+0.3**
WR8				IAmb	IAmb	21 34 30.6	
	comp=Z,6.5nm,1.2s						
AS31	**Alice Springs**	**33.23**	**168**	P	**P**	**21 34 35.8**	**-0.1**
AS31				IAmb	IAmb	21 34 45.1	
	comp=Z,1.9nm,1.4s						
ASAR	**Alice Springs**	**33.23**	**168**	P	**P**	**21 34 36.2**	**+0.4**
	comp=Z,0.5nm,0.3s,baz=352,slow=6.8,SNR=27						
	comp=Z,0.5nm,0.3s						
ASAR	**Alice Springs**	**33.23**	**168**	P	**P**	**21 34 37.0**	**+1.2**
H11S3	**WAKE ISLAND Hy**	**39.68**	**72**	T	T	22 18 39.1	
	baz=261,slow=73,SNR=10						
H11S1	**WAKE ISLAND Hy**	**39.69**	**72**	T	T	22 18 34.7	
	baz=261,slow=73,SNR=5.6						
H11S2	**WAKE ISLAND Hy**	**39.70**	**72**	T	T	22 18 35.4	
	baz=261,slow=73,SNR=4.9						
SONM	**Songino Array**	**42.37**	**339**	P	**P**	**21 35 53.5**	**+0.6**
	comp=Z,0.3nm,0.4s,baz=161,slow=9.2,SNR=2.3						
	comp=Z,0.3nm,0.4s						
BBOO	**Buckleboo**	**42.53**	**169**	P	**P**	**21 35 54.8**	**+0.5**
MKAR	**Makanchi Array**	**53.37**	**323**	P	**P**	**21 37 17.4**	**-0.7**
	comp=Z,1.5nm,0.6s,baz=120,slow=8.4,SNR=13						
	comp=Z,1.5nm,0.6s						
MKAR	**Makanchi Array**	**53.37**	**323**	P	**P**	**21 37 16.8**	**-1.4**
TARG	**Taragay, Kyrgy**	**54.01**	**316**	P	**P**	**21 37 22.6**	**-0.8**
KURBB	**Kurchatov Arra**	**57.42**	**326**	P	**P**	**21 37 46.2**	**-1.0**
	comp=Z,1.1nm,0.5s,baz=125,slow=6.8,SNR=10						
	comp=Z,1.1nm,0.5s						
KKAR	**Karatay Array**	**59.55**	**315**	P	**P**	**21 38 01.4**	**-0.8**
ABKAR	**Akbulak array**	**68.20**	**320**	P	**P**	**21 38 57.2**	**-1.8**
BMAR	**Burnt Mountain**	**81.13**	**23**	P	**P**	**21 40 14.9**	**+1.1**
ARCES	**ARCESS Array B**	**85.54**	**340**	P	**P**	**21 40 36.5**	**0.0**
	comp=Z,3.7nm,0.9s,baz=63,slow=5.4,SNR=4.2						
	comp=Z,3.7nm,0.9s						

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*MEX **22** 21:37:22.7±0.6, 14°.60N×92°.61W, h60^{km}±16^{km}, MD4.0, Presumed earthquake*

*GCG **22** 21:37:24.2±1.7, 14°.69N×92°.44W, h54^{km}±19^{km}, MD4.1, Presumed earthquake*

ISC 22 21:37:19.9±1.7**, 14°.5N**±0°.1×**92°.60W**±0°.09**, h58**^{km}±21^{km}**, n16, σ1^{s}.69**/27**, Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THIG		**0.54**	**37**	*e*P	**Pn**	**21 37 32.5**	**+0.4**
THIG				*e*S	**Sn**	**21 37 40.4**	**-0.7**
SMCA	**Catarina**	**0.64**	**53**	*e*P	**Pn**	**21 37 34.4**	**+1.1**
SMCA				*e*S	**Sn**	**21 37 43.4**	**+0.4**
PATR	**El Naranjo**	**0.73**	**29**	*e*P	**Pn**	**21 37 34.4**	**-0.3**
PATR				*e*S	**Sn**	**21 37 44.7**	**-0.7**
CHUJ	**Union Juarez**	**0.78**	**38**	*e*P	**Pn**	**21 37 35.6**	**+0.3**
CHUJ				*e*S	**Sn**	**21 37 46.0**	**-0.5**
PAVE	**Pavencul**	**0.82**	**30**	*e*P	**Pn**	**21 37 36.0**	**+0.2**
PAVE				*e*S	**Sn**	**21 37 46.8**	**-0.7**
RTAL	**Retalhuleu**	**0.88**	**87**	*e*P	**Pn**	**21 37 38.4**	**+2.1**
RTAL				*e*S	**Sn**	**21 37 49.3**	**+0.9**
STG8	**El Palmar, Qui**	**1.21**	**91**	*e*P	**Pn**	**21 37 39.3**	**-1.6**
STG8				*e*S	**Sn**	**21 37 52.6**	**-3.9**
FG16	**Alotenango, Sa**	**2.04**	**95**	*e*P	**Pn**	**21 37 50.5**	**-1.5**
APG	**El Apazote**	**2.13**	**75**	*i* P	**Pn**	**21 37 56.0**	**+2.7**
CARR	**Arriaga**	**2.17**	**324**	*e*P	**Pn**	**21 37 53.8**	**+0.1**
CARR				*e*S	**Sn**	**21 38 18.4**	**-1.0**
PCG5	**San Vicente Pa**	**2.17**	**97**	*e*P	**Pn**	**21 37 52.8**	**-1.0**
TGIG		**2.34**	**348**	*e*P	**Pn**	**21 37 56.5**	**+0.4**
TGIG				*e*S	**Sn**	**21 38 21.9**	**-1.9**
TGIG		**2.34**	**348**	*e*P	**Pn**	**21 37 58.5**	**+2.4**
NUBE	**Las Nubes**	**2.79**	**101**	*e*P	**Pn**	**21 38 05.7**	**+3.4**
UXUV	**UXUV**	**3.19**	**332**	*e*P	**Pn**	**21 38 09.0**	**+1.3**
UXUV				*e*S	**Sn**	**21 38 42.9**	**-1.7**
NEUV	**Arroyo Zacate**	**4.45**	**317**	*e*P	**Pn**	**21 38 26.3**	**+1.3**
NEUV				*e*S	**Sn**	**21 39 14.4**	**-1.1**

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*DJA **22** 21:42:02.5±1.1, 4°N±8°×9°3E±°, h10^{km}, M4.5/11, mB5.1/2, mb4.8/2, mb4.8/2, mB5.1/2, ML4.3/8, MLv4.4/9, MLv4.3/11, Mw(mB)4.4/2, Mw(mB)4.4/2*

*IDC **22** 21:42:06.9±1.7, 5°.47N×92°.00E, h0^{km}, mb3.3/4, mbtmp3.5/6, ML3.9/2, MS2.7/1, Error ellipse: s-maj=32.5km s-min=26.4km az=3.0*

ISC 22 21:41:54.5±2.3**, 3°.8N**±0°.2×**93°.1E**±0°.2**, h10**^{km}**, n19, σ0^{s}.72**/8**, mb3.4**/4**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MLSI	**Meulaboh, Aceh**	**3.31**	**82**	P	**Pg**	**21 42 58.7**	**+0.7**
MLSI				AML	AML		
MLSI				AML	AML		
MLSI				AML	AML		
SNSI	**Sinabang, Aceh**	**3.50**	**114**	P	**Pb**	**21 42 56.7**	**+0.1**
SNSI				AML	AML		
SNSI				AML	AML		
SNSI				AML	AML		
TPTI		**4.10**	**98**	P	**Pb**	**21 43 06.0**	**-0.8**
KCSI	**Kotacane, Aceh**	**4.66**	**94**	P	**Pb**	**21 43 15.4**	**-1.0**
KCSI				AML	AML		
KCSI				AML	AML		
KCSI				AML	AML		
PALK	**Pallekele**	**12.82**	**286**	Pn	Pn	21 44 49.5	-7.4
	0.7nm,0.3s,baz=111,slow=15,SNR=5.1						
PALK				Sn	Sn	21 46 50.9	-29
	1.7nm,0.3s,baz=195,slow=12,SNR=6.5						
	5.7nm,0.7s						
PALK				AML	AML		
CMAR	**Chiang Mai Arr**	**15.62**	**21**	Pn	**Pn**	**21 45 35.4**	**+0.5**
	0.2nm,0.3s,baz=204,slow=13,SNR=6.1						
CMAR				LR	LR	21 50 55.1	
	comp=Z,29nm,20.4s,baz=175,slow=36						
	0.4nm,0.4s						
CMAR				AML	AML		
H08S2	**Diego Garcia H**	**23.52**	**241**	T	T	22 13 10.9	
	baz=61						
H08S3	**Diego Garcia H**	**23.52**	**241**	T	T	22 12 28.7	
	baz=61						
H08S1	**Diego Carcia H**	**23.53**	**241**	T	T	22 13 06.9	
	baz=61						
H01W3	**Cape Leeuwin H**	**43.28**	**155**	T	T	22 38 11.1	
	baz=61,slow=74						
H01W2	**Cape Leeuwin H**	**43.29**	**155**	T	T	22 38 00.6	
	baz=61						
H01W1	**Cape Leeuwin H**	**43.30**	**155**	T	T	22 38 21.1	
	baz=61,slow=74						
MKAR	**Makanchi Array**	**43.82**	**349**	P	**P**	**21 50 01.0**	**+0.3**
	0.1nm,0.6s,baz=153,slow=9.7,SNR=3.7						
	0.1nm,0.6s						
WRA	**Warramunga Arr**	**46.88**	**122**	P	P	21 50 53.3	+28
	0.2nm,0.7s,baz=301,slow=8.4,SNR=1.6						
	0.2nm,0.7s						
KURBB	**Kurchatov Arra**	**48.23**	**348**	P	**P**	**21 50 35.0**	**-0.3**
	0.3nm,0.8s,baz=162,slow=6.8,SNR=4.5						
	0.3nm,0.8s						
ZALV	**Zalesovo Beam**	**50.43**	**354**	P	**P**	**21 50 51.6**	**-0.5**
	0.7nm,0.5s,baz=177,slow=6.5,SNR=5.2						
	0.7nm,0.5s						
H04N2	**CROZET ISLANDS**	**61.75**	**211**	T	T	23 00 35.9	
	baz=48,slow=75,SNR=8.2						
H04N1	**CROZET ISLANDS**	**61.76**	**211**	T	T	23 00 30.2	
	baz=48,slow=75,SNR=8.5						
H04N3	**CROZET ISLANDS**	**61.77**	**211**	T	T	23 00 28.5	
	baz=48,slow=75,SNR=6.9						

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*IDC **22** 21:45:47.5±1.7, 58°.98S×151°.00E, h0^{km}, mb4.1/6, mbtmp4.0/7, ML3.2/1, MS4.3/37, Error ellipse: s-maj=87.7km s-min=18.0km az=81.0*

*NEIC **22** 21:45:51.0±2.8, 59°.2S±0°.1×149°.9E±0°.3, h10^{km}±1^{km}, mb4.3/11, Error ellipse: s-maj=28.7km s-min=18.3km az=101.0*

*GCMT **22** 21:45:53.0±0.2, 59°.19S±0°.01×149°.24E±0°.02, h12^{km}, MW5.1/127, Moment Tensor Solution. s63,c86; s127,c211; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$0.04±.09; M$_{\theta\theta}$2.23±.08; M$_{\phi\phi}$-2.28±.10; M$_{r\theta}$-2.49±.23; M$_{\theta\phi}$-3.93±.07; M$_{\phi r}$-0.25±.24; Best double couple: M$_0$5.17000×10^{16} NP1:φ$_s$346.00000°, δ62.00000°, λ3.00000°. NP2:φ$_s$255.00000°, δ87.00000°, λ152.00000°. Principal axes: T 5.3200, Plg22.0000°, Azm207.0000°; N -0.3080, Plg61.0000°, Azm69.0000°; P -5.0200, Plg18.0000°, Azm304.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 22 21:45:50.4±0.6**, 59°.22S**±0°.08×**149°.8E**±0°.1**, h10**^{km}**, n97, σ1^{s}.22**/54**, mb4.3**/13**, MS4.3**/36**, 4C, West of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MCQ	**Macquarie Isla**	**6.90**	**51**	Pn	**Pn**	**21 47 31.2**	**-0.3**
VNDA	**Vanda**	**18.83**	**172**	P	**P**	**21 50 09.2**	**-0.7**
	0.1nm,0.3s,baz=332,slow=11,SNR=12						
VNDA				LR	LR	21 56 48.4	
	comp=Z,2µm,18.5s,baz=345,slow=35						
	1.1nm,0.8s						
VNDA				AML	AML		
VNDA	**Vanda**	**18.83**	**172**	P	**Pn**	**21 50 10.2**	**-0.2**
CASY	**Casey**	**19.02**	**232**	P	**P**	**21 50 10.9**	**-1.1**
CASY				IAmb	IAmb	21 50 22.5	
	comp=Z,8.0nm,0.8s						
SBA	**Scott Base**	**19.55**	**169**	P	**Pn**	**21 50 19.7**	**+0.7**
SBA				IAmb	IAmb	21 50 47.5	
	comp=Z,19nm,1.4s						
RPZ	**Rata Peaks**	**20.26**	**49**	LR	LR	21 56 59.6	
	comp=Z,448nm,19.1s,baz=222,slow=34						
TOO	**Toolangi**	**21.84**	**351**	P	**P**	**21 50 44.4**	**+1.6**
TOO				IAmb	IAmb	21 50 58.6	
	comp=Z,20nm,1.1s						
URZ	**Urewera**	**27.31**	**52**	LR	LR	22 01 56.6	
	comp=Z,1µm,18.0s,baz=199,slow=36						
STKA	**Stephens Creek**	**27.89**	**345**	LR	LR	22 00 30.1	
	comp=Z,400nm,18.6s,baz=177,slow=32						
QSPA	**South Pole Qui**	**30.88**	**180**	P	**P**	**21 52 06.6**	**-0.1**
	comp=Z,1.2nm,0.9s,baz=2.7,slow=3.3,SNR=4.4						
QSPA				LR	LR	22 04 23.1	
	comp=Z,976nm,18.8s,baz=10,slow=36						
	comp=Z,1.2nm,0.9s						
QSPA	**South Pole Qui**	**30.88**	**180**	P	**P**	**21 52 08.1**	**+1.4**
QSPA				IAmb	IAmb	21 52 30.6	
	comp=Z,12nm,1.4s						
FORT	**Forrest**	**32.02**	**323**	P	**P**	**21 52 16.7**	**0.0**
H01W1	**Cape Leeuwin H**	**33.70**	**300**	T	T	22 27 53.4	
	baz=147,slow=75,SNR=281						
H01W2	**Cape Leeuwin H**	**33.70**	**300**	T	T	22 27 49.8	
	baz=147,slow=75,SNR=216						
H01W3	**Cape Leeuwin H**	**33.71**	**300**	T	T	22 27 54.6	
	baz=147,slow=75,SNR=244						
NWAO	**Narrogin (SRO)**	**34.05**	**306**	LR	LR	22 02 53.3	
	comp=Z,907nm,19.6s,baz=143,slow=30						
MAW	**Mawson**	**36.61**	**220**	P	**P**	**21 52 58.9**	**+2.8**
	comp=Z,1.7nm,0.9s,baz=127,slow=14,SNR=2.3						
MAW				LR	LR	22 07 58.3	
	comp=Z,604nm,18.9s,baz=104,slow=36						
	comp=Z,1.7nm,0.9s						
RAO	**Raoul Island**	**37.17**	**51**	LR	LR	22 06 34.1	
	comp=Z,883nm,19.2s,baz=168,slow=34						
ASAR	**Alice Springs**	**37.26**	**336**	P	**P**	**21 52 59.9**	**-2.3**
	comp=Z,1.8nm,0.8s,baz=165,slow=9.6,SNR=17						
ASAR				LR	LR	22 05 49.5	
	comp=Z,417nm,21.6s,baz=164,slow=32						
	comp=Z,1.8nm,0.8s						
ASAR	**Alice Springs**	**37.26**	**336**	P	**P**	**21 53 03.0**	**+0.9**
AS31	**Alice Springs**	**37.26**	**336**	P	**P**	**21 53 01.6**	**-0.6**
CTA	**Charters Tower**	**39.16**	**355**	LR	LR	22 07 45.3	
	comp=Z,784nm,18.7s,baz=182,slow=34						
CTAO	**Charters Tower**	**39.16**	**355**	P	**P**	**21 53 20.2**	**+2.0**
CTAO				IAmb	IAmb	21 53 21.6	
	comp=Z,9.2nm,1.1s						
WR8	**Warramunga Arr**	**40.74**	**338**	P	**P**	**21 53 29.4**	**-1.9**
WR8				IAmb	IAmb	21 53 35.0	
	comp=Z,8.4nm,1.1s						
WRA	**Warramunga Arr**	**40.78**	**337**	P	**P**	**21 53 29.8**	**-1.9**
	comp=Z,3.4nm,0.9s,baz=167,slow=7.5,SNR=19						
	comp=Z,3.4nm,0.9s						
WRA	**Warramunga Arr**	**40.78**	**337**	P	**P**	**21 53 31.2**	**-0.4**
WB0	**Warramunga Arr**	**40.95**	**338**	P	**P**	**21 53 31.8**	**-1.2**
WB0				IAmb	IAmb	21 53 43.5	
	comp=Z,10.0nm,1.1s						
FITZ	**Fitzroy Crossi**	**44.67**	**326**	LR	LR	22 10 45.9	
	comp=Z,563nm,19.1s,baz=168,slow=33						
MSVF	**Nonsavu**	**46.26**	**39**	LR	LR	22 10 20.6	
	comp=Z,826nm,18.7s,baz=209,slow=32						
TROLL	**Troll, Antarti**	**47.10**	**193**	⇑P	**P**	**21 54 22.3**	**+0.3**
	comp=Z,105nm,0.6s						
SNAA	**Sanae**	**48.01**	**191**	P	**P**	**21 54 29.0**	**0.0**
	comp=Z,0.6nm,0.3s,baz=165,slow=7.9,SNR=4.5						
SNAA				LR	LR	22 13 49.9	
	comp=Z,254nm,21.0s,baz=178,slow=35						
	comp=Z,0.6nm,0.3s						
SNAA	**Sanae**	**48.01**	**191**	P	**P**	**21 54 28.9**	**0.0**
VNA3	**Neumayer Olymp**	**49.03**	**189**	⇑P	**P**	**21 54 35.3**	**-1.4**
	comp=Z,2.9nm,0.8s						
VNA2	**Neumayer--Watz**	**49.15**	**190**	⇑P	**P**	**21 54 37.7**	**+0.1**
	comp=Z,1.8nm,0.8s,baz=161,slow=7.4						
VNA1	**Neumayer--Stat**	**49.49**	**189**	⇑P	**P**	**21 54 40.8**	**+0.6**
	comp=Z,8.4nm,1.2s						
PMG	**Port Moresby**	**49.74**	**357**	LR	LR	22 13 13.1	
	comp=Z,388nm,19.6s,baz=172,slow=33						
HNR	**Honiara**	**50.27**	**13**	LR	LR	22 11 45.2	
	comp=Z,507nm,20.6s,baz=243,slow=31						
RAR	**Rarotonga**	**52.11**	**66**	LR	LR	22 14 01.1	
	comp=Z,128nm,19.1s,baz=260,slow=33						
BATI	**Baumata**	**52.73**	**327**	LR	LR	22 16 48.2	
	comp=Z,291nm,18.7s,baz=191,slow=35						
AFI	**Afiamalu**	**53.41**	**49**	LR	LR	22 17 10.7	
	comp=Z,84nm,18.2s,baz=197,slow=36						
PMSA	**Palmer Station**	**53.72**	**163**	LR	LR	22 15 15.7	
	comp=Z,225nm,19.5s,baz=203,slow=33						
KRVT	**Keravat (AS076**	**54.80**	**3**	LR	LR	22 14 42.2	
	comp=Z,136nm,21.9s,baz=135,slow=32						
H04S2	**CROZET ISLANDS**	**54.88**	**236**	T	T	22 55 16.1	
	baz=139,slow=75,SNR=7.7						
H04S1	**CROZET ISLANDS**	**54.88**	**236**	T	T	22 55 16.3	
	baz=139,slow=75,SNR=19						
H04S3	**CROZET ISLANDS**	**54.90**	**236**	T	T	22 55 15.3	
	baz=139,slow=75,SNR=19						
JAY	**Jayapura**	**56.99**	**349**	LR	LR	22 18 48.1	
	comp=Z,477nm,21.5s,baz=188,slow=35						
KAPI	**Kappang**	**58.80**	**324**	LR	LR	22 19 42.0	
	comp=Z,350nm,19.1s,baz=178,slow=34						
PPT2	**Papeete2**	**60.12**	**73**	*e*LR	LR	22 13 31.7	
	comp=Z,317nm,25.5s						
PPT2				*e*LR	LR	22 13 38.3	
	comp=Z,256nm,25.8s						
PPT	**Papeete**	**60.14**	**73**	LR	LR	22 15 49.8	
	comp=Z,111nm,21.4s,baz=186,slow=30						
LEM	**Lembang**	**61.33**	**311**	LR	LR	22 18 47.8	
	comp=Z,270nm,20.9s,baz=174,slow=32						
DAV	**Davao City (W)**	**68.85**	**334**	LR	LR	22 25 28.8	
	comp=Z,76nm,21.6s,baz=158,slow=34						
PLCA	**Paso Flores**	**74.96**	**149**	LR	LR	22 24 47.8	
	comp=Z,127nm,19.5s,baz=192,slow=31						
H08S2	**Diego Garcia H**	**76.97**	**277**	T	T	23 22 06.3	
	baz=148,slow=76,SNR=21						
H08S1	**Diego Carcia H**	**76.98**	**277**	T	T	23 21 59.2	
	baz=148,slow=76,SNR=12						
H08S3	**Diego Garcia H**	**76.99**	**277**	T	T	23 21 59.8	
	baz=148,slow=76,SNR=70						
H03S2	**Juan Fernandez**	**78.88**	**140**	T	T	23 25 45.8	
	baz=201,slow=74,SNR=29						
H03S1	**Juan Fernandez**	**78.88**	**140**	T	T	23 25 47.1	
	baz=201,slow=74,SNR=23						
H03S3	**Juan Fernandez**	**78.90**	**140**	T	T	23 25 46.6	
	baz=201,slow=74,SNR=23						
BOSA	**Boshof**	**81.24**	**227**	LR	LR	22 29 50.1	
	comp=Z,169nm,19.7s,baz=178,slow=32						
LBTB	**Lobatse**	**84.35**	**229**	LR	LR	22 30 19.0	
	comp=Z,187nm,19.8s,baz=158,slow=31						
PALK	**Pallekele**	**85.74**	**292**	LR	LR	22 31 02.4	
	comp=Z,118nm,18.3s,baz=142,slow=32						
MATP	**Matopo**	**87.31**	**233**	LR	LR	22 30 40.6	
	comp=Z,128nm,20.5s,baz=143,slow=31						
CMAR	**Chiang Mai Arr**	**87.80**	**313**	P	**P**	**21 58 39.8**	**+0.3**
	comp=Z,1.2nm,0.3s,baz=159,slow=5.7,SNR=4.4						
CMAR				LR	LR	22 36 10.6	
	comp=Z,129nm,19.5s,baz=170,slow=34						
	comp=Z,1.2nm,0.3s						
CMAR	**Chiang Mai Arr**	**87.80**	**313**	P	**P**	**21 58 40.2**	**+0.7**
LSZ	**Lusaka**	**92.04**	**235**	LR	LR	22 35 38.7	
	comp=Z,196nm,19.3s,baz=152,slow=32						
TSUM	**Tsumeb**	**92.64**	**224**	LR	LR	22 36 50.5	
	comp=Z,139nm,20.2s,baz=161,slow=33						
JNU	**Nakatsue**	**93.33**	**344**	LR	LR	22 40 58.3	
	comp=Z,46nm,18.8s,baz=178,slow=36						
BRDH	**Bariadhala**	**94.47**	**308**	LR	LR	22 41 30.1	
	comp=Z,96nm,19.8s,baz=46,slow=35						
MJAR	**Matsushiro Arr**	**95.89**	**351**	LR	LR	22 39 58.9	
	comp=Z,77nm,20.8s,baz=170,slow=34						
KSRS	**Korea Array**	**98.02**	**343**	LR	LR	22 43 33.3	
	comp=Z,33nm,20.1s,baz=160,slow=35						
VRI	**Vrincioaia**	**144.05**	**274**	PKP	**PKiKP**	**22 05 28.6**	**-0.1**
MLR	**Muntele Rosu**	**144.20**	**273**	PKP	**PKiKP**	**22 05 28.6**	**-0.5**
TIP	**Timpagrande**	**144.33**	**257**	PKP	**PKiKP**	**22 05 29.3**	**-0.2**
VOIR		**144.62**	**272**	PKP	**PKiKP**	**22 05 29.4**	**-0.5**
SORM	**Soroca**	**144.73**	**278**	PKP	**PKiKP**	**22 05 29.6**	**-0.3**
KEST	**Kesra**	**145.21**	**245**	PKPbc	**PKiKP**	**22 05 29.6**	**-1.9**
	comp=Z,4.6nm,0.8s,baz=156,slow=8.5,SNR=4.3						
AK07	**Malin Array Si**	**145.83**	**282**	PKP	**PKiKP**	**22 05 30.9**	**-1.2**
AK09	**Malin Array Si**	**145.83**	**282**	PKP	**PKiKP**	**22 05 30.7**	**-1.4**
AK10	**Malin Array Si**	**145.83**	**282**	PKP	**PKiKP**	**22 05 30.8**	**-1.3**
AK06	**Malin Array Si**	**145.85**	**282**	PKP	**PKiKP**	**22 05 30.8**	**-1.4**
AKASG	**Malin Array Be**	**145.91**	**282**	PKPbc	**PKPab**	**22 05 29.7**	**+0.3**
	comp=Z,0.9nm,0.6s,baz=98,slow=2.1,SNR=7.0						
AKASG	**Malin Array Be**	**145.91**	**282**		**PKPab**	**22 05 29.4**	**0.0**
AKBB	**Malin Array Si**	**145.91**	**282**	PKP	**PKiKP**	**22 05 31.1**	**-1.2**
KIEV	**Kiev**	**145.91**	**282**	PKP	**PKiKP**	**22 05 31.1**	**-1.2**
KMPD	**K-Podol'skiy**	**145.97**	**277**	PKP	**PKPab**	**22 05 30.9**	**+1.3**
LUBAR	**Lubar, Ukraine**	**146.17**	**280**	PKP	**PKPab**	**22 05 31.2**	**+0.8**
MPLH	**Magyarpolny**	**149.65**	**268**	PKP	**PKPbc**	**22 05 38.2**	**-0.9**
SOKA	**Soboth**	**150.60**	**265**	*e*PKP	**PKiKP**	**22 05 42.9**	**+0.7**
	comp=Z,5.8nm,1.1s						
CONA	**Conrad Observa**	**151.00**	**268**	*e*PKP	**PKiKP**	**22 05 42.8**	**-0.2**
	comp=Z,0.4nm,0.3s						
CONA				*e*PKP	**PKPab**	**22 05 48.8**	**-1.3**
	comp=Z,0.5nm,0.4s						
KBA	**Koelnbreinsper**	**151.74**	**264**	*e*PKiKP	**PKPab**	**22 05 52.4**	**-0.9**
	comp=Z,4.1nm,1.1s						
GERES	**GERESS Array B**	**152.70**	**267**	PKPbc	**PKiKP**	**22 05 47.5**	**+1.1**
	comp=Z,0.4nm,0.2s,baz=172,slow=2.7,SNR=4.2						
GERES	**GERESS Array B**	**152.70**	**267**	PKPbc	**PKPbc**	**22 05 46.0**	**-0.3**
FINES	**FINESS Array B**	**152.78**	**299**	PKPbc	**PKiKP**	**22 05 46.3**	**+0.2**
	comp=Z,3.2nm,0.8s,baz=116,slow=3.2,SNR=6.2						
FINES	**FINESS Array B**	**152.78**	**299**	PKPbc	**PKiKP**	**22 05 46.2**	**+0.1**
SQTA	**Sankt Quirin**	**152.92**	**262**	*e*PKP	**PKPab**	**22 05 54.0**	**-4.2**
	comp=Z,6.0nm,1.5s						
ESDC	**Sonseca Array**	**154.34**	**232**	PKPbc	**PKiKP**	**22 05 50.7**	**+0.5**
	comp=Z,0.4nm,0.9s,baz=139,slow=2.0,SNR=2.7						
ARCES	**ARCESS Array B**	**154.78**	**317**	PKPab	**PKPab**	**22 06 04.9**	**-0.4**
	comp=Z,3.4nm,0.8s,baz=105,slow=5.9,SNR=3.7						

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*IDC **22** 22:00:16.7±4.5, 43°.83N×128°.33W, h0^{km}, mb3.6/2, mbtmp3.5/6, ML3.6/2, MS3.5/4, Error ellipse: s-maj=55.9km s-min=29.1km az=71.0*

*NEIC **22** 22:00:21.1±1.9, 43°.74N±0°.08×127°.8W±0°.1, h10^{km}±2^{km}, mb3.3/7, ML3.3/90, Error ellipse: s-maj=18.3km s-min=12.1km az=249.0*

ISC 22 22:00:19.0±1.8**, 43°.71N**±0°.07×**128°.0W**±0°.1**, h10**^{km}**, n83, σ1^{s}.11**/75**, mb3.7**/3**, Off coast of Oregon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
J01E	**Myrtle Point**	**3.00**	**99**	Pn	**Pn**	**22 01 04.8**	**-1.7**
I02E	**Swisshome, OR**	**3.01**	**81**	Pn	**Pn**	**22 01 05.2**	**-1.5**
K02D	**Willamette Mer**	**3.31**	**106**	Pn	**Pn**	**22 01 08.9**	**-2.1**
COR	**Corvallis**	**3.48**	**74**	Pn	**Pn**	**22 01 12.5**	**-0.7**
COR				IAML		22 02 05.9	
	45nm,1.4s						
KSXB	**Camp Six Broad**	**3.56**	**120**	Pn	**Pn**	**22 01 12.5**	**-1.8**
L02F	**Cave Junction**	**3.61**	**115**	Pn	**Pn**	**22 01 14.3**	**-0.6**
L02F				IAML		22 02 00.1	
	comp=E,44nm,0.6s						
BUCK	**Buck Mountain**	**3.64**	**81**	Pn	**Pn**	**22 01 14.9**	**-0.5**
BUCK				IAML		22 02 01.8	
	comp=N,38nm,0.5s						
G03D	**McMinnville, O**	**3.69**	**64**	Pn	**Pn**	**22 01 15.8**	**-0.3**
G03D				IAML		22 02 03.0	
	comp=N,64nm,0.7s						
G03D				IAML		22 02 05.4	
	comp=E,40nm,0.5s						
KRMB	**Red Mountain**	**3.72**	**125**	Pn	**Pn**	**22 01 15.5**	**-1.1**
F03A	**Seaside**	**3.85**	**53**		**Pn**	**22 01 17.6**	**-0.7**
H04D	**Lebanon**	**3.86**	**76**	Pn	**Pn**	**22 01 18.3**	**-0.1**
H04D				IAML		22 02 07.7	
	comp=E,38nm,1.3s						
H04D				IAML		22 02 10.2	
	comp=N,41nm,0.7s						
BBOR	**Butler Butte**	**3.96**	**100**	Pn	**Pn**	**22 01 19.1**	**-0.8**
RADR	**Rader Ridge**	**4.01**	**46**	Pn	**Pn**	**22 01 19.5**	**-1.1**
RADR				IAML		22 02 11.9	
	comp=E,47nm,1.9s						
RADR				IAML		22 02 39.1	
	comp=N,46nm,3.3s						
I04A	**Tendick Farm,**	**4.04**	**87**	Pn	**Pn**	**22 01 20.6**	**-0.3**
I04A				IAML		22 02 14.5	
	comp=E,71nm,0.5s						
I04A				IAML		22 02 18.5	
	comp=N,65nm,0.2s						
G04A	**Mulino**	**4.21**	**67**	Pn	**Pn**	**22 01 23.7**	**+0.4**
G04A				IAML		22 01 57.4	
	comp=N,57nm,1.2s						
G04A				IAML		22 01 57.8	
	comp=E,57nm,1.3s						
E03A	**Lebam**	**4.22**	**46**	Pn	**Pn**	**22 01 22.3**	**-1.0**
E03A				IAML		22 02 03.2	
	comp=E,32nm,2.9s						
E03A				IAML		22 02 15.5	
	comp=N,29nm,0.4s						
F04D	**Rainier, OR**	**4.25**	**54**	Pn	**Pn**	**22 01 23.4**	**-0.4**
J04A	**Umpqua Nationa**	**4.30**	**94**	Pn	**Pn**	**22 01 25.1**	**+0.5**
YBH	**Yreka Blue Hor**	**4.36**	**115**	Pn	**Pn**	**22 01 25.7**	**+0.4**
	comp=N,0.5nm,0.3s,baz=297,slow=12,SNR=5.8						
YBH				Sn	**Sn**	**22 02 16.5**	**+0.3**
	comp=N,1.3nm,0.3s,baz=167,slow=14,SNR=9.5						
	comp=N,1.3nm,0.4s						
YBH				AML	AML		
YBH	**Yreka Blue Hor**	**4.36**	**115**	Pn	**Pn**	**22 01 25.5**	**+0.2**
L04D	**Klamath Falls**	**4.42**	**108**	Pn	**Pn**	**22 01 26.5**	**+0.2**
M02C	**Callahan**	**4.44**	**120**	Pn	**Pn**	**22 01 27.0**	**+0.6**
WIFE	**Three Sisters-**	**4.47**	**83**	Pn	**Pn**	**22 01 27.1**	**+0.2**
WIFE				IAML		22 02 27.9	
	comp=N,25nm,0.6s						
WIFE				IAML		22 02 30.7	
	comp=E,33nm,2.5s						
WISH	**Wishkah**	**4.51**	**40**	Pn	**Pn**	**22 01 27.2**	**-0.2**
WISH				IAML		22 02 06.8	
	comp=E,48nm,2.8s						
KHBM	**Hayfork Bally**	**4.67**	**129**	Pn	**Pn**	**22 01 31.2**	**+1.5**
NLWA	**Neilton Lookou**	**4.68**	**37**	Pn	**Pn**	**22 01 29.2**	**-0.4**
NLWA				IAML		22 02 04.9	
	comp=E,23nm,4.9s						
NLWA				IAML		22 03 33.0	
	comp=E,17nm,4.8s						
STD	**Studebaker Rid**	**4.80**	**56**	Pn	**Pn**	**22 01 31.9**	**+0.5**
HOOD	**Mount Hood Mea**	**4.80**	**68**	Pn	**Pn**	**22 01 32.0**	**+0.5**
HOOD				IAML		22 02 36.3	
	comp=N,24nm,1.3s						
HOOD				IAML		22 02 46.8	
	comp=E,27nm,0.1s						

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JRO   Jston Ridge Ob     4.82  56  Pn      Pn       22 01 32.3 +0.5
JRO                                IAML             22 02 32.6
      comp=E,36nm,0.8s
JRO                                IAML             22 02 33.0
      comp=N,42nm,0.7s
I05D  Terrebonne, OR     4.83  80  Pn      Pn       22 01 31.5 -0.3
I05D                               IAML             22 02 19.5
      comp=N,29nm,4.8s
I05D                               IAML             22 03 45.6
      comp=E,31nm,5.0s
C03A  Quillayute Air     4.86  28  Pn      Pn       22 01 32.3 +0.1
J05D  Fort Rock, OR      4.92  93  Pn      Pn       22 01 32.9 -0.3
J05D                               IAML             22 02 31.1
      comp=E,20nm,4.8s
J05D                               IAML             22 02 35.8
      comp=N,23nm,0.9s
G05A  Wamic              5.01  70  Pn      Pn       22 01 34.9 +0.7
G05A                               IAML             22 03 10.7
      comp=E,33nm,5.0s
G05A                               IAML             22 04 35.5
      comp=N,34nm,4.5s
PINE  Pine Mountain      5.10  87  Pn      Pn       22 01 35.5 -0.1
PINE                               IAML             22 02 39.2
      comp=N,15nm,4.5s
PINE                               IAML             22 03 07.8
      comp=E,16nm,4.6s
O02D  Mt. Diablo Mer     5.24 131  Pn      Pn       22 01 38.0 +0.6
K05A  Summer Lake        5.27  98  Pn      Pn       22 01 37.8 -0.2
K05A                               IAML             22 03 05.0
      comp=N,20nm,4.0s
K05A                               IAML             22 03 10.9
      comp=E,20nm,4.8s
GNW   Green Mountain     5.28  41  Pn      Pn       22 01 37.5 -0.4
GNW                                IAML             22 02 40.6
      comp=E,12nm,0.5s
GNW                                IAML             22 02 40.8
      comp=N,12nm,0.4s
LON   Longmire           5.31  53          Pn       22 01 38.5 +0.1
B04A  Port Angeles       5.35  34  Pn      Pn       22 01 38.4 -0.5
B04A                               IAML             22 02 42.9
      comp=E,13nm,1.7s
B04A                               IAML             22 02 43.3
      comp=N,14nm,0.9s
D05A  Enumclaw           5.46  48  Pn      Pn       22 01 40.8 +0.4
D05A                               IAML             22 02 25.4
      comp=E,23nm,4.2s
D05A                               IAML             22 02 53.0
      comp=N,22nm,2.1s
O03E  Paynes Creek       5.73 124  Pn      Pn       22 01 46.8 +2.6
PGC   Sidney             5.85  31  Pn      Pn       22 01 46.0 +0.2
F07A  Phinny Hill Vi     6.13  66  Pn      Pn       22 01 48.8 -0.8
MXC   Moxie City         6.14  60  Pn      Pn       22 01 49.8  0.0
A04D  Lummi Island       6.20  34  Pn      Pn       22 01 50.8 +0.3
LTY   Liberty            6.24  53  Pn      Pn       22 01 51.9 +0.7
ORV   Oroville           6.39 128  Pn      Pn       22 01 55.9 +2.8
E07A  Sunnyside          6.41  61  Pn      Pn       22 01 53.9 +0.4
HAWA  Hanford            6.56  63  Pn      Pn       22 01 55.7 +0.2
WAH2  Wahluke Slope      6.67  60  Pn      Pn       22 01 58.0 +1.0
A05A  Maple Falls        6.68  36  Pn      Pn       22 01 58.1 +1.1
YPT   Yellepit           6.82  67  Pn      Pn       22 01 59.1 +0.1
EPH   Ephrata            6.92  55  Pn      Pn       22 02 00.9 +0.4
WVOR  Wild Horse Val     6.96  97  Pn      Pn       22 01 59.7 -1.4
AFDM  Forest Hills D     7.10 130  Pn      Pn       22 02 06.2 +3.2
D08A  Wollman Farm,      7.20  59  Pn      Pn       22 02 04.7 +0.4
C09A  Chrisman Ranch     7.92  56  Pn      Pn       22 02 13.5 -0.6
F10A  Beach Ranch, E     7.97  70  Pn      Pn       22 02 15.4 +0.5
LLLB  Lillooet           8.05  29  Pn      Pn       22 02 17.5 +1.5
YERR  Yerington          8.09 123  Pn      Pn       22 02 18.7 +2.0
NEW   Newport            8.82  55  Pn      Pn       22 02 26.4 -0.1
      comp=N,0.8nm,0.3s,baz=247,slow=14,SNR=7.1
NEW                                LR      LR       22 05 37.8
      comp=N,156nm,19.8s,baz=233,slow=36
      comp=N,2.0nm,0.3s
NEW                                AML     AML
ELK   Elko               9.90 103  Pn      Pn       22 02 44.2 +2.6
      comp=N,1.0nm,0.6s,baz=283,slow=10,SNR=1.7
LDM   Libby Dam          9.99  57  Pn      Pn       22 02 44.1 +1.5
GMN   Gold Mountain     10.37 125  Pn      Pn       22 02 48.6 +0.6
MSO   Missoula          10.38  68  Pn      Pn       22 02 47.5 -0.4
PDAR  Pinedale Array    13.47  88  Pn      Pn       22 03 33.2 +3.0
      comp=N,0.9nm,0.9s,baz=274,slow=16,SNR=4.9
PFO   Pinyon Flats O    13.50 134  LR      LR       22 08 39.8
      comp=N,83nm,21.0s,baz=22,slow=36
TASM  ASL Pad, Albuq    18.77 111  P       P        22 04 37.5 -0.9
TASM  ASL Pad, Albuq    18.77 111  P       P        22 04 37.3 -1.2
TASM                               IAmb    IAmb     22 04 39.9
      comp=Z,1.1nm,0.7s
ALQ   Albuquerque       18.77 111  P       P        22 04 36.8 -1.6
ALQ                                IAmb    IAmb     22 04 41.7
      comp=Z,2.4nm,1.2s
ULM   Lac du Bonnet     22.73  62  P       P        22 05 20.4 -0.5
      comp=Z,5.3nm,0.9s,baz=275,slow=12,SNR=4.0
      comp=Z,5.3nm,0.9s
ILAR  Eielson Array     23.63 340  LR      LR       22 12 36.5
      comp=Z,119nm,18.2s,baz=76,slow=32
G29M  Pine Creek        23.88 350  P       P        22 05 32.6 +0.2
TX31  Lajitas Ar. Si    24.13 118          P        22 05 35.8 +0.6
TX31                               IAmb    IAmb     22 05 49.0
      comp=Z,2.8nm,1.2s
TXAR  Lajitas Array     24.13 118  P       P        22 05 36.0 +0.9
      comp=Z,0.4nm,0.7s,baz=319,slow=8.2,SNR=4.7
      comp=Z,0.4nm,0.7s
TXAR  Lajitas Array     24.13 118  P       P        22 05 35.8 +0.6
H11N3 WAKE ISLAND Hy    58.77 268  T       T        23 13 38.0
      baz=50,slow=75,SNR=37
H11N2 WAKE ISLAND Hy    58.77 268  T       T        23 13 39.0
      baz=50,slow=75,SNR=37
H11N1 WAKE ISLAND Hy    58.79 268  T       T        23 13 39.5
      baz=50,slow=75,SNR=35
H11S1 WAKE ISLAND Hy    59.70 267  T       T        23 14 41.3
      baz=50,slow=75,SNR=42
H11S2 WAKE ISLAND Hy    59.70 267  T       T        23 14 41.2
      baz=50,slow=75,SNR=36
H11S3 WAKE ISLAND Hy    59.71 267  T       T        23 14 46.4
      baz=50,slow=75,SNR=25
MKAR  Makanchi Array    85.98 340  LR      LR       22 52 52.3
      comp=Z,83nm,18.0s,baz=130,slow=37
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MOS ***22*** *22:01:08.9, 40°.97N×43°.94E, h1^{km}, MPVA3.9*
ISK ***22*** *22:01:08.4, 41°.04N×43°.89E, h8^{km}, ML2.9/12*
TIF ***22*** *22:01:08.5, 41°.04N×43°.90E, h10^{km}±1^{km}*
DRS ***22*** *22:01:08.8, 40°.99N×43°.86E, h0^{km}*
AFAD ***22*** *22:01:09.7, 41°.06N×43°.79E, h7^{km}±2^{km}, ML2.5*
AZER ***22*** *22:01:10.7, 40°.89N×44°.11E, h2^{km}, ml3.1*
ISC 22 22:01:08.4±1.1**, 41°.05N**±0°.01×**43°.87E**±0°.01**, h1**^{km}±10^{km}**,**
n85, σ1^{s}.51/160**, Turkey-Georgia-Armenia border region**

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Code  Station Name        Δ°  AZ°    Phase ID             Time    Res
                                   Op      ISC        h  m  s    ISC
BGD   Bogdanovka         0.30 317  P       Pb       22 01 16.1 -0.7
BGD                                S       Sb       22 01 21.2 -1.2
EAK   Akyaka             0.41 209  P       Pg       22 01 16.8 +0.5
EAK                                S       Sg       22 01 22.7 +1.0
AKH   Akhalkalaki        0.46 322  P       Pb       22 01 18.7 -0.8
AKH                                S       Sb       22 01 25.8 -1.2
KZRT  Kazreti            0.52  49  P       Pg       22 01 13.1 -5.4
KZRT                               S       Sg       22 01 21.3 -4.0
KARS  Kars               0.73 235  Pg      Pg       22 01 23.0 +0.5
KARS                               Sg      Sb       22 01 33.7 -1.0
KARS                               AML     AML
BOZK  Kars-Merkez-Bo     0.82 236  P       Pg       22 01 24.3 +0.2
BOZK                               IAML             22 01 36.0
      comp=N,285nm,0.4s
BOZK                               IAML             22 01 36.0
      comp=E,388nm,0.5s
BOZK                               S       Sb       22 01 36.2 -1.1
TBLG  Delisi             0.94  43  P       Pg       22 01 26.7 +0.1
TBLG                               S       Sb       22 01 40.2 -0.6
TBLG  Delisi             0.94  43  Pg      Pg       22 01 26.9 +0.3
TBLG                               Sg      Sb       22 01 40.1 -0.6
TBLG                               AML     AML
EPOS  Posof              0.98 298  P       Pg       22 01 27.7 +0.6
EPOS                               S       Sg       22 01 40.4 +0.6
EPOS                               IAML             22 01 43.0
      comp=N,233nm,0.4s
EPOS                               IAML             22 01 43.0
      comp=E,102nm,0.4s
GOLE  Ardahan-G¶le       0.99 258  P       Pb       22 01 28.3 -0.2
GOLE                               S       Sn       22 01 42.8 -1.6
GOLE                               IAML             22 01 45.0
      comp=N,226nm,0.5s
GOLE                               IAML             22 01 54.0
      comp=E,174nm,0.8s
SEAG  Tbilisi Sea        1.00  44  P       Pg       22 01 28.1 +0.4
SEAG                               S       Sn       22 01 42.4 -2.1
TASB  TASBURUN-IGDIR     1.10 165  Pn      Pg       22 01 29.3 -0.2
TASB                               Sn      Sn       22 01 45.3 -1.6
TASB                               AML     AML
GNI   Garni              1.11 143  Pn      Pg       22 01 29.9 +0.1
GNI                                Sn      Sn       22 01 45.5 -1.9
GNI                                AML     AML
GNI   Garni              1.11 143  ePg     Pg       22 01 29.9 +0.1
GNI                                eSg     Sb       22 01 45.4 -0.3
QZX   Qazax, Azerbai     1.13  89  P       Pb       22 01 30.2 -0.7
QZX                                S       Sn       22 01 47.8 +0.1
IGDI  IGDIR              1.19 172  P       Pb       22 01 30.2 -1.6
IGDI  IGDIR              1.19 172  P       Pb       22 01 30.5 -1.4
IGDI                               S       Sb       22 01 46.9 -0.8
DGRG  David-gareji       1.20  70  P       Pg       22 01 32.0 +0.5
DGRG                               S       Sn       22 01 49.9 +0.5
SENK  Senkaya-Erzuru     1.25 248  Pn      Pb       22 01 32.7 -0.3
SENK                               Sn      Sn       22 01 50.1 -0.8
SENK                               AML     AML
KOTA  Agri, Merkez-K     1.34 202  P       Pg       22 01 34.9 +0.7
KOTA                               IAML             22 01 59.0
      comp=E,61nm,1.1s
KOTA                               IAML             22 02 00.0
      comp=N,48nm,0.7s
GDB   GEDABAY            1.46 102  P       Pn       22 01 35.5 -0.6
GDB                                S       Sg       22 01 56.1 +0.6
CHRG  Chargali           1.50  31  P       Pb       22 01 36.9 -0.4
CHRG                               S       Sg       22 01 57.7 +0.9
HYR   Heyderabad         1.52 150  P       Pb       22 01 37.3 -0.3
HYR                                S       Sg       22 01 58.9 +1.5
AGRB  Hanur-Agry         1.62 205  Pn      Pb       22 01 38.4 -0.8
AGRB                               AML     AML
DDFL  Dedoflistskaro     1.74  76  P       Pg       22 01 43.2 +1.4
DDFL                               S       Sg       22 02 05.2 +0.9
LACR  Lac                1.81  10  ePg     Pb       22 01 42.6 +0.2
LACR                               eSg     Sg       22 02 07.4 +0.9
HOPA  Hopa-Artvin        1.86 281  Pn      Pb       22 01 42.5 -0.7
HOPA                               AML     AML
DIGR  Digorskoe uzhe     1.86 353  ePg     Pg       22 01 44.2 +0.1
DIGR                               eSg     Sg       22 02 10.6 +2.2
KOPR  Koprukoy-ERZUR     1.86 236  Pn      Pb       22 01 42.1 -1.3
KOPR                               AML     AML
SHTL  Shatili            1.87  30  P       Pb       22 01 43.5 -0.1
SHTL                               S       Sg       22 02 07.8 -0.8
GANJ  Ganja              1.90 101  P       Pb       22 01 44.1 +0.2
GANJ                               S       Sg       22 02 10.6 +1.1
CLDR  Caldiran           1.90 179  Pn      Pn       22 01 41.9 -0.4
CLDR                               AML     AML
VSHL  Vashlovani         1.92  84  P       Pb       22 01 44.3 +0.1
VSHL                               S       Sg       22 02 11.8 +1.7
LGD   Lagodekhi          1.95  65  P       Pb       22 01 44.5 -0.3
LGD                                S       Sg       22 02 10.3 -0.7
KORR  Kora               2.04   4  ePg     Pg       22 01 47.6  0.0
KORR                               eSg     Sg       22 02 15.1 +1.0
SBZ   Shahbuz            2.09 141  P       Pb       22 01 46.9 -0.4
SBZ                                S       Sg       22 02 15.3 -0.3
KMGR  Komgaron           2.14  20  ePg     Pg       22 01 49.2 -0.2
KMGR                               eSg     Sg       22 02 19.6 +2.4
TLTR  Tlyarata           2.14  60  ePg     Pb       22 01 46.7 -1.4
TLTR                               eSg     Sb       22 02 15.0 -0.3
ZKTA  Zakatala           2.15  73  P       Pb       22 01 47.8 -0.5
ZKTA                               S       Sg       22 02 18.5 +0.9
ARNR  Ardon              2.15   8  ePg     Pg       22 01 49.8  0.0
ARNR                               eSg     Sg       22 02 18.3 +0.7
MLAZ  Malazgirt-MUS      2.16 208  Pn      Pn       22 01 46.3 +0.6
MLAZ                               AML     AML
LSNR  Lesken             2.23 359  ePn     Pg       22 01 50.9 -0.3
LSNR                               eSn     Sg       22 02 21.9 +1.8
NAX   Nakhchivan         2.25 146  P       Pb       22 01 50.1 +0.3
NAX                                S       Sb       22 02 19.1 +0.8
STDR  Stavd-Durt         2.33   3  ePn     Pg       22 01 53.3 +0.3
STDR                               eSn     Sg       22 02 23.7 +0.6
CHOM  Cayeli-Rize        2.35 272  Pn      Pn       22 01 49.1 +0.8
CHOM                               AML     AML
BTKR  Batakoyurt         2.38  12  ePn     Pg       22 01 53.5 -0.5
BTKR                               eSn     Sg       22 02 25.0 +0.2
BTLR  Botlikh            2.39  47  ePn     Pb       22 01 52.1 -0.1
BTLR                               eSn     Sb       22 02 21.6 -0.6
MNGR  Mingechevir, A     2.45  95  P       Pb       22 01 52.7 -0.6
MNGR                               S       Sb       22 02 24.2 +0.3
SEKA  Sheki              2.52  85  P       Pb       22 01 53.5 -1.0
SEKA                               S       Sg       22 02 27.5 -1.9
DVE   Vedeno             2.54  41  ePn     Pb       22 01 54.2 -0.7
DVE                                eSn     Sg       22 02 28.6 -1.5
GROC  Groznyy            2.59  33  ePn     Pb       22 01 54.6 -1.0
GROC                               eSn     Sb       22 02 29.0 +1.1
XNZR  Khunzakh           2.59  54  ePn     Pb       22 01 54.6 -1.2
XNZR                               eSn     Sb       22 02 28.4 +0.2
BRDA  Brd                2.63 106  P       Pb       22 01 54.4 -2.0
BRDA                               S       Sb       22 02 28.6 -0.6
AGDM  Agdam              2.64 110  P       Pb       22 01 55.2 -1.3
AGDM                               S       Sb       22 02 28.7 -0.7
VRTB  Varto-Mus          2.64 225  Pn      Pn       22 01 52.6 +0.2
VRTB                               AML     AML
KMKR  Kumukh             2.65  65  ePn     Pb       22 01 55.0 -1.8
KMKR                               eSn     Sb       22 02 29.8 -0.2
ORD   Ordubad            2.67 142  P       Pb       22 01 55.8 -1.4
ORD                                S       Sb       22 02 29.7 -0.8
GNBR  Gunib              2.67  59  ePn     Pb       22 01 55.1 -2.1
GNBR                               eSn     Sb       22 02 29.9 -0.6
UNCR  Uncukul            2.75  52  ePn     Pb       22 01 56.7 -1.7
UNCR                               eSn     Sb       22 02 32.3 -0.2
KBZ   Khabaz             2.77 345  ePn     Pb       22 01 58.0 -0.8
KBZ                                eSn     Sg       22 02 35.8 -1.8
KBTC  Kuba-Taba          2.79 353  ePn     Pb       22 01 57.7 -1.4
KBTC                               eSn     Sb       22 02 34.8 +1.0
ARKR  Arakani            2.80  55  ePn     Pb       22 01 58.9 -0.4
ARKR                               eSn     Sb       22 02 34.2  0.0
SHA1  Shidzhatmaz        2.84 342  ePn     Pb       22 01 59.0 -1.0
SHA1                               eSn     Sb       22 02 35.8 +0.5
KRNR  Karanay            2.88  51  ePn     Pb       22 01 58.7 -1.9
KRNR                               eSn     Sb       22 02 35.4 -1.0
DLMR  Dylym              2.88  45  ePn     Pb       22 01 58.6 -2.1
DLMR                               eSn     Sb       22 02 36.3 -0.1
AKT   Akhty              2.94  80  ePn     Pb       22 01 59.1 -2.6
AKT                                eSn     Sb       22 02 36.9 -1.3
DBC   Dubki              2.96  47  ePn     Pb       22 02 01.9 -0.1
DBC                                eSn     Sg       22 02 41.5 -2.0
BUJR  Buynaksk           3.00  53  ePn     Pb       22 02 01.9 -0.7
BUJR                               eSn     Sb       22 02 40.0 +0.2
ZRD   Zardab             3.00 104  P       Pb       22 02 01.5 -1.2
ZRD                                S       Sb       22 02 38.0 -1.8
QBL   Gabala             3.00  91  P       Pb       22 02 00.0 -2.7
QBL                                S       Sb       22 02 39.1 -0.8
URKR  Urkarakh           3.03  67  ePn     Pn       22 01 59.8 +2.1
URKR                               eSn     Sb       22 02 37.3 -3.7
QRD   Qoradiz            3.08 120  P       Pb       22 02 03.0 -1.0
QRD                                S       Sn       22 02 37.0 +1.4
XNQ   Khinaliq           3.23  86  P       Pb       22 02 04.3 -2.4
XNQ                                S       Sb       22 02 44.3 -2.3
KSMR  Kasumkent          3.25  79  ePn     Pn       22 02 02.9 +2.2
KSMR                               eSn     Sb       22 02 43.7 -3.5
IML   Ismayilli          3.28  93  P       Pb       22 02 04.9 -2.5
IML                                Sg      Sb       22 02 49.2 +1.4
QSAR  Qusar              3.34  81  P       Pb       22 02 06.1 -2.4
QSAR                               S       Sb       22 02 46.1 -3.6
QUBA  Quba, Azerbaij     3.50  83  P       Pn       22 02 06.9 +2.9
QUBA                               S       Sb       22 02 51.5 -2.8
PQL   Pirkuli            3.59  93  Pg      Pb       22 02 11.0 -1.7
PQL                                Sg      Sb       22 02 57.7 +0.9
SIZA  Siyzn              3.80  88  P       Pb       22 02 11.9 -4.4
SIZA                               S       Sb       22 02 57.3 -5.7
ATGJ  Altiaghaj          3.84  91  P       Pn       22 02 11.3 +2.6
ATGJ                               S       Sn       22 02 58.1 +3.5
GBS   Qobustan           3.88  96  P       Pn       22 02 12.2 +2.9
GBS                                Sg      Sb       22 03 06.6 +1.3
GLBA  Clilabad           3.91 116  P       Pn       22 02 12.7 +3.2
GLBA                               Sg      Sb       22 03 05.8 -0.1
YRD   Yardimli           3.97 121  Pg      Pb       22 02 18.4 -1.0
YRD                                Sg      Sb       22 03 09.5 +1.5
LRK   Lerik              4.19 123  Pg      Pb       22 02 21.4 -1.7
LRK                                Sg      Sb       22 03 16.4 +2.1
ASTR  Astara             4.53 122  P       Pn       22 02 19.7 +1.5
ASTR                               S       Sn       22 03 12.3 +0.9
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AZER ***22*** *22:04:19.1, 40°.90N×44°.03E, h3^{km}, ml2.5*
DRS ***22*** *22:04:19.9, 40°.83N×43°.90E, h1^{km}*
ISC 22 22:04:22.9±1.6**, 40°.91N**±0°.04×**44°.06E**±0°.06**, h6**^{km}±11^{km}**,**
n26, σ1^{s}.60/47**, Turkey-Georgia-Armenia border region**

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Code  Station Name        Δ°  AZ°    Phase ID             Time    Res
                                   Op      ISC        h  m  s    ISC
QZX   Qazax, Azerbai     1.00  81  P       Pg       22 04 41.4 -0.8
QZX                                S       Sn       22 04 57.3 -0.8
IGDI  IGDIR              1.04 179  P       Pg       22 04 41.5 -1.4
IGDI                               S       Sn       22 04 57.7 -1.4
GDB   GEDABAY            1.30  98  P       Pn       22 04 47.0 -0.8
GDB                                S       Sg       22 05 06.8 +2.0
HYR   Heyderabad         1.34 153  P       Pg       22 04 48.5 -0.1
HYR                                S       Sg       22 05 09.7 +3.8
GANJ  Ganja              1.74  98  P       Pn       22 04 54.0 +0.3
GANJ                               S       Sg       22 05 20.7 +1.9
SBZ   Shahbuz            1.90 142  P       Pb       22 04 57.8 -0.3
SBZ                                S       Sg       22 05 25.8 +1.9
ZKTA  Zakatala           2.06  69  P       Pn       22 04 58.9 +0.7
ZKTA                               S       Sb       22 05 27.8 +1.1
TLTR  Tlyarata           2.10  55  ePg     Pn       22 04 59.0 +0.2
      10.0nm,0.3s
TLTR                               eSg     Sb       22 05 27.7 -0.1
      16nm,0.3s
MNGR  Mingechevir, A     2.30  92  P       Pb       22 05 05.0 +0.2
MNGR                               S       Sb       22 05 33.8 +0.3
BTLR  Botlikh            2.38  42  ePn     Pn       22 05 03.5 +0.9
      6.0nm,0.5s
SEKA  Sheki              2.39  82  P       Pb       22 05 04.9 -1.6
SEKA                               S       Sg       22 05 38.4 -1.3
AGDM  Agdam              2.46 108  P       Pn       22 05 04.3 +0.7
AGDM                               S       Sg       22 05 43.2 +1.3
ORD   Ordubad            2.48 142  P       Pb       22 05 06.1 -1.8
ORD                                S       Sb       22 05 39.4 +0.6
XNZR  Khunzakh           2.56  50  ePn     Pb       22 05 07.1 -2.4
      3.0nm,0.4s
XNZR                               eSn     Sb       22 05 41.6 +0.3
      5.0nm,0.6s
KMKR  Kumukh             2.59  61  ePn     Pn       22 05 07.3 +1.7
      7.0nm,0.5s
GROC  Groznyy            2.63  29  ePn     Pn       22 05 07.5 +1.6
      6.0nm,0.6s
GROC                               eSn     Sb       22 05 43.2 +0.3
      35nm,0.6s
UNCR  Uncukul            2.73  48  ePn     Pn       22 05 09.1 +1.8
      4.0nm,0.7s
UNCR                               eSn     Sb       22 05 45.5 -0.3
      11nm,0.4s
ARKR  Arakani            2.77  51  ePn     Pn       22 05 09.7 +1.8
      5.0nm,0.3s
ARKR                               eSn     Sb       22 05 46.8 -0.3
      4.0nm,0.4s
AKT   Akhty              2.83  77  ePn     Pn       22 05 10.3 +1.5
      4.0nm,0.3s
KRNR  Karanay            2.86  47  ePn     Pn       22 05 10.8 +1.6
      2.0nm,1.0s
QBL   Gabala             2.86  88  Pg      Pb       22 05 11.7 -2.8
QBL                                Sg      Sb       22 05 50.6 +0.9
XNQ   Khinaliq           3.10  84  P       Pn       22 05 12.8 +0.2
XNQ                                S       Sn       22 05 51.9 +1.9
IML   Ismayilli          3.13  91  P       Pn       22 05 13.1 +0.3
IML                                S       Sb       22 05 54.4 -3.0
KSMR  Kasumkent          3.14  76  ePn     Pn       22 05 15.0 +1.9
      11nm,0.3s
PQL   Pirkuli            3.44  91  P       Pn       22 05 17.3 +0.1
PQL                                S       Sb       22 06 03.1 -3.4
ATGJ  Altiaghaj          3.70  89  P       Pn       22 05 20.2 -0.5
ATGJ                               S       Sn       22 06 07.1 +2.4
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RSNC ***22*** *22:42:36.8±0.7, 0°N±4°×8°1W±°, h0^{km}, M3.3, mb3.9, ML2.7*
IGQ ***22*** *22:42:37.6±0.5, 0°N±2°×8°1W±°, h10^{km}, M3.7/24,*
Mjma3.7/24, ML4.0/19, MLv3.5/20, Ms(BB)3.7/18
ISC 22 22:42:36.7±1.7**, 0°.17N**±0°.04×**80°.67W**±0°.07**, h13**^{km}±11^{km}**,**
n47, σ1^{s}.15/56**, 1C, Near coast of Ecuador**

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Code  Station Name        Δ°  AZ°    Phase ID             Time    Res
                                   Op      ISC        h  m  s    ISC
JAMA  Jama               0.63 133 ⇑P       Pn       22 42 51.4 -0.1
JAMA                               S       Sn       22 43 02.5 +1.1
ABH3  Manabi, Bahia      0.80 162  P       Pn       22 42 54.5 +0.7
ABH3                               S       Sn       22 43 07.4 +1.8
ABH2  Ecuador-Univer     0.86 162  P       Pn       22 42 55.4 +0.7
AATC  Ecuador-Atacam     1.06  49  P       Pn       22 42 57.3  0.0
AATC                               S       Sn       22 43 12.9 +0.9
ATON  Ecuador-Tonsup     1.12  50  P       Pg       22 42 58.9 +0.6
PECV  Mancha de Ca P     1.12 147  P       Pb       22 42 57.0 -1.1
PECV                               S       Sg       22 43 12.8 -0.3
AV21  Acelerografo,      1.22  66  P       Pg       22 43 02.0 +1.7
BV15  Puerto Quito-O     1.45  90  P       Pg       22 43 05.7 +1.2
ISPT  Isla de la Pla     1.48 196  P       Pn       22 43 03.0 -0.1
JIPI  JIPIJAPA           1.52 176  P       Pn       22 43 05.2 +1.4
JIPI                               S       Sg       22 43 26.6 +0.7
RVRD  Rio Verde          1.56  55  P       Pb       22 43 05.2 -0.4
RVRD                               S       Sg       22 43 26.8 -0.4
PPLP  Puerto Lpez        1.70 184  P       Pn       22 43 06.5 +0.3
PPLP  Puerto Lpez        1.70 184  P       Pn       22 43 06.2 -0.1
PPLP                               S       Sn       22 43 25.7 -2.3
PAC1  Pacto, Paraso      1.88  87  P       Pb       22 43 09.6 -1.4
PAC1  Pacto, Paraso      1.88  87  P       Pn       22 43 08.6 -0.2
PAC1                               S       Sg       22 43 35.9 -1.4
TERV  Terraza Guagua     2.09  99  P       Pg       22 43 18.8 +1.9
JUA2  San Juan 2         2.10 100  P       Pb       22 43 14.3 -0.7
GGPC  Guagua Pichinc     2.10  99  P       Pg       22 43 18.4 +1.3
ILLI  Illinizas Sur      2.13 114  P       Pg       22 43 17.3 -0.3
SNLR  San Lorenzo-Es     2.14  58  P       Pg       22 43 18.3 +0.5
PULU  Pululahua          2.17  94  P       Pb       22 43 16.4 +0.2
OTAV  Otavalo            2.22  88  P       Pg       22 43 19.1 -0.3
CUSE  Cuicocha Este      2.27  87  P       Pg       22 43 19.0 -1.4
CUIC  Cuicocha-Domo      2.31  87  P       Pg       22 43 19.2 -2.0
SUCR  Mariscal Sucre     2.32 110  P       Pb       22 43 18.7 -0.1
TOMA  Boca Toma-Volc     2.33 106  P       Pg       22 43 20.5 -1.0
NAS2  Nasa               2.34 110  P       Pb       22 43 19.9 +0.7
SLOR  San Lorenzo -      2.35 112  P       Pb       22 43 19.3  0.0
PITA  Cotopaxi Volc      2.35 108  P       Pb       22 43 19.3  0.0
BREF  Cotopaxi Volca     2.38 110  P       Pg       22 43 22.5 +0.1
BMOR  Cotopaxi Volca     2.38 112  P       Pb       22 43 19.4 -0.5
LITE1 Lita               2.39  75  P       Pb       22 43 17.9 -1.9
BVC2  Cotopaxi Volca     2.40 110  P       Pb       22 43 19.9 -0.3
VC1   Cotopaxi 1         2.40 110  P       Pg       22 43 23.0 +0.1
BTAM  Cotopaxi Volca     2.42 110  P       Pb       22 43 20.7 +0.2
URCU  Urcuqui            2.43  84  P       Pb       22 43 20.2 -0.4
ANTG  Antisana-Guama     2.50 105  P       Pb       22 43 21.1 -0.9
ANTI  Antisana           2.58 104  P       Pb       22 43 23.3  0.0
ANTS  Antisana-Sarah     2.58 105  P       Pb       22 43 22.9 -0.4
ANGU  Angureal           2.66  93  P       Pb       22 43 25.5 +0.8
CAYR  Refugio Cayamb     2.67  93  P       Pb       22 43 24.7 -0.1
CHMA  Chilma             2.69  75  P       Pb       22 43 22.1 -3.0
CHL1  Volc¡n Chiles      2.79  77  P       Pb       22 43 24.1 -2.8
CASC  Dorado de Casc     3.33  91  P       Pb       22 43 35.2 -0.6
MCRA  Macar, Loja        4.56 171  P       Pn       22 43 50.8 +5.2
MCRA                               S       Sn       22 44 37.9 -0.7
POPC  Popayan, Colom     4.63  59  P       Pn       22 43 46.9 +0.1
POPC                               S       Sn       22 44 40.7  0.0
ORTC  Ortega, Tolima     6.57  55  P       Pn       22 44 16.1 +2.9
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IDC ***22*** *22:52:31.5±0.6, 9°.30N×127°.33E, h0^{km}, mb4.0/18,*
mbtmp4.1/20, ML4.4/2, MS3.4/8, Error ellipse:
s-maj=24.1km s-min=10.4km az=81.0
NEIC ***22*** *22:52:32.6±1.0, 9°.42N±0°.07×127°.40E±0°.09, h10^{km}±1^{km},*
mb4.6/19, Error ellipse: s-maj=16.9km s-min=10.9km
az=118.0
MAN ***22*** *22:52:36.0, 9°.27N×126°.82E, h13^{km}, MS4.1*
DJA ***22*** *22:53:01.6±1.4, 8°N±12°×12°7E±°, h10^{km}, M4.8/12,*
mb4.8/12, mB5.3/7, mb4.8/11, mB5.3/7, MLv4.8/6, MLv4.7/6,
Mw(mB)4.7/7, Mw(mB)4.7/7
ISC 22 22:52:31.9±1.6**, 9°.19N**±0°.03×**126°.98E**±0°.05**, h2**^{km}±10^{km}**,**
n77, σ1^{s}.78/84**, mb4.3**/28**, MS3.1**/5**, Mindanao**

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Code  Station Name        Δ°  AZ°    Phase ID             Time    Res
                                   Op      ISC        h  m  s    ISC
TSSP  Tandag City        0.79 260  i P     Pn       22 52 49.1 -0.9
TSSP                               eS      Sb       22 52 59.3  0.0
GLSP  General Luna,      1.03 305  i P     Pn       22 52 53.2 -0.2
GLSP                               i S     Sn       22 53 10.8 +2.5
BIPH  Bislig             1.17 212  i P     Pg       22 52 52.2 -2.1
BIPH                               eS      Sn       22 53 12.5 +0.7
CDOP  Cateel, Davao      1.50 201  eP      Pb       22 53 00.2 -0.1
CDOP                               eS      Sn       22 53 18.9 -0.9
BUKP  Musuan             2.30 236  eP      Pb       22 53 13.7 -0.4
BUKP                               i S     Sb       22 53 43.2 +0.1
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CGP	Cagayan de Oro	2.38	252	iP	Pb	22 53 13.6	-1.8
CGP				iS	Sg	22 53 46.8	-1.4
DAV	Davao City (W)	2.52	214	Pn	Pg	22 53 20.3	0.0
	114nm,0.3s,baz=62,slow=2.6,SNR=10						
DAV				Sn	Sg	22 53 56.0	+3.0
	102nm,0.3s,baz=274,slow=22,SNR=6.4						
DAV				LR	LR	22 54 32.7	
	comp=Z,1µm,18.1s,baz=37,slow=43						
	321nm,0.4s						
DAV				AML	AML		
DAV	Davao City (W)	2.52	214		Pg	22 53 19.4	-0.8
DAV	Davao City (W)	2.52	214	P	Pb	22 53 17.0	-0.9
DMPH	Davao City--Mi	2.55	215	eP	Pb	22 53 17.9	-0.5
DMPH				iS	Sg	22 53 53.2	-0.7
PLP	Palo	2.78	315	eP	Pn	22 53 19.3	+1.9
PLP				eS	Sg	22 54 02.2	+0.9
KCP	Kidapawan	2.86	221	eP	Pb	22 53 24.0	+0.3
KCP				iS	Sb	22 54 00.6	+1.3
LLP	Lapu-Lapu	3.18	291	eP	Pn	22 53 25.1	+2.2
LLP				iS	Sb	22 54 10.4	+2.1
LSIP	Lazi, Siquijor	3.31	269	eP	Pn	22 53 27.4	+2.7
LSIP				iS	Sn	22 54 02.0	-2.6
DDMP	Don Marcelino,	3.31	202	eP	Pn	22 53 27.6	+2.9
DDMP				eS	Sn	22 54 05.2	+0.5
CTBH	Cotabato--PC H	3.34	234	iP	Pb	22 53 28.6	-3.3
DCPH	Dipolog City	3.64	261	iP	Pn	22 53 31.6	+2.4
DCPH				iS	Sb	22 54 18.6	-2.9
GSPH	General Santos	3.68	213	iP	Pb	22 53 35.6	-2.2
GSPH				iS	Sn	22 54 11.1	-2.9
SNPH	Sibulan	3.70	273	eP	Pn	22 53 32.5	+2.3
SNPH				eS	Sb	22 54 21.8	-1.6
CADP	Cadiz City	4.02	296	eP	Pb	22 53 40.2	-3.2
MMPH	Masbate	4.56	314	eP	Pb	22 53 51.4	-1.3
MMPH				iS	Sn	22 54 21.0	-15
JAP	San Jose, Anti	5.20	288	eP	Pb	22 53 57.9	-5.6
TNTI	Ternate	8.37	177	Pn	Pn	22 54 37.3	+3.1
TNTI	Ternate	8.37	177	P	Pn	22 54 42.1	+7.8
	0.2nm0.2nm38nm,0.9s,38nm,0.9s						
TNTI				AML	AML		
TNTI				AML	AML		
GTOI	Gorontalo	9.37	205	P	Pn	22 54 55.7	+7.7
	0.2nm0.2nm50nm,0.8s,50nm,0.8s						
GTOI				AML	AML		
GTOI				AML	AML		
SIJI	Sorong	10.86	157	Pn	Pn	22 55 09.5	+1.0
	1.7nm,0.3s,baz=327,slow=15,SNR=4.2						
SIJI				Sn	Sn	22 57 04.7	-6.1
	0.9nm,0.3s,baz=196,slow=23,SNR=1.6						
	2.6nm,0.3s						
SIJI				AML	AML		
SANI	Sanana	11.21	185	P	Pn	22 55 24.2	+11
TPUB	Ta-pu	15.29	337	P	P	22 56 15.1	+1.2
TPUB				IAmb	IAmb	22 56 49.9	
	comp=Z,82nm,1.5s						
KAPI	Kappang	15.84	207	LR	LR	23 02 53.8	
	comp=Z,52nm,20.1s,baz=102,slow=39						
SBUM	Sibu	16.13	246	Pn	P	22 56 24.7	+1.4
SBUM	Sibu	16.13	246	P	P	22 56 35.0	+12
GUMO	Guam	18.07	74	LR	LR	23 02 43.5	
	comp=Z,54nm,18.9s,baz=269,slow=35						
LBFI	Labuhan Bajo,	18.92	202	P	Pn	22 57 05.2	+11
MTN	Manton Dam	22.27	169	P	P	22 57 30.9	+0.5
KNRA	Kununurra	24.77	176	P	P	22 57 55.0	-0.1
KNRA				IAmb	IAmb	22 58 27.1	
	comp=Z,6.0nm,0.8s						
FITZ	Fitzroy Crossi	27.14	183	P	P	22 58 17.6	+1.0
	comp=Z,7.6nm,0.9s,baz=10.0,slow=13,SNR=12						
	comp=Z,7.6nm,0.9s						
FITZ	Fitzroy Crossi	27.14	183	P	P	22 58 17.4	+0.7
KSRS	Korea Array	28.15	2	P	P	22 58 24.0	-1.5
	comp=Z,0.4nm,0.4s,baz=185,slow=9.9,SNR=1.1						
KSRS				LR	LR	23 11 00.1	
	comp=Z,46nm,19.1s,baz=15,slow=40						
	comp=Z,0.4nm,0.4s						
CMAR	Chiang Mai Arr	28.71	292	P	P	22 58 33.0	+2.3
	comp=Z,0.9nm,0.3s,baz=108,slow=8.1,SNR=5.8						
CMAR				LR	LR	23 10 24.8	
	comp=Z,34nm,18.0s,baz=115,slow=37						
	comp=Z,0.9nm,0.3s						
MJAR	Matsushiro Arr	29.08	19	P	P	22 58 31.1	-2.8
	comp=Z,0.3nm,0.3s,baz=198,slow=8.4,SNR=1.4						
MJAR				LR	LR	23 10 01.0	
	comp=Z,41nm,19.8s,baz=205,slow=36						
	comp=Z,0.3nm,0.3s						
WB0	Warramunga Arr	29.68	166	P	P	22 58 39.0	-0.3
WB0				IAmb	IAmb	22 59 17.4	
	comp=Z,5.2nm,0.8s						
WRA	Warramunga Arr	29.84	166	P	P	22 58 40.1	-0.6
	comp=Z,2.4nm,0.5s,baz=339,slow=10,SNR=34						
	comp=Z,2.4nm,0.5s						
WR8	Warramunga Arr	29.89	166	P	P	22 58 41.1	-0.1
WR8				IAmb	IAmb	22 58 43.6	
	comp=Z,18nm,1.4s						
AS31	Alice Springs	33.35	168	P	P	22 59 11.2	-0.3
ASAR	Alice Springs	33.35	168	P	P	22 59 12.0	+0.4
	comp=Z,2.0nm,0.4s,baz=352,slow=6.9,SNR=56						
	comp=Z,2.0nm,0.4s						
GIRL	Giralia	34.01	201	P	P	22 59 19.6	+2.3
USRK	Ussuriysk Ar.	35.15	6	P	P	22 59 26.6	-0.4
	comp=Z,1.7nm,0.8s,baz=199,slow=8.5,SNR=6.7						
	comp=Z,1.7nm,0.8s						
GTA2	Gaotai	38.75	326	eP	P	23 00 02.4	+4.6
GTA2				sP	pwP	23 00 14.5	+7.8
GTA2				pmax	pmax		
	comp=Z,3.0nm,1.0s						
MORW	Morawa	39.47	195	P	P	23 00 04.0	+0.2
MORW				IAmb	IAmb	23 00 06.2	
	comp=Z,19nm,1.1s						
FORT	Forrest	39.75	179	P	P	23 00 06.3	+0.2
FORT				IAmb	IAmb	23 00 09.8	
	comp=Z,17nm,1.2s						
KLR	Kul'dur	40.11	5	P	P	23 00 08.8	-0.1
	comp=Z,1.1nm,0.5s,baz=180,slow=11,SNR=4.5						
	comp=Z,1.1nm,0.5s						
HILR	Hailar Array B	40.69	353	P	P	23 00 14.8	+1.1
	comp=Z,0.5nm,0.3s,baz=174,slow=14,SNR=3.7						
	comp=Z,0.5nm,0.3s						
SONM	Songino Array	42.27	339	P	P	23 00 27.2	+0.4
	comp=Z,0.4nm,0.4s,baz=155,slow=4.8,SNR=2.7						
	comp=Z,0.4nm,0.4s						
BBOO	Buckleboo	42.65	169	P	P	23 00 30.7	+0.8
NWAO	Narrogin (SRO)	42.90	192	P	P	23 00 33.0	+1.0
NWAO				IAmb	IAmb	23 01 13.3	
	comp=Z,21nm,1.2s						
MKAR	Makanchi Array	53.31	323	P	P	23 01 52.3	-0.1
	comp=Z,1.9nm,0.7s,baz=127,slow=8.1,SNR=12						
	comp=Z,1.9nm,0.7s						
MKAR	Makanchi Array	53.31	323	P	P	23 01 51.9	-0.5
PDGK	Podgornoye	53.47	318	P	P	23 01 53.1	-0.7
NIL	Nilore	54.92	305	P	P	23 02 05.2	+0.8
ZALV	Zalesovo Beam	55.91	331	P	P	23 02 09.8	-1.3
	comp=Z,1.8nm,0.9s,baz=108,slow=4.8,SNR=5.2						
	comp=Z,1.8nm,0.9s						
KURK	Kurchatov	57.35	326	P	P	23 02 21.1	-0.4
KURK				IAmb	IAmb	23 02 33.7	
	comp=Z,10nm,0.9s						
KURBB	Kurchatov Arra	57.36	326	P	P	23 02 21.1	-0.4
	comp=Z,1.1nm,0.5s,baz=124,slow=6.9,SNR=16						
	comp=Z,1.1nm,0.5s						
KKAR	Karatay Array	59.51	315	P	P	23 02 36.6	-0.1
BVAR	Borovoye Array	62.95	326	P	P	23 03 00.1	+0.2
	comp=Z,2.0nm,0.9s,baz=134,slow=6.2,SNR=5.9						
	comp=Z,2.0nm,0.9s						
AB31	Akbulak array	68.15	319	P	P	23 03 32.1	-1.4
AB31				IAmb	IAmb	23 03 44.5	
	comp=Z,2.3nm,0.9s						
ABKAR	Akbulak array	68.15	319	P	P	23 03 31.9	-1.6
RAYN	Ar Rayn	78.62	292	P	P	23 04 34.3	-1.6
RAYN				IAmb	IAmb	23 04 46.9	
	comp=Z,3.1nm,0.8s						
ILAR	Eielson Array	80.10	26	P	P	23 04 43.4	+0.2
	comp=Z,0.3nm,0.7s,baz=248,slow=6.1,SNR=2.4						
	comp=Z,0.3nm,0.7s						
ILAR	Eielson Array	80.10	26	P	P	23 04 39.2	-3.9
ARCES	ARCESS Array B	85.44	340	P	P	23 05 11.5	+0.7
	comp=Z,2.3nm,0.8s,baz=355,slow=1.8,SNR=6.4						
	comp=Z,2.3nm,0.8s						
ARCES	ARCESS Array B	85.44	340	P	P	23 05 09.8	-1.0
FINES	FINESS Array B	87.17	332	P	P	23 05 19.0	-0.4
	comp=Z,1.3nm,0.8s,baz=72,slow=6.2,SNR=6.4						
	comp=Z,1.3nm,0.8s						
FINES	FINESS Array B	87.17	332	P	P	23 05 18.3	-1.1
VNDA	Vanda	88.78	173	P	P	23 05 26.6	0.0
	comp=Z,0.4nm,0.5s,baz=334,slow=5.0,SNR=5.5						
	comp=Z,0.4nm,0.5s						
VNDA	Vanda	88.78	173	P	P	23 05 26.6	0.0
VNDA				IAmb	IAmb	23 05 28.6	
	comp=Z,3.4nm,1.4s						
DLBC	Dease Lake	88.96	31	LR	LR	23 46 52.8	
	comp=Z,86nm,18.8s,baz=78,slow=37						
NEW	Newport	99.79	38	LR	LR	00 00 50.1	
	comp=Z,53nm,18.0s,baz=74,slow=41						

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*KRNET **22** 22:55:34.0±0.1, 39°.82N×71°.44E, h18^{km}, mb3.0*

*SOME **22** 22:55:35.2, 39°.88N×71°.50E, h5^{km}*

*ISU **22** 22:55:36, 39°.78N×71°.48E, h19^{km}*

*NNC **22** 22:55:39.0±3.3, 40°.00N×71°.41E, h4^{km}±16^{km}, mb3.4, mpv3.0, Error ellipse: s-maj=24.4km s-min=10.9km az=10.0*

ISC 22 22:55:33.7±1.1**, 39°.84N**±0°.03×**71°.51E**±0°.02**, h6**^{km}±10^{km}**, n33,** σ1§**72**/59**, 18C-6D, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DRK	Karamyk	0.42	148	⇑iP	Pg	22 55 42.4	+0.3
DRK				⇑iS	Sg	22 55 48.7	+1.0
BTK	Batken	0.57	293	⇑iP	Pg	22 55 44.2	-0.6
BTK				⇑iS	Sg	22 55 52.2	-0.1
FRG	Fergana	0.57	22	P	Pn	22 55 47.2	-1.3
FRG				S	Sn	22 55 56.5	-1.8
TSTA	Tashata	1.05	45	P	Pn	22 55 55.4	+0.4
TSTA				S	Sn	22 56 11.3	+1.4
OHH	Osh	1.20	55	⇓iP	Pn	22 55 57.0	0.0
OHH				⇓iS	Sn	22 56 14.2	+0.6
KSNS	Kasansay	1.32	0	P	Pg	22 56 02.2	+3.2
KSNS				S	Sg	22 56 22.4	+6.3
SFK	Sufi-Kurgan	1.54	83	⇑iP	Pg	22 56 03.3	-0.1
SFK				⇑iS	Sg	22 56 24.8	+1.4
TRKS	Terek-Say	1.71	351	⇑iP	Pn	22 56 04.4	+0.2
TRKS				⇑iS	Sb	22 56 26.8	-0.7
ARSB	Arslanbob	1.86	37	⇑iP	Pg	22 56 08.8	-0.6
ARSB				⇑iS	Sg	22 56 33.7	+0.2
ARK	Arkit	1.99	10	⇓iP	Pb	22 56 10.3	0.0
ARK				⇓iS	Sg	22 56 36.4	-1.2
CHMG	Chimgan	2.05	327	P	Pg	22 56 12.3	-0.8
CHMG				S	Sg	22 56 40.1	+0.4
SALK	Salom-Alik	2.05	59	⇓eP	Pb	22 56 11.6	+0.1
SALK				⇓eS	Sg	22 56 38.6	-1.1
CHRV	Charvak	2.15	327	P	Pb	22 56 12.1	-1.0
CHRV				S	Sg	22 56 41.8	-1.1
TVKS	Tavaksay	2.23	321	P	Pg	22 56 15.7	-0.8
TVKS				S	Sg	22 56 46.1	+0.6
PSK	Pskem	2.25	338	P	Pg	22 56 17.1	+0.1
PSK				S	Sg	22 56 48.6	+2.4
NZBK	Nazarbek	2.29	308	P	Pg	22 56 17.6	+0.1
NZBK				S	Sg	22 56 49.7	+2.6
IUG	Iuzhnay	2.56	335	Pg	Pg	22 56 22.4	-0.4
	31nm,0.3s						
IUG				Lg	Lg	22 56 56.6	
	82nm,0.3s						
IUG	Iuzhnay	2.56	335	eP	Pg	22 56 22.4	-0.4
	31nm,0.3s						
IUG				eS	Sg	22 56 56.6	+0.6
	82nm,0.3s						
CHM	Chimkent	2.86	330	eP	Pg	22 56 27.9	-0.7
	68nm,0.2s						
CHM				eS	Sg	22 57 05.9	+0.2
	116nm,0.3s						
DZA	Taraz	3.05	358	Pg	Pg	22 56 31.5	-0.8
	20nm,0.3s						
DZA				Lg	Lg	22 57 11.8	
	61nm,0.2s						
DZA	Taraz	3.05	358	eP	Pg	22 56 31.5	-0.8
	20nm,0.3s						
DZA				eS	Sg	22 57 11.8	0.0
	61nm,0.2s						
MRKS	Merke	3.18	24	Pg	Pg	22 56 33.9	-0.7
	1.5nm,0.1s						
MRKS				Lg	Lg	22 57 16.1	
	22nm,0.4s						
MRKS	Merke	3.18	24	eP	Pg	22 56 33.9	-0.7
	1.5nm,0.1s						
MRKS				eS	Sg	22 57 16.1	+0.3
	22nm,0.4s						
KK31	Karatay Array	3.34	347	⇑Pn	Pn	22 56 29.5	+2.9
	0.2nm,0.2s,baz=161,slow=13,SNR=23						
KK31				⇑Pg	Pg	22 56 36.9	-0.9
	3.4nm,0.5s,baz=164,slow=15,SNR=10						
KK31				⇑Lg	Lg	22 57 20.8	
	12nm,0.6s,baz=175,slow=28,SNR=12						
BRLS	Borolday	3.43	339	Pg	Pb	22 56 34.4	-0.4
BRLS				Lg	Lg	22 57 16.7	
BRLS	Borolday	3.43	339	eP	Pb	22 56 34.4	-0.4
BRLS				eS	Sb	22 57 16.7	0.0
AGL	Agalyk	3.58	266	S	Sg	22 57 26.8	-2.0
AAK	Ala-Archa	3.59	38	⇑Pn	Pb	22 56 35.0	-2.7
	0.2nm,0.3s						
AAK				⇑Pg	Pg	22 56 46.5	+4.0
	1.0nm,0.5s						
AAK				⇑Lg	Lg	22 57 30.4	
	1.8nm,0.5s						
NRN	Naryn	3.77	64	⇑eP	Pn	22 56 35.4	+2.7
NRN				⇑eS	Sn	22 57 19.1	+1.6
KRBS	Karabastau	4.96	38	Pg	Pg	22 57 05.8	-2.8
	0.5nm,0.2s						
KRBS				Lg	Lg	22 58 11.3	
	1.9nm,0.3s						
KRBS	Karabastau	4.96	38	eP	Pg	22 57 05.8	-2.8
	0.5nm,0.2s						
KRBS				eS	Sg	22 58 11.3	-1.5
	1.9nm,0.3s						
KTBS	Karatobe	5.47	43	Pg	Pg	22 57 16.0	-2.6
	0.1nm,0.1s						
KTBS				Lg	Lg	22 58 28.9	
	3.4nm,0.4s						
KTBS	Karatobe	5.47	43	eP	Pg	22 57 16.0	-2.6
	0.1nm,0.1s						
KTBS				eS	Sg	22 58 28.9	-0.5
	3.4nm,0.4s						

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*NEIC **22** 22:56:31.1±1.9, 14°.23N±0°.05×92°.32W±0°.04, h62^{km}±6^{km}, mb4.8/88, Md4.9/99(MEX), Error ellipse: s-maj=8.7km s-min=3.2km az=141.0*

*GFZ **22** 22:56:31.5±0.4, 15°N±5°×9°2W±°, h10^{km}, M5.2/23, mb5.0/23*

*GCMT **22** 22:56:33.1±0.3, 14°.28N±0°.02×92°.15W±0°.02, h47^{km}±1^{km}, MW4.9/85, Moment Tensor Solution. s28,c30; s85,c107; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.87±.17; $M_{\theta\theta}$2.05±.11; $M_{\phi\phi}$-0.18±.13; $M_{r\theta}$0.31±.07; $M_{\theta\phi}$-1.36±.08; $M_{\phi r}$-1.67±.08; Best double couple: $M_0$2.93300×10^{16} NP1:ϕ_s86.00000°,δ42.00000°,λ-140.00000°. NP2: ϕ_s324.00000°,δ65.00000°,λ-56.00000°. Principal axes: T 2.9250, Plg13.0000°, Azm30.0000°; N 0.0140, Plg31.0000°, Azm128.0000°; P -2.9410, Plg56.0000°, Azm280.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*MEX **22** 22:56:33.3±1.0, 14°.35N×92°.23W, h75^{km}±13^{km}, MD4.9, Presumed earthquake*

*CATAC **22** 22:56:34.8±0.4, 14°N±3°×9°2W±°, h33^{km}±3^{km}, M5.4/15, MLv5.4/15, Error ellipse: s-maj=7.7km s-min=3.9km az=39.8, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}-0.64; $M_{\theta\theta}$1.24; $M_{\phi\phi}$-0.60; $M_{r\theta}$0.02; $M_{\theta\phi}$-0.59; $M_{\phi r}$-1.08; Fault plane solution: $M_0$1.63461×10^{16} NP1: ϕ_s324.01853°,δ69.49588°,λ-41.64345°. NP2:ϕ_s71.31846°, δ51.50872°,λ-153.41535°. Principal axes: T 1.4801, Plg11.0940°, Azm21.4383°; N 0.2744, Plg44.4231°, Azm122.5180°; P -1.7544, Plg43.4548°, Azm280.7316°; confirmed*

*GCG **22** 22:56:34.5±2.1, 14°.36N×92°.10W, h44^{km}±25^{km}, MD5.3, ML5.3, Presumed earthquake*

*IDC **22** 22:56:40.6±1.4, 14°.76N×91°.70W, h118^{km}±9^{km}, mb4.0/21, mbtmp4.4/24, MS3.9/33, Error ellipse: s-maj=21.8km s-min=10.5km az=51.0*

ISC 22 22:56:32.6±0.5**, 14°.38N**±0°.04×**92°.23W**±0°.04**, h65**^{km}±4^{km}**, n424,** σ1§**78**/515**, mb4.7**/58**, 5C-1D, Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SMCA	Catarina	0.49	18	⇓iP	Pn	22 56 45.2	+0.2
SMCA				iS	Sn	22 56 53.8	-0.1
SMCA				IAML		22 56 55.2	
	comp=N,80µm,0.3s						
THIG		0.52	356	eP	Pn	22 56 45.5	+0.3
THIG				eS	Sn	22 56 55.8	+1.4
THIG		0.52	356		Pn	22 56 45.5	+0.3
THIG					Sn	22 56 55.8	+1.4
THIG		0.52	356	⇑iP	Pn	22 56 45.7	+0.5
THIG				IAML		22 56 56.8	
	comp=N,106µm,0.6s						
RTAL	Retalhuleu	0.54	75	eP	Pn	22 56 45.8	+0.4
RTAL				eS	Sn	22 56 55.8	+1.1
RTAL	Retalhuleu	0.54	75		Pn	22 56 44.9	-0.4
RTAL				Sn	Sn	22 56 55.5	+0.8
RTAL	Retalhuleu	0.54	75	P	Pn	22 56 45.9	+0.6
RTAL				S	Sn	22 56 55.1	+0.4
CHUJ	Union Juarez	0.72	10	eP	Pn	22 56 47.8	+0.1
CHUJ				eS	Sn	22 56 59.2	+0.6
PATR	El Naranjo	0.73	360	eP	Pn	22 56 47.8	0.0
PATR				eS	Sn	22 56 59.5	+0.7
PATR	El Naranjo	0.73	360		Pn	22 56 47.8	0.0
PATR					Sn	22 56 59.5	+0.7
PAVE	Pavencul	0.81	4	eP	Pn	22 56 49.1	+0.4
PAVE				eS	Sn	22 57 01.5	+1.1
PAVE	Pavencul	0.81	4		Pn	22 56 49.1	+0.4
PAVE					Sn	22 57 01.5	+1.1
STG8	El Palmar, Qui	0.86	85	iP	Pn	22 56 48.0	-1.3
STG8				iS	Sn	22 56 57.0	-4.6
STG8				IAML		22 57 00.5	
	comp=N,173µm,0.4s						
HUEH	Huehuetenango	1.17	37	eP	Pn	22 56 55.5	+2.3
HUEH				eS	Sn	22 57 11.8	+3.2
HUEH	Huehuetenango	1.17	37	Pn	Pn	22 56 55.4	+2.1
HUEH				Sn	Sn	22 57 12.1	+3.6
HUEH	Huehuetenango	1.17	37	iP	Pn	22 56 55.4	+2.1
HUEH				iS	Sn	22 57 10.6	+2.0
HUEH				IAML		22 57 16.4	
	comp=N,122µm,0.6s						
HUEH	Huehuetenango	1.17	37	P	Pn	22 56 55.7	+2.5
HUEH				S	Sn	22 57 10.0	+1.4
ESSG	Sabana Grande	1.36	90	iP	Pn	22 56 55.5	-0.1
ESSG				iS	Sn	22 57 11.5	-1.3
ESSG				IAML		22 57 15.6	
	comp=E,44µm,0.4s						
GCG4	OSOP	1.66	83	iP	Pn	22 57 01.5	+1.7
FG16	Alotenango, Sa	1.67	94	iP	Pn	22 56 55.7	-4.2
PCG5	San Vicente Pa	1.81	95	iP	Pn	22 56 58.8	-2.9
PCG5				iS	Sn	22 57 14.2	-10
APG	El Apazote	1.82	70	P	Pn	22 57 03.9	+1.9
	comp=E,172nm,0.5s,baz=194,slow=12,SNR=972						
APG				S	Sn	22 57 23.6	-0.6
	comp=E,863nm,0.6s,baz=178,slow=11,SNR=45						
APG	El Apazote	1.82	70	⇑iP	Pn	22 57 03.8	+1.9
APG				eS	Sn	22 57 24.8	+0.7
FAME	Alcaldia de Sa	2.22	104	P	Pn	22 57 08.2	+1.0
LOAL	Lomas de Alarc	2.41	99	P	Pn	22 57 11.0	+1.2
LOAL				S	Sn	22 57 39.3	+1.1
NUBE	Las Nubes	2.43	101	iP	Pn	22 57 10.2	+0.1
NUBE				IAML		22 57 40.6	
	comp=N,8µm,0.5s						
NUBE	Las Nubes	2.43	101	P	Pn	22 57 11.1	+1.0
JUAM	Asuncion Mita	2.45	91	iP	Pn	22 57 10.7	+0.4
TGIG		2.53	340	eP	Pn	22 57 12.7	+1.2
TGIG				eS	Sn	22 57 42.5	+1.3
TGIG		2.53	340		Pn	22 57 12.7	+1.2
TGIG					Sn	22 57 42.5	+1.3
TGIG		2.53	340	iP	Pn	22 57 12.7	+1.2
UNIC	Universidad Ca	2.63	98	P	Pn	22 57 14.4	+1.5
UNIC				S	Sn	22 57 45.0	+1.3
MTO3	Montecristo	2.78	89	Pn	Pn	22 57 15.3	+0.2
MTO3	Montecristo	2.78	89	iP	Pn	22 57 15.8	+0.8
MTO3	Montecristo	2.78	89	P	Pn	22 57 18.3	+3.3
MTO3				S	Sn	22 57 48.5	+0.9
JAYA	Jayaque - finc	2.80	105	iP	Pn	22 57 15.2	0.0
JAYA				IAML		22 57 48.8	
	comp=N,38µm,0.3s						
JAYA	Jayaque - finc	2.80	105	P	Pn	22 57 16.3	+1.1
ESQI	Esquipulas	2.81	86	Pn	Pn	22 57 15.9	+0.7
ESQI	Esquipulas	2.81	86	P	Pn	22 57 18.1	+2.8
ESQI				S	Sn	22 57 49.7	+1.7
CEDA	San Andres	2.81	102	P	Pn	22 57 17.2	+1.9
CEDA				S	Sn	22 57 49.3	+1.2
PMON	Piamonte	2.91	103	P	Pn	22 57 18.0	+1.4
PMON				S	Sn	22 57 51.8	+1.2
LALI	Alcalda de L	2.96	107	P	Pn	22 57 18.0	+0.8
LALI				S	Sn	22 57 52.0	+0.3
UEES	Universidad Ev	2.98	103	P	Pn	22 57 18.8	+1.2
UEES				S	Sn	22 57 53.2	+1.0
LOMA	Loma Larga	3.06	104	P	Pn	22 57 20.2	+1.5
LOMA				S	Sn	22 57 55.5	+1.2
PANCS	Alcalda de	3.06	104	P	Pn	22 57 19.8	+1.1
PAVA	Las Pavas	3.27	101	P	Pn	22 57 22.7	+1.1
PAVA				S	Sn	22 58 00.8	+1.5
COEG	Centro de Oper	3.34	103	P	Pn	22 57 24.1	+1.5
COEG				S	Sn	22 58 02.3	+1.2
SARH	Santa Rosa de	3.38	83	P	Pn	22 57 26.3	+3.2
P5NO	Presa 5 de nov	3.39	96	S	Sn	22 58 03.9	+1.6
UXUV	UXUV	3.45	328	eP	Pn	22 57 26.1	+2.1
UXUV				eS	Sn	22 58 02.5	-1.1
UXUV	UXUV	3.45	328		Pn	22 57 26.1	+2.1
UXUV					Sn	22 58 02.5	-1.1
CMIG	Matias Romero	3.71	317	P	Pn	22 57 28.7	+1.2
	comp=N,129nm,0.5s,baz=140,slow=12,SNR=87						
CMIG				S	Sn	22 58 10.9	+0.9
	comp=N,1µm,0.7s,baz=103,slow=16,SNR=6.0						
CMIG				LR	LR	22 58 38.0	
	comp=N,374nm,20.8s,baz=169,slow=31						
IZABA	Izabal, Puerto	3.77	69	eP	Pn	22 57 28.4	+0.1
IZABA				eS	Sn	22 58 11.6	+0.2
PACA	Pacayal	3.90	103	P	Pn	22 57 31.6	+1.3
PACA				S	Sn	22 58 16.2	+1.3
RANC	El Ranchito	3.94	103	P	Pn	22 57 33.3	+2.5
RANC				S	Sn	22 58 17.5	+1.5
HUIG	Huatulco	3.99	291	eP	Pn	22 57 30.9	-0.4
HUIG				eS	Sn	22 58 15.0	-1.8
HUIG	Huatulco	3.99	291		Pn	22 57 30.9	-0.4
HUIG					Sn	22 58 15.0	-1.8
CNCH	Conchagua	4.41	104	P	Pn	22 57 38.3	+1.1
CNCH				S	Sn	22 58 28.8	+1.4
SCIG	Sabancuy	4.67	12	P	Pn	22 57 42.1	+1.5
SCIG				S	Sn	22 58 35.9	+2.5
NEUV	Arroyo Zacate	4.77	314	eP	Pn	22 57 42.6	+0.6
NEUV				eS	Sn	22 58 34.2	-1.7
NEUV	Arroyo Zacate	4.77	314		Pn	22 57 42.6	+0.6
NEUV					Sn	22 58 34.2	-1.7
TGUH	Tegucigalpa,Un	4.82	93	Pn	Pn	22 57 43.2	+0.4
TGUH	Tegucigalpa,Un	4.82	93	P	Pn	22 57 43.4	+0.6
TGUH	Tegucigalpa,Un	4.82	93	P	Pn	22 57 43.9	+1.1
TGUH				S	Sn	22 58 39.0	+1.6
TGUH	Tegucigalpa,Un	4.82	93	P	Pn	22 57 43.9	+1.1
PEIG	Puerto Escondi	5.01	289	eP	Pn	22 57 45.5	+0.2
PEIG				eS	Sn	22 58 40.9	-1.0
PEIG	Puerto Escondi	5.01	289		Pn	22 57 45.5	+0.2
PEIG					Sn	22 58 40.9	-1.0
OXIG	Oaxaca	5.09	302		Pn	22 57 47.6	+1.0
OXIG					Sn	22 58 43.1	-1.1
VHO	Vista Hermosa	5.09	302	eP	Pn	22 57 47.6	+1.0
VHO				eS	Sn	22 58 43.1	-1.1
CRIN	San Cristobal	5.31	108	Pn	Pn	22 57 49.6	+0.1
CRIN	San Cristobal	5.31	108	P	Pn	22 57 49.9	+0.4
CRIN	San Cristobal	5.31	108	P	Pn	22 57 52.3	+2.9
	comp=Z,1µm,0.7s						
YOIG	Yosondua	5.68	296	eP	Pn	22 57 57.2	+2.5
CNGN	Cerro Negro	5.70	109	P	Pn	22 57 55.0	+0.2
	comp=Z,52µmcomp=Z,4µm,1.0s						
CNGN				AML	AML		
CNGN	Cerro Negro	5.70	109	P	Pn	22 57 55.4	+0.6
	comp=Z,5µm,1.0s						
TXIG	Tlaxiaco	6.04	299	eP	Pn	22 58 02.3	+2.6
MGAN	Managua	6.24	110	Pn	Pn	22 58 03.2	+1.1
MGAN	Managua	6.24	110	P	Pn	22 58 03.8	+1.7
	comp=Z,572nm,1.3s						
MGAN				AML	AML		
MGAN	Managua	6.24	110	P	Pn	22 58 04.1	+2.0
	comp=Z,580nm,1.3s						
HLIG	Huajuapan de L	6.36	303	eP	Pn	22 58 07.1	+3.1
FTIG	Fresnillo de T	6.67	303	eP	Pn	22 58 10.9	+2.8
BOAB	BOACO BROADBAN	6.67	106	Pn	Pn	22 58 08.0	0.0
BOAB	BOACO BROADBAN	6.67	106	P	Pn	22 58 08.7	+0.7
	comp=Z,434nm,0.7s						
MGIG	Malinaltepec	6.78	296	eP	Pn	22 58 12.0	+2.3
MGIG				eS	Sn	22 59 24.1	-1.5
MGIG	Malinaltepec	6.78	296		Sn	22 59 24.1	-1.5
TLIG	Tlapa	6.86	298	Pn	Pn	22 58 13.5	+2.7

TEIG	Tepich	6.93	32	Pn	Pn	22 58 12.3	+0.7
TEIG	Tepich	6.93	32	P	Pn	22 58 12.3	+0.7
	comp=Z,11µmcomp=Z,1µm,0.6s						
TEIG	Tepich	6.93	32	P	Pn	22 58 12.7	+1.2
	comp=Z,1µm,0.6s						
CRIG	Cruz Grande	7.05	290	eP	Pn	22 58 13.9	+0.7
CRIG				eS	Sn	22 59 28.3	-3.6
CRIG	Cruz Grande	7.05	290		Pn	22 58 13.9	+0.7
CRIG					Sn	22 59 28.3	-3.6
LCRUZ	La Cruz	7.23	116	eP	Pn	22 58 19.1	+3.4
SIUN	Universidad Ur	7.27	94	Pn	Pn	22 58 13.3	-3.0
ACON	Acoyapa	7.28	108	eP	Pn	22 58 17.5	+1.1
PPAX	Atlixo	7.45	308	eP	Pn	22 58 21.7	+2.8
PPAX				eS	Sn	22 59 41.5	-0.6
PPAX	Atlixo	7.45	308		Sn	22 59 41.5	-0.6
ALIBA	Liberia Airpor	7.54	119	eP	Pn	22 58 22.5	+2.6
LAPC	Finca la Perla	7.55	118	eP	Pn	22 58 21.9	+1.8
BUAI	Buenos Aires	7.58	117	eP	Pn	22 58 22.7	+2.1
PEJA	Penjamo Buenos	7.59	116	eP	Pn	22 58 22.9	+2.2
PBCV	Popocatepetl	7.59	308	eP	Pn	22 58 21.8	+0.8
PBCV				eS	Sn	22 59 46.0	+0.2
PPCL	Tochimilco	7.60	307	eP	Pn	22 58 24.5	+3.5
PPCL				eS	Sn	22 59 45.2	-0.6
PPCL	Tochimilco	7.60	307		Sn	22 59 45.2	-0.6
DAIG	Los Arroyos	7.61	291	eP	Pn	22 58 22.3	+1.4
DAIG				eS	Sn	22 59 44.9	-0.9
DAIG	Los Arroyos	7.61	291		Pn	22 58 22.3	+1.4
DAIG					Sn	22 59 44.9	-0.9
GPS2	Hotel Rincn d	7.62	117	eP	Pn	22 58 22.9	+1.7
PPPT	Popocatepetl	7.64	308	eP	Pn	22 58 25.1	+3.3
PPPT				eS	Sn	22 59 46.1	-1.0
PPPT	Popocatepetl	7.64	308		Sn	22 59 46.1	-1.0
PPCU	Popocatapetl	7.65	308	eP	Pn	22 58 25.6	+3.6
PPCU				eS	Sn	22 59 46.2	-1.3
PPCU	Popocatapetl	7.65	308		Sn	22 59 46.2	-1.3
PBPN	Popocatepetl	7.68	308	eP	Pn	22 58 25.6	+3.3
PBPN				eS	Sn	22 59 47.7	-0.5
CLARA	Aguas Claras	7.76	117	eP	Pn	22 58 23.9	+0.9
MESS	Mesas	7.77	117	eP	Pn	22 58 24.3	+1.2
JUD3	Juan Diaz 3	7.77	122	Pn	Pn	22 58 24.6	+1.5
JUD3	Juan Diaz 3	7.77	122	eP	Pn	22 58 24.9	+1.8
JUD3				eS	Sn	22 59 50.5	+0.7
HORNC	Hornillas	7.79	117	eP	Pn	22 58 24.9	+1.4
VMAR	Armenia, Volca	7.80	116	eP	Pn	22 58 24.7	+1.1
CUI	Cuipilapa	7.83	117	eP	Pn	22 58 25.4	+1.4
CANAL	Canalete	7.84	116	eP	Pn	22 58 25.7	+1.6
AMVM	AMECAMECA	7.85	308	eP	Pn	22 58 24.1	-0.3
AMVM				eS	Sn	22 59 51.7	-0.4
AMVM	AMECAMECA	7.85	308		Pn	22 58 24.1	-0.3
AMVM					Sn	22 59 51.7	-0.4
MEIG	Mezcala	7.92	297	eP	Pn	22 58 27.9	+2.6
MEIG				eS	Sn	22 59 53.3	-0.3
MEIG	Mezcala	7.92	297		Sn	22 59 53.3	-0.3
CMARA	Lajas Hojancha	7.94	122	eP	Pn	22 58 27.1	+1.6
TENO	El Achiote	7.97	116	eP	Pn	22 58 28.0	+2.1
TIMP	Tierras Morena	7.99	117	eP	Pn	22 58 30.8	+4.6
MPVM	San Francisco	8.07	307	eP	Pn	22 58 28.6	+1.3
MPVM				eS	Sn	22 59 56.6	-0.7
MPVM	San Francisco	8.07	307		Pn	22 58 28.6	+1.3
MPVM					Sn	22 59 56.6	-0.7
QUEB	Quebradon, Cot	8.08	117	eP	Pn	22 58 28.5	+1.2
COTE	Lago Cote	8.09	117	eP	Pn	22 58 31.2	+3.7
NYURE	Nandayure	8.10	122	eP	Pn	22 58 29.4	+1.8
XCVM	Xochimilco	8.18	307	eP	Pn	22 58 28.0	-0.9
XCVM				eS	Sn	23 00 00.2	+0.1
XCVM	Xochimilco	8.18	307		Pn	22 58 28.0	-0.9
XCVM					Sn	23 00 00.2	+0.1
TLVM	San Miguel Top	8.18	307	eP	Pn	22 58 28.0	-1.1
TLVM				eS	Sn	22 59 59.7	-0.6
TLVM	San Miguel Top	8.18	307		Pn	22 58 28.0	-1.1
TLVM					Sn	22 59 59.7	-0.6
JTS	Las Juntas de	8.19	119	P	Pn	22 58 31.5	+2.6
	comp=Z,16nm,0.4s,baz=308,slow=8.6,SNR=16						
JTS				S	Sn	23 00 00.4	+0.4
	comp=Z,8.4nm,0.3s,baz=161,slow=23,SNR=1.0						
JTS	Las Juntas de	8.19	119	Pn	Pn	22 58 30.3	+1.4
JTS	Las Juntas de	8.19	119	P	Pn	22 58 31.7	+2.8
JTS	Las Juntas de	8.19	119	eP	Pn	22 58 31.5	+2.6
JTS	Las Juntas de	8.19	119	P	Pn	22 58 32.5	+3.6
	comp=Z,136nm,0.9s						
MZVM		8.23	306	eP	Pn	22 58 33.3	+4.0
MZVM				eS	Sn	23 00 03.3	+2.4
VTVM	Tizayuca	8.23	311	eP	Pn	22 58 30.3	+0.6
VTVM				eS	Sn	23 00 01.5	+0.1
VTVM	Tizayuca	8.23	311		Pn	22 58 30.3	+0.6
VTVM					Sn	23 00 01.5	+0.1
TABAC	Tabacon	8.25	117	eP	Pn	22 58 31.7	+1.9
UNM	Universidad Na	8.27	307	eP	Pn	22 58 30.9	+0.7
UNM				eS	Sn	23 00 02.1	-0.2
UNM	Universidad Na	8.27	307	Pn	Pn	22 58 31.2	+1.0
VARE2	V. Arenal	8.31	117	eP	Pn	22 58 33.1	+2.5
ARE1	Arenal 1	8.31	117	eP	Pn	22 58 33.8	+3.3
MAVM	Malinalco, Edo	8.31	304	eP	Pn	22 58 33.1	+2.4
MAVM				eS	Sn	23 00 04.7	+1.5
MAVM	Malinalco, Edo	8.31	304		Sn	23 00 04.7	+1.5
PTVM	Pico Tres Padr	8.38	309	eP	Pn	22 58 33.3	+1.7
PTVM				eS	Sn	23 00 05.2	+0.3
PTVM	Pico Tres Padr	8.38	309		Pn	22 58 33.3	+1.7
PTVM					Sn	23 00 05.2	+0.3
INVM	La Marquesa	8.41	306	eP	Pn	22 58 32.3	+0.2
INVM				eS	Sn	23 00 07.7	+1.9
INVM	La Marquesa	8.41	306		Pn	22 58 32.3	+0.2
INVM					Sn	23 00 07.7	+1.9
LAFE	Finca La Fe, P	8.48	122	eP	Pn	22 58 34.0	+1.2
TOVM	TOLUCA	8.63	305	eP	Pn	22 58 36.3	+1.1
TOVM				eS	Sn	23 00 10.8	-0.5
TOVM	TOLUCA	8.63	305		Pn	22 58 36.3	+1.1
TOVM					Sn	23 00 10.8	-0.5
DEIG	Demacu	8.76	313	eP	Pn	22 58 39.8	+2.9
DEIG				eS	Sn	23 00 12.1	-2.2
DHIG	Demacu	8.76	313		Sn	23 00 12.1	-2.2
VBV1	V. Barva	9.01	117	eP	Pn	22 58 40.9	+0.5
HDC	Heredia	9.05	118	Pn	Pn	22 58 36.0	-4.8
PICV	PH. Pirrs	9.17	120	eP	Pn	22 58 44.7	+2.4
VICA	Volcano Irazu	9.29	117	eP	Pn	22 58 45.6	+1.3
RAFA	San Farael, Vo	9.33	117	Pn	Pn	22 58 40.3	-4.5
CVTQ	Turrialba Volc	9.35	117	eP	Pn	22 58 45.6	+0.6
CVTR	Volcan Turrial	9.35	117	eP	Pn	22 58 47.6	+2.5
PIEC	Cerro El Cedra	9.38	119	eP	Pn	22 58 47.2	+1.9
VTCV	VTCV, Calle Va	9.39	117	eP	Pn	22 58 50.6	+5.0
BUS1	Rivas	9.59	119	eP	Pn	22 58 50.2	+1.8
SAJE	San Jernim	9.90	119	eP	Pn	22 58 52.8	+0.5
EDPE	Pejibaye, P	9.94	121	eP	Pn	22 58 55.6	+2.8
MOIG	Morelia	10.05	303	eP	Pn	22 58 56.1	+1.6
MOIG				eS	Sn	23 00 43.1	-2.8
MOIG	Morelia	10.05	303	Pn	Pn	22 58 58.7	+4.2
MOIG	Morelia	10.05	303		Sn	23 00 43.1	-2.8
PIRO	Carate, Puerto	10.55	123	Pn	Pn	22 59 01.5	+0.4
PIRO	Carate, Puerto	10.55	123	eP	Pn	22 59 03.4	+2.3
PRVC	Isla de Provid	10.60	94	P	Pn	22 58 58.7	-3.1
	comp=Z,1µmcomp=Z,104nm,1.0s						
BRU2	Volcan	10.87	120	Pn	Pn	22 59 07.1	+1.5
BRU2	Volcan	10.87	120	eP	Pn	22 59 07.3	+1.6
BRU2	Volcan	10.87	120	P	Pn	22 59 08.3	+2.6
	comp=Z,79nm,0.8s						
PBNVO	Pueblo Nuevo,	11.25	118	eP	Pn	22 59 12.0	+1.4
MMIG	Aquila	11.35	291	eP	Pn	22 59 12.6	+0.6
MMIG				eS	Sn	23 01 16.6	-0.7
MMIG	Aquila	11.35	291		Pn	22 59 12.6	+0.6
MMIG					Sn	23 01 16.6	-0.7
INCO	Volcan de Coli	12.02	297	eP	Pn	22 59 23.4	+1.9
INCO				eS	Sn	23 01 32.9	-1.3
SOR	Soroa	12.10	45	P	Pn	22 59 22.7	+0.6
	comp=Z,84nm,0.9s						
CDAR	Ciudad de Arme	12.16	293	eP	Pn	22 59 23.9	+0.8
CDAR				eS	Sn	23 01 34.9	-2.1
CEGR	Campo Tres	12.19	296	eP	Pn	22 59 24.6	+0.9
CEGR				eS	Sn	23 01 36.2	-1.7
CEGR	Campo Tres	12.19	296		Pn	22 59 24.6	+0.9
CEGR					Sn	23 01 36.2	-1.7
GMAL	Guarumal, Vera	12.64	120	P	Pn	22 59 31.3	+1.7
	comp=Z,60nm,1.0s						
LCCY	Blossom Villag	12.75	64	Pn	Pn	22 59 32.3	+1.2
ZAIG	Zacatecas	12.86	312	Pn	Pn	22 59 34.4	+1.5
ZAIG	Zacatecas	12.86	312	P	Pn	22 59 37.1	+4.2
	comp=Z,26nm,1.1s						
CIHU	Emiliano Zapat	12.91	294	eP	Pn	22 59 32.9	-0.5
CIHU				eS	Sn	23 01 53.5	-2.0
CIHU	Emiliano Zapat	12.91	294		Pn	22 59 32.9	-0.5
CIHU					Sn	23 01 53.5	-2.0
PNME	Penonome	13.05	115	P	Pn	22 59 36.7	+1.4
CACAO	El Cacao, Vera	13.17	121	P	Pn	22 59 35.5	-1.4
	comp=Z,43nm,1.2s						
BCIP	Isla Barro Col	13.19	112	P	Pn	22 59 37.9	+0.7
	comp=Z,40nm,1.5s						
AZU	Azuero	13.44	118	P	Pn	22 59 41.4	+1.0
	comp=Z,15nm,1.4s						
ESTA	Talpa de Allen	13.44	298	eP	Pn	22 59 39.7	-0.9
ESTA				eS	Sn	23 02 06.8	-1.6
ESTA	Talpa de Allen	13.44	298		Pn	22 59 39.7	-0.9
ESTA					Sn	23 02 06.8	-1.6
TOMAT	Tomatlan	13.61	296	eP	Pn	22 59 42.1	-0.6
TOMAT				eS	Sn	23 02 10.1	-2.1
HBVL	Hebbronville	13.97	336		P	22 59 51.3	-2.2
CAIB	Caibarien	14.54	54	Pn	Pn	22 59 54.0	-0.9
MTDJ	Mount Denham	14.62	73		P	22 59 59.7	-1.1
MTDJ	Mount Denham	14.62	73	P	P	23 00 00.5	-0.3
	comp=Z,2µmcomp=Z,159nm,0.8s						
MTDJ	Mount Denham	14.62	73	P	P	23 00 01.1	+0.3
	comp=Z,162nm,0.8s						
833A	Chaparral WMA,	15.38	336	P	Pn	23 00 06.2	+0.3
HKT	Hockley	15.84	348		P	23 00 13.4	-0.8
HKT	Hockley	15.84	348	P	P	23 00 13.2	-1.0
	comp=Z,24nm,1.3s						
MCIG	Muzquiz	15.95	329	eP	Pn	23 00 13.8	+0.7
MCIG	Muzquiz	15.95	329	P	Pn	23 00 13.8	+0.7
PDIG	Papasquiaro	16.29	313	eP	P	23 00 19.5	0.0
PDIG	Papasquiaro	16.29	313	P	P	23 00 19.5	0.0
HNDO	Hondo	16.42	338		Pn	23 00 19.5	+0.5
435B	Jarrell	17.05	344	Pn	Pn	23 00 25.3	-1.4
346A	Big Creek Wild	17.11	8		P	23 00 28.4	0.0
SJCC	San Jacinto, C	17.25	103	P	Pn	23 00 27.7	-1.8
	comp=Z,706nmcomp=Z,81nm,1.1s						
GTBY	Guantanamo Bay	17.26	69		Pn	23 00 28.4	-1.0
GTBY				IAmb	IAmb	23 00 32.3	
	comp=Z,95nm,1.4s						
GTBY	Guantanamo Bay	17.26	69	P	P	23 00 30.6	+0.6
	comp=Z,70nm,1.1s						
GTBY	Guantanamo Bay	17.26	69	P	P	23 00 31.1	+1.1
	comp=Z,71nm,0.8s						
656A	Willston	17.40	29	P	Pn	23 00 29.9	-1.2
NATX	Nacogdoches	17.44	353	P	Pn	23 00 31.3	-0.3
NATX				IAmb	IAmb	23 00 35.8	
	comp=Z,49nm,0.8s						
NMDO	Nuevo Mundo	17.56	67	P	Pn	23 00 31.9	-1.1
UREC	San Jos de Ur	17.66	110	P	P	23 00 35.1	+0.6
	comp=Z,11nm,1.1s						
HPIG		17.70	317	P	P	23 00 33.0	-2.0
HPIG		17.70	317	P	Pn	23 00 38.3	+3.3
	comp=Z,12nm,1.2s						
VBMS	Vicksburg	17.82	5	P	P	23 00 35.6	-0.6
BRDY	Brady	17.93	341	P	Pn	23 00 38.0	+0.3
CBOC	Ciudad Bolivar	18.06	116	P	Pn	23 00 41.1	+1.6
	comp=Z,26nm,0.7s						
143A	Socs Landing,	18.25	2	P	P	23 00 39.5	-1.4
143A				IAmb	IAmb	23 00 47.1	
	comp=Z,76nm,1.0s						
TXAR	Lajitas Array	18.25	326	P	Pn	23 00 44.8	+3.2
	comp=Z,23nm,1.0s,baz=150,slow=7.2,SNR=89						
TXAR				PcP	PcP	23 05 13.0	+1.8
	comp=Z,0.9nm,0.7s,baz=103,slow=2.7,SNR=5.1						
HELC	Santa Helena	18.33	115	P	Pn	23 00 44.8	+1.9
	comp=Z,22nm,1.4s						
TIGA	Tifton	18.73	24	P	Pn	23 00 47.1	-0.2
Z41A	Richland Creek	18.80	359	P	Pn	23 00 47.9	0.0
Z41A				IAmb	IAmb	23 00 55.2	
	comp=Z,54nm,0.8s						
GUY2C	Guyana, Caldas	18.93	117	P	Pn	23 00 51.3	+1.0
	comp=Z,763nmcomp=Z,57nm,0.7s						
Z47A	Carrollton	19.11	11	P	P	23 00 50.3	+0.1
Z47A				IAmb	IAmb	23 00 54.4	
	comp=Z,56nm,0.7s						
PTBC	PUERTO BERRIO,	19.13	112	P	Pn	23 00 51.5	-0.6
	comp=Z,24nm,1.2s						
LRAL	Lakeview Retre	19.17	13	P	P	23 00 51.2	+0.3
LRAL				IAmb	IAmb	23 00 57.6	
	comp=Z,96nm,1.1s						
NORC	Norcasia	19.20	115	P	Pn	23 00 53.4	+0.4
	comp=Z,46nm,0.9s						
WLAR	White Oak Lake	19.23	358	P	P	23 00 51.5	-0.2
BBAC	Balboa, Cauca	19.24	128	P	Pn	23 00 55.0	+1.4
	comp=Z,2µmcomp=Z,25nm,0.6s						
POPC	Popayan, Colom	19.35	126	P	Pn	23 00 55.6	+0.6
	comp=Z,40nm,1.0s						
CCAR	Cane Creek	19.45	1	P	Pn	23 00 55.0	-0.8
CCAR				IAmb	IAmb	23 01 07.4	
	comp=Z,56nm,0.7s						
229A	Bryant Ranch,	19.57	335	P	P	23 00 55.2	-0.3
LPIG	La Paz	19.59	302	LR	LR	23 07 44.0	
	comp=Z,272nm,21.8s,baz=129,slow=33						
ORTC	Ortega, Tolima	19.72	120	P	Pn	23 00 59.5	+0.4
	comp=Z,1µmcomp=Z,141nm,0.9s						
X40A	Basin Creek Fa	20.02	359	P	P	23 01 00.1	-0.1
ROSC	El Rosal	20.03	117	P	Pn	23 01 03.1	0.0
	comp=Z,18nm,0.5s,baz=50,slow=3.8,SNR=10						
ROSC				LR	LR	23 09 40.4	
	comp=Z,120nm,18.0s,baz=273,slow=40						
WTFS	Witchita Falls	20.11	345	P	P	23 01 00.4	-0.8
MIAR	Mount Ida	20.11	357	P	P	23 01 00.7	-0.5
MIAR				IAmb	IAmb	23 01 08.8	
	comp=Z,34nm,0.9s						
MIAR	Mount Ida	20.11	357	P	Pn	23 01 05.5	+1.9
	comp=Z,73nm,1.1s						
PRAC	Prado	20.12	120	P	Pn	23 01 03.5	-0.4
	comp=Z,70nm,0.7s						
APMT	Aspermont	20.17	341	P	P	23 01 03.3	+1.4
APMT				IAmb	IAmb	23 01 08.5	
	comp=Z,24nm,0.7s						
OXF	Oxford	20.20	7	P	P	23 01 00.7	-1.5
OXF				IAmb	IAmb	23 01 15.2	
	comp=Z,52nm,0.7s						
UALR	University of	20.30	360	P	P	23 01 04.0	+0.7
UALR				IAmb	IAmb	23 01 22.4	
	comp=Z,38nm,0.9s						
BOG	Bogota	20.36	117	P	Pn	23 01 06.4	-0.5
	comp=Z,483µmcomp=Z,37µm,0.5s						
X48A	Hartselle	20.52	12	P	P	23 01 06.0	+0.3
X48A				IAmb	IAmb	23 01 13.9	
	comp=Z,64nm,1.1s						
GOGA	Godfrey	20.55	21	P	P	23 01 07.0	+1.1
GOGA	Godfrey	20.55	21	P	Pn	23 01 07.7	-1.0
	comp=Z,90nm,1.0s						
SDDR	Presa de Saban	20.57	74	P	P	23 01 05.7	-0.7
SDDR				IAmb	IAmb	23 01 25.0	
	comp=Z,32nm,0.9s						
SDDR	Presa de Saban	20.57	74	P	P	23 01 07.2	+0.8
	comp=Z,60nm,1.1s						
RUSC	La Rusia	20.64	112	P	P	23 01 06.1	-1.5
	comp=Z,65nm,1.2s						
DKNS	Dickens	20.75	339	P	P	23 01 08.3	+0.1
Y52A	Lilburn	20.76	19	P	P	23 01 08.4	+0.2
Y52A				IAmb	IAmb	23 01 17.2	
	comp=Z,49nm,0.8s						
FPAL	Fort Paine	20.94	15	P	P	23 01 10.4	+0.2
FPAL				IAmb	IAmb	23 01 19.0	
	comp=Z,39nm,1.0s						
MNTX	Cornudas Mount	21.02	327	P	P	23 01 11.8	+0.7
MNTX				IAmb	IAmb	23 01 15.3	
	comp=Z,31nm,0.9s						
MNTX	Cornudas Mount	21.02	327	P	P	23 01 13.8	+2.7
	comp=Z,37nm,0.9s						
WMOK	Wichita Mounta	21.11	345	P	P	23 01 12.4	+0.4
WMOK	Wichita Mounta	21.11	345	P	P	23 01 13.8	+1.8
	comp=Z,24nm,1.1s						
SC01	Santiago de lo	21.17	73	P	P	23 01 12.4	-0.3
FNO	Franklin	21.30	348	P	P	23 01 13.1	-0.9
FNO				IAmb	IAmb	23 01 26.3	
	comp=Z,61nm,1.1s						
BANI	BANI	21.36	76	P	P	23 01 14.8	-0.1
FCAR	Ozark Folk Cen	21.42	0	P	P	23 01 15.5	+0.3
OKCSW	OKLAHOMA CITY	21.45	348	P	P	23 01 14.5	-1.1
SWET	Sewanee	21.50	14	P	P	23 01 15.3	-0.9
SWET				IAmb	IAmb	23 01 26.6	
	comp=Z,38nm,0.8s						
W50A	Signal Mountai	21.64	16	P	P	23 01 17.5	-0.2
TUL3	Leonard	21.67	352	P	P	23 01 16.9	-1.1
TUL3				IAmb	IAmb	23 01 28.6	
	comp=Z,46nm,1.0s						
HODGE	Hodges	21.72	23	P	P	23 01 19.0	+0.5
HODGE				IAmb	IAmb	23 01 27.7	
	comp=Z,37nm,1.1s						
V48A	Smith Brothers	21.81	12	P	P	23 01 18.7	-0.8
V48A				IAmb	IAmb	23 01 21.4	
	comp=Z,28nm,0.8s						
SDV	Santo Domingo	21.84	102	P	P	23 01 20.5	+0.3
	comp=Z,21nm,0.6s,baz=295,slow=5.9,SNR=14						
SDV				LR	LR	23 11 11.6	
	comp=Z,154nm,18.1s,baz=290,slow=41						
	comp=Z,21nm,0.6s						
SDV	Santo Domingo	21.84	102	P	P	23 01 16.4	-3.8
SDV				IAmb	IAmb	23 01 36.5	
	comp=Z,36nm,0.8s						
SDV	Santo Domingo	21.84	102	P	P	23 01 20.4	+0.2
	comp=Z,308nm,0.8s						
MACC	Macarena, Meta	21.85	122	P	P	23 01 22.4	+2.3
	comp=Z,2µmcomp=Z,209nm,0.8s						
SMWD	Samnorwood	21.86	342	P	P	23 01 21.2	+1.2
HHAR	Hobbs	21.86	356	P	P	23 01 20.3	+0.4
WVT	Waverly	22.01	10	P	P	23 01 21.0	-0.6
WVT				IAmb	IAmb	23 01 44.4	
	comp=Z,56nm,1.4s						
WVT	Waverly	22.01	10	P	P	23 01 21.7	+0.2
	comp=Z,33nm,1.4s						
JSC	Jenkinsville	22.16	25	P	P	23 01 23.0	-0.2
JSC				IAmb	IAmb	23 01 32.5	
	comp=Z,44nm,0.8s						
BG3	Lake Jocassee	22.17	21	P	P	23 01 23.5	+0.2
CLTN	Cedars of Leba	22.25	13	P	P	23 01 23.9	-0.3
MCRA	Macar, Loja	22.26	146	P	P	23 01 27.9	+3.4
	comp=Z,8.6nm,1.7s						
PTLC	Puerto Leguiza	22.29	128	P	P	23 01 28.8	+3.9
	comp=Z,2µmcomp=Z,46nm,1.0s						
PAULI	Pauline	22.41	23	P	P	23 01 25.9	-0.1
TKL	Tuckaleechee C	22.51	18	P	P	23 01 26.2	-0.7
	comp=Z,14nm,0.5s,baz=188,slow=12,SNR=31						
TKL				LR	LR	23 10 20.9	
	comp=Z,586nm,21.7s,baz=191,slow=37						
	comp=Z,14nm,0.5s						
T45A	Paducah	22.77	7	P	P	23 01 28.6	-1.1
NOKA	Waynoka	22.95	346	P	P	23 01 31.6	0.0
NOKA				IAmb	IAmb	23 01 33.9	
	comp=Z,26nm,0.8s						
TZTN	Tazewell	23.39	18	P	P	23 01 36.1	+0.3
	comp=Z,108nm,0.7s						
V55A	Taylorsville	23.55	23	P	P	23 01 36.3	-1.0
V55A				IAmb	IAmb	23 01 59.8	
	comp=Z,20nm,0.7s						
CCM	Cathedral Cave	23.59	2	P	P	23 01 36.3	-1.3
CCM				IAmb	IAmb	23 02 03.9	
	comp=Z,25nm,1.0s						
CCM	Cathedral Cave	23.59	2	P	P	23 01 37.0	-0.6
	comp=Z,25nm,1.1s						
USIN	University of	23.83	9	P	P	23 01 38.6	-1.2
USIN				IAmb	IAmb	23 02 08.0	
	comp=Z,37nm,0.9s						
ANMO	Albuquerque	24.16	330	P	P	23 01 46.4	+3.4
	comp=Z,13nm,0.9s						
WCI	Wyandotte Cave	24.33	11	P	P	23 01 43.4	-0.9
WCI	Wyandotte Cave	24.33	11	P	P	23 01 44.3	0.0
	comp=Z,115nm,0.8s						
TUC	Tucson	24.60	320	P	P	23 01 50.5	+3.6
	comp=Z,13nm,0.9s						
R49A	Shelbyville	24.62	13	P	P	23 01 45.7	-1.3
R49A				IAmb	IAmb	23 02 02.0	
	comp=Z,65nm,1.2s						
R50A	Paris	24.81	15	P	P	23 01 47.2	-1.5
R50A				IAmb	IAmb	23 02 06.3	
	comp=Z,46nm,1.2s						
KSU1	Kansas State U	24.92	352	P	P	23 01 49.2	-0.5
KSU1				IAmb	IAmb	23 02 16.5	
	comp=Z,23nm,0.9s						
P38A	Dawn	25.17	358	P	P	23 01 51.5	-0.4
ATAH	Atahualpa	25.41	146	LR	LR	23 10 42.0	
	comp=Z,161nm,20.6s,baz=331,slow=33						
MVCO	Mesa Verde	26.96	330	P	P	23 02 11.8	+3.3
	comp=Z,22nm,0.8s						
ACSO	Alum Creek Sta	27.00	16	P	P	23 02 07.4	-1.0
ACSO				IAmb	IAmb	23 02 47.3	
	comp=Z,22nm,0.8s						
WUAZ	Wupatki	27.18	324	P	P	23 02 08.0	-2.4
PV01	Paradox Valley	27.73	332	P	P	23 02 14.3	-1.0
PFO	Pinyon Flats O	29.13	315	LR	LR	23 14 43.9	
	comp=Z,121nm,21.5s,baz=84,slow=37						
I42A	Draeger Farm,	29.54	5	P	P	23 02 29.6	-1.4
I42A				IAmb	IAmb	23 03 00.1	
	comp=Z,20nm,1.1s						
M57A	Sunshine Farm,	29.89	23	P	P	23 02 33.2	-1.1
RSSD	Black Hills	31.30	344	P	P	23 02 45.9	-1.0
HWUT	Hardware Ranch	31.89	332	P	P	23 02 56.0	+3.9
	comp=Z,11nm,1.2s						
PDAR	Pinedale Array	31.98	336	P	P	23 02 55.2	+2.3
	comp=Z,0.6nm,0.5s,baz=142,slow=7.5,SNR=5.6						
PDAR				PcP	PcP	23 05 43.8	+2.1
	comp=Z,1.3nm,0.5s,baz=131,slow=5.5,SNR=4.7						
	comp=Z,0.6nm,0.5s						
SADO	Sadowa	32.27	18	LR	LR	23 16 38.2	
	comp=Z,399nm,19.1s,baz=229,slow=38						
ELK	Elko	33.05	327	LR	LR	23 18 22.0	
	comp=Z,222nm,19.4s,baz=136,slow=39						
NVAR	Mina Array Bea	33.23	321	P	P	23 03 07.8	+4.0
	comp=Z,14nm,0.7s,baz=135,slow=8.6,SNR=86						
NVAR				PcP	PcP	23 05 47.1	+2.0
	comp=Z,4.0nm,0.7s,baz=126,slow=3.1,SNR=7.0						
NVAR				LR	LR	23 17 26.6	
	comp=Z,235nm,21.2s,baz=128,slow=38						
	comp=Z,14nm,0.7s						
NVAR	Mina Array Bea	33.23	321	P	P	23 03 06.1	+2.2
LHV	Little Huntoon	33.24	321	P	P	23 03 07.1	+3.4
LHV				IAmb	IAmb	23 03 09.0	
	comp=Z,16nm,0.7s						
BOAV	Boa Vista	33.49	108	P	P	23 03 02.9	-3.3
BOAV	Boa Vista	33.49	108	eP	P	23 03 03.0	-3.1
BOAV				epP	pP	23 03 21.9	0.0
HLID	Hailey	34.73	331	P	P	23 03 20.1	+3.3
	comp=Z,7.9nm,0.8s						
MACA	Manacapuru-AM	35.80	117	P	P	23 03 25.6	-0.4
MACA	Manacapuru-AM	35.80	117	eP	P	23 03 22.8	-3.2
MACA				epP	pP	23 03 41.3	-0.6
ULM	Lac du Bonnet	35.89	356	P	P	23 03 26.2	-0.2
	comp=Z,1.3nm,0.5s,baz=162,slow=6.4,SNR=2.3						
ULM				PcP	PcP	23 05 52.9	+0.6
	comp=Z,3.2nm,0.6s,baz=163,slow=4.5,SNR=5.4						
ULM				LR	LR	23 20 34.0	
	comp=Z,219nm,18.1s,baz=136,slow=40						
	comp=Z,1.3nm,0.5s						
YBH	Yreka Blue Hor	37.93	322	LR	LR	23 20 00.0	
	comp=Z,206nm,19.0s,baz=164,slow=37						
LPAZ	La Paz	38.67	141	P	P	23 03 53.2	+2.2
	comp=Z,0.9nm,0.6s,baz=350,slow=6.1,SNR=1.6						
LPAZ				LR	LR	23 20 06.6	
	comp=Z,87nm,21.6s,baz=320,slow=36						
	comp=Z,0.9nm,0.6s						
PB16	IPOC Station P	39.48	145	P	P	23 03 52.0	-5.7
NEW	Newport	39.55	334	P	P	23 03 57.7	+0.3
	comp=Z,1.0nm,0.5s,baz=125,slow=12,SNR=1.7						
NEW				PcP	PcP	23 06 04.1	+0.4
	comp=Z,2.1nm,0.4s,baz=138,slow=4.0,SNR=5.4						
NEW				LR	LR	23 22 40.9	
	comp=Z,173nm,19.3s,baz=108,slow=40						
	comp=Z,1.0nm,0.5s						
MDP	Montagnes des	40.03	99	LR	LR	23 21 11.5	
	comp=Z,221nm,18.7s,baz=313,slow=37						
ITTB	Itaituba	40.70	115	eP	P	23 04 05.5	-1.8
ITTB				epP	pP	23 04 21.2	-2.2
VILB	Vilhena	41.76	129	P	P	23 04 11.8	-4.1
VILB	Vilhena	41.76	129	eP	P	23 04 13.8	-2.1
VILB				epP	pP	23 04 33.3	+1.1
LLLB	Lillooet	43.38	333	P	P	23 04 27.9	-0.7
CLDB	Colider	43.98	123	eP	P	23 04 31.8	-2.1
CLDB				epP	pP	23 04 48.5	-1.8
SCHQ	Schefferville	44.94	21	P	P	23 04 38.8	-2.3
	comp=Z,6.1nm,1.0s,baz=212,slow=12,SNR=6.9						
SCHQ				LR	LR	23 24 14.7	
	comp=Z,500nm,19.9s,baz=198,slow=37						
	comp=Z,6.1nm,1.0s						
SCHQ	Schefferville	44.94	21	P	P	23 04 39.2	-1.9
BBB	Bella Bella	47.32	331	LR	LR	23 28 40.7	
	comp=Z,175nm,18.7s,baz=107,slow=41						
SNDB	Serra Nova Dou	48.28	121	eP	P	23 05 06.0	-1.7
SNDB				epP	pP	23 05 23.1	-1.2
BDQN	Bodoquena, MS	49.14	134	eP	P	23 05 12.6	-1.5
AQDB	Aquidauana	49.89	133	eP	P	23 05 19.0	-1.0
AQDB				epP	pP	23 05 38.2	+1.7
ARAG	Araguaiana, MT	49.90	125	eP	P	23 05 18.1	-2.0
ARAG				epP	pP	23 05 36.0	-0.6
SMTB	Santa Maria do	49.94	115	eP	P	23 05 18.3	-2.1
SMTB				epP	pP	23 05 35.8	-1.2
YKA	Yellowknife Ar	50.60	347	P	P	23 05 24.3	-0.4
	comp=Z,5.2nm,0.6s,baz=151,slow=7.2,SNR=10						
	comp=Z,5.2nm,0.6s						
FRB	Frobisher Bay	51.99	13	LR	LR	23 28 06.2	

	comp=Z,296nm,18.4s,baz=170,slow=37						
CPUP	Villa Florida	52.82	140	P	P	23 05 44.4	+2.7
	comp=Z,0.5nm,0.3s,baz=342,slow=13,SNR=2.9						
CPUP				LR	LR	23 27 38.2	
	comp=Z,85nm,18.9s,baz=314,slow=35						
	comp=Z,0.5nm,0.3s						
BDFB	Brasilia	52.92	123	P	P	23 05 43.1	+0.4
	comp=Z,3.6nm,0.6s,baz=232,slow=10,SNR=6.2						
	comp=Z,3.6nm,0.6s						
NBPS	Pedro II - PI	53.70	107	*e*P	P	23 05 45.4	-3.1
SDBA	SAO DESIDERIO	53.92	117	*e*P	P	23 05 48.1	-2.0
SDBA				*e*pP	pP	23 06 05.8	-1.0
IPMB	Ipameri, GO	54.02	125	*e*P	P	23 05 49.2	-1.5
JANB	Januaria	55.69	120	*e*P	P	23 06 00.9	-2.0
JANB				*e*pP	pP	23 06 18.7	-1.0
MC01	Montes Claros	56.81	121	*e*P	P	23 06 09.6	-1.3
MC01				*e*pP	pP	23 06 27.2	-0.5
NBPN	Ponto Novo - B	57.35	113	*e*P	P	23 06 11.9	-2.8
NBPN				*e*pP	pP	23 06 31.0	-0.6
DIAM	Diamantina, MG	57.84	123	*e*P	P	23 06 16.0	-2.2
DIAM				*e*pP	pP	23 06 34.8	-0.4
ARCA	Ara§uai, MG	58.53	120	*e*P	P	23 06 21.2	-1.7
ARCA				*e*pP	pP	23 06 39.7	-0.1
SFJD	Kangerlussuaq	59.22	18	LR	LR	23 32 24.0	
	comp=Z,265nm,21.1s,baz=193,slow=36						
BCAR	Beaver Creek A	59.60	336	P	P	23 06 31.4	+1.8
NBIT	Itapeh - BA	59.79	117	*e*P	P	23 06 29.8	-1.8
NBIT				*e*pP	pP	23 06 48.8	+0.2
CMC01	Camacan, BA	59.91	117	*e*P	P	23 06 30.9	-1.4
CMC01				*e*pP	pP	23 06 49.1	-0.3
SJMB	Sao Joao De Ma	60.08	122	*e*P	P	23 06 31.3	-2.2
SJMB				*e*pP	pP	23 06 49.9	-0.7
NBPV	Pedro Velho	60.14	106	*e*P	P	23 06 31.5	-2.5
GUA01	Guaratinga, BA	60.22	119	*e*P	P	23 06 32.2	-2.3
GUA01				*e*pP	pP	23 06 51.5	-0.1
RES	Resolute Bay	60.31	359	LR	LR	23 33 10.4	
	comp=Z,220nm,18.8s,baz=128,slow=36						
BSFB	Barra de Sao F	60.42	122	*e*P	P	23 06 34.3	-1.5
BSFB				*e*pP	pP	23 06 52.8	-0.1
RIB01	Linhares ES	61.03	122	*e*P	P	23 06 38.5	-1.5
RIB01				*e*pP	pP	23 06 56.8	-0.3
CAM01	Campos-RJ	61.28	125	*e*P	P	23 06 40.1	-1.5
CAM01				*e*pP	pP	23 06 59.0	+0.3
ILAR	Eielson Array	62.40	337	P	P	23 06 49.1	+0.6
	comp=Z,4.6nm,0.8s,baz=124,slow=5.2,SNR=28						
	comp=Z,4.6nm,0.8s						
ILAR	Eielson Array	62.40	337	P	P	23 06 50.1	+1.6
BMAR	Burnt Mountain	62.86	340	P	P	23 06 52.3	+0.7
PPT	Papeete	64.86	243	LR	LR	23 27 17.7	
	comp=Z,100nm,21.4s,baz=18,slow=28						
PPT2	Papeete2	64.88	242	*e*LR	LR	23 26 20.7	
	comp=Z,153nm,25.0s						
PPT2				*e*LR	LR	23 26 30.3	
	comp=Z,114nm,37.8s						
J19K	Poorman	65.61	334	P	P	23 07 07.1	-2.5
K17K	Iditarod	66.41	333	P	P	23 07 13.1	-1.6
JMIC	Jan Mayen	74.46	20	LR	LR	23 41 25.0	
	comp=Z,98nm,20.0s,baz=232,slow=36						
EKA	Eskdalemuir Ar	77.79	36	P	P	23 08 20.8	-2.0
	comp=Z,5.3nm,0.6s,baz=273,slow=5.9,SNR=18						
	comp=Z,5.3nm,0.6s						
ESDC	Sonseca Array	79.66	52	P	P	23 08 31.6	-1.9
	comp=Z,2.7nm,1.0s,baz=290,slow=5.6,SNR=12						
	comp=Z,2.7nm,1.0s						
MDT	Midelt	80.39	59	LR	LR	23 39 40.4	
	comp=Z,72nm,20.5s,baz=324,slow=32						
AFI	Afiamalu	83.58	254	LR	LR	23 40 05.7	
	comp=Z,57nm,20.5s,baz=128,slow=31						
NOA	NORSAR Array B	83.92	28	P	P	23 08 54.8	-0.7
	comp=Z,1.2nm,0.8s,baz=291,slow=5.2,SNR=4.6						
NOA				LR	LR	23 42 50.0	
	comp=Z,36nm,21.7s,baz=275,slow=33						
	comp=Z,1.2nm,0.8s						
HFS	Hagfors	85.38	29	LR	LR	23 45 01.2	
	comp=Z,52nm,21.4s,baz=286,slow=34						
ARCES	ARCESS Array B	85.84	18	P	P	23 09 03.6	-1.3
	comp=Z,2.8nm,0.9s,baz=0.0,slow=1.2,SNR=6.9						
	comp=Z,2.8nm,0.9s						
SENIN	Lac Senin/Sane	86.16	43	P	P	23 09 04.9	-2.3
SENIN				IAmb	IAmb	23 09 07.0	
	comp=Z,7.7nm,1.1s						
TUE	Stuetta	87.48	43	P	P	23 09 10.6	-3.0
TUE				IAmb	IAmb	23 09 16.6	
	comp=Z,4.6nm,0.9s						
DAVA	Damuels	87.57	42	*i* P	P	23 09 13.4	-0.6
	comp=Z,4.4nm,0.8s						
FUORN	Ofenpass-Fuorn	88.03	42	P	P	23 09 13.0	-3.3
FUORN				IAmb	IAmb	23 09 46.9	
	comp=Z,6.8nm,0.9s						
RETA	Reutte	88.07	41	*e*P	P	23 09 15.5	-0.8
	comp=Z,0.8nm,0.3s						
CLL	Collm	88.15	37	L	L	23 40 00.0	
FETA	Feichten	88.20	42	*e*P	P	23 09 16.6	-0.4
	comp=Z,1.1nm,0.6s						
WTTA	Wattenberg	88.71	41	*e*P	P	23 09 18.7	-0.7
	comp=Z,2.6nm,0.6s						
ZCCA	Zocca	89.25	44	P	P	23 09 19.5	-2.4
ABTA	Abfaltersbach	89.45	42	*e*P	P	23 09 22.2	-0.6
	comp=Z,1.8nm,0.9s						
GERES	GERESS Array B	89.45	39	P	P	23 09 21.5	-1.3
	comp=Z,0.6nm,0.6s,baz=298,slow=2.9,SNR=5.9						
	comp=Z,0.6nm,0.6s						
TIXI	Tiksi	89.84	348	LR	LR	23 56 17.9	
	comp=Z,56nm,18.4s,baz=24,slow=40						
KBA	Koelnbreinsper	89.86	41	*e*P	P	23 09 23.8	-1.0
	comp=Z,0.5nm,0.4s						
PETK	Petropavlovsk-	90.20	326	P	P	23 09 28.3	+2.3
	comp=Z,2.8nm,0.8s,baz=68,slow=8.2,SNR=5.3						
PETK				LR	LR	23 49 20.8	
	comp=Z,26nm,20.7s,baz=32,slow=35						
	comp=Z,2.8nm,0.8s						
FINES	FINESS Array B	90.25	25	P	P	23 09 25.0	-1.0
	comp=Z,2.5nm,0.9s,baz=208,slow=6.5,SNR=4.6						
	comp=Z,2.5nm,0.9s						
TORD	Torodi Ar. Bea	90.51	76	P	P	23 09 26.5	-1.7
	comp=Z,0.4nm,0.7s,baz=311,slow=4.1,SNR=6.6						
	comp=Z,0.4nm,0.7s						
MA2	Magadan	90.65	333	LR	LR	23 54 34.8	
	comp=Z,91nm,18.3s,baz=74,slow=38						
KEST	Kesra	90.84	53	P	P	23 09 28.4	-1.0
	comp=Z,4.3nm,1.0s,baz=3.3,slow=1.6,SNR=4.2						
	comp=Z,4.3nm,1.0s						
VAE	Valguarnera	94.09	50	LR	LR	23 46 51.4	
	comp=Z,104nm,21.3s,baz=316,slow=32						
NRIK	Noril'sk	96.50	0	LR	LR	23 58 23.0	
	comp=Z,84nm,18.8s,baz=352,slow=38						
AKASG	Malin Array Be	97.53	33	LR	LR	23 55 49.4	
	comp=Z,51nm,18.8s,baz=300,slow=37						
VNA3	Neumayer Olymp	101.13	161	⇑P	Pdif	23 10 19.7	+4.5
	comp=Z,2.0nm,0.7s						
VNA1	Neumayer--Stat	101.47	160	⇑P	Pdif	23 10 24.9	+8.2
	comp=Z,2.9nm,0.9s						
VNA2	Neumayer--Watz	101.80	160	⇑P	Pdif	23 10 26.8	+8.7
	comp=Z,1.5nm,0.6s,baz=267,slow=11						
KURBB	Kurchatov Arra	114.77	6	PKP	PKPdf	23 15 06.6	+0.7
	comp=Z,0.8nm,0.5s,baz=352,slow=1.9,SNR=8.2						
KSRS	Korea Array	116.10	325	PKP	PKPdf	23 15 11.1	+2.2
	comp=Z,1.6nm,0.6s,baz=325,slow=1.5,SNR=4.2						
MKAR	Makanchi Array	118.91	4	PKP	PKiKP	23 15 14.4	+0.4
	comp=Z,0.4nm,0.5s,baz=305,slow=3.4,SNR=5.8						
BOSA	Boshof	120.72	115	PKP	PKiKP	23 15 19.3	+1.1
	comp=Z,4.9nm,0.9s,baz=308,slow=3.3,SNR=7.8						
HHC	Hu-ho-hao-te	120.78	339	*e*P	PKPdf	23 15 16.0	-1.9
WMQ	Urumqi	122.08	0	*e*PKP	PKiKP	23 15 27.9	+7.5
WMQ				sPKP		23 15 49.8	
WMQ				LR	LR		
	comp=Z,62nm,16.7s						
NJ2	Nanjing	125.05	328	*e*P	PKiKP	23 15 28.5	+2.0
NJ2				pmax	pmax		
	comp=Z,6.0nm,0.5s						
GTA2	Gaotai	125.25	349	*e*PKP	PKiKP	23 15 27.5	+0.6
STKA	Stephens Creek	128.05	241	PKP	PKiKP	23 15 32.8	+0.3
	comp=Z,7.0nm,0.8s,baz=49,slow=2.4,SNR=5.9						
WRA	Warramunga Arr	135.27	256	PKP	PKPdf	23 15 46.5	+0.6
	comp=Z,2.5nm,0.8s,baz=82,slow=2.0,SNR=16						
ASAR	Alice Springs	135.58	251	PKP	PKiKP	23 15 47.7	-0.3
	comp=Z,1.4nm,0.7s,baz=130,slow=1.5,SNR=12						
PZH	PanZhiHua	137.15	341	PKP	PKPdf	23 15 49.8	+0.4
CMAR	Chiang Mai Arr	145.56	341	PKPbc	PKPab	23 16 06.0	+1.0
	comp=Z,9.1nm,0.7s,baz=337,slow=3.5,SNR=55						

DJA ***22*** *22:57:38.2±1.5, 7°S±6°×12°3E±°, h647^{km}±20^{km}, M4.5/14, mB4.9/5, mB5.0/6, mb4.6/7, mb4.7/7, MLv4.3/13, MLv4.5/14, Mw(mB)4.2/5, Mw(mB)4.3/6*

IDC ***22*** *22:57:41.1±0.6, 7.°26S×123.°23E, h567^{km}±7^{km}, mb3.6/23, mbtmp4.6/29, Error ellipse: s-maj=13.2km s-min=6.7km az=74.0*

GFZ ***22*** *22:57:42.4±0.1, 7°S±2°×12°3E±°, h587^{km}, M4.5/39, mb4.8/39*

NEIC ***22*** *22:57:42.4±1.8, 7.°20S±0.°08×123.°23E±0.°10, h573^{km}±7^{km}, mb4.4/42, Error ellipse: s-maj=13.8km s-min=12.2km az=88.0*

ISC 22 22:57:43.4±0.3, **7.°22S**±0.°04×**123.°27E**±0.°06, **h600**^{km}, **n238**, σ1^{s}**28**/245, **mb4.3**/64, **1D**, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
MMRI	Maumere	1.73	216	P	P	22 58 54.7	-2.1
MMRI	Maumere	1.73	216	S	S	22 59 53.2	-3.2
MMRI	Maumere	1.73	216		P	22 58 53.9	-2.9
MMRI	Maumere	1.73	216	P	P	22 58 54.9	-1.9
BBSI	Bau Bau	1.86	338	P	P	22 58 57.2	-0.1
BBSI				AML	AML		
BBSI				AML	AML		
BBSI	Bau Bau	1.86	338	P	P	22 58 56.1	-1.2
EDFI	Ende, Flores	2.18	226	P	P	22 58 55.3	-3.3
EDFI				AML	AML		
EDFI	Ende, Flores	2.18	226	P	P	22 58 55.7	-2.9
SOEI	Soe	2.70	159	P	P	22 58 59.8	-1.4
SOEI	Soe	2.70	159	S	S	23 00 01.7	-2.7
SOEI	Soe	2.70	159	P	P	22 58 59.4	-1.7
SOEI	Soe	2.70	159	P	P	22 59 00.0	-1.2
BSSI	Bau Bau, Buton	2.96	291	P	P	22 59 01.6	-0.8
BSSI				AML	AML		
BSSI	Bau Bau, Buton	2.96	291	P	P	22 59 00.8	-1.7
BATI	Baumata	2.99	172	P	P	22 58 56.5	-6.1
	831nm,0.4s,baz=16,slow=1.0,SNR=112						
BATI				S	S	22 59 57.8	-9.2
	528nm,0.6s,baz=35,slow=23,SNR=6.3						
KDI	Kendari	3.31	349	P	P	22 59 03.8	-0.7
KKSI	Kolaka, Sulawe	3.43	332	P	P	22 59 05.4	+0.1
KKSI				AML	AML		
KKSI	Kolaka, Sulawe	3.43	332	P	P	22 59 04.5	-0.8
LBFI	Labuhan Bajo,	3.57	249	P	P	22 59 03.1	-3.0
LBFI				AML	AML		
LBFI	Labuhan Bajo,	3.57	249	P	P	22 59 03.0	-3.1
WSI	Waingapu	3.81	230	P	P	22 59 04.9	-2.7
KAPI	Kappang	4.13	302	P	P	22 59 09.4	-0.5
	348nm,0.5s,baz=137,slow=3.9,SNR=131						
KAPI				S	S	23 00 18.5	-1.7
	19nm,0.6s,baz=1.7,slow=21,SNR=0.8						
KAPI	Kappang	4.13	302	P	P	22 59 09.3	-0.5
KAPI	Kappang	4.13	302	P	P	22 59 09.2	-0.7
KAPI	Kappang	4.13	302	P	P	22 59 09.2	-0.7
MKS	Makassar	4.27	298	P	P	22 59 09.5	-1.4
MKS				AML	AML		
DBNI	Kabupaten Domp	5.07	255	P	P	22 59 14.1	-2.8
DBNI	Kabupaten Domp	5.07	255	P	P	22 59 13.9	-3.0
	comp=Z,506nm,0.6s						
NLAI	Namlea	5.50	44	P	P	22 59 19.0	-1.5
NLAI	Namlea	5.50	44	P	P	22 59 18.9	-1.5
	comp=Z,851nm,0.5s						
PLAI	Plampang	5.67	253	P	P	22 59 19.4	-2.4
PLAI	Plampang	5.67	253	P	P	22 59 19.1	-2.7
	comp=Z,716nm,0.5s						
PMSI	Majene	5.70	310	P	P	22 59 20.4	-1.7
	comp=Z,282nm,0.8s						
SANI	Sanana	5.81	28	P	P	22 59 21.7	-1.4
SANI	Sanana	5.81	28	P	P	22 59 22.2	-0.9
	comp=Z,751nm,0.8s						
AAI	Ambon	6.03	55	P	P	22 59 23.1	-1.9
	comp=Z,446nm,1.0s						
LUWI	Luwuk	6.16	355	P	P	22 59 25.9	-0.2
LUWI	Luwuk	6.16	355	P	P	22 59 25.4	-0.7
LUWI	Luwuk	6.16	355	P	P	22 59 25.9	-0.2
	comp=Z,363nm,1.1s						
MMSI	Mamuju	6.25	316	P	P	22 59 26.6	-0.3
	comp=Z,1μm,0.7s						
APSI	Ampana	6.48	346	P	P	22 59 27.9	-0.9
	comp=Z,178nm,0.7s						
TWSI	Taliwang, Sumb	6.50	256	P	P	22 59 26.2	-2.7
	comp=Z,330nm,0.7s						
MSAI	Masohi	6.83	56	P	P	22 59 29.2	-2.7
	comp=Z,57nm,0.5s						
DNP	Denpasar	8.11	259	P	P	22 59 43.4	-0.5
	comp=Z,218nm,0.6s						
IGBI	Denpasar	8.20	258	P	P	22 59 42.5	-2.2
	comp=Z,3μm,0.5s						
TOLI2	Tolitoli	8.64	343	P	P	22 59 47.5	-1.5
TOLI2	Tolitoli	8.64	343	S	S	23 01 28.7	-3.2
TOLI2	Tolitoli	8.64	343	P	P	22 59 47.3	-1.7
TOLI2	Tolitoli	8.64	343	P	P	22 59 47.8	-1.3
	comp=Z,226nm,0.7s						
TNTI	Ternate	8.93	27	P	P	22 59 50.0	-1.8
TNTI	Ternate	8.93	27	P	P	22 59 49.6	-2.2
TNTI	Ternate	8.93	27	P	P	22 59 50.2	-1.7
	comp=Z,127nm,1.1s						
JAGI	Jajag, Banyuwa	9.12	262	P	P	22 59 50.8	-2.8
JAGI	Jajag, Banyuwa	9.12	262	P	P	22 59 50.2	-3.3
JAGI	Jajag, Banyuwa	9.12	262	P	P	22 59 51.0	-2.6
	comp=Z,136nm,0.7s						
BBKI	Banjar Baru	9.18	294	P	P	22 59 54.5	+0.3
	comp=Z,145nm,0.8s						
BLJI	Banyuglugur	9.60	266	P	P	22 59 56.7	-1.6
	comp=Z,58nm,0.7s						
FAKI	Fak Fak	9.91	65	P	P	22 59 59.9	-1.6
FAKI	Fak Fak	9.91	65	P	P	22 59 58.8	-2.7
FAKI	Fak Fak	9.91	65	P	P	22 59 59.9	-1.6
	comp=Z,61nm,0.9s						
KNRA	Kununurra	9.98	148	P	P	23 00 01.3	-0.7
SWI	Sorong	10.17	52	P	P	23 00 02.4	-1.6
	comp=Z,108nm,1.0s						
SIJI	Sorong	10.17	52	P	P	23 00 02.9	-1.2
	comp=Z,44nm,0.3s,baz=235,slow=8.5,SNR=34						
SIJI				S	S	23 01 55.6	-3.8
	comp=Z,22nm,1.0s,baz=100,slow=18,SNR=9.8						
FITZ	Fitzroy Crossi	11.05	168	P	P	23 00 11.7	-1.0
	comp=Z,40nm,0.6s,baz=1.8,slow=7.8,SNR=32						
FITZ				S	S	23 02 12.2	-3.0
	comp=Z,10nm,0.6s,baz=256,slow=21,SNR=7.7						
FITZ	Fitzroy Crossi	11.05	168	P	P	23 00 12.0	-0.7
FITZ	Fitzroy Crossi	11.05	168	P	P	23 00 11.4	-1.3
	comp=Z,18nm,0.8s						
MWPI	Manokwari, Pap	12.43	60	P	P	23 00 27.1	+0.5
	comp=Z,807nm,0.5s						
UGM	Wanagama	12.65	266	P	P	23 00 27.5	-1.3
	comp=Z,167nm,1.6s						
MYLDM	Lahad Datu	13.21	339	P	P	23 00 34.8	+0.4
MYLDM	Lahad Datu	13.21	339	P	P	23 00 34.1	-0.4
MYLDM	Lahad Datu	13.21	339	P	P	23 00 34.9	+0.4
	comp=Z,28nm,0.8s						
KPJI	Karang Pucung	14.22	269	P	P	23 00 44.5	-0.1
	comp=Z,32nm,0.6s						
MBWA	Marble Bar	14.27	194	P	P	23 00 44.1	-0.8
MBWA	Marble Bar	14.27	194	P	P	23 00 44.1	-0.8
MBWA	Marble Bar	14.27	194	P	P	23 00 43.6	-1.3
	comp=Z,148nm,0.7s						
KKM	Kota Kinabalu	14.94	332	P	P	23 00 49.3	-2.0
BBJI	Bungbulang	15.49	268	P	P	23 00 55.8	-0.5
BBJI	Bungbulang	15.49	268	P	P	23 00 55.3	-1.0
BBJI	Bungbulang	15.49	268	P	P	23 00 54.0	-2.4
	comp=Z,97nm,0.7s						
LEM	Lembang	15.54	270	P	P	23 00 56.1	-0.8
	comp=Z,18nm,0.4s,baz=16,slow=8.8,SNR=5.4						
LEM				S	S	23 03 35.0	+0.5
	comp=Z,14nm,0.3s,baz=332,slow=10,SNR=3.9						
CNJI	Cibinong	16.01	269	P	P	23 01 00.0	-1.0
	comp=Z,122nm,0.9s						
WB0	Warramunga Arr	16.49	140	P	P	23 01 05.6	+0.2
WB0				IAmb	IAmb	23 01 08.3	
	comp=Z,7.6nm,0.6s						
WRA	Warramunga Arr	16.59	141	P	P	23 01 06.5	+0.2
	comp=Z,5.0nm,0.6s,baz=316,slow=12,SNR=28						
WRA				S	S	23 03 50.3	-1.1
	comp=Z,4.7nm,0.7s,baz=312,slow=23,SNR=12						
WRA	Warramunga Arr	16.59	141	P	P	23 01 06.1	-0.2
WRAB	Tennant Creek	16.59	141	P	P	23 01 07.6	+1.4
GENI	Genyem	17.45	76	P	P	23 01 15.8	+1.6
GENI	Genyem	17.45	76	P	P	23 01 13.1	-1.1
	comp=Z,64nm,0.8s						
GIRL	Giralia	17.63	209	P	P	23 01 17.0	+1.4
JAY	Jayapura	17.99	76	P	P	23 01 19.5	+0.3
	comp=Z,14nm,0.8s,baz=245,slow=5.5,SNR=6.9						
AS31	Alice Springs	19.28	149	P	P	23 01 31.5	+0.7
AS31				IAmb	IAmb	23 01 36.7	
	comp=Z,4.6nm,0.4s						
ASAR	Alice Springs	19.28	149	P	P	23 01 30.8	+0.1
	comp=Z,5.2nm,0.6s,baz=347,slow=14,SNR=20						
ASAR				S	S	23 04 33.0	-1.7
	comp=Z,3.7nm,0.9s,baz=318,slow=17,SNR=9.4						
ASAR				ScP	ScP	23 08 04.5	+0.7
	comp=Z,2.5nm,0.7s,baz=320,slow=2.0,SNR=12						
ASAR	Alice Springs	19.28	149	P	P	23 01 31.5	+0.8
AS01	Alice Springs	19.30	149	P	P	23 01 32.0	+1.1
MEEK	Meekatharra	19.81	192	P	P	23 01 35.6	+0.1
MEEK	Meekatharra	19.81	192	P	P	23 01 33.1	-2.4
	comp=Z,109nm,1.0s						
QIS	Mount Isa	20.64	132	P	P	23 01 41.7	-1.4
	comp=Z,6.8nm,1.4s						
SDSI	Sungai Dareh	22.65	285	P	P	23 02 00.3	-0.8
	comp=Z,12nm,0.9s						
MORW	Morawa	22.77	197	P	P	23 02 02.3	+0.4
MORW	Morawa	22.77	197	P	P	23 02 01.5	-0.4
MORW	Morawa	22.77	197	P	P	23 02 01.6	-0.4
	comp=Z,56nm,1.2s						
MTSU	Mount Surprise	23.19	120	P	P	23 02 05.6	-0.2
	comp=Z,6.3nm,0.9s						
FORT	Forrest	23.86	170	P	P	23 02 11.1	-0.4
BLDU	Ballidu	24.07	194	P	P	23 02 13.4	0.0
BLDU	Ballidu	24.07	194	P	P	23 02 12.7	-0.8
	comp=Z,62nm,0.9s						
KLBR	Kellerberrin	24.78	191	P	P	23 02 19.7	0.0
KLBR	Kellerberrin	24.78	191	P	P	23 02 19.2	-0.5
	comp=Z,148nm,0.6s						
MNSI	Mandailing Nat	24.94	288	P	P	23 02 19.8	-1.5
	comp=Z,8.2nm,0.8s						
CTA	Charters Tower	25.69	122	P	P	23 02 28.5	+0.6
	comp=Z,3.9nm,0.9s,baz=285,slow=7.3,SNR=4.3						
	comp=Z,3.9nm,0.9s						
AUKUL	Kulin High Sch	25.76	190	P	P	23 02 28.4	+0.1
NWAO	Narrogin (SRO)	26.18	192	P	P	23 02 32.5	+0.5
NWAO	Narrogin (SRO)	26.18	192	P	P	23 02 32.3	+0.3
NWAO	Narrogin (SRO)	26.18	192	P	P	23 02 31.7	-0.3
	comp=Z,42nm,0.7s						
BBOO	Buckleboo	28.10	157	P	P	23 02 48.9	+0.1
BBOO	Buckleboo	28.10	157	P	P	23 02 48.7	-0.1
	comp=Z,38nm,1.3s						
STKA	Stephens Creek	29.90	148	P	P	23 03 05.3	+1.0
	comp=Z,7.5nm,0.6s,baz=316,slow=9.0,SNR=9.0						
	comp=Z,7.5nm,0.6s						
STKA	Stephens Creek	29.90	148	P	P	23 03 04.6	+0.3
	comp=Z,44nm,0.7s						
EIDS	Eidsvold	32.10	127	P	P	23 03 22.8	-0.3
EIDS				IAmb	IAmb	23 03 25.7	
	comp=Z,11nm,1.2s						
AUDCS	Dubbo College	34.30	140	P	P	23 03 42.8	+1.3
CMAR	Chiang Mai Arr	35.03	317	P	P	23 03 49.1	+1.4
	comp=Z,0.5nm,0.3s,baz=136,slow=6.3,SNR=4.4						
CMAR				PcP	PcP	23 06 04.3	+1.9
	comp=Z,0.8nm,0.3s,baz=170,slow=2.4,SNR=6.8						
CMAR				ScP	ScP	23 08 54.0	+2.2
	comp=Z,0.4nm,0.3s,baz=153,slow=3.0,SNR=6.8						
	comp=Z,0.5nm,0.3s						
ARMA	Armidale	35.20	135	P	P	23 03 46.9	-2.3
	comp=Z,57nm,0.8s						
PZH	PanZhiHua	39.50	329	P	P	23 04 26.5	+2.3
JNU	Nakatsue	40.77	10	P	P	23 04 33.4	-0.7
	comp=Z,5.7nm,0.7s,baz=188,slow=7.1,SNR=2.2						
	comp=Z,5.7nm,0.7s						
JMN	Monobe	41.95	13	P	P	23 04 43.6	+0.2
XAN	Xi'an	43.23	343	P	P	23 04 52.8	-0.5
XAN				pmax	pmax		
	comp=Z,21nm,0.6s						
YATNC	Mamie plateau,	44.53	114	P	P	23 05 05.1	+1.6
JGF	Kuroka	44.62	16	P	P	23 05 04.0	0.0
JGF				IAmb	IAmb	23 05 30.4	
	comp=Z,19nm,1.2s						
KSRS	Korea Array	44.66	5	P	P	23 05 04.8	+0.6
	comp=Z,5.4nm,0.8s,baz=177,slow=8.1,SNR=17						
KSRS				PcP	PcP	23 06 34.1	+0.8
	comp=Z,2.0nm,0.6s,baz=191,slow=2.2,SNR=5.5						
	comp=Z,5.4nm,0.8s						
MJAR	Matsushiro Arr	45.74	17	P	P	23 05 11.9	-0.5
	comp=Z,14nm,0.8s,baz=189,slow=8.6,SNR=26						
	comp=Z,14nm,0.8s						
MJAR	Matsushiro Arr	45.74	17	P	P	23 05 11.3	-1.1
LZDM	Lanzhou Array	46.73	338	P	P	23 05 21.1	+0.8
	comp=Z,2.1nm,0.4s,baz=182,slow=8.9,SNR=4.9						
	comp=Z,2.1nm,0.4s						
LZH	Lanzhou	46.79	338	*e*P	P	23 05 21.5	+1.0
LZH				pmax	pmax		
	comp=Z,30nm,1.6s						
BJI2	Beijing	47.46	353	P	P	23 05 24.8	-0.5
BJI2				pmax	pmax		
	comp=Z,7.0nm,0.7s						
HHC	Hu-ho-hao-te	49.03	348	*e*P	P	23 05 39.1	+2.1
HHC				pmax	pmax		
	comp=Z,7.0nm,0.5s						
HHC				pmax	pmax		
	comp=Z,78nm,5.6s						
EVN	Everest	49.63	316	P	P	23 05 42.7	+0.4
EVN				IAmb	IAmb	23 05 43.8	
	comp=Z,7.5nm,0.6s						
JTM	Tenmabayashi	50.51	18	P	P	23 05 47.9	+0.2
GTA2	Gaotai	51.32	337	P	P	23 05 54.5	+0.8
GTA2				pmax	pmax		
	comp=Z,6.0nm,0.7s						
USRK	Ussuriysk Ar.	51.79	8	P	P	23 05 57.1	+0.3
	comp=Z,16nm,0.5s,baz=191,slow=6.8,SNR=31						
	comp=Z,16nm,0.5s						
USRK	Ussuriysk Ar.	51.79	8	P	P	23 05 56.5	-0.3
MDJ	Mudanjiang	51.91	6	P	P	23 05 58.4	+0.7
MDJ				pmax	pmax		
	comp=Z,29nm,0.7s						
MDJ	Mudanjiang	51.91	6	P	P	23 05 58.5	+0.7
	comp=Z,27nm,0.8s						
ERM	Erimo	52.27	19	P	P	23 06 00.9	+0.6
BNX	BinXian	52.85	4	⇓P	P	23 06 03.4	-1.0
BNX				pmax	pmax		
	comp=Z,6.0nm,0.7s						
ASAJ	Asahikawa	54.01	17	P	P	23 06 12.7	+0.1
	comp=Z,13nm,0.7s,baz=201,slow=12,SNR=7.0						
	comp=Z,13nm,0.7s						
JKA	Kamikawa-asahi	54.01	17	P	P	23 06 12.7	+0.1
JKA				IAmb	IAmb	23 06 13.8	
	comp=Z,22nm,1.1s						
MSVF	Nonsavu	54.33	107	P	P	23 06 17.3	+1.8
MSVF				IAmb	IAmb	23 06 18.5	
	comp=Z,26nm,1.1s						
TCW	Tory Channel	56.43	135	P	P	23 06 30.0	+0.5
HILR	Hailar Array B	56.63	357	P	P	23 06 31.4	+0.8
	comp=Z,9.7nm,0.5s,baz=170,slow=9.0,SNR=44						
	comp=Z,9.7nm,0.5s						
ULN	Ulaanbaatar	56.69	347	P	P	23 06 31.6	+0.3
ULN	Ulaanbaatar	56.69	347	P	P	23 06 31.9	+0.6
	comp=Z,7.3nm,1.1s						
KLR	Kul'dur	56.70	7	P	P	23 06 31.3	+0.1
	comp=Z,2.3nm,0.5s,baz=253,slow=3.6,SNR=6.9						
	comp=Z,2.3nm,0.5s						
SONM	Songino Array	56.81	346	P	P	23 06 32.1	+0.1
	comp=Z,5.9nm,0.6s,baz=167,slow=8.0,SNR=22						
	comp=Z,5.9nm,0.6s						
SONM	Songino Array	56.81	346	P	P	23 06 32.2	+0.2
HEH	HeiHe	57.35	3	*e*P	P	23 06 36.0	+0.5
HEH				pmax	pmax		
	comp=Z,27nm,0.8s						
MXZ	Matakaoa Point	58.16	130	P	P	23 06 42.5	+1.3
MXZ				IAmb	IAmb	23 06 45.8	
	comp=Z,44nm,0.8s						
CASY	Casey	59.62	186	P	P	23 06 51.1	+0.7
NIL	Nilore	62.42	314	P	P	23 07 09.7	+0.2
NIL				IAmb	IAmb	23 07 10.1	
	comp=Z,8.5nm,0.6s						
WUS	Wushi	62.86	324	P	P	23 07 11.9	-0.3
KSH2	Kashi	63.85	320	P	P	23 07 19.0	+0.4
KSH2				pmax	pmax		
	comp=Z,7.0nm,0.7s						
SHLS	Shalkode	63.97	326	*e*P	P	23 07 18.4	-0.8
PDGK	Podgornoye	64.06	326	P	P	23 07 19.7	-0.2
ZSN	Zaisan	64.15	332	*e*P	P	23 07 21.2	+1.1
UZB	Uzynbulak	64.21	325	*e*P	P	23 07 21.4	+0.6
SATY	Saty	64.50	325	*e*P	P	23 07 23.1	+0.5
KPKS	Kokpek	64.60	326	*e*P	P	23 07 23.6	+0.4
MKAR	Makanchi Array	64.92	330	P	P	23 07 25.5	+0.5
	comp=Z,6.8nm,0.6s,baz=132,slow=7.8,SNR=69						
	comp=Z,6.8nm,0.6s						
MAKZ	Makanchi	65.08	330	P	P	23 07 26.0	-0.1
MAKZ				IAmb	IAmb	23 07 27.1	
	comp=Z,5.2nm,0.8s						
MAKZ	Makanchi	65.08	330	P	P	23 07 26.3	+0.3
	comp=Z,7.1nm,0.8s						
TNSS	Tian-Shan	65.33	324	*e*P	P	23 07 28.1	0.0
MDOK	Medeo	65.34	324	*e*P	P	23 07 28.1	+0.2
AAA	Alma-Ata	65.45	324	*e*P	P	23 07 29.1	+0.6
	comp=Z,5.8nm,0.4s						

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
BOOM	Boomskoye usch	65.58	323	P	P	23 07 30.1	+0.6
BOOM				IAmb	IAmb	23 07 30.9	
	comp=Z,7.0nm,0.7s						
TDK	Taldyqorghan	65.74	327	*e*P	P	23 07 30.7	+0.6
	comp=Z,5.3nm,0.4s						
KUU	Kurty	66.20	325	*e*P	P	23 07 33.4	+0.4
DRK	Karamyk	66.47	319	P	P	23 07 35.3	+0.2
AAK	Ala-Archa	66.53	323	P	P	23 07 35.9	+0.6
AAK				IAmb	IAmb	23 07 36.9	
	comp=Z,5.5nm,0.7s						
AAK	Ala-Archa	66.53	323	P	P	23 07 36.4	+1.1
	comp=Z,9.6nm,0.9s						
ARSB	Arslanbob	66.71	321	P	P	23 07 36.7	+0.3
ARSB				IAmb	IAmb	23 07 37.7	
	comp=Z,9.2nm,0.6s						
PEA0B	Petropavlovsk-	66.81	22	P	P	23 07 37.3	+0.7
PEA0B				IAmb	IAmb	23 07 38.4	
	comp=Z,19nm,1.2s						
PETK	Petropavlovsk-	66.81	22	P	P	23 07 37.5	+0.9
	comp=Z,7.0nm,0.7s,baz=186,slow=3.4,SNR=14						
	comp=Z,7.0nm,0.7s						
SGDS	Sogindy	66.93	324	*e*P	P	23 07 37.8	+0.2
ARK	Arkit	67.61	321	P	P	23 07 42.0	+0.1
	comp=Z,7.9nm,0.7s						
DZA	Taraz	68.60	322	*e*P	P	23 07 48.1	+0.4
ZAA0	Zalesovo Array	68.99	337	P	P	23 07 49.2	-0.5
ZAA0				IAmb	IAmb	23 07 50.0	
	comp=Z,5.0nm,0.7s						
ZALV	Zalesovo Beam	68.99	337	P	P	23 07 49.1	-0.6
	comp=Z,3.8nm,0.5s,baz=137,slow=4.7,SNR=25						
	comp=Z,3.8nm,0.5s						
ZALV	Zalesovo Beam	68.99	337	P	P	23 07 49.0	-0.7
IUG	Iuzhnay	69.02	320	*e*P	P	23 07 50.7	+0.4
	comp=Z,4.6nm,0.7s						
KURBB	Kurchatov Arra	69.35	331	P	P	23 07 52.1	+0.2
	comp=Z,3.0nm,0.6s,baz=144,slow=5.4,SNR=40						
	comp=Z,3.0nm,0.6s						
KURK	Kurchatov	69.37	331	P	P	23 07 52.1	0.0
KURK				IAmb	IAmb	23 07 53.0	
	comp=Z,5.5nm,0.6s						
KURK	Kurchatov	69.37	331	P	P	23 07 52.4	+0.4
	comp=Z,11nm,0.9s						
BRLS	Borolday	69.60	321	*e*P	P	23 07 53.9	+0.2
MAW	Mawson	72.35	200	P	P	23 08 09.8	+0.5
	comp=Z,1.9nm,0.5s,baz=59,slow=5.6,SNR=6.2						
	comp=Z,1.9nm,0.5s						
MAW	Mawson	72.35	200	P	P	23 08 10.6	+1.4
VNDA	Vanda	73.10	172	P	P	23 08 13.3	-0.1
	comp=Z,0.7nm,0.5s,baz=317,slow=8.0,SNR=9.2						
	comp=Z,0.7nm,0.5s						
VNDA	Vanda	73.10	172	P	P	23 08 14.3	+0.9
BVAR	Borovoye Array	74.80	330	P	P	23 08 23.6	+0.2
	comp=Z,2.7nm,0.7s,baz=121,slow=10,SNR=10						
	comp=Z,2.7nm,0.7s						
VOI	Vohitsoka	74.82	249	P	P	23 08 25.1	+0.7
VOI				IAmb	IAmb	23 08 47.0	
	comp=Z,30nm,1.5s						
BORK	Borovoye	74.85	330	P	P	23 08 24.1	+0.4
AB31	Akbulak array	78.61	323	P	P	23 08 44.2	0.0
ABKAR	Akbulak array	78.61	323	P	P	23 08 43.9	-0.3
TIXI	Tiksi	78.80	2	P	P	23 08 44.0	-0.6
TIXI				IAmb	IAmb	23 08 45.7	
	comp=Z,8.8nm,1.1s						
NRIK	Noril'sk	80.26	348	P	P	23 08 52.8	+0.4
	comp=Z,2.5nm,0.4s,baz=109,slow=4.7,SNR=2.9						
	comp=Z,2.5nm,0.4s						
NRIK	Noril'sk	80.26	348	P	P	23 08 53.0	+0.6
NRIK				IAmb	IAmb	23 08 58.1	
	comp=Z,15nm,1.4s						
RAYN	Ar Rayn	81.75	295	P	P	23 09 02.2	+1.0
ARTI	Arti	82.51	329	P	P	23 09 03.6	-0.6
ARTI				IAmb	IAmb	23 09 04.6	
	comp=Z,7.4nm,0.6s						
QSPA	South Pole Qui	82.76	180	P	P	23 09 05.6	+0.2
	comp=Z,0.6nm,0.4s,baz=204,slow=1.2,SNR=2.0						
	comp=Z,0.6nm,0.4s						
QSPA	South Pole Qui	82.76	180	P	P	23 09 05.7	+0.2
KBZ	Khabaz	88.03	314	P	P	23 09 31.1	+0.1
	comp=Z,1.5nm,0.7s,baz=136,slow=4.3,SNR=5.0						
	comp=Z,1.5nm,0.7s						
G18K	Tagagawik	91.70	24	P	P	23 09 46.8	-0.8
G18K				IAmb	IAmb	23 09 50.9	
	comp=Z,8.7nm,1.4s						
D19K	Kuna River	92.52	21	P	P	23 09 51.5	+0.3
ILAR	Eielson Array	96.42	26	P	P	23 10 07.7	-1.2
	comp=Z,0.4nm,0.6s,baz=260,slow=3.6,SNR=2.1						
	comp=Z,0.4nm,0.6s						
NVAR	Mina Array Bea	116.64	51	PKP	PKiKP	23 15 21.7	+0.6
	comp=Z,0.4nm,0.4s,baz=293,slow=2.0,SNR=4.1						
NVAR	Mina Array Bea	116.64	51		PKiKP	23 15 21.9	+0.8
HLID	Hailey	118.12	44	PKPdf	PKiKP	23 15 25.3	+1.6
ELK	Elko	118.36	47	PKP	PKiKP	23 15 25.6	+1.2
	comp=Z,1.1nm,0.5s,baz=302,slow=3.3,SNR=4.3						
PDAR	Pinedale Array	121.74	44	PKP	PKiKP	23 15 31.4	+0.5
	comp=Z,0.6nm,0.4s,baz=93,slow=1.0,SNR=8.5						
PDAR	Pinedale Array	121.74	44	PKPdf	PKiKP	23 15 31.4	+0.4
TORD	Torodi Ar. Bea	122.29	281	PKP	PKiKP	23 15 32.5	0.0
	comp=Z,1.6nm,0.6s,baz=61,slow=1.8,SNR=12						
SRU	San Rafael Swe	122.31	48	PKPdf	PKPdf	23 15 32.0	+0.1
ESDC	Sonseca Array	122.87	313	PKP	PKiKP	23 15 33.0	0.0
	comp=Z,0.3nm,0.5s,baz=62,slow=3.0,SNR=2.3						
PV14	Lion Creek, Pa	123.66	48	PKPdf	PKiKP	23 15 35.6	+0.7
PV18	Skein Mesa, Pa	123.78	48	PKPdf	PKiKP	23 15 36.1	+1.0
RSSD	Black Hills	124.84	40	PKPdf	PKiKP	23 15 37.1	0.0
ULM	Lac du Bonnet	126.14	30	PKP	PKPdf	23 15 38.2	-0.4
	comp=Z,2.4nm,0.6s,baz=277,slow=1.4,SNR=4.8						
ULM	Lac du Bonnet	126.14	30	PKPdf	PKPdf	23 15 37.9	-0.7
DBIC	Dimbokro	128.52	273	SKPbc	SKPbc	23 18 10.9	
	comp=Z,4.3nm,0.7s,baz=112,slow=3.9,SNR=5.9						
MNTX	Cornudas Mount	128.61	55	PKPdf	PKiKP	23 15 45.3	+0.6
TXAR	Lajitas Array	130.73	57	PKP	PKiKP	23 15 49.8	+0.6
	comp=Z,0.6nm,0.5s,baz=201,slow=2.5,SNR=14						
TXAR				SKPbc	SKPab	23 18 19.3	+1.5
	comp=Z,1.7nm,0.8s,baz=254,slow=3.4,SNR=20						
TXAR	Lajitas Array	130.73	57	PKPdf	PKiKP	23 15 49.3	+0.2
SCHQ	Schefferville	131.84	8	PKP	PKiKP	23 15 50.5	0.0
	comp=Z,3.6nm,0.9s,baz=27,slow=4.5,SNR=7.5						
LRAL	Lakeview Retre	141.96	43	PKPdf	PKPdf	23 16 05.9	-2.7
V53A	Saluda	142.95	36	PKPdf	PKPdf	23 16 08.2	-2.2
BRAL	Brewton	142.99	46	PKPdf	PKPdf	23 16 09.9	-0.6
BG3	Lake Jocassee	143.34	37	PKPdf	PKPdf	23 16 10.4	-0.6
PSUB	Penn St. - Bra	143.37	24	PKPdf	PKPab	23 16 09.3	0.0
T59A	Double "B" Far	144.84	30	PKPdf	PKPbc	23 16 14.6	+0.4
CPUP	Villa Florida	146.64	179	PKPbc	PKPbc	23 16 20.1	+0.6
	comp=Z,1.8nm,0.9s,baz=180,slow=6.1,SNR=4.4						
LPAZ	La Paz	154.06	154	PKPab	PKPab	23 16 56.1	+1.7
	comp=Z,1.5nm,0.8s,baz=176,slow=3.2,SNR=7.5						
LPAZ	La Paz	154.06	154		PKPab	23 16 55.9	+1.5

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*ISU **22** 23:10:09, 40.°38N×72.°35E, h12^{km}*

*KRNET **22** 23:10:16.0±0.1, 40.°53N×72.°28E, h10^{km}, mb2.5*

ISC 22 23:10:14.9±1.0, **40.°52N**±0.°04×**72.°28E**±0.°02, **h9**^{km}±9^{km}, **n17**, σ**1**^{s}**13**/30, **10C-12D, Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TSTA	Tashata	0.16	68	S	Sg	23 10 20.9	0.0
TSTA				S		23 10 24.8	
OHH	Osh	0.39	89	⇓*i*P	Pg	23 10 23.2	+0.6
OHH				⇓*i*S	Sg	23 10 29.0	+1.3
FRG	Fergana	0.40	249	S	Sg	23 10 24.8	-3.3
FRG				S	Sb	23 10 31.3	+0.8
ARSB	Arslanbob	0.97	33	⇓*i*P	Pb	23 10 34.2	+0.3
ARSB				⇓*i*S	Sb	23 10 47.1	+0.3
DRK	Karamyk	1.10	200	⇑*i*P	Pn	23 10 36.9	+0.2
DRK				⇑*i*S	Sn	23 10 52.3	+0.1
BTK	Batken	1.21	248	⇑*i*P	Pg	23 10 38.9	+0.8
BTK				⇑*i*S	Sn	23 10 55.3	+0.8
SALK	Salom-Alik	1.23	72	⇑*e*P	Pg	23 10 39.0	+0.5
SALK				⇑*e*S	Sn	23 10 55.7	+0.5
ARK	Arkit	1.30	350	⇓*i*P	Pg	23 10 40.3	+0.4
ARK				⇓*i*S	Sn	23 10 57.3	+0.4
TRKS	Terek-Say	1.33	320	⇑*i*P	Pn	23 10 39.7	-0.1
TRKS				⇑*i*S	Sb	23 10 56.7	-0.6
CHMG	Chimgan	2.00	302	P	Pb	23 10 51.6	+0.1
CHMG				S	Sg	23 11 20.2	+1.0
PSK	Pskem	2.01	315	P	Pb	23 10 52.0	+0.3
PSK				S	Sg	23 11 20.8	+1.2
CHRV	Charvak	2.09	303	P	Pb	23 10 52.0	-0.9
CHRV				S	Sg	23 11 22.1	+0.2
TVKS	Tavaksay	2.25	299	S	Sg	23 11 26.8	-0.3
EKS2	Erkin-Say	2.42	27	⇓*i*P	Pb	23 10 58.0	-0.7
EKS2				⇓*i*S	Sb	23 11 28.4	-0.2
AAK	Ala-Archa	2.69	37	⇓Pg	Pb	23 11 03.7	+0.3
	0.2nm,0.5s						
AAK				⇑Lg	Lg	23 11 40.7	
	1.0nm,0.6s						
KK31	Karatay Array	2.90	334	⇓Pg	Pg	23 11 10.7	+0.2
	0.3nm,0.4s,baz=144,slow=14,SNR=3.4						
KK31				⇑Lg	Lg	23 11 44.8	
	2.4nm,0.3s,baz=155,slow=30,SNR=12						
KBK	Karagaybulak	2.93	42	⇓*i*P	Pb	23 11 05.0	-2.4
KBK				⇓*i*S	Sb	23 11 40.7	-2.6

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*MEX **22** 23:14:19.4±0.6, 14.°78N×92.°25W, h99^{km}±6^{km}, MD3.6, Presumed earthquake*

*GCG **22** 23:14:21.0±0.3, 14.°80N×92.°14W, h76^{km}±3^{km}, MD3.6, Presumed earthquake*

ISC 22 23:14:14.9±3.2, **14.°9N**±0.°2×**92.°0W**±0.°2, **h117**^{km}±18^{km}, **n8**, σ**1**^{s}**84**/15, **Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SMCA	Catarina	0.06	242	*i* P	Pn	23 14 32.0	+1.1
SMCA				*i* S	Sn	23 14 40.7	-2.3
CHUJ	Union Juarez	0.23	339	*e*P	Pn	23 14 33.2	+1.7
CHUJ				*e*S	Sn	23 14 44.1	0.0
THIG		0.23	276	*e*P	Pn	23 14 31.9	+0.7
THIG				*e*S	Sn	23 14 42.0	-1.5
PATR	El Naranjo	0.31	319	*e*P	Pn	23 14 32.8	+1.0
PATR				*e*S	Sn	23 14 42.8	-1.8
PAVE	Pavencul	0.34	334	*e*P	Pn	23 14 33.9	+1.9
PAVE				*e*S	Sn	23 14 44.8	0.0
RTAL	Retalhuleu	0.48	138	*e*P	Pn	23 14 29.4	-3.0
RTAL				*e*S	Sn	23 14 46.2	+0.6
STG8	El Palmar, Qui	0.78	123	*i* P	Pn	23 14 35.7	+0.8
STG8				*i* S	Sn	23 14 47.1	-2.9
TGIG		2.16	331	*e*P	Pn	23 14 51.4	+1.1
TGIG				*e*S	Sn	23 15 14.8	-2.6

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*UPP **22** 23:17:45.3±0.1, 67.°81N×20.°19E, h0^{km}, ML2.6, Suspected explosion*

*HEL **22** 23:17:45.9±0.4, 67.°79N×20.°17E, h0^{km}, ML1.1, Explosion*

ISC 22 23:17:44.6±0.8, **67.°79N**±0.°03×**20.°29E**±0.°03, **h0**^{km}, **n19**, σ**0**^{s}**85**/32, **Sweden**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RATU	Laukkuluspa	0.27	277	P	Pg	23 17 49.8	0.0
RATU				S	Sg	23 17 53.1	-0.1
NIKU	Nikkaluokta	0.48	280	P	Pg	23 17 53.7	-0.2
NIKU				S	Sg	23 17 59.8	-0.3
LANU	Lannavaara	0.69	67	P	Pb	23 17 58.8	-0.7
LANU				S	Sb	23 18 08.8	-0.9
LANU	Lannavaara	0.69	67	PG	Pb	23 17 58.9	-0.7
LANU				SG	Sb	23 18 09.2	-0.5
MASU	Masugnsbyn	0.73	116	P	Pb	23 17 59.9	-0.4
MASU				S	Sb	23 18 10.6	-0.3
SALU	Saltoluokta	0.80	240	P	Pg	23 17 59.9	0.0
SALU				S	Sg	23 18 10.3	0.0
PAJU	Pajala	1.33	124	P	Pb	23 18 10.5	0.0
PAJU	Pajala	1.33	124	PG	Pn	23 18 10.2	-0.3
PAJU				SB	Sn	23 18 28.7	-0.2
HEF	Hetta	1.41	62	PG	Pb	23 18 11.6	-0.2
HEF				smax	smax	23 18 29.4	
	comp=Z,1.3nm,0.2s						
HEF				SN	Sn	23 18 32.8	+2.1
ERTU	Ertsjaerv	1.45	148	P	Pg	23 18 12.3	0.0
ERTU	Ertsjaerv	1.45	148	PG	Pb	23 18 12.7	+0.3
ERTU				SN	Sn	23 18 32.7	+1.0
KLF	Kolari	1.52	110	PG	Pg	23 18 13.8	+0.1
KLF				smax	smax	23 18 32.8	
	comp=Z,1.3nm,0.2s						
KLF				SG	Sn	23 18 34.4	+0.9
KTK1	Kautokeino	1.64	40	PG	Pg	23 18 16.2	+0.1
KTK1				SN	Sg	23 18 39.3	+2.0
HARU	Harads	1.66	170	P	Pb	23 18 16.0	0.0
TRO	Tromso	1.92	346	SG	Sg	23 18 45.4	-0.8
TOF	Tornio	2.34	135	PG	Pb	23 18 27.3	-0.3
TOF				smax	smax	23 18 56.1	
	comp=Z,0.5nm,0.2s						
TOF				SG	Sb	23 18 58.0	+1.0
RNF	Rovaniemi	2.52	115	PB	Pb	23 18 30.0	-0.7
RNF				SG	Sb	23 19 03.1	+0.8
ARA0	ARCESS Array S	2.59	45	SB	Sb	23 19 03.9	-0.3
RANF	Ranua	3.12	122	SG	Sg	23 19 22.5	-2.2

IDC 22 23:21:16.4±5.7, **19.°88S**×**179.°63W**, **h0**^{km}, **mb3.5**/2, **mbtmp3.5**/2, **Error ellipse: s-maj=343.0km s-min=71.9km az=155.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	43.17	262	P	P	23 29 18.6	-0.6
	0.2nm,0.4s,baz=97,slow=7.4,SNR=4.8						
	0.2nm,0.4s						
ASAR	Alice Springs	43.17	256	P	P	23 29 19.6	+0.3
	0.4nm,0.6s,baz=101,slow=7.9,SNR=4.2						
	0.4nm,0.6s						
FINES	FINESS Array B	134.74	343	PKP	PKPdf	23 40 36.2	-0.4
	0.9nm,0.7s,baz=18,slow=1.8,SNR=4.6						

IDC 22 23:22:52.5±3.4, **4.°65S**×**142.°16E**, **h0**^{km}, **mb3.3**/3, **mbtmp3.5**/5, **ML3.6**/2, **Error ellipse: s-maj=74.5km s-min=18.5km az=80.0, New Guinea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAY	Jayapura	2.57	326	Pn	Pn	23 23 35.6	+0.2
	6.2nm,0.3s,baz=168,slow=11,SNR=23						
JAY				Sn	Sb	23 24 09.7	-2.1
	14nm,0.3s,baz=243,slow=16,SNR=7.0						
	12nm,0.3s						
JAY				AML	AML		
WRA	Warramunga Arr	17.00	206	Pn	Pn	23 26 50.5	-1.4
	0.3nm,0.3s,baz=24,slow=11,SNR=12						
	1.0nm,0.6s						
WRA				AML	AML		
ASAR	Alice Springs	20.51	202	P	P	23 27 32.4	0.0
	1.6nm,0.7s,baz=29,slow=11,SNR=12						
	1.6nm,0.7s						
FITZ	Fitzroy Crossi	20.96	229	P	P	23 27 37.1	-0.2
	0.8nm,0.6s,baz=60,slow=14,SNR=1.3						
FITZ				S	S	23 31 12.8	-19
	1.3nm,0.6s,baz=195,slow=22,SNR=1.6						
	0.8nm,0.6s						
MKAR	Makanchi Array	73.43	322	P	P	23 34 26.5	-0.2
	0.3nm,0.7s,baz=101,slow=7.5,SNR=2.3						
	0.3nm,0.7s						

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*PGC **22** 23:25:47.5±3.3, 47.°28N×129.°01W, h10^{km}, MLSn3.1/16, Mw3.7/16, 310km southwest of Tofino, Bc Off Coast Of Washington*

*IDC **22** 23:25:48.6±2.1, 47.°18N×128.°83W, h0^{km}, mb3.5/2, mbtmp3.3/8, ML3.6/6, MS3.4/6, Error ellipse: s-maj=40.0km s-min=14.9km az=63.0*

*NEIC **22** 23:25:49.6±0.8, 47.°4N±0.°1×129.°0W±0.°2, h10^{km}±2^{km}, mb4.1/18, ML3.3/36, Error ellipse: s-maj=29.4km s-min=18.8km az=221.0*

ISC 22 23:25:50.0±0.7, **47.°47N**±0.°06×**128.°71W**±0.°06, **h10**^{km}, **n124**, σ**1**^{s}**33**/120, **mb4.3**/4, **MS3.4**/3, **Off coast of Washington**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KEMO	NEPTUNE Canada	0.53	329	P	Pg	23 25 58.2	-2.1
KEMF	NEPTUNE Canada	0.55	331	P	Pg	23 25 59.5	-1.1
NCHR	NEPTUNE Canada	0.57	333	P	Pg	23 25 59.9	-1.1
TOFB	Tofino	2.52	47	Pn	Pn	23 26 30.8	-0.2
NTKA	Nootka	2.54	32	Pn	Pn	23 26 31.0	-0.2
NTKA				Sn	Sn	23 27 03.4	+1.2
B012	Ucluelet	2.57	54	Pn	Pn	23 26 31.8	+0.2
OZB	Mount Ozzard	2.62	54	Pn	Pn	23 26 32.2	-0.2
EDB	Eliza Dome	2.63	23	Pn	Pn	23 26 32.6	+0.1
B928	Bamfield	2.75	59	Pn	Pn	23 26 34.1	0.0
TAHB	Tahsis	2.77	28	Pn	Pn	23 26 35.0	+0.5
FHBB	Fair Harbour	2.80	21	Pn	Pn	23 26 35.0	+0.2
C03A	Quillayute Air	2.84	79	Pn	Pn	23 26 35.0	-0.3
C03A				IAML		23 27 22.9	
	comp=N,88nm,1.9s						
C03A				IAML		23 28 07.9	
	comp=E,82nm,2.8s						
GDR	Gold River	2.92	36	Pn	Pn	23 26 37.3	+0.9
MGRB	Mount Grey	3.09	59	Pn	Pn	23 26 38.7	-0.2
HOLB	Holberg	3.20	7	Pn	Pn	23 26 40.1	-0.3
HOLB				IAML		23 27 27.9	
	comp=N,92nm,2.0s						
HOLB				IAML		23 28 15.8	
	comp=E,73nm,2.4s						
NLWA	Neilton Lookou	3.28	90	Pn	Pn	23 26 41.3	-0.3
B926	Mesachie Lake	3.35	64	Pn	Pn	23 26 42.2	-0.2
CLRS	Cowichan Lake	3.35	64	Pn	Pn	23 26 42.2	-0.2
CLRS	Cowichan Lake	3.35	64	Pn	Pn	23 26 41.9	-0.5
WISH	Wishkah	3.38	94	Pn	Pn	23 26 42.5	-0.3
WISH				IAML		23 27 43.3	
	comp=N,48nm,4.3s						
WISH				IAML		23 28 54.7	
	comp=E,76nm,4.0s						
CBB	Campbell River	3.39	39	Pn	Pn	23 26 44.2	+1.2
CBB	Campbell River	3.39	39	Pn	Pn	23 26 43.8	+0.9
CBB				IAML		23 27 38.0	
	comp=N,24nm,3.5s						
CBB				IAML		23 28 14.4	
	comp=E,24nm,3.8s						
OSD	Olympics--Snow	3.40	82	Pn	Pn	23 26 43.2	-0.1
NCSB	Newcastle Ridg	3.42	30	Pn	Pn	23 26 44.9	+1.5
SYMB	Survey Mountai	3.47	70	Pn	Pn	23 26 43.6	-0.5
RADR	Rader Ridge	3.52	106	Pn	Pn	23 26 44.7	-0.1
RADR				IAML		23 27 43.3	
	comp=E,42nm,2.2s						
RADR				IAML		23 28 14.8	
	comp=N,35nm,2.2s						
B04A	Port Angeles	3.56	79	Pn	Pn	23 26 45.1	-0.2
NLLB	Nanaimo Lost L	3.60	59	Pn	Pn	23 26 46.5	+0.6
TXDB	Texada	3.60	50	Pn	Pn	23 26 46.9	+1.0
E03A	Lebam	3.64	103	Pn	Pn	23 26 46.4	0.0
E03A				Sn	Sn	23 27 29.8	+0.5
E03A	Lebam	3.64	103	Pn	Pn	23 26 45.5	-0.8
E03A				IAML		23 27 34.3	
	comp=N,37nm,2.0s						
E03A				IAML		23 27 40.0	
	comp=E,35nm,2.2s						
PGC	Sidney	3.72	70	Sn	Sb	23 27 35.9	-4.8
PGC	Sidney	3.72	70	Pn	Pn	23 26 47.0	-0.5
PGC				IAML		23 28 48.9	
	comp=N,18nm,4.2s						
SHB	Sechelt	3.85	55	Pn	Pn	23 26 50.9	+1.5
SNB	Saturna Island	3.93	69	Pn	Pn	23 26 50.8	+0.4
SNB				Sn	Sb	23 27 41.1	-5.8
GNW	Green Mountain	3.99	86	Pn	Pn	23 26 51.7	+0.5
WPB	Watts Point	4.25	57	Pn	Pn	23 26 56.2	+1.4
JRO	Jston Ridge Ob	4.61	103	Pn	Pn	23 27 00.2	+0.4
JRO				IAML		23 28 00.7	
	comp=E,22nm,0.4s						
JRO				IAML		23 28 00.9	
	comp=N,35nm,0.6s						
STD	Studebaker Rid	4.61	103	Pn	Pn	23 27 00.3	+0.4
STD				IAML		23 27 58.9	
	comp=N,28nm,0.6s						
STD				IAML		23 28 00.6	
	comp=E,34nm,0.2s						
JCW	Jim Creek	4.62	78	Pn	Pn	23 27 00.7	+0.8
WSLR	Whistler	4.66	53	Pn	Pn	23 27 02.4	+2.0
BBB	Bella Bella	4.74	4	Pn	Pn	23 27 01.8	+0.3
	comp=E,6.0nm,0.3s,baz=186,slow=3.8,SNR=48						
	comp=E,20nm,0.4s						
BBB				AML	AML		
BBB	Bella Bella	4.74	4	Pn	Pn	23 27 03.1	+1.7
BBB	Bella Bella	4.74	4	Pn	Pn	23 27 02.8	+1.3
LON	Longmire	4.76	96	Pn	Pn	23 27 03.4	+1.5
LON				Sn	Sn	23 28 00.3	+3.2
FMW	Mount Fremont	4.82	94	Pn	Pn	23 27 03.8	+0.9
G04A	Mulino	4.87	115	Pn	Pn	23 27 03.7	+0.4
H04D	Lebanon	5.09	123	Pn	Pn	23 27 07.2	+0.8
H04D				IAML		23 27 46.4	
	comp=N,24nm,4.5s						
BUCK	Buck Mountain	5.16	127	Pn	Pn	23 27 08.0	+0.6
HOOD	Mount Hood Mea	5.33	111	Pn	Pn	23 27 11.4	+1.6
LTY	Liberty	5.46	89	Pn	Pn	23 27 13.0	+1.4
LTY	Liberty	5.46	89	Pn	Pn	23 27 12.4	+0.9
LLLB	Lillooet	5.48	52	Pn	Pn	23 27 13.7	+2.0
LLLB	Lillooet	5.48	52	Pn	Pn	23 27 13.0	+1.3
G05A	Wamic	5.58	111	Pn	Pn	23 27 14.2	+1.2
I04A	Tendick Farm,	5.74	127	Pn	Pn	23 27 14.8	-0.5
WIFE	Three Sisters-	5.90	123	Pn	Pn	23 27 18.3	+0.6
K02D	Willamette Mer	5.96	141	Pn	Pn	23 27 16.9	-1.5
I05D	Terrebonne, OR	6.02	119	Pn	Pn	23 27 20.0	+0.9
EPH	Ephrata	6.18	88	Pn	Pn	23 27 21.6	+0.2
BBOR	Butler Butte	6.25	135	Pn	Pn	23 27 22.8	+0.3
HAWA	Hanford	6.37	96	Pn	Pn	23 27 24.1	+0.1
KRMB	Red Mountain	6.86	148	Pn	Pn	23 27 30.6	-0.1
L04D	Klamath Falls	6.95	137	Pn	Pn	23 27 32.3	+0.3
C09A	Chrisman Ranch	7.06	83	Pn	Pn	23 27 32.6	-0.7
YBH	Yreka Blue Hor	7.15	141	Pn	Pn	23 27 30.8	-3.9
	comp=N,0.2nm,0.3s,baz=339,slow=11,SNR=7.6						
YBH				LR	LR	23 29 48.5	
	comp=N,167nm,19.9s,baz=351,slow=34						
	comp=N,0.3nm,0.5s						
YBH				AML	AML		
YBH	Yreka Blue Hor	7.15	141	Pn	Pn	23 27 33.9	-0.9
M02C	Callahan	7.38	143	Pn	Pn	23 27 38.7	+0.9
NEW	Newport	7.83	80	Pn	Pn	23 27 44.1	+0.1
	comp=N,0.4nm,0.3s,baz=270,slow=9.5,SNR=5.6						
	comp=N,1.8nm,0.5s						
NEW				AML	AML		
NEW	Newport	7.83	80	Pn	Pn	23 27 43.8	-0.2
F10A	Beach Ranch, E	8.03	97	Pn	Pn	23 27 47.2	+0.4
PLID	Pearl Lake	9.12	100	Pn	Pn	23 28 03.4	+1.6
JTMT	Jette	9.75	83	Pn	Pn	23 28 10.6	+0.2
PAHR	Pah Rah Range	10.28	136	Pn	Pn	23 28 18.3	+0.6
MCMT	McKenzie Canyo	11.31	98	Pn	Pn	23 28 32.6	+0.7
ELK	Elko	11.78	120	Pn	Pn	23 28 38.3	+0.1
	comp=N,0.1nm,0.3s,baz=302,slow=12,SNR=3.7						
	comp=N,0.1nm,0.3s						
ELK				AML	AML		
NVAR	Mina Array Bea	11.81	136	Pn	Pn	23 28 36.6	-2.1
	comp=N,0.1nm,0.3s,baz=314,slow=15,SNR=4.6						
NVAR				LR	LR	23 32 44.3	
	comp=N,136nm,21.4s,baz=328,slow=35						
	comp=N,0.2nm,0.3s						
NVAR				AML	AML		
LHV	Little Huntoon	11.86	137	Pn	Pn	23 28 41.7	+2.6
YHH	Holmes Hill	12.67	96	Pn	Pn	23 28 52.5	+2.0
PSUT	Pine Spring	14.04	124	P	P	23 29 17.5	+0.4
ISA	Isabella, Lake	14.05	143	Pn	Pn	23 29 08.7	-0.4
PRN	Pahroc Range	14.22	130	P	P	23 29 19.6	+0.6
CLC	China Lake	14.28	141		Pn	23 29 12.2	-0.2
PD31	Pinedale Array	14.30	102	P	P	23 29 21.5	+1.5
PDAR	Pinedale Array	14.30	102	Pn	Pn	23 29 16.1	+3.4
	comp=N,0.1nm,0.3s,baz=292,slow=17,SNR=8.8						
	comp=N,0.2nm,0.5s						
PDAR				AML	AML		
PDAR	Pinedale Array	14.30	102	P	P	23 29 21.7	+1.7
QSM	Queen of Sheba	14.48	138	Pn	Pn	23 29 14.8	-0.2
CCCA	Chr Cany lake	14.63	141	Pn	Pn	23 29 17.1	0.0
SHPR	Sheep Range	14.86	133	Pn	Pn	23 29 20.3	+0.1
U15A	North Rim	16.42	126	P	P	23 29 43.4	-0.2
U15A				IAmb	IAmb	23 29 48.3	
	comp=Z,9.3nm,1.0s						
PFO	Pinyon Flats O	16.65	142	LR	LR	23 35 00.5	
	comp=Z,89nm,20.0s,baz=56,slow=34						
PV21	Cone Mtn., Par	16.92	115	P	P	23 29 49.9	+0.9
PV23	Carpenter Ridg	16.96	115	P	P	23 29 50.6	+1.1
PV23				IAmb	IAmb	23 29 54.5	
	comp=Z,26nm,1.0s						
PV22	Blue Mesa, Par	17.05	114	P	P	23 29 52.5	+2.1
PV22				IAmb	IAmb	23 29 55.4	
	comp=Z,20nm,0.9s						
PV04	Paradox Valley	17.06	115	P	P	23 29 51.7	+1.1
PV04				IAmb	IAmb	23 29 55.6	
	comp=Z,21nm,1.0s						
PV17	East Wray Mesa	17.10	115	P	P	23 29 52.4	+1.4
PV17				IAmb	IAmb	23 30 01.6	
	comp=Z,10.0nm,0.8s						
PV12	Saucer Basin,	17.17	115	P	P	23 29 52.2	+0.3
PV12				IAmb	IAmb	23 30 01.9	
	comp=Z,21nm,1.2s						
FFC	Flin Flon	18.21	57		P	23 30 04.1	+1.2
FFC				IAmb	IAmb	23 30 07.6	
	comp=Z,10nm,0.8s						
ILAR	Eielson Array	19.95	337	P	P	23 30 23.7	+1.8
	comp=Z,0.9nm,1.1s,baz=149,slow=9.0,SNR=5.0						
ILAR				LR	LR	23 36 32.5	
	comp=Z,243nm,19.0s,baz=87,slow=32						
TUC	Tucson	20.38	132	P	P	23 30 26.7	-0.2
TUC				IAmb	IAmb	23 30 32.5	

	comp=Z,4.7nm,1.2s						
TASM	**ASL Pad, Albuq**	**20.81**	**119**	P	**P**	**23 30 32.0**	**+0.3**
ANMO	**Albuquerque**	**20.81**	**119**	P	**P**	**23 30 32.4**	**+0.7**
	comp=Z,1.5nm,0.9s,baz=309,slow=13,SNR=4.7						
ANMO				LR	LR	23 39 05.1	
	comp=Z,85nm,19.4s,baz=57,slow=38						
	comp=Z,1.5nm,0.9s						
ANMO	**Albuquerque**	**20.81**	**119**	P	**P**	**23 30 32.7**	**+1.0**
ALQ	**Albuquerque**	**20.81**	**119**	P	**P**	**23 30 31.7**	**0.0**
ALQ	**Albuquerque**	**20.81**	**119**	P	**P**	**23 30 32.2**	**+0.4**
ALQ				IAmb	IAmb	23 30 35.3	
	comp=Z,2.1nm,0.9s						
LENM	**Lemitar**	**21.05**	**121**	P	**P**	**23 30 34.8**	**+0.5**
DUN6	**Lazy B Ranch**	**21.07**	**128**	P	**P**	**23 30 34.8**	**+0.3**
CRNM	**Carthage**	**21.35**	**121**	P	**P**	**23 30 39.2**	**+1.7**
M17K	**Holitna River**	**21.52**	**321**	P	**P**	**23 30 37.8**	**-1.1**
J19K	**Poorman**	**22.17**	**328**	P	**P**	**23 30 45.5**	**-0.3**
J19K				IAmb	IAmb	23 30 53.0	
	comp=Z,16nm,1.4s						
F19K	**Shaleruckik Mo**	**24.59**	**332**	P	**P**	**23 31 09.0**	**-0.9**
F19K				IAmb	IAmb	23 31 18.5	
	comp=Z,8.1nm,1.2s						
DKNS	**Dickens**	**25.05**	**113**	P	**P**	**23 31 16.4**	**+2.0**
TXAR	**Lajitas Array**	**26.52**	**124**	P	**P**	**23 31 28.6**	**+0.8**
	comp=Z,1.3nm,1.1s,baz=325,slow=8.2,SNR=5.5						
	comp=Z,1.3nm,1.1s						
LPIG	**La Paz**	**27.55**	**141**	LR	LR	23 42 08.9	
	comp=Z,100nm,19.2s,baz=23,slow=36						
H11N2	**WAKE ISLAND Hy**	**58.49**	**265**	T	T	00 38 44.6	
	baz=45,slow=75,SNR=27						
H11N3	**WAKE ISLAND Hy**	**58.49**	**265**	T	T	00 38 44.6	
	baz=45,slow=75,SNR=30						
H11N1	**WAKE ISLAND Hy**	**58.50**	**265**	T	T	00 38 46.8	
	baz=45,slow=75,SNR=20						
H11S1	**WAKE ISLAND Hy**	**59.47**	**264**	T	T	00 39 55.9	
	baz=45,slow=75,SNR=14						
H11S2	**WAKE ISLAND Hy**	**59.48**	**264**	T	T	00 39 56.4	
	baz=45,slow=75,SNR=32						
H11S3	**WAKE ISLAND Hy**	**59.49**	**264**	T	T	00 39 56.8	
	baz=45,slow=75,SNR=11						
HHC	**Hu-ho-hao-te**	**77.09**	**317**	*e*P	**P**	**23 37 41.6**	**-1.9**
HHC				pmax	pmax		
	comp=Z,13nm,0.5s						
HHC				pmax	pmax		
	comp=Z,44nm,4.9s						
WMQ	**Urumqi**	**83.59**	**334**	*e*P	**P**	**23 38 19.9**	**+1.5**
WMQ				LR	LR		
	comp=Z,110nm,24.0s						
XAN	**Xi'an**	**83.82**	**315**	*e*P	**P**	**23 38 20.1**	**+0.4**
PZH	**PanZhiHua**	**93.50**	**316**	P	**P**	**23 39 04.4**	**-1.8**

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*NEIC **22** 23:44:12.7, 62°.37S×58°.32W, h10^{km}*

*NEIC **22** 23:44:13.2±1.2, 62°.32S±0°.06×58°.2W±0°.2, h10^{km}±1^{km}, mb5.0/45, Mww5.2/20, Error ellipse: s-maj=12.6km s-min=8.8km az=247.0*

*BJI **22** 23:44:13.9, 63°.08S×58°.35W, h10^{km}, Ms5.2/5, Ms7 5.0/9*

*NEIC **22** 23:44:13.2, 62°.47S×57°.67W, h22^{km}, Moment Tensor Solution. Duration: 2^{s}1 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-0.99; M$_{\theta\theta}$0.24; M$_{\phi\phi}$0.74; M$_{r\theta}$1.35; M$_{\theta\phi}$6.34; M$_{\phi r}$-4.91; Fault plane solution: M$_{0}$8.18000×10^{16} NP1: ϕ_s265.01000°, δ52.84000°, λ-9.67000°. NP2: ϕ_s0.89000°, δ82.31000°, λ-142.44000°. Principal axes: T 7.7570, Plg19.0000°, Azm127.0000°; N 0.7814, Plg52.0000°, Azm11.0000°; P -8.5383, Plg31.0000°, Azm230.0000°;*

*IDC **22** 23:44:15.0±0.4, 62°.28S×57°.97W, h0^{km}, mb4.5/14, mbtmp4.5/16, ML4.2/1, MS4.5/17 Error ellipse: s-maj=15.5km s-min=11.0km az=86.0*

*MOS **22** 23:44:16.1±1.5, 62°.31S×57°.85W, h16^{km}, mb5.0/11, Error ellipse: s-maj=30.1km s-min=10.1km az=92.4*

*GFZ **22** 23:44:17.0±0.2, 62°S±4°×5°8W±°, h10^{km}, M4.9/23, mb5.0/23*

*GFZ **22** 23:44:17.1, 62°.41S×58°.34W, h10^{km}, Mw5.1/29, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M$_{rr}$0.11; M$_{\theta\theta}$1.39; M$_{\phi\phi}$-1.49; M$_{r\theta}$-0.58; M$_{\theta\phi}$4.46; M$_{\phi r}$1.05; Fault plane solution: M$_{0}$4.83398×10^{16} NP1: ϕ_s98.18205°, δ79.37101°, λ-7.96331°. NP2: ϕ_s189.66007°, δ82.17418°, λ-169.26991°. Principal axes: T 4.6334, Plg1.9567°, Azm323.6991°; N 0.3788, Plg76.7463°, Azm225.3591°; P -5.0122, Plg13.1032°, Azm54.1548°;*

*GCMT **22** 23:44:17.2±0.2, 62°.33S±0°.01×58°.17W±0°.03, h14^{km}±1^{km}, MW5.1/135, Moment Tensor Solution. s79,c96; s135,c205; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-1.14±.14; M$_{\theta\theta}$-0.00±.13; M$_{\phi\phi}$1.14±.14; M$_{r\theta}$0.38±.26; M$_{\theta\phi}$5.72±.13; M$_{\phi r}$-1.37±.28; Best double couple: M$_{0}$5.95400×10^{16} NP1: ϕ_s266.00000°, δ75.00000°, λ-7.00000°. NP2: ϕ_s358.00000°, δ83.00000°, λ-165.00000°. Principal axes: T 6.3950, Plg6.0000°, Azm132.0000°; N -0.8840, Plg73.0000°, Azm21.0000°; P -5.5140, Plg16.0000°, Azm223.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 22 23:44:15.0±0.9**, 62°.33S**±0°.04×**58°.35W**±0°.05**, h10**^{km}±5^{km}**, n232,** σ**2^{s}01**/229**, mb4.9**/48**, MS4.5**/25**, 8C-5D, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JUBA	**Jubany**	**0.17**	**302**	*e*P	**Pg**	**23 44 17.4**	**-1.2**
JUBA				*i* S	**Sg**	**23 44 20.2**	**-1.0**
JUBA				IAML		23 44 25.7	
	comp=Z,229µm,0.7s						
ESPZ	**Base Esperanza**	**1.24**	**151**	*e*P	**Pn**	**23 44 35.8**	**-2.5**
ESPZ				*i* S	**Sb**	**23 44 52.4**	**-2.1**
ESPZ	**Base Esperanza**	**1.24**	**151**		**Pn**	**23 44 35.4**	**-2.9**
ESPZ				Sg	**Sb**	**23 44 50.9**	**-3.5**
PMSA	**Palmer Station**	**3.54**	**224**	Pn	**Pn**	**23 45 09.6**	**-0.3**
	comp=Z,20nm,0.3s,baz=53,slow=9.6,SNR=59						
PMSA				Sn	**Sn**	**23 45 52.2**	**+0.5**
	comp=Z,9.6nm,0.3s,baz=58,slow=9.2,SNR=5.0						
	comp=Z,40nm,0.3s						
PMSA				AML	AML		
PMSA	**Palmer Station**	**3.54**	**224**	*i* P	**Pn**	**23 45 09.8**	**-0.1**
PMSA				*i* S	**Sb**	**23 45 58.5**	**-2.0**
PMSA	**Palmer Station**	**3.54**	**224**	Pn	**Pn**	**23 45 08.6**	**-1.3**
PMSA	**Palmer Station**	**3.54**	**224**	*e*P	**Pn**	**23 45 10.0**	**+0.1**
PMSA				*e*pP	Pb	23 45 13.4	-4.1
PMSA	**Palmer Station**	**3.54**	**224**	P	**Pn**	**23 45 10.3**	**+0.4**
ORCD	**Orcadas**	**6.70**	**82**	*e*P	**Pn**	**23 45 54.2**	**+1.0**
ORCD				*i* S	Sn	23 46 53.3	-16
ORCD				IAML		23 48 00.7	
	comp=Z,153nm,1.5s						
ORCD	**Orcadas**	**6.70**	**82**	Pn	Pn	23 45 50.4	-2.8
SMAI	**San Martin Ant**	**6.88**	**208**	*e*P	**Pn**	**23 45 56.3**	**+0.5**
USHA	**Ushuaia**	**9.17**	**321**	Pn	**Pn**	**23 46 26.2**	**-0.9**
	comp=Z,16nm,0.5s,baz=55,slow=1.0,SNR=6.6						
USHA				Sn	**Sn**	**23 48 06.2**	**-4.1**
	comp=Z,3.4nm,0.3s,baz=175,slow=0.6,SNR=1.2						
USHA	**Ushuaia**	**9.17**	**321**	*e*P	**Pn**	**23 46 27.3**	**+0.2**
USHA				IAML		23 48 41.3	
	comp=Z,43nm,3.2s						
MG03	**Isla Dawson**	**10.63**	**318**	Pn	**Pn**	**23 46 46.9**	**-0.2**
EFI	**East Falkland**	**10.68**	**1**	*i* P	**Pn**	**23 46 48.3**	**+0.4**
EFI				*i* S	**Sn**	**23 48 43.1**	**-4.3**
EFI				IAML		23 49 35.5	
	comp=Z,99nm,2.5s						
EFI	**East Falkland**	**10.68**	**1**	*i* P	**Pn**	**23 46 48.9**	**+1.0**
EFI	**East Falkland**	**10.68**	**1**	Pn	**Pn**	**23 46 44.1**	**-3.8**
MG02	**Cerro Sombrero**	**11.19**	**324**	Pn	**Pn**	**23 46 54.5**	**-0.4**
HOPE	**Hope Point**	**13.97**	**65**	P	**Pn**	**23 47 34.3**	**+1.6**
HOPE	**Hope Point**	**13.97**	**65**	Pn	**Pn**	**23 47 34.3**	**+1.6**
GO08	**Villa O'Higgin**	**16.01**	**324**	P	**Pn**	**23 48 01.0**	**+1.0**
GO08	**Villa O'Higgin**	**16.01**	**324**	P	**P**	**23 48 03.5**	**0.0**
	comp=Z,67nm,1.6s						
BELA	**Belgrano 2**	**17.31**	**163**	P	**Pn**	**23 48 13.7**	**-2.7**
COYC	**Coyhaique**	**18.56**	**328**	P	**P**	**23 48 30.0**	**-1.7**
COYC	**Coyhaique**	**18.56**	**328**	P	**Pn**	**23 48 36.6**	**+4.8**
	comp=Z,69nm,1.7s						
VNA3	**Neumayer Olymp**	**20.53**	**136**	⇑P	**P**	**23 48 53.3**	**+0.3**
	comp=Z,35nm,0.8s						
VNA3				⇓S	Sn	23 52 53.6	+7.4
	comp=E,2.7nm,0.6s						
VNA3	**Neumayer Olymp**	**20.53**	**136**	P	**P**	**23 48 54.2**	**+1.1**
	comp=Z,63nm,0.9s						
LL02	**Futaleuf**	**20.75**	**331**	P	**P**	**23 48 54.1**	**-1.6**
LL02	**Futaleuf**	**20.75**	**331**	P	Pn	23 48 59.2	+1.2
	comp=Z,80nm,1.9s						
VNA1	**Neumayer--Stat**	**21.00**	**134**	⇑P	**P**	**23 48 59.1**	**+1.1**
	comp=Z,51nm,1.0s						
VNA2	**Neumayer--Watz**	**21.27**	**135**	⇑P	**P**	**23 49 01.6**	**+0.5**
	comp=Z,21nm,0.7s,baz=271,slow=11						
VNA2				⇓S	Sn	23 53 05.8	+1.6
	comp=E,3.9nm,0.9s,baz=259,slow=25						
VNA2	**Neumayer--Watz**	**21.27**	**135**	P	**P**	**23 49 01.6**	**+0.5**
	comp=Z,46nm,0.9s						
SNAA	**Sanae**	**22.70**	**137**	⇑P	**P**	**23 49 16.6**	**+0.3**
	comp=Z,704nm,0.8s						
SNAA				⇑S	Sn	23 53 32.3	-6.0
	comp=E,23nm,0.3s						
SNAA	**Sanae**	**22.70**	**137**	P	**P**	**23 49 16.2**	**-0.2**
	comp=E,21nm,0.9s,baz=258,slow=8.2,SNR=31						
	comp=E,21nm,0.9s						
SNAA	**Sanae**	**22.70**	**137**	*i* P	**P**	**23 49 15.6**	**-0.8**
SNAA				pmax	pmax		
	comp=Z,57nm,1.1s						
SNAA	**Sanae**	**22.70**	**137**	P	**P**	**23 49 15.3**	**-1.1**
SNAA				IAmb	IAmb	23 49 24.7	
	comp=Z,40nm,0.9s						
SNAA	**Sanae**	**22.70**	**137**	P	**P**	**23 49 16.8**	**+0.4**
	comp=Z,52nm,1.1s						
LL05	**Los Muermos**	**22.83**	**330**	P	**P**	**23 49 15.9**	**-1.9**
LL05	**Los Muermos**	**22.83**	**330**	P	**P**	**23 49 19.3**	**+1.4**
	comp=Z,178nm,0.9s						
LL03	**Petrohue**	**22.84**	**332**	P	**P**	**23 49 15.8**	**-2.1**
LL03				IAmb	IAmb	23 49 23.3	
	comp=Z,33nm,0.8s						
PLCA	**Paso Flores**	**22.84**	**336**	P	**P**	**23 49 18.3**	**+0.2**
	comp=Z,15nm,0.9s,baz=165,slow=8.6,SNR=27						
PLCA				LR	LR	23 58 14.6	
	comp=Z,1µm,19.7s,baz=162,slow=37						
	comp=Z,15nm,0.9s						
PLCA	**Paso Flores**	**22.84**	**336**	*e*P	**P**	**23 49 20.4**	**+2.3**
PLCA				pmax	pmax		
	comp=Z,16nm,0.9s						
PLCA	**Paso Flores**	**22.84**	**336**	P	**P**	**23 49 15.9**	**-2.3**
PLCA	**Paso Flores**	**22.84**	**336**	*e*P	**P**	**23 49 21.0**	**+2.8**
PLCA				*e*pP	**pP**	**23 49 21.9**	**+1.4**
PLCA	**Paso Flores**	**22.84**	**336**	P	**P**	**23 49 21.1**	**+3.0**
	comp=Z,39nm,1.8s						
GO06	**Curarrehue**	**24.13**	**335**		**P**	**23 49 29.1**	**-1.8**
GO06				IAmb	IAmb	23 49 34.7	
	comp=Z,74nm,1.1s						
GO06	**Curarrehue**	**24.13**	**335**	P	**P**	**23 49 32.2**	**+1.3**
	comp=Z,81nm,1.0s						
LR03	**Panguipulli**	**24.27**	**333**	P	**P**	**23 49 29.9**	**-2.1**
LR03				IAmb	IAmb	23 49 35.5	
	comp=Z,31nm,0.9s						
TROLL	**Troll, Antarti**	**24.33**	**139**	⇑P	**P**	**23 49 33.3**	**+0.7**
	comp=Z,697nm,0.7s						
TROLL				⇑S	**S**	**23 53 59.7**	**+8.3**
	comp=E,39nm,0.6s						
BI02	**San Fabin de**	**26.92**	**337**	P	**P**	**23 49 54.6**	**-1.6**
BI02				IAmb	IAmb	23 50 01.6	
	comp=Z,36nm,0.9s						
BI02	**San Fabin de**	**26.92**	**337**	P	**P**	**23 50 00.1**	**+4.0**
	comp=Z,42nm,1.9s						
NVL	**N'lazarevskaya**	**27.52**	**138**	*e*P	**P**	**23 50 01.1**	**-0.1**
NVL				*e*S	**S**	**23 54 39.4**	**-2.3**
NVL				pmax	pmax		
	comp=Z,17nm,1.0s						
NVL				MLR	MLR		
	comp=Z,497nm,17.0s						
ML02	**Panimavida**	**27.82**	**337**	P	**P**	**23 50 02.4**	**-1.7**
ML02	**Panimavida**	**27.82**	**337**	P	**P**	**23 50 04.8**	**+0.6**
	comp=Z,67nm,1.1s						
QSPA	**South Pole Qui**	**27.90**	**180**	P	**P**	**23 50 06.6**	**+1.8**
	comp=Z,5.9nm,0.7s,baz=166,slow=2.3,SNR=33						
	comp=Z,5.9nm,0.7s						
QSPA	**South Pole Qui**	**27.90**	**180**	P	**P**	**23 50 03.5**	**-1.3**
QSPA				IAmb	IAmb	23 50 21.9	
	comp=Z,21nm,1.0s						
QSPA	**South Pole Qui**	**27.90**	**180**	P	**P**	**23 50 07.4**	**+2.6**
	comp=Z,28nm,1.0s						
GO05	**Hualane**	**28.65**	**336**	P	**P**	**23 50 09.6**	**-2.0**
BO02	**Sierra Bellavi**	**28.65**	**338**	P	**P**	**23 50 09.8**	**-1.8**
BO02				IAmb	IAmb	23 50 22.0	
	comp=Z,22nm,1.0s						
BO02	**Sierra Bellavi**	**28.65**	**338**	P	**P**	**23 50 15.9**	**+4.3**
	comp=Z,25nm,1.0s						
BO01	**Tunca**	**29.10**	**338**	P	**P**	**23 50 13.2**	**-2.3**
BO01				IAmb	IAmb	23 50 23.3	
	comp=Z,19nm,1.1s						
BO01	**Tunca**	**29.10**	**338**	P	P	23 50 21.6	+6.1
	comp=Z,20nm,1.1s						
BO04	**La Punta**	**29.41**	**339**	P	**P**	**23 50 17.6**	**-0.8**
BO04				IAmb	IAmb	23 50 22.5	
	comp=Z,26nm,0.9s						
MT13	**San Alfonso**	**29.60**	**340**	P	**P**	**23 50 17.8**	**-2.2**
MT13				IAmb	IAmb	23 50 31.2	
	comp=Z,25nm,1.1s						
MT09	**Talagante**	**29.68**	**338**	P	**P**	**23 50 18.6**	**-2.3**
MT03	**Universidad Ad**	**29.88**	**339**	P	**P**	**23 50 20.9**	**-1.7**
ELIB	**Princess Elisa**	**30.54**	**143**	*d*P	**P**	**23 50 29.4**	**+1.2**
	comp=Z,4.3nm,1.1s						
VA03	**San Esteban**	**30.60**	**340**	P	**P**	**23 50 26.1**	**-2.8**
VA03	**San Esteban**	**30.60**	**340**	P	**P**	**23 50 29.9**	**+0.9**
	comp=Z,58nm,1.0s						
PSAL	**Palomas, Salto**	**31.26**	**1**	*e*P	**P**	**23 50 35.2**	**+0.5**
CO04	**Los Peladeros**	**31.37**	**339**	P	**P**	**23 50 34.1**	**-1.9**
CO04				IAmb	IAmb	23 50 40.6	
	comp=Z,29nm,0.9s						
CO04	**Los Peladeros**	**31.37**	**339**	P	**P**	**23 50 38.6**	**+2.6**
	comp=Z,38nm,1.5s						
CO02	**Combarbal**	**32.20**	**339**	P	**P**	**23 50 40.3**	**-2.7**
CO02	**Combarbal**	**32.20**	**339**	P	**P**	**23 50 45.2**	**+2.2**
	comp=Z,49nm,0.8s						
CO03	**El Pedregal**	**32.50**	**340**	P	**P**	**23 50 43.7**	**-2.0**
	comp=Z,31nm,0.8s						
GO04	**Tololo Observa**	**33.17**	**340**	P	**P**	**23 50 54.0**	**+2.2**
	comp=Z,60nm,0.8s						
CO01	**Juntas del Tor**	**33.26**	**341**	P	**P**	**23 50 55.6**	**+3.2**
	comp=Z,39nm,1.0s						
CNLB	**Canela**	**33.38**	**12**	*e*P	**P**	**23 50 55.0**	**+1.6**
LCO	**Las Campanas**	**34.30**	**341**	P	**P**	**23 50 58.5**	**-3.0**
LCO				pmax	pmax		
	comp=Z,23nm,0.9s						
LCO	**Las Campanas**	**34.30**	**341**	P	**P**	**23 50 58.5**	**-3.0**
LCO				IAmb	IAmb	23 51 05.7	
	comp=Z,23nm,0.9s						
AC05	**El Transito**	**34.40**	**341**	P	**P**	**23 51 04.5**	**+2.2**
	comp=Z,22nm,0.7s						
AC04	**Llanos de Chal**	**35.15**	**340**	P	**P**	**23 51 10.8**	**+2.2**
	comp=Z,64nm,1.2s						
CPUP	**Villa Florida**	**36.00**	**2**	P	**P**	**23 51 16.2**	**+0.3**
	comp=Z,4.0nm,0.8s,baz=168,slow=8.8,SNR=8.9						
	comp=Z,4.0nm,0.8s						
CPUP	**Villa Florida**	**36.00**	**2**	P	**P**	**23 51 12.6**	**-3.3**
CPUP	**Villa Florida**	**36.00**	**2**	P	**P**	**23 51 18.3**	**+2.4**
	comp=Z,10nm,2.5s						
AC02	**Maricunga**	**36.21**	**344**	P	**P**	**23 51 13.6**	**-4.7**
AC02				IAmb	IAmb	23 51 23.5	
	comp=Z,62nm,1.6s						
AC02	**Maricunga**	**36.21**	**344**	P	**P**	**23 51 21.5**	**+3.2**
	comp=Z,26nm,1.3s						
SYO	**Syowa Base**	**36.71**	**143**	⇓*e*P	P	23 51 16.4	-5.1
SYO	**Syowa Base**	**36.71**	**143**	⇓*e*P	**P**	**23 51 22.4**	**+0.9**
SYO	**Syowa Base**	**36.71**	**143**	⇑*e*P	**PKiKP**	**00 01 04.7**	**+3.4**
AC01	**Pan de Azucar**	**37.09**	**342**	P	**P**	**23 51 21.0**	**-4.2**
AC01				IAmb	IAmb	23 51 29.9	
	comp=Z,30nm,0.9s						
AC01	**Pan de Azucar**	**37.09**	**342**	P	**P**	**23 51 27.3**	**+2.0**
	comp=Z,38nm,1.0s						
PTGB	**Pitanga**	**37.84**	**9**	*e*P	**P**	**23 51 33.0**	**+1.3**
VNDA	**Vanda**	**38.22**	**193**	P	**P**	**23 51 36.1**	**+1.8**
	comp=Z,1.3nm,0.8s,baz=131,slow=7.9,SNR=6.2						
VNDA				PcP	**PcP**	**23 53 52.1**	**+3.9**
	comp=Z,1.3nm,0.8s,baz=197,slow=5.2,SNR=4.5						
VNDA				LR	LR	00 07 20.6	
	comp=Z,580nm,18.7s,baz=149,slow=36						
VNDA	**Vanda**	**38.22**	**193**		**P**	**23 51 33.6**	**-0.7**
SALTA		**38.47**	**348**	P	**P**	**23 51 40.7**	**+3.2**
	comp=Z,16nm,1.4s						
LDASE	**Londrina, Braz**	**39.23**	**11**	*e*P	**P**	**23 51 46.0**	**+2.7**
SPB	**Sao Paulo**	**39.42**	**16**	*e*P	**P**	**23 51 47.6**	**+2.7**
MURT	**Porto Murtinho**	**40.65**	**1**	*e*P	**P**	**23 51 55.2**	**+0.2**
PB03	**IPOC Station P**	**41.01**	**344**	P	**P**	**23 51 55.6**	**-2.6**
BB19B	**Bebedouro**	**41.79**	**14**	*e*P	**P**	**23 52 05.9**	**+1.4**
AQDB	**Aquidauana**	**41.86**	**4**	P	**P**	**23 52 02.8**	**-2.2**
AQDB	**Aquidauana**	**41.86**	**4**	*e*P	**P**	**23 52 07.0**	**+2.0**
AQDB	**Aquidauana**	**41.86**	**4**	P	**P**	**23 52 06.4**	**+1.4**
	comp=Z,6.4nm,0.7s						
BDQN	**Bodoquena, MS**	**41.86**	**2**	*e*P	**P**	**23 52 07.1**	**+2.0**
COIM	**Forte Coimbra**	**42.39**	**1**	*e*P	**P**	**23 52 10.7**	**+1.4**
CANS	**Sao Roque de M**	**42.81**	**17**	*e*P	**P**	**23 52 15.0**	**+2.1**
MAW	**Mawson**	**43.60**	**152**	P	**P**	**23 52 20.0**	**+1.4**
	comp=Z,9.7nm,0.9s,baz=220,slow=7.2,SNR=11						
MAW				PcP	**PcP**	**23 54 09.2**	**+3.4**
	comp=Z,6.8nm,0.9s,baz=208,slow=4.4,SNR=4.3						
MAW				LR	LR	00 10 38.2	
	comp=Z,2µm,18.2s,baz=209,slow=36						
	comp=Z,9.7nm,0.9s						
MAW	**Mawson**	**43.60**	**152**	P	**P**	**23 52 16.8**	**-1.8**
MAW	**Mawson**	**43.60**	**152**	P	**P**	**23 52 20.7**	**+2.0**
	comp=Z,3.1nm,1.1s						
PB16	**IPOC Station P**	**44.64**	**345**	P	**P**	**23 52 25.8**	**-2.4**
PB16				IAmb	IAmb	23 52 33.4	
	comp=Z,50nm,1.8s						
PP1B	**Ponte de Pedra**	**44.75**	**5**	*e*P	**P**	**23 52 30.3**	**+1.9**
IPMB	**Ipameri, GO**	**44.87**	**14**	*e*P	**P**	**23 52 30.3**	**+0.9**
BSFB	**Barra de Sao F**	**45.14**	**24**	*e*P	**P**	**23 52 33.6**	**+2.2**
DIAM	**Diamantina, MG**	**45.17**	**20**	*e*P	**P**	**23 52 33.2**	**+1.4**
SALV	**Santo Antonio**	**46.41**	**4**	*e*P	**P**	**23 52 43.8**	**+2.3**
LPAZ	**La Paz**	**46.50**	**347**	P	**P**	**23 52 43.4**	**+0.5**
	comp=Z,1.3nm,0.7s,baz=191,slow=9.3,SNR=5.6						
LPAZ				LR	LR	00 14 11.9	
	comp=Z,550nm,18.7s,baz=165,slow=39						
	comp=Z,1.3nm,0.7s						
LPAZ	**La Paz**	**46.50**	**347**	*e*P	**P**	**23 52 45.9**	**+2.9**
LPAZ				pmax	pmax		
	comp=Z,1.0nm,0.7s						
LPAZ	**La Paz**	**46.50**	**347**	P	**P**	**23 52 40.5**	**-2.5**
LPAZ				IAmb	IAmb	23 53 06.0	
	comp=Z,27nm,1.9s						
LPAZ	**La Paz**	**46.50**	**347**	*e*P	**P**	**23 52 44.8**	**+1.9**
MC01	**Montes Claros**	**46.69**	**19**	*e*P	**P**	**23 52 44.6**	**+0.8**
ARAG	**Araguaiana, MT**	**46.80**	**9**	*e*P	**P**	**23 52 47.2**	**+2.6**
PTLB	**Pontes e Lacer**	**46.82**	**359**	P	**P**	**23 52 43.1**	**-1.6**
PTLB	**Pontes e Lacer**	**46.82**	**359**	*e*P	**P**	**23 52 46.0**	**+1.3**
ARCA	**Ara§uai, MG**	**46.87**	**22**	*e*P	**P**	**23 52 46.4**	**+1.2**
BDFB	**Brasilia**	**47.20**	**14**	P	**P**	**23 52 48.7**	**+0.8**
	comp=Z,14nm,0.8s,baz=176,slow=2.7,SNR=16						
	comp=Z,14nm,0.8s						
BDFB	**Brasilia**	**47.20**	**14**	P	**P**	**23 52 46.6**	**-1.2**
BDFB				IAmb	IAmb	23 52 51.5	
	comp=Z,14nm,0.8s						
GUA01	**Guaratinga, BA**	**47.52**	**24**	*e*P	**P**	**23 52 52.5**	**+2.2**
JANB	**Januaria**	**48.25**	**18**	*e*P	**P**	**23 52 56.8**	**+0.9**
CMC01	**Camacan, BA**	**48.77**	**24**	*e*P	**P**	**23 53 01.7**	**+1.8**
NBIT	**Itapeh - BA**	**49.21**	**24**	*e*P	**P**	**23 53 05.0**	**+1.8**
VILB	**Vilhena**	**49.32**	**358**	P	**P**	**23 53 02.6**	**-1.5**
VILB	**Vilhena**	**49.32**	**358**	*e*P	**P**	**23 53 05.8**	**+1.7**
SNDB	**Serra Nova Dou**	**50.53**	**9**	*e*P	**P**	**23 53 14.2**	**+0.9**
SDBA	**SAO DESIDERIO**	**50.77**	**17**	*e*P	**P**	**23 53 15.7**	**+0.6**
CLDB	**Colider**	**51.40**	**3**	*e*P	**P**	**23 53 18.5**	**-1.3**
CASY	**Casey**	**51.43**	**174**	P	**P**	**23 53 17.3**	**-2.2**
CASY				IAmb	IAmb	23 53 25.9	
	comp=Z,24nm,1.5s						
NBPN	**Ponto Novo - B**	**53.05**	**23**	*e*P	**P**	**23 53 32.6**	**+0.5**
SMTB	**Santa Maria do**	**53.95**	**13**	*e*P	**P**	**23 53 40.0**	**+1.3**
CZSB	**Cruzeiro do Su**	**55.50**	**343**	*e*P	**P**	**23 53 51.5**	**+1.6**
NBMA	**Muriti-CE**	**56.71**	**23**	*e*P	**P**	**23 53 59.3**	**+0.7**
ATAH	**Atahualpa**	**57.02**	**336**	LR	LR	00 16 12.4	
	comp=Z,268nm,18.2s,baz=162,slow=34						
ITTB	**Itaituba**	**57.87**	**3**	*e*P	**P**	**23 54 08.1**	**+1.4**
MACA	**Manacapuru-AM**	**59.06**	**357**	P	**P**	**23 54 12.8**	**-2.2**
MACA				IAmb	IAmb	23 54 17.4	
	comp=Z,11nm,0.8s						
MACA	**Manacapuru-AM**	**59.06**	**357**	*e*P	**P**	**23 54 15.8**	**+0.7**
BOSA	**Boshof**	**62.16**	**99**	P	**P**	**23 54 37.4**	**+1.1**
	comp=Z,3.3nm,0.7s,baz=206,slow=8.0,SNR=6.6						
	comp=Z,3.3nm,0.7s						
LKGWB	**Lokgwabe**	**64.12**	**93**	P	**P**	**23 54 48.4**	**-0.9**
LKGWB				IAmb	IAmb	23 55 09.6	
	comp=Z,22nm,1.2s						
OTAV	**Otavalo**	**64.23**	**338**	P	**P**	**23 54 48.7**	**-1.8**
OTAV				pmax	pmax		
	comp=Z,33nm,1.7s						
OTAV	**Otavalo**	**64.23**	**338**	P	**P**	**23 54 48.7**	**-1.8**
OTAV	**Otavalo**	**64.23**	**338**	*e*P	**P**	**23 54 53.0**	**+2.5**
BOAV	**Boa Vista**	**64.57**	**358**	P	**P**	**23 54 51.0**	**-1.2**
BOAV				IAmb	IAmb	23 54 54.7	
	comp=Z,5.7nm,0.8s						
BOAV	**Boa Vista**	**64.57**	**358**	*e*P	**P**	**23 54 53.0**	**+0.9**
GRTLG	**Ghanzi**	**66.48**	**91**	P	**P**	**23 55 02.4**	**-2.3**
GRTLG				IAmb	IAmb	23 55 30.9	
	comp=Z,16nm,0.9s						
TSUM	**Tsumeb**	**66.65**	**87**	LR	LR	00 19 22.7	
	comp=Z,127nm,19.7s,baz=219,slow=32						
ROSC	**El Rosal**	**68.09**	**343**	P	**P**	**23 55 18.3**	**+3.1**
	comp=Z,9.8nm,0.5s,baz=186,slow=18,SNR=4.5						
ROSC				LR	LR	00 27 49.6	
	comp=Z,496nm,18.2s,baz=225,slow=38						
	comp=Z,9.8nm,0.5s						
URZ	**Urewera**	**70.31**	**224**	LR	LR	00 22 02.6	
	comp=Z,268nm,19.4s,baz=144,slow=32						
SDV	**Santo Domingo**	**71.64**	**347**	LR	LR	00 30 06.4	
	comp=Z,315nm,18.2s,baz=170,slow=38						
LSZ	**Lusaka**	**75.00**	**94**	P	**P**	**23 55 54.9**	**-1.7**
LSZ				pmax	pmax		
	comp=Z,12nm,0.9s						
LSZ	**Lusaka**	**75.00**	**94**	P	**P**	**23 55 54.9**	**-1.7**
LSZ				IAmb	IAmb	23 56 10.0	
	comp=Z,12nm,0.8s						
PPT2	**Papeete2**	**75.16**	**261**	*e*LR	LR	00 18 50.9	
	comp=Z,369nm,22.2s						
PPT2				*e*LR	LR	00 18 57.3	
	comp=Z,284nm,22.5s						
JTS	**Las Juntas de**	**75.30**	**333**	*i* P	**P**	**23 55 58.8**	**+0.8**
JTS				pmax	pmax		
	comp=Z,7.0nm,0.9s						
RAO	**Raoul Island**	**76.78**	**231**	LR	LR	00 23 46.7	
	comp=Z,96nm,21.1s,baz=133,slow=31						
VOI	**Vohitsoka**	**77.60**	**113**	P	**P**	**23 56 08.8**	**-2.5**
DBIC	**Dimbokro**	**79.99**	**54**	P	**P**	**23 56 25.1**	**+0.8**
	comp=Z,3.2nm,0.7s,baz=208,slow=6.4,SNR=4.0						
DBIC				LR	LR	00 23 41.5	
	comp=Z,273nm,21.3s,baz=203,slow=30						
	comp=Z,3.2nm,0.7s						
MTO3	**Montecristo**	**80.26**	**330**	P	**P**	**23 56 23.4**	**-2.4**
STKA	**Stephens Creek**	**84.75**	**197**	LR	LR	00 29 19.8	
	comp=Z,236nm,21.8s,baz=166,slow=32						
STKA	**Stephens Creek**	**84.75**	**197**	*e*P	**P**	**23 56 50.1**	**+1.0**
STKA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
NWAO	**Narrogin (SRO)**	**85.01**	**176**	LR	LR	00 33 00.3	
	comp=Z,460nm,21.7s,baz=209,slow=34						
TORD	**Torodi Ar. Bea**	**88.44**	**58**	P	**P**	**23 57 07.5**	**+0.4**
	comp=Z,2.1nm,0.9s,baz=226,slow=4.5,SNR=8.2						
TORD				LR	LR	00 28 39.5	
	comp=Z,192nm,20.4s,baz=168,slow=30						
	comp=Z,2.1nm,0.9s						
MBAR	**Mbarara**	**89.05**	**89**	*i* P	**P**	**23 57 09.7**	**-0.6**
MBAR				pmax	pmax		
	comp=Z,5.0nm,1.3s						
KMBO	**Kilima Mbogo**	**91.62**	**95**	*i* P	**P**	**23 57 21.7**	**-0.7**
ASAR	**Alice Springs**	**93.74**	**191**	P	**P**	**23 57 33.8**	**+1.8**
	comp=Z,2.8nm,1.0s,baz=166,slow=4.5,SNR=12						
ASAR				PP	**PP**	**00 01 19.6**	**+3.5**
	comp=Z,0.4nm,0.8s,baz=176,slow=8.7,SNR=4.9						
ASAR				LR	LR	00 39 02.3	
	comp=Z,180nm,19.9s,baz=136,slow=35						
	comp=Z,2.8nm,1.0s						
WRA	**Warramunga Arr**	**97.39**	**192**	P	Pdif	23 57 49.3	+0.7
	comp=Z,1.1nm,0.8s,baz=174,slow=4.0,SNR=7.0						
	comp=Z,1.1nm,0.8s						
WRA	**Warramunga Arr**	**97.39**	**192**	*e*P	Pdif	23 57 51.3	+2.7
WRA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
WRAB	**Tennant Creek**	**97.40**	**192**	*i* P	**P**	**23 57 47.4**	**-1.2**
WRAB				pmax	pmax		
	comp=Z,6.0nm,0.9s						
TXAR	**Lajitas Array**	**98.30**	**321**	P	Pdif	23 57 54.9	+2.5
	comp=Z,0.1nm,0.4s,baz=211,slow=2.6,SNR=1.5						
	comp=Z,0.1nm,0.4s						
TKL	**Tuckaleechee C**	**99.78**	**339**	LR	LR	00 46 02.2	
	comp=Z,128nm,20.9s,baz=148,slow=37						
FITZ	**Fitzroy Crossi**	**99.78**	**184**	LR	LR	00 45 04.3	
	comp=Z,226nm,18.7s,baz=188,slow=36						
GERES	**GERESS Array B**	**124.67**	**50**	PKP	**PKPdf**	**00 03 13.3**	**-0.3**
	comp=Z,0.9nm,0.4s,baz=211,slow=2.3,SNR=13						
GERES	**GERESS Array B**	**124.67**	**50**		**PKPdf**	**00 03 13.1**	**-0.5**
BRTR	**Keskin Array B**	**125.13**	**70**	PKP	**PKiKP**	**00 03 15.1**	**-0.1**
	comp=Z,0.5nm,0.7s,baz=197,slow=4.5,SNR=2.8						
HYB	**Hyderabad**	**126.05**	**126**	*e*PKiKP	**PKPdf**	**00 03 15.7**	**-1.4**
HYB				*e*SKSac	**SKSac**	**00 10 19.6**	**-2.5**
HYB				*e*SKKSac	**SKKSac**	**00 12 05.3**	**-3.5**
CLL	**Collm**	**126.49**	**48**	*e*PKIKP	**PKiKP**	**00 03 19.0**	**+1.7**
CLL	**Collm**	**126.49**	**48**	*e*PKiKP	**PKiKP**	**00 03 19.0**	**+1.7**
CLL				L	L	00 44 00.0	
CLL				AMS	AMS	00 47 00.0	
	comp=Z,100nm,25.2s						

AKASG	Malin Array Be	132.06	59	PKP	PKPdf	00 03 27.0	-0.4
	comp=Z,0.6nm,0.5s,baz=257,slow=1.5,SNR=2.6						
AKASG	Malin Array Be	132.06	59	PKIKP	PKPdf	00 03 27.0	-0.4
SHA1	Shidzhatmaz	132.37	74	*i* PKIKP	PKPdf	00 03 25.3	-3.3
CMAR	Chiang Mai Arr	133.40	150	PKP	PKiKP	00 03 33.9	+1.7
	comp=Z,1.4nm,0.5s,baz=221,slow=3.8,SNR=8.2						
NOA	NORSAR Array B	133.88	39	PKP	PKiKP	00 03 31.6	-0.3
	comp=Z,1.0nm,0.7s,baz=215,slow=1.9,SNR=4.4						
MNK	Minsk	134.46	55	*i* PKIKP	PKiKP	00 03 32.8	-0.4
MNK				*i*		00 06 04.7	
MNK				*i* PPP	PPP	00 08 59.0	
MNK				*i* PS	PS	00 16 24.5	-0.3
MNK				*i* SS	SS	00 23 56.1	+0.3
MNK				*i* SSS	SSS	00 28 54.6	
MNK				pmax	pmax		
	comp=E,8.0nm,0.9s						
MNK				pmax	pmax		
	comp=N,8.0nm,1.1s						
MNK				pmax	pmax		
	comp=Z,3.0nm,0.7s						
MNK				MLR	MLR		
	comp=Z,105nm,20.0s						
QIZ	Qiongzhong	135.96	164	PKP	PKPdf	00 03 32.3	-3.5
QIZ				PP	PP	00 06 12.1	-2.2
QIZ				SS	SS	00 24 09.3	-3.7
QIZ				L	L		
	comp=Z,150nm,19.5s						
QIZ				L	L		
	comp=Z,130nm,21.4s						
QIZ				L	L		
	comp=Z,250nm,19.5s						
FINES	FINESS Array B	138.92	47	PKhKP	PKPpre	00 03 32.5	
	comp=Z,1.4nm,0.8s,baz=278,slow=1.0,SNR=3.5						
PZH	PanZhiHua	141.80	150	PKP	PKPdf	00 03 44.1	-2.3
ILAR	Eielson Array	142.55	315	PKhKP	PKPpre	00 03 45.1	
	comp=Z,1.0nm,0.7s,baz=150,slow=2.0,SNR=5.8						
KSH2	Kashi	143.88	108	PKP	PKPdf	00 03 49.0	-0.8
ARCES	ARCESS Array B	144.12	37	PKP	PKPbc	00 03 47.8	+0.6
	comp=Z,14nm,0.7s,baz=280,slow=1.7,SNR=20						
ARCES	ARCESS Array B	144.12	37	PKPdf	PKPbc	00 03 47.3	+0.1
AB31	Akbulak array	144.40	82		PKPab	00 03 45.9	-2.4
ABKAR	Akbulak array	144.40	82	PKPdf	PKPab	00 03 46.0	-2.2
KKAR	Karatay Array	144.75	99	PKHKP	PKPpre	00 03 47.9	
KKAR	Karatay Array	144.75	99	PKPdf	PKPab	00 03 47.9	-1.9
APA	Apatity	145.30	42	*i* PKP2	PKPbc	00 03 49.5	-1.4
APA				*e*		00 07 11.1	
APA				pmax	pmax		
	comp=Z,55nm,0.8s						
LVZ	Lovozero	145.88	42	*i* PKP2	PKPab	00 03 53.3	0.0
KIRV	Kirov	145.89	63	*i* PKP2	PKPbc	00 03 53.2	+0.2
EKS2	Erkin-Say	145.90	103	P	PKPab	00 03 55.5	+1.2
	SNR=8.1						
AAK	Ala-Archa	146.21	103	P	PKPab	00 03 56.5	+1.0
	SNR=7.9						
AAK	Ala-Archa	146.21	103	*i* PKP2	PKPbc	00 03 54.5	-0.3
KBK	Karagaybulak	146.43	104	P	PKPab	00 03 57.3	+0.9
	SNR=7.2						
CD2	Chengdu	146.50	151	PKPbc	PKPab	00 03 56.8	0.0
USP	Ospenovka	146.71	103	P	PKPab	00 03 57.2	0.0
	SNR=5.8						
TKM2	Tokmak 2	146.93	104	P	PKPab	00 03 58.6	+0.2
	SNR=5.9						
SPITS	Spitsbergen Ar	147.14	22	PKPbc	PKPbc	00 03 56.5	+0.2
	comp=Z,9.3nm,0.8s,baz=96,slow=2.9,SNR=1.7						
WHN	Wuhan	147.85	168	P	PKPab	00 04 03.3	+1.3
ARTI	Arti	148.40	71	*i* PKIKP	PKPbc	00 03 58.7	-1.5
ARTI	Arti	148.40	71	PKPdf	PKPdf	00 03 55.6	-1.0
GOMU	GeErMu	148.97	135	PKPbc	PKiKP	00 04 04.8	+0.7
NJ2	Nanjing	149.65	175	*e*PKPbc	PKPdf	00 03 59.1	-0.3
XAN	Xi'an	150.56	158	PKPbc	PKPdf	00 04 03.5	+2.6
XAN				L	L		
	comp=Z,190nm,23.4s						
XAN				L	L		
	comp=Z,150nm,22.0s						
XAN				L	L		
	comp=Z,220nm,19.2s						
LZDM	Lanzhou Array	151.32	149	PKPbc	PKiKP	00 04 10.7	+1.9
	comp=Z,12nm,0.8s,baz=158,slow=1.6,SNR=12						
LZH	Lanzhou	151.48	149	*e*PKPbc	PKiKP	00 04 11.3	+2.3
LZH				sPKP	sPKPab	00 04 25.0	+4.4
LZH				LR	LR		
	comp=N,160nm,18.9s						
LZH				LR	LR		
	comp=E,180nm,19.3s						
BVAR	Borovoye Array	151.79	85	PKP	PKPdf	00 04 03.8	+1.7
	comp=E,15nm,0.8s,baz=244,slow=1.4,SNR=29						
BVAR				PKPbc	PKiKP	00 04 10.4	+1.5
	comp=E,15nm,0.8s,baz=205,slow=1.9,SNR=42						
WMQ	Urumqi	152.93	117	*e*PKPbc	PKPdf	00 04 03.0	-1.2
WMQ				L	L		
	comp=E,95nm,24.5s						
MKAR	Makanchi Array	152.94	107	PKP	PKPdf	00 04 05.3	+1.3
	comp=E,1.1nm,0.6s,baz=266,slow=1.9,SNR=8.6						
MKAR				PKPbc	PKPbc	00 04 11.3	0.0
	comp=E,1.1nm,0.6s,baz=232,slow=2.6,SNR=7.7						
MKAR	Makanchi Array	152.94	107	PKIKP	PKPdf	00 04 03.5	-0.5
MKAR	Makanchi Array	152.94	107	PKPdf	PKPdf	00 04 03.5	-0.5
GTA2	Gaotai	153.55	140	PKPbc	PKiKP	00 04 15.3	+2.2
GTA2				sPKP	sPKPab	00 04 29.3	+0.1
GTA2				LR	LR		
	comp=N,150nm,15.5s						
GTA2				LR	LR		
	comp=E,100nm,17.1s						
GTA2				LR	LR		
	comp=Z,170nm,16.2s						
KURBB	Kurchatov Arra	154.00	97	PKP	PKPdf	00 04 07.8	+2.4
	comp=Z,1.6nm,1.0s,baz=254,slow=2.3,SNR=4.5						
KURBB				PKPbc	PKiKP	00 04 14.4	+1.0
	comp=Z,1.7nm,0.6s,baz=228,slow=2.6,SNR=16						
KURK	Kurchatov	154.10	97	*i* PKIKP	PKPdf	00 04 05.1	-0.4
KURK	Kurchatov	154.10	97	PKPdf	PKPdf	00 04 04.5	-1.0
HHC	Hu-ho-hao-te	157.65	160	*e*PKP	PKPdf	00 04 07.5	-3.2
KLR	Kul'dur	165.72	208	*e*PKP2	PKPab	00 05 20.5	+2.6
KLR				pmax	pmax		
	comp=Z,1.0nm,1.5s						
ZEA	Zeya	170.89	201	*e*PKIKP	PKPdf	00 04 10.9	-11

SDD ***22*** *23:44:20.4±4.6, 17°.92N×67°.21W, h21^{km}±20^{km}, MD2.9, ML3.3, MW3.3, Presumed earthquake*

NEIC ***22*** *23:44:24.2±1.3, 17°.90N±0°.02×67°.11W±0°.02, h10^{km}±1^{km}, ML3.4/36, Md3.5/19(RSPR), Error ellipse: s-maj=4.1km s-min=2.7km az=27.0*

RSPR ***22*** *23:44:25.1, 17°.95N×67°.10W, h9^{km}, MD3.5/19*

OSPL ***22*** *23:44:25.0±0.3, 17°.92N×67°.10W, h9^{km}±1^{km}, ML3.3, Presumed earthquake*

ISC 22 23:44:24.3±0.9**, 17°.96N**±0°.04×**67°.09W**±0°.02**, h15**^{km}±4^{km}**, n50, σ0^{s}.66**/77**, 20C-14D, Mona Passage**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MLPR	Magueyes Islan	0.05	75		Pg	23 44 27.1	+0.1
MLPR					Sg	23 44 28.3	-0.6
MLPR				IAML		23 44 28.9	
	9µm,0.2s						
MLPR				IAML		23 44 29.7	
	13µm,0.1s						
MLPR	Magueyes Islan	0.05	75	⇑*e*P	Pg	23 44 27.1	+0.1
MLPR	Magueyes Islan	0.05	75	⇑*e*Pg	Pg	23 44 27.1	+0.1
MLPR				⇓*e*Sg	Sg	23 44 28.9	0.0
MLPR				IAML		23 44 28.9	
	comp=N,3µm,0.2s						
CRPR	Cabo Rojo, PR	0.05	343	Pg	Pg	23 44 27.1	+0.1
CRPR				Sg	Sg	23 44 28.7	-0.2
CRPR	Cabo Rojo, PR	0.05	343	⇑*e*P	Pg	23 44 27.2	+0.1
CRPR	Cabo Rojo, PR	0.05	343	*i* P	Pg	23 44 27.2	+0.1
CRPR				*e*S	Sg	23 44 28.8	-0.2
CRPR	Cabo Rojo, PR	0.05	343	⇑*e*Pg	Pg	23 44 27.2	+0.1
CRPR				⇑*e*Sg	Sg	23 44 29.0	+0.1
CRPR				IAML		23 44 29.0	
	comp=N,25µm,0.2s						
GBPR	Guanica, Bosqu	0.20	85		Pb	23 44 29.5	-0.2
GBPR					Sg	23 44 33.2	+1.1
GBPR	Guanica, Bosqu	0.20	85	⇑*e*P	Pb	23 44 29.5	-0.2
GBPR				*e*S	Sg	23 44 33.2	+1.1
LSP	Las Mesas	0.22	2		Pb	23 44 30.0	-0.1
LSP	Las Mesas	0.22	2	⇑*e*P	Pb	23 44 30.0	-0.1
PRSN	Puerto Rico Se	0.26	349	Pg	Pb	23 44 30.6	-0.1
PRSN				Sg	Sg	23 44 35.4	+1.6
PRSN	Puerto Rico Se	0.26	349	⇑*e*P	Pb	23 44 30.7	-0.1
PRSN	Puerto Rico Se	0.26	349	⇑*e*Pg	Pb	23 44 30.7	-0.1
PRSN				⇓*e*Sg	Sg	23 44 35.9	+2.1
PRSN				IAML		23 44 35.9	
	comp=N,14µm,0.3s						
CELP	Cerrillos	0.50	76	Pg	Pb	23 44 34.5	-0.4
CELP				Sg	Sb	23 44 42.1	+0.1
CELP	Cerrillos	0.50	76	⇓*e*P	Pb	23 44 34.6	-0.2
CELP	Cerrillos	0.50	76	⇑*e*Pg	Pb	23 44 34.8	0.0
CELP				⇓*e*Sg	Sb	23 44 42.5	+0.5
CELP				IAML		23 44 46.6	
	comp=N,456nm,0.2s						
AOPR	Arecibo Observ	0.51	40	Pg	Pb	23 44 34.6	-0.3
AOPR				Sg	Sb	23 44 41.9	-0.3
AOPR	Arecibo Observ	0.51	40	⇓*e*P	Pb	23 44 34.8	-0.1
AOPR	Arecibo Observ	0.51	40	⇓*e*Pg	Pb	23 44 34.8	-0.1
AOPR				⇓*e*Sg	Sb	23 44 42.0	-0.1
AOPR				IAML		23 44 42.2	
	comp=N,2µm,0.2s						
AGPR	Aguadilla, PR	0.51	358	Pg	Pb	23 44 34.7	-0.3
AGPR				Sg	Sb	23 44 42.3	+0.1
AGPR				IAML		23 44 43.0	
	comp=N,2µm,0.3s						
AGPR				IAML		23 44 43.1	
	comp=N,2µm,0.3s						
AGPR	Aguadilla, PR	0.51	358	⇑*e*P	Pb	23 44 34.9	-0.1
AGPR	Aguadilla, PR	0.51	358	*i* P	Pb	23 44 34.8	-0.1
AGPR				*e*S	Sb	23 44 42.1	-0.1
AGPR	Aguadilla, PR	0.51	358	*e*Pg	Pb	23 44 35.0	-0.1
AGPR				⇓*e*Sg	Sb	23 44 42.0	-0.2
AGPR				IAML		23 44 43.0	
	comp=N,1µm,0.2s						
IDE	Isla Desecheo	0.56	320		Pg	23 44 35.3	-0.1
IDE					Sb	23 44 43.5	-0.2
IDE	Isla Desecheo	0.56	320	⇓*e*P	Pg	23 44 35.3	-0.1
IDE				*e*S	Sb	23 44 43.5	-0.2
EMPR	Esperanza - Ma	0.74	46		Pn	23 44 39.4	-0.9
EMPR					Sn	23 44 50.7	-0.7
EMPR	Esperanza - Ma	0.74	46	⇓*e*P	Pn	23 44 39.4	-0.9
EMPR				*e*S	Sn	23 44 50.7	-0.7
ECPR	Experimental S	0.78	62	Pg	Pb	23 44 39.1	-0.6
ECPR				Sg	Sn	23 44 50.7	-1.7
ECPR				IAML		23 44 55.1	
	comp=N,2µm,0.2s						
ECPR				IAML		23 45 01.9	
	comp=N,1µm,0.2s						
ECPR	Experimental S	0.78	62	⇑*e*P	Pb	23 44 39.3	-0.4
SJG	San Juan	0.91	80	Pg	Pb	23 44 41.5	-0.3
SJG	San Juan	0.91	80	⇑*e*P	Pb	23 44 41.5	-0.3
SJG	San Juan	0.91	80	*i* P	Pb	23 44 41.3	-0.6
SJG				*e*S	Sb	23 44 53.6	-0.1
SJG				IAML		23 44 57.7	
	comp=Z,5µm,0.3s						
IGPR	InterUniversit	0.94	89		Pb	23 44 42.2	-0.1
IGPR					Sn	23 44 56.7	+0.5
IGPR	InterUniversit	0.94	89	⇑*e*P	Pb	23 44 42.2	-0.1
PDPR	Patillas Dam,	1.02	86	Pg	Pb	23 44 43.3	-0.4
PDPR				IAML		23 45 00.7	
	comp=Z,761nm,0.6s						
PDPR	Patillas Dam,	1.02	86	⇑*e*P	Pb	23 44 43.4	-0.4
HUMP	Col San Antoni	1.20	81		Pn	23 44 46.4	-0.1
HUMP					Sn	23 45 03.4	+0.9
HUMP				IAML		23 45 05.8	
	comp=Z,515nm,0.4s						
HUMP	Col San Antoni	1.20	81	⇑*e*P	Pb	23 44 46.0	-0.7
PCDR	Punta Cana, DR	1.34	295		Pn	23 44 48.5	0.0
PCDR	Punta Cana, DR	1.34	295	⇑*e*P	Pn	23 44 48.6	0.0
PCDR	Punta Cana, DR	1.34	295	*i* P	Pn	23 44 48.2	-0.4
PCDR				IAML		23 45 17.5	
	comp=Z,74nm,0.4s						
PCDR	Punta Cana, DR	1.34	295	⇓*e*Pg	Pn	23 44 48.6	0.0
PCDR				⇓*e*Sg	Sb	23 45 06.0	-0.2
PCDR				IAML		23 45 13.3	
	comp=N,127nm,0.5s						
HIDR	Higuey Centro	1.67	293	⇑*e*Pg	Pn	23 44 53.0	0.0
HIDR				⇑*e*Sg	Sn	23 45 13.4	-0.8
HIDR				IAML		23 45 18.3	
	comp=N,150nm,0.2s						
DR12	Loma Pena Alta	2.32	291	Pn	Pn	23 45 03.0	+0.8
HATOM	Hato Mayor del	2.33	291	⇓*e*Pg	Pn	23 45 04.2	+2.1
HATOM				⇓*e*Sg	Sb	23 45 33.9	-0.6
HATOM				IAML		23 45 43.9	
	comp=N,56nm,0.3s						
DR08	Loma La Naviza	2.95	290	⇑*e*Pg	Pb	23 45 15.1	-1.6
DR08				IAML		23 46 04.9	
	comp=N,796nm,0.2s						
BANI	BANI	3.13	278	Pn	Pn	23 45 14.9	+1.6
SMRT	St. Maarten	3.83	88	Pn	Pn	23 45 22.3	-0.4
SMRT				IAML		23 46 09.8	
	comp=N,55nm,0.5s						
SMRT				IAML		23 46 16.1	
	comp=E,48nm,0.5s						
ABD	La Joyeuse, An	5.56	105	Pn	Pn	23 45 47.7	+1.2

IDC ***22*** *23:53:46.1±0.5, 62°.16S×57°.84W, h0^{km}, mb4.4/13, mbtmp4.4/15, ML4.2/2, MS4.3/24, Error ellipse: s-maj=19.0km s-min=12.8km az=86.0*

NEIC ***22*** *23:53:46.9±1.1, 62°.33S±0°.06×58°.4W±0°.1, h10^{km}±1^{km}, mb5.0/55, Mww5.2/15, Error ellipse: s-maj=13.9km s-min=7.5km az=229.0*

BJI ***22*** *23:53:47.5, 63°.07S×59°.17W, h10^{km}, mB5.4/1, Ms5.2/4, Ms7 4.9/6*

MOS ***22*** *23:53:47.4±1.5, 62°.17S×58°.18W, h10^{km}, mb4.9/8, Error ellipse: s-maj=40.4km s-min=9.7km az=97.6*

GFZ ***22*** *23:53:49.8, 62°.36S×58°.35W, h10^{km}, Mw5.1/18, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M$_{rr}$0.26; M$_{\theta\theta}$1.15; M$_{\phi\phi}$-1.41; M$_{r\theta}$0.06; M$_{\theta\phi}$4.73; M$_{\phi r}$0.54; Fault plane solution: M$_0$4.93285×10^{16} NP1:ϕ$_s$97.57322°, δ83.63145°, λ0.37837°. NP2:ϕ$_s$7.53125°, δ89.62396°, λ173.63132°. Principal axes: T 4.8011, Plg4.7654°, Azm322.3754°; N 0.2537, Plg83.6203°, Azm184.1661°; P -5.0548, Plg4.2319°, Azm52.7288°;*

GCMT ***22*** *23:53:50.9±0.2, 62°.29S±0°.01×58°.17W±0°.03, h16^{km}±1^{km}, MW5.1/125, Moment Tensor Solution. s40,c53; s125,c198; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-0.67±.16; M$_{\theta\theta}$-0.54±.12; M$_{\phi\phi}$1.21±.15; M$_{r\theta}$0.98±.44; M$_{\theta\phi}$5.42±.12; M$_{\phi r}$-1.60±.45; Best double couple: M$_0$5.83000×10^{16} NP1:ϕ$_s$264.00000°, δ73.00000°, λ-10.00000°. NP2:ϕ$_s$357.00000°, δ80.00000°, λ-162.00000°. Principal axes: T 5.8800, Plg5.0000°, Azm130.0000°; N -0.1000, Plg70.0000°, Azm25.0000°; P -5.7790, Plg19.0000°, Azm221.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

GFZ ***22*** *23:53:50.1±0.2, 62°S±4°×5°8W±°, h10^{km}, M5.0/23, mb5.0/23*

ISC 22 23:53:47.7±0.8**, 62°.29S**±0°.04×**58°.41W**±0°.05**, h12**^{km}±5^{km}**, n237, σ1^{s}.41**/221**, mb4.9**/51**, MS4.4**/28**, 8C-1D, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JUBA	Jubany	0.13	296	*e*P	Pg	23 53 50.3	-0.6
JUBA				*e*S	Sg	23 53 53.4	+0.1
ESPZ	Base Esperanza	1.28	150	*e*P	Pn	23 54 09.6	-1.9
ESPZ				*e*S	Sb	23 54 26.6	-1.7
ESPZ	Base Esperanza	1.28	150	Pn	Pn	23 54 09.6	-1.9
PMSA	Palmer Station	3.54	223	Pn	Pn	23 54 43.4	+0.9
	9.6nm,0.3s,baz=43,slow=8.4,SNR=18						
PMSA				Sn	Sb	23 55 32.0	-1.3
	27nm,0.3s,baz=303,slow=20,SNR=8.5						
PMSA				LR	LR	23 56 02.4	
	comp=Z,8µm,21.1s,baz=13,slow=36						
	33nm,0.3s						
PMSA				AML	AML		
PMSA	Palmer Station	3.54	223	*e*P	Pn	23 54 43.5	+1.0
PMSA				*e*S	Sb	23 55 32.2	-1.0
PMSA	Palmer Station	3.54	223	Pn	Pn	23 54 41.9	-0.6
PMSA	Palmer Station	3.54	223	*e*P	Pn	23 54 42.3	-0.2
PMSA	Palmer Station	3.54	223	P	Pn	23 54 43.9	+1.3
ORCD	Orcadas	6.72	83	*e*P	Pn	23 55 28.8	+2.7
ORCD				*e*S	Sn	23 56 44.4	+1.8
SMAI	San Martin Ant	6.90	208	*e*P	Pn	23 55 30.4	+1.9
SMAI				*e*S	Sn	23 56 49.4	+2.6
SMAI				IAML		23 57 27.9	
	comp=Z,96nm,2.5s						
SMAI	San Martin Ant	6.90	208	Pn	Pn	23 55 27.4	-1.1
USHA	Ushuaia	9.12	321	Pn	Pn	23 55 56.5	-2.5
	comp=Z,3.5nm,0.3s,baz=312,slow=1.0,SNR=1.6						
USHA				Sn	Sn	23 57 42.1	+0.6
	comp=Z,4.0nm,0.3s,baz=73,slow=3.5,SNR=5.8						
USHA				LR	LR	23 58 55.2	
	comp=Z,4µm,20.3s,baz=154,slow=34						
	comp=Z,25nm,0.5s						
USHA				AML	AML		
DSPA	Despedida	9.84	324	Pn	Pn	23 56 08.2	-0.7
MG03	Isla Dawson	10.58	318	Pn	Pn	23 56 18.6	-0.5
EFI	East Falkland	10.65	1	*e*P	Pn	23 56 22.3	+2.3
EFI				IAML		23 59 59.6	
	comp=Z,77nm,3.1s						
EFI	East Falkland	10.65	1	*i* P	Pn	23 56 20.9	+1.0
EFI	East Falkland	10.65	1	Pn	Pn	23 56 20.2	+0.3
MG02	Cerro Sombrero	11.15	324	Pn	Pn	23 56 27.1	+0.4
HOPE	Hope Point	13.98	65	*e*P	Pn	23 57 05.3	-0.1
HOPE				IAML		00 00 49.2	
	comp=Z,59nm,2.9s						
GO08	Villa O’Higgin	15.96	324	P	Pn	23 57 31.3	-0.6
GO08	Villa O’Higgin	15.96	324	P	P	23 57 37.8	+2.4
	comp=Z,57nm,1.8s						
BELA	Belgrano 2	17.35	163		Pn	23 57 49.0	-0.3
COYC	Coyhaique	18.52	328	P	P	23 58 03.3	-0.4
COYC	Coyhaique	18.52	328	P	Pn	23 58 08.4	+4.6
	comp=Z,54nm,2.1s						
VNA3	Neumayer Olymp	20.57	136	⇑P	Pn	23 58 27.3	-1.0
	comp=Z,82nm,0.8s						
VNA3	Neumayer Olymp	20.57	136	P	Pn	23 58 27.5	-0.7
	comp=Z,178nm,1.1s						
LL02	Futaleuf	20.71	331	P	P	23 58 26.8	-0.9
LL02	Futaleuf	20.71	331	P	Pn	23 58 31.1	+1.0
	comp=Z,36nm,1.4s						
VNA1	Neumayer--Stat	21.04	135	⇑P	P	23 58 33.0	+2.1
	comp=Z,147nm,0.9s						
VNA2	Neumayer--Watz	21.32	135	⇑P	P	23 58 35.3	+1.3
	comp=Z,48nm,0.7s,baz=265,slow=11						
VNA2	Neumayer--Watz	21.32	135	P	P	23 58 35.6	+1.6
	comp=Z,108nm,1.1s						
SNAA	Sanae	22.74	138	⇑P	P	23 58 50.5	+1.2
	comp=Z,2µm,0.9s						
SNAA	Sanae	22.74	138	⇑S	Sn	00 03 07.2	-4.6
	comp=E,46nm,0.7s						
SNAA	Sanae	22.74	138	P	P	23 58 49.6	+0.3
	comp=E,104nm,1.0s,baz=262,slow=8.9,SNR=81						
SNAA				LR	LR	00 06 26.1	
	comp=E,2µm,20.2s,baz=276,slow=34						
	comp=E,104nm,1.0s						
SNAA	Sanae	22.74	138	*c i*P	P	23 58 49.6	+0.3
SNAA				pmax	pmax		
	comp=Z,182nm,1.2s						
SNAA	Sanae	22.74	138	P	P	23 58 48.7	-0.6
SNAA	Sanae	22.74	138	P	P	23 58 50.7	+1.4
	comp=Z,168nm,1.2s						
LL05	Los Muermos	22.78	330	P	P	23 58 50.7	+0.8
LL05	Los Muermos	22.78	330	P	P	23 58 51.3	+1.4
	comp=Z,175nm,1.3s						
LL03	Petrohue	22.79	332	P	P	23 58 48.9	-1.0
PLCA	Paso Flores	22.80	336	P	P	23 58 50.8	+0.6
	comp=Z,19nm,1.1s,baz=164,slow=8.3,SNR=13						
PLCA				LR	LR	00 07 47.5	
	comp=Z,1µm,19.3s,baz=163,slow=37						
	comp=Z,19nm,1.1s						
PLCA	Paso Flores	22.80	336	*e*P	P	23 58 51.4	+1.2
PLCA				pmax	pmax		
	comp=Z,19nm,1.1s						
PLCA	Paso Flores	22.80	336	P	P	23 58 50.6	+0.5
PLCA				IAmb	IAmb	23 58 55.9	
	comp=Z,100nm,1.6s						
PLCA	Paso Flores	22.80	336	*e*P	P	23 58 51.3	+1.2
PLCA	Paso Flores	22.80	336	P	P	23 58 51.8	+1.6
	comp=Z,34nm,1.2s						
GO06	Curarrehue	24.09	335	P	P	23 59 02.6	-0.4
GO06				IAmb	IAmb	23 59 11.6	
	comp=Z,90nm,1.1s						
GO06	Curarrehue	24.09	335	P	P	23 59 04.2	+1.2
	comp=Z,86nm,1.1s						
LR03	Panguipulli	24.22	333	P	P	23 59 03.1	-1.0
LR03				IAmb	IAmb	23 59 08.9	
	comp=Z,45nm,1.1s						
TROLL	Troll, Antarti	24.38	139	⇑P	P	23 59 07.1	+1.6
	comp=Z,2µm,0.9s						
BI02	San Fabin de	26.88	337	P	P	23 59 27.6	-0.6
BI02	San Fabin de	26.88	337	P	P	23 59 32.3	+4.0
	comp=Z,22nm,1.5s						
NVL	N'lazarevskaya	27.57	138	*e*P	P	23 59 33.4	-0.6
NVL				*e*S	S	00 04 11.9	-2.8
NVL				pmax	pmax		
	comp=Z,33nm,1.1s						
NVL				MLR	MLR		
	comp=Z,405nm,17.0s						
ML02	Panimavida	27.78	337	P	P	23 59 36.1	-0.2
ML02				IAmb	IAmb	23 59 41.3	
	comp=Z,52nm,1.1s						
ML02	Panimavida	27.78	337	P	P	23 59 39.4	+3.2
	comp=Z,48nm,1.8s						
QSPA	South Pole Qui	27.93	180	P	P	23 59 38.8	+1.2
	comp=Z,3.8nm,0.8s,baz=182,slow=1.3,SNR=13						
QSPA				LR	LR	00 11 11.8	
	comp=Z,960nm,19.1s,baz=168,slow=37						
	comp=Z,3.8nm,0.8s						
QSPA	South Pole Qui	27.93	180	P	P	23 59 36.4	-1.2
QSPA				IAmb	IAmb	00 00 00.3	
	comp=Z,22nm,1.1s						
QSPA	South Pole Qui	27.93	180	P	P	23 59 40.6	+3.0
	comp=Z,20nm,1.0s						
GO05	Hualane	28.61	336	P	P	23 59 43.0	-0.7
GO05				IAmb	IAmb	23 59 49.5	
	comp=Z,45nm,1.1s						
GO05	Hualane	28.61	336	P	P	23 59 45.7	+2.1
	comp=Z,44nm,1.6s						
BO02	Sierra Bellavi	28.61	338	P	P	23 59 43.4	-0.4
BO02				IAmb	IAmb	23 59 53.2	
	comp=Z,18nm,0.9s						
BO02	Sierra Bellavi	28.61	338	P	P	23 59 49.1	+5.4
	comp=Z,23nm,1.5s						
BO01	Tunca	29.05	338	P	P	23 59 47.3	-0.3
BO04	La Punta	29.37	339	P	P	23 59 49.7	-0.7
BO04				IAmb	IAmb	23 59 53.7	
	comp=Z,19nm,0.8s						
MT09	Talagante	29.64	338	P	P	23 59 51.9	-1.0
MT08	Bocatoma Ro	29.80	340	P	P	23 59 54.0	-0.5
MT08				IAmb	IAmb	00 00 03.9	
	comp=Z,22nm,1.0s						
MT03	Universidad Ad	29.83	339	P	P	23 59 54.3	-0.3
MT03				IAmb	IAmb	00 00 05.9	
	comp=Z,49nm,1.1s						
MT05	Renca	29.97	339	P	P	23 59 55.0	-0.8
MT02	Curacav	30.17	338	P	P	23 59 57.3	-0.2
MT02				IAmb	IAmb	00 00 05.4	
	comp=Z,31nm,1.2s						
PEL	Peldehue	30.20	339	P	P	23 59 57.7	-0.2
PEL				pmax	pmax		
	comp=Z,35nm,1.1s						
PEL	Peldehue	30.20	339	P	P	23 59 57.7	-0.2
PEL				IAmb	IAmb	00 00 09.5	
	comp=Z,35nm,1.1s						
VA03	San Esteban	30.55	340	P	P	00 00 01.2	+0.1
VA03				IAmb	IAmb	00 00 12.7	
	comp=Z,31nm,0.9s						
VA03	San Esteban	30.55	340	P	P	00 00 03.2	+2.2
	comp=Z,50nm,1.1s						
ELIB	Princess Elisa	30.58	143	*d*P	P	00 00 02.5	+1.5
	comp=Z,12nm,1.1s						
CFA	Coronel Fontan	31.35	344	LR	LR	00 13 04.5	
	comp=Z,360nm,18.4s,baz=178,slow=37						
ZON	Zonda	31.47	343	P	P	00 00 09.8	+0.8
ZON	Zonda	31.47	343	P	P	00 00 08.5	-0.5
ZON				IAmb	IAmb	00 00 18.2	
	comp=Z,17nm,1.0s						
CO02	Combarbal	32.15	339	P	P	00 00 14.1	-1.0
CO02	Combarbal	32.15	339	P	P	00 00 16.7	+1.6
	comp=Z,46nm,1.2s						
CO03	El Pedregal	32.46	340	P	P	00 00 16.9	-0.9
CO03				IAmb	IAmb	00 00 28.1	
	comp=Z,35nm,0.9s						
CO03	El Pedregal	32.46	340	P	P	00 00 19.4	+1.6
	comp=Z,43nm,1.3s						
CO01	Juntas del Tor	33.21	341	P	P	00 00 24.5	-0.1
CO01	Juntas del Tor	33.21	341	P	P	00 00 27.0	+2.4
	comp=Z,42nm,1.3s						
LCO	Las Campanas	34.25	341	P	P	00 00 33.8	+0.2
LCO	Las Campanas	34.25	341	P	P	00 00 32.8	-0.9
LCO				IAmb	IAmb	00 01 05.7	
	comp=Z,22nm,1.1s						
AC05	El Transito	34.36	341	P	P	00 00 33.1	-1.3
AC05				IAmb	IAmb	00 00 42.7	
	comp=Z,73nm,1.6s						
AC05	El Transito	34.36	341	P	P	00 00 35.8	+1.4
	comp=Z,24nm,1.3s						
AC04	Llanos de Chal	35.10	340	P	P	00 00 39.5	-1.1

AC04	Llanos de Chal	35.10	340	P	P	00 00 42.1	+1.5
	comp=Z,78nm,1.2s						
AC06	Mina Casimiro	35.83	342	P	P	00 00 46.0	-0.9
AC06				IAmb	IAmb	00 00 56.3	
	comp=Z,17nm,0.9s						
CPUP	Villa Florida	35.97	2	P	P	00 00 47.1	-0.9
	comp=Z,1.9nm,0.8s,baz=187,slow=8.9,SNR=7.4						
	comp=Z,1.9nm,0.8s						
CPUP	Villa Florida	35.97	2	P	P	00 00 48.1	0.0
CPUP	Villa Florida	35.97	2	P	P	00 00 45.7	-2.3
CPUP				IAmb	IAmb	00 00 56.8	
	comp=Z,25nm,1.6s						
CPUP	Villa Florida	35.97	2	P	P	00 00 52.6	+4.5
	comp=Z,8.0nm,0.8s						
AC02	Maricunga	36.17	344	P	P	00 00 49.4	-1.0
AC02				IAmb	IAmb	00 01 01.4	
	comp=Z,41nm,1.4s						
AC02	Maricunga	36.17	344	P	P	00 00 52.3	+1.9
	comp=Z,20nm,1.3s						
SYO	Syowa Base	36.75	143⇑	eP	P	00 00 55.3	+0.9
VNDA	Vanda	38.25	193	P	P	00 01 10.4	+3.5
	comp=Z,0.7nm,0.7s,baz=163,slow=9.9,SNR=4.2						
VNDA				LR	LR	00 16 25.2	
	comp=Z,493nm,18.7s,baz=151,slow=35						
	comp=Z,0.7nm,0.7s						
VNDA	Vanda	38.25	193	P	P	00 01 08.4	+1.4
VNDA	Vanda	38.25	193	P	P	00 01 06.8	-0.2
AF01	San Pedro de A	39.88	346	P	P	00 01 21.0	-0.5
MURT	Porto Murtinho	40.61	1	eP	P	00 01 28.5	+1.3
PB03	IPOC Station P	40.97	344	P	P	00 01 29.9	-0.4
PB03				IAmb	IAmb	00 01 40.1	
	comp=Z,34nm,1.5s						
PB03	IPOC Station P	40.97	344	P	P	00 01 32.7	+2.3
	comp=Z,17nm,0.9s						
PB09	IPOC Station P	41.15	345	P	P	00 01 36.5	+4.7
	comp=Z,18nm,1.3s						
AQDB	Aquidauana	41.83	4	P	P	00 01 36.2	-1.0
AQDB	Aquidauana	41.83	4	eP	P	00 01 36.6	-0.6
AQDB	Aquidauana	41.83	4	P	P	00 01 42.2	+5.0
	comp=Z,17nm,0.5s						
BDQN	Bodoquena, MS	41.83	2	eP	P	00 01 36.8	-0.4
COIM	Forte Coimbra	42.35	1	eP	P	00 01 41.2	-0.3
PB11	IPOC Station P	43.21	344	P	P	00 01 48.4	-0.2
PB11				IAmb	IAmb	00 01 58.4	
	comp=Z,18nm,0.9s						
PB11	IPOC Station P	43.21	344	P	P	00 01 56.1	+7.5
	comp=Z,20nm,1.2s						
GO01	Chusmiza	43.24	345	P	P	00 01 48.6	-0.7
GO01	Chusmiza	43.24	345	P	P	00 01 52.2	+2.9
	comp=Z,11nm,2.9s						
MAW	Mawson	43.65	152	P	P	00 01 52.8	+1.3
	comp=Z,15nm,0.9s,baz=236,slow=8.2,SNR=24						
	comp=Z,15nm,0.9s						
MAW	Mawson	43.65	152	P	P	00 01 51.5	0.0
PB16	IPOC Station P	44.60	345	P	P	00 01 58.9	-1.4
PB16	IPOC Station P	44.60	345	P	P	00 02 03.1	+2.9
	comp=Z,12nm,0.9s						
PP1B	Ponte de Pedra	44.72	5	eP	P	00 02 00.9	+0.4
IPMB	Ipameri, GO	44.84	14	eP	P	00 01 59.8	-1.8
SJMB	Sao Joao De Ma	45.18	23	eP	P	00 02 01.8	-2.5
SALV	Santo Antonio	46.38	4	eP	P	00 02 13.8	0.0
LPAZ	La Paz	46.46	347	P	P	00 02 16.0	+0.9
	comp=Z,1.3nm,0.7s,baz=154,slow=5.5,SNR=6.1						
	comp=Z,1.3nm,0.7s						
LPAZ	La Paz	46.46	347	P	P	00 02 14.7	-0.4
LPAZ	La Paz	46.46	347	eP	P	00 02 15.4	+0.3
MC01	Montes Claros	46.66	19	eP	P	00 02 15.3	-0.7
PTLB	Pontes e Lacer	46.79	359	eP	P	00 02 16.9	0.0
BDFB	Brasilia	47.17	14	P	P	00 02 19.5	-0.6
	comp=Z,5.7nm,0.8s,baz=176,slow=2.7,SNR=6.6						
BDFB				LR	LR	00 20 54.8	
	comp=Z,529nm,21.3s,baz=170,slow=35						
	comp=Z,5.7nm,0.8s						
BDFB	Brasilia	47.17	14	P	P	00 02 19.1	-1.0
BDFB				IAmb	IAmb	00 02 27.2	
	comp=Z,12nm,0.8s						
JANB	Januaria	48.23	18	eP	P	00 02 27.3	-0.9
RPN	Rapa Nui	48.43	292	LR	LR	00 18 10.7	
	comp=Z,532nm,22.0s,baz=150,slow=30						
CMC01	Camacan, BA	48.75	25	eP	P	00 02 31.5	-0.7
VILB	Vilhena	49.28	358	eP	P	00 02 34.2	-2.1
SDBA	SAO DESIDERIO	50.75	17	eP	P	00 02 47.1	-0.3
CLDB	Colider	51.37	3	eP	P	00 02 50.3	-1.8
NNA	Nana	51.95	337	LR	LR	00 22 47.2	
	comp=Z,211nm,18.1s,baz=151,slow=34						
NNA	Nana	51.95	337	i P	P	00 02 56.9	+0.4
NNA				pmax	pmax		
	comp=Z,11nm,1.0s						
SMTB	Santa Maria do	53.92	13	eP	P	00 03 09.9	-1.1
CZSB	Cruzeiro do Su	55.46	343	P	P	00 03 21.6	-0.5
CZSB	Cruzeiro do Su	55.46	343	eP	P	00 03 22.8	+0.7
ITTB	Itaituba	57.83	3	eP	P	00 03 38.1	-0.8
RCBR	Riachuelo	58.75	26	LR	LR	00 30 20.9	
	comp=Z,65nm,18.0s,baz=195,slow=38						
MACA	Manacapuru-AM	59.02	357	eP	P	00 03 46.2	-1.0
BOSA	Boshof	62.19	99	P	P	00 04 08.5	-0.4
	comp=Z,5.5nm,0.9s,baz=188,slow=12,SNR=7.7						
	comp=Z,5.5nm,0.9s						
BOSA	Boshof	62.19	99	P	P	00 04 08.9	-0.1
BOSA	Boshof	62.19	99	P	P	00 04 07.6	-1.4
LKGWB	Lokgwabe	64.15	93	P	P	00 04 23.8	+1.8
OTAV	Otavalo	64.19	338	P	P	00 04 22.7	+0.1
OTAV	Otavalo	64.19	338	P	P	00 04 21.8	-0.9
OTAV				IAmb	IAmb	00 04 30.6	
	comp=Z,11nm,1.0s						
OTAV	Otavalo	64.19	338	eP	P	00 04 22.5	-0.2
BOAV	Boa Vista	64.53	358	P	P	00 04 23.6	-0.8
BOAV				IAmb	IAmb	00 04 31.1	
	comp=Z,7.4nm,1.1s						
BOAV	Boa Vista	64.53	358	eP	P	00 04 24.2	-0.1
LBTB	Lobatse	65.42	97	LR	LR	00 27 27.9	
	comp=Z,308nm,21.7s,baz=210,slow=31						
LBTB	Lobatse	65.42	97	P	P	00 04 31.2	+1.0
LBTB	Lobatse	65.42	97	P	P	00 04 29.6	-0.7
LBTB				IAmb	IAmb	00 04 42.5	
	comp=Z,15nm,1.1s						
POGA	Pongola	66.23	104	P	P	00 04 34.2	-1.1
KDWAN	Kaudwane	66.38	95	P	P	00 04 35.1	-1.4
TSUM	Tsumeb	66.68	87	LR	LR	00 28 56.9	
	comp=Z,93nm,19.6s,baz=213,slow=32						
TSUM	Tsumeb	66.68	87	P	P	00 04 37.1	-1.3
TSUM				IAmb	IAmb	00 04 41.5	
	comp=Z,24nm,1.6s						
URZ	Urewera	70.31	224	LR	LR	00 31 45.4	
	comp=Z,248nm,19.4s,baz=154,slow=32						
MATP	Matopo	70.71	97	LR	LR	00 30 43.8	
	comp=Z,238nm,21.6s,baz=218,slow=32						
LSZ	Lusaka	75.03	94	LR	LR	00 34 40.6	
	comp=Z,190nm,18.2s,baz=170,slow=33						
LSZ	Lusaka	75.03	94	P	P	00 05 29.8	+0.6
LSZ	Lusaka	75.03	94	P	P	00 05 28.9	-0.4
LSZ				IAmb	IAmb	00 05 38.9	
	comp=Z,13nm,0.9s						
PPT2	Papeete2	75.14	261	eLR	LR	00 28 30.4	
	comp=Z,350nm,23.5s						
PPT2				eLR	LR	00 28 30.8	
	comp=Z,415nm,22.5s						
PPT	Papeete	75.16	261	LR	LR	00 31 24.0	
	comp=Z,196nm,18.1s,baz=158,slow=30						
JTS	Las Juntas de	75.25	333	LR	LR	00 33 24.7	
	comp=Z,183nm,19.7s,baz=167,slow=32						
JTS	Las Juntas de	75.25	333	i P	P	00 05 30.5	+0.3
JTS				pmax	pmax		
	comp=Z,10.0nm,1.3s						
RAR	Rarotonga	76.58	250	LR	LR	00 33 43.2	
	comp=Z,164nm,18.4s,baz=116,slow=31						
TAOE	Nuku Hiva Isla	78.37	273	eLR	LR	00 30 08.9	
	comp=Z,523nm,27.7s						
DBIC	Dimbokro	79.99	54	LR	LR	00 33 14.4	
	comp=Z,223nm,21.4s,baz=199,slow=30						
OPO	Ambohidratompo	80.76	112	LR	LR	00 37 26.2	
	comp=Z,101nm,18.4s,baz=273,slow=32						
STKA	Stephens Creek	84.78	197	P	P	00 06 22.7	+1.1
	comp=Z,2.9nm,0.7s,baz=172,slow=9.3,SNR=4.2						
	comp=Z,2.9nm,0.7s						
STKA	Stephens Creek	84.78	197	i P	P	00 06 23.1	+1.4
AFI	Afiamalu	88.21	243	LR	LR	00 37 43.2	
	comp=Z,136nm,20.1s,baz=182,slow=30						
TORD	Torodi Ar. Bea	88.45	58	P	P	00 06 38.0	-1.6
	comp=Z,1.0nm,0.8s,baz=223,slow=4.6,SNR=6.7						
	comp=Z,1.0nm,0.8s						
INKA	Innaminka	88.97	197	P	P	00 06 41.8	-0.3
INKA				IAmb	IAmb	00 06 55.1	
	comp=Z,5.4nm,0.9s						
MBAR	Mbarara	89.07	90	i P	P	00 06 44.3	+1.4
MBAR				pmax	pmax		
	comp=Z,3.0nm,1.4s						
KMBO	Kilima Mbogo	91.65	96	LR	LR	00 42 56.5	
	comp=Z,409nm,21.7s,baz=243,slow=32						
ASAR	Alice Springs	93.77	191	P	P	00 07 04.4	-0.1
	comp=Z,0.9nm,0.6s,baz=169,slow=4.4,SNR=11						
	comp=Z,0.9nm,0.6s						
ASAR	Alice Springs	93.77	191	P	P	00 07 03.4	-1.1
WRA	Warramunga Arr	97.42	192	P	P	00 07 20.3	-0.8
	comp=Z,0.8nm,0.7s,baz=187,slow=3.8,SNR=6.5						
	comp=Z,0.8nm,0.7s						
WRA	Warramunga Arr	97.42	192	eP	Pdif	00 07 21.5	+0.3
WRA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
TXAR	Lajitas Array	98.26	321	LR	LR	00 45 29.3	
	comp=Z,99nm,18.1s,baz=101,slow=32						
IDI	Anoyia	117.63	67	PKPdf	PKPdf	00 12 31.9	-1.0
GERES	GERESS Array B	124.67	50	PKP	PKPdf	00 12 44.1	-1.9
	comp=Z,0.4nm,0.3s,baz=226,slow=3.5,SNR=6.2						
GERES	GERESS Array B	124.67	50	ePKIKP	PKPdf	00 12 46.1	+0.1
GERES	GERESS Array B	124.67	50		PKPdf	00 12 43.7	-2.3
HYB	Hyderabad	126.10	126	ePKiKP	PKPdf	00 12 49.6	0.0
HYB				eSKSac	SKSac	00 19 53.6	-0.8
HYB				eSKKSac	SKKSac	00 21 39.6	-1.8
CLL	Collm	126.49	48	L	L	00 53 00.0	
CLL				AMS	AMS	00 57 00.0	
	comp=Z,100nm,22.4s						
AKBB	Malin Array Si	132.07	59	i PKIKP	PKPdf	00 12 59.9	0.0
KBZ	Khabaz	132.48	75	i PKIKP	PKiKP	00 13 02.1	+0.1
CMAR	Chiang Mai Arr	133.44	150	PKP	PKiKP	00 13 04.2	-0.6
	comp=Z,1.5nm,0.5s,baz=230,slow=3.8,SNR=9.1						
CMAR	Chiang Mai Arr	133.44	150	ePKIKP	PKiKP	00 13 06.7	+1.9
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
QIZ	Qiongzhong	136.01	164	PKP	PKPdf	00 13 08.0	-0.3
QIZ				PP	PP	00 15 48.3	+1.2
QIZ				L	L		
	comp=Z,140nm,15.9s						
QIZ				L	L		
	comp=Z,99nm,18.8s						
QIZ				L	L		
	comp=Z,150nm,17.0s						
VSU	Vasula	137.00	50	i PKIKP	PKiKP	00 13 10.5	-0.1
OBN	Obninsk	138.32	59	ePKIKP	PKPdf	00 13 10.9	-0.5
OBN				pmax	pmax		
	comp=Z,3.0nm,0.8s						
FINES	FINESS Array B	138.91	47	PKP	PKPdf	00 13 09.2	-3.1
	comp=Z,0.7nm,0.5s,baz=232,slow=6.8,SNR=4.7						
FINES	FINESS Array B	138.91	47	ePKIKP	PKiKP	00 13 14.8	+0.3
FINES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
PZH	PanZhiHua	141.84	150	PKP	PKPdf	00 13 20.3	+1.4
ILAR	Eielson Array	142.51	315	PKP	PKPdf	00 13 17.9	-0.8
	comp=Z,0.4nm,0.6s,baz=178,slow=4.0,SNR=4.7						
ILAR	Eielson Array	142.51	315	PKPdf	PKPdf	00 13 18.6	-0.2
KSH2	Kashi	143.92	108	PKP	PKPdf	00 13 22.6	+0.3
ARCES	ARCESS Array B	144.11	37	PKP	PKPab	00 13 18.3	-0.8
	comp=Z,5.9nm,0.8s,baz=228,slow=3.5,SNR=17						
AKTO	Aktyubinsk	144.36	79	PKHKP	PKPab	00 13 18.8	-1.8
AB31	Akbulak array	144.42	82	PKHKP	PKPab	00 13 18.7	-2.1
AB31	Akbulak array	144.42	82	PKPdf	PKPab	00 13 18.9	-1.9
ABKAR	Akbulak array	144.42	82	PKPdf	PKPab	00 13 18.7	-2.2
ARSB	Arslanbob	144.52	103	PKPdf	PKPab	00 13 20.8	-0.9
F24K	Squaw Lake	144.53	318	PKPdf	PKPdf	00 13 21.8	-0.5
KK31	Karatay Array	144.78	99	i PKIKP	PKPab	00 13 22.0	-0.4
KK31	Karatay Array	144.78	99	PKPdf	PKPab	00 13 21.8	-0.6
KKAR	Karatay Array	144.78	99	PKPdf	PKPab	00 13 21.5	-0.9
KIRV	Kirov	145.90	63	i PKP2	PKPab	00 13 26.3	+0.3
AAK	Ala-Archa	146.25	103	PKP2	PKPbc	00 13 26.8	-0.5
CD2	Chengdu	146.54	151	PKPbc	PKiKP	00 13 30.5	-0.8
ARTI	Arti	148.42	71	i PKP2	PKPbc	00 13 32.1	-0.5
ARTI						00 16 59.5	
ARTI				SS	SS	00 36 05.7	-4.9
GOMU	GeErMu	149.02	135	PKPbc	PKPbc	00 13 35.0	-0.3
PDGK	Podgornoye	149.04	108	PKP2	PKPbc	00 13 34.1	-0.7
XAN	Xi'an	150.60	158	PKPbc	PKPbc	00 13 36.8	-2.0
XAN				L	L		
	comp=Z,190nm,23.4s						
XAN				L	L		
	comp=Z,160nm,19.2s						
XAN				L	L		
	comp=Z,180nm,17.2s						
LZDM	Lanzhou Array	151.36	149	PKPbc	PKPbc	00 13 39.2	-1.7
	comp=Z,2.0nm,0.4s,baz=197,slow=1.5,SNR=5.4						
LZH	Lanzhou	151.52	149	ePKPbc	PKiKP	00 13 44.5	+3.0
LZH				pPKP	pPKPab	00 13 52.3	-1.0
BORK	Borovoye	151.80	85	i PKIKP	PKPdf	00 13 36.2	+1.7
BVAR	Borovoye Array	151.82	85	PKPbc	PKPbc	00 13 40.3	-0.6
	comp=Z,6.3nm,0.6s,baz=170,slow=3.4,SNR=18						
MJAR	Matsushiro Arr	152.22	210	PKPbc	PKiKP	00 13 44.1	+1.3
	comp=Z,1.5nm,0.6s,baz=163,slow=5.2,SNR=2.7						
WMQ	Urumqi	152.97	117	ePKPbc	PKPdf	00 13 38.6	+1.9
WMQ				PKPab	pPKPab	00 13 57.8	-1.2
WMQ				L	L		
	comp=Z,86nm,22.7s						
MK31	Makanchi Array	152.98	107	i PKIKP	PKPdf	00 13 37.3	+0.8
MKAR	Makanchi Array	152.98	107	PKPbc	PKPbc	00 13 42.7	-1.1
	comp=Z,3.7nm,0.8s,baz=249,slow=4.6,SNR=15						
MKAR	Makanchi Array	152.98	107	PKPbc	PKPbc	00 13 41.6	-2.2
GTA2	Gaotai	153.59	140	PKPbc	PKiKP	00 13 46.3	+0.7
GTA2				sPKP	sPKPbc	00 13 57.3	+6.8
GTA2				LR	LR		
	comp=N,150nm,15.9s						
GTA2				LR	LR		
	comp=E,100nm,17.8s						
GTA2				LR	LR		
	comp=Z,170nm,16.8s						
KURBB	Kurchatov Arra	154.03	97	PKPbc	PKPbc	00 13 44.6	-1.3
	comp=Z,1.1nm,0.6s,baz=239,slow=2.8,SNR=7.5						
KURK	Kurchatov	154.14	97		PKPbc	00 13 45.5	-0.6
DGZ	Jazzator, Alta	157.44	108	i PKIKP	PKPdf	00 13 43.5	+0.8
ZALV	Zalesovo Beam	159.13	97	PKPab	PKPab	00 14 20.4	-1.0
	comp=Z,0.4nm,0.4s,baz=246,slow=6.3,SNR=3.9						
BILL	Bilibino	160.76	307	i PKIKP	PKPdf	00 13 45.9	+0.2
BILL				pmax	pmax		
	comp=Z,5.0nm,1.0s						
USA0B	Ussuriysk Arra	160.88	203	i PKIKP	PKPdf	00 13 48.3	+1.7
SONM	Songino Array	163.17	142	PKPab	PKPab	00 14 39.9	+0.5
	comp=Z,0.7nm,0.4s,baz=207,slow=6.4,SNR=5.8						
SONM	Songino Array	163.17	142		PKPab	00 14 39.3	-0.1

JMA ***22*** *23:55:54.6±0.9, 45°N±3°×15°1E±°, h30^{km}, MV4.3/17,*
KURILE ISLANDS REGION

SKHL 22 23:55:52.6±0.0**, 45°.00N×151°.10E, h46**^{km}±3^{km}**, mb4.3**/2**,**
Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
REI	Reidovoe	2.20	278	eP	Pn	23 56 26.4	-0.2
REI				AMB	AMB	23 56 28.1	
	30nm,0.3s						
REI				eS	Sn	23 56 51.7	-0.8
REI				A	A	23 56 53.7	
	80nm,0.2s						
REI				A	A	23 56 53.7	
	70nm,0.2s						
KUR	Kuril'sk	2.30	277	eP	Pn	23 56 28.2	+0.2
KUR				AMB	AMB	23 56 30.2	
	80nm,0.5s						
KUR				eS	Sn	23 56 54.9	-0.2
KUR				A	A	23 56 59.4	
	340nm,0.4s						
KUR				A	A	23 56 59.4	
	160nm,0.4s						
NEM2	Nemuro 2	4.18	249	P	Pn	23 56 54.8	+0.9
NEM2				eS	Sn	23 57 41.3	-0.2
NMR	Nemuro--Hokkai	4.19	249	eP	Pn	23 56 54.9	+0.9
NMR				eS	Sn	23 57 42.1	+0.5
JRA	Rausu	4.41	258	P	Pn	23 56 59.7	+2.8
JNK	Nakash	4.79	255	P	Pn	23 57 04.2	+2.0
AKK	Akkeshi	4.93	248	eP	Pn	23 57 04.9	+0.8
JAK	Akkeshi	5.04	249	P	Pn	23 57 06.4	+0.9
JTKR	Abashiri--Toko	5.25	261	eP	Pn	23 57 11.0	+2.6
JAR	Ashorobuto	5.54	255	P	Pn	23 57 15.2	+2.7
JOB	Onbets	5.65	251	P	Pn	23 57 15.6	+1.6
JCH	Churui	6.08	250	P	Pn	23 57 21.8	+1.8

IDC ***23*** *00:09:34.5±0.6, 9°.21N×126°.91E, h0^{km}, mb4.2/18,*
mbtmp4.2/20, ML4.9/2, MS3.4/4, Error ellipse:
s-maj=27.1km s-min=11.5km az=84.0
NEIC ***23*** *00:09:37.1±1.4, 9°.23N±0°.09×126°.8E±0°.2, h10^{km}±1^{km},*
mb4.5/28, Error ellipse: s-maj=25.4km s-min=14.6km
az=98.0
MAN ***23*** *00:09:38.0, 9°.30N×126°.94E, h16^{km}, MS3.8*

ISC 23 00:09:37.1±2.8**, 9°.20N**±0°.04×**126°.99E**±0°.07**, h17**^{km}±16^{km}**,**
n77, σ1^{s}.28/84**, mb4.3**/31**, MS3.0**/3**, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BIPH	Bislig	1.19	212	i P	Pb	00 09 58.6	-0.6
BIPH				i S	Sb	00 10 13.8	-0.5
CDOP	Cateel, Davao	1.51	201	eP	Pn	00 10 03.5	+0.1
CDOP				i S	Sn	00 10 21.2	-1.5
BUKP	Musuan	2.32	236	i P	Pb	00 10 18.5	0.0
BUKP				i S	Sg	00 10 50.8	-0.9
CGP	Cagayan de Oro	2.39	252	i P	Pb	00 10 17.8	-1.9
CGP				i S	Sg	00 10 55.1	+1.2
DAV	Davao City (W)	2.54	213	Pn	Pn	00 10 18.3	+0.7
	141nm,0.3s,baz=27,slow=2.3,SNR=4.7						
DAV				LR	LR	00 11 23.0	
	comp=Z,412nm,21.4s,baz=68,slow=43						
	216nm,0.4s						
DAV				AML	AML		
DAV	Davao City (W)	2.54	213		Pn	00 10 17.6	+0.1
DAV	Davao City (W)	2.54	213	P	Pb	00 10 22.0	-0.3
PLP	Palo	2.78	315	eP	Pn	00 10 20.9	0.0
PLP				eS	Sn	00 10 53.2	-0.9
KCP	Kidapawan	2.88	221	eP	Pb	00 10 28.1	0.0
TBP	Tagbilaran	3.12	279	eP	Pn	00 10 27.0	+1.4
TBP				i S	Sb	00 11 08.5	-1.6
LLP	Lapu-Lapu	3.18	291	eP	Pn	00 10 28.2	+1.8
LLP				eS	Sb	00 11 12.6	+0.9
LSIP	Lazi, Siquijor	3.32	269	i P	Pn	00 10 30.9	+2.7
LSIP				eS	Sb	00 11 13.9	-1.7
CTBH	Cotabato--PC H	3.35	234	i P	Pn	00 10 32.3	+3.5
DCPH	Dipolog City	3.65	261	i P	Pn	00 10 35.6	+2.8
DCPH				i S	Sb	00 11 27.0	+1.9
SNPH	Sibulan	3.71	272	eP	Pn	00 10 35.8	+2.1
SNPH				eS	Sb	00 11 28.9	+1.9
BATI	Baumata	19.56	190	P	P	00 14 02.2	-2.1
	6.1nm,0.3s,baz=72,slow=3.2,SNR=4.1						
	21nm,0.4s						
BATI				AML	AML		
MTN	Manton Dam	22.29	169	P	P	00 14 34.6	+0.9
JNU	Nakatsue	24.07	8	LR	LR	00 23 38.3	
	comp=Z,45nm,19.0s,baz=156,slow=35						
KNRA	Kununurra	24.78	176	P	P	00 14 58.8	+0.5
KNRA				IAmb	IAmb	00 15 25.4	
	comp=Z,5.6nm,0.8s						
LEM	Lembang	25.02	231	P	P	00 15 00.7	-0.1
	comp=Z,14nm,0.4s,baz=0.0,slow=20,SNR=2.1						
	comp=Z,14nm,0.4s						
FITZ	Fitzroy Crossi	27.16	183	P	P	00 15 19.9	+0.1
	comp=Z,3.7nm,0.7s,baz=0.9,slow=11,SNR=12						
	comp=Z,3.7nm,0.7s						
FITZ	Fitzroy Crossi	27.16	183	P	P	00 15 20.5	+0.7
KSRS	Korea Array	28.14	2	P	P	00 15 29.7	+1.3
	comp=Z,0.6nm,0.4s,baz=174,slow=12,SNR=1.6						
	comp=Z,0.6nm,0.4s						
CMAR	Chiang Mai Arr	28.71	292	P	P	00 15 31.8	-2.0
	comp=Z,1.0nm,0.5s,baz=101,slow=9.0,SNR=7.8						
CMAR				LR	LR	00 27 39.6	
	comp=Z,32nm,18.3s,baz=310,slow=38						
	comp=Z,1.0nm,0.5s						
MJAR	Matsushiro Arr	29.06	19	P	P	00 15 36.7	0.0
	comp=Z,0.8nm,0.3s,baz=174,slow=12,SNR=4.6						
	comp=Z,0.8nm,0.3s						
WB0	Warramunga Arr	29.70	166	P	P	00 15 41.9	-0.6
WB0				IAmb	IAmb	00 15 54.4	
	comp=Z,3.4nm,0.6s						
WRA	Warramunga Arr	29.85	166	P	P	00 15 43.3	-0.5
	comp=Z,0.9nm,0.5s,baz=347,slow=8.7,SNR=14						
WRA				PcP	PcP	00 18 47.2	+0.2
	comp=Z,0.3nm,0.5s,baz=336,slow=2.8,SNR=2.3						
	comp=Z,0.9nm,0.5s						
WRA	Warramunga Arr	29.85	166	P	P	00 15 42.7	-1.1
WR8	Warramunga Arr	29.90	166	P	P	00 15 44.2	-0.1
MBWA	Marble Bar	31.00	193	P	P	00 15 54.0	0.0
AS31	Alice Springs	33.36	168	P	P	00 16 14.8	+0.2
ASAR	Alice Springs	33.36	168	P	P	00 16 14.7	0.0
	comp=Z,0.9nm,0.5s,baz=348,slow=8.0,SNR=24						
ASAR				PcP	PcP	00 18 57.0	+0.6
	comp=Z,0.5nm,0.7s,baz=338,slow=2.7,SNR=4.5						
	comp=Z,0.9nm,0.5s						
ASAR	Alice Springs	33.36	168	P	P	00 16 14.8	+0.2
MORW	Morawa	39.49	195	P	P	00 17 07.3	+0.4
MORW				IAmb	IAmb	00 17 09.8	
	comp=Z,13nm,1.1s						
H11S3	WAKE ISLAND Hy	39.56	72	T	T	01 00 16.7	
	baz=261,slow=70,SNR=6.7						
H11S1	WAKE ISLAND Hy	39.57	72	T	T	01 00 23.8	
	baz=261,slow=70,SNR=4.0						
H11S2	WAKE ISLAND Hy	39.57	72	T	T	01 00 21.0	
	baz=261,slow=70,SNR=3.0						
FORT	Forrest	39.77	179	P	P	00 17 09.8	+0.6
FORT				IAmb	IAmb	00 17 52.2	
	comp=Z,11nm,1.1s						
H11N1	WAKE ISLAND Hy	39.93	70	T	T	01 01 00.0	
	baz=262						
H11N2	WAKE ISLAND Hy	39.94	70	T	T	01 00 54.3	
	baz=262						
H11N3	WAKE ISLAND Hy	39.95	70	T	T	01 00 52.3	
	baz=262						
HILR	Hailar Array B	40.68	353	P	P	00 17 14.4	-2.2
	comp=Z,0.3nm,0.2s,baz=164,slow=12,SNR=2.0						
HILR				PcP	PcP	00 19 18.7	+0.6
	comp=Z,1.1nm,0.3s,baz=183,slow=2.9,SNR=3.3						
	comp=Z,0.3nm,0.2s						
EVN	Everest	42.15	302	P	P	00 17 27.4	-2.3
EVN				IAmb	IAmb	00 17 54.3	
	comp=Z,11nm,1.5s						
SONM	Songino Array	42.26	339	P	P	00 17 29.6	-0.1
	comp=Z,0.9nm,0.3s,baz=153,slow=7.2,SNR=4.0						
SONM				PcP	PcP	00 19 24.3	+0.8
	comp=Z,0.6nm,0.5s,baz=146,slow=2.0,SNR=1.8						
	comp=Z,0.9nm,0.3s						
SONM	Songino Array	42.26	339	P	P	00 17 30.1	+0.4
BBOO	Buckleboo	42.66	169	P	P	00 17 33.8	+0.9
NWAO	Narrogin (SRO)	42.91	192	P	P	00 17 35.4	+0.4
MKAR	Makanchi Array	53.30	323	P	P	00 18 54.9	-0.4
	comp=Z,3.7nm,0.8s,baz=120,slow=8.3,SNR=24						
MKAR				PcP	PcP	00 20 02.7	-0.1
	comp=Z,1.4nm,0.7s,baz=121,slow=3.1,SNR=3.7						
	comp=Z,3.7nm,0.8s						
PDGK	Podgornoye	53.46	318	P	P	00 18 56.0	-0.6
MAKZ	Makanchi	53.49	323	P	P	00 18 56.3	-0.4
MAKZ				IAmb	IAmb	00 18 57.6	
	comp=Z,3.9nm,1.0s						
ZALV	Zalesovo Beam	55.90	331	P	P	00 19 12.8	-1.1
	comp=Z,1.5nm,0.7s,baz=118,slow=7.2,SNR=7.7						
	comp=Z,1.5nm,0.7s						
ZALV	Zalesovo Beam	55.90	331	P	P	00 19 12.9	-1.0
KURK	Kurchatov	57.34	326	P	P	00 19 23.9	-0.4
KURK				IAmb	IAmb	00 19 25.3	
	comp=Z,8.6nm,1.1s						
KURBB	Kurchatov Arra	57.35	326	P	P	00 19 23.7	-0.7
	comp=Z,2.3nm,0.3s,baz=127,slow=6.9,SNR=18						
	comp=Z,2.3nm,0.3s						
KKAR	Karatay Array	59.50	315	P	P	00 19 38.5	-1.0
BVAR	Borovoye Array	62.94	326	P	P	00 20 02.2	-0.5
	comp=Z,3.4nm,0.8s,baz=115,slow=6.8,SNR=13						
	comp=Z,3.4nm,0.8s						
BORK	Borovoye	62.99	326	P	P	00 20 03.1	+0.1
BORK				IAmb	IAmb	00 20 03.6	
	comp=Z,3.9nm,0.7s						
NRIK	Noril'sk	65.22	346	P	P	00 20 17.6	+0.3
	comp=Z,2.5nm,0.6s,baz=139,slow=6.8,SNR=4.4						
	comp=Z,2.5nm,0.6s						
NRIK	Noril'sk	65.22	346	P	P	00 20 17.8	+0.5
NRIK				IAmb	IAmb	00 20 30.1	
	comp=Z,5.8nm,0.9s						
AB31	Akbulak array	68.14	319	P	P	00 20 35.7	-0.7
AB31				IAmb	IAmb	00 21 05.7	
	comp=Z,1.6nm,0.8s						
ABKAR	Akbulak array	68.14	319	P	P	00 20 35.5	-0.9
ARTI	Arti	70.59	327	P	P	00 20 50.4	-0.9
ARTI				IAmb	IAmb	00 20 51.2	
	comp=Z,9.1nm,1.3s						
D19K	Kuna River	75.96	22	P	P	00 21 24.7	+1.8
RAYN	Ar Rayn	78.63	292	P	P	00 21 37.5	-1.3
RAYN				IAmb	IAmb	00 21 38.5	
	comp=Z,2.1nm,0.7s						
BMAR	Burnt Mountain	80.97	23	P	P	00 21 53.5	+3.0
I27K	Kandik River	82.27	25	P	P	00 21 59.9	+2.4
I27K				IAmb	IAmb	00 22 20.0	
	comp=Z,8.3nm,1.3s						
I28M	Miner Creek	82.98	25	P	P	00 22 04.0	+2.7
I28M				IAmb	IAmb	00 22 35.5	

	comp=Z,9.7nm,1.4s						
G29M	**Pine Creek**	**83.56**	**23**	P	**P**	**00 22 06.0**	**+1.9**
G31M	**Satah River**	**85.02**	**23**	P	**P**	**00 22 13.4**	**+2.0**
ARCES	**ARCESS Array B**	**85.44**	**340**	P	**P**	**00 22 14.1**	**+0.5**
	comp=Z,5.1nm,0.7s,baz=75,slow=4.7,SNR=9.0						
	comp=Z,5.1nm,0.7s						
ARCES	**ARCESS Array B**	**85.44**	**340**	P	**P**	**00 22 14.2**	**+0.6**
BRTR	**Keskin Array B**	**86.75**	**310**	P	**P**	**00 22 21.9**	**+1.0**
	comp=Z,0.3nm,0.7s,baz=60,slow=3.5,SNR=2.3						
	comp=Z,0.3nm,0.7s						
FINES	**FINESS Array B**	**87.16**	**332**	P	**P**	**00 22 21.9**	**-0.2**
	comp=Z,1.0nm,0.5s,baz=65,slow=5.3,SNR=7.3						
	comp=Z,1.0nm,0.5s						
VNDA	**Vanda**	**88.79**	**173**	P	**P**	**00 22 29.7**	**+0.2**
	comp=Z,0.5nm,0.8s,baz=300,slow=4.1,SNR=5.2						
	comp=Z,0.5nm,0.8s						
VNDA	**Vanda**	**88.79**	**173**	P	**P**	**00 22 30.6**	**+1.1**
HFS	**Hagfors**	**93.32**	**333**	LR	LR	01 09 13.2	
	comp=Z,105nm,19.4s,baz=227,slow=38						
TORD	**Torodi Ar. Bea**	**121.32**	**291**	PKP	**PKPdf**	**00 28 30.0**	**-0.5**
	comp=Z,0.5nm,0.7s,baz=109,slow=1.6,SNR=2.6						

GII ***23*** *00:14:18.2±0.0, 34°.692N±0°.003×20°.175E±0°.001, h0^{km}, Mws4.3, confirmed*
BEO ***23*** *00:14:27.3±2.5, 34°.58N×19°.88E, h65^{km}±7^{km}, ML3.9/14*
IDC ***23*** *00:14:28.7±1.2, 35°.03N×20°.37E, h0^{km}, mb3.8/8, mbtmp3.6/15, ML3.2/6, Error ellipse: s-maj=21.9km s-min=12.5km az=1.0*
THE ***23*** *00:14:34.5, 35°N±8°×2°0E±°, h33^{km}±18^{km}, M3.4/38, MLh3.4/38*
ISC 23 00:14:31.5±2.4**, 35°.23N**±0°.07×**20°.12E**±0°.04**, h13**^{km}±18^{km}**,**
n98, σ**2^{s}.05**/117**, mb3.7**/7**, Central Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	**PYLOS**	**2.12**	**38**	P	**Pn**	**00 15 07.1**	**+0.5**
PYL				S	**Sn**	**00 15 32.6**	**-0.2**
PYL				AML	AML		
ITM	**Ithomi**	**2.43**	**36**	P	**Pn**	**00 15 12.0**	**+1.0**
ITM				S	**Sn**	**00 15 42.2**	**+1.7**
ITM				AML	AML		
LTHK	**Lithakia**	**2.54**	**13**	P	**Pn**	**00 15 13.5**	**+1.1**
LTHK				S	**Sn**	**00 15 45.1**	**+1.9**
LTHK				AML	AML		
KTHA	**Kythira Island**	**2.60**	**66**	P	**Pn**	**00 15 12.9**	**-0.4**
KTHA				S	**Sn**	**00 15 44.9**	**+0.2**
KTHA				AML	AML		
AMT	**Artemida-Makis**	**2.63**	**29**	P	**Pn**	**00 15 15.4**	**+1.7**
AMT				S	**Sb**	**00 15 49.3**	**-1.4**
AMT				AML	AML		
ANKY	**Antikythira Is**	**2.67**	**75**	P	**Pn**	**00 15 13.0**	**-1.2**
ANKY				S	**Sn**	**00 15 46.2**	**-0.2**
ANKY				AML	AML		
VLX	**Vlachokerasia**	**2.81**	**40**	P	**Pn**	**00 15 17.6**	**+1.5**
VLX				S	**Sb**	**00 15 54.4**	**-1.5**
VLX				AML	AML		
KNDR	**Palaiochora Ch**	**2.87**	**89**	S	**Sn**	**00 15 49.2**	**-2.1**
KNDR				AML	AML		
RTZL	**Ratzakli, Kefa**	**2.89**	**10**	P	**Pn**	**00 15 19.2**	**+2.0**
RTZL				S	**Sn**	**00 15 54.2**	**+2.4**
RTZL				AML	AML		
PSDA	**Pessada-Kefalo**	**2.90**	**7**	P	**Pn**	**00 15 19.4**	**+2.0**
PSDA				S	**Sn**	**00 15 52.2**	**+0.1**
PSDA				AML	AML		
VLS	**Valsamata**	**2.96**	**7**	P	**Pn**	**00 15 20.2**	**+2.0**
VLS				S	**Sn**	**00 15 54.7**	**+1.1**
VLS				AML	AML		
DRO	**Drossia**	**3.00**	**25**	P	**Pn**	**00 15 21.5**	**+2.7**
DRO				AML	AML		
RLS	**Riolos of Patr**	**3.02**	**21**	P	**Pn**	**00 15 21.3**	**+2.3**
RLS				AML	AML		
AXS	**Araxos**	**3.12**	**18**	P	**Pn**	**00 15 23.3**	**+2.9**
AXS				AML	AML		
VSK1	**VASILIKIADES**	**3.19**	**6**	P	**Pn**	**00 15 23.6**	**+2.2**
GUR	**Goura**	**3.24**	**33**	P	**Pn**	**00 15 24.4**	**+2.3**
GUR				S	**Sn**	**00 16 03.0**	**+2.4**
GUR				AML	AML		
FSK	**Fiskardo**	**3.24**	**6**	P	**Pn**	**00 15 24.2**	**+2.2**
FSK				AML	AML		
KLV	**Kalavryta, Ach**	**3.25**	**30**	P	**Pn**	**00 15 24.9**	**+2.7**
KLV				AML	AML		
PLEV	**Plevrona-Mesol**	**3.34**	**18**	P	**Pn**	**00 15 26.6**	**+3.3**
PLEV				AML	AML		
LAKA	**Lakka**	**3.35**	**26**	P	**Pn**	**00 15 26.7**	**+3.1**
LAKA				AML	AML		
AST1	**Astakos**	**3.39**	**13**	S	**Sb**	**00 16 09.1**	**-3.5**
EVGI	**Lefkada island**	**3.41**	**7**	P	**Pn**	**00 15 26.9**	**+2.6**
EVGI				AML	AML		
VVK	**Vomvokou**	**3.46**	**23**	P	**Pn**	**00 15 28.4**	**+3.3**
VVK				AML	AML		
DRAG	**Dragano-Lefkad**	**3.46**	**6**	P	**Pn**	**00 15 27.7**	**+2.5**
DRAG				AML	AML		
PDO	**Prodromos**	**3.47**	**14**	P	**Pn**	**00 15 28.3**	**+3.1**
PDO				AML	AML		
EFP	**Efpalio**	**3.50**	**24**	P	**Pn**	**00 15 29.0**	**+3.5**
EFP				AML	AML		
NYDR	**Nydri-Lefkada**	**3.50**	**7**	P	**Pn**	**00 15 28.3**	**+2.6**
NYDR				AML	AML		
SERG	**Sergoula**	**3.53**	**25**	P	**Pn**	**00 15 29.7**	**+3.6**
SERG				AML	AML		
PVO	**Paravola**	**3.56**	**18**	P	**Pn**	**00 15 30.0**	**+3.6**
PVO				AML	AML		
LKD2	**Lefkada island**	**3.58**	**7**	P	**Pn**	**00 15 29.0**	**+2.3**
LKD2				AML	AML		
TSLK	**Tsoukalades, L**	**3.61**	**7**	P	**Pn**	**00 15 29.7**	**+2.5**
TSLK				AML	AML		
ANX	**Ano Chora**	**3.65**	**23**	P	**Pn**	**00 15 31.3**	**+3.5**
ANX				AML	AML		
AMPL	**Ampelaki**	**3.79**	**13**	P	**Pn**	**00 15 32.1**	**+2.6**
AMPL				AML	AML		
IDI	**Anoyia**	**3.90**	**88**	Pn	**Pn**	**00 15 28.0**	**-3.2**
	2.8nm,0.2s,baz=199,slow=4.7,SNR=2.1						
IDI				Sn	**Sn**	**00 16 10.4**	**-6.5**
	15nm,0.3s,baz=299,slow=19,SNR=13						
EVR	**Evrytania**	**3.92**	**20**	P	**Pn**	**00 15 35.4**	**+4.0**
EVR				AML	AML		
AXAR	**Agios Charalam**	**4.07**	**29**	P	**Pn**	**00 15 36.7**	**+3.3**
AXAR				AML	AML		
LKR	**Lokris**	**4.12**	**33**	P	Pn	00 15 35.7	+1.6
LKR				AML	AML		
AGG	**Agios Georgios**	**4.17**	**24**	P	**Pn**	**00 15 37.8**	**+2.9**
AGG				AML	AML		
IGT	**Igoumenitsa**	**4.30**	**2**	P	**Pn**	**00 15 38.1**	**+1.5**
IGT				AML	AML		
IGT	**Igoumenitsa**	**4.30**	**2**	*e*Pn	**Pn**	**00 15 38.1**	**+1.5**
IGT				*e*Sn	**Sn**	**00 16 29.0**	**+2.5**
PRMD	**Pramanda**	**4.36**	**10**	P	**Pn**	**00 15 39.8**	**+2.3**
PRMD				AML	AML		
JAN	**Janina**	**4.46**	**7**	P	**Pn**	**00 15 41.2**	**+2.4**
VAE	**Valguarnera**	**5.12**	**298**	Pn	**Pn**	**00 15 50.5**	**+2.5**
	6.7nm,0.4s,baz=153,slow=11,SNR=9.8						
VAE				Sn	**Sn**	**00 16 47.6**	**+0.6**
	1.9nm,0.3s,baz=198,slow=20,SNR=1.5						
OHR	**Ohrid**	**5.89**	**5**	*i* Pn	Pn	00 16 01.3	+2.7
OHR				*i* Sn	**Sn**	**00 17 07.8**	**+1.8**
VAY	**Valandovo**	**6.38**	**17**	*i* Pn	**Pn**	**00 16 07.7**	**+2.6**
VAY				*i* Sn	**Sn**	**00 17 18.1**	**+0.4**
SRS	**Serrai**	**6.48**	**24**	*e*Pn	**Pn**	**00 16 07.7**	**+1.1**
SRS				*e*Sn	**Sn**	**00 17 20.6**	**+0.2**
PEHC	**Pehcevo**	**6.89**	**18**	*i* Pn	**Pn**	**00 16 14.0**	**+1.7**
PDG	**Podgorica**	**7.22**	**355**	*e*Pn	**Pn**	**00 16 17.1**	**+0.4**
PDG				*e*Sn	**Sn**	**00 17 37.7**	**-0.8**
BOSS	**Bosilegrad**	**7.48**	**14**	*e*Pn	**Pn**	**00 16 20.8**	**+0.5**
TREB	**Trebinje**	**7.60**	**350**	*e*Pn	**Pn**	**00 16 22.2**	**+0.3**
TREB				*e*Sn	**Sn**	**00 17 45.2**	**-2.7**
BARS	**Barje**	**7.69**	**9**	*e*Pn	**Pn**	**00 16 23.7**	**+0.6**
BARS				*e*Sn	**Sn**	**00 17 49.2**	**-0.9**
VTS	**Vitosha**	**7.76**	**17**	*e*Pn	**Pn**	**00 16 25.2**	**+0.9**
VTS				*e*Sn	**Sn**	**00 17 51.3**	**-0.8**
STON	**Ston**	**7.86**	**347**	*e*Pn	**Pn**	**00 16 25.7**	**+0.3**
STON				*e*Sn	**Sn**	**00 17 51.4**	**-2.8**
SELS	**Selova**	**8.01**	**5**	*e*Pn	**Pn**	**00 16 27.6**	**0.0**
SELS				*e*Sn	**Sn**	**00 17 57.1**	**-1.0**
SJES	**Sjenica**	**8.02**	**359**	*e*Pn	**Pn**	**00 16 28.4**	**+0.6**
SJES				*e*Sn	**Sn**	**00 17 57.4**	**-1.0**
ZAPS	**Zavoj**	**8.26**	**13**	*e*Pn	**Pn**	**00 16 32.6**	**+1.6**
ZAPS				*e*Sn	**Sn**	**00 18 03.4**	**-0.9**
IVAS	**Ivanjica**	**8.33**	**0**	*e*Pn	**Pn**	**00 16 32.9**	**+0.9**
IVAS				*e*Sn	**Sn**	**00 18 04.8**	**-1.2**
GOCS	**Kraljevo Serbi**	**8.34**	**4**	*e*Sn	**Sn**	**00 18 04.3**	**-1.9**
BOVS	**Bovan**	**8.48**	**8**	*e*Pn	**Pn**	**00 16 33.9**	**-0.1**
BOVS				*e*Sn	**Sn**	**00 18 09.2**	**-0.3**
BLKB	**Belogradchik**	**8.61**	**12**	*e*Sn	**Sn**	**00 18 11.6**	**-1.2**
BBLS	**Lazi&#263i**	**8.64**	**357**	*e*Pn	**Pn**	**00 16 37.4**	**+1.1**
BBLS				*e*Sn	**Sn**	**00 18 11.3**	**-2.3**
GRUS	**Gruza**	**8.66**	**3**	*e*Pn	**Pn**	**00 16 36.1**	**-0.3**
GRUS				*e*Sn	**Sn**	**00 18 12.6**	**-1.3**
ZAGS	**Zajecar**	**8.72**	**10**	*e*Pn	**Pn**	**00 16 38.0**	**+0.7**
ZAGS				*e*Sn	**Sn**	**00 18 13.9**	**-1.6**
KEST	**Kesra**	**8.80**	**276**	Pn	**Pn**	**00 16 40.3**	**+1.8**
	0.1nm,0.3s,baz=95,slow=19,SNR=2.2						
KEST				Sn	**Sn**	**00 18 14.3**	**-3.3**
	0.4nm,0.3s,baz=112,slow=19,SNR=7.5						
	1.2nm,0.6s						
KEST				AML	AML		
DIVS	**Divibare**	**8.86**	**359**	*e*Pn	**Pn**	**00 16 39.3**	**+0.1**
DIVS				*e*Sn	**Sn**	**00 18 17.3**	**-1.6**
TRUS	**Trudelj**	**8.98**	**1**	*e*Pn	**Pn**	**00 16 41.3**	**+0.4**
TRUS				*e*Sn	**Sn**	**00 18 20.5**	**-1.4**
TEKS	**Tekeris**	**9.32**	**357**	*e*Pn	**Pn**	**00 16 45.2**	**-0.3**
TEKS				*e*Sn	**Sn**	**00 18 26.8**	**-3.3**
BLY	**Banja Luka**	**9.77**	**348**	*e*Pn	**Pn**	**00 16 52.0**	**+0.4**
BLY				*e*Sn	**Sn**	**00 18 38.5**	**-2.6**
FRGS	**Fruska Gora**	**9.92**	**359**	*e*Pn	**Pn**	**00 16 53.0**	**-0.7**
FRGS				*e*Sn	**Sn**	**00 18 41.5**	**-3.3**
CSS	**Mathiatis**	**10.83**	**88**	P	Pn	00 16 52.1	-14
CSS				S	Sn	00 18 53.2	-14
MLR	**Muntele Rosu**	**11.16**	**22**	Pn	**Pn**	**00 17 10.2**	**-0.7**
	baz=169,slow=16,SNR=1.6						
	0.8nm,0.6s						
OFRI	**`Ofer**	**12.62**	**98**	P	Pn	00 17 15.4	-15
OFRI				S	Sn	00 19 34.7	-16
KZIT	**Kziot**	**12.72**	**106**	P	Pn	00 17 15.6	-17
KZIT				S	Sn	00 19 35.2	-18
MMA0B	**Mount Meron ar**	**12.86**	**96**	P	Pn	00 17 19.1	-15
MMA0B				S	Sn	00 19 40.5	-17
AMAZ	**Amatzia**	**12.90**	**102**	P	Pn	00 17 18.6	-16
AMAZ				S	Sn	00 19 40.5	-18
ZEFT	**Zefat**	**12.94**	**96**	P	Pn	00 17 20.2	-15
ZEFT				S	Sn	00 19 43.5	-16
GEM	**Giv'at Ha'Em**	**13.02**	**94**	P	Pn	00 17 21.4	-15
GEM				S	Sn	00 19 44.5	-16
MMLI	**Mount Malkishu**	**13.02**	**98**	P	Pn	00 17 21.4	-15
RMNI	**Mount Ramon**	**13.14**	**106**	P	Pn	00 17 21.9	-16
RMNI				S	Sn	00 19 45.2	-19
YITV	**Yitav**	**13.17**	**100**	P	Pn	00 17 22.6	-16
YITV				S	Sn	00 19 47.5	-17
MZS	**Mizpe Shalem**	**13.28**	**102**	P	Pn	00 17 23.9	-16
MZS				S	Sn	00 19 48.5	-19
MSBI	**Mazada**	**13.33**	**103**	P	Pn	00 17 24.6	-16
MSBI				S	Sn	00 19 50.7	-18
HRFI	**Mount Harif**	**13.59**	**108**	P	Pn	00 17 27.4	-17
HRFI				S	Sn	00 19 56.0	-19
EIL	**Elat**	**13.69**	**110**	Sn	Sn	00 19 55.9	-21
	0.4nm,0.3s,baz=270,slow=2.0,SNR=5.3						
EIL	**Elat**	**13.69**	**110**	P	Pn	00 17 28.4	-17
EIL				S	Sn	00 19 58.0	-19
DAVOX	**Davos/Dischmat**	**13.87**	**329**	Pn	**Pn**	**00 17 50.4**	**+2.5**
	0.2nm,0.3s,baz=106,slow=12,SNR=1.9						
	1.2nm,0.8s						
DAVOX				AML	AML		
GERES	**GERESS Array B**	**14.41**	**343**	Pn	**Pn**	**00 17 56.1**	**+0.9**
	baz=151,slow=14,SNR=2.0						
AKASG	**Malin Array Be**	**16.81**	**20**	Pn	**Pn**	**00 18 25.6**	**-0.9**
	0.4nm,0.3s,baz=207,slow=10,SNR=1.9						
	0.2nm,0.3s						
AKASG				AML	AML		
ESDC	**Sonseca Array**	**19.61**	**290**	P	**Pn**	**00 19 00.8**	**-0.2**
	baz=93,slow=10,SNR=6.4						
	0.6nm,0.8s						
NACGM	**Naroch**	**20.21**	**11**	*e*P	**P**	**00 19 05.2**	**-0.7**
	comp=Z,22nm,0.8s,baz=196						
HFS	**Hagfors**	**25.26**	**352**	P	**P**	**00 19 58.9**	**+1.8**
	comp=Z,0.5nm,0.4s,baz=164,slow=12,SNR=5.9						
	comp=Z,0.5nm,0.4s						
EKA	**Eskdalemuir Ar**	**25.71**	**329**	P	**P**	**00 20 01.9**	**+0.7**
	comp=Z,1.5nm,0.8s,baz=150,slow=10,SNR=2.6						
	comp=Z,1.5nm,0.8s						
NOA	**NORSAR Array B**	**26.45**	**350**	P	**P**	**00 20 08.0**	**+0.1**
	comp=Z,1.3nm,1.0s,baz=162,slow=9.9,SNR=3.1						
	comp=Z,1.3nm,1.0s						
FINES	**FINESS Array B**	**26.50**	**6**	P	**P**	**00 20 09.1**	**+0.8**
	comp=Z,1.2nm,0.7s,baz=181,slow=8.2,SNR=8.0						
	comp=Z,1.2nm,0.7s						
TORD	**Torodi Ar. Bea**	**27.58**	**222**	P	**P**	**00 20 16.9**	**-1.6**
	comp=Z,0.8nm,0.8s,baz=37,slow=9.7,SNR=4.1						
	comp=Z,0.8nm,0.8s						
KURBB	**Kurchatov Arra**	**44.28**	**51**	P	**P**	**00 22 40.1**	**-0.6**
	comp=Z,1.1nm,0.2s,baz=277,slow=7.3,SNR=2.2						
	comp=Z,1.1nm,0.2s						
MKAR	**Makanchi Array**	**47.17**	**56**	P	**P**	**00 23 02.8**	**-0.9**
	comp=Z,0.5nm,0.5s,baz=274,slow=7.3,SNR=5.8						
	comp=Z,0.5nm,0.5s						
ZALV	**Zalesovo Beam**	**47.93**	**46**	P	**P**	**00 23 09.3**	**-0.1**
	comp=Z,0.6nm,0.4s,baz=282,slow=8.7,SNR=4.8						
	comp=Z,0.6nm,0.4s						

PGC 23 01:10:10.7±5.9**, 47°.30N**×**129°.21W, h10**^{km}**, MLSn3.1**/13**,**
Mw3.7/13**, 320km southwest of Tofino, Bc Off Coast Of Washington, Off coast of Washington**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KEMO	**NEPTUNE Canada**	**0.63**	**6**	P	Pg	01 10 22.3	-0.5
KEMF	**NEPTUNE Canada**	**0.66**	**7**	P	Pg	01 10 22.3	-1.0
NCHR	**NEPTUNE Canada**	**0.68**	**7**	P	Pg	01 10 23.8	-0.1
NC89	**ODP889**	**2.10**	**48**	S	Sn	01 11 08.7	-3.1
TAHB	**Tahsis**	**3.09**	**32**	Pn	Pn	01 10 58.7	-0.8
TAHB				Sn	Sn	01 11 33.2	-3.4
B928	**Bamfield**	**3.14**	**59**	Pn	Pn	01 10 57.9	-2.2
GDR	**Gold River**	**3.26**	**39**	Pn	Pn	01 11 00.8	-1.0
PACB	**Port Alice, BC**	**3.34**	**19**	Sn	Sn	01 11 39.2	-3.4
MGRB	**Mount Grey**	**3.47**	**59**	Pn	Pn	01 11 03.0	-1.8
B926	**Mesachie Lake**	**3.73**	**64**	Pn	Pn	01 11 06.3	-2.0
CLRS	**Cowichan Lake**	**3.73**	**64**	Pn	Pn	01 11 06.3	-2.0
CLRS				Sn	Sn	01 11 48.6	-3.7
CBB	**Campbell River**	**3.74**	**42**	Pn	Pn	01 11 07.8	-0.6
CBB				Sn	Sn	01 11 50.8	-1.7
NCSB	**Newcastle Ridg**	**3.74**	**33**	Pn	Pn	01 11 08.8	+0.3
SYMB	**Survey Mountai**	**3.85**	**69**	Pn	Pn	01 11 08.7	-1.3
E03A	**Lebam**	**3.94**	**99**	Sn	Sn	01 11 54.7	-2.8
TXDB	**Texada**	**3.98**	**51**	Pn	Pn	01 11 11.4	-0.4
SHB	**Sechelt**	**4.23**	**55**	Pn	Pn	01 11 14.2	-1.0
SNB	**Saturna Island**	**4.31**	**68**	Sn	Sn	01 12 05.2	-1.4
WPB	**Watts Point**	**4.64**	**57**	Pn	Pn	01 11 20.3	-0.4
BBB	**Bella Bella**	**4.94**	**8**	Pn	Pn	01 11 25.0	+0.1
JCW	**Jim Creek**	**4.99**	**77**	Pn	Pn	01 11 24.9	-0.8
LON	**Longmire**	**5.09**	**93**	Pn	Pn	01 11 27.3	+0.2
FMW	**Mount Fremont**	**5.16**	**91**	Pn	Pn	01 11 27.2	-0.9
JEDB	**Jedway, Haida**	**5.16**	**346**	Pn	Pn	01 11 27.8	-0.2
LTY	**Liberty**	**5.81**	**87**	Pn	Pn	01 11 37.3	+0.4

SOF ***23*** *01:12:04.9, 41°.66N±0°.01×20°.08E±0°.03, h10^{km}±14^{km}, MD3.2/9*
SKO ***23*** *01:12:05.8, 41°.69N×20°.25E, h6^{km}, ML2.8*
RHSSO ***23*** *01:12:06.4±0.7, 41°.58N×20°.26E, h6^{km}±3^{km}, ML3.0/7*
TIR ***23*** *01:12:06.3, 41°.68N×20°.24E, h13^{km}±1^{km}, Ml2.9/5*
BEO ***23*** *01:12:06.7±0.3, 41°.62N×20°.27E, h8^{km}±2^{km}, ML2.7/16*
PRU ***23*** *01:12:10.0, 40°.72N×18°.67E, h10^{km}*
ISC 23 01:12:06.9±1.1**, 41°.70N**±0°.02×**20°.27E**±0°.02**, h2**^{km}±9^{km}**,**
n86, σ**1^{s}.08**/135**, 20C-9D, Albania**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PHP	**Peshkopia**	**0.13**	**95**	Pg	**Pg**	**01 12 09.6**	**+0.1**
PHP				Sn	**Sg**	**01 12 12.4**	**+1.2**
PHP				AML	AML	01 12 13.1	
	23nm,0.2s						
TIR	**Tirane**	**0.46**	**221**	Pg	**Pg**	**01 12 14.5**	**-1.2**
TIR				Sg	**Sg**	**01 12 21.3**	**-0.4**
TIR				AML	AML	01 12 24.9	
	3.7nm,0.4s						
TIR				AML	AML	01 12 31.2	
	2.7nm,0.6s						
SDA	**Shkodra**	**0.68**	**302**	Pg	**Pg**	**01 12 19.5**	**-0.4**
SDA				Sg	**Sb**	**01 12 30.7**	**-0.5**
SDA				AML	AML	01 12 33.6	
	1.3nm,0.2s						
OHR	**Ohrid**	**0.71**	**145**	*i* Pg	**Pg**	**01 12 19.6**	**-0.9**
OHR				*i* Sg	**Sg**	**01 12 30.3**	**+0.7**
OHR				*e*Lg	Lg	01 12 32.1	
	comp=E,255nm,0.3s						
OHR				*e*Lg	Lg	01 12 33.2	
	comp=N,298nm,0.4s						
SKO	**Skopje**	**0.92**	**72**	*i* Pg	**Pg**	**01 12 23.7**	**-0.8**
SKO				*i* Sg	**Sb**	**01 12 37.8**	**-0.4**
DRME	**Dracevica, Mon**	**0.95**	**302**	*e*Pg	**Pg**	**01 12 24.5**	**-0.5**
DRME				*e*Sg	**Sb**	**01 12 38.5**	**-0.5**
PDG	**Podgorica**	**1.05**	**315**	Pg	**Pg**	**01 12 26.0**	**-1.1**
PDG				Sg	**Sb**	**01 12 41.8**	**-0.3**
PDG	**Podgorica**	**1.05**	**315**	*e*Pg	**Pg**	**01 12 26.0**	**-1.1**
PDG				*e*Sg	**Sb**	**01 12 42.6**	**+0.6**
PDG	**Podgorica**	**1.05**	**315**	⇓S	**Sb**	**01 12 42.7**	**+0.6**
PDG	**Podgorica**	**1.05**	**315**	*e*Pg	**Pg**	**01 12 25.9**	**-1.1**
PDG				*e*Sg	**Sb**	**01 12 42.4**	**+0.3**
KBN	**Korca**	**1.14**	**160**	Pg	**Pg**	**01 12 28.2**	**-0.6**
KBN				Sg	**Sg**	**01 12 43.8**	**+0.3**
KBN				AML	AML	01 12 51.1	
	comp=N,1.4nm,0.7s						
VLO	**Vlora**	**1.36**	**206**	Pg	**Pg**	**01 12 33.3**	**+0.4**
VLO				Sg	**Sn**	**01 12 53.9**	**+2.4**
VLO				AML	AML	01 13 02.4	
	comp=N,2.9nm,0.5s						
HCY	**Herceg Novi**	**1.52**	**300**	*e*Pn	**Pn**	**01 12 34.1**	**-1.0**
HCY				*e*Sn	**Sn**	**01 12 55.2**	**-0.3**
SJES	**Sjenica**	**1.58**	**352**	*e*Pg	**Pb**	**01 12 36.5**	**-0.4**
SJES				*e*Sg	**Sg**	**01 13 00.4**	**+2.7**
SJES	**Sjenica**	**1.58**	**352**	⇑*i*Pn	**Pb**	**01 12 36.9**	**0.0**
SJES				*e*Sn	**Sg**	**01 12 58.7**	**+1.0**
BARS	**Barje**	**1.60**	**45**	*e*Pg	**Pn**	**01 12 36.7**	**+0.4**
BARS				*e*Sg	**Sg**	**01 13 00.1**	**+1.6**
SELS	**Selova**	**1.65**	**22**	*e*Pg	**Pn**	**01 12 37.1**	**+0.2**
SELS				*e*Sg	**Sg**	**01 13 01.2**	**+1.3**
TREB	**Trebinje**	**1.75**	**306**	*e*Pg	**Pn**	**01 12 38.6**	**+0.3**
TREB				*e*Sg	**Sg**	**01 13 03.7**	**+0.5**
TREB	**Trebinje**	**1.75**	**306**	⇑*i*Pn	**Pn**	**01 12 38.1**	**-0.2**
TREB				*e*Sn	**Sb**	**01 13 02.3**	**0.0**
BRY	**Bratogost**	**1.76**	**314**	*e*Pn	**Pn**	**01 12 38.5**	**-0.1**
BRY				*e*Sn	**Sn**	**01 13 02.0**	**+0.4**
VAY	**Valandovo**	**1.77**	**101**	*i* Pn	**Pn**	**01 12 38.6**	**+0.1**
VAY				*e*Lg	Lg	01 13 03.5	
	comp=E,102nm,0.7s						
VAY				*i* Sn	**Sg**	**01 13 03.7**	**0.0**
VAY				*e*Lg	Lg	01 13 04.0	
	comp=N,102nm,0.8s						
SRN	**Sarande**	**1.82**	**186**	Pn	**Pb**	**01 12 40.0**	**-1.0**
SRN				Sn	**Sg**	**01 13 06.3**	**+0.8**
BOSS	**Bosilegrad**	**1.83**	**63**	*e*Pg	**Pn**	**01 12 39.2**	**-0.2**
BOSS				*e*Sg	**Sg**	**01 13 06.0**	**+0.3**
IVAS	**Ivanjica**	**1.88**	**357**	*e*Pg	**Pn**	**01 12 40.6**	**+0.4**
IVAS				*e*Sg	**Sg**	**01 13 08.3**	**+0.9**
GOCS	**Kraljevo Serbi**	**1.92**	**13**	*e*Pn	**Pn**	**01 12 39.7**	**-1.0**
GOCS				*e*Sn	**Sn**	**01 13 05.6**	**+0.1**
KLINJ	**Klinje**	**1.93**	**320**	*e*Pn	**Pn**	**01 12 41.2**	**+0.3**
KLINJ				*e*Sn	**Sb**	**01 13 07.0**	**-0.4**
PEHC	**Pehcevo**	**1.97**	**87**	*i* Pn	**Pb**	**01 12 42.5**	**-1.1**
TRAN	**Tran**	**2.10**	**56**	P	**Pn**	**01 12 43.6**	**+0.4**
TRAN				S	**Sg**	**01 13 15.5**	**+1.0**
KKB	**Krupnik**	**2.15**	**85**	P	**Pn**	**01 12 44.3**	**+0.6**
IGT	**Igoumenitsa**	**2.16**	**179**	Pn	**Pn**	**01 12 44.8**	**+0.8**
IGT	**Igoumenitsa**	**2.16**	**179**	*e*Pg	**Pn**	**01 12 44.2**	**+0.3**
IGT				*e*Sg	**Sb**	**01 13 13.6**	**-0.4**
BOVS	**Bovan**	**2.21**	**28**	*e*Pn	**Pn**	**01 12 44.9**	**+0.3**
BOVS				*e*Sn	**Sn**	**01 13 12.6**	**0.0**
BOVS	**Bovan**	**2.21**	**28**	⇑P	**Pn**	**01 12 44.9**	**+0.3**
BOVS				⇓S	**Sn**	**01 13 12.5**	**0.0**
GRUS	**Gruza**	**2.22**	**8**	*e*Pn	**Pn**	**01 12 44.0**	**-0.7**
GRUS				*e*Sn	**Sn**	**01 13 13.6**	**+0.9**
STON	**Ston**	**2.24**	**303**	*e*Pn	**Pn**	**01 12 43.9**	**-1.1**
BBLS	**Lazi&#263i**	**2.26**	**344**	*e*Pn	**Pn**	**01 12 44.8**	**-0.6**
BBLS	**Lazi&#263i**	**2.26**	**344**	*e*Pn	**Pn**	**01 12 45.7**	**+0.3**
BBLS				*e*Sn	**Sb**	**01 13 15.5**	**-1.5**
THE	**Thessaloniki**	**2.30**	**117**	Pn	**Pn**	**01 12 45.6**	**-0.2**
ZAPS	**Zavoj**	**2.36**	**47**	*e*Pn	**Pn**	**01 12 46.2**	**-0.5**
ZAPS				*e*Sn	**Sn**	**01 13 14.5**	**-1.7**
VTS	**Vitosha**	**2.39**	**66**	P	**Pn**	**01 12 47.6**	**+0.3**
VTS	**Vitosha**	**2.39**	**66**	*e*Pn	**Pn**	**01 12 46.1**	**-1.2**
DIVS	**Divibare**	**2.41**	**355**	*e*Pn	**Pn**	**01 12 47.8**	**+0.3**
DIVS				*e*Sn	**Sn**	**01 13 17.9**	**+0.3**
DIVS				*e*Sn	**Sb**	**01 13 18.3**	**-3.0**
PLNA	**Plana**	**2.48**	**71**	P	**Pn**	**01 12 49.5**	**+1.1**
THL	**Klokotos Trika**	**2.51**	**147**	Pn	**Pn**	**01 12 49.9**	**+1.2**
TRUS	**Trudelj**	**2.53**	**2**	*e*Pn	**Pn**	**01 12 49.0**	**0.0**
ZAGS	**Zajecar**	**2.56**	**34**	*e*Pn	**Pn**	**01 12 50.0**	**+0.5**
ZAGS				*e*Sn	**Sn**	**01 13 21.3**	**+0.1**
SRS	**Serrai**	**2.57**	**102**	*e*Pn	**Pn**	**01 12 49.6**	**+0.1**
MMB	**Musomishta**	**2.62**	**92**	P	**Pn**	**01 12 50.9**	**+0.7**
BLKB	**Belogradchik**	**2.62**	**42**	⇑S	**Sn**	**01 13 23.9**	**+1.1**
BORS2	**Bor- Borsko je**	**2.72**	**28**	*e*Pn	**Pn**	**01 12 51.5**	**-0.1**
MATE	**Matera**	**2.88**	**250**	⇑P	**Pn**	**01 12 55.5**	**+1.6**
TEKS	**Tekeris**	**2.90**	**350**	*e*Pn	**Pn**	**01 12 54.6**	**+0.4**
TEKS				*e*Sn	**Sn**	**01 13 30.2**	**+0.6**
TEKS	**Tekeris**	**2.90**	**350**	*e*Pn	**Pn**	**01 12 55.2**	**+1.0**
TEKS				*e*Sn	**Sn**	**01 13 30.3**	**+0.6**
KUBS	**Kucevo**	**2.91**	**20**	*e*Pn	**Pn**	**01 12 53.4**	**-0.8**
AVAS	**Avala Beograd**	**3.00**	**3**	*e*Pn	**Pn**	**01 12 55.7**	**+0.1**
PGB	**Panagyurishte**	**3.02**	**73**	P	**Pb**	**01 13 01.4**	**0.0**
MPEP	**Malo Peshtene**	**3.06**	**56**	*e*P	**Pn**	**01 12 57.2**	**+0.9**
MDVR	**Moldovita**	**3.26**	**18**	⇑P	**Pn**	**01 12 59.5**	**+0.4**
RZN	**Rozhen**	**3.35**	**89**	P	**Pn**	**01 13 01.7**	**+1.3**
PLD	**Plovdiv**	**3.37**	**81**	*e*Pn	**Pn**	**01 12 59.5**	**-1.1**
FRGS	**Fruska Gora**	**3.48**	**355**	*e*Pn	**Pn**	**01 13 02.2**	**+0.2**
FRGS				*e*Sn	**Sn**	**01 13 43.8**	**0.0**
FRGS	**Fruska Gora**	**3.48**	**355**	*e*Pn	**Pn**	**01 13 02.3**	**+0.2**
FRGS				*e*Sn	**Sn**	**01 13 44.4**	**+0.6**
HERR	**Herculane**	**3.55**	**25**	⇓P	**Pn**	**01 13 03.8**	**+0.8**
PLVB	**Pleven**	**3.63**	**61**	⇓P	**Pn**	**01 13 04.7**	**+0.5**
BLY	**Banja Luka**	**3.79**	**325**	*e*Pn	**Pn**	**01 13 06.7**	**+0.3**
BLY	**Banja Luka**	**3.79**	**325**	⇓P	**Pn**	**01 13 07.0**	**+0.6**
BLY	**Banja Luka**	**3.79**	**325**	⇑*i*Pn	**Pn**	**01 13 07.4**	**+1.0**
BLY				*e*Sn	**Sn**	**01 13 52.0**	**+0.4**
KDZ	**Kurdzhali**	**3.80**	**89**	P	**Pn**	**01 13 06.8**	**+0.3**
BZS	**Buzias**	**4.04**	**14**	*e*Pn	**Pn**	**01 13 09.8**	**0.0**
BZS	**Buzias**	**4.04**	**14**	⇑P	**Pn**	**01 13 09.8**	**0.0**
BZS				⇑S	**Sn**	**01 13 55.8**	**-1.9**
GZR	**Gura Zlata**	**4.12**	**25**	*e*Pn	**Pn**	**01 13 10.7**	**-0.3**
GZR	**Gura Zlata**	**4.12**	**25**	⇑P	**Pn**	**01 13 12.0**	**+1.1**
SURR	**Surduc**	**4.28**	**18**	⇓P	**Pn**	**01 13 13.0**	**0.0**
LOT	**Lotru**	**4.53**	**33**	⇑P	**Pn**	**01 13 17.0**	**+0.3**
LOT				⇑S	**Sn**	**01 14 10.7**	**+0.7**
MORH	**Mrgy, Hungar**	**4.67**	**346**	⇓P	**Pn**	**01 13 18.8**	**+0.4**
MORH				⇑S	**Sn**	**01 14 13.1**	**0.0**
MORH	**Mrgy, Hungar**	**4.67**	**346**	⇑*i*Pn	**Pn**	**01 13 18.5**	**+0.1**
MORH				*e*Sn	**Sn**	**01 14 12.1**	**-1.0**
SIRR	**Siria**	**4.68**	**12**	⇓P	**Pn**	**01 13 19.4**	**+0.8**
SIRR				⇑S	**Sn**	**01 14 13.3**	**-0.2**
ARR	**Arges**	**4.85**	**39**	⇑P	**Pn**	**01 13 21.4**	**+0.4**
VOIR		**5.10**	**41**	⇓P	**Pn**	**01 13 25.5**	**+1.0**
AQU	**L'Aquila**	**5.16**	**280**	*e*Pn	**Pn**	**01 13 23.9**	**-1.3**
AQU				*e*Sn	**Sn**	**01 14 21.4**	**-3.9**
MARR	**Marisel-Cluj**	**5.38**	**21**	⇑P	**Pn**	**01 13 29.9**	**+1.5**
MARR				⇑S	**Sn**	**01 14 28.9**	**-2.0**
PLOR	**Plostina**	**6.21**	**46**	⇑P	**Pn**	**01 13 40.6**	**+1.0**
SOKA	**Soboth**	**6.24**	**325**	*e*Pn	**Pn**	**01 13 41.2**	**+1.1**
	comp=N,1.0nm,0.5s						
VRI	**Vrincioaia**	**6.26**	**46**	⇑P	**Pn**	**01 13 40.6**	**+0.3**
OBKA	**Obir**	**6.33**	**321**	Pn	**Pn**	**01 13 43.5**	**+2.2**
	comp=N,0.3nm,0.2s						
OBKA				*e*Sn	**Sn**	**01 14 54.1**	**-0.1**
	comp=N,4.3nm,0.8s						
KBA	**Koelnbreinsper**	**7.32**	**320**	*e*Pn	**Pn**	**01 13 56.1**	**+1.2**
	comp=N,0.5nm,0.3s						
KBA				*e*Sn	**Sn**	**01 15 24.6**	**+6.0**
	comp=N,0.6nm,0.4s						

CNRM ***23*** *01:16:52.2, 35°.64N×3°.55W, h14^{km}, ML2.4*
SFS ***23*** *01:16:55.2, 35°.46N×3°.65W, h18^{km}, ML2.3/13, ML2.3/13, MLv2.2/9*
INMG ***23*** *01:16:55.6±1.4, 35°.42N×3°.62W, h16^{km}±8^{km}, ML1.9, Error ellipse: s-maj=5.4km s-min=4.2km az=141.0, #DIST_RANGE: REGIONAL #IPMA_REGION: NE Al Hoceima (MARR)*
MDD ***23*** *01:16:55.4±0.6, 35°.40N×3°.63W, h13^{km}±5^{km}, mb_Lg2.5/14, Error ellipse: s-maj=4.5km s-min=3.5km az=153.0*
IGIL ***23*** *01:16:56.7, 35°.47N×3°.72W, h5^{km}*
ISC 23 01:16:55.0±1.0**, 35°.47N**±0°.02×**3°.61W**±0°.02**, h26**^{km}±10^{km}**,**
n59, σ**1^{s}.44**/106**, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALE	Palemas	0.37	227	P	Pb	01 17 02.7	-0.5
PALE				S	Sb	01 17 09.2	+0.4
WMELI	Melilla	0.56	106	Pg	Pb	01 17 06.0	-0.2
WMELI				Sg	Sb	01 17 12.8	-1.1
EMEL	Melilla	0.56	108	Pg	Pb	01 17 06.0	-0.3
EMEL				Sg	Sb	01 17 13.5	-0.4
EMEL				IVmb_Lg		01 17 14.6	
EMLI	Melilla	0.57	108	Pg	Pb	01 17 06.0	-0.3
EALB	Alboran	0.66	45	Pg	Pb	01 17 08.2	+0.3
EALB				Sg	Sn	01 17 17.9	-0.3
EALB	Alboran	0.66	45	Pg	Pb	01 17 08.4	+0.4
EALB				Sg	Sn	01 17 17.8	-0.4
EALB				IVmb_Lg		01 17 19.5	
AKLM	AKL	0.98	192	P	Pn	01 17 13.9	+0.7
AKLM				S	Sn	01 17 28.3	+1.9
TAF	Taforalt	1.18	124	P	Pn	01 17 15.6	-0.3
TAF				S	Sn	01 17 32.3	+1.1
ELGU	Los Guajares,	1.39	359	Pn	Pn	01 17 18.7	-0.1
ELGU				Sn	Sn	01 17 35.5	-1.0
ELGU	Los Guajares,	1.39	359	Pn	Pn	01 17 18.7	-0.1
ELGU				Sn	Sn	01 17 33.9	-2.5
ELGU				IVmb_Lg		01 17 37.4	
JBK	JBK	1.42	143	P	Pn	01 17 18.9	-0.5
JBK				S	Sb	01 17 39.9	+1.2
EMIJ	Mijas	1.44	319	Pn	Pn	01 17 19.0	-0.5
EMIJ				Sn	Sn	01 17 35.6	-2.0
EMIJ	Mijas	1.44	319	Pn	Pn	01 17 19.0	-0.5
EMIJ				Sn	Sn	01 17 35.4	-2.2
EMIJ				IVmb_Lg		01 17 38.2	
EMAL	Malaga-Limoner	1.45	333	Pn	Pn	01 17 19.4	-0.1
EMAL				Sn	Sn	01 17 38.6	+0.9
SMIR	Smir Dam	1.46	279	P	Pn	01 17 18.5	-1.2
SMIR				S	Sn	01 17 39.2	+1.2
CHEFC	Chefchaouen	1.46	256	P	Pn	01 17 20.2	+0.3
CHEFC				S	Sb	01 17 40.6	+0.8
ECEU	Ceuta	1.50	287	Pn	Pn	01 17 19.5	-0.7
ECEU				Sn	Sn	01 17 36.9	-2.2
ECEU	Ceuta	1.50	287	Pn	Pn	01 17 19.6	-0.7
ECEU				Sn	Sn	01 17 36.4	-2.6
ECEU				IVmb_Lg		01 17 38.9	
EBER	Berja	1.54	22	Pn	Pn	01 17 21.3	+0.4
EBER				Sn	Sn	01 17 41.3	+1.1
EBER	Berja	1.54	22	Pn	Pn	01 17 21.3	+0.4
EBER				Sn	Sn	01 17 40.7	+0.5
EBER				IVmb_Lg		01 17 43.3	
EGOR	Sierra Gorda,	1.68	346	Pn	Pn	01 17 23.9	+1.0
EGOR	Sierra Gorda,	1.68	346	Sn	Sb	01 17 46.9	+0.7
EGOR				IVmb_Lg		01 17 51.3	
ENIJ	Nijar	1.88	37	Pn	Pb	01 17 27.2	-1.4
ENIJ				Sn	Sn	01 17 48.3	-0.1
ENIJ				IVmb_Lg		01 17 49.4	
RSA	Sarsar	1.91	253	P	Pn	01 17 26.3	+0.4
RSA				S	Sb	01 17 52.2	-0.3
SICH	Sidi Chahed	1.96	226	P	Pn	01 17 27.6	+1.0
SICH				S	Sb	01 17 53.9	-0.1
LCRM	LCR	2.06	210	P	Pb	01 17 30.2	-1.6
LCRM				S	Sb	01 18 00.4	+3.4
ESPR	Espera	2.29	308	Pg	Pb	01 17 35.3	-0.3
IFR	Ifrane	2.32	213	Pn	Pn	01 17 32.6	+0.9
IFR				Sn	Sn	01 17 57.9	-1.5
EQES	Quesada	2.37	10	Pn	Pb	01 17 35.2	-1.8
EQES				Sn	Sn	01 18 03.6	+3.1
EQES				IVmb_Lg		01 18 07.4	
MD31	MD31	2.77	200	P	Pn	01 17 39.4	+1.6
MDT	Midelt	2.78	198	P	Pn	01 17 38.5	+0.6
MDT				S	Sb	01 18 14.4	-3.3
EADA	Adamuz	2.80	344	Pn	Pn	01 17 39.1	+1.0
EADA				Sn	Sn	01 18 13.4	+2.3
EADA				IVmb_Lg		01 18 23.1	
EZAR	Zarzadilla de	2.85	32	Sn	Sn	01 18 12.9	+0.5
ECAB	El Cabril	2.98	331	Pn	Pn	01 17 42.8	+2.2
ECAB				Sn	Sn	01 18 17.7	+2.2
CART	Cartagena	2.98	44	P	Pn	01 17 37.0	-3.6
CART				S	Sn	01 18 11.4	-4.1
ETOB	Tobarra	3.57	27	Pn	Pn	01 17 51.7	+2.9
ETOB				Sn	Sn	01 18 31.5	+1.3
EGRO	El Granado	3.74	305	Pn	Pn	01 17 52.0	+0.9
EGRO				Sn	Sn	01 18 32.8	-1.4
EGRO				IVmb_Lg		01 18 35.5	
PVAQ	Vaqueiros	3.83	301	*e*P	Pn	01 17 53.2	+0.9
PVAQ				*e*S	Sn	01 18 36.7	+0.2
PVAQ				*i* IAML		01 18 40.4	
PVAQ				*i* IAML		01 18 40.8	
PVAQ				*i* IAML		01 18 42.0	
PVAQ	Vaqueiros	3.83	301	P	Pn	01 17 50.6	-1.7
PBAR	Barrancos	3.85	315	*e*P	Pn	01 17 53.5	+0.9
PBAR				*e*S	Sn	01 18 36.8	-0.2
PBAR				*i* IAML		01 18 38.5	
PBAR				*i* IAML		01 18 40.2	
PBAR				*i* IAML		01 18 42.5	
PBDV	Barranco-do-Ve	3.91	298	*e*P	Pn	01 17 54.3	+0.8
PBDV				*e*S	Sn	01 18 39.0	+0.5
PBDV				*i* IAML		01 18 42.1	
PBDV				*i* IAML		01 18 43.8	
PCVE	Castro Verde	4.17	302	*e*S	Sn	01 18 45.0	+0.3
PCVE				*i* IAML		01 18 48.0	
PCVE				*i* IAML		01 18 52.4	
EBAD	Badajoz	4.26	321	Pn	Pn	01 17 59.3	+1.1
EBAD				Sn	Sn	01 18 46.1	-1.0
EBAD				IVmb_Lg		01 18 49.3	
MESJ	Messejana	4.39	304	*e*P	Pn	01 18 01.2	+1.1
MESJ	Messejana	4.39	304	*e*P	Pn	01 18 01.4	+1.3
MESJ				*e*S	Sn	01 18 50.5	+0.1
MESJ				*i* IAML		01 18 53.6	
MESJ				*i* IAML		01 18 54.4	
MESJ				*i* IAML		01 18 56.4	
CIBOR	Castaar de Ib	4.40	341	Pn	Pn	01 18 01.7	+1.6
CIBOR				Sn	Sn	01 18 49.7	-0.8
MORF	Marmelete	4.46	296	*e*P	Pn	01 18 01.7	+0.7
MORF				*e*S	Sn	01 18 52.1	0.0
MORF				*i* IAML		01 18 55.9	
MORF				*i* IAML		01 18 56.0	
MORF				*i* IAML		01 19 08.8	
PFVI	Vila Bisbo	4.53	293	*e*P	Pn	01 18 04.8	+2.9
PFVI				*e*S	Sn	01 18 53.2	-0.5
PFVI				*i* IAML		01 19 00.8	
PTEO	Sao Teotonio	4.61	298	*e*P	Pn	01 18 04.3	+1.3
PTEO				*e*S	Sn	01 18 56.1	+0.4
PTEO				*i* IAML		01 19 12.3	
PTEO				*i* IAML		01 19 16.0	
PLOUS	Minas do Lousa	4.63	305	*e*P	Pn	01 18 04.8	+1.5
PLOUS				*e*S	Sn	01 18 55.7	-0.5
PLOUS				*i* IAML		01 18 57.6	
PLOUS				*i* IAML		01 18 57.9	
PESTR	Estremoz	4.64	318	*e*P	Pn	01 18 05.2	+1.7
PESTR				*e*S	Sn	01 18 56.4	-0.2
PESTR	Estremoz	4.64	318	P	Pn	01 18 00.5	-3.0
PARRA	Arraiolos	4.86	315	*e*P	Pn	01 18 07.9	+1.4
PARRA				*e*S	Sn	01 19 01.7	-0.2
PARRA				*i* IAML		01 19 02.5	
PARRA				*i* IAML		01 19 04.6	
MOE	Montemor	4.86	310	*e*P	Pn	01 18 08.4	+1.9
MOE				*e*S	Sn	01 19 02.2	+0.2
MOE				*i* IAML		01 19 06.1	
PMRV	Marv??o	4.96	324	*e*P	Pn	01 18 09.7	+1.8
PMRV				*e*S	Sn	01 19 04.5	+0.1
PMTG	Montargil	5.14	316	*e*P	Pn	01 18 11.5	+1.2
PMTG				*e*S	Sn	01 19 08.3	-0.5
EIBI	Ibiza	5.31	47	Pn	Pn	01 18 13.8	+1.2
PCBR	Castelo Branco	5.33	326	*e*P	Pn	01 18 15.0	+2.1
PSARD	Sardoal	5.48	320	*e*P	Pn	01 18 16.6	+1.6
PSARD				*e*S	Sn	01 19 15.4	-1.8
PSARD				*i* IAML		01 19 22.4	
PSARD				*i* IAML		01 19 23.3	
PSARD				*i* IAML		01 19 41.5	

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*NEIC **23** 01:17:23.1±1.6, 52.°4N±0.°2×174.°38W±0.°09, h122^{km}±4^{km}, mb4.0/17, ML3.8/14, ML3.2(AEIC), Error ellipse: s-maj=23.5km s-min=6.3km az=165.0*

*AEIC **23** 01:17:24.3±6.9, 52.°2N±0.°1×174.°34W±0.°03, h109^{km}±3^{km}, Error ellipse: s-maj=17.0km s-min=2.4km az=176.0*

*IDC **23** 01:17:28.9±6.6, 52.°48N×174.°41W, h176^{km}±59^{km}, mb3.4/13, mbtmp3.9/15, Error ellipse: s-maj=26.2km s-min=17.9km az=44.0*

ISC 23 01:17:22.8±0.7**, 52.°4N**±0.°1×**174.°35W**±0.°05**, h124**^{km}±5^{km}**,**
n74, σ1.^{s}19/81**, mb3.8**/15**, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KOWE	Korovin West	0.06	80		Pn	01 17 40.0	+0.4
KOWE					Sn	01 17 52.8	+0.3
KONW	Korovin Northw	0.10	64		Pn	01 17 40.0	+0.3
KOKL	Mount Kliuchef	0.10	110		Pn	01 17 40.1	+0.4
KOKL					Sn	01 17 53.2	+0.7
KOFP	Korovin Flat P	0.17	118		Pn	01 17 40.1	+0.3
KOFP					Sn	01 17 53.2	+0.4
ATKA	Atka Island	0.18	149		Pn	01 17 39.5	-0.3
ATKA					Sn	01 17 52.0	-0.6
ATKA				IAML		01 17 52.5	
	comp=E,3μm,0.5s						
ATKA				IAML		01 17 53.5	
	comp=N,2μm,0.5s						
KOSE	Korovin Southe	0.18	93		Pn	01 17 39.9	0.0
GSIG	Igitkin Island	1.04	250		Pn	01 17 45.8	+0.3
GSIG					Sn	01 18 02.7	0.0
GSTR	Great Sitkin T	1.08	257		Pn	01 17 46.5	+0.5
GSTR				Sn	Sn	01 18 04.3	+0.7
GSTR				IAML		01 18 13.5	
	comp=E,1μm,0.5s						
GSMY	Great Sitkin M	1.10	254		Pn	01 17 46.6	+0.5
GSMY					Sn	01 18 05.0	+1.2
GSTD	Great Sitkin T	1.15	256		Sn	01 18 05.2	+0.4
GSSP	Great Sitkin S	1.16	258		Pn	01 17 47.4	+0.7
GSCK	Great Sitkin C	1.17	254		Pn	01 17 47.4	+0.6
GSCK					Sn	01 18 05.4	+0.3
ETKA	Kagalaska Isla	1.36	250		Sn	01 18 09.6	+0.9
ADK	Adak	1.52	253		Pn	01 17 51.4	+0.8
ADK				Sn	Sn	01 18 12.4	+0.6
ADK				IAML		01 18 15.2	
	comp=E,926nm,0.4s						
ADK				IAML		01 18 15.4	
	comp=E,798nm,0.2s						
KIWB	Kanaga Island	1.80	255		Pn	01 17 55.2	+1.2
KIWB				Sn	Sn	01 18 19.4	+1.7
KIWB				IAML		01 18 26.0	
	comp=E,631nm,0.6s						
KIWB				IAML		01 18 27.7	
	comp=N,576nm,0.5s						
KIKV	Kanaga Island	1.81	256		Pn	01 17 55.3	+1.2
KIKV					Sn	01 18 18.6	+0.7
TAFL	Tanaga Flats	2.27	256		Pn	01 18 01.2	+1.4
TAFP	Tanaga Falls P	2.29	260		Pn	01 18 01.4	+1.4
CLES	Cleveland East	2.76	78	Pn	Pn	01 18 05.8	-0.2
CLES				Sn	Sn	01 18 41.4	+2.2
CLCO	Concord Point,	2.85	79		Pn	01 18 09.1	+1.9
GAKI	Gareloi-Kavalg	2.88	256		Pn	01 18 08.8	+1.2
CEPE	Semis' Perret	3.72	266		Pn	01 18 21.3	+2.7
AMKA	Amchitka	4.06	259	Pn	Pn	01 18 24.2	+1.2
AMKA				Sn	Sn	01 19 09.9	+0.1
MREP	Makushin Rep't	4.81	69		Pn	01 18 35.7	+2.5
UNV	Unalaska Valle	4.96	69	Pn	Pn	01 18 36.3	+1.3
UNV				IAML		01 19 48.1	
	comp=E,21nm,1.0s						
KDAK	Kodiak Island	13.57	58	P	P	01 20 33.3	-1.3
	comp=E,7.8nm,0.5s,baz=343,slow=21,SNR=1.6						
KDAK				S	Sn	01 23 04.0	+4.6
	comp=E,30nm,1.0s,baz=335,slow=10,SNR=2.5						
KDAK	Kodiak Island	13.57	58		Pn	01 20 30.0	+0.1
CNPM	China Poot	14.75	52	Pn	P	01 20 44.9	-2.8
J19K	Poorman	15.20	33		P	01 20 51.6	-1.1
SLKM	Skilak Lake	15.56	49	Pn	Pn	01 20 54.4	-0.8
G18K	Tagagawik	15.71	24	Pn	P	01 20 56.7	-1.6
G18K				IAmb	IAmb	01 21 19.7	
	comp=Z,10nm,1.4s						
CAST	Castle Rocks	16.11	38		P	01 21 02.0	-0.8
CAST				IAmb	IAmb	01 21 12.2	
	comp=Z,8.9nm,1.5s						
SML	Sawmill	16.89	46		Pn	01 21 11.5	0.0
SML				IAmb	IAmb	01 21 24.6	
	comp=Z,17nm,1.3s						
RND	Reindeer	17.36	40		Pn	01 21 16.7	-0.4
RND				IAmb	IAmb	01 21 21.9	
	comp=Z,12nm,1.4s						
CCB	Clear Creek Bu	18.36	38	P	Pn	01 21 26.6	-2.3
CCB				IAmb	IAmb	01 21 34.4	
	comp=Z,12nm,1.5s						
IL31		18.76	38	P	Pn	01 21 31.9	-1.8
IL31				IAmb	IAmb	01 21 33.8	
	comp=Z,10nm,1.4s						
ILAR	Eielson Array	18.76	38	P	Pn	01 21 33.7	0.0
	comp=Z,0.3nm,0.3s,baz=237,slow=11,SNR=20						
ILAR	Eielson Array	18.76	38	P	Pn	01 21 32.2	-1.5
J25K	Salcha River,	19.27	39	P	Pn	01 21 37.9	-1.8
SCRK	Sand Creek	19.56	42	P	P	01 21 40.3	-0.4
SCRK				IAmb	IAmb	01 21 42.5	
	comp=Z,8.8nm,0.9s						
BMAR	Burnt Mountain	20.91	32	P	P	01 21 54.6	-0.5
L29M	L29M	21.80	46	P	P	01 22 04.1	-0.5
L29M				IAmb	IAmb	01 22 16.8	
	comp=Z,6.7nm,1.4s						
H11N2	WAKE ISLAND Hy	35.69	211	T	T	02 02 24.6	
	baz=21,slow=76,SNR=6.3						
H11N3	WAKE ISLAND Hy	35.70	211	T	T	02 02 26.6	
	baz=21,slow=76,SNR=8.3						
H11N1	WAKE ISLAND Hy	35.71	211	T	T	02 02 29.9	
	baz=21,slow=76,SNR=2.5						
H11S1	WAKE ISLAND Hy	36.90	211	T	T	02 03 38.1	
	baz=20,slow=76,SNR=8.3						
H11S2	WAKE ISLAND Hy	36.92	211	T	T	02 03 38.2	
	baz=20,slow=76,SNR=8.1						
H11S3	WAKE ISLAND Hy	36.92	211	T	T	02 03 26.0	
	baz=20,slow=76,SNR=5.0						
NVAR	Mina Array Bea	40.72	87	P	P	01 24 53.0	+1.7
	comp=Z,0.5nm,0.7s,baz=313,slow=7.6,SNR=2.5						
	comp=Z,0.5nm,0.7s						
PDAR	Pinedale Array	43.39	76	P	P	01 25 13.3	+0.4
	comp=Z,0.5nm,0.6s,baz=312,slow=6.7,SNR=5.9						
	comp=Z,0.5nm,0.6s						
PDAR	Pinedale Array	43.39	76	P	P	01 25 12.6	-0.4
TXAR	Lajitas Array	55.80	85	P	P	01 26 47.8	+0.8
	comp=Z,0.6nm,0.6s,baz=317,slow=7.4,SNR=14						
	comp=Z,0.6nm,0.6s						
TXAR	Lajitas Array	55.80	85	P	P	01 26 46.3	-0.7
ARCES	ARCESS Array B	57.56	352	P	P	01 26 59.3	+0.6
	comp=Z,4.7nm,1.1s,baz=15,slow=7.3,SNR=1.5						
	comp=Z,4.7nm,1.1s						
KURBB	Kurchatov Arra	60.41	316	P	P	01 27 17.8	-0.9
	comp=Z,0.1nm,0.3s,baz=40,slow=8.2,SNR=2.2						
	comp=Z,0.1nm,0.3s						
BVAR	Borovoye Array	61.88	322	P	P	01 27 28.8	+0.3
	comp=Z,0.8nm,0.4s,baz=56,slow=5.1,SNR=2.1						
	comp=Z,0.8nm,0.4s						
FIA1	FINESS Array S	65.39	349	P	P	01 27 51.0	-0.4
FINES	FINESS Array B	65.39	349	P	P	01 27 50.9	-0.4
	comp=Z,1.5nm,0.7s,baz=18,slow=4.8,SNR=5.4						
	comp=Z,1.5nm,0.7s						
FINES	FINESS Array B	65.39	349	P	P	01 27 50.7	-0.6
NOA	NORSAR Array B	66.87	357	P	P	01 28 01.1	+0.2
	comp=Z,0.7nm,1.0s,baz=5.6,slow=6.8,SNR=1.5						
	comp=Z,0.7nm,1.0s						
HFS	Hagfors	67.68	356	P	P	01 28 05.8	-0.1
	comp=Z,0.9nm,0.4s,baz=23,slow=8.1,SNR=9.6						
	comp=Z,0.9nm,0.4s						
ABKAR	Akbulak array	68.77	325	P	P	01 28 13.1	+0.2
KKAR	Karatay Array	69.70	315	P	P	01 28 18.8	-0.1
CAIB	Caibarien	75.39	72	P	P	01 28 52.3	-0.4
AKASG	Malin Array Be	75.40	345	P	P	01 28 51.6	-0.7
	comp=Z,2.1nm,0.5s,baz=20,slow=6.5,SNR=7.1						
	comp=Z,2.1nm,0.5s						
AKBB	Malin Array Si	75.40	345	P	P	01 28 51.6	-0.8
AKBB				IAmb	IAmb	01 28 56.1	
	comp=Z,8.2nm,1.4s						
GERES	GERESS Array B	78.94	355	P	P	01 29 10.1	-2.3
	comp=Z,0.3nm,0.3s,baz=19,slow=3.4,SNR=2.2						
	comp=Z,0.3nm,0.3s						
BUR08	Bucovina Ar. S	78.99	347	P	P	01 29 12.4	-0.3
BURAR	Bucovina Array	79.01	347	P	P	01 29 12.8	0.0
TIRR	Tirgusor	81.59	344	P	P	01 29 25.9	-0.6
WRA	Warramunga Arr	84.67	228	P	P	01 29 42.5	0.0
	comp=Z,0.4nm,0.6s,baz=32,slow=5.1,SNR=5.8						
	comp=Z,0.4nm,0.6s						
ASAR	Alice Springs	88.11	226	P	P	01 29 59.7	+0.5
	comp=Z,0.6nm,0.5s,baz=27,slow=4.8,SNR=6.8						
	comp=Z,0.6nm,0.5s						
QSPA	South Pole Qui	142.11	180	PKhKP	PKPpre	01 36 34.2	
	comp=Z,0.7nm,0.6s,baz=36,slow=1.5,SNR=5.5						
MAW	Mawson	148.96	219	PKPbc	PKiKP	01 36 54.7	-1.0
	comp=Z,0.9nm,0.3s,baz=318,slow=9.4,SNR=1.8						

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*MEX **23** 01:19:02.3±0.6, 13.°71N×93.°18W, h10^{km}, MD4.2,*
Presumed earthquake

*GCG **23** 01:19:04.2±1.2, 13.°89N×92.°93W, h18^{km}±13^{km}, MD4.4,*
Presumed earthquake

ISC 23 01:18:58.0±3.2**, 13.°69N**±0.°09×**93.°12W**±0.°04**, h4**^{km}±19^{km}**,**
n29, σ2.^{s}42/35**, Off coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THIG		1.47	34	*e*P	Pn	01 19 24.7	-0.5
THIG				*e*S	Sg	01 19 42.7	-2.5
RTAL	Retalhuleu	1.61	59	*e*P	Pn	01 19 28.6	+1.3
RTAL				*e*S	Sn	01 19 48.2	-0.3
PATR	El Naranjo	1.66	31	*e*P	Pn	01 19 28.0	0.0
PATR				*e*S	Sn	01 19 48.4	-1.5
CHUJ	Union Juarez	1.71	35	*e*P	Pn	01 19 28.7	0.0
CHUJ				*e*S	Sn	01 19 49.7	-1.4
PAVE	Pavencul	1.75	31	*e*P	Pn	01 19 29.5	+0.2
PAVE				*e*S	Sn	01 19 51.1	-1.2
STG8	El Palmar, Qui	1.88	66	*i* P	Pn	01 19 31.2	+0.1
HUEH	Huehuetenango	2.25	44	*e*P	Pn	01 19 36.6	+0.3
HUEH				*e*S	Sn	01 20 03.2	-1.4
ESSG	Sabana Grande	2.33	72	*i* P	Pn	01 19 37.9	+0.8
FG8	Yepocapa, Chim	2.55	77	*i* P	Pn	01 19 37.6	-2.6
FG16	Alotenango, Sa	2.60	77	*i* P	Pn	01 19 38.6	-2.4
APG	El Apazote	2.89	63	*i* P	Pn	01 19 47.5	+2.6
TGIG		3.07	360	*e*P	Pn	01 19 48.5	+1.2
TGIG				*e*S	Sn	01 20 24.0	-0.6
TGIG		3.07	360	*i* P	Pn	01 19 49.5	+2.2
NUBE	Las Nubes	3.25	86	*i* P	Pn	01 19 52.2	+2.3
NUBE				*i* S	Sn	01 20 26.3	-2.9
HUIG	Huatulco	3.55	306	*e*P	Pn	01 19 54.3	+0.4
HUIG				*e*S	Sn	01 20 29.3	-7.1
JAYA	Jayaque - finc	3.57	90	*i* P	Pn	01 19 57.0	+2.7
UXUV	UXUV	3.74	345	*e*P	Pn	01 19 57.8	+1.3
UXUV				*e*S	Sn	01 20 40.2	-0.8
PEIG	Puerto Escondi	4.52	301	*e*P	Pn	01 20 07.5	+0.2
PEIG				*e*		01 20 52.6	
NEUV	Arroyo Zacate	4.76	327	*e*P	Pn	01 20 11.5	+1.0
NEUV				*e*P		01 20 12.0	
NEUV				*e*S	Sn	01 20 56.8	-9.4
NEUV				*e*S		01 21 05.3	
YOIG	Yosondua	5.31	307	*e*P	Pn	01 20 19.6	+1.3
YOIG				*e*S	Sn	01 21 16.9	-3.1
TXIG	Tlaxiaco	5.71	309	*e*P	Pn	01 20 26.4	+2.6
TXIG				*e*S	Sn	01 21 25.6	-4.5
TOIG	Toxpalan	5.80	320	*e*P	Pn	01 20 28.5	+3.7
TOIG				*e*S	Sn	01 21 35.1	+3.2
HLIG	Huajuapan de L	6.11	313	*e*P	Pn	01 20 31.6	+2.3
HLIG				*e*S	Sn	01 21 38.3	-1.4
MGIG	Malinaltepec	6.38	304	*e*P	Pn	01 20 36.1	+3.2
MGIG				*i* S	Sn	01 21 40.9	-5.5
FTIG	Fresnillo de T	6.39	312	*e*P	Pn	01 20 34.9	+1.8
FTIG				*e*S	Sn	01 21 42.4	-4.3
CRIG	Cruz Grande	6.55	298	*e*P	Pn	01 20 36.6	+1.5
CRIG				*e*		01 21 39.4	
PPM	Popocatepetl	7.52	316	*e*P	Pn	01 20 51.2	+2.3
MEIG	Mezcala	7.54	305	*e*P	Pn	01 20 52.7	+3.9
MEIG				*e*S	Sn	01 22 09.2	-5.7
PLIG	Platanillo	7.71	308	*e*P	Pn	01 20 53.5	+2.3

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*IDC **23** 02:07:48.7±0.7, 36.°17N×141.°94E, h0^{km}, mb3.8/16, mbtmp3.8/20, ML3.5/4, MS2.9/1, Error ellipse: s-maj=16.8km s-min=15.9km az=55.0*

*NEIC **23** 02:07:49.9±1.6, 36.°15N±0.°04×142.°15E±0.°08, h10^{km}±1^{km}, mb4.3/14, Error ellipse: s-maj=12.1km s-min=5.4km az=63.0*

*NIED **23** 02:07:52.5, 36.°20N×141.°91E, h6^{km}, MW3.7, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}3.31; $M_{\theta\theta}$-0.53; $M_{\phi\phi}$-2.77; $M_{r\theta}$1.26; $M_{\theta\phi}$-1.90; $M_{\phi r}$1.79; Fault plane solution: $M_0$4.20000×10^{14} NP1: ϕ_s206.00000°, δ29.00000°, λ84.00000°. NP2: ϕ_s33.00000°, δ61.00000°, λ94.00000°.*

*JMA **23** 02:07:52.5±0.2, 36.°2N±0.°2×141.°9E±0.°2, h6^{km}±1^{km}, MV3.9/32, FAR E OFF IBARAKI PREF*

ISC 23 02:07:51.8±0.6**, 36.°14N**±0.°07×**141.°99E**±0.°06**, h23**^{km}**, n60,**
σ1.^{s}41/59**, mb4.0**/25**, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHYU	Hitachinakayam	1.15	280	*e*P	Pb	02 08 12.0	-1.1
MJAR	Matsushiro Arr	3.08	279	Pn	Pn	02 08 38.9	-0.1
	2.7nm,0.3s,baz=104,slow=8.9,SNR=60						
MJAR				Sn	Sn	02 09 16.8	+1.6
	0.9nm,0.3s,baz=81,slow=15,SNR=5.1						
	16nm,0.5s						
MJAR				AML	AML		
MJAR	Matsushiro Arr	3.08	279		Pn	02 08 39.7	+0.6
MAJO	Matsushiro	3.08	279		Pn	02 08 39.9	+0.8
MJB9	Matsu-Tunnel	3.08	279		Pn	02 08 41.0	+1.8
MJB9				Sn	Sb	02 09 19.5	-3.7
JHJ2	Mitsune	3.52	211	Pn	Pn	02 08 45.5	+0.5
JHJ	Hachijo jima 2	3.52	212	Pn	Pn	02 08 45.6	+0.4
	24nm,0.3s,baz=47,slow=19,SNR=1.4						
JHJ				Sn	Sn	02 09 24.5	-1.6
	88nm,0.3s,baz=49,slow=19,SNR=6.1						
	137nm,0.5s						
JHJ				AML	AML		
JGF	Kuroka	3.80	263		Pn	02 08 50.6	+1.5
INU	Inuyama	4.12	260		Pn	02 08 54.9	+1.4
JTM	Tenmabayashi	4.69	351	Pn	Pn	02 09 01.8	+0.6
ERM	Erimo	5.93	8	Pn	Pn	02 09 16.2	-2.1
JMN	Monobe	7.08	252	Pn	Pn	02 09 35.2	+1.1
USRK	Ussuriysk Ar.	11.10	320	Pn	Pn	02 10 29.9	+0.8
	0.3nm,0.3s,baz=133,slow=18,SNR=6.8						
USRK				LR	LR	02 14 42.0	
	comp=Z,62nm,19.8s,baz=96,slow=37						
	1.3nm,0.6s						
USRK				AML	AML		
KSRS	Korea Array	11.36	281	Pn	Pn	02 10 34.0	+1.4
	0.3nm,0.3s,baz=92,slow=14,SNR=4.3						
KSRS				Sn	Sn	02 12 45.3	+6.5
	0.4nm,0.3s,baz=91,slow=19,SNR=1.8						
	2.2nm,0.7s						
KSRS				AML	AML		
HILR	Hailar Array B	21.01	317	P	P	02 12 30.8	-2.8
	2.1nm,0.3s,baz=125,slow=12,SNR=7.3						
H11N2	WAKE ISLAND Hy	27.30	120	T	T	02 43 06.5	
	baz=312,slow=75,SNR=8.4						
H11N1	WAKE ISLAND Hy	27.30	120	T	T	02 42 12.4	
	baz=312,SNR=8.0						
H11N3	WAKE ISLAND Hy	27.31	120	T	T	02 43 02.7	
	baz=312,slow=75,SNR=6.9						
ENH	Enshi	27.74	267	P	P	02 13 37.4	-1.3
H11S1	WAKE ISLAND Hy	27.99	122	T	T	02 43 05.6	
	baz=314,slow=75,SNR=11						
H11S3	WAKE ISLAND Hy	27.99	122	T	T	02 43 04.7	
	baz=314,slow=75,SNR=6.6						
H11S2	WAKE ISLAND Hy	28.00	122	T	T	02 43 33.8	
	baz=314,slow=75,SNR=5.4						
SONM	Songino Array	28.67	305	P	P	02 13 47.3	+0.3
	1.3nm,0.5s,baz=106,slow=11,SNR=8.4						
	1.3nm,0.5s						
SONM	Songino Array	28.67	305	P	P	02 13 46.4	-0.6
CMAR	Chiang Mai Arr	41.73	257	P	P	02 15 38.2	-1.1
	0.9nm,0.3s,baz=61,slow=8.4,SNR=1.4						
	0.9nm,0.3s						
ZALV	Zalesovo Beam	42.86	313	P	P	02 15 47.3	-0.7
	0.7nm,0.4s,baz=86,slow=6.1,SNR=3.6						
ZALV				PcP	PcP	02 17 39.2	+0.5
	0.5nm,0.4s,baz=96,slow=4.3,SNR=2.0						
	0.7nm,0.4s						
ZALV	Zalesovo Beam	42.86	313	P	P	02 15 48.1	+0.1
MKAR	Makanchi Array	44.99	303	P	P	02 16 04.7	-0.5
	1.7nm,0.8s,baz=91,slow=10,SNR=11						
	1.7nm,0.8s						
MKAR	Makanchi Array	44.99	303	P	P	02 16 05.7	+0.4
KURK	Kurchatov	46.85	309	P	P	02 16 20.0	+0.2
KURK				IAmb	IAmb	02 16 32.2	
	comp=Z,2.2nm,0.5s						
KURBB	Kurchatov Arra	46.92	309	P	P	02 16 19.9	-0.5
	comp=Z,1.1nm,0.4s,baz=83,slow=7.9,SNR=9.1						
	comp=Z,1.1nm,0.4s						
WRH	Wood River Hil	49.48	32	P	P	02 16 38.7	-1.3
WRH				IAmb	IAmb	02 17 05.3	
	comp=Z,2.8nm,1.2s						
H24K	Noodor Dome	49.58	31	P	P	02 16 39.9	-0.9
ILAR	Eielson Array	50.00	32	P	P	02 16 44.1	+0.2
	comp=Z,0.6nm,0.7s,baz=281,slow=6.3,SNR=3.1						
	comp=Z,0.6nm,0.7s						
H27K	Steamboat Moun	52.16	30	P	P	02 17 01.2	+1.0
H27K				IAmb	IAmb	02 17 18.2	

	comp=Z,3.8nm,1.4s						
I28M	Miner Creek	52.88	31	P	P	02 17 06.2	+0.6
I28M				IAmb	IAmb	02 17 10.8	
	comp=Z,1.4nm,0.8s						
G29M	Pine Creek	53.48	29	P	P	02 17 10.9	+1.0
KKAR	Karatay Array	53.98	301	P	P	02 17 14.2	+0.3
F30M	Barrier River	54.24	28	P	P	02 17 17.0	+1.5
F30M				IAmb	IAmb	02 17 43.0	
	comp=Z,5.0nm,1.3s						
INK	Inuvik	54.97	27	P	P	02 17 21.4	+0.8
INK				IAmb	IAmb	02 17 50.5	
	comp=Z,4.2nm,1.3s						
WB0	Warramunga Arr	56.07	189	P	P	02 17 29.0	-0.1
FITZ	Fitzroy Crossi	56.12	199	P	P	02 17 28.7	-0.8
WRA	Warramunga Arr	56.25	189	P	P	02 17 29.9	-0.5
	comp=Z,0.3nm,0.4s,baz=8.3,slow=7.3,SNR=5.7						
	comp=Z,0.3nm,0.4s						
WRA	Warramunga Arr	56.25	189	P	P	02 17 30.2	-0.2
ARTI	Arti	57.44	319	P	P	02 17 37.9	-0.6
ARTI				IAmb	IAmb	02 17 46.9	
	comp=Z,3.9nm,0.8s						
AB31	Akbulak array	58.87	311	P	P	02 17 48.7	+0.1
AB31				IAmb	IAmb	02 18 27.6	
	comp=Z,2.5nm,1.4s						
ABKAR	Akbulak array	58.87	311	P	P	02 17 48.9	+0.3
ASAR	Alice Springs	59.98	189	P	P	02 17 56.5	0.0
	comp=Z,0.1nm,0.3s,baz=3.0,slow=6.8,SNR=1.6						
	comp=Z,0.1nm,0.3s						
ARCES	ARCESS Array B	64.99	340	P	P	02 18 30.4	+0.9
	comp=Z,4.2nm,0.9s,baz=58,slow=4.7,SNR=2.2						
	comp=Z,4.2nm,0.9s						
FINES	FINESS Array B	69.82	333	P	P	02 19 00.1	0.0
	comp=Z,1.2nm,0.7s,baz=44,slow=8.1,SNR=1.9						
	comp=Z,1.2nm,0.7s						
HFS	Hagfors	75.09	336	P	P	02 19 30.6	-1.0
	comp=Z,0.7nm,0.6s,baz=54,slow=7.4,SNR=1.4						
	comp=Z,0.7nm,0.6s						
NOA	NORSAR Array B	75.18	338	P	P	02 19 31.4	-0.7
	comp=Z,1.0nm,0.8s,baz=40,slow=5.7,SNR=3.3						
	comp=Z,1.0nm,0.8s						
AKASG	Malin Array Be	75.28	323	P	P	02 19 32.6	-0.2
	comp=Z,0.5nm,0.4s,baz=48,slow=6.2,SNR=4.4						
	comp=Z,0.5nm,0.4s						
PDAR	Pinedale Array	77.96	46	P	P	02 19 49.6	+1.2
	comp=Z,0.2nm,0.6s,baz=297,slow=5.6,SNR=3.5						
	comp=Z,0.2nm,0.6s						
PDAR	Pinedale Array	77.96	46	P	P	02 19 48.0	-0.4
BRTR	Keskin Array B	79.79	312	P	P	02 20 00.0	+1.6
	comp=Z,0.7nm,0.8s,baz=26,slow=1.1,SNR=3.5						
	comp=Z,0.7nm,0.8s						
BRTR	Keskin Array B	79.79	312	P	P	02 19 58.3	-0.1
TXAR	Lajitas Array	90.29	53	P	P	02 20 52.8	+1.5
	comp=Z,0.2nm,0.7s,baz=319,slow=6.9,SNR=3.1						
	comp=Z,0.2nm,0.7s						
QSPA	South Pole Qui	125.89	180	PKP	PKiKP	02 26 51.5	+0.3
	comp=Z,0.5nm,0.9s,baz=0.0,slow=2.0,SNR=1.5						
LPAZ	La Paz	146.72	61	PKPbc	PKPab	02 27 34.5	+0.3
	comp=Z,1.0nm,0.5s,baz=326,slow=3.6,SNR=9.9						

IDC 23 02:28:20.6±2.7, 23°.78S×179°.06E, h526^{km}±29^{km}, mb2.9/2, mbtmp4.0/4, Error ellipse: s-maj=51.4km s-min=37.1km az=111.0, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	6.09	351	P	P	02 29 59.2	0.0
	2.7nm,0.4s,baz=160,slow=12,SNR=4.1						
URZ	Urewera	14.53	186	P	P	02 31 25.1	-0.2
	10nm,0.8s,baz=35,slow=4.1,SNR=3.6						
ASAR	Alice Springs	41.20	261	P	P	02 35 19.8	+0.3
	1.1nm,0.8s,baz=100,slow=8.0,SNR=8.5						
	1.1nm,0.8s						
WRA	Warramunga Arr	41.55	266	P	P	02 35 21.8	-0.5
	1.1nm,0.5s,baz=104,slow=8.0,SNR=44						
	1.1nm,0.5s						
BRTR	Keskin Array B	146.82	307	PKPbc	PKPbc	02 47 03.3	-0.7
	0.3nm,0.3s,baz=18,slow=5.0,SNR=2.3						

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*IDC **23** 02:53:04.6±1.2, 6°.70N×124°.86E, h0^{km}, mb3.5/4, mbtmp3.5/4, MS2.4/1, Error ellipse: s-maj=22.7km s-min=16.4km az=144.0*

*MAN **23** 02:53:08.0, 6°.75N×125°.09E, h6^{km}, MS3.8*

MAN INTENSITY III - BANSALAN AND MAGSAYSAY DAVAO DEL SUR; . INTENSITY II - DAVAO CITY; DIGOS CITY; HAGONOY DAVAO DEL SUR; COLUMBIO SULTAN KUDARAT.

ISC 23 02:53:06.8±1.3, 6°.80N±0°.05×125°.10E±0°.04, h13^{km}±9^{km}, n20, σ1^{s}.65/30, mb3.4/4, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KCP	Kidapawan	0.21	356	*i* P	Pb	02 53 14.5	+2.0
KCP				*i* S	Sg	02 53 15.6	+1.0
DAV	Davao City (W)	0.54	60	Pg	Pn	02 53 20.2	0.0
	760nm,0.3s,baz=248,slow=19,SNR=20						
DAV				Lg	Lg	02 53 29.7	
	2µm,0.3s,baz=329,slow=19,SNR=12						
DAV	Davao City (W)	0.54	60	P	Pg	02 53 15.0	-2.4
GSPH	General Santos	0.72	192	*i* P	Pn	02 53 23.1	+0.3
GSPH				*i* S	Sn	02 53 35.4	+1.6
CTBH	Cotabato--PC H	0.95	296	*i* P	Pn	02 53 26.5	+0.7
CTBH				*i* S	Sn	02 53 40.3	+1.0
BUKP	Musuan	1.07	358	*e*P	Pg	02 53 29.0	+1.4
BUKP				*i* S	Sg	02 53 44.5	+2.9
CDOP	Cateel, Davao	1.65	53	*i* P	Pb	02 53 38.1	+1.2
CDOP				*i* S	Sb	02 53 58.7	+1.1
CGP	Cagayan de Oro	1.69	346	*i* P	Pb	02 53 38.9	+1.1
CGP				*i* S	Sg	02 54 00.9	-0.5
BIPH	Bislig	1.86	42	*e*P	Pb	02 53 41.1	+0.5
BIPH				*i* S	Sb	02 54 05.8	+2.1
PAGZ	Pagadian	2.00	301	*i* P	Pg	02 53 46.4	+1.2
PAGZ				*i* S	Sg	02 54 10.3	-0.9
DCPH	Dipolog City	2.48	316	*i* P	Pg	02 53 53.6	-0.8
DCPH				*i* S	Sg	02 54 28.9	+2.3
LSIP	Lazi, Siquijor	2.74	328	*i* P	Pg	02 53 58.0	-1.4
LSIP				*i* S	Sg	02 54 33.6	-1.3
SNPH	Sibulan	3.13	324	*e*P	Pg	02 54 06.1	-0.8
LLP	Lapu-Lapu	3.67	342	*e*P	Pb	02 54 09.2	-2.3
LLP				*e*S	Sb	02 54 53.8	-2.3
PLP	Palo	4.34	358	*e*P	Pb	02 54 19.8	-3.1
GUMO	Guam	20.58	69	LR	LR	03 04 57.7	
	comp=Z,12nm,20.9s,baz=262,slow=34						
WRA	Warramunga Arr	28.08	161	P	P	02 58 57.2	-1.1
	0.3nm,0.5s,baz=335,slow=9.9,SNR=7.7						
	0.3nm,0.5s						
ASAR	Alice Springs	31.48	164	P	P	02 59 28.6	+0.2
	0.5nm,0.4s,baz=342,slow=8.9,SNR=10						
	0.5nm,0.4s						
MKAR	Makanchi Array	54.13	325	P	P	03 02 32.2	+0.6
	0.2nm,0.6s,baz=128,slow=9.3,SNR=1.6						
	0.2nm,0.6s						
KURBB	Kurchatov Arra	58.30	327	P	P	03 02 59.5	-1.7
	0.1nm,0.3s,baz=120,slow=6.4,SNR=1.3						
	0.1nm,0.3s						

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*IDC **23** 02:53:28.8±0.7, 26°.35S×175°.22W, h0^{km}, mb4.0/9, mbtmp4.1/11, ML4.2/2, MS3.5/6, Error ellipse: s-maj=23.2km s-min=14.5km az=140.0*

ISC 23 02:53:34.3±0.7, 26°.5S±0°.1×175°.3W±0°.1, h35^{km}, n28, σ0^{s}.93/20, mb4.0/11, MS3.3/5, 3C, South of Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	3.59	219	Pn	Pn	02 54 27.4	-0.1
	47nm,0.3s,baz=90,slow=20,SNR=1.7						
RAO				Sn	Sn	02 55 08.4	-0.2
	143nm,0.3s,baz=18,slow=20,SNR=4.9						
	126nm,0.3s						
RAO				AML	AML		
MSVF	Nonsavu	10.65	323	LR	LR	02 59 56.5	
	comp=Z,149nm,18.7s,baz=123,slow=37						
RAR	Rarotonga	15.16	73	Pn	Pn	02 56 54.6	-11
	3.1nm,0.3s,baz=247,slow=6.3,SNR=7.2						
	26nm,0.5s						
RAR				AML	AML		
PPT	Papeete	25.42	75	LR	LR	03 06 28.2	
	comp=Z,64nm,19.0s,baz=231,slow=31						
HNR	Honiara	28.91	301	LR	LR	03 09 00.5	
	comp=Z,71nm,20.2s,baz=210,slow=32						
CTA	Charters Tower	35.77	272	P	P	03 00 31.6	+1.4
	3.7nm,0.7s,baz=104,slow=9.3,SNR=6.4						
CTA				LR	LR	03 12 46.1	
	comp=Z,46nm,19.5s,baz=38,slow=32						
	3.7nm,0.7s						
STKA	Stephens Creek	37.81	251	LR	LR	03 13 47.1	
	comp=Z,53nm,19.7s,baz=28,slow=32						
ASAR	Alice Springs	45.84	262	P	P	03 01 52.9	-0.3
	1.3nm,0.5s,baz=101,slow=7.6,SNR=15						
	1.3nm,0.5s						
WRA	Warramunga Arr	46.48	267	P	P	03 01 57.2	-1.1
	2.5nm,0.6s,baz=108,slow=8.0,SNR=12						
	2.5nm,0.6s						
VNDA	Vanda	52.22	186	P	P	03 02 41.6	+0.3
	0.8nm,0.9s,baz=18,slow=4.1,SNR=4.5						
	0.8nm,0.9s						
FITZ	Fitzroy Crossi	54.86	266	P	P	03 03 02.5	+1.0
	1.6nm,0.7s,baz=130,slow=11,SNR=5.6						
	1.6nm,0.7s						
QSPA	South Pole Qui	63.62	180	P	P	03 04 01.8	+0.3
	1.6nm,0.8s,baz=20,slow=0.2,SNR=17						
	1.6nm,0.8s						
H03S2	Juan Fernandez	80.64	123	T	T	04 34 02.1	
	baz=243,slow=74,SNR=12						
H03S1	Juan Fernandez	80.65	123	T	T	04 34 02.9	
	baz=243,slow=74,SNR=15						
H03S3	Juan Fernandez	80.65	123	T	T	04 34 00.9	
	baz=243,slow=74,SNR=15						
TROLL	Troll, Antarti	81.76	179	⇑P	P	03 05 49.4	+0.2
	comp=Z,112nm,0.7s						
VNA3	Neumayer Olymp	82.02	175	⇑P	P	03 05 48.7	-1.7
	comp=Z,1.0nm,0.6s						
VNA2	Neumayer--Watz	82.49	176	⇑P	P	03 05 52.7	-0.2
	comp=Z,0.7nm,0.6s,baz=180,slow=5.0						
NVAR	Mina Array Bea	83.76	42	P	P	03 06 00.8	+0.8
	comp=Z,0.6nm,0.7s,baz=240,slow=3.9,SNR=4.8						
	comp=Z,0.6nm,0.7s						
TXAR	Lajitas Array	88.27	56	P	P	03 06 22.8	+0.4
	comp=Z,0.7nm,1.0s,baz=241,slow=6.1,SNR=6.1						
	comp=Z,0.7nm,1.0s						
KLR	Kul'dur	88.90	328	LR	LR	03 37 55.3	
	comp=Z,136nm,20.8s,baz=186,slow=30						
ILAR	Eielson Array	93.61	12	P	P	03 06 45.9	-0.3
	comp=Z,0.6nm,1.0s,baz=213,slow=6.5,SNR=2.2						
	comp=Z,0.6nm,1.0s						
KURBB	Kurchatov Arra	120.05	315	PKP	PKPdf	03 12 20.4	-0.5
	comp=Z,0.4nm,0.7s,baz=99,slow=2.6,SNR=4.1						
NOA	NORSAR Array B	145.17	354	PKPbc	PKPbc	03 13 06.8	-0.4
	comp=Z,1.3nm,0.9s,baz=17,slow=2.5,SNR=3.3						
HFS	Hagfors	145.79	352	PKPbc	PKPdf	03 13 08.7	+0.1
	comp=Z,0.9nm,0.6s,baz=54,slow=3.7,SNR=4.3						
AKASG	Malin Array Be	149.40	329	PKPbc	PKPbc	03 13 17.0	-2.3
	comp=Z,1.2nm,0.5s,baz=42,slow=3.8,SNR=6.9						
BRTR	Keskin Array B	152.51	306	PKPbc	PKPbc	03 13 27.2	0.0
	comp=Z,0.4nm,0.8s,baz=147,slow=3.4,SNR=4.5						
TORD	Torodi Ar. Bea	166.44	168	PKPab	PKPab	03 14 39.0	+0.9
	comp=Z,0.3nm,0.5s,baz=178,slow=3.8,SNR=1.9						

IDC 23 02:53:48.7±4.5, 7°.26S×129°.33E, h0^{km}, mb4.2/1, mbtmp3.6/4, ML3.4/3, Error ellipse: s-maj=48.7km s-min=37.9km az=140.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	11.36	198	Pn	Pn	02 56 28.1	-4.3
	0.3nm,0.3s,baz=18,slow=12,SNR=8.3						
FITZ				Sn	Sn	02 58 26.4	-14
	0.5nm,0.3s,baz=66,slow=20,SNR=8.5						
	1.1nm,0.4s						
FITZ				AML	AML		
WRA	Warramunga Arr	13.51	159	Pn	Pn	02 56 55.9	-6.0
	0.2nm,0.3s,baz=333,slow=14,SNR=7.7						
WRA				Sn	Sn	02 59 16.7	-16
	0.5nm,0.3s,baz=332,slow=21,SNR=10.0						
	0.3nm,0.4s						
WRA				AML	AML		
ASAR	Alice Springs	16.90	165	Pn	Pn	02 57 42.2	-4.5
	0.1nm,0.3s,baz=341,slow=9.5,SNR=7.9						
ASAR				Sn	Sn	03 00 38.9	-16
	baz=344,slow=27						
	0.4nm,0.4s						
ASAR				AML	AML		
STKA	Stephens Creek	27.03	157	P	P	02 59 31.5	-1.3
	2.4nm,0.7s,baz=3.8,slow=15,SNR=1.7						
	2.4nm,0.7s						

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*JMA **23** 03:38:32.5±0.3, 44°N±1°×14°8E±°, h0^{km}, MV3.8/30, SE OFF ETOROFU*

*SKHL **23** 03:38:33.0±0.7, 44°.50N×148°.30E, h39^{km}±9^{km}, mb4.7/3*

ISC 23 03:38:29.8±3.6, 44°.34N±0°.09×148°.2E±0°.2, h12^{km}±26^{km}, n17, σ1^{s}.79/28, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	Kuril'sk	0.93	344	*e*P	Pb	03 38 47.6	-0.3
KUR				AMB	AMB	03 38 48.6	
	290nm,0.3s						
KUR				*e*S	Sb	03 38 58.4	-1.8
KUR				A	A	03 39 00.2	
	1µm,0.2s						
KUR				A	A	03 39 00.2	
	1µm,0.2s						
REI	Reidovoe	0.94	350	*e*P	Pb	03 38 47.3	-0.7
REI				AMB	AMB	03 38 47.8	
	270nm,0.2s						
REI				*e*S	Sb	03 38 58.3	-2.1
REI				A	A	03 38 58.8	
	630nm,0.2s						
REI				A	A	03 38 58.8	
	2µm,0.2s						
YUK	Yuzh-Kuril'sk	1.74	261	*e*P	Pb	03 39 01.2	-0.4
YUK				AMB	AMB	03 39 02.5	
	320nm,0.2s						
YUK				*e*S	Sn	03 39 21.5	-0.3
YUK				A	A	03 39 24.2	
	370nm,0.2s						
YUK				A	A	03 39 24.2	
	430nm,0.2s						
NEM2	Nemuro 2	2.05	242	*e*P	Pn	03 39 04.9	+0.8
NEM2				*e*S	Sn	03 39 28.3	-1.3
NMR	Nemuro--Hokkai	2.06	243	*i* P	Pn	03 39 04.9	+0.7
NMR				*e*S	Sn	03 39 29.1	-0.7
JRA	Rausu	2.28	261	*e*P	Pb	03 39 09.4	-1.4
JRA				*e*S	Sb	03 39 37.1	-1.9
JNSB	Nemuroshibetsu	2.40	258	*e*P	Pn	03 39 10.9	+2.1
JKHN	Kushirohamanak	2.56	242	*e*P	Pn	03 39 12.2	+1.1
JKHN				*e*S	Sn	03 39 41.5	-0.7
JNK	Nakash	2.65	255	*e*P	Pn	03 39 14.2	+1.8
JNK				*e*S	Sn	03 39 45.0	+0.6
AKK	Akkeshi	2.80	243	*e*P	Pn	03 39 15.6	+1.3
JAK	Akkeshi	2.90	244	P	Pn	03 39 17.0	+1.2
JAK				*e*S	Sn	03 39 50.1	-0.4
JTKR	Abashiri--Toko	3.14	265	*e*P	Pn	03 39 22.3	+3.3
JAR	Ashorobuto	3.40	254	*e*P	Pn	03 39 25.5	+2.9
JOB	Onbets	3.51	247	*e*P	Pn	03 39 25.9	+1.9
JOB				*e*S	Sn	03 40 05.5	+0.1
JMP	Maruseppu	3.53	266	*e*P	Pn	03 39 28.1	+3.7
JCH	Churui	3.95	246	*e*P	Pn	03 39 32.4	+2.3
JCH				*e*S	Sn	03 40 16.1	-0.2
JNBK	Urakawa-nobuka	4.50	245	*e*P	Pn	03 39 40.1	+2.4

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*NDI **23** 03:51:02.3±1.4, 33°.22N×85°.31E, h10^{km}, ML4.2, mb4.2(NEIC), Presumed earthquake*

*IDC **23** 03:51:04.1±1.8, 33°.00N×85°.39E, h0^{km}, mb3.6/4, mbtmp3.7/7, ML3.9/3, MS3.4/3, Error ellipse: s-maj=64.6km s-min=18.5km az=71.0*

*NEIC **23** 03:51:05.3±1.6, 33°.22N±0°.08×85°.31E±0°.04, h10^{km}±1^{km}, mb4.2/18, Error ellipse: s-maj=13.2km s-min=5.6km az=182.0*

ISC 23 03:51:04.6±0.6, 33°.15N±0°.08×85°.41E±0°.09, h10^{km}, n45, σ1^{s}.37/40, mb4.1/11, MS3.5/3, Xizang

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EVN	Everest	5.32	166		Pn	03 52 28.5	+3.9
LSA	Lhasa	5.99	123	Pn	Pn	03 52 39.5	+5.7
TAWA	Tawang	7.86	133	*e*P	Pn	03 52 58.5	-0.8
TAWA				*e*S	Sn	03 54 20.6	-7.9
TAWA				IAML		03 54 23.9	
	comp=N,185nm,0.2s						
TAWA				IAML		03 54 25.9	
	comp=E,202nm,0.2s						
DHUB	DHUBRI	8.15	149	*e*P	Pn	03 53 01.6	-1.3
ZIRO	ZIRO	9.20	125	*e*P	Pn	03 53 16.0	-1.5
ZIRO				*e*S	Sn	03 54 53.4	-7.8
ZIRO				IAML		03 54 54.1	
	comp=N,90nm,0.2s						
ZIRO				IAML		03 54 55.0	
	comp=E,126nm,0.2s						
WUS	Wushi	9.43	330	Pn	Pn	03 53 20.8	+0.1
SHL	Shillong	9.43	142	Pn	Pn	03 53 19.3	-1.4
SHL	Shillong	9.43	142	*e*P	Pn	03 53 19.7	-1.0
SHL				IAmb	IAmb	03 53 23.2	
	comp=Z,6.9nm,0.4s						
NIL	Nilore	10.18	276	Pn	Pn	03 53 30.2	-0.6
AAK	Ala-Archa	12.80	321	Pn	Pn	03 54 07.0	+0.2
MKAR	Makanchi Array	13.84	351	Pn	Pn	03 54 23.9	+3.1
	comp=Z,0.1nm,0.3s,baz=177,slow=12,SNR=6.0						
	comp=Z,0.2nm,0.5s						
MKAR				AML	AML		
MKAR	Makanchi Array	13.84	351		Pn	03 54 23.2	+2.4
KK31	Karatay Array	15.35	315		P	03 54 43.6	-2.5
KK31				IAmb	IAmb	03 54 48.3	
	comp=Z,4.3nm,1.4s						
KKAR	Karatay Array	15.35	315		P	03 54 44.0	-2.0
KURBB	Kurchatov Arra	18.18	346	P	P	03 55 19.2	+1.9
	comp=Z,0.2nm,0.3s,baz=156,slow=11,SNR=5.0						
	comp=Z,1.9nm,0.2s						
KURBB				AML	AML		
KURK	Kurchatov	18.25	346	P	P	03 55 19.3	+1.2
KURK				IAmb	IAmb	03 55 21.1	
	comp=Z,3.0nm,0.6s						
CMAR	Chiang Mai Arr	19.01	137	P	P	03 55 26.1	-0.6
	comp=Z,0.5nm,0.3s,baz=316,slow=12,SNR=6.4						
	comp=Z,1.2nm,0.3s						
CMAR				AML	AML		
CMAR	Chiang Mai Arr	19.01	137	P	P	03 55 26.4	-0.2
ZAA0	Zalesovo Array	20.80	359	P	P	03 55 45.0	-0.8
ZALV	Zalesovo Beam	20.80	359	P	Pn	03 55 48.0	-0.3
	comp=Z,0.8nm,0.5s,baz=186,slow=9.8,SNR=4.8						
	comp=Z,0.8nm,0.5s						
ZALV	Zalesovo Beam	20.80	359	P	P	03 55 45.7	-0.2
SONM	Songino Array	21.58	41	P	P	03 55 56.6	+2.1
	comp=Z,1.4nm,0.7s,baz=231,slow=10,SNR=7.0						
	comp=Z,1.4nm,0.7s						
SONM	Songino Array	21.58	41	P	P	03 55 54.2	-0.3
ULN	Ulaanbaatar	21.96	42	P	P	03 55 58.2	-0.4
ULN				IAmb	IAmb	03 56 03.7	
	comp=Z,6.1nm,1.0s						
BORK	Borovoye	22.65	336	P	P	03 56 04.4	-1.3
AB31	Akbulak array	24.85	318	P	P	03 56 28.4	+1.3
AB31				IAmb	IAmb	03 56 29.3	
	comp=Z,2.1nm,0.6s						
ABKAR	Akbulak array	24.85	318	P	P	03 56 25.8	-1.4
GNI	Garni	33.15	294	LR	LR	04 13 36.1	
	comp=Z,31nm,19.9s,baz=63,slow=41						
SNOP	Sinop	40.26	298	P	P	03 58 41.2	-0.5
SNOP				IAmb	IAmb	03 58 46.0	
	comp=Z,4.6nm,1.1s						
AKASG	Malin Array Be	44.20	311	LR	LR	04 19 36.5	
	comp=Z,56nm,19.1s,baz=342,slow=39						
FINES	FINESS Array B	46.93	326	LR	LR	04 21 00.4	
	comp=Z,80nm,18.2s,baz=47,slow=38						
NC405	NORSAR Array S	53.83	325	P	P	04 00 27.0	-0.4
NC405				IAmb	IAmb	04 00 34.1	
	comp=Z,10nm,1.1s						
NB201	NORSAR Array S	54.04	325	P	P	04 00 28.6	-0.4
NRCA	Norcia	56.20	303	P	P	04 00 44.3	-0.6
NRCA				IAmb	IAmb	04 00 57.9	
	comp=Z,11nm,1.3s						
FITZ	Fitzroy Crossi	63.82	137	P	P	04 01 38.0	+0.7
FITZ				IAmb	IAmb	04 01 38.6	
	comp=Z,1.3nm,1.2s						
G18K	Tagagawik	69.79	23	P	P	04 02 15.4	+0.7
G18K				IAmb	IAmb	04 02 59.6	
	comp=Z,6.2nm,1.3s						
C24K	Franklin Bluff	70.21	17	P	P	04 02 17.4	+0.1
WB0	Warramunga Arr	70.39	131	P	P	04 02 19.6	+0.5
WB0				IAmb	IAmb	04 02 55.1	
	comp=Z,7.5nm,1.4s						
WRA	Warramunga Arr	70.49	131	P	P	04 02 20.3	+0.6
	comp=Z,0.7nm,0.4s,baz=328,slow=6.3,SNR=18						
	comp=Z,0.7nm,0.4s						
WRA	Warramunga Arr	70.49	131	P	P	04 02 20.1	+0.5
D24K	Happy Valley	70.57	18	P	P	04 02 18.9	-0.6
ASAR	Alice Springs	72.99	134	P	P	04 02 35.5	+0.9
	comp=Z,0.4nm,0.5s,baz=329,slow=6.0,SNR=4.3						
	comp=Z,0.4nm,0.5s						
ASAR	Alice Springs	72.99	134	P	P	04 02 34.6	-0.1
TXAR	Lajitas Array	117.27	9	PKP	PKiKP	04 09 51.5	+0.8
	comp=Z,0.3nm,0.9s,baz=336,slow=3.3,SNR=3.5						
TXAR	Lajitas Array	117.27	9		PKPdf	04 09 50.5	-0.3

WEL 23 03:52:27.1±0.8, 39°S±4°×17°9E±°, h22^{km}±7^{km}, M3.5/12, ML3.5/12, MLv3.5/12, Error ellipse: s-maj=7.9km s-min=4.7km az=104.6, confirmed, Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TBAS	Tolaga Bay Are	0.25	304	P	Pb	03 52 34.3	+1.1
CNGZ	Carnagh Statio	0.28	276	P	Pb	03 52 34.6	+0.9
CNGZ				AML	AML		
CNGZ				AML	AML		
PUZ	Puketiti	0.51	331	P	Pb	03 52 37.5	+0.2
PUZ				S	Sn	03 52 45.8	-1.2
PUZ				AML	AML		
PUZ				AML	AML		
TKGZ	Te Karaka	0.57	277	P	Pb	03 52 38.9	+0.5
TKGZ				S	Sn	03 52 48.7	+0.2
TKGZ				AML	AML		
TKGZ				AML	AML		
TWGZ	Tauwhareparae	0.57	306	P	Pb	03 52 39.1	+0.6
TWGZ				S	Sn	03 52 49.4	+0.8
TWGZ				AML	AML		
TWGZ				AML	AML		
RIGZ	Rimuhau	0.66	253	P	Pn	03 52 40.7	-0.4
RIGZ				S	Sn	03 52 51.7	+0.9
RIGZ				AML	AML		
RIGZ				AML	AML		
PRGZ	Paritu Road	0.67	232	P	Pn	03 52 40.9	-0.4
PRGZ				AML	AML		
PRGZ				AML	AML		
WMGZ	Waiomatatini S	0.70	350	P	Pn	03 52 41.5	-0.2
WMGZ				S	Sn	03 52 53.1	+1.2
WMGZ				AML	AML		
WMGZ				AML	AML		
PKGZ	Pakihiroa	0.75	329	P	Pb	03 52 41.7	+0.1
PKGZ				S	Sn	03 52 52.8	-0.2
PKGZ				AML	AML		
PKGZ				AML	AML		
MHGZ	Mahia Peninsul	0.82	219	P	Pn	03 52 43.0	-0.3
MHGZ				AML	AML		
MHGZ				AML	AML		
MWZ	Matawai	0.83	282	P	Pb	03 52 42.8	-0.2
MWZ				S	Sb	03 52 54.3	+0.5
MWZ				AML	AML		
MWZ				AML	AML		
KNZ	Kokohu	0.86	234	P	Pb	03 52 43.1	-0.3
KNZ				AML	AML		
KNZ				AML	AML		
RUGZ	Raukumara Rang	0.89	308	P	Pb	03 52 43.6	-0.3
RUGZ				AML	AML		
RUGZ				AML	AML		
RAGZ	Rawiri	0.90	271	P	Pn	03 52 44.4	-0.2
RAGZ				AML	AML		
RAGZ				AML	AML		
MXZ	Matakaoa Point	0.97	348	P	Pn	03 52 45.6	+0.3
MXZ				AML	AML		
MXZ				AML	AML		
HAZ	Te Kaha	0.98	321	P	Pb	03 52 44.9	-0.4
HAZ				AML	AML		
HAZ				AML	AML		
URZ	Urewera	1.17	282	P	Pn	03 52 48.0	-0.1
RAHZ	Arahi	1.23	250	P	Pb	03 52 50.1	+0.5
MTHZ	Maungataniwha	1.39	255	P	Pn	03 52 51.1	-0.1
MUGZ	Murupara	1.41	271	P	Pn	03 52 52.1	+0.6
KAHZ	Kahuranaki	1.83	225	P	Pn	03 52 56.1	-1.1
KRHZ	Kereru	2.05	236	P	Pn	03 52 59.3	-0.9
PNHZ	Pukenui	2.31	232	P	Pn	03 53 02.5	-1.4
TSZ	Takapari Road	2.54	232	P	Pn	03 53 05.6	-1.4
CTZ	Chatham Island	6.36	147	P	Pn	03 53 59.7	+0.3
CTZ				AML	AML		
CTZ				AML	AML		

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*NEIC **23** 03:59:50.3±1.4, 22°.66S±0°.06×68°.44W±0°.07, h114^{km}±6^{km},* *mb4.0/4,Error ellipse: s-maj=9.6km s-min=7.8km az=47.0*

GUC ***23*** *03:59:50.8±0.9,22°.63S×68°.46W,h118^{km}±5^{km},ML3.2*

ISC 23 03:59:50.6±0.9**,22°.66S**±0°.05×**68°.45W**±0°.06**,h112**^{km}±7^{km}**,**
n29,σ1^{s}**04**/39**,5C-2D,Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AF01	San Pedro de A	0.38	139	⇓*i*P	Pn	04 00 07.3	-0.1
AF01				*i* S	Sn	04 00 20.3	+0.3
AF01				IAML		04 00 20.8	
	comp=N,2µm,0.4s						
AF01	San Pedro de A	0.38	139	Pn	Pn	04 00 06.9	-0.5
AF01				Sn	Sn	04 00 20.2	+0.2
PB06	IPOC Station P	1.03	267	⇑*i*P	Pn	04 00 12.9	+0.4
PB06				*e*S	Sn	04 00 29.6	+0.6
PB06				IAML		04 00 32.5	
	comp=N,752nm,0.2s						
PB06	IPOC Station P	1.03	267		Pn	04 00 12.8	+0.3
PB06				Sn	Sn	04 00 29.3	+0.2
PB09	IPOC Station P	1.13	320	⇑*i*P	Pn	04 00 14.1	+0.6
PB09				*i* S	Sn	04 00 31.7	+0.8
PB09				IAML		04 00 33.5	
	comp=E,292nm,0.5s						
PB09	IPOC Station P	1.13	320	Pn	Pn	04 00 14.1	+0.6
PB03	IPOC Station P	1.35	297	⇑*i*P	Pn	04 00 16.2	+0.2
PB03				*i* S	Sn	04 00 35.4	+0.2
PB03				IAML		04 00 36.0	
	comp=N,637nm,0.3s						
PB03	IPOC Station P	1.35	297		Pn	04 00 15.8	-0.1
PB07	IPOC Station P	1.62	305	⇑*i*P	Pn	04 00 19.5	+0.3
PB07				*e*S	Sn	04 00 40.6	-0.3
PB07				IAML		04 00 42.3	
	comp=N,410nm,0.4s						
PB07	IPOC Station P	1.62	305		Pn	04 00 19.1	-0.2
PB05	IPOC Station P	1.63	263	⇑*i*P	Pn	04 00 19.4	+0.2
PB05				*i* S	Sn	04 00 41.3	+0.4
PB05				IAML		04 00 48.2	
	comp=N,161nm,0.3s						
PB05	IPOC Station P	1.63	263		Pn	04 00 19.1	0.0
PB02	IPOC Station P	1.89	315	⇓*e*P	Pn	04 00 22.6	+0.2
PB02				*i* S	Sn	04 00 46.2	-0.6
PB02				IAML		04 00 48.8	
	comp=E,477nm,0.3s						
PB02	IPOC Station P	1.89	315	Pn	Pn	04 00 21.9	-0.6
PB08	IPOC Station P	2.59	345	*e*P	Pn	04 00 32.8	+1.1
PB08				*e*S	Sn	04 01 05.1	+1.8
PB08				IAML		04 01 07.5	
	comp=E,42nm,0.5s						
PB08	IPOC Station P	2.59	345		Pn	04 00 31.7	0.0
GO01	Chusmiza	3.06	347	Pn	Pn	04 00 37.9	0.0
PB11	IPOC Station P	3.10	339	Pn	Pn	04 00 36.5	-1.6
PSGCX	Pisagua	3.43	333	Pn	Pn	04 00 39.9	-2.5
AC01	Pan de Azucar	3.98	209		Pn	04 00 48.8	-1.0
AC02	Maricunga	4.20	188		Pn	04 00 53.3	+0.2
PB12	IPOC Station P	4.39	336	Pn	Pn	04 00 53.1	-2.3
PB16	IPOC Station P	4.42	347	Pn	Pn	04 00 54.4	-1.7
LPAZ	La Paz	6.35	3	Pn	Pn	04 01 20.8	-1.5
AC05	El Transito	6.36	195	Pn	Pn	04 01 19.6	-2.4
CPSB	Cacapava Do Su	15.48	123		Pn	04 03 22.8	+0.1
CPSB				IAmb	IAmb	04 03 24.8	
	comp=Z,8.1nm,1.0s						
GO08	Villa O'Higgin	25.95	186	P	P	04 05 12.0	-0.4
BOAV	Boa Vista	26.08	18	P	P	04 05 12.7	-1.2
QSPA	South Pole Qui	67.53	180	P	P	04 10 35.9	+1.3
QSPA				IAmb	IAmb	04 11 13.1	
	comp=Z,4.0nm,1.4s						

IDC ***23*** *03:59:56.5±0.6,23°.27N×121°.63E,h0^{km},mb4.1/20, mbtmp4.1/23,ML3.7/3,MS3.6/6,Error ellipse: s-maj=14.3km s-min=14.2km az=13.0*

NEIC ***23*** *04:00:00.8±1.7,23°.33N±0°.02×121°.58E±0°.03,h25^{km}±4^{km}, mb4.6/28,Mwr4.3/27,Error ellipse: s-maj=4.2km s-min=2.3km az=88.0,Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M$_{rr}$2.91; M$_{\theta\theta}$-0.26; M$_{\phi\phi}$-2.65; M$_{r\theta}$-0.18; M$_{\theta\phi}$-1.56; M$_{\phi r}$0.73; Fault plane solution: M$_0$3.29000×10^{15} NP1:φ$_s$16.07000°,δ51.08000°, λ76.39000°. NP2:φ$_s$217.15000°,δ40.87000°,λ106.25000°. Principal axes: T 3.0563, Plg78.0000°, Azm231.0000°; N 0.4205, Plg11.0000°, Azm25.0000°; P -3.4768, Plg5.0000°, Azm116.0000°;*

BJI ***23*** *04:00:01.1,23°.38N×121°.46E,h9^{km},mB4.5/4,mb4.3/14, ML4.4/4,Ms3.9/16,Ms7 3.9/18*

NEIC ***23*** *04:00:01.1,23°.33N×121°.56E,h26^{km}*

JMA ***23*** *04:00:01.0±0.1,23°.3N±0°.7×12°2E±°,h31^{km}±2^{km}, MD4.4/19,MV4.6/19,TAIWAN REGION*

NIED ***23*** *04:00:01.0,23°.30N×121°.55E,h31^{km},MW4.4,Moment Tensor Solution. s2 Moment tensor: Scale 10^{15}Nm; M$_{rr}$-1.19; M$_{\theta\theta}$-0.24; M$_{\phi\phi}$1.44; M$_{r\theta}$2.96; M$_{\theta\phi}$-0.64; M$_{\phi r}$3.46; Fault plane solution: M$_0$4.71000×10^{15} NP1: φ$_s$326.00000°,δ14.00000°,λ-159.00000°. NP2: φ$_s$215.00000°,δ85.00000°,λ-77.00000°.*

TAP ***23*** *04:00:02.0,23°.32N×121°.50E,h33^{km},ML4.9,C*

ASIES ***23*** *04:00:02.5,23°.32N×121°.49E,h32^{km},Mw4.3,Fault plane solution: NP1:φ$_s$218.00000°,δ41.00000°,λ124.00000°. NP2:φ$_s$356.00000°,δ57.00000°,λ64.00000°.*

ISC 23 04:00:01.5±0.5**,23°.32N**±0°.01×**121°.57E**±0°.02**,h34**^{km}±1^{km}**,**
n285,σ1^{s}**23**/423**,mb4.3**/34**,MS3.7**/3**,11C-48D,Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ECBN	Changbin	0.11	270	⇑*i*P	Pb	04 00 07.9	+0.4
ECBN				*e*S	Sb	04 00 12.2	+0.7
CHKH	Chenggong	0.20	232	⇑*i*P	Pn	04 00 08.2	+0.9
CHKH				*i* S	Sn	04 00 12.6	+3.4
HGSD	Ruisui	0.22	322	⇑*i*P	Pn	04 00 08.3	+0.6
HGSD				*e*S	Sn	04 00 16.6	+6.3
EYUL	Yuli	0.23	278	⇓*i*P	Pn	04 00 08.5	+0.4
TWF1	Yuli	0.25	278	⇓*i*P	Pn	04 00 08.5	-0.1
TWF1				*e*S	Sn	04 00 14.4	+2.1
YULB	Yu-li	0.26	287	P	Pn	04 00 08.5	-0.2
YULB	Yu-li	0.26	287		Pb	04 00 07.4	-1.5
YULB				Sg	Sb	04 00 12.2	-1.7
YULB	Yu-li	0.26	287	⇓*i*P	Pn	04 00 08.5	-0.2
YULB				*e*S	Sn	04 00 13.9	+1.2
EHYH	Wanrong	0.27	310	⇓*i*P	Pn	04 00 08.8	-0.1
EHYH				S	Sn	04 00 14.0	+0.9
FULB	Fuli	0.28	245	⇑*i*P	Pn	04 00 08.9	-0.2
FULB				S	Sn	04 00 15.1	+1.7
CHKT	Chengkung	0.29	221	⇑*i*P	Pn	04 00 09.3	+0.1
CHKT				S	Sn	04 00 14.4	+0.9
EHY	Hungye	0.30	310	⇓*i*P	Pn	04 00 08.9	-0.5
EHY				*e*S	Sn	04 00 13.9	-0.1
EHD	Haiduan	0.37	244	P	Pb	04 00 09.6	-0.7
EHD				*e*S	Sb	04 00 15.1	-1.3
ECS	Chishang	0.39	236	⇓*i*P	Pn	04 00 10.5	-0.4
ECS				*e*S	Sn	04 00 16.6	-0.4
TEGC	Jichi Village	0.39	356	⇑*i*P	Pn	04 00 11.3	+0.4
TEGC				*e*S	Sn	04 00 18.7	+1.6
EDH	Donghe	0.42	216	⇓*i*P	Pn	04 00 11.0	-0.3
EDH				S	Sn	04 00 17.9	0.0
WARBT	Fenglin Townsh	0.43	337	⇓*i*P	Pb	04 00 10.6	-0.6
SHUL	Shoufeng	0.47	359	⇑*i*P	Pn	04 00 12.3	+0.4
SHUL				*i* S	Sn	04 00 20.9	+1.9
ESL	Shilin	0.51	346	⇓*i*P	Pb	04 00 11.8	-0.6
ESL				S	Sb	04 00 19.0	-0.8
ELDTW	Lidau	0.53	256	⇓*i*P	Pb	04 00 11.5	-1.1
ELDTW				S	Sb	04 00 17.8	-2.5
TEYL	Yanliau Villag	0.55	3	*e*P	Pn	04 00 14.3	+1.3
TEYL				S	Sn	04 00 24.3	+3.3
LONT	Longtian	0.58	225	⇓*i*P	Pb	04 00 12.5	-0.9
LONT				S	Sb	04 00 20.4	-1.1
VWDT	VWDT	0.59	318	⇓*i*P	Pn	04 00 13.3	-0.2
VWDT				S	Sn	04 00 21.9	0.0
YUS	Yu-Shan	0.59	287	⇓P	Pb	04 00 13.3	-0.7
YUS				*e*S	Sb	04 00 21.2	-1.4
LDUT	Ludao	0.65	188	⇓*e*P	Pb	04 00 13.8	-0.8
ETM	Tongmen	0.65	354	*e*P	Pb	04 00 13.8	-0.8
ETM				*e*S	Sb	04 00 22.6	-1.0
HWA	Hwalien	0.66	3	*i* P	Pn	04 00 15.3	+0.8
HWA				S	Sn	04 00 24.9	+1.3
TWGBT	Beinan	0.67	222	P	Pb	04 00 13.4	-1.6
TWGBT	Beinan	0.67	222	⇓*i*P	Pb	04 00 13.7	-1.3
TWGBT				*e*S	Sb	04 00 22.5	-1.6
TWG	Pinlang	0.67	223		Pb	04 00 13.3	-1.7
TWG				Sg	Sb	04 00 22.1	-2.1
TWG	Pinlang	0.67	223	⇓*i*P	Pb	04 00 13.6	-1.4
TWG				*e*S	Sb	04 00 22.5	-1.7
TTN	Taitung	0.68	215	*e*S	Sn	04 00 25.2	+0.9
LXIB	Xiulin Townshi	0.72	348	⇓*i*P	Pb	04 00 14.8	-1.0
LXIB				*i* S	Sb	04 00 24.0	-1.5
ALS	Alishan	0.73	285	⇓*i*P	Pn	04 00 15.7	-0.1
ALS				*i* S	Sn	04 00 25.8	-0.1
OWD	Renai	0.73	330	⇓*i*P	Pb	04 00 15.2	-0.8
OWD				S	Sb	04 00 24.2	-1.7
SSLB	Suanglung	0.73	310	P	Pb	04 00 15.1	-0.9
SSLB	Suanglung	0.73	310		Pb	04 00 14.9	-1.1
SSLB				Sg	Sb	04 00 24.2	-1.7
SSLB	Suanglung	0.73	310	⇓*e*P	Pn	04 00 15.2	-0.4
STYH	Taoyuan	0.74	259	⇓*i*P	Pb	04 00 15.3	-0.8
STYH				*i* S	Sb	04 00 24.8	-1.3
WHYT	Xinyi Township	0.76	300	⇓*e*P	Pb	04 00 16.1	-0.3
TWD	Chiawan	0.76	2	⇓*i*P	Pb	04 00 15.9	-0.6
TWD				*e*S	Sn	04 00 26.1	-0.1
WUSB	Renai	0.79	328	⇓*i*P	Pb	04 00 16.4	-0.7
WUSB				S	Sb	04 00 25.9	-1.7
SMLT	Sun Moon Lake	0.83	313	⇓*i*P	Pb	04 00 17.1	-0.6
SMLT				*e*S	Sn	04 00 28.1	-0.1
ETL	Fush Village	0.84	3	*e*P	Pn	04 00 16.8	-0.3
NACB	Ninganchiao	0.85	1	P	Pb	04 00 17.6	-0.4
NACB	Ninganchiao	0.85	1		Pn	04 00 16.7	-0.5
NACB				Sg	Sn	04 00 27.1	-1.4
NACB	Ninganchiao	0.85	1	⇓P	Pn	04 00 16.8	-0.4
NACB				*e*S	Sb	04 00 29.4	+0.2
TPUB	Ta-pu	0.86	269	P	Pb	04 00 17.7	-0.5
TPUB	Ta-pu	0.86	269	S	Sb	04 00 29.9	+0.3
TPUB	Ta-pu	0.86	269		Pb	04 00 17.2	-1.0
TPUB					Sb	04 00 29.4	-0.1
TPUB	Ta-pu	0.86	269	⇓*i*P	Pb	04 00 17.8	-0.5
TPUB				*i* S	Sb	04 00 29.8	+0.3
CHN5	Tsauling	0.87	289	⇓*i*P	Pb	04 00 18.1	-0.2
CHN5				*i* S	Sb	04 00 30.1	+0.5
TYC	Yuchr	0.88	312	⇓*i*P	Pb	04 00 17.8	-0.5
TYC				*i* S	Sb	04 00 30.4	+0.6
WTP	Ta-pu	0.88	266	⇓*i*P	Pb	04 00 18.1	-0.4
WTP				*e*S	Sb	04 00 30.1	0.0
ETLH	Xiulin Townshi	0.89	355	⇓*i*P	Pn	04 00 17.4	-0.4
ETLH				*e*S	Sn	04 00 28.3	-1.3
WCKO	Fanlu	0.90	278	⇓*i*P	Pb	04 00 18.3	-0.4
WCKO				*e*S	Sb	04 00 30.6	+0.3
CHN4	Tsaushan	0.90	272	⇓*i*P	Pb	04 00 18.5	-0.2
CHN4				*e*S	Sb	04 00 31.6	+1.2
SLGT	Liugui	0.91	249	P	Pb	04 00 18.4	-0.5
SLGT				*e*S	Sb	04 00 30.6	-0.2
ECL	Taimali	0.91	219	*i* P	Pn	04 00 16.9	-1.1
ECL				*e*S	Sn	04 00 27.9	-2.1
WJS	Zhushan	0.92	303	P	Pb	04 00 18.9	-0.2
WJS				S	Sb	04 00 31.1	0.0
SGST	Jiashian	0.94	256	⇓*i*P	Pn	04 00 18.1	-0.3
SGST				S	Sb	04 00 30.6	-0.9
WCS	Beigang Elemen	0.95	321	⇓P	Pb	04 00 19.1	-0.6
CHN1	Nanshi	0.97	262	⇓*i*P	Pb	04 00 19.6	-0.3
CHN1				*i* S	Sb	04 00 33.2	+0.8
FUSS	Fushou	0.97	342	⇓*i*P	Pb	04 00 19.3	-0.8
FUSS				S	Sn	04 00 31.3	-0.5
WNT	Mingjian	0.99	305	⇓*i*P	Pb	04 00 20.3	+0.1
WNT				*e*S	Sb	04 00 33.3	+0.3
TWK	Hsinying	1.00	267	⇓*i*P	Pb	04 00 19.9	-0.5
TWK				*i* S	Sb	04 00 33.4	+0.1
TWT	Tachien	1.00	339	⇓*i*P	Pb	04 00 20.0	-0.5
TWT				S	Sn	04 00 31.8	-0.6
TDCB	Techi	1.01	338	⇓*i*P	Pb	04 00 19.9	-0.7
TDCB				S	Sn	04 00 32.1	-0.5
WDLH	Douliu	1.02	292	*e*P	Pb	04 00 20.4	-0.3
WDLH				*e*S	Sb	04 00 33.5	-0.3
EAHA	Aohua	1.02	9	*e*P	Pb	04 00 20.6	-0.1
EAHA				*e*S	Sb	04 00 34.0	+0.1
WDL	Douliou City	1.03	293	*e*P	Pb	04 00 21.5	+0.7
WDL				*e*S	Sb	04 00 34.3	+0.2
SSD	Sandimen	1.03	237	*e*P	Pn	04 00 19.5	-0.2
SSD				*e*S	Sb	04 00 34.7	+0.5
TSMG	Majia	1.05	235	*e*P	Pn	04 00 20.0	+0.1
TSMG				*e*S	Sn	04 00 33.2	-0.2
EOS4	EOS4	1.05	40	*e*P	Pb	04 00 20.8	-0.3
EOS4				S	Sb	04 00 34.5	+0.1
CHY	Chiayi	1.07	280	⇓P	Pb	04 00 21.1	-0.5
CHY				*e*S	Sb	04 00 35.0	-0.2
SCST	Cishan	1.08	247	⇓*i*P	Pb	04 00 21.9	+0.1
SCST				*i* S	Sb	04 00 37.2	+1.6
MASBT	Mashibuluo	1.11	231	*i* P	Pn	04 00 20.8	0.0
MASBT				*e*S	Sn	04 00 33.8	-1.1
WHP	Taichung City	1.11	329	*e*P	Pb	04 00 21.9	-0.5
ENA	Nanau	1.12	8	*e*P	Pn	04 00 19.3	-1.6
NNSB	Datong	1.12	351	P	Pn	04 00 21.3	+0.3
NNSB				S	Sn	04 00 35.2	-0.1
NNS	Nan Shan	1.13	351	*e*P	Pb	04 00 21.8	-1.0
CHN3	Shinhua	1.14	258	*i* P	Pb	04 00 23.7	+1.0
CHN3				*e*S	Sb	04 00 39.3	+2.2
EWUT	Wuta	1.14	10	*e*P	Pb	04 00 22.5	-0.3
EAST	Anshuo	1.14	216	*e*P	Pn	04 00 20.9	-0.3
WTK	Tuku	1.15	289	⇓*i*P	Pb	04 00 22.2	-0.6
WTK				S	Sb	04 00 37.9	+0.4
SGLT	Jiouru	1.16	240	*e*P	Pb	04 00 23.6	+0.6
SGLT				*e*S	Sb	04 00 40.5	+2.8
TCU	Taichung	1.16	315	⇓*i*P	Pb	04 00 23.3	+0.1
TCU				*i* S	Sb	04 00 38.3	+0.3
TWM1	Shoushan	1.17	245	*i* P	Pb	04 00 23.9	+0.6
TWM1				*e*S	Sb	04 00 41.8	+3.7
EOS3	EOS3	1.18	35	*i* P	Pb	04 00 23.2	-0.2
EOS3				*e*S	Sb	04 00 38.0	-0.4
ICHU	Yijhu	1.19	272	*i* P	Pb	04 00 22.9	-0.6
ICHU				*i* S	Sb	04 00 39.0	+0.4
SSHA	Shanhua	1.19	262	*e*P	Pb	04 00 24.4	+0.7
SSHA				*i* S	Sb	04 00 40.5	+1.7
WCHH	Zhanghua	1.20	310	⇓*i*P	Pb	04 00 23.5	-0.3
WCHH				*e*S	Sb	04 00 38.9	-0.1
WCH1	Changhua City	1.20	309	P	Pb	04 00 23.7	-0.1
WCH1				*i* S	Sb	04 00 39.5	+0.5
LATG	Datong	1.21	358	*e*P	Pn	04 00 22.2	-0.1
WRL	Guolierlin Hig	1.24	298	P	Pb	04 00 23.5	-1.0
WRL				S	Sb	04 00 39.7	-0.5
SSPT	Xinbi	1.24	228	*e*P	Pb	04 00 23.4	-1.1
SSPT				*e*S	Sb	04 00 39.9	-0.2
RLNB	Erlin	1.25	297	*e*P	Pb	04 00 23.7	-0.9
RLNB				*e*S	Sb	04 00 39.8	-0.6
CHN8	Yiju	1.25	272	P	Pb	04 00 23.9	-0.7
CHN8				*i* S	Sb	04 00 40.7	+0.3
WSL	Shuilin Townsh	1.25	280	*i* P	Pb	04 00 23.6	-1.0
WSL				*i* S	Sb	04 00 39.9	-0.5
EOS2	EOS2	1.25	29	*e*P	Pb	04 00 24.4	-0.2
TWQ1	Liyutan	1.26	325	⇓*i*P	Pb	04 00 24.9	+0.1
TWQ1				*i* S	Sb	04 00 41.3	+0.5
TAI1	Yung-k'ang	1.27	258	*e*S	Sb	04 00 41.7	+0.9
SNJT	Kaohsiung City	1.27	244	*e*S	Sb	04 00 43.8	+2.9
LAY	Lan-yu	1.27	181	⇑*i*P	Pn	04 00 22.4	-0.6
LAY				*e*S	Sn	04 00 39.0	+0.1
WSF	Szhu	1.28	285	*e*P	Pb	04 00 23.9	-1.2
WSF				*e*S	Sb	04 00 39.4	-1.9
NDT	Datong Townshi	1.28	358	*e*P	Pb	04 00 24.1	-1.0
NDT				*e*S	Sb	04 00 39.9	-1.4
SCZT	Fangliau	1.29	223	*i* P	Pn	04 00 23.6	+0.4
SCZT				*e*S	Sb	04 00 42.2	+0.8
WTCT	Ta-ch'eng	1.30	295	*e*P	Pb	04 00 24.5	-1.0
WTCT				*e*S	Sb	04 00 41.4	-0.5
SLIU	Shizi	1.31	213	*e*P	Pn	04 00 22.7	-0.7
LYUB	Lan-yu	1.31	179	P	Pn	04 00 22.1	-1.4
LYUB				*e*S	Sn	04 00 38.7	-1.1
TWC	Suao	1.31	11	*e*P	Pb	04 00 24.3	-1.3
NDS	Dongshan	1.32	6	*e*P	Pb	04 00 24.5	-1.3
WDJ	Dajia District	1.33	321	P	Pb	04 00 26.0	-0.1
WDJ				*i* S	Sb	04 00 43.9	+1.0
YHNB	Yeheng	1.36	353	P	Pb	04 00 25.6	-0.9
YHNB	Yeheng	1.36	353	S	Sb	04 00 42.3	-1.3
YHNB	Yeheng	1.36	353	Pn	Pb	04 00 24.9	-1.6
YHNB				Sn	Sn	04 00 41.5	+0.4
YHNB	Yeheng	1.36	353	*i* P	Pb	04 00 25.4	-1.1
YHNB				*i* S	Sb	04 00 42.1	-1.5
NSK	Sanguang	1.37	352	*e*P	Pb	04 00 25.4	-1.3
NSK				*e*S	Sb	04 00 42.2	-1.6
NFF	Wufeng Townshi	1.37	343	*e*P	Pb	04 00 26.1	-0.6
NFF				*e*S	Sb	04 00 44.0	0.0
TSCK	Chigu Township	1.38	263	P	Pb	04 00 25.8	-0.9
TSCK				*e*S	Sb	04 00 43.9	-0.1
WSSB	Gushan	1.38	241	*e*P	Pb	04 00 26.9	+0.1
WSSB				*e*S	Sb	04 00 45.1	+0.9
TWE	Neicheng	1.40	4	*e*P	Pn	04 00 25.5	+0.8
NSTT	Nanjuang	1.41	338	*e*P	Pb	04 00 26.9	-0.4
NSTT				*e*S	Sb	04 00 43.4	-1.5
NMLH	Miaoli	1.41	330	*e*P	Pb	04 00 26.6	-0.7
NMLH				*e*S	Sb	04 00 45.4	+0.4
LIOB	Emei	1.42	339	*i* P	Pb	04 00 27.1	-0.3
LIOB				*e*S	Sb	04 00 45.3	+0.1
FUSB	Fushanzhiwuyua	1.44	1	*e*P	Pn	04 00 26.1	+0.8
FUSB				*e*S	Sn	04 00 44.0	+0.9
NWLT	Wulai	1.46	358	P	Pb	04 00 26.6	-1.5
NWLT				*e*S	Sn	04 00 43.8	+0.3
SMST	Manzhou Townsh	1.46	208	*e*P	Pb	04 00 26.4	-1.7
SMST				*e*S	Sn	04 00 43.2	-0.2
WLCH	Liuqiu	1.46	229	*e*P	Pb	04 00 29.0	+0.8
TWP	Hsiaoliuchiu	1.48	229	*e*P	Pb	04 00 29.4	+1.0
KSHI	Guanxi Townshi	1.50	346	*e*P	Pb	04 00 28.9	+0.1
KSHI				*e*S	Sb	04 00 48.3	+0.8
HEN	Hengchun	1.52	211	*e*P	Pb	04 00 28.4	-0.7
HEN				*e*S	Sb	04 00 46.8	-1.1
TWKBT	Hengchun	1.54	207	*e*P	Pn	04 00 27.0	+0.4
TWKBT				*e*S	Sb	04 00 47.0	-1.6
TWK1	Hengchun	1.54	207	*e*P	Pn	04 00 26.6	-0.1
TWK1				*e*S	Sn	04 00 46.0	+0.5
TSEB	Hengchuen, Pin	1.54	204	*e*P	Pn	04 00 27.1	+0.4
TSEB				*e*S	Sn	04 00 46.1	+0.6
EGS		1.56	12	*e*P	Pb	04 00 29.1	-0.7
SBCB	Hsinchu	1.56	340	*e*P	Pb	04 00 28.6	-1.3
HSN	Hsinchu	1.58	340	*e*P	Pb	04 00 29.5	-0.6
HSN				*e*S	Sb	04 00 48.4	-1.3
NHDH	Xindian Distri	1.64	359	*e*P	Pb	04 00 29.7	-1.5
NHDH				*e*S	Sb	04 00 49.7	-1.8
TATO	Taipei	1.65	357	P	Pb	04 00 29.9	-1.5
TATO	Taipei	1.65	357	S	Sb	04 00 50.1	-1.8
TATO	Taipei	1.65	357		Pn	04 00 29.1	+0.9
TWA	Mucha	1.66	0	*e*P	Pb	04 00 29.6	-1.9
TIPB	Shuangxi	1.66	8	P	Pb	04 00 29.8	-1.9
TIPB				*e*S	Sb	04 00 51.0	-1.3
NCUH	Zhongli	1.68	348	*e*P	Pb	04 00 31.0	-0.9
NCUH				*e*S	Sb	04 00 53.0	+0.3
JYNG	Yonagunijimaku	1.69	48	*i* P	Pb	04 00 30.6	-1.5
JYNG				S	Sb	04 00 51.3	-1.7
TAP	Taipei	1.72	358	*e*S	Sb	04 00 51.5	-2.2
TWB1	Santiao Chiao	1.73	13	*e*P	Pb	04 00 31.5	-1.1
TWB1				*e*S	Sb	04 00 52.9	-1.2
YOJ	Yonaguni jima	1.74	49	P	Pb	04 00 31.4	-1.6
YOJ	Yonaguni jima	1.74	49	S	Sb	04 00 52.9	-1.6
YOJ	Yonaguni jima	1.74	49		Pn	04 00 30.8	+1.3
YOJ	Yonaguni jima	1.74	49	*i* P	Pb	04 00 31.6	-1.4
YOJ				S	Sb	04 00 52.8	-1.7
YOJ	Yonaguni jima	1.74	49	P	Pb	04 00 31.3	-1.6
YOJ				S	Sb	04 00 52.6	-1.9
WDGT	Dungji	1.76	269	*i* P	Pn	04 00 30.0	+0.4
WDGT				*i* S	Sn	04 00 50.1	-0.8
WFSB	Wu-fen Shan	1.76	6	*e*P	Pn	04 00 30.7	+1.1
TWS1	Kuangyinshan	1.78	356	*e*P	Pb	04 00 31.9	-1.7
TWS1				*e*S	Sb	04 00 54.2	-1.4
SXI1	Grass Mountain	1.79	9	*e*P	Pb	04 00 31.7	-2.1
YM01	YM01	1.82	360	*e*P	Pn	04 00 31.6	+1.0
YM01				*e*S	Sn	04 00 53.4	+0.9
TNOU	National Taiwa	1.83	6	*e*P	Pn	04 00 31.6	+0.9
TNOU				*e*S	Sn	04 00 54.4	+1.7
ZUZH	Zhuzihu	1.84	359	*i* P	Pn	04 00 31.9	+1.1
ZUZH				*e*S	Sn	04 00 53.5	+0.6
NTST	Danshui	1.84	357	*e*S	Sb	04 00 55.6	-1.7
PHUB	P'eng-hu	1.85	276	*i* P	Pn	04 00 31.3	+0.5
PHUB				*i* S	Sn	04 00 52.3	-0.7
ANP	Anpu	1.86	359	*e*P	Pn	04 00 31.6	+0.4
YM08	YM08	1.86	1	*e*P	Pn	04 00 32.0	+0.9
YM08				*e*S	Sn	04 00 54.4	+0.9
PNG	Penghu	1.87	278	*i* P	Pn	04 00 31.6	+0.5
PNG				*i* S	Sn	04 00 52.8	-0.8
TWY	Chenhua	1.95	1	*e*P	Pb	04 00 34.3	-2.2
VCHM	Qimei	1.97	267	*i* P	Pn	04 00 33.1	+0.5
VCHM				S	Sn	04 00 55.5	-0.7
HATJ	Hateruma jima	2.18	70	*e*P	Pn	04 00 37.0	+1.6
HATJ				A	A	04 00 37.0	
	comp=N,5.0nm,0.5s,comp=E,6.0nm,0.4s						
HATJ				S	Sn	04 01 03.0	+1.8
IRIF	Iriomote-Funau	2.22	62	*i* P	Pn	04 00 37.9	+1.9
IRIF				A	A	04 00 37.9	
	comp=N,6.0nm,1.8s,comp=E,5.0nm,2.0s						
IRIF				S	Sn	04 01 04.8	+2.4
PCYT	Pengchaiyu	2.35	11	*e*P	Pn	04 00 39.2	+1.4
PCYT				*e*S	Sn	04 01 08.0	+2.6
JKRS	Kuro-shima	2.42	67	P	Pn	04 00 40.8	+2.1
JKRS				S	Sn	04 01 09.3	+2.2
VWUC	VWUC	2.56	311	*i* P	Pn	04 00 41.1	+0.5
VWUC				*e*S	Sn	04 01 09.7	-0.8
JIJ	Ishigaki jima	2.58	66	*i* P	Pn	04 00 42.3	+1.4
JIJ				S	Sn	04 01 12.1	+1.0
JISG	Ishigakijimahi	2.81	63	P	Pn	04 00 45.5	+1.4
JISG				S	Sn	04 01 17.1	+0.3
PTMZ	Houxiangcun	2.82	308	*i* P	Pn	04 00 44.5	+0.2
PTMZ				*e*S	Sn	04 01 16.0	-1.1
KNM	Kinmen	3.07	291	*i* P	Pn	04 00 49.4	+1.7
KNM				*i* S	Sn	04 01 24.3	+1.0
KNMB	Chin-men Tao	3.13	292		Pn	04 00 48.4	-0.1
JTJ	Tarama	3.15	65	P	Pn	04 00 50.5	+1.6
JTJ				S	Sn	04 01 26.5	+1.2
QZH2	Quanzhou	3.16	301	Pn	Pb	04 00 53.4	-3.7
QZH2				Sn	Sb	04 01 31.3	-3.9
QZH2				AML	AML		
	comp=E,570nm,0.8s						
QZH2				AML	AML		
	comp=E,260nm,1.0s						
MATB	Ma-tsu	3.19	333	*i* P	Pn	04 00 49.7	+0.4
MATB				S	Sn	04 01 25.8	-0.3
ZPLA	Ao Xicun	3.56	281	*i* P	Pn	04 00 54.8	+0.4
ZPLA				S	Sn	04 01 33.6	-1.7
MHZQ	Yeshan	3.61	321	*e*P	Pn	04 00 56.0	+0.9
MHZQ				S	Sn	04 01 35.6	-0.9
LYJJ	Jianjiangzhen	3.61	333	*e*P	Pn	04 00 55.4	+0.2
LYJJ				*e*S	Sn	04 01 35.9	-0.8
JIRJ	Irabujima	3.64	65	P	Pn	04 00 56.8	+1.2
JIRJ				S	Sn	04 01 38.0	+0.7
AXDP	Jialang	3.65	296	*e*P	Pn	04 00 55.9	+0.2
AXDP				*e*S	Sn	04 01 36.8	-0.7
JMJ	Miyako jima 2	3.71	66	P	Pn	04 00 58.5	+1.9
JMJ2	Miyako jima3	3.72	67	P	Pn	04 00 58.6	+2.0
JMJ2				S	Sn	04 01 40.9	+1.7
JIKM	Ikemajima	3.72	64	S	Sn	04 01 40.2	+0.8
JOGS	Gusukube	3.79	67	P	Pn	04 00 59.6	+2.0
JOGS				S	Sn	04 01 43.0	+2.0
XPSS	Dashiqiu	3.81	341	*e*P	Pn	04 00 58.5	+0.6
XPSS				*i* S	Sn	04 01 41.4	-0.1
DSXP	Dongshan	3.82	277	*e*P	Pn	04 00 58.3	+0.2
SXFK	Yanhouchang	4.70	312	*e*P	Pn	04 01 10.2	0.0
HKPS	Hong Kong Po S	6.93	263		Pn	04 01 41.6	+0.8
JOW	Kunigami	7.01	59	Pn	Pn	04 01 41.2	-0.7
	comp=E,5.8nm,0.3s,baz=123,slow=20,SNR=24						
JOW				Sn	Sn	04 02 56.2	-4.3
	comp=E,4.7nm,0.3s,baz=106,slow=27,SNR=2.0 comp=E,17nm,0.3s						
JOW				AML	AML		
JOW	Kunigami	7.01	59	Pn	Pn	04 01 41.4	-0.5
JMZ	Minamidaito 2	9.13	72	Pn	Pn	04 02 09.9	-1.1
CNSH	ChangSha	9.17	304	P	Pn	04 02 12.8	+1.3
CNSH				S	Sn	04 03 50.3	-3.2
CNSH				SMN			
	comp=E,170nm,0.9s						
CNSH				SME			
	comp=E,200nm,1.0s						
WHN	Wuhan	9.66	320	⇓P	Pn	04 02 18.3	+0.1
WHN				S	Sn	04 04 02.0	-3.5
WHN				L	L		
	comp=E,2µm,12.3s						
QIZ	Qiongzhong	11.74	251	P	Pn	04 02 46.6	-0.2
QIZ				S	Sn	04 04 58.6	+1.9
QIZ				L	L		
	comp=E,220nm,12.2s						
QIZ				L	L		
	comp=E,200nm,14.7s						
QIZ				L	L		
	comp=E,330nm,16.7s						
QIZ	Qiongzhong	11.74	251	Pn	Pn	04 02 47.7	+1.0
JNU	Nakatsue	12.75	38	LR	LR	04 08 16.3	
	comp=E,94nm,21.0s,baz=212,slow=39						
PPR	Puerto Princes	13.74	192	*e*P	P	04 03 25.6	+3.4
KSRS	Korea Array	15.11	20	Pn	Pn	04 03 33.4	+0.9
	comp=E,0.3nm,0.3s,baz=198,slow=12,SNR=4.3						
KSRS				LR	LR	04 10 24.3	
	comp=E,89nm,18.7s,baz=195,slow=42 comp=E,1.6nm,0.7s						

KSRS				AML	AML		
HNS	HongShan	15.23	339	⇑P	P	04 03 37.5	-1.1
HNS				L	L		
	comp=E,240nm,15.3s						
HNS				L	L		
	comp=E,250nm,11.6s						
HNS				L	L		
	comp=E,290nm,15.5s						
XAN	Xi'an	15.39	317	P	Pn	04 03 35.8	-0.5
XAN				S	Sn	04 06 27.4	+1.7
XAN				L	L		
	comp=E,430nm,13.7s						
XAN				L	L		
	comp=E,740nm,16.5s						
DL2	Dalian	15.54	0	*e*P	P	04 03 50.0	+7.9
DL2				pmax	pmax		
	comp=Z,15nm,0.8s						
DAV	Davao City (W)	16.61	166	LR	LR	04 09 32.7	
	comp=Z,1µm,20.7s,baz=332,slow=35						
PZH	PanZhiHua	18.26	284	P	Pn	04 04 13.3	+0.8
HHC	Hu-ho-hao-te	19.40	337	*e*P	Pn	04 04 26.9	+0.7
HHC				pmax	pmax		
	comp=Z,7.0nm,0.6s						
MJAR	Matsushiro Arr	19.50	44	P	P	04 04 24.9	-1.0
	comp=Z,0.1nm,0.3s,baz=230,slow=8.0,SNR=5.0						
	comp=Z,1.0nm,0.6s						
MJAR				AML	AML		
MJAR	Matsushiro Arr	19.50	44	P	P	04 04 25.1	-0.7
LZH	Lanzhou	19.93	314	*e*P	P	04 04 31.3	+0.5
LZH				pP	sP	04 04 45.8	+3.4
LZH				pmax	pmax		
	comp=Z,17nm,1.0s						
LZH				L	L		
	comp=Z,310nm,12.9s						
LZH				L	L		
	comp=Z,350nm,11.2s						
LZH				L	L		
	comp=Z,540nm,13.9s						
LZDM	Lanzhou Array	19.96	313	P	Pn	04 04 31.9	-1.2
	comp=Z,0.8nm,0.3s,baz=159,slow=12,SNR=1.2						
LZDM				LR	LR	04 12 35.7	
	comp=Z,129nm,21.8s,baz=145,slow=38						
	comp=Z,0.8nm,0.3s						
BTO2	Baotou	19.97	333	*e*P	Pn	04 04 33.4	+0.5
BTO2				pP	sP	04 04 42.1	-0.7
BTO2				sP	pP	04 04 46.5	+6.4
BTO2				S	S	04 08 12.3	-1.7
BTO2				pmax	pmax		
	comp=Z,19nm,0.9s						
BTO2				pmax	pmax		
	comp=Z,140nm,6.4s						
BTO2				L	L		
	comp=Z,570nm,13.8s						
BTO2				L	L		
	comp=Z,450nm,13.1s						
BTO2				L	L		
	comp=Z,930nm,16.7s						
CN2	Changchun	20.68	8	*e*P	Pn	04 04 40.3	-0.8
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
CMAR	Chiang Mai Arr	21.68	261	P	P	04 04 50.6	+1.1
	comp=Z,0.8nm,0.3s,baz=68,slow=8.3,SNR=8.9						
	comp=Z,0.8nm,0.3s						
CMAR	Chiang Mai Arr	21.68	261	P	P	04 04 50.0	+0.4
USRK	Ussuriysk Ar.	22.52	20	P	P	04 04 58.1	-0.3
	comp=Z,5.1nm,1.1s,baz=210,slow=11,SNR=1.9						
	comp=Z,5.1nm,1.1s						
USRK	Ussuriysk Ar.	22.52	20	P	P	04 04 58.5	+0.1
SBUM	Sibu	22.64	205		P	04 05 00.1	+0.3
SONM	Songino Array	27.30	337	P	P	04 05 43.6	+0.5
	comp=Z,0.7nm,0.6s,baz=157,slow=10,SNR=4.0						
	comp=Z,0.7nm,0.6s						
SONM	Songino Array	27.30	337	P	P	04 05 43.1	0.0
JAY	Jayapura	31.73	141	LR	LR	04 17 34.2	
	comp=Z,310nm,20.7s,baz=332,slow=33						
BBJI	Bungbulang	33.48	206	P	P	04 06 37.5	-0.5
WMQ	Urumqi	34.51	315	*e*P	P	04 06 49.1	+2.4
WMQ				L	L		
	comp=Z,61nm,14.7s						
MKAR	Makanchi Array	39.21	317	P	P	04 07 27.9	+1.4
	comp=Z,2.6nm,0.7s,baz=109,slow=10,SNR=23						
	comp=Z,2.6nm,0.7s						
MKAR	Makanchi Array	39.21	317	P	P	04 07 27.0	+0.5
MAKZ	Makanchi	39.41	316		P	04 07 28.9	+0.7
PETK	Petropavlovsk-	40.39	33	P	P	04 07 37.2	+1.0
	comp=Z,1.7nm,0.6s,baz=232,slow=6.8,SNR=2.4						
	comp=Z,1.7nm,0.6s						
PETK	Petropavlovsk-	40.39	33	P	P	04 07 36.5	+0.3
ZAA0	Zalesovo Array	41.16	327		P	04 07 42.9	+0.4
ZAA0				IAmb	IAmb	04 07 44.4	
	comp=Z,2.9nm,0.7s						
ZALV	Zalesovo Beam	41.16	327	P	P	04 07 43.2	+0.7
	comp=Z,2.4nm,0.4s,baz=118,slow=8.3,SNR=12						
	comp=Z,2.4nm,0.4s						
ZALV	Zalesovo Beam	41.16	327		P	04 07 43.0	+0.5
FITZ	Fitzroy Crossi	41.35	174	P	P	04 07 42.9	-1.6
KSH2	Kashi	41.93	303	P	P	04 07 52.9	+3.6
KSH2				pmax	pmax		
	comp=Z,4.0nm,1.0s						
H11N1	WAKE ISLAND Hy	42.19	86	T	T	04 52 59.6	
	baz=283,slow=74,SNR=209						
H11N2	WAKE ISLAND Hy	42.19	86	T	T	04 52 59.7	
	baz=283,slow=74,SNR=221						
H11N3	WAKE ISLAND Hy	42.20	86	T	T	04 53 00.9	
	baz=283,slow=74,SNR=231						
H11S3	WAKE ISLAND Hy	42.29	88	T	T	04 53 12.4	
	baz=284,slow=75,SNR=307						
H11S1	WAKE ISLAND Hy	42.30	88	T	T	04 53 19.8	
	baz=284,slow=75,SNR=232						
H11S2	WAKE ISLAND Hy	42.31	88	T	T	04 53 13.4	
	baz=284,slow=75,SNR=234						
KURK	Kurchatov	42.98	321	P	P	04 07 57.1	-0.3
KURK				IAmb	IAmb	04 08 01.4	
	comp=Z,3.0nm,0.4s						
KURBB	Kurchatov Arra	43.00	320	P	P	04 07 58.8	+1.2
	comp=Z,1.0nm,0.4s,baz=112,slow=8.6,SNR=13						
	comp=Z,1.0nm,0.4s						
NIL	Nilore	43.36	295	P	P	04 07 59.0	-1.8
WB0	Warramunga Arr	44.61	163	P	P	04 08 09.6	-1.3
WB0				IAmb	IAmb	04 08 39.7	
	comp=Z,9.1nm,1.5s						
WRA	Warramunga Arr	44.77	163	P	P	04 08 11.3	-0.8
	comp=Z,1.0nm,0.6s,baz=346,slow=8.7,SNR=14						
	comp=Z,1.0nm,0.6s						
WRA	Warramunga Arr	44.77	163	P	P	04 08 10.9	-1.1
WR8	Warramunga Arr	44.82	163	P	P	04 08 11.4	-1.1
WR8				IAmb	IAmb	04 08 18.6	
	comp=Z,5.0nm,1.0s						
GIRL	Giralia	46.24	189	P	P	04 08 24.5	+0.9
KKAR	Karatay Array	46.28	308	P	P	04 08 24.1	+0.2
ASAR	Alice Springs	48.22	165	P	P	04 08 39.0	-0.1
	comp=Z,1.0nm,0.4s,baz=336,slow=6.5,SNR=12						
	comp=Z,1.0nm,0.4s						
ASAR	Alice Springs	48.22	165	P	P	04 08 38.9	-0.3
BVAR	Borovoye Array	48.57	321	P	P	04 08 42.5	+1.0
	comp=Z,1.1nm,0.3s,baz=101,slow=7.4,SNR=6.3						
	comp=Z,1.1nm,0.3s						
FORT	Forrest	54.15	173	P	P	04 09 23.6	+0.1
FORT				IAmb	IAmb	04 09 39.4	
	comp=Z,8.2nm,0.9s						
AB31	Akbulak array	54.30	315		P	04 09 25.8	+1.3
AB31				IAmb	IAmb	04 09 30.8	
	comp=Z,1.6nm,0.8s						
ABKAR	Akbulak array	54.30	315		P	04 09 25.8	+1.3
ABKAR				PcP	PcP	04 10 27.0	-1.3
STKA	Stephens Creek	58.13	160	P	P	04 09 51.4	-0.6
	comp=Z,3.1nm,0.8s,baz=349,slow=12,SNR=3.7						
STKA				LR	LR	04 37 01.4	
	comp=Z,67nm,21.8s,baz=24,slow=38						
	comp=Z,3.1nm,0.8s						
F24K	Squaw Lake	68.90	24		P	04 11 04.0	+1.2
F24K				IAmb	IAmb	04 11 16.1	
	comp=Z,5.7nm,0.9s						
ILAR	Eielson Array	69.82	27	P	P	04 11 08.2	-0.2
	comp=Z,0.4nm,0.5s,baz=297,slow=6.7,SNR=9.9						
	comp=Z,0.4nm,0.5s						
ILAR	Eielson Array	69.82	27	P	P	04 11 08.5	0.0
ARCES	ARCESS Array B	70.47	338	P	P	04 11 12.6	+0.2
	comp=Z,4.4nm,1.0s,baz=54,slow=4.6,SNR=3.9						
	comp=Z,4.4nm,1.0s						
ARCES	ARCESS Array B	70.47	338	P	P	04 11 12.1	-0.2
FINES	FINESS Array B	72.37	330	P	P	04 11 24.1	+0.2
	comp=Z,3.8nm,0.5s,baz=46,slow=6.2,SNR=28						
	comp=Z,3.8nm,0.5s						
FINES	FINESS Array B	72.37	330	P	P	04 11 23.8	-0.1
AKASG	Malin Array Be	73.75	319	P	P	04 11 32.5	+0.2
	comp=Z,0.5nm,0.3s,baz=62,slow=5.9,SNR=3.4						
	comp=Z,0.5nm,0.3s						
BRTR	Keskin Array B	73.97	307	P	P	04 11 34.5	+0.5
	comp=Z,1.1nm,0.6s,baz=100,slow=5.1,SNR=7.2						
	comp=Z,1.1nm,0.6s						
BRTR	Keskin Array B	73.97	307	P	P	04 11 33.3	-0.7
BURAR	Bucovina Array	77.23	316	P	P	04 11 53.5	+1.1
R32K	Eaglecrest	77.45	32	P	P	04 11 53.6	+0.3
MLR	Muntele Rosu	77.50	314	P	P	04 11 54.1	0.0
MLR				IAmb	IAmb	04 11 56.7	
	comp=Z,4.2nm,0.8s						
HFS	Hagfors	78.49	331	P	P	04 11 59.0	0.0
	comp=Z,2.2nm,0.6s,baz=50,slow=4.6,SNR=7.7						
	comp=Z,2.2nm,0.6s						
NC405	NORSAR Array S	78.90	332	P	P	04 12 00.8	-0.5
NC405				IAmb	IAmb	04 12 02.1	
	comp=Z,10.0nm,0.9s						
NC303	NORSAR Array S	79.00	332	P	P	04 12 01.6	-0.3
NC303				IAmb	IAmb	04 12 23.6	
	comp=Z,20nm,1.3s						
NB201	NORSAR Array S	79.11	332	P	P	04 12 02.4	-0.2
NB201				IAmb	IAmb	04 12 21.1	
	comp=Z,17nm,1.3s						
NB2	NORSAR Subarra	79.15	332	P	P	04 12 02.4	-0.3
	comp=Z,1.6nm,0.5s,baz=55,slow=6.2						
NOA	NORSAR Array B	79.15	332	P	P	04 12 02.4	-0.3
	comp=Z,2.4nm,0.7s,baz=58,slow=5.6,SNR=12						
	comp=Z,2.4nm,0.7s						
NC204	NORSAR Array S	79.23	333	P	P	04 12 02.6	-0.6
NC204				IAmb	IAmb	04 12 46.8	
	comp=Z,16nm,1.3s						
CLL	Collm	82.95	323	*i* P	P	04 12 23.3	+0.2
	comp=Z,7.0nm,1.0s						
GERES	GERESS Array B	83.73	321	P	P	04 12 27.8	+0.4
	comp=Z,2.4nm,0.7s,baz=58,slow=3.3,SNR=18						
	comp=Z,2.4nm,0.7s						
GERES	GERESS Array B	83.73	321	P	P	04 12 27.3	0.0
FUORN	Ofenpass-Fuorn	86.85	320	P	P	04 12 42.2	-1.0
FUORN				IAmb	IAmb	04 13 08.6	
	comp=Z,3.2nm,0.9s						
ESK	Eskdalemuir	88.67	332	P	P	04 12 51.0	-0.4
PPT2	Papeete2	95.78	107	*e*LR	LR	04 44 17.1	
	comp=Z,135nm,26.5s						
PPT2				*e*LR	LR	04 44 21.7	
	comp=Z,69nm,23.8s						
VNA2	Neumayer--Watz	124.18	198	⇑PKPdf	PKPdf	04 18 55.7	-0.2
	comp=Z,2.0nm,0.6s,baz=113,slow=1.8						
VNA3	Neumayer Olymp	124.64	197	⇑PKPdf	PKPdf	04 18 56.3	-0.5
	comp=Z,1.3nm,0.7s						

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*MEX **23** 04:01:41.1±0.4, 14°.79N×92°.31W, h96^{km}±4^{km}, MD3.5, Presumed earthquake*

*GCG **23** 04:01:42.0±0.6, 14°.92N×92°.19W, h79^{km}±6^{km}, MD3.3, Presumed earthquake*

ISC 23 04:01:39.1±4.4, **14°.9N**±0°.2×**92°.1W**±0°.2, **h101**^{km}±26^{km}, **n7**, σ**1^s.35**/14, **Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SMCA	Catarina	0.03	191	*i* P	Pn	04 01 53.3	+0.2
SMCA				*i* S	Sn	04 02 02.5	-1.0
THIG		0.19	278	*e*P	Pn	04 01 53.2	-0.1
THIG				*e*S	Sn	04 02 02.6	-1.4
CHUJ	Union Juarez	0.21	350	*e*P	Pn	04 01 54.4	+0.6
CHUJ				*e*S	Sn	04 02 05.0	+0.3
PATR	El Naranjo	0.28	326	*e*P	Pn	04 01 53.9	-0.1
PATR				*e*S	Sn	04 02 04.1	-1.0
PAVE	Pavencul	0.33	342	*e*P	Pn	04 01 55.0	+0.8
PAVE				*e*S	Sn	04 02 05.9	+0.4
RTAL	Retalhuleu	0.51	134	*e*P	Pn	04 01 57.0	+2.0
RTAL				*e*S	Sn	04 02 08.6	+1.7
STG8	El Palmar, Qui	0.82	122	*i* P	Pn	04 01 57.4	-0.6
STG8				*i* S	Sn	04 02 09.7	-2.4

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*IDC **23** 04:05:52.4±0.6, 12°.06N×123°.86E, h0^{km}, mb4.2/23, mbtmp4.2/24, ML3.9/1, MS3.7/34, Error ellipse: s-maj=24.0km s-min=13.6km az=75.0*

*MAN **23** 04:05:53.0, 12°.16N×123°.91E, h11^{km}, MS4.5*

MAN INTENSITY IV - CATAINGAN DIMASALANG AND PALANAS MASBATE; . INTENSITY III - MASBATE CITY; . INTENSITY II - CAWAYAN MASBATE; BULAN BULUSAN IROSIN AND MAGALLANES SORSOGON; SORSOGON CITY; LEGAZPI CITY.

*NEIC **23** 04:05:54.7±1.6, 12°.16N±0°.07×123°.9E±0°.1, h10^{km}±1^{km}, mb4.5/14, Error ellipse: s-maj=18.5km s-min=11.9km az=252.0*

*GCMT **23** 04:05:56.7±0.4, 12°.16N±0°.02×123°.92E±0°.03, h22^{km}±2^{km}, MW4.8/78, Moment Tensor Solution. s6,c6; s78,c109; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}0.32±.12; $M_{\theta\theta}$1.44±.08; $M_{\phi\phi}$-1.76±.10; $M_{r\theta}$-0.69±.15; $M_{\theta\phi}$-0.45±.07; $M_{\phi r}$0.35±.15; Best double couple: $M_0$1.85500×10^{16} NP1:ϕ_s230.00000°, δ67.00000°, λ166.00000°. NP2: ϕ_s326.00000°, δ77.00000°, λ24.00000°. Principal axes: T 1.8560, Plg26.0000°, Azm190.0000°; N -0.0020, Plg63.0000°, Azm352.0000°; P -1.8540, Plg7.0000°, Azm96.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*DJA **23** 04:06:09.4±2.6, 12°N±20°×12°4E±°, h68^{km}±17^{km}, M4.9/9, mB5.7/5, mB6.0/4, mb4.6/9, mb4.6/8, Mw(mB)5.6/4, Mw(mB)5.2/5*

ISC 23 04:05:55.3±1.1, **12°.16N**±0°.03×**123°.89E**±0°.04, **h14**^{km}±6^{km}, **n147**, σ**1^s.84**/139, **mb4.5**/40, **MS3.7**/36, **1D, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MMPH	Masbate	0.33	307	*e*P	Pg	04 06 01.3	-0.7
MMPH				*i* S	Sg	04 06 06.4	-0.1
PLP	Palo	1.46	133	*e*P	Pn	04 06 19.2	-1.9
PLP				*e*S	Sg	04 06 40.8	-1.4
IBAJ	Ibajay, Aklan	1.71	259	*i* P	Pn	04 06 23.8	-0.9
IBAJ				*e*S	Sn	04 06 45.8	-0.5
LLP	Lapu-Lapu	1.83	178	*e*P	Pn	04 06 24.5	-1.8
LLP				*e*S	Sn	04 06 48.4	-0.9
GUIM	Jordan	1.99	220	*i* P	Pn	04 06 29.8	+1.3
GUIM				*i* S	Sb	04 06 55.1	-0.7
GQP	Guinayangan	2.23	321	*e*P	Pn	04 06 31.1	-0.7
GQP				*i* S	Sb	04 07 01.9	-1.0
JAP	San Jose, Anti	2.37	234	*e*P	Pb	04 06 35.8	-1.8
JAP				*e*S	Sb	04 07 06.4	-0.2
TBP	Tagbilaran	2.45	181	*i* P	Pn	04 06 33.2	-1.6
TBP				*i* S	Sg	04 07 14.7	+0.5
SNPH	Sibulan	2.87	193	*e*P	Pn	04 06 39.2	-1.4
SNPH				*e*S	Sg	04 07 27.2	-0.4
LQP	Lukban	3.00	311	*e*P	Pn	04 06 42.5	0.0
LQP				*e*S	Sb	04 07 24.6	-0.5
LSIP	Lazi, Siquijor	3.02	185	*i* P	Pn	04 06 41.0	-1.6
LSIP				*i* S	Sn	04 07 20.8	+2.2
TGY	Tagaytay City	3.46	304	*e*P	Pn	04 06 49.9	+1.1
DCPH	Dipolog City	3.59	188	*i* P	Pn	04 06 48.6	-1.9
DCPH				*i* S	Sn	04 07 31.5	-1.3
PCPS	Palayan City	3.70	312	*e*P	Pb	04 07 02.4	+1.9
PCPS				*e*S	Sg	04 08 15.7	+21
QVPH	Quezon City--P	3.70	312	*i* P	Pb	04 07 00.1	-0.3
QVPH				*e*S	Sg	04 07 55.2	+0.9
CGP	Cagayan de Oro	3.77	168	*e*P	Pn	04 06 51.0	-1.9
CGP				*e*S	Sn	04 07 37.4	+0.4
PAGZ	Pagadian	4.31	187	*i* P	Pn	04 07 00.2	-0.2
PAGZ				*e*S	Sn	04 07 50.4	-0.2
BUKP	Musuan	4.41	165	*e*P	Pn	04 07 03.2	+1.4
BUKP				*e*S	Sb	04 08 06.4	+0.8
BIPH	Bislig	4.64	148	*e*P	Pn	04 07 04.6	-0.3
BIPH				*e*S	Sn	04 07 49.0	-10
CTBH	Cotabato--PC H	4.92	176	*i* P	Pn	04 07 08.5	-0.3
PALP	Palanan	5.08	344	*e*P	Pb	04 07 22.9	-1.0
PALP				*i* S	Sn	04 08 09.5	+0.1
KCP	Kidapawan	5.25	167	*i* P	Pn	04 07 10.5	-3.0
DMPH	Davao City--Mi	5.29	162	*e*P	Pb	04 07 30.7	+3.1
DMPH				*i* S	Sg	04 08 52.0	+6.7
DAV	Davao City (W)	5.33	162	Pn	Pn	04 07 13.0	-1.4
PPR	Puerto Princes	5.59	245	*i* P	Pn	04 07 19.5	+1.5
SZP	Santa	6.30	329	Pn	Pn	04 07 27.6	-0.2
SIPP	Brgy, Tapao	6.62	330	*e*P	Pn	04 07 34.1	+2.0
SIPP				*e*S	Sn	04 08 53.1	+5.7
MYLDM	Lahad Datu	8.74	218		Pn	04 08 02.8	+1.5
MYLDM	Lahad Datu	8.74	218	P	Pn	04 08 05.8	+4.5
	70nm,0.9s,70nm,0.9s						
SIJI	Sorong	14.87	150	LR	LR	04 15 04.0	
	comp=Z,334nm,21.0s,baz=265,slow=37						
SBUM	Sibu	15.06	231	Pn	Pn	04 09 28.2	+0.5
SBUM	Sibu	15.06	231	P	P	04 09 30.6	-2.4
QIZ	Qiongzhong	15.15	299	P	Pn	04 09 27.8	-1.1
QIZ				S	Sn	04 12 16.4	-0.2
QIZ				LR	LR		
	comp=N,150nm,9.3s						
QIZ				LR	LR		
	comp=E,170nm,10.5s						
QIZ				LR	LR		
	comp=Z,390nm,15.3s						
KAPI	Kappang	17.55	194	P	Pn	04 09 57.9	-1.7
	comp=Z,0.4nm,0.3s,baz=81,slow=3.6,SNR=5.3						
	comp=Z,15nm,0.9s						
KAPI				AML	AML		
KAPI	Kappang	17.55	194	P	P	04 10 00.2	-0.4
KAPI				IAmb	IAmb	04 10 01.9	
	comp=Z,31nm,1.1s						
KAPI	Kappang	17.55	194	P	P	04 10 01.8	+1.2
	comp=Z,13nm,1.2s						
GUMO	Guam	20.50	84	LR	LR	04 16 58.3	
	comp=Z,128nm,20.9s,baz=262,slow=32						
EDFI	Ende, Flores	20.89	186	P	Pn	04 10 39.7	-0.1
	comp=Z,30nm,0.9s,comp=Z,30nm,0.9s						
JNU	Nakatsue	21.82	16	LR	LR	04 19 26.7	
	comp=Z,91nm,19.8s,baz=200,slow=37						
SNJI	Sawahan-Nganju	23.19	212	P	P	04 11 05.8	+3.8
CMAR	Chiang Mai Arr	24.84	288	P	P	04 11 17.4	-0.1
	comp=Z,5.7nm,0.8s,baz=100,slow=7.9,SNR=20						
CMAR				LR	LR	04 21 51.1	
	comp=Z,67nm,20.7s,baz=100,slow=39						
	comp=Z,5.7nm,0.8s						
CMAR	Chiang Mai Arr	24.84	288		P	04 11 15.8	-1.6
LEM	Lembang	24.85	221	LR	LR	04 21 34.0	
	comp=Z,153nm,18.1s,baz=244,slow=38						
KSRS	Korea Array	25.45	7	P	P	04 11 22.1	-0.5
	comp=Z,2.8nm,0.8s,baz=182,slow=9.2,SNR=7.4						
KSRS				LR	LR	04 21 20.4	
	comp=Z,137nm,20.8s,baz=190,slow=36						
	comp=Z,2.8nm,0.8s						
XAN	Xi'an	25.70	330	P	P	04 11 24.1	-1.0
XAN				pmax	pmax		
	comp=Z,22nm,0.7s						
XAN				LR	LR		
	comp=N,380nm,23.4s						
XAN				LR	LR		
	comp=E,540nm,23.4s						
XAN				LR	LR		
	comp=Z,420nm,17.2s						
MJAR	Matsushiro Arr	27.49	26	P	P	04 11 40.9	-0.3
	comp=Z,0.7nm,0.3s,baz=114,slow=5.2,SNR=1.9						
MJAR				LR	LR	04 21 32.7	
	comp=Z,76nm,19.9s,baz=216,slow=34						
	comp=Z,0.7nm,0.3s						
MJAR	Matsushiro Arr	27.49	26	P	P	04 11 40.9	-0.3
LZDM	Lanzhou Array	29.89	326	P	P	04 12 02.0	-0.9
	comp=Z,0.7nm,0.3s,baz=160,slow=4.7,SNR=4.0						
LZDM				LR	LR	04 24 01.4	
	comp=Z,104nm,20.2s,baz=260,slow=36						
	comp=Z,0.7nm,0.3s						
LZH	Lanzhou	29.91	326	*e*P	P	04 12 03.6	+0.7
LZH				sP	sP	04 12 13.6	+4.5
LZH				pmax	pmax		
	comp=Z,15nm,1.1s						
LZH				LR	LR		
	comp=N,770nm,19.8s						
LZH				LR	LR		
	comp=E,600nm,19.1s						
LZH				LR	LR		
	comp=Z,190nm,19.9s						
BRDH	Bariadhala	32.42	293	LR	LR	04 25 41.0	
	comp=Z,150nm,20.1s,baz=140,slow=37						
USRK	Ussuriysk Ar.	32.68	11	P	P	04 12 26.8	-0.2
	comp=Z,3.9nm,0.8s,baz=175,slow=7.1,SNR=6.4						
USRK				LR	LR	04 24 44.4	
	comp=Z,92nm,21.8s,baz=187,slow=34						
	comp=Z,3.9nm,0.8s						
USRK	Ussuriysk Ar.	32.68	11	P	P	04 12 27.0	0.0
WRA	Warramunga Arr	33.52	162	P	P	04 12 32.6	-2.0
	comp=Z,1.2nm,0.6s,baz=342,slow=9.1,SNR=11						
	comp=Z,1.2nm,0.6s						
WRA	Warramunga Arr	33.52	162	P	P	04 12 33.9	-0.6
WR8	Warramunga Arr	33.58	162	P	P	04 12 35.4	+0.3
WR8				IAmb	IAmb	04 12 40.5	
	comp=Z,7.8nm,1.2s						
WR8				PcP	PcP	04 15 12.7	-2.9
BNX	BinXian	33.60	4	⇓P	P	04 12 34.3	-0.7
BNX				pmax	pmax		
	comp=Z,8.0nm,0.7s						
GTA2	Gaotai	34.60	326	*e*P	P	04 12 44.3	+0.4
GTA2				pP	pP	04 12 48.1	-0.3
GTA2				pmax	pmax		
	comp=Z,7.0nm,1.0s						
GTA2				LR	LR		
	comp=N,190nm,14.3s						
GTA2				LR	LR		
	comp=E,320nm,14.9s						
GTA2				LR	LR		
	comp=Z,390nm,14.9s						
GOMU	GeErMu	35.48	317	P	P	04 12 51.6	-0.3
GOMU				pP	pP	04 12 55.1	-1.2
GOMU				sP	sP	04 12 59.3	+1.2
GOMU				pmax	pmax		
	comp=Z,4.0nm,0.6s						
ASAR	Alice Springs	36.93	165	P	P	04 13 02.5	-1.4
	comp=Z,2.3nm,0.6s,baz=342,slow=6.7,SNR=19						
	comp=Z,2.3nm,0.6s						
ASAR	Alice Springs	36.93	165	P	P	04 13 02.0	-1.9
HILR	Hailar Array B	37.44	356	P	P	04 13 08.2	+0.1
	comp=Z,0.5nm,0.3s,baz=181,slow=12,SNR=1.8						
	comp=Z,0.5nm,0.3s						
SONM	Songino Array	38.46	341	P	P	04 13 16.7	-0.1
	comp=Z,1.8nm,1.1s,baz=158,slow=9.4,SNR=5.7						
SONM				LR	LR	04 29 22.8	
	comp=Z,153nm,21.0s,baz=132,slow=37						
	comp=Z,1.8nm,1.1s						
SONM	Songino Array	38.46	341	P	P	04 13 16.0	-0.8
SONM				IAmb	IAmb	04 13 40.8	
	comp=Z,5.2nm,1.4s						
CTA	Charters Tower	38.88	145	LR	LR	04 29 42.8	
	comp=Z,72nm,21.9s,baz=349,slow=37						
HNR	Honiara	41.77	119	LR	LR	04 28 15.4	
	comp=Z,151nm,21.8s,baz=28,slow=32						
TLY	Talaya	42.69	341	LR	LR	04 32 25.2	
	comp=Z,87nm,21.2s,baz=142,slow=37						
PALK	Pallekele	42.81	268	LR	LR	04 31 19.5	
	comp=Z,86nm,21.5s,baz=82,slow=36						
INKA	Innaminka	42.90	158	P	P	04 13 52.0	-1.5
INKA				IAmb	IAmb	04 13 59.8	
	comp=Z,13nm,1.2s						
STKA	Stephens Creek	46.96	159	P	P	04 14 24.5	-1.3
	comp=Z,1.2nm,0.3s,baz=286,slow=8.2,SNR=3.5						
	comp=Z,1.2nm,0.3s						
ZSN	Zaisan	47.99	325	*e*P	P	04 14 38.5	+4.8
PETK	Petropavlovsk-	48.94	26	P	P	04 14 41.3	+0.4
	comp=Z,0.9nm,0.4s,baz=255,slow=5.5,SNR=4.1						
	comp=Z,0.9nm,0.4s						
PETK	Petropavlovsk-	48.94	26	P	P	04 14 40.3	-0.6
MKAR	Makanchi Array	49.12	323	P	P	04 14 42.7	+0.3
	comp=Z,4.0nm,0.9s,baz=120,slow=8.9,SNR=17						
	comp=Z,4.0nm,0.9s						
SHLS	Shalkode	49.18	317	*e*P	P	04 14 45.0	+1.9
	comp=Z,4.0nm,1.1s						
MAKZ	Makanchi	49.31	323		P	04 14 43.1	-0.8
MAKZ				IAmb	IAmb	04 14 48.5	
	comp=Z,5.8nm,1.2s						
UZB	Uzynbulak	49.47	317	*e*P	P	04 14 49.3	+4.0
	comp=Z,6.3nm,1.1s						
SATY	Saty	49.84	317	*e*P	P	04 14 52.0	+3.9
YAK	Yakutsk	49.97	4	LR	LR	04 37 27.1	
	comp=Z,60nm,19.8s,baz=196,slow=38						
KSH2	Kashi	50.42	311	P	P	04 14 54.8	+2.2
KSH2				pmax	pmax		
	comp=Z,6.0nm,0.8s						
TDK	Taldyqorghan	50.66	319	*e*P	P	04 14 58.5	+4.3
MDOK	Medeo	50.80	316	*e*P	P	04 14 59.3	+3.9
TNSS	Tian-Shan	50.81	316	*e*P	P	04 14 59.3	+3.4
AAA	Alma-Ata	50.90	316	*e*P	P	04 15 00.3	+4.2
KUU	Kurty	51.55	317	*e*P	P	04 15 05.2	+4.3
	comp=Z,7.1nm,0.9s						
ZALV	Zalesovo Beam	51.86	332	P	P	04 15 03.0	0.0
	comp=Z,0.6nm,0.3s,baz=115,slow=10.0,SNR=4.6						
	comp=Z,0.6nm,0.3s						
ZALV	Zalesovo Beam	51.86	332	P	P	04 15 02.3	-0.6
SGDS	Sogindy	52.54	316	*e*P	P	04 15 11.8	+3.5
KURK	Kurchatov	53.20	326		P	04 15 13.1	+0.2
KURBB	Kurchatov Arra	53.20	326	P	P	04 15 13.1	+0.1

	comp=Z,4.6nm,1.0s,baz=124,slow=7.2,SNR=13						
	comp=Z,4.6nm,1.0s						
DZM	Mont Dzumac	53.85	129	LR	LR	04 38 17.3	
	comp=Z,56nm,19.1s,baz=340,slow=36						
DZA	Taraz	54.63	314	eP	P	04 15 27.4	+3.8
KK31	Karatay Array	55.27	314		P	04 15 28.1	-0.1
KK31				IAmb	IAmb	04 15 33.0	
	comp=Z,8.2nm,1.0s						
KKAR	Karatay Array	55.27	314		P	04 15 28.4	+0.2
IUG	Iuzhnay	55.33	313	eP	P	04 15 32.5	+3.7
	comp=Z,4.6nm,1.0s						
CHM	Chimkent	55.69	313	eP	P	04 15 35.3	+4.1
BRLS	Borolday	55.72	314	eP	P	04 15 35.4	+3.9
SHEM	Shemya Is, Ala	56.86	34	LR	LR	04 38 36.9	
	comp=Z,18nm,18.7s,baz=129,slow=34						
BVAR	Borovoye Array	58.79	325	P	P	04 15 52.4	-0.6
	comp=Z,2.1nm,0.8s,baz=143,slow=5.2,SNR=6.1						
	comp=Z,2.1nm,0.8s						
TIXI	Tiksi	59.53	2	LR	LR	04 44 39.5	
	comp=Z,96nm,18.1s,baz=187,slow=39						
NRIK	Noril'sk	61.62	346	LR	LR	04 44 40.1	
	comp=Z,112nm,19.2s,baz=147,slow=38						
AB31	Akbulak array	63.93	319		P	04 16 27.1	-0.7
ABKAR	Akbulak array	63.93	319		P	04 16 26.9	-0.8
AKTO	Aktyubinsk	65.38	320	LR	LR	04 44 54.4	
	comp=Z,85nm,20.8s,baz=140,slow=36						
KIRV	Kirov	71.61	328	LR	LR	04 48 37.0	
	comp=Z,83nm,19.4s,baz=91,slow=36						
GNI	Garni	74.00	308	LR	LR	04 54 22.1	
	comp=Z,29nm,18.8s,baz=74,slow=39						
KBZ	Khabaz	75.22	312	P	P	04 17 37.1	-0.4
	comp=Z,3.3nm,0.8s,baz=66,slow=4.0,SNR=6.4						
	comp=Z,3.3nm,0.8s						
KIV	Kislovodsk	75.36	312	P	P	04 17 40.1	+1.6
	comp=Z,15nm,0.9s						
ILAR	Eielson Array	78.77	26	P	P	04 17 59.1	+1.9
	comp=Z,0.7nm,0.8s,baz=255,slow=6.2,SNR=4.4						
	comp=Z,0.7nm,0.8s						
ILAR	Eielson Array	78.77	26	P	P	04 17 57.8	+0.6
ASF	Jabal al Asfar	81.12	301	LR	LR	04 58 17.7	
	comp=Z,22nm,20.1s,baz=26,slow=39						
F28M	Old Crow	81.22	23	P	P	04 18 10.8	+0.4
F28M				IAmb	IAmb	04 18 18.1	
	comp=Z,7.7nm,1.1s						
ARCES	ARCESS Array B	81.62	339	LR	LR	04 56 08.4	
	comp=Z,30nm,19.3s,baz=96,slow=37						
BRTR	Keskin Array B	82.53	309	P	P	04 18 17.6	-0.4
	comp=Z,0.6nm,0.8s,baz=115,slow=3.5,SNR=4.7						
BRTR				LR	LR	05 00 48.6	
	comp=Z,32nm,18.0s,baz=54,slow=40						
	comp=Z,0.6nm,0.8s						
FINES	FINESS Array B	83.13	331	P	P	04 18 21.1	+0.6
	comp=Z,4.3nm,0.9s,baz=57,slow=7.3,SNR=6.7						
	comp=Z,4.3nm,0.9s						
FINES	FINESS Array B	83.13	331	P	P	04 18 20.6	+0.2
EIL	Elat	83.17	299	LR	LR	05 01 12.8	
	comp=Z,40nm,18.2s,baz=277,slow=40						
AK09	Malin Array Si	83.61	320	P	P	04 18 22.7	-0.5
AKASG	Malin Array Be	83.63	320	P	P	04 18 22.8	-0.5
	comp=Z,1.2nm,0.4s,baz=76,slow=3.6,SNR=5.8						
	comp=Z,1.2nm,0.4s						
AKASG	Malin Array Be	83.63	320	P	P	04 18 23.5	+0.2
AKASG				IAmb	IAmb	04 18 30.4	
	comp=Z,5.5nm,1.3s						
AKBB	Malin Array Si	83.63	320	P	P	04 18 24.5	+1.2
AK10	Malin Array Si	83.63	320	P	P	04 18 23.1	-0.2
KIEV	Kiev	83.64	320	P	P	04 18 24.6	+1.3
	comp=Z,28nm,1.2s						
AK06	Malin Array Si	83.67	320	P	P	04 18 23.5	0.0
AK17	Malin Array Si	83.74	320	P	P	04 18 22.7	-1.1
MI28	Mi28,Pidlybu	84.55	321	P	P	04 18 28.6	+0.6
LUBAR	Lubar, Ukraine	84.71	320	P	P	04 18 28.6	-0.2
SORM	Soroca	84.71	318	P	P	04 18 28.0	-0.8
RNPP9	Sopachiv	85.53	322	P	P	04 18 32.8	-0.1
RNPP8	Varash	85.57	321	P	P	04 18 32.5	-0.6
RNPP5	Staryi Chortor	85.58	321	P	P	04 18 31.9	-1.2
KMPD	K-Podol'skiy	85.84	319	P	P	04 18 33.0	-1.5
BUR08	Bucovina Ar. S	86.89	318		P	04 18 38.7	-1.1
MLR	Muntele Rosu	86.92	316	P	P	04 18 40.4	+0.3
KMBO	Kilima Mbogo	86.94	268	LR	LR	04 52 56.4	
	comp=Z,47nm,21.6s,baz=108,slow=32						
HFS	Hagfors	89.30	332	P	P	04 18 50.2	-0.7
	comp=Z,1.0nm,0.6s,baz=98,slow=3.0,SNR=4.2						
	comp=Z,1.0nm,0.6s						
NB2	NORSAR Subarra	90.04	333	P	P	04 18 55.4	+1.0
	comp=Z,10nm,1.4s,baz=64,slow=4.8						
NOA	NORSAR Array B	90.04	333	P	P	04 18 53.7	-0.7
	comp=Z,2.7nm,1.0s,baz=71,slow=4.5,SNR=4.0						
	comp=Z,2.7nm,1.0s						
VRAC	Vranov	91.83	321	LR	LR	05 00 48.1	
	comp=Z,56nm,20.8s,baz=78,slow=36						
VNDA	Vanda	92.10	172	LR	LR	05 00 30.6	
	comp=Z,15nm,18.9s,baz=326,slow=36						
MBAR	Mbarara	93.20	270	LR	LR	04 58 02.3	
	comp=Z,32nm,21.6s,baz=77,slow=34						
GERES	GERESS Array B	93.77	322	P	P	04 19 12.9	+0.9
	comp=Z,0.4nm,0.2s,baz=90,slow=2.9,SNR=4.0						
	comp=Z,0.4nm,0.2s						
GERES	GERESS Array B	93.77	322	P	P	04 19 09.9	-2.2
DAVOX	Davos/Dischmat	96.97	321	LR	LR	05 05 41.8	
	comp=Z,94nm,19.2s,baz=30,slow=37						
LSZ	Lusaka	98.54	256	LR	LR	05 00 18.8	
	comp=Z,76nm,20.1s,baz=170,slow=33						
BORG	Borgarnes	98.94	346	LR	LR	05 10 05.0	
	comp=Z,42nm,18.2s,baz=321,slow=39						
HDC	Heredia	144.52	53	PKPdf	PKPab	04 25 29.5	-1.4
GDSD	La Dsirade Is	151.29	10	PKPdf	PKPdf	04 25 42.6	-0.8

IDC 23 05:15:09.9±6.7**, 3°.72S×148°.29E, h0^{km}, mb3.1**/2**, mbtmp3.2**/2**, Error ellipse: s-maj=373.7km s-min=77.0km az=137.0, Bismarck Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	21.10	219	P	P	05 19 56.5	+0.3
	0.3nm,0.3s,baz=39,slow=11,SNR=8.3						
	0.3nm,0.3s						
ASAR	Alice Springs	24.21	214	P	P	05 20 28.2	-0.3
	0.3nm,0.4s,baz=51,slow=7.9,SNR=4.4						
	0.3nm,0.4s						
LPAZ	La Paz	138.87	120	PKP	PKPdf	05 34 39.9	-0.3
	0.8nm,0.4s,baz=245,slow=3.5,SNR=6.2						

*BEO **23** 05:30:48.8±0.6, 41°.23N×19°.46E, h9^{km}±3^{km}, ML3.3/8*
*THE **23** 05:30:49.9, 42°N±4°×1°9E±°, h15^{km}, M3.4/21, MLh3.4/21*
*TIR **23** 05:30:49.8, 41°.42N×19°.53E, h11^{km}±4^{km}, Ml3.6/6*
*PDG **23** 05:30:50.0±0.3, 41°.38N×19°.60E, h18^{km}, MD3.6/6, ML3.5/13, Error ellipse: s-maj=0.7km s-min=1.6km az=0.0*
*SOF **23** 05:30:50.9, 41°.44N±0°.02×19°.68E±0°.03, h10^{km}±14^{km}, MD3.7/7*
*SKO **23** 05:30:51.6, 41°.36N×19°.55E, h4^{km}, ML3.2*
*RHSSO **23** 05:30:51.0±0.7, 41°.40N×19°.54E, h8^{km}±2^{km}, ML3.6/7*
*PRU **23** 05:30:53.0, 40°.96N×18°.71E, h10^{km}*
ISC 23 05:30:50.5±1.0**, 41°.41N**±0°.02×**19°.55E**±0°.02**, h9**^{km}±8^{km}**, n120, σ0ˢ.89**/181**, 25C-11D, Albania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TIR	Tirane	0.25	105	Pg	Pg	05 30 55.6	+0.1
TIR				AML	AML	05 30 58.7	
	45nm,0.4s						
TIR				Sg	Sg	05 30 59.2	+0.4
TIR				AML	AML	05 30 59.3	
	57nm,0.3s						
ULC	Ulcinj	0.60	338	⇓iPg	Pg	05 31 02.1	+0.1
ULC				eSg	Sb	05 31 12.6	+0.9
ULC				AML	AML		
SDA	Shkodra	0.64	357	Pg	Pg	05 31 02.7	-0.2
SDA				Sg	Sg	05 31 10.6	-0.7
SDA				AML	AML	05 31 18.0	
	3.0nm,0.4s						
PHP	Peshkopia	0.72	68	Pg	Pg	05 31 03.0	-1.5
PHP				Sg	Sg	05 31 14.0	+0.1
PHP				AML	AML	05 31 16.7	
	8.3nm,0.5s						
PHP	Peshkopia	0.72	68	P	Pg	05 31 02.9	-1.5
PHP				AML	AML		
DRME	Dracevica, Mon	0.82	341	⇑iPg	Pg	05 31 05.9	-0.3
DRME				eSg	Sg	05 31 17.5	+0.5
DRME	Dracevica, Mon	0.82	341	ePg	Pg	05 31 06.0	-0.3
DRME				eSg	Sn	05 31 20.1	-0.5
DRME				AML	AML		
VLO	Vlora	0.94	182	Pg	Pn	05 31 11.4	+1.5
VLO				Sg	Sn	05 31 24.4	+0.9
VLO				AML	AML	05 31 32.3	
	14nm,0.5s						
VLO	Vlora	0.94	182	P	Pn	05 31 10.9	+0.9
VLO				S	Sn	05 31 24.6	+1.1
VLO				AML	AML		
OHR	Ohrid	0.99	107	i Pg	Pg	05 31 08.7	-0.8
OHR				i Sg	Sb	05 31 24.0	+1.0
OHR				eLg	Lg	05 31 24.7	
	comp=N,467nm,0.5s						
OHR				eLg	Lg	05 31 27.1	
	comp=E,529nm,0.6s						
BUM	Brajici-Budva	1.01	331	ePg	Pg	05 31 09.9	-0.1
BUM				i Sg	Sn	05 31 26.5	+1.1
BUM				AML	AML		
PDG	Podgorica	1.04	348	Pg	Pg	05 31 10.7	+0.3
PDG				Sg	Sb	05 31 25.3	+0.9
PDG	Podgorica	1.04	348	ePg	Pg	05 31 10.9	+0.4
PDG				eSg	Sn	05 31 27.1	+1.1
PDG	Podgorica	1.04	348	⇑P	Pg	05 31 09.9	-0.6
PDG				⇑S	Sg	05 31 24.4	+0.5
PDG	Podgorica	1.04	348	ePg	Pg	05 31 09.2	-1.3
PDG				eSg	Sg	05 31 24.5	+0.5
PDG	Podgorica	1.04	348	⇓iPg	Pg	05 31 10.8	+0.3
PDG				i Sg	Sn	05 31 27.1	+1.1
PDG				AML	AML		
PVY	Plav	1.22	14	⇑iPg	Pn	05 31 12.2	-1.7
PVY				i Sg	Sn	05 31 32.7	+2.1
PVY				AML	AML		
KBN	Korca	1.23	130	Pn	Pg	05 31 14.4	+0.4
KBN				Sn	Sn	05 31 31.0	+0.4
KBN				AML	AML	05 31 35.6	
	comp=E,3.2nm,0.5s						
KBN	Korca	1.23	130	P	Pg	05 31 14.4	+0.4
KBN				S	Sn	05 31 33.7	+3.1
KBN				AML	AML		
CEME	Cevo	1.23	338	ePg	Pn	05 31 14.1	+0.2
CEME				i Sg	Sn	05 31 32.7	+2.0
CEME				AML	AML		
HCY	Herceg Novi	1.30	323	⇑iPg	Pn	05 31 14.7	-0.2
HCY				eSg	Sb	05 31 32.4	+0.5
HCY	Herceg Novi	1.30	323	⇑iPg	Pn	05 31 15.3	+0.4
HCY				i Sg	Sg	05 31 34.6	+2.3
HCY				AML	AML		
NKME	Niksic	1.43	342	⇑iPg	Pn	05 31 16.9	+0.3
NKME				eSg	Sg	05 31 37.7	+1.4
NKME				AML	AML		
KOME	Kolasin	1.44	359	ePg	Pn	05 31 17.2	+0.4
KOME				i Sg	Sg	05 31 38.2	+1.5
KOME				AML	AML		
IVA	Berane	1.48	10	⇑iPg	Pn	05 31 17.2	-0.2
IVA				i Sg	Sg	05 31 38.9	+0.8
IVA				AML	AML		
SKO	Skopje	1.52	68	i Pg	Pn	05 31 18.4	+0.5
SKO				i Sg	Sg	05 31 40.4	+0.9
SRN	Sarande	1.57	167	Pn	Pn	05 31 19.1	+0.6
SRN				AML	AML	05 31 49.6	
	comp=E,2.6nm,0.6s						
SRN	Sarande	1.57	167	P	Pn	05 31 19.1	+0.6
SRN				S	Sg	05 31 41.3	+0.4
SRN				AML	AML		
TREB	Trebinje	1.58	326	ePn	Pn	05 31 19.0	+0.3
TREB				eSn	Sg	05 31 41.4	+0.1
TREB	Trebinje	1.58	326	ePn	Pn	05 31 19.1	+0.3
TREB				eSn	Sb	05 31 40.0	0.0
BRY	Bratogost	1.67	334	ePn	Pb	05 31 21.2	-0.3
BRY				eSn	Sb	05 31 42.5	-0.1
BRY	Bratogost	1.67	334	⇓iPn	Pn	05 31 20.4	+0.4
BRY				i Sn	Sb	05 31 43.3	+0.7
BRY				AML	AML		
KEK	Kerkira	1.71	173	Pn	Pb	05 31 22.0	0.0
KEK	Kerkira	1.71	173	P	Pn	05 31 19.5	-0.9
KEK				AML	AML		
UPM	Unac-Piva	1.85	345	ePn	Pn	05 31 23.9	+1.3
UPM				eSn	Sn	05 31 47.4	+1.1
UPM	Unac-Piva	1.85	345	⇓iPn	Pn	05 31 22.2	-0.4
UPM				i Sn	Sb	05 31 47.9	-0.1
UPM				AML	AML		
SJES	Sjenica	1.88	10	ePn	Pb	05 31 24.5	-0.5
SJES				eSn	Sb	05 31 49.4	+0.8
SJES	Sjenica	1.88	10	⇑iPn	Pn	05 31 24.1	+1.2
SJES				eSn	Sn	05 31 47.8	+1.1
KLINJ	Klinje	1.90	338	ePn	Pn	05 31 23.8	+0.7
KLINJ				eSn	Sn	05 31 47.9	+0.7
PLE	Pljevlja	1.92	357	ePn	Pn	05 31 23.4	-0.1
PLE				i Sn	Sb	05 31 49.6	-0.3
PLE				AML	AML		
IGT	Igoumenitsa	1.97	162	Pn	Pn	05 31 25.4	+1.3
IGT	Igoumenitsa	1.97	162	P	Pn	05 31 24.9	+0.9
IGT				S	Sb	05 31 50.9	-0.3
IGT				AML	AML		
NOCI	Noci	1.98	252	Pn	Pn	05 31 23.5	-0.6
KPRO	Kipourio	2.01	136	P	Pb	05 31 26.3	-0.8
KPRO				S	Sg	05 31 54.6	-0.4
KPRO				AML	AML		
KZN	Kozani	2.02	122	P	Pb	05 31 26.5	-0.8
KZN				AML	AML		
SELS	Selova	2.15	32	ePn	Pn	05 31 27.0	+0.4
SELS				eSn	Sb	05 31 56.7	+0.3
BARS	Barje	2.19	49	eSn	Sb	05 31 56.8	-0.9
GRG	Griva	2.20	101	P	Pn	05 31 27.7	+0.5
IVAS	Ivanjica	2.21	11	ePn	Pn	05 31 27.6	+0.2
IVAS				eSn	Sb	05 31 58.1	0.0
PRMD	Pramanda	2.22	147	P	Pn	05 31 29.2	+1.6
PRMD				AML	AML		
VAY	Valandovo	2.28	91	i Pn	Pn	05 31 30.0	+1.7
VAY				i Sn	Sb	05 32 00.4	+0.4
VAY				eLg	Lg	05 32 01.2	
	comp=N,142nm,0.6s						
VAY				eLg	Lg	05 32 03.8	
	comp=E,52nm,0.6s						
MATE	Matera	2.28	251	⇓P	Pn	05 31 28.8	+0.5
MATE				⇑S	Sn	05 31 56.3	-0.3
GOCS	Kraljevo Serbi	2.36	24	ePn	Pn	05 31 29.7	+0.2
GOCS				eSn	Sb	05 32 02.7	+0.1
BOSS	Bosilegrad	2.44	63	ePn	Pn	05 31 31.2	+0.7
BBLS	Lazi&#263i	2.46	358	ePn	Pn	05 31 32.4	+1.6
BBLS	Lazi&#263i	2.46	358	⇑iPn	Pn	05 31 31.4	+0.6
BBLS				eSn	Sn	05 32 01.8	+0.8
GRUS	Gruza	2.62	19	ePn	Pn	05 31 34.1	+1.1
TYRN	Tyrnavos	2.66	129	P	Pn	05 31 35.2	+1.7
TYRN				AML	AML		
DIVS	Divibare	2.71	7	ePn	Pn	05 31 35.1	+0.9
KKB	Krupnik	2.72	80	P	Pn	05 31 34.5	+0.2
KKB				AML	AML		
KKB	Krupnik	2.72	80	P	Pn	05 31 34.9	+0.5
KKB				S	Sn	05 32 07.6	+0.2
TSLK	Tsoukalades, L	2.72	161	P	Pn	05 31 34.8	+0.5
TSLK				AML	AML		
BOVS	Bovan	2.73	35	ePn	Pn	05 31 35.3	+0.7
BOVS	Bovan	2.73	35	⇓P	Pn	05 31 33.8	-0.8
BOVS				⇑S	Sn	05 32 07.4	-0.4
LKD2	Lefkada island	2.75	162	P	Pn	05 31 35.1	+0.3
LKD2				AML	AML		
AMPL	Ampelaki	2.79	152	P	Pn	05 31 36.6	+1.2
AMPL				AML	AML		
DRAG	Dragano-Lefkad	2.84	164	P	Pn	05 31 35.8	-0.2
DRAG				AML	AML		
NYDR	Nydri-Lefkada	2.84	161	P	Pn	05 31 36.0	+0.1
NYDR				AML	AML		
SGRT	San Giovanni R	2.87	278	Pn	Pn	05 31 36.1	-0.5
TRUS	Trudelj	2.88	12	ePn	Pn	05 31 37.1	+0.5
EVGI	Lefkada island	2.92	163	P	Pn	05 31 36.9	-0.2
EVGI				AML	AML		
ZAPS	Zavoj	2.95	50	ePn	Pn	05 31 38.2	+0.7
VTS	Vitosha	3.00	65	P	Pn	05 31 38.4	+0.1
VTS				AML	AML		
VTS	Vitosha	3.00	65	P	Pn	05 31 38.8	+0.4
VTS				S	Sn	05 32 15.5	+1.0
VTS	Vitosha	3.00	65	ePn	Pn	05 31 38.5	+0.1
VTS				eSn	Sn	05 32 15.2	+0.7
SRS	Serrai	3.06	94	ePn	Pn	05 31 39.0	-0.1
PLNA	Plana	3.08	69	P	Pn	05 31 40.5	+1.0
PLNA				S	Sn	05 32 16.6	+0.1
TIP	Timpagrande	3.09	225	⇑P	Pn	05 31 39.3	-0.1
ZAGS	Zajecar	3.11	39	ePn	Pn	05 31 40.2	+0.5
BLSH	Balsha	3.13	61	P	Pb	05 31 45.6	-0.7
TEKS	Tekeris	3.14	360	ePn	Pn	05 31 40.7	+0.6
TEKS	Tekeris	3.14	360	ePn	Pn	05 31 40.8	+0.6
TEKS				eSn	Sn	05 32 18.0	+0.3
MMB	Musomishta	3.16	86	eP	Pn	05 31 41.4	+0.9
BLKB	Belogradchik	3.20	45	eSn	Sn	05 32 21.1	+1.9
BLKB	Belogradchik	3.20	45	⇓S	Sn	05 32 19.3	+0.1
AGG	Agios Georgios	3.20	137	P	Pn	05 31 42.0	+1.0
AGG				AML	AML		
PLEV	Plevrona-Mesol	3.32	154	P	Pn	05 31 42.9	+0.3
VLS	Valsamata	3.33	166	P	Pn	05 31 41.9	-0.8
VLS				AML	AML		
PGB	Panagyurishte	3.62	71	P	Pn	05 31 48.1	+1.3
PGB				eS	Sn	05 32 30.1	+0.4
MDVR	Moldovita	3.72	24	⇑P	Pn	05 31 47.8	-0.4
FRGS	Fruska Gora	3.75	3	ePn	Pn	05 31 48.7	+0.2
FRGS	Fruska Gora	3.75	3	ePn	Pn	05 31 48.6	+0.1
FRGS				eSn	Sn	05 32 32.9	+0.1
BLY	Banja Luka	3.76	333	⇑P	Pn	05 31 48.2	-0.5
BLY	Banja Luka	3.76	333	ePn	Pn	05 31 49.8	+1.2
BLY				eSn	Sn	05 32 32.8	-0.2
RZN	Rozhen	3.91	84	eP	Pn	05 31 51.9	+1.1
HERR	Herculane	4.05	30	⇓P	Pn	05 31 52.6	-0.1
PLVB	Pleven	4.24	61	⇑P	Pn	05 31 55.1	-0.2
BZS	Buzias	4.46	19	ePn	Pn	05 31 58.4	+0.1
BZS	Buzias	4.46	19	⇓P	Pn	05 31 57.9	-0.4
GZR	Gura Zlata	4.62	30	ePn	Pn	05 32 01.5	+0.9
GZR	Gura Zlata	4.62	30	⇑P	Pn	05 31 60.0	-0.6
GZR				⇓S	Sn	05 32 54.4	0.0
AQU	L'Aquila	4.68	284	ePn	Pn	05 32 01.1	-0.3
AQU				eSn	Sn	05 32 54.5	-1.4
SURR	Surduc	4.73	22	⇑P	Pn	05 32 01.2	-0.8
MORH	Mrgy, Hungar	4.85	353	⇑P	Pn	05 32 03.1	-0.4
MORH	Mrgy, Hungar	4.85	353	ePn	Pn	05 32 03.5	-0.1
MORH				eSn	Sn	05 32 58.7	-1.1
BOJS	Bojanci	5.15	324	ePn	Pn	05 32 07.3	-0.4
ARR	Arges	5.42	41	⇑P	Pn	05 32 10.7	-0.8
VOIR		5.68	43	⇓P	Pn	05 32 14.5	-0.6
CEY	Cerknica	5.70	321	ePn	Pn	05 32 14.2	-1.2
DRGR		5.84	22	⇑P	Pn	05 32 16.5	-0.8
MARR	Marisel-Cluj	5.86	25	⇑P	Pn	05 32 17.3	-0.3
MLR	Muntele Rosu	6.19	47	⇑P	Pn	05 32 21.5	-0.7
SOKA	Soboth	6.19	330	ePn	Pn	05 32 22.6	+0.5
	comp=E,1.8nm,0.5s						
SOKA				eSn	Sn	05 33 29.2	-3.8
	comp=E,3.0nm,0.8s						
OBKA	Obir	6.24	326	ePn	Pn	05 32 22.8	0.0
	comp=E,2.9nm,0.8s						
OBKA				eSn	Sn	05 33 36.0	+1.7
	comp=E,11nm,0.7s						
PLOR	Plostina	6.80	47	⇑P	Pn	05 32 30.0	-0.5
KBA	Koelnbreinsper	7.20	324	ePn	Pn	05 32 36.2	+0.1
	comp=E,0.8nm,0.3s						
KBA				eSn	Sn	05 33 55.8	-2.3
	comp=E,2.5nm,0.5s						
BURAR	Bucovina Array	7.41	31	⇑P	Pn	05 32 38.3	-0.5
LESA	Schwarzleotal	7.76	323	ePn	Pn	05 32 42.8	-0.9
	comp=E,5.5nm,1.3s						
LESA				eSn	Sn	05 34 10.6	-1.2
	comp=E,1.8nm,0.4s						
SQTA	Sankt Quirin	8.33	317	ePn	Pn	05 32 52.0	+0.5
	comp=E,1.7nm,0.4s						
SQTA				eSn	Sn	05 34 25.3	-0.5
	comp=E,3.4nm,0.5s						
KHC	Kasperske Hory	8.79	333	ePN	Pn	05 32 59.0	+1.3
KHC				ex	x	05 33 37.0	

*IDC **23** 05:43:52.6±0.9, 2°.62S×139°.13E, h0^{km}, mb3.7/7, mbtmp3.8/8, ML3.8/1, MS3.1/8, Error ellipse: s-maj=26.8km s-min=20.6km az=106.0*
*DJA **23** 05:44:00.2±0.4, 3°S±3°×13°9E±°, h10^{km}, M4.7/7, mb5.3/1, mb5.3/1, ML4.7/6, MLv4.6/6, MLv4.7/7*
ISC 23 05:43:58.0±0.8**, 3°.36S**±0°.07×**139°.94E**±0°.08**, h10^{km}, n20, σ3ˢ.51**/15**, mb3.8**/6**, MS3.0**/4**, Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GENI	Genyem	0.79	16	P	Pb	05 44 14.2	+0.3
GENI				S	Sb	05 44 24.6	-0.1
GENI				AML	AML		
GENI				AML	AML		
JAY	Jayapura	1.13	42	Pn	Pb	05 44 20.4	+0.7
	119nm,0.3s,baz=248,slow=11,SNR=348						
JAY				Sn	Sb	05 44 36.0	+1.5
	336nm,0.3s,baz=12,slow=16,SNR=18						
JAY				LR	LR	05 44 57.1	
	comp=Z,519nm,20.4s,baz=210,slow=41						
WAMI	Wamena	1.34	247	P	Pg	05 44 27.0	+3.3
WAMI				S	Sg	05 44 46.3	+5.3
WAMI				AML	AML		
WAMI				AML	AML		
WAMI				AML	AML		
KMPI	Kaimana, Papua	6.23	267	P	Pn	05 45 25.6	-4.5
	0.5nm222nm,0.9s						
KMPI				AML	AML		
KRVT	Keravat (AS076	12.09	95	LR	LR	05 51 42.4	
	comp=Z,96nm,20.9s,baz=115,slow=36						
WRA	Warramunga Arr	17.37	198	P	Pn	05 48 01.3	+0.6
	0.3nm,0.3s,baz=4.7,slow=13,SNR=21						
WRA				S	Sn	05 51 12.9	-1.2
	1.1nm,0.8s,baz=34,slow=24,SNR=2.2						
	1.1nm,0.6s						
WRA				AML	AML		
GUMO	Guam	17.53	16	LR	LR	05 54 46.1	
	comp=Z,24nm,19.5s,baz=182,slow=38						
DAV	Davao City (W)	17.69	306	LR	LR	05 55 03.4	
	comp=Z,36nm,18.1s,baz=156,slow=40						
CTA	Charters Tower	17.73	160	LR	LR	05 55 55.5	
	comp=Z,89nm,21.7s,baz=42,slow=39						
KAPI	Kappang	20.20	265	LR	LR	05 56 38.3	
	comp=Z,44nm,18.4s,baz=51,slow=39						
FITZ	Fitzroy Crossi	20.27	223	P	P	05 48 30.6	-3.3
	1.9nm,0.6s,baz=38,slow=10,SNR=9.9						
FITZ				S	S	05 52 13.4	-8.0
	2.6nm,0.7s,baz=190,slow=16,SNR=3.9						
	1.9nm,0.6s						
ASAR	Alice Springs	21.02	196	P	P	05 48 44.1	+2.1
	0.8nm,0.4s,baz=16,slow=10,SNR=16						
ASAR				S	S	05 52 38.1	+1.9
	0.6nm,0.4s,baz=16,slow=27,SNR=1.6						
	0.8nm,0.4s						
STKA	Stephens Creek	28.41	177	LR	LR	06 02 58.8	
	comp=Z,79nm,18.7s,baz=28,slow=39						
KSRS	Korea Array	42.11	346	LR	LR	06 07 29.6	
	comp=Z,15nm,19.8s,baz=165,slow=34						
SONM	Songino Array	58.83	334	LR	LR	06 16 10.0	
	comp=Z,21nm,22.0s,baz=78,slow=34						
MKAR	Makanchi Array	71.05	322	P	P	05 55 07.8	-8.6
	0.4nm,0.6s,baz=111,slow=7.9,SNR=4.0						
	0.4nm,0.6s						
KURBB	Kurchatov Arra	74.96	325	P	P	05 55 28.9	-11
	0.3nm,0.3s,baz=120,slow=5.5,SNR=4.2						
	0.3nm,0.3s						
VNDA	Vanda	75.03	175	P	P	05 55 40.2	+0.8
	0.7nm,0.7s,baz=324,slow=6.7,SNR=7.0						
	0.7nm,0.7s						
ILAR	Eielson Array	85.91	24	P	P	05 56 31.6	-6.4
	0.4nm,0.6s,baz=259,slow=5.3,SNR=5.4						
	0.4nm,0.6s						
QSPA	South Pole Qui	86.59	180	P	P	05 56 41.3	-0.2
	1.6nm,0.9s,baz=260,slow=1.6,SNR=6.1						
	1.6nm,0.9s						

INMG 23 05:59:38.7±1.3**, 32°.29N×17°.12W, h0**^{km}±28^{km}**, ML1.8, Error ellipse: s-maj=31.9km s-min=10.0km az=26.0, #DIST_RANGE: LOCAL #IPMA_REGION: S Ribeira Brava (Madeira, Madeira Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FUL	Funchal	0.40	28	eP	Pg	05 59 45.6	-0.9
FUL				eS	Sg	05 59 50.2	-1.4
FUL				i IAML		05 59 50.4	
FUL				i IAML		05 59 50.7	
FUL				i IAML		05 59 51.7	
PMAR	Madeira	0.46	22	eP	Pg	05 59 46.2	-1.4
PMAR				eS	Sg	05 59 52.5	-1.1
PMAR				i IAML		05 59 56.2	
PMAR				i IAML		05 59 56.7	
PMAR				i IAML		06 00 06.7	
PMAR	Madeira	0.46	22	P	Pg	05 59 45.7	-1.9
PMOZ	Porto Moniz, M	0.53	353	eP	Pg	05 59 47.0	-1.9
PMOZ				i IAML		05 59 54.4	
PMOZ				eS	Sg	05 59 54.5	-1.4
PMOZ				i IAML		05 59 57.1	
PMOZ				i IAML		06 00 00.5	

PMOZ	**Porto Moniz, M**	**0.53**	**353**	P	Pg	05 59 47.1	-1.9
PMPST	**Porto Santo, M**	**1.03**	**40**	*e*P	Pg	05 59 54.7	-3.7
PMPST				*e*S	Sg	06 00 05.8	-6.0

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*IDC **23** 06:04:45.4±0.9, 0°.69N×85°.61W, h0^{km}, mb3.9/8, mbtmp4.1/11, ML3.1/4, MS3.9/45, Error ellipse: s-maj=27.3km s-min=13.6km az=56.0*

*NEIC **23** 06:04:48.5±2.6, 0°.71N±0°.07×85°.42W±0°.08, h10^{km}±1^{km}, mb4.5/10, Error ellipse: s-maj=13.8km s-min=11.1km az=246.0*

*GCMT **23** 06:04:50.5±0.4, 0°.70N±0°.02×85°.28W±0°.03, h12^{km}, MW4.7/85, Moment Tensor Solution. s12,c12; s85,c112; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}0.22±.05; $M_{\theta\theta}$0.10±.05; $M_{\phi\phi}$-0.31±.06; $M_{r\theta}$-0.23±.17; $M_{\theta\phi}$1.18±.04; $M_{\phi r}$-0.69±.14; Best double couple: $M_0$1.41600×10^{16} NP1:ϕ_s278.00000°,δ59.00000°,λ11.00000°. NP2: ϕ_s182.00000°,δ81.00000°,λ149.00000°. Principal axes: T 1.4220, Plg28.0000°, Azm136.0000°; N -0.0130, Plg58.0000°, Azm348.0000°; P -1.4090, Plg15.0000°, Azm234.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 23 06:04:47.4±0.6, **0°.68N**±0°.07×**85°.43W**±0°.08, **h10^{km}, n65,** σ**1^{s}.36**/29, **mb4.2**/10, **MS3.9**/38, **1C, Off coast of Ecuador**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PAYG	**Puerto Ayora**	**5.04**	**255**	Pn	**Pn**	**06 06 05.2**	**+2.1**
OTAV	**Otavalo**	**6.99**	**94**		**Pn**	**06 06 30.4**	**+0.1**
SLOR	**San Lorenzo -**	**7.07**	**101**		**Pn**	**06 06 33.2**	**+1.7**
JTS	**Las Juntas de**	**9.56**	**3**	Pn	**Pn**	**06 07 06.7**	**+1.5**
	0.5nm,0.3s,baz=259,slow=8.0,SNR=5.8						
JTS				LR	LR	06 09 48.2	
	comp=Z,271nm,20.4s,baz=192,slow=32						
ATAH	**Atahualpa**	**10.47**	**138**	Pn	**Pn**	**06 07 19.6**	**+1.6**
	1.1nm,0.3s,baz=298,slow=12,SNR=8.6						
ATAH				Sn	**Sn**	**06 09 12.0**	**-3.6**
	0.1nm,0.3s,baz=37,slow=19,SNR=1.7						
ATAH				LR	LR	06 10 47.3	
	comp=Z,1μm,21.1s,baz=320,slow=34						
	14nm,0.7s						
ATAH				AML	AML		
ROSC	**El Rosal**	**11.84**	**69**	Pn	**Pn**	**06 07 38.7**	**+1.9**
	0.6nm,0.3s,baz=250,slow=17,SNR=5.9						
ROSC				LR	LR	06 11 39.5	
	comp=Z,1μm,20.6s,baz=234,slow=34						
	4.6nm,0.4s						
ROSC				AML	AML		
ROSC	**El Rosal**	**11.84**	**69**		**Pn**	**06 07 38.2**	**+1.4**
TGUH	**Tegucigalpa,Un**	**13.42**	**352**	Pn	**Pn**	**06 07 58.8**	**+0.7**
APG	**El Apazote**	**15.08**	**341**	Pn	**Pn**	**06 08 19.7**	**-1.1**
	baz=100,slow=13,SNR=1.9						
APG				LR	LR	06 12 55.8	
	comp=Z,52nm,20.7s,baz=283,slow=33						
CZSB	**Cruzeiro do Su**	**15.19**	**124**		**Pn**	**06 08 22.9**	**+0.7**
CZSB				IAmb	IAmb	06 08 24.0	
	comp=Z,15nm,1.0s						
NNA	**Nana**	**15.20**	**146**	LR	LR	06 13 33.2	
	comp=Z,391nm,19.4s,baz=316,slow=34						
NNA	**Nana**	**15.20**	**146**	Pn	**Pn**	**06 08 23.3**	**+1.0**
NNA				IAmb	IAmb	06 08 56.4	
	comp=Z,25nm,1.5s						
HUEH	**Huehuetenango**	**15.73**	**338**	Pn	**Pn**	**06 08 30.5**	**+1.0**
HUEH				IAmb	IAmb	06 08 41.5	
	comp=Z,35nm,0.9s						
SDV	**Santo Domingo**	**16.84**	**61**	Pn	**P**	**06 08 46.1**	**+0.4**
	comp=Z,1.2nm,0.3s,baz=268,slow=7.9,SNR=5.3						
SDV				LR	LR	06 14 36.6	
	comp=Z,677nm,20.2s,baz=252,slow=35						
	comp=Z,6.8nm,0.7s						
SDV				AML	AML		
SDV	**Santo Domingo**	**16.84**	**61**	Pn	**Pn**	**06 08 43.1**	**-0.5**
SDV				IAmb	IAmb	06 08 47.2	
	comp=Z,10nm,0.9s						
CMIG	**Matias Romero**	**18.78**	**331**	LR	LR	06 14 41.0	
	comp=Z,444nm,21.4s,baz=154,slow=32						
LPAZ	**La Paz**	**24.00**	**135**	P	**P**	**06 10 03.9**	**+0.7**
	comp=Z,5.9nm,1.0s,baz=325,slow=7.5,SNR=19						
LPAZ				LR	LR	06 20 15.1	
	comp=Z,208nm,20.9s,baz=298,slow=38						
	comp=Z,5.9nm,1.0s						
LPAZ	**La Paz**	**24.00**	**135**		**P**	**06 10 03.4**	**+0.2**
PB05	**IPOC Station P**	**27.70**	**149**	P	**P**	**06 10 36.6**	**+0.6**
MDP	**Montagnes des**	**33.03**	**82**	LR	LR	06 24 34.3	
	comp=Z,467nm,18.1s,baz=266,slow=36						
TXAR	**Lajitas Array**	**33.38**	**330**	LR	LR	06 23 38.2	
	comp=Z,164nm,18.9s,baz=104,slow=34						
LPIG	**La Paz**	**33.51**	**316**	LR	LR	06 21 21.2	
	comp=Z,98nm,18.0s,baz=160,slow=30						
X40A	**Basin Creek Fa**	**34.34**	**349**	P	**P**	**06 11 34.1**	**-0.2**
X40A				IAmb	IAmb	06 11 34.5	
	comp=Z,7.6nm,1.0s						
H03N2	**Juan Fernandez**	**34.48**	**170**	T	T	06 48 03.5	
	baz=346,slow=74,SNR=38						
H03N1	**Juan Fernandez**	**34.49**	**170**	T	T	06 48 04.6	
	baz=276,slow=74,SNR=47						
CPUP	**Villa Florida**	**38.15**	**137**	LR	LR	06 29 24.4	
	comp=Z,118nm,20.4s,baz=271,slow=39						
ANMO	**Albuquerque**	**39.34**	**332**	LR	LR	06 27 44.5	
	comp=Z,100nm,19.8s,baz=118,slow=35						
BDFB	**Brasilia**	**40.36**	**115**	LR	LR	06 29 39.5	
	comp=Z,110nm,21.3s,baz=286,slow=37						
PLCA	**Paso Flores**	**43.39**	**163**	P	**P**	**06 12 49.6**	**-0.6**
	comp=Z,1.8nm,1.1s,baz=348,slow=11,SNR=3.0						
PLCA				LR	LR	06 24 48.6	
	comp=Z,23nm,21.9s,baz=349,slow=28						
	comp=Z,1.8nm,1.1s						
PFO	**Pinyon Flats O**	**43.82**	**322**	LR	LR	06 29 33.6	
	comp=Z,120nm,18.5s,baz=110,slow=34						
SADO	**Sadowa**	**44.26**	**6**	LR	LR	06 32 16.7	
	comp=Z,106nm,18.9s,baz=192,slow=37						
PDAR	**Pinedale Array**	**47.16**	**336**	P	**P**	**06 13 18.6**	**-1.8**
	comp=Z,0.3nm,0.8s,baz=145,slow=7.5,SNR=1.4						
PDAR				LR	LR	06 33 32.6	
	comp=Z,95nm,18.9s,baz=94,slow=37						
	comp=Z,0.3nm,0.8s						
NVAR	**Mina Array Bea**	**48.17**	**325**	P	**P**	**06 13 26.9**	**-1.4**
	comp=Z,1.8nm,1.1s,baz=139,slow=6.9,SNR=6.6						
NVAR				LR	LR	06 33 27.8	
	comp=Z,104nm,18.1s,baz=113,slow=36						
	comp=Z,1.8nm,1.1s						
ELK	**Elko**	**48.17**	**330**	LR	LR	06 33 15.5	
	comp=Z,289nm,18.4s,baz=170,slow=36						
ULM	**Lac du Bonnet**	**50.18**	**351**	P	**P**	**06 13 41.3**	**-1.9**
	comp=Z,3.2nm,0.8s,baz=99,slow=4.0,SNR=3.0						
ULM				LR	LR	06 37 60.0	
	comp=Z,100nm,18.8s,baz=198,slow=40						
	comp=Z,3.2nm,0.8s						
ULM	**Lac du Bonnet**	**50.18**	**351**	IAmb	IAmb	06 14 19.8	
	comp=Z,7.5nm,1.1s						
YBH	**Yreka Blue Hor**	**52.89**	**325**	LR	LR	06 34 12.3	
	comp=Z,137nm,19.8s,baz=112,slow=34						
NEW	**Newport**	**54.74**	**335**	LR	LR	06 37 48.9	
	comp=Z,73nm,18.7s,baz=115,slow=36						
SCHQ	**Schefferville**	**56.09**	**13**	LR	LR	06 38 08.0	
	comp=Z,128nm,18.0s,baz=194,slow=36						
FRB	**Frobisher Bay**	**64.15**	**8**	LR	LR	06 41 05.6	
	comp=Z,194nm,20.1s,baz=208,slow=34						
YKA	**Yellowknife Ar**	**65.43**	**346**	LR	LR	06 45 45.2	
	comp=Z,149nm,18.3s,baz=142,slow=38						
PPT	**Papeete**	**65.64**	**250**	LR	LR	06 36 14.6	
	comp=Z,132nm,21.8s,baz=92,slow=29						
SFJD	**Kangerlussuaq**	**70.52**	**14**	LR	LR	06 46 28.1	
	comp=Z,85nm,20.2s,baz=218,slow=36						
INK	**Inuvik**	**74.97**	**343**	LR	LR	06 52 47.6	
	comp=Z,97nm,19.1s,baz=54,slow=38						
ILAR	**Eielson Array**	**77.56**	**337**	P	**P**	**06 16 42.2**	**-1.1**
	comp=Z,0.7nm,0.9s,baz=137,slow=4.1,SNR=4.7						
ILAR				LR	LR	06 51 43.2	
	comp=Z,76nm,19.2s,baz=93,slow=36						
	comp=Z,0.7nm,0.9s						
BORG	**Borgarnes**	**78.58**	**23**	LR	LR	06 49 27.5	
	comp=Z,86nm,19.0s,baz=234,slow=34						
DBIC	**Dimbokro**	**80.56**	**83**	LR	LR	06 52 16.9	
	comp=Z,54nm,18.3s,baz=308,slow=35						
MDT	**Midelt**	**81.92**	**57**	LR	LR	06 54 14.5	
	comp=Z,45nm,18.1s,baz=282,slow=36						
ESDC	**Sonseca Array**	**82.99**	**50**	LR	LR	06 50 30.0	
	comp=Z,35nm,18.6s,baz=252,slow=33						
EKA	**Eskdalemuir Ar**	**85.04**	**35**	P	**P**	**06 17 24.3**	**+1.1**
	comp=Z,1.2nm,0.7s,baz=263,slow=4.4,SNR=2.4						
EKA				LR	LR	06 47 28.9	
	comp=Z,64nm,20.3s,baz=236,slow=30						
	comp=Z,1.2nm,0.7s						
VNA3	**Neumayer Olymp**	**86.08**	**162**	⇑P	**P**	**06 17 28.9**	**+0.8**
	comp=Z,2.2nm,0.9s						
AFI	**Afiamalu**	**86.61**	**256**	LR	LR	06 48 06.0	
	comp=Z,74nm,20.1s,baz=114,slow=30						
VNA2	**Neumayer--Watz**	**86.73**	**161**	P	**P**	**06 17 31.1**	**-0.2**
	baz=284,slow=3.7						
SNAA	**Sanae**	**88.30**	**162**	LR	LR	06 49 08.8	
	comp=Z,53nm,20.9s,baz=5.0,slow=30						
QSPA	**South Pole Qui**	**90.72**	**180**	P	**P**	**06 17 50.2**	**-0.2**
	comp=Z,0.7nm,0.8s,baz=204,slow=4.8,SNR=2.2						
	comp=Z,0.7nm,0.8s						
QSPA	**South Pole Qui**	**90.72**	**180**	IAmb	IAmb	06 18 00.6	
	comp=Z,2.0nm,1.1s						
SPITS	**Spitsbergen Ar**	**91.76**	**12**	LR	LR	06 59 53.4	
	comp=Z,127nm,18.0s,baz=272,slow=36						
RAO	**Raoul Island**	**92.50**	**241**	LR	LR	06 53 33.3	
	comp=Z,44nm,18.1s,baz=61,slow=32						
NOA	**NORSAR Array B**	**92.64**	**29**	LR	LR	06 55 40.3	
	comp=Z,18nm,20.4s,baz=265,slow=33						
HFS	**Hagfors**	**93.97**	**30**	LR	LR	06 54 13.3	
	comp=Z,32nm,19.8s,baz=268,slow=32						
ARCES	**ARCESS Array B**	**96.58**	**19**	LR	LR	06 59 17.3	
	comp=Z,28nm,18.2s,baz=330,slow=34						
VRAC	**Vranov**	**97.32**	**40**	LR	LR	06 54 54.7	
	comp=Z,73nm,20.8s,baz=273,slow=31						
VAE	**Valguarnera**	**97.40**	**52**	LR	LR	06 57 31.7	
	comp=Z,54nm,19.7s,baz=316,slow=32						
FINES	**FINESS Array B**	**99.55**	**27**	LR	LR	06 58 38.3	
	comp=Z,33nm,21.6s,baz=248,slow=32						
WRA	**Warramunga Arr**	**136.64**	**241**	PKP	**PKPdf**	**06 24 10.5**	**-0.5**
	comp=Z,0.8nm,1.0s,baz=102,slow=2.5,SNR=4.0						

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*SNET **23** 06:34:19.0±0.9, 14°.09N×89°.73W, h7^{km}±3^{km}, ML2.4, Presumed earthquake*

*CATAC **23** 06:34:19.8±0.3, 14°N±1°×9°0W±°, h4^{km}±1^{km}, M2.5/16, MLv2.5/16, Error ellipse: s-maj=2.7km s-min=2.4km az=122.2, confirmed*

*GCG **23** 06:34:19.1±1.8, 14°.09N×89°.70W, h1^{km}±9^{km}, MD3.4, Presumed earthquake*

ISC 23 06:34:19.7±0.8, **14°.09N**±0°.02×**89°.72W**±0°.03, **h11**^{km}±5^{km}, **n40,** σ**0^{s}.62**/62, **3C-4D, Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RBDL	**Robledal**	**0.04**	**55**	⇑*i*P	**Pg**	**06 34 21.9**	**-0.1**
RBDL				*e*S	**Sg**	**06 34 23.5**	**-0.1**
SLOZ	**Alcaldia de Sa**	**0.09**	**224**	⇑*e*P	**Pg**	**06 34 22.1**	**-0.3**
SLOZ	**Alcaldia de Sa**	**0.09**	**224**	P	**Pg**	**06 34 22.0**	**-0.3**
LOAL	**Lomas de Alarc**	**0.11**	**213**	⇓*e*P	**Pg**	**06 34 22.6**	**0.0**
LOAL				*e*S	**Sg**	**06 34 24.5**	**-0.2**
LOAL	**Lomas de Alarc**	**0.11**	**213**	P	**Pg**	**06 34 22.8**	**+0.2**
LOAL				S	**Sg**	**06 34 24.7**	**+0.1**
NUBE	**Las Nubes**	**0.20**	**197**	*i*P	**Pg**	**06 34 24.2**	**+0.2**
NUBE				*i*S	**Sg**	**06 34 27.1**	**+0.1**
NUBE	**Las Nubes**	**0.20**	**197**	⇓*i*P	**Pg**	**06 34 24.2**	**+0.2**
NUBE				*e*S	**Sg**	**06 34 27.4**	**+0.5**
NUBE	**Las Nubes**	**0.20**	**197**	P	**Pg**	**06 34 24.0**	**0.0**
NUBE				S	**Sg**	**06 34 27.0**	**+0.1**
UNIC	**Universidad Ca**	**0.20**	**123**	⇑*i*P	**Pg**	**06 34 24.2**	**+0.2**
UNIC				*e*S	**Sg**	**06 34 27.3**	**+0.4**
UNIC	**Universidad Ca**	**0.20**	**123**	P	**Pg**	**06 34 24.1**	**+0.2**
UNIC				S	**Sg**	**06 34 27.5**	**+0.6**
RTR	**El Retiro**	**0.20**	**160**	⇓*i*P	**Pg**	**06 34 24.7**	**+0.6**
JUAM	**Asuncion Mita**	**0.24**	**3**	*i*P	**Pg**	**06 34 24.8**	**+0.1**
JUAM				*i*S	**Sg**	**06 34 28.6**	**+0.4**
SNJE	**San Jose**	**0.25**	**153**	⇓*e*P	**Pg**	**06 34 25.4**	**+0.5**
SBLS	**San Blas**	**0.27**	**159**	*e*P	**Pg**	**06 34 25.4**	**+0.1**
CEVE	**Cerro Verde**	**0.28**	**160**	*e*P	**Pb**	**06 34 26.2**	**-0.7**
CEVE	**Cerro Verde**	**0.28**	**160**	P	**Pb**	**06 34 26.2**	**-0.7**
CEVE				S	**Sb**	**06 34 30.3**	**-1.4**
FAME	**Alcaldia de Sa**	**0.38**	**229**	P	**Pb**	**06 34 27.5**	**-0.9**
FAME				S	**Sg**	**06 34 32.9**	**+0.6**
CEDA	**San Andres**	**0.43**	**132**	P	**Pg**	**06 34 28.2**	**+0.1**
CEDA				S	**Sb**	**06 34 34.6**	**-1.1**
MTO3	**Montecristo**	**0.46**	**49**	*i*P	**Pg**	**06 34 28.9**	**+0.1**
MTO3	**Montecristo**	**0.46**	**49**	*e*P	**Pg**	**06 34 28.9**	**+0.1**
MTO3	**Montecristo**	**0.46**	**49**	P	**Pg**	**06 34 29.0**	**+0.1**
MTO3				S	**Sg**	**06 34 35.5**	**+0.5**
JAYA	**Jayaque - finc**	**0.51**	**149**	*i*P	**Pb**	**06 34 30.0**	**-0.8**
JAYA	**Jayaque - finc**	**0.51**	**149**	*e*P	**Pb**	**06 34 30.0**	**-0.8**
JAYA	**Jayaque - finc**	**0.51**	**149**	P	**Pb**	**06 34 30.2**	**-0.6**
JAYA				S	**Sg**	**06 34 36.8**	**+0.4**
PMON	**Piamonte**	**0.54**	**134**	*e*P	**Pb**	**06 34 30.8**	**-0.5**
PMON	**Piamonte**	**0.54**	**134**	P	**Pb**	**06 34 30.6**	**-0.8**
PMON				S	**Sg**	**06 34 37.9**	**+0.4**
ESQI	**Esquipulas**	**0.59**	**38**	P	**Pb**	**06 34 31.6**	**-0.6**
ESQI				S	**Sb**	**06 34 39.7**	**-1.0**
UEES	**Universidad Ev**	**0.60**	**129**	P	Pn	06 34 39.9	+5.7
ZAFR2	**Estanzuela, Za**	**0.60**	**36**	*i*P	**Pn**	**06 34 36.2**	**+2.0**
UTEC	**Universidad Te**	**0.64**	**128**	P	**Pb**	**06 34 32.2**	**-0.7**
UTEC				S	**Sb**	**06 34 41.1**	**-0.7**
LOMA	**Loma Larga**	**0.69**	**130**	S	**Sg**	**06 34 42.6**	**+0.3**
LLGN	**La Laguna**	**0.76**	**84**	P	**Pb**	**06 34 34.5**	**-0.4**
LLGN				S	**Sb**	**06 34 44.6**	**-0.7**
PAVA	**Las Pavas**	**0.85**	**116**	P	**Pb**	**06 34 36.1**	**-0.4**
PAVA				S	**Sb**	**06 34 48.6**	**+0.7**
P5NO	**Presa 5 de nov**	**0.94**	**96**	P	**Pg**	**06 34 36.9**	**-0.9**
P5NO				S	**Sg**	**06 34 49.9**	**-0.2**
COEG	**Centro de Oper**	**0.94**	**120**	P	**Pb**	**06 34 37.7**	**-0.4**
COEG				S	**Sb**	**06 34 51.0**	**+0.4**
SCLA	**Alcaldia de Sa**	**1.04**	**112**	S	**Sb**	**06 34 54.0**	**+0.7**
TECO	**Alcaldia de Te**	**1.06**	**121**	S	**Sb**	**06 34 54.6**	**+0.5**
SARH	**Santa Rosa de**	**1.15**	**54**	*i*P	**Pn**	**06 34 41.9**	**+0.1**
SARH				*i*S	**Sg**	**06 34 55.3**	**-1.6**
SARH	**Santa Rosa de**	**1.15**	**54**	P	**Pn**	**06 34 41.9**	**+0.1**
SARH				S	**Sb**	**06 34 57.5**	**+0.8**
APG	**El Apazote**	**1.16**	**322**	*i*P	**Pb**	**06 34 41.6**	**-0.3**

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*SJA **23** 06:35:08.5±0.6, 20°.77S×68°.82W, h28^{km}±5^{km}, ML3.6, MW3.7*

*GUC **23** 06:35:11.2±0.9, 20°.87S×69°.13W, h116^{km}±7^{km}, ML3.5*

ISC 23 06:35:11.1±1.4, **20°.76S**±0°.03×**69°.01W**±0°.06, **h96**^{km}±10^{km}, **n33,** σ**1^{s}.55**/61, **7C-1D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PB08	**IPOC Station P**	**0.63**	**347**	*e*P	Pn	06 35 21.9	-6.1
PB08				*e*S	**Sn**	**06 35 40.7**	**+0.1**
PB08				IAML		06 35 42.5	
	comp=Z,1μm,0.2s						
PB08	**IPOC Station P**	**0.63**	**347**	⇑*i*P	**Pn**	**06 35 27.7**	**-0.4**
PB08				*e*S	**Sn**	**06 35 40.5**	**-0.1**
PB08				IAML		06 35 41.2	
	comp=E,4μm,0.2s						
PB02	**IPOC Station P**	**1.00**	**236**	*e*P	**Pn**	**06 35 30.9**	**-0.5**
PB02				*e*S	**Sn**	**06 35 47.7**	**+1.2**
PB02				IAML		06 35 53.6	
	comp=Z,2μm,0.4s						
PB02	**IPOC Station P**	**1.00**	**236**	⇑*i*P	**Pn**	**06 35 30.9**	**-0.5**
PB02				*i*S	**Sn**	**06 35 46.5**	**-0.1**
PB02				IAML		06 35 49.3	
	comp=E,4μm,0.3s						
PB09	**IPOC Station P**	**1.05**	**192**	*e*P	**Pn**	**06 35 31.9**	**-0.1**
PB09				*e*S	**Sn**	**06 35 49.6**	**+1.9**
PB09				IAML		06 35 50.5	
	comp=Z,585nm,0.7s						
PB09	**IPOC Station P**	**1.05**	**192**	⇑*i*P	**Pn**	**06 35 32.0**	**-0.1**
PB09				*e*S	**Sn**	**06 35 48.4**	**+0.6**
PB09				IAML		06 35 50.1	
	comp=N,1μm,0.8s						
GO01	**Chusmiza**	**1.10**	**351**	*e*P	**Pn**	**06 35 32.4**	**-0.6**
GO01				*e*S	**Sn**	**06 35 50.4**	**+1.1**
GO01				IAML		06 35 54.7	
	comp=Z,740nm,0.2s						
GO01	**Chusmiza**	**1.10**	**351**	*e*P	**Pn**	**06 35 32.5**	**-0.5**
GO01				*e*S	**Sn**	**06 35 49.1**	**-0.1**
GO01				IAML		06 35 54.6	
	comp=N,5μm,0.1s						
TA02	**Huaiquique**	**1.16**	**295**	*e*P	**Pn**	**06 35 32.8**	**-0.3**
TA02				*e*S	**Sn**	**06 35 50.9**	**+1.2**
TA02				IAML		06 35 53.2	
	comp=Z,4μm,0.1s						
TA02	**Huaiquique**	**1.16**	**295**	*e*P	**Pn**	**06 35 32.6**	**-0.5**
TA02				*e*S	**Sn**	**06 35 50.1**	**+0.4**
PB11	**IPOC Station P**	**1.17**	**328**	*e*P	**Pn**	**06 35 32.7**	**-0.7**
PB11				*e*S	**Sn**	**06 35 50.3**	**+0.2**
PB11				IAML		06 35 52.3	
	comp=Z,1μm,0.2s						
PB11	**IPOC Station P**	**1.17**	**328**	⇑*i*P	**Pn**	**06 35 32.7**	**-0.7**
PB11				*e*S	**Sn**	**06 35 49.8**	**-0.2**
PB11				IAML		06 35 52.9	
	comp=E,3μm,0.2s						
PB07	**IPOC Station P**	**1.26**	**220**	*e*P	**Pn**	**06 35 34.1**	**-0.4**
PB07				*e*S	**Sn**	**06 35 52.8**	**+0.8**
PB07				IAML		06 35 53.7	
	comp=Z,840nm,0.3s						
PB07	**IPOC Station P**	**1.26**	**220**	⇑*i*P	**Pn**	**06 35 34.1**	**-0.4**
PB07				*e*S	**Sn**	**06 35 52.2**	**+0.1**
PB07				IAML		06 35 53.3	
	comp=N,1μm,0.3s						
PB03	**IPOC Station P**	**1.46**	**208**	*e*P	**Pn**	**06 35 36.5**	**-0.3**
PB03				*e*S	**Sn**	**06 35 56.9**	**+0.7**
PB03				IAML		06 35 58.8	
	comp=Z,765nm,0.4s						
PB03	**IPOC Station P**	**1.46**	**208**	⇑*i*P	**Pn**	**06 35 36.6**	**-0.3**
PB03				*e*S	**Sn**	**06 35 55.0**	**-1.3**
PB03				IAML		06 36 01.8	
	comp=E,760nm,0.2s						
PSGCX	**Pisagua**	**1.56**	**318**	*e*P	**Pn**	**06 35 37.5**	**-0.6**
PSGCX				*e*S	**Sn**	**06 35 59.2**	**+0.7**
PSGCX				IAML		06 36 03.0	
	comp=Z,780nm,0.4s						
PSGCX	**Pisagua**	**1.56**	**318**	*e*P	**Pn**	**06 35 37.3**	**-0.8**
PSGCX				*e*S	**Sn**	**06 35 58.1**	**-0.4**
PB06	**IPOC Station P**	**2.00**	**195**	⇑*i*P	**Pn**	**06 35 44.0**	**+0.3**
PB06				*e*S	**Sn**	**06 36 07.2**	**-1.4**
PB06				IAML		06 36 13.8	
	comp=E,556nm,0.2s						
PX02	**IPOC Station P**	**2.11**	**328**	*e*P	**Pn**	**06 35 43.5**	**-1.6**
AF01	**San Pedro de A**	**2.31**	**161**	*e*P	**Pn**	**06 35 46.5**	**-1.5**
AF01				*e*S	**Sn**	**06 36 17.4**	**+1.3**
AF01				IAML		06 36 57.0	
	comp=Z,189nm,0.8s						
AF01	**San Pedro de A**	**2.31**	**161**	*e*P	**Pn**	**06 35 46.2**	**-1.7**
PB05	**IPOC Station P**	**2.36**	**208**	*e*P	**Pn**	**06 35 48.6**	**+0.2**
PB05				*e*S	**Sn**	**06 36 21.2**	**+4.3**
PB05				IAML		06 36 29.1	
	comp=Z,185nm,0.3s						
PB05	**IPOC Station P**	**2.36**	**208**	*e*P	**Pn**	**06 35 48.0**	**-0.3**
PB05				*e*S	**Sn**	**06 36 14.0**	**-2.9**
PB05				IAML		06 36 24.8	
	comp=E,414nm,0.4s						
PB16	**IPOC Station P**	**2.46**	**349**	*e*P	**Pn**	**06 35 50.5**	**+0.3**
PB16				*e*S	**Sn**	**06 36 14.6**	**-5.4**
PB16				IAML		06 36 28.0	
	comp=Z,101nm,0.4s						
PB16	**IPOC Station P**	**2.46**	**349**	*e*P	**Pn**	**06 35 50.5**	**+0.3**
PB16				*e*S	**Sn**	**06 36 22.1**	**+2.1**
PB16	**IPOC Station P**	**2.46**	**349**	*e*P	**Pn**	**06 35 50.5**	**+0.3**
PB16				*e*S	**Sn**	**06 36 20.9**	**+1.0**
PB12	**IPOC Station P**	**2.47**	**330**	*e*P	**Pn**	**06 35 48.6**	**-1.3**
PB12				*e*S	**Sn**	**06 36 22.4**	**+2.8**
PB12				IAML		06 36 29.9	
	comp=Z,370nm,0.2s						
PB12	**IPOC Station P**	**2.47**	**330**	⇓*i*P	**Pn**	**06 35 48.5**	**-1.4**
PB12				*e*S	**Sn**	**06 36 19.1**	**-0.5**
PB12				IAML		06 36 29.0	
	comp=E,746nm,0.3s						
AP01	**Chacalluta**	**2.69**	**332**	*e*P	**Pn**	**06 35 52.1**	**-0.6**
AP01				*e*S	**Sn**	**06 36 29.8**	**+5.1**
AP01				IAML		06 36 34.9	
	comp=Z,678nm,0.1s						
AP01	**Chacalluta**	**2.69**	**332**	*e*P	**Pn**	**06 35 50.5**	**-2.2**
AP01	**Chacalluta**	**2.69**	**332**	*e*P	**Pn**	**06 35 51.2**	**-1.5**
AP01				*e*S	**Sn**	**06 36 24.0**	**-0.6**
AP01				IAML		06 36 36.1	
	comp=E,1μm,0.2s						
LPAZ	**La Paz**	**4.53**	**11**	*e*P	**Pn**	**06 36 19.4**	**+1.3**

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*IDC **23** 06:52:42.2±0.8, 4°.23N×126°.08E, h0^{km}, mb3.9/10, mbtmp3.9/10, Error ellipse: s-maj=51.9km s-min=15.4km az=79.0*

*NEIC **23** 06:52:50.5±1.4, 4°.21N±0°.09×126°.3E±0°.1, h64^{km}±6^{km}, mb4.1/11, Error ellipse: s-maj=17.4km s-min=12.4km az=77.0*

*MAN **23** 06:52:54.0, 4°.39N×126°.29E, h68^{km}, MS3.9*

*DJA **23** 06:52:55.0±3.2, 4°N±18°×12°6E±°, h13^{km}±25^{km}, M4.2/7, mB4.8/3, mb4.4/4, mb4.4/4, mB4.8/3, ML4.0/5, MLv4.0/5, MLv4.0/7, Mw(mB)4.1/3, Mw(mB)4.1/3*

ISC 23 06:52:49.1±0.6, **4°.10N**±0°.05×**126°.35E**±0°.09, **h50^{km}, n35,** σ**2^{s}.08**/34, **mb4.0**/16, **Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GSPH	**General Santos**	**2.41**	**325**	*i*P	Pn	06 53 13.9	-12
GSPH				*i*S	**Sn**	**06 53 56.5**	**+1.7**
GAMI	**Galela, Maluku**	**2.67**	**147**	P	**Pn**	**06 53 30.7**	**+1.0**
GAMI				AML	AML		
KCP	**Kidapawan**	**3.15**	**337**	*e*P	**Pn**	**06 53 40.2**	**+3.9**
TNTI	**Ternate**	**3.46**	**163**		**Pn**	**06 53 43.4**	**+2.8**
TNTI	**Ternate**	**3.46**	**163**	P	**Pn**	**06 53 43.3**	**+2.7**
CDOP	**Cateel, Davao**	**3.66**	**1**	*i*P	**Pn**	**06 53 43.6**	**+0.3**
CDOP				*i*S	**Sn**	**06 54 26.6**	**+1.4**
BUKP	**Musuan**	**3.96**	**341**	*e*P	**Pn**	**06 53 51.7**	**+4.2**
BUKP				*i*S	Sn	06 54 46.4	+14
BIPH	**Bislig**	**4.05**	**0**	*e*P	**Pn**	**06 53 52.5**	**+3.8**
BIPH				*e*S	**Sn**	**06 54 39.0**	**+4.1**
GTOI	**Gorontalo**	**4.79**	**224**	P	**Pn**	**06 54 01.9**	**+3.1**
SANI	**Sanana**	**6.12**	**183**	P	**Pn**	**06 54 16.6**	**-0.5**
	0.3nm1μm14nm,0.7s,14nm,0.7s						
SANI				AML	AML		
TOLI2	**Tolitoli**	**6.30**	**242**	Pn	**Pn**	**06 54 21.5**	**+1.9**
APSI	**Ampana**	**6.84**	**223**	P	Pn	06 54 34.5	+7.5
	918nm918nm65nm,0.8s						
FAKI	**Fak Fak**	**9.13**	**140**	Pn	**Pn**	**06 55 00.6**	**+2.2**
TPUB	**Ta-pu**	**19.87**	**344**	P	**P**	**06 57 14.2**	**-2.1**
FITZ	**Fitzroy Crossi**	**22.07**	**182**	P	**P**	**06 57 41.6**	**+1.6**
	2.7nm,0.5s,baz=5.4,slow=11,SNR=12						
	2.7nm,0.5s						
FITZ	**Fitzroy Crossi**	**22.07**	**182**	P	**P**	**06 57 40.5**	**+0.4**
WB0	**Warramunga Arr**	**25.01**	**162**	P	**P**	**06 58 09.3**	**+0.8**
WB0				IAmb	IAmb	06 58 12.1	
	comp=Z,9.7nm,1.4s						
WRAB	**Tennant Creek**	**25.15**	**162**	P	**P**	**06 58 10.6**	**+0.8**
WRAB				IAmb	IAmb	06 58 26.6	
	comp=Z,6.3nm,0.5s						
WRA	**Warramunga Arr**	**25.15**	**162**	P	**P**	**06 58 10.9**	**+1.1**
	comp=Z,0.3nm,0.3s,baz=341,slow=10.0,SNR=11						
	comp=Z,0.3nm,0.3s						
WRA	**Warramunga Arr**	**25.15**	**162**	P	**P**	**06 58 10.0**	**+0.1**
WR8	**Warramunga Arr**	**25.22**	**162**	P	**P**	**06 58 10.4**	**0.0**
WR8				IAmb	IAmb	06 58 50.4	
	comp=Z,11nm,1.5s						
AS31	**Alice Springs**	**28.57**	**165**	P	**P**	**06 58 41.3**	**+0.7**
AS31				IAmb	IAmb	06 59 12.3	
	comp=Z,1.9nm,1.5s						
ASAR	**Alice Springs**	**28.57**	**165**	P	**P**	**06 58 40.9**	**+0.3**
	comp=Z,0.2nm,0.5s,baz=343,slow=8.9,SNR=8.3						
	comp=Z,0.2nm,0.5s						
KSRS	**Korea Array**	**33.22**	**2**	P	**P**	**06 59 20.3**	**-1.1**
	comp=Z,1.0nm,0.5s,baz=179,slow=9.9,SNR=3.8						
	comp=Z,1.0nm,0.5s						
BBOO	**Buckleboo**	**37.85**	**167**	P	**P**	**07 00 01.2**	**0.0**
USRK	**Ussuriysk Ar.**	**40.24**	**6**	P	**P**	**07 00 20.4**	**-0.7**
	comp=Z,2.4nm,0.7s,baz=169,slow=8.2,SNR=5.5						
	comp=Z,2.4nm,0.7s						
SONM	**Songino Array**	**46.83**	**342**	P	**P**	**07 01 13.0**	**-1.2**
	comp=Z,0.3nm,0.4s,baz=153,slow=5.8,SNR=2.2						
	comp=Z,0.3nm,0.4s						
PETK	**Petropavlovsk-**	**55.23**	**22**	P	**P**	**07 02 16.3**	**-0.7**
	comp=Z,1.8nm,0.8s,baz=217,slow=8.3,SNR=3.1						
	comp=Z,1.8nm,0.8s						
MKAR	**Makanchi Array**	**57.03**	**325**	P	**P**	**07 02 27.3**	**-2.8**
	comp=Z,0.5nm,0.5s,baz=113,slow=8.8,SNR=6.9						
	comp=Z,0.5nm,0.5s						
KURBB	**Kurchatov Arra**	**61.22**	**327**	P	**P**	**07 02 57.1**	**-1.8**
	comp=Z,0.5nm,0.5s,baz=129,slow=5.6,SNR=6.0						
	comp=Z,0.5nm,0.5s						
KURK	**Kurchatov**	**61.22**	**328**	P	**P**	**07 02 57.1**	**-1.8**
KURK	**Kurchatov**	**61.22**	**328**	IAmb	IAmb	07 02 59.5	
	comp=Z,2.5nm,1.0s						
NRIK	**Noril'sk**	**69.98**	**346**	P	**P**	**07 03 53.9**	**-1.2**
	comp=Z,3.2nm,0.6s,baz=130,slow=4.5,SNR=3.5						
	comp=Z,3.2nm,0.6s						
NRIK	**Noril'sk**	**69.98**	**346**	IAmb	IAmb	07 04 01.6	
	comp=Z,5.3nm,0.9s						
CASY	**Casey**	**71.14**	**187**	P	**P**	**07 04 02.4**	**+0.3**
CASY				IAmb	IAmb	07 04 29.2	
	comp=Z,3.4nm,1.2s						

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*IDC **23** 06:56:25.1±0.8, 20°.00S×169°.46E, h0^{km}, mb4.1/11,*

mbtmp4.1/12, ML3.7/1, MS3.2/9, Error ellipse: s-maj=29.3km s-min=14.8km az=138.0

*NEIC **23** 06:56:30.7±1.6, 20°.13S±0°.08×169°.4E±0°.1, h37^{km}±6^{km}, mb4.2/11, Error ellipse: s-maj=16.8km s-min=10.1km az=121.0*

*NOU **23** 06:56:31.3, 19°.99S×168°.79E, h0^{km}, MLv4.5/14, Vanuatu Islands*

ISC 23 06:56:30.1±0.5**, 20°.14S**±0°.05×**169°.38E**±0°.08**, h35^{km}, n72, σ0^{s}91**/61**, mb4.2**/18**, MS3.2**/6**, 3C, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MARNC	**Mare, Loyalty**	**1.83**	**223**	P	**Pn**	**06 56 59.7**	**+0.5**
MARNC	**Mare, Loyalty**	**1.83**	**223**		**Pn**	**06 56 59.9**	**+0.7**
RTV	**Rentapao**	**2.51**	**339**	P	**Pn**	**06 57 10.0**	**+1.6**
RTV	**Rentapao**	**2.51**	**339**	S	**Sn**	**06 57 38.3**	**+0.5**
YATNC	**Mamie plateau,**	**3.00**	**230**	P	**Pn**	**06 57 15.9**	**+0.6**
OUENC	**Ouen Island, N**	**3.27**	**226**	P	**Pn**	**06 57 20.8**	**+1.8**
OUENC	**Ouen Island, N**	**3.27**	**226**	S	**Sn**	**06 57 56.4**	**-0.3**
OUENC	**Ouen Island, N**	**3.27**	**226**		**Pn**	**06 57 20.0**	**+1.0**
DZM	**Mont Dzumac**	**3.34**	**235**	Pn	**Pn**	**06 57 20.8**	**+0.7**
	6.3nm,0.3s,baz=63,slow=18,SNR=110						
DZM				Sn	**Sn**	**06 57 58.1**	**-0.5**
	74nm,0.3s,baz=68,slow=20,SNR=9.7						
	26nm,0.4s						
DZM				AML	AML		
NOUC	**Port Laguerre**	**3.47**	**235**	P	**Pn**	**06 57 22.9**	**+1.2**
NOUC	**Port Laguerre**	**3.47**	**235**	S	**Sn**	**06 58 00.2**	**-1.4**
ONTNC	**Ouen Toro**	**3.48**	**231**	P	**Pn**	**06 57 23.5**	**+1.7**
ONTNC	**Ouen Toro**	**3.48**	**231**	S	**Sn**	**06 58 00.9**	**-0.8**
ONTNC	**Ouen Toro**	**3.48**	**231**		**Pn**	**06 57 23.2**	**+1.4**
KOUNC	**Koumac, New Ca**	**4.80**	**264**	Pn	**Pn**	**06 57 40.7**	**+0.8**
SANVU	**Saraoutou**	**5.11**	**336**	Pn	**Pn**	**06 57 43.3**	**-0.9**
MSVF	**Nonsavu**	**8.55**	**75**	LR	LR	07 01 32.1	
	comp=Z,164nm,19.9s,baz=210,slow=36						
HNR	**Honiara**	**14.01**	**318**	LR	LR	07 04 52.2	
	comp=Z,82nm,18.1s,baz=276,slow=36						
AFI	**Afiamalu**	**19.05**	**74**	LR	LR	07 06 45.2	
	comp=Z,112nm,19.0s,baz=220,slow=33						
URZ	**Urewera**	**19.26**	**161**	LR	LR	07 06 37.5	
	comp=Z,80nm,19.8s,baz=23,slow=32						
CTA	**Charters Tower**	**21.71**	**266**	P	**P**	**07 01 19.5**	**+1.1**
	2.2nm,0.4s,baz=89,slow=10,SNR=8.0						
CTA				LR	LR	07 08 37.1	
	comp=Z,72nm,18.9s,baz=72,slow=34						
	2.2nm,0.4s						
CTAO	**Charters Tower**	**21.71**	**266**	P	**P**	**07 01 19.3**	**+0.8**
CTAO				IAmb	IAmb	07 02 01.1	
	comp=Z,9.8nm,1.4s						
RPZ	**Rata Peaks**	**23.54**	**177**	LR	LR	07 08 53.3	
	comp=Z,21nm,20.0s,baz=73,slow=32						
STKA	**Stephens Creek**	**27.49**	**239**	LR	LR	07 11 54.1	
	comp=Z,85nm,20.8s,baz=30,slow=34						
RAR	**Rarotonga**	**28.86**	**98**	P	**P**	**07 02 24.9**	**-0.7**
BBOO	**Buckleboo**	**32.24**	**240**	P	**P**	**07 02 52.9**	**-2.5**
WR8	**Warramunga Arr**	**32.73**	**264**	P	**P**	**07 02 58.9**	**-0.9**
WR8				IAmb	IAmb	07 03 27.1	
	comp=Z,5.0nm,1.1s						
WB0	**Warramunga Arr**	**32.85**	**265**	P	**P**	**07 02 59.2**	**-1.7**
WB0				IAmb	IAmb	07 03 21.6	
	comp=Z,3.4nm,1.0s						
WRA	**Warramunga Arr**	**32.88**	**264**	P	**P**	**07 03 00.1**	**-1.0**
	comp=Z,0.6nm,0.4s,baz=91,slow=8.4,SNR=22						
	comp=Z,0.6nm,0.4s						
WRA	**Warramunga Arr**	**32.88**	**264**	IAmb	IAmb	07 03 01.8	
	comp=Z,0.5nm,1.4s						
AS31	**Alice Springs**	**33.05**	**257**	P	**P**	**07 03 02.3**	**-0.3**
AS31				IAmb	IAmb	07 03 02.8	
	comp=Z,1.4nm,0.7s						
ASAR	**Alice Springs**	**33.05**	**257**	P	**P**	**07 03 02.2**	**-0.4**
	comp=Z,3.3nm,0.7s,baz=84,slow=8.8,SNR=45						
ASAR				LR	LR	07 15 23.7	
	comp=Z,67nm,21.7s,baz=98,slow=34						
	comp=Z,3.3nm,0.7s						
FITZ	**Fitzroy Crossi**	**41.29**	**265**	P	**P**	**07 04 13.1**	**+0.5**
	comp=Z,0.8nm,0.4s,baz=115,slow=14,SNR=1.8						
	comp=Z,0.8nm,0.4s						
FITZ	**Fitzroy Crossi**	**41.29**	**265**	IAmb	IAmb	07 04 20.6	
	comp=Z,1.9nm,1.3s						
DAV	**Davao City (W)**	**50.86**	**298**	LR	LR	07 24 07.5	
	comp=Z,20nm,21.1s,baz=131,slow=33						
JHJ	**Hachijo jima 2**	**60.04**	**331**	LR	LR	07 30 17.0	
	comp=Z,308nm,21.3s,baz=226,slow=34						
QSPA	**South Pole Qui**	**69.91**	**180**	P	**P**	**07 07 38.8**	**+1.2**
	comp=Z,2.2nm,0.7s,baz=35,slow=1.3,SNR=13						
	comp=Z,2.2nm,0.7s						
QSPA	**South Pole Qui**	**69.91**	**180**	P	**P**	**07 07 38.1**	**+0.5**
QSPA				IAmb	IAmb	07 08 01.5	
	comp=Z,4.6nm,1.3s						
PETK	**Petropavlovsk-**	**73.64**	**353**	P	**P**	**07 08 00.0**	**+0.2**
	comp=Z,1.7nm,0.7s,baz=125,slow=7.8,SNR=4.4						
	comp=Z,1.7nm,0.7s						
KLR	**Kul'dur**	**76.75**	**336**	P	**P**	**07 08 18.9**	**+1.1**
	comp=Z,1.1nm,0.7s,baz=153,slow=6.8,SNR=3.9						
	comp=Z,1.1nm,0.7s						
CMAR	**Chiang Mai Arr**	**79.00**	**294**	P	**P**	**07 08 32.7**	**+1.8**
	comp=Z,0.8nm,0.3s,baz=106,slow=4.6,SNR=1.2						
	comp=Z,0.8nm,0.3s						
BELA	**Belgrano 2**	**81.19**	**175**	P	**P**	**07 08 42.1**	**+0.3**
BELA				IAmb	IAmb	07 08 42.4	
	comp=Z,2.5nm,0.6s						
TROLL	**Troll, Antarti**	**87.65**	**184**	P	**P**	**07 09 15.2**	**+0.4**
	comp=Z,142nm,0.6s						
SONM	**Songino Array**	**88.02**	**323**	P	**P**	**07 09 16.2**	**-0.6**
	comp=Z,0.6nm,0.6s,baz=131,slow=4.1,SNR=3.9						
	comp=Z,0.6nm,0.6s						
SONM	**Songino Array**	**88.02**	**323**	IAmb	IAmb	07 09 17.7	
	comp=Z,1.8nm,1.1s						
SNAA	**Sanae**	**88.27**	**182**	⇑P	**P**	**07 09 18.1**	**+0.5**
	comp=Z,32nm,0.4s						
VNA3	**Neumayer Olymp**	**88.85**	**180**	⇑P	**P**	**07 09 20.2**	**-0.2**
	comp=Z,6.4nm,0.6s						
VNA2	**Neumayer--Watz**	**89.15**	**181**	⇑P	**P**	**07 09 21.7**	**0.0**
	comp=Z,7.0nm,0.6s,baz=176,slow=5.0						
NVAR	**Mina Array Bea**	**89.30**	**48**	P	**P**	**07 09 23.4**	**+0.2**
	comp=Z,0.9nm,0.8s,baz=231,slow=8.1,SNR=6.2						
	comp=Z,0.9nm,0.8s						
VNA1	**Neumayer--Stat**	**89.44**	**181**	P	**P**	**07 09 23.3**	**+0.3**
	comp=Z,1.7nm,0.5s						
ILAR	**Eielson Array**	**91.05**	**17**	P	**P**	**07 09 28.6**	**-1.8**
	comp=Z,0.6nm,0.7s,baz=230,slow=5.3,SNR=7.7						
	comp=Z,0.6nm,0.7s						
ARCES	**ARCESS Array B**	**125.97**	**345**	PKP	**PKPdf**	**07 15 27.3**	**-0.5**
	comp=Z,3.1nm,0.8s,baz=14,slow=2.5,SNR=8.1						
EKA	**Eskdalemuir Ar**	**144.42**	**353**	PKP	**PKPab**	**07 16 00.6**	**0.0**
	comp=Z,0.3nm,0.3s,baz=1.0,slow=2.8,SNR=4.6						
ABNA	**Allensteig Bun**	**144.67**	**330**	*e*PKP	PKPbc	07 16 02.2	+0.3
	comp=Z,2.0nm,0.6s						
RONA	**Rosalia, Austr**	**144.92**	**328**	*e*PKP	**PKPdf**	**07 16 03.9**	**+0.3**
	comp=Z,13nm,1.3s						
CONA	**Conrad Observa**	**144.98**	**328**	*e*PKP	**PKPdf**	**07 16 03.6**	**-0.1**
	comp=Z,4.3nm,0.7s						
GERES	**GERESS Array B**	**145.35**	**331**	PKPbc	**PKPbc**	**07 16 04.3**	**+0.1**
	comp=Z,4.9nm,0.5s,baz=46,slow=3.9,SNR=25						
GERES	**GERESS Array B**	**145.35**	**331**		**PKPbc**	**07 16 04.2**	**-0.1**
ARSA	**Arzberg**	**145.61**	**328**	*e*PKP	**PKPab**	**07 16 05.8**	**+0.5**
	comp=Z,2.7nm,0.8s						
MOA	**Molln**	**145.81**	**330**	*e*PKP	**PKPab**	**07 16 06.0**	**-0.1**
	comp=Z,7.4nm,0.6s						
SESA	**Seetaler Alpe,**	**146.18**	**329**	*e*PKP	**PKPdf**	**07 16 06.5**	**+0.5**
	comp=Z,6.2nm,0.6s						
SOKA	**Soboth**	**146.25**	**328**	*e*PKP	**PKPdf**	**07 16 06.5**	**+0.6**
	comp=Z,1.3nm,0.6s						
KBA	**Koelnbreinsper**	**146.79**	**330**	*e*PKP	**PKPdf**	**07 16 07.9**	**+0.9**
	comp=Z,8.7nm,1.3s						
LESA	**Schwarzleotal**	**146.86**	**331**	*e*PKP	**PKPbc**	**07 16 08.2**	**-0.6**
	comp=Z,4.1nm,0.6s						
MYKA	**Terra Mystica**	**146.97**	**329**	*e*PKP	**PKPbc**	**07 16 08.8**	**-0.4**
	comp=Z,6.0nm,0.8s						
ABTA	**Abfaltersbach**	**147.43**	**330**	*e*PKP	**PKPbc**	**07 16 09.4**	**-1.1**
	comp=Z,3.4nm,0.6s						
WTTA	**Wattenberg**	**147.45**	**331**	*e*PKP	**PKPbc**	**07 16 10.3**	**-0.3**
	comp=Z,2.9nm,0.5s						
MOTA	**Moosalm**	**147.63**	**332**	*e*PKP	**PKPbc**	**07 16 10.6**	**-0.5**
	comp=Z,6.5nm,0.6s						
SQTA	**Sankt Quirin**	**147.67**	**332**	*e*PKP	**PKPbc**	**07 16 10.9**	**-0.2**
	comp=Z,8.1nm,0.5s						
FETA	**Feichten**	**148.04**	**332**	*e*PKP	**PKPbc**	**07 16 12.1**	**-0.1**
	comp=Z,10nm,1.1s						
DAVA	**Damuels**	**148.20**	**333**	*e*PKP	**PKPbc**	**07 16 12.5**	**-0.1**
	comp=Z,3.1nm,0.6s						
DAVOX	**Davos/Dischmat**	**148.59**	**332**	PKPbc	**PKPbc**	**07 16 13.9**	**+0.2**
	comp=Z,12nm,0.6s,baz=0.0,slow=1.0,SNR=22						

IDC 23 07:03:08.1±1.3**, 4°.94S**×**150°.90E, h0^{km}, mb3.6**/3**, mbtmp3.7**/3**, Error ellipse: s-maj=85.2km s-min=16.5km az=146.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KRVT	**Keravat (AS076**	**1.28**	**61**	Pn	Pb	07 03 33.0	-0.1
	274nm,0.3s,baz=323,slow=1.6,SNR=21						
KRVT				Sn	Sn	07 03 51.4	+0.2
	625nm,0.3s,baz=313,slow=22,SNR=46						
KRVT				LR	LR	07 04 07.6	
	comp=Z,262nm,18.0s,baz=333,slow=46						
WRA	**Warramunga Arr**	**21.96**	**226**	P	P	07 08 04.8	+1.0
	0.7nm,0.6s,baz=52,slow=11,SNR=6.5						
	0.7nm,0.6s						
ASAR	**Alice Springs**	**24.80**	**220**	P	P	07 08 31.9	-0.3
	1.1nm,0.8s,baz=58,slow=8.7,SNR=13						
	1.1nm,0.8s						
FITZ	**Fitzroy Crossi**	**27.94**	**240**	P	P	07 09 00.7	+0.2
	1.4nm,0.6s,baz=54,slow=8.7,SNR=1.6						
	1.4nm,0.6s						
TORD	**Torodi Ar. Bea**	**148.55**	**287**	PKPbc	PKPbc	07 22 56.7	-1.4
	1.2nm,0.8s,baz=73,slow=3.1,SNR=5.8						

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*ASRS **23** 07:05:23.0±1.8, 53°.74N×91°.06E, h0^{km}, M3.3(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

NNC 23 07:05:31.6±4.0**, 53°.68N**×**90°.56E, h0^{km}, mb3.6, mpv3.3, 6C-4D, Error ellipse: s-maj=31.1km s-min=25.2km az=32.0, Suspected Mining explosion., Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAA0	**Zalesovo Array**	**3.42**	**277**	⇓Pg	Pb	07 06 32.0	-0.9
	4.0nm,0.6s						
ZAA0				⇑Lg	Lg	07 07 22.4	
	26nm,0.6s						
KURK	**Kurchatov**	**7.92**	**253**	⇓Pn	Pn	07 07 29.5	+1.6
	0.7nm,0.7s						
KURK				⇑Sn	Sn	07 08 59.8	+1.8
	3.5nm,0.7s						
KURK				⇑Lg	Lg	07 09 47.0	
	12nm,1.1s						
KURBB	**Kurchatov Arra**	**8.01**	**252**	⇑Pn	Pn	07 07 30.7	+1.6
	2.9nm,0.6s						
KURBB				⇓Sn	Sn	07 08 59.3	-1.1
	28nm,0.8s						
KURBB				⇑Lg	Lg	07 09 48.7	
	22nm,0.7s						
MK31	**Makanchi Array**	**8.69**	**221**	Pn	Pn	07 07 38.4	-0.2
	0.5nm,0.7s,baz=35,slow=13,SNR=9.3						
MK31				⇑Sn	Sn	07 09 18.0	+0.8
	1.2nm,0.8s,baz=38,slow=26,SNR=3.7						
MK31				⇓Lg	Lg	07 10 04.8	
	4.9nm,0.8s,baz=35,slow=28,SNR=3.6						

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*IDC **23** 07:10:30.4±1.6, 26°.78N×128°.44E, h45^{km}±8^{km}, mb3.5/6, mbtmp3.8/7, ML3.9/1, Error ellipse: s-maj=27.5km s-min=6.1km az=110.0*

*NIED **23** 07:10:30.1, 26°.45N×128°.28E, h37^{km}, MW4.0, Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M_{rr}-0.30; $M_{\theta\theta}$-0.02; $M_{\phi\phi}$0.32; $M_{r\theta}$-0.10; $M_{\theta\phi}$0.99; $M_{\phi r}$0.05; Fault plane solution: $M_0$1.01000×10^{15} NP1: ϕ_s175.00000°, δ82.00000°, λ-173.00000°. NP2: ϕ_s85.00000°, δ83.00000°, λ-8.00000°.*

*JMA **23** 07:10:30.1±0.2, 26°.5N±0°.9×12°8E± °, h37^{km}±2^{km}, MD3.8/20, MV3.6/20, NEAR OKINAWAJIMA ISLAND*

JMA Felt I J1 at NEAR OKINAWAJIMA ISLAND .

ISC 23 07:10:24.7±0.8**, 26°.27N**±0°.04×**128°.52E**±0°.03**, h20^{km}**±5^{km}**, n24, σ1^{s}23**/39**, mb3.7**/6**, Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JNTH	**Nagotoyohara**	**0.51**	**299**	*i* P	**Pn**	**07 10 37.2**	**+0.3**
JNTH				A	A	07 10 37.2	
	comp=N,13nm,0.4s,comp=E,11nm,1.0s						
JNTH				S	**Sb**	**07 10 42.3**	**+0.3**
JOW	**Kunigami**	**0.60**	**339**	P	**Pn**	**07 10 39.0**	**+0.8**
	comp=E,2μm,0.2s,baz=110,slow=22,SNR=2907						
JOW				S	**Sb**	**07 10 45.5**	**+0.7**
	comp=E,832nm,0.3s,baz=11,slow=22,SNR=5.0						
JOW	**Kunigami**	**0.60**	**339**	*i* P	**Pn**	**07 10 39.2**	**+1.0**
JOW				A	A	07 10 39.2	
	comp=N,10.0nm,0.6s,comp=E,14nm,0.4s						
JOW				S	**Sb**	**07 10 45.9**	**+1.1**
JJT3	**Tamagusuku3**	**0.67**	**260**	*i* P	**Pn**	**07 10 41.1**	**+2.1**
JJT3				A	A	07 10 41.1	
	comp=N,18nm,0.7s,comp=E,19nm,0.9s						
JJT3				S	**Sn**	**07 10 50.4**	**+1.4**
JYRO	**Yoronjima**	**0.76**	**355**	*i* P	**Pn**	**07 10 41.9**	**+1.7**
JYRO				S	**Sn**	**07 10 50.5**	**-0.6**
JIH	**Iheya**	**0.91**	**327**	P	**Pn**	**07 10 42.8**	**+0.4**
JIH				A	A	07 10 42.8	
	comp=N,9.0nm,1.7s,comp=E,7.0nm,2.8s						
JIH				*e*S	**Sb**	**07 10 52.6**	**-0.9**
JOKE	**Okinoerabujima**	**1.09**	**2**	*i* P	**Pb**	**07 10 46.7**	**+1.8**
JOKE				S	**Sn**	**07 10 58.9**	**-0.4**
JAGN	**Aguni-jima**	**1.19**	**286**	P	**Pb**	**07 10 47.0**	**+0.4**
JAGN				A	A	07 10 47.0	
	comp=N,6.0nm,0.4s,comp=E,8.0nm,0.5s						
JAGN				*e*S	**Sb**	**07 10 59.8**	**-1.7**
JKE	**Kume jima 2**	**1.56**	**273**	*e*P	**Pn**	**07 10 51.7**	**+0.4**
JKE				S	**Sn**	**07 11 08.2**	**-2.6**
JTK	**Tokunoshima**	**1.56**	**14**	*i* P	**Pb**	**07 10 53.8**	**+0.8**
JTK				*e*S	**Sb**	**07 11 12.2**	**0.0**
JAMN	**Amaminishikomi**	**2.05**	**16**	*i* P	**Pb**	**07 11 00.3**	**-1.0**
JAMN				*e*S	**Sn**	**07 11 24.0**	**+0.9**
JAM	**Amami Oshima**	**2.34**	**24**	*i* P	**Pb**	**07 11 04.8**	**-1.4**
JAM				S	**Sn**	**07 11 31.5**	**+1.2**
JZK	**Kikaishima**	**2.42**	**32**	P	**Pb**	**07 11 06.8**	**-0.7**
JMZ	**Minamidaito 2**	**2.47**	**100**	P	**Pb**	**07 11 08.7**	**+0.2**
JMZ				*e*S	**Sb**	**07 11 37.8**	**-0.7**
JKDJ	**Kitadaitoujima**	**2.52**	**97**	*e*P	**Pb**	**07 11 09.5**	**+0.3**
JKDJ				*e*S	**Sb**	**07 11 39.5**	**-0.3**
JTAJ	**Takarajima**	**2.94**	**12**	*e*P	**Pn**	**07 11 11.8**	**+1.5**
JTAJ				*e*S	**Sn**	**07 11 44.0**	**-0.9**
JYAK	**Yakushimahirau**	**4.33**	**23**	*e*P	**Pn**	**07 11 31.2**	**+1.9**
JYAK				*e*S	**Sn**	**07 12 18.2**	**-1.0**
JNU	**Nakatsue**	**7.13**	**16**	P	**Pn**	**07 12 06.6**	**-1.3**
	comp=E,2.2nm,0.3s,baz=198,slow=19,SNR=11						
	comp=E,13nm,1.1s						
JNU				AML	AML		
MKAR	**Makanchi Array**	**41.70**	**312**	P	**P**	**07 18 11.4**	**-0.7**
	comp=E,0.8nm,0.7s,baz=91,slow=9.1,SNR=8.1						
	comp=E,0.8nm,0.7s						
ZALV	**Zalesovo Beam**	**42.37**	**323**	P	**P**	**07 18 14.7**	**-2.8**
	comp=E,0.6nm,0.6s,baz=110,slow=8.4,SNR=2.1						
	comp=E,0.6nm,0.6s						
KURBB	**Kurchatov Arra**	**45.01**	**316**	P	**P**	**07 18 37.9**	**-0.8**
	comp=E,0.5nm,0.5s,baz=104,slow=9.2,SNR=5.4						
	comp=E,0.5nm,0.5s						
WRA	**Warramunga Arr**	**46.28**	**172**	P	P	07 18 55.3	+6.3
	comp=E,0.4nm,0.8s,baz=354,slow=8.4,SNR=2.2						
	comp=E,0.4nm,0.8s						
BVAR	**Borovoye Array**	**50.42**	**318**	P	**P**	**07 19 20.4**	**-0.2**
	comp=E,1.2nm,0.5s,baz=74,slow=11,SNR=5.4						
	comp=E,1.2nm,0.5s						
FINES	**FINESS Array B**	**72.96**	**331**	P	**P**	**07 21 52.8**	**+0.3**
	comp=E,2.5nm,1.0s,baz=81,slow=8.9,SNR=4.7						
	comp=E,2.5nm,1.0s						

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*IDC **23** 07:22:07.9±0.9, 50°.93N×73°.64E, h0^{km}, mb3.4/1, mbtmp3.3/8, ML2.6/7, Error ellipse: s-maj=12.4km s-min=8.2km az=23.0*

*NNC **23** 07:22:08.7±1.5, 51°.01N×73°.68E, h0^{km}, mb3.5, mpv3.1, Error ellipse: s-maj=15.3km s-min=10.9km az=34.0, Suspected Mining explosion.*

ISC 23 07:22:08.5±0.8**, 50°.90N**±0°.06×**73°.60E**±0°.05**, h0^{km}, n15, σ1^{s}72**/19**, 10C-4D, Central Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BVAR	**Borovoye Array**	**2.91**	**318**	Pn	**Pn**	**07 22 57.4**	**+1.4**
	0.2nm,0.3s,baz=136,slow=15,SNR=12						
BVAR				Sn	**Sn**	**07 23 32.5**	**+0.8**
	0.1nm,0.3s,baz=128,slow=30,SNR=5.0						
	4.1nm,0.5s						
BVAR				AML	AML		
BVB5	**Borovoye Array**	**2.92**	**318**	⇓Pg	**Pb**	**07 23 01.4**	**0.0**
	7.2nm,0.7s						
BVB5				⇑Lg	Lg	07 23 40.1	
	46nm,0.8s						
KURBB	**Kurchatov Arra**	**3.14**	**93**	Pn	**Pn**	**07 22 59.5**	**+0.2**
	0.2nm,0.3s,baz=279,slow=14,SNR=50						
KURBB				Lg	Lg	07 23 46.9	
	0.6nm,0.3s,baz=280,slow=29,SNR=12						
	7.1nm,0.7s						
KURBB				AML	AML		
KURBB	**Kurchatov Arra**	**3.14**	**93**	⇑Pg	**Pb**	**07 23 05.8**	**+0.6**
	12nm,0.5s						
KURBB				⇑Lg	Lg	07 23 48.8	
	100nm,0.7s						
KURK	**Kurchatov**	**3.19**	**91**	⇑Pg	**Pb**	**07 23 04.6**	**-1.4**
	2.0nm,0.6s						
KURK				⇑Lg	Lg	07 23 47.4	
	25nm,0.8s						
MK31	**Makanchi Array**	**7.05**	**122**	⇓Pg	**Pb**	**07 24 13.1**	**+1.3**
	0.4nm,0.5s,baz=309,slow=13,SNR=5.6						
MK31				⇑Lg	Lg	07 25 47.1	
	15nm,0.8s,baz=309,slow=26,SNR=5.1						
MKAR	**Makanchi Array**	**7.05**	**122**	Pn	**Pn**	**07 23 52.4**	**-0.6**
	0.1nm,0.3s,baz=305,slow=18,SNR=3.1						
MKAR				Sn	**Sn**	**07 25 14.2**	**+0.3**
	0.2nm,0.3s,baz=287,slow=18,SNR=5.3						
MKAR				Lg	Lg	07 25 46.4	
	0.4nm,0.3s,baz=313,slow=24,SNR=11						
	0.3nm,0.6s						
MKAR				AML	AML		
ZALV	**Zalesovo Beam**	**7.50**	**62**	Pn	**Pn**	**07 23 58.3**	**-0.8**
	0.2nm,0.3s,baz=245,slow=15,SNR=5.8						
ZALV				Lg	Lg	07 26 04.2	
	0.2nm,0.3s,baz=252,slow=27,SNR=1.8						
	0.9nm,0.5s						
ZALV				AML	AML		
KK31	**Karatay Array**	**8.08**	**196**	⇑Sn	**Sn**	**07 25 43.5**	**+4.3**
	1.7nm,0.6s						
KK31				⇑Lg	Lg	07 26 29.3	
	12nm,0.8s,baz=18,slow=26,SNR=6.8						
AAK	**Ala-Archa**	**8.29**	**175**	Pn	**Pn**	**07 24 08.8**	**-1.4**
	0.2nm,0.3s,baz=0.0,slow=11,SNR=1.5						
AAK				Sn	**Sn**	**07 25 43.9**	**-0.6**
	0.2nm,0.3s,baz=84,slow=22,SNR=1.9						
AAK				Lg	Lg	07 26 31.6	
	0.3nm,0.3s,baz=216,slow=19,SNR=5.7						
	0.5nm,0.3s						
AAK				AML	AML		
AAK	**Ala-Archa**	**8.29**	**175**	⇑Sn	**Sn**	**07 25 46.1**	**+1.6**
	3.2nm,0.9s						
AAK				⇓Lg	Lg	07 26 29.7	
	31nm,1.0s						
PDGK	**Podgornoye**	**8.57**	**150**	⇑Sn	Sn	07 26 00.7	+9.3
	5.1nm,1.1s						
PDGK				⇓Lg	Lg	07 26 40.5	
	23nm,0.9s						
AKTO	**Aktyubinsk**	**9.91**	**273**	Pn	**Pn**	**07 24 31.1**	**-1.0**
	0.2nm,0.3s,baz=108,slow=9.6,SNR=1.4						
AKTO				Sn	**Sn**	**07 26 20.3**	**-3.7**
	0.3nm,0.3s,baz=333,slow=5.7,SNR=1.3						
AKTO				Lg	Lg	07 27 21.5	
	0.3nm,0.3s,baz=238,slow=16,SNR=4.1						
	0.8nm,0.3s						
AKTO				AML	AML		
ARTI	**Arti**	**10.56**	**307**	Pn	**Pn**	**07 24 40.5**	**-0.5**
	0.4nm,0.3s,baz=93,slow=18,SNR=1.9						
ARTI				Sn	**Sn**	**07 26 41.1**	**+1.3**
	0.5nm,0.3s,baz=301,slow=16,SNR=1.8						
ARTI				Lg	Lg	07 27 29.3	
	0.3nm,0.3s,baz=85,slow=20,SNR=3.8						
	1.1nm,0.3s						
ARTI				AML	AML		
ILAR	**Eielson Array**	**60.47**	**19**	P	**P**	**07 32 19.1**	**-0.4**
	0.3nm,0.6s,baz=325,slow=5.0,SNR=5.3						
	0.3nm,0.6s						

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*IDC **23** 07:23:48.1±5.4, 6°.14S×149°.26E, h53^{km}±48^{km}, mb3.5/4, mbtmp4.0/6, ML4.3/1, MS2.9/3, Error ellipse: s-maj=63.4km s-min=23.7km az=102.0*

ISC 23 07:23:48.9±1.1**, 6°.1S**±0°.2×**149°.2E**±0°.3**, h60^{km}, n9, σ0^{s}47**/8**, mb3.7**/4**, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**3.84**	**211**	P	**Pn**	**07 24 45.5**	**-0.1**
	65nm,0.3s,baz=23,slow=13,SNR=29						
PMG				S	**Sn**	**07 25 29.5**	**+0.1**
	196nm,0.5s,baz=9.3,slow=20,SNR=13						
JAY	**Jayapura**	**9.16**	**293**	LR	LR	07 29 28.1	
	comp=Z,44nm,18.7s,baz=357,slow=37						
WRA	**Warramunga Arr**	**19.92**	**225**	P	**P**	**07 28 15.8**	**-0.1**
	0.8nm,0.3s,baz=51,slow=11,SNR=42						
	3.6nm,0.5s						
WRA				AML	AML		
ASAR	**Alice Springs**	**22.82**	**218**	P	**P**	**07 28 47.0**	**0.0**
	1.1nm,0.5s,baz=54,slow=9.6,SNR=38						
ASAR				LR	LR	07 38 08.0	
	comp=Z,59nm,18.1s,baz=116,slow=38						
	1.1nm,0.5s						
KSRS	**Korea Array**	**47.65**	**337**	LR	LR	07 52 21.4	
	comp=Z,8.5nm,18.1s,baz=205,slow=36						
PETK	**Petropavlovsk-**	**59.43**	**6**	P	**P**	**07 33 45.5**	**+0.2**
	1.3nm,0.6s,baz=163,slow=7.7,SNR=6.6						
	1.3nm,0.6s						
VNDA	**Vanda**	**71.69**	**177**	P	**P**	**07 35 04.7**	**+0.6**
	0.2nm,0.4s,baz=333,slow=7.0,SNR=5.4						
	0.2nm,0.4s						
QSPA	**South Pole Qui**	**83.86**	**180**	P	**P**	**07 36 11.7**	**-0.3**
	0.7nm,0.6s,baz=353,slow=7.1,SNR=12						
	0.7nm,0.6s						
BDFB	**Brasilia**	**152.50**	**142**	PKPbc	**PKPbc**	**07 43 39.0**	**-0.7**
	3.2nm,0.4s,baz=234,slow=3.3,SNR=8.4						

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*IDC **23** 07:29:38.3±3.9, 24°.18N×108°.76W, h0^{km}, mbtmp2.8/3, ML3.6/2, Error ellipse: s-maj=67.4km s-min=16.0km az=150.0*

*MEX **23** 07:29:45.1±0.3, 24°.71N×109°.17W, h16^{km}±6^{km}, MD4.1, Presumed earthquake*

ISC 23 07:29:41.6±1.0**, 24°.63N**±0°.07×**109°.18W**±0°.06**, h10^{km}, n8, σ2^{s}47**/15**, Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TSIG	**Topolobambo**	**0.97**	**7**	*e*P	**Pg**	**07 29 59.0**	**-1.3**
TSIG				*e*S	**Sg**	**07 30 09.9**	**-3.1**
LPIG	**La Paz**	**1.16**	**243**	Pn	**Pn**	**07 30 03.7**	**-0.1**
	12nm,0.3s,baz=191,slow=7.2,SNR=18						
LPIG				Sn	**Sb**	**07 30 15.7**	**-3.0**
	87nm,0.3s,baz=42,slow=9.9,SNR=14						
LPIG	**La Paz**	**1.16**	**243**	*e*P	**Pn**	**07 30 03.6**	**-0.1**
LPIG				*e*S	**Sb**	**07 30 17.6**	**-1.1**
SSIG	**Sanalona**	**1.86**	**84**	*i* P	**Pn**	**07 30 12.3**	**-1.2**
SSIG				*e*S	**Sn**	**07 30 34.2**	**-3.0**
CSIG	**Choix**	**2.31**	**18**	*e*P	**Pn**	**07 30 19.0**	**-0.7**
CSIG				*e*S	**Sn**	**07 30 45.4**	**-2.8**
TXAR	**Lajitas Array**	**6.79**	**45**	Pn	**Pn**	**07 31 22.4**	**+1.0**
	0.1nm,0.3s,baz=215,slow=14,SNR=6.7						
TXAR				Pg	**Pb**	**07 31 42.9**	**+3.1**
	0.2nm,0.3s,baz=214,slow=14,SNR=6.0						
TXAR				Sn	**Sn**	**07 32 37.6**	**-1.2**
	0.4nm,0.3s,baz=222,slow=18,SNR=4.7						
TXAR				Lg	Lg	07 33 16.4	
	1.0nm,0.3s,baz=244,slow=26,SNR=7.7						
	0.2nm,0.4s						
TXAR				AML	AML		
NVAR	**Mina Array Bea**	**15.79**	**333**	Pn	**P**	**07 33 32.2**	**+4.0**
	0.1nm,0.3s,baz=158,slow=12,SNR=6.5						
PDAR	**Pinedale Array**	**18.09**	**359**	P	**Pn**	**07 33 55.4**	**+2.1**
	baz=177,slow=10,SNR=2.2						
	0.3nm,0.8s						

NNC 23 07:41:32.8±5.0**, 38°.59N**×**71°.83E, h0^{km}, mb3.8, mpv3.6, 3C-1D, Error ellipse: s-maj=35.0km s-min=27.6km az=177.0, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IUG	**Iuzhnay**	**3.81**	**339**	Pg	Pg	07 42 44.1	-1.7
	18nm,0.3s						
IUG				Lg	Lg	07 43 37.5	
	18nm,0.6s						
MRKS	**Merke**	**4.28**	**14**	Pg	Pb	07 42 51.7	+2.6
	3.7nm,0.5s						
MRKS				Lg	Lg	07 43 50.9	
	12nm,0.6s						
AAK	**Ala-Archa**	**4.52**	**26**	⇑Pg	Pb	07 42 54.4	+1.2
	0.6nm,0.4s						
AAK				⇓Lg	Lg	07 43 57.2	

	2.0nm,0.7s						
KK31	**Karatay Array**	**4.62**	**348**	⇑Pg	Pb	07 42 55.3	+0.5
	2.5nm,0.2s,baz=173,slow=12,SNR=30						
KK31				⇑Lg	Lg	07 43 57.3	
	1.5nm,0.2s,baz=178,slow=22,SNR=11						
BRLS	**Borolday**	**4.69**	**342**	Pg	Pb	07 42 52.7	-3.3
	3.8nm,0.2s						
BRLS				Lg	Lg	07 43 52.7	
	9.3nm,0.5s						
AB31	**Akbulak array**	**13.66**	**325**	P	Pn	07 44 50.4	+2.6
	0.4nm,0.3s,baz=135,slow=14,SNR=15						

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*NOU **23** 07:49:54.2, 40°.55S×173°.82E, h62km, MLv3.6/16, Cook Strait, New Zealand*

*WEL **23** 07:49:54.5±0.6, 41°S±2°×17°4E±°, h70km±7km, M2.9/16, ML2.9/22, MLv2.9/16, Error ellipse: s-maj=3.7km s-min=3.0km az=98.9, confirmed*

ISC 23 07:49:53.0±1.3**, 40°.57S**±0°.03×**173°.87E**±0°.03**, h92**km±8km**, n92, σ1s.04**/109**, Cook Strait**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DUWZ	**D'Urville Isla**	**0.24**	**171**	P	**Pn**	**07 50 06.3**	**-0.2**
DUWZ				S	**Sn**	**07 50 15.7**	**-0.9**
DUWZ				AML	AML		
DUWZ				AML	AML		
TCW	**Tory Channel**	**0.71**	**155**	P	**Pn**	**07 50 10.3**	**+0.5**
TCW				S	**Sn**	**07 50 22.9**	**+0.5**
TCW				AML	AML		
TCW				AML	AML		
NNZ	**Nelson**	**0.75**	**210**	P	**Pn**	**07 50 10.6**	**+0.4**
NNZ				S	**Sn**	**07 50 23.6**	**+0.5**
NNZ				AML	AML		
NNZ				AML	AML		
TKNZ	**Takaka Hill**	**0.83**	**236**	P	**Pn**	**07 50 11.1**	**-0.1**
TKNZ				S	**Sn**	**07 50 24.3**	**-0.4**
TKNZ				AML	AML		
TKNZ				AML	AML		
KIW	**Kapiti Island**	**0.84**	**111**	P	**Pn**	**07 50 11.9**	**+0.7**
KIW				AML	AML		
KIW				AML	AML		
TUWZ	**Tuamarina**	**0.86**	**177**	P	**Pn**	**07 50 11.8**	**+0.4**
TUWZ				S	**Sn**	**07 50 25.7**	**+0.6**
TUWZ				AML	AML		
SNZO	**South Karori**	**0.97**	**140**	P	**Pn**	**07 50 13.5**	**+0.9**
SNZO	**South Karori**	**0.97**	**140**	P	**Sn**	**07 50 26.6**	**-0.6**
WEL	**Wellington**	**0.99**	**137**	P	**Pn**	**07 50 14.2**	**+1.5**
OGWZ	**Otaki Gorge**	**1.02**	**105**	P	**Pn**	**07 50 13.7**	**+0.6**
OGWZ				S	**Sn**	**07 50 27.7**	**-0.4**
OGWZ				AML	AML		
OGWZ				AML	AML		
CAW	**Cannon Point**	**1.05**	**121**	P	**Pn**	**07 50 14.6**	**+1.1**
CAW				S	**Sn**	**07 50 28.5**	**-0.4**
CAW				AML	AML		
CAW				AML	AML		
QRZ	**Quartz Range**	**1.05**	**255**	P	**Pn**	**07 50 12.6**	**-0.9**
QRZ	**Quartz Range**	**1.05**	**255**	P	**Sn**	**07 50 27.4**	**-1.5**
QRZ	**Quartz Range**	**1.05**	**255**	P	**Pn**	**07 50 13.0**	**-0.5**
QRZ				S	**Sn**	**07 50 27.7**	**-1.2**
QRZ				AML	AML		
QRZ				AML	AML		
BHW	**Baring Head**	**1.13**	**138**	P	**Pn**	**07 50 16.1**	**+1.8**
BSWZ	**Blackbirch Sta**	**1.15**	**180**	P	**Pn**	**07 50 15.6**	**+1.1**
BSWZ				AML	AML		
BSWZ				AML	AML		
WAZ	**Wanganui**	**1.18**	**47**	P	**Pn**	**07 50 15.9**	**+0.9**
WAZ				AML	AML		
LREZ	**Lake Rotokare**	**1.18**	**20**	P	**Pn**	**07 50 15.7**	**+0.7**
LREZ				S	**Sn**	**07 50 32.8**	**+1.4**
LREZ				AML	AML		
LREZ				AML	AML		
MRNZ	**Matariki Terra**	**1.19**	**225**	P	**Pn**	**07 50 15.5**	**+0.5**
MRNZ				S	**Sn**	**07 50 32.1**	**+0.4**
MRNZ				AML	AML		
MRNZ				AML	AML		
PREZ	**Palmer Road**	**1.24**	**10**	P	**Pn**	**07 50 16.1**	**+0.3**
PREZ				S	**Sn**	**07 50 32.9**	**+0.1**
PREZ				AML	AML		
PREZ				AML	AML		
KHEZ	**Kahui Hut**	**1.27**	**5**	P	**Pn**	**07 50 16.5**	**+0.3**
KHEZ	**Kahui Hut**	**1.27**	**5**	P	**Sn**	**07 50 31.2**	**-2.4**
KHEZ	**Kahui Hut**	**1.27**	**5**	P	**Pn**	**07 50 16.3**	**+0.1**
KHEZ				S	**Sn**	**07 50 33.2**	**-0.5**
KHEZ				AML	AML		
HOWZ	**Holdsworth Sta**	**1.29**	**105**	P	**Pn**	**07 50 16.2**	**-0.1**
HOWZ				S	**Sn**	**07 50 32.3**	**-1.6**
HOWZ				AML	AML		
HOWZ				AML	AML		
NBEZ	**Newall Road No**	**1.30**	**360**	P	**Pn**	**07 50 16.7**	**+0.3**
NBEZ				S	**Sn**	**07 50 33.8**	**-0.2**
NBEZ				AML	AML		
NBEZ				AML	AML		
MSWZ	**Moikau Station**	**1.34**	**130**	P	**Pn**	**07 50 17.7**	**+0.7**
MSWZ				AML	AML		
MSWZ				AML	AML		
PKE	**Pukeiti**	**1.37**	**4**	P	**Pn**	**07 50 17.6**	**+0.2**
PKE				S	**Sn**	**07 50 35.4**	**-0.3**
PKE				AML	AML		
PKE				AML	AML		
THZ	**Tophouse**	**1.40**	**211**	P	**Pn**	**07 50 18.4**	**+0.7**
THZ				S	**Sn**	**07 50 38.2**	**+1.8**
THZ				AML	AML		
PLWZ	**Palliser**	**1.45**	**134**	P	**Pn**	**07 50 18.4**	**+0.2**
PLWZ				S	**Sn**	**07 50 35.3**	**-2.1**
PLWZ				AML	AML		
PLWZ				AML	AML		
VRZ	**Vera Road**	**1.59**	**26**	P	**Pn**	**07 50 20.4**	**+0.3**
VRZ				AML	AML		
TRWZ	**Traveller**	**1.60**	**122**	P	**Pn**	**07 50 20.7**	**+0.5**
TRWZ				AML	AML		
TMWZ	**Te Maipa**	**1.62**	**110**	P	**Pn**	**07 50 20.3**	**-0.1**
TMWZ				AML	AML		
TMWZ				AML	AML		
TSZ	**Takapari Road**	**1.68**	**73**	P	**Pn**	**07 50 20.5**	**-0.6**
TRVZ	**Turoa**	**1.81**	**46**	P	**Pn**	**07 50 23.3**	**+0.3**
TRVZ				AML	AML		
MAVZ	**Matarangi**	**1.83**	**46**	P	**Pn**	**07 50 26.1**	**+2.6**
FWVZ	**Far West T-bar**	**1.84**	**45**	P	**Pn**	**07 50 24.0**	**+0.5**
FWVZ				AML	AML		
WHVZ	**Whangaehu Hut**	**1.84**	**46**	P	**Pn**	**07 50 24.1**	**+0.7**
WHVZ				AML	AML		
MOVZ	**Moawhango**	**1.85**	**52**	P	**Pn**	**07 50 21.8**	**-1.7**
KHZ	**Kahutara**	**1.86**	**188**	P	**Pn**	**07 50 23.9**	**+0.4**
KHZ	**Kahutara**	**1.86**	**188**	S	**Sn**	**07 50 45.7**	**-1.0**
KHZ	**Kahutara**	**1.86**	**188**	P	**Pn**	**07 50 24.1**	**+0.6**
COVZ	**Chateau Observ**	**1.87**	**44**	P	**Pn**	**07 50 24.4**	**+0.7**
PNHZ	**Pukenui**	**1.90**	**71**	P	**Pn**	**07 50 23.1**	**-0.9**
TWVZ	**Taurewa**	**1.92**	**39**	P	**Pn**	**07 50 24.7**	**+0.4**
TWVZ				AML	AML		
TWVZ				AML	AML		
NGZ	**Ngauruhoe**	**1.92**	**44**	P	**Pn**	**07 50 26.6**	**+2.2**
SNVZ	**South Ngauruho**	**1.94**	**45**	P	**Pn**	**07 50 26.4**	**+1.7**
DSZ	**Denniston Nort**	**1.96**	**232**	P	**Pn**	**07 50 25.0**	**+0.3**
DSZ				AML	AML		
WTVZ	**West Tongariro**	**1.96**	**43**	P	**Pn**	**07 50 25.2**	**+0.3**
BHHZ	**Black Hill Sta**	**2.00**	**58**	P	**Pn**	**07 50 24.4**	**-0.9**
KRVZ	**Karewarewa**	**2.00**	**43**	P	**Pn**	**07 50 26.5**	**+1.0**
ETVZ	**East Tongariro**	**2.01**	**45**	P	**Pn**	**07 50 25.8**	**+0.2**
NTVZ	**North Tongarir**	**2.02**	**44**	P	**Pn**	**07 50 27.1**	**+1.4**
TMVZ	**Te Maari**	**2.02**	**45**	P	**Pn**	**07 50 26.7**	**+1.0**
WPHZ	**Waipukurau**	**2.03**	**76**	P	**Pn**	**07 50 24.6**	**-1.0**
KATZ	**Kakaramea**	**2.12**	**42**	P	**Pn**	**07 50 28.9**	**+1.9**
KRHZ	**Kereru**	**2.12**	**65**	P	**Pn**	**07 50 26.0**	**-1.0**
PRHZ	**Porangahau**	**2.13**	**83**	P	**Pn**	**07 50 26.0**	**-1.0**
HIZ	**Hauiti**	**2.19**	**21**	P	**Pn**	**07 50 27.3**	**-0.5**
HIZ	**Hauiti**	**2.19**	**21**	P	**Pn**	**07 50 27.5**	**-0.3**
RATZ	**Rangitukua**	**2.24**	**41**	P	**Pn**	**07 50 30.7**	**+2.2**
KAHZ	**Kahuranaki**	**2.43**	**72**	P	**Pn**	**07 50 29.7**	**-1.2**
BKZ	**Black Stump Fm**	**2.45**	**56**	P	**Pn**	**07 50 33.2**	**+1.9**
BKZ	**Black Stump Fm**	**2.45**	**56**	P	**Pn**	**07 50 32.1**	**+0.8**
GVZ	**Greta Valley S**	**2.48**	**194**	P	**Pn**	**07 50 31.6**	**0.0**
LTZ	**Lake Taylor**	**2.52**	**208**	P	**Pn**	**07 50 32.0**	**-0.1**
TLZ	**Tolley Road**	**2.58**	**31**	P	**Pn**	**07 50 33.7**	**+0.7**
INZ	**Inchbonnie**	**2.82**	**219**	P	**Pn**	**07 50 37.1**	**+0.9**
MTHZ	**Maungataniwha**	**2.86**	**54**	P	**Pn**	**07 50 39.7**	**+3.0**
OXZ	**Oxford**	**3.08**	**206**	P	**Pn**	**07 50 40.0**	**+0.4**
TOZ	**Tahuroa Road**	**3.10**	**25**	P	**Pn**	**07 50 40.0**	**+0.1**
OKCZ	**Okains Bay**	**3.21**	**191**	P	**Pn**	**07 50 40.6**	**-0.9**
MQZ	**McQueen's Vall**	**3.27**	**196**	P	**Pn**	**07 50 40.3**	**-1.8**
AKCZ	**Akaroa Harbour**	**3.38**	**192**	P	**Pn**	**07 50 42.5**	**-1.2**
URZ	**Urewera**	**3.41**	**48**	P	**Pn**	**07 50 45.6**	**+1.6**
URZ	**Urewera**	**3.41**	**48**	P	**Pn**	**07 50 45.0**	**+1.0**
RACZ	**Rakaia**	**3.41**	**202**	P	**Pn**	**07 50 43.5**	**-0.5**
MHCZ	**Mount Hutt**	**3.42**	**209**	P	**Pn**	**07 50 44.5**	**+0.2**
WVZ	**Waitaha Valley**	**3.43**	**222**	P	**Pn**	**07 50 45.4**	**+1.0**
AWAZ	**Awhitu Peninsu**	**3.55**	**10**	P	**Pn**	**07 50 46.3**	**+0.4**
MKAZ	**Moumakai**	**3.60**	**17**	P	**Pn**	**07 50 46.7**	**0.0**
MWZ	**Matawai**	**3.60**	**53**	P	**Pn**	**07 50 48.4**	**+1.7**
WACZ	**Wakanui South**	**3.70**	**203**	P	**Pn**	**07 50 47.8**	**-0.2**
ETAZ	**East Tamaki Re**	**3.70**	**13**	P	**Pn**	**07 50 48.1**	**0.0**
RPZ	**Rata Peaks**	**3.78**	**213**	P	**Pn**	**07 50 51.1**	**+2.0**
RPZ	**Rata Peaks**	**3.78**	**213**	S	**Sn**	**07 51 33.0**	**+0.5**
MBAZ	**Motutapu North**	**3.88**	**12**	P	**Pn**	**07 50 50.5**	**+0.1**
WIAZ	**Waiheke Island**	**3.90**	**15**	P	**Pn**	**07 50 51.0**	**+0.3**
ARCZ	**Arundel**	**3.93**	**210**	P	**Pn**	**07 50 50.5**	**-0.5**
TMZ	**Timaru**	**4.36**	**208**	P	**Pn**	**07 50 56.5**	**-0.5**
MXZ	**Matakaoa Point**	**4.57**	**50**	P	**Pn**	**07 51 00.5**	**+0.7**
ODZ	**Otahua Downs**	**5.07**	**207**	P	**Pn**	**07 51 06.5**	**0.0**
JCZ	**Jackson Bay**	**5.15**	**225**	P	**Pn**	**07 51 08.9**	**+1.2**

NNC 23 08:22:32.4±3.9**, 36°.59N×70°.52E, h93**km±71km**, mb3.1, mpv3.5, 4C-2D, Error ellipse: s-maj=42.8km s-min=28.9km az=130.0, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KK31	**Karatay Array**	**6.51**	**360**	⇓P	Pn	08 24 06.1	+0.5
	2.9nm,0.3s,baz=189,slow=14,SNR=37						
KK31				⇑S	Sn	08 25 18.6	+0.3
	2.8nm,0.5s,baz=190,slow=26,SNR=6.2						
AAK	**Ala-Archa**	**6.78**	**26**	⇑P	Pn	08 24 08.9	-0.5
	0.6nm,0.4s						
AAK				⇑S	Sn	08 25 25.7	+0.7
	1.2nm,0.5s						
AB31	**Akbulak array**	**14.82**	**332**	⇑P	Pn	08 25 56.4	-0.6
	0.4nm,0.3s,baz=162,slow=12,SNR=34						
AKTO	**Aktyubinsk**	**16.51**	**331**	⇓P	P	08 26 18.8	-0.4
	0.5nm,0.5s						

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*IDC **23** 09:34:58.4±1.3, 3°.84N×64°.20E, h0km, mb3.9/9, mbtmp3.9/9, MS3.5/1, Error ellipse: s-maj=43.6km s-min=21.9km az=54.0*

*NEIC **23** 09:35:01.1±1.3, 4°.0N±0°.1×64°.37E±0°.03, h10km±1km, mb4.1/14, Error ellipse: s-maj=20.8km s-min=5.7km az=177.0*

ISC 23 09:35:00.2±0.7**, 4°.0N**±0°.1×**64°.3E**±0°.1**, h10**km**, n27, σ1s.05**/26**, mb4.0**/15**, Carlsberg Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HMDM	**Hanimaadhoo**	**9.27**	**72**	Pn	**Pn**	**09 37 12.8**	**-1.2**
KAAM	**Kaadhehdhoo**	**9.35**	**112**	Pn	**Pn**	**09 37 14.7**	**-0.5**
PALK	**Pallekele**	**16.65**	**78**	Pn	**Pn**	**09 38 53.1**	**-0.8**
PALK				IAmb	IAmb	09 38 55.8	
	comp=Z,12nm,1.1s						
ABPO	**Ambohimpanom**	**28.36**	**216**	P	**P**	**09 40 55.6**	**+0.7**
LODK	**Lodwar**	**28.88**	**270**	P	**P**	**09 40 59.0**	**-0.5**
LODK				IAmb	IAmb	09 41 10.0	
	comp=Z,3.2nm,1.1s						
BTK	**Batken**	**36.40**	**8**	P	**P**	**09 42 04.3**	**-0.6**
BTK				IAmb	IAmb	09 42 11.3	
	comp=Z,3.4nm,1.0s						
AAK	**Ala-Archa**	**39.55**	**12**	P	**P**	**09 42 31.2**	**-0.4**
KBZ	**Khabaz**	**43.88**	**338**	P	**P**	**09 43 08.8**	**+2.0**
	comp=Z,1.7nm,0.5s,baz=348,slow=4.7,SNR=4.2						
	comp=Z,1.7nm,0.5s						
MKAR	**Makanchi Array**	**45.41**	**17**	P	**P**	**09 43 19.9**	**+0.7**
	comp=Z,0.3nm,0.6s,baz=217,slow=11,SNR=2.7						
	comp=Z,0.3nm,0.6s						
AKTO	**Aktyubinsk**	**46.60**	**354**	P	**P**	**09 43 29.8**	**+1.5**
	comp=Z,1.0nm,0.3s,baz=195,slow=8.3,SNR=4.2						
	comp=Z,1.0nm,0.3s						
KURBB	**Kurchatov Arra**	**48.00**	**12**	P	**P**	**09 43 38.5**	**-0.8**
	comp=Z,0.2nm,0.4s,baz=206,slow=8.1,SNR=3.8						
	comp=Z,0.2nm,0.4s						
KURK	**Kurchatov**	**48.11**	**12**	P	**P**	**09 43 39.2**	**-0.9**
KURK				IAmb	IAmb	09 43 41.0	
	comp=Z,0.9nm,0.7s						
ZALV	**Zalesovo Beam**	**52.56**	**15**	P	**P**	**09 44 13.6**	**-0.2**
	comp=Z,1.1nm,0.6s,baz=224,slow=6.0,SNR=4.3						
	comp=Z,1.1nm,0.6s						
ZALV	**Zalesovo Beam**	**52.56**	**15**	P	**P**	**09 44 14.1**	**+0.3**
MLR	**Muntele Rosu**	**53.18**	**327**	LR	LR	10 08 33.0	
	comp=Z,40nm,18.1s,baz=179,slow=38						
BURAR	**Bucovina Array**	**54.92**	**329**	P	**P**	**09 44 29.3**	**-2.0**
BURAR				IAmb	IAmb	09 44 33.5	
	comp=Z,1.9nm,0.9s						
BUR08	**Bucovina Ar. S**	**54.95**	**329**	P	**P**	**09 44 29.4**	**-2.2**
BUR08				IAmb	IAmb	09 44 31.5	
	comp=Z,2.2nm,0.8s						
SONM	**Songino Array**	**56.66**	**33**	P	**P**	**09 44 45.7**	**+1.9**
	comp=Z,0.8nm,0.5s,baz=215,slow=6.7,SNR=4.6						
	comp=Z,0.8nm,0.5s						
ESDC	**Sonseca Array**	**70.79**	**311**	P	**P**	**09 46 16.1**	**-1.1**
	comp=Z,0.6nm,0.8s,baz=103,slow=6.7,SNR=5.7						
	comp=Z,0.6nm,0.8s						
WRA	**Warramunga Arr**	**72.72**	**112**	P	**P**	**09 46 29.3**	**+0.1**
	comp=Z,1.2nm,0.8s,baz=292,slow=5.0,SNR=9.6						
	comp=Z,1.2nm,0.8s						
WRA	**Warramunga Arr**	**72.72**	**112**	P	**P**	**09 46 29.4**	**+0.2**
WB2	**Warramunga Arr**	**72.73**	**112**	P	**P**	**09 46 29.2**	**0.0**
WB0	**Warramunga Arr**	**72.74**	**112**	P	**P**	**09 46 29.4**	**+0.1**
WR8	**Warramunga Arr**	**72.88**	**112**	P	**P**	**09 46 30.1**	**+0.1**
WR0	**Warramunga Arr**	**72.91**	**112**	P	**P**	**09 46 29.9**	**-0.3**
WR0				IAmb	IAmb	09 46 43.0	
	comp=Z,3.0nm,1.1s						
ASAR	**Alice Springs**	**73.07**	**116**	P	**P**	**09 46 31.2**	**+0.1**
	comp=Z,0.9nm,0.6s,baz=287,slow=5.7,SNR=14						
	comp=Z,0.9nm,0.6s						
TXAR	**Lajitas Array**	**144.92**	**342**	PKPbc	**PKPab**	**09 54 37.7**	**+0.1**
	comp=Z,1.4nm,0.8s,baz=62,slow=2.8,SNR=11						

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*IDC **23** 09:36:32.1±1.2, 3°.94N×64°.14E, h0km, mb3.9/11, mbtmp3.9/11, MS3.3/8, Error ellipse: s-maj=36.9km s-min=20.1km az=46.0*

*NEIC **23** 09:36:34.2±0.9, 4°.20N±0°.07×64°.16E±0°.08, h10km±1km, mb4.2/28, Error ellipse: s-maj=15.9km s-min=10.3km az=232.0*

ISC 23 09:36:33.3±0.6**, 4°.11N**±0°.09×**64°.17E**±0°.08**, h10**km**, n54, σ0s.93**/46**, mb4.2**/20**, MS3.2**/7**, Carlsberg Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAAM	**Kaadhehdhoo**	**9.52**	**112**	Pn	**Pn**	**09 38 50.7**	**+0.1**
MSEY	**Mahe Island**	**12.31**	**225**	Pn	**Pn**	**09 39 28.5**	**-0.4**
PALK	**Pallekele**	**16.75**	**78**	LR	LR	09 45 47.0	
	comp=Z,45nm,21.7s,baz=276,slow=33						
PALK	**Pallekele**	**16.75**	**78**	Pn	**Pn**	**09 40 27.4**	**-0.9**
PALK				IAmb	IAmb	09 40 28.3	
	comp=Z,12nm,1.1s						
UOSS	**Minazif**	**22.08**	**340**	P	**P**	**09 41 27.1**	**-1.7**
RAYN	**Ar Rayn**	**26.41**	**319**	P	**P**	**09 42 09.8**	**-0.6**
RER	**Riviere de l'E**	**26.44**	**198**	P	**P**	**09 42 10.8**	**+0.1**
KIBK	**Kibwezi**	**26.88**	**257**	P	**P**	**09 42 14.6**	**-0.2**
KIBK				IAmb	IAmb	09 42 14.9	
	comp=Z,3.8nm,1.1s						
KBL	**Kabul**	**30.61**	**8**	P	**P**	**09 42 47.0**	**-0.9**
BRDH	**Bariadhala**	**32.36**	**53**	LR	LR	09 57 56.7	
	comp=Z,155nm,18.1s,baz=150,slow=40						
GSI	**Gunungsitoli**	**33.48**	**94**	P	**P**	**09 43 13.1**	**-0.1**
MBAR	**Mbarara**	**33.73**	**263**	LR	LR	09 55 57.9	
	comp=Z,49nm,19.0s,baz=156,slow=35						
BTK	**Batken**	**36.28**	**9**	P	**P**	**09 43 36.8**	**-0.4**
BTK				IAmb	IAmb	09 43 42.7	
	comp=Z,7.2nm,1.2s						
CMAR	**Chiang Mai Arr**	**36.86**	**64**	P	**P**	**09 43 42.1**	**-0.1**
	comp=Z,0.5nm,0.3s,baz=247,slow=11,SNR=5.1						
	comp=Z,0.5nm,0.3s						
ASF	**Jabal al Asfar**	**37.85**	**321**	LR	LR	09 57 53.8	
	comp=Z,29nm,19.9s,baz=261,slow=34						
NRN	**Naryn**	**38.64**	**14**	P	**P**	**09 43 56.9**	**-0.5**
AAK	**Ala-Archa**	**39.45**	**12**	P	**P**	**09 44 02.9**	**-1.1**
GNI	**Garni**	**39.93**	**337**	LR	LR	10 01 02.4	
	comp=Z,30nm,21.8s,baz=168,slow=37						
LSZ	**Lusaka**	**40.51**	**241**	LR	LR	09 58 04.1	
	comp=Z,68nm,21.9s,baz=191,slow=32						
ARPR	**Arapgir-MALATY**	**41.98**	**330**	P	**P**	**09 44 23.9**	**-1.0**
ARPR				IAmb	IAmb	09 44 37.8	
	comp=Z,5.8nm,1.1s						
MATP	**Matopo**	**42.67**	**234**	LR	LR	10 00 27.7	
	comp=Z,64nm,18.2s,baz=320,slow=34						
BNN	**Bunyan**	**43.10**	**327**	P	**P**	**09 44 34.0**	**-0.1**
KBZ	**Khabaz**	**43.70**	**338**	P	**P**	**09 44 40.3**	**+1.7**
	comp=Z,1.5nm,0.4s,baz=168,slow=7.0,SNR=5.6						
	comp=Z,1.5nm,0.4s						
BR131	**Keskin Array S**	**44.93**	**326**	P	**P**	**09 44 48.5**	**-0.2**
BR131				IAmb	IAmb	09 45 16.0	
	comp=Z,2.2nm,1.1s						
BRTR	**Keskin Array B**	**44.93**	**326**	P	**P**	**09 44 48.5**	**-0.2**
	comp=Z,0.5nm,0.8s,baz=141,slow=7.1,SNR=4.4						
	comp=Z,0.5nm,0.8s						
AB31	**Akbulak array**	**45.12**	**356**	P	**P**	**09 44 49.0**	**-0.9**
ABKAR	**Akbulak array**	**45.12**	**356**	P	**P**	**09 44 48.9**	**-1.0**
MAKZ	**Makanchi**	**45.24**	**17**	P	**P**	**09 44 49.8**	**-1.1**
MAKZ				IAmb	IAmb	09 45 11.0	
	comp=Z,1.4nm,0.5s						
MKAR	**Makanchi Array**	**45.32**	**17**	P	**P**	**09 44 54.5**	**+2.9**
	comp=Z,0.3nm,0.6s,baz=210,slow=8.0,SNR=2.7						
	comp=Z,0.3nm,0.6s						
MKAR	**Makanchi Array**	**45.32**	**17**	P	**P**	**09 44 52.0**	**+0.4**
AKTO	**Aktyubinsk**	**46.45**	**355**	P	**P**	**09 45 02.5**	**+2.2**
	comp=Z,2.2nm,0.7s,baz=141,slow=8.9,SNR=3.6						
	comp=Z,2.2nm,0.7s						
KURBB	**Kurchatov Arra**	**47.90**	**12**	P	**P**	**09 45 13.2**	**+1.5**
	comp=Z,0.2nm,0.4s,baz=210,slow=8.4,SNR=4.4						
	comp=Z,0.2nm,0.4s						
KURK	**Kurchatov**	**48.01**	**12**	P	**P**	**09 45 12.8**	**+0.4**
KURK				IAmb	IAmb	09 45 30.1	
	comp=Z,2.4nm,1.1s						
ARTI	**Arti**	**52.33**	**356**	P	**P**	**09 45 45.0**	**-0.2**
ZAA0	**Zalesovo Array**	**52.47**	**15**	P	**P**	**09 45 46.1**	**-0.2**
ZAA0				IAmb	IAmb	09 45 48.8	
	comp=Z,4.5nm,1.1s						
ZALV	**Zalesovo Beam**	**52.47**	**15**	P	**P**	**09 45 47.1**	**+0.9**
	comp=Z,1.0nm,0.5s,baz=210,slow=7.9,SNR=4.1						
	comp=Z,1.0nm,0.5s						
ZALV	**Zalesovo Beam**	**52.47**	**15**	P	**P**	**09 45 46.5**	**+0.2**
MLR	**Muntele Rosu**	**53.00**	**327**	P	**P**	**09 45 50.0**	**-0.6**
MYLDM	**Lahad Datu**	**54.15**	**87**	P	**P**	**09 45 58.9**	**-0.5**
SONM	**Songino Array**	**56.61**	**33**	P	**P**	**09 46 18.3**	**+1.6**
	comp=Z,1.0nm,0.5s,baz=231,slow=8.4,SNR=5.9						
	comp=Z,1.0nm,0.5s						
SONM	**Songino Array**	**56.61**	**33**	P	**P**	**09 46 16.5**	**-0.2**
SONM				IAmb	IAmb	09 46 28.1	
	comp=Z,3.0nm,1.3s						
CLL	**Collm**	**63.38**	**327**	*e*P	**P**	**09 47 03.0**	**+0.1**
FINES	**FINESS Array B**	**63.91**	**341**	P	**P**	**09 47 07.0**	**+0.7**
ESDC	**Sonseca Array**	**70.61**	**311**	P	**P**	**09 47 50.3**	**+1.0**
	comp=Z,1.2nm,1.0s,baz=84,slow=4.7,SNR=4.8						
	comp=Z,1.2nm,1.0s						
WRA	**Warramunga Arr**	**72.89**	**112**	P	**P**	**09 48 03.6**	**+0.3**
	comp=Z,1.5nm,0.7s,baz=290,slow=5.2,SNR=10						
	comp=Z,1.5nm,0.7s						
WRA	**Warramunga Arr**	**72.89**	**112**	P	**P**	**09 48 03.8**	**+0.4**
WRAB	**Tennant Creek**	**72.90**	**112**	P	**P**	**09 48 04.0**	**+0.6**
WRAB				IAmb	IAmb	09 48 08.4	
	comp=Z,1.6nm,0.8s						
WB0	**Warramunga Arr**	**72.91**	**112**	P	**P**	**09 48 03.6**	**+0.2**
WB0				IAmb	IAmb	09 48 14.4	
	comp=Z,3.4nm,1.0s						
WR8	**Warramunga Arr**	**73.05**	**112**	P	**P**	**09 48 04.3**	**+0.1**
WR8				IAmb	IAmb	09 48 10.0	
	comp=Z,3.5nm,1.1s						
ASAR	**Alice Springs**	**73.24**	**116**	P	**P**	**09 48 05.5**	**+0.1**
	comp=Z,1.2nm,0.7s,baz=288,slow=5.7,SNR=15						
	comp=Z,1.2nm,0.7s						
ASAR	**Alice Springs**	**73.24**	**116**	P	**P**	**09 48 05.3**	**0.0**
AS31	**Alice Springs**	**73.24**	**116**	P	**P**	**09 48 05.4**	**0.0**
MJAR	**Matsushiro Arr**	**74.75**	**53**	LR	LR	10 23 33.4	
	comp=Z,7.7nm,19.3s,baz=197,slow=38						
TXAR	**Lajitas Array**	**144.75**	**341**	PKP	**PKPdf**	**09 56 12.1**	**+0.7**
	comp=Z,1.6nm,0.8s,baz=62,slow=2.8,SNR=11						

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*THE **23** 09:44:36.6, 37°N±2°×2°0E±°, h0km, M3.4/26, MLh3.4/26*

*ATH **23** 09:44:37.2, 37°.40N×20°.53E, h18km±1km, ML3.6/6, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*

ISC 23 09:44:36.1±2.1**, 37°.33N**±0°.06×**20°.48E**±0°.06**, h5**km±10km**, n36, σ0s.59**/55**, Ionian Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LTHK	**Lithakia**	**0.47**	**36**	P	**Pg**	**09 44 45.7**	**+0.5**
LTHK				S	**Sg**	**09 44 51.9**	**+0.6**
LTHK				AML	AML		
LTHK	**Lithakia**	**0.47**	**36**	P	**Pg**	**09 44 45.6**	**+0.5**
LTHK				S	**Sg**	**09 44 50.9**	**-0.4**
LTHK				AML	AML		
CLEM	**Kyllini,Ilia,G**	**0.76**	**42**	P	**Pg**	**09 44 51.1**	**+0.5**
CLEM				S	**Sg**	**09 45 00.0**	**-0.5**
RTZL	**Ratzakli, Kefa**	**0.78**	**17**	P	**Pg**	**09 44 51.1**	**+0.1**
RTZL				S	**Sb**	**09 45 03.1**	**+0.1**
RTZL				AML	AML		
RTZL	**Ratzakli, Kefa**	**0.78**	**17**	P	**Pg**	**09 44 51.0**	**0.0**
RTZL				AML	AML		
PSDA	**Pessada-Kefalo**	**0.79**	**6**	P	**Pg**	**09 44 51.4**	**+0.2**
PSDA				S	**Sb**	**09 45 03.0**	**-0.2**
PSDA				AML	AML		
PSDA	**Pessada-Kefalo**	**0.79**	**6**	P	**Pg**	**09 44 51.3**	**+0.2**
PSDA				S	**Sg**	**09 45 01.1**	**-0.2**
PSDA				AML	AML		
VLS	**Valsamata**	**0.85**	**6**	P	**Pg**	**09 44 52.5**	**+0.1**
VLS				S	**Sb**	**09 45 04.5**	**-0.5**
VLS				AML	AML		
VLS	**Valsamata**	**0.85**	**6**	P	**Pg**	**09 44 52.4**	**+0.1**
VLS				S	**Sg**	**09 45 03.3**	**-0.1**
VLS				AML	AML		
DMLN	**Damoulianata-K**	**0.91**	**355**	P	**Pg**	**09 44 53.6**	**+0.1**
DMLN				AML	AML		
DMLN	**Damoulianata-K**	**0.91**	**355**	P	**Pg**	**09 44 53.5**	**-0.1**
AMT	**Artemida-Makis**	**1.00**	**78**	P	**Pg**	**09 44 55.2**	**+0.1**
AMT				S	**Sn**	**09 45 11.0**	**-0.3**
AMT				AML	AML		
RLS	**Riolos of Patr**	**1.06**	**47**	P	**Pg**	**09 44 55.9**	**-0.6**
RLS				AML	AML		
RLS	**Riolos of Patr**	**1.06**	**47**	P	**Pg**	**09 44 55.9**	**-0.6**
AXS	**Araxos**	**1.12**	**39**	P	**Pg**	**09 44 56.9**	**-0.6**
AXS				AML	AML		
AXS	**Araxos**	**1.12**	**39**	P	**Pg**	**09 44 56.8**	**-0.7**
FSK	**Fiskardo**	**1.13**	**3**	P	**Pg**	**09 44 57.2**	**-0.5**
FSK				S	**Sn**	**09 45 14.1**	**-0.3**
FSK				AML	AML		
DRO	**Drossia**	**1.15**	**57**	P	**Pg**	**09 44 57.9**	**-0.4**
DRO				S	**Sn**	**09 45 15.0**	**-0.1**
DRO				AML	AML		
DRO	**Drossia**	**1.15**	**57**	P	**Pg**	**09 44 57.8**	**-0.4**
ITM	**Ithomi**	**1.16**	**97**	P	**Pb**	**09 44 57.9**	**-0.8**
ITM				S	**Sn**	**09 45 15.9**	**+0.7**
ITM				AML	AML		
VALY	**Valyra**	**1.21**	**97**	P	**Pb**	**09 44 58.9**	**-0.5**
VALY				AML	AML		
VALY	**Valyra**	**1.21**	**97**	P	**Pb**	**09 44 59.0**	**-0.5**
EVGI	**Lefkada island**	**1.29**	**6**	P	**Pn**	**09 45 00.5**	**-0.3**
EVGI				S	**Sn**	**09 45 19.8**	**+1.2**
EVGI				AML	AML		
PLEV	**Plevrona-Mesol**	**1.30**	**34**	P	**Pn**	**09 45 00.6**	**-0.4**
PLEV				S	**Sn**	**09 45 20.3**	**+1.5**
PLEV				AML	AML		
DRAG	**Dragano-Lefkad**	**1.35**	**3**	P	**Pn**	**09 45 01.2**	**-0.4**
DRAG				AML	AML		
NYDR	**Nydri-Lefkada**	**1.39**	**7**	P	**Pb**	**09 45 02.4**	**-0.1**
NYDR				S	**Sg**	**09 45 22.6**	**+1.9**
NYDR				AML	AML		
LKD2	**Lefkada island**	**1.46**	**5**	P	**Pn**	**09 45 03.1**	**0.0**
LKD2				AML	AML		
LAKA	**Lakka**	**1.49**	**52**	P	**Pb**	**09 45 03.9**	**-0.4**
LAKA				AML	AML		
TSLK	**Tsoukalades, L**	**1.50**	**5**	P	**Pb**	**09 45 04.1**	**-0.3**
TSLK				AML	AML		
KLV	**Kalavryta, Ach**	**1.50**	**61**	P	**Pn**	**09 45 03.7**	**0.0**
KLV				S	**Sg**	**09 45 25.4**	**+1.1**
KLV				AML	AML		
VLX	**Vlachokerasia**	**1.51**	**88**	P	**Pn**	**09 45 04.2**	**+0.4**
VLX				S	**Sg**	**09 45 26.0**	**+1.4**
VLX				AML	AML		
VVK	**Vomvokou**	**1.51**	**44**	P	**Pb**	**09 45 04.1**	**-0.6**
VVK				AML	AML		
PVO	**Paravola**	**1.52**	**32**	P	**Pb**	**09 45 04.6**	**-0.3**
PVO				AML	AML		
SERG	**Sergoula**	**1.65**	**49**	P	**Pn**	**09 45 06.0**	**+0.2**
SERG				S	**Sg**	**09 45 29.0**	**-0.1**
SERG				AML	AML		
KALE	**Kalithea**	**1.69**	**51**	P	**Pg**	**09 45 08.1**	**-0.3**

KALE				S	Sg	09 45 29.8	-0.4
KALE				AML	AML		
AMPL	**Ampelaki**	1.69	20	P	Pb	09 45 07.4	-0.2

IDC ***23*** *09:49:34.0±1.6, 13°.23N×91°.75W, h0^{km}, mb3.7/1, mbtmp3.6/4, ML3.1/4, Error ellipse: s-maj=26.5km s-min=14.2km az=32.0*

GCG ***23*** *09:49:35.4±1.9, 13°.31N×91°.78W, h26^{km}±76^{km}, MD4.6, Presumed earthquake*

CATAC ***23*** *09:49:36.2±0.7, 13°N±4°×9°2W±°, h11^{km}±7^{km}, M3.7/15, MLv3.7/15, Error ellipse: s-maj=14.4km s-min=4.8km az=54.4, confirmed*

NEIC ***23*** *09:49:40.1±0.7, 13°.50N±0°.09×91°.62W±0°.09, h42^{km}±22^{km}, mb4.0/18, Error ellipse: s-maj=14.9km s-min=9.5km az=46.0*

ISC 23 09:49:37.5±1.9**, 13°.38N**±0°.07×**91°.67W**±0°.05**, h27**^{km}±14^{km}**, n62, σ1^{s}00**/73**, mb4.1**/7**, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STG8	**El Palmar, Qui**	1.11	16	iP	Pb	09 49 59.5	+1.2
RTAL	**Retalhuleu**	1.14	359		Pn	09 49 57.0	-0.8
RTAL	**Retalhuleu**	1.14	359	P	Pn	09 49 56.3	-1.5
RTAL				S	Sb	09 50 13.3	+0.1
FG8	**Yepocapa, Chim**	1.39	51	iP	Pn	09 49 59.8	-1.6
FAME	**Alcaldia de Sa**	1.68	74	P	Pn	09 50 04.3	-0.8
FAME				S	Sn	09 50 26.5	+0.6
NUBE	**Las Nubes**	1.91	74	iP	Pn	09 50 08.4	-0.2
NUBE	**Las Nubes**	1.91	74	P	Pn	09 50 08.3	-0.2
NUBE				S	Sb	09 50 33.4	-2.0
HUEH	**Huehuetenango**	1.94	5		Pn	09 50 08.9	-0.1
HUEH	**Huehuetenango**	1.94	5	iP	Pn	09 50 09.0	-0.1
HUEH				iS	Sb	09 50 34.3	-1.9
HUEH	**Huehuetenango**	1.94	5	P	Pn	09 50 08.9	-0.1
HUEH				S	Sb	09 50 34.5	-1.8
LOAL	**Lomas de Alarc**	1.94	71	S	Sb	09 50 35.1	-1.0
SLOZ	**Alcaldia de Sa**	1.95	70	P	Pn	09 50 09.0	+0.1
APG	**El Apazote**	2.00	36	Pn	Pn	09 50 11.0	+1.2
	0.8nm,0.3s,baz=188,slow=12,SNR=38						
APG				Sn	Sn	09 50 35.1	+1.1
	0.7nm,0.3s,baz=108,slow=12,SNR=6.0						
APG				AML	AML		
APG	**El Apazote**	2.00	36	iP	Pn	09 50 10.8	+1.0
CEVE	**Cerro Verde**	2.04	77	P	Pn	09 50 10.2	-0.2
CEVE				S	Sb	09 50 37.8	-1.4
JUAM	**Asuncion Mita**	2.13	63	iP	Pn	09 50 11.5	0.0
UNIC	**Universidad Ca**	2.15	73	P	Pn	09 50 12.0	+0.3
UNIC				S	Sn	09 50 39.4	+1.8
JAYA	**Jayaque - finc**	2.18	82	iP	Pn	09 50 12.0	-0.2
JAYA	**Jayaque - finc**	2.18	82	P	Pn	09 50 12.7	+0.4
JAYA				S	Sn	09 50 39.2	+0.7
PMON	**Piamonte**	2.32	81	P	Pn	09 50 14.7	+0.7
MTO3	**Montecristo**	2.46	65		Pn	09 50 16.6	+0.4
MTO3	**Montecristo**	2.46	65	iP	Pn	09 50 16.6	+0.4
MTO3	**Montecristo**	2.46	65	P	Pn	09 50 16.7	+0.5
ESQI	**Esquipulas**	2.55	62		Pn	09 50 16.8	-0.5
PAVA	**Las Pavas**	2.68	82	P	Pn	09 50 19.7	+0.7
COEG	**Centro de Oper**	2.73	85	P	Pn	09 50 21.0	+1.3
TECO	**Alcaldia de Te**	2.82	86	P	Pn	09 50 21.7	+0.8
SARH	**Santa Rosa de**	3.15	63	iP	Pn	09 50 26.3	+0.8
SARH	**Santa Rosa de**	3.15	63	P	Pn	09 50 26.3	+0.8
PACA	**Pacayal**	3.26	88	P	Pn	09 50 28.8	+1.7
LCND	**La Caada**	3.68	91	P	Pn	09 50 33.1	+0.4
CNCH	**Conchagua**	3.74	91	P	Pn	09 50 33.6	0.0
CMIG	**Matias Romero**	4.82	320	Pn	Pn	09 50 48.5	+0.1
	0.9nm,0.3s,baz=123,slow=8.7,SNR=14						
CMIG				Sn	Sn	09 51 43.7	+0.2
	3.4nm,0.3s,baz=54,slow=12,SNR=5.0						
	2.2nm,0.3s						
CMIG				AML	AML		
BOAB	**BOACO BROADBAN**	5.93	98	Pn	Pn	09 51 03.4	-0.2
JUD3	**Juan Diaz 3**	6.80	117	Pn	Pn	09 51 17.1	+1.4
JTS	**Las Juntas de**	7.26	114	Pn	Pn	09 51 22.6	+0.7
	0.5nm,0.3s,baz=322,slow=17,SNR=1.5						
JTS				Sn	Sn	09 52 40.2	-3.4
	0.4nm,0.3s,baz=319,slow=22,SNR=1.3						
	1.3nm,0.3s						
JTS				AML	AML		
TEIG	**Tepich**	7.55	25		Pn	09 51 26.4	+0.5
TLIG	**Tlapa**	7.84	303	Pn	Pn	09 51 30.8	+0.7
PIRO	**Carate, Puerto**	9.56	120	Pn	Pn	09 51 54.9	+1.4
TXAR	**Lajitas Array**	19.39	327	P	Pn	09 54 03.9	+1.0
	baz=134,slow=8.3,SNR=7.6						
	1.4nm,0.7s						
TXAR	**Lajitas Array**	19.39	327	P	P	09 54 01.8	+0.1
TX31	**Lajitas Ar. Si**	19.39	327		P	09 54 01.1	-0.6
PLPT	**Palo Pinto**	20.28	344	P	P	09 54 10.7	-0.5
PLPT				IAmb	IAmb	09 54 12.2	
	comp=Z,8.2nm,1.1s						
SGCY	**Sterling City**	20.39	336		P	09 54 12.0	-0.5
SGCY				IAmb	IAmb	09 54 14.3	
	comp=Z,8.0nm,1.0s						
ABTX	**Abilene, Hawle**	20.50	340	P	P	09 54 13.3	-0.3
ABTX				IAmb	IAmb	09 54 15.0	
	comp=Z,5.5nm,0.8s						
MNHN	**Monahans**	20.59	332		P	09 54 14.2	-0.4
MNHN				IAmb	IAmb	09 54 17.7	
	comp=Z,6.5nm,1.1s						
229A	**Bryant Ranch,**	20.71	335	P	P	09 54 15.9	-0.1
ODSA	**Odessa**	21.16	334	P	P	09 54 20.6	-0.2
ODSA				IAmb	IAmb	09 54 27.1	
	comp=Z,7.8nm,0.9s						
APMT	**Aspermont**	21.30	340		P	09 54 21.9	-0.4
129A	**Stewart Farms,**	21.32	336	P	P	09 54 22.0	-0.5
129A				IAmb	IAmb	09 54 23.3	
	comp=Z,6.2nm,0.8s						
POST	**Post**	21.56	337	P	P	09 54 23.6	-1.5
POST				IAmb	IAmb	09 54 25.4	
	comp=Z,6.1nm,0.8s						
GDL2	**Guadalupe Moun**	22.05	330	P	P	09 54 30.1	-0.4
MNTX	**Cornudas Mount**	22.16	328		P	09 54 31.2	-0.3
MNTX				IAmb	IAmb	09 54 35.7	
	comp=Z,3.5nm,0.8s						
FCAR	**Ozark Folk Cen**	22.42	359	P	P	09 54 32.8	-1.5
MSTX	**Muleshoe**	22.85	336	P	P	09 54 38.4	-0.5
MSTX				IAmb	IAmb	09 54 40.0	
	comp=Z,4.2nm,0.7s						
WVT	**Waverly**	22.92	8	P	P	09 54 38.5	-1.0
AMTX	**Amarillo**	23.25	339		P	09 54 42.3	-0.7
T42A	**Van Buren**	23.56	1	P	P	09 54 44.5	-1.4
T42A				IAmb	IAmb	09 54 44.9	
	comp=Z,3.8nm,0.9s						
U49A	**Red Boiling Sp**	23.64	12	P	P	09 54 45.7	-0.9
CCM	**Cathedral Cave**	24.58	1		P	09 54 54.2	-1.2
ILAR	**Eielson Array**	63.54	337	P	P	10 00 05.8	+0.5
	comp=Z,0.9nm,1.0s,baz=156,slow=7.3,SNR=4.3						
	comp=Z,0.9nm,1.0s						
CMAR	**Chiang Mai Arr**	146.68	341	PKPbc	PKPbc	10 09 18.3	+0.5
	comp=Z,0.9nm,0.5s,baz=337,slow=3.2,SNR=5.1						

PRE ***23*** *09:57:32.1±1.0, 26°.25S×29°.26E, h0^{km}, ML2.5, Suspected explosion*

BGSI ***23*** *09:57:33.1±1.6, 25°.52S×29°.95E, h201^{km}±113^{km}, ML3.1, Presumed earthquake*

ISC 23 09:57:32.0±0.9**, 26°.20S**±0°.05×**29°.18E**±0°.04**, h0**^{km}**, n21, σ2^{s}57**/37**, South Africa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CRLN	**Carolina, Mapu**	0.79	75	eP	Pg	09 57 45.7	-1.4
CRLN				eS	Sg	09 57 56.3	-1.0
CRLN				IAML		09 58 03.8	
	comp=Z,111nm,0.7s						
TSWA	**Tswaing Meteor**	1.25	308	eP	Pn	09 57 57.9	+1.0
TSWA				eS	Sn	09 58 16.5	+1.9
TSWA				IAML		09 58 32.8	
	comp=Z,45nm,0.5s						
HRAO	**HartRAO**	1.38	282	eP	Pb	09 57 59.6	+0.9
HRAO				eS	Sn	09 58 19.7	+2.1
HOED	**Hoedspruit, Li**	2.38	42	eP	Pn	09 58 13.0	+0.6
HOED				eS	Sn	09 58 42.9	+0.5
HOED				IAML		09 58 58.0	
	comp=Z,20nm,0.8s						
LBTB	**Lobatse**	3.44	289	iP	Pn	09 58 30.7	+3.7
LBTB				iS	Sn	09 59 07.4	-1.1
LBTB				IAML		09 59 22.6	
	comp=N,78nm,0.6s						
LBTB	**Lobatse**	3.44	289	eP	Pn	09 58 30.0	+3.0
LBTB				eS	Sn	09 59 11.5	+3.0
LBTB				IAML		09 59 37.3	
	comp=Z,13nm,0.8s						
CRAIL	**Swartwater, Li**	3.48	346	eP	Pn	09 58 29.6	+2.0
CRAIL				eS	Sn	09 59 12.0	+2.4
CRAIL				IAML		09 59 33.7	
	comp=Z,637nm,0.6s						
MREMI	**Moremi**	3.94	336	iP	Pn	09 58 29.9	-4.0
MREMI	**Moremi**	3.94	336	iP	Pn	09 58 36.5	+2.7
MREMI				iS	Sn	09 59 18.4	-2.5
MREMI				IAML		09 59 42.2	
	comp=N,64nm,0.3s						
MAKGR	**Makgori**	3.96	275	iP	Pb	09 58 42.1	-0.6
MAKGR				iS	Sb	09 59 31.2	0.0
MAKGR				IAML		09 59 39.9	
	comp=N,138nm,0.5s						
MAKGR	**Makgori**	3.96	275	iP	Pn	09 58 37.6	+3.5
MAKGR				iS	Sn	09 59 20.0	-1.3
MAKGR				IAML		09 59 39.9	
	comp=N,136nm,0.5s						
LPHEP	**Lephephe**	4.13	312	iP	Pn	09 58 38.6	+2.1
LPHEP				iS	Sn	09 59 23.0	-2.5
LPHEP				IAML		09 59 45.0	
	comp=E,21nm,0.6s						
BOSA	**Boshof**	4.24	234	iP	Pn	09 58 41.6	+3.6
BOSA	**Boshof**	4.24	234	eP	Pn	09 58 39.6	+1.6
BOSA				eS	Sn	09 59 29.0	+0.8
BOSA				IAML		09 59 41.5	
	comp=Z,14nm,0.4s						
SKOMA	**Sekoma**	5.03	288	iP	Pn	09 58 52.5	+3.7
BROLN	**Tlhalogang**	5.35	341	iP	Pn	09 58 44.7	-8.5
BROLN				iS	Sn	09 59 39.9	-16
BROLN				IAML		10 00 25.2	
	comp=E,20nm,0.6s						
BROLN	**Tlhalogang**	5.35	341	iP	Pn	09 58 53.4	+0.1
BROLN				iS	Sn	09 59 48.9	-6.7
BROLN				IAML		10 00 24.5	
	comp=N,9.2nm,0.8s						
ALKP	**Alkanpan, Nort**	7.17	237	eP	Pn	09 59 20.3	+2.1
ALKP				eS	Sn	10 00 38.2	-2.3
ALKP				IAML		10 01 18.7	
	comp=Z,4.2nm,0.5s						
BFON	**Badsfontein, M**	7.37	219	eP	Pn	09 59 22.0	+1.0
BFON				eS	Sn	10 00 42.1	-3.2
BFON				IAML		10 01 27.6	
	comp=Z,4.3nm,0.4s						
BRAK	**Brakfontein**	7.82	223	eP	Pn	09 59 27.9	+0.7
BRAK				eS	Sn	10 00 53.9	-2.7
BRAK				IAML		10 01 52.0	
	comp=Z,3.5nm,0.6s						
FRAZ	**Fraserburg**	8.88	228	eP	Pn	09 59 43.0	+1.3
FRAZ				eS	Sn	10 01 19.4	-3.1
FRAZ				IAML		10 02 15.1	
	comp=Z,2.8nm,0.9s						

NIED ***23*** *10:20:23.9, 23°.20N×121°.53E, h39^{km}, MW3.6, Moment Tensor Solution. s2 Moment tensor: Scale 10^{14}Nm; M_{rr}0.27; $M_{\theta\theta}$0.94; $M_{\phi\phi}$-1.21; $M_{r\theta}$1.13; $M_{\theta\phi}$0.46; $M_{\phi r}$2.67; Fault plane solution: $M_0$3.12000×10^{14} NP1: ϕ_s124.00000°, δ21.00000°, λ10.00000°. NP2: ϕ_s24.00000°, δ86.00000°, λ111.00000°.*

JMA ***23*** *10:20:23.9±0.1, 23°.2N±0°.6×12°2E±°, h39^{km}±2^{km}, MV3.7/15, TAIWAN REGION*

TAP ***23*** *10:20:24.4, 23°.21N×121°.53E, h33^{km}, ML4.2, B*

ISC 23 10:20:24.0±0.9**, 23°.22N**±0°.02×**121°.60E**±0°.02**, h32**^{km}±5^{km}**, n157, σ0^{s}93**/274**, 7C-16D, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ECBN	**Changbin**	0.17	306	⇑iP	Pn	10 20 30.6	+0.2
ECBN				S	Sn	10 20 34.9	+0.6
CHKH	**Chenggong**	0.19	262	⇑iP	Pb	10 20 30.2	0.0
CHKH				iS	Sb	10 20 34.5	-0.1
CHKT	**Chengkung**	0.24	241	⇑iP	Pb	10 20 30.8	-0.1
CHKT				iS	Sb	10 20 35.5	-0.1
FULB	**Fuli**	0.28	266	⇑iP	Pb	10 20 31.1	-0.3
FULB				S	Sb	10 20 36.7	+0.3
EYUL	**Yuli**	0.29	297	⇑iP	Pn	10 20 31.7	-0.3
EYUL				S	Sn	10 20 37.7	+0.4
TWF1	**Yuli**	0.31	296	⇓iP	Pb	10 20 31.8	+0.1
TWF1				S	Sb	10 20 37.2	+0.3
HGSD	**Ruisui**	0.32	330	⇑iP	Pb	10 20 31.8	0.0
HGSD				S	Sn	10 20 40.7	+2.7
YULB	**Yu-li**	0.33	302	⇓iP	Pb	10 20 31.9	-0.1
YULB				iS	Sb	10 20 37.6	+0.2
EHYH	**Wanrong**	0.36	320	⇓iP	Pb	10 20 32.5	+0.1
EHYH				iS	Sb	10 20 38.5	+0.3
EDH	**Donghe**	0.36	228	P	Pb	10 20 32.4	-0.1
EDH				S	Sb	10 20 38.4	+0.1
EHD	**Haiduan**	0.37	259	⇓iP	Pb	10 20 32.1	-0.4
EHD				eS	Sb	10 20 37.9	-0.5
ECS	**Chishang**	0.37	251	P	Pn	10 20 32.9	-0.3
ECS				S	Sn	10 20 39.9	+0.5
EHY	**Hungye**	0.38	319	iP	Pb	10 20 32.6	-0.1
EHY				S	Sb	10 20 38.4	-0.3
TEGC	**Jichi Village**	0.49	354	eP	Pn	10 20 34.7	-0.1
TEGC				S	Sn	10 20 43.0	+0.6
LONT	**Longtian**	0.53	234	iP	Pb	10 20 34.3	-0.7
LONT				eS	Sb	10 20 42.0	-0.5
WARBT	**Fenglin Townsh**	0.53	339	⇓iP	Pb	10 20 34.5	-0.6
WARBT				S	Sb	10 20 41.7	-1.0
ELDTW	**Lidau**	0.54	267	⇓iP	Pb	10 20 34.1	-1.0
ELDTW				iS	Sb	10 20 40.8	-2.0
LDUT	**Ludao**	0.56	192	P	Pb	10 20 34.9	-0.5
LDUT				eS	Sb	10 20 43.1	-0.1
SHUL	**Shoufeng**	0.57	357	⇑P	Pn	10 20 35.8	-0.1
SHUL				S	Sn	10 20 45.2	+1.0
ESL	**Shilin**	0.61	346	iP	Pb	10 20 35.7	-0.6
ESL				S	Sb	10 20 43.6	-1.1
TWGBT	**Beinan**	0.62	230	iP	Pb	10 20 35.4	-1.1
TWGBT				S	Sb	10 20 43.6	-1.4
TWG	**Pinlang**	0.63	231	⇓iP	Pb	10 20 35.4	-1.2
TWG				eS	Sb	10 20 43.6	-1.5
TEYL	**Yanliau Villag**	0.65	360	P	Pn	10 20 37.5	+0.5
TEYL				S	Sn	10 20 47.9	+1.7
YUS	**Yu-Shan**	0.65	295	⇓iP	Pb	10 20 36.7	-0.6
YUS				S	Sb	10 20 45.1	-1.3
VWDT	**VWDT**	0.68	322	⇓iP	Pb	10 20 37.1	-0.3
VWDT				S	Sb	10 20 45.9	-0.7
ETM	**Tongmen**	0.75	353	eP	Pn	10 20 38.0	-0.5
ETM				S	Sb	10 20 48.4	-0.2
HWA	**Hwalien**	0.76	0	P	Pb	10 20 38.5	-0.2
HWA				S	Sn	10 20 49.7	+0.8
STYH	**Taoyuan**	0.76	267	⇓iP	Pn	10 20 37.9	-0.7
STYH				iS	Sb	10 20 47.4	-1.4
ALS	**Alishan**	0.79	292	⇓iP	Pn	10 20 39.1	-0.1
ALS				S	Sb	10 20 49.2	-0.6
SSLB	**Suanglung**	0.82	314	⇓iP	Pn	10 20 39.0	-0.4
SSLB				S	Sb	10 20 49.2	-1.4
OWD	**Renai**	0.83	332	P	Pn	10 20 39.2	-0.5
OWD				eS	Sb	10 20 49.2	-1.7
WHYT	**Xinyi Township**	0.83	305	⇓iP	Pn	10 20 39.7	+0.1
WHYT				S	Sn	10 20 50.5	-0.3
ECL	**Taimali**	0.86	224	eP	Pn	10 20 38.3	-1.6
ECL				S	Sn	10 20 48.8	-2.5
TWD	**Chiawan**	0.86	360	P	Pn	10 20 39.7	-0.2
TWD				eS	Sn	10 20 51.2	-0.2
WUSB	**Renai**	0.89	330	iP	Pn	10 20 40.5	0.0
WUSB				eS	Sn	10 20 50.9	-1.4
TPUB	**Ta-pu**	0.90	275	⇓iP	Pb	10 20 40.7	-0.3
TPUB				iS	Sb	10 20 52.7	0.0
SLGT	**Liugui**	0.91	256	eP	Pn	10 20 40.7	+0.2
WTP	**Ta-pu**	0.91	272	⇓iP	Pn	10 20 40.8	+0.2
WTP				S	Sn	10 20 52.4	-0.2
SMLT	**Sun Moon Lake**	0.92	316	iP	Pn	10 20 41.0	+0.1
SMLT				S	Sn	10 20 53.1	0.0
CHN5	**Tsauling**	0.93	294	iP	Pb	10 20 41.4	-0.2
CHN5				eS	Sb	10 20 54.2	+0.5
CHN4	**Tsaushan**	0.93	278	⇓iP	Pb	10 20 41.4	-0.3
CHN4				eS	Sb	10 20 54.3	+0.5
ETL	**Fush Village**	0.94	1	eP	Pn	10 20 41.1	0.0
WCKO	**Fanlu**	0.94	284	P	Pb	10 20 41.8	0.0
WCKO				S	Sb	10 20 54.7	+0.7
SGST	**Jiashian**	0.94	262	iP	Pn	10 20 40.6	-0.5
SGST				S	Sb	10 20 54.0	-0.1
NACB	**Ninganchiao**	0.95	360	P	Pn	10 20 40.9	-0.3
NACB				S	Sn	10 20 52.9	-0.8
TYC	**Yuchr**	0.96	315	iP	Pn	10 20 41.7	+0.3
TYC				eS	Sb	10 20 54.6	0.0
WHF	**Hehuan Shan**	0.97	342	eP	Pn	10 20 41.4	-0.4
WHF				eS	Sn	10 20 54.0	-0.9
CHN1	**Nanshi**	0.98	268	iP	Pb	10 20 42.4	-0.2
CHN1				S	Sb	10 20 55.8	+0.5
ETLH	**Xiulin Townshi**	0.99	354	eP	Pn	10 20 41.4	-0.5
ETLH				eS	Sn	10 20 53.5	-1.2
WJS	**Zhushan**	1.00	307	eP	Pb	10 20 42.7	-0.1
WJS				eS	Sb	10 20 56.1	+0.4
SSD	**Sandimen**	1.01	242	eP	Pn	10 20 41.8	-0.1
SSD				eS	Sn	10 20 55.2	+0.2
TSMG	**Majia**	1.02	240	eP	Pn	10 20 42.0	-0.1
TWK	**Hsinying**	1.02	273	iP	Pn	10 20 42.6	+0.4
TWK				S	Sb	10 20 56.1	-0.2
WCS	**Beigang Elemen**	1.05	323	P	Pb	10 20 43.3	-0.3
WGK	**Gukeng**	1.06	296	eP	Pb	10 20 44.1	+0.3
WGK				S	Sb	10 20 58.0	+0.6
WNT	**Mingjian**	1.07	308	eP	Pb	10 20 43.8	-0.1
WNT				S	Sb	10 20 57.5	0.0
SCST	**Cishan**	1.07	252	P	Pb	10 20 44.0	+0.1
SCST				iS	Sb	10 20 59.1	+1.5
TAW	**Tawu**	1.07	217	eP	Pn	10 20 42.3	-0.5
TAW				eS	Sn	10 20 54.9	-1.8
FUSS	**Fushou**	1.07	342	eP	Pn	10 20 43.6	+0.5
FUSS				eS	Sn	10 20 56.0	-1.1
MASBT	**Mashibuluo**	1.07	236	eP	Pn	10 20 42.6	-0.3
CHN2	**Minshiung**	1.08	287	P	Pb	10 20 44.6	+0.5
CHN2				S	Sb	10 20 58.3	+0.5
WDLH	**Douliu**	1.08	296	P	Pb	10 20 44.1	0.0
WDLH				eS	Sb	10 20 58.6	+0.7
EAST	**Anshuo**	1.08	220	eP	Pn	10 20 42.4	-0.6
TWT	**Tachien**	1.10	339	P	Pb	10 20 44.2	-0.4
TWT				eS	Sn	10 20 57.1	-0.6
TDCB	**Techi**	1.11	339	eP	Pb	10 20 44.2	-0.5
TDCB				iS	Sn	10 20 57.0	-0.7
EAHA	**Aohua**	1.11	7	eP	Pn	10 20 43.6	+0.2
EAHA				eS	Sb	10 20 58.7	-0.2
CHY	**Chiayi**	1.11	285	eP	Pn	10 20 43.9	+0.5
CHY				S	Sb	10 20 60.0	+1.1
EOS4	**EOS4**	1.11	36	eP	Pb	10 20 43.9	-0.6
EOS4				iS	Sb	10 20 58.0	-0.6
SGLT	**Jiouru**	1.13	245	P	Pb	10 20 45.6	+0.6
SGLT				eS	Sb	10 21 02.6	+3.2
CHN3	**Shinhua**	1.14	263	P	Pb	10 20 46.0	+0.8
CHN3				eS	Sb	10 21 02.6	+2.9
TWM1	**Shoushan**	1.15	250	eP	Pb	10 20 46.3	+0.9
TWM1				eS	Sb	10 21 02.9	+2.9
LAY	**Lan-yu**	1.17	182	eP	Pn	10 20 43.6	-0.6
LAY				S	Sn	10 20 59.1	-0.1
SSPT	**Xinbi**	1.20	233	eP	Pn	10 20 45.2	+0.6
SSPT				eS	Sb	10 21 01.6	+0.3
WTK	**Tuku**	1.21	293	iP	Pn	10 20 45.4	+0.7
WTK				S	Sb	10 21 01.6	+0.1
SSHA	**Shanhua**	1.21	266	P	Pb	10 20 46.6	+0.4
SSHA				eS	Sb	10 21 03.5	+1.9
LYUB	**Lan-yu**	1.21	181	iP	Pn	10 20 43.3	-1.4
LYUB				eS	Sn	10 20 57.1	-2.9
WHP	**Taichung City**	1.21	331	eP	Pb	10 20 46.5	+0.1
ICHU	**Yijhu**	1.22	277	P	Pb	10 20 45.9	-0.7
ICHU				S	Sb	10 21 01.9	0.0
NNSB	**Datong**	1.22	351	eP	Pn	10 20 45.4	+0.4
NNS	**Nan Shan**	1.23	350	eP	Pn	10 20 45.9	+0.7
SCZT	**Fangliau**	1.23	227	eP	Pn	10 20 45.3	+0.2
SCZT				eS	Sb	10 21 03.8	+1.5
SLIU	**Shizi**	1.24	217	eP	Pn	10 20 44.5	-0.6
EOS3	**EOS3**	1.25	32	eP	Pb	10 20 46.3	-0.6
EOS3				S	Sb	10 21 02.5	-0.2
TCU	**Taichung**	1.25	318	eP	Pb	10 20 47.3	+0.2
TCU				S	Sb	10 21 03.1	+0.2
CHN8	**Yiju**	1.28	276	eP	Pb	10 20 46.8	-0.8
CHN8				iS	Sb	10 21 03.3	-0.4
WCHH	**Zhanghua**	1.28	312	eP	Pb	10 20 47.5	0.0
WCHH				S	Sb	10 21 04.7	+1.0
WCH1	**Changhua City**	1.29	312	eP	Pn	10 20 46.0	+0.2
WCH1				eS	Sb	10 21 05.0	+1.2
SCLT	**Jiali**	1.29	268	P	Pb	10 20 47.3	-0.4
SCLT				eS	Sb	10 21 04.0	0.0
WSL	**Shuilin Townsh**	1.29	284	eP	Pn	10 20 46.6	+0.7
WSL				S	Sb	10 21 03.1	-1.0
WRL	**Guolierlin Hig**	1.31	302	eP	Pb	10 20 47.1	-1.0
WRL				eS	Sn	10 21 03.1	+0.5
LATG	**Datong**	1.31	357	eP	Pn	10 20 46.8	+0.5
RLNB	**Erlin**	1.32	301	eP	Pb	10 20 47.3	-0.8
RLNB				S	Sb	10 21 04.3	-0.4
EOS2	**EOS2**	1.33	26	eP	Pb	10 20 47.7	-0.6
WSF	**Szhu**	1.33	289	eP	Pn	10 20 47.2	+0.8
WSF				S	Sb	10 21 04.0	-1.1
TWQ1	**Liyutan**	1.36	326	eP	Pb	10 20 48.7	-0.1
TWQ1				eS	Sb	10 21 05.9	+0.1
WSSB	**Gushan**	1.36	245	eP	Pb	10 20 48.9	+0.1
WSSB				eS	Sb	10 21 07.5	+1.6
NDT	**Datong Townshi**	1.38	357	eP	Pb	10 20 48.8	-0.5
SMST	**Manzhou Townsh**	1.38	211	eP	Pn	10 20 47.5	+0.3
SMST				eS	Sn	10 21 04.4	+0.1
TSCK	**Chigu Township**	1.39	267	eP	Pb	10 20 48.3	-1.1
TSCK				eS	Sn	10 21 05.6	+1.1
TWC	**Suao**	1.40	9	eP	Pb	10 20 48.6	-1.0
TWC				eS	Sb	10 21 06.5	-0.6
NDS	**Dongshan**	1.41	4	eP	Pb	10 20 48.7	-1.1
WDJ	**Dajia District**	1.43	322	eP	Pb	10 20 49.9	-0.1
WDJ				eS	Sb	10 21 08.5	+0.7
TWP	**Hsiaoliuchiu**	1.43	233	eP	Pb	10 20 51.5	+1.4
TWP				eS	Sb	10 21 10.6	+2.6
HEN	**Hengchun**	1.45	214	eP	Pb	10 20 51.0	+0.7
HEN				eS	Sn	10 21 06.0	+0.2
YHNB	**Yeheng**	1.46	352	eP	Pn	10 20 49.3	+1.1
YHNB				eS	Sn	10 21 07.1	+0.8
TSEB	**Hengchuen, Pin**	1.46	206	eP	Pb	10 20 50.7	+0.1
TSEB				eS	Sn	10 21 07.0	+0.8
TWKBT	**Hengchun**	1.46	210	P	Pn	10 20 48.5	+0.3
TWKBT				S	Sn	10 21 06.5	+0.2
TWK1	**Hengchun**	1.47	210	eP	Pn	10 20 48.4	+0.1
TWK1				eS	Sn	10 21 06.1	-0.3
NSK	**Sanguang**	1.47	351	P	Pb	10 20 49.7	-1.1
NSK				S	Sn	10 21 07.2	+0.6
NFF	**Wufeng Townshi**	1.48	343	eP	Pb	10 20 50.4	-0.5
NFF				eS	Sb	10 21 08.7	-0.6
TWE	**Neicheng**	1.50	2	eP	Pb	10 20 50.3	-0.9
NMLH	**Miaoli**	1.51	331	P	Pb	10 20 50.6	-0.8
NMLH				eS	Sb	10 21 10.5	+0.4
NSTT	**Nanjuang**	1.51	339	eP	Pb	10 20 51.0	-0.4
NSTT				eS	Sb	10 21 10.0	-0.2
LIOB	**Emei**	1.52	340	eP	Pb	10 20 51.0	-0.6
LIOB				S	Sb	10 21 10.3	-0.2
FUSB	**Fushanzhiwuyua**	1.54	360	eP	Pn	10 20 50.5	+1.2
FUSB				eS	Sb	10 21 10.9	-0.1
NWLT	**Wulai**	1.56	357	P	Pn	10 20 50.7	+1.2
NWLT				eS	Sn	10 21 09.6	+1.0
KSHI	**Guanxi Townshi**	1.60	346	eP	Pb	10 20 53.0	0.0
KSHI				eS	Sb	10 21 12.6	-0.2
EGS		1.65	11	eP	Pn	10 20 52.0	+1.3
NHDH	**Xindian Distri**	1.74	358	eP	Pn	10 20 53.2	+1.2
NHDH				eS	Sb	10 21 16.2	-0.6
JYNG	**Yonagunijimaku**	1.74	45	eP	Pb	10 20 53.9	-1.4
JYNG				eS	Sb	10 21 15.2	-1.6
TWA	**Mucha**	1.75	360	eP	Pb	10 20 53.9	-1.7
TWA				eS	Sn	10 21 15.1	+1.5
TIPB	**Shuangxi**	1.76	7	eP	Pb	10 20 54.1	-1.6
TIPB				eS	Sb	10 21 16.6	-0.8
NCUH	**Zhongli**	1.78	348	eP	Pb	10 20 55.1	-0.9
WDGT	**Dungji**	1.78	272	P	Pn	10 20 52.9	+0.3
WDGT				eS	Sn	10 21 12.7	-1.5
YOJ	**Yonaguni jima**	1.79	46	eP	Pb	10 20 54.7	-1.4
YOJ				eS	Sn	10 21 16.0	+1.6
TWB1	**Santiao Chiao**	1.82	11	eP	Pn	10 20 54.5	+1.4
WFSB	**Wu-fen Shan**	1.85	5	eP	Pb	10 20 55.5	-1.7
TWS1	**Kuangyinshan**	1.88	355	eP	Pb	10 20 57.7	0.0
PHUB	**P'eng-hu**	1.89	279	iP	Pn	10 20 54.2	+0.2
PHUB				eS	Sn	10 21 15.0	-1.7
SXI1	**Grass Mountain**	1.89	8	eP	Pb	10 20 56.3	-1.6
PNG	**Penghu**	1.91	281	P	Pn	10 20 54.5	+0.2
PNG				eS	Sn	10 21 15.9	-1.4
TNOU	**National Taiwa**	1.93	5	eP	Pn	10 20 55.8	+1.2
ZUZH	**Zhuzihu**	1.94	359	P	Pn	10 20 56.1	+1.3
ZUZH				eS	Sb	10 21 20.6	-1.9
NTST	**Danshui**	1.94	356	eP	Pb	10 20 57.6	-1.2
NTST				eS	Sb	10 21 22.1	-0.5
ANP	**Anpu**	1.96	358	eP	Pn	10 20 56.8	+1.6
YM08	**YM08**	1.96	360	eP	Pn	10 20 56.0	+0.9
VCHM	**Qimei**	2.00	270	eP	Pn	10 20 55.9	+0.3
VCHM				eS	Sn	10 21 17.9	-1.6
TWY	**Chenhua**	2.05	0	eP	Pn	10 20 57.7	+1.4

HATJ	**Hateruma jima**	**2.19**	**67**	*e*P	**Pn**	**10 20 59.5**	**+1.3**
HATJ				*e*S	**Sn**	**10 21 25.5**	**+1.3**
IRIF	**Iriomote-Funau**	**2.25**	**60**	*e*P	**Pn**	**10 21 00.6**	**+1.6**
JKRS	**Kuro-shima**	**2.43**	**65**	P	**Pn**	**10 21 03.2**	**+1.6**
JKRS				*e*S	**Sn**	**10 21 31.2**	**+1.0**
PCYT	**Pengchaiyu**	**2.44**	**10**	*e*P	**Pn**	**10 21 03.1**	**+1.4**
JIJ	**Ishigaki jima**	**2.59**	**63**	*e*P	**Pn**	**10 21 04.8**	**+1.0**
JIJ				*e*S	**Sn**	**10 21 35.2**	**+0.9**
VWUC	**VWUC**	**2.64**	**312**	*e*P	**Pn**	**10 21 04.4**	**0.0**
JISG	**Ishigakijimahi**	**2.83**	**61**	*e*P	**Pn**	**10 21 07.9**	**+0.9**
JISG				*e*S	**Sn**	**10 21 40.2**	**+0.1**
PTMZ	**Houxiangcun**	**2.90**	**309**	*e*P	**Pn**	**10 21 08.1**	**+0.1**
KNM	**Kinmen**	**3.13**	**293**	*e*P	**Pn**	**10 21 12.2**	**+1.1**
MATB	**Ma-tsu**	**3.29**	**333**	*e*P	**Pn**	**10 21 13.2**	**-0.1**
ZPLA	**Ao Xicun**	**3.60**	**282**	*e*P	**Pn**	**10 21 17.5**	**-0.1**
JIRJ	**Irabujima**	**3.66**	**63**	*e*P	**Pn**	**10 21 19.3**	**+0.9**
MHZQ	**Yeshan**	**3.70**	**321**	*e*P	**Pn**	**10 21 19.6**	**+0.7**
LYJJ	**Jianjiangzhen**	**3.71**	**334**	*e*P	**Pn**	**10 21 19.7**	**+0.5**
AXDP	**Jialang**	**3.71**	**298**	*e*P	**Pn**	**10 21 18.9**	**-0.3**
JMJ2	**Miyako jima3**	**3.73**	**65**	*e*P	**Pn**	**10 21 21.0**	**+1.6**
DSXP	**Dongshan**	**3.86**	**278**	*e*P	**Pn**	**10 21 21.1**	**-0.1**
XPSS	**Dashiqiu**	**3.91**	**341**	*e*P	**Pn**	**10 21 22.9**	**+1.0**
SXFK	**Yanhouchang**	**4.79**	**312**	*e*P	**Pn**	**10 21 33.5**	**-0.5**

MAN 23 10:21:52.0, 16.°65N×119.°39E, h6^{km}, MS2.9, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOLP	**Bolinao**	**0.57**	**118**	*i* S	Sg	10 22 09.8	-0.6
BOLP	**Bolinao**	**0.57**	**118**	*i* P	Pb	10 22 04.2	-0.1
SIPP	**Brgy, Tapao**	**1.63**	**39**	*e*P	Pg	10 22 27.6	+4.4
SIPP				*e*S	Sg	10 22 54.5	+10
PCPS	**Palayan City**	**2.56**	**141**	*e*S	Sn	10 22 51.5	-14
PCPS	**Palayan City**	**2.56**	**141**	*e*P	Pn	10 22 26.0	-8.0
QVPH	**Quezon City--P**	**2.56**	**141**	*e*P	Pb	10 22 37.0	-1.3
QVPH				*e*S	Sn	10 23 07.6	+2.2
LQP	**Lukban**	**3.27**	**140**	*e*P	Pn	10 22 31.5	-12
GQP	**Guinayangan**	**4.02**	**132**	*e*P	Pn	10 22 48.9	-5.2

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*SKHL **23** 10:31:26.8±0.8, 46.°00N×143.°00E, h13^{km}±2^{km}, mb3.4/3*
*JMA **23** 10:31:26.1±0.3, 45.°9N±0.°8×14°3E±°, h11^{km}, MV2.6/9, NE OFF HOKKAIDO*
ISC 23 10:31:26.3±3.5, **45.°93N**±0.°05×**143.°0E**±0.°1, **h11**^{km}±27^{km}, **n6**, σ**0^{s}45**/12, **Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KRS4	**Mayak Korsakov**	**0.70**	**349**	*e*Pg	**Pb**	**10 31 40.4**	**0.0**
KRS4				*e*Sg	**Sb**	**10 31 50.0**	**0.0**
MLK4	**Malkovo**	**0.88**	**16**	*e*Pg	**Pb**	**10 31 43.4**	**-0.1**
MLK4				*e*Sg	**Sn**	**10 31 56.7**	**-0.6**
JSE	**Soyaes**	**1.01**	**197**	*e*P	**Pb**	**10 31 45.5**	**-0.2**
JSE				*e*S	**Sb**	**10 31 59.1**	**+0.2**
LSN4	**Lesnoe**	**1.03**	**1**	*e*Pg	**Pn**	**10 31 46.8**	**+0.2**
LSN4				*e*Sg	**Sn**	**10 32 01.7**	**+0.7**
YSS	**Yuzhno-Sakhali**	**1.04**	**351**	*e*Pg	**Pn**	**10 31 47.3**	**+0.5**
YSS				AMB	AMB	10 31 48.3	
	10.0nm,0.2s						
YSS				*e*Sg	**Sn**	**10 32 00.7**	**-0.6**
YSS				A	A	10 32 02.0	
	60nm,0.5s						
YSS				A	A	10 32 02.0	
	50nm,0.5s						
OJD4	**Ozhidaevo**	**1.18**	**340**	*i* Pg	**Pn**	**10 31 48.3**	**-0.3**
OJD4				*e*Sg	**Sn**	**10 32 04.8**	**+0.1**

IDC 23 10:38:12.9±8.4, **21.°87S**×**177.°93W**, **h483**^{km}±52^{km}, **mb3.7**/3, **mbtmp4.5**/4, **Error ellipse: s-maj=135.2km s-min=24.7km az=129.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**5.59**	**317**	P	P	10 39 44.2	-0.6
	19nm,0.4s,baz=158,slow=5.4,SNR=44						
ASAR	**Alice Springs**	**44.29**	**258**	P	P	10 45 40.0	+1.0
	5.9nm,0.7s,baz=94,slow=7.6,SNR=92						
ASAR				PcP	PcP	10 47 12.2	-1.1
	0.4nm,0.5s,baz=108,slow=3.7,SNR=4.7						
	5.9nm,0.7s						
WRA	**Warramunga Arr**	**44.50**	**263**	P	P	10 45 39.9	-0.8
	2.7nm,0.5s,baz=97,slow=7.8,SNR=64						
WRA				PcP	PcP	10 47 12.3	-1.7
	0.3nm,0.6s,baz=98,slow=2.7,SNR=2.2						
	2.7nm,0.5s						
PETK	**Petropavlovsk-**	**77.61**	**345**	P	P	10 49 18.6	+0.4
	3.4nm,0.3s,baz=175,slow=6.5,SNR=67						
	3.4nm,0.3s						

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*TAP **23** 10:51:02.8, 24.°74N×121.°79E, h10^{km}, ML3.8, B*
*JMA **23** 10:51:03.3±0.2, 24.°7N±0.°5×12°2E±°, h31^{km}, MV3.7/10, TAIWAN REGION*
*NIED **23** 10:51:03.3, 24.°74N×121.°68E, h31^{km}, MW3.5, Moment Tensor Solution. s2 Moment tensor: Scale 10^{14}Nm; M_{rr}-1.76; $M_{\theta\theta}$0.58; $M_{\phi\phi}$1.19; $M_{r\theta}$0.28; $M_{\theta\phi}$1.06; $M_{\phi r}$0.32; Fault plane solution: $M_0$1.92000×10^{14} NP1:ϕ_s36.00000°, δ39.00000°, λ-92.00000°. NP2:ϕ_s218.00000°, δ51.00000°, λ-89.00000°.*
ISC 23 10:51:02.7±0.8, **24.°75N**±0.°01×**121.°80E**±0.°01, **h12**^{km}±4^{km}, **n147**, σ**0^{s}80**/217, **18C-2D, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ILA	**Ilan**	**0.05**	**285**	⇓*i*P	**Pg**	**10 51 05.3**	**+0.2**
ILA				*i* S	**Sg**	**10 51 07.1**	**+0.3**
NTC	**Toucheng**	**0.10**	**15**	⇓*i*P	**Pg**	**10 51 05.9**	**+0.3**
NTC				S	**Sg**	**10 51 08.0**	**+0.2**
TWE	**Neicheng**	**0.12**	**256**	⇑*i*P	**Pg**	**10 51 06.0**	**+0.1**
TWE				*i* S	**Sg**	**10 51 08.1**	**-0.1**
NDS	**Dongshan**	**0.14**	**213**	⇑*i*P	**Pg**	**10 51 06.4**	**+0.2**
NDS				*i* S	**Sg**	**10 51 08.5**	**-0.1**
TWC	**Suao**	**0.15**	**163**	⇑*i*P	**Pg**	**10 51 06.6**	**+0.3**
TWC				*i* S	**Sg**	**10 51 08.6**	**-0.1**
EGS		**0.15**	**52**	*i* P	**Pg**	**10 51 07.1**	**+0.8**
EGS				S	**Sg**	**10 51 09.6**	**+0.8**
ESAO	**Su ao**	**0.18**	**167**	⇑*i*P	**Pg**	**10 51 07.1**	**+0.3**
ESAO				S	**Sg**	**10 51 09.4**	**-0.1**
FUSB	**Fushanzhiwuyua**	**0.19**	**272**	⇑*i*P	**Pg**	**10 51 07.4**	**+0.3**
FUSB				*e*S	**Sg**	**10 51 09.7**	**-0.4**
TIPB	**Shuangxi**	**0.22**	**6**	⇑*i*P	**Pg**	**10 51 07.9**	**+0.4**
TIPB				*i* S	**Sg**	**10 51 10.9**	**+0.2**
NWLT	**Wulai**	**0.27**	**275**	⇑*i*P	**Pg**	**10 51 08.6**	**+0.2**
NWLT				*i* S	**Sg**	**10 51 11.9**	**-0.3**
TWA	**Mucha**	**0.30**	**319**	⇑*i*P	**Pb**	**10 51 09.6**	**-0.5**
TWA				S	**Sg**	**10 51 13.1**	**+0.1**
NDT	**Datong Townshi**	**0.30**	**240**	*e*P	**Pg**	**10 51 09.0**	**+0.1**
TWB1	**Santiao Chiao**	**0.31**	**34**	*i* P	**Pg**	**10 51 09.3**	**+0.3**
TWB1				S	**Sg**	**10 51 13.3**	**+0.1**
WFSB	**Wu-fen Shan**	**0.32**	**357**	⇑*i*P	**Pb**	**10 51 10.0**	**-0.4**
WFSB				*i* S	**Sg**	**10 51 14.3**	**+0.7**
NHDH	**Xindian Distri**	**0.33**	**310**	⇑*i*P	**Pb**	**10 51 10.2**	**-0.3**
NHDH				*i* S	**Sb**	**10 51 14.7**	**-1.0**
ENA	**Nanau**	**0.33**	**189**	*e*P	**Pg**	**10 51 07.1**	**-2.3**
LATG	**Datong**	**0.33**	**229**	*i* P	**Pg**	**10 51 09.7**	**+0.2**
LATG				S	**Sg**	**10 51 14.4**	**+0.4**
SXI1	**Grass Mountain**	**0.35**	**11**	*i* P	**Pg**	**10 51 10.5**	**+0.7**
SXI1				*e*S	**Sg**	**10 51 15.0**	**+0.5**
NHY	**Taipei**	**0.35**	**324**	*e*P	**Pb**	**10 51 11.0**	**0.0**
TATO	**Taipei**	**0.36**	**308**	P	**Pb**	**10 51 10.6**	**-0.5**
TAP	**Taipei**	**0.39**	**317**	*i* P	**Pb**	**10 51 11.7**	**0.0**
TAP				*i* S	**Sb**	**10 51 17.4**	**-0.2**
YHNB	**Yeheng**	**0.40**	**258**	P	**Pg**	**10 51 10.6**	**0.0**
YHNB	**Yeheng**	**0.40**	**258**	S	**Sg**	**10 51 15.6**	**-0.3**
YHNB	**Yeheng**	**0.40**	**258**	⇑*i*P	**Pg**	**10 51 10.7**	**0.0**
YHNB				*i* S	**Sg**	**10 51 15.3**	**-0.6**
TNOU	**National Taiwa**	**0.40**	**356**	⇑*i*P	**Pb**	**10 51 11.4**	**-0.3**
TNOU				*i* S	**Sg**	**10 51 16.4**	**+0.5**
NSK	**Sanguang**	**0.41**	**259**	⇑*i*P	**Pg**	**10 51 10.9**	**0.0**
NSK				S	**Sg**	**10 51 15.6**	**-0.8**
EAHA	**Aohua**	**0.42**	**187**	*i* P	**Pb**	**10 51 11.6**	**-0.6**
EAHA				S	**Sg**	**10 51 17.1**	**+0.3**
EHP	**Heping Village**	**0.44**	**187**	*e*S	**Sg**	**10 51 17.9**	**+0.5**
YM01	**YM01**	**0.44**	**332**	⇑*i*P	**Pb**	**10 51 12.7**	**+0.1**
YM01				*i* S	**Sb**	**10 51 18.4**	**-0.8**
ZUZH	**Zhuzihu**	**0.47**	**330**	*e*P	**Pb**	**10 51 13.1**	**+0.1**
YM08	**YM08**	**0.47**	**336**	⇑*i*P	**Pb**	**10 51 12.8**	**-0.2**
TWS1	**Kuangyinshan**	**0.49**	**315**	*e*P	**Pb**	**10 51 13.9**	**+0.6**
NNS	**Nan Shan**	**0.50**	**231**	*i* P	**Pg**	**10 51 12.3**	**-0.2**
NNS				*e*S	**Sg**	**10 51 19.1**	**-0.1**
NNSB	**Datong**	**0.50**	**230**	⇑*i*P	**Pg**	**10 51 12.4**	**-0.2**
NNSB				S	**Sg**	**10 51 19.5**	**+0.3**
ANP	**Anpu**	**0.50**	**330**	⇑*i*P	**Pb**	**10 51 13.4**	**-0.1**
EOS2	**EOS2**	**0.52**	**130**	*e*P	**Pb**	**10 51 13.7**	**0.0**
NTST	**Danshui**	**0.52**	**322**	*e*P	**Pb**	**10 51 14.4**	**+0.6**
TWY	**Chenhua**	**0.55**	**341**	⇑*i*P	**Pb**	**10 51 14.6**	**+0.2**
TWY				*e*S	**Sb**	**10 51 21.7**	**-0.6**
KSHI	**Guanxi Townshi**	**0.57**	**273**	*e*P	**Pb**	**10 51 15.1**	**+0.4**
NCUH	**Zhongli**	**0.60**	**291**	*e*P	**Pn**	**10 51 16.0**	**-1.1**
NCUH				*e*S	**Sn**	**10 51 27.0**	**+0.3**
NACB	**Ninganchiao**	**0.61**	**198**	P	**Pb**	**10 51 15.0**	**-0.3**
NACB	**Ninganchiao**	**0.61**	**198**	S	**Sb**	**10 51 23.3**	**-0.5**
NACB	**Ninganchiao**	**0.61**	**198**	*i* P	**Pg**	**10 51 14.5**	**-0.1**
NACB				S	**Sb**	**10 51 23.2**	**-0.5**
ETL	**Fush Village**	**0.61**	**195**	*i* P	**Pb**	**10 51 14.9**	**-0.5**
ETL				*e*S	**Sg**	**10 51 22.6**	**-0.2**
ETLH	**Xiulin Townshi**	**0.62**	**208**	P	**Pg**	**10 51 14.6**	**-0.2**
ETLH				*e*S	**Sg**	**10 51 21.4**	**-1.5**
NFF	**Wufeng Townshi**	**0.63**	**259**	P	**Pb**	**10 51 15.6**	**-0.2**
EOS3	**EOS3**	**0.66**	**134**	*e*P	**Pb**	**10 51 16.3**	**+0.2**
EOS3				*e*S	**Sb**	**10 51 26.0**	**+0.8**
TWD	**Chiawan**	**0.69**	**196**	*e*P	**Pg**	**10 51 16.2**	**-0.1**
TWD				S	**Sg**	**10 51 24.9**	**-0.5**
FUSS	**Fushou**	**0.71**	**225**	*e*P	**Pb**	**10 51 16.7**	**-0.5**
FUSS				*e*S	**Sg**	**10 51 26.0**	**-0.1**
LIOB	**Emei**	**0.72**	**262**	P	**Pb**	**10 51 17.6**	**+0.3**
NSTT	**Nanjuang**	**0.74**	**261**	*e*P	**Pb**	**10 51 17.5**	**0.0**
NSTT				*e*S	**Sn**	**10 51 29.2**	**-0.9**
SBCB	**Hsinchu**	**0.74**	**273**	P	**Pn**	**10 51 18.9**	**-0.2**
SBCB				*e*S	**Sn**	**10 51 30.6**	**+0.3**
TWT	**Tachien**	**0.76**	**229**	*e*P	**Pb**	**10 51 17.9**	**0.0**
HSN	**Hsinchu**	**0.76**	**274**	P	**Pn**	**10 51 18.3**	**-0.9**
HSN				*e*S	**Sn**	**10 51 30.1**	**-0.4**
TDCB	**Techi**	**0.77**	**230**	*e*P	**Pg**	**10 51 17.5**	**-0.1**
WHF	**Hehuan Shan**	**0.78**	**219**	*e*P	**Pg**	**10 51 17.7**	**-0.2**
EOS4	**EOS4**	**0.79**	**143**	*e*P	**Pb**	**10 51 18.2**	**+0.1**
EOS4				S	**Sn**	**10 51 29.7**	**-1.1**
HWA	**Hwalien**	**0.79**	**193**	*e*P	**Pb**	**10 51 18.4**	**0.0**
HWA				*e*S	**Sb**	**10 51 29.0**	**-0.1**
LXIB	**Xiulin Townshi**	**0.81**	**206**	*e*P	**Pg**	**10 51 18.3**	**-0.1**
LXIB				*e*S	**Sb**	**10 51 29.3**	**-0.5**
ETM	**Tongmen**	**0.83**	**200**	*e*P	**Pg**	**10 51 18.8**	**-0.1**
ETM				*e*S	**Sg**	**10 51 29.0**	**-0.8**
TEYL	**Yanliau Villag**	**0.90**	**192**	*e*P	**Pb**	**10 51 20.0**	**-0.3**
PCYT	**Pengchaiyu**	**0.91**	**16**	*e*P	**Pg**	**10 51 20.8**	**+0.5**
WHP	**Taichung City**	**0.91**	**239**	*e*P	**Pg**	**10 51 20.5**	**+0.2**
NMLH	**Miaoli**	**0.94**	**257**	*e*P	**Pn**	**10 51 22.4**	**+0.6**
OWD	**Renai**	**0.98**	**216**	P	**Pb**	**10 51 21.0**	**-0.7**
OWD				S	**Sg**	**10 51 34.4**	**0.0**
WUSB	**Renai**	**0.98**	**220**	*e*P	**Pb**	**10 51 21.2**	**-0.5**
WUSB				*e*S	**Sg**	**10 51 34.4**	**-0.1**
SHUL	**Shoufeng**	**0.98**	**193**	*e*P	**Pn**	**10 51 22.3**	**-0.1**
TWQ1	**Liyutan**	**1.02**	**247**	*i* P	**Pn**	**10 51 24.0**	**+1.1**
WCS	**Beigang Elemen**	**1.06**	**230**	*e*P	**Pn**	**10 51 23.0**	**-0.5**
JYNG	**Yonagunijimaku**	**1.08**	**106**	*e*P	**Pb**	**10 51 23.3**	**-0.2**
JYNG				*e*S	**Sg**	**10 51 38.2**	**+0.4**
WARBT	**Fenglin Townsh**	**1.10**	**200**	*e*P	**Pb**	**10 51 23.2**	**-0.5**
WARBT				*e*S	**Sb**	**10 51 37.2**	**-0.7**
WDJ	**Dajia District**	**1.13**	**249**	*e*P	**Pg**	**10 51 25.6**	**+1.1**
WDJ				*e*S	**Sn**	**10 51 42.1**	**+2.3**
YOJ	**Yonaguni jima**	**1.14**	**104**	P	**Pg**	**10 51 24.8**	**+0.1**
YOJ	**Yonaguni jima**	**1.14**	**104**	S	**Sg**	**10 51 40.2**	**+0.7**
YOJ	**Yonaguni jima**	**1.14**	**104**	P	**Pn**	**10 51 24.1**	**-0.4**
YOJ				S	**Sn**	**10 51 40.0**	**-0.1**
YOJ	**Yonaguni jima**	**1.14**	**104**	*e*P	**Pn**	**10 51 23.7**	**-0.8**
YOJ				*e*S	**Sb**	**10 51 39.6**	**+0.4**
VWDT	**VWDT**	**1.16**	**211**	*e*P	**Pg**	**10 51 25.1**	**0.0**
TCU	**Taichung**	**1.19**	**240**	P	**Pg**	**10 51 27.1**	**+1.4**
TCU				*e*S	**Sg**	**10 51 43.4**	**+2.3**
SMLT	**Sun Moon Lake**	**1.19**	**224**	*e*P	**Pg**	**10 51 26.0**	**+0.2**
TYC	**Yuchr**	**1.21**	**226**	*e*P	**Pg**	**10 51 26.7**	**+0.7**
SSLB	**Suanglung**	**1.23**	**219**	P	**Pb**	**10 51 25.8**	**-0.2**
SSLB	**Suanglung**	**1.23**	**219**	*e*P	**Pb**	**10 51 25.9**	**-0.2**
HGSD	**Ruisui**	**1.30**	**195**	*e*P	**Pg**	**10 51 28.3**	**+0.5**
EHY	**Hungye**	**1.31**	**199**	*e*P	**Pb**	**10 51 27.2**	**-0.2**
EHYH	**Wanrong**	**1.32**	**198**	*e*P	**Pb**	**10 51 27.4**	**-0.1**
WNT	**Mingjian**	**1.34**	**230**	*e*P	**Pg**	**10 51 29.4**	**+0.9**
WNT				*e*S	**Sg**	**10 51 48.2**	**+2.3**
WJS	**Zhushan**	**1.35**	**227**	*e*P	**Pg**	**10 51 29.7**	**+1.1**
WJS				*e*S	**Sg**	**10 51 49.0**	**+2.8**
WHYT	**Xinyi Township**	**1.36**	**220**	*e*P	**Pg**	**10 51 29.9**	**+1.0**
YULB	**Yu-li**	**1.43**	**199**	P	**Pg**	**10 51 29.7**	**-0.5**
YULB	**Yu-li**	**1.43**	**199**	S	**Sg**	**10 51 49.0**	**+0.2**
YULB	**Yu-li**	**1.43**	**199**	*e*P	**Pb**	**10 51 29.4**	**+0.1**
YULB				*e*S	**Sb**	**10 51 47.3**	**-0.2**
EYUL	**Yuli**	**1.47**	**198**	*e*P	**Pb**	**10 51 29.6**	**-0.4**
EYUL				*e*S	**Sn**	**10 51 46.8**	**-1.3**
TWF1	**Yuli**	**1.47**	**198**	*e*P	**Pb**	**10 51 29.6**	**-0.4**
YUS	**Yu-Shan**	**1.48**	**212**	*e*P	**Pg**	**10 51 32.1**	**+0.9**
ALS	**Alishan**	**1.54**	**217**	*i* P	**Pg**	**10 51 32.8**	**+0.6**
ALS				*e*S	**Sg**	**10 51 54.3**	**+2.1**
CHN5	**Tsauling**	**1.54**	**222**	*e*P	**Pg**	**10 51 33.1**	**+0.8**
CHN5				*e*S	**Sg**	**10 51 54.8**	**+2.4**
WRL	**Guolierlin Hig**	**1.55**	**237**	*e*P	**Pb**	**10 51 31.5**	**+0.1**
WDLH	**Douliu**	**1.56**	**228**	*e*P	**Pg**	**10 51 33.5**	**+0.7**
WDLH				*e*S	**Sg**	**10 51 55.1**	**+2.0**
RLNB	**Erlin**	**1.57**	**237**	*e*P	**Pg**	**10 51 32.1**	**-0.8**
RLNB				*e*S	**Sg**	**10 51 52.9**	**-0.4**
CHKH	**Chenggong**	**1.60**	**193**	*e*P	**Pb**	**10 51 31.5**	**-0.7**
FULB	**Fuli**	**1.61**	**197**	*e*P	**Pb**	**10 51 32.3**	**-0.2**
WTK	**Tuku**	**1.67**	**231**	*e*P	**Pb**	**10 51 33.2**	**-0.2**
WTK				*e*S	**Sg**	**10 51 56.2**	**-0.2**
EHD	**Haiduan**	**1.69**	**199**	*e*P	**Pb**	**10 51 33.9**	**+0.2**
CHKT	**Chengkung**	**1.69**	**194**	*e*P	**Pg**	**10 51 34.7**	**-0.5**
CHKT				*e*S	**Sb**	**10 51 55.7**	**+0.6**
WCKO	**Fanlu**	**1.70**	**220**	*e*P	**Pg**	**10 51 35.7**	**+0.2**
WCKO				*e*S	**Sg**	**10 51 59.3**	**+1.7**
ELDTW	**Lidau**	**1.71**	**205**	*e*P	**Pg**	**10 51 35.5**	**-0.1**
CHY	**Chiayi**	**1.77**	**225**	*e*P	**Pg**	**10 51 36.2**	**-0.5**
CHY				*e*S	**Sg**	**10 52 00.3**	**+0.5**
CHN4	**Tsaushan**	**1.78**	**219**	*e*P	**Pg**	**10 51 36.4**	**-0.5**
CHN4				*e*S	**Sg**	**10 52 02.1**	**+2.1**
TPUB	**Ta-pu**	**1.80**	**217**	P	**Pg**	**10 51 36.2**	**-1.1**
TPUB	**Ta-pu**	**1.80**	**217**	*i* P	**Pg**	**10 51 37.0**	**-0.3**
IRIF	**Iriomote-Funau**	**1.81**	**103**	*e*P	**Pn**	**10 51 33.3**	**-0.4**
WSF	**Szhu**	**1.82**	**233**	*e*P	**Pb**	**10 51 35.7**	**-0.3**
WSF				*e*S	**Sg**	**10 51 60.0**	**-1.3**
EDH	**Donghe**	**1.83**	**194**	*e*P	**Pb**	**10 51 35.5**	**-0.6**
STYH	**Taoyuan**	**1.83**	**211**	*e*P	**Pg**	**10 51 37.4**	**-0.5**
WTP	**Ta-pu**	**1.85**	**216**	*e*P	**Pg**	**10 51 37.8**	**-0.5**
WTP				*e*S	**Sg**	**10 52 03.9**	**+1.5**
WSL	**Shuilin Townsh**	**1.89**	**230**	*e*P	**Pb**	**10 51 37.0**	**-0.1**
TWK	**Hsinying**	**1.90**	**219**	*i* P	**Pg**	**10 51 38.4**	**-0.9**
TWK				*e*S	**Sg**	**10 52 05.3**	**+1.3**
LONT	**Longtian**	**1.94**	**199**	*e*P	**Pb**	**10 51 37.2**	**-0.8**
CHN1	**Nanshi**	**1.95**	**217**	*e*P	**Pg**	**10 51 39.2**	**-0.9**
CHN1				S	**Sg**	**10 52 05.9**	**+0.5**
ICHU	**Yijhu**	**1.96**	**225**	P	**Pb**	**10 51 38.5**	**+0.1**
ICHU				*i* S	**Sb**	**10 52 03.7**	**+0.9**
CHN8	**Yiju**	**2.02**	**226**	*e*P	**Pb**	**10 51 38.2**	**-1.1**
TWG	**Pinlang**	**2.04**	**199**	*e*P	**Pb**	**10 51 39.7**	**0.0**
TWGBT	**Beinan**	**2.04**	**199**	P	**Pb**	**10 51 39.4**	**-0.3**
TWGBT	**Beinan**	**2.04**	**199**	*e*P	**Pb**	**10 51 38.7**	**-1.0**
SLGT	**Liugui**	**2.04**	**211**	*e*P	**Pb**	**10 51 40.0**	**+0.2**
JKRS	**Kuro-shima**	**2.08**	**104**	*e*P	**Pn**	**10 51 37.5**	**+0.1**
VWUC	**VWUC**	**2.15**	**277**	*e*P	**Pn**	**10 51 37.9**	**-0.5**
JIJ	**Ishigaki jima**	**2.17**	**100**	*e*P	**Pn**	**10 51 38.4**	**-0.2**
MATB	**Ma-tsu**	**2.18**	**310**	*e*P	**Pn**	**10 51 38.3**	**-0.5**
SCST	**Cishan**	**2.21**	**213**	*e*P	**Pg**	**10 51 43.9**	**-1.2**
SCST				*e*S	**Sg**	**10 52 14.8**	**+1.0**
SSD	**Sandimen**	**2.27**	**208**	*e*P	**Pb**	**10 51 43.7**	**+0.1**
SSD				*e*S	**Sb**	**10 52 13.1**	**+1.5**
ECL	**Taimali**	**2.28**	**200**	*e*P	**Pn**	**10 51 41.5**	**+1.3**
TSMG	**Majia**	**2.30**	**208**	*e*P	**Pb**	**10 51 44.6**	**+0.5**
PHUB	**P'eng-hu**	**2.38**	**239**	*e*P	**Pn**	**10 51 42.5**	**+0.9**
PHUB				*e*S	**Sb**	**10 52 13.3**	**-1.6**
MASBT	**Mashibuluo**	**2.38**	**207**	*e*P	**Pb**	**10 51 45.7**	**+0.1**
PTMZ	**Houxiangcun**	**2.45**	**277**	*e*P	**Pn**	**10 51 42.3**	**-0.2**
PTMZ				*e*S	**Sn**	**10 52 12.4**	**0.0**
WDGT	**Dungji**	**2.46**	**233**	*e*P	**Pn**	**10 51 44.0**	**+1.4**
EAST	**Anshuo**	**2.52**	**201**	*e*P	**Pb**	**10 51 46.4**	**-1.5**
LYJJ	**Jianjiangzhen**	**2.57**	**315**	*e*P	**Pn**	**10 51 43.7**	**-0.4**
SCZT	**Fangliau**	**2.60**	**205**	*e*P	**Pb**	**10 51 48.8**	**-0.6**
XPSS	**Dashiqiu**	**2.61**	**327**	*e*P	**Pn**	**10 51 43.9**	**-0.8**
VCHM	**Qimei**	**2.66**	**235**	*e*P	**Pn**	**10 51 46.9**	**+1.5**
VCHM				*e*S	**Sn**	**10 52 18.7**	**+1.2**
LYUB	**Lan-yu**	**2.75**	**184**	*e*P	**Pn**	**10 51 47.8**	**+1.2**
MHZQ	**Yeshan**	**2.84**	**299**	*e*P	**Pb**	**10 51 50.7**	**-2.7**
TWK1	**Hengchun**	**2.94**	**198**	*e*P	**Pb**	**10 51 53.4**	**-1.7**
KNM	**Kinmen**	**3.08**	**264**	*e*P	**Pn**	**10 51 52.8**	**+1.6**
AXDP	**Jialang**	**3.48**	**273**	*e*P	**Pn**	**10 51 56.4**	**-0.3**

IDC 23 10:54:22.2±2.9, **59.°07S**×**150.°45E**, **h0**^{km}, **mb3.9**/4, **mbtmp3.8**/5, **ML3.4**/1, **MS3.5**/20, **Error ellipse: s-maj=198.6km s-min=19.7km az=78.0, West of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNDA	**Vanda**	**18.93**	**172**	P	P	10 58 43.3	-0.8
	0.1nm,0.3s,baz=338,slow=11,SNR=8.6						
VNDA				LR	LR	11 05 23.5	
	comp=Z,128nm,18.1s,baz=340,slow=35						
	0.3nm,0.4s						
VNDA				AML	AML		
RPZ	**Rata Peaks**	**19.91**	**49**	LR	LR	11 05 14.4	
	comp=Z,47nm,21.7s,baz=2.5,slow=33						
URZ	**Urewera**	**26.95**	**51**	LR	LR	11 09 21.3	
	comp=Z,86nm,18.9s,baz=204,slow=33						
STKA	**Stephens Creek**	**27.85**	**344**	LR	LR	11 08 34.1	
	comp=Z,54nm,20.6s,baz=205,slow=31						
QSPA	**South Pole Qui**	**31.02**	**180**	P	P	11 00 41.8	+0.5
	2.2nm,1.1s,baz=20,slow=10,SNR=4.4						
QSPA				LR	LR	11 12 56.6	
	comp=Z,114nm,18.2s,baz=15,slow=36						
	2.2nm,1.1s						
H01W1	**Cape Leeuwin H**	**33.92**	**299**	T	T	11 36 26.5	
	baz=147,slow=75,SNR=17						
H01W2	**Cape Leeuwin H**	**33.93**	**299**	T	T	11 36 38.0	
	baz=147,slow=75,SNR=26						
H01W3	**Cape Leeuwin H**	**33.94**	**299**	T	T	11 36 27.5	
	baz=147,slow=75,SNR=14						
MAW	**Mawson**	**36.94**	**220**	LR	LR	11 17 01.9	
	comp=Z,74nm,18.1s,baz=99,slow=37						
ASAR	**Alice Springs**	**37.28**	**334**	P	P	11 01 35.8	+0.2
	1.3nm,0.7s,baz=163,slow=8.8,SNR=22						
	1.3nm,0.7s						
DZM	**Mont Dzumac**	**38.70**	**24**	LR	LR	11 14 58.1	
	comp=Z,104nm,18.9s,baz=176,slow=32						
CTA	**Charters Tower**	**39.06**	**354**	LR	LR	11 15 58.6	
	comp=Z,103nm,18.8s,baz=181,slow=33						
WRA	**Warramunga Arr**	**40.79**	**336**	P	P	11 02 04.5	-0.5
	1.1nm,0.7s,baz=165,slow=7.2,SNR=9.3						
	1.1nm,0.7s						
FITZ	**Fitzroy Crossi**	**44.74**	**325**	LR	LR	11 17 31.9	
	comp=Z,63nm,21.3s,baz=184,slow=31						
MSVF	**Nonsavu**	**45.94**	**38**	LR	LR	11 18 46.2	
	comp=Z,102nm,18.8s,baz=193,slow=32						
SNAA	**Sanae**	**48.21**	**191**	P	P	11 03 03.8	0.0
	1.3nm,0.6s,baz=186,slow=9.7,SNR=3.7						
SNAA				LR	LR	11 23 24.5	
	comp=Z,82nm,18.0s,baz=234,slow=36						
	1.3nm,0.6s						
PMG	**Port Moresby**	**49.62**	**356**	LR	LR	11 21 12.6	
	comp=Z,51nm,20.0s,baz=158,slow=32						
HNR	**Honiara**	**50.06**	**12**	LR	LR	11 19 56.7	
	comp=Z,58nm,19.4s,baz=276,slow=31						
BATI	**Baumata**	**52.80**	**326**	LR	LR	11 24 55.0	
	comp=Z,88nm,18.5s,baz=195,slow=35						
H04S2	**CROZET ISLANDS**	**55.25**	**236**	T	T	12 03 44.1	
	baz=139,slow=74,SNR=6.6						
H04S1	**CROZET ISLANDS**	**55.25**	**236**	T	T	12 03 45.4	
	baz=139,slow=74,SNR=8.5						
H04S3	**CROZET ISLANDS**	**55.26**	**236**	T	T	12 03 43.8	
	baz=139,slow=74,SNR=7.2						
KAPI	**Kappang**	**58.88**	**324**	LR	LR	11 28 07.9	
	comp=Z,33nm,19.4s,baz=170,slow=34						
LEM	**Lembang**	**61.50**	**310**	LR	LR	11 30 11.9	
	comp=Z,17nm,18.2s,baz=224,slow=35						
H08S2	**Diego Garcia H**	**77.29**	**276**	T	T	12 30 39.1	
	baz=148,slow=76,SNR=34						
H08S1	**Diego Carcia H**	**77.30**	**276**	T	T	12 30 36.3	
	baz=148,slow=76,SNR=26						
H08S3	**Diego Garcia H**	**77.31**	**276**	T	T	12 30 31.9	
	baz=148,slow=76,SNR=41						
H03S2	**Juan Fernandez**	**78.77**	**140**	T	T	12 34 13.0	
	baz=201,slow=74,SNR=3.8						
H03S1	**Juan Fernandez**	**78.77**	**140**	T	T	12 34 16.7	
	baz=201,slow=74,SNR=3.7						
H03S3	**Juan Fernandez**	**78.79**	**140**	T	T	12 34 13.9	
	baz=201,slow=74,SNR=4.1						
BOSA	**Boshof**	**81.59**	**227**	LR	LR	11 38 05.0	
	comp=Z,25nm,19.9s,baz=204,slow=32						
LBTB	**Lobatse**	**84.70**	**228**	LR	LR	11 41 43.8	
	comp=Z,11nm,19.5s,baz=163,slow=34						
CMAR	**Chiang Mai Arr**	**87.96**	**312**	LR	LR	11 45 22.0	
	comp=Z,11nm,18.5s,baz=85,slow=35						
LSZ	**Lusaka**	**92.40**	**235**	LR	LR	11 46 16.6	
	comp=Z,41nm,18.4s,baz=178,slow=34						

IDC 23 11:15:53.6±2.3, **1.°32N**×**126.°31E**, **h0**^{km}, **mb3.2**/3, **mbtmp3.2**/3, **Error ellipse: s-maj=192.5km s-min=28.5km az=65.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**22.55**	**160**	P	P	11 20 55.5	0.0
	0.4nm,0.6s,baz=339,slow=11,SNR=6.2						
	0.4nm,0.6s						
ASAR	**Alice Springs**	**25.91**	**164**	P	P	11 21 27.7	+0.1
	0.2nm,0.6s,baz=337,slow=9.7,SNR=5.1						
	0.2nm,0.6s						
MKAR	**Makanchi Array**	**59.30**	**326**	P	P	11 25 57.3	-0.1
	0.1nm,0.3s,baz=126,slow=7.3,SNR=2.1						
	0.1nm,0.3s						

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*IDC **23** 11:53:16.4±4.6, 6.°18S×103.°51E, h0^{km}, mb3.5/6, mbtmp3.5/6, Error ellipse: s-maj=194.2km s-min=23.5km az=53.0*
*DJA **23** 11:53:22.7±0.7, 6°S±4°×10°4E±°, h10^{km}, M3.7/7, ML3.7/6, MLv3.6/6, MLv3.7/7*
ISC 23 11:53:17.2±2.2, **6.°3S**±0.°2×**103.°4E**±0.°3, **h10**^{km}, **n11**, σ**0^{s}96**/6, **mb3.7**/6, **Southwest of Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MDSI	**Maura Dua**	**2.01**	**24**	P	**Pn**	**11 53 51.6**	**+0.3**
CGJI	**Cibinong**	**2.35**	**97**	P	**Pn**	**11 53 55.9**	**0.0**
CGJI				AML	AML		
CGJI				AML	AML		
CGJI				AML	AML		
CMAR	**Chiang Mai Arr**	**25.01**	**350**	P	**P**	**11 58 41.9**	**+0.3**
	0.6nm,0.4s,baz=180,slow=8.6,SNR=5.7						
	0.6nm,0.4s						
WRA	**Warramunga Arr**	**32.99**	**117**	P	**P**	**11 59 51.9**	**-0.8**
	0.3nm,0.7s,baz=289,slow=9.9,SNR=2.2						
	0.3nm,0.7s						
ASAR	**Alice Springs**	**34.05**	**124**	P	**P**	**12 00 03.1**	**+1.2**
	0.1nm,0.6s,baz=302,slow=8.3,SNR=1.3						
	0.1nm,0.6s						
SONM	**Songino Array**	**54.00**	**3**	P	**P**	**12 02 40.9**	**-0.7**
	0.4nm,0.5s,baz=180,slow=7.4,SNR=1.9						
	0.4nm,0.5s						
MKAR	**Makanchi Array**	**56.10**	**343**	P	P	12 02 56.6	-0.1
	0.4nm,0.6s,baz=144,slow=8.5,SNR=4.7						
	0.4nm,0.6s						
H04N2	**CROZET ISLANDS**	**59.44**	**219**	T	T	13 07 54.2	
	baz=65,slow=75,SNR=7.6						
H04N1	**CROZET ISLANDS**	**59.46**	**219**	T	T	13 07 50.9	
	baz=65,slow=75,SNR=8.0						
H04N3	**CROZET ISLANDS**	**59.46**	**219**	T	T	13 07 50.3	
	baz=65,slow=75,SNR=8.4						
ZALV	**Zalesovo Beam**	**62.05**	**348**	P	P	12 03 37.2	-0.5
	0.7nm,0.4s,baz=154,slow=7.2,SNR=3.7						
	0.7nm,0.4s						

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*DJA **23** 12:03:52.1±1.7, 7°S±7°×12°4E±1°1, h276^{km}±17^{km}, M3.5/6, mB4.5/1, mB4.5/1, mb4.0/2, mb4.0/2, MLv3.2/7, MLv3.3/6, Mw(mB)3.7/1, Mw(mB)3.7/1*
*IDC **23** 12:04:01.1±2.9, 7.°88S×123.°22E, h172^{km}±29^{km}, mb2.9/1, mbtmp3.3/4, Error ellipse: s-maj=109.4km s-min=17.5km az=60.0*
ISC 23 12:04:05.6±1.3, **8.°4S**±0.°1×**123.°1E**±0.°1, **h250**^{km}, **n12**, σ**2^{s}49**/14, **Flores region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MMRI	**Maumere**	**0.86**	**254**	P	**Pn**	**12 04 38.6**	**-1.3**
MMRI				AML	AML		
EDFI	**Ende, Flores**	**1.41**	**256**	P	**Pn**	**12 04 43.2**	**-0.2**
EDFI				AML	AML		

SOEI	**Soe**	**1.79**	**139**	P	**Pn**	**12 04 44.8**	**-1.6**
SOEI				AML	AML		
BATI	**Baumata**	**1.89**	**162**	P	Pn	12 04 41.6	-5.6
	125nm,0.3s,baz=63,slow=2.3,SNR=18						
BATI				S	**S**	**12 05 13.8**	**-6.1**
	60nm,0.3s,baz=194,slow=15,SNR=7.5						
WSI	**Waingapu**	**3.02**	**245**	P	**Pn**	**12 04 58.9**	**+0.6**
LBFI	**Labuhan Bajo,**	**3.15**	**268**	P	**Pn**	**12 04 56.5**	**-3.3**
LBFI				AML	AML		
LBFI				AML	AML		
DBNI	**Kabupaten Domp**	**4.71**	**268**	P	**Pn**	**12 05 18.0**	**0.0**
	16nm,0.8s						
PLAI	**Plampang**	**5.26**	**265**	P	**Pn**	**12 05 25.7**	**+1.1**
	916nm916nm44nm,1.0s						
FITZ	**Fitzroy Crossi**	**9.96**	**166**	P	**Pn**	**12 06 26.8**	**+3.0**
	1.2nm,0.6s,baz=354,slow=12,SNR=9.2						
FITZ				S	**S**	**12 08 16.4**	**+0.6**
	2.6nm,0.6s,baz=275,slow=16,SNR=5.7						
WRA	**Warramunga Arr**	**15.83**	**138**	P	**Pn**	**12 07 36.8**	**+1.0**
	0.4nm,0.7s,baz=315,slow=13,SNR=5.8						
WRA				S	**S**	**12 10 28.6**	**+0.2**
	0.4nm,0.6s,baz=312,slow=22,SNR=6.1						
ASAR	**Alice Springs**	**18.39**	**147**	P	**Pn**	**12 08 07.0**	**+1.1**
	0.2nm,0.3s,baz=322,slow=9.9,SNR=15						
ASAR				S	S	12 11 32.6	+13
	0.3nm,0.9s,baz=322,slow=22,SNR=2.2						
MKAR	**Makanchi Array**	**65.84**	**331**	P	**P**	**12 14 25.9**	**+1.5**
	0.2nm,0.5s,baz=130,slow=6.7,SNR=2.3 0.2nm,0.5s						

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*SKHL **23** 12:24:01.6±0.3, 43°.10N×147°.00E, h52^{km}±7^{km}, mb4.9/3*

*JMA **23** 12:24:01.4±0.2, 43°.1N±0°.7×14°7E±°, h68^{km}±2^{km}, MV3.9/39, E OFF HOKKAIDO*

ISC 23 12:24:01.7±2.2**, 43°.1N**±0°.1×**146°.90E**±0°.10**, h51**^{km}±46^{km}**, n13, σ0^{s}.41**/22**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SHO	**Shikotan**	**0.74**	**356**	*e*P	Pn	12 24 32.9	+17
SHO				AMB	AMB	12 24 33.0	
	680nm,0.2s						
SHO				*e*S	Sn	12 24 43.7	+17
SHO				A	A	12 24 44.5	
	6μm,0.3s						
SHO				A	A	12 24 44.5	
	4μm,0.3s						
NEM2	**Nemuro 2**	**0.88**	**286**	P	**Pn**	**12 24 17.8**	**0.0**
NEM2				S	**Sn**	**12 24 29.9**	**+0.3**
NMR	**Nemuro--Hokkai**	**0.89**	**286**	*i* P	**Pn**	**12 24 17.8**	**-0.1**
NMR				*e*S	**Sn**	**12 24 29.8**	**0.0**
YUK	**Yuzh-Kuril'sk**	**1.18**	**321**	*e*P	**Pn**	**12 24 21.5**	**-0.3**
YUK				AMB	AMB	12 24 22.3	
	410nm,0.3s						
YUK				*e*S	**Sn**	**12 24 36.3**	**-0.5**
YUK				A	A	12 24 37.6	
	3μm,0.5s						
YUK				A	A	12 24 37.6	
	3μm,0.5s						
JKHN	**Kushirohamanak**	**1.27**	**269**	P	**Pn**	**12 24 23.1**	**0.0**
JKHN				S	**Sn**	**12 24 39.5**	**+0.5**
AKK	**Akkeshi**	**1.51**	**267**	*e*P	**Pn**	**12 24 26.2**	**-0.1**
JNSB	**Nemuroshibetsu**	**1.52**	**296**	P	**Pn**	**12 24 26.4**	**-0.1**
JNSB				S	**Sn**	**12 24 45.9**	**+0.7**
JRA	**Rausu**	**1.53**	**303**	P	**Pn**	**12 24 26.7**	**+0.2**
JRA				S	**Sn**	**12 24 45.7**	**+0.6**
JAK	**Akkeshi**	**1.62**	**266**	P	**Pn**	**12 24 27.5**	**-0.3**
JAK				S	**Sn**	**12 24 46.9**	**-0.6**
JNK	**Nakash**	**1.66**	**287**	*i* P	**Pn**	**12 24 27.8**	**-0.4**
JNK				S	**Sn**	**12 24 47.9**	**-0.5**
KUR	**Kuril'sk**	**2.22**	**18**	*e*P	**Pn**	**12 24 35.9**	**0.0**
KUR				AMB	AMB	12 24 36.6	
	80nm,0.3s						
KUR				*e*S	**Sn**	**12 25 01.6**	**-0.5**
KUR				A	A	12 25 04.6	
	230nm,0.3s						
KUR				A	A	12 25 04.6	
	210nm,0.3s						
REI	**Reidovoe**	**2.29**	**20**	*e*P	**Pn**	**12 24 37.1**	**+0.2**
REI				*e*S	**Sn**	**12 25 04.1**	**+0.3**
REI				A	A	12 25 05.8	
	190nm,0.2s						
REI				A	A	12 25 05.8	
	170nm,0.2s						
JAR	**Ashorobuto**	**2.29**	**275**	P	**Pn**	**12 24 37.4**	**+0.4**

IDC 23 12:26:12.8±5.7**, 18°.37S**×**176°.13W, h176**^{km}±46^{km}**, mb3.6**/2**, mbtmp4.1**/3**, Error ellipse: s-maj=164.1km s-min=31.7km az=146.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	**6.10**	**44**	P	Pn	12 27 43.1	+2.0
	8.9nm,0.7s,baz=231,slow=6.5,SNR=1.1						
AFI				S	Sn	12 28 49.5	-1.1
	12nm,0.3s,baz=228,slow=16,SNR=6.8						
WRA	**Warramunga Arr**	**46.68**	**260**	P	P	12 34 24.2	0.0
	0.6nm,0.3s,baz=96,slow=7.3,SNR=52 0.6nm,0.3s						
ASAR	**Alice Springs**	**46.76**	**255**	P	P	12 34 24.4	-0.4
	2.1nm,0.6s,baz=89,slow=8.3,SNR=51						
ASAR				PcP	PcP	12 35 53.9	-1.4
	0.2nm,0.7s,baz=85,slow=3.4,SNR=1.8 2.1nm,0.6s						
BRTR	**Keskin Array B**	**146.64**	**316**	PKPbc	PKPbc	12 45 34.5	+0.3
	0.3nm,0.4s,baz=50,slow=4.7,SNR=2.2						

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*IDC **23** 12:47:33.6±2.4, 33°.57S×178°.53W, h0^{km}, mb3.7/2, mbtmp3.8/3, ML4.1/1, Error ellipse: s-maj=63.9km s-min=35.3km az=123.0*

*WEL **23** 12:47:35.8±0.6, 33°S±11°×17°9W±2°5, h12^{km}, M4.1/7, mB4.8/5, ML4.1/12, MLv4.2/7, Mw(mB)4.0/5, Error ellipse: s-maj=35.6km s-min=4.0km az=112.2, confirmed*

ISC 23 12:47:34.8±1.5**, 33°.5S**±0°.1×**178°.7W**±0°.3**, h10**^{km}**, n20, σ1^{s}.45**/37**, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GLKZ	**Green Lake**	**4.22**	**9**	P	**Pn**	**12 48 38.3**	**-1.0**
GLKZ				S	**Sn**	**12 49 25.7**	**-3.0**
GLKZ				AML	AML		
GLKZ				AML	AML		
MXZ	**Matakaoa Point**	**4.79**	**210**	P	**Pn**	**12 48 48.5**	**+1.5**
MXZ				S	**Sn**	**12 49 42.9**	**+0.2**
MXZ				AML	AML		
WMGZ	**Waiomatatini S**	**4.97**	**208**	P	**Pn**	**12 48 49.3**	**-0.2**
WMGZ				AML	AML		
WMGZ				AML	AML		
PKGZ	**Pakihiroa**	**5.15**	**210**	P	**Pn**	**12 48 51.2**	**-0.8**
PKGZ				S	**Sn**	**12 49 51.6**	**+0.2**
PKGZ				AML	AML		
PKGZ				AML	AML		
HAZ	**Te Kaha**	**5.18**	**213**	P	**Pn**	**12 48 53.7**	**+1.3**
HAZ				S	**Sn**	**12 49 53.1**	**+0.8**
HAZ				AML	AML		
PUZ	**Puketiti**	**5.25**	**208**	P	**Pn**	**12 48 52.6**	**-0.8**
PUZ				S	**Sn**	**12 49 52.8**	**-1.2**
PUZ				AML	AML		
RUGZ	**Raukumara Rang**	**5.40**	**213**	P	**Pn**	**12 48 56.5**	**+0.9**
RUGZ				S	**Sn**	**12 49 58.1**	**+0.2**
RUGZ				AML	AML		
RUGZ				AML	AML		
TWGZ	**Tauwhareparae**	**5.45**	**209**	P	**Pn**	**12 48 58.5**	**+2.3**
TWGZ				S	**Sn**	**12 49 59.1**	**+0.2**
TWGZ				AML	AML		
TWGZ				AML	AML		
CNGZ	**Carnagh Statio**	**5.63**	**206**	P	**Pn**	**12 48 59.1**	**+0.5**
CNGZ				S	**Sn**	**12 50 01.4**	**-1.9**
CNGZ				AML	AML		
CNGZ				AML	AML		
MWZ	**Matawai**	**5.78**	**211**	P	**Pn**	**12 49 00.1**	**-0.5**
MWZ				S	**Sn**	**12 50 05.9**	**-1.0**
MWZ				AML	AML		
MWZ				AML	AML		
URZ	**Urewera**	**5.90**	**214**	Pn	**Pn**	**12 49 03.0**	**+0.7**
	5.5nm,0.3s,baz=20,slow=9.5,SNR=31						
URZ				Sn	**Sn**	**12 50 08.2**	**-1.8**
	2.5nm,0.3s,baz=77,slow=23,SNR=7.0 9.2nm,0.3s						
URZ				AML	AML		
URZ	**Urewera**	**5.90**	**214**	P	**Pn**	**12 49 03.2**	**+0.9**
URZ				S	**Sn**	**12 50 08.7**	**-1.3**
URZ				AML	AML		
RIGZ	**Rimuhau**	**5.99**	**208**	P	**Pn**	**12 49 04.4**	**+0.8**
RIGZ				AML	AML		
RIGZ				AML	AML		
PRGZ	**Paritu Road**	**6.14**	**206**	P	**Pn**	**12 49 06.9**	**+1.3**
PRGZ				S	**Sn**	**12 50 14.7**	**-1.1**
PRGZ				AML	AML		
MUGZ	**Murupara**	**6.24**	**215**	P	**Pn**	**12 49 08.6**	**+1.6**
MUGZ				S	**Sn**	**12 50 16.9**	**-1.5**
MUGZ				AML	AML		
MUGZ				AML	AML		
BKZ	**Black Stump Fm**	**6.92**	**213**	P	**Pn**	**12 49 16.5**	**+0.2**
BKZ				S	**Sn**	**12 50 31.8**	**-3.3**
BKZ				AML	AML		
MOVZ	**Moawhango**	**7.46**	**216**	P	**Pn**	**12 49 24.0**	**+0.2**
MOVZ				S	**Sn**	**12 50 44.8**	**-3.7**
MOVZ				AML	AML		
ASAR	**Alice Springs**	**42.49**	**271**	P	**P**	**12 55 31.7**	**+1.2**
	0.6nm,0.7s,baz=112,slow=7.3,SNR=14						
ASAR				PcP	**PcP**	**12 57 23.1**	**-0.2**
	0.2nm,0.8s,baz=104,slow=3.5,SNR=1.6 0.6nm,0.7s						
WRA	**Warramunga Arr**	**43.76**	**276**	P	**P**	**12 55 41.9**	**+1.2**
	0.6nm,0.4s,baz=117,slow=7.8,SNR=23						
WRA				PcP	**PcP**	**12 57 27.5**	**-0.1**
	0.2nm,0.8s,baz=112,slow=3.1,SNR=1.6 0.6nm,0.4s						
FINES	**FINESS Array B**	**147.79**	**338**	PKPbc	**PKPbc**	**13 07 19.7**	**+0.6**
	1.0nm,0.5s,baz=38,slow=3.0,SNR=6.3						

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*MOS **23** 13:16:29.9±0.8, 54°.64N×83°.52E, h12^{km}, mb3.7/1, Error ellipse: s-maj=8.1km s-min=5.0km az=120.5*

*IDC **23** 13:16:30.0±1.1, 54°.61N×83°.73E, h0^{km}, mb3.6/3, mbtmp3.8/8, ML3.7/5, MS2.9/3, Error ellipse: s-maj=13.1km s-min=10.3km az=142.0*

*ASRS **23** 13:16:30.1±0.2, 55°N±2°×83°.7E±0°.9, h5^{km}±1^{km}, MLh4.1/13, Error ellipse: s-maj=4.5km s-min=1.7km az=13.3, confirmed*

*NNC **23** 13:16:32.6±2.4, 54°.49N×83°.68E, h0^{km}, mb4.2, mpv3.7, Error ellipse: s-maj=20.3km s-min=6.3km az=1.0, Suspected Mining explosion.*

ISC 23 13:16:30.2±0.5**, 54°.61N**±0°.02×**83°.64E**±0°.02**, h0**^{km}**, n101, σ1^{s}.87**/168**, mb3.6**/4**, 17C-10D, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KHAR	**Kharino, NSO,**	**0.03**	**273**	PG	**Pg**	**13 16 31.4**	**+0.6**
KHAR	**Kharino, NSO,**	**0.03**	**273**	⇓Pg	**Pg**	**13 16 31.3**	**+0.6**
KHAR				Sg	**Sg**	**13 16 32.3**	**+1.1**
NVSII	**Novosibirsk**	**0.33**	**314**	PG	**Pg**	**13 16 36.5**	**0.0**
NVSII						13 16 40.8	
NVSII	**Novosibirsk**	**0.33**	**314**	⇑Pg	**Pg**	**13 16 36.2**	**-0.3**
NVSII				Sg	**Sg**	**13 16 40.6**	**-0.1**
NVSII				AML	AML		
NVS	**Novosibirsk**	**0.33**	**314**	PG	**Pg**	**13 16 36.3**	**-0.2**
NVS						13 16 40.5	
NVS	**Novosibirsk**	**0.33**	**314**	⇑Pg	**Pg**	**13 16 36.2**	**-0.3**
NVS				Sg	**Sg**	**13 16 40.5**	**-0.3**
NVS				AML	AML		
NHES	**Novosibirsk, N**	**0.45**	**304**	Pg	**Pg**	**13 16 39.3**	**+0.4**
NHES				Sg	**Sg**	**13 16 45.0**	**+0.3**
NHES				AML	AML		
BSTK	**Bystrovka, Nov**	**0.58**	**266**	PG	**Pg**	**13 16 41.8**	**+0.6**
BSTK						13 16 49.8	
BSTK	**Bystrovka, Nov**	**0.58**	**266**	Pg	**Pg**	**13 16 41.8**	**+0.6**
BSTK				Sg	**Sg**	**13 16 49.9**	**+1.2**
BSTK				AML	AML		
ZAA0	**Zalesovo Array**	**0.96**	**134**	⇓P	**Pg**	**13 16 48.1**	**-0.4**
	24nm,0.4s						
ZAA0				⇑S	**Sg**	**13 17 02.0**	**+1.1**
	309nm,0.5s						
ZALV	**Zalesovo Beam**	**0.96**	**134**	Pg	**Pg**	**13 16 48.2**	**-0.3**
	32nm,0.3s,baz=314,slow=19,SNR=213						
ZALV				Lg	Lg	13 17 01.6	
	190nm,0.3s,baz=316,slow=29,SNR=96						
SALR	**Pechorkino, Sa**	**1.22**	**98**	PG	**Pg**	**13 16 53.1**	**-0.4**
SALR						13 17 09.8	
SALR	**Pechorkino, Sa**	**1.22**	**98**	Pg	**Pg**	**13 16 52.8**	**-0.6**
SALR				Sg	**Sg**	**13 17 09.7**	**+0.5**
SALR				AML	AML		
BJR1	**Bachatsky 1, K**	**1.45**	**104**	PG	**Pn**	**13 16 57.6**	**0.0**
BJR1						13 17 17.1	
BJR1	**Bachatsky 1, K**	**1.45**	**104**	Pg	**Pn**	**13 16 57.3**	**-0.4**
BJR1				Sg	**Sg**	**13 17 17.1**	**+0.4**
BJR1				AML	AML		
BJR2	**Bachatsky-2, K**	**1.49**	**102**	PN	**Pb**	**13 16 59.4**	**+0.8**
BJR2						13 17 20.1	
BJR2	**Bachatsky-2, K**	**1.49**	**102**	Pg	**Pb**	**13 16 59.4**	**+0.8**
BJR2				Sg	**Sn**	**13 17 20.1**	**+1.9**
BJR2				AML	AML		
BJR3	**Bachatsky-3 (S**	**1.52**	**104**	PN	**Pn**	**13 16 58.8**	**+0.2**
BJR3						13 17 19.9	
BJR3	**Bachatsky-3 (S**	**1.52**	**104**	Pg	**Pn**	**13 16 58.8**	**+0.2**
BJR3				Sg	**Sn**	**13 17 19.9**	**+0.9**
BJR3				AML	AML		
BJR4	**Bachatsky-4, K**	**1.57**	**100**	Pg	**Pg**	**13 17 00.9**	**+0.7**
BJR4				Sg	**Sg**	**13 17 22.2**	**+1.8**
BJR4				AML	AML		
KEM	**Kemerovo**	**1.59**	**62**	PN	**Pn**	**13 16 59.4**	**-0.1**
KEM						13 17 20.7	
KEM	**Kemerovo**	**1.59**	**62**	Pg	**Pn**	**13 16 59.4**	**-0.1**
KEM				Sg	**Sn**	**13 17 20.8**	**0.0**
KEM				AML	AML		
BALAH	**Balakhonka, Ku**	**1.69**	**53**	Pg	**Pn**	**13 17 01.1**	**+0.1**
BALAH				Sg	**Sb**	**13 17 23.7**	**-0.2**
BALAH				AML	AML		
POMOR	**Pomortsevo, Ku**	**1.69**	**96**	PN	**Pb**	**13 17 02.3**	**+0.2**
POMOR						13 17 26.0	
POMOR	**Pomortsevo, Ku**	**1.69**	**96**	Pg	**Pb**	**13 17 02.4**	**+0.2**
POMOR				Sg	**Sg**	**13 17 26.0**	**+1.5**
POMOR				AML	AML		
VCHU	**Verkh-Chumysh,**	**1.77**	**111**	PN	**Pb**	**13 17 03.6**	**+0.2**
VCHU						13 17 28.8	
VCHU	**Verkh-Chumysh,**	**1.77**	**111**	Pg	**Pb**	**13 17 03.7**	**+0.2**
VCHU				Sg	**Sg**	**13 17 28.9**	**+2.0**
VCHU				AML	AML		
KOTO	**Kotino, Kuzbas**	**1.96**	**101**	PN	**Pb**	**13 17 06.9**	**+0.2**
KOTO						13 17 34.7	
KOTO	**Kotino, Kuzbas**	**1.96**	**101**	⇑Pg	**Pb**	**13 17 07.0**	**+0.2**
KOTO				Sg	**Sg**	**13 17 34.7**	**+1.5**
ELT	**Eltsovka**	**2.05**	**130**	PN	**Pn**	**13 17 06.3**	**+0.5**
ELT						13 17 35.0	
ELT	**Eltsovka**	**2.05**	**130**	Pg	**Pn**	**13 17 06.4**	**+0.5**
ELT				Sg	**Sb**	**13 17 35.1**	**+1.0**
ERU	**Erunakovo, Kuz**	**2.24**	**101**	PN	**Pb**	**13 17 10.9**	**-0.6**
ERU						13 17 41.8	
ERU	**Erunakovo, Kuz**	**2.24**	**101**	Pg	**Pb**	**13 17 11.1**	**-0.3**
ERU				Sg	**Sg**	**13 17 41.9**	**-0.1**
KALT2	**Kaltan 2**	**2.49**	**118**	Pg	**Pb**	**13 17 15.4**	**-0.3**
KALT2				Sg	**Sg**	**13 17 49.8**	**-0.3**
KALT3	**Kaltan 3**	**2.49**	**115**	Pg	**Pb**	**13 17 15.7**	**-0.1**
KALT3				Sg	**Sg**	**13 17 49.5**	**-0.7**
KALT1	**Kaltan 1**	**2.53**	**117**	Pg	**Pb**	**13 17 16.9**	**+0.5**
KALT1				Sg	**Sg**	**13 17 52.5**	**+1.1**
KIYZ	**Kiyzas, Kuzbas**	**2.64**	**112**	Pn	**Pn**	**13 17 15.6**	**+1.6**
KIYZ				Pg	**Pb**	**13 17 18.3**	**-0.1**
KIYZ				Sg	**Sb**	**13 17 51.5**	**+0.2**
GALT	**Gorno-Altaysk,**	**3.00**	**152**	PN	**Pg**	**13 17 28.8**	**+1.3**
GALT						13 18 03.8	
GALT	**Gorno-Altaysk,**	**3.00**	**152**	Pg	**Pg**	**13 17 28.9**	**+1.3**
GALT				Sg	**Sb**	**13 18 03.8**	**+2.4**
TASR	**Tashtagol**	**3.13**	**125**	PN	**Pn**	**13 17 22.4**	**+1.7**
TASR						13 17 27.2	
TASR						13 18 07.4	
TASR	**Tashtagol**	**3.13**	**125**	Pn	**Pn**	**13 17 22.4**	**+1.7**
TASR				Pg	**Pb**	**13 17 27.2**	**+0.6**
TASR				Sg	**Sb**	**13 18 07.5**	**+2.2**
LUZB	**Luzhba, Kemero**	**3.24**	**105**	PN	**Pb**	**13 17 29.4**	**+1.0**
LUZB						13 18 10.2	
LUZB	**Luzhba, Kemero**	**3.24**	**105**	Pg	**Pb**	**13 17 29.4**	**+1.0**
LUZB				Sg	**Sb**	**13 18 10.3**	**+1.9**
ARTR	**Artybash**	**3.57**	**141**	PN	**Pn**	**13 17 27.3**	**+0.5**
ARTR						13 17 36.9	
ARTR						13 18 20.5	
ARTR	**Artybash**	**3.57**	**141**	Pn	**Pn**	**13 17 27.3**	**+0.5**
ARTR				Pg	**Pg**	**13 17 36.9**	**-1.6**
ARTR				Sg	**Sb**	**13 18 20.6**	**+2.6**
ELDR	**Elanda**	**3.71**	**155**	PN	**Pn**	**13 17 29.4**	**+0.7**
ELDR						13 17 41.6	
ELDR						13 18 27.2	
ELDR	**Elanda**	**3.71**	**155**	⇑Pn	**Pn**	**13 17 29.5**	**+0.7**
ELDR				Pg	**Pg**	**13 17 41.6**	**+0.4**
ELDR				Sg	**Sg**	**13 18 27.2**	**-2.0**
YALR	**Yailyu, Altay**	**3.71**	**138**	PN	**Pn**	**13 17 29.2**	**+0.4**
YALR						13 17 38.2	
YALR						13 18 26.9	
YALR	**Yailyu, Altay**	**3.71**	**138**	Pn	**Pn**	**13 17 29.2**	**+0.4**
YALR				Pg	**Pb**	**13 17 38.3**	**+1.7**
YALR				Sg	**Sg**	**13 18 27.0**	**-2.4**
VEH	**Verkhnyaya Baz**	**4.17**	**106**	PN	**Pn**	**13 17 33.7**	**-1.5**
VEH						13 17 45.2	
VEH						13 18 39.1	
VEH	**Verkhnyaya Baz**	**4.17**	**106**	Pn	**Pn**	**13 17 33.7**	**-1.5**
VEH				Pg	**Pb**	**13 17 45.3**	**+0.8**
VEH				Sg	**Sb**	**13 18 39.1**	**+3.7**
ULGR	**Ulagan, Altay**	**4.78**	**145**	PN	**Pn**	**13 17 44.2**	**+0.7**
ULGR				S	**Sn**	**13 18 39.6**	**-0.1**
ULGR						13 18 58.7	
ULGR	**Ulagan, Altay**	**4.78**	**145**	Pn	**Pn**	**13 17 44.2**	**+0.7**
ULGR				S	**Sn**	**13 18 39.6**	**-0.1**
ULGR				Sg	**Sb**	**13 18 58.8**	**+5.8**
DJO	**Djoy, Khakassi**	**4.86**	**109**	PN	**Pb**	**13 17 59.0**	**+2.9**
DJO						13 19 03.6	
DJO	**Djoy, Khakassi**	**4.86**	**109**	Pg	**Pb**	**13 17 59.1**	**+2.9**
DJO				Sg	**Sg**	**13 19 03.6**	**-2.5**
CHBI	**Chibit, Altay**	**4.91**	**150**	PN	**Pn**	**13 17 46.0**	**+0.8**
CHBI	**Chibit, Altay**	**4.91**	**150**	Pn	**Pn**	**13 17 46.1**	**+0.8**
CHBI				Sg	**Sg**	**13 19 06.0**	**-1.8**
AKAR	**Aktash**	**4.94**	**149**	PN	**Pn**	**13 17 46.4**	**+0.8**
AKAR	**Aktash**	**4.94**	**149**	Pn	**Pn**	**13 17 46.5**	**+0.8**
AKAR				Sg	**Sg**	**13 19 07.6**	**-1.1**
CERR	**Cheremushki**	**4.94**	**108**	PN	**Pg**	**13 18 01.8**	**-2.9**
CERR						13 19 06.3	
CERR	**Cheremushki**	**4.94**	**108**	Pg	**Pg**	**13 18 01.8**	**-2.9**
CERR				Sg	**Sg**	**13 19 06.4**	**-2.3**
KURK	**Kurchatov**	**4.96**	**220**	⇓Pn	**Pn**	**13 17 49.1**	**+3.3**
	1.4nm,0.3s						
KURK				⇓Pg	**Pg**	**13 18 05.0**	**-0.1**
	4.5nm,0.4s						
KURK				⇑Sn	**Sn**	**13 18 45.1**	**+1.3**
	6.1nm,0.5s						
KURK				⇑Lg	Lg	13 19 09.2	
	39nm,0.7s						
KURK	**Kurchatov**	**4.96**	**220**	PN	**Pn**	**13 17 48.9**	**+3.1**
KURK						13 18 46.5	
KURK	**Kurchatov**	**4.96**	**220**	Pn	**Pn**	**13 17 49.2**	**+3.4**
KURK				Pg	**Pg**	**13 18 04.6**	**-0.5**
KURBB	**Kurchatov Arra**	**5.07**	**220**	Pn	**Pn**	**13 17 48.9**	**+1.6**
	1.5nm,0.3s,baz=39,slow=14,SNR=25						
KURBB				Pg	**Pg**	**13 18 04.6**	**-2.6**
	1.5nm,0.3s,baz=37,slow=16,SNR=26						
KURBB				Sn	**Sn**	**13 18 46.5**	**0.0**
	1.2nm,0.3s,baz=37,slow=25,SNR=6.0						
KURBB				Lg	Lg	13 19 10.5	
	2.2nm,0.3s,baz=35,slow=33,SNR=8.0 7.2nm,0.5s						
KURBB				AML	AML		
KURBB	**Kurchatov Arra**	**5.07**	**220**	⇑Pn	**Pn**	**13 17 49.3**	**+2.0**
	4.8nm,0.3s						
KURBB				⇑Pg	**Pg**	**13 18 05.5**	**-1.7**
	19nm,0.6s						
KURBB				⇑Sn	**Sn**	**13 18 47.2**	**+0.8**
	26nm,0.5s						
KURBB				⇑Lg	Lg	13 19 14.3	
	138nm,0.6s						
KURBB	**Kurchatov Arra**	**5.07**	**220**	PN	**Pn**	**13 17 49.3**	**+2.0**
KURBB				P	**Pg**	**13 18 05.5**	**-1.7**
KURBB				S	**Sn**	**13 18 47.2**	**+0.8**
CUR	**Chagan-Uzun**	**5.36**	**146**	PN	**Pn**	**13 17 53.7**	**+2.2**
CUR	**Chagan-Uzun**	**5.36**	**146**	Pn	**Pn**	**13 17 53.7**	**+2.2**
CUR				Sg	**Sg**	**13 19 23.4**	**+1.2**
TEL	**Teeli**	**5.36**	**129**	PN	**Pn**	**13 17 52.5**	**+1.1**
TEL						13 18 10.6	
TEL	**Teeli**	**5.36**	**129**	Pn	**Pn**	**13 17 52.6**	**+1.1**
TEL				Pg	**Pg**	**13 18 10.6**	**-2.2**
TEL				Sg	**Sg**	**13 19 25.2**	**+2.9**
DGZ	**Jazzator, Alta**	**5.44**	**153**	PN	**Pn**	**13 17 53.7**	**+1.1**
DGZ						13 18 12.1	
DGZ	**Jazzator, Alta**	**5.44**	**153**	Pn	**Pn**	**13 17 53.8**	**+1.1**
DGZ				Pg	**Pg**	**13 18 12.2**	**-2.2**
DGZ				Sg	**Sg**	**13 19 23.0**	**-1.9**
SHTK	**Zheleznogorsk-**	**5.92**	**69**	PN	**Pn**	**13 18 00.3**	**+1.3**
SHTK						13 18 17.0	
SHTK	**Zheleznogorsk-**	**5.92**	**69**	Pn	**Pn**	**13 18 00.4**	**+1.3**
SHTK				Pg	**Pb**	**13 18 17.0**	**+2.8**
SHTK				Sg	**Sg**	**13 19 39.7**	**-0.6**
MINR	**Mina**	**6.12**	**83**	PN	**Pn**	**13 18 03.1**	**+1.3**
MINR						13 18 21.6	
MINR						13 19 41.7	
MINR	**Mina**	**6.12**	**83**	Pn	**Pn**	**13 18 03.1**	**+1.3**
MINR				Pg	**Pb**	**13 18 21.6**	**+4.0**
MINR				Sg	**Sg**	**13 19 41.8**	**-4.8**
MK31	**Makanchi Array**	**7.88**	**187**	Pn	**Pn**	**13 18 27.7**	**+1.8**
	1.6nm,0.5s,baz=16,slow=12,SNR=13						
MK31				⇑Sn	**Sn**	**13 19 58.3**	**+2.6**
	1.2nm,0.4s,baz=145,slow=42,SNR=4.3						
MK31				⇓Lg	Lg	13 20 38.4	
	5.8nm,0.6s,baz=20,slow=33,SNR=6.0						
MKAR	**Makanchi Array**	**7.88**	**187**	Pn	**Pn**	**13 18 27.5**	**+1.6**
	2.2nm,0.3s,baz=11,slow=12,SNR=25						
MKAR				Sn	**Sn**	**13 19 54.2**	**-1.5**
	1.0nm,0.3s,baz=4.3,slow=29,SNR=5.3						
MKAR				Lg	Lg	13 20 35.3	
	1.1nm,0.3s,baz=1.6,slow=21,SNR=4.4 4.2nm,0.4s						
MKAR				AML	AML		
MAKZ	**Makanchi**	**7.88**	**188**	⇓Pn	**Pn**	**13 18 27.3**	**+1.3**
	7.3nm,0.9s						
MAKZ				⇑Sn	**Sn**	**13 19 55.4**	**-0.5**
	4.7nm,0.6s						
MAKZ				⇑Lg	Lg	13 20 38.0	
	33nm,1.2s						
MAKZ	**Makanchi**	**7.88**	**188**	P	**Pn**	**13 18 27.0**	**+1.0**
MAKZ				S	**Sn**	**13 19 55.0**	**-0.9**
BVAR	**Borovoye Array**	**8.01**	**264**	Pn	**Pn**	**13 18 28.6**	**+0.9**
	1.1nm,0.3s,baz=69,slow=14,SNR=57						
BVAR				Sn	**Sn**	**13 19 54.0**	**-4.9**
	0.6nm,0.3s,baz=84,slow=25,SNR=8.8						
BVAR				Lg	Lg	13 20 40.9	
	baz=65,slow=27 12nm,0.4s						
BVAR				AML	AML		
BORK	**Borovoye**	**8.04**	**264**	P	**Pn**	**13 18 29.2**	**+1.1**
PDGK	**Podgornoye**	**11.62**	**195**	⇓Pn	**Pn**	**13 19 18.1**	**+0.8**
	1.5nm,0.3s						
PDGK				⇑Lg	Lg	13 22 36.5	
	22nm,1.2s						
PDGK	**Podgornoye**	**11.62**	**195**	P	**Pn**	**13 19 18.0**	**+0.8**
TLY	**Talaya**	**12.35**	**96**	LR	LR	13 24 23.4	
	comp=Z,37nm,20.9s,baz=306,slow=38						
AAK	**Ala-Archa**	**13.41**	**210**	Pn	**Pn**	**13 19 42.0**	**+0.3**
	0.7nm,0.3s,baz=59,slow=5.9,SNR=4.2						
AAK				Sn	**Sn**	**13 22 06.5**	**-5.0**
	0.4nm,0.3s,baz=78,slow=11,SNR=4.5						
AAK				Lg	Lg	13 23 32.6	
	0.2nm,0.3s,baz=45,slow=20,SNR=4.5						
AAK				LR	LR	13 25 03.8	
	comp=Z,58nm,18.1s,baz=346,slow=38 1.4nm,0.3s						
AAK				AML	AML		
AAK	**Ala-Archa**	**13.41**	**210**	⇑Pn	**Pn**	**13 19 41.4**	**-0.3**
	5.0nm,0.4s						
AAK				⇓Sn	**Sn**	**13 22 07.8**	**-3.7**
	10.0nm,0.8s						
AAK				⇑Lg	Lg	13 23 32.2	
	75nm,1.2s						
KK31	**Karatay Array**	**14.37**	**222**	⇓Pn	**Pn**	**13 19 54.2**	**-0.6**
	0.7nm,0.3s,baz=28,slow=12,SNR=7.3						
KK31				⇓Sn	**Sn**	**13 22 30.4**	**-4.3**
	2.7nm,0.8s,baz=29,slow=27,SNR=3.6						
KK31	**Karatay Array**	**14.37**	**222**	P	**Pn**	**13 19 52.0**	**-2.7**
KK31				S	**Sn**	**13 22 40.0**	**+5.3**
ARTI	**Arti**	**14.40**	**287**	Sn	**Sn**	**13 22 34.6**	**-0.6**
	0.9nm,0.3s,baz=289,slow=23,SNR=12						
NRIK	**Noril'sk**	**14.89**	**5**	P	**Pn**	**13 20 04.7**	**+3.1**
SONM	**Songino Array**	**15.74**	**106**	Lg	Lg	13 24 43.7	
	0.9nm,0.3s,baz=293,slow=26,SNR=2.9						
ULN	**Ulaanbaatar**	**16.09**	**105**	P	**Pn**	**13 20 17.6**	**-0.1**
AKTO	**Aktyubinsk**	**16.11**	**265**	Pn	**Pn**	**13 20 16.4**	**-1.4**
	0.2nm,0.3s,baz=63,slow=12,SNR=1.2						
AKTO				Sn	**Sn**	**13 23 08.0**	**-8.9**
	0.3nm,0.3s,baz=140,slow=4.5,SNR=1.5						

	0.8nm,0.3s						
AKTO				AML	AML		
KIRV	Kirov	19.12	296	P	P	13 20 53.0	-1.4
BELG	Belogornoye	21.39	279	eP	P	13 21 19.4	+0.3
BELG				pmax	pmax		
	comp=Z,2.0nm,0.9s						
KSRS	Korea Array	34.52	101	LR	LR	13 38 22.3	
	comp=Z,18nm,20.3s,baz=350,slow=38						
ILAR	Eielson Array	54.80	24	P	P	13 26 00.2	-1.0
	comp=Z,0.4nm,0.7s,baz=323,slow=6.3,SNR=4.4						
	comp=Z,0.4nm,0.7s						
WRA	Warramunga Arr	85.94	133	P	P	13 29 10.2	-1.8
	comp=Z,0.4nm,0.9s,baz=338,slow=5.4,SNR=3.0						
	comp=Z,0.4nm,0.9s						
ASAR	Alice Springs	89.07	135	P	P	13 29 25.3	-1.7
	comp=Z,0.4nm,1.0s,baz=332,slow=4.9,SNR=6.0						
	comp=Z,0.4nm,1.0s						

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*IDC **23** 13:19:09.2±2.7, 6°.68S×129°.69E, h133km±29km, mb3.6/2, mbtmp3.6/6, Error ellipse: s-maj=52.1km s-min=20.0km az=95.0*

ISC 23 13:19:09.3±0.9**, 6°.85S**±0°.07×**130°.0E**±0°.2**, h150**km**, n6, σ2s.50**/9**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SIJI	Sorong	6.07	12	P	Pn	13 20 35.4	-1.7
	3.5nm,0.8s,baz=179,slow=22,SNR=9.5						
SIJI				S	Sn	13 21 37.0	-8.6
	5.4nm,0.2s,baz=225,slow=23,SNR=12						
FITZ	Fitzroy Crossi	11.96	200	P	Pn	13 21 57.8	+2.6
	2.8nm,1.1s,baz=14,slow=10,SNR=6.7						
FITZ				S	Sn	13 24 03.9	-3.6
	0.6nm,0.3s,baz=296,slow=23,SNR=1.6						
WRA	Warramunga Arr	13.69	162	P	P	13 22 19.9	-1.2
	0.4nm,0.8s,baz=341,slow=13,SNR=13						
WRA				S	Sn	13 24 47.1	-1.9
	0.2nm,0.3s,baz=333,slow=25,SNR=6.6						
ASAR	Alice Springs	17.14	168	P	Pn	13 23 02.6	+2.6
	0.2nm,0.5s,baz=350,slow=12,SNR=11						
ASAR				S	S	13 26 10.2	-0.3
	0.3nm,0.9s,baz=350,slow=20,SNR=1.9						
PETK	Petropavlovsk-	64.18	18	P	P	13 29 29.4	+1.7
	4.1nm,0.8s,baz=194,slow=8.5,SNR=12						
	4.1nm,0.8s						
MKAR	Makanchi Array	68.09	327	P	P	13 29 52.2	-0.7
	0.3nm,0.4s,baz=126,slow=7.9,SNR=3.6						
	0.3nm,0.4s						

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*FUNV **23** 13:35:49.5, 11°.02N×62°.24W, h21km, MW3.3, Presumed earthquake*

*TRN **23** 13:35:49.4, 10°.91N×62°.23W, h78km, MD4.1, North of the Paria peninsula. Felt Trinidad, MMI IV.*

ISC 23 13:35:49.2±1.2**, 10°.98N**±0°.04×**62°.33W**±0°.03**, h33**km±12km**, n26,** σ**1s.18**/45**, 1C, Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DMDM	Guralp CMG5TDE	0.82	110	eP	Pb	13 36 05.5	+0.6
DMDM				eS	Sn	13 36 16.6	+1.2
PSGH	Port of Spain	0.87	112	eP	Pb	13 36 06.0	+0.2
PSGH				eS	Sn	13 36 17.0	+0.3
TRN	Trinidad (W)	0.97	110	eP	Pn	13 36 06.6	0.0
TRN				eS	Sn	13 36 18.5	-0.7
TRN	Trinidad (W)	0.97	110	⇑iP	Pb	13 36 06.9	-0.6
TRN				eS	Sb	13 36 19.0	-1.0
GRGR	Grenville	1.32	30	eP	Pn	13 36 12.4	+1.0
GRGR				eS	Sn	13 36 28.1	+0.1
GRGR	Grenville	1.32	30	eP	Pn	13 36 12.5	+1.1
GRGR				eS	Sb	13 36 30.2	+0.1
GRW	Mount Saint Ca	1.34	29	eP	Pn	13 36 13.1	+1.3
GRW				eS	Sb	13 36 30.7	0.0
GRSS	Sisters	1.48	28	eP	Pn	13 36 15.0	+1.3
GRSS				eS	Sb	13 36 33.9	-0.9
SLAC	Saint Lucia, A	3.22	26	eP	Pn	13 36 38.1	+0.5
SLAC				eS	Sn	13 37 14.9	+0.1
SLBI	Saint Lucia, B	3.30	24	eP	Pn	13 36 39.1	+0.5
SLBI				eS	Sn	13 37 16.0	-0.7
BBGH	Gun Hill	3.46	51	eP	Pn	13 36 41.8	+0.9
BBGH				eS	Sn	13 37 18.7	-2.0
BIM	Bigot	3.72	19	eP	Pn	13 36 44.4	-0.1
BIM				eS	Sn	13 37 23.6	-3.7
BIM	Bigot	3.72	19	eP	Pn	13 36 44.8	+0.3
BIM				eS	Sn	13 37 25.9	-1.4
SVN	Savane Anatole	4.00	16	eP	Pn	13 36 49.4	+1.1
SVN				eS	Sn	13 37 34.1	0.0
ILAM	Ilet Lapin Mar	4.03	20	eP	Pn	13 36 49.5	+0.8
FUNV	FUNVISIS	4.43	264	eP	Pn	13 36 56.0	+1.7
FUNV				eS	Sn	13 37 44.2	-0.6
DSLB	Salisbury	4.52	11	eP	Pn	13 36 55.7	+0.3
DSLB				eS	Sn	13 37 45.3	-1.5
DWS	Wesley	4.67	12	eP	Pn	13 36 58.5	+1.1
TACV	Tcata	4.69	260	eP	Pn	13 36 58.5	+0.6
TACV				eS	Sn	13 37 50.5	-0.8
MAGL	Barre de l'ile	5.04	12	eP	Pn	13 37 03.8	+1.2
BENV	Beln	5.28	259	eP	Pn	13 37 06.1	+0.1
BENV				eS	Sn	13 38 04.4	-1.4
DHSZ	Broadband at M	5.29	6	eP	Pn	13 37 07.6	+1.7
DSDZ	La Diserade, G	5.44	13	eP	Pn	13 37 09.7	+1.6
TURV	Turiamo	5.44	265	eP	Pn	13 37 08.6	+0.5
TURV				eS	Sn	13 38 08.7	-0.9
SKI	Saint Kitts	6.33	356	eP	Pn	13 37 21.8	+1.5
SMRT	St. Maarten	7.06	354	eP	Pn	13 37 32.1	+1.8

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*ROM **23** 13:45:12.4±0.3, 39°.30N±0°.04×14°.05E±0°.05, h479km±3km, ML3.3/12, Error ellipse: s-maj=5.1km s-min=2.7km az=139.0*

*IDC **23** 13:45:17.1±3.3, 39°.81N×13°.50E, h463km±40km, mb2.8/8, mbtmp3.6/11, Error ellipse: s-maj=43.7km s-min=22.5km az=23.0*

ISC 23 13:45:15.6±0.9**, 39°.5N**±0°.1×**13°.67E**±0°.09**, h460**km±11km**, n45,** σ**1s.32**/53**, mb3.2**/7**, Tyrrhenian Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
USI	Ustica	0.92	205	P	P	13 46 14.2	+1.5
IACL	Alicudi	1.14	152	P	P	13 46 14.6	+1.3
IFIL	Filicudi I Eol	1.20	144	P	P	13 46 14.9	+1.4
MPG	Monte Pellegri	1.40	190	P	P	13 46 16.0	+1.7
IVUG	Vulcano Grillo	1.54	138	P	P	13 46 16.7	+1.9
VPL	Vulcano Piano	1.55	138	P	P	13 46 16.5	+1.6
MGR	Morigerati	1.57	67	P	P	13 46 16.7	+1.8
GIB	Gibilmanna	1.58	170	P	P	13 46 15.8	+0.7
CSLB	Castelbuono	1.63	169	P	P	13 46 15.8	+0.4
CSLB				S	S	13 47 03.6	-0.1
GRIS	Grisolia	1.70	83	P	P	13 46 16.4	+1.0
CUC	Castrocucco	1.71	74	P	P	13 46 16.7	+1.1
PETRA	Petralia Sopra	1.74	168	P	P	13 46 17.2	+1.2
MILZ	Milazzo	1.76	136	P	P	13 46 16.9	+1.0
CET2	Cetraro	1.77	90	P	P	13 46 17.0	+1.1
CET2				S	S	13 47 05.1	+0.2
MUCR	Ucria	1.77	147	P	P	13 46 17.0	+1.0
MCEL	Monticello	1.82	64	P	P	13 46 18.8	+2.8
NOV	Novara	1.90	142	AML	AML		
	comp=E,346µm,1.5s						
NOV				AML	AML		
	comp=N,314µm,1.4s						
MSRU	Castanea	1.92	131	P	P	13 46 16.9	+0.2
EPZF	Pizzo Felice	1.95	151	P	P	13 46 17.9	+0.9
JOPP	Joppolo	1.96	118	P	P	13 46 17.3	+0.4
JOPP				S	S	13 47 05.1	-1.5
AIO	Antillo	1.99	142	P	P	13 46 18.6	+1.5
CAR1	CAROLEI	1.99	98	P	P	13 46 17.9	+0.9
SALB	San Lorenzo Be	2.09	80	P	P	13 46 18.8	+1.2
CEL	Celeste	2.16	126	P	P	13 46 18.1	0.0
CEL				S	S	13 47 06.4	-2.2
CEL				AML	AML		
	comp=N,13µm,1.3s						
CEL				AML	AML		
	comp=E,13µm,0.5s						
CEL				AML	AML		
	comp=N,35µm,0.7s						
GMB	Gambarie	2.18	128	P	P	13 46 18.8	+0.6
CELI	Celico	2.20	93	P	P	13 46 20.2	+1.9
CELI				S	S	13 47 08.6	-0.6
GRI	Girifalco	2.26	108	P	P	13 46 19.4	+0.9
ALB1	ALBI	2.33	102	P	P	13 46 20.0	+1.0
SOI	Samo	2.38	127	P	P	13 46 19.3	+0.1
SOI				S	S	13 47 09.6	-1.3
SOI				AML	AML		
	comp=E,40µm,1.6s						
SOI				AML	AML		
	comp=N,42µm,0.6s						
SOI				AML	AML		
	comp=N,42µm,1.4s						
SOI				AML	AML		
	comp=N,42µm,0.6s						
SOI				AML	AML		
	comp=E,36µm,0.8s						
SOI				AML	AML		
	comp=N,42µm,1.4s						
SERS	Sersale	2.40	101	P	P	13 46 20.0	+0.5
SERS				S	S	13 47 09.4	-1.9
PLAC	Placanica	2.42	116	P	P	13 46 19.9	+0.3
PLAC				S	S	13 47 08.8	-2.6
PLAC				AML	AML		
	comp=E,72µm,0.8s						
PLAC				AML	AML		
	comp=N,71µm,0.8s						
PLAC				AML	AML		
	comp=E,72µm,1.2s						
PLAC				AML	AML		
	comp=N,71µm,1.2s						
PLAC				AML	AML		
	comp=E,72µm,0.8s						
PLAC				AML	AML		
	comp=N,77µm,0.7s						
PLAC				AML	AML		
	comp=E,72µm,1.2s						
PLAC				AML	AML		
	comp=N,63µm,0.8s						
PLAC				AML	AML		
	comp=E,77µm,1.0s						
PLAC				AML	AML		
	comp=N,77µm,1.3s						
TIP	Timpagrande	2.42	98	P	P	13 46 20.6	+1.0
TIP				S	S	13 47 09.5	-2.0
TIP				AML	AML		
	comp=E,41µm,1.4s						
TIP				AML	AML		
	comp=N,34µm,1.3s						
TIP				AML	AML		
	comp=N,80µm,0.8s						
TIP				AML	AML		
	comp=N,80µm,1.2s						
TIP				AML	AML		
	comp=N,34µm,0.7s						
TIP				AML	AML		
	comp=E,41µm,0.6s						
LADO	San Nicola del	2.58	95	P	P	13 46 21.5	+1.0
GERES	GERESS Array B	9.30	0	P	P	13 47 23.8	-1.2
	comp=E,2.8nm,0.4s,baz=186,slow=11,SNR=14						
ESDC	Sonseca Array	13.60	276	P	P	13 48 11.7	+0.1
	comp=E,1.2nm,0.5s,baz=76,slow=11,SNR=7.8						
BRTR	Keskin Array B	15.39	83	P	P	13 48 33.2	+2.5
	comp=E,0.4nm,0.3s,baz=276,slow=13,SNR=1.4						
EKA	Eskdalemuir Ar	19.38	330	P	P	13 49 08.9	-1.5
	comp=E,0.5nm,0.5s,baz=135,slow=10,SNR=3.8						
HFS	Hagfors	20.61	0	P	P	13 49 20.8	-0.8
	comp=E,0.8nm,0.4s,baz=176,slow=8.8,SNR=5.3						
	comp=E,0.8nm,0.4s						
NOA	NORSAR Array B	21.57	357	P	P	13 49 29.3	-1.1
	comp=E,0.3nm,0.6s,baz=175,slow=11,SNR=2.4						
	comp=E,0.3nm,0.6s						
FINES	FINESS Array B	23.22	15	P	P	13 49 44.5	-0.6
	comp=E,2.8nm,1.0s,baz=212,slow=6.8,SNR=4.4						
	comp=E,2.8nm,1.0s						
ARCES	ARCESS Array B	30.71	8	P	P	13 50 50.0	-1.0
	comp=E,0.7nm,0.5s,baz=168,slow=8.3,SNR=1.7						
	comp=E,0.7nm,0.5s						
BVAR	Borovoye Array	40.39	51	P	P	13 52 12.9	+0.9
	comp=E,0.5nm,0.6s,baz=270,slow=5.8,SNR=2.8						
	comp=E,0.5nm,0.6s						
KURBB	Kurchatov Arra	45.73	54	P	P	13 52 54.5	+0.6
	comp=E,0.3nm,0.5s,baz=280,slow=9.7,SNR=2.7						
	comp=E,0.3nm,0.5s						
ZALV	Zalesovo Beam	48.77	48	P	P	13 53 17.5	+0.6
	comp=E,0.4nm,0.4s,baz=287,slow=6.2,SNR=2.7						
	comp=E,0.4nm,0.4s						
MKAR	Makanchi Array	49.13	58	P	P	13 53 20.6	+0.9
	comp=E,0.6nm,0.4s,baz=288,slow=6.8,SNR=11						
	comp=E,0.6nm,0.4s						

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*NOU **23** 13:48:22.4, 20°.61S×178°.40W, h631km, mb4.5/12, Fiji Islands Region*

*NEIC **23** 13:48:23.8±1.2, 20°.7S±0°.1×178°.6W±0°.1, h594km±7km, mb4.3/50, Error ellipse: s-maj=16.3km s-min=14.2km az=130.0*

*IDC **23** 13:48:25.6±1.3, 20°.57S×178°.86W, h619km±15km, mb3.4/13, mbtmp4.3/15, Error ellipse: s-maj=15.0km s-min=10.8km az=145.0*

ISC 23 13:48:23.1±0.3**, 20°.69S**±0°.06×**178°.61W**±0°.06**, h600**km**, n133,** σ**1s.45**/138**, mb4.2**/38**, 3C-1D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	4.32	312	P	P	13 49 52.4	+1.4
	30nm,0.4s,baz=180,slow=11,SNR=71						
MSVF	Nonsavu	4.32	312	P	P	13 49 53.1	+2.1
MSVF	Nonsavu	4.32	312		P	13 49 53.2	+2.2
DGTI	Dogotuki	4.64	340	P	P	13 49 55.0	+1.6
FUTU	Fugatoga	6.37	4	P	P	13 50 09.1	+1.5
NIUE	Niue	8.32	80	P	P	13 50 26.7	+1.1
RAO	Raoul Island	8.54	176	P	P	13 50 27.1	-0.4
AFI	Afiamalu	9.38	45	P	P	13 50 35.2	-0.8
	25nm,0.5s,baz=247,slow=7.7,SNR=9.8						
AFI				S	S	13 52 19.6	-5.3
	26nm,0.7s,baz=229,slow=19,SNR=3.8						
AFI	Afiamalu	9.38	45	P	P	13 50 35.3	-0.7
AFI	Afiamalu	9.38	45	S	S	13 52 21.3	-3.6
AFI	Afiamalu	9.38	45	P	P	13 50 35.4	-0.6
FUNA	Funafuti	12.28	350	P	P	13 51 05.2	+0.4
MARNC	Mare, Loyalty	12.50	264	P	P	13 51 07.2	+0.3
MARNC	Mare, Loyalty	12.50	264	P	P	13 51 06.8	0.0
OUENC	Ouen Island, N	13.65	260	P	P	13 51 17.9	-0.7
DZM	Mont Dzumac	13.99	262	P	P	13 51 22.0	0.0
	2.8nm,0.5s,baz=104,slow=8.3,SNR=16						
ONTNC	Ouen Toro	14.00	261	P	P	13 51 21.2	-0.8
SANVU	Saraoutou	14.46	289	P	P	13 51 26.6	+0.1
SANVU	Saraoutou	14.46	289	P	P	13 51 26.9	+0.4
URZ	Urewera	17.89	191	P	P	13 51 56.2	-1.4
	10.0nm,0.5s,baz=0.9,slow=6.2,SNR=20						
URZ				S	S	13 54 47.6	-4.1
	10nm,0.9s,baz=30,slow=20,SNR=2.4						
URZ	Urewera	17.89	191	P	P	13 51 56.4	-1.2
QRZ	Quartz Range	21.44	199	P	P	13 52 30.6	+1.0
KHZ	Kahutara	22.65	195	P	P	13 52 39.6	-0.7
TATA	Tatamba Isabel	24.17	297	P	P	13 52 54.4	+0.2
EIDS	Eidsvold	28.25	255	P	P	13 53 29.9	+0.1
EIDS				IAmb	IAmb	13 54 07.9	
	comp=Z,9.1nm,1.5s						
ARMA	Armidale	28.47	244	P	P	13 53 31.7	-0.2
ARMA				IAmb	IAmb	13 53 34.1	
	comp=Z,17nm,1.4s						
CTAO	Charters Tower	32.90	265		P	13 54 10.1	+0.4
CTAO				IAmb	IAmb	13 54 10.5	
	comp=Z,8.2nm,0.5s						
PMG	Port Moresby	34.83	284	P	P	13 54 26.3	+0.5
STKA	Stephens Creek	37.19	244	P	P	13 54 45.4	+0.4
	comp=Z,1.8nm,0.5s,baz=78,slow=9.8,SNR=7.8						
	comp=Z,1.8nm,0.5s						
INKA	Innaminka	37.60	251	P	P	13 54 49.0	+0.6
MANU	Manus Island	38.01	295	P	P	13 54 52.3	+0.5
MANU				IAmb	IAmb	13 54 53.9	
	comp=Z,6.2nm,0.9s						
BBOO	Buckleboo	41.95	244	P	P	13 55 22.9	-0.2
BBOO				IAmb	IAmb	13 55 24.0	
	comp=Z,13nm,1.0s						
WR8	Warramunga Arr	43.86	262		P	13 55 37.6	-0.5
WR8				IAmb	IAmb	13 55 38.5	
	comp=Z,5.7nm,0.5s						
AS31	Alice Springs	43.92	257		P	13 55 38.6	+0.2
AS31				IAmb	IAmb	13 55 39.2	
	comp=Z,3.8nm,0.7s						
AS31				PcP	PcP	13 57 11.1	+0.1
ASAR	Alice Springs	43.92	257	P	P	13 55 38.5	-0.1
	comp=Z,10nm,0.4s,baz=97,slow=7.5,SNR=309						
ASAR				PcP	PcP	13 57 11.0	+0.1
	comp=Z,1.2nm,0.5s,baz=111,slow=3.6,SNR=6.5						
ASAR				ScP	ScP	14 00 06.4	+0.1
	comp=Z,0.2nm,0.6s,baz=100,slow=3.7,SNR=2.3						
ASAR				S	S	14 01 25.1	-2.7
	comp=Z,2.3nm,0.9s,baz=93,slow=16,SNR=13						
	comp=Z,10nm,0.4s						
ASAR	Alice Springs	43.92	257		P	13 55 38.2	-0.2
ASAR				PcP	PcP	13 57 11.2	+0.2
WB0	Warramunga Arr	43.99	263	P	P	13 55 38.6	-0.5
WRA	Warramunga Arr	44.01	262	P	P	13 55 38.6	-0.6
	comp=Z,4.7nm,0.3s,baz=97,slow=7.8,SNR=220						
WRA				PcP	PcP	13 57 11.3	0.0
	comp=Z,0.6nm,0.7s,baz=104,slow=2.9,SNR=2.4						
WRA				S	S	14 01 25.3	-3.8
	comp=Z,0.3nm,0.7s,baz=100,slow=14,SNR=3.3						
	comp=Z,4.7nm,0.3s						
WRA	Warramunga Arr	44.01	262	P	P	13 55 38.0	-1.2
WRA					PcP	13 57 11.3	0.0
KKU	Keanakolu	46.32	31	P	P	13 55 56.5	-0.4
MTN	Manton Dam	48.59	271	P	P	13 56 13.5	-0.3
MTN				IAmb	IAmb	13 56 14.1	
	comp=Z,6.5nm,0.8s						
FORT	Forrest	48.70	247	P	P	13 56 14.2	-0.2
FORT				IAmb	IAmb	13 56 34.6	
	comp=Z,12nm,1.4s						
SAUI	Saumlaki	49.95	277	P	P	13 56 23.5	-0.3
KNRA	Kununurra	50.08	267	P	P	13 56 24.5	-0.1
KNRA				IAmb	IAmb	13 56 51.8	
	comp=Z,12nm,1.5s						
FAKI	Fak Fak	50.99	284	P	P	13 56 31.0	-0.3
FAKI				IAmb	IAmb	13 56 39.0	
	comp=Z,16nm,1.0s						
FITZ	Fitzroy Crossi	52.44	263	P	P	13 56 41.9	+0.3
SOEI	Soe	55.94	272		P	13 57 06.5	+0.1
TNTI	Ternate	56.96	285	P	P	13 57 13.2	0.0
TNTI				IAmb	IAmb	13 57 14.0	
	comp=Z,18nm,1.1s						
MBWA	Marble Bar	57.26	258	P	P	13 57 14.8	-0.3
VNDA	Vanda	57.67	185	P	P	13 57 18.9	+2.0
	comp=Z,0.6nm,0.5s,baz=8.4,slow=6.4,SNR=11						
	comp=Z,0.6nm,0.5s						
VNDA	Vanda	57.67	185	P	P	13 57 18.5	+1.6
TOLI2	Tolitoli	63.09	282	P	P	13 57 53.1	-0.5
TOLI2				IAmb	IAmb	13 58 27.1	
	comp=Z,8.2nm,0.9s						
CASY	Casey	63.55	205	P	P	13 57 56.4	+0.8
JAGI	Jajag, Banyuwa	65.81	270	P	P	13 58 10.6	-0.3
JHJ2	Mitsune	66.62	323	P	P	13 58 15.6	+0.2
JSG	Sagara	68.68	323	P	P	13 58 28.8	+0.9
QSPA	South Pole Qui	69.38	180	P	P	13 58 33.1	+1.4
	comp=Z,2.5nm,0.5s,baz=38,slow=6.2,SNR=29						
	comp=Z,2.5nm,0.5s						
QSPA	South Pole Qui	69.38	180		P	13 58 33.4	+1.6
QSPA				IAmb	IAmb	13 58 33.8	
	comp=Z,3.5nm,0.6s						
UGM	Wanagama	69.39	269	P	P	13 58 32.9	+0.2
JGF	Kuroka	69.82	323	P	P	13 58 35.6	+0.9
JOW	Kunigami	69.86	310	P	P	13 58 35.6	+0.5
MJAR	Matsushiro Arr	70.03	324	P	P	13 58 35.7	-0.2
	comp=Z,1.8nm,0.5s,baz=138,slow=5.8,SNR=6.2						
	comp=Z,1.8nm,0.5s						
MJAR	Matsushiro Arr	70.03	324	P	P	13 58 36.3	+0.4
MJAR				IAmb	IAmb	13 59 19.2	
	comp=Z,9.3nm,1.5s						
MAJO	Matsushiro	70.03	324	P	P	13 58 36.5	+0.6
MAJO				IAmb	IAmb	13 58 49.5	
	comp=Z,13nm,1.5s						
MJB9	Matsu-Tunnel	70.03	324	P	P	13 58 36.5	+0.6
MJB9				IAmb	IAmb	13 59 08.2	
	comp=Z,17nm,1.5s						
JSU	Suzuyama	71.26	316	P	P	13 58 44.4	+1.2
JSU				IAmb	IAmb	13 59 12.3	
	comp=Z,30nm,1.3s						
BBJI	Bungbulang	72.23	269	P	P	13 58 48.6	-0.7
BBJI				IAmb	IAmb	13 59 14.8	
	comp=Z,30nm,1.4s						
ADK	Adak	72.28	1	P	P	13 58 49.9	+1.3
NACB	Ninganchiao	73.31	305	P	P	13 58 54.8	-0.4
NACB				IAmb	IAmb	13 59 04.8	
	comp=Z,16nm,0.8s						
TPUB	Ta-pu	73.60	303	P	P	13 58 55.8	-1.1
SSLB	Suanglung	73.61	304	P	P	13 58 57.5	+0.6
SSLB				IAmb	IAmb	13 59 01.0	
	comp=Z,8.9nm,0.8s						
JKA	Kamikawa-asahi	73.62	332	P	P	13 58 58.0	+1.5
JKA				IAmb	IAmb	13 59 07.7	
	comp=Z,30nm,1.4s						
UNV	Unalaska Valle	74.96	7	P	P	13 59 04.0	+0.3
PEA0B	Petropavlovsk-	76.31	346	P	P	13 59 11.7	+0.4
PEA0B				IAmb	IAmb	13 59 38.1	
	comp=Z,28nm,1.4s						
PETK	Petropavlovsk-	76.31	346	P	P	13 59 11.3	+0.1
	comp=Z,3.1nm,0.7s,baz=155,slow=5.3,SNR=11						
	comp=Z,3.1nm,0.7s						
PETK	Petropavlovsk-	76.31	346	P	P	13 59 11.7	+0.4
KSRS	Korea Array	76.66	319	P	P	13 59 13.7	+0.2
	comp=Z,1.0nm,0.6s,baz=114,slow=5.3,SNR=3.3						
	comp=Z,1.0nm,0.6s						
KMRM	Mail Ridge	79.27	40	P	P	13 59 28.6	+1.1
KMRM				IAmb	IAmb	13 59 30.8	
	comp=Z,8.3nm,0.9s						
BELA	Belgrano 2	79.44	173	P	P	13 59 28.6	+0.9
O02D	Mt. Diablo Mer	79.79	40	P	P	13 59 32.5	+2.3
M02C	Callahan	80.50	39	P	P	13 59 35.9	+2.0
YBH	Yreka Blue Hor	80.80	39	P	P	13 59 36.5	+1.1
PNTR	Pine Nut	81.11	42	P	P	13 59 38.4	+1.1
NVAR	Mina Array Bea	81.56	44	P	P	13 59 41.1	+1.6
	comp=Z,1.0nm,0.7s,baz=226,slow=8.8,SNR=6.9						
	comp=Z,1.0nm,0.7s						
ELIB	Princess Elisa	86.39	187	dP	P	14 00 03.0	+0.4
	comp=Z,2.2nm,0.6s						
TROLL	Troll, Antarti	87.54	180	⇑P	P	14 00 08.1	+0.1
	comp=Z,66nm,0.8s						
TXAR	Lajitas Array	87.64	58	P	P	14 00 10.8	+1.6
	comp=Z,0.9nm,0.8s,baz=226,slow=6.8,SNR=10						
	comp=Z,0.9nm,0.8s						
VNA3	Neumayer Olymp	87.99	176	⇑P	P	14 00 10.0	0.0
	comp=Z,3.5nm,0.7s						
VNA2	Neumayer--Watz	88.42	177	⇑P	P	14 00 12.3	+0.3
	comp=Z,1.6nm,0.6s,baz=168,slow=4.8						
ILAR	Eielson Array	88.63	13	P	P	14 00 12.2	-0.6
	comp=Z,0.9nm,0.4s,baz=226,slow=5.4,SNR=8.0						
	comp=Z,0.9nm,0.4s						
ILAR	Eielson Array	88.63	13	P	P	14 00 12.7	-0.2
PD31	Pinedale Array	89.49	43	P	P	14 00 18.9	+1.2
PDAR	Pinedale Array	89.49	43	P	P	14 00 18.7	+1.0
	comp=Z,0.8nm,0.6s,baz=216,slow=4.3,SNR=9.5						
	comp=Z,0.8nm,0.6s						
CMAR	Chiang Mai Arr	89.64	290	P	P	14 00 18.9	+0.2
	comp=Z,1.4nm,0.6s,baz=126,slow=3.2,SNR=12						
	comp=Z,1.4nm,0.6s						
CMAR	Chiang Mai Arr	89.64	290		P	14 00 19.1	+0.5
MKAR	Makanchi Array	110.92	313	PKiKP	PKiKP	14 05 47.7	-1.4
	comp=Z,0.4nm,0.5s,baz=96,slow=2.6,SNR=4.8						
KURBB	Kurchatov Arra	113.80	317	PKiKP	PKiKP	14 05 52.2	-2.2
	comp=Z,0.7nm,0.6s,baz=109,slow=1.6,SNR=6.2						
BVAR	Borovoye Array	118.86	320	PKP	PKPdf	14 06 03.2	-0.9
	comp=Z,1.9nm,0.4s,baz=84,slow=2.6,SNR=11						
ARCES	ARCESS Array B	129.01	349	PKP	PKPdf	14 06 22.7	-0.4
	comp=Z,1.4nm,0.6s,baz=26,slow=2.5,SNR=4.3						
FINES	FINESS Array B	135.79	343	PKP	PKPdf	14 06 35.3	-0.7
	comp=Z,1.1nm,0.6s,baz=50,slow=3.0,SNR=4.5						
HFS	Hagfors	139.64	351	PKhKP	PKPpre	14 06 34.7	
	comp=Z,0.8nm,0.3s,baz=54,slow=2.6,SNR=9.8						
AK03	Malin Array Si	142.89	331	PKPdf	PKPdf	14 06 45.9	-3.2
AKASG	Malin Array Be	142.90	331	PKhKP	PKPpre	14 06 45.9	
	comp=Z,3.8nm,0.3s,baz=44,slow=4.3,SNR=31						
AKBB	Malin Array Si	142.90	331	PKPdf	PKPdf	14 06 46.0	-3.2
KIEV	Kiev	142.91	331	PKPdf	PKPdf	14 06 46.1	-3.1
AK02	Malin Array Si	142.94	330	PKP	PKPdf	14 06 46.0	-3.2
AK11	Malin Array Si	142.94	331	PKP	PKPdf	14 06 46.0	-3.2
AK15	Malin Array Si	142.95	331	PKP	PKPdf	14 06 46.2	-3.1
AK10	Malin Array Si	142.96	330	PKP	PKPdf	14 06 45.9	-3.4
AK05	Malin Array Si	142.97	330	PKP	PKPdf	14 06 45.9	-3.4
AK20	Malin Array Si	142.97	331	PKP	PKPdf	14 06 45.9	-3.4
AK16	Malin Array Si	142.98	331	PKP	PKPdf	14 06 46.4	-2.9
AK17	Malin Array Si	142.99	331	PKP	PKPdf	14 06 45.9	-3.4
ARPR	Arapgir-MALATY	143.41	308	PKPbc	PKPbc	14 06 50.4	+0.9
MI28	Mi28,Pidlybu	143.44	332	PKPdf	PKPab	14 06 47.2	-1.6
RNPP9	Sopachiv	143.85	334	PKPdf	PKPbc	14 06 46.2	-4.0
LUBAR	Lubar, Ukraine	144.12	331	PKPdf	PKPbc	14 06 50.2	-0.9
RGN	Rugen	145.01	348	PKPdf	PKPdf	14 06 53.8	+1.1
EKA	Eskdalemuir Ar	145.24	5	PKPbc	PKPdf	14 06 53.8	+0.7
	comp=Z,0.6nm,0.5s,baz=329,slow=2.4,SNR=4.5						
KMPD	K-Podol'skiy	145.69	330	PKPdf	PKPdf	14 06 53.0	-1.0
ILGA	Ilgaz	145.91	314	PKPdf	PKPdf	14 06 55.5	+0.5
BR131	Keskin Array S	146.54	312	PKPdf	PKPdf	14 06 56.1	+0.1
BRTR	Keskin Array B	146.54	312	PKPbc	PKPbc	14 06 58.2	-0.4
	comp=Z,1.7nm,0.6s,baz=61,slow=2.9,SNR=9.5						
BRTR	Keskin Array B	146.54	312		PKPdf	14 06 56.1	+0.1
BUR08	Bucovina Ar. S	146.93	330	PKPdf	PKPdf	14 06 56.4	0.0

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BURAR	**Bucovina Array**	**146.95**	**330**	PKPdf	**PKPdf**	**14 06 56.6**	**+0.3**
OJC	**Ojcow**	**147.13**	**338**	PKPdf	**PKPdf**	**14 06 56.2**	**-0.2**
MMAI	**Mount Meron Ar**	**147.41**	**299**	PKPbc	**PKPbc**	**14 07 01.3**	**+0.3**
	comp=Z,2.4nm,0.4s,baz=64,slow=7.5,SNR=5.3						
ASCN	**Ascension**	**147.61**	**150**	PKPdf	**PKPdf**	**14 06 57.1**	**-1.2**
MDUB	**Mudurnu**	**147.88**	**315**	PKPdf	**PKPdf**	**14 06 58.2**	**+0.1**
CLL	**Collm**	**148.12**	**346**	*i* PKPbc	**PKPbc**	**14 07 02.2**	**+0.1**
	comp=Z,9.0nm,1.0s						
CLL				*i* PKPab	**PKPab**	**14 07 07.1**	**-0.2**
	comp=Z,4.0nm,0.5s						
GERES	**GERESS Array B**	**150.23**	**344**	PKPbc	**PKPbc**	**14 07 07.2**	**-0.2**
	comp=Z,1.0nm,0.2s,baz=30,slow=2.7,SNR=8.8						
ESDC	**Sonseca Array**	**160.53**	**12**	PKPab	**PKPab**	**14 08 00.5**	**-0.4**
	comp=Z,0.4nm,0.5s,baz=350,slow=6.0,SNR=4.2						

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*IDC **23** 14:03:27.1±2.1, 7°.31S×129°.30E, h125^{km}±20^{km}, mb3.3/4, mbtmp4.0/9, Error ellipse: s-maj=24.3km s-min=17.7km az=103.0*

ISC 23 14:03:23.8±0.9**, 7°.30S**±0°.07×**129°.54E**±0°.10**, h100**^{km}**, n10, σ1^{s}98**/14**, mb3.5**/4**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BATI	**Baumata**	**6.48**	**243**	P	**Pn**	**14 04 58.0**	**+1.2**
	19nm,0.3s,baz=30,slow=20,SNR=9.3						
BATI				S	**Sn**	**14 06 07.7**	**-1.7**
	78nm,0.4s,baz=65,slow=19,SNR=15						
SIJI	**Sorong**	**6.61**	**15**	P	Pn	14 05 03.0	+4.5
	15nm,0.2s,baz=202,slow=16,SNR=41						
SIJI				S	**Sn**	**14 06 11.4**	**-1.1**
	20nm,0.2s,baz=224,slow=22,SNR=9.9						
FITZ	**Fitzroy Crossi**	**11.39**	**199**	P	**Pn**	**14 06 05.6**	**+2.2**
	4.3nm,0.4s,baz=34,slow=11,SNR=39						
FITZ				S	**Sn**	**14 08 06.3**	**-2.5**
	7.5nm,0.5s,baz=84,slow=19,SNR=6.6						
WRA	**Warramunga Arr**	**13.41**	**160**	P	**Pn**	**14 06 31.6**	**+1.4**
	3.6nm,0.6s,baz=330,slow=14,SNR=33						
WRA				S	**Sn**	**14 08 54.6**	**-3.1**
	6.7nm,0.6s,baz=330,slow=23,SNR=10.0						
ASAR	**Alice Springs**	**16.81**	**166**	P	**P**	**14 07 16.4**	**+2.6**
	1.8nm,0.6s,baz=336,slow=13,SNR=84						
ASAR				S	**Sn**	**14 10 17.7**	**-2.3**
	1.3nm,0.7s,baz=348,slow=21,SNR=6.7						
MKAR	**Makanchi Array**	**68.22**	**327**	P	**P**	**14 14 14.1**	**+0.3**
	0.3nm,0.4s,baz=130,slow=7.0,SNR=5.9						
	0.3nm,0.4s						
ZALV	**Zalesovo Beam**	**71.64**	**334**	P	**P**	**14 14 33.5**	**-1.0**
	0.4nm,0.5s,baz=131,slow=6.0,SNR=1.6						
	0.4nm,0.5s						
KURBB	**Kurchatov Arra**	**72.52**	**329**	P	**P**	**14 14 39.6**	**-0.2**
	0.2nm,0.3s,baz=122,slow=5.8,SNR=2.0						
	0.2nm,0.3s						
QSPA	**South Pole Qui**	**82.68**	**180**	P	**P**	**14 15 36.9**	**+0.6**
	0.4nm,0.7s,baz=343,slow=5.3,SNR=1.4						
	0.4nm,0.7s						
TORD	**Torodi Ar. Bea**	**128.41**	**281**	PKP	**PKiKP**	**14 22 19.5**	**-1.1**
	0.3nm,0.6s,baz=58,slow=1.1,SNR=2.1						

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*NNC **23** 14:04:54.7±2.3, 39°.13N×75°.75E, h0^{km}, mb3.6, mpv3.3, Error ellipse: s-maj=15.8km s-min=11.3km az=175.0*

*SOME **23** 14:04:58.9, 39°.23N×75°.85E, h15^{km}*

ISC 23 14:04:59.2±2.5**, 39°.3N**±0°.1×**75°.81E**±0°.06**, h10**^{km}**, n19, σ2^{s}21**/31**, 4C-3D, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AAK	**Ala-Archa**	**3.47**	**344**	⇑Pn	**Pn**	**14 05 52.8**	**-0.6**
	2.1nm,0.5s						
AAK				⇑Sn	**Sn**	**14 06 37.5**	**+2.8**
	10nm,0.7s						
KST	**Kastek**	**3.73**	**2**	Pg	**Pb**	**14 06 06.3**	**+1.0**
	1.1nm,0.4s						
KST				Lg	Lg	14 06 59.5	
	23nm,0.7s						
KST	**Kastek**	**3.73**	**2**	*e*P	**Pg**	**14 06 09.4**	**-1.3**
	2.4nm,0.4s						
KST				*e*S	**Sg**	**14 06 59.9**	**+0.8**
	22nm,0.4s						
TNSS	**Tian-Shan**	**3.82**	**13**	Pg	**Pb**	**14 06 07.0**	**+0.1**
TNSS				Lg	Lg	14 07 01.0	
TNSS	**Tian-Shan**	**3.82**	**13**	*e*P	**Pb**	**14 06 10.1**	**+3.2**
	1.4nm,0.5s						
TNSS				*e*S	**Sg**	**14 07 01.5**	**-0.5**
	2.3nm,0.4s						
MRKS	**Merke**	**3.95**	**331**	Pg	**Pb**	**14 06 09.1**	**+0.1**
	7.2nm,0.5s						
MRKS				Lg	Lg	14 07 04.4	
	13nm,0.9s						
MRKS	**Merke**	**3.95**	**331**	*e*P	**Pb**	**14 06 12.0**	**+3.1**
	6.6nm,0.5s						
MRKS				*e*S	**Sg**	**14 07 04.8**	**-1.3**
	13nm,0.5s						
MDOK	**Medeo**	**3.96**	**13**	Pg	**Pb**	**14 06 09.6**	**+0.3**
	4.0nm,0.5s						
MDOK				Lg	Lg	14 07 05.1	
	15nm,0.9s						
KOTS	**Kotyrbulak**	**4.04**	**14**	*e*P	**Pg**	**14 06 14.8**	**-1.8**
	5.3nm,0.3s						
KOTS				*e*S	**Sg**	**14 07 09.4**	**+0.4**
	26nm,0.5s						
SATY	**Saty**	**4.23**	**27**	Pg	**Pb**	**14 06 15.3**	**+1.6**
	3.4nm,0.5s						
SATY				Lg	Lg	14 07 15.0	
	5.1nm,0.3s						
SATY	**Saty**	**4.23**	**27**	*e*P	**Pb**	**14 06 17.0**	**+3.3**
	6.2nm,0.4s						
SATY				*e*S	**Sg**	**14 07 13.1**	**-1.9**
	10nm,0.8s						
SGDS	**Sogindy**	**4.23**	**348**	Pg	**Pb**	**14 06 16.9**	**+3.1**
	5.8nm,0.8s						
SGDS				Lg	Lg	14 07 17.8	
	11nm,0.7s						
KTBS	**Karatobe**	**4.45**	**8**	*e*P	**Pb**	**14 06 21.3**	**+3.9**
	0.1nm,0.1s						
KTBS				*e*S	**Sg**	**14 07 20.4**	**-1.7**
	7.5nm,0.5s						
UZB	**Uzynbulak**	**4.54**	**31**	*e*P	**Pb**	**14 06 22.8**	**+3.8**
	3.7nm,0.6s						
UZB				*e*S	**Sg**	**14 07 23.6**	**-1.2**
	4.4nm,0.7s						
KUU	**Kurty**	**4.60**	**5**	*e*P	**Pb**	**14 06 24.6**	**+4.6**
	1.8nm,0.1s						
KUU				*e*S	**Sg**	**14 07 26.3**	**-0.5**
	4.0nm,0.1s						
KPKS	**Kokpek**	**4.68**	**27**	*e*P	**Pg**	**14 06 27.0**	**-1.9**
	0.3nm,0.2s						
KPKS				*e*S	**Sg**	**14 07 30.0**	**+0.4**
	7.5nm,0.6s						
PDGK	**Podgornoye**	**4.88**	**33**	⇓Pg	**Pb**	**14 06 25.8**	**+1.0**
	5.1nm,0.9s						
PDGK				⇓Lg	Lg	14 07 37.9	
	11nm,0.8s						
ARXS	**Arharly**	**5.13**	**16**	*e*P	**Pg**	**14 06 34.2**	**-3.2**
	2.0nm,0.3s						
ARXS				*e*S	**Sg**	**14 07 43.2**	**-0.6**
	3.9nm,0.4s						
KK31	**Karatay Array**	**5.51**	**315**	⇓Pn	**Pn**	**14 06 21.4**	**+0.1**
	0.7nm,0.3s,baz=123,slow=15,SNR=4.4						
KK31				⇑Sn	**Sn**	**14 07 22.8**	**-1.8**
	5.3nm,0.5s,baz=136,slow=22,SNR=7.3						
KK31				⇑Lg	Lg	14 07 48.9	
	1.9nm,0.4s,baz=128,slow=29,SNR=4.3						

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*SJA **23** 14:11:14.4±0.7, 29°.41S×72°.00W, h6^{km}±3^{km}, ML3.5, MW3.2*

*GUC **23** 14:11:18.2±0.8, 29°.46S×71°.82W, h32^{km}±5^{km}, ML3.4*

ISC 23 14:11:16.9±1.6**, 29°.51S**±0°.03×**72°.02W**±0°.06**, h22**^{km}±5^{km}**, n30, σ2^{s}42**/47**, 5C-4D, Off coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CO06	**Fray Jorge**	**1.21**	**164**	⇑*i*P	**Pb**	**14 11 40.2**	**+1.1**
CO06				IAML		14 12 02.2	
	comp=E,984nm,0.3s						
GO04	**Tololo Observa**	**1.25**	**122**	*e*P	**Pb**	**14 11 40.1**	**+0.1**
GO04				*e*S	**Sb**	**14 11 56.8**	**+1.1**
GO04				IAML		14 12 01.2	
	comp=Z,2µm,0.8s						
GO04	**Tololo Observa**	**1.25**	**122**	⇓*i*P	**Pb**	**14 11 40.0**	**0.0**
GO04				*e*S	**Sn**	**14 11 54.4**	**-1.3**
LCO	**Las Campanas**	**1.25**	**67**	⇓*i*P	**Pn**	**14 11 39.1**	**-0.3**
LCO				*e*S	**Sn**	**14 11 54.4**	**-1.4**
AC04	**Llanos de Chal**	**1.54**	**33**	⇑*e*P	**Pb**	**14 11 43.4**	**-1.4**
AC04				IAML		14 12 09.8	
	comp=E,1µm,0.1s						
AC05	**El Transito**	**1.67**	**67**	*e*P	**Pb**	**14 11 46.4**	**-0.6**
AC05				*e*S	**Sb**	**14 12 08.4**	**+0.8**
AC05				IAML		14 12 10.0	
	comp=Z,574nm,0.6s						
AC05	**El Transito**	**1.67**	**67**	⇓*i*P	**Pb**	**14 11 46.2**	**-0.8**
AC05				IAML		14 12 08.2	
	comp=N,1µm,0.3s						
CO01	**Juntas del Tor**	**1.74**	**106**	*e*P	**Pb**	**14 11 47.8**	**-0.5**
CO01				*e*S	**Sb**	**14 12 11.3**	**+1.5**
CO01				IAML		14 12 13.7	
	comp=Z,322nm,0.6s						
CO01	**Juntas del Tor**	**1.74**	**106**	⇓*i*P	**Pb**	**14 11 47.4**	**-0.9**
CO01				IAML		14 12 13.6	
	comp=N,456nm,0.2s						
CO03	**El Pedregal**	**1.76**	**139**	*e*P	**Pb**	**14 11 48.3**	**-0.3**
CO03				*e*S	**Sb**	**14 12 12.2**	**+2.0**
CO03				IAML		14 12 14.6	
	comp=Z,335nm,0.3s						
CO03	**El Pedregal**	**1.76**	**139**	⇑*e*P	**Pb**	**14 11 48.1**	**-0.4**
CO02	**Combarbal**	**1.91**	**153**	*e*P	**Pb**	**14 11 51.2**	**+0.1**
CO02				*e*S	**Sb**	**14 12 18.7**	**+4.2**
CO02				IAML		14 12 20.0	
	comp=Z,870nm,0.5s						
CO02	**Combarbal**	**1.91**	**153**	⇑*i*P	**Pb**	**14 11 50.9**	**-0.2**
AROD	**Rodeo**	**2.31**	**107**	*e*P	**Pb**	**14 11 57.8**	**-0.3**
AROD				*e*S	**Sb**	**14 12 28.1**	**+1.9**
GO03	**Copiapo**	**2.47**	**40**	*e*P	**Pn**	**14 11 57.0**	**+1.0**
GO03				*e*S	**Sb**	**14 12 28.6**	**-2.0**
GO03				IAML		14 12 39.9	
	comp=Z,297nm,0.9s						
GO03	**Copiapo**	**2.47**	**40**	*e*P	**Pn**	**14 11 56.9**	**+0.9**
GO03				IAML		14 12 37.8	
	comp=E,371nm,0.3s						
AC06	**Mina Casimiro**	**2.60**	**35**	*e*P	**Pn**	**14 11 58.9**	**+1.2**
AC06				IAML		14 12 39.9	
	comp=E,425nm,0.9s						
ACDV	**Cuesta del Vie**	**2.60**	**105**	*e*P	**Pb**	**14 12 02.1**	**-0.9**
ACDV				*e*S	**Sb**	**14 12 36.1**	**+1.5**
ACDV				IAML		14 12 46.1	
	comp=Z,148nm,0.6s						
CO04	**Los Peladeros**	**2.68**	**161**	⇑*e*P	**Pb**	**14 12 02.2**	**-2.2**
CO04				IAML		14 12 49.6	
	comp=E,374nm,0.3s						
ACCO	**Cerro Coronel**	**2.78**	**114**	*e*P	**Pb**	**14 12 05.3**	**-0.7**
ACCO				*e*S	**Sb**	**14 12 45.0**	**+5.1**
ACCO				IAML		14 12 48.8	
	comp=Z,142nm,0.6s						
RTLS	**Leoncito**	**3.27**	**135**	*e*P	**Pb**	**14 12 12.6**	**-2.0**
RTLS				*e*S	**Sb**	**14 12 53.6**	**-0.4**
RTLS				IAML		14 13 01.1	
	comp=Z,269nm,1.8s						
VA03	**San Esteban**	**3.48**	**159**	*e*P	**Pb**	**14 12 14.4**	**-3.5**
VA03				*e*S	**Sb**	**14 12 58.6**	**-1.2**
VA03				IAML		14 13 14.9	
	comp=Z,138nm,0.8s						
RTLL	**Cerro Villicun**	**3.56**	**122**	*e*P	**Pb**	**14 12 16.4**	**-2.8**
RTLL				*e*S	**Sb**	**14 13 01.1**	**-0.9**
RTLL				IAML		14 13 18.3	
	comp=Z,71nm,0.4s						
AC01	**Pan de Azucar**	**3.58**	**21**	*e*P	**Pn**	**14 12 11.6**	**+0.4**
AC01				*e*S	**Sb**	**14 13 07.6**	**+5.2**
AC01				IAML		14 13 13.4	
	comp=Z,73nm,0.6s						
AC02	**Maricunga**	**3.69**	**44**	*e*P	**Pn**	**14 12 15.0**	**+1.9**
AC02				IAML		14 13 26.3	
	comp=Z,223nm,0.8s						
MT02	**Curacav**	**3.81**	**169**	*e*P	**Pn**	**14 12 17.3**	**+2.9**
MT02				*e*S	Sb	14 13 20.2	+11
MT02				IAML		14 13 30.9	
	comp=Z,55nm,0.7s						
CFA	**Coronel Fontan**	**3.87**	**124**	*e*P	**Pn**	**14 12 19.8**	**+4.5**
CFA				*e*S	**Sb**	**14 13 12.1**	**+1.0**
CFA				IAML		14 13 26.2	
	comp=Z,38nm,0.7s						
MT03	**Universidad Ad**	**4.18**	**162**	*e*P	**Pn**	**14 12 23.6**	**+4.1**
MT03				*e*S	**Sb**	**14 13 14.7**	**-5.1**
MT03				IAML		14 13 33.7	
	comp=Z,87nm,0.9s						
MT04	**Ro Olivares**	**4.21**	**158**	*e*P	Pb	14 12 25.1	-5.2
MT04				*e*S	**Sb**	**14 13 15.6**	**-5.2**
MT04				IAML		14 13 30.0	
	comp=Z,53nm,0.9s						
ACLC	**CERRO LA CRUZ**	**4.42**	**90**	*e*P	**Pn**	**14 12 19.3**	**-3.6**
ACLC				IAML		14 13 41.7	
	comp=Z,30nm,0.6s						

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*HEL **23** 14:13:07.0±0.3, 61°.10N×29°.88E, h0^{km}, ML1.8, Suspected explosion*

*IDC **23** 14:13:11.2±6.1, 60°.95N×29°.45E, h0^{km}, mbtmp3.1/1, ML2.5/1, Error ellipse: s-maj=57.1km s-min=25.6km az=160.0*

ISC 23 14:13:07.3±1.3**, 61°.17N**±0°.04×**29°.76E**±0°.05**, h0**^{km}**, n23, σ1^{s}51**/31**, Finland-Karelia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RUF	**Ruokolahti**	**0.47**	**303**	PG	**Pb**	**14 13 17.2**	**-1.1**
RUF				SG	**Sb**	**14 13 24.0**	**-1.8**
RUF				smax	smax	14 13 24.9	
	comp=Z,12nm,0.2s						
VJF	**Virojoki**	**1.25**	**240**	PG	**Pg**	**14 13 30.1**	**-1.1**
VJF				smax	smax	14 13 45.4	
	comp=Z,11nm,0.2s						
VJF				SN	**Sn**	**14 13 51.4**	**+1.9**
FIA0	**FINESS Array S**	**1.80**	**280**	PG	**Pb**	**14 13 40.3**	**-0.7**
	baz=98						
FIA0				smax	smax	14 14 02.7	
	comp=Z,6.1nm,0.2s						
FIA0				SG	**Sg**	**14 14 04.7**	**-0.3**
FINES	**FINESS Array B**	**1.80**	**280**	Pg	**Pb**	**14 13 40.5**	**-0.5**
	comp=Z,0.7nm,0.3s,baz=106,slow=16,SNR=33						
FINES				Lg	Lg	14 14 04.9	
	comp=Z,2.9nm,0.3s,baz=94,slow=26,SNR=45						
FINES				Rg	Rg	14 14 13.9	
	comp=Z,54nm,0.9s,baz=101,slow=25,SNR=25						
JOF	**Joensuu**	**1.90**	**22**	*e*P	**Pg**	**14 13 42.7**	**-0.9**
JOF	**Joensuu**	**1.90**	**22**	PG	**Pb**	**14 13 42.0**	**-0.7**
	baz=198						
JOF				SG	**Sg**	**14 14 06.9**	**-1.2**
KAF	**Kangasniemi**	**1.90**	**301**	PG	**Pg**	**14 13 43.2**	**-0.4**
	baz=115						
KAF				smax	smax	14 14 06.1	
	comp=Z,7.4nm,0.2s						
KAF				SG	**Sg**	**14 14 08.2**	**-0.1**
PVF	**Pernaja**	**2.01**	**253**	PG	**Pb**	**14 13 43.5**	**-1.2**
PVF				smax	smax	14 14 07.6	
	comp=Z,8.6nm,0.2s						
PVF				SG	**Sg**	**14 14 11.6**	**-0.2**
SUF	**Sumiainen**	**2.31**	**314**	*e*P	**Pb**	**14 13 49.8**	**+0.1**
SUF	**Sumiainen**	**2.31**	**314**	PG	**Pg**	**14 13 50.0**	**-1.4**
	baz=131						
SUF				smax	smax	14 14 18.0	
	comp=Z,2.3nm,0.2s						
SUF				SG	**Sg**	**14 14 21.3**	**0.0**
NIF	**Nilsia**	**2.40**	**339**	PG	**Pb**	**14 13 51.2**	**-0.1**
NIF				smax	smax	14 14 20.6	
	comp=Z,4.0nm,0.2s						
NIF				SG	**Sb**	**14 14 22.6**	**+1.1**
VUOS	**Vuosaari Helsi**	**2.48**	**249**	smax	smax	14 14 20.9	
	comp=Z,4.8nm,0.2s						
VUOS				SG	**Sg**	**14 14 26.0**	**-0.8**
KEF	**Keuruu**	**2.54**	**295**	*e*P	**Pb**	**14 13 53.0**	**-0.6**
KEF	**Keuruu**	**2.54**	**295**	PB	**Pb**	**14 13 52.8**	**-0.8**
KEF				smax	smax	14 14 24.2	
	comp=Z,2.2nm,0.2s						
KEF				SB	**Sb**	**14 14 26.1**	**+0.8**
ARBE	**Arbavere**	**2.56**	**229**	SG	**Sg**	**14 14 28.4**	**-1.2**
MEF	**Metsahovi**	**2.81**	**252**	*e*P	**Pb**	**14 13 57.9**	**-0.3**
MEF	**Metsahovi**	**2.81**	**252**	PG	**Pb**	**14 13 57.4**	**-0.8**
MEF				smax	smax	14 14 30.7	
	comp=Z,3.1nm,0.2s						
MEF				SG	**Sb**	**14 14 33.7**	**+0.6**
VAF	**Ylistaro**	**3.82**	**302**	*e*P	**Pn**	**14 14 10.5**	**+3.2**
RAF	**Rauma**	**3.89**	**271**	*e*P	**Pb**	**14 14 11.9**	**-4.7**
RAF	**Rauma**	**3.89**	**271**	PG	**Pb**	**14 14 16.3**	**-0.3**
OUL	**Oulu**	**4.30**	**338**	SG	**Sg**	**14 15 22.2**	**-3.0**
I43RU	**DUBNA INFRASON**	**5.90**	**136**	I	I	14 44 54.1	
	baz=324,slow=321,SNR=6.1						
ARCES	**ARCESS Array B**	**8.58**	**350**	Pn	Pn	14 15 16.6	+4.1
	comp=Z,0.1nm,0.3s,baz=164,slow=13,SNR=0.8						
	comp=Z,0.8nm,0.8s						
ARCES				AML	AML		

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*IDC **23** 14:23:40.8±1.1, 23°.62S×179°.95W, h522^{km}±11^{km}, mb3.5/14, mbtmp4.4/18, Error ellipse: s-maj=12.6km s-min=11.3km az=140.0*

*NOU **23** 14:23:40.8, 23°.73S×179°.75W, h524^{km}, mb4.5/24, South of Fiji Islands*

*NEIC **23** 14:23:40.6±1.8, 23°.5S±0°.1×179°.8W±0°.1, h519^{km}±7^{km}, mb4.3/49, Error ellipse: s-maj=17.0km s-min=12.9km az=139.0*

*GFZ **23** 14:23:46.3±0.3, 24°S±4°×18°0E±°, h566^{km}, M4.5/26, mb4.5/26*

ISC 23 14:23:41.1±0.4**, 23°.68S**±0°.05×**179°.83W**±0°.06**, h532**^{km}**, n190, σ1^{s}50**/201**, mb4.3**/56**, 4D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	**Raoul Island**	**5.81**	**163**	P	**P**	**14 25 18.4**	**+1.4**
	164nm,0.3s,baz=285,slow=20,SNR=2.2						
RAO				S	**S**	**14 26 34.9**	**-0.6**
	201nm,0.3s,baz=90,slow=19,SNR=3.8						
RAO	**Raoul Island**	**5.81**	**163**	P	**P**	**14 25 18.9**	**+1.9**
RAO				S	**S**	**14 26 35.8**	**+0.3**
GLKZ	**Green Lake**	**5.82**	**163**	P	**P**	**14 25 16.0**	**-1.1**
GLKZ				AML	AML		
MSVF	**Nonsavu**	**6.24**	**341**	P	**P**	**14 25 20.5**	**-0.9**
	5.3nm,0.8s,baz=163,slow=13,SNR=1.8						
MSVF	**Nonsavu**	**6.24**	**341**	P	**P**	**14 25 21.1**	**-0.2**
DGTI	**Dogotuki**	**7.35**	**357**	P	**P**	**14 25 32.0**	**0.0**
FUTU	**Fugatoga**	**9.46**	**10**	P	**P**	**14 25 50.7**	**-2.7**
NIUE	**Niue**	**10.30**	**65**	P	**P**	**14 26 00.4**	**-1.7**
NIUE	**Niue**	**10.30**	**65**	P	**P**	**14 26 03.3**	**+1.3**
MARNC	**Mare, Loyalty**	**11.42**	**279**	P	**P**	**14 26 14.5**	**+0.8**
MARNC	**Mare, Loyalty**	**11.42**	**279**	P	**P**	**14 26 14.5**	**+0.8**
AFI	**Afiamalu**	**12.35**	**40**	P	P	14 26 18.2	-5.3
	20nm,0.7s,baz=174,slow=9.2,SNR=3.6						
AFI				S	S	14 28 25.4	-12
	36nm,0.8s,baz=198,slow=20,SNR=4.5						
AFI	**Afiamalu**	**12.35**	**40**	P	P	14 26 18.4	-5.1
AFI	**Afiamalu**	**12.35**	**40**	S	S	14 28 24.7	-13
DZM	**Mont Dzumac**	**12.75**	**275**	P	**P**	**14 26 26.4**	**-1.2**
	5.8nm,1.1s,baz=72,slow=15,SNR=6.1						
OUZ	**Omahuta**	**12.84**	**205**	P	**P**	**14 26 30.9**	**+2.7**
	comp=Z,37nm,2.2s						
WCZ	**Waipu Caves**	**13.22**	**201**	P	**P**	**14 26 35.0**	**+2.8**
MBAZ	**Motutapu North**	**13.81**	**198**	P	P	14 26 47.1	+8.7
MXZ	**Matakaoa Point**	**13.93**	**186**	P	**P**	**14 26 42.3**	**+2.8**
HAZ	**Te Kaha**	**14.18**	**188**	P	**P**	**14 26 43.7**	**+1.5**
HAZ				S	**S**	**14 29 10.8**	**-0.6**
RUGZ	**Raukumara Rang**	**14.40**	**188**	P	**P**	**14 26 48.1**	**+3.5**
RUGZ				S	**S**	**14 29 16.1**	**+0.3**
TGRZ	**Tauranga**	**14.40**	**193**	P	**P**	**14 26 48.5**	**+4.1**
PUZ	**Puketiti**	**14.44**	**186**	P	**P**	**14 26 46.7**	**+1.8**
PUZ				S	**S**	**14 29 13.9**	**-2.6**
TOZ	**Tahuroa Road**	**14.57**	**195**	P	**P**	**14 26 49.9**	**+3.7**
KARZ	**Kaharoa**	**14.68**	**192**	P	**P**	**14 26 50.4**	**+3.0**
SANVU	**Saraoutou**	**14.70**	**302**	P	**P**	**14 26 50.0**	**+2.2**
	comp=Z,35nm,1.1s						
URZ	**Urewera**	**14.77**	**189**	P	**P**	**14 26 47.1**	**-1.1**
	comp=Z,22nm,0.6s,baz=9.3,slow=10,SNR=17						
URZ				S	**S**	**14 29 19.4**	**-3.2**
	comp=Z,10.0nm,0.5s,baz=351,slow=16,SNR=16						
URZ	**Urewera**	**14.77**	**189**	P	**P**	**14 26 47.9**	**-0.3**
URZ	**Urewera**	**14.77**	**189**	S	**S**	**14 29 21.6**	**-1.0**
URZ	**Urewera**	**14.77**	**189**	P	**P**	**14 26 47.9**	**-0.3**
URZ				S	**S**	**14 29 20.7**	**-1.9**
URZ	**Urewera**	**14.77**	**189**	P	**P**	**14 26 48.7**	**+0.5**
	comp=Z,37nm,0.7s						
MWZ	**Matawai**	**14.78**	**188**	P	**P**	**14 26 48.4**	**-0.1**
MWZ				S	**S**	**14 29 22.2**	**-0.8**
CNGZ	**Carnagh Statio**	**14.85**	**186**	P	**P**	**14 26 51.3**	**+2.2**
FUNA	**Funafuti**	**15.10**	**356**	P	**P**	**14 26 57.9**	**+5.9**
	comp=Z,62nm,1.2s						
KNZ	**Kokohu**	**15.44**	**187**	P	**P**	**14 26 55.7**	**+0.4**
KNZ				S	**S**	**14 29 34.7**	**-0.3**
HIZ	**Hauiti**	**15.46**	**196**	P	**P**	**14 26 59.1**	**+3.5**
HIZ	**Hauiti**	**15.46**	**196**	P	**P**	**14 26 56.4**	**+0.9**
	comp=Z,112nm,1.9s						
BKZ	**Black Stump Fm**	**15.75**	**191**	P	**P**	**14 26 56.9**	**-1.6**
BKZ	**Black Stump Fm**	**15.75**	**191**	P	**P**	**14 26 57.1**	**-1.5**
VRZ	**Vera Road**	**16.07**	**195**	P	**P**	**14 27 04.4**	**+2.8**
PXZ	**Pawanui**	**16.54**	**189**	P	**P**	**14 27 05.3**	**-0.9**
PXZ				S	**S**	**14 29 52.7**	**-1.1**
TSZ	**Takapari Road**	**16.71**	**191**	P	**P**	**14 27 06.9**	**-1.0**
TSZ				S	**S**	**14 29 55.3**	**-1.5**
BFZ	**Birch Farm**	**17.27**	**190**	P	**P**	**14 27 12.8**	**-0.2**
	comp=Z,44nm,1.0s						
SNZO	**South Karori**	**18.17**	**193**	P	**P**	**14 27 21.3**	**+0.2**
	comp=Z,82nm,1.5s						
QRZ	**Quartz Range**	**18.26**	**199**	P	**P**	**14 27 22.4**	**+0.3**
QRZ	**Quartz Range**	**18.26**	**199**	P	**P**	**14 27 23.0**	**+0.9**
RAR	**Rarotonga**	**18.71**	**86**	P	P	14 27 34.6	+8.2
	comp=Z,66nm,1.9s						
THZ	**Tophouse**	**19.02**	**197**	P	**P**	**14 27 29.2**	**+0.1**
THZ				S	**S**	**14 30 30.8**	**-3.7**
KHZ	**Kahutara**	**19.48**	**195**	P	**P**	**14 27 31.8**	**-1.3**
KHZ	**Kahutara**	**19.48**	**195**	S	**S**	**14 30 42.2**	**+0.6**
KHZ	**Kahutara**	**19.48**	**195**	P	**P**	**14 27 31.9**	**-1.3**
KHZ				S	**S**	**14 30 39.3**	**-2.4**
KHZ	**Kahutara**	**19.48**	**195**	P	**P**	**14 27 34.3**	**+1.2**
	comp=Z,40nm,2.3s						
GVZ	**Greta Valley S**	**20.12**	**195**	P	**P**	**14 27 37.9**	**-1.2**
GVZ				S	**S**	**14 30 47.1**	**-4.9**
LTZ	**Lake Taylor**	**20.14**	**197**	P	**P**	**14 27 37.8**	**-1.5**
LTZ				S	**S**	**14 30 47.9**	**-4.5**
INZ	**Inchbonnie**	**20.32**	**199**	P	**P**	**14 27 40.0**	**-0.8**
OXZ	**Oxford**	**20.71**	**197**	P	**P**	**14 27 42.9**	**-1.5**
OXZ				S	**S**	**14 31 06.2**	**+4.8**
MQZ	**McQueen's Vall**	**20.91**	**195**	P	**P**	**14 27 45.3**	**-0.8**
RPZ	**Rata Peaks**	**21.35**	**198**	P	**P**	**14 27 49.1**	**-0.9**
	comp=Z,1.4nm,0.6s,baz=357,slow=3.5,SNR=11						
	comp=Z,1.4nm,0.6s						
RPZ	**Rata Peaks**	**21.35**	**198**	P	**P**	**14 27 50.4**	**+0.3**
RPZ	**Rata Peaks**	**21.35**	**198**	IAmb	IAmb	14 27 51.2	
	comp=Z,54nm,1.5s						
RPZ	**Rata Peaks**	**21.35**	**198**	P	**P**	**14 27 49.7**	**-0.4**
JCZ	**Jackson Bay**	**22.39**	**202**	P	**P**	**14 27 59.2**	**-0.3**
ODZ	**Otahua Downs**	**22.68**	**198**	P	**P**	**14 28 02.6**	**+0.6**
ARMA	**Armidale**	**26.24**	**249**	P	**P**	**14 28 35.6**	**+1.6**
ARMA	**Armidale**	**26.24**	**249**	P	**P**	**14 28 33.9**	**-0.1**
ARMA				IAmb	IAmb	14 28 37.0	
	comp=Z,21nm,1.2s						
ARMA	**Armidale**	**26.24**	**249**	P	**P**	**14 28 35.2**	**+1.2**
	comp=Z,19nm,1.0s						
EIDS	**Eidsvold**	**26.49**	**260**	P	**P**	**14 28 36.7**	**+0.6**
EIDS	**Eidsvold**	**26.49**	**260**		**P**	**14 28 36.5**	**+0.4**
EIDS	**Eidsvold**	**26.49**	**260**	P	**P**	**14 28 36.9**	**+0.8**
	comp=Z,24nm,0.6s						
CAN	**Canberra**	**29.38**	**240**	P	**P**	**14 29 02.5**	**+1.2**
CAN	**Canberra**	**29.38**	**240**	P	**P**	**14 29 02.1**	**+0.8**
CAN	**Canberra**	**29.38**	**240**	P	**P**	**14 29 02.4**	**+1.1**
	comp=Z,36nm,2.8s						
MILA	**Mila**	**29.75**	**236**	P	**P**	**14 29 05.1**	**+0.7**
	comp=Z,21nm,1.5s						
TV1H	**Townsville Har**	**31.32**	**272**	P	**P**	**14 29 18.8**	**+0.7**
CMSA	**Cobar Meteorol**	**31.44**	**248**	P	**P**	**14 29 19.3**	**+0.3**
CMSA	**Cobar Meteorol**	**31.44**	**248**	P	**P**	**14 29 19.8**	**+0.9**
	comp=Z,27nm,1.0s						
CTAO	**Charters Tower**	**31.63**	**270**	P	**P**	**14 29 21.0**	**+0.2**
CTAO	**Charters Tower**	**31.63**	**270**		**P**	**14 29 21.3**	**+0.6**
CTAO	**Charters Tower**	**31.63**	**270**	P	**P**	**14 29 21.6**	**+0.8**
	comp=Z,69nm,0.8s						
QLP	**Quilpie**	**32.59**	**257**	P	**P**	**14 29 29.2**	**+0.3**
QLP	**Quilpie**	**32.59**	**257**	P	**P**	**14 29 29.5**	**+0.6**
	comp=Z,36nm,1.0s						
TOO	**Toolangi**	**32.70**	**237**	P	**P**	**14 29 30.7**	**+1.0**
TOO				IAmb	IAmb	14 29 31.4	
	comp=Z,9.8nm,1.1s						
TAU	**Tasmania Unive**	**33.20**	**227**	P	**P**	**14 29 34.3**	**+0.6**
TAU	**Tasmania Unive**	**33.20**	**227**	P	**P**	**14 29 33.9**	**+0.1**
MTSU	**Mount Surprise**	**33.88**	**272**	P	**P**	**14 29 40.2**	**+0.3**
MTSU	**Mount Surprise**	**33.88**	**272**	P	**P**	**14 29 40.6**	**+0.7**
	comp=Z,32nm,0.8s						
PMG	**Port Moresby**	**34.57**	**289**		**P**	**14 29 45.4**	**-0.2**
PMG	**Port Moresby**	**34.57**	**289**	P	**P**	**14 29 45.3**	**-0.4**
	comp=Z,41nm,0.9s						
STKA	**Stephens Creek**	**34.95**	**248**	P	**P**	**14 29 48.9**	**+0.3**
	comp=Z,7.6nm,0.6s,baz=93,slow=10,SNR=20						
	comp=Z,7.6nm,0.6s						
STKA	**Stephens Creek**	**34.95**	**248**	P	**P**	**14 29 48.9**	**+0.3**
STKA	**Stephens Creek**	**34.95**	**248**	P	**P**	**14 29 49.2**	**+0.6**
	comp=Z,59nm,0.8s						
HTT	**Hallett**	**37.30**	**245**	P	**P**	**14 30 08.0**	**-0.1**

QIS	Mount Isa	37.62	267	P	P	14 30 09.9	-0.9
	comp=Z,7.3nm,1.0s						
BBOO	Buckleboo	39.67	247	P	P	14 30 26.9	-0.4
BBOO				IAmb	IAmb	14 30 27.8	
	comp=Z,18nm,0.8s						
BBOO	Buckleboo	39.67	247	P	P	14 30 26.3	-1.0
	comp=Z,24nm,1.0s						
AS31	Alice Springs	42.22	260		P	14 30 47.7	-0.1
AS31				IAmb	IAmb	14 30 49.0	
	comp=Z,6.2nm,0.7s						
ASAR	Alice Springs	42.22	260	P	P	14 30 47.5	-0.3
	comp=Z,21nm,0.8s,baz=102,slow=7.0,SNR=237						
ASAR				PcP	PcP	14 32 29.3	-0.3
	comp=Z,2.7nm,1.0s,baz=91,slow=4.9,SNR=5.1						
ASAR				ScP	ScP	14 35 32.8	+3.2
	comp=Z,2.7nm,0.8s,baz=98,slow=4.0,SNR=14						
ASAR				S	S	14 36 27.9	-1.9
	comp=Z,0.2nm,0.7s,baz=97,slow=13,SNR=1.8						
	comp=Z,21nm,0.8s						
ASAR	Alice Springs	42.22	260		P	14 30 47.8	0.0
WR8	Warramunga Arr	42.42	266		P	14 30 48.8	-0.6
WB0	Warramunga Arr	42.56	266		P	14 30 49.8	-0.7
WRAB	Tennant Creek	42.56	266		P	14 30 49.8	-0.7
WRAB	Tennant Creek	42.56	266	P	P	14 30 49.9	-0.5
	comp=Z,34nm,1.4s						
WRA	Warramunga Arr	42.57	266	P	P	14 30 49.9	-0.7
	comp=Z,26nm,0.7s,baz=90,slow=5.8,SNR=314						
WRA				PcP	PcP	14 32 30.7	-0.1
	comp=Z,1.3nm,0.9s,baz=99,slow=3.2,SNR=3.8						
WRA				ScP	ScP	14 35 32.9	+1.9
	comp=Z,1.8nm,0.9s,baz=101,slow=4.0,SNR=7.3						
WRA				S	S	14 36 32.9	-2.0
	comp=Z,0.6nm,1.0s,baz=110,slow=14,SNR=3.6						
	comp=Z,26nm,0.7s						
FORT	Forrest	46.53	249		P	14 31 20.4	-0.5
MTN	Manton Dam	47.59	274	P	P	14 31 27.9	-1.1
MTN				IAmb	IAmb	14 31 29.8	
	comp=Z,3.6nm,0.7s						
KNRA	Kununurra	48.84	270		P	14 31 36.7	-1.7
KNRA				IAmb	IAmb	14 31 39.2	
	comp=Z,9.4nm,0.8s						
FAKI	Fak Fak	50.66	287	P	P	14 31 49.5	-2.3
FAKI				IAmb	IAmb	14 31 51.9	
	comp=Z,15nm,1.0s						
FAKI	Fak Fak	50.66	287	P	P	14 31 50.7	-1.1
	comp=Z,16nm,0.9s						
FITZ	Fitzroy Crossi	51.00	265		P	14 31 53.9	-0.3
FITZ	Fitzroy Crossi	51.00	265	P	P	14 31 53.9	-0.3
	comp=Z,4.6nm,1.0s						
SWI	Sorong	52.52	288	P	P	14 32 04.7	-0.5
	comp=Z,624nmcomp=Z,73nm,0.8s						
SWI	Sorong	52.52	288	P	P	14 32 04.6	-0.6
	comp=Z,70nm,0.8s						
SBA	Scott Base	54.61	183		P	14 32 21.7	+2.8
SBA	Scott Base	54.61	183	P	P	14 32 21.5	+2.5
	comp=Z,9.8nm,1.9s						
VNDA	Vanda	54.61	185	P	P	14 32 20.4	+1.4
	comp=Z,1.2nm,0.6s,baz=360,slow=6.7,SNR=19						
	comp=Z,1.2nm,0.6s						
VNDA	Vanda	54.61	185	P	P	14 32 20.6	+1.6
VNDA	Vanda	54.61	185	P	P	14 32 20.6	+1.6
	comp=Z,2.6nm,0.7s						
SOEI	Soe	54.98	275		P	14 32 22.8	0.0
SOEI	Soe	54.98	275	P	P	14 32 25.5	+2.8
	comp=Z,55nm,1.2s						
SOEI	Soe	54.98	275	P	P	14 32 23.5	+0.7
	comp=Z,56nm,1.2s						
KLBR	Kellerberrin	55.21	247	P	P	14 32 22.7	-1.3
	comp=Z,76nm,0.8s						
MEEK	Meekatharra	55.32	253	P	P	14 32 23.4	-1.5
	comp=Z,14nm,1.2s						
MBWA	Marble Bar	55.56	260	P	P	14 32 25.9	-0.6
MBWA				IAmb	IAmb	14 32 26.9	
	comp=Z,20nm,0.9s						
MBWA	Marble Bar	55.56	260	P	P	14 32 26.3	-0.3
	comp=Z,22nm,1.1s						
TNTI	Ternate	56.71	288	P	P	14 32 33.1	-1.4
TNTI				IAmb	IAmb	14 32 35.0	
	comp=Z,15nm,1.0s						
MORW	Morawa	57.09	250	P	P	14 32 36.1	-0.9
MORW				IAmb	IAmb	14 32 37.7	
	comp=Z,16nm,0.7s						
EDFI	Ende, Flores	57.71	275	P	P	14 32 41.4	-0.2
	comp=Z,24nm,0.8s						
DBNI	Kabupaten Domp	60.89	273	P	P	14 33 03.1	+0.4
TOLI2	Tolitoli	62.67	284	P	P	14 33 12.4	-1.9
TOLI2				IAmb	IAmb	14 33 15.7	
	comp=Z,14nm,0.7s						
QSPA	South Pole Qui	66.40	180	P	P	14 33 38.1	+0.9
	comp=Z,4.6nm,0.7s,baz=35,slow=3.9,SNR=46						
	comp=Z,4.6nm,0.7s						
QSPA	South Pole Qui	66.40	180	P	P	14 33 38.3	+1.1
QSPA				IAmb	IAmb	14 33 39.5	
	comp=Z,6.2nm,0.9s						
QSPA	South Pole Qui	66.40	180	P	P	14 33 38.9	+1.7
	comp=Z,12nm,1.1s						
MAW	Mawson	78.01	200	P	P	14 34 44.7	+0.6
	comp=Z,3.7nm,0.7s,baz=128,slow=7.4,SNR=8.6						
	comp=Z,3.7nm,0.7s						
MAW	Mawson	78.01	200	P	P	14 34 45.4	+1.2
MYKOM	Kota Tinggi	78.21	277	P	P	14 34 45.3	-0.9
MYKOM				IAmb	IAmb	14 34 46.4	
	comp=Z,9.8nm,1.1s						
KS19	Wonju Array Si	78.24	320	P	P	14 34 46.1	+0.3
PETK	Petropavlovsk-	78.92	346	P	P	14 34 48.9	-0.3
	comp=Z,1.2nm,0.7s,baz=217,slow=7.1,SNR=6.5						
	comp=Z,1.2nm,0.7s						
PETK	Petropavlovsk-	78.92	346	P	P	14 34 48.2	-0.9
O02D	Mt. Diablo Mer	82.79	40	P	P	14 35 09.2	-0.4
O02D				IAmb	IAmb	14 35 11.9	
	comp=Z,4.4nm,0.9s						
KHBM	Hayfork Bally	82.84	40	P	P	14 35 11.5	+1.5
KHBM				IAmb	IAmb	14 35 14.4	
	comp=Z,6.9nm,1.1s						
AFDM	Forest Hills D	83.13	42	P	P	14 35 10.4	-0.8
ORV	Oroville	83.18	42	P	P	14 35 10.9	-0.5
ELIB	Princess Elisa	83.30	187	dP	P	14 35 11.7	0.0
ELIB				dPP	PP	14 38 31.3	-1.0
CLC	China Lake	83.43	46	P	P	14 35 13.3	+0.4
BELC	Belle Mtn. Jos	83.48	49	P	P	14 35 13.3	+0.1
MDPB	Devils Postpil	83.53	44	IAmb	IAmb	14 35 17.9	
	comp=Z,5.5nm,1.2s						
YBH	Yreka Blue Hor	83.82	39	P	P	14 35 15.1	+0.4
	comp=Z,2.0nm,0.7s,baz=231,slow=4.7,SNR=4.5						
	comp=Z,2.0nm,0.7s						
YBH	Yreka Blue Hor	83.82	39	P	P	14 35 13.3	-1.3
YBH				IAmb	IAmb	14 35 28.1	
	comp=Z,7.3nm,1.4s						
NVAR	Mina Array Bea	84.49	44	P	P	14 35 18.7	+0.5
	comp=Z,0.9nm,0.7s,baz=221,slow=7.9,SNR=5.6						
	comp=Z,0.9nm,0.7s						
NVAR	Mina Array Bea	84.49	44	P	P	14 35 17.9	-0.3
TROLL	Troll, Antarti	84.55	181	⇓P	P	14 35 17.8	-0.2
	comp=Z,178nm,0.6s						
NV11	Mina Array Sit	84.58	44	P	P	14 35 18.3	-0.3
VNA3	Neumayer Olymp	85.09	177	⇓P	P	14 35 22.3	+1.9
	comp=Z,1.9nm,0.7s						
PRN	Pahroc Range	86.02	46	IAmb	IAmb	14 35 27.2	
	comp=Z,2.9nm,1.0s						
U15A	North Rim	87.34	48	IAmb	IAmb	14 35 33.9	
	comp=Z,3.8nm,0.9s						
XAN	Xi'an	88.72	308	eP	P	14 35 39.5	+1.3
TMUT	Trail Mountain	89.58	46	IAmb	IAmb	14 35 44.2	
	comp=Z,4.1nm,0.8s						
CMAR	Chiang Mai Arr	89.59	290	P	P	14 35 43.8	+1.3
	comp=Z,2.4nm,0.9s,baz=129,slow=3.2,SNR=14						
	comp=Z,2.4nm,0.9s						
CMAR	Chiang Mai Arr	89.59	290	P	P	14 35 43.6	+1.1
CHTO	Chiang Mai	89.74	291	P	P	14 35 44.1	+1.0
CHTO				IAmb	IAmb	14 35 45.3	
	comp=Z,4.0nm,0.9s						
HLID	Hailey	89.83	41	IAmb	IAmb	14 35 44.8	
	comp=Z,2.0nm,0.9s						
HVU	Hansel Valley	89.88	44	IAmb	IAmb	14 36 08.9	
	comp=Z,6.0nm,1.4s						
SRU	San Rafael Swe	89.94	47	IAmb	IAmb	14 35 45.1	
	comp=Z,5.4nm,0.9s						
TXAR	Lajitas Array	90.19	58	P	P	14 35 46.1	+1.0
	comp=Z,1.4nm,0.8s,baz=216,slow=6.9,SNR=15						
	comp=Z,1.4nm,0.8s						
TXAR	Lajitas Array	90.19	58	P	P	14 35 45.6	+0.5
HHC	Hu-ho-hao-te	90.37	315	eP	P	14 35 46.5	+0.8
HHC				pmax	pmax		
	comp=Z,12nm,0.6s						
BSUT	Blindstream Ca	90.52	45		P	14 35 47.1	+0.3
BSUT				IAmb	IAmb	14 35 48.1	
	comp=Z,4.8nm,0.8s						
PZH	PanZhiHua	90.71	299	P	P	14 35 48.3	+0.6
ILAR	Eielson Array	91.78	13	P	P	14 35 50.3	-1.2
	comp=Z,0.4nm,0.9s,baz=210,slow=3.1,SNR=1.8						
	comp=Z,0.4nm,0.9s						
ILAR	Eielson Array	91.78	13	P	P	14 35 51.0	-0.5
PDAR	Pinedale Array	92.43	44	P	P	14 35 55.8	+0.4
	comp=Z,0.4nm,0.6s,baz=200,slow=2.7,SNR=4.8						
	comp=Z,0.4nm,0.6s						
PDAR	Pinedale Array	92.43	44	P	P	14 35 54.1	-1.2
MKAR	Makanchi Array	112.12	313	PKiKP	PKiKP	14 41 14.8	-1.2
	comp=Z,0.3nm,0.6s,baz=171,slow=0.5,SNR=4.2						
BVAR	Borovoye Array	120.37	319	PKP	PKPdf	14 41 30.3	-1.4
	comp=Z,0.4nm,0.4s,baz=56,slow=1.4,SNR=2.9						
FINES	FINESS Array B	138.29	342	SKPbc	SKPbc	14 44 49.1	-0.5
	comp=Z,1.3nm,0.8s,baz=329,slow=2.2,SNR=4.1						
HFS	Hagfors	142.36	349	PKhKP	PKPpre	14 42 08.5	
	comp=Z,1.3nm,0.3s,baz=34,slow=2.0,SNR=12						
AKASG	Malin Array Be	144.87	328	PKP	PKPdf	14 42 16.4	-0.9
	comp=Z,1.5nm,0.5s,baz=44,slow=4.4,SNR=6.2						
AKASG	Malin Array Be	144.87	328		PKPdf	14 42 16.6	-0.7
AKBB	Malin Array Si	144.87	328	PKPdf	PKPdf	14 42 17.0	-0.3
KIEV	Kiev	144.88	328	PKPdf	PKPdf	14 42 16.9	-0.4
ASCN	Ascension	145.52	154	PKPdf	PKPdf	14 42 17.6	-2.1
GAZ	Gaziantep	145.56	302	PKPdf	PKPdf	14 42 17.9	-1.2
BNN	Bunyan	146.20	305	PKPdf	PKPdf	14 42 19.2	-0.9
BAL3X	Bal3x, Balta	146.36	323	PKPab	PKPdf	14 42 19.9	0.0
ASF	Jabal al Asfar	146.59	293	PKPbc	PKPbc	14 42 23.6	+0.1
	comp=Z,2.5nm,0.6s,baz=75,slow=3.2,SNR=4.7						
BRTR	Keskin Array B	147.56	308	PKPbc	PKPbc	14 42 25.4	-0.6
	comp=Z,0.9nm,0.6s,baz=75,slow=3.2,SNR=4.8						
BRTR	Keskin Array B	147.56	308	PKPdf	PKPdf	14 42 21.3	-1.1
BRTR				PKPbc	PKPbc	14 42 25.2	-0.7
BRTR				PKPab	PKPab	14 42 29.6	-0.4
MMAI	Mount Meron Ar	147.75	295	PKPbc	PKPbc	14 42 27.0	+0.5
	comp=Z,2.7nm,0.5s,baz=77,slow=3.1,SNR=5.2						
EKA	Eskdalemuir Ar	148.29	4	PKPbc	PKPbc	14 42 26.1	-0.9
	comp=Z,0.4nm,0.4s,baz=317,slow=2.6,SNR=4.3						
CLL	Collm	150.69	343	i PKPbc	PKPbc	14 42 32.6	-0.3

VIE 23 14:29:01.4±0.8, 45°.08N×14°.67E, h0^{km}, mb2.0/1, ml2.1/1, Error ellipse: s-maj=5.2km s-min=4.2km az=172.0 36 km SE of Rijeka Suspected Mining explosion., Northwestern Balkan Peninsula

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RIY	Rijeka	0.28	332	ePg	Pg	14 29 06.3	-0.5
RIY				Sg	Sg	14 29 10.8	+0.2
RABC	Rab	0.33	167	ePg	Pg	14 29 08.1	+0.4
RABC				Sg	Sg	14 29 13.8	+1.8
GBRS	Gornja Briga	0.47	12	i Pg	Pg	14 29 10.1	-0.2
GBRS				i Sg	Sg	14 29 17.6	+1.2
GBRS				IAML		14 29 18.7	
	comp=Z,5.9nm,0.1s						
KNDS	Knezji Dol	0.50	336	i Pg	Pg	14 29 10.3	-0.7
KNDS				i Sg	Sg	14 29 18.0	+0.6
KNDS				IAML		14 29 21.5	
	comp=Z,17nm,0.2s						
NVLJ	Novalja	0.53	165	ePg	Pg	14 29 11.6	+0.1
NVLJ				Sg	Sb	14 29 20.2	-1.5
BOJS	Bojanci	0.59	43	i Pg	Pg	14 29 12.2	-0.5
BOJS				i Sg	Sg	14 29 21.1	+0.7
BOJS				IAML		14 29 21.8	
	comp=Z,9.4nm,0.1s						
VISS	Visnje	0.74	9	i Pg	Pg	14 29 14.6	-0.9
VISS				i Sg	Sg	14 29 25.4	+0.2
VIRC	Vir	0.83	161	ePg	Pg	14 29 17.0	-0.3
VIRC				Sg	Sb	14 29 30.3	0.0
DUGI	Dugi Otok	1.12	166	ePg	Pg	14 29 22.2	-0.6
DUGI				Sg	Sn	14 29 39.5	-0.8
MORI	Morici	1.42	148	ePn	Pn	14 29 27.9	-0.4
OBKA	Obir	1.44	357	eSg	Sn	14 29 50.7	+2.3
	comp=Z,3.5nm,0.2s						
OBKA	Obir	1.44	357	ePn	Pb	14 29 29.2	+0.1
	comp=Z,1.4nm,0.2s						

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*LJU **23** 14:29:30.8, 45°.91N×16°.04E, h4^{km}, ML1.6*

PRU 23 14:29:28.2, 45°.73N×15°.98E, h10^{km}, 1D, Northwestern Balkan Peninsula

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZAG	Zagreb	0.10	3	i Pg	Pg	14 29 32.9	+2.1
ZAG				Sg	Sg	14 29 33.6	+1.0
PTJ	Puntijarka	0.18	357	i Pg	Pg	14 29 32.0	0.0
PTJ				Sg	Sg	14 29 33.1	-1.7
GCIS	Gornji Cirnik	0.28	299	i Pg	Pb	14 29 36.6	+1.2
GCIS				i Sg	Sb	14 29 40.7	+0.5
GCIS				IAML		14 29 41.9	
	comp=Z,42nm,0.1s						
GOLS	Golise	0.38	319	i Pg	Pb	14 29 37.2	+0.2
GOLS				i Sg	Sg	14 29 41.5	+0.9
GOLS				IAML		14 29 44.1	
	comp=Z,26nm,0.1s						
OZLJ	Ozalj	0.38	252	ePg	Pn	14 29 40.5	+0.8
CRES	Cresnjevec Ost	0.38	285	i Pg	Pn	14 29 39.0	-0.8
CRES				i Sg	Sb	14 29 45.4	+2.4
CRES				IAML		14 29 47.1	
	comp=Z,19nm,0.1s						
LOBO	Lobor	0.43	8	ePg	Pg	14 29 36.1	-0.5
LOBO				Sg	Sg	14 29 40.4	-1.9
CESS	Cesta pri Krsk	0.44	304	i Pg	Pn	14 29 39.4	-1.1
CESS				i Sg	Sb	14 29 44.8	+0.2
CESS				IAML		14 29 46.1	
	comp=Z,37nm,0.1s						
LEGS	Legarje	0.51	296	i Pg	Pn	14 29 40.9	-0.7
LEGS				i Sg	Sb	14 29 47.5	+0.7
KALN	Kalnik	0.52	39	ePg	Pg	14 29 38.1	-0.2
KALN				Sg	Sg	14 29 43.4	-1.8
DOBS	Dobrina	0.55	320	i Pg	Pb	14 29 40.2	+0.3
MOSL	Moslavina	0.56	102	i Pg	Pn	14 29 41.9	-0.3
BOJS	Bojanci	0.56	246	i Pg	Pn	14 29 43.6	+1.4
KOGS	Kog	0.74	15	i Pg	Pg	14 29 42.3	-0.2
PDKS	Podkum	0.76	296	i Pg	Pn	14 29 45.1	0.0
PDKS				i Sg	Sn	14 29 56.2	-0.5
PDKS				IAML		14 30 00.5	
	comp=Z,11nm,0.1s						
VISS	Visnje	0.80	276	i Pg	Pn	14 29 47.1	+1.5
VISS				i Sg	Sn	14 30 00.0	+2.4
VISS				IAML		14 30 01.4	
	comp=Z,10nm,0.2s						
GROS	Grobnik	0.80	336	⇓iPg	Pg	14 29 43.9	+0.2
ZAVS	Zavodnje	0.97	317	i Pg	Pn	14 29 48.2	+0.3
ZAVS				i Sg	Sg	14 29 59.6	+0.2
SOKA	Soboth	1.15	326	i Pg	Pn	14 29 50.5	0.0
	comp=Z,1.9nm,0.2s						
SOKA				eSg	Sb	14 30 04.9	-0.5
	comp=Z,3.2nm,0.2s						
OBKA	Obir	1.26	309	eSg	Sn	14 30 09.6	+0.5
	comp=Z,14nm,0.4s						
ARSA	Arzberg	1.55	348	ePg	Pg	14 29 57.9	-0.1
	comp=Z,1.3nm,0.2s						
ARSA				eSg	Sn	14 30 16.5	+0.3
	comp=Z,3.7nm,0.3s						
SESA	Seetaler Alpe,	1.69	325	Pg	Pg	14 30 02.8	+2.1
	comp=Z,3.8nm,0.3s						
SESA				Sg	Sn	14 30 20.4	+0.6
	comp=Z,7.8nm,0.3s						
RONA	Rosalia, Austr	1.98	6	ePg	Pb	14 30 03.6	-0.8
	comp=Z,1.0nm,0.2s						
RONA				eSg	Sb	14 30 29.9	+0.7
	comp=Z,1.6nm,0.2s						
CONA	Conrad Observa	2.20	358	ePg	Pb	14 30 07.6	-0.5
	comp=Z,0.6nm,0.2s						
CONA				eSg	Sg	14 30 38.0	-0.9
	comp=Z,2.9nm,0.6s						
MOA	Molln	2.42	332	eSg	Sn	14 30 38.9	+1.3
	comp=Z,1.4nm,0.2s						
KHC	Kasperske Hory	3.77	335	ePN	Pn	14 30 28.0	+1.6
KHC				eSN	Sn	14 31 10.0	-0.9
KHC	Kasperske Hory	3.77	335	ePN	Pn	14 30 28.1	+1.7
KHC				eSN	Sn	14 31 09.6	-1.3

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*SCB **23** 14:37:40.6±1.3, 21°.20S×67°.65W, h149^{km}, ML3.6/2, Error ellipse: s-maj=8.7km s-min=7.3km az=0.0*

*GUC **23** 14:37:40.4±0.8, 21°.24S×67°.80W, h190^{km}±8^{km}, ML3.7*

ISC 23 14:37:39.7±2.0, 21°.21S±0°.06×67°.65W±0°.06, h166^{km}±23^{km}, n26, σ1^{s}.00/36, Chile-Bolivia border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PB09	IPOC Station P	1.60	248	eP	Pn	14 38 12.1	+0.4
PB09				eS	Sn	14 38 37.4	+1.1
PB09	IPOC Station P	1.60	248	P	Pn	14 38 12.3	+0.6
MOCB	Mochara	1.88	92	P	Pn	14 38 15.1	+0.1
PB02	IPOC Station P	2.10	267	eP	Pn	14 38 17.4	+0.3
PB02				eS	Sn	14 38 45.3	-0.7
PB02				IAML		14 38 47.6	
	comp=E,471nm,0.2s						
PB02	IPOC Station P	2.10	267	P	Pn	14 38 17.2	+0.1
PB02				S	Sn	14 38 45.7	-0.3
PB02				IAML		14 38 47.2	
	comp=E,327nm,0.4s						
GO01	Chusmiza	2.11	316	eP	Pn	14 38 18.9	+1.3
GO01				IAML		14 38 58.2	
	comp=E,492nm,0.1s						
GO01	Chusmiza	2.11	316	P	Pn	14 38 18.5	+0.9
PB03	IPOC Station P	2.13	246	eP	Pn	14 38 17.7	+0.2
PB03				eS	Sn	14 38 46.0	-0.7
PB03				IAML		14 38 47.6	
	comp=N,189nm,0.2s						
PB07	IPOC Station P	2.15	256	eP	Pn	14 38 17.9	+0.1
PB07				eS	Sn	14 38 46.2	-0.8
PB07				IAML		14 38 47.1	
	comp=E,353nm,0.3s						
YJA	Yavi	2.21	116	P	Pn	14 38 20.0	+1.3
PB06	IPOC Station P	2.33	230	eP	Pn	14 38 19.9	+0.1
PB06				eS	Sn	14 38 50.3	-0.5
PB06				IAML		14 38 51.9	
	comp=E,333nm,0.2s						
PB06	IPOC Station P	2.33	230	P	Pn	14 38 20.4	+0.6
PB11	IPOC Station P	2.37	307	eP	Pn	14 38 20.6	+0.3
PB11				eS	Sn	14 38 51.2	-0.5
PB11				IAML		14 38 53.0	
	comp=E,352nm,0.2s						
PB11	IPOC Station P	2.37	307	P	Pn	14 38 20.6	+0.3
PB11				S	Sn	14 38 50.7	-0.9
PB11				IAML		14 38 53.1	
	comp=E,168nm,0.3s						
SOEO	Opoqueri	2.64	355	P	Pn	14 38 23.6	-0.3
PSGCX	Pisagua	2.82	304	eP	Pn	14 38 25.1	-0.5
PB05	IPOC Station P	2.88	235	eP	Pn	14 38 26.1	-0.3
PB05				eS	Sn	14 39 00.4	-2.2
PB05				IAML		14 39 02.9	
	comp=E,80nm,0.3s						
PB16	IPOC Station P	3.35	328	eP	Pn	14 38 33.9	+1.1
PB16				eS	Sn	14 39 14.5	+0.6
PB16	IPOC Station P	3.35	328	P	Pn	14 38 33.8	+1.1
SOET	ToroToro	3.53	30	P	Pn	14 38 35.7	+0.9
PB12	IPOC Station P	3.61	315	eP	Pn	14 38 34.0	-1.5
SOEJ	Jacaque	4.24	353	P	Pn	14 38 45.1	+1.0
BBOD	La Paz, Gloria	4.63	349	P	Pn	14 38 50.1	+0.9
LPAZ	La Paz	4.91	355	P	Pn	14 38 54.0	+1.1
BBOB	La Paz, Bander	5.06	355	P	Pn	14 38 56.0	+1.2
SIV	San Ignacio	8.11	51	P	Pn	14 39 32.1	-2.6

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*TAP **23** 14:38:46.1, 22°.23N×121°.58E, h22^{km}, ML3.4, C*

*JMA **23** 14:38:48.2±0.5, 22°N±3°×12°2E±°, h100^{km}, MV2.7/10, TAIWAN REGION*

ISC 23 14:38:44.5±0.9, 22°.26N±0°.02×121°.66E±0°.02, h13^{km}±8^{km}, n115, σ1^{s}.03/193, 1C, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LAY	Lan-yu	0.24	204	i P	Pb	14 38 51.1	+0.4
LAY				i S	Sg	14 38 54.8	+1.7
LYUB	Lan-yu	0.27	195	⇑iP	Pg	14 38 51.0	+0.9
LYUB				i S	Sg	14 38 54.2	+0.3
LDUT	Ludao	0.45	337	eP	Pb	14 38 55.2	+1.0
LDUT				i S	Sb	14 39 02.4	+1.7
TTN	Taitung	0.68	316	P	Pb	14 38 59.1	+0.9
TTN				eS	Sn	14 39 09.7	-0.6
ECL	Taimali	0.73	297	eP	Pg	14 38 58.6	-0.1
ECL				eS	Sb	14 39 09.7	+0.8
EAST	Anshuo	0.76	279	eP	Pg	14 38 58.9	-0.4
EAST				eS	Sg	14 39 06.9	-2.3
TWGBT	Beinan	0.77	316	P	Pb	14 38 59.7	0.0
TWGBT	Beinan	0.77	316	eP	Pb	14 39 00.2	+0.5
TWGBT				S	Sb	14 39 10.7	+0.6
TWG	Pinlang	0.78	316	eP	Pb	14 39 00.1	+0.3
TWG				S	Sb	14 39 10.6	+0.3
EDH	Donghe	0.78	335	eP	Pb	14 39 00.6	+0.7
EDH				eS	Sb	14 39 11.3	+1.0
TSEB	Hengchuen, Pin	0.79	243	eP	Pg	14 38 60.0	+0.2
TSEB				S	Sg	14 39 10.2	+0.1
SLIU	Shizi	0.80	267	eP	Pg	14 38 59.5	-0.4
SLIU				eS	Sg	14 39 08.2	-2.2
SMST	Manzhou Townsh	0.80	253	P	Pg	14 38 59.4	-0.5
SMST				eS	Sg	14 39 08.5	-1.9
LONT	Longtian	0.81	323	eP	Pb	14 39 01.2	+0.9
LONT				eS	Sb	14 39 12.4	+1.3
TWKBT	Hengchun	0.84	248	eP	Pg	14 39 00.3	-0.5
TWKBT				i S	Sg	14 39 10.1	-1.8
TWK1	Hengchun	0.85	248	eP	Pg	14 38 59.9	-1.0
TWK1				eS	Sg	14 39 09.8	-2.3
CHKT	Chengkung	0.88	342	eP	Pb	14 39 01.8	+0.2
CHKT				i S	Sb	14 39 12.8	-0.4
HEN	Hengchun	0.89	254	P	Pg	14 39 01.1	-0.6
HEN				eS	Sg	14 39 11.7	-1.6
ECS	Chishang	0.92	334	eP	Pn	14 39 03.6	+0.5
ECS				S	Sn	14 39 16.8	+0.5
CHKH	Chenggong	0.96	345	P	Pb	14 39 03.0	+0.1
CHKH				i S	Sb	14 39 15.3	-0.2
SCZT	Fangliau	0.97	277	eP	Pg	14 39 02.2	-1.0
EHD	Haiduan	0.98	335	P	Pb	14 39 03.5	+0.2
EHD				eS	Sb	14 39 17.1	+1.0
FULB	Fuli	0.99	340	i P	Pb	14 39 03.7	+0.2
FULB				S	Sb	14 39 16.8	+0.3
MASBT	Mashibuluo	1.01	290	eP	Pg	14 39 03.1	-0.9
TSMG	Majia	1.03	296	eP	Pg	14 39 03.7	-0.8
SSD	Sandimen	1.06	297	eP	Pg	14 39 03.9	-1.1
ECBN	Changbin	1.07	350	eS	Sg	14 39 18.1	-0.9
ELDTW	Lidau	1.10	328	eP	Pg	14 39 05.2	-0.4
EYUL	Yuli	1.13	344	eP	Pb	14 39 05.9	+0.1
EYUL				eS	Sb	14 39 21.0	+0.6
TWF1	Yuli	1.14	343	eP	Pn	14 39 06.9	+0.8
TWF1				eS	Sg	14 39 19.8	-1.4
YULB	Yu-li	1.18	344	P	Pg	14 39 06.2	-0.9
YULB	Yu-li	1.18	344	S	Sg	14 39 19.3	-3.2
YULB	Yu-li	1.18	344	eP	Pg	14 39 06.6	-0.6
YULB				eS	Sb	14 39 21.8	0.0
STYH	Taoyuan	1.22	318	eP	Pb	14 39 07.6	+0.2
SCST	Cishan	1.24	300	eP	Pb	14 39 08.1	+0.3
HGSD	Ruisui	1.25	350	eP	Pg	14 39 07.2	-1.2
HGSD				eS	Sn	14 39 26.2	+2.0
EHYH	Wanrong	1.26	347	eP	Pn	14 39 08.9	+1.1
EHYH				eS	Sb	14 39 24.4	+0.1
TWM1	Shoushan	1.27	296	eP	Pg	14 39 09.9	+0.9
EHY	Hungye	1.28	346	eP	Pn	14 39 07.9	-0.1
SGST	Jiashian	1.29	310	eP	Pg	14 39 09.1	-0.1
SGST				eS	Sn	14 39 26.4	+1.2
WSSB	Gushan	1.34	287	eP	Pg	14 39 10.6	+0.2
WTP	Ta-pu	1.37	316	eP	Pg	14 39 10.8	-0.1
WTP				eS	Sn	14 39 30.8	+3.3
CHN1	Nanshi	1.39	312	P	Pg	14 39 11.8	+0.6
CHN1				eS	Sg	14 39 30.8	+1.4
TPUB	Ta-pu	1.40	318	P	Pb	14 39 10.9	+0.3
TPUB	Ta-pu	1.40	318	S	Sb	14 39 28.0	-0.4
TPUB	Ta-pu	1.40	318	eP	Pg	14 39 11.1	-0.4
TPUB				eS	Sg	14 39 30.8	+1.1
CHN3	Shinhua	1.44	304	eP	Pg	14 39 13.4	+1.2
CHN4	Tsaushan	1.46	318	P	Pg	14 39 12.6	-0.1
ALS	Alishan	1.47	328	eP	Pg	14 39 12.6	-0.2
ALS				eS	Sg	14 39 32.1	+0.1
TWK	Hsinying	1.47	313	eP	Pb	14 39 12.1	+0.4
TWK				S	Sg	14 39 33.3	+1.3
WARBT	Fenglin Townsh	1.47	350	eP	Pn	14 39 11.1	+0.4
WARBT				eS	Sn	14 39 29.9	0.0
WCKO	Fanlu	1.52	321	eP	Pg	14 39 14.1	+0.3
WCKO				eS	Sg	14 39 34.7	+1.2
SHUL	Shoufeng	1.52	357	eP	Pn	14 39 12.1	+0.7
SHUL				i S	Sn	14 39 31.2	+0.2
ESL	Shilin	1.56	352	eP	Pn	14 39 12.1	+0.2
ESL				eS	Sn	14 39 31.6	-0.4
VWDT	VWDT	1.56	342	eP	Pb	14 39 13.3	+0.1
CHN5	Tsauling	1.61	326	P	Pg	14 39 15.5	+0.1
CHN5				eS	Sg	14 39 37.1	+0.8
WHYT	Xinyi Township	1.61	333	eP	Pg	14 39 15.1	-0.3
WHYT				S	Sg	14 39 36.2	-0.1
SSLB	Suanglung	1.65	337	P	Pg	14 39 15.9	-0.3

SSLB	Suanglung	1.65	337	*e*P	Pg	14 39 15.9	-0.3
CHY	Chiayi	1.68	318	*e*P	Pg	14 39 16.4	-0.3
CHY				*e*S	Sb	14 39 36.8	+0.6
ICHU	Yijhu	1.68	311	*e*P	Pb	14 39 15.6	+0.4
ICHU				*e*S	Sb	14 39 37.2	+1.0
TSCK	Chigu Township	1.70	302	*e*P	Pb	14 39 15.9	+0.3
TSCK				*e*S	Sb	14 39 36.9	+0.1
ETM	Tongmen	1.70	355	*e*P	Pn	14 39 13.7	-0.2
ETM				*e*S	Sn	14 39 35.0	-0.6
OWD	Renai	1.74	345	*e*P	Pb	14 39 16.1	-0.4
OWD				*e*S	Sb	14 39 38.1	-0.1
WDLH	Douliu	1.76	324	*e*P	Pg	14 39 17.6	-0.6
WDLH				S	Sg	14 39 40.0	-1.0
SMLT	Sun Moon Lake	1.76	337	*e*P	Pg	14 39 17.9	-0.4
SMLT				*e*S	Sg	14 39 39.9	-1.2
LXIB	Xiulin Townshi	1.77	353	*e*P	Pn	14 39 15.8	+0.9
LXIB				S	Sn	14 39 37.9	+0.6
TYC	Yuchr	1.79	336	*e*P	Pg	14 39 18.5	-0.5
TYC				*e*S	Sg	14 39 41.4	-0.9
WUSB	Renai	1.79	344	*e*P	Pb	14 39 17.4	+0.2
WUSB				*e*S	Sn	14 39 38.2	+0.3
WSL	Shuilin Townsh	1.82	314	*e*P	Pb	14 39 17.1	-0.6
WSL				*e*S	Sn	14 39 39.6	+1.2
WTK	Tuku	1.84	321	P	Pb	14 39 17.8	-0.1
WTK				S	Sb	14 39 41.6	+0.7
WNT	Mingjian	1.84	331	P	Pg	14 39 19.1	-0.7
WNT				*e*S	Sg	14 39 43.4	-0.4
NACB	Ninganchiao	1.91	358	P	Pb	14 39 18.4	-0.7
NACB	Ninganchiao	1.91	358	S	Sn	14 39 39.6	-0.9
NACB	Ninganchiao	1.91	358	*e*P	Pn	14 39 17.5	+0.8
NACB				*e*S	Sn	14 39 39.6	-0.9
WHF	Hehuan Shan	1.91	349	*e*P	Pb	14 39 18.9	-0.5
WCS	Beigang Elemen	1.92	339	*e*P	Pb	14 39 20.0	+0.8
WCS				*e*S	Sg	14 39 45.2	-0.9
ETLH	Xiulin Townshi	1.94	355	*e*P	Pn	14 39 17.6	+0.3
EOS4	EOS4	1.95	18	P	Pn	14 39 18.3	+1.3
EOS4				*e*S	Sn	14 39 40.2	-0.8
FUSS	Fushou	2.01	349	*e*P	Pb	14 39 20.0	-1.1
FUSS				*e*S	Sn	14 39 44.2	+0.7
TWT	Tachien	2.03	348	*e*P	Pb	14 39 21.4	0.0
TWT				*e*S	Sb	14 39 46.4	-0.2
WDGT	Dungji	2.09	299	*e*P	Pn	14 39 18.5	-0.7
WDGT				*e*S	Sn	14 39 43.1	-2.0
EOS3	EOS3	2.11	17	*e*P	Pb	14 39 21.2	-1.2
EOS3				*i* S	Sn	14 39 45.5	+0.2
NNSB	Datong	2.17	353	*e*P	Pn	14 39 22.0	+1.6
NNSB				*e*S	Sn	14 39 48.3	+1.0
EWUT	Wuta	2.18	3	*e*P	Pn	14 39 21.6	+1.2
NNS	Nan Shan	2.19	353	*e*P	Pb	14 39 22.9	-1.1
NNS				*e*S	Sn	14 39 49.0	+1.4
LATG	Datong	2.27	357	*e*P	Pn	14 39 23.1	+1.4
PHUB	P'eng-hu	2.29	303	*e*P	Pn	14 39 20.9	-1.0
PNG	Penghu	2.33	304	*e*P	Pn	14 39 22.2	-0.3
PNG				*e*S	Sn	14 39 50.6	-0.5
TWC	Suao	2.34	4	*e*P	Pn	14 39 24.4	+1.7
TWC				*e*S	Sn	14 39 50.6	-0.7
NDS	Dongshan	2.36	1	*e*P	Pb	14 39 25.5	-1.4
NDS				*e*S	Sn	14 39 52.6	+0.8
NFF	Wufeng Townshi	2.41	348	*e*P	Pb	14 39 28.2	+0.4
NFF				*e*S	Sb	14 39 56.7	-0.7
YHNB	Yeheng	2.41	354	P	Pb	14 39 26.2	-1.6
YHNB	Yeheng	2.41	354	S	Sn	14 39 54.4	+1.3
YHNB	Yeheng	2.41	354	*e*P	Pn	14 39 25.1	+1.4
YHNB				*e*S	Sn	14 39 54.5	+1.3
NSK	Sanguang	2.42	354	*e*P	Pb	14 39 26.4	-1.5
NSK				*e*S	Sn	14 39 53.7	+0.3
NSTT	Nanjuang	2.44	346	*e*P	Pb	14 39 29.3	+1.1
NSTT				*e*S	Sb	14 39 58.5	+0.4
LIOB	Emei	2.45	346	*e*P	Pb	14 39 27.5	-0.8
LIOB				*e*S	Sb	14 39 58.5	+0.1
TWE	Neicheng	2.45	0	*e*P	Pb	14 39 26.6	-1.8
TWE				*e*S	Sn	14 39 55.2	+1.3
FUSB	Fushanzhiwuyua	2.49	359	*e*P	Pb	14 39 27.7	-1.4
FUSB				*e*S	Sn	14 39 56.3	+1.3
HATJ	Hateruma jima	2.67	47	*e*P	Pn	14 39 28.4	+1.3
HATJ				*e*S	Sn	14 39 58.7	-0.5
TIPB	Shuangxi	2.70	3	*e*P	Pb	14 39 30.8	-2.0
TIPB				*e*S	Sn	14 40 03.2	+2.9
IRIF	Iriomote-Funau	2.81	42	*e*P	Pn	14 39 30.6	+1.6
SXI1	Grass Mountain	2.83	4	*e*P	Pb	14 39 32.4	-2.5
SXI1				*e*S	Sn	14 40 05.8	+2.4
JKRS	Kuro-shima	2.92	47	P	Pn	14 39 32.2	+1.6
JKRS				*e*S	Sn	14 40 05.2	-0.5
JIJ	Ishigaki jima	3.10	47	*e*P	Pn	14 39 33.9	+0.8
JIJ				*e*S	Sn	14 40 09.0	-0.9
JISG	Ishigakijimahi	3.36	46	*e*P	Pn	14 39 37.5	+0.9
VWUC	VWUC	3.39	324	*e*P	Pn	14 39 38.4	+1.3
VWUC				*e*S	Sn	14 40 16.5	-0.6
PTMZ	Houxiangcun	3.62	320	*e*P	Pn	14 39 40.2	+0.1
JTJ	Tarama	3.67	49	*e*P	Pn	14 39 42.3	+1.5
JTJ				*e*S	Sn	14 40 23.9	0.0
PACPP	Pamplona Cagay	3.79	184	*i* P	Pn	14 39 43.0	+0.4
PACPP				*i* S	Sn	14 40 25.4	-1.6
ZPLA	Ao Xicun	3.96	296	*e*P	Pn	14 39 44.6	-0.3
JIRJ	Irabujima	4.13	51	*e*P	Pn	14 39 48.6	+1.3
JIKM	Ikemajima	4.23	50	S	Sn	14 40 37.9	+0.1
AXDP	Jialang	4.28	309	*e*P	Pn	14 39 48.8	-0.5

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*PRE **23** 14:45:47.9±1.2, 28°.54S×23°.49E, h0^{km}, ML1.9, Suspected explosion*

*BGSI **23** 14:45:51.0±0.8, 28°.65S×22°.63E, h31^{km}±56^{km}, ML2.5, Presumed earthquake*

ISC 23 14:45:47.6±0.9**, 28°.50S**±0°.04×**23°.47E**±0°.05**, h0^{km}, n13,** σ1^{s}.**37**/20**, South Africa**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BOSA	Boshof	1.57	95	*i* P	Pg	14 46 25.1	+7.3
BOSA				*i* S	Sg	14 46 50.0	+12
BOSA				IAML		14 46 52.0	
	comp=N,28nm,0.6s						
BOSA	Boshof	1.57	95	*e*P	Pn	14 46 17.1	+0.2
BOSA				*e*S	Sg	14 46 39.0	+0.8
BOSA				IAML		14 47 10.9	
	comp=Z,8.4nm,0.6s						
ALKP	Alkanpan, Nort	1.79	216	*e*P	Pb	14 46 21.1	-0.3
ALKP				*e*S	Sb	14 46 44.4	-0.1
ALKP				IAML		14 47 07.5	
	comp=Z,34nm,0.7s						
MAKGR	Makgori	2.92	24	*i* P	Pb	14 46 40.2	-0.5
MAKGR				IAML		14 47 21.9	
	comp=E,38nm,0.5s						
PHPEN	Phepeng	3.06	350	*i* P	Pn	14 46 36.5	-0.8
PHPEN				IAML		14 47 15.3	
	comp=E,84nm,0.4s						
BFON	Badsfontein, M	3.30	177	*e*P	Pn	14 46 40.9	+0.3
BFON				*e*S	Sn	14 47 19.1	-1.5
BFON				IAML		14 47 54.2	
	comp=Z,7.5nm,0.5s						
BRAK	Brakfontein	3.31	189	*e*P	Pn	14 46 42.2	+1.4
BRAK				*e*S	Sn	14 47 20.4	-0.5
BRAK				IAML		14 48 22.6	
	comp=Z,4.4nm,0.6s						
ARMS	Ukamas	3.32	277	*e*P	Pn	14 46 41.7	+0.8
ARMS				*e*S	Sn	14 47 21.4	+0.2
FRAZ	Fraserburg	3.86	207	*e*P	Pn	14 46 49.8	+1.5
FRAZ				*e*S	Sn	14 47 34.0	-0.5
FRAZ				IAML		14 48 02.4	
	comp=Z,4.4nm,0.6s						
LBTB	Lobatse	3.96	29	*i* P	Pb	14 46 55.2	-3.1
LBTB				IAML		14 47 50.9	
	comp=Z,10nm,0.4s						
LBTB	Lobatse	3.96	29	*e*P	Pn	14 46 51.8	+2.2
LBTB				*e*S	Sn	14 47 36.7	-0.1
LBTB				IAML		14 48 13.8	
	comp=Z,5.2nm,0.7s						
SKOMA	Sekoma	3.99	6	*i* P	Pn	14 46 52.1	+2.0
MRCO	Marico , North	3.99	42	*e*P	Pn	14 46 52.0	+1.9
MRCO				*e*S	Sn	14 47 38.4	+0.8
MRCO				IAML		14 48 09.9	
	comp=Z,3.8nm,0.2s						

IDC 23 14:58:54.3±2.9**, 6°.03S**×**130°.48E, h75**^{km}±39^{km}**, mb3.1**/1**, mbtmp3.6**/5**, ML3.6**/4**, Error ellipse: s-maj=82.5km s-min=22.6km az=88.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SIJI	Sorong	5.19	9	P	Pn	15 00 09.8	+0.3
	2.1nm,0.3s,baz=229,slow=20,SNR=17						
SIJI				S	Sn	15 01 03.8	-4.2
	6.6nm,0.3s,baz=209,slow=22,SNR=11						
	7.2nm,0.2s						
SIJI				AML	AML		
FITZ	Fitzroy Crossi	12.89	201	P	Pn	15 01 54.3	-0.3
	0.3nm,0.3s,baz=17,slow=11,SNR=23						
FITZ				S	Sn	15 04 08.4	-7.9
	1.3nm,0.3s,baz=45,slow=17,SNR=8.2						
	0.9nm,0.4s						
FITZ				AML	AML		
WRA	Warramunga Arr	14.33	165	P	Pn	15 02 12.0	-1.6
	0.2nm,0.3s,baz=350,slow=14,SNR=18						
WRA				S	Sn	15 04 43.5	-7.8
	0.4nm,0.4s,baz=348,slow=21,SNR=6.2						
	0.6nm,0.5s						
WRA				AML	AML		
ASAR	Alice Springs	17.84	170	P	Pn	15 02 58.8	+1.0
	0.2nm,0.3s,baz=350,slow=11,SNR=35						
ASAR				S	Sn	15 06 06.6	-10
	0.3nm,0.6s,baz=323,slow=16,SNR=5.1						
	0.5nm,0.5s						
ASAR				AML	AML		
MKAR	Makanchi Array	67.68	326	P	P	15 09 43.5	-0.2
	0.2nm,0.6s,baz=137,slow=6.2,SNR=3.8						
	0.2nm,0.6s						

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*IDC **23** 15:08:42.6±0.7, 6°.99S×133°.35E, h0^{km}, mb3.8/7, mbtmp3.7/13, ML3.4/6, MS3.6/2, Error ellipse: s-maj=16.9km s-min=9.7km az=89.0*

*DJA **23** 15:08:48.8±0.7, 7°S±6°×13°3E±°, h124^{km}±13^{km}, M4.3/9, mB4.7/2, mB4.7/2, mb4.1/8, mb4.1/8, MLv4.4/10, MLv4.4/9, Mw(mB)3.9/2, Mw(mB)3.9/2*

ISC 23 15:08:46.1±0.6**, 7°.19S**±0°.06×**133°.34E**±0°.08**, h35^{km}, n20,** σ**2^{s}.99**/22**, mb3.7**/7**, Aru Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SAUI	Saumlaki	2.17	249	P	Pn	15 09 26.5	+6.7
BNDI	Bandanaira	4.33	308	P	Pn	15 09 50.0	+0.6
FAKI	Fak Fak	4.38	346	P	Pn	15 09 49.9	-0.3
MWPI	Manokwari, Pap	6.25	6	P	Pn	15 10 17.6	+1.6
	0.2nm0.2nm17nm,0.8s,17nm,0.8s						
MWPI				AML	AML		
MWPI				AML	AML		
SIJI	Sorong	6.61	342	Pn	Pn	15 10 18.8	-2.0
	1.7nm,0.3s,baz=198,slow=20,SNR=16						
SIJI				Sn	Sn	15 11 29.6	-5.4
	3.5nm,0.3s,baz=221,slow=19,SNR=7.6						
	3.2nm,0.2s						
SIJI				AML	AML		
SWI	Sorong	6.62	342	P	Pn	15 10 21.9	+1.0
	0.2nm0.2nm14nm,0.7s,14nm,0.7s						
SWI				AML	AML		
SWI				AML	AML		
JAY	Jayapura	8.68	58	Pn	Pn	15 10 49.1	-0.2
	0.2nm,0.3s,baz=194,slow=12,SNR=1.5						
JAY				Sn	Sn	15 12 23.1	-2.9
	baz=165,slow=20						
	8.5nm,0.8s						
JAY				AML	AML		
WRA	Warramunga Arr	12.72	176	Pn	Pn	15 11 43.7	-0.9
	0.3nm,0.3s,baz=356,slow=13,SNR=16						
WRA				Sn	Sn	15 13 59.2	-5.9
	0.7nm,0.3s,baz=357,slow=22,SNR=6.0						
WRA				Lg	Lg	15 15 25.1	
	0.2nm,0.3s,baz=1.9,slow=28,SNR=5.1						
	0.3nm,0.3s						
WRA				AML	AML		
FITZ	Fitzroy Crossi	13.19	214	Pn	Pn	15 11 50.3	-0.7
	0.2nm,0.3s,baz=34,slow=14,SNR=15						
FITZ				Sn	Sn	15 14 07.0	-10
	0.9nm,0.3s,baz=47,slow=19,SNR=7.2						
FITZ				Lg	Lg	15 15 39.7	
	baz=30,slow=20						
	0.8nm,0.6s						
FITZ				AML	AML		
ASAR	Alice Springs	16.39	178	Pn	Pn	15 12 32.9	-0.8
	0.1nm,0.3s,baz=358,slow=12,SNR=15						
ASAR				Sn	Sn	15 15 27.6	-7.0
	0.3nm,0.3s,baz=358,slow=20,SNR=5.5						
ASAR				Lg	Lg	15 17 25.2	
	baz=358,slow=30						
	1.0nm,0.8s						
ASAR				AML	AML		
CTA	Charters Tower	17.92	137	P	Pn	15 12 53.8	+1.0
	baz=319,slow=11,SNR=1.6						
CTA				Lg	Lg	15 18 12.2	
	0.1nm,0.3s,baz=270,slow=20,SNR=3.6						
CTA				LR	LR	15 20 24.4	
	comp=Z,86nm,19.3s,baz=288,slow=39						
	1.8nm,0.9s						
STKA	Stephens Creek	25.74	164	P	P	15 14 15.9	+2.4
	1.5nm,0.7s,baz=350,slow=12,SNR=1.8						
	1.5nm,0.7s						
CMAR	Chiang Mai Arr	42.44	307	P	P	15 16 36.6	-1.2
	0.2nm,0.7s,baz=122,slow=6.7,SNR=5.7						
	0.2nm,0.7s						
AFI	Afiamalu	54.27	102	LR	LR	15 40 12.0	
	comp=Z,100nm,19.4s,baz=189,slow=35						
MKAR	Makanchi Array	70.23	325	P	P	15 19 58.4	+2.8
	1.0nm,0.8s,baz=124,slow=7.8,SNR=4.4						
	1.0nm,0.8s						
VNDA	Vanda	71.88	174	P	P	15 20 08.9	+3.8
	0.2nm,0.4s,baz=310,slow=5.9,SNR=2.3						
	0.2nm,0.4s						
KURBB	Kurchatov Arra	74.43	327	P	P	15 20 22.2	+1.6
	0.9nm,0.3s,baz=108,slow=5.9,SNR=2.7						
	0.9nm,0.3s						
BVAR	Borovoye Array	80.01	327	P	P	15 20 51.9	0.0
	0.2nm,0.4s,baz=107,slow=4.8,SNR=4.1						
	0.2nm,0.4s						
QSPA	South Pole Qui	82.79	180	P	P	15 21 08.9	+2.3
	1.3nm,1.0s,baz=315,slow=4.3,SNR=3.4						
	1.3nm,1.0s						
LPAZ	La Paz	148.44	138	PKPbc	PKPab	15 28 34.3	+0.3
	1.2nm,0.8s,baz=226,slow=4.1,SNR=5.1						

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*TEH **23** 15:30:36.8, 34°.79N×45°.66E, h9^{km}±54^{km}, ML2.9, Presumed earthquake*

*ISN **23** 15:30:38.9±10.0, 34°.64N×45°.98E, h9^{km}, ML3.0, Presumed earthquake*

ISC 23 15:30:37.9±1.0**, 34°.81N**±0°.05×**45°.75E**±0°.05**, h10^{km}, n9,** σ**1^{s}.48**/12**, Iran-Iraq border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IDHR	Dehrash	0.54	101	Pg	Pg	15 30 48.1	-0.3
IGHG	Ghaleghazi	0.83	125	Pg	Pb	15 30 54.7	+0.2
ILBA	Ilam Banvizeh	1.24	162	Pg	Pn	15 31 00.1	-1.3
ILBA				Sg	Sn	15 31 19.2	+1.0
SNJK	Sanadaj _Korde	1.26	60	Pg	Pb	15 31 01.9	0.0
IKRK	Kirkuk	1.30	298	*i* P	Pg	15 31 01.7	-1.1
IKRK				*i* S	Sn	15 31 22.0	+2.4
	baz=120						
IKRK				IAML		15 31 27.9	
	comp=E,280nm,0.4s						
IKRK				IAML		15 31 28.2	
	comp=N,416nm,0.8s						
SNQR	Sonqor, Kerman	1.55	88	Pg	Pb	15 31 06.9	0.0
IBDR	Badra	1.70	175	*i* P	Pg	15 31 09.8	-0.7
IBDR				*i* S	Sg	15 31 35.1	+2.5
IBDR				IAML		15 31 41.3	
	comp=E,172nm,0.8s						
IBDR				IAML		15 31 41.9	
	comp=N,146nm,0.5s						
IBZA	Bozab	1.77	100	Pn	Pb	15 31 11.1	+0.4
IKFM	Kafar-mosalman	2.16	126	Pn	Pb	15 31 15.5	-1.6

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*IDC **23** 15:34:20.6±3.0, 1°.60N×92°.05E, h0^{km}, mb3.5/4, mbtmp3.5/5, ML4.2/1, Error ellipse: s-maj=100.8km s-min=32.5km az=58.0*

*DJA **23** 15:34:25.5±1.0, 1°N±3°×9°3E±°, h10^{km}, M4.7/23, mB5.7/4, mb4.8/15, mb4.8/14, mB5.5/5, ML4.3/20, MLv4.5/23, MLv4.5/20, Mw(mB)5.3/4, Mw(mB)5.0/5*

ISC 23 15:34:15.7±5.7**, 0°.8N**±0°.2×**92°.5E**±0°.4**, h10^{km}, n14,** σ**0^{s}.96**/10**, mb3.6**/4**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNSI	Sinabang, Aceh	4.13	68	P	Pn	15 35 19.5	+0.6
SNSI				AML	AML		
SNSI				AML	AML		
GSI	Gunungsitoli	5.09	85	P	Pn	15 35 32.7	+0.5
GSI				AML	AML		
MLSI	Meulaboh, Aceh	5.18	49	P	Pn	15 35 33.7	+0.4
MLSI				AML	AML		
MLSI				AML	AML		
MLSI				AML	AML		
TPTI		5.26	63	P	Pn	15 35 35.1	+0.6
BSI	Banda Aceh	5.41	31	P	Pn	15 35 37.7	+1.2
BSI				AML	AML		
BSI				AML	AML		
BSI				AML	AML		
PBSI	Pulau Batu	5.85	99	P	Pn	15 35 42.4	-0.1
	0.2nm0.5nm0.5nm107nm,1.3s,107nm,1.3s						
PBSI				AML	AML		
PBSI				AML	AML		
PBSI				AML	AML		
KCSI	Kotacane, Aceh	5.90	63	P	Pn	15 35 42.6	-0.7
	0.2nm2µm2µm42nm,0.8s,42nm,0.8s						
KCSI				AML	AML		
MNSI	Mandailing Nat	7.08	90	P	Pn	15 36 00.9	+1.4
	0.4nm48nm,0.5s,48nm,0.5s						
MNSI				AML	AML		
IPM	Ipoh	9.25	67	P	Pn	15 36 29.3	0.0
CMAR	Chiang Mai Arr	18.62	19	P	Pn	15 38 32.7	-1.1
	0.3nm,0.3s,baz=200,slow=11,SNR=1.7						
	0.5nm,0.4s						
CMAR				AML	AML		
WRA	Warramunga Arr	45.90	119	P	P	15 42 51.3	+12
	0.5nm,0.9s,baz=291,slow=7.4,SNR=1.8						
	0.5nm,0.9s						
MKAR	Makanchi Array	46.63	350	P	P	15 42 43.3	-1.0
	0.4nm,0.7s,baz=171,slow=8.5,SNR=4.2						
	0.4nm,0.7s						
KURBB	Kurchatov Arra	51.01	349	P	P	15 43 17.0	-0.7
	0.5nm,0.7s,baz=165,slow=7.7,SNR=1.2						
	0.5nm,0.7s						
ZALV	Zalesovo Beam	53.31	354	P	P	15 43 37.1	+2.3
	0.5nm,0.5s,baz=166,slow=6.7,SNR=2.2						
	0.5nm,0.5s						

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*IDC **23** 16:05:54.1±0.7, 10°.73N×143°.39E, h0^{km}, mb3.9/15, mbtmp4.0/16, ML4.4/1, MS3.1/11, Error ellipse: s-maj=23.5km s-min=12.6km az=102.0*

*NEIC **23** 16:05:56.4±1.2, 10°.82N±0°.09×143°.5E±0°.2, h10^{km}±1^{km}, mb4.5/21, Error ellipse: s-maj=33.4km s-min=10.6km az=111.0*

ISC 23 16:05:55.7±0.5**, 10°.79N**±0°.07×**143°.6E**±0°.1**, h10^{km}, n54,** σ**1^{s}.39**/43**, mb4.4**/26**, MS3.0**/7**, South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUMO	Guam	3.04	24	Pn	Pn	16 06 45.8	+1.9
	44nm,0.3s,baz=194,slow=4.2,SNR=52						
GUMO				Sn	Sn	16 07 15.1	-5.2
	70nm,0.3s,baz=190,slow=19,SNR=16						
GUMO				LR	LR	16 07 49.2	
	comp=Z,106nm,20.8s,baz=192,slow=36						
	77nm,0.3s						
GUMO				AML	AML		
GUMO	Guam	3.04	24		Pn	16 06 45.6	+1.7
DPSS	Saipan	4.90	25	Pn	Pn	16 07 12.3	+2.8
JAY	Jayapura	13.53	193	LR	LR	16 13 27.7	
	comp=Z,129nm,18.3s,baz=12,slow=34						
PATS	Pohnpei	15.04	104	Pn	Pn	16 09 26.9	-1.7
SIJI	Sorong	16.88	227	LR	LR	16 14 40.2	
	comp=Z,78nm,20.9s,baz=50,slow=32						
DAV	Davao City (W)	18.19	260	LR	LR	16 14 58.6	
	comp=Z,57nm,21.1s,baz=70,slow=30						
PMG	Port Moresby	20.37	170	LR	LR	16 18 46.2	
	comp=Z,66nm,18.6s,baz=74,slow=38						
H11S3	WAKE ISLAND Hy	23.58	68	T	T	16 35 16.2	
	baz=254,slow=75,SNR=26						
H11S1	WAKE ISLAND Hy	23.60	68	T	T	16 35 23.3	
	baz=254,slow=75,SNR=14						
H11S2	WAKE ISLAND Hy	23.60	68	T	T	16 35 24.4	
	baz=254,slow=75,SNR=40						
LUWI	Luwuk	23.83	242	P	P	16 11 08.2	-1.0
H11N1	WAKE ISLAND Hy	24.12	66	T	T	16 35 47.4	
	baz=249,slow=75,SNR=10						
H11N2	WAKE ISLAND Hy	24.13	66	T	T	16 35 53.7	
	baz=249,slow=75,SNR=4.8						
H11N3	WAKE ISLAND Hy	24.14	66	T	T	16 35 49.7	
	baz=249,slow=75,SNR=10						
JNU	Nakatsue	25.12	334	P	P	16 11 20.9	0.0
	7.0nm,0.7s,baz=156,slow=10.0,SNR=5.3						
	7.0nm,0.7s						
MJAR	Matsushiro Arr	26.10	350	P	P	16 11 31.1	+1.4
	1.2nm,0.6s,baz=167,slow=9.6,SNR=4.2						
MJAR				LR	LR	16 22 08.6	
	comp=Z,28nm,18.9s,baz=180,slow=37						
	1.2nm,0.6s						
KAPI	Kappang	28.48	238	LR	LR	16 21 29.5	
	comp=Z,16nm,21.9s,baz=52,slow=33						
CTAO	Charters Tower	30.80	175	P	P	16 12 12.2	+0.4
CTAO				IAmb	IAmb	16 12 46.5	
	comp=Z,9.1nm,1.4s						
WB0	Warramunga Arr	31.70	197	P	P	16 12 19.4	-0.4
WB0				IAmb	IAmb	16 12 30.3	
	comp=Z,11nm,1.4s						
WR8	Warramunga Arr	31.84	196	P	P	16 12 20.7	-0.3
WR8				IAmb	IAmb	16 12 21.3	
	comp=Z,4.0nm,0.6s						
WRAB	Tennant Creek	31.86	197	P	P	16 12 20.5	-0.7
WRA	Warramunga Arr	31.88	197	P	P	16 12 20.9	-0.4
	comp=Z,5.0nm,0.8s,baz=17,slow=8.6,SNR=37						
	comp=Z,5.0nm,0.8s						
WRA	Warramunga Arr	31.88	197	P	P	16 12 20.8	-0.6
USRK	Ussuriysk Ar.	34.77	345	P	P	16 12 46.9	+0.6
	comp=Z,0.9nm,0.7s,baz=163,slow=5.6,SNR=2.0						
	comp=Z,0.9nm,0.7s						
AS31	Alice Springs	35.54	195	P	P	16 12 53.7	+0.5
ASAR	Alice Springs	35.54	195	P	P	16 12 53.1	-0.1
	comp=Z,1.0nm,0.7s,baz=19,slow=12,SNR=17						
ASAR				LR	LR	16 26 50.2	
	comp=Z,45nm,19.3s,baz=22,slow=36						
	comp=Z,1.0nm,0.7s						
EIDS	Eidsvold	36.67	169	P	P	16 13 02.9	+0.1
INKA	Innaminka	38.41	184	P	P	16 13 16.5	-0.9
DZM	Mont Dzumac	39.60	146	LR	LR	16 28 29.3	
	comp=Z,59nm,19.4s,baz=44,slow=34						
STKA	Stephens Creek	42.47	183	P	P	16 13 50.4	-0.6
	comp=Z,1.7nm,0.6s,baz=4.6,slow=13,SNR=5.2						
	comp=Z,1.7nm,0.6s						
CMAR	Chiang Mai Arr	43.80	285	P	P	16 14 01.0	-1.1
	comp=Z,0.4nm,0.5s,baz=96,slow=8.9,SNR=5.1						
CMAR				LR	LR	16 30 07.5	
	comp=Z,12nm,21.3s,baz=350,slow=33						
	comp=Z,0.4nm,0.5s						
FORT	Forrest	43.95	199	P	P	16 14 03.2	+0.1
FORT				IAmb	IAmb	16 14 04.1	
	comp=Z,4.7nm,0.6s						
BBOO	Buckleboo	43.95	189	P	P	16 14 02.8	-0.3
MORW	Morawa	47.74	213	P	P	16 14 33.0	-0.1
SONM	Songino Array	48.35	327	P	P	16 14 37.7	0.0
	comp=Z,0.2nm,0.4s,baz=144,slow=5.8,SNR=9.6						
SONM				LR	LR	16 34 45.2	
	comp=Z,24nm,19.8s,baz=62,slow=36						
	comp=Z,0.2nm,0.4s						
YAK	Yakutsk	52.15	352	P	P	16 15 07.1	+1.0
	comp=Z,3.0nm,0.5s,baz=168,slow=2.4,SNR=13						
	comp=Z,3.0nm,0.5s						
MKAR	Makanchi Array	62.67	317	P	P	16 16 19.2	-1.5
	comp=Z,0.4nm,0.6s,baz=101,slow=7.5,SNR=4.5						
	comp=Z,0.4nm,0.6s						
MKAR	Makanchi Array	62.67	317	P	P	16 16 19.9	-0.8
MAKZ	Makanchi	62.88	317	P	P	16 16 21.1	-1.0
ZALV	Zalesovo Beam	63.20	325	P	P	16 16 23.0	-1.0
	comp=Z,0.7nm,0.4s,baz=103,slow=6.9,SNR=2.8						
	comp=Z,0.7nm,0.4s						
KURK	Kurchatov	65.94	321	P	P	16 16 42.6	+0.6
KURK				IAmb	IAmb	16 17 06.2	
	comp=Z,2.0nm,0.7s						
KURBB	Kurchatov Arra	65.98	321	P	P	16 16 41.7	-0.5
	comp=Z,0.5nm,0.3s,baz=105,slow=7.1,SNR=5.6						
	comp=Z,0.5nm,0.3s						
J20K	Nowinta River	68.43	25	P	P	16 16 57.0	-0.6
J20K				IAmb	IAmb	16 17 07.8	
	comp=Z,5.5nm,1.2s						
BVAR	Borovoye Array	71.36	322	P	P	16 17 13.5	-2.4
	comp=Z,0.7nm,0.6s,baz=106,slow=11,SNR=5.6						
	comp=Z,0.7nm,0.6s						
D23K	Nanushuk River	71.37	20	P	P	16 17 16.8	+1.2
D23K				IAmb	IAmb	16 17 49.8	
	comp=Z,6.0nm,1.1s						
BORK	Borovoye	71.41	322	P	P	16 17 15.8	-0.3

BORK				IAmb	IAmb	16 17 26.4	
	comp=Z,2.1nm,0.7s						
ILAR	**Eielson Array**	**71.61**	**25**	P	**P**	**16 17 16.1**	**-0.9**
	comp=Z,0.8nm,0.6s,baz=255,slow=5.8,SNR=7.5						
	comp=Z,0.8nm,0.6s						
F25K	**Christian Rive**	**72.78**	**22**	P	**P**	**16 17 24.1**	**0.0**
F25K				IAmb	IAmb	16 17 50.2	
	comp=Z,3.5nm,1.1s						
BMAR	**Burnt Mountain**	**73.14**	**23**	P	**P**	**16 17 27.2**	**+0.9**
L29M	**L29M**	**75.13**	**27**	P	**P**	**16 17 38.2**	**+0.2**
L29M				IAmb	IAmb	16 18 12.1	
	comp=Z,5.1nm,1.1s						
H29M	**Whitestone**	**75.36**	**24**	P	**P**	**16 17 39.8**	**+0.6**
H29M				IAmb	IAmb	16 17 55.8	
	comp=Z,8.3nm,1.3s						
NVAR	**Mina Array Bea**	**89.62**	**51**	P	**P**	**16 18 55.2**	**+0.8**
	comp=Z,0.6nm,0.7s,baz=303,slow=5.0,SNR=2.6						
	comp=Z,0.6nm,0.7s						
LPAZ	**La Paz**	**148.68**	**104**	PKPbc	**PKPdf**	**16 25 44.1**	**+2.8**
	comp=Z,0.8nm,0.6s,baz=315,slow=1.4,SNR=3.8						

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*IDC **23** 16:16:54.2±1.0, 62°.13S×58°.50W, h0^{km}, mb3.9/7, mbtmp3.9/7, MS3.3/5, Error ellipse: s-maj=48.5km s-min=23.1km az=75.0*

*NEIC **23** 16:16:57.1±1.2, 62°.3S±0°.1×58°.34W±0°.09, h10^{km}±2^{km}, mb4.4/7, Error ellipse: s-maj=19.9km s-min=5.2km az=16.0*

ISC 23 16:16:56.8±0.7**, 62°.23S**±0°.10×**58°.2W**±0°.1**, h10^{km}, n32, σ1^{s}.56**/26**, mb4.0**/11**, MS3.2**/5**, 4D, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ESPZ	**Base Esperanza**	**1.29**	**156**	Pn	**Pn**	**16 17 18.8**	**-2.0**
PMSA	**Palmer Station**	**3.66**	**223**	Pn	**Pn**	**16 17 52.0**	**-1.4**
SMAI	**San Martin Ant**	**7.00**	**208**	Pn	**Pn**	**16 18 40.0**	**+0.8**
VNA3	**Neumayer Olymp**	**20.54**	**136**	⇓P	**P**	**16 21 37.6**	**+2.7**
	comp=Z,7.1nm,0.7s						
VNA1	**Neumayer--Stat**	**21.01**	**135**	⇓P	**P**	**16 21 42.9**	**+3.0**
	comp=Z,5.6nm,0.8s						
VNA2	**Neumayer--Watz**	**21.29**	**135**	⇓P	**P**	**16 21 45.5**	**+2.5**
	comp=Z,3.2nm,0.7s,baz=262,slow=11						
SNAA	**Sanae**	**22.72**	**138**	P	**P**	**16 21 59.3**	**+0.9**
	comp=Z,2.7nm,0.7s,baz=261,slow=6.3,SNR=5.3						
SNAA				LR	LR	16 29 23.5	
	comp=Z,62nm,21.1s,baz=225,slow=33						
	comp=Z,2.7nm,0.7s						
SNAA	**Sanae**	**22.72**	**138**		**P**	**16 21 58.7**	**+0.3**
PLCA	**Paso Flores**	**22.79**	**335**	P	**P**	**16 21 57.5**	**-1.8**
	comp=Z,4.6nm,1.0s,baz=167,slow=14,SNR=5.7						
PLCA				LR	LR	16 29 56.2	
	comp=Z,52nm,20.6s,baz=176,slow=35						
	comp=Z,4.6nm,1.0s						
PLCA	**Paso Flores**	**22.79**	**335**	P	**P**	**16 21 59.6**	**+0.2**
PLCA				IAmb	IAmb	16 22 02.2	
	comp=Z,7.2nm,1.1s						
GO06	**Curarrehue**	**24.08**	**334**	P	**P**	**16 22 12.1**	**-0.1**
GO06				IAmb	IAmb	16 22 17.6	
	comp=Z,13nm,1.1s						
TROLL	**Troll, Antarti**	**24.36**	**139**	⇓P	**P**	**16 22 17.2**	**+2.6**
	comp=Z,102nm,0.8s						
QSPA	**South Pole Qui**	**27.99**	**180**	P	**P**	**16 22 47.7**	**+0.2**
	comp=Z,1.6nm,0.9s,baz=152,slow=4.3,SNR=11						
QSPA				LR	LR	16 35 20.1	
	comp=Z,58nm,18.5s,baz=160,slow=39						
	comp=Z,1.6nm,0.9s						
QSPA	**South Pole Qui**	**27.99**	**180**	P	**P**	**16 22 47.6**	**+0.1**
QSPA				IAmb	IAmb	16 23 00.8	
	comp=Z,4.2nm,1.0s						
MT08	**Bocatoma Ro**	**29.78**	**340**	P	**P**	**16 23 04.9**	**+1.3**
MT08				IAmb	IAmb	16 23 10.2	
	comp=Z,14nm,1.3s						
CO03	**El Pedregal**	**32.44**	**340**	P	**P**	**16 23 28.3**	**+1.4**
CO01	**Juntas del Tor**	**33.19**	**341**	P	**P**	**16 23 35.5**	**+1.8**
CO01				IAmb	IAmb	16 23 37.0	
	comp=Z,24nm,1.4s						
MAW	**Mawson**	**43.65**	**152**	P	**P**	**16 25 01.8**	**+1.0**
	comp=Z,1.7nm,0.8s,baz=217,slow=16,SNR=3.7						
MAW				LR	LR	16 42 51.4	
	comp=Z,70nm,20.3s,baz=254,slow=36						
	comp=Z,1.7nm,0.8s						
LPAZ	**La Paz**	**46.43**	**347**	LR	LR	16 46 33.0	
	comp=Z,45nm,18.2s,baz=7.0,slow=38						
H10S3	**ASCENSION HYDR**	**61.83**	**51**	T	T	17 34 28.0	
	baz=17,slow=74,SNR=9.7						
H10S2	**ASCENSION HYDR**	**61.83**	**51**	T	T	17 34 26.3	
	baz=203,slow=74,SNR=8.6						
H10N3	**ASCENSION HYDR**	**62.92**	**50**	T	T	17 35 51.8	
	baz=201,slow=75,SNR=16						
H10N1	**ASCENSION HYDR**	**62.92**	**50**	T	T	17 35 53.1	
	baz=201,slow=75,SNR=13						
H10N2	**ASCENSION HYDR**	**62.93**	**50**	T	T	17 35 53.5	
	baz=201,slow=75,SNR=17						
TORD	**Torodi Ar. Bea**	**88.33**	**57**	P	**P**	**16 29 48.0**	**-0.3**
	comp=Z,0.3nm,0.7s,baz=226,slow=5.0,SNR=2.2						
	comp=Z,0.3nm,0.7s						
ASAR	**Alice Springs**	**93.85**	**191**	P	**P**	**16 30 12.7**	**-1.5**
	comp=Z,0.3nm,0.7s,baz=178,slow=4.7,SNR=2.6						
	comp=Z,0.3nm,0.7s						
WRA	**Warramunga Arr**	**97.50**	**192**	P	**P**	**16 30 29.7**	**-1.1**
	comp=Z,0.4nm,0.9s,baz=173,slow=2.1,SNR=1.9						
	comp=Z,0.4nm,0.9s						
ARCES	**ARCESS Array B**	**144.00**	**36**	PKP	**PKPab**	**16 36 27.2**	**-0.8**
	comp=Z,1.5nm,0.6s,baz=225,slow=3.2,SNR=5.2						
BVAR	**Borovoye Array**	**151.71**	**85**	PKPbc	**PKPbc**	**16 36 48.9**	**-1.2**
	comp=Z,1.8nm,0.7s,baz=222,slow=1.9,SNR=10						
MKAR	**Makanchi Array**	**152.90**	**106**	PKPbc	**PKPbc**	**16 36 51.9**	**-1.1**
	comp=Z,0.5nm,0.6s,baz=222,slow=1.9,SNR=5.9						
MKAR	**Makanchi Array**	**152.90**	**106**		**PKPbc**	**16 36 52.3**	**-0.7**
KURBB	**Kurchatov Arra**	**153.93**	**96**	PKPbc	**PKPbc**	**16 36 54.5**	**-0.5**
	comp=Z,0.2nm,0.4s,baz=228,slow=2.7,SNR=4.2						

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*IDC **23** 16:18:00.2±1.8, 5°.01S×132°.99E, h0^{km}, mb3.6/1, mbtmp4.1/6, ML4.0/5, Error ellipse: s-maj=43.4km s-min=14.0km az=83.0*

*DJA **23** 16:18:02.0±0.4, 5°S±3°×13°4E±°, h92^{km}±11^{km}, M4.2/14, mB4.8/6, mB4.8/6, mb4.3/12, mb4.3/12, MLv4.2/13, MLv4.2/14, Mw(mB)4.1/6, Mw(mB)4.1/6*

ISC 23 16:18:01.2±1.3**, 5°.01S**±0°.08×**133°.5E**±0°.1**, h35^{km}, n14, σ2^{s}.42**/13**, Aru Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FAKI	**Fak Fak**	**2.45**	**328**	P	**Pn**	**16 18 39.3**	**+0.6**
FAKI				AML	AML		
FAKI				AML	AML		
BNDI	**Bandanaira**	**3.66**	**278**	P	**Pn**	**16 18 55.1**	**-0.2**
BNDI				AML	AML		
BNDI				AML	AML		
MWPI	**Manokwari, Pap**	**4.09**	**7**	P	**Pn**	**16 19 01.9**	**+0.6**
MWPI				AML	AML		
MWPI				AML	AML		
SIJI	**Sorong**	**4.70**	**331**	Pn	**Pn**	**16 19 09.6**	**-0.1**
	26nm,0.3s,baz=162,slow=19,SNR=200						
SIJI				Sn	**Sn**	**16 19 59.4**	**-3.7**
	9.7nm,0.3s,baz=240,slow=20,SNR=7.0						
	76nm,0.2s						
SIJI				AML	AML		
SWI	**Sorong**	**4.71**	**331**	P	**Pn**	**16 19 10.5**	**+0.7**
SWI				AML	AML		
SWI				AML	AML		
WAMI	**Wamena**	**5.28**	**78**	P	Pn	16 19 39.2	+22
NLAI	**Namlea**	**6.66**	**285**	P	**Pn**	**16 19 38.5**	**+1.8**
NLAI				AML	AML		
NLAI				AML	AML		
SANI	**Sanana**	**8.09**	**291**	P	**Pn**	**16 19 55.8**	**-0.5**
	9.3nm,0.5s,9.3nm,0.5s						
BATI	**Baumata**	**11.06**	**242**	Pn	Pn	16 20 33.3	-3.8
	0.8nm,0.3s,baz=90,slow=7.1,SNR=1.2						
	9.2nm,0.4s						
BATI				AML	AML		
GTOI	**Gorontalo**	**11.92**	**298**	P	**Pn**	**16 20 52.0**	**+3.2**
	11nm,0.8s						
WRA	**Warramunga Arr**	**14.86**	**177**	Pn	**Pn**	**16 21 26.9**	**-2.0**
	0.3nm,0.3s,baz=356,slow=13,SNR=22						
WRA				Sn	Sn	16 24 00.2	-12
	0.5nm,0.3s,baz=1.3,slow=24,SNR=10.0						
	0.4nm,0.3s						
WRA				AML	AML		
FITZ	**Fitzroy Crossi**	**15.12**	**210**	Pn	**Pn**	**16 21 28.5**	**-3.9**
	1.5nm,0.3s,baz=29,slow=11,SNR=64						
FITZ				Sn	Sn	16 24 05.8	-13
	0.9nm,0.3s,baz=339,slow=16,SNR=15						
	3.2nm,0.3s						
FITZ				AML	AML		
ASAR	**Alice Springs**	**18.55**	**179**	P	**Pn**	**16 22 17.1**	**+1.6**
	0.2nm,0.3s,baz=352,slow=12,SNR=20						
ASAR				S	Sn	16 25 30.8	-11
	0.6nm,0.6s,baz=360,slow=28,SNR=8.9						
	0.9nm,0.6s						
ASAR				AML	AML		
MKAR	**Makanchi Array**	**68.57**	**325**	P	**P**	**16 29 03.4**	**+2.8**
	0.3nm,0.5s,baz=110,slow=7.8,SNR=3.5						
	0.3nm,0.5s						

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*LDG **23** 16:29:41.8±0.1, 42°.84N×1°.52W, h2^{km}, Md2.0/2, Ml2.6/1, Error ellipse: s-maj=2.8km s-min=2.3km az=136.0*

*MDD **23** 16:29:42.6±0.2, 42°.83N×1°.47W, h0^{km}, mb_Lg2.0/21, Error ellipse: s-maj=2.3km s-min=1.6km az=3.0*

ISC 23 16:29:41.8±1.0**, 42°.83N**±0°.03×**1°.48W**±0°.03**, h5^{km}**±11^{km}**, n10, σ0^{s}.63**/20**, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EARA	**Aranguren**	**0.10**	**231**	Pg	**Pg**	**16 29 43.5**	**-0.3**
EARA				Sg	**Sg**	**16 29 45.4**	**+0.2**
EARA				IVmb_Lg		16 29 45.8	
SJPF	**Ste Jean**	**0.34**	**34**	*e*Pg	**Pg**	**16 29 48.3**	**0.0**
SJPF				*e*Sg	**Sg**	**16 29 53.1**	**+0.3**
EALK	**Alkurruntz**	**0.39**	**357**	Pg	**Pg**	**16 29 49.3**	**0.0**
EALK				Sg	**Sg**	**16 29 55.1**	**+0.7**
EALK				IVmb_Lg		16 29 58.2	
ETSF	**Etsaut**	**0.68**	**84**	*e*Pg	**Pg**	**16 29 54.3**	**-0.5**
	baz=267						
ETSF	**Etsaut**	**0.68**	**84**	*e*Pg	**Pg**	**16 29 54.7**	**-0.1**
ETSF				*e*Sg	**Sg**	**16 30 04.3**	**+0.6**
	14nm,0.3s						
ETSF				*e*Sg	**Sb**	**16 30 04.7**	**-1.2**
ECHI	**Chisagues Biel**	**1.24**	**97**	Pg	**Pg**	**16 30 05.0**	**-0.7**
ECHI				Sg	**Sb**	**16 30 23.2**	**+0.9**
ECHI				IVmb_Lg		16 30 26.4	
ESAC	**San Caprasio**	**1.34**	**146**	Pg	**Pg**	**16 30 07.3**	**-0.1**
ESAC				Sg	**Sg**	**16 30 25.6**	**+0.9**
ESAC				IVmb_Lg		16 30 32.0	
EPF	**Esparros**	**1.35**	**81**	*e*Pg	**Pg**	**16 30 07.1**	**-0.6**
EPF				*e*Sg	**Sg**	**16 30 25.5**	**+0.3**
	17nm,0.4s						
EPF				AML	AML		
ELAN	**Lanestosa**	**1.49**	**286**	Pg	**Pn**	**16 30 09.6**	**+0.3**
ELAN				Sg	**Sg**	**16 30 29.1**	**-0.5**
ELAN				IVmb_Lg		16 30 38.1	
ETOR	**Torete**	**2.06**	**192**	Pg	**Pb**	**16 30 19.3**	**-0.4**
ETOR				Sg	**Sb**	**16 30 46.2**	**+0.6**
ETOR				IVmb_Lg		16 30 51.3	

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*IDC **23** 17:05:14.3±1.7, 11°.97S×122°.72E, h0^{km}, mb3.5/2, mbtmp3.4/5, ML3.2/3, Error ellipse: s-maj=31.3km s-min=13.7km az=77.0*

ISC 23 17:05:23.6±1.7**, 12°.12S**±0°.08×**123°.8E**±0°.2**, h35^{km}, n9, σ1^{s}.84**/8**, South of Timor**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BATI	**Baumata**	**1.91**	**356**	Pn	Pn	17 05 48.1	-5.5
	3.7nm,0.3s,baz=162,slow=3.2,SNR=1.4						
BATI				Sn	**Sn**	**17 06 15.1**	**-1.4**
	7.2nm,0.3s,baz=180,slow=6.1,SNR=2.0						
FITZ	**Fitzroy Crossi**	**6.20**	**164**	Pn	**Pn**	**17 06 52.7**	**0.0**
	0.2nm,0.3s,baz=341,slow=11,SNR=17						
FITZ				Sn	**Sn**	**17 08 01.4**	**-1.0**
	1.0nm,0.3s,baz=252,slow=19,SNR=12						
	0.5nm,0.3s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**12.77**	**129**	Pn	**Pn**	**17 08 23.3**	**+0.5**
	0.2nm,0.3s,baz=297,slow=13,SNR=15						
WRA				Sn	**Sn**	**17 10 43.4**	**-0.4**
	0.3nm,0.3s,baz=299,slow=28,SNR=9.7						
	0.6nm,0.5s						
WRA				AML	AML		
ASAR	**Alice Springs**	**14.97**	**141**	Pn	**Pn**	**17 08 52.6**	**-0.1**
	0.1nm,0.3s,baz=316,slow=12,SNR=21						
ASAR				Sn	**Sn**	**17 11 35.0**	**-2.5**
	0.1nm,0.3s,baz=316,slow=23,SNR=6.0						
	0.6nm,0.6s						
ASAR				AML	AML		
STKA	**Stephens Creek**	**25.60**	**143**	P	**P**	**17 10 52.3**	**+2.7**
	1.3nm,0.9s,baz=315,slow=19,SNR=2.9						
	1.3nm,0.9s						
H08S2	**Diego Garcia H**	**50.67**	**270**	T	T	18 07 29.0	
	baz=100,slow=74,SNR=11						
H08S3	**Diego Garcia H**	**50.69**	**270**	T	T	18 07 29.8	
	baz=100,slow=74,SNR=19						
H08S1	**Diego Carcia H**	**50.69**	**270**	T	T	18 07 31.8	
	baz=100						
MKAR	**Makanchi Array**	**69.41**	**331**	P	P	17 16 19.5	-8.5
	0.2nm,0.8s,baz=142,slow=4.0,SNR=2.0						
	0.2nm,0.8s						

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*IDC **23** 17:08:59.9±1.1, 2°.83S×119°.67E, h0^{km}, mb3.1/5, mbtmp3.2/6, ML3.4/1, MS1.6/1, Error ellipse: s-maj=58.4km s-min=15.5km az=76.0*

*DJA **23** 17:09:02.3±0.3, 3°S±3°×11°9E±°, h10^{km}, M3.6/4, ML3.4/3, MLv3.5/3, MLv3.6/4*

ISC 23 17:09:01.4±1.1**, 2°.86S**±0°.09×**119°.5E**±0°.1**, h10^{km}, n8, σ1^{s}.43**/9**, mb3.5**/5**, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MMSI	**Mamuju**	**0.58**	**287**	P	**Pg**	**17 09 12.4**	**-0.4**
MMSI				AML	AML		
MMSI				AML	AML		
MMSI				AML	AML		
PMSI	**Majene**	**0.84**	**221**	P	**Pb**	**17 09 18.0**	**-0.2**
KAPI	**Kappang**	**2.16**	**173**	Pn	**Pn**	**17 09 37.8**	**+0.4**
	11nm,0.3s,baz=359,slow=16,SNR=12						
KAPI				LR	LR	17 09 56.9	
	comp=Z,14nm,20.9s,baz=60,slow=26						
KAPI				Sn	**Sn**	**17 10 05.1**	**+0.8**
	17nm,0.3s,baz=77,slow=19,SNR=8.5						
	39nm,0.3s						
KAPI				AML	AML		
WRA	**Warramunga Arr**	**22.34**	**141**	P	**P**	**17 13 56.9**	**-2.7**
	0.3nm,0.9s,baz=315,slow=9.8,SNR=2.3						
	0.3nm,0.9s						
ASAR	**Alice Springs**	**24.95**	**147**	P	**P**	**17 14 25.8**	**+0.5**
	0.3nm,0.8s,baz=331,slow=8.6,SNR=1.8						
	0.3nm,0.8s						
SONM	**Songino Array**	**51.77**	**349**	P	**P**	**17 18 09.8**	**+0.4**
	0.6nm,0.6s,baz=164,slow=7.0,SNR=5.2						
	0.6nm,0.6s						
MKAR	**Makanchi Array**	**59.29**	**331**	P	**P**	**17 19 02.5**	**-0.9**
	0.2nm,0.6s,baz=132,slow=8.2,SNR=4.4						
	0.2nm,0.6s						
KURBB	**Kurchatov Arra**	**63.74**	**332**	P	**P**	**17 19 35.0**	**+1.6**
	0.1nm,0.3s,baz=129,slow=6.1,SNR=1.3						
	0.1nm,0.3s						

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*NNC **23** 17:09:59.5±1.3, 41°.88N×79°.76E, h0^{km}, mb3.1, mpv3.0, Error ellipse: s-maj=8.3km s-min=7.5km az=128.0*

*SOME **23** 17:09:59.2, 41°.92N×79°.78E, h10^{km}*

*KRNET **23** 17:09:60.0±0.1, 41°.96N×79°.83E, h27^{km}, mb2.6*

ISC 23 17:10:00.9±2.3**, 41°.95N**±0°.07×**79°.70E**±0°.08**, h5^{km}**±11^{km}**, n24, σ1^{s}.10**/44**, 6C-12D, Kyrgyzstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PRZ	**Przheval'sk**	**1.10**	**299**	⇓*e*P	**Pg**	**17 10 22.0**	**-0.1**
PRZ				⇓*e*S	**Sn**	**17 10 38.1**	**-0.8**
SHLS	**Shalkode**	**1.22**	**352**	P	**Pg**	**17 10 23.6**	**-0.7**
	15nm,0.2s						
SHLS				S	**Sn**	**17 10 41.5**	**-0.2**
	20nm,0.3s						
SHLS	**Shalkode**	**1.22**	**352**	*e*P	**Pg**	**17 10 23.6**	**-0.7**
	15nm,0.2s						
SHLS				*e*S	**Sn**	**17 10 41.5**	**-0.2**
	20nm,0.3s						
UZB	**Uzynbulak**	**1.30**	**337**	P	**Pg**	**17 10 25.3**	**-0.4**
	9.0nm,0.3s						
UZB				S	**Sg**	**17 10 44.5**	**+1.9**
	6.8nm,0.2s						
UZB	**Uzynbulak**	**1.30**	**337**	*e*P	**Pg**	**17 10 25.3**	**-0.4**
	9.0nm,0.3s						
UZB				*e*S	**Sg**	**17 10 44.5**	**+1.9**
	6.8nm,0.2s						
PDGK	**Podgornoye**	**1.39**	**354**	⇑P	**Pb**	**17 10 25.9**	**-1.4**
	2.0nm,0.5s						
PDGK				⇑S	**Sg**	**17 10 46.3**	**+0.8**
	18nm,0.9s						
TARG	**Taragay, Kyrgy**	**1.44**	**262**	⇓*e*P	**Pg**	**17 10 28.1**	**-0.3**
TARG				⇓*e*S	**Sg**	**17 10 48.6**	**+1.6**
SATY	**Saty**	**1.47**	**320**	P	**Pb**	**17 10 27.9**	**-0.8**
	1.8nm,0.1s						
SATY				S	**Sg**	**17 10 48.7**	**+0.7**
	14nm,0.1s						
SATY	**Saty**	**1.47**	**320**	*e*P	**Pb**	**17 10 27.9**	**-0.8**
	1.8nm,0.1s						
SATY				*e*S	**Sg**	**17 10 48.7**	**+0.7**
	14nm,0.1s						
KPKS	**Kokpek**	**1.69**	**334**	P	**Pb**	**17 10 32.3**	**-0.3**
	0.2nm,0.1s						
KPKS				S	**Sg**	**17 10 56.0**	**+0.8**
	30nm,0.4s						
KPKS	**Kokpek**	**1.69**	**334**	*e*P	**Pb**	**17 10 32.2**	**-0.3**
	0.2nm,0.1s						
KPKS				*e*S	**Sg**	**17 10 56.0**	**+0.8**
	30nm,0.4s						
ANVS	**Anan'yevo**	**1.72**	**300**	⇑*e*P	**Pb**	**17 10 32.5**	**-0.6**
ANVS				⇑*e*S	**Sg**	**17 10 56.4**	**+0.1**
KDJ	**Kajisay**	**1.89**	**276**	⇑*e*P	**Pb**	**17 10 34.9**	**-1.0**
KDJ				⇑*e*S	**Sb**	**17 11 00.3**	**+0.4**
KURS	**Kuram**	**1.91**	**324**	Pg	**Pb**	**17 10 36.1**	**-0.1**
	4.7nm,0.3s						
KURS				Lg	Lg	17 11 02.7	
	3.0nm,0.4s						
KURS	**Kuram**	**1.91**	**324**	*e*P	**Pb**	**17 10 36.1**	**-0.1**
	4.7nm,0.3s						
KURS				*e*S	**Sg**	**17 11 02.7**	**+0.6**
	3.0nm,0.4s						
MDOK	**Medeo**	**2.31**	**303**	Pg	**Pb**	**17 10 42.5**	**-0.6**
	2.7nm,0.2s						
MDOK				Lg	Lg	17 11 13.8	
	16nm,0.6s						
MDOK	**Medeo**	**2.31**	**303**	*e*P	**Pb**	**17 10 42.5**	**-0.6**
	2.7nm,0.2s						
MDOK				*e*S	**Sg**	**17 11 13.8**	**-1.1**
	16nm,0.6s						
KNOS	**Konyrlen**	**2.44**	**351**	Pg	**Pb**	**17 10 44.9**	**-0.4**
	2.6nm,0.2s						
KNOS				Lg	Lg	17 11 17.6	
	4.7nm,0.3s						
ULHL	**Ulahol**	**2.59**	**278**	⇓*e*P	**Pn**	**17 10 44.8**	**+1.1**
ULHL				⇓*e*S	**Sb**	**17 11 17.6**	**-2.6**
ARXS	**Arharly**	**2.65**	**329**	Pg	**Pb**	**17 10 49.0**	**+0.2**
	1.2nm,0.2s						
ARXS				Lg	Lg	17 11 24.9	
	5.2nm,0.5s						
ARXS	**Arharly**	**2.65**	**329**	*e*P	**Pb**	**17 10 49.0**	**+0.2**
	1.2nm,0.2s						
ARXS				*e*S	**Sg**	**17 11 24.9**	**-0.9**
	5.2nm,0.5s						
NRN	**Naryn**	**2.82**	**261**	⇓*e*P	**Pn**	**17 10 48.2**	**+1.3**
NRN				⇓*e*S	**Sb**	**17 11 24.1**	**-2.8**
BOOM	**Boomskoye usch**	**2.85**	**282**	⇓*e*P	**Pn**	**17 10 48.3**	**+1.2**
BOOM				⇓*i*S	**Sn**	**17 11 23.6**	**+1.7**
TKM2	**Tokmak 2**	**3.19**	**289**	⇓*e*P	**Pn**	**17 10 53.1**	**+1.2**
TKM2				⇓*e*S	**Sn**	**17 11 31.8**	**+1.4**

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*NEIC **23** 17:17:58.6±1.4, 32°.53N±0°.10×141°.5E±0°.1, h10^{km}±1^{km}, mb4.2/7, Error ellipse: s-maj=17.9km s-min=13.1km az=209.0*

*IDC **23** 17:18:05.7±2.2, 32°.62N×141°.31E, h63^{km}±17^{km}, mb3.7/17, mbtmp3.9/22, MS3.0/4, Error ellipse: s-maj=20.3km s-min=13.3km az=83.0*

*NIED **23** 17:18:05.8, 32°.68N×141°.29E, h67^{km}, MW3.8, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}1.52; $M_{\theta\theta}$1.04; $M_{\phi\phi}$-2.56; $M_{r\theta}$0.23; $M_{\theta\phi}$0.29; $M_{\phi r}$5.43; Fault plane solution: $M_0$5.81000×10^{14} NP1: ϕ_s159.00000°, δ11.00000°, λ67.00000°. NP2: ϕ_s3.00000°, δ80.00000°, λ94.00000°.*

*JMA **23** 17:18:05.8±0.1, 32°.7N±0°.5×141°.3E±0°.6, h67^{km}±3^{km}, MV3.8/36, E OFF HACHIJOJIMA ISLAND*

ISC 23 17:18:03.5±1.4**, 32°.64N**±0°.07×**141°.46E**±0°.07**, h48^{km}**±12^{km}**, n74, σ1^{s}.79**/79**, mb4.0**/20**, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAOM	**Aogashimamukai**	**1.44**	**264**	*e*P	**Pn**	**17 18 28.5**	**+1.4**
JHJ2	**Mitsune**	**1.46**	**289**	Pn	**Pn**	**17 18 28.1**	**+0.7**
JHJ2				Sn	**Sn**	**17 18 45.3**	**0.0**
JHJ2	**Mitsune**	**1.46**	**289**	P	**Pn**	**17 18 28.5**	**+1.2**
JHJ2				S	**Sn**	**17 18 45.5**	**+0.2**
JHCJ	**Hachijojimakas**	**1.46**	**288**	P	**Pn**	**17 18 28.4**	**+1.0**
JHCJ				S	**Sn**	**17 18 45.3**	**-0.1**
JHJ	**Hachijo jima 2**	**1.49**	**289**	P	**Pn**	**17 18 28.6**	**+0.8**
	409nm,0.3s,baz=205,slow=19,SNR=11						
JHJ				S	**Sn**	**17 18 45.4**	**-0.6**
	658nm,0.4s,baz=53,slow=20,SNR=7.3						
JMKN	**Mikurajimanish**	**2.00**	**309**	*e*S	**Sn**	**17 18 59.1**	**+0.4**
BSO1	**Boso 1**	**2.05**	**349**	*e*P	**Pn**	**17 18 37.2**	**+2.2**
BSO1				*e*S	**Sn**	**17 19 02.3**	**+3.2**
JMYK	**Miyake Tsubota**	**2.14**	**312**	*e*S	**Sn**	**17 19 02.9**	**+0.9**
BSO2	**Boso 2**	**2.19**	**345**	*e*S	**Sn**	**17 19 07.5**	**+4.6**
BSO3	**Boso 3**	**2.30**	**340**	*e*P	**Pn**	**17 18 41.1**	**+2.5**
JKO	**Kozu shima**	**2.48**	**309**	*e*S	**Sn**	**17 19 11.1**	**+0.7**
BSO4	**Boso 4**	**2.52**	**339**	*e*P	**Pn**	**17 18 44.7**	**+2.8**
JIZS	**Izushimoda**	**2.99**	**315**	*e*P	**Pn**	**17 18 50.5**	**+2.1**
JIZS				*e*S	**Sn**	**17 19 23.4**	**+0.5**
KTJ3	**Kamata3**	**3.03**	**320**	*e*P	**Pn**	**17 18 50.8**	**+1.8**
KTJ3				*e*S	**Sn**	**17 19 23.2**	**-0.8**
JGF	**Kuroka**	**4.50**	**312**	Pn	**Pn**	**17 19 09.7**	**+0.5**
INU	**Inuyama**	**4.57**	**307**	Pn	**Pn**	**17 19 11.0**	**+0.9**
MJAR	**Matsushiro Arr**	**4.73**	**326**	P	**Pn**	**17 19 14.3**	**+2.1**
	4.2nm,0.5s,baz=149,slow=12,SNR=24						
MJAR				S	**Sn**	**17 20 05.2**	**-0.6**
	6.2nm,0.6s,baz=130,slow=35,SNR=6.3						
MJAR	**Matsushiro Arr**	**4.73**	**326**		**Pn**	**17 19 13.5**	**+1.3**
MAJO	**Matsushiro**	**4.73**	**326**		**Pn**	**17 19 14.1**	**+1.8**
MJB9	**Matsu-Tunnel**	**4.73**	**326**		**Pn**	**17 19 15.5**	**+3.2**
JCJ	**Chichijima**	**5.56**	**173**	P	**Pn**	**17 19 21.4**	**-2.3**
	baz=0.0,slow=0.0						
JCJ				S	Sn	17 20 17.3	-9.0
	baz=0.0,slow=0.0						
JMN	**Monobe**	**6.44**	**282**	Pn	**Pn**	**17 19 36.0**	**+0.2**
JNU	**Nakatsue**	**8.91**	**276**	P	**Pn**	**17 20 11.9**	**+2.3**
	13nm,0.9s,baz=78,slow=7.5,SNR=4.1						
JNU				S	**Sn**	**17 21 47.5**	**-1.1**
	9.0nm,1.0s,baz=30,slow=20,SNR=1.8						
JNU				LR	LR	17 23 11.1	
	comp=Z,64nm,21.0s,baz=98,slow=35						
ERM	**Erimo**	**9.46**	**8**	Pn	**Pn**	**17 20 17.5**	**+0.5**
ERM				Sn	**Sn**	**17 21 55.6**	**-6.3**
ASAJ	**Asahikawa**	**11.50**	**4**	P	**Pn**	**17 20 43.6**	**-1.3**
	4.1nm,0.4s,baz=181,slow=18,SNR=14						
ASAJ				S	**Sn**	**17 22 47.2**	**-4.6**
	4.9nm,0.7s,baz=246,slow=20,SNR=1.9						
JKA	**Kamikawa-asahi**	**11.50**	**4**		**Pn**	**17 20 43.6**	**-1.3**
JKA					**Sn**	**17 22 47.1**	**-4.6**
KSRS	**Korea Array**	**12.08**	**297**	P	**Pn**	**17 20 55.4**	**+2.5**
	1.8nm,0.8s,baz=107,slow=13,SNR=5.5						
KSRS				LR	LR	17 25 36.9	
	comp=Z,19nm,20.3s,baz=100,slow=38						
JOW	**Kunigami**	**12.83**	**247**	LR	LR	17 24 26.3	
	comp=Z,42nm,20.1s,baz=76,slow=30						
USRK	**Ussuriysk Ar.**	**13.71**	**330**	P	**Pn**	**17 21 16.7**	**+1.6**
	1.8nm,0.7s,baz=122,slow=14,SNR=2.5						
USRK	**Ussuriysk Ar.**	**13.71**	**330**		**Pn**	**17 21 15.7**	**+0.6**
KLR	**Kul'dur**	**18.10**	**339**	P	**Pn**	**17 22 12.7**	**+1.5**
	1.1nm,0.5s,baz=158,slow=5.4,SNR=2.4						
HILR	**Hailar Array B**	**23.39**	**323**	P	**P**	**17 23 06.6**	**-1.2**
	1.1nm,0.4s,baz=134,slow=6.2,SNR=1.8						
	1.1nm,0.4s						
H11N2	**WAKE ISLAND Hy**	**26.12**	**113**	T	T	17 51 13.3	
	baz=305,slow=76,SNR=3.0						
H11N1	**WAKE ISLAND Hy**	**26.13**	**113**	T	T	17 51 08.6	
	baz=305,slow=76,SNR=3.7						
H11N3	**WAKE ISLAND Hy**	**26.14**	**113**	T	T	17 51 11.5	
	baz=305,slow=76,SNR=3.1						
H11S3	**WAKE ISLAND Hy**	**26.68**	**116**	T	T	17 53 05.4	
	baz=304						
H11S1	**WAKE ISLAND Hy**	**26.68**	**116**	T	T	17 53 00.6	
	baz=304						
H11S2	**WAKE ISLAND Hy**	**26.69**	**116**	T	T	17 53 02.9	
	baz=304						
SONM	**Songino Array**	**30.46**	**310**	P	**P**	**17 24 13.0**	**+1.3**
	2.5nm,0.6s,baz=111,slow=8.3,SNR=17						
	2.5nm,0.6s						
SONM	**Songino Array**	**30.46**	**310**	P	**P**	**17 24 13.1**	**+1.4**

SONM				IAmb	IAmb	17 24 15.9	
	comp=Z,2.4nm,0.8s						
CMAR	Chiang Mai Arr	40.60	260	P	P	17 25 37.8	-0.9
	comp=Z,0.2nm,0.5s,baz=72,slow=8.5,SNR=2.4						
	comp=Z,0.2nm,0.5s						
ZALV	Zalesovo Beam	44.99	316	P	P	17 26 12.1	-1.8
	comp=Z,0.4nm,0.4s,baz=94,slow=4.8,SNR=1.7						
	comp=Z,0.4nm,0.4s						
ZALV	Zalesovo Beam	44.99	316	P	P	17 26 14.2	+0.3
MKAR	Makanchi Array	46.60	306	P	P	17 26 26.7	0.0
	comp=Z,1.4nm,0.4s,baz=87,slow=8.4,SNR=38						
	comp=Z,1.4nm,0.4s						
MKAR	Makanchi Array	46.60	306	P	P	17 26 25.7	-1.0
MAKZ	Makanchi	46.81	306		P	17 26 29.6	+1.2
KURK	Kurchatov	48.76	311	P	P	17 26 43.6	+0.3
KURK				IAmb	IAmb	17 26 46.5	
	comp=Z,2.5nm,0.7s						
KURBB	Kurchatov Arra	48.82	311	P	P	17 26 43.0	-0.8
	comp=Z,1.6nm,0.4s,baz=85,slow=7.5,SNR=26						
	comp=Z,1.6nm,0.4s						
PDGK	Podgornoye	48.98	301		P	17 26 45.2	-0.1
WRA	Warramunga Arr	52.72	188	P	P	17 27 12.8	-0.7
	comp=Z,2.7nm,0.6s,baz=7.6,slow=7.5,SNR=41						
WRA				PcP	PcP	17 28 23.3	+0.7
	comp=Z,0.4nm,0.6s,baz=8.7,slow=3.7,SNR=1.9						
	comp=Z,2.7nm,0.6s						
WRA	Warramunga Arr	52.72	188	P	P	17 27 12.1	-1.3
ILAR	Eielson Array	53.22	31	P	P	17 27 17.2	+0.6
	comp=Z,0.7nm,0.9s,baz=271,slow=7.2,SNR=4.3						
	comp=Z,0.7nm,0.9s						
ILAR	Eielson Array	53.22	31	P	P	17 27 16.9	+0.3
BVAR	Borovoye Array	53.62	315	P	P	17 27 19.4	-0.4
	comp=Z,1.4nm,0.3s,baz=93,slow=8.7,SNR=9.7						
	comp=Z,1.4nm,0.3s						
AS31	Alice Springs	56.45	188	P	P	17 27 40.9	+0.5
AS31				IAmb	IAmb	17 27 55.4	
	comp=Z,1.0nm,1.2s						
ASAR	Alice Springs	56.45	188	P	P	17 27 39.9	-0.5
	comp=Z,0.5nm,0.4s,baz=6.0,slow=7.3,SNR=35						
ASAR				PcP	PcP	17 28 38.3	+1.4
	comp=Z,0.3nm,0.8s,baz=0.8,slow=3.5,SNR=1.9						
	comp=Z,0.5nm,0.4s						
ASAR	Alice Springs	56.45	188	P	P	17 27 39.2	-1.2
AB31	Akbulak array	60.85	312	IAmb	IAmb	17 28 11.9	
	comp=Z,1.6nm,0.6s						
ABKAR	Akbulak array	60.85	312		P	17 28 10.8	-0.1
FINES	FINESS Array B	72.72	333	P	P	17 29 26.2	0.0
	comp=Z,0.8nm,0.4s,baz=53,slow=6.8,SNR=9.2						
	comp=Z,0.8nm,0.4s						
FINES	FINESS Array B	72.72	333	P	P	17 29 25.9	-0.2
KBZ	Khabaz	73.82	312	P	P	17 29 34.4	+1.5
	comp=Z,3.6nm,0.8s,baz=66,slow=9.3,SNR=12						
	comp=Z,3.6nm,0.8s						
KVAR	Kislovodsk Arr	73.83	312	LR	LR	18 03 56.0	
	comp=Z,70nm,19.9s,baz=2.0,slow=37						
NVAR	Mina Array Bea	77.62	52	P	P	17 29 55.7	+0.6
	comp=Z,0.2nm,0.4s,baz=288,slow=7.7,SNR=1.6						
	comp=Z,0.2nm,0.4s						
NVAR	Mina Array Bea	77.62	52	P	P	17 29 55.0	-0.1
AKASG	Malin Array Be	77.80	323	P	P	17 29 54.6	-1.0
	comp=Z,0.5nm,0.5s,baz=54,slow=6.1,SNR=2.0						
	comp=Z,0.5nm,0.5s						
AKASG	Malin Array Be	77.80	323	P	P	17 29 54.3	-1.2
AKASG				IAmb	IAmb	17 30 16.7	
	comp=Z,3.4nm,1.1s						
HFS	Hagfors	78.11	336	P	P	17 29 57.4	+0.4
	comp=Z,1.7nm,0.8s,baz=47,slow=2.6,SNR=2.2						
	comp=Z,1.7nm,0.8s						
BRTR	Keskin Array B	81.80	312	P	P	17 30 17.8	+0.2
	comp=Z,1.5nm,0.8s,baz=98,slow=5.3,SNR=10.0						
	comp=Z,1.5nm,0.8s						
BRTR	Keskin Array B	81.80	312	P	P	17 30 17.2	-0.4
TXAR	Lajitas Array	92.77	52	P	P	17 31 12.9	+1.8
	comp=Z,0.1nm,0.5s,baz=319,slow=7.6,SNR=1.9						
	comp=Z,0.1nm,0.5s						
TORD	Torodi Ar. Bea	120.40	313	PKP	PKiKP	17 36 51.5	+1.3
	comp=Z,0.4nm,0.6s,baz=99,slow=1.6,SNR=2.0						
SMAI	San Martin Ant	140.83	164	PKPdf	PKPdf	17 37 23.4	-3.6
ESPZ	Base Esperanza	147.10	165	PKPdf	PKPdf	17 37 37.1	-0.9

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*NEIC **23** 17:21:06.8±1.8, 47°.60N±0°.02×92°.76W±0°.08, h0^{km}±2^{km}, mb_Lg2.9/13, ML3.1/12, Error ellipse: s-maj=9.1km s-min=3.5km az=263.0*

*IDC **23** 17:21:07.7±3.1, 47°.57N×92°.94W, h0^{km}, mb2.7/1, mbtmp2.9/3, ML2.6/2, Error ellipse: s-maj=36.4km s-min=18.1km az=87.0*

ISC 23 17:21:05.2±0.9**, 47°.47N**±0°.04×**92°.81W**±0°.05**, h0**^{km}**, n17,** σ**1^{s}.06**/16**, Minnesota**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EYMN	Ely	1.00	61		Pg	17 21 23.5	-0.9
EYMN				Sg	Sg	17 21 36.9	-0.5
E38A	The Farm, Brul	1.22	135		Pn	17 21 29.6	+0.1
E38A				IAML		17 21 49.9	
	361nm,0.5s						
E38A				IAML		17 21 52.7	
	325nm,0.5s						
AGMN	Agassiz Nation	2.22	293		Pn	17 21 44.0	+0.8
AGMN				IAmb_Lg		17 22 21.0	
	comp=Z,37nm,0.8s						
AGMN				IAML		17 22 26.8	
	comp=Z,137nm,1.1s						
SPMN	Marine on St.	2.25	180	Pn	Pb	17 21 46.1	-0.5
EPLO	Experimental L	2.29	345		Pn	17 21 44.7	+0.5
EPLO				IAML		17 22 20.9	
	comp=E,62nm,1.4s						
TBO	Thunder Bay	2.56	61		Pn	17 21 48.7	+0.7
TBO				IAmb_Lg		17 22 28.2	
	comp=Z,35nm,1.0s						
TBO				IAML		17 22 35.8	
	comp=N,97nm,1.4s						
TBO				IAML		17 22 36.3	
	comp=E,89nm,1.1s						
G40A	Rib Lake	2.85	140	Pn	Pn	17 21 54.1	+2.2
G40A				IAmb_Lg		17 22 44.9	
	comp=Z,32nm,0.9s						
F33A	5 Mile Ranch,	2.90	237		Pb	17 21 55.7	-2.1
F33A				IAmb_Lg		17 22 44.3	
	comp=Z,29nm,0.8s						
ULM	Lac du Bonnet	3.44	325	Pn	Pn	17 22 00.4	+0.4
	comp=Z,1.1nm,0.3s,baz=143,slow=15,SNR=10						
ULM				Pg	Pb	17 22 07.3	+0.3
	comp=Z,1.1nm,0.3s,baz=144,slow=17,SNR=4.6						
ULM				Lg	Lg	17 22 52.9	
	comp=Z,9.2nm,0.3s,baz=215,slow=15,SNR=27						
	comp=Z,1.0nm,0.4s						
ULM				AML	AML		
I10CA	LAC DU BONNET	3.46	323	I	I	17 44 50.0	
	baz=143,slow=328,SNR=3.4						
I40A	Norwalk	3.90	156		Pn	17 22 06.9	+0.6
ECSD	EROS Data Cent	4.59	217		Pb	17 22 26.3	-0.3
H43A	Windswept, Lux	4.62	129	IAmb_Lg		17 23 40.8	
	comp=Z,24nm,0.8s						
JFWS	Jewell Farm	4.90	157		Pb	17 22 30.9	-1.0
K43A	Burlington	5.72	145	IAmb_Lg		17 24 13.3	
	comp=Z,26nm,0.9s						
PDAR	Pinedale Array	12.73	254	Pn	Pn	17 24 08.1	+0.5
	baz=72,slow=11,SNR=2.4						
PDAR				Lg	Lg	17 27 41.2	
	comp=Z,0.1nm,0.3s,baz=57,slow=26,SNR=2.7						
	comp=Z,0.2nm,0.5s						
TXAR	Lajitas Array	19.97	209	P	Pn	17 25 41.3	+0.6
	comp=Z,0.3nm,0.8s,baz=20,slow=15,SNR=2.7						
	comp=Z,0.3nm,0.8s						

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*IDC **23** 17:23:25.6±1.2, 19°.99N×122°.17E, h0^{km}, mb3.3/6, mbtmp3.3/7, ML3.4/1, MS3.3/1, Error ellipse: s-maj=70.0km s-min=20.2km az=69.0*

*MAN **23** 17:23:30.0, 19°.60N×122°.01E, h35^{km}, MS2.6*

ISC 23 17:23:28.9±1.0**, 19°.79N**±0°.06×**121°.9E**±0°.2**, h27**^{km}**, n16,** σ**1^{s}.83**/11**, mb3.2**/6**, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PACPP	Pamplona Cagay	1.42	201	*i* P	Pn	17 23 52.5	-0.5
PACPP				*e*S	Sn	17 24 08.6	-2.2
CVP	Callao Caves	2.08	182	*e*P	Pb	17 24 06.0	+0.1
CVP				*e*S	Sb	17 24 31.5	+0.2
PCPS	Palayan City	5.17	189	*e*P	Pn	17 24 35.8	-8.8
PCPS				*e*S	Sn	17 25 30.8	-13
KSRS	Korea Array	18.37	15	P	P	17 27 37.9	-3.7
	0.1nm,0.3s,baz=198,slow=11,SNR=2.4						
	0.9nm,0.8s						
KSRS				AML	AML		
SONM	Songino Array	30.68	339	P	P	17 29 42.0	+0.7
	0.2nm,0.5s,baz=143,slow=9.9,SNR=1.7						
	0.2nm,0.5s						
WRA	Warramunga Arr	41.33	162	P	P	17 31 12.9	+0.4
	0.1nm,0.5s,baz=343,slow=8.2,SNR=1.7						
	0.1nm,0.5s						
MKAR	Makanchi Array	42.01	319	P	P	17 31 18.9	+1.0
	0.4nm,0.7s,baz=118,slow=7.3,SNR=3.0						
	0.4nm,0.7s						
H11S3	WAKE ISLAND Hy	42.24	84	T	T	18 17 10.2	
	baz=280						
H11N1	WAKE ISLAND Hy	42.25	82	T	T	18 17 06.1	
	baz=278						
H11N2	WAKE ISLAND Hy	42.25	82	T	T	18 17 18.4	
	baz=278						
H11S1	WAKE ISLAND Hy	42.25	84	T	T	18 17 08.5	
	baz=280						
H11S2	WAKE ISLAND Hy	42.26	84	T	T	18 17 15.6	
	baz=280						
H11N3	WAKE ISLAND Hy	42.26	82	T	T	18 17 14.8	
	baz=278						
ASAR	Alice Springs	44.75	164	P	P	17 31 42.8	+2.6
	0.1nm,0.5s,baz=345,slow=8.2,SNR=6.4						
	0.1nm,0.5s						
KURBB	Kurchatov Arra	45.93	323	P	P	17 31 49.7	+0.4
	0.5nm,0.7s,baz=120,slow=7.7,SNR=4.7						
KURBB				LR	LR	17 53 05.0	
	comp=Z,34nm,19.0s,baz=171,slow=39						
	0.5nm,0.7s						
BVAR	Borovoye Array	51.52	323	P	P	17 32 32.6	+0.4
	0.4nm,0.6s,baz=115,slow=16,SNR=2.2						
	0.4nm,0.6s						

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*CATAC **23** 17:26:41.0±0.4, 15°N±5°×9°1W±°, h127^{km}±3^{km}, M3.8/19, MLv3.8/19, Error ellipse: s-maj=11.5km s-min=2.8km az=26.6, confirmed*

*GCG **23** 17:26:41.2±1.1, 14°.50N×91°.19W, h126^{km}±4^{km}, MD4.4, ML4.1, Presumed earthquake*

ISC 23 17:26:42.1±1.8**, 14°.46N**±0°.07×**91°.18W**±0°.06**, h123**^{km}±11^{km}**, n38,** σ**0^{s}.88**/58**, Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STG8	El Palmar, Qui	0.16	265	*i* P	Pn	17 26 59.9	+0.6
STG8				IAML		17 27 08.0	
	comp=N,4μm,0.3s						
ESSG	Sabana Grande	0.35	103	*i* P	Pn	17 26 59.7	0.0
ESSG				*i* S	Sn	17 27 13.4	+0.4
RTAL	Retalhuleu	0.50	277	P	Pn	17 27 00.2	-0.1
RTAL				S	Sn	17 27 16.2	+2.1
FG8	Yepocapa, Chim	0.64	109	*i* P	Pn	17 26 59.6	-1.7
FG8				*i* S	Sn	17 27 13.4	-2.6
GCG4	OSOP	0.64	79	*i* P	Pn	17 27 01.9	+0.4
FG16	Alotenango, Sa	0.68	106	*i* P	Pn	17 27 00.0	-1.8
PCG5	San Vicente Pa	0.82	107	*i* P	Pn	17 27 01.1	-1.8
APG	El Apazote	0.88	52	*i* P	Pn	17 27 03.5	+0.1
APG				*i* S	Sn	17 27 20.7	+1.0
HUEH	Huehuetenango	0.90	340	*i* P	Pn	17 27 03.7	0.0
HUEH				*i* S	Sn	17 27 20.5	+0.4
HUEH				IAML		17 27 24.0	
	comp=N,4μm,0.6s						
HUEH	Huehuetenango	0.90	340	P	Pn	17 27 03.8	+0.1
HUEH				S	Sn	17 27 20.2	+0.1
SMCA	Catarina	0.95	294	*i* P	Pn	17 27 02.8	-1.0
SMCA				*i* S	Sn	17 27 19.5	-0.9
THIG		1.14	293	*i* P	Pn	17 27 05.1	-0.6
FAME	Alcaldia de Sa	1.29	118	P	Pn	17 27 07.0	-0.4
FAME				S	Sn	17 27 27.9	+1.3
SLOZ	Alcaldia de Sa	1.43	108	P	Pn	17 27 08.6	-0.2
LOAL	Lomas de Alarc	1.44	109	P	Pn	17 27 09.1	+0.1
LOAL				S	Sn	17 27 30.4	+0.9
NUBE	Las Nubes	1.47	112	*i* P	Pn	17 27 09.2	-0.3
NUBE				*i* S	Sn	17 27 30.1	-0.3
NUBE	Las Nubes	1.47	112	P	Pn	17 27 09.3	-0.3
NUBE				S	Sn	17 27 31.4	+1.0
CEVE	Cerro Verde	1.64	112	P	Pn	17 27 11.6	0.0
CEVE				S	Sn	17 27 34.9	+0.9
UNIC	Universidad Ca	1.66	107	P	Pn	17 27 11.1	-0.5
UNIC				S	Sn	17 27 35.1	+1.0
MTO3	Montecristo	1.77	92	P	Pn	17 27 12.7	-0.4
MTO3				S	Sn	17 27 36.6	-0.1
ZAFR2	Estanzuela, Za	1.78	86	*i* P	Pn	17 27 10.7	-2.3
ESQI	Esquipulas	1.79	87	P	Pn	17 27 13.1	-0.1
ESQI				S	Sn	17 27 37.1	+0.2
JAYA	Jayaque - finc	1.86	115	*i* P	Pn	17 27 13.7	-0.5
JAYA	Jayaque - finc	1.86	115	P	Pn	17 27 13.8	-0.3
JAYA				S	Sn	17 27 39.7	+1.0
PMON	Piamonte	1.96	112	P	Pn	17 27 14.7	-0.6
PMON				S	Sn	17 27 41.2	+0.5
UEES	Universidad Ev	2.03	111	P	Pn	17 27 15.8	-0.3
LALI	Alcalda de L	2.05	118	P	Pn	17 27 16.4	+0.1
LALI				S	Sn	17 27 43.3	+0.8
PANCS	Alcalda de	2.12	113	S	Sn	17 27 44.8	+0.7
LLGN	La Laguna	2.19	98	P	Pn	17 27 17.7	-0.5
PAVA	Las Pavas	2.30	109	P	Pn	17 27 19.4	-0.2
SARH	Santa Rosa de	2.37	82	P	Pn	17 27 20.2	-0.1
COEG	Centro de Oper	2.39	110	S	Sn	17 27 50.7	+0.5
TECO	Alcaldia de Te	2.51	111	S	Sn	17 27 53.4	+0.6
ALJI	Alcalda de J	2.78	114	S	Sn	17 27 60.0	+0.9
PACA	Pacayal	2.95	109	P	Pn	17 27 27.4	-0.5
PACA				S	Sn	17 28 03.4	+0.2
RANC	El Ranchito	2.99	110	P	Pn	17 27 28.0	-0.5
RANC				S	Sn	17 28 04.2	0.0
CNCH	Conchagua	3.46	110	S	Sn	17 28 15.5	+0.2
POTN	Potosi Cosigui	3.86	112	S	Sn	17 28 25.0	+0.5

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*IDC **23** 17:39:46.2±1.2, 19°.70N×121°.65E, h0^{km}, mb3.5/6, mbtmp3.4/7, ML3.1/1, MS2.8/2, Error ellipse: s-maj=68.3km s-min=20.8km az=68.0*

*MAN **23** 17:39:49.0, 19°.98N×121°.25E, h24^{km}, MS3.1*

ISC 23 17:39:51.1±0.9**, 19°.63N**±0°.08×**121°.1E**±0°.2**, h32**^{km}**, n16,** σ**2^{s}.88**/14**, mb3.3**/6**, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PACPP	Pamplona Cagay	1.19	169	*i* P	Pb	17 40 13.7	+0.6
PACPP				*e*S	Sb	17 40 29.6	+1.4
CVP	Callao Caves	2.04	160	*e*P	Pb	17 40 27.3	-0.1
CVP				*e*S	Sb	17 40 52.8	+0.5
PALP	Palanan	2.85	154	*i* P	Pb	17 40 40.1	-1.2
PALP				*i* S	Sb	17 41 21.7	+6.1
PCPS	Palayan City	4.95	181	*e*P	Pn	17 40 56.6	-6.7
PCPS				*e*S	Sn	17 41 55.2	-4.3
LQP	Lukban	5.51	176	*e*P	Pb	17 41 33.3	+6.6
KSRS	Korea Array	18.73	17	P	P	17 44 02.8	-4.3
	0.1nm,0.3s,baz=202,slow=12,SNR=2.3						
KSRS				LR	LR	17 51 38.3	
	comp=Z,15nm,19.6s,baz=75,slow=38						
	0.9nm,0.8s						
KSRS				AML	AML		
SONM	Songino Array	30.57	340	P	P	17 46 03.7	+1.8
	0.3nm,0.5s,baz=161,slow=10,SNR=1.7						
	0.3nm,0.5s						
TLY	Talaya	34.80	341	LR	LR	18 02 47.8	
	comp=Z,34nm,20.6s,baz=33,slow=40						
WRA	Warramunga Arr	41.41	161	P	P	17 47 33.9	-0.9
	0.2nm,0.8s,baz=343,slow=8.2,SNR=2.1						
	0.2nm,0.8s						
MKAR	Makanchi Array	41.65	320	P	P	17 47 37.0	+0.5
	0.5nm,0.7s,baz=116,slow=9.8,SNR=4.5						
	0.5nm,0.7s						
H11N1	WAKE ISLAND Hy	43.01	82	T	T	18 33 38.9	
	baz=278						
H11N2	WAKE ISLAND Hy	43.01	82	T	T	18 33 32.4	
	baz=278						
H11N3	WAKE ISLAND Hy	43.02	82	T	T	18 33 35.0	
	baz=278						
ZALV	Zalesovo Beam	44.07	330	P	P	17 47 57.8	+1.8
	0.3nm,0.3s,baz=106,slow=11,SNR=1.9						
	0.3nm,0.3s						
ASAR	Alice Springs	44.81	163	P	P	17 48 01.2	-1.0
	0.3nm,0.8s,baz=341,slow=8.9,SNR=2.1						
	0.3nm,0.8s						
KURBB	Kurchatov Arra	45.61	323	P	P	17 48 10.5	+2.3
	1.6nm,0.8s,baz=122,slow=7.4,SNR=11						
	1.6nm,0.8s						

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*IDC **23** 17:40:00.9±1.8, 2°.99N×126°.91E, h0^{km}, mb3.4/6, mbtmp3.5/6, Error ellipse: s-maj=140.9km s-min=19.8km az=71.0*

ISC 23 17:40:06.5±1.8**, 3°.0N**±0°.3×**127°.1E**±0°.7**, h44**^{km}**, n6,** σ**0^{s}.58**/6**, mb3.5**/6**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	21.04	184	P	P	17 44 46.9	+0.1
	1.6nm,0.8s,baz=359,slow=13,SNR=1.6						
	1.6nm,0.8s						
WRA	Warramunga Arr	23.90	163	P	P	17 45 17.0	+0.6
	0.4nm,0.6s,baz=337,slow=10,SNR=6.9						
	0.4nm,0.6s						
ASAR	Alice Springs	27.34	166	P	P	17 45 47.2	-0.4
	0.2nm,0.6s,baz=337,slow=9.3,SNR=1.9						
	0.2nm,0.6s						
MKAR	Makanchi Array	58.36	325	P	P	17 49 57.6	+0.2
	0.2nm,0.4s,baz=123,slow=8.2,SNR=6.2						
	0.2nm,0.4s						
ZALV	Zalesovo Beam	61.39	333	P	P	17 50 17.4	-0.5
	0.3nm,0.3s,baz=123,slow=5.3,SNR=1.5						
	0.3nm,0.3s						
KURBB	Kurchatov Arra	62.54	327	P	P	17 50 26.2	+0.4
	0.3nm,0.5s,baz=129,slow=6.4,SNR=4.3						
	0.3nm,0.5s						

TEH 23 18:15:10.3, 32°.79N×58°.02E, h8^{km}±15^{km}, ML3.8, Presumed earthquake, Northern and central Iran

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ITEG	Tejag	0.63	80	Pg	Pb	18 15 23.3	-0.4
IKOO	Kooshah	0.91	113	Pg	Pg	18 15 28.0	+0.2
BAGH	Bagheran - Bir	1.00	90	Pg	Pg	18 15 29.6	0.0
AFRZ	Afriz	1.05	53	Pg	Pg	18 15 30.6	+0.1
TKDS	Koohdasht(Taba	1.11	318	Pg	Pg	18 15 31.5	-0.2
IMON	Monand	1.45	73	Pg	Pg	18 15 39.5	+1.4
IDAH	Dahanechah	1.56	91	Pg	Pg	18 15 40.5	+0.2
TSHB	Tabas_ShorAb	1.58	305	Pg	Pg	18 15 40.3	-0.3
TNSJ	Nastanj	1.66	315	Pg	Pb	18 15 41.7	+0.4
SHRT	Shahrakht	2.09	65	Pn	Pb	18 15 48.1	-0.5
TAPT	Tabas- Tapeh t	2.21	341	Pn	Pb	18 15 50.2	-0.4
NHDN	Nehbandan	2.22	128	Pn	Pb	18 15 50.1	-0.6
KRM1	Kerman Provinc	2.36	196	Pn	Pb	18 15 51.6	-1.7
IBAF	Bafgh	2.39	241	Pn	Pb	18 15 53.2	-0.6
KHGB	Koh Gabri	2.74	209	Pn	Pb	18 15 57.9	-1.8
TBHD	Torbat heydari	2.81	21	Pn	Pn	18 15 57.8	+2.0
CHMN	Cheshme madani	2.94	188	Pn	Pn	18 15 59.9	+2.1
DOBD	Dorbid, Yazd	3.07	256	Pn	Pn	18 16 02.0	+2.7
ICHK	Chekchek	3.10	261	Pn	Pn	18 16 02.0	+2.3
TBJM	Torbat-e-JAM	3.13	37	Pn	Pn	18 16 02.3	+2.1
IMEH	Mehriz	3.21	245	Pn	Pn	18 16 04.0	+2.8
SHRO	Shahrood	3.60	333	Pn	Pn	18 16 08.7	+2.1
SBZV	Sabzevar	3.61	355	Pn	Pn	18 16 09.2	+2.4
ANAR	Anarak	3.62	278	Pn	Pn	18 16 09.0	+2.1
KBAM	BAM	3.66	174	Pn	Pn	18 16 09.1	+1.8
JRKH	Jarkhoshk	3.66	31	Pn	Pn	18 16 09.8	+2.3
IAKL	Akhelmad	3.86	9	Pn	Pn	18 16 13.0	+2.8
IMYA	Miami	3.94	25	Pn	Pn	18 16 13.8	+2.4
ZHSF	Zahedan	3.95	143	Pn	Pn	18 16 13.5	+2.1
IKRD	Kardeh	4.17	17	Pn	Pn	18 16 17.2	+2.7
ILAS	Lasjerd	4.93	303	Pn	Pn	18 16 27.4	+2.4
KRSH	Karshahi	5.06	285	Pn	Pn	18 16 29.2	+2.5
ISFB	Sefidab	5.07	290	Pn	Pn	18 16 28.7	+2.0
IKLH	Kolahrood	5.43	277	Pn	Pn	18 16 34.4	+2.5
IVRN	Varamin	5.67	295	Pn	Pn	18 16 37.4	+2.3
IDMV	Damavand	5.69	301	Pn	Pn	18 16 38.0	+2.6

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*AFAD **23** 18:16:38.0, 38°.52N×42°.22E, h7^{km}±6^{km}, ML2.3*

*ISK **23** 18:16:42.6, 38°.59N×42°.50E, h5^{km}, ML2.7/9*

ISC 23 18:16:40.7±1.0**, 38°.53N**±0°.03×**42°.35E**±0°.03**, h10**^{km}±11^{km}**, n18,** σ**2^{s}.57**/24**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BLIS	Bitlis-Merkez	0.22	239	P	Pg	18 16 40.6	-4.7
BLIS				S	Sg	18 16 56.2	+7.9
ADCV	BITLIS_Adilcev	0.41	46	P	Pg	18 16 40.8	-7.9
ADCV				S	Sb	18 16 55.1	-1.4
AKDM	Akdamar-Van	0.53	112	Pg	Pb	18 16 52.1	-0.2
AKDM				AML	AML		
PERV	Siirt/Pervari-	0.60	165	P	Pg	18 16 50.1	-2.3
PERV				IAML		18 17 10.0	
	comp=N,438nm,0.9s						
PERV				IAML		18 17 15.0	
	comp=E,410nm,0.7s						
SRTM	Siirt_Merkez	0.63	212	P	Pg	18 16 50.4	-2.6
SRTM				IAML		18 17 15.0	
	comp=N,210nm,0.9s						
SRTM				IAML		18 17 15.0	
	comp=E,90nm,1.0s						
MLAZ	Malazgirt-MUS	0.63	14	Pg	Pn	18 16 54.7	-1.3
MLAZ				Sg	Sb	18 17 03.4	+0.4
MUSM	Mu-Merkez	0.69	287	P	Pg	18 16 50.4	-3.7
MUSM				IAML		18 17 14.0	
	comp=N,34nm,1.0s						
MUSM				IAML		18 17 15.0	
	comp=E,50nm,1.0s						
VANB	Van	0.82	85	Pg	Pn	18 16 57.9	-0.5
VANB				Sg	Sb	18 17 08.7	+0.5
VANB				AML	AML		
TVAN	Van	0.83	89	P	Pg	18 16 56.5	-0.2
TVAN				S	Sg	18 17 06.6	-0.9
TVAN				IAML		18 17 13.0	
	comp=E,210nm,0.6s						
TVAN				IAML		18 17 16.0	
	comp=N,193nm,0.8s						
DORK	Agr/Tutak/Do	0.92	21	P	Pn	18 16 59.6	-0.4
DORK				S	Sg	18 17 09.1	-1.4
VRTB	Varto-Mus	0.94	312	Pg	Pn	18 17 02.9	+2.7
VRTB				AML	AML		
AGRB	Hanur-Agry	1.16	25	Pg	Pn	18 17 03.8	+0.5
AGRB				Sg	Sn	18 17 19.1	-0.2
CLDR	Caldiran	1.37	63	Pn	Pg	18 17 07.3	+0.3
CLDR				AML	AML		
KOPR	Koprukoy-ERZUR	1.51	345	Pn	Pg	18 17 11.7	+1.9
KOPR				AML	AML		
CUKT	Cukurca	1.62	142	Pn	Pg	18 17 13.3	+1.5
CUKT				AML	AML		
SENK	Senkaya-Erzuru	2.03	360	Pn	Pg	18 17 18.6	-1.1
SENK				AML	AML		
KARS	Kars	2.17	15	Pn	Pb	18 17 19.7	-0.6
KARS				AML	AML		
SVRC	Sivrice-ELAZID	2.40	267	Pn	Pg	18 17 26.4	-0.3
SVRC				AML	AML		

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*AUST **23** 18:23:10.9±0.2, 32°S±2°×13°8E±°, h10^{km}, mb3.9/7, ML3.3/22, Error ellipse: s-maj=4.6km s-min=4.0km az=24.4, confirmed*

*NOU **23** 18:23:10.6, 31°.95S×138°.06E, h0^{km}, MLv3.4/7, South Australia*

*IDC **23** 18:23:12.6±2.6, 31°.83S×138°.17E, h0^{km}, mbtmp3.5/5, ML3.5/5, Error ellipse: s-maj=32.9km s-min=10.3km az=32.0*

ISC 23 18:23:10.6±1.0**, 31°.96S**±0°.03×**138°.04E**±0°.04**, h14**^{km}±7^{km}**, n60,** σ**1^{s}.30**/69**, South Australia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YAPP	Yappala Statio	0.25	69	P	Pg	18 23 15.9	-0.1
YAPP				S	Sg	18 23 19.7	+0.1
YAPP				AML	AML		
YAPP	Yappala Statio	0.25	69	P	Pg	18 23 15.2	-0.8
YAPP				S	Sg	18 23 19.3	-0.3
YAPP				AML	AML		
PTPS	Port Pirie	1.21	182	P	Pg	18 23 33.3	-0.7
PTPS				AML	AML		
PTPS	Port Pirie	1.21	182	P	Pg	18 23 33.3	-0.7
PTPS				AML	AML		
PTPS	Port Pirie	1.21	182	P	Pg	18 23 33.8	-0.2
PTPS	Port Pirie	1.21	182	S	Sb	18 23 50.1	+1.2
NAPP	Napperby	1.23	176	P	Pg	18 23 33.1	-1.1
NAPP				AML	AML		
NAPP	Napperby	1.23	176	P	Pg	18 23 33.0	-1.3
NAPP				AML	AML		
LCRK	Leigh Creek	1.51	6	P	Pg	18 23 39.8	+0.1
LCRK				AML	AML		
LCRK	Leigh Creek	1.51	6	P	Pg	18 23 39.4	-0.4
LCRK				S	Sg	18 24 00.7	+1.3
LCRK				AML	AML		
HTT	Hallett	1.65	153	P	Pn	18 23 39.7	+0.5

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HTT                                  AML    AML
HTT    Hallett            1.65 153   P      Pn      18 23 39.5 +0.3
HTT                                  AML    AML
HTT    Hallett            1.65 153   P      Pn      18 23 39.7 +0.5
HTT    Hallett            1.65 153   S      Sn      18 24 01.4 +1.2
BBOO   Buckleboo          1.88 243   P      Pn      18 23 44.0 +1.6
BBOO                                 AML    AML
BBOO   Buckleboo          1.88 243   P      Pn      18 23 43.7 +1.3
BBOO                                 S      Sb      18 24 08.6 +0.5
BBOO                                 AML    AML
BBOO   Buckleboo          1.88 243   P      Pn      18 23 43.8 +1.4
BBOO   Buckleboo          1.88 243   S      Sb      18 24 08.7 +0.6
SDAN   Sedan              2.77 157   P      Pn      18 23 54.7 +0.2
SDAN                                 AML    AML
SDAN   Sedan              2.77 157   P      Pn      18 23 54.9 +0.4
SDAN                                 S      Sn      18 24 28.5 +0.7
SDAN                                 AML    AML
GHSS   Government Hou     2.99 171   P      Pb      18 24 04.5 +0.9
AUCAS  Cummins Area S     3.01 220   P      Pn      18 23 58.9 +1.1
AUCAS                                AML    AML
AUCAS  Cummins Area S     3.01 220   P      Pn      18 23 59.0 +1.1
AUCAS                                AML    AML
STKA   Stephens Creek     3.02  89   P      Pn      18 23 59.7 +1.6
STKA                                 AML    AML
STKA   Stephens Creek     3.02  89   P      Pn      18 23 59.1 +1.0
STKA                                 AML    AML
STKA   Stephens Creek     3.02  89   Pn     Pn      18 23 59.1 +1.0
       1.7nm,0.3s,baz=269,slow=11,SNR=21
STKA                                 Pg     Pg      18 24 07.0  -1.6
       5.6nm,0.3s,baz=266,slow=13,SNR=15
STKA                                 Sn     Sn      18 24 35.3 +1.2
       5.2nm,0.3s,baz=330,slow=13,SNR=3.8
STKA                                 Lg     Lg      18 24 45.6
       12nm,0.3s,baz=348,slow=23,SNR=5.4
       3.9nm,0.3s
STKA                                 AML    AML
STKA   Stephens Creek     3.02  89   P      Pn      18 23 59.7 +1.6
AUMBR  Murray Bridge      3.33 162   P      Pn      18 24 04.1 +1.8
AUMBR                                AML    AML
AUMBR  Murray Bridge      3.33 162   P      Pn      18 24 02.4 +0.1
AUMBR                                AML    AML
MULG   Mulgathing         3.80 295   P      Pn      18 24 10.2 +1.4
MULG                                 AML    AML
MULG   Mulgathing         3.80 295   P      Pn      18 24 10.5 +1.7
MULG                                 S      Sn      18 24 54.5 +1.2
MULG                                 AML    AML
KELC   Kelly Hill Cav     4.12 193   P      Pn      18 24 14.5 +1.3
KELC                                 AML    AML
KELC   Kelly Hill Cav     4.12 193   P      Pn      18 24 14.4 +1.3
KELC                                 S      Sn      18 25 03.4 +2.3
KELC                                 AML    AML
ARPS   Mount Arapiles     5.74 148   P      Pn      18 24 35.3  0.0
ARPS                                 AML    AML
ARPS   Mount Arapiles     5.74 148   P      Pn      18 24 35.2  -0.1
ARPS                                 AML    AML
MGBR   Mount Gambier      6.12 161   P      Pn      18 24 44.3 +3.7
       comp=Z,0.3nmcomp=Z,62nm,0.4s
MGBR                                 AML    AML
MGBR   Mount Gambier      6.12 161   P      Pn      18 24 40.4  -0.2
       comp=Z,79nm,2.0s,comp=Z,0.3nm
MGBR                                 AML    AML
CMSA   Cobar Meteorol     6.53  88   P      Pn      18 24 47.0 +0.7
CMSA                                 AML    AML
CMSA   Cobar Meteorol     6.53  88   P      Pn      18 24 46.6 +0.3
CMSA                                 AML    AML
QLP    Quilpie            7.61  47   P      Pn      18 24 49.0  -12
QLP    Quilpie            7.61  47   P      Pn      18 25 02.6 +1.4
       comp=Z,14nm,2.2s,comp=Z,0.0nm
QLP                                  AML    AML
FORT   Forrest            8.62 275   P      Pn      18 25 14.3  -0.6
       comp=Z,0.0nmcomp=Z,6.6nm,0.9s
FORT                                 S      Sn      18 26 48.6  -3.3
FORT                                 AML    AML
FORT   Forrest            8.62 275   P      Pn      18 25 14.6  -0.3
       comp=Z,6.6nm,0.9s,comp=Z,0.0nm
FORT                                 AML    AML
AS09   Alice Springs      8.99 335   P      Pn      18 25 21.1 +1.0
       comp=Z,0.0nmcomp=Z,6.3nm,1.1s
AS09                                 AML    AML
AS09   Alice Springs      8.99 335   P      Pn      18 25 21.1 +1.0
       comp=Z,6.3nm,1.1s,comp=Z,0.0nm
AS09                                 AML    AML
AS17   Alice Springs      9.00 336   P      Pn      18 25 21.1 +0.8
       comp=Z,0.0nmcomp=Z,4.9nm,1.0s
AS17                                 AML    AML
AS17   Alice Springs      9.00 336   P      Pn      18 25 21.1 +0.8
       comp=Z,4.9nm,1.0s,comp=Z,0.0nm
AS17                                 AML    AML
AS31   Alice Springs      9.03 335   P      Pn      18 25 22.8 +2.0
AS31                                 AML    AML
AS31   Alice Springs      9.03 335   P      Pn      18 25 22.2 +1.4
AS31                                 AML    AML
ASAR   Alice Springs      9.03 335   Pn     Pn      18 25 21.4 +0.7
       comp=Z,0.9nm,0.3s,baz=158,slow=12,SNR=67
ASAR                                 Sn     Sn      18 26 59.1  -3.1
       comp=Z,1.1nm,0.3s,baz=152,slow=22,SNR=15
ASAR                                 Lg     Lg      18 27 59.0
       baz=151,slow=23,SNR=1.7
       comp=Z,0.7nm,0.3s
ASAR                                 AML    AML
AS15   Alice Springs      9.06 335   P      Pn      18 25 22.4 +1.3
       comp=Z,0.0nmcomp=Z,4.0nm,0.6s
AS15                                 AML    AML
CAN    Canberra           9.73 113   P      Pn      18 25 30.8 +0.5
CAN                                  AML    AML
CAN    Canberra           9.73 113   P      Pn      18 25 30.7 +0.5
CAN                                  AML    AML
SYDH   Sydney Hard Ro    10.83 103   P      Pn      18 25 40.3  -4.9
WRKA   Warakurna         10.99 306   P      Pn      18 25 46.8  -0.8
       comp=Z,0.0nmcomp=Z,2.4nm,1.9s
WRKA                                 AML    AML
WRKA   Warakurna         10.99 306   P      Pn      18 25 46.8  -0.8
       comp=Z,2.4nm,1.9s
QIS    Mount Isa         11.44   7   P      Pn      18 25 53.4  -0.3
       comp=Z,3.4nm,1.2s
WRA    Warramunga Arr    12.42 344   Pn     Pn      18 26 05.1  -2.0
       comp=Z,0.7nm,0.3s,baz=164,slow=13,SNR=31
WRA                                  Sn     Sn      18 28 17.1  -8.1
       comp=Z,0.4nm,0.3s,baz=163,slow=24,SNR=9.7
       comp=Z,0.6nm,0.3s
WRA                                  AML    AML
CTA    Charters Tower    13.93  34   Pn     Pn      18 26 26.0  -1.7
       comp=Z,0.1nm,0.3s,baz=205,slow=16,SNR=1.8
CTA                                  Sn     Sn      18 28 52.8  -9.4
       baz=78,slow=20,SNR=2.4
       comp=Z,1.1nm,0.7s
CTA                                  AML    AML
FITZ   Fitzroy Crossi    17.77 318   Pn     Pn      18 27 16.2  -1.5
       comp=Z,0.2nm,0.3s,baz=142,slow=12,SNR=9.7
       comp=Z,1.1nm,0.6s
FITZ                                 AML    AML
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*IDC **23** 18:26:43.1±2.4, 6°.01S×151°.65E, h80^{km}±23^{km}, mb3.6/4, mbtmp3.9/5, MS3.4/3, Error ellipse: s-maj=58.2km s-min=10.7km az=122.0*

ISC 23 18:26:43.6±1.4**, 5°.7S**±0°.3×**151°.4E**±0°.3**, h100^{km}, n10, σ1^{s}.79**/7**, mb3.8**/4**, New Britain region**

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Code   Station Name        Δ°   AZ°   Phase ID          Time      Res
                                      Op     ISC      h  m  s     ISC
KRVT   Keravat (AS076     1.55  25   P      Pn      18 27 09.5  -1.0
       225nm,0.3s,baz=136,slow=4.8,SNR=72
KRVT                                 S      Sn      18 27 33.5 +2.6
       1µm,0.3s,baz=55,slow=23,SNR=29
KRVT                                 LR     LR      18 27 41.0
       comp=Z,110nm,20.6s,baz=279,slow=33
PMG    Port Moresby       5.56 229   P      Pn      18 28 03.9  0.0
       11nm,0.5s,baz=58,slow=13,SNR=9.6
PMG                                  S      Sn      18 29 07.7 +1.2
       9.5nm,0.4s,baz=299,slow=21,SNR=1.9
DZM    Mont Dzumac       21.82 140   LR     LR      18 38 06.7
       comp=Z,97nm,18.1s,baz=34,slow=32
ASAR   Alice Springs     24.52 222   P      P       18 31 53.4  -0.6
       0.7nm,0.9s,baz=58,slow=8.4,SNR=6.0
       0.7nm,0.9s
STKA   Stephens Creek    27.58 198   P      P       18 32 22.3 +0.8
       1.5nm,0.8s,baz=12,slow=14,SNR=2.9
       1.5nm,0.8s
NWAO   Narrogin (SRO)    41.74 225   LR     LR      18 50 54.8
       comp=Z,35nm,21.2s,baz=258,slow=35
HILR   Hailar Array B    61.54 337   LR     LR      19 03 54.7
       comp=Z,41nm,19.1s,baz=215,slow=36
ILAR   Eielson Array     83.54  22   P      P       18 39 02.1 +1.9
       1.0nm,0.7s,baz=254,slow=5.5,SNR=6.0
       1.0nm,0.7s
QSPA   South Pole Qui    84.24 180   P      P       18 39 04.9 +0.9
       3.0nm,1.1s,baz=1.2,slow=0.5,SNR=7.4
       3.0nm,1.1s
TORD   Torodi Ar. Bea   149.23 286   PKPbc  PKPab   18 46 24.8  -1.6
       0.6nm,0.5s,baz=76,slow=1.3,SNR=4.1
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*IDC **23** 18:28:24.5±1.7, 7°.41S×128°.97E, h100^{km}±17^{km}, mb3.7/7, mbtmp4.2/12, MS2.8/2, Error ellipse: s-maj=18.7km s-min=12.5km az=104.0*

*NEIC **23** 18:28:26.2±1.7, 7°.30S±0°.08×128°.91E±0°.02, h108^{km}±8^{km}, mb4.2/15, Error ellipse: s-maj=12.2km s-min=2.9km az=174.0*

*DJA **23** 18:28:27.2±0.3, 7°S±3°×12°9E±°, h114^{km}±22^{km}, M4.3/11, mB4.9/5, mB4.9/5, mb4.3/11, mb4.3/11, MLv4.3/9, MLv4.3/9, Mw(mB)4.2/5, Mw(mB)4.2/5*

ISC 23 18:28:27.0±0.5**, 7°.44S**±0°.04×**129°.12E**±0°.05**, h131^{km}, n69, σ2^{s}.60**/77**, mb4.1**/16**, Banda Sea**

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Code   Station Name        Δ°   AZ°   Phase ID          Time      Res
                                      Op     ISC      h  m  s     ISC
SAUI   Saumlaki           2.22 104   Pn     Pn      18 29 04.3 +0.6
SAUI                                 Sn     Sn      18 29 35.1 +3.1
NLAI   Namlea             4.63 334   P      Pn      18 29 36.8 +1.6
NLAI                                 AML    AML
NLAI                                 AML    AML
DRS    Darwin Rock St     5.26 161   P      Pn      18 29 45.0 +1.4
DRS    Darwin Rock St     5.26 161   S      Sn      18 30 43.8 +0.5
SOEI   Soe                5.33 244   P      Pn      18 29 45.8 +1.2
SOEI   Soe                5.33 244   S      Sn      18 30 45.5 +0.5
SOEI   Soe                5.33 244          Pn      18 29 40.9  -3.7
SOEI                                 Sn     Sn      18 30 41.8  -3.3
SOEI   Soe                5.33 244   P      Pn      18 29 46.7 +2.1
       2µm2µm54nm,0.6s
SOEI                                 S      Sn      18 30 42.4  -2.6
       2µm2µm54nm,0.6s
FAKI   Fak Fak            5.46  35   P      Pn      18 29 44.7  -1.6
FAKI   Fak Fak            5.46  35   S      Sn      18 30 43.4  -4.8
FAKI   Fak Fak            5.46  35          Pn      18 29 44.3  -2.0
FAKI                                 Sn     Sn      18 30 41.6  -6.6
MTN    Manton Dam         5.72 160          Pn      18 29 50.9 +1.1
MTN                                  Sn     Sn      18 30 52.6  -1.8
BATI   Baumata            6.06 243   P      Pn      18 29 51.0  -3.3
       45nm,0.4s,baz=79,slow=16,SNR=20
BATI                                 S      Sn      18 30 56.0  -6.5
       224nm,0.4s,baz=83,slow=6.6,SNR=23
SIJI   Sorong             6.87  18   P      Pn      18 30 04.4  -0.8
       5.6nm,0.3s,baz=203,slow=15,SNR=28
SIJI                                 S      Sn      18 31 18.4  -3.7
       7.5nm,0.2s,baz=286,slow=23,SNR=8.5
SIJI                                 LR     LR      18 32 49.9
       comp=Z,32nm,20.2s,baz=265,slow=38
SWI    Sorong             6.87  18   P      Pn      18 30 03.8  -1.5
       0.1nm0.1nm13nm,0.8s,13nm,0.8s
SWI                                  AML    AML
SWI                                  AML    AML
MMRI   Maumere            6.92 260   P      Pn      18 30 07.3 +1.4
MMRI   Maumere            6.92 260   S      Sn      18 31 23.9 +0.5
MMRI   Maumere            6.92 260   Pn     Pn      18 30 00.1  -5.9
KNRA   Kununurra          8.20 182          Pn      18 30 22.8  -0.3
KNRA                                 Sn     Sn      18 31 47.4  -6.7
FITZ   Fitzroy Crossi    11.13 197   P      Pn      18 31 00.6  -1.7
       24nm,0.5s,baz=16,slow=9.9,SNR=75
FITZ                                 S      Sn      18 32 58.1  -6.9
       10nm,0.3s,baz=326,slow=23,SNR=6.7
FITZ   Fitzroy Crossi    11.13 197   P      Pn      18 31 01.7  -0.7
FITZ   Fitzroy Crossi    11.13 197          Pn      18 31 00.3  -2.0
PLAI   Plampang          11.32 262   P      Pn      18 31 05.2 +0.3
WB0    Warramunga Arr    13.28 158          Pn      18 31 28.0  -2.5
WRAB   Tennant Creek     13.42 158          Pn      18 31 30.2  -2.0
WRA    Warramunga Arr    13.42 158   P      Pn      18 31 30.4  -2.0
       15nm,0.5s,baz=337,slow=13,SNR=62
WRA                                  S      Sn      18 33 50.9   -10
       25nm,0.6s,baz=333,slow=24,SNR=12
WRA    Warramunga Arr    13.42 158          Pn      18 31 29.0  -3.3
WRA                                         Sn      18 33 47.8   -13
WR8    Warramunga Arr    13.49 158          Pn      18 31 30.9  -2.3
MBWA   Marble Bar        16.39 213   P      P       18 32 10.6 +0.7
MBWA   Marble Bar        16.39 213          P       18 32 11.5 +1.6
QIS    Mount Isa         16.52 143   P      P       18 32 11.8 +0.3
AS31   Alice Springs     16.77 165          Pn      18 32 14.3  0.0
AS31                                 IAmb   IAmb    18 32 20.3
       comp=Z,5.2nm,0.5s
ASAR   Alice Springs     16.78 165   P      Pn      18 32 15.3 +1.1
       comp=Z,7.7nm,0.6s,baz=338,slow=9.9,SNR=10
ASAR                                 S      Sn      18 35 14.6  -6.8
       comp=Z,4.8nm,0.8s,baz=352,slow=25,SNR=8.7
ASAR   Alice Springs     16.78 165          Pn      18 32 14.8 +0.5
AS01   Alice Springs     16.79 165   P      Pn      18 32 14.6 +0.2
STKI   Sintang           19.11 292   P      Pn      18 32 48.3 +6.2
CTA    Charters Tower    20.83 129   LR     LR      18 42 15.4
       comp=Z,51nm,19.8s,baz=50,slow=40
BBJI   Bungbulang        21.29 269   P      P       18 33 03.7 +0.2
INKA   Innaminka         23.00 153   P      P       18 33 23.0 +2.5
INKA                                 IAmb   IAmb    18 33 25.1
       comp=Z,8.9nm,0.7s
FORT   Forrest           23.24 182          P       18 33 24.8 +2.1
FORT                                 IAmb   IAmb    18 33 26.5
       comp=Z,11nm,0.7s
QLP    Quilpie           23.85 145   P      P       18 33 31.1 +2.8
BBOO   Buckleboo         26.05 167   P      P       18 33 50.7 +2.5
KLBR   Kellerberrin      26.27 202   P      P       18 33 53.1 +3.0
STKA   Stephens Creek    26.95 156   P      P       18 33 58.0 +1.8
       comp=Z,2.2nm,0.7s,baz=329,slow=11,SNR=4.5
       comp=Z,2.2nm,0.7s
CMSA   Cobar Meteorol    28.53 149   P      P       18 34 12.8 +2.5
GHSS   Government Hou    28.71 164   P      P       18 34 14.6 +2.8
SANVU  Saraoutou         38.11 105   P      P       18 35 31.0  -2.5
CMAR   Chiang Mai Arr    39.35 311   P      P       18 35 44.4 +0.5
       comp=Z,1.0nm,0.7s,baz=136,slow=6.7,SNR=13
       comp=Z,1.0nm,0.7s
CMAR   Chiang Mai Arr    39.35 311   P      P       18 35 42.4  -1.5
KSRS   Korea Array       44.67 359   P      P       18 36 27.7 +1.0
       comp=Z,0.7nm,0.7s,baz=174,slow=9.0,SNR=2.1
       comp=Z,0.7nm,0.7s
MORE   Moreh             46.31 314   P      P       18 36 38.6  -1.3
HHC    Hu-ho-hao-te      50.70 343  eP      P       18 37 15.1 +1.8
HHC                                  pmax   pmax
       comp=Z,6.0nm,0.6s
EVN    Everest           53.93 313   P      P       18 37 37.9  -0.2
GTA2   Gaotai            54.03 332   P      P       18 37 38.3 +0.4
GTA2                                 pmax   pmax
       comp=Z,6.0nm,0.6s
KSH2   Kashi             67.84 318   P      P       18 39 12.4 +1.0
KSH2                                 pmax   pmax
       comp=Z,4.0nm,0.8s
MKAR   Makanchi Array    68.12 327   P      P       18 39 13.0 +0.2
       comp=Z,1.5nm,0.5s,baz=120,slow=7.6,SNR=30
       comp=Z,1.5nm,0.5s
MKAR   Makanchi Array    68.12 327   P      P       18 39 12.7  -0.1
MAKZ   Makanchi          68.30 327   P      P       18 39 13.5  -0.4
MAKZ                                 IAmb   IAmb    18 39 15.5
       comp=Z,4.3nm,1.4s
YAK    Yakutsk           69.26   0   P      P       18 39 18.9  -0.6
YAK                                  IAmb   IAmb    18 39 20.0
       comp=Z,4.8nm,0.8s
AAK    Ala-Archa         70.32 320   P      P       18 39 27.5 +0.9
AAK                                  IAmb   IAmb    18 39 29.2
       comp=Z,2.4nm,0.8s
ARSB   Arslanbob         70.64 318   P      P       18 39 28.9 +0.3
ZALV   Zalesovo Beam     71.59 334   P      P       18 39 33.1  -0.7
       comp=Z,0.7nm,0.4s,baz=139,slow=7.0,SNR=2.6
       comp=Z,0.7nm,0.4s
VNDA   Vanda             72.12 173   P      P       18 39 39.3 +2.6
KURBB  Kurchatov Arra    72.43 329   P      P       18 39 38.9  0.0
       comp=Z,1.9nm,0.6s,baz=131,slow=5.1,SNR=29
       comp=Z,1.9nm,0.6s
KURK   Kurchatov         72.44 329   P      P       18 39 39.1 +0.1
KURK                                 IAmb   IAmb    18 39 40.4
       comp=Z,2.4nm,0.7s
KK31   Karatay Array     73.10 319   P      P       18 39 42.8  -0.3
KKAR   Karatay Array     73.10 319   P      P       18 39 42.8  -0.3
QSPA   South Pole Qui    82.54 180   P      P       18 40 35.8 +0.8
       comp=Z,0.3nm,0.5s,baz=188,slow=0.3,SNR=1.2
       comp=Z,0.3nm,0.5s
QSPA   South Pole Qui    82.54 180   P      P       18 40 35.9 +0.9
QSPA                                 IAmb   IAmb    18 41 11.7
       comp=Z,4.0nm,1.4s
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*ISN **23** 18:29:43.9±0.8, 35°.63N×45°.08E, h8^{km}, ML3.8, Presumed earthquake*

*TEH **23** 18:29:44.2, 35°.63N×45°.08E, h8^{km}±25^{km}, ML3.8, Presumed earthquake*

ISC 23 18:29:45.6±0.8**, 35°.62N**±0°.04×**45°.07E**±0°.04**, h10^{km}, n19, σ2^{s}.32**/22**, mb3.8**/4**, Iran-Iraq border region**

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Code   Station Name        Δ°   AZ°   Phase ID          Time      Res
                                      Op     ISC      h  m  s     ISC
IKRK   Kirkuk             0.63 250  i P     Pg      18 29 55.9  -2.0
       baz=70
IKRK                                i S     Sb      18 30 06.0  -1.7
IKRK                                 IAML           18 30 21.4
       comp=E,5µm,1.1s
IKRK                                 IAML           18 30 21.6
       comp=N,4µm,0.7s
MAHB   Mahabad            1.26  24   Pg     Pg      18 30 08.9  -0.8
MAHB                                 Sg     Sn      18 30 27.7 +1.2
IDHR   Dehrash            1.42 130   Pg     Pg      18 30 11.6  -1.3
IDHR                                 Sg     Sg      18 30 33.3 +2.0
SNJK   Sanadaj _Korde     1.66  96   Pg     Pg      18 30 15.5  -1.9
IGHG   Ghaleghazi         1.78 136   Pg     Pg      18 30 18.4  -1.4
KCHF   Cheshme Sefid,     2.10 129   Pn     Pb      18 30 23.0  -1.0
IAZR   Azarshahr          2.18  19   Pn     Pb      18 30 24.0  -1.4
ILBA   Ilam Banvizeh      2.20 154   Pn     Pb      18 30 24.2  -1.4
SNQR   Sonqor, Kerman     2.23 109   Pn     Pb      18 30 24.7  -1.5
IHSH   Hashtrud           2.44  46   Pn     Pb      18 30 27.2  -2.6
ISHB   Shabestar          2.69   9   Pn     Pb      18 30 31.3  -2.8
HGHA   Hamedan- Ghaye     3.10  91   Pn     Pb      18 30 36.6  -4.3
ZNJK   Zanjan             3.11  69   Pn     Pn      18 30 36.1 +1.1
IHRS   Heris              3.12  30   Pn     Pn      18 30 36.3 +1.1
MZPU   Pul - Mazandar     5.33  79   Pn     Pn      18 31 07.1 +1.6
RONA   Rosalia, Austr    24.50 308  eP      P       18 35 07.5 +2.5
       comp=N,0.8nm,0.4s
CONA   Conrad Observa    24.85 309  eP      P       18 35 08.8 +0.5
       comp=N,1.2nm,0.5s
ARSA   Arzberg           24.86 307  eP      P       18 35 10.9 +2.7
       comp=N,0.8nm,0.4s
OBKA   Obir              25.30 305  epP     P       18 35 17.0 +4.7
       comp=N,1.1nm,0.4s
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*SJA **23** 18:36:31.0±0.6, 27°.81S×71°.42W, h8^{km}, ML3.5, MW3.2*

*GUC **23** 18:36:36.0±0.9, 27°.89S×71°.08W, h30^{km}±4^{km}, ML3.4*

ISC 23 18:36:33.2±1.1**, 27°.82S**±0°.03×**71°.28W**±0°.05**, h10^{km}, n31, σ2^{s}.01**/52**, 1C, Near coast of northern Chile**

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Code   Station Name        Δ°   AZ°   Phase ID          Time      Res
                                      Op     ISC      h  m  s     ISC
AC04   Llanos de Chal     0.42 154  eP      Pn      18 36 43.7  -1.7
AC04                                eS      Sb      18 36 49.5 +0.2
AC04                                 IAML           18 36 49.7
       comp=Z,6µm,0.3s
AC04   Llanos de Chal     0.42 154⇑ iP      Pn      18 36 43.9  -1.6
AC04                                eS      Sb      18 36 49.1  -0.2
AC04                                 IAML           18 36 49.5
       comp=E,19µm,0.2s
AC06   Mina Casimiro      0.94  61  eP      Pn      18 36 51.5  -1.1
AC06                                 IAML           18 37 06.4
       comp=E,2µm,0.2s
GO03   Copiapo            0.96  77  eP      Pn      18 36 51.7  -1.0
GO03                                eS      Sg      18 37 03.7  -0.4
GO03                                 IAML           18 37 05.5
       comp=Z,1µm,0.1s
GO03   Copiapo            0.96  77  i P     Pb      18 36 51.5  -0.4
GO03                                eS      Sg      18 37 02.1  -2.0
GO03                                 IAML           18 37 05.6
       comp=N,4µm,0.1s
LCO    Las Campanas       1.29 157  eP      Pb      18 36 56.9  -0.9
LCO                                 eS      Sn      18 37 16.2 +1.1
LCO                                  IAML           18 37 16.3
       comp=Z,1µm,0.2s
LCO    Las Campanas       1.29 157  eP      Pn      18 36 56.7  -0.9
LCO                                 eS      Sb      18 37 11.7  -2.9
AC05   El Transito        1.35 139  eP      Pn      18 36 57.6  -0.7
AC05                                eS      Sb      18 37 12.9  -3.1
AC05                                 IAML           18 37 14.2
       comp=Z,377nm,0.5s
AC05   El Transito        1.35 139  i P     Pn      18 36 57.2  -1.0
AC05                                 IAML           18 37 14.2
       comp=N,748nm,0.3s
AC01   Pan de Azucar      1.77  20  eP      Pb      18 37 04.8  -1.0
AC01                                eS      Sg      18 37 31.0 +0.8
AC01   Pan de Azucar      1.77  20  eP      Pb      18 37 04.8  -1.0
AC01                                 IAML           18 37 34.8
       comp=N,252nm,0.2s
AC02   Maricunga          2.15  63  eP      Pb      18 37 11.6  -1.0
AC02                                 IAML           18 37 39.9
       comp=Z,276nm,0.2s
AC02                                eS      Sb      18 37 40.0 +0.4
AC02   Maricunga          2.15  63  eP      Pb      18 37 11.2  -1.4
AC02                                 IAML           18 37 39.3
       comp=N,713nm,0.4s
GO04   Tololo Observa     2.38 170  eP      Pn      18 37 13.5 +1.0
GO04                                eS      Sn      18 37 41.8  -0.1
GO04                                 IAML           18 37 52.5
       comp=Z,335nm,0.7s
GO04   Tololo Observa     2.38 170  eP      Pn      18 37 13.2 +0.7
CO01   Juntas del Tor     2.39 154  eP      Pb      18 37 13.9  -2.6
CO01                                eS      Sb      18 37 46.4 +0.3
CO01                                 IAML           18 37 51.2
       comp=Z,180nm,0.6s
CO01   Juntas del Tor     2.39 154  eP      Pn      18 37 13.6 +0.9
CO01                                 IAML           18 37 53.2
       comp=N,267nm,0.4s
AROD   Rodeo              2.83 146  eP      Pb      18 37 21.2  -2.8
AROD                                eS      Sb      18 37 58.4  -0.4
CO06   Fray Jorge         2.86 186  eP      Pn      18 37 18.0  -0.9
CO06                                 IAML           18 38 19.2
       comp=E,138nm,0.5s
VCA    Vinchina           2.86 109  eP      Pb      18 37 22.7  -1.8
VCA                                 eS      Sb      18 37 57.8  -1.9
VCA                                  IAML           18 38 05.8
       comp=Z,199nm,0.7s
CO03   El Pedregal        3.05 170  eP      Pn      18 37 22.9 +1.3
CO03                                eS      Sg      18 38 12.3 +1.0
CO03                                 IAML           18 38 12.5
       comp=Z,141nm,0.4s
CO03   El Pedregal        3.05 170  eP      Pn      18 37 21.8 +0.1
CO03                                 IAML           18 38 13.2
       comp=E,231nm,0.4s
TINO   Tinogasta          3.29  95  eP      Pn      18 37 26.4 +1.4
TINO                                eS      Sb      18 38 11.8  -0.2
TINO                                 IAML           18 38 12.7
       comp=Z,61nm,0.5s
CO02   Combarbal          3.38 176  eP      Pn      18 37 27.3 +1.1
CO02                                eS      Sn      18 38 06.8 +0.4
CO02                                 IAML           18 38 19.3
       comp=Z,267nm,0.8s
CO02   Combarbal          3.38 176  eP      Pn      18 37 26.3 +0.1
ACLC   CERRO LA CRUZ      4.13 114  eP      Pn      18 37 38.3 +1.8
ACLC                                eS      Sb      18 38 30.1  -6.0
ACLC                                 IAML           18 38 32.1
       comp=Z,44nm,0.3s
RTLL   Cerro Villicun     4.27 146  eP      Pn      18 37 40.6 +2.3
RTLL                                eS      Sn      18 38 31.8 +3.6
RTLL                                 IAML           18 38 48.0
       comp=Z,52nm,0.4s
RTLS   Leoncito           4.32 157  eP      Pn      18 37 41.8 +2.5
RTLS                                eS      Sb      18 38 45.4 +3.5
RTLS                                 IAML           18 38 53.4
       comp=Z,155nm,1.6s
CFA    Coronel Fontan     4.61 146  eP      Pn      18 37 45.6 +2.6
CFA                                 eS      Sn      18 38 40.3 +3.7
CFA                                  IAML           18 38 53.0
       comp=Z,32nm,0.3s
CYA    Choya              4.88  99  eP      Pn      18 37 47.7 +1.0
CYA                                 eS      Sn      18 38 48.7 +5.4
CYA                                  IAML           18 38 49.4
       comp=Z,25nm,0.8s
PB05   IPOC Station P     5.04  11  eP      Pn      18 37 48.5  -0.5
PB05                                 IAML           18 39 29.2
       comp=Z,17nm,0.6s
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*SNET **23** 18:46:00.7±1.1, 13°.83N×90°.79W, h52^{km}, ML4.2, Presumed earthquake*

*CATAC **23** 18:46:00.9±0.4, 14°N±2°×9°1W±°, h30^{km}±3^{km}, M4.4/33, MLv4.4/33, Error ellipse: s-maj=5.5km s-min=2.4km az=25.0, confirmed*

*GCG **23** 18:46:00.7±0.9, 13°.75N×90°.80W, h58^{km}±9^{km}, MD4.7, ML4.6, Presumed earthquake*

ISC 23 18:46:01.7±1.4**, 13°.71N**±0°.05×**90°.80W**±0°.04**, h56^{km}**±9^{km}**,**

n58,σ1^{s}02/101,1C-7D,Near coast of Guatemala

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ESSJ	San Jos, E	0.32	117	⇓eP	Pn	18 46 10.7	-0.9
ESSJ				eS	Sn	18 46 20.0	+1.2
FG8	Yepocapa, Chim	0.59	23	⇓iP	Pn	18 46 15.2	+0.6
FG8				eS	Sn	18 46 26.0	+2.0
FG16	Alotenango, Sa	0.63	26	iP	Pn	18 46 15.3	+0.3
FG16				eS	Sn	18 46 26.3	+1.5
PCG5	San Vicente Pa	0.65	39	eP	Pn	18 46 14.3	-1.0
PCG5				eS	Sn	18 46 24.5	-0.6
ESSG	Sabana Grande	0.67	357	⇑iP	Pn	18 46 13.9	-1.6
ESSG				eS	Sn	18 46 23.8	-1.7
ESSG				IAML		18 46 24.2	
	comp=N,15µm,0.2s						
FAME	Alcaldia de Sa	0.77	80	P	Pn	18 46 16.0	-0.6
FAME				S	Sn	18 46 26.9	-0.7
GCG4	OSOP	0.91	16	eP	Pn	18 46 18.2	-0.5
GCG4				eS	Sn	18 46 31.0	-0.1
STG8	El Palmar, Qui	0.91	324	eP	Pn	18 46 22.4	+3.7
STG8				eS	Sn	18 46 37.9	+6.7
STG8				IAML		18 46 41.9	
	comp=N,14µm,0.2s						
NUBE	Las Nubes	1.01	79	⇓eP	Pn	18 46 18.7	-1.0
NUBE				eS	Sn	18 46 32.1	-1.1
NUBE	Las Nubes	1.01	79	P	Pn	18 46 18.8	-1.0
NUBE				S	Sn	18 46 32.8	-0.4
LOAL	Lomas de Alarc	1.03	74	P	Pn	18 46 19.6	-0.4
LOAL				S	Sn	18 46 33.7	0.0
SLOZ	Alcaldia de Sa	1.03	72	P	Pn	18 46 19.7	-0.4
CEVE	Cerro Verde	1.15	84	eP	Pn	18 46 21.0	-0.7
CEVE				eS	Sn	18 46 36.3	-0.4
CEVE	Cerro Verde	1.15	84	P	Pn	18 46 21.1	-0.7
CEVE				S	Sn	18 46 36.5	-0.2
RTAL	Retalhuleu	1.19	313	P	Pn	18 46 21.2	-1.0
RTAL				S	Sn	18 46 36.4	-1.0
JUAM	Asuncion Mita	1.23	59	⇓eP	Pn	18 46 21.9	-0.8
JUAM				eS	Sn	18 46 38.3	0.0
JUAM				IAML		18 46 40.5	
	comp=N,8µm,0.3s						
UNIC	Universidad Ca	1.24	77	P	Pn	18 46 22.4	-0.5
UNIC				S	Sn	18 46 39.2	+0.4
JAYA	Jayaque - finc	1.31	92	⇓eP	Pn	18 46 22.7	-1.2
JAYA				eS	Sn	18 46 39.0	-1.5
JAYA				IAML		18 46 47.1	
	comp=N,14µm,0.3s						
JAYA	Jayaque - finc	1.31	92	P	Pn	18 46 23.5	-0.4
JAYA				S	Sn	18 46 40.2	-0.4
APG	El Apazote	1.33	14	⇓iP	Pn	18 46 24.1	-0.1
APG				eS	Sn	18 46 42.8	+1.8
CEDA	San Andres	1.37	86	P	Pn	18 46 24.2	-0.4
CEDA				S	Sn	18 46 41.4	-0.2
PMON	Piamonte	1.44	90	P	Pn	18 46 25.2	-0.4
PMON				S	Sn	18 46 43.4	-0.1
LALI	Alcalda de L	1.45	99	P	Pn	18 46 25.3	-0.3
LALI				S	Sn	18 46 43.9	+0.3
BOQS	Boqueron	1.48	89	eP	Pn	18 46 25.5	-0.7
UEES	Universidad Ev	1.51	90	P	Pn	18 46 26.1	-0.4
UEES				S	Sn	18 46 45.3	0.0
SEMO	Seminario San	1.53	90	P	Pn	18 46 26.4	-0.3
SEMO				S	Sn	18 46 45.8	+0.2
UTEC	Universidad Te	1.55	90	P	Pn	18 46 26.8	-0.2
UTEC				S	Sn	18 46 46.8	+0.6
MTO3	Montecristo	1.55	64	⇓iP	Pn	18 46 26.3	-0.9
MTO3	Montecristo	1.55	64	P	Pn	18 46 26.4	-0.9
MTO3				S	Sn	18 46 46.4	0.0
PANCS	Alcalda de	1.57	93	P	Pn	18 46 26.9	-0.5
PANCS				S	Sn	18 46 46.5	-0.2
IGN	Direccin Gen	1.58	90	S	Sn	18 46 47.6	+0.7
LOMA	Loma Larga	1.58	92	P	Pn	18 46 27.1	-0.5
LOMA				S	Sn	18 46 47.3	+0.3
ESQI	Esquipulas	1.65	59	eP	Pn	18 46 27.8	-0.6
ESQI	Esquipulas	1.65	59	P	Pn	18 46 27.9	-0.5
ESQI				S	Sn	18 46 48.5	0.0
SMCA	Catarina	1.68	313	eP	Pn	18 46 27.7	-1.1
SMCA				eS	Sn	18 46 47.2	-2.1
PAVA	Las Pavas	1.81	90	P	Pn	18 46 30.2	-0.4
PAVA				S	Sn	18 46 52.9	+0.4
LLGN	La Laguna	1.85	76	P	Pn	18 46 30.6	-0.7
COEG	Centro de Oper	1.86	92	eP	Pn	18 46 30.9	-0.4
COEG				eS	Sn	18 46 54.5	+0.7
COEG	Centro de Oper	1.86	92	P	Pn	18 46 30.9	-0.4
COEG				S	Sn	18 46 54.6	+0.7
TECO	Alcaldia de Te	1.97	95	P	Pn	18 46 32.4	-0.3
TECO				S	Sn	18 46 56.4	+0.2
ALJI	Alcalda de J	2.20	100	S	Sn	18 47 02.5	+0.6
SARH	Santa Rosa de	2.24	62	iP	Pn	18 46 36.1	-0.3
SARH	Santa Rosa de	2.24	62	P	Pn	18 46 36.2	-0.3
SARH				S	Sn	18 47 03.3	+0.2
PACA	Pacayal	2.42	95	P	Pn	18 46 38.8	-0.1
PACA				S	Sn	18 47 07.8	+0.4
RANC	El Ranchito	2.46	96	P	Pn	18 46 39.9	+0.5
RANC				S	Sn	18 47 09.1	+0.8
INTP	Intipuca	2.72	100	eP	Pn	18 46 42.3	-0.6
CNCH	Conchagua	2.92	98	eP	Pn	18 46 45.2	-0.6
CNCH	Conchagua	2.92	98	P	Pn	18 46 45.3	-0.4
CNCH				S	Sn	18 47 20.5	+0.9
TGUH	Tegucigalpa,Un	3.44	84	P	Pn	18 46 52.1	-0.8
TGUH				S	Sn	18 47 33.3	+0.7
PKGN	Cerro Pekin	3.86	105	P	Pn	18 46 58.7	+0.1
PKGN				S	Sn	18 47 43.5	+0.8
QUEN	Al S del Volca	4.00	106	P	Pn	18 47 00.7	+0.2
TELN	Telica	4.02	105	P	Pn	18 47 00.6	-0.2
CNGA	Al SSO del Vol	4.17	106	P	Pn	18 47 03.2	+0.3
CNGN	Cerro Negro	4.17	106	P	Pn	18 47 02.7	-0.1
CNGN				S	Sn	18 47 51.1	+0.7
LEVN	Ruinas Leon Vi	4.28	107	S	Sn	18 47 54.0	+1.1
LIMN	Finca el Limon	4.36	98	P	Pn	18 47 05.7	+0.2
LIMN				S	Sn	18 47 56.2	+1.0
MOM2	El Cardon	4.39	106	P	Pn	18 47 05.9	+0.1
MOM2				S	Sn	18 47 56.4	+0.7
RCVN	Varillal2	4.48	91	P	Pn	18 47 06.7	-0.4
RCVN				S	Sn	18 47 59.2	+1.1

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*KRNET **23** 18:47:07.1±0.1, 40°.24N×70°.11E, h11^{km}, mb3.1*
*ISU **23** 18:47:09, 40°.30N×70°.17E, h22^{km}*
ISC 23 18:47:08.1±1.4**, 40°.25N**±0°.05×**70°.16E**±0°.05**, h14**^{km}±15^{km}**,**
n14, σ1^{s}23/27**, 10C-8D, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BTK	Batken	0.54	111	⇑eP	Pg	18 47 18.3	-0.4
BTK				⇑eS	Sg	18 47 26.6	+0.7
TAS	Tashkent	1.26	329	P	Pg	18 47 32.1	-0.2
TAS				S	Sg	18 47 49.2	+0.5
CHMG	Chimgan	1.30	355	P	Pb	18 47 32.2	-0.3
CHMG				S	Sg	18 47 50.1	-0.1
TVKS	Tavaksay	1.38	344	P	Pb	18 47 33.4	-0.3
TVKS				S	Sg	18 47 52.2	-0.3
DRK	Karamyk	1.48	121	⇓eP	Pb	18 47 35.6	0.0
DRK				⇓eS	Sg	18 47 56.4	+0.6
TRKS	Terek-Say	1.48	30	⇓eP	Pb	18 47 34.8	-0.7
TRKS				⇓eS	Sg	18 47 54.9	-0.9
PSK	Pskem	1.68	5	P	Pb	18 47 38.8	-0.1
PSK				S	Sg	18 48 01.1	-1.2
OHH	Osh	2.02	81	⇑eP	Pb	18 47 44.8	+0.1
OHH				⇑eS	Sg	18 48 12.4	-0.8
ARK	Arkit	2.06	41	⇑eP	Pb	18 47 45.3	-0.1
ARK				⇑eS	Sg	18 48 13.3	-1.1
ARSB	Arslanbob	2.40	62	⇑eP	Pb	18 47 50.1	-1.0
ARSB				⇑eS	Sb	18 48 21.5	+0.9
SFK	Sufi-Kurgan	2.58	94	⇓eP	Pb	18 47 52.6	-1.6
SFK				⇓eS	Sb	18 48 25.9	+0.1
SALK	Salom-Alik	2.86	76	⇑eP	Pb	18 47 57.0	-2.0
SALK				⇑eS	Sb	18 48 33.0	-1.0
KK31	Karatay Array	2.86	5	Pn	Pb	18 47 59.8	+0.8
	0.9nm,0.1s,baz=187,slow=17,SNR=68						
KK31				Sn	Sg	18 48 37.9	-2.2
	5.2nm,0.2s,baz=184,slow=34,SNR=14						
AAK	Ala-Archa	4.04	52	⇓Pg	Pg	18 48 29.1	+3.7
	0.6nm,0.5s						
AAK				⇓Lg	Lg	18 49 13.4	
	0.9nm,0.5s						

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*IDC **23** 18:50:45.0±10.0, 21°.84N×143°.81E, h212^{km}±81^{km},*
mb3.0/7, mbtmp3.6/7, Error ellipse: s-maj=143.6km
s-min=15.9km az=78.0
ISC 23 18:50:42.9±3.0**, 21°.9N**±0°.2×**144°.1E**±0°.8**, h200**^{km}**, n7,**
σ0^{s}35/7**, mb3.2**/6**, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSRS	Korea Array	20.87	322	P	P	18 55 09.5	+0.1
	0.8nm,0.6s,baz=146,slow=8.8,SNR=5.3						
	0.8nm,0.6s						
WRA	Warramunga Arr	42.64	194	P	P	18 58 20.2	+0.4
	0.3nm,0.6s,baz=12,slow=8.7,SNR=8.6						
	0.3nm,0.6s						
ASAR	Alice Springs	46.34	193	P	P	18 58 48.7	-0.4
	0.2nm,0.7s,baz=16,slow=6.4,SNR=4.3						
	0.2nm,0.7s						
MKAR	Makanchi Array	55.17	312	P	P	18 59 54.6	-0.2
	0.1nm,0.4s,baz=86,slow=9.3,SNR=2.0						
	0.1nm,0.4s						
KURBB	Kurchatov Arra	57.95	317	P	P	19 00 14.1	-0.1
	0.4nm,0.5s,baz=92,slow=7.7,SNR=5.6						
	0.4nm,0.5s						
BVAR	Borovoye Array	63.06	319	P	P	19 00 49.1	+0.3
	1.3nm,0.4s,baz=92,slow=7.8,SNR=9.5						
	1.3nm,0.4s						
FINES	FINESS Array B	83.37	335	P	P	19 02 47.3	0.0
	0.8nm,0.6s,baz=72,slow=6.2,SNR=6.9						
	0.8nm,0.6s						

NOU 23 18:51:51.6, 17°.11S×168°.10E, h32^{km}**, MLv4.4**/11**,**
Vanuatu Islands, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DVP	Devils Point	0.62	172	P	Pn	18 52 06.4	+2.2
DVP	Devils Point	0.62	172	S	Sn	18 52 16.1	+3.1
DVP	Devils Point	0.62	172	S	Sn	18 52 13.6	+0.6
DVP	Devils Point	0.62	172	P	Pn	18 52 05.9	+1.7
RTV	Rentapao	0.75	155	P	Pb	18 52 08.4	+2.2
RTV	Rentapao	0.75	155	S	Sn	18 52 22.5	+6.3
SANVU	Saraoutou	1.86	332	P	Pn	18 52 18.6	-2.7
SANVU	Saraoutou	1.86	332	P	Sn	18 52 42.5	-1.3
SANVU	Saraoutou	1.86	332	P	Pn	18 52 21.9	+0.6
SANVU	Saraoutou	1.86	332	S	Sn	18 52 44.3	+0.5
MARNC	Mare, Loyalty	4.35	181	P	Pn	18 52 57.1	+1.6
YATNC	Mamie plateau,	5.05	193	P	Pn	18 53 04.3	-0.9
NOUC	Port Laguerre	5.25	199	P	Pn	18 53 07.7	-0.1
ONTNC	Ouen Toro	5.40	196	P	Pn	18 53 10.7	+0.8
OUENC	Ouen Island, N	5.41	192	P	Pn	18 53 11.6	+1.5

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*NEIC **23** 18:55:30.7±2.5, 20°.57S±0°.07×177°.7W±0°.1, h526^{km}±7^{km},*
mb4.1/8, Error ellipse: s-maj=16.3km s-min=10.0km
az=75.0
*IDC **23** 18:55:33.3±1.7, 20°.57S×177°.85W, h548^{km}±18^{km}, mb3.2/9,*
mbtmp4.2/10, Error ellipse: s-maj=26.6km s-min=12.7km
az=152.0
ISC 23 18:55:31.3±0.7**, 20°.5S**±0°.1×**177°.8W**±0°.1**, h534**^{km}**, n35,**
σ1^{s}38/37**, mb3.8**/12**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	4.78	304	P	P	18 56 59.5	+1.0
	1.5nm,0.4s,baz=245,slow=22,SNR=1.3						
MSVF	Nonsavu	4.78	304	P	P	18 56 58.0	-0.6
MSVF				S	S	18 57 55.2	-14
AFI	Afiamalu	8.72	42	P	P	18 57 34.0	-2.1
	18nm,0.5s,baz=191,slow=5.2,SNR=4.3						
AFI	Afiamalu	8.72	42	P	P	18 57 33.3	-2.8
MARNC	Mare, Loyalty	13.26	263	P	P	18 58 22.9	-0.2
URZ	Urewera	18.25	193	P	P	18 59 11.2	-0.8
	4.0nm,0.4s,baz=18,slow=9.6,SNR=6.1						
THZ	Tophouse	22.62	198	P	P	18 59 50.1	-1.6
EIDS	Eidsvold	29.02	254	P	P	19 00 48.4	+0.1
EIDS				IAmb	IAmb	19 00 54.9	
	comp=Z,9.8nm,1.4s						
ARMA	Armidale	29.23	244	P	P	19 00 51.7	+1.5
ARMA				IAmb	IAmb	19 01 33.1	
	comp=Z,29nm,1.5s						
CTA	Charters Tower	33.67	264	P	P	19 01 29.6	+1.4
	comp=Z,3.6nm,0.4s,baz=91,slow=10,SNR=17						
	comp=Z,3.6nm,0.4s						
STKA	Stephens Creek	37.95	244	P	P	19 02 04.3	+0.9
	comp=Z,1.3nm,0.5s,baz=99,slow=12,SNR=6.3						
	comp=Z,1.3nm,0.5s						
AS31	Alice Springs	44.69	257	P	P	19 02 58.0	+0.9
ASAR	Alice Springs	44.69	257	P	P	19 02 58.0	+1.0
	comp=Z,3.9nm,0.6s,baz=98,slow=7.7,SNR=86						
ASAR				S	S	19 08 54.5	-0.4
	comp=Z,1.5nm,1.0s,baz=94,slow=14,SNR=8.9						
	comp=Z,3.9nm,0.6s						
ASAR	Alice Springs	44.69	257	P	P	19 02 55.3	-1.8
WRA	Warramunga Arr	44.78	262	P	P	19 02 58.0	+0.3
	comp=Z,1.6nm,0.6s,baz=97,slow=7.7,SNR=31						
WRA				S	S	19 08 54.5	-1.7
	comp=Z,0.4nm,0.8s,baz=101,slow=14,SNR=2.5						
	comp=Z,1.6nm,0.6s						
WRA	Warramunga Arr	44.78	262	P	P	19 02 57.7	-0.1
WOH	Wood Valley	45.14	30	P	P	19 02 59.8	-0.7
MJAR	Matsushiro Arr	70.31	324	P	P	19 05 51.5	+0.3
	comp=Z,2.3nm,0.6s,baz=142,slow=6.2,SNR=7.3						
	comp=Z,2.3nm,0.6s						
MJAR	Matsushiro Arr	70.31	324	P	P	19 05 51.5	+0.3
MJAR				IAmb	IAmb	19 06 00.9	
	comp=Z,4.8nm,1.5s						
SBUM	Sibu	72.18	280	P	P	19 06 00.1	-2.6
SBUM				IAmb	IAmb	19 06 01.2	
	comp=Z,4.6nm,1.3s						
KSRS	Korea Array	77.00	318	P	P	19 06 31.3	+2.1
	comp=Z,0.8nm,0.7s,baz=113,slow=7.2,SNR=2.2						
	comp=Z,0.8nm,0.7s						
RBOW	Rainbow Ridge,	78.47	39	P	P	19 06 39.1	+1.9
TXAR	Lajitas Array	86.90	57	P	P	19 07 21.8	+1.9
	comp=Z,0.4nm,0.7s,baz=242,slow=4.3,SNR=4.5						
	comp=Z,0.4nm,0.7s						
PV15	Paradox Valley	87.41	47	P	P	19 07 22.9	+0.7
ILAR	Eielson Array	88.27	13	P	P	19 07 25.4	+0.1
	comp=Z,0.4nm,0.5s,baz=219,slow=4.7,SNR=4.2						
	comp=Z,0.4nm,0.5s						
ILAR	Eielson Array	88.27	13	P	P	19 07 25.0	-0.3
PDAR	Pinedale Array	88.83	43	P	P	19 07 30.4	+1.7
	comp=Z,0.6nm,0.7s,baz=240,slow=5.8,SNR=7.0						
	comp=Z,0.6nm,0.7s						
PDAR	Pinedale Array	88.83	43	P	P	19 07 28.5	-0.3
AKASG	Malin Array Be	143.09	331	PKP	PKPab	19 14 02.1	+0.2
	comp=Z,1.4nm,0.4s,baz=45,slow=4.0,SNR=15						
EKA	Eskdalemuir Ar	144.98	5	PKPbc	PKPdf	19 14 08.2	+0.8
	comp=Z,1.4nm,0.8s,baz=345,slow=2.9,SNR=3.6						
BRTR	Keskin Array B	146.97	312	PKPbc	PKPbc	19 14 15.2	+0.7
	comp=Z,0.6nm,0.6s,baz=103,slow=5.5,SNR=4.4						
BRTR	Keskin Array B	146.97	312		PKPdf	19 14 09.6	-1.9
CLL	Collm	148.09	347	iPKPbc	PKPbc	19 14 17.9	+1.2
	comp=Z,6.0nm,0.9s						
CLL				ePKPab	PKPab	19 14 22.0	+0.5
GERES	GERESS Array B	150.24	345	PKPbc	PKPbc	19 14 21.6	-0.6
	comp=Z,0.4nm,0.3s,baz=23,slow=4.8,SNR=3.9						
GERES	GERESS Array B	150.24	345		PKPbc	19 14 19.8	-2.3

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*SNET **23** 19:10:26.6±2.2, 11°.45N×86°.36W, h52^{km}, ML3.8,*
Presumed earthquake
*CATAC **23** 19:10:27.3±0.3, 11°N±2°×8°6W±°, h33^{km}±2^{km}, M3.8/26,*
MLv3.8/26, Error ellipse: s-maj=4.9km s-min=2.2km
az=43.1, confirmed
*UCR **23** 19:10:29.5±2.2, 11°.38N×86°.33W, h27^{km}±9^{km}, MW3.9,*
Presumed earthquake
ISC 23 19:10:26.9±2.2**, 11°.44N**±0°.03×**86°.42W**±0°.03**, h20**^{km}±19^{km}**,**
n76, σ0^{s}70/123**, 5C-10D, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NADN	Granada	0.49	51	P	Pn	19 10 38.8	-0.1
NADN				S	Sn	19 10 47.4	+0.6
NADN	Granada	0.49	51	eP	Pn	19 10 38.8	-0.1
NADN				eS	Sn	19 10 47.4	+0.6
SABN	Sabanita	0.58	26	P	Pb	19 10 38.5	+0.2
NANN	Nandasmo	0.58	30	⇓P	Pn	19 10 41.1	+1.1
NANN				S	Sn	19 10 50.7	+1.7
MASN	Masaya	0.61	26	P	Pn	19 10 41.3	+0.8
MASN				S	Sn	19 10 49.9	+0.1
MAS3	Al N del Volca	0.63	22	⇓P	Pn	19 10 40.5	-0.3
MAS3				S	Sn	19 10 50.4	0.0
UNAN	Cigeo UNAN	0.69	12	⇓P	Pn	19 10 41.6	+0.1
UNAN				S	Sn	19 10 52.3	+0.6
TISN	Laguna Tiscapa	0.72	12	⇓P	Pb	19 10 40.8	0.0
MGAN	Managua	0.73	14	⇓P	Pn	19 10 42.2	+0.1
MGAN				S	Sn	19 10 53.5	+0.9
ALLN	Telcor Managua	0.73	11	P	Pn	19 10 42.2	+0.1
ALLN				S	Sn	19 10 53.7	+1.0
JAPN	Al SSO del Vol	0.73	83	⇑P	Pn	19 10 42.2	0.0
JAPN				S	Sn	19 10 53.5	+0.7
JAPN	Al SSO del Vol	0.73	83	eP	Pn	19 10 42.2	0.0
JAPN				eS	Sn	19 10 52.4	-0.4
WILN	Americas 2	0.76	18	P	Pn	19 10 42.4	-0.1
WILN				S	Sn	19 10 53.9	+0.6
APQ2	Apoyeque	0.76	7	P	Pn	19 10 42.6	0.0
APQ2				S	Sn	19 10 54.1	+0.6
MORN	Al O del Volca	0.77	82	⇓P	Pb	19 10 42.1	+0.5
MORN				S	Sn	19 10 53.8	+0.1
OMEN	Al SSO del Vol	0.78	85	⇓P	Pb	19 10 41.3	-0.5
LCRUZ	La Cruz	0.85	114	⇓iP	Pb	19 10 42.5	-0.6
LCRUZ				eS	Sb	19 10 54.2	+0.1
CARN	Rivas	0.92	106	⇑P	Pb	19 10 43.9	-0.2
CARN				S	Sb	19 10 56.4	+0.6
CARN	Rivas	0.92	106	⇓eP	Pb	19 10 43.8	-0.3
CARN				eS	Sb	19 10 56.2	+0.3
MOMN	Momotombo	0.97	353	P	Pb	19 10 44.2	-1.0
MOMN				S	Sb	19 10 57.1	-0.5
LEVN	Ruinas Leon Vi	0.98	349	P	Pn	19 10 46.5	+0.9
MOM2	El Cardon	1.00	357	⇑P	Pb	19 10 45.6	+0.1
MOM2				S	Sn	19 10 59.3	0.0
CNGA	Al SSO del Vol	1.09	345	⇑P	Pn	19 10 46.7	-0.4
CNGA				S	Sn	19 11 01.6	0.0
CNGN	Cerro Negro	1.09	346	P	Pn	19 10 46.9	-0.2
CNGN				S	Sb	19 11 01.3	+0.3
ILCN	San Idelfonso	1.17	347	P	Pn	19 10 46.5	-1.7
ILCN				S	Sb	19 11 02.0	-1.1
LAPC	Finca la Perla	1.18	124	eP	Pb	19 10 49.0	+0.4
PLRN	Geotermica Pol	1.19	344	P	Pn	19 10 48.0	-0.4
PLRN				S	Sb	19 11 03.9	+0.1
ALIBA	Liberia Airpor	1.20	134	eP	Pn	19 10 47.7	-0.8
ALIBA				eS	Sn	19 11 06.6	+2.3
BUAI	Buenos Aires	1.21	117	eP	Pb	19 10 49.0	-0.1
BUAI				eS	Sb	19 11 02.2	-2.1
VORI	VORI	1.22	120	eP	Pb	19 10 49.5	0.0
VRLE	La Escondida,	1.22	122	eP	Pn	19 10 48.8	-0.2
QUEN	Al S del Volca	1.22	340	P	Pb	19 10 49.2	-0.2
QUEN				S	Sn	19 11 05.2	+0.3
TELN	Telica	1.23	341	⇑P	Pn	19 10 48.7	-0.3
TELN				S	Sn	19 11 05.5	+0.4
GPS3	Bodega del ICE	1.24	123	eP	Pb	19 10 50.6	+0.9
GPS3				eS	Sb	19 11 04.6	-0.7
BOAB	BOACO BROADBAN	1.25	36	P	Pn	19 10 48.5	-0.7
BOAB				S	Sb	19 11 05.4	-0.1
GPS2	Hotel Rincn d	1.25	123	eP	Pn	19 10 49.5	+0.1
ACON	Acoyapa	1.33	66	P	Pn	19 10 49.1	-1.3
ACON				S	Sn	19 11 07.0	-0.5
PKGN	Cerro Pekin	1.34	336	P	Pn	19 10 50.6	+0.1
PKGN				S	Sn	19 11 07.5	-0.3
CLARA	Aguas Claras	1.38	118	eP	Pn	19 10 50.7	-0.4
CLARA				eS	Sn	19 11 08.0	-0.9
MESS	Mesas	1.39	120	eP	Pn	19 10 50.9	-0.3
MESS				eS	Sn	19 11 08.2	-0.9
CRIN	San Cristobal	1.40	334	P	Pn	19 10 51.1	-0.3
CRIN				S	Sn	19 11 08.9	-0.4
HORNC	Hornillas	1.42	120	eP	Pn	19 10 51.2	-0.4
VMAR	Armenia, Volca	1.43	116	⇓eP	Pn	19 10 51.1	-0.6
VMAR				eS	Sn	19 11 08.2	-1.8
BAGA	Bagaces	1.45	128	eP	Pb	19 10 54.2	+0.9
BAGA				eS	Sb	19 11 11.2	-0.2
CANAL	Canalete	1.47	114	eP	Pn	19 10 50.9	-1.4
CANAL				eS	Sn	19 11 09.6	-1.4
UPAL	Upala	1.48	111	P	Pn	19 10 52.0	-0.5
UPAL				S	Sn	19 11 10.0	-1.3
JUD3	Juan Diaz 3	1.53	145	eP	Pb	19 10 55.0	+0.3
MATN	Matagalpa	1.56	18	P	Pn	19 10 53.3	-0.4
MATN				S	Sn	19 11 13.3	-0.1
TENO	El Achiote	1.59	117	eP	Pn	19 10 53.0	-1.0
LIMN	Finca el Limon	1.62	2	P	Pn	19 10 54.1	-0.3
LIMN				S	Sn	19 11 14.6	-0.1
TIMP	Tierras Morena	1.62	121	eP	Pn	19 10 54.4	0.0
QUEB	Quebradon, Cot	1.70	118	eP	Pn	19 10 55.7	+0.1
COTE	Lago Cote	1.71	120	eP	Pn	19 10 55.7	0.0
COTE				eS	Sn	19 11 17.1	+0.2
NYURE	Nandayure	1.83	141	eP	Pn	19 10 58.3	+1.0
JTS	Las Juntas de	1.84	128	P	Pn	19 10 57.4	0.0
JTS	Las Juntas de	1.84	128	eP	Pn	19 10 57.1	-0.3
JTS				eS	Sn	19 11 20.7	+0.6
TABAC	Tabacon	1.87	120	eP	Pn	19 10 58.6	+0.7
POTN	Potosi Cosigui	1.88	326	S	Sn	19 11 21.1	-0.1
ARE1	Arenal 1	1.93	120	eP	Pn	19 10 59.0	+0.3
ARE1				eS	Sb	19 11 25.5	+0.3
CEDE	Laguna Cedeo	1.93	119	eP	Pn	19 10 58.8	+0.1
VARE2	V. Arenal	1.93	120	eP	Pn	19 10 59.2	+0.4
CASO	Castillo	1.93	121	eP	Pn	19 10 58.8	+0.1
CASO				eS	Sn	19 11 22.1	-0.4
VACR	Volcan Arenal	1.96	119	eP	Pn	19 11 00.1	+1.0
RCPN	Sur Rio San Ju	2.10	9	P	Pn	19 11 01.8	+0.7
RCVN	Varillal2	2.15	6	P	Pn	19 11 02.2	+0.4
RCVN				S	Sn	19 11 27.8	-0.1
LAFE	Finca La Fe, P	2.20	137	eP	Pn	19 11 03.1	+0.8
CNCH	Conchagua	2.29	323	eP	Pn	19 11 03.5	-0.3
CNCH	Conchagua	2.29	323	P	Pn	19 11 03.4	-0.3
CNCH				S	Sn	19 11 31.2	-0.2
INTP	Intipuca	2.37	318	eS	Sn	19 11 30.9	-2.3
BLUN	Bluefields	2.65	77	P	Pn	19 11 08.1	-0.5
BLUN				S	Sn	19 11 39.6	-0.7
PACA	Pacayal	2.75	318	eS	Sn	19 11 41.5	-1.2
PACA	Pacayal	2.75	318	P	Pn	19 11 10.0	0.0
PACA				S	Sn	19 11 42.7	0.0
PACA	Pacayal	2.75	318	eP	Pn	19 11 10.2	+0.3
CVTQ	Turrialba Volc	2.97	118	eP	Pn	19 11 13.4	+0.2
PIEC	Cerro El Cedra	3.02	126	eP	Pn	19 11 14.5	+0.6
LFRS	El Faro	3.37	310	eP	Pn	19 11 19.3	+0.7

IDC 23 19:22:05.5±1.9**, 3°.80N×124°.69E, h0**^{km}**, mb3.4**/4**,**
mbtmp3.4/4**, Error ellipse: s-maj=143.4km**
s-min=23.6km az=68.0, Celebes Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	21.78	178	P	P	19 26 59.5	+0.4
	0.5nm,0.4s,baz=4.1,slow=10,SNR=6.7						
	0.5nm,0.4s						
WRA	Warramunga Arr	25.43	158	P	P	19 27 36.3	+1.2
	0.3nm,0.4s,baz=337,slow=9.6,SNR=5.3						
	0.3nm,0.4s						
ASAR	Alice Springs	28.74	162	P	P	19 28 03.4	-1.6
	0.3nm,0.8s,baz=338,slow=6.9,SNR=4.4						
	0.3nm,0.8s						
MKAR	Makanchi Array	56.35	326	P	P	19 31 48.4	-0.1
	0.5nm,0.4s,baz=129,slow=7.7,SNR=9.8						
	0.5nm,0.4s						

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*SDD **23** 19:59:55.7±0.9, 18°.25N×71°.65W, h30^{km}±10^{km}, MD2.5,*
ML1.8, MW2.6, Presumed earthquake
*OSPL **23** 19:59:57.6±0.9, 18°.27N×71°.63W, h10^{km}±9^{km}, ML1.9,*
Presumed earthquake
ISC 23 19:59:57.2±1.1**, 18°.25N**±0°.04×**71°.61W**±0°.05**, h12**^{km}±8^{km}**,**
n10, σ1^{s}53/14**, 1D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LODU1	El Espartillar	0.16	52	iP	Pg	20 00 00.6	-0.3
LODU1				eS	Sg	20 00 03.8	+0.2
LODU1				IAML		20 00 04.2	
	comp=Z,1µm,0.4s						
NEDR	Neiba UASD	0.29	38	ePg	Pb	20 00 04.7	+0.3
NEDR				⇓eSg	Sn	20 00 11.5	+4.3
NEDR				IAML		20 00 11.8	
	comp=N,125nm,0.6s						
NEDR				IAML		20 00 14.6	
	comp=E,79nm,0.5s						
PODR	Polo	0.32	105	iP	Pg	20 00 04.1	+0.3
PODR				IAML		20 00 13.4	
	comp=Z,756nm,0.1s						
PODR	Polo	0.32	105	ePg	Pb	20 00 05.0	0.0
PODR				IAML		20 00 15.8	
	comp=N,109nm,0.5s						
PODR				IAML		20 00 17.4	
	comp=E,147nm,0.4s						
JIDR	Jimani	0.33	316	ePg	Pb	20 00 04.8	-0.2
JIDR				eSg	Sb	20 00 10.6	+0.2
JIDR				IAML		20 00 11.8	
	comp=E,176nm,0.2s						
JIDR				IAML		20 00 13.2	

	comp=N,75nm,0.1s						
LONE3	El Aguacate, B	0.38	22	i P	Pg	20 00 05.0	+0.2
LONE3				IAML		20 00 14.0	
	comp=Z,36nm,1.8s						
LOBH	Bahia de las A	0.39	184	i P	Pg	20 00 04.8	-0.2
LOBH				IAML		20 00 14.5	
	comp=Z,45nm,0.7s						
LOVI	El Cajuil, Ovi	0.51	153	i P	Pb	20 00 07.8	-0.2
LOVI				IAML		20 00 18.4	
	comp=Z,35nm,0.4s						
SDDR	Presa de Saban	0.79	23	i P	Pg	20 00 11.4	-1.1
SDDR				IAML		20 00 24.9	
	comp=Z,40nm,5.1s						
REDR	Restauracion	0.93	13	ePg	Pn	20 00 16.4	+0.3
REDR				eSg	Sn	20 00 31.3	+1.9
REDR				IAML		20 00 31.8	
	comp=E,13nm,2.6s						
REDR				IAML		20 00 34.5	
	comp=N,21nm,0.1s						

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*IDC **23** 20:00:36.9±0.9, 25°.46N×96°.80E, h0^{km}, mb3.8/8, mbtmp3.7/9, ML3.4/1, Error ellipse: s-maj=52.8km s-min=12.4km az=68.0*

ISC 23 20:00:42.1±1.0, 25°.5N±0°.2×96°.8E±0°.3, h35^{km}, n9, σ0^{s}.48/9, mb3.7/8, Myanmar

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	7.28	164	Pn	Pn	20 02 26.1	0.0
	0.2nm,0.3s,baz=333,slow=13,SNR=5.0						
CMAR				Lg	Lg	20 04 23.9	
	baz=327,slow=31						
	0.4nm,0.5s						
CMAR				AML	AML		
SONM	Songino Array	23.53	16	P	P	20 05 48.9	-0.2
	0.5nm,0.5s,baz=216,slow=14,SNR=2.4						
	0.5nm,0.5s						
MKAR	Makanchi Array	24.20	335	P	P	20 05 55.4	+0.2
	1.4nm,0.5s,baz=136,slow=8.3,SNR=5.1						
	1.4nm,0.5s						
AAK	Ala-Archa	25.07	319	P	P	20 06 03.3	-0.1
	0.6nm,0.4s,baz=177,slow=17,SNR=3.9						
	0.6nm,0.4s						
KURBB	Kurchatov Arra	28.76	335	P	P	20 06 36.1	-0.2
	2.4nm,0.2s,baz=161,slow=8.8,SNR=1.2						
	2.4nm,0.2s						
ZALV	Zalesovo Beam	29.78	346	P	P	20 06 45.7	+0.4
	0.5nm,0.3s,baz=171,slow=10,SNR=2.3						
	0.5nm,0.3s						
BVAR	Borovoye Array	33.90	331	P	P	20 07 21.6	+0.1
	0.8nm,0.4s,baz=140,slow=9.9,SNR=4.8						
	0.8nm,0.4s						
WRA	Warramunga Arr	58.05	138	P	P	20 10 31.2	-0.7
	0.6nm,0.9s,baz=328,slow=7.4,SNR=3.3						
	0.6nm,0.9s						
ASAR	Alice Springs	60.65	141	P	P	20 10 50.6	+0.8
	0.3nm,0.5s,baz=323,slow=6.9,SNR=8.2						
	0.3nm,0.5s						

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*IDC **23** 20:15:59.0±3.6, 24°.59N×143°.75E, h53^{km}±30^{km}, mb3.5/10, mbtmp3.7/13, ML2.6/1, MS3.5/1, Error ellipse: s-maj=36.1km s-min=20.3km az=80.0*

ISC 23 20:15:57.3±1.1, 24°.6N±0°.1×143°.7E±0°.2, h35^{km}, n14, σ1^{s}.18/14, mb3.7/10, Volcano Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JCJ	Chichijima	2.86	332	P	Pn	20 16 42.0	+1.6
	26nm,0.3s,baz=0.0,slow=0.0						
JCJ				S	Sn	20 17 11.6	-2.1
	baz=0.0,slow=0.0						
JHJ	Hachijo jima 2	9.18	339	LR	LR	20 20 47.3	
	comp=Z,315nm,19.6s,baz=252,slow=32						
MJAR	Matsushiro Arr	12.83	340	P	Pn	20 18 58.2	+1.0
	baz=154,slow=8.8,SNR=1.5						
	1.1nm,0.8s						
KSRS	Korea Array	18.62	317	P	Pn	20 20 13.2	+1.0
	1.0nm,0.6s,baz=209,slow=19,SNR=1.8						
CMAR	Chiang Mai Arr	41.95	271	P	P	20 23 45.8	+0.8
	0.6nm,0.6s,baz=67,slow=9.0,SNR=6.8						
	0.6nm,0.6s						
WRA	Warramunga Arr	45.18	192	P	P	20 24 10.1	-0.8
	0.5nm,0.4s,baz=9.1,slow=8.2,SNR=7.2						
	0.5nm,0.4s						
ASAR	Alice Springs	48.89	192	P	P	20 24 40.1	+0.3
	0.2nm,0.6s,baz=10.0,slow=6.8,SNR=2.2						
	0.2nm,0.6s						
ZALV	Zalesovo Beam	52.29	320	P	P	20 25 03.5	-1.7
	0.3nm,0.3s,baz=134,slow=6.2,SNR=1.6						
	0.3nm,0.3s						
MKAR	Makanchi Array	53.15	311	P	P	20 25 11.5	-0.2
	0.2nm,0.4s,baz=91,slow=8.9,SNR=5.7						
	0.2nm,0.4s						
KURBB	Kurchatov Arra	55.79	316	P	P	20 25 30.1	-0.6
	0.7nm,0.3s,baz=91,slow=7.7,SNR=6.1						
	0.7nm,0.3s						
BVAR	Borovoye Array	60.83	318	P	P	20 26 06.3	+0.3
	1.4nm,0.6s,baz=73,slow=7.9,SNR=6.5						
	1.4nm,0.6s						
KBZ	Khabaz	80.73	314	P	P	20 28 07.0	-0.1
	0.8nm,0.7s,baz=90,slow=4.0,SNR=2.2						
	0.8nm,0.7s						
FINES	FINESS Array B	80.81	334	P	P	20 28 05.9	-1.2
	1.6nm,0.9s,baz=20,slow=4.4,SNR=4.8						
	1.6nm,0.9s						
NVAR	Mina Array Bea	80.99	52	P	P	20 28 09.1	+0.3
	0.5nm,0.6s,baz=298,slow=4.1,SNR=2.7						
	0.5nm,0.6s						

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*IDC **23** 20:16:54.5±1.8, 20°.98S×67°.13W, h192^{km}±16^{km}, mb2.9/3, mbtmp3.6/7, Error ellipse: s-maj=22.7km s-min=14.9km az=55.0*

*SJA **23** 20:16:54.2±0.6, 21°.06S×67°.43W, h209^{km}±6^{km}, ML3.5, MW3.5*

*GUC **23** 20:16:55.9±0.8, 21°.04S×67°.65W, h221^{km}±10^{km}, ML3.8*

*SCB **23** 20:16:56.5±1.3, 20°.96S×67°.40W, h162^{km}, ML3.9/2, Error ellipse: s-maj=8.4km s-min=7.5km az=0.0*

ISC 23 20:16:54.4±0.8, 21°.01S±0°.04×67°.35W±0°.04, h194^{km}±7^{km}, n55, σ1^{s}.64/85, 6C, Chile-Bolivia border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MOCB	Mochara	1.61	99	P	Pn	20 17 30.1	+1.0
MOCB				S	S	20 17 55.2	-0.8
PB08	IPOC Station P	1.90	297	eP	Pn	20 17 32.9	+1.1
PB08				eS	S	20 18 01.9	+1.1
PB08				IAML		20 18 03.7	
	comp=Z,78nm,0.6s						
PB08	IPOC Station P	1.90	297	⇑eP	Pn	20 17 33.0	+1.1
PB08				eS	S	20 18 01.1	+0.3
PB08				IAML		20 18 03.9	
	comp=E,155nm,0.3s						
PB08	IPOC Station P	1.90	297	P	Pn	20 17 31.8	0.0
PB09	IPOC Station P	1.93	246	eP	Pn	20 17 33.0	+1.1
PB09				eS	S	20 18 01.6	+0.6
PB09				IAML		20 18 02.9	
	comp=Z,110nm,0.5s						
PB09	IPOC Station P	1.93	246	⇑eP	Pn	20 17 32.8	+0.9
PB09				eS	S	20 18 01.3	+0.3
PB09				IAML		20 18 04.9	
	comp=N,118nm,0.3s						
PB09	IPOC Station P	1.93	246	P	Pn	20 17 32.0	+0.1
YJA	Yavi	2.07	125	eP	Pn	20 17 35.8	+2.2
YJA				eS	S	20 18 04.7	+0.6
YJA	Yavi	2.07	125	P	Pn	20 17 35.8	+2.2
GO01	Chusmiza	2.18	307	eP	Pn	20 17 36.0	+1.0
GO01				eS	S	20 18 10.3	+3.9
GO01	Chusmiza	2.18	307	P	Pn	20 17 34.4	-0.6
PB02	IPOC Station P	2.40	262	eP	Pn	20 17 37.1	+0.3
PB02				eS	S	20 18 09.1	-0.8
PB02				IAML		20 18 10.4	
	comp=Z,227nm,0.1s						
PB02	IPOC Station P	2.40	262	⇑eP	Pn	20 17 37.2	+0.3
PB02				eS	S	20 18 07.6	-2.3
PB02				IAML		20 18 08.6	
	comp=N,346nm,0.2s						
PB02				IAML		20 18 09.9	
	comp=E,319nm,0.2s						
PB02	IPOC Station P	2.40	262	P	Pn	20 17 37.3	+0.4
PB02				S	S	20 18 08.6	-1.3
PB02				IAML		20 18 09.9	
	comp=E,348nm,0.5s						
PB03	IPOC Station P	2.47	245	eP	Pn	20 17 38.0	+0.3
PB03				eS	S	20 18 10.1	-1.4
PB03				IAML		20 18 12.7	
	comp=Z,207nm,0.2s						
PB03	IPOC Station P	2.47	245	⇑eP	Pn	20 17 38.0	+0.3
PB03				eS	S	20 18 09.4	-2.0
PB03				IAML		20 18 12.6	
	comp=E,188nm,0.1s						
PB07	IPOC Station P	2.47	253	eP	Pn	20 17 38.1	+0.4
PB07				eS	S	20 18 10.0	-1.5
PB07				IAML		20 18 10.8	
	comp=Z,357nm,0.4s						
SOEO	Opoqueri	2.48	348	P	Pn	20 17 38.4	+0.1
PB11	IPOC Station P	2.49	299	eP	Pn	20 17 38.6	+0.6
PB11				eS	S	20 18 12.1	+0.1
PB11				IAML		20 18 14.7	
	comp=Z,112nm,0.2s						
PB11	IPOC Station P	2.49	299	⇑eP	Pn	20 17 38.3	+0.2
PB11				eS	S	20 18 10.8	-1.1
PB11				IAML		20 18 12.9	
	comp=E,507nm,0.2s						
PB11	IPOC Station P	2.49	299	P	Pn	20 17 37.5	-0.5
PB11				S	S	20 18 10.1	-1.8
PB11				IAML		20 18 12.8	
	comp=E,430nm,0.5s						
AOVT	TarijaAcel	2.52	103	P	Pn	20 17 39.8	+1.4
PB06	IPOC Station P	2.67	230	eP	Pn	20 17 40.3	+0.3
PB06				eS	S	20 18 14.5	-1.1
PB06				IAML		20 18 15.7	
	comp=Z,168nm,0.2s						
PB06	IPOC Station P	2.67	230	eP	Pn	20 17 39.9	-0.1
PB06				eS	S	20 18 14.3	-1.3
PB06				IAML		20 18 15.4	
	comp=E,657nm,0.1s						
PB06	IPOC Station P	2.67	230	P	Pn	20 17 40.5	+0.5
HJA	Humahuaca	2.83	141	eP	Pn	20 17 44.2	+2.0
HJA				eS	S	20 18 20.8	+1.3
HJA				IAML		20 18 22.5	
	comp=Z,72nm,0.4s						
PSGCX	Pisagua	2.96	298	eP	Pn	20 17 43.0	-0.3
PSGCX				eS	S	20 18 19.7	-1.7
PSGCX				IAML		20 18 21.2	
	comp=Z,118nm,0.6s						
PSGCX	Pisagua	2.96	298	eP	Pn	20 17 42.3	-1.0
PSGCX				eS	S	20 18 18.5	-2.9
SOET	ToroToro	3.22	27	P	Pn	20 17 47.8	+1.1
PB05	IPOC Station P	3.23	235	eP	Pn	20 17 46.7	+0.1
PB05				eS	S	20 18 25.1	-2.2
PB05				IAML		20 18 30.5	
	comp=Z,60nm,0.2s						
PB05	IPOC Station P	3.23	235	eP	Pn	20 17 46.2	-0.3
PB05				eS	S	20 18 24.1	-3.3
PB05				IAML		20 18 26.1	
	comp=E,118nm,0.2s						
SALTA		3.34	164	eP	Pn	20 17 50.7	+2.4
PB16	IPOC Station P	3.35	322	eP	Pn	20 17 44.3	-4.2
PB16				eP		20 17 50.2	
PB16				eS	S	20 18 33.6	+2.9
PB16				IAML		20 18 36.6	
	comp=Z,37nm,0.6s						
PB16	IPOC Station P	3.35	322	⇑eP	Pn	20 17 50.0	+1.5
PB16				eS	S	20 18 31.7	+1.0
PB16				IAML		20 18 33.9	
	comp=E,93nm,0.5s						
PB16	IPOC Station P	3.35	322	P	Pn	20 17 49.4	+0.9
PB12	IPOC Station P	3.68	310	eP	Pn	20 17 51.6	-0.5
PB12				eS	S	20 18 34.8	-2.4
PB12				IAML		20 18 38.0	
	comp=Z,42nm,0.5s						
PB12	IPOC Station P	3.68	310	i P	Pn	20 17 50.9	-1.2
PB12				i S	S	20 18 33.8	-3.4
PB12				IAML		20 18 38.4	
	comp=N,79nm,0.3s						
SLA	San Lorenzo	4.07	156	eP	Pn	20 17 58.6	+1.6
SLA				eS	S	20 18 44.3	-1.9
BBOJ	La Paz, Jacaqu	4.09	349	P	Pn	20 17 59.0	+1.4
SOEJ	Jacaque	4.09	349	P	Pn	20 17 58.8	+1.2
BBOD	La Paz, Gloria	4.50	345	P	Pn	20 18 04.2	+1.3
LPAZ	La Paz	4.75	351	P	Pn	20 18 07.7	+1.6
	comp=N,6.4nm,0.4s,baz=165,slow=6.3,SNR=38						
LPAZ				S	S	20 19 02.5	+0.1
	comp=N,3.1nm,0.7s,baz=352,slow=18,SNR=1.2						
LPAZ	La Paz	4.75	351	eP	Pn	20 18 07.7	+1.6
LPAZ				eS		20 19 20.5	
LPAZ	La Paz	4.75	351	P	Pn	20 18 07.0	+0.9
BBOB	La Paz, Bander	4.89	351	P	Pn	20 18 08.8	+0.9
FSA	Cafayete	5.24	166	eP	Pn	20 18 13.7	+1.8
SIV	San Ignacio	7.77	51	P	Pn	20 18 43.4	-1.2
	comp=N,7.4nm,0.4s,baz=240,slow=10,SNR=28						
SIV				S	S	20 20 06.5	-5.8
	comp=N,1.4nm,0.4s,baz=308,slow=23,SNR=8.6						
SIV	San Ignacio	7.77	51	P	Pn	20 18 43.6	-1.1
CFA	Coronel Fontan	10.59	184	P	Pn	20 19 21.2	-0.1
	comp=N,1.0nm,0.3s,baz=345,slow=16,SNR=3.0						
CPUP	Villa Florida	10.60	122	P	Pn	20 19 20.1	-1.4
	comp=N,0.5nm,0.5s,baz=18,slow=19,SNR=1.3						
CPUP				S	S	20 21 15.9	-4.2
	comp=N,0.4nm,0.6s,baz=5.0,slow=16,SNR=0.8						
TXAR	Lajitas Array	61.07	324	P	P	20 26 48.2	+0.2
	comp=N,0.1nm,0.5s,baz=103,slow=2.7,SNR=2.0						
	comp=N,0.1nm,0.5s						
PDAR	Pinedale Array	74.42	329	P	P	20 28 13.0	+1.6
	comp=N,0.1nm,0.3s,baz=96,slow=3.2,SNR=1.8						
	comp=N,0.1nm,0.3s						
TORD	Torodi Ar. Bea	75.82	70	P	P	20 28 19.2	-0.4
	comp=N,0.3nm,0.4s,baz=256,slow=5.1,SNR=5.9						
	comp=N,0.3nm,0.4s						
WRA	Warramunga Arr	134.10	209	PKP	PKPdf	20 35 48.1	-1.5
	comp=N,0.3nm,0.8s,baz=131,slow=1.1,SNR=2.3						
MKAR	Makanchi Array	144.38	37	PKP	PKPdf	20 36 07.5	+0.1
	comp=N,0.4nm,0.4s,baz=328,slow=3.0,SNR=9.9						

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*CATAC **23** 20:42:48.2±0.5, 13°N±2°×9°0W±°, h16^{km}±4^{km}, M4.5/20, mb4.5/1, mB4.8/1, MLv4.6/20, Mw(mB)4.1/1, Error ellipse: s-maj=4.2km s-min=3.0km az=46.9, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}0.35; $M_{\theta\theta}$-0.38; $M_{\phi\phi}$0.03; $M_{r\theta}$0.71; $M_{\theta\phi}$0.86; $M_{\phi r}$-0.20; Fault plane solution: $M_0$1.19287×10^{16} NP1:ϕ_s353.09685°, δ45.61163°, λ166.90149°. NP2:ϕ_s92.34146°, δ80.67989°, λ45.14356°. Principal axes: T 0.9353, Plg37.5281°, Azm323.3731°; N 0.4080, Plg44.1087°, Azm101.4955°; P -1.3433, Plg22.3410°, Azm214.9721°; confirmed*

*GCG **23** 20:42:48.7±1.0, 12°.94N×90°.40W, h5^{km}±16^{km}, MD4.9, ML4.8, Presumed earthquake*

*SNET **23** 20:42:50.0±21.0, 12°.86N×90°.22W, h11^{km}, ML4.6, Presumed earthquake*

*NEIC **23** 20:42:52.7±2.5, 13°.03N±0°.07×90°.08W±0°.06, h35^{km}±1^{km}, mb4.6/141, Error ellipse: s-maj=12.8km s-min=8.7km az=217.0*

*GFZ **23** 20:42:55.9±0.4, 13°N±7°×9°0W±°, h59^{km}, M4.4/17, mb4.4/17, confirmed*

*IDC **23** 20:42:56.2±1.9, 13°.23N×89°.77W, h75^{km}±13^{km}, mb3.9/15, mbtmp4.3/18, MS3.9/40, Error ellipse: s-maj=25.7km s-min=11.9km az=51.0*

*UCR **23** 20:42:57.0±1.9, 11°.92N×89°.99W, h0^{km}±999^{km}, MB4.6(NEIC), Presumed earthquake*

ISC 23 20:42:53.6±1.0, 12°.95N±0°.05×90°.22W±0°.05, h64^{km}±8^{km}, n259, σ1^{s}.97/214, mb4.5/80, 9C-5D, Off coast of central America

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FAME	Alcaldia de Sa	0.91	13	⇓P	Pn	20 43 07.6	-3.1
FAME				S	Sn	20 43 22.6	-0.8
JAYA	Jayaque - finc	1.03	47	eP	Pn	20 43 09.8	-2.5
JAYA				eS	Sn	20 43 21.5	-4.7
JAYA				IAML		20 43 29.8	
	comp=E,27µm,0.4s						
JAYA	Jayaque - finc	1.03	47	⇓P	Pn	20 43 09.9	-2.5
JAYA				S	Sn	20 43 27.0	+0.8
LALI	Alcalda de L	1.03	58	eP	Pn	20 43 09.8	-2.4
LALI	Alcalda de L	1.03	58	P	Pn	20 43 10.3	-1.8
NUBE	Las Nubes	1.04	24	⇓eP	Pn	20 43 09.9	-2.6
NUBE				eS	Sn	20 43 25.6	-0.9
NUBE	Las Nubes	1.04	24	⇓P	Pn	20 43 09.9	-2.6
NUBE				S	Sn	20 43 25.9	-0.7
CEVE	Cerro Verde	1.05	33	P	Pn	20 43 10.4	-2.3
CEVE				S	Sn	20 43 27.6	+0.8
LOAL	Lomas de Alarc	1.13	22	P	Pn	20 43 11.6	-2.0
LOAL				S	Sn	20 43 29.0	+0.6
SLOZ	Alcaldia de Sa	1.15	22	⇓P	Pn	20 43 11.8	-2.1
PMON	Piamonte	1.16	49	⇑P	Pn	20 43 11.9	-2.1
PMON				S	Sn	20 43 30.6	+1.3
PANCS	Alcalda de	1.21	57	P	Pn	20 43 12.1	-2.5
PANCS				S	Sn	20 43 31.1	+0.9
UNIC	Universidad Ca	1.22	32	P	Pn	20 43 12.9	-1.9
UNIC				S	Sn	20 43 31.5	+1.0
UEES	Universidad Ev	1.22	51	P	Pn	20 43 12.7	-2.1
SEMO	Seminario San	1.23	52	P	Pn	20 43 13.7	-1.1
LOMA	Loma Larga	1.23	56	⇑P	Pn	20 43 12.8	-2.2
LOMA				S	Sn	20 43 31.7	+0.7
IGN	Direccin Gen	1.27	53	P	Pn	20 43 14.4	-1.0
IGN				S	Sn	20 43 33.1	+1.3
FG8	Yepocapa, Chim	1.35	346	⇑eP	Pn	20 43 16.9	+0.5
FG16	Alotenango, Sa	1.35	348	eP	Pn	20 43 16.7	+0.1
FG16				eS	Sn	20 43 38.0	+4.3
PAVA	Las Pavas	1.46	58	P	Pn	20 43 16.8	-1.2
PAVA				S	Sn	20 43 37.5	+1.2
COEG	Centro de Oper	1.47	63	⇑P	Pn	20 43 16.1	-1.9
COEG				S	Sn	20 43 37.6	+1.2
JUAM	Asuncion Mita	1.47	20	⇑eP	Pn	20 43 16.6	-1.4
JUAM				eS	Sn	20 43 37.2	+0.8
JUAM				IAML		20 43 38.8	
	comp=N,13µm,0.2s						
TECO	Alcaldia de Te	1.52	67	P	Pn	20 43 16.4	-2.3
TECO				S	Sn	20 43 39.2	+1.6
ESSG	Sabana Grande	1.55	338	eP	Pn	20 43 15.9	-3.2
ESSG				eS	Sn	20 43 32.9	-5.4
MTO3	Montecristo	1.67	30		Pn	20 43 18.1	-2.8
MTO3				Sn	Sn	20 43 42.5	+1.1
MTO3	Montecristo	1.67	30	⇑eP	Pn	20 43 19.7	-1.2
MTO3	Montecristo	1.67	30	⇑P	Pn	20 43 19.7	-1.2
MTO3				S	Sn	20 43 43.9	+2.4
P5NO	Presa 5 de nov	1.76	54	P	Pn	20 43 20.9	-0.9
P5NO				S	Sn	20 43 45.2	+1.9
ESQI	Esquipulas	1.82	28		Pn	20 43 20.3	-2.4
ESQI	Esquipulas	1.82	28	P	Pn	20 43 21.9	-0.9
ESQI				S	Sn	20 43 47.3	+2.5
STG8	El Palmar, Qui	1.85	324	eP	Pn	20 43 24.8	+1.4
PACA	Pacayal	1.92	74	P	Pn	20 43 23.1	-1.1
APG	El Apazote	2.06	353	P	Pn	20 43 24.6	-1.5
	comp=N,37nm,0.3s,baz=132,slow=10,SNR=519						
APG				S	Sn	20 43 50.9	0.0
	comp=N,20nm,0.3s,baz=215,slow=16,SNR=6.5						
APG				LR	LR	20 44 11.0	
	comp=N,146nm,18.6s,baz=116,slow=40						
APG	El Apazote	2.06	353	⇑i P	Pn	20 43 25.1	-1.1
APG				eS	Sn	20 43 52.3	+1.4
RTAL	Retalhuleu	2.12	318		Pn	20 43 23.1	-3.7
RTAL				Sn	Sn	20 43 41.9	-10
RTAL	Retalhuleu	2.12	318	P	Pn	20 43 23.8	-3.1
RTAL				S	Sn	20 43 49.3	-2.8
LCND	La Caada	2.30	81	P	Pn	20 43 27.7	-1.5
SARH	Santa Rosa de	2.31	38	eP	Pn	20 43 29.7	+0.4
CNCH	Conchagua	2.35	82	⇑P	Pn	20 43 28.0	-2.0
CNCH				S	Sn	20 43 59.5	+1.8
POTN	Potosi Cosigui	2.65	89	P	Pn	20 43 32.6	-1.3
POTN				S	Sn	20 44 05.9	+1.0
HUEH	Huehuetenango	2.67	332		Pn	20 43 32.9	-1.5
TGUH	Tegucigalpa,Un	3.07	69		Pn	20 43 36.5	-3.3
CRIN	San Cristobal	3.10	94		Pn	20 43 38.9	-1.3
QUEN	Al S del Volca	3.31	96	P	Pn	20 43 40.6	-2.3
TELN	Telica	3.32	96	P	Pn	20 43 40.8	-2.4
TELN				S	Sn	20 44 22.9	+1.3
ILCN	San Idelfonso	3.45	96	P	Pn	20 43 41.4	-3.5
CNGA	Al SSO del Vol	3.46	97	P	Pn	20 43 43.0	-2.2
CNGN	Cerro Negro	3.46	97	P	Pn	20 43 42.9	-2.2
TISN	Laguna Tiscapa	3.94	101	P	Pn	20 43 48.7	-2.9
UNAN	Cigeo UNAN	3.94	102	P	Pn	20 43 48.6	-3.1
RCFN	Al S de San Ju	3.95	81	P	Pn	20 43 50.0	-1.8
MGAN	Managua	3.96	101	Pn	Pn	20 43 48.6	-3.2
RCVN	Varillal2	3.97	80	P	Pn	20 43 50.5	-1.7
WILN	Americas 2	4.01	101	P	Pn	20 43 50.3	-2.3
MAS3	Al N del Volca	4.05	103	P	Pn	20 43 50.4	-2.8
NANN	Nandasmo	4.13	104	P	Pn	20 43 53.2	-1.0
NANN				S	Sn	20 44 40.3	-0.9
MATN	Matagalpa	4.19	90	P	Pn	20 43 52.9	-2.2
BOAB	BOACO BROADBAN	4.47	96		Pn	20 43 55.4	-3.5
BOAB	BOACO BROADBAN	4.47	96	P	Pn	20 43 56.4	-2.5
BOAB	BOACO BROADBAN	4.47	96	P	Pn	20 43 56.0	-2.8
LAPC	Finca la Perla	5.16	114	eP	Pn	20 44 08.2	-0.2
LAPC				eS	Sn	20 45 05.0	-1.7
VRLE	La Escondida,	5.21	114	eP	Pn	20 44 09.6	+0.4
GPS2	Hotel Rincn d	5.24	114	eP	Pn	20 44 10.3	+0.8
JUD3	Juan Diaz 3	5.36	121	Pn	Pn	20 44 09.6	-1.5
JUD3	Juan Diaz 3	5.36	121	eP	Pn	20 44 09.4	-1.7
MESS	Mesas	5.39	113	eP	Pn	20 44 11.5	0.0
HORNC	Hornillas	5.41	114	eP	Pn	20 44 10.8	-1.0
CUI	Cuipilapa	5.45	114	eP	Pn	20 44 12.7	+0.4
TENO	El Achiote	5.60	113	eP	Pn	20 44 14.0	-0.4
TIMP	Tierras Morena	5.61	114	eP	Pn	20 44 14.5	0.0
QUEB	Quebradon, Cot	5.70	113	eP	Pn	20 44 15.2	-0.6
JTS	Las Juntas de	5.80	117	P	Pn	20 44 15.6	-1.4
	comp=N,22nm,0.3s,baz=309,slow=20,SNR=17						
JTS				S	Sn	20 45 15.3	-6.9
	comp=N,13nm,0.4s,baz=283,slow=20,SNR=1.5						
JTS				LR	LR	20 46 13.7	
	comp=N,334nm,18.1s,baz=307,slow=36						
JTS	Las Juntas de	5.80	117		Pn	20 44 16.7	-0.4
JTS	Las Juntas de	5.80	117	P	Pn	20 44 16.6	-0.5
JTS	Las Juntas de	5.80	117	eP	Pn	20 44 16.4	-0.6
JTS	Las Juntas de	5.80	117	P	Pn	20 44 17.5	+0.5
	comp=Z,40nm,1.0s						
TABAC	Tabacon	5.87	114	eP	Pn	20 44 18.7	+0.6
ARE1	Arenal 1	5.93	114	eP	Pn	20 44 17.7	-1.2
VARE2	V. Arenal	5.93	114	eP	Pn	20 44 18.4	-0.5
CEDE	Laguna Cedeo	5.93	114	eP	Pn	20 44 18.7	-0.2
LAFE	Finca La Fe, P	6.07	120	eP	Pn	20 44 18.7	-2.0
CMIG	Matias Romero	6.11	313	P	Pn	20 44 21.0	-0.2
	comp=Z,7.4nm,0.3s,baz=120,slow=10,SNR=20						
CMIG				S	Sn	20 45 30.2	+0.4
	comp=Z,20nm,0.6s,baz=67,slow=16,SNR=1.6						
VBV1	V. Barva	6.63	115	eP	Pn	20 44 28.2	-0.4
VICA	Volcano Irazu	6.91	115	eP	Pn	20 44 31.6	-1.1
RAFA	San Farael, Vo	6.95	115	Pn	Pn	20 44 31.3	-1.8
PIEC	Cerro El Cedra	6.97	118	eP	Pn	20 44 33.7	+0.3
ABRB	Las Abras (San	7.01	114	eP	Pn	20 44 35.6	+1.7
VTCV	VTCV, Calle Va	7.01	114	eP	Pn	20 44 37.4	+3.5
BUS1	Rivas	7.19	117	eP	Pn	20 44 37.0	+0.5
BUS1				eS	Sn	20 45 50.3	-6.7
TEIG	Tepich	7.47	14		Pn	20 44 39.7	-0.2
PIRO	Carate, Puerto	8.13	123		Pn	20 44 49.9	+0.9
BRU2	Volcan	8.47	118		Pn	20 44 53.0	-0.8
BRU2	Volcan	8.47	118	P	Pn	20 44 55.2	+1.4
	comp=Z,72nm,0.7s						
TLIG	Tlapa	9.27	301		Pn	20 45 05.0	+0.4
SOR	Soroa	11.95	34	Pn	Pn	20 45 45.4	+4.2
MOIG	Morelia	12.47	304	Pn	Pn	20 45 48.0	-0.5
ZAIG	Zacatecas	15.27	311	Pn	Pn	20 46 24.0	-1.7
ZAIG	Zacatecas	15.27	311	P	P	20 46 28.1	-1.2
	comp=Z,8.1nm,1.2s						
833A	Chaparral WMA,	17.53	332		Pn	20 46 53.4	-0.2
ROSC	El Rosal	17.64	116	P	P	20 46 55.4	-0.3
	comp=Z,14nm,0.3s,baz=33,slow=6.8,SNR=6.7						
ROSC	El Rosal	17.64	116		Pn	20 46 53.8	-1.7
ROSC				IAmb	IAmb	20 47 12.1	
	comp=Z,60nm,1.4s						
HKT	Hockley	17.70	344		P	20 46 56.4	+0.6
NATX	Nacogdoches	19.16	348	P	P	20 47 12.2	+0.3
NATX				IAmb	IAmb	20 47 15.0	
	comp=Z,32nm,1.1s						
JCT	Junction City	19.57	335	P	P	20 47 17.3	+1.0
SDV	Santo Domingo	19.65	100	P	P	20 47 15.5	-2.0
	comp=Z,2.5nm,0.4s,baz=296,slow=7.7,SNR=5.3						
SDV				LR	LR	20 55 35.0	
	comp=Z,274nm,20.1s,baz=276,slow=39						
SDV	Santo Domingo	19.65	100	P	Pn	20 47 18.6	-0.8
	comp=Z,55nm,0.8s						
BRDY	Brady	19.96	337		P	20 47 21.4	+0.8
HPIG		20.08	316	P	Pn	20 47 24.3	-0.1
HPIG		20.08	316	P	Pn	20 47 25.3	+0.8
	comp=Z,11nm,1.1s						
SAND	Sanderson	20.20	329		Pn	20 47 24.7	-0.9
OZNA	Ozona	20.52	332		P	20 47 27.8	+1.0
OZNA				IAmb	IAmb	20 47 56.5	
	comp=Z,38nm,1.3s						
TXAR	Lajitas Array	20.54	325	P	Pn	20 47 28.9	-0.8
	comp=Z,7.6nm,0.9s,baz=145,slow=11,SNR=41						
TXAR				S	S	20 51 03.5	-10
	comp=Z,0.3nm,0.8s,baz=115,slow=16,SNR=1.9						
TXAR				PcP	PcP	20 51 39.0	+2.9
	comp=Z,0.3nm,0.6s,baz=138,slow=2.0,SNR=3.6						

	comp=Z,7.6nm,0.9s						
TX31	Lajitas Ar. Si	20.54	325		Pn	20 47 28.5	-1.2
Z38A	Mt. Pleasant	20.68	349	P	P	20 47 26.4	-1.9
Z38A				IAmb	IAmb	20 47 58.1	
	comp=Z,39nm,1.1s						
PLPT	Palo Pinto	21.12	341	P	P	20 47 32.1	-0.9
PLPT				IAmb	IAmb	20 48 00.5	
	comp=Z,44nm,1.2s						
ALPN	Alpine	21.32	327		P	20 47 37.1	+1.7
ALPN				IAmb	IAmb	20 47 39.1	
	comp=Z,51nm,1.3s						
ABTX	Abilene, Hawle	21.40	338	P	P	20 47 36.1	0.0
ABTX				IAmb	IAmb	20 48 07.1	
	comp=Z,45nm,1.4s						
X48A	Hartselle	21.60	7	P	P	20 47 37.7	-0.4
MNHN	Monahans	21.64	330		P	20 47 39.5	+0.7
MNHN				IAmb	IAmb	20 47 42.0	
	comp=Z,17nm,0.9s						
MIAR	Mount Ida	21.72	352		P	20 47 40.9	+1.5
MIAR				IAmb	IAmb	20 48 11.3	
	comp=Z,22nm,1.1s						
MIAR	Mount Ida	21.72	352	P	P	20 47 37.1	-2.3
	comp=Z,17nm,2.7s						
LPIG	La Paz	22.01	303	LR	LR	20 56 29.1	
	comp=Z,220nm,18.7s,baz=95,slow=37						
APMT	Aspermont	22.21	338		P	20 47 45.4	+0.7
V48A	Smith Brothers	22.90	7	IAmb	IAmb	20 47 54.3	
	comp=Z,22nm,1.2s						
W35A	Tecumseh	22.91	346		P	20 47 50.5	-1.6
GDL2	Guadalupe Moun	23.14	328	P	P	20 47 57.0	+2.4
WVT	Waverly	23.18	5		P	20 47 53.6	-1.2
WVT				IAmb	IAmb	20 47 55.6	
	comp=Z,19nm,1.1s						
WVT	Waverly	23.18	5	P	P	20 47 54.0	-0.8
	comp=Z,16nm,2.2s						
MNTX	Cornudas Mount	23.29	326	P	P	20 47 57.2	+1.3
	comp=Z,29nm,1.4s						
CLTN	Cedars of Leba	23.31	8	IAmb	IAmb	20 47 57.1	
	comp=Z,24nm,1.4s						
TKL	Tuckaleechee C	23.35	13	LR	LR	20 58 03.1	
	comp=Z,526nm,18.6s,baz=180,slow=40						
TKL	Tuckaleechee C	23.35	13	IAmb	IAmb	20 47 57.4	
	comp=Z,27nm,1.4s						
V53A	Saluda	23.59	15		P	20 47 58.8	+0.2
SMWD	Samnorwood	23.85	339	IAmb	IAmb	20 48 05.0	
	comp=Z,37nm,1.4s						
T35A	Sooner Cattle	24.53	348	IAmb	IAmb	20 48 34.5	
	comp=Z,35nm,1.3s						
S44A	Carbondale	24.66	2	IAmb	IAmb	20 48 11.6	
	comp=Z,22nm,0.8s						
S39A	Bolivar	24.80	354	IAmb	IAmb	20 48 11.3	
	comp=Z,8.8nm,0.6s						
CCM	Cathedral Cave	25.02	358		P	20 48 10.6	-1.0
CCM				IAmb	IAmb	20 48 12.1	
	comp=Z,30nm,1.4s						
CCM	Cathedral Cave	25.02	358	P	P	20 48 11.6	0.0
	comp=Z,15nm,1.0s						
SRIG	Santa Rosalia	25.08	308	IAmb	IAmb	20 48 18.1	
	comp=Z,14nm,0.8s						
SRIG	Santa Rosalia	25.08	308	P	P	20 48 15.8	+3.6
	comp=Z,21nm,1.3s						
WCI	Wyandotte Cave	25.42	7	P	P	20 48 14.1	-1.1
WCI	Wyandotte Cave	25.42	7	P	P	20 48 15.4	+0.2
	comp=Z,28nm,0.9s						
Y22A	Socorro	25.86	327	IAmb	IAmb	20 48 23.6	
	comp=Z,15nm,1.2s						
TUC	Tucson	26.96	319	P	P	20 48 30.3	+1.0
PV13	Radium Mtn., P	30.08	330	IAmb	IAmb	20 49 00.8	
	comp=Z,13nm,1.1s						
PV03	Paradox Valley	30.16	330	IAmb	IAmb	20 49 00.8	
	comp=Z,10nm,1.0s						
PV18	Skein Mesa, Pa	30.19	330	IAmb	IAmb	20 49 00.9	
	comp=Z,16nm,1.1s						
PV07	Paradox Valley	30.21	330	IAmb	IAmb	20 49 01.3	
	comp=Z,9.2nm,1.1s						
PV17	East Wray Mesa	30.24	330	IAmb	IAmb	20 49 01.4	
	comp=Z,12nm,0.8s						
PV16	Nyswonger Mesa	30.24	330	IAmb	IAmb	20 49 01.5	
	comp=Z,13nm,1.3s						
PV19	Morning Glory	30.27	330	IAmb	IAmb	20 49 01.6	
	comp=Z,13nm,1.1s						
PV10	Paradox Valley	30.35	330	IAmb	IAmb	20 49 04.4	
	comp=Z,11nm,0.9s						
PV22	Blue Mesa, Par	30.36	330	IAmb	IAmb	20 49 02.4	
	comp=Z,14nm,1.2s						
PV23	Carpenter Ridg	30.40	330	IAmb	IAmb	20 49 05.3	
	comp=Z,16nm,1.0s						
BC3	Big Chuckawall	30.86	316	IAmb	IAmb	20 49 10.1	
	comp=Z,14nm,1.3s						
HMU	Henry Mountain	30.88	327	IAmb	IAmb	20 49 07.8	
	comp=Z,14nm,1.3s						
ECSD	EROS Data Cent	31.17	351	IAmb	IAmb	20 49 06.8	
	comp=Z,15nm,1.2s						
ECSD	EROS Data Cent	31.17	351	P	P	20 49 05.4	-1.0
	comp=Z,14nm,1.1s						
PFO	Pinyon Flats O	31.53	315	LR	LR	21 03 39.8	
	comp=Z,392nm,18.0s,baz=149,slow=39						
MTPU	Mount Pierson	31.73	326	IAmb	IAmb	20 49 15.8	
	comp=Z,12nm,1.2s						
SZCU	Shurtz Canyon	31.92	324	IAmb	IAmb	20 49 17.5	
	comp=Z,17nm,1.4s						
P17A	Butcher Ranch,	32.04	329	IAmb	IAmb	20 49 17.2	
	comp=Z,10nm,1.2s						
CCUT	Cedar City	32.05	324	IAmb	IAmb	20 49 19.0	
	comp=Z,8.2nm,1.2s						
G40A	Rib Lake	32.21	0	IAmb	IAmb	20 49 15.8	
	comp=Z,6.8nm,1.0s						
SADO	Sadowa	33.10	15	LR	LR	21 03 14.0	
	comp=Z,358nm,19.3s,baz=188,slow=37						
QSM	Queen of Sheba	33.17	318	IAmb	IAmb	20 49 28.4	
	comp=Z,11nm,1.4s						
GWY	Greenwater Val	33.17	319	IAmb	IAmb	20 49 28.7	
	comp=Z,8.2nm,1.3s						
F33A	5 Mile Ranch,	33.19	352	IAmb	IAmb	20 49 23.9	
	comp=Z,8.4nm,0.9s						
RSSD	Black Hills	33.25	342	P	P	20 49 25.1	+0.2
	comp=Z,7.2nm,1.7s						
TPNV	Topopah Spring	33.38	320	IAmb	IAmb	20 49 31.0	
	comp=Z,14nm,1.4s						
LRMC	Laurel Mtn Rad	33.42	317	IAmb	IAmb	20 49 31.0	
	comp=Z,13nm,1.4s						
FURC	Furnace Creek,	33.47	319	IAmb	IAmb	20 49 32.7	
	comp=Z,17nm,1.5s						
CLC	China Lake	33.56	317	IAmb	IAmb	20 49 32.4	
	comp=Z,7.5nm,1.2s						
MPMC	Manual Prospec	33.63	318	IAmb	IAmb	20 49 32.4	
	comp=Z,12nm,1.4s						
DUG	Dugway, Tooele	33.64	328	P	P	20 49 30.5	+2.2
	comp=Z,4.2nm,1.6s						
HWUT	Hardware Ranch	34.08	331	IAmb	IAmb	20 49 46.8	
	comp=Z,7.3nm,1.1s						
HWUT	Hardware Ranch	34.08	331	P	P	20 49 34.0	+1.9
	comp=Z,8.5nm,1.1s						
PDAR	Pinedale Array	34.10	334	P	P	20 49 33.5	+1.1
	comp=Z,0.4nm,0.6s,baz=121,slow=11,SNR=4.2						
PDAR				PcP	PcP	20 52 08.3	-0.3
	comp=Z,0.3nm,0.5s,baz=163,slow=1.9,SNR=2.7						
	comp=Z,0.4nm,0.6s						
PDAR	Pinedale Array	34.10	334	P	P	20 49 32.3	-0.1
TPH	Tonopah	34.69	321	IAmb	IAmb	20 49 41.7	
	comp=Z,9.7nm,1.2s						
HVU	Hansel Valley	34.80	330	IAmb	IAmb	20 49 42.1	
	comp=Z,7.6nm,1.3s						
ELK	Elko	35.32	326	LR	LR	21 08 03.7	
	comp=Z,256nm,18.7s,baz=132,slow=43						
ELK	Elko	35.32	326	IAmb	IAmb	20 49 48.1	
	comp=Z,7.1nm,1.2s						
AGMN	Agassiz Nation	35.55	354	P	P	20 49 43.0	-1.5
	comp=Z,16nm,1.0s						
NVAR	Mina Array Bea	35.58	321	P	P	20 49 47.2	+2.1
	comp=Z,9.8nm,1.0s,baz=136,slow=8.5,SNR=37						
NVAR				LR	LR	21 06 00.9	
	comp=Z,347nm,19.7s,baz=110,slow=39						
	comp=Z,9.8nm,1.0s						
NVAR	Mina Array Bea	35.58	321	P	P	20 49 46.5	+1.5
MDPB	Devils Postpil	35.59	319	IAmb	IAmb	20 49 50.5	
	comp=Z,14nm,1.4s						
PKD	Bear Valley Ra	35.61	315	IAmb	IAmb	20 49 50.6	
	comp=Z,14nm,1.2s						
KVN	Kaiserville	35.84	322	IAmb	IAmb	20 49 51.5	
	comp=Z,12nm,1.1s						
BMN	Battle Mountai	36.21	324	IAmb	IAmb	20 49 54.4	
	comp=Z,15nm,1.3s						
WAKR	Walker	36.33	320	P	P	20 49 55.0	+3.5
LPAZ	La Paz	36.34	142	LR	LR	21 04 35.6	
	comp=Z,131nm,18.2s,baz=320,slow=36						
YERR	Yerington	36.49	321	IAmb	IAmb	20 49 57.4	
	comp=Z,15nm,1.3s						
HLID	Hailey	36.93	330	P	P	20 49 56.8	+0.2
	comp=Z,3.1nm,1.4s						
PAHR	Pah Rah Range	37.02	321	IAmb	IAmb	20 50 01.6	
	comp=Z,7.6nm,1.1s						
ULM	Lac du Bonnet	37.48	354	P	P	20 49 59.3	-1.6
	comp=Z,6.6nm,0.7s,baz=166,slow=8.3,SNR=6.1						
ULM				LR	LR	21 09 43.8	
	comp=Z,137nm,18.2s,baz=168,slow=43						
	comp=Z,6.6nm,0.7s						
BEKR	Beckworth	37.72	321	IAmb	IAmb	20 50 08.1	
	comp=Z,11nm,1.1s						
ORV	Oroville	38.25	320		P	20 50 09.8	+2.3
WVOR	Wild Horse Val	38.33	325	IAmb	IAmb	20 50 11.5	
	comp=Z,7.2nm,1.0s						
WVOR	Wild Horse Val	38.33	325	P	P	20 50 10.9	+2.6
J08A	Circle Bar Ran	38.86	327	IAmb	IAmb	20 50 15.9	
	comp=Z,10nm,0.9s						
F10A	Beach Ranch, E	40.06	331		P	20 50 23.0	+0.3
F10A				IAmb	IAmb	20 50 24.4	
	comp=Z,13nm,1.2s						
YBH	Yreka Blue Hor	40.26	322	LR	LR	21 08 37.7	
	comp=Z,189nm,20.1s,baz=154,slow=38						
SIV	San Ignacio	40.72	134	LR	LR	21 08 03.1	
	comp=Z,233nm,18.1s,baz=284,slow=37						
CLDB	Colider	41.56	123	P	P	20 50 35.8	+0.5
	comp=Z,6.2nm,1.1s						
NEW	Newport	41.71	333	LR	LR	21 12 21.6	
	comp=Z,114nm,18.2s,baz=133,slow=42						
HOOD	Mount Hood Mea	41.87	327	P	P	20 50 38.8	+1.2
C09A	Chrisman Ranch	41.89	332	P	P	20 50 38.8	+1.3
C09A				IAmb	IAmb	20 50 41.1	
	comp=Z,6.3nm,0.6s						
FFC	Flin Flon	42.69	350	P	P	20 50 44.2	+0.3
	comp=Z,10nm,2.0s						
RPN	Rapa Nui	43.95	205	LR	LR	21 04 23.8	
	comp=Z,135nm,21.2s,baz=96,slow=29						
SCHQ	Schefferville	45.63	19	P	P	20 51 05.5	-2.0
	comp=Z,5.4nm,0.4s,baz=213,slow=6.3,SNR=22						
SCHQ				LR	LR	21 11 45.3	
	comp=Z,162nm,18.2s,baz=254,slow=38						
	comp=Z,5.4nm,0.4s						
SCHQ	Schefferville	45.63	19	P	P	20 51 07.2	-0.2
CPUP	Villa Florida	50.47	141	LR	LR	21 12 34.0	
	comp=Z,38nm,21.3s,baz=299,slow=35						
BDFB	Brasilia	50.50	123	LR	LR	21 13 10.7	
	comp=Z,116nm,18.8s,baz=306,slow=36						
YKA	Yellowknife Ar	52.45	346	P	P	20 51 59.4	0.0
	comp=Z,1.8nm,0.3s,baz=152,slow=7.8,SNR=10						
	comp=Z,1.8nm,0.3s						
YKA	Yellowknife Ar	52.45	346	P	P	20 51 59.2	-0.2
FRB	Frobisher Bay	52.96	12	LR	LR	21 15 14.9	
	comp=Z,342nm,18.5s,baz=203,slow=37						
DLBC	Dease Lake	54.32	336	LR	LR	21 19 50.6	
	comp=Z,199nm,18.9s,baz=105,slow=41						
PLCA	Paso Flores	56.43	162	P	P	20 52 32.3	+3.6
	comp=Z,0.6nm,0.5s,baz=5.7,slow=10,SNR=3.5						
PLCA				LR	LR	21 12 00.2	
	comp=Z,68nm,18.6s,baz=343,slow=31						
	comp=Z,0.6nm,0.5s						
RCBR	Riachuelo	57.09	106	LR	LR	21 18 02.6	
	comp=Z,39nm,20.1s,baz=196,slow=37						
SFJD	Kangerlussuaq	60.00	17	LR	LR	21 19 44.0	
	comp=Z,122nm,19.3s,baz=222,slow=37						
RES	Resolute Bay	61.78	359	LR	LR	21 21 36.8	
	comp=Z,125nm,19.6s,baz=184,slow=38						
F28M	Old Crow	63.42	341	P	P	20 53 16.7	+0.5
ILAR	Eielson Array	64.48	337	P	P	20 53 23.9	+0.7
	comp=Z,3.0nm,1.0s,baz=128,slow=5.0,SNR=13						
ILAR				LR	LR	21 26 52.1	
	comp=Z,135nm,18.1s,baz=82,slow=41						
	comp=Z,3.0nm,1.0s						
ILAR	Eielson Array	64.48	337	P	P	20 53 23.1	-0.2
KDAK	Kodiak Island	64.52	328	LR	LR	21 25 59.6	
	comp=Z,88nm,18.1s,baz=87,slow=40						
SUMG	Summit	66.79	15	P	P	20 53 38.4	-0.1
	comp=Z,12nm,2.7s						
BORG	Borgarnes	69.41	25	LR	LR	21 25 29.6	
	comp=Z,96nm,18.8s,baz=268,slow=37						
EKA	Eskdalemuir Ar	77.80	36	P	P	20 54 41.8	-2.1
	comp=Z,0.8nm,0.6s,baz=267,slow=6.0,SNR=5.2						
EKA				LR	LR	21 26 27.5	
	comp=Z,60nm,18.0s,baz=269,slow=34						
	comp=Z,0.8nm,0.6s						
ESDC	Sonseca Array	79.01	52	P	P	20 54 48.6	-2.3
	comp=Z,0.6nm,0.8s,baz=277,slow=4.8,SNR=4.4						
ESDC				LR	LR	21 26 20.5	
	comp=Z,132nm,18.2s,baz=278,slow=33						
	comp=Z,0.6nm,0.8s						
MDT	Midelt	79.46	59	LR	LR	21 26 02.0	
	comp=Z,56nm,18.4s,baz=296,slow=33						
SPITS	Spitsbergen Ar	80.77	12	P	P	20 55 00.4	+0.7
	comp=Z,3.3nm,0.6s,baz=341,slow=9.7,SNR=9.5						
SPITS				LR	LR	21 31 52.0	
	comp=Z,88nm,20.5s,baz=294,slow=36						
	comp=Z,3.3nm,0.6s						
DBIC	Dimbokro	84.03	85	LR	LR	21 29 37.1	
	comp=Z,72nm,18.9s,baz=302,slow=34						
NOA	NORSAR Array B	84.24	29	LR	LR	21 35 12.9	
	comp=Z,36nm,18.0s,baz=275,slow=37						
HFS	Hagfors	85.67	29	P	P	20 55 24.7	-0.5
	comp=Z,1.6nm,1.0s,baz=249,slow=11,SNR=1.5						
HFS				LR	LR	21 34 03.5	
	comp=Z,62nm,18.4s,baz=316,slow=36						
	comp=Z,1.6nm,1.0s						
ARCES	ARCESS Array B	86.58	19	LR	LR	21 33 33.0	
	comp=Z,46nm,18.9s,baz=294,slow=35						
DAVOX	Davos/Dischmat	87.46	43	LR	LR	21 31 46.6	
	comp=Z,63nm,18.8s,baz=264,slow=34						
TORD	Torodi Ar. Bea	88.94	77	P	P	20 55 41.0	-0.9
	comp=Z,0.4nm,0.7s,baz=287,slow=4.8,SNR=2.5						
	comp=Z,0.4nm,0.7s						
GERES	GERESS Array B	89.30	40	P	P	20 55 42.0	-1.0
	comp=Z,0.4nm,0.3s,baz=280,slow=7.6,SNR=4.5						
	comp=Z,0.4nm,0.3s						
GERES	GERESS Array B	89.30	40	P	P	20 55 41.6	-1.4
FINES	FINESS Array B	90.70	26	P	P	20 55 48.3	-0.9
	comp=Z,1.6nm,0.9s,baz=273,slow=8.2,SNR=3.4						
FINES				LR	LR	21 34 28.0	
	comp=Z,42nm,19.9s,baz=279,slow=34						
	comp=Z,1.6nm,0.9s						
FINES	FINESS Array B	90.70	26	P	P	20 55 50.0	+0.9
MPLH	Magyarpolny	92.30	41	P	P	20 55 56.1	-0.8
	comp=Z,28nm,0.6s						
MA2	Magadan	92.81	334	LR	LR	21 41 23.8	
	comp=Z,70nm,18.1s,baz=54,slow=38						
VAE	Valguarnera	93.50	50	LR	LR	21 31 47.5	
	comp=Z,108nm,18.8s,baz=316,slow=32						
NRIK	Noril'sk	97.91	1	LR	LR	21 42 15.5	
	comp=Z,133nm,21.6s,baz=6.0,slow=36						
YAK	Yakutsk	98.99	342	LR	LR	21 50 10.4	
	comp=Z,75nm,18.1s,baz=18,slow=41						
KURK	Kurchatov	115.86	8		PKPdf	21 01 29.6	+0.6
KURBB	Kurchatov Arra	115.94	8	PKP	PKPdf	21 01 29.5	+0.4
	comp=Z,0.3nm,0.5s,baz=351,slow=1.9,SNR=1.6						
BOSA	Boshof	118.34	116	PKP	PKiKP	21 01 35.9	+1.3
	comp=Z,2.5nm,1.1s,baz=180,slow=3.0,SNR=5.2						
BOSA	Boshof	118.34	116		PKPdf	21 01 34.3	-0.2
MKAR	Makanchi Array	120.16	6	PKP	PKPdf	21 01 37.5	+0.1
	comp=Z,0.4nm,0.7s,baz=310,slow=3.5,SNR=3.6						
WRA	Warramunga Arr	136.80	255	PKP	PKPdf	21 02 09.3	-0.4
	comp=Z,0.3nm,0.5s,baz=95,slow=0.7,SNR=2.6						
ASAR	Alice Springs	136.93	249	PKP	PKPdf	21 02 09.2	-0.7
	comp=Z,0.3nm,0.9s,baz=97,slow=2.9,SNR=2.0						
FITZ	Fitzroy Crossi	145.11	257	PKPbc	PKPdf	21 02 25.1	+0.5
	comp=Z,1.7nm,0.5s,baz=91,slow=5.4,SNR=6.6						
FITZ	Fitzroy Crossi	145.11	257		PKPbc	21 02 24.4	+0.1
CMAR	Chiang Mai Arr	147.51	344	PKPbc	PKPab	21 02 32.9	-0.5
	comp=Z,4.0nm,1.0s,baz=336,slow=3.3,SNR=22						
CMAR	Chiang Mai Arr	147.51	344		PKPbc	21 02 32.2	+0.9

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*IDC **23** 20:56:52.0±3.1, 5°.47S×128°.02E, h414km±49km, mb2.8/2, mbtmp3.3/6, Error ellipse: s-maj=80.7km s-min=20.6km az=83.0*

ISC 23 20:56:51.1±1.1**, 5°.4S**±0°.1×**128°.1E**±0°.2**, h400km, n6, σ2ˢ50**/7**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SIJI	Sorong	5.51	35	P	Pn	20 58 21.4	+2.9
	1.3nm,0.3s,baz=134,slow=24,SNR=2.1						
SIJI				S	S	20 59 26.1	-3.5
	3.8nm,0.2s,baz=212,slow=22,SNR=6.3						
FITZ	Fitzroy Crossi	12.84	191	P	P	20 59 39.0	-1.0
	1.9nm,1.1s,baz=18,slow=10,SNR=1.6						
FITZ				S	S	21 01 41.5	-18
	1.6nm,1.0s,baz=0.0,slow=20,SNR=1.8						
WRA	Warramunga Arr	15.67	158	P	P	21 00 10.1	-0.8
	0.4nm,0.8s,baz=338,slow=13,SNR=1.4						
ASAR	Alice Springs	18.99	163	P	P	21 00 46.7	+0.6
	0.2nm,0.5s,baz=347,slow=10.0,SNR=4.8						
MKAR	Makanchi Array	65.88	327	P	P	21 06 54.0	-1.4
	0.3nm,0.5s,baz=121,slow=7.7,SNR=6.7						
	0.3nm,0.5s						
KURBB	Kurchatov Arra	70.18	329	P	P	21 07 22.6	+0.9
	0.3nm,0.6s,baz=131,slow=6.6,SNR=5.6						
	0.3nm,0.6s						

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*LDG **23** 20:58:26.4±0.1, 42°.86N×1°.43W, h2km, Md2.6/2, Ml2.4/5, Error ellipse: s-maj=2.4km s-min=1.8km az=82.0*
*MDD **23** 20:58:26.9±0.2, 42°.85N×1°.49W, h0km, mb_Lg2.2/18, Error ellipse: s-maj=2.5km s-min=1.6km az=2.0*

ISC 23 20:58:24.7±1.0**, 42°.88N**±0°.02×**1°.42W**±0°.03**, h7km**±9km**, n17, σ1ˢ08**/46**, 1D, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EARA	Aranguren	0.16	229	⇓Pg	Pg	20 58 27.2	-0.8
EARA				Sg	Sg	20 58 28.9	-1.2
SJPF	Ste Jean	0.27	31	*e*Pg	Pb	20 58 32.1	+0.1
SJPF				*e*Sg	Sg	20 58 34.8	+1.1
	61nm,0.3s						
EALK	Alkurruntz	0.35	349	Pg	Pb	20 58 32.9	-0.4
EALK				Sg	Sg	20 58 37.6	+1.5
EALK				IVmb_Lg		20 58 40.5	
ETSF	Etsaut	0.63	88	*e*Pg	Pb	20 58 38.3	+0.2
ETSF				*e*Sg	Sb	20 58 46.9	-0.3
	26nm,0.3s						
EPF	Esparros	1.30	83	*e*Pg	Pg	20 58 50.5	+0.9
EPF				*e*Sg	Sn	20 59 09.6	+2.6
	20nm,0.2s						
EPF				AML	AML		
ESAC	San Caprasio	1.35	148	Pg	Pg	20 58 51.1	+0.5
ESAC				Sg	Sg	20 59 10.0	+1.9
ELAN	Lanestosa	1.52	284	Pn	Pb	20 58 53.5	+0.3
ELAN				Sn	Sg	20 59 14.3	+0.8
ELAN				IVmb_Lg		20 59 17.6	
ETOR	Torete	2.11	193	Pn	Pn	20 59 01.1	+0.5
ETOR				Pg	Pg	20 59 05.6	+0.4
ETOR				Sn	Sb	20 59 29.8	0.0
ETOR				IVmb_Lg		20 59 32.5	
EPOB	Poblet	2.40	129	Pn	Pn	20 59 04.7	+0.2
EPOB				Pg	Pg	20 59 10.4	-0.3
EPOB				Sg	Sg	20 59 40.5	-1.3
EPOB				IVmb_Lg		20 59 45.9	
LFF	La Frestale	2.58	36	*e*Pn	Pn	20 59 07.8	+0.8
LFF				*e*Pg	Pg	20 59 13.8	-0.4
LFF				*e*Sn	Sn	20 59 37.1	-1.5
LFF				*e*Sg	Sg	20 59 47.8	+0.1
	3.7nm,0.3s						
LFF				AML	AML		
MTLF	Montolieu	2.70	79	*e*Pn	Pn	20 59 09.0	+0.4
MTLF				*e*Pg	Pg	20 59 16.1	-0.3
MTLF				*e*Sn	Sn	20 59 40.9	-0.7
MTLF				*e*Sg	Sg	20 59 51.6	+0.2
	2.5nm,0.3s						
MTLF				AML	AML		
RJF	Les Rejaudoux	3.22	40	*e*Pn	Pn	20 59 16.7	+1.0
RJF				*e*Pg	Pg	20 59 27.2	+0.9
RJF				*e*Sn	Sn	20 59 52.7	-1.6
RJF				*e*Sg	Sg	21 00 07.5	-0.5
CAF	Calviac	3.24	50	*e*Pn	Pn	20 59 15.6	-0.5
CAF				*e*Pg	Pg	20 59 26.3	-0.5
CAF				*e*Sn	Sn	20 59 53.8	-1.2
	2.2nm,0.3s						
CAF				*e*Sg	Sg	21 00 08.0	-0.8
CAF				AML	AML		
MFF	Saint Martin d	3.83	13	*e*Pn	Pn	20 59 24.6	+0.5
MFF	Saint Martin d	3.83	13	*e*Pn	Pn	20 59 27.0	+2.9
MFF				*e*Pg	Pg	20 59 37.7	-0.4
MFF				*e*Sn	Sn	21 00 07.1	-2.3
MFF				*e*Sn	Sn	21 00 09.2	-0.2
MFF				*e*Sg	Sg	21 00 28.4	+0.7
LASF	Ste Croix	4.02	71	*e*Pn	Pn	20 59 27.0	+0.3
LASF				*e*Pg	Pg	20 59 40.5	-1.2
LASF				*e*Sn	Sn	21 00 12.7	-1.4
	1.2nm,0.2s						
LASF				AML	AML		
QUIF	Quistinic	5.19	347	*e*Pn	Pn	20 59 43.0	+0.3

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*MAN **23** 20:59:28.0, 3°.39N×126°.40E, h15km, MS4.0*
*IDC **23** 20:59:34.4±1.7, 3°.69N×126°.12E, h50km±18km, mb3.7/14, mbtmp4.0/17, ML4.0/3, MS3.1/4, Error ellipse: s-maj=34.3km s-min=9.0km az=71.0*
*NEIC **23** 20:59:35.5±2.3, 3°.72N±0°.06×126°.1E±0°.1, h59km±8km, mb4.0/13, Error ellipse: s-maj=14.5km s-min=8.4km az=91.0*
*DJA **23** 20:59:36.3±2.2, 4°N±10°×12°6E±°, h13km±16km, M4.2/9, mB5.3/3, mb4.5/9, mb4.5/9, mB5.3/3, ML4.1/4, MLv4.1/7, MLv4.2/5, Mw(mB)4.7/3, Mw(mB)4.7/3*

ISC 23 20:59:34.8±0.5**, 3°.63N**±0°.04×**126°.20E**±0°.07**, h50km, n60, σ2ˢ10**/67**, mb4.0**/17**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MNI	Manado	2.56	212	P	Pn	21 00 18.1	+4.2
MNI				AML	AML		
GSPH	General Santos	2.74	333	*i* P	Pn	21 00 17.9	+1.4
GSPH				*i* S	Sn	21 00 48.6	+0.1
TNTI	Ternate	3.07	158		Pn	21 00 22.1	+1.2
DAV	Davao City (W)	3.47	350	P	Pn	21 00 24.0	-2.4
	5.9nm,0.3s,baz=170,slow=5.0,SNR=1.1						
DAV				S	Sn	21 01 05.1	-1.2
	122nm,0.3s,baz=211,slow=12,SNR=2.1						
DAV				LR	LR	21 02 12.7	
	comp=Z,98nm,18.5s,baz=110,slow=47						
	70nm,0.4s						
DAV				AML	AML		
DAV	Davao City (W)	3.47	350		Pn	21 00 24.9	-1.5
DMPH	Davao City--Mi	3.50	349	*e*P	Pn	21 00 27.4	+0.6
DMPH				*i* S	Sn	21 01 12.8	+5.8
KCP	Kidapawan	3.53	342	*i* P	Pn	21 00 30.9	+3.6
KCP				*e*S	Sn	21 01 11.4	+3.5
CTBH	Cotabato--PC H	4.06	331	*i* P	Pn	21 00 36.9	+2.4
CDOP	Cateel, Davao	4.13	3	*e*P	Pn	21 00 36.4	+1.0
CDOP				*i* S	Sn	21 01 20.8	-1.7
GTOI	Gorontalo	4.36	227	P	Pn	21 00 42.6	+4.0
GTOI				AML	AML		
BUKP	Musuan	4.37	345	*e*P	Pn	21 00 41.1	+2.4
BUKP				*i* S	Sn	21 01 25.3	-3.1
BIPH	Bislig	4.53	2	*i* P	Pn	21 00 42.0	+1.2
BIPH				*e*S	Sn	21 01 37.1	+4.9
CGP	Cagayan de Oro	5.02	343	*e*P	Pn	21 00 53.6	+5.9
CGP				*e*S	Sn	21 01 49.4	+5.0
PAGZ	Pagadian	5.04	326	*e*P	Pn	21 00 49.5	+1.5
PAGZ				*i* S	Sn	21 01 45.4	+0.4
LUWI	Luwuk	5.77	217		Pn	21 00 59.0	+1.1
TOLI2	Tolitoli	5.96	245		Pn	21 01 03.1	+2.5
TOLI2				Sn	Sn	21 02 06.5	-1.2
APSI	Ampana	6.41	225	P	Pn	21 01 11.8	+5.1
	51nm,0.9s,51nm,0.9s						
SWI	Sorong	6.74	131	P	Pn	21 01 12.6	+1.3
	15nm,0.6s,15nm,0.6s						
SIJI	Sorong	6.75	131	P	Pn	21 01 13.5	+2.0
	1.9nm,0.3s,baz=327,slow=17,SNR=7.8						
SIJI				S	Sn	21 02 26.9	-0.1
	3.6nm,0.4s,baz=54,slow=24,SNR=1.7						
	4.5nm,0.3s						
SIJI				AML	AML		
NLAI	Namlea	6.88	172	P	Pn	21 01 14.0	+0.8
PLP	Palo	7.58	351	*e*P	Pn	21 01 24.9	+2.1
KDI	Kendari	8.34	205	P	Pn	21 01 36.1	+2.8
	14nm,0.6s,14nm,0.6s						
FAKI	Fak Fak	8.88	137	Pn	Pn	21 01 43.0	+2.4
MWPI	Manokwari, Pap	9.05	120	P	Pn	21 01 44.6	+1.7
	1µm1µm33nm,0.8s						
KAPI	Kappang	10.74	217	LR	LR	21 06 43.0	
	comp=Z,38nm,19.9s,baz=62,slow=40						
BATI	Baumata	13.98	190	P	Pn	21 02 52.4	+2.1
	3.2nm,0.3s,baz=6.1,slow=3.3,SNR=4.5						
	14nm,0.7s						
BATI				AML	AML		
MTN	Manton Dam	17.08	163	Pn	Pn	21 03 29.1	-1.2
MTN				IAmb	IAmb	21 03 33.8	
	comp=Z,12nm,1.2s						
KNRA	Kununurra	19.35	173	P	P	21 03 55.0	-1.4
KNRA				IAmb	IAmb	21 03 59.4	
	comp=Z,5.7nm,0.7s						

FITZ	Fitzroy Crossi	21.60	181	P	P	21 04 21.1	+0.5
	comp=Z,12nm,0.7s,baz=6.2,slow=6.5,SNR=20						
	comp=Z,12nm,0.7s						
FITZ	Fitzroy Crossi	21.60	181	P	P	21 04 21.4	+0.8
FITZ				IAmb	IAmb	21 04 25.3	
	comp=Z,2.8nm,0.8s						
WB0	Warramunga Arr	24.61	161	P	P	21 04 49.9	-0.7
WRA	Warramunga Arr	24.75	161	P	P	21 04 52.0	+0.1
	comp=Z,2.3nm,0.6s,baz=333,slow=11,SNR=28						
	comp=Z,2.3nm,0.6s						
WRA	Warramunga Arr	24.75	161	P	P	21 04 51.6	-0.3
WR8	Warramunga Arr	24.82	161	P	P	21 04 52.2	-0.3
WR8				IAmb	IAmb	21 05 12.2	
	comp=Z,17nm,1.4s						
MBWA	Marble Bar	25.44	194	P	P	21 04 57.6	-0.5
MBWA				IAmb	IAmb	21 05 41.3	
	comp=Z,8.3nm,1.1s						
AS31	Alice Springs	28.15	165	P	P	21 05 22.2	-0.3
ASAR	Alice Springs	28.15	165	P	P	21 05 22.9	+0.3
	comp=Z,2.5nm,0.6s,baz=344,slow=7.2,SNR=55						
ASAR				PcP	PcP	21 08 35.4	-0.4
	comp=Z,0.2nm,0.6s,baz=315,slow=1.9,SNR=2.0						
	comp=Z,2.5nm,0.6s						
ASAR	Alice Springs	28.15	165	P	P	21 05 21.9	-0.6
KSRS	Korea Array	33.70	2	P	P	21 06 11.0	-0.3
	comp=Z,0.8nm,0.5s,baz=188,slow=9.3,SNR=3.5						
	comp=Z,0.8nm,0.5s						
NWAO	Narrogin (SRO)	37.34	192	P	P	21 06 43.4	+0.9
BBOO	Buckleboo	37.43	166	P	P	21 06 43.8	+0.5
STKA	Stephens Creek	38.23	159	P	P	21 06 51.1	+1.1
	comp=Z,5.3nm,0.7s,baz=333,slow=8.1,SNR=9.6						
	comp=Z,5.3nm,0.7s						
ASAJ	Asahikawa	42.84	17	LR	LR	21 24 03.0	
	comp=Z,30nm,20.3s,baz=88,slow=34						
SONM	Songino Array	47.23	342	P	P	21 08 02.8	-0.1
	comp=Z,0.2nm,0.4s,baz=150,slow=9.4,SNR=2.2						
	comp=Z,0.2nm,0.4s						
SONM	Songino Array	47.23	342	IAmb	IAmb	21 08 11.9	
	comp=Z,0.7nm,1.0s						
PETK	Petropavlovsk-	55.72	22	P	P	21 09 06.4	+0.2
	comp=Z,2.7nm,0.9s,baz=235,slow=10,SNR=3.0						
	comp=Z,2.7nm,0.9s						
MKAR	Makanchi Array	57.34	326	P	P	21 09 16.3	-1.5
	comp=Z,0.4nm,0.5s,baz=113,slow=7.5,SNR=9.3						
MKAR				PcP	PcP	21 10 10.8	-0.7
	comp=Z,0.2nm,0.4s,baz=123,slow=4.0,SNR=1.7						
	comp=Z,0.4nm,0.5s						
MKAR	Makanchi Array	57.34	326	P	P	21 09 14.8	-3.1
ZALV	Zalesovo Beam	60.44	333	P	P	21 09 37.1	-2.0
	comp=Z,0.4nm,0.3s,baz=147,slow=8.3,SNR=1.6						
	comp=Z,0.4nm,0.3s						
ZALV	Zalesovo Beam	60.44	333	P	P	21 09 36.7	-2.5
KURBB	Kurchatov Arra	61.54	328	P	P	21 09 44.9	-1.8
	comp=Z,0.6nm,0.6s,baz=128,slow=6.3,SNR=9.3						
	comp=Z,0.6nm,0.6s						
KURK	Kurchatov	61.54	328	P	P	21 09 44.3	-2.4
KURK				IAmb	IAmb	21 09 46.3	
	comp=Z,1.6nm,0.8s						
BVAR	Borovoye Array	67.12	327	P	P	21 10 22.7	-0.5
	comp=Z,1.3nm,0.9s,baz=110,slow=8.1,SNR=4.4						
	comp=Z,1.3nm,0.9s						
VNDA	Vanda	83.39	173	P	P	21 11 57.0	+0.7
	comp=Z,0.4nm,0.7s,baz=318,slow=1.9,SNR=3.5						
	comp=Z,0.4nm,0.7s						
VNDA	Vanda	83.39	173	P	P	21 11 56.3	0.0
VNDA				IAmb	IAmb	21 12 15.0	
	comp=Z,2.1nm,1.5s						
BRTR	Keskin Array B	89.68	310	P	P	21 12 25.3	-2.7
	comp=Z,0.3nm,0.7s,baz=9.5,slow=4.4,SNR=2.4						
	comp=Z,0.3nm,0.7s						
BRTR	Keskin Array B	89.68	310	P	P	21 12 25.1	-2.9
FINES	FINESS Array B	91.67	332	P	P	21 12 35.8	-0.7
	comp=Z,2.2nm,0.9s,baz=66,slow=4.6,SNR=3.5						
	comp=Z,2.2nm,0.9s						
FINES	FINESS Array B	91.67	332	P	P	21 12 35.6	-0.9
MATP	Matopo	98.47	250	LR	LR	21 55 22.7	
	comp=Z,46nm,18.1s,baz=268,slow=34						

*MDD **23** 21:21:25.5±0.2, 42°.84N×1°.49W, h1^{km}±1^{km}, mb_Lg3.0/43, Error ellipse: s-maj=1.6km s-min=1.0km az=0.0*

*INMG **23** 21:21:25.3±2.0, 42°.85N×1°.53W, h3^{km}±4^{km}, ML2.8, Error ellipse: s-maj=3.0km s-min=2.7km az=110.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Pireneus (ESP)*

*LDG **23** 21:21:25.4±0.1, 42°.85N×1°.45W, h2^{km}, Md2.8/4, Ml3.1/23, Error ellipse: s-maj=1.8km s-min=1.5km az=152.0*

*SFS **23** 21:21:26.0, 42°.83N×1°.44W, h13^{km}, ML3.2/11, ML3.5/11, MLv3.7/8*

ISC 23 21:21:23.0±0.8**, 42°.86N**±0°.02×**1°.51W**±0°.02**, h13**^{km}±6^{km}**, n73,** σ**1^{s}.74**/173**, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EARA	Aranguren	0.10	212	Pg	Pg	21 21 25.6	-0.5
EARA				Sg	Sg	21 21 28.1	-0.2
SJPF	Ste Jean	0.32	39	*e*Pg	Pb	21 21 30.9	+0.3
SJPF				*e*Sg	Sg	21 21 34.3	+0.2
	357nm,0.2s						
EALK	Alkurruntz	0.36	360	Pg	Pb	21 21 31.1	-0.1
EALK				Sg	Sb	21 21 37.6	+0.8
EALK				IVmb_Lg		21 21 40.7	
ETSF	Etsaut	0.70	87	*e*Pg	Pb	21 21 37.4	+0.4
ETSF				*e*Sg	Sg	21 21 46.1	+0.4
	114nm,0.3s						
ECHI	Chisagues Biel	1.27	98	Pg	Pg	21 21 47.6	+0.3
ECHI				Sg	Sg	21 22 06.9	+3.0
ECHI				IVmb_Lg		21 22 10.4	
EPF	Esparros	1.36	82	*e*Pg	Pg	21 21 49.9	+0.7
EPF				*e*Sg	Sg	21 22 07.6	+0.6
	279nm,0.5s						
EPF				AML	AML		
ESAC	San Caprasio	1.37	146	Pg	Pg	21 21 49.6	+0.2
ESAC				Sg	Sg	21 22 09.2	+1.9
ELAN	Lanestosa	1.46	285	Pg	Pg	21 21 52.0	+0.9
ELAN				Sg	Sg	21 22 13.8	+3.7
ELAN				IVmb_Lg		21 22 15.7	
ETOR	Torete	2.08	192	Pn	Pb	21 22 00.2	-0.4
ETOR				Pg	Pg	21 22 03.7	+0.8
ETOR				Sg	Sg	21 22 29.4	-0.5
ETOR				IVmb_Lg		21 22 33.0	
ERTA	Horta de San J	2.35	144	Pn	Pn	21 22 03.1	+1.8
ERTA				Pg	Pg	21 22 08.9	+0.9
ERTA				Sn	Sn	21 22 32.0	+2.1
ERTA				Sg	Sg	21 22 40.2	+1.8
ERTA				IVmb_Lg		21 22 46.7	
EPOB	Poblet	2.44	127	Pn	Pn	21 22 03.3	+0.7
EPOB				Pg	Pg	21 22 09.1	-0.7
EPOB				Sn	Sn	21 22 33.5	+1.1
EPOB				Sg	Sg	21 22 40.1	-1.4
EPOB				IVmb_Lg		21 22 50.3	
EMOS	Mosqueruela	2.61	162	Pn	Pn	21 22 06.9	+1.8
EMOS				Pg	Pg	21 22 13.0	-0.1
EMOS				Sn	Sn	21 22 39.2	+2.5
EMOS				Sg	Sg	21 22 48.2	+1.3
EMOS				IVmb_Lg		21 22 54.4	
LFF	La Frestale	2.63	37	*e*Pn	Pb	21 22 07.9	-2.1
LFF				*e*Pg	Pg	21 22 13.5	0.0
LFF				*e*Sn	Sn	21 22 37.7	+0.7
	26nm,0.3s						
LFF				AML	AML		
EARI	Arriondas	2.75	280	Pn	Pn	21 22 09.3	+2.5
EARI				Pg	Pg	21 22 17.3	+1.6
EARI				Sn	Sb	21 22 43.4	-2.2
EARI				Sg	Sg	21 22 52.3	+1.0
EARI				IVmb_Lg		21 23 00.7	
MTLF	Montolieu	2.77	79	*e*Pn	Pb	21 22 10.0	-2.3
MTLF				*e*Pg	Pg	21 22 14.8	-1.2
MTLF				*e*Sn	Sn	21 22 41.1	+0.8
MTLF				*e*Sg	Sg	21 22 50.5	-1.4
	24nm,0.3s						
MTLF				AML	AML		
UCM	Universidad Co	2.87	208	Pn	Pn	21 22 09.9	+1.5
UCM				Sn	Sn	21 22 43.8	+1.1
EJON	La Jonquera	3.27	96	Pn	Pn	21 22 15.5	+1.6
EJON				Sn	Sn	21 22 52.4	-0.2
RJF	Les Rejaudoux	3.27	41	*e*Pn	Pn	21 22 15.4	+1.5
RJF				*e*Pg	Pg	21 22 24.2	-1.4
RJF				*e*Sn	Sn	21 22 53.1	+0.4
	13nm,0.3s						
RJF				AML	AML		
ECHE	Chera	3.29	173	Pn	Pn	21 22 17.0	+2.7
CAF	Calviac	3.30	50	*e*Pn	Pn	21 22 15.9	+1.5
CAF				*e*Pg	Pg	21 22 25.3	-1.0
CAF				*e*Sn	Sn	21 22 52.9	-0.6
	13nm,0.3s						
CAF				AML	AML		
EJUZ	Juzbado, Salam	3.72	243	Pn	Pn	21 22 22.3	+2.2
EJUZ				Pg	Pg	21 22 34.0	-0.2
EJUZ				Sn	Sn	21 23 04.2	+0.3
EJUZ				Sg	Sg	21 23 19.8	-2.6
MFF	Saint Martin d	3.86	14	*e*Pn	Pn	21 22 22.1	+0.1
MFF	Saint Martin d	3.86	14	*e*Pn	Pn	21 22 22.5	+0.5
MFF				*e*Sn	Sn	21 23 07.0	-0.2
	8.4nm,0.4s						
MFF				*e*Sn	Sn	21 23 07.6	+0.4
MFF				AML	AML		
PAB	San Pablo	3.95	214	Pn	Pn	21 22 24.8	+1.5
PAB				Pg	Pg	21 22 36.5	-2.1
PAB				Sn	Sn	21 23 12.4	+2.9
PAB				Sg	Sg	21 23 28.6	-1.1
PAB				IVmb_Lg		21 23 37.2	
ECAL	Calabor	3.98	258	Pn	Pn	21 22 26.0	+2.3
ECAL				Sn	Sn	21 23 10.6	+0.2
ECAL	Calabor	3.98	258	Pn	Pn	21 22 25.8	+2.0
ECAL				Pg	Pg	21 22 40.0	+0.7
ECAL				Sn	Sn	21 23 11.8	+1.4
ECAL				Sg	Sg	21 23 30.9	+0.1
ECAL				IVmb_Lg		21 23 38.3	
LASF	Ste Croix	4.09	71	*e*Pn	Pn	21 22 27.1	+2.0
LASF				*e*Pg	Pg	21 22 39.6	-1.7
LASF				*e*Sn	Sn	21 23 12.8	0.0
	60nm,0.8s						
LASF				AML	AML		
EPON	Pontenova	4.16	278	Pn	Pn	21 22 29.9	+3.7
EPON				Sn	Sn	21 23 18.1	+3.4
EPON				IVmb_Lg		21 23 53.3	
ETOB	Tobarra	4.21	180	Pn	Pn	21 22 29.9	+2.9
ETOB	Tobarra	4.21	180	Pn	Pn	21 22 30.1	+3.1
ETOB				Sn	Sn	21 23 17.2	+1.2
ETOB				Sg	Sg	21 23 37.5	-0.8
ETOB				IVmb_Lg		21 23 45.9	
TCF	Toulx Ste Croi	4.33	36	*e*Pn	Pn	21 22 29.4	+0.9
TCF				*e*Sn	Sn	21 23 17.7	-1.2
	10nm,0.4s						
TCF				AML	AML		
EIBI	Ibiza	4.40	150	Pn	Pn	21 22 30.1	+0.7
EIBI				Sn	Sn	21 23 17.8	-2.6
EIBI	Ibiza	4.40	150	Pn	Pn	21 22 30.6	+1.2
EIBI				Sn	Sn	21 23 18.2	-2.2
ETOS	Mallorca	4.49	132	Pn	Pn	21 22 31.7	+1.0
ETOS				Sn	Sn	21 23 18.7	-4.0
BGF	Bois d'Agland	4.82	39	*e*Pn	Pn	21 22 37.1	+1.9
BGF				*e*Sn	Sn	21 23 33.0	+2.1
	21nm,0.3s						
BGF				AML	AML		
EAGO	Agolada(Pontev	4.84	272	Pn	Pn	21 22 38.1	+2.6
EAGO				Sn	Sn	21 23 32.2	+0.8
EAGO				IVmb_Lg		21 24 08.7	
PVRL	Vila Real	4.89	253	*e*Pn	Pn	21 22 38.8	+2.6
PVRL				*e*Sg	Sg	21 23 56.9	-3.0
PVRL				*i* IAML		21 23 58.8	
PVRL				*i* IAML		21 24 00.8	
PVRL				*i* IAML		21 24 01.4	
VIVF	Saint-Julien-l	4.89	64	*e*Pn	Pn	21 22 37.8	+1.6
VIVF				*e*Pg	Pg	21 22 55.8	-0.8
VIVF				*e*Sn	Sn	21 23 31.9	-0.8
	11nm,0.4s						
VIVF				AML	AML		
POLO	Lamas de Olo	4.91	254	*e*Pn	Pn	21 22 39.4	+2.9
POLO				*e*Sn	Sn	21 23 34.7	+1.5
POLO				*e*Sg	Sg	21 24 01.1	+0.6
POLO				*i* IAML		21 24 04.1	
POLO				*i* IAML		21 24 08.8	
POLO				*i* IAML		21 24 09.7	
ELOB	Lobios	4.96	261	Pn	Pn	21 22 38.7	+1.5
ELOB				Sn	Sn	21 23 34.0	-0.4
ELOB				Sg	Sg	21 23 59.8	-2.4
ELOB				IVmb_Lg		21 24 07.2	
PCAB	Cabril	4.97	259	*e*Pn	Pn	21 22 39.4	+2.0
PCAB				*e*Sn	Sn	21 23 34.8	+0.1
PCAB				*e*Sg	Sg	21 24 00.6	-2.1
PCAB				*i* IAML		21 24 03.8	
PCAB				*i* IAML		21 24 15.2	
PCAB				*i* IAML		21 24 15.5	
QUIF	Quistinic	5.19	348	*e*Pn	Pn	21 22 41.8	+1.6
QUIF				*e*Sn	Sn	21 23 38.8	-1.1
	5.4nm,0.3s						
QUIF				AML	AML		
EQES	Quesada	5.19	194	Pn	Pn	21 22 43.1	+2.7
EQES				Pg	Pg	21 23 00.9	-1.6
EQES				Sn	Sn	21 23 43.8	+3.6
EQES				Sg	Sg	21 24 09.6	-0.1
EQES				IVmb_Lg		21 24 14.6	
AVF	Avril sur Loir	5.23	40	*e*Pn	Pn	21 22 42.4	+1.6
AVF				*e*Sn	Sn	21 23 39.7	-1.2
	7.1nm,0.6s						
AVF				AML	AML		
EADA	Adamuz	5.24	208	Pn	Pn	21 22 43.1	+2.1
EADA				Sn	Sn	21 23 40.4	-0.9
EADA	Adamuz	5.24	208	Pn	Pn	21 22 43.4	+2.3
EADA				Sn	Sn	21 23 42.2	+0.9
EADA				Sg	Sg	21 24 09.7	-1.5
EADA				IVmb_Lg		21 24 21.7	
SMRF	Simiane la Rot	5.28	75	*e*Pn	Pn	21 22 44.7	+3.2
SMRF				*e*Sn	Sn	21 23 41.3	-0.8
	3.8nm,0.6s						
SMRF				AML	AML		
HYF	Humbligny	5.29	32	*e*Pn	Pn	21 22 44.0	+2.3
HYF				*e*Sn	Sn	21 23 41.5	-1.0
	59nm,0.6s						
HYF				AML	AML		
SMF	Signal de Mont	5.37	43	*e*Pn	Pn	21 22 44.3	+1.6
SMF				*e*Sn	Sn	21 23 43.0	-1.3
	9.6nm,0.6s						
SMF				AML	AML		
PCBR	Castelo Branco	5.41	238	*e*Pn	Pn	21 22 47.4	+4.1
PCBR				*e*Sn	Sn	21 23 45.5	0.0
PCBR				*e*Sg	Sg	21 24 15.0	-1.7
PCBR				*i* IAML		21 24 22.8	
PCBR				*i* IAML		21 24 24.1	
PCBR				*i* IAML		21 24 27.4	
SGMF	Saint Gilles	5.44	353	*e*Pn	Pn	21 22 45.3	+1.6
SGMF				*e*Sn	Sn	21 23 44.4	-1.8
EMAZ	Mazaricos	5.49	273	Pn	Pn	21 22 46.7	+2.3
EMAZ				Sn	Sn	21 23 46.7	-0.7
EMAZ				IVmb_Lg		21 24 26.2	
SSF	Saint Saulge	5.50	39	*e*Pn	Pn	21 22 45.7	+1.2
SSF				*e*Sn	Sn	21 23 46.4	-1.2
	6.1nm,0.3s						
SSF				AML	AML		
GRR	Gorron	5.54	4	*e*Pn	Pn	21 22 46.4	+1.3
GRR				*e*Sn	Sn	21 23 47.3	-1.4
	7.2nm,0.4s						
GRR				AML	AML		
PMRV	Marv??o	5.61	234	*e*Pn	Pn	21 22 47.6	+1.5
PMRV				*e*Sn	Sn	21 23 50.7	+0.3
PMRV				*e*Sg	Sg	21 24 21.1	-2.1
PMRV				*i* IAML		21 24 25.2	
PMRV				*i* IAML		21 24 32.8	
PMRV				*i* IAML		21 24 37.8	
ROSF	Rostrenen	5.61	348	*e*Pn	Pn	21 22 48.0	+1.9
ROSF				*e*Sn	Sn	21 23 48.0	-2.4
ECAB	El Cabril	5.64	213	Sn	Sn	21 23 48.5	-2.6
ORIF	Oris-en-Rattie	5.72	66	*e*Pn	Pn	21 22 49.7	+2.1
ORIF				*e*Sn	Sn	21 23 52.7	-0.4
	7.1nm,0.7s						
ORIF				AML	AML		
LDF	La Druitiere	5.81	9	*e*Pn	Pn	21 22 50.4	+1.6
LDF				*e*Sn	Sn	21 23 53.2	-2.1
LOR	Lormes	5.82	39	*e*Pn	Pn	21 22 51.0	+2.1
LOR				*e*Sn	Sn	21 23 55.4	0.0
	3.6nm,0.4s						
LOR				AML	AML		
EBAD	Badajoz	5.86	227	Pn	Pn	21 22 51.4	+2.0
LMR	La Mourre	5.89	83	*e*Pn	Pn	21 22 50.7	+0.9
LMR				*e*Sn	Sn	21 23 55.0	-2.1
	1.0nm,0.3s						
LMR				AML	AML		
FLN	La Foliniere	5.94	7	*e*Pn	Pn	21 22 54.1	+3.5
FLN				*e*Sn	Sn	21 23 58.2	-0.3
	2.8nm,0.4s						
FLN				AML	AML		
PCAS	Casmilo, Conde	5.96	244	*e*Pn	Pn	21 22 54.8	+4.0
PCAS				*e*Sn	Sn	21 24 00.1	+1.2
PCAS				*e*Sg	Sg	21 24 32.4	-1.7
PCAS				*i* IAML		21 24 37.7	
PCAS				*i* IAML		21 24 38.0	
PCAS				*i* IAML		21 24 51.0	
PSARD	Sardoal	5.98	239	*e*Pn	Pn	21 22 53.5	+2.3
PSARD				*e*Sn	Sn	21 23 59.6	0.0
PSARD				*e*Sg	Sg	21 24 34.1	-0.9
PSARD				*i* IAML		21 24 41.1	
PSARD				*i* IAML		21 24 42.1	
PSARD				*i* IAML		21 24 44.4	
PESTR	Estremoz	6.10	231	Pn	Pn	21 22 53.9	+1.1
MBDF	Montbardon	6.27	70	*e*Pn	Pn	21 22 54.7	-0.6
MBDF				*e*Sn	Sn	21 24 06.3	-0.6
	4.3nm,0.6s						
MBDF				AML	AML		
PBAR	Barrancos	6.30	224	*e*Sn	Sn	21 24 07.4	0.0
PBAR				*e*Sg	Sg	21 24 45.8	+0.7
PBAR				*i* IAML		21 24 50.4	
PBAR				*i* IAML		21 24 53.6	
PBAR				*i* IAML		21 24 59.5	
PMTG	Montargil	6.34	236	*e*Sn	Sn	21 24 08.9	+0.5
PMTG				*e*Sg	Sg	21 24 45.1	-1.4
PMTG				*i* IAML		21 24 48.5	
PMTG				*i* IAML		21 24 55.7	
PMTG				*i* IAML		21 24 57.2	
PARRA	Arraiolos	6.39	233	*e*Pn	Pn	21 22 58.6	+1.8
PARRA				*e*Sg	Sg	21 24 46.8	-1.4
PARRA				*i* IAML		21 24 54.6	
PARRA				*i* IAML		21 24 55.7	
PARRA				*i* IAML		21 25 01.9	
MOE	Montemor	6.77	232	*e*Pn	Pn	21 23 03.9	+1.9
MOE				*e*Sn	Sn	21 24 17.0	-1.9
MOE				*e*Sg	Sg	21 24 57.3	-2.9
MOE				*i* IAML		21 25 03.5	
MOE				*i* IAML		21 25 07.7	
MOE				*i* IAML		21 25 09.8	
PBDV	Barranco-do-Ve	7.47	223	*e*Sg	Sg	21 25 23.5	+0.9
PBDV				*i* IAML		21 25 26.6	
PBDV				*i* IAML		21 25 27.0	
PBDV				*i* IAML		21 25 32.0	
PGF	Pioggiola	7.74	89	*e*Pn	Pn	21 23 16.0	+0.6

*NEIC **23** 21:37:47.4±2.0, 45°.07N±0°.04×106°.84W±0°.06, h0^{km}±1^{km}, ML3.2/63, Error ellipse: s-maj=8.0km s-min=7.0km az=328.0*

*IDC **23** 21:37:48.5±1.7, 44°.94N×106°.73W, h0^{km}, mbtmp4.0/2, ML3.8/2, Error ellipse: s-maj=64.8km s-min=12.6km az=137.0*

ISC 23 21:37:48.2±1.2**, 45°.14N**±0°.06×**106°.77W**±0°.07**, h0**^{km}**, n45,** σ**0^{s}.76**/42**, Montana**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LAO	LASA Array	1.60	14		Pg	21 38 19.1	+0.3
RLMT	Red Lodge	1.77	270		Pn	21 38 19.4	-0.8
RLMT				IAML		21 38 47.1	
	266nm,0.6s						
RLMT				IAML		21 38 47.4	
	278nm,0.5s						
GCMT	Greycliff	2.14	289		Pn	21 38 24.9	-0.4
RSSD	Black Hills	2.20	117	IAML		21 39 02.1	
	205nm,0.5s						
RSSD				IAML		21 39 02.7	
	131nm,0.5s						
RSSD	Black Hills	2.20	117		Pn	21 38 25.9	-0.3
YNE	Yellowstone No	2.29	268		Pn	21 38 26.8	-0.7
YNE				IAML		21 39 02.2	
	comp=N,150nm,0.8s						
YNE				IAML		21 39 07.3	
	comp=E,167nm,0.5s						
YMP	Mirror Lake Pl	2.44	262		Pn	21 38 29.1	-0.3
K22A	Casper	2.49	176		Pn	21 38 30.9	+0.8
K22A				IAML		21 39 06.9	
	comp=E,145nm,0.5s						
LKWY	Lake	2.64	259	Pn	Pn	21 38 32.6	+0.3
LKWY				IAML		21 39 22.3	
	comp=E,73nm,2.8s						
LKWY				IAML		21 39 31.7	
	comp=E,140nm,0.6s						
YNR	Norris Junctio	2.81	263		Pn	21 38 34.4	-0.1
YNR				IAML		21 39 13.6	
	comp=N,111nm,0.5s						
YNR				IAML		21 39 21.8	
	comp=E,87nm,0.6s						
H17A	Grant Village	2.81	256		Pn	21 38 35.0	+0.4
H17A				IAML		21 39 15.5	
	comp=N,65nm,0.6s						
YHH	Holmes Hill	2.92	265		Pn	21 38 35.9	-0.2
YHH				IAML		21 39 19.4	
	comp=E,63nm,0.7s						
YPP	Pitchstone Pla	3.00	255		Pn	21 38 38.0	+0.7
YMR	Madison River	3.02	263		Pn	21 38 38.2	+0.8
YMR				IAML		21 39 40.6	
	comp=N,83nm,1.0s						
YMR				IAML		21 39 50.5	
	comp=E,93nm,1.0s						
BW06	Boulder Array	3.11	221		Pn	21 38 39.4	+0.7
BW06				IAML		21 39 22.0	
	comp=E,69nm,0.5s						
BW06				IAML		21 39 26.3	
	comp=E,70nm,0.6s						
PD31	Pinedale Array	3.11	221		Pn	21 38 39.1	+0.3
PDAR	Pinedale Array	3.11	221	Pn	Pn	21 38 39.0	+0.3
	comp=E,12nm,0.3s,baz=51,slow=17,SNR=193						
PDAR				Lg	Lg	21 39 19.9	
	comp=E,20nm,0.3s,baz=47,slow=29,SNR=4.2						
	comp=E,12nm,0.4s						
PDAR				AML	AML		
PDAR	Pinedale Array	3.11	221		Pn	21 38 39.0	+0.3
LOHW	Long Hollow	3.14	242		Pn	21 38 39.1	-0.1
YHL	Hebgen Lake	3.14	266		Pn	21 38 39.3	+0.1
YHL				IAML		21 39 31.4	
	comp=N,82nm,0.9s						
YHL				IAML		21 39 32.6	
	comp=E,81nm,0.6s						
YHB	Horse Butte	3.16	265		Pn	21 38 39.8	+0.3
SNOW	Snow King Moun	3.31	241		Pn	21 38 42.4	+0.9
SNOW				IAML		21 39 45.1	
	comp=E,44nm,0.9s						
SNOW				IAML		21 40 18.2	
	comp=E,44nm,4.2s						
QLMT	Earthquake Lak	3.32	266		Pn	21 38 42.0	+0.5
FXWY	Fox Creek	3.40	245		Pn	21 38 42.3	-0.3
BOZ	Bozeman (W)	3.45	279		Pn	21 38 42.5	-0.9
BOZ				IAML		21 39 37.8	
	comp=E,38nm,2.2s						
EGMT	Eagleton	3.54	326		Pn	21 38 45.2	+0.7
AHID	Auburn Hatcher	3.92	234	Pn	Pn	21 38 51.0	+1.1
AHID				IAML		21 39 57.1	
	comp=E,44nm,0.8s						
DLMT	Dillon	4.12	275		Pn	21 38 52.5	0.0
DLMT				IAML		21 40 38.7	
	comp=E,33nm,2.4s						
GBMT	Granite Butte,	4.32	296		Pn	21 38 54.7	-0.6
GBMT				IAML		21 40 14.1	
	comp=E,18nm,0.7s						
HAYD	Hayden	4.63	185		Pn	21 38 59.6	0.0
HAYD				IAML		21 40 20.9	
	comp=E,28nm,1.9s						
HWUT	Hardware Ranch	4.96	226		Pn	21 39 03.4	-0.8
HWUT				IAML		21 40 28.4	
	comp=E,18nm,1.6s						
HWUT				IAML		21 40 34.9	
	comp=E,21nm,0.8s						
O20A	White River Ci	5.12	193		Pn	21 39 04.9	-1.4
TCUT	Toone Canyon	5.26	222		Pn	21 39 06.8	-1.4
MSO	Missoula	5.27	291		Pn	21 39 06.8	-1.5
ISCO	Idaho Springs	5.40	170		Pn	21 39 10.0	-0.3
OGNE	Ogallala	5.44	139		Pn	21 39 10.3	-0.4
BSUT	Blindstream Ca	5.45	214		Pn	21 39 10.1	-0.9
BSUT				IAML		21 40 41.3	
	comp=N,18nm,2.4s						
JTMT	Jette	5.81	299		Pn	21 39 14.1	-1.6
Q24A	Divide	6.29	168	Pn	Pn	21 39 23.0	+0.6
PLID	Pearl Lake	6.53	273	Pn	Pn	21 39 24.2	-1.5
PV22	Blue Mesa, Par	6.77	194		Pn	21 39 28.7	-0.2
ECSD	EROS Data Cent	7.41	97	Pn	Pn	21 39 37.3	-0.2
NEW	Newport	7.77	297	Lg	Lg	21 41 50.2	
	comp=N,0.3nm,0.3s,baz=108,slow=9.6,SNR=5.9						
I10CA	LAC DU BONNET	8.84	51	I	I	22 32 07.0	
	baz=238,slow=187,SNR=1.3						

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ULM	**Lac du Bonnet**	8.95	51	Pn	Pn	21 39 59.4	+0.7
	comp=N,2.4nm,0.3s,baz=237,slow=12,SNR=21						
ULM				Lg	Lg	21 42 29.8	
	comp=N,0.6nm,0.3s,baz=331,slow=19,SNR=3.5						
	comp=N,6.0nm,0.3s						
ULM				AML	AML		

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*NNC **23** 21:43:49.0±0.8, 41°.08N×75°.22E, h0km, mb3.8, mpv3.4, Error ellipse: s-maj=6.0km s-min=3.2km az=174.0*
*SOME **23** 21:43:48.5, 41°.13N×75°.17E, h5km*
*KRNET **23** 21:43:49.1±0.1, 41°.12N×75°.20E, h29km, mb3.2*
*KNET **23** 21:43:50.7±0.4, 41°.23N×75°.27E, h8km±5km, ml2.7, Error ellipse: s-maj=3.9km s-min=2.6km az=154.0*
ISC 23 21:43:49.6±1.2**, 41°.14N**±0°.03×**75°.16E**±0°.02**, h6**km±10km**, n62,** σ1s.**19**/103**, 45C-16D, Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NRN	**Naryn**	0.70	64	⇑eP	Pg	21 44 01.8	-1.3
NRN				⇑eS	Sg	21 44 11.1	-1.1
SALK	**Salom-Alik**	1.05	256	⇑eP	Pg	21 44 08.6	-1.1
SALK				⇑eS	Sg	21 44 23.7	+0.4
ULHL	**Ulahol**	1.37	36	⇓P	Pn	21 44 14.7	-0.8
	8.3nm,0.1s,SNR=38						
ULHL				⇑S	Sb	21 44 32.9	-0.8
	23nm,0.2s						
ULHL	**Ulahol**	1.37	36	⇑eP	Pn	21 44 14.1	-1.4
ULHL				⇑eS	Sb	21 44 32.3	-1.4
BOOM	**Boomskoye usch**	1.47	23	⇑eP	Pn	21 44 16.0	-0.8
BOOM				⇑eS	Sn	21 44 35.6	-0.9
KBK	**Karagaybulak**	1.53	354	⇑P	Pb	21 44 18.5	0.0
	36nm,0.1s,SNR=33						
KBK				⇓S	Sg	21 44 39.3	+0.6
	123nm,0.2s						
KBK	**Karagaybulak**	1.53	354	⇑eP	Pn	21 44 17.2	-0.4
KBK				⇑eS	Sn	21 44 37.7	-0.2
AAK	**Ala-Archa**	1.58	342	⇓P	Pb	21 44 19.2	-0.2
	14nm,0.1s,SNR=31						
AAK				⇓S	Sg	21 44 41.4	+0.9
	58nm,0.2s						
AAK	**Ala-Archa**	1.58	342	⇑Pg	Pb	21 44 19.2	-0.2
	1.8nm,0.3s						
AAK				⇑Lg	Lg	21 44 43.2	
	12nm,0.4s						
AAK	**Ala-Archa**	1.58	342	⇑eP	Pn	21 44 18.2	-0.1
AAK				⇑eS	Sb	21 44 39.3	-0.4
ARSB	**Arslanbob**	1.66	277	⇓eP	Pn	21 44 19.2	-0.2
ARSB				⇓eS	Sn	21 44 41.1	+0.1
SFK	**Sufi-Kurgan**	1.69	229	⇑eP	Pn	21 44 19.3	-0.6
SFK				⇑eS	Sn	21 44 41.4	-0.6
FRU1	**Bishkek**	1.72	347	⇑eP	Pn	21 44 20.3	+0.1
FRU1				⇑eS	Sb	21 44 43.0	-0.6
KDJ	**Kajisay**	1.81	56	⇑eP	Pn	21 44 20.9	-0.6
KDJ				⇑eS	Sn	21 44 44.0	-0.8
TKM2	**Tokmak 2**	1.81	10	⇑P	Pb	21 44 23.1	-0.2
	3.8nm,0.2s,SNR=19						
TKM2				⇑S	Sg	21 44 47.5	-0.4
	48nm,0.1s						
TKM2	**Tokmak 2**	1.81	10	⇑eP	Pn	21 44 21.3	-0.3
TKM2				⇑eS	Sn	21 44 44.7	-0.3
EKS2	**Erkin-Say**	1.84	326	⇑P	Pb	21 44 24.0	+0.2
	5.7nm,0.2s,SNR=8.9						
EKS2				⇑S	Sg	21 44 50.2	+1.4
	12nm,0.3s						
EKS2	**Erkin-Say**	1.84	326	⇑eP	Pn	21 44 21.9	0.0
EKS2				⇑eS	Sn	21 44 45.7	+0.1
CHMS	**Chumysh**	1.89	351	⇓P	Pb	21 44 24.7	+0.2
	14nm,0.2s,SNR=22						
CHMS				⇓S	Sg	21 44 51.2	+1.0
	72nm,0.5s						
CHMS	**Chumysh**	1.89	351	⇑eP	Pn	21 44 22.2	-0.2
CHMS				⇑eS	Sn	21 44 46.4	-0.1
OHH	**Osh**	1.91	252	⇑eP	Pn	21 44 22.5	-0.2
OHH				⇑eS	Sn	21 44 46.7	-0.4
KST	**Kastek**	2.00	17	Pg	Pb	21 44 27.2	+0.8
	3.5nm,0.2s						
KST				Lg	Lg	21 44 54.7	
	52nm,0.1s						
KST	**Kastek**	2.00	17	eP	Pb	21 44 27.2	+0.8
	3.5nm,0.2s						
KST				eS	Sg	21 44 54.7	+1.0
	52nm,0.1s						
TARG	**Taragay, Kyrgy**	2.07	73	⇓eP	Pn	21 44 24.4	-0.9
TARG				⇓eS	Sn	21 44 50.1	-1.5
MRKS	**Merke**	2.16	319	Pg	Pb	21 44 29.5	+0.2
	22nm,0.2s						
MRKS				Lg	Lg	21 44 58.8	
	5.1nm,0.3s						
MRKS	**Merke**	2.16	319	eP	Pb	21 44 29.5	+0.2
	22nm,0.2s						
MRKS				eS	Sg	21 44 58.8	-0.3
	5.1nm,0.3s						
USP	**Ospenovka**	2.19	347	⇓P	Pb	21 44 29.3	-0.3
	56nm,0.2s,SNR=110						
USP				⇑S	Sg	21 44 59.3	-0.5
	88nm,0.3s						
USP	**Ospenovka**	2.19	347	⇑eP	Pn	21 44 26.4	-0.1
USP				⇑eS	Sn	21 44 53.6	-0.3
TNSS	**Tian-Shan**	2.32	34	Pg	Pb	21 44 32.1	0.0
	6.1nm,0.4s						
TNSS				Lg	Lg	21 45 03.5	
	11nm,0.5s						
TNSS	**Tian-Shan**	2.32	34	eP	Pb	21 44 32.1	0.0
	6.1nm,0.4s						
TNSS				eS	Sg	21 45 03.5	-0.6
	11nm,0.5s						
SGDS	**Sogindy**	2.35	350	Pg	Pb	21 44 32.9	+0.5
	20nm,0.2s						
SGDS				Lg	Lg	21 45 05.1	
	93nm,0.5s						
MDOK	**Medeo**	2.46	34	Pg	Pb	21 44 34.6	+0.2
	29nm,0.5s						
MDOK				Lg	Lg	21 45 07.3	
MDOK	**Medeo**	2.46	34	eP	Pb	21 44 34.6	+0.2
	29nm,0.5s						
MDOK				eS	Sg	21 45 07.3	-1.4
	39nm,0.7s						
KNDC	**Almaty**	2.47	32	⇑Pg	Pb	21 44 35.0	+0.5
	20nm,0.5s						
KNDC				⇓Lg	Lg	21 45 08.0	
	59nm,0.5s						
ANVS	**Anan'yevo**	2.49	48	⇑eP	Pn	21 44 30.4	-0.4
ANVS				⇑eS	Sn	21 45 00.4	-1.2
ARK	**Arkit**	2.50	286	⇓eP	Pn	21 44 30.9	0.0
ARK				⇓eS	Sn	21 45 01.3	-0.4
KOTS	**Kotyrbulak**	2.55	34	Pg	Pb	21 44 37.1	+1.3
	26nm,0.4s						
KOTS				Lg	Lg	21 45 11.9	
	78nm,0.5s						
KOTS	**Kotyrbulak**	2.55	34	eP	Pb	21 44 37.1	+1.3
	26nm,0.4s						
KOTS				eS	Sg	21 45 11.9	+0.4
	78nm,0.5s						
KRBS	**Karabastau**	2.59	8	Pg	Pb	21 44 37.2	+0.7
	9.2nm,0.2s						
KRBS				Lg	Lg	21 45 11.9	
	9.9nm,0.4s						
KRBS	**Karabastau**	2.59	8	eP	Pb	21 44 37.2	+0.7
	9.2nm,0.2s						
KRBS				eS	Sg	21 45 11.9	-0.8
	9.9nm,0.4s						
PRZ	**Przheval'sk**	2.77	60	⇑eP	Pn	21 44 34.2	-0.5
PRZ				⇑iS	Sn	21 45 07.0	-1.5
KTBS	**Karatobe**	2.81	23	Pg	Pb	21 44 40.9	+0.7
	0.6nm,0.1s						
KTBS				Lg	Lg	21 45 18.3	
	71nm,0.3s						
KTBS	**Karatobe**	2.81	23	eP	Pb	21 44 40.9	+0.7
	0.6nm,0.1s						
KTBS				eS	Sg	21 45 18.3	-1.6
	71nm,0.3s						
KUU	**Kurty**	2.89	17	Pg	Pb	21 44 42.3	+0.7
	1.3nm,0.1s						
KUU				Lg	Lg	21 45 20.9	
	31nm,0.3s						
KUU	**Kurty**	2.89	17	eP	Pb	21 44 42.3	+0.7
	1.3nm,0.1s						
KUU				eS	Sg	21 45 20.9	-1.5
	31nm,0.3s						
TRKS	**Terek-Say**	3.06	279	⇑eP	Pn	21 44 38.3	-0.3
TRKS				⇑eS	Sn	21 45 14.0	-1.6
SATY	**Saty**	3.08	50	Pg	Pb	21 44 45.4	+0.4
	0.9nm,0.1s						
SATY				Lg	Lg	21 45 26.3	
	11nm,0.3s						
SATY	**Saty**	3.08	50	eP	Pb	21 44 45.4	+0.4
	0.9nm,0.1s						
SATY				eS	Sg	21 45 26.3	-2.4
	11nm,0.3s						
KURS	**Kuram**	3.24	42	Pg	Pb	21 44 48.4	+0.9
	3.9nm,0.4s						
KURS				Lg	Lg	21 45 31.7	
	5.5nm,0.5s						
KURS	**Kuram**	3.24	42	eP	Pb	21 44 48.4	+0.9
	3.9nm,0.4s						
KURS				eS	Sg	21 45 31.6	-2.0
	5.5nm,0.5s						
KPKS	**Kokpek**	3.50	47	Pg	Pb	21 44 52.1	+0.1
	0.2nm,0.1s						
KPKS				Lg	Lg	21 45 37.5	
	11nm,0.3s						
KPKS	**Kokpek**	3.50	47	eP	Pb	21 44 52.1	+0.1
	0.2nm,0.1s						
KPKS				eS	Sb	21 45 37.5	+2.8
	11nm,0.3s						
ARXS	**Arharly**	3.65	32	Pg	Pb	21 44 54.8	+0.3
	3.0nm,0.3s						
ARXS				Lg	Lg	21 45 42.9	
	32nm,0.4s						
ARXS	**Arharly**	3.65	32	eP	Pb	21 44 54.8	+0.3
	3.0nm,0.3s						
ARXS				eS	Sb	21 45 42.9	+3.8
	32nm,0.4s						
SHLS	**Shalkode**	3.78	56	Pg	Pg	21 45 03.0	+1.0
	2.0nm,0.2s						
SHLS				Lg	Lg	21 45 56.7	
	9.8nm,0.4s						
SHLS	**Shalkode**	3.78	56	eP	Pg	21 45 03.0	+1.0
	2.0nm,0.2s						
SHLS				eS	Sg	21 45 56.7	+5.7
	9.8nm,0.4s						
BLB	**Baldybastay**	3.84	38	Pg	Pb	21 44 59.0	+1.2
	1.6nm,0.2s						
BLB				Lg	Lg	21 45 49.7	
	11nm,0.2s						
PDGK	**Podgornoye**	3.89	54	⇓Pg	Pb	21 45 01.1	+2.4
	1.6nm,0.5s						
PDGK				⇑Lg	Lg	21 45 51.5	
	4.5nm,0.6s						
IUG	**Iuzhnay**	3.98	286	Pg	Pb	21 45 02.3	+2.2
	9.2nm,0.3s						
IUG				Lg	Lg	21 45 55.1	
	28nm,0.3s						
IUG	**Iuzhnay**	3.98	286	eP	Pb	21 45 02.3	+2.2
	9.2nm,0.3s						
IUG				eS	Sg	21 45 55.1	-2.3
	28nm,0.3s						
KK31	**Karatay Array**	3.98	301	Pg	Pb	21 45 00.7	+0.6
	1.2nm,0.3s,baz=119,slow=15,SNR=21						
KK31				⇓Lg	Lg	21 45 56.6	
	4.3nm,0.5s,baz=122,slow=28,SNR=6.5						
KNOS	**Konyrlen**	4.37	41	Pg	Pb	21 45 08.8	+1.9
	0.4nm,0.1s						
KNOS				Lg	Lg	21 46 06.2	
	4.4nm,0.4s						

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*IDC **23** 22:01:52.3±1.6, 3°.88N×125°.12E, h0km, mb3.9/6, mbtmp3.9/6, Error ellipse: s-maj=133.5km s-min=17.7km az=68.0*
ISC 23 22:02:24.3±1.9**, 3°.2N**±0°.5×**12°4E**±°**, h300**km**, n6,** σ**0s.44**/6**, mb3.5**/6**, Celebes Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	21.20	177	P	P	22 06 47.1	0.0
	1.0nm,0.4s,baz=14,slow=11,SNR=16						
	1.0nm,0.4s						
WRA	**Warramunga Arr**	24.97	157	P	P	22 07 21.5	+0.2
	1.3nm,0.4s,baz=336,slow=9.8,SNR=14						
	1.3nm,0.4s						
ASAR	**Alice Springs**	28.25	161	P	P	22 07 50.4	-0.1
	0.4nm,0.5s,baz=333,slow=7.6,SNR=5.2						
	0.4nm,0.5s						
MKAR	**Makanchi Array**	56.71	327	P	P	22 11 36.9	-0.3
	0.7nm,0.5s,baz=118,slow=8.2,SNR=11						
	0.7nm,0.5s						
KURBB	**Kurchatov Arra**	60.97	328	P	P	22 12 05.6	-0.6
	1.0nm,0.5s,baz=131,slow=6.6,SNR=12						
	1.0nm,0.5s						
BVAR	**Borovoye Array**	66.53	328	P	P	22 12 42.6	+0.4
	0.6nm,0.5s,baz=95,slow=7.2,SNR=2.8						
	0.6nm,0.5s						

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*IDC **23** 22:03:13.6±1.8, 0°.45N×123°.23E, h0km, mb3.4/3, mbtmp3.6/4, ML4.1/1, Error ellipse: s-maj=126.9km s-min=26.5km az=65.0*
*DJA **23** 22:03:35.0±0.9, 0°S±6°×12°3E±°, h136km±7km, M3.5/5, MLv3.5/3, MLv3.5/5*
ISC 23 22:03:32.8±1.1**, 0°.0N**±0°.1×**123°.1E**±0°.2**, h162**km**, n6,** σ1s.**57**/8**, mb3.2**/3**, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GTOI	**Gorontalo**	0.61	350	P	Pn	22 03 57.4	+1.3
GTOI				S	Sn	22 04 15.7	+1.7
APSI	**Ampana**	1.73	238	P	Pn	22 04 06.7	+0.9
APSI				S	Sn	22 04 31.6	+0.5
APSI				AML	AML		
APSI				AML	AML		
FITZ	**Fitzroy Crossi**	18.18	172	P	P	22 07 33.0	-0.3
	0.4nm,0.3s,baz=2.7,slow=10,SNR=12						
	3.4nm,0.6s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	22.69	152	P	P	22 08 19.6	-1.2
	1.7nm,0.6s,baz=330,slow=10,SNR=15						
	1.7nm,0.6s						
ASAR	**Alice Springs**	25.78	157	P	P	22 08 49.5	+0.7
	0.3nm,0.5s,baz=342,slow=16,SNR=5.0						
	0.3nm,0.5s						
MKAR	**Makanchi Array**	58.65	328	P	P	22 13 10.9	-2.2
	0.1nm,0.3s,baz=116,slow=5.7,SNR=1.5						
	0.1nm,0.3s						

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*NEIC **23** 22:03:55.1±1.1, 19°.05N±0°.04×68°.06W±0°.03, h10km±8km, ML3.1/40, Md3.6/11(RSPR), Error ellipse: s-maj=6.3km s-min=3.9km az=186.0*
*SDD **23** 22:03:55.6±1.6, 18°.90N×68°.14W, h44km±31km, MD3.4, ML2.9, MW3.4, Presumed earthquake*
*OSPL **23** 22:03:56.5±2.2, 19°.05N×68°.08W, h2km±12km, ML3.5, Presumed earthquake*
*RSPR **23** 22:03:56.6, 19°.10N×68°.29W, h10km±31km, MD3.6/11*
ISC 23 22:03:58.5±1.8**, 18°.91N**±0°.06×**68°.14W**±0°.03**, h34**km±3km**, n44,** σ1s.**13**/64**, 13C-4D, Mona Passage**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PCDR	**Punta Cana, DR**	0.46	210		Pn	22 04 07.4	-1.3
PCDR				Sg	Sb	22 04 15.4	0.0
PCDR				IAML		22 04 16.4	
	comp=N,688nm,0.6s						
PCDR	**Punta Cana, DR**	0.46	210	⇓eP	Pn	22 04 07.5	-1.3
PCDR				eS	Sb	22 04 15.8	+0.4
PCDR	**Punta Cana, DR**	0.46	210	iP	Pn	22 04 07.3	-1.3
PCDR				eS	Sb	22 04 15.5	0.0
PCDR				IAML		22 04 16.5	
	comp=Z,233nm,0.4s						
PCDR	**Punta Cana, DR**	0.46	210	⇓ePg	Pn	22 04 07.4	-1.3
PCDR				eSg	Sb	22 04 15.9	+0.4
PCDR				IAML		22 04 18.8	
	comp=E,240nm,0.3s						
PCDR				IAML		22 04 30.7	
	comp=N,285nm,0.5s						
HIDR	**Higuey Centro**	0.63	240	⇓ePg	Pn	22 04 09.6	-1.4
HIDR				⇑eSg	Sn	22 04 19.6	-0.3
HIDR				IAML		22 04 19.8	
	comp=N,2µm,0.3s						
HIDR				IAML		22 04 21.5	
	comp=E,1µm,0.2s						
MIDR	**Miches**	0.86	275	ePg	Pn	22 04 13.1	-1.2
MIDR				eSg	Sb	22 04 25.8	-0.7
MIDR				IAML		22 04 29.9	
	comp=N,213nm,0.5s						
MIDR				IAML		22 04 29.9	
	comp=N,213nm,0.5s						
MIDR				IAML		22 04 31.3	
	comp=E,181nm,0.3s						
SADR	**Isla Saona**	0.94	220	⇓ePg	Pn	22 04 14.9	-0.4
SADR				IAML		22 04 34.6	
	comp=E,198nm,0.6s						
SADR				IAML		22 04 35.1	
	comp=N,419nm,0.6s						
SMDR	**Samana, DR**	1.06	291	ePg	Pn	22 04 16.4	-0.6
SMDR				IAML		22 04 33.8	
	comp=E,481nm,0.7s						
SMDR				IAML		22 04 34.4	
	comp=N,352nm,0.6s						
AGPR	**Aguadilla, PR**	1.07	114		Pn	22 04 14.4	-2.8
AGPR					Sn	22 04 31.3	+0.4
AGPR				IAML		22 04 34.7	
	comp=N,300nm,0.4s						
AGPR				IAML		22 04 36.2	
	comp=N,372nm,0.5s						
AGPR	**Aguadilla, PR**	1.07	114	⇑eP	Pn	22 04 16.6	-0.5
AGPR	**Aguadilla, PR**	1.07	114	iP	Pn	22 04 16.0	-1.1
AGPR				eS	Sn	22 04 31.1	+0.2
AGPR				IAML		22 04 35.5	
	comp=Z,5µm,0.6s						
AGPR	**Aguadilla, PR**	1.07	114	ePg	Pn	22 04 16.4	-0.7
AGPR				IAML		22 04 36.1	
	comp=E,274nm,0.2s						
AGPR				IAML		22 04 37.6	
	comp=N,208nm,0.2s						
PRSN	**Puerto Rico Se**	1.17	126		Pn	22 04 15.5	-3.0
DR12	**Loma Pena Alta**	1.18	264		Pn	22 04 17.9	-0.8
DR12				Sn	Sb	22 04 35.8	+0.2
HATOM	**Hato Mayor del**	1.18	264	ePg	Pn	22 04 18.5	-0.2
HATOM				IAML		22 04 38.7	
	comp=N,441nm,0.5s						
HATOM				IAML		22 04 39.9	
	comp=E,157nm,0.3s						
LSP	**Las Mesas**	1.24	126		Pn	22 04 20.4	+0.9
LSP	**Las Mesas**	1.24	126	⇑eP	Pn	22 04 20.4	+0.9
CRPR	**Cabo Rojo, PR**	1.33	133		Pn	22 04 18.6	-2.0
CRPR				Sn	Sn	22 04 39.0	+1.8
CRPR				IAML		22 04 46.1	
	comp=E,233nm,0.5s						
CRPR	**Cabo Rojo, PR**	1.33	133	⇑eP	Pn	22 04 20.8	+0.1
CRPR	**Cabo Rojo, PR**	1.33	133	iP	Pn	22 04 18.9	-1.8
CRPR				eS	Sb	22 04 39.9	+0.2
CRPR				IAML		22 04 45.2	
	comp=Z,3µm,0.2s						
CRPR	**Cabo Rojo, PR**	1.33	133	ePg	Pn	22 04 18.9	-1.8
CRPR				IAML		22 04 44.5	
	comp=N,233nm,0.6s						
CRPR				IAML		22 04 45.6	
	comp=E,124nm,0.4s						
MLPR	**Magueyes Islan**	1.40	132		Pn	22 04 19.6	-2.1
MLPR				Sn	Sn	22 04 39.3	+0.4
MLPR	**Magueyes Islan**	1.40	132	⇑eP	Pn	22 04 21.6	0.0
AOPR	**Arecibo Observ**	1.43	113		Pn	22 04 20.2	-1.9
AOPR					Sn	22 04 40.1	+0.3
AOPR				IAML		22 04 51.7	
	comp=E,295nm,0.3s						
AOPR	**Arecibo Observ**	1.43	113	⇑eP	Pn	22 04 21.9	-0.2
GBPR	**Guanica, Bosqu**	1.52	128		Pn	22 04 24.5	+1.2
GBPR					Sb	22 04 45.9	+0.8
GBPR	**Guanica, Bosqu**	1.52	128	⇑eP	Pn	22 04 24.5	+1.2
GBPR				eS	Sb	22 04 45.9	+0.8
CELP	**Cerrillos**	1.70	119		Pn	22 04 25.1	-0.6
CELP					Sn	22 04 47.6	+1.2
CELP				IAML		22 04 51.2	
	comp=E,179nm,0.8s						
CELP				IAML		22 04 53.8	
	comp=E,237nm,0.6s						
CELP	**Cerrillos**	1.70	119	⇑eP	Pn	22 04 26.8	+1.0
SDD	**Santo Domingo**	1.74	255	Pn	Pn	22 04 27.0	+0.7
SDD				IAML		22 04 54.7	
	comp=E,240nm,0.9s						
ECPR	**Experimental S**	1.79	109		Pn	22 04 25.7	-1.3
ECPR					Sn	22 04 48.6	+0.1
ECPR				IAML		22 04 55.9	
	comp=E,291nm,0.2s						
ECPR				IAML		22 05 00.1	
	comp=E,264nm,0.2s						
ECPR	**Experimental S**	1.79	109	⇑eP	Pn	22 04 26.9	-0.1
SJG	**San Juan**	2.05	113		Pn	22 04 29.7	-0.9
SJG				IAML		22 05 00.6	
	comp=E,117nm,0.3s						
SJG				IAML		22 05 02.3	
	comp=E,112nm,0.6s						
SJG	**San Juan**	2.05	113	⇑eP	Pn	22 04 31.2	+0.6
SJG	**San Juan**	2.05	113	iP	Pn	22 04 30.3	-0.3
IGPR	**InterUniversit**	2.15	116		Pn	22 04 32.5	+0.5
IGPR					Sb	22 05 01.1	-2.0
IGPR	**InterUniversit**	2.15	116	⇑eP	Pn	22 04 32.5	+0.5
BANI	**BANI**	2.17	257		Pn	22 04 33.2	+0.9
PDPR	**Patillas Dam,**	2.20	114		Pn	22 04 31.3	-1.4
PDPR					Sn	22 04 59.3	+0.7
PDPR	**Patillas Dam,**	2.20	114	⇑eP	Pn	22 04 32.8	+0.2
HUMP	**Col San Antoni**	2.30	109		Pn	22 04 32.8	-1.3
HUMP					Sn	22 05 01.0	-0.3
HUMP	**Col San Antoni**	2.30	109	⇑eP	Pn	22 04 34.6	+0.5
SC01	**Santiago de lo**	2.50	282	Pn	Pn	22 04 36.8	0.0
SDDR	**Presa de Saban**	2.98	272		Pn	22 04 43.4	-0.1

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*BJI **23** 22:07:53.3, 1°.77N×126°.81E, h67km, mB4.9/1, mb4.6/32, Ms4.4/11, Ms7 4.3/12*
*DJA **23** 22:07:54.3±0.3, 2°N±3°×12°7E±°, h10km, M4.6/19, mB5.2/10, mB5.2/12, mb4.8/16, mb4.8/19, MLv4.6/19, MLv4.7/11, Mw(mB)4.5/10, Mw(mB)4.6/12*
*NEIC **23** 22:07:56.0±1.4, 2°.17N±0°.06×126°.75E±0°.06, h56km±5km, mb4.7/63, Error ellipse: s-maj=9.7km s-min=7.1km az=55.0*
*GFZ **23** 22:07:56.6±0.5, 2°N±3°×12°7E±°, h53km±4km, M4.5/28, mb4.7/28, Error ellipse: s-maj=9.6km s-min=5.4km az=49.9, confirmed*
*IDC **23** 22:07:58.9±1.5, 2°.17N×126°.87E, h78km±13km, mb4.1/29, mbtmp4.4/34, MS3.5/5, Error ellipse: s-maj=17.2km s-min=7.3km az=69.0*
*MAN **23** 22:08:02.0, 2°.80N×127°.46E, h31km, MS4.8*
ISC 23 22:07:57.1±0.8**, 2°.15N**±0°.03×**126°.83E**±0°.05**, h68**km±7km**, n217,** σ1s.**53**/233**, mb4.6**/86**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TNTI	**Ternate**	1.47	159	P	Pn	22 08 20.9	-0.7
TNTI	**Ternate**	1.47	159	S	Sn	22 08 39.1	-1.0
TNTI	**Ternate**	1.47	159		Pn	22 08 20.6	-1.1
TNTI				Sn	Sn	22 08 38.6	-1.4
TNTI	**Ternate**	1.47	159	P	Pn	22 08 20.8	-0.9
MNI	**Manado**	2.11	251	P	Pn	22 08 29.1	-1.1
MNI				S	Sn	22 08 56.3	+0.8
MNI				AML	AML		
MNI				AML	AML		
GTOI	**Gorontalo**	4.10	249	P	Pn	22 08 57.8	+0.4
GTOI				AML	AML		
SANI	**Sanana**	4.25	191	P	Pn	22 08 59.1	-0.4
SANI	**Sanana**	4.25	191	P	Pn	22 08 59.1	-0.4
GSPH	**General Santos**	4.34	334	iP	Pn	22 08 59.6	-1.2
GSPH				iS	Sn	22 09 29.8	-20
DAV	**Davao City (W)**	5.04	346	P	Pn	22 09 11.5	+1.2
	119nm,0.4s,baz=267,slow=17,SNR=1.9						
DAV				S	Sn	22 10 11.2	+3.9
	105nm,0.5s,baz=297,slow=21,SNR=1.3						
DAV	**Davao City (W)**	5.04	346		Pn	22 09 10.2	-0.1
DMPH	**Davao City--Mi**	5.08	345	eP	Pn	22 09 14.2	+3.5
DMPH				iS	Sn	22 10 05.5	-2.6
KCP	**Kidapawan**	5.13	340	eP	Pn	22 09 13.1	+1.6
KCP				iS	Sn	22 10 12.3	+2.8
LUWI	**Luwuk**	5.15	232		Pn	22 09 10.7	-1.0
SWI	**Sorong**	5.34	124	P	Pn	22 09 15.0	+0.6
	49nm,1.0s,49nm,1.0s						
SWI	**Sorong**	5.34	124	P	Pn	22 09 15.8	+1.4
	comp=Z,46nm,1.0s						
SIJI	**Sorong**	5.35	124	P	Pn	22 09 15.5	+0.9
	comp=Z,12nm,0.3s,baz=173,slow=19,SNR=14						
SIJI				S	Sn	22 10 16.4	+1.5
	comp=Z,6.1nm,0.6s,baz=152,slow=23,SNR=0.9						
SIJI				LR	LR	22 11 49.7	
	comp=Z,934nm,20.2s,baz=301,slow=43						
NLAI	**Namlea**	5.36	177	P	Pn	22 09 15.1	+0.5
	comp=Z,0.3nmcomp=Z,1µmcomp=Z,1µmcomp=Z,57nm,0.5s, comp=Z,57nm,0.5s						
NLAI				AML	AML		
NLAI	**Namlea**	5.36	177	P	Pn	22 09 15.1	+0.5
	comp=Z,32nm,0.6s						
CDOP	**Cateel, Davao**	5.61	356	iP	Pn	22 09 18.0	-0.1
CDOP				iS	Sn	22 10 19.4	-1.7

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CTBH  Cotabato--PC H   5.66 333 i P     Pn      22 09 18.0 -0.7
BUKP  Musuan           5.96 343 i P     Pn      22 09 25.5 +2.7
BUKP                            i S     Sn      22 10 37.3 +7.5
APSI  Ampana           6.01 240 P       Pn      22 09 27.6 +4.1
BIPH  Bislig           6.01 356 eP      Pn      22 09 23.8 +0.2
BIPH                            eS      Sn      22 10 27.8 -3.2
TOLI2 Tolitoli         6.13 260 P       Pn      22 09 24.9 -0.3
      comp=Z,48nm,0.8s
TOLI2                           AML     AML
TOLI2 Tolitoli         6.13 260         Pn      22 09 23.8 -1.4
TOLI2 Tolitoli         6.13 260 P       Pn      22 09 24.2 -1.0
      comp=Z,48nm,0.8s
CGP   Cagayan de Oro   6.62 341 eP      Pn      22 09 32.3 +0.5
CGP                             eS      Sn      22 10 41.6 -4.3
KDI   Kendari          7.38 215 P       Pn      22 09 42.3  0.0
      comp=Z,39nm,0.7s,comp=Z,39nm,0.7s
FAKI  Fak Fak          7.39 133         Pn      22 09 40.8 -1.7
PCI   Palu             7.62 247 P       Pn      22 09 45.7 +0.1
      comp=Z,0.3nmcomp=Z,0.3nmcomp=Z,84nm,0.8s,comp=Z,84nm,0.8s
PCI                             AML     AML
PCI                             AML     AML
MWPI  Manokwari, Pap   7.83 113 P       Pn      22 09 48.6 +0.2
      comp=Z,0.3nmcomp=Z,85nm,1.2s,comp=Z,85nm,1.2s
MWPI                            AML     AML
KKSI  Kolaka, Sulawe   8.14 220 P       Pn      22 09 52.7 +0.1
      comp=Z,44nm,1.1s,comp=Z,44nm,1.1s
BBSI  Bau Bau          8.70 209 P       Pn      22 10 02.7 +2.4
      comp=Z,89nm,0.9s,comp=Z,89nm,0.9s
KAPI  Kappang         10.03 225 P       Pn      22 10 21.0 +2.5
      comp=Z,5.7nm,0.5s,baz=64,slow=13,SNR=4.5
KAPI                            S       Sn      22 12 09.6  0.0
      comp=Z,4.8nm,0.5s,baz=216,slow=20,SNR=1.3
KAPI  Kappang         10.03 225 Pn      Pn      22 10 16.3 -2.2
KKM   Kota Kinabalu   11.27 290 P       Pn      22 10 36.8 +1.2
      comp=Z,37nm,1.0s
KKM   Kota Kinabalu   11.27 290 S       Sn      22 12 43.4 +3.4
      comp=Z,37nm,1.0s
KKM   Kota Kinabalu   11.27 290 Pn      Pn      22 10 34.4 -1.2
MMRI  Maumere         11.65 203 Pn      Pn      22 10 38.2 -2.5
SOEI  Soe             12.10 192         Pn      22 10 45.9 -1.0
BATI  Baumata         12.67 194 P       Pn      22 10 57.4 +2.8
      comp=Z,7.6nm,0.3s,baz=54,slow=7.4,SNR=3.8
LQP   Lukban          12.99 337 eP      Pn      22 11 02.1 +3.1
PLAI  Plampang        14.15 219 P       Pn      22 11 16.7 +2.3
      comp=Z,44nm,0.9s
SBUM  Sibu            14.60 271         Pn      22 11 18.5 -1.8
JAY   Jayapura        14.62 108 P       Pn      22 11 22.1 +1.5
      comp=Z,6.1nm,1.0s,baz=34,slow=7.3,SNR=3.9
MTN   Manton Dam      15.49 164         Pn      22 11 30.1 -1.6
JAGI  Jajag, Banyuwa  16.46 230 P       P       22 11 47.5 +1.9
      comp=Z,52nm,1.2s
JAGI  Jajag, Banyuwa  16.46 230         Pn      22 11 43.4 -0.6
JAGI                            IAmb    IAmb    22 11 50.3
      comp=Z,85nm,1.3s
KNRA  Kununurra       17.81 174         Pn      22 11 58.6 -1.9
UGM   Wanagama        19.09 238 P       P       22 12 11.5 -3.1
FITZ  Fitzroy Crossi  20.15 183 P       P       22 12 26.9 +0.8
      comp=Z,12nm,0.7s,baz=15,slow=11,SNR=47
FITZ                            LR      LR      22 20 28.8
      comp=Z,73nm,18.2s,baz=7.0,slow=37
      comp=Z,12nm,0.7s
FITZ  Fitzroy Crossi  20.15 183 P       P       22 12 26.3 +0.3
      comp=Z,31nm,0.6s
FITZ  Fitzroy Crossi  20.15 183         P       22 12 25.5 -0.6
FITZ  Fitzroy Crossi  20.15 183 P       P       22 12 25.8 -0.2
      comp=Z,3.1nm,0.6s
BBJI  Bungbulang      21.39 243 P       P       22 12 43.0 +3.5
      comp=Z,21nm,1.0s
BBJI  Bungbulang      21.39 243 P       P       22 12 38.0 -1.5
YULB  Yu-li           21.79 346 P       P       22 12 40.0 -3.6
TPUB  Ta-pu           21.87 345 P       P       22 12 40.6 -3.9
TPUB                            IAmb    IAmb    22 12 47.9
      comp=Z,18nm,0.7s
TPUB  Ta-pu           21.87 345 P       P       22 12 41.3 -3.2
      comp=Z,21nm,0.9s
WB0   Warramunga Arr  23.01 162 P       P       22 12 55.8 -0.8
WB0                             IAmb    IAmb    22 13 02.6
      comp=Z,36nm,0.8s
WRAB  Tennant Creek   23.15 162 P       P       22 12 57.7 -0.3
      comp=Z,16nm,0.6s
WRAB  Tennant Creek   23.15 162 P       P       22 12 56.7 -1.3
      comp=Z,40nm,0.9s
WRA   Warramunga Arr  23.16 162 P       P       22 12 57.5 -0.6
      comp=Z,11nm,0.4s,baz=343,slow=10,SNR=66
WRA                             PcP     PcP     22 16 45.0 +0.4
      comp=Z,0.6nm,0.7s,baz=343,slow=2.3,SNR=2.1
WRA                             S       S       22 17 05.4 +0.9
      comp=Z,1.2nm,0.8s,baz=344,slow=16,SNR=2.1
      comp=Z,11nm,0.4s
WRA   Warramunga Arr  23.16 162 P       P       22 12 55.4 -2.6
WR8   Warramunga Arr  23.22 161 P       P       22 12 58.0 -0.6
WR8                             IAmb    IAmb    22 13 01.2
      comp=Z,22nm,0.8s
PMG   Port Moresby    23.28 120 LR      LR      22 23 43.7
      comp=Z,124nm,20.1s,baz=333,slow=41
MDSI  Maura Dua       23.58 254 P       P       22 13 00.5 -1.5
      comp=Z,25nm,0.7s
QIZ   Qiongzhong      23.62 316 P       P       22 13 02.6 +0.2
QIZ                             S       S       22 17 15.0 +2.9
QIZ                             L       L
      comp=Z,180nm,6.6s
QIZ                             L       L
      comp=Z,220nm,7.9s
QIZ                             L       L
      comp=Z,210nm,8.0s
MBWA  Marble Bar      24.18 196 P       P       22 13 09.5 +2.1
      comp=Z,10nm,1.9s
MBWA  Marble Bar      24.18 196 P       P       22 13 07.2 -0.1
MBWA                            IAmb    IAmb    22 13 13.1
      comp=Z,19nm,1.0s
QIS   Mount Isa       25.81 152 P       P       22 13 22.4 +0.2
      comp=Z,33nm,1.3s
QIS   Mount Isa       25.81 152 P       P       22 13 23.4 +1.2
      comp=Z,33nm,1.3s
MTSU  Mount Surprise  26.51 140 P       P       22 13 31.2 +2.6
      comp=Z,11nm,1.1s
AS31  Alice Springs   26.57 165 P       P       22 13 29.4 +0.3
ASAR  Alice Springs   26.57 165 P       P       22 13 29.8 +0.8
      comp=Z,2.2nm,0.3s,baz=343,slow=9.9,SNR=31
ASAR                            PcP     PcP     22 16 53.6 +1.4
      comp=Z,1.6nm,0.6s,baz=359,slow=2.7,SNR=5.5
ASAR                            LR      LR      22 25 54.8
      comp=Z,77nm,18.6s,baz=315,slow=40
      comp=Z,2.2nm,0.3s
ASAR  Alice Springs   26.57 165 P       P       22 13 29.1 +0.1
ASAR                            PcP     PcP     22 16 52.9 +0.8
AS01  Alice Springs   26.58 165 P       P       22 13 30.2 +1.1
      comp=Z,24nm,1.0s
CTA   Charters Tower  29.18 140 LR      LR      22 26 38.9
      comp=Z,162nm,21.6s,baz=355,slow=38
GSI   Gunungsitoli    29.25 269 P       P       22 13 51.1 -2.0
GSI                             IAmb    IAmb    22 14 15.0
      comp=Z,28nm,1.2s
MEEK  Meekatharra     29.70 195 P       P       22 13 57.8 +0.9
      comp=Z,15nm,1.6s
NJ2   Nanjing         30.68 347 eP      P       22 14 07.5 +2.1
NJ2                             pmax    pmax
      comp=Z,9.0nm,0.6s
CMAR  Chiang Mai Arr  31.78 303 P       P       22 14 15.7 +0.3
      comp=Z,3.1nm,0.8s,baz=107,slow=7.2,SNR=4.7
      comp=Z,3.1nm,0.8s
CMAR  Chiang Mai Arr  31.78 303 P       P       22 14 13.3 -2.0
CHTO  Chiang Mai      31.94 303 P       P       22 14 14.6 -2.2
CHTO                            IAmb    IAmb    22 14 18.6
      comp=Z,8.7nm,0.7s
CHTO  Chiang Mai      31.94 303 P       P       22 14 16.6 -0.2
      comp=Z,14nm,0.7s
INKA  Innaminka       32.60 157 P       P       22 14 22.1 -0.3
MORW  Morawa          32.72 198 P       P       22 14 23.1 -0.4
MORW  Morawa          32.72 198 P       P       22 14 23.6 +0.2
      comp=Z,21nm,2.5s
FORT  Forrest         32.77 178 P       P       22 14 23.1 -0.7
FORT                            IAmb    IAmb    22 14 26.8
      comp=Z,9.3nm,0.6s
QLP   Quilpie         33.14 151 P       P       22 14 28.8 +1.7
      comp=Z,20nm,1.3s
PZH   PanZhiHua       34.16 317 P       P       22 14 38.1 +2.0
KLBR  Kellerberrin    34.65 194 P       P       22 14 41.4 +1.3
      comp=Z,45nm,0.7s
JGF   Kuroka          34.69  15 P       P       22 14 39.4 -1.1
JGF                             IAmb    IAmb    22 14 43.8
      comp=Z,21nm,1.3s
NPW   Naypyitaw       34.74 302 P       P       22 14 41.6 +0.5
      comp=Z,8.3nm,0.9s
KSRS  Korea Array     35.15   2 P       P       22 14 45.6 +1.2
      comp=Z,3.9nm,0.7s,baz=176,slow=9.9,SNR=12
      comp=Z,3.9nm,0.7s
MJAR  Matsushiro Arr  35.80  16 P       P       22 14 49.8 -0.2
      comp=Z,2.1nm,0.5s,baz=194,slow=8.7,SNR=6.8
      comp=Z,2.1nm,0.5s
MJAR  Matsushiro Arr  35.80  16 P       P       22 14 49.0 -1.1
MJAR                            IAmb    IAmb    22 15 10.3
      comp=Z,8.2nm,1.4s
BBOO  Buckleboo       35.85 167 P       P       22 14 50.2 -0.3
BBOO  Buckleboo       35.85 167 P       P       22 14 50.8 +0.3
      comp=Z,18nm,1.1s
XAN   Xi'an           35.87 334 P       P       22 14 50.4 -0.3
XAN                             pP      pP      22 15 03.8 -2.9
XAN                             pmax    pmax
      comp=Z,10.0nm,0.7s
XAN                             L       L
      comp=Z,340nm,19.9s
XAN                             L       L
      comp=Z,310nm,17.2s
XAN                             L       L
      comp=Z,430nm,15.8s
NWAO  Narrogin (SRO)  36.05 194 P       P       22 14 52.4 +0.3
EIDS  Eidsvold        36.06 141 P       P       22 14 52.0 -0.4
EIDS                            IAmb    IAmb    22 14 57.5
      comp=Z,9.9nm,1.0s
STKA  Stephens Creek  36.63 159 P       P       22 14 58.0 +0.9
      comp=Z,4.0nm,0.4s,baz=324,slow=7.8,SNR=17
      comp=Z,4.0nm,0.4s
STKA  Stephens Creek  36.63 159 P       P       22 14 58.2 +1.1
      comp=Z,63nm,1.3s
CMSA  Cobar Meteorol  37.99 153 P       P       22 15 09.5 +0.8
      comp=Z,12nm,1.2s
BJI2  Beijing         38.92 347 P       P       22 15 17.6 +1.3
BJI2                            pmax    pmax
      comp=Z,5.0nm,0.8s
BJT   Baijiatuau      38.92 347 P       P       22 15 15.3 -1.1
BJT                             IAmb    IAmb    22 15 23.1
      comp=Z,6.7nm,0.8s
BJT   Baijiatuau      38.92 347 P       P       22 15 17.6 +1.3
      comp=Z,8.7nm,0.8s
LZH   Lanzhou         39.91 330 eP      P       22 15 22.0 -2.9
LZH                             pmax    pmax
      comp=Z,11nm,0.9s
LZH                             L       L
      comp=Z,360nm,17.0s
LZH                             L       L
      comp=Z,240nm,16.1s
LZH                             L       L
      comp=Z,410nm,17.9s
ARMA  Armidale        40.10 146 P       P       22 15 26.8 +0.3
ARMA                            IAmb    IAmb    22 15 31.5
      comp=Z,13nm,0.8s
ARMA  Armidale        40.10 146 P       P       22 15 28.6 +2.1
      comp=Z,21nm,0.8s
HHC   Hu-ho-hao-te    40.92 342 eP      P       22 15 35.3 +2.2
HHC                             pmax    pmax
      comp=Z,8.0nm,0.6s
CN2   Changchun       41.49 358 eP      P       22 15 40.4 +2.8
CN2                             pmax    pmax
      comp=Z,10.0nm,0.5s
USA0B Ussuriysk Arra  42.12   6 P       P       22 15 41.4 -1.3
USA0B                           IAmb    IAmb    22 15 45.3
      comp=Z,23nm,1.3s
USRK  Ussuriysk Ar.   42.12   6 P       P       22 15 43.9 +1.2
      comp=Z,7.5nm,0.6s,baz=186,slow=6.4,SNR=15
      comp=Z,7.5nm,0.6s
USRK  Ussuriysk Ar.   42.12   6         P       22 15 41.6 -1.0
LSA   Lhasa           43.56 313 P       P       22 15 53.3 -1.9
LSA   Lhasa           43.56 313 P       P       22 15 55.9 +0.7
      comp=Z,5.7nm,0.9s
GTA2  Gaotai          44.59 330 eP      P       22 16 02.6 -0.2
GTA2                            pmax    pmax
      comp=Z,3.0nm,0.9s
DZM   Mont Dzumac     45.56 124 P       P       22 16 11.1 +0.3
      comp=Z,3.7nm,0.9s,baz=284,slow=12,SNR=1.9
      comp=Z,3.7nm,0.9s
EVN   Everest         46.02 308 P       P       22 16 13.3 -1.6
EVN                             IAmb    IAmb    22 16 15.4
      comp=Z,9.8nm,0.7s
EVN   Everest         46.02 308 P       P       22 16 14.9  0.0
      comp=Z,14nm,0.8s
ULN   Ulaanbaatar     48.64 342 P       P       22 16 33.5 -0.9
ULN                             IAmb    IAmb    22 16 41.6
      comp=Z,5.6nm,1.2s
ULN   Ulaanbaatar     48.64 342 P       P       22 16 34.9 +0.5
      comp=Z,3.9nm,0.8s
SONM  Songino Array   48.82 342 P       P       22 16 36.2 +0.5
      comp=Z,1.6nm,0.7s,baz=161,slow=8.5,SNR=9.5
      comp=Z,1.6nm,0.7s
SONM  Songino Array   48.82 342 P       P       22 16 35.0 -0.7
WMQ   Urumqi          54.07 326 eP      P       22 17 15.3 +0.3
WMQ                             PP      PP      22 19 15.8 -1.4
WMQ                             pmax    pmax
      comp=Z,10.0nm,0.7s
WMQ                             L       L
      comp=Z,89nm,23.9s
PETK  Petropavlovsk-  56.85  22 P       P       22 17 34.8 +0.1
      comp=Z,2.7nm,0.7s,baz=142,slow=7.5,SNR=3.5
      comp=Z,2.7nm,0.7s
PETK  Petropavlovsk-  56.85  22 P       P       22 17 34.4 -0.3
ZSN   Zaisan          57.88 328 eP      P       22 17 42.0 -0.1
SHLS  Shalkode        58.62 321 eP      P       22 17 45.3 -2.2
PDGK  Podgornoye      58.69 321 P       P       22 17 46.7 -1.3
UZB   Uzynbulak       58.90 321 eP      P       22 17 48.8 -0.7
MKAR  Makanchi Array  58.91 326 P       P       22 17 49.2  0.0
      comp=Z,2.1nm,0.5s,baz=120,slow=7.6,SNR=22
MKAR                            PcP     PcP     22 18 37.5 -0.4
      comp=Z,1.8nm,0.6s,baz=123,slow=6.4,SNR=5.4
      comp=Z,2.1nm,0.5s
MKAR  Makanchi Array  58.91 326         P       22 17 48.2 -1.0
MKAR                                    PcP     22 18 34.8 -3.1
TARG  Taragay, Kyrgy  58.99 319 P       P       22 17 48.2 -2.3
TARG                            IAmb    IAmb    22 18 06.6
      comp=Z,3.2nm,0.8s
MAKZ  Makanchi        59.09 326         P       22 17 48.2 -2.4
MAKZ                            IAmb    IAmb    22 17 55.1
      comp=Z,4.2nm,1.1s
MAKZ  Makanchi        59.09 326 P       P       22 17 47.9 -2.6
      comp=Z,4.9nm,0.8s
SATY  Saty            59.24 320 eP      P       22 17 51.1 -0.7
      comp=Z,4.6nm,0.9s
KPKS  Kokpek          59.27 321 eP      P       22 17 51.4 -0.6
YAK   Yakutsk         59.77   2 P       P       22 17 54.7 -0.2
YAK   Yakutsk         59.77   2 P       P       22 17 56.2 +1.3
      comp=Z,30nm,0.9s
MDOK  Medeo           60.16 320 eP      P       22 17 57.5 -0.6
TDK   Taldyqorghan    60.22 322 eP      P       22 17 58.2 -0.1
AAA   Alma-Ata        60.27 320 eP      P       22 17 58.4 -0.4
      comp=Z,6.2nm,0.9s
THZ   Tophouse        60.40 142 P       P       22 17 58.8 -0.8
RPZ   Rata Peaks      60.42 144 P       P       22 17 59.4 -0.3
KUU   Kurty           60.97 320 eP      P       22 18 03.2 -0.3
SGDS  Sogindy         61.87 319 eP      P       22 18 09.1 -0.5
ZALV  Zalesovo Beam   62.03 333 P       P       22 18 10.2 -0.1
      comp=Z,0.9nm,0.3s,baz=101,slow=7.7,SNR=5.6
      comp=Z,0.9nm,0.3s
ZALV  Zalesovo Beam   62.03 333 P       P       22 18 09.5 -0.9
KBL   Kabul           62.56 308 P       P       22 18 12.9 -1.7
KURBB Kurchatov Arra  63.12 328 P       P       22 18 17.8 +0.1
      comp=Z,3.2nm,0.5s,baz=129,slow=6.2,SNR=63
      comp=Z,3.2nm,0.5s
KURK  Kurchatov       63.12 328 P       P       22 18 16.8 -0.9
KURK  Kurchatov       63.12 328 P       P       22 18 17.8 +0.2
      comp=Z,9.4nm,0.6s
DZA   Taraz           63.82 318 eP      P       22 18 22.2 -0.4
IUG   Iuzhnay         64.42 316 eP      P       22 18 26.1 -0.4
      comp=Z,4.0nm,0.5s
CHM   Chimkent        64.78 316 eP      P       22 18 28.3 -0.5
BRLS  Borolday        64.88 317 eP      P       22 18 29.1 -0.4
BVAR  Borovoye Array  68.69 327 P       P       22 18 53.9 +0.4
      comp=Z,3.5nm,0.6s,baz=126,slow=7.7,SNR=17
      comp=Z,3.5nm,0.6s
BORK  Borovoye        68.74 327 P       P       22 18 53.1 -0.6
BORK                            IAmb    IAmb    22 18 56.2
      comp=Z,6.2nm,0.8s
CASY  Casey           69.27 187 P       P       22 18 57.2 +0.5
CASY                            IAmb    IAmb    22 19 03.5
      comp=Z,4.3nm,0.7s
AB31  Akbulak array   73.43 321 P       P       22 19 21.5 -0.7
ABKAR Akbulak array   73.43 321 P       P       22 19 21.3 -0.9
AKTO  Aktyubinsk      74.95 322 P       P       22 19 31.8 +0.7
      comp=Z,5.5nm,0.6s,baz=101,slow=6.1,SNR=18
      comp=Z,5.5nm,0.6s
ARTI  Arti            76.40 328 P       P       22 19 39.3 +0.1
      comp=Z,5.4nm,0.7s,baz=124,slow=3.7,SNR=7.6
      comp=Z,5.4nm,0.7s
ARTI  Arti            76.40 328         P       22 19 38.4 -0.8
ARTI                            IAmb    IAmb    22 19 39.8
      comp=Z,15nm,1.2s
ABPO  Ambohimpanom    80.88 250 P       P       22 20 03.9 -0.8
ABPO                            IAmb    IAmb    22 20 06.2
      comp=Z,9.8nm,1.1s
RAYN  Ar Rayn         81.19 293         P       22 20 05.0 -1.3
RAYN  Ar Rayn         81.19 293 P       P       22 20 06.6 +0.3
      comp=Z,4.2nm,1.0s
VOI   Vohitsoka       81.56 248 P       P       22 20 06.1 -2.2
VOI                             IAmb    IAmb    22 20 40.7
      comp=Z,13nm,1.2s
BELG  Belogornoye     81.71 323 P       P       22 20 08.8 +0.6
      comp=Z,26nm,0.9s,baz=50,slow=1.2,SNR=7.7
      comp=Z,26nm,0.9s
VNDA  Vanda           81.86 173 P       P       22 20 09.9 +1.4
      comp=Z,1.7nm,0.5s,baz=319,slow=6.7,SNR=26
      comp=Z,1.7nm,0.5s
VNDA  Vanda           81.86 173 P       P       22 20 09.2 +0.7
VNDA  Vanda           81.86 173 P       P       22 20 10.2 +1.6
      comp=Z,4.3nm,1.2s
MAW   Mawson          82.32 200 P       P       22 20 12.8 +1.7
      comp=Z,2.5nm,0.7s,baz=93,slow=7.2,SNR=8.6
      comp=Z,2.5nm,0.7s
MAW   Mawson          82.32 200 P       P       22 20 11.1  0.0
MAW   Mawson          82.32 200 P       P       22 20 12.8 +1.7
      comp=Z,1.2nm,2.2s
GNI   Garni           82.57 310 P       P       22 20 15.3 +2.0
      comp=Z,1.3nm,0.4s,baz=284,slow=2.6,SNR=6.3
      comp=Z,1.3nm,0.4s
GNI   Garni           82.57 310 P       P       22 20 13.2 -0.1
GNI                             IAmb    IAmb    22 20 24.3
      comp=Z,9.2nm,0.9s
J19K  Poorman         82.62  26 P       P       22 20 13.1 +0.3
J19K                            IAmb    IAmb    22 20 18.3
      comp=Z,12nm,1.2s
HAKT  HAKKARI         83.24 307 P       P       22 20 19.1 +2.1
      comp=Z,20nm,1.0s
GEVA  Gevas           83.78 308 P       P       22 20 18.3 -1.3
G21K  Allakaket       83.92  23 P       P       22 20 19.5 +0.1
G21K                            IAmb    IAmb    22 20 24.4
      comp=Z,6.2nm,1.1s
KBZ   Khabaz          84.13 314 P       P       22 20 21.7 +0.7
      comp=Z,3.6nm,0.8s,baz=150,slow=8.1,SNR=10
      comp=Z,3.6nm,0.8s
EPOS  Posof           84.16 311 P       P       22 20 23.0 +1.6
      comp=Z,8.6nm,1.3s
SUA   Susitna One     84.49  29 P       P       22 20 23.0 +0.3
SUA                             IAmb    IAmb    22 20 28.6
      comp=Z,12nm,1.0s
GURO  Guroymak-BITLI  84.60 308 P       P       22 20 23.8 +0.1
KOPT  Kop Dagi        85.82 310 P       P       22 20 28.7 -1.2
SCM   Sheep Creek Mo  86.15  28 P       P       22 20 32.0 +1.2
ILAR  Eielson Array   86.48  25 P       P       22 20 32.7 +0.5
      comp=Z,0.4nm,0.6s,baz=307,slow=5.6,SNR=4.3
      comp=Z,0.4nm,0.6s
KELT  Kelkit          86.77 310 P       P       22 20 36.1 +1.6
      comp=Z,27nm,1.0s
BMAR  Burnt Mountain  87.49  23 P       P       22 20 36.8 -0.4
ARPR  Arapgir-MALATY  87.49 309 P       P       22 20 36.8 -1.2
ARPR                            IAmb    IAmb    22 20 41.4
      comp=Z,10nm,1.1s
ARPR  Arapgir-MALATY  87.49 309 P       P       22 20 40.2 +2.3
      comp=Z,9.4nm,1.4s
I28M  Miner Creek     89.41  25 P       P       22 20 47.0 +0.7
I28M                            IAmb    IAmb    22 21 13.0
      comp=Z,2.8nm,1.1s
MMAI  Mount Meron Ar  90.04 303 P       P       22 20 51.2 +1.2
      comp=Z,0.3nm,0.3s,baz=128,slow=4.2,SNR=1.7
      comp=Z,0.3nm,0.3s
BRTR  Keskin Array B  91.10 310 P       P       22 20 54.5 -0.4
      comp=Z,0.9nm,0.8s,baz=123,slow=4.4,SNR=6.8
      comp=Z,0.9nm,0.8s
BRTR  Keskin Array B  91.10 310 P       P       22 20 52.6 -2.3
KKUL  Konya-Kulu      91.70 309 P       P       22 20 58.4 +0.8
      comp=Z,7.2nm,1.0s
ARCES ARCESS Array B  91.96 340 P       P       22 20 58.2 +0.2
      comp=Z,1.1nm,0.6s,baz=61,slow=6.4,SNR=1.2
      comp=Z,1.1nm,0.6s
ARCES ARCESS Array B  91.96 340 P       P       22 20 57.0 -1.0
QSPA  South Pole Qui  92.07 180 P       P       22 20 59.6 +0.9
      comp=Z,0.9nm,0.8s,baz=264,slow=0.4,SNR=11
      comp=Z,0.9nm,0.8s
QSPA  South Pole Qui  92.07 180 P       P       22 20 58.6 -0.1
QSPA                            IAmb    IAmb    22 21 30.7
      comp=Z,3.9nm,1.2s
AKASG Malin Array Be  93.17 321 P       P       22 21 03.2 -0.8
      comp=Z,0.4nm,0.4s,baz=70,slow=4.7,SNR=2.8
      comp=Z,0.4nm,0.4s
FINES FINESS Array B  93.26 332 P       P       22 21 04.6 +0.5
      comp=Z,2.6nm,1.0s,baz=90,slow=1.9,SNR=7.1
      comp=Z,2.6nm,1.0s
FINES FINESS Array B  93.26 332 P       P       22 21 04.4 +0.2
PABE  Paberze         95.50 326 P       P       22 21 13.1 -1.4
MLR   Muntele Rosu    96.10 316 P       P       22 21 17.0 -0.8
MLR                             IAmb    IAmb    22 21 29.4
      comp=Z,4.0nm,1.0s
BUR08 Bucovina Ar. S  96.25 318 P       P       22 21 17.5 -0.8
TORD  Torodi Ar. Bea 123.49 287 PKP     PKPdf   22 26 48.2 +0.4
      comp=Z,0.4nm,0.7s,baz=68,slow=1.8,SNR=3.6
PLCA  Paso Flores    138.50 160 PKP     PKPdf   22 27 15.4 -0.2
      comp=Z,1.0nm,0.8s,baz=243,slow=4.5,SNR=3.6
BOAB  BOACO BROADBAN 144.62  65 PKPdf   PKPab   22 27 24.9 -0.9
CO04  Los Peladeros  145.86 152 PKPbc   PKPdf   22 27 28.8 -0.4
CO02  Combarbal      146.55 152 PKPbc   PKPdf   22 27 29.9 -0.3
CO01  Juntas del Tor 148.00 152 PKPbc   PKPdf   22 27 35.2 +2.3
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BJI **23** *22:19:42.7, 8°.98N×126°.84E, h21^{km}, mB5.0/7, mb4.6/40, Ms4.4/29, Ms7 4.2/30*

NEIC **23** *22:19:44.3±1.2, 9°.34N±0°.07×126°.92E±0°.10, h10^{km}±1^{km}, mb4.7/71, Error ellipse: s-maj=16.7km s-min=11.3km az=87.0*

GFZ **23** *22:19:45.4±0.2, 9°N±3°×12°7E±°, h10^{km}, M4.7/31, mb4.7/31, Error ellipse: s-maj=11.8km s-min=4.9km az=73.6, confirmed*

MAN **23** *22:19:45.0, 9°.33N×126°.90E, h10^{km}, MS4.7*

DJA **23** *22:19:48.3±1.5, 9°N±13°×12°7E±°, h10^{km}, M4.8/17, mB5.3/12, mb4.8/17, mb4.8/17, mB5.4/11, ML5.0/3, MLv5.1/3, MLv5.1/3, Mw(mB)4.8/12, Mw(mB)4.8/11*

GCMT **23** *22:19:49.3±0.3, 9°.31N±0°.03×127°.03E±0°.02, h21^{km}±1^{km}, MW4.8/84, Moment Tensor Solution. s25,c26; s84,c108; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}2.06±.14; $M_{\theta\theta}$-0.35±.08; $M_{\phi\phi}$-1.71±.09; $M_{r\theta}$-0.11±.14; $M_{\theta\phi}$0.27±.04; $M_{\phi r}$1.26±.13; Best double couple: $M_0$2.29100×10^{16} NP1:ϕ_s167.00000°, δ28.00000°, λ85.00000°. NP2: ϕ_s352.00000°, δ62.00000°, λ92.00000°. Principal axes: T 2.4430, Plg73.0000°, Azm268.0000°; N -0.3020, Plg2.0000°, Azm171.0000°; P -2.1390, Plg17.0000°, Azm80.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

IDC **23** *22:19:52.8±2.4, 9°.23N×126°.72E, h74^{km}±22^{km}, mb4.1/24, mbtmp4.4/27, MS4.0/19 Error ellipse: s-maj=21.7km s-min=11.1km az=71.0*

ISC 23 22:19:48.4±0.3, **9°.24N**±0°.04×**126°.92E**±0°.06, **h39**^{km}±3^{km}, **n212**, σ**1^{s}.79**/201, **mb4.7**/84, **MS4.1**/26, **2D**, **Mindanao**

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Code  Station Name     Δ°   AZ°    Phase ID          Time      Res
                                Op      ISC      h  m  s    ISC
BIPH  Bislig           1.19 208 i S     Sn      22 20 21.8 -1.6
CDOP  Cateel, Davao    1.52 198 i P     Pn      22 20 11.6 -1.5
CDOP                            i S     Sn      22 20 30.5 -1.3
BUKP  Musuan           2.28 234 i P     Pn      22 20 24.9 +1.3
BUKP                            eS      Sn      22 20 56.9 +6.4
CGP   Cagayan de Oro   2.33 251 eP      Pn      22 20 25.3 +1.1
CGP                             i S     Sn      22 20 55.6 +4.0
DAV   Davao City (W)   2.53 212 P       Pn      22 20 32.1 +5.1
      316nm,0.5s,baz=63,slow=4.4,SNR=9.9
DAV                             S       Sn      22 20 56.7 +0.1
      573nm,0.5s,baz=98,slow=20,SNR=7.7
DAV                             LR      LR      22 21 47.9
      comp=Z,6µm,19.1s,baz=54,slow=48
DAV   Davao City (W)   2.53 212 Pn      Pn      22 20 26.5 -0.5
DAV   Davao City (W)   2.53 212 P       Pn      22 20 33.1 +6.1
DAV                             AML     AML
DAV                             AML     AML
DAV                             AML     AML
DAV   Davao City (W)   2.53 212 P       Pn      22 20 28.0 +1.0
DMPH  Davao City--Mi   2.56 213 i P     Pn      22 20 31.0 +3.6
DMPH                            i S     Sn      22 21 06.3 +9.1
PLP   Palo             2.70 315 eP      Pn      22 20 28.2 -1.2
PLP                             eS      Sn      22 21 01.1 +0.3
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KCP	**Kidapawan**	**2.86**	**219**	*e*P	Pn	22 20 27.2	-4.4
KCP				*e*S	**Sn**	**22 21 12.2**	**+7.4**
TBP	**Tagbilaran**	**3.05**	**279**	*e*P	**Pn**	**22 20 34.5**	**+0.4**
LLP	**Lapu-Lapu**	**3.10**	**290**	*e*P	**Pn**	**22 20 35.9**	**+1.1**
LLP				*e*S	**Sn**	**22 21 16.9**	**+6.3**
LSIP	**Lazi, Siquijor**	**3.25**	**268**	*e*P	**Pn**	**22 20 38.2**	**+1.4**
LSIP				*i* S	**Sn**	**22 21 16.4**	**+2.2**
CTBH	**Cotabato--PC H**	**3.32**	**233**	*i* P	**Pn**	**22 20 39.4**	**+1.6**
DCPH	**Dipolog City**	**3.58**	**260**	*i* P	**Pn**	**22 20 43.1**	**+1.6**
DCPH				*i* S	**Sn**	**22 21 21.2**	**-1.3**
SNPH	**Sibulan**	**3.63**	**272**	*e*P	**Pn**	**22 20 43.8**	**+1.6**
SNPH				*e*S	Sn	22 21 35.8	+12
GSPH	**General Santos**	**3.69**	**212**	*i* P	**Pn**	**22 20 46.7**	**+3.6**
GSPH				*i* S	**Sn**	**22 21 24.5**	**-0.9**
GUIM	**Jordan**	**4.48**	**288**	*i* P	**Pn**	**22 20 56.4**	**+2.6**
IBAJ	**Ibajay, Aklan**	**5.32**	**299**	*e*P	Pn	22 21 10.8	+5.4
GQP	**Guinayangan**	**6.38**	**317**	*e*P	**Pn**	**22 21 20.1**	**+0.2**
LQP	**Lukban**	**7.15**	**313**	*e*P	**Pn**	**22 21 32.6**	**+1.9**
TNTI	**Ternate**	**8.43**	**177**	Pn	**Pn**	**22 21 47.3**	**-0.7**
TNTI	**Ternate**	**8.43**	**177**	P	Pn	22 21 53.9	+5.9
	941nm941nm67nm,1.1s,67nm,1.1s						
TNTI	**Ternate**	**8.43**	**177**	P	**Pn**	**22 21 52.1**	**+4.1**
	comp=Z,68nm,1.1s						
GTOI	**Gorontalo**	**9.39**	**205**	P	**Pn**	**22 22 00.9**	**-0.4**
TOLI2	**Tolitoli**	**10.12**	**217**	Pn	**Pn**	**22 22 10.6**	**-0.7**
SWI	**Sorong**	**10.93**	**156**	P	Pn	22 22 28.3	+6.0
	comp=Z,14nm,0.7s,comp=Z,14nm,0.7s						
SIJI	**Sorong**	**10.94**	**156**	P	Pn	22 22 27.6	+5.2
	comp=Z,3.0nm,0.3s,baz=317,slow=16,SNR=4.5						
SIJI				S	Sn	22 24 15.2	-8.4
	comp=Z,2.9nm,0.5s,baz=230,slow=22,SNR=1.5						
SIJI				LR	LR	22 26 32.8	
	comp=Z,627nm,20.2s,baz=322,slow=36						
LUWI	**Luwuk**	**11.02**	**202**	Pn	**Pn**	**22 22 23.1**	**-0.5**
LUWI	**Luwuk**	**11.02**	**202**	P	Pn	22 22 29.3	+5.8
	comp=Z,1µmcomp=Z,1µmcomp=Z,56nm,1.2s,comp=Z,56nm,1.2s						
KKM	**Kota Kinabalu**	**11.07**	**254**	Pn	**Pn**	**22 22 23.6**	**-0.8**
KKM	**Kota Kinabalu**	**11.07**	**254**	P	Pn	22 22 30.4	+6.0
	comp=Z,27nm,1.1s,comp=Z,27nm,1.1s						
SANI	**Sanana**	**11.25**	**185**	P	Pn	22 22 31.9	+5.1
	comp=Z,44nm,1.0s,comp=Z,44nm,1.0s						
APSI	**Ampana**	**11.37**	**208**	P	Pn	22 22 36.8	+8.5
	comp=Z,42nm,1.3s,comp=Z,42nm,1.3s						
FAKI	**Fak Fak**	**13.20**	**156**	Pn	**Pn**	**22 22 53.0**	**-0.3**
FAKI	**Fak Fak**	**13.20**	**156**	P	**Pn**	**22 22 56.6**	**+3.2**
	comp=Z,20nm,1.0s						
SMKI	**Samarinda**	**13.64**	**226**	P	**P**	**22 23 05.0**	**-2.5**
YULB	**Yu-li**	**15.06**	**340**	Pn	**Pn**	**22 23 14.8**	**-3.8**
TPUB	**Ta-pu**	**15.22**	**337**	Pn	**Pn**	**22 23 17.3**	**-3.4**
TPUB				IAmb	IAmb	22 23 41.8	
	comp=Z,63nm,1.3s						
NACB	**Ninganchiao**	**15.70**	**342**	Pn	**Pn**	**22 23 23.3**	**-3.4**
NACB				IAmb	IAmb	22 24 03.7	
	comp=Z,48nm,1.5s						
KAPI	**Kappang**	**15.86**	**207**	LR	LR	22 30 56.8	
	comp=Z,170nm,18.8s,baz=23,slow=42						
SBUM	**Sibu**	**16.09**	**246**		**P**	**22 23 34.2**	**-0.6**
YHNB	**Yeheng**	**16.23**	**342**	Pn	**Pn**	**22 23 32.1**	**-1.5**
BBKI	**Banjar Baru**	**17.44**	**224**	P	P	22 24 08.2	+18
JOW	**Kunigami**	**17.54**	**4**	LR	LR	22 31 38.3	
	comp=Z,569nm,18.2s,baz=194,slow=40						
JAY	**Jayapura**	**18.03**	**130**	P	**Pn**	**22 23 58.9**	**+2.7**
	comp=Z,11nm,1.0s,baz=164,slow=6.8,SNR=5.6						
GUMO	**Guam**	**18.12**	**75**	LR	LR	22 30 03.3	
	comp=Z,352nm,20.4s,baz=232,slow=33						
MMRI	**Maumere**	**18.36**	**195**		**P**	**22 23 59.4**	**-0.5**
MMRI				IAmb	IAmb	22 24 12.4	
	comp=Z,73nm,1.1s						
EDFI	**Ende, Flores**	**18.61**	**196**	P	**Pn**	**22 24 06.6**	**+3.3**
	comp=Z,18nm,0.8s						
SOEI	**Soe**	**19.05**	**188**		**P**	**22 24 07.5**	**-0.1**
SOEI	**Soe**	**19.05**	**188**	P	**Pn**	**22 24 12.2**	**+3.6**
	comp=Z,61nm,0.8s						
QIZ	**Qiongzhong**	**19.19**	**302**	P	**P**	**22 24 09.1**	**+0.2**
QIZ				S	**Sn**	**22 27 44.4**	**+0.1**
QIZ				pmax	pmax		
	comp=Z,210nm,10.0s						
QIZ				L	L		
	comp=Z,260nm,15.4s						
QIZ				L	L		
	comp=Z,390nm,15.1s						
QIZ				L	L		
	comp=Z,690nm,15.6s						
BATI	**Baumata**	**19.59**	**190**	P	**P**	**22 24 09.4**	**-3.9**
	comp=Z,55nm,0.7s,baz=109,slow=1.6,SNR=10						
BATI				S	**S**	**22 27 49.3**	**-3.3**
	comp=Z,11nm,0.4s,baz=63,slow=4.6,SNR=1.8						
PLAI	**Plampang**	**20.13**	**207**	P	**Pn**	**22 24 21.8**	**+0.5**
	comp=Z,43nm,1.0s						
MTN	**Manton Dam**	**22.34**	**169**		**P**	**22 24 43.1**	**+0.1**
SMRI	**Semarang**	**23.05**	**226**	P	**P**	**22 24 50.1**	**-0.5**
NJ2	**Nanjing**	**23.90**	**343**	⇓P	**P**	**22 24 59.6**	**+1.1**
NJ2				pmax	pmax		
	comp=Z,23nm,1.0s						
MYKOM	**Kota Tinggi**	**24.11**	**253**	P	**P**	**22 24 59.4**	**-1.3**
MYKOM				IAmb	IAmb	22 25 02.2	
	comp=Z,41nm,1.5s						
MYKOM	**Kota Tinggi**	**24.11**	**253**	P	**P**	**22 25 02.4**	**+1.7**
	comp=Z,31nm,1.3s						
WHN	**Wuhan**	**24.22**	**333**	P	**P**	**22 25 03.0**	**+1.4**
WHN				L	L		
	comp=Z,1µm,14.9s						
KNRA	**Kununurra**	**24.82**	**176**		**P**	**22 25 07.1**	**0.0**
KNRA				IAmb	IAmb	22 25 42.1	
	comp=Z,9.1nm,0.8s						
LEM	**Lembang**	**24.99**	**231**	P	**P**	**22 25 09.9**	**+1.0**
	comp=Z,13nm,0.4s,baz=81,slow=8.0,SNR=6.3						
	comp=Z,13nm,0.4s						
IPM	**Ipoh**	**26.13**	**261**		**P**	**22 25 16.3**	**-2.8**
IPM	**Ipoh**	**26.13**	**261**	P	**P**	**22 25 20.6**	**+1.5**
	comp=Z,38nm,1.1s						
MDSI	**Maura Dua**	**26.45**	**240**	P	**P**	**22 25 22.9**	**+0.9**
	comp=Z,19nm,1.7s						
FITZ	**Fitzroy Crossi**	**27.20**	**183**		**P**	**22 25 27.9**	**-0.6**
FITZ	**Fitzroy Crossi**	**27.20**	**183**	P	**P**	**22 25 32.6**	**+4.1**
	comp=Z,4.9nm,1.3s						
MNAI	**Manna**	**27.44**	**241**	P	**P**	**22 25 30.6**	**-0.3**
KSRS	**Korea Array**	**28.10**	**2**	P	**P**	**22 25 38.2**	**+1.7**
	comp=Z,1.7nm,0.6s,baz=178,slow=9.6,SNR=5.7						
KSRS				LR	LR	22 38 00.7	
	comp=Z,420nm,19.5s,baz=185,slow=39						
	comp=Z,1.7nm,0.6s						
LYN	**LuoYang**	**28.46**	**334**	P	**P**	**22 25 41.8**	**+2.0**
LYN				pP	pP	22 25 46.6	-1.9
LYN				S	**S**	**22 30 25.8**	**+1.1**
LYN				pmax	pmax		
	comp=Z,17nm,0.6s						
LYN				L	L		
	comp=Z,380nm,14.4s						
LYN				L	L		
	comp=Z,340nm,14.3s						
LYN				L	L		
	comp=Z,440nm,13.9s						
RPSI	**Rantau Prapat**	**28.57**	**259**		**P**	**22 25 40.4**	**-0.6**
RPSI				IAmb	IAmb	22 25 44.7	
	comp=Z,20nm,1.0s						
RPSI	**Rantau Prapat**	**28.57**	**259**	P	**P**	**22 25 42.3**	**+1.3**
	comp=Z,24nm,1.2s						
CM31	**Chiang Mai Arr**	**28.63**	**292**	P	**P**	**22 25 40.0**	**-1.4**
CMAR	**Chiang Mai Arr**	**28.63**	**292**	P	**P**	**22 25 41.4**	**-0.1**
	comp=Z,2.3nm,0.9s,baz=108,slow=7.3,SNR=12						
CMAR				LR	LR	22 37 46.2	
	comp=Z,177nm,18.7s,baz=110,slow=38						
	comp=Z,2.3nm,0.9s						
CMAR	**Chiang Mai Arr**	**28.63**	**292**	P	**P**	**22 25 39.6**	**-1.8**
CHTO	**Chiang Mai**	**28.72**	**292**	P	**P**	**22 25 40.9**	**-1.4**
MJAR	**Matsushiro Arr**	**29.05**	**19**	LR	LR	22 37 00.9	
	comp=Z,516nm,19.1s,baz=200,slow=35						
PZH	**PanZhiHua**	**29.38**	**309**	P	**P**	**22 25 49.3**	**+1.1**
XAN	**Xi'an**	**29.71**	**329**	P	**P**	**22 25 50.0**	**-0.9**
XAN				pmax	pmax		
	comp=Z,10.0nm,0.8s						
XAN				L	L		
	comp=Z,340nm,18.5s						
XAN				L	L		
	comp=Z,310nm,18.5s						
XAN				L	L		
	comp=Z,360nm,17.9s						
WB0	**Warramunga Arr**	**29.75**	**166**	P	**P**	**22 25 49.8**	**-1.6**
WRA	**Warramunga Arr**	**29.91**	**166**	P	**P**	**22 25 52.8**	**0.0**
	comp=Z,1.5nm,0.5s,baz=348,slow=9.2,SNR=10.0						
	comp=Z,1.5nm,0.5s						
WRA	**Warramunga Arr**	**29.91**	**166**	P	**P**	**22 25 50.1**	**-2.6**
HNS	**HongShan**	**30.13**	**340**	⇓P	**P**	**22 25 55.6**	**+1.1**
HNS				S	**S**	**22 30 54.8**	**+4.1**
HNS				SS	**ScP**	**22 32 32.0**	**-2.7**
HNS				pmax	pmax		
	comp=Z,20nm,1.0s						
HNS				L	L		
	comp=Z,330nm,16.4s						
HNS				L	L		
	comp=Z,350nm,16.2s						
HNS				L	L		
	comp=Z,370nm,20.4s						
GSI	**Gunungsitoli**	**30.24**	**257**	P	**P**	**22 25 54.2**	**-1.6**
CD2	**Chengdu**	**30.50**	**318**	P	**P**	**22 25 56.9**	**-1.0**
CD2				S	**S**	**22 30 59.8**	**+3.0**
CD2				L	L		
	comp=Z,760nm,17.1s						
CD2				L	L		
	comp=Z,570nm,15.2s						
CD2				L	L		
	comp=Z,810nm,17.1s						
MBWA	**Marble Bar**	**31.02**	**193**	P	**P**	**22 26 01.9**	**-0.7**
MBWA				IAmb	IAmb	22 26 19.6	
	comp=Z,16nm,1.1s						
NPW	**Naypyitaw**	**31.53**	**293**	P	**P**	**22 26 06.6**	**-0.5**
	comp=Z,5.6nm,1.0s						
BJI2	**Beijing**	**32.11**	**344**	P	**P**	**22 26 13.3**	**+1.3**
BJI2				pmax	pmax		
	comp=Z,7.0nm,0.9s						
BJI2				L	L		
	comp=Z,130nm,15.1s						
BJI2				L	L		
	comp=Z,100nm,14.4s						
BJT	**Baijiatuau**	**32.11**	**344**	P	**P**	**22 26 10.2**	**-1.8**
BJT	**Baijiatuau**	**32.11**	**344**	P	**P**	**22 26 13.1**	**+1.2**
	comp=Z,14nm,1.1s						
QIS	**Mount Isa**	**32.13**	**157**	P	**P**	**22 26 13.4**	**+1.1**
	comp=Z,29nm,0.9s						
AS31	**Alice Springs**	**33.41**	**168**	P	**P**	**22 26 22.5**	**-1.0**
ASAR	**Alice Springs**	**33.41**	**168**	P	**P**	**22 26 23.8**	**+0.2**
	comp=Z,1.1nm,0.4s,baz=355,slow=6.9,SNR=18						
ASAR				PcP	**PcP**	**22 29 05.2**	**+0.7**
	comp=Z,0.5nm,0.5s,baz=338,slow=2.4,SNR=2.9						
	comp=Z,1.1nm,0.4s						
ASAR	**Alice Springs**	**33.41**	**168**		**P**	**22 26 22.7**	**-0.8**
LZH	**Lanzhou**	**33.98**	**325**	*e*P	**P**	**22 26 24.1**	**-4.5**
LZH				pmax	pmax		
	comp=Z,11nm,1.0s						
LZH				L	L		
	comp=Z,400nm,17.5s						
LZH				L	L		
	comp=Z,210nm,15.6s						
LZH				L	L		
	comp=Z,400nm,17.3s						
HHC	**Hu-ho-hao-te**	**34.30**	**339**	*e*P	**P**	**22 26 31.9**	**+0.7**
HHC				pP	pP	22 26 37.4	-2.0
HHC				S	**S**	**22 31 59.1**	**+3.2**
HHC				pmax	pmax		
	comp=Z,10.0nm,0.8s						
HHC				pmax	pmax		
	comp=Z,93nm,6.7s						
HHC				L	L		
	comp=Z,180nm,17.7s						
HHC				L	L		
	comp=Z,200nm,13.5s						
HHC				L	L		
	comp=Z,150nm,10.3s						
CN2	**Changchun**	**34.45**	**358**	*e*P	**P**	**22 26 33.3**	**+1.0**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
MDJ	**Mudanjiang**	**35.32**	**3**	P	**P**	**22 26 38.1**	**-1.7**
MDJ				IAmb	IAmb	22 27 02.2	
	comp=Z,20nm,1.2s						
XLT	**XiLinHaoTe**	**35.79**	**347**	*e*P	**P**	**22 26 45.8**	**+1.8**
XLT				S	**S**	**22 32 23.4**	**+4.6**
XLT				pmax	pmax		
	comp=Z,22nm,0.9s						
XLT				pmax	pmax		
	comp=Z,120nm,4.7s						
XLT				L	L		
	comp=Z,230nm,14.5s						
XLT				L	L		
	comp=Z,320nm,18.6s						
BRDH	**Bariadhala**	**36.34**	**296**	LR	LR	22 44 00.5	
	comp=Z,281nm,19.5s,baz=144,slow=40						
ASAJ	**Asahikawa**	**37.32**	**19**	P	**P**	**22 26 58.5**	**+1.6**
	comp=Z,7.4nm,0.7s,baz=291,slow=8.6,SNR=2.8						
ASAJ				LR	LR	22 41 52.4	
	comp=Z,464nm,20.0s,baz=254,slow=35						
	comp=Z,7.4nm,0.7s						
JKA	**Kamikawa-asahi**	**37.32**	**19**	P	**P**	**22 26 55.9**	**-1.0**
JKA				IAmb	IAmb	22 27 14.4	
	comp=Z,27nm,1.3s						
HNR	**Honiara**	**37.76**	**119**	LR	LR	22 41 29.6	
	comp=Z,154nm,19.9s,baz=17,slow=34						
GTA2	**Gaotai**	**38.67**	**326**	*e*P	**P**	**22 27 07.4**	**-1.1**
GTA2				pmax	pmax		
	comp=Z,3.0nm,0.5s						
GTA2				L	L		
	comp=Z,320nm,15.5s						
GTA2				L	L		
	comp=Z,230nm,19.0s						
GTA2				L	L		
	comp=Z,410nm,17.5s						
LSA	**Lhasa**	**39.14**	**306**	P	**P**	**22 27 11.2**	**-1.8**
QLP	**Quilpie**	**39.38**	**155**	P	**P**	**22 27 14.5**	**+0.1**
	comp=Z,22nm,1.0s						
MORW	**Morawa**	**39.51**	**195**	P	**P**	**22 27 15.3**	**-0.1**
MORW				IAmb	IAmb	22 27 23.6	
	comp=Z,13nm,0.9s						
MORW	**Morawa**	**39.51**	**195**	P	**P**	**22 27 16.2**	**+0.8**
	comp=Z,19nm,2.3s						
H11S3	**WAKE ISLAND Hy**	**39.61**	**72**	T	T	23 10 31.8	
	baz=261,slow=73,SNR=11						
H11S1	**WAKE ISLAND Hy**	**39.63**	**72**	T	T	23 10 32.7	
	baz=261,slow=73,SNR=3.7						
H11S2	**WAKE ISLAND Hy**	**39.63**	**72**	T	T	23 10 25.7	
	baz=261,slow=73,SNR=6.4						
FORT	**Forrest**	**39.81**	**178**	P	**P**	**22 27 18.2**	**+0.4**
H11N1	**WAKE ISLAND Hy**	**39.98**	**70**	T	T	23 11 04.5	
	baz=254,slow=74,SNR=4.4						
H11N2	**WAKE ISLAND Hy**	**39.99**	**70**	T	T	23 11 03.6	
	baz=254,slow=74,SNR=3.8						
H11N3	**WAKE ISLAND Hy**	**40.00**	**70**	T	T	23 11 07.1	
	baz=254,slow=74,SNR=5.3						
KLR	**Kul'dur**	**40.06**	**5**	LR	LR	22 44 04.6	
	comp=Z,213nm,19.1s,baz=186,slow=36						
HILR	**Hailar Array B**	**40.63**	**353**	P	**P**	**22 27 26.4**	**+1.9**
	comp=Z,2.4nm,0.5s,baz=168,slow=10,SNR=2.6						
	comp=Z,2.4nm,0.5s						
BLDU	**Ballidu**	**40.82**	**194**	P	**P**	**22 27 28.5**	**+2.2**
	comp=Z,23nm,0.4s						
ULN	**Ulaanbaatar**	**42.00**	**340**		**P**	**22 27 35.3**	**-0.7**
ULN	**Ulaanbaatar**	**42.00**	**340**	P	**P**	**22 27 36.9**	**+0.9**
	comp=Z,6.9nm,1.1s						
SONM	**Songino Array**	**42.20**	**339**	P	**P**	**22 27 37.8**	**+0.2**
	comp=Z,2.7nm,0.8s,baz=158,slow=10,SNR=12						
	comp=Z,2.7nm,0.8s						
SONM	**Songino Array**	**42.20**	**339**	P	**P**	**22 27 36.4**	**-1.1**
BBOO	**Buckleboo**	**42.72**	**169**	P	**P**	**22 27 41.9**	**+0.1**
BBOO				IAmb	IAmb	22 27 45.4	
	comp=Z,26nm,1.2s						
NWAO	**Narrogin (SRO)**	**42.94**	**192**	P	**P**	**22 27 44.0**	**+0.5**
STKA	**Stephens Creek**	**43.23**	**162**	P	**P**	**22 27 46.4**	**+0.5**
	comp=Z,2.4nm,0.6s,baz=318,slow=9.6,SNR=3.9						
	comp=Z,2.4nm,0.6s						
PALK	**Pallekele**	**45.75**	**271**	LR	LR	22 49 07.2	
	comp=Z,65nm,20.8s,baz=95,slow=38						
WMQ	**Urumqi**	**48.42**	**322**	*e*P	**P**	**22 28 28.3**	**+1.4**
WMQ				L	L		
	comp=Z,320nm,20.7s						
WMQ				L	L		
	comp=Z,210nm,15.9s						
WMQ				L	L		
	comp=Z,140nm,20.7s						
WUS	**Wushi**	**52.70**	**315**	P	**P**	**22 28 57.6**	**-1.7**
WUS				IAmb	IAmb	22 29 00.1	
	comp=Z,4.8nm,0.7s						
WUS	**Wushi**	**52.70**	**315**	P	**P**	**22 28 59.6**	**+0.3**
	comp=Z,6.7nm,0.8s						
YAK	**Yakutsk**	**52.73**	**2**	P	**P**	**22 28 57.7**	**-1.3**
YAK				IAmb	IAmb	22 29 32.1	
	comp=Z,11nm,0.8s						
MKAR	**Makanchi Array**	**53.23**	**323**	P	**P**	**22 29 02.3**	**-0.7**
	comp=Z,6.3nm,0.8s,baz=126,slow=7.8,SNR=45						
MKAR				PcP	**PcP**	**22 30 10.6**	**0.0**
	comp=Z,2.0nm,0.6s,baz=110,slow=4.7,SNR=4.3						
	comp=Z,6.3nm,0.8s						
MKAR	**Makanchi Array**	**53.23**	**323**		**P**	**22 29 01.8**	**-1.2**
MKAR					**PcP**	**22 30 10.8**	**+0.2**
MA2	**Magadan**	**53.36**	**15**	LR	LR	22 51 14.9	
	comp=Z,149nm,20.3s,baz=187,slow=35						
MA2	**Magadan**	**53.36**	**15**	P	**P**	**22 29 02.2**	**-1.5**
	comp=Z,10nm,1.7s						
PDGK	**Podgornoye**	**53.38**	**318**		**P**	**22 29 02.8**	**-1.5**
MAKZ	**Makanchi**	**53.42**	**323**		**P**	**22 29 03.6**	**-0.8**
MAKZ				IAmb	IAmb	22 29 05.3	
	comp=Z,8.5nm,0.9s						
MAKZ	**Makanchi**	**53.42**	**323**	P	**P**	**22 29 04.4**	**0.0**
	comp=Z,10nm,1.1s						
PRZ	**Przheval'sk**	**53.77**	**317**	P	**P**	**22 29 08.4**	**+1.1**
	comp=Z,14nm,1.1s						
TARG	**Taragay, Kyrgy**	**53.88**	**316**	P	**P**	**22 29 08.2**	**-0.2**
	comp=Z,6.0nm,0.8s						
KDJ	**Kajisay**	**54.46**	**316**	P	**P**	**22 29 11.1**	**-1.2**
KDJ				IAmb	IAmb	22 29 13.3	
	comp=Z,7.8nm,0.7s						
ASAI	**AK-SAY(Kyrgyzs**	**54.48**	**314**	P	**P**	**22 29 12.3**	**-0.4**
	comp=Z,11nm,1.1s						
KSH2	**Kashi**	**54.57**	**312**	P	**P**	**22 29 13.4**	**+0.3**
KSH2				pmax	pmax		
	comp=Z,6.0nm,1.1s						
KSH2				L	L		
	comp=Z,250nm,17.7s						
KSH2				L	L		
	comp=Z,280nm,16.9s						
KSH2				L	L		
	comp=Z,310nm,14.1s						
NIL	**Nilore**	**54.84**	**305**	P	**P**	**22 29 13.5**	**-1.5**
NIL	**Nilore**	**54.84**	**305**	P	**P**	**22 29 15.1**	**+0.1**
	comp=Z,42nm,0.9s						
NRN	**Naryn**	**55.03**	**315**	P	**P**	**22 29 15.3**	**-1.3**
NRN				IAmb	IAmb	22 29 17.3	
	comp=Z,6.2nm,0.8s						
ZAA0	**Zalesovo Array**	**55.83**	**331**	P	**P**	**22 29 20.4**	**-1.3**
ZALV	**Zalesovo Beam**	**55.83**	**331**	P	**P**	**22 29 20.6**	**-1.1**
	comp=Z,1.2nm,0.4s,baz=124,slow=7.0,SNR=9.5						
	comp=Z,1.2nm,0.4s						
AAK	**Ala-Archa**	**56.50**	**315**	P	**P**	**22 29 25.8**	**-1.2**
AAK	**Ala-Archa**	**56.50**	**315**	P	**P**	**22 29 27.2**	**+0.3**
	comp=Z,4.0nm,1.5s						
ARSB	**Arslanbob**	**57.13**	**314**	P	**P**	**22 29 29.9**	**-1.5**
ARSB				IAmb	IAmb	22 29 32.1	
	comp=Z,5.0nm,0.8s						
KURK	**Kurchatov**	**57.27**	**326**	P	**P**	**22 29 30.8**	**-1.2**
KURK	**Kurchatov**	**57.27**	**326**	P	**P**	**22 29 32.3**	**+0.3**
	comp=Z,16nm,1.0s						
KURBB	**Kurchatov Arra**	**57.28**	**326**	P	**P**	**22 29 31.3**	**-0.7**
	comp=Z,5.5nm,0.6s,baz=126,slow=6.7,SNR=48						
	comp=Z,5.5nm,0.6s						
DRK	**Karamyk**	**57.45**	**311**	P	**P**	**22 29 32.4**	**-1.5**
DRK				IAmb	IAmb	22 29 35.2	
	comp=Z,8.5nm,0.8s						
ARK	**Arkit**	**58.01**	**314**	P	**P**	**22 29 38.1**	**+0.6**
BTK	**Batken**	**58.34**	**312**	P	**P**	**22 29 38.2**	**-1.7**
BTK				IAmb	IAmb	22 29 54.2	
	comp=Z,12nm,1.3s						
BTK	**Batken**	**58.34**	**312**	P	**P**	**22 29 39.7**	**-0.1**
	comp=Z,6.6nm,1.1s						
KBL	**Kabul**	**58.44**	**305**	P	**P**	**22 29 39.2**	**-1.6**
KBL				IAmb	IAmb	22 29 40.9	
	comp=Z,6.0nm,0.6s						
KBL	**Kabul**	**58.44**	**305**	P	**P**	**22 29 39.9**	**-0.9**
	comp=Z,9.6nm,0.7s						
KK31	**Karatay Array**	**59.42**	**315**	P	**P**	**22 29 46.0**	**-1.2**
KK31				IAmb	IAmb	22 29 47.7	
	comp=Z,6.4nm,0.8s						
KKAR	**Karatay Array**	**59.42**	**315**	P	**P**	**22 29 45.9**	**-1.4**
TIXI	**Tiksi**	**62.37**	**1**	P	**P**	**22 30 06.2**	**-0.4**
BVAR	**Borovoye Array**	**62.87**	**326**	P	**P**	**22 30 10.1**	**-0.3**
	comp=Z,7.5nm,0.8s,baz=123,slow=7.3,SNR=27						
	comp=Z,7.5nm,0.8s						
BORK	**Borovoye**	**62.92**	**326**		**P**	**22 30 09.6**	**-1.0**
AFI	**Afiamalu**	**65.03**	**110**	LR	LR	22 54 23.8	
	comp=Z,134nm,20.5s,baz=238,slow=32						
NRIK	**Noril'sk**	**65.16**	**346**	P	**P**	**22 30 25.2**	**+0.1**
	comp=Z,8.1nm,0.6s,baz=155,slow=4.1,SNR=6.9						
	comp=Z,8.1nm,0.6s						
NRIK	**Noril'sk**	**65.16**	**346**	P	**P**	**22 30 24.7**	**-0.4**
THZ	**Tophouse**	**65.97**	**144**	P	**P**	**22 30 31.6**	**+0.8**
URZ	**Urewera**	**66.48**	**139**	LR	LR	22 59 38.1	
	comp=Z,126nm,19.7s,baz=311,slow=36						
AB31	**Akbulak array**	**68.07**	**319**		**P**	**22 30 42.7**	**-1.3**
AB31				IAmb	IAmb	22 31 25.6	
	comp=Z,8.1nm,1.4s						
ABKAR	**Akbulak array**	**68.07**	**319**	P	**P**	**22 30 42.7**	**-1.3**
ARTI	**Arti**	**70.52**	**327**		**P**	**22 30 57.4**	**-1.7**
L18K	**Granite Mounta**	**75.54**	**28**	P	**P**	**22 31 29.2**	**+0.5**
L18K				IAmb	IAmb	22 31 47.8	
	comp=Z,9.3nm,1.2s						
CASY	**Casey**	**76.28**	**187**	P	**P**	**22 31 33.1**	**+0.5**
CASY				IAmb	IAmb	22 32 12.0	
	comp=Z,5.8nm,1.1s						
M19K	**Big River Lodg**	**76.58**	**29**	P	**P**	**22 31 35.1**	**+0.5**
M19K				IAmb	IAmb	22 31 52.7	
	comp=Z,15nm,1.4s						
KDAK	**Kodiak Island**	**77.17**	**33**	LR	LR	23 03 23.1	
	comp=Z,75nm,20.2s,baz=214,slow=34						
CAST	**Castle Rocks**	**77.76**	**27**	P	**P**	**22 31 41.3**	**0.0**
CAST				IAmb	IAmb	22 31 59.6	
	comp=Z,7.9nm,1.3s						
SKT	**Skwentna**	**77.93**	**29**	P	**P**	**22 31 42.1**	**-0.1**
SKT				IAmb	IAmb	22 31 56.0	
	comp=Z,8.2nm,1.3s						
I21K	**Tanana**	**77.93**	**25**	P	**P**	**22 31 43.4**	**+1.3**
I21K				IAmb	IAmb	22 32 24.6	
	comp=Z,13nm,1.4s						
SUA	**Susitna One**	**78.28**	**29**	P	**P**	**22 31 44.9**	**+0.7**
SUA				IAmb	IAmb	22 31 47.0	
	comp=Z,8.9nm,1.0s						
RAYN	**Ar Rayn**	**78.55**	**292**	P	**P**	**22 31 44.7**	**-1.7**
RAYN				IAmb	IAmb	22 31 46.7	
	comp=Z,4.1nm,0.7s						
RAYN	**Ar Rayn**	**78.55**	**292**	P	**P**	**22 31 46.2**	**-0.2**
	comp=Z,7.7nm,0.9s						
HAKT	**HAKKARI**	**79.07**	**307**	P	**P**	**22 31 50.0**	**+0.8**
	comp=Z,18nm,1.9s						
KBZ	**Khabaz**	**79.37**	**313**	P	**P**	**22 31 50.1**	**-0.3**
	comp=Z,2.9nm,1.0s,baz=135,slow=5.7,SNR=6.0						
	comp=Z,2.9nm,1.0s						
KIV	**Kislovodsk**	**79.51**	**313**	P	**P**	**22 31 50.0**	**-1.4**
KIV				IAmb	IAmb	22 31 53.4	
	comp=Z,13nm,1.2s						
KIV	**Kislovodsk**	**79.51**	**313**	P	**P**	**22 31 52.5**	**+1.1**
	comp=Z,8.8nm,1.1s						
DHY	**Denali Highway**	**79.88**	**27**	P	**P**	**22 31 52.6**	**-0.5**
ILAR	**Eielson Array**	**80.08**	**26**	P	**P**	**22 31 55.8**	**+1.8**
	comp=Z,0.4nm,0.5s,baz=239,slow=6.2,SNR=4.3						
	comp=Z,0.4nm,0.5s						
ILAR	**Eielson Array**	**80.08**	**26**	P	**P**	**22 31 54.0**	**+0.1**
GURO	**Guroymak-BITLI**	**80.33**	**308**	P	**P**	**22 31 55.2**	**-0.7**
GURO				IAmb	IAmb	22 31 57.9	
	comp=Z,9.8nm,0.9s						
L29M	**L29M**	**84.07**	**27**		**P**	**22 32 16.1**	**+1.2**
I30M	**Mount Dempster**	**84.48**	**25**	P	**P**	**22 32 17.6**	**+0.5**
I30M				IAmb	IAmb	22 32 37.9	
	comp=Z,5.3nm,0.9s						
SPITS	**Spitsbergen Ar**	**85.14**	**349**	P	**P**	**22 32 20.7**	**+0.7**
	comp=Z,22nm,1.1s,baz=89,slow=8.5,SNR=6.5						
	comp=Z,22nm,1.1s						
ARCES	**ARCESS Array B**	**85.37**	**340**	P	**P**	**22 32 22.1**	**+0.8**
	comp=Z,5.2nm,0.6s,baz=78,slow=4.0,SNR=18						
	comp=Z,5.2nm,0.6s						
ARCES	**ARCESS Array B**	**85.37**	**340**	P	**P**	**22 32 21.4**	**+0.1**
BRTR	**Keskin Array B**	**86.67**	**310**	P	**P**	**22 32 27.7**	**-0.9**
	comp=Z,0.6nm,0.9s,baz=41,slow=9.5,SNR=3.0						
	comp=Z,0.6nm,0.9s						
FINES	**FINESS Array B**	**87.09**	**332**	P	**P**	**22 32 29.6**	**-0.3**
	comp=Z,2.1nm,0.7s,baz=78,slow=5.5,SNR=12						
	comp=Z,2.1nm,0.7s						
FINES	**FINESS Array B**	**87.09**	**332**	P	**P**	**22 32 28.5**	**-1.3**
EIL	**Elat**	**87.19**	**299**	LR	LR	23 20 42.4	
	comp=Z,45nm,18.1s,baz=68,slow=42						
AKASG	**Malin Array Be**	**87.76**	**321**	P	**P**	**22 32 32.9**	**-0.4**
	comp=Z,0.4nm,0.5s,baz=82,slow=2.6,SNR=1.9						
	comp=Z,0.4nm,0.5s						
VNDA	**Vanda**	**88.83**	**173**	P	**P**	**22 32 37.8**	**+0.1**
	comp=Z,0.6nm,0.6s,baz=322,slow=6.4,SNR=5.3						
	comp=Z,0.6nm,0.6s						
VNDA	**Vanda**	**88.83**	**173**	P	**P**	**22 32 37.8**	**+0.1**
VNDA				IAmb	IAmb	22 32 55.2	
	comp=Z,4.0nm,1.4s						
VNDA	**Vanda**	**88.83**	**173**	P	**P**	**22 32 38.8**	**+1.0**
BORA	**Eskisehir**	**89.06**	**310**	P	**P**	**22 32 37.9**	**-2.0**
BORA				IAmb	IAmb	22 32 44.3	
	comp=Z,2.5nm,0.9s						
SLIT	**Slitere, Latvi**	**89.98**	**329**	P	**P**	**22 32 42.0**	**-1.6**

	comp=Z,146nm,0.8s						
HFS	Hagfors	93.25	333	P	P	22 32 58.4	-0.3
	comp=Z,1.5nm,0.8s,baz=64,slow=3.4,SNR=4.1						
	comp=Z,1.5nm,0.8s						
NOA	NORSAR Array B	93.96	334	P	P	22 33 01.2	-0.8
	comp=Z,0.6nm,0.8s,baz=60,slow=4.5,SNR=3.6						
	comp=Z,0.6nm,0.8s						
MBAR	Mbarara	96.19	270	LR	LR	23 19 01.9	
	comp=Z,47nm,18.5s,baz=28,slow=37						
TXAR	Lajitas Array	118.01	50	PKP	PKiKP	22 38 34.3	+2.4
	comp=Z,0.3nm,0.6s,baz=225,slow=0.5,SNR=5.0						
TORD	Torodi Ar. Bea	121.24	291	PKP	PKiKP	22 38 38.5	+0.1
	comp=Z,0.7nm,0.7s,baz=67,slow=4.3,SNR=3.9						
PLCA	Paso Flores	145.01	157	PKPbc	PKPdf	22 39 23.2	+1.2
	comp=Z,3.3nm,1.0s,baz=200,slow=9.4,SNR=4.3						

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*NORS **23** 22:34:52.7, 41.°68N×46.°05E, h23^{km}, MPVA3.4*
*MOS **23** 22:34:53.4, 41.°73N×46.°06E, h21^{km}, MPVA3.4*
*AZER **23** 22:34:53.3, 41.°62N×45.°96E, h12^{km}, ml2.6*
*DRS **23** 22:34:54.7, 41.°80N×46.°10E, h30^{km}*
ISC 23 22:34:54.7±0.9**, 41.°71N**±0.°02×**46.°06E**±0.°02**, h16**^{km}±7^{km}**,**
n51, σ1.^{s}27/102**, Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZKTA	Zakatala	0.43	100	P	Pn	22 35 04.8	-1.4
ZKTA				S	Sn	22 35 12.6	-1.1
TLTR	Tlyarata	0.45	29	*i* Pg	Pb	22 35 04.0	-0.3
TLTR				*e*Sg	Sb	22 35 11.1	+0.3
QZX	Qazax, Azerbai	0.83	218	P	Pg	22 35 09.5	-1.4
QZX				S	Sg	22 35 18.4	-3.6
KMKR	Kumukh	0.88	61	*i* Pg	Pn	22 35 12.0	-0.6
KMKR				*e*Sg	Sn	22 35 24.9	-0.3
GNBR	Gunib	0.95	45	*e*Pg	Pn	22 35 13.2	-0.3
GNBR				*e*Sg	Sn	22 35 26.9	+0.1
XNZR	Khunzakh	0.96	30	*e*Pg	Pn	22 35 13.5	-0.1
XNZR				*e*Sg	Sn	22 35 26.9	-0.1
BTLR	Botlikh	0.96	7	*e*Pg	Pn	22 35 12.5	-1.0
BTLR				*e*Sg	Sn	22 35 26.1	-0.8
SEKA	Sheki	0.99	120	P	Pn	22 35 13.8	-0.2
SEKA				S	Sn	22 35 29.1	+1.4
GDB	GEDABAY	1.02	193	P	Pb	22 35 12.3	-1.7
GDB				S	Sb	22 35 26.5	-0.8
GANJ	Ganja	1.09	169	P	Pb	22 35 14.0	-1.1
GANJ				S	Sb	22 35 29.2	+0.2
ARKR	Arakani	1.13	38	*e*Pg	Pg	22 35 15.7	-0.8
ARKR				*e*Sg	Sn	22 35 31.5	+0.5
UNCR	Uncukul	1.14	28	*e*Pg	Pg	22 35 15.7	-1.0
UNCR				*e*Sg	Sn	22 35 31.7	+0.4
MNGR	Mingechevir, A	1.22	140	P	Pg	22 35 17.9	-0.3
MNGR				S	Sg	22 35 36.3	+2.3
URKR	Urkarakh	1.26	68	*e*Pg	Pg	22 35 18.2	-0.8
URKR				*e*Sg	Sg	22 35 35.1	-0.3
AKT	Akhty	1.27	100	*e*Pg	Pg	22 35 18.2	-1.1
AKT				*e*Sg	Sg	22 35 35.5	-0.5
KRNR	Karanay	1.28	29	*e*Pg	Pg	22 35 18.2	-1.2
KRNR				*e*Sg	Sg	22 35 35.9	-0.2
BUJR	Buynaksk	1.36	35	*e*Pg	Pg	22 35 19.2	-1.6
BUJR				*e*Sg	Sg	22 35 38.0	-0.5
SGKR	Sergokala	1.40	57	*e*Pg	Pg	22 35 20.2	-1.5
SGKR				*e*Sg	Sg	22 35 39.3	-0.7
DBC	Dubki	1.43	23	*e*Pg	Pg	22 35 21.7	-0.4
DBC				*e*Sg	Sg	22 35 41.2	+0.5
GROC	Groznyy	1.50	353	*e*Pg	Pb	22 35 22.0	-0.2
GROC				*e*Sg	Sg	22 35 42.1	-0.9
QBL	Gabala	1.54	119	Pn	Pg	22 35 23.1	-1.2
QBL				Sn	Sg	22 35 45.0	+0.6
KSMR	Kasumkent	1.55	93	*e*Pg	Pg	22 35 23.7	-0.9
KSMR				*e*Sg	Sg	22 35 45.0	+0.2
KMGR	Komgaron	1.61	327	*e*Pg	Pb	22 35 24.2	+0.3
KMGR				*e*Sg	Sg	22 35 45.2	-1.2
XNQ	Khinaliq	1.66	108	Pn	Pg	22 35 25.7	-0.9
XNQ				Sn	Sg	22 35 48.7	+0.6
QSAR	Qusar	1.67	96	Pn	Pg	22 35 26.1	-0.5
QSAR				Sn	Sg	22 35 50.7	+2.4
BRDA	Brd	1.68	149	Pn	Pg	22 35 25.6	-1.3
BRDA				Sn	Sg	22 35 50.0	+1.2
LACR	Lac	1.72	311	*e*Pg	Pn	22 35 23.9	0.0
LACR				*e*Sg	Sn	22 35 45.4	-0.2
AGDM	Agdam	1.79	153	Pn	Pb	22 35 26.6	-0.5
AGDM				Sn	Sg	22 35 51.5	-0.8
IML	Ismayilli	1.85	119	Pn	Pg	22 35 28.4	-1.7
IML				Sn	Sg	22 35 53.5	-0.6
GNI	Garni	1.85	213	*e*Pg	Pn	22 35 27.2	+1.2
GNI				*e*Sg	Sb	22 35 51.8	+0.5
QUBA	Quba, Azerbaij	1.86	100	Pn	Pg	22 35 29.6	-0.9
QUBA				Sn	Sg	22 35 56.7	+2.1
ZRD	Zardab	1.89	139	Pn	Pb	22 35 28.3	-0.4
ZRD				Sn	Sg	22 35 55.9	+0.5
ARNR	Ardon	1.97	319	*e*Pg	Pb	22 35 30.6	+0.5
ARNR				*e*Sg	Sg	22 35 56.2	-1.7
BTKR	Batakoyurt	2.00	326	*e*Pg	Pg	22 35 32.6	-0.4
BTKR				*e*Sg	Sg	22 35 59.6	+0.6
KORR	Kora	2.01	314	*e*Pg	Pn	22 35 29.1	+1.1
KORR				*e*Sg	Sb	22 35 57.2	+1.4
KDMR	Kurdemir	2.09	129	Pn	Pb	22 35 30.4	-1.8
KDMR				Sn	Sg	22 35 59.1	-2.8
PQL	Pirkuli	2.12	115	Pn	Pb	22 35 32.8	0.0
PQL				Sn	Sg	22 36 02.7	-0.3
HYR	Heyderabad	2.19	205	Pn	Pn	22 35 31.6	+1.1
HYR				Sn	Sn	22 35 59.8	+2.5
STDR	Stavd-Durt	2.22	319	*e*Pg	Pg	22 35 36.8	-0.4
STDR				*e*Sg	Sg	22 36 06.8	+0.9
SIZA	Siyzn	2.23	106	Pg	Pb	22 35 34.8	+0.1
SIZA				Sg	Sg	22 36 07.3	+0.9
LSNR	Lesken	2.27	314	*e*Pn	Pb	22 35 35.3	-0.1
LSNR				*e*Sn	Sb	22 36 04.6	+1.4
BLQ	Beylaqan	2.29	150	Pn	Pb	22 35 34.1	-1.6
BLQ				Sn	Sb	22 36 04.6	+0.8
ATGJ	Altiaghaj	2.33	110	Pg	Pb	22 35 36.5	+0.1
ATGJ				Sg	Sg	22 36 10.5	+0.9
SBZ	Shahbuz	2.35	190	Pg	Pn	22 35 34.6	+2.0
SBZ				Sg	Sb	22 36 05.8	+0.4
IGDI	IGDIR	2.38	220	Pn	Pn	22 35 33.2	+0.2
IGDI				Sn	Sn	22 36 05.0	+3.1
QRD	Qoradiz	2.45	156	Pn	Pb	22 35 35.9	-2.4
QRD				Sn	Sb	22 36 06.5	-1.7
GBS	Qobustan	2.48	117	Pn	Pb	22 35 37.4	-1.4
GBS				Sn	Sg	22 36 11.0	-3.3
ORD	Ordubad	2.78	181	Pg	Pb	22 35 41.7	-2.3
ORD				Sg	Sb	22 36 18.7	+0.7
GLBA	Clilabad	3.04	143	Pn	Pn	22 35 44.4	+2.2
GLBA				Sn	Sn	22 36 20.0	+1.8
YRD	Yardimli	3.25	148	Pn	Pn	22 35 46.0	+0.8
YRD				Sn	Sn	22 36 25.3	+1.6
LRK	Lerik	3.53	150	Pn	Pn	22 35 49.9	+0.9
LRK				Sn	Sn	22 36 31.9	+1.4

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*TEH **23** 22:35:16.0, 35.°04N×45.°04E, h10^{km}±163^{km}, ML2.7,*
Presumed earthquake
*ISN **23** 22:35:21.2±0.7, 35.°04N×45.°04E, h10^{km}, ML2.5,*
Presumed earthquake
ISC 23 22:35:17.1±1.2**, 35.°06N**±0.°07×**45.°14E**±0.°07**, h10**^{km}**, n5,**
σ0.^{s}65/6**, Iran-Iraq border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IKRK	Kirkuk	0.74	298	*i* P	Pn	22 35 33.9	+0.3
IKRK				*i* S	Sn	22 35 44.5	-0.4
	baz=123						
IKRK				IAML		22 35 51.4	
	comp=N,259nm,1.1s						
IKRK				IAML		22 35 51.4	
	comp=E,148nm,0.2s						
IDHR	Dehrash	1.09	109	Pg	Pn	22 35 38.4	-0.2
SNJK	Sanadaj _Korde	1.64	76	Pg	Pb	22 35 48.3	+0.7
ILBA	Ilam Banvizeh	1.68	148	Pg	Pg	22 35 49.0	-0.4
MAHB	Mahabad	1.77	15	Pn	Pg	22 35 50.5	-0.5

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*SJA **23** 23:09:18.6±0.7, 25.°10S×71.°04W, h10^{km}, ML4.2, MW3.8*
*GUC **23** 23:09:22.9±0.7, 25.°08S×70.°82W, h33^{km}±7^{km}, ML4.2*
*NEIC **23** 23:09:24.2±1.4, 25.°08S±0.°03×70.°83W±0.°04, h35^{km}±5^{km},*
mb4.6/22, Mwr4.2/68, Mwr4.3(GUC), Error ellipse:
s-maj=5.3km s-min=4.6km az=221.0, Moment Tensor
Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}2.30;
$M_{\theta\theta}$-0.30; $M_{\phi\phi}$-2.00; $M_{r\theta}$0.10; $M_{\theta\phi}$-0.20; $M_{\phi r}$0.84; Fault
plane solution: $M_0$2.33000×10^{15} NP1:ϕ_s6.58000°,
δ55.63000°, λ89.97000°. NP2:ϕ_s186.62000°, δ34.37000°,
λ90.04000°. Principal axes: T 2.4605, Plg79.0000°,
Azm276.0000°; N -0.2784, Plg0.0000°, Azm7.0000°; P
-2.1821, Plg11.0000°, Azm97.0000°;
*NEIC **23** 23:09:24.2, 25.°09S×70.°85W, h36^{km}*
*IDC **23** 23:09:26.1±2.4, 25.°12S×70.°38W, h50^{km}±21^{km}, mb3.8/10,*
mbtmp4.0/14, ML3.6/4, MS3.4/3, Error ellipse:
s-maj=24.9km s-min=15.7km az=84.0
ISC 23 23:09:24.2±1.0**, 25.°16S**±0.°03×**70.°80W**±0.°07**, h41**^{km}±9^{km}**,**
n127, σ1.^{s}71/130**, mb4.5**/20**, 4C-2D, Near coast of**
northern Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AC01	Pan de Azucar	1.00	170	*e*P	Pn	23 09 42.8	+1.0
AC01				*e*S	Sn	23 09 55.8	+1.0
AC01	Pan de Azucar	1.00	170	⇓*e*P	Pn	23 09 42.7	+1.0
AC01				*e*S	Sn	23 09 56.4	+1.7
AC01				IAML		23 10 00.4	
	comp=N,4μm,0.3s						
AC01	Pan de Azucar	1.00	170		Pn	23 09 42.8	+1.0
AC01				Sn	Sn	23 09 56.3	+1.5
AC06	Mina Casimiro	2.23	170	⇑*e*P	Pn	23 09 59.8	+1.2
AC06				IAML		23 10 43.5	
	comp=E,2μm,0.3s						
AC06	Mina Casimiro	2.23	170		Pn	23 09 59.9	+1.2
AC02	Maricunga	2.24	138	*e*P	Pn	23 10 01.3	+2.0
AC02				*e*S	Sn	23 10 22.7	-3.3
AC02				IAML		23 10 28.4	
	comp=Z,2μm,0.7s						
AC02	Maricunga	2.24	138	⇑*i*P	Pn	23 10 01.4	+2.0
AC02				*e*S	Sn	23 10 27.5	+1.4
AC02				IAML		23 10 29.5	
	comp=E,3μm,0.5s						
AC02	Maricunga	2.24	138		Pn	23 10 01.4	+2.0
PB05	IPOC Station P	2.36	13	*e*P	Pn	23 09 54.7	-5.8
PB05				*e*P		23 10 00.2	
PB05				*e*S	Sn	23 10 33.2	+4.9
PB05	IPOC Station P	2.36	13	⇓*i*P	Pn	23 10 00.0	-0.6
PB05				IAML		23 10 43.0	
	comp=E,921nm,0.7s						
PB05	IPOC Station P	2.36	13		Pn	23 09 60.0	-0.6
PB05				Sn	Sn	23 10 26.0	-2.3
GO03	Copiapo	2.48	168	*e*P	Pn	23 10 03.6	+1.5
GO03				*e*S	Sn	23 10 37.8	+6.6
GO03				IAML		23 10 50.2	
	comp=Z,1μm,0.5s						
GO03	Copiapo	2.48	168	*e*P	Pn	23 10 03.7	+1.6
GO03	Copiapo	2.48	168		Pn	23 10 03.0	+0.9
PB06	IPOC Station P	2.69	25	*e*P	Pn	23 10 04.8	-0.3
PB06				*e*S	Sn	23 10 42.9	+6.4
PB06				IAML		23 10 54.6	
	comp=Z,976nm,0.3s						
PB06	IPOC Station P	2.69	25	*e*P	Pn	23 10 04.7	-0.4
PB06				IAML		23 10 54.8	
	comp=E,1μm,0.2s						
PB06	IPOC Station P	2.69	25		Pn	23 10 04.8	-0.3
AC04	Llanos de Chal	3.04	185	*e*P	Pn	23 10 09.9	0.0
AC04				*e*S	Sn	23 10 59.2	+14
AC04				IAML		23 11 12.7	
	comp=Z,314nm,0.6s						
AC04	Llanos de Chal	3.04	185	*e*P	Pn	23 10 09.6	-0.3
AC04				IAML		23 11 11.0	
	comp=E,436nm,0.4s						
AC04	Llanos de Chal	3.04	185		Pn	23 10 09.5	-0.3
PB03	IPOC Station P	3.24	17	*e*P	Pn	23 10 12.3	-0.4
PB03				*e*S	Sn	23 10 54.7	+4.6
PB03				IAML		23 11 09.8	
	comp=Z,784nm,0.5s						
PB03	IPOC Station P	3.24	17	*e*P	Pn	23 10 11.9	-0.8
PB03	IPOC Station P	3.24	17		Pn	23 10 11.3	-1.4
AF01	San Pedro de A	3.25	48	*e*P	Pn	23 10 14.5	+1.6
AF01				*e*S	Sn	23 11 07.7	+17
AF01				IAML		23 11 27.4	
	comp=Z,3μm,0.6s						
AF01	San Pedro de A	3.25	48	*e*P	Pn	23 10 12.9	-0.1
AF01	San Pedro de A	3.25	48		Pn	23 10 11.8	-1.2
PB07	IPOC Station P	3.52	14	*e*P	Pn	23 10 15.7	-0.8
PB07	IPOC Station P	3.52	14		Pn	23 10 15.7	-0.8
PB09	IPOC Station P	3.64	23	*e*P	Pn	23 10 18.9	+0.7
PB09				*e*S	Sn	23 11 12.2	+12
PB09				IAML		23 11 25.5	
	comp=Z,455nm,0.6s						
PB09	IPOC Station P	3.64	23	*e*P	Pn	23 10 18.2	0.0
PB09	IPOC Station P	3.64	23		Pn	23 10 18.2	0.0
AC05	El Transito	3.69	173	*e*P	Pn	23 10 20.5	+1.7
AC05				*e*S	Sn	23 11 10.7	+10
AC05				IAML		23 11 25.5	
	comp=Z,287nm,0.8s						
AC05	El Transito	3.69	173	*e*P	Pn	23 10 20.3	+1.4
AC05	El Transito	3.69	173		Pn	23 10 19.9	+1.1
LCO	Las Campanas	3.84	179		Pn	23 10 21.9	+0.9
PB02	IPOC Station P	3.91	12	*e*P	Pn	23 10 20.8	-1.1
PB02	IPOC Station P	3.91	12		Pn	23 10 20.6	-1.3
TINO	Tinogasta	4.09	136	*e*P	Pn	23 10 26.8	+2.5
TINO				IAML		23 11 39.4	
	comp=Z,122nm,1.7s						
VCA	Vinchina	4.25	148	*e*P	Pn	23 10 28.7	+2.2
VCA				*e*S	Sn	23 11 34.7	+20
VCA				IAML		23 11 44.2	
	comp=Z,195nm,1.3s						
FSA	Cafayete	4.45	103	*e*P	Pn	23 10 34.2	+4.9
TA01	Diego Aracena	4.61	7		Pn	23 10 29.2	-2.2
SLA	San Lorenzo	4.82	86	*e*P	Pn	23 10 38.0	+3.5
CO01	Juntas del Tor	4.84	173	*e*P	Pn	23 10 37.6	+2.8
CO01	Juntas del Tor	4.84	173		Pn	23 10 35.9	+1.2
PB08	IPOC Station P	5.22	17	*e*P	Pn	23 10 39.3	-0.8
PB08	IPOC Station P	5.22	17		Pn	23 10 39.4	-0.7
PB11	IPOC Station P	5.47	11		Pn	23 10 41.3	-2.1
CO06	Fray Jorge	5.54	188	Pn	Pn	23 10 42.9	-1.3
PSGCX	Pisagua	5.57	7		Pn	23 10 42.6	-2.0
GO01	Chusmiza	5.66	15		Pn	23 10 44.8	-1.5
PB12	IPOC Station P	6.53	4		Pn	23 10 55.9	-1.9
ZON	Zonda	6.63	164	Pn	Pn	23 11 01.1	+1.9
CFA	Coronel Fontan	6.80	161	P	Pn	23 11 04.0	+2.4
	comp=Z,1.2nm,0.3s,baz=344,slow=13,SNR=11						
CFA				S	Sn	23 12 14.9	-2.9
	comp=Z,4.8nm,0.4s,baz=271,slow=23,SNR=1.2						
	comp=Z,2.7nm,0.3s						
CFA				AML	AML		
PB16	IPOC Station P	6.90	10		Pn	23 11 01.2	-2.1
MT13	San Alfonso	8.57	177	Pn	Pn	23 11 26.4	+0.6
BO04	La Punta	8.80	179	Pn	Pn	23 11 30.1	+1.2
LPAZ	La Paz	9.17	16	P	Pn	23 11 35.0	+0.4
	comp=Z,0.3nm,0.3s,baz=161,slow=0.7,SNR=8.0						
LPAZ				LR	LR	23 15 39.7	
	comp=Z,130nm,18.5s,baz=238,slow=41						
	comp=Z,1.1nm,0.4s						
LPAZ				AML	AML		
LPAZ	La Paz	9.17	16		Pn	23 11 32.9	-1.7
H03N1	Juan Fernandez	10.87	219	P	Pn	23 11 57.2	+0.2
	baz=48,slow=74,SNR=6.9						
H03N1				T	T	23 23 49.5	
	baz=44,slow=74,SNR=1614						
H03N2	Juan Fernandez	10.88	219	P	Pn	23 11 56.6	-0.5
	baz=213,slow=74,SNR=5.9						
H03N2				T	T	23 23 41.6	
	baz=217,slow=74,SNR=1215						
H03S3	Juan Fernandez	11.15	217	P	Pn	23 11 59.6	-1.3
	baz=50,slow=16,SNR=12						
H03S3				T	T	23 24 06.9	
	SNR=11						
H03S1	Juan Fernandez	11.17	217	P	Pn	23 12 00.2	-0.8
	baz=50,slow=16,SNR=7.6						
H03S1				T	T	23 23 57.2	
	SNR=10						
H03S2	Juan Fernandez	11.17	217	P	Pn	23 12 00.2	-0.9
	baz=50,slow=16,SNR=8.9						
H03S2				T	T	23 24 03.0	
	SNR=15						
CPUP	Villa Florida	12.20	98	P	Pn	23 12 13.2	-2.2
	comp=Z,0.1nm,0.3s,baz=341,slow=7.3,SNR=2.8						
CPUP				LR	LR	23 17 35.3	
	comp=Z,85nm,19.8s,baz=244,slow=41						
	comp=Z,0.3nm,0.3s						
CPUP				AML	AML		
SIV	San Ignacio	12.88	47	P	Pn	23 12 20.9	-3.9
	baz=186,slow=10.0,SNR=3.1						
SIV				S	Sn	23 14 31.8	-15
	comp=Z,1.5nm,0.7s,baz=112,slow=23,SNR=2.3						
	comp=Z,0.8nm,0.2s						
PTLB	Pontes e Lacer	14.58	51	Pn	Pn	23 12 46.8	-1.1
PLCA	Paso Flores	15.53	179		Pn	23 13 01.0	+0.6
VILB	Vilhena	15.73	41	Pn	Pn	23 13 02.4	-0.5
TRCB	Terra Rica	16.77	86	Pn	Pn	23 13 15.4	-0.8
TRCB				IAmb	IAmb	23 13 33.7	
	comp=Z,22nm,0.6s						
VAO	Valinhos	21.86	89	P	P	23 14 11.7	-1.9
VAO				IAmb	IAmb	23 14 29.0	
	comp=Z,20nm,1.0s						
BDFB	Brasilia	23.33	70	P	P	23 14 25.0	-4.0
	comp=Z,3.7nm,0.8s,baz=258,slow=8.7,SNR=5.1						
	comp=Z,3.7nm,0.8s						
BDFB	Brasilia	23.33	70	P	P	23 14 26.9	-2.2
BOAV	Boa Vista	29.15	21	P	P	23 15 19.9	-1.7
JTS	Las Juntas de	37.84	337	LR	LR	23 31 43.2	
	comp=Z,204nm,18.4s,baz=32,slow=35						
BELA	Belgrano 2	55.40	171	P	P	23 18 54.6	+0.8
BELA				IAmb	IAmb	23 18 55.9	
	comp=Z,4.3nm,1.0s						
VNA3	Neumayer Olymp	57.21	160	⇑P	P	23 19 06.9	+0.1
	comp=Z,2.2nm,0.8s						
VNA2	Neumayer--Watz	57.81	160	⇑P	P	23 19 11.3	+0.2
	comp=Z,1.9nm,0.7s,baz=286,slow=7.6						
HNDO	Hondo	60.87	332	P	P	23 19 33.2	+0.5
HNDO				IAmb	IAmb	23 19 35.1	
	comp=Z,4.8nm,0.7s						
TROLL	Troll, Antarti	61.14	160	P	P	23 19 34.6	+0.4
	comp=Z,127nm,0.9s						
TXAR	Lajitas Array	62.71	328	P	P	23 19 47.1	+2.0
	comp=Z,0.7nm,0.7s,baz=147,slow=8.2,SNR=9.7						
	comp=Z,0.7nm,0.7s						
TXAR	Lajitas Array	62.71	328	P	P	23 19 44.8	-0.4
WVT	Waverly	63.05	345		P	23 19 46.5	-0.7
WVT				IAmb	IAmb	23 19 47.4	
	comp=Z,4.7nm,0.7s						
LCAR	Lake Charles	63.86	342	P	P	23 19 51.7	-0.8
FCAR	Ozark Folk Cen	63.98	341	P	P	23 19 52.3	-1.0
FCAR				IAmb	IAmb	23 19 54.1	
	comp=Z,10nm,1.4s						
APMT	Aspermont	64.51	333	P	P	23 19 56.8	-0.1
APMT				IAmb	IAmb	23 19 59.1	
	comp=Z,6.2nm,0.8s						
VHRN	Van Horn	64.55	328	P	P	23 19 57.2	-0.1
VHRN				IAmb	IAmb	23 20 00.1	
	comp=Z,7.2nm,1.3s						
QSPA	South Pole Qui	65.05	180	P	P	23 20 01.5	+1.3
	comp=Z,3.6nm,0.6s,baz=157,slow=1.2,SNR=29						
	comp=Z,3.6nm,0.6s						
QSPA	South Pole Qui	65.05	180	P	P	23 20 01.3	+1.1
QSPA				IAmb	IAmb	23 20 02.4	
	comp=Z,5.4nm,0.9s						
FVM	French Village	65.46	343		P	23 20 02.0	-0.9
CCM	Cathedral Cave	65.75	342	P	P	23 20 04.6	-0.1
CCM				IAmb	IAmb	23 20 05.8	
	comp=Z,6.3nm,0.8s						
S39A	Bolivar	66.01	341		P	23 20 06.7	+0.3
R40A	Maddies Statio	66.25	342		P	23 20 08.1	+0.1
VNDA	Vanda	72.96	190	P	P	23 20 49.5	+0.6
	comp=Z,0.4nm,0.7s,baz=148,slow=3.6,SNR=2.1						
	comp=Z,0.4nm,0.7s						
PDAR	Pinedale Array	76.45	332	P	P	23 21 11.6	+1.8
	comp=Z,0.5nm,0.8s,baz=111,slow=8.1,SNR=3.5						
	comp=Z,0.5nm,0.8s						
PDAR	Pinedale Array	76.45	332	P	P	23 21 10.3	+0.5
NVAR	Mina Array Bea	77.35	324	P	P	23 21 17.5	+2.6
	comp=Z,0.3nm,0.4s,baz=73,slow=5.1,SNR=3.9						
	comp=Z,0.3nm,0.4s						
ULM	Lac du Bonnet	78.30	344	P	P	23 21 20.1	+0.5
	comp=Z,2.3nm,0.8s,baz=144,slow=8.7,SNR=1.6						
	comp=Z,2.3nm,0.8s						
TORD	Torodi Ar. Bea	80.21	71	P	P	23 21 30.1	-0.8
	comp=Z,4.9nm,0.7s,baz=261,slow=4.7,SNR=35						
	comp=Z,4.9nm,0.7s						
PLID	Pearl Lake	81.15	329	P	P	23 21 36.2	+0.6
PLID				IAmb	IAmb	23 21 38.2	
	comp=Z,5.2nm,0.8s						
MAW	Mawson	81.33	164	P	P	23 21 36.7	+0.8
	comp=Z,4.4nm,0.8s,baz=222,slow=7.4,SNR=9.1						
	comp=Z,4.4nm,0.8s						
MAW	Mawson	81.33	164		P	23 21 36.4	+0.5
BOSA	Boshof	83.26	118	P	P	23 21 46.1	-0.9
	comp=Z,1.9nm,0.8s,baz=270,slow=3.0,SNR=3.4						
	comp=Z,1.9nm,0.8s						
BOSA	Boshof	83.26	118	P	P	23 21 46.2	-0.8
BOSA				IAmb	IAmb	23 22 00.8	
	comp=Z,9.9nm,1.4s						
LBTB	Lobatse	85.05	115	P	P	23 21 55.5	-0.6
KBZ	Khabaz	123.73	53	PKP	PKPdf	23 28 17.7	+0.3
	comp=Z,1.5nm,1.0s,baz=225,slow=1.4,SNR=3.5						
ASAR	Alice Springs	125.88	208	PKP	PKPdf	23 28 22.6	+0.3
	comp=Z,0.5nm,0.6s,baz=123,slow=1.5,SNR=6.1						
ASAR	Alice Springs	125.88	208		PKPdf	23 28 22.1	-0.3
H11S2	WAKE ISLAND Hy	126.54	275	T	T	01 48 02.4	
	baz=108,slow=75,SNR=138						
H11S1	WAKE ISLAND Hy	126.55	275	T	T	01 48 05.6	
	baz=108,slow=75,SNR=159						
H11S3	WAKE ISLAND Hy	126.56	275	T	T	01 48 08.2	
	baz=108,slow=75,SNR=218						
H11N3	WAKE ISLAND Hy	126.72	277	T	T	01 48 17.3	
	baz=108,slow=75,SNR=30						
H11N1	WAKE ISLAND Hy	126.74	277	T	T	01 48 18.7	
	baz=108,slow=75,SNR=28						
H11N2	WAKE ISLAND Hy	126.74	277	T	T	01 48 18.8	
	baz=108,slow=75,SNR=26						
WRA	Warramunga Arr	128.94	211	PKP	PKPdf	23 28 28.1	-0.2
	comp=Z,1.2nm,0.7s,baz=159,slow=2.1,SNR=7.2						
WRA	Warramunga Arr	128.94	211		PKPdf	23 28 27.8	-0.5
BVAR	Borovoye Array	139.77	36	PKP	PKPdf	23 28 48.3	+0.9
	comp=Z,0.7nm,0.6s,baz=345,slow=4.9,SNR=3.0						
KURK	Kurchatov	145.32	35		PKPbc	23 28 56.8	-0.3
KURBB	Kurchatov Arra	145.33	35	PKPbc	PKPdf	23 28 57.6	+0.3
	comp=Z,3.3nm,0.8s,baz=301,slow=3.5,SNR=19						
ZAA0	Zalesovo Array	145.99	26	PKPdf	PKPbc	23 28 59.0	-0.1
ZALV	Zalesovo Beam	145.99	26	PKPbc	PKPbc	23 28 59.4	+0.3
	comp=Z,6.7nm,0.7s,baz=311,slow=3.6,SNR=32						
ZALV	Zalesovo Beam	145.99	26		PKPdf	23 28 58.8	+0.4
KSH2	Kashi	148.49	56	PKPbc	PKPdf	23 29 03.3	+0.1
MKAR	Makanchi Array	149.59	38	PKPbc	PKPbc	23 29 09.3	+0.1
	comp=Z,3.6nm,0.7s,baz=317,slow=2.8,SNR=33						
MKAR	Makanchi Array	149.59	38		PKPbc	23 29 08.2	-1.0
WMQ	Urumqi	154.42	38	*e*PKPbc	PKPdf	23 29 10.3	-1.7
WMQ				sPKP	sPKPdf	23 29 26.0	-2.8
SONM	Songino Array	157.26	5	PKP	PKPdf	23 29 17.3	+1.6
	comp=Z,0.3nm,0.4s,baz=345,slow=2.2,SNR=2.5						
SONM				PKPab	PKPab	23 29 47.1	+0.4
	comp=Z,0.6nm,0.6s,baz=331,slow=5.1,SNR=3.0						
HHC	Hu-ho-hao-te	164.23	353	*e*P	PKPdf	23 29 22.4	-1.0

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*SOME **23** 23:13:16.5, 43.°47N×83.°83E, h5^{km}*
*NNC **23** 23:13:21.2±2.2, 43.°19N×83.°53E, h0^{km}, mb3.7, mpv3.3,*
Error ellipse: s-maj=20.9km s-min=10.6km az=156.0
ISC 23 23:13:15.4±3.1**, 43.°4N**±0.°1×**83.°8E**±0.°1**, h10**^{km}**, n18,**
σ2.^{s}45/27**, 2C-1D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DJR	Jarkent	3.09	290	Pg	Pg	23 14 14.0	-0.7
	8.5nm,0.2s						
DJR				Lg	Lg	23 14 54.7	
	20nm,0.3s						
DJR	Jarkent	3.09	290	*e*P	Pg	23 14 13.9	-0.7
	8.5nm,0.2s						
DJR				*e*S	Sg	23 14 54.7	0.0
	20nm,0.3s						
PDGK	Podgornoye	3.17	271	⇑Pg	Pg	23 14 15.3	-1.0
	2.3nm,0.3s						
PDGK				⇓Lg	Lg	23 14 54.3	
	22nm,0.5s						
SHLS	Shalkode	3.21	268	Pg	Pb	23 14 10.5	-2.0
	20nm,0.2s						
SHLS				Lg	Lg	23 14 48.1	
	104nm,0.3s						
SHLS	Shalkode	3.21	268	*e*P	Pb	23 14 10.5	-2.0
	20nm,0.2s						
SHLS				*e*S	Sn	23 14 48.1	+3.8
	104nm,0.3s						
KNOS	Konyrlen	3.52	288	Pg	Pg	23 14 21.2	-1.6
	2.2nm,0.1s						
KNOS				Lg	Lg	23 15 07.1	
	12nm,0.3s						
UZB	Uzynbulak	3.53	268	*e*P	Pb	23 14 21.1	+3.2
	2.2nm,0.2s						
UZB				*e*S	Sg	23 15 07.5	-1.2
	12nm,0.3s						
MK31	Makanchi Array	3.62	343	⇑Pn	Pg	23 14 22.3	-2.4
	0.3nm,0.3s,baz=165,slow=14,SNR=20						
MK31				Lg	Lg	23 15 17.6	
	2.6nm,0.4s,baz=162,slow=29,SNR=7.8						

KPKS	Kokpek	3.76	274	Pg	Pb	23 14 25.6	+3.6
	0.3nm,0.1s						
KPKS				Lg	Lg	23 15 14.2	
	16nm,0.3s						
KPKS	Kokpek	3.76	274	eP	Pb	23 14 25.6	+3.6
	0.3nm,0.1s						
KPKS				eS	Sg	23 15 14.2	-1.9
	16nm,0.3s						
SATY	Saty	3.98	268	Pg	Pb	23 14 29.2	+3.4
	1.1nm,0.1s						
SATY				Lg	Lg	23 15 20.3	
	6.9nm,0.1s						
SATY	Saty	3.98	268	eP	Pb	23 14 29.2	+3.4
	1.1nm,0.1s						
SATY				eS	Sg	23 15 20.3	-3.0
	6.9nm,0.1s						
KURS	Kuram	4.13	274	Pg	Pg	23 14 32.6	-2.0
	2.5nm,0.3s						
KURS				Lg	Lg	23 15 26.8	
	6.2nm,0.5s						
KURS	Kuram	4.13	274	eP	Pg	23 14 32.6	-2.0
	2.5nm,0.3s						
KURS				eS	Sg	23 15 26.8	-1.3
	6.2nm,0.5s						
TDK	Taldyqorghan	4.25	295	eP	Pg	23 14 35.4	-1.3
	16nm,0.5s						
TDK				eS	Sg	23 15 31.8	+0.2
	18nm,0.4s						
MDOK	Medeo	4.97	270	eP	Pg	23 14 48.5	-2.0
	1.5nm,0.3s						
MDOK				eS	Sg	23 15 54.2	-0.6
	5.4nm,0.6s						
KTBS	Karatobe	5.22	276	Pg	Pg	23 14 52.6	-2.8
	0.1nm,0.0s						
KTBS				Lg	Lg	23 16 00.4	
	9.5nm,0.4s						
KTBS	Karatobe	5.22	276	eP	Pg	23 14 52.6	-2.8
	0.1nm,0.0s						
KTBS				eS	Sg	23 16 00.4	-2.5
	9.5nm,0.4s						

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*THE **23** 23:22:57.5, 41°N±5°×2°0E±°, h20^{km}±11^{km}, M3.1/13, MLh3.1/13*
*TIR **23** 23:22:58.3, 41°.03N×19°.89E, h27^{km}±1^{km}, Ml3.1/3*
*BEO **23** 23:22:59.0±0.4, 40°.97N×19°.68E, h18^{km}±5^{km}, ML2.8/16*
ISC 23 23:22:58.3±1.1**, 41°.04N**±0°.02×**19°.77E**±0°.02**, h11**^{km}±9^{km}**,**
n85, σ1^{s}09/126**, 5C-3D, Albania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TIR	Tirane	0.32	13	P	Pb	23 23 05.7	-0.3
TIR				S	Sb	23 23 11.5	+0.3
TIR				AML	AML	23 23 17.7	
	4.6nm,0.6s						
VLO	Vlora	0.60	200	P	Pg	23 23 10.5	+0.4
VLO				S	Sg	23 23 19.0	+1.0
VLO				AML	AML	23 23 23.2	
	12nm,0.3s						
VLO	Vlora	0.60	200	P	Pg	23 23 10.4	+0.4
VLO				S	Sb	23 23 20.3	+1.0
VLO				AML	AML		
OHR	Ohrid	0.78	84	i Pg	Pg	23 23 12.3	-1.1
OHR				i Sg	Sb	23 23 23.9	-0.6
PHP	Peshkopia	0.82	38	P	Pg	23 23 12.9	-1.2
PHP				S	Sb	23 23 24.4	-1.3
PHP				AML	AML	23 23 31.7	
	3.3nm,0.5s						
PHP	Peshkopia	0.82	38	P	Pg	23 23 12.7	-1.4
PHP				S	Sb	23 23 25.3	-0.4
KBN	Korca	0.88	118	P	Pg	23 23 12.9	-2.2
KBN				AML	AML		
SRN	Sarande	1.17	171	P	Pg	23 23 19.7	-1.0
SRN				S	Sn	23 23 36.6	+0.2
SRN	Sarande	1.17	171	P	Pg	23 23 20.3	-0.5
SRN				S	Sn	23 23 37.0	+0.5
SRN				AML	AML		
KEK	Kerkira	1.32	179	P	Pn	23 23 21.6	-1.0
KEK				S	Sb	23 23 40.3	+0.2
KEK				AML	AML		
PDG	Podgorica	1.45	345	P	Pg	23 23 25.4	-0.6
PDG				S	Sg	23 23 46.3	+1.5
PDG	Podgorica	1.45	345	ePg	Pg	23 23 25.8	-0.2
PDG				eSg	Sg	23 23 47.1	+2.3
PDG	Podgorica	1.45	345	⇑P	Pg	23 23 26.0	-0.1
PDG				⇓S	Sg	23 23 47.1	+2.3
PDG	Podgorica	1.45	345	ePn	Pb	23 23 24.9	-0.3
IGT	Igoumenitsa	1.56	164	P	Pb	23 23 26.9	-0.3
IGT				S	Sb	23 23 47.5	+0.5
IGT	Igoumenitsa	1.56	164	P	Pn	23 23 26.3	+0.3
IGT				S	Sb	23 23 47.3	+0.3
IGT				AML	AML		
IGT	Igoumenitsa	1.56	164	ePg	Pn	23 23 26.3	+0.3
IGT				eSg	Sg	23 23 48.0	-0.5
SKO	Skopje	1.56	53	i Pg	Pg	23 23 27.2	-1.1
SKO				i Sg	Sg	23 23 49.3	+0.7
JAN	Janina	1.61	149	P	Pb	23 23 27.3	-0.7
JAN				AML	AML		
KPRO	Kipourio	1.63	131	P	Pn	23 23 27.0	+0.1
KPRO				AML	AML		
KZN	Kozani	1.69	115	P	Pb	23 23 28.3	-1.1
KZN				AML	AML		
TREB	Trebinje	1.99	328	ePn	Pn	23 23 31.5	-0.3
GRG	Griva	1.99	91	P	Pn	23 23 31.6	-0.3
GRG				AML	AML		
DBRK	Dubrovnik	2.03	324	ePn	Pn	23 23 32.2	-0.2
VAY	Valandovo	2.13	81	i Pn	Pn	23 23 33.5	-0.3
VAY				i Sn	Sb	23 24 02.6	-0.7
SJES	Sjenica	2.23	4	ePn	Pn	23 23 36.3	+1.1
SJES				eSn	Sb	23 24 04.5	-1.7
SJES	Sjenica	2.23	4	ePn	Pb	23 23 36.9	-1.7
THL	Klokotos Trika	2.26	130	P	Pn	23 23 35.9	+0.3
THL				AML	AML		
TYRN	Tyrnavos	2.30	124	P	Pn	23 23 36.6	+0.5
TYRN				AML	AML		
KLINJ	Klinje	2.31	338	ePn	Pb	23 23 40.9	+1.0
TSLK	Tsoukalades, L	2.31	163	P	Pn	23 23 36.4	+0.1
TSLK				AML	AML		
BARS	Barje	2.34	40	ePn	Pn	23 23 37.8	+1.1
BARS				eSn	Sb	23 24 07.8	-1.7
STON	Ston	2.40	321	ePn	Pn	23 23 36.7	-0.8
STON				Sn	Sn	23 24 05.7	-1.1
STON	Ston	2.40	321	ePn	Pn	23 23 37.7	+0.3
STON				eSn	Sn	23 24 06.0	-0.8
SELS	Selova	2.40	24	ePn	Pn	23 23 38.9	+1.4
SELS				eSn	Sb	23 24 09.4	-1.7
NYDR	Nydri-Lefkada	2.43	163	P	Pn	23 23 37.6	-0.2
PEHC	Pehcevo	2.47	71	i Pn	Pn	23 23 39.0	+0.4
BOSS	Bosilegrad	2.50	53	ePn	Pn	23 23 39.3	+0.5
BOSS				eSn	Sn	23 24 10.4	+1.1
IVAS	Ivanjica	2.55	6	ePn	Pn	23 23 40.3	+0.6
IVAS				eSn	Sn	23 24 11.9	+1.1
GOCS	Kraljevo Serbi	2.65	18	ePn	Pn	23 23 42.1	+1.0
GOCS				eSn	Sn	23 24 15.1	+1.8
LSTV	Lastovo	2.76	310	ePn	Pn	23 23 41.7	-0.7
LSTV				Sn	Sn	23 24 15.1	-0.6
BBLS	Lazi&#263i	2.84	355	ePn	Pn	23 23 44.4	+0.8
BBLS				eSn	Sn	23 24 19.5	+1.6
BBLS	Lazi&#263i	2.84	355	ePn	Pn	23 23 43.1	-0.5
GRUS	Gruza	2.93	13	ePn	Pn	23 23 45.4	+0.6
GRUS				eSn	Sn	23 24 22.2	+2.1
BOVS	Bovan	2.97	28	ePn	Pn	23 23 46.1	+0.8
BOVS				eSn	Sn	23 24 22.7	+1.9
BOVS	Bovan	2.97	28	⇑P	Pn	23 23 46.0	+0.8
VTS	Vitosha	3.03	57	ePn	Pn	23 23 46.8	+0.5
VTS				eSn	Sn	23 24 23.1	+0.4
MAKA	Makarska	3.04	319	ePn	Pn	23 23 46.0	-0.3
MAKA				Sn	Sn	23 24 21.7	-1.0
DIVS	Divibare	3.06	3	ePn	Pn	23 23 48.4	+1.7
ZAPS	Zavoj	3.09	43	ePn	Pn	23 23 48.2	+1.2
ZAPS				eSn	Sn	23 24 25.7	+1.8
RICI	Ricice	3.14	322	ePn	Pn	23 23 47.8	+0.1
RICI				Sn	Sn	23 24 24.9	-0.3
TRUS	Trudelj	3.22	8	ePn	Pn	23 23 49.5	+0.7
HVAR	Hvar	3.27	312	i Pn	Pn	23 23 49.0	-0.5
HVAR				Sn	Sn	23 24 27.2	-1.1
ZAGS	Zajecar	3.32	32	ePn	Pn	23 23 51.1	+1.0
ZAGS				eSn	Sn	23 24 30.9	+1.4
BLKB	Belogradchik	3.36	39	eSn	Sn	23 24 32.0	+1.3
TEKS	Tekeris	3.52	357	ePn	Pn	23 23 53.2	+0.4
TEKS	Tekeris	3.52	357	ePn	Pn	23 23 52.6	-0.2
KIJV	Kijevo	3.87	321	i Pn	Pn	23 23 58.1	+0.4
PLD	Plovdiv	3.89	72	ePn	Pn	23 23 58.4	+0.4
MDVR	Moldovita	4.00	20	⇑P	Pn	23 24 01.0	+1.4
FRGS	Fruska Gora	4.12	0	ePn	Pn	23 24 01.2	+0.1
FRGS	Fruska Gora	4.12	0	ePn	Pn	23 24 00.5	-0.6
MORI	Morici	4.13	315	ePn	Pn	23 24 01.4	+0.2
MORI				Sn	Sn	23 24 49.3	-0.2
BLY	Banja Luka	4.17	334	ePn	Pn	23 24 02.8	+1.0
HERR	Herculane	4.30	26	⇓P	Pn	23 24 04.6	+0.9
DUGI	Dugi Otok	4.57	312	i Pn	Pn	23 24 07.9	+0.6
VIRC	Vir	4.76	315	i Pn	Pn	23 24 10.4	+0.4
BZS	Buzias	4.77	16	ePn	Pn	23 24 10.4	+0.3
BZS	Buzias	4.77	16	⇑P	Pn	23 24 11.1	+1.0
GZR	Gura Zlata	4.88	26	ePn	Pn	23 24 13.3	+1.7
GZR	Gura Zlata	4.88	26	⇑P	Pn	23 24 13.2	+1.6
AQU	L'Aquila	4.95	288	ePn	Pn	23 24 12.5	0.0
NVLJ	Novalja	5.04	316	ePn	Pn	23 24 14.4	+0.6
MORH	Mrgy, Hungar	5.24	351	ePn	Pn	23 24 16.3	-0.2
LOT	Lotru	5.29	32	⇓P	Pn	23 24 18.7	+1.5
CEY	Cerknica	6.10	322	ePn	Pn	23 24 28.6	+0.2
SKDS	Skadanscina	6.16	319	ePn	Pn	23 24 28.9	-0.3
SOKA	Soboth	6.60	330	i Pn	Pn	23 24 35.5	+0.3
	1.2nm,0.4s						
SOKA				eSn	Sn	23 25 47.2	-3.2
	0.9nm,0.4s						
OBKA	Obir	6.65	327	ePn	Pn	23 24 37.9	+2.0
	1.0nm,0.4s						
MYKA	Terra Mystica	7.13	324	ePn	Pn	23 24 46.0	+3.4
	0.8nm,0.3s						
MYKA				eSn	Sn	23 26 02.9	-0.7
	1.4nm,0.4s						
SESA	Seetaler Alpe,	7.13	330	ePn	Pn	23 24 43.9	+1.2
	1.5nm,0.3s						
ABTA	Abfaltersbach	7.75	320	i Pn	Pn	23 24 51.3	+0.3
	0.7nm,0.3s						
ABTA				eSn	Sn	23 26 18.2	-0.5
	3.8nm,0.6s						
MOA	Molln	7.87	332	ePn	Pn	23 24 55.0	+2.4
	0.8nm,0.4s						
MOA				eSn	Sn	23 26 21.8	+0.3
	1.2nm,0.5s						
WTTA	Wattenberg	8.54	320	ePn	Pn	23 25 03.0	+1.1
	5.2nm,0.4s						
WTTA				eSn	Sn	23 26 37.4	-0.9
	4.7nm,0.8s						
WATA	Walderalm	8.62	320	i Pn	Pn	23 25 04.0	+1.0
	3.0nm,0.3s						

LJU 23 23:24:12.2, 46°.39N×15°.07E, h0^{km}**, 1D, Confirmed Rockburst, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAVS	Zavodnje	0.05	325	⇓iPg	Pg	23 24 12.2	-1.0

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*BGR **23** 23:25:05.2±0.5, 40°.52N×20°.17E, h10^{km}, ML4.3, Error ellipse: s-maj=21.1km s-min=8.9km az=50.0*
*IDC **23** 23:25:06.6±0.6, 40°.94N×19°.71E, h0^{km}, mb4.1/17, mbtmp3.9/34, ML3.6/15, MS3.6/34, Error ellipse: s-maj=10.6km s-min=9.5km az=172.0*
*MOS **23** 23:25:06.2±1.0, 40°.91N×19°.61E, h10^{km}, mb4.6/10, Error ellipse: s-maj=5.5km s-min=3.5km az=68.6*
*SKO **23** 23:25:09.9, 40°.92N×19°.78E, h11^{km}, ML4.2*
*PDG **23** 23:25:09.6±0.8, 41°.01N×19°.73E, h15^{km}±1^{km}, ML4.3/4, Error ellipse: s-maj=0.6km s-min=0.6km az=0.0*
*NEIC **23** 23:25:09.2±2.6, 40°.97N±0°.03×19°.76E±0°.07, h10^{km}±1^{km}, mb4.4/25, Error ellipse: s-maj=8.9km s-min=5.6km az=86.0*
*MED_RC **23** 23:25:10.0, 41°.02N×19°.76E, h20^{km}, Mw4.4, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}3.54±.42; $M_{\theta\theta}$-0.74±.26; $M_{\phi\phi}$0.00±.27; $M_{r\theta}$1.53±.29; $M_{\theta\phi}$1.96±.16; $M_{\phi r}$-1.35±.28; Fault plane solution: $M_0$4.29000×10^{15} NP1:ϕ_s339.00000°, δ32.00000°, λ106.00000°. NP2:ϕ_s140.00000°, δ59.00000°, λ80.00000°. Principal axes: T 4.1100, Plg74.0000°, Azm24.0000°; N 0.3500, Plg9.0000°, Azm145.0000°; P -4.4600, Plg14.0000°, Azm237.0000°;*
*THE **23** 23:25:10.8, 41°N±4°×2°0E±°, h1^{km}±8^{km}, M4.1/48, MLh4.1/48*
*SOF **23** 23:25:10.4, 41°.04N±0°.04×20°.01E±0°.05, h1^{km}±8^{km}, MD4.3/5*
*PRU **23** 23:25:10.8, 40°.95N×19°.81E, h10^{km}, M4.3*
*ROM **23** 23:25:10.0±0.1, 41°.000N±0°.004×19°.849E±0°.007, h27^{km}, ML4.0/176, Mw4.2, Error ellipse: s-maj=0.5km s-min=0.4km az=98.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}0.62; $M_{\theta\theta}$0.84; $M_{\phi\phi}$-1.46; $M_{r\theta}$1.47; $M_{\theta\phi}$0.81; $M_{\phi r}$-0.80; Fault plane solution: $M_0$2.25164×10^{15} NP1:ϕ_s124.00000°, δ80.00000°, λ52.00000°. NP2:ϕ_s22.00000°, δ39.00000°, λ164.00000°.*
*TIR **23** 23:25:10.6, 41°.04N×19°.91E, h20^{km}±12^{km}, Ml3.8/2*
*BEO **23** 23:25:11.0±0.3, 40°.99N×19°.70E, h15^{km}±4^{km}, ML4.0/21*
*GFZ **23** 23:25:11.3±0.1, 41°N±2°×2°0E±°, h10^{km}, M4.2/34, mb4.5/34*
ISC 23 23:25:09.4±0.8**, 40°.99N**±0°.01×**19°.76E**±0°.02**, h16**^{km}±5^{km}**,**
n772, σ1^{s}66/872**, mb4.4**/29**, MS3.7**/26**, 53C-82D, Albania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TIR	Tirane	0.37	13	P	Pb	23 25 17.7	+0.1
TIR				S	Sg	23 25 22.5	+0.3
TIR				AML	AML	23 25 28.9	
	41nm,0.5s						
TIR	Tirane	0.37	13	P	Pg	23 25 16.5	-0.5
TIR				S	Sg	23 25 22.5	+0.3
TIR				AML	AML	23 25 28.9	
	41nm,0.5s						
TIR	Tirane	0.37	13	⇑P	Pb	23 25 17.7	+0.1
TIR				S	Sb	23 25 24.4	+1.3
TIR				AML	AML		
	comp=E,34100μm,0.3s						
TIR				AML	AML		
	comp=N,33050μm,1.4s						
TIR				AML	AML		
	comp=E,40700μm,0.7s						
TIR				AML	AML		
	comp=N,35300μm,0.4s						
VLO	Vlora	0.56	201	P	Pn	23 25 22.7	0.0
VLO				S	Sn	23 25 32.7	+1.1
VLO	Vlora	0.56	201	P	Pn	23 25 22.7	0.0
VLO				S	Sn	23 25 33.9	+2.3
VLO				AML	AML	23 25 35.3	
	comp=N,233nm,0.6s						
VLO				AML	AML	23 25 40.5	
	comp=N,175nm,0.4s						
VLO	Vlora	0.56	201	P	Pn	23 25 22.6	0.0
VLO				S	Sn	23 25 32.4	+0.8
VLO				AML	AML		
VLO	Vlora	0.56	201	⇓P	Pn	23 25 22.0	-0.7
VLO				S	Sn	23 25 31.1	-0.5
VLO				AML	AML		
	comp=E,80050μm,0.6s						
VLO				AML	AML		
	comp=N,59850μm,0.4s						
VLO	Vlora	0.56	201	P	Pn	23 25 22.1	-0.7
OHR	Ohrid	0.80	81	i Pg	Pg	23 25 24.4	-0.6
OHR				i Sg	Sb	23 25 36.1	+0.5
OHR				eLg	Lg	23 25 36.5	
	comp=E,11μm,0.6s						
OHR				eLg	Lg	23 25 36.6	
	comp=N,12μm,0.8s						
PHP	Peshkopia	0.86	36	P	Pb	23 25 25.1	-1.0
PHP				S	Sg	23 25 37.0	-0.6
PHP				AML	AML	23 25 39.6	
	comp=N,25nm,0.4s						
PHP	Peshkopia	0.86	36	P	Pb	23 25 25.1	-1.0
PHP				S	Sg	23 25 37.0	-0.6
PHP				AML	AML	23 25 45.6	
	comp=N,32nm,0.7s						
PHP	Peshkopia	0.86	36	P	Pb	23 25 25.2	-1.0
PHP				S	Sb	23 25 37.9	+0.5
PHP				AML	AML		
PHP	Peshkopia	0.86	36	⇓P	Pb	23 25 25.0	-1.0
PHP				S	Sg	23 25 37.1	-0.6
PHP	Peshkopia	0.86	36	P	Pb	23 25 25.1	-1.0
KBN	Korca	0.86	115	P	Pb	23 25 25.4	-0.8
KBN				S	Sg	23 25 36.2	-1.5
KBN	Korca	0.86	115	P	Pb	23 25 25.4	-0.8
KBN				S	Sg	23 25 36.2	-1.5
KBN				AML	AML	23 25 39.3	
	comp=N,98nm,0.5s						
KBN	Korca	0.86	115	P	Pb	23 25 25.3	-0.8
KBN				S	Sb	23 25 37.8	+0.3
KBN				AML	AML		
KBN	Korca	0.86	115	⇓P	Pb	23 25 25.1	-1.0
KBN				S	Sb	23 25 37.6	+0.1
KBN	Korca	0.86	115	P	Pb	23 25 25.3	-0.8
ULC	Ulcinj	1.04	339	⇑iPg	Pg	23 25 35.7	+6.0
SRN	Sarande	1.13	170	P	Pg	23 25 32.8	+1.6
SRN				S	Sn	23 25 49.3	+3.7
SRN	Sarande	1.13	170	P	Pg	23 25 32.8	+1.6
SRN				S	Sn	23 25 49.5	+3.9
SRN				AML	AML	23 25 53.3	
	comp=N,30nm,0.7s						
SRN	Sarande	1.13	170	P	Pg	23 25 32.7	+1.6
SRN				S	Sn	23 25 48.7	+3.1
SRN				AML	AML		
SRN	Sarande	1.13	170	P	Pg	23 25 32.1	+0.9
KEK	Kerkira	1.28	178	P	Pb	23 25 33.1	0.0
KEK	Kerkira	1.28	178		Pb	23 25 32.7	-0.4
KEK				Sn	Sg	23 25 51.0	+0.3
KEK	Kerkira	1.28	178	⇓P	Pn	23 25 32.4	-0.2
KEK				S	Sg	23 25 50.5	-0.2
KEK				AML	AML		
	comp=E,14800μm,1.0s						
KEK				AML	AML		
	comp=N,12500μm,1.0s						
KEK				AML	AML		
	comp=E,14800μm,1.0s						
KEK				AML	AML		
	comp=N,12500μm,1.0s						
KEK	Kerkira	1.28	178	P	Pb	23 25 33.1	0.0
BUM	Brajici-Budva	1.46	334	⇓iPg	Pg	23 25 36.8	-0.7
BUM				i Sg	Sg	23 25 56.8	+0.3
PDG	Podgorica	1.49	346	P	Pg	23 25 37.8	-0.2
PDG	Podgorica	1.49	346		Pb	23 25 37.0	+0.4
PDG				Sn	Sg	23 25 57.3	-0.1
PDG	Podgorica	1.49	346	ePg	Pg	23 25 37.8	-0.2
PDG				eSg	Sg	23 25 58.5	+1.1
PDG	Podgorica	1.49	346	⇑P	Pg	23 25 37.5	-0.6
PDG				S	Sb	23 25 55.3	0.0
PDG	Podgorica	1.49	346	⇑P	Pg	23 25 37.3	-0.7
PDG				⇓S	Sg	23 25 57.4	+0.1
PDG	Podgorica	1.49	346	⇑iPn	Pg	23 25 37.4	-0.6
PDG	Podgorica	1.49	346	P	Pg	23 25 38.3	+0.2
PDG	Podgorica	1.49	346	⇑iPg	Pg	23 25 37.4	-0.6
PDG				i Sg	Sg	23 25 57.6	+0.2
PDG				AML	AML		
MESG	Mesagne	1.50	255	⇓P	Pb	23 25 36.8	-0.1
MESG				AML	AML		
	comp=E,4235μm,0.3s						
MESG				AML	AML		
	comp=N,4085μm,1.6s						
MESG				AML	AML		
	comp=N,4085μm,0.4s						
IGT	Igoumenitsa	1.52	163	P	Pg	23 25 39.5	+0.8
IGT	Igoumenitsa	1.52	163	P	Pg	23 25 38.0	-0.7
IGT				S	Sg	23 25 60.0	+1.4
IGT				AML	AML		
IGT	Igoumenitsa	1.52	163	ePg	Pg	23 25 38.6	-0.1
IGT				eSg	Sg	23 26 00.7	+2.2
JAN	Janina	1.57	147	P	Pg	23 25 39.6	-0.1
JAN				AML	AML		
SKO	Skopje	1.60	52	i Pg	Pb	23 25 38.9	+0.3
SKO				i Sg	Sg	23 26 01.5	+0.5
KPRO	Kipourio	1.60	130	P	Pb	23 25 39.1	+0.4
KPRO				AML	AML		
PVY	Plav	1.61	5	⇑iPn	Pn	23 25 38.0	+0.7
PVY				i Sn	Sb	23 25 59.6	+0.6
KZN	Kozani	1.68	113	P	Pb	23 25 40.0	0.0
KZN				AML	AML		
IVA	Berane	1.88	3	⇑iPn	Pn	23 25 36.2	-4.8
TAR1	Taranto	1.93	257	⇓P	Pn	23 25 42.4	+0.8
TAR1				AML	AML		
	comp=N,2845μm,1.6s						
TAR1				AML	AML		
	comp=N,2845μm,0.4s						
TAR1				AML	AML		
	comp=E,2720μm,1.1s						
GRG	Griva	2.00	90	P	Pn	23 25 44.0	+1.4
GRG				AML	AML		
GRG	Griva	2.00	90	P	Pb	23 25 44.2	-1.3
TETR	Tetrakomo, Epi	2.02	144	P	Pb	23 25 45.1	-0.7
TETR				AML	AML		
TREB	Trebinje	2.02	329	⇑iPn	Pn	23 25 43.9	+1.1
NOCI	Noci	2.05	265	⇓P	Pn	23 25 44.1	+0.8
NOCI				AML	AML		
	comp=N,3030μm,0.7s						
NOCI				AML	AML		
	comp=E,2570μm,0.5s						
DBRK	Dubrovnik	2.06	325	ePn	Pn	23 25 44.5	+1.1
BRY	Bratogost	2.11	335	⇓iPn	Pn	23 25 45.2	+0.9
BRY				i Sn	Sb	23 26 13.4	-0.1
VAY	Valandovo	2.15	80	i Pn	Pn	23 25 45.6	+1.0
VAY				eLg	Lg	23 26 19.5	
	comp=E,1μm,0.7s						
VAY				i Sn	Sg	23 26 19.6	+1.0
VAY				eLg	Lg	23 26 21.5	
	comp=N,2μm,1.1s						
OT15	Bari, Italy	2.18	274	⇓P	Pn	23 25 45.9	+1.0
OT15				S	Sn	23 26 11.6	0.0
THL	Klokotos Trika	2.24	129	P	Pb	23 25 48.3	-1.2
THL				AML	AML		
TSLK	Tsoukalades, L	2.27	162	P	Pb	23 25 48.2	-1.8
TSLK				AML	AML		
SJES	Sjenica	2.27	4	ePn	Pb	23 25 49.0	-1.2
SJES				eSn	Sb	23 26 16.3	-1.8
SJES	Sjenica	2.27	4	⇑iPn	Pb	23 25 49.4	-0.8
TYRN	Tyrnavos	2.28	123	P	Pb	23 25 48.9	-1.4
TYRN				AML	AML		
MATE	Matera	2.34	263	P	Pn	23 25 48.2	+1.0
MATE				AML	AML		
	comp=E,1320μm,1.5s						
MATE				AML	AML		
	comp=N,1740μm,0.6s						
MATE				AML	AML		
	comp=N,1740μm,1.4s						
MATE				AML	AML		
	comp=E,1320μm,0.5s						
MATE	Matera	2.34	263	⇓P	Pn	23 25 48.0	+0.8
MATE	Matera	2.34	263	P	Pg	23 25 53.5	-0.8
KLINJ	Klinje	2.34	339	ePn	Pn	23 25 49.1	+1.7
AMPL	Ampelaki	2.35	151	P	Pb	23 25 50.1	-1.3
AMPL				AML	AML		
BARS	Barje	2.39	39	ePn	Pn	23 25 49.5	+1.6
BARS				eSn	Sn	23 26 18.8	+2.0
AMUR	Altamura	2.39	269	P	Pn	23 25 48.7	+0.8
AMUR				S	Sn	23 26 17.7	+0.8
AMUR				AML	AML		
	comp=E,1340μm,0.4s						
AMUR				AML	AML		
	comp=N,1000μm,1.3s						
AMUR				AML	AML		
	comp=N,1000μm,0.7s						
NYDR	Nydri-Lefkada	2.39	162	P	Pn	23 25 49.7	+1.9
NYDR				AML	AML		
STON	Ston	2.42	321	ePn	Pn	23 25 49.6	+1.2
STON				Sn	Sn	23 26 18.5	+0.8
STON	Ston	2.42	321	ePn	Pn	23 25 49.7	+1.3
STON				eSn	Sn	23 26 18.2	+0.5
STON	Ston	2.42	321	⇑P	Pn	23 25 49.0	+0.7
STON				S	Sn	23 26 17.8	+0.1
STON				AML	AML		
	comp=E,900μm,1.5s						
STON				AML	AML		
	comp=N,970μm,0.6s						
SELS	Selova	2.45	24	ePn	Pn	23 25 50.6	+1.9
SELS				eSn	Sb	23 26 21.3	-1.7
THE	Thessaloniki	2.46	97	P	Pn	23 25 49.9	+1.0
THE				AML	AML		
THE	Thessaloniki	2.46	97	P	Pn	23 25 50.2	+1.3
EVGI	Lefkada island	2.47	163	P	Pn	23 25 50.8	+1.8
EVGI				AML	AML		
PEHC	Pehcevo	2.49	71	i Pn	Pn	23 25 50.6	+1.2
BOSS	Bosilegrad	2.53	53	ePn	Pn	23 25 51.6	+1.7
MIGL	Miglionico	2.54	262	P	Pn	23 25 51.3	+1.2
MIGL				AML	AML		
	comp=E,5205μm,1.0s						
MIGL				AML	AML		
	comp=N,5115μm,1.5s						
MIGL				AML	AML		

	comp=E,5205µm,1.0s						
MIGL				AML	AML		
	comp=N,5115µm,0.5s						
IVAS	**Ivanjica**	**2.60**	**6**	*e*Pn	**Pn**	**23 25 52.4**	**+1.5**
IVAS				*e*Sn	**Sn**	**23 26 24.9**	**+2.7**
CRAC	**Craco**	**2.60**	**257**	⇓P	**Pn**	**23 25 51.9**	**+1.1**
CRAC				AML	AML		
	comp=E,3025µm,0.7s						
CRAC				AML	AML		
	comp=E,3025µm,1.3s						
CRAC				AML	AML		
	comp=N,3385µm,1.0s						
PDO	**Prodromos**	**2.63**	**155**	P	**Pn**	**23 25 53.3**	**+2.1**
PDO				AML	AML		
AST1	**Astakos**	**2.65**	**157**	P	**Pn**	**23 25 53.7**	**+2.2**
KKB	**Krupnik**	**2.68**	**70**	P	**Pn**	**23 25 53.2**	**+1.3**
KKB				AML	AML		
KKB	**Krupnik**	**2.68**	**70**	P	**Pn**	**23 25 53.4**	**+1.5**
KKB				S	**Sb**	**23 26 29.4**	**-0.2**
ORI	**Oriolo Calabro**	**2.69**	**251**	P	**Pn**	**23 25 53.1**	**+1.1**
ORI				AML	AML		
	comp=E,2655µm,0.4s						
ORI				AML	AML		
	comp=N,2885µm,0.4s						
GOCS	**Kraljevo Serbi**	**2.70**	**18**	*e*Pn	**Pn**	**23 25 54.1**	**+1.8**
GOCS				*e*Sn	**Sn**	**23 26 26.1**	**+1.4**
LADO	**San Nicola del**	**2.73**	**232**	P	**Pn**	**23 25 53.4**	**+0.8**
LADO				AML	AML		
	comp=E,1400µm,1.6s						
LADO				AML	AML		
	comp=N,914µm,1.5s						
LADO				AML	AML		
	comp=N,914µm,0.5s						
SOH	**Sokhos**	**2.73**	**92**	P	**Pn**	**23 25 54.0**	**+1.3**
SOH				AML	AML		
SOH	**Sokhos**	**2.73**	**92**	P	**Pn**	**23 25 54.4**	**+1.7**
PVO	**Paravola**	**2.74**	**150**	P	**Pn**	**23 25 55.1**	**+2.4**
PVO				AML	AML		
LSTV	**Lastovo**	**2.78**	**311**	*i* Pn	**Pn**	**23 25 53.9**	**+0.7**
LSTV				Sn	**Sn**	**23 26 27.5**	**+1.1**
AGG	**Agios Georgios**	**2.79**	**134**	P	**Pb**	**23 25 56.4**	**-2.5**
AGG				AML	AML		
AGG	**Agios Georgios**	**2.79**	**134**	P	**Pb**	**23 25 56.3**	**-2.6**
SALB	**San Lorenzo Be**	**2.83**	**248**	⇓P	**Pn**	**23 25 54.7**	**+0.6**
SALB				S	**Sn**	**23 26 28.6**	**+0.7**
SALB				AML	AML		
	comp=E,1060µm,1.2s						
SALB				AML	AML		
	comp=E,1060µm,0.8s						
SALB				AML	AML		
	comp=N,948µm,0.3s						
OT13	**Castello Viest**	**2.83**	**289**	P	**Pn**	**23 25 54.8**	**+0.9**
OT13				S	**Sn**	**23 26 28.3**	**+0.6**
OT13				AML	AML		
	comp=N,1500µm,0.3s						
OT13				AML	AML		
	comp=E,928µm,0.4s						
TRAN	**Tran**	**2.84**	**49**	P	**Pn**	**23 25 56.0**	**+1.8**
TRAN				S	**Sn**	**23 26 30.6**	**+2.6**
PTRP	**Pietrapertosa**	**2.84**	**262**	P	**Pn**	**23 25 55.7**	**+1.4**
PTRP				AML	AML		
	comp=E,1505µm,1.2s						
PTRP				AML	AML		
	comp=E,1505µm,0.8s						
PTRP				AML	AML		
	comp=N,1910µm,0.7s						
PLEV	**Plevrona-Mesol**	**2.87**	**153**	P	**Pn**	**23 25 56.6**	**+2.0**
PLEV				AML	AML		
PLG	**Polygyros**	**2.87**	**101**	P	**Pn**	**23 25 56.3**	**+1.7**
PLG				AML	AML		
PALZ	**Palazzo San Ge**	**2.87**	**270**	P	**Pn**	**23 25 55.7**	**+1.1**
PALZ				AML	AML		
	comp=E,2995µm,1.4s						
PALZ				AML	AML		
	comp=N,2800µm,1.6s						
PALZ				AML	AML		
	comp=N,2800µm,0.4s						
BBLS	**Lazi&#263i**	**2.88**	**355**	*e*Pn	**Pn**	**23 25 56.5**	**+1.7**
BBLS				*e*Sn	**Sn**	**23 26 31.6**	**+2.4**
BBLS	**Lazi&#263i**	**2.88**	**355**	⇑*i*Pn	**Pn**	**23 25 56.7**	**+1.9**
SRS	**Serrai**	**2.90**	**86**	P	**Pn**	**23 25 56.2**	**+1.2**
SRS				AML	AML		
SCHR	**S. Chirico Rap**	**2.91**	**255**	⇓P	**Pn**	**23 25 56.5**	**+1.3**
SCHR				AML	AML		
	comp=E,577µm,1.5s						
SCHR				AML	AML		
	comp=N,636µm,1.4s						
SCHR				AML	AML		
	comp=N,636µm,0.6s						
SCHR				AML	AML		
	comp=E,577µm,0.5s						
TIP	**Timpagrande**	**2.93**	**233**		**Pn**	**23 25 55.7**	**+0.4**
TIP	**Timpagrande**	**2.93**	**233**	P	**Pn**	**23 25 56.2**	**+0.8**
TIP				S	**Sn**	**23 26 30.3**	**+0.1**
TIP				AML	AML		
	comp=E,392µm,1.2s						
TIP				AML	AML		
	comp=N,540µm,1.1s						
TIP				AML	AML		
	comp=N,495µm,1.1s						
TIP				AML	AML		
	comp=E,394µm,1.1s						
TIP				AML	AML		
	comp=N,495µm,0.9s						
TIP				AML	AML		
	comp=N,540µm,0.9s						
TIP	**Timpagrande**	**2.93**	**233**	⇓P	**Pn**	**23 25 55.8**	**+0.4**
TIP	**Timpagrande**	**2.93**	**233**	P	**Pn**	**23 25 56.9**	**+1.5**
TDS	**Terranova Siba**	**2.93**	**244**	⇓P	**Pn**	**23 25 56.8**	**+1.4**
TDS				AML	AML		
	comp=E,269µm,1.2s						
TDS				AML	AML		
	comp=N,338µm,1.0s						
CELI	**Celico**	**2.95**	**239**	P	**Pn**	**23 25 56.8**	**+1.1**
CELI				AML	AML		
	comp=N,470µm,0.9s						
CELI				AML	AML		
	comp=E,456µm,0.7s						
CELI				AML	AML		
	comp=N,472µm,1.0s						
CELI				AML	AML		
	comp=E,450µm,0.8s						
CAPA	**Cerignola FG**	**2.98**	**274**	P	**Pn**	**23 25 57.1**	**+1.0**
GRUS	**Gruza**	**2.98**	**13**	*e*Pn	**Pn**	**23 25 57.8**	**+1.7**
GRUS				*e*Sn	**Sn**	**23 26 32.4**	**+0.9**
MSAG	**Monte S. Angel**	**2.98**	**285**	⇓P	**Pn**	**23 25 57.2**	**+1.0**
MSAG				AML	AML		
	comp=N,554µm,0.5s						
MSAG				AML	AML		
	comp=E,284µm,1.1s						
MSAG				AML	AML		
	comp=N,1315µm,0.5s						
MSAG				AML	AML		
	comp=E,696µm,1.4s						
BOVS	**Bovan**	**3.01**	**28**	⇓P	**Pn**	**23 25 58.6**	**+2.1**
BOVS	**Bovan**	**3.01**	**28**	*e*Pn	**Pn**	**23 25 58.2**	**+1.7**
BOVS	**Bovan**	**3.01**	**28**	⇓P	**Pn**	**23 25 58.6**	**+2.1**
VVK	**Vomvokou**	**3.02**	**148**	P	**Pn**	**23 25 59.2**	**+2.6**
VVK				AML	AML		
PGN3	**Pignola, Italy**	**3.04**	**263**	P	**Pn**	**23 25 57.7**	**+0.8**
EFP	**Efpalio**	**3.05**	**146**	P	**Pn**	**23 25 60.0**	**+3.0**
EFP				AML	AML		
AXS	**Araxos**	**3.06**	**155**	P	**Pn**	**23 25 59.1**	**+2.0**
AXS				AML	AML		
SERS	**Sersale**	**3.06**	**231**	P	**Pn**	**23 25 57.6**	**+0.4**
SERS				S	**Sn**	**23 26 33.7**	**+0.1**
MMB	**Musomishta**	**3.06**	**78**	P	**Pn**	**23 25 58.5**	**+1.3**
MMB				AML	AML		
MMB	**Musomishta**	**3.06**	**78**	P	**Pn**	**23 25 59.1**	**+1.9**
MMB				S	**Sn**	**23 26 34.8**	**+1.3**
MAKA	**Makarska**	**3.07**	**319**	*i* Pn	**Pn**	**23 25 58.3**	**+1.1**
MAKA				Sn	**Sn**	**23 26 34.9**	**+1.4**
VTS	**Vitosha**	**3.07**	**57**	P	**Pn**	**23 25 58.7**	**+1.4**
VTS				AML	AML		
VTS	**Vitosha**	**3.07**	**57**	P	**Pn**	**23 25 59.3**	**+1.9**
VTS				S	**Sn**	**23 26 35.6**	**+1.8**
VTS	**Vitosha**	**3.07**	**57**	*e*Pn	**Pn**	**23 25 58.6**	**+1.2**
VTS				*e*Sn	**Sn**	**23 26 35.9**	**+2.1**
VTS				*e*Sn	**Sb**	**23 26 36.1**	**-4.9**
SIRI	**Monte Sirino -**	**3.07**	**256**	⇓P	**Pn**	**23 25 58.1**	**+0.7**
SIRI				AML	AML		
	comp=N,754µm,1.4s						
SIRI				AML	AML		
	comp=N,782µm,1.4s						
SIRI				AML	AML		
	comp=E,700µm,1.2s						
SIRI				AML	AML		
	comp=E,707µm,1.2s						
SIRI				AML	AML		
	comp=N,782µm,0.6s						
SIRI				AML	AML		
	comp=N,754µm,0.6s						
MMN	**Mormanno**	**3.08**	**250**	P	**Pn**	**23 25 58.9**	**+1.6**
MCEL	**Monticello**	**3.08**	**259**	P	**Pn**	**23 25 58.4**	**+0.9**
MARCO	**Tramutola**	**3.08**	**258**	P	**Pb**	**23 26 02.4**	**-1.6**
XOR	**Xorichti**	**3.09**	**121**	P	**Pn**	**23 25 59.2**	**+1.6**
XOR				AML	AML		
XOR	**Xorichti**	**3.09**	**121**	P	**Pn**	**23 25 59.2**	**+1.6**
DIVS	**Divibare**	**3.11**	**3**	*e*Pn	**Pn**	**23 25 59.4**	**+1.5**
SGRT	**San Giovanni R**	**3.11**	**285**		**Pn**	**23 25 58.7**	**+0.7**
SGRT	**San Giovanni R**	**3.11**	**285**	⇓P	**Pn**	**23 25 58.8**	**+0.9**
SGRT				AML	AML		
	comp=E,646µm,1.5s						
SGRT				AML	AML		
	comp=N,596µm,0.5s						
SGRT				AML	AML		
	comp=E,646µm,0.5s						
SGRT				AML	AML		
	comp=N,596µm,1.5s						
SPS2	**Spezzano della**	**3.12**	**238**	⇑P	**Pn**	**23 25 59.2**	**+1.2**
SPS2				AML	AML		
	comp=N,224µm,1.6s						
SPS2				AML	AML		
	comp=N,224µm,0.4s						
SPS2				AML	AML		
	comp=E,298µm,0.4s						
ALB1	**ALBI**	**3.12**	**232**	P	**Pn**	**23 25 58.8**	**+0.7**
NVR	**Nevrokopi**	**3.12**	**82**	P	**Pn**	**23 25 59.9**	**+1.9**
NVR				AML	AML		
PLNA	**Plana**	**3.12**	**60**	P	**Pn**	**23 26 00.2**	**+2.1**
PLNA				S	**Sn**	**23 26 36.3**	**+1.2**
ZAPS	**Zavoj**	**3.13**	**42**	*e*Pn	**Pn**	**23 26 00.2**	**+2.1**
ZAPS				*e*Sn	**Sn**	**23 26 37.4**	**+2.3**
VULT	**Monte Vulture**	**3.13**	**271**	P	**Pn**	**23 25 59.5**	**+1.3**
NEO	**Neokhori**	**3.15**	**121**	P	**Pn**	**23 25 60.0**	**+1.6**
NEO				AML	AML		
STN3	**Satriano di Lu**	**3.15**	**263**	P	**Pn**	**23 25 59.7**	**+1.2**
STN3				AML	AML		
	comp=E,62350µm,1.4s						
STN3				AML	AML		
	comp=E,62350µm,0.6s						
STN3				AML	AML		
	comp=N,40350µm,0.5s						
CUC	**Castrocucco**	**3.17**	**253**		**Pn**	**23 25 59.6**	**+1.0**
CUC	**Castrocucco**	**3.17**	**253**	⇓P	**Pn**	**23 25 59.9**	**+1.3**
CUC				AML	AML		
	comp=E,954µm,0.8s						
CUC				AML	AML		
	comp=E,892µm,0.8s						
CUC				AML	AML		
	comp=N,564µm,0.5s						
CUC				AML	AML		
	comp=N,564µm,0.5s						
CUC				AML	AML		
	comp=E,954µm,1.2s						
CUC				AML	AML		
	comp=E,892µm,1.2s						
CUC	**Castrocucco**	**3.17**	**253**	P	**Pn**	**23 26 00.6**	**+2.0**
RICI	**Ricice**	**3.17**	**323**	*i* Pn	**Pn**	**23 25 59.5**	**+0.8**
RICI				Sn	**Sn**	**23 26 37.9**	**+1.8**
OT03	**San Marco in L**	**3.17**	**284**	P	**Pn**	**23 25 59.5**	**+0.8**
PAIG	**Paliouri**	**3.18**	**108**	P	**Pn**	**23 25 59.9**	**+1.1**
PAIG				AML	AML		
PAIG	**Paliouri**	**3.18**	**108**	P	**Pn**	**23 25 59.8**	**+1.1**
SLCN	**Sala Consilina**	**3.19**	**260**	P	**Pn**	**23 26 00.2**	**+1.1**
SLCN				AML	AML		
	comp=E,1032µm,0.5s						
SLCN				AML	AML		
	comp=N,856µm,1.2s						
SLCN				AML	AML		
	comp=N,1055µm,0.9s						
SLCN				AML	AML		
	comp=E,1225µm,0.4s						
SLCN				AML	AML		
	comp=N,856µm,0.8s						
OT05	**Madonna di Cri**	**3.20**	**283**	⇓P	**Pn**	**23 25 59.9**	**+0.9**
OT05				AML	AML		
	comp=E,544µm,1.6s						
OT05				AML	AML		
	comp=N,517µm,1.4s						
OT05				AML	AML		
	comp=E,544µm,0.4s						
OT06	**Rignano Gargan**	**3.21**	**284**	P	**Pn**	**23 25 59.9**	**+0.7**
RLS	**Riolos of Patr**	**3.21**	**155**	P	**Pn**	**23 26 01.6**	**+2.3**
RLS				AML	AML		
CAR1	**CAROLEI**	**3.22**	**239**	P	**Pn**	**23 26 00.8**	**+1.3**
CAR1				AML	AML		
	comp=E,764µm,1.2s						
CAR1				AML	AML		
	comp=E,952µm,1.1s						
CAR1				AML	AML		
	comp=N,693µm,0.3s						
CAR1				AML	AML		
	comp=E,952µm,0.9s						
CAR1				AML	AML		
	comp=E,764µm,0.8s						
CAR1				AML	AML		
	comp=N,691µm,0.8s						
OT04	**Stignano (FG)**	**3.23**	**284**	P	**Pn**	**23 26 00.4**	**+1.0**
GRIS	**Grisolia**	**3.23**	**249**	P	**Pn**	**23 26 00.8**	**+1.3**
LAKA	**Lakka**	**3.24**	**147**	P	**Pn**	**23 26 01.7**	**+2.1**
LAKA				AML	AML		
MRLC	**Muro Lucano**	**3.24**	**267**	P	**Pn**	**23 26 01.3**	**+1.6**
MRLC				AML	AML		
	comp=E,278µm,0.7s						
MRLC				AML	AML		
	comp=E,573µm,0.7s						
MRLC				AML	AML		
	comp=N,571µm,1.5s						
MRLC				AML	AML		
	comp=E,278µm,1.3s						
MRLC				AML	AML		
	comp=N,268µm,1.5s						
MRLC				AML	AML		
	comp=E,573µm,1.3s						
CET2	**Cetraro**	**3.25**	**245**	P	**Pn**	**23 26 01.7**	**+1.8**
CET2				AML	AML		
	comp=N,1700µm,0.8s						
CET2				AML	AML		
	comp=N,1700µm,1.2s						
CET2				AML	AML		
	comp=E,1260µm,1.1s						
APRC	**Apricena**	**3.26**	**285**	⇓P	**Pn**	**23 26 00.9**	**+1.0**
APRC				S	**Sn**	**23 26 38.2**	**-0.3**
APRC				AML	AML		
	comp=N,801µm,0.4s						
APRC				AML	AML		
	comp=E,716µm,1.4s						
APRC				AML	AML		
	comp=N,801µm,1.6s						
TRUS	**Trudelj**	**3.27**	**8**	*e*Pn	**Pn**	**23 26 01.6**	**+1.6**
OUR	**Ouranopolis**	**3.28**	**100**	P	**Pn**	**23 26 01.2**	**+1.0**
OUR				AML	AML		
HVAR	**Hvar**	**3.29**	**313**	*i* Pn	**Pn**	**23 26 00.8**	**+0.5**
HVAR				Sn	**Sn**	**23 26 40.5**	**+1.4**
CLT3	**Calitri**	**3.30**	**270**	P	**Pn**	**23 26 01.8**	**+1.4**
MGR	**Morigerati**	**3.31**	**256**	⇓P	**Pn**	**23 26 02.1**	**+1.5**
MGR				AML	AML		
	comp=E,576µm,0.6s						
MGR				AML	AML		
	comp=N,524µm,1.5s						
MGR				AML	AML		
	comp=E,460µm,1.6s						
MGR				AML	AML		
	comp=N,510µm,1.5s						
MGR				AML	AML		
	comp=E,460µm,0.4s						
MGR				AML	AML		
	comp=N,510µm,0.5s						
MGR				AML	AML		
	comp=E,576µm,1.4s						
SGTA	**Sant Agata di**	**3.32**	**274**	P	**Pn**	**23 26 02.0**	**+1.2**
SGTA				AML	AML		
	comp=E,920µm,1.3s						
SGTA				AML	AML		
	comp=N,844µm,0.6s						
SGTA				AML	AML		
	comp=N,850µm,0.6s						
SGTA				AML	AML		
	comp=E,880µm,0.6s						
GRI	**Girifalco**	**3.36**	**231**	P	**Pn**	**23 26 01.9**	**+0.6**
ZAGS	**Zajecar**	**3.36**	**32**	*e*Pn	**Pn**	**23 26 03.4**	**+2.1**
COL3	**Colliano**	**3.37**	**266**	P	**Pn**	**23 26 02.7**	**+1.2**
OT11	**Lucera (FG) It**	**3.37**	**280**	P	**Pn**	**23 26 02.6**	**+1.2**
OT11				AML	AML		
	comp=E,984µm,1.0s						
OT11				AML	AML		
	comp=N,1200µm,0.7s						
TREM	**Isole Tremiti**	**3.38**	**291**	⇓P	**Pn**	**23 26 02.4**	**+0.8**
TREM				AML	AML		
	comp=E,779µm,1.3s						
TREM				AML	AML		
	comp=N,762µm,0.8s						
TREM				AML	AML		
	comp=E,750µm,0.8s						
TREM				AML	AML		
	comp=N,753µm,0.3s						
GIZZ	**Gizzeria**	**3.39**	**235**	P	**Pn**	**23 26 02.9**	**+1.2**
ATAL	**Atalanti**	**3.41**	**131**	P	**Pn**	**23 26 04.2**	**+2.3**
ATAL				AML	AML		
SGO	**Sicignano**	**3.41**	**264**	P	**Pn**	**23 26 03.1**	**+1.2**
BLKB	**Belogradchik**	**3.41**	**39**	*e*Sn	**Sn**	**23 26 44.6**	**+2.6**
BLKB	**Belogradchik**	**3.41**	**39**	⇓S	**Sb**	**23 26 46.6**	**-4.0**
CAFE	**Carife**	**3.42**	**272**	P	**Pn**	**23 26 03.0**	**+0.8**
CAFE				AML	AML		
	comp=E,803µm,1.6s						
CAFE				AML	AML		
	comp=N,722µm,0.7s						
CAFE				AML	AML		
	comp=E,810µm,1.2s						
CAFE				AML	AML		
	comp=N,722µm,0.7s						
CAFE				AML	AML		
	comp=E,810µm,0.8s						
CAFE				AML	AML		
	comp=N,722µm,1.3s						
CAFE				AML	AML		
	comp=E,803µm,0.4s						
CAFE				AML	AML		
	comp=N,722µm,1.3s						
LKR	**Lokris**	**3.42**	**132**	P	**Pn**	**23 26 04.3**	**+2.2**
LKR				AML	AML		
SSB3	**San Sossio Bar**	**3.42**	**273**	P	**Pn**	**23 26 03.5**	**+1.3**
SNAL	**S. Angelo Dei**	**3.44**	**270**	P	**Pn**	**23 26 03.6**	**+1.1**
SNAL				AML	AML		
	comp=E,690µm,1.2s						
SNAL				AML	AML		
	comp=N,1090µm,0.7s						
SNAL				AML	AML		
	comp=E,746µm,1.2s						
SNAL				AML	AML		
	comp=N,1085µm,0.7s						
SNAL				AML	AML		
	comp=N,1090µm,1.3s						
SNAL				AML	AML		
	comp=E,746µm,0.8s						
SNAL				AML	AML		
	comp=E,690µm,0.8s						
SNAL				AML	AML		
	comp=N,1085µm,1.3s						
SVIS	**Svilajnac**	**3.44**	**18**	*e*Pn	**Pn**	**23 26 04.9**	**+2.5**
PST3	**Postiglione**	**3.45**	**264**	P	**Pn**	**23 26 03.9**	**+1.3**
BULG	**Bulgheria - Ca**	**3.46**	**256**	⇓P	**Pn**	**23 26 04.1**	**+1.4**
BULG				AML	AML		
	comp=E,530µm,1.4s						
BULG				AML	AML		
	comp=N,725µm,0.5s						
BULG				AML	AML		
	comp=E,548µm,1.4s						
BULG				AML	AML		
	comp=N,737µm,0.5s						
BULG				AML	AML		
	comp=N,725µm,1.5s						
BULG				AML	AML		
	comp=E,548µm,0.6s						
BULG				AML	AML		
	comp=N,737µm,1.5s						
BULG				AML	AML		
	comp=E,530µm,0.6s						
LIO3	**Lioni**	**3.47**	**270**	P	**Pn**	**23 26 03.9**	**+1.1**
KLV	**Kalavryta, Ach**	**3.48**	**147**	P	**Pn**	**23 26 05.2**	**+2.3**
KLV				AML	AML		
KLV	**Kalavryta, Ach**	**3.48**	**147**	P	**Pn**	**23 26 05.6**	**+2.7**
MCRV	**Calabrutti - M**	**3.48**	**268**	P	**Pn**	**23 26 03.9**	**+0.8**
MCRV				AML	AML		
	comp=E,413µm,1.1s						
MCRV				AML	AML		
	comp=N,541µm,0.6s						
MCRV				AML	AML		
	comp=E,413µm,0.9s						
MOCO	**Biccari - m.te**	**3.49**	**278**	P	**Pn**	**23 26 04.4**	**+1.2**
BIOG	**Biogem**	**3.50**	**275**	P	**Pn**	**23 26 04.2**	**+1.0**
MELA	**Melanico ??? S**	**3.56**	**283**	P	**Pn**	**23 26 05.4**	**+1.4**
MELA				AML	AML		
	comp=E,1183µm,0.5s						
MELA				AML	AML		
	comp=N,1415µm,1.3s						
MELA				AML	AML		
	comp=E,1142µm,1.2s						
MELA				AML	AML		
	comp=N,1465µm,1.2s						
MELA				AML	AML		
	comp=N,1415µm,0.7s						
MELA				AML	AML		
	comp=N,1465µm,0.8s						
MELA				AML	AML		
	comp=E,1183µm,1.5s						
TEKS	**Tekeris**	**3.56**	**357**	*e*Pn	**Pn**	**23 26 05.1**	**+1.0**
TEKS	**Tekeris**	**3.56**	**357**	⇑*i*Pn	**Pn**	**23 26 05.0**	**+1.0**
KAVA	**Kavala**	**3.60**	**88**	P	**Pn**	**23 26 06.0**	**+1.4**
KAVA				AML	AML		
MNT3	**Montella**	**3.60**	**269**	P	**Pn**	**23 26 05.8**	**+1.2**
MNT3				AML	AML		
	comp=N,429µm,0.5s						
MNT3				AML	AML		
	comp=E,352µm,0.4s						
MNT3	**Montella**	**3.60**	**269**	AML	AML		
	comp=N,500µm,0.5s						
MNT3				AML	AML		
	comp=E,422µm,1.6s						
MNT3				AML	AML		
	comp=E,422µm,0.4s						
PLAC	**Placanica**	**3.60**	**226**	P	**Pn**	**23 26 05.0**	**+0.4**
PLAC				AML	AML		
	comp=N,389µm,0.4s						
PLAC				AML	AML		
	comp=E,398µm,0.3s						
PLAC				AML	AML		
	comp=N,396µm,0.8s						
PLAC				AML	AML		
	comp=N,389µm,1.6s						
PLAC				AML	AML		
	comp=E,381µm,0.8s						
PLAC				AML	AML		
	comp=E,398µm,1.7s						
MRB1	**Monte Rocchett**	**3.62**	**274**	P	**Pn**	**23 26 06.7**	**+1.8**
MRB1				AML	AML		
	comp=E,746µm,1.6s						
MRB1				AML	AML		
	comp=N,1082µm,0.4s						
MRB1				AML	AML		
	comp=E,722µm,0.6s						
MRB1				AML	AML		
	comp=E,746µm,0.4s						
MRB1				AML	AML		
	comp=N,1080µm,0.4s						
PGB	**Panagyurishte**	**3.64**	**64**	P	**Pn**	**23 26 07.5**	**+2.4**
PGB				S	**Sn**	**23 26 49.6**	**+1.9**
GUR	**Goura**	**3.65**	**146**	P	**Pn**	**23 26 07.2**	**+1.8**
GUR				AML	AML		
GATE	**Gambatesa**	**3.69**	**280**	P	**Pn**	**23 26 08.2**	**+2.4**
GATE				AML	AML		
	comp=E,535µm,0.5s						
GATE				AML	AML		
	comp=E,494µm,0.5s						
GATE				AML	AML		
	comp=N,501µm,0.8s						
GATE				AML	AML		
	comp=N,509µm,0.8s						
KUBS	**Kucevo**	**3.70**	**22**	*e*Pn	**Pn**	**23 26 06.9**	**+1.0**
PSB1	**Pescosannita**	**3.74**	**275**	P	**Pn**	**23 26 08.0**	**+1.4**
PSB1				AML	AML		
	comp=N,296µm,1.4s						
PSB1				AML	AML		
	comp=N,287µm,0.6s						

PSB1				AML	AML		
	comp=N,287µm,1.4s						
PSB1				AML	AML		
	comp=E,334µm,1.2s						
PSB1				AML	AML		
	comp=E,346µm,1.2s						
PSB1				AML	AML		
	comp=N,296µm,0.6s						
AVAS	Avala Beograd	3.75	8	ePn	Pn	23 26 07.7	+1.1
AMT	Artemida-Makis	3.77	156	P	Pn	23 26 09.1	+2.2
AMT				AML	AML		
FERC	Galatro	3.77	229	P	Pn	23 26 07.5	+0.5
JOPP	Joppolo	3.81	233	P	Pn	23 26 07.9	+0.3
RZN	Rozhen	3.82	78	P	Pn	23 26 09.2	+1.5
RZN				AML	AML		
RZN	Rozhen	3.82	78	P	Pn	23 26 09.8	+2.1
RZN				S	Sn	23 26 54.3	+2.0
SACR	S. Croce Del S	3.83	278	P	Pn	23 26 09.7	+1.8
BEO	Beograd	3.85	8	ePn	Pn	23 26 09.0	+1.0
VITU	Vitulano (BN)	3.88	275	P	Pn	23 26 10.4	+2.0
VITU				AML	AML		
	comp=E,15325µm,1.6s						
VITU				AML	AML		
	comp=E,696µm,0.5s						
VITU				AML	AML		
	comp=E,15325µm,0.4s						
VITU				AML	AML		
	comp=N,798µm,0.5s						
VITU				AML	AML		
	comp=N,800µm,0.5s						
KIJV	Kijevo	3.90	322	i Pn	Pn	23 26 10.6	+1.9
PLD	Plovdiv	3.92	71	P	Pn	23 26 10.1	+1.1
PLD				AML	AML		
PLD	Plovdiv	3.92	71	ePn	Pn	23 26 10.5	+1.6
PLD				eSn	Sn	23 26 54.8	+0.2
PAOL	Paolisi	3.92	272		Pn	23 26 11.0	+1.9
PAOL	Paolisi	3.92	272	P	Pn	23 26 10.7	+1.6
PAOL				AML	AML		
	comp=E,372µm,1.6s						
PAOL				AML	AML		
	comp=N,428µm,0.5s						
PAOL				AML	AML		
	comp=E,352µm,1.5s						
PAOL				AML	AML		
	comp=E,352µm,0.5s						
PAOL				AML	AML		
	comp=N,434µm,0.5s						
PAOL				AML	AML		
	comp=E,372µm,0.4s						
BSSO	Busso	3.93	280	P	Pn	23 26 11.1	+1.9
BSSO				AML	AML		
	comp=N,423µm,0.6s						
BSSO				AML	AML		
	comp=E,384µm,0.5s						
BSSO				AML	AML		
	comp=E,402µm,0.5s						
BSSO				AML	AML		
	comp=N,428µm,0.5s						
VILL	Villia	3.94	135	P	Pn	23 26 11.6	+2.3
VILL				AML	AML		
TRIV	Trivento	3.99	283	P	Pn	23 26 11.5	+1.5
TRIV				AML	AML		
	comp=E,372µm,1.4s						
TRIV				AML	AML		
	comp=N,368µm,1.6s						
TRIV				AML	AML		
	comp=E,388µm,1.4s						
TRIV				AML	AML		
	comp=N,370µm,1.6s						
TRIV				AML	AML		
	comp=E,372µm,0.6s						
TRIV				AML	AML		
	comp=E,388µm,0.6s						
TRIV				AML	AML		
	comp=N,368µm,0.4s						
TRIV				AML	AML		
	comp=N,370µm,0.4s						
PUNG	Punghina	4.04	34	ePn	Pn	23 26 12.5	+2.0
PUNG	Punghina	4.04	34	⇓P	Pn	23 26 12.7	+2.2
CEL	Celeste	4.04	229		Pn	23 26 10.6	-0.1
CEL	Celeste	4.04	229	P	Pn	23 26 10.9	+0.2
CEL				AML	AML		
	comp=N,286µm,1.6s						
CEL				AML	AML		
	comp=E,414µm,0.7s						
CEL				AML	AML		
	comp=N,278µm,1.4s						
CEL				AML	AML		
	comp=N,286µm,0.4s						
CEL				AML	AML		
	comp=N,278µm,0.6s						
CEL				AML	AML		
	comp=E,422µm,0.7s						
CEL	Celeste	4.04	229	P	Pn	23 26 11.9	+1.2
VTIR	Vesuvio Tirone	4.04	269	P	Pn	23 26 11.7	+1.0
VTIR				AML	AML		
	comp=N,238µm,0.4s						
VTIR				AML	AML		
	comp=N,238µm,1.6s						
VTIR				AML	AML		
	comp=E,292µm,0.6s						
MDVR	Moldovita	4.05	20	ePn	Pn	23 26 12.5	+1.7
MDVR				eSn	Sn	23 26 58.4	+0.5
MDVR	Moldovita	4.05	20	⇓P	Pn	23 26 12.2	+1.4
SGG	Gregorio Mates	4.08	277	P	Pn	23 26 13.2	+2.0
SOI	Samo	4.08	226	P	Pn	23 26 11.4	+0.1
MORI	Morici	4.15	315	ePn	Pn	23 26 13.6	+1.5
MORI				Sn	Sn	23 27 01.2	+0.9
ITM	Ithomi	4.16	155		Pn	23 26 13.8	+1.5
ITM	Ithomi	4.16	155	P	Pn	23 26 13.1	+0.8
ITM	Ithomi	4.16	155	P	Pb	23 26 17.7	-4.6
FRGS	Fruska Gora	4.17	1	ePn	Pn	23 26 13.3	+0.9
FRGS	Fruska Gora	4.17	1	⇑iPn	Pn	23 26 13.2	+0.9
VAGA	Valle Agricola	4.19	278	P	Pn	23 26 14.9	+2.2
VAGA				AML	AML		
	comp=E,517µm,0.8s						
VAGA				AML	AML		
	comp=N,756µm,0.4s						
VAGA				AML	AML		
	comp=E,550µm,0.8s						
VAGA				AML	AML		
	comp=N,784µm,0.4s						
VAGA				AML	AML		
	comp=E,517µm,1.2s						
VAGA				AML	AML		
	comp=E,550µm,1.2s						
MIDA	Miranda	4.19	281	P	Pn	23 26 14.4	+1.6
MIDA				AML	AML		
	comp=E,570µm,0.5s						
MIDA				AML	AML		
	comp=N,557µm,0.5s						
MIDA				AML	AML		
	comp=E,570µm,1.5s						
MIDA				AML	AML		
	comp=N,557µm,1.5s						
MIDA				AML	AML		
	comp=N,464µm,0.3s						
MIDA				AML	AML		
	comp=E,432µm,0.3s						
DJES	Djerdap	4.20	28	ePn	Pn	23 26 14.7	+1.9
DJES	Djerdap	4.20	28	⇓P	Pn	23 26 14.5	+1.7
BLY	Banja Luka	4.20	334		Pn	23 26 14.5	+1.7
BLY	Banja Luka	4.20	334	ePn	Pn	23 26 14.5	+1.7
BLY	Banja Luka	4.20	334	P	Pn	23 26 14.6	+1.7
BLY	Banja Luka	4.20	334	⇓P	Pn	23 26 14.6	+1.7
BLY	Banja Luka	4.20	334	⇑iPn	Pn	23 26 14.6	+1.7
BLY	Banja Luka	4.20	334	P	Pn	23 26 15.2	+2.4
PIGN	Pignataro Magg	4.22	275	P	Pn	23 26 14.6	+1.6
RMGR	Halanga-Turnu	4.26	30	⇓P	Pn	23 26 16.0	+2.4
MSRU	Castanea	4.26	232	P	Pn	23 26 12.9	-0.7
MSRU				AML	AML		
	comp=E,480µm,1.3s						
MSRU				AML	AML		
	comp=N,482µm,0.5s						
MSRU				AML	AML		
	comp=E,480µm,0.7s						
MSRU				AML	AML		
	comp=N,482µm,1.5s						
RNI2	Rionero Sannit	4.28	281	P	Pn	23 26 16.0	+2.0
RNI2				AML	AML		
	comp=E,613µm,0.5s						
RNI2				AML	AML		
	comp=N,520µm,0.6s						
RNI2				AML	AML		
	comp=E,616µm,0.5s						
RNI2				AML	AML		
	comp=N,527µm,0.6s						
RNI2				AML	AML		
	comp=E,616µm,1.5s						
RNI2				AML	AML		
	comp=N,520µm,1.4s						
RNI2				AML	AML		
	comp=E,613µm,1.5s						
RNI2				AML	AML		
	comp=N,527µm,1.4s						
LIA	Limnos Island	4.28	103	P	Pn	23 26 14.9	+0.9
LIA				AML	AML		
VRSS	Vrsac	4.29	15	ePn	Pn	23 26 16.2	+2.2
LPEL	Lama dei Pelig	4.31	286	⇓P	Pn	23 26 16.0	+1.6
LPEL				AML	AML		
	comp=E,472µm,0.5s						
LPEL				AML	AML		
	comp=E,452µm,0.5s						
LPEL				AML	AML		
	comp=N,315µm,1.2s						
LPEL				AML	AML		
	comp=E,452µm,1.5s						
LPEL				AML	AML		
	comp=E,472µm,1.5s						
LPEL				AML	AML		
	comp=N,359µm,0.8s						
MTTG	Motta San Giov	4.33	228	P	Pn	23 26 15.0	+0.3
PLVB	Pleven	4.34	55	⇓P	Pn	23 26 16.7	+2.1
DION	Dionisos Attik	4.35	131	P	Pn	23 26 16.8	+2.0
HERR	Herculane	4.35	26	⇑P	Pn	23 26 17.4	+2.5
CERA	Filignano	4.36	280	P	Pn	23 26 17.5	+2.4
CERA				AML	AML		
	comp=N,1195µm,0.7s						
CERA				AML	AML		
	comp=E,1160µm,0.7s						
CERA				AML	AML		
	comp=E,1105µm,0.7s						
CERA				AML	AML		
	comp=N,1230µm,0.7s						
MPNC	Port Mandanici	4.43	232	P	Pn	23 26 15.4	-0.7
SRE	Strehaia	4.46	34	⇓P	Pn	23 26 18.5	+2.1
ILOS	Lipari Osserat	4.49	237	P	Pn	23 26 17.9	+1.0
BANR	Banloc	4.50	12	⇓P	Pn	23 26 19.5	+2.5
MCI	Monte Cassino	4.50	278	P	Pn	23 26 19.2	+2.1
INTR	Introdacqua	4.51	285		Pn	23 26 18.7	+1.5
INTR	Introdacqua	4.51	285	⇓P	Pn	23 26 18.6	+1.5
VLAD	Vladila	4.56	47	⇓P	Pn	23 26 20.4	+2.6
DUGI	Dugi Otok	4.59	312	ePn	Pn	23 26 19.5	+1.4
DUGI				Sn	Sn	23 27 12.6	+1.5
UDBI	Udbina	4.60	322	ePn	Pn	23 26 20.5	+2.2
POFI	Posta Fibreno	4.61	281	⇓P	Pn	23 26 20.3	+1.8
NOV	Novara	4.64	232	P	Pn	23 26 18.9	0.0
VCEL	Villa Celiera	4.64	290	⇓P	Pn	23 26 20.5	+1.5
T0110	Collepietro	4.65	287	⇓P	Pn	23 26 20.7	+1.7
IFIL	Filicudi I Eol	4.67	240	P	Pn	23 26 19.5	+0.1
IFIL				AML	AML		
	comp=E,1175µm,0.9s						
IFIL				AML	AML		
	comp=N,370µm,0.8s						
LRP	Arpino	4.69	280	⇑P	Pn	23 26 21.6	+2.1
VVLD	Villa Vallelon	4.69	283	P	Pn	23 26 21.6	+1.9
ALN	Alexandroupoli	4.76	89	P	Pn	23 26 22.0	+1.5
ALN	Alexandroupoli	4.76	89		Pn	23 26 22.0	+1.5
ALN	Alexandroupoli	4.76	89	P	Pn	23 26 22.3	+1.8
VIRC	Vir	4.79	315	i Pn	Pn	23 26 22.3	+1.5
VIRC				Sn	Sn	23 27 16.3	+0.4
MUCR	Ucria	4.79	234	P	Pn	23 26 21.0	0.0
FAGN	Fagnano	4.80	287	P	Pn	23 26 22.5	+1.5
VENT	Ventotene	4.80	270	P	Pn	23 26 21.6	+0.5
BZS	Buzias	4.82	16	P	Pn	23 26 22.8	+1.5
BZS	Buzias	4.82	16	ePn	Pn	23 26 22.4	+1.1
BZS				eSn	Sn	23 27 16.8	+0.1
BZS	Buzias	4.82	16	⇑P	Pn	23 26 22.9	+1.5
BZS	Buzias	4.82	16	P	Pn	23 26 23.3	+2.0
CAVK	Edirne/Enez-Ca	4.87	91	⇑P	Pn	23 26 25.2	+3.2
PTQR	Pietraquaria	4.88	284	P	Pn	23 26 24.2	+1.9
GZR	Gura Zlata	4.92	26	P	Pn	23 26 25.0	+2.2
GZR	Gura Zlata	4.92	26	ePn	Pn	23 26 24.6	+1.8
GZR	Gura Zlata	4.92	26	⇑P	Pn	23 26 25.0	+2.2
OFFI	Offida	4.92	295	P	Pn	23 26 25.0	+2.3
GIUL	Giuliano Di Ro	4.93	279	⇓P	Pn	23 26 24.3	+1.5
ZIMR		4.94	56	P	Pn	23 26 25.1	+2.2
ZIMR		4.94	56	⇓P	Pn	23 26 25.2	+2.2
AQU	L'Aquila	4.95	288	P	Pn	23 26 24.5	+1.3
AQU	L'Aquila	4.95	288		Pn	23 26 24.5	+1.3
AQU	L'Aquila	4.95	288	ePn	Pn	23 26 24.4	+1.3
AQU	L'Aquila	4.95	288	P	Pn	23 26 25.1	+1.9
CAMP	Campotosto	4.99	290	P	Pn	23 26 25.1	+1.4
MNTT	Montottone	5.03	296	P	Pn	23 26 26.0	+1.7
SURR	Surduc	5.06	19	⇓P	Pn	23 26 26.0	+1.4
NVLJ	Novalja	5.07	316	ePn	Pn	23 26 25.7	+1.0
NVLJ				Sn	Sn	23 27 23.4	+0.7
SMA1	SAN MARTINO	5.07	291	P	Pn	23 26 26.0	+1.1
MF5	Montefalcone A	5.10	295	P	Pn	23 26 26.3	+1.1
COPA	Copaceanca	5.11	50	⇑P	Pn	23 26 28.2	+2.9
RM33	Pellescritta (	5.12	289	P	Pn	23 26 27.3	+1.8
FIAM	Fiamignano	5.14	287	P	Pn	23 26 27.8	+2.0
LATB	Latina	5.15	278	P	Pn	23 26 26.5	+0.7
MMO1	Montemonaco	5.16	294	P	Pn	23 26 27.4	+1.3
GUMA	Gualdo di Mace	5.21	296		Pn	23 26 27.8	+1.0
HUMR	Humele	5.22	46	⇑P	Pn	23 26 29.3	+2.4
HUMR	Humele	5.22	46	⇑P	Pn	23 26 29.3	+2.4
HUMR	Humele	5.22	46	P	Pn	23 26 29.5	+2.6
	comp=Z,72nm,0.8s						
RABC	Rab	5.24	317	i Pn	Pn	23 26 28.2	+1.1
HLNI	Lentini	5.26	228	P	Pn	23 26 25.1	-2.2
MC2	Monte Cornacci	5.26	294	P	Pn	23 26 28.8	+1.2
LNSS	Leonessa	5.27	290	P	Pn	23 26 29.5	+1.9
MORH	Mrgy, Hungar	5.28	352	⇓P	Pn	23 26 28.7	+1.0
MORH	Mrgy, Hungar	5.28	352	ePn	Pn	23 26 28.4	+0.7
MORH	Mrgy, Hungar	5.28	352	P	Pn	23 26 29.5	+1.8
	comp=Z,41nm,1.0s						
NRCA	Norcia	5.29	293		Pn	23 26 29.1	+1.3
NRCA	Norcia	5.29	293	⇓P	Pn	23 26 29.1	+1.3
SSY	Sortino	5.29	225	P	Pn	23 26 25.8	-2.0
LOT	Lotru	5.33	32	⇑P	Pn	23 26 30.3	+1.8
LOT	Lotru	5.33	32	P	Pn	23 26 30.2	+1.7
	comp=Z,40nm,0.7s						
FDMO	Fiordimonte	5.37	295		Pn	23 26 29.7	+0.8
FDMO	Fiordimonte	5.37	295	P	Pn	23 26 30.0	+1.1
DEV	Deva	5.40	24	P	Pn	23 26 31.6	+2.3
DEV	Deva	5.40	24	⇓P	Pn	23 26 31.6	+2.3
DEV	Deva	5.40	24	P	Pn	23 26 31.8	+2.5
	comp=Z,56nm,0.9s						
VAE	Valguarnera	5.43	232	Pn	Pn	23 26 30.2	+0.5
	comp=Z,2.0nm,0.3s,baz=71,slow=18,SNR=1.4						
VAE				Sn	Sn	23 27 27.5	-4.5
	comp=Z,1.2nm,0.3s,baz=335,slow=11,SNR=3.6						
SIRR	Siria	5.45	14	ePn	Pn	23 26 31.7	+1.7
SIRR				eSn	Sn	23 27 32.2	-0.2
SIRR	Siria	5.45	14	⇓P	Pn	23 26 31.7	+1.7
ARRO	Arrone	5.46	289	P	Pn	23 26 32.4	+2.3
EL6	Elcito	5.47	297	P	Pn	23 26 30.7	+0.4
CESI	CESI - Serrava	5.49	294	P	Pn	23 26 31.8	+1.3
CHOS	Chios island	5.51	116	P	Pn	23 26 34.0	+3.1
	comp=Z,71nm,1.0s						
SCIAR	Sciara	5.56	239	P	Pn	23 26 32.4	+0.9
OZLJ	Ozalj	5.58	327	ePn	Pn	23 26 33.4	+1.6
BOJS	Bojanci	5.58	325	i Pn	Pn	23 26 32.9	+1.2
BOJS				eSn	Sn	23 27 34.9	-0.7
BOJS	Bojanci	5.58	325	ePn	Pn	23 26 33.1	+1.3
BOJS				eSn	Sn	23 27 34.5	-1.0
BOJS	Bojanci	5.58	325	P	Pn	23 26 32.9	+1.2
CESX	Cesi	5.60	289		Pn	23 26 33.5	+1.5
CESX	Cesi	5.60	289	P	Pn	23 26 33.9	+1.8
LOZB	Loznitsa	5.61	63	⇓P	Pn	23 26 34.8	+2.6
SGRR	Singureni	5.61	53	⇓P	Pn	23 26 34.6	+2.5
HPAC	Pachino	5.61	222	P	Pn	23 26 30.9	-1.3
RAZG	Razgrad	5.63	61	⇓P	Pn	23 26 34.8	+2.4
RAFF	Raffo Rosso	5.63	230	Pn	Pn	23 26 31.5	-1.0
ARR	Arges	5.64	38	⇑P	Pn	23 26 34.7	+2.0
ARR	Arges	5.64	38	P	Pn	23 26 35.1	+2.4
	comp=Z,23nm,0.8s						
ARVD	Arcevia	5.64	299	P	Pn	23 26 33.1	+0.5
MOMA	Monte Martano	5.66	291	P	Pn	23 26 34.7	+1.8
COR1	Corinaldo	5.66	300	P	Pn	23 26 33.9	+1.1
ASSB	Assisi San Ben	5.67	294	P	Pn	23 26 34.4	+1.4
FOSV	Fossato di Vic	5.69	296	P	Pn	23 26 34.0	+0.8
SSFR	Montelago di S	5.72	298	P	Pn	23 26 34.5	+0.7
ATCC	AVT- Casa Cast	5.73	295	P	Pn	23 26 35.1	+1.2
MTUR	Matau	5.74	41	P	Pn	23 26 36.9	+2.8
MTUR	Matau	5.74	41	⇑P	Pn	23 26 37.0	+2.8
FRON	Frontone	5.79	298	P	Pn	23 26 35.3	+0.5
CRTC	Cartoceto	5.80	301	P	Pn	23 26 35.4	+0.7
RIY	Rijeka	5.80	320	ePn	Pn	23 26 35.9	+1.1
RIY	Rijeka	5.80	320	ePn	Pn	23 26 36.0	+1.3
RIY				eSn	Sn	23 27 39.4	-1.5
MPAG	Monte Paganucc	5.82	299	P	Pn	23 26 35.6	+0.5
MURB	Monte Urbino	5.84	295		Pn	23 26 36.4	+1.0
MURB	Monte Urbino	5.84	295	P	Pn	23 26 36.6	+1.2
ATFO	Monte Foce - G	5.84	296	P	Pn	23 26 36.4	+1.0
BEHE	Becsehely	5.89	339		Pn	23 26 37.0	+1.0
BEHE	Becsehely	5.89	339	⇑iPn	Pn	23 26 37.3	+1.3
VOIR		5.89	39	P	Pn	23 26 39.1	+3.0
VOIR		5.89	39	⇑P	Pn	23 26 39.2	+3.0
VOIR		5.89	39	P	Pn	23 26 39.7	+3.6
	comp=Z,18nm,0.9s						
TOLF	Tolfa	5.92	283	P	Pn	23 26 38.3	+1.9
NARO	Abbazia di Nar	5.93	299	P	Pn	23 26 37.1	+0.6
ATVO	AVT- Monte Val	5.96	296	P	Pn	23 26 38.0	+1.0
ATPI	Pietralunga -	5.99	297	P	Pn	23 26 38.5	+1.1
MGAB	Montegabbione	6.01	291	P	Pn	23 26 39.3	+1.6
APEC	Apecchio	6.01	298	P	Pn	23 26 38.8	+1.0
KOGS	Kog	6.02	336	P	Pn	23 26 38.7	+0.9
PE3	Peglio	6.02	299	P	Pn	23 26 38.7	+0.9
SULR		6.03	50	⇑P	Pn	23 26 40.5	+2.5
ATMI	Monte Miggiano	6.04	295	P	Pn	23 26 40.2	+2.1
CLTB	Caltabellotta	6.11	238	P	Pn	23 26 42.2	+3.0
	comp=Z,116nm,0.7s						
BADI	Badiali	6.12	297	P	Pn	23 26 40.9	+1.7
CEY	Cerknica	6.13	322	ePn	Pn	23 26 40.6	+1.3
CEY				eSn	Sn	23 27 47.3	-1.8
BALY	Balya	6.13	99	P	Pn	23 26 42.0	+2.5
	comp=Z,82nm,0.9s						
MDB	Medias	6.15	32	P	Pn	23 26 42.8	+3.3
MDB	Medias	6.15	32	⇓P	Pn	23 26 42.8	+3.3
PARC	Parchiule	6.17	298	P	Pn	23 26 40.9	+1.0
DRGR		6.18	19	P	Pn	23 26 42.0	+2.0
DRGR		6.18	19	eSn	Sn	23 27 49.8	-0.6
DRGR		6.18	19	⇓P	Pn	23 26 42.1	+2.0
DRGR		6.18	19	P	Pn	23 26 42.7	+2.7
	comp=Z,28nm,0.8s						
MARR	Marisel-Cluj	6.18	22	⇓P	Pn	23 26 41.5	+1.4
SKDS	Skadanscina	6.19	319	ePn	Pn	23 26 40.5	+0.4
SKDS				eSn	Sn	23 27 48.0	-2.5
CAFI	Castiglion Fio	6.24	295	P	Pn	23 26 42.6	+1.8
LJU	Ljubljana	6.32	325	ePn	Pn	23 26 43.1	+1.2
LJU				eSn	Sn	23 27 52.3	-1.4
LJU	Ljubljana	6.32	325	P	Pn	23 26 43.1	+1.2
CRE	Caprese Michel	6.35	297	P	Pn	23 26 43.3	+0.8
BALB	Balikesir	6.36	100		Pn	23 26 43.4	+1.0
CJR	Cluj-Napoca	6.36	25	P	Pn	23 26 44.4	+1.9
CJR	Cluj-Napoca	6.36	25	⇓P	Pn	23 26 44.4	+1.9
MLR	Muntele Rosu	6.38	43	Pn	Pn	23 26 45.9	+3.1
	comp=Z,1.4nm,0.3s,baz=264,slow=23,SNR=22						
MLR				Sn	Sn	23 27 52.5	-2.7
	comp=Z,0.7nm,0.3s,baz=254,slow=18,SNR=3.4						
	comp=Z,6.2nm,0.4s						
MLR				AML	AML		
MLR	Muntele Rosu	6.38	43	P	Pn	23 26 44.2	+1.4
MLR	Muntele Rosu	6.38	43		Pn	23 26 44.2	+1.4
MLR	Muntele Rosu	6.38	43	ePn	Pn	23 26 45.0	+2.2
MLR	Muntele Rosu	6.38	43	⇓P	Pn	23 26 45.9	+3.1
MLR	Muntele Rosu	6.38	43	P	Pn	23 26 47.7	+4.9
	comp=Z,32nm,1.1s						
BAND	Balkesir-Ban	6.38	93	⇓P	Pn	23 26 45.0	+2.4
MPLH	Magyarpolny	6.38	346	P	Pn	23 26 45.0	+2.2
	comp=Z,35nm,1.1s						
TRI	Trieste	6.43	319	P	Pn	23 26 43.7	+0.4
TRI	Trieste	6.43	319	Pn	Pn	23 26 43.7	+0.4
TRI	Trieste	6.43	319	P	Pn	23 26 43.8	+0.4
DOPR	Dopca	6.44	38	⇑P	Pn	23 26 46.2	+2.6
ISR	Istrita	6.46	48	⇓P	Pn	23 26 46.6	+2.7
ISR	Istrita	6.46	48	P	Pn	23 26 46.5	+2.7
ISR	Istrita	6.46	48	⇓P	Pn	23 26 46.6	+2.7
LEVAN	Levanzo	6.47	245	P	Pn	23 26 44.2	+0.3
BUD	Budapest	6.51	356	P	Pn	23 26 45.6	+1.1
	comp=Z,43nm,0.6s						
NEHR	Nehoiu	6.52	45	⇑P	Pn	23 26 47.6	+2.9
ASQU	Asqua	6.53	298	P	Pn	23 26 46.4	+1.5
MESR	Meseseni	6.57	19	⇓P	Pn	23 26 47.4	+2.1
LTVH	Ltavrtes, Hu	6.58	13	⇑P	Pn	23 26 46.6	+1.2
LTVH	Ltavrtes, Hu	6.58	13	P	Pn	23 26 48.2	+2.8
	comp=Z,43nm,0.8s						
WDD	Wied Dalam	6.58	220	Pn	Pn	23 26 45.6	+0.1
SOKA	Soboth	6.63	331	i Pn	Pn	23 26 47.5	+1.2
	comp=Z,9.5nm,0.3s,SNR=25						
SOKA				i Sn	Sn	23 27 59.4	-2.1
	comp=Z,12nm,0.5s						
BOSR	Bodos	6.65	38	⇓P	Pn	23 26 49.0	+2.6
OBKA	Obir	6.68	327	ePn	Pn	23 26 48.4	+1.5
OBKA				eSn	Sn	23 28 04.1	+1.4
OBKA	Obir	6.68	327	i Pn	Pn	23 26 48.4	+1.5
	comp=Z,8.1nm,0.2s,SNR=15						
OBKA				i Sn	Sn	23 28 03.8	+1.0
	comp=Z,40nm,0.6s						
OBKA	Obir	6.68	327	P	Pn	23 26 48.2	+1.3
	comp=Z,25nm,0.7s						
SABO	M.te Sabotino	6.70	320		Pn	23 26 47.5	+0.4
SABO	M.te Sabotino	6.70	320	P	Pn	23 26 47.4	+0.2
ICOR	Ion Corvin	6.71	60	⇓P	Pn	23 26 49.1	+1.8
OZUR		6.72	39	⇓P	Pn	23 26 50.0	+2.5
COVR	Voineasa-Covas	6.75	42	⇑P	Pn	23 26 50.5	+2.6
TURR	Turia	6.80	40	⇑P	Pn	23 26 50.2	+1.6
BISRR	Bisoca	6.82	46	⇑P	Pn	23 26 51.2	+2.4
DRE	Drenchia	6.82	321	P	Pn	23 26 49.1	+0.3
DRE	Drenchia	6.82	321	P	Pn	23 26 49.3	+0.5
	comp=Z,36nm,0.5s						
GRER		6.86	48	⇓P	Pn	23 26 51.6	+2.3
GRER		6.86	48	⇓P	Pn	23 26 51.6	+2.3
SEI	Scarperia	6.92	299	P	Pn	23 26 51.4	+1.3
SAHR	Sahastru	6.92	45	⇓P	Pn	23 26 52.0	+1.8
PSZ	Piszkesteto	6.93	1	P	Pn	23 26 51.7	+1.4
PSZ	Piszkesteto	6.93	1		Pn	23 26 51.3	+1.0
PSZ	Piszkesteto	6.93	1	⇑P	Pn	23 26 51.8	+1.4
PSZ	Piszkesteto	6.93	1	P	Pn	23 26 53.3	+3.0
	comp=Z,28nm,0.9s						
ARCR	ARCALIA	6.93	27	⇓P	Pn	23 26 51.6	+1.3
ARSA	Arzberg	6.96	335		Pn	23 26 51.9	+1.3
ARSA	Arzberg	6.96	335	ePn	Pn	23 26 51.6	+0.9
ARSA	Arzberg	6.96	335	P	Pn	23 26 52.0	+1.3
ARSA	Arzberg	6.96	335	ePn	Pn	23 26 52.3	+1.6
ARSA	Arzberg	6.96	335	i Pn	Pn	23 26 52.3	+1.6
	comp=Z,7.3nm,0.4s,SNR=13						
ARSA	Arzberg	6.96	335	P	Pn	23 26 52.4	+1.6
	comp=Z,21nm,0.6s						
CVDA	Cernavoda	6.96	59	⇑P	Pn	23 26 53.4	+2.7
PLOR	Plostina	6.98	44	P	Pn	23 26 53.9	+2.9
PLOR	Plostina	6.98	44	⇓P	Pn	23 26 54.0	+2.9
IDI	Anoyia	6.98	143	Pn	Pn	23 26 50.4	-0.7
	comp=Z,2.8nm,0.3s,baz=261,slow=8.5,SNR=9.9						
IDI				Sn	Sn	23 28 05.1	-5.1
	comp=Z,11nm,0.3s,baz=209,slow=16,SNR=8.9						
IDI	Anoyia	6.98	143	Pn	Pn	23 26 51.6	+0.5
VRI	Vrincioaia	7.03	44	P	Pn	23 26 54.7	+3.0
VRI	Vrincioaia	7.03	44	⇓P	Pn	23 26 54.8	+3.0
VRI	Vrincioaia	7.03	44	P	Pn	23 26 55.7	+3.9
	comp=Z,20nm,0.6s						
HARR	Harsova	7.05	56	P	Pn	23 26 54.5	+2.6
HARR	Harsova	7.05	56	⇓P	Pn	23 26 54.5	+2.6
PRED	Cave del Predi	7.06	323		Pn	23 26 53.1	+1.0
PRED	Cave del Predi	7.06	323	P	Pn	23 26 53.8	+1.7
TLBR	Topalu	7.06	57	⇑P	Pn	23 26 54.5	+2.5
SOP	Sopron	7.07	342	P	Pn	23 26 57.6	+5.4
	comp=Z,12nm,1.1s						
GEPF	Gemona	7.13	320	P	Pn	23 26 53.0	0.0
ODBI	Odobesti	7.14	46	⇑P	Pn	23 26 55.6	+2.4
MFTR	Murfatlar	7.14	61	⇓P	Pn	23 26 56.0	+2.8
RONA	Rosalia, Austr	7.15	341	ePn	Pn	23 26 55.1	+1.7
	comp=Z,3.2nm,0.4s						
RONA				eSn	Sn	23 28 16.3	+2.1
	comp=Z,7.9nm,0.5s						
BDRM	Kayabasi	7.15	121	⇓P	Pn	23 26 56.9	+3.5
ACOM	Acomizza, Ital	7.16	323	P	Pn	23 26 54.4	+0.9
ACOM	Acomizza, Ital	7.16	323	P	Pn	23 26 54.2	+0.6
	comp=Z,37nm,0.5s						
MYKA	Terra Mystica	7.16	324	i Pn	Pn	23 26 54.2	+0.7
	comp=Z,3.7nm,0.2s						
MYKA				eSn	Sn	23 28 14.8	+0.2
	comp=Z,14nm,0.5s						
SESA	Seetaler Alpe,	7.17	330	i Pn	Pn	23 26 55.3	+1.5
	comp=Z,10nm,0.3s,SNR=20						
SESA				eSn	Sn	23 28 16.8	+1.9
	comp=Z,22nm,0.6s						
ONER	Baraj Valea Uz	7.19	40	⇓P	Pn	23 26 56.3	+2.5

BMR	Baia Mare	7.20	21	P	Pn	23 26 56.1	+2.2
BMR	Baia Mare	7.20	21	⇓P	Pn	23 26 56.1	+2.2
BMR	Baia Mare	7.20	21	P	Pn	23 26 56.6	+2.7
	comp=Z,24nm,0.6s						
MANT	Manisa	7.23	107		Pn	23 26 55.0	+0.4
TIRR	Tirgusor	7.25	59	P	Pn	23 26 56.2	+1.5
TIRR	Tirgusor	7.25	59	Pn	Pn	23 26 56.2	+1.5
TIRR	Tirgusor	7.25	59	⇓P	Pn	23 26 57.2	+2.5
ZCCA	Zocca	7.29	300	Pn	Pn	23 26 56.6	+1.4
FUSE	Fusea	7.30	320	P	Pn	23 26 55.1	-0.3
FUSE	Fusea	7.30	320	P	Pn	23 26 57.4	+2.0
	comp=Z,29nm,0.5s						
STAL	STALIGIAL	7.34	318		Pn	23 26 56.0	+0.1
STAL	STALIGIAL	7.34	318	P	Pn	23 26 56.0	+0.1
TEOL	Teolo	7.35	309		Pn	23 26 55.9	-0.1
TEOL	Teolo	7.35	309	P	Pn	23 26 55.9	-0.1
FREG	Fregona	7.38	315	P	Pn	23 26 56.7	+0.3
ABAH	Abaujker	7.38	8	P	Pn	23 27 01.9	+5.5
	comp=Z,19nm,0.6s						
CLUD	Cludinico	7.39	320	P	Pn	23 26 57.0	+0.4
TRPA	Tarpa	7.41	15	P	Pn	23 27 00.3	+3.5
	comp=Z,21nm,0.9s						
CFR	Carcaliu	7.42	53	P	Pn	23 27 00.0	+3.0
CFR	Carcaliu	7.42	53	⇑P	Pn	23 27 00.1	+3.0
TESR	Tescani	7.44	40	⇓P	Pn	23 27 00.2	+3.0
TPGR	Topolog	7.44	56	⇓P	Pn	23 27 00.0	+2.8
ZST	Bratislava	7.45	346	eSN	Sn	23 28 18.4	-3.1
ZST				eSG	Sg	23 29 05.8	-2.5
CONA	Conrad Observa	7.47	339	i Pn	Pn	23 27 00.9	+3.1
	comp=Z,3.3nm,0.5s						
SILT	Sile	7.47	86	⇑P	Pn	23 27 00.2	+2.5
VARN	Col Varnada, M	7.48	315	P	Pn	23 26 57.5	-0.4
BIZ	Bicaz	7.50	35	⇑P	Pn	23 27 00.4	+2.2
CIMO	Cimolais	7.51	318	P	Pn	23 26 58.0	-0.3
GHRR		7.52	45	⇓P	Pn	23 27 01.1	+2.7
VYHS	Vyhne	7.53	355	eSG		23 29 06.6	
VYHS	Vyhne	7.53	355	P	Pn	23 27 05.7	+7.1
	comp=Z,4.2nm,2.0s						
CGRP	Cima Grappa	7.57	313	P	Pn	23 26 59.0	-0.3
CGRP	Cima Grappa	7.57	313	P	Pn	23 26 59.3	0.0
	comp=Z,31nm,0.6s						
WINA	Alland / Wiene	7.58	341	ePn	Pn	23 27 01.7	+2.5
	comp=Z,1.2nm,0.2s						
KBA	Koelnbreinsper	7.64	325	ePn	Pn	23 27 01.9	+1.7
KBA				eSn	Sn	23 28 25.5	-0.9
KBA	Koelnbreinsper	7.64	325	i Pn	Pn	23 27 01.6	+1.4
	comp=Z,3.0nm,0.2s,SNR=10.0						
KBA				eSn	Sn	23 28 26.2	-0.2
	comp=Z,13nm,0.5s						
KBA	Koelnbreinsper	7.64	325	P	Pn	23 27 01.1	+0.9
	comp=Z,26nm,0.7s						
BURAR	Bucovina Array	7.69	29	P	Pn	23 27 04.2	+3.4
BURAR	Bucovina Array	7.69	29		Pn	23 27 03.1	+2.3
BURAR	Bucovina Array	7.69	29	⇓P	Pn	23 27 04.3	+3.4
BUR08	Bucovina Ar. S	7.71	29		Pn	23 27 03.2	+2.1
CTI	Castel Tesino	7.76	313	P	Pn	23 27 01.8	0.0
CTI	Castel Tesino	7.76	313		Pn	23 27 01.8	0.0
CTI	Castel Tesino	7.76	313	P	Pn	23 27 01.4	-0.4
VLDR	Vladesti	7.76	49	⇑P	Pn	23 27 04.4	+2.8
ABTA	Abfaltersbach	7.78	320	i Pn	Pn	23 27 02.9	+0.9
	comp=Z,10nm,0.4s,SNR=18						
ABTA				i Sn	Sn	23 28 28.9	-0.8
	comp=Z,14nm,0.4s						
TLCR		7.84	55	P	Pn	23 27 06.0	+3.2
TLCR		7.84	55	⇑P	Pn	23 27 06.1	+3.2
MOA	Molln	7.90	332	ePn	Pn	23 27 04.8	+1.2
MOA				eSn	Sn	23 28 29.0	-3.7
MOA	Molln	7.90	332	ePn	Pn	23 27 05.5	+1.9
MOA				eSn	Sn	23 28 31.6	-1.0
MOA	Molln	7.90	332	i Pn	Pn	23 27 06.0	+2.4
	comp=Z,7.9nm,0.3s,SNR=19						
MOA				eSn	Sn	23 28 33.5	+0.8
	comp=Z,14nm,0.5s						
MOA	Molln	7.90	332	P	Pn	23 27 06.2	+2.5
	comp=Z,20nm,1.2s						
DOSS	Dosso del Somm	7.92	311	P	Pn	23 27 03.9	-0.1
TAVA	DENIZLI_Tavas	7.93	113	⇑P	Pn	23 27 07.3	+3.2
ZIAN	Ziano	7.95	314	P	Pn	23 27 04.5	+0.1
KARP	Karpathos	7.96	131	Pn	Pn	23 27 06.2	+1.7
BIOA	Bad Ischl, Aus	8.00	329	ePn	Pn	23 27 06.6	+1.6
BIOA				eSn	Sn	23 28 35.1	-0.1
BIOA	Bad Ischl, Aus	8.00	329	ePn	Pn	23 27 06.6	+1.6
	comp=Z,3.7nm,0.3s,SNR=10						
BIOA				eSn	Sn	23 28 36.9	+1.7
	comp=Z,13nm,0.4s						
JAVC	Velka Javorina	8.01	350	ePN	Pn	23 27 06.5	+1.4
MBAL	Monte Baldo -	8.01	309	P	Pn	23 27 04.4	-0.8
VARA	Varagna	8.06	310	P	Pn	23 27 05.9	0.0
VSL	Villasalto	8.08	263	Pn	Pn	23 27 05.0	-1.0
ARG	Arkhangelos	8.10	123	P	Pn	23 27 08.1	+1.7
ARG	Arkhangelos	8.10	123	Pn	Pn	23 27 08.1	+1.7
LUSI	Trento, Gardas	8.10	311	P	Pn	23 27 06.4	0.0
BRES	Bressanone	8.13	317	P	Pn	23 27 07.5	+0.5
KOLS	Kolonicke sedl	8.14	12	eP	Pn	23 27 10.0	+3.1
KOLS	Kolonicke sedl	8.14	12	ePN	Pn	23 27 10.0	+3.1
KOLS	Kolonicke sedl	8.14	12	P	Pn	23 27 10.0	+3.1
	comp=Z,19nm,0.6s						
KOSI	Kohlern	8.16	315	P	Pn	23 27 07.4	0.0
SALO	Salr	8.16	308		Pn	23 27 07.4	+0.2
SALO	Salr	8.16	308	P	Pn	23 27 07.2	0.0
MAGA	Magasa	8.19	309	P	Pn	23 27 07.1	-0.6
LESA	Schwarzleotal	8.20	324	ePn	Pn	23 27 08.4	+0.7
LESA				eSn	Sn	23 28 38.1	-1.9
LESA	Schwarzleotal	8.20	324	i Pn	Pn	23 27 08.9	+1.2
	comp=Z,15nm,0.4s,SNR=21						
LESA				eSn	Sn	23 28 38.3	-1.7
	comp=Z,6.0nm,0.4s						
BORA	Eskisehir	8.24	94		Pn	23 27 09.5	+1.2
APPI	Appiano	8.26	314	P	Pn	23 27 08.8	+0.2
ABNA	Allensteig Bun	8.27	340	ePn	Pn	23 27 14.0	+5.3
	comp=Z,0.3nm,0.1s						
OZOL	Ozolo	8.31	314	P	Pn	23 27 09.0	-0.3
RJOB	Jochberg	8.38	326	ePn	Pn	23 27 12.5	+2.2
RJOB				eSn	Sn	23 28 46.0	+1.5
RJOB	Jochberg	8.38	326	P	Pn	23 27 12.7	+2.4
	comp=Z,18nm,0.7s						
MABI	Malga Bissina	8.41	310	P	Pn	23 27 10.8	+0.1
SAHE	Sakarya_HENDEK	8.41	87	⇑P	Pn	23 27 12.7	+2.1
KRUC	Moravsky	8.41	345	ePN	Pn	23 27 11.5	+0.9
MAUC	Maruska	8.48	351	ePN	Pn	23 27 12.8	+1.2
MAUC				eSN	Sn	23 28 45.4	-1.6
STHS	Stebnicka Huta	8.49	7	eP	Pn	23 27 12.6	+0.9
STHS	Stebnicka Huta	8.49	7	ePN	Pn	23 27 12.6	+0.9
STHS	Stebnicka Huta	8.49	7	eSG		23 29 39.9	
WTTA	Wattenberg	8.56	320	ePn	Pn	23 27 13.9	+1.0
WTTA				eSn	Sn	23 28 49.2	0.0
WTTA	Wattenberg	8.56	320	i Pn	Pn	23 27 13.9	+1.0
	comp=Z,2.6nm,0.2s,SNR=91						
WTTA				eSn	Sn	23 28 49.5	+0.3
	comp=Z,20nm,0.6s						
WTTA	Wattenberg	8.56	320	P	Pn	23 27 14.6	+1.7
	comp=Z,63nm,0.5s						
VRAC	Vranov	8.61	346	LR	LR	23 31 01.0	
	comp=Z,347nm,21.1s,baz=164,slow=41						
VRAC	Vranov	8.61	346	ePN	Pn	23 27 14.7	+1.4
WATA	Walderalm	8.64	320	ePn	Pn	23 27 15.1	+1.2
	comp=Z,3.2nm,0.2s,SNR=62						
WATA				eSn	Sn	23 28 51.4	+0.3
	comp=Z,26nm,0.6s						
MDUB	Mudurnu	8.71	90		Pn	23 27 16.0	+1.3
CKRC	Cesky Krumlov	8.73	336	eP	Pn	23 27 15.9	+1.0
CKRC	Cesky Krumlov	8.73	336	ePN	Pn	23 27 15.9	+1.0
SQTA	Sankt Quirin	8.75	318	ePn	Pn	23 27 17.0	+1.7
SQTA				eSn	Sn	23 28 52.4	-1.2
SQTA	Sankt Quirin	8.75	318	ePn	Pn	23 27 17.1	+1.7
	comp=Z,20nm,0.3s,SNR=27						
SQTA				eSn	Sn	23 28 53.5	-0.1
	comp=Z,15nm,0.4s						
FETA	Feichten	8.86	316	ePn	Pn	23 27 18.4	+1.5
FETA				eSn	Sn	23 28 56.7	+0.2
FETA	Feichten	8.86	316	ePn	Pn	23 27 18.6	+1.6
	comp=Z,18nm,0.9s						
FETA				eSn	Sn	23 28 57.5	+1.0
	comp=Z,5.2nm,0.5s						
FUORN	Ofenpass-Fuorn	8.87	313		Pn	23 27 18.2	+1.1
FUORN	Ofenpass-Fuorn	8.87	313	P	Pn	23 27 20.5	+3.3
	comp=Z,16nm,0.8s						
MOTA	Moosalm	8.88	319	ePn	Pn	23 27 18.6	+1.4
MOTA				eSn	Sn	23 28 57.1	0.0
MOTA	Moosalm	8.88	319	ePn	Pn	23 27 18.8	+1.5
	comp=Z,8.2nm,0.4s,SNR=16						
MOTA				eSn	Sn	23 28 57.4	+0.4
	comp=Z,37nm,1.0s						
MORC	Moravsky Berou	8.92	351	P	Pn	23 27 19.1	+1.5
MORC	Moravsky Berou	8.92	351	ePN	Pn	23 27 18.7	+1.1
MORC	Moravsky Berou	8.92	351	⇑P	Pn	23 27 19.2	+1.5
GEC2	GERESS Array S	8.95	333		Pn	23 27 19.2	+1.1
GEC2	GERESS Array S	8.95	333	ePn	Pn	23 27 18.9	+0.9
GEC2				eSn	Sn	23 28 59.4	+0.9
GEC2	GERESS Array S	8.95	333	P	Pn	23 27 23.4	+5.3
	comp=Z,4.6nm,0.8s						
GERES	GERESS Array B	8.95	333	Pn	Pn	23 27 18.9	+0.9
	comp=Z,0.3nm,0.3s,baz=156,slow=14,SNR=34						
GERES				Sn	Sn	23 28 56.2	-2.3
	comp=Z,0.2nm,0.3s,baz=158,slow=24,SNR=7.4						
	comp=Z,3.0nm,0.3s						
GERES				AML	AML		
GERES	GERESS Array B	8.95	333		Pn	23 27 18.7	+0.6
ELL	Elmali	8.98	115	P	Pn	23 27 20.2	+1.6
ELL	Elmali	8.98	115		Pn	23 27 20.1	+1.6
PART	Garmisch-Parte	8.98	319	ePn	Pn	23 27 19.9	+1.4
ZUGS	Zugspitze, Sch	8.99	318	ePn	Pn	23 27 20.9	+2.1
ZUGS				eSn	Sn	23 28 59.3	-0.7
RETA	Reutte	9.15	318	ePn	Pn	23 27 22.4	+1.6
RETA				eSn	Sn	23 29 02.7	-0.8
RETA	Reutte	9.15	318	ePn	Pn	23 27 22.4	+1.6
	comp=Z,5.2nm,0.4s,SNR=9.3						
RETA				eSn	Sn	23 29 02.6	-0.9
	comp=Z,12nm,0.4s						
DAVOX	Davos/Dischmat	9.18	312	Pn	Pn	23 27 22.3	+1.0
	comp=Z,1.3nm,0.3s,baz=118,slow=16,SNR=12						
DAVOX				Sn	Sn	23 28 59.1	-5.3
	comp=Z,0.6nm,0.3s,baz=337,slow=21,SNR=1.1						
DAVOX				LR	LR	23 31 58.7	
	comp=Z,253nm,20.2s,baz=120,slow=45						
	comp=Z,6.8nm,0.5s						
DAVOX				AML	AML		
BE1	Monatshausen	9.22	321	ePn	Pn	23 27 23.4	+1.7
KHC	Kasperske Hory	9.23	334	i P	Pn	23 27 20.7	-1.2
KHC	Kasperske Hory	9.23	334	ePN	Pn	23 27 23.1	+1.2
KHC				eSN	Sn	23 29 03.4	-2.0
KHC	Kasperske Hory	9.23	334		Pn	23 27 22.8	+0.9
TUE	Stuetta	9.31	309		Pn	23 27 23.7	+0.5
TUE	Stuetta	9.31	309	P	Pn	23 27 25.3	+2.2
	comp=Z,21nm,0.7s						
SORM	Soroca	9.41	38	P	Pn	23 27 26.6	+2.4
SORM	Soroca	9.41	38	⇓P	Pn	23 27 26.6	+2.4
DAVA	Damuels	9.48	315	ePn	Pn	23 27 27.5	+2.1
DAVA				eSn	Sn	23 29 11.4	-0.3
DAVA	Damuels	9.48	315	ePn	Pn	23 27 27.5	+2.1
	comp=Z,7.3nm,0.4s,SNR=4.6						
DAVA				eSn	Sn	23 29 11.7	-0.1
	comp=Z,16nm,0.5s						
DAVA	Damuels	9.48	315	P	Pn	23 27 27.7	+2.3
	comp=Z,19nm,0.7s						
UBR	Ueberruh	9.61	317	ePn	Pn	23 27 28.2	+1.1
UBR				eSn	Sn	23 29 11.9	-2.8
UBR	Ueberruh	9.61	317	P	Pn	23 27 34.4	+7.3
	comp=Z,16nm,1.2s						
PLONS	Plons/SG	9.61	312	ePn	Pn	23 27 29.2	+2.0
PLONS				eSn	Sn	23 29 11.7	-3.1
KEST	Kesra	9.71	241	Pn	Pn	23 27 27.4	-1.1
	comp=Z,0.2nm,0.3s,baz=274,slow=14,SNR=6.4						
	comp=Z,1.2nm,0.7s						
KEST				AML	AML		
KEST	Kesra	9.71	241		Pn	23 27 27.8	-0.8
BNALP	Bannalp	10.06	310	P	Pn	23 27 35.3	+2.0
	comp=Z,11nm,0.8s						
NORI	Noerdlinger Ri	10.08	323	ePn	Pn	23 27 33.9	+0.4
NORI				eSn	Sn	23 29 20.0	-6.1
ROTZ	Rotzenmuhle	10.25	331	ePn	Pn	23 27 36.0	+0.2
SENIN	Lac Senin/Sane	10.49	305		Pn	23 27 39.7	+0.3
SLE	Schleitheim	10.52	314	ePn	Pn	23 27 40.1	+0.5
ILGA	Ilgaz	10.55	85	Pn	Pn	23 27 40.7	+0.5
BR131	Keskin Array S	10.67	92	i P	Pn	23 27 43.1	+1.4
BR131	Keskin Array S	10.67	92		Pn	23 27 41.9	+0.2
BRTR	Keskin Array B	10.67	92	Pn	Pn	23 27 44.1	+2.3
	comp=Z,0.3nm,0.3s,baz=273,slow=13,SNR=11						
BRTR				LR	LR	23 32 49.5	
	comp=Z,137nm,18.9s,baz=282,slow=43						
	comp=Z,1.3nm,0.5s						
BRTR				AML	AML		
BRTR	Keskin Array B	10.67	92	P	Pn	23 27 42.9	+1.1
BRTR	Keskin Array B	10.67	92	Pn	Pn	23 27 42.9	+1.1
BRG	Berggiesshubel	10.68	340	eP	Pn	23 27 49.4	+7.8
BRG				Amp		23 27 58.9	
	comp=Z,2.2nm,0.9s						
BRG	Berggiesshubel	10.68	340	S	Sn	23 29 51.0	+10
BALST	Balsthal	10.73	310	ePn	Pn	23 27 42.7	+0.3
BALST				eSn	Sn	23 29 39.1	-3.1
BERGE	Lenzkirch (DE)	10.76	314	ePn	Pn	23 27 43.4	+0.7
STU	Stuttgart	10.79	320	P	Pn	23 27 42.6	-0.6
STU	Stuttgart	10.79	320	Pn	Pn	23 27 42.6	-0.6
BFO	Black Forest	10.95	316	P	Pn	23 27 44.4	-1.0
BFO	Black Forest	10.95	316		Pn	23 27 44.4	-1.0
BFO	Black Forest	10.95	316	ePn	Pn	23 27 45.0	-0.4
BFO				eSn	Sn	23 29 40.9	-6.6
CLL	Collm	11.32	338	eSn	Sn	23 29 35.0	-22
CLL				ex	x	23 30 49.0	
CLL				eSg		23 31 12.0	
CLL				eL	L	23 31 33.0	
CLL				AMS	AMS	23 32 00.0	
	comp=N,300nm,17.8s						
CLL				AMS	AMS	23 32 00.0	
	comp=E,300nm,18.5s						
CLL				AMS	AMS	23 32 00.0	
	comp=Z,500nm,17.4s						
ECH	Echery	11.51	313	P	Pn	23 27 52.4	-0.7
ECH	Echery	11.51	313	Pn	Pn	23 27 52.4	-0.7
ECH	Echery	11.51	313	ePn	Pn	23 27 53.1	0.0
ECH				eSn	Sn	23 29 53.8	-7.5
AKASG	Malin Array Be	11.73	31	Pn	Pn	23 27 57.4	+1.4
	comp=Z,0.4nm,0.3s,baz=220,slow=13,SNR=11						
	comp=Z,0.1nm,0.3s						
AKASG				AML	AML		
AKBB	Malin Array Si	11.73	31	eP	Pn	23 27 59.1	+3.1
AKBB	Malin Array Si	11.73	31	Pn	Pn	23 27 57.1	+1.1
CIEL	Dossenheim-sur	11.76	316	ePn	Pn	23 27 56.3	-0.2
SSB	Saint Sauveur	11.91	296	P	Pn	23 27 57.2	-1.3
SSB	Saint Sauveur	11.91	296	Pn	Pn	23 27 57.2	-1.3
TNS	Taunus Mts	12.15	323	ePn	Pn	23 28 02.3	+0.5
BNN	Bunyan	12.54	95	Pn	Pn	23 28 07.4	+0.1
TOKA	Tokat	12.72	88	Pn	Pn	23 28 10.1	+0.5
ARPR	Arapgir-MALATY	14.36	92	Pn	Pn	23 28 30.7	-1.5
MNK	Minsk	14.57	19	i P	Pn	23 28 35.9	+1.2
MNK				i S	Sn	23 31 17.5	+1.8
MNK				pmax	pmax		
	comp=N,2.0nm,0.7s						
MNK				pmax	pmax		
	comp=Z,3.0nm,0.7s						
MNK				pmax	pmax		
	comp=E,3.0nm,0.7s						
MNK				MLR	MLR		
	comp=E,291nm,14.0s						
MNK				MLR	MLR		
	comp=Z,435nm,15.0s						
MNK				MLR	MLR		
	comp=N,57nm,13.0s						
MNK	Minsk	14.57	19	i P	Pn	23 28 35.9	+1.2
	comp=E,3.0nm,0.7s						
MNK				i P	Pn	23 28 35.9	+1.2
	comp=N,2.0nm,0.7s						
MNK				i P	Pn	23 28 35.9	+1.2
	comp=Z,3.0nm,0.7s,baz=205						
MNK				i PP	PnPn	23 28 43.3	+0.7
MNK				i S	Sn	23 31 17.6	+1.8
MNK				i SS	SnSn	23 31 31.3	+3.1
MNK				i LQ	LQ	23 33 00.5	
MNK				i LR	LR	23 33 57.0	
MNK				i LRM	MLR	23 34 41.4	
	comp=E,291nm,13.9s						
MNK				i LRM	MLR	23 34 45.6	
	comp=Z,435nm,15.3s						
MNK				i LRM	MLR	23 34 46.3	
	comp=N,57nm,12.9s						
NACGM	Naroch	14.68	16	eP	P	23 28 40.3	-2.2
PABE	Paberze	14.79	9	Pn	Pn	23 28 36.9	-0.8
MMAI	Mount Meron Ar	14.81	118	Pn	Pn	23 28 36.7	-1.6
	comp=N,0.9nm,0.3s,baz=324,slow=13,SNR=5.1						
MMAI				LR	LR	23 35 24.2	
	comp=N,117nm,18.6s,baz=311,slow=42						
	comp=N,0.3nm,0.3s						
MMAI				AML	AML		
SOC	Sochi	15.00	73	eP	Pn	23 28 43.3	+2.7
SOC				e		23 31 33.0	
SOC				pmax	pmax		
	comp=Z,16nm,0.7s						
SOC				MLR	MLR		
	comp=Z,93nm,14.0s						
VSLR	Vesyoloye	15.22	74	i P	Pn	23 28 42.8	-0.8
KZIT	Kziot	15.53	126	P	P	23 28 50.6	-1.5
	comp=Z,25nm,1.0s						
KOPT	Kop Dagi	15.81	87		Pn	23 28 51.4	-0.2
GHAJ	Ghor Haditha	16.00	122	Pn	Pn	23 28 54.0	+0.3
GHAJ				IAmb	IAmb	23 29 20.4	
	comp=Z,28nm,1.2s						
ASF	Jabal al Asfar	16.32	117	Pn	Pn	23 28 58.4	+0.4
	comp=Z,0.4nm,0.3s,baz=127,slow=7.1,SNR=4.1						
ASF				LR	LR	23 35 47.9	
	comp=Z,84nm,19.9s,baz=216,slow=39						
	comp=Z,0.9nm,0.4s						
ASF				AML	AML		
HRFI	Mount Harif	16.54	127	P	P	23 29 03.6	+0.5
	comp=Z,18nm,1.2s						
EIL	Elat	16.75	128	Pn	Pn	23 29 03.0	-0.4
	comp=Z,0.4nm,0.3s,baz=126,slow=16,SNR=4.1						
EIL				Sn	Sn	23 31 58.1	-11
	comp=Z,1.3nm,0.3s,baz=52,slow=18,SNR=3.6						
	comp=Z,2.6nm,0.5s						
EIL				AML	AML		
VORD	Divnogorie	16.80	47	eP	P	23 29 07.2	+1.3
VORD				pmax	pmax		
	comp=Z,10.0nm,0.9s						
VSR	Storozhevoye	16.85	46	eP	Pn	23 29 05.2	+0.7
VSR				pmax	pmax		
	comp=Z,4.0nm,0.8s						
SHA1	Shidzhatmaz	17.14	73	i P	Pn	23 29 08.8	+0.4
KIV	Kislovodsk	17.16	72	eP	P	23 29 10.7	+0.5
KIV				pmax	pmax		
	comp=Z,6.0nm,1.1s						
KIV				MLR	MLR		
	comp=Z,55nm,14.0s						
KIV	Kislovodsk	17.16	72		Pn	23 29 08.8	+0.2
NEUR	Neytrino	17.16	75	i P	Pn	23 29 07.6	-1.1
KVAR	Kislovodsk Arr	17.17	72	P	P	23 29 09.7	-0.6
	baz=204,slow=20						
	comp=Z,1.3nm,0.7s						
EPOS	Posof	17.28	81	P	P	23 29 13.0	+1.5
	comp=Z,9.1nm,1.8s						
GURO	Guroymak-BITLI	17.29	91		Pn	23 29 10.1	-0.2
KBZ	Khabaz	17.31	73	P	P	23 29 12.0	+0.4
	comp=Z,0.2nm,0.3s,baz=305,slow=6.3,SNR=5.7						
KBZ				LR	LR	23 37 55.7	
	comp=Z,52nm,18.5s,baz=267,slow=44						
	comp=Z,2.1nm,0.8s						
KBZ				AML	AML		
KBZ	Khabaz	17.31	73	i P	P	23 29 12.6	+1.0
LPSR	Galich'ya Gora	17.46	42	eP	Pn	23 29 12.2	+0.1
LPSR				pmax	pmax		
	comp=Z,9.0nm,0.9s						
NCK	Nalchik	17.82	74	i P	P	23 29 17.7	+0.4
OBN	Obninsk	17.98	33	P	P	23 29 20.2	+1.2
	comp=Z,0.6nm,0.3s,baz=251,slow=17,SNR=3.5						
	comp=Z,5.9nm,0.4s						
OBN				AML	AML		
OBN	Obninsk	17.98	33	⇑eP	P	23 29 20.5	+1.5
OBN				eS	S	23 32 43.3	-1.3
OBN				pmax	pmax		
	comp=Z,24nm,1.7s						
OBN				MLR	MLR		
	comp=Z,162nm,16.0s						
OBN	Obninsk	17.98	33		Pn	23 29 18.0	-0.5
OBN				IAmb	IAmb	23 29 32.0	
	comp=Z,16nm,0.6s						
VSU	Vasula	18.04	12	i P	P	23 29 21.7	+2.1
ESDC	Sonseca Array	18.12	274	P	P	23 29 20.7	0.0
	baz=74,slow=12,SNR=5.0						
ESDC				LR	LR	23 36 40.1	
	comp=Z,148nm,18.7s,baz=60,slow=38						
	comp=Z,0.5nm,0.8s						
VRH	Novokhopyorsk	18.27	49	eP	Pn	23 29 21.3	-0.8
VRH				pmax	pmax		
	comp=Z,8.0nm,1.0s						
PAB	San Pablo	18.44	273	P	P	23 29 23.3	-1.0
PAB				pmax	pmax		
	comp=Z,5.0nm,1.2s						
PAB	San Pablo	18.44	273	P	P	23 29 23.3	-1.0
HAKT	HAKKARI	18.84	93	P	Pn	23 29 30.8	+1.4
	comp=Z,25nm,1.6s						
MOS	Moscow	18.85	32	eP	P	23 29 27.1	-1.4
MOS				pmax	pmax		
	comp=Z,35nm,1.1s						
MOS				MLR	MLR		
	comp=Z,400nm,13.0s						
GNI	Garni	18.99	84	P	Pn	23 29 31.3	+0.2
	comp=Z,0.3nm,0.3s,baz=1.9,slow=11,SNR=5.8						
GNI				LR	LR	23 36 59.9	
	comp=Z,49nm,21.7s,baz=284,slow=38						
	comp=Z,9.6nm,0.9s						
GNI				AML	AML		
GNI	Garni	18.99	84	i P	Pn	23 29 31.1	0.0
GNI	Garni	18.99	84	P	P	23 29 30.0	-0.4
GNI				IAmb	IAmb	23 29 35.2	
	comp=Z,12nm,1.0s						
GNI	Garni	18.99	84	P	Pn	23 29 32.1	+1.0
	comp=Z,13nm,1.1s						
HFS	Hagfors	19.53	351	P	Pn	23 29 37.6	+0.3
	comp=Z,0.3nm,0.3s,baz=149,slow=12,SNR=8.5						
HFS				LR	LR	23 36 36.7	
	comp=Z,78nm,21.9s,baz=176,slow=35						
	comp=Z,1.4nm,0.5s						
HFS				AML	AML		
NC602	NORSAR Array S	20.41	348	P	P	23 29 45.6	+0.2
NC602				IAmb	IAmb	23 30 02.1	
	comp=Z,10nm,1.1s						
MAK	Makhachkala	20.69	75c	iP	P	23 29 46.5	-2.2
MAK				eS	S	23 33 38.0	-1.2
MAK				pmax	pmax		
	comp=Z,161nm,1.1s						
MAK				MLR	MLR		
	comp=Z,299nm,14.0s						
NOA	NORSAR Array B	20.75	348	P	P	23 29 48.6	-0.6
	comp=Z,0.6nm,0.7s,baz=155,slow=10,SNR=1.9						
NOA				LR	LR	23 38 46.4	
	comp=Z,132nm,20.4s,baz=170,slow=39						
EKA	Eskdalemuir Ar	20.83	321	P	P	23 29 50.1	0.0
	comp=Z,0.7nm,0.4s,baz=112,slow=8.8,SNR=16						
	comp=Z,0.7nm,0.4s						
ESK	Eskdalemuir	20.84	321	P	P	23 29 50.0	-0.2
ESK				pmax	pmax		
	comp=Z,67nm,1.5s						
ESK	Eskdalemuir	20.84	321	P	P	23 29 50.0	-0.2
FINES	FINESS Array B	20.84	9	P	P	23 29 49.2	-0.9
	comp=Z,1.0nm,0.3s,baz=174,slow=11,SNR=16						
FINES				LR	LR	23 38 58.5	
	comp=Z,291nm,19.8s,baz=196,slow=40						
	comp=Z,1.0nm,0.3s						
FINES	FINESS Array B	20.84	9	P	P	23 29 49.0	-1.2
FIA1	FINESS Array S	20.84	9	P	P	23 29 49.2	-0.9
FIA1				IAmb	IAmb	23 29 59.7	
	comp=Z,24nm,1.1s						
MDT	Midelt	21.07	255	P	P	23 29 50.9	-2.1
	comp=Z,0.6nm,0.4s,baz=130,slow=9.2,SNR=3.9						
MDT				LR	LR	23 37 28.5	
	comp=Z,140nm,20.3s,baz=32,slow=35						
	comp=Z,0.6nm,0.4s						
MD01	Midelt array s	21.16	255	P	P	23 29 53.0	-1.1
MD31	MD31	21.16	255	P	P	23 29 53.9	-0.1
TAM	Tamanrasset	21.75	218	P	P	23 30 00.1	-0.3
TAM				pmax	pmax		
	comp=Z,28nm,0.2s						
TAM	Tamanrasset	21.75	218	P	P	23 30 00.1	-0.3
TAM	Tamanrasset	21.75	218	P	P	23 30 03.3	+2.9
	comp=Z,5.5nm,1.2s						
BELG	Belogornoye	22.11	50	P	P	23 30 04.5	+0.6
	comp=Z,16nm,0.6s,baz=48,slow=9.0,SNR=6.6						
	comp=Z,16nm,0.6s						
BELG	Belogornoye	22.11	50	i P	P	23 30 03.3	-0.6
BELG				pmax	pmax		
	comp=Z,6.0nm,1.3s						
KLMR	Klimovskoe	23.29	25	eP	P	23 30 14.9	-1.3
KLMR				pmax	pmax		
	comp=Z,31nm,1.2s						
KIRV	Kirov	25.69	37	LR	LR	23 41 47.2	
	comp=Z,366nm,18.6s,baz=241,slow=39						
AKTO	Aktyubinsk	28.06	57	LR	LR	23 43 55.8	
	comp=Z,145nm,19.6s,baz=285,slow=40						
ARCES	ARCESS Array B	28.77	4	LR	LR	23 42 51.6	
	comp=Z,96nm,21.0s,baz=206,slow=37						
AB31	Akbulak array	29.25	60	P	P	23 31 09.8	-0.6
ABKAR	Akbulak array	29.25	60	P	P	23 31 09.8	-0.7
ARTI	Arti	29.32	45	LR	LR	23 44 36.8	
	comp=Z,55nm,21.6s,baz=241,slow=40						
ARTI	Arti	29.32	45c	iP	P	23 31 10.2	-0.8

ARTI						23 32 02.6	
ARTI				S	S	23 36 06.2	+2.8
ARTI				SS	SnSn	23 37 31.6	+2.3
ARTI				pmax	pmax		
	comp=Z,13nm,1.8s						
ARTI	Arti	29.32	45	P	P	23 31 09.7	-1.3
ARTI				IAmb	IAmb	23 31 11.8	
	comp=Z,5.7nm,0.5s						
TORD	Torodi Ar. Bea	31.92	215	P	P	23 31 34.6	+0.3
	comp=Z,0.6nm,0.5s,baz=21,slow=9.3,SNR=6.6						
	comp=Z,0.6nm,0.5s						
BORG	Borgarnes	33.38	329	LR	LR	23 45 31.1	
	comp=Z,100nm,19.6s,baz=145,slow=37						
HRA	Herat	34.00	87	P	P	23 31 51.2	-1.5
HRA				IAmb	IAmb	23 31 55.5	
	comp=Z,3.1nm,1.1s						
BORK	Borovoye	35.78	53	*i* P	P	23 32 07.4	-0.2
BORK				pmax	pmax		
	comp=Z,7.0nm,0.8s						
BORK	Borovoye	35.78	53	P	P	23 32 07.0	-0.6
BORK				IAmb	IAmb	23 32 08.8	
	comp=Z,6.2nm,0.7s						
BVAR	Borovoye Array	35.83	53	P	P	23 32 08.2	+0.2
	comp=Z,3.5nm,0.7s,baz=262,slow=4.5,SNR=16						
	comp=Z,3.5nm,0.7s						
AAK	Ala-Archa	40.23	69	LR	LR	23 53 16.9	
	comp=Z,57nm,18.9s,baz=288,slow=42						
DBIC	Dimbokro	40.62	219	P	P	23 32 47.8	-0.9
	comp=Z,3.1nm,0.7s,baz=21,slow=8.8,SNR=4.6						
	comp=Z,3.1nm,0.7s						
DBIC	Dimbokro	40.62	219	P	P	23 32 47.9	-0.7
KURBB	Kurchatov Arra	41.09	56	P	P	23 32 52.0	-0.1
	comp=Z,1.5nm,0.5s,baz=287,slow=9.6,SNR=23						
KURBB				LR	LR	23 50 26.1	
	comp=Z,62nm,18.4s,baz=181,slow=37						
	comp=Z,1.5nm,0.5s						
KURK	Kurchatov	41.13	56	*ce*P	P	23 32 53.0	+0.5
KURK				pmax	pmax		
	comp=Z,4.0nm,1.0s						
KURK	Kurchatov	41.13	56		P	23 32 51.5	-1.0
KURK				IAmb	IAmb	23 32 54.3	
	comp=Z,3.0nm,0.5s						
ZAA0	Zalesovo Array	44.30	50		P	23 33 17.4	-0.8
ZAA0				IAmb	IAmb	23 33 18.8	
	comp=Z,6.7nm,0.7s						
ZALV	Zalesovo Beam	44.30	50	P	P	23 33 18.0	-0.2
	comp=Z,8.5nm,0.5s,baz=278,slow=8.5,SNR=42						
ZALV				LR	LR	23 54 31.4	
	comp=Z,91nm,19.7s,baz=330,slow=40						
	comp=Z,8.5nm,0.5s						
ZALV	Zalesovo Beam	44.30	50		P	23 33 17.6	-0.6
MKAR	Makanchi Array	44.38	61	P	P	23 33 18.3	-0.7
	comp=Z,0.7nm,0.3s,baz=282,slow=7.6,SNR=27						
MKAR				LR	LR	23 53 11.9	
	comp=Z,70nm,20.0s,baz=306,slow=38						
	comp=Z,0.7nm,0.3s						
MKAR	Makanchi Array	44.38	61	P	P	23 33 18.1	-0.9
MK31	Makanchi Array	44.39	61	*i* P	P	23 33 18.8	-0.2
NRIK	Noril'sk	44.57	28	P	P	23 33 18.4	-1.8
	comp=Z,2.1nm,0.4s,baz=111,slow=3.4,SNR=2.0						
NRIK				LR	LR	23 53 13.5	
	comp=Z,78nm,18.5s,baz=312,slow=38						
	comp=Z,2.1nm,0.4s						
SFJD	Kangerlussuaq	45.51	329	LR	LR	23 53 51.3	
	comp=Z,114nm,18.8s,baz=168,slow=38						
DGZ	Jazzator, Alta	46.87	55	*e*P	P	23 33 38.0	-0.8
DGZ				pmax	pmax		
	comp=Z,5.0nm,1.9s						
WMQ	Urumqi	48.95	63	*e*P	P	23 33 55.8	+0.9
WMQ				pmax	pmax		
	comp=Z,9.0nm,0.7s						
EVN	Everest	55.55	81	P	P	23 34 42.8	-2.1
TLY	Talaya	55.84	48	LR	LR	00 00 20.8	
	comp=Z,88nm,19.9s,baz=308,slow=38						
TIXI	Tiksi	57.23	21	LR	LR	00 02 48.7	
	comp=Z,212nm,18.3s,baz=332,slow=40						
TIXI	Tiksi	57.23	21	*i* P	P	23 34 57.8	+2.5
TIXI				pmax	pmax		
	comp=Z,4.0nm,0.7s						
SONM	Songino Array	59.15	52	P	P	23 35 09.4	+0.1
	comp=Z,2.8nm,1.1s,baz=282,slow=7.4,SNR=9.5						
	comp=Z,2.8nm,1.1s						
SONM	Songino Array	59.15	52	P	P	23 35 08.2	-1.2
SONM				IAmb	IAmb	23 35 11.4	
	comp=Z,7.0nm,1.4s						
ULN	Ulaanbaatar	59.53	51	*ce*P	P	23 35 13.6	+1.6
ULN				pmax	pmax		
	comp=Z,3.0nm,1.3s						
TSUM	Tsumeb	59.92	182	LR	LR	00 04 00.9	
	comp=Z,25nm,18.9s,baz=358,slow=39						
LZH	Lanzhou	63.49	64	*e*P	P	23 35 42.0	+3.0
LZH				sP	sP	23 35 53.3	+7.1
LZH				pmax	pmax		
	comp=Z,22nm,1.1s						
HHC	Hu-ho-hao-te	65.94	56	*e*P	P	23 35 55.8	+1.0
HHC				pmax	pmax		
	comp=Z,10.0nm,0.6s						
PZH	PanZhiHua	67.38	74	P	P	23 36 05.8	+1.6
XAN	Xi'an	68.08	64	P	P	23 36 05.3	-3.2
BOSA	Boshof	69.44	175	P	P	23 36 16.9	+0.1
BOSA				pmax	pmax		
	comp=Z,9.0nm,1.5s						
BOSA	Boshof	69.44	175	P	P	23 36 16.9	+0.1
CMAR	Chiang Mai Arr	70.10	83	P	P	23 36 19.7	-1.4
	comp=Z,1.6nm,0.3s,baz=328,slow=5.2,SNR=2.1						
	comp=Z,1.6nm,0.3s						
YKA	Yellowknife Ar	70.55	339	P	P	23 36 22.6	-0.6
	comp=Z,1.0nm,0.7s,baz=59,slow=4.3,SNR=2.6						
	comp=Z,1.0nm,0.7s						
MA2	Magadan	71.96	24	LR	LR	00 11 54.0	
	comp=Z,102nm,19.1s,baz=314,slow=39						
KLR	Kul'dur	72.09	40	LR	LR	00 10 03.2	
	comp=Z,61nm,18.7s,baz=306,slow=37						
CN2	Changchun	72.40	47	*e*P	P	23 36 38.1	+3.5
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
ILAR	Eielson Array	74.05	354	P	P	23 36 44.2	+0.2
	comp=Z,0.5nm,0.7s,baz=3.3,slow=6.7,SNR=4.1						
	comp=Z,0.5nm,0.7s						
USRK	Ussuriysk Ar.	75.64	43	LR	LR	00 13 58.7	
	comp=Z,158nm,18.1s,baz=356,slow=39						
DLBC	Dease Lake	77.78	344	LR	LR	00 14 15.9	
	comp=Z,76nm,18.2s,baz=82,slow=38						
KSRS	Korea Array	78.00	51	LR	LR	00 16 51.3	
	comp=Z,33nm,18.2s,baz=315,slow=40						
ASAJ	Asahikawa	80.93	38	LR	LR	00 16 59.3	
	comp=Z,95nm,19.0s,baz=92,slow=38						
KDAK	Kodiak Island	81.38	356	P	P	23 37 23.3	-1.6
	comp=Z,4.5nm,0.6s,baz=90,slow=4.0,SNR=1.3						
	comp=Z,4.5nm,0.6s						
KDAK	Kodiak Island	81.38	356	P	P	23 37 23.8	-1.2
KDAK				pmax	pmax		
	comp=Z,62nm,1.4s						
KDAK	Kodiak Island	81.38	356	P	P	23 37 23.8	-1.2
JNU	Nakatsue	82.74	52	LR	LR	00 19 42.3	
	comp=Z,92nm,18.4s,baz=336,slow=40						
MJAR	Matsushiro Arr	84.44	45	LR	LR	00 19 25.5	
	comp=Z,74nm,18.1s,baz=18,slow=39						
TXAR	Lajitas Array	92.61	313	P	P	23 38 22.2	+1.6
	comp=Z,0.2nm,0.8s,baz=5.9,slow=6.2,SNR=3.9						
	comp=Z,0.2nm,0.8s						

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*NEIC **23** 23:32:54.8±1.6, 9°.88N±0°.05×126°.2E±0°.1, h15^{km}±3^{km}, mb4.5/36, Error ellipse: s-maj=19.2km s-min=7.6km az=82.0*

*MAN **23** 23:32:59.0, 10°.04N×126°.16E, h11^{km}, MS4.4*

MAN INTENSITY IV - BURGOS SURIGAO DEL NORTE; . INTENSITY III - GENERAL LUNA SURIGAO DEL NORTE; . INTENSITY II - SOCORRO SURIGAO DEL NORTE.

*IDC **23** 23:33:00.0±1.9, 10°.14N×126°.34E, h53^{km}±16^{km}, mb3.9/21, mbtmp4.1/23, ML4.2/2, MS3.2/11, Error ellipse: s-maj=23.5km s-min=10.2km az=77.0*

ISC 23 23:32:56.6±1.2, **9°.95N**±0°.03×**126°.13E**±0°.05, **h31**^{km}±8^{km}, **n111**, σ1^{s}**44**/113, **mb4.3**/37, **MS3.1**/8, **Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLP	Palo	1.66	317	*e*P	Pb	23 33 26.6	+0.1
PLP				*e*S	Sb	23 33 48.6	+1.6
BIPH	Bislig	1.77	173	*i* P	Pb	23 33 28.0	-0.4
BIPH				*e*S	Sb	23 33 49.7	-0.5
CGP	Cagayan de Oro	2.05	224	*i* P	Pb	23 33 34.1	+0.9
CGP				*i* S	Sb	23 34 00.7	+2.3
LLP	Lapu-Lapu	2.16	280	*e*P	Pb	23 33 36.0	+0.9
LLP				*i* S	Sb	23 34 03.1	+1.6
CDOP	Cateel, Davao	2.17	172	*i* P	Pb	23 33 33.8	-1.5
CDOP				*i* S	Sb	23 34 08.4	+6.6
TBP	Tagbilaran	2.25	264	*e*P	Pb	23 33 37.2	+0.6
TBP				*i* S	Sb	23 34 05.6	+1.5
BUKP	Musuan	2.31	207	*i* P	Pb	23 33 38.6	+1.0
BUKP				*i* S	Sb	23 34 09.6	+3.8
LSIP	Lazi, Siquijor	2.60	252	*i* P	Pb	23 33 42.5	0.0
LSIP				*e*S	Sb	23 34 15.2	+1.3
DAV	Davao City (W)	2.91	191	P	Pb	23 33 45.3	-2.6
	98nm,0.3s,baz=174,slow=5.6,SNR=3.7						
DAV				S	Sb	23 34 25.3	+2.3
	194nm,0.4s,baz=113,slow=23,SNR=6.1						
DAV				LR	LR	23 35 25.3	
	comp=Z,658nm,21.2s,baz=16,slow=46						
	109nm,0.3s						
DAV				AML	AML		
DAV	Davao City (W)	2.91	191		Pn	23 33 38.0	-2.8
DAV				Sn	Sn	23 34 13.8	-1.0
DMPH	Davao City--Mi	2.91	192	*e*P	Pb	23 33 48.4	+0.4
DMPH				*i* S	Sb	23 34 24.3	+1.2
SNPH	Sibulan	2.92	258	*i* P	Pb	23 33 47.1	-0.9
SNPH				*e*S	Sb	23 34 29.5	+6.2
DCPH	Dipolog City	3.06	244	*i* P	Pb	23 33 48.2	-2.2
DCPH				*i* S	Sb	23 34 36.2	+8.9
KCP	Kidapawan	3.10	199	*e*P	Pb	23 33 50.0	-1.1
KCP				*i* S	Sb	23 34 29.8	+1.4
CTBH	Cotabato--PC H	3.29	215	*i* P	Pb	23 33 52.3	-2.0
PAGZ	Pagadian	3.42	233	*e*P	Pb	23 33 54.3	-2.4
PAGZ				*i* S	Sb	23 34 37.5	-0.4
MMPH	Masbate	3.43	314	*e*P	Pb	23 33 55.8	-0.9
MMPH				*i* S	Sb	23 34 35.7	-2.4
GUIM	Jordan	3.55	281	*i* P	Pb	23 33 55.2	-3.6
GUIM				*i* S	Sb	23 34 38.3	-3.1
JAP	San Jose, Anti	4.19	281	*e*P	Pb	23 34 05.7	-4.0
IBAJ	Ibajay, Aklan	4.31	296	*e*P	Pn	23 33 54.9	-5.2
LQP	Lukban	6.11	313	*e*P	Pn	23 34 31.2	+6.3
PPR	Puerto Princes	7.29	269	*i* P	Pn	23 34 48.2	+7.2
YULB	Yu-li	14.14	342	Pn	Pn	23 36 15.3	+0.4
FAKI	Fak Fak	14.16	154	Pn	Pn	23 36 14.0	-1.1
TPUB	Ta-pu	14.28	339	Pn	Pn	23 36 16.8	0.0
SBUM	Sibu	15.70	243		P	23 36 38.0	-1.4
KAPI	Kappang	16.16	203	LR	LR	23 43 41.9	
	comp=Z,89nm,19.4s,baz=16,slow=39						
GUMO	Guam	18.70	77	LR	LR	23 45 18.2	
	comp=Z,51nm,18.1s,baz=249,slow=40						
JAY	Jayapura	19.08	130	P	Pn	23 37 17.6	-0.1
	0.2nm,0.3s,baz=237,slow=3.7,SNR=3.6						
	8.9nm,0.8s						
JAY				AML	AML		
BATI	Baumata	20.17	187	P	P	23 37 28.7	0.0
	22nm,0.4s,baz=68,slow=1.0,SNR=4.6						
MTN	Manton Dam	23.18	168	P	P	23 37 59.5	-1.3
MTN				IAmb	IAmb	23 38 27.4	
	comp=Z,13nm,1.4s						
JNU	Nakatsue	23.47	10	LR	LR	23 48 26.9	
	comp=Z,24nm,18.1s,baz=176,slow=40						
KNRA	Kununurra	25.59	174	P	P	23 38 22.7	-0.4
KNRA				IAmb	IAmb	23 38 36.5	
	comp=Z,4.5nm,0.6s						
KSRS	Korea Array	27.43	3	LR	LR	23 51 01.4	
	comp=Z,17nm,19.3s,baz=15,slow=40						
CM31	Chiang Mai Arr	27.65	291	P	P	23 38 41.6	-0.2
CM31				IAmb	IAmb	23 38 56.5	
	comp=Z,7.7nm,0.5s						
CMAR	Chiang Mai Arr	27.65	291	P	P	23 38 44.0	+2.2
	comp=Z,1.4nm,0.5s,baz=106,slow=7.5,SNR=9.1						
CMAR				LR	LR	23 51 08.4	
	comp=Z,41nm,18.6s,baz=120,slow=39						
	comp=Z,1.4nm,0.5s						
CMAR	Chiang Mai Arr	27.65	291	P	P	23 38 42.4	+0.6
FITZ	Fitzroy Crossi	27.87	181	P	P	23 38 42.3	-1.4
PMG	Port Moresby	28.42	132	LR	LR	23 51 24.4	
	comp=Z,43nm,19.8s,baz=177,slow=39						
MJAR	Matsushiro Arr	28.65	21	LR	LR	23 48 02.6	
	comp=Z,63nm,21.8s,baz=178,slow=32						
WB0	Warramunga Arr	30.63	165	P	P	23 39 05.8	-2.4
WRA	Warramunga Arr	30.78	165	P	P	23 39 10.2	+0.7
	comp=Z,1.2nm,1.0s,baz=347,slow=9.1,SNR=4.6						
WRA				ScP	ScP	23 45 46.6	-0.6
	comp=Z,0.3nm,0.6s,baz=357,slow=2.6,SNR=1.8						
	comp=Z,1.2nm,1.0s						
WRA	Warramunga Arr	30.78	165	P	P	23 39 08.3	-1.3
AS31	Alice Springs	34.26	167	P	P	23 39 38.9	-1.1
ASAR	Alice Springs	34.26	167	P	P	23 39 41.5	+1.4
	comp=Z,0.6nm,0.4s,baz=352,slow=7.1,SNR=10						
ASAR				PcP	PcP	23 42 16.2	0.0
	comp=Z,0.4nm,0.7s,baz=341,slow=3.3,SNR=2.0						
ASAR				ScP	ScP	23 45 57.0	-2.1
	comp=Z,0.6nm,0.8s,baz=347,slow=4.5,SNR=3.3						
	comp=Z,0.6nm,0.4s						
ASAR	Alice Springs	34.26	167	P	P	23 39 39.3	-0.7
USRK	Ussuriysk Ar.	34.50	7	P	P	23 39 42.9	+1.1
BRDH	Bariadhala	35.34	295	LR	LR	23 54 56.1	
	comp=Z,89nm,21.2s,baz=112,slow=37						
HNR	Honiara	38.77	119	LR	LR	23 54 34.7	
	comp=Z,38nm,19.8s,baz=10.0,slow=34						
HILR	Hailar Array B	39.84	354	P	P	23 40 28.2	+1.0
	comp=Z,1.2nm,0.4s,baz=157,slow=7.8,SNR=2.5						
	comp=Z,1.2nm,0.4s						
H11S3	WAKE ISLAND Hy	40.14	73	T	T	00 23 27.9	
	baz=251,slow=79,SNR=64						
H11S1	WAKE ISLAND Hy	40.16	73	T	T	00 23 27.2	
	baz=251,slow=79,SNR=40						
H11S2	WAKE ISLAND Hy	40.16	73	T	T	00 23 28.3	
	baz=251,slow=79,SNR=43						
H11N1	WAKE ISLAND Hy	40.49	71	T	T	00 23 54.5	
	baz=261,slow=74,SNR=238						
H11N2	WAKE ISLAND Hy	40.49	71	T	T	00 23 55.0	
	baz=261,slow=74,SNR=137						
H11N3	WAKE ISLAND Hy	40.51	71	T	T	00 23 55.9	
	baz=261,slow=74,SNR=176						
FORT	Forrest	40.53	177	P	P	23 40 32.4	-0.6
FORT				IAmb	IAmb	23 40 50.9	
	comp=Z,18nm,1.3s						
EVN	Everest	41.04	301	P	P	23 40 37.8	-0.2
EVN				IAmb	IAmb	23 41 09.6	
	comp=Z,8.6nm,1.3s						
ULN	Ulaanbaatar	41.08	340	P	P	23 40 37.4	-0.2
SONM	Songino Array	41.27	340	P	P	23 40 40.4	+1.3
	comp=Z,0.6nm,0.3s,baz=156,slow=8.4,SNR=5.3						
SONM				ScP	ScP	23 46 25.1	-0.2
	comp=Z,0.6nm,0.5s,baz=157,slow=6.3,SNR=4.4						
	comp=Z,0.6nm,0.3s						
SONM	Songino Array	41.27	340	P	P	23 40 38.7	-0.4
NWAO	Narrogin (SRO)	43.47	191	P	P	23 40 56.1	-0.9
BBOO	Buckleboo	43.56	168	P	P	23 40 57.3	-0.4
STKA	Stephens Creek	44.14	161	P	P	23 41 03.8	+1.4
	comp=Z,1.6nm,0.4s,baz=354,slow=6.1,SNR=7.7						
	comp=Z,1.6nm,0.4s						
PALK	Pallekele	44.97	270	LR	LR	00 01 10.0	
	comp=Z,41nm,18.7s,baz=86,slow=37						
PETK	Petropavlovsk-	49.99	24	P	P	23 41 48.6	+0.8
	comp=Z,4.9nm,1.1s,baz=227,slow=6.9,SNR=2.3						
	comp=Z,4.9nm,1.1s						
PETK	Petropavlovsk-	49.99	24	P	P	23 41 47.8	0.0
MKAR	Makanchi Array	52.20	323	P	P	23 42 05.4	+0.9
	comp=Z,2.3nm,0.7s,baz=122,slow=8.3,SNR=27						
MKAR				PcP	PcP	23 43 16.7	+0.8
	comp=Z,0.7nm,0.6s,baz=109,slow=6.1,SNR=1.3						
	comp=Z,2.3nm,0.7s						
MKAR	Makanchi Array	52.20	323	P	P	23 42 04.7	+0.1
PDGK	Podgornoye	52.34	318	P	P	23 42 06.4	+0.6
MAKZ	Makanchi	52.39	323	P	P	23 42 06.4	+0.5
MAKZ				IAmb	IAmb	23 42 11.1	
	comp=Z,4.0nm,1.1s						
ZALV	Zalesovo Beam	54.84	331	P	P	23 42 23.4	-0.3
	comp=Z,0.9nm,0.3s,baz=111,slow=8.0,SNR=5.4						
	comp=Z,0.9nm,0.3s						
KURK	Kurchatov	56.25	326	P	P	23 42 34.1	+0.2
KURK				IAmb	IAmb	23 42 42.8	
	comp=Z,3.4nm,0.6s						
KURBB	Kurchatov Arra	56.26	326	P	P	23 42 34.7	+0.7
	comp=Z,1.6nm,0.6s,baz=122,slow=7.6,SNR=20						
	comp=Z,1.6nm,0.6s						
KKAR	Karatay Array	58.38	315	P	P	23 42 48.7	-0.4
TIXI	Tiksi	61.67	1	P	P	23 43 11.3	+0.1
BVAR	Borovoye Array	61.85	326	P	P	23 43 13.3	+0.6
	comp=Z,1.2nm,0.6s,baz=126,slow=9.3,SNR=5.8						
	comp=Z,1.2nm,0.6s						
AB31	Akbulak array	67.03	319	P	P	23 43 46.3	-0.3
ABKAR	Akbulak array	67.03	319	P	P	23 43 46.5	-0.2
L18K	Granite Mounta	75.28	28	P	P	23 44 38.3	+1.9
L18K				IAmb	IAmb	23 44 51.2	
	comp=Z,7.8nm,1.3s						
J20K	Nowinta River	76.63	26	P	P	23 44 45.7	+1.7
J20K				IAmb	IAmb	23 45 02.6	
	comp=Z,8.0nm,1.4s						
CASY	Casey	76.89	186	P	P	23 44 45.9	+0.6
CASY				IAmb	IAmb	23 45 20.1	
	comp=Z,9.9nm,1.2s						
M20K	Styx River	76.92	29	P	P	23 44 46.3	+0.4
M20K				IAmb	IAmb	23 45 00.5	
	comp=Z,7.0nm,1.4s						
IMAR	Indian Mountai	76.95	24	P	P	23 44 47.2	+1.4
CAST	Castle Rocks	77.49	27	P	P	23 44 49.9	+1.0
CAST				IAmb	IAmb	23 44 52.3	
	comp=Z,9.4nm,1.3s						
RAYN	Ar Rayn	77.56	292	P	P	23 44 50.0	-0.1
RAYN				IAmb	IAmb	23 45 13.3	
	comp=Z,3.5nm,1.1s						
SUA	Susitna One	78.04	29	P	P	23 44 52.5	+0.3
KBZ	Khabaz	78.32	313	P	P	23 44 54.1	+0.3
	comp=Z,1.8nm,0.9s,baz=63,slow=4.5,SNR=3.6						
	comp=Z,1.8nm,0.9s						
GURO	Guroymak-BITLI	79.28	307	P	P	23 45 00.3	+0.8
GURO				IAmb	IAmb	23 45 05.1	
	comp=Z,4.2nm,0.7s						
ILAR	Eielson Array	79.79	26	P	P	23 45 00.7	-0.8
	comp=Z,0.5nm,0.8s,baz=236,slow=6.8,SNR=4.1						
	comp=Z,0.5nm,0.8s						
BMAR	Burnt Mountain	80.62	23	P	P	23 45 07.6	+1.6
BCAR	Beaver Creek A	82.16	27	P	P	23 45 16.5	+2.3
ARCES	ARCESS Array B	84.45	340	P	P	23 45 26.1	+0.3
	comp=Z,5.9nm,0.9s,baz=70,slow=5.1,SNR=3.9						
	comp=Z,5.9nm,0.9s						
ARCES	ARCESS Array B	84.45	340	P	P	23 45 25.9	+0.1
BRTR	Keskin Array B	85.63	309	P	P	23 45 32.5	-0.1
	comp=Z,1.3nm,0.9s,baz=103,slow=3.8,SNR=8.6						
	comp=Z,1.3nm,0.9s						
BRTR	Keskin Array B	85.63	309	P	P	23 45 31.8	-0.8
FIA1	FINESS Array S	86.11	332	P	P	23 45 34.3	0.0
FINES	FINESS Array B	86.11	332	P	P	23 45 34.7	+0.4
	comp=Z,1.4nm,0.3s,baz=69,slow=4.4,SNR=44						
	comp=Z,1.4nm,0.3s						
FINES	FINESS Array B	86.11	332	P	P	23 45 34.5	+0.3
CSS	Mathiatis	86.65	305	P	P	23 45 38.1	+0.5
AKASG	Malin Array Be	86.72	321	P	P	23 45 37.4	-0.1
	comp=Z,0.3nm,0.3s,baz=66,slow=5.1,SNR=3.0						
	comp=Z,0.3nm,0.3s						
ELL	Elmali	89.06	307	P	P	23 45 48.4	-0.8
VNDA	Vanda	89.63	173	P	P	23 45 52.5	+1.8
	comp=Z,0.5nm,0.7s,baz=332,slow=7.7,SNR=5.2						
	comp=Z,0.5nm,0.7s						
VNDA	Vanda	89.63	173	P	P	23 45 51.0	+0.3
VNDA				IAmb	IAmb	23 46 09.3	
	comp=Z,2.5nm,1.1s						
BURAR	Bucovina Array	89.99	318	P	P	23 45 53.4	+0.1
BURAR				IAmb	IAmb	23 45 58.2	
	comp=Z,1.6nm,0.8s						
BUR08	Bucovina Ar. S	89.99	318	P	P	23 45 53.5	+0.1
BUR08				IAmb	IAmb	23 46 04.4	
	comp=Z,3.0nm,1.2s						
HFS	Hagfors	92.27	332	P	P	23 46 03.4	0.0
	comp=Z,0.6nm,0.5s,baz=77,slow=6.5,SNR=4.2						
	comp=Z,0.6nm,0.5s						
NOA	NORSAR Array B	92.98	334	P	P	23 46 06.7	-0.1
	comp=Z,1.2nm,1.1s,baz=65,slow=4.9,SNR=3.3						
	comp=Z,1.2nm,1.1s						
GERES	GERESS Array B	96.86	322	P	P	23 46 25.5	+0.7
	comp=Z,0.4nm,0.2s,baz=35,slow=4.9,SNR=4.0						
	comp=Z,0.4nm,0.2s						
TORD	Torodi Ar. Bea	120.26	292	PKP	PKPdf	23 51 45.8	+0.2
	comp=Z,0.5nm,0.7s,baz=47,slow=1.8,SNR=6.0						
PLCA	Paso Flores	145.97	157	PKPbc	PKiKP	23 52 36.0	-1.0
	comp=Z,2.5nm,0.9s,baz=223,slow=2.6,SNR=5.2						

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*SNET **23** 23:36:19.5±0.4, 12°.45N×87°.74W, h69^{km}±16^{km}, ML3.4, Presumed earthquake*

*CATAC **23** 23:36:19.8±0.4, 12°N±3°×8°8W±°, h37^{km}±4^{km}, M4.0/24, MLv4.0/24, Error ellipse: s-maj=7.0km s-min=2.2km az=32.5, confirmed*

ISC 23 23:36:19.5±1.5, **12°.38N**±0°.08×**87°.72W**±0°.05, **h65**^{km}±17^{km}, **n34**, σ**0**^{s}**55**/55, **Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
POTN	Potosi Cosigui	0.65	19	P	Pn	23 36 33.2	-0.2
POTN				S	Sn	23 36 43.6	-0.1
CRIN	San Cristobal	0.73	64	P	Pn	23 36 35.1	+0.6
CRIN				S	Sn	23 36 46.2	+0.7
PKGN	Cerro Pekin	0.78	69	P	Pn	23 36 36.2	+1.1
PKGN				S	Sn	23 36 47.5	+1.0
INTP	Intipuca	0.87	338	*e*P	Pn	23 36 35.8	-0.4
INTP				*e*S	Sn	23 36 48.2	-0.3
QUEN	Al S del Volca	0.88	76	P	Pn	23 36 35.9	-0.3
QUEN				S	Sn	23 36 48.8	+0.2
CNCH	Conchagua	0.90	353	*e*P	Pn	23 36 36.1	-0.5
CNCH				*e*S	Sn	23 36 49.5	+0.3
CNCH	Conchagua	0.90	353	P	Pn	23 36 36.2	-0.3
CNCH				S	Sn	23 36 49.5	+0.3
TELN	Telica	0.90	76	P	Pn	23 36 35.9	-0.7
TELN				S	Sn	23 36 49.3	+0.2
LCND	La Caada	0.94	350	P	Pn	23 36 36.9	-0.1
PLRN	Geotermica Pol	0.95	78	P	Pn	23 36 36.7	-0.4
PLRN				S	Sn	23 36 49.5	-0.7
CNGA	Al SSO del Vol	1.00	84	P	Pn	23 36 37.7	-0.2
CNGA				S	Sn	23 36 51.0	-0.4
CNGN	Cerro Negro	1.01	83	P	Pn	23 36 37.7	-0.2
CNGN				S	Sn	23 36 51.8	+0.2
COPN	Copaltepe	1.12	100	P	Pn	23 36 39.0	-0.4
MOMN	Momotombo	1.16	89	P	Pn	23 36 38.6	-1.2
MOMN				S	Sn	23 36 53.2	-1.8
RANC	El Ranchito	1.18	332	P	Pn	23 36 40.5	+0.2
RANC				S	Sn	23 36 55.9	+0.2
MOM2	El Cardon	1.21	87	P	Pn	23 36 40.3	-0.1
MOM2				S	Sn	23 36 56.1	-0.1
PACA	Pacayal	1.23	332	P	Pn	23 36 41.2	+0.3
PACA				S	Sn	23 36 56.9	+0.1
ALJI	Alcalda de J	1.25	319	*e*S	Sn	23 36 56.6	-0.5
ALJI	Alcalda de J	1.25	319	S	Sn	23 36 56.6	-0.5
AESN	El Sauce Leon	1.26	66	P	Pn	23 36 40.4	-0.8
AESN				S	Sn	23 36 57.0	-0.3
AMTN	Mateare	1.27	96	S	Sn	23 36 57.8	+0.3
ABCN	Banco Central	1.41	100	S	Sn	23 37 00.7	-0.1
UNAN	Cigeo UNAN	1.45	101	P	Pn	23 36 43.8	+0.2
UNAN				S	Sn	23 37 01.7	0.0
MGAN	Managua	1.46	99	S	Sn	23 37 01.9	-0.2
WILN	Americas 2	1.52	98	P	Pn	23 36 45.0	+0.4
WILN				S	Sn	23 37 03.5	+0.1
TECO	Alcaldia de Te	1.54	318	S	Sn	23 37 03.6	-0.5
MAS3	Al N del Volca	1.55	103	P	Pn	23 36 44.9	-0.2
MAS3				S	Sn	23 37 04.1	-0.3
MASN	Masaya	1.59	104	S	Sn	23 37 05.6	+0.4
NANN	Nandasmo	1.63	106	P	Pn	23 36 46.7	+0.7
NANN				S	Sn	23 37 07.2	+1.1
COEG	Centro de Oper	1.67	318	*e*S	Sn	23 37 07.3	+0.1
TGUH	Tegucigalpa,Un	1.72	15	P	Pn	23 36 47.8	+0.3
TGUH				S	Sn	23 37 08.8	+0.2
OCON	Estacion meteo	1.74	44	P	Pn	23 36 48.0	+0.4
MATN	Matagalpa	1.84	73	P	Pn	23 36 48.5	-0.4
CEVE	Cerro Verde	2.34	308	*e*P	Pn	23 36 56.3	+0.3

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*TIR **23** 23:37:41.6, 41°.01N×19°.92E, h26^{km}±1^{km}, Ml2.6/5*

*BEO **23** 23:37:42.5±0.4, 40°.98N×19°.69E, h25^{km}±4^{km}, ML2.7/17*

ISC 23 23:37:40.5±1.1, **40°.99N**±0°.02×**19°.74E**±0°.03, **h13**^{km}±9^{km}, **n45**, σ**1**^{s}**30**/71, **Albania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TIR	Tirane	0.37	15	P	Pg	23 37 46.7	-1.2
TIR				S	Sb	23 37 55.1	+0.6
TIR				AML	AML	23 38 00.3	
	2.2nm,0.3s						
TIR				AML	AML	23 38 02.8	
	2.0nm,0.4s						
VLO	Vlora	0.56	200	P	Pn	23 37 53.6	-0.4
VLO				S	Sn	23 38 02.5	-0.6
VLO				AML	AML	23 38 06.6	
	3.2nm,0.5s						
VLO				AML	AML	23 38 06.7	
	4.4nm,0.4s						
OHR	Ohrid	0.81	81	*i* Pg	Pb	23 37 55.5	-1.0
OHR				*i* Sg	Sn	23 38 08.2	-1.3
PHP	Peshkopia	0.87	37	P	Pg	23 37 55.5	-1.9
PHP				S	Sb	23 38 08.9	-0.1

PHP				AML	AML	23 38 11.6	
	0.9nm,0.2s						
KBN	Korca	0.88	115	P	Pb	23 37 56.1	-1.4
KBN				S	Sb	23 38 09.0	-0.2
KBN				AML	AML	23 38 10.1	
	1.1nm,0.5s						
SRN	Sarande	1.13	170	P	Pn	23 38 02.8	+0.9
SRN				S	Sn	23 38 20.0	+2.7
SRN				AML	AML	23 38 23.2	
	0.4nm,0.6s						
PDG	Podgorica	1.48	346	P	Pg	23 38 09.4	+0.5
PDG				S	Sg	23 38 30.8	+2.6
PDG	Podgorica	1.48	346	*e*Pg	Pg	23 38 09.1	+0.1
PDG				*e*Sg	Sg	23 38 29.8	+1.6
IGT	Igoumenitsa	1.53	163	*e*Pg	Pg	23 38 09.8	0.0
IGT				*e*Sg	Sg	23 38 30.9	+1.3
SKO	Skopje	1.61	52	*i* Pg	Pg	23 38 11.3	0.0
SKO				*i* Sg	Sg	23 38 32.5	+0.2
DBRK	Dubrovnik	2.06	325	*e*Pn	Pn	23 38 15.5	+0.8
VAY	Valandovo	2.16	80	*i* Pn	Pn	23 38 16.6	+0.5
SJES	Sjenica	2.27	4	*e*Pn	Pn	23 38 19.6	+1.8
SJES				*e*Sn	Sn	23 38 46.6	+0.8
BARS	Barje	2.39	40	*e*Pn	Pb	23 38 21.4	-2.0
BARS				*e*Sn	Sn	23 38 50.0	+1.5
STON	Ston	2.42	322	*i* Pn	Pn	23 38 20.3	+0.6
STON				Sn	Sn	23 38 49.4	+0.3
STON	Ston	2.42	322	*e*Pn	Pn	23 38 20.2	+0.6
STON				*e*Sn	Sn	23 38 49.1	0.0
SELS	Selova	2.45	24	*e*Pn	Pn	23 38 20.8	+0.6
SELS				*e*Sn	Sn	23 38 51.7	+1.7
IVAS	Ivanjica	2.60	7	*e*Pn	Pn	23 38 23.8	+1.5
IVAS				*e*Sn	Sn	23 38 54.1	+0.4
LSTV	Lastovo	2.77	311	*e*Pn	Pn	23 38 25.5	+1.0
LSTV				Sn	Sn	23 38 57.6	-0.2
BBLS	Lazi&#263i	2.88	355	*e*Pn	Pn	23 38 27.7	+1.5
GRUS	Gruza	2.98	14	*e*Pn	Pn	23 38 29.2	+1.7
MAKA	Makarska	3.06	319	*e*Pn	Pn	23 38 29.0	+0.5
VTS	Vitosha	3.08	57	*e*Pn	Pn	23 38 29.5	+0.6
VTS				*e*Sn	Sn	23 39 06.0	+0.4
ZAPS	Zavoj	3.13	42	*e*Pn	Pn	23 38 31.8	+2.2
ZAPS				*e*Sn	Sn	23 39 06.9	0.0
RICI	Ricice	3.16	323	*e*Pn	Pn	23 38 30.8	+0.8
RICI				Sn	Sn	23 39 08.1	+0.6
TRUS	Trudelj	3.27	8	*e*Pn	Pn	23 38 32.1	+0.7
HVAR	Hvar	3.28	313	*i* Pn	Pn	23 38 33.3	+1.8
ZAGS	Zajecar	3.37	32	*e*Pn	Pn	23 38 34.7	+2.0
ZAGS				*e*Sn	Sn	23 39 12.6	0.0
BLKB	Belogradchik	3.41	39	*e*Sn	Sn	23 39 14.2	+0.5
TEKS	Tekeris	3.56	358	*e*Pn	Pn	23 38 35.9	+0.5
KUBS	Kucevo	3.70	22	*e*Pn	Pn	23 38 38.1	+0.7
KIJV	Kijevo	3.89	322	*e*Pn	Pn	23 38 41.1	+1.2
MDVR	Moldovita	4.05	20	*e*Pn	Pn	23 38 43.2	+1.0
MDVR				*e*Sn	Sn	23 39 28.7	-0.9
MORI	Morici	4.14	315	*e*Pn	Pn	23 38 44.1	+0.7
BLY	Banja Luka	4.20	334	*e*Sn	Sn	23 39 32.5	-0.5
DUGI	Dugi Otok	4.58	312	*e*Pn	Pn	23 38 50.7	+1.3
VIRC	Vir	4.78	315	*e*Pn	Pn	23 38 53.4	+1.3
BZS	Buzias	4.82	16	*e*Pn	Pn	23 38 54.2	+1.5
BZS				*e*Sn	Sn	23 39 47.8	-0.6
GZR	Gura Zlata	4.93	26	*e*Pn	Pn	23 38 55.5	+1.3
NVLJ	Novalja	5.06	316	*e*Pn	Pn	23 38 56.9	+0.9
NVLJ				Sn	Sn	23 39 53.4	-0.8
BOJS	Bojanci	5.57	325	*e*Pn	Pn	23 39 03.8	+0.7
BOJS				*e*Sn	Sn	23 40 05.0	-1.9
CEY	Cerknica	6.12	323	*e*Pn	Pn	23 39 11.1	+0.5
SKDS	Skadanscina	6.18	319	*e*Pn	Pn	23 39 11.6	+0.2
SKDS				*e*Sn	Sn	23 40 18.0	-3.9
DRGR		6.18	19	*e*Sn	Sn	23 40 18.7	-3.3
LJU	Ljubljana	6.31	325	*e*Pn	Pn	23 39 13.8	+0.6

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*TIR **23** 23:44:29.6, 41°.02N×19°.90E, h18^{km}, Ml2.9/4*
*BEO **23** 23:44:30.4±0.4, 40°.97N×19°.69E, h21^{km}±4^{km}, ML2.7/14*
ISC 23 23:44:30.3±1.1**, 41°.00N**±0°.02×**19°.78E**±0°.03**, h19**^{km}±3^{km}**,**
n51, σ1^{s}.09/81**, Albania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TIR	Tirane	0.35	10	P	Pg	23 44 37.1	-0.8
TIR				S	Sg	23 44 43.1	0.0
TIR				AML	AML	23 44 50.0	
	4.0nm,0.6s						
VLO	Vlora	0.57	203	P	Pg	23 44 41.4	-0.4
VLO				S	Sb	23 44 50.7	+1.5
VLO				AML	AML	23 44 56.8	
	6.7nm,0.2s						
OHR	Ohrid	0.78	81	*i* Pg	Pb	23 44 43.9	-1.3
OHR				*i* Sg	Sb	23 44 55.3	-0.1
PHP	Peshkopia	0.85	36	P	Pb	23 44 44.4	-1.9
PHP				S	Sb	23 44 57.0	-0.3
PHP				AML	AML	23 44 59.8	
	2.3nm,0.2s						
KBN	Korca	0.85	116	P	Pb	23 44 44.4	-2.1
KBN				S	Sb	23 44 55.3	-2.2
KBN				AML	AML	23 45 02.5	
	1.7nm,0.5s						
SRN	Sarande	1.13	171	P	Pn	23 44 51.4	+0.4
SRN				S	Sg	23 45 08.0	+0.9
PDG	Podgorica	1.48	345	P	Pb	23 44 57.4	+0.2
PDG	Podgorica	1.48	345	*e*Pg	Pn	23 44 56.9	+1.0
PDG				*e*Sg	Sg	23 45 18.8	+0.5
IGT	Igoumenitsa	1.52	164	P	Pb	23 44 58.3	+0.4
IGT	Igoumenitsa	1.52	164	*e*Pg	Pn	23 44 57.2	+0.7
IGT				*e*Sg	Sg	23 45 19.5	0.0
SKO	Skopje	1.58	51	*i* Pg	Pb	23 44 59.1	+0.3
SKO				*i* Sg	Sg	23 45 20.9	-0.4
DBRK	Dubrovnik	2.07	324	*e*Pn	Pn	23 45 04.0	+0.1
DBRK				Sn	Sn	23 45 29.7	+0.5
VAY	Valandovo	2.13	80	*i* Pn	Pn	23 45 05.1	+0.3
SJES	Sjenica	2.27	4	*e*Pn	Pn	23 45 07.4	+0.6
SJES				*e*Sn	Sn	23 45 35.6	+1.4
BARS	Barje	2.37	39	*e*Pn	Pn	23 45 09.1	+1.0
BARS				*e*Sn	Sn	23 45 38.4	+1.8
SELS	Selova	2.43	24	*e*Pn	Pn	23 45 10.2	+1.2
SELS				*e*Sn	Sn	23 45 40.4	+2.2
STON	Ston	2.43	321	*e*Pn	Pn	23 45 08.8	-0.2
STON				Sn	Sn	23 45 38.0	-0.1
STON	Ston	2.43	321	*e*Pn	Pn	23 45 08.7	-0.2
STON				*e*Sn	Sn	23 45 37.9	-0.2
PEHC	Pehcevo	2.47	71	*i* Pn	Pn	23 45 08.7	-0.9
IVAS	Ivanjica	2.59	6	*e*Pn	Pn	23 45 11.8	+0.6
GOCS	Kraljevo Serbi	2.69	17	*e*Sn	Sn	23 45 45.5	+0.9
LSTV	Lastovo	2.79	310	*e*Pn	Pn	23 45 13.9	0.0
LSTV				Sn	Sn	23 45 45.8	-1.1
BBLS	Lazi&#263i	2.88	355	*e*Pn	Pn	23 45 15.4	+0.2
GRUS	Gruza	2.97	13	*e*Pn	Pn	23 45 17.7	+1.4
BOVS	Bovan	3.00	28	*e*Pn	Pn	23 45 17.9	+1.2
VTS	Vitosha	3.05	57	*e*Pn	Pn	23 45 17.9	+0.4
VTS				*e*Sn	Sn	23 45 54.4	+0.9
MAKA	Makarska	3.08	319	*e*Pn	Pn	23 45 17.6	-0.2
MAKA				Sn	Sn	23 45 53.3	-0.6
DIVS	Divibare	3.10	3	*e*Pn	Pn	23 45 18.9	+0.7
DIVS				*e*Sn	Sn	23 45 55.7	+0.9
ZAPS	Zavoj	3.11	42	*e*Pn	Pn	23 45 19.4	+1.1
ZAPS				*e*Sn	Sn	23 45 55.7	+0.8
RICI	Ricice	3.18	323	*e*Pn	Pn	23 45 18.9	-0.3
RICI				Sn	Sn	23 45 57.6	+1.1
TRUS	Trudelj	3.26	8	*e*Pn	Pn	23 45 20.7	+0.4
TRUS				*e*Sn	Sn	23 45 58.8	+0.3
HVAR	Hvar	3.30	312	*e*Pn	Pn	23 45 20.3	-0.6
HVAR				Sn	Sn	23 45 59.6	+0.1
ZAGS	Zajecar	3.35	32	*e*Pn	Pn	23 45 22.6	+1.1
ZAGS				*e*Sn	Sn	23 46 01.3	+0.6
TEKS	Tekeris	3.55	357	*e*Pn	Pn	23 45 24.5	+0.1
KUBS	Kucevo	3.69	22	*e*Pn	Pn	23 45 26.4	+0.2
PLD	Plovdiv	3.90	71	*e*Pn	Pn	23 45 30.0	+0.9
KIJV	Kijevo	3.91	321	*e*Pn	Pn	23 45 30.4	+1.1
KIJV				Sn	Sn	23 46 15.1	+0.6
MDVR	Moldovita	4.04	20	*e*Pn	Pn	23 45 31.8	+0.7
FRGS	Fruska Gora	4.16	0	*e*Pn	Pn	23 45 32.6	-0.1
MORI	Morici	4.16	315	*e*Pn	Pn	23 45 33.0	+0.3
DUGI	Dugi Otok	4.60	312	*e*Pn	Pn	23 45 39.2	+0.4
DUGI				Sn	Sn	23 46 31.1	-0.4
VIRC	Vir	4.79	315	*e*Pn	Pn	23 45 41.4	0.0
VIRC				Sn	Sn	23 46 35.6	-0.7
BZS	Buzias	4.81	16	*e*Pn	Pn	23 45 41.7	+0.1
GZR	Gura Zlata	4.91	25	*e*Pn	Pn	23 45 43.7	+0.7
GZR				*e*Sn	Sn	23 46 39.2	-0.1
NVLJ	Novalja	5.08	316	*e*Pn	Pn	23 45 45.3	0.0
NVLJ				Sn	Sn	23 46 42.5	-0.8
BOJS	Bojanci	5.59	325	*e*Pn	Pn	23 45 52.3	0.0
BOJS				*e*Sn	Sn	23 46 52.7	-3.2
CEY	Cerknica	6.14	322	*e*Pn	Pn	23 46 00.1	+0.2
SKDS	Skadanscina	6.20	319	*e*Pn	Pn	23 45 59.5	-1.2
LJU	Ljubljana	6.33	325	*e*Pn	Pn	23 46 02.5	+0.1
OBKA	Obir	6.69	327	*i* Pn	Pn	23 46 09.3	+1.8
	0.5nm,0.2s						
OBKA				*e*Sn	Sn	23 47 27.8	+4.7
	3.6nm,0.6s						
MOA	Molln	7.90	332	*i* Pn	Pn	23 46 28.8	+4.6
	0.6nm,0.4s						

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*LDG **23** 23:51:04.9±0.1, 42°.85N×1°.50W, h2^{km}, Md2.7/2, Ml2.6/9,*
Error ellipse: s-maj=2.6km s-min=2.2km az=124.0
*MDD **23** 23:51:05.6±0.2, 42°.83N×1°.47W, h0^{km}, mb_Lg2.4/26,*
Error ellipse: s-maj=2.1km s-min=1.2km az=3.0
ISC 23 23:51:03.7±1.1**, 42°.90N**±0°.02×**1°.46W**±0°.03**, h5**^{km}±9^{km}**, n19,**
σ1^{s}.35/50**, 1C, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EARA	Aranguren	0.16	214	⇑Pg	Pg	23 51 06.3	-0.6
EARA				Sg	Sg	23 51 08.2	-0.8
SJPF	Ste Jean	0.27	39	*e*Pg	Pb	23 51 11.2	+0.1
SJPF				*e*Sg	Sg	23 51 13.9	+1.3
	111nm,0.3s						
EALK	Alkurruntz	0.32	354	Pg	Pb	23 51 12.1	+0.1
EALK				Sg	Sb	23 51 17.4	-0.1
EALK				IVmb_Lg		23 51 20.5	
ETSF	Etsaut	0.66	90	*e*Pg	Pb	23 51 17.5	-0.3
ETSF				*e*Sg	Sg	23 51 26.2	+1.2
	26nm,0.2s						
ECHI	Chisagues Biel	1.24	101	Pg	Pn	23 51 29.0	+1.2
ECHI				Sg	Sn	23 51 46.0	+0.9
ECHI				IVmb_Lg		23 51 49.6	
EPF	Esparros	1.33	84	*e*Pg	Pb	23 51 29.8	+0.7
EPF				*e*Sg	Sn	23 51 47.8	+0.7
	43nm,0.2s						
EPF				AML	AML		
ESAC	San Caprasio	1.39	148	Pg	Pn	23 51 30.3	+0.4
ESAC				Sg	Sn	23 51 49.2	+0.5
ESAC				IVmb_Lg		23 51 58.5	
ELAN	Lanestosa	1.48	283	Pg	Pg	23 51 32.1	-0.1
ELAN				Sg	Sn	23 51 53.2	+2.2
ELAN				IVmb_Lg		23 51 56.2	
ETOR	Torete	2.13	192	Pn	Pn	23 51 39.9	-0.2
ETOR				Pg	Pg	23 51 44.0	-0.5
ETOR				Sn	Sn	23 52 06.0	-1.0
ETOR				Sg	Sb	23 52 09.4	-0.2
ETOR				IVmb_Lg		23 52 13.4	
EPOB	Poblet	2.44	129	Pn	Pn	23 51 44.2	-0.2
EPOB				Pg	Pb	23 51 48.2	0.0
EPOB				Sn	Sn	23 52 12.7	-1.9
EPOB				Sg	Sb	23 52 20.5	+1.9
EPOB				IVmb_Lg		23 52 29.2	
LFF	La Frestale	2.58	37	*e*Pn	Pn	23 51 48.0	+1.8
LFF				*e*Pg	Pg	23 51 54.0	+0.8
LFF				*e*Sn	Sn	23 52 17.1	-0.9
	2.4nm,0.2s						
LFF				AML	AML		
MTLF	Montolieu	2.73	80	*e*Pn	Pn	23 51 50.4	+2.2
MTLF				*e*Pg	Pb	23 51 54.5	+1.5
MTLF				*e*Sn	Sn	23 52 20.9	-0.7
MTLF				*e*Sg	Sg	23 52 30.1	-1.2
	7.1nm,0.5s						
MTLF				AML	AML		
RJF	Les Rejaudoux	3.22	41	*e*Pn	Pn	23 51 56.5	+1.6
RJF				*e*Pg	Pg	23 52 04.6	-0.8
RJF				*e*Sn	Sn	23 52 33.4	-0.3
	2.7nm,0.2s						
RJF				AML	AML		
CAF	Calviac	3.25	50	*e*Pn	Pn	23 51 55.8	+0.4
CAF				*e*Pg	Pg	23 52 04.6	-1.4
CAF				*e*Sn	Sn	23 52 32.7	-1.8
	2.6nm,0.2s						
CAF				AML	AML		
MFF	Saint Martin d	3.81	14	*e*Pn	Pn	23 52 04.2	+1.1
MFF				*e*Pg	Pg	23 52 15.7	-1.1
MFF				*e*Sn	Sn	23 52 45.9	-2.5
LASF	Ste Croix	4.04	71	*e*Pn	Pn	23 52 07.2	+0.9
LASF				*e*Pg	Pg	23 52 19.3	-1.8
LASF				*e*Sn	Sn	23 52 53.7	-0.3
	9.0nm,0.7s						
LASF				AML	AML		
TCF	Toulx Ste Croi	4.28	36	*e*Pn	Pn	23 52 09.8	+0.2
TCF				*e*Sn	Sn	23 52 57.0	-2.9
	4.2nm,0.4s						
TCF				AML	AML		
BGF	Bois d'Agland	4.77	39	*e*Pn	Pn	23 52 16.5	+0.2
BGF				*e*Sn	Sn	23 53 08.1	-3.8
	7.4nm,0.5s						
BGF				AML	AML		
VIVF	Saint-Julien-l	4.84	64	*e*Pn	Pn	23 52 18.9	+1.6
VIVF				*e*Pg	Pg	23 52 35.6	-0.9
VIVF				*e*Sn	Sn	23 53 12.8	-1.0
	2.7nm,0.4s						
VIVF				AML	AML		

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*IDC **23** 23:54:36.3±1.6, 12°.66N×89°.82W, h0^{km}, mb3.7/4,*
mbtmp3.7/6, ML3.1/3, Error ellipse: s-maj=41.4km
s-min=17.1km az=46.0
*CATAC **23** 23:54:39.2±0.8, 13°N±4°×9°0W±°, h5^{km}±4^{km}, M3.9/9,*
MLv3.9/9, Error ellipse: s-maj=8.9km s-min=6.8km az=29.0,
confirmed
*GCG **23** 23:54:42.6±2.1, 12°.98N×90°.33W, h16^{km}±17^{km}, MD4.5,*
ML4.3, Presumed earthquake
*SNET **23** 23:54:43.1±2.9, 12°.86N×90°.19W, h10^{km}, ML3.8,*
Presumed earthquake
ISC 23 23:54:41.0±1.7**, 12°.88N**±0°.06×**90°.31W**±0°.04**, h16**^{km}±9^{km}**,**
n49, σ1^{s}.35/69**, mb3.8**/3**, Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FAME	Alcaldia de Sa	1.00	17	P	Pg	23 54 59.8	-0.5
FAME				S	Sn	23 55 14.6	+0.4
JAYA	Jayaque - finc	1.13	47	*i* P	Pb	23 55 02.3	-0.1
JAYA				*i* S	Sb	23 55 14.6	-2.4
JAYA				IAML		23 55 22.2	
	comp=N,7μm,0.3s						
JAYA	Jayaque - finc	1.13	47	*e*P	Pb	23 55 02.3	-0.1
JAYA				*e*S	Sn	23 55 18.7	+0.9
JAYA	Jayaque - finc	1.13	47	P	Pn	23 55 02.4	0.0
JAYA				S	Sn	23 55 19.9	+2.1
LALI	Alcalda de L	1.13	58	*i* P	Pb	23 55 02.0	-0.3
LALI	Alcalda de L	1.13	58	P	Pb	23 55 02.2	-0.1
LALI				S	Sg	23 55 19.3	+1.5
NUBE	Las Nubes	1.14	27	*i* P	Pb	23 55 02.0	-0.4
NUBE				*i* S	Sb	23 55 13.1	-3.9
NUBE	Las Nubes	1.14	27	P	Pn	23 55 02.2	-0.2
NUBE				S	Sn	23 55 18.5	+0.7
CEVE	Cerro Verde	1.15	35	*e*P	Pg	23 55 03.0	-0.4
CEVE				*e*S	Sn	23 55 21.5	+3.2
CEVE	Cerro Verde	1.15	35	P	Pn	23 55 02.7	-0.1
CEVE				S	Sn	23 55 20.7	+2.4
LOAL	Lomas de Alarc	1.22	25	P	Pb	23 55 03.8	-0.1
LOAL				S	Sg	23 55 21.2	+0.6
SLOZ	Alcaldia de Sa	1.25	24	P	Pb	23 55 04.1	-0.1
PMON	Piamonte	1.27	49	P	Pn	23 55 04.3	0.0
PMON				S	Sg	23 55 23.7	+1.5
BOQS	Boqueron	1.31	50	*e*P	Pn	23 55 05.0	+0.1
PANCS	Alcalda de	1.31	56	P	Pn	23 55 04.5	-0.3
PANCS				S	Sg	23 55 24.0	+0.5
UNIC	Universidad Ca	1.32	34	P	Pb	23 55 05.1	-0.3
UNIC				S	Sg	23 55 24.0	+0.4
UEES	Universidad Ev	1.33	51	P	Pb	23 55 05.7	0.0
LOMA	Loma Larga	1.34	55	P	Pn	23 55 05.1	-0.1
LOMA				S	Sg	23 55 25.5	+1.1
FG16	Alotenango, Sa	1.40	352	*i* P	Pg	23 55 09.9	+1.9
JUAM	Asuncion Mita	1.56	22	*i* P	Pb	23 55 08.8	-0.8
JUAM				IAML		23 55 30.5	
	comp=N,4μm,0.2s						
PAVA	Las Pavas	1.57	58	P	Pb	23 55 09.1	-0.7
COEG	Centro de Oper	1.57	62	*e*P	Pn	23 55 08.3	-0.1
COEG	Centro de Oper	1.57	62	P	Pn	23 55 08.3	-0.1
TECO	Alcaldia de Te	1.62	66	P	Pn	23 55 08.7	-0.4
TECO				S	Sb	23 55 31.5	+0.6
ALJI	Alcalda de J	1.75	75	*e*S	Sg	23 55 36.8	-0.6
MTO3	Montecristo	1.77	31	*i* P	Pn	23 55 11.8	+0.7
MTO3	Montecristo	1.77	31	P	Pn	23 55 11.9	+0.7
MTO3				S	Sg	23 55 36.9	-1.1
STG8	El Palmar, Qui	1.86	327	*i* P	Pg	23 55 17.1	+0.3
P5NO	Presa 5 de nov	1.86	54	P	Pn	23 55 12.9	+0.6
P5NO				S	Sb	23 55 39.0	+1.1
ESQI	Esquipulas	1.91	29	*e*P	Pb	23 55 14.5	-1.2
ESQI				*e*S	Sb	23 55 40.5	+1.1
ESQI	Esquipulas	1.91	29	P	Pb	23 55 14.4	-1.2
ESQI				S	Sb	23 55 40.3	+0.9
ZAFR2	Estanzuela, Za	1.93	29	*i* P	Pg	23 55 18.0	-0.1
PACA	Pacayal	2.02	73	P	Pn	23 55 15.1	+0.5
RANC	El Ranchito	2.04	74	P	Pn	23 55 14.9	0.0
APG	El Apazote	2.12	356	Pn	Pb	23 55 17.5	-1.6
	comp=N,1.8nm,0.3s,baz=165,slow=12,SNR=63						
APG				Sn	Sb	23 55 45.8	+0.5
	comp=N,2.3nm,0.3s,baz=224,slow=18,SNR=11						
APG				AML	AML		
APG	El Apazote	2.12	356	*i* P	Pb	23 55 17.3	-1.9
APG				*i* S	Sb	23 55 43.2	-2.1
LCND	La Caada	2.39	80	P	Pn	23 55 19.9	+0.2
SARH	Santa Rosa de	2.41	38	*i* P	Pn	23 55 21.1	+1.2
SARH	Santa Rosa de	2.41	38	P	Pb	23 55 21.8	-2.2
CNCH	Conchagua	2.44	80	P	Pn	23 55 20.4	0.0
CNCH				S	Sn	23 55 52.4	+2.4
QUEN	Al S del Volca	3.38	95	P	Pn	23 55 33.0	-0.3
TELN	Telica	3.40	94	P	Pn	23 55 33.0	-0.6
JTS	Las Juntas de	5.84	116	Pn	Pn	23 55 58.8	-8.3
	comp=N,0.9nm,0.3s,baz=308,slow=19,SNR=1.6						
	comp=N,2.7nm,0.3s						
JTS				AML	AML		
CMIG	Matias Romero	6.09	314	Pn	Pn	23 56 15.2	+4.8
	comp=N,0.5nm,0.3s,baz=138,slow=13,SNR=5.3						
CMIG				Sn	Sn	23 57 23.0	+3.2
	comp=N,0.5nm,0.3s,baz=252,slow=23,SNR=1.5						
	comp=N,1.8nm,0.4s						
CMIG				AML	AML		
TXAR	Lajitas Array	20.54	325	P	Pn	23 59 21.6	+0.3
	comp=N,0.4nm,0.5s,baz=144,slow=12,SNR=10						
	comp=N,0.4nm,0.5s						
NVAR	Mina Array Bea	35.57	321	P	P	00 01 41.0	+3.0
	comp=N,0.9nm,0.7s,baz=137,slow=8.4,SNR=6.5						
	comp=N,0.9nm,0.7s						
SCHQ	Schefferville	45.72	19	P	P	00 02 58.3	-3.0
	comp=N,5.9nm,0.9s,baz=221,slow=8.9,SNR=5.3						
	comp=N,5.9nm,0.9s						
YKA	Yellowknife Ar	52.49	346	P	P	00 03 51.6	-1.4
	comp=N,0.3nm,0.3s,baz=154,slow=8.0,SNR=1.9						
	comp=N,0.3nm,0.3s						
CMAR	Chiang Mai Arr	147.55	343	PKPbc	PKPdf	00 14 22.5	-0.4
	comp=N,0.5nm,0.3s,baz=23,slow=3.6,SNR=4.3						

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*IDC **24** 00:03:07.9±3.7, 36°.25N×70°.41E, h210^{km}±33^{km}, mb3.3/13,*
mbtmp3.9/18, MS3.0/1, Error ellipse: s-maj=24.4km
s-min=16.6km az=13.0
*NEIC **24** 00:03:09.5±1.2, 36°.49N±0°.06×70°.3E±0°.1, h211^{km}±12^{km},*
mb4.2/9, Error ellipse: s-maj=12.4km s-min=8.9km
az=95.0
*NNC **24** 00:03:22.4±8.9, 37°.54N×70°.81E, h235^{km}±113^{km}, mb3.1,*
mpv4.5, Error ellipse: s-maj=97.7km s-min=54.6km
az=16.0
ISC 24 00:03:08.6±0.6**, 36°.52N**±0°.05×**70°.39E**±0°.05**, h204**^{km}**, n75,**
σ1^{s}.91/87**, mb3.5**/13**, 2C-1D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBL	Kabul	2.26	209		Pn	00 03 51.7	+1.3
KBL				Sn	S	00 04 22.9	+0.5
DRK	Karamyk	3.15	20		Pn	00 04 03.3	+2.9
DRK				Sn	S	00 04 42.4	+1.7
BTK	Batken	3.55	5		Pn	00 04 08.1	+3.1
BTK				Sn	S	00 04 50.9	+2.2
NIL	Nilore	3.70	140		Pn	00 04 10.1	+3.2
NIL				Sn	S	00 04 54.7	+2.6
SRNI	Srinagar	4.37	123	*e*P	Pn	00 04 18.4	+3.1
SRNI				*e*S	S	00 05 07.1	-0.2
SRNI				IAML		00 05 11.5	
	comp=E,836nm,0.3s						
SRNI				IAML		00 05 11.9	
	comp=N,790nm,0.3s						
ARSB	Arslanbob	5.20	22		Pn	00 04 27.3	+1.6
JMU	Jammu	5.23	134	*e*P	Pn	00 04 29.0	+3.0
JMU				*e*S	S	00 05 25.4	-1.3
JMU				IAML		00 05 30.9	
	comp=N,598nm,0.5s						
JMU				IAML		00 05 31.4	
	comp=E,594nm,0.2s						
IUG	Iuzhnay	5.62	357	Pg	Pn	00 04 32.9	+1.9
	comp=E,476nm,0.3s						
IUG				Lg	Lg	00 05 33.3	
	comp=E,256nm,0.5s						
TSSA	Tissa	6.00	126	*e*P	Pn	00 04 40.0	+3.8
TSSA				*e*S	S	00 05 44.1	-1.0
TSSA				IAML		00 05 46.5	
	comp=N,396nm,0.3s						
TSSA				IAML		00 05 47.5	
	comp=E,356nm,0.1s						
ALCI	Alchi Leh	6.01	111	*e*S	S	00 05 44.4	-1.1
ALCI				IAML		00 05 49.4	
	comp=E,447nm,0.0s						
ALCI				IAML		00 05 53.0	
	comp=N,431nm,0.1s						
THN	Thein Dam	6.02	131	*e*P	Pn	00 04 39.1	+2.9
THN				*e*S	S	00 05 44.4	-0.8
THN				IAML		00 05 47.0	
	comp=N,317nm,0.3s						
THN				IAML		00 05 47.1	
	comp=E,378nm,0.3s						
DZA	Taraz	6.40	6	Pg	Pn	00 04 42.7	+1.7
	comp=E,65nm,0.2s						
DZA				Lg	Lg	00 05 50.8	
	comp=E,221nm,0.4s						
BRLS	Borolday	6.51	356	Pg	Pn	00 04 40.1	-2.3
	comp=E,23nm,0.1s						
BRLS				Lg	Lg	00 05 46.4	
	comp=E,27nm,0.3s						
NRN	Naryn	6.57	40		Pn	00 04 44.0	+0.6
KK31	Karatay Array	6.57	1	P	Pn	00 04 43.8	+0.6
	comp=E,7.8nm,0.3s,baz=198,slow=20,SNR=153						
KK31				⇑S	S	00 05 52.0	-6.2
	comp=E,12nm,0.5s,baz=190,slow=24,SNR=5.3						
KK31	Karatay Array	6.57	1	Pn	Pn	00 04 44.1	+0.9
KKAR	Karatay Array	6.57	1	Pn	Pn	00 04 44.1	+0.9
MRKS	Merke	6.59	19	Pg	Pn	00 04 45.1	+1.7
	comp=E,40nm,0.3s						
MRKS				Lg	Lg	00 05 55.0	
	comp=E,59nm,0.4s						
EKS2	Erkin-Say	6.67	22	P	Pn	00 04 46.5	+2.0
	SNR=59						
AAK	Ala-Archa	6.88	26	P	Pn	00 04 49.4	+2.1
	SNR=21						
AAK	Ala-Archa	6.88	26	P	Pn	00 04 49.5	+2.2
	comp=E,14nm,0.4s,baz=178,slow=6.5,SNR=36						
AAK				S	S	00 06 05.8	+0.2
	comp=E,30nm,0.5s,baz=326,slow=22,SNR=20						
AAK	Ala-Archa	6.88	26	⇓P	Pn	00 04 49.0	+1.7
	comp=E,4.2nm,0.5s						
AAK				⇑S	S	00 05 55.0	-11
	comp=E,17nm,0.6s						
AAK	Ala-Archa	6.88	26		Pn	00 04 49.2	+2.0
KBK	Karagaybulak	7.06	28	P	Pn	00 04 52.0	+2.3
	SNR=7.9						
FRU1	Bishkek	7.08	26	Pn	Pn	00 04 50.7	+0.9
CHMS	Chumysh	7.29	26	P	Pn	00 04 54.2	+1.8
	SNR=7.0						
ULHL	Ulahol	7.29	37	P	Pn	00 04 55.1	+2.4
	SNR=9.6						
BOOM	Boomskoye usch	7.34	34		Pn	00 04 55.1	+1.8
USP	Ospenovka	7.44	24	P	Pn	00 04 56.0	+1.6
	SNR=18						
TKM2	Tokmak 2	7.54	31	P	Pn	00 04 58.5	+2.6
	SNR=6.3						
SGDS	Sogindy	7.65	24	Pg	Pn	00 04 58.0	+0.9
	comp=E,7.8nm,0.5s						
SGDS				Lg	Lg	00 06 18.5	
	comp=E,13nm,0.5s						
KDJ	Kajisay	7.68	41	Pn	Pn	00 04 59.6	+1.8
TARG	Taragay, Kyrgy	7.76	46	Pn	Pn	00 05 00.5	+1.5
SMLA	Simla	7.79	132	*e*P	Pn	00 05 01.0	+1.9
SMLA				*e*S	S	00 06 24.0	-3.1
SMLA				IAML		00 06 27.8	
	comp=N,174nm,0.5s						
SMLA				IAML		00 06 30.9	
	comp=E,176nm,0.6s						

KST	**Kastek**	**7.80**	**32**	Pg	**Pn**	**00 05 01.3**	**+2.1**
	comp=E,4.6nm,0.6s						
KST				Lg	Lg	00 06 24.5	
	comp=E,31nm,0.7s						
KLP	**Kalpa**	**8.20**	**125**	*e*P	**Pn**	**00 05 06.8**	**+2.0**
KLP				*e*S	**S**	**00 06 33.0**	**-4.4**
KLP				IAML		00 06 36.6	
	comp=E,66nm,0.3s						
KLP				IAML		00 06 37.4	
	comp=N,56nm,0.4s						
TNSS	**Tian-Shan**	**8.23**	**36**	P	**Pn**	**00 05 07.1**	**+2.0**
	comp=N,3.7nm,0.4s						
PRZ	**Przheval'sk**	**8.59**	**44**	Pn	**Pn**	**00 05 11.0**	**+1.5**
KURS	**Kuram**	**9.16**	**38**	Pg	**Pn**	**00 05 19.5**	**+2.7**
	comp=N,7.5nm,0.5s						
KURS				Lg	Lg	00 06 57.1	
	comp=N,2.8nm,0.9s						
MAKZ	**Makanchi**	**13.42**	**36**		**Pn**	**00 06 12.3**	**+1.3**
MK31	**Makanchi Array**	**13.56**	**37**	P	**Pn**	**00 06 14.0**	**+1.2**
	comp=N,1.2nm,0.6s,baz=226,slow=14,SNR=12						
MKAR	**Makanchi Array**	**13.56**	**37**	P	**Pn**	**00 06 14.3**	**+1.5**
	comp=N,1.0nm,0.5s,baz=228,slow=13,SNR=12						
MKAR	**Makanchi Array**	**13.56**	**37**		**Pn**	**00 06 13.8**	**+1.0**
AB31	**Akbulak array**	**14.83**	**332**	P	**Pn**	**00 06 27.4**	**-0.9**
	comp=N,1.5nm,0.4s,baz=152,slow=12,SNR=176						
AB31	**Akbulak array**	**14.83**	**332**	P	**Pn**	**00 06 27.8**	**-0.5**
ABKAR	**Akbulak array**	**14.83**	**332**	P	**Pn**	**00 06 27.7**	**-0.6**
KURBB	**Kurchatov Arra**	**15.26**	**20**	P	**Pn**	**00 06 34.3**	**+0.7**
	comp=N,1.3nm,0.6s,baz=212,slow=13,SNR=4.9						
KURK	**Kurchatov**	**15.37**	**20**	P	**Pn**	**00 06 34.8**	**-0.1**
EVN	**Everest**	**16.30**	**117**	P	**P**	**00 06 46.9**	**+0.7**
BVA0	**Borovoye Array**	**16.50**	**360**	P	**Pn**	**00 06 51.3**	**+2.8**
	comp=N,0.3nm,0.3s,baz=151,slow=9.6,SNR=14						
BVAR	**Borovoye Array**	**16.50**	**360**	P	**Pn**	**00 06 49.5**	**+1.1**
	comp=N,4.5nm,0.4s,baz=172,slow=11,SNR=22						
AKTO	**Aktyubinsk**	**16.52**	**331**	P	**P**	**00 06 49.0**	**+1.3**
	comp=N,1.9nm,0.3s,baz=140,slow=13,SNR=11						
AKTO				S	**S**	**00 09 47.6**	**-2.4**
	comp=N,0.8nm,0.5s,baz=346,slow=18,SNR=1.6						
BORK	**Borovoye**	**16.52**	**360**	P	**P**	**00 06 48.7**	**+1.0**
BORK				IAmb	IAmb	00 06 54.5	
	comp=Z,4.5nm,0.6s						
ZAA0	**Zalesovo Array**	**20.10**	**25**	P	**P**	**00 07 26.7**	**+0.2**
ZAA0				IAmb	IAmb	00 07 51.0	
	comp=Z,2.6nm,0.7s						
ZALV	**Zalesovo Beam**	**20.10**	**25**	P	**P**	**00 07 27.8**	**+1.3**
	comp=Z,1.4nm,0.4s,baz=223,slow=10,SNR=5.5						
	comp=Z,1.4nm,0.4s						
ZALV	**Zalesovo Beam**	**20.10**	**25**	P	**P**	**00 07 26.9**	**+0.4**
ARTI	**Arti**	**21.46**	**342**	P	**P**	**00 07 42.8**	**+2.0**
	comp=Z,2.1nm,0.4s,baz=138,slow=9.3,SNR=7.3						
	comp=Z,2.1nm,0.4s						
ARTI	**Arti**	**21.46**	**342**	P	**P**	**00 07 41.9**	**+1.1**
ARTI				IAmb	IAmb	00 07 44.0	
	comp=Z,5.5nm,0.5s						
KVAR	**Kislovodsk Arr**	**22.34**	**298**	LR	LR	00 18 35.8	
	comp=Z,39nm,21.0s,baz=320,slow=41						
BELG	**Belogornoye**	**22.57**	**322**	P	**P**	**00 07 52.3**	**+0.9**
	comp=Z,6.8nm,0.8s,baz=55,slow=8.4,SNR=4.3						
	comp=Z,6.8nm,0.8s						
RAYN	**Ar Rayn**	**25.06**	**246**	P	**P**	**00 08 13.0**	**-1.3**
RAYN				IAmb	IAmb	00 08 19.2	
	comp=Z,3.4nm,0.4s						
BRTR	**Keskin Array B**	**28.96**	**288**	P	**P**	**00 08 49.4**	**+0.3**
	comp=Z,0.5nm,0.5s,baz=99,slow=11,SNR=4.8						
	comp=Z,0.5nm,0.5s						
FIA1	**FINESS Array S**	**37.19**	**326**	P	**P**	**00 09 59.9**	**+0.2**
FINES	**FINESS Array B**	**37.19**	**326**	P	**P**	**00 10 00.4**	**+0.7**
	comp=Z,1.6nm,0.7s,baz=114,slow=9.3,SNR=6.1						
	comp=Z,1.6nm,0.7s						
FINES	**FINESS Array B**	**37.19**	**326**	P	**P**	**00 09 60.0**	**+0.2**
ARCES	**ARCESS Array B**	**40.94**	**338**	P	**P**	**00 10 31.3**	**+0.6**
	comp=Z,1.3nm,0.5s,baz=115,slow=7.9,SNR=8.2						
	comp=Z,1.3nm,0.5s						
ARCES	**ARCESS Array B**	**40.94**	**338**	P	**P**	**00 10 30.9**	**+0.3**
HFS	**Hagfors**	**42.74**	**322**	P	**P**	**00 10 46.0**	**+0.6**
	comp=Z,0.5nm,0.3s,baz=82,slow=12,SNR=7.1						
	comp=Z,0.5nm,0.3s						
NC303	**NORSAR Array S**	**44.01**	**323**	P	**P**	**00 10 55.9**	**+0.4**
NC303				IAmb	IAmb	00 10 56.9	
	comp=Z,14nm,1.1s						
NOA	**NORSAR Array B**	**44.07**	**323**	P	**P**	**00 10 56.2**	**+0.3**
	comp=Z,1.4nm,0.9s,baz=97,slow=7.9,SNR=3.8						
	comp=Z,1.4nm,0.9s						
ESDC	**Sonseca Array**	**57.01**	**298**	P	**P**	**00 12 32.5**	**-0.6**
	comp=Z,0.2nm,0.7s,baz=52,slow=9.3,SNR=1.6						
	comp=Z,0.2nm,0.7s						
TORD	**Torodi Ar. Bea**	**65.23**	**268**	P	**P**	**00 13 26.4**	**-2.1**
	comp=Z,0.6nm,0.5s,baz=48,slow=6.4,SNR=11						
	comp=Z,0.6nm,0.5s						
ILAR	**Eielson Array**	**74.89**	**16**	P	**P**	**00 14 26.1**	**-0.3**
	comp=Z,0.4nm,0.8s,baz=2.9,slow=6.5,SNR=2.7						
	comp=Z,0.4nm,0.8s						
WRA	**Warramunga Arr**	**82.42**	**122**	P	**P**	**00 15 06.0**	**-2.1**
	comp=Z,0.5nm,0.6s,baz=312,slow=5.2,SNR=3.1						
	comp=Z,0.5nm,0.6s						
ASAR	**Alice Springs**	**84.67**	**124**	P	**P**	**00 15 18.2**	**-1.3**
	comp=Z,0.4nm,0.6s,baz=311,slow=5.0,SNR=5.8						
	comp=Z,0.4nm,0.6s						

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*NOU **24** 00:08:34.2, 15°.23S×177°.49W, h409^{km}, mb4.4/9, Fiji Islands Region*

*NEIC **24** 00:08:36.1±1.4, 15°.2S±0°.1×177°.8W±0°.1, h400^{km}±4^{km}, mb4.1/24, Error ellipse: s-maj=17.4km s-min=11.8km az=132.0*

*IDC **24** 00:08:38.5±1.8, 15°.19S×178°.04W, h421^{km}±18^{km}, mb3.4/10, mbtmp4.2/12, Error ellipse: s-maj=21.9km s-min=12.9km az=145.0*

ISC 24 00:08:35.7±0.5**, 15°.17S**±0°.10×**177°.84W**±0°.09**, h400**^{km}**, n79,** σ1^{s}**10**/82**, mb3.9**/24**, 3C, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FUTU	**Fugatoga**	**0.90**	**342**	P	**Pn**	**00 09 27.0**	**+0.5**
FUTU	**Fugatoga**	**0.90**	**342**		**Pn**	**00 09 26.9**	**+0.3**
TAVE	**Taveuni**	**2.51**	**232**	P	**Pn**	**00 09 36.2**	**+1.1**
DGTI	**Dogotuki**	**2.59**	**244**	P	**Pn**	**00 09 36.4**	**+0.7**
MSVF	**Nonsavu**	**4.70**	**237**	P	**Pn**	**00 09 56.5**	**+1.8**
	8.4nm,0.3s,baz=226,slow=23,SNR=22						
MSVF	**Nonsavu**	**4.70**	**237**	P	**Pn**	**00 09 56.7**	**+2.0**
AFI	**Afiamalu**	**6.00**	**79**	P	**Pn**	**00 10 07.9**	**-0.6**
	55nm,0.6s,baz=110,slow=2.5,SNR=14						
AFI	**Afiamalu**	**6.00**	**79**		**Pn**	**00 10 07.6**	**-0.9**
MARNC	**Mare, Loyalty**	**14.81**	**243**	P	**P**	**00 11 47.4**	**+1.3**
MARNC	**Mare, Loyalty**	**14.81**	**243**	P	**P**	**00 11 46.9**	**+0.8**
DZM	**Mont Dzumac**	**16.40**	**243**	P	**P**	**00 12 04.6**	**+1.2**
	1.7nm,0.4s,baz=60,slow=20,SNR=7.6						
TATA	**Tatamba Isabel**	**22.89**	**285**	P	**P**	**00 13 07.4**	**+0.8**
TOZ	**Tahuroa Road**	**23.24**	**193**	P	**P**	**00 13 09.8**	**+0.3**
URZ	**Urewera**	**23.43**	**190**	P	**P**	**00 13 09.1**	**-2.1**
TCW	**Tory Channel**	**26.84**	**193**	P	**P**	**00 13 40.5**	**-1.0**
EIDS	**Eidsvold**	**30.80**	**246**	P	**P**	**00 14 16.3**	**-0.2**
EIDS				IAmb	IAmb	00 14 29.1	
	comp=Z,17nm,1.4s						
CTAO	**Charters Tower**	**34.52**	**257**	P	**P**	**00 14 50.7**	**+2.1**
CTAO				IAmb	IAmb	00 14 52.5	
	comp=Z,5.2nm,0.8s						
TOO	**Toolangi**	**39.35**	**228**	P	**P**	**00 15 28.7**	**+0.2**
TOO				IAmb	IAmb	00 15 43.5	
	comp=Z,8.9nm,1.4s						
STKA	**Stephens Creek**	**40.47**	**238**	P	**P**	**00 15 37.2**	**-0.5**
	comp=Z,1.2nm,0.3s,baz=83,slow=8.1,SNR=5.0						
	comp=Z,1.2nm,0.3s						
BBOO	**Buckleboo**	**45.25**	**239**	P	**P**	**00 16 14.6**	**-0.8**
BBOO				IAmb	IAmb	00 16 30.1	
	comp=Z,24nm,1.2s						
WB0	**Warramunga Arr**	**45.68**	**257**	P	**P**	**00 16 17.8**	**-1.2**
WRA	**Warramunga Arr**	**45.73**	**257**	P	**P**	**00 16 18.5**	**-0.8**
	comp=Z,0.7nm,0.4s,baz=90,slow=7.8,SNR=21						
WRA				PcP	**PcP**	**00 17 49.7**	**+0.2**
	comp=Z,0.9nm,0.7s,baz=92,slow=3.8,SNR=4.7						
	comp=Z,0.7nm,0.4s						
WRA	**Warramunga Arr**	**45.73**	**257**	P	**P**	**00 16 17.3**	**-2.1**
AS31	**Alice Springs**	**46.11**	**252**		**P**	**00 16 22.1**	**-0.1**
ASAR	**Alice Springs**	**46.11**	**252**	P	**P**	**00 16 21.8**	**-0.5**
	comp=Z,26nm,0.4s,baz=86,slow=8.4,SNR=549						
ASAR				PcP	**PcP**	**00 17 51.0**	**+0.1**
	comp=Z,0.9nm,0.4s,baz=100,slow=3.8,SNR=4.3						
ASAR				S	**S**	**00 22 34.5**	**-3.1**
	comp=Z,0.5nm,0.9s,baz=91,slow=14,SNR=4.3						
ASAR	**Alice Springs**	**46.11**	**252**		**P**	**00 16 22.0**	**-0.3**
MTN	**Manton Dam**	**49.48**	**266**	P	**P**	**00 16 47.7**	**-0.1**
FORT	**Forrest**	**51.71**	**243**		**P**	**00 17 03.1**	**-0.9**
FITZ	**Fitzroy Crossi**	**54.06**	**258**	P	**P**	**00 17 20.9**	**-0.2**
NWAO	**Narrogin (SRO)**	**61.00**	**241**	P	**P**	**00 18 08.1**	**-0.7**
SBA	**Scott Base**	**63.18**	**184**	P	**P**	**00 18 22.8**	**+0.5**
SBA				IAmb	IAmb	00 18 24.9	
	comp=Z,3.0nm,0.9s						
VNDA	**Vanda**	**63.21**	**185**	P	**P**	**00 18 23.1**	**+0.6**
	comp=Z,0.7nm,0.9s,baz=329,slow=6.2,SNR=3.6						
	comp=Z,0.7nm,0.9s						
VNDA	**Vanda**	**63.21**	**185**	P	**P**	**00 18 22.4**	**0.0**
CASY	**Casey**	**68.84**	**204**	P	**P**	**00 18 57.5**	**-0.6**
CASY				IAmb	IAmb	00 18 58.9	
	comp=Z,7.4nm,1.1s						
QSPA	**South Pole Qui**	**74.87**	**180**	P	**P**	**00 19 34.1**	**+0.4**
	comp=Z,6.6nm,0.7s,baz=24,slow=0.7,SNR=37						
	comp=Z,6.6nm,0.7s						
QSPA	**South Pole Qui**	**74.87**	**180**		**P**	**00 19 34.0**	**+0.4**
O02D	**Mt. Diablo Mer**	**75.12**	**41**	P	**P**	**00 19 36.5**	**+1.1**
O02D				IAmb	IAmb	00 20 04.8	
	comp=Z,7.0nm,1.3s						
BORC	**Borrego Spring**	**75.82**	**49**	P	**P**	**00 19 39.9**	**+0.6**
BORC				IAmb	IAmb	00 20 07.3	
	comp=Z,3.8nm,1.4s						
NVAR	**Mina Array Bea**	**77.08**	**44**	P	**P**	**00 19 48.2**	**+1.7**
	comp=Z,0.9nm,0.7s,baz=228,slow=8.6,SNR=5.4						
	comp=Z,0.9nm,0.7s						
TPNV	**Topopah Spring**	**77.73**	**46**	P	**P**	**00 19 50.8**	**+0.7**
TPNV				IAmb	IAmb	00 19 52.5	
	comp=Z,2.0nm,0.7s						
L18K	**Granite Mounta**	**78.91**	**10**	P	**P**	**00 19 57.1**	**+1.5**
GHO	**Glory Hole Cre**	**80.03**	**13**	P	**P**	**00 20 02.1**	**+0.4**
GHO				IAmb	IAmb	00 20 02.9	
	comp=Z,6.0nm,0.8s						
J18K	**Innoko River**	**80.08**	**9**	P	**P**	**00 20 02.8**	**+0.9**
J18K				IAmb	IAmb	00 20 04.1	
	comp=Z,3.8nm,0.8s						
ILAR	**Eielson Array**	**83.11**	**13**	P	**P**	**00 20 18.0**	**+0.6**
	comp=Z,1.6nm,0.6s,baz=232,slow=6.4,SNR=16						
	comp=Z,1.6nm,0.6s						
ILAR	**Eielson Array**	**83.11**	**13**	P	**P**	**00 20 17.8**	**+0.4**
TXAR	**Lajitas Array**	**84.07**	**58**	P	**P**	**00 20 25.4**	**+2.2**
	comp=Z,1.2nm,0.8s,baz=220,slow=6.6,SNR=7.0						
	comp=Z,1.2nm,0.8s						
TXAR	**Lajitas Array**	**84.07**	**58**	P	**P**	**00 20 24.4**	**+1.2**
PDAR	**Pinedale Array**	**85.00**	**43**	P	**P**	**00 20 28.8**	**+1.1**
	comp=Z,0.5nm,0.5s,baz=202,slow=4.0,SNR=6.3						
	comp=Z,0.5nm,0.5s						
PDAR	**Pinedale Array**	**85.00**	**43**	P	**P**	**00 20 28.0**	**+0.4**
MAW	**Mawson**	**86.61**	**200**	P	**P**	**00 20 35.2**	**+0.4**
	comp=Z,5.9nm,0.6s,baz=124,slow=6.2,SNR=24						
	comp=Z,5.9nm,0.6s						
MAW	**Mawson**	**86.61**	**200**		**P**	**00 20 35.3**	**+0.6**
CMAR	**Chiang Mai Arr**	**88.48**	**289**	P	**P**	**00 20 44.8**	**+0.2**
	comp=Z,0.5nm,0.3s,baz=111,slow=2.8,SNR=4.3						
	comp=Z,0.5nm,0.3s						
CMAR	**Chiang Mai Arr**	**88.48**	**289**	P	**P**	**00 20 44.5**	**-0.1**
TROLL	**Troll, Antarti**	**93.04**	**180**	⇑P	**P**	**00 21 04.7**	**-0.1**
	comp=Z,57nm,0.4s						
VNA3	**Neumayer Olymp**	**93.43**	**176**	⇑P	**P**	**00 21 06.6**	**+0.2**
	comp=Z,1.1nm,0.4s						
VNA2	**Neumayer--Watz**	**93.87**	**177**	⇑P	**P**	**00 21 09.1**	**+0.7**
	comp=Z,1.1nm,0.6s,baz=176,slow=4.2						
BVAR	**Borovoye Array**	**115.06**	**322**	PKP	**PKiKP**	**00 26 29.6**	**-0.3**
	comp=Z,0.9nm,0.5s,baz=270,slow=2.7,SNR=3.9						
ARCES	**ARCESS Array B**	**123.72**	**350**	PKP	**PKiKP**	**00 26 46.1**	**-0.3**
	comp=Z,4.0nm,0.8s,baz=341,slow=2.6,SNR=5.8						
ARCES	**ARCESS Array B**	**123.72**	**350**		**PKiKP**	**00 26 45.6**	**-0.7**
BR131	**Keskin Array S**	**143.19**	**318**		**PKPdf**	**00 27 21.8**	**-1.6**
BRTR	**Keskin Array B**	**143.19**	**318**	PKP	**PKPdf**	**00 27 22.1**	**-1.3**
	comp=Z,2.8nm,0.8s,baz=42,slow=2.0,SNR=18						
BRTR	**Keskin Array B**	**143.19**	**318**		**PKPdf**	**00 27 21.6**	**-1.8**
MDUB	**Mudurnu**	**144.31**	**321**	PKPbc	**PKPdf**	**00 27 24.2**	**-1.1**
MMAI	**Mount Meron Ar**	**145.04**	**307**	PKP	**PKPab**	**00 27 27.3**	**-0.4**
	comp=Z,1.4nm,0.5s,baz=44,slow=9.8,SNR=8.1						
GERES	**GERESS Array B**	**145.10**	**347**	PKPbc	**PKPab**	**00 27 26.8**	**-0.6**
	comp=Z,1.4nm,0.5s,baz=29,slow=3.0,SNR=9.0						
CONA	**Conrad Observa**	**145.42**	**344**	*e*PKP	**PKPab**	**00 27 28.6**	**0.0**
RONA	**Rosalia, Austr**	**145.51**	**343**	*e*PKP	**PKPab**	**00 27 28.1**	**-0.8**
MOA	**Molln**	**145.90**	**345**	*e*PKP	**PKPab**	**00 27 29.9**	**-0.5**
	comp=Z,1.4nm,0.5s						
SESA	**Seetaler Alpe,**	**146.51**	**345**	*e*PKP	**PKPab**	**00 27 31.5**	**-1.6**
	comp=Z,8.9nm,0.7s						
LESA	**Schwarzleotal**	**146.67**	**347**	*e*PKP	**PKiKP**	**00 27 31.8**	**-1.8**
	comp=Z,1.1nm,0.4s						
KBA	**Koelnbreinsper**	**146.84**	**346**	*e*PKP	**PKiKP**	**00 27 32.0**	**-2.2**
	comp=Z,1.3nm,0.5s						
RETA	**Reutte**	**146.99**	**349**	*i* PKP	**PKiKP**	**00 27 32.9**	**-1.4**
	comp=Z,0.6nm,0.3s						
WTTA	**Wattenberg**	**147.04**	**348**	*e*PKP	**PKiKP**	**00 27 32.9**	**-1.6**
	comp=Z,2.7nm,0.5s						
MOTA	**Moosalm**	**147.06**	**349**	*e*PKiKP	**PKPab**	**00 27 34.2**	**-1.0**
	comp=Z,0.3nm,0.3s						
SQTA	**Sankt Quirin**	**147.16**	**349**	*e*PKP	**PKiKP**	**00 27 33.5**	**-1.3**
	comp=Z,1.9nm,0.6s						
MYKA	**Terra Mystica**	**147.19**	**345**	*e*PKiKP	**PKPab**	**00 27 34.8**	**-0.8**
	comp=Z,1.7nm,0.4s						
ABTA	**Abfaltersbach**	**147.35**	**347**	*e*PKP	**PKiKP**	**00 27 33.4**	**-1.7**
	comp=Z,3.0nm,0.7s						
FUORN	**Ofenpass-Fuorn**	**147.92**	**349**	PKPbc	**PKiKP**	**00 27 35.6**	**-0.9**
BNI	**Bardonecchia**	**149.96**	**354**	PKPbc	**PKiKP**	**00 27 40.3**	**-0.3**

NNC 24 00:13:14.9±6.3**, 37°.79N**×**71°.41E, h0**^{km}**, mb4.0, mpv3.6, 2C, Error ellipse: s-maj=43.2km s-min=37.0km az=10.0, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IUG	**Iuzhnay**	**4.47**	**347**	Pg	Pg	00 14 39.1	-1.6
	34nm,0.3s						
IUG				Lg	Lg	00 15 40.1	
	80nm,0.5s						
MRKS	**Merke**	**5.14**	**15**	Pg	Pg	00 14 51.2	-2.2
	4.1nm,0.2s						
MRKS				Lg	Lg	00 16 01.8	
	21nm,0.5s						
KK31	**Karatay Array**	**5.35**	**353**	Pg	Pb	00 14 50.6	+1.3
	0.5nm,0.2s,baz=178,slow=13,SNR=14						
KK31				Lg	Lg	00 16 05.4	
	1.6nm,0.3s,baz=187,slow=17,SNR=7.5						
BRLS	**Borolday**	**5.37**	**348**	Pg	Pb	00 14 47.0	-2.6
	1.2nm,0.2s						
BRLS				Lg	Lg	00 15 54.1	
AAK	**Ala-Archa**	**5.38**	**25**	⇑Pg	Pb	00 14 52.7	+2.8
	1.5nm,1.1s						
AAK				⇑Lg	Lg	00 16 04.4	
	6.7nm,0.8s						
SGDS	**Sogindy**	**6.16**	**22**	Pg	Pb	00 15 05.6	+2.5
	1.1nm,0.3s						
SGDS				Lg	Lg	00 16 27.6	
	3.0nm,0.6s						

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*IDC **24** 00:16:15.3±3.6, 36°.26N×70°.99E, h162^{km}±30^{km}, mb3.7/16, mbtmp4.2/21, Error ellipse: s-maj=25.9km s-min=17.1km az=167.0*

*NNC **24** 00:16:16.3±4.3, 36°.95N×70°.53E, h0^{km}, mb4.6, mpv4.4, Error ellipse: s-maj=34.5km s-min=26.1km az=166.0*

*NEIC **24** 00:16:18.3±1.3, 36°.55N±0°.05×70°.94E±0°.09, h174^{km}±9^{km}, mb4.3/29, Error ellipse: s-maj=10.7km s-min=8.1km az=93.0*

ISC 24 00:16:18.2±0.4**, 36°.50N**±0°.04×**70°.96E**±0°.05**, h188**^{km}**, n134,** σ**2**^{s}**03**/155**, mb4.2**/25**, 5C-2D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBL	**Kabul**	**2.51**	**219**		**Pn**	**00 17 01.2**	**-0.5**
KBL				Sn	**Sn**	**00 17 33.0**	**-2.5**
DRK	**Karamyk**	**3.04**	**12**		**Pn**	**00 17 08.0**	**0.0**
DRK				Sn	**Sn**	**00 17 44.8**	**-2.2**
NIL	**Nilore**	**3.41**	**146**		**Pn**	**00 17 13.5**	**+1.2**
NIL				Sn	**Sn**	**00 17 54.0**	**-0.6**
BTK	**Batken**	**3.55**	**358**	Pn	**Pn**	**00 17 13.8**	**-0.2**
BTK				Sn	**Sn**	**00 17 54.9**	**-2.9**
KSH2	**Kashi**	**4.50**	**53**	Pn	**Pn**	**00 17 27.9**	**+1.9**
KSH2				Sn	**Sn**	**00 18 19.3**	**0.0**
KSH2				smax	smax		
	comp=N,420nm,0.7s						
KSH2				smax	smax		
	comp=E,170nm,0.6s						
JMU	**Jammu**	**4.90**	**138**	*e*P	**Pn**	**00 17 31.4**	**+0.4**
JMU				*e*S	**Sn**	**00 18 24.6**	**-3.7**
JMU				IAML		00 18 30.8	
	comp=E,1μm,0.3s						
JMU				IAML		00 18 31.0	
	comp=N,1μm,0.3s						
ARSB	**Arslanbob**	**5.06**	**18**		**Pn**	**00 17 32.0**	**-1.3**
ARSB				Sn	**Sn**	**00 18 27.8**	**-4.6**
TSSA	**Tissa**	**5.63**	**129**	*e*P	**Pn**	**00 17 40.6**	**-0.1**
TSSA				*e*S	**Sn**	**00 18 41.6**	**-4.0**
TSSA				IAML		00 18 46.2	
	comp=E,889nm,0.2s						
TSSA				IAML		00 18 47.0	
	comp=N,761nm,0.2s						
THN	**Thein Dam**	**5.67**	**134**	*e*P	**Pn**	**00 17 41.8**	**+0.7**
THN				*e*S	**Sn**	**00 18 42.3**	**-4.0**
THN				IAML		00 18 46.6	
	comp=E,382nm,0.2s						
THN				IAML		00 18 47.2	
	comp=N,245nm,0.4s						
IUG	**Iuzhnay**	**5.68**	**353**	*e*P	**Pn**	**00 17 40.6**	**-0.6**
CHM	**Chimkent**	**5.90**	**350**	*e*P	**Pn**	**00 17 43.7**	**-0.3**
TLWR	**Talawar**	**6.14**	**136**	*e*S	**Sn**	**00 18 52.5**	**-4.8**
TLWR				IAML		00 18 57.1	
	comp=E,222nm,0.5s						
TLWR				IAML		00 18 58.3	
	comp=N,252nm,0.2s						
NRN	**Naryn**	**6.29**	**37**		**Pn**	**00 17 47.3**	**-2.1**
DZA	**Taraz**	**6.39**	**2**	*e*P	**Pn**	**00 17 49.7**	**-0.6**
DZA				*e*S	**Sn**	**00 19 00.8**	**-2.3**
EKS2	**Erkin-Say**	**6.52**	**19**	P	**Pn**	**00 17 51.9**	**-0.3**
	SNR=47						
BRLS	**Borolday**	**6.58**	**353**	*e*P	Pn	00 17 48.4	-4.4
BRLS				*e*S	Sn	00 18 58.8	-8.7
KK31	**Karatay Array**	**6.60**	**357**	⇑P	**Pn**	**00 17 49.4**	**-3.7**
	comp=N,57nm,0.6s,baz=177,slow=12,SNR=228						
KK31				⇑S	**Sn**	**00 19 01.6**	**-6.6**
	comp=N,20nm,0.3s,baz=187,slow=20,SNR=12						
KK31	**Karatay Array**	**6.60**	**357**		**Pn**	**00 17 52.0**	**-1.1**
KKAR	**Karatay Array**	**6.60**	**357**		**Pn**	**00 17 52.0**	**-1.1**
AAK	**Ala-Archa**	**6.71**	**23**	P	**Pn**	**00 17 54.7**	**+0.1**
	SNR=7.7						
AAK	**Ala-Archa**	**6.71**	**23**	P	**Pn**	**00 17 54.2**	**-0.4**
	comp=N,15nm,0.5s,baz=208,slow=10,SNR=29						
AAK				S	**Sn**	**00 19 06.8**	**-4.1**
	comp=N,29nm,0.7s,baz=329,slow=22,SNR=20						
AAK	**Ala-Archa**	**6.71**	**23**	⇑P	**Pn**	**00 17 53.5**	**-1.1**
	comp=N,8.7nm,0.7s						
AAK				⇑S	**Sn**	**00 19 06.7**	**-4.1**
	comp=N,17nm,0.7s						
BHK	**Bhakra**	**6.80**	**137**	*e*P	**Pn**	**00 18 00.3**	**+4.5**
KBK	**Karagaybulak**	**6.87**	**25**	P	**Pn**	**00 17 57.0**	**+0.2**
	SNR=13						
FRU1	**Bishkek**	**6.90**	**23**		**Pn**	**00 17 56.4**	**-0.7**
BOOM	**Boomskoye usch**	**7.11**	**31**	Pn	**Pn**	**00 17 59.0**	**-0.9**
CHMS	**Chumysh**	**7.11**	**23**	P	**Pn**	**00 17 59.2**	**-0.5**
	SNR=19						
USP	**Ospenovka**	**7.28**	**21**	P	**Pn**	**00 18 00.6**	**-1.4**
	SNR=14						
TKM2	**Tokmak 2**	**7.34**	**28**	P	**Pn**	**00 18 02.4**	**-0.5**
	SNR=33						
KDJ	**Kajisay**	**7.40**	**39**	Pn	**Pn**	**00 18 02.2**	**-1.6**
SMLA	**Simla**	**7.44**	**134**	*e*P	**Pn**	**00 18 05.0**	**+0.8**
SMLA				*e*S	**Sn**	**00 19 23.0**	**-5.1**
SMLA				IAML		00 19 27.9	
	comp=N,267nm,0.6s						
SMLA				IAML		00 19 28.3	
	comp=E,241nm,0.0s						
TARG	**Taragay, Kyrgy**	**7.45**	**43**	Pn	**Pn**	**00 18 03.6**	**-1.0**
KLP	**Kalpa**	**7.82**	**127**	*e*P	**Pn**	**00 18 09.9**	**+0.4**
KLP				*e*S	**Sn**	**00 19 31.4**	**-6.2**
KLP				IAML		00 19 35.9	
	comp=N,110nm,0.3s						
KLP				IAML		00 19 37.4	
	comp=E,106nm,0.7s						
AAA	**Alma-Ata**	**8.11**	**33**	*e*P	**Pn**	**00 18 13.7**	**+0.8**
MDOK	**Medeo**	**8.13**	**33**	*e*P	**Pn**	**00 18 14.3**	**+1.1**
MDOK				*e*S	**Sn**	**00 19 45.0**	**+0.3**
KUU	**Kurty**	**8.45**	**27**	*e*P	**Pn**	**00 18 17.8**	**+0.5**
SATY	**Saty**	**8.70**	**39**	*e*P	**Pn**	**00 18 21.8**	**+1.1**
UZB	**Uzynbulak**	**9.08**	**41**	*e*P	**Pn**	**00 18 26.8**	**+1.2**
KPKS	**Kokpek**	**9.13**	**38**	*e*P	**Pn**	**00 18 27.0**	**+0.7**
PDGK	**Podgornoye**	**9.45**	**41**	Pn	**Pn**	**00 18 29.8**	**-0.7**
AJM	**Ajmer**	**10.52**	**162**	*e*P	**Pn**	**00 18 46.2**	**+1.6**
AJM				*e*S	**Sn**	**00 20 34.0**	**-7.9**
AJM				IAML		00 20 40.5	
	comp=E,111nm,0.0s						
AJM				IAML		00 20 42.2	
	comp=N,114nm,0.3s						
MAKZ	**Makanchi**	**13.17**	**35**		**Pn**	**00 19 18.5**	**+0.4**
MKAR	**Makanchi Array**	**13.31**	**36**	P	**Pn**	**00 19 20.1**	**+0.3**
	comp=N,1.9nm,0.7s,baz=205,slow=9.0,SNR=17						
MKAR	**Makanchi Array**	**13.31**	**36**	Pn	**Pn**	**00 19 20.5**	**+0.6**
WMQ	**Urumqi**	**14.72**	**55**	*e*P	**P**	**00 19 39.3**	**+0.6**
WMQ				pmax	pmax		
	comp=Z,12nm,1.3s						
ZSN	**Zaisan**	**15.03**	**39**	*e*P	**P**	**00 19 42.6**	**+0.6**
AB31	**Akbulak array**	**15.06**	**331**	P	**Pn**	**00 19 40.2**	**-1.3**
	comp=Z,1.8nm,0.3s,baz=146,slow=11,SNR=116						
AB31				S	**Sn**	**00 22 24.1**	**-5.7**
	comp=Z,1.8nm,0.5s,baz=154,slow=23,SNR=5.8						
AB31	**Akbulak array**	**15.06**	**331**		**Pn**	**00 19 40.2**	**-1.3**
AB31				IAmb	IAmb	00 19 46.1	
	comp=Z,6.3nm,0.6s						
ABKAR	**Akbulak array**	**15.06**	**331**		**Pn**	**00 19 40.2**	**-1.3**
KURBB	**Kurchatov Arra**	**15.13**	**19**	P	**Pn**	**00 19 42.4**	**+0.1**
	comp=Z,2.6nm,1.0s,baz=8.2,slow=27,SNR=14						
KURK	**Kurchatov**	**15.24**	**19**		**Pn**	**00 19 43.4**	**-0.2**
EVN	**Everest**	**15.88**	**118**	P	**P**	**00 19 52.3**	**0.0**
EVN				IAmb	IAmb	00 19 57.0	
	comp=Z,8.9nm,0.5s						
BVAR	**Borovoye Array**	**16.52**	**359**	P	**Pn**	**00 20 00.0**	**+0.9**
	comp=Z,2.7nm,0.7s,baz=163,slow=11,SNR=11						
BVAR				S	**S**	**00 22 57.7**	**-3.5**
	comp=Z,1.6nm,0.8s,baz=172,slow=21,SNR=3.1						
BORK	**Borovoye**	**16.55**	**359**		**P**	**00 19 59.3**	**+0.6**
AKTO	**Aktyubinsk**	**16.76**	**330**	P	**Pn**	**00 20 02.2**	**+0.2**
	comp=Z,8.8nm,0.4s,baz=142,slow=9.6,SNR=23						
AKTO				S	**S**	**00 23 01.4**	**-4.8**
	comp=Z,1.8nm,0.6s,baz=166,slow=22,SNR=5.6						
AKTO	**Aktyubinsk**	**16.76**	**330**	⇓P	**Pn**	**00 20 02.2**	**+0.2**
	comp=Z,9.3nm,0.8s						
AKTO				⇑S	**S**	**00 23 07.0**	**+0.8**
	comp=Z,7.1nm,1.1s						
ZAA0	**Zalesovo Array**	**19.92**	**25**		**P**	**00 20 35.8**	**+0.4**
ZAA0				IAmb	IAmb	00 20 36.8	
	comp=Z,8.3nm,0.5s						
ZALV	**Zalesovo Beam**	**19.92**	**25**	P	**P**	**00 20 36.3**	**+0.9**
	comp=Z,8.1nm,0.5s,baz=223,slow=11,SNR=42						
ZALV				S	**S**	**00 24 05.3**	**-3.6**
	comp=Z,0.8nm,0.6s,baz=224,slow=20,SNR=1.7						
	comp=Z,8.1nm,0.5s						
ZALV	**Zalesovo Beam**	**19.92**	**25**	P	**P**	**00 20 35.6**	**+0.2**
GNI	**Garni**	**20.86**	**288**	P	**P**	**00 20 47.5**	**+1.8**
	comp=Z,5.0nm,0.6s,baz=152,slow=10,SNR=5.7						
	comp=Z,5.0nm,0.6s						
GNI	**Garni**	**20.86**	**288**		**P**	**00 20 46.5**	**+0.8**
GNI				IAmb	IAmb	00 20 49.6	
	comp=Z,13nm,1.1s						
ARTI	**Arti**	**21.63**	**341**	P	**P**	**00 20 54.5**	**+1.1**
	comp=Z,3.7nm,0.6s,baz=146,slow=10,SNR=8.0						
	comp=Z,3.7nm,0.6s						
ARTI	**Arti**	**21.63**	**341**	P	**P**	**00 20 53.8**	**+0.4**
ARTI				IAmb	IAmb	00 20 56.1	
	comp=Z,18nm,1.3s						
KBZ	**Khabaz**	**22.57**	**297**	P	**P**	**00 21 03.0**	**+0.5**
	comp=Z,1.3nm,0.6s,baz=104,slow=10,SNR=4.9						
	comp=Z,1.3nm,0.6s						
KIV	**Kislovodsk**	**22.76**	**298**	P	**P**	**00 21 05.7**	**+1.4**
KIV				IAmb	IAmb	00 21 28.1	
	comp=Z,5.3nm,0.7s						
RAYN	**Ar Rayn**	**25.47**	**247**	P	**P**	**00 21 29.3**	**+0.2**
LZH	**Lanzhou**	**26.44**	**81**	*e*P	**P**	**00 21 42.5**	**+4.7**
LZH				pP	pP	00 22 08.9	-8.4
LZH				pmax	pmax		
	comp=Z,17nm,1.1s						
PZH	**PanZhiHua**	**27.97**	**102**	P	**P**	**00 21 54.3**	**+2.8**
BRTR	**Keskin Array B**	**29.40**	**288**	P	**P**	**00 22 04.8**	**+0.7**
	comp=Z,0.2nm,0.3s,baz=84,slow=13,SNR=1.9						
	comp=Z,0.2nm,0.3s						
XAN	**Xi'an**	**30.96**	**83**	*e*P	**P**	**00 22 13.3**	**-4.4**
HHC	**Hu-ho-hao-te**	**31.79**	**70**	*e*P	**P**	**00 22 26.9**	**+1.9**
HHC				pmax	pmax		
	comp=Z,9.0nm,0.7s						
HHC				pmax	pmax		
	comp=Z,49nm,6.0s						
ELL	**Elmali**	**32.77**	**283**	P	**P**	**00 22 33.7**	**+0.1**
ELL				IAmb	IAmb	00 23 04.5	
	comp=Z,11nm,1.3s						
AKASG	**Malin Array Be**	**32.92**	**309**	P	**P**	**00 22 35.5**	**+1.0**
	comp=Z,2.3nm,0.6s,baz=84,slow=6.9,SNR=16						
	comp=Z,2.3nm,0.6s						
AKASG	**Malin Array Be**	**32.92**	**309**	P	**P**	**00 22 34.9**	**+0.3**
AKBB	**Malin Array Si**	**32.92**	**309**	P	**P**	**00 22 34.7**	**+0.1**

AKBB				IAmb	IAmb	00 22 36.1	
	comp=Z,6.8nm,0.7s						
KIEV	Kiev	32.93	309	P	P	00 22 35.0	+0.4
KIEV				IAmb	IAmb	00 22 36.1	
	comp=Z,6.2nm,0.7s						
NRIK	Noril'sk	34.13	10	P	P	00 22 46.4	+1.6
	comp=Z,3.5nm,0.5s,baz=163,slow=6.7,SNR=5.0						
	comp=Z,3.5nm,0.5s						
NRIK	Noril'sk	34.13	10	P	P	00 22 45.9	+1.2
NRIK				IAmb	IAmb	00 22 47.6	
	comp=Z,3.9nm,0.7s						
MLR	Muntele Rosu	34.75	299	P	P	00 22 52.0	+1.4
MLR				IAmb	IAmb	00 22 54.9	
	comp=Z,4.7nm,0.9s						
NACGM	Naroch	35.19	316	⇓iP	P	00 22 55.6	+1.6
	comp=Z,17nm,0.9s,baz=103						
BURAR	Bucovina Array	35.26	303	P	P	00 22 55.5	+0.7
BUR08	Bucovina Ar. S	35.27	303	P	P	00 22 55.8	+0.9
BUR08				IAmb	IAmb	00 22 59.7	
	comp=Z,7.1nm,1.4s						
PABE	Paberze	36.89	316	P	P	00 23 09.3	+0.9
PABE				IAmb	IAmb	00 23 11.3	
	comp=Z,7.5nm,0.9s						
KOLS	Kolonicke sedl	37.25	305	eP	P	00 23 13.8	+2.2
FIA1	FINESS Array S	37.46	326	P	P	00 23 13.7	+0.5
FINES	FINESS Array B	37.46	326	P	P	00 23 14.4	+1.3
	comp=Z,2.2nm,0.5s,baz=119,slow=10,SNR=22						
	comp=Z,2.2nm,0.5s						
FINES	FINESS Array B	37.46	326	P	P	00 23 14.1	+0.9
VYHS	Vyhne	39.53	304	eP	P	00 23 33.2	+2.6
VADS	Vadso	40.30	339	eP	P	00 23 38.1	+1.5
MORC	Moravsky Berou	40.34	306	P	P	00 23 38.5	+1.2
KEV	Kevo	40.79	338	P	P	00 23 41.4	+0.8
ARA0	ARCESS Array S	41.13	338	eP	P	00 23 45.4	+2.0
ARCES	ARCESS Array B	41.13	338	P	P	00 23 45.0	+1.6
	comp=Z,6.5nm,0.7s,baz=108,slow=7.9,SNR=21						
	comp=Z,6.5nm,0.7s						
ARCES	ARCESS Array B	41.13	338	P	P	00 23 44.4	+0.9
ARCES				IAmb	IAmb	00 24 20.6	
	comp=Z,7.8nm,1.1s						
BLEU	Blekinge	41.55	316	iP	P	00 23 47.8	+0.9
KTK1	Kautokeino	41.60	336	eP	P	00 23 48.5	+1.2
BSD	Bornholm Skovb	41.98	315	iP	P	00 23 50.6	+0.1
BSD				IAmb	IAmb	00 23 52.0	
	comp=Z,7.1nm,0.9s						
HAMF	Hammerfest	42.21	339	eP	P	00 23 54.1	+1.9
DEL	Delary	42.64	317	iP	P	00 23 56.9	+1.2
GSI	Gunungsitoli	42.82	139	P	P	00 23 59.0	+1.3
LUNU	Lund	42.84	315	iP	P	00 23 59.0	+1.6
HFS	Hagfors	43.04	322	P	P	00 24 00.1	+1.2
	comp=Z,7.1nm,0.6s,baz=98,slow=11,SNR=29						
	comp=Z,7.1nm,0.6s						
CLL	Collm	43.16	309	eP	P	00 24 01.0	+0.9
TRO	Tromso	43.25	336	eP	P	00 24 01.7	+1.2
FABU	Falkenberg	43.30	317	iP	P	00 24 02.0	+1.0
ONAU	Onsala	43.75	318	iP	P	00 24 05.7	+1.1
FAUS	Fauske	43.78	333	eP	P	00 24 05.5	+0.8
STEI	Steigen	43.95	333	eP	P	00 24 07.8	+1.7
NC602	NORSAR Array S	44.17	323	eP	P	00 24 07.8	-0.2
STRU	Stroemstad	44.22	320	iP	P	00 24 09.4	+1.0
NC303	NORSAR Array S	44.30	323	P	P	00 24 10.1	+1.1
LEIR	Leirfjorden	44.31	330	eP	P	00 24 09.9	+0.9
NB2	NORSAR Subarra	44.36	323	P	P	00 24 10.1	+0.6
	comp=Z,5.2nm,0.6s,baz=97,slow=7.9						
NB2	NORSAR Subarra	44.36	323	P	P	00 24 10.1	+0.6
NOA	NORSAR Array B	44.36	323	P	P	00 24 10.1	+0.6
	comp=Z,4.5nm,0.5s,baz=96,slow=7.7,SNR=34						
	comp=Z,4.5nm,0.5s						
VAGH	Vaagaholmen	44.39	331	eP	P	00 24 11.1	+1.5
KONS	Konsvik	44.39	331	eP	P	00 24 10.6	+1.0
STOK	Stokkvaagen	44.40	331	eP	P	00 24 09.4	-0.2
LOF	Lofoten	44.63	333	eP	P	00 24 12.5	+1.0
KONO	Kongsberg	45.06	321	eP	P	00 24 16.0	+1.0
KONO	Kongsberg	45.06	321	P	P	00 24 15.8	+0.8
BJO1	Bjornoya	45.25	343	eP	P	00 24 17.7	+1.4
SKAR	Skarslia	45.75	322	eP	P	00 24 21.9	+1.4
SNART	Snartemo	46.28	319	eP	P	00 24 25.7	+1.1
BLS5	Blasjo	46.66	321	eP	P	00 24 29.0	+1.5
BER	Bergen	47.22	322	eP	P	00 24 32.8	+1.0
SPITS	Spitsbergen Ar	47.48	347	P	P	00 24 35.9	+2.3
	comp=Z,5.2nm,0.6s,baz=120,slow=8.5,SNR=2.5						
	comp=Z,5.2nm,0.6s						
SENIN	Lac Senin/Sane	47.56	303	P	P	00 24 34.9	0.0
EKA	Eskdalemuir Ar	52.26	316	P	P	00 25 10.6	+0.7
	comp=Z,0.6nm,0.5s,baz=62,slow=6.9,SNR=6.3						
	comp=Z,0.6nm,0.5s						
SUMG	Summit	61.05	341	P	P	00 26 13.8	+1.8
TORD	Torodi Ar. Bea	65.69	269	P	P	00 26 41.7	-1.1
	comp=Z,0.8nm,0.5s,baz=50,slow=6.2,SNR=12						
	comp=Z,0.8nm,0.5s						
C36M	Paulatuk	73.88	5	P	P	00 27 32.5	+0.7
C36M				IAmb	IAmb	00 27 40.0	
	comp=Z,10nm,1.4s						
YKA	Yellowknife Ar	81.24	3	P	P	00 28 14.1	+1.4
	comp=Z,0.6nm,0.3s,baz=352,slow=5.4,SNR=5.9						
	comp=Z,0.6nm,0.3s						
WRA	Warramunga Arr	82.02	122	P	P	00 28 17.4	0.0
	comp=Z,0.3nm,0.5s,baz=316,slow=5.0,SNR=2.5						
	comp=Z,0.3nm,0.5s						

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*IDC **24** 00:17:56.0±1.7, 10°.05N×125°.99E, h0^{km}, mb3.7/7, mbtmp3.7/7, MS4.5/1, Error ellipse: s-maj=139.1km s-min=19.0km az=68.0*

*MAN **24** 00:18:03.0, 9°.99N×126°.01E, h6^{km}, MS3.6*

ISC 24 00:17:58.6±2.2, **10°.09N**±0°.05×**126°.34E**±0°.06, **h17**^{km}±13^{km}, **n23,** σ1^{s}**80**/27, **mb3.7**/7, **Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PLP	Palo	1.71	309	eP	Pb	00 18 29.9	+0.2
PLP				eS	Sg	00 18 53.1	-0.8
BIPH	Bislig	1.90	179	eP	Pn	00 18 31.4	+1.2
BIPH				iS	Sn	00 18 54.2	+0.5
CDOP	Cateel, Davao	2.29	178	eP	Pn	00 18 35.3	-0.4
CDOP				eS	Sn	00 19 04.7	+1.2
LLP	Lapu-Lapu	2.35	276	eP	Pb	00 18 39.5	-1.0
LLP				iS	Sb	00 19 07.6	-1.7
TBP	Tagbilaran	2.48	261	eP	Pb	00 18 40.4	-2.2
TBP				iS	Sb	00 19 09.5	-3.4
BUKP	Musuan	2.54	210	eP	Pb	00 18 42.6	-1.1
BUKP				eS	Sb	00 19 12.8	-1.9
LSIP	Lazi, Siquijor	2.84	251	eP	Pn	00 18 45.4	+2.2
LSIP				eS	Sn	00 19 18.5	+1.5
DMPH	Davao City--Mi	3.10	196	eP	Pb	00 18 53.0	-0.3
DMPH				iS	Sg	00 19 40.4	+2.0
SNPH	Sibulan	3.15	257	eP	Pn	00 18 50.2	+2.7
PAGZ	Pagadian	3.68	233	eP	Pn	00 18 57.6	+2.9
PAGZ				eS	Sn	00 19 37.8	+0.1
GUIM	Jordan	3.73	279	eP	Pn	00 18 59.1	+3.7
FITZ	Fitzroy Crossi	28.02	181	P	P	00 23 49.1	+0.2
	2.1nm,1.0s,baz=11,slow=12,SNR=1.7						
	2.1nm,1.0s						
MJAR	Matsushiro Arr	28.44	20	LR	LR	00 34 20.7	
	comp=Z,25nm,20.2s,baz=236,slow=34						
WRA	Warramunga Arr	30.87	165	P	P	00 24 14.4	+0.2
	0.2nm,0.6s,baz=343,slow=8.8,SNR=1.7						
	0.2nm,0.6s						
ASAR	Alice Springs	34.36	168	P	P	00 24 44.8	0.0
	0.2nm,0.5s,baz=347,slow=6.5,SNR=4.9						
	0.2nm,0.5s						
H11N1	WAKE ISLAND Hy	40.24	71	T	T	01 08 48.8	
	baz=262,slow=74,SNR=24						
H11N2	WAKE ISLAND Hy	40.25	71	T	T	01 08 48.8	
	baz=262,slow=74,SNR=23						
H11N3	WAKE ISLAND Hy	40.26	71	T	T	01 08 52.3	
	baz=262,slow=74,SNR=24						
STKA	Stephens Creek	44.21	161	P	P	00 26 07.4	+0.5
	1.2nm,0.5s,baz=328,slow=9.5,SNR=3.9						
	1.2nm,0.5s						
MKAR	Makanchi Array	52.21	323	P	P	00 27 07.4	-1.3
	0.7nm,0.7s,baz=123,slow=8.8,SNR=5.2						
	0.7nm,0.7s						
KURBB	Kurchatov Arra	56.26	325	P	P	00 27 36.7	-1.4
	0.6nm,0.8s,baz=136,slow=6.3,SNR=5.7						
	0.6nm,0.8s						
GNI	Garni	77.17	309	LR	LR	01 08 46.5	
	comp=Z,280nm,20.1s,baz=265,slow=40						
FINES	FINESS Array B	86.08	332	P	P	00 30 38.1	-0.2
	3.6nm,1.0s,baz=83,slow=6.0,SNR=5.1						
	3.6nm,1.0s						

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*MOS **24** 00:27:47.9±1.1, 0°.15S×18°.62W, h10^{km}, mb5.2/30, MS5.1/17, Error ellipse: s-maj=12.4km s-min=5.0km az=54.6*

*IDC **24** 00:27:48.4±0.6, 0°.11S×18°.67W, h0^{km}, mb4.3/22, mbtmp4.3/22, MS5.0/71, Error ellipse: s-maj=22.9km s-min=12.7km az=133.0*

*NEIC **24** 00:27:49, 0°.24S×18°.81W, h10^{km}*

*NEIC **24** 00:27:49.0±1.6, 0°.24S±0°.09×18°.81W±0°.09, h10^{km}±1^{km}, mb5.1/99, Ms_20 5.2/256, Mwb5.8/112, Mww5.8/37, Error ellipse: s-maj=15.3km s-min=15.1km az=224.0, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}0.25; $M_{\theta\theta}$2.10; $M_{\phi\phi}$-2.35; $M_{r\theta}$0.39; $M_{\theta\phi}$-5.25; $M_{\phi r}$-0.75; Fault plane solution: $M_0$5.77000×10^{17} NP1: ϕ_s168.73000°, δ87.22000°, λ8.26000°. NP2: ϕ_s78.33000°, δ81.75000°, λ177.19000°. Principal axes: T 5.6788, Plg8.0000°, Azm34.0000°; N 0.1748, Plg81.0000°, Azm187.0000°; P -5.8536, Plg4.0000°, Azm303.0000°;*

*NEIC **24** 00:27:49.6, 0°.26S×18°.84W, h10^{km}*

*IPGP **24** 00:27:49.0, 0°.28S×18°.83W, h19^{km}, Mw5.8, Fault plane solution: NP1: ϕ_s350.00000°, δ87.00000°, λ-18.00000°. NP2: ϕ_s81.00000°, δ72.00000°, λ-177.00000°.*

*GFZ **24** 00:27:50.2±0.2, 0°S±4°×1°9W±°, h10^{km}, M5.2/80, mb4.9/80, Error ellipse: s-maj=8.6km s-min=7.7km az=108.6, confirmed*

*GFZ **24** 00:27:51.2, 0°.18S×18°.48W, h20^{km}, Mw5.8/161, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}-0.43; $M_{\theta\theta}$2.20; $M_{\phi\phi}$-1.77; $M_{r\theta}$1.00; $M_{\theta\phi}$-5.03; $M_{\phi r}$-1.03; Fault plane solution: $M_0$5.60246×10^{17} NP1: ϕ_s169.77243°, δ83.80641°, λ11.41038°. NP2: ϕ_s78.52505°, δ78.65711°, λ173.68253°. Principal axes: T 5.9284, Plg12.4368°, Azm34.5549°; N -0.7218, Plg77.0367°, Azm197.8999°; P -5.2066, Plg3.5997°, Azm303.7599°;*

*GCMT **24** 00:27:54.0±0.1, 0°.23S±0°.01×18°.80W, h25^{km}, MW5.8/175, Moment Tensor Solution. s154,c320; s175,c385; Duration: 2^{s}0 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.04±.06; $M_{\theta\theta}$2.32±.05; $M_{\phi\phi}$-2.28±.05; $M_{r\theta}$2.19±.13; $M_{\theta\phi}$-5.91±.05; $M_{\phi r}$-1.70±.13; Best double couple: $M_0$6.86000×10^{17} NP1: ϕ_s77.00000°, δ74.00000°, λ166.00000°. NP2: ϕ_s171.00000°, δ77.00000°, λ16.00000°. Principal axes: T 7.3930, Plg20.0000°, Azm35.0000°; N -1.0630, Plg69.0000°, Azm209.0000°; P -6.3270, Plg2.0000°, Azm304.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*NEIC **24** 00:27:54.8, 0°.24S×18°.71W, h12^{km}, Moment Tensor Solution. Duration: 3^{s}8 Moment tensor: Scale 10^{17}Nm; M_{rr}0.46; $M_{\theta\theta}$1.37; $M_{\phi\phi}$-1.82; $M_{r\theta}$-0.98; $M_{\theta\phi}$-4.89; $M_{\phi r}$-1.46; Fault plane solution: $M_0$5.45000×10^{17} NP1: ϕ_s82.06000°, δ78.46000°, λ-169.46000°. NP2: ϕ_s349.93000°, δ79.68000°, λ-11.73000°. Principal axes: T 4.9122, Plg1.0000°, Azm36.0000°; N 0.9445, Plg74.0000°, Azm129.0000°; P -5.8567, Plg16.0000°, Azm306.0000°;*

ISC 24 00:27:48.5±0.3, **0°.23S**±0°.05×**18°.76W**±0°.05, **h10**^{km}, **n715,** σ1^{s}**64**/584, **mb5.0**/210, **MS5.2**/219, **42C-28D, Central Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
H10N2	ASCENSION HYDR	8.66	151	T	T	00 39 05.3	
	baz=333,slow=74,SNR=1897						
H10N3	ASCENSION HYDR	8.67	151	T	T	00 39 05.6	
	baz=333						
H10N1	ASCENSION HYDR	8.68	151	T	T	00 39 05.6	
	baz=333,SNR=3242						
ASCN	Ascension	8.82	150	Pn	Pn	00 29 55.2	-0.9
ASCN	Ascension	8.82	150	P	Pn	00 29 55.1	-1.1
	comp=Z,694nm,0.4s						
H10S3	ASCENSION HYDR	9.57	155	T	T	00 40 20.3	
	baz=339,slow=74,SNR=3400						
H10S2	ASCENSION HYDR	9.59	155	T	T	00 40 20.8	
	baz=241,slow=74,SNR=3244						
DBIC	Dimbokro	15.47	63	Pn	Pn	00 31 27.4	+0.4
	comp=Z,27nm,0.3s,baz=252,slow=13,SNR=92						
DBIC				Sn	Sn	00 34 09.1	-10
	comp=Z,13nm,0.3s,baz=358,slow=21,SNR=13						
DBIC				LR	LR	00 36 28.4	
	comp=Z,14µm,18.4s,baz=242,slow=34						
DBIC	Dimbokro	15.47	63	P	Pn	00 31 27.3	+0.3
DBIC				pmax	pmax		
	comp=Z,138nm,0.5s						
DBIC	Dimbokro	15.47	63		Pn	00 31 27.3	+0.3
DBIC	Dimbokro	15.47	63	P	Pn	00 31 28.4	+1.3
	comp=Z,196nm,0.5s						
SACV	Santiago Islan	15.85	343		Pn	00 31 28.3	-3.6
SACV	Santiago Islan	15.85	343	P	Pn	00 31 30.4	-1.5
	comp=Z,38nm,1.0s						
NBPV	Pedro Velho	17.61	249	eP	Pn	00 31 51.0	-3.2
RCBR	Riachuelo	17.99	252	P	Pn	00 31 51.5	-7.6
	comp=Z,4.6nm,0.4s,baz=87,slow=19,SNR=19						
RCBR				Sn	Sn	00 34 58.6	-21
	comp=Z,0.2nm,0.3s,baz=120,slow=23,SNR=1.3						
RCBR				LR	LR	00 37 18.9	
	comp=Z,1µm,18.9s,baz=78,slow=32						
RCBR	Riachuelo	17.99	252	P	Pn	00 31 51.4	-7.7
RCBR				pmax	pmax		
	comp=Z,44nm,1.4s						
RCBR	Riachuelo	17.99	252		Pn	00 31 51.4	-7.7
RCBR	Riachuelo	17.99	252	eP	Pn	00 31 56.4	-2.7
ACRG	Accra	19.42	72	P	P	00 32 15.1	-0.1
ACRG				IAmb	IAmb	00 32 23.1	
	comp=Z,91nm,0.7s						
ACRG	Accra	19.42	72	P	P	00 32 15.4	+0.2
	comp=Z,139nm,0.9s						
NBMA	Muriti-CE	21.17	250	eP	P	00 32 32.1	-2.2
NBMO	Morrinhos-CE	21.49	262	eP	P	00 32 33.8	-4.0
NBPS	Pedro II - PI	23.04	259	eP	P	00 32 50.7	-3.6
TORD	Torodi Ar. Bea	24.24	56	P	P	00 33 06.0	0.0
	comp=Z,14nm,0.7s,baz=236,slow=10,SNR=57						
TORD				S	S	00 37 25.9	+1.1
	comp=Z,46nm,1.1s,baz=242,slow=23,SNR=6.4						
TORD				LR	LR	00 41 26.6	
	comp=Z,4µm,18.3s,baz=250,slow=34						
	comp=Z,14nm,0.7s						
TORD	Torodi Ar. Bea	24.24	56	P	P	00 33 05.2	-0.8
NBIT	Itapeh - BA	25.12	234	eP	P	00 33 14.4	+0.4
CMC01	Camacan, BA	25.43	233	eP	P	00 33 17.1	+0.4
GUA01	Guaratinga, BA	26.35	231	eP	P	00 33 25.6	+0.5
ABR01	Abrolhos, BA	26.36	227	eP	P	00 33 26.2	+1.1
MACI	Morro de la Ar	28.40	4	P	P	00 33 45.1	+1.5
	comp=Z,41nm,1.6s						
RIB01	Linhares ES	28.46	227	eP	P	00 33 44.8	+0.9
BSFB	Barra de Sao F	28.49	228	eP	P	00 33 45.2	+0.9
SJMB	Sao Joao De Ma	28.67	229	eP	P	00 33 46.8	+0.9
EDA	Edea	29.16	82	P	P	00 33 49.4	-1.0
EDA				IAmb	IAmb	00 34 53.1	
	comp=Z,41nm,1.6s						
ALF01	Guarapari-ES	29.53	225	eP	P	00 33 54.8	+1.4
MC01	Montes Claros	29.73	235	eP	P	00 33 55.3	-0.1
SMTB	Santa Maria do	29.97	253	eP	P	00 33 55.0	-2.4
DIAM	Diamantina, MG	30.36	232	eP	P	00 34 01.1	+0.1
BDFB	Brasilia	32.69	241	P	P	00 34 25.2	+3.7
	comp=Z,1.4nm,0.6s,baz=136,slow=8.7,SNR=4.7						
BDFB				LR	LR	00 45 55.3	
	comp=Z,4µm,20.4s,baz=71,slow=33						
	comp=Z,1.4nm,0.6s						
BDFB	Brasilia	32.69	241	P	P	00 34 21.4	-0.1
BDFB				IAmb	IAmb	00 35 06.5	
	comp=Z,48nm,1.6s						
TIO	Tiouine	32.86	18	P	P	00 34 22.6	-0.3
TIO	Tiouine	32.86	18	P	P	00 34 24.2	+1.3
	comp=Z,56nm,1.3s						
TAM	Tamanrasset	32.90	44	P	P	00 34 23.3	0.0
TAM				pmax	pmax		
	comp=Z,30nm,0.7s						
TAM				MLR	MLR		
	comp=Z,6µm,20.0s						
TAM	Tamanrasset	32.90	44		P	00 34 23.3	0.0
TAM				IAMs_20	IAMs_20	00 47 06.9	
	comp=Z,6µm,20.0s						
TAM	Tamanrasset	32.90	44	P	P	00 34 24.4	+1.1
	comp=Z,10nm,0.9s						
MD31	MD31	35.47	21		P	00 34 45.5	+0.1
MD01	Midelt array s	35.47	21		P	00 34 45.9	+0.3
MDT	Midelt	35.48	21	LR	LR	00 49 32.6	
	comp=Z,2µm,18.6s,baz=225,slow=37						
RTC	Rabat Centre	35.83	17	P	P	00 34 48.5	+0.1
	comp=Z,103nm,0.4s						
IFR	Ifrane	35.94	20	P	P	00 34 50.7	+1.1
IFR	Ifrane	35.94	20	P	P	00 34 51.3	+1.8
	comp=Z,7.8nm,0.8s						
CLDB	Colider	38.30	253	P	P	00 35 14.8	+5.1
	comp=Z,6.1nm,1.1s						
PFVI	Vila Bisbo	38.30	13	P	P	00 35 09.8	+0.5
PFVI	Vila Bisbo	38.30	13	⇑eP	P	00 35 11.3	+1.9
PFVI	Vila Bisbo	38.30	13	P	P	00 35 09.7	+0.3
PFVI				IAmb	IAmb	00 35 12.7	
	comp=Z,32nm,1.2s						
MORF	Marmelete	38.50	13	eP	P	00 35 12.2	+1.1
MORF				ePP	PP	00 36 40.2	+0.8
MORF				eS	S	00 41 09.6	+2.8
MORF				IAMs_20	IAMs_20	00 43 57.6	
	comp=E,7µm,44.6s						
MORF	Marmelete	38.50	13	eP	P	00 35 15.0	+3.9
PBDV	Barranco-do-Ve	38.61	14	P	P	00 35 12.9	+0.9
PBDV	Barranco-do-Ve	38.61	14	eP	P	00 35 15.0	+3.0
PTEO	Sao Teotonio	38.72	13	eP	P	00 35 14.4	+1.6
ESPR	Espera	38.80	17	P	P	00 35 13.4	-0.2
PVAQ	Vaqueiros	38.82	14	eP	P	00 35 15.1	+1.5
PVAQ				iIAmb	IAmb	00 36 09.3	
	comp=E,39nm,1.6s						
PVAQ	Vaqueiros	38.82	14	P	P	00 35 15.2	+1.5
	comp=Z,16nm,1.4s						
EMIJ	Mijas	38.85	18	P	P	00 35 13.4	-0.6
EALB	Alboran	38.85	21	P	P	00 35 13.9	-0.1
PCVE	Castro Verde	38.96	14	P	P	00 35 15.4	+0.5
PCVE	Castro Verde	38.96	14	eP	P	00 35 29.5	+15
EGRO	El Granado	39.00	14	P	P	00 35 15.2	0.0
MESJ	Messejana	39.11	13	eP	P	00 35 17.1	+0.9
MESJ				ePP	PP	00 36 47.0	+1.0
MESJ				eS	S	00 41 18.3	+2.4
MESJ				IAMs_20	IAMs_20	00 52 34.2	
	comp=Z,2µm,20.6s						
MESJ	Messejana	39.11	13	eP	P	00 35 19.9	+3.8
MESJ	Messejana	39.11	13	eP	P	00 35 17.1	+0.9
MESJ				e		00 36 47.0	
MESJ				eS	S	00 41 18.3	+2.4
MESJ	Messejana	39.11	13	P	P	00 35 15.8	-0.4
EMAL	Malaga-Limoner	39.13	18	P	P	00 35 15.8	-0.6
EMAL	Malaga-Limoner	39.13	18	P	P	00 35 16.5	+0.2
	comp=Z,7.4nm,0.9s						
PLOUS	Minas do Lousa	39.25	13	eP	P	00 35 20.4	+3.1
PBEJ	Beja	39.37	14	eP	P	00 35 21.5	+3.1
ELGU	Los Guajares,	39.49	19	P	P	00 35 18.6	-0.8
EGOR	Sierra Gorda,	39.55	19	P	P	00 35 20.2	+0.1
PBAR	Barrancos	39.72	15	P	P	00 35 20.6	-0.6
PBAR	Barrancos	39.72	15	eP	P	00 35 20.4	-0.8
MOE	Montemor	39.74	13	eP	P	00 35 25.8	+4.4
LIS	Lisbon	39.75	12	eS	S	00 41 28.0	+2.5
LIS				IAMs_20	IAMs_20	00 44 28.8	
	comp=E,7µm,26.9s						
EBER	Berja	39.77	20	P	P	00 35 21.8	-0.1
EVO	Evora	39.82	13	P	P	00 35 22.7	+0.6
EVO	Evora	39.82	13	eP	P	00 35 22.6	+0.5
EVO	Evora	39.82	13	P	P	00 35 24.9	+2.8
	comp=Z,5.6nm,0.9s						
EQTA	Presa de Quent	39.86	19	P	P	00 35 22.7	+0.2
PMAFR	Mafra	39.96	12	eP	P	00 35 24.9	+1.6
PARRA	Arraiolos	40.09	13	eP	P	00 35 25.9	+1.6
PMTG	Montargil	40.29	13	eP	P	00 35 21.1	-4.8
TSUM	Tsumeb	40.31	120	LR	LR	00 49 30.3	
	comp=Z,2µm,18.6s,baz=289,slow=32						
TSUM	Tsumeb	40.31	120		P	00 35 26.9	+0.3
PSBE	So Bento	40.59	12	eP	P	00 35 43.1	+15
PSARD	Sardoal	40.81	13	eP	P	00 35 25.9	-4.4
PMRV	Marv??o	40.82	14	eP	P	00 35 33.3	+2.9
PCAS	Casmilo, Conde	41.17	12	eP	P	00 35 41.9	+8.6
EMUR	La Murta	41.19	21	P	P	00 35 35.2	+1.7
	comp=Z,26nm,0.8s						
WIN	Windhoek	41.35	125	P	P	00 35 36.5	+1.3
WIN				pmax	pmax		
	comp=Z,47nm,1.6s						
WIN	Windhoek	41.35	125	P	P	00 35 36.5	+1.3
WIN				IAmb	IAmb	00 36 05.6	
	comp=Z,47nm,1.6s						
MTE	Manteigas	41.71	13	P	P	00 35 38.3	+0.5
MTE				IAmb	IAmb	00 36 05.5	
	comp=Z,58nm,1.6s						
MTE				IAMs_20	IAMs_20	00 52 25.2	
	comp=Z,3µm,18.0s						
PAB	San Pablo	41.73	17	⇓P	P	00 35 38.2	+0.3
PAB	San Pablo	41.73	17		P	00 35 38.0	+0.1
PAB	San Pablo	41.73	17	P	P	00 35 40.0	+2.1
	comp=Z,12nm,1.2s						
BOAV	Boa Vista	41.84	274		P	00 35 38.9	-0.3
ESDC	Sonseca Array	41.96	17	P	P	00 35 40.6	+0.8
	comp=Z,4.3nm,1.1s,baz=202,slow=7.8,SNR=18						
ESDC				LR	LR	00 53 04.5	
	comp=Z,2µm,19.8s,baz=206,slow=36						
	comp=Z,4.3nm,1.1s						
ESDC	Sonseca Array	41.96	17		P	00 35 39.4	-0.4
ESBB	Sonseca Array	41.96	17	P	P	00 35 39.3	-0.5
PTLB	Pontes e Lacer	42.64	247	P	P	00 35 45.0	-0.7
KOOLE	Kule	44.10	124	P	P	00 35 57.5	0.0
KOOLE				IAmb	IAmb	00 36 27.7	
	comp=Z,84nm,1.8s						
GRTLG	Ghanzi	44.29	121	P	P	00 35 59.3	+0.2
GRTLG				IAmb	IAmb	00 36 21.3	
	comp=Z,54nm,1.9s						
KEST	Kesra	44.33	33	P	P	00 36 00.1	+1.0
	comp=Z,5.0nm,1.1s,baz=242,slow=5.6,SNR=7.6						
KEST				PP	PP	00 37 41.8	-0.7
	comp=Z,9.9nm,0.8s,baz=220,slow=12,SNR=4.8						
KEST				LR	LR	00 56 12.3	
	comp=Z,11µm,18.8s,baz=244,slow=39						
	comp=Z,5.0nm,1.1s						
KEST	Kesra	44.33	33		P	00 36 00.0	+1.0
KEST				IAmb	IAmb	00 37 03.1	
	comp=Z,82nm,1.9s						
GMARE	Gumare	44.39	118	P	P	00 35 59.2	-0.6
GMARE				IAmb	IAmb	00 36 30.3	
	comp=Z,66nm,2.0s						
SIV	San Ignacio	44.58	247	LR	LR	00 54 27.4	
	comp=Z,2µm,18.8s,baz=94,slow=36						
CPUP	Villa Florida	45.30	232	P	P	00 36 08.1	+1.2
	comp=Z,0.5nm,0.3s,baz=48,slow=15,SNR=3.3						
CPUP				LR	LR	00 53 53.0	
	comp=Z,1µm,18.7s,baz=66,slow=34						
	comp=Z,0.5nm,0.3s						
CPUP	Villa Florida	45.30	232	P	P	00 36 06.9	0.0
LKGWB	Lokgwabe	45.42	124	P	P	00 36 10.6	+2.5
LKGWB				IAmb	IAmb	00 36 41.6	
	comp=Z,49nm,1.6s						
CORI	Orista	46.02	22	P	P	00 36 12.2	-0.2
CORI				IAmb	IAmb	00 36 46.7	
	comp=Z,35nm,1.3s						
KSANE	Kasane	46.57	114	P	P	00 36 17.3	+0.2
KSANE				IAmb	IAmb	00 36 48.7	
	comp=Z,28nm,1.6s						
VSL	Villasalto	47.17	30	P	P	00 36 21.0	-0.4
PHPEN	Phepeng	47.35	125	P	P	00 36 22.5	-0.7
KDWAN	Kaudwane	48.01	122		P	00 36 27.6	-0.7
KDWAN				IAmb	IAmb	00 36 59.2	
	comp=Z,31nm,1.2s						
VAE	Valguarnera	48.43	36	LR	LR	00 58 40.0	
	comp=Z,6µm,18.3s,baz=122,slow=38						
LSZ	Lusaka	48.70	110	LR	LR	00 53 19.4	
	comp=Z,2µm,22.0s,baz=290,slow=32						
LSZ	Lusaka	48.70	110	P	P	00 36 33.1	-0.7
LSZ				pmax	pmax		
	comp=Z,19nm,1.3s						
LSZ	Lusaka	48.70	110		P	00 36 33.1	-0.7
LSZ				IAmb	IAmb	00 37 10.7	
	comp=Z,19nm,1.2s						
RUSF	Rustrel	49.01	23	P	P	00 36 37.3	+1.7
	comp=Z,11nm,2.2s						
LPHEP	Lephephe	49.02	121	P	P	00 36 36.1	0.0
LPHEP				IAmb	IAmb	00 36 59.8	
	comp=Z,58nm,1.9s						
MAKGR	Makgori	49.08	125	P	P	00 36 36.0	-0.6
SUR	Sutherland	49.13	135	LR	LR	00 54 54.6	
	comp=Z,1µm,18.1s,baz=293,slow=33						
SUR	Sutherland	49.13	135	P	P	00 36 38.4	+1.5
LBTB	Lobatse	49.43	123	LR	LR	00 55 12.0	
	comp=Z,2µm,18.8s,baz=310,slow=33						
LBTB	Lobatse	49.43	123	P	P	00 36 39.0	-0.2
LBTB				pmax	pmax		
	comp=Z,18nm,1.2s						
LBTB	Lobatse	49.43	123		P	00 36 39.0	-0.2
LBTB				IAmb	IAmb	00 37 09.8	
	comp=Z,18nm,1.2s						
LBTB	Lobatse	49.43	123	P	P	00 36 41.5	+2.3
	comp=Z,15nm,1.4s						
MBAR	Mbarara	49.49	91	LR	LR	00 55 56.7	

	comp=Z,8µm,18.2s,baz=270,slow=34						
MBAR	Mbarara	49.49	91	i P	P	00 36 40.3	+0.3
MBAR				pmax	pmax		
	comp=Z,16nm,1.2s						
MBAR	Mbarara	49.49	91	P	P	00 36 40.7	+0.8
LPA	La Plata	50.25	222	ceP	P	00 36 42.3	-2.9
LPA				PCP	PcP	00 38 02.9	-1.3
LPA				PPP	PPP	00 39 43.9	
LPA				S	S	00 43 58.1	+0.4
LPA				SS	SS	00 47 50.2	+19
MATP	Matopo	50.36	117	LR	LR	00 55 06.3	
	comp=Z,2µm,20.0s,baz=294,slow=32						
BNI	Bardonecchia	50.41	23	P	P	00 36 46.0	-0.4
BNI				pmax	pmax		
	comp=Z,65nm,1.8s						
BNI	Bardonecchia	50.41	23		P	00 36 46.0	-0.4
BNI				IAmb	IAmb	00 37 14.2	
	comp=Z,65nm,1.8s						
BNI				IAMs_20	IAMs_20	00 56 36.6	
	comp=Z,2µm,22.0s						
BNI	Bardonecchia	50.41	23	P	P	00 36 48.1	+1.7
	comp=Z,22nm,1.1s						
BOSA	Boshof	50.64	128	P	P	00 36 49.0	+0.6
	comp=Z,2.3nm,0.7s,baz=270,slow=6.1,SNR=6.9						
BOSA				LR	LR	00 55 23.2	
	comp=Z,1µm,18.6s,baz=291,slow=33						
	comp=Z,2.3nm,0.7s						
BOSA	Boshof	50.64	128		P	00 36 48.8	+0.4
CUC	Castrocucco	50.95	34	P	P	00 36 49.2	-1.2
	comp=Z,15nm,1.2s						
CESX	Cesi	51.11	30	P	P	00 36 52.3	+0.8
CESX				IAmb	IAmb	00 37 45.3	
	comp=Z,32nm,1.4s						
MARCO	Tramutola	51.15	34	P	P	00 36 51.0	-1.0
	comp=Z,28nm,2.1s						
LPAZ	La Paz	51.21	249	P	P	00 36 55.0	+1.6
	comp=Z,1.7nm,0.8s,baz=117,slow=7.7,SNR=6.1						
LPAZ				LR	LR	00 57 24.8	
	comp=Z,521nm,19.1s,baz=90,slow=35						
	comp=Z,1.7nm,0.8s						
LPAZ	La Paz	51.21	249	P	P	00 36 53.3	-0.1
LPAZ	La Paz	51.21	249	P	P	00 36 56.4	+3.0
	comp=Z,6.8nm,2.0s						
VLC	Villacollemand	51.26	27	P	P	00 36 53.1	+0.4
	comp=Z,45nm,1.7s						
AQU	L'Aquila	51.33	30	P	P	00 36 54.1	+0.9
AQU				pmax	pmax		
	comp=Z,41nm,1.1s						
AQU	L'Aquila	51.33	30	P	P	00 36 54.1	+0.9
AQU				IAmb	IAmb	00 37 27.3	
	comp=Z,41nm,1.1s						
AQU	L'Aquila	51.33	30	P	P	00 36 53.3	0.0
	comp=Z,30nm,1.0s						
FDMO	Fiordimonte	51.68	30	P	P	00 36 56.3	+0.5
FDMO				IAmb	IAmb	00 37 28.8	
	comp=Z,23nm,0.9s						
SENIN	Lac Senin/Sane	51.74	23	P	P	00 36 56.4	-0.1
SENIN				IAmb	IAmb	00 37 00.6	
	comp=Z,58nm,1.9s						
SDV	Santo Domingo	52.45	281	LR	LR	00 58 15.8	
	comp=Z,542nm,19.2s,baz=106,slow=35						
TUE	Stuetta	52.65	24	P	P	00 37 02.4	-0.8
TUE				IAmb	IAmb	00 37 08.5	
	comp=Z,53nm,1.9s						
TUE	Stuetta	52.65	24	P	P	00 37 03.3	+0.1
	comp=Z,11nm,0.9s						
TEOL	Teolo	52.77	27	P	P	00 37 05.1	+1.3
TEOL				IAmb	IAmb	00 38 08.3	
	comp=Z,14nm,0.7s						
PB18	Visviri	52.77	248	IAMs_20	IAMs_20	00 59 10.7	
	comp=Z,2µm,19.0s						
ITM	Ithomi	52.90	41	P	P	00 37 06.7	+1.7
ITM				IAmb	IAmb	00 37 08.8	
	comp=Z,19nm,0.7s						
ITM	Ithomi	52.90	41	P	P	00 37 05.9	+0.9
	comp=Z,28nm,0.7s						
KEK	Kerkira	53.08	37	P	P	00 37 05.2	-1.1
	comp=Z,59nm,1.2s						
PB08	IPOC Station P	53.11	245	IAMs_20	IAMs_20	00 58 51.7	
	comp=Z,3µm,21.0s						
DAVOX	Davos/Dischmat	53.11	24	LR	LR	00 59 44.2	
	comp=Z,823nm,18.4s,baz=216,slow=36						
KTHA	Kythira Island	53.13	42	P	P	00 37 07.8	+1.1
	comp=Z,49nm,1.0s						
FUORN	Ofenpass-Fuorn	53.14	25		P	00 37 06.3	-0.6
FUORN				IAMs_20	IAMs_20	00 59 14.0	
	comp=Z,2µm,19.0s						
CGRP	Cima Grappa	53.23	26	P	P	00 37 06.8	-0.6
	comp=Z,23nm,1.1s						
ECH	Echery	53.23	21	P	P	00 37 06.8	-0.4
	comp=Z,9.9nm,1.5s						
CTI	Castel Tesino	53.29	26	P	P	00 37 08.3	+0.5
CTI				pmax	pmax		
	comp=Z,43nm,1.6s						
CTI	Castel Tesino	53.29	26		P	00 37 08.2	+0.5
CTI				IAmb	IAmb	00 37 56.1	
	comp=Z,43nm,1.6s						
IMMV	Iera Moni Meta	53.33	44	P	P	00 37 08.1	-0.1
	comp=Z,60nm,0.9s						
SLE	Schleitheim	53.36	23	P	P	00 37 08.2	+0.1
	comp=Z,17nm,1.1s						
PB11	IPOC Station P	53.46	245	P	P	00 37 07.8	-1.8
DAVA	Damuels	53.52	24	P	P	00 37 08.8	-0.7
	comp=Z,42nm,1.1s						
GRHM	Grahamstown, E	53.62	132	P	P	00 37 10.5	+0.1
PB09	IPOC Station P	53.64	243	IAMs_20	IAMs_20	00 58 52.3	
	comp=Z,2µm,21.0s						
FETA	Feichten	53.66	25	eP	P	00 37 12.6	+2.0
	comp=Z,22nm,1.5s						
BFO	Black Forest	53.76	22	P	P	00 37 11.7	+0.5
BFO				pmax	pmax		
	comp=Z,19nm,1.2s						
BFO				MLR	MLR		
	comp=Z,1µm,20.0s						
BFO	Black Forest	53.76	22		P	00 37 11.7	+0.5
BFO				IAmb	IAmb	00 37 28.6	
	comp=Z,19nm,1.2s						
BFO	Black Forest	53.76	22	eP	P	00 37 13.3	+2.1
	comp=Z,6.1nm,0.9s,baz=217,slow=6.1						
BFO	Black Forest	53.76	22	P	P	00 37 13.2	+2.1
PSGCX	Pisagua	53.85	246	P	P	00 37 10.7	-1.6
IDI	Anoyia	53.87	44		P	00 37 13.9	+1.7
STAL	STALIGIAL	53.92	27	P	P	00 37 12.4	+0.1
UBR	Ueberruh	53.93	24	eP	P	00 37 16.9	+4.5
	comp=Z,7.0nm,0.7s,baz=217,slow=6.1						
BANI	BANI	53.95	293	P	P	00 37 11.1	-2.0
DOU	Dourbes	53.97	18	dP	P	00 37 13.7	+1.2
RETA	Reutte	54.04	24	eP	P	00 37 14.1	+0.8
	comp=Z,15nm,1.4s						
MOTA	Moosalm	54.07	25	eP	P	00 37 15.3	+1.7
	comp=Z,16nm,1.7s						
WLF	Walferdange	54.11	20	IAMs_20	IAMs_20	01 03 05.4	
	comp=Z,2µm,19.0s						
WLF	Walferdange	54.11	20	dP	P	00 37 15.4	+1.8
WLF				dPcP	PcP	00 38 18.6	+0.3
WLF				dPP	PP	00 39 16.5	+1.2
SABO	M.te Sabotino	54.12	27	P	P	00 37 14.2	+0.5
TA01	Diego Aracena	54.15	245	IAMs_20	IAMs_20	00 59 38.3	
	comp=Z,2µm,19.0s						
PB03	IPOC Station P	54.17	243	IAMs_20	IAMs_20	00 59 51.3	
	comp=Z,2µm,20.0s						
FUSE	Fusea	54.17	27	P	P	00 37 15.8	+1.7
	comp=Z,11nm,0.6s						
PB07	IPOC Station P	54.20	243	IAMs_20	IAMs_20	00 59 50.7	
	comp=Z,2µm,19.0s						
LODK	Lodwar	54.21	86	IAMs_20	IAMs_20	00 59 19.2	
	comp=Z,2µm,18.0s						
ABTA	Abfaltersbach	54.21	26	eP	P	00 37 15.8	+1.3
	comp=Z,31nm,2.3s						
RCHB	Rochefort	54.23	19	dP	P	00 37 16.6	+2.2
WTTA	Wattenberg	54.23	25	eP	P	00 37 18.2	+3.4
	comp=Z,24nm,1.5s						
WTTA	Wattenberg	54.23	25	P	P	00 37 14.6	-0.2
	comp=Z,13nm,1.0s						
WATA	Walderalm	54.26	25	eP	P	00 37 17.2	+2.3
	comp=Z,8.6nm,1.1s						
DRE	Drenchia	54.28	27	P	P	00 37 15.7	+0.6
	comp=Z,21nm,1.0s						
ACOM	Acomizza, Ital	54.50	27	P	P	00 37 17.8	+1.1
	comp=Z,18nm,1.1s						
PDG	Podgorica	54.51	34	IAMs_20	IAMs_20	01 04 38.6	
	comp=Z,2µm,18.0s						
MYKA	Terra Mystica	54.62	27	eP	P	00 37 19.1	+1.6
	comp=Z,18nm,1.5s						
TRQA	Tornquist	54.71	221	IAMs_20	IAMs_20	00 57 03.4	
	comp=Z,2µm,21.0s						
FUR	Furstenfeldbru	54.79	24	eP	P	00 37 21.0	+2.3
	comp=Z,13nm,0.9s,baz=217,slow=6.1						
PB05	IPOC Station P	54.80	242	IAMs_20	IAMs_20	00 59 42.9	
	comp=Z,2µm,21.0s						
LESA	Schwarzleotal	54.80	26	eP	P	00 37 21.5	+2.7
	comp=Z,16nm,1.0s						
KBA	Koelnbreinsper	54.83	26	eP	P	00 37 22.3	+3.2
	comp=Z,7.6nm,0.7s						
THERA	Ancient Thera,	54.83	44	P	P	00 37 20.6	+1.4
	comp=Z,43nm,0.8s						
SDDR	Presa de Saban	54.95	293		P	00 37 19.5	-0.8
SDDR				IAmb	IAmb	00 38 07.8	
	comp=Z,32nm,1.2s						
SDDR				IAMs_20	IAMs_20	00 58 27.2	
	comp=Z,2µm,22.0s						
SDDR	Presa de Saban	54.95	293	P	P	00 37 22.1	+1.8
	comp=Z,12nm,0.4s						
OBKA	Obir	54.95	28	eP	P	00 37 22.8	+2.9
	comp=Z,17nm,1.7s						
XOR	Xorichti	54.97	39	P	P	00 37 20.9	+0.8
	comp=Z,38nm,0.8s						
RJOB	Jochberg	55.09	26	P	P	00 37 21.0	+0.1
	comp=Z,9.3nm,0.7s						
AC02	Maricunga	55.13	237	P	P	00 37 19.8	-2.2
AC02				IAmb	IAmb	00 37 49.1	
	comp=Z,17nm,1.2s						
AC02				IAMs_20	IAMs_20	00 58 53.7	
	comp=Z,2µm,22.0s						
AC02	Maricunga	55.13	237	P	P	00 37 23.9	+1.8
	comp=Z,13nm,1.4s						
SOKA	Soboth	55.30	28	eP	P	00 37 25.2	+2.7
	comp=Z,27nm,1.8s						
TNS	Taunus Mts	55.38	21	eP	P	00 37 26.6	+3.7
	comp=Z,8.7nm,0.7s,baz=217,slow=6.1						
POGA	Pongola	55.38	124	P	P	00 37 25.6	+2.3
	comp=Z,47nm,1.2s						
GRG	Griva	55.42	37	P	P	00 37 23.4	+0.1
	comp=Z,28nm,0.7s						
BIOA	Bad Ischl, Aus	55.42	26	eP	P	00 37 24.4	+1.2
	comp=Z,8.6nm,1.3s						
BBLS	Lazi&#263i	55.53	33	P	P	00 37 25.2	+1.0
	comp=Z,27nm,1.7s						
KARP	Karpathos	55.60	45	IAMs_20	IAMs_20	01 03 45.1	
	comp=Z,2µm,19.0s						
GRB5	Grafenberg Arr	55.70	24	P	P	00 37 23.7	-1.5
	comp=Z,14nm,0.9s						
ROSC	El Rosal	55.73	276	LR	LR	01 01 47.3	
	comp=Z,2µm,18.1s,baz=100,slow=36						
VAY	Valandovo	55.74	37	i P	P	00 37 30.3	+4.7
MOA	Molln	55.82	26	eP	P	00 37 29.1	+3.0
	comp=Z,8.5nm,1.2s						
MOA	Molln	55.82	26	P	P	00 37 27.8	+1.7
	comp=Z,17nm,1.6s						
SOH	Sokhos	55.92	38	P	P	00 37 27.9	+1.0
	comp=Z,22nm,0.8s						
ARSA	Arzberg	55.95	28	P	P	00 37 29.2	+2.2
	comp=Z,5.5nm,1.1s						
ARSA	Arzberg	55.95	28	P	P	00 37 26.6	-0.4
GRF	Grafenberg Arr	55.98	23	eP	P	00 37 28.1	+0.9
	comp=Z,6.3nm,0.8s,baz=217,slow=6.1						
KMBO	Kilima Mbogo	56.01	91	LR	LR	00 59 51.1	
	comp=Z,6µm,18.2s,baz=267,slow=34						
KMBO	Kilima Mbogo	56.01	91	i P	P	00 37 27.9	-0.4
GRA3	Grafenberg Arr	56.08	23	P	P	00 37 27.4	-0.5
AC01	Pan de Azucar	56.15	238	IAMs_20	IAMs_20	01 00 14.6	
	comp=Z,2µm,19.0s						
CFA	Coronel Fontan	56.19	231	LR	LR	01 00 43.6	
	comp=Z,1µm,19.6s,baz=60,slow=35						
PEHC	Pehcevo	56.21	37	i P	P	00 37 32.1	+3.0
WET	Wettzell	56.22	24	eP	P	00 37 28.8	-0.1
	comp=Z,11nm,1.1s,baz=217,slow=6.1						
WET	Wettzell	56.22	24	P	P	00 37 29.0	+0.2
	comp=Z,14nm,1.3s						
SRS	Serrai	56.24	38	P	P	00 37 30.1	+0.9
	comp=Z,25nm,1.5s						
CHOS	Chios island	56.29	42	P	P	00 37 30.5	+0.8
	comp=Z,25nm,0.9s						
GEC2	GERESS Array S	56.33	25		P	00 37 28.7	-1.1
GEC2				IAmb	IAmb	00 37 35.5	
	comp=Z,32nm,1.5s						
GEC2	GERESS Array S	56.33	25	eP	P	00 37 28.7	-1.1
	comp=Z,3.9nm,0.9s,baz=217,slow=6.1						
GEC2	GERESS Array S	56.33	25	P	P	00 37 29.9	+0.1
	comp=Z,15nm,3.0s						
GERES	GERESS Array B	56.33	25	P	P	00 37 29.9	+0.1
	comp=Z,3.1nm,0.7s,baz=211,slow=7.5,SNR=16						
GERES				PP	PP	00 39 33.1	-2.3
	comp=Z,10nm,1.1s,baz=211,slow=9.2,SNR=4.9						
	comp=Z,3.1nm,0.7s						
GERES	GERESS Array B	56.33	25	P	P	00 37 28.5	-1.3
AC06	Mina Casimiro	56.34	237	IAMs_20	IAMs_20	01 01 49.6	
	comp=Z,1µm,18.0s						
KKB	Krupnik	56.38	37	P	P	00 37 33.6	+3.4
KHC	Kasperske Hory	56.50	25	eP	P	00 37 32.6	+1.7
KHC				eS	S	00 45 25.0	+2.7
KHC				MLR	MLR		
	comp=Z,2µm,12.7s						
KHC	Kasperske Hory	56.50	25	eP	P	00 37 32.6	+1.7
KHC				eS	S	00 45 25.0	+2.7
KHC				AMS	AMS	01 08 00.0	
	comp=Z,2µm,12.7s						
KHC	Kasperske Hory	56.50	25	P	P	00 37 32.8	+1.9
	comp=Z,7.9nm,1.5s						
BDRM	Kayabasi	56.55	44	⇓P	P	00 37 33.1	+1.6
CKRC	Cesky Krumlov	56.57	26	eP	P	00 37 33.3	+1.9
CKRC				eS	S	00 45 24.2	+0.9
CKRC				MLR	MLR		
	comp=Z,2µm,16.3s						
CKRC	Cesky Krumlov	56.57	26	eP	P	00 37 33.3	+1.9
CKRC				eS	S	00 45 24.2	+0.9
CKRC				AMS	AMS	01 04 20.0	
	comp=Z,2µm,16.3s						
CONA	Conrad Observa	56.60	27	eP	P	00 37 33.6	+1.9
	comp=Z,8.7nm,1.1s						
ARG	Arkhangelos	56.61	45	P	P	00 37 33.3	+1.4
	comp=Z,49nm,0.8s						
RONA	Rosalia, Austr	56.63	28	i P	P	00 37 34.3	+2.4
	comp=Z,65nm,1.3s						
BOVS	Bovan	56.66	34	⇓P	P	00 37 33.1	+1.0
TRAN	Tran	56.70	36	P	P	00 37 35.1	+2.6
MORH	Mrgy, Hungar	56.72	30	⇑P	P	00 37 33.0	+0.6
MORH	Mrgy, Hungar	56.72	30	P	P	00 37 32.9	+0.4
	comp=Z,7.3nm,1.5s						
SOP	Sopron	56.74	28	P	P	00 37 33.3	+0.7
	comp=Z,17nm,1.6s						
AC05	El Transito	56.78	235	IAMs_20	IAMs_20	01 01 28.3	
	comp=Z,2µm,21.0s						
KIBK	Kibwezi	56.82	93	P	P	00 37 43.2	+9.3
WINA	Alland / Wiene	56.83	27	eP	P	00 37 34.7	+1.5
	comp=Z,18nm,1.5s						
EKA	Eskdalemuir Ar	56.84	11	P	P	00 37 33.9	+0.8
	comp=Z,2.7nm,0.8s,baz=201,slow=6.4,SNR=6.6						
EKA				LR	LR	00 59 58.9	
	comp=Z,725nm,20.1s,baz=203,slow=34						
	comp=Z,2.7nm,0.8s						
MPLH	Magyarpolny	56.84	29	P	P	00 37 35.4	+2.1
	comp=Z,13nm,1.2s						
NKC	Novy Kostel	56.89	23	AMS	AMS	01 02 00.0	
	comp=Z,1µm,16.8s						
MOX	Moxa	56.89	23	eP	P	00 37 34.2	+0.6
	comp=Z,5.0nm,0.7s,baz=217,slow=6.1						
MOX	Moxa	56.89	23	P	P	00 37 33.8	+0.1
	comp=Z,11nm,0.7s						
VTS	Vitosha	56.91	36	P	P	00 37 34.5	+0.4
PLNA	Plana	56.94	36	P	P	00 37 36.3	+2.0
CO01	Juntas del Tor	57.04	234	IAMs_20	IAMs_20	01 00 12.2	
	comp=Z,2µm,20.0s						
TANN	Tannenbergstha	57.04	23	eP	P	00 37 34.7	-0.1
	comp=Z,5.1nm,0.8s,baz=217,slow=6.1						
TANN	Tannenbergstha	57.04	23	P	P	00 37 34.6	-0.2
	comp=Z,18nm,1.1s						
BLSH	Balsha	57.08	36	P	P	00 37 36.4	+1.2
LCO	Las Campanas	57.19	235	IAMs_20	IAMs_20	01 01 04.2	
	comp=Z,2µm,19.0s						
RZN	Rozhen	57.27	38	P	P	00 37 38.0	+1.3
ZST	Bratislava	57.37	28	eP	P	00 37 39.7	+2.7
ZST	Bratislava	57.37	28	eP	P	00 37 39.7	+2.7
MDVR	Moldovita	57.39	33	⇑P	P	00 37 37.8	+0.5
TREC	Trest	57.44	26	eP	P	00 37 36.0	-1.6
TREC	Trest	57.44	26	eP	P	00 37 36.0	-1.6
TREC	Trest	57.44	26	P	P	00 37 39.8	+2.2
PRU	Pruhonice	57.56	25	P	P	00 37 38.5	+0.1
	comp=Z,8.1nm,1.6s						
MODS	Modra-Piesok	57.58	28	eP	P	00 37 40.4	+1.9
MODS				pmax	pmax		
	comp=Z,14nm,0.9s						
MODS	Modra-Piesok	57.58	28	eP	P	00 37 40.4	+1.9
MODS	Modra-Piesok	57.58	28	P	P	00 37 37.9	-0.6
	comp=Z,22nm,1.4s						
HSKC	Hora Svate Kat	57.58	24	eP	P	00 37 33.7	-4.8
HSKC				AMS	AMS	01 06 40.0	
	comp=Z,2µm,13.5s						
HSKC	Hora Svate Kat	57.58	24	P	P	00 37 37.7	-0.9
	comp=Z,20nm,1.0s						
AKAS	Kas	57.67	46		P	00 37 39.9	+0.3
KRUC	Moravsky	57.67	27	eP	P	00 37 38.8	-0.3
KRUC	Moravsky	57.67	27	P	P	00 37 38.9	-0.3
	comp=Z,10nm,2.2s						
SMOL	Smolenice	57.75	28	eP	P	00 37 42.7	+3.0
SMOL				pmax	pmax		
	comp=Z,1.0nm,0.9s						
TAVA	DENIZLI_Tavas	57.77	44	⇓P	P	00 37 42.0	+1.8
RICC	Richard	57.80	24	AMS	AMS	01 05 30.0	
	comp=Z,2µm,14.6s						
CO03	El Pedregal	57.83	233	IAMs_20	IAMs_20	01 03 27.2	
	comp=Z,2µm,18.0s						
HERR	Herculane	57.84	34	⇑P	P	00 37 41.0	+0.6
VRAC	Vranov	57.94	27	LR	LR	01 04 33.5	
	comp=Z,633nm,18.7s,baz=226,slow=38						
VRAC	Vranov	57.94	27	eP	P	00 37 39.9	-1.2
VRAC	Vranov	57.94	27	P	P	00 37 40.9	-0.2
	comp=Z,3.6nm,2.4s						
CLL	Collm	57.96	23	eP	P	00 37 42.0	+0.9
CLL				i		00 37 45.7	
CLL				eS	S	00 45 44.0	+2.7
CLL				MLR	MLR		
	comp=Z,1µm,21.7s						
CLL	Collm	57.96	23	eP	P	00 37 38.8	-2.3
	comp=Z,4.0nm,0.9s,baz=217,slow=6.1						
CLL	Collm	57.96	23	eP	P	00 37 42.0	+0.9
CLL				i x	x	00 37 45.7	
	comp=Z,18nm,1.5s						
CLL				ePP	PP	00 39 50.0	+0.4
CLL				ePPP	PPP	00 41 06.0	
CLL				eS	S	00 45 44.0	+2.7
	comp=N,2µm,26.6s						
CLL				eS	S	00 45 44.0	+2.7
	comp=E,2µm,24.5s						
CLL				eSSS	SSS	00 51 54.0	
CLL				L	L	00 54 00.0	
CLL				AMS	AMS	01 00 00.0	
	comp=N,1µm,21.5s						
CLL				AMS	AMS	01 00 00.0	
	comp=E,700nm,19.0s						
CLL				AMS	AMS	01 00 00.0	
	comp=Z,1µm,21.7s						
PVCC	Panska Ves	57.98	24	eS	S	00 45 46.6	+4.9
PVCC				AMS	AMS	01 06 40.0	
	comp=Z,1µm,14.8s						
PVCC	Panska Ves	57.98	24	P	P	00 37 41.4	+0.1
	comp=Z,30nm,1.1s						
BRG	Berggiesshubel	57.99	24	eP	P	00 37 41.4	+0.1
	comp=Z,3.0nm,0.9s,baz=217,slow=6.1						
BRG	Berggiesshubel	57.99	24	P	P	00 37 40.5	-0.9
	comp=Z,7.7nm,2.0s						
BRG	Berggiesshubel	57.99	24	eP	P	00 37 42.3	+1.0
BRG				Amp		00 37 49.2	
	comp=Z,3.6nm,0.8s						
BRG	Berggiesshubel	57.99	24	S	S	00 45 45.0	+3.2
MANT	Manisa	58.03	43		P	00 37 43.2	+1.1
MANT				IAmb	IAmb	00 38 21.6	
	comp=Z,32nm,1.4s						
BALY	Balya	58.03	41	P	P	00 37 43.9	+1.9
	comp=Z,42nm,1.3s						
JAVC	Velka Javorina	58.11	28	eP	P	00 37 42.4	+0.1
JAVC	Velka Javorina	58.11	28	P	P	00 37 44.3	+2.0
	comp=Z,14nm,1.8s						
ELL	Elmali	58.12	45	P	P	00 37 43.9	+1.1
ELL	Elmali	58.12	45		P	00 37 43.9	+1.1
BALB	Balikesir	58.16	41		P	00 37 44.0	+1.3
BALB				IAmb	IAmb	00 37 47.7	
	comp=Z,19nm,0.7s						
PLVB	Pleven	58.19	36	⇑P	P	00 37 44.2	+1.3
CO02	Combarbal	58.22	233	IAMs_20	IAMs_20	00 59 33.3	
	comp=Z,2µm,20.0s						
SIRR	Siria	58.31	32	⇑P	P	00 37 44.6	+0.8
GZR	Gura Zlata	58.36	33	⇓P	P	00 37 44.4	+0.3
GZR	Gura Zlata	58.36	33	⇓P	P	00 37 44.4	+0.3
VYHS	Vyhne	58.40	28	eP	P	00 37 45.8	+1.5
VYHS				pmax	pmax		
	comp=Z,12nm,0.9s						
VYHS	Vyhne	58.40	28	eP	P	00 37 45.8	+1.5
VYHS	Vyhne	58.40	28	P	P	00 37 46.2	+1.9
	comp=Z,5.6nm,1.1s						
CO04	Los Peladeros	58.51	232	IAMs_20	IAMs_20	01 01 54.0	
	comp=Z,2µm,20.0s						
PSZ	Piszkesteto	58.51	30	⇑P	P	00 37 45.5	+0.3
PSZ	Piszkesteto	58.51	30	⇑P	P	00 37 45.5	+0.3
PSZ	Piszkesteto	58.51	30	P	P	00 37 45.1	-0.1
	comp=Z,9.5nm,1.1s						
CO06	Fray Jorge	58.53	234	IAMs_20	IAMs_20	01 00 20.8	
	comp=Z,2µm,22.0s						
KRLC	Kraliky	58.59	26	eP	P	00 37 47.3	+1.7
KRLC				MLR	MLR		
	comp=Z,1µm,15.4s						
KRLC	Kraliky	58.59	26	eP	P	00 37 47.3	+1.7
KRLC				AMS	AMS	01 10 20.0	
	comp=Z,1µm,15.4s						
KRLC	Kraliky	58.59	26	P	P	00 37 47.8	+2.2
	comp=Z,8.5nm,2.8s						
DPC	Dobruska-Polom	58.59	26	eP	P	00 37 45.1	-0.5
DPC				eS	S	00 45 50.1	+0.4
DPC				MLR	MLR		
	comp=Z,1µm,14.8s						
DPC	Dobruska-Polom	58.59	26	eP	P	00 37 45.1	-0.5
DPC				eS	S	00 45 50.1	+0.4
DPC				AMS	AMS	01 13 20.0	
	comp=Z,1µm,14.8s						
DPC	Dobruska-Polom	58.59	26	P	P	00 37 45.7	+0.1
	comp=Z,8.5nm,2.0s						
BAND	Balkesir-Ban	58.67	41	⇓P	P	00 37 48.2	+1.9
OSTC	Ostas	58.70	25	eS	S	00 45 56.4	+5.3
OSTC				AMS	AMS	01 09 20.0	
	comp=Z,1µm,15.5s						
MT03	Universidad Ad	58.70	230	IAMs_20	IAMs_20	01 01 07.2	
	comp=Z,2µm,21.0s						
MORC	Moravsky Berou	58.71	27	⇑P	P	00 37 46.7	+0.3
MORC	Moravsky Berou	58.71	27		P	00 37 46.2	-0.2
MORC				IAmb	IAmb	00 38 20.1	
	comp=Z,42nm,1.8s						
MORC	Moravsky Berou	58.71	27	eP	P	00 37 46.3	-0.2
MORC	Moravsky Berou	58.71	27	⇑P	P	00 37 46.7	+0.3
MORC	Moravsky Berou	58.71	27	P	P	00 37 46.8	+0.3
	comp=Z,10nm,1.7s						
NNA	Nana	58.80	256	LR	LR	01 02 20.4	
	comp=Z,2µm,18.1s,baz=71,slow=35						
NNA	Nana	58.80	256	IAMs_20	IAMs_20	01 00 59.3	
	comp=Z,2µm,22.0s						
MT05	Renca	58.84	230	IAMs_20	IAMs_20	01 01 09.7	
	comp=Z,2µm,20.0s						
STEB	Steborice	58.92	27	eP	P	00 37 50.2	+2.3
LOT	Lotru	58.94	34	⇑P	P	00 37 49.9	+1.6
LOT	Lotru	58.94	34	P	P	00 37 50.0	+1.7
	comp=Z,12nm,1.6s						
KSP	Ksiaz	58.94	25	eP	P	00 37 49.0	+1.0
OKC	Ostrava-Krasne	59.02	27	AMS	AMS	01 07 10.0	
	comp=Z,2µm,15.3s						
OKC	Ostrava-Krasne	59.02	27	P	P	00 37 48.5	-0.1
	comp=Z,14nm,1.0s						
BSEG	Bad Segeberg	59.10	20	P	P	00 37 48.8	-0.2
	comp=Z,20nm,0.7s						
KZIT	Kziot	59.11	53	P	P	00 37 49.6	0.0
	comp=Z,13nm,1.3s						
EIL	Elat	59.13	55	LR	LR	01 06 06.7	
	comp=Z,4µm,18.1s,baz=253,slow=39						
EIL	Elat	59.13	55	P	P	00 37 50.3	+0.6
	comp=Z,9.8nm,0.8s						
MT09	Talagante	59.18	230	IAMs_20	IAMs_20	01 01 21.8	
	comp=Z,2µm,19.0s						
LOZB	Loznitsa	59.35	37	⇑P	P	00 37 52.1	+1.1
ARR	Arges	59.38	34	⇑P	P	00 37 52.2	+1.0
ARR	Arges	59.38	34	P	P	00 37 51.3	+0.1
	comp=Z,12nm,0.8s						
CTYL	Yalikoy Yolu	59.38	40	P	P	00 37 49.7	-1.5
	comp=Z,18nm,0.9s						
KEPZ	Antalya-Kepez	59.41	46	⇑P	P	00 37 53.9	+2.3
MT01	Popeta	59.41	230	IAMs_20	IAMs_20	01 01 30.0	
	comp=Z,2µm,19.0s						
RAZG	Razgrad	59.41	37	⇓P	P	00 37 53.1	+1.7
ABAH	Abaujker	59.43	30	P	P	00 37 52.9	+1.5
	comp=Z,8.8nm,1.7s						
BO01	Tunca	59.49	229	IAMs_20	IAMs_20	01 00 44.6	
	comp=Z,2µm,22.0s						

YLV	Yalova	59.61	41	P	P	00 37 52.7	-0.3
	comp=Z,364nmcomp=Z,14nm,1.4s						
VA05	Santo Domingo	59.61	230	IAMs_20	IAMs_20	01 00 50.3	
	comp=Z,2µm,21.0s						
VOIR		59.65	34	⇑P	P	00 37 53.4	+0.3
VOIR		59.65	34	⇑P	P	00 37 53.4	+0.3
VOIR		59.65	34	P	P	00 37 52.8	-0.3
	comp=Z,17nm,1.1s						
VOIR		59.65	34	P	P	00 37 53.4	+0.3
	comp=Z,14nm,1.4s						
NIE	Niedzica	59.73	28	eP	P	00 37 56.4	+2.8
NIE	Niedzica	59.73	28	P	P	00 37 53.5	-0.1
	comp=Z,4.6nm,1.2s						
CSS	Mathiatis	59.84	49	IAMs_20	IAMs_20	01 03 34.6	
	comp=Z,2µm,22.0s						
ATAH	Atahualpa	59.86	262	LR	LR	01 02 23.9	
	comp=Z,3µm,21.6s,baz=92,slow=35						
TRPA	Tarpa	59.98	31	P	P	00 37 53.4	-1.8
	comp=Z,12nm,0.9s						
BORA	Eskisehir	59.99	42	P	P	00 37 55.0	-0.6
BORA				IAmb	IAmb	00 38 00.1	
	comp=Z,9.4nm,0.8s						
MSBI	Mazada	60.03	53	P	P	00 37 55.3	-0.5
	comp=Z,12nm,1.3s						
OJC	Ojcow	60.05	28	eP	P	00 37 53.7	-2.0
OJC	Ojcow	60.05	28	P	P	00 37 55.5	-0.2
OJC	Ojcow	60.05	28		P	00 37 55.5	-0.2
OJC	Ojcow	60.05	28	P	P	00 37 55.7	0.0
	comp=Z,13nm,1.0s						
OJC	Ojcow	60.05	28	P	P	00 37 56.0	+0.3
	comp=Z,13nm,1.0s						
DOPR	Dopca	60.16	34	⇑P	P	00 37 57.8	+1.3
BMR	Baia Mare	60.18	32	⇑P	P	00 37 56.5	-0.1
BMR	Baia Mare	60.18	32	⇑P	P	00 37 56.5	-0.1
BMR	Baia Mare	60.18	32	P	P	00 37 55.2	-1.4
	comp=Z,20nm,0.8s						
MLR	Muntele Rosu	60.19	35	LR	LR	01 06 34.5	
	comp=Z,3µm,18.6s,baz=216,slow=39						
MLR	Muntele Rosu	60.19	35	⇑P	P	00 37 58.3	+1.4
MLR	Muntele Rosu	60.19	35		P	00 37 55.9	-1.0
MLR	Muntele Rosu	60.19	35	⇑P	P	00 37 58.3	+1.4
MLR	Muntele Rosu	60.19	35	P	P	00 37 55.9	-1.0
	comp=Z,795nmcomp=Z,25nm,1.4s						
MLR	Muntele Rosu	60.19	35	P	P	00 37 57.1	+0.2
	comp=Z,28nm,1.4s						
UJAP	Al Uja	60.34	53	P	P	00 37 58.5	+0.5
	comp=Z,15nm,1.5s						
KOLS	Kolonicke sedl	60.37	30	eP	P	00 38 00.3	+2.4
KOLS				pmax	pmax		
	comp=Z,4.0nm,1.0s						
KOLS	Kolonicke sedl	60.37	30	eP	P	00 38 00.3	+2.4
OZUR		60.46	34	⇓P	P	00 37 58.9	+0.3
MMLI	Mount Malkishu	60.48	52	P	P	00 38 00.1	+1.1
	comp=Z,13nm,2.1s						
ICOR	Ion Corvin	60.50	37	⇑P	P	00 38 00.8	+1.9
TURR	Turia	60.56	34	⇑P	P	00 37 60.0	+0.6
MMAI	Mount Meron Ar	60.67	51	P	P	00 38 01.3	+0.9
	comp=Z,1.3nm,0.6s,baz=252,slow=8.8,SNR=2.5						
MMAI				LR	LR	01 06 51.0	
	comp=Z,1µm,19.2s,baz=244,slow=39						
	comp=Z,1.3nm,0.6s						
SAHE	Sakarya_HENDEK	60.73	41	⇑P	P	00 38 01.1	+0.5
SAHR	Sahastru	60.75	35	⇑P	P	00 38 00.8	+0.1
MDUB	Mudurnu	60.78	42		P	00 38 00.4	-0.6
PLOR	Plostina	60.80	35	⇑P	P	00 38 02.4	+1.4
PLOR	Plostina	60.80	35	⇑P	P	00 38 02.4	+1.4
VRI	Vrincioaia	60.86	35	⇓P	P	00 38 02.0	+0.7
VRI	Vrincioaia	60.86	35	⇓P	P	00 38 02.0	+0.7
VRI	Vrincioaia	60.86	35	P	P	00 38 01.3	0.0
	comp=Z,20nm,2.1s						
VRI				pP	sP	00 38 06.4	+3.6
	comp=Z,20nm,2.1s						
VRI	Vrincioaia	60.86	35	P	P	00 38 02.2	+0.9
	comp=Z,19nm,2.1s						
TIRR	Tirgusor	61.05	37	IAMs_20	IAMs_20	01 06 55.9	
	comp=Z,2µm,20.0s						
TIRR	Tirgusor	61.05	37	P	P	00 38 02.0	-0.6
	comp=Z,17nm,2.0s						
BURAR	Bucovina Array	61.06	32	⇓P	P	00 38 04.2	+1.5
BURAR	Bucovina Array	61.06	32	P	P	00 38 03.5	+0.7
BURAR	Bucovina Array	61.06	32	⇓P	P	00 38 04.2	+1.5
BUR08	Bucovina Ar. S	61.07	32		P	00 38 03.6	+0.8
PANC	Panciu	61.10	35	⇑P	P	00 38 03.9	+1.0
BIZ	Bicaz	61.13	33	⇓P	P	00 38 03.2	+0.1
GKP	Gorka Klasztor	61.14	24	eP	P	00 38 09.6	+6.6
TESR	Tescani	61.19	34	P	P	00 38 03.0	-0.5
TESR	Tescani	61.19	34	P	P	00 38 05.1	+1.6
TPGR	Topolog	61.27	37	⇓P	P	00 38 05.7	+1.6
CFR	Carcaliu	61.28	36	⇑P	P	00 38 04.8	+0.7
CFR	Carcaliu	61.28	36	⇑P	P	00 38 04.8	+0.7
KKUL	Konya-Kulu	61.35	44	P	P	00 38 05.3	+0.4
	comp=Z,14nm,0.9s						
GHRR		61.36	35	P	P	00 38 03.9	-0.8
GHRR		61.36	35	P	P	00 38 05.4	+0.8
	comp=Z,82nm,1.0s						
ASF	Jabal al Asfar	61.55	53	LR	LR	01 05 44.2	
	comp=Z,2µm,19.0s,baz=221,slow=37						
TLCR		61.69	36	⇓P	P	00 38 08.3	+1.4
TLCR		61.69	36	⇓P	P	00 38 08.3	+1.4
PLCA	Paso Flores	61.80	223	LR	LR	01 01 35.4	
	comp=Z,758nm,21.1s,baz=64,slow=33						
KIRS	Kirsehir-Merke	62.03	44	⇑P	P	00 38 10.5	+1.0
BR105	Keskin Array S	62.08	44	P	P	00 38 10.2	+0.4
	comp=Z,136nmcomp=Z,13nm,0.6s						
BR106	Keskin Array S	62.08	44	P	P	00 38 10.3	+0.4
	comp=Z,110nmcomp=Z,12nm,0.7s						
BR104	Keskin Array S	62.09	44	P	P	00 38 10.3	+0.4
	comp=Z,82nmcomp=Z,8.9nm,0.8s						
BR131	Keskin Array S	62.09	44	i P	P	00 38 09.8	-0.2
BR131	Keskin Array S	62.09	44		P	00 38 09.8	-0.2
BRTR	Keskin Array B	62.09	44	P	P	00 38 10.7	+0.8
	comp=Z,6.7nm,0.6s,baz=225,slow=5.1,SNR=42						
BRTR				LR	LR	01 08 02.7	
	comp=Z,1µm,19.4s,baz=218,slow=39						
	comp=Z,6.7nm,0.6s						
BRTR	Keskin Array B	62.09	44	ceP	P	00 38 10.1	+0.1
BRTR				pmax	pmax		
	comp=Z,7.0nm,0.6s						
BRTR	Keskin Array B	62.09	44		P	00 38 09.3	-0.6
KMPD	K-Podol'skiy	62.29	32	P	P	00 38 08.7	-2.2
ILGA	Ilgaz	62.74	42		P	00 38 14.2	-0.2
ILGA				IAmb	IAmb	00 38 31.8	
	comp=Z,27nm,1.4s						
SORM	Soroca	63.07	33	P	P	00 38 14.3	-1.8
	comp=Z,13nm,1.5s						
ANDN	Andirin	63.12	47	P	P	00 38 17.8	+1.0
	comp=Z,239nm,0.7s						
BNN	Bunyan	63.27	45		P	00 38 17.8	-0.1
BNN				IAmb	IAmb	00 38 21.0	
	comp=Z,16nm,0.8s						
RNPP9	Sopachiv	63.74	29	P	P	00 38 20.0	-0.5
LUBAR	Lubar, Ukraine	63.78	32	P	P	00 38 19.3	-1.5
I62A	Tamworth	64.11	320	IAMs_20	IAMs_20	01 08 40.5	
	comp=Z,2µm,18.0s						
K62A	Royalston	64.14	319	IAMs_20	IAMs_20	00 59 37.6	
	comp=Z,2µm,22.0s						
SUW	Suwalki	64.17	26	eP	P	00 38 21.0	-2.2
SUW	Suwalki	64.17	26	P	P	00 38 23.3	+0.1
SUW				MLR	MLR		
	comp=Z,900nm,20.0s						
SUW	Suwalki	64.17	26	P	P	00 38 23.3	+0.1
TOKA	Tokat	64.32	44	P	P	00 38 23.9	-0.7
TOKA				IAmb	IAmb	00 38 42.1	
	comp=Z,17nm,1.5s						
HNH	Hanover	64.64	320	IAMs_20	IAMs_20	01 00 26.6	
	comp=Z,2µm,21.0s						
LBNH	Lisbon	64.66	320	IAMs_20	IAMs_20	01 00 19.4	
	comp=Z,1µm,20.0s						
BORG	Borgarnes	64.86	359	LR	LR	01 00 28.6	
	comp=Z,1µm,21.2s,baz=173,slow=30						
AK14	Malin Array Si	64.90	31	P	P	00 38 27.3	-0.8
AK19	Malin Array Si	64.91	31	P	P	00 38 28.6	+0.5
AK07	Malin Array Si	64.91	32	P	P	00 38 28.0	-0.1
AK17	Malin Array Si	64.91	31	P	P	00 38 28.0	-0.1
AK20	Malin Array Si	64.92	31	P	P	00 38 27.1	-1.1
AK06	Malin Array Si	64.92	32	P	P	00 38 27.3	-1.0
AK16	Malin Array Si	64.92	31	P	P	00 38 28.7	+0.4
AK18	Malin Array Si	64.94	31	P	P	00 38 28.3	0.0
AK22	Malin Array Si	64.96	31	P	P	00 38 27.4	-1.1
AK10	Malin Array Si	64.96	32	P	P	00 38 27.5	-1.0
AK11	Malin Array Si	64.96	31	P	P	00 38 27.8	-0.7
AK02	Malin Array Si	64.97	31	P	P	00 38 27.9	-0.6
KIEV	Kiev	64.99	31	⇓P	P	00 38 28.6	-0.1
KIEV	Kiev	64.99	31		P	00 38 27.6	-1.1
KIEV	Kiev	64.99	31	IAMs_20	IAMs_20	01 06 35.1	
	comp=Z,1µm,20.0s						
KIEV	Kiev	64.99	31	⇓P	P	00 38 28.6	-0.1
KIEV	Kiev	64.99	31	P	P	00 38 28.0	-0.7
	comp=Z,17nm,1.8s						
AKASG	Malin Array Be	65.00	31	P	P	00 38 28.1	-0.7
	comp=Z,5.6nm,0.9s,baz=236,slow=6.7,SNR=15						
AKASG				LR	LR	01 09 09.4	
	comp=Z,1µm,18.0s,baz=227,slow=38						
	comp=Z,5.6nm,0.9s						
AKASG	Malin Array Be	65.00	31	P	P	00 38 27.3	-1.5
AKBB	Malin Array Si	65.00	31	ceP	P	00 38 29.4	+0.6
AKBB				pmax	pmax		
	comp=Z,17nm,0.9s						
AKBB	Malin Array Si	65.00	31	P	P	00 38 27.8	-1.0
TRY	Troy	65.11	318	IAMs_20	IAMs_20	01 00 20.1	
	comp=Z,1µm,22.0s						
ARPR	Arapgir-MALATY	65.15	46	P	P	00 38 29.4	-0.8
ARPR	Arapgir-MALATY	65.15	46	P	P	00 38 30.3	+0.1
	comp=Z,26nm,1.1s						
HFS	Hagfors	65.24	17	P	P	00 38 31.3	+1.2
	comp=Z,4.2nm,0.7s,baz=212,slow=5.3,SNR=7.2						
HFS				LR	LR	01 06 53.7	
	comp=Z,927nm,21.1s,baz=217,slow=36						
	comp=Z,4.2nm,0.7s						
NB2	NORSAR Subarra	65.29	16	P	P	00 38 31.9	+1.4
	comp=Z,4.0nm,0.8s,baz=210,slow=6.9						
NOA	NORSAR Array B	65.29	16	P	P	00 38 30.6	+0.1
	comp=Z,1.8nm,0.7s,baz=211,slow=6.6,SNR=12						
NOA				LR	LR	01 08 18.5	
	comp=Z,1µm,19.3s,baz=210,slow=37						
	comp=Z,1.8nm,0.7s						
PABE	Paberze	65.50	25	IAMs_20	IAMs_20	01 06 36.0	
	comp=Z,1µm,20.0s						
J59A	Piesco	65.98	319	IAMs_20	IAMs_20	01 00 57.1	
	comp=Z,1µm,20.0s						
KELT	Kelkit	66.21	45	P	P	00 38 37.7	+0.6
	comp=Z,48nm,1.5s						
R58B	Mineral	66.22	312	IAMs_20	IAMs_20	01 01 59.4	
	comp=Z,1µm,20.0s						
LONY	Lake Ozonia	66.53	320	IAMs_20	IAMs_20	01 00 29.5	
	comp=Z,1µm,22.0s						
MNK	Minsk	66.60	28	i P	P	00 38 38.8	-0.2
MNK				i		00 41 02.9	
MNK				i PPP	PPP	00 42 38.9	
MNK				i S	S	00 47 29.6	-0.5
MNK				i SS	SS	00 51 48.0	+0.5
MNK				pmax	pmax		
	comp=N,15nm,1.1s						
MNK				pmax	pmax		
	comp=Z,10.0nm,0.8s						
MNK				pmax	pmax		
	comp=E,14nm,1.1s						
MNK				MLR	MLR		
	comp=E,949nm,17.0s						
MNK	Minsk	66.60	28	i P	P	00 38 38.8	-0.2
	comp=E,14nm,1.1s						
MNK				i P	P	00 38 38.8	-0.2
	comp=N,15nm,1.1s						
MNK				i P	P	00 38 38.8	-0.2
	comp=Z,10.0nm,0.8s,baz=232						
MNK				i PP	PP	00 41 02.9	-2.8
MNK				i PPP	PPP	00 42 39.0	
MNK				i S	S	00 47 29.6	-0.5
MNK				i SS	SS	00 51 48.0	+0.5
MNK				i SSS	SSS	00 54 59.2	
MNK				i LQ	LQ	01 03 06.4	
MNK				i LRM	MLR	01 10 46.2	
	comp=E,949nm,17.3s						
RAYN	Ar Rayn	66.61	64	⇑P	P	00 38 41.5	+1.8
RAYN	Ar Rayn	66.61	64	P	P	00 38 39.4	-0.4
RAYN	Ar Rayn	66.61	64	IAMs_20	IAMs_20	01 05 08.7	
	comp=Z,2µm,19.0s						
RAYN	Ar Rayn	66.61	64	P	P	00 38 41.4	+1.6
	comp=Z,8.5nm,1.8s						
JTS	Las Juntas de	66.64	281	LR	LR	01 07 13.9	
	comp=Z,768nm,20.9s,baz=103,slow=36						
ANN	Anapa	66.84	40	eP	P	00 38 41.2	+0.5
ANN				eS	S	00 47 31.8	-1.6
ANN				pmax	pmax		
	comp=Z,22nm,0.8s						
ANN				MLR	MLR		
	comp=Z,642nm,16.0s						
J57A	Williamstown	66.95	318	IAMs_20	IAMs_20	01 02 26.6	
	comp=Z,2µm,19.0s						
S57A	Dark Hollow, R	66.95	312	IAMs_20	IAMs_20	01 03 54.0	
	comp=Z,1µm,18.0s						
KOPT	Kop Dagi	67.04	46		P	00 38 42.6	+0.1
KOPT				IAmb	IAmb	00 38 52.3	
	comp=Z,19nm,1.0s						
Q56A	Snyder Ridge,	67.56	313	IAMs_20	IAMs_20	01 02 32.9	
	comp=Z,1µm,20.0s						
GURO	Guroymak-BITLI	67.66	48	P	P	00 38 45.9	-0.3
SOC	Sochi	67.84	42	eP	P	00 38 45.7	-1.4
SOC				e		00 41 18.5	
SOC				ePPP	PPP	00 42 54.9	
SOC				eS	S	00 47 42.1	-3.4
SOC				pmax	pmax		
	comp=Z,15nm,0.8s						
SOC				MLR	MLR		
	comp=Z,438nm,15.0s						
VSLR	Vesyoloye	68.00	42	i P	P	00 38 49.5	+1.3
VSLR				pmax	pmax		
	comp=Z,18nm,0.8s						
HAKT	HAKKARI	68.59	49	P	P	00 38 52.5	+0.3
	comp=Z,22nm,1.2s						
LABN	Labinsk	68.92	41	eP	P	00 38 52.3	-1.5
LABN				eS	S	00 47 56.9	-1.5
LABN				pmax	pmax		
	comp=Z,23nm,0.6s						
ARBE	Arbavere	68.93	23	P	P	00 38 54.9	+1.3
	comp=Z,68nm,0.9s						
OZAP	Van, Ozalp-Mer	69.15	48	⇓P	P	00 38 56.3	+0.6
EPOS	Posof	69.15	45	P	P	00 38 56.3	+0.7
	comp=Z,23nm,1.6s						
ERBR	Yeremizino-Bor	69.18	40	eP	P	00 38 55.6	+0.2
ERBR				eS	S	00 48 02.5	+1.1
ERBR				pmax	pmax		
	comp=Z,22nm,1.2s						
ERBR				MLR	MLR		
	comp=Z,1µm,22.0s						
TGUH	Tegucigalpa,Un	69.24	285	P	P	00 38 55.4	-1.1
V53A	Saluda	69.28	308	IAMs_20	IAMs_20	01 05 43.5	
	comp=Z,967nm,18.0s						
SADO	Sadowa	69.56	319	LR	LR	01 03 06.1	
	comp=Z,1µm,21.5s,baz=133,slow=30						
NEUR	Neytrino	69.74	43	i P	P	00 38 59.0	-0.2
NEUR				pmax	pmax		
	comp=Z,11nm,1.3s						
SHA1	Shidzhatmaz	69.88	43	ceP	P	00 39 00.6	+0.5
KIV	Kislovodsk	69.97	42	eP	P	00 39 02.0	+1.5
KIV				eS	S	00 48 13.3	+2.2
KIV				eSS	SS	00 52 42.5	+2.1
KIV				pmax	pmax		
	comp=Z,12nm,1.1s						
KIV	Kislovodsk	69.97	42		P	00 39 00.2	-0.3
KIV				IAmb	IAmb	00 39 18.1	
	comp=Z,15nm,0.8s						
KIV	Kislovodsk	69.97	42	⇓P	P	00 39 01.5	+1.0
KIV	Kislovodsk	69.97	42	P	P	00 39 02.9	+2.4
	comp=Z,337nmcomp=Z,16nm,1.4s						
KIV	Kislovodsk	69.97	42	P	P	00 39 00.1	-0.4
	comp=Z,20nm,1.4s						
KVAR	Kislovodsk Arr	69.98	42	LR	LR	01 12 33.3	
	comp=Z,432nm,19.8s,baz=146,slow=38						
TKL	Tuckaleechee C	70.03	308	LR	LR	01 05 14.1	
	comp=Z,610nm,18.6s,baz=118,slow=32						
KBZ	Khabaz	70.04	43	P	P	00 39 01.6	+0.8
	comp=Z,8.6nm,0.8s,baz=224,slow=3.1,SNR=19						
	comp=Z,8.6nm,0.8s						
KBZ	Khabaz	70.04	43	ceP	P	00 39 00.2	-0.5
KBZ				pmax	pmax		
	comp=Z,8.0nm,0.8s						
GNI	Garni	70.16	47	ceP	P	00 39 01.5	-0.3
GNI				pmax	pmax		
	comp=Z,29nm,1.7s						
GNI	Garni	70.16	47		P	00 39 01.1	-0.7
GNI				IAmb	IAmb	00 39 18.9	
	comp=Z,30nm,1.3s						
GNI	Garni	70.16	47	P	P	00 39 02.7	+0.9
	comp=Z,19nm,1.1s						
GNI	Garni	70.16	47	P	P	00 39 01.5	-0.3
	comp=Z,19nm,1.1s						
FINES	FINESS Array B	70.29	21	P	P	00 39 02.4	+0.5
	comp=Z,4.5nm,0.7s,baz=296,slow=10,SNR=11						
FINES				LR	LR	01 11 35.6	
	comp=Z,1µm,18.4s,baz=234,slow=38						
	comp=Z,4.5nm,0.7s						
FINES	FINESS Array B	70.29	21	P	P	00 39 02.0	0.0
FIA1	FINESS Array S	70.29	21	P	P	00 39 02.3	+0.3
NCK	Nalchik	70.43	43	i P	P	00 39 05.3	+2.1
NCK				pmax	pmax		
	comp=Z,19nm,1.3s						
VNA1	Neumayer--Stat	70.64	176	P	P	00 39 10.6	+6.7
	comp=Z,9.1nm,1.0s						
VORD	Divnogorie	70.64	35	eP	P	00 39 04.8	+0.5
VORD				pmax	pmax		
	comp=Z,10.0nm,0.8s						
VSR	Storozhevoye	70.68	34	eP	P	00 39 04.1	-0.4
VSR				pmax	pmax		
	comp=Z,6.0nm,0.8s						
SFJD	Kangerlussuaq	70.73	347	LR	LR	01 02 44.5	
	comp=Z,729nm,21.1s,baz=159,slow=30						
VNA2	Neumayer--Watz	70.97	176	P	P	00 39 05.8	-0.1
	comp=Z,12nm,0.8s,baz=359,slow=6.8						
OBN	Obninsk	71.12	30	LR	LR	01 12 56.3	
	comp=Z,1µm,18.6s,baz=215,slow=38						
OBN	Obninsk	71.12	30	⇑eP	P	00 39 05.3	-1.8
OBN				e*PP	pP	00 39 08.4	+0.2
OBN				e*SP	sP	00 39 11.1	+2.5
OBN						00 39 28.0	
OBN				e		00 41 52.5	
OBN				i S	S	00 48 27.1	+3.4
OBN				i		00 49 03.9	
OBN				i SS	SS	00 52 54.2	-3.1
OBN				eSSS	SSS	00 56 08.9	
OBN				pmax	pmax		
	comp=Z,20nm,1.4s						
OBN				MLR	MLR		
	comp=Z,1µm,17.0s						
W50A	Signal Mountai	71.12	307	IAMs_20	IAMs_20	01 03 39.5	
	comp=Z,1µm,20.0s						
VNA3	Neumayer Olymp	71.14	177	P	P	00 39 06.9	-0.1
	comp=Z,2.5nm,1.0s						
LPSR	Galich'ya Gora	71.16	33	eP	P	00 39 08.0	+0.6
LPSR				pmax	pmax		
	comp=Z,9.0nm,0.8s						
N49A	Columbus Grove	71.79	313	IAMs_20	IAMs_20	01 06 12.9	
	comp=Z,1µm,19.0s						
MOS	Moscow	71.95	30	eP	P	00 39 10.3	-1.8
MOS				e		00 41 51.1	
MOS				eS	S	00 48 32.1	-1.2
MOS				pmax	pmax		
	comp=Z,42nm,1.3s						
MOS				MLR	MLR		
	comp=Z,1µm,21.0s						
MOS				MLR	MLR		
	comp=E,900nm,20.0s						
SNAA	Sanae	72.06	175	LR	LR	01 03 18.3	
	comp=E,380nm,21.5s,baz=344,slow=30						
SNAA	Sanae	72.06	175	i P	P	00 39 14.4	+1.8
SNAA				pmax	pmax		
	comp=Z,16nm,1.8s						
PMSA	Palmer Station	72.24	199	LR	LR	01 03 22.9	
	comp=Z,499nm,19.7s,baz=42,slow=30						
P48A	Milroy	72.30	312	IAMs_20	IAMs_20	01 05 17.5	
	comp=Z,1µm,18.0s						
N47A	Urbana	72.88	313	IAMs_20	IAMs_20	01 07 20.7	
	comp=Z,1µm,18.0s						
TROLL	Troll, Antarti	72.94	173	P	P	00 39 20.0	+2.1
	comp=Z,211nm,0.8s						
MAK	Makhachkala	72.97	45	eP	P	00 39 14.7	-3.8
MAK				e		00 42 00.0	
MAK				ePPP	PPP	00 43 42.8	
MAK				eS	S	00 48 39.0	-6.5
MAK				eSS	SS	00 53 23.6	-2.7
MAK				eSSS	SSS	00 56 41.2	
MAK				pmax	pmax		
	comp=Z,151nm,1.1s						
MAK				MLR	MLR		
	comp=Z,715nm,13.0s						
WVT	Waverly	73.33	308	IAMs_20	IAMs_20	01 07 25.0	
	comp=Z,936nm,18.0s						
E46A	Sault Ste Mari	73.52	319	IAMs_20	IAMs_20	01 04 51.5	
	comp=Z,1µm,22.0s						
FRB	Frobisher Bay	73.53	339	LR	LR	01 03 16.9	
	comp=Z,369nm,20.3s,baz=128,slow=29						
P46A	Rosedale	73.67	312	IAMs_20	IAMs_20	01 04 29.8	
	comp=Z,1µm,20.0s						
SUMG	Summit	73.75	354	P	P	00 39 23.3	+0.2
T45A	Paducah	74.17	309	IAMs_20	IAMs_20	01 05 17.1	
	comp=Z,1µm,21.0s						
S44A	Carbondale	74.79	309	IAMs_20	IAMs_20	01 05 25.5	
	comp=Z,1µm,20.0s						
KLMR	Klimovskoe	75.29	25	eP	P	00 39 30.0	-1.7
KLMR				e		00 39 46.2	
KLMR				S	S	00 49 08.6	-2.3
KLMR				SS	SS	00 54 00.4	-0.4
KLMR				pmax	pmax		
	comp=Z,22nm,1.5s						
KLMR				MLR	MLR		
	comp=Z,1µm,15.0s						
P43A	Skaggs, Pawnee	75.42	311	IAMs_20	IAMs_20	01 11 27.1	
	comp=Z,908nm,19.0s						
ARCES	ARCESS Array B	75.64	15	P	P	00 39 32.5	-1.1
	comp=Z,1.9nm,0.7s,baz=226,slow=4.4,SNR=4.0						
ARCES				LR	LR	01 12 56.4	
	comp=Z,642nm,20.6s,baz=236,slow=36						
	comp=Z,1.9nm,0.7s						
ARCES	ARCESS Array B	75.64	15	P	P	00 39 33.9	+0.4
ARCES				pmax	pmax		
	comp=Z,77nm,2.0s						
ARCES	ARCESS Array B	75.64	15	P	P	00 39 33.9	+0.4
BELG	Belogornoye	75.97	35	LR	LR	01 16 55.9	
	comp=Z,782nm,18.6s,baz=269,slow=39						
BELG	Belogornoye	75.97	35	i P	P	00 39 36.4	+0.7
BELG				pmax	pmax		
	comp=Z,4.0nm,1.3s						
T42A	Van Buren	76.09	308	IAMs_20	IAMs_20	01 05 59.9	
	comp=Z,955nm,21.0s						
ELIB	Princess Elisa	76.40	168	dP	P	00 39 39.3	+1.3
	comp=Z,6.5nm,1.1s						
CCM	Cathedral Cave	76.41	309	IAMs_20	IAMs_20	01 06 45.2	
	comp=Z,1µm,19.0s						
UOSS	Minazif	76.47	64		P	00 39 37.7	-1.5
UOSS				IAmb	IAmb	00 39 49.8	
	comp=Z,19nm,0.9s						
UOSS	Minazif	76.47	64	IAMs_20	IAMs_20	01 11 07.1	
	comp=Z,1µm,20.0s						
UOSS	Minazif	76.47	64	P	P	00 39 38.2	-1.1
	comp=Z,19nm,1.2s						
APA	Apatity	76.60	18	⇓eP	P	00 39 36.9	-2.1
APA				e		00 39 55.5	
APA				pmax	pmax		
	comp=Z,11nm,1.2s						
CMIG	Matias Romero	76.81	288	LR	LR	01 12 26.9	
	comp=Z,379nm,20.4s,baz=96,slow=35						
R40A	Maddies Statio	77.24	309	IAMs_20	IAMs_20	01 07 22.5	
	comp=Z,1µm,19.0s						
S39A	Bolivar	77.96	309	IAMs_20	IAMs_20	01 07 10.3	
	comp=Z,1µm,22.0s						
BELA	Belgrano 2	78.04	183	P	P	00 39 48.0	+1.0
BELA				IAmb	IAmb	00 40 26.8	
	comp=Z,19nm,1.4s						
N38A	Joes South For	78.43	312	IAMs_20	IAMs_20	01 11 25.8	
	comp=Z,1µm,20.0s						
SCIA	State Center	78.62	313	IAMs_20	IAMs_20	01 09 26.7	
	comp=Z,1µm,19.0s						
Z38A	Mt. Pleasant	78.62	304	IAMs_20	IAMs_20	01 06 56.2	
	comp=Z,904nm,19.0s						
KIRV	Kirov	78.97	30	LR	LR	01 17 46.7	
	comp=Z,1µm,18.2s,baz=263,slow=38						
KIRV	Kirov	78.97	30	i P	P	00 39 51.3	-1.1
OK051	E0350 and S346	80.56	307	IAMs_20	IAMs_20	01 10 16.4	
	comp=Z,816nm,19.0s						
L34A	Svendsen Farm,	80.95	312	IAMs_20	IAMs_20	01 13 07.5	
	comp=Z,1µm,21.0s						
ECSD	EROS Data Cent	81.39	314	IAMs_20	IAMs_20	01 21 48.2	
	comp=Z,1µm,19.0s						
F33A	5 Mile Ranch,	81.49	316	IAMs_20	IAMs_20	01 16 17.5	
	comp=Z,859nm,18.0s						
AGMN	Agassiz Nation	81.60	319	IAMs_20	IAMs_20	01 11 16.4	
	comp=Z,1µm,20.0s						
AKTO	Aktyubinsk	81.77	39	LR	LR	01 19 12.4	
	comp=Z,1µm,21.9s,baz=270,slow=38						
ULM	Lac du Bonnet	81.95	321	LR	LR	01 13 41.7	
	comp=Z,544nm,18.5s,baz=88,slow=34						
R32A	Long Quarter,	82.27	309	IAMs_20	IAMs_20	01 12 24.5	
	comp=Z,802nm,20.0s						
ABTX	Abilene, Hawle	82.44	303	IAMs_20	IAMs_20	01 11 44.4	
	comp=Z,1µm,20.0s						
HRA	Herat	82.70	55	P	P	00 40 13.4	+0.2
HRA				IAmb	IAmb	00 40 44.2	

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                comp=Z,16nm,1.4s
AB31   Akbulak array     82.80  40           P        00 40 12.7 -0.4
ABKAR  Akbulak array     82.80  40           P        00 40 12.3 -0.8
ARTI   Arti              83.08  33   LR      LR       01 19 47.6
                comp=Z,883nm,19.6s,baz=266,slow=38
ARTI   Arti              83.08  33c iP       P        00 40 14.0 -0.4
ARTI                                 S       S        00 50 32.6 -1.4
ARTI                                 SS      SS       00 55 51.2 -6.7
ARTI                                 pmax    pmax
                comp=Z,4.0nm,0.7s
ARTI                                 MLR     MLR
                comp=Z,802nm,17.0s
ARTI   Arti              83.08  33           P        00 40 13.8 -0.6
ARTI                                 IAmb    IAmb     00 40 29.5
                comp=Z,11nm,0.8s
ARTI                                 IAMs_20 IAMs_20  01 19 36.4
                comp=Z,1µm,20.0s
CBKS   Cedar Bluff       83.11 309   IAMs_20 IAMs_20  01 12 55.9
                comp=Z,886nm,20.0s
SUSD   Miller            83.16 315   IAMs_20 IAMs_20  01 13 40.7
                comp=Z,980nm,19.0s
MDND   Maddock           84.02 318   IAMs_20 IAMs_20  01 11 49.4
                comp=Z,1µm,19.0s
OGNE   Ogallala          85.06 311   IAMs_20 IAMs_20  01 11 27.3
                comp=Z,1µm,22.0s
MSTX   Muleshoe          85.16 304   P       P        00 40 25.5 -0.2
MSTX                                 IAmb    IAmb     00 40 59.2
                comp=Z,22nm,1.1s
KSCO   Kaye Shedlock'    85.37 309   IAMs_20 IAMs_20  01 16 11.6
                comp=Z,811nm,19.0s
TXAR   Lajitas Array     85.67 299   P       P        00 40 30.1 +1.8
                comp=Z,0.9nm,0.9s,baz=120,slow=7.5,SNR=7.0
TXAR                                 LR      LR       01 16 30.7
                comp=Z,258nm,19.7s,baz=73,slow=34
                comp=Z,0.9nm,0.9s
TXAR   Lajitas Array     85.67 299   P       P        00 40 27.6 -0.6
TPB28                    86.49 302   P       P        00 40 31.6 -0.7
TPB28                                IAmb    IAmb     00 41 30.7
                comp=Z,17nm,1.4s
MAW    Mawson            86.59 158   P       P        00 40 34.9 +3.1
                comp=Z,0.8nm,0.9s,baz=262,slow=11,SNR=4.6
MAW                                  LR      LR       01 12 09.6
                comp=Z,642nm,18.8s,baz=293,slow=31
                comp=Z,0.8nm,0.9s
MAW    Mawson            86.59 158   P       P        00 40 32.1 +0.3
MAW                                  pmax    pmax
                comp=Z,1.0nm,1.0s
MAW    Mawson            86.59 158   P       P        00 40 32.1 +0.3
RSSD   Black Hills       86.76 314   IAMs_20 IAMs_20  01 16 33.1
                comp=Z,1µm,20.0s
VHRN   Van Horn          86.87 301   P       P        00 40 34.0 -0.2
VHRN                                 IAmb    IAmb     00 41 31.1
                comp=Z,17nm,1.3s
DGMT   Dagmar            87.14 318   IAMs_20 IAMs_20  01 13 46.9
                comp=Z,1µm,20.0s
Q24A   Divide            87.33 309   IAMs_20 IAMs_20  01 13 17.5
                comp=Z,980nm,21.0s
SDCO   Great Sand Dun    87.56 308   P       P        00 40 37.6  0.0
SDCO                                 IAmb    IAmb     00 41 34.3
                comp=Z,38nm,2.0s
SDCO                                 IAMs_20 IAMs_20  01 16 07.6
                comp=Z,774nm,20.0s
ISCO   Idaho Springs     87.73 310   IAMs_20 IAMs_20  01 16 09.9
                comp=Z,1µm,21.0s
ISCO   Idaho Springs     87.73 310   P       P        00 40 39.9 +1.5
                comp=Z,4.5nm,1.1s
ANMO   Albuquerque       88.24 305   LR      LR       01 15 51.9
                comp=Z,644nm,20.1s,baz=92,slow=33
ANMO   Albuquerque       88.24 305ceP        P        00 40 42.4 +1.6
ANMO                                 pmax    pmax
                comp=Z,3.0nm,1.7s
K22A   Casper            88.51 312   IAMs_20 IAMs_20  01 22 16.4
                comp=Z,670nm,19.0s
KK31   Karatay Array     89.62  47   P       P        00 40 47.5 +0.6
KK31                                 pmax    pmax
                comp=Z,5.0nm,1.1s
KK31   Karatay Array     89.62  47   P       P        00 40 47.5 +0.6
KKAR   Karatay Array     89.62  47   P       P        00 40 47.2 +0.3
KKAR   Karatay Array     89.62  47   P       P        00 40 47.2 +0.3
BVAR   Borovoye Array    89.67  37   P       P        00 40 48.3 +1.5
                comp=Z,1.5nm,0.7s,baz=309,slow=6.6,SNR=3.4
                comp=Z,1.5nm,0.7s
O20A   White River Ci    89.75 310   IAMs_20 IAMs_20  01 15 02.3
                comp=Z,969nm,21.0s
BTK    Batken            89.82  50   P       P        00 40 48.3 +0.3
BTK                                  pmax    pmax
                comp=Z,9.0nm,1.1s
BTK    Batken            89.82  50   P       P        00 40 48.3 +0.3
QSPA   South Pole Qui    89.84 180   P       P        00 40 49.7 +2.3
                comp=Z,1.6nm,1.0s,baz=242,slow=1.9,SNR=4.0
                comp=Z,1.6nm,1.0s
QSPA   South Pole Qui    89.84 180   P       P        00 40 48.4 +0.9
QSPA                                 IAmb    IAmb     00 41 53.5
                comp=Z,21nm,1.4s
RPN    Rapa Nui          90.41 243   LR      LR       01 17 24.6
                comp=Z,735nm,20.9s,baz=94,slow=33
PDAR   Pinedale Array    90.75 313   LR      LR       01 18 48.8
                comp=Z,280nm,18.1s,baz=76,slow=34
BW06   Boulder Array     90.75 313   IAMs_20 IAMs_20  01 18 28.6
                comp=Z,760nm,20.0s
EGMT   Eagleton          90.84 318   IAMs_20 IAMs_20  01 15 00.8
                comp=Z,1µm,20.0s
ARSB   Arslanbob         91.46  49   P       P        00 40 54.7 -0.9
ARSB                                 pmax    pmax
                comp=Z,29nm,1.5s
ARSB   Arslanbob         91.46  49   P       P        00 40 54.7 -0.9
SNOW   Snow King Moun    91.61 313   IAMs_20 IAMs_20  01 17 29.7
                comp=Z,1µm,20.0s
TUC    Tucson            91.84 302   IAMs_20 IAMs_20  01 19 32.2
                comp=Z,602nm,18.0s
AHID   Auburn Hatcher    91.88 313   IAMs_20 IAMs_20  01 19 32.7
                comp=Z,881nm,20.0s
BOZ    Bozeman (W)       92.18 315   IAMs_20 IAMs_20  01 17 53.7
                comp=Z,879nm,21.0s
HWUT   Hardware Ranch    92.26 311   IAMs_20 IAMs_20  01 16 11.7
                comp=Z,1µm,21.0s
AAK    Ala-Archa         92.55  48   LR      LR       01 28 49.1
                comp=Z,918nm,19.0s,baz=276,slow=40
AAK    Ala-Archa         92.55  48 i P       P        00 41 00.1 -0.6
AAK                                  pmax    pmax
                comp=Z,7.0nm,1.0s
AAK    Ala-Archa         92.55  48   P       P        00 41 00.5 -0.2
AAK                                  IAmb    IAmb     00 41 18.4
                comp=Z,5.3nm,0.9s
AAK    Ala-Archa         92.55  48   P       P        00 41 01.3 +0.6
                comp=Z,6.6nm,1.2s
DLMT   Dillon            92.87 315   IAMs_20 IAMs_20  01 17 29.7
                comp=Z,809nm,21.0s
YKA    Yellowknife Ar    92.92 332   LR      LR       01 21 08.6
                comp=Z,511nm,18.1s,baz=84,slow=34
DUG    Dugway, Tooele    93.25 310   IAMs_20 IAMs_20  01 18 38.2
                comp=Z,896nm,20.0s
KSH2   Kashi             93.51  51   P       P        00 41 07.8 +2.6
KSH2                                 L       L
                comp=Z,2µm,18.6s
KSH2                                 L       L
                comp=Z,640nm,20.6s
KSH2                                 L       L
                comp=Z,870nm,18.8s
NRN    Naryn             93.73  49   P       P        00 41 05.7 -0.7
NRN                                  pmax    pmax
                comp=Z,6.0nm,1.2s
NRN    Naryn             93.73  49   P       P        00 41 05.7 -0.7
KURBB  Kurchatov Arra    94.81  39   PP      PP       00 44 57.2 -2.0
                comp=Z,1.4nm,0.2s,baz=285,slow=7.6,SNR=4.7
KURBB                                LR      LR       01 29 00.4
                comp=Z,642nm,19.3s,baz=236,slow=39
KURK   Kurchatov         94.86  39 i P       P        00 41 12.3 +1.4
KURK                                 pmax    pmax
                comp=Z,7.0nm,1.8s
KURK   Kurchatov         94.86  39   IAMs_20 IAMs_20  01 26 37.5
                comp=Z,928nm,22.0s
TARG   Taragay, Kyrgy    95.06  48   P       P        00 41 11.9 -0.7
TARG                                 pmax    pmax
                comp=Z,29nm,2.0s
TARG   Taragay, Kyrgy    95.06  48   P       P        00 41 11.9 -0.7
ELK    Elko              95.07 311   LR      LR       01 18 14.2
                comp=Z,779nm,21.8s,baz=87,slow=32
ELK    Elko              95.07 311   IAMs_20 IAMs_20  01 17 52.2
                comp=Z,832nm,20.0s
MFID   Camas Ranch       95.31 313   IAMs_20 IAMs_20  01 27 01.2
                comp=Z,784nm,20.0s
NEW    Newport           95.75 318   LR      LR       01 20 28.2
                comp=Z,1µm,18.9s,baz=78,slow=33
NRIK   Noril'sk          95.94  20   LR      LR       01 27 40.1
                comp=Z,856nm,19.5s,baz=294,slow=38
NRIK   Noril'sk          95.94  20 i P       P        00 41 17.1 +1.7
NRIK                                 pmax    pmax
                comp=Z,12nm,1.7s
BMO    Blue Mountains    96.23 315   IAMs_20 IAMs_20  01 26 21.7
                comp=Z,670nm,20.0s
SHOC   Shoshone, Teco    96.23 306   IAMs_20 IAMs_20  01 24 34.3
                comp=Z,729nm,20.0s
PFO    Pinyon Flats O    96.55 304   LR      LR       01 19 26.7
                comp=Z,539nm,21.6s,baz=102,slow=32
HYB    Hyderabad         97.05  73  ePKiKP   PKiKP    00 45 57.0 -0.8
HYB                                 eSKSac   SKSac    00 51 58.2 -1.4
HYB                                 eSKKSac  SKKSac   00 52 23.7 -2.5
HYB                                  IAMs_20 IAMs_20  01 16 00.0
                comp=Z,742nm,32.9s
NVAR   Mina Array Bea    97.63 309   LR      LR       01 22 58.3
                comp=Z,432nm,18.6s,baz=88,slow=34
MKAR   Makanchi Array    97.73  43   P       Pdif     00 41 25.1 +0.9
                comp=Z,0.4nm,0.8s,baz=337,slow=3.3,SNR=2.1
MKAR                                 PP      PP       00 45 22.6 +0.6
                comp=Z,0.3nm,0.7s,baz=316,slow=4.0,SNR=3.7
MKAR                                 LR      LR       01 31 56.8
                comp=Z,502nm,18.4s,baz=268,slow=39
                comp=Z,0.4nm,0.8s
ISA    Isabella, Lake    98.03 306   IAMs_20 IAMs_20  01 22 34.0
                comp=Z,649nm,20.0s
ZALV   Zalesovo Beam     98.16  35   LR      LR       01 30 13.5
                comp=Z,1µm,18.7s,baz=260,slow=38
MOD    Modoc Plateau     98.75 312   IAMs_20 IAMs_20  01 22 49.4
                comp=Z,881nm,20.0s
INK    Inuvik            99.18 340   LR      LR       01 21 18.3
                comp=Z,660nm,18.4s,baz=72,slow=32
PALK   Pallekele         99.41  83   LR      LR       01 22 29.9
                comp=Z,1µm,19.9s,baz=270,slow=33
G31M   Satah River       99.99 339   IAMs_20 IAMs_20  01 19 33.5
                comp=Z,812nm,21.0s
EPYK   Eagle Plains     101.11 339   IAMs_20 IAMs_20  01 18 58.2
                comp=Z,790nm,20.0s
D27M   Malcolm River    101.17 342   IAMs_20 IAMs_20  01 20 20.3
                comp=Z,669nm,22.0s
WMQ    Urumqi           101.99  45  eP       Pdif     00 41 45.9 +2.7
WMQ                                  SKS     SKSac    00 52 23.0 -0.2
WMQ                                  SS      SS       01 00 27.9 -1.9
WMQ                                  pmax    pmax
                comp=Z,7.0nm,0.7s
WMQ                                  L       L
                comp=Z,510nm,24.7s
WMQ                                  L       L
                comp=Z,360nm,24.1s
WMQ                                  L       L
                comp=Z,410nm,24.1s
L27K   Beaver Creek,    104.60 337   IAMs_20 IAMs_20  01 21 29.3
                comp=Z,712nm,20.0s
TIXI   Tiksi            105.74  10   IAMs_20 IAMs_20  01 32 59.0
                comp=Z,646nm,22.0s
COLA   College          105.84 340   IAMs_20 IAMs_20  01 29 18.1
                comp=Z,798nm,19.0s
MLY    Manley           106.71 341   IAMs_20 IAMs_20  01 23 46.3
                comp=Z,781nm,21.0s
LSA    Lhasa            107.35  59   IAMs_20 IAMs_20  01 28 53.8
                comp=Z,627nm,20.0s
LZH    Lanzhou          116.03  49  eP       PKPdf    00 46 26.1 -6.5
LZH                                  pP      PKiKP    00 46 33.8 +1.2
LZH                                  pmax    pmax
                comp=Z,18nm,1.3s
CHTO   Chiang Mai       116.21  69   IAMs_20 IAMs_20  01 36 24.1
                comp=Z,561nm,20.0s
PZH    PanZhiHua        117.17  60   PKP     PKPdf    00 46 34.4 -0.6
CD2    Chengdu          117.65  55   PKP     PKPdf    00 46 35.3 -0.4
CD2                                  PP      PP       00 47 48.3 +0.2
CD2                                  SKS     SKSdf    00 53 44.9 -3.5
CD2                                  PPMZ
                comp=Z,140nm,5.7s
CD2                                  L       L
                comp=Z,1µm,17.1s
CD2                                  L       L
                comp=Z,880nm,18.4s
CD2                                  L       L
                comp=Z,840nm,18.4s
HHC    Hu-ho-hao-te     119.57  42  ePKP     PKPdf    00 46 35.8 -3.4
BKNI   Bangkinang       119.80  90   IAMs_20 IAMs_20  01 35 01.6
                comp=Z,643nm,20.0s
SLVN   Son La           120.30  65   IAMs_20 IAMs_20  01 48 41.3
                comp=Z,440nm,20.0s
XAN    Xi'an            120.65  50  ePKP     PKPdf    00 46 40.5 -0.9
XAN                                  PP      PP       00 48 15.8 +7.1
XAN                                  L       L
                comp=Z,1µm,18.5s
XAN                                  L       L
                comp=Z,600nm,19.2s
XAN                                  L       L
                comp=Z,850nm,17.3s
TAOE   Nuku Hiva Isla   120.94 260  eLR      LR       01 23 52.9
                comp=Z,427nm,23.1s
ENH    Enshi            122.52  54   IAMs_20 IAMs_20  01 46 57.4
                comp=Z,624nm,21.0s
BJI2   Beijing          123.02  40   PKP     PKPdf    00 46 46.0 +0.3
BJI2                                 SS      SS       01 05 09.3 +0.8
BJI2                                 L       L
                comp=Z,550nm,21.3s
BJI2                                 L       L
                comp=Z,530nm,19.9s
HNS    HongShan         123.39  44 ⇑PKP     PKiKP    00 46 51.3 +4.6
HNS                                  PP      PP       00 48 30.8 +3.9
BBJI   Bungbulang       126.02  99   IAMs_20 IAMs_20  01 42 29.6
                comp=Z,401nm,18.0s
QIZ    Qiongzhong       126.26  66   PKP     PKPdf    00 46 51.3 -1.2
QIZ                                  SS      SS       01 05 49.0 -2.2
QIZ                                  L       L
                comp=Z,280nm,14.7s
QIZ                                  L       L
                comp=Z,400nm,15.2s
QIZ                                  L       L
                comp=Z,600nm,19.2s
QIZ    Qiongzhong       126.26  66   IAMs_20 IAMs_20  01 40 43.3
                comp=Z,647nm,21.0s
DL2    Dalian           127.12  39  ePKP     PKPdf    00 46 49.3 -4.3
DL2                                  PP      PP       00 48 50.8 -0.9
DL2                                  L       L
                comp=Z,610nm,19.2s
DL2                                  L       L
                comp=Z,760nm,15.8s
DL2                                  L       L
                comp=Z,1µm,19.1s
PPT2   Papeete2         128.48 247  eSS      SS       01 06 14.3 -4.8
                comp=Z,469nm,35.0s
NJ2    Nanjing          129.00  47  ePKP     PKPdf    00 46 56.4 -1.0
HKPS   Hong Kong Po S   129.20  61   IAMs_20 IAMs_20  01 51 45.3
                comp=Z,503nm,21.0s
KKM    Kota Kinabalu    134.69  82   IAMs_20 IAMs_20  01 42 24.3
                comp=Z,534nm,22.0s
KAPI   Kappang          138.23  98   IAMs_20 IAMs_20  01 44 24.0
                comp=Z,486nm,20.0s
MMRI   Maumere          140.16 104   IAMs_20 IAMs_20  01 41 08.6
                comp=Z,454nm,21.0s
ASAR   Alice Springs    144.38 134   PKhKP   PKPpre   00 47 22.6
                comp=Z,1.8nm,0.8s,baz=223,slow=2.8,SNR=6.9
ASAR                                 PKP     PKPdf    00 47 26.5 +0.4
                comp=Z,1.8nm,0.8s,baz=216,slow=3.2,SNR=10
AS31   Alice Springs    144.38 134   PKPdf   PKPab    00 47 24.7 +0.6
AS09   Alice Springs    144.38 134   P       PKiKP    00 47 31.4 +1.7
AS15   Alice Springs    144.40 134   P       PKiKP    00 47 32.2 +2.5
WRA    Warramunga Arr   146.88 129   PKPbc   PKPbc    00 47 33.3 +1.0
                comp=Z,1.3nm,0.7s,baz=236,slow=2.6,SNR=5.5
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IDC ***24*** *00:38:20.9±1.2, 9°.80N×127°.79E, h0^{km}, mb4.0/6, mbtmp4.0/7, ML4.5/1, Error ellipse: s-maj=42.9km s-min=20.2km az=80.0*

MAN ***24*** *00:38:23.0, 9°.38N×126°.97E, h5^{km}, MS4.1*

ISC 24 00:38:23.1±1.9**, 9°.32N**±0°.05×**127°.01E**±0°.07**, h8**^{km}±11^{km}**, n18, σ2^{s}06**/30**, mb3.9**/6**, Philippine Islands region**

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Code   Station Name        Δ°   AZ°    Phase ID           Time     Res
                                     Op      ISC        h  m  s   ISC
BIPH   Bislig             1.30 210 i P       Pg       00 38 47.3 -0.8
BIPH                               i S       Sb       00 39 02.0 -2.6
CDOP   Cateel, Davao      1.63 200 eP        Pg       00 38 52.7 -1.7
CDOP                               eS        Sn       00 39 10.8 -2.3
BUKP   Musuan             2.40 234 eP        Pb       00 39 04.5 -2.1
BUKP                               eS        Sb       00 39 34.8 -1.6
CGP    Cagayan de Oro     2.45 250 eP        Pn       00 39 04.2 +0.9
CGP                                i S       Sb       00 39 36.7 -0.9
DAV    Davao City (W)     2.65 213   Pn      Pg       00 39 17.4 +3.6
                47nm,0.3s,baz=78,slow=19,SNR=4.3
DAV                                  Sn      Sg       00 39 48.8 +0.6
                38nm,0.3s,baz=258,slow=19,SNR=7.0
                166nm,0.4s
DAV                                  AML     AML
DMPH   Davao City--Mi     2.67 214 i P       Pg       00 39 12.2 -2.2
DMPH                               i S       Sg       00 39 53.8 +4.7
PLP    Palo               2.71 313 eP        Pn       00 39 08.0 +1.0
PLP                                eS        Sb       00 39 44.6 -0.8
TBP    Tagbilaran         3.13 277 eP        Pn       00 39 13.9 +1.2
TBP                                i S       Sn       00 39 52.0 +1.7
LLP    Lapu-Lapu          3.16 289 eP        Pb       00 39 17.2 -2.3
LLP                                i S       Sb       00 39 56.3 -2.0
LSIP   Lazi, Siquijor     3.34 267 eP        Pn       00 39 16.0 +0.3
LSIP                               eS        Sn       00 39 53.5 -2.0
SNPH   Sibulan            3.73 271 eP        Pn       00 39 20.3 -0.7
SNPH                               eS        Sn       00 40 08.9 +3.8
PAGZ   Pagadian           3.88 248 eP        Pn       00 39 25.0 +2.0
PAGZ                               eS        Sn       00 40 09.1 +0.4
WRA    Warramunga Arr    29.96 166   P       P        00 44 33.3 +1.2
                1.0nm,0.8s,baz=346,slow=9.5,SNR=6.1
                1.0nm,0.8s
ASAR   Alice Springs     33.47 168   P       P        00 45 05.1 +2.2
                0.3nm,0.4s,baz=348,slow=8.1,SNR=3.0
                0.3nm,0.4s
MKAR   Makanchi Array    53.22 323   P       P        00 47 41.6 -0.5
                1.7nm,0.8s,baz=122,slow=7.6,SNR=9.4
                1.7nm,0.8s
KURBB  Kurchatov Arra    57.27 325   P       P        00 48 10.4 -0.6
                2.2nm,0.2s,baz=123,slow=6.8,SNR=3.2
                2.2nm,0.2s
FINES  FINESS Array B    87.07 332   P       P        00 51 08.4 -0.7
                1.8nm,1.0s,baz=90,slow=3.8,SNR=4.7
                1.8nm,1.0s
VNDA   Vanda             88.90 173   P       P        00 51 18.2 +0.7
                0.2nm,0.5s,baz=336,slow=4.2,SNR=2.1
                0.2nm,0.5s
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CFUSG ***24*** *01:01:22.8, 37°.90N×34°.00E, h5^{km}, Mb3.4/6, MD3.6/7, MSH2.9/5*

ISK ***24*** *01:01:24.2, 38°.06N×34°.04E, h6^{km}, ML4.3/27*

IDC ***24*** *01:01:24.4±0.5, 38°.07N×34°.09E, h0^{km}, mb4.1/14, mbtmp4.1/27, ML3.6/11, MS4.3/2, Error ellipse: s-maj=12.1km s-min=7.7km az=82.0*

AFAD ***24*** *01:01:25.3, 38°.13N×34°.02E, h3^{km}±2^{km}, MW4.4*

MCSM ***24*** *01:01:25.6±0.4, 38°N±3°×3°4E±°, h10^{km}, mb4.2, MLv4.5*

GII ***24*** *01:01:26.2±0.0, 38°.047N±0°.002×33°.880E±0°.001, h0^{km}, Mws3.9, confirmed*

NEIC ***24*** *01:01:26.2±1.6, 38°.12N±0°.04×34°.07E±0°.05, h10^{km}±1^{km}, mb4.4/27, Error ellipse: s-maj=7.4km s-min=4.9km az=228.0*

GFZ ***24*** *01:01:29.0±0.2, 38°N±3°×3°4E±°, h10^{km}, M4.2/28, mb4.2/28*

ISC 24 01:01:25.1±1.1**, 38°.08N**±0°.02×**34°.03E**±0°.02**, h4**^{km}±7^{km}**, n310, σ1^{s}39**/334**, mb4.2**/24**, MS4.5**/5**, 10C-7D, Turkey**

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Code   Station Name        Δ°   AZ°    Phase ID           Time     Res
                                     Op      ISC        h  m  s   ISC
BSIR   Belisirma, Guz     0.28  47   P       Pg       01 01 30.8 +0.2
GULA   Gulagac            0.31  31   Pg      Pg       01 01 31.2  0.0
GULA                                 Sg      Sg       01 01 36.2 +0.8
GULA                                 AML     AML
YESY   Yesilyurt          0.37 218   Pg      Pg       01 01 32.0 -0.2
YESY                                 Sg      Sg       01 01 37.5 +0.4
YESY                                 AML     AML
AKSY   AKSARAY - Alti     0.61 340   P       Pg       01 01 36.1 -0.7
CMRD   Camardi-Nigde      0.86 118   Pg      Pg       01 01 40.4 -1.3
CMRD                                 Sg      Sg       01 01 53.2 +0.3
CMRD                                 AML     AML
SERE   Sereflikochisa     0.94 337   Pg      Pg       01 01 42.6 -0.6
SERE                                 Sg      Sb       01 01 56.9 -0.2
SERE                                 AML     AML
AVNS   Nevsehir-Avano     0.97  41   P       Pg       01 01 43.7  0.0
AVNS                                 S       Sb       01 01 58.9 +1.0
AVNS                                 IAML             01 02 05.0
                comp=N,5µm,0.7s
KIRS   Kirsehir-Merke     1.06 355   P       Pg       01 01 44.8 -0.6
KIRS                                 S       Sg       01 01 59.4 +0.3
KIRS                                 IAML             01 02 04.0
                comp=E,2µm,0.8s
KRMN   Karaman            1.09 214   Pn      Pg       01 01 44.5 -1.4
KRMN                                 Sn      Sb       01 02 01.1  0.0
KRMN                                 AML     AML
MCUR   KIREHR             1.15  20   P       Pg       01 01 46.0 -1.3
MCUR                                 S       Sg       01 02 02.0 -0.2
MCUR                                 IAML             01 02 06.0
                comp=N,2µm,0.4s
KULU   Kulu               1.26 321   Pn      Pg       01 01 49.1 -0.1
KULU                                 Sn      Sn       01 02 07.1  0.0
KAMT   Kaman              1.32 349   Pn      Pg       01 01 49.2 -1.1
KAMT                                 Sn      Sn       01 02 08.8 +0.3
KAMT                                 AML     AML
LADK   Ladik-KONYA        1.32 276   Pn      Pg       01 01 49.1 -1.3
LADK                                 Sn      Sn       01 02 08.9 +0.3
LADK                                 AML     AML
KONT   Konya--Tatoy       1.32 265   Pn      Pg       01 01 49.3 -1.2
KONT                                 AML     AML
KKUL   Konya-Kulu         1.40 322   P       Pn       01 01 51.3 -0.3
KKUL   Konya-Kulu         1.40 322   P       Pn       01 01 51.4 -0.1
AKPI   Kirsehir/Akpin     1.43 359   P       Pn       01 01 51.3 -0.6
AKPI                                 S       Sg       01 02 10.7 -0.3
AKPI                                 IAML             01 02 17.0
                comp=E,3µm,0.3s
GUNE   Kayseri            1.50  56   P       Pb       01 01 53.5 -0.1
SIRC   Yozgat             1.53  34   P       Pb       01 01 53.8 -0.4
SIRC                                 S       Sb       01 02 14.0  0.0
SIRC                                 IAML             01 02 16.0
                comp=N,1µm,0.4s
SIRC                                 IAML             01 02 19.0
                comp=E,2µm,0.5s
KOZT   Kozan              1.54 112   Pn      Pn       01 01 52.9 -0.5
KOZT                                 AML     AML
AFSR   Afar-Bala (An      1.56 332   Pn      Pn       01 01 53.6 -0.2
AFSR                                 AML     AML
CDAG   Cicekdag           1.57  10   P       Pn       01 01 53.8 -0.1
CDAG                                 S       Sn       01 02 14.3 -0.4
CDAG                                 IAML             01 02 20.0
                comp=E,5µm,0.5s
CDAG                                 IAML             01 02 22.0
                comp=N,6µm,0.5s
KESK   Krkkale-Ke         1.60 347   P       Pn       01 01 54.1 -0.1
BNN    Bunyan             1.62  61   Pn      Pn       01 01 54.1 -0.6
BNN    Bunyan             1.62  61           Pn       01 01 54.3 -0.4
BNN                                  Sn      Sn       01 02 14.2 -2.0
BBAL   Bala               1.63 334   P       Pn       01 01 54.1 -0.6
KEBE   Keben-Mersin       1.65 189   Pn      Pn       01 01 54.3 -0.6
KEBE                                 AML     AML
HDMB   Hadim              1.65 228   Pn      Pn       01 01 54.6 -0.5
HDMB                                 AML     AML
BR104  Keskin Array S     1.66 350   Pn      Pn       01 01 53.9 -1.2
BR104                                AML     AML
BR105  Keskin Array S     1.67 349   Pn      Pn       01 01 54.7 -0.6
BR105                                AML     AML
BR131  Keskin Array S     1.68 350   Pn      Pn       01 01 55.1 -0.3
BR131                                AML     AML
BR131  Keskin Array S     1.68 350           Pn       01 01 54.8 -0.6
BR131                                Sn      Sn       01 02 16.0 -1.5
BRTR   Keskin Array B     1.68 350   Pn      Pn       01 01 55.0 -0.4
                81nm,0.3s,baz=165,slow=18,SNR=1223
BRTR                                 Sn      Sg       01 02 20.4 +1.4
                143nm,0.3s,baz=299,slow=6.0,SNR=12
BRTR   Keskin Array B     1.68 350           Pn       01 01 54.8 -0.6
SLFK   Silifke-Mersin     1.68 182   Pn      Pn       01 01 54.7 -0.6
SLFK                                 AML     AML
BR106  Keskin Array S     1.69 349   Pn      Pn       01 01 54.8 -0.7
BR106                                AML     AML
TEVE   Tevekalti-Mers     1.70 196   Pn      Pn       01 01 55.2 -0.5
TEVE                                 AML     AML
SILI   Silifke-Mersin     1.71 183   Pn      Pn       01 01 55.2 -0.4
SILI                                 AML     AML
YOZG   Bozok Univ. Me     1.81  19   P       Pn       01 01 56.9 -0.2
YOZG                                 S       Sb       01 02 22.2 +0.3
YOZG                                 IAML             01 02 25.0
                comp=N,2µm,0.4s
BERE   Bereket-Mersin     1.84 201   Pn      Pn       01 01 56.9 -0.7
BERE                                 AML     AML
KRTS   Karatas            1.84 144   Pn      Pn       01 01 57.1 -0.4
KRTS                                 AML     AML
IKL    Isikli             1.85 189   Pn      Pn       01 01 57.3 -0.4
IKL                                  AML     AML
YOZ    Yozgat             1.86  32   Pn      Pn       01 01 57.8 -0.1
YOZ                                  AML     AML
SEYD   Seydisehir-KON     1.86 250   Pn      Pn       01 01 57.8 -0.1
SEYD                                 AML     AML
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KIZT	Kizilcal	1.87	296	Pn	Pn	01 01 58.9	+0.9
KIZT				AML	AML		
KARG	Kargicak-Mersi	1.89	188	Pn	Pn	01 01 57.6	-0.5
KARG				AML	AML		
TEPK	Tepekoy-MERSIN	1.89	192	Pn	Pn	01 01 57.9	-0.3
ANDN	Andirin	1.90	104	P	Pn	01 01 58.7	+0.3
YESI	Yesilovacik-Me	1.90	189	Pn	Pn	01 01 58.0	-0.3
SARI	SarD1z-Kayseri	1.91	79	Pn	Pn	01 01 58.3	-0.3
SARI				AML	AML		
OREN	Orenkoy-Mersin	1.92	194	Pn	Pn	01 01 58.4	-0.2
DELI	KIRIKKALE	1.92	358	P	Pn	01 01 58.6	-0.1
DELI				S	Sg	01 02 28.1	+1.2
DELI				IAML		01 02 35.0	
	comp=N,1µm,0.5s						
TISA	Tisan-Mersin	1.93	188	Pn	Pn	01 01 58.3	-0.4
TISA				AML	AML		
GOKD	Ankara-Kalecik	2.04	348	P	Pn	01 02 00.3	-0.1
GOKD				S	Sg	01 02 32.9	+2.2
GOKD				IAML		01 02 40.0	
	comp=N,3µm,0.5s						
LOD	Lodumlu	2.06	332	Pn	Pn	01 02 00.9	+0.3
LOD				AML	AML		
HACI	Hacifakili, Ak	2.10	39	P	Pn	01 02 01.4	+0.2
HACI				S	Sn	01 02 28.6	+0.8
HACI				IAML		01 02 36.0	
	comp=N,1µm,1.1s						
SUNG	orum-Sungurl	2.12	4	P	Pn	01 02 02.0	+0.6
POLA	Polatl-ANKAR	2.18	319	Pn	Pn	01 02 02.4	+0.1
POLA				AML	AML		
KEPZ	Antalya-Kepez	2.26	239	⇓P	Pb	01 02 05.0	-1.5
CKRK	Yozgat, Cekere	2.30	29	P	Pn	01 02 04.8	+0.9
CKRK				S	Sg	01 02 38.5	-0.5
CKRK				IAML		01 02 41.0	
	comp=N,1µm,0.4s						
COAL	Corum-Alaca	2.30	19	P	Pb	01 02 06.2	-1.1
COAL				S	Sg	01 02 37.9	-1.1
COAL				IAML		01 02 42.0	
	comp=N,4µm,0.7s						
ELDT	Eldivan	2.46	349	P	Pg	01 02 11.5	-0.7
YENC	ankr-Yen	2.61	357	P	Pb	01 02 10.7	-1.8
AYAZ	Ayas K¶y, M	2.68	14	P	Pn	01 02 10.7	+1.5
GAZ	Gaziantep	2.68	109		Pn	01 02 08.6	-0.6
GAZ				Sn	Sn	01 02 41.4	-0.7
ISP	Isparta	2.78	266		Pn	01 02 10.5	-0.1
TOKA	Tokat	2.94	40		Pn	01 02 11.2	-1.5
ILGA	Ilgaz	2.98	355		Pn	01 02 12.6	-0.8
CSS	Mathiatis	3.16	190		Pn	01 02 15.2	-0.5
CSS	Mathiatis	3.16	190	Pn	Pn	01 02 14.4	-1.2
CSS				AML	AML		
CSS	Mathiatis	3.16	190	P	Pn	01 02 15.7	0.0
CSS	Mathiatis	3.16	190	P	Pn	01 02 15.1	-0.6
MDUB	Mudurnu	3.25	318		Pn	01 02 16.4	-0.6
BORA	Eskisehir	3.32	304		Pn	01 02 16.8	-1.2
ARPR	Arapgir-MALATY	3.52	72		Pn	01 02 20.1	-0.7
ELL	Elmali	3.54	249		Pn	01 02 22.7	+1.7
SAHE	Sakarya_HENDEK	3.71	319	⇑P	Pn	01 02 23.8	+0.7
CY604	RAF Akrotiri,	3.75	174	Pn	Pn	01 02 23.3	-0.1
BZK	Bozkurt	3.88	360		Pn	01 02 26.5	+1.0
BZK	Bozkurt	3.88	360	Pn	Pn	01 02 25.9	+0.4
BZK				AML	AML		
BEIL	Beino	3.93	153	*e*P	Pn	01 02 26.4	+0.1
AKAS	Kas	3.98	244		Pn	01 02 28.2	+1.1
SNOP	Sinop	4.04	13		Pn	01 02 28.8	+1.1
HWQ	Hawqa	4.09	157	*e*P	Pn	01 02 28.2	-0.4
TAVA	DENIZLI_Tavas	4.10	263	⇑P	Pn	01 02 27.5	-1.1
MANT	Manisa	4.33	277		Pn	01 02 31.7	-0.2
BHL	Bhannes	4.37	162	*e*P	Pn	01 02 32.4	0.0
YLV	Yalova	4.38	306	Pn	Pn	01 02 31.6	-1.0
YLV				AML	AML		
ZAHL	Zahle	4.47	160	*e*P	Pn	01 02 34.1	+0.3
DQRL	Deir Qamar	4.54	164	*e*P	Pn	01 02 34.6	0.0
KELT	Kelkit	4.56	61	P	Pn	01 02 38.3	+3.2
QRWL	Qaraoun	4.71	163	*e*P	Pn	01 02 37.4	+0.3
RCY	Rachaya	4.80	162	*e*P	Pn	01 02 37.7	-0.7
SHBL	Chebaa	4.92	163	*e*P	Pn	01 02 39.9	-0.1
KLYT	Kilyos	4.99	311	Pn	Pn	01 02 39.8	-0.9
KLYT				AML	AML		
NATI	Neve Ativ	5.00	163	P	Pn	01 02 41.3	+0.4
NATI				S	Sn	01 03 39.8	+0.6
KIRY	Kiryat Shemona	5.02	165	P	Pn	01 02 42.4	+1.2
GEM	Giv'at Ha'Em	5.03	164	P	Pn	01 02 41.6	+0.2
GEM				S	Sn	01 03 40.4	+0.4
BALB	Balikesir	5.05	290		Pn	01 02 42.7	+1.1
BAND	Balkesir-Ban	5.14	298	⇓P	Pn	01 02 42.4	-0.4
MMA0B	Mount Meron ar	5.17	167	P	Pn	01 02 43.5	+0.1
MMA0B				S	Sn	01 03 44.6	+1.1
MMAI	Mount Meron Ar	5.17	167	Pn	Pn	01 02 42.8	-0.6
	18nm,0.5s,baz=352,slow=16,SNR=44						
MMAI				Sn	Sn	01 03 42.8	-0.7
	baz=347,slow=26						
BALY	Balya	5.27	290	P	Pn	01 02 46.0	+1.3
	comp=Z,567nm,1.5s						
KSHT	Keshet	5.29	164	P	Pn	01 02 46.1	+1.2
KTUT	Trabzon	5.30	55	⇑P	Pb	01 02 58.0	-0.4
BDRM	Kayabasi	5.33	261	⇑P	Pn	01 02 44.9	-0.6
KNHM	Kefar Nahum	5.33	166	P	Pn	01 02 46.8	+1.3
KOPT	Kop Dagi	5.40	67	Pn	Pn	01 02 46.2	-0.4
OFRI	`Ofer	5.50	172	P	Pn	01 02 48.5	+0.6
CTYL	Yalikoy Yolu	5.58	309	Pn	Pn	01 02 47.2	-1.6
	comp=Z,0.3nmcomp=Z,28nm,0.8s						
CTYL				AML	AML		
MMLI	Mount Malkishu	5.74	168	P	Pn	01 02 54.1	+3.0
	comp=Z,79nm,1.2s						
MMLI	Mount Malkishu	5.74	168	P	Pn	01 02 51.8	+0.7
RGMN	Argaman	6.02	168	P	Pn	01 02 55.4	+0.5
YITV	Yitav	6.22	169	P	Pn	01 02 59.0	+1.4
UJAP	Al Uja	6.22	169	P	Pn	01 03 01.2	+3.6
	comp=Z,49nm,0.9s						
EZN	Ezine	6.25	289	Pn	Pn	01 02 57.7	-0.4
	comp=Z,0.3nmcomp=Z,85nm,1.2s						
EZN				AML	AML		
GURO	Guroymak-BITLI	6.31	83	Pn	Pn	01 02 58.7	-0.4
ASF	Jabal al Asfar	6.34	157	Pn	Pn	01 03 00.2	+0.7
	comp=Z,1.9nm,0.3s,baz=332,slow=17,SNR=46						
ASF				Sn	Sn	01 04 12.3	0.0
	baz=295,slow=23						
	comp=Z,23nm,0.7s						
ASF				AML	AML		
JER	Jerusalem	6.36	171	P	Pn	01 03 00.7	+1.0
ALMO	Almog	6.38	169	P	Pn	01 03 00.8	+0.9
YAL	Yalta	6.41	1	*e*P	Pn	01 03 00.8	+0.6
YAL				pmax	pmax	01 03 07.8	
	comp=Z,5.0nm,0.5s						
YAL				*e*x	x	01 04 18.1	
YAL				smax	smax	01 04 26.7	
	comp=N,2.0nm,0.3s						
YAL				smax	smax	01 04 26.7	
	comp=E,4.0nm,0.3s						
SEV	Sevastopol'	6.47	358	*e*P	Pn	01 03 01.5	+0.4
SEV				pmax	pmax	01 03 02.1	
	comp=Z,20nm,0.4s						
SEV				*e*x	x	01 04 19.6	
SEV				smax	smax	01 04 27.0	
	comp=N,5.0nm,0.5s						
SEV				smax	smax	01 04 27.0	
	comp=E,4.0nm,0.6s						
AMAZ	Amatzia	6.57	173	P	Pn	01 03 03.5	+1.0
AMAZ				S	Sn	01 04 19.0	+1.1
ALU	Alushta	6.61	2	*e*x	x	01 03 02.7	
ALU				pmax	pmax	01 03 03.5	
	comp=Z,6.0nm,0.5s						
ALN	Alexandroupoli	6.79	297		Pn	01 03 05.5	0.0
MSBI	Mazada	6.83	170	P	Pn	01 03 06.8	+0.7
SUDU	Sudak	6.85	6	*e*P	Pn	01 03 06.1	-0.2
SUDU				pmax	pmax	01 03 12.4	
	comp=Z,11nm,0.5s						
SUDU				*e*x	x	01 04 28.1	
SUDU				smax	smax	01 04 35.2	
	comp=N,11nm,0.5s						
SUDU				smax	smax	01 04 35.2	
	comp=E,4.0nm,0.5s						
SIM	Simferopol'	6.87	1	*e*P	Pn	01 03 07.1	+0.5
SIM				pmax	pmax	01 03 08.6	
	comp=Z,15nm,0.5s						
SIM				x	x	01 04 29.0	
GHAJ	Ghor Haditha	6.87	169		Pn	01 03 08.1	+1.4
GHAJ	Ghor Haditha	6.87	169	P	Pn	01 03 07.5	+0.9
FEO	Feodosiya	7.01	8	*e*P	Pn	01 03 08.4	-0.1
FEO				pmax	pmax	01 03 13.1	
	comp=Z,18nm,0.4s						
FEO				*e*x	x	01 04 34.3	
FEO				smax	smax	01 04 38.9	
	comp=N,13nm,0.5s						
GEVA	Gevas	7.12	85	Pn	Pn	01 03 10.0	-0.1
KZIT	Kziot	7.16	177	P	Pn	01 03 14.8	+4.2
	comp=Z,91nm,0.9s						
KZIT	Kziot	7.16	177	P	Pn	01 03 11.0	+0.4
KZIT	Kziot	7.16	177	P	Pn	01 03 10.5	-0.1
DNZ2	Donuzlav2	7.32	355	*e*P	Pn	01 03 13.3	+0.6
DNZ2				pmax	pmax	01 03 18.8	
	comp=Z,73nm,0.4s						
DNZ2				*e*x	x	01 04 38.6	
DNZ2				smax	smax	01 04 49.0	
	comp=N,5.0nm,0.4s						
DNZ2				smax	smax	01 04 49.0	
	comp=E,3.0nm,0.4s						
TARU	Tarkhankut	7.38	352	*e*P	Pn	01 03 14.1	+0.5
RMNI	Mount Ramon	7.49	175	P	Pn	01 03 16.6	+1.5
EPOS	Posof	7.52	60	P	Pn	01 03 21.5	+5.8
	comp=Z,24nm,1.2s						
ICOR	Ion Corvin	7.65	324	⇓P	Pn	01 03 17.4	+0.1
HAKT	HAKKARI	7.68	91	P	Pn	01 03 23.8	+5.8
	comp=Z,48nm,0.9s						
IDI	Anoyia	7.85	252	Pn	Pn	01 03 20.8	+0.6
	comp=Z,2.8nm,0.5s,baz=60,slow=19,SNR=5.5						
IDI	Anoyia	7.85	252		Pn	01 03 22.4	+2.2
TLBR	Topalu	7.88	327	⇓P	Pn	01 03 20.6	+0.2
HARR	Harsova	8.04	327	⇑P	Pn	01 03 24.1	+1.5
HRFI	Mount Harif	8.06	174	P	Pn	01 03 23.7	+0.7
HRFI	Mount Harif	8.06	174	P	Pn	01 03 23.6	+0.6
CFR	Carcaliu	8.36	330	⇓P	Pn	01 03 28.1	+1.2
EIL	Elat	8.42	175	Pn	Pn	01 03 29.7	+1.8
	comp=Z,0.8nm,0.3s,baz=343,slow=15,SNR=8.7						
	comp=Z,4.8nm,0.6s						
EIL				AML	AML		
EIL	Elat	8.42	175	P	Pn	01 03 32.9	+5.0
	comp=Z,28nm,0.6s						
EIL	Elat	8.42	175	P	Pn	01 03 28.6	+0.7
GNI	Garni	8.58	73	Pn	Pn	01 03 30.0	-0.3
KBZ	Khabaz	8.77	47	Pn	Pn	01 03 35.3	+2.6
	comp=Z,0.1nm,0.3s,baz=234,slow=9.4,SNR=9.1						
	comp=Z,4.7nm,1.0s						
KBZ				AML	AML		
KIV	Kislovodsk	8.79	45	Pn	Pn	01 03 32.8	-0.2
	comp=Z,7.0nm,1.1s						
KVAR	Kislovodsk Arr	8.79	45	Pn	Pn	01 03 33.7	+0.6
	baz=248,slow=5.4						
	comp=Z,2.2nm,0.9s						
PLVB	Pleven	8.89	310	⇑P	Pn	01 03 32.9	-1.4
ISR	Istrita	8.99	324	Pn	Pn	01 03 35.2	-0.6
	comp=Z,30nm,0.9s						
VRI	Vrincioaia	9.49	327	⇑P	Pn	01 03 43.0	+0.4
VRI	Vrincioaia	9.49	327	Pn	Pn	01 03 41.7	-0.9
PLOR	Plostina	9.51	327	⇑P	Pn	01 03 44.7	+1.8
MLR	Muntele Rosu	9.55	323	Pn	Pn	01 03 45.9	+2.4
	comp=Z,0.3nm,0.3s,baz=90,slow=15,SNR=4.5						
	comp=Z,2.3nm,0.8s						
MLR				AML	AML		
MLR	Muntele Rosu	9.55	323	Pn	Pn	01 03 43.9	+0.4
MLR	Muntele Rosu	9.55	323	Pn	Pn	01 03 43.3	-0.2
	comp=Z,6.8nm,0.8s						
COVR	Voineasa-Covas	9.70	326	⇓P	Pn	01 03 46.7	+1.2
VOIR		9.95	321	⇑P	Pn	01 03 49.9	+1.0
VOIR		9.95	321	Pn	Pn	01 03 48.5	-0.4
	comp=Z,5.1nm,0.8s						
TESR	Tescani	10.04	329	Pn	Pn	01 03 46.4	-3.7
ARR	Arges	10.11	319	⇓P	Pn	01 03 50.8	-0.3
BAL3X	Bal3x, Balta	10.37	343	Pn	Pn	01 03 53.8	-0.8
LOT	Lotru	10.62	317	⇑P	Pn	01 03 57.8	-0.3
LOT	Lotru	10.62	317	P	Pn	01 03 58.2	0.0
	comp=Z,7.4nm,0.8s						
SORM	Soroca	10.87	339	Pn	Pn	01 03 59.1	-2.3
	comp=Z,13nm,0.8s						
BURAR	Bucovina Array	11.51	329	Pn	Pn	01 04 11.8	+1.4
BUR08	Bucovina Ar. S	11.54	329	Pn	Pn	01 04 11.0	+0.3
KMPD	K-Podol'skiy	11.84	335	Pn	Pn	01 04 14.3	-0.3
LUBAR	Lubar, Ukraine	12.67	341	Pn	Pn	01 04 25.1	-0.9
AK06	Malin Array Si	12.97	346	Pn	Pn	01 04 27.9	-2.2
AK10	Malin Array Si	12.98	346	Pn	Pn	01 04 27.9	-2.3
AK09	Malin Array Si	12.98	346	Pn	Pn	01 04 27.1	-3.2
AK08	Malin Array Si	13.01	346	Pn	Pn	01 04 28.1	-2.5
AK12	Malin Array Si	13.04	346	Pn	Pn	01 04 30.4	-0.6
AKASG	Malin Array Be	13.08	346	Pn	Pn	01 04 31.6	0.0
	comp=Z,0.2nm,0.3s,baz=163,slow=12,SNR=6.1						
	comp=Z,1.5nm,0.7s						
AKASG				AML	AML		
AK03	Malin Array Si	13.10	346	Pn	Pn	01 04 31.6	-0.3
AK21	Malin Array Si	13.19	346	Pn	Pn	01 04 32.7	-0.3
TIP	Timpagrande	13.55	280	Pn	Pn	01 04 40.5	+2.3
MI28	Mi28,Pidlybu	13.62	343	Pn	Pn	01 04 39.2	+0.2
KOLS	Kolonicke sedl	13.79	326	*e*P	P	01 04 54.1	+4.1
RNPP9	Sopachiv	14.52	339	Pn	Pn	01 04 48.9	-2.4
STHS	Stebnicka Huta	14.60	325	*e*P	P	01 05 01.5	+2.5
MPLH	Magyarpolny	15.14	312	P	P	01 05 04.1	-0.9
	comp=Z,9.9nm,1.4s						
OJC	Ojcow	15.83	325		P	01 05 11.1	-1.5
OJC	Ojcow	15.83	325	P	P	01 05 13.1	+0.5
	comp=Z,11nm,2.2s						
MODS	Modra-Piesok	15.94	316	*e*P	P	01 05 16.7	+2.9
MODS	Modra-Piesok	15.94	316	P	P	01 05 14.3	+0.5
	comp=Z,26nm,1.3s						
SOP	Sopron	15.97	313	P	P	01 05 15.4	+1.2
	comp=Z,13nm,1.1s						
JAVC	Velka Javorina	16.00	318	*e*P	P	01 05 14.6	0.0
RONA	Rosalia, Austr	16.14	312	*e*pP	P	01 05 17.9	+1.8
	comp=Z,6.6nm,1.0s						
ARSA	Arzberg	16.38	310		Pn	01 05 16.3	+0.5
ARSA	Arzberg	16.38	310	*e*P	P	01 05 18.0	-0.8
	comp=Z,3.5nm,1.2s						
SOKA	Soboth	16.43	308	*e*pP	P	01 05 21.5	+2.1
	comp=Z,5.2nm,1.0s						
WINA	Alland / Wiene	16.47	313	*e*pP	P	01 05 22.7	+3.0
	comp=Z,9.5nm,1.1s						
CONA	Conrad Observa	16.50	312	*e*pP	P	01 05 23.0	+2.8
	comp=Z,6.8nm,1.2s						
MORC	Moravsky Berou	16.63	320		P	01 05 20.9	-0.7
MORC	Moravsky Berou	16.63	320	*e*P	P	01 05 21.8	+0.3
OBKA	Obir	16.66	307	*e*pP	P	01 05 24.4	+2.4
	comp=Z,13nm,1.2s						
OBKA	Obir	16.66	307	P	P	01 05 24.4	+2.4
	comp=Z,16nm,1.2s						
KRUC	Moravsky	16.81	316	*e*P	P	01 05 24.8	+1.3
KRUC	Moravsky	16.81	316	P	P	01 05 25.4	+1.9
	comp=Z,8.4nm,1.5s						
VRAC	Vranov	16.84	317	Pn	P	01 05 24.3	+0.4
	comp=Z,0.2nm,0.3s,baz=132,slow=10,SNR=9.1						
	comp=Z,5.6nm,0.9s						
VRAC				AML	AML		
VRAC	Vranov	16.84	317	*e*P	P	01 05 25.5	+1.7
VRAC	Vranov	16.84	317	P	P	01 05 27.0	+3.2
	comp=Z,4.2nm,1.4s						
SESA	Seetaler Alpe,	16.90	308	*e*pP	P	01 05 28.2	+3.4
	comp=Z,9.5nm,1.0s						
MNK	Minsk	16.96	348	*i* P	Pn	01 05 23.1	0.0
	comp=E,20nm,1.1s						
MNK				*i* P	Pn	01 05 23.1	0.0
	comp=N,12nm,1.0s						
MNK				*i* P	Pn	01 05 23.1	0.0
	comp=Z,18nm,0.9s,baz=163						
MNK				*i* PP	PnPn	01 05 32.6	0.0
MNK				*i* PPP	PPP	01 05 41.2	
MNK				*i* S	Sn	01 08 29.4	-2.4
MNK				*i* SS	SnSn	01 08 44.5	-0.5
MNK				*i* SSS	SSS	01 08 58.6	
MNK				*i* LR	LR	01 11 38.1	
MNK				*i* LRM	MLR	01 13 30.1	
	comp=N,641nm,15.6s						
ABNA	Allensteig Bun	17.13	314	*e*P	P	01 05 28.3	+1.2
	comp=N,9.1nm,1.4s						
OBN	Obninsk	17.13	5	Pn	Pn	01 05 23.8	-1.4
OBN				IAmb	IAmb	01 05 53.0	
	comp=Z,21nm,0.4s						
BELG	Belogornoye	17.18	29	P	Pn	01 05 25.4	-0.5
	comp=Z,0.6nm,0.3s,baz=65,slow=10,SNR=6.8						
	comp=Z,18nm,1.1s						
BELG				AML	AML		
KRLC	Kraliky	17.20	320	*e*P	P	01 05 30.4	+2.6
KRLC	Kraliky	17.20	320	P	P	01 05 32.1	+4.2
	comp=Z,10.0nm,1.4s						
MYKA	Terra Mystica	17.29	306	*e*P	P	01 05 31.4	+2.5
	comp=Z,22nm,1.5s						
ACOM	Acomizza, Ital	17.34	306	P	P	01 05 32.5	+3.0
	comp=Z,21nm,1.1s						
MOA	Molln	17.41	310	*e*P	P	01 05 34.1	+3.9
	comp=Z,11nm,1.2s						
MOA	Molln	17.41	310	P	P	01 05 33.4	+3.2
	comp=Z,16nm,1.1s						
TREC	Trest	17.43	316	*e*P	P	01 05 33.5	+3.1
TREC	Trest	17.43	316	P	Pn	01 05 29.0	-0.1
	comp=Z,10nm,1.8s						
RAYN	Ar Rayn	17.51	143		P	01 05 31.6	+0.1
RAYN	Ar Rayn	17.51	143	P	P	01 05 32.4	+0.9
	comp=Z,9.7nm,1.6s						
NACGM	Naroch	17.54	346	*e*P	P	01 05 32.1	+0.6
SUW	Suwalki	17.59	338	P	P	01 05 32.6	+0.5
DPC	Dobruska-Polom	17.60	320	*e*P	P	01 05 33.8	+1.5
DPC	Dobruska-Polom	17.60	320	P	P	01 05 35.2	+2.9
	comp=Z,6.1nm,1.2s						
KBA	Koelnbreinsper	17.65	307	*e*P	P	01 05 37.0	+4.0
	comp=Z,5.7nm,1.3s						
CHVC	Chvalec	17.88	320	*e*P	P	01 05 36.9	+1.5
LESA	Schwarzleotal	18.20	308	*e*pP	P	01 05 41.9	+2.9
	comp=Z,5.3nm,1.0s						
GERES	GERESS Array B	18.21	313	P	P	01 05 39.5	+0.4
	baz=116,slow=9.1,SNR=15						
	comp=Z,2.1nm,0.6s						
GERES	GERESS Array B	18.21	313		Pn	01 05 38.9	+0.2
PRU	Pruhonice	18.32	317	P	P	01 05 43.6	+3.4
	comp=Z,8.0nm,1.3s						
KHC	Kasperske Hory	18.42	313	*e*P	P	01 05 42.8	+1.5
PVCC	Panska Ves	18.61	318	P	Pn	01 05 48.4	+4.8
	comp=Z,16nm,1.4s						
WTTA	Wattenberg	18.80	306	*e*Pn	Pn	01 05 47.1	+1.0
	comp=Z,9.6nm,0.9s						
WTTA	Wattenberg	18.80	306	P	Pn	01 05 47.4	+1.3
	comp=Z,12nm,1.1s						
WET	Wettzell	18.83	313	P	Pn	01 05 48.6	+2.3
	comp=Z,6.0nm,1.3s						
WATA	Walderalm	18.86	307	*e*P	Pn	01 05 52.6	+5.8
	comp=Z,8.1nm,1.1s						
SQTA	Sankt Quirin	19.06	306	*e*Pn	Pn	01 05 50.2	+1.0
	comp=Z,7.3nm,1.1s						
BRG	Berggiesshubel	19.14	318	P	P	01 05 46.0	-3.2
	comp=Z,7.1nm,1.5s						
BRG	Berggiesshubel	19.14	318	*e*P	P	01 05 46.8	-2.3
BRG				Amp		01 05 48.6	
	comp=Z,3.8nm,1.0s						
BRG	Berggiesshubel	19.14	318	P	Pn	01 05 53.8	+3.9
BRG				Amp		01 05 55.1	
	comp=Z,5.0nm,1.1s						
MOTA	Moosalm	19.17	306	*i* pP	Pn	01 05 52.0	+1.5
	comp=Z,13nm,0.9s						
FETA	Feichten	19.30	305	*e*pP	Pn	01 05 53.9	+1.8
	comp=Z,12nm,1.2s						
RETA	Reutte	19.43	306	*e*Pn	Pn	01 05 53.7	+0.1
	comp=Z,15nm,0.9s						
GRC3	Grafenberg Arr	19.47	311	P	Pn	01 05 55.9	+1.9
	comp=Z,15nm,0.9s						
FUORN	Ofenpass-Fuorn	19.48	304		P	01 05 51.8	-1.4
FUORN				IAmb	IAmb	01 06 04.0	
	comp=Z,15nm,1.2s						
FUORN	Ofenpass-Fuorn	19.48	304	P	P	01 05 53.8	+0.6
	comp=Z,15nm,1.3s						
GRC2	Grafenberg Arr	19.59	311	P	Pn	01 05 56.5	+1.1
	comp=Z,27nm,1.0s						
TANN	Tannenbergstha	19.69	316	P	P	01 05 54.3	-0.9
	comp=Z,14nm,1.3s						
DAVOX	Davos/Dischmat	19.78	304	P	Pn	01 05 57.6	-0.2
	comp=Z,0.4nm,0.3s,baz=118,slow=11,SNR=16						
	comp=Z,12nm,0.9s						
DAVOX				AML	AML		
KEST	Kesra	19.86	271	P	Pn	01 05 58.5	-0.3
	comp=Z,0.1nm,0.3s,baz=29,slow=3.8,SNR=4.5						
	comp=Z,2.3nm,0.7s						
KEST				AML	AML		
KEST	Kesra	19.86	271		Pn	01 05 59.1	+0.3
KEST				IAmb	IAmb	01 06 06.8	
	comp=Z,8.2nm,1.0s						
CLL	Collm	19.87	318	*e*P	P	01 05 57.0	-0.1
CLL				*i* x	x	01 06 10.2	
CLL				*e*PPP	PPP	01 06 21.0	
UBR	Ueberruh	19.92	306	P	Pn	01 05 58.9	-0.5
	comp=Z,24nm,1.1s						
DAVA	Damuels	19.93	305	*e*Pn	Pn	01 05 59.3	-0.3
	comp=Z,40nm,1.1s						
DAVA	Damuels	19.93	305	P	Pn	01 05 59.4	-0.3
	comp=Z,51nm,1.0s						
TUE	Stuetta	20.04	303	P	Pn	01 06 01.0	0.0
TUE	Stuetta	20.04	303	P	Pn	01 06 03.8	+2.8
	comp=Z,7.5nm,1.0s						
BNALP	Bannalp	20.76	303	P	Pn	01 06 08.7	-0.7
	comp=Z,15nm,0.9s						
STU	Stuttgart	20.88	309	P	P	01 06 08.1	0.0
STU				IAmb	IAmb	01 06 12.3	
	comp=Z,18nm,0.9s						
SLE	Schleitheim	20.98	306	P	Pn	01 06 11.4	-0.4
	comp=Z,14nm,1.1s						
AKTO	Aktyubinsk	21.05	46	P	P	01 06 09.5	-0.5
	comp=Z,3.6nm,0.6s,baz=237,slow=8.4,SNR=11						
	comp=Z,3.6nm,0.6s						
BFO	Black Forest	21.26	307	P	P	01 06 11.2	-1.1
BFO				IAmb	IAmb	01 06 17.4	
	comp=Z,9.7nm,0.9s						
SENIN	Lac Senin/Sane	21.38	301	P	P	01 06 15.7	+1.9
AB31	Akbulak array	21.71	51	P	P	01 06 15.1	-2.0
ABKAR	Akbulak array	21.71	51	P	P	01 06 15.3	-1.8
ECH	Echery	21.97	306	P	P	01 06 19.6	-0.2
ECH				IAmb	IAmb	01 06 40.2	
	comp=Z,13nm,1.2s						
KIRV	Kirov	22.82	21	P	P	01 06 28.4	-0.4
	comp=Z,7.9nm,0.9s,baz=204,slow=12,SNR=6.3						
	comp=Z,7.9nm,0.9s						
UOSS	Minazif	22.92	118	P	P	01 06 31.4	+1.2
UOSS				IAmb	IAmb	01 06 53.2	
	comp=Z,6.8nm,0.8s						
FINES	FINESS Array B	23.91	351	P	P	01 06 39.7	-0.1
	comp=Z,1.5nm,0.4s,baz=153,slow=11,SNR=24						
	comp=Z,1.5nm,0.4s						
FIA1	FINESS Array S	23.91	351	P	P	01 06 39.3	-0.5
HFS	Hagfors	25.57	336	P	P	01 06 54.8	-0.1
	comp=Z,3.3nm,0.6s,baz=141,slow=12,SNR=8.6						
	comp=Z,3.3nm,0.6s						
KK31	Karatay Array	28.01	68		P	01 07 16.5	-0.6
KK31				IAmb	IAmb	01 07 27.0	
	comp=Z,3.4nm,0.8s						
KKAR	Karatay Array	28.01	68		P	01 07 16.1	-1.0
KBL	Kabul	28.33	86	P	P	01 07 18.3	-2.0
KBL				IAmb	IAmb	01 07 46.6	
	comp=Z,2.5nm,0.6s						
EKA	Eskdalemuir Ar	30.32	317	P	P	01 07 36.0	-1.4
	comp=Z,1.4nm,0.7s,baz=116,slow=8.8,SNR=3.8						
	comp=Z,1.4nm,0.7s						
ARCES	ARCESS Array B	31.86	354	P	P	01 07 50.3	-0.5
	comp=Z,1.3nm,0.4s,baz=168,slow=9.3,SNR=17						
	comp=Z,1.3nm,0.4s						
ARCES	ARCESS Array B	31.86	354	P	P	01 07 50.9	+0.1
ARCES				IAmb	IAmb	01 08 23.1	
	comp=Z,10nm,1.1s						
KURBB	Kurchatov Arra	33.70	54	P	P	01 08 05.9	-1.3
	comp=Z,1.3nm,0.2s,baz=273,slow=8.5,SNR=6.1						
	comp=Z,1.3nm,0.2s						
MKAR	Makanchi Array	36.18	60	P	P	01 08 28.4	-0.2
	comp=Z,1.4nm,0.7s,baz=272,slow=8.5,SNR=9.9						
	comp=Z,1.4nm,0.7s						
MKAR	Makanchi Array	36.18	60		P	01 08 28.2	-0.5
TORD	Torodi Ar. Bea	37.97	238	P	P	01 08 44.6	+0.5
	comp=Z,5.3nm,0.8s,baz=40,slow=9.3,SNR=7.1						
	comp=Z,5.3nm,0.8s						
KMBO	Kilima Mbogo	39.12	175	P	P	01 08 54.1	0.0
	baz=348,slow=13						
WMQ	Urumqi	40.34	64	*e*P	P	01 09 05.1	+1.3
WMQ				LR	LR		
	comp=N,730nm,18.7s						
WMQ				LR	LR		
	comp=E,390nm,16.7s						
WMQ				LR	LR		
	comp=Z,250nm,22.7s						
SPB2	Spitsbergen Ar	40.88	355	P	P	01 09 08.7	+0.9
SPITS	Spitsbergen Ar	40.89	355	P	P	01 09 08.3	+0.4
	comp=Z,7.1nm,0.7s,baz=140,slow=10,SNR=7.0						
	comp=Z,7.1nm,0.7s						
BORG	Borgarnes	41.65	328	P	P	01 09 14.2	-0.1
SUMG	Summit	48.92	338	P	P	01 10 12.1	-0.1
SUMG				IAmb	IAmb	01 10 14.9	
	comp=Z,8.2nm,1.2s						
GTA2	Gaotai	50.21	67	*e*P	P	01 10 24.9	+2.6
GTA2				pmax	pmax		
	comp=Z,3.0nm,0.8s						
GTA2				LR	LR		
	comp=N,710nm,17.8s						
GTA2				LR	LR		
	comp=E,270nm,19.4s						
GTA2				LR	LR		
	comp=Z,590nm,24.4s						

SONM	Songino Array	52.05	55	P	P	01 10 35.6	-0.5
	comp=Z,0.8nm,0.5s,baz=286,slow=7.8,SNR=3.9						
	comp=Z,0.8nm,0.5s						
PZH	PanZhiHua	57.26	80	P	P	01 11 15.1	+1.0
OPO	Ambohidratompo	57.69	165	LR	LR	01 35 03.8	
	comp=Z,82nm,19.3s,baz=18,slow=35						
HHC	Hu-ho-hao-te	58.04	61	eP	P	01 11 19.4	0.0
HHC				pmax	pmax		
	comp=Z,5.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,44nm,4.2s						
HHC				LR	LR		
	comp=N,520nm,24.4s						
HHC				LR	LR		
	comp=E,320nm,21.9s						
HHC				LR	LR		
	comp=Z,310nm,22.7s						
XAN	Xi'an	59.14	69	eP	P	01 11 27.5	+0.4
CMAR	Chiang Mai Arr	59.28	90	P	P	01 11 27.3	-0.9
	comp=Z,0.5nm,0.3s,baz=301,slow=8.2,SNR=4.1						
	comp=Z,0.5nm,0.3s						
LPHEP	Lephephe	61.59	189	P	P	01 11 44.3	+0.5
BOSA	Boshof	66.85	188	P	P	01 12 19.0	+0.7
	comp=Z,2.6nm,0.7s,baz=38,slow=2.5,SNR=5.6						
	comp=Z,2.6nm,0.7s						
BOSA	Boshof	66.85	188	P	P	01 12 18.2	0.0
BOSA				IAmb	IAmb	01 12 20.2	
	comp=Z,5.8nm,1.1s						
G21K	Allakaket	75.58	3	P	P	01 13 10.6	0.0
G21K				IAmb	IAmb	01 13 25.6	
	comp=Z,5.1nm,1.2s						
G18K	Tagagawik	75.89	5	P	P	01 13 12.1	-0.4
G18K				IAmb	IAmb	01 13 21.4	
	comp=Z,11nm,1.4s						
IMAR	Indian Mountai	76.10	3	P	P	01 13 13.6	0.0
YKA	Yellowknife Ar	76.64	346	P	P	01 13 15.9	-0.8
	comp=Z,2.1nm,0.8s,baz=36,slow=5.2,SNR=5.0						
	comp=Z,2.1nm,0.8s						
JOW	Kunigami	77.08	66	LR	LR	01 53 14.9	
	comp=Z,551nm,18.5s,baz=5.5,slow=40						
CAST	Castle Rocks	78.73	3	P	P	01 13 22.8	-5.6
CAST				IAmb	IAmb	01 13 29.3	
	comp=Z,3.6nm,1.0s						
VAO	Valinhos	97.17	247	P	P	01 14 58.5	-0.6

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*IDC **24** 01:01:26.5±0.6, 0°.21S×19°.13W, h0^{km}, mb4.2/18, mbtmp4.3/20, ML4.7/2, MS4.1/19, Error ellipse: s-maj=26.4km s-min=14.4km az=134.0*

*NEIC **24** 01:01:28.4±1.2, 0°.37S±0°.09×19°.03W±0°.08, h10^{km}±1^{km}, mb4.9/54, Error ellipse: s-maj=15.2km s-min=13.9km az=194.0*

*GCMT **24** 01:01:33.4±0.3, 0°.35S±0°.02×18°.96W±0°.02, h18^{km}±1^{km}, MW4.9/86, Moment Tensor Solution. s30,c34; s86,c118; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.31±.13; $M_{\theta\theta}$1.35±.12; $M_{\phi\phi}$-1.04±.11; $M_{r\theta}$0.40±.28; $M_{\theta\phi}$-2.48±.11; $M_{\phi r}$-1.03±.29; Best double couple: $M_0$2.96200×10^{16} NP1:ϕ_s77.00000°,δ68.00000°,λ-179.00000°. NP2: ϕ_s347.00000°,δ89.00000°,λ-22.00000°. Principal axes: T 3.1400, Plg15.0000°, Azm34.0000°; N -0.3580, Plg68.0000°, Azm165.0000°; P -2.7840, Plg16.0000°, Azm300.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 24 01:01:28.3±0.4**, 0°.28S**±0°.07×**19°.03W**±0°.07**, h13^{km}, n142, σ1^{s}19**/120**, mb4.7**/54**, MS4.1**/17**, Central Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H10N2	ASCENSION HYDR	8.76	149	T	T	01 13 13.5	
	baz=328,slow=74,SNR=1279						
H10N3	ASCENSION HYDR	8.76	149	T	T	01 13 20.4	
	baz=328,slow=74,SNR=1657						
H10N1	ASCENSION HYDR	8.78	149	T	T	01 13 21.5	
	baz=328,slow=74,SNR=2307						
ASCN	Ascension	8.91	149		Pn	01 03 37.0	+0.1
H10S3	ASCENSION HYDR	9.65	153	T	T	01 13 27.6	
	SNR=502						
H10S2	ASCENSION HYDR	9.66	153	T	T	01 14 03.3	
	SNR=64						
DBIC	Dimbokro	15.74	64	Pn	Pn	01 05 09.3	-0.6
	4.8nm,0.3s,baz=265,slow=14,SNR=47						
DBIC				Sn	Sn	01 07 49.5	-15
	2.2nm,0.3s,baz=194,slow=15,SNR=4.9						
DBIC				LR	LR	01 10 10.9	
	comp=Z,658nm,18.1s,baz=256,slow=33						
	18nm,0.5s						
DBIC				AML	AML		
DBIC	Dimbokro	15.74	64		Pn	01 05 09.4	-0.6
SACV	Santiago Islan	15.82	344	Pn	Pn	01 05 12.5	+1.5
NBPV	Pedro Velho	17.33	249	eP	Pn	01 05 27.0	-3.2
RCBR	Riachuelo	17.72	252	P	Pn	01 05 33.3	-1.7
	1.8nm,0.3s,baz=67,slow=19,SNR=23						
RCBR				S	Sn	01 08 33.6	-19
	2.3nm,0.3s,baz=335,slow=22,SNR=8.2						
RCBR				LR	LR	01 11 01.0	
	comp=Z,208nm,18.0s,baz=214,slow=32						
	6.5nm,0.5s						
RCBR				AML	AML		
RCBR	Riachuelo	17.72	252	Pn	Pn	01 05 33.9	-1.2
RCBR	Riachuelo	17.72	252	eP	Pn	01 05 33.7	-1.3
NBMO	Morrinhos-CE	21.21	262	eP	P	01 06 18.9	+4.8
NBPS	Pedro II - PI	22.76	259	eP	P	01 06 30.3	-0.5
TORD	Torodi Ar. Bea	24.50	56	P	P	01 06 47.3	-0.4
	2.8nm,0.5s,baz=234,slow=10,SNR=54						
	2.8nm,0.5s						
TORD	Torodi Ar. Bea	24.50	56	P	P	01 06 47.5	-0.2
SDBA	SAO DESIDERIO	28.35	244	eP	P	01 07 08.6	-14
EDA	Edea	29.44	82	P	P	01 07 31.6	-0.5
BDFB	Brasilia	32.42	241	LR	LR	01 19 58.3	
	comp=Z,392nm,19.4s,baz=55,slow=34						
TAM	Tamanrasset	33.13	45		P	01 08 05.0	+0.3
MDP	Montagnes des	33.99	280	LR	LR	01 18 53.4	
	comp=Z,389nm,21.3s,baz=82,slow=31						
MD31	MD31	35.62	21		P	01 08 27.7	+1.7
MD31				IAmb	IAmb	01 08 29.9	
	comp=Z,16nm,1.2s						
MD01	Midelt array s	35.62	21		P	01 08 26.8	+0.7
MDT	Midelt	35.62	21	LR	LR	01 22 09.6	
	comp=Z,215nm,20.4s,baz=172,slow=35						
ITTB	Itaituba	36.89	263	eP	P	01 08 35.4	-1.7
CLDB	Colider	38.02	253	eP	P	01 08 36.7	-10
MESJ	Messejana	39.23	14	P	P	01 08 57.6	+1.1
TSUM	Tsumeb	40.52	120	LR	LR	01 22 03.7	
	comp=Z,272nm,19.7s,baz=346,slow=30						
BOAV	Boa Vista	41.56	274		P	01 09 15.8	-0.4
BOAV	Boa Vista	41.56	274	eP	P	01 09 17.0	+0.7
ESDC	Sonseca Array	42.09	17	P	P	01 09 20.3	+0.1
	comp=Z,4.4nm,1.2s,baz=205,slow=8.4,SNR=18						
ESDC				PP	PP	01 10 57.2	-0.6
	comp=Z,3.1nm,1.3s,baz=204,slow=11,SNR=4.8						
	comp=Z,4.4nm,1.2s						
ESDC	Sonseca Array	42.09	17	P	P	01 09 20.8	+0.6
ESBB	Sonseca Array	42.09	17	P	P	01 09 20.8	+0.7
SIV	San Ignacio	44.30	247	LR	LR	01 26 49.1	
	comp=Z,184nm,18.8s,baz=92,slow=34						
KEST	Kesra	44.52	33	P	P	01 09 40.3	+0.4
	comp=Z,1.8nm,0.7s,baz=245,slow=7.7,SNR=4.3						
KEST				LR	LR	01 29 44.3	
	comp=Z,537nm,18.1s,baz=242,slow=38						
	comp=Z,1.8nm,0.7s						
KEST	Kesra	44.52	33	P	P	01 09 40.9	+0.9
KEST				IAmb	IAmb	01 11 22.3	
	comp=Z,18nm,1.3s						
CPUP	Villa Florida	45.05	232	P	P	01 09 43.7	-0.5
	comp=Z,1.0nm,0.3s,baz=60,slow=3.5,SNR=3.1						
CPUP				LR	LR	01 26 56.6	
	comp=Z,165nm,18.9s,baz=46,slow=34						
	comp=Z,1.0nm,0.3s						
CPUP	Villa Florida	45.05	232	P	P	01 09 42.8	-1.4
CPUP				IAmb	IAmb	01 09 57.9	
	comp=Z,18nm,1.8s						
VAE	Valguarnera	48.64	36	LR	LR	01 32 32.5	
	comp=Z,278nm,18.2s,baz=106,slow=38						
LBTB	Lobatse	49.63	123	LR	LR	01 28 35.6	
	comp=Z,229nm,19.1s,baz=6.5,slow=33						
MBAR	Mbarara	49.77	91	P	P	01 10 21.2	-0.2
MBAR				IAmb	IAmb	01 10 23.6	
	comp=Z,12nm,1.4s						
SJG	San Juan	49.78	294	P	P	01 10 22.3	+1.2
MATP	Matopo	50.59	116	LR	LR	01 28 36.6	
	comp=Z,202nm,20.7s,baz=330,slow=32						
BOSA	Boshof	50.82	128	P	P	01 10 29.7	+0.6
	comp=Z,2.8nm,1.0s,baz=12,slow=14,SNR=4.1						
	comp=Z,2.8nm,1.0s						
BOSA	Boshof	50.82	128	P	P	01 10 28.6	-0.5
BOSA				IAmb	IAmb	01 11 21.2	
	comp=Z,33nm,1.6s						
LPAZ	La Paz	50.94	249	P	P	01 10 30.1	-0.5
	comp=Z,1.5nm,0.8s,baz=105,slow=5.3,SNR=7.4						
	comp=Z,1.5nm,0.8s						
LPAZ	La Paz	50.94	249		P	01 10 30.0	-0.7
LPAZ	La Paz	50.94	249	eP	P	01 10 17.3	-13
SDV	Santo Domingo	52.19	281	LR	LR	01 30 15.4	
	comp=Z,109nm,21.4s,baz=69,slow=33						
TUE	Stuetta	52.81	24	P	P	01 10 44.1	+0.4
	comp=Z,27nm,1.6s						
DAVOX	Davos/Dischmat	53.27	24	P	P	01 10 46.8	-0.2
	comp=Z,3.6nm,0.8s,baz=215,slow=8.0,SNR=5.9						
	comp=Z,3.6nm,0.8s						
DAVA	Damuels	53.68	24	eP	P	01 10 50.6	+0.6
	comp=Z,4.7nm,0.5s						
FETA	Feichten	53.82	25	eP	P	01 10 51.7	+0.7
	comp=Z,6.8nm,1.1s						
SQTA	Sankt Quirin	54.18	25	eP	P	01 10 54.3	+0.6
	comp=Z,7.7nm,0.9s						
MOTA	Moosalm	54.23	25	P	P	01 10 54.5	+0.5
	comp=Z,9.5nm,1.6s						
ABTA	Abfaltersbach	54.38	26	eP	P	01 10 57.2	+2.2
	comp=Z,13nm,1.5s						
WTTA	Wattenberg	54.39	25	eP	P	01 10 56.0	+0.7
	comp=Z,12nm,1.3s						
LESA	Schwarzleotal	54.97	26	eP	P	01 11 00.1	+0.8
	comp=Z,7.6nm,0.9s						
ROSC	El Rosal	55.46	276	LR	LR	01 31 56.6	
	comp=Z,259nm,20.2s,baz=65,slow=33						
SOKA	Soboth	55.47	28	eP	P	01 11 04.4	+1.4
	comp=Z,6.6nm,1.1s						
KARP	Karpathos	55.83	45	P	P	01 11 05.8	+0.1
	comp=Z,63nm,2.0s						
KMBO	Kilima Mbogo	56.29	91	LR	LR	01 33 25.0	
	comp=Z,343nm,18.1s,baz=284,slow=34						
GERES	GERESS Array B	56.50	25	P	P	01 11 10.2	-0.1
	comp=Z,1.3nm,0.7s,baz=201,slow=7.1,SNR=9.8						
GERES				PP	PP	01 13 12.1	-4.1
	comp=Z,0.8nm,0.3s,baz=206,slow=8.6,SNR=6.5						
	comp=Z,1.3nm,0.7s						
GERES	GERESS Array B	56.50	25	P	P	01 11 10.5	+0.2
CONA	Conrad Observa	56.77	27	eP	P	01 11 13.3	+1.1
	comp=Z,0.7nm,0.5s						
RONA	Rosalia, Austr	56.81	28	eP	P	01 11 13.8	+1.4
	comp=Z,10nm,1.4s						
ABNA	Allensteig Bun	57.12	27	eP	P	01 11 15.5	+0.8
	comp=Z,9.8nm,1.4s						
CLL	Collm	58.11	23	i P	P	01 11 18.5	-3.0
VRAC	Vranov	58.11	27	P	P	01 11 21.3	-0.2
	comp=Z,3.2nm,1.1s,baz=259,slow=6.8,SNR=3.1						
	comp=Z,3.2nm,1.1s						
PSZ	Piszkesteto	58.69	30	P	P	01 11 27.0	+1.3
PSZ				IAmb	IAmb	01 11 28.1	
	comp=Z,13nm,1.2s						
DPC	Dobruska-Polom	58.76	26	P	P	01 11 26.6	+0.5
	comp=Z,4.9nm,1.3s						
EIL	Elat	59.38	55	LR	LR	01 38 47.4	
	comp=Z,155nm,18.6s,baz=251,slow=38						
ATAH	Atahualpa	59.58	262	LR	LR	01 36 07.7	
	comp=Z,281nm,20.5s,baz=88,slow=35						
VOIR		59.85	35	P	P	01 11 34.2	+0.4
	comp=Z,4.4nm,1.5s						
MLR	Muntele Rosu	60.39	35	P	P	01 11 37.8	+0.3
	comp=Z,21nm,1.4s,baz=16,slow=6.3,SNR=8.5						
	comp=Z,21nm,1.4s						
MLR	Muntele Rosu	60.39	35		P	01 11 38.3	+0.7
MLR				IAmb	IAmb	01 11 40.1	
	comp=Z,18nm,1.3s						
MLR	Muntele Rosu	60.39	35	P	P	01 11 37.6	0.0
	comp=Z,11nm,1.4s						
VRI	Vrincioaia	61.05	35	P	P	01 11 41.7	-0.3
	comp=Z,11nm,2.9s						
BUR08	Bucovina Ar. S	61.26	33	P	P	01 11 43.7	+0.3
BR106	Keskin Array S	62.31	44	P	P	01 11 51.1	+0.4
	comp=Z,34nmcomp=Z,2.9nm,1.0s						
BR131	Keskin Array S	62.32	44		P	01 11 51.3	+0.5
BR131				IAmb	IAmb	01 11 52.9	
	comp=Z,24nm,1.9s						
BRTR	Keskin Array B	62.32	44	P	P	01 11 50.5	-0.3
	comp=Z,1.8nm,0.9s,baz=236,slow=5.3,SNR=9.8						
	comp=Z,1.8nm,0.9s						
BRTR	Keskin Array B	62.32	44		P	01 11 50.6	-0.2
KMPD	K-Podol'skiy	62.48	32	P	P	01 11 50.1	-1.4
ILGA	Ilgaz	62.96	43		P	01 11 55.3	+0.2
ILGA				IAmb	IAmb	01 11 56.8	
	comp=Z,8.4nm,1.2s						
SORM	Soroca	63.26	34	P	P	01 11 55.2	-1.5
	comp=Z,10nm,0.5s						
BNN	Bunyan	63.50	46		P	01 11 59.1	+0.5
BNN				IAmb	IAmb	01 12 00.5	
	comp=Z,10nm,1.1s						
RNPP9	Sopachiv	63.92	29	P	P	01 12 00.2	-0.8
LUBAR	Lubar, Ukraine	63.97	32	P	P	01 11 59.7	-1.6
KIEV	Kiev	65.18	32		P	01 12 09.3	+0.1
KIEV	Kiev	65.18	32	P	P	01 12 08.9	-0.3
	comp=Z,60nm,1.9s						
AKASG	Malin Array Be	65.19	32	P	P	01 12 08.9	-0.4
	comp=Z,6.9nm,1.0s,baz=238,slow=6.6,SNR=16						
	comp=Z,6.9nm,1.0s						
AKASG	Malin Array Be	65.19	32	P	P	01 12 08.8	-0.5
AKASG				IAmb	IAmb	01 12 09.9	
	comp=Z,9.6nm,1.2s						
AKBB	Malin Array Si	65.19	32		P	01 12 09.3	+0.1
AKBB	Malin Array Si	65.19	32	P	P	01 12 08.9	-0.4
HFS	Hagfors	65.37	17	P	P	01 12 10.2	-0.1
	comp=Z,2.1nm,0.9s,baz=224,slow=10.0,SNR=2.3						
	comp=Z,2.1nm,0.9s						
JTS	Las Juntas de	66.38	281	LR	LR	01 41 51.2	
	comp=Z,170nm,18.2s,baz=45,slow=37						
656A	Willston	67.23	302	P	P	01 12 22.0	-0.8
KOPT	Kop Dagi	67.28	46		P	01 12 23.3	0.0
GURO	Guroymak-BITLI	67.89	48	P	P	01 12 27.2	+0.2
GURO				IAmb	IAmb	01 12 29.1	
	comp=Z,12nm,1.1s						
KBZ	Khabaz	70.26	43	P	P	01 12 41.6	+0.2
	comp=Z,4.1nm,0.9s,baz=255,slow=3.1,SNR=8.5						
	comp=Z,4.1nm,0.9s						
FINES	FINESS Array B	70.44	21	P	P	01 12 41.8	-0.3
	comp=Z,3.4nm,0.8s,baz=258,slow=7.0,SNR=6.2						
	comp=Z,3.4nm,0.8s						
FINES	FINESS Array B	70.44	21	P	P	01 12 41.6	-0.6
VNA1	Neumayer--Stat	70.61	176	P	P	01 12 48.1	+5.2
	comp=Z,4.1nm,1.0s						
VNA2	Neumayer--Watz	70.93	176	P	P	01 12 46.5	+1.5
	comp=Z,4.6nm,0.6s,baz=348,slow=6.7						
SWET	Sewanee	71.43	307	P	P	01 12 48.7	-0.1
SWET				IAmb	IAmb	01 12 50.7	
	comp=Z,13nm,1.1s						
U49A	Red Boiling Sp	71.63	309	P	P	01 12 50.2	+0.2
U49A				IAmb	IAmb	01 12 52.1	
	comp=Z,13nm,1.0s						
X48A	Hartselle	72.14	306	P	P	01 12 53.7	+0.6
X48A				IAmb	IAmb	01 12 54.7	
	comp=Z,7.3nm,1.0s						
V48A	Smith Brothers	72.26	308	P	P	01 12 54.2	+0.4
V48A				IAmb	IAmb	01 12 55.4	
	comp=Z,17nm,1.2s						
TROLL	Troll, Antarti	72.92	173	P	P	01 13 00.9	+3.8
	comp=Z,81nm,0.6s						
HBAR	Harrisburg	75.27	307	P	P	01 13 11.0	-0.4
CCM	Cathedral Cave	76.22	309		P	01 13 16.6	-0.2
WHAR	Wooly Hollow	76.53	306	P	P	01 13 17.8	-0.9
WHAR				IAmb	IAmb	01 13 18.9	
	comp=Z,12nm,1.2s						
S39A	Bolivar	77.77	309	P	P	01 13 25.1	-0.5
S39A				IAmb	IAmb	01 13 26.5	
	comp=Z,8.3nm,1.1s						
W35A	Tecumseh	80.23	306	P	P	01 13 38.8	-0.3
BRDY	Brady	81.57	302	P	P	01 13 46.8	+0.4
BRDY				IAmb	IAmb	01 13 47.7	
	comp=Z,8.7nm,1.3s						
AKTO	Aktyubinsk	81.98	39	P	P	01 13 49.0	+0.9
	comp=Z,2.5nm,0.9s,baz=234,slow=7.4,SNR=4.3						
	comp=Z,2.5nm,0.9s						
AB31	Akbulak array	83.02	40	P	P	01 13 54.0	+0.5
ABKAR	Akbulak array	83.02	40	P	P	01 13 53.6	+0.1
MSTX	Muleshoe	84.96	304		P	01 14 03.4	-0.5
MSTX				IAmb	IAmb	01 14 06.0	
	comp=Z,10nm,1.1s						
TXAR	Lajitas Array	85.45	299	P	P	01 14 07.0	+0.5
	comp=Z,1.5nm,1.0s,baz=104,slow=5.3,SNR=9.9						
	comp=Z,1.5nm,1.0s						
TXAR	Lajitas Array	85.45	299	P	P	01 14 06.2	-0.3
TX31	Lajitas Ar. Si	85.45	299		P	01 14 06.6	+0.1
TPB28		86.28	302	P	P	01 14 10.2	-0.3
TPB28				IAmb	IAmb	01 14 23.0	
	comp=Z,4.7nm,1.1s						
VHRN	Van Horn	86.66	301		P	01 14 11.6	-0.8
VHRN				IAmb	IAmb	01 14 25.2	
	comp=Z,7.7nm,1.3s						
SDCO	Great Sand Dun	87.37	308	P	P	01 14 16.7	+0.7
SDCO				IAmb	IAmb	01 14 18.2	
	comp=Z,4.8nm,1.1s						
QSPA	South Pole Qui	89.79	180	P	P	01 14 27.8	+1.3
	comp=Z,0.6nm,0.8s,baz=223,slow=4.2,SNR=9.8						
	comp=Z,0.6nm,0.8s						
QSPA	South Pole Qui	89.79	180	P	P	01 14 27.1	+0.5
QSPA				IAmb	IAmb	01 14 46.0	
	comp=Z,5.7nm,1.0s						
PV13	Radium Mtn., P	90.01	308	P	P	01 14 28.9	+0.5
PV18	Skein Mesa, Pa	90.08	308	P	P	01 14 28.1	-0.5
RPN	Rapa Nui	90.14	243	LR	LR	01 50 57.4	
	comp=Z,59nm,19.7s,baz=119,slow=33						
WMQ	Urumqi	102.22	45	eP	Pdif	01 15 23.3	-0.2
VNDA	Vanda	102.28	180	PKiKP	PKiKP	01 19 45.1	+0.4
	comp=Z,0.6nm,0.9s,baz=141,slow=3.7,SNR=3.5						
LZH	Lanzhou	116.27	49	eP	PKPdf	01 20 11.0	-1.4
LZH				sP	sPKPdf	01 20 20.8	+5.0
LZH				pmax	pmax		
	comp=Z,19nm,1.3s						
HHC	Hu-ho-hao-te	119.79	42	eP	PKPdf	01 20 15.3	-3.6
HHC				pmax	pmax		
	comp=Z,6.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,56nm,4.1s						
XAN	Xi'an	120.89	50	PKP	PKiKP	01 20 24.3	+3.0
NJ2	Nanjing	129.24	47	eP	PKPdf	01 20 36.6	-0.5
NJ2				pmax	pmax		
	comp=Z,16nm,0.5s						
ASAR	Alice Springs	144.54	134	PKP	PKPab	01 21 04.1	+0.1
	comp=Z,0.5nm,0.6s,baz=232,slow=2.4,SNR=4.8						
ASAR	Alice Springs	144.54	134		PKPab	01 21 02.9	-1.0
WRA	Warramunga Arr	147.07	129	PKPbc	PKPab	01 21 13.0	-0.5
	comp=Z,0.3nm,0.7s,baz=235,slow=2.6,SNR=2.1						
WRA	Warramunga Arr	147.07	129		PKPdf	01 21 07.8	-2.2

IDC 24 01:17:54.4±7.0**, 23°.15S**×**177°.22W, h0^{km}, mb3.5**/2**, mbtmp3.5**/2**, Error ellipse: s-maj=367.9km s-min=69.3km az=154.0, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	Alice Springs	44.68	259	P	P	01 26 08.9	-0.4
	0.5nm,0.7s,baz=98,slow=7.9,SNR=5.1						
	0.5nm,0.7s						
WRA	Warramunga Arr	45.01	264	P	P	01 26 12.1	+0.1
	0.5nm,0.8s,baz=102,slow=8.2,SNR=20						
	0.5nm,0.8s						
BRTR	Keskin Array B	149.11	310	PKPbc	PKPbc	01 37 44.5	-0.5
	0.5nm,0.9s,baz=113,slow=4.5,SNR=3.7						

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*GFZ **24** 01:30:53.5±1.1, 22°S±6°×17°7W±°, h107^{km}±14^{km}, M4.7/18, mb4.7/18, Error ellipse: s-maj=15.0km s-min=12.6km az=103.8, confirmed*

*NEIC **24** 01:30:53.8±2.0, 22°.13S±0°.04×176°.6W±0°.1, h101^{km}±5^{km}, mb4.6/37, Error ellipse: s-maj=16.8km s-min=1.9km az=111.0*

*IDC **24** 01:30:56.6±3.3, 22°.06S×176°.72W, h129^{km}±28^{km}, mb4.0/13, mbtmp4.4/15, Error ellipse: s-maj=17.7km s-min=15.1km az=146.0*

ISC 24 01:30:56.6±0.3**, 22°.26S**±0°.06×**176°.45W**±0°.06**, h134^{km}, n137, σ1^{s}28**/139**, mb4.5**/52**, 3C-1D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	6.85	310	P	Pn	01 32 37.6	+2.8
	23nm,0.8s,baz=130,slow=12,SNR=13						
MSVF	Nonsavu	6.85	310		Pn	01 32 39.1	+4.4
NIUE	Niue	6.88	64		Pn	01 32 32.7	-2.3
NIUE	Niue	6.88	64	P	Pn	01 32 32.2	-2.9
	comp=Z,783nm,1.0s						
RAO	Raoul Island	7.09	190	S	Sn	01 33 58.4	+1.5
	comp=Z,163nm,0.3s,baz=40,slow=22,SNR=3.6						
RAO	Raoul Island	7.09	190	Pn	Pn	01 32 36.0	-1.7
AFI	Afiamalu	9.42	29	P	Pn	01 33 04.5	-4.7
	comp=Z,13nm,0.3s,baz=252,slow=20,SNR=1.8						
AFI				S	Sn	01 34 38.7	-15
	comp=Z,43nm,0.5s,baz=245,slow=23,SNR=4.5						
AFI	Afiamalu	9.42	29		Pn	01 33 03.9	-5.4
MARNC	Mare, Loyalty	14.43	270	P	P	01 34 16.6	-1.1
RAR	Rarotonga	15.54	89	P	P	01 34 31.8	+1.9
	comp=Z,14nm,0.3s,baz=247,slow=7.6,SNR=9.8						
RAR				S	Sn	01 37 12.9	-8.1
	comp=Z,15nm,0.7s,baz=225,slow=19,SNR=1.4						
RAR	Rarotonga	15.54	89	Pn	Pn	01 34 28.3	-0.1
RAR	Rarotonga	15.54	89	P	Pn	01 34 28.0	-0.5
	comp=Z,79nm,2.2s						
DZM	Mont Dzumac	15.85	267	P	P	01 34 35.8	+2.3
	comp=Z,46nm,1.1s,baz=85,slow=17,SNR=18						
URZ	Urewera	16.88	198	P	Pn	01 34 44.8	+0.1
	comp=Z,5.1nm,0.3s,baz=59,slow=5.9,SNR=9.7						
URZ				S	Sn	01 37 35.1	-18
	comp=Z,6.2nm,0.3s,baz=222,slow=23,SNR=8.1						
URZ	Urewera	16.88	198	P	P	01 34 44.4	-0.2
	comp=Z,21nm,1.5s						
QRZ	Quartz Range	20.72	204	P	P	01 35 26.1	-0.3
KHZ	Kahutara	21.77	200	P	P	01 35 36.7	-0.9
	comp=Z,34nm,3.0s						
ARMA	Armidale	29.66	247	P	P	01 36 50.2	+0.4
ARMA				IAmb	IAmb	01 36 52.6	
	comp=Z,4.5nm,0.7s						
EIDS	Eidsvold	29.82	258	P	P	01 36 51.5	+0.3
EIDS				IAmb	IAmb	01 37 04.8	
	comp=Z,18nm,1.4s						
EIDS	Eidsvold	29.82	258	P	P	01 36 50.8	-0.4
	comp=Z,6.4nm,1.6s						
CTAO	Charters Tower	34.79	267	P	P	01 37 34.8	+0.2
CTAO				IAmb	IAmb	01 37 36.1	
	comp=Z,12nm,0.7s						
CTAO	Charters Tower	34.79	267	P	P	01 37 34.4	-0.2
	comp=Z,18nm,0.6s						
CMSA	Cobar Meteorol	34.86	246	P	P	01 37 34.2	-0.9
	comp=Z,17nm,0.9s						
QLP	Quilpie	35.96	255	P	P	01 37 44.2	-0.4
	comp=Z,34nm,0.7s						
MTSU	Mount Surprise	36.98	269	P	P	01 37 52.9	-0.4
	comp=Z,11nm,0.7s						
STKA	Stephens Creek	38.37	246	P	P	01 38 04.3	-0.5
	comp=Z,5.0nm,0.5s,baz=99,slow=12,SNR=13						
	comp=Z,5.0nm,0.5s						
STKA	Stephens Creek	38.37	246	P	P	01 38 03.7	-1.1
	comp=Z,51nm,1.1s						
BBOO	Buckleboo	43.09	245	P	P	01 38 42.0	-1.5
BBOO	Buckleboo	43.09	245	P	P	01 38 41.9	-1.7
	comp=Z,12nm,1.0s						
AS31	Alice Springs	45.55	258		P	01 39 02.8	-0.5
AS31				IAmb	IAmb	01 39 03.7	
	comp=Z,5.0nm,1.0s						
ASAR	Alice Springs	45.55	258	P	P	01 39 02.3	-1.0
	comp=Z,13nm,0.7s,baz=94,slow=7.9,SNR=103						
ASAR				PcP	PcP	01 40 39.3	-0.5
	comp=Z,2.1nm,0.7s,baz=114,slow=3.9,SNR=6.5						
ASAR				ScP	ScP	01 44 20.4	+0.2
	comp=Z,0.5nm,0.7s,baz=93,slow=3.8,SNR=3.1						
	comp=Z,13nm,0.7s						
ASAR	Alice Springs	45.55	258		P	01 39 02.3	-1.0
ASAR					PcP	01 40 38.6	-1.1
WR8	Warramunga Arr	45.66	263		P	01 39 02.3	-1.8
WR8				IAmb	IAmb	01 39 04.7	
	comp=Z,10nm,1.1s						
WB0	Warramunga Arr	45.80	264	P	P	01 39 03.2	-2.0
WB0				IAmb	IAmb	01 39 05.1	
	comp=Z,11nm,0.7s						
WRA	Warramunga Arr	45.81	263	P	P	01 39 03.5	-1.9
	comp=Z,6.7nm,0.7s,baz=100,slow=7.9,SNR=48						
WRA				PcP	PcP	01 40 38.9	-1.8
	comp=Z,0.7nm,0.6s,baz=101,slow=3.9,SNR=2.1						
	comp=Z,6.7nm,0.7s						
WRA	Warramunga Arr	45.81	263		P	01 39 03.7	-1.7
WRA					PcP	01 40 39.5	-1.1
FORT	Forrest	49.95	248		P	01 39 35.2	-1.8
MTN	Manton Dam	50.63	271	P	P	01 39 40.5	-1.9
MTN				IAmb	IAmb	01 39 42.0	
	comp=Z,4.1nm,0.5s						
KNRA	Kununurra	52.00	267		P	01 39 51.1	-1.4
KNRA				IAmb	IAmb	01 39 52.9	

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
	comp=Z,7.1nm,0.6s						
DPSS	Saipan	52.51	312	P	P	01 39 59.3	+3.1
FITZ	Fitzroy Crossi	54.24	263		P	01 40 08.2	-0.8
FITZ	Fitzroy Crossi	54.24	263	P	P	01 40 07.8	-1.2
	comp=Z,2.4nm,0.7s						
SIJI	Sorong	55.09	285	P	P	01 40 13.7	-1.4
	comp=Z,5.5nm,0.3s,baz=49,slow=8.1,SNR=3.6						
	comp=Z,5.5nm,0.3s						
SBA	Scott Base	56.23	184	P	P	01 40 23.9	+1.6
	comp=Z,5.3nm,1.1s						
VNDA	Vanda	56.30	186	P	P	01 40 25.1	+2.3
	comp=Z,1.1nm,0.8s,baz=1.7,slow=6.8,SNR=7.7						
	comp=Z,1.1nm,0.8s						
VNDA	Vanda	56.30	186	P	P	01 40 25.5	+2.7
VNDA	Vanda	56.30	186	P	P	01 40 25.1	+2.3
	comp=Z,2.7nm,1.7s						
SOEI	Soe	58.00	272	P	P	01 40 36.0	+0.1
SOEI				IAmb	IAmb	01 40 38.1	
	comp=Z,28nm,0.7s						
SOEI	Soe	58.00	272	P	P	01 40 35.6	-0.3
	comp=Z,52nm,1.0s						
KLBR	Kellerberrin	58.63	246	P	P	01 40 38.4	-1.6
	comp=Z,23nm,1.2s						
MEEK	Meekatharra	58.72	252	P	P	01 40 39.0	-1.6
	comp=Z,15nm,2.7s						
NWAO	Narrogin (SRO)	58.89	244	P	P	01 40 41.4	-0.3
NWAO	Narrogin (SRO)	58.89	244	P	P	01 40 40.6	-1.0
	comp=Z,24nm,1.9s						
MBWA	Marble Bar	58.89	258	P	P	01 40 39.8	-2.0
MBWA	Marble Bar	58.89	258	P	P	01 40 40.2	-1.7
	comp=Z,12nm,0.6s						
EDFI	Ende, Flores	60.73	272	P	P	01 40 52.9	-1.8
	comp=Z,17nm,0.9s						
CASY	Casey	63.00	206	P	P	01 41 09.4	+0.5
CASY				IAmb	IAmb	01 41 15.1	
	comp=Z,4.2nm,0.8s						
DBNI	Kabupaten Domp	63.95	271	P	P	01 41 13.7	-2.2
	comp=Z,9.6nm,0.7s						
PLAI	Plampang	64.33	271	P	P	01 41 16.4	-2.1
	comp=Z,15nm,1.0s						
QSPA	South Pole Qui	67.82	180	P	P	01 41 41.8	+1.8
	comp=Z,7.9nm,0.8s,baz=13,slow=0.4,SNR=44						
	comp=Z,7.9nm,0.8s						
QSPA	South Pole Qui	67.82	180	P	P	01 41 41.5	+1.5
QSPA				IAmb	IAmb	01 41 42.3	
	comp=Z,6.4nm,0.6s						
JOW	Kunigami	72.39	310	P	P	01 42 07.2	-1.2
	comp=Z,29nm,0.5s,baz=58,slow=14,SNR=8.6						
JOW	Kunigami	72.39	310	P	P	01 42 07.3	-1.1
KIWB	Kanaga Island	73.79	360	P	P	01 42 14.9	-1.0
KIWB				IAmb	IAmb	01 42 54.2	
	comp=Z,22nm,1.2s						
BBJI	Bungbulang	74.19	268	P	P	01 42 18.8	-0.5
BBJI				IAmb	IAmb	01 43 02.1	
	comp=Z,24nm,1.2s						
BELA	Belgrano 2	77.63	172	P	P	01 42 37.9	+0.3
BELA				IAmb	IAmb	01 42 38.8	
	comp=Z,6.7nm,0.8s						
MAW	Mawson	80.40	200	P	P	01 42 54.0	+1.2
	comp=Z,2.0nm,0.6s,baz=136,slow=8.9,SNR=8.6						
	comp=Z,2.0nm,0.6s						
MAW	Mawson	80.40	200	P	P	01 42 54.0	+1.2
NVAR	Mina Array Bea	81.33	42	P	P	01 42 60.0	+1.5
	comp=Z,0.3nm,0.5s,baz=228,slow=7.9,SNR=5.2						
	comp=Z,0.3nm,0.5s						
NVAR	Mina Array Bea	81.33	42	P	P	01 42 58.2	-0.3
NJ2	Nanjing	82.11	309	*e*P	P	01 43 03.3	+0.9
NJ2				pmax	pmax		
	comp=Z,12nm,0.6s						
W13A	Hualapai Mount	82.28	47	P	P	01 43 04.2	+0.6
TUC	Tucson	82.94	51	P	P	01 43 07.9	+1.0
X16A	Lo Mia Camp, P	83.59	49	P	P	01 43 11.4	+1.2
U15A	North Rim	84.09	47	P	P	01 43 13.6	+0.8
U15A				IAmb	IAmb	01 43 15.2	
	comp=Z,3.9nm,0.8s						
DUN6	Lazy B Ranch	84.29	52	P	P	01 43 13.9	+0.1
N19K	Bonanza Creek	84.67	11	P	P	01 43 14.8	-0.1
N19K				IAmb	IAmb	01 43 49.4	
	comp=Z,17nm,1.4s						
ELIB	Princess Elisa	85.06	186	*d*P	P	01 43 17.5	+0.5
	comp=Z,8.3nm,0.4s						
TROLL	Troll, Antarti	85.98	180	P	P	01 43 21.8	+0.2
	comp=Z,49nm,0.4s						
SNAA	Sanae	86.22	178	P	P	01 43 23.6	+0.9
	comp=Z,50nm,0.9s						
SNAA	Sanae	86.22	178	P	P	01 43 23.7	+1.0
	comp=Z,0.9nm,0.5s,baz=180,slow=4.0,SNR=3.6						
	comp=Z,0.9nm,0.5s						
SNAA	Sanae	86.22	178	P	P	01 43 24.0	+1.3
VNA3	Neumayer Olymp	86.29	176	⇑P	P	01 43 23.0	0.0
	comp=Z,5.2nm,0.8s						
VHRN	Van Horn	86.47	55		P	01 43 24.6	0.0
VHRN				IAmb	IAmb	01 43 26.7	
	comp=Z,3.5nm,1.0s						
SRU	San Rafael Swe	86.71	45	P	P	01 43 26.3	+0.6
SRU				IAmb	IAmb	01 43 27.0	
	comp=Z,3.5nm,0.7s						
VNA2	Neumayer--Watz	86.75	176	⇑P	P	01 43 25.3	0.0
	comp=Z,3.6nm,0.7s,baz=182,slow=4.5						
TX31	Lajitas Ar. Si	86.80	57		P	01 43 27.1	+0.9
TX31				IAmb	IAmb	01 43 28.2	
	comp=Z,3.6nm,1.1s						
TXAR	Lajitas Array	86.80	57	P	P	01 43 27.2	+1.0
	comp=Z,2.3nm,1.0s,baz=217,slow=7.0,SNR=20						
	comp=Z,2.3nm,1.0s						
TXAR	Lajitas Array	86.80	57	P	P	01 43 26.7	+0.5
VNA1	Neumayer--Stat	86.97	176	⇑P	P	01 43 26.6	+0.3
	comp=Z,3.6nm,0.9s						
TASM	ASL Pad, Albuq	87.39	51	P	P	01 43 29.9	+0.8
PDAR	Pinedale Array	89.26	43	P	P	01 43 38.2	+0.4
	comp=Z,0.4nm,0.7s,baz=270,slow=1.5,SNR=4.1						
	comp=Z,0.4nm,0.7s						
PDAR	Pinedale Array	89.26	43	P	P	01 43 37.1	-0.7
ILAR	Eielson Array	89.71	12	P	P	01 43 39.4	+0.4
	comp=Z,0.4nm,0.6s,baz=234,slow=6.3,SNR=4.7						
	comp=Z,0.4nm,0.6s						
ILAR	Eielson Array	89.71	12	P	P	01 43 38.8	-0.3
HHC	Hu-ho-hao-te	91.61	314	*e*P	P	01 43 51.5	+2.9
HHC				pmax	pmax		
	comp=Z,13nm,0.5s						
HHC				pmax	pmax		
	comp=Z,120nm,4.0s						
CMAR	Chiang Mai Arr	92.05	289	P	P	01 43 50.3	-0.7
	comp=Z,0.9nm,0.3s,baz=153,slow=2.7,SNR=5.4						
	comp=Z,0.9nm,0.3s						
CMAR	Chiang Mai Arr	92.05	289	P	P	01 43 49.3	-1.7
PZH	PanZhiHua	92.80	297	P	P	01 43 55.8	+1.4
WMQ	Urumqi	109.16	310	Pdif	Pdif	01 45 08.6	+1.3
WMQ				LR	LR		
	comp=Z,79nm,19.7s						
MKAR	Makanchi Array	113.45	313	PKiKP	PKiKP	01 49 17.9	-0.8
	comp=Z,0.1nm,0.4s,baz=250,slow=2.0,SNR=3.6						
KURK	Kurchatov	116.26	317		PKPdf	01 49 23.9	0.0
KURBB	Kurchatov Arra	116.31	317	PKP	PKPdf	01 49 23.1	-0.9
	comp=Z,0.6nm,0.7s,baz=88,slow=1.9,SNR=5.3						
BVAR	Borovoye Array	121.35	319	PKP	PKPdf	01 49 33.1	-0.5
	comp=Z,1.5nm,0.5s,baz=98,slow=1.0,SNR=7.2						
FINES	FINESS Array B	137.85	344	PKhKP	PKPpre	01 49 53.1	
	comp=Z,1.6nm,0.9s,baz=112,slow=3.7,SNR=1.8						
HFS	Hagfors	141.49	352	PKhKP	PKPpre	01 50 00.9	
	comp=Z,0.7nm,0.3s,baz=116,slow=5.0,SNR=10						
ONAU	Onsala	144.37	352	*i* P	PKPab	01 50 14.3	-0.6
FABU	Falkenberg	144.65	351	*i* P	PKPab	01 50 14.6	-1.3
BLEU	Blekinge	144.81	348	*i* P	PKPab	01 50 15.1	-1.5
DEL	Delary	144.99	350	*i* P	PKPbc	01 50 16.5	-0.7
MBAR	Mbarara	145.09	233		PKPdf	01 50 20.6	+1.3
AKASG	Malin Array Be	145.24	331	PKP	PKPbc	01 50 16.7	-1.4
	comp=Z,2.3nm,0.5s,baz=43,slow=4.1,SNR=23						
AKASG	Malin Array Be	145.24	331		PKPbc	01 50 17.1	-1.0
AKBB	Malin Array Si	145.24	331		PKPbc	01 50 16.8	-1.3
KIEV	Kiev	145.25	331		PKPbc	01 50 16.9	-1.3
BSD	Bornholm Skovb	146.10	348	*i* P	PKPdf	01 50 20.4	+0.9
EKA	Eskdalemuir Ar	146.59	7	PKPbc	PKPdf	01 50 21.7	+1.4
	comp=Z,1.0nm,0.7s,baz=323,slow=2.3,SNR=5.3						
BZK	Bozkurt	147.83	315	PKPbc	PKPbc	01 50 25.9	0.0
BNN	Bunyan	147.85	308		PKPbc	01 50 26.0	-0.3
ILGA	Ilgaz	148.44	313		PKPbc	01 50 27.9	+0.1
BR131	Keskin Array S	149.08	311		PKPbc	01 50 28.4	-1.1
BRTR	Keskin Array B	149.08	311	PKPbc	PKPbc	01 50 28.5	-0.9
	comp=Z,3.0nm,0.6s,baz=140,slow=4.8,SNR=25						
BRTR	Keskin Array B	149.08	311		PKPbc	01 50 28.3	-1.1
BUR08	Bucovina Ar. S	149.28	331		PKPbc	01 50 29.7	+0.1
KOLS	Kolonicke sedl	149.50	335	*e*PKP	PKPbc	01 50 29.3	-0.7
MMAI	Mount Meron Ar	149.92	298	PKPbc	PKPbc	01 50 31.2	-0.4
	comp=Z,2.9nm,0.5s,baz=70,slow=7.4,SNR=13						
CLL	Collm	150.09	348	*i* PKPbc	PKPbc	01 50 31.7	+0.4
CLL				*i* PKPab	PKPab	01 50 36.9	-0.6
MLR	Muntele Rosu	150.48	327		PKPbc	01 50 32.1	-0.5
VYHS	Vyhne	151.12	339	*e*PKP	PKiKP	01 50 34.9	+0.5
VYHS				*e*		01 50 41.8	
BORA	Eskisehir	151.19	314		PKPbc	01 50 34.1	-0.3
GERES	GERESS Array B	152.27	346	PKPbc	PKPbc	01 50 35.6	-0.9
	comp=Z,0.7nm,0.5s,baz=11,slow=1.4,SNR=5.7						
GERES	GERESS Array B	152.27	346		PKPbc	01 50 36.3	-0.3
CONA	Conrad Observa	152.55	342	*e*PKP	PKPbc	01 50 37.7	+0.5
	comp=Z,1.2nm,0.5s						
RONA	Rosalia, Austr	152.63	341	*e*PKP	PKPbc	01 50 37.6	+0.3
	comp=Z,2.3nm,0.6s						
ELL	Elmali	153.00	308	PKPbc	PKPbc	01 50 37.4	-1.2
MANT	Manisa	153.16	313	PKPbc	PKPbc	01 50 38.8	-0.2
ARSA	Arzberg	153.26	342	*e*PKP	PKiKP	01 50 39.5	+0.7
	comp=Z,0.5nm,0.4s						

IDC 24 01:34:07.9±1.7, 4°.29N×126°.56E, h0^{km}, mb3.9/5, mbtmp3.9/5, Error ellipse: s-maj=185.6km s-min=20.5km az=68.0

DJA 24 01:34:08.6±0.8, 3°N±8°×12°8E±°, h124^{km}±7^{km}, M4.4/12, mB5.1/7, mB5.0/7, mb4.5/12, mb4.5/12, MLv4.2/13, MLv4.2/11, Mw(mB)4.4/7, Mw(mB)4.3/7

MAN 24 01:34:08.0, 3°.28N×128°.37E, h11^{km}, MS4.2

ISC 24 01:34:07.5±1.2, **2°.9N**±0°.1×**128°.1E**±0°.1, **h100**^{km}**, n16,** σ**1^{s}81**/14, **mb3.7**/5, **Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GAMI	Galela, Maluku	1.10	196	P	Pn	01 34 31.6	+2.6
GAMI				AML	AML		
GAMI				AML	AML		
TNTI	Ternate	2.23	199	P	Pn	01 34 45.5	+2.4
MNI	Manado	3.56	246	P	Pn	01 35 01.7	+1.0
MNI				AML	AML		
SWI	Sorong	4.90	140	P	Pn	01 35 20.4	+1.6
SWI				AML	AML		
SWI				AML	AML		
SANI	Sanana	5.35	203	P	Pn	01 35 23.8	-1.1
	0.3nm2µm2µm19nm,0.5s,19nm,0.5s						
SANI				AML	AML		
GTOI	Gorontalo	5.55	246	P	Pn	01 35 29.5	+1.8
GTOI				AML	AML		
BUKP	Musuan	5.79	329	*e*P	Pn	01 35 34.0	+3.0
LUWI	Luwuk	6.60	234	P	Pn	01 35 43.1	+1.1
	2µm64nm,0.6s,64nm,0.6s						
APSI	Ampana	7.47	240	P	Pn	01 35 54.4	+0.6
	926nm926nm66nm,0.8s,66nm,0.8s						
KDI	Kendari	8.73	219	P	Pn	01 36 10.4	-0.6
	33nm,0.7s,33nm,0.7s						
SPSI	Sidrap Palu	10.75	231	P	Pn	01 36 37.7	-0.8
	37nm,0.7s						
WRA	Warramunga Arr	23.51	165	P	P	01 39 35.1	+26
	0.8nm,0.5s,baz=343,slow=10,SNR=4.5						
	0.8nm,0.5s						
ASAR	Alice Springs	27.00	168	P	P	01 40 07.9	+28
	1.1nm,0.7s,baz=350,slow=9.8,SNR=5.3						
	1.1nm,0.7s						
SONM	Songino Array	48.52	341	P	P	01 42 39.3	-1.2
	0.6nm,0.5s,baz=149,slow=6.9,SNR=3.7						
	0.6nm,0.5s						
MKAR	Makanchi Array	59.01	325	P	P	01 43 56.0	-0.9
	1.2nm,0.6s,baz=120,slow=8.2,SNR=13						
	1.2nm,0.6s						
KURBB	Kurchatov Arra	63.17	327	P	P	01 44 23.4	-1.4
	1.1nm,0.6s,baz=128,slow=6.2,SNR=11						
	1.1nm,0.6s						

IDC 24 01:45:45.0±0.9, 0°.68N×25°.33W, h0^{km}, mb4.0/8, mbtmp4.0/9, ML3.7/1, MS4.0/38, Error ellipse: s-maj=44.6km s-min=16.4km az=149.0

NEIC 24 01:45:46.9±1.2, 0°.65N±0°.10×25°.5W±0°.1, h10^{km}±1^{km}, mb4.5/16, Error ellipse: s-maj=24.7km s-min=3.8km az=130.0

GCMT 24 01:45:49.9±0.3, 0°.54N±0°.04×25°.34W±0°.02, h19^{km}±1^{km}, MW5.0/89, Moment Tensor Solution. s18,c18; s89,c108; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-3.04±.29; $M_{\theta\theta}$0.18±.16; $M_{\phi\phi}$2.86±.18; $M_{r\theta}$-2.03±.45; $M_{\theta\phi}$-0.33±.10; $M_{\phi r}$-0.99±.31; Best double couple: $M_0$3.59700×10^{16} NP1:ϕ_s153.00000°, δ42.00000°, λ-129.00000°. NP2: ϕ_s21.00000°, δ59.00000°, λ-60.00000°. Principal axes: T 3.0210, Plg9.0000°, Azm90.0000°; N 1.1520, Plg25.0000°, Azm184.0000°; P -4.1730, Plg63.0000°, Azm341.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function

ISC 24 01:45:46.1±0.5, **0°.7N**±0°.1×**25°.47W**±0°.10, **h12**^{km}**, n71,** σ**1^{s}26**/33, **mb4.3**/13, **MS4.0**/37, **1C, Central Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RCBR	Riachuelo	12.28	238	Pn	Pn	01 48 39.1	-1.8
	0.5nm,0.3s,baz=60,slow=18,SNR=5.8						
RCBR				LR	LR	01 52 17.9	
	comp=Z,288nm,19.2s,baz=26,slow=32						
	2.1nm,0.5s						
RCBR				AML	AML		
RCBR	Riachuelo	12.28	238		Pn	01 48 39.5	-1.5
H10N3	ASCENSION HYDR	13.85	128	T	T	02 03 05.3	
	baz=307,slow=74,SNR=90						
H10N2	ASCENSION HYDR	13.85	128	T	T	02 03 08.3	
	baz=307,slow=74,SNR=87						
H10N1	ASCENSION HYDR	13.87	128	T	T	02 03 09.5	
	baz=307,slow=74,SNR=109						
SACV	Santiago Islan	14.29	7	Pn	Pn	01 49 06.2	-2.3
H10S3	ASCENSION HYDR	14.42	132	T	T	02 03 56.8	
	baz=270,slow=74,SNR=82						
H10S2	ASCENSION HYDR	14.44	132	T	T	02 03 56.7	
	baz=310,slow=74,SNR=65						
DBIC	Dimbokro	21.40	73	P	P	01 50 33.6	-0.4
	14nm,0.8s,baz=261,slow=12,SNR=13						
DBIC				LR	LR	01 56 59.3	
	comp=Z,598nm,22.0s,baz=276,slow=32						
	14nm,0.8s						
DBIC	Dimbokro	21.40	73	P	P	01 50 34.6	+0.6
DBIC				IAmb	IAmb	01 50 39.8	
	comp=Z,25nm,1.0s						
MDP	Montagnes des	27.48	280	LR	LR	02 00 03.1	
	comp=Z,432nm,21.5s,baz=75,slow=31						
BDFB	Brasilia	27.57	233	LR	LR	02 01 28.7	
	comp=Z,420nm,20.3s,baz=53,slow=34						
BDFB	Brasilia	27.57	233	P	P	01 51 33.6	+0.1
MACI	Morro de la Ar	28.70	17	P	P	01 51 44.0	+0.5
TORD	Torodi Ar. Bea	29.61	64	P	P	01 51 51.4	-0.2
	comp=Z,1.4nm,0.7s,baz=248,slow=8.7,SNR=8.1						
TORD				LR	LR	02 02 03.4	
	comp=Z,432nm,20.5s,baz=280,slow=33						
	comp=Z,1.4nm,0.7s						
TORD	Torodi Ar. Bea	29.61	64	P	P	01 51 51.3	-0.3
TORD				IAmb	IAmb	01 51 60.0	
	comp=Z,4.3nm,0.8s						
VAO	Valinhos	31.52	220	P	P	01 52 05.0	-3.4
BOAV	Boa Vista	35.08	273	P	P	01 52 39.8	+0.2
AQDB	Aquidauana	36.32	233	P	P	01 52 49.0	-1.1
AQDB				IAmb	IAmb	01 52 59.3	
	comp=Z,4.8nm,0.3s						
TAM	Tamanrasset	37.27	52	P	P	01 52 56.8	-1.6
MDT	Midelt	37.49	30	LR	LR	02 06 52.6	
	comp=Z,168nm,18.8s,baz=262,slow=34						
SIV	San Ignacio	38.87	243	LR	LR	02 08 27.4	
	comp=Z,456nm,19.5s,baz=114,slow=35						
CPUP	Villa Florida	40.82	226	LR	LR	02 08 32.1	
	comp=Z,147nm,21.8s,baz=43,slow=33						
ESDC	Sonseca Array	43.46	24	P	P	01 53 50.5	+1.2
	comp=Z,1.3nm,1.0s,baz=227,slow=8.2,SNR=6.6						
	comp=Z,1.3nm,1.0s						
ESDC	Sonseca Array	43.46	24	P	P	01 53 49.7	+0.4
CELP	Cerrillos	43.91	296	P	P	01 53 54.7	+1.5
CELP				IAmb	IAmb	01 54 02.9	
	comp=Z,11nm,1.1s						
MLPR	Magueyes Islan	44.29	295	P	P	01 53 57.5	+1.3
LPAZ	La Paz	45.35	246	P	P	01 54 06.5	+1.1
	comp=Z,2.6nm,0.8s,baz=35,slow=7.6,SNR=9.2						
LPAZ				LR	LR	02 12 54.3	
	comp=Z,565nm,18.5s,baz=68,slow=36						
	comp=Z,2.6nm,0.8s						
LPAZ	La Paz	45.35	246	P	P	01 54 05.2	-0.3
SDV	Santo Domingo	45.69	282	LR	LR	02 10 28.5	
	comp=Z,183nm,19.4s,baz=68,slow=32						
TSUM	Tsumeb	46.65	117	LR	LR	02 09 49.4	
	comp=Z,334nm,20.4s,baz=330,slow=31						
KEST	Kesra	47.54	39	LR	LR	02 14 39.7	
	comp=Z,241nm,19.7s,baz=260,slow=36						
ROSC	El Rosal	48.95	276	LR	LR	02 14 34.8	
	comp=Z,410nm,18.3s,baz=59,slow=35						
PB05	IPOC Station P	49.42	239	P	P	01 54 37.5	+1.0
PB05				IAmb	IAmb	01 54 39.6	
	comp=Z,8.1nm,1.1s						
VAE	Valguarnera	51.84	40	LR	LR	02 19 14.3	
	comp=Z,422nm,18.0s,baz=121,slow=39						
NNA	Nana	52.54	254	LR	LR	02 16 25.0	
	comp=Z,197nm,19.7s,baz=80,slow=35						
ATAH	Atahualpa	53.37	261	LR	LR	02 17 08.3	
	comp=Z,286nm,20.5s,baz=75,slow=35						
SUR	Sutherland	54.68	131	LR	LR	02 14 10.9	
	comp=Z,101nm,18.9s,baz=314,slow=31						
DAVOX	Davos/Dischmat	55.29	29	LR	LR	02 19 20.0	
	comp=Z,71nm,18.3s,baz=291,slow=36						
LSZ	Lusaka	55.34	109	LR	LR	02 15 34.3	
	comp=Z,90nm,18.5s,baz=294,slow=32						
LBTB	Lobatse	55.60	121	LR	LR	02 15 03.7	
	comp=Z,115nm,20.2s,baz=290,slow=32						
MBAR	Mbarara	56.22	91	LR	LR	02 17 39.0	
	comp=Z,111nm,18.4s,baz=283,slow=34						
BOSA	Boshof	56.59	125	LR	LR	02 14 38.4	
	comp=Z,98nm,20.7s,baz=304,slow=31						
MATP	Matopo	56.81	115	LR	LR	02 15 46.9	
	comp=Z,165nm,21.9s,baz=311,slow=32						
JTS	Las Juntas de	59.88	281	LR	LR	02 22 21.6	
	comp=Z,141nm,18.1s,baz=64,slow=37						
VRAC	Vranov	60.32	30	LR	LR	02 22 11.5	
	comp=Z,64nm,18.2s,baz=309,slow=36						
KMBO	Kilima Mbogo	62.74	92	LR	LR	02 22 04.4	
	comp=Z,76nm,18.1s,baz=266,slow=35						
MLR	Muntele Rosu	63.42	38	LR	LR	02 26 45.3	
	comp=Z,96nm,18.8s,baz=179,slow=39						
EIL	Elat	64.17	57	LR	LR	02 23 46.1	
	comp=Z,158nm,19.8s,baz=274,slow=36						
TKL	Tuckaleechee C	64.22	310	LR	LR	02 19 05.4	
	comp=Z,175nm,19.2s,baz=146,slow=31						
SADO	Sadowa	64.50	321	LR	LR	02 21 20.6	
	comp=Z,180nm,18.2s,baz=164,slow=33						
MMAI	Mount Meron Ar	65.44	54	LR	LR	02 27 01.7	
	comp=Z,57nm,18.2s,baz=282,slow=38						
BRTR	Keskin Array B	66.19	46	P	P	01 56 34.7	+0.5
	comp=Z,0.5nm,0.6s,baz=220,slow=5.6,SNR=4.2						
BRTR				LR	LR	02 27 26.5	
	comp=Z,75nm,18.3s,baz=304,slow=38						
	comp=Z,0.5nm,0.6s						
ASF	Jabal al Asfar	66.43	55	LR	LR	02 26 16.7	
	comp=Z,43nm,19.6s,baz=206,slow=37						
AKASG	Malin Array Be	67.85	34	P	P	01 56 43.9	-0.4
	comp=Z,1.0nm,0.7s,baz=244,slow=6.1,SNR=6.5						
	comp=Z,1.0nm,0.7s						
AKASG	Malin Array Be	67.85	34	P	P	01 56 44.1	-0.2
AKASG				IAmb	IAmb	01 56 47.6	
	comp=Z,3.0nm,1.1s						
CMIG	Matias Romero	70.13	288	LR	LR	02 26 36.7	
	comp=Z,65nm,21.6s,baz=29,slow=35						
FINES	FINESS Array B	71.97	23	P	P	01 57 10.3	+0.9
	comp=Z,2.5nm,0.8s,baz=255,slow=5.5,SNR=3.8						
	comp=Z,2.5nm,0.8s						
FINES	FINESS Array B	71.97	23	P	P	01 57 09.6	+0.3
VNA2	Neumayer--Watz	72.49	174	⇑P	P	01 57 13.5	+1.1
	baz=343,slow=6.2						
BELA	Belgrano 2	78.66	182	P	P	01 57 48.7	+1.0
TXAR	Lajitas Array	79.36	300	P	P	01 57 54.3	+1.7
	comp=Z,0.7nm,0.8s,baz=122,slow=7.5,SNR=4.5						
	comp=Z,0.7nm,0.8s						
TXAR	Lajitas Array	79.36	300	P	P	01 57 53.0	+0.4
VHRN	Van Horn	80.63	301		P	01 58 00.3	+0.9
VHRN				IAmb	IAmb	01 58 17.5	
	comp=Z,5.0nm,1.0s						
RPN	Rapa Nui	84.86	243	LR	LR	02 32 02.6	
	comp=Z,117nm,20.6s,baz=138,slow=33						
PDAR	Pinedale Array	85.17	313	LR	LR	02 32 36.9	
	comp=Z,65nm,18.1s,baz=56,slow=33						
YKA	Yellowknife Ar	88.97	332	LR	LR	02 33 18.9	
	comp=Z,94nm,21.4s,baz=228,slow=32						
NEW	Newport	90.58	318	LR	LR	02 37 43.7	
	comp=Z,113nm,18.4s,baz=65,slow=34						
QSPA	South Pole Qui	90.78	180	P	P	01 58 50.2	+1.1
QSPA				IAmb	IAmb	01 58 51.3	
	comp=Z,3.0nm,1.1s						
ASAR	Alice Springs	149.65	140	PKPbc	PKPbc	02 05 36.8	+0.1
	comp=Z,0.6nm,0.7s,baz=230,slow=2.6,SNR=5.4						
ASAR	Alice Springs	149.65	140	PKPdf	PKPdf	02 05 30.0	-2.1

IDC 24 02:25:55.3±0.4, 9°.22N×126°.48E, h0^{km}, mb4.7/29, mbtmp4.7/32, ML4.6/3, MS4.6/29, Error ellipse: s-maj=22.1km s-min=9.8km az=76.0

MOS 24 02:25:56.6±0.9, 9°.26N×126°.54E, h20^{km}, mb5.4/69, MS4.7/6, Error ellipse: s-maj=9.0km s-min=4.4km az=117.4

NEIC 24 02:25:58.5±1.4, 9°.38N±0°.06×126°.67E±0°.09, h13^{km}±3^{km}, mb5.3/143, Mww5.2/14, Error ellipse: s-maj=12.3km s-min=8.8km az=94.0

MAN 24 02:25:58.0, 9°.35N×126°.88E, h16^{km}, MS5.2

MAN INTENSITY III - TANDAG CITY; MARIHATAG SURIGAO DEL SUR; . INTENSITY II - BAYABAS SURIGAO DEL SUR; . INTENSITY I - CAGWAIT SURIGAO DEL SUR.

BJI 24 02:25:59.2, 9°.34N×126°.58E, h33^{km}, mB5.2/58, mb5.0/67, Ms5.1/78, Ms7 4.9/76

GFZ 24 02:26:01.3, 9°.42N×126°.76E, h17^{km}, Mw5.3/46, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}5.73; $M_{\theta\theta}$0.47; $M_{\phi\phi}$-6.20; $M_{r\theta}$-0.47; $M_{\theta\phi}$0.32; $M_{\phi r}$7.68; Fault plane solution: $M_0$9.74828×10^{16} NP1: ϕ_s177.91605°, δ18.91259°, λ91.21461°. NP2: ϕ_s356.63215°, δ71.09182°, λ89.58389°. Principal axes: T 9.4993, Plg63.9059°, Azm265.9632°; N 0.4802, Plg0.3937°, Azm356.7670°; P -9.9795, Plg26.0907°, Azm86.9598°;

GFZ 24 02:26:01.3±0.1, 9°N±2°×12°7E±°, h39^{km}, M5.1/79, mb5.2/79

GCMT 24 02:26:02.5±0.1, 9°.31N±0°.01×126°.86E±0°.01, h23^{km}, MW5.3/138, Moment Tensor Solution. s96,c136; s138,c242; Duration: 1^{s}1 Moment tensor: Scale 10^{17} Nm; M_{rr}0.88±.03; $M_{\theta\theta}$-0.01±.01; $M_{\phi\phi}$-0.86±.02; $M_{r\theta}$-0.10±.03; $M_{\theta\phi}$0.08±.01; $M_{\phi r}$0.59±.02; Best double couple: $M_0$1.06000×10^{17} NP1:ϕ_s177.00000°, δ28.00000°, λ94.00000°. NP2:ϕ_s352.00000°, δ62.00000°, λ88.00000°. Principal axes: T 1.0640, Plg73.0000°, Azm258.0000°; N -0.0080, Plg2.0000°, Azm353.0000°; P -1.0550, Plg17.0000°, Azm84.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function

DJA 24 02:26:08.4±2.1, 9°N±18°×12°7E±°, h10^{km}, M5.3/24, mb5.3/25, mB5.5/14, mB5.6/12, mb5.3/24, MLv5.7/1, MLv6.1/3, Mw(mB)5.0/14, Mw(mB)5.1/12, MwMwp4.9/5, Mwp5.2/5

ISC 24 02:25:58.5±0.4, **9°.41N**±0°.02×**126°.63E**±0°.03, **h17**^{km}±2^{km}, **h18**^{km}**:pP-P, n752,** σ**1^{s}71**/804, **mb5.2**/258, **MS4.7**/55, **30C-4D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BIPH	Bislig	1.25	192	*e*P	Pn	02 26 19.7	-1.4
BIPH				*i* S	Sb	02 26 34.7	-2.6
CDOP	Cateel, Davao	1.63	187	*e*P	Pn	02 26 24.9	-1.4
CDOP				*e*S	Sn	02 26 44.1	-2.8
CGP	Cagayan de Oro	2.14	244	*i* P	Pb	02 26 36.0	-0.7
CGP				*i* S	Sg	02 27 05.8	-1.5
BUKP	Musuan	2.17	226	*e*P	Pb	02 26 36.6	-0.8
BUKP				*e*S	Sg	02 27 08.6	+0.1
PLP	Palo	2.38	317	*e*P	Pb	02 26 39.8	-1.2
PLP				*e*S	Sg	02 27 17.4	+2.2
DAV	Davao City (W)	2.55	204	Pn	Pb	02 26 41.4	-2.3
	154nm,0.3s,baz=57,slow=3.2,SNR=27						
DAV				Sn	Sb	02 27 16.0	+1.2
	410nm,0.3s,baz=346,slow=17,SNR=5.8						
DAV				LR	LR	02 27 49.6	
	comp=Z,36µm,20.3s,baz=42,slow=49						
DAV	Davao City (W)	2.55	204	P	Pb	02 26 44.2	+0.4
DAV	Davao City (W)	2.55	204	P	Pb	02 26 43.9	+0.2
DAV				S	Sb	02 27 17.0	+2.1
DAV	Davao City (W)	2.55	204		Pb	02 26 41.6	-2.2
DAV					Sn	02 27 07.8	-1.9
DAV	Davao City (W)	2.55	204	P	Pb	02 26 42.0	-1.8
DAV	Davao City (W)	2.55	204	P	Pb	02 26 42.0	-1.8

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DMPH  Davao City--Mi     2.56 206 eP   Pb    02 26 41.7 -2.4
DMPH                              iS   Sg    02 27 21.9 +0.9
TBP   Tagbilaran         2.75 276 iP   Pb    02 26 45.9 -1.2
TBP                               iS   Sg    02 27 25.1 -1.7
LLP   Lapu-Lapu          2.78 289 eP   Pb    02 26 46.5 -1.2
LLP                               eS   Sg    02 27 28.4 +0.6
KCP   Kidapawan          2.83 213 eP   Pn    02 26 45.3 +2.3
LSIP  Lazi, Siquijor     2.97 265 eP   Pb    02 26 48.5 -2.6
LSIP                              eS   Sb    02 27 24.4 -2.7
CTBH  Cotabato--PC H     3.21 228 iP   Pn    02 26 51.3 +3.1
PAGZ  Pagadian           3.57 244 eP   Pn    02 26 56.5 +3.5
PAGZ                              eS   Sb    02 27 40.4 -3.8
GSPH  General Santos     3.70 207 iP   Pn    02 26 58.7 +3.7
GSPH                              iS   Sn    02 27 41.9 +3.6
MMPH  Masbate            4.16 315 eP   Pb    02 27 06.5 -4.7
MMPH                              iS   Sn    02 27 48.6 -0.9
GUIM  Jordan             4.16 287 eP   Pn    02 27 05.7 +4.5
GUIM                              eS   Sb    02 27 57.7 -3.6
JAP   San Jose, Anti     4.80 286 eP   Pb    02 27 17.1 -5.1
IBAJ  Ibajay, Aklan      5.00 299 eP   Pb    02 27 20.2 -5.3
ZCP   Zamboanga City     5.14 242 eP   Pg    02 27 33.5 -3.5
GQP   Guinayangan        6.06 318 eP   Pn    02 27 26.9 -0.5
LQP   Lukban             6.83 314 eP   Pn    02 27 40.9 +2.7
GAMI  Galela, Maluku     7.61 171  P   Pn    02 27 54.7 +6.0
      4.1nm5µm5µm502nm,1.0s,502nm,1.0s
GAMI                              AML  AML
PPR   Puerto Princes     7.80 273 iP   Pn    02 27 56.3 +5.0
MNI   Manado             8.11 193  P   Pb    02 28 20.9 +2.3
TNTI  Ternate            8.61 175  P   Pn    02 28 05.8 +3.4
      191nm,0.9s
TNTI  Ternate            8.61 175  S   Sn    02 29 43.4 +4.2
      191nm,0.9s
TNTI  Ternate            8.61 175      Pn    02 28 03.3 +0.9
TNTI  Ternate            8.61 175  P   Pn    02 28 04.3 +1.9
      comp=Z,191nm,0.9s
PALP  Palanan            8.64 332 eP   Pn    02 28 07.1 +4.4
PALP                              eS   Sn    02 29 35.1 -4.8
MYLDM Lahad Datu         9.09 243  P   Pn    02 28 16.6 +7.6
      comp=Z,140nm,1.5s
MYLDM Lahad Datu         9.09 243  S   Sn    02 29 58.3 +7.2
      comp=Z,140nm,1.5s
GTOI  Gorontalo          9.43 203  P   Pn    02 28 16.0 +2.3
      comp=Z,124nm,0.8s,comp=Z,124nm,0.8s
CVP   Callao Caves       9.48 331 iP   Pn    02 28 19.8 +5.5
CVP                               eS   Sn    02 30 09.7 +9.2
BOLP  Bolinao            9.53 317 eP   Pn    02 28 19.1 +4.0
BOLP                              eS   Sn    02 29 57.3 -4.6
TOLI2 Tolitoli          10.09 216  P   Pn    02 28 28.8 +6.1
      comp=Z,33nm,1.4s
TOLI2 Tolitoli          10.09 216  S   Sn    02 30 21.8 +6.2
      comp=Z,33nm,1.4s
TOLI2 Tolitoli          10.09 216      Pn    02 28 23.4 +0.7
TOLI2 Tolitoli          10.09 216  P   Pn    02 28 26.6 +3.9
      comp=Z,33nm,1.4s
PACPP Pamplona Cagay    10.35 331 eP   Pn    02 28 29.7 +3.5
KKM   Kota Kinabalu     10.85 253  P   Pn    02 28 40.0 +6.8
      comp=Z,135nm,1.8s
KKM   Kota Kinabalu     10.85 253  S   Sn    02 30 41.3 +6.9
      comp=Z,135nm,1.8s
KKM   Kota Kinabalu     10.85 253      Pn    02 28 35.3 +2.1
KKM   Kota Kinabalu     10.85 253  P   Pn    02 28 37.8 +4.6
      comp=Z,135nm,1.8s
LUWI  Luwuk             11.07 201  P   Pn    02 28 42.1 +6.0
      comp=Z,244nm,1.1s
LUWI  Luwuk             11.07 201  S   Sn    02 30 45.5 +5.8
      comp=Z,244nm,1.1s
LUWI  Luwuk             11.07 201      Pn    02 28 37.4 +1.2
LUWI  Luwuk             11.07 201  P   Pn    02 28 39.1 +3.0
      comp=Z,244nm,1.1s
SWI   Sorong            11.20 155  P   Pn    02 28 41.6 +3.7
      comp=Z,55nm,0.6s,comp=Z,55nm,0.6s
SIJI  Sorong            11.21 155  Pn  Pn    02 28 38.9 +0.9
      comp=Z,6.6nm,0.3s,baz=353,slow=13,SNR=7.9
SIJI                               Sn  Sn    02 30 27.6  -15
      comp=Z,2.0nm,0.3s,baz=282,slow=7.2,SNR=3.5
SIJI                               LR  LR    02 33 17.3
      comp=Z,3µm,18.8s,baz=337,slow=40
      comp=Z,17nm,0.4s
SIJI                               AML AML
APSI  Ampana            11.39 206  P   Pn    02 28 49.2 +8.7
      comp=Z,2µmcomp=Z,2µmcomp=Z,194nm,1.5s,comp=Z,194nm,1.5s
SANI  Sanana            11.40 183  P   Pn    02 28 43.8 +3.1
      comp=Z,81nm,1.4s
SANI  Sanana            11.40 183  P   Pn    02 28 39.8 -0.8
      comp=Z,81nm,1.4s
PCI   Palu              12.28 214  P   P     02 29 11.7 +6.7
NLAI  Namlea            12.57 178  P   Pn    02 29 01.5 +4.8
      comp=Z,1µmcomp=Z,1µmcomp=Z,130nm,0.9s,comp=Z,130nm,0.9s
MWPI  Manokwari, Pap    12.65 144  P   P     02 29 08.8 -0.2
FAKI  Fak Fak           13.47 155  P   Pn    02 29 11.0 +2.1
      comp=Z,132nm,1.2s
FAKI  Fak Fak           13.47 155  S   Sn    02 31 41.0 +2.7
      comp=Z,132nm,1.2s
FAKI  Fak Fak           13.47 155      Pn    02 29 07.8 -1.2
FAKI  Fak Fak           13.47 155  P   Pn    02 29 10.0 +1.0
      comp=Z,132nm,1.2s
SMKI  Samarinda         13.56 224  P   P     02 29 27.2 +8.0
KDI   Kendari           13.87 197  P   P     02 29 21.5 -1.1
BAKI  Biak              14.14 138  P   Pn    02 29 19.5 +1.3
      comp=Z,2µmcomp=Z,107nm,1.0s,comp=Z,107nm,1.0s
TWGBT Beinan            14.36 339  P   P     02 29 25.0 -3.0
      comp=Z,37nm,0.5s
BKB   Balikpapan        14.37 223  P   P     02 29 26.7 -1.4
      comp=Z,200nm,2.1s
BKB   Balikpapan        14.37 223  Pn  Pn    02 29 20.6 -0.6
YULB  Yu-li             14.81 340  P   P     02 29 31.4 -1.7
      comp=Z,54nm,1.2s
YULB  Yu-li             14.81 340  P   P     02 29 32.2 -0.9
YULB  Yu-li             14.81 340  P   P     02 29 30.7 -2.4
      comp=Z,54nm,1.2s
TPUB  Ta-pu             14.96 338  P   P     02 29 33.3 -1.5
      comp=Z,106nm,1.1s
TPUB  Ta-pu             14.96 338      P     02 29 34.0 -0.8
TPUB                               IAmb IAmb 02 29 36.2
      comp=Z,129nm,1.2s
TPUB  Ta-pu             14.96 338  P   P     02 29 32.9 -1.8
      comp=Z,106nm,1.1s
SSLB  Suanglung         15.29 340  P   P     02 29 38.2 -0.3
      comp=Z,74nm,1.1s
SSLB  Suanglung         15.29 340      P     02 29 36.2 -2.2
SSLB                               IAmb IAmb 02 29 41.2
      comp=Z,133nm,1.3s
SSLB  Suanglung         15.29 340  P   P     02 29 36.7 -1.7
      comp=Z,74nm,1.1s
NACB  Ninganchiao       15.45 342  P   Pn    02 29 35.3 -0.4
      comp=Z,34nm,1.1s
KAPI  Kappang           15.88 206  Pn  P     02 29 46.4 +1.4
      baz=72,slow=4.1
KAPI                               LR  LR    02 36 19.0
      comp=Z,2µm,19.4s,baz=24,slow=40
KAPI  Kappang           15.88 206  P   P     02 29 46.2 +1.2
      comp=Z,44nm,1.1s
KAPI  Kappang           15.88 206  P   Pn    02 29 42.0 +0.6
KAPI  Kappang           15.88 206 iP   Pn    02 29 39.4 -2.0
KAPI  Kappang           15.88 206      Pn    02 29 41.6 +0.1
KAPI  Kappang           15.88 206  P   Pn    02 29 42.5 +1.1
      comp=Z,85nm,1.1s
SBUM  Sibu              15.91 245  P   P     02 29 48.5 +3.2
      comp=Z,132nm,1.2s
SBUM  Sibu              15.91 245      P     02 29 44.3 -1.0
SBUM  Sibu              15.91 245  P   P     02 29 44.3 -1.0
      comp=Z,132nm,1.2s
YHNB  Yeheng            15.98 342  P   P     02 29 46.3 +0.1
      comp=Z,84nm,1.4s
YHNB  Yeheng            15.98 342      Pn    02 29 43.6 +0.9
YHNB  Yeheng            15.98 342  P   Pn    02 29 42.2 -0.4
      comp=Z,84nm,1.4s
QZH2  Quanzhou          17.24 335  P   Pn    02 29 58.4 -0.2
QZH2                               S   S     02 33 16.5 -2.5
QZH2                               pmax pmax
      comp=Z,1µm,8.4s
QZH2                               L   L
      comp=Z,3µm,16.6s
QZH2                               L   L
      comp=Z,2µm,14.4s
QZH2                               L   L
      comp=Z,5µm,16.4s
JOW   Kunigami          17.40   5  P   P     02 30 03.1 +1.4
      comp=Z,1.4nm,0.3s,baz=212,slow=9.5,SNR=3.6
JOW                                LR  LR    02 37 42.8
      comp=Z,2µm,18.8s,baz=190,slow=40
      comp=Z,15nm,0.9s
JOW                                AML AML
JOW   Kunigami          17.40   5  P   Pn    02 29 58.5 -2.0
JOW   Kunigami          17.40   5  P   Pn    02 29 59.1 -1.4
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      comp=Z,116nm,1.3s
GENI  Genyem            18.00 131  P   P     02 30 09.2 +0.7
      comp=Z,61nm,0.5s
GENI  Genyem            18.00 131  P   Pn    02 30 08.0 -0.1
      comp=Z,62nm,0.5s
DLV    Lat              18.01 280  P   P     02 30 12.4 +3.6
      comp=Z,72nm,1.3s
DLV    Lat              18.01 280  P   P     02 30 10.4 +1.7
DLV    Lat              18.01 280  P   P     02 30 10.9 +2.1
      comp=Z,72nm,1.3s
GUMO  Guam              18.34  75  LR  LR    02 37 39.3
      comp=Z,3µm,18.2s,baz=246,slow=38
JAY   Jayapura          18.36 130  LR  LR    02 36 34.3
      comp=Z,3µm,19.6s,slow=35
MMRI  Maumere           18.45 194  P   Pn    02 30 18.0 +4.4
      comp=Z,151nm,2.0s
MMRI  Maumere           18.45 194  P   Pn    02 30 13.7 +0.2
      comp=Z,151nm,2.0s
GZH2  Guangzhou         18.83 320  P   Pn    02 30 19.0 +0.9
GZH2                               L   L
      comp=Z,4µm,15.3s
GZH2                               L   L
      comp=Z,5µm,17.1s
GZH2                               L   L
      comp=Z,9µm,17.8s
QIZ   Qiongzhong        18.86 302  P   Pn    02 30 19.8 +1.3
QIZ                                pmax pmax
      comp=Z,42nm,1.1s
QIZ                                pmax pmax
      comp=Z,1µm,8.7s
QIZ                                L   L
      comp=Z,2µm,14.4s
QIZ                                L   L
      comp=Z,1µm,13.7s
QIZ                                L   L
      comp=Z,3µm,14.4s
QIZ   Qiongzhong        18.86 302  P   Pn    02 30 20.2 +1.7
      comp=Z,68nm,1.4s
QIZ   Qiongzhong        18.86 302  P   Pn    02 30 18.9 +0.4
QIZ   Qiongzhong        18.86 302  P   Pn    02 30 19.5 +1.0
      comp=Z,68nm,1.4s
SOEI  Soe               19.18 187  P   Pn    02 30 24.9 +2.3
      comp=Z,288nm,1.0s
SOEI  Soe               19.18 187  P   Pn    02 30 22.5 -0.1
SOEI                               IAmb IAmb 02 30 32.6
      comp=Z,236nm,1.4s
SOEI  Soe               19.18 187  P   Pn    02 30 23.3 +0.8
      comp=Z,287nm,1.0s
BATI  Baumata           19.71 189  P   P     02 30 23.0 -4.3
      comp=Z,8.1nm,0.3s,baz=122,slow=2.0,SNR=14
      comp=Z,100nm,0.6s
BATI                               AML AML
PLAI  Plampang          20.15 206  P   Pn    02 30 36.2 +2.3
      comp=Z,110nm,0.8s
PLAI  Plampang          20.15 206  P   Pn    02 30 33.3 -0.7
      comp=Z,110nm,0.8s
JAGI  Jajag, Banyuwa    21.68 215  P   P     02 30 52.6 +4.0
      comp=Z,66nm,1.1s
JAGI  Jajag, Banyuwa    21.68 215  P   P     02 30 45.1 -3.5
JAGI  Jajag, Banyuwa    21.68 215  P   P     02 30 49.6 +1.0
      comp=Z,66nm,1.1s
DRS   Darwin Rock St    22.11 169  P   P     02 30 54.3 +1.1
      comp=Z,108nm,1.2s
SSE   Sheshan           22.17 348  P   P     02 30 55.8 +2.1
SSE                                sP  pwP   02 31 06.3 +1.4
SSE                                S   S     02 34 59.8 +2.5
SSE                                pmax pmax
      comp=Z,42nm,1.4s
SSE                                pmax pmax
      comp=Z,470nm,5.0s
SSE                                L   L
      comp=Z,610nm,16.5s
MTN   Manton Dam        22.55 168  P   P     02 30 58.8 +0.8
      comp=Z,35nm,0.9s
MTN   Manton Dam        22.55 168  P   P     02 30 57.6 -0.3
MTN                                IAmb IAmb 02 31 13.4
      comp=Z,133nm,1.8s
CNSH  ChangSha          22.70 327  P   P     02 30 57.0 -2.4
CNSH                               S   S     02 35 03.6 -3.5
CNSH                               pmax pmax
      comp=Z,360nm,10.7s
CNSH                               L   L
      comp=Z,2µm,13.7s
CNSH                               L   L
      comp=Z,2µm,17.9s
CNSH                               L   L
      comp=Z,3µm,16.5s
KDU   Kakadu            22.71 165  P   P     02 30 58.2 -1.4
      comp=Z,58nm,1.2s
SMRI  Semarang          22.97 225  P   P     02 31 05.1 +2.7
      comp=Z,207nm,1.3s
SMRI  Semarang          22.97 225  P   P     02 31 03.0 +0.6
SMRI  Semarang          22.97 225  P   P     02 31 04.5 +2.1
      comp=Z,207nm,1.3s
NJ2   Nanjing           23.66 343 ⇑P   P     02 31 10.6 +1.5
NJ2                                sP  pwP   02 31 23.5 +3.5
NJ2                                pmax pmax
      comp=Z,120nm,1.1s
NJ2                                L   L
      comp=Z,2µm,13.7s
NJ2                                L   L
      comp=Z,870nm,12.2s
NJ2                                L   L
      comp=Z,3µm,21.8s
MYKOM Kota Tinggi       23.89 253  P   P     02 31 14.1 +2.6
      comp=Z,122nm,1.9s
MYKOM Kota Tinggi       23.89 253  P   P     02 31 11.4 -0.1
MYKOM Kota Tinggi       23.89 253  P   P     02 31 13.4 +1.9
      comp=Z,122nm,1.9s
JNU   Nakatsue          23.92   9  LR  LR    02 41 37.6
      comp=Z,987nm,19.1s,baz=193,slow=39
WHN   Wuhan             23.95 333  P   P     02 31 12.8 +0.9
WHN                                sP  pwP   02 31 25.1 +2.1
WHN                                S   S     02 35 31.3 +3.5
WHN                                pmax pmax
      comp=Z,230nm,0.9s
WHN                                pmax pmax
      comp=Z,2µm,7.5s
WHN                                L   L
      comp=Z,3µm,14.6s
WHN                                L   L
      comp=Z,4µm,12.8s
WHN                                L   L
      comp=Z,7µm,17.8s
BTDF  Bukit Timah Da    24.10 252  P   P     02 31 15.7 +2.2
      comp=Z,64nm,1.4s
SLVN  Son La            24.87 301  P   P     02 31 21.6 +1.0
      comp=Z,57nm,1.3s
SLVN  Son La            24.87 301  P   P     02 31 20.1 -0.4
SLVN                               IAmb IAmb 02 31 35.7
      comp=Z,67nm,1.1s
SLVN  Son La            24.87 301  P   P     02 31 21.4 +0.9
      comp=Z,57nm,1.3s
KNRA  Kununurra         25.01 175  P   P     02 31 21.3 -0.4
      comp=Z,38nm,0.8s
KNRA  Kununurra         25.01 175      P     02 31 20.6 -1.1
KNRA                               IAmb IAmb 02 31 49.3
      comp=Z,75nm,1.4s
JMN   Monobe            25.11  14  P   P     02 31 20.3 -2.2
      comp=Z,84nm,1.3s
BBJI  Bungbulang        25.27 229  P   P     02 31 28.3 +4.1
      comp=Z,59nm,1.1s
BBJI  Bungbulang        25.27 229  P   P     02 31 24.7 +0.5
BBJI                               IAmb IAmb 02 31 44.8
      comp=Z,66nm,1.1s
BBJI  Bungbulang        25.27 229  P   P     02 31 25.4 +1.3
      comp=Z,59nm,1.1s
GYA   Guiyang           25.40 314  P   P     02 31 27.1 +1.8
GYA                                pmax pmax
      comp=Z,11nm,0.5s
GYA                                L   L
      comp=Z,2µm,14.9s
GYA                                L   L
      comp=Z,2µm,18.8s
GYA                                L   L
      comp=Z,3µm,17.4s
IPM   Ipoh              25.88 261  P   P     02 31 32.2 +2.5
      comp=Z,131nm,1.2s
IPM   Ipoh              25.88 261  P   P     02 31 31.0 +1.3
IPM   Ipoh              25.88 261  P   P     02 31 30.7 +1.0
      comp=Z,131nm,1.2s
ENH   Enshi             26.21 325  P   P     02 31 33.6 +1.0
      comp=Z,30nm,1.1s
ENH   Enshi             26.21 325  P   P     02 31 32.4 -0.2
      comp=Z,30nm,1.1s
JHJ   Hachijo jima 2    26.53  25  LR  LR    02 42 40.0
      comp=Z,2µm,18.3s,baz=170,slow=38
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FITZ  Fitzroy Crossi    27.35 182  P   P     02 31 43.4 +0.6
      comp=Z,15nm,1.0s
FITZ  Fitzroy Crossi    27.35 182  P   P     02 31 44.4 +1.6
      comp=Z,150nm,1.0s
FITZ  Fitzroy Crossi    27.35 182  P   P     02 31 42.4 -0.4
FITZ  Fitzroy Crossi    27.35 182  P   P     02 31 43.6 +0.7
      comp=Z,15nm,1.0s
KMI2  Kunming           27.58 308  P   P     02 31 47.8 +2.6
KMI2                               sP  pwP   02 31 56.8 +1.9
KMI2                               pmax pmax
      comp=Z,21nm,1.2s
KMI2                               pmax pmax
      comp=Z,240nm,10.6s
KMI2                               L   L
      comp=Z,990nm,13.8s
KMI2                               L   L
      comp=Z,2µm,19.0s
KMI2                               L   L
      comp=Z,2µm,19.5s
PMG   Port Moresby      27.70 132  P   P     02 31 48.1 +2.1
      comp=Z,36nm,1.4s
PMG   Port Moresby      27.70 132 iP   P     02 31 43.6 -2.4
PMG                                pmax pmax
      comp=Z,57nm,1.5s
PMG   Port Moresby      27.70 132  P   P     02 31 44.8 -1.2
      comp=Z,36nm,1.4s
KSRS  Korea Array       27.95   2  P   P     02 31 49.7 +1.7
      comp=Z,5.1nm,0.8s,baz=172,slow=12,SNR=8.0
KSRS                               LR  LR    02 44 33.1
      comp=Z,2µm,19.1s,baz=185,slow=40
      comp=Z,5.1nm,0.8s
TIA   Tai'an            28.05 343  P   P     02 31 50.0 +1.0
TIA                                S   S     02 36 35.9 +3.0
TIA                                SS  SnSn  02 37 54.3 +5.9
TIA                                pmax pmax
      comp=Z,190nm,3.5s
TIA                                L   L
      comp=Z,1µm,15.8s
TIA                                L   L
      comp=Z,480nm,15.5s
TIA                                L   L
      comp=Z,2µm,21.6s
LYN   LuoYang           28.19 335  P   P     02 31 51.6 +1.3
LYN                                pP  pwP   02 32 02.3 +0.9
LYN                                sP  sP    02 32 06.3  +11
LYN                                S   S     02 36 35.8 +0.6
LYN                                pmax pmax
      comp=Z,42nm,0.6s
LYN                                pmax pmax
      comp=Z,550nm,8.9s
LYN                                L   L
      comp=Z,2µm,16.1s
LYN                                L   L
      comp=Z,2µm,16.9s
LYN                                L   L
      comp=Z,1µm,15.7s
CM31  Chiang Mai Arr    28.30 292  P   P     02 31 51.7 +0.3
CMAR  Chiang Mai Arr    28.30 292  P   P     02 31 51.6 +0.1
      comp=Z,13nm,0.4s,baz=107,slow=8.8,SNR=5.4
CMAR                               LR  LR    02 44 44.7
      comp=Z,1µm,18.8s,baz=115,slow=40
      comp=Z,13nm,0.4s
CMAR  Chiang Mai Arr    28.30 292  P   P     02 31 51.3 -0.2
CMAR  Chiang Mai Arr    28.30 292  P   P     02 31 51.3 -0.2
PSI   Prapat            28.30 258  P   P     02 31 53.2 +1.5
      comp=Z,110nm,1.3s
PSI   Prapat            28.30 258  P   P     02 31 52.7 +1.0
PSI                                pmax pmax
      comp=Z,119nm,1.1s
RPSI  Rantau Prapat     28.33 258      P     02 31 52.6 +0.9
RPSI  Rantau Prapat     28.33 258  P   P     02 31 53.2 +1.4
      comp=Z,101nm,1.3s
CHTO  Chiang Mai        28.39 292  P   P     02 31 53.5 +1.2
      comp=Z,11nm,1.2s
CHTO  Chiang Mai        28.39 292  P   P     02 31 52.9 +0.7
CHTO                               S   S     02 36 39.5 +0.7
CHTO  Chiang Mai        28.39 292  P   P     02 31 52.1 -0.2
CHTO                               pmax pmax
      comp=Z,27nm,1.3s
CHTO  Chiang Mai        28.39 292  P   P     02 31 52.1 -0.2
CHTO  Chiang Mai        28.39 292  P   P     02 31 52.5 +0.2
      comp=Z,18nm,1.2s
KRVT  Keravat (AS076    28.74 117  LR  LR    02 42 50.9
      comp=Z,581nm,19.4s,baz=322,slow=35
MJAR  Matsushiro Arr    28.98  19  P   P     02 31 57.5 +0.2
      comp=Z,3.2nm,0.8s,baz=193,slow=8.4,SNR=5.0
MJAR                               LR  LR    02 44 36.5
      comp=Z,2µm,18.1s,baz=197,slow=38
      comp=Z,3.2nm,0.8s
MJAR  Matsushiro Arr    28.98  19  P   P     02 31 57.5 +0.2
PZH   PanZhiHua         29.05 309  P   P     02 32 00.8 +2.6
XAN   Xi'an             29.42 329  P   P     02 32 00.5 -0.8
XAN                                S   S     02 36 57.0 +2.3
XAN                                pmax pmax
      comp=Z,29nm,1.1s
XAN                                pmax pmax
      comp=Z,300nm,8.6s
XAN                                L   L
      comp=Z,2µm,14.8s
XAN                                L   L
      comp=Z,2µm,16.6s
XAN                                L   L
      comp=Z,3µm,15.7s
DL2   Dalian            29.71 352  P   P     02 32 05.8 +2.1
DL2                                pP  pwP   02 32 17.1 +2.6
DL2                                S   S     02 37 03.4 +4.4
DL2                                pmax pmax
      comp=Z,44nm,0.9s
DL2                                pmax pmax
      comp=Z,380nm,3.6s
DL2                                L   L
      comp=Z,2µm,16.6s
DL2                                L   L
      comp=Z,910nm,11.6s
DL2                                L   L
      comp=Z,2µm,15.6s
LHMI  Lhok Sumawe       29.72 264  P   P     02 32 06.3 +2.2
      comp=Z,129nm,0.8s
LHMI  Lhok Sumawe       29.72 264  P   P     02 32 05.2 +1.0
      comp=Z,129nm,0.8s
HNS   HongShan          29.88 341 ⇑P   P     02 32 06.4 +1.2
HNS                                S   S     02 37 06.5 +4.9
HNS                                pmax pmax
      comp=Z,43nm,1.5s
HNS                                L   L
      comp=Z,2µm,15.9s
HNS                                L   L
      comp=Z,1µm,16.7s
HNS                                L   L
      comp=Z,3µm,17.8s
WB0   Warramunga Arr    29.98 165      P     02 32 04.7 -1.6
WB0                                IAmb IAmb 02 32 22.6
      comp=Z,34nm,1.1s
GSI   Gunungsitoli      30.00 256  P   P     02 32 08.0 +1.4
      comp=Z,92nm,1.6s
GSI   Gunungsitoli      30.00 256  P   P     02 32 06.4 -0.2
GSI   Gunungsitoli      30.00 256  P   P     02 32 07.0 +0.4
      comp=Z,92nm,1.6s
WRAB  Tennant Creek     30.13 165  P   P     02 32 08.8 +1.2
      comp=Z,13nm,1.0s
WRAB  Tennant Creek     30.13 165 iP   P     02 32 04.6 -3.0
WRAB                               pmax pmax
      comp=Z,49nm,1.5s
WRAB  Tennant Creek     30.13 165  P   P     02 32 05.7 -2.0
WRAB                               IAmb IAmb 02 32 24.1
      comp=Z,54nm,1.4s
WRAB  Tennant Creek     30.13 165  P   P     02 32 07.3 -0.4
      comp=Z,30nm,1.5s
WRA   Warramunga Arr    30.14 165  P   P     02 32 05.0 -2.7
      comp=Z,5.7nm,0.7s,baz=347,slow=9.4,SNR=26
      comp=Z,5.7nm,0.7s
WRA   Warramunga Arr    30.14 165 iP   P     02 32 05.6 -2.1
WRA                                pmax pmax
      comp=Z,6.0nm,0.7s
WRA   Warramunga Arr    30.14 165  P   P     02 32 05.3 -2.3
CD2   Chengdu           30.18 318  P   P     02 32 09.9 +1.8
CD2                                S   S     02 37 10.9 +4.1
CD2                                pmax pmax
      comp=Z,20nm,0.8s
CD2                                pmax pmax
      comp=Z,170nm,4.9s
CD2                                L   L
      comp=Z,4µm,15.5s
CD2                                L   L
      comp=Z,4µm,17.1s
CD2                                L   L
      comp=Z,5µm,17.8s
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WR8	Warramunga Arr	30.19	165		P	02 32 06.6	-1.6
WR8				IAmb	IAmb	02 32 24.6	
	comp=Z,42nm,1.2s						
TNCH	TengChong	30.92	304	P	P	02 32 16.8	+2.0
TNCH				S	S	02 37 20.1	+1.4
TNCH				pmax	pmax		
	comp=Z,49nm,0.5s						
TNCH				L	L		
	comp=Z,770nm,13.6s						
TNCH				L	L		
	comp=Z,830nm,14.6s						
TNCH				L	L		
	comp=Z,2µm,17.3s						
TIY	Taiyuan	30.95	338	*e*P	P	02 32 17.3	+2.5
TIY				sP	pwP	02 32 27.9	+2.0
TIY				PP	PP	02 33 21.1	-3.8
TIY				S	S	02 37 19.8	+1.1
TIY				sS	sS	02 37 33.3	+9.2
TIY				pmax	pmax		
	comp=Z,200nm,4.4s						
TIY				L	L		
	comp=Z,870nm,16.5s						
TIY				L	L		
	comp=Z,780nm,15.1s						
TIY				L	L		
	comp=Z,790nm,15.1s						
MBWA	Marble Bar	31.12	193	P	P	02 32 15.9	-0.4
	comp=Z,29nm,0.9s						
MBWA	Marble Bar	31.12	193	P	P	02 32 17.5	+1.2
	comp=Z,16nm,0.9s						
MBWA	Marble Bar	31.12	193	P	P	02 32 15.3	-1.0
MBWA	Marble Bar	31.12	193	P	P	02 32 15.3	-1.0
MBWA				IAmb	IAmb	02 32 16.8	
	comp=Z,97nm,1.8s						
MBWA	Marble Bar	31.12	193	P	P	02 32 15.6	-0.8
	comp=Z,29nm,0.9s						
NPW	Naypyitaw	31.20	293	P	P	02 32 18.3	+1.1
	comp=Z,40nm,1.2s						
BJI2	Beijing	31.88	345	P	P	02 32 24.3	+1.5
BJI2				S	S	02 37 34.5	+1.6
BJI2				ScP	ScP	02 38 56.8	+0.6
BJI2				pmax	pmax		
	comp=Z,38nm,1.4s						
BJI2				pmax	pmax		
	comp=Z,300nm,3.6s						
BJI2				L	L		
	comp=Z,640nm,14.4s						
BJI2				L	L		
	comp=Z,380nm,17.9s						
BJI2				L	L		
	comp=Z,510nm,19.9s						
BJT	Baijiatuau	31.88	345	P	P	02 32 24.4	+1.6
	comp=Z,76nm,1.2s						
BJT	Baijiatuau	31.88	345	P	P	02 32 22.7	-0.1
BJT				pmax	pmax		
	comp=Z,106nm,1.3s						
BJT	Baijiatuau	31.88	345	P	P	02 32 22.7	-0.1
BJT	Baijiatuau	31.88	345	P	P	02 32 23.0	+0.2
	comp=Z,76nm,1.2s						
QIS	Mount Isa	32.40	157	P	P	02 32 26.6	-1.0
	comp=Z,119nm,1.3s						
QIS	Mount Isa	32.40	157	P	P	02 32 28.8	+1.2
	comp=Z,120nm,1.3s						
QIS	Mount Isa	32.40	157	P	P	02 32 26.7	-1.0
	comp=Z,120nm,1.3s						
SNY	Shenyang	32.40	356	P	P	02 32 29.5	+2.1
SNY				S	S	02 37 40.1	-0.9
SNY				pmax	pmax		
	comp=Z,31nm,1.1s						
SNY				L	L		
	comp=Z,1µm,16.1s						
SNY				L	L		
	comp=Z,980nm,14.0s						
SNY				L	L		
	comp=Z,2µm,15.6s						
MTSU	Mount Surprise	32.47	147	P	P	02 32 28.4	+0.2
	comp=Z,13nm,0.9s						
MTSU	Mount Surprise	32.47	147	P	P	02 32 29.2	+1.0
	comp=Z,13nm,0.9s						
MTSU	Mount Surprise	32.47	147	P	P	02 32 28.6	+0.3
	comp=Z,13nm,0.9s						
AS15	Alice Springs	33.60	168	P	P	02 32 38.1	-0.1
	comp=Z,22nm,1.1s						
AS31	Alice Springs	33.63	168	P	P	02 32 37.4	-1.0
	comp=Z,4.1nm,0.7s						
AS31	Alice Springs	33.63	168		P	02 32 37.5	-0.9
ASAR	Alice Springs	33.63	168	P	P	02 32 36.3	-2.1
	comp=Z,6.7nm,0.8s,baz=357,slow=7.5,SNR=26						
	comp=Z,6.7nm,0.8s						
ASAR	Alice Springs	33.63	168	P	P	02 32 36.6	-1.8
ASAR	Alice Springs	33.63	168	P	P	02 32 36.6	-1.8
AS01	Alice Springs	33.64	168	P	P	02 32 39.8	+1.3
	comp=Z,18nm,0.9s						
AS01	Alice Springs	33.64	168	P	P	02 32 39.7	+1.3
	comp=Z,18nm,0.9s						
AS17	Alice Springs	33.65	168	P	P	02 32 37.3	-1.2
	comp=Z,17nm,0.9s						
AS09	Alice Springs	33.67	168	P	P	02 32 38.6	-0.1
	comp=Z,20nm,1.0s						
LZH	Lanzhou	33.68	326	*e*P	P	02 32 38.0	-0.9
LZH				S	S	02 38 05.8	+4.3
LZH				pmax	pmax		
	comp=Z,330nm,7.3s						
LZH				L	L		
	comp=Z,2µm,15.8s						
LZH				L	L		
	comp=Z,2µm,15.6s						
LZH				L	L		
	comp=Z,2µm,16.8s						
HHC	Hu-ho-hao-te	34.04	339	*e*P	P	02 32 43.3	+1.4
HHC				sP	pwP	02 32 54.6	+1.7
HHC				S	S	02 38 10.3	+3.5
HHC				pmax	pmax		
	comp=Z,27nm,1.6s						
HHC				pmax	pmax		
	comp=Z,180nm,4.0s						
WRKA	Warakurna	34.28	177	P	P	02 32 42.9	-1.1
	comp=Z,17nm,1.1s						
CN2	Changchun	34.28	358	P	P	02 32 47.8	+4.1
CN2				S	S	02 38 14.0	+3.9
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
CN2				pmax	pmax		
	comp=Z,200nm,6.0s						
CN2				L	L		
	comp=Z,600nm,14.0s						
CN2				L	L		
	comp=Z,400nm,14.0s						
CN2				L	L		
	comp=Z,700nm,17.0s						
TV1H	Townsville Har	34.74	145	P	P	02 32 49.1	+1.1
	comp=Z,15nm,0.9s						
USA0B	Ussuriysk Arra	34.97	7	*i* P	P	02 32 49.6	-0.1
USA0B	Ussuriysk Arra	34.97	7	P	P	02 32 48.7	-1.0
USA0B				IAmb	IAmb	02 33 05.0	
	comp=Z,35nm,1.0s						
USRK	Ussuriysk Ar.	34.97	7	P	P	02 32 51.5	+1.7
	comp=Z,14nm,0.9s,baz=189,slow=7.2,SNR=12						
USRK				LR	LR	02 46 24.7	
	comp=Z,657nm,20.5s,baz=184,slow=35						
	comp=Z,14nm,0.9s						
USRK	Ussuriysk Ar.	34.97	7		P	02 32 49.1	-0.6
CTA	Charters Tower	35.10	147	P	P	02 32 49.5	-1.7
	comp=Z,8.3nm,1.5s						
CTA	Charters Tower	35.10	147	P	P	02 32 51.4	+0.2
	comp=Z,0.6nm,1.5s						
CTAO	Charters Tower	35.10	147	P	P	02 32 51.4	+0.2
	comp=Z,7.5nm,1.5s						
CTAO	Charters Tower	35.10	147	P	P	02 32 50.2	-1.0
CTAO				pmax	pmax		
	comp=Z,47nm,1.6s						
CTAO	Charters Tower	35.10	147	P	P	02 32 50.2	-1.0
CTAO				IAmb	IAmb	02 33 07.3	
	comp=Z,47nm,1.6s						
CTAO	Charters Tower	35.10	147	P	P	02 32 51.0	-0.1
	comp=Z,21nm,1.5s						
MDJ	Mudanjiang	35.17	4	P	P	02 32 53.5	+2.0
MDJ				S	S	02 38 27.6	+3.7
MDJ				pmax	pmax		
	comp=Z,30nm,1.1s						
MDJ				pmax	pmax		
	comp=Z,370nm,3.5s						
MDJ				L	L		
	comp=Z,990nm,19.1s						
MDJ				L	L		
	comp=Z,770nm,22.0s						
MDJ				L	L		
	comp=Z,940nm,19.8s						
MDJ	Mudanjiang	35.17	4	P	P	02 32 53.4	+2.0
	comp=Z,50nm,1.2s						
MDJ	Mudanjiang	35.17	4	P	P	02 32 51.9	+0.4
MDJ				IAmb	IAmb	02 33 15.2	
	comp=Z,70nm,1.2s						
MDJ	Mudanjiang	35.17	4	P	P	02 32 51.8	+0.4
	comp=Z,56nm,1.1s						
XLT	XiLinHaoTe	35.57	347	*e*P	P	02 32 56.5	+1.5
XLT				sP	pwP	02 33 07.9	+2.0
XLT				PP	PP	02 34 17.9	+2.0
XLT				S	S	02 38 27.5	-2.7
XLT				pmax	pmax		
	comp=Z,56nm,1.4s						
XLT				pmax	pmax		
	comp=Z,500nm,3.6s						
XLT				L	L		
	comp=Z,87nm,16.7s						
XLT				L	L		
	comp=Z,660nm,17.8s						
XLT				L	L		
	comp=Z,1µm,17.9s						
BNX	BinXian	36.21	1	⇓P	P	02 33 01.8	+1.5
BNX				pP	pwP	02 33 10.4	-0.7
BNX				sP	sP	02 33 13.6	+8.3
BNX				S	S	02 38 42.5	+2.8
BNX				sS	sS	02 38 56.9	+12
BNX				pmax	pmax		
	comp=Z,25nm,1.2s						
BNX				pmax	pmax		
	comp=Z,300nm,8.1s						
BNX				L	L		
	comp=Z,2µm,19.7s						
BNX				L	L		
	comp=Z,690nm,15.2s						
BNX				L	L		
	comp=Z,2µm,19.2s						
MEEK	Meekatharra	36.67	192	P	P	02 33 03.5	-1.0
	comp=Z,89nm,1.0s						
MEEK	Meekatharra	36.67	192	P	P	02 33 06.8	+2.3
	comp=Z,89nm,1.2s						
MEEK	Meekatharra	36.67	192	P	P	02 33 03.7	-0.8
	comp=Z,89nm,1.2s						
SHL	Shillong	36.68	300	P	P	02 33 04.7	-0.2
ASAJ	Asahikawa	37.26	19	LR	LR	02 47 46.8	
	comp=Z,1µm,20.2s,baz=247,slow=35						
HNR	Honiara	38.08	119	LR	LR	02 47 44.3	
	comp=Z,742nm,21.1s,baz=11,slow=34						
GTA2	Gaotai	38.37	326	P	P	02 33 19.0	0.0
GTA2				PP	PnPn	02 34 49.8	+1.2
GTA2				S	S	02 39 14.4	+1.3
GTA2				SS	SnSn	02 41 50.3	-8.8
GTA2				pmax	pmax		
	comp=Z,13nm,0.7s						
GTA2				pmax	pmax		
	comp=Z,290nm,9.8s						
GTA2				L	L		
	comp=Z,1µm,18.1s						
GTA2				L	L		
	comp=Z,2µm,16.8s						
GTA2				L	L		
	comp=Z,2µm,17.8s						
GOMU	GeErMu	39.31	318	P	P	02 33 29.3	+2.1
GOMU				pP	sP	02 33 32.8	+0.8
GOMU				sP	pwP	02 33 36.8	0.0
GOMU				S	S	02 39 25.9	-2.0
GOMU				pmax	pmax		
	comp=Z,5.0nm,0.5s						
GOMU				L	L		
	comp=Z,990nm,16.2s						
GOMU				L	L		
	comp=Z,2µm,16.7s						
GOMU				L	L		
	comp=Z,3µm,16.4s						
INKA	Innaminka	39.38	160		P	02 33 26.6	-0.7
MORW	Morawa	39.59	195	P	P	02 33 28.4	-0.7
	comp=Z,52nm,1.0s						
MORW	Morawa	39.59	195	P	P	02 33 29.9	+0.8
	comp=Z,52nm,1.0s						
MORW	Morawa	39.59	195		P	02 33 28.8	-0.3
MORW				IAmb	IAmb	02 33 33.1	
	comp=Z,43nm,0.9s						
QLP	Quilpie	39.65	155	P	P	02 33 29.6	0.0
	comp=Z,38nm,1.7s						
QLP	Quilpie	39.65	155	P	P	02 33 28.9	-0.7
	comp=Z,43nm,1.6s						
QLP	Quilpie	39.65	155	P	P	02 33 29.3	-0.3
	comp=Z,38nm,1.7s						
H11S3	WAKE ISLAND Hy	39.83	72	T	T	03 16 36.1	
	baz=261,slow=73,SNR=70						
H11S1	WAKE ISLAND Hy	39.84	72	T	T	03 16 33.7	
	baz=261,slow=73,SNR=46						
H11S2	WAKE ISLAND Hy	39.85	72	T	T	03 16 34.3	
	baz=261,slow=73,SNR=33						
YSS	Yuzhno-Sakhali	39.85	17	P	P	02 33 32.3	+1.2
	comp=Z,34nm,1.4s						
YSS	Yuzhno-Sakhali	39.85	17	*e*P	P	02 33 32.2	+1.2
YSS				*e*		02 35 05.7	
YSS				*e*		02 35 39.8	
YSS				*e*S	S	02 39 34.1	-0.8
YSS				*e*SS	SS	02 42 31.7	+0.2
YSS				pmax	pmax		
	comp=Z,200nm,3.5s						
YSS				pmax	pmax		
	comp=Z,20nm,0.8s						
YSS				pmax	pmax		
	comp=Z,400nm,5.3s						
YSS				smax	smax		
	comp=E,200nm,5.3s						
YSS				MLR	MLR		
	comp=Z,400nm,14.0s						
YSS				MLR	MLR		
	comp=N,300nm,15.0s						
KLR	Kul'dur	39.92	5	LR	LR	02 50 18.0	
	comp=N,648nm,19.0s,baz=190,slow=36						
KLR	Kul'dur	39.92	5	*ce*P	P	02 33 32.8	+1.2
KLR				pmax	pmax		
	comp=Z,38nm,2.0s						
FORT	Forrest	39.98	178	P	P	02 33 35.0	+2.7
	comp=Z,45nm,0.9s						
FORT	Forrest	39.98	178	P	P	02 33 31.6	-0.7
FORT				IAmb	IAmb	02 33 45.6	
	comp=Z,57nm,1.1s						
AUNRC	North Rockhamp	40.08	145	P	P	02 33 33.1	-0.2
	comp=Z,38nm,1.6s						
HIA	Hailar	40.15	353	P	P	02 33 34.9	+1.4
	comp=Z,34nm,1.5s						
HIA	Hailar	40.15	353	P	P	02 33 34.0	+0.5
HIA				pmax	pmax		
	comp=Z,19nm,0.8s						
HIA	Hailar	40.15	353	P	P	02 33 34.0	+0.5
HIA	Hailar	40.15	353	P	P	02 33 35.1	+1.6
	comp=Z,34nm,1.5s						
H11N1	WAKE ISLAND Hy	40.20	71	T	T	03 17 13.8	
	baz=265,slow=74,SNR=55						
H11N2	WAKE ISLAND Hy	40.20	71	T	T	03 17 13.8	
	baz=265,slow=74,SNR=47						
H11N3	WAKE ISLAND Hy	40.21	71	T	T	03 17 15.9	
	baz=265,slow=74,SNR=44						
HILR	Hailar Array B	40.43	353	P	P	02 33 36.9	+1.0
	comp=Z,5.7nm,0.6s,baz=171,slow=10,SNR=7.6						
	comp=Z,5.7nm,0.6s						
HEH	HeiHe	40.72	1	*e*P	P	02 33 39.4	+1.2
HEH				pP	pwP	02 33 47.3	-1.7
HEH				sP	sP	02 33 51.6	+8.4
HEH				S	S	02 39 51.0	+3.2
HEH				ScS	ScS	02 43 41.0	-1.9
HEH				pmax	pmax		
	comp=Z,23nm,1.1s						
HEH				pmax	pmax		
	comp=Z,480nm,6.8s						
HEH				L	L		
	comp=Z,2µm,18.4s						
HEH				L	L		
	comp=Z,1µm,16.2s						
HEH				L	L		
	comp=Z,2µm,18.0s						
KMBL	Kambalda	40.80	186	P	P	02 33 39.9	+0.8
	comp=Z,31nm,0.9s						
BLDU	Ballidu	40.92	193	P	P	02 33 39.7	-0.4
	comp=Z,60nm,1.9s						
BLDU	Ballidu	40.92	193	P	P	02 33 42.7	+2.6
	comp=Z,60nm,1.9s						
KLBR	Kellerberrin	41.64	191	P	P	02 33 46.1	+0.1
	comp=Z,66nm,1.4s						
KLBR	Kellerberrin	41.64	191	P	P	02 33 48.6	+2.6
	comp=Z,67nm,1.4s						
KLBR	Kellerberrin	41.64	191	P	P	02 33 47.4	+1.3
	comp=Z,67nm,1.4s						
EVN	Everest	41.74	302	P	P	02 33 47.7	0.0
EVN				IAmb	IAmb	02 34 04.2	
	comp=Z,34nm,0.9s						
EVN	Everest	41.74	302	P	P	02 33 48.0	+0.3
	comp=Z,48nm,1.3s						
ULN	Ulaanbaatar	41.75	340	P	P	02 33 48.1	+1.2
ULN				S	S	02 40 03.0	-0.5
ULN	Ulaanbaatar	41.75	340	*ce*P	P	02 33 48.2	+1.2
ULN				pmax	pmax		
	comp=Z,22nm,0.9s						
ULN	Ulaanbaatar	41.75	340	P	P	02 33 48.1	+1.2
ULN	Ulaanbaatar	41.75	340	P	P	02 33 48.3	+1.4
	comp=Z,23nm,1.0s						
SONM	Songino Array	41.95	340	P	P	02 33 49.4	+0.9
	comp=Z,3.0nm,0.6s,baz=159,slow=11,SNR=13						
SONM				ScP	ScP	02 39 34.5	+0.8
	comp=Z,4.1nm,1.2s,baz=132,slow=2.1,SNR=6.4						
	comp=Z,3.0nm,0.6s						
SONM	Songino Array	41.95	340	P	P	02 33 49.0	+0.5
SONM					ScP	02 39 33.8	+0.2
EIDS	Eidsvold	41.98	146	P	P	02 33 47.4	-1.5
	comp=Z,21nm,1.2s						
EIDS	Eidsvold	41.98	146	P	P	02 33 48.6	-0.3
	comp=Z,21nm,1.2s						
EIDS	Eidsvold	41.98	146	P	P	02 33 47.6	-1.3
EIDS	Eidsvold	41.98	146	P	P	02 33 48.0	-0.9
	comp=Z,21nm,1.2s						
GRNR	Gornyy	42.02	9	⇑*i*P	P	02 33 51.1	+2.2
GRNR				pmax	pmax		
	comp=Z,6.0nm,1.0s						
GRNR				MLR	MLR		
	comp=E,380nm,15.0s						
GRNR				MLR	MLR		
	comp=N,500nm,18.0s						
GRNR				MLR	MLR		
	comp=Z,760nm,19.0s						
MUN	Mundaring	42.34	193	P	P	02 33 51.9	+0.2
	comp=Z,54nm,0.7s						
MUN	Mundaring	42.34	193	P	P	02 33 54.4	+2.7
	comp=Z,54nm,0.7s						
AUKUL	Kulin High Sch	42.62	191	P	P	02 33 55.1	+1.1
	comp=Z,45nm,1.3s						
BBOO	Buckleboo	42.94	168	P	P	02 33 57.0	+0.5
	comp=Z,54nm,1.4s						
BBOO	Buckleboo	42.94	168	P	P	02 33 57.3	+0.8
	comp=Z,55nm,1.4s						
BBOO	Buckleboo	42.94	168	P	P	02 33 54.8	-1.8
BBOO				IAmb	IAmb	02 34 10.2	
	comp=Z,146nm,1.6s						
BBOO	Buckleboo	42.94	168	P	P	02 33 56.6	+0.1
	comp=Z,54nm,1.4s						
NWAO	Narrogin (SRO)	43.04	192	P	P	02 33 58.4	+1.0
	comp=Z,79nm,1.1s						
NWAO	Narrogin (SRO)	43.04	192	P	P	02 33 58.4	+1.0
	comp=Z,128nm,1.1s						
NWAO	Narrogin (SRO)	43.04	192	P	P	02 34 01.3	+4.0
	comp=Z,45nm,1.1s						
NWAO	Narrogin (SRO)	43.04	192	P	P	02 33 58.2	+0.8
	comp=Z,79nm,1.1s						
NWAO	Narrogin (SRO)	43.04	192	P	P	02 33 58.2	+0.8
	comp=Z,129nm,1.1s						
NWAO	Narrogin (SRO)	43.04	192	P	P	02 33 58.8	+1.4
	comp=Z,60nm,1.1s						
NWAO	Narrogin (SRO)	43.04	192	P	P	02 33 54.8	-2.6
NWAO	Narrogin (SRO)	43.04	192	P	P	02 33 57.2	-0.2
NWAO				pmax	pmax		
	comp=Z,76nm,1.1s						
NWAO	Narrogin (SRO)	43.04	192	P	P	02 33 57.2	-0.2
NWAO				IAmb	IAmb	02 34 02.1	
	comp=Z,76nm,1.1s						
NWAO	Narrogin (SRO)	43.04	192	P	P	02 33 57.7	+0.3
	comp=Z,76nm,1.1s						
TYV	Tymovskoe	43.39	15	*e*P	P	02 34 07.3	+7.3
TYV				pmax	pmax		
	comp=Z,12nm,0.9s						
TYV				pmax	pmax		
	comp=Z,200nm,4.9s						
STKA	Stephens Creek	43.48	161	P	P	02 34 00.3	-0.6
	comp=Z,153nm,1.3s						
STKA	Stephens Creek	43.48	161	P	P	02 34 00.2	-0.6
	comp=Z,153nm,1.3s						
STKA	Stephens Creek	43.48	161	P	P	02 33 59.7	-1.2
	comp=Z,8.6nm,0.8s,baz=344,slow=9.1,SNR=8.7						
	comp=Z,8.6nm,0.8s						
STKA	Stephens Creek	43.48	161	P	P	02 34 01.5	+0.6
	comp=Z,7.6nm,1.3s						
STKA	Stephens Creek	43.48	161	*i* P	P	02 33 57.3	-3.6
STKA	Stephens Creek	43.48	161	P	P	02 33 59.8	-1.1
	comp=Z,152nm,1.3s						
AULRC	Lightning Ridg	43.75	153	P	P	02 34 03.4	+0.2
	comp=Z,61nm,1.6s						
CIT	Chita	43.81	348	*e*P	P	02 34 04.6	+1.1
CIT				*e*		02 34 16.8	
CIT				pmax	pmax		
	comp=Z,241nm,2.4s						
HTT	Hallett	44.18	165	P	P	02 34 04.0	-2.6
	comp=Z,12nm,1.7s						
HTT	Hallett	44.18	165	P	P	02 34 02.5	-4.1
	comp=Z,12nm,1.7s						
HTT	Hallett	44.18	165	P	P	02 34 08.1	+1.5
	comp=Z,33nm,1.9s						
AUBSH	Beerwah State	44.18	145	P	P	02 34 07.2	+0.5
	comp=Z,24nm,1.1s						
AUTOO	Toowoomba Stat	44.19	147	P	P	02 34 06.0	-0.8
	comp=Z,85nm,1.4s						
ZEA	Zeya	44.21	1	*e*P	P	02 34 09.6	+3.1
CMSA	Cobar Meteorol	44.62	157	P	P	02 34 13.6	+3.5
CMSA	Cobar Meteorol	44.62	157	P	P	02 34 09.8	-0.3
	comp=Z,16nm,0.9s						
CMSA	Cobar Meteorol	44.62	157	P	P	02 34 12.4	+2.3
	comp=Z,20nm,1.2s						
CMSA	Cobar Meteorol	44.62	157	P	P	02 34 09.7	-0.5
	comp=Z,16nm,0.9s						
RKGY	Rocky Gully	44.72	191	P	P	02 34 14.8	+3.9
RKGY	Rocky Gully	44.72	191	P	P	02 34 11.5	+0.6
	comp=Z,32nm,1.0s						
PALK	Pallekele	45.47	271	P	P	02 34 16.4	-0.9
	comp=Z,34nm,1.3s						
MALK	Mahakanadarawa	45.52	273	P	P	02 34 18.0	+0.4
	comp=Z,46nm,1.3s						
HALK	Hakmana	45.63	269	P	P	02 34 19.8	+1.3
	comp=Z,44nm,0.4s						
ARMA	Armidale	46.31	150	P	P	02 34 24.5	+0.8
	comp=Z,19nm,1.2s						
ARMA	Armidale	46.31	150	P	P	02 34 24.2	+0.4
	comp=Z,19nm,1.2s						
ARMA	Armidale	46.31	150	P	P	02 34 25.0	+1.3
	comp=Z,18nm,1.2s						
ARMA	Armidale	46.31	150	P	P	02 34 24.0	+0.3
ARMA				IAmb	IAmb	02 34 28.3	
	comp=Z,72nm,1.6s						
ARMA	Armidale	46.31	150	P	P	02 34 22.6	-1.1
	comp=Z,18nm,1.2s						
MOY	Mondy	47.07	338	*e*P	P	02 34 29.6	+0.2
MOY				pmax	pmax		
	comp=Z,55nm,3.6s						
HYB	Hyderabad	47.33	285	*e*P	P	02 34 32.0	+0.1
HYB				*e*PcP	PcP	02 36 02.5	-0.2
HYB				*e*PP	PP	02 36 23.4	+0.3
HYB				*e*S	S	02 41 26.5	+1.2
HYB				*e*ScS	ScS	02 44 25.8	-0.1
KNGR	Kungurtug, Tuv	47.59	335	*i* P	P	02 34 34.0	+0.6
KNGR				pmax	pmax		
	comp=Z,9.0nm,1.0s						
SKR	Severo-Kuril's	47.80	25	*e*P	P	02 34 25.6	-9.3
SKR				pmax	pmax		
	comp=Z,100nm,5.3s						
ARPS	Mount Arapiles	48.11	164	P	P	02 34 40.8	+3.4
ARPS	Mount Arapiles	48.11	164	P	P	02 34 40.8	+3.4
	comp=Z,16nm,1.0s						
WMQ	Urumqi	48.12	322	*e*P	P	02 34 38.3	+0.7
WMQ				pP	sP	02 34 44.4	+1.9
WMQ				sP	pwP	02 34 50.5	+1.5
WMQ				PP	PP	02 36 32.3	+2.4
WMQ				pmax	pmax		
	comp=Z,18nm,1.9s						
WMQ				pmax	pmax		
	comp=Z,130nm,7.9s						
WMQ				L	L		
	comp=Z,2µm,22.9s						
WMQ				L	L		
	comp=Z,640nm,22.1s						
WMQ				L	L		
	comp=Z,740nm,22.9s						
AUMTS	Mt Stromlo	49.25	156	P	P	02 34 48.3	+1.9

	comp=Z,26nm,1.5s						
CAN	Canberra	49.26	156	P	P	02 34 51.2	+4.8
CAN	Canberra	49.26	156	P	P	02 34 47.8	+1.4
	comp=Z,36nm,1.3s						
CNB	Canberra Magne	49.40	155	P	P	02 34 49.2	+1.8
	comp=Z,30nm,1.3s						
CNB	Canberra Magne	49.40	155	P	P	02 34 48.5	+1.0
	comp=Z,30nm,1.3s						
BRAT	Ballarat	49.44	162	P	P	02 34 49.1	+1.4
	comp=Z,6.9nm,0.8s						
TOO	Toolangi	49.96	160	P	P	02 34 55.2	+3.5
	comp=Z,13nm,2.3s						
PEA0B	Petropavlovsk-	50.27	24	i P	P	02 34 55.4	+1.6
PETK	Petropavlovsk-	50.27	24	P	P	02 34 56.0	+2.1
	comp=Z,2.7nm,0.6s,baz=192,slow=5.5,SNR=8.4						
PETK				LR	LR	02 56 17.3	
	comp=Z,736nm,19.2s,baz=219,slow=36						
	comp=Z,2.7nm,0.6s						
PETK	Petropavlovsk-	50.27	24	P	P	02 34 56.0	+2.1
PETK	Petropavlovsk-	50.27	24	P	P	02 34 53.6	-0.3
YATNC	Mamie plateau,	50.37	129	P	P	02 34 56.0	+1.0
	comp=Z,17nm,1.2s						
PET	Petropavlovsk	50.60	24	eP	P	02 34 56.8	+0.6
PET				eS	S	02 42 10.0	0.0
PET				pmax	pmax		
	comp=Z,100nm,11.3s						
PET				MLR	MLR		
	comp=Z,700nm,19.0s						
PET				MLR	MLR		
	comp=Z,700nm,20.0s						
DGZ	Jazzator, Alta	51.68	328	eP	P	02 35 03.3	-1.4
DGZ				pmax	pmax		
	comp=Z,14nm,1.5s						
ZSN	Zaisan	51.77	325	eP	P	02 35 05.9	+0.6
ZSN	Zaisan	51.77	325	eP	P	02 35 05.9	+0.6
YAK	Yakutsk	52.57	2	LR	LR	02 56 50.3	
	comp=Z,516nm,21.7s,baz=184,slow=35						
YAK	Yakutsk	52.57	2	c iP	P	02 35 11.8	+0.9
YAK				e*PP	pwP	02 35 23.6	+1.8
YAK				e		02 36 21.8	
YAK				e		02 37 10.3	
YAK				ePPP	PPP	02 38 12.7	
YAK				eS	S	02 42 36.0	-0.9
YAK				e*SS	sS	02 42 54.9	+12
YAK				e		02 44 56.5	
YAK				eSS	SS	02 46 18.0	+2.8
YAK				eSSS	SSS	02 48 02.9	
YAK				pmax	pmax		
	comp=Z,36nm,1.3s						
YAK				pmax	pmax		
	comp=N,21nm,1.4s						
YAK				pmax	pmax		
	comp=E,7.0nm,1.4s						
YAK				pmax	pmax		
	comp=Z,79nm,2.3s						
YAK				pmax	pmax		
	comp=N,26nm,1.4s						
YAK				pmax	pmax		
	comp=E,13nm,1.4s						
YAK				smax	smax		
	comp=E,86nm,2.4s						
YAK				smax	smax		
	comp=N,12nm,1.5s						
YAK				MLR	MLR		
	comp=Z,523nm,17.0s						
YAK				MLR	MLR		
	comp=E,53nm,10.0s						
YAK				MLR	MLR		
	comp=N,334nm,20.0s						
YAK	Yakutsk	52.57	2	P	P	02 35 11.4	+0.5
	comp=Z,87nm,0.9s						
MK31	Makanchi Array	52.92	323	ceP	P	02 35 14.3	+0.5
MKAR	Makanchi Array	52.92	323	P	P	02 35 14.1	+0.2
	comp=Z,18nm,0.8s,baz=125,slow=8.0,SNR=97						
MKAR				LR	LR	02 57 06.9	
	comp=Z,668nm,19.7s,baz=121,slow=35						
	comp=Z,18nm,0.8s						
MKAR	Makanchi Array	52.92	323	P	P	02 35 13.8	0.0
SHLS	Shalkode	53.02	318	c iP	P	02 35 12.9	-1.8
SHLS				pmax	pmax		
	comp=Z,33nm,1.2s						
SHLS	Shalkode	53.02	318	⇑iP	P	02 35 12.9	-1.8
	comp=Z,33nm,1.2s						
MAKZ	Makanchi	53.12	323	P	P	02 35 15.4	+0.2
MAKZ				pmax	pmax		
	comp=Z,62nm,1.2s						
MAKZ	Makanchi	53.12	323	P	P	02 35 15.4	+0.2
MAKZ				IAmb	IAmb	02 35 28.5	
	comp=Z,62nm,1.2s						
MAKZ	Makanchi	53.12	323	P	P	02 35 15.6	+0.3
	comp=Z,44nm,1.1s						
MA2	Magadan	53.27	15	P	P	02 35 15.9	-0.2
MA2				pmax	pmax		
	comp=Z,15nm,0.9s						
UZB	Uzynbulak	53.30	318	c iP	P	02 35 17.0	+0.1
UZB				pmax	pmax		
	comp=Z,10.0nm,0.6s						
UZB	Uzynbulak	53.30	318	⇑iP	P	02 35 17.0	+0.1
	comp=Z,10nm,0.6s						
KPKS	Kokpek	53.66	318	eP	P	02 35 19.6	+0.2
KPKS	Kokpek	53.66	318	eP	P	02 35 19.6	+0.2
SATY	Saty	53.68	317	c iP	P	02 35 19.9	+0.3
SATY				pmax	pmax		
	comp=Z,12nm,0.7s						
SATY	Saty	53.68	317	⇑iP	P	02 35 19.9	+0.3
	comp=Z,12nm,0.7s						
KAAM	Kaadhehdhoo	54.10	264	P	P	02 35 23.4	+0.5
KAAM	Kaadhehdhoo	54.10	264	P	P	02 35 23.6	+0.6
KDJ	Kajisay	54.15	316	P	P	02 35 23.5	+0.4
KDJ				pmax	pmax		
	comp=Z,45nm,1.2s						
KDJ	Kajisay	54.15	316		P	02 35 23.5	+0.4
KDJ				IAmb	IAmb	02 35 36.4	
	comp=Z,45nm,1.2s						
KDJ	Kajisay	54.15	316	P	P	02 35 23.8	+0.7
	comp=Z,34nm,1.1s						
KSH2	Kashi	54.24	312	P	P	02 35 24.0	+0.2
KSH2				sP	pwP	02 35 35.8	+0.4
KSH2				pmax	pmax		
	comp=Z,24nm,1.4s						
KSH2				pmax	pmax		
	comp=Z,250nm,9.9s						
KSH2				L	L		
	comp=Z,1µm,17.7s						
KSH2				L	L		
	comp=Z,1µm,17.7s						
KSH2				L	L		
	comp=Z,2µm,17.7s						
TDK	Taldyqorghan	54.49	319	eP	P	02 35 25.8	+0.5
TDK				pmax	pmax		
	comp=Z,35nm,1.4s						
TDK	Taldyqorghan	54.49	319	eP	P	02 35 25.9	+0.5
	comp=Z,34nm,1.4s						
NIL	Nilore	54.51	305	P	P	02 35 26.3	+0.6
NIL	Nilore	54.51	305	P	P	02 35 25.3	-0.4
NIL				pmax	pmax		
	comp=Z,98nm,0.9s						
NIL	Nilore	54.51	305	P	P	02 35 25.3	-0.4
NIL	Nilore	54.51	305	P	P	02 35 25.9	+0.2
	comp=Z,144nm,1.0s						
MDOK	Medeo	54.63	317	eP	P	02 35 26.8	+0.3
MDOK	Medeo	54.63	317	eP	P	02 35 26.9	+0.3
TNSS	Tian-Shan	54.65	317	eP	P	02 35 27.3	+0.3
TNSS	Tian-Shan	54.65	317	eP	P	02 35 27.3	+0.3
NRN	Naryn	54.71	315	P	P	02 35 27.3	-0.1
NRN				pmax	pmax		
	comp=Z,47nm,1.3s						
NRN	Naryn	54.71	315		P	02 35 27.3	-0.1
NRN				IAmb	IAmb	02 35 28.7	
	comp=Z,47nm,1.3s						
AAA	Alma-Ata	54.74	317	eP	P	02 35 27.4	+0.2
AAA				pmax	pmax		
	comp=Z,19nm,0.7s						
AAA	Alma-Ata	54.74	317	eP	P	02 35 27.4	+0.2
	comp=Z,19nm,0.7s						
BOOM	Boomskoye usch	55.13	316	P	P	02 35 30.6	+0.3
	comp=Z,21nm,1.1s						
KUU	Kurty	55.39	317	eP	P	02 35 32.2	+0.3
KUU				pmax	pmax		
	comp=Z,26nm,1.0s						
KUU	Kurty	55.39	317	eP	P	02 35 32.2	+0.3
	comp=Z,26nm,1.0s						
ZAA0	Zalesovo Array	55.55	331		P	02 35 32.6	-0.1
ZALV	Zalesovo Beam	55.55	331	P	P	02 35 32.4	-0.4
	comp=Z,5.9nm,0.6s,baz=130,slow=6.7,SNR=20						
	comp=Z,5.9nm,0.6s						

ZALV	Zalesovo Beam	55.55	331	P	P	02 35 32.0	-0.8
AAK	Ala-Archa	56.19	315	LR	LR	03 02 34.8	
	comp=Z,1µm,18.8s,baz=80,slow=39						
AAK	Ala-Archa	56.19	315	ceP	P	02 35 38.7	+0.9
AAK				pmax	pmax		
	comp=Z,21nm,1.2s						
AAK	Ala-Archa	56.19	315	P	P	02 35 38.3	+0.6
AAK	Ala-Archa	56.19	315	P	P	02 35 38.4	+0.6
	comp=Z,21nm,1.1s						
SEY	Seymchan	56.56	14	ceP	P	02 35 42.9	+3.0
SEY				pmax	pmax		
	comp=Z,26nm,1.5s						
OHH	Osh	56.71	313	P	P	02 35 40.2	-1.2
	comp=Z,31nm,1.3s						
ARSB	Arslanbob	56.81	314	P	P	02 35 42.1	-0.2
ARSB				pmax	pmax		
	comp=Z,33nm,1.0s						
ARSB	Arslanbob	56.81	314		P	02 35 42.1	-0.2
ARSB				IAmb	IAmb	02 35 54.2	
	comp=Z,32nm,1.0s						
KURK	Kurchatov	56.97	326	P	P	02 35 43.1	+0.1
KURK	Kurchatov	56.97	326	ceP	P	02 35 43.1	+0.1
KURK				pmax	pmax		
	comp=Z,87nm,1.3s						
KURK	Kurchatov	56.97	326	P	P	02 35 43.2	+0.1
KURK	Kurchatov	56.97	326	P	P	02 35 43.3	+0.3
	comp=Z,91nm,1.0s						
KURBB	Kurchatov Arra	56.98	326	P	P	02 35 43.2	+0.2
	comp=Z,11nm,0.5s,baz=124,slow=6.7,SNR=112						
KURBB				LR	LR	03 01 55.0	
	comp=Z,270nm,21.4s,baz=163,slow=38						
	comp=Z,11nm,0.5s						
DRK	Karamyk	57.13	311	P	P	02 35 44.8	+0.1
DRK				pmax	pmax		
	comp=Z,49nm,1.0s						
DRK	Karamyk	57.13	311	P	P	02 35 44.8	+0.1
DRK	Karamyk	57.13	311	P	P	02 35 45.7	+1.0
	comp=Z,38nm,1.0s						
MSVF	Nonsavu	57.50	118	LR	LR	03 00 11.8	
	comp=Z,321nm,18.8s,baz=296,slow=36						
MSVF	Nonsavu	57.50	118	P	P	02 35 47.4	+0.1
	comp=Z,28nm,1.3s						
MSVF	Nonsavu	57.50	118	i P	P	02 35 47.3	0.0
MSVF				pmax	pmax		
	comp=Z,61nm,1.8s						
SHEM	Shemya Is, Ala	57.68	32	LR	LR	02 55 05.8	
	comp=Z,130nm,21.9s,baz=266,slow=30						
ARK	Arkit	57.69	314	P	P	02 35 49.0	+0.6
	comp=Z,47nm,0.9s						
BTK	Batken	58.02	312	P	P	02 35 50.8	+0.1
BTK				pmax	pmax		
	comp=Z,43nm,1.1s						
BTK	Batken	58.02	312		P	02 35 50.8	+0.1
BTK				IAmb	IAmb	02 36 08.1	
	comp=Z,43nm,1.1s						
BTK	Batken	58.02	312	P	P	02 35 50.9	+0.2
	comp=Z,39nm,1.2s						
KBL	Kabul	58.11	305	P	P	02 35 51.6	-0.1
	SNR=18						
KBL	Kabul	58.11	305	P	P	02 35 51.7	+0.1
KBL				pmax	pmax		
	comp=Z,34nm,1.0s						
KBL	Kabul	58.11	305	P	P	02 35 51.7	+0.1
KBL				IAmb	IAmb	02 36 03.6	
	comp=Z,34nm,0.9s						
KBL	Kabul	58.11	305	P	P	02 35 51.4	-0.2
	comp=Z,42nm,1.0s						
DZA	Taraz	58.47	315	eP	P	02 35 53.9	+0.1
DZA				pmax	pmax		
	comp=Z,13nm,0.7s						
DZA	Taraz	58.47	315	eP	P	02 35 53.9	+0.1
	comp=Z,13nm,0.7s						
KK31	Karatay Array	59.11	315	P	P	02 35 58.1	-0.1
KK31				pmax	pmax		
	comp=Z,43nm,1.1s						
KK31	Karatay Array	59.11	315	P	P	02 35 58.1	-0.1
KKAR	Karatay Array	59.11	315	P	P	02 35 57.9	-0.3
KKAR	Karatay Array	59.11	315	P	P	02 35 57.9	-0.3
IUG	Iuzhnay	59.17	314	c iP	P	02 35 58.8	+0.1
IUG				pmax	pmax		
	comp=Z,11nm,0.7s						
IUG	Iuzhnay	59.17	314	⇑iP	P	02 35 58.9	+0.1
	comp=Z,11nm,0.7s						
CHM	Chimkent	59.52	314	eP	P	02 36 01.2	+0.2
CHM				pmax	pmax		
	comp=Z,10.0nm,0.7s						
CHM	Chimkent	59.52	314	eP	P	02 36 01.2	+0.2
	comp=Z,9.9nm,0.7s						
BRLS	Borolday	59.56	315	eP	P	02 36 01.5	+0.2
BRLS				pmax	pmax		
	comp=Z,12nm,0.8s						
BRLS	Borolday	59.56	315	eP	P	02 36 01.5	+0.2
	comp=Z,12nm,0.8s						
TIXI	Tiksi	62.20	1	ceP	P	02 36 20.2	+1.5
TIXI				pmax	pmax		
	comp=Z,46nm,1.1s						
TIXI	Tiksi	62.20	1	P	P	02 36 18.9	+0.3
BVAR	Borovoye Array	62.57	326	P	P	02 36 21.7	+0.2
	comp=Z,16nm,0.7s,baz=122,slow=7.2,SNR=49						
	comp=Z,16nm,0.7s						
BORK	Borovoye	62.62	326	P	P	02 36 21.7	-0.1
BORK				pmax	pmax		
	comp=Z,50nm,0.9s						
BORK	Borovoye	62.62	326	P	P	02 36 21.7	-0.1
HRA	Herat	63.64	304	P	P	02 36 28.4	-0.8
HRA				IAmb	IAmb	02 36 41.2	
	comp=Z,56nm,1.9s						
NRIK	Noril'sk	64.93	346	P	P	02 36 37.8	+1.0
	comp=Z,29nm,0.8s,baz=132,slow=6.3,SNR=36						
	comp=Z,29nm,0.8s						
NRIK	Noril'sk	64.93	346	i P	P	02 36 37.0	+0.2
NRIK				pmax	pmax		
	comp=Z,113nm,1.5s						
NRIK	Noril'sk	64.93	346	P	P	02 36 37.7	+1.0
JLN	Jalan Bani Buh	65.48	290	P	P	02 36 41.2	0.0
JCZ	Jackson Bay	65.50	148	P	P	02 36 42.3	+1.3
	comp=Z,68nm,1.4s						
WBK	Wadi Bani Khal	65.88	291	P	P	02 36 42.3	-1.6
WSAR	Wadi Sarin	66.19	291	P	P	02 36 44.3	-1.5
THZ	Tophouse	66.27	144	P	P	02 36 45.5	-0.4
BIDO	Bidbid	66.65	292	P	P	02 36 49.0	+0.3
	SNR=7.6						
JMDO	Jabal Madar	66.68	290	P	P	02 36 48.5	-0.5
SMDO	Samad	66.73	291	P	P	02 36 49.2	-0.1
MHTO	MHTO	66.84	289	P	P	02 36 49.3	-0.6
BKZ	Black Stump Fm	66.90	140	P	P	02 36 49.5	-0.5
	comp=Z,38nm,0.8s						
RTZ	Ruatahuna	66.90	139	P	P	02 36 49.8	-0.3
HOQ	Hoqain	67.40	292	P	P	02 36 53.3	-0.2
	SNR=6.5						
BSY	Bisya	67.51	291	P	P	02 36 53.8	-0.4
AB31	Akbulak array	67.76	319	P	P	02 36 54.9	-0.4
ABKAR	Akbulak array	67.76	319	P	P	02 36 54.8	-0.5
SOHO	SOHO	68.10	292	P	P	02 36 57.7	-0.2
SOHO	SOHO	68.10	292	i P	P	02 36 57.3	-0.7
	SNR=6.5						
ARQ	Araqi	68.13	291	P	P	02 36 58.0	-0.1
BANOM	Banah	68.30	294	P	P	02 36 59.7	+0.5
MDH	Madha	68.31	293	P	P	02 36 59.6	+0.4
UOSS	Minazif	68.39	293	P	P	02 36 59.2	-0.6
UOSS	Minazif	68.39	293	P	P	02 36 59.0	-0.8
UOSS	Minazif	68.39	293	P	P	02 36 59.1	-0.6
UOSS	Minazif	68.39	293	P	P	02 36 59.4	-0.4
	comp=Z,15nm,1.2s						
MASF	Masafi	68.43	294	P	P	02 36 59.8	-0.2
SHME	Shamm	68.44	294	P	P	02 37 00.1	+0.1
SHME	Shamm	68.44	294	P	P	02 37 00.1	+0.1
HATD	Hatta, Dubai	68.46	293	P	P	02 37 00.1	0.0
	SNR=5.5						
HATD	Hatta, Dubai	68.46	293	i P	P	02 37 00.1	0.0
	SNR=8.1						
ASHO	Ashiyiah	68.53	293	P	P	02 37 00.5	-0.1
	SNR=6.8						
ASHO	Ashiyiah	68.53	293	i P	P	02 37 00.3	-0.3
	SNR=9.4						
ALNE	Al Ain	68.82	292	P	P	02 37 02.3	-0.1
	SNR=7.9						
NAZ	Nazwa, Dubai	68.89	293	P	P	02 37 02.2	-0.6
FAQ	Al Faqa, Dubai	68.95	293	P	P	02 37 03.0	-0.2
FAQ	Al Faqa, Dubai	68.95	293	P	P	02 37 02.8	-0.4
SVE	Sverdlovsk	69.12	327	deP	P	02 37 03.9	+0.2
SVE				pmax	pmax		
	comp=Z,84nm,1.1s						
SVE				MLR	MLR		
	comp=Z,712nm,16.0s						

SHAO	Shalim	69.17	286	P	P	02 37 05.8	+1.1
ASUD	Al Ashush, Dub	69.19	293	P	P	02 37 05.2	+0.4
ASUD	Al Ashush, Dub	69.19	293	P	P	02 37 05.0	+0.3
ARTI	Arti	70.22	327	LR	LR	03 07 36.0	
	comp=Z,441nm,21.4s,baz=108,slow=36						
ARTI	Arti	70.22	327	c iP	P	02 37 10.0	-0.4
ARTI				*PP	pwP	02 37 20.8	-1.1
ARTI						02 37 32.6	
ARTI				S	S	02 46 18.3	-3.0
ARTI				SS	SS	02 50 47.6	-3.8
ARTI				pmax	pmax		
	comp=Z,42nm,1.3s						
ARTI	Arti	70.22	327	P	P	02 37 09.6	-0.9
DOK	Doka	70.56	286	P	P	02 37 12.6	-0.6
MZR	Muzera	70.94	291	P	P	02 37 15.7	+0.2
	SNR=14						
MZR	Muzera	70.94	291	i P	P	02 37 15.4	0.0
	SNR=21						
WHFO	Wadi Hawf	70.94	286	P	P	02 37 14.9	-0.7
ABTO	Aybut	71.43	285	P	P	02 37 18.5	-0.1
JRN	Qarnain Island	71.44	293	P	P	02 37 17.6	-0.8
	SNR=6.2						
GHWR	Ruwais	71.45	292	P	P	02 37 18.5	0.0
L16K	Owhat River	74.14	28	P	P	02 37 33.6	-0.2
L16K				IAmb	IAmb	02 37 56.7	
	comp=Z,43nm,1.2s						
J17K	VABM Dome	74.61	27		P	02 37 37.0	+0.5
J17K				IAmb	IAmb	02 37 59.0	
	comp=Z,48nm,1.4s						
M17K	Holitna River	75.06	29		P	02 37 39.5	+0.3
M17K				IAmb	IAmb	02 38 01.2	
	comp=Z,44nm,1.2s						
KIRV	Kirov	75.36	328	ceP	P	02 37 40.9	0.0
AKT	Akhty	75.53	310	eP	P	02 37 41.9	-0.5
AKT				eAP	pwP	02 37 52.1	-1.9
AKT				ePCP	PcP	02 37 54.6	-0.8
AKT				pmax	pmax		
	comp=Z,27nm,1.3s						
MAK	Makhachkala	75.70	312	c iP	P	02 37 43.3	+0.1
MAK				e		02 40 33.9	
MAK				ePPP	PPP	02 42 23.4	
MAK				eS	S	02 47 23.2	-1.0
MAK				eSS	SS	02 52 19.1	+3.4
MAK				pmax	pmax		
	comp=Z,111nm,1.0s						
BELG	Belogornoye	75.90	322	LR	LR	03 13 34.8	
	comp=Z,216nm,18.5s,baz=95,slow=38						
BELG	Belogornoye	75.90	322	i P	P	02 37 42.5	-1.6
BELG				pmax	pmax		
	comp=Z,14nm,1.4s						
D19K	Kuna River	75.90	22		P	02 37 44.9	+1.0
D19K				IAmb	IAmb	02 38 05.9	
	comp=Z,43nm,1.2s						
O18K	Koktuh Hills	75.97	31		P	02 37 45.0	+0.6
L19K	White Mountain	76.37	28		P	02 37 46.7	0.0
L19K				IAmb	IAmb	02 38 17.8	
	comp=Z,34nm,1.4s						
CASY	Casey	76.41	187	P	P	02 37 45.7	-0.9
CASY				IAmb	IAmb	02 38 00.4	
	comp=Z,33nm,1.1s						
CASY	Casey	76.41	187	P	P	02 37 46.1	-0.5
	comp=Z,27nm,1.7s						
J20K	Nowinta River	76.89	26		P	02 37 50.2	+0.7
J20K				IAmb	IAmb	02 38 11.9	
	comp=Z,32nm,1.4s						
IMAR	Indian Mountai	77.23	24	P	P	02 37 52.8	+1.4
G21K	Allakaket	77.39	24		P	02 37 52.8	+0.5
G21K				IAmb	IAmb	02 38 14.5	
	comp=Z,24nm,1.2s						
CAST	Castle Rocks	77.74	27		P	02 37 54.5	+0.1
CAST				IAmb	IAmb	02 38 16.2	
	comp=Z,58nm,1.7s						
GNI	Garni	77.82	309	ceP	P	02 37 57.2	+1.8
GNI				pmax	pmax		
	comp=Z,34nm,1.3s						
GNI	Garni	77.82	309	P	P	02 37 55.2	-0.2
GNI				IAmb	IAmb	02 38 14.4	
	comp=Z,59nm,1.4s						
GNI	Garni	77.82	309	P	P	02 37 55.9	+0.5
	comp=Z,541nmcomp=Z,33nm,1.5s						
GNI	Garni	77.82	309	P	P	02 37 55.3	-0.2
	comp=Z,33nm,1.5s						
I21K	Tanana	77.90	25	P	P	02 37 56.1	+1.0
H22K	Ishtalitna Cre	78.20	25		P	02 37 57.6	+0.8
RAYN	Ar Rayn	78.22	292	P	P	02 37 57.6	-0.2
RAYN	Ar Rayn	78.22	292	P	P	02 37 57.3	-0.5
RAYN				pmax	pmax		
	comp=Z,40nm,1.0s						
RAYN	Ar Rayn	78.22	292	P	P	02 37 57.2	-0.5
RAYN				IAmb	IAmb	02 38 09.7	
	comp=Z,40nm,0.9s						
RAYN	Ar Rayn	78.22	292	i P	P	02 37 57.3	-0.5
	SNR=6.2						
RAYN	Ar Rayn	78.22	292	P	P	02 37 57.4	-0.4
	comp=Z,52nm,1.1s						
RAYN				pP	pwP	02 38 08.9	-0.7
BPAW	Bear Paw Mtn.	78.27	26		P	02 37 57.6	+0.4
BPAW				IAmb	IAmb	02 38 21.2	
	comp=Z,41nm,1.3s						
SUA	Susitna One	78.27	29	P	P	02 37 57.8	+0.3
SUA				IAmb	IAmb	02 38 17.6	
	comp=Z,35nm,1.2s						
MLY	Manley	78.42	25		P	02 37 58.1	0.0
D23K	Nanushuk River	78.65	21	P	P	02 37 59.9	+0.7
D23K				IAmb	IAmb	02 38 21.8	
	comp=Z,27nm,1.1s						
HAKT	HAKKARI	78.74	306	P	P	02 38 01.1	+0.3
	comp=Z,72nm,1.1s						
HAKT				pP	pwP	02 38 12.5	+0.1
H23K	Yukon River	78.95	25	P	P	02 38 01.4	+0.4
I23K	Minto, Yukon-K	79.00	25	P	P	02 38 02.1	+0.9
I23K				IAmb	IAmb	02 38 19.3	
	comp=Z,63nm,1.8s						
PMR	Palmer	79.05	29	P	P	02 38 01.6	+0.1
	comp=Z,20nm,1.2s						
KBZ	Khabaz	79.05	313	P	P	02 38 01.8	-0.1
	comp=Z,11nm,1.0s,baz=81,slow=4.5,SNR=15						
	comp=Z,11nm,1.0s						
KBZ	Khabaz	79.05	313	ceP	P	02 38 01.7	-0.2
KBZ				pmax	pmax		
	comp=Z,19nm,1.1s						
KIV	Kislovodsk	79.19	313	P	P	02 38 03.8	+0.9
KIV	Kislovodsk	79.19	313	eP	P	02 38 02.5	-0.4
KIV				pmax	pmax		
	comp=Z,19nm,1.0s						
KIV				MLR	MLR		
	comp=Z,542nm,19.0s						
KIV	Kislovodsk	79.19	313	P	P	02 38 03.9	+1.0
KIV				IAmb	IAmb	02 38 17.0	
	comp=Z,30nm,0.9s						
KIV	Kislovodsk	79.19	313	P	P	02 38 03.7	+0.8
KIV	Kislovodsk	79.19	313	P	P	02 38 01.8	-1.1
	comp=Z,27nm,1.4s						
KIV	Kislovodsk	79.19	313	P	P	02 38 03.4	+0.6
	comp=Z,34nm,1.4s						
GEVA	Gevas	79.21	307		P	02 38 04.1	+0.9
GEVA				IAmb	IAmb	02 38 16.4	
	comp=Z,70nm,1.4s						
NEUR	Neytrino	79.21	312	i P	P	02 38 02.2	-0.9
NEUR				pmax	pmax		
	comp=Z,14nm,1.3s						
SHA1	Shidzhatmaz	79.22	313	ceP	P	02 38 01.5	-1.7
EPOS	Posof	79.28	311	P	P	02 38 03.0	-0.5
	comp=Z,24nm,1.4s						
KNK	Knik Glacier	79.37	29	P	P	02 38 03.8	+0.4
KNK				IAmb	IAmb	02 38 50.2	
	comp=Z,53nm,1.4s						
SML	Sawmill	79.43	29	P	P	02 38 04.2	+0.5
SML				IAmb	IAmb	02 38 20.8	
	comp=Z,36nm,1.1s						
VRH	Novokhopyorsk	79.55	320	eP	P	02 38 03.7	-0.8
VRH				pmax	pmax		
	comp=Z,25nm,1.0s						
F24K	Squaw Lake	79.64	23		P	02 38 06.1	+1.3
COLA	College	79.64	26	i P	P	02 38 05.3	+0.6
COLA				pmax	pmax		
	comp=Z,32nm,2.9s						
CCB	Clear Creek Bu	79.66	26		P	02 38 05.7	+0.8
CCB				IAmb	IAmb	02 38 24.8	
	comp=Z,37nm,1.5s						
GURO	Guroymak-BITLI	80.00	308	P	P	02 38 08.5	+1.0
HDA	Harding Lake	80.03	26	P	P	02 38 07.8	+0.9
HDA				IAmb	IAmb	02 38 27.3	
	comp=Z,54nm,1.9s						
IL31		80.06	26	P	P	02 38 08.2	+1.3

ILAR	Eielson Array	80.06	26	P	P	02 38 08.0	+1.0
	comp=Z,1.2nm,0.7s,baz=244,slow=5.0,SNR=12						
ILAR				LR	LR	03 13 36.1	
	comp=Z,155nm,20.3s,baz=267,slow=36						
	comp=Z,1.2nm,0.7s						
ILAR	Eielson Array	80.06	26	P	P	02 38 08.0	+1.0
ILAR	Eielson Array	80.06	26		P	02 38 07.7	+0.7
KLMR	Klimovskoe	80.45	330	eP	P	02 38 08.0	-1.1
KLMR				e*PP	pwP	02 38 19.3	-1.3
KLMR				pmax	pmax		
	comp=Z,114nm,1.5s						
F25K	Christian Rive	80.50	23	P	P	02 38 10.1	+0.7
LABN	Labinsk	80.56	314	eP	P	02 38 08.8	-1.3
LABN				eS	S	02 48 14.2	-2.3
LABN				pmax	pmax		
	comp=Z,10.0nm,0.6s						
K24K	Donnelly Dome	80.56	27	P	P	02 38 10.6	+0.8
K24K				IAmb	IAmb	02 38 27.5	
	comp=Z,39nm,1.1s						
ERBR	Yeremizino-Bor	80.66	315	eP	P	02 38 08.4	-2.2
ERBR				eS	S	02 48 13.7	-3.7
ERBR				pmax	pmax		
	comp=Z,32nm,1.1s						
J25K	Salcha River,	80.71	26		P	02 38 11.3	+0.6
BMAR	Burnt Mountain	80.92	23	P	P	02 38 12.2	+0.5
RIDG	Independent Ri	80.98	27	P	P	02 38 12.1	+0.1
RIDG				IAmb	IAmb	02 38 35.5	
	comp=Z,54nm,1.3s						
KOPT	Kop Dagi	81.08	309		P	02 38 14.0	+0.7
VORD	Divnogorie	81.09	320	eP	P	02 38 10.3	-2.5
VORD				pmax	pmax		
	comp=Z,10.0nm,1.0s						
VORR	Voronezh	81.10	321	eP	P	02 38 12.7	-0.1
VORR				pmax	pmax		
	comp=Z,20nm,0.9s						
VSR	Storozhevoye	81.16	321	eP	P	02 38 11.5	-1.6
VSR				pmax	pmax		
	comp=Z,12nm,1.0s						
LPSR	Galich'ya Gora	81.21	322	eP	P	02 38 12.7	-0.7
LPSR				pmax	pmax		
	comp=Z,34nm,1.0s						
SCRK	Sand Creek	81.35	26		P	02 38 14.6	+0.5
SCRK				IAmb	IAmb	02 38 37.8	
	comp=Z,45nm,1.6s						
SOC	Sochi	81.36	313	eP	P	02 38 13.4	-1.0
SOC				ePPP	PPP	02 43 10.9	
SOC				eS	S	02 48 21.7	-3.2
SOC				eSS	SS	02 53 40.6	-0.1
SOC				eSSS	SSS	02 57 05.8	
SOC				pmax	pmax		
	comp=Z,17nm,0.8s						
MENT	Mentasta	81.54	28	P	P	02 38 15.7	+0.7
	comp=Z,13nm,0.9s						
GLB	Gilahina Butte	81.60	29		P	02 38 15.7	+0.4
GLB				IAmb	IAmb	02 38 31.2	
	comp=Z,29nm,1.2s						
I26K	Coal Creek Min	81.61	25	P	P	02 38 15.9	+0.6
MOS	Moscow	81.74	325	eP	P	02 38 15.7	-0.4
MOS				eS	S	02 48 24.3	-4.0
MOS				pmax	pmax		
	comp=Z,47nm,1.1s						
KELT	Kelkit	82.01	309	P	P	02 38 17.9	-0.3
	comp=Z,60nm,1.2s						
LVZ	Lovozero	82.10	338	i P	P	02 38 17.8	-0.1
LVZ				pmax	pmax		
	comp=Z,283nm,3.3s						
D27M	Malcolm River	82.13	21	P	P	02 38 18.7	+0.6
D27M				IAmb	IAmb	02 38 42.5	
	comp=Z,20nm,1.0s						
ATD	Arta Tunnel	82.13	280		P	02 38 19.6	+0.5
ATD				IAmb	IAmb	02 38 32.6	
	comp=Z,14nm,0.8s						
ATD	Arta Tunnel	82.13	280	P	P	02 38 18.1	-0.9
	comp=Z,24nm,1.3s						
I27K	Kandik River	82.23	25		P	02 38 19.2	+0.5
L27K	Beaver Creek,	82.39	27		P	02 38 20.6	+1.1
OBN	Obninsk	82.40	325	⇑eP	P	02 38 19.4	-0.2
OBN				e		02 38 22.7	
OBN				i *PP	pwP	02 38 31.0	-0.1
OBN				i S	S	02 48 36.5	+1.5
OBN				e		02 49 16.7	
OBN				pmax	pmax		
	comp=Z,22nm,1.0s						
BCAR	Beaver Creek A	82.40	27	P	P	02 38 20.3	+0.7
APA	Apatity	82.61	337	eP	P	02 38 18.8	-1.7
APA				e		02 38 29.3	
APA				pmax	pmax		
	comp=Z,54nm,1.1s						
BARN	Barnard Glacie	82.67	29	P	P	02 38 21.9	+0.8
BARN				IAmb	IAmb	02 38 29.1	
	comp=Z,16nm,0.8s						
ARPR	Arapgir-MALATY	82.83	308	P	P	02 38 22.3	-0.2
	comp=Z,23nm,1.2s						
ANN	Anapa	82.88	314	eP	P	02 38 20.9	-1.4
ANN				eS	S	02 48 38.0	-2.4
ANN				pmax	pmax		
	comp=Z,37nm,1.0s						
I28M	Miner Creek	82.94	25		P	02 38 22.9	+0.5
DAWY	Dawson	83.35	26	P	P	02 38 24.9	+0.5
DAWY				IAmb	IAmb	02 38 41.8	
	comp=Z,23nm,1.0s						
H29M	Whitestone	83.48	24		P	02 38 26.4	+1.4
G29M	Pine Creek	83.51	23	P	P	02 38 26.0	+0.8
GAZ	Gaziantep	83.93	307		P	02 38 28.9	+0.9
M29M	Somme Creek	84.00	28		P	02 38 28.0	+0.1
M29M				IAmb	IAmb	02 38 45.7	
	comp=Z,16nm,0.9s						
L29M	L29M	84.05	27		P	02 38 28.5	+0.4
VOI	Vohitsoka	84.18	247	P	P	02 38 27.6	-2.0
	comp=Z,32nm,1.1s						
G30M	tAoh Zraii Nji	84.20	23		P	02 38 28.2	-0.6
G30M				IAmb	IAmb	02 38 48.3	
	comp=Z,27nm,1.2s						
K29M	Barlow Dome	84.20	26		P	02 38 28.9	-0.1
K29M				IAmb	IAmb	02 38 51.4	
	comp=Z,22nm,1.1s						
F30M	Barrier River	84.25	22		P	02 38 29.2	+0.3
F30M				IAmb	IAmb	02 38 50.8	
	comp=Z,33nm,1.1s						
I30M	Mount Dempster	84.45	25		P	02 38 31.2	+1.0
I30M				IAmb	IAmb	02 38 47.6	
	comp=Z,33nm,1.1s						
ANDN	Andirin	84.56	307	P	P	02 38 31.7	+0.4
	comp=Z,253nm,1.1s						
MSF	Maaselka	84.57	336	P	P	02 38 29.9	-0.7
	comp=Z,66nm,1.1s						
J30M	Hart River	84.59	25		P	02 38 31.7	+0.8
HYT	Haines Junctio	84.71	29		P	02 38 31.9	+0.3
HYT				IAmb	IAmb	02 38 47.8	
	comp=Z,23nm,1.1s						
BNN	Bunyan	84.78	308		P	02 38 33.0	+0.6
SPITS	Spitsbergen Ar	84.92	349	P	P	02 38 32.6	+0.4
	comp=Z,26nm,0.9s,baz=79,slow=8.6,SNR=8.4						
	comp=Z,26nm,0.9s						
INK	Inuvik	84.95	22	P	P	02 38 33.2	+0.8
INK				pmax	pmax		
	comp=Z,29nm,1.3s						
INK	Inuvik	84.95	22		P	02 38 33.2	+0.8
INK				IAmb	IAmb	02 38 56.0	
	comp=Z,29nm,1.2s						
INK	Inuvik	84.95	22	P	P	02 38 32.7	+0.3
	comp=Z,25nm,1.3s						
G31M	Satah River	84.97	23		P	02 38 33.2	+0.7
G31M				IAmb	IAmb	02 38 56.0	
	comp=Z,27nm,1.0s						
ARCES	ARCESS Array B	85.12	340	P	P	02 38 33.5	+0.2
	comp=Z,9.0nm,0.6s,baz=85,slow=6.8,SNR=31						
	comp=Z,9.0nm,0.6s						
ARCES	ARCESS Array B	85.12	340	P	P	02 38 33.8	+0.5
H31M	Peel River	85.17	24		P	02 38 34.2	+0.6
H31M				IAmb	IAmb	02 38 55.2	
	comp=Z,24nm,0.9s						
SIM	Simferopol'	85.20	315	eP	P	02 38 32.8	-1.4
SIM				eS	SKSac	02 48 55.5	-3.1
SIM				pmax	pmax		
	comp=Z,67nm,1.2s						
N31M	Braeburn, Yuko	85.41	29		P	02 38 34.9	-0.1
N31M				IAmb	IAmb	02 38 52.0	
	comp=Z,37nm,1.2s						
MMAI	Mount Meron Ar	85.97	303	P	P	02 38 39.0	+0.6
	comp=Z,4.2nm,1.0s,baz=65,slow=6.8,SNR=2.1						
	comp=Z,4.2nm,1.0s						
OUL	Oulu	86.03	335	P	P	02 38 37.5	-0.4
	comp=Z,38nm,1.1s						
MMLI	Mount Malkishu	86.04	302	P	P	02 38 39.1	+0.4
	comp=Z,30nm,1.2s						
ILGA	Ilgaz	86.08	311		P	02 38 38.8	-0.2
ILGA				IAmb	IAmb	02 38 51.3	
	comp=Z,18nm,1.1s						
GHAJ	Ghor Haditha	86.08	301	P	P	02 38 39.2	+0.4
	comp=Z,52nm,1.2s						
BR131	Keskin Array S	86.35	309	i P	P	02 38 36.7	-3.5
BR131	Keskin Array S	86.35	309	P	P	02 38 38.2	-2.0
BRTR	Keskin Array B	86.35	309	P	P	02 38 39.4	-0.8
	comp=Z,1.7nm,0.9s,baz=119,slow=4.1,SNR=9.6						
BRTR				LR	LR	03 22 36.4	
	comp=Z,178nm,20.0s,baz=66,slow=39						
	comp=Z,1.7nm,0.9s						
BRTR	Keskin Array B	86.35	309	P	P	02 38 39.8	-0.4
BRTR	Keskin Array B	86.35	309	P	P	02 38 39.8	-0.4
BR104	Keskin Array S	86.35	309	P	P	02 38 38.8	-1.4
	comp=Z,42nmcomp=Z,4.5nm,0.9s						
A36M	Sachs Harbour	86.62	17		P	02 38 41.1	+0.4
HRFI	Mount Harif	86.73	300	P	P	02 38 42.2	+0.1
	comp=Z,43nm,1.3s						
HRFI				pP	pwP	02 38 53.4	-0.4
FIA1	FINESS Array S	86.81	332		P	02 38 41.7	-0.1
FINES	FINESS Array B	86.81	332	P	P	02 38 41.8	0.0
	comp=Z,5.8nm,0.8s,baz=60,slow=4.2,SNR=29						
	comp=Z,5.8nm,0.8s						
FINES	FINESS Array B	86.81	332	P	P	02 38 41.6	-0.2
EIL	Elat	86.86	299	P	P	02 38 41.9	-0.9
	comp=Z,24nm,1.6s						
EIL				pP	pwP	02 38 53.9	-0.5
PPT2	Papeete2	86.96	108	eS	S	02 49 17.0	-5.0
	comp=Z,248nm,23.5s						
PPT2				eLR	LR	03 06 02.1	
	comp=Z,396nm,27.5s						
PPT2				eLR	LR	03 06 07.9	
	comp=Z,520nm,23.0s						
KKUL	Konya-Kulu	86.99	309	P	P	02 38 42.9	-0.4
	comp=Z,29nm,1.4s						
KZIT	Kziot	87.14	301	P	P	02 38 43.8	-0.3
	comp=Z,25nm,1.1s						
KZIT				pP	pwP	02 38 54.4	-1.3
NE56	Odesa	87.14	317	P	P	02 38 41.2	-2.5
VSU	Vasula	87.19	329	ceP	P	02 38 44.7	+1.0
VSU				pmax	pmax		
	comp=Z,49nm,2.5s						
AK09	Malin Array Si	87.43	321	P	P	02 38 43.5	-1.5
AKASG	Malin Array Be	87.45	321	P	P	02 38 44.3	-0.8
	comp=Z,1.3nm,0.5s,baz=68,slow=4.3,SNR=12						
	comp=Z,1.3nm,0.5s						
AKASG	Malin Array Be	87.45	321	i P	P	02 38 44.9	-0.2
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.6s						
AKASG	Malin Array Be	87.45	321	P	P	02 38 44.5	-0.6
AKASG				IAmb	IAmb	02 38 57.4	
	comp=Z,17nm,1.3s						
AKBB	Malin Array Si	87.45	321	ceP	P	02 38 44.5	-0.7
AKBB				pmax	pmax		
	comp=Z,23nm,1.1s						
AKBB	Malin Array Si	87.45	321		P	02 38 46.2	+1.1
AKBB				IAmb	IAmb	02 38 57.1	
	comp=Z,25nm,1.2s						
AKBB	Malin Array Si	87.45	321	P	P	02 38 44.4	-0.7
NOR	Nord	87.46	355	i P	P	02 38 45.8	+1.1
NOR				IAmb	IAmb	02 38 46.4	
	comp=Z,312nm,2.5s						
KIEV	Kiev	87.46	321	P	P	02 38 44.1	-1.1
KIEV				pmax	pmax		
	comp=Z,21nm,1.2s						
KIEV	Kiev	87.46	321	P	P	02 38 44.1	-1.1
KIEV				IAmb	IAmb	02 38 57.1	
	comp=Z,21nm,1.1s						
KIEV	Kiev	87.46	321	P	P	02 38 44.5	-0.7
KIEV	Kiev	87.46	321	P	P	02 38 43.6	-1.6
	comp=Z,66nm,1.2s						
KIEV	Kiev	87.46	321	P	P	02 38 45.0	-0.2
	comp=Z,17nm,1.4s						
MI28	Mi28,Pidlybu	88.37	321	P	P	02 38 47.6	-1.9
LUBAR	Lubar, Ukraine	88.54	320	P	P	02 38 48.2	-2.1
SORM	Soroca	88.54	318	P	P	02 38 48.9	-1.5
	comp=Z,15nm,1.0s						
KIBK	Kibwezi	88.98	267	P	P	02 38 53.5	+0.2
KIBK	Kibwezi	88.98	267	P	P	02 38 53.5	+0.2
KIBK	Kibwezi	88.98	267	P	P	02 38 53.4	+0.1
	comp=Z,27nm,1.4s						
KIBK				pP	pwP	02 39 03.9	-0.7
MAW	Mawson	89.02	200	P	P	02 38 52.0	0.0
	comp=Z,7.9nm,1.4s						
MAW	Mawson	89.02	200	P	P	02 38 51.1	-0.9
	comp=Z,4.0nm,1.0s,baz=49,slow=7.6,SNR=6.0						
MAW				LR	LR	03 20 03.0	
	comp=Z,142nm,19.5s,baz=69,slow=37						
	comp=Z,4.0nm,1.0s						
MAW	Mawson	89.02	200	P	P	02 38 51.3	-0.7
VNDA	Vanda	89.04	173	P	P	02 38 51.3	-0.7
	comp=Z,1.9nm,0.8s,baz=330,slow=5.0,SNR=12						
	comp=Z,1.9nm,0.8s						
VNDA	Vanda	89.04	173	P	P	02 38 51.3	-0.7
VNDA				IAmb	IAmb	02 39 06.4	
	comp=Z,13nm,1.1s						
VNDA	Vanda	89.04	173	P	P	02 38 51.5	-0.5
	comp=Z,9.9nm,1.0s						
RNPP9	Sopachiv	89.34	322	P	P	02 38 53.0	-1.1
RNPP5	Staryi Chortor	89.39	322	P	P	02 38 52.7	-1.6
KMBO	Kilima Mbogo	89.57	269	i P	P	02 38 55.9	-0.3
KMPD	K-Podol'skiy	89.68	319	P	P	02 38 53.7	-2.0
ELL	Elmali	89.77	307	P	P	02 38 56.4	-0.2
ELL	Elmali	89.77	307		P	02 38 56.4	-0.2
ELL				IAmb	IAmb	02 39 08.8	
	comp=Z,14nm,1.0s						
TESR	Tescani	90.04	317	P	P	02 38 56.8	-0.7
	comp=Z,17nm,1.2s						
VRI	Vrincioaia	90.14	317	P	P	02 38 56.4	-1.6
VRI	Vrincioaia	90.14	317	P	P	02 38 58.5	+0.5
SUW	Suwalki	90.25	325	eP	P	02 38 54.5	-3.8
MANT	Manisa	90.46	309		P	02 39 00.1	+0.2
BURAR	Bucovina Array	90.72	318	P	P	02 39 00.1	-0.7
BUR08	Bucovina Ar. S	90.72	318		P	02 39 01.6	+0.8
BUR08				IAmb	IAmb	02 39 35.7	
	comp=Z,24nm,1.4s						
MLR	Muntele Rosu	90.76	316	LR	LR	03 23 45.8	
	comp=Z,378nm,21.2s,baz=0.0,slow=38						
DAG	Danmarks Havn	91.65	352	i P	P	02 39 04.0	-0.3
DAG				IAmb	IAmb	02 39 05.2	
	comp=Z,54nm,1.2s						
DAG	Danmarks Havn	91.65	352	P	P	02 39 04.8	+0.5
	comp=Z,42nm,1.4s						
ARR	Arges	91.68	316	P	P	02 39 05.0	-0.3
	comp=Z,6.0nm,1.3s						
KWP	Kalwaria Pacla	91.78	321	eP	P	02 39 05.8	+0.3
HFS	Hagfors	92.97	333	P	P	02 39 10.1	-0.7
	comp=Z,4.8nm,1.0s,baz=82,slow=4.0,SNR=6.0						
	comp=Z,4.8nm,1.0s						
NEEM	North Greenlan	93.28	359	i P	P	02 39 13.2	+1.0
NEEM				IAmb	IAmb	02 39 13.8	
	comp=Z,23nm,0.9s						
NIE	Niedzica	93.34	321	eP	P	02 39 13.6	+0.9
OJC	Ojcow	93.39	322	eP	P	02 39 12.6	-0.3
OJC	Ojcow	93.39	322	P	P	02 39 14.0	+1.1
	comp=Z,16nm,1.2s						
NB2	NORSAR Subarra	93.68	334	P	P	02 39 13.2	-0.9
	comp=Z,4.5nm,1.1s,baz=61,slow=4.6						
NB2	NORSAR Subarra	93.68	334	P	P	02 39 13.2	-0.9
NOA	NORSAR Array B	93.68	334	P	P	02 39 13.2	-0.9
	comp=Z,1.2nm,0.7s,baz=63,slow=4.7,SNR=6.7						
	comp=Z,1.2nm,0.7s						
DBG	Daneborg	93.93	351	i P	P	02 39 15.7	+0.8
DBG				IAmb	IAmb	02 39 16.6	
	comp=Z,26nm,1.1s						
YKA	Yellowknife Ar	94.39	24	P	P	02 39 17.5	+0.3
	comp=Z,2.3nm,0.7s,baz=301,slow=4.9,SNR=5.2						
	comp=Z,2.3nm,0.7s						
YKA	Yellowknife Ar	94.39	24	P	P	02 39 17.2	0.0
TAOE	Nuku Hiva Isla	94.57	98	eLR	LR	03 09 42.3	
	comp=Z,628nm,26.9s						
MORC	Moravsky Berou	94.91	322	eP	P	02 39 19.9	-0.1
JAVC	Velka Javorina	95.15	321	eP	P	02 39 21.7	+0.6
JAVC	Velka Javorina	95.15	321	P	P	02 39 22.8	+1.7
	comp=Z,20nm,1.1s						
JAVC				pP	pwP	02 39 33.6	+0.9
KSP	Ksiaz	95.27	323	eP	P	02 39 07.7	-14
VRAC	Vranov	95.65	322	eP	P	02 39 23.3	0.0
KRUC	Moravsky	95.86	322	eP	P	02 39 24.1	-0.2
KRUC	Moravsky	95.86	322	P	P	02 39 23.2	-1.1
	comp=Z,7.7nm,1.2s						
KULLO	Kullorsuaq	96.14	1	i P	P	02 39 25.9	+1.0
KULLO				IAmb	IAmb	02 39 26.4	
	comp=Z,41nm,1.1s						
BRG	Berggiesshubel	96.63	324	S	S	02 50 57.0	+8.7
CLL	Collm	97.00	325	eP	sP	02 39 35.0	+0.6
CLL	Collm	97.00	325	esP	sP	02 39 35.0	+0.6
CLL				ex	x	02 47 48.0	
CLL				eS	S	02 50 48.0	-3.4
CLL				eSS	SS	02 57 30.0	+3.0
CLL				ex	x	03 02 30.0	
CLL				eSSSS		03 04 42.0	
CLL				LH		03 17 00.0	
CLL				LV		03 23 00.0	
CLL				AMS	AMS	03 24 00.0	
	comp=N,300nm,18.9s						
CLL				AMS	AMS	03 24 00.0	
	comp=E,300nm,21.2s						
CLL				AMS	AMS	03 37 00.0	
	comp=Z,300nm,17.5s						
GERES	GERESS Array B	97.59	322	P	P	02 39 31.3	-0.9
	comp=Z,0.5nm,0.3s,baz=114,slow=6.2,SNR=5.0						
	comp=Z,0.5nm,0.3s						
GERES	GERESS Array B	97.59	322	P	P	02 39 30.8	-1.5
PDAR	Pinedale Array	107.12	40	PKKP	PKKPdf	02 55 53.1	-1.5
	comp=Z,0.9nm,0.8s,baz=116,slow=5.1,SNR=7.3						
VNA2	Neumayer--Watz	112.26	195	⇑PKKPbc	PKKPbc	02 55 23.0	-3.2
	comp=Z,0.8nm,0.7s						
VNA3	Neumayer Olymp	112.61	194	⇓PKKPbc	PKKPbc	02 55 22.6	-2.5
	comp=Z,1.1nm,0.7s						
VNA1	Neumayer--Stat	112.66	195	⇓PKKPbc	PKKPbc	02 55 21.2	-3.6
	comp=Z,2.5nm,0.9s						
ANMO	Albuquerque	113.22	46	c iPKIKP	PKiKP	02 44 34.9	-1.1
ANMO				pmax	pmax		
	comp=Z,9.0nm,2.5s						
TXAR	Lajitas Array	118.11	50	PKP	PKPdf	02 44 44.3	-1.1
	comp=Z,0.9nm,0.9s,baz=322,slow=0.2,SNR=8.2						
TXAR				PKKPbc	PKKPbc	02 55 04.6	-0.4
	comp=Z,0.4nm,0.8s,baz=145,slow=8.9,SNR=4.7						
TXAR	Lajitas Array	118.11	50		PKPdf	02 44 43.8	-1.6
S39A	Bolivar	120.08	36		PKPdf	02 44 48.8	0.0
R40A	Maddies Statio	120.27	35		PKiKP	02 44 49.3	0.0
TORD	Torodi Ar. Bea	120.91	291	PKP	PKPdf	02 44 49.8	-1.2
	comp=Z,1.5nm,0.9s,baz=301,slow=2.4,SNR=6.5						
TORD	Torodi Ar. Bea	120.91	291		PKPdf	02 44 50.0	-1.0
O49A	Covington	122.94	28		PKiKP	02 44 54.4	-0.1
P51A	Williamsport	124.09	28		PKPdf	02 44 56.6	+0.1
WVT	Waverly	124.28	34	PKIKP	PKPdf	02 44 56.6	-0.4
WVT	Waverly	124.28	34		PKPdf	02 44 56.6	-0.4
S51A	Beattyville	125.31	29		PKPdf	02 44 59.1	+0.2
DBIC	Dimbokro	129.09	287	PKP	PKPdf	02 45 05.8	-0.9
	comp=Z,4.1nm,1.0s,baz=18,slow=3.2,SNR=1.8						
PLCA	Paso Flores	145.28	157	PKPbc	PKPbc	02 45 34.9	-0.6
	comp=Z,8.8nm,1.0s,baz=215,slow=5.9,SNR=7.5						
PLCA	Paso Flores	145.28	157	eP	PKPbc	02 45 31.8	-3.7
DR12	Loma Pena Alta	147.84	29		PKPbc	02 45 44.5	+0.9
OTAV	Otavalo	153.25	70	eP	PKPdf	02 45 43.5	-6.3
ROSC	El Rosal	154.77	57	PKPbc	PKiKP	02 46 01.6	+1.1
	comp=Z,4.8nm,0.4s,baz=133,slow=19,SNR=3.6						
ROSC	El Rosal	154.77	57	PKIKP	PKPdf	02 45 49.4	-2.4
ROSC	El Rosal	154.77	57	PKPdf	PKPdf	02 45 49.4	-2.4
CPUP	Villa Florida	162.76	168	PKPab	PKPab	02 46 46.9	-2.0
	comp=Z,2.0nm,0.9s,baz=141,slow=6.5,SNR=4.1						
CPUP	Villa Florida	162.76	168	PKIKP	PKPdf	02 45 58.2	-2.2
CPUP	Villa Florida	162.76	168	PKPdf	PKPdf	02 45 58.2	-2.2
LPAZ	La Paz	164.07	117	PKP	PKPdf	02 46 01.5	-1.3
	comp=Z,1.9nm,0.9s,baz=37,slow=2.0,SNR=3.9						
LPAZ	La Paz	164.07	117	eP	PKPdf	02 45 57.7	-5.0
BOAV	Boa Vista	166.28	32	eP	PKPdf	02 45 58.5	-5.5
BDFB	Brasilia	171.90	220	PKPab	PKPab	02 47 27.7	-2.1
	comp=Z,4.5nm,1.1s,baz=138,slow=5.5,SNR=3.1						

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*IDC **24** 02:27:27.6±0.7, 9°.13N×126°.47E, h0^{km}, mb4.7/23, mbtmp4.7/24, ML5.3/1, MS4.5/7, Error ellipse: s-maj=29.7km s-min=16.2km az=79.0*

*MAN **24** 02:27:30.0, 9°.35N×126°.84E, h8^{km}, MS2.8*

*NEIC **24** 02:27:33.1±1.8, 9°.35N±0°.08×126°.4E±0°.1, h21^{km}±4^{km}, mb5.0/44, Error ellipse: s-maj=16.9km s-min=11.1km az=80.0*

ISC 24 02:27:35.7±0.4**, 9°.20N**±0°.04×**126°.62E**±0°.06**, h54^{km}, n102,** σ**1^{s}60**/100**, mb4.8**/44**, MS4.6**/7**, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BIPH	Bislig	1.04	194	eP	Pn	02 27 53.7	-0.4
BIPH				i S	Sn	02 28 06.8	-0.8
CDOP	Cateel, Davao	1.42	187	eP	Pn	02 27 57.8	-1.3
CDOP				eS	Sn	02 28 15.8	-0.9
BUKP	Musuan	2.02	230	eP	Pn	02 28 10.6	+3.1
BUKP				eS	Sn	02 28 39.8	+8.2
PLP	Palo	2.54	321	eP	Pn	02 28 13.7	-0.8
PLP				eS	Sn	02 28 49.3	+5.2
LSIP	Lazi, Siquijor	2.95	269	eP	Pn	02 28 21.9	+1.7
LSIP				eS	Sn	02 28 57.9	+3.5
PAGZ	Pagadian	3.47	248	eP	Pn	02 28 31.2	+3.9
PAGZ				eS	Sn	02 29 16.3	+9.1
GUIM	Jordan	4.22	290	eP	Pn	02 28 41.0	+3.5
GUIM				eS	Sn	02 29 28.8	+3.3
BATI	Baumata	19.50	189	P	P	02 31 55.4	-3.2
	10.0nm,0.3s,baz=90,slow=7.1,SNR=2.6						
	114nm,0.7s						
BATI				AML	AML		
DPSS	Saipan	19.67	70	P	P	02 31 59.9	-0.5
DPSS				IAmb	IAmb	02 32 18.3	
	comp=Z,99nm,0.9s						
MTN	Manton Dam	22.35	168	P	P	02 32 31.6	+2.3
MYKOM	Kota Tinggi	23.82	253	P	P	02 32 43.9	0.0
MYKOM				IAmb	IAmb	02 32 47.7	
	comp=Z,51nm,1.0s						
SLVN	Son La	24.97	301	P	P	02 32 52.8	-1.7
SLVN				IAmb	IAmb	02 32 56.6	
	comp=Z,24nm,0.9s						
IPM	Ipoh	25.83	261	P	P	02 33 02.1	-0.2
FITZ	Fitzroy Crossi	27.14	182	P	P	02 33 15.1	+1.2
PMG	Port Moresby	27.56	132	P	P	02 33 20.2	+2.4
PMG				IAmb	IAmb	02 33 22.1	
	comp=Z,25nm,0.9s						
KSRS	Korea Array	28.16	2	P	P	02 33 22.3	-0.5
	comp=Z,5.1nm,0.9s,baz=184,slow=10.0,SNR=3.5						
	comp=Z,5.1nm,0.9s						
KS19	Wonju Array Si	28.20	2	P	P	02 33 21.6	-1.7
RPSI	Rantau Prapat	28.28	259		P	02 33 23.5	-0.8
RPSI				IAmb	IAmb	02 33 28.3	
	comp=Z,55nm,1.0s						
CMAR	Chiang Mai Arr	28.37	292	P	P	02 33 24.8	-0.3
	comp=Z,17nm,0.5s,baz=106,slow=8.7,SNR=1.8						
	comp=Z,17nm,0.5s						
CMAR	Chiang Mai Arr	28.37	292	P	P	02 33 22.5	-2.5
CHTO	Chiang Mai	28.46	293	P	P	02 33 22.8	-3.1
MJB9	Matsu-Tunnel	29.19	19	P	P	02 33 32.0	-0.1
WB0	Warramunga Arr	29.78	165	P	P	02 33 38.4	+0.9
WB0				IAmb	IAmb	02 33 51.5	
	comp=Z,15nm,0.8s						
WRA	Warramunga Arr	29.94	165	P	P	02 33 37.0	-1.8
	comp=Z,4.3nm,0.7s,baz=344,slow=8.4,SNR=1.7						
	comp=Z,4.3nm,0.7s						
WRA	Warramunga Arr	29.94	165	P	P	02 33 40.9	+2.0
GSI	Gunungsitoli	29.94	257	P	P	02 33 37.6	-1.4
WR0	Warramunga Arr	30.00	165	P	P	02 33 40.8	+1.3
WR0				IAmb	IAmb	02 33 53.5	
	comp=Z,16nm,1.0s						
MBWA	Marble Bar	30.92	193	P	P	02 33 47.7	+0.2
MBWA				IAmb	IAmb	02 33 51.9	
	comp=Z,13nm,0.7s						
BJT	Baijiatuau	32.08	345		P	02 33 56.5	-1.1
ASAR	Alice Springs	33.43	168	P	P	02 34 08.5	-1.0
	comp=Z,4.9nm,0.8s,baz=13,slow=10,SNR=4.2						
	comp=Z,4.9nm,0.8s						
ASAR	Alice Springs	33.43	168	P	P	02 34 10.5	+0.9
CTA	Charters Tower	34.93	147	LR	LR	02 49 47.6	
	comp=Z,1µm,19.1s,baz=324,slow=38						
USA0B	Ussuriysk Arra	35.18	7	P	P	02 34 23.5	-0.9
USA0B				IAmb	IAmb	02 34 38.2	
	comp=Z,23nm,0.9s						
USRK	Ussuriysk Ar.	35.18	7	P	P	02 34 24.5	+0.1
	comp=Z,9.5nm,0.8s,baz=215,slow=6.7,SNR=2.7						
	comp=Z,9.5nm,0.8s						
USRK	Ussuriysk Ar.	35.18	7	P	P	02 34 24.8	+0.4
INKA	Innaminka	39.18	160	P	P	02 35 01.5	+2.9
MORW	Morawa	39.39	195	P	P	02 35 01.7	+1.4
MORW				IAmb	IAmb	02 35 05.4	
	comp=Z,24nm,0.8s						
H11N1	WAKE ISLAND Hy	40.27	70	T	T	03 18 45.6	
	baz=262						
H11N2	WAKE ISLAND Hy	40.28	70	T	T	03 18 43.8	
	baz=262						
H11N3	WAKE ISLAND Hy	40.29	70	T	T	03 18 42.9	

	baz=262						
HIA	Hailar	40.35	353	P	P	02 35 07.1	-1.0
HILR	Hailar Array B	40.64	353	P	P	02 35 10.0	-0.5
	comp=Z,5.5nm,0.6s,baz=182,slow=14,SNR=1.8						
HILR				LR	LR	02 53 21.4	
	comp=Z,546nm,18.5s,baz=110,slow=38						
	comp=Z,5.5nm,0.6s						
EIDS	Eidsvold	41.81	146	P	P	02 35 22.9	+2.6
EIDS				IAmb	IAmb	02 35 24.0	
	comp=Z,22nm,0.9s						
SONM	Songino Array	42.14	340	P	P	02 35 21.7	-1.2
	comp=Z,2.6nm,0.6s,baz=160,slow=9.0,SNR=1.8						
	comp=Z,2.6nm,0.6s						
SONM	Songino Array	42.14	340	P	P	02 35 22.4	-0.4
BBOO	Buckleboo	42.73	168	P	P	02 35 29.9	+2.2
BBOO				IAmb	IAmb	02 35 32.1	
	comp=Z,35nm,0.9s						
NWAO	Narrogin (SRO)	42.83	192	LR	LR	02 57 13.5	
	comp=Z,452nm,18.1s,baz=359,slow=42						
ARMA	Armidale	46.14	150	P	P	02 35 58.4	+3.3
ARMA				IAmb	IAmb	02 36 01.4	
	comp=Z,21nm,1.1s						
TLY	Talaya	46.35	340	LR	LR	02 57 02.0	
	comp=Z,688nm,19.3s,baz=140,slow=38						
HYB	Hyderabad	47.38	285	*e*P	P	02 36 03.5	-1.5
HYB				*e*PcP	PcP	02 37 35.0	-0.1
HYB				*e*PP	PP	02 37 54.4	-2.3
HYB				*e*S	S	02 42 55.3	-0.2
HYB				*e*ScS	ScS	02 45 56.4	+1.7
PETK	Petropavlovsk-	50.47	24	P	P	02 36 29.7	+1.6
	comp=Z,4.9nm,0.8s,baz=218,slow=7.1,SNR=2.3						
	comp=Z,4.9nm,0.8s						
MK31	Makanchi Array	53.09	323	P	P	02 36 46.6	-1.1
MK31				IAmb	IAmb	02 36 47.6	
	comp=Z,13nm,0.8s						
MKAR	Makanchi Array	53.09	323	P	P	02 36 46.9	-0.8
	comp=Z,13nm,0.7s,baz=127,slow=7.9,SNR=5.5						
	comp=Z,13nm,0.7s						
MKAR	Makanchi Array	53.09	323	P	P	02 36 47.5	-0.2
PDGK	Podgornoye	53.22	318	P	P	02 36 46.7	-2.2
MAKZ	Makanchi	53.28	323	P	P	02 36 47.2	-1.9
MAKZ				IAmb	IAmb	02 36 49.0	
	comp=Z,18nm,0.8s						
PRZ	Przheval'sk	53.60	317	P	P	02 36 49.5	-2.3
KDJ	Kajisay	54.29	316	P	P	02 36 54.8	-2.0
KDJ				IAmb	IAmb	02 36 57.0	
	comp=Z,15nm,0.8s						
NIL	Nilore	54.62	305		P	02 36 57.7	-1.5
ZALV	Zalesovo Beam	55.73	332	P	P	02 37 04.5	-2.1
	comp=Z,6.7nm,0.8s,baz=115,slow=7.0,SNR=3.7						
	comp=Z,6.7nm,0.8s						
ZALV	Zalesovo Beam	55.73	332	P	P	02 37 05.4	-1.3
KURK	Kurchatov	57.14	326	P	P	02 37 15.8	-1.0
KURBB	Kurchatov Arra	57.15	326	P	P	02 37 15.5	-1.4
	comp=Z,19nm,0.9s,baz=125,slow=6.6,SNR=6.3						
	comp=Z,19nm,0.9s						
KK31	Karatay Array	59.25	315		P	02 37 30.5	-1.2
KK31				IAmb	IAmb	02 37 31.4	
	comp=Z,19nm,0.8s						
BVAR	Borovoye Array	62.74	326	P	P	02 37 54.3	-0.9
	comp=Z,15nm,0.8s,baz=126,slow=8.3,SNR=6.5						
	comp=Z,15nm,0.8s						
NRIK	Noril'sk	65.13	346	P	P	02 38 10.4	-0.2
	comp=Z,9.9nm,0.6s,baz=132,slow=5.2,SNR=4.9						
	comp=Z,9.9nm,0.6s						
NRIK	Noril'sk	65.13	346	P	P	02 38 11.0	+0.4
RTZ	Ruatahuna	66.75	139	P	P	02 38 23.5	+1.9
L18K	Granite Mounta	75.71	28	P	P	02 39 16.0	+0.8
L18K				IAmb	IAmb	02 39 34.0	
	comp=Z,11nm,1.1s						
KBZ	Khabaz	79.19	313	P	P	02 39 34.3	-0.7
	comp=Z,7.0nm,1.0s,baz=96,slow=4.2,SNR=3.5						
	comp=Z,7.0nm,1.0s						
MCK	McKinley	79.35	27	P	P	02 39 36.8	+1.2
MCK				IAmb	IAmb	02 39 40.6	
	comp=Z,30nm,1.2s						
ILAR	Eielson Array	80.25	26	P	P	02 39 40.1	-0.2
	comp=Z,1.1nm,0.6s,baz=261,slow=5.9,SNR=3.0						
	comp=Z,1.1nm,0.6s						
ILAR	Eielson Array	80.25	26	P	P	02 39 41.8	+1.4
KOPT	Kop Dagi	81.20	309	P	P	02 39 46.1	-0.2
KOPT				IAmb	IAmb	02 40 00.5	
	comp=Z,26nm,1.2s						
SCRK	Sand Creek	81.54	26	P	P	02 39 48.9	+1.5
DAWY	Dawson	83.55	26	P	P	02 39 59.6	+1.8
DAWY				IAmb	IAmb	02 40 13.6	
	comp=Z,15nm,1.1s						
L29M	L29M	84.24	27		P	02 40 03.5	+2.1
J30M	Hart River	84.78	25		P	02 40 05.9	+1.7
J30M				IAmb	IAmb	02 40 13.9	
	comp=Z,11nm,1.1s						
SPITS	Spitsbergen Ar	85.13	349	P	P	02 40 05.4	-0.1
	comp=Z,23nm,0.9s,baz=98,slow=10,SNR=3.7						
	comp=Z,23nm,0.9s						
ARCES	ARCESS Array B	85.31	340	P	P	02 40 05.8	-0.8
	comp=Z,6.1nm,0.6s,baz=80,slow=5.8,SNR=4.9						
ARCES				LR	LR	03 21 33.3	
	comp=Z,379nm,18.4s,baz=79,slow=38						
	comp=Z,6.1nm,0.6s						
ARCES	ARCESS Array B	85.31	340	P	P	02 40 06.1	-0.4
BRTR	Keskin Array B	86.48	309	P	P	02 40 13.3	+0.2
	comp=Z,1.9nm,0.8s,baz=91,slow=5.2,SNR=4.6						
	comp=Z,1.9nm,0.8s						
BRTR	Keskin Array B	86.48	309	P	P	02 40 12.0	-1.1
FINES	FINESS Array B	86.99	332	P	P	02 40 15.0	0.0
	comp=Z,2.6nm,0.6s,baz=60,slow=5.6,SNR=2.1						
	comp=Z,2.6nm,0.6s						
FINES	FINESS Array B	86.99	332	P	P	02 40 14.5	-0.4
AKASG	Malin Array Be	87.61	321	P	P	02 40 16.4	-1.7
	comp=Z,1.9nm,0.7s,baz=69,slow=4.8,SNR=2.7						
	comp=Z,1.9nm,0.7s						
AKASG	Malin Array Be	87.61	321	P	P	02 40 17.3	-0.9
BBB	Bella Bella	92.00	36	LR	LR	03 18 04.3	
	comp=Z,80nm,19.9s,baz=246,slow=33						
HFS	Hagfors	93.15	333	P	P	02 40 42.7	-1.1
	comp=Z,2.5nm,0.9s,baz=106,slow=7.7,SNR=1.9						
	comp=Z,2.5nm,0.9s						
NOA	NORSAR Array B	93.87	334	P	P	02 40 45.6	-1.6
	comp=Z,1.1nm,0.8s,baz=66,slow=4.6,SNR=2.1						
	comp=Z,1.1nm,0.8s						
YKA	Yellowknife Ar	94.59	24	P	P	02 40 50.9	+0.5
	comp=Z,2.9nm,0.7s,baz=300,slow=4.7,SNR=4.9						
	comp=Z,2.9nm,0.7s						
VRAC	Vranov	95.81	322	LR	LR	03 29 32.8	
	comp=Z,241nm,18.7s,baz=86,slow=39						
NVAR	Mina Array Bea	103.32	47	PKKP	PKKPdf	02 57 35.3	+1.7
	comp=Z,0.9nm,0.9s,baz=140,slow=5.0,SNR=4.1						
PDAR	Pinedale Array	107.29	40	PKKP	PKKPdf	02 57 25.9	-0.5
	comp=Z,0.4nm,0.7s,baz=134,slow=5.8,SNR=5.8						
TXAR	Lajitas Array	118.26	50	PKKPbc	PKKPbc	02 56 36.9	+0.2
	comp=Z,0.4nm,0.8s,baz=112,slow=5.6,SNR=3.8						
S39A	Bolivar	120.25	36		PKiKP	02 46 22.1	+0.7
R40A	Maddies Statio	120.45	35		PKiKP	02 46 22.1	+0.4
TORD	Torodi Ar. Bea	120.98	291	PKP	PKPdf	02 46 22.4	-0.8
	comp=Z,1.6nm,0.8s,baz=41,slow=1.6,SNR=3.6						
T42A	Van Buren	121.99	35		PKiKP	02 46 25.2	+0.5
WVT	Waverly	124.46	34		PKiKP	02 46 30.0	+0.3
PLCA	Paso Flores	145.09	157	PKPbc	PKPbc	02 47 06.7	-0.3
	comp=Z,3.6nm,0.8s,baz=272,slow=2.0,SNR=1.4						
DR12	Loma Pena Alta	148.03	30	PKPbc	PKiKP	02 47 17.5	-0.5

THE ***24*** *02:35:55.4, 41°N±8°×1°9E±1°3, h33^{km}±16^{km}, M3.1/21, MLh3.1/21*
TIR ***24*** *02:35:56.3, 41°.04N×19°.89E, h17^{km}, Ml3.0/5*
SKO ***24*** *02:35:57.4, 41°.01N×19°.80E, h10^{km}, ML2.8*
BEO ***24*** *02:35:57.4±0.3, 40°.97N×19°.69E, h20^{km}±4^{km}, ML3.0/24*
PRU ***24*** *02:36:05.4, 41°.13N×18°.67E, h10^{km}*
ISC 24 02:35:56.8±1.0, **41°.03N**±0°.02×**19°.75E**±0°.02, **h17**^{km}±7^{km}, **n119, σ1^s.33**/171, **4C-8D, Albania**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TIR	Tirane	0.34	15	P	Pg	02 36 03.6	-0.3
TIR				S	Sg	02 36 08.9	+0.2
TIR				AML	AML	02 36 11.7	
	3.7nm,0.3s						
TIR				AML	AML	02 36 13.6	
	3.5nm,0.3s						
VLO	Vlora	0.59	199	P	Pg	02 36 08.4	-0.1
VLO				S	Sb	02 36 17.2	+0.6
VLO				AML	AML	02 36 21.2	
	16nm,0.3s						
VLO				AML	AML	02 36 21.5	
	9.7nm,0.3s						
VLO	Vlora	0.59	199	P	Pg	02 36 08.1	-0.3
VLO				S	Sb	02 36 17.3	+0.6
VLO				AML	AML		
OHR	Ohrid	0.80	83	*i* Pg	Pb	02 36 10.6	-1.7
OHR				*i* Sg	Sb	02 36 22.1	-0.9
OHR				*e*Lg	Lg	02 36 22.6	
	comp=E,412nm,0.5s						
OHR				*e*Lg	Lg	02 36 23.3	
	comp=N,320nm,0.9s						
PHP	Peshkopia	0.84	38	P	Pb	02 36 11.0	-2.1
PHP				S	Sb	02 36 23.7	-0.4
PHP				AML	AML	02 36 28.3	
	comp=N,2.8nm,0.3s						
PHP	Peshkopia	0.84	38	P	Pb	02 36 10.8	-2.3
KBN	Korca	0.89	117	P	Pb	02 36 11.3	-2.5
KBN				S	Sb	02 36 22.8	-2.6
KBN				AML	AML	02 36 25.1	
	comp=N,5.6nm,0.4s						
SRN	Sarande	1.16	170	P	Pb	02 36 18.6	+0.2
SRN				S	Sg	02 36 34.6	+0.2
SRN				AML	AML	02 36 39.0	
	comp=N,1.3nm,0.7s						
KEK	Kerkira	1.31	178	P	Pn	02 36 18.3	-2.0
KEK				S	Sn	02 36 36.3	-1.2
KEK				AML	AML		
PDG	Podgorica	1.45	345	P	Pb	02 36 23.8	+0.4
PDG	Podgorica	1.45	345	*e*Pg	Pb	02 36 23.8	+0.4
PDG				*e*Sg	Sg	02 36 46.0	+2.3
PDG	Podgorica	1.45	345	⇓P	Pb	02 36 24.1	+0.7
PDG				⇓S	Sg	02 36 45.2	+1.5
PDG	Podgorica	1.45	345	*e*Pn	Pb	02 36 23.4	0.0
IGT	Igoumenitsa	1.56	163	P	Pb	02 36 25.2	0.0
IGT	Igoumenitsa	1.56	163	P	Pn	02 36 24.0	+0.2
IGT				S	Sb	02 36 44.4	-0.2
IGT				AML	AML		
IGT	Igoumenitsa	1.56	163	*e*Pg	Pn	02 36 24.0	+0.2
IGT	Igoumenitsa	1.56	163	*e*Pg	Pb	02 36 25.4	+0.2
IGT				*e*Sg	Sg	02 36 46.7	-0.3
SKO	Skopje	1.58	53	*i* Pg	Pb	02 36 25.5	-0.2
SKO				*i* Sg	Sg	02 36 48.0	+0.1
JAN	Janina	1.61	148	P	Pn	02 36 25.2	+0.7
JAN				AML	AML		
KPRO	Kipourio	1.63	130	P	Pn	02 36 25.4	+0.5
KPRO				AML	AML		
KZN	Kozani	1.70	114	P	Pn	02 36 25.9	+0.1
KZN				AML	AML		
PRMD	Pramanda	1.82	145	P	Pn	02 36 28.6	+1.2
PRMD				AML	AML		
TREB	Trebinje	1.99	329	*e*Pn	Pn	02 36 29.6	-0.1
TREB	Trebinje	1.99	329	*e*Pn	Pn	02 36 29.6	-0.1
GRG	Griva	2.01	91	P	Pn	02 36 30.0	0.0
GRG				AML	AML		
DBRK	Dubrovnik	2.03	325	*i* Pn	Pn	02 36 30.3	0.0
DBRK				Sn	Sn	02 36 56.8	+1.5
TETR	Tetrakomo, Epi	2.05	145	P	Pn	02 36 31.9	+1.3
TETR				AML	AML		
VAY	Valandovo	2.15	81	*i* Pn	Pn	02 36 32.7	+0.8
VAY				*i* Sn	Sn	02 36 59.8	+1.6
VAY				*e*Lg	Lg	02 37 00.5	
	comp=E,100nm,1.1s						
VAY				*e*Lg	Lg	02 37 05.9	
	comp=N,114nm,0.9s						
SJES	Sjenica	2.24	4	*e*Pn	Pn	02 36 33.4	+0.1
SJES				*e*Sn	Sb	02 37 02.7	-1.7
SJES	Sjenica	2.24	4	*e*Pn	Pn	02 36 35.1	+1.8
THL	Klokotos Trika	2.27	129	P	Pn	02 36 34.6	+1.1
THL				AML	AML		
TSLK	Tsoukalades, L	2.31	162	P	Pn	02 36 33.5	-0.6
TSLK				AML	AML		
TYRN	Tyrnavos	2.31	124	P	Pn	02 36 34.2	+0.2
TYRN				AML	AML		
KLINJ	Klinje	2.31	338	*e*Pn	Pb	02 36 37.0	-1.1
MATE	Matera	2.34	262	⇑P	Pb	02 36 38.6	+0.1
BARS	Barje	2.36	40	*e*Pn	Pn	02 36 36.5	+1.6
BARS				*e*Sn	Sb	02 37 06.3	-1.6
AMPL	Ampelaki	2.38	151	P	Pn	02 36 35.2	+0.1
AMPL				AML	AML		
KNT	Kendrikon	2.39	86	P	Pb	02 36 39.0	-0.3
KNT				AML	AML		
STON	Ston	2.40	321	*e*Pn	Pn	02 36 35.1	-0.2
STON				Sn	Sn	02 37 04.8	+0.6
STON	Ston	2.40	321	*e*Pn	Pn	02 36 35.3	0.0
STON				*e*Sn	Sn	02 37 05.1	+0.9
SELS	Selova	2.42	25	*e*Pn	Pn	02 36 37.7	+2.0
SELS				*e*Sn	Sn	02 37 06.2	+1.3
NYDR	Nydri-Lefkada	2.42	162	P	Pn	02 36 34.9	-0.7
NYDR				AML	AML		
PEHC	Pehcevo	2.49	71	*i* Pn	Pn	02 36 37.9	+1.2
EVGI	Lefkada island	2.50	163	P	Pn	02 36 36.4	-0.4
EVGI				AML	AML		
BOSS	Bosilegrad	2.52	53	*e*Pn	Pn	02 36 37.4	+0.4
IVAS	Ivanjica	2.57	7	*e*Pn	Pn	02 36 38.5	+0.8
IVAS				*e*Sn	Sn	02 37 11.1	+2.5
EVR	Evrytania	2.63	142	P	Pn	02 36 40.0	+1.3
EVR				AML	AML		
PDO	Prodromos	2.66	155	P	Pn	02 36 38.6	-0.4
PDO				AML	AML		
GOCS	Kraljevo Serbi	2.67	18	*e*Pn	Pn	02 36 41.4	+2.2
GOCS				*e*Sn	Sn	02 37 12.5	+1.3
SOH	Sokhos	2.74	93	P	Pn	02 36 39.8	-0.3
SOH				AML	AML		
LSTV	Lastovo	2.75	310	*e*Pn	Pn	02 36 39.7	-0.5
LSTV				Sn	Sn	02 37 12.5	-0.5
PVO	Paravola	2.77	150	P	Pn	02 36 40.5	+0.1
AGG	Agios Georgios	2.82	134	P	Pn	02 36 41.3	+0.2
AGG				AML	AML		
BBLS	Lazi&#263i	2.85	355	*e*Pn	Pn	02 36 42.9	+1.3
BBLS				*e*Sn	Sn	02 37 17.0	+1.4
BBLS	Lazi&#263i	2.85	355	*e*Pn	Pn	02 36 42.4	+0.8
PLG	Polygyros	2.89	102	P	Pn	02 36 42.4	+0.3
PLEV	Plevrona-Mesol	2.91	153	P	Pn	02 36 42.0	-0.3
SRS	Serrai	2.91	87	P	Pn	02 36 42.3	-0.1
GRUS	Gruza	2.95	14	*e*Pn	Pn	02 36 44.4	+1.5
BOVS	Bovan	2.99	28	*e*Pn	Pn	02 36 44.9	+1.5
BOVS	Bovan	2.99	28	⇑P	Pn	02 36 45.0	+1.6
MAKA	Makarska	3.04	319	*e*Pn	Pn	02 36 44.3	+0.2
MAKA				Sn	Sn	02 37 20.8	+0.8
VTS	Vitosha	3.06	57	P	Pn	02 36 44.2	-0.3
VTS	Vitosha	3.06	57	*e*Pn	Pn	02 36 44.7	+0.2
VTS				*e*Sn	Sn	02 37 21.1	+0.4
MMB	Musomishta	3.06	79	P	Pn	02 36 44.2	-0.3
DIVS	Divibare	3.08	3	*e*Pn	Pn	02 36 45.6	+0.9
DIVS				*e*Sn	Sn	02 37 22.3	+1.1
EFP	Efpalio	3.08	147	P	Pn	02 36 44.0	-0.7
ZAPS	Zavoj	3.11	43	*e*Pn	Pn	02 36 46.6	+1.5
ZAPS				*e*Sn	Sn	02 37 23.7	+1.8
NVR	Nevrokopi	3.12	83	P	Pn	02 36 44.9	-0.4
RICI	Ricice	3.14	323	*e*Pn	Pn	02 36 45.5	0.0
RICI				Sn	Sn	02 37 24.1	+1.5
TRUS	Trudelj	3.23	8	*e*Pn	Pn	02 36 48.2	+1.4
TRUS				*e*Sn	Sn	02 37 26.2	+1.3
HVAR	Hvar	3.26	312	*e*Pn	Pn	02 36 46.9	-0.3
HVAR				Sn	Sn	02 37 25.5	-0.2
ZAGS	Zajecar	3.34	33	*e*Pn	Pn	02 36 49.9	+1.6
ZAGS				*e*Sn	Sn	02 37 28.4	+0.9
BLKB	Belogradchik	3.38	39	*e*Sn	Sn	02 37 29.4	+0.7
TEKS	Tekeris	3.53	357	*e*Pn	Pn	02 36 51.8	+0.9
TEKS	Tekeris	3.53	357	*e*Pn	Pn	02 36 50.9	0.0
KUBS	Kucevo	3.67	22	*e*Pn	Pn	02 36 53.1	+0.3
AVAS	Avala Beograd	3.71	8	*e*Sn	Sn	02 37 37.0	+0.2
KIJV	Kijevo	3.87	321	*e*Pn	Pn	02 36 56.2	+0.6
KIJV				Sn	Sn	02 37 42.2	+1.6
MDVR	Moldovita	4.02	20	*e*Pn	Pn	02 36 58.9	+1.2
MDVR				*e*Sn	Sn	02 37 45.5	+1.0
MDVR	Moldovita	4.02	20	⇓P	Pn	02 36 59.0	+1.3
MORI	Morici	4.12	315	*e*Pn	Pn	02 36 59.3	+0.3
MORI				Sn	Sn	02 37 46.7	-0.1
FRGS	Fruska Gora	4.13	1	*e*Pn	Pn	02 36 59.5	+0.3
FRGS				*e*Sn	Sn	02 37 46.9	-0.2
FRGS	Fruska Gora	4.13	1	*e*Pn	Pn	02 36 58.3	-0.9
BLY	Banja Luka	4.17	334	*e*Pn	Pn	02 37 00.3	+0.6
BLY				*e*Sn	Sn	02 37 49.3	+1.3
BLY	Banja Luka	4.17	334	*e*Pn	Pn	02 37 00.0	+0.3
HERR	Herculane	4.32	26	⇓P	Pn	02 37 03.0	+1.2
DUGI	Dugi Otok	4.56	312	*e*Pn	Pn	02 37 05.4	+0.3
DUGI				Sn	Sn	02 37 56.9	-0.8
VIRC	Vir	4.76	315	*e*Pn	Pn	02 37 08.1	+0.4
VIRC				Sn	Sn	02 38 02.5	+0.1
BZS	Buzias	4.79	16	*e*Pn	Pn	02 37 09.6	+1.4
BZS				*e*Sn	Sn	02 38 02.2	-1.0
BZS	Buzias	4.79	16	⇓P	Pn	02 37 09.1	+1.0
GZR	Gura Zlata	4.90	26	*e*Pn	Pn	02 37 11.3	+1.6
GZR	Gura Zlata	4.90	26	⇓P	Pn	02 37 11.0	+1.3
AQU	L'Aquila	4.93	288	*e*Pn	Pn	02 37 11.6	+1.4
SURR	Surduc	5.04	19	⇓P	Pn	02 37 13.0	+1.5
NVLJ	Novalja	5.04	316	*e*Pn	Pn	02 37 11.5	0.0
NVLJ				Sn	Sn	02 38 08.9	-0.4
MORH	Mrgy, Hungar	5.25	352	⇑P	Pn	02 37 16.4	+1.9
MORH	Mrgy, Hungar	5.25	352	*e*Pn	Pn	02 37 13.8	-0.7
SIRR	Siria	5.42	14	*e*Pn	Pn	02 37 18.2	+1.3
SIRR				*e*Sn	Sn	02 38 18.4	-0.5
SIRR	Siria	5.42	14	⇑P	Pn	02 37 19.2	+2.4
BOJS	Bojanci	5.55	325	*e*Pn	Pn	02 37 18.6	0.0
BOJS				*e*Sn	Sn	02 38 21.0	-1.0
RIY	Rijeka	5.77	320	*e*Pn	Pn	02 37 21.7	+0.1
RIY				*e*Sn	Sn	02 38 25.2	-2.2
VOIR		5.87	40	⇓P	Pn	02 37 25.0	+1.9
CEY	Cerknica	6.10	322	*e*Pn	Pn	02 37 26.4	+0.2
CEY				*e*Sn	Sn	02 38 33.2	-2.4
SKDS	Skadanscina	6.16	319	*e*Pn	Pn	02 37 26.1	-0.9
SKDS				*e*Sn	Sn	02 38 34.9	-2.1
LJU	Ljubljana	6.29	325	*e*Pn	Pn	02 37 28.6	-0.2
MLR	Muntele Rosu	6.36	43	*e*Pn	Pn	02 37 30.3	+0.5
SOKA	Soboth	6.60	330	*e*Pn	Pn	02 37 33.9	+0.8
	comp=N,0.6nm,0.2s						
OBKA	Obir	6.65	327	*e*Pn	Pn	02 37 35.2	+1.4
	comp=N,1.0nm,0.2s						
OBKA				*e*Sn	Sn	02 38 51.2	+2.0
	comp=N,4.0nm,0.6s						
ABTA	Abfaltersbach	7.75	320	*e*Pn	Pn	02 37 48.6	-0.3
	comp=N,0.5nm,0.2s						
ABTA				*e*Sn	Sn	02 39 17.7	+1.5
	comp=N,1.4nm,0.5s						
MOA	Molln	7.87	332	*e*Pn	Pn	02 37 52.7	+2.3
	comp=N,0.6nm,0.2s						
KOLS	Kolonicke sedl	8.11	12	*e*SN	Sn	02 39 26.7	+1.7
LESA	Schwarzleotal	8.16	324	*e*Pn	Pn	02 37 56.2	+1.6
	comp=N,1.1nm,0.3s						
WTTA	Wattenberg	8.54	320	*e*Pn	Pn	02 38 00.8	+1.0
	comp=N,3.0nm,0.3s						
WTTA				*e*Sn	Sn	02 39 36.6	+0.9
	comp=N,2.2nm,0.4s						
WATA	Walderalm	8.61	320	*e*Pn	Pn	02 38 01.9	+1.1
	comp=N,2.1nm,0.4s						
WATA				*e*Sn	Sn	02 39 40.5	+2.9
	comp=N,1.4nm,0.3s						
CKRC	Cesky Krumlov	8.69	336	*e*SN	Sn	02 39 35.7	-3.7
SQTA	Sankt Quirin	8.72	318	*e*Pn	Pn	02 38 03.6	+1.4
	comp=N,1.2nm,0.3s						
MOTA	Moosalm	8.85	318	*i* Pn	Pn	02 38 03.2	-0.9
	comp=N,0.8nm,0.3s						
MOTA				*e*Sn	Sn	02 39 44.4	+0.9
	comp=N,0.9nm,0.3s						
KHC	Kasperske Hory	9.20	334	*e*PN	Pn	02 38 05.5	-3.3
KHC				*e*SN	Sn	02 39 44.4	-7.5

TAP ***24*** *02:36:58.1, 23°.99N×122°.61E, h20^{km}±1^{km}, ML2.7, D*
JMA ***24*** *02:36:59.4±0.2, 24°N±1°×122°.5E±0°.5, h23^{km}±3^{km}, MV2.0/11, NW OFF ISHIGAKIJIMA IS*
ISC 24 02:36:59.0±1.1, **24°.00N**±0°.04×**122°.57E**±0°.02, **h24**^{km}±11^{km}, **n40, σ0^s.74**/58, **Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EOS4	EOS4	0.26	298	*e*P	Pn	02 37 06.0	-1.0
EOS3	EOS3	0.37	321	P	Pb	02 37 07.1	+0.2
EOS3				*e*S	Sb	02 37 12.6	+0.3
EOS2	EOS2	0.52	324	*e*P	Pn	02 37 10.1	-0.7
EOS2				S	Sn	02 37 18.1	-0.7
JYNG	Yonagunijimaku	0.57	37	*e*P	Pb	02 37 10.4	+0.1
JYNG				S	Sb	02 37 17.9	-0.2
YOJ	Yonaguni jima	0.61	41	P	Pn	02 37 11.5	-0.7
YOJ				*i* S	Sb	02 37 19.2	-0.1
YOJ	Yonaguni jima	0.61	41	P	Pb	02 37 11.2	0.0
YOJ				S	Sb	02 37 19.0	-0.4
EWUT	Wuta	0.85	302	*e*P	Pb	02 37 14.5	-0.6
TWD	Chiawan	0.89	275	P	Pn	02 37 16.2	+0.2
TWC	Suao	0.90	313	*i* P	Pb	02 37 15.0	-0.9
NACB	Ninganchiao	0.91	281	*e*P	Pb	02 37 15.4	-0.7
ETM	Tongmen	0.98	268	*e*P	Pb	02 37 16.3	-1.1
NDS	Dongshan	1.00	309	*e*P	Pb	02 37 17.2	-0.5
ETLH	Xiulin Townshi	1.01	282	*e*P	Pb	02 37 17.1	-0.8
LXIB	Xiulin Townshi	1.06	271	*e*P	Pb	02 37 17.7	-1.0
LATG	Datong	1.09	300	*e*P	Pn	02 37 17.2	-1.6
IRIF	Iriomote-Funau	1.11	72	P	Pb	02 37 19.9	+0.3
IRIF				S	Sn	02 37 33.8	+0.2
WARBT	Fenglin Townsh	1.12	256	*e*P	Pb	02 37 20.0	+0.3
HATJ	Hateruma jima	1.13	87	*e*P	Pb	02 37 20.1	+0.2
HATJ				*e*S	Sn	02 37 34.4	+0.3
NDT	Datong Townshi	1.14	302	*e*P	Pb	02 37 20.4	+0.4
NDT				*e*S	Sn	02 37 34.3	+0.1
HGSD	Ruisui	1.16	245	*e*P	Pn	02 37 20.1	+0.3
HGSD				*e*S	Sn	02 37 35.9	+1.0
NNSB	Datong	1.16	292	*e*P	Pb	02 37 20.1	-0.4
FUSB	Fushanzhiwuyua	1.17	311	*e*P	Pb	02 37 21.2	+0.5
FUSB				S	Sn	02 37 36.7	+1.5
TIPB	Shuangxi	1.18	325	P	Pb	02 37 21.4	+0.6
TIPB				*i* S	Sn	02 37 36.0	+0.6
WHF	Hehuan Shan	1.20	277	P	Pn	02 37 20.5	-0.2
FUSS	Fushou	1.23	282	*e*P	Pn	02 37 21.2	+0.3
EHY	Hungye	1.24	247	*e*P	Pn	02 37 19.9	-0.9
NWLT	Wulai	1.24	309	*e*P	Pb	02 37 22.2	+0.4
NWLT				*i* S	Sb	02 37 38.2	+0.8
SXI1	Grass Mountain	1.26	330	*e*P	Pb	02 37 21.7	-0.4
SXI1				S	Sb	02 37 39.5	+1.5
OWD	Renai	1.27	268	*e*P	Pn	02 37 21.0	-0.4
YHNB	Yeheng	1.28	302	*i* P	Pb	02 37 22.2	-0.2
YHNB				*e*S	Sb	02 37 38.9	+0.5
NSK	Sanguang	1.29	302	*e*P	Pb	02 37 22.3	-0.4
YULB	Yu-li	1.31	243	*e*P	Pn	02 37 21.1	-0.7
TDCB	Techi	1.31	281	*e*P	Pb	02 37 22.6	-0.4
EYUL	Yuli	1.32	241	*e*P	Pn	02 37 21.3	-0.5
VWDT	VWDT	1.33	260	*e*P	Pn	02 37 21.9	-0.2
TWF1	Yuli	1.33	241	*e*P	Pn	02 37 21.3	-0.7
JKRS	Kuro-shima	1.34	79	*e*P	Pb	02 37 23.5	+0.1
JKRS				*e*S	Sb	02 37 40.8	+0.7
JIJ	Ishigaki jima	1.48	75	*e*P	Pb	02 37 25.2	-0.7
JIJ				S	Sb	02 37 44.4	0.0
TPUB	Ta-pu	1.91	249	*e*P	Pn	02 37 31.6	+1.6
TPUB				*e*S	Sb	02 37 56.2	-0.4
JTJ	Tarama	2.05	71	*e*P	Pn	02 37 32.5	+0.6
JTJ				S	Sb	02 37 58.6	-2.0

SDD ***24*** *02:42:39.4±2.9, 19°.68N×71°.14W, h24^{km}±5^{km}, MD2.8, ML2.4, MW2.7, Presumed earthquake*
OSPL ***24*** *02:42:42.3±0.5, 19°.68N×71°.16W, h0^{km}±4^{km}, ML2.1, Presumed earthquake*
ISC 24 02:42:41.0±1.0, **19°.70N**±0°.03×**71°.15W**±0°.04, **h17**^{km}±4^{km}, **n17, σ0^s.85**/31, **16C-5D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MADR	Mao Valverde	0.14	161	⇓*i*P	Pb	02 42 45.3	+0.1
MADR				⇑*i*S	Sg	02 42 50.0	+2.3
MADR				IAML		02 42 50.4	
	comp=N,2µm,0.4s						
LOPP1	Punta Rusia, P	0.16	344	*i* P	Pb	02 42 45.6	0.0
LOPP1				*e*S	Sg	02 42 48.0	-0.2
LOPP1				IAML		02 42 50.4	
	comp=Z,273nm,0.2s						
LUDR	Luperon	0.27	44	⇓*i*P	Pg	02 42 46.5	-0.5
SC01	Santiago de lo	0.48	124	*i* P	Pg	02 42 50.5	-0.3
SC01				*e*S	Sb	02 42 57.2	-0.7
SC01				IAML		02 42 58.7	
	comp=Z,41nm,0.5s						
SC01	Santiago de lo	0.48	124	⇑*i*P	Pg	02 42 50.5	-0.3
SC01				⇑*i*S	Sb	02 42 59.3	+1.4
SC01				IAML		02 43 00.6	
	comp=N,73nm,2.2s						
REDR	Restauracion	0.58	203	⇑*i*P	Pn	02 42 54.0	-0.5
REDR				⇑*i*S	Sn	02 43 03.7	+0.2
REDR				IAML		02 43 04.6	
	comp=N,314nm,0.1s						
SDDR	Presa de Saban	0.72	190	*i* P	Pg	02 42 54.7	-0.5
SDDR				*e*S	Sg	02 43 04.2	-0.7
SDDR				IAML		02 43 06.0	
	comp=Z,77nm,0.4s						
SDDR	Presa de Saban	0.72	190	⇑*i*P	Pg	02 42 54.7	-0.5
SDDR				⇑*i*S	Sb	02 43 05.7	+0.8
SDDR				IAML		02 43 06.0	
	comp=N,128nm,0.3s						

ABDR	Alto Bandera	1.01	151	⇑iP	Pg	02 42 58.9	-1.9
ABDR				IAML		02 43 13.0	
	comp=N,33nm,0.5s						
ABDR				⇑iS	Sb	02 43 13.3	-0.1
LONE3	El Aguacate, B	1.13	195	i P	Pb	02 43 02.0	-0.1
LONE3				eS	Sg	02 43 16.9	-0.7
LONE3				IAML		02 43 20.2	
	comp=Z,28nm,2.0s						
DR08	Loma La Naviza	1.29	124	⇓iP	Pn	02 43 03.3	-1.1
DR08				⇑iS	Sn	02 43 21.7	+0.4
DR08				IAML		02 43 25.6	
	comp=N,612nm,0.1s						
JIDR	Jimani	1.37	209	⇑iP	Pn	02 43 05.9	+0.5
JIDR				⇑iS	Sg	02 43 26.7	+1.3
JIDR				IAML		02 43 26.7	
	comp=N,24nm,0.5s						
LODU1	El Espartillar	1.37	193	i P	Pg	02 43 06.7	-0.8
LODU1				IAML		02 43 28.9	
	comp=Z,23nm,0.9s						
BANI	BANI	1.50	150	⇑iP	Pn	02 43 07.8	+0.5
BANI				⇓iS	Sg	02 43 29.6	+0.1
BANI				IAML		02 43 31.7	
	comp=N,41nm,1.4s						
PODR	Polo	1.53	185	i P	Pb	02 43 08.8	-0.2
PODR				IAML		02 43 34.4	
	comp=Z,892nm,0.2s						
PODR	Polo	1.53	185	⇑iP	Pb	02 43 09.1	+0.1
PODR				⇑iS	Sg	02 43 31.5	+1.0
PODR				IAML		02 43 38.4	
	comp=N,36nm,1.2s						
HATOM	Hato Mayor del	1.90	118	⇑iP	Pn	02 43 13.0	+0.3
HATOM				⇓iS	Sb	02 43 38.9	+0.1
HATOM				IAML		02 44 08.5	
	comp=N,29nm,2.6s						

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*NNC **24** 02:49:33.6±9.8, 35°.82N×73°.02E, h0^{km}, mb4.4, mpv4.0, Error ellipse: s-maj=103.3km s-min=82.6km az=79.0*

*IDC **24** 02:49:39.9±2.2, 36°.50N×74°.14E, h0^{km}, mb3.8/8, mbtmp3.8/13, ML3.3/5, Error ellipse: s-maj=39.7km s-min=22.9km az=155.0*

ISC 24 02:49:42.4±1.6**, 36°.5N**±0°.1×**74°.2E**±0°.1**, h10^{km}, n22, σ2^{s}.24**/17**, mb3.8**/8**, 2C-2D, Northwestern Kashmir**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AAK	Ala-Archa	6.12	2	Pn	Pn	02 51 15.2	+2.2
	0.9nm,0.3s,baz=193,slow=10,SNR=10						
	4.3nm,0.5s						
AAK				AML	AML		
AAK	Ala-Archa	6.12	2	⇓P	Pn	02 51 17.3	+4.3
	17nm,1.2s						
AAK				⇓S	Sb	02 52 39.4	-3.1
	6.8nm,0.8s						
MRKS	Merke	6.26	354	Pg	Pn	02 51 17.0	+2.1
	6.6nm,0.3s						
MRKS				Lg	Lg	02 52 28.9	
	16nm,0.3s						
KST	Kastek	6.66	12	Pg	Pn	02 51 23.1	+2.6
	6.1nm,0.5s						
KST				Lg	Lg	02 52 39.6	
	15nm,1.2s						
TNSS	Tian-Shan	6.86	17	P	Pn	02 51 25.5	+2.1
	1.6nm,0.5s						
SGDS	Sogindy	6.93	3	P	Pn	02 51 26.4	+2.2
	2.3nm,0.6s						
MDOK	Medeo	7.00	18	Pg	Pn	02 51 27.6	+2.5
	6.3nm,0.4s						
KK31	Karatay Array	7.14	338	⇑P	Pn	02 51 24.6	-2.3
	2.5nm,0.3s,baz=147,slow=12,SNR=26						
KK31				⇑S	Sn	02 52 48.9	+0.7
	4.8nm,0.5s,baz=153,slow=22,SNR=5.6						
BRLS	Borolday	7.30	334	P	Pn	02 51 26.6	-2.5
	8.5nm,0.5s						
MKAR	Makanchi Array	11.93	28	Pn	Pn	02 52 32.7	+0.2
	0.2nm,0.3s,baz=207,slow=14,SNR=6.4						
	0.6nm,0.5s						
MKAR				AML	AML		
KURBB	Kurchatov Arra	14.45	11	Pn	Pn	02 53 03.9	-3.0
	baz=199,slow=12,SNR=4.6						
	0.4nm,0.7s						
BVAR	Borovoye Array	16.71	352	Pn	Pn	02 53 38.5	+1.9
	0.2nm,0.3s,baz=161,slow=9.4,SNR=15						
AKTO	Aktyubinsk	18.12	325	P	Pn	02 53 52.2	-1.9
	0.4nm,0.3s,baz=122,slow=11,SNR=7.9						
AKTO				S	Sn	02 57 04.0	-12
	0.8nm,0.7s,baz=232,slow=15,SNR=1.8						
	1.4nm,0.4s						
AKTO				AML	AML		
ZALV	Zalesovo Beam	18.94	20	P	P	02 54 02.1	-1.3
	0.9nm,0.3s,baz=210,slow=12,SNR=12						
	3.2nm,0.5s						
ZALV				AML	AML		
SONM	Songino Array	26.25	54	P	P	02 55 17.7	-0.1
	0.6nm,0.5s,baz=260,slow=8.6,SNR=2.7						
	0.6nm,0.5s						
BRTR	Keskin Array B	31.84	288	P	P	02 56 07.4	-0.2
	0.4nm,0.6s,baz=98,slow=8.9,SNR=3.9						
	0.4nm,0.6s						
FINES	FINESS Array B	38.90	325	P	P	02 57 06.8	-1.0
	0.6nm,0.4s,baz=104,slow=8.0,SNR=3.3						
	0.6nm,0.4s						
ARCES	ARCESS Array B	42.11	337	P	P	02 57 33.5	-0.8
	2.3nm,0.9s,baz=114,slow=8.3,SNR=1.2						
	2.3nm,0.9s						
HFS	Hagfors	44.62	322	P	P	02 57 53.4	-1.2
	1.7nm,0.8s,baz=99,slow=8.9,SNR=2.0						
	1.7nm,0.8s						
NOA	NORSAR Array B	45.89	323	P	P	02 58 03.7	-1.1
	2.2nm,1.1s,baz=89,slow=7.8,SNR=2.3						
	2.2nm,1.1s						
ILAR	Eielson Array	74.04	17	P	P	03 01 16.6	-1.4
	0.9nm,1.1s,baz=339,slow=6.1,SNR=5.1						
	0.9nm,1.1s						
YKA	Yellowknife Ar	81.08	4	P	P	03 01 56.1	-1.2
	0.9nm,0.6s,baz=357,slow=5.1,SNR=2.2						
	0.9nm,0.6s						

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*IDC **24** 03:04:44.6±4.1, 34°.68S×178°.90E, h152^{km}±30^{km}, mb4.1/7, mbtmp4.6/8, Error ellipse: s-maj=38.2km s-min=16.4km az=51.0*

*WEL **24** 03:04:49.8±1.1, 35°S±12°×17°9E±1°1, h197^{km}±20^{km}, M4.8/31, ML4.7/16, MLv4.8/31, Error ellipse: s-maj=19.0km s-min=9.3km az=43.5, confirmed*

*NOU **24** 03:04:51.7, 35°.51S×178°.64E, h252^{km}, MLv4.7/21, Off E. Coast of N. Island, N.Z.*

*NEIC **24** 03:04:51.1±1.7, 35°.11S±0°.10×178°.6E±0°.2, h190^{km}±7^{km}, mb4.3/14, Error ellipse: s-maj=22.9km s-min=14.1km az=88.0*

*GFZ **24** 03:05:00.5±0.4, 36°S±4°×17°8E±°, h227^{km}, M4.4/14, mb4.4/14, confirmed*

ISC 24 03:04:55.3±0.9**, 35°.43S**±0°.06×**178°.55E**±0°.07**, h233^{km}**±6^{km}**, n210, σ2^{s}.59**/215**, mb4.3**/23**, 5C, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	2.13	185	P	Pn	03 05 34.3	-3.2
MXZ	Matakaoa Point	2.13	185	P	S	03 06 07.4	-3.3
MXZ	Matakaoa Point	2.13	185		Pn	03 05 33.6	-3.9
MXZ	Matakaoa Point	2.13	185	P	Pn	03 05 33.9	-3.6
MXZ				S	S	03 06 06.6	-4.1
MXZ				AML	AML		
MXZ				AML	AML		
WIZ	White Island	2.36	207	P	Pn	03 05 38.3	-1.4
WIZ				S	S	03 06 17.5	+2.8
WIZ				AML	AML		
WIZ				AML	AML		
WMGZ	Waiomatatini S	2.38	183	P	Pn	03 05 37.0	-3.0
WMGZ				S	S	03 06 13.9	-1.4
WMGZ				AML	AML		
WMGZ				AML	AML		
HAZ	Te Kaha	2.40	195	P	Pn	03 05 37.4	-2.8
HAZ				AML	AML		
HAZ				AML	AML		
PKGZ	Pakihiroa	2.46	189	P	Pn	03 05 38.0	-2.8
PKGZ				S	S	03 06 15.4	-1.3
PKGZ				AML	AML		
PKGZ				AML	AML		
MYRZ	Mayor Island	2.62	225	P	Pn	03 05 42.5	-0.1
MYRZ				AML	AML		
MYRZ				AML	AML		
RUGZ	Raukumara Rang	2.62	195	P	Pn	03 05 39.0	-3.7
RUGZ				S	S	03 06 18.1	-1.8
RUGZ				AML	AML		
RUGZ				AML	AML		
GRZ	Great Barrier	2.64	251	P	Pn	03 05 40.3	-2.5
GRZ				AML	AML		
PUZ	Puketiti	2.65	185	P	Pn	03 05 39.5	-3.3
PUZ				S	S	03 06 18.1	-2.1
PUZ				AML	AML		
PUZ				AML	AML		
WHRZ	Whale Island	2.73	207	P	Pn	03 05 42.8	-0.9
WHRZ				S	S	03 06 23.1	+1.3
WHRZ				AML	AML		
TWGZ	Tauwhareparae	2.78	189	P	Pn	03 05 41.9	-2.3
TWGZ				S	S	03 06 23.0	+0.2
TWGZ				AML	AML		
TWGZ				AML	AML		
TGRZ	Tauranga	2.94	218	P	Pn	03 05 45.7	-0.3
TGRZ				AML	AML		
TGRZ				AML	AML		
MWZ	Matawai	3.01	196	P	Pn	03 05 44.7	-2.1
MWZ				S	S	03 06 26.7	-0.7
MWZ				AML	AML		
MWZ				AML	AML		
EDRZ	Edgecumbe	3.04	208	P	Pn	03 05 46.5	-0.7
EDRZ				AML	AML		
EDRZ				AML	AML		
URZ	Urewera	3.05	202	P	Pn	03 05 44.7	-2.5
	152nm,0.3s,baz=349,slow=5.2,SNR=161						
URZ				S	S	03 06 27.4	-0.6
	984nm,0.6s,baz=250,slow=19,SNR=23						
URZ	Urewera	3.05	202	P	Pn	03 05 44.8	-2.3
URZ	Urewera	3.05	202	P	S	03 06 27.6	-0.4
URZ	Urewera	3.05	202	P	Pn	03 05 45.0	-2.2
URZ				S	S	03 06 27.7	-0.4
URZ				AML	AML		
URZ				AML	AML		
URZ	Urewera	3.05	202	P	Pn	03 05 45.4	-1.7
TKGZ	Te Karaka	3.05	190	P	Pn	03 05 44.4	-2.8
TKGZ				S	S	03 06 27.6	-0.6
TKGZ				AML	AML		
TKGZ				AML	AML		
KARZ	Kaharoa	3.18	215	P	Pn	03 05 48.4	-0.2
KARZ				AML	AML		
KARZ				AML	AML		
RAGZ	Rawiri	3.19	196	P	Pn	03 05 47.2	-1.7
RAGZ				AML	AML		
KMRZ	Kaimai	3.20	220	P	Pn	03 05 49.0	+0.2
KMRZ				AML	AML		
KMRZ				AML	AML		
MKAZ	Moumakai	3.21	238	P	Pn	03 05 48.2	-0.8
MKAZ				AML	AML		
ABAZ	Army Bay	3.23	248	P	Pn	03 05 48.3	-1.0
ABAZ				AML	AML		
TARZ	Mount Tarawera	3.24	210	P	Pn	03 05 49.8	+0.3
TARZ				AML	AML		
TARZ				AML	AML		
MBAZ	Motutapu North	3.25	245	P	Pn	03 05 48.6	-0.8
MBAZ				AML	AML		
HLRZ	Highlands Stat	3.32	211	P	Pn	03 05 49.7	-0.6
HLRZ				AML	AML		
HLRZ				AML	AML		
RIGZ	Rimuhau	3.33	191	P	Pn	03 05 48.3	-2.1
RIGZ				S	S	03 06 33.8	-0.1
RIGZ				AML	AML		
RIGZ				AML	AML		
RRRZ	Republican Roa	3.33	209	P	Pn	03 05 49.8	-0.6
RRRZ				AML	AML		
MUGZ	Murupara	3.36	205	P	Pn	03 05 48.9	-1.8
MUGZ				AML	AML		
MUGZ				AML	AML		
TOZ	Tahuroa Road	3.36	226		Pn	03 05 49.7	-1.0
TOZ	Tahuroa Road	3.36	226	P	Pn	03 05 50.8	+0.1
TOZ				AML	AML		
RTZ	Ruatahuna	3.42	201		Pn	03 05 48.8	-2.7
RTZ	Ruatahuna	3.42	201	P	Pn	03 05 49.0	-2.5
RTZ				AML	AML		
WCZ	Waipu Caves	3.46	260	P	Pn	03 05 49.4	-2.5
WCZ				AML	AML		
HRRZ	Handcock Road	3.47	211	P	Pn	03 05 51.9	-0.1
HRRZ				AML	AML		
PRRZ	Plateau Road	3.52	209	P	Pn	03 05 51.5	-1.0
PRRZ				AML	AML		
PRGZ	Paritu Road	3.52	189	P	Pn	03 05 50.4	-2.2
PRGZ				AML	AML		
AWAZ	Awhitu Peninsu	3.56	242	P	Pn	03 05 54.2	+1.2
AWAZ				AML	AML		
ALRZ	Allen Road	3.59	209	P	Pn	03 05 52.4	-1.0
ALRZ				AML	AML		
WPRZ	Whakapapatarin	3.63	211	P	Pn	03 05 53.3	-0.5
WPRZ				AML	AML		
KNZ	Kokohu	3.65	191	P	Pn	03 05 50.9	-3.2
KNZ				AML	AML		
RAHZ	Arahi	3.67	198	P	Pn	03 05 52.2	-2.2
RAHZ				AML	AML		
MTHZ	Maungataniwha	3.68	201	P	Pn	03 05 52.0	-2.4
MTHZ				AML	AML		
MHGZ	Mahia Peninsul	3.75	188	P	Pn	03 05 52.4	-2.9
MHGZ				AML	AML		
KUTZ	Kaahu Road	3.75	215	P	Pn	03 05 55.5	+0.2
TLZ	Tolley Road	3.77	219	P	Pn	03 05 55.9	+0.4
WHHZ	Waihua	3.79	196	P	Pn	03 05 53.3	-2.4
WHHZ				AML	AML		
MRHZ	Matea Rd	3.80	206	P	Pn	03 05 54.0	-1.9
NMHZ	Naumai	3.91	200	P	Pn	03 05 55.2	-2.1
WATZ	Wairara	3.97	214	P	Pn	03 05 57.8	-0.2
ARHZ	Aropaoanui	4.02	198	P	Pn	03 05 55.9	-2.5
OUZ	Omahuta	4.06	272	P	Pn	03 05 55.5	-3.5
OUZ	Omahuta	4.06	272	P	Pn	03 05 55.4	-3.6
OUZ	Omahuta	4.06	272	P	Pn	03 05 55.8	-3.2
BKZ	Black Stump Fm	4.07	203	P	Pn	03 05 56.9	-2.2
BKZ	Black Stump Fm	4.07	203	S	S	03 06 49.3	-0.4
BKZ	Black Stump Fm	4.07	203	P	Pn	03 05 57.2	-2.0
RATZ	Rangitukua	4.08	212	P	Pn	03 05 59.1	-0.1
RITZ	Rihia Road	4.14	210	P	Pn	03 05 59.4	-0.6
KATZ	Kakaramea	4.21	212	P	Pn	03 06 00.4	-0.5
HIZ	Hauiti	4.27	223		Pn	03 06 02.7	+1.2
HIZ	Hauiti	4.27	223	P	Pn	03 06 02.9	+1.4
HIZ	Hauiti	4.27	223	P	Pn	03 06 02.3	+0.9
MCHZ	McNeill Hill	4.27	200	P	Pn	03 05 59.5	-2.0
NTVZ	North Tongarir	4.32	211	P	Pn	03 06 01.5	-0.7
TMVZ	Te Maari	4.32	211	P	Pn	03 06 00.7	-1.6
KWHZ	Kaweka Forest	4.33	202	P	Pn	03 05 59.9	-2.4
KRVZ	Karewarewa	4.33	212	P	Pn	03 06 01.7	-0.6
ETVZ	East Tongariro	4.34	211	P	Pn	03 06 00.7	-1.7
WTVZ	West Tongariro	4.37	212	P	Pn	03 06 02.0	-0.8
CKHZ	Cape Kidnapper	4.38	195	P	Pn	03 05 60.0	-2.8
OTVZ	Oturere	4.38	211	P	Pn	03 06 01.2	-1.7
TWVZ	Taurewa	4.40	213	P	Pn	03 06 01.9	-1.3
SNVZ	South Ngauruho	4.41	211	P	Pn	03 06 01.7	-1.6
NGZ	Ngauruhoe	4.42	211	P	Pn	03 06 02.3	-1.1
COVZ	Chateau Observ	4.46	212	P	Pn	03 06 03.6	-0.4
TUVZ	Tukino	4.47	210	P	Pn	03 06 03.1	-1.0
BHHZ	Black Hill Sta	4.51	205	P	Pn	03 06 01.8	-2.7
MAVZ	Matarangi	4.51	211	P	Pn	03 06 03.5	-1.2
WHVZ	Whangaehu Hut	4.51	211	P	Pn	03 06 03.1	-1.5
TRVZ	Turoa	4.54	211	P	Pn	03 06 03.5	-1.5
WNVZ	Wahianoa	4.54	210	P	Pn	03 06 03.1	-1.9
KRHZ	Kereru	4.55	202	P	Pn	03 06 01.8	-3.1
MOVZ	Moawhango	4.55	208	P	Pn	03 06 02.0	-3.0
KAHZ	Kahuranaki	4.55	196	P	Pn	03 06 02.4	-2.6
PKVZ	Pokaka	4.62	213	P	Pn	03 06 04.8	-1.0
MTVZ	Mangateitei	4.65	211	P	Pn	03 06 04.8	-1.3
VRZ	Vera Road	4.77	218	P	Pn	03 06 07.8	+0.2
PWZ	Pawanui	4.78	196	P	Pn	03 06 05.3	-2.4
PXZ	Pawanui	4.78	196	P	Pn	03 06 04.4	-3.3
PNHZ	Pukenui	4.85	202	P	Pn	03 06 05.3	-3.3
WPHZ	Waipukurau	4.92	199	P	Pn	03 06 06.9	-2.5
TSZ	Takapari Road	5.05	203	P	Pn	03 06 07.9	-3.2
PRHZ	Porangahau	5.06	197	P	Pn	03 06 07.9	-3.2
WAZ	Wanganui	5.16	212	P	Pn	03 06 11.0	-1.5
DVHZ	Dannevirke	5.21	201	P	Pn	03 06 09.5	-3.6
NEZ	North Egmont	5.22	222	P	Pn	03 06 14.8	+1.5
KHEZ	Kahui Hut	5.28	222	P	Pn	03 06 12.7	-1.4
BFZ	Birch Farm	5.55	198	P	Pn	03 06 13.2	-4.1
BFZ	Birch Farm	5.55	198		Pn	03 06 13.9	-3.3
BFZ	Birch Farm	5.55	198	P	Pn	03 06 14.3	-2.9
BFZ	Birch Farm	5.55	198	P	Pn	03 06 14.1	-3.2
	comp=Z,230nm,0.5s						
MRZ	Mangatainoka R	5.72	203		Pn	03 06 15.5	-3.9
MRZ	Mangatainoka R	5.72	203	P	Pn	03 06 15.6	-3.9
MSWZ	Moikau Station	6.51	202		Pn	03 06 25.4	-4.0
SNZO	South Karori	6.60	206	P	Pn	03 06 26.1	-4.4
SNZO	South Karori	6.60	206	S	S	03 07 43.6	-3.0
SNZO	South Karori	6.60	206		Pn	03 06 26.2	-4.3
SNZO	South Karori	6.60	206	P	Pn	03 06 26.1	-4.4
	comp=Z,119nm,0.6s						
BHW	Baring Head	6.63	205		Pn	03 06 26.6	-4.3
PLWZ	Palliser	6.65	202		Pn	03 06 27.0	-4.2
TCW	Tory Channel	6.68	209		Pn	03 06 27.3	-4.2
GLKZ	Green Lake	6.84	27	P	Pn	03 06 11.0	-23
GLKZ				S	S	03 07 21.9	-30
TUWZ	Tuamarina	7.00	210		Pn	03 06 31.4	-4.2
NNZ	Nelson	7.06	214		Pn	03 06 32.3	-4.1
TKNZ	Takaka Hill	7.12	217		Pn	03 06 33.0	-4.1
CMWZ	Cape Campbell	7.16	207		Pn	03 06 34.1	-3.6
QRZ	Quartz Range	7.18	220	P	Pn	03 06 33.8	-4.1
QRZ	Quartz Range	7.18	220	S	S	03 07 58.9	-1.2
QRZ	Quartz Range	7.18	220		Pn	03 06 33.9	-4.0
QRZ	Quartz Range	7.18	220	P	Pn	03 06 35.0	-2.9
BSWZ	Blackbirch Sta	7.26	209		Pn	03 06 34.6	-4.4
MRNZ	Matariki Terra	7.49	216		Pn	03 06 38.2	-3.8
THZ	Tophouse	7.71	213		Pn	03 06 41.1	-3.7
KHZ	Kahutara	7.99	208	P	Pn	03 06 43.8	-4.5
KHZ	Kahutara	7.99	208	S	S	03 08 14.7	-4.3
KHZ	Kahutara	7.99	208	P	Pn	03 06 44.5	-3.8
	comp=Z,363nm,0.4s						
GVZ	Greta Valley S	8.66	208		Pn	03 06 52.7	-4.1
LTZ	Lake Taylor	8.81	212		Pn	03 06 54.6	-4.2
INZ	Inchbonnie	9.14	215		Pn	03 06 58.5	-4.4
OXZ	Oxford	9.36	211		Pn	03 07 01.1	-4.6
MQZ	McQueen's Vall	9.43	207		Pn	03 07 02.0	-4.6
RPZ	Rata Peaks	10.09	213	P	Pn	03 07 11.5	-3.6
	comp=Z,5.9nm,0.3s,baz=26,slow=5.3,SNR=20						
RPZ				S	S	03 08 59.4	-9.0
	comp=Z,5.2nm,0.4s,baz=41,slow=18,SNR=5.0						
RPZ	Rata Peaks	10.09	213	P	Pn	03 07 11.7	-3.4
RPZ	Rata Peaks	10.09	213	S	S	03 09 03.3	-5.0
RPZ	Rata Peaks	10.09	213		Pn	03 07 11.4	-3.7
RPZ	Rata Peaks	10.09	213	P	Pn	03 07 10.6	-4.5
ODZ	Otahua Downs	11.34	210	P	Pn	03 07 27.9	-2.9
ODZ	Otahua Downs	11.34	210	S	S	03 09 31.6	-4.8
ODZ	Otahua Downs	11.34	210		Pn	03 07 27.6	-3.2
ODZ	Otahua Downs	11.34	210	P	Pn	03 07 27.6	-3.2
	comp=Z,22nm,0.6s						
JCZ	Jackson Bay	11.44	218	P	Pn	03 07 28.7	-3.5
JCZ	Jackson Bay	11.44	218	S	S	03 09 34.8	-4.1
DZM	Mont Dzumac	17.01	318	P	P	03 08 34.7	-3.6
	comp=Z,4.3nm,0.9s,baz=131,slow=14,SNR=5.7						
MSVF	Nonsavu	17.63	358	P	P	03 08 37.1	-8.1
	comp=Z,4.1nm,0.5s,baz=107,slow=17,SNR=5.6						
MSVF	Nonsavu	17.63	358	P	P	03 08 39.8	-5.4
EIDS	Eidsvold	25.66	285	P	P	03 10 02.6	-1.3
EIDS				IAmb	IAmb	03 10 07.0	
	comp=Z,9.4nm,1.2s						
EIDS	Eidsvold	25.66	285	P	P	03 10 03.2	-0.7
	comp=Z,8.1nm,1.9s						
CMSA	Cobar Meteorol	27.61	269	P	P	03 10 22.9	+1.6
	comp=Z,16nm,2.1s						
CTAO	Charters Tower	32.24	290	P	P	03 10 54.7	-7.4
CTAO				IAmb	IAmb	03 11 02.9	
	comp=Z,13nm,1.2s						
CTAO	Charters Tower	32.24	290	P	P	03 11 02.0	-0.1
	comp=Z,11nm,1.9s						
MTSU	Mount Surprise	34.86	291	P	P	03 11 25.7	+1.0
	comp=Z,3.9nm,0.7s						
QIS	Mount Isa	37.19	283	P	P	03 11 45.2	+0.8
	comp=Z,11nm,1.0s						
AS31	Alice Springs	40.27	274		P	03 12 09.7	-0.2
AS31				IAmb	IAmb	03 12 13.3	
	comp=Z,5.1nm,0.5s						
ASAR	Alice Springs	40.27	274	P	P	03 12 09.5	-0.5
	comp=Z,10.0nm,0.6s,baz=115,slow=7.3,SNR=84						
	comp=Z,10.0nm,0.6s						
ASAR	Alice Springs	40.27	274	P	P	03 12 08.4	-1.5
WR8	Warramunga Arr	41.59	280		P	03 12 19.6	-1.1
WR8				IAmb	IAmb	03 12 23.2	
	comp=Z,7.0nm,0.7s						
WRAB	Tennant Creek	41.72	280	P	P	03 12 20.9	-0.8
	comp=Z,21nm,0.7s						
WRA	Warramunga Arr	41.73	280	P	P	03 12 20.5	-1.3
	comp=Z,10.0nm,0.7s,baz=120,slow=7.6,SNR=39						
	comp=Z,10.0nm,0.7s						
WRA	Warramunga Arr	41.73	280	P	P	03 12 20.3	-1.5
VNDA	Vanda	42.82	185	P	P	03 12 34.1	+4.3
	comp=Z,1.8nm,0.8s,baz=2.5,slow=8.1,SNR=14						
	comp=Z,1.8nm,0.8s						
VNDA	Vanda	42.82	185		P	03 12 32.9	+3.1
VNDA				IAmb	IAmb	03 12 35.7	
	comp=Z,3.2nm,0.9s						
VNDA	Vanda	42.82	185	P	P	03 12 34.4	+4.6
	comp=Z,4.3nm,1.8s						
SBA	Scott Base	42.83	184	P	P	03 12 36.1	+6.2
SBA				IAmb	IAmb	03 12 36.9	
	comp=Z,8.8nm,0.8s						
SBA	Scott Base	42.83	184	P	P	03 12 35.8	+5.9
	comp=Z,12nm,2.3s						
FITZ	Fitzroy Crossi	49.72	276	P	P	03 13 22.9	-1.2
FITZ	Fitzroy Crossi	49.72	276	P	P	03 13 23.7	-0.4
	comp=Z,0.9nm,1.4s						
KLBR	Kellerberrin	50.14	256	P	P	03 13 28.7	+1.5
	comp=Z,17nm,1.0s						
QSPA	South Pole Qui	54.69	180	P	P	03 14 04.5	+4.4
	comp=Z,25nm,0.6s,baz=344,slow=0.6,SNR=222						
	comp=Z,25nm,0.6s						
QSPA	South Pole Qui	54.69	180		P	03 14 02.9	+2.7
QSPA	South Pole Qui	54.69	180	P	P	03 14 04.7	+4.5
	comp=Z,46nm,0.7s						
HLK	Haleakala	60.78	27	P	P	03 14 54.0	+11
	comp=Z,162nm,1.2s						
BELA	Belgrano 2	65.19	173	P	P	03 15 13.5	+2.4
MAW	Mawson	66.58	202	P	P	03 15 21.9	+1.9
	comp=Z,1.1nm,0.4s,baz=135,slow=2.1,SNR=10						
	comp=Z,1.1nm,0.4s						
MAW	Mawson	66.58	202	P	P	03 15 20.6	+0.6
MAW	Mawson	66.58	202	P	P	03 15 21.4	+1.4
	comp=Z,0.8nm,1.1s						
TROLL	Troll, Antarti	72.82	181	⇑P	P	03 16 00.1	+2.0
	comp=Z,132nm,0.4s						
SNAA	Sanae	73.19	180	⇑P	P	03 16 02.0	+1.7
	comp=Z,133nm,1.0s						
SNAA	Sanae	73.19	180	P	P	03 16 01.9	+1.7
	comp=Z,5.2nm,0.8s,baz=194,slow=5.9,SNR=10						
	comp=Z,5.2nm,0.8s						
SNAA	Sanae	73.19	180	P	P	03 16 01.9	+1.7
SNAA				IAmb	IAmb	03 16 03.1	
	comp=Z,6.7nm,1.0s						
SNAA	Sanae	73.19	180	P	P	03 16 02.4	+2.1
	comp=Z,7.5nm,1.1s						
VNA3	Neumayer Olymp	73.46	177	⇑P	P	03 16 03.7	+1.9
	comp=Z,30nm,0.7s						
VNA3	Neumayer Olymp	73.46	177	P	P	03 16 03.8	+2.1
VNA2	Neumayer--Watz	73.86	178	⇑P	P	03 16 06.2	+2.2
	comp=Z,27nm,0.6s,baz=167,slow=5.3						
VNA2	Neumayer--Watz	73.86	178	P	P	03 16 06.3	+2.3
VNA1	Neumayer--Stat	74.11	178	⇑P	P	03 16 07.9	+2.4
	comp=Z,12nm,0.5s						
PLCA	Paso Flores	81.15	134	P	P	03 16 46.2	+1.2
	comp=Z,1.5nm,0.9s,baz=221,slow=3.2,SNR=4.4						
	comp=Z,1.5nm,0.9s						
PLCA	Paso Flores	81.15	134	P	P	03 16 46.1	+1.1
PLCA				IAmb	IAmb	03 16 49.0	
	comp=Z,3.2nm,1.1s						
PZH	PanZhiHua	95.12	299	P	P	03 17 54.8	+2.6
HHC	Hu-ho-hao-te	97.69	315	eP	Pdif	03 18 06.4	+2.9
HHC				pmax	pmax		
	comp=Z,5.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,110nm,5.2s						
KSH2	Kashi	120.37	299	PKP	PKPdf	03 23 13.8	-5.0
KURK	Kurchatov	122.35	312		PKPdf	03 23 21.4	-0.6
KURBB	Kurchatov Arra	122.38	312	PKP	PKPdf	03 23 19.2	-2.8
	comp=Z,0.5nm,0.4s,baz=120,slow=1.9,SNR=7.4						
ARCES	ARCESS Array B	142.78	345	PKP	PKPdf	03 23 56.6	-3.2
	comp=Z,4.1nm,1.0s,baz=29,slow=2.8,SNR=1.8						
ARCES	ARCESS Array B	142.78	345		PKPdf	03 23 58.6	-1.1
FIA1	FINESS Array S	148.66	335	PKPdf	PKPdf	03 24 10.7	+0.8
FINES	FINESS Array B	148.66	335	PKPbc	PKPdf	03 24 10.6	+0.7
	comp=Z,2.7nm,0.6s,baz=47,slow=3.8,SNR=16						
FINES	FINESS Array B	148.66	335	PKPdf	PKPdf	03 24 10.9	+0.9
DBIC	Dimbokro	151.20	173	PKPbc	PKiKP	03 24 21.8	-0.3
	comp=Z,3.2nm,0.6s,baz=179,slow=2.9,SNR=7.4						
DBIC	Dimbokro	151.20	173	PKPbc	PKiKP	03 24 21.9	-0.1
ILGA	Ilgaz	151.95	292	PKPbc	PKPbc	03 24 20.6	-2.1
BRTR	Keskin Array B	151.98	289	PKPbc	PKPbc	03 24 20.7	-2.1

	comp=Z,0.7nm,0.5s,baz=157,slow=3.5,SNR=6.4						
BRTR	Keskin Array B	151.98	289	PKPbc	PKPbc	03 24 20.9	-1.9
TORD	Torodi Ar. Bea	157.63	188	PKPab	PKPab	03 24 57.7	+0.2
	comp=Z,1.1nm,0.7s,baz=170,slow=3.5,SNR=10						
TORD	Torodi Ar. Bea	157.63	188		PKPab	03 24 59.5	+2.1

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*IDC **24** 03:06:15.4±0.8, 33°.69S×176°.86W, h0^{km}, mb4.0/6, mbtmp4.1/8, ML4.4/2, MS3.6/11, Error ellipse: s-maj=24.6km s-min=18.9km az=83.0*

*NEIC **24** 03:06:17.5±1.2, 33°.62S±0°.06×176°.8W±0°.1, h10^{km}±1^{km}, mb4.5/11, Error ellipse: s-maj=17.4km s-min=10.9km az=86.0*

*WEL **24** 03:06:25.6±1.2, 34°S±12°×17°7W±1°0, h12^{km}, M5.1/7, mB5.2/2, MLv5.1/7, Mw(mB)4.6/2, Error ellipse: s-maj=18.5km s-min=8.7km az=143.5, confirmed*

ISC 24 03:06:16.8±0.6, 33°.53S±0°.07×176°.73W±0°.08, h10^{km}, n68, σ1^{s}.68/64, mb4.3/12, MS3.6/10, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	Raoul Island	4.39	346	Pn	Pn	03 07 21.4	-2.1
	139nm,0.3s,baz=84,slow=18,SNR=7.1						
RAO				Sn	Sn	03 07 59.5	-15
	262nm,0.3s,baz=62,slow=18,SNR=6.4						
RAO				AML	AML		
RAO	Raoul Island	4.39	346		Pn	03 07 24.0	+0.5
MXZ	Matakaoa Point	5.70	224	Pn	Pn	03 07 40.7	-0.8
MXZ	Matakaoa Point	5.70	224	P	Pn	03 07 45.0	+3.4
MXZ				S	Sn	03 08 43.3	-3.8
WMGZ	Waiomatatini S	5.82	221	P	Pn	03 07 45.3	+2.1
WMGZ				S	Sn	03 08 48.0	-2.0
PKGZ	Pakihiroa	6.04	223	P	Pn	03 07 49.3	+3.0
PKGZ				S	Sn	03 08 56.7	+1.2
PKGZ				AML	AML		
PUZ	Puketiti	6.09	221	S	Sn	03 08 56.7	0.0
HAZ	Te Kaha	6.14	225	P	Pn	03 07 48.5	+0.9
HAZ				S	Sn	03 08 59.7	+1.9
HAZ				AML	AML		
TWGZ	Tauwhareparae	6.32	221	P	Pn	03 07 53.2	+3.1
TWGZ				S	Sn	03 09 02.2	-0.1
TWGZ				AML	AML		
RUGZ	Raukumara Rang	6.34	224	P	Pn	03 07 53.2	+2.7
RUGZ				S	Sn	03 08 59.7	-3.3
RUGZ				AML	AML		
TKGZ	Te Karaka	6.58	220	S	Sn	03 09 10.4	+1.8
MWZ	Matawai	6.68	223	P	Pn	03 07 56.3	+1.3
MWZ				S	Sn	03 09 10.9	-0.3
MWZ				AML	AML		
RIGZ	Rimuhau	6.82	219	P	Pn	03 08 01.8	+4.9
RIGZ				P	Sn	03 09 14.6	0.0
RIGZ				AML	AML		
URZ	Urewera	6.87	225	Pn	Pn	03 07 55.2	-2.3
	38nm,0.7s,baz=354,slow=19,SNR=0.4						
URZ				Sn	Sn	03 09 14.2	-1.6
	17nm,0.3s,baz=35,slow=3.5,SNR=3.5						
URZ	Urewera	6.87	225		Pn	03 07 55.2	-2.3
URZ					Sn	03 09 14.2	-1.6
URZ	Urewera	6.87	225	P	Pn	03 08 04.0	+6.4
URZ				S	Sn	03 09 15.8	0.0
EDRZ	Edgecumbe	7.00	227	S	Sn	03 09 18.6	-0.5
MUGZ	Murupara	7.22	225	P	Pn	03 08 04.9	+2.6
MUGZ				S	Sn	03 09 24.1	-0.3
MUGZ				AML	AML		
OUZ	Omahuta	8.18	255	P	Pn	03 08 24.8	+9.3
CTZ	Chatham Island	10.19	180		Pn	03 08 40.4	-2.6
CTZ	Chatham Island	10.19	180	P	Pn	03 08 41.5	-1.5
RPZ	Rata Peaks	13.93	220	Sn	Sn	03 11 59.0	-10
	0.4nm,0.3s,baz=78,slow=22,SNR=2.9						
WHZ	Wether Hill Ro	17.03	219	Pn	Pn	03 10 14.0	-1.0
WHZ				IAmb	IAmb	03 10 34.3	
	comp=Z,51nm,1.1s						
DZM	Mont Dzumac	18.73	303	P	P	03 10 35.3	-0.6
	comp=Z,0.2nm,0.3s,baz=105,slow=18,SNR=5.7						
DZM				LR	LR	03 16 10.7	
	comp=Z,372nm,21.4s,baz=156,slow=32						
	comp=Z,8.2nm,0.8s						
DZM				AML	AML		
DZM	Mont Dzumac	18.73	303	P	P	03 10 35.3	-0.6
STKA	Stephens Creek	34.94	261	LR	LR	03 27 50.2	
	comp=Z,138nm,18.8s,baz=47,slow=37						
CTA	Charters Tower	35.46	283	LR	LR	03 27 42.5	
	comp=Z,76nm,18.3s,baz=54,slow=36						
CTAO	Charters Tower	35.46	283	P	P	03 13 13.3	-0.2
AS31	Alice Springs	44.09	270	P	P	03 14 24.3	-1.1
ASAR	Alice Springs	44.10	270	P	P	03 14 24.8	-0.7
	comp=Z,1.2nm,0.6s,baz=106,slow=7.6,SNR=4.6						
ASAR				LR	LR	03 31 24.7	
	comp=Z,76nm,21.8s,baz=108,slow=34						
	comp=Z,1.2nm,0.6s						
ASAR	Alice Springs	44.10	270	P	P	03 14 24.4	-1.1
WR8	Warramunga Arr	45.22	275	P	P	03 14 33.4	-1.0
WR8				IAmb	IAmb	03 14 46.0	
	comp=Z,5.3nm,0.9s						
WRA	Warramunga Arr	45.36	275	P	P	03 14 34.5	-1.1
	comp=Z,2.6nm,0.5s,baz=114,slow=7.8,SNR=12						
	comp=Z,2.6nm,0.5s						
WRA	Warramunga Arr	45.36	275	P	P	03 14 34.3	-1.2
WB0	Warramunga Arr	45.40	275	P	P	03 14 34.4	-1.4
WB0				IAmb	IAmb	03 14 45.0	
	comp=Z,6.4nm,1.0s						
FORT	Forrest	46.36	258	P	P	03 14 42.4	-0.9
JAY	Jayapura	50.32	299	LR	LR	03 34 02.6	
	comp=Z,80nm,21.4s,baz=338,slow=33						
CASY	Casey	52.91	209	P	P	03 15 32.3	-0.3
CASY				IAmb	IAmb	03 15 51.8	
	comp=Z,7.8nm,1.1s						
FITZ	Fitzroy Crossi	53.48	272	LR	LR	03 37 00.3	
	comp=Z,90nm,21.2s,baz=166,slow=35						
FITZ	Fitzroy Crossi	53.48	272	P	P	03 15 36.5	-1.0
FITZ				IAmb	IAmb	03 15 51.4	
	comp=Z,2.1nm,1.4s						
QSPA	South Pole Qui	56.59	180	P	P	03 15 58.4	-1.1
	comp=Z,0.9nm,0.9s,baz=83,slow=1.3,SNR=3.9						
	comp=Z,0.9nm,0.9s						
QSPA	South Pole Qui	56.59	180	P	P	03 16 01.0	+1.5
QSPA				IAmb	IAmb	03 16 19.1	
	comp=Z,4.1nm,0.9s						
BATI	Baumata	59.15	278	LR	LR	03 40 04.7	
	comp=Z,68nm,21.9s,baz=114,slow=34						
KAPI	Kappang	65.25	281	LR	LR	03 44 37.7	
	comp=Z,34nm,19.3s,baz=105,slow=35						
MAW	Mawson	69.76	201	LR	LR	03 45 13.9	
	comp=Z,38nm,21.7s,baz=135,slow=34						
TROLL	Troll, Antarti	74.75	180	P	P	03 18 00.1	+3.5
	comp=Z,159nm,1.0s						
SNAA	Sanae	75.00	178	P	P	03 17 56.9	-1.1
	comp=Z,0.9nm,0.4s,baz=256,slow=4.2,SNR=2.3						
	comp=Z,0.9nm,0.4s						
SNAA	Sanae	75.00	178	P	P	03 17 57.8	-0.2
SNAA				IAmb	IAmb	03 17 58.7	
	comp=Z,5.6nm,1.4s						
VNA3	Neumayer Olymp	75.11	176	P	P	03 18 01.3	+2.7
	comp=Z,2.7nm,0.7s						
VNA2	Neumayer--Watz	75.56	176	P	P	03 18 04.0	+2.9
	comp=Z,2.2nm,0.7s,baz=163,slow=4.4						
H03S2	Juan Fernandez	77.85	122	T	T	04 44 04.2	
	baz=237						
H03S1	Juan Fernandez	77.86	122	T	T	04 44 06.4	
	baz=237						
H03S3	Juan Fernandez	77.87	122	T	T	04 44 05.0	
	baz=237						
PLCA	Paso Flores	79.60	132	P	P	03 18 24.8	+0.4
	comp=Z,1.4nm,0.8s,baz=207,slow=7.3,SNR=3.6						
	comp=Z,1.4nm,0.8s						
PLCA	Paso Flores	79.60	132	P	P	03 18 24.8	+0.4
KSRS	Korea Array	87.42	319	LR	LR	03 55 02.5	
	comp=Z,14nm,20.4s,baz=225,slow=34						
NVAR	Mina Array Bea	89.82	42	P	P	03 19 16.9	+1.1
	comp=Z,0.5nm,0.6s,baz=206,slow=7.4,SNR=5.0						
	comp=Z,0.5nm,0.6s						
NVAR	Mina Array Bea	89.82	42	P	P	03 19 17.1	+1.3
KDAK	Kodiak Island	93.21	13	LR	LR	03 57 15.7	
	comp=Z,36nm,19.4s,baz=109,slow=33						
KURK	Kurchatov	123.97	312		PKPdf	03 25 14.8	0.0
KURBB	Kurchatov Arra	124.00	312	PKP	PKPdf	03 25 15.1	+0.3
	comp=Z,0.4nm,0.7s,baz=116,slow=2.1,SNR=4.5						
FINES	FINESS Array B	148.45	339	PKPbc	PKPbc	03 26 02.9	+0.1
	comp=Z,4.8nm,0.8s,baz=27,slow=3.7,SNR=7.2						
FINES	FINESS Array B	148.45	339	PKPdf	PKPdf	03 26 00.7	+1.4
NB2	NORSAR Subarra	152.00	352	PKP	PKPbc	03 26 11.8	+0.3
	comp=Z,0.7nm,0.6s,baz=15,slow=2.5						
NOA	NORSAR Array B	152.00	352	PKPbc	PKPbc	03 26 12.0	+0.5
	comp=Z,1.1nm,0.7s,baz=14,slow=2.5,SNR=4.4						
NOA	NORSAR Array B	152.00	352		PKPbc	03 26 12.0	+0.5
BRTR	Keskin Array B	154.93	293	PKPab	PKPab	03 26 33.6	-0.5
	comp=Z,0.6nm,0.8s,baz=97,slow=5.3,SNR=4.1						
BRTR	Keskin Array B	154.93	293		PKPab	03 26 33.2	-0.9

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*IDC **24** 03:28:45.0±2.0, 18°.37S×177°.83W, h590^{km}±22^{km}, mb3.0/6, mbtmp4.0/7, Error ellipse: s-maj=41.9km s-min=20.9km az=153.0*

*NEIC **24** 03:28:45.5±1.0, 18°.2S±0°.1×177°.9W±0°.2, h590^{km}±10^{km}, mb4.0/9, Error ellipse: s-maj=29.7km s-min=10.1km az=115.0*

ISC 24 03:28:45.1±0.8, 18°.2S±0°.2×177°.9W±0°.2, h590^{km}, n20, σ0^{s}.61/24, mb4.0/10, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	Nonsavu	3.91	277	P	P	03 30 09.7	+0.4
	82nm,0.7s,baz=130,slow=11,SNR=41						
MSVF	Nonsavu	3.91	277	P	P	03 30 09.5	+0.2
WHZ	Wether Hill Ro	29.99	200	P	P	03 34 08.0	+0.9
STKA	Stephens Creek	38.92	242	P	P	03 35 22.2	+0.7
	1.5nm,0.6s,baz=78,slow=9.3,SNR=4.2						
	1.5nm,0.6s						
BBOO	Buckleboo	43.70	241	P	P	03 35 59.4	+0.2
WR8	Warramunga Arr	44.92	260	P	P	03 36 07.8	-0.9
WR8				IAmb	IAmb	03 36 08.3	
	comp=Z,6.1nm,1.1s						
WB0	Warramunga Arr	45.04	260	P	P	03 36 09.2	-0.5
WB0				IAmb	IAmb	03 36 09.7	
	comp=Z,3.5nm,0.5s						
WRA	Warramunga Arr	45.07	260	P	P	03 36 09.3	-0.6
	comp=Z,1.2nm,0.3s,baz=93,slow=7.3,SNR=49						
WRA				PcP	PcP	03 37 37.9	-0.1
	comp=Z,0.2nm,0.3s,baz=89,slow=3.4,SNR=1.9						
	comp=Z,1.2nm,0.3s						
WRA	Warramunga Arr	45.07	260	P	P	03 36 09.6	-0.3
WRA					PcP	03 37 37.8	-0.1
AS31	Alice Springs	45.19	255	P	P	03 36 10.6	-0.2
AS31				IAmb	IAmb	03 36 11.9	
	comp=Z,2.7nm,0.5s						
ASAR	Alice Springs	45.19	255	P	P	03 36 10.8	0.0
	comp=Z,7.2nm,0.5s,baz=87,slow=8.8,SNR=88						
ASAR				PcP	PcP	03 37 38.2	-0.1
	comp=Z,0.5nm,0.4s,baz=107,slow=4.0,SNR=4.5						
	comp=Z,7.2nm,0.5s						
ASAR	Alice Springs	45.19	255	P	P	03 36 10.3	-0.5
ASAR					PcP	03 37 38.2	-0.1
FORT	Forrest	50.33	245	P	P	03 36 48.6	-0.3
FORT				IAmb	IAmb	03 36 55.8	
	comp=Z,7.8nm,0.9s						
FITZ	Fitzroy Crossi	53.48	261	P	P	03 37 11.2	-0.4
VNDA	Vanda	60.17	185	P	P	03 37 54.9	-1.5
	comp=Z,0.3nm,0.5s,baz=74,slow=7.4,SNR=2.4						
	comp=Z,0.3nm,0.5s						
VNDA	Vanda	60.17	185	P	P	03 37 55.9	-0.5
VNDA				IAmb	IAmb	03 38 16.5	
	comp=Z,2.2nm,1.3s						
NVAR	Mina Array Bea	79.30	44	P	P	03 39 50.5	-0.3
	comp=Z,0.3nm,0.7s,baz=259,slow=4.6,SNR=2.4						
	comp=Z,0.3nm,0.7s						
NVAR	Mina Array Bea	79.30	44	P	P	03 39 50.2	-0.6
TXAR	Lajitas Array	85.74	57	P	P	03 40 24.0	+0.9
	comp=Z,0.3nm,0.7s,baz=221,slow=6.0,SNR=4.7						
	comp=Z,0.3nm,0.7s						
TXAR	Lajitas Array	85.74	57	P	P	03 40 23.7	+0.6

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*NEIC **24** 03:41:26.9±1.0, 23°.7S±0°.2×179°.8W±0°.1, h538^{km}±11^{km}, mb4.4/16, Error ellipse: s-maj=23.6km s-min=11.1km az=205.0*

*IDC **24** 03:41:34.8±7.8, 23°.91S×179°.92E, h645^{km}±103^{km}, mb3.2/5, mbtmp4.2/5, Error ellipse: s-maj=130.8km s-min=41.9km az=167.0*

ISC 24 03:41:25.5±0.7, 23°.5S±0°.1×179°.8W±0°.1, h532^{km}, n29, σ0^{s}.94/29, mb4.2/12, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	Raoul Island	5.96	164	P	P	03 43 02.9	+0.1
QRZ	Quartz Range	18.42	199	P	P	03 45 07.5	-0.4
MRNZ	Matariki Terra	18.88	197	P	P	03 45 11.4	-0.7
THZ	Tophouse	19.18	197	P	P	03 45 14.1	-0.8
THZ				IAmb	IAmb	03 45 46.1	
	comp=Z,30nm,1.3s						
MLZ	Mavora Lakes	23.91	201	P	P	03 45 57.5	+0.2
WHZ	Wether Hill Ro	24.43	201	P	P	03 46 01.9	+0.1
EIDS	Eidsvold	26.53	260	P	P	03 46 21.4	+0.6
EIDS				IAmb	IAmb	03 46 22.4	
	comp=Z,5.4nm,0.6s						
CTAO	Charters Tower	31.64	270	P	P	03 47 06.4	+1.2
CTAO				IAmb	IAmb	03 47 07.0	
	comp=Z,9.4nm,0.5s						
TOO	Toolangi	32.79	237	P	P	03 47 15.5	+0.7
TOO				IAmb	IAmb	03 47 24.0	
	comp=Z,5.7nm,1.3s						
STKA	Stephens Creek	35.02	248	P	P	03 47 33.3	-0.3
	comp=Z,2.4nm,0.5s,baz=91,slow=12,SNR=5.4						
	comp=Z,2.4nm,0.5s						
BBOO	Buckleboo	39.74	246	P	P	03 48 12.0	-0.3
AS31	Alice Springs	42.26	260	P	P	03 48 32.8	+0.4
ASAR	Alice Springs	42.26	260	P	P	03 48 32.6	+0.2
	comp=Z,2.9nm,0.5s,baz=96,slow=7.7,SNR=30						
	comp=Z,2.9nm,0.5s						
ASAR	Alice Springs	42.26	260	P	P	03 48 32.5	+0.1
WR8	Warramunga Arr	42.45	266	P	P	03 48 33.7	-0.2
WR8				IAmb	IAmb	03 48 35.3	
	comp=Z,4.0nm,0.8s						
WB0	Warramunga Arr	42.59	266	P	P	03 48 34.8	-0.2
WB0				IAmb	IAmb	03 48 35.5	
	comp=Z,6.0nm,0.7s						
WRA	Warramunga Arr	42.60	266	P	P	03 48 34.9	-0.2
	comp=Z,3.5nm,0.3s,baz=103,slow=8.0,SNR=114						
	comp=Z,3.5nm,0.3s						
WRA	Warramunga Arr	42.60	266	P	P	03 48 34.6	-0.4
FORT	Forrest	46.60	249	P	P	03 49 05.0	-0.7
FORT				IAmb	IAmb	03 49 26.9	
	comp=Z,9.3nm,1.0s						
SBA	Scott Base	54.77	183	P	P	03 50 05.0	+0.6
VNDA	Vanda	54.77	185	P	P	03 50 04.2	-0.2
TPH	Tonopah	84.85	45	P	P	03 53 03.9	-0.5
TPH				IAmb	IAmb	03 53 04.4	
	comp=Z,5.3nm,0.5s						
TXAR	Lajitas Array	90.09	58	P	P	03 53 30.4	+1.4
	comp=Z,0.4nm,0.7s,baz=210,slow=5.7,SNR=6.9						
	comp=Z,0.4nm,0.7s						
TXAR	Lajitas Array	90.09	58	P	P	03 53 30.0	+0.9
PDAR	Pinedale Array	92.30	44	P	P	03 53 40.0	+1.0
	comp=Z,0.3nm,0.6s,baz=231,slow=4.7,SNR=3.7						
	comp=Z,0.3nm,0.6s						
PDAR	Pinedale Array	92.30	44	P	P	03 53 39.7	+0.6
HFS	Hagfors	142.20	349	PKP	PKPdf	03 59 53.1	-3.6
	comp=Z,1.1nm,0.3s,baz=58,slow=3.7,SNR=16						
AKASG	Malin Array Be	144.74	328	PKP	PKPdf	04 00 00.9	-0.6
	comp=Z,0.5nm,0.3s,baz=48,slow=4.7,SNR=4.1						
EKA	Eskdalemuir Ar	148.13	4	PKPbc	PKPbc	04 00 10.7	-0.3
	comp=Z,2.0nm,1.0s,baz=354,slow=2.8,SNR=3.7						

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*NEIC **24** 03:44:16.8±1.3, 23°.96S±0°.10×179°.8W±0°.2, h538^{km}±8^{km}, mb4.2/12, Error ellipse: s-maj=21.5km s-min=11.8km az=113.0*

*IDC **24** 03:44:17.3±2.3, 23°.84S×179°.93W, h539^{km}±24^{km}, mb3.2/6, mbtmp4.1/9, Error ellipse: s-maj=40.3km s-min=17.7km az=151.0*

ISC 24 03:44:14.7±0.7, 23°.99S±0°.09×179°.7W±0°.1, h512^{km}, n32, σ1^{s}.38/33, mb4.1/12, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	Nonsavu	6.57	341	P	P	03 45 58.9	+1.6
	19nm,0.6s,baz=204,slow=4.1,SNR=19						
MARNC	Mare, Loyalty	11.58	280	P	P	03 46 50.2	+1.4
DZM	Mont Dzumac	12.89	276	P	P	03 47 03.8	+1.0
	6.9nm,0.9s,baz=71,slow=15,SNR=3.6						
MXZ	Matakaoa Point	13.63	187	P	P	03 47 14.3	+4.1
URZ	Urewera	14.48	190	P	P	03 47 21.5	+2.5
	7.9nm,0.5s,baz=255,slow=3.1,SNR=6.7						
URZ				S	S	03 49 48.4	-2.6
	8.5nm,0.8s,baz=72,slow=23,SNR=6.1						
MSWZ	Moikau Station	17.88	192	P	P	03 47 53.8	+0.6
TCW	Tory Channel	17.89	195	P	P	03 47 54.8	+1.5
QRZ	Quartz Range	18.00	199	P	P	03 47 55.3	+1.0
INZ	Inchbonnie	20.07	199	P	P	03 48 14.0	+1.0
EIDS	Eidsvold	26.55	261	P	P	03 49 11.3	0.0
CTAO	Charters Tower	31.74	270	P	P	03 49 56.5	0.0
CTAO				IAmb	IAmb	03 49 57.1	
	comp=Z,6.3nm,0.6s						
ASAR	Alice Springs	42.28	261	P	P	03 51 22.7	-0.4
	comp=Z,2.1nm,0.7s,baz=88,slow=8.3,SNR=15						
	comp=Z,2.1nm,0.7s						
ASAR	Alice Springs	42.28	261	P	P	03 51 22.1	-1.0
WR8	Warramunga Arr	42.51	266	P	P	03 51 24.1	-0.9
WR8				IAmb	IAmb	03 51 30.5	
	comp=Z,14nm,1.6s						
WB0	Warramunga Arr	42.66	266	P	P	03 51 25.1	-0.9
WB0				IAmb	IAmb	03 51 25.8	
	comp=Z,6.0nm,0.8s						
WRA	Warramunga Arr	42.66	266	P	P	03 51 25.2	-1.0
	comp=Z,4.8nm,0.7s,baz=97,slow=8.3,SNR=53						
	comp=Z,4.8nm,0.7s						
WRA	Warramunga Arr	42.66	266	P	P	03 51 24.9	-1.2
FORT	Forrest	46.52	250	P	P	03 51 54.9	-0.8
FORT				IAmb	IAmb	03 52 14.0	
	comp=Z,6.5nm,1.0s						
MTN	Manton Dam	47.72	274	P	P	03 52 03.7	-1.3
MTN				IAmb	IAmb	03 52 05.0	
	comp=Z,11nm,1.9s						
FITZ	Fitzroy Crossi	51.08	266	P	P	03 52 29.5	-0.3
QSPA	South Pole Qui	66.09	180	P	P	03 54 09.9	-0.5
QSPA				IAmb	IAmb	03 54 24.9	
	comp=Z,8.8nm,1.6s						
CMB	Columbia Colle	83.09	43	P	P	03 55 45.6	-0.9
NVAR	Mina Array Bea	84.64	44	P	P	03 55 54.6	+0.3
	comp=Z,0.5nm,0.6s,baz=222,slow=6.5,SNR=5.2						
	comp=Z,0.5nm,0.6s						
NVAR	Mina Array Bea	84.64	44	P	P	03 55 53.0	-1.3
TXAR	Lajitas Array	90.26	58	P	P	03 56 22.1	+1.2
	comp=Z,1.0nm,0.7s,baz=211,slow=6.6,SNR=17						
	comp=Z,1.0nm,0.7s						
TXAR	Lajitas Array	90.26	58	P	P	03 56 21.3	+0.4
ILAR	Eielson Array	92.06	13	P	P	03 56 27.1	-1.1
	comp=Z,0.3nm,0.8s,baz=206,slow=5.0,SNR=3.0						
	comp=Z,0.3nm,0.8s						
ILAR	Eielson Array	92.06	13	P	P	03 56 28.3	+0.1
PDAR	Pinedale Array	92.58	44	P	P	03 56 31.3	-0.1
	comp=Z,0.4nm,0.7s,baz=174,slow=3.0,SNR=3.6						
	comp=Z,0.4nm,0.7s						
HFS	Hagfors	142.69	349	PKhKP	PKPpre	04 02 44.4	
	comp=Z,1.0nm,0.4s,baz=60,slow=5.8,SNR=5.6						
EKA	Eskdalemuir Ar	148.59	4	PKPbc	PKPbc	04 03 01.9	-1.4
	comp=Z,1.1nm,0.7s,baz=344,slow=2.6,SNR=3.7						
CLL	Collm	151.02	343	*i* PKPbc	PKPbc	04 03 08.6	-0.6
CLL				*e*PKPab	PKPab	04 03 18.0	-1.1

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*SDD **24** 03:53:12.9±2.1, 18°.39N×71°.70W, h28^{km}±5^{km}, MD2.8, ML2.3, MW2.8, Presumed earthquake*

*OSPL **24** 03:53:15.4±1.4, 18°.40N×71°.61W, h18^{km}±7^{km}, ML2.2, Presumed earthquake*

ISC 24 03:53:13.7±1.2, 18°.32N±0°.04×71°.67W±0°.04, h17^{km}±9^{km}, n13, σ0^{s}.94/22, 8C-3D, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LODU1	El Espartillar	0.19	81	*i* P	Pb	03 53 18.6	-0.1
LODU1				*e*S	Sg	03 53 21.4	-0.1
LODU1				IAML		03 53 24.9	
	comp=Z,1μm,0.3s						
JIDR	Jimani	0.24	314	⇑*i*P	Pb	03 53 19.6	0.0
JIDR				IAML		03 53 25.5	
	comp=N,276nm,0.5s						
NEDR	Neiba UASD	0.29	56	*i* P	Pb	03 53 20.8	+0.4
NEDR				⇓*i*S	Sn	03 53 27.6	-1.5
NEDR				IAML		03 53 28.5	
	comp=N,355nm,0.5s						
LONE3	El Aguacate, B	0.34	35	*i* P	Pb	03 53 21.7	+0.1
LONE3				IAML		03 53 28.9	
	comp=Z,111nm,0.4s						
PODR	Polo	0.40	113	*i* P	Pb	03 53 23.2	+0.7
PODR				*e*S	Sb	03 53 29.2	+0.8
PODR				IAML		03 53 33.6	
	comp=Z,3μm,0.5s						
PODR	Polo	0.40	113	⇑*i*P	Pb	03 53 23.2	+0.7
PODR				⇑*i*S	Sn	03 53 32.5	+0.3
PODR				IAML		03 53 34.7	
	comp=N,452nm,0.7s						
LOBH	Bahia de las A	0.46	177	*i* P	Pn	03 53 24.5	-1.1
LOBH				*e*S	Sn	03 53 32.6	-0.8
LOBH				IAML		03 53 38.4	
	comp=Z,71nm,0.6s						
LOVI	El Cajuil, Ovi	0.59	151	*i* P	Pn	03 53 27.1	-0.4
LOVI				IAML		03 53 40.5	
	comp=Z,83nm,0.6s						
REDR	Restauracion	0.88	17	⇓*i*P	Pn	03 53 30.1	-1.2
REDR				⇑*i*S	Sn	03 53 45.1	+1.4
REDR				IAML		03 53 45.5	
	comp=N,120nm,0.2s						
LGNH	Logne	0.91	282	*i* P	Pn	03 53 31.9	+0.1
LGNH				*e*S	Sn	03 53 45.1	+0.6
LGNH				IAML		03 53 52.2	
	comp=Z,25nm,0.7s						
ABDR	Alto Bandera	1.10	64	⇑*i*P	Pg	03 53 34.8	-0.3
ABDR				⇓*i*S	Sg	03 53 50.9	+1.3
ABDR				IAML		03 53 56.9	
	comp=N,40nm,0.3s						
BANI	BANI	1.25	87	⇑*i*P	Pg	03 53 37.0	-0.8
BANI				⇑*i*S	Sg	03 53 55.9	+1.8
BANI				IAML		03 54 04.6	
	comp=N,46nm,3.0s						
HATOM	Hato Mayor del	2.22	78	⇑*i*P	Pb	03 53 53.1	-0.4

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*GCG **24** 03:55:20.5±1.6, 15°.86N×94°.21W, h35^{km}±28^{km}, MD5.4, ML4.7, Presumed earthquake*

*IDC **24** 03:55:20.6±1.3, 15°.89N×94°.17W, h67^{km}±9^{km}, mb3.8/16, mbtmp4.2/18, MS3.6/11, Error ellipse: s-maj=24.0km s-min=7.2km az=42.0*

*NEIC **24** 03:55:21.2±1.4, 15°.84N±0°.04×94°.20W±0°.05, h71^{km}±7^{km}, mb4.4/182, Md4.8/109(MEX), Error ellipse: s-maj=9.4km s-min=3.3km az=51.0*

*MEX **24** 03:55:22.3±0.7, 15°.78N×94°.25W, h16^{km}±21^{km}, MD4.8, Presumed earthquake*

*CATAC **24** 03:55:24.4±0.3, 16°N±3°×9°4W±°, h65^{km}±11^{km}, M4.8/38, mb5.0/30, mB5.3/29, MLv5.1/38, Mw(mB)4.7/29, Error ellipse: s-maj=6.7km s-min=3.6km az=36.6, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}-4.46; $M_{\theta\theta}$0.21; $M_{\phi\phi}$4.25; $M_{r\theta}$3.00; $M_{\theta\phi}$-2.14; $M_{\phi r}$-3.32; Fault plane solution: $M_0$6.60282×10^{15} NP1: ϕ_s171.92219°, δ25.92170°, λ-63.87100°. NP2: ϕ_s323.31442°, δ66.89181°, λ-102.08184°. Principal axes: T 6.8065, Plg21.0050°, Azm62.4365°; N -0.4282, Plg11.0996°, Azm328.1164°; P -6.3783, Plg65.9913°, Azm211.9834°; confirmed*

*GFZ **24** 03:55:25.9±0.2, 16°N±3°×9°4W±°, h114^{km}, M4.4/21, mb4.4/21, confirmed*

ISC 24 03:55:21.1±0.8, 15°.81N±0°.04×94°.18W±0°.03, h77^{km}±8^{km}, n384, σ2^{s}.07/446, mb4.4/69, 1D, Near coast of Oaxaca

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TGIG		1.39	46	*i* P	Pn	03 55 44.7	-0.4
TGIG				*e*S	Sn	03 56 00.9	-2.1
TGIG		1.39	46		Pn	03 55 44.7	-0.4
TGIG					Sn	03 56 00.9	-2.1
TGIG		1.39	46	*e*P	Pn	03 55 44.2	-0.9
TGIG				*e*S	Sn	03 56 00.9	-2.1
TGIG				IAML		03 56 02.8	
	comp=E,8μm,0.4s						
CMIG	Matias Romero	1.44	332	P	Pn	03 55 45.2	-0.4
	comp=E,365nm,0.3s,baz=175,slow=12,SNR=1161						
CMIG				LR	LR	03 55 58.8	
	comp=E,44nm,21.9s,baz=180,slow=28						
CMIG				S	Sn	03 56 01.0	-3.0
	comp=E,1μm,0.3s,baz=150,slow=14,SNR=15						
UXUV	UXUV	1.50	1	*e*P	Pn	03 55 46.3	0.0
UXUV				*e*S	Sn	03 56 03.6	-1.7
UXUV	UXUV	1.50	1		Pn	03 55 46.3	0.0
UXUV					Sn	03 56 03.6	-1.7
HUIG	Huatulco	1.86	269	*e*P	Pn	03 55 49.3	-1.8
HUIG				*e*S	Sn	03 56 08.7	-5.2
HUIG	Huatulco	1.86	269		Pn	03 55 49.3	-1.8
HUIG					Sn	03 56 08.7	-5.2
HUIG	Huatulco	1.86	269	*e*P	Pn	03 55 49.0	-2.1

PATR	El Naranjo	2.00	110	eP	Pn	03 55 52.4	-0.7
PATR				eS	Sn	03 56 17.7	+0.3
PATR	El Naranjo	2.00	110		Pn	03 55 52.4	-0.7
PATR					Sn	03 56 17.7	+0.3
PAVE	Pavencul	2.02	107	eP	Pn	03 55 53.6	+0.1
PAVE				eS	Sn	03 56 18.1	0.0
PAVE	Pavencul	2.02	107		Pn	03 55 53.6	+0.1
PAVE					Sn	03 56 18.1	0.0
THIG		2.05	116	eP	Pn	03 55 53.2	-0.4
THIG				eS	Sn	03 56 16.2	-2.2
THIG		2.05	116		Pn	03 55 53.2	-0.4
THIG					Sn	03 56 16.2	-2.2
THIG		2.05	116	eP	Pn	03 55 53.3	-0.4
THIG				eS	Sn	03 56 17.4	-1.0
THIG				IAML		03 56 24.5	
	comp=E,9µm,0.3s						
CHUJ	Union Juarez	2.12	109	eP	Pn	03 55 54.3	-0.4
CHUJ				eS	Sn	03 56 20.8	+0.4
SMCA	Catarina	2.24	115	eP	Pn	03 55 55.6	-0.6
NEUV	Arroyo Zacate	2.45	321	eP	Pn	03 55 58.4	-0.6
NEUV				eS	Sn	03 56 26.2	-1.8
NEUV	Arroyo Zacate	2.45	321		Pn	03 55 58.4	-0.6
NEUV					Sn	03 56 26.2	-1.8
HUEH	Huehuetenango	2.62	100	eP	Pn	03 56 01.6	+0.1
HUEH				eS	Sn	03 56 33.5	+1.0
HUEH	Huehuetenango	2.62	100		Sn	03 56 33.5	+1.0
HUEH	Huehuetenango	2.62	100		Pn	03 56 02.2	+0.6
HUEH	Huehuetenango	2.62	100	eP	Pn	03 56 02.0	+0.5
RTAL	Retalhuleu	2.72	118	eP	Pn	03 56 02.7	+0.1
RTAL				eS	Sn	03 56 33.3	-1.2
RTAL	Retalhuleu	2.72	118		Pn	03 56 02.8	+0.2
RTAL	Retalhuleu	2.72	118	P	Pn	03 56 03.4	+0.8
RTAL				S	Sn	03 56 35.1	+0.6
OXLC	Oaxaca	2.73	298	eP	Pn	03 56 01.9	-1.1
OXLC				eS	Sn	03 56 34.5	-0.5
OXLC	Oaxaca	2.73	298		Pn	03 56 01.9	-1.1
OXLC					Sn	03 56 34.5	-0.5
OXBJ	Oaxaca	2.75	297	eP	Pn	03 56 03.8	+0.6
OXBJ				eS	Sn	03 56 38.3	+2.8
OXBJ	Oaxaca	2.75	297		Pn	03 56 03.8	+0.6
OXBJ					Sn	03 56 38.3	+2.8
OXIG	Oaxaca	2.76	297		Pn	03 56 04.2	+0.9
OXIG					Sn	03 56 34.4	-1.3
VHO	Vista Hermosa	2.76	297	eP	Pn	03 56 04.2	+0.9
VHO				eS	Sn	03 56 34.4	-1.3
PMUV	Sontecomapan	2.86	342	eP	Pn	03 56 02.6	-2.1
PMUV				eS	Sn	03 56 38.2	0.0
PMUV	Sontecomapan	2.86	342		Pn	03 56 02.6	-2.1
PMUV					Sn	03 56 38.2	0.0
PEIG	Puerto Escondi	2.87	274	eP	Pn	03 56 03.1	-1.5
PEIG				eS	Sn	03 56 34.1	-4.0
PEIG	Puerto Escondi	2.87	274		Pn	03 56 03.1	-1.5
PEIG					Sn	03 56 34.1	-4.0
STG8	El Palmar, Qui	3.04	116	eP	Pn	03 56 02.3	-5.0
YOIG	Yosondua	3.40	288	eP	Pn	03 56 09.4	-2.7
YOIG				eS	Sn	03 56 49.4	-2.0
YOIG	Yosondua	3.40	288		Pn	03 56 09.4	-2.7
YOIG					Sn	03 56 49.4	-2.0
ESSG	Sabana Grande	3.53	113	eP	Pn	03 56 14.7	+1.0
TOIG	Toxpalan	3.58	310	eP	Pn	03 56 15.3	+0.9
TOIG				eS	Sn	03 56 51.7	-4.0
TOIG	Toxpalan	3.58	310		Pn	03 56 15.3	+0.9
TOIG					Sn	03 56 51.7	-4.0
APG	El Apazote	3.67	102	P	Pn	03 56 15.9	+0.2
	comp=E,8.1nm,0.4s,baz=210,slow=15,SNR=118						
APG				S	Sn	03 56 58.2	+0.3
	comp=E,58nm,0.5s,baz=180,slow=11,SNR=4.9						
APG				LR	LR	03 57 30.7	
	comp=E,32nm,18.5s,baz=241,slow=35						
APG	El Apazote	3.67	102	⇓iP	Pn	03 56 16.0	+0.2
TXIG	Tlaxiaco	3.73	293	eP	Pn	03 56 17.1	+0.4
TXIG				eS	Sn	03 56 57.9	-1.7
TXIG	Tlaxiaco	3.73	293		Pn	03 56 17.1	+0.4
TXIG					Sn	03 56 57.9	-1.7
FG8	Yepocapa, Chim	3.82	113	eP	Pn	03 56 13.0	-4.7
FG16	Alotenango, Sa	3.86	113	eP	Pn	03 56 14.5	-3.8
PCG5	San Vicente Pa	4.00	113	eP	Pn	03 56 18.2	-1.9
TPIG	Tehuac#an	4.00	311	eP	Pn	03 56 20.8	+0.5
TPIG				eS	Sn	03 57 06.2	+0.2
TPIG	Tehuac#an	4.00	311		Pn	03 56 20.8	+0.5
TPIG					Sn	03 57 06.2	+0.2
HLIG	Huajuapan de L	4.01	300	eP	Pn	03 56 21.5	+1.0
HLIG				eS	Sn	03 57 04.9	-1.5
HLIG	Huajuapan de L	4.01	300		Pn	03 56 21.5	+1.0
HLIG					Sn	03 57 04.9	-1.5
ESSJ	San Jos, E	4.20	122	eP	Pn	03 56 16.9	-5.8
SCIG	Sabancuy	4.24	42	eP	Pn	03 56 22.8	-0.5
SCIG				eS	Sn	03 57 09.3	-2.3
SCIG	Sabancuy	4.24	42		Pn	03 56 22.8	-0.5
SCIG					Sn	03 57 09.3	-2.3
SCIG	Sabancuy	4.24	42	i P	Pn	03 56 23.0	-0.3
FTIG	Fresnillo de T	4.32	299	eP	Pn	03 56 26.2	+1.6
FTIG				eS	Sn	03 57 11.7	-2.2
FTIG	Fresnillo de T	4.32	299		Pn	03 56 26.2	+1.6
FTIG					Sn	03 57 11.7	-2.2
JAUV	Jalcomulco	4.33	325	eP	Pn	03 56 23.6	-1.1
JAUV				eS	Sn	03 57 11.8	-2.1
JAUV	Jalcomulco	4.33	325		Pn	03 56 23.6	-1.1
JAUV					Sn	03 57 11.8	-2.1
POHV	Veracruz	4.39	318		Sn	03 57 15.6	-0.5
FAME	Alcaldia de Sa	4.47	115	P	Pn	03 56 27.9	+1.4
FAME				S	Sn	03 57 18.5	+1.1
MGIG	Malinaltepec	4.50	289	eP	Pn	03 56 26.3	-0.8
MGIG				eS	Sn	03 57 15.7	-2.6
MGIG	Malinaltepec	4.50	289		Pn	03 56 26.3	-0.8
MGIG					Sn	03 57 15.7	-2.6
TLIG	Tlapa	4.55	293	eP	Pn	03 56 29.2	+1.5
TLIG				eS	Sn	03 57 18.2	-1.3
TLIG	Tlapa	4.55	293		Sn	03 57 18.2	-1.3
TLIG	Tlapa	4.55	293		Pn	03 56 28.9	+1.2
SLOZ	Alcaldia de Sa	4.60	112	P	Pn	03 56 30.6	+2.3
LOAL	Lomas de Alarc	4.62	112	P	Pn	03 56 29.6	+1.1
NUBE	Las Nubes	4.66	114	eP	Pn	03 56 30.3	+1.2
NUBE	Las Nubes	4.66	114	P	Pn	03 56 30.4	+1.3
NUBE				S	Sn	03 57 23.1	+1.1
UNIC	Universidad Ca	4.83	112	P	Pn	03 56 33.6	+2.2
ESQI	Esquipulas	4.83	104		Pn	03 56 31.9	+0.5
ESQI	Esquipulas	4.83	104	P	Pn	03 56 31.5	0.0
CRIG	Cruz Grande	4.85	282	eP	Pn	03 56 30.9	-0.7
CRIG				eS	Sn	03 57 21.9	-4.6
CRIG	Cruz Grande	4.85	282		Pn	03 56 30.9	-0.7
CRIG					Sn	03 57 21.9	-4.6
MTO3	Montecristo	4.86	106		Pn	03 56 31.6	-0.4
MTO3	Montecristo	4.86	106	eP	Pn	03 56 31.4	-0.6
MTO3	Montecristo	4.86	106	P	Pn	03 56 31.8	-0.2
CEDA	San Andres	5.04	113	P	Pn	03 56 35.9	+1.7
JAYA	Jayaque - finc	5.05	115	P	Pn	03 56 35.9	+1.4
JAYA				S	Sn	03 57 32.9	+1.2
PMON	Piamonte	5.14	113	P	Pn	03 56 38.1	+2.3
PMON				S	Sn	03 57 34.7	+0.8
UEES	Universidad Ev	5.21	113	P	Pn	03 56 37.8	+1.2
UEES				S	Sn	03 57 36.7	+1.2
SEMO	Seminario San	5.23	113	S	Sn	03 57 36.4	+0.4
LALI	Alcalda de L	5.24	116	P	Pn	03 56 38.5	+1.6
LALI				S	Sn	03 57 37.5	+1.5
UTEC	Universidad Te	5.25	113	P	Pn	03 56 39.0	+1.8
LOMA	Loma Larga	5.30	113	P	Pn	03 56 40.1	+2.2
LOMA				S	Sn	03 57 38.1	+0.3
LLGN	La Laguna	5.31	107	P	Pn	03 56 39.1	+1.0
SARH	Santa Rosa de	5.33	100	P	Pn	03 56 38.7	+0.5
SARH				S	Sn	03 57 37.0	-1.3
PPM	Popocatepetl	5.34	308	eP	Pn	03 56 42.2	+3.4
PPM				eS	Sn	03 57 40.5	+1.2
PPIG	Popocatepetl	5.34	308		Pn	03 56 42.2	+3.3
PPIG					Sn	03 57 40.5	+1.2
IZABA	Izabal, Puerto	5.38	90	eP	Pn	03 56 37.8	-1.1
IZABA				eS	Sn	03 57 36.9	-2.7
IZABA	Izabal, Puerto	5.38	90	P	Pn	03 56 38.6	-0.3
IZABA				S	Sn	03 57 37.5	-2.1
DAIG	Los Arroyos	5.39	284	eP	Pn	03 56 37.4	-1.6
DAIG				eS	Sn	03 57 35.5	-4.3
DAIG	Los Arroyos	5.39	284		Pn	03 56 37.4	-1.6
DAIG					Sn	03 57 35.5	-4.3
CXUV	Coxquihui	5.42	324	eP	Pn	03 56 39.4	-0.1
CXUV				eS	Sn	03 57 39.7	-0.8
CXUV	Coxquihui	5.42	324		Pn	03 56 39.4	-0.1
CXUV					Sn	03 57 39.7	-0.8
PAVA	Las Pavas	5.48	112	P	Pn	03 56 41.5	+1.1
AMVM	AMECAMECA	5.50	308	eS	Sn	03 57 49.8	+6.9
AMVM	AMECAMECA	5.50	308		Sn	03 57 49.8	+6.9
P5NO	Presa 5 de nov	5.54	108	P	Pn	03 56 41.8	+0.7
COEG	Centro de Oper	5.57	112	P	Pn	03 56 42.5	+0.9
COEG				S	Sn	03 57 45.3	+1.1
YAIG	Yautepec	5.57	304	eP	Pn	03 56 43.4	+1.7
YAIG				eS	Sn	03 57 43.6	-0.7
YAIG	Yautepec	5.57	304		Pn	03 56 43.4	+1.7
YAIG					Sn	03 57 43.6	-0.7
TECO	Alcaldia de Te	5.69	113	P	Pn	03 56 44.7	+1.5
TECO				S	Sn	03 57 48.5	+1.4
PLIG	Platanillo	5.70	297	eP	Pn	03 56 45.5	+2.1
PLIG				eS	Sn	03 57 46.5	-1.1
PLIG	Platanillo	5.70	297		Pn	03 56 45.5	+2.1
PLIG					Sn	03 57 46.5	-1.1
MPVM	San Francisco	5.71	307	eP	Pn	03 56 44.0	+0.4
MPVM				eS	Sn	03 57 49.4	+1.4
MPVM	San Francisco	5.71	307		Pn	03 56 44.0	+0.4
MPVM					Sn	03 57 49.4	+1.4
THVM	De Xico	5.75	308	eP	Pn	03 56 45.6	+1.4
THVM				eS	Sn	03 57 45.1	-3.8
THVM	De Xico	5.75	308		Pn	03 56 45.6	+1.4
THVM					Sn	03 57 45.1	-3.8
XCVM	Xochimilco	5.83	307	eS	Sn	03 57 48.6	-2.2
XCVM	Xochimilco	5.83	307		Sn	03 57 48.6	-2.2
TLVM	San Miguel Top	5.83	306	eP	Pn	03 56 43.6	-1.7
TLVM				eS	Sn	03 57 46.8	-4.2
TLVM	San Miguel Top	5.83	306		Pn	03 56 43.6	-1.7
TLVM					Sn	03 57 46.8	-4.2
VTVM	Tizayuca	5.89	313	eP	Pn	03 56 48.6	+2.5
VTVM				eS	Sn	03 57 49.5	-2.9
VTVM	Tizayuca	5.89	313		Pn	03 56 48.6	+2.5
VTVM					Sn	03 57 49.5	-2.9
PBVM	Pinon	5.91	308	eS	Sn	03 57 47.6	-4.9
PBVM	Pinon	5.91	308		Sn	03 57 47.6	-4.9
ALJI	Alcalda de J	5.96	114	P	Pn	03 56 49.0	+2.2
ALJI				S	Sn	03 57 54.8	+1.0
CTVM	Cuauhtemoc	5.97	308	eS	Sn	03 57 54.7	+0.3
CTVM	Cuauhtemoc	5.97	308		Sn	03 57 54.7	+0.3
CAIG	El Cayaco	5.97	283	eP	Pn	03 56 46.6	-0.4
CAIG				eS	Sn	03 57 49.7	-4.3
CAIG	El Cayaco	5.97	283		Pn	03 56 46.6	-0.4
CAIG					Sn	03 57 49.7	-4.3
MHVM	Bosque de Chap	5.99	307	eS	Sn	03 57 56.5	+1.8
MHVM	Bosque de Chap	5.99	307		Sn	03 57 56.5	+1.8
PTVM	Pico Tres Padr	6.02	309	eP	Pn	03 56 48.3	+0.4
PTVM				eS	Sn	03 57 57.6	+2.0
PTVM	Pico Tres Padr	6.02	309		Pn	03 56 48.3	+0.4
PTVM					Sn	03 57 57.6	+2.0
APVM	Azcapotzalco	6.03	308	eS	Sn	03 57 57.4	+1.6
APVM	Azcapotzalco	6.03	308		Sn	03 57 57.4	+1.6
INVM	La Marquesa	6.05	306	eP	Pn	03 56 46.3	-2.1
INVM				eS	Sn	03 57 54.9	-1.6
INVM	La Marquesa	6.05	306		Pn	03 56 46.3	-2.1
INVM					Sn	03 57 54.9	-1.6
PACA	Pacayal	6.12	112	P	Pn	03 56 51.0	+1.9
MARCA	Marcala la Paz	6.16	105	P	Pn	03 56 50.8	+1.2
RANC	El Ranchito	6.17	112	P	Pn	03 56 51.7	+1.9
RANC				S	Sn	03 57 59.7	+0.7
TOVM	TOLUCA	6.28	304	eP	Pn	03 56 55.0	+3.5
TOVM				eS	Sn	03 58 02.5	+0.5
TOVM	TOLUCA	6.28	304		Pn	03 56 55.0	+3.5
TOVM					Sn	03 58 02.5	+0.5
DHIG	Demacu	6.42	315		Pn	03 56 54.9	+1.5
DHIG					Sn	03 58 07.5	+2.1
DEIG	Demacu	6.43	315	eP	Pn	03 56 54.9	+1.5
DEIG				eS	Sn	03 58 07.5	+2.1
LCND	La Caada	6.57	111	P	Pn	03 56 57.3	+2.1
CNCH	Conchagua	6.64	112	P	Pn	03 56 58.2	+2.0
CNCH				S	Sn	03 58 11.0	+0.5
ATVM	ATLACOMULCO	6.67	307	eP	Pn	03 57 00.8	+3.9
ATVM				eS	Sn	03 58 16.7	+5.0
ATVM	ATLACOMULCO	6.67	307		Pn	03 57 00.8	+3.9
ATVM					Sn	03 58 16.7	+5.0
TGUH	Tegucigalpa,Un	6.90	104		Pn	03 56 59.6	-0.1
TGUH	Tegucigalpa,Un	6.90	104	P	Pn	03 57 01.3	+1.6
TGUH	Tegucigalpa,Un	6.90	104	P	Pn	03 57 02.2	+2.5
	comp=Z,142nm,1.1s						
TEIG	Tepich	7.12	51		Pn	03 57 01.4	-1.2
TEIG	Tepich	7.12	51	P	Pn	03 57 01.5	-1.2
TEIG				S	Sn	03 58 17.4	-4.8
TEIG	Tepich	7.12	51	P	Pn	03 57 01.5	-1.2
	comp=Z,131nm,0.5s						
ZIIG	Zihuatanejo	7.21	285	eP	Pn	03 57 04.1	+0.2
ZIIG				eS	Sn	03 58 18.8	-5.5
ZIIG	Zihuatanejo	7.21	285		Pn	03 57 04.1	+0.2
ZIIG					Sn	03 58 18.8	-5.5
MOIG	Morelia	7.71	301	eP	Pn	03 57 13.9	+3.0
MOIG				eS	Sn	03 58 40.3	+3.5
MOIG	Morelia	7.71	301		Sn	03 58 40.3	+3.5
MOIG	Morelia	7.71	301		Pn	03 57 10.1	-0.9
MOIG	Morelia	7.71	301	P	Pn	03 57 15.1	+4.2
OCON	Estacion meteo	7.76	105	P	Pn	03 57 12.7	+1.3
TEL3	Telica 3	7.80	113	P	Pn	03 57 13.2	+1.2
PLRN	Geotermica Pol	7.87	113	P	Pn	03 57 13.6	+0.7
PACN	Al O del Volca	7.88	114	P	Pn	03 57 14.6	+1.5
PACN				S	Sn	03 58 40.8	0.0
ROCN	Rota Cerro Neg	7.92	113	P	Pn	03 57 14.2	+0.7
ROCN				S	Sn	03 58 42.5	+0.9
ILCN	San Idelfonso	7.93	113	P	Pn	03 57 15.1	+1.3
ILCN				S	Sn	03 58 43.4	+1.4
CNGA	Al SSO del Vol	7.96	114	P	Pn	03 57 15.8	+1.6
CNGN	Cerro Negro	7.96	113	P	Pn	03 57 15.4	+1.2
CNGN	Cerro Negro	7.96	113	P	Pn	03 57 14.6	+0.4
	comp=Z,563nm,0.9s						
RCVN	Varillal2	8.03	105	P	Pn	03 57 16.5	+1.2
MOMN	Momotombo	8.14	114	P	Pn	03 57 18.1	+1.4
RPIG	Rio Verde	8.17	319	eP	Pn	03 57 21.7	+4.6
RPIG				eS	Sn	03 58 43.5	-4.4
RPIG	Rio Verde	8.17	319		Pn	03 57 21.7	+4.6
RPIG					Sn	03 58 43.5	-4.4
SAPS	Ciudad Sandino	8.37	115	P	Pn	03 57 22.2	+2.5
SAPS				S	Sn	03 58 54.4	+1.8
MATN	Matagalpa	8.49	109	P	Pn	03 57 22.4	+0.9
TISN	Laguna Tiscapa	8.50	114	P	Pn	03 57 22.9	+1.4
UNAN	Cigeo UNAN	8.51	115	P	Pn	03 57 22.7	+1.1
UNAN				S	Sn	03 58 57.1	+1.0
MGAN	Managua	8.51	114	P	Pn	03 57 23.7	+2.0
MGAN	Managua	8.51	114	P	Pn	03 57 24.1	+2.4
	comp=Z,107nm,1.1s						
BOAB	BOACO BROADBAN	8.90	111		Pn	03 57 26.9	-0.2
BOAB	BOACO BROADBAN	8.90	111	P	Pn	03 57 28.7	+1.6
BOAB	BOACO BROADBAN	8.90	111	P	Pn	03 57 29.3	+2.2
	comp=Z,80nm,1.1s						
MMIG	Aquila	9.11	287	eP	Pn	03 57 26.6	-3.2
MMIG				eS	Sn	03 59 13.9	+3.1
MMIG	Aquila	9.11	287		Pn	03 57 26.6	-3.2
MMIG					Sn	03 59 13.9	+3.1
SIUN	Universidad Ur	9.33	102		Pn	03 57 33.7	+0.8
SIUN	Universidad Ur	9.33	102	P	Pn	03 57 32.9	0.0
ACON	Acoyapa	9.54	112	P	Pn	03 57 37.0	+1.3
INCO	Volcan de Coli	9.72	294	eP	Pn	03 57 42.8	+4.3
INCO				eS	Sn	03 59 33.8	+7.6
CDAR	Ciudad de Arme	9.89	290	eP	Pn	03 57 42.8	+2.3
CDAR				eS	Sn	03 59 34.4	+4.5
CEGR	Campo Tres	9.89	292	eP	Pn	03 57 43.5	+2.8
CEGR				eS	Sn	03 59 35.1	+4.9
CMARA	Lajas Hojancha	10.29	123	P	Pn	03 57 48.5	+2.5
LNIG	Linares	10.31	332	eP	Pn	03 57 45.4	-0.8
LNIG				eS	Sn	03 59 38.4	-1.7
LNIG	Linares	10.31	332		Pn	03 57 45.4	-0.8
LNIG					Sn	03 59 38.4	-1.7
ZAIG	Zacatecas	10.52	312	P	Pn	03 57 52.9	+3.6
ZAIG	Zacatecas	10.52	312	P	Pn	03 57 53.5	+4.2
JTS	Las Juntas de	10.53	120	P	Pn	03 57 49.5	+0.3
	comp=Z,18nm,0.5s,baz=316,slow=5.7,SNR=10.0						
JTS				S	Sn	03 59 47.6	+2.1
	comp=Z,1.9nm,0.3s,baz=326,slow=23,SNR=1.1						
JTS	Las Juntas de	10.53	120		Pn	03 57 48.1	-1.2
JTS	Las Juntas de	10.53	120	P	Pn	03 57 51.5	+2.3
JTS	Las Juntas de	10.53	120	P	Pn	03 57 51.8	+2.6
	comp=Z,41nm,0.8s						
COVE	Coope Vega, Sa	10.78	117	P	Pn	03 57 53.8	+1.2
ESTA	Talpa de Allen	11.12	296	eP	Pn	03 58 00.3	+2.8
ESTA				eS	Sn	04 00 08.0	+7.9
ESTA	Talpa de Allen	11.12	296		Pn	03 58 00.3	+2.8
ESTA					Sn	04 00 08.0	+7.9
TOMAT	Tomatlan	11.31	293	eP	Pn	03 57 57.6	-2.3
TOMAT				eS	Sn	04 00 09.3	+4.8
HDC	Heredia	11.38	119		Pn	03 58 02.5	+1.5
HDC	Heredia	11.38	119	P	Pn	03 58 04.5	+3.5
	comp=Z,53nm,0.7s						
RAFA	San Farael, Vo	11.66	119		Pn	03 58 04.1	-0.8
FSCY	Frank Sound, G	12.87	72	P	Pn	03 58 19.5	-1.5
FSCY				S	Sn	04 00 38.7	-3.7
PIRO	Carate, Puerto	12.90	124		Pn	03 58 22.2	+0.8
BRU2	Volcan	13.21	121		Pn	03 58 26.1	+0.4
BRU2	Volcan	13.21	121	P	Pn	03 58 27.8	+2.1
	comp=Z,35nm,0.8s						
833A	Chaparral WMA,	13.35	340		Pn	03 58 27.6	+0.2
HNDO	Hondo	14.44	342		Pn	03 58 42.1	+0.5
JCT	Junction City	15.48	342	P	P	03 58 57.5	-0.5
JCT				IAmb	IAmb	03 59 24.8	
	comp=Z,15nm,0.8s						
SAND	Sanderson	15.86	334		P	03 59 01.9	-0.2
BRDY	Brady	16.02	345	IAmb	IAmb	03 59 16.6	
	comp=Z,15nm,0.7s						
TXAR	Lajitas Array	16.05	329	P	P	03 59 04.3	+0.1
	comp=Z,3.6nm,0.7s,baz=148,slow=13,SNR=50						
TXAR	Lajitas Array	16.05	329		Pn	03 59 03.1	+0.9
TX31	Lajitas Ar. Si	16.05	329		Pn	03 59 02.8	+0.5
OZNA	Ozona	16.33	338		P	03 59 07.6	+0.2
OZNA				IAmb	IAmb	03 59 10.2	
	comp=Z,20nm,0.7s						
FW13	Cleburne	16.73	350	IAmb	IAmb	03 59 25.9	
	comp=Z,24nm,0.9s						
ALPN	Alpine	16.89	331	IAmb	IAmb	03 59 21.4	
	comp=Z,23nm,1.2s						
SGCY	Sterling City	17.23	340	IAmb	IAmb	03 59 20.5	
	comp=Z,20nm,0.8s						
LPIG	La Paz	17.25	301	LR	LR	04 05 25.2	
	comp=Z,121nm,19.5s,baz=118,slow=35						
MNHN	Monahans	17.33	335		P	03 59 19.3	+0.9
MNHN				IAmb	IAmb	03 59 25.2	
	comp=Z,26nm,0.9s						
PLPT	Palo Pinto	17.34	348	P	P	03 59 18.5	+0.1
PLPT				IAmb	IAmb	03 59 36.2	
	comp=Z,15nm,0.8s						
TMB01	Midkiff	17.35	337	P	Pn	03 59 18.2	-0.1
Z41A	Richland Creek	17.41	4	IAmb	IAmb	04 00 03.9	
	comp=Z,34nm,1.1s						
TPB01	Permian Basin	17.44	331	P	P	03 59 19.6	0.0
229A	Bryant Ranch,	17.52	338	IAmb	IAmb	03 59 47.9	
	comp=Z,17nm,1.0s						
352A	Blakely	17.73	27	P	P	03 59 22.4	-0.4
VHRN	Van Horn	17.89	328		P	03 59 24.6	0.0
ODSA	Odessa	17.93	336	IAmb	IAmb	03 59 53.1	
	comp=Z,23nm,1.1s						
129A	Stewart Farms,	18.14	339	P	P	03 59 27.6	+0.3
Z47A	Carrollton	18.17	17	IAmb	IAmb	04 00 00.7	
	comp=Z,28nm,1.0s						
APMT	Aspermont	18.25	344		P	03 59 28.1	-0.4
APMT				IAmb	IAmb	03 59 57.0	
	comp=Z,14nm,0.6s						
SN07	Snyder 07	18.25	342	IAmb	IAmb	03 59 40.0	
	comp=Z,9.7nm,0.5s						
LRAL	Lakeview Retre	18.34	19	P	Pn	03 59 30.0	-0.2
128A	Castleberry Fa	18.36	337		P	03 59 29.6	-0.1
TPB28		18.38	331	P	Pn	03 59 30.8	0.0
TPB28				IAmb	IAmb	03 59 38.3	
	comp=Z,4.8nm,0.6s						
GTBY	Guantanamo Bay	18.60	74	P	P	03 59 30.5	-1.8
	comp=Z,28nm,0.9s						
MIAR	Mount Ida	18.66	2	P	P	03 59 32.5	-0.4
MIAR				IAmb	IAmb	03 59 52.6	
	comp=Z,59nm,1.5s						
MIAR	Mount Ida	18.66	2	P	Pn	03 59 33.8	-0.3
	comp=Z,24nm,1.3s						
DKNS	Dickens	18.79	342	IAmb	IAmb	03 59 49.7	
	comp=Z,16nm,0.9s						
MNTX	Cornudas Mount	18.83	329	P	Pn	03 59 38.5	+2.3
	comp=Z,5.6nm,2.0s						
WMOK	Wichita Mounta	19.29	348	P	P	03 59 40.5	+0.6
	comp=Z,6.4nm,1.1s						
W35A	Tecumseh	19.41	353	IAmb	IAmb	03 59 52.4	
	comp=Z,15nm,0.6s						
WHAR	Wooly Hollow	19.47	5	P	P	03 59 41.6	-0.1
WHAR				IAmb	IAmb	03 59 59.4	
	comp=Z,22nm,1.3s						
X48A	Hartselle	19.64	18	IAmb	IAmb	04 00 22.6	
	comp=Z,20nm,1.3s						
GOGA	Godfrey	20.02	27	IAmb	IAmb	03 59 52.7	
	comp=Z,12nm,0.8s						
FCAR	Ozark Folk Cen	20.08	5	P	P	03 59 47.5	-0.8
Y52A	Lilburn	20.16	25	IAmb	IAmb	04 00 26.1	
	comp=Z,21nm,0.9s						
FPAL	Fort Paine	20.18	21	IAmb	IAmb	04 00 08.0	
	comp=Z,24nm,1.1s						
OK052	Battle Ridge R	20.23	354	IAmb	IAmb	04 00 15.3	
	comp=Z,41nm,1.4s						
QUOK	Quay	20.40	354	P	P	03 59 51.8	-0.1
OK048	Pawnee Station	20.67	354	IAmb	IAmb	04 00 25.0	
	comp=Z,21nm,1.0s						
SWET	Sewanee	20.69	19	IAmb	IAmb	04 00 14.5	
	comp=Z,17nm,1.0s						
121A	Cookes Peak, D	20.73	326	IAmb	IAmb	04 00 01.1	
	comp=Z,11nm,0.8s						
OK051	E0350 and S346	20.75	354	IAmb	IAmb	04 00 15.8	
	comp=Z,22nm,1.0s						
W50A	Signal Mountai	20.88	21	IAmb	IAmb	04 00 03.0	
	comp=Z,16nm,0.7s						
WVT	Waverly	21.01	14	P	P	03 59 57.7	-0.7
WVT	Waverly	21.01	14	P	P	04 00 00.8	+2.4
	comp=Z,12nm,0.9s						
T35A	Sooner Cattle	21.12	355	IAmb	IAmb	04 00 17.5	
	comp=Z,14nm,0.7s						
PBMO	Poplar Bluff	21.14	8	P	P	03 59 58.7	-1.1
PBMO				IAmb	IAmb	04 00 35.8	
	comp=Z,18nm,1.1s						
HODGE	Hodges	21.25	28	P	P	04 00 01.1	+0.1
HODGE				IAmb	IAmb	04 00 18.4	
	comp=Z,26nm,1.1s						
CPCT	Cooper Cave	21.38	22	IAmb	IAmb	04 00 19.8	
	comp=Z,24nm,1.4s						
DUN6	Lazy B Ranch	21.47	324	IAmb	IAmb	04 00 32.1	
	comp=Z,20nm,1.0s						
BG3	Lake Jocassee	21.60	26	IAmb	IAmb	04 00 40.5	
	comp=Z,9.9nm,0.8s						
JSC	Jenkinsville	21.76	30	IAmb	IAmb	04 00 13.6	
	comp=Z,15nm,1.2s						
S39A	Bolivar	21.80	2	IAmb	IAmb	04 00 24.8	
	comp=Z,24nm,1.0s						
TKL	Tuckaleechee C	21.84	23	P	P	04 00 07.4	+0.1
	comp=Z,5.3nm,1.0s,baz=176,slow=14,SNR=5.8						
TKL				LR	LR	04 09 08.8	
	comp=Z,124nm,19.3s,baz=157,slow=38						
	comp=Z,5.3nm,1.0s						
TKL	Tuckaleechee C	21.84	23	IAmb	IAmb	04 00 14.7	
	comp=Z,25nm,1.1s						
RTBA	Rita Blanca	21.91	341	IAmb	IAmb	04 00 11.9	
	comp=Z,12nm,0.8s						
OTAV	Otavalo	21.92	133	P	P	04 00 09.3	+0.5
	comp=Z,5.8nm,1.4s						
PAULI	Pauline	21.94	28	IAmb	IAmb	04 00 15.0	
	comp=Z,14nm,1.1s						
ALQ	Albuquerque	22.01	332	IAmb	IAmb	04 00 30.4	
	comp=Z,3.5nm,0.8s						
ANMO	Albuquerque	22.01	332	P	P	04 00 09.4	+0.1
ANMO	Albuquerque	22.01	332	P	P	04 00 10.9	+1.6
S44A	Carbondale	22.23	10	IAmb	IAmb	04 00 20.0	
	comp=Z,23nm,1.0s						
V53A	Saluda	22.23	25	IAmb	IAmb	04 00 19.5	
	comp=Z,12nm,0.8s						
TUC	Tucson	22.30	320	P	P	04 00 13.2	+0.8
TUC	Tucson	22.30	320	P	P	04 00 16.6	+4.2
	comp=Z,6.9nm,1.1s						
CCM	Cathedral Cave	22.31	6	P	P	04 00 11.7	-0.5
CCM				IAmb	IAmb	04 00 50.5	
	comp=Z,9.2nm,0.8s						
CCM	Cathedral Cave	22.31	6	P	P	04 00 13.7	+1.4
	comp=Z,17nm,1.1s						
ROSC	El Rosal	22.34	117	P	P	04 00 14.9	+1.6
	comp=Z,6.1nm,0.6s,baz=36,slow=4.0,SNR=5.1						
	comp=Z,6.1nm,0.6s						
ROSC	El Rosal	22.34	117	P	P	04 00 13.6	+0.3
ROSC				IAmb	IAmb	04 00 18.5	
	comp=Z,7.6nm,0.7s						
R40A	Maddies Statio	22.45	4	IAmb	IAmb	04 00 37.1	
	comp=Z,8.8nm,0.8s						
TOMA	Boca Toma-Volc	22.46	135	P	P	04 00 09.3	-5.2
R32A	Long Quarter,	22.87	351	IAmb	IAmb	04 00 19.4	
	comp=Z,20nm,1.1s						
T25A	Trinidad	23.10	339	IAmb	IAmb	04 00 42.7	
	comp=Z,18nm,1.3s						
WCI	Wyandotte Cave	23.39	16	P	P	04 00 23.4	+0.2
	comp=Z,12nm,1.0s						
CBKS	Cedar Bluff	23.43	349	IAmb	IAmb	04 00 28.0	
	comp=Z,24nm,1.1s						

P40A	Paris	23.70	4	IAmb	IAmb	04 00 43.0	
	comp=Z,13nm,0.9s						
P38A	Dawn	23.73	1	IAmb	IAmb	04 01 06.9	
	comp=Z,20nm,1.4s						
SDV	Santo Domingo	23.99	104	LR	LR	04 09 33.0	
	comp=Z,277nm,19.5s,baz=32,slow=36						
SDCO	Great Sand Dun	24.03	338		P	04 00 30.0	+0.7
KSCO	Kaye Shedlock'	24.27	344	IAmb	IAmb	04 00 36.6	
	comp=Z,11nm,0.7s						
Y14A	Wickenburg	24.77	320	P	P	04 00 36.4	+0.6
N38A	Joes South For	24.90	2		P	04 00 36.4	-0.4
Q24A	Divide	25.00	339	IAmb	IAmb	04 00 41.2	
	comp=Z,9.1nm,0.8s						
PV01	Paradox Valley	25.60	333	P	P	04 00 43.3	-0.2
PV13	Radium Mtn., P	25.73	333	IAmb	IAmb	04 01 22.3	
	comp=Z,18nm,0.9s						
PV15	Paradox Valley	25.74	333	IAmb	IAmb	04 01 24.6	
	comp=Z,13nm,1.0s						
PV05	Paradox Valley	25.79	332	IAmb	IAmb	04 01 29.5	
	comp=Z,14nm,1.0s						
PV03	Paradox Valley	25.82	333	IAmb	IAmb	04 01 13.7	
	comp=Z,19nm,1.1s						
PV18	Skein Mesa, Pa	25.84	333	IAmb	IAmb	04 01 15.6	
	comp=Z,14nm,0.9s						
PV11	David Mesa, Pa	25.87	333	IAmb	IAmb	04 01 14.2	
	comp=Z,14nm,0.8s						
PV17	East Wray Mesa	25.89	333	IAmb	IAmb	04 01 08.9	
	comp=Z,15nm,1.0s						
PV16	Nyswonger Mesa	25.90	333	IAmb	IAmb	04 01 15.1	
	comp=Z,15nm,1.4s						
ISCO	Idaho Springs	25.90	340		P	04 00 46.6	+0.3
ISCO	Idaho Springs	25.90	340	P	P	04 00 49.2	+2.9
	comp=Z,4.7nm,2.5s						
PV19	Morning Glory	25.93	333	P	P	04 00 47.3	+0.8
PV19				IAmb	IAmb	04 01 09.2	
	comp=Z,18nm,1.1s						
PV10	Paradox Valley	26.01	333	IAmb	IAmb	04 01 09.3	
	comp=Z,12nm,1.1s						
PV22	Blue Mesa, Par	26.03	333	P	P	04 00 47.5	+0.2
PV22				IAmb	IAmb	04 01 23.8	
	comp=Z,12nm,0.9s						
PFO	Pinyon Flats O	26.80	315	LR	LR	04 12 32.8	
	comp=Z,114nm,18.1s,baz=119,slow=39						
KNB	Kanab	26.82	325	P	P	04 00 54.1	-0.4
ECSD	EROS Data Cent	27.91	356	P	P	04 01 03.4	-0.4
	comp=Z,2.4nm,1.0s						
PDAR	Pinedale Array	29.92	337	P	P	04 01 22.0	0.0
	comp=Z,0.6nm,0.6s,baz=150,slow=10.0,SNR=8.3						
	comp=Z,0.6nm,0.6s						
PDAR	Pinedale Array	29.92	337	P	P	04 01 22.3	+0.3
NV11	Mina Array Sit	30.86	322	IAmb	IAmb	04 01 36.0	
	comp=Z,6.4nm,1.2s						
NVAR	Mina Array Bea	30.95	321	P	P	04 01 32.6	+1.4
	comp=Z,2.8nm,0.8s,baz=134,slow=8.7,SNR=17						
NVAR				LR	LR	04 16 24.4	
	comp=Z,100nm,18.4s,baz=90,slow=41						
	comp=Z,2.8nm,0.8s						
NVAR	Mina Array Bea	30.95	321	P	P	04 01 30.4	-0.8
SNOW	Snow King Moun	30.97	336	P	P	04 01 31.1	-0.2
SNOW				IAmb	IAmb	04 01 35.2	
	comp=Z,8.0nm,0.8s						
KVN	Kaiserville	31.23	322		P	04 01 33.9	+0.3
AGMN	Agassiz Nation	32.42	358	P	P	04 01 42.5	-1.2
	comp=Z,8.6nm,0.9s						
MCMT	McKenzie Canyo	32.94	335	P	P	04 01 49.4	+0.8
EPLO	Experimental L	33.77	1	P	P	04 01 54.3	-1.1
WVOR	Wild Horse Val	33.83	327	IAmb	IAmb	04 02 01.0	
	comp=Z,7.9nm,1.2s						
ULM	Lac du Bonnet	34.38	358	P	P	04 01 59.0	-1.7
	comp=Z,2.2nm,0.5s,baz=160,slow=7.2,SNR=13						
ULM				LR	LR	04 19 21.8	
	comp=Z,103nm,18.7s,baz=156,slow=42						
	comp=Z,2.2nm,0.5s						
J08A	Circle Bar Ran	34.39	328		P	04 02 01.4	+0.4
J08A				IAmb	IAmb	04 02 27.2	
	comp=Z,5.6nm,0.9s						
PLID	Pearl Lake	34.49	332	P	P	04 02 02.8	+0.8
PLID				IAmb	IAmb	04 02 05.5	
	comp=Z,6.5nm,1.2s						
F10A	Beach Ranch, E	35.73	332		P	04 02 13.1	+0.6
NEW	Newport	37.46	335	P	P	04 02 28.7	+1.6
F03A	Seaside	38.80	327	P	P	04 02 38.6	+0.3
FFC	Flin Flon	39.30	353	P	P	04 02 42.1	-0.2
LPAZ	La Paz	40.96	140	P	P	04 02 57.2	0.0
	comp=Z,1.0nm,0.9s,baz=334,slow=7.3,SNR=3.6						
	comp=Z,1.0nm,0.9s						
LPAZ	La Paz	40.96	140	P	P	04 02 57.0	-0.3
GO01	Chusmiza	42.97	144	P	P	04 03 14.3	+0.9
	comp=Z,4.0nm,1.0s						
CLDB	Colider	46.33	123	P	P	04 03 37.7	-2.0
	comp=Z,5.4nm,2.1s						
YKA	Yellowknife Ar	48.80	348	P	P	04 03 58.4	+0.3
	comp=Z,2.2nm,0.5s,baz=155,slow=7.4,SNR=9.2						
YKA				LR	LR	04 29 22.3	
	comp=Z,89nm,18.9s,baz=120,slow=42						
	comp=Z,2.2nm,0.5s						
YKA	Yellowknife Ar	48.80	348	P	P	04 03 58.6	+0.5
YKAW3	Yellowknife Wh	48.86	348	P	P	04 03 58.4	-0.3
YKAW3				IAmb	IAmb	04 04 03.4	
	comp=Z,4.8nm,1.1s						
AC02	Maricunga	48.88	150	P	P	04 04 01.2	+1.4
	comp=Z,5.5nm,2.3s						
FRB	Frobisher Bay	51.06	14	LR	LR	04 27 16.8	
	comp=Z,52nm,18.5s,baz=218,slow=38						
MT09	Talagante	54.04	156	P	P	04 04 37.9	+0.1
ILON	Igloolik, Nuna	54.09	5	P	P	04 04 36.8	-0.8
MT08	Bocatoma Ro	54.14	155	P	P	04 04 38.4	-0.4
BO01	Tunca	54.55	157	P	P	04 04 40.9	-0.5
BO01	Tunca	54.55	157	P	P	04 04 40.2	-1.1
	comp=Z,7.7nm,1.6s						
BDFB	Brasilia	55.26	122	P	P	04 04 47.4	+0.4
	comp=Z,2.4nm,0.7s,baz=290,slow=6.3,SNR=5.6						
	comp=Z,2.4nm,0.7s						
BDFB	Brasilia	55.26	122	P	P	04 04 46.6	-0.4
I30M	Mount Dempster	56.90	340	P	P	04 04 58.7	+0.7
I30M				IAmb	IAmb	04 05 42.6	
	comp=Z,4.4nm,1.4s						
BCAR	Beaver Creek A	57.55	337	P	P	04 05 01.6	-0.8
L27K	Beaver Creek,	57.56	336	P	P	04 05 03.3	+0.7
L27K				IAmb	IAmb	04 05 37.1	
	comp=Z,5.0nm,1.2s						
INK	Inuvik	58.12	344	P	P	04 05 06.9	+0.7
ILAR	Eielson Array	60.35	337	P	P	04 05 22.4	+0.5
	comp=Z,0.3nm,0.5s,baz=128,slow=5.7,SNR=9.7						
	comp=Z,0.3nm,0.5s						
ILAR	Eielson Array	60.35	337	P	P	04 05 21.7	-0.1
PLCA	Paso Flores	60.38	159	P	P	04 05 22.4	+0.1
	comp=Z,2.3nm,0.9s,baz=302,slow=6.6,SNR=5.0						
	comp=Z,2.3nm,0.9s						
PLCA	Paso Flores	60.38	159	P	P	04 05 21.9	-0.5
PLCA				IAmb	IAmb	04 05 43.7	
	comp=Z,2.5nm,0.9s						
PLCA	Paso Flores	60.38	159	P	P	04 05 22.4	+0.1
CPSB	Cacapava Do Su	60.41	140	P	P	04 05 21.2	-1.4
	comp=Z,7.6nm,1.1s						
ANGG	Ammassalik, Gr	62.18	23	P	P	04 05 32.9	-1.2
	comp=Z,17nm,1.1s						
J20K	Nowinta River	62.97	335	P	P	04 05 40.2	+0.8
IMAR	Indian Mountai	63.47	337	P	P	04 05 42.4	-0.3
J19K	Poorman	63.52	334	P	P	04 05 43.6	+0.6
K17K	Iditarod	64.28	333	P	P	04 05 49.0	+1.0
EKA	Eskdalemuir Ar	77.73	36	P	P	04 07 09.3	-0.2
	comp=Z,2.2nm,0.7s,baz=288,slow=4.4,SNR=6.4						
EKA				LR	LR	04 39 55.2	
	comp=Z,31nm,18.6s,baz=269,slow=34						
	comp=Z,2.2nm,0.7s						
ESDC	Sonseca Array	80.24	52	P	P	04 07 23.7	-0.1
	comp=Z,0.9nm,1.0s,baz=305,slow=5.6,SNR=3.8						
	comp=Z,0.9nm,1.0s						
ESDC	Sonseca Array	80.24	52	P	P	04 07 23.4	-0.3
MDT	Midelt	81.25	58	LR	LR	04 39 57.3	
	comp=Z,64nm,18.3s,baz=248,slow=33						
CEST	Esterri de Car	83.37	48	P	P	04 07 39.9	-0.4
NB2	NORSAR Subarra	83.56	28	P	P	04 07 41.2	+0.6
	comp=Z,1.1nm,0.8s,baz=293,slow=5.6						
NOA	NORSAR Array B	83.56	28	P	P	04 07 41.5	+0.9
	comp=Z,2.1nm,0.8s,baz=297,slow=5.7,SNR=6.8						
NOA				LR	LR	04 44 26.3	
	comp=Z,28nm,18.1s,baz=310,slow=35						
	comp=Z,2.1nm,0.8s						
ARCES	ARCESS Array B	85.07	18	P	P	04 07 49.0	+0.9
	comp=Z,2.3nm,0.6s,baz=296,slow=4.7,SNR=12						
	comp=Z,2.3nm,0.6s						
ARCES	ARCESS Array B	85.07	18	P	P	04 07 49.0	+0.9
ZCCA	Zocca	89.53	44	P	P	04 08 09.9	-0.3
GERES	GERESS Array B	89.54	39	P	P	04 08 10.4	+0.3
	comp=Z,1.7nm,0.8s,baz=333,slow=4.8,SNR=5.0						
	comp=Z,1.7nm,0.8s						
FIA1	FINESS Array S	89.74	25	P	P	04 08 09.8	-0.8
FINES	FINESS Array B	89.74	25	P	P	04 08 10.2	-0.5
	comp=Z,3.0nm,1.0s,baz=5.7,slow=1.9,SNR=3.6						
	comp=Z,3.0nm,1.0s						
HHC	Hu-ho-hao-te	118.77	338	*e*P	PKPdf	04 13 59.0	-2.0
WMQ	Urumqi	120.63	358	*e*PKP	PKPdf	04 14 04.3	-0.1
WMQ				LR	LR		
	comp=Z,39nm,24.3s						
WR8	Warramunga Arr	133.62	257	PKPdf	PKPdf	04 14 29.8	+0.1
WB0	Warramunga Arr	133.71	258	PKPdf	PKPdf	04 14 30.1	+0.2
WRA	Warramunga Arr	133.77	257	PKP	PKPdf	04 14 30.1	+0.2
	comp=Z,0.4nm,0.4s,baz=87,slow=2.7,SNR=11						
WRA	Warramunga Arr	133.77	257	PKPdf	PKPdf	04 14 29.7	-0.3
ASAR	Alice Springs	134.25	252	PKP	PKPdf	04 14 31.3	+0.5
	comp=Z,0.3nm,0.5s,baz=67,slow=3.0,SNR=3.4						
ASAR	Alice Springs	134.25	252		PKPdf	04 14 30.7	-0.1
PZH	PanZhiHua	135.18	340	PKP	PKPdf	04 14 31.3	-1.4

IDC ***24*** *03:55:20.5±1.8, 9°.19N×125°.66E, h0^{km}, mb3.6/5, mbtmp3.6/5, Error ellipse: s-maj=176.7km s-min=21.1km az=68.0*

MAN ***24*** *03:55:24.0, 9°.31N×127°.04E, h11^{km}, MS3.7*

ISC 24 03:55:21.6±2.8**, 9°.35N**±0°.05×**127°.11E**±0°.08**, h3**^{km}±17^{km}**, n14, σ2ˢ.24**/21**, mb3.5**/5**, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CDOP	Cateel, Davao	1.69	203	*e*P	Pn	03 55 52.7	+0.7
CDOP				*e*S	Sn	03 56 12.6	-1.6
BUKP	Musuan	2.49	234	*e*P	Pb	03 56 06.8	-0.3
BUKP				*e*S	Sn	03 56 34.9	+0.8
CGP	Cagayan de Oro	2.54	250	*e*P	Pb	03 56 07.0	-0.9
CGP				*e*S	Sb	03 56 37.3	-2.3
DMPH	Davao City--Mi	2.75	215	*e*P	Pb	03 56 12.0	+0.5
DMPH				*i* S	Sg	03 56 51.0	+0.9
PLP	Palo	2.76	311	*e*P	Pn	03 56 09.1	+2.3
PLP				*e*S	Sn	03 56 43.1	+2.4
TBP	Tagbilaran	3.22	276	*e*P	Pn	03 56 15.7	+2.6
TBP				*i* S	Sn	03 56 54.8	+2.9
LLP	Lapu-Lapu	3.24	288	*e*P	Pb	03 56 17.6	-2.2
LLP				*e*S	Sb	03 57 00.0	+0.3
LSIP	Lazi, Siquijor	3.44	267	*e*P	Pb	03 56 20.5	-2.7
LSIP				*e*S	Sb	03 57 02.6	-2.8
PAGZ	Pagadian	3.97	248	*e*P	Pn	03 56 27.5	+4.1
PAGZ				*e*S	Sn	03 57 09.4	-1.2
WRA	Warramunga Arr	29.96	166	P	P	04 01 32.0	+0.6
	0.4nm,0.6s,baz=346,slow=8.5,SNR=5.1						
	0.4nm,0.6s						
ASAR	Alice Springs	33.48	169	P	P	04 02 03.7	+1.3
	0.2nm,0.4s,baz=347,slow=7.9,SNR=5.5						
	0.2nm,0.4s						
SONM	Songino Array	42.17	339	P	P	04 03 12.6	-3.0
	0.3nm,0.3s,baz=168,slow=7.4,SNR=1.5						
	0.3nm,0.3s						
MKAR	Makanchi Array	53.25	323	P	P	04 04 34.4	-7.3
	0.7nm,0.9s,baz=126,slow=8.2,SNR=4.2						
	0.7nm,0.9s						
KURBB	Kurchatov Arra	57.29	325	P	P	04 05 05.7	-4.9
	0.4nm,0.2s,baz=125,slow=6.9,SNR=6.4						
	0.4nm,0.2s						

UPP ***24*** *03:59:59.2±0.1, 58°.82N×15°.10E, h0^{km}, ML2.1, Suspected explosion*

DNK ***24*** *04:00:01.0±2.6, 58°.84N×15°.12E, h0^{km}, Explosion*

ISC 24 03:59:59.5±0.8**, 58°.81N**±0°.02×**15°.11E**±0°.02**, h0**^{km}**, n63, σ0ˢ.61**/98**, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ASKU	Askersund	0.17	300	P	Pg	04 00 02.5	-0.3
ASKU				S	Sg	04 00 04.8	-0.2
ASKU	Askersund	0.17	300	P	Pg	04 00 04.4	+1.7
	baz=113						
ASKU				S	Sg	04 00 06.7	+1.7
ASKU	Askersund	0.17	300	P	Pg	04 00 02.5	-0.3
ASKU				P		04 00 04.4	
	baz=113						
ASKU				S	Sg	04 00 04.8	-0.2
ASKU				S		04 00 06.7	
LNKU	Linkoeping	0.62	160	P	Pg	04 00 11.2	-0.2
LNKU				S	Sg	04 00 19.9	+0.4
LNKU	Linkoeping	0.62	160	P	Pb	04 00 13.3	+0.1
LNKU				S	Sb	04 00 21.9	-0.6
LNKU	Linkoeping	0.62	160	P	Pg	04 00 11.2	-0.2
LNKU				P	Pb	04 00 13.3	+0.1
LNKU				S	Sg	04 00 19.9	+0.4
LNKU				S	Sb	04 00 21.9	-0.6
NRAU	Nora	0.76	357	P	Pg	04 00 13.4	-0.7
NRAU				S	Sg	04 00 23.4	-0.7
NRAU	Nora	0.76	357	P	Pb	04 00 15.5	-0.1
NRAU	Nora	0.76	357	P	Pg	04 00 13.4	-0.7
NRAU				P	Pb	04 00 15.5	-0.1
NRAU				S	Sg	04 00 23.4	-0.7
ESKU	Eskilstuna	0.79	57	P	Pg	04 00 14.1	-0.5
ESKU				S	Sg	04 00 24.6	-0.2
ESKU	Eskilstuna	0.79	57	P	Pb	04 00 16.4	+0.3
ESKU	Eskilstuna	0.79	57	P	Pg	04 00 14.1	-0.5
ESKU				P	Pb	04 00 16.4	+0.3
ESKU				S	Sg	04 00 24.6	-0.2
VIKU	Vikbolandet	0.89	110	P	Pg	04 00 15.9	-0.6
VIKU	Vikbolandet	0.89	110	P	Pb	04 00 18.1	+0.3
VIKU	Vikbolandet	0.89	110	P	Pg	04 00 15.9	-0.6
VIKU				P	Pb	04 00 18.1	+0.3
FKPU	Falk	0.98	229	P	Pg	04 00 17.9	-0.4
FKPU	Falk	0.98	229	P	Pb	04 00 19.5	+0.1
FKPU	Falk	0.98	229	P	Pg	04 00 17.9	-0.4
FKPU				P	Pb	04 00 19.5	+0.1
NASU	Vaermlandsnaes	1.01	278	P	Pg	04 00 17.7	-1.0
NASU	Vaermlandsnaes	1.01	278	P	Pb	04 00 19.8	0.0
NASU	Vaermlandsnaes	1.01	278	P	Pg	04 00 17.7	-1.0
NASU				P	Pb	04 00 19.8	0.0
EKSU	Eksjoe	1.25	175	P	Pg	04 00 22.4	-0.9
EKSU	Eksjoe	1.25	175	P	Pn	04 00 24.5	+0.4
EKSU	Eksjoe	1.25	175	P	Pg	04 00 22.4	-0.9
EKSU				P	Pn	04 00 24.5	+0.4
VSTU	Vaestervik	1.38	146	P	Pg	04 00 24.8	-1.1
VSTU	Vaestervik	1.38	146	P	Pb	04 00 26.9	+0.8
VSTU	Vaestervik	1.38	146	P	Pg	04 00 24.8	-1.1
VSTU				P	Pb	04 00 26.9	+0.8
BACU	Backbrunna	1.46	44	P	Pn	04 00 26.3	-0.9
BACU	Backbrunna	1.46	44	P	Pb	04 00 28.4	+0.8
BACU	Backbrunna	1.46	44	P	Pn	04 00 26.3	-0.9
BACU				P	Pb	04 00 28.4	+0.8
UDD	Uddeholm	1.50	330	P	Pn	04 00 26.5	-1.1
UDD	Uddeholm	1.50	330	P	Pb	04 00 28.5	+0.4
UDD	Uddeholm	1.50	330	P	Pn	04 00 26.5	-1.1
UDD				P	Pb	04 00 28.5	+0.4
NYNU	Nynaeshamn	1.51	81	P	Pn	04 00 27.2	-0.6
NYNU	Nynaeshamn	1.51	81	P	Pg	04 00 29.2	+0.7
NYNU	Nynaeshamn	1.51	81	P	Pn	04 00 27.2	-0.6
NYNU				P	Pg	04 00 29.2	+0.7
FIBU	Brunna	1.59	45	P	Pn	04 00 28.5	-0.3
FIBU	Brunna	1.59	45	P	Pg	04 00 30.7	+0.8
FIBU	Brunna	1.59	45	P	Pn	04 00 28.5	-0.3
FIBU				P	Pg	04 00 30.7	+0.8
VANU	Vaenersborg	1.62	260	P	Pn	04 00 28.9	-0.4
VANU	Vaenersborg	1.62	260	P	Pg	04 00 30.6	0.0
VANU	Vaenersborg	1.62	260	P	Pn	04 00 28.9	-0.4
VANU				P	Pg	04 00 30.6	0.0
BOGU	Bogesund	1.68	68	P	Pn	04 00 30.3	+0.1
BOGU	Bogesund	1.68	68	P	Pg	04 00 32.2	+0.5
BOGU	Bogesund	1.68	68	P	Pn	04 00 30.3	+0.1
BOGU				P	Pg	04 00 32.2	+0.5
GNOU	Gnosjoe	1.69	206	P	Pn	04 00 30.5	+0.3
GNOU	Gnosjoe	1.69	206	P	Pg	04 00 32.4	+0.6
GNOU	Gnosjoe	1.69	206	P	Pn	04 00 30.5	+0.3
GNOU				P	Pg	04 00 32.4	+0.6
OSKU	Oskarshamn	1.70	162	P	Pn	04 00 30.4	-0.1
OSKU	Oskarshamn	1.70	162	P	Pg	04 00 32.4	+0.2
OSKU	Oskarshamn	1.70	162	P	Pn	04 00 30.4	-0.1
OSKU				P	Pg	04 00 32.4	+0.2
FALU	Falun	1.73	12	P	Pn	04 00 31.0	+0.2
FALU	Falun	1.73	12	P	Pg	04 00 32.8	+0.1
FALU	Falun	1.73	12	P	Pn	04 00 31.0	+0.2
FALU				P	Pg	04 00 32.8	+0.1
OSTU	Oestervaala	1.76	35	P	Pn	04 00 31.6	+0.4
OSTU	Oestervaala	1.76	35	P	Pg	04 00 33.1	0.0
OSTU	Oestervaala	1.76	35	P	Pn	04 00 31.6	+0.4
OSTU				P	Pg	04 00 33.1	0.0
TJOU	Tjoern	1.99	248	*i* P	Pb	04 00 36.2	-0.4
TJOU				*i* S	Sb	04 01 02.6	+0.7
STRU	Stroemstad	2.05	278	*i* P	Pn	04 00 35.8	+0.6
STRU				*i* S	Sb	04 01 03.0	-0.6
ONAU	Onsala	2.21	231	*i* P	Pb	04 00 40.9	+0.6
ONAU				*i* S	Sb	04 01 08.3	+0.2
FABU	Falkenberg	2.22	216	*i* P	Pb	04 00 41.1	+0.7
FABU				*i* S	Sg	04 01 10.4	-0.3
DEL	Delary	2.44	196	*i* P	Pb	04 00 43.6	-0.6
DEL				*i* S	Sb	04 01 16.2	+1.4
BLEU	Blekinge	2.54	171	*i* P	Pb	04 00 44.8	-1.1
BLEU				*i* S	Sb	04 01 17.3	-0.4

THE ***24*** *04:14:40.7, 41°N±9°×2°0E±1°8, h0^{km}±17^{km}, M2.6/12, MLh2.6/12*

BEO ***24*** *04:14:41.9±0.4, 40°.99N×19°.69E, h17^{km}±4^{km}, ML2.5/15*

TIR ***24*** *04:14:41.5, 41°.00N×19°.86E, h15^{km}, Ml2.5/5*

ISC 24 04:14:41.2±1.0**, 41°.00N**±0°.02×**19°.81E**±0°.02**, h13**^{km}±8^{km}**, n49, σ0ˢ.96**/82**, Albania**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TIR	Tirane	0.35	7	P	Pg	04 14 48.5	+0.1
TIR				S	Sg	04 14 54.2	+1.0
TIR				AML	AML	04 14 59.5	
	1.9nm,0.4s						
TIR				AML	AML	04 15 00.9	
	2.4nm,0.6s						
VLO	Vlora	0.58	204	P	Pg	04 14 52.6	+0.1
VLO				S	Sb	04 15 02.5	+1.3
VLO				AML	AML	04 15 05.6	
	4.7nm,0.3s						
VLO				AML	AML	04 15 05.9	
	4.8nm,0.3s						
VLO	Vlora	0.58	204	P	Pg	04 14 52.4	-0.1
VLO				S	Sn	04 15 03.3	-1.1
VLO				AML	AML		
OHR	Ohrid	0.76	81	*i* Pg	Pg	04 14 55.2	-0.7
OHR				*i* Sg	Sb	04 15 06.7	+0.2
KBN	Korca	0.83	116	P	Pg	04 14 55.9	-1.4
KBN				S	Sb	04 15 08.0	-0.6
KBN				AML	AML	04 15 12.6	
	1.4nm,0.5s						
KBN	Korca	0.83	116	P	Pg	04 14 55.8	-1.4
KBN				S	Sb	04 15 07.7	-0.9
KBN				AML	AML		
PHP	Peshkopia	0.84	34	P	Pg	04 14 55.8	-1.6
PHP				S	Sb	04 15 08.8	0.0
PHP				AML	AML	04 15 11.2	
	0.8nm,0.2s						
PHP	Peshkopia	0.84	34	P	Pg	04 14 55.5	-1.9
SRN	Sarande	1.12	172	P	Pg	04 15 03.2	+0.4
SRN				S	Sg	04 15 18.8	+1.3
SRN				AML	AML	04 15 23.4	
	0.4nm,0.3s						
SRN	Sarande	1.12	172	P	Pb	04 15 02.5	+0.1
SRN				S	Sg	04 15 18.9	+1.4
SRN				AML	AML		
KEK	Kerkira	1.28	180	P	Pn	04 15 03.6	-1.2
KEK				S	Sb	04 15 21.4	-0.1
KEK				AML	AML		
PDG	Podgorica	1.49	344	P	Pb	04 15 08.7	-0.1
PDG				S	Sg	04 15 29.4	+0.1
PDG	Podgorica	1.49	344	*e*Pg	Pb	04 15 08.6	-0.1
PDG				*e*Sg	Sb	04 15 28.8	+1.2
IGT	Igoumenitsa	1.52	164	P	Pg	04 15 09.9	-0.4
IGT				S	Sg	04 15 31.0	+1.0
IGT	Igoumenitsa	1.52	164	P	Pb	04 15 08.9	-0.3
IGT				S	Sg	04 15 29.7	-0.3
IGT				AML	AML		
IGT	Igoumenitsa	1.52	164	*e*Pg	Pb	04 15 08.8	-0.3
IGT				*e*Sg	Sg	04 15 31.2	+1.2
JAN	Janina	1.56	149	P	Pg	04 15 10.5	-0.6
JAN				S	Sg	04 15 31.8	+0.5
JAN				AML	AML		
SKO	Skopje	1.57	51	*i* Pg	Pb	04 15 09.3	-0.7
SKO				*i* Sg	Sg	04 15 32.8	+1.2
KPRO	Kipourio	1.58	131	P	Pb	04 15 09.7	-0.5
KPRO				AML	AML		
KZN	Kozani	1.64	114	P	Pn	04 15 10.0	+0.1
KZN				AML	AML		
PRMD	Pramanda	1.77	146	P	Pb	04 15 13.6	+0.1
PRMD				AML	AML		
GRG	Griva	1.96	90	P	Pn	04 15 14.7	+0.5
GRG				AML	AML		
TETR	Tetrakomo, Epi	2.00	145	P	Pb	04 15 16.2	-1.2
TETR				AML	AML		
TREB	Trebinje	2.04	328	*e*Pn	Pn	04 15 14.6	-0.6
TREB				*e*Sn	Sn	04 15 40.0	-0.4
DBRK	Dubrovnik	2.08	324	*e*Pn	Pn	04 15 15.4	-0.4
VAY	Valandovo	2.11	80	*i* Pn	Pb	04 15 17.3	-2.0
VAY				*i* Sn	Sg	04 15 48.1	-0.9
TYRN	Tyrnavos	2.25	124	P	Pn	04 15 18.5	+0.4
SJES	Sjenica	2.27	3	*e*Pn	Pn	04 15 19.8	+1.4
SJES				*e*Sn	Sn	04 15 47.0	+0.7
BARS	Barje	2.36	39	*e*Pn	Pn	04 15 20.6	+1.0
BARS				*e*Sn	Sn	04 15 49.7	+1.3
SELS	Selova	2.43	23	*e*Pn	Pb	04 15 22.6	-2.1
SELS				*e*Sn	Sn	04 15 51.6	+1.5
STON	Ston	2.45	321	*i* Pn	Pn	04 15 20.1	-0.6
STON	Ston	2.45	321	*e*Pn	Pn	04 15 20.0	-0.8
STON				*e*Sn	Sn	04 15 49.5	-1.0
PEHC	Pehcevo	2.45	70	*i* Pn	Pb	04 15 25.9	+0.6
PEHC				*i* Sn	Sb	04 15 54.9	-0.4
BOSS	Bosilegrad	2.50	52	*e*Pn	Pn	04 15 22.1	+0.6
IVAS	Ivanjica	2.59	6	*e*Pn	Pn	04 15 23.3	+0.4
IVAS				*e*Sn	Sn	04 15 54.7	+0.5
GOCS	Kraljevo Serbi	2.68	17	*e*Sn	Sn	04 15 57.9	+1.3
LSTV	Lastovo	2.81	310	*i* Pn	Pn	04 15 25.3	-0.4
BBLS	Lazi&#263i	2.88	354	*e*Pn	Pn	04 15 28.3	+1.4
GRUS	Gruza	2.97	13	*e*Pn	Pn	04 15 28.6	+0.6
BOVS	Bovan	2.99	27	*e*Pn	Pn	04 15 30.2	+1.9
BOVS				*e*Sn	Sn	04 16 04.0	+0.1
VTS	Vitosha	3.03	57	*e*Pn	Pn	04 15 29.6	+0.6
VTS				*e*Sn	Sn	04 16 06.2	+1.0
ZAPS	Zavoj	3.10	42	*e*Pn	Pn	04 15 31.3	+1.5
ZAPS				*e*Sn	Sn	04 16 08.2	+1.5
DIVS	Divibare	3.10	2	*e*Pn	Pn	04 15 30.8	+0.9
DIVS				*e*Sn	Sn	04 16 06.4	-0.5
RICI	Ricice	3.19	322	*e*Pn	Pn	04 15 30.7	-0.4
RICI				Sn	Sn	04 16 08.4	-0.5
TRUS	Trudelj	3.26	8	*e*Pn	Pn	04 15 32.5	+0.6
ZAGS	Zajecar	3.34	32	*e*Pn	Pn	04 15 34.6	+1.5
ZAGS				*e*Sn	Sn	04 16 13.7	+1.2
BLKB	Belogradchik	3.38	38	*e*Sn	Sn	04 16 14.5	+0.9
KIJV	Kijevo	3.92	321	*e*Pn	Pn	04 15 41.0	-0.1
KIJV				Sn	Sn	04 16 27.4	+0.5
MORI	Morici	4.18	315	*e*Pn	Pn	04 15 44.7	+0.1
MORI				Sn	Sn	04 16 32.3	-0.9

IDC ***24*** *04:26:46.1±0.9, 38°.02N×34°.23E, h0^{km}, mb3.8/6, mbtmp3.7/9, ML3.3/3, Error ellipse: s-maj=20.5km s-min=9.7km az=77.0*

ISK ***24*** *04:26:47.4, 38°.05N×34°.07E, h8^{km}, ML3.7/30*

AFAD ***24*** *04:26:47.0, 38°.04N×34°.05E, h17^{km}±1^{km}, MW3.7*

CFUSG ***24*** *04:26:48.1, 38°.02N×34°.12E, h5^{km}, Mb2.9/1, MD3.3/2, MSH2.4/2*

ISC 24 04:26:47.5±1.0**, 38°.03N**±0°.02×**34°.05E**±0°.02**, h9**^{km}±7^{km}**, n75, σ0ˢ.72**/106**, mb3.6**/5**, 1C, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BSIR	Belisirma, Guz	0.31	38	P	Pg	04 26 54.0	+0.2
YESY	Yesilyurt	0.34	225	Pg	Pg	04 26 55.2	+0.8
YESY				Sg	Sb	04 27 00.9	-0.6
YESY				AML	AML		
GULA	Gulagac	0.35	25	Pg	Pg	04 26 54.4	-0.1
GULA				Sg	Sg	04 26 59.4	+0.2
GULA				AML	AML		
NIDE	Nigde/Merkez-G	0.58	93	P	Pg	04 26 58.5	-0.3
NIDE				S	Sg	04 27 06.3	-0.1
NIDE				IAML		04 27 08.0	
	comp=N,2µm,0.5s						
KERG	Konya-Eregli	0.61	174	P	Pb	04 27 00.1	-0.4
AKSY	AKSARAY - Alti	0.66	340	P	Pg	04 26 59.0	-1.3
CMRD	Camardi-Nigde	0.83	116	Pg	Pg	04 27 03.3	-0.2
CMRD				Sg	Sb	04 27 15.4	-0.1

CMRD				AML	AML		
GULE	Gulek	0.94	142	P	Pg	04 27 04.9	-0.8
GULE				S	Sb	04 27 18.9	+0.2
GULE				IAML		04 27 21.0	
	comp=E,5µm,1.1s						
GULE				IAML		04 27 27.0	
	comp=N,2µm,0.9s						
ALIN	Konya, Altinte	0.96	287	P	Pg	04 27 05.4	-0.6
ALIN				S	Sg	04 27 16.9	-1.6
ALIN				IAML		04 27 22.0	
	comp=N,908nm,0.5s						
SERE	Sereflikochisa	0.99	338	Pg	Pg	04 27 06.9	+0.2
SERE				Sg	Sb	04 27 20.9	+0.7
SERE				AML	AML		
AVNS	Nevsehir-Avano	1.00	39	P	Pg	04 27 06.6	-0.2
AVNS				S	Sb	04 27 20.3	-0.1
AVNS				IAML		04 27 25.0	
	comp=N,1µm,0.9s						
YAHY	KAYSERI_Yahyal	1.04	86	P	Pg	04 27 07.1	-0.4
YAHY				S	Sb	04 27 21.1	-0.4
YAHY				IAML		04 27 25.0	
	comp=N,661nm,0.5s						
KRMN	Karaman	1.06	216	Pn	Pn	04 27 08.6	0.0
KRMN				Sn	Sn	04 27 23.7	+0.3
KRMN				AML	AML		
KIRS	Kirsehir-Merke	1.11	355	P	Pb	04 27 08.0	-0.9
KIRS				S	Sg	04 27 22.5	-0.8
KIRS				IAML		04 27 25.0	
	comp=N,661nm,0.4s						
KKBE	Karaman, Kazim	1.19	228	P	Pb	04 27 09.9	-0.4
KKBE				S	Sb	04 27 25.3	-0.6
KKBE				IAML		04 27 31.0	
	comp=N,266nm,0.6s						
MCUR	KIREHR	1.19	18	P	Pb	04 27 09.6	-0.7
MCUR				S	Sb	04 27 23.6	-2.3
MCUR				IAML		04 27 29.0	
	comp=N,428nm,0.4s						
CBEY	Konya-Cihanbey	1.19	304	P	Pn	04 27 08.2	-2.2
CBEY				S	Sb	04 27 26.2	+0.2
KULU	Kulu	1.30	321	Pn	Pn	04 27 12.1	+0.1
KULU				AML	AML		
CAYT	Sariam	1.32	130	P	Pb	04 27 12.4	0.0
CAYT				S	Sg	04 27 30.4	+0.3
CAYT				IAML		04 27 42.0	
	comp=N,2µm,0.6s						
KONT	Konya--Tatoy	1.34	267	Pn	Pn	04 27 12.8	+0.4
KONT				Sn	Sg	04 27 32.1	+1.6
KONT				AML	AML		
KONT	Konya--Tatoy	1.34	267	P	Pb	04 27 13.0	+0.3
LADK	Ladik-KONYA	1.34	278	Pn	Pn	04 27 12.3	-0.2
LADK				AML	AML		
KOZK	Kozakli-Nevseh	1.34	28	Pn	Pb	04 27 12.7	-0.2
KOZK				Sn	Sg	04 27 31.1	+0.3
KOZK				AML	AML		
KMER	Konya-Meram	1.35	259	P	Pn	04 27 11.6	-1.1
KAMT	Kaman	1.36	349	Pn	Pn	04 27 12.8	0.0
KAMT				Sn	Sg	04 27 31.7	+0.2
KAMT				AML	AML		
KKUL	Konya-Kulu	1.45	323	P	Pb	04 27 15.0	+0.3
KKUL				S	Sg	04 27 34.6	+0.5
KKUL				IAML		04 27 40.0	
	comp=N,874nm,0.5s						
AKPI	Kirsehir/Akpin	1.48	358	P	Pn	04 27 14.1	-0.2
AKPI				S	Sn	04 27 33.4	-0.3
AKPI				IAML		04 27 38.0	
	comp=E,578nm,0.8s						
AKPI				IAML		04 27 40.0	
	comp=N,641nm,0.3s						
KOZT	Kozan	1.51	111	Pn	Pb	04 27 15.2	-0.5
KOZT				AML	AML		
GUNE	Kayseri	1.52	54	P	Pg	04 27 16.9	+0.3
KIZK	Mersin	1.55	177	Pn	Pb	04 27 16.5	+0.2
KIZK				AML	AML		
KIZK	Mersin	1.55	177	P	Pb	04 27 15.8	-0.5
SIRC	Yozgat	1.56	33	P	Pn	04 27 15.8	+0.2
SIRC				S	Sg	04 27 37.6	-0.2
SIRC				IAML		04 27 41.0	
	comp=N,272nm,0.4s						
KDHN	Kadinhani	1.60	289	P	Pn	04 27 16.4	+0.3
KEBE	Keben-Mersin	1.60	190	Pn	Pb	04 27 17.3	0.0
KEBE				AML	AML		
SAIM	ADANA	1.61	91	P	Pb	04 27 17.5	+0.1
SAIM				S	Sb	04 27 37.9	+0.1
SAIM				IAML		04 27 41.0	
	comp=N,1µm,0.8s						
AFSR	Afar-Bala (An	1.61	332	Pn	Pn	04 27 16.5	+0.3
AFSR				AML	AML		
CDAG	Cicekdag	1.61	9	P	Pn	04 27 16.9	+0.7
CDAG				S	Sg	04 27 40.2	+0.7
CDAG				IAML		04 27 43.0	
	comp=N,2µm,0.5s						
BNN	Bunyan	1.63	59	Pn	Pn	04 27 16.7	+0.1
BNN				AML	AML		
HDMB	Hadim	1.63	230	Pn	Pb	04 27 17.9	0.0
HDMB				AML	AML		
SLFK	Silifke-Mersin	1.63	183	Pn	Pb	04 27 17.6	-0.2
SLFK				AML	AML		
KESK	Krkkale-Ke	1.65	347	P	Pn	04 27 16.9	+0.2
KESK				S	Sg	04 27 40.7	+0.2
KESK				IAML		04 27 43.0	
	comp=N,1µm,0.7s						
KESK				IAML		04 27 50.0	
	comp=E,700nm,0.9s						
SILI	Silifke-Mersin	1.66	183	Pn	Pb	04 27 17.9	-0.3
SILI				AML	AML		
TEVE	Tevekalti-Mers	1.66	197	Pn	Pb	04 27 17.7	-0.6
TEVE				AML	AML		
BBAL	Bala	1.68	335	P	Pn	04 27 17.2	+0.1
BBAL				S	Sb	04 27 40.4	+0.6
BBAL				IAML		04 27 52.0	
	comp=N,631nm,0.5s						
BR131	Keskin Array S	1.73	349	Pn	Pn	04 27 18.3	+0.5
BR131				AML	AML		
BRTR	Keskin Array B	1.73	349	Pg	Pn	04 27 18.0	+0.2
	14nm,0.3s,baz=162,slow=18,SNR=147						
BRTR				Lg	Lg	04 27 43.1	
	78nm,0.3s,baz=163,slow=31,SNR=31						
KRTS	Karatas	1.80	144	Pn	Pb	04 27 19.6	-1.0
KRTS				AML	AML		
BERE	Bereket-Mersin	1.80	202	Pn	Pn	04 27 19.9	+1.0
BERE				AML	AML		
IKL	Isikli	1.81	189	Pn	Pb	04 27 20.1	-0.7
IKL				AML	AML		
KARG	Kargicak-Mersi	1.84	189	Pn	Pb	04 27 20.9	-0.4
KARG				AML	AML		
TEPK	Tepekoy-MERSIN	1.84	193	Pn	Pb	04 27 20.5	-0.9
YOZG	Bozok Univ. Me	1.84	18	P	Pn	04 27 19.7	+0.3
YOZG				S	Sb	04 27 44.9	+0.2
YOZG				IAML		04 27 52.0	
	comp=N,469nm,0.5s						
YESI	Yesilovacik-Me	1.86	190	Pn	Pb	04 27 20.9	-0.7
SEYD	Seydisehir-KON	1.86	251	Pn	Pn	04 27 20.7	+1.1
SEYD				AML	AML		
ANDN	Andirin	1.87	103	P	Pb	04 27 22.2	+0.3
ANDN				S	Sg	04 27 47.7	-0.1
ANDN				IAML		04 27 56.0	
	comp=N,823nm,0.7s						
OREN	Orenkoy-Mersin	1.88	195	Pn	Pb	04 27 21.3	-0.6
TISA	Tisan-Mersin	1.89	189	Pn	Pn	04 27 20.7	+0.8
YOZ	Yozgat	1.89	31	Pn	Pn	04 27 20.8	+0.7
YOZ				AML	AML		
KIZT	Kizilcal	1.90	297	Pn	Pb	04 27 21.8	-0.7
KIZT				AML	AML		
SARI	SarD1z-Kayseri	1.91	78	Pn	Pn	04 27 21.1	+0.8
SARI				AML	AML		
DELI	KIRIKKALE	1.97	357	P	Pn	04 27 22.2	+1.1
DELI				S	Sb	04 27 48.5	+0.3
DELI				IAML		04 27 59.0	
	comp=N,359nm,0.7s						
LOD	Lodumlu	2.11	332	Pn	Pn	04 27 24.4	+1.3
LOD				AML	AML		
HACI	Hacifakili, Ak	2.13	38	P	Pn	04 27 24.2	+0.9
HACI				S	Sg	04 27 55.3	-0.6
HACI				IAML		04 28 04.0	
	comp=N,156nm,0.9s						
POLA	Polatl-ANKAR	2.22	319	Pn	Pb	04 27 26.6	-1.3
POLA				AML	AML		
MMAI	Mount Meron Ar	5.12	167	Pn	Pn	04 28 05.0	+0.5
	4.0nm,0.3s,baz=354,slow=15,SNR=5.6						
MMAI				Sn	Sn	04 29 02.2	-1.5
	1.3nm,0.3s,baz=354,slow=23,SNR=1.9						
	0.8nm,0.3s						
MMAI				AML	AML		
ASF	Jabal al Asfar	6.29	157	Pn	Pn	04 28 20.7	+0.2
	0.3nm,0.3s,baz=330,slow=14,SNR=4.0						
ASF				Sn	Sn	04 29 31.8	-0.7
	0.6nm,0.3s,baz=118,slow=23,SNR=1.1						
	2.1nm,0.6s						
ASF				AML	AML		
SEV	Sevastopol'	6.52	358	⇑iP	Pn	04 28 24.5	+1.0
SEV				pmax	pmax	04 28 24.8	
	comp=Z,4.0nm,0.3s						
SEV				ex	x	04 29 39.9	
SEV				smax	smax	04 29 49.0	
	comp=N,1.0nm,0.4s						
SEV				smax	smax	04 29 49.0	
	comp=E,1.0nm,0.6s						
DNZ2	Donuzlav2	7.37	355	eP	Pn	04 28 37.1	+2.0
DNZ2				pmax	pmax	04 28 37.5	
	comp=Z,9.0nm,0.3s						
DNZ2				ex	x	04 30 03.2	
DNZ2				smax	smax	04 30 10.8	
	comp=N,2.0nm,0.4s						
DNZ2				smax	smax	04 30 10.8	
	comp=E,4.0nm,0.5s						
GERES	GERESS Array B	18.25	313	P	P	04 31 02.2	+1.0
	baz=88,slow=6.0,SNR=4.0						
	comp=E,0.4nm,0.3s						
AKTO	Aktyubinsk	21.08	46	P	P	04 31 31.2	-0.6
	comp=E,1.1nm,0.4s,baz=233,slow=12,SNR=3.6						
	comp=E,1.1nm,0.4s						
FINES	FINESS Array B	23.96	351	P	P	04 32 02.0	+0.2
	comp=E,1.6nm,0.9s,baz=164,slow=9.9,SNR=4.1						
	comp=E,1.6nm,0.9s						
HFS	Hagfors	25.62	336	P	P	04 32 17.5	+0.6
	comp=E,1.6nm,0.7s,baz=200,slow=7.7,SNR=2.9						
	comp=E,1.6nm,0.7s						
ARCES	ARCESS Array B	31.90	354	P	P	04 33 13.4	+0.5
	comp=E,7.6nm,1.1s,baz=169,slow=8.7,SNR=5.4						
	comp=E,7.6nm,1.1s						
KURBB	Kurchatov Arra	33.72	54	P	P	04 33 28.1	-0.7
	comp=E,0.4nm,0.6s,baz=273,slow=8.7,SNR=2.8						
	comp=E,0.4nm,0.6s						
TORD	Torodi Ar. Bea	37.95	238	P	P	04 34 06.0	+0.5
	comp=E,1.0nm,0.8s,baz=34,slow=8.6,SNR=5.1						
	comp=E,1.0nm,0.8s						

IDC **24** *04:44:55.0±0.8, 79°.76N×2°.85E, h0^{km}, mb4.1/12, mbtmp4.2/19, ML3.3/5, MS3.6/45, Error ellipse: s-maj=18.3km s-min=13.5km az=16.0*

NAO **24** *04:44:55.1±1.2, 79°.84N×4°.46E, h10^{km}, ML4.3*

NEIC **24** *04:44:57.4±1.9, 79°.72N±0°.08×3°.8E±0°.5, h10^{km}±1^{km}, mb4.5/27, Error ellipse: s-maj=15.3km s-min=11.5km az=45.0*

BER **24** *04:44:58.5±3.6, 79°.78N×3°.98E, h25^{km}±30^{km}, Mw4.8, ML4.3(NAO), Confirmed Earthquake*

GCMT **24** *04:44:58.4±0.3, 79°.42N±0°.05×3°.4E±0°.1, h12^{km}±1^{km}, MW4.7/88, Moment Tensor Solution. s23,c25; s88,c105; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.10±.10; $M_{\theta\theta}$0.02±.06; $M_{\phi\phi}$1.07±.07; $M_{r\theta}$-0.38±.23; $M_{\theta\phi}$-0.01±.04; $M_{\phi r}$-0.37±.17; Best double couple: $M_0$1.20200×10^{16} NP1:ϕ_s165.00000°, δ38.00000°, λ-116.00000°. NP2: ϕ_s16.00000°, δ57.00000°, λ-72.00000°. Principal axes: T 1.1350, Plg10.0000°, Azm93.0000°; N 0.1260, Plg15.0000°, Azm186.0000°; P -1.2690, Plg72.0000°, Azm331.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

FCIAR **24** *04:44:59.0, 80°.12N×7°.19E, h10^{km}, station ZFI2 has station magnitude of 4.30 station OMEGA has station magnitude of 4.20*

GFZ **24** *04:44:59.2±0.3, 79°N±5°×°±°, h10^{km}, M4.6/30, mb4.6/30, confirmed*

DNK **24** *04:45:01.7±2.6, 79°.68N×1°.36E, h10^{km}±53^{km}, ML2.9, Confirmed Earthquake*

KOLA **24** *04:45:03.8, 79°.69N×7°.10E, h0^{km}, ML2.5, Error ellipse: s-maj=113.9km s-min=44.3km az=50.0, Greenland sea*

ISC 24 04:44:56.9±0.4, **79°.60N**±0°.05×**3°.15E**±0°.04, **h10^{km}, n215,** σ**2^{s}78**/206, **mb4.5**/54, **MS3.6**/44, **2D, Greenland Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BRBB	Barentsburg B	2.63	120	Pn	Pn	04 45 37.0	-2.2
BRBB				Sn	Sn	04 46 05.0	-6.0
BRBB	Barentsburg B	2.63	120	Pn	Pn	04 45 37.0	-2.2
BRBB				Sn	Sn	04 46 05.0	-6.0
BRBA	Barentsburg A	2.65	120	Pn	Pn	04 45 37.3	-2.3
BRBA				Sn	Sn	04 46 06.1	-5.5
BRBA	Barentsburg A	2.65	120	Pn	Pn	04 45 37.3	-2.3
BRBA				Sn	Sn	04 46 06.1	-5.5
SPA0	Spitsbergen Ar	2.93	113	Pn	Pn	04 45 41.3	-2.1
	baz=315,slow=10						
SPA0				Sn	Sn	04 46 13.1	-5.4
	baz=308,slow=16						
SPA0	Spitsbergen Ar	2.93	113	eP	Pn	04 45 40.0	-3.4
SPA0				eS	Sn	04 46 13.3	-5.2
SPA0	Spitsbergen Ar	2.93	113	Pn	Pn	04 45 41.3	-2.1
SPA0				Sn	Sn	04 46 13.1	-5.4
SPITS	Spitsbergen Ar	2.93	113	Pn	Pn	04 45 41.2	-2.1
	156nm,0.3s,baz=315,slow=8.2,SNR=1841						
SPITS				Sn	Sn	04 46 12.6	-5.9
	baz=299,slow=28						
SPB2	Spitsbergen Ar	2.93	113		Pn	04 45 41.2	-2.2
NOR	Nord	3.80	311	Pn	Pn	04 45 54.6	-0.7
NOR	Nord	3.80	311	eP	Pn	04 45 53.8	-1.6
NOR				eS	Sn	04 46 41.4	+1.4
NOR	Nord	3.80	311	Pn	Pn	04 45 54.6	-0.7
NOR				eP	Pb	04 45 54.9	-9.1
NOR				eS	Sn	04 46 35.9	-4.2
NOR	Nord	3.80	311	iP	Pn	04 45 55.3	-0.1
NOR				iS	Sn	04 46 35.8	-4.2
NOR				IAML		04 46 46.2	
	comp=Z,24nm,0.5s						
DAG	Danmarks Havn	5.27	249	eP	Pn	04 46 14.5	-1.0
DAG				eS	Sn	04 47 10.1	-6.1
DAG	Danmarks Havn	5.27	249	iP	Pn	04 46 14.7	-0.8
DAG				iS	Sn	04 47 10.8	-5.4
DAG				IAML		04 47 15.9	
	comp=Z,73nm,0.3s						
DAG	Danmarks Havn	5.27	249	P	Pn	04 46 14.4	-1.1
	comp=Z,118nm,0.8s						
HOPEN	Hopen	5.46	113	Pn	Pn	04 46 15.6	-2.6
HOPEN				Sn	Sn	04 47 12.1	-8.7
HOPEN	Hopen	5.46	113	eP	Pn	04 46 14.3	-3.8
HOPEN				eS	Sn	04 47 14.8	-6.1
HOPEN	Hopen	5.46	113	eP	Pn	04 46 15.4	-2.7
HOPEN				eS	Sn	04 47 11.9	-8.9
HOPEN				IAML		04 47 40.5	
	comp=Z,64nm,0.6s						
BJO1	Bjornoya	6.21	137	Pn	Pn	04 46 28.2	-0.2
BJO1				Sn	Sn	04 47 30.3	-8.9
BJO1	Bjornoya	6.21	137	eP	Pn	04 46 20.0	-8.3
BJO1				eS	Sn	04 47 32.4	-6.8
BJO1	Bjornoya	6.21	137	eP	Pn	04 46 28.0	-0.4
BJO1				eS	Sn	04 47 31.2	-8.0
BJO1				IAML		04 47 38.5	
	comp=Z,27nm,0.3s						
BEAR	Bear Island, N	6.21	137	Pn	Pn	04 46 27.9	-0.5
	baz=334,slow=37						
BEAR				Sn	Sn	04 47 32.2	-7.2
	baz=334,slow=37						
DBG	Daneborg	7.42	237	P	Pn	04 46 44.5	-0.4
DBG	Daneborg	7.42	237	P	Pn	04 46 44.5	-0.4
DBG	Daneborg	7.42	237	iP	Pn	04 46 43.9	-1.1
DBG				iS	Sn	04 48 01.9	-7.1
DBG				IAML		04 48 07.9	
	comp=Z,99nm,0.7s						
DBG	Daneborg	7.42	237	P	Pn	04 46 44.5	-0.4
	comp=Z,65nm,0.9s						
ZFI2	Zemlya Franca-	7.52	59	eP	Pn	04 46 43.8	-2.5
ZFI2				eS	Sn	04 48 00.5	-11
	comp=Z,100nm,2.0s						
ZFI2				AML	AML		
OMEGA	Omega	7.54	60	eP	Pn	04 46 43.8	-2.8
OMEGA				eS	Sn	04 48 00.5	-11
	comp=Z,70nm,2.0s						
OMEGA				AML	AML		
JNW	Jan Mayen West	9.07	205	eP	Pn	04 47 07.7	+0.1
JNW				eS	Sn	04 48 43.5	-6.1
JNW				IAML		04 48 47.4	
	comp=Z,79nm,0.4s						
JNE	Jan Mayen East	9.10	204	eP	Pn	04 47 08.0	0.0
JNE				eS	Sn	04 48 42.9	-7.4
JNE				IAML		04 48 50.0	
	comp=Z,48nm,0.4s						
JMI	Jan Mayen	9.19	205	eP	Pn	04 47 07.0	-2.2
JMI				eS	Sn	04 48 46.6	-6.0
JMI				IAML		04 48 50.6	
	comp=Z,69nm,0.3s						
NEEM	North Greenlan	10.65	286	iP	Pn	04 47 25.5	-3.9
SCO	Scoresbysund	11.05	228	Pn	Pn	04 47 35.2	+0.5
SCO	Scoresbysund	11.05	228	iP	Pn	04 47 34.3	-0.3
VADS	Vadso	11.54	131	P	Pn	04 47 39.7	-1.6
VADS				S	Sn	04 49 37.3	-13
VADS	Vadso	11.54	131	P	Pn	04 47 39.7	-1.6
VADS				S	Sn	04 49 37.3	-13
VADS	Vadso	11.54	131	P	Pn	04 47 39.4	-1.9
VADS				S	Sn	04 49 37.5	-12
KEV	Kevo	11.56	135	P	Pn	04 47 41.4	-0.2
KEV				S	Sn	04 49 39.0	-12
KEV	Kevo	11.56	135	P	Pn	04 47 41.4	-0.2
KEV				S	Sn	04 49 39.0	-12
KEV	Kevo	11.56	135	Pn	Pn	04 47 41.4	-0.2
ARA0	ARCESS Array S	11.58	138	Pn	Pn	04 47 40.6	-1.3
	baz=347,slow=14						
ARA0				S	Sn	04 49 39.0	-12
	baz=340,slow=28						
ARA0	ARCESS Array S	11.58	138	Pn	Pn	04 47 40.6	-1.3
ARA0				S	Sn	04 49 39.0	-12
ARCES	ARCESS Array B	11.58	138	Pn	Pn	04 47 40.7	-1.3
	comp=Z,0.6nm,0.3s,baz=350,slow=11,SNR=18						
ARCES				Sn	Sn	04 49 40.2	-11
	comp=Z,0.5nm,0.3s,baz=350,slow=20,SNR=5.1						
ARCES				LR	LR	04 51 57.7	
	comp=Z,113nm,20.5s,baz=314,slow=36						
	comp=Z,6.8nm,0.6s						
ARCES				AML	AML		
ARCES	ARCESS Array B	11.58	138		Pn	04 47 41.1	-0.8
ARCES	ARCESS Array B	11.58	138	P	Pn	04 47 41.7	-0.3
ARCES				S	Sn	04 49 39.6	-12
KTK1	Kautokeino	11.82	143	P	Pn	04 47 45.0	-0.2
KTK1	Kautokeino	11.82	143	P	Pn	04 47 45.0	-0.2
SUMG	Summit	11.88	256		Pn	04 47 44.9	-1.4
SUMG	Summit	11.88	256	eP	Pn	04 47 44.9	-1.4
SUMG	Summit	11.88	256	P	Pn	04 47 45.8	-0.5
	comp=Z,115nm,0.7s						
HEF	Hetta	12.45	143	P	Pn	04 47 54.2	+0.5
HEF	Hetta	12.45	143	P	Pn	04 47 54.2	+0.5
TERR	Teriberka	13.21	124	P	Pn	04 47 59.4	-4.7
TERR				S	Sn	04 50 14.6	-16
VAGH	Vaagaholmen	13.23	162	P	Pn	04 48 06.4	+2.1
VAGH	Vaagaholmen	13.23	162	P	Pn	04 48 06.4	+2.1
STOK	Stokkvaagen	13.61	163	P	Pn	04 48 12.1	+2.5
STOK	Stokkvaagen	13.61	163	P	Pn	04 48 12.1	+2.5
KULLO	Kullorsuaq	13.70	281	iP	Pn	04 48 06.8	-4.0
TULEG	Thule	14.27	295	Pn	Pn	04 48 14.5	-4.0
LVZ	Lovozero	14.34	127	Pn	Pn	04 48 16.5	-3.1
APA0	Apatity Array	14.37	130	P	Pn	04 48 17.2	-2.8
APA0				S	Sn	04 50 46.3	-13
KVDA	Kovda	15.22	131	P	Pn	04 48 28.5	-2.8
KVDA				S	Sn	04 51 05.8	-14
NC204	NORSAR Array S	18.56	168	P	Pn	04 49 14.3	+0.7
NC204				IAmb	IAmb	04 49 16.5	
	comp=Z,56nm,1.4s						
NC405	NORSAR Array S	18.76	167	P	Pn	04 49 15.9	-0.1
NOA	NORSAR Array B	18.81	168	P	Pn	04 49 17.2	+0.5
	baz=351,slow=12,SNR=7.3						
NOA				LR	LR	04 55 22.4	
	comp=Z,57nm,19.9s,baz=5.0,slow=33						
	comp=Z,4.1nm,1.0s						
SFJD	Kangerlussuaq	18.84	259	P	P	04 49 14.1	-2.3
	comp=Z,15nm,0.7s,baz=359,slow=17,SNR=16						
SFJD				S	Sn	04 52 30.7	-17
	comp=Z,5.8nm,0.6s,baz=275,slow=19,SNR=2.3						
SFJD				LR	LR	04 56 49.5	
	comp=Z,237nm,20.8s,baz=16,slow=38						
SFJD	Kangerlussuaq	18.84	259	P	P	04 49 13.4	-3.0
SFJD				IAmb	IAmb	04 49 16.3	
	comp=Z,22nm,0.9s						
LSH	Leshukonskoye	18.85	117	eP	P	04 49 03.3	-13
LSH				eS	Sn	04 52 31.0	-17
NRA0	NORESS Array S	19.13	167	P	Pn	04 49 22.3	+1.8
	baz=354,slow=10						
NRA0	NORESS Array S	19.13	167	P	Pn	04 49 22.3	+1.8
FIA1	FINESS Array S	19.47	146	P	Pn	04 49 25.3	+0.7
FIA0	FINESS Array S	19.47	146	P	Pn	04 49 24.9	+0.3
	baz=338,slow=12						
FIA0	FINESS Array S	19.47	146	P	Pn	04 49 24.9	+0.3
FINES	FINESS Array B	19.47	146	P	Pn	04 49 25.0	+0.5
	comp=Z,0.6nm,0.3s,baz=341,slow=11,SNR=25						
FINES				LR	LR	04 57 58.9	
	comp=Z,48nm,18.2s,baz=0.5,slow=40						
	comp=Z,5.2nm,0.7s						
FINES				AML	AML		
FINES	FINESS Array B	19.47	146	P	Pn	04 49 25.4	+0.9
RES	Resolute Bay	19.74	309	P	P	04 49 24.2	-2.0
	comp=Z,0.1nm,0.3s,baz=32,slow=9.5,SNR=1.1						
RES				S	S	04 52 50.8	-17
	comp=Z,8.4nm,0.9s,baz=202,slow=11,SNR=2.4						
RES				LR	LR	04 55 34.2	
	comp=Z,111nm,20.2s,baz=39,slow=33						
	comp=Z,4.8nm,0.8s						
RES				AML	AML		
RES	Resolute Bay	19.74	309	P	Pn	04 49 26.4	-1.3
RES				IAmb	IAmb	04 49 48.9	
	comp=Z,42nm,1.4s						
HFS	Hagfors	19.83	164	P	Pn	04 49 28.6	-0.1
	comp=Z,0.2nm,0.3s,baz=333,slow=8.1,SNR=7.6						
HFS				LR	LR	04 55 31.7	
	comp=Z,91nm,21.7s,baz=354,slow=32						
	comp=Z,4.0nm,0.7s						
HFS				AML	AML		
HFS	Hagfors	19.83	164	P	Pn	04 49 28.7	-0.1
	baz=356,slow=14						
HFS	Hagfors	19.83	164	P	Pn	04 49 28.7	-0.1
ARBE	Arbavere	21.43	147	P	P	04 49 43.8	-0.8
	comp=Z,265nm,0.7s						
KLMR	Klimovskoe	21.71	128	eP	P	04 49 50.0	+2.5
SHIP	Sredneye Shipi	21.94	120	eP	P	04 49 50.5	+0.5
MTSE	Matsula	21.94	150	P	P	04 49 50.5	+0.4
	comp=Z,108nm,1.0s						
NRIK	Noril'sk	22.24	69	P	P	04 49 52.3	-0.8
	comp=Z,1.6nm,0.3s,baz=360,slow=11,SNR=9.9						
NRIK				LR	LR	04 59 27.0	
	comp=Z,129nm,19.1s,baz=343,slow=39						
	comp=Z,1.6nm,0.3s						
NRIK	Noril'sk	22.24	69	P	P	04 49 52.6	-0.5
NRIK				IAmb	IAmb	04 49 59.9	
	comp=Z,29nm,1.2s						
VSU	Vasula	22.47	147	P	P	04 49 55.6	-0.1
	comp=Z,60nm,1.0s						
EKA	Eskdalemuir Ar	24.47	189	P	P	04 50 17.8	+2.3
	baz=4.9,slow=9.3						
EKA	Eskdalemuir Ar	24.47	189	P	P	04 50 17.8	+2.3
BSD	Bornholm Skovb	24.90	164	P	P	04 50 20.0	+0.6
	comp=Z,35nm,0.9s						
FRB	Frobisher Bay	25.02	273	LR	LR	04 59 45.7	
	comp=Z,228nm,19.1s,baz=24,slow=36						
PABE	Paberze	25.13	152		P	04 50 21.2	-0.2
PABE	Paberze	25.13	152	P	P	04 50 22.8	+1.3
	comp=Z,33nm,1.2s						
KIRV	Kirov	25.38	118	LR	LR	05 01 34.5	
	comp=Z,170nm,19.1s,baz=344,slow=39						
NACGM	Naroch	25.98	148	eP	P	04 50 29.9	+0.6
	comp=E,12nm,0.8s						
MNK	Minsk	26.49	147	iP	P	04 50 36.3	+2.5
	comp=E,25nm,0.9s						
MNK				iP	P	04 50 36.3	+2.5
	comp=N,15nm,0.8s						
MNK				iP	P	04 50 36.3	+2.5
	comp=Z,56nm,0.7s,baz=350						
MNK				iPP	PnPn	04 51 13.4	-0.1
MNK				iPPP	PPP	04 51 23.5	
MNK				iS	S	04 55 11.2	+4.0
MNK				iSS	SnSn	04 56 15.2	+7.0
MNK				iSSS	SSS	04 56 28.9	
MNK				iLQ	LQ	04 58 11.8	
MNK				iLR	LR	05 00 01.0	
MNK				iLRM	MLR	05 02 29.8	
	comp=Z,50nm,15.3s						
CLL	Collm	28.61	167	P	P	04 50 54.4	+1.6
	comp=Z,8.2nm,0.8s						
CLL	Collm	28.61	167	iP	P	04 50 53.9	+1.1
	comp=Z,11nm,1.4s						
ARTI	Arti	28.97	109	LR	LR	05 03 53.3	
	comp=Z,182nm,18.7s,baz=327,slow=39						
ARTI	Arti	28.97	109		P	04 50 57.5	+1.6

MOX	Moxa	29.22	169	P	P	04 51 00.1	+1.8
	comp=Z,10.0nm,1.8s						
TANN	Tannenbergstha	29.48	168	P	P	04 51 02.3	+1.6
	comp=Z,14nm,1.4s						
NKC	Novy Kostel	29.67	168	P	P	04 51 04.2	+2.0
	comp=Z,14nm,1.3s						
KRLC	Kraliky	30.03	162	P	P	04 51 06.6	+1.2
	comp=Z,7.4nm,0.9s						
OJC	Ojcow	30.07	158	P	P	04 51 07.6	+1.8
	comp=Z,14nm,1.9s						
INK	Inuvik	30.26	330	LR	LR	05 05 16.1	
	comp=Z,72nm,19.6s,baz=40,slow=41						
MORC	Moravsky Berou	30.37	161		P	04 51 10.2	+1.7
MORC				IAmb	IAmb	04 51 11.7	
	comp=Z,15nm,1.3s						
MORC	Moravsky Berou	30.37	161	*e*P	P	04 51 10.3	+1.9
MORC	Moravsky Berou	30.37	161	P	P	04 51 10.7	+2.2
	comp=Z,10.0nm,1.3s						
AKASG	Malin Array Be	30.38	146	P	P	04 51 09.1	+0.7
	comp=Z,2.0nm,0.7s,baz=351,slow=9.4,SNR=8.7						
AKASG				LR	LR	05 04 50.5	
	comp=Z,22nm,18.2s,baz=354,slow=39						
	comp=Z,2.0nm,0.7s						
AKASG	Malin Array Be	30.38	146	P	P	04 51 08.0	-0.4
VRAC	Vranov	30.78	163	LR	LR	05 02 08.3	
	comp=Z,64nm,18.9s,baz=328,slow=33						
VRAC	Vranov	30.78	163	*e*P	P	04 51 14.3	+2.2
VRAC	Vranov	30.78	163	P	P	04 51 14.7	+2.7
	comp=Z,5.1nm,2.7s						
KHC	Kasperske Hory	30.81	167	P	P	04 51 14.4	+2.1
	comp=Z,7.5nm,2.4s						
STHS	Stebnicka Huta	30.96	157	*e*P	P	04 51 15.2	+1.5
KRUC	Moravsky	31.02	163	*e*P	P	04 51 16.3	+2.2
KRUC	Moravsky	31.02	163	P	P	04 51 14.8	+0.7
	comp=Z,11nm,2.3s						
GEC2	GERESS Array S	31.10	166	P	P	04 51 17.5	+2.5
GEC2				IAmb	IAmb	04 51 18.4	
	comp=Z,6.4nm,1.1s						
GEC2	GERESS Array S	31.10	166	P	P	04 51 17.6	+2.6
	comp=Z,6.9nm,1.5s						
GERES	GERESS Array B	31.10	166	P	P	04 51 16.7	+1.7
	comp=Z,1.1nm,0.3s,baz=11,slow=7.5,SNR=13						
	comp=Z,1.1nm,0.3s						
GERES	GERESS Array B	31.10	166	P	P	04 51 16.8	+1.8
KOLS	Kolonicke sedl	31.52	156	*e*P	P	04 51 21.2	+2.6
VYHS	Vyhne	31.72	160	*e*P	P	04 51 22.4	+2.0
MODS	Modra-Piesok	31.75	162	*e*P	P	04 51 23.4	+2.8
MODS	Modra-Piesok	31.75	162	P	P	04 51 21.7	+1.1
	comp=Z,26nm,1.2s						
TRPA	Tarpa	32.34	155	P	P	04 51 28.0	+2.2
	comp=Z,17nm,1.1s						
PSZ	Piszkesteto	32.36	159	P	P	04 51 28.3	+2.2
	comp=Z,12nm,1.1s						
BUR08	Bucovina Ar. S	33.04	152		P	04 51 32.9	+0.9
BUR08				IAmb	IAmb	04 51 45.6	
	comp=Z,12nm,1.4s						
BURAR	Bucovina Array	33.07	152	P	P	04 51 33.7	+1.4
OBKA	Obir	33.47	166	P	P	04 51 38.5	+2.7
	comp=Z,16nm,1.1s						
DRGR		33.68	155	P	P	04 51 39.7	+2.1
	comp=Z,6.0nm,1.6s						
YKA	Yellowknife Ar	33.73	312	LR	LR	05 05 06.8	
	comp=Z,87nm,21.9s,baz=346,slow=36						
MORH	Mrgy, Hungar	33.98	161	P	P	04 51 41.3	+1.3
	comp=Z,4.1nm,1.4s						
TESR	Tescani	34.28	151	P	P	04 51 43.7	+0.9
	comp=Z,8.8nm,1.5s						
BVAR	Borovoye Array	34.30	99	P	P	04 51 43.1	+0.4
	comp=Z,0.9nm,0.5s,baz=1.9,slow=8.9,SNR=3.7						
	comp=Z,0.9nm,0.5s						
AKTO	Aktyubinsk	34.63	113	LR	LR	05 06 57.0	
	comp=Z,116nm,21.1s,baz=332,slow=38						
ILAR	Eielson Array	34.81	338	LR	LR	05 06 29.8	
	comp=Z,61nm,19.6s,baz=70,slow=37						
SAOF	Saorge	35.78	175	P	P	04 51 58.1	+2.4
ZALV	Zalesovo Beam	36.03	84	LR	LR	05 09 35.8	
	comp=Z,75nm,20.2s,baz=285,slow=41						
AB31	Akbulak array	36.09	111	P	P	04 51 58.3	+0.1
ABKAR	Akbulak array	36.09	111	P	P	04 51 58.1	-0.1
KURK	Kurchatov	38.00	92		P	04 52 15.8	+1.5
KURK				IAmb	IAmb	04 52 26.0	
	comp=Z,12nm,1.0s						
KURK	Kurchatov	38.00	92	P	P	04 52 15.9	+1.5
	comp=Z,14nm,1.1s						
KURBB	Kurchatov Arra	38.07	92	P	P	04 52 15.0	0.0
	comp=Z,1.2nm,0.2s,baz=341,slow=8.1,SNR=8.6						
KURBB				LR	LR	05 12 35.0	
	comp=Z,98nm,18.9s,baz=171,slow=44						
	comp=Z,1.2nm,0.2s						
KVAR	Kislovodsk Arr	38.62	133	LR	LR	05 08 46.4	
	comp=Z,41nm,18.3s,baz=288,slow=37						
KBZ	Khabaz	38.87	132	P	P	04 52 23.2	+1.5
	comp=Z,5.4nm,0.8s,baz=0.4,slow=7.5,SNR=13						
KBZ				LR	LR	05 08 04.2	
	comp=Z,79nm,21.8s,baz=344,slow=36						
	comp=Z,5.4nm,0.8s						
ESDC	Sonseca Array	40.14	189	P	P	04 52 33.5	+1.0
	comp=Z,2.7nm,0.8s,baz=360,slow=7.8,SNR=16						
	comp=Z,2.7nm,0.8s						
ESDC	Sonseca Array	40.14	189	P	P	04 52 34.6	+2.1
PAB	San Pablo	40.28	189	P	P	04 52 36.6	+2.9
PAB				IAmb	IAmb	04 52 36.8	
	comp=Z,8.3nm,0.9s						
TLY	Talaya	41.50	67	LR	LR	05 10 24.4	
	comp=Z,72nm,21.9s,baz=344,slow=37						
BR131	Keskin Array S	41.69	144	P	P	04 52 47.0	+1.6
BRTR	Keskin Array B	41.69	144	P	P	04 52 46.4	+0.9
	comp=Z,2.5nm,0.9s,baz=339,slow=6.6,SNR=14						
	comp=Z,2.5nm,0.9s						
BRTR	Keskin Array B	41.69	144		P	04 52 46.8	+1.4
MKAR	Makanchi Array	42.44	90	P	P	04 52 50.6	-0.7
	comp=Z,1.2nm,0.7s,baz=352,slow=7.4,SNR=6.3						
MKAR				LR	LR	05 14 53.4	
	comp=Z,101nm,18.9s,baz=326,slow=42						
	comp=Z,1.2nm,0.7s						
MKAR	Makanchi Array	42.44	90	P	P	04 52 50.4	-0.9
GNI	Garni	42.63	131	LR	LR	05 11 30.1	
	comp=Z,43nm,18.5s,baz=313,slow=37						
ULM	Lac du Bonnet	42.64	291	LR	LR	05 10 26.2	
	comp=Z,114nm,20.1s,baz=18,slow=36						
ARPR	Arapgir-MALATY	42.85	139	P	P	04 52 55.5	+0.7
ARPR				IAmb	IAmb	04 52 59.3	
	comp=Z,13nm,1.2s						
ARPR	Arapgir-MALATY	42.85	139	P	P	04 52 58.1	+3.3
	comp=Z,10.0nm,1.0s						
KK31	Karatay Array	43.88	103	P	P	04 53 02.5	-0.5
KKAR	Karatay Array	43.88	103	P	P	04 53 02.1	-0.9
KEST	Kesra	44.05	173	P	P	04 53 04.5	0.0
	comp=Z,2.3nm,0.6s,baz=2.9,slow=9.2,SNR=4.8						
	comp=Z,2.3nm,0.6s						
KEST	Kesra	44.05	173	P	P	04 53 05.5	+1.0
KEST				IAmb	IAmb	04 53 30.3	
	comp=Z,8.0nm,1.4s						
AAK	Ala-Archa	45.05	99	LR	LR	05 14 36.8	
	comp=Z,160nm,19.9s,baz=336,slow=40						
AAK	Ala-Archa	45.05	99	P	P	04 53 12.8	+0.3
AAK				IAmb	IAmb	04 53 25.4	
	comp=Z,4.0nm,0.8s						
AAK	Ala-Archa	45.05	99	P	P	04 53 15.2	+2.7
	comp=Z,7.8nm,1.7s						
IDI	Anoyia	45.28	155	LR	LR	05 12 25.6	
	comp=Z,66nm,19.9s,baz=289,slow=36						
ARK	Arkit	45.41	102	P	P	04 53 19.2	+3.9
	comp=Z,3.9nm,1.4s						
SONM	Songino Array	45.68	66	LR	LR	05 14 45.9	
	comp=Z,115nm,18.4s,baz=236,slow=39						
WMQ	Urumqi	46.29	85	*e*P	P	04 53 25.3	+3.1
WMQ				LR	LR		
	comp=Z,88nm,24.0s						
BTK	Batken	46.89	103	P	P	04 53 29.0	+2.0
	comp=Z,3.2nm,0.8s						
MD01	Midelt array s	46.95	189	P	P	04 53 28.6	+1.1
MD31	MD31	46.95	189	P	P	04 53 28.7	+1.2
SHEM	Shemya Is, Ala	47.82	7	LR	LR	05 14 10.0	
	comp=Z,40nm,18.2s,baz=112,slow=37						
NEW	Newport	47.90	309	LR	LR	05 11 41.9	
	comp=Z,89nm,18.2s,baz=45,slow=34						
KLR	Kul'dur	48.06	44	LR	LR	05 14 50.6	
	comp=Z,44nm,19.5s,baz=30,slow=37						
ECSD	EROS Data Cent	49.08	289	P	P	04 53 45.8	+2.1
	comp=Z,6.4nm,2.1s						
Q54A	Coxs Mills	50.88	272	P	P	04 53 59.9	+2.5
Q54A				IAmb	IAmb	04 54 19.5	
	comp=Z,13nm,1.3s						
PDAR	Pinedale Array	52.15	301	LR	LR	05 14 16.9	
	comp=Z,50nm,19.1s,baz=19,slow=34						
GTA2	Gaotai	52.65	75	*e*P	P	04 54 12.6	+1.8
GTA2				sP	pwP	04 54 21.0	+3.1
GTA2				pmax	pmax		
	comp=Z,3.0nm,0.7s						
GTA2				LR	LR		
	comp=N,160nm,13.6s						
GTA2				LR	LR		
	comp=E,140nm,13.7s						
GTA2				LR	LR		
	comp=Z,180nm,18.1s						
HHC	Hu-ho-hao-te	53.33	64	*e*P	P	04 54 16.3	+0.5
HHC				pmax	pmax		
	comp=Z,9.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,81nm,4.0s						
YBH	Yreka Blue Hor	55.08	312	LR	LR	05 20 33.3	
	comp=Z,68nm,20.7s,baz=6.0,slow=39						
PV01	Paradox Valley	56.52	299	P	P	04 54 41.4	+2.3
PV01				IAmb	IAmb	04 54 52.2	
	comp=Z,5.5nm,0.9s						
LZH	Lanzhou	56.68	72	*e*P	P	04 54 40.9	+0.8
LZH				pP	pwP	04 54 46.1	-1.1
LZH				pmax	pmax		
	comp=Z,22nm,0.9s						
LZH				LR	LR		
	comp=N,170nm,15.6s						
LZH				LR	LR		
	comp=E,180nm,16.5s						
TAM	Tamanrasset	56.89	177	P	P	04 54 43.8	+2.1
	comp=Z,5.2nm,1.1s						
MIAR	Mount Ida	57.49	284	P	P	04 54 47.2	+1.6
	comp=Z,6.7nm,1.3s						
KSRS	Korea Array	59.13	50	LR	LR	05 21 15.2	
	comp=Z,30nm,18.5s,baz=355,slow=37						
UOSS	Minazif	59.23	122	P	P	04 54 57.9	0.0
	comp=Z,8.5nm,1.1s						
ANMO	Albuquerque	59.29	296	LR	LR	05 20 31.1	
	comp=Z,169nm,18.3s,baz=21,slow=36						
XAN	Xi'an	59.54	68	P	P	04 55 00.0	0.0
XAN				pmax	pmax		
	comp=Z,9.0nm,0.7s						
XAN				LR	LR		
	comp=N,250nm,17.9s						
XAN				LR	LR		
	comp=E,150nm,15.1s						
JSD	Sado	59.88	40	P	P	04 55 07.2	+4.9
	comp=Z,0.4nm,1.1s						
MJAR	Matsushiro Arr	61.35	40	LR	LR	05 24 07.3	
	comp=Z,26nm,18.3s,baz=49,slow=38						
PFO	Pinyon Flats O	62.17	305	LR	LR	05 24 39.0	
	comp=Z,111nm,19.5s,baz=308,slow=38						
NJ2	Nanjing	63.10	59	*e*P	P	04 55 24.1	+0.1
NJ2				pmax	pmax		
	comp=Z,11nm,0.6s						
TXAR	Lajitas Array	64.32	292	P	P	04 55 31.7	-0.5
	comp=Z,0.7nm,0.9s,baz=65,slow=4.4,SNR=6.2						
	comp=Z,0.7nm,0.9s						
TXAR	Lajitas Array	64.32	292	P	P	04 55 33.8	+1.5
PZH	PanZhiHua	65.66	77	P	P	04 55 43.6	+2.6
TORD	Torodi Ar. Bea	66.47	182	P	P	04 55 46.7	+0.6
	comp=Z,4.7nm,1.0s,baz=12,slow=5.7,SNR=16						
	comp=Z,4.7nm,1.0s						
TORD	Torodi Ar. Bea	66.47	182	P	P	04 55 46.3	+0.1
BRDH	Bariadhala	67.58	87	LR	LR	05 31 00.9	
	comp=Z,78nm,18.3s,baz=128,slow=41						
LPIG	La Paz	70.54	297	LR	LR	05 31 03.8	
	comp=Z,40nm,20.1s,baz=36,slow=39						
CMAR	Chiang Mai Arr	73.02	81	P	P	04 56 26.6	+0.1
	comp=Z,0.6nm,0.3s,baz=360,slow=6.0,SNR=2.4						
CMAR				LR	LR	05 33 45.6	
	comp=Z,54nm,18.1s,baz=335,slow=40						
CMIG	Matias Romero	74.76	281	LR	LR	05 35 26.4	
	comp=Z,67nm,18.2s,baz=37,slow=41						
SDV	Santo Domingo	78.40	256	LR	LR	05 29 26.5	
	comp=Z,96nm,21.2s,baz=24,slow=34						
HUH	Hualalai	80.24	340	P	P	04 57 04.8	-2.8
PALK	Pallekele	80.65	101	LR	LR	05 36 06.1	
	comp=Z,51nm,18.7s,baz=334,slow=38						
MBAR	Mbarara	81.33	152	LR	LR	05 35 33.4	
	comp=Z,51nm,19.6s,baz=325,slow=37						
KMBO	Kilima Mbogo	82.46	146	LR	LR	05 35 49.2	
	comp=Z,35nm,21.6s,baz=132,slow=37						
ATAH	Atahualpa	95.44	260	LR	LR	05 45 58.4	
	comp=Z,40nm,18.1s,baz=33,slow=38						
VNA1	Neumayer--Stat	150.20	188	PKPdf	PKiKP	05 04 46.7	+0.2
	comp=Z,4.7nm,1.1s						
VNA2	Neumayer--Watz	150.46	187	⇓PKPdf	PKiKP	05 04 47.4	+0.3
	comp=Z,1.9nm,0.7s,baz=3.8,slow=4.0						
VNA3	Neumayer Olymp	150.83	188	⇓PKPdf	PKiKP	05 04 48.2	+0.4
	comp=Z,2.7nm,0.8s						
TROLL	Troll, Antarti	151.43	180	PKPdf	PKiKP	05 04 50.0	+0.8
	comp=Z,129nm,0.8s						

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*MDD **24** 04:49:48.7±0.3, 35°.42N×3°.83W, h0^{km}, mb_Lg2.4/21,*
Error ellipse: s-maj=2.9km s-min=2.0km az=4.0
*CNRM **24** 04:49:49.1, 35°.51N×3°.78W, h24^{km}, ML2.3*
*SFS **24** 04:49:50.3, 35°.41N×3°.76W, h16^{km}, ML2.5/21, ML2.7/21,*
MLv2.8/16
*INMG **24** 04:49:50.2±1.8, 35°.28N×3°.79W, h31^{km}, ML2.0, Error*
ellipse: s-maj=5.9km s-min=3.8km az=6.0,
#DIST_RANGE: REGIONAL #IPMA_REGION: E Al
Hoceima (MARR)
*IGIL **24** 04:49:51.2, 35°.33N×4°.04W, h2^{km}*
ISC 24 04:49:48.7±1.0, **35°.48N**±0°.02×**3°.79W**±0°.02, **h12**^{km}±8^{km},
n70, σ**1^{s}.29**/137, **Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALE	Palemas	0.29	205	P	Pg	04 49 54.8	+0.1
PALE				S	Sb	04 50 01.7	+0.9
EMEL	Melilla	0.70	105	Pg	Pg	04 50 02.3	0.0
EMEL				Pg	Pg	04 50 02.4	0.0
EMEL				Sg	Sg	04 50 11.5	-0.1
EMEL				Sg	Sg	04 50 11.5	-0.1
WMELI	Melilla	0.70	103	Pg	Pg	04 50 02.3	0.0
WMELI				Sg	Sg	04 50 10.6	-1.0
EMLI	Melilla	0.71	105	Pg	Pg	04 50 02.3	-0.1
EMLI				Sg	Sg	04 50 11.0	-0.8
EALB	Alboran	0.77	53	Pg	Pb	04 50 04.3	+0.3
EALB				Sg	Sb	04 50 15.0	+0.7
EALB	Alboran	0.77	53	Pg	Pb	04 50 04.2	+0.3
EALB				Pg	Pb	04 50 04.3	+0.3
EALB				Sg	Sb	04 50 14.6	+0.3
EALB				Sg	Sb	04 50 15.1	+0.7
AKLM	AKL	0.97	184	P	Pg	04 50 07.1	-0.4
AKLM				S	Sg	04 50 19.6	-0.6
TAF	Taforalt	1.31	120	P	Pn	04 50 11.5	-1.4
TAF				S	Sb	04 50 29.9	-0.2
SMIR	Smir Dam	1.31	279	P	Pn	04 50 11.2	-1.7
SMIR				S	Sb	04 50 30.7	+0.6
CHEFC	Chefchaouen	1.32	254	P	Pn	04 50 12.9	-0.3
CHEFC				S	Sb	04 50 30.1	-0.4
EMIJ	Mijas	1.34	324	Pn	Pb	04 50 13.9	0.0
EMIJ				Sn	Sb	04 50 30.7	-0.3
EMIJ	Mijas	1.34	324	Pn	Pb	04 50 13.8	0.0
EMIJ				Pn	Pb	04 50 13.8	0.0
EMIJ				Sn	Sg	04 50 31.7	-0.3
EMIJ				Sn	Sn	04 50 31.8	+0.7
EMIJ				IVmb_Lg		04 50 37.3	
ECEU	Ceuta	1.36	288	Pn	Pn	04 50 12.2	-1.4
ECEU				Sn	Sb	04 50 29.3	-2.1
ECEU	Ceuta	1.36	288	Pn	Pn	04 50 12.1	-1.4
ECEU				Sn	Sb	04 50 30.8	-0.6
ECEU				IVmb_Lg		04 50 32.7	
EMAL	Malaga-Limoner	1.38	338	Sn	Sg	04 50 33.8	+0.7
ELGU	Los Guajares,	1.39	5	Pn	Pn	04 50 13.6	-0.4
ELGU				Sn	Sg	04 50 33.3	-0.2
ELGU	Los Guajares,	1.39	5	Pn	Pn	04 50 13.6	-0.4
ELGU				Sn	Sg	04 50 34.2	+0.7
ELGU				IVmb_Lg		04 50 35.8	
JBK	JBK	1.52	138	P	Pn	04 50 14.4	-1.5
JBK				S	Sn	04 50 34.0	-1.8
EBER	Berja	1.59	27	Pn	Pn	04 50 16.7	-0.2
EBER				Sn	Sn	04 50 36.6	-0.8
EBER	Berja	1.59	27	Pn	Pn	04 50 16.7	-0.2
EBER				Sn	Sg	04 50 38.9	-1.0
EBER				IVmb_Lg		04 50 42.1	
EGOR	Sierra Gorda,	1.65	351	Pn	Pb	04 50 19.3	+0.2
EGOR	Sierra Gorda,	1.65	351	Pn	Pn	04 50 18.4	+0.8
EGOR				Sn	Sb	04 50 40.2	+0.3
EGOR				IVmb_Lg		04 50 44.8	
EJIF	Jimena Fronter	1.67	306	Pn	Pn	04 50 17.6	-0.2
EJIF				Sn	Sn	04 50 39.9	+0.7
EXGRA	Granada	1.71	5	Sn	Sg	04 50 43.4	-0.5
EQUE	Quentar	1.74	9	Pn	Pn	04 50 19.5	+0.6
EQUE				Sn	Sb	04 50 42.9	+0.3
EQUE				IVmb_Lg		04 50 47.5	
EQTA	Presa de Quent	1.74	9	Pn	Pb	04 50 20.9	+0.2
EQTA				Sn	Sn	04 50 41.2	+0.1
RSA	Sarsar	1.77	251	P	Pn	04 50 19.4	+0.2
RSA				S	Sn	04 50 41.4	-0.3
SICH	Sidi Chahed	1.86	223	P	Pn	04 50 20.9	+0.4
SICH				S	Sn	04 50 44.9	+0.9
ENIJ	Nijar	1.96	40	Pn	Pn	04 50 22.6	+0.8
ENIJ				Sn	Sn	04 50 44.5	-1.8
ENIJ	Nijar	1.96	40	Pn	Pn	04 50 21.6	-0.2
ENIJ				Sn	Sn	04 50 45.0	-1.3
ENIJ				IVmb_Lg		04 51 00.5	
LCRM	LCR	2.00	207	P	Pn	04 50 23.8	+1.3
LCRM				S	Sb	04 50 50.0	0.0
ESPR	Espera	2.17	310	Pn	Pn	04 50 24.3	-0.3
ESPR				Sn	Sn	04 50 52.5	+1.0
ESPR				IVmb_Lg		04 50 57.1	
IFR	Ifrane	2.25	210	Pn	Pn	04 50 26.2	+0.3
IFR				Sn	Sn	04 50 51.8	-1.9
EQES	Quesada	2.39	14	Pn	Pn	04 50 29.6	+1.8
EQES				Sn	Sb	04 50 59.6	-1.5
EQES				IVmb_Lg		04 51 06.0	
MD31	MD31	2.73	197	P	Pn	04 50 32.5	0.0
MD31				S	Sn	04 51 04.9	-0.5
MDT	Midelt	2.75	195	P	Pn	04 50 33.3	+0.6
MDT				S	Sn	04 51 07.0	+1.1
EADA	Adamuz	2.75	347	Pn	Pn	04 50 35.1	+2.4
EADA	Adamuz	2.75	347	Pn	Pn	04 50 34.0	+1.3
EADA				Sn	Sb	04 51 09.1	-2.6
EADA				IVmb_Lg		04 51 29.2	
ECAB	El Cabril	2.90	334	Pn	Pn	04 50 37.0	+2.3
ECAB	El Cabril	2.90	334	Pn	Pn	04 50 35.7	+1.0
ECAB				Sn	Sn	04 51 10.7	+1.2
ECAB				IVmb_Lg		04 51 27.0	
ZHG	ZHG	3.11	230	P	Pn	04 50 39.7	+2.0
ZHG				S	Sn	04 51 16.2	+1.3
EMUR	La Murta	3.12	40	Sn	Sn	04 51 13.3	-1.8
EMUR				IVmb_Lg		04 51 20.5	
EGRO	El Granado	3.61	306	Pn	Pn	04 50 45.0	+0.5
EGRO				Sn	Sn	04 51 24.9	-2.2
EGRO	El Granado	3.61	306	Pn	Pn	04 50 44.9	+0.4
EGRO				Sn	Sn	04 51 25.5	-1.5
EGRO				IVmb_Lg		04 51 29.7	
ETOB	Tobarra	3.63	29	Pn	Pn	04 50 47.3	+2.5
ETOB				Sn	Sn	04 51 27.4	-0.2
ETOB	Tobarra	3.63	29	Pn	Pn	04 50 47.0	+2.2
ETOB				Sn	Sn	04 51 28.8	+1.2
ETOB				IVmb_Lg		04 51 31.9	
PVAQ	Vaqueiros	3.70	302	*e*Pn	Pn	04 50 46.2	+0.5
PVAQ				*e*Sn	Sn	04 51 27.3	-2.0
PVAQ				*i* IAML		04 51 31.1	
PVAQ				*i* IAML		04 51 31.6	
PVAQ				*i* IAML		04 51 34.4	
PBAR	Barrancos	3.74	317	Pn	Pn	04 50 48.9	+2.6
PBAR				Sn	Sn	04 51 28.2	-2.1
PBAR	Barrancos	3.74	317	*e*Pn	Pn	04 50 48.0	+1.6
PBAR				*e*Sn	Sn	04 51 28.8	-1.6
PBAR				*i* IAML		04 51 34.3	
PBAR				*i* IAML		04 51 34.7	
PBAR				*i* IAML		04 51 35.8	
PBDV	Barranco-do-Ve	3.78	299	Pn	Pn	04 50 47.2	+0.4
PBDV				Sn	Sn	04 51 29.2	-2.0
PBDV	Barranco-do-Ve	3.78	299	*e*Pn	Pn	04 50 47.4	+0.6
PBDV				*e*Sn	Sn	04 51 29.7	-1.5
PBDV				*i* IAML		04 51 33.3	
PBDV				*i* IAML		04 51 33.5	
PBDV				*i* IAML		04 51 37.5	
PCVE	Castro Verde	4.04	303	*e*Pn	Pn	04 50 52.7	+2.3
PCVE				*e*Sn	Sn	04 51 35.8	-1.8
PCVE				*i* IAML		04 51 41.5	
PCVE				*i* IAML		04 51 41.9	
PCVE				*i* IAML		04 51 42.7	
EBAD	Badajoz	4.16	323	Pn	Pn	04 50 54.5	+2.4
EBAD				Sn	Sn	04 51 40.9	+0.3
EBAD	Badajoz	4.16	323	Pn	Pn	04 50 53.2	+1.2
EBAD				Sn	Sn	04 51 39.7	-0.9
EBAD				IVmb_Lg		04 51 44.5	
MESJ	Messejana	4.27	305	*e*P	Pn	04 50 54.3	+0.8
MESJ	Messejana	4.27	305	*e*Pn	Pn	04 50 54.4	+0.8
MESJ				*e*Sn	Sn	04 51 42.2	-1.1
MESJ				*i* IAML		04 51 44.3	
MESJ				*i* IAML		04 51 44.9	
MESJ				*i* IAML		04 51 47.0	
MORF	Marmelete	4.33	296	*e*P	Pn	04 50 54.6	+0.2
MORF	Marmelete	4.33	296	*e*Pn	Pn	04 50 55.0	+0.7
MORF				*e*Sn	Sn	04 51 42.9	-1.8
MORF				*i* IAML		04 51 46.4	
MORF				*i* IAML		04 51 46.8	
MORF				*i* IAML		04 51 47.2	
CIBOR	Castaar de Ib	4.34	343	Pn	Pn	04 50 55.1	+0.5
CIBOR				Sn	Sn	04 51 45.3	+0.1
PFVI	Vila Bisbo	4.39	294	Pn	Pn	04 50 56.0	+0.8
PFVI				Sn	Sn	04 51 43.2	-3.0
PFVI	Vila Bisbo	4.39	294	*e*Pn	Pn	04 50 56.2	+1.0
PFVI				*e*Sn	Sn	04 51 44.4	-1.9
PFVI				*i* IAML		04 51 47.1	
PFVI				*i* IAML		04 51 48.2	
PTEO	Sao Teotonio	4.48	299	*e*Pn	Pn	04 50 57.5	+1.2
PTEO				*e*Sn	Sn	04 51 48.0	-0.4
PTEO				*i* IAML		04 51 49.9	
PTEO				*i* IAML		04 51 51.5	
PTEO				*i* IAML		04 51 52.7	
PLOUS	Minas do Lousa	4.51	306	*e*Pn	Pn	04 50 57.6	+0.8
PLOUS				*e*Sn	Sn	04 51 47.3	-1.8
PLOUS				*i* IAML		04 51 52.3	
PLOUS				*i* IAML		04 51 53.0	
PLOUS				*i* IAML		04 51 54.1	
PESTR	Estremoz	4.54	319	*e*Pn	Pn	04 51 01.3	+4.0
PESTR				*e*Sn	Sn	04 51 49.4	-0.6
PESTR				*i* IAML		04 51 52.4	
EVO	Evora	4.55	313	Pn	Pn	04 50 59.1	+1.8
EVO				Sn	Sn	04 51 48.7	-1.5
EVO	Evora	4.55	313	*e*Pn	Pn	04 50 58.9	+1.6
EVO				*e*Sn	Sn	04 51 48.7	-1.5
EVO				*i* IAML		04 51 50.2	
EVO				*i* IAML		04 51 54.1	
EVO				*i* IAML		04 51 56.0	
MOE	Montemor	4.75	311	*e*Pn	Pn	04 51 01.7	+1.6
MOE				*e*Sn	Sn	04 51 53.8	-1.2
MOE				*i* IAML		04 51 56.0	
MOE				*i* IAML		04 51 57.4	
MOE				*i* IAML		04 51 59.3	
PARRA	Arraiolos	4.75	316	*e*Pn	Pn	04 51 01.9	+1.7
PARRA				*e*Sn	Sn	04 51 54.5	-0.7
PARRA				*i* IAML		04 51 56.3	
PARRA				*i* IAML		04 51 58.4	
PARRA				*i* IAML		04 51 59.2	
PMRV	Marv??o	4.87	325	*e*Pn	Pn	04 51 04.2	+2.4
OUZM	OUZ	5.20	209	P	Pn	04 51 08.2	+1.8
OUZM				S	Sn	04 52 09.0	+2.6

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*KRNET **24** 04:51:55.2±0.1, 40°.48N×79°.95E, mb3.1*
*SOME **24** 04:51:57.7, 40°.90N×79°.78E, h10^{km}*
*NNC **24** 04:51:58.6±1.4, 40°.95N×79°.80E, h0^{km}, mb3.5, mpv3.1,*
Error ellipse: s-maj=9.2km s-min=7.9km az=141.0
ISC 24 04:51:56.2±2.7, **40°.8N**±0°.1×**79°.98E**±0°.09, **h10**^{km}, **n20**,
σ**1^{s}.04**/33, **9C-7D, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TARG	Taragay, Kyrgy	1.90	301	⇓*i*P	Pb	04 52 30.5	-0.7
TARG				⇓*i*S	Sg	04 52 56.1	-1.2
PRZ	Przheval'sk	2.08	326	⇑*e*P	Pb	04 52 34.5	+0.3
PRZ				⇑*e*S	Sg	04 53 02.8	-0.4
SHLS	Shalkode	2.42	351	Pg	Pb	04 52 39.3	-0.6
	17nm,0.2s						
SHLS				Lg	Lg	04 53 09.3	
	41nm,0.6s						
SHLS	Shalkode	2.42	351	*e*P	Pb	04 52 39.3	-0.6
	17nm,0.2s						
SHLS				*e*S	Sb	04 53 09.3	-0.5
	41nm,0.6s						
UZB	Uzynbulak	2.48	344	Pg	Pb	04 52 40.3	-0.7
	5.9nm,0.3s						
UZB				Lg	Lg	04 53 11.0	
	13nm,0.3s						

UZB	Uzynbulak	2.48	344	eP	Pb	04 52 40.3	-0.7
	5.9nm,0.3s						
UZB				eS	Sb	04 53 11.1	-0.6
	13nm,0.3s						
KDJ	Kajisay	2.50	304	⇑iP	Pb	04 52 38.7	-2.7
KDJ				⇑iS	Sb	04 53 10.6	-1.8
SATY	Saty	2.57	333	Pg	Pb	04 52 42.1	-0.4
	4.0nm,0.3s						
SATY				Lg	Lg	04 53 14.1	
	9.1nm,0.2s						
SATY	Saty	2.57	333	eP	Pb	04 52 42.1	-0.4
	4.0nm,0.3s						
SATY				eS	Sb	04 53 14.1	-0.2
	9.1nm,0.2s						
PDGK	Podgornoye	2.58	352	⇓Pg	Pb	04 52 41.3	-1.5
	1.8nm,0.3s						
PDGK				⇑Lg	Lg	04 53 13.8	
	16nm,0.8s						
ANVS	Anan'yevo	2.65	320	⇓iP	Pb	04 52 41.9	-2.1
ANVS				⇓iS	Sb	04 53 16.0	-0.6
KURS	Kuram	3.03	334	Pg	Pb	04 52 50.1	-0.3
	4.1nm,0.6s						
KURS				Lg	Lg	04 53 27.8	
	7.8nm,0.6s						
KURS	Kuram	3.03	334	eP	Pb	04 52 50.0	-0.3
	4.1nm,0.6s						
KURS				eS	Sb	04 53 27.8	+0.4
	7.8nm,0.6s						
NRN	Naryn	3.08	284	⇓eP	Pn	04 52 45.4	+0.2
NRN				⇓eS	Sn	04 53 22.5	+0.2
ULHL	Ulahol	3.17	299	⇑iP	Pn	04 52 47.5	+1.1
ULHL				⇑iS	Sn	04 53 25.6	+1.2
TNSS	Tian-Shan	3.20	316	Pg	Pb	04 52 53.1	-0.4
	1.4nm,0.2s						
TNSS				Lg	Lg	04 53 32.9	
	1.9nm,0.2s						
TNSS	Tian-Shan	3.20	316	eP	Pb	04 52 53.0	-0.4
	1.4nm,0.2s						
TNSS				eS	Sb	04 53 32.9	+0.2
	1.9nm,0.2s						
BOOM	Boomskoye usch	3.48	301	⇑eP	Pn	04 52 51.5	+0.9
BOOM				⇑eS	Sn	04 53 33.4	+1.4
KST	Kastek	3.76	308	Pg	Pb	04 53 03.2	+0.4
	0.8nm,0.2s						
KST				Lg	Lg	04 53 50.4	
	8.9nm,0.7s						
KST	Kastek	3.76	308	eP	Pb	04 53 03.2	+0.4
	0.8nm,0.2s						
KST				eS	Sb	04 53 50.4	+1.9
	8.9nm,0.7s						

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*IDC **24** 04:56:38.2±1.4, 33°.25S×178°.08W, h0^{km}, mb4.3/6, mbtmp4.3/7, ML3.8/1, Error ellipse: s-maj=41.0km s-min=23.8km az=35.0*

*NEIC **24** 04:56:40.6±1.5, 33°.43S±0°.08×178°.1W±0°.1, h10^{km}±2^{km}, mb4.4/13, Error ellipse: s-maj=19.7km s-min=13.6km az=86.0*

ISC 24 04:56:44.0±1.0**, 33°.4S**±0°.1×**178°.2W**±0°.1**, h34^{km}, n31, σ0^{s}.73**/32**, mb4.4**/15**, 2D, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	Matakaoa Point	5.01	214	Pn	Pn	04 57 55.6	-1.2
URZ	Urewera	6.14	217	Pn	Pn	04 58 11.0	-1.3
	1.9nm,0.3s,baz=333,slow=14,SNR=30						
URZ				Sn	Sn	04 59 22.0	+0.7
	21nm,0.3s,baz=171,slow=19,SNR=18						
	9.9nm,0.3s						
URZ				AML	AML		
RTZ	Ruatahuna	6.48	216		Pn	04 58 16.0	-1.0
TOZ	Tahuroa Road	6.69	228	Pn	Pn	04 58 20.0	+0.2
THZ	Tophouse	10.90	218	Pn	Pn	04 59 16.9	-0.7
GVZ	Greta Valley S	11.75	213	Pn	Pn	04 59 29.1	-0.1
EIDS	Eidsvold	27.88	279	P	P	05 02 30.9	+0.2
EIDS				IAmb	IAmb	05 02 33.3	
	comp=Z,4.5nm,0.8s						
BBOO	Buckleboo	38.08	258	P	P	05 03 58.9	-0.7
AS31	Alice Springs	42.87	270	P	P	05 04 39.4	+0.1
AS31				IAmb	IAmb	05 04 40.4	
	comp=Z,2.8nm,0.4s						
ASAR	Alice Springs	42.87	270	P	P	05 04 39.4	+0.1
	comp=Z,2.5nm,0.3s,baz=113,slow=8.1,SNR=54						
	comp=Z,2.5nm,0.3s						
ASAR	Alice Springs	42.87	270	P	P	05 04 39.1	-0.2
WR8	Warramunga Arr	44.00	275	P	P	05 04 48.0	-0.3
WR8				IAmb	IAmb	05 04 48.9	
	comp=Z,6.5nm,0.8s						
WRA	Warramunga Arr	44.14	275	P	P	05 04 49.1	-0.3
	comp=Z,4.0nm,0.6s,baz=116,slow=8.1,SNR=56						
	comp=Z,4.0nm,0.6s						
WRA	Warramunga Arr	44.14	275		P	05 04 48.8	-0.7
WB0	Warramunga Arr	44.17	276	P	P	05 04 49.6	-0.2
FORT	Forrest	45.19	258	P	P	05 04 58.1	+0.4
FORT				IAmb	IAmb	05 05 25.2	
	comp=Z,6.6nm,0.9s						
FITZ	Fitzroy Crossi	52.26	272	P	P	05 05 52.1	-0.1
	comp=Z,1.2nm,0.3s,baz=133,slow=6.0,SNR=15						
	comp=Z,1.2nm,0.3s						
FITZ	Fitzroy Crossi	52.26	272	P	P	05 05 52.0	-0.2
CASY	Casey	52.40	209	P	P	05 05 53.4	+0.8
CASY				IAmb	IAmb	05 05 56.3	
	comp=Z,3.8nm,0.9s						
MORW	Morawa	55.56	255	P	P	05 06 15.6	-0.7
MORW				IAmb	IAmb	05 06 52.1	
	comp=Z,5.3nm,1.0s						
QSPA	South Pole Qui	56.68	180	P	P	05 06 25.3	+1.5
	comp=Z,3.6nm,0.7s,baz=59,slow=4.0,SNR=19						
	comp=Z,3.6nm,0.7s						
QSPA	South Pole Qui	56.68	180	P	P	05 06 24.6	+0.7
TROLL	Troll, Antarti	74.84	180	P	P	05 08 20.9	+0.2
	comp=Z,43nm,0.6s						
SNAA	Sanae	75.13	178	P	P	05 08 22.7	+0.4
	comp=Z,1.3nm,0.7s,baz=209,slow=2.2,SNR=3.8						
	comp=Z,1.3nm,0.7s						
SNAA	Sanae	75.13	178	P	P	05 08 22.5	+0.2
SNAA				IAmb	IAmb	05 08 38.9	
	comp=Z,3.2nm,1.1s						
VNA3	Neumayer Olymp	75.29	176	⇓P	P	05 08 22.5	-0.7
	comp=Z,4.8nm,0.8s						
VNA2	Neumayer--Watz	75.72	177	⇓P	P	05 08 25.4	-0.3
	comp=Z,2.7nm,0.6s,baz=177,slow=6.2						
VNA1	Neumayer--Stat	75.96	177	P	P	05 08 26.8	-0.1
	comp=Z,2.6nm,0.8s						
PLCA	Paso Flores	80.56	133	P	P	05 08 52.6	-0.5
	comp=Z,1.1nm,0.9s,baz=239,slow=5.9,SNR=3.4						
	comp=Z,1.1nm,0.9s						
PLCA	Paso Flores	80.56	133	P	P	05 08 51.7	-1.4
FINES	FINESS Array B	147.92	338	PKPbc	PKPdf	05 16 23.1	+1.3
	comp=Z,6.4nm,0.9s,baz=66,slow=3.4,SNR=4.6						

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*NAO **24** 05:10:02.3, 37°.34N×22°.60E, h10^{km}, MB4.6*

*MOS **24** 05:10:16.4±1.2, 38°.83N×20°.48E, h5^{km}, mb4.7/16, Error ellipse: s-maj=6.9km s-min=3.8km az=79.4*

*UPSL **24** 05:10:17.7, 38°.79N×20°.53E, h15^{km}, Mw4.2, Moment Tensor Solution. s8 Moment tensor: M_{rr}1.35; $M_{\theta\theta}$-0.47; $M_{\phi\phi}$-0.88; $M_{r\theta}$1.30; $M_{\theta\phi}$1.77; $M_{\phi r}$0.09; Fault plane solution: NP1:ϕ_s106.00000°, δ67.00000°, λ48.00000°. NP2: ϕ_s352.00000°, δ47.00000°, λ147.00000°.*

*ATH **24** 05:10:18.4, 38°.74N×20°.59E, h16^{km}, Mw4.1, Moment Tensor Solution. s10 Moment tensor: M_{rr}0.72; $M_{\theta\theta}$-0.19; $M_{\phi\phi}$-0.53; $M_{r\theta}$1.36; $M_{\theta\phi}$1.33; $M_{\phi r}$-0.04; Fault plane solution: NP1:ϕ_s357.00000°, δ42.00000°, λ159.00000°. NP2:ϕ_s102.00000°, δ76.00000°, λ49.00000°.*

*IDC **24** 05:10:18.3±0.6, 38°.93N×20°.66E, h0^{km}, mb4.2/20, mbtmp4.1/34, ML3.9/12, MS3.5/21 Error ellipse: s-maj=11.3km s-min=8.1km az=26.0*

*MED_RC **24** 05:10:19.0, 38°.75N×20°.54E, h21^{km}, Mw4.4, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}0.04±.82; $M_{\theta\theta}$1.97±.56; $M_{\phi\phi}$0.00±.45; $M_{r\theta}$1.57±.68; $M_{\theta\phi}$3.92±.30; $M_{\phi r}$0.95±.49; Fault plane solution: $M_0$4.73000×10^{15} NP1:ϕ_s12.00000°, δ76.00000°, λ166.00000°. NP2:ϕ_s105.00000°, δ76.00000°, λ15.00000°. Principal axes: T 5.0500, Plg20.0000°, Azm328.0000°; N -0.6300, Plg70.0000°, Azm148.0000°; P -4.4200, Plg0.0000°, Azm238.0000°;*

*THE **24** 05:10:19.5, 38°.7N±0°.7×20°.6E±1°.0, h7^{km}±1^{km}, M4.1/44, MLh4.1/44*

*BEO **24** 05:10:19.1±0.5, 38°.65N×20°.38E, h16^{km}±4^{km}, ML4.1/17*

*NEIC **24** 05:10:20.1±1.9, 38°.88N±0°.06×20°.54E±0°.07, h10^{km}±1^{km}, mb4.7/26, Error ellipse: s-maj=10.3km s-min=9.1km az=210.0*

*GFZ **24** 05:10:21.5±0.2, 39°N±2°×2°0E±°, h10^{km}, M4.5/37, mb4.6/37*

*MCSM **24** 05:10:21.3±0.4, 39°N±3°×2°0E±°, h11^{km}±3^{km}, mb4.5, mB4.8, MLv4.5, Mw(mB)4.0*

ISC 24 05:10:19.1±0.6**, 38°.76N**±0°.01×**20°.58E**±0°.02**, h13^{km}**±3^{km}**, n500, σ1^{s}.65**/566**, mb4.5**/47**, MS3.5**/15**, 34C-19D, Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DRAG	Dragano-Lefkad	0.07	185	P	Pg	05 10 21.3	-0.4
DRAG				S	Sg	05 10 23.0	-0.6
DRAG	Dragano-Lefkad	0.07	185	P	Pg	05 10 21.5	-0.2
DRAG				S	Sg	05 10 23.6	0.0
TSLK	Tsoukalades, L	0.09	39	P	Pg	05 10 21.8	-0.1
TSLK				S	Sg	05 10 24.0	+0.1
TSLK	Tsoukalades, L	0.09	39	P	Pg	05 10 22.0	+0.1
TSLK				S	Sg	05 10 24.1	+0.2
NYDR	Nydri-Lefkada	0.10	115	P	Pg	05 10 21.3	-0.7
NYDR				S	Sg	05 10 23.3	-0.7
NYDR				AML	AML		
NYDR	Nydri-Lefkada	0.10	115	P	Pg	05 10 21.6	-0.4
NYDR				S	Sg	05 10 23.8	-0.3
EVGI	Lefkada island	0.14	157	P	Pg	05 10 22.3	-0.3
EVGI				S	Sg	05 10 25.2	0.0
EVGI				AML	AML		
EVGI	Lefkada island	0.14	157	P	Pg	05 10 22.5	-0.2
EVGI				S	Sg	05 10 25.0	-0.1
EVGI				AML	AML		
FSK	Fiskardo	0.29	183	P	Pg	05 10 25.0	-0.1
FSK				S	Sg	05 10 29.2	0.0
FSK				AML	AML		
FSK	Fiskardo	0.29	183	P	Pg	05 10 24.9	-0.2
FSK				S	Sg	05 10 28.8	-0.4
VSK1	VASILIKIADES	0.35	182	P	Pg	05 10 26.1	+0.1
VSK1				S	Sg	05 10 31.6	+0.9
AST1	Astakos	0.45	118	P	Pg	05 10 28.1	+0.1
AST1				S	Sg	05 10 35.0	+1.0
PDO	Prodromos	0.49	108	P	Pg	05 10 28.2	-0.6
PDO				S	Sg	05 10 35.9	+0.5
PDO				AML	AML		
PDO	Prodromos	0.49	108	P	Pg	05 10 28.3	-0.5
PDO				S	Sg	05 10 35.1	-0.3
PDO				AML	AML		
ART2	Arta	0.51	39	P	Pg	05 10 28.6	-0.4
ART2				S	Sg	05 10 36.2	+0.4
ARTB	Arta	0.51	37	P	Pg	05 10 29.0	-0.1
ARTB				S	Sg	05 10 36.2	+0.5
ARTB				AML	AML		
AMPL	Ampelaki	0.52	71	P	Pg	05 10 28.8	-0.5
AMPL				S	Sg	05 10 36.7	+0.5
AMPL				AML	AML		
AMPL	Ampelaki	0.52	71	P	Pg	05 10 28.8	-0.5
AMPL				S	Sg	05 10 36.0	-0.2
AMPL				AML	AML		
DMLN	Damoulianata-K	0.54	198	P	Pg	05 10 29.3	-0.3
DMLN				S	Sg	05 10 37.6	+0.8
DMLN				AML	AML		
DMLN	Damoulianata-K	0.54	198	P	Pg	05 10 29.2	-0.4
DMLN				S	Sg	05 10 36.6	-0.2
DMLN				AML	AML		
PRGA	Parga	0.55	345	P	Pb	05 10 30.4	-0.1
PRGA				S	Sb	05 10 37.9	-0.4
PRGA				AML	AML		
LXR1	Lixouri, Cepha	0.56	192	P	Pg	05 10 30.0	-0.1
PLEV	Plevrona-Mesol	0.73	118	P	Pg	05 10 32.7	-0.6
PLEV				S	Sg	05 10 43.6	+0.8
PLEV				AML	AML		
PLEV	Plevrona-Mesol	0.73	118	P	Pg	05 10 32.7	-0.6
PLEV				S	Sg	05 10 42.1	-0.7
PLEV				AML	AML		
PVO	Paravola	0.75	100	P	Pg	05 10 33.5	-0.1
PVO				S	Sb	05 10 45.4	+1.3
PVO				AML	AML		
PVO	Paravola	0.75	100	P	Pg	05 10 33.5	-0.1
PVO				S	Sg	05 10 43.8	+0.3
PVO				AML	AML		
MSL1	Messolongi	0.76	120	P	Pg	05 10 33.5	-0.4
MSL1				S	Sg	05 10 42.9	-0.9
TETR	Tetrakomo, Epi	0.80	42	P	Pg	05 10 33.8	-0.7
TETR				S	Sb	05 10 46.1	+0.5
TETR				AML	AML		
TETR	Tetrakomo, Epi	0.80	42	P	Pg	05 10 34.0	-0.5
TETR				S	Sb	05 10 45.3	-0.4
IGT	Igoumenitsa	0.80	346	P	Pg	05 10 34.4	-0.2
IGT				S	Sn	05 10 46.8	-1.1
IGT				AML	AML		
IGT	Igoumenitsa	0.80	346	ePg	Pb	05 10 34.9	0.0
IGT				eSg	Sn	05 10 47.9	0.0
IGT	Igoumenitsa	0.80	346	P	Pg	05 10 34.2	-0.4
IGT				S	Sb	05 10 45.8	+0.1
IGT				AML	AML		
LFKM	Lefkimmi	0.80	330	P	Pn	05 10 35.8	-0.3
LFKM				S	Sn	05 10 47.1	-0.8
AXS	Araxos	0.84	132	P	Pg	05 10 34.4	-0.8
AXS				S	Sb	05 10 47.6	+1.0
AXS				AML	AML		
AXS	Araxos	0.84	132	P	Pg	05 10 34.5	-0.8
AXS				S	Sg	05 10 45.3	-0.8
PRMD	Pramanda	0.87	27	P	Pg	05 10 35.6	-0.3
PRMD				AML	AML		
PRMD	Pramanda	0.87	27	P	Pg	05 10 35.8	-0.2
PRMD				S	Sb	05 10 48.2	+0.5
PRMD				AML	AML		
ORTH	Orthonies,Zaky	0.91	174	P	Pg	05 10 35.6	-1.0
ORTH				AML	AML		
ORTH	Orthonies,Zaky	0.91	174	P	Pg	05 10 35.6	-1.0
ORTH				S	Sg	05 10 48.4	0.0
JAN	Janina	0.92	13	P	Pn	05 10 37.4	-0.4
JAN				AML	AML		
JAN	Janina	0.92	13	P	Pb	05 10 37.1	+0.1
JAN				S	Sn	05 10 50.0	-1.0
JAN				AML	AML		
CLEM	Kyllini,Ilia,G	0.96	153	P	Pb	05 10 36.8	-0.8
EVR	Evrytania	0.97	80	P	Pg	05 10 37.0	-0.8
EVR				AML	AML		
EVR	Evrytania	0.97	80	P	Pg	05 10 36.9	-0.9
EVR				S	Sg	05 10 50.1	-0.4
EVR				AML	AML		
RLS	Riolos of Patr	0.98	135	P	Pb	05 10 37.0	-0.9
RLS				AML	AML		
RLS	Riolos of Patr	0.98	135	P	Pb	05 10 36.9	-1.0
RLS				AML	AML		
VVK	Vomvokou	1.02	109	P	Pb	05 10 37.9	-0.7
VVK				AML	AML		
VVK	Vomvokou	1.02	109	P	Pb	05 10 37.7	-0.9
VVK				AML	AML		
PATC	Patra C	1.04	117	P	Pb	05 10 38.7	-0.2
PATC				AML	AML		
RIOA	Rio	1.05	115	P	Pb	05 10 38.5	-0.6
RIOA				AML	AML		
ANX	Ano Chora	1.06	98	P	Pb	05 10 38.2	-1.1
ANX				AML	AML		
ANX	Ano Chora	1.06	98	P	Pb	05 10 38.3	-1.1
ANX				AML	AML		
LTHK	Lithakia	1.06	169	P	Pb	05 10 38.2	-1.1
LTHK				AML	AML		
LTHK	Lithakia	1.06	169	P	Pb	05 10 38.1	-1.1
LTHK				AML	AML		
EFP	Efpalio	1.09	107	P	Pb	05 10 38.9	-0.9
EFP				AML	AML		
EFP	Efpalio	1.09	107	P	Pb	05 10 38.7	-1.1
EFP				AML	AML		
KEK	Kerkira	1.13	328	P	Pb	05 10 40.1	-0.4
KEK				AML	AML		
KEK	Kerkira	1.13	328		Pb	05 10 39.8	-0.7
KEK	Kerkira	1.13	328	P	Pb	05 10 39.4	-1.2
KEK				AML	AML		
KEK	Kerkira	1.13	328	P	Pb	05 10 40.2	-0.4
DRO	Drossia	1.20	132	P	Pn	05 10 40.5	-1.0
DRO				AML	AML		
DRO	Drossia	1.20	132	P	Pn	05 10 40.1	-1.4
DRO				AML	AML		
SERG	Sergoula	1.20	106	P	Pn	05 10 41.1	-0.5
SERG				AML	AML		
SRN	Sarande	1.21	338	P	Pg	05 10 42.3	0.0
SRN				AML	AML		
SRN	Sarande	1.21	338	P	Pg	05 10 42.9	+0.5
KPRO	Kipourio	1.34	27	P	Pb	05 10 44.2	+0.1
KPRO				AML	AML		
THL	Klokotos Trika	1.38	54	P	Pn	05 10 44.1	+0.1
THL				AML	AML		
THL	Klokotos Trika	1.38	54	P	Pn	05 10 44.1	+0.1
AGG	Agios Georgios	1.39	78	P	Pb	05 10 44.9	0.0
AGG				AML	AML		
AGG	Agios Georgios	1.39	78	P	Pb	05 10 44.7	-0.2
KLV	Kalavryta, Ach	1.42	119	P	Pn	05 10 44.0	-0.7
KLV	Kalavryta, Ach	1.42	119	P	Pn	05 10 43.3	-1.4
PENT	Pentalofos	1.50	16	P	Pg	05 10 47.3	-0.7
AMT	Artemida-Makis	1.51	144	P	Pn	05 10 46.2	+0.3
AMT				AML	AML		
TYRN	Tyrnavos	1.60	53	P	Pb	05 10 47.8	-0.6
TYRN				AML	AML		
GUR	Goura	1.61	120	P	Pn	05 10 47.5	+0.2
GUR				AML	AML		
GUR	Goura	1.61	120	P	Pn	05 10 46.9	-0.3
GUR				AML	AML		
KZN	Kozani	1.80	30	P	Pb	05 10 52.5	+0.5
KZN				AML	AML		
KBN	Korca	1.87	5	P	Pb	05 10 53.1	-0.1
KBN				AML	AML		
KBN	Korca	1.87	5	P	Pg	05 10 53.9	-1.1
LKR	Lokris	1.89	92	P	Pb	05 10 52.6	-0.9
ITM	Ithomi	1.90	146	P	Pb	05 10 53.6	+0.1
ITM				AML	AML		
ITM	Ithomi	1.90	146		Pb	05 10 54.5	+1.0
ITM	Ithomi	1.90	146	P	Pg	05 10 56.2	+0.8
VLO	Vlora	1.91	334	P	Pb	05 10 52.8	-0.9
VLO				AML	AML		
VLO	Vlora	1.91	334	P	Pb	05 10 53.0	-0.7
XOR	Xorichti	2.12	72	P	Pb	05 10 56.8	-0.6
XOR				AML	AML		
XOR	Xorichti	2.12	72	P	Pb	05 10 57.0	-0.3
OHR	Ohrid	2.36	4	i Pn	Pb	05 11 00.9	-0.6
OHR				i Sn	Sg	05 11 41.4	+6.5
AOS	Alonnisos	2.60	80	P	Pn	05 11 02.5	+1.6
GRG	Griva	2.61	32	P	Pn	05 11 02.5	+1.6
GRG				AML	AML		
GRG	Griva	2.61	32	P	Pn	05 11 02.5	+1.6
THE	Thessaloniki	2.62	44	P	Pn	05 11 03.2	+2.1
PAIG	Paliouri	2.67	63	P	Pn	05 11 03.6	+1.8
PAIG	Paliouri	2.67	63	P	Pn	05 11 04.1	+2.3
VLY	Voula,Athens	2.68	109	P	Pn	05 11 04.4	+2.5
DION	Dionisos Attik	2.72	103	P	Pb	05 11 05.6	-2.0
DION				AML	AML		
PLG	Polygyros	2.74	53	P	Pn	05 11 04.3	+1.5
PLG				AML	AML		
KYMI	Kymi, Euboea I	2.75	91	P	Pn	05 11 05.6	+2.6
PHP	Peshkopia	2.93	358	P	Pn	05 11 07.5	+2.1
SOH	Sokhos	2.97	45	P	Pn	05 11 08.2	+2.2
SOH				AML	AML		
SOH	Sokhos	2.97	45	P	Pn	05 11 07.9	+2.0
VAY	Valandovo	2.98	30	i Pn	Pn	05 11 07.9	+1.8
KNT	Kendrikon	2.99	36	P	Pb	05 11 13.5	+1.3
TIP	Timpagrande	3.01	279		Pn	05 11 07.4	+0.9
TIP	Timpagrande	3.01	279	⇑P	Pn	05 11 07.6	+1.1
TIP				⇓S	Sn	05 11 43.4	+0.9
TIP	Timpagrande	3.01	279	P	Pn	05 11 07.4	+0.9
TIP				AML	AML		
TIP	Timpagrande	3.01	279	P	Pn	05 11 07.8	+1.3
KTHA	Kythira Island	3.18	141	P	Pb	05 11 12.7	-2.7
KTHA	Kythira Island	3.18	141	P	Pb	05 11 13.9	-1.5
SKO	Skopje	3.28	11	i Pn	Pn	05 11 12.2	+2.0
SRS	Serrai	3.30	43	P	Pn	05 11 11.9	+1.4
SRS	Serrai	3.30	43	ePn	Pn	05 11 12.6	+2.1
SRS				eSn	Sn	05 11 53.1	+3.4
SRS	Serrai	3.30	43	P	Pn	05 11 12.1	+1.6
PEHC	Pehcevo	3.50	30	i Pn	Pn	05 11 15.7	+2.4
MATE	Matera	3.54	304	⇓P	Pn	05 11 14.3	+0.6
ANKY	Antikythira Is	3.61	142	P	Pn	05 11 18.6	+3.9
KKB	Krupnik	3.65	31	P	Pn	05 11 15.2	0.0
KKB				AML	AML		
THAS	Thassos island	3.69	59	P	Pn	05 11 16.9	+1.2
THAS				AML	AML		
MMB	Musomishta	3.70	40	P	Pn	05 11 17.0	+1.1
CEL	Celeste	3.71	264		Pn	05 11 17.4	+1.2
CEL	Celeste	3.71	264	P	Pn	05 11 17.6	+1.5
CEL				AML	AML		
CEL	Celeste	3.71	264	P	Pn	05 11 17.7	+1.5
LIA	Limnos Island	3.75	71	P	Pn	05 11 18.9	+2.3
LIA				AML	AML		
PDG	Podgorica	3.81	345		Pn	05 11 17.5	+0.1
PDG	Podgorica	3.81	345	ePn	Pn	05 11 18.1	+0.7
PDG				eSn	Sn	05 12 02.3	+0.3
PDG	Podgorica	3.81	345	⇑P	Pn	05 11 18.2	+0.7
PDG				⇑S	Sn	05 12 01.7	-0.3
PDG	Podgorica	3.81	345	⇑iPn	Pn	05 11 18.0	+0.7
PDG	Podgorica	3.81	345	P	Pn	05 11 18.3	+0.9
CUC	Castrocucco	3.90	290		Pn	05 11 20.2	+1.5
CUC	Castrocucco	3.90	290	P	Pn	05 11 21.3	+2.6
MARCO	Tramutola	4.00	294	P	Pn	05 11 22.6	+2.4
BOSS	Bosilegrad	4.01	21	ePn	Pn	05 11 21.8	+1.6
BOSS				eSn	Sn	05 12 09.7	+2.7
BARS	Barje	4.16	13	ePn	Pn	05 11 23.6	+1.3
BARS				eSn	Sn	05 12 12.3	+1.4
PLNA	Plana	4.30	29	P	Pn	05 11 26.4	+2.1
CHOS	Chios island	4.30	93	P	Pn	05 11 26.7	+2.3
CHOS	Chios island	4.30	93	P	Pn	05 11 27.4	+3.1
TREB	Trebinje	4.31	338	ePn	Pn	05 11 24.0	-0.3
TREB				eSn	Sn	05 12 12.4	-1.9
TREB	Trebinje	4.31	338	ePn	Pn	05 11 23.6	-0.7
RZN	Rozhen	4.33	46	P	Pb	05 11 31.3	-3.8
VTS	Vitosha	4.35	27	P	Pn	05 11 26.4	+1.3
VTS				AML	AML		
VTS	Vitosha	4.35	27	P	Pn	05 11 26.6	+1.5
VTS	Vitosha	4.35	27	ePn	Pn	05 11 26.9	+1.8
VTS				eSn	Sn	05 12 16.6	+0.9
SELS	Selova	4.48	5	ePn	Pn	05 11 27.3	+0.6
SELS				eSn	Sn	05 12 19.7	+1.1
SJES	Sjenica	4.53	354	ePn	Pn	05 11 28.8	+1.4
SJES				eSn	Sn	05 12 19.6	-0.3
SJES	Sjenica	4.53	354	⇑iPn	Pn	05 11 28.6	+1.2
BLSH	Balsha	4.58	26	P	Pn	05 11 27.8	-0.3
EZN	Ezine	4.58	75	P	Pn	05 11 30.8	+2.8
EZN				AML	AML		
STON	Ston	4.66	333	ePn	Pn	05 11 28.5	-0.6
STON				eSn	Sn	05 12 21.3	-1.7
KLINJ	Klinje	4.66	342	ePn	Pn	05 11 28.2	-1.0
ALN	Alexandroupoli	4.72	61	P	Pn	05 11 31.7	+1.8
ALN	Alexandroupoli	4.72	61	P	Pn	05 11 31.9	+2.0
ALN	Alexandroupoli	4.72	61		Pn	05 11 31.9	+2.0
ALN	Alexandroupoli	4.72	61	P	Pn	05 11 32.3	+2.4
SGRT	San Giovanni R	4.76	311		Pn	05 11 30.8	+0.2
ZAPS	Zavoj	4.77	18	ePn	Pn	05 11 32.7	+2.0
ZAPS				eSn	Sn	05 12 27.0	+1.1
GOCS	Kraljevo Serbi	4.81	3	ePn	Pn	05 11 32.0	+0.8
GOCS				eSn	Sn	05 12 27.6	+0.7
IVAS	Ivanjica	4.83	356	ePn	Pn	05 11 31.8	+0.3
IVAS				eSn	Sn	05 12 26.7	-0.6
IDI	Anoyia	4.88	134	Pn	Pn	05 11 34.6	+2.3
	7.1nm,0.7s,baz=301,slow=16,SNR=10						
IDI				Sn	Sn	05 12 29.8	+1.1
	2.8nm,0.3s,baz=178,slow=4.8,SNR=4.0						
IDI	Anoyia	4.88	134		Pn	05 11 36.3	+4.1
BOVS	Bovan	4.95	9	ePn	Pn	05 11 33.5	+0.4
BOVS	Bovan	4.95	9	⇑P	Pn	05 11 34.1	+1.0
VAE	Valguarnera	5.03	257	Pn	Pn	05 11 38.5	+4.2
	5.9nm,0.4s,baz=354,slow=10,SNR=1.7						
VAE				Sn	Sn	05 12 35.3	+3.0
	7.2nm,0.3s,baz=196,slow=16,SNR=3.9						
VAE				LR	LR	05 13 25.8	
	comp=Z,150nm,19.9s,baz=27,slow=36						
GRUS	Gruza	5.13	1	ePn	Pn	05 11 36.1	+0.5
GRUS				eSn	Sn	05 12 34.0	-0.6
RAFF	Raffo Rosso	5.15	255		Pn	05 11 36.0	+0.2
PAOL	Paolisi	5.16	298		Pn	05 11 37.3	+1.4
MPEP	Malo Peshtene	5.18	26	P	Pn	05 11 38.5	+2.2
BBLS	Lazi&#263i	5.18	351	ePn	Pn	05 11 36.6	+0.2
BBLS				eSn	Sn	05 12 35.6	-0.5
BBLS	Lazi&#263i	5.18	351	⇑iPn	Pn	05 11 36.4	0.0
ZAGS	Zajecar	5.20	13	ePn	Pn	05 11 37.7	+1.1
ZAGS				eSn	Sn	05 12 37.7	+1.3
DIVS	Divibare	5.36	355	ePn	Pn	05 11 38.8	0.0
DIVS				eSn	Sn	05 12 39.6	-0.8
TRUS	Trudelj	5.47	359	ePn	Pn	05 11 40.5	+0.3
PLVB	Pleven	5.54	32	⇑P	Pn	05 11 43.8	+2.6
BALY	Balya	5.55	78	P	Pn	05 11 44.9	+3.5
	comp=Z,134nm,0.7s						

WDD	Wied Dalam	5.64	241		Pn	05 11 43.1	+0.5
WDD	Wied Dalam	5.64	241	P	Pn	05 11 43.3	+0.7
	comp=Z,789nm,0.7s						
BDRM	Kayabasi	5.68	105	⇓P	Pn	05 11 48.4	+5.2
BALB	Balikesir	5.74	79		Pn	05 11 47.6	+3.7
TEKS	Tekeris	5.84	353	*e*Pn	Pn	05 11 44.8	-0.6
TEKS	Tekeris	5.84	353	⇑*i*Pn	Pn	05 11 44.8	-0.6
CLTB	Caltabellotta	5.92	261	P	Pn	05 11 49.7	+3.2
	comp=Z,52nm,0.5s						
AVAS	Avala Beograd	5.94	360	*e*Pn	Pn	05 11 46.4	-0.3
INTR	Introdacqua	6.05	305		Pn	05 11 49.9	+1.6
MDVR	Moldovita	6.08	8	*e*Pn	Pn	05 11 48.9	+0.2
MDVR	Moldovita	6.08	8	⇓P	Pn	05 11 49.6	+0.9
MANT	Manisa	6.25	90		Pn	05 11 55.0	+3.8
HERR	Herculane	6.27	12	⇓P	Pn	05 11 52.2	+0.9
VRSS	Vrsac	6.39	5	*e*Pn	Pn	05 11 53.8	+1.0
FRGS	Fruska Gora	6.42	355	*e*Pn	Pn	05 11 53.0	-0.4
FRGS	Fruska Gora	6.42	355	⇑*i*Pn	Pn	05 11 52.4	-1.0
BLY	Banja Luka	6.51	338		Pn	05 11 53.9	-0.6
BLY	Banja Luka	6.51	338	*e*Pn	Pn	05 11 54.7	+0.2
BLY	Banja Luka	6.51	338	⇑P	Pn	05 11 55.0	+0.6
BLY	Banja Luka	6.51	338	⇑*i*Pn	Pn	05 11 54.4	-0.1
BLY	Banja Luka	6.51	338	P	Pn	05 11 54.6	+0.2
	comp=Z,77nm,0.6s						
AQU	L'Aquila	6.54	306	P	Pn	05 11 55.3	+0.2
AQU	L'Aquila	6.54	306		Pn	05 11 55.3	+0.2
AQU	L'Aquila	6.54	306	⇑*i*Pn	Pn	05 11 55.2	+0.2
AQU	L'Aquila	6.54	306	P	Pn	05 11 56.1	+1.1
	comp=Z,0.3nmcomp=Z,564nmcomp=Z,74nm,0.8s						
AQU				AML	AML		
AQU	L'Aquila	6.54	306	P	Pn	05 11 57.5	+2.5
	comp=Z,91nm,0.8s						
TAVA	DENIZLI_Tavas	6.69	98	⇑P	Pn	05 12 03.1	+6.0
GZR	Gura Zlata	6.83	13	P	Pn	05 11 59.9	+0.9
GZR	Gura Zlata	6.83	13	⇓P	Pn	05 11 60.0	+0.9
BZS	Buzias	6.90	6	P	Pn	05 12 00.8	+1.0
BZS	Buzias	6.90	6	*e*Pn	Pn	05 12 00.0	+0.1
BZS	Buzias	6.90	6	⇓P	Pn	05 12 00.9	+1.0
BZS	Buzias	6.90	6	P	Pn	05 11 59.9	0.0
	comp=Z,13nm,0.7s						
SURR	Surduc	7.09	9	⇑P	Pn	05 12 04.1	+1.6
ARR	Arges	7.26	23	⇑P	Pn	05 12 06.6	+1.7
ARR	Arges	7.26	23	P	Pn	05 12 06.8	+1.9
	comp=Z,17nm,0.7s						
VOIR		7.46	25	P	Pn	05 12 09.6	+2.0
VOIR		7.46	25	⇑P	Pn	05 12 09.7	+2.0
VOIR		7.46	25	P	Pn	05 12 09.1	+1.5
	comp=Z,0.1nmcomp=Z,25nm,1.0s						
VOIR				AML	AML		
VOIR		7.46	25	P	Pn	05 12 10.0	+2.4
	comp=Z,24nm,0.9s						
MURB	Monte Urbino	7.58	309		Pn	05 12 11.5	+2.3
MORH	Mrgy, Hungar	7.59	350	⇑P	Pn	05 12 09.9	+0.6
MORH	Mrgy, Hungar	7.59	350	⇑*i*Pn	Pn	05 12 07.8	-1.5
MORH	Mrgy, Hungar	7.59	350	P	Pn	05 12 08.4	-0.9
	comp=Z,0.1nmcomp=Z,19nm,0.6s						
MORH				AML	AML		
MORH	Mrgy, Hungar	7.59	350	P	Pn	05 12 08.7	-0.7
	comp=Z,21nm,0.6s						
BORA	Eskisehir	7.74	79		Pn	05 12 15.0	+3.6
ISR	Istrita	7.75	33	P	Pn	05 12 14.9	+3.3
ISR	Istrita	7.75	33	⇓P	Pn	05 12 15.0	+3.3
ISR	Istrita	7.75	33	P	Pn	05 12 14.1	+2.4
	comp=Z,0.4nmcomp=Z,106nm,0.7s						
ISR				AML	AML		
BOJS	Bojanci	7.82	331	*i* Pn	Pn	05 12 12.4	-0.1
BOJS	Bojanci	7.82	331	*e*Pn	Pn	05 12 12.5	0.0
MLR	Muntele Rosu	7.82	29	Pn	Pn	05 12 12.7	0.0
	comp=Z,1.5nm,0.3s,baz=270,slow=20,SNR=12						
	comp=Z,7.0nm,0.9s						
MLR				AML	AML		
MLR	Muntele Rosu	7.82	29		Pn	05 12 14.7	+2.0
MLR	Muntele Rosu	7.82	29	*e*Pn	Pn	05 12 13.5	+0.9
MLR	Muntele Rosu	7.82	29	⇑P	Pn	05 12 15.5	+2.8
MLR	Muntele Rosu	7.82	29	P	Pn	05 12 14.8	+2.2
	comp=Z,0.2nmcomp=Z,72nm,0.8s						
MLR				AML	AML		
MLR	Muntele Rosu	7.82	29	P	Pn	05 12 15.7	+3.1
	comp=Z,73nm,0.8s						
NEHR	Nehoiu	7.90	31	⇑P	Pn	05 12 16.4	+2.7
RIY	Rijeka	7.98	327	*e*Pn	Pn	05 12 13.8	-0.9
GBRS	Gornja Briga	8.01	330	*i* Pn	Pn	05 12 15.4	+0.2
CRES	Cresnjevec Ost	8.02	333	*i* Pn	Pn	05 12 14.8	-0.5
CRES				*e*Sn	Sn	05 13 39.8	-6.1
DOPR	Dopca	8.04	25	⇑P	Pn	05 12 18.1	+2.6
BISRR	Bisoca	8.17	32	⇓P	Pn	05 12 20.5	+3.1
BISRR	Bisoca	8.17	32	P	Pn	05 12 19.5	+2.1
	comp=Z,5µmcomp=Z,214nm,0.7s						
DRGR		8.18	10	P	Pn	05 12 19.4	+1.9
DRGR		8.18	10	⇓P	Pn	05 12 19.5	+1.9
DRGR		8.18	10	P	Pn	05 12 19.4	+1.9
	comp=Z,7.5nm,0.6s						
BEHE	Becsehely	8.21	341	⇑*i*Pn	Pn	05 12 16.9	-0.9
BEHE	Becsehely	8.21	341	P	Pn	05 12 17.7	-0.1
	comp=Z,38nm,0.6s						
OZUR		8.28	26	⇑P	Pn	05 12 21.6	+2.7
SAHR	Sahastru	8.30	31	⇓P	Pn	05 12 22.1	+2.9
CEY	Cerknica	8.34	329	*e*Pn	Pn	05 12 18.8	-0.8
SKDS	Skadanscina	8.36	326	*e*Pn	Pn	05 12 18.8	-1.1
MDUB	Mudurnu	8.37	75		Pn	05 12 23.5	+3.3
PLOR	Plostina	8.39	30	P	Pn	05 12 23.4	+3.0
PLOR	Plostina	8.39	30	⇓P	Pn	05 12 23.5	+3.0
VRI	Vrincioaia	8.44	31	P	Pn	05 12 24.2	+3.2
VRI	Vrincioaia	8.44	31	⇓P	Pn	05 12 24.2	+3.2
VRI	Vrincioaia	8.44	31	P	Pn	05 12 23.1	+2.1
	comp=Z,60nm,1.0s						
VRI	Vrincioaia	8.44	31	P	Pn	05 12 24.8	+3.9
	comp=Z,60nm,1.0s						
TPGR	Topolog	8.45	41	⇓P	Pn	05 12 24.5	+3.4
LJU	Ljubljana	8.55	330	*e*Pn	Pn	05 12 22.3	-0.2
JAVS	Javornik	8.61	328	*i* Pn	Pn	05 12 22.9	-0.6
MPLH	Magyarpolny	8.70	346	P	Pn	05 12 24.0	-0.6
	comp=Z,102nm,0.9s						
MPLH	Magyarpolny	8.70	346	P	Pn	05 12 24.3	-0.3
	comp=Z,41nm,0.9s						
SOKA	Soboth	8.91	335	*e*Pn	Pn	05 12 26.8	-0.7
	comp=Z,50nm,0.7s,SNR=46						
SOKA				*e*Sn	Sn	05 14 01.9	-5.9
	comp=Z,14nm,0.6s						
KEPZ	Antalya-Kepez	8.91	99	⇑P	Pn	05 12 33.8	+6.2
OBKA	Obir	8.93	332	*i* Pn	Pn	05 12 27.3	-0.5
	comp=Z,25nm,0.5s,SNR=23						
OBKA				*e*Sn	Sn	05 14 05.0	-3.3
	comp=Z,17nm,0.3s						
OBKA	Obir	8.93	332	P	Pn	05 12 27.2	-0.6
	comp=Z,59nm,0.7s						
DRE	Drenchia	9.01	328	P	Pn	05 12 28.5	-0.4
	comp=Z,70nm,0.7s						
PSZ	Piszkesteto	9.17	357	P	Pn	05 12 31.6	+0.5
PSZ	Piszkesteto	9.17	357		Pn	05 12 30.5	-0.7
PSZ	Piszkesteto	9.17	357	⇑P	Pn	05 12 31.7	+0.5
PSZ	Piszkesteto	9.17	357	P	Pn	05 12 31.5	+0.5
	comp=Z,30nm,0.9s						
PRED	Cave del Predi	9.26	328	P	Pn	05 12 31.9	-0.4
	comp=Z,19nm,0.8s						
ARSA	Arzberg	9.26	338	*e*Pn	Pn	05 12 31.5	-0.8
ARSA	Arzberg	9.26	338	*e*Pn	Pn	05 12 31.6	-0.7
	comp=Z,14nm,0.5s,SNR=10.0						
ARSA	Arzberg	9.26	338	P	Pn	05 12 31.6	-0.7
	comp=Z,37nm,0.8s						
ACOM	Acomizza, Ital	9.37	329	P	Pn	05 12 33.8	-0.1
	comp=Z,78nm,0.8s						
MYKA	Terra Mystica	9.38	329	*e*Pn	Pn	05 12 33.9	0.0
	comp=Z,13nm,0.6s,SNR=6.3						
SESA	Seetaler Alpe,	9.44	334	*e*Pn	Pn	05 12 34.2	-0.8
	comp=Z,93nm,0.8s,SNR=18						
KEST	Kesra	9.45	255	Pn	Pn	05 12 37.1	+2.1
	comp=Z,0.4nm,0.3s,baz=64,slow=10.0,SNR=5.6						
KEST				Sn	Sn	05 14 19.9	-1.3
	comp=Z,0.2nm,0.3s,baz=51,slow=19,SNR=1.2						
	comp=Z,1.9nm,0.5s						
KEST				AML	AML		
KEST	Kesra	9.45	255		Pn	05 12 34.9	-0.1
RONA	Rosalia, Austr	9.47	342	Pn	Pn	05 12 35.2	0.0
	comp=Z,6.7nm,0.6s,SNR=4.4						
RONA				*e*Sn	Sn	05 14 20.4	-1.1
	comp=Z,5.9nm,0.4s						
FUSE	Fusea	9.47	326	P	Pn	05 12 34.2	-1.0
	comp=Z,39nm,0.7s						
CGRP	Cima Grappa	9.64	320	P	Pn	05 12 36.4	-1.2
	comp=Z,23nm,0.8s						
KECS	Kecovo	9.72	360	*e*P	Pn	05 12 39.7	+1.1
KECS	Kecovo	9.72	360	*e*PN	Pn	05 12 39.7	+1.1
KECS	Kecovo	9.72	360	P	Pn	05 12 39.8	+1.2
	comp=Z,14nm,0.8s						
CONA	Conrad Observa	9.79	341	*e*Pn	Pn	05 12 40.4	+0.9
	comp=Z,6.2nm,0.7s,SNR=5.4						
VYHS	Vyhne	9.82	353	*e*P	Pn	05 12 40.1	+0.2
VYHS				*e*		05 14 27.5	
VYHS	Vyhne	9.82	353	*e*PN	Pn	05 12 40.1	+0.2
VYHS				*e*SN	Sn	05 14 27.5	-2.4
VYHS	Vyhne	9.82	353	P	Pn	05 12 40.4	+0.5
	comp=Z,3.7nm,1.2s						
KBA	Koelnbreinsper	9.86	330	*e*Pn	Pn	05 12 40.8	+0.1
	comp=Z,17nm,0.5s,SNR=13						
KBA				*e*Sn	Sn	05 14 30.3	-1.1
	comp=Z,13nm,0.7s						
KBA	Koelnbreinsper	9.86	330	P	Pn	05 12 41.0	+0.3
	comp=Z,37nm,0.8s						
MODS	Modra-Piesok	9.91	347	*e*P	Pn	05 12 41.7	+0.6
MODS				*e*		05 14 25.9	
MODS	Modra-Piesok	9.91	347	*e*PN	Pn	05 12 41.7	+0.6
MODS				*e*SN	Sn	05 14 25.9	-6.3
MODS	Modra-Piesok	9.91	347	P	Pn	05 12 41.5	+0.3
	comp=Z,36nm,0.8s						
ABTA	Abfaltersbach	9.95	326	*e*Pn	Pn	05 12 41.4	-0.3
	comp=Z,15nm,0.5s,SNR=11						
ABTA				*e*Sn	Sn	05 14 32.5	-0.7
	comp=Z,19nm,0.6s						
SMOL	Smolenice	10.02	348	*e*P	Pn	05 12 43.1	+0.5
SALO	Salr	10.13	316		Pn	05 12 43.8	-0.4
BR105	Keskin Array S	10.16	80	P	Pn	05 12 48.4	+3.7
	comp=Z,3.9nm,0.8s						
BR106	Keskin Array S	10.16	80	P	Pn	05 12 47.9	+3.2
	comp=Z,2.9nm,0.8s						
BR131	Keskin Array S	10.18	80	*e*P	Pn	05 12 48.3	+3.3
BR131	Keskin Array S	10.18	80		Pn	05 12 45.2	+0.2
BRTR	Keskin Array B	10.18	80	Pn	Pn	05 12 48.5	+3.5
	comp=Z,0.2nm,0.3s,baz=261,slow=12,SNR=12						
BRTR				LR	LR	05 16 46.4	
	comp=Z,127nm,20.4s,baz=266,slow=38						
	comp=Z,1.7nm,0.6s						
BRTR				AML	AML		
BRTR	Keskin Array B	10.18	80	*ce*P	Pn	05 12 50.5	+5.5
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
BRTR	Keskin Array B	10.18	80		Pn	05 12 45.8	+0.9
BR104	Keskin Array S	10.18	81	P	Pn	05 12 48.1	+3.1
	comp=Z,35nmcomp=Z,2.7nm,0.6s						
MOA	Molln	10.19	335	*e*Pn	Pn	05 12 44.2	-0.7
MOA	Molln	10.19	335	*i* Pn	Pn	05 12 44.8	-0.1
	comp=Z,19nm,0.4s,SNR=30						
MOA				*e*Sn	Sn	05 14 37.7	-1.3
	comp=Z,7.7nm,0.5s						
MOA	Molln	10.19	335	P	Pn	05 12 45.1	+0.1
	comp=Z,52nm,0.8s						
KOLS	Kolonicke sedl	10.25	6	*e*P	Pn	05 12 47.8	+2.0
KOLS	Kolonicke sedl	10.25	6	*e*PN	Pn	05 12 47.8	+2.0
KOLS	Kolonicke sedl	10.25	6	P	Pn	05 12 48.0	+2.3
	comp=Z,11nm,0.7s						
BIOA	Bad Ischl, Aus	10.26	333	*e*Pn	Pn	05 12 46.1	+0.1
	comp=Z,34nm,0.9s,SNR=11						
JAVC	Velka Javorina	10.32	349	*e*PN	Pn	05 12 46.4	-0.4
JAVC	Velka Javorina	10.32	349	P	Pn	05 12 47.8	+1.0
	comp=Z,16nm,1.8s						
ILGA	Ilgaz	10.35	73		Pn	05 12 48.2	+0.8
KIRS	Kirsehir-Merke	10.39	84	⇓P	Pn	05 12 53.6	+5.7
LESA	Schwarzleotal	10.41	329	*e*Pn	Pn	05 12 48.1	0.0
	comp=Z,18nm,0.4s,SNR=22						
LESA				*e*Sn	Sn	05 14 39.8	-4.8
	comp=Z,12nm,0.5s						
RJOB	Jochberg	10.62	330	P	Pn	05 12 51.3	+0.4
	comp=Z,24nm,0.7s						
NIE	Niedzica	10.66	359	P	Pn	05 12 52.6	+1.1
	comp=Z,8.8nm,0.8s						
WTTA	Wattenberg	10.73	325	*i* Pn	Pn	05 12 52.7	+0.2
	comp=Z,16nm,0.8s,SNR=7.3						
WTTA				*e*Sn	Sn	05 14 47.8	-4.7
	comp=Z,16nm,0.5s						
WTTA	Wattenberg	10.73	325	P	Pn	05 12 52.5	0.0
	comp=Z,27nm,0.8s						
KRUC	Moravsky	10.73	345	*e*PN	Pn	05 12 52.0	-0.4
WATA	Walderalm	10.81	325	*i* Pn	Pn	05 12 54.0	+0.5
	comp=Z,21nm,0.4s,SNR=13						
SQTA	Sankt Quirin	10.89	324	*i* Pn	Pn	05 12 55.6	+0.9
	comp=Z,7.5nm,0.4s,SNR=5.5						
SQTA				*e*Sn	Sn	05 14 52.6	-3.7
	comp=Z,9.4nm,0.4s						
FUORN	Ofenpass-Fuorn	10.92	319		Pn	05 12 55.0	-0.3
FUORN	Ofenpass-Fuorn	10.92	319	P	Pn	05 12 56.1	+0.8
	comp=Z,13nm,0.7s						
VRAC	Vranov	10.93	346	Pn	Pn	05 12 54.0	-1.1
	comp=Z,0.7nm,0.3s,baz=174,slow=12,SNR=8.5						
VRAC				LR	LR	05 17 21.6	
	comp=Z,200nm,18.5s,baz=162,slow=39						
	comp=Z,6.5nm,0.6s						
VRAC				AML	AML		
VRAC	Vranov	10.93	346	*e*PN	Pn	05 12 54.3	-0.8
VRAC	Vranov	10.93	346	P	Pn	05 12 54.7	-0.5
	comp=Z,3.7nm,0.8s						
FETA	Feichten	10.97	322	*e*Pn	Pn	05 12 56.3	+0.5
	comp=Z,3.4nm,0.6s						
FETA				*e*Sn	Sn	05 14 59.0	+0.6
	comp=Z,7.8nm,0.7s						
KWP	Kalwaria Pacla	10.98	7	P	Pn	05 12 56.6	+0.8
MOTA	Moosalm	11.03	324	*e*Pn	Pn	05 12 57.6	+1.0
	comp=Z,11nm,0.3s						
CKRC	Cesky Krumlov	11.03	338	*e*P	Pn	05 12 56.1	-0.4
CKRC	Cesky Krumlov	11.03	338	*e*PN	Pn	05 12 56.1	-0.4
DAVOX	Davos/Dischmat	11.23	319	Pn	Pn	05 13 00.2	+0.9
	comp=Z,1.2nm,0.3s,baz=137,slow=15,SNR=8.2						
DAVOX				Sn	Sn	05 15 01.1	-3.6
	comp=Z,1.8nm,0.3s,baz=288,slow=9.0,SNR=3.7						
	comp=Z,4.4nm,0.6s						
DAVOX				AML	AML		
MORC	Moravsky Berou	11.23	350	P	Pn	05 12 57.8	-1.5
MORC	Moravsky Berou	11.23	350		Pn	05 12 57.8	-1.5
MORC	Moravsky Berou	11.23	350	*e*PN	Pn	05 12 59.0	-0.3
MORC	Moravsky Berou	11.23	350	P	Pn	05 12 59.7	+0.4
	comp=Z,14nm,0.8s						
GEC2	GERESS Array S	11.24	336		Pn	05 12 58.3	-1.1
GEC2	GERESS Array S	11.24	336	P	Pn	05 12 58.5	-0.9
	comp=Z,13nm,0.8s						
GERES	GERESS Array B	11.24	336	Pn	Pn	05 12 58.3	-1.1
	comp=Z,0.5nm,0.3s,baz=161,slow=14,SNR=51						
GERES				Sn	Sn	05 14 58.3	-6.7
	comp=Z,0.1nm,0.3s,baz=150,slow=24,SNR=2.0						
	comp=Z,9.0nm,0.5s						
GERES				AML	AML		
GERES	GERESS Array B	11.24	336		Pn	05 12 58.0	-1.5
RETA	Reutte	11.29	324	Pn	Pn	05 13 01.1	+1.0
	comp=Z,3.8nm,0.2s						
RETA				*i* Sn	Sn	05 15 04.3	-1.8
	comp=Z,4.1nm,0.3s						
TUE	Stuetta	11.31	317		Pn	05 12 59.6	-0.9
TUE	Stuetta	11.31	317	P	Pn	05 13 01.0	+0.6
	comp=Z,65nm,0.7s						
TUE	Stuetta	11.31	317	P	Pn	05 13 01.9	+1.5
	comp=Z,16nm,0.7s						
KHC	Kasperske Hory	11.53	336	*ce*P	Pn	05 12 59.1	-4.2
KHC				pmax	pmax		
	comp=Z,10.0nm,0.8s						
KHC	Kasperske Hory	11.53	336	*e*PN	Pn	05 13 01.9	-1.4
KHC				*e*SN	Sn	05 15 08.5	-3.4
KHC				AMS	AMS	05 18 10.0	
	comp=Z,400nm,10.4s						
KHC	Kasperske Hory	11.53	336		Pn	05 13 01.7	-1.7
KHC	Kasperske Hory	11.53	336	P	Pn	05 13 02.2	-1.1
	comp=Z,13nm,0.8s						
KHC	Kasperske Hory	11.53	336	P	Pn	05 13 02.4	-1.0
	comp=Z,13nm,0.8s						
DAVA	Damuels	11.57	321	*e*Pn	Pn	05 13 05.6	+1.6
	comp=Z,5.4nm,0.5s						
DAVA				*e*Sn	Sn	05 15 09.8	-3.3
	comp=Z,13nm,0.6s						
DAVA	Damuels	11.57	321	P	Pn	05 13 05.5	+1.5
	comp=Z,26nm,1.1s						
KRLC	Kraliky	11.64	348	P	Pn	05 13 05.3	+0.5
	comp=Z,10nm,0.9s						
UBR	Ueberruh	11.74	323	P	Pn	05 13 10.4	+4.2
	comp=Z,24nm,0.9s						
WET	Wettzell	11.77	334	P	Pn	05 13 05.2	-1.4
	comp=Z,18nm,1.1s						
DPC	Dobruska-Polom	11.98	347	*e*P	Pn	05 13 19.4	+10
DPC	Dobruska-Polom	11.98	347	*e*PN	Pn	05 13 19.4	+10
PRU	Pruhonice	12.03	341	P	Pn	05 13 09.9	-0.2
	comp=Z,13nm,0.9s						
SENIN	Lac Senin/Sane	12.39	312		Pn	05 13 14.6	-0.6
STU	Stuttgart	12.95	324	P	Pn	05 13 21.4	-1.3
STU	Stuttgart	12.95	324	Pn	Pn	05 13 21.4	-1.3
BRG	Berggiesshubel	12.99	341	*e*P	Pn	05 13 27.0	+3.7
BRG				Amp		05 13 36.4	
	comp=Z,4.6nm,0.9s						
RNPP5	Staryi Chortor	13.02	15	P	Pn	05 13 24.2	+0.6
AK07	Malin Array Si	13.28	25	P	Pn	05 13 28.7	+1.5
MMAI	Mount Meron Ar	13.31	111	Pn	Pn	05 13 27.7	0.0
	comp=Z,1.4nm,0.3s,baz=289,slow=8.7,SNR=3.5						
	comp=Z,1.4nm,0.5s						
MMAI				AML	AML		
AK06	Malin Array Si	13.31	25	P	Pn	05 13 28.7	+1.1
AK14	Malin Array Si	13.32	24	P	Pn	05 13 28.9	+1.2
AK09	Malin Array Si	13.36	25	P	Pn	05 13 29.6	+1.3
AKASG	Malin Array Be	13.42	24	Pn	Pn	05 13 27.6	-1.4
	comp=Z,1.0nm,0.3s,baz=212,slow=12,SNR=2.4						
AKASG				LR	LR	05 19 40.1	
	comp=Z,172nm,20.7s,baz=206,slow=42						
	comp=Z,0.9nm,0.6s						
AKASG				AML	AML		
AKBB	Malin Array Si	13.42	24	*i* P	Pn	05 13 28.2	-0.9
MOX	Moxa	13.48	335	P	Pn	05 13 29.5	-0.4
	comp=Z,15nm,0.8s						
CLL	Collm	13.64	339	*e*P	Pn	05 13 32.0	0.0
CLL	Collm	13.64	339	*e*P	Pn	05 13 32.0	0.0
CLL				*i* PP	P	05 13 42.1	+1.2
	comp=Z,40nm,1.6s						
CLL				AMS	AMS	05 18 00.0	
	comp=N,200nm,15.6s						
CLL				AMS	AMS	05 18 00.0	
	comp=E,400nm,16.3s						
CLL				AMS	AMS	05 19 00.0	
	comp=N,300nm,16.3s						
CLL				AMS	AMS	05 19 00.0	
	comp=E,100nm,14.9s						
CLL				AMS	AMS	05 19 00.0	
	comp=Z,400nm,15.9s						
ARPR	Arapgir-MALATY	13.83	83		P	05 13 39.5	-3.8
ASF	Jabal al Asfar	14.82	111	Pn	Pn	05 13 48.6	+0.2
	comp=Z,0.1nm,0.3s,baz=288,slow=20,SNR=3.2						
	comp=Z,0.8nm,0.5s						
ASF				AML	AML		
EIL	Elat	14.93	123	Pn	Pn	05 13 48.4	-1.5
	comp=Z,0.5nm,0.3s,baz=322,slow=17,SNR=1.3						
	comp=Z,2.2nm,0.4s						
EIL				AML	AML		
WLF	Walferdange	15.01	321	P	Pn	05 13 49.9	-0.8
WLF	Walferdange	15.01	321		Pn	05 13 49.9	-0.8
WLF	Walferdange	15.01	321	*d*P	Pn	05 13 49.4	-1.3
SOC	Sochi	15.19	65	*e*P	P	05 13 56.2	-2.0
SOC				*e*		05 16 48.0	
SOC				pmax	pmax		
	comp=Z,9.0nm,1.0s						
SOC				MLR	MLR		
	comp=Z,47nm,15.0s						
DOU	Dourbes	16.05	320	*d*P	P	05 14 09.6	+1.9
MNK	Minsk	16.52	15	*i* P	Pn	05 14 06.9	-3.3
MNK				*i* S	Sn	05 17 09.7	-3.6
MNK				pmax	pmax		
	comp=E,19nm,0.7s						
MNK				pmax	pmax		
	comp=Z,14nm,0.6s						
MNK				pmax	pmax		
	comp=N,23nm,1.0s						
MNK				MLR	MLR		
	comp=N,133nm,14.0s						
MNK				MLR	MLR		
	comp=Z,131nm,16.0s						
MNK				MLR	MLR		
	comp=E,149nm,16.0s						
MNK	Minsk	16.52	15	*i* P	Pn	05 14 07.0	-3.3
	comp=E,19nm,0.7s						
MNK				*i* P	Pn	05 14 07.0	-3.3
	comp=N,23nm,1.0s						
MNK				*i* P	Pn	05 14 07.0	-3.3
	comp=Z,14nm,0.6s,baz=201						
MNK				*i* PP	pP	05 14 15.8	-0.6
MNK				*i* PPP	PPP	05 14 22.9	
MNK				*i* S	Sn	05 17 09.8	-3.6
MNK				*i* SS	S	05 17 23.7	-1.4
MNK				*i* SSS	SSS	05 17 37.1	
MNK				*i* LQ	LQ	05 19 15.2	
MNK				*i* LR	LR	05 19 59.3	
MNK				*i* LRM	MLR	05 21 00.1	
	comp=N,133nm,14.1s						
MNK				*i* LRM	MLR	05 21 06.8	
	comp=Z,131nm,15.8s						
MNK				*i* LRM	MLR	05 21 11.3	
	comp=E,149nm,15.8s						
NACGM	Naroch	16.69	13	*e*P	Pn	05 14 12.6	+0.2
PABE	Paberze	16.91	7		Pn	05 14 13.9	-1.3
PABE				IAmb	IAmb	05 14 17.2	
	comp=Z,31nm,0.7s						
PABE	Paberze	16.91	7	*e*P	P	05 14 16.8	-0.4
PABE	Paberze	16.91	7	P	Pn	05 14 14.2	-1.0
	comp=Z,56nm,1.0s						
EPOS	Posof	17.15	74	P	P	05 14 25.4	+5.3
	comp=Z,13nm,1.2s						
NEUR	Neytrino	17.28	68	*i* P	P	05 14 21.9	+0.3
SHA1	Shidzhatmaz	17.31	66	*ce*P	P	05 14 24.8	+2.8
KIV	Kislovodsk	17.37	66	*e*P	P	05 14 22.8	+0.3
KIV				pmax	pmax		
	comp=Z,8.0nm,1.0s						
KIV				MLR	MLR		
	comp=Z,22nm,14.0s						
KBZ	Khabaz	17.48	66	Pn	P	05 14 24.2	+0.6
	comp=Z,0.2nm,0.3s,baz=254,slow=10,SNR=6.2						
KBZ				LR	LR	05 21 46.0	
	comp=Z,50nm,20.2s,baz=212,slow=40						
	comp=Z,3.0nm,0.9s						
KBZ				AML	AML		
KBZ	Khabaz	17.48	66	*ce*P	Pn	05 14 22.7	+0.2
VORD	Divnogorie	17.96	41	*e*P	Pn	05 14 27.2	-1.2
VORD				pmax	pmax		
	comp=Z,10.0nm,0.9s						
VSR	Storozhevoye	18.05	40	*e*P	Pn	05 14 27.1	-2.3
VSR				pmax	pmax		
	comp=Z,4.0nm,0.9s						
GNI	Garni	18.70	78	LR	LR	05 21 52.1	
	comp=Z,90nm,18.3s,baz=302,slow=37						
ESDC	Sonseca Array	19.03	281	P	Pn	05 14 42.3	+0.8
	comp=Z,0.1nm,0.3s,baz=76,slow=11,SNR=13						
	comp=Z,1.5nm,0.7s						
ESDC				AML	AML		
OBN	Obninsk	19.59	28	⇓*e*P	P	05 14 46.8	+0.1
OBN				S	S	05 18 21.0	-6.4
OBN				pmax	pmax		
	comp=Z,40nm,2.2s						
OBN				MLR	MLR		
	comp=Z,152nm,15.0s						
MTSE	Matsula	20.09	5	*e*P	P	05 14 51.4	-0.6
VSU	Vasula	20.12	9	*ce*P	P	05 14 51.9	-0.5
VSU				pmax	pmax		
	comp=Z,59nm,0.8s						
VSU	Vasula	20.12	9	*e*P	P	05 14 50.9	-1.5
VSU	Vasula	20.12	9	P	P	05 14 51.2	-1.2
	comp=Z,78nm,0.8s						
TAM	Tamanrasset	20.46	223	P	P	05 14 56.6	0.0
TAM				pmax	pmax		
	comp=Z,51nm,0.2s						
TAM	Tamanrasset	20.46	223	P	P	05 14 56.6	0.0
TAM	Tamanrasset	20.46	223	P	Pn	05 14 59.5	+0.8
	comp=Z,6.4nm,1.0s						
MAK	Makhachkala	20.75	70	*d i*P	P	05 14 58.4	-1.1
MAK				*e*S	S	05 18 49.7	-1.1
MAK				pmax	pmax		
	comp=Z,148nm,1.0s						
AKT	Akhty	20.91	74	*e*P	Pn	05 15 03.4	-0.4
AKT				*e*		05 15 22.4	
AKT				pmax	pmax		
	comp=Z,13nm,0.8s						
UPP	Uppsala	21.21	356	*e*P	P	05 15 02.9	-1.2
MDT	Midelt	21.25	262	P	P	05 15 07.5	+2.5
	comp=Z,1.2nm,0.7s,baz=108,slow=9.6,SNR=4.1						
	comp=Z,1.2nm,0.7s						
MEF	Metsahovi	21.62	5	*e*P	P	05 15 06.8	-1.8
HFS	Hagfors	21.84	351	P	P	05 15 10.3	-0.7
	comp=Z,5.1nm,0.5s,baz=153,slow=11,SNR=16						
	comp=Z,5.1nm,0.5s						
RAF	Rauma	22.30	2	*e*P	P	05 15 14.8	-1.1
NC602	NORSAR Array S	22.72	348	IAmb	IAmb	05 15 21.0	
	comp=Z,24nm,0.8s						
NAO01	NORSAR Array S	22.93	348	IAmb	IAmb	05 15 23.7	
	comp=Z,19nm,0.8s						
FINES	FINESS Array B	22.97	7	P	P	05 15 21.1	-1.9
	comp=Z,21nm,0.8s,baz=177,slow=9.5,SNR=36						
FINES				LR	LR	05 25 11.7	
	comp=Z,182nm,18.5s,baz=213,slow=39						

	comp=Z,21nm,0.8s						
FINES	**FINESS Array B**	**22.97**	**7**	P	**P**	**05 15 22.9**	**-0.1**
FINES	**FINESS Array B**	**22.97**	**7**	P	**P**	**05 15 22.9**	**-0.1**
FIA1	**FINESS Array S**	**22.97**	**7**	P	**P**	**05 15 23.0**	**0.0**
EKA	**Eskdalemuir Ar**	**22.99**	**324**	P	**P**	**05 15 23.1**	**-0.2**
	comp=Z,32nm,0.8s,baz=123,slow=11,SNR=54						
EKA				LR	LR	05 26 02.0	
	comp=Z,70nm,18.2s,baz=172,slow=41						
	comp=Z,32nm,0.8s						
ESK	**Eskdalemuir**	**23.00**	**324**	P	**P**	**05 15 23.5**	**+0.1**
ESK				pmax	pmax		
	comp=Z,55nm,0.9s						
ESK	**Eskdalemuir**	**23.00**	**324**	P	**P**	**05 15 23.5**	**+0.1**
NC405	**NORSAR Array S**	**23.06**	**349**	P	**P**	**05 15 22.9**	**-1.0**
NC405				IAmb	IAmb	05 15 24.4	
	comp=Z,29nm,0.9s						
NB201	**NORSAR Array S**	**23.06**	**348**	P	**P**	**05 15 23.0**	**-1.0**
NB2	**NORSAR Subarra**	**23.06**	**348**	P	**P**	**05 15 23.2**	**-0.8**
	comp=Z,13nm,0.8s,baz=158,slow=10						
NOA	**NORSAR Array B**	**23.06**	**348**	P	**P**	**05 15 23.3**	**-0.8**
	comp=Z,3.2nm,0.7s,baz=158,slow=9.5,SNR=26						
NOA				LR	LR	05 27 03.1	
	comp=Z,74nm,18.0s,baz=170,slow=44						
	comp=Z,3.2nm,0.7s						
NBO00	**NORSAR Array S**	**23.13**	**348**	P	**P**	**05 15 24.2**	**-0.4**
NBO00				IAmb	IAmb	05 15 25.5	
	comp=Z,19nm,0.8s						
BELG	**Belogornoye**	**23.16**	**45**	P	**P**	**05 15 24.8**	**-0.2**
	comp=Z,12nm,0.7s,baz=74,slow=4.0,SNR=7.2						
BELG				LR	LR	05 25 43.4	
	comp=Z,168nm,21.7s,baz=88,slow=40						
	comp=Z,12nm,0.7s						
BELG	**Belogornoye**	**23.16**	**45**	*i* P	**P**	**05 15 24.0**	**-1.0**
BELG				pmax	pmax		
	comp=Z,8.0nm,1.3s						
NC303	**NORSAR Array S**	**23.22**	**349**	P	**P**	**05 15 24.2**	**-1.3**
NC303				IAmb	IAmb	05 15 26.8	
	comp=Z,52nm,1.3s						
NC204	**NORSAR Array S**	**23.36**	**348**	P	**P**	**05 15 25.8**	**-1.2**
NC204				IAmb	IAmb	05 15 33.7	
	comp=Z,38nm,1.2s						
KEF	**Keuruu**	**23.59**	**5**	*e*P	**P**	**05 15 27.2**	**-2.0**
SUF	**Sumiainen**	**24.23**	**6**	*e*P	**P**	**05 15 34.5**	**-0.9**
JOF	**Joensuu**	**25.05**	**12**	*e*P	**P**	**05 15 41.6**	**-1.2**
KLMR	**Klimovskoe**	**25.09**	**22**	*e*P	**P**	**05 15 40.3**	**-2.8**
KLMR				pmax	pmax		
	comp=Z,18nm,1.2s						
RAYN	**Ar Rayn**	**26.07**	**118**	P	**P**	**05 15 54.6**	**+2.2**
RAYN				pmax	pmax		
	comp=Z,7.0nm,1.2s						
RAYN	**Ar Rayn**	**26.07**	**118**	P	**P**	**05 15 54.6**	**+2.2**
RAYN	**Ar Rayn**	**26.07**	**118**	P	**P**	**05 15 57.2**	**+4.8**
	comp=Z,5.9nm,1.3s						
KIRV	**Kirov**	**27.15**	**34**	LR	LR	05 26 51.7	
	comp=Z,62nm,18.0s,baz=183,slow=37						
AB31	**Akbulak array**	**29.88**	**57**	P	**P**	**05 16 28.7**	**+2.5**
ARTI	**Arti**	**30.49**	**42**	LR	LR	05 30 05.3	
	comp=Z,65nm,19.0s,baz=298,slow=39						
ARTI	**Arti**	**30.49**	**42***c*	*i*P	**P**	**05 16 30.5**	**-1.0**
ARTI						05 17 26.0	
ARTI				S	**S**	**05 21 31.0**	**-1.3**
ARTI				pmax	pmax		
	comp=Z,36nm,4.5s						
TORD	**Torodi Ar. Bea**	**30.51**	**218**	P	**P**	**05 16 32.4**	**+0.4**
	comp=Z,2.3nm,0.7s,baz=35,slow=9.8,SNR=7.8						
ARCES	**ARCESS Array B**	**30.95**	**3**	P	**P**	**05 16 34.7**	**-0.8**
	comp=Z,5.8nm,0.8s,baz=340,slow=1.4,SNR=10.0						
ARCES				LR	LR	05 30 10.4	
	comp=Z,128nm,21.4s,baz=184,slow=39						
	comp=Z,5.8nm,0.8s						
ARCES	**ARCESS Array B**	**30.95**	**3**	P	**P**	**05 16 35.1**	**-0.4**
ARCES				pmax	pmax		
	comp=Z,24nm,1.3s						
ARCES	**ARCESS Array B**	**30.95**	**3**	P	**P**	**05 16 35.1**	**-0.4**
KEV	**Kevo**	**31.25**	**4**	P	**P**	**05 16 37.8**	**-0.2**
KEV				pmax	pmax		
	comp=Z,53nm,1.3s						
KEV	**Kevo**	**31.25**	**4**	P	**P**	**05 16 37.8**	**-0.2**
UOSS	**Minazif**	**33.02**	**104**	P	**P**	**05 16 55.7**	**+1.6**
UOSS				IAmb	IAmb	05 16 59.9	
	comp=Z,9.9nm,0.8s						
BORG	**Borgarnes**	**35.63**	**331**	LR	LR	05 33 54.2	
	comp=Z,57nm,18.6s,baz=139,slow=40						
BORK	**Borovoye**	**36.67**	**50**	*i* P	**P**	**05 17 25.5**	**+0.2**
BORK				pmax	pmax		
	comp=Z,4.0nm,0.6s						
BORK	**Borovoye**	**36.67**	**50**	P	**P**	**05 17 25.0**	**-0.3**
BVAR	**Borovoye Array**	**36.71**	**51**	P	**P**	**05 17 25.6**	**-0.1**
	comp=Z,1.6nm,0.6s,baz=289,slow=9.2,SNR=9.8						
	comp=Z,1.6nm,0.6s						
KK31	**Karatay Array**	**37.52**	**67**	P	**P**	**05 17 33.0**	**+0.3**
KK31				pmax	pmax		
	comp=Z,6.0nm,0.6s						
KK31	**Karatay Array**	**37.52**	**67**	P	**P**	**05 17 33.0**	**+0.3**
KK31				IAmb	IAmb	05 17 39.2	
	comp=Z,5.7nm,0.6s						
KKAR	**Karatay Array**	**37.52**	**67**	P	**P**	**05 17 32.8**	**+0.1**
KKAR	**Karatay Array**	**37.52**	**67**	P	**P**	**05 17 32.8**	**+0.1**
DBIC	**Dimbokro**	**39.35**	**222**	LR	LR	05 34 48.0	
	comp=Z,81nm,19.5s,baz=52,slow=37						
SPITS	**Spitsbergen Ar**	**39.57**	**359**	P	**P**	**05 17 49.4**	**0.0**
	comp=Z,7.9nm,0.9s,baz=153,slow=9.4,SNR=4.1						
	comp=Z,7.9nm,0.9s						
ARSB	**Arslanbob**	**39.70**	**69**	P	**P**	**05 17 53.1**	**+1.9**
ARSB				pmax	pmax		
	comp=Z,9.0nm,0.9s						
ARSB	**Arslanbob**	**39.70**	**69**	P	**P**	**05 17 53.1**	**+1.9**
ARSB				IAmb	IAmb	05 18 04.0	
	comp=Z,9.2nm,0.9s						
AAK	**Ala-Archa**	**40.48**	**67**	LR	LR	05 39 34.7	
	comp=Z,44nm,18.1s,baz=330,slow=44						
AAK	**Ala-Archa**	**40.48**	**67***c*	*e*P	**P**	**05 17 58.7**	**+1.0**
AAK				pmax	pmax		
	comp=Z,4.0nm,0.9s						
KURBB	**Kurchatov Arra**	**41.85**	**54**	P	**P**	**05 18 08.3**	**-0.3**
	comp=Z,1.2nm,0.2s,baz=281,slow=9.2,SNR=5.8						
	comp=Z,1.2nm,0.2s						
KURK	**Kurchatov**	**41.90**	**54**	*i* P	**P**	**05 18 10.6**	**+1.7**
KURK				pmax	pmax		
	comp=Z,2.0nm,0.7s						
KURK	**Kurchatov**	**41.90**	**54**	P	**P**	**05 18 07.9**	**-1.0**
NIL	**Nilore**	**42.32**	**80**	P	**P**	**05 18 13.9**	**+1.2**
NIL				pmax	pmax		
	comp=Z,8.0nm,0.8s						
NIL	**Nilore**	**42.32**	**80**	P	**P**	**05 18 13.8**	**+1.2**
NIL				IAmb	IAmb	05 18 28.0	
	comp=Z,7.5nm,0.8s						
MK31	**Makanchi Array**	**44.96**	**59**	*i* P	**P**	**05 18 33.9**	**+0.1**
MKAR	**Makanchi Array**	**44.96**	**59**	P	**P**	**05 18 34.0**	**+0.3**
	comp=Z,2.2nm,0.5s,baz=276,slow=7.3,SNR=11						
	comp=Z,2.2nm,0.5s						
MKAR	**Makanchi Array**	**44.96**	**59**		**P**	**05 18 35.3**	**+1.5**
ZAA0	**Zalesovo Array**	**45.27**	**49**	P	**P**	**05 18 35.3**	**-0.8**
ZAA0				IAmb	IAmb	05 18 48.6	
	comp=Z,7.6nm,0.8s						
ZALV	**Zalesovo Beam**	**45.27**	**49**	P	**P**	**05 18 35.3**	**-0.7**
	comp=Z,5.3nm,0.5s,baz=279,slow=8.0,SNR=16						
	comp=Z,5.3nm,0.5s						
ZALV	**Zalesovo Beam**	**45.27**	**49**	P	**P**	**05 18 34.9**	**-1.2**
NRIK	**Noril'sk**	**46.26**	**27**	*i* P	**P**	**05 18 42.2**	**-1.5**
NRIK				pmax	pmax		
	comp=Z,8.0nm,1.3s						
DGZ	**Jazzator, Alta**	**47.64**	**54**	*i* P	**P**	**05 18 54.9**	**-0.1**
DGZ				pmax	pmax		
	comp=Z,4.0nm,0.7s						
SFJD	**Kangerlussuaq**	**47.76**	**330**	LR	LR	05 41 36.7	
	comp=Z,123nm,18.4s,baz=156,slow=39						
TLY	**Talaya**	**56.86**	**48**	LR	LR	05 45 53.1	
	comp=Z,51nm,18.0s,baz=303,slow=38						
SCHQ	**Schefferville**	**58.07**	**317**	P	**P**	**05 20 12.3**	**+0.6**
	comp=Z,4.6nm,0.6s,baz=66,slow=6.8,SNR=8.6						
	comp=Z,4.6nm,0.6s						
TIXI	**Tiksi**	**59.09**	**21**	LR	LR	05 49 16.2	
	comp=Z,127nm,18.0s,baz=340,slow=40						
SONM	**Songino Array**	**60.05**	**51**	P	**P**	**05 20 25.3**	**-0.4**
	comp=Z,0.5nm,0.4s,baz=293,slow=7.7,SNR=4.5						
	comp=Z,0.5nm,0.4s						
LZH	**Lanzhou**	**63.90**	**64**	*e*P	**P**	**05 20 48.0**	**-3.8**
LZH				sP	sP	05 20 57.1	-0.5
LZH				pmax	pmax		
	comp=Z,19nm,1.0s						
HHC	**Hu-ho-hao-te**	**66.67**	**56**	*e*P	**P**	**05 21 10.4**	**+0.8**
HHC				pmax	pmax		
	comp=Z,12nm,0.6s						
HHC				pmax	pmax		
	comp=Z,65nm,4.1s						
PZH	**PanZhiHua**	**67.39**	**74**	P	**P**	**05 21 17.3**	**+2.8**
XAN	**Xi'an**	**68.52**	**63**	*e*P	**P**	**05 21 21.5**	**+0.1**
CMAR	**Chiang Mai Arr**	**69.76**	**82**	P	**P**	**05 21 31.2**	**+2.0**
	comp=Z,0.5nm,0.3s,baz=315,slow=9.2,SNR=1.7						
SEY	**Seymchan**	**71.58**	**21***c*	*e*P	**P**	**05 21 39.8**	**+0.2**
SEY				pmax	pmax		
	comp=Z,3.0nm,1.0s						
YKA	**Yellowknife Ar**	**72.86**	**340**	P	**P**	**05 21 47.7**	**+0.5**
	comp=Z,1.4nm,0.8s,baz=41,slow=7.4,SNR=2.0						
	comp=Z,1.4nm,0.8s						
KLR	**Kul'dur**	**73.40**	**40**	*i* P	**P**	**05 21 49.0**	**-1.7**
KLR				pmax	pmax		
	comp=Z,8.0nm,1.9s						
I30M	**Mount Dempster**	**74.80**	**350**	P	**P**	**05 21 59.6**	**+0.8**
ULM	**Lac du Bonnet**	**75.27**	**324**	P	**P**	**05 22 01.7**	**+0.2**
	comp=Z,2.0nm,0.7s,baz=33,slow=7.1,SNR=3.7						
	comp=Z,2.0nm,0.7s						
ILAR	**Eielson Array**	**76.34**	**355**	P	**P**	**05 22 06.7**	**-0.7**
	comp=Z,0.3nm,0.7s,baz=356,slow=3.0,SNR=5.2						
	comp=Z,0.3nm,0.7s						
NJ2	**Nanjing**	**76.48**	**60**	*e*P	**P**	**05 22 09.3**	**+0.5**
NJ2				pmax	pmax		
	comp=Z,15nm,0.6s						
KSRS	**Korea Array**	**78.93**	**51**	LR	LR	06 00 48.0	
	comp=Z,22nm,18.6s,baz=325,slow=38						
YSS	**Yuzhno-Sakhali**	**80.27**	**36**	*e*P	**P**	**05 22 29.4**	**0.0**
PETK	**Petropavlovsk-**	**81.26**	**25**	LR	LR	06 03 33.5	
	comp=Z,45nm,18.3s,baz=52,slow=39						
YNE	**Yellowstone No**	**85.50**	**327**	P	**P**	**05 22 58.7**	**+1.7**
YNE				IAmb	IAmb	05 22 59.5	
	comp=Z,2.6nm,0.8s						
MJAR	**Matsushiro Arr**	**85.55**	**46**	P	**P**	**05 22 57.0**	**0.0**
	comp=Z,3.4nm,1.0s,baz=306,slow=2.7,SNR=2.6						
	comp=Z,3.4nm,1.0s						
PDAR	**Pinedale Array**	**87.10**	**326**	P	**P**	**05 23 05.6**	**+0.7**
	comp=Z,0.1nm,0.3s,baz=48,slow=5.4,SNR=3.0						
	comp=Z,0.1nm,0.3s						
TXAR	**Lajitas Array**	**94.61**	**314**	P	**P**	**05 23 41.0**	**+1.1**
	comp=Z,0.4nm,0.7s,baz=84,slow=4.5,SNR=5.5						
	comp=Z,0.4nm,0.7s						
ASAR	**Alice Springs**	**122.18**	**96**	PKP	**PKPdf**	**05 29 13.8**	**-0.1**
	comp=Z,0.6nm,0.8s,baz=313,slow=1.9,SNR=5.1						

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*THE **24** 05:18:58.3, 41˚N±9˚×2˚0E±1˚2, h0km±10km, M2.9/14, MLh2.9/14*
*TIR **24** 05:18:58.1, 41˚03N×19˚90E, h9km, Ml3.2/5*
*BEO **24** 05:18:59.3±0.4, 40˚98N×19˚68E, h23km±4km, ML2.9/16*
ISC 24 05:18:58.1±1.1, **41˚02N**±0˚02×**19˚85E**±0˚02, **h9**km±9km, **n66**, σ**1s10**/98, **6C-4D, Albania**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TIR	**Tirane**	**0.33**	**3**	P	**Pb**	**05 19 05.5**	**-0.6**
TIR				S	**Sb**	**05 19 11.8**	**+0.3**
TIR				AML	AML	05 19 16.7	
	8.3nm,0.5s						
TIR				AML	AML	05 19 17.8	
	8.3nm,0.5s						
VLO	**Vlora**	**0.61**	**206**	P	**Pg**	**05 19 10.0**	**+0.1**
VLO				S	**Sb**	**05 19 20.3**	**+0.7**
VLO				AML	AML	05 19 22.1	
	12nm,0.4s						
VLO				AML	AML	05 19 22.9	
	16nm,0.6s						
VLO	**Vlora**	**0.61**	**206**	P	**Pg**	**05 19 10.0**	**+0.1**
VLO				S	**Sb**	**05 19 20.2**	**+0.6**
VLO				AML	AML		
OHR	**Ohrid**	**0.73**	**83**	*i* Pg	**Pb**	**05 19 12.5**	**-0.4**
OHR				*i* Sg	**Sn**	**05 19 24.1**	**-1.7**
PHP	**Peshkopia**	**0.80**	**34**	P	**Pg**	**05 19 12.8**	**-0.7**
PHP				S	**Sb**	**05 19 25.5**	**+0.3**
PHP				AML	AML	05 19 27.8	
	4.1nm,0.4s						
PHP	**Peshkopia**	**0.80**	**34**	P	**Pg**	**05 19 12.9**	**-0.6**
KBN	**Korca**	**0.82**	**119**	P	**Pg**	**05 19 13.1**	**-0.8**
KBN				S	**Sb**	**05 19 25.6**	**-0.1**
KBN				AML	AML	05 19 27.0	
	3.6nm,0.6s						
KBN	**Korca**	**0.82**	**119**	P	**Pg**	**05 19 12.8**	**-1.0**
KBN				S	**Sb**	**05 19 24.8**	**-0.8**
KBN				AML	AML		
SRN	**Sarande**	**1.15**	**174**	P	**Pn**	**05 19 20.8**	**+0.6**
SRN				S	**Sn**	**05 19 37.0**	**+1.0**
SRN				AML	AML	05 19 40.2	
	0.9nm,0.6s						
SRN	**Sarande**	**1.15**	**174**	P	**Pb**	**05 19 20.3**	**+0.3**
SRN				S	**Sb**	**05 19 34.7**	**-0.3**
SRN				AML	AML		
PENT	**Pentalofos**	**1.28**	**130**	P	**Pn**	**05 19 22.0**	**-0.2**
KEK	**Kerkira**	**1.31**	**182**	P	**Pn**	**05 19 20.6**	**-1.9**
KEK				S	**Sb**	**05 19 39.3**	**-0.3**
KEK				AML	AML		
PDG	**Podgorica**	**1.48**	**343**	P	**Pb**	**05 19 26.2**	**+0.5**
PDG				S	**Sg**	**05 19 46.7**	**+1.1**
PDG	**Podgorica**	**1.48**	**343**	*e*Pg	**Pb**	**05 19 26.2**	**+0.5**
PDG				*e*Sg	**Sg**	**05 19 46.6**	**+1.1**
PDG	**Podgorica**	**1.48**	**343**	⇑P	**Pb**	**05 19 26.1**	**+0.5**
PDG				⇓S	**Sg**	**05 19 45.5**	**0.0**
SKO	**Skopje**	**1.53**	**51**	*i* Pg	**Pg**	**05 19 27.3**	**-0.1**
SKO				*i* Sg	**Sg**	**05 19 49.1**	**+1.9**
IGT	**Igoumenitsa**	**1.53**	**166**	P	**Pb**	**05 19 27.1**	**+0.5**
IGT				S	**Sg**	**05 19 47.8**	**+0.5**
IGT	**Igoumenitsa**	**1.53**	**166**	P	**Pb**	**05 19 26.8**	**+0.2**
IGT				S	**Sg**	**05 19 47.7**	**+0.4**
IGT				AML	AML		
IGT	**Igoumenitsa**	**1.53**	**166**	*e*Pg	**Pb**	**05 19 26.8**	**+0.2**
IGT				*e*Sg	**Sg**	**05 19 48.1**	**+0.8**
JAN	**Janina**	**1.56**	**150**	P	**Pb**	**05 19 27.1**	**-0.1**
JAN				AML	AML		
KPRO	**Kipourio**	**1.57**	**132**	P	**Pb**	**05 19 27.5**	**+0.2**
KPRO				AML	AML		
KZN	**Kozani**	**1.63**	**115**	P	**Pn**	**05 19 26.5**	**-0.5**
KZN				AML	AML		
PRMD	**Pramanda**	**1.77**	**147**	P	**Pb**	**05 19 30.5**	**-0.2**
PRMD				AML	AML		
GRG	**Griva**	**1.94**	**91**	P	**Pn**	**05 19 31.2**	**+0.1**
GRG				AML	AML		
TETR	**Tetrakomo, Epi**	**2.00**	**146**	P	**Pn**	**05 19 33.1**	**+1.0**
TETR				AML	AML		
TREB	**Trebinje**	**2.03**	**327**	*e*Pn	**Pn**	**05 19 31.6**	**-0.8**
TREB				*e*Sn	**Sn**	**05 19 57.1**	**-0.8**
VAY	**Valandovo**	**2.08**	**81**	*i* Pn	**Pn**	**05 19 33.8**	**+0.7**
THL	**Klokotos Trika**	**2.21**	**131**	P	**Pb**	**05 19 36.4**	**-1.7**
THL				AML	AML		
SJES	**Sjenica**	**2.24**	**2**	*e*Pn	**Pn**	**05 19 36.3**	**+0.9**
SJES				*e*Sn	**Sn**	**05 20 03.3**	**0.0**
TYRN	**Tyrnavos**	**2.24**	**125**	P	**Pn**	**05 19 36.2**	**+0.8**
TYRN				AML	AML		
KNT	**Kendrikon**	**2.31**	**86**	P	**Pg**	**05 19 42.4**	**0.0**
BARS	**Barje**	**2.32**	**39**	*e*Pn	**Pb**	**05 19 38.1**	**-2.0**
BARS				*e*Sn	**Sb**	**05 20 07.2**	**-1.6**
SELS	**Selova**	**2.39**	**23**	*e*Pn	**Pb**	**05 19 39.3**	**-2.0**
SELS				*e*Sn	**Sn**	**05 20 08.0**	**+1.1**
MATE	**Matera**	**2.41**	**262**	⇑P	**Pb**	**05 19 41.6**	**0.0**
MATE				⇑S	**Sb**	**05 20 12.8**	**+1.3**
PEHC	**Pehcevo**	**2.42**	**71**	*i* Pn	**Pg**	**05 19 42.8**	**-1.6**
STON	**Ston**	**2.45**	**320**	*e*Pn	**Pn**	**05 19 37.1**	**-1.0**
STON				*e*Sn	**Sn**	**05 20 06.1**	**-2.0**
BOSS	**Bosilegrad**	**2.46**	**52**	*e*Pn	**Pn**	**05 19 39.5**	**+1.1**
BOSS				*e*Sn	**Sb**	**05 20 10.0**	**-2.9**
IVAS	**Ivanjica**	**2.56**	**5**	*e*Pn	**Pn**	**05 19 40.4**	**+0.6**
IVAS				*e*Sn	**Sn**	**05 20 12.2**	**+1.0**
GOCS	**Kraljevo Serbi**	**2.65**	**16**	*e*Pn	**Pn**	**05 19 42.5**	**+1.4**
GOCS				*e*Sn	**Sn**	**05 20 14.0**	**+0.6**
SRS	**Serrai**	**2.83**	**87**	*e*Pn	**Pn**	**05 19 44.4**	**+0.9**
BBLS	**Lazi&#263i**	**2.86**	**354**	*e*Pn	**Pn**	**05 19 44.5**	**+0.6**
GRUS	**Gruza**	**2.94**	**12**	*e*Pn	**Pn**	**05 19 46.0**	**+1.1**
BOVS	**Bovan**	**2.95**	**27**	*e*Pn	**Pn**	**05 19 47.2**	**+2.1**
BOVS				*e*Sn	**Sn**	**05 20 21.2**	**+0.5**
BOVS	**Bovan**	**2.95**	**27**	⇓P	**Pn**	**05 19 47.3**	**+2.1**
VTS	**Vitosha**	**2.99**	**57**	*e*Pn	**Pn**	**05 19 46.9**	**+1.1**
VTS				*e*Sn	**Sn**	**05 20 23.2**	**+1.3**
TIP	**Timpagrande**	**3.00**	**233**	⇑P	**Pn**	**05 19 44.7**	**-1.1**
ZAPS	**Zavoj**	**3.06**	**42**	*e*Pn	**Pn**	**05 19 48.4**	**+1.8**
ZAPS				*e*Sn	**Sn**	**05 20 25.1**	**+1.7**
DIVS	**Divibare**	**3.08**	**2**	*e*Pn	**Pn**	**05 19 47.4**	**+0.5**
DIVS				*e*Sn	**Sn**	**05 20 23.3**	**-0.6**
TRUS	**Trudelj**	**3.23**	**7**	*e*Pn	**Pn**	**05 19 49.7**	**+0.8**
ZAGS	**Zajecar**	**3.30**	**32**	*e*Pn	**Pn**	**05 19 52.1**	**+2.2**
ZAGS				*e*Sn	**Sn**	**05 20 30.1**	**+0.8**
BLKB	**Belogradchik**	**3.34**	**38**	*e*Sn	**Sn**	**05 20 31.8**	**+1.5**
BORS2	**Bor- Borsko je**	**3.46**	**27**	*e*Pn	**Pn**	**05 19 53.0**	**+0.9**
TEKS	**Tekeris**	**3.53**	**356**	*e*Pn	**Pn**	**05 19 53.0**	**-0.1**
MDVR	**Moldovita**	**4.00**	**19**	*e*Pn	**Pn**	**05 19 59.8**	**+0.2**
MDVR	**Moldovita**	**4.00**	**19**	⇓P	**Pn**	**05 20 01.3**	**+1.7**
HERR	**Herculane**	**4.29**	**25**	⇑P	**Pn**	**05 20 05.4**	**+1.8**
GZR	**Gura Zlata**	**4.87**	**25**	*e*Pn	**Pn**	**05 20 12.4**	**+0.9**
GZR	**Gura Zlata**	**4.87**	**25**	⇑P	**Pn**	**05 20 13.3**	**+1.8**
BOJS	**Bojanci**	**5.60**	**325**	*i* Pn	**Pn**	**05 20 20.7**	**-0.7**
GBRS	**Gornja Briga**	**5.82**	**322**	*i* Pn	**Pn**	**05 20 24.3**	**-0.2**
VOIR		**5.82**	**39**	⇓P	**Pn**	**05 20 27.2**	**+2.5**
VOJS	**Vojsko**	**6.62**	**321**	*i* Pn	**Pn**	**05 20 34.7**	**-0.9**
SOKA	**Soboth**	**6.64**	**330**	*e*Pn	**Pn**	**05 20 35.7**	**-0.2**
	1.5nm,0.5s						
SOKA				*e*Sn	**Sn**	**05 21 50.7**	**-0.9**
	1.3nm,0.3s						
OBKA	**Obir**	**6.69**	**327**	*e*Pn	**Pn**	**05 20 37.7**	**+1.2**
	1.1nm,0.1s						
WTTA	**Wattenberg**	**8.59**	**319**	*e*Pn	**Pn**	**05 21 03.1**	**+0.4**
	5.3nm,0.4s						
WATA	**Walderalm**	**8.67**	**320**	*e*Pn	**Pn**	**05 21 03.8**	**+0.1**
	7.9nm,0.4s						

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*TAP **24** 05:33:13.6, 24˚34N×122˚08E, h47km, ML3.7, C*
*JMA **24** 05:33:14.0±0.1, 24˚2N±0˚6×122˚0E±0˚4, h44km±2km, MV2.9/12, TAIWAN REGION*
ISC 24 05:33:14.6±0.9, **24˚31N**±0˚02×**122˚07E**±0˚02, **h31**km±5km, **n111**, σ**0s97**/198, **Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EOS2	**EOS2**	**0.19**	**53**	P	**Pb**	**05 33 20.5**	**-0.2**
EOS2				*i* S	**Sb**	**05 33 26.0**	**+1.1**
EOS3	**EOS3**	**0.23**	**95**	*i* P	**Pb**	**05 33 21.3**	**+0.2**
EOS3				*i* S	**Sb**	**05 33 26.9**	**+1.3**
EOS4	**EOS4**	**0.29**	**128**	*i* P	**Pb**	**05 33 21.8**	**+0.1**
EOS4				S	**Sn**	**05 33 27.9**	**+0.3**
EWUT	**Wuta**	**0.30**	**298**	P	**Pb**	**05 33 21.2**	**-0.9**
EWUT				*i* S	**Sn**	**05 33 29.2**	**+1.1**
EAHA	**Aohua**	**0.30**	**275**	*e*P	**Pb**	**05 33 21.5**	**-0.7**
EAHA				S	**Sb**	**05 33 27.3**	**0.0**
ESAO	**Su ao**	**0.34**	**323**	*e*P	**Pb**	**05 33 21.4**	**-1.2**
TWC	**Suao**	**0.36**	**327**	P	**Pb**	**05 33 21.8**	**-1.2**
TWC				*e*S	**Sb**	**05 33 26.9**	**-1.9**
ETL	**Fush Village**	**0.43**	**250**	P	**Pb**	**05 33 23.7**	**-0.3**
ETL				*e*S	**Sn**	**05 33 32.0**	**+0.5**
NACB	**Ninganchiao**	**0.45**	**253**	*i* P	**Pb**	**05 33 23.8**	**-0.5**
NACB				S	**Sn**	**05 33 32.1**	**+0.2**
NDS	**Dongshan**	**0.46**	**316**	P	**Pb**	**05 33 23.6**	**-0.9**
NDS				S	**Sb**	**05 33 30.1**	**-1.1**
TWD	**Chiawan**	**0.48**	**243**	*e*P	**Pb**	**05 33 24.4**	**-0.4**
TWD				S	**Sn**	**05 33 33.6**	**+0.8**
HWA	**Hwalien**	**0.53**	**232**	*e*P	**Pn**	**05 33 25.9**	**-0.1**
HWA				*e*S	**Sn**	**05 33 37.2**	**+3.3**
ETLH	**Xiulin Townshi**	**0.54**	**260**	*i* P	**Pb**	**05 33 25.3**	**-0.6**
ETLH				*e*S	**Sn**	**05 33 34.2**	**-0.2**
LATG	**Datong**	**0.54**	**295**	P	**Pb**	**05 33 25.2**	**-0.6**
LATG				S	**Sn**	**05 33 34.2**	**-0.3**
TWE	**Neicheng**	**0.55**	**319**	P	**Pb**	**05 33 25.1**	**-0.8**
TWE				*e*S	**Sb**	**05 33 32.8**	**-0.9**
EGS		**0.55**	**347**	P	**Pb**	**05 33 25.6**	**-0.4**
EGS				*e*S	**Sb**	**05 33 32.8**	**-0.8**
NDT	**Datong Townshi**	**0.58**	**301**	*e*P	**Pb**	**05 33 26.1**	**-0.4**
NDT				*e*S	**Sb**	**05 33 34.4**	**-0.2**
TEYL	**Yanliau Villag**	**0.61**	**225**	*e*P	**Pb**	**05 33 26.8**	**-0.1**
TEYL				*i* S	**Sn**	**05 33 36.8**	**+1.0**
ETM	**Tongmen**	**0.62**	**237**	*e*P	**Pb**	**05 33 26.6**	**-0.5**
ETM				*e*S	**Sn**	**05 33 36.3**	**+0.1**
FUSB	**Fushanzhiwuyua**	**0.63**	**316**	*i* P	**Pb**	**05 33 26.7**	**-0.5**
FUSB				*e*S	**Sb**	**05 33 35.2**	**-0.6**
NNSB	**Datong**	**0.64**	**281**	*e*P	**Pb**	**05 33 27.0**	**-0.4**
NNSB				*i* S	**Sb**	**05 33 36.2**	**+0.1**
NNS	**Nan Shan**	**0.65**	**282**	*e*P	**Pb**	**05 33 27.0**	**-0.6**
NNS				S	**Sb**	**05 33 36.0**	**-0.4**
LXIB	**Xiulin Townshi**	**0.66**	**245**	*e*P	**Pb**	**05 33 27.2**	**-0.6**
LXIB				S	**Sn**	**05 33 38.7**	**+1.3**
SHUL	**Shoufeng**	**0.69**	**222**	*e*P	**Pb**	**05 33 27.8**	**-0.4**
SHUL				*e*S	**Sn**	**05 33 39.8**	**+1.9**
NWLT	**Wulai**	**0.70**	**313**	*i* P	**Pb**	**05 33 27.7**	**-0.6**
NWLT				*e*S	**Sb**	**05 33 37.0**	**-0.7**
TIPB	**Shuangxi**	**0.70**	**342**	*i* P	**Pb**	**05 33 27.7**	**-0.7**
TIPB				S	**Sb**	**05 33 37.1**	**-0.7**
TWB1	**Santiao Chiao**	**0.70**	**354**	P	**Pb**	**05 33 27.8**	**-0.7**
TWB1				*e*S	**Sb**	**05 33 37.2**	**-0.7**
YHNB	**Yeheng**	**0.73**	**300**	P	**Pb**	**05 33 28.3**	**-0.6**
YHNB				S	**Sb**	**05 33 38.5**	**-0.1**
NSK	**Sanguang**	**0.74**	**300**	*e*P	**Pb**	**05 33 28.4**	**-0.7**
NSK				*e*S	**Sb**	**05 33 38.5**	**-0.5**
WHF	**Hehuan Shan**	**0.75**	**258**	*i* P	**Pb**	**05 33 28.7**	**-0.8**
WHF				S	**Sn**	**05 33 39.9**	**0.0**
FUSS	**Fushou**	**0.75**	**266**	*i* P	**Pb**	**05 33 29.3**	**-0.1**
FUSS				S	**Sn**	**05 33 40.3**	**+0.6**
ESL	**Shilin**	**0.76**	**230**	*e*P	**Pb**	**05 33 28.8**	**-0.6**
ESL				*e*S	**Sn**	**05 33 40.7**	**+1.2**
TEGC	**Jichi Village**	**0.76**	**219**	*e*P	**Pb**	**05 33 28.9**	**-0.6**
TWA	**Mucha**	**0.80**	**327**	*e*P	**Pn**	**05 33 30.2**	**+0.4**
TWA				*e*S	**Sb**	**05 33 40.5**	**-0.2**
SXI1	**Grass Mountain**	**0.81**	**348**	*e*P	**Pb**	**05 33 29.6**	**-0.6**
SXI1				S	**Sb**	**05 33 40.8**	**0.0**
WFSB	**Wu-fen Shan**	**0.81**	**341**	*e*P	**Pb**	**05 33 30.0**	**-0.1**
WFSB				*e*S	**Sb**	**05 33 40.8**	**0.0**
TWT	**Tachien**	**0.81**	**267**	*e*P	**Pn**	**05 33 31.2**	**+1.1**
TWT				*e*S	**Sn**	**05 33 42.2**	**+1.0**
JYNG	**Yonagunijimaku**	**0.81**	**80**	P	**Pb**	**05 33 29.9**	**-0.4**
JYNG				*e*S	**Sb**	**05 33 40.8**	**-0.2**
NHDH	**Xindian Distri**	**0.82**	**323**	*e*P	**Pn**	**05 33 30.9**	**+0.9**
NHDH				*e*S	**Sn**	**05 33 42.2**	**+1.2**
TDCB	**Techi**	**0.83**	**267**	*e*P	**Pn**	**05 33 30.6**	**+0.4**
TDCB				*e*S	**Sn**	**05 33 41.8**	**+0.2**
WARBT	**Fenglin Townsh**	**0.85**	**227**	*e*P	**Pb**	**05 33 29.3**	**-1.7**
WARBT				S	**Sn**	**05 33 42.0**	**0.0**
YOJ	**Yonaguni jima**	**0.88**	**80**	*e*P	**Pb**	**05 33 30.8**	**-0.6**
YOJ				*e*S	**Sn**	**05 33 43.1**	**+0.7**
YOJ	**Yonaguni jima**	**0.88**	**80**	P	**Pb**	**05 33 30.7**	**-0.6**
YOJ				*e*S	**Sb**	**05 33 42.5**	**-0.2**
TNOU	**National Taiwa**	**0.88**	**342**	*e*P	**Pb**	**05 33 30.4**	**-1.1**
TNOU				*e*S	**Sb**	**05 33 42.8**	**-0.2**
OWD	**Renai**	**0.89**	**247**	*i* P	**Pb**	**05 33 30.8**	**-0.8**
OWD				*e*S	**Sb**	**05 33 42.6**	**-0.5**
TAP	**Taipei**	**0.89**	**325**	*e*P	**Pn**	**05 33 31.5**	**+0.5**
TAP				*e*S	**Sb**	**05 33 42.8**	**-0.3**
WUSB	**Renai**	**0.92**	**250**	*e*P	**Pb**	**05 33 31.6**	**-0.6**
WUSB				*e*S	**Sn**	**05 33 43.9**	**+0.1**
NFF	**Wufeng Townshi**	**0.92**	**291**	*e*P	**Pn**	**05 33 32.4**	**+0.9**
NFF				*e*S	**Sn**	**05 33 44.5**	**+0.8**
KSHI	**Guanxi Townshi**	**0.94**	**300**	P	**Pn**	**05 33 32.8**	**+1.2**
KSHI				*e*S	**Sn**	**05 33 46.5**	**+2.5**
YM01	**YM01**	**0.95**	**332**	*e*P	**Pn**	**05 33 32.8**	**+0.9**
ZUZH	**Zhuzihu**	**0.98**	**331**	*e*P	**Pn**	**05 33 32.8**	**+0.6**
ZUZH				*e*S	**Sb**	**05 33 45.4**	**-0.2**
YM08	**YM08**	**0.98**	**334**	*e*P	**Pn**	**05 33 32.4**	**+0.1**
TWS1	**Kuangyinshan**	**0.99**	**323**	*e*P	**Pb**	**05 33 33.3**	**+0.1**
TWS1				*e*S	**Sb**	**05 33 45.1**	**-0.8**
HGSD	**Ruisui**	**1.00**	**216**	*e*P	**Pb**	**05 33 32.9**	**-0.5**
VWDT	**VWDT**	**1.01**	**237**	*e*P	**Pn**	**05 33 32.6**	**0.0**
VWDT				*e*S	**Sn**	**05 33 46.5**	**+0.8**
LIOB	**Emei**	**1.02**	**290**	*e*P	**Pb**	**05 33 33.4**	**-0.2**
LIOB				*e*S	**Sn**	**05 33 48.3**	**+2.3**
NTST	**Danshui**	**1.02**	**327**	*e*P	**Pn**	**05 33 33.3**	**+0.5**
NTST				*e*S	**Sn**	**05 33 48.5**	**+2.4**
WHP	**Taichung City**	**1.02**	**269**	*e*P	**Pb**	**05 33 34.3**	**+0.4**
WHP				*e*S	**Sn**	**05 33 47.4**	**+1.1**
NSTT	**Nanjuang**	**1.02**	**289**	*e*P	**Pb**	**05 33 33.7**	**-0.1**
NSTT				*e*S	**Sn**	**05 33 47.4**	**+1.3**
NCUH	**Zhongli**	**1.04**	**310**	*e*P	**Pb**	**05 33 34.0**	**-0.1**
EHYH	**Wanrong**	**1.04**	**219**	*e*P	**Pn**	**05 33 32.7**	**-0.4**
EHY	**Hungye**	**1.05**	**221**	*e*P	**Pn**	**05 33 32.0**	**-1.1**
TWY	**Chenhua**	**1.06**	**336**	*e*P	**Pb**	**05 33 34.7**	**+0.4**
TWY				*e*S	**Sn**	**05 33 48.4**	**+1.5**
WCS	**Beigang Elemen**	**1.08**	**257**	P	**Pn**	**05 33 34.1**	**+0.4**
WCS				*e*S	**Sn**	**05 33 48.9**	**+1.3**
SBCB	**Hsinchu**	**1.10**	**296**	P	**Pn**	**05 33 34.1**	**+0.2**
SBCB				*e*S	**Sn**	**05 33 50.2**	**+2.2**
HSN	**Hsinchu**	**1.11**	**297**	*e*P	**Pn**	**05 33 33.4**	**-0.7**
HSN				*e*S	**Sb**	**05 33 49.0**	**-0.5**
SSLB	**Suanglung**	**1.14**	**243**	*e*P	**Pn**	**05 33 34.7**	**+0.3**
SSLB				*e*S	**Sn**	**05 33 50.0**	**+1.0**
SMLT	**Sun Moon Lake**	**1.15**	**249**	P	**Pn**	**05 33 34.8**	**+0.2**
SMLT				*e*S	**Sn**	**05 33 51.5**	**+2.2**
YULB	**Yu-li**	**1.15**	**218**	P	**Pn**	**05 33 33.1**	**-1.4**

EYUL	Yuli	1.17	216	eP	Pn	05 33 34.5	-0.4
EYUL				eS	Sb	05 33 51.0	-0.1
TYC	Yuchr	1.18	250	eP	Pn	05 33 35.4	+0.6
TYC				eS	Sb	05 33 51.5	+0.3
TWF1	Yuli	1.18	217	eP	Pn	05 33 33.4	-1.6
TWF1				eS	Sn	05 33 49.8	-0.2
TWQ1	Liyutan	1.18	272	eP	Pb	05 33 36.8	+0.3
TWQ1				eS	Sb	05 33 52.5	+1.1
WHYT	Xinyi Township	1.26	242	i P	Pn	05 33 37.0	+0.8
WHYT				S	Sb	05 33 54.3	+0.5
CHKH	Chenggong	1.27	209	eP	Pn	05 33 36.5	+0.4
YUS	Yu-Shan	1.30	232	eP	Pn	05 33 35.7	-1.4
FULB	Fuli	1.31	213	eP	Pn	05 33 37.1	+0.3
PCYT	Pengchaiyu	1.32	0	eP	Pn	05 33 34.9	-2.0
WNT	Mingjian	1.33	252	eP	Pn	05 33 37.4	+0.4
WNT				S	Sb	05 33 57.3	+1.6
WCHH	Zhanghua	1.40	261	eP	Pb	05 33 39.8	-0.2
WCHH				eS	Sb	05 33 58.2	+0.7
ALS	Alishan	1.40	236	eP	Pb	05 33 39.2	-1.1
ALS				eS	Sb	05 33 57.1	-0.8
CHN5	Tsauling	1.45	241	eP	Pb	05 33 40.6	-0.5
CHN5				eS	Sb	05 34 01.3	+2.1
EDH	Donghe	1.50	208	i P	Pn	05 33 38.3	-1.0
EDH				S	Sn	05 33 56.3	-1.6
IRIF	Iriomote-Funau	1.52	89	eP	Pn	05 33 39.6	0.0
IRIF				eS	Sn	05 33 58.4	+0.1
WCKO	Fanlu	1.59	237	eP	Pb	05 33 42.2	-1.1
WCKO				eS	Sb	05 34 03.2	0.0
WRL	Guolierlin Hig	1.59	256	eP	Pn	05 33 41.2	+0.6
WRL				eS	Sb	05 34 03.5	+0.3
HATJ	Hateruma jima	1.61	98	eS	Sn	05 34 00.9	+0.4
STYH	Taoyuan	1.64	227	eP	Pb	05 33 42.8	-1.3
STYH				S	Sb	05 34 03.3	-1.0
LONT	Longtian	1.64	212	eP	Pn	05 33 41.2	0.0
CHN4	Tsaushan	1.65	235	eP	Pb	05 33 43.5	-0.8
CHN4				eS	Sb	05 34 05.7	+0.9
TPUB	Ta-pu	1.65	233	eP	Pb	05 33 43.1	-1.3
TPUB				eS	Sb	05 34 04.4	-0.5
WTK	Tuku	1.65	249	eP	Pn	05 33 40.5	-1.0
WTK				eS	Sb	05 34 05.4	+0.5
WTP	Ta-pu	1.70	232	eP	Pb	05 33 43.8	-1.4
WTP				eS	Sb	05 34 05.6	-0.6
TWGBT	Beinan	1.73	212	eP	Pn	05 33 41.5	-1.1
JKRS	Kuro-shima	1.77	92	eP	Pn	05 33 44.4	+1.2
JKRS				eS	Sn	05 34 06.0	+1.3
TWK	Hsinying	1.78	235	eP	Pb	05 33 44.9	-1.6
TWK				eS	Sb	05 34 08.6	+0.1
CHN1	Nanshi	1.80	232	eP	Pn	05 33 45.1	+1.6
CHN1				eS	Sb	05 34 09.0	-0.1
SGST	Jiashian	1.82	228	eP	Pn	05 33 45.3	+1.5
SGST				eS	Sb	05 34 08.9	-0.9
JIJ	Ishigaki jima	1.90	88	eP	Pn	05 33 45.5	+0.7
JIJ				eS	Sn	05 34 07.4	-0.2
ECL	Taimali	1.98	211	eP	Pn	05 33 45.7	-0.3
SSD	Sandimen	2.04	221	eP	Pn	05 33 48.6	+1.9
MASBT	Mashibuluo	2.14	218	eP	Pn	05 33 50.1	+1.9
MASBT				eS	Sn	05 34 15.8	+2.2
LYUB	Lan-yu	2.33	191	eP	Pn	05 33 48.6	-2.2
SCZT	Fangliau	2.34	215	eP	Pn	05 33 52.9	+1.9
SLIU	Shizi	2.38	210	eP	Pn	05 33 51.2	-0.3
WDGT	Dungji	2.44	245	eP	Pn	05 33 53.4	+1.1
VWUC	VWUC	2.48	287	eP	Pn	05 33 52.6	-0.2
VWUC				eS	Sn	05 34 20.8	-1.2
MATB	Ma-tsu	2.66	314	eP	Pn	05 33 55.1	-0.2
PTMZ	Houxiangcun	2.78	286	eP	Pn	05 33 57.2	+0.2
PTMZ				eS	Sn	05 34 28.3	-1.2
XPSS	Dashiqiu	3.12	327	eP	Pn	05 34 00.6	-0.9
AXDP	Jialang	3.77	280	eP	Pn	05 34 10.8	+0.2
AXDP				eS	Sn	05 34 52.3	-1.7

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*SJA **24** 05:36:37.0±0.8, 32.°93S×72.°16W, h12^{km}±3^{km}, ML3.5, MW3.7*

*GUC **24** 05:36:39.3±0.9, 32.°84S×72.°04W, h24^{km}±18^{km}, ML3.6*

ISC 24 05:36:35.5±1.4, **32.°78S**±0.°02×**72.°13W**±0.°05, **h9**^{km}±9^{km}, **n41**, σ**0.^{s}99**/82, **9D, Off coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VA01	Torpederas	0.48	121	eP	Pb	05 36 46.4	+0.3
VA01				eS	Pb	05 36 46.4	+0.3
VA01				eS	Sb	05 36 54.4	+1.1
VA01	Torpederas	0.48	121	⇓iP	Pb	05 36 46.4	+0.3
VA01				i S	Sg	05 36 51.6	+0.5
ROCH	El Roble	0.96	102	⇓iP	Pb	05 36 54.9	+0.3
ROCH				i S	Sb	05 37 06.4	-1.1
ROCH				IAML		05 37 07.8	
	comp=N,4µm,0.2s						
MT02	Curacav	0.97	120	eP	Pb	05 36 54.6	+0.2
MT02				eS	Sg	05 37 06.5	-0.2
MT02	Curacav	0.97	120	⇓iP	Pg	05 36 54.4	+0.3
MT02				eS	Sg	05 37 05.3	-1.4
VA05	Santo Domingo	0.98	154	eP	Pg	05 36 54.8	+0.4
VA05				i S	Sg	05 37 06.7	-0.5
VA05				IAML		05 37 10.0	
	comp=E,3µm,0.4s						
CO04	Los Peladeros	1.22	54	eP	Pn	05 37 00.1	+1.0
CO04				eS	Sn	05 37 16.3	+0.4
CO04				IAML		05 37 20.0	
	comp=N,5µm,0.3s						
PEL	Peldehue	1.27	107	⇓iP	Pb	05 36 60.0	+0.3
PEL				i S	Sg	05 37 15.5	-1.0
PEL				IAML		05 37 21.1	
	comp=N,3µm,0.2s						
MT01	Popeta	1.31	146	eP	Pn	05 37 00.1	0.0
MT01				eS	Sb	05 37 16.4	-1.0
MT01				IAML		05 37 18.2	
	comp=Z,810nm,0.3s						
MT01	Popeta	1.31	146	eP	Pn	05 36 59.9	-0.2
MT01				i S	Sb	05 37 15.1	-2.2
MT01				IAML		05 37 19.2	
	comp=E,1µm,0.3s						
MT05	Renca	1.32	118	eP	Pg	05 37 01.2	+0.2
MT05				IAML		05 37 21.0	
	comp=Z,498nm,0.3s						
MT05	Renca	1.32	118	eP	Pn	05 37 00.8	+0.5
MT05				i S	Sg	05 37 16.8	-1.3
MT05				IAML		05 37 23.3	
	comp=E,2µm,0.3s						
VA03	San Esteban	1.33	90	⇓iP	Pn	05 37 00.9	+0.5
VA03				i S	Sb	05 37 17.4	-0.7
VA03				IAML		05 37 18.7	
	comp=E,7µm,0.2s						
MT09	Talagante	1.38	136	eP	Pn	05 37 01.2	0.0
MT09				i S	Sb	05 37 17.5	-2.0
MT09				IAML		05 37 21.6	
	comp=N,2µm,0.5s						
MT10	Hacienda Santa	1.43	111	⇓iP	Pn	05 37 02.6	+0.7
MT10				i S	Sb	05 37 20.1	-0.8
MT10				IAML		05 37 28.4	
	comp=E,3µm,0.4s						
MT14	Cerro Cal¡n	1.48	115	⇓iP	Pb	05 37 03.4	+0.1
MT14				eS	Sb	05 37 20.6	-1.6
MT14				IAML		05 37 30.8	
	comp=E,2µm,0.6s						
MT16	CCHEN	1.50	116	⇓iP	Pb	05 37 03.8	+0.2
MT16				i S	Sb	05 37 21.7	-1.2
MT16				IAML		05 37 23.4	
	comp=E,735nm,0.5s						
MT03	Universidad Ad	1.54	118	eP	Pb	05 37 04.8	+0.5
MT03				eS	Sg	05 37 26.4	+1.3
MT03				IAML		05 37 29.8	
	comp=Z,1µm,0.8s						
MT03	Universidad Ad	1.54	118	⇓iP	Pb	05 37 04.4	+0.1
MT03				i S	Sn	05 37 23.4	-0.1
MT03				IAML		05 37 30.7	
	comp=E,3µm,0.4s						
MT15	Las Vizcachas	1.59	121	eP	Pn	05 37 05.1	+1.1
MT15				i S	Sn	05 37 24.3	-0.4
MT15				IAML		05 37 30.3	
	comp=N,2µm,0.4s						
MT12	Pirque	1.64	126	eP	Pn	05 37 05.8	+1.2
MT12				i S	Sn	05 37 25.1	-0.7
MT12				IAML		05 37 34.1	
	comp=N,2µm,0.4s						
BO03	Pichilemu	1.72	175	eP	Pn	05 37 06.6	+0.9
BO03				eS	Sn	05 37 26.4	-1.4
BO04	La Punta	1.76	134	eP	Pn	05 37 07.7	+1.4
BO04				eS	Sn	05 37 29.4	+0.6
BO04				IAML		05 37 33.0	
	comp=E,726nm,0.3s						
MT04	Ro Olivares	1.79	111	eP	Pb	05 37 08.6	-0.1
MT04				eS	Sn	05 37 27.7	-2.2
MT04				eS	Sb	05 37 31.1	-0.2
MT04				IAML		05 37 34.0	
	comp=Z,446nm,0.8s						
MT04	Ro Olivares	1.79	111	eP	Pb	05 37 08.2	-0.5
MT04				i S	Sn	05 37 30.1	+0.3
MT04				IAML		05 37 35.0	
	comp=N,601nm,0.5s						
MT13	San Alfonso	1.82	122	eP	Pb	05 37 09.4	+0.2
MT13				eS	Sg	05 37 33.5	-0.7
MT13				IAML		05 37 37.0	
	comp=Z,555nm,0.2s						
MT13	San Alfonso	1.82	122	eP	Pb	05 37 08.9	-0.3
MT13				eS	Sn	05 37 31.0	+0.4
MT13				IAML		05 37 35.7	
	comp=E,2µm,0.6s						
BO01	Tunca	1.83	152	eP	Pn	05 37 08.4	+1.2
BO01				eS	Sn	05 37 32.2	+1.6
CO02	Combarbal	1.84	32	eP	Pg	05 37 10.4	-0.5
CO02				eS	Sg	05 37 35.1	+0.4
CO02				IAML		05 37 43.9	
	comp=E,2µm,0.3s						
LMEL	Las Melosas	1.94	124	eP	Pb	05 37 10.9	-0.3
LMEL				eS	Sn	05 37 34.6	+1.2
LMEL				IAML		05 37 38.8	
	comp=N,885nm,0.2s						
GO05	Hualane	2.23	176	eP	Pn	05 37 13.8	+1.0
GO05				eS	Sn	05 37 41.4	+0.9
GO05				IAML		05 37 50.7	
	comp=Z,175nm,1.1s						
CO03	El Pedregal	2.29	33	eP	Pb	05 37 17.3	+0.2
CO03				eS	Sn	05 37 42.2	+0.2
CO03				IAML		05 37 54.8	
	comp=Z,227nm,0.5s						
BO02	Sierra Bellavi	2.31	151	eP	Pn	05 37 15.8	+2.0
BO02				eS	Sn	05 37 32.2	-10
BO02				IAML		05 37 51.3	
	comp=Z,180nm,0.2s						
RTLS	Leoncito	2.59	69	eP	Pb	05 37 23.2	+0.8
RTLS				eS	Sb	05 37 53.7	-0.8
RTLS				IAML		05 38 05.4	
	comp=Z,904nm,0.7s						
ARCO	CERRO ARCO	2.70	92	eP	Pb	05 37 24.9	+0.8
ARCO				eS	Sb	05 37 55.7	-1.7
ARCO				IAML		05 38 02.6	
	comp=Z,301nm,1.1s						
AAGR	Agrelo	2.80	97	eP	Pb	05 37 26.8	+1.0
AAGR				eS	Sg	05 38 05.6	+0.2
AAGR				IAML		05 38 07.5	
	comp=Z,108nm,1.8s						
ZON	Zonda	3.18	68	eP	Pb	05 37 31.7	-0.5
ZON				eS	Sb	05 38 11.2	+0.1
ZON				IAML		05 38 28.1	
	comp=Z,125nm,0.7s						
CO01	Juntas del Tor	3.29	33	eP	Pb	05 37 32.2	-2.1
CO01				eP	Pn	05 37 32.7	+5.2
CO01				eS	Sb	05 38 13.7	-0.8
CO01				IAML		05 38 23.2	
	comp=Z,96nm,1.2s						
ACCO	Cerro Coronel	3.41	51	eP	Pb	05 37 35.6	-0.7
ACCO				eP	Pg	05 37 35.7	-5.2
ACCO				eS	Sb	05 38 17.7	-0.3
ACCO				IAML		05 38 29.8	
	comp=Z,136nm,0.9s						
RTLL	Cerro Villicun	3.43	66	eP	Pb	05 37 35.2	-1.3
RTLL				eS	Sg	05 38 27.7	+2.1
RTLL				IAML		05 38 28.3	
	comp=Z,120nm,0.4s						
AROD	Rodeo	3.45	42	eP	Pb	05 37 35.7	-1.4
AROD				eS	Sb	05 38 21.2	+1.9

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*CATAC **24** 06:18:58.4±0.4, 13°N±2°×8°9W±°, h31^{km}±2^{km}, M2.9/24, MLv2.9/24, Error ellipse: s-maj=5.7km s-min=3.0km az=27.0, confirmed*

*SNET **24** 06:18:58.9±1.3, 13.°11N×89.°20W, h62^{km}, ML2.8, Presumed earthquake*

*GCG **24** 06:18:59.4±0.9, 13.°15N×89.°25W, h57^{km}±11^{km}, MD3.7, Presumed earthquake*

ISC 24 06:18:59.0±1.9, **13.°04N**±0.°09×**89.°26W**±0.°04, **h51**^{km}±13^{km}, **n42**, σ**0.^{s}50**/72, **El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LALI	Alcalda de L	0.45	352	i P	Pn	06 19 09.7	-0.2
LALI	Alcalda de L	0.45	352	P	Pn	06 19 09.8	0.0
LALI				S	Sn	06 19 17.8	+0.3
PANCS	Alcalda de	0.58	7	P	Pn	06 19 10.9	-0.4
PANCS				S	Sn	06 19 20.0	-0.2
LOMA	Loma Larga	0.61	8	P	Pn	06 19 11.5	-0.3
LOMA				S	Sn	06 19 21.7	+0.6
JAYA	Jayaque - finc	0.64	343	i P	Pn	06 19 11.9	-0.4
JAYA				i S	Sn	06 19 20.9	-0.9
JAYA	Jayaque - finc	0.64	343	P	Pn	06 19 11.9	-0.4
JAYA				S	Sn	06 19 22.0	+0.2
UTEC	Universidad Te	0.66	5	P	Pn	06 19 12.2	-0.2
UTEC				S	Sn	06 19 22.5	+0.4
SEMO	Seminario San	0.66	3	S	Sn	06 19 22.4	+0.3
PMON	Piamonte	0.67	355	P	Pn	06 19 12.3	-0.3
PMON				S	Sn	06 19 23.1	+0.7
UEES	Universidad Ev	0.68	1	P	Pn	06 19 12.4	-0.2
UEES				S	Sn	06 19 22.9	+0.4
IGN	Direccin Gen	0.68	7	P	Pn	06 19 12.4	-0.2
TECO	Alcaldia de Te	0.68	43	P	Pn	06 19 11.7	-0.9
TECO				S	Sn	06 19 22.4	0.0
COEG	Centro de Oper	0.69	32	i P	Pn	06 19 11.9	-0.8
COEG				eS	Sn	06 19 22.4	-0.2
COEG	Centro de Oper	0.69	32	P	Pn	06 19 12.0	-0.8
COEG				S	Sn	06 19 22.9	+0.3
BOQS	Boqueron	0.69	358	eP	Pn	06 19 12.7	-0.2
ALJI	Alcalda de J	0.73	67	eP	Pn	06 19 13.0	-0.2
ALJI				eS	Sn	06 19 24.2	+0.8
ALJI	Alcalda de J	0.73	67	P	Pn	06 19 12.9	-0.2
ALJI				S	Sn	06 19 24.1	+0.6
PAVA	Las Pavas	0.74	25	P	Pn	06 19 13.0	-0.5
PAVA				S	Sn	06 19 24.5	+0.5
CEDA	San Andres	0.77	350	S	Sn	06 19 25.2	+0.6
SCLA	Alcaldia de Sa	0.84	38	P	Pn	06 19 14.3	-0.4
SCLA				S	Sn	06 19 26.3	+0.2
CEVE	Cerro Verde	0.86	336	eP	Pn	06 19 15.2	0.0
CEVE				eS	Sn	06 19 28.3	+1.3
CEVE	Cerro Verde	0.86	336	P	Pn	06 19 15.1	-0.1
CEVE				S	Sn	06 19 28.0	+1.0
PQSS	Presa 15 de Se	0.89	49	P	Pn	06 19 15.1	-0.3
PQSS				S	Sn	06 19 28.3	+0.9
UNIC	Universidad Ca	0.98	343	P	Pn	06 19 16.6	0.0
UNIC				S	Sn	06 19 30.2	+0.7
NUBE	Las Nubes	1.00	329	i P	Pn	06 19 16.6	-0.3
NUBE				i S	Sn	06 19 30.0	-0.1
NUBE	Las Nubes	1.00	329	P	Pn	06 19 16.6	-0.3
NUBE				S	Sn	06 19 30.2	+0.1
PACA	Pacayal	1.00	65	P	Pn	06 19 16.7	-0.3
PACA				S	Sn	06 19 30.8	+0.6
RANC	El Ranchito	1.02	67	P	Pn	06 19 17.1	-0.1
P5NO	Presa 5 de nov	1.06	27	P	Pn	06 19 17.0	-0.6
P5NO				S	Sn	06 19 31.3	0.0
FAME	Alcaldia de Sa	1.09	317	P	Pn	06 19 17.6	-0.4
FAME				S	Sn	06 19 31.7	-0.3
SLOZ	Alcaldia de Sa	1.11	333	P	Pn	06 19 18.4	+0.2
LLGN	La Laguna	1.16	15	P	Pn	06 19 18.4	-0.6
LLGN				S	Sn	06 19 34.0	+0.2
MTO3	Montecristo	1.36	356	i P	Pn	06 19 21.3	-0.5
MTO3	Montecristo	1.36	356	P	Pn	06 19 21.3	-0.5
MTO3				S	Sn	06 19 38.6	-0.2
LCND	La Caada	1.36	78	P	Pn	06 19 21.1	-0.5
CNCH	Conchagua	1.41	80	eP	Pn	06 19 21.6	-0.7
CNCH				eS	Sn	06 19 41.1	+1.2
CNCH	Conchagua	1.41	80	P	Pn	06 19 21.9	-0.5
CNCH				S	Sn	06 19 40.0	+0.2
ESQI	Esquipulas	1.52	357	eP	Pn	06 19 23.6	-0.2
ESQI	Esquipulas	1.52	357	P	Pn	06 19 23.8	-0.1
ESQI				S	Sn	06 19 42.8	+0.2
MARCA	Marcala la Paz	1.63	47	i P	Pn	06 19 24.8	-0.6
SARH	Santa Rosa de	1.79	16	i P	Pn	06 19 27.6	0.0
SARH	Santa Rosa de	1.79	16	P	Pn	06 19 27.8	+0.2
SARH				S	Sn	06 19 49.9	+0.6

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*IDC **24** 06:42:24.2±2.8, 4.°41S×153.°55E, h116^{km}±21^{km}, mb3.6/9, mbtmp4.0/10, MS2.7/3, Error ellipse: s-maj=34.4km s-min=17.1km az=104.0*

ISC 24 06:42:22.1±0.9, **4.°4S**±0.°1×**153.°7E**±0.°1, **h100**^{km}, **n16**, σ**1.^{s}03**/14, **mb3.7**/9, **New Ireland region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRVT	Keravat (AS076	1.67	273	P	Pn	06 42 50.7	+0.2
	281nm,0.3s,baz=338,slow=5.4,SNR=6.4						
KRVT				S	Sn	06 43 12.7	+0.7
	364nm,0.5s,baz=18,slow=21,SNR=5.9						
PMG	Port Moresby	8.18	232	P	Pn	06 44 20.2	+2.1
	32nm,0.5s,baz=47,slow=9.0,SNR=13						
PMG				S	Sn	06 45 48.0	-1.0
	23nm,0.4s,baz=139,slow=19,SNR=8.8						
CTA	Charters Tower	17.21	204	LR	LR	06 51 59.7	
	comp=Z,34nm,19.2s,baz=12,slow=34						
GUMO	Guam	19.89	334	LR	LR	06 54 45.5	
	comp=Z,9.0nm,18.1s,baz=55,slow=37						
WRA	Warramunga Arr	24.39	229	P	P	06 47 30.9	-0.3
	4.4nm,0.5s,baz=54,slow=10.0,SNR=53						
	4.4nm,0.5s						
ASAR	Alice Springs	27.06	223	P	P	06 47 54.7	-0.7
	0.7nm,0.7s,baz=58,slow=9.0,SNR=7.6						
	0.7nm,0.7s						
STKA	Stephens Creek	29.61	201	P	P	06 48 17.5	-0.5
	1.4nm,0.4s,baz=13,slow=12,SNR=3.2						
	1.4nm,0.4s						
FITZ	Fitzroy Crossi	30.64	241	P	P	06 48 25.8	-1.4
	3.4nm,0.8s,baz=79,slow=7.9,SNR=7.3						
	3.4nm,0.8s						
KAPI	Kappang	33.83	268	LR	LR	07 04 10.1	
	comp=Z,18nm,18.6s,baz=124,slow=39						
VNDA	Vanda	73.21	178	P	P	06 53 42.7	+0.9
	0.6nm,0.6s,baz=329,slow=5.9,SNR=5.3						
	0.6nm,0.6s						
MKAR	Makanchi Array	80.61	319	P	P	06 54 24.7	+0.8
	0.3nm,0.5s,baz=94,slow=8.7,SNR=2.4						
	0.3nm,0.5s						
ZALV	Zalesovo Beam	81.31	326	P	P	06 54 27.3	0.0
	0.4nm,0.3s,baz=102,slow=6.1,SNR=2.2						
	0.4nm,0.3s						
ILAR	Eielson Array	81.44	22	P	P	06 54 28.2	+0.4
	0.4nm,0.9s,baz=261,slow=6.4,SNR=4.2						
	0.4nm,0.9s						
QSPA	South Pole Qui	85.57	180	P	P	06 54 48.8	-0.4
	0.6nm,0.6s,baz=270,slow=0.2,SNR=6.5						
	0.6nm,0.6s						
MAW	Mawson	86.29	203	LR	LR	07 29 54.6	
	comp=Z,114nm,20.2s,baz=224,slow=33						
TORD	Torodi Ar. Bea	151.02	289	PKPbc	PKiKP	07 02 04.0	-1.1
	1.4nm,0.7s,baz=59,slow=2.4,SNR=8.9						

TEH 24 06:43:27.3, 30.°38N×57.°43E, h6^{km}±40^{km}, **ML4.0, Presumed earthquake, Northern and central Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRM1	Kerman Provinc	0.18	311	Pg	Pg	06 43 32.5	+1.5
CHMN	Cheshme madani	0.53	170	Pg	Pb	06 43 39.3	+0.1
KHGB	Koh Gabri	0.82	270	Pg	Pb	06 43 44.6	+0.4
KHGB				Sg	Sb	06 43 55.3	-0.4
ZRDN	Zarand Kerman	0.97	307	Pg	Pn	06 43 47.6	-0.1
KBAM	BAM	1.53	144	Pg	Pg	06 43 57.7	+1.1
IBAF	Bafgh	2.00	307	Pn	Pg	06 44 05.4	-0.3
BSRN	Basiran	2.15	42	Pn	Pb	06 44 06.4	-0.3
IKOO	Kooshah	2.44	33	Pn	Pb	06 44 10.2	-1.6
NHDN	Nehbandan	2.47	65	Pn	Pb	06 44 10.9	-1.2
IMEH	Mehriz	2.62	293	Pn	Pb	06 44 13.8	-1.1
ITEG	Tejag	2.75	24	Pn	Pb	06 44 14.7	-2.3
ZHSF	Zahedan	3.00	104	Pn	Pn	06 44 17.6	+2.0
IDAH	Dahanechah	3.14	41	Pn	Pn	06 44 20.4	+2.9
TKDS	Koohdasht(Taba	3.23	355	Pn	Pn	06 44 21.6	+2.9
AFRZ	Afriz	3.32	24	Pn	Pn	06 44 22.7	+2.8
TSHB	Tabas_ShorAb	3.40	346	Pn	Pn	06 44 23.4	+2.4
TNSJ	Nastanj	3.64	349	Pn	Pn	06 44 27.3	+3.0
TAPT	Tabas- Tapeh t	4.50	357	Pn	Pn	06 44 38.9	+2.8
SBZV	Sabzevar	5.99	1	Pn	Pn	06 45 00.0	+3.3

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*IDC **24** 06:58:16.7±60.0, 39.°09N×17.°00E, h0^{km}, mb3.7/3, mbtmp3.8/3, MS2.7/2, Error ellipse: s-maj=1132.0km s-min=69.6km az=53.0*

*TIR **24** 06:58:38.8, 40.°55N×19.°65E, h31^{km}±1^{km}, Md2.8/8, Ml3.7/5*

*THE **24** 06:58:40.2, 41°N±2°×2°0E±°, h0^{km}±3^{km}, M3.2/18, MLh3.2/18*

*BEO **24** 06:58:40.2±0.6, 40.°54N×19.°51E, h23^{km}±1^{km}, ML2.9/11*

ISC 24 06:58:39.3±1.0, **40.°60N**±0.°02×**19.°61E**±0.°02, **h14**^{km}±7^{km}, **n69**, σ**1.^{s}06**/104, **mb3.7**/3, **Albania**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VLO	Vlora	0.16	214	P	Pg	06 58 43.6	+0.5
VLO				S	Sb	06 58 47.2	+0.1
VLO				AML	AML	06 58 50.0	
	139nm,0.1s						
VLO				AMd		06 59 16.1	
VLO	Vlora	0.16	214	P	Pb	06 58 43.7	-0.3
VLO				S	Sb	06 58 47.3	+0.1
VLO				AML	AML		
TIR	Tirane	0.77	14	P	Pb	06 58 54.7	+0.3
TIR				S	Sg	06 59 02.5	-1.8
TIR				AML	AML	06 59 12.6	
	2.7nm,0.3s						
TIR				AMd		06 59 59.9	
SRN	Sarande	0.78	157	P	Pg	06 58 53.4	-1.0
SRN				S	Sb	06 59 05.0	-0.1
SRN				AML	AML	06 59 08.3	
	2.6nm,0.4s						
SRN				AMd		06 59 57.7	
SRN	Sarande	0.78	157	P	Pg	06 58 53.6	-0.8
SRN				S	Sb	06 59 04.8	-0.2
SRN				AML	AML		
KBN	Korca	0.90	88	P	Pb	06 58 55.0	-1.7
KBN				S	Sb	06 59 06.3	-2.2
KBN				AMd		06 59 57.4	
KBN	Korca	0.90	88	P	Pb	06 58 54.8	-1.8
KBN				S	Sg	06 59 09.1	+0.7
KBN				AML	AML		
KEK	Kerkira	0.90	171	P	Pb	06 58 55.4	-1.2
KEK				S	Sb	06 59 08.3	-0.2
KEK				AML	AML		
OHR	Ohrid	1.03	60	i Pn	Pn	06 58 59.3	-0.1
OHR				i Sn	Sn	06 59 17.7	+3.9
IGT	Igoumenitsa	1.20	152	P	Pg	06 59 02.3	-0.1
IGT				AMd		07 00 19.1	
IGT	Igoumenitsa	1.20	152	P	Pb	06 59 02.0	+0.1
IGT				S	Sb	06 59 17.2	0.0
IGT				AML	AML		
IGT	Igoumenitsa	1.20	152	ePg	Pb	06 59 01.9	+0.1
IGT				eSg	Sg	06 59 18.4	+0.3
LFKM	Lefkimmi	1.20	163	P	Pg	06 59 02.7	+0.3
LFKM				S	Sg	06 59 18.1	0.0
LFKM				AML	AML		
PHP	Peshkopia	1.25	30	P	Pn	06 59 02.6	+0.2
PHP				S	Sg	06 59 20.2	+0.6
PHP				AML	AML	06 59 28.3	
	5.0nm,0.6s						
PHP				AMd		07 00 04.9	
JAN	Janina	1.34	134	P	Pb	06 59 04.2	+0.1
JAN				S	Sg	06 59 23.1	+0.7
JAN				AML	AML		
KPRO	Kipourio	1.49	115	P	Pb	06 59 06.9	+0.1
KPRO				S	Sb	06 59 25.6	+0.2
KPRO				AML	AML		
PRMD	Pramanda	1.56	133	P	Pb	06 59 08.4	+0.4
PRMD				AML	AML		
KZN	Kozani	1.67	99	P	Pb	06 59 09.7	-0.2
KZN				AML	AML		
TETR	Tetrakomo, Epi	1.79	134	P	Pb	06 59 11.5	-0.4
TETR				AML	AML		
PDG	Podgorica	1.85	352	P	Pb	06 59 12.9	+0.1
PDG				S	Sb	06 59 37.0	+1.2
PDG				AMd		07 00 34.9	
PDG	Podgorica	1.85	352	ePn	Pn	06 59 11.4	+0.9
PDG				eSn	Sb	06 59 35.0	-0.8
NOCI	Noci	1.95	276	P	Pn	06 59 12.6	+0.7
NOCI				S	Sn	06 59 37.0	+0.8
NOCI				AML	AML	06 59 47.0	
	2.6nm,0.3s						
NOCI				AMd		07 00 49.5	
NYDR	Nydri-Lefkada	2.06	156	P	Pn	06 59 13.0	-0.5
NYDR				AML	AML		

AMPL	Ampelaki	2.08	143	P	Pn	06 59 14.3	+0.5
AMPL				AML	AML		
THL	Klokotos Trika	2.11	119	P	Pn	06 59 15.1	+0.9
THL				AML	AML		
GRG	Griva	2.15	80	P	Pn	06 59 15.6	+0.9
GRG				AML	AML		
TYRN	Tyrnavos	2.20	113	P	Pn	06 59 16.6	+1.3
TYRN				AML	AML		
TREB	Trebinje	2.32	336	ePn	Pn	06 59 16.9	-0.1
TREB				eSn	Sn	06 59 45.9	+0.6
DBRK	Dubrovnik	2.34	332	ePn	Pn	06 59 17.6	+0.3
PDO	Prodromos	2.34	148	P	Pn	06 59 17.6	+0.3
PDO				AML	AML		
VAY	Valandovo	2.35	71	i Pn	Pn	06 59 18.7	+1.2
SJES	Sjenica	2.67	6	ePn	Pn	06 59 23.9	+1.9
SJES				eSn	Sn	06 59 55.0	+0.8
STON	Ston	2.68	328	ePn	Pn	06 59 22.4	+0.4
STON				Sn	Sn	06 59 54.8	+0.5
STON	Ston	2.68	328	ePn	Pn	06 59 22.0	0.0
STON				eSn	Sn	06 59 54.4	+0.1
PEHC	Pehcevo	2.75	64	i Pn	Pb	06 59 26.0	-2.2
BARS	Barje	2.76	36	ePn	Pn	06 59 24.6	+1.5
BARS				eSn	Sn	06 59 58.6	+2.3
SELS	Selova	2.85	23	ePn	Pn	06 59 26.2	+1.9
BOSS	Bosilegrad	2.87	48	ePn	Pn	06 59 25.9	+1.3
BOSS				eSn	Sn	07 00 00.2	+1.3
PLG	Polygyros	2.93	93	P	Pn	06 59 26.2	+0.7
LSTV	Lastovo	2.97	318	ePn	Pn	06 59 26.3	+0.3
LSTV				Sn	Sn	07 00 01.3	-0.2
IVAS	Ivanjica	3.00	8	eSn	Sn	07 00 04.4	+2.2
SRS	Serrai	3.06	79	P	Pn	06 59 28.3	+1.1
SRS	Serrai	3.06	79	ePn	Pn	06 59 28.3	+1.1
SRS				eSn	Sn	07 00 04.9	+1.2
PAIG	Paliouri	3.18	101	P	Pn	06 59 29.3	+0.4
BBLS	Lazi&#263i	3.27	357	ePn	Pn	06 59 31.5	+1.4
MAKA	Makarska	3.31	325	i Pn	Pn	06 59 31.2	+0.6
OUR	Ouranopolis	3.34	93	P	Pn	06 59 32.0	+0.9
VTS	Vitosha	3.38	52	ePn	Pn	06 59 33.1	+1.3
VTS				eSn	Sn	07 00 12.2	+0.4
GRUS	Gruza	3.38	14	ePn	Pn	06 59 32.5	+0.8
GRUS				eSn	Sn	07 00 12.5	+0.8
BOVS	Bovan	3.41	27	ePn	Pn	06 59 33.5	+1.5
BOVS				eSn	Sn	07 00 12.5	+0.3
RICI	Ricice	3.43	328	ePn	Pn	06 59 33.4	+1.1
RICI				Sn	Sn	07 00 13.4	+0.7
HVAR	Hvar	3.49	319	ePn	Pn	06 59 33.6	+0.5
HVAR				Sn	Sn	07 00 13.8	-0.5
ZAPS	Zavoj	3.49	39	ePn	Pn	06 59 34.5	+1.3
DIVS	Divibare	3.51	4	ePn	Pn	06 59 33.7	+0.3
TRUS	Trudelj	3.67	9	ePn	Pn	06 59 35.5	-0.1
ZAGS	Zajecar	3.75	30	ePn	Pn	06 59 38.1	+1.4
ZAGS				eSn	Sn	07 00 21.5	+0.8
BLKB	Belogradchik	3.78	36	ePn	Pn	06 59 39.4	+2.2
TEKS	Tekeris	3.95	359	ePn	Pn	06 59 39.7	+0.3
KIJV	Kijevo	4.15	326	ePn	Pn	06 59 43.6	+1.4
KIJV				Sn	Sn	07 00 31.6	+1.1
MORI	Morici	4.36	320	ePn	Pn	06 59 46.4	+1.2
MORI				Sn	Sn	07 00 36.2	+0.5
MDVR	Moldovita	4.46	20	eSn	Sn	07 00 37.9	-0.2
DUGI	Dugi Otok	4.78	317	i Pn	Pn	06 59 52.7	+1.8
DUGI				Sn	Sn	07 00 46.5	+0.4
VIRC	Vir	5.00	319	ePn	Pn	06 59 55.2	+1.4
VIRC				Sn	Sn	07 00 51.1	-0.3
BZS	Buzias	5.22	16	ePn	Pn	06 59 58.0	+1.1
GZR	Gura Zlata	5.32	25	ePn	Pn	06 59 58.4	+0.1
NOA	NORSAR Array B	21.11	349	LR	LR	07 14 16.4	
	comp=Z,10nm,18.8s,baz=260,slow=43						
FINES	FINESS Array B	21.24	9	P	P	07 03 23.4	-1.2
	1.3nm,0.8s,baz=192,slow=10.0,SNR=5.8						
FINES				LR	LR	07 12 52.6	
	comp=Z,38nm,19.3s,baz=246,slow=38						
	1.3nm,0.8s						
ZALV	Zalesovo Beam	44.63	50	P	P	07 06 50.7	-0.3
	1.4nm,0.6s,baz=263,slow=6.8,SNR=1.8						
	1.4nm,0.6s						
MKAR	Makanchi Array	44.67	60	P	P	07 06 50.5	-1.0
	0.3nm,0.3s,baz=281,slow=7.6,SNR=6.1						
	0.3nm,0.3s						

OSPL ***24*** *07:14:06.4±1.4, 18°.49N×71°.74W, h5^{km}±80^{km}, ML1.7, Presumed earthquake*

SDD ***24*** *07:14:06.4±0.7, 18°.46N×71°.59W, h10^{km}±999^{km}, MD2.5, ML1.3, MW2.3, Presumed earthquake*

ISC 24 07:14:07.2±1.1**, 18°.32N**±0°.04×**71°.68W**±0°.05**, h14**^{km}±8^{km}**, n8, σ0^s.65**/16**, 3C-3D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
LODU1	El Espartillar	0.20	80	i P	Pg	07 14 11.5	-0.3
LODU1				eS	Sg	07 14 14.8	-0.1
LODU1				IAML		07 14 17.8	
	comp=Z,107nm,0.2s						
JIDR	Jimani	0.24	317	⇑ iP	Pg	07 14 12.6	+0.2
JIDR				⇓ iS	Sb	07 14 17.4	+0.1
JIDR				IAML		07 14 20.4	
	comp=N,28nm,1.1s						
LONE3	El Aguacate, B	0.35	36	i P	Pg	07 14 14.5	-0.1
LONE3				eS	Sg	07 14 19.7	+0.2
LONE3				IAML		07 14 21.6	
	comp=Z,17nm,0.4s						
PODR	Polo	0.41	112	i P	Pb	07 14 16.3	-0.1
PODR				eS	Sb	07 14 23.6	+1.0
PODR				IAML		07 14 26.4	
	comp=Z,415nm,0.1s						
PODR	Polo	0.41	112	⇓ iP	Pb	07 14 16.3	-0.1
PODR				⇑ iS	Sb	07 14 23.8	+1.2
PODR				IAML		07 14 24.8	
	comp=N,43nm,0.6s						
LOBH	Bahia de las A	0.46	175	i P	Pb	07 14 17.6	+0.6
LOBH				eS	Sn	07 14 26.0	-1.3
LOBH				IAML		07 14 29.0	
	comp=Z,31nm,1.9s						
LOVI	El Cajuil, Ovi	0.60	150	i P	Pn	07 14 20.9	-0.3
LOVI				eS	Sn	07 14 30.7	-0.1
REDR	Restauracion	0.89	18	⇓ iP	Pn	07 14 25.0	-0.3
REDR				⇑ iS	Sn	07 14 38.0	0.0
REDR				IAML		07 14 39.8	
	comp=N,13nm,0.2s						

IDC ***24*** *07:32:14.8±2.2, 63°.91N×28°.60E, h0^{km}, mbtmp3.1/4, ML2.2/4, Error ellipse: s-maj=31.0km s-min=13.3km az=105.0*

HEL ***24*** *07:32:18.6±0.0, 63°.96N×28°.11E, h0^{km}, ML2.2, Explosion*

BER ***24*** *07:32:19.2±2.9, 63°.92N×28°.22E, h0^{km}±20^{km}, ML2.1, ML2.2(HEL)*

ISC 24 07:32:15.7±0.8**, 63°.92N**±0°.03×**28°.07E**±0°.03**, h0**^{km}**, n49, σ1^s.48**/64**, Finland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
NIF	Nilsia	0.55	193	eP	Pb	07 32 29.1	+1.0
NIF				eS	Sb	07 32 36.6	+0.2
NIF	Nilsia	0.55	193	eP	Pb	07 32 29.1	+1.0
NIF				eS	Sb	07 32 36.6	+0.2
RMF	Romuvaara	0.87	69	eP	Pb	07 32 33.8	+0.1
RMF				eS	Sg	07 32 43.7	+0.1
RMF	Romuvaara	0.87	69	eP	Pb	07 32 33.8	+0.1
RMF				eS	Sg	07 32 43.7	+0.1
SUF	Sumiainen	1.49	217	smax	smax	07 33 08.0	
SUF	Sumiainen	1.49	217	eP	Pn	07 32 42.7	-0.9
SUF	Sumiainen	1.49	217	smax	smax	07 33 08.0	
	comp=Z,25nm,0.1s						
OUL	Oulu	1.50	322	eP	Pg	07 32 45.0	+0.5
OUL	Oulu	1.50	322	eP	Pg	07 32 45.0	+0.5
OUF	Merijarvi	1.53	289	eP	Pg	07 32 45.9	+0.9
OUF				eS	Sg	07 33 05.8	+0.9
OUF	Merijarvi	1.53	289	eP	Pg	07 32 45.9	+0.9
OUF				eS	Sg	07 33 05.8	+0.9
KU1	Kurvinen	1.77	20	eP	Pb	07 32 49.1	+0.1
KU1				eS	Sn	07 33 11.0	+0.3
KU1				smax	smax	07 33 12.2	
KU1	Kurvinen	1.77	20	eP	Pb	07 32 49.1	+0.1
KU1				eS	Sn	07 33 11.0	+0.3
KU1				smax	smax	07 33 12.2	
	comp=Z,25nm,0.1s						
JOF	Joensuu	1.77	123	smax	smax	07 33 14.6	
JOF	Joensuu	1.77	123	eP	Pn	07 32 47.4	-0.1
JOF	Joensuu	1.77	123	smax	smax	07 33 14.6	
	comp=Z,17nm,0.1s						
OBF0	Syolatti, Pyha	1.77	291	eP	Pg	07 32 50.1	+0.4
OBF0				smax	smax	07 33 13.9	
OBF0	Syolatti, Pyha	1.77	291	eP	Pg	07 32 50.1	+0.4
OBF0				smax	smax	07 33 13.9	
	comp=Z,43nm,0.2s						
MSF	Maaselka	2.04	11	eP	Pb	07 32 53.4	-0.3
MSF				smax	smax	07 33 21.4	
MSF	Maaselka	2.04	11	eP	Pb	07 32 53.4	-0.3
MSF				smax	smax	07 33 21.4	
	comp=Z,11nm,0.1s						
RANF	Ranua	2.17	346	eP	Pb	07 32 56.3	+0.4
RANF	Ranua	2.17	346	eP	Pb	07 32 56.3	+0.4
KEF	Keuruu	2.29	221	eP	Pb	07 32 58.1	+0.3
KEF	Keuruu	2.29	221	eP	Pb	07 32 56.5	-1.3
KEF	Keuruu	2.29	221	eP	Pb	07 32 58.1	+0.3
VAF	Ylistaro	2.58	252	eP	Pn	07 33 00.7	+2.1
FIA1	FINESS Array S	2.65	201	eP	Pb	07 33 03.0	-1.0
FIA1	FINESS Array S	2.65	201	eP	Pb	07 33 03.0	-1.0
FINES	FINESS Array B	2.65	201	Pn	Pn	07 33 00.9	+1.2
	comp=Z,0.4nm,0.3s,baz=23,slow=14,SNR=14						
FINES				Sn	Sb	07 33 35.5	-1.5
	comp=Z,2.7nm,0.3s,baz=23,slow=26,SNR=18						
	comp=Z,3.3nm,0.3s						
FINES				AML	AML		
SJUU	Sjulsmark	3.20	303	eP	Pn	07 33 07.9	+0.7
MEF	Metsahovi	4.10	207	eP	Pn	07 33 22.0	+2.5
RAF	Rauma	4.13	228	eP	Pn	07 33 22.3	+2.4
LANU	Lannavaara	4.83	332	eP	Pn	07 33 29.2	-0.4
SALU	Saltoluokta	5.26	316	eP	Pn	07 33 37.8	+2.3
SALU				eS	Sn	07 34 35.7	-1.2
KTK1	Kautokeino	5.47	341	eP	Pn	07 33 40.9	+2.6
KTK1				eS	Sn	07 34 40.2	-1.6
KTK1				IAML		07 34 45.3	
	comp=Z,3.4nm,1.0s						
ARA0	ARCESS Array S	5.73	351	eP	Pn	07 33 42.4	+0.5
ARA0				eS	Sn	07 34 45.9	-2.4
ARA0				IAML		07 34 57.2	
	comp=Z,5.3nm,0.4s						
ARCES	ARCESS Array B	5.73	351	Pn	Pn	07 33 40.1	-1.8
	comp=Z,0.2nm,0.3s,baz=166,slow=13,SNR=20						
ARCES				Sn	Sn	07 34 46.5	-1.8
	comp=Z,0.3nm,0.3s,baz=165,slow=25,SNR=3.6						
	comp=Z,4.5nm,1.0s						
ARCES				AML	AML		
VADS	Vadso	6.25	4	eP	Pn	07 33 50.6	+1.6
VADS				IAML		07 34 55.5	
	comp=Z,4.8nm,1.1s						
FAUS	Fauske	6.32	309	eP	Pn	07 33 52.1	+2.2
FAUS				IAML		07 34 59.6	
	comp=Z,2.8nm,0.8s						
FAUS				eS	Sn	07 35 02.7	-0.1
RAUS	Rausandaksla	6.42	299	eP	Pn	07 33 50.4	-1.0
RAUS				eS	Sn	07 35 02.9	-2.4
RAUS				IAML		07 35 21.8	
	comp=Z,2.1nm,0.5s						
STEI	Steigen	6.61	313	eP	Pn	07 33 55.2	+1.3
STEI				eS	Sn	07 35 07.2	-2.6
STEI				IAML		07 35 16.0	
	comp=Z,2.3nm,1.0s						
LEIR	Leirfjorden	6.70	296	eP	Pn	07 33 54.9	-0.3
LEIR				IAML		07 35 08.8	
	comp=Z,2.0nm,1.1s						
LEIR				eS	Sn	07 35 10.7	-1.5
STOK	Stokkvaagen	6.79	298	eP	Pn	07 33 57.9	+1.4
STOK				eS	Sn	07 35 09.1	-5.2
STOK				IAML		07 35 13.5	
	comp=Z,4.0nm,0.9s						
KONS	Konsvik	6.79	299	eP	Pn	07 33 57.2	+0.7
KONS				IAML		07 35 16.6	
	comp=Z,3.4nm,1.0s						
VAGH	Vaagaholmen	6.80	301	eP	Pn	07 33 58.1	+1.5
VAGH				eS	Sn	07 35 11.6	-3.0
VAGH				IAML		07 35 12.1	
	comp=Z,3.4nm,0.7s						
NSS	Namsos	7.05	282	eP	Pn	07 34 02.7	+2.7
HFS	Hagfors	7.75	247	Pn	Pn	07 34 09.3	-0.3
	comp=Z,0.2nm,0.3s,baz=58,slow=11,SNR=6.4						
HFS				Sn	Sn	07 35 37.4	-0.5
	comp=Z,0.2nm,0.3s,baz=29,slow=21,SNR=1.9						
	comp=Z,0.6nm,0.2s						
HFS				AML	AML		
NOA	NORSAR Array B	8.32	257	Pn	Pn	07 34 17.2	-0.3
	baz=65,slow=11,SNR=6.0						
	comp=Z,0.4nm,0.6s						
I43RU	DUBNA INFRASON	8.52	144	I	I	08 27 20.0	
	baz=334,slow=328,SNR=1.3						

CATAC ***24*** *07:56:32.0±0.6, 11°N±3°×8°7W±°, h13^{km}±5^{km}, M3.4/24, MLv3.4/24, Error ellipse: s-maj=6.8km s-min=4.7km az=34.7, confirmed*

UCR ***24*** *07:56:33.3±0.8, 10°.67N×86°.59W, h15^{km}±8^{km}, MW3.9, Presumed earthquake*

ISC 24 07:56:31.2±3.0**, 10°.63N**±0°.06×**86°.69W**±0°.08**, h11**^{km}±15^{km}**, n53, σ0^s.58**/61**, 1C, Off coast of Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
ALIBA	Liberia Airpor	1.12	92	eP	Pb	07 56 53.2	+0.6
ALIBA				eS	Sn	07 57 08.0	-0.3
LCRUZ	La Cruz	1.13	67	eP	Pb	07 56 52.3	-0.5
JUD3	Juan Diaz 3	1.22	112	eP	Pn	07 56 53.9	-0.4
JUD3				eS	Sb	07 57 08.6	-1.5
LAPC	Finca la Perla	1.24	83	eP	Pn	07 56 54.1	-0.4
CARN	Rivas	1.27	64	P	Pn	07 56 55.0	0.0
CARN				S	Sg	07 57 12.5	+0.3
CARN	Rivas	1.27	64	eP	Pn	07 56 54.7	-0.2
NADN	Granada	1.29	30	P	Pn	07 56 54.9	-0.2
NADN				S	Sg	07 57 12.7	0.0
NADN	Granada	1.29	30	eP	Pn	07 56 54.5	-0.6
VRLE	La Escondida,	1.31	83	eP	Pn	07 56 55.3	-0.2
VORI	VORI	1.33	82	eP	Pn	07 56 55.4	-0.5
JAPN	Al SSO del Vol	1.33	48	P	Pn	07 56 56.3	+0.6
JAPN	Al SSO del Vol	1.33	48	eP	Pn	07 56 56.0	+0.2
BUAI	Buenos Aires	1.35	79	eP	Pn	07 56 56.5	+0.4
OMEN	Al SSO del Vol	1.36	50	P	Pn	07 56 55.1	-1.0
MORN	Al O del Volca	1.37	48	P	Pn	07 56 56.4	+0.1
MORN				S	Sg	07 57 14.8	-0.5
CMARA	Lajas Hojancha	1.38	116	P	Pn	07 56 56.4	-0.1
CMARA	Lajas Hojancha	1.38	116	eP	Pn	07 56 56.3	-0.2
BAGA	Bagaces	1.41	94	eP	Pn	07 56 57.2	+0.4
NANN	Nandasmo	1.42	23	P	Pb	07 56 58.1	+0.4
SABN	Sabanita	1.42	21	P	Pn	07 56 57.6	+0.6
COLC	Colonia	1.46	88	eP	Pn	07 56 57.7	+0.2
MESS	Mesas	1.47	85	eP	Pn	07 56 57.7	0.0
MAS3	Al N del Volca	1.48	20	P	Pn	07 56 58.2	+0.4
CLARA	Aguas Claras	1.49	84	eP	Pn	07 56 58.4	+0.4
CUI	Cuipilapa	1.50	89	⇑ iP	Pn	07 56 58.4	+0.3
UNAN	Cigeo UNAN	1.53	15	P	Pn	07 56 58.7	+0.2
UNAN				S	Sn	07 57 18.5	+0.1
NYURE	Nandayure	1.54	114	eP	Pn	07 56 58.5	-0.1
VMAR	Armenia, Volca	1.56	83	eP	Pn	07 56 59.4	+0.5
TISN	Laguna Tiscapa	1.56	15	P	Pn	07 56 58.1	-0.8
MGAN	Managua	1.57	16	P	Pn	07 56 59.3	+0.3
WILN	Americas 2	1.60	18	P	Pn	07 56 59.5	0.0
CANAL	Canalete	1.62	83	eP	Pn	07 57 00.0	+0.3
AMTN	Mateare	1.62	9	S	Sn	07 57 20.7	+0.1
TIMP	Tierras Morena	1.64	91	eP	Pn	07 57 00.2	+0.1
UPAL	Upala	1.67	81	P	Pn	07 57 01.1	+0.8
UPAL				S	Sb	07 57 22.9	-0.1
TENO	El Achiote	1.68	87	eP	Pn	07 57 00.7	+0.1
JTS	Las Juntas de	1.74	101	P	Pn	07 57 02.6	+1.2
JTS	Las Juntas de	1.74	101	eP	Pn	07 57 01.6	+0.2
COTE	Lago Cote	1.74	92	eP	Pn	07 57 02.1	+0.6
MOMN	Momotombo	1.78	5	P	Pn	07 57 01.6	-0.3
CNGA	Al SSO del Vol	1.85	360	P	Pn	07 57 03.3	+0.3
CNGN	Cerro Negro	1.86	360	P	Pn	07 57 03.3	+0.2
ROCN	Rota Cerro Neg	1.88	358	P	Pn	07 57 02.7	-0.7
ROCN				S	Sn	07 57 27.7	+0.5
ILCN	San Idelfonso	1.94	360	P	Pn	07 57 02.8	-1.3
ARE1	Arenal 1	1.94	95	eP	Pn	07 57 04.9	+0.8
VARE2	V. Arenal	1.94	95	eP	Pn	07 57 05.3	+1.0
PLRN	Geotermica Pol	1.95	358	P	Pn	07 57 04.3	+0.1
ACON	Acoyapa	1.99	48	P	Pn	07 57 04.6	-0.2
BOAB	BOACO BROADBAN	2.07	29	P	Pn	07 57 05.8	-0.1
COVE	Coope Vega, Sa	2.25	87	P	Pn	07 57 10.1	+1.7
MATN	Matagalpa	2.41	18	P	Pn	07 57 10.9	+0.2
RCPN	Sur Rio San Ju	2.94	11	P	Pn	07 57 18.5	+0.5
RCVN	Varillal2	2.98	9	P	Pn	07 57 19.5	+0.9

AFAD ***24*** *08:01:56.1, 36°.04N×35°.85E, h5^{km}±1^{km}, ML2.9*

GRAL ***24*** *08:01:57.8±0.8, 36°.06N×36°.35E, h10^{km}±999^{km}, MD3.6*

ISK ***24*** *08:01:57.5, 36°.07N×35°.86E, h14^{km}, ML2.5/17*

ISC 24 08:01:57.2±1.1**, 36°.03N**±0°.03×**35°.90E**±0°.04**, h10**^{km}±8^{km}**, n31, σ0^s.50**/42**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
YAYL	Yayladag	0.17	89	P	Pg	08 02 00.3	-0.6
YAYL				IAML		08 02 03.0	
	comp=E,2µm,0.7s						
YAYL				S	Sg	08 02 03.8	+0.3
YAYL				IAML		08 02 05.0	
	comp=N,1µm,0.4s						
RHAN	Hatay/Reyhanl	0.61	68	P	Pg	08 02 08.8	-0.3
RHAN				S	Sg	08 02 18.1	+1.0
RHAN				IAML		08 02 22.0	
	comp=N,445nm,0.2s						
RHAN				IAML		08 02 25.0	
	comp=E,324nm,0.3s						
KRTS	Karatas	0.69	322	Pg	Pg	08 02 10.4	-0.1
KRTS				AML	AML		
HASA	Hatay-Hassa-Ha	0.86	33	P	Pg	08 02 13.2	-0.5
HASA				S	Sg	08 02 25.7	+0.7
HASA				IAML		08 02 28.0	
	comp=N,389nm,0.7s						
HASA				IAML		08 02 28.0	
	comp=E,468nm,0.3s						
KUZU	Kuzuini	1.20	52	P	Pb	08 02 19.3	-0.8
KUZU				S	Sb	08 02 35.8	+0.1
KUZU				IAML		08 02 38.0	
	comp=N,494nm,0.4s						
KUZU				IAML		08 02 38.0	
	comp=E,603nm,0.6s						
KAMA	Osmaniye	1.31	28	P	Pn	08 02 21.1	-0.5
KAMA				S	Sb	08 02 38.8	0.0
KOZT	Kozan	1.45	358	Pn	Pn	08 02 23.2	-0.3
KOZT				Sn	Sb	08 02 42.4	-0.4
KOZT				AML	AML		
KIZK	Mersin	1.49	288	Pn	Pn	08 02 23.9	-0.2
KIZK				AML	AML		
EREN	Erenkoy	1.49	251	Pn	Pn	08 02 24.2	+0.1
EREN				AML	AML		
BEIL	Beino	1.50	171	eP	Pn	08 02 23.7	-0.6
BEIL				eS	Sn	08 02 43.6	-0.4
KHMR	Kahramanmara	1.54	31	P	Pn	08 02 24.2	-0.6
KHMR				S	Sn	08 02 44.6	-0.3
GAZ	Gaziantep	1.55	42	Pn	Pn	08 02 25.4	+0.4
GAZ				Sn	Sn	08 02 45.7	+0.5
GAZ				AML	AML		
SLFK	Silifke-Mersin	1.62	283	Pn	Pn	08 02 25.8	-0.1
SLFK				AML	AML		
SILI	Silifke-Mersin	1.64	282	Pn	Pn	08 02 26.0	0.0
SILI				AML	AML		
KHMN	Narli-Kahraman	1.69	36	Pn	Pn	08 02 27.4	+0.5
KHMN				AML	AML		
KAHM	Kahramanmaras,	1.72	30	P	Pb	08 02 29.6	+0.7
HWQ	Hawqa	1.75	179	eP	Pn	08 02 27.5	-0.3
HWQ				eS	Sn	08 02 49.8	-0.3
KARG	Kargicak-Mersi	1.78	276	Pn	Pn	08 02 28.2	+0.1
CMRD	Camardi-Nigde	1.79	336	Pn	Pn	08 02 28.3	+0.1
CMRD				AML	AML		
TISA	Tisan-Mersin	1.81	275	Pn	Pn	08 02 28.6	+0.2
IKL	Isikli	1.81	277	Pn	Pn	08 02 28.6	+0.2
IKL				AML	AML		
KEBE	Keben-Mersin	1.82	284	Pn	Pn	08 02 28.7	+0.1
KEBE				AML	AML		
YESI	Yesilovacik-Me	1.84	276	Pn	Pn	08 02 28.6	-0.2
BECE	Buyukeceli-Mer	1.90	274	Pn	Pn	08 02 29.9	+0.2
BECE				AML	AML		
TEVE	Tevekalti-Mers	2.03	282	Pn	Pn	08 02 31.4	-0.1
TEVE				AML	AML		
BHL	Bhannes	2.13	186	eP	Pn	08 02 33.6	+0.6
DQRL	Deir Qamar	2.34	187	eP	Pn	08 02 37.0	+1.3
SARI	SarD1z-Kayseri	2.41	10	Pn	Pn	08 02 37.4	+0.5
SARI				AML	AML		
QRWL	Qaraoun	2.48	184	eP	Pn	08 02 38.7	+0.9
RCY	Rachaya	2.53	181	eP	Pn	08 02 38.8	+0.3
RCY				eS	Sn	08 03 09.1	-0.3
SHBL	Chebaa	2.68	183	eP	Pn	08 02 41.0	+0.4

CATAC ***24*** *08:06:58.3±0.7, 14°N±5°×9°1W±°, h18^{km}±4^{km}, M2.7/12, MLv2.7/12, Error ellipse: s-maj=10.4km s-min=3.4km az=15.9, confirmed*

SNET ***24*** *08:06:59.2±1.4, 13°.58N×90°.76W, h24^{km}, ML2.7, Presumed earthquake*

GCG ***24*** *08:06:59.7±2.0, 13°.66N×90°.77W, h38^{km}±118^{km}, MD3.7, Presumed earthquake*

ISC 24 08:06:57.8±1.9**, 13°.44N**±0°.10×**90°.79W**±0°.05**, h26**^{km}±14^{km}**, n29, σ0^s.96**/45**, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
FG8	Yepocapa, Chim	0.84	15	i P	Pn	08 07 14.7	+0.7
FAME	Alcaldia de Sa	0.85	62	P	Pb	08 07 14.0	+0.1
FAME				S	Sb	08 07 24.7	-0.2
PCG5	San Vicente Pa	0.86	27	i P	Pn	08 07 14.7	+0.2
FG16	Alotenango, Sa	0.87	18	i P	Pn	08 07 14.8	+0.3
NUBE	Las Nubes	1.08	65	i P	Pb	08 07 17.4	-0.4
NUBE				i S	Sb	08 07 30.4	-1.2
NUBE	Las Nubes	1.08	65	P	Pb	08 07 17.4	-0.4
NUBE				S	Sb	08 07 31.4	-0.2
LOAL	Lomas de Alarc	1.12	60	P	Pb	08 07 18.5	0.0
LOAL				S	Sn	08 07 33.1	+0.6
SLOZ	Alcaldia de Sa	1.13	59	P	Pn	08 07 18.4	+0.4
STG8	El Palmar, Qui	1.14	331	i P	Pb	08 07 22.1	+3.1
CEVE	Cerro Verde	1.19	71	eP	Pn	08 07 19.3	+0.3
CEVE				eS	Sn	08 07 35.9	+1.4
CEVE	Cerro Verde	1.19	71	P	Pn	08 07 19.4	+0.3
CEVE				S	Sb	08 07 34.8	-0.2
UNIC	Universidad Ca	1.31	66	P	Pn	08 07 21.2	+0.6
UNIC				S	Sn	08 07 37.7	+0.4
JAYA	Jayaque - finc	1.32	81	i P	Pn	08 07 21.2	+0.5
JAYA				i S	Sn	08 07 35.2	-2.3
JAYA	Jayaque - finc	1.32	81	P	Pn	08 07 21.3	+0.7
JAYA				S	Sn	08 07 38.0	+0.5
JUAM	Asuncion Mita	1.37	50	i P	Pn	08 07 20.9	-0.4
JUAM				i S	Sn	08 07 38.6	-0.1
RTAL	Retalhuleu	1.39	321	P	Pn	08 07 20.3	-1.3
RTAL				S	Sn	08 07 36.3	-2.8
PMON	Piamonte	1.45	79	S	Sb	08 07 42.2	-0.2
UEES	Universidad Ev	1.53	80	P	Pn	08 07 24.7	+1.2
UEES				S	Sn	08 07 43.8	+1.2
SEMO	Seminario San	1.54	80	S	Sb	08 07 44.5	-0.3
UTEC	Universidad Te	1.56	80	S	Sb	08 07 45.5	+0.1
APG	El Apazote	1.58	11	i P	Pn	08 07 23.8	-0.6
LOMA	Loma Larga	1.58	83	S	Sb	08 07 45.9	-0.2
MTO3	Montecristo	1.68	55	i P	Pn	08 07 25.5	-0.2
MTO3	Montecristo	1.68	55	P	Pn	08 07 25.6	-0.1
MTO3				S	Sn	08 07 46.5	0.0
ESQI	Esquipulas	1.79	51	P	Pn	08 07 27.1	+0.1
COEG	Centro de Oper	1.86	84	eP	Pn	08 07 29.3	+1.3
COEG				eS	Sb	08 07 53.8	-0.2
COEG	Centro de Oper	1.86	84	P	Pb	08 07 30.2	-0.9
COEG				S	Sb	08 07 53.6	-0.4
SARH	Santa Rosa de	2.37	56	i P	Pn	08 07 35.3	+0.3
SARH	Santa Rosa de	2.37	56	P	Pn	08 07 35.4	+0.3
SARH				S	Sn	08 08 03.9	+0.6

AEIC ***24*** *08:11:55.2±1.7, 47°.6N±0°.1×169°.83W±0°.03, h22^{km}±7^{km}, Error ellipse: s-maj=17.9km s-min=2.2km az=175.0*

NEIC 24 08:11:53.4±1.0**, 47°.4N**±0°.1×**169°.9W**±0°.1**, h10**^{km}±2^{km}**, mb4.0**/19**, ML3.9**(AEIC)**, Error ellipse: s-maj=18.6km s-min=15.2km az=174.0, South of Aleutian Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
CLCO	Concord Point,	5.43	1		Pn	08 13 14.1	-0.3
CLCO					Sn	08 14 14.8	-2.1
CLES	Cleveland East	5.47	360	Pn	Pn	08 13 15.0	+0.1
ATKA	Atka Island	5.60	332	Pn	Pn	08 13 16.2	-0.5
ATKA					Sn	08 14 20.7	-0.4
KOFP	Korovin Flat P	5.63	332		Pn	08 13 17.1	-0.1
KOFP					Sn	08 14 20.8	-1.1
KOSE	Korovin Southe	5.68	333		Pn	08 13 18.7	+0.9
KOKL	Mount Kliuchef	5.71	332		Pn	08 13 18.2	0.0
KOKL					Sn	08 14 23.3	-0.4
KOWE	Korovin West	5.76	332		Pn	08 13 19.5	+0.6

OKSP	**Okmok Steeple**	**5.98**	**9**		Pn	08 13 21.8	-0.2
GSIG	**Igitkin Island**	**6.08**	**322**		Pn	08 13 23.3	+0.1
GSIG					Sn	08 14 31.6	-1.2
OKTU	**Okmok Mt. Tuli**	**6.14**	**10**		Pn	08 13 24.1	0.0
GSMY	**Great Sitkin M**	**6.18**	**322**		Pn	08 13 24.6	+0.1
GSMY					Sn	08 14 33.8	-1.4
ETKA	**Kagalaska Isla**	**6.20**	**319**		Pn	08 13 25.0	+0.1
ETKA					Sn	08 14 34.9	-0.8
GSCK	**Great Sitkin C**	**6.20**	**321**		Pn	08 13 25.4	+0.5
OKWE	**Okmok W'ng Wal**	**6.21**	**9**		Pn	08 13 24.9	-0.1
GSTR	**Great Sitkin T**	**6.21**	**322**	Pn	Pn	08 13 25.3	+0.2
GSTD	**Great Sitkin T**	**6.22**	**321**		Pn	08 13 25.9	+0.6
GSSP	**Great Sitkin S**	**6.26**	**321**		Pn	08 13 26.6	+0.9
ADK	**Adak**	**6.34**	**318**		Pn	08 13 27.4	+0.7
ADK					Sn	08 14 38.1	-1.1
ADAG	**Mount Adagdak**	**6.37**	**319**		Pn	08 13 27.9	+0.7
KIMD	**Kanaga Island**	**6.51**	**315**		Pn	08 13 30.0	+0.8
KIMD					Sn	08 14 41.7	-1.8
KIWB	**Kanaga Island**	**6.53**	**316**		Pn	08 13 30.6	+1.2
KIRH	**Kanaga Island**	**6.54**	**317**		Pn	08 13 30.9	+1.4
KIKV	**Kanaga Island**	**6.56**	**316**		Pn	08 13 31.0	+1.1
KIKV					Sn	08 14 43.8	-0.8
KINC	**Kanaga Island**	**6.57**	**317**		Pn	08 13 31.2	+1.2
KICM	**Kanaga Island**	**6.60**	**316**		Pn	08 13 31.7	+1.4
MREP	**Makushin Rep't**	**6.75**	**16**		Pn	08 13 32.6	+0.1
UNV	**Unalaska Valle**	**6.83**	**17**		Pn	08 13 33.7	+0.1
TAFL	**Tanaga Flats**	**6.83**	**313**		Pn	08 13 34.6	+1.1
MNAT	**Makushin Natee**	**6.84**	**16**		Pn	08 13 34.0	+0.4
MSW	**Makushin Switc**	**6.85**	**15**		Pn	08 13 33.6	-0.2
TASE	**Tanaga Southea**	**6.95**	**313**		Pn	08 13 36.7	+1.5
TASE					Sn	08 14 55.1	+0.8
TAFP	**Tanaga Falls P**	**6.96**	**314**		Pn	08 13 36.3	+0.9
TACS	**Tanaga Cape Sa**	**7.02**	**313**		Pn	08 13 37.4	+1.2
AKMO	**Akutan Morgan**	**7.17**	**18**		Pn	08 13 38.2	+0.1
GAKI	**Gareloi-Kavalg**	**7.19**	**309**		Pn	08 13 38.6	+0.1
GAKI					Sn	08 14 57.4	-2.7
AKRB	**Akutan Reef Bi**	**7.19**	**18**		Pn	08 13 39.0	+0.5
LVA	**Lava Point**	**7.23**	**18**	Pn	Pn	08 13 38.7	-0.3
AKUT	**Akutan**	**7.26**	**19**	Pn	Pn	08 13 39.5	+0.1
AMKA	**Amchitka**	**8.14**	**304**		Pn	08 13 50.5	-0.9
DT1	**Dutton Round H**	**9.09**	**29**		Pn	08 14 04.6	+0.1
DTNA	**Dutton South F**	**9.13**	**29**		Pn	08 14 05.2	0.0
DOL	**Dolgoi Island**	**9.26**	**30**		Pn	08 14 07.1	+0.2
S12K	**Black Hills**	**9.66**	**27**	Pn	Pn	08 14 12.1	-0.2
SDPT	**Sand Point**	**9.91**	**33**	Pn	Pn	08 14 15.3	-0.4
VNFG	**Fog Glacier, M**	**10.96**	**32**	Pn	Pn	08 14 30.5	+0.3
CHGN	**Chignik**	**11.40**	**34**	Pn	Pn	08 14 36.0	0.0
SII	**Sitkinak Islan**	**13.32**	**40**	Pn	Pn	08 15 01.6	-0.7
OHAK	**Old Harbor**	**14.11**	**40**	Pn	Pn	08 15 12.7	-0.4
KDAK	**Kodiak Island**	**14.76**	**39**	Pn	Pn	08 15 21.1	-0.8
O18K	**Koktuh Hills**	**15.19**	**29**	Pn	Pn	08 15 27.2	-0.6
M17K	**Holitna River**	**15.77**	**22**	Pn	Pn	08 15 34.7	-0.7
HOM	**Homer**	**16.33**	**34**	Pn	Pn	08 15 41.6	-0.9
BRLK	**Bradley Lake**	**16.69**	**35**	Pn	Pn	08 15 47.2	+0.1
BRLK				IAmb	IAmb	08 16 17.3	
	comp=Z,33nm,1.4s						
J16K	**Anvik River**	**16.77**	**15**	Pn	Pn	08 15 47.2	-0.9
J16K				IAmb	IAmb	08 16 15.8	
	comp=Z,20nm,1.2s						
M19K	**Big River Lodg**	**17.03**	**26**	Pn	Pn	08 15 50.9	-0.4
M19K				IAmb	IAmb	08 16 03.8	
	comp=Z,14nm,1.4s						
J17K	**VABM Dome**	**17.16**	**17**	Pn	Pn	08 15 52.6	-0.4
J17K				IAmb	IAmb	08 15 59.4	
	comp=Z,21nm,1.5s						
M20K	**Styx River**	**17.39**	**27**	Pn	Pn	08 15 55.8	-0.2
SLKM	**Skilak Lake**	**17.42**	**34**	Pn	Pn	08 15 55.8	-0.6
SLKM				IAmb	IAmb	08 15 57.0	
	comp=Z,23nm,1.5s						
K20K	**Telida**	**18.28**	**23**		P	08 16 07.0	0.0
PPLA	**Purkeypile**	**18.45**	**26**	P	Pn	08 16 09.3	+0.3
PPLA				IAmb	IAmb	08 16 27.4	
	comp=Z,21nm,1.4s						
BPAW	**Bear Paw Mtn.**	**19.72**	**25**	P	P	08 16 23.0	+0.2
DHY	**Denali Highway**	**20.13**	**30**	P	P	08 16 27.5	+0.1
DHY				IAmb	IAmb	08 17 02.0	
	comp=Z,6.7nm,1.3s						
MLY	**Manley**	**20.50**	**23**	P	P	08 16 31.4	+0.1
RIDG	**Independent Ri**	**21.43**	**31**	P	P	08 16 41.0	-0.4
RIDG				IAmb	IAmb	08 17 15.2	
	comp=Z,6.7nm,1.2s						
PCA	**Pinnacle**	**21.43**	**43**	P	P	08 16 40.7	-0.7
BCAR	**Beaver Creek A**	**22.17**	**35**	P	P	08 16 48.9	-0.4
I26K	**Coal Creek Min**	**22.98**	**29**	P	P	08 16 57.4	-0.4
I26K				IAmb	IAmb	08 17 27.8	
	comp=Z,7.8nm,1.4s						
PDAR	**Pinedale Array**	**41.91**	**73**	P	P	08 19 43.6	-0.5
TX31	**Lajitas Ar. Si**	**53.34**	**85**	P	P	08 21 12.0	-0.9
TX31				IAmb	IAmb	08 21 23.7	
	comp=Z,2.2nm,1.4s						
TXAR	**Lajitas Array**	**53.34**	**85**	P	P	08 21 12.2	-0.7
AB31	**Akbulak array**	**74.54**	**329**	P	P	08 23 31.9	-0.1
AB31				IAmb	IAmb	08 23 55.1	
	comp=Z,1.8nm,1.3s						
ABKAR	**Akbulak array**	**74.54**	**329**	P	P	08 23 31.5	-0.5

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*IDC **24** 08:25:53.7±2.1, 21°.37S×119°.10E, h0^{km}, mb3.7/2, mbtmp4.1/6, ML4.1/3, MS3.3/4, Error ellipse: s-maj=31.7km s-min=14.4km az=142.0*

*AUST **24** 08:25:53.4±0.4, 21°S±4°×11°9E±°, h10^{km}, ML3.8/13, Error ellipse: s-maj=11.3km s-min=4.3km az=136.1, confirmed*

ISC 24 08:25:53.3±0.7**, 21°.47S**±0°.07×**119°.21E**±0°.06**, h10^{km}, n64,** σ**1^{s}73**/67**, Western Australia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MBWA	**Marble Bar**	**0.58**	**58**	P	**Pb**	**08 26 06.8**	**+1.2**
MBWA				S	**Sg**	**08 26 14.2**	**+2.1**
MBWA				AML	AML		
MBWA	**Marble Bar**	**0.58**	**58**	P	**Pb**	**08 26 06.7**	**+1.2**
MBWA				S	**Sb**	**08 26 16.0**	**+2.2**
MBWA				AML	AML		
CAAN	**Eighty Mile Be**	**3.08**	**45**	P	**Pn**	**08 26 42.5**	**+0.5**
CAAN				S	**Sn**	**08 27 20.4**	**+1.5**
CAAN				AML	AML		
AUBRM	**Broome Senior**	**4.51**	**40**	P	**Pn**	**08 27 01.6**	**-0.1**
AUBRM				AML	AML		
GIRL	**Giralia**	**4.76**	**255**	P	**Pn**	**08 27 05.5**	**+0.4**
GIRL				AML	AML		
GIRL	**Giralia**	**4.76**	**255**	P	**Pn**	**08 27 04.9**	**-0.3**
GIRL				S	**Sn**	**08 27 58.0**	**-2.3**
GIRL				AML	AML		
MEEK	**Meekatharra**	**5.18**	**186**	P	**Pn**	**08 27 13.5**	**+2.6**
	comp=Z,99nm,0.7s,comp=Z,0.6nm						
MEEK				AML	AML		
FITZ	**Fitzroy Crossi**	**6.92**	**62**	P	**Pn**	**08 27 34.9**	**0.0**
FITZ	**Fitzroy Crossi**	**6.92**	**62**	Pn	**Pn**	**08 27 35.2**	**+0.3**
	comp=Z,1.2nm,0.3s,baz=241,slow=8.6,SNR=21						
FITZ				Sn	**Sn**	**08 28 46.7**	**-7.1**
	comp=Z,3.4nm,0.3s,baz=244,slow=9.3,SNR=5.4						
FITZ				Lg	Lg	08 29 27.4	
	comp=Z,5.3nm,0.3s,baz=320,slow=17,SNR=4.0						
	comp=Z,3.7nm,0.3s						
FITZ				AML	AML		
MORW	**Morawa**	**8.09**	**200**	P	**Pn**	**08 27 50.5**	**-0.5**
	comp=Z,17nm,0.8s,comp=Z,0.2nm						
MORW				AML	AML		
MORW	**Morawa**	**8.09**	**200**	P	**Pn**	**08 27 50.6**	**-0.4**
	comp=Z,17nm,0.8s,comp=Z,0.2nm						
MORW				AML	AML		
BCON	**Beacon, Wester**	**8.93**	**188**	P	**Pn**	**08 28 03.7**	**+1.2**
	comp=Z,17nm,1.2s,comp=Z,0.2nm						
BCON				AML	AML		
BCON	**Beacon, Wester**	**8.93**	**188**	P	**Pn**	**08 28 03.5**	**+1.0**
	comp=Z,17nm,1.2s,comp=Z,0.1nm						
BCON				AML	AML		
WRKA	**Warakurna**	**9.08**	**115**	P	**Pn**	**08 28 07.5**	**+2.9**
	comp=Z,5.7nm,0.4s,comp=Z,0.0nm						
WRKA				AML	AML		
WRKA	**Warakurna**	**9.08**	**115**	P	**Pn**	**08 28 07.7**	**+3.1**
	comp=Z,5.7nm,0.4s,comp=Z,0.0nm						
WRKA				AML	AML		
WATNG	**Wattoning, WA**	**9.27**	**185**	P	**Pn**	**08 28 08.1**	**+0.9**
	comp=Z,33nm,1.9s,comp=Z,0.1nm						
WATNG				AML	AML		
WATNG	**Wattoning, WA**	**9.27**	**185**	P	**Pn**	**08 28 08.0**	**+0.9**
	comp=Z,33nm,1.9s,comp=Z,0.1nm						
WATNG				AML	AML		
KANBL	**Kanowna Belle,**	**9.34**	**167**	P	**Pn**	**08 28 09.3**	**+1.2**
	comp=Z,16nm,1.0s,comp=Z,0.1nm						
KANBL				AML	AML		
KANBL	**Kanowna Belle,**	**9.34**	**167**	P	**Pn**	**08 28 09.3**	**+1.2**
	comp=Z,16nm,1.0s,comp=Z,0.1nm						
KANBL				AML	AML		
BLDU	**Ballidu**	**9.38**	**193**	P	**Pn**	**08 28 08.8**	**+0.1**
	comp=Z,20nm,1.3s,comp=Z,0.1nm						
BLDU				AML	AML		
BLDU	**Ballidu**	**9.38**	**193**	P	**Pn**	**08 28 08.8**	**+0.1**
	comp=Z,20nm,1.3s,comp=Z,0.1nm						
BLDU				AML	AML		
KORDA	**Koorda, Wester**	**9.50**	**189**	P	**Pn**	**08 28 10.3**	**+0.1**
	comp=Z,34nm,1.8s,comp=Z,0.1nm						
KORDA				AML	AML		
KORDA	**Koorda, Wester**	**9.50**	**189**	P	**Pn**	**08 28 10.4**	**+0.2**
	comp=Z,34nm,1.8s,comp=Z,0.1nm						
KORDA				AML	AML		
KMBL	**Kambalda**	**10.15**	**167**	P	**Pn**	**08 28 19.7**	**+0.6**
	comp=Z,7.5nm,1.4s,comp=Z,0.0nm						
KMBL				AML	AML		
KLBR	**Kellerberrin**	**10.17**	**187**	P	**Pn**	**08 28 19.7**	**+0.3**
	comp=Z,22nm,0.8s,comp=Z,0.2nm						
KLBR				AML	AML		
KLBR	**Kellerberrin**	**10.17**	**187**	P	**Pn**	**08 28 19.9**	**+0.5**
	comp=Z,22nm,0.8s,comp=Z,0.2nm						
KLBR				AML	AML		
KNRA	**Kununurra**	**10.73**	**59**	P	**Pn**	**08 28 27.2**	**0.0**
	comp=Z,5.9nm,1.5s,comp=Z,0.0nm						
KNRA				AML	AML		
KNRA	**Kununurra**	**10.73**	**59**	P	**Pn**	**08 28 27.2**	**0.0**
	comp=Z,5.9nm,1.5s,comp=Z,0.0nm						
KNRA				AML	AML		
MUN	**Mundaring**	**10.81**	**194**	P	**Pn**	**08 28 27.6**	**-0.5**
	comp=Z,22nm,1.3s,comp=Z,0.1nm						
MUN				AML	AML		
MUN	**Mundaring**	**10.81**	**194**	P	**Pn**	**08 28 27.7**	**-0.5**
NWAO	**Narrogin (SRO)**	**11.55**	**188**	P	**Pn**	**08 28 37.1**	**-1.3**
	comp=Z,30nm,0.6s						
NWAO	**Narrogin (SRO)**	**11.55**	**188**	P	**Pn**	**08 28 37.1**	**-1.3**
NWAO	**Narrogin (SRO)**	**11.55**	**188**	Pn	**Pn**	**08 28 36.9**	**-1.5**
	comp=Z,6.4nm,0.3s,baz=11,slow=12,SNR=19						
NWAO				Sn	Sn	08 30 39.8	-7.6
	comp=Z,6.6nm,0.3s,baz=307,slow=19,SNR=3.7						
NWAO				Lg	Lg	08 31 49.6	
	comp=Z,7.0nm,0.3s,baz=277,slow=23,SNR=9.1						
NWAO				LR	LR	08 32 56.8	
	comp=Z,159nm,21.5s,baz=298,slow=36						
DNDOZ	**Balladonia**	**11.71**	**160**	P	**Pn**	**08 28 41.5**	**+1.0**
	comp=Z,69nm,1.4s						
FORT	**Forrest**	**12.21**	**141**	P	**Pn**	**08 28 48.8**	**+1.4**
	comp=Z,26nm,0.6s						
FORT	**Forrest**	**12.21**	**141**	P	**Pn**	**08 28 48.4**	**+1.0**
	comp=Z,26nm,0.6s						
PLAI	**Plampang**	**12.64**	**354**	P	**Pn**	**08 28 52.5**	**-0.8**
	comp=Z,11nm,0.9s						
RKGY	**Rocky Gully**	**13.24**	**188**	P	**Pn**	**08 29 01.5**	**+0.1**
	comp=Z,14nm,1.2s						
RKGY	**Rocky Gully**	**13.24**	**188**	P	**Pn**	**08 29 00.4**	**-1.0**
ASAR	**Alice Springs**	**13.76**	**102**	Pn	**Pn**	**08 29 08.3**	**-0.2**
	comp=Z,1.6nm,0.3s,baz=284,slow=12,SNR=62						
ASAR				Sn	**Sn**	**08 31 36.0**	**-5.5**
	comp=Z,1.3nm,0.3s,baz=274,slow=24,SNR=8.7						
ASAR				Lg	Lg	08 33 09.4	
	baz=279,slow=25						
	comp=Z,2.7nm,0.3s						
ASAR				AML	AML		
AS15	**Alice Springs**	**13.76**	**102**	P	**Pn**	**08 29 08.7**	**+0.1**
	comp=Z,7.3nm,0.6s						
AS15	**Alice Springs**	**13.76**	**102**	P	**Pn**	**08 29 08.5**	**-0.1**
	comp=Z,7.3nm,0.6s						
AS09	**Alice Springs**	**13.79**	**102**	P	**Pn**	**08 29 09.4**	**+0.4**
	comp=Z,13nm,0.6s						
AS09	**Alice Springs**	**13.79**	**102**	P	**Pn**	**08 29 08.9**	**-0.1**
	comp=Z,13nm,0.6s						
AS17	**Alice Springs**	**13.84**	**102**	P	**Pn**	**08 29 09.7**	**0.0**
	comp=Z,6.9nm,0.5s						
AS17	**Alice Springs**	**13.84**	**102**	P	**Pn**	**08 29 09.5**	**-0.2**
	comp=Z,6.9nm,0.5s						
WRA	**Warramunga Arr**	**14.24**	**87**	Pn	**Pn**	**08 29 13.0**	**-2.3**
	comp=Z,1.5nm,0.3s,baz=261,slow=12,SNR=41						
WRA				Sn	Sn	08 31 41.9	-12
	comp=Z,1.6nm,0.3s,baz=257,slow=24,SNR=8.2						
WRA				Lg	Lg	08 33 24.5	
	baz=262,slow=26						
	comp=Z,2.2nm,0.3s						
WRA				AML	AML		
MTN	**Manton Dam**	**14.26**	**55**	P	**Pn**	**08 29 13.6**	**-1.8**
	comp=Z,5.6nm,0.5s						
MTN	**Manton Dam**	**14.26**	**55**	P	**Pn**	**08 29 13.2**	**-2.2**
MULG	**Mulgathing**	**15.98**	**126**	P	**Pn**	**08 29 37.9**	**-0.5**
	comp=Z,9.3nm,1.3s						
MULG	**Mulgathing**	**15.98**	**126**	P	**Pn**	**08 29 37.5**	**-0.8**
MULG	**Mulgathing**	**15.98**	**126**	P	**Pn**	**08 29 37.5**	**-0.8**
KAPI	**Kappang**	**16.36**	**2**	LR	LR	08 35 15.6	
	comp=Z,29nm,19.4s,baz=308,slow=34						
BBOO	**Buckleboo**	**18.75**	**131**	P	**P**	**08 30 13.9**	**+1.4**
	comp=Z,35nm,2.8s						
BBOO	**Buckleboo**	**18.75**	**131**	P	**P**	**08 30 13.4**	**+0.9**
	comp=Z,36nm,2.8s						
QIS	**Mount Isa**	**19.07**	**91**	P	**P**	**08 30 17.1**	**+1.1**
	comp=Z,8.5nm,1.3s						
QIS	**Mount Isa**	**19.07**	**91**	P	**P**	**08 30 16.8**	**+0.7**
	comp=Z,8.5nm,1.3s						
YAPP	**Yappala Statio**	**19.94**	**125**	P	Pn	08 30 29.1	+1.9
	comp=Z,7.3nm,1.8s						
YAPP	**Yappala Statio**	**19.94**	**125**	P	**P**	**08 30 27.7**	**+2.1**
	comp=Z,7.5nm,1.8s						
STKA	**Stephens Creek**	**22.49**	**122**	P	**P**	**08 30 56.0**	**+3.0**
STKA	**Stephens Creek**	**22.49**	**122**	P	**P**	**08 30 56.0**	**+3.0**
	comp=Z,2.6nm,0.6s,baz=296,slow=10.0,SNR=7.4						
STKA				S	**S**	**08 34 59.0**	**-1.0**
	comp=Z,1.7nm,0.4s,baz=31,slow=20,SNR=3.7						
	comp=Z,2.6nm,0.6s						
DZM	**Mont Dzumac**	**43.74**	**100**	LR	LR	08 52 05.3	
	comp=Z,106nm,18.4s,baz=234,slow=36						
QSPA	**South Pole Qui**	**68.60**	**180**	P	**P**	**08 36 58.6**	**+2.3**
	comp=Z,0.5nm,0.6s,baz=326,slow=1.9,SNR=5.9						
	comp=Z,0.5nm,0.6s						
MA2	**Magadan**	**84.79**	**16**	LR	LR	09 21 10.2	
	comp=Z,15nm,18.9s,baz=181,slow=39						

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*IDC **24** 08:42:12.2±2.4, 33°.46S×178°.52W, h0^{km}, mb4.1/2, mbtmp4.2/3, ML4.2/1, MS3.6/1, Error ellipse: s-maj=65.5km s-min=42.8km az=134.0*

*WEL **24** 08:42:22.5±1.2, 34°S±9°×17°9W±1°4, h234^{km}±29^{km}, M4.2/9, mB4.5/4, ML4.2/10, MLv4.3/9, Mw(mB)3.7/4, Error ellipse: s-maj=19.7km s-min=10.0km az=70.6, confirmed*

ISC 24 08:42:15.5±1.5**, 33°.70S**±0°.09×**178°.2W**±0°.1**, h34^{km}, n26,** σ**1^{s}82**/40**, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	**Matakaoa Point**	**4.81**	**216**	P	**Pn**	**08 43 27.4**	**+1.9**
MXZ				S	**Sn**	**08 44 19.8**	**-0.3**
PKGZ	**Pakihiroa**	**5.16**	**215**	P	**Pn**	**08 43 31.9**	**+1.6**
PKGZ				S	**Sn**	**08 44 29.5**	**+0.8**
PKGZ				AML	AML		
PKGZ				AML	AML		
HAZ	**Te Kaha**	**5.22**	**218**	P	**Pn**	**08 43 33.4**	**+2.3**
HAZ				S	**Sn**	**08 44 32.4**	**+2.2**
HAZ				AML	AML		
PUZ	**Puketiti**	**5.25**	**213**	P	**Pn**	**08 43 31.2**	**-0.3**
PUZ				S	**Sn**	**08 44 32.1**	**+1.3**
RUGZ	**Raukumara Rang**	**5.44**	**217**	P	**Pn**	**08 43 36.6**	**+2.4**
RUGZ				AML	AML		
RUGZ				AML	AML		
TWGZ	**Tauwhareparae**	**5.46**	**214**	P	**Pn**	**08 43 36.6**	**+2.2**
TWGZ				S	**Sn**	**08 44 37.3**	**+1.3**
TWGZ				AML	AML		
TWGZ				AML	AML		
CNGZ	**Carnagh Statio**	**5.61**	**211**	P	**Pn**	**08 43 39.2**	**+2.7**
CNGZ				AML	AML		
CNGZ				AML	AML		
TKGZ	**Te Karaka**	**5.73**	**213**	P	**Pn**	**08 43 40.0**	**+1.9**
TKGZ				S	**Sn**	**08 44 41.8**	**-0.8**
TKGZ				AML	AML		
TKGZ				AML	AML		
MWZ	**Matawai**	**5.80**	**216**	P	**Pn**	**08 43 40.5**	**+1.4**
MWZ				S	**Sn**	**08 44 44.7**	**+0.3**
MWZ				AML	AML		
URZ	**Urewera**	**5.95**	**219**	Pn	**Pn**	**08 43 41.8**	**+0.7**
	6.4nm,0.3s,baz=47,slow=6.2,SNR=42						
URZ				Sn	**Sn**	**08 44 47.4**	**-0.7**
	7.4nm,0.3s,baz=265,slow=23,SNR=8.0						
	18nm,0.3s						
URZ				AML	AML		
URZ	**Urewera**	**5.95**	**219**	P	**Pn**	**08 43 41.9**	**+0.7**
URZ				S	**Sn**	**08 44 47.2**	**-0.9**
URZ				AML	AML		
URZ				AML	AML		
RIGZ	**Rimuhau**	**5.99**	**212**	P	**Pn**	**08 43 43.0**	**+1.3**
RIGZ				S	**Sn**	**08 44 48.6**	**-0.5**
RIGZ				AML	AML		
RIGZ				AML	AML		
TGRZ	**Tauranga**	**6.07**	**227**	P	**Pn**	**08 43 44.1**	**+1.4**
TGRZ				AML	AML		
PRGZ	**Paritu Road**	**6.12**	**210**	P	**Pn**	**08 43 44.8**	**+1.3**
PRGZ				S	**Sn**	**08 44 51.9**	**-0.3**
PRGZ				AML	AML		
PRGZ				AML	AML		
KNZ	**Kokohu**	**6.29**	**211**	P	**Pn**	**08 43 46.5**	**+0.8**
KNZ				S	**Sn**	**08 44 53.4**	**-2.9**
KNZ				AML	AML		
MUGZ	**Murupara**	**6.29**	**219**	P	**Pn**	**08 43 46.7**	**+0.9**
MUGZ				S	**Sn**	**08 44 55.0**	**-1.6**
MUGZ				AML	AML		
MUGZ				AML	AML		
TOZ	**Tahuroa Road**	**6.54**	**230**	P	**Pn**	**08 43 51.6**	**+2.3**
WCZ	**Waipu Caves**	**6.56**	**248**	P	**Pn**	**08 43 50.0**	**+0.5**
WCZ				AML	AML		
BKZ	**Black Stump Fm**	**6.95**	**217**	P	**Pn**	**08 43 54.7**	**-0.3**
PXZ	**Pawanui**	**7.47**	**211**	P	**Pn**	**08 44 01.6**	**-0.5**
PXZ				S	**Sn**	**08 45 20.4**	**-5.1**
CTZ	**Chatham Island**	**10.09**	**174**	P	**Pn**	**08 44 42.1**	**+4.2**
CTZ				S	**Sn**	**08 46 27.3**	**-2.5**
STKA	**Stephens Creek**	**33.74**	**262**	LR	LR	09 01 49.8	
	comp=Z,85nm,18.1s,baz=29,slow=35						
ASAR	**Alice Springs**	**42.91**	**271**	P	**P**	**08 50 10.3**	**-0.7**
	1.6nm,0.7s,baz=110,slow=7.5,SNR=20						
	1.6nm,0.7s						
WRA	**Warramunga Arr**	**44.19**	**276**	P	**P**	**08 50 20.3**	**-1.1**
	1.5nm,0.4s,baz=117,slow=7.9,SNR=32						
	1.5nm,0.4s						
FINES	**FINESS Array B**	**148.17**	**338**	PKPbc	**PKiKP**	**09 01 58.6**	**0.0**
	1.1nm,0.5s,baz=51,slow=4.4,SNR=5.4						
BRTR	**Keskin Array B**	**153.90**	**293**	PKPbc	**PKPbc**	**09 02 11.3**	**0.0**
	0.7nm,0.7s,baz=174,slow=3.6,SNR=4.0						

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*NEIC **24** 08:46:50.9±1.5, 15°.53N±0°.05×95°.82W±0°.04, h10^{km}±1^{km}, mb4.2/27, Md4.4/86(MEX), Error ellipse: s-maj=9.2km s-min=4.4km az=210.0*

*MEX **24** 08:46:51.4±0.9, 15°.48N×95°.83W, h8^{km}±8^{km}, MD4.4, Presumed earthquake*

ISC 24 08:46:49.0±1.3**, 15°.53N**±0°.04×**95°.87W**±0°.03**, h6^{km}**±8^{km}**, n117,** σ**2^{s}67**/176**, mb4.3**/6**, Near coast of Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HUIG	**Huatulco**	**0.34**	**316**	*i* P	**Pn**	**08 46 59.8**	**-0.7**
HUIG				*e*S	**Sb**	**08 47 03.9**	**+0.9**
HUIG	**Huatulco**	**0.34**	**316**		**Pn**	**08 46 59.8**	**-0.7**
HUIG					**Sb**	**08 47 03.9**	**+0.9**
PEIG	**Puerto Escondi**	**1.32**	**291**	*e*P	**Pg**	**08 47 15.2**	**+0.8**
PEIG				*e*S	**Sg**	**08 47 31.6**	**0.0**
PEIG	**Puerto Escondi**	**1.32**	**291**		**Pg**	**08 47 15.2**	**+0.8**
PEIG					**Sg**	**08 47 31.6**	**0.0**
OXLC	**Oaxaca**	**1.73**	**332**	*e*P	**Pn**	**08 47 20.2**	**+0.4**
OXLC				*e*S	**Sb**	**08 47 43.1**	**-0.3**
OXLC	**Oaxaca**	**1.73**	**332**		**Pn**	**08 47 20.2**	**+0.4**
OXLC					**Sb**	**08 47 43.1**	**-0.3**
OXBJ	**Oaxaca**	**1.74**	**332**	*e*P	**Pg**	**08 47 22.9**	**+0.5**
OXBJ				*e*S	**Sg**	**08 47 45.4**	**+0.4**
OXBJ	**Oaxaca**	**1.74**	**332**		**Pg**	**08 47 22.9**	**+0.5**
OXBJ					**Sg**	**08 47 45.4**	**+0.4**
OXIG	**Oaxaca**	**1.75**	**332**		**Pb**	**08 47 22.3**	**+0.7**
OXIG					**Sb**	**08 47 44.2**	**+0.3**
VHO	**Vista Hermosa**	**1.75**	**332**	*e*P	**Pb**	**08 47 22.3**	**+0.7**
VHO				*e*S	**Sb**	**08 47 44.2**	**+0.3**
YOIG	**Yosondua**	**2.09**	**310**	*e*P	**Pb**	**08 47 28.2**	**+0.7**
YOIG				*e*S	**Sn**	**08 47 52.4**	**+1.2**
YOIG	**Yosondua**	**2.09**	**310**		**Pb**	**08 47 28.2**	**+0.7**
YOIG					**Sn**	**08 47 52.4**	**+1.2**
NEUV	**Arroyo Zacate**	**2.18**	**2**	*e*P	**Pn**	**08 47 27.1**	**+1.4**
NEUV				*e*S	**Sb**	**08 47 56.2**	**+0.2**
NEUV	**Arroyo Zacate**	**2.18**	**2**		**Pn**	**08 47 27.1**	**+1.4**
NEUV					**Sb**	**08 47 56.2**	**+0.2**
UXUV	**UXUV**	**2.43**	**43**	*e*P	**Pn**	**08 47 30.1**	**+0.9**
UXUV				*e*S	**Sn**	**08 48 00.1**	**+0.8**
UXUV	**UXUV**	**2.43**	**43**		**Pn**	**08 47 30.1**	**+0.9**
UXUV					**Sn**	**08 48 00.1**	**+0.8**
TXIG	**Tlaxiaco**	**2.51**	**314**	*e*P	**Pb**	**08 47 33.6**	**-1.0**
TXIG				*e*S	**Sb**	**08 48 04.5**	**-1.3**
TXIG	**Tlaxiaco**	**2.51**	**314**		**Pb**	**08 47 33.6**	**-1.0**
TXIG					**Sb**	**08 48 04.5**	**-1.3**
TOIG	**Toxpalan**	**2.80**	**336**	*e*P	**Pb**	**08 47 38.1**	**-1.4**
TOIG				*e*S	**Sn**	**08 48 11.5**	**+2.8**
TOIG	**Toxpalan**	**2.80**	**336**		**Pb**	**08 47 38.1**	**-1.4**
TOIG					**Sn**	**08 48 11.5**	**+2.8**
TGIG		**2.92**	**64**	*e*P	**Pn**	**08 47 38.1**	**+2.1**
TGIG				*e*S	**Sn**	**08 48 12.5**	**+1.2**
TGIG		**2.92**	**64**		**Pn**	**08 47 38.1**	**+2.1**
TGIG					**Sn**	**08 48 12.5**	**+1.2**
HLIG	**Huajuapan de L**	**2.95**	**321**	*e*P	**Pb**	**08 47 40.9**	**-1.2**
HLIG				*e*S	**Sn**	**08 48 13.8**	**+1.3**
HLIG	**Huajuapan de L**	**2.95**	**321**		**Pb**	**08 47 40.9**	**-1.2**
HLIG					**Sn**	**08 48 13.8**	**+1.3**
PMUV	**Sontecomapan**	**3.09**	**13**	*e*P	**Pn**	**08 47 35.8**	**-2.6**
PMUV	**Sontecomapan**	**3.09**	**13**		**Pn**	**08 47 35.8**	**-2.6**
MGIG	**Malinaltepec**	**3.15**	**303**	*e*P	**Pb**	**08 47 43.0**	**-2.6**
MGIG				*e*S	**Sn**	**08 48 18.6**	**+1.2**
MGIG	**Malinaltepec**	**3.15**	**303**		**Pb**	**08 47 43.0**	**-2.6**
MGIG					**Sn**	**08 48 18.6**	**+1.2**
FTIG	**Fresnillo de T**	**3.21**	**318**	*e*P	**Pn**	**08 47 43.7**	**+3.6**
FTIG				*e*S	**Sn**	**08 48 19.4**	**+0.6**
FTIG	**Fresnillo de T**	**3.21**	**318**		**Pn**	**08 47 43.7**	**+3.6**
FTIG					**Sn**	**08 48 19.4**	**+0.6**
TPIG	**Tehuac#an**	**3.21**	**334**	*e*P	**Pb**	**08 47 44.4**	**-2.2**
TPIG				*e*S	**Sb**	**08 48 24.1**	**-2.0**
TPIG	**Tehuac#an**	**3.21**	**334**		**Pb**	**08 47 44.4**	**-2.2**
TPIG					**Sb**	**08 48 24.1**	**-2.0**
TLIG	**Tlapa**	**3.29**	**308**	*e*P	**Pb**	**08 47 45.2**	**-2.7**
TLIG				*e*S	**Sn**	**08 48 23.6**	**+2.9**
TLIG	**Tlapa**	**3.29**	**308**		**Pn**	**08 47 42.4**	**+1.2**
TLIG				Sn	**Sn**	**08 48 20.6**	**-0.1**
CRIG	**Cruz Grande**	**3.36**	**291**	*e*P	**Pn**	**08 47 44.1**	**+2.1**
CRIG				*e*S	**Sn**	**08 48 19.4**	**-2.9**
CRIG	**Cruz Grande**	**3.36**	**291**		**Pn**	**08 47 44.1**	**+2.1**
CRIG					**Sn**	**08 48 19.4**	**-2.9**
PATR	**El Naranjo**	**3.53**	**96**	*e*P	**Pn**	**08 47 45.2**	**+0.7**
PATR				*e*S	**Sn**	**08 48 24.1**	**-2.6**
PATR	**El Naranjo**	**3.53**	**96**		**Pn**	**08 47 45.2**	**+0.7**
PATR					**Sn**	**08 48 24.1**	**-2.6**
PAVE	**Pavencul**	**3.57**	**95**	*e*P	**Pn**	**08 47 46.4**	**+1.2**
PAVE				*e*S	**Sn**	**08 48 26.7**	**-1.1**
PAVE	**Pavencul**	**3.57**	**95**		**Pn**	**08 47 46.4**	**+1.2**
PAVE					**Sn**	**08 48 26.7**	**-1.1**
CHUJ	**Union Juarez**	**3.65**	**96**	*e*P	**Pn**	**08 47 47.8**	**+1.5**
CHUJ				*e*S	**Sn**	**08 48 29.1**	**-0.7**
JAUV	**Jalcomulco**	**3.92**	**347**	*e*P	**Pn**	**08 47 53.3**	**+3.4**
JAUV				*e*S	**Sb**	**08 48 42.0**	**-4.5**
JAUV	**Jalcomulco**	**3.92**	**347**		**Pn**	**08 47 53.3**	**+3.4**
JAUV					**Sb**	**08 48 42.0**	**-4.5**
DAIG	**Los Arroyos**	**3.93**	**293**	*e*P	**Pn**	**08 47 54.2**	**+4.4**
DAIG				*e*S	**Sn**	**08 48 34.9**	**-1.4**
DAIG	**Los Arroyos**	**3.93**	**293**		**Pn**	**08 47 54.2**	**+4.4**
DAIG					**Sn**	**08 48 34.9**	**-1.4**
RTAL	**Retalhuleu**	**4.15**	**103**	Pn	**Pn**	**08 47 54.3**	**+1.4**
PPAX	**Atlixo**	**4.17**	**325**	*e*P	**Pb**	**08 47 59.6**	**-3.3**
PPAX				*e*S	**Sn**	**08 48 44.2**	**+1.7**
PPAX	**Atlixo**	**4.17**	**325**		**Pb**	**08 47 59.6**	**-3.3**
PPAX					**Sn**	**08 48 44.2**	**+1.7**
PPCL	**Tochimilco**	**4.27**	**322**	*e*P	**Pn**	**08 47 55.2**	**+0.4**
PPCL				*e*S	**Sn**	**08 48 47.8**	**+2.6**
PPCL	**Tochimilco**	**4.27**	**322**		**Pn**	**08 47 55.2**	**+0.4**
PPCL					**Sn**	**08 48 47.8**	**+2.6**
PBCV	**Popocatepetl**	**4.30**	**324**	*e*P	**Pb**	**08 48 02.1**	**-3.1**
PBCV				*e*S	**Sn**	**08 48 49.7**	**+3.9**
MEIG	**Mezcala**	**4.32**	**304**	*e*P	Pn	08 48 00.2	+4.9
MEIG				*e*S	**Sn**	**08 48 46.3**	**+0.3**
MEIG	**Mezcala**	**4.32**	**304**		Pn	08 48 00.2	+4.9
MEIG					**Sn**	**08 48 46.3**	**+0.3**
PPPT	**Popocatepetl**	**4.33**	**323**	*e*P	**Pn**	**08 47 60.0**	**+4.2**
PPPT				*e*S	**Sb**	**08 48 53.8**	**-4.6**
PPPT	**Popocatepetl**	**4.33**	**323**		**Pn**	**08 47 60.0**	**+4.2**
PPPT					**Sb**	**08 48 53.8**	**-4.6**

PPCU	Popocatapetl	4.35	323	eS	Sn	08 48 43.0	-4.3
PPCU	Popocatapetl	4.35	323		Sn	08 48 43.0	-4.3
PPM	Popocatepetl	4.40	324	eP	Pb	08 48 02.4	-4.6
PPM				eS	Sb	08 48 57.7	-2.9
PPIG	Popocatepetl	4.40	324		Pb	08 48 02.4	-4.6
PPIG					Sb	08 48 57.7	-2.9
CAIG	El Cayaco	4.49	290	eP	Pn	08 47 59.9	+2.3
CAIG				eS	Sn	08 48 47.4	-2.7
CAIG	El Cayaco	4.49	290		Pn	08 47 59.9	+2.3
CAIG					Sn	08 48 47.4	-2.7
PLIG	Platanillo	4.50	310	eP	Pb	08 48 04.4	-4.1
PLIG				eS	Sn	08 48 51.9	+1.4
PLIG	Platanillo	4.50	310		Pb	08 48 04.4	-4.1
PLIG					Sn	08 48 51.9	+1.4
YAIG	Yautepec	4.51	318	eP	Pn	08 47 59.1	+1.1
YAIG				eS	Sn	08 48 50.7	-0.3
YAIG	Yautepec	4.51	318		Pn	08 47 59.1	+1.1
YAIG					Sn	08 48 50.7	-0.3
MPVM	San Francisco	4.73	321	eS	Sn	08 49 00.7	+4.3
MPVM	San Francisco	4.73	321		Sn	08 49 00.7	+4.3
THVM	De Xico	4.79	322	eS	Sn	08 49 02.7	+4.7
THVM	De Xico	4.79	322		Sn	08 49 02.7	+4.7
TLVM	San Miguel Top	4.83	320	eS	Sn	08 48 58.7	-0.2
TLVM	San Miguel Top	4.83	320		Sn	08 48 58.7	-0.2
XCVM	Xochimilco	4.83	321	eS	Sn	08 48 54.1	-5.0
XCVM	Xochimilco	4.83	321		Sn	08 48 54.1	-5.0
CXUV	Coxquihui	4.91	341	eP	Pn	08 48 05.0	+1.6
CXUV				eS	Sn	08 49 04.0	+3.5
CXUV	Coxquihui	4.91	341		Pn	08 48 05.0	+1.6
CXUV					Sn	08 49 04.0	+3.5
UNM	Universidad Na	4.93	321	Pn	Pn	08 48 05.5	+1.6
PBVM	Pinon	4.96	322	eS	Sn	08 48 56.1	-5.6
PBVM	Pinon	4.96	322		Sn	08 48 56.1	-5.6
INVM	La Marquesa	5.03	319	eS	Sn	08 48 55.4	-8.6
VTVM	Tizayuca	5.05	327	eP	Pb	08 48 15.6	-2.5
VTVM				eS	Sb	08 49 12.7	-6.4
VTVM	Tizayuca	5.05	327		Pb	08 48 15.6	-2.5
VTVM					Sb	08 49 12.7	-6.4
PTVM	Pico Tres Padr	5.10	323	eP	Pn	08 48 11.6	+5.4
PTVM				eS	Sn	08 48 59.4	-6.1
PTVM	Pico Tres Padr	5.10	323		Pn	08 48 11.6	+5.4
PTVM					Sn	08 48 59.4	-6.1
TOVM	TOLUCA	5.22	316	eP	Pn	08 48 09.6	+1.7
TOVM				eS	Sn	08 49 11.4	+2.8
TOVM	TOLUCA	5.22	316		Pn	08 48 09.6	+1.7
TOVM					Sn	08 49 11.4	+2.8
DHIG	Demacu	5.63	328		Pn	08 48 20.5	+7.0
DHIG					Sn	08 49 25.8	+7.3
DEIG	Demacu	5.63	328	eP	Pn	08 48 20.5	+7.0
DEIG				eS	Sn	08 49 25.8	+7.3
ZIIG	Zihuatanejo	5.75	292	eP	Pb	08 48 23.4	-6.5
ZIIG				eS	Sn	08 49 21.3	0.0
ZIIG	Zihuatanejo	5.75	292		Pb	08 48 23.4	-6.5
ZIIG					Sn	08 49 21.3	0.0
ESQI	Esquipulas	6.38	98	Pn	Pn	08 48 23.8	+0.2
MOIG	Morelia	6.54	310	eS	Sn	08 49 47.5	+6.3
RPIG	Rio Verde	7.43	329	eS	Sb	08 50 17.9	-9.5
INCO	Volcan de Coli	8.39	299	eS	Sn	08 50 39.7	+13
CEGR	Campo Tres	8.54	298	eS	Sn	08 50 42.4	+12
TEIG	Tepich	8.61	56	Pn	Pn	08 48 54.8	+0.7
PLPT	Palo Pinto	17.36	353	Pn	Pn	08 50 52.3	+0.4
ABTX	Abilene, Hawle	17.37	349		P	08 50 53.4	-0.1
LOOK	Love County	18.43	357	P	Pn	08 51 05.4	+0.3
LOOK				IAmb	IAmb	08 51 40.2	
	comp=Z,23nm,1.5s						
MIAR	Mount Ida	19.05	6	P	P	08 51 12.6	+0.7
OK052	Battle Ridge R	20.40	358	P	P	08 51 27.9	+1.2
OK052				IAmb	IAmb	08 51 29.4	
	comp=Z,7.0nm,0.5s						
FCAR	Ozark Folk Cen	20.55	9	P	P	08 51 29.1	+0.7
OK048	Pawnee Station	20.83	358	P	P	08 51 32.5	+1.1
OK048				IAmb	IAmb	08 51 51.8	
	comp=Z,12nm,1.2s						
LCAR	Lake Charles	20.89	11	P	P	08 51 32.6	+0.7
OK051	E0350 and S346	20.91	358	P	P	08 51 32.3	+0.1
SBM	South Baldy	21.02	333	P	P	08 51 34.3	+0.5
T35A	Sooner Cattle	21.31	359	P	P	08 51 38.2	+1.6
T35A				IAmb	IAmb	08 51 42.3	
	comp=Z,7.7nm,0.9s						
N38A	Joes South For	25.28	5	P	P	08 52 16.6	+0.5
O49A	Covington	26.55	20	P	P	08 52 28.4	+0.7
O49A				IAmb	IAmb	08 52 38.9	
	comp=Z,5.3nm,1.0s						
AGPR	Aguadilla, PR	27.64	80	P	P	08 52 37.6	-0.1
O02D	Mt. Diablo Mer	33.96	322	P	P	08 53 33.8	+0.5
O02D				IAmb	IAmb	08 53 34.6	
	comp=Z,5.8nm,1.4s						
MSO	Missoula	34.65	338	P	P	08 53 38.3	-0.9
MSO				IAmb	IAmb	08 54 17.8	
	comp=Z,5.3nm,1.4s						
LMQ	La Malbaie	38.29	28	P	P	08 54 10.8	+0.6
LMQ				IAmb	IAmb	08 54 25.8	
	comp=Z,8.8nm,1.2s						
P33M	Teslin, Yukon	52.04	338	P	P	08 55 59.7	+0.4
CO03	El Pedregal	52.07	152	P	P	08 55 59.7	-0.2
CO02	Combarbal	52.24	153	P	P	08 56 00.4	-0.8
GO05	Hualane	55.16	156	P	P	08 56 24.6	+2.2
RIDG	Independent Ri	58.69	337	P	P	08 56 49.1	+2.0
RIDG				IAmb	IAmb	08 57 10.4	
	comp=Z,2.9nm,1.0s						

IDC ***24*** *09:05:55.1±0.9, 23°.41S×175°.78W, h0^{km}, mb4.0/7, mbtmp4.0/9, ML3.7/2, MS3.4/4, Error ellipse: s-maj=33.2km s-min=20.7km az=139.0*

NEIC ***24*** *09:05:55.3±2.7, 23°.16S±0°.08×175°.49W±0°.08, h10^{km}±1^{km}, mb4.5/9, Error ellipse: s-maj=16.6km s-min=7.0km az=223.0*

ISC 24 09:06:00.4±0.8**, 23°.3S**±0°.1×**175°.9W**±0°.1**, h33^{km}, n31, σ1ˢ.23**/20**, mb4.3**/11**, Tonga Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NIUE	Niue	6.95	54	Pn	Pn	09 07 32.3	-7.6
MSVF	Nonsavu	7.95	313	LR	LR	09 10 56.3	
	comp=Z,298nm,18.9s,baz=113,slow=37						
MSVF	Nonsavu	7.95	313	Pn	Pn	09 07 53.1	-0.6
AFI	Afiamalu	10.11	23	Pn	Pn	09 08 15.9	-7.4
	1.0nm,0.3s,baz=270,slow=22,SNR=1.0						
AFI				Sn	Sn	09 10 03.2	-12
	1.6nm,0.3s,baz=145,slow=21,SNR=1.6						
	5.8nm,0.5s						
AFI				AML	AML		
RAR	Rarotonga	15.04	85	LR	LR	09 15 39.4	
	comp=Z,113nm,18.1s,baz=116,slow=39						
DZM	Mont Dzumac	16.38	271	Pn	P	09 09 49.6	-1.0
	0.2nm,0.3s,baz=84,slow=17,SNR=4.4						
	2.4nm,0.9s						
DZM				AML	AML		
HNR	Honiara	26.94	297	LR	LR	09 21 55.6	
	comp=Z,49nm,18.3s,baz=162,slow=36						
CTAO	Charters Tower	35.28	268	P	P	09 12 53.6	+1.1
CTAO				IAmb	IAmb	09 13 02.2	
	comp=Z,9.2nm,1.3s						
STKA	Stephens Creek	38.47	248	LR	LR	09 27 09.4	
	comp=Z,51nm,19.8s,baz=26,slow=33						
ASAR	Alice Springs	45.88	259	P	P	09 14 19.5	-0.5
	comp=Z,1.1nm,0.8s,baz=88,slow=9.0,SNR=8.6						
	comp=Z,1.1nm,0.8s						
WR0	Warramunga Arr	46.05	264	P	P	09 14 21.4	0.0
WR8	Warramunga Arr	46.09	264	P	P	09 14 21.1	-0.5
WB2	Warramunga Arr	46.23	264	P	P	09 14 21.6	-1.1
WB2				IAmb	IAmb	09 14 32.5	
	comp=Z,5.2nm,1.0s						
WB0	Warramunga Arr	46.23	264	P	P	09 14 21.7	-1.1
WB0				IAmb	IAmb	09 14 37.2	
	comp=Z,8.0nm,1.4s						
WRAB	Tennant Creek	46.23	264	P	P	09 14 21.6	-1.2
WRAB				IAmb	IAmb	09 14 31.3	
	comp=Z,7.2nm,1.4s						
WRA	Warramunga Arr	46.24	264	P	P	09 14 21.6	-1.3
	comp=Z,0.5nm,0.3s,baz=90,slow=5.8,SNR=121						
	comp=Z,0.5nm,0.3s						
WRA	Warramunga Arr	46.24	264	IAmb	IAmb	09 14 30.4	
	comp=Z,0.1nm,0.9s						
SBA	Scott Base	55.24	184	P	P	09 15 30.7	+1.0
QSPA	South Pole Qui	66.79	180	P	P	09 16 47.4	-1.1
	comp=Z,1.1nm,0.9s,baz=62,slow=2.6,SNR=5.9						
	comp=Z,1.1nm,0.9s						
QSPA	South Pole Qui	66.79	180	IAmb	IAmb	09 16 50.9	
	comp=Z,4.5nm,1.2s						
PETK	Petropavlovsk-	79.48	344	P	P	09 18 04.6	+1.4
	comp=Z,2.8nm,0.8s,baz=162,slow=5.6,SNR=3.6						
	comp=Z,2.8nm,0.8s						
PETK	Petropavlovsk-	79.48	344	P	P	09 18 03.6	+0.3
NVAR	Mina Array Bea	81.72	42	P	P	09 18 16.8	+0.9
	comp=Z,0.4nm,0.9s,baz=259,slow=6.5,SNR=2.8						
	comp=Z,0.4nm,0.9s						
H03S2	Juan Fernandez	82.78	124	T	T	10 49 58.2	
	baz=245,slow=74,SNR=19						
H03S1	Juan Fernandez	82.80	124	T	T	10 49 56.3	
	baz=245,slow=74,SNR=22						
H03S3	Juan Fernandez	82.80	124	T	T	10 49 56.5	
	baz=245,slow=74,SNR=19						
TXAR	Lajitas Array	86.91	56	P	P	09 18 42.1	-0.3
	comp=Z,0.5nm,0.8s,baz=215,slow=7.6,SNR=7.7						
	comp=Z,0.5nm,0.8s						
TXAR	Lajitas Array	86.91	56	P	P	09 18 39.2	-3.1
CMAR	Chiang Mai Arr	92.91	289	P	P	09 19 11.9	+1.4
	comp=Z,1.5nm,0.3s,baz=110,slow=3.9,SNR=5.2						
	comp=Z,1.5nm,0.3s						
AKASG	Malin Array Be	146.41	331	PKPbc	PKPbc	09 25 38.0	+0.2
	comp=Z,1.8nm,0.6s,baz=41,slow=4.3,SNR=7.2						
BRTR	Keskin Array B	150.17	310	PKPbc	PKPbc	09 25 48.5	+0.3
	comp=Z,0.8nm,0.9s,baz=157,slow=6.7,SNR=3.7						

NOU ***24*** *09:28:00.7, 41°.14S×175°.62E, h34^{km}, MLv4.0/22, North Island, New Zealand*

WEL ***24*** *09:28:01.2±0.3, 41°S±2°×17°6E±°, h33^{km}±3^{km}, M3.6/19, ML3.6/19, MLv3.6/19, Error ellipse: s-maj=4.0km s-min=2.4km az=131.0, confirmed*

ISC 24 09:28:02.0±1.0**, 41°.11S**±0°.02×**175°.61E**±0°.02**, h34^{km}**±2^{km}**, n95, σ1ˢ.02**/123**, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MTW	Mount Morrison	0.09	241	P	Pb	09 28 08.8	+0.9
MTW				S	Sb	09 28 13.6	+1.8
MTW				AML	AML		
MTW				AML	AML		
WRCS	Masterton Wair	0.17	10	P	Pb	09 28 09.2	+0.8
WRCS				S	Sb	09 28 14.3	+1.6
TMWZ	Te Maipa	0.21	88	P	Pb	09 28 09.9	+1.0
TMWZ				S	Sb	09 28 15.6	+2.1
TMWZ				AML	AML		
TMWZ				AML	AML		
HOWZ	Holdsworth Sta	0.23	342	P	Pn	09 28 09.3	+0.8
HOWZ				S	Sb	09 28 14.8	+1.1
HOWZ				AML	AML		
HOWZ				AML	AML		
TRWZ	Traveller	0.29	168	P	Pn	09 28 10.9	+1.2
TRWZ				S	Sb	09 28 17.8	+2.8
TRWZ				AML	AML		
TRWZ				AML	AML		
PAWZ	Paruwai Farm	0.30	207	P	Pn	09 28 10.9	+0.9
PAWZ				S	Sb	09 28 16.7	+1.4
PAWZ				AML	AML		
PAWZ				AML	AML		
TIWZ	Tintock	0.40	32	P	Pb	09 28 11.3	+0.1
TIWZ				S	Sn	09 28 18.1	+0.4
TIWZ				AML	AML		
TIWZ				AML	AML		
MSWZ	Moikau Station	0.41	222	P	Pb	09 28 11.7	+0.5
MSWZ				S	Sb	09 28 18.7	+1.1
MSWZ				AML	AML		
MSWZ				AML	AML		
CAW	Cannon Point	0.41	271	P	Pb	09 28 11.6	+0.3
CAW				S	Sb	09 28 18.3	+0.6
CAW				AML	AML		
CAW				AML	AML		
OGWZ	Otaki Gorge	0.45	312	P	Pb	09 28 11.7	-0.1
OGWZ				AML	AML		
OGWZ				AML	AML		
MRZ	Mangatainoka R	0.45	357	P	Pb	09 28 11.7	-0.3
MRZ				S	Sb	09 28 18.4	-0.4
MRZ				AML	AML		
MRZ				AML	AML		
CPWZ	Castlepoint	0.49	66	P	Pb	09 28 13.0	+0.5
CPWZ				S	Sn	09 28 21.9	+1.8
CPWZ				AML	AML		
CPWZ				AML	AML		
PLWZ	Palliser	0.53	210	P	Pb	09 28 13.3	+0.2
PLWZ				S	Sb	09 28 21.7	+1.0
PLWZ				AML	AML		
PLWZ				AML	AML		
KIW	Kapiti Island	0.59	295	P	Pn	09 28 13.8	-0.1
KIW				S	Sb	09 28 22.0	-0.3
KIW				AML	AML		
KIW				AML	AML		
PRWZ	Pori Road	0.62	26	P	Pn	09 28 14.2	-0.2
PRWZ				S	Sn	09 28 23.7	+0.5
PRWZ				AML	AML		
PRWZ				AML	AML		
BHW	Baring Head	0.63	242	P	Pn	09 28 14.4	-0.1
BHW				S	Sb	09 28 23.4	0.0
BHW				AML	AML		
BHW				AML	AML		
BFZ	Birch Farm	0.65	48	P	Pn	09 28 14.0	-0.8
BFZ	Birch Farm	0.65	48	S	Sb	09 28 23.8	-0.1
BFZ	Birch Farm	0.65	48	P	Pn	09 28 14.4	-0.4
BFZ				S	Sb	09 28 24.0	+0.1
BFZ				AML	AML		
BFZ				AML	AML		
WEL	Wellington	0.66	255	P	Pn	09 28 14.9	0.0
WEL				S	Sb	09 28 24.0	-0.1
WEL				AML	AML		
WEL				AML	AML		
SNZO	South Karori	0.71	254	P	Pn	09 28 15.0	-0.6
SNZO	South Karori	0.71	254	S	Sn	09 28 25.3	-0.1
POWZ	Post Office Ro	0.73	10	P	Pn	09 28 15.5	-0.5
POWZ				S	Sn	09 28 25.0	-1.0
POWZ				AML	AML		
POWZ				AML	AML		
DVHZ	Dannevirke	0.92	28	P	Pn	09 28 17.8	-0.8
DVHZ				S	Sn	09 28 29.6	-1.0
DVHZ				AML	AML		
DVHZ				AML	AML		
ANWZ	Angora Road	0.93	45	P	Pn	09 28 17.9	-0.8
ANWZ				S	Sn	09 28 30.7	-0.1
ANWZ				AML	AML		
ANWZ				AML	AML		
OHWZ	Ohakea	0.93	346	P	Pn	09 28 19.2	+0.5
OHWZ				S	Sn	09 28 31.4	+0.5
OHWZ				AML	AML		
OHWZ				AML	AML		
TCW	Tory Channel	1.01	264	P	Pn	09 28 19.5	-0.3
TCW				S	Sn	09 28 32.2	-0.7
TCW				AML	AML		
TCW				AML	AML		
TSZ	Takapari Road	1.09	14	P	Pn	09 28 20.4	-0.5
TSZ				S	Sn	09 28 33.6	-1.2
TSZ				AML	AML		
TSZ				AML	AML		
PRHZ	Porangahau	1.15	43	P	Pn	09 28 20.7	-1.1
WPHZ	Waipukurau	1.23	31	P	Pn	09 28 22.1	-0.7
WPHZ				S	Sn	09 28 38.2	0.0
CMWZ	Cape Campbell	1.23	238	P	Pn	09 28 22.8	0.0
PNHZ	Pukenui	1.28	21	P	Pn	09 28 22.9	-0.7
PNHZ				S	Sn	09 28 39.1	-0.6
TUWZ	Tuamarina	1.29	255	P	Pn	09 28 23.0	-0.7
TUWZ				S	Sn	09 28 38.6	-1.3
DUWZ	D'Urville Isla	1.31	283	P	Pn	09 28 24.5	+0.5
DUWZ				S	Sn	09 28 40.0	-0.5
BSWZ	Blackbirch Sta	1.44	245	P	Pn	09 28 25.1	-0.6
WAZ	Wanganui	1.44	340	P	Pn	09 28 26.9	+1.2
WAZ				S	Sn	09 28 44.2	+0.8
PXZ	Pawanui	1.44	42	P	Pn	09 28 24.2	-1.6
KRHZ	Kereru	1.58	22	P	Pn	09 28 26.7	-1.0
KAHZ	Kahuranaki	1.64	37	P	Pn	09 28 27.1	-1.4
BHHZ	Black Hill Sta	1.66	12	P	Pn	09 28 28.3	-0.5
NNZ	Nelson	1.69	266	P	Pn	09 28 28.6	-0.5
MOVZ	Moawhango	1.71	4	P	Pn	09 28 29.6	0.0
MTVZ	Mangateitei	1.73	356	P	Pn	09 28 30.5	+0.7
WNVZ	Wahianoa	1.79	360	P	Pn	09 28 31.0	+0.3
KWHZ	Kaweka Forest	1.80	21	P	Pn	09 28 29.7	-1.0
TRVZ	Turoa	1.81	359	P	Pn	09 28 31.6	+0.5
WHVZ	Whangaehu Hut	1.83	360	P	Pn	09 28 32.1	+0.7
PKVZ	Pokaka	1.83	354	P	Pn	09 28 31.8	+0.5
CKHZ	Cape Kidnapper	1.84	38	P	Pn	09 28 29.2	-2.0
MAVZ	Matarangi	1.84	359	P	Pn	09 28 32.1	+0.5
TUVZ	Tukino	1.84	1	P	Pn	09 28 32.4	+0.9
FWVZ	Far West T-bar	1.86	359	P	Pn	09 28 32.2	+0.5
MCHZ	McNeill Hill	1.86	27	P	Pn	09 28 30.5	-1.1
LREZ	Lake Rotokare	1.89	330	P	Pn	09 28 33.7	+1.8
COVZ	Chateau Observ	1.91	358	P	Pn	09 28 33.3	+0.9
SNVZ	South Ngauruho	1.93	1	P	Pn	09 28 32.1	-0.5
NGZ	Ngauruhoe	1.94	360	P	Pn	09 28 33.3	+0.6
OTVZ	Oturere	1.95	1	P	Pn	09 28 32.8	-0.1
ETVZ	East Tongariro	1.98	2	P	Pn	09 28 33.7	+0.5
WTVZ	West Tongariro	2.00	360	P	Pn	09 28 34.3	+0.8
TMVZ	Te Maari	2.00	2	P	Pn	09 28 34.0	+0.5
TKNZ	Takaka Hill	2.00	271	P	Pn	09 28 33.5	0.0
NTVZ	North Tongarir	2.01	1	P	Pn	09 28 34.4	+0.6
KRVZ	Karewarewa	2.02	1	P	Pn	09 28 34.9	+1.1
KHZ	Kahutara	2.02	229	P	Pn	09 28 32.1	-1.6
KHZ	Kahutara	2.02	229	S	Sn	09 28 56.5	-1.3
KHZ	Kahutara	2.02	229	P	Pn	09 28 32.4	-1.3
TWVZ	Taurewa	2.04	356	P	Pn	09 28 34.5	+0.3
BKZ	Black Stump Fm	2.06	19	P	Pn	09 28 33.7	-0.6
BKZ	Black Stump Fm	2.06	19	S	Sn	09 28 58.1	-0.8
PREZ	Palmer Road	2.09	327	P	Pn	09 28 36.3	+1.6
VRZ	Vera Road	2.09	342	P	Pn	09 28 35.6	+0.9
ARHZ	Aropaoanui	2.13	30	P	Pn	09 28 34.0	-1.3
RITZ	Rihia Road	2.14	5	P	Pn	09 28 35.8	+0.3
NMEZ	Namu Road	2.15	321	P	Pn	09 28 37.2	+1.7
MRNZ	Matariki Terra	2.17	262	P	Pn	09 28 35.5	-0.3
NEZ	North Egmont	2.18	327	P	Pn	09 28 37.8	+1.8
KHEZ	Kahui Hut	2.19	326	P	Pn	09 28 36.8	+0.7
KHEZ	Kahui Hut	2.19	326	P	Pn	09 28 37.8	+1.7
NMHZ	Naumai	2.21	25	P	Pn	09 28 35.4	-1.1
QRZ	Quartz Range	2.35	276	P	Pn	09 28 38.0	-0.2
QRZ	Quartz Range	2.35	276	S	Sn	09 29 03.9	-2.0
MTHZ	Maungataniwha	2.45	23	P	Pn	09 28 38.1	-1.6
RAHZ	Arahi	2.47	28	P	Pn	09 28 38.5	-1.4
HIZ	Hauiti	2.66	347	P	Pn	09 28 43.0	+0.5
HIZ	Hauiti	2.66	347	S	Sn	09 29 12.3	-1.3
URZ	Urewera	3.08	23	P	Pn	09 28 46.1	-2.1
MXZ	Matakaoa Point	4.12	31	P	Pn	09 29 01.5	-1.0
RPZ	Rata Peaks	4.26	231	P	Pn	09 29 03.4	-1.1
KUZ	Kuaotunu	4.36	1	P	Pn	09 29 05.6	-0.3
ODZ	Otahua Downs	5.35	221	P	Pn	09 29 17.0	-2.5
JCZ	Jackson Bay	5.84	237	P	Pn	09 29 25.3	-1.0
OUZ	Omahuta	6.09	344	P	Pn	09 29 29.5	-0.2
CTZ	Chatham Island	6.32	117	P	Pn	09 29 31.0	-1.8
SYZ	Scrubby Hill	7.16	219	P	Pn	09 29 43.2	-1.1

IDC 24 09:28:43.2±3.1**, 33°.52S**×**178°.70W, h0^{km}, mb3.6**/2**, mbtmp3.7**/3**, ML3.9**/1**, Error ellipse: s-maj=72.8km s-min=37.4km az=118.0, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	5.82	215	Pn	Pn	09 30 11.6	+0.8
	3.5nm,0.3s,baz=253,slow=2.9,SNR=1.7						
URZ				Sn	Sn	09 31 16.7	-1.6
	1.6nm,0.3s,baz=128,slow=21,SNR=1.9						
	8.6nm,0.3s						
URZ				AML	AML		
ASAR	Alice Springs	42.45	271	P	P	09 36 40.0	-0.1
	0.4nm,0.6s,baz=116,slow=7.3,SNR=6.3						
	0.4nm,0.6s						
WRA	Warramunga Arr	43.72	276	P	P	09 36 50.3	-0.1
	0.7nm,0.5s,baz=117,slow=8.1,SNR=13						
	0.7nm,0.5s						
KSH2	Kashi	121.45	299	pmax	pmax		
	comp=Z,4.0nm,0.5s						
FINES	FINESS Array B	147.83	338	PKPbc	PKPbc	09 48 28.4	-0.9
	comp=Z,1.5nm,0.9s,baz=33,slow=2.9,SNR=5.0						

WEL 24 09:30:58.6±2.0**, 35°S**±43°×**18°0E**±4°3**, h321^{km}**±37^{km}**, M3.8**/9**, MLv3.8**/9**, Error ellipse: s-maj=70.1km s-min=37.4km az=135.3, confirmed, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HAZ	Te Kaha	3.34	206	P	Pn	09 31 59.1	0.0
HAZ				AML	AML		
PKGZ	Pakihiroa	3.34	202	P	Pn	09 31 57.9	-1.2
PKGZ				S	S	09 32 48.2	+0.5
PKGZ				AML	AML		
PUZ	Puketiti	3.49	198	P	Pn	09 31 59.2	-1.4
PUZ				AML	AML		
RUGZ	Raukumara Rang	3.57	206	P	Pn	09 31 59.3	-2.2
RUGZ				AML	AML		
MWZ	Matawai	3.95	205	P	Pn	09 32 05.9	+0.5
MWZ				AML	AML		
URZ	Urewera	4.04	210	P	Pn	09 32 07.7	+1.5
URZ				AML	AML		
MUGZ	Murupara	4.37	211	P	Pn	09 32 11.7	+1.8
MUGZ				S	S	09 33 05.6	-1.6
MUGZ				AML	AML		
PRGZ	Paritu Road	4.38	198	P	Pn	09 32 11.3	+1.3
PRGZ				AML	AML		
KNZ	Kokohu	4.54	200	P	Pn	09 32 12.1	+0.5
KNZ				AML	AML		
MHGZ	Mahia Peninsul	4.60	197	P	Pn	09 32 12.1	-0.2
MHGZ				AML	AML		
GLKZ	Green Lake	5.86	21	P	Pn	09 32 28.8	+1.9
GLKZ				AML	AML		

IDC ***24*** *09:31:30.9±3.0, 33°.27S×179°.00W, h0^{km}, mb4.1/3, mbtmp4.1/4, ML4.3/1, Error ellipse: s-maj=69.0km s-min=45.7km az=120.0*

WEL ***24*** *09:31:36.6±1.2, 34°S±17°×17°8W±2°8, h228^{km}±26^{km}, M4.1/5, mB4.5/5, ML4.2/7, MLv4.4/5, Mw(mB)3.7/5, Error ellipse: s-maj=40.9km s-min=11.9km az=119.4, confirmed*

ISC 24 09:31:30.1±1.9**, 33°.7S**±0°.1×**177°.9W**±0°.3**, h34^{km}, n25, σ2ˢ.02**/38**, mb3.9**/4**, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GLKZ	Green Lake	4.45	0	P	Pb	09 32 47.6	+0.1
MXZ	Matakaoa Point	4.90	217	P	Pn	09 32 43.8	+2.6
MXZ	Matakaoa Point	4.90	217	S	Sn	09 33 37.7	+1.0
PKGZ	Pakihiroa	5.25	217	P	Pn	09 32 47.2	+1.1
PKGZ				S	Sn	09 33 46.6	+1.2
HAZ	Te Kaha	5.32	220	P	Pn	09 32 50.5	+3.4
HAZ				S	Sn	09 33 49.3	+2.2
HAZ				AML	AML		
HAZ				AML	AML		
HAZ	Te Kaha	5.32	220	S	Pn	09 32 50.3	+3.3
PUZ	Puketiti	5.32	214	P	Pn	09 32 50.2	+3.1
PUZ				S	Sn	09 33 48.3	+1.0
PUZ				AML	AML		
RUGZ	Raukumara Rang	5.53	219	P	Pn	09 32 52.7	+2.6
RUGZ				S	Sn	09 33 53.8	+1.3
RUGZ				AML	AML		
RUGZ				AML	AML		
MWZ	Matawai	5.88	217	P	Pn	09 32 56.9	+2.0
MWZ				S	Sn	09 34 01.2	+0.1
MWZ				AML	AML		
URZ	Urewera	6.04	220	Pn	Pn	09 32 58.7	+1.6
	7.6nm,0.3s,baz=266,slow=3.9,SNR=8.6						
URZ				Sn	Sn	09 34 03.9	-1.2
	2.8nm,0.3s,baz=139,slow=16,SNR=1.6						
	19nm,0.3s						
URZ				AML	AML		
URZ	Urewera	6.04	220	P	Pn	09 32 58.5	+1.5
URZ				S	Sn	09 34 03.8	-1.2
URZ				AML	AML		
URZ				AML	AML		
PRGZ	Paritu Road	6.18	212	P	Pn	09 33 01.5	+2.5
PRGZ				S	Sn	09 34 07.5	-1.0
PRGZ				AML	AML		
PRGZ				AML	AML		
KNZ	Kokohu	6.36	212	P	Pn	09 33 02.8	+1.5
KNZ				S	Sn	09 34 11.7	-1.0
KNZ				AML	AML		
MHGZ	Mahia Peninsul	6.37	210	P	Pn	09 33 03.5	+2.0
MHGZ				S	Sn	09 34 14.4	+1.5
MHGZ				AML	AML		
MUGZ	Murupara	6.39	221	P	Pn	09 33 02.7	+0.9
MUGZ				S	Sn	09 34 12.7	-0.8
MUGZ				AML	AML		
MUGZ				AML	AML		
BKZ	Black Stump Fm	7.04	218	P	Pn	09 33 12.4	+1.6
BKZ				S	Sn	09 34 29.3	-0.4
OUZ	Omahuta	7.14	256	P	Pn	09 33 17.2	+5.0
PXZ	Pawanui	7.54	212	P	Pn	09 33 18.1	+0.4

PXZ				S	Sn	09 34 39.3	-2.6
TSZ	Takapari Road	7.99	216	P	Pn	09 33 23.3	-0.4
TSZ				S	Sn	09 34 48.1	-4.8
BFZ	Birch Farm	8.35	212	P	Pn	09 33 28.1	-0.5
BFZ				S	Sn	09 34 57.7	-4.0
ASAR	Alice Springs	43.08	270	P	P	09 39 26.5	-0.6
	1.1nm,0.7s,baz=113,slow=7.8,SNR=5.3						
	1.1nm,0.7s						
WRA	Warramunga Arr	44.37	276	P	P	09 39 35.3	-2.1
	1.2nm,0.6s,baz=115,slow=8.0,SNR=7.2						
	1.2nm,0.6s						
FITZ	Fitzroy Crossi	52.47	272	P	P	09 40 38.6	-1.3
	5.2nm,0.9s,baz=135,slow=5.7,SNR=2.5						
	5.2nm,0.9s						
QSPA	South Pole Qui	56.40	180	P	P	09 41 20.6	+13
	0.8nm,0.6s,baz=352,slow=2.4,SNR=5.5						
FINES	FINESS Array B	148.26	338	PKPbc	PKPab	09 51 15.4	+0.5
	0.8nm,0.4s,baz=25,slow=4.6,SNR=6.2						

DJA ***24*** *09:34:05.9±1.0, 5°N±8°×9°7E±°, h217^{km}±9^{km}, M4.6/21, mB5.2/6, mB5.2/6, mb4.8/6, mb4.8/6, MLv4.5/21, MLv4.5/21, Mw(mB)4.5/6, Mw(mB)4.5/6*

NEIC ***24*** *09:34:06.5±2.1, 5°.25N±0°.09×96°.68E±0°.09, h219^{km}±3^{km}, mb4.1/21, Error ellipse: s-maj=13.7km s-min=12.0km az=211.0*

IDC ***24*** *09:34:08.7±1.9, 5°.29N×96°.70E, h243^{km}±16^{km}, mb3.7/14, mbtmp4.3/15, Error ellipse: s-maj=19.7km s-min=10.1km az=57.0*

ISC 24 09:34:03.8±0.5**, 5°.17N**±0°.06×**96°.66E**±0°.06**, h200^{km}, n60, σ1ˢ.90**/61**, mb4.1**/24**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LHMI	Lhok Sumawe	0.30	78		Pn	09 34 35.1	+4.9
LHMI	Lhok Sumawe	0.30	78	P	Pn	09 34 35.2	+4.9
MLSI	Meulaboh, Aceh	0.93	196	P	Pn	09 34 36.9	+3.7
MLSI				AML	AML		
MLSI				AML	AML		
BSI	Banda Aceh	1.39	284	P	Pn	09 34 40.2	+3.6
BSI				AML	AML		
BSI				AML	AML		
KCSI	Kotacane, Aceh	1.98	146	P	Pn	09 34 45.2	+3.0
KCSI				AML	AML		
KCSI				AML	AML		
TSI	Tuntungan	2.52	131	P	Pn	09 34 51.3	+3.3
TSI				AML	AML		
TSI				AML	AML		
SNSI	Sinabang, Aceh	2.76	187	P	Pn	09 34 53.6	+2.9
SNSI				AML	AML		
SNSI				AML	AML		
RPSI	Rantau Prapat	3.34	137		Pn	09 35 00.2	+2.6
GSI	Gunungsitoli	3.95	167		Pn	09 35 07.5	+2.5
GSI	Gunungsitoli	3.95	167	P	Pn	09 35 07.9	+2.9
GSI				AML	AML		
GSI				AML	AML		
KULM	Kulim	3.98	88		Pn	09 35 08.2	+2.8
IPM	Ipoh	4.41	99		Pn	09 35 13.1	+2.3
MNSI	Mandailing Nat	5.23	146	P	Pn	09 35 23.7	+2.4
	1.8nm1.8nm193nm,0.7s,193nm,0.7s						
MNSI				AML	AML		
MNSI				AML	AML		
PPI	Padang Panjang	6.72	146	P	Pn	09 35 42.8	+2.3
	0.2nm0.2nm2µm2µm46nm,0.6s,46nm,0.6s						
PPI				AML	AML		
PPI				AML	AML		
PDSI	Padang	7.14	148	P	Pn	09 35 47.1	+1.2
	0.4nm0.4nm2µm2µm58nm,0.5s,58nm,0.5s						
PDSI				AML	AML		
PDSI				AML	AML		
SDSI	Sungai Dareh	7.71	142	P	Pn	09 35 54.7	+1.3
CM31	Chiang Mai Arr	13.40	9	P	P	09 37 08.1	-0.9
CMAR	Chiang Mai Arr	13.40	9	P	P	09 37 09.5	+0.5
	16nm,0.7s,baz=198,slow=11,SNR=54						
CMAR	Chiang Mai Arr	13.40	9		P	09 37 08.8	-0.2
CHTO	Chiang Mai	13.74	9		P	09 37 12.7	-0.2
PALK	Pallekele	16.00	278	S	Sn	09 40 34.7	-3.5
	2.5nm,0.4s,baz=207,slow=21,SNR=1.1						
SLVN	Son La	17.54	23	P	Pn	09 37 57.0	+0.4
SLVN				IAmb	IAmb	09 37 58.6	
	comp=Z,6.4nm,0.7s						
EVN	Everest	24.52	339	P	P	09 39 07.1	+1.4
GTA2	Gaotai	34.28	4	*e*P	P	09 40 32.4	+1.2
GTA2				pmax	pmax		
	comp=Z,7.0nm,0.6s						
MTN	Manton Dam	38.65	118	P	P	09 41 08.0	-0.3
MTN				IAmb	IAmb	09 41 51.1	
	comp=Z,4.7nm,0.9s						
BOOM	Boomskoye usch	41.47	337	P	P	09 41 29.8	-1.6
BOOM				IAmb	IAmb	09 42 00.4	
	comp=Z,9.8nm,1.2s						
ARSB	Arslanbob	41.76	333	P	P	09 41 34.0	+0.3
ARSB				IAmb	IAmb	09 41 34.7	
	comp=Z,7.0nm,0.6s						
MKAR	Makanchi Array	43.29	346	P	P	09 41 45.8	+0.1
	comp=Z,2.5nm,0.5s,baz=159,slow=9.3,SNR=26						
	comp=Z,2.5nm,0.5s						
SONM	Songino Array	43.32	10	P	P	09 41 46.3	+0.2
	comp=Z,2.0nm,0.5s,baz=189,slow=9.4,SNR=10						
	comp=Z,2.0nm,0.5s						
SONM	Songino Array	43.32	10	IAmb	IAmb	09 41 47.9	
	comp=Z,2.0nm,0.8s						
WB0	Warramunga Arr	44.62	125	P	P	09 41 57.8	+1.0
WB0				IAmb	IAmb	09 42 10.3	
	comp=Z,16nm,1.4s						
WRA	Warramunga Arr	44.67	125	P	P	09 41 58.0	+0.9
	comp=Z,1.8nm,0.6s,baz=304,slow=10.0,SNR=11						
WRA				PcP	PcP	09 43 37.0	+0.7
	comp=Z,0.8nm,0.6s,baz=304,slow=3.4,SNR=2.4						
WRA				ScP	ScP	09 47 07.2	-2.3
	comp=Z,0.8nm,0.8s,baz=309,slow=4.1,SNR=8.1						
WRA				S	S	09 48 14.6	-3.9
	comp=Z,0.3nm,0.6s,baz=298,slow=16,SNR=2.0						
	comp=Z,1.8nm,0.6s						
WRA	Warramunga Arr	44.67	125	IAmb	IAmb	09 41 59.3	
	comp=Z,0.3nm,1.0s						
WRAB	Tennant Creek	44.67	125	P	P	09 41 57.8	+0.6
WRAB				IAmb	IAmb	09 42 05.2	
	comp=Z,7.2nm,1.1s						
WR8	Warramunga Arr	44.81	125	P	P	09 41 59.0	+0.8
AS31	Alice Springs	46.27	130	P	P	09 42 09.9	+0.2
ASAR	Alice Springs	46.27	130	P	P	09 42 11.0	+1.3
	comp=Z,2.5nm,0.5s,baz=301,slow=8.1,SNR=14						
ASAR				PcP	PcP	09 43 42.7	+0.9
	comp=Z,1.1nm,0.6s,baz=308,slow=3.2,SNR=4.2						
ASAR				ScP	ScP	09 47 11.9	-4.3
	comp=Z,0.5nm,0.9s,baz=308,slow=4.7,SNR=2.5						
ASAR				S	S	09 48 38.0	-3.4
	comp=Z,0.4nm,0.7s,baz=302,slow=14,SNR=4.3						
	comp=Z,2.5nm,0.5s						
FORT	Forrest	46.68	142	P	P	09 42 13.8	+1.1
KURBB	Kurchatov Arra	47.78	344	P	P	09 42 20.9	+0.1
	comp=Z,3.0nm,0.6s,baz=162,slow=6.8,SNR=23						
KURBB				ScP	ScP	09 47 19.4	-2.5
	comp=Z,0.7nm,0.3s,baz=161,slow=4.1,SNR=2.0						
	comp=Z,3.0nm,0.6s						
KURK	Kurchatov	47.84	345	P	P	09 42 20.9	-0.4
KURK	Kurchatov	47.84	345		ScP	09 47 19.4	-2.7
KURK	Kurchatov	47.84	345	IAmb	IAmb	09 42 21.6	
	comp=Z,2.6nm,0.5s						
ZAA0	Zalesovo Array	49.58	351	P	P	09 42 34.4	-0.1
ZAA0				IAmb	IAmb	09 42 34.7	
	comp=Z,3.1nm,0.5s						
ZALV	Zalesovo Beam	49.58	351	P	P	09 42 34.5	0.0
	comp=Z,3.1nm,0.3s,baz=163,slow=6.6,SNR=16						
	comp=Z,3.1nm,0.3s						
BVAR	Borovoye Array	52.35	340	P	P	09 42 53.7	-1.4
	comp=Z,2.2nm,0.5s,baz=140,slow=8.4,SNR=9.2						
	comp=Z,2.2nm,0.5s						
BORK	Borovoye	52.39	340	P	P	09 42 54.7	-0.8
BORK				IAmb	IAmb	09 42 55.3	
	comp=Z,3.3nm,0.5s						
RAYN	Ar Rayn	52.49	296	P	P	09 42 56.6	-0.1
RAYN				IAmb	IAmb	09 42 57.9	
	comp=Z,1.7nm,0.3s						
AB31	Akbulak array	53.79	331	P	P	09 43 05.3	-0.4
ABKAR	Akbulak array	53.79	331	P	P	09 43 05.4	-0.3
BRTR	Keskin Array B	66.08	311	P	P	09 44 28.2	-1.5
	comp=Z,0.7nm,0.5s,baz=121,slow=7.0,SNR=5.7						
	comp=Z,0.7nm,0.5s						
FINES	FINESS Array B	76.25	332	P	P	09 45 29.4	-0.7
	comp=Z,1.2nm,0.8s,baz=117,slow=5.3,SNR=1.9						
	comp=Z,1.2nm,0.8s						
BOSA	Boshof	76.31	239	P	P	09 45 31.9	+0.7
	comp=Z,2.1nm,0.5s,baz=89,slow=3.4,SNR=6.0						
	comp=Z,2.1nm,0.5s						
ARCES	ARCESS Array B	78.64	340	P	P	09 45 42.6	-0.6
	comp=Z,5.1nm,1.0s,baz=89,slow=5.0,SNR=3.9						
	comp=Z,5.1nm,1.0s						
HFS	Hagfors	82.03	330	P	P	09 46 00.7	-0.7
	comp=Z,1.7nm,0.8s,baz=74,slow=6.8,SNR=1.5						
	comp=Z,1.7nm,0.8s						
SPITS	Spitsbergen Ar	82.98	348	P	P	09 46 05.3	-0.8
	comp=Z,8.9nm,0.9s,baz=106,slow=9.1,SNR=1.9						
	comp=Z,8.9nm,0.9s						
VNDA	Vanda	89.80	169	P	P	09 46 41.0	+1.8
	comp=Z,0.4nm,0.6s,baz=327,slow=6.9,SNR=4.1						
	comp=Z,0.4nm,0.6s						
PLCA	Paso Flores	142.77	196	PKP	PKPdf	09 53 11.9	-1.9
	comp=Z,0.9nm,0.7s,baz=264,slow=3.1,SNR=5.1						
BDFB	Brasilia	143.79	251	PKP	PKPab	09 53 13.7	0.0
	comp=Z,2.5nm,0.4s,baz=160,slow=5.7,SNR=5.0						
CPUP	Villa Florida	147.43	227	PKPbc	PKPbc	09 53 25.2	+0.4
	comp=Z,1.1nm,0.5s,baz=144,slow=4.5,SNR=4.3						
LPAZ	La Paz	161.43	232	PKPab	PKPab	09 54 28.7	+1.0
	comp=Z,1.9nm,0.6s,baz=105,slow=6.2,SNR=7.4						

IDC ***24*** *09:35:17.5±0.6, 3°.65S×128°.27E, h0^{km}, mb4.2/14, mbtmp4.3/17, ML4.2/3, MS3.4/20, Error ellipse: s-maj=16.5km s-min=12.4km az=109.0*

GFZ ***24*** *09:35:19.7±0.3, 4°S±4°×12°8E±°, h10^{km}, M4.5/12, mb4.5/12, confirmed*

NEIC ***24*** *09:35:19.4±2.5, 3°.70S±0°.06×128°.43E±0°.07, h10^{km}±1^{km}, mb4.4/18, Error ellipse: s-maj=11.2km s-min=10.6km az=97.0*

DJA ***24*** *09:35:21.2±0.2, 4°S±3°×12°8E±°, h10^{km}, M4.7/19, mB5.2/6, mB5.4/8, mb4.7/14, mb4.7/13, MLv4.6/19, MLv4.6/18, Mw(mB)4.7/6, Mw(mB)4.8/8, MwMwp6.1/1, Mwp6.1/1*

ISC 24 09:35:19.1±0.4**, 3°.72S**±0°.06×**128°.46E**±0°.05**, h10^{km}, n102, σ1ˢ.66**/86**, mb4.5**/27**, MS3.4**/16**, Seram**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSAI	Masohi	0.60	52	P	Pb	09 35 31.3	-0.5
MSAI				AML	AML		
MSAI				AML	AML		
NLAI	Namlea	1.43	289	P	Pn	09 35 42.7	-2.5
BNDI	Bandanaira	1.65	119	P	Pg	09 35 50.1	-0.8
SANI	Sanana	2.97	304	P	Pn	09 36 06.1	-0.3
FAKI	Fak Fak	3.87	78		Pn	09 36 20.0	+1.2
FAKI	Fak Fak	3.87	78	P	Pn	09 36 21.0	+2.2
SIJI	Sorong	3.99	45	Pn	Pn	09 36 21.6	+1.2
	40nm,0.3s,baz=236,slow=12,SNR=88						
SIJI				Sn	Sn	09 37 08.7	+1.4
	9.0nm,0.3s,baz=135,slow=22,SNR=9.3						
SIJI				LR	LR	09 38 17.2	
	comp=Z,598nm,18.4s,baz=260,slow=44						
	88nm,0.3s						
SIJI				AML	AML		
SWI	Sorong	3.99	45	P	Pn	09 36 21.2	+0.8
SWI				AML	AML		
SWI				AML	AML		
TNTI	Ternate	4.59	346	Pn	Pn	09 36 27.9	-0.8
KDI	Kendari	5.83	267	P	Pn	09 36 44.1	-1.6
KDI				AML	AML		
KDI				AML	AML		
MWPI	Manokwari, Pap	6.23	64	P	Pn	09 36 53.7	+2.5
LUWI	Luwuk	6.27	295		Pn	09 36 51.6	-0.2
LUWI	Luwuk	6.27	295	P	Pn	09 36 53.5	+1.7
	comp=Z,122nm,1.1s						
GTOI	Gorontalo	6.95	308	P	Pn	09 37 04.3	+3.2
	comp=Z,0.2nmcomp=Z,0.2nmcomp=Z,59nm,0.9s,comp=Z,59nm,0.9s						
GTOI				AML	AML		
GTOI				AML	AML		
SOEI	Soe	7.30	215	Pn	Pn	09 37 07.7	+1.7
APSI	Ampana	7.35	292	P	Pn	09 37 07.9	+1.3
	comp=Z,1µmcomp=Z,1µmcomp=Z,152nm,1.1s,comp=Z,152nm,1.1s						
BATI	Baumata	8.01	216	LR	LR	09 41 15.7	
	comp=Z,404nm,18.5s,baz=36,slow=45						
BAKI	Biak	8.05	72	P	Pn	09 37 15.4	-0.8
	comp=Z,0.3nmcomp=Z,0.3nmcomp=Z,67nm,1.0s,comp=Z,67nm,1.0s						
BAKI				AML	AML		
BAKI				AML	AML		
BSSI	Bau Bau, Buton	8.29	253	P	Pn	09 37 21.8	+2.2
	comp=Z,73nm,0.8s,comp=Z,73nm,0.8s						
EDFI	Ende, Flores	8.38	233	P	Pn	09 37 26.6	+5.8
BKSI	Bulukumba	8.46	259	P	Pn	09 37 26.0	+4.2
	comp=Z,45nm,0.8s,comp=Z,45nm,0.8s						
SPSI	Sidrap Palu	8.67	268	P	Pn	09 37 27.6	+2.9
	comp=Z,4µmcomp=Z,4µmcomp=Z,17nm,1.0s,comp=Z,17nm,1.0s						
KAPI	Kappang	8.77	261	Pn	Pn	09 37 26.5	+0.4
	comp=Z,4.3nm,0.3s,baz=99,slow=6.5,SNR=23						
	comp=Z,57nm,0.8s						
KAPI				AML	AML		
KAPI	Kappang	8.77	261		Pn	09 37 27.7	+1.5
TOLI2	Tolitoli	9.05	302		Pn	09 37 30.1	+0.2
TOLI2	Tolitoli	9.05	302	P	Pn	09 37 29.0	-0.9
	comp=Z,28nm,1.5s						
MTN	Manton Dam	9.45	164	Pn	Pn	09 37 36.2	+0.9
MPSI	Mapaga	9.45	295	P	Pn	09 37 39.1	+3.6
KNRA	Kununurra	11.89	179	Pn	Pn	09 38 10.1	+1.3
MYLDM	Lahad Datu	13.30	312	P	Pn	09 38 30.0	+1.7
	comp=Z,19nm,1.0s						
FITZ	Fitzroy Crossi	14.55	191	Pn	Pn	09 38 42.1	-3.2
	comp=Z,0.2nm,0.3s,baz=31,slow=10,SNR=7.1						
FITZ				LR	LR	09 44 07.1	
	comp=Z,115nm,21.8s,baz=8.5,slow=36						
	comp=Z,2.1nm,0.7s						
FITZ				AML	AML		
FITZ	Fitzroy Crossi	14.55	191	Pn	Pn	09 38 44.5	-0.8
FITZ	Fitzroy Crossi	14.55	191	P	Pn	09 38 44.7	-0.6
	comp=Z,3.0nm,1.3s						
WB0	Warramunga Arr	16.97	160		Pn	09 39 16.3	-0.5
WB0				IAmb	IAmb	09 39 23.0	
	comp=Z,29nm,1.1s						
SJI	Sawahan	17.07	256	P	P	09 39 21.7	+1.7
SNJI	Sawahan-Nganju	17.09	256	P	P	09 39 23.7	+3.4
WRAB	Tennant Creek	17.11	161		Pn	09 39 16.5	-2.1
WRAB				IAmb	IAmb	09 39 25.2	
	comp=Z,23nm,0.9s						
WRAB	Tennant Creek	17.11	161	P	Pn	09 39 18.3	-0.3
	comp=Z,27nm,1.3s						
WRA	Warramunga Arr	17.12	161	P	Pn	09 39 16.7	-2.0
	comp=Z,6.8nm,0.8s,baz=342,slow=12,SNR=14						
WRA	Warramunga Arr	17.12	161	Pn	Pn	09 39 17.0	-1.7
WB2	Warramunga Arr	17.12	161	Pn	Pn	09 39 16.9	-1.8
WB2				IAmb	IAmb	09 39 25.3	
	comp=Z,28nm,0.9s						
WR8	Warramunga Arr	17.18	160		Pn	09 39 18.6	-0.9
WR0	Warramunga Arr	17.20	160	Pn	Pn	09 39 18.8	-0.9
WR0				IAmb	IAmb	09 39 47.2	
	comp=Z,15nm,0.9s						
NGJI	Ngawi	17.30	257	P	P	09 39 28.7	+6.3
SMRI	Semarang	18.23	259		Pn	09 39 31.7	-0.9
SMRI	Semarang	18.23	259	P	P	09 39 34.6	+1.8
	comp=Z,186nm,1.0s						
PMG	Port Moresby	19.41	108	LR	LR	09 49 12.6	
	comp=Z,163nm,20.0s,baz=337,slow=43						
QIS	Mount Isa	19.95	148	P	Pn	09 39 53.4	+0.1
	comp=Z,17nm,0.9s						
AS31	Alice Springs	20.52	166		Pn	09 39 59.9	0.0
AS31				IAmb	IAmb	09 40 02.5	
	comp=Z,20nm,0.7s						
ASAR	Alice Springs	20.52	166	P	Pn	09 39 59.8	-0.2
	comp=Z,57nm,0.8s,baz=347,slow=10,SNR=172						
ASAR				PcP	PcP	09 44 08.8	-0.6
	comp=Z,1.2nm,0.7s,baz=356,slow=1.8,SNR=5.7						
ASAR				LR	LR	09 48 10.4	
	comp=Z,136nm,18.5s,baz=337,slow=38						
	comp=Z,57nm,0.8s						
ASAR	Alice Springs	20.52	166		Pn	09 39 59.4	-0.5
BBJI	Bungbulang	21.03	259		P	09 40 02.0	-1.4
BBJI				IAmb	IAmb	09 40 07.5	
	comp=Z,29nm,0.9s						
BBJI	Bungbulang	21.03	259	P	P	09 40 02.7	-0.7
	comp=Z,41nm,0.9s						
MTSU	Mount Surprise	21.13	134	P	P	09 40 05.3	+0.9
	comp=Z,9.7nm,0.9s						
KRVT	Keravat (AS076	23.52	92	LR	LR	09 50 36.2	
	comp=Z,109nm,18.7s,baz=223,slow=39						
GUMO	Guam	23.69	43	LR	LR	09 49 53.9	
	comp=Z,34nm,19.2s,baz=216,slow=37						
CTA	Charters Tower	23.79	135	LR	LR	09 50 47.5	
	comp=Z,48nm,21.3s,baz=318,slow=39						
MEEK	Meekatharra	24.66	202	P	P	09 40 39.3	-1.0
	comp=Z,22nm,1.5s						
IPM	Ipoh	28.59	286	P	P	09 41 15.9	+0.1
	comp=Z,14nm,1.2s						
RPSI	Rantau Prapat	30.19	282	P	P	09 41 29.1	-1.0
RPSI	Rantau Prapat	30.19	282	P	P	09 41 28.8	-1.2
	comp=Z,13nm,1.2s						
STKA	Stephens Creek	30.61	158	LR	LR	09 55 37.2	
	comp=Z,99nm,18.4s,baz=341,slow=40						
HNR	Honiara	31.78	102	LR	LR	09 57 51.9	
	comp=Z,85nm,18.1s,baz=10,slow=42						
CMAR	Chiang Mai Arr	36.48	308	P	P	09 42 23.8	-1.0
	comp=Z,0.4nm,0.3s,baz=135,slow=6.6,SNR=6.2						
	comp=Z,0.4nm,0.3s						
NJ2	Nanjing	36.73	346	*e*P	P	09 42 27.3	+0.6
NJ2				pmax	pmax		
	comp=Z,11nm,0.5s						
PZH	PanZhiHua	39.63	321	P	P	09 42 52.3	+0.9
KSRS	Korea Array	40.97	359	P	P	09 43 01.6	-0.6
	comp=Z,1.8nm,0.8s,baz=180,slow=6.7,SNR=3.7						
KSRS				LR	LR	09 59 11.1	
	comp=Z,33nm,21.5s,baz=135,slow=35						
	comp=Z,1.8nm,0.8s						
MJAR	Matsushiro Arr	41.08	12	P	P	09 43 02.5	-0.6
	comp=Z,3.0nm,1.0s,baz=175,slow=10.0,SNR=2.8						
MJAR				LR	LR	09 57 41.5	
	comp=Z,48nm,21.3s,baz=192,slow=33						
	comp=Z,3.0nm,1.0s						
BJI2	Beijing	44.96	347	P	P	09 43 35.1	+0.6
BJI2				pmax	pmax		
	comp=Z,4.0nm,1.0s						
HHC	Hu-ho-hao-te	46.97	342	*e*P	P	09 43 51.0	+0.5
HHC				pmax	pmax		
	comp=Z,14nm,0.5s						
HHC				pmax	pmax		
	comp=Z,87nm,4.2s						
KLR	Kul'dur	52.81	3	LR	LR	10 07 42.2	
	comp=Z,35nm,19.2s,baz=195,slow=37						
SONM	Songino Array	54.86	342	P	P	09 44 49.9	0.0
	comp=Z,1.6nm,0.7s,baz=168,slow=8.6,SNR=6.9						
SONM				LR	LR	10 09 38.2	
	comp=Z,39nm,18.0s,baz=114,slow=38						
	comp=Z,1.6nm,0.7s						
SONM	Songino Array	54.86	342	IAmb	IAmb	09 45 22.9	
	comp=Z,2.5nm,1.0s						
WMQ	Urumqi	59.82	327	*e*P	P	09 45 27.3	+2.4
WMQ				pmax	pmax		
	comp=Z,21nm,0.7s						
PETK	Petropavlovsk-	61.73	20	P	P	09 45 37.5	-0.2
	comp=Z,3.0nm,0.9s,baz=224,slow=5.6,SNR=2.6						
PETK				LR	LR	10 17 21.6	
	comp=Z,21nm,18.3s,baz=145,slow=41						
	comp=Z,3.0nm,0.9s						
CASY	Casey	63.70	188	P	P	09 45 50.9	+0.4
	comp=Z,4.2nm,1.2s						
MK31	Makanchi Array	64.66	327	P	P	09 45 56.6	-0.6
MKAR	Makanchi Array	64.66	327	P	P	09 45 55.7	-1.5
	comp=Z,1.8nm,0.7s,baz=123,slow=6.5,SNR=6.5						
MKAR				LR	LR	10 14 60.0	
	comp=Z,22nm,20.9s,baz=74,slow=37						
	comp=Z,1.8nm,0.7s						
MKAR	Makanchi Array	64.66	327	P	P	09 45 55.9	-1.4
ZAA0	Zalesovo Array	67.98	334		P	09 46 16.3	-2.0
ZAA0				IAmb	IAmb	09 46 19.5	
	comp=Z,4.5nm,1.0s						
ZALV	Zalesovo Beam	67.98	334	P	P	09 46 17.1	-1.2
	comp=Z,1.0nm,0.5s,baz=134,slow=4.3,SNR=7.5						
	comp=Z,1.0nm,0.5s						
ZALV	Zalesovo Beam	67.98	334		P	09 46 16.1	-2.2
SHEM	Shemya Is, Ala	68.09	28	LR	LR	10 17 38.2	
	comp=Z,28nm,18.0s,baz=286,slow=37						
ARK	Arkit	68.34	318	P	P	09 46 19.8	-1.3
	comp=Z,5.2nm,2.5s						
KURBB	Kurchatov Arra	68.93	329	P	P	09 46 23.1	-1.3
	comp=Z,1.6nm,0.2s,baz=132,slow=5.6,SNR=14						
	comp=Z,1.6nm,0.2s						
KURK	Kurchatov	68.93	329		P	09 46 22.9	-1.4
KURK	Kurchatov	68.93	329	P	P	09 46 23.3	-1.1
	comp=Z,8.2nm,0.9s						
BVAR	Borovoye Array	74.48	328	P	P	09 46 57.0	-0.8
	comp=Z,1.9nm,0.7s,baz=116,slow=6.8,SNR=7.4						
	comp=Z,1.9nm,0.7s						
TIXI	Tiksi	75.23	0	LR	LR	10 21 42.1	
	comp=Z,39nm,19.6s,baz=191,slow=37						
VNDA	Vanda	75.87	173	P	P	09 47 04.9	-0.5
	comp=Z,0.8nm,0.7s,baz=320,slow=8.0,SNR=7.0						
	comp=Z,0.8nm,0.7s						
VNDA	Vanda	75.87	173	IAmb	IAmb	09 47 09.3	
	comp=Z,1.9nm,1.2s						
VNDA	Vanda	75.87	173	P	P	09 47 05.4	+0.1
NRIK	Noril'sk	78.03	346	P	P	09 47 16.3	-1.3
	comp=Z,2.8nm,0.4s,baz=204,slow=7.0,SNR=3.7						
	comp=Z,2.8nm,0.4s						
RAYN	Ar Rayn	85.02	294	P	P	09 47 54.9	-0.7
	comp=Z,5.8nm,1.2s						
QSPA	South Pole Qui	86.24	180	P	P	09 48 00.1	-0.8
	comp=Z,2.3nm,0.8s,baz=285,slow=3.3,SNR=8.8						
	comp=Z,2.3nm,0.8s						
QSPA	South Pole Qui	86.24	180	IAmb	IAmb	09 48 01.6	
	comp=Z,2.5nm,0.8s						
KDAK	Kodiak Island	87.25	32	LR	LR	10 28 19.6	
	comp=Z,39nm,19.5s,baz=179,slow=36						
ILAR	Eielson Array	91.05	25	P	P	09 48 22.6	-1.0
	comp=Z,0.2nm,0.5s,baz=248,slow=4.9,SNR=6.5						
	comp=Z,0.2nm,0.5s						
AKASG	Malin Array Be	98.72	321	LR	LR	10 40 29.7	
	comp=Z,14nm,18.0s,baz=344,slow=40						
TORD	Torodi Ar. Bea	126.61	284	PKP	PKPdf	09 54 23.1	-0.8
	comp=Z,1.1nm,1.0s,baz=55,slow=3.8,SNR=4.0						
CPUP	Villa Florida	149.61	170	PKPbc	PKiKP	09 55 10.6	-0.3
	comp=Z,1.7nm,0.7s,baz=208,slow=3.0,SNR=4.5						
LPAZ	La Paz	154.23	141	PKPbc	PKiKP	09 55 22.4	+1.0
	comp=Z,0.8nm,0.6s,baz=204,slow=4.3,SNR=2.3						
LPAZ				PKPab	pPKPab	09 55 36.6	-1.2
	comp=Z,0.8nm,0.7s,baz=207,slow=4.5,SNR=2.3						

IDC ***24*** *09:41:21.7±2.2, 29°.58N×102°.73E, h0^{km}, mb3.5/2, mbtmp3.6/4, ML4.0/2, MS3.2/5, Error ellipse: s-maj=68.6km s-min=29.0km az=102.0*

ISC 24 09:41:16.9±1.2**, 30°.36N**±0°.10×**101°.9E**±0°.1**, h10^{km}, n11, σ1ˢ.04**/8**, MS3.4**/3**, Sichuan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CD2	Chengdu	1.72	71	Pg	Pn	09 41 47.3	+0.3
CD2				Sg	Sg	09 42 13.1	+0.8
CD2				smax	smax		
	comp=N,2µm,0.7s						
CD2				smax	smax		
	comp=E,2µm,0.7s						
LZDM	Lanzhou Array	5.79	15	Pn	Pb	09 42 57.7	-0.4
	baz=193,slow=16						
	comp=E,11nm,0.4s						
LZH	Lanzhou	5.95	16	*e*P	Pb	09 43 01.0	+0.3
LZH				sP	Pg	09 43 11.4	+0.6
LZH				pmax	pmax		
	comp=Z,47nm,1.0s						
XAN	Xi'an	7.02	57	Pn	Pb	09 43 18.3	-0.6
XAN				Sg	Sg	09 44 52.9	-9.2
XAN				smax	smax		
	comp=N,96nm,0.7s						
XAN				smax	smax		
	comp=E,100nm,1.0s						
XAN				LR	LR		
	comp=N,660nm,8.5s						
XAN				LR	LR		
	comp=E,320nm,9.6s						
CMAR	Chiang Mai Arr	12.14	193	Pn	Pn	09 44 10.9	+0.9
	comp=E,0.1nm,0.3s,baz=20,slow=11,SNR=1.5						
CMAR				LR	LR	09 49 15.6	
	comp=E,63nm,18.4s,baz=15,slow=41						
	comp=E,0.5nm,0.4s						
CMAR				AML	AML		
SONM	Songino Array	17.80	10	LR	LR	09 53 03.0	
	comp=E,50nm,20.4s,baz=138,slow=38						
ZALV	Zalesovo Beam	26.61	337	LR	LR	09 57 42.8	
	comp=E,26nm,19.0s,baz=74,slow=36						
JCJ	Chichijima	35.38	85	LR	LR	10 03 39.2	
	comp=E,67nm,18.9s,baz=135,slow=38						
WRA	Warramunga Arr	58.97	144	P	P	09 51 14.9	-1.8
	comp=E,1.1nm,1.0s,baz=336,slow=7.3,SNR=6.1						
	comp=E,1.1nm,1.0s						
ASAR	Alice Springs	61.90	147	P	P	09 51 36.8	0.0
	comp=E,0.3nm,0.9s,baz=328,slow=7.1,SNR=2.6						
	comp=E,0.3nm,0.9s						
LSZ	Lusaka	84.10	249	LR	LR	10 30 37.1	
	comp=E,51nm,18.1s,baz=170,slow=35						

IDC ***24*** *10:12:53.4±1.6, 9°.40N×127°.10E, h0^{km}, mb3.8/9,*

mbtmp3.8/9,MS3.1/7,Error ellipse: s-maj=133.0km s-min=17.5km az=72.0
MAN ***24*** *10:12:58.0,9°.32N×126°.81E,h17^{km},MS4.0*
ISC 24 10:12:58.8±1.1,**9°.21N**±0°.05×**127°.1E**±0°.1,**h38**^{km}±3^{km},**n34, σ1^s.56**/33,**mb3.9**/9,**MS3.2**/4,**Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BIPH	**Bislig**	**1.24**	**215**	*e*P	**Pn**	**10 13 18.9**	**-0.7**
BIPH				*e*S	**Sn**	**10 13 33.7**	**-1.3**
CDOP	**Cateel, Davao**	**1.55**	**204**	*e*P	**Pn**	**10 13 24.4**	**+0.6**
CDOP				*e*S	**Sn**	**10 13 43.4**	**+0.7**
BUKP	**Musuan**	**2.39**	**237**	*e*P	**Pn**	**10 13 35.8**	**+0.3**
BUKP				*e*S	**Sn**	**10 14 03.3**	**-0.2**
CGP	**Cagayan de Oro**	**2.47**	**253**	*i* P	**Pn**	**10 13 35.7**	**-0.8**
CGP				*i* S	**Sn**	**10 14 05.4**	**-0.1**
PLP	**Palo**	**2.84**	**314**	*e*P	**Pn**	**10 13 39.8**	**-1.8**
PLP				*e*S	**Sn**	**10 14 12.1**	**-2.4**
KCP	**Kidapawan**	**2.94**	**222**	*e*P	Pn	10 13 38.6	-4.4
KCP				*e*S	**Sn**	**10 14 14.6**	**-2.5**
TBP	**Tagbilaran**	**3.21**	**279**	*e*P	**Pn**	**10 13 45.6**	**-1.0**
TBP				*i* S	**Sn**	**10 14 23.9**	**+0.2**
LLP	**Lapu-Lapu**	**3.26**	**290**	*e*P	**Pn**	**10 13 46.5**	**-0.9**
LLP				*i* S	**Sn**	**10 14 27.1**	**+2.1**
LSIP	**Lazi, Siquijor**	**3.40**	**269**	*e*P	**Pn**	**10 13 48.8**	**-0.6**
LSIP				*e*S	**Sn**	**10 14 27.4**	**-1.0**
CTBH	**Cotabato--PC H**	**3.43**	**235**	*i* P	**Pn**	**10 13 50.4**	**+0.7**
SNPH	**Sibulan**	**3.79**	**272**	*e*P	**Pn**	**10 13 55.4**	**+0.6**
PAGZ	**Pagadian**	**3.90**	**250**	*e*P	**Pn**	**10 13 57.4**	**+1.2**
PAGZ				*e*S	**Sn**	**10 14 40.0**	**-0.6**
MMPH	**Masbate**	**4.62**	**313**	*i* P	Pn	10 14 25.7	+20
MMPH				*i* S	**Sn**	**10 15 01.2**	**+2.7**
GUIM	**Jordan**	**4.64**	**288**	*e*P	**Pn**	**10 14 06.3**	**0.0**
IBAJ	**Ibajay, Aklan**	**5.48**	**299**	*e*P	**Pn**	**10 14 22.4**	**+4.5**
SIJI	**Sorong**	**10.84**	**157**	LR	LR	10 19 58.4	
	comp=Z,42nm,20.0s,baz=82,slow=39						
KAPI	**Kappang**	**15.90**	**208**	LR	LR	10 22 45.6	
	comp=Z,26nm,19.3s,baz=49,slow=37						
GUMO	**Guam**	**17.97**	**74**	LR	LR	10 24 48.0	
	comp=Z,35nm,18.2s,baz=247,slow=40						
JCJ	**Chichijima**	**22.82**	**37**	LR	LR	10 25 58.8	
	comp=Z,334nm,21.0s,baz=315,slow=35						
JNU	**Nakatsue**	**24.06**	**8**	LR	LR	10 29 08.4	
	comp=Z,26nm,18.4s,baz=161,slow=41						
FITZ	**Fitzroy Crossi**	**27.17**	**183**	P	**P**	**10 18 41.2**	**+2.4**
	0.7nm,0.3s,baz=5.2,slow=11,SNR=2.4						
	0.7nm,0.3s						
WRA	**Warramunga Arr**	**29.83**	**166**	P	**P**	**10 19 04.5**	**+1.8**
	0.4nm,0.6s,baz=348,slow=9.3,SNR=7.5						
	0.4nm,0.6s						
ASAR	**Alice Springs**	**33.35**	**169**	P	**P**	**10 19 34.2**	**+0.7**
	0.2nm,0.5s,baz=343,slow=7.1,SNR=6.8						
	0.2nm,0.5s						
LZDM	**Lanzhou Array**	**34.09**	**325**	LR	LR	10 34 18.0	
	comp=Z,55nm,20.1s,baz=190,slow=38						
HNR	**Honiara**	**37.60**	**119**	LR	LR	10 37 10.9	
	comp=Z,30nm,18.1s,baz=47,slow=39						
H11S3	**WAKE ISLAND Hy**	**39.47**	**72**	T	T	11 03 32.9	
	baz=260						
H11S1	**WAKE ISLAND Hy**	**39.49**	**72**	T	T	11 03 40.0	
	baz=260						
H11S2	**WAKE ISLAND Hy**	**39.49**	**72**	T	T	11 03 32.8	
	baz=260						
SONM	**Songino Array**	**42.29**	**339**	P	**P**	**10 20 48.2**	**-0.7**
	0.4nm,0.5s,baz=150,slow=10,SNR=2.7						
	0.4nm,0.5s						
MKAR	**Makanchi Array**	**53.35**	**323**	P	**P**	**10 22 13.4**	**-1.0**
	0.8nm,0.6s,baz=129,slow=9.6,SNR=4.3						
	0.8nm,0.6s						
KURBB	**Kurchatov Arra**	**57.40**	**325**	P	**P**	**10 22 42.1**	**-1.3**
	0.9nm,0.5s,baz=125,slow=6.7,SNR=9.8						
	0.9nm,0.5s						
BVAR	**Borovoye Array**	**62.99**	**325**	P	**P**	**10 23 21.2**	**-0.5**
	1.1nm,0.8s,baz=119,slow=8.4,SNR=3.0						
	1.1nm,0.8s						
ARCES	**ARCESS Array B**	**85.46**	**340**	P	**P**	**10 25 32.0**	**-0.4**
	3.3nm,0.9s,baz=66,slow=3.0,SNR=3.6						
	3.3nm,0.9s						
FINES	**FINESS Array B**	**87.20**	**332**	P	**P**	**10 25 40.7**	**-0.3**
	0.7nm,0.8s,baz=62,slow=5.5,SNR=1.0						
	0.7nm,0.8s						

IPEC ***24*** *10:13:51.4±0.2,51°.60N×16°.09E,h1^{km},ML2.8/8,Error ellipse: s-maj=1.9km s-min=1.1km az=65.0*
DNK ***24*** *10:13:51.3±1.4,51°.56N×16°.15E,h26^{km}±61^{km},ML2.4, Presumed earthquake*
PRU ***24*** *10:13:53.7,51°.53N×16°.00E,h0^{km}*
VIE ***24*** *10:13:53.1,51°.50N×16°.10E,h0^{km},ML2.4/2 78 km NW of Wroclaw Suspected Mining induced.*
ISC 24 10:13:50.1±0.8,**51°.67N**±0°.03×**15°.96E**±0°.02,**h0**^{km},**n47, σ1^s.08**/96,**Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSP	**Ksiaz**	**0.85**	**166**	*e*Pg	**Pg**	**10 14 06.6**	**+0.2**
KSP				*e*Sg	**Sg**	**10 14 17.0**	**-0.4**
CHVC	**Chvalec**	**1.08**	**177**	*e*PG	**Pg**	**10 14 11.1**	**+0.3**
CHVC				*e*SG	**Sg**	**10 14 24.9**	**+0.1**
	comp=Z,85nm,0.5s						
CHVC				AML	AML		
OSTC	**Ostas**	**1.12**	**172**	*e*PG	**Pb**	**10 14 12.1**	**-0.3**
OSTC				*e*SG	**Sg**	**10 14 26.0**	**-0.1**
	comp=Z,105nm,0.5s						
OSTC				AML	AML		
UPC	**Upice**	**1.16**	**178**	*e*PG	**Pg**	**10 14 12.3**	**0.0**
UPC				*e*SG	**Sg**	**10 14 26.1**	**-1.2**
	comp=Z,178nm,0.4s						
UPC				AML	AML		
DPC	**Dobruska-Polom**	**1.34**	**170**	*e*PG	**Pg**	**10 14 15.4**	**-0.3**
DPC				*e*SG	**Sg**	**10 14 32.1**	**-0.9**
	comp=Z,62nm,0.4s						
DPC				AML	AML		
PVCC	**Panska Ves**	**1.44**	**218**	*e*PG	**Pb**	**10 14 18.2**	**+0.5**
PVCC				*e*SG	**Sn**	**10 14 36.7**	**-0.3**
BRG	**Berggiesshubel**	**1.49**	**239**	Pg	**Pb**	**10 14 19.4**	**+0.7**
BRG				Sg	**Sn**	**10 14 39.2**	**+0.8**
BRG				Amp		10 14 40.0	
	comp=Z,134nm,0.5s						
PIVO	**Bartosovice**	**1.53**	**166**	*e*Pg	**Pn**	**10 14 18.1**	**-0.6**
	baz=348						
PIVO				*e*Sg	**Sg**	**10 14 36.7**	**-2.4**
	comp=Z,142nm,0.3s,baz=348						
PIVO				AML	AML		
KRLC	**Kraliky**	**1.68**	**162**	*e*PG	**Pn**	**10 14 20.4**	**-0.3**
KRLC				*e*SG	**Sn**	**10 14 42.8**	**-0.1**
	comp=Z,79nm,0.5s						
KRLC				AML	AML		
ANAC	**Anensky vrch**	**1.83**	**150**	*e*Pn	**Pn**	**10 14 22.5**	**-0.4**
	baz=332						
ANAC				*e*Sg	**Sn**	**10 14 45.3**	**-1.5**
	comp=Z,77nm,0.3s,baz=332						
ANAC				AML	AML		
RYBC	**Ceska Rybna**	**1.86**	**178**	*e*Pn	**Pn**	**10 14 23.3**	**+0.1**
	baz=0.4						
RYBC				*e*Sg	**Sn**	**10 14 47.4**	**-0.1**
	comp=Z,57nm,0.2s,baz=0.4						
RYBC				AML	AML		
CLL	**Collm**	**1.88**	**260**	*i* Pn	**Pn**	**10 14 23.7**	**+0.2**
CLL				*i* Pg	**Pg**	**10 14 26.5**	**+0.3**
CLL				*e*x	x	10 14 30.0	
CLL				*e*Sg	**Sg**	**10 14 51.0**	**+0.5**
	comp=Z,44nm,0.4s						
HSKC	**Hora Svate Kat**	**1.91**	**237**	*e*PG	**Pg**	**10 14 26.4**	**-0.3**
HSKC				*e*SG	**Sg**	**10 14 51.8**	**+0.3**
	comp=Z,136nm,0.7s						
HSKC				AML	AML		
STEB	**Steborice**	**2.08**	**146**	*e*PG	**Pb**	**10 14 28.9**	**+0.2**
STEB				*e*SG	**Sb**	**10 14 55.5**	**+0.4**
	comp=Z,101nm,0.3s						
STEB				AML	AML		
MORC	**Moravsky Berou**	**2.14**	**151**	*e*Pn	**Pn**	**10 14 26.7**	**-0.5**
	baz=334						
MORC				*e*Sg	**Sn**	**10 14 55.3**	**+0.8**
	comp=Z,46nm,0.3s,baz=334						
MORC				AML	AML		
OKC	**Ostrava-Krasne**	**2.30**	**142**	*e*PG	**Pb**	**10 14 33.3**	**+0.9**
OKC				*e*SG	**Sb**	**10 15 01.3**	**-0.1**
	comp=Z,56nm,0.4s						
OKC				AML	AML		
TREC	**Trest**	**2.39**	**187**	*e*SG	**Sg**	**10 15 05.9**	**-1.0**
VRAC	**Vranov**	**2.40**	**170**	*e*Pn	**Pn**	**10 14 30.8**	**+0.2**
	baz=352						
VRAC				*e*Sg	**Sb**	**10 15 03.7**	**-0.5**
	comp=Z,37nm,0.5s,baz=352						
VRAC				AML	AML		
KRUC	**Moravsky**	**2.62**	**174**	*e*Pn	**Pn**	**10 14 33.8**	**+0.1**
	baz=356						
KRUC				*e*Sg	**Sb**	**10 15 10.9**	**+0.3**
	comp=Z,48nm,0.7s,baz=356						
KRUC				AML	AML		
KRUC	**Moravsky**	**2.62**	**174**	*e*PN	**Pn**	**10 14 33.9**	**+0.2**
KRUC				*e*SG	**Sb**	**10 15 11.0**	**+0.3**
NKC	**Novy Kostel**	**2.64**	**238**	*e*PG	**Pg**	**10 14 41.1**	**+0.4**
NKC				*e*SG	**Sg**	**10 15 15.1**	**+0.1**
	comp=Z,118nm,0.4s						
NKC				AML	AML		
STAC	**Stalkov**	**2.67**	**189**	*e*Pn	**Pn**	**10 14 34.9**	**+0.5**
	baz=11						
STAC				*e*Sg	**Sb**	**10 15 13.6**	**+1.4**
	comp=Z,34nm,0.2s,baz=11						
STAC				AML	AML		
OJC	**Ojcow**	**2.83**	**119**	*e*Pg	**Pg**	**10 14 43.6**	**-0.6**
OJC				*e*Sg	**Sg**	**10 15 19.3**	**-1.6**
KHC	**Kasperske Hory**	**2.96**	**212**	*e*PN	**Pn**	**10 14 38.3**	**-0.1**
KHC				*e*PG	**Pb**	**10 14 44.7**	**+1.0**
KHC				*e*SN	**Sn**	**10 15 14.0**	**-0.6**
KHC				*e*SG	**Sg**	**10 15 24.4**	**-0.7**
	comp=Z,28nm,0.5s						
KHC				AML	AML		
JAVC	**Velka Javorina**	**3.02**	**158**	*e*Pn	**Pn**	**10 14 39.0**	**-0.2**
	baz=340						
ABNA	**Allensteig Bun**	**3.02**	**187**	*e*Pn	**Pn**	**10 14 39.6**	**+0.5**
	comp=Z,3.5nm,0.2s						
ABNA				*e*Pg	**Pg**	**10 14 47.6**	**-0.3**
CKRC	**Cesky Krumlov**	**3.04**	**201**	*e*PN	**Pn**	**10 14 40.1**	**+0.7**
CKRC				*e*PG	**Pb**	**10 14 46.3**	**+1.2**
LANS	**Liptovska Anna**	**3.37**	**137**	*e*PG	**Pg**	**10 14 55.3**	**+0.6**
LANS				*e*SG	**Sb**	**10 15 34.1**	**+1.8**
MODS	**Modra-Piesok**	**3.40**	**165**	*e*PN	**Pn**	**10 14 45.4**	**+0.9**
MODS				*e*PG	**Pb**	**10 14 51.8**	**+0.5**
MODS				*e*SG	**Sg**	**10 15 38.9**	**-0.5**
BSD	**Bornholm Skovb**	**3.51**	**350**	*i* P	**Pn**	**10 14 46.6**	**+0.7**
BSD				*i* S	**Sn**	**10 15 25.9**	**-2.2**
BSD				IAML		10 15 48.5	
	comp=Z,4.8nm,0.3s						
WINA	**Alland / Wiene**	**3.56**	**179**	*e*Pn	**Pn**	**10 14 47.4**	**+0.8**
	comp=Z,2.1nm,0.2s,SNR=6.1						
WINA				*e*Sg	**Sg**	**10 15 42.4**	**-2.1**
	comp=Z,22nm,0.3s						
VYHS	**Vyhne**	**3.68**	**149**	*e*PN	**Pn**	**10 14 49.3**	**+1.1**
VYHS				*e*PG	**Pg**	**10 15 00.5**	**0.0**
VYHS				*e*SG	**Sb**	**10 15 42.4**	**+1.4**
CONA	**Conrad Observa**	**3.74**	**181**	*i* Pn	**Pn**	**10 14 50.0**	**+0.8**
	comp=Z,1.2nm,0.2s						
CONA				*e*Pg	**Pg**	**10 15 00.1**	**-1.7**
	comp=Z,6.3nm,0.3s						
CONA				*e*Sn	**Sn**	**10 15 33.8**	**-0.2**
	comp=Z,3.8nm,0.3s						
CONA				Sg	**Sg**	**10 15 49.4**	**-0.8**
	comp=Z,8.9nm,0.2s						
MOA	**Molln**	**3.98**	**197**	*i* Pn	**Pn**	**10 14 52.8**	**+0.5**
	comp=Z,5.2nm,0.3s,SNR=11						
MOA				Sg	**Sg**	**10 15 56.5**	**-1.2**
	comp=Z,16nm,0.4s						
RONA	**Rosalia, Austr**	**3.98**	**177**	*e*Pn	**Pn**	**10 14 53.8**	**+1.4**
	comp=Z,0.5nm,0.1s						
RONA				Sg	**Sg**	**10 15 55.6**	**-2.2**
	comp=Z,10nm,0.4s						
STHS	**Stebnicka Huta**	**4.05**	**122**	*e*PN	**Pg**	**10 15 09.4**	**+1.6**
STHS				*e*SG	**Sg**	**10 16 02.6**	**+2.3**
LUNU	**Lund**	**4.25**	**340**	*i* P	**Pn**	**10 14 56.8**	**+0.8**
LUNU				*i* S	**Sn**	**10 15 45.4**	**-0.8**
BIOA	**Bad Ischl, Aus**	**4.25**	**202**	*e*Pn	**Pn**	**10 14 58.5**	**+2.4**
	comp=Z,4.6nm,0.2s						
BIOA				Sg	**Sg**	**10 16 07.3**	**+0.6**
	comp=Z,21nm,0.5s						
ARSA	**Arzberg**	**4.43**	**184**	*e*Pg	**Pg**	**10 15 13.7**	**-1.2**
	comp=Z,2.1nm,0.3s						
ARSA				*e*Sg	**Sg**	**10 16 11.0**	**-1.3**
	comp=Z,12nm,0.6s						
SESA	**Seetaler Alpe,**	**4.65**	**192**	*e*Pn	**Pn**	**10 15 02.6**	**+0.9**
	comp=Z,4.9nm,0.2s,SNR=5.5						
SESA				Sg	**Sg**	**10 16 18.2**	**-1.1**
	comp=Z,25nm,0.6s						
BLEU	**Blekinge**	**4.65**	**359**	*i* P	**Pn**	**10 15 02.8**	**+1.3**
BLEU				*i* S	**Sn**	**10 15 53.7**	**-2.4**
LESA	**Schwarzleotal**	**4.75**	**208**	*e*Pn	**Pn**	**10 15 04.9**	**+1.9**
	comp=Z,0.6nm,0.2s						
LESA				Sg	**Sg**	**10 16 22.4**	**-0.3**
	comp=Z,5.4nm,0.3s						
KBA	**Koelnbreinsper**	**4.90**	**201**	*e*Pn	**Pn**	**10 15 06.0**	**+0.9**
	comp=Z,1.6nm,0.3s						
KBA				Sg	**Sg**	**10 16 28.1**	**+0.7**
	comp=Z,8.6nm,0.6s						
DEL	**Delary**	**4.97**	**347**	*i* P	**Pn**	**10 15 05.9**	**0.0**
DEL				*i* S	**Sn**	**10 16 02.0**	**-2.0**
OBKA	**Obir**	**5.24**	**191**	Sg	**Sg**	**10 16 38.7**	**+0.3**
	comp=Z,6.9nm,0.7s						
RETA	**Reutte**	**5.38**	**221**	*e*Pn	**Pb**	**10 15 21.3**	**-3.6**
	comp=Z,1.6nm,0.3s						
ABTA	**Abfaltersbach**	**5.42**	**206**	*e*Pn	**Pn**	**10 15 13.0**	**+0.8**
	comp=Z,1.3nm,0.2s						

UPP ***24*** *10:19:43.4±0.1,60°.56N×15°.58E,h0^{km},ML2.5,Suspected explosion*
BER ***24*** *10:19:43.1±1.0,60°.39N×15°.91E,h0^{km},ML1.3*
DNK ***24*** *10:19:43.9±0.5,60°.57N×15°.59E,h0^{km},ML2.5(UPP), Explosion*
ISC 24 10:19:42.2±0.8,**60°.59N**±0°.03×**15°.50E**±0°.02,**h0**^{km},**n33, σ0^s.44**/44,**Sweden**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FALU	**Falun**	**0.19**	**119**	P	**Pg**	**10 19 46.4**	**+0.6**
	baz=302						
FALU				S	**Sg**	**10 19 48.5**	**+0.2**
FALU	**Falun**	**0.19**	**119**	P	**Pg**	**10 19 46.4**	**+0.6**
	baz=302						
FALU				S	**Sg**	**10 19 48.5**	**+0.2**
ROTU	**Roteberg**	**0.85**	**10**	P	**Pb**	**10 19 59.7**	**-0.2**
ROTU	**Roteberg**	**0.85**	**10**	P	**Pb**	**10 19 59.7**	**-0.2**
OSTU	**Oestervaala**	**0.89**	**113**	P	**Pg**	**10 19 59.0**	**-0.2**
OSTU				S	**Sg**	**10 20 10.1**	**-0.6**
OSTU	**Oestervaala**	**0.89**	**113**	P	**Pg**	**10 19 59.0**	**-0.2**
OSTU				S	**Sg**	**10 20 10.1**	**-0.6**
IGGU	**Iggoen**	**0.94**	**71**	P	**Pg**	**10 20 00.6**	**+0.4**
IGGU				S	**Sg**	**10 20 12.4**	**0.0**
IGGU	**Iggoen**	**0.94**	**71**	P	**Pg**	**10 20 00.6**	**+0.4**
IGGU				S	**Sg**	**10 20 12.4**	**0.0**
NRAU	**Nora**	**1.04**	**193**	P	**Pg**	**10 20 02.5**	**+0.3**
NRAU	**Nora**	**1.04**	**193**	P	**Pg**	**10 20 02.5**	**+0.3**
UDD	**Uddeholm**	**1.06**	**243**	P	**Pb**	**10 20 03.6**	**+0.2**
UDD	**Uddeholm**	**1.06**	**243**	P	**Pb**	**10 20 03.6**	**+0.2**
BACU	**Backbrunna**	**1.09**	**132**	P	**Pg**	**10 20 02.8**	**-0.2**
BACU	**Backbrunna**	**1.09**	**132**	P	**Pg**	**10 20 02.8**	**-0.2**
FIBU	**Brunna**	**1.15**	**126**	P	**Pg**	**10 20 04.2**	**-0.1**
FIBU	**Brunna**	**1.15**	**126**	P	**Pg**	**10 20 04.2**	**-0.1**
FLYU	**Flymyra**	**1.27**	**110**	P	**Pg**	**10 20 06.1**	**-0.4**
FLYU	**Flymyra**	**1.27**	**110**	P	**Pg**	**10 20 06.1**	**-0.4**
ESKU	**Eskilstuna**	**1.43**	**161**	P	**Pn**	**10 20 09.2**	**-0.2**
ESKU	**Eskilstuna**	**1.43**	**161**	P	**Pn**	**10 20 09.2**	**-0.2**
ARNU	**Arnoeviken**	**1.44**	**39**	P	**Pb**	**10 20 09.8**	**0.0**
ARNU	**Arnoeviken**	**1.44**	**39**	P	**Pb**	**10 20 09.8**	**0.0**
GRAU	**Graesoe**	**1.53**	**98**	P	**Pn**	**10 20 10.9**	**+0.2**
GRAU	**Graesoe**	**1.53**	**98**	P	**Pn**	**10 20 10.9**	**+0.2**
HASU	**Hassela**	**1.66**	**18**	P	**Pg**	**10 20 13.9**	**-0.1**
HASU	**Hassela**	**1.66**	**18**	P	**Pg**	**10 20 13.9**	**-0.1**
ASKU	**Askersund**	**1.73**	**192**	P	**Pg**	**10 20 15.1**	**-0.2**
ASKU	**Askersund**	**1.73**	**192**	P	**Pg**	**10 20 15.1**	**-0.2**
NC602	**NORSAR Array S**	**1.95**	**276**	*e*P	**Pb**	**10 20 18.9**	**+0.2**
NC602				*e*S	**Sg**	**10 20 45.1**	**+0.2**
NC602				IAML		10 20 48.9	
	comp=Z,3.8nm,0.7s						
NB201	**NORSAR Array S**	**2.11**	**285**	*e*P	**Pb**	**10 20 21.1**	**-0.3**
NB201				*e*S	**Sg**	**10 20 49.8**	**-0.2**
NB201				IAML		10 20 51.4	
	comp=Z,3.8nm,0.3s						
NC303	**NORSAR Array S**	**2.12**	**289**	*e*P	**Pb**	**10 20 21.4**	**0.0**
NC303				*e*S	**Sb**	**10 20 49.4**	**+1.1**
NC303				IAML		10 20 51.8	
	comp=Z,4.7nm,0.8s						
NBO00	**NORSAR Array S**	**2.36**	**283**	*e*P	**Pb**	**10 20 25.0**	**-0.5**
NBO00				*e*S	**Sb**	**10 20 54.4**	**-0.7**
NBO00				IAML		10 21 01.8	
	comp=Z,3.0nm,0.8s						
NC204	**NORSAR Array S**	**2.41**	**289**	*e*P	**Pb**	**10 20 25.1**	**-1.4**
NC204				*e*S	**Sb**	**10 20 57.6**	**+0.8**
NC204				IAML		10 21 00.8	
	comp=Z,2.2nm,0.3s						

DJA ***24*** *10:44:12.5±0.8,2°N±6°×12°3E±°,h10^{km},M3.9/5,MLv3.9/5, MLv3.9/5*
IDC ***24*** *10:44:15.6±1.6,1°.11N×124°.10E,h0^{km},mb3.4/4, mbtmp3.5/5,ML3.5/1,MS3.1/2,Error ellipse: s-maj=151.1km s-min=21.4km az=66.0*
ISC 24 10:44:20.7±1.4,**0°.8N**±0°.1×**123°.4E**±0°.1,**h32**^{km},**n9, σ1^s.63**/8, **mb3.5**/4,**Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GTOI	**Gorontalo**	**0.42**	**251**	P	**Pb**	**10 44 27.4**	**-2.7**
GTOI				S	**Sn**	**10 44 38.9**	**+1.6**
MNI	**Manado**	**1.57**	**65**	P	Pn	10 44 39.7	-6.8
MNI				AML	AML		
MNI				AML	AML		
APSI	**Ampana**	**2.43**	**227**	P	**Pn**	**10 44 59.7**	**+1.5**
APSI				AML	AML		
APSI				AML	AML		
LEM	**Lembang**	**17.48**	**244**	LR	LR	10 56 13.2	
	comp=Z,44nm,18.9s,baz=65,slow=39						
FITZ	**Fitzroy Crossi**	**18.88**	**173**	P	**Pn**	**10 48 39.5**	**+0.1**
	0.1nm,0.3s,baz=0.0,slow=9.1,SNR=1.4						
	1.1nm,0.7s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**23.21**	**153**	P	**P**	**10 49 24.3**	**-0.9**
	0.7nm,0.6s,baz=336,slow=9.9,SNR=7.2						
	0.7nm,0.6s						
ASAR	**Alice Springs**	**26.35**	**158**	P	**P**	**10 49 54.2**	**+0.1**
	0.3nm,0.8s,baz=339,slow=7.8,SNR=4.0						
	0.3nm,0.8s						
MKAR	**Makanchi Array**	**58.18**	**328**	P	**P**	**10 54 12.1**	**+0.4**
	0.6nm,0.7s,baz=125,slow=7.2,SNR=2.9						
MKAR				LR	LR	11 18 50.7	
	comp=Z,19nm,20.1s,baz=11,slow=36						
	0.6nm,0.7s						
KURBB	**Kurchatov Arra**	**62.51**	**330**	P	**P**	**10 54 41.9**	**+0.7**
	0.2nm,0.4s,baz=116,slow=7.1,SNR=4.3						
	0.2nm,0.4s						

SOME ***24*** *11:16:11.8,44°.63N×82°.13E,h20^{km}*
NNC ***24*** *11:16:13.9±1.1,44°.71N×81°.91E,h0^{km},mb3.7,mpv3.6, Error ellipse: s-maj=12.0km s-min=3.7km az=124.0, Suspected Mining explosion.*
ISC 24 11:16:09.6±1.5,**44°.66N**±0°.05×**82°.22E**±0°.08,**h0**^{km},**n23, σ0^s.80**/36,**1C-5D,Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DJR	**Jarkent**	**1.77**	**260**	P	**Pg**	**11 16 43.5**	**-0.1**
	16nm,0.2s						
DJR				S	**Sg**	**11 17 06.3**	**-0.2**
	8.6nm,0.3s						
DJR	**Jarkent**	**1.77**	**260**	*e*P	**Pg**	**11 16 43.5**	**-0.1**
	16nm,0.2s						
DJR				*e*S	**Sg**	**11 17 06.3**	**-0.2**
	8.6nm,0.3s						
KAPS	**Kapalarasan**	**2.13**	**288**	Pg	**Pb**	**11 16 48.8**	**-0.3**
	5.9nm,0.1s						
KAPS				Lg	Lg	11 17 15.4	
	34nm,0.1s						
KAPS	**Kapalarasan**	**2.13**	**288**	*e*P	**Pb**	**11 16 48.8**	**-0.3**
	5.9nm,0.1s						
KAPS				*e*S	**Sb**	**11 17 15.4**	**-0.6**
	34nm,0.1s						
MK31	**Makanchi Array**	**2.13**	**1**	⇑Pn	**Pg**	**11 16 50.7**	**+0.2**
	1.6nm,0.2s,baz=184,slow=15,SNR=557						
MK31				⇓Sn	**Sg**	**11 17 18.2**	**+0.1**
	1.4nm,0.2s,baz=192,slow=28,SNR=11						
MAKZ	**Makanchi**	**2.15**	**355**	⇓Pn	**Pg**	**11 16 50.7**	**-0.2**
	5.3nm,0.3s						
MAKZ				⇓Sn	**Sg**	**11 17 18.3**	**-0.5**
	11nm,0.3s						
KNOS	**Konyrlen**	**2.20**	**263**	Pg	**Pb**	**11 16 50.2**	**-0.2**
	17nm,0.2s						
KNOS				Lg	Lg	11 17 17.7	
	53nm,0.2s						
PDGK	**Podgornoye**	**2.38**	**237**	⇓Pn	**Pb**	**11 16 52.7**	**-0.7**
	6.2nm,0.4s						
PDGK				⇓Sn	**Sb**	**11 17 22.7**	**-0.6**
	8.9nm,0.6s						
SHLS	**Shalkode**	**2.50**	**234**	Pg	**Pn**	**11 16 52.3**	**+0.7**
	23nm,0.1s						
SHLS				Lg	Lg	11 17 21.6	
	32nm,0.3s						
SHLS	**Shalkode**	**2.50**	**234**	*e*P	**Pn**	**11 16 52.3**	**+0.7**
	23nm,0.1s						
SHLS				*e*S	**Sn**	**11 17 21.6**	**-1.3**
	32nm,0.3s						
TDK	**Taldyqorghan**	**2.74**	**278**	Pg	**Pb**	**11 16 59.0**	**-0.4**
	60nm,0.2s						
TDK				Lg	Lg	11 17 32.9	
	74nm,0.3s						
TDK	**Taldyqorghan**	**2.74**	**278**	*e*P	**Pb**	**11 16 59.0**	**-0.4**
	60nm,0.2s						
TDK				*e*S	**Sb**	**11 17 32.9**	**-0.7**
	74nm,0.3s						
BLB	**Baldybastay**	**2.74**	**259**	Pg	**Pb**	**11 16 59.0**	**-0.6**
	16nm,0.2s						
BLB				Lg	Lg	11 17 33.2	
	19nm,0.4s						
UZB	**Uzynbulak**	**2.77**	**238**	Pg	**Pb**	**11 16 59.9**	**-0.1**
	12nm,0.2s						
UZB				Lg	Lg	11 17 34.7	
	5.9nm,0.2s						
UZB	**Uzynbulak**	**2.77**	**238**	*e*P	**Pb**	**11 16 59.9**	**-0.1**
	12nm,0.2s						
UZB				*e*S	**Sb**	**11 17 34.7**	**+0.2**
	5.9nm,0.2s						
KPKS	**Kokpek**	**2.82**	**246**	Pg	**Pb**	**11 17 00.2**	**-0.6**
	0.5nm,0.1s						
KPKS				Lg	Lg	11 17 35.5	
	23nm,0.3s						
KPKS	**Kokpek**	**2.82**	**246**	*e*P	**Pb**	**11 17 00.2**	**-0.6**
	0.5nm,0.1s						
KPKS				*e*S	**Sb**	**11 17 35.5**	**-0.4**
	23nm,0.3s						
ARXS	**Arharly**	**3.18**	**263**	Pg	**Pb**	**11 17 06.7**	**-0.3**
	4.9nm,0.3s						
ARXS				Lg	Lg	11 17 46.4	
	22nm,0.3s						
ARXS	**Arharly**	**3.18**	**263**	*e*P	**Pb**	**11 17 06.7**	**-0.3**
	4.9nm,0.3s						
ARXS				*e*S	**Sb**	**11 17 46.4**	**+0.1**
	22nm,0.3s						
SATY	**Saty**	**3.19**	**241**	Pg	**Pb**	**11 17 07.0**	**-0.2**
	4.3nm,0.1s						
SATY				Lg	Lg	11 17 46.7	
	7.3nm,0.2s						
SATY	**Saty**	**3.19**	**241**	*e*P	**Pb**	**11 17 07.0**	**-0.2**
	4.3nm,0.1s						
SATY				*e*S	**Sb**	**11 17 46.7**	**0.0**
	7.3nm,0.2s						
KRBS	**Karabastau**	**4.81**	**261**	Pg	**Pb**	**11 17 36.1**	**+1.4**
	1.2nm,0.2s						
KRBS				Lg	Lg	11 18 36.4	
	1.9nm,0.2s						
KRBS	**Karabastau**	**4.81**	**261**	*e*P	**Pb**	**11 17 36.1**	**+1.4**
	1.2nm,0.2s						
KRBS				*e*S	**Sb**	**11 18 36.4**	**+3.2**
	1.9nm,0.2s						

UPP ***24*** *11:50:28.1±0.1,63°.87N×20°.12E,h0^{km},ML2.5,Suspected explosion*
DNK ***24*** *11:50:28.5±0.5,63°.87N×20°.12E,h0^{km},ML2.5(UPP), Explosion*
HEL ***24*** *11:50:28.5±0.2,63°.86N×20°.12E,h0^{km},ML1.2,Explosion*
ISC 24 11:50:27.2±0.8,**63°.86N**±0°.02×**20°.03E**±0°.03,**h0**^{km},**n35, σ0^s.49**/49,**Sweden**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
UMAU	**Umeaa**	**0.29**	**85**	P	**Pg**	**11 50 33.0**	**+0.3**
UMAU				S	**Sg**	**11 50 36.5**	**+0.1**
UMAU	**Umeaa**	**0.29**	**85**	P	**Pg**	**11 50 33.0**	**+0.3**
UMAU				S	**Sg**	**11 50 36.5**	**+0.1**
UMAU	**Umeaa**	**0.29**	**85**	PG	**Pg**	**11 50 33.0**	**+0.3**
UMAU				SG	**Sg**	**11 50 36.5**	**+0.1**
ODEU	**Stanfors**	**0.63**	**28**	P	**Pg**	**11 50 39.5**	**+0.3**
ODEU				S	**Sg**	**11 50 47.6**	**+0.3**

ODEU	Stanfors	0.63	28	P	Pg	11 50 39.5	+0.3
ODEU				S	Sg	11 50 47.6	+0.3
HUSU	Husum	0.63	215	P	Pb	11 50 40.8	-0.3
HUSU				S	Sb	11 50 49.8	-0.6
HUSU	Husum	0.63	215	P	Pb	11 50 40.8	-0.3
HUSU				S	Sb	11 50 49.8	-0.6
HUSU	Husum	0.63	215	PB	Pb	11 50 40.8	-0.3
HUSU				SG	Sb	11 50 49.8	-0.6
BREU	Bredtraesk	0.64	274	P	Pb	11 50 41.0	-0.3
BREU	Bredtraesk	0.64	274	P	Pb	11 50 41.0	-0.3
SVAU	Svanoeiden	0.67	343	P	Pb	11 50 40.8	-0.9
SVAU	Svanoeiden	0.67	343	P	Pb	11 50 40.8	-0.9
BURU	Burvik	0.94	38	P	Pg	11 50 45.2	+0.1
BURU	Burvik	0.94	38	P	Pg	11 50 45.2	+0.1
BURU	Burvik	0.94	38	PG	Pg	11 50 45.4	+0.3
BURU				SB	Sg	11 50 57.1	-0.1
SOLU	Sollefteaa	1.38	245	P	Pb	11 50 54.2	+0.4
SOLU	Sollefteaa	1.38	245	P	Pb	11 50 54.2	+0.4
LILU	Lilltraesk	1.44	357	P	Pg	11 50 54.6	0.0
LILU	Lilltraesk	1.44	357	P	Pg	11 50 54.6	0.0
VAF	Ylistaro	1.44	123	PN	Pg	11 50 54.6	-0.2
	baz=303						
VAF				smax	smax	11 51 10.8	
	comp=Z,1.1nm,0.2s						
VAF				SG	Sg	11 51 13.2	-0.3
HEMU	Hemsoen	1.49	218	P	Pb	11 50 55.7	0.0
HEMU	Hemsoen	1.49	218	P	Pb	11 50 55.7	0.0
HEMU	Hemsoen	1.49	218	PG	Pb	11 50 55.8	+0.2
HEMU				SN	Sn	11 51 15.8	+0.5
SJUU	Sjulsmark	1.79	22	P	Pb	11 51 00.4	-0.4
SJUU	Sjulsmark	1.79	22	P	Pb	11 51 00.4	-0.4
OBF0	Syolatti, Pyha	1.95	69	smax	smax	11 51 25.3	
	comp=Z,1.3nm,0.2s						
OBF0				SG	Sb	11 51 28.2	-0.1
OUF	Merijarvi	2.13	74	smax	smax	11 51 30.4	
	comp=Z,1.2nm,0.2s						
OUF				SG	Sb	11 51 33.3	-0.1
KPF	Kankaanpaa	2.24	154	PG	Pb	11 51 08.5	+0.1
KPF				smax	smax	11 51 34.3	
	comp=Z,1.8nm,0.2s						
KPF				SG	Sg	11 51 37.9	-1.1
OBF4	Vikkela, Lumij	2.41	64	smax	smax	11 51 38.5	
	comp=Z,1.0nm,0.2s						
OBF4				SG	Sb	11 51 41.6	+0.1
KEF	Keuruu	2.79	125	smax	smax	11 51 49.6	
	comp=Z,1.4nm,0.2s						
KEF				SG	Sb	11 51 52.0	-0.3
TOF	Tornio	2.88	37	smax	smax	11 51 52.5	
	comp=Z,0.3nm,0.2s						
TOF				SG	Sb	11 51 55.0	-0.2
RAF	Rauma	2.96	163	smax	smax	11 51 55.3	
	comp=Z,0.8nm,0.2s						
RAF				SG	Sb	11 51 57.8	+0.5
SUF	Sumiainen	2.99	110	smax	smax	11 51 55.3	
	comp=Z,0.3nm,0.2s						
SUF				SB	Sb	11 51 57.5	-0.8
HEL1	Helsinki	4.34	146	PN	Pn	11 51 35.0	+0.7
HEL1				SB	Sb	11 52 36.0	-1.1
LAUT	Lauttasaari He	4.36	146	PN	Pn	11 51 35.0	+0.5
LAUT				SB	Sb	11 52 36.1	-1.5

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*IDC **24** 11:53:34.6±0.8, 27°.28N×140°.14E, h340^{km}±8^{km}, mb3.3/11, mbtmp4.0/11, Error ellipse: s-maj=21.5km s-min=14.9km az=84.0*

*JMA **24** 11:53:38.2±0.2, 28°N±1°×14°1E±°, h392^{km}, MV4.4/16, NEAR CHICHIJIMA ISLAND*

ISC 24 11:53:35.9±0.8**, 27°.31N**±0°.08×**140°.1E**±0°.1**, h350^{km}, n20,** σ**1^{s}76**/24**, mb3.7**/11**, Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CBIJ	Chichi jima	1.86	96	P	Pn	11 54 28.2	+2.0
CBIJ				S	S	11 55 07.5	+0.9
JCJ	Chichijima	1.86	96	P	Pn	11 54 24.1	-2.1
	baz=180,slow=0.0						
JCJ				S	S	11 55 03.4	-3.3
	baz=0.0,slow=0.0						
JHH2	Haha-jima-NKT2	1.96	109	P	Pn	11 54 29.4	+2.5
JHH2				eS	S	11 55 10.0	+2.1
BSO1	Boso 1	7.36	6	eS	S	11 56 47.1	-1.1
BSO3	Boso 3	7.48	3	S	S	11 56 51.1	-0.1
BSO4	Boso 4	7.66	1	eS	S	11 56 55.5	+0.1
JOD2	Odawara 2	7.98	354	eP	Pn	11 55 33.2	+3.5
JHO	Hitachi	9.29	2	P	Pn	11 55 46.5	+1.3
JHO				eS	S	11 57 27.1	-3.9
WRA	Warramunga Arr	47.30	187	P	P	12 01 35.0	-0.6
	1.8nm,0.6s,baz=8.9,slow=8.0,SNR=8.7						
	1.8nm,0.6s						
ASAR	Alice Springs	51.03	187	P	P	12 02 02.8	-0.7
	0.6nm,0.6s,baz=355,slow=4.3,SNR=4.5						
	0.6nm,0.6s						
KURBB	Kurchatov Arra	51.57	314	P	P	12 02 07.4	+0.2
	1.3nm,0.5s,baz=91,slow=7.9,SNR=9.3						
	1.3nm,0.5s						
BVAR	Borovoye Array	56.63	317	P	P	12 02 43.9	+0.5
	1.4nm,0.5s,baz=102,slow=7.1,SNR=6.1						
	1.4nm,0.5s						
ILAR	Eielson Array	58.42	29	P	P	12 02 55.4	-0.1
	0.5nm,0.7s,baz=280,slow=5.8,SNR=6.3						
	0.5nm,0.7s						
ARCES	ARCESS Array B	72.73	340	P	P	12 04 25.6	-0.5
	7.1nm,1.1s,baz=35,slow=4.4,SNR=6.6						
	7.1nm,1.1s						
YKA	Yellowknife Ar	72.83	28	P	P	12 04 26.8	0.0
	1.9nm,0.7s,baz=295,slow=6.3,SNR=4.1						
	1.9nm,0.7s						
FINES	FINESS Array B	76.93	333	P	P	12 04 49.7	-0.4
	1.0nm,0.3s,baz=82,slow=5.7,SNR=9.8						
	1.0nm,0.3s						
NVAR	Mina Array Bea	81.83	51	P	P	12 05 17.5	+0.4
	0.7nm,0.6s,baz=301,slow=5.7,SNR=6.9						
	0.7nm,0.6s						
NOA	NORSAR Array B	82.72	338	P	P	12 05 19.6	-1.4
	0.9nm,0.7s,baz=48,slow=4.7,SNR=3.5						
	0.9nm,0.7s						
PDAR	Pinedale Array	85.36	44	P	P	12 05 34.4	-0.4
	0.1nm,0.4s,baz=315,slow=6.9,SNR=2.9						
	0.1nm,0.4s						
PLCA	Paso Flores	151.44	126	PKPbc	PKPbc	12 12 48.4	-0.4
	1.2nm,0.5s,baz=211,slow=2.1,SNR=9.2						

AUST 24 11:54:28.0±0.3**, 13°S**±3°×**13°1E**±°**, h2^{km}**±1^{km}**, ML2.6**/6**, ML4.4**/1**, MLv4.4**/1**, Error ellipse: s-maj=6.4km s-min=3.9km az=9.9, Northern Territory**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MTN	Manton Dam	0.44	229	P	Pg	11 54 37.4	+0.9
MTN				S	Sg	11 54 43.2	+1.1
MTN				AML	AML		
DRS	Darwin Rock St	0.57	283	P	Pg	11 54 39.3	+0.3
DRS				S	Sg	11 54 46.2	-0.3
DRS				AML	AML		
DPH	Darwin Parliam	0.62	278	P	Pb	11 54 40.9	-0.7
DPH				S	Sg	11 54 48.0	0.0
DPH				AML	AML		
KDU	Kakadu	0.98	98	P	Pg	11 54 47.0	0.0
KDU				S	Sg	11 54 59.9	+0.1
KDU				AML	AML		
AUKAT	Katherine High	2.05	158	P	Pb	11 55 06.2	+0.2
AUKAT				S	Sg	11 55 33.8	-0.2
KNRA	Kununurra	4.07	220	P	Pn	11 55 32.3	+1.1
KNRA				S	Sn	11 56 18.0	-1.5
KNRA				AML	AML		
SOEI	Soe	7.60	291	P	Pn	11 56 18.8	-1.1
	comp=Z,14nm,1.5s,comp=Z,0.0nmcomp=Z,75µmcomp=Z,85µm						
SOEI				AML	AML		
SOEI				AML	AML		
SOEI				AML	AML		
WB10	Warramunga Arr	7.70	159	P	Pn	11 56 20.7	-0.5
WRAB	Tennant Creek	7.84	160	P	Pn	11 56 23.7	+0.6
	comp=Z,5.6nm,1.3s,comp=Z,0.0nm						
WRAB				AML	AML		
FITZ	Fitzroy Crossi	7.87	225	P	Pn	11 56 23.1	-0.5
	comp=Z,1.2nm,2.9s						
WR8	Warramunga Arr	7.91	159	P	Pn	11 56 23.1	-1.1
FAKI	Fak Fak	9.61	5	P	Pn	11 56 48.6	+1.1
	comp=Z,10nm,1.0s,comp=Z,0.0nm						
FAKI				AML	AML		
QIS	Mount Isa	11.14	137	P	Pn	11 57 09.2	+0.8
	comp=Z,4.2nm,0.5s						
WRKA	Warakurna	12.77	193	P	Pn	11 57 29.0	-1.8
	comp=Z,3.3nm,1.9s						

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*CATAC **24** 12:18:53.4±0.5, 13°N±2°×9°0W±°, h7^{km}±3^{km}, M4.0/25, MLv4.0/25, Error ellipse: s-maj=6.1km s-min=4.4km az=82.0, confirmed*

*GCG **24** 12:18:54.6±1.3, 12°.74N×90°.18W, h17^{km}±8^{km}, MD4.5, Presumed earthquake*

*SNET **24** 12:18:58.0±4.0, 12°.80N×90°.02W, h14^{km}, ML3.7, Presumed earthquake*

ISC 24 12:18:53.3±2.2**, 12°.73N**±0°.07×**90°.13W**±0°.06**, h2^{km}**±10^{km}**, n41,** σ**0^{s}73**/64**, 7C-4D, Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LALI	Alcalda de L	1.09	46	iP	Pg	12 19 14.3	0.0
LALI	Alcalda de L	1.09	46	P	Pg	12 19 14.6	+0.3
LALI				S	Sg	12 19 28.9	+0.4
FAME	Alcaldia de Sa	1.12	6	⇓P	Pg	12 19 14.1	-0.7
FAME				S	Sg	12 19 29.2	0.0
JAYA	Jayaque - finc	1.13	35	iP	Pg	12 19 14.8	-0.3
JAYA	Jayaque - finc	1.13	35	⇑P	Pg	12 19 14.8	-0.3
JAYA				S	Sb	12 19 31.1	-0.1
CEVE	Cerro Verde	1.20	24	eP	Pg	12 19 16.1	-0.2
CEVE				eS	Sn	12 19 36.5	+2.0
CEVE	Cerro Verde	1.20	24	P	Pg	12 19 16.0	-0.4
CEVE				S	Sb	12 19 33.3	+0.2
NUBE	Las Nubes	1.22	16	iP	Pg	12 19 15.8	-0.9
NUBE	Las Nubes	1.22	16	⇓P	Pg	12 19 15.8	-0.9
NUBE				S	Sg	12 19 32.0	-0.5
PMON	Piamonte	1.26	39	⇑P	Pg	12 19 16.7	-0.8
PMON				S	Sg	12 19 34.6	+0.7
PANCS	Alcalda de	1.27	46	P	Pg	12 19 16.8	-1.0
PANCS				S	Sg	12 19 34.9	+0.6
CEDA	San Andres	1.28	34	P	Pg	12 19 17.5	-0.5
CEDA				S	Sg	12 19 35.1	+0.4
BOQS	Boqueron	1.30	39	eP	Pg	12 19 17.3	-1.0
LOMA	Loma Larga	1.30	45	⇓P	Pg	12 19 17.5	-0.8
LOMA				S	Sg	12 19 35.7	+0.4
LOAL	Lomas de Alarc	1.31	15	P	Pg	12 19 17.8	-0.7
LOAL				S	Sg	12 19 35.5	+0.1
UEES	Universidad Ev	1.31	41	⇑P	Pg	12 19 17.4	-1.1
UEES				S	Sb	12 19 36.6	+0.5
SLOZ	Alcaldia de Sa	1.33	14	⇑P	Pn	12 19 18.0	-1.1
UNIC	Universidad Ca	1.37	24	P	Pn	12 19 19.2	-0.4
UNIC				S	Sg	12 19 37.2	-0.2
COEG	Centro de Oper	1.50	54	eS	Sg	12 19 42.5	+0.8
COEG	Centro de Oper	1.50	54	P	Pn	12 19 20.3	-1.2
COEG				S	Sb	12 19 41.8	+0.1
PAVA	Las Pavas	1.52	50	⇑P	Pn	12 19 20.8	-0.9
TECO	Alcaldia de Te	1.54	58	P	Pn	12 19 20.2	-1.7
TECO				S	Sn	12 19 41.7	-0.9
ALJI	Alcalda de J	1.63	68	P	Pn	12 19 22.3	-0.8
ALJI				S	Sn	12 19 44.6	-0.1
JUAM	Asuncion Mita	1.65	14	iP	Pn	12 19 22.8	-0.6
JUAM				iS	Sn	12 19 44.2	-1.1
MTO3	Montecristo	1.82	24	iP	Pn	12 19 25.2	-0.8
MTO3	Montecristo	1.82	24	⇑P	Pn	12 19 25.2	-0.8
MTO3				S	Sn	12 19 49.3	-0.5
P5NO	Presa 5 de nov	1.83	47	P	Pn	12 19 25.4	-0.4
P5NO				S	Sn	12 19 50.0	+0.4
LLGN	La Laguna	1.83	39	P	Pn	12 19 25.2	-0.8
PACA	Pacayal	1.91	67	P	Pn	12 19 26.4	-0.6
RANC	El Ranchito	1.92	68	⇓P	Pn	12 19 27.0	-0.3
ESQI	Esquipulas	1.98	23	eP	Pn	12 19 28.6	+0.5
ESQI				eS	Sb	12 19 56.3	+1.0
ESQI	Esquipulas	1.98	23	P	Pn	12 19 28.1	+0.1
ESQI				S	Sn	12 19 53.5	+0.1
STG8	El Palmar, Qui	2.09	325	iP	Pb	12 19 33.4	+1.2
LCND	La Caada	2.25	75	P	Pn	12 19 31.5	-0.2
APG	El Apazote	2.29	352	iP	Pn	12 19 32.3	-0.1
APG				iS	Sn	12 20 00.3	-1.0
CNCH	Conchagua	2.30	76	eP	Pn	12 19 32.2	-0.3
CNCH	Conchagua	2.30	76	P	Pn	12 19 31.9	-0.6
CNCH				S	Sn	12 20 01.0	-0.5
SARH	Santa Rosa de	2.43	33	iP	Pn	12 19 34.0	-0.2
SARH	Santa Rosa de	2.43	33	⇑P	Pn	12 19 34.1	-0.2
POTN	Potosi Cosigui	2.57	84	P	Pn	12 19 36.1	+0.1
CRIN	San Cristobal	3.00	90	S	Sn	12 20 18.6	-0.1

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*DJA **24** 12:22:18.2±0.5, 5°N±5°×9°6E±°, h107^{km}±4^{km}, M3.7/13, mB4.7/1, mb4.2/1, MLv3.5/13, Mw(mB)3.9/1*

*IDC **24** 12:22:23.5±13.0, 4°.78N×95°.52E, h193^{km}±116^{km}, mb3.1/7, mbtmp3.6/8, Error ellipse: s-maj=128.4km s-min=16.6km az=59.0*

ISC 24 12:22:16.8±0.8**, 4°.97N**±0°.08×**95°.90E**±0°.09**, h100^{km}, n27,** σ**2^{s}61**/19**, mb3.4**/7**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BSI	Banda Aceh	0.80	311	P	Pn	12 22 38.7	+3.6
BSI				AML	AML		
BSI				AML	AML		
BSI	Banda Aceh	0.80	311	P	Pn	12 22 38.4	+3.3
BSI				AML	AML		
MLSI	Meulaboh, Aceh	0.86	144	P	Pn	12 22 38.1	+2.4
MLSI				AML	AML		
MLSI				AML	AML		
MLSI	Meulaboh, Aceh	0.86	144	P	Pn	12 22 38.3	+2.6
MLSI				S	Sn	12 22 53.2	+3.2
MLSI				AML	AML		
LHMI	Lhok Sumawe	1.08	76	P	Pn	12 22 41.7	+3.7
LHMI				AML	AML		
KCSI	Kotacane, Aceh	2.36	127	P	Pn	12 22 55.7	+1.7
KCSI	Kotacane, Aceh	2.36	127	P	Pn	12 22 55.8	+1.7
KCSI				AML	AML		
SNSI	Sinabang, Aceh	2.58	170	P	Pn	12 23 00.3	+3.4
PSI	Prapat	3.71	125	P	Pn	12 23 14.2	+2.0
PSI				AML	AML		
GSI	Gunungsitoli	4.01	155	P	Pn	12 23 17.0	+0.9
GSI				AML	AML		
CMAR	Chiang Mai Arr	13.74	12	P	P	12 25 34.3	+1.8
	1.0nm,0.6s,baz=198,slow=11,SNR=6.4						
H08S2	Diego Garcia H	26.50	242	T	T	12 53 36.1	
	baz=63						
H08S3	Diego Garcia H	26.50	242	T	T	12 53 26.0	
	baz=63						
H08S1	Diego Carcia H	26.51	242	T	T	12 53 27.0	
	baz=63						
MKAR	Makanchi Array	43.30	346	P	P	12 30 06.8	-1.8
	0.4nm,0.4s,baz=164,slow=8.0,SNR=2.5						
	0.4nm,0.4s						
SONM	Songino Array	43.65	10	P	P	12 30 11.2	-0.4
	0.3nm,0.5s,baz=193,slow=5.6,SNR=1.2						
	0.3nm,0.5s						
WRA	Warramunga Arr	45.17	124	P	P	12 30 22.8	-1.2
	0.3nm,0.9s,baz=300,slow=8.2,SNR=1.5						
	0.3nm,0.9s						
ASAR	Alice Springs	46.73	129	P	P	12 30 35.0	-1.2
	0.2nm,0.4s,baz=300,slow=7.6,SNR=11						
	0.2nm,0.4s						
KURBB	Kurchatov Arra	47.78	345	P	P	12 30 41.5	-2.3
	0.2nm,0.4s,baz=325,slow=7.9,SNR=3.6						
	0.2nm,0.4s						
ZALV	Zalesovo Beam	49.66	351	P	P	12 30 56.1	-2.0
	0.6nm,0.4s,baz=170,slow=9.0,SNR=3.6						
	0.6nm,0.4s						
H04N2	CROZET ISLANDS	64.18	212	T	T	13 40 12.7	
	baz=50,slow=75,SNR=9.6						
H04N1	CROZET ISLANDS	64.19	213	T	T	13 40 18.8	
	baz=50,slow=75,SNR=9.1						
H04N3	CROZET ISLANDS	64.20	212	T	T	13 40 19.7	
	baz=50,slow=75,SNR=11						
H04S1	CROZET ISLANDS	64.56	212	T	T	13 41 06.4	
	baz=54						
H04S3	CROZET ISLANDS	64.57	212	T	T	13 40 44.5	
	baz=54						
H04S2	CROZET ISLANDS	64.58	212	T	T	13 40 57.4	
	baz=54						
ARCES	ARCESS Array B	78.57	340	P	P	12 34 04.3	-2.7
	1.9nm,0.9s,baz=107,slow=6.0,SNR=0.8						
	1.9nm,0.9s						

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*SJA **24** 12:26:00.4±0.9, 32°.84S×71°.86W, h31^{km}±3^{km}, ML3.3, MW3.6*

*GUC **24** 12:26:01.5±0.9, 32°.83S×71°.72W, h30^{km}±2^{km}, ML3.3*

ISC 24 12:26:00.6±1.3**, 32°.81S**±0°.02×**71°.85W**±0°.05**, h29^{km}**±13^{km}**, n48,** σ**1^{s}90**/76**, 5D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VA01	Torpederas	0.27	141	eP	Pn	12 26 08.1	-0.5
VA01	Torpederas	0.27	141	eP	Pn	12 26 08.0	-0.6
VA01				eS	Sn	12 26 12.9	-0.8
ROCH	El Roble	0.72	103	iP	Pb	12 26 14.5	-0.4
ROCH				eS	Sn	12 26 24.0	-1.3
ROCH				IAML		12 26 27.0	
	comp=N,1µm,0.5s						
MT02	Curacav	0.74	127	eP	Pn	12 26 14.7	-0.5
MT02				IAML		12 26 26.9	
	comp=Z,569nm,0.2s						
MT02	Curacav	0.74	127	⇓iP	Pn	12 26 14.9	-0.3
MT02				eS	Sn	12 26 24.4	-1.1
MT02				IAML		12 26 27.2	
	comp=E,898nm,0.3s						
VA05	Santo Domingo	0.86	167	eP	Pb	12 26 17.6	+0.5
VA05				eS	Sn	12 26 29.0	+0.6
VA05				IAML		12 26 34.8	
	comp=E,2µm,0.3s						
PEL	Peldehue	1.03	109	eP	Pn	12 26 18.9	-0.2
PEL				eS	Sb	12 26 33.0	-0.1
PEL				IAML		12 26 36.3	
	comp=E,4µm,0.2s						
CO04	Los Peladeros	1.07	44	⇓iP	Pn	12 26 19.7	-0.2
CO04				eS	Sn	12 26 33.0	-0.8
CO04				IAML		12 26 36.0	
	comp=N,2µm,0.2s						
VA03	San Esteban	1.09	88	eP	Pb	12 26 20.2	-0.8
VA03				eS	Sb	12 26 34.7	-0.2
VA03				IAML		12 26 37.0	
	comp=Z,957nm,0.4s						
VA03	San Esteban	1.09	88	⇓iP	Pn	12 26 20.1	0.0
VA03				eS	Sb	12 26 34.1	-0.9
VA03				IAML		12 26 36.0	
	comp=E,3µm,0.2s						
MT05	Renca	1.09	122	eP	Pb	12 26 21.0	0.0
MT05				eS	Sb	12 26 38.1	+3.1
MT05				IAML		12 26 40.4	
	comp=Z,688nm,0.4s						
MT05	Renca	1.09	122	eP	Pb	12 26 20.6	-0.4
MT05				IAML		12 26 38.6	
	comp=N,2µm,0.4s						
MT01	Popeta	1.16	155	eP	Pb	12 26 22.1	0.0
MT01				eS	Sb	12 26 37.7	+0.9
MT01				IAML		12 26 38.6	
	comp=Z,460nm,0.3s						
MT01	Popeta	1.16	155	eP	Pb	12 26 21.8	-0.3
MT01				eS	Sb	12 26 36.5	-0.3
MT01				IAML		12 26 38.5	
	comp=E,1µm,0.3s						
MT10	Hacienda Santa	1.19	113	eP	Pb	12 26 22.1	-0.7
MT10				IAML		12 26 40.6	
	comp=E,3µm,0.2s						
MT09	Talagante	1.20	143	⇓iP	Pb	12 26 22.6	-0.2
MT09				eS	Sb	12 26 37.9	-0.1
MT09				IAML		12 26 40.3	
	comp=N,1µm,0.4s						
MT14	Cerro Cal¡n	1.25	118	eP	Pb	12 26 22.7	-0.9
MT14				IAML		12 26 44.9	
	comp=N,1µm,0.3s						
MT03	Universidad Ad	1.31	122	eP	Pb	12 26 24.5	-0.2
MT03				eS	Sb	12 26 42.9	+1.7
MT03				IAML		12 26 44.4	
	comp=Z,1µm,0.3s						
MT03	Universidad Ad	1.31	122	eP	Pb	12 26 23.6	-1.1
MT03				eS	Sb	12 26 41.6	+0.4
MT03				IAML		12 26 46.1	
	comp=E,3µm,0.2s						
MT15	Las Vizcachas	1.37	125	eP	Pb	12 26 24.8	-0.9
MT15				eS	Sb	12 26 44.2	+1.3
MT15				IAML		12 26 47.3	
	comp=N,2µm,0.2s						
MT12	Pirque	1.42	130	eP	Pb	12 26 26.0	-0.5
MT12				IAML		12 26 47.9	
	comp=N,3µm,0.5s						
MT04	Ro Olivares	1.55	113	eP	Pb	12 26 28.1	-0.8
MT04				eS	Sb	12 26 48.7	+0.5
MT04				IAML		12 26 53.5	
	comp=Z,314nm,0.3s						
MT04	Ro Olivares	1.55	113	⇓iP	Pb	12 26 27.8	-1.0
MT04				IAML		12 26 49.5	
	comp=N,591nm,0.3s						
BO04	La Punta	1.56	139	eP	Pb	12 26 28.4	-0.6
BO04				IAML		12 26 54.8	
	comp=N,798nm,0.3s						
MT13	San Alfonso	1.60	126	eP	Pb	12 26 29.4	-0.2
MT13				eS	Sb	12 26 51.6	+2.1
MT13				IAML		12 26 53.4	
	comp=Z,623nm,0.2s						
MT13	San Alfonso	1.60	126	eP	Pb	12 26 28.9	-0.8
MT13				eS	Sb	12 26 49.9	+0.3
MT13				IAML		12 26 53.5	
	comp=E,1µm,0.3s						
BO03	Pichilemu	1.68	183	eP	Pn	12 26 28.7	+0.6
BO01	Tunca	1.70	158	eP	Pb	12 26 30.0	-1.2
BO01				eS	Sb	12 26 51.4	-0.7
BO01				IAML		12 27 02.4	
	comp=Z,180nm,1.0s						
BO01	Tunca	1.70	158	eP	Pb	12 26 29.6	-1.6
BO01				IAML		12 27 04.3	
	comp=E,174nm,0.4s						
LMEL	Las Melosas	1.72	127	eP	Pb	12 26 31.0	-0.7
LMEL				IAML		12 26 57.5	
	comp=N,1µm,0.2s						
CO02	Combarbal	1.76	24	eP	Pn	12 26 30.6	+1.3
CO02				eS	Sb	12 26 53.1	-0.9
CO02				IAML		12 26 58.8	
	comp=Z,476nm,0.3s						
CO02	Combarbal	1.76	24	eP	Pn	12 26 30.1	+0.9
CO06	Fray Jorge	2.14	5	eP	Pn	12 26 34.3	-0.1
CO06				IAML		12 27 16.6	
	comp=E,162nm,0.4s						
BO02	Sierra Bellavi	2.16	156	eP	Pb	12 26 36.8	-2.4
BO02				eS	Sb	12 27 02.9	-2.7
BO02				IAML		12 27 12.9	
	comp=Z,205nm,0.3s						
BO02	Sierra Bellavi	2.16	156	IAML		12 27 11.3	
	comp=N,556nm,0.3s						
GO05	Hualane	2.19	182	eP	Pn	12 26 36.0	+0.9
GO05				IAML		12 27 23.7	
	comp=N,98nm,0.7s						
CO03	El Pedregal	2.20	27	eP	Pn	12 26 36.8	+1.5
CO03				eS	Sb	12 27 07.2	+0.4
CO03				IAML		12 27 15.8	
	comp=Z,154nm,0.6s						
CO03	El Pedregal	2.20	27	eP	Pn	12 26 36.3	+1.0
CO03				IAML		12 27 11.8	
	comp=E,308nm,0.2s						
RTLS	Leoncito	2.38	66	eP	Pb	12 26 42.5	-0.6
RTLS				IAML		12 27 20.4	
	comp=Z,163nm,0.7s						
ARCO	CERRO ARCO	2.46	91	eP	Pb	12 26 44.4	+0.2
ARCO				IAML		12 27 23.5	
	comp=Z,82nm,0.3s						
RTLL	Cerro Villicun	3.22	64	eP	Pb	12 26 53.9	-3.3
RTLL				eS	Sb	12 27 33.4	-2.6
RTLL				IAML		12 27 45.9	
	comp=Z,109nm,0.7s						
ACCO	Cerro Coronel	3.25	48	eP	Pb	12 26 55.0	-2.8
ACCO				eS	Sb	12 27 36.4	-0.6
ACCO				IAML		12 27 46.5	
	comp=Z,65nm,0.4s						
CFA	Coronel Fontan	3.29	69	eP	Pb	12 26 55.6	-2.7
CFA				eS	Sb	12 27 34.4	-3.5
CFA				IAML		12 27 42.1	
	comp=Z,39nm,0.3s						
ACDV	Cuesta del Vie	3.52	42	eP	Pb	12 26 58.2	-4.1
ACDV				eS	Sb	12 27 53.3	+8.7
ACDV				IAML		12 27 57.7	
	comp=Z,41nm,0.4s						
LCO	Las Campanas	3.92	15	eP	Pn	12 26 59.9	+0.9
LCO				eS	Sn	12 27 45.7	+1.5
LCO				IAML		12 28 02.3	
	comp=Z,84nm,0.6s						
ACAN	Cantantal	3.97	83	eP	Pn	12 27 04.0	+4.4
AC05	El Transito	4.19	19	eP	Pn	12 27 04.5	+1.9
AC05				eS	Sn	12 27 55.9	+5.2
AC05				IAML		12 28 16.9	
	comp=Z,36nm,1.1s						
AC04	Llanos de Chal	4.64	8	eP	Pn	12 27 09.7	+0.9
AC04				eS	Sb	12 28 13.9	-2.9
AC04				IAML		12 28 24.6	
	comp=Z,37nm,0.5s						

TEH ***24*** *12:33:05.2, 38°.47N×45°.05E, h10km±500km, ML2.5, Presumed earthquake*

AZER ***24*** *12:33:05.5, 38°.53N×45°.17E, h32km, ml2.2*

ISC 24 12:33:06.7±1.2**, 38°.48N**±0°.04×**45°.13E**±0°.05**, h26**km±12km**, n16, σ1s.49**/24**, Iran-Armenia-Azerbaijan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ISHB	Shabestar	0.43	117	Pg	Pb	12 33 15.5	-0.4
ISHB				Sg	Sb	12 33 21.9	-0.3
IMRD	Marand	0.51	62	Pg	Pb	12 33 16.4	-0.8
NAX	Nakhchivan	0.75	22	P	Pb	12 33 20.6	-0.6
NAX				S	Sn	12 33 31.9	-0.3
ORD	Ordubad	0.81	56	P	Pn	12 33 21.6	-0.8
ORD				S	Sn	12 33 33.7	+0.1
ITBZ	Tabriz	0.83	107	Pg	Pn	12 33 20.8	-2.0
SBZ	Shahbuz	0.97	19	P	Pb	12 33 24.8	-0.2
SBZ				S	Sb	12 33 38.9	+1.4
IAZR	Azarshahr	1.04	140	Pg	Pn	12 33 25.4	-0.4
HYR	Heyderabad	1.26	350	S	Sb	12 33 46.2	+0.5
HAKT	HAKKARI	1.45	231	Pn	Pb	12 33 33.5	+0.2
IHRS	Heris	1.51	95	Pg	Pb	12 33 34.0	-0.1
QRD	Qoradiz	1.97	59	Pn	Pn	12 33 38.3	0.0
QRD				Sn	Sn	12 34 03.0	+0.8
AGDM	Agdam	2.24	43	S	Sb	12 34 12.9	-0.8
GDB	GEDABAY	2.29	12	Pg	Pb	12 33 45.4	-2.1
GDB				Sg	Sb	12 34 17.0	+1.6
GANJ	Ganja	2.35	23	Pg	Pb	12 33 47.7	-0.7
GANJ				Sg	Sb	12 34 20.8	+3.7
YRD	Yardimli	2.47	79	Pg	Pb	12 33 50.3	-0.2
YRD				Sg	Sb	12 34 24.1	+3.6
LRK	Lerik	2.52	85	Pg	Pb	12 33 50.5	-0.8

DJA 24 13:01:01.9±0.8**, 11°S**±6°×**11°8E**±°**, h10**km**, M3.8**/8**, mb4.3**/1**, mb4.3**/1**, ML3.4**/8**, MLv3.5**/8**, MLv3.5**/8**, South of Sumbawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLAI	Plampang	2.33	355	P	Pn	13 01 41.4	+1.1
PLAI				S	Sn	13 02 08.4	-0.6
TWSI	Taliwang, Sumb	2.64	336	P	Pn	13 01 44.8	+0.2
TWSI				AML	AML		
TWSI				AML	AML		
TWSI				AML	AML		
DBNI	Kabupaten Domp	2.66	7	P	Pn	13 01 46.6	+1.7
DBNI				S	Sn	13 02 17.8	+0.6
DBNI				AML	AML		
DBNI				AML	AML		
DBNI				AML	AML		
IGBI	Denpasar	3.64	309	P	Pn	13 01 57.4	-1.0
IGBI				AML	AML		
IGBI				AML	AML		
IGBI				AML	AML		
RTBI	Rangdo, Negare	4.03	312	P	Pn	13 02 04.5	+0.8
RTBI				AML	AML		
SRBI	Singaraja	4.10	318	P	Pn	13 02 05.7	+1.0
SRBI				AML	AML		
SRBI				AML	AML		
SRBI				AML	AML		
EDFI	Ende, Flores	4.36	57	P	Pn	13 02 06.2	-2.2
EDFI				AML	AML		
EDFI				AML	AML		
EDFI				AML	AML		
JAGI	Jajag, Banyuwa	4.63	305	P	Pn	13 02 10.4	-1.6
JAGI				AML	AML		
JAGI				AML	AML		
JAGI				AML	AML		
BSSI	Bau Bau, Buton	5.56	27	P	Pn	13 02 26.1	+1.3
	0.1nm0.1nm27nm,0.9s						
BSSI				AML	AML		
BSSI				AML	AML		

MOS ***24*** *13:15:14.9±1.2, 29°.46N×51°.35E, h14km, mb4.7/32, Error ellipse: s-maj=6.6km s-min=4.0km az=103.5*

IDC ***24*** *13:15:14.5±0.8, 29°.56N×51°.34E, h0km, mb4.2/22, mbtmp4.3/28, ML4.1/6, MS3.6/26, Error ellipse: s-maj=17.2km s-min=10.4km az=176.0*

NEIC ***24*** *13:15:15.8±1.8, 29°.49N±0°.07×51°.45E±0°.08, h10km±1km, mb4.5/26, Error ellipse: s-maj=12.6km s-min=10.4km az=136.0*

TEH ***24*** *13:15:16.8, 29°.53N×51°.44E, h14km±18km, ML4.3, Presumed earthquake*

GFZ ***24*** *13:15:16.9±0.3, 29°N±4°×5°1E±°, h10km, M4.5/37, mb4.7/37, confirmed*

OMAN ***24*** *13:15:18.8±0.7, 29°.21N×51°.51E, h10km, mb3.8/25, ml4.1/3, Error ellipse: s-maj=8.6km s-min=3.7km az=21.0*

DSN ***24*** *13:15:18.5±2.0, 29°.36N×51°.58E, h10km, ML4.4/14, Error ellipse: s-maj=26.9km s-min=8.5km az=0.0*

THR ***24*** *13:15:18.1±0.9, 29°.44N×51°.37E, h17km±9km, ML4.4, Presumed earthquake*

ISC 24 13:15:16.1±0.6**, 29°.49N**±0°.03×**51°.35E**±0°.03**, h14**km±4km**, n440, σ1s.55**/454**, mb4.6**/115**, MS3.5**/27**, 15C-22D, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAZ2	Kazeron-Fars-I	0.29	66	Pg	Pg	13 15 21.6	-0.7
SHI	Shiraz	1.02	81	Pg	Pg	13 15 34.8	-1.1
DSBU	Dashti - Bushe	1.13	184	Pg	Pg	13 15 39.4	+1.6
JHRM	Jahrom	2.18	116	Pn	Pb	13 15 53.9	-1.5
IBRJ	Brojen	2.41	358	Pn	Pn	13 15 57.7	+2.3
IRAM	Ramesheh	2.47	21	Pn	Pn	13 15 57.9	+1.7
ZNGN	Zangian	2.65	351	Pn	Pn	13 16 00.9	+2.1
JHBN	Jahan bin	2.79	348	Pn	Pn	13 16 02.8	+2.1
AMIS	Naft Sefid	2.81	321	Pn	Pn	13 16 03.2	+2.5
KBD	Kabd	3.21	265	P	Pb	13 16 10.4	-2.5
KBD				S	Sb	13 16 49.9	-2.0
IMEH	Mehriz	3.39	55	Pn	Pn	13 16 10.8	+1.9
IZEF	Zefreh	3.50	14	Pn	Pn	13 16 12.2	+1.8
DOBD	Dorbid, Yazd	3.69	47	Pn	Pn	13 16 14.7	+1.8
ICHK	Chekchek	3.80	43	Pn	Pn	13 16 15.9	+1.5
YZKH	Yazd	4.01	43	ePn	Pn	13 16 19.2	+2.0
YZKH				IAML		13 17 35.3	
	comp=Z,180nm,1.0s						
IBAF	Bafgh	4.19	59	Pn	Pn	13 16 21.7	+1.9
ANAR	Anarak	4.21	28	Pn	Pn	13 16 21.2	+1.2
KHMZ	Khomeyn	4.40	345	ePn	Pn	13 16 24.9	+2.2
KHMZ				IAML		13 17 50.0	
	comp=Z,280nm,1.0s						
KHGB	Koh Gabri	4.53	78	Pn	Pn	13 16 25.7	+1.2
ZRDN	Zarand Kerman	4.72	71	Pn	Pn	13 16 28.7	+1.6
KRBR	Kerman	4.73	83	ePn	Pn	13 16 29.5	+2.2
KRBR				IAML		13 17 54.0	
	comp=Z,380nm,1.0s						
GHVR	GHOM	4.97	359	ePn	Pn	13 16 33.8	+3.3
GHVR				IAML		13 18 11.6	
	comp=Z,460nm,1.0s						
ASAO	Ashtian	5.17	348	ePn	Pn	13 16 36.0	+2.7
CHMN	Cheshme madani	5.39	85	Pn	Pn	13 16 38.2	+1.7
SHME	Shamm	5.45	128	P	Pn	13 16 36.6	-0.4
SHME				S	Sn	13 17 37.8	-1.7
SHME	Shamm	5.45	128	P	Pn	13 16 35.5	-1.5
BANOM	Banah	5.64	128	P	Pn	13 16 40.0	+0.4
BANOM				S	Sn	13 17 42.1	-2.2
BANOM	Banah	5.64	128	P	Pn	13 16 39.7	+0.1
BANOM				S	Sn	13 17 41.0	-3.3
GHWR	Ruwais	5.67	166	P	Pn	13 16 41.8	+1.8
GHWR				S	Sn	13 17 43.1	-1.8
AJN	Ajban	5.88	146	P	Pn	13 16 44.4	+1.6
AJN				S	Sn	13 17 48.3	-1.8
NAZ	Nazwa, Dubai	5.90	138	P	Pn	13 16 43.7	+0.6
	SNR=11						
NAZ				S	Sn	13 17 48.8	-1.8
NAZ	Nazwa, Dubai	5.90	138	P	Pn	13 16 42.9	-0.2
MASF	Masafi	5.92	133	P	Pn	13 16 43.3	-0.1
	SNR=8.8						
MASF				S	Sn	13 17 48.8	-2.4
MSFE	Esma-Masafi	5.93	133	P	Pn	13 16 43.3	-0.3
ASUD	Al Ashush, Dub	6.00	143	P	Pn	13 16 45.9	+1.3
	SNR=5.0						
ASUD				S	Sn	13 17 50.4	-2.7
ASUD	Al Ashush, Dub	6.00	143	P	Pn	13 16 45.5	+1.0
ILBA	Ilam Banvizeh	6.02	314	ePn	Pn	13 16 45.9	+1.0
ILBA				IAML		13 19 05.5	
	comp=Z,100nm,1.0s						
MDH	Madha	6.06	132	P	Pn	13 16 45.4	+0.1
MDH				S	Sn	13 17 51.1	-3.5
MDH	Madha	6.06	132	P	Pn	13 16 45.1	-0.2
MZWR	Madinat Zayed	6.14	158	P	Pn	13 16 48.2	+1.8
MZWR				S	Sn	13 17 54.0	-2.4
DAMV	Damavand	6.14	5	ePn	Pn	13 16 48.3	+1.6
DAMV				IAML		13 17 57.1	
	comp=Z,270nm,1.0s						
KBAM	BAM	6.21	92	Pn	Pn	13 16 49.0	+1.5
UOSS	Minazif	6.26	135	P	Pn	13 16 48.4	+0.4
UOSS				S	Sn	13 17 56.2	-3.2
UOSS	Minazif	6.26	135		Pn	13 16 48.1	+0.1
UOSS	Minazif	6.26	135	P	Pn	13 16 48.5	+0.4
UOSS	Minazif	6.26	135	P	Pn	13 16 48.5	+0.4
	comp=Z,33nm,0.7s						
HATD	Hatta, Dubai	6.30	136	P	Pn	13 16 49.4	+0.8
HATD				S	Sn	13 17 56.9	-3.6
HATD	Hatta, Dubai	6.30	136	P	Pn	13 16 49.3	+0.6
HGHA	Hamedan- Ghaye	6.34	341	Pn	Pn	13 16 51.8	+2.4
ASHO	Ashiyiah	6.36	138	P	Pn	13 16 49.8	+0.3
	SNR=15						
ASHO				S	Sn	13 17 58.7	-3.4
ASHO	Ashiyiah	6.36	138	P	Pn	13 16 50.0	+0.5
CHTH	Charan	6.40	358	ePn	Pn	13 16 52.0	+1.8
CHTH				IAML		13 19 02.0	
	comp=Z,68nm,1.0s						
TABS	Tabas	6.43	48	ePn	Pn	13 16 51.6	+1.1
TABS				IAML		13 19 01.6	
	comp=Z,73nm,1.0s						
SNGE	Sanandaj	6.53	330	i P	Pn	13 16 53.1	+1.1
SNGE				IAML		13 18 17.7	
	comp=Z,120nm,1.0s						
ALNE	Al Ain	6.69	143	P	Pn	13 16 54.9	+1.0
ALNE				S	Sn	13 18 07.6	-2.4
ALNE	Al Ain	6.69	143	P	Pn	13 16 54.3	+0.3
JASK	Jask - Hormozg	6.81	120	P	Pn	13 16 55.4	-0.2
JASK				S	Sn	13 18 09.5	-3.4
SOHO	SOHO	7.06	138	P	Pn	13 16 58.6	-0.4
SOHO				S	Sn	13 18 17.0	-2.2
SOHO	SOHO	7.06	138	P	Pn	13 16 58.9	-0.2
BSRN	Basiran	7.13	68	ePn	Pn	13 17 01.0	+0.8
BSRN				IAML		13 19 16.1	
	comp=Z,50nm,1.0s						
SHRO	Shahrood	7.57	30	ePn	Pn	13 17 07.6	+1.4
SHRO				IAML		13 17 59.3	
	comp=Z,2.5nm,1.0s						
ARQ	Araqi	7.68	142	P	Pn	13 17 07.4	-0.2
	SNR=7.9						
ARQ				S	Sn	13 18 31.2	-3.4
RAYN	Ar Rayn	7.92	223	P	Pn	13 17 12.6	+1.6
RAYN				S	Sn	13 18 42.3	+1.8
RAYN	Ar Rayn	7.92	223	P	Pn	13 17 11.8	+0.8
RAYN	Ar Rayn	7.92	223		Pn	13 17 11.8	+0.8
RAYN	Ar Rayn	7.92	223	P	Pn	13 17 12.6	+1.6
RAYN	Ar Rayn	7.92	223	P	Pn	13 17 12.7	+1.8
	comp=Z,58nm,0.7s						
HOQ	Hoqain	7.94	136	P	Pn	13 17 10.6	-0.6
HOQ				S	Sn	13 18 36.4	-4.5
ZHSF	Zahedan	8.21	87	ePn	Pn	13 17 16.1	+1.1
SRSL	SARDASHT	8.35	325	ePn	Pn	13 17 18.4	+1.5
BSY	Bisya	8.53	141	P	Pn	13 17 18.5	-0.7
BSY				S	Sn	13 18 51.5	-3.8
SBZV	Sabzevar	8.65	36	ePn	Pn	13 17 22.2	+1.1
SHRT	Shahrakht	8.68	59	ePn	Pn	13 17 23.5	+2.2
SMDO	Samad	8.78	135	P	Pn	13 17 22.1	-0.7
SMDO				S	Sn	13 18 57.0	-4.7
WSAR	Wadi Sarin	9.02	132	P	Pn	13 17 25.4	-0.6
	SNR=9.7						
MRVT	Maraveh tapeh	9.05	25	ePn	Pn	13 17 28.5	+2.1
JMDO	Jabal Madar	9.33	138	P	Pn	13 17 27.9	-2.4
WBK	Wadi Bani Khal	9.68	133	P	Pn	13 17 33.7	-1.4
GRMI	Germi	9.72	344	ePn	Pn	13 17 37.5	+1.8
SRVN	Saravan	9.94	99	ePn	Pn	13 17 39.6	+0.9
HAKT	HAKKARI	10.27	324	P	Pn	13 17 43.0	-0.2
	comp=Z,108nm,0.6s						
JLN	Jalan Bani Buh	10.30	133	P	Pn	13 17 43.1	-0.4
MHTO	MHTO	10.37	143	P	Pn	13 17 43.5	-0.9
DOK	Doka	11.12	166	P	Pn	13 17 55.0	+0.3
	SNR=11						
GEVA	Gevas	11.17	324		Pn	13 17 53.4	-2.2
WHFO	Wadi Hawf	11.73	169	P	Pn	13 18 03.1	-0.1
GNI	Garni	11.94	335	Pn	Pn	13 18 05.2	-0.8
	comp=Z,11nm,0.3s,baz=151,slow=18,SNR=2.3						
	comp=Z,24nm,0.3s						
GNI				AML	AML		
GNI	Garni	11.94	335	eP	Pn	13 18 05.4	-0.6
DMTO	DMTO	12.17	164	P	Pn	13 18 08.3	-0.9
ABTO	Aybut	12.21	171	P	Pn	13 18 09.6	-0.1
	SNR=15						
RBK	Rabkut	12.21	167	P	Pn	13 18 06.7	-3.1
AKT	Akhty	12.32	347	eP	Pn	13 18 11.7	+0.5
AKT				pmax	pmax		
	comp=Z,7.0nm,0.6s						
AKT				MLR	MLR		
	comp=Z,173nm,11.0s						
ASF	Jabal al Asfar	12.71	286	Pn	Pn	13 18 16.4	-0.2
	comp=Z,1.5nm,0.3s,baz=95,slow=12,SNR=8.8						
ASF				Sn	Sn	13 20 33.2	-4.7
	comp=Z,0.7nm,0.3s,baz=284,slow=9.8,SNR=5.0						
ASF				Lg	Lg	13 22 15.3	
	comp=Z,0.3nm,0.3s,baz=298,slow=20,SNR=1.4						
ASF				LR	LR	13 24 16.3	
	comp=Z,114nm,21.5s,baz=78,slow=43						
	comp=Z,2.8nm,0.3s						
ASF				AML	AML		
GHAJ	Ghor Haditha	13.75	281		Pn	13 18 29.0	-1.6
GHAJ	Ghor Haditha	13.75	281	P	Pn	13 18 31.0	+0.4
	comp=Z,15nm,0.4s						
MAK	Makhachkala	13.79	348c	iP	Pn	13 18 29.3	-1.9
MAK				eS	Sn	13 21 03.0	-1.1
MAK				pmax	pmax		
	comp=Z,217nm,1.8s						
MAK				MLR	MLR		
	comp=Z,469nm,18.0s						
EPOS	Posof	13.88	332	P	Pn	13 18 35.9	+3.3
	comp=Z,22nm,1.1s						
MMAI	Mount Meron Ar	14.09	288	Pn	Pn	13 18 35.9	+0.5
	comp=Z,1.7nm,0.3s,baz=104,slow=12,SNR=3.9						
MMAI				Sn	Sn	13 21 06.5	-5.1
	comp=Z,1.1nm,0.3s,baz=130,slow=22,SNR=2.1						
MMAI				Lg	Lg	13 22 52.4	
	comp=Z,0.9nm,0.3s,baz=110,slow=37,SNR=1.3						
MMAI				LR	LR	13 25 21.0	
	comp=Z,157nm,18.4s,baz=99,slow=43						
	comp=Z,1.9nm,0.5s						
MMAI				AML	AML		
HRFI	Mount Harif	14.19	276	P	Pn	13 18 36.0	-0.7
	comp=Z,39nm,1.0s						
EIL	Elat	14.28	275	Pn	Pn	13 18 39.0	+1.0
	comp=Z,0.2nm,0.3s,baz=100,slow=6.1,SNR=4.1						
EIL				Lg	Lg	13 23 07.9	
	comp=Z,0.2nm,0.3s,baz=20,slow=18,SNR=1.2						
EIL				LR	LR	13 24 49.7	
	comp=Z,110nm,19.3s,baz=95,slow=40						
	comp=Z,7.3nm,0.9s						
EIL				AML	AML		
ARPR	Arapgir-MALATY	14.39	315		Pn	13 18 38.9	-0.7
ARPR	Arapgir-MALATY	14.39	315	P	Pn	13 18 39.5	0.0
	comp=Z,29nm,1.0s						
GROC	Groznyy	14.39	343	eP	Pn	13 18 40.1	+0.7
KELT	Kelkit	14.54	320	P	Pn	13 18 43.5	+1.9
	comp=Z,31nm,1.2s						
NCK	Nalchik	15.29	338	eP	Pn	13 18 53.8	+2.2
NCK				pmax	pmax		
	comp=Z,27nm,0.8s						
NEUR	Neytrino	15.40	336	eP	Pn	13 18 55.3	+2.2
KBZ	Khabaz	15.73	337	Pn	P	13 19 00.0	-1.2
	comp=Z,0.4nm,0.3s,baz=149,slow=8.0,SNR=34						
KBZ				LR	LR	13 25 40.4	
	comp=Z,184nm,18.8s,baz=156,slow=40						
KBZ				AML	AML		
KBZ	Khabaz	15.73	337c	iP	Pn	13 18 59.0	+1.8
KBL	Kabul	15.82	67	P	Pn	13 19 00.6	+1.9
	comp=Z,5.8nm,0.6s						
SHA1	Shidzhatmaz	15.83	336d	iP	P	13 19 01.4	-1.1
BNN	Bunyan	15.85	310		Pn	13 18 56.4	-2.6
KVAR	Kislovodsk Arr	16.00	337	Pn	P	13 19 04.1	-0.2
	comp=Z,19nm,1.0s,baz=270,slow=19						
KIV	Kislovodsk	16.01	337	eP	P	13 19 03.2	-1.1
KIV				pmax	pmax		
	comp=Z,108nm,1.1s						
KIV				MLR	MLR		
	comp=Z,90nm,14.0s						
KIV	Kislovodsk	16.01	337	P	P	13 19 04.1	-0.3
	comp=Z,131nm,1.1s						
CSS	Mathiatis	16.19	294	P	Pn	13 19 03.4	+0.1
	comp=Z,24nm,1.0s						
SOC	Sochi	16.86	330	eP	P	13 19 16.2	+2.5
SOC				pmax	pmax		
	comp=Z,19nm,0.9s						
SOC				MLR	MLR		
	comp=Z,122nm,20.0s						
BR104	Keskin Array S	17.76	310	P	Pn	13 19 23.3	+0.2
	comp=Z,72nmcomp=Z,8.2nm,1.0s						
BR131	Keskin Array S	17.77	310	P	P	13 19 28.4	+4.4
	SNR=9.5						
BR131	Keskin Array S	17.77	310	⇓iP	P	13 19 24.3	+0.3
BR131	Keskin Array S	17.77	310	Pn	Pn	13 19 22.2	-1.0
BRTR	Keskin Array B	17.77	310	P	Pn	13 19 24.1	+0.9
	comp=Z,0.2nm,0.3s,baz=130,slow=12,SNR=21						
BRTR				LR	LR	13 28 10.4	
	comp=Z,275nm,18.8s,baz=114,slow=44						
	comp=Z,7.0nm,0.9s						
BRTR				AML	AML		
BRTR	Keskin Array B	17.77	310	i P	P	13 19 26.7	+2.7
BRTR				pmax	pmax		
	comp=Z,7.0nm,0.9s						
BRTR	Keskin Array B	17.77	310		Pn	13 19 20.8	-2.4
BR105	Keskin Array S	17.78	310	P	Pn	13 19 23.7	+0.3
	comp=Z,85nmcomp=Z,9.5nm,1.1s						
BR106	Keskin Array S	17.79	310	P	Pn	13 19 23.8	+0.4
	comp=Z,59nmcomp=Z,7.6nm,1.0s						
KKUL	Konya-Kulu	18.00	307	P	P	13 19 28.2	+1.7
	comp=Z,19nm,1.2s						
KEPZ	Antalya-Kepez	18.09	299	⇑P	P	13 19 29.6	+2.2
BZK	Bozkurt	18.75	316	P	P	13 19 35.0	+0.4
	comp=Z,21nm,1.1s						
CHM	Chimkent	19.50	44	eP	Pn	13 19 44.5	+0.4
CHM	Chimkent	19.50	44	eP	Pn	13 19 44.6	+0.4
ATD	Arta Tunnel	19.55	206	LR	LR	13 28 11.3	
	comp=Z,6.6nm,20.2s,baz=2.0,slow=40						
IUG	Iuzhnay	19.67	45	eP	Pn	13 19 46.5	+0.3
IUG	Iuzhnay	19.67	45	eP	Pn	13 19 46.5	+0.3
BORA	Eskisehir	20.03	307	P	P	13 19 47.0	-1.6
BORA				IAmb	IAmb	13 19 52.1	
	comp=Z,25nm,1.4s						
BRLS	Borolday	20.06	43	eP	P	13 19 47.8	-1.1
BRLS	Borolday	20.06	43	eP	P	13 19 47.9	-1.0
SAHE	Sakarya_HENDEK	20.18	310	⇑P	Pn	13 19 52.6	+0.4
TAVA	DENIZLI_Tavas	20.31	299	⇓P	P	13 19 52.8	+1.1
KKAR	Karatay Array	20.50	43	P	P	13 19 52.7	-1.1
KKAR	Karatay Array	20.50	43		P	13 19 52.7	-1.1
AB31	Akbulak array	20.80	16	P	P	13 19 54.4	-2.4
ABKAR	Akbulak array	20.80	16		P	13 19 55.3	-1.5
KARP	Karpathos	21.25	293	P	P	13 20 02.5	+0.6
KARP	Karpathos	21.25	293	P	P	13 20 03.3	+1.4
AKTO	Aktyubinsk	21.52	12	P	P	13 20 05.1	+0.5
	comp=Z,6.5nm,0.5s,baz=196,slow=9.3,SNR=25						
AKTO				LR	LR	13 29 33.2	
	comp=Z,98nm,21.3s,baz=234,slow=40						
	comp=Z,6.5nm,0.5s						
BALY	Balya	21.99	304	P	P	13 20 11.2	+1.4
	comp=Z,50nm,1.0s						
CTYL	Yalikoy Yolu	22.19	309	P	P	13 20 12.2	+0.3
	comp=Z,2μmcomp=Z,23nm,0.9s						
AAK	Ala-Archa	22.76	49	LR	LR	13 29 55.3	
	comp=Z,82nm,18.2s,baz=264,slow=39						
AAK	Ala-Archa	22.76	49	eP	P	13 20 20.8	+2.6
AAK				pmax	pmax		
	comp=Z,13nm,1.4s						
VRH	Novokhopyorsk	22.86	344	eP	P	13 20 17.2	-1.7
VRH				pmax	pmax		
	comp=Z,40nm,1.0s						
EZN	Ezine	22.96	303	P	P	13 20 21.5	+1.5
	comp=Z,25nm,1.1s						
BELG	Belogornoye	23.05	354	i P	P	13 20 20.7	-0.1
BELG				pmax	pmax		
	comp=Z,8.0nm,0.9s						
IDI	Anoyia	23.05	291	P	P	13 20 20.6	-0.5
IDI				IAmb	IAmb	13 20 25.1	
	comp=Z,21nm,0.8s						
SGDS	Sogindy	23.23	47	eP	P	13 20 24.5	+1.6
NRN	Naryn	23.26	53	P	P	13 20 14.8	-8.7
NRN				pmax	pmax		
	comp=Z,8.0nm,0.9s						
NRN	Naryn	23.26	53	P	P	13 20 14.8	-8.7
NRN				IAmb	IAmb	13 20 32.8	
	comp=Z,8.4nm,0.9s						
VORD	Divnogorie	23.28	340	eP	P	13 20 22.9	-0.3
VORD				pmax	pmax		
	comp=Z,30nm,1.1s						
NE56	Odesa	23.42	323	P	P	13 20 24.3	-0.3
ASAI	AK-SAY(Kyrgyzs	23.43	54	P	P	13 20 27.3	+2.1
	comp=Z,6.7nm,1.1s						
TIRR	Tirgusor	23.54	316	P	P	13 20 26.8	+1.0
TIRR	Tirgusor	23.54	316	⇑P	P	13 20 26.9	+1.0
TIRR	Tirgusor	23.54	316	P	P	13 20 25.6	-0.2
	comp=Z,27nm,0.9s						
TIRR	Tirgusor	23.54	316	P	P	13 20 26.9	+1.0
	comp=Z,27nm,0.9s						
VSR	Storozhevoye	23.54	341	eP	P	13 20 24.6	-1.2
VSR				pmax	pmax		
	comp=Z,17nm,0.9s						
TLCR		23.69	318	P	P	13 20 28.9	+1.6
TLCR		23.69	318	⇑P	P	13 20 28.9	+1.6
TPGR	Topolog	23.74	316	⇓P	P	13 20 30.0	+2.1
VORR	Voronezh	23.94	341	eP	P	13 20 28.4	-1.2
VORR				pmax	pmax		
	comp=Z,20nm,0.8s						
CFR	Carcaliu	24.09	317	P	P	13 20 32.3	+1.3
CFR	Carcaliu	24.09	317	⇓P	P	13 20 32.3	+1.3
TNSS	Tian-Shan	24.55	50	eP	P	13 20 36.6	+0.7
TNSS	Tian-Shan	24.55	50	eP	P	13 20 36.7	+0.7
TARG	Taragay, Kyrgy	24.62	53	P	P	13 20 36.8	+0.2
TARG				pmax	pmax		
	comp=Z,8.0nm,1.2s						
TARG	Taragay, Kyrgy	24.62	53	P	P	13 20 36.8	+0.2
TARG				IAmb	IAmb	13 20 47.1	
	comp=Z,7.6nm,1.2s						
MDOK	Medeo	24.67	49	eP	P	13 20 38.0	+1.3
MDOK	Medeo	24.67	49	eP	P	13 20 38.1	+1.3
LPSR	Galich'ya Gora	24.85	342	eP	P	13 20 37.8	-0.1
LPSR				pmax	pmax		
	comp=Z,86nm,0.8s						
GHRR		24.99	318	P	P	13 20 41.7	+2.4
ISR	Istrita	25.02	315	P	P	13 20 40.1	+0.5
	comp=Z,32nm,1.0s						
BISRR	Bisoca	25.13	316	⇓P	P	13 20 40.2	-0.5
BISRR	Bisoca	25.13	316	P	P	13 20 39.7	-1.0
	comp=Z,82nm,0.9s						
SAHR	Sahastru	25.24	317	⇑P	P	13 20 44.4	+2.8
VRI	Vrincioaia	25.29	317	P	P	13 20 44.1	+2.1
VRI	Vrincioaia	25.29	317	⇓P	P	13 20 44.2	+2.1
VRI	Vrincioaia	25.29	317	P	P	13 20 42.6	+0.5
	comp=Z,21nm,0.8s						
VRI	Vrincioaia	25.29	317	P	P	13 20 44.5	+2.4
	comp=Z,19nm,0.9s						
NEHR	Nehoiu	25.32	316	⇑P	P	13 20 45.2	+2.8
PLOR	Plostina	25.33	317	P	P	13 20 45.3	+2.9
PLOR	Plostina	25.33	317	⇑P	P	13 20 45.4	+2.9
SOH	Sokhos	25.43	304	P	P	13 20 45.6	+2.2
	comp=Z,41nm,0.8s						
SATY	Saty	25.54	51	eP	P	13 20 45.5	+1.0
SATY	Saty	25.54	51	eP	P	13 20 45.5	+1.0
MLR	Muntele Rosu	25.57	316	P	P	13 20 47.1	+2.4
MLR				pmax	pmax		
	comp=Z,36nm,0.9s						
MLR	Muntele Rosu	25.57	316	P	P	13 20 47.1	+2.4
MLR	Muntele Rosu	25.57	316	⇓P	P	13 20 47.9	+3.2
COVR	Voineasa-Covas	25.59	317	⇓P	P	13 20 47.6	+2.8
SORM	Soroca	25.68	323	P	P	13 20 45.7	+0.2
SORM	Soroca	25.68	323	⇓P	P	13 20 45.8	+0.2
SORM	Soroca	25.68	323	P	P	13 20 45.3	-0.2
	comp=Z,42nm,1.0s						
TESR	Tescani	25.68	318	⇓P	P	13 20 47.4	+1.8
TESR	Tescani	25.68	318	P	P	13 20 45.4	-0.2
	comp=Z,95nm,1.0s						
TESR	Tescani	25.68	318	P	P	13 20 47.4	+1.8
	comp=Z,95nm,0.8s						
ONER	Baraj Valea Uz	25.73	318	⇓P	P	13 20 48.3	+2.2
KPKS	Kokpek	25.89	50	eP	P	13 20 48.6	+1.0
KPKS	Kokpek	25.89	50	eP	P	13 20 48.6	+1.0
OZUR		25.97	317	⇓P	P	13 20 50.4	+2.1
UZB	Uzynbulak	25.99	51	eP	P	13 20 49.7	+1.1
UZB	Uzynbulak	25.99	51	eP	P	13 20 49.8	+1.1
VOIR		26.09	315	P	P	13 20 51.5	+2.1
VOIR		26.09	315	⇓P	P	13 20 51.6	+2.1
VOIR		26.09	315	P	P	13 20 51.5	+2.1

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             comp=Z,29nm,1.0s
DOPR  Dopca              26.14 316 ⇓P         P          13 20 52.1 +2.3
GRG   Griva              26.16 304  P         P          13 20 52.0 +2.0
             comp=Z,69nm,0.9s
SHLS  Shalkode           26.29  51 eP         P          13 20 54.9 +3.6
SHLS  Shalkode           26.29  51 eP         P          13 20 55.0 +3.6
ARR   Arges              26.32 314  P         P          13 20 53.3 +1.8
             comp=Z,17nm,1.0s
TDK   Taldyqorghan       26.36  47 eP         P          13 20 53.0 +1.3
TDK                                 pmax      pmax
             comp=Z,6.0nm,0.5s
TDK   Taldyqorghan       26.36  47 eP         P          13 20 53.1 +1.3
             comp=Z,5.8nm,0.5s
PDGK  Podgornoye         26.37  51  P         P          13 20 51.0 -1.1
PDGK  Podgornoye         26.37  51  P         P          13 20 51.0 -1.1
AK07  Malin Array Si     26.84 328  P         P          13 20 55.8 -0.2
AK09  Malin Array Si     26.84 328  P         P          13 20 55.9 -0.1
AK10  Malin Array Si     26.85 328  P         P          13 20 55.9 -0.2
AK06  Malin Array Si     26.86 328  P         P          13 20 56.0 -0.2
AK08  Malin Array Si     26.87 328  P         P          13 20 56.1 -0.1
AK05  Malin Array Si     26.88 328  P         P          13 20 56.2 -0.2
LOT   Lotru              26.89 314 ⇑P         P          13 20 57.8 +1.1
LOT   Lotru              26.89 314  P         P          13 20 57.5 +0.7
             comp=Z,8.7nm,0.8s
AK02  Malin Array Si     26.91 328  P         P          13 20 56.4 -0.2
AK12  Malin Array Si     26.92 328  P         P          13 20 56.6 -0.1
AK01  Malin Array Si     26.93 328  P         P          13 20 56.0 -0.8
AKASG Malin Array Be     26.93 328  P         P          13 20 56.4 -0.5
             comp=Z,1.6nm,0.3s,baz=136,slow=8.5,SNR=25
             comp=Z,1.6nm,0.3s
AKASG Malin Array Be     26.93 328 i P        P          13 20 57.0 +0.2
AKASG                               pmax      pmax
             comp=Z,1.0nm,0.3s
AKASG Malin Array Be     26.93 328  P         P          13 20 56.3 -0.5
AKBB  Malin Array Si     26.93 328⇓iP         P          13 20 56.9 +0.1
AKBB                                pmax      pmax
             comp=Z,16nm,1.0s
AKBB  Malin Array Si     26.93 328            P          13 20 55.9 -0.9
AKBB  Malin Array Si     26.93 328  P         P          13 20 56.0 -0.8
KIEV  Kiev               26.93 328  P         P          13 20 57.2 +0.4
KIEV  Kiev               26.93 328            P          13 20 55.8 -1.0
KIEV                                IAmb      IAmb       13 20 57.6
             comp=Z,15nm,0.9s
KIEV  Kiev               26.93 328 ⇓P         P          13 20 57.2 +0.4
KIEV  Kiev               26.93 328  P         P          13 20 56.0 -0.8
             comp=Z,82nm,1.0s
KIEV  Kiev               26.93 328  P         P          13 20 56.1 -0.8
             comp=Z,21nm,1.0s
AK13  Malin Array Si     26.94 328  P         P          13 20 55.9 -1.0
KMPD  K-Podol'skiy       26.94 322  P         P          13 20 55.9 -1.1
AK03  Malin Array Si     26.95 328  P         P          13 20 56.2 -0.8
AK16  Malin Array Si     26.96 328  P         P          13 20 56.3 -0.8
AK04  Malin Array Si     26.97 328  P         P          13 20 56.4 -0.8
BURAR Bucovina Array     27.10 319  P         P          13 21 00.6 +2.1
BURAR Bucovina Array     27.10 319            P          13 20 59.2 +0.7
BURAR                               IAmb      IAmb       13 21 16.0
             comp=Z,6.6nm,0.8s
BURAR Bucovina Array     27.10 319 ⇑P         P          13 21 00.6 +2.1
LUBAR Lubar, Ukraine     27.11 325  P         P          13 20 58.3 -0.1
BUR08 Bucovina Ar. S     27.12 319  P         P          13 20 59.6 +0.8
BUR08                               IAmb      IAmb       13 21 16.7
             comp=Z,8.1nm,1.1s
ARTI  Arti               27.34   9  LR        LR         13 35 44.8
             comp=Z,73nm,19.2s,baz=200,slow=45
ARTI  Arti               27.34   9  P         P          13 21 09.2 +8.7
BORK  Borovoye           27.35  25 eP         P          13 21 01.4 +0.9
BORK                                pmax      pmax
             comp=Z,10.0nm,1.8s
BORK  Borovoye           27.35  25  P         P          13 21 00.4 -0.1
BVAR  Borovoye Array     27.36  25  P         P          13 21 01.8 +1.1
             comp=Z,2.5nm,0.5s,baz=219,slow=7.5,SNR=16
             comp=Z,2.5nm,0.5s
MI29  MI29, Kamyanyy     27.39 326  P         P          13 21 00.7 -0.2
             comp=Z,123nm,0.9s
MI30  MI30,Zelenitsa     27.44 327  P         P          13 21 00.2 -1.2
             comp=Z,28nm,1.5s
GZR   Gura Zlata         27.50 313  P         P          13 21 03.4 +1.4
GZR   Gura Zlata         27.50 313 ⇑P         P          13 21 03.5 +1.4
BOVS  Bovan              27.51 309 ⇑P         P          13 21 04.0 +1.8
HYB   Hyderabad          27.62 110 eP         P          13 21 02.6 -0.7
HYB                                ePcP       PcP        13 24 20.1 -0.7
HYB                                eS         S          13 25 44.9  0.0
OBN   Obninsk            27.73 342⇑eP         P          13 21 04.7 +0.8
OBN                                 *PP       pP         13 21 08.0 -0.2
OBN                                e*SP       sP         13 21 10.5 +0.4
OBN                                                      13 21 52.0
OBN                                ePPP       PPP        13 21 59.7
OBN                                 S         S          13 25 39.0 -6.7
OBN                                 SSS       SSS        13 27 17.0
OBN                                 pmax      pmax
             comp=Z,7.0nm,0.9s
OBN                                 MLR       MLR
             comp=Z,81nm,16.0s
PHP   Peshkopia          27.78 304  P         P          13 21 06.4 +1.8
             comp=Z,32nm,0.9s
MI28  Mi28,Pidlybu       27.81 327  P         P          13 21 03.6 -1.1
MARR  Marisel-Cluj       27.86 316 ⇓P         P          13 21 06.3 +1.0
MDVR  Moldovita          27.93 311 ⇓P         P          13 21 07.9 +1.9
MOS   Moscow             28.00 343 eP         P          13 21 18.0  +12
DRGR                     28.16 316  P         P          13 21 10.3 +2.3
DRGR                     28.16 316 ⇑P         P          13 21 10.3 +2.3
DRGR                     28.16 316  P         P          13 21 09.5 +1.4
             comp=Z,14nm,0.9s
SIRR  Siria              28.58 314 ⇓P         P          13 21 14.2 +2.5
RNPP8 Varash             28.95 326  P         P          13 21 14.8  0.0
KIRV  Kirov              29.12 358  LR        LR         13 35 57.6
             comp=Z,116nm,18.9s,baz=177,slow=43
KIRV  Kirov              29.12 358 eP         P          13 21 17.0 +0.8
KURBB Kurchatov Arra     29.36  36  P         P          13 21 18.8 +0.3
             comp=Z,1.2nm,0.6s,baz=236,slow=9.2,SNR=10
             comp=Z,1.2nm,0.6s
MAKZ  Makanchi           29.39  45  P         P          13 21 16.1 -2.8
MAKZ                                pmax      pmax
             comp=Z,10.0nm,1.4s
MAKZ  Makanchi           29.39  45  P         P          13 21 16.1 -2.8
MAKZ                                IAmb      IAmb       13 21 20.3
             comp=Z,9.5nm,1.4s
KURK  Kurchatov          29.46  36 eP         P          13 21 20.9 +1.6
KURK                                pmax      pmax
             comp=Z,12nm,2.0s
KURK  Kurchatov          29.46  36  P         P          13 21 18.1 -1.2
KURK  Kurchatov          29.46  36  P         P          13 21 22.8 +3.4
             comp=Z,5.8nm,1.8s
MK31  Makanchi Array     29.58  46 eP         P          13 21 20.9 +0.3
MKAR  Makanchi Array     29.58  46  P         P          13 21 20.9 +0.4
             comp=Z,0.7nm,0.5s,baz=248,slow=8.2,SNR=14
MKAR                                LR        LR         13 35 15.6
             comp=Z,91nm,18.2s,baz=254,slow=41
             comp=Z,0.7nm,0.5s
MKAR  Makanchi Array     29.58  46 i P        P          13 21 21.7 +1.1
MKAR                                pmax      pmax
             comp=Z,1.0nm,0.5s
MKAR  Makanchi Array     29.58  46  P         P          13 21 19.1 -1.5
MNK   Minsk              30.20 332 i P        P          13 21 25.0 -0.9
MNK                                i                     13 22 22.5
MNK                                i S        S          13 26 25.6 +1.0
MNK                                i SS       SnSn       13 28 00.6 +2.4
MNK                                 pmax      pmax
             comp=E,14nm,0.7s
MNK                                 pmax      pmax
             comp=Z,12nm,0.7s
MNK                                 pmax      pmax
             comp=N,12nm,0.7s
MNK                                 MLR       MLR
             comp=Z,87nm,15.0s
MNK                                 MLR       MLR
             comp=N,205nm,22.0s
MNK                                 MLR       MLR
             comp=E,301nm,21.0s
MNK   Minsk              30.20 332 i P        P          13 21 25.0 -0.9
             comp=E,14nm,0.7s
MNK                                i P        P          13 21 25.0 -0.9
             comp=N,12nm,0.7s
MNK                                i P        P          13 21 25.0 -0.9
             comp=Z,12nm,0.7s,baz=136
MNK                                i PP       PnPn       13 22 22.6 -0.8
MNK                                i PPP      PPP        13 22 31.5
MNK                                i S        S          13 26 25.6 +1.0
MNK                                i SS       SnSn       13 28 00.7 +2.4
MNK                                i SSS      SSS        13 28 15.3
MNK                                i LQ       LQ         13 31 10.8
MNK                                i LR       LR         13 33 16.8
MNK                                i LRM      MLR        13 34 53.2
             comp=Z,87nm,15.3s
MNK                                i LRM      MLR        13 35 57.1
             comp=N,205nm,21.7s
MNK                                i LRM      MLR        13 36 00.9
             comp=E,301nm,21.4s
KECS  Kecovo             30.28 317 eP         P          13 21 28.8 +2.1
KECS                                pmax      pmax
             comp=Z,16nm,0.9s
KECS  Kecovo             30.28 317 eP         P          13 21 28.8 +2.1
MORH  Mrgy, Hungar       30.48 312  P         P          13 21 29.3 +0.9
             comp=Z,8.9nm,1.3s
MORH  Mrgy, Hungar       30.48 312  P         P          13 21 30.1 +1.7
             comp=Z,9.9nm,1.3s
CUC   Castrocucco        30.84 299  P         P          13 21 30.8 -1.1
CUC                                 IAmb      IAmb       13 21 35.5
             comp=Z,8.7nm,0.8s
MARCO Tramutola          30.90 300  P         P          13 21 36.4 +4.0
             comp=Z,26nm,1.2s
NACGM Naroch             30.93 332 eP         P          13 21 32.3 -0.1
             comp=Z,13nm,0.7s,baz=135
EVN   Everest            31.07  84  P         P          13 21 34.0 -0.7
EVN                                 IAmb      IAmb       13 21 48.4
             comp=Z,5.7nm,0.8s
EVN   Everest            31.07  84  P         P          13 21 33.0 -1.6
             comp=Z,8.1nm,0.8s
LANS  Liptovska Anna     31.19 318 eP         P          13 21 36.9 +2.1
LANS                                pmax      pmax
             comp=Z,12nm,0.9s
LANS  Liptovska Anna     31.19 318 eP         P          13 21 36.9 +2.1
VYHS  Vyhne              31.27 316 eP         P          13 21 37.5 +2.0
VYHS                                pmax      pmax
             comp=Z,12nm,1.0s
VYHS  Vyhne              31.27 316 eP         P          13 21 37.5 +2.0
VYHS  Vyhne              31.27 316  P         P          13 21 35.8 +0.3
             comp=Z,3.7nm,1.0s
ZSN   Zaisan             31.45  46 eP         P          13 21 38.5 +1.4
ZSN   Zaisan             31.45  46 eP         P          13 21 38.5 +1.4
OJC   Ojcow              31.50 320 eP         P          13 21 38.2 +0.8
OJC   Ojcow              31.50 320  P         P          13 21 37.5  0.0
OJC   Ojcow              31.50 320            P          13 21 37.5  0.0
OJC   Ojcow              31.50 320  P         P          13 21 38.6 +1.1
             comp=Z,19nm,0.9s
MPLH  Magyarpolny        31.54 313  P         P          13 21 39.6 +1.8
             comp=Z,12nm,1.2s
SUW   Suwalki            31.90 328  P         P          13 21 40.4 -0.5
SUW   Suwalki            31.90 328  P         P          13 21 40.4 -0.5
JAVC  Velka Javorina     32.12 316 eP         P          13 21 43.1 +0.1
JAVC  Velka Javorina     32.12 316  P         P          13 21 43.5 +0.4
             comp=Z,21nm,2.0s
SMOL  Smolenice          32.13 316 eP         P          13 21 44.7 +1.7
SMOL                                pmax      pmax
             comp=Z,4.0nm,0.9s
MODS  Modra-Piesok       32.17 315 eP         P          13 21 44.9 +1.6
MODS  Modra-Piesok       32.17 315 eP         P          13 21 44.9 +1.6
WMQ   Urumqi             32.19  54 eP         P          13 21 38.5 -5.2
WMQ                                 pP        sP         13 21 49.8 -0.1
WMQ                                 pmax      pmax
             comp=Z,11nm,1.3s
WMQ                                 LR        LR
             comp=Z,61nm,21.9s
OKC   Ostrava-Krasne     32.27 318  AMS       AMS        13 46 30.0
             comp=Z,400nm,12.5s
KLMR  Klimovskoe         32.35 349 eP         P          13 21 43.3 -1.4
KLMR                                pmax      pmax
             comp=Z,22nm,0.9s
RONA  Rosalia, Austr     32.52 314 i P        P          13 21 47.6 +1.1
             comp=Z,8.1nm,1.0s
STEB  Steborice          32.53 318 eP         P          13 21 46.9 +0.4
MORC  Moravsky Berou     32.59 318  P         P          13 21 48.3 +1.2
MORC  Moravsky Berou     32.59 318 eP         P          13 21 47.6 +0.5
MORC  Moravsky Berou     32.59 318 ⇓P         P          13 21 48.3 +1.2
MORC  Moravsky Berou     32.59 318  P         P          13 21 48.4 +1.2
             comp=Z,14nm,1.2s
ARSA  Arzberg            32.85 313 i P        P          13 21 50.6 +1.3
             comp=Z,4.1nm,0.8s
CONA  Conrad Observa     32.87 314 eP         P          13 21 50.1 +0.5
             comp=Z,6.8nm,1.1s
VRAC  Vranov             32.95 317 eP         P          13 21 51.0 +0.8
VRAC  Vranov             32.95 317  P         P          13 21 51.6 +1.4
             comp=Z,4.4nm,1.0s
KRUC  Moravsky           32.98 316 eP         P          13 21 51.2 +0.8
SOKA  Soboth             32.98 311 eP         P          13 21 51.9 +1.3
             comp=Z,3.9nm,1.0s
KRLC  Kraliky            33.16 318  P         P          13 21 51.9 -0.2
             comp=Z,11nm,0.9s
KMBO  Kilima Mbogo       33.30 206  LR        LR         13 36 27.0
             comp=Z,166nm,18.4s,baz=100,slow=38
FDMO  Fiordimonte        33.39 304            P          13 21 54.1 -0.1
DPC   Dobruska-Polom     33.55 318 eP         P          13 21 56.1 +0.7
DPC                                 MLR       MLR
             comp=Z,300nm,13.0s
DPC   Dobruska-Polom     33.55 318 eP         P          13 21 56.1 +0.7
DPC                                 AMS       AMS        13 47 10.0
             comp=Z,300nm,13.0s
DPC   Dobruska-Polom     33.55 318  P         P          13 21 53.1 -2.4
             comp=Z,12nm,1.1s
OSTC  Ostas              33.70 319 eP         P          13 21 57.7 +1.0
OSTC                               e                     13 21 58.0
OSTC  Ostas              33.70 319 eP         P          13 21 57.7 +1.0
DRE   Drenchia           33.75 310  P         P          13 21 58.5 +1.2
             comp=Z,13nm,0.8s
KSP   Ksiaz              33.78 319 eP         P          13 21 57.0 -0.4
UPC   Upice              33.80 318  P         P          13 21 57.3 -0.3
             comp=Z,14nm,1.1s
CHVC  Chvalec            33.80 319 eP         P          13 21 58.7 +1.1
CHVC  Chvalec            33.80 319 eP         P          13 21 58.7 +1.1
MOA   Molln              33.85 313 i P        P          13 21 59.2 +1.1
             comp=Z,14nm,1.1s
MOA   Molln              33.85 313  P         P          13 21 56.7 -1.4
             comp=Z,20nm,1.0s
MYKA  Terra Mystica      33.88 311 eP         P          13 21 59.8 +1.4
             comp=Z,3.2nm,0.9s
DGZ   Jazzator, Alta     33.90  43 eP         P          13 22 01.1 +2.5
DGZ                                 pmax      pmax
             comp=Z,2.0nm,0.5s
ACOM  Acomizza, Ital     33.94 311  P         P          13 21 59.8 +0.7
             comp=Z,12nm,0.9s
BIOA  Bad Ischl, Aus     34.20 313 i P        P          13 22 02.1 +1.0
             comp=Z,19nm,1.1s
KBA   Koelnbreinsper     34.21 312 i P        P          13 22 02.1 +0.7
             comp=Z,10nm,0.8s
ZAA0  Zalesovo Array     34.41  35            P          13 22 03.0 +0.1
ZAA0                                IAmb      IAmb       13 22 11.6
             comp=Z,4.5nm,0.8s
ZALV  Zalesovo Beam      34.41  35  P         P          13 22 02.8  0.0
             comp=Z,2.3nm,0.4s,baz=248,slow=9.0,SNR=11
ZALV                                LR        LR         13 38 11.8
             comp=Z,30nm,19.1s,baz=222,slow=40
             comp=Z,2.3nm,0.4s
ZALV  Zalesovo Beam      34.41  35 i P        P          13 22 03.7 +0.9
ZALV                                pmax      pmax
             comp=Z,2.0nm,0.4s
ZALV  Zalesovo Beam      34.41  35  P         P          13 22 02.5 -0.3
GERES GERESS Array B     34.54 315  P         P          13 22 03.2 -0.9
             comp=Z,2.1nm,0.6s,baz=111,slow=7.4,SNR=9.7
             comp=Z,2.1nm,0.6s
ABTA  Abfaltersbach      34.66 311 i P        P          13 22 06.5 +1.4
             comp=Z,7.4nm,0.9s
KHC   Kasperske Hory     34.72 315⇓iP         P          13 22 06.5 +0.9
KHC                                 pmax      pmax
             comp=Z,8.0nm,1.0s
KHC   Kasperske Hory     34.72 315 eP         P          13 22 06.7 +1.1
KHC   Kasperske Hory     34.72 315  IAmb      IAmb       13 22 07.2
             comp=Z,10.0nm,1.0s
KHC   Kasperske Hory     34.72 315  P         P          13 22 06.0 +0.4
KHC                                 pP        pP         13 22 08.6 -1.4
KHC   Kasperske Hory     34.72 315  P         P          13 22 06.8 +1.1
             comp=Z,13nm,2.6s
LESA  Schwarzleotal      34.74 312 i P        P          13 22 06.3 +0.4
             comp=Z,5.9nm,0.5s
RJOB  Jochberg           34.76 312  P         P          13 22 06.2 +0.1
             comp=Z,6.8nm,0.8s
PALK  Pallekele          35.36 123  LR        LR         13 36 55.6
             comp=Z,57nm,18.3s,baz=281,slow=37
WTTA  Wattenberg         35.38 311 i P        P          13 22 12.0 +0.5
             comp=Z,29nm,1.1s
WTTA  Wattenberg         35.38 311  P         P          13 22 11.6 +0.1
             comp=Z,25nm,1.9s
WATA  Walderalm          35.44 311 i P        P          13 22 12.2 +0.3
             comp=Z,25nm,1.1s
SQTA  Sankt Quirin       35.65 311 i P        P          13 22 14.3 +0.6
             comp=Z,14nm,0.5s
MOTA  Moosalm            35.75 311 i P        P          13 22 14.7 +0.1
             comp=Z,14nm,0.8s
CLL   Collm              35.86 318 i P        P          13 22 16.1 +0.8
CLL                                 pmax      pmax
             comp=Z,15nm,1.1s
CLL   Collm              35.86 318            P          13 22 16.2 +0.8
CLL   Collm              35.86 318 i P        P          13 22 16.1 +0.8
             comp=Z,15nm,1.1s
CLL                                ePPP       PPP        13 23 51.0
FETA  Feichten           35.91 311 i P        P          13 22 16.7 +0.7
             comp=Z,20nm,1.2s
RETA  Reutte             36.01 311 eP         P          13 22 16.9 +0.1
             comp=Z,6.3nm,0.8s
FINES FINESS Array B     36.06 340  P         P          13 22 15.9 -1.1
             comp=Z,1.4nm,0.5s,baz=144,slow=10,SNR=12
             comp=Z,1.4nm,0.5s
FINES FINESS Array B     36.06 340 i P        P          13 22 16.7 -0.2
FINES                               pmax      pmax
             comp=Z,1.0nm,0.5s
UBR   Ueberruh           36.49 311  P         P          13 22 21.0 +0.2
             comp=Z,25nm,1.0s
BSD   Bornholm Skovb     36.50 325 i P        P          13 22 20.3 -0.4
DAVA  Damuels            36.54 311 i P        P          13 22 21.9 +0.5
             comp=Z,20nm,0.5s
DAVA  Damuels            36.54 311  P         P          13 22 22.0 +0.6
             comp=Z,50nm,0.9s
BLEU  Blekinge           36.67 327 i P        P          13 22 22.8 +0.6
BRDH  Bariadhala         36.68  91  LR        LR         13 40 54.6
             comp=Z,120nm,20.1s,baz=322,slow=42
FLTG  Flechtingen        37.26 319  P         P          13 22 28.6 +1.3
             comp=Z,22nm,1.2s
BNI   Bardonecchia       38.28 306  IAmb      IAmb       13 22 37.3
             comp=Z,10nm,0.9s
HFS   Hagfors            39.69 331  P         P          13 22 47.4 -0.2
             comp=Z,6.9nm,0.5s,baz=124,slow=7.9,SNR=32
HFS                                 LR        LR         13 40 48.9
             comp=Z,116nm,18.2s,baz=133,slow=39
             comp=Z,6.9nm,0.5s
GTA2  Gaotai             40.70  63 eP         P          13 22 59.9 +3.4
GTA2                                sP        sP         13 23 12.4  +10
GTA2                                pmax      pmax
             comp=Z,3.0nm,1.0s
GTA2                                LR        LR
             comp=N,120nm,14.3s
GTA2                                LR        LR
             comp=E,90nm,12.7s
GTA2                                LR        LR
             comp=Z,89nm,15.2s
NC602 NORSAR Array S     40.92 331 eP         P          13 22 57.1 -0.6
NB2   NORSAR Subarra     41.22 332  P         P          13 22 59.1 -1.2
             comp=Z,2.0nm,0.5s,baz=122,slow=8.6
NB2   NORSAR Subarra     41.22 332  P         P          13 22 59.1 -1.2
NOA   NORSAR Array B     41.22 332  P         P          13 22 59.8 -0.5
             comp=Z,2.1nm,0.4s,baz=122,slow=8.3,SNR=17
NOA                                 LR        LR         13 41 37.1
             comp=Z,58nm,20.4s,baz=155,slow=38
             comp=Z,2.1nm,0.4s
SKAR  Skarslia           42.27 330 eP         P          13 23 09.3 +0.3
VADS  Vadso             42.54 349 eP         P          13 23 11.6 +0.7
ARA0  ARCESS Array S     42.74 347 eP         P          13 23 12.8 +0.2
ARCES ARCESS Array B     42.74 347  P         P          13 23 12.7 +0.1
             comp=Z,4.5nm,0.7s,baz=157,slow=7.7,SNR=19
             comp=Z,4.5nm,0.7s
KTK1  Kautokeino         42.78 346 eP         P          13 23 13.1 +0.2
RAUS  Rausandaksla       43.35 339 eP         P          13 23 17.8 +0.3
LEIR  Leirfjorden        43.43 338 eP         P          13 23 18.4 +0.2
AKN   Aaknes             43.53 332 eP         P          13 23 20.4 +1.4
FAUS  Fauske             43.59 341 eP         P          13 23 19.3 -0.1
STOK  Stokkvaagen        43.60 339 eP         P          13 23 19.4 -0.1
VAGH  Vaagaholmen        43.77 339 eP         P          13 23 21.2 +0.3
JETT  Jettan, Norway     43.84 345 eP         P          13 23 21.7 +0.3
STEI  Steigen            43.98 341 eP         P          13 23 22.3 -0.2
HAMF  Hammerfest         44.01 347 eP         P          13 23 23.2 +0.5
TRO   Tromso             44.24 344 eP         P          13 23 25.1 +0.5
PZH   PanZhiHua          44.31  81  P         P          13 23 25.8 -0.2
TLY   Talaya             44.33  45  LR        LR         13 43 04.8
             comp=Z,62nm,18.7s,baz=258,slow=38
CMAR  Chiang Mai Arr     44.58  93  P         P          13 23 30.3 +2.2
             comp=Z,0.5nm,0.3s,baz=294,slow=9.2,SNR=4.4
             comp=Z,0.5nm,0.3s
NRIK  Noril'sk           44.96  17  LR        LR         13 46 02.7
             comp=Z,91nm,18.0s,baz=242,slow=41
NRIK  Noril'sk           44.96  17 eP         P          13 23 30.3 -0.1
NRIK                                pmax      pmax
             comp=Z,6.0nm,1.1s
SONM  Songino Array      45.69  50  P         P          13 23 36.9 +0.3
             comp=Z,0.4nm,0.4s,baz=260,slow=7.8,SNR=4.9
SONM                                LR        LR         13 45 31.4
             comp=Z,90nm,18.5s,baz=258,slow=40
             comp=Z,0.4nm,0.4s
SONM  Songino Array      45.69  50  P         P          13 23 35.1 -1.6
ESDC  Sonseca Array      46.03 298  P         P          13 23 39.3  0.0
             comp=Z,0.8nm,0.8s,baz=87,slow=5.4,SNR=4.6
             comp=Z,0.8nm,0.8s
EKA   Eskdalemuir Ar     46.28 320  P         P          13 23 40.9 -0.1
             comp=Z,1.2nm,0.4s,baz=106,slow=7.9,SNR=10
             comp=Z,1.2nm,0.4s
XAN   Xi'an              48.61  69 eP         P          13 24 03.5 +4.0
TORD  Torodi Ar. Bea     48.66 261  P         P          13 24 00.4 +0.3
             comp=Z,1.1nm,0.3s,baz=57,slow=8.1,SNR=14
             comp=Z,1.1nm,0.3s
HHC   Hu-ho-hao-te       49.63  60 eP         P          13 24 06.8 -0.5
HHC                                 pmax      pmax
             comp=Z,13nm,0.5s
HHC                                 pmax      pmax
             comp=Z,74nm,4.7s
LSZ   Lusaka             49.81 210  LR        LR         13 44 38.9
             comp=Z,47nm,18.2s,baz=158,slow=35
SPITS Spitsbergen Ar     51.20 351  P         P          13 24 19.1 +0.5
             comp=Z,4.8nm,0.6s,baz=143,slow=13,SNR=10
             comp=Z,4.8nm,0.6s
HILR  Hailar Array B     54.50  48  P         P          13 24 42.7 -0.6
             comp=Z,1.0nm,0.4s,baz=235,slow=5.1,SNR=1.9
             comp=Z,1.0nm,0.4s
NJ2   Nanjing            57.18  69 eP         P          13 25 02.6 -0.2
NJ2                                 pmax      pmax
             comp=Z,11nm,0.6s
DBIC  Dimbokro           57.44 258  P         P          13 25 05.2 +0.4
             comp=Z,4.8nm,1.0s,baz=51,slow=6.9,SNR=5.2
DBIC                                LR        LR         13 51 49.0
             comp=Z,35nm,20.3s,baz=34,slow=38
             comp=Z,4.8nm,1.0s
YAK   Yakutsk            59.00  33 eP         P          13 25 16.5 +1.5
YAK                                 pmax      pmax
             comp=Z,4.0nm,0.9s
LBTB  Lobatse            59.57 207  LR        LR         13 52 17.6
             comp=Z,68nm,20.3s,baz=244,slow=37
SUMG  Summit             62.10 340  P         P          13 25 37.0 +0.5
SUMG                                pmax      pmax
             comp=Z,12nm,1.1s
SUMG  Summit             62.10 340  P         P          13 25 37.0 +0.5
KLR   Kul'dur            62.28  47  LR        LR         13 54 19.4
             comp=Z,64nm,18.0s,baz=189,slow=38
KLR   Kul'dur            62.28  47 eP         P          13 25 37.6  0.0
KLR                                 pmax      pmax
             comp=Z,9.0nm,2.0s
KSRS  Korea Array        62.76  61  P         P          13 25 40.4 -0.6
             comp=Z,2.0nm,0.6s,baz=283,slow=6.6,SNR=6.8
KSRS                                LR        LR         13 56 13.0
             comp=Z,30nm,18.0s,baz=220,slow=39
             comp=Z,2.0nm,0.6s
BOSA  Boshof             62.93 206  P         P          13 25 43.0 +0.8
             comp=Z,2.9nm,1.1s,baz=27,slow=6.5,SNR=3.7
             comp=Z,2.9nm,1.1s
BOSA  Boshof             62.93 206  P         P          13 25 42.3 +0.1
SEY   Seymchan           68.95  29 eP         P          13 26 21.7 +1.3
SEY                                 pmax      pmax
             comp=Z,3.0nm,1.0s
BILL  Bilibino           71.60  21 eP         P          13 26 38.1 +1.5
BILL                                pmax      pmax
             comp=Z,13nm,1.4s
ILAR  Eielson Array      84.97   8  P         P          13 27 50.3 -0.3
             comp=Z,0.6nm,0.8s,baz=322,slow=4.5,SNR=7.9
             comp=Z,0.6nm,0.8s
ILAR  Eielson Array      84.97   8  P         P          13 27 49.5 -1.1
J25K  Salcha River,      85.30   7  P         P          13 27 52.6 +0.3
J25K                                IAmb      IAmb       13 28 01.9
             comp=Z,4.9nm,1.0s
BCAR  Beaver Creek A     87.17   6  P         P          13 28 02.2 +0.6
KDAK  Kodiak Island      90.76  13  LR        LR         14 19 17.9
             comp=Z,52nm,18.6s,baz=96,slow=42
BBB   Bella Bella        98.67 360  LR        LR         14 21 12.4
             comp=Z,46nm,19.6s,baz=140,slow=40
```

DJA 24 13:19:38.6±1.3,**5°S**±9°×**13°1E**±°,**h138**km±21km,**M4.0**/11,
mB5.0/1,**mB5.0**/1,**mb4.1**/2,**mb4.1**/2,**MLv3.9**/11,
MLv3.9/11,**Mw(mB)4.3**/1,**Mw(mB)4.3**/1,**Banda Sea**

```
Code  Station Name        Δ°   AZ°  Phase ID              Time     Res
                                    Op        ISC        h  m  s   ISC
BNDI  Bandanaira          1.68 296  P         Pn         13 20 08.5 -0.8
```

BNDI				AML	AML		
BNDI				AML	AML		
FAKI	**Fak Fak**	**2.47**	**20**	P	Pn	13 20 17.9	-0.9
FAKI				AML	AML		
FAKI				AML	AML		
SWI	**Sorong**	**4.37**	**358**	P	Pn	13 20 42.9	-0.6
SWI				AML	AML		
SWI				AML	AML		
MWPI	**Manokwari, Pap**	**5.03**	**31**	P	Pn	13 20 51.7	-0.6
	36nm,0.7s						

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*IDC **24** 13:20:34.5±1.9,8.°41S×111.°02E,h72^{km}±17^{km},mb3.8/22, mbtmp4.1/24,MS3.0/5,Error ellipse: s-maj=17.8km s-min=10.2km az=40.0*

*DJA **24** 13:20:34.5±1.0,9°S±5°×11°1E±°,h25^{km}±6^{km},M4.7/6, ML4.9/7,MLv4.6/10,MLv4.7/6*

ISC 24 13:20:33.9±0.5,**8.°62S**±0.°07×**110.°90E**±0.°05,**h69**^{km}**,n49, σ1.^{s}65**/48,**mb4.1**/22,**Jawa**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PCJI	**Pacitan**	**0.51**	**33**	P	**Pn**	**13 20 47.0**	**+0.2**
PCJI				S	**Sn**	**13 20 56.1**	**0.0**
PCJI				AML	AML		
PCJI				AML	AML		
PCJI				AML	AML		
WOJI	**Wonogiri, Jawa**	**0.78**	**2**	P	**Pn**	**13 20 51.0**	**+1.2**
WOJI				S	**Sn**	**13 21 02.5**	**+1.1**
WOJI				AML	AML		
WOJI				AML	AML		
WOJI				AML	AML		
UGM	**Wanagama**	**0.80**	**332**	P	**Pn**	**13 20 51.0**	**+1.0**
UGM	**Wanagama**	**0.80**	**332**	S	**Sn**	**13 21 04.0**	**+2.2**
YOGI	**Yogyakarta**	**1.00**	**323**	P	**Pn**	**13 20 52.6**	**+0.2**
YOGI				S	**Sn**	**13 21 07.6**	**+1.5**
YOGI				AML	AML		
YOGI				AML	AML		
SNJI	**Sawahan-Nganju**	**1.20**	**46**	P	**Pn**	**13 20 57.2**	**+2.1**
SNJI				S	**Sn**	**13 21 13.1**	**+2.3**
SNJI				AML	AML		
SJI	**Sawahan**	**1.23**	**44**	P	**Pn**	**13 20 57.0**	**+1.5**
SMRI	**Semarang**	**1.63**	**344**	P	**Pn**	**13 21 03.7**	**+3.1**
SMRI	**Semarang**	**1.63**	**344**	S	**Sn**	**13 21 26.7**	**+5.9**
BLJI	**Banyuglugur**	**2.81**	**72**	P	**Pn**	**13 21 18.2**	**+1.6**
JAGI	**Jajag, Banyuwa**	**3.22**	**88**	P	**Pn**	**13 21 23.9**	**+1.7**
BBJI	**Bungbulang**	**3.42**	**290**	P	**Pn**	**13 21 25.8**	**+0.9**
LEM	**Lembang**	**3.71**	**299**	P	**Pn**	**13 21 31.3**	**+2.3**
	53nm,0.4s,baz=106,slow=7.3,SNR=9.6						
LEM				S	**Sn**	**13 22 12.9**	**+1.3**
	91nm,0.6s,baz=159,slow=22,SNR=3.6						
LEM				LR	LR	13 23 17.5	
	comp=Z,187nm,18.9s,baz=306,slow=44						
PLAI	**Plampang**	**6.80**	**92**	P	**Pn**	**13 22 13.4**	**+2.2**
KAPI	**Kappang**	**9.49**	**68**	LR	LR	13 27 10.5	
	comp=Z,28nm,21.8s,baz=240,slow=42						
BATI	**Baumata**	**12.69**	**98**	P	**Pn**	**13 23 31.6**	**-0.1**
	14nm,0.4s,baz=188,slow=1.8,SNR=3.6						
BATI				S	Sn	13 25 37.0	-14
	13nm,0.3s,baz=251,slow=14,SNR=1.5						
FITZ	**Fitzroy Crossi**	**17.15**	**125**	P	**Pn**	**13 24 28.7**	**-0.4**
	3.1nm,0.7s,baz=296,slow=11,SNR=7.8						
FITZ				S	Sn	13 27 25.4	-14
	4.1nm,0.6s,baz=108,slow=9.7,SNR=5.1						
SIJI	**Sorong**	**21.70**	**70**	P	**P**	**13 25 18.5**	**-0.9**
	8.6nm,0.8s,baz=287,slow=11,SNR=3.9						
	8.6nm,0.8s						
NWAO	**Narrogin (SRO)**	**24.89**	**167**	LR	LR	13 36 31.1	
	comp=Z,41nm,18.1s,baz=268,slow=38						
WRA	**Warramunga Arr**	**25.31**	**119**	P	**P**	**13 25 54.6**	**+0.2**
	0.4nm,0.5s,baz=292,slow=11,SNR=6.3						
WRA				PcP	**PcP**	**13 29 26.8**	**+0.8**
	0.3nm,0.4s,baz=316,slow=2.0,SNR=5.4						
	0.4nm,0.5s						
ASAR	**Alice Springs**	**26.62**	**127**	P	**P**	**13 26 06.1**	**-0.2**
	0.5nm,0.6s,baz=301,slow=8.4,SNR=10						
ASAR				PcP	**PcP**	**13 29 30.1**	**+1.1**
	1.0nm,0.8s,baz=301,slow=2.5,SNR=6.1						
	0.5nm,0.6s						
CMAR	**Chiang Mai Arr**	**29.38**	**336**	P	**P**	**13 26 28.8**	**-2.0**
	0.4nm,0.3s,baz=177,slow=8.8,SNR=6.3						
CMAR				PcP	**PcP**	**13 29 37.1**	**+1.4**
	1.0nm,0.7s,baz=178,slow=3.5,SNR=7.4						
	0.4nm,0.3s						
CTA	**Charters Tower**	**36.02**	**112**	LR	LR	13 44 25.6	
	comp=Z,26nm,18.4s,baz=218,slow=40						
STKA	**Stephens Creek**	**36.71**	**133**	P	**P**	**13 27 34.8**	**+0.2**
	1.4nm,0.4s,baz=320,slow=8.6,SNR=4.4						
STKA				LR	LR	13 44 07.0	
	comp=Z,54nm,18.4s,baz=211,slow=38						
	1.4nm,0.4s						
H08S2	**Diego Garcia H**	**38.02**	**269**	T	T	14 07 54.4	
	baz=94,slow=75,SNR=1.6						
H08S3	**Diego Garcia H**	**38.03**	**269**	T	T	14 07 51.3	
	baz=94,slow=75,SNR=38						
H08S1	**Diego Carcia H**	**38.04**	**269**	T	T	14 07 34.5	
	baz=94,slow=75,SNR=4.8						
MJAR	**Matsushiro Arr**	**51.74**	**28**	P	**P**	**13 29 33.0**	**-1.5**
	2.0nm,0.8s,baz=200,slow=7.9,SNR=4.7						
	2.0nm,0.8s						
USRK	**Ussuriysk Ar.**	**55.94**	**18**	P	**P**	**13 30 03.9**	**-1.1**
	3.0nm,0.7s,baz=208,slow=8.1,SNR=4.9						
	3.0nm,0.7s						
SONM	**Songino Array**	**56.35**	**356**	P	**P**	**13 30 06.5**	**-1.5**
	0.7nm,0.6s,baz=163,slow=6.0,SNR=3.7						
	0.7nm,0.6s						
MKAR	**Makanchi Array**	**60.78**	**338**	P	**P**	**13 30 37.6**	**-1.1**
	1.3nm,0.4s,baz=152,slow=7.5,SNR=26						
	1.3nm,0.4s						
H04N2	**CROZET ISLANDS**	**62.61**	**222**	T	T	14 38 47.0	
	baz=71,slow=75,SNR=150						
H04N1	**CROZET ISLANDS**	**62.62**	**222**	T	T	14 38 43.3	
	baz=71,slow=75,SNR=128						
H04N3	**CROZET ISLANDS**	**62.62**	**222**	T	T	14 38 40.5	
	baz=71,slow=75,SNR=123						
KURBB	**Kurchatov Arra**	**65.34**	**338**	P	**P**	**13 31 08.1**	**-0.7**
	0.3nm,0.5s,baz=154,slow=5.5,SNR=4.2						
KURBB				PcP	**PcP**	**13 31 40.4**	**-0.1**
	0.8nm,0.6s,baz=149,slow=3.5,SNR=6.3						
	0.3nm,0.5s						
ZALV	**Zalesovo Beam**	**66.12**	**343**	P	**P**	**13 31 11.9**	**-1.8**
	0.6nm,0.3s,baz=164,slow=5.4,SNR=4.7						
	0.6nm,0.3s						
BVAR	**Borovoye Array**	**70.40**	**335**	P	**P**	**13 31 39.3**	**-1.3**
	0.4nm,0.4s,baz=139,slow=6.4,SNR=2.5						
	0.4nm,0.4s						
PETK	**Petropavlovsk-**	**73.19**	**27**	P	**P**	**13 31 56.8**	**-0.5**
	4.1nm,0.8s,baz=189,slow=1.7,SNR=10						
	4.1nm,0.8s						
VNDA	**Vanda**	**73.69**	**170**	P	**P**	**13 32 00.9**	**+1.1**
	0.2nm,0.4s,baz=306,slow=7.3,SNR=3.3						
	0.2nm,0.4s						
AKTO	**Aktyubinsk**	**74.51**	**328**	P	**P**	**13 32 04.4**	**-0.6**
	1.2nm,0.4s,baz=154,slow=2.2,SNR=3.7						
	1.2nm,0.4s						
KBZ	**Khabaz**	**80.45**	**317**	P	**P**	**13 32 38.4**	**+0.1**
	2.2nm,0.8s,baz=110,slow=5.4,SNR=6.1						
	2.2nm,0.8s						
QSPA	**South Pole Qui**	**81.37**	**180**	P	**P**	**13 32 44.5**	**+1.5**
	0.8nm,0.9s,baz=22,slow=4.0,SNR=2.0						
	0.8nm,0.9s						
BOSA	**Boshof**	**82.12**	**242**	P	**P**	**13 32 48.9**	**+1.1**
	1.5nm,0.9s,baz=45,slow=7.1,SNR=1.9						
	1.5nm,0.9s						
MMAI	**Mount Meron Ar**	**82.69**	**305**	P	**P**	**13 32 50.8**	**+0.3**
	0.5nm,0.3s,baz=102,slow=5.5,SNR=4.8						
	0.5nm,0.3s						
BRTR	**Keskin Array B**	**85.79**	**311**	P	**P**	**13 33 06.0**	**-0.2**
	3.6nm,0.8s,baz=97,slow=4.9,SNR=17						
	3.6nm,0.8s						
SNAA	**Sanae**	**89.12**	**197**	P	**P**	**13 33 23.3**	**+1.8**
	1.3nm,0.6s,baz=108,slow=6.4,SNR=4.1						
	1.3nm,0.6s						
FINES	**FINESS Array B**	**95.03**	**331**	P	**P**	**13 33 47.9**	**-1.0**
	1.3nm,0.7s,baz=207,slow=5.5,SNR=1.8						
	1.3nm,0.7s						
NVAR	**Mina Array Bea**	**126.85**	**48**	PKP	**PKPdf**	**13 39 27.9**	**-2.6**
	0.3nm,0.5s,baz=299,slow=4.2,SNR=3.7						
TXAR	**Lajitas Array**	**141.59**	**53**	PKhKP	PKPpre	13 39 50.2	
	0.1nm,0.5s,baz=323,slow=3.8,SNR=3.8						

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*IDC **24** 13:38:29.5±0.8,40.°60N×28.°05E,h0^{km},mb3.3/8, mbtmp3.5/16,ML3.5/7,MS3.2/24,Error ellipse: s-maj=12.9km s-min=9.7km az=40.0*

*NEIC **24** 13:38:30.4±2.5,40.°88N±0.°02×28.°09E±0.°07,h10^{km}±1^{km}, mb4.4/6,Error ellipse: s-maj=9.1km s-min=4.2km az=87.0*

*ISK **24** 13:38:31.2,40.°81N×28.°14E,h14^{km},ML4.3/97*

*MCSM **24** 13:38:31.9±0.7,41°N±4°×2°8E±°,h12^{km}±5^{km},mb4.5, MLv4.5*

*AFAD **24** 13:38:31.2,40.°83N×28.°09E,h7^{km}±2^{km},MW4.2*

*THE **24** 13:38:33.0,41°N±4°×2°8E±°,h20^{km},M3.7/24,MLh3.7/24*

*CFUSG **24** 13:38:38.0,40.°80N×28.°82E,h26^{km},Mb3.4/7,MD3.7/7, MSH4.0/7*

ISC 24 13:38:31.6±0.9,**40.°83N**±0.°02×**28.°14E**±0.°01,**h16**^{km}±6^{km}**, n263,σ1.^{s}29**/271,**mb3.6**/11,**MS3.2**/16,**18C-8D,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BOTS	**Marmara Eregli**	**0.20**	**323**	Pg	**Pg**	**13 38 36.4**	**+0.1**
BOTS				Sg	**Sb**	**13 38 40.2**	**-0.2**
BOTS				AML	AML		
SINB	**Sinanoba-Istan**	**0.35**	**61**	Pg	**Pg**	**13 38 38.9**	**+0.1**
SINB				Sg	**Sb**	**13 38 44.5**	**-0.2**
SINB				AML	AML		
ELBA	**Catalca**	**0.39**	**35**	P	**Pg**	**13 38 39.4**	**-0.1**
IMRA	**Mudanya**	**0.40**	**132**	P	**Pg**	**13 38 39.7**	**0.0**
SLVT	**Silivri**	**0.40**	**8**	Pg	**Pb**	**13 38 40.5**	**+0.1**
SLVT				Sg	**Sb**	**13 38 46.5**	**+0.2**
SLVT				AML	AML		
CRLT	**Corlu**	**0.42**	**314**	Pg	**Pb**	**13 38 40.9**	**+0.1**
CRLT				AML	AML		
YKBL	**Yakuplu-Istanb**	**0.43**	**68**	Pg	**Pg**	**13 38 40.4**	**+0.1**
YKBL				Sg	**Sb**	**13 38 47.1**	**0.0**
YKBL				AML	AML		
AVCI	**Avcilar-stanb**	**0.47**	**70**	Pg	**Pg**	**13 38 41.1**	**+0.1**
AVCI				Sg	**Sb**	**13 38 48.2**	**-0.1**
AVCI				AML	AML		
MRMT	**Marmara Adasi**	**0.47**	**241**	Pg	**Pg**	**13 38 40.9**	**-0.2**
MRMT				AML	AML		
BAND	**Balkesir-Ban**	**0.48**	**184**	⇑P	**Pg**	**13 38 41.1**	**-0.1**
TKR	**Tekirdag**	**0.48**	**289**	Pg	**Pb**	**13 38 41.8**	**+0.1**
TKR				AML	AML		
CTKS	**Kestanelik-??a**	**0.49**	**34**	Pg	**Pg**	**13 38 41.4**	**0.0**
CTKS				Sg	**Sb**	**13 38 48.7**	**-0.1**
CTKS				AML	AML		
EDC	**Edincik**	**0.53**	**203**	Pg	**Pg**	**13 38 41.9**	**-0.2**
EDC				Sg	**Sg**	**13 38 49.1**	**-0.1**
EDC				AML	AML		
CATL	**atalca, ST**	**0.53**	**18**	P	**Pg**	**13 38 42.0**	**-0.2**
CATL				S	**Sg**	**13 38 49.6**	**+0.2**
KCTX	**Karacabey (Bur**	**0.59**	**164**	Pg	**Pg**	**13 38 43.1**	**-0.2**
KCTX				AML	AML		
BGKT	**Bogazkoy**	**0.59**	**54**	Pg	**Pg**	**13 38 43.3**	**0.0**
BGKT				Sg	**Sg**	**13 38 51.4**	**+0.2**
BGKT				AML	AML		
ARMT	**Armutlu**	**0.61**	**116**	Pg	**Pg**	**13 38 43.4**	**-0.2**
ARMT				Sg	**Sb**	**13 38 52.1**	**-0.2**
ARMT				AML	AML		
GAZK	**Gazikoy-TEKIRD**	**0.62**	**262**	Pg	**Pg**	**13 38 43.9**	**+0.1**
GAZK				Sg	**Sb**	**13 38 53.9**	**+1.3**
GAZK				AML	AML		
CTYL	**Yalikoy Yolu**	**0.65**	**10**	Pg	**Pg**	**13 38 44.2**	**-0.2**
CTYL				AML	AML		
CTYL	**Yalikoy Yolu**	**0.65**	**10**	P	**Pg**	**13 38 44.3**	**-0.2**
CTYL				AML	AML		
ESNK	**Esenk¶y**	**0.67**	**108**	P	**Pb**	**13 38 44.9**	**0.0**
ESNK				S	**Sb**	**13 38 54.5**	**+0.6**
BRGA	**Burgazada-Ista**	**0.70**	**85**	Pg	**Pb**	**13 38 45.5**	**0.0**
BRGA				AML	AML		
HYBA	**Heybeliada-Ist**	**0.72**	**86**	Pg	**Pb**	**13 38 45.8**	**0.0**
HYBA				AML	AML		
MDNY	**Mudanya-Bursa**	**0.73**	**129**	Pg	**Pg**	**13 38 45.7**	**-0.2**
MDNY				Sg	**Sb**	**13 38 55.9**	**+0.1**
MDNY				AML	AML		
ISK	**Istanbul-Kandi**	**0.74**	**71**	Pg	**Pg**	**13 38 45.6**	**-0.4**
ISK				AML	AML		
KAVV	**Kandilli-Istan**	**0.74**	**71**	Pg	**Pb**	**13 38 46.2**	**+0.1**
KAVV				AML	AML		
RKY	**Sarkoy-Tekirda**	**0.74**	**259**	Pg	**Pg**	**13 38 45.5**	**-0.6**
RKY				AML	AML		
KRBG	**Karabiga-Canak**	**0.78**	**236**	Pg	**Pg**	**13 38 46.5**	**-0.2**
KRBG				AML	AML		
VIZE	**Kirklareli, Vi**	**0.78**	**343**	P	**Pg**	**13 38 46.7**	**-0.1**
KLYT	**Kilyos**	**0.80**	**58**	Pg	**Pb**	**13 38 47.2**	**0.0**
KLYT				AML	AML		
KLYT	**Kilyos**	**0.80**	**58**	P	**Pb**	**13 38 47.1**	**-0.1**
KLYT				AML	AML		
KURT	**Yalova, Merkez**	**0.85**	**106**	P	**Pb**	**13 38 47.6**	**-0.3**
KURT				S	**Sg**	**13 38 59.6**	**+0.3**
TUZL	**Tuzla-Istanbul**	**0.86**	**91**	Pg	**Pb**	**13 38 48.0**	**-0.1**
TUZL				AML	AML		
GONE	**Gonen-Balikesi**	**0.86**	**204**	Pg	**Pb**	**13 38 48.1**	**0.0**
GONE				AML	AML		
SUSR	**Susurluk-Balik**	**0.87**	**183**	Pg	**Pb**	**13 38 47.8**	**-0.5**
SUSR				AML	AML		
GEML	**Gemlik-BURSA**	**0.90**	**114**	Pg	**Pb**	**13 38 48.5**	**-0.3**
GEML				AML	AML		
PHSR	**Pinarhisar**	**0.92**	**330**	Pg	**Pg**	**13 38 49.5**	**0.0**
PHSR				AML	AML		
LAFA	**Gebze-Kocaeli**	**0.93**	**94**	Pg	**Pn**	**13 38 49.9**	**-0.1**
LAFA				AML	AML		
BIGA	**Biga-Canakkale**	**0.93**	**234**	Pg	**Pb**	**13 38 49.3**	**-0.1**
YLVH	**Yalova**	**0.95**	**98**	Pg	**Pg**	**13 38 49.8**	**-0.1**
YLVH				AML	AML		
ORLT	**Orhaneli**	**0.97**	**143**	Pg	**Pb**	**13 38 50.3**	**+0.1**
ORLT				AML	AML		
YLV	**Yalova**	**0.97**	**105**	Pg	**Pb**	**13 38 49.9**	**-0.3**
YLV				AML	AML		
YLV	**Yalova**	**0.97**	**105**	P	**Pb**	**13 38 50.2**	**0.0**
YLV				AML	AML		
BKES	**Balkesir-Mer**	**1.11**	**188**	P	**Pb**	**13 38 52.4**	**0.0**
YENI	**Yenice-Canakka**	**1.13**	**218**	Pn	**Pn**	**13 38 52.9**	**+0.2**
IZI	**Iznik**	**1.13**	**116**	Pn	**Pb**	**13 38 52.7**	**-0.1**
IZI				AML	AML		
HRT	**Hereke**	**1.16**	**90**	Pn	**Pn**	**13 38 53.0**	**-0.3**
HRT				AML	AML		
CANM	**Can-anakkale**	**1.17**	**226**	Pn	**Pn**	**13 38 53.2**	**-0.1**
CANM				AML	AML		
UKOP	**Uzunkopru-Edir**	**1.18**	**285**	Pn	**Pb**	**13 38 53.8**	**+0.2**
UKOP				AML	AML		
SILT	**Sile**	**1.18**	**74**	Pn	**Pb**	**13 38 53.8**	**+0.1**
SILT				AML	AML		
BALB	**Balikesir**	**1.21**	**190**	Pn	**Pb**	**13 38 54.1**	**0.0**
BALB				AML	AML		
BALB	**Balikesir**	**1.21**	**190**		**Pn**	**13 38 53.7**	**-0.1**
BALB				Sn	**Sg**	**13 39 10.6**	**-0.1**
OSMT	**Osmaniye**	**1.21**	**100**	Pn	**Pn**	**13 38 53.9**	**0.0**
OSMT				AML	AML		
SEMS	**Kocaeli-K¶rfe**	**1.22**	**88**	P	**Pn**	**13 38 54.0**	**0.0**
SEMS				S	**Sn**	**13 39 10.4**	**+0.3**
ERIK	**Erikli-Kesan**	**1.25**	**263**	Pn	**Pn**	**13 38 54.5**	**+0.2**
ERIK				AML	AML		
ADVT	**Abdulvahap**	**1.28**	**108**	Pn	**Pn**	**13 38 54.9**	**0.0**
ADVT				AML	AML		
DST	**Dursunbey**	**1.28**	**163**	Pn	**Pn**	**13 38 54.3**	**-0.6**
DST				AML	AML		
GELI	**Tayfur-Gelibol**	**1.34**	**252**	Pn	**Pn**	**13 38 55.5**	**-0.1**
GELI				AML	AML		
HISA	**Bilecik-Osmane**	**1.41**	**105**	P	**Pb**	**13 38 57.6**	**+0.1**
HISA				S	**Sg**	**13 39 16.3**	**-0.6**
CAVI	**Cavuskoy**	**1.44**	**115**	Pn	**Pn**	**13 38 57.5**	**+0.4**
CAVI				AML	AML		
EDRB	**Edirne**	**1.46**	**314**	Pn	**Pn**	**13 38 57.3**	**0.0**
EDRB				AML	AML		
COMU	**Canakkale**	**1.47**	**241**	Pn	**Pn**	**13 38 57.8**	**+0.4**
COMU				AML	AML		
YAYO	**Edremit-Balk**	**1.47**	**214**	Pn	**Pn**	**13 38 57.7**	**+0.3**
YAYO				AML	AML		
BILE	**Bilecik/Merkez**	**1.48**	**116**	P	**Pn**	**13 38 57.8**	**0.0**
BILE				S	**Sg**	**13 39 19.4**	**-0.1**
CAVK	**Edirne/Enez-Ca**	**1.50**	**265**	P	**Pn**	**13 38 58.3**	**+0.4**
CAVK	**Edirne/Enez-Ca**	**1.50**	**265**	⇑P	**Pb**	**13 38 59.6**	**+0.5**
ENEZ	**Enez**	**1.51**	**267**	P	**Pn**	**13 38 58.5**	**+0.5**
ENEZ				S	**Sb**	**13 39 18.4**	**+0.2**
ENEZ				AML	AML		
ENEZ	**Enez**	**1.51**	**267**	Pn	**Pb**	**13 38 58.8**	**-0.5**
ENEZ				AML	AML		
ENZZ	**Sultanice-Enez**	**1.54**	**262**	Pn	**Pn**	**13 38 58.9**	**+0.6**
ENZZ				AML	AML		
CNKL	**anakkale-Mer**	**1.54**	**241**	P	**Pb**	**13 38 59.3**	**-0.5**
BUHA	**Balikesir, Bur**	**1.56**	**212**	P	**Pn**	**13 38 58.7**	**0.0**
ALN	**Alexandroupoli**	**1.59**	**273**	P	**Pn**	**13 38 59.6**	**+0.5**
ALN				S	**Sn**	**13 39 19.7**	**+0.4**
ALN				AML	AML		
ALN	**Alexandroupoli**	**1.59**	**273**	Pn	**Pn**	**13 38 59.3**	**+0.2**
ALN				AML	AML		
ALN	**Alexandroupoli**	**1.59**	**273**		**Pn**	**13 38 59.1**	**0.0**
SAUV	**Serdivan-Sakar**	**1.67**	**92**	Pn	**Pn**	**13 39 00.8**	**+0.7**
SAUV				AML	AML		
KAYN	**Sakarya, Kayna**	**1.68**	**85**	P	**Pn**	**13 39 00.7**	**+0.4**
EZN	**Ezine**	**1.71**	**235**	P	**Pn**	**13 39 00.7**	**0.0**
EZN				S	**Sb**	**13 39 23.4**	**-0.6**
EZN				AML	AML		
EZN	**Ezine**	**1.71**	**235**	Pn	**Pn**	**13 39 01.0**	**+0.2**
EZN				AML	AML		
EZN	**Ezine**	**1.71**	**235**	P	**Pb**	**13 39 01.8**	**-0.9**
EZN				AML	AML		
TVSB	**Tavsanli**	**1.71**	**143**	Pn	**Pn**	**13 39 00.9**	**0.0**
TVSB				AML	AML		
EMET	**Ktahya-Emet**	**1.71**	**148**	P	**Pn**	**13 39 01.4**	**+0.5**
EZNE	**Ezine-Canakkal**	**1.73**	**232**	Pn	**Pn**	**13 39 01.2**	**+0.2**
SOMA	**Soma-Manisa**	**1.74**	**196**	Pn	**Pn**	**13 39 01.5**	**+0.4**
SOMA				AML	AML		
GPA	**Golpazari**	**1.74**	**107**	Pn	**Pn**	**13 39 01.6**	**+0.4**
GPA				AML	AML		
GADA	**Gvkgeada**	**1.82**	**250**	P	**Pn**	**13 39 02.5**	**+0.2**
GADA				AML	AML		
GADA	**Gvkgeada**	**1.82**	**250**	Pn	**Pn**	**13 39 02.8**	**+0.5**
GADA				AML	AML		
GULT	**Gulveren**	**1.85**	**102**	Pn	**Pn**	**13 39 03.2**	**+0.4**
GULT				AML	AML		
SIMA	**Simav-Kutahya**	**1.86**	**159**	Pn	**Pn**	**13 39 03.6**	**+0.6**
SIMA				AML	AML		
BOZC	**Bozcaada**	**1.88**	**239**	Pn	**Pn**	**13 39 03.2**	**+0.2**
BOZC				AML	AML		
GORD	**Gordes-Manisa**	**1.92**	**179**	Pn	**Pn**	**13 39 04.2**	**+0.5**
GORD				AML	AML		
AKS	**Akhisar**	**1.97**	**187**	Pn	**Pn**	**13 39 04.4**	**+0.1**
AKS				AML	AML		
SHAP	**Saphane-Kutahy**	**1.99**	**155**	Pn	**Pn**	**13 39 04.4**	**-0.3**
SHAP				AML	AML		
DKL	**Dikili**	**2.00**	**209**	Pn	**Pn**	**13 39 04.9**	**+0.2**
DKL				AML	AML		
BORA	**Eskisehir**	**2.01**	**118**		**Pn**	**13 39 05.1**	**+0.1**
SMTH	**Samothraki Isl**	**2.02**	**261**	P	**Pn**	**13 39 04.9**	**-0.1**
SMTH				AML	AML		
GEDZ	**Gediz**	**2.04**	**151**	Pn	**Pn**	**13 39 06.4**	**+1.1**
GEDZ				AML	AML		
JMB	**Yambol**	**2.05**	**325**	P	**Pn**	**13 39 06.0**	**+0.6**
JMB	**Yambol**	**2.05**	**325**	Pn	**Pn**	**13 39 05.4**	**0.0**
JMB	**Yambol**	**2.05**	**325**	P	**Pn**	**13 39 06.3**	**+0.9**
GPNR	**Gulpinar-Canak**	**2.06**	**229**	Pn	**Pn**	**13 39 05.9**	**+0.3**
GPNR				AML	AML		
GOMA	**Golmarmara-Man**	**2.13**	**185**	Pn	**Pn**	**13 39 07.6**	**+1.1**
GOMA				AML	AML		
PRK	**Paraskevi**	**2.14**	**223**	P	**Pn**	**13 39 07.0**	**+0.4**
PRK				AML	AML		
KDZ	**Kurdzhali**	**2.26**	**292**	P	**Pn**	**13 39 08.4**	**+0.2**
KDZ				AML	AML		
KDZ	**Kurdzhali**	**2.26**	**292**	Pn	**Pn**	**13 39 07.2**	**-1.1**
KDZ				AML	AML		
KDZ	**Kurdzhali**	**2.26**	**292**	S	**Sg**	**13 39 44.9**	**+0.7**
KDZ	**Kurdzhali**	**2.26**	**292**	P	**Pn**	**13 39 08.6**	**+0.3**
DIM	**Dimitrovgrad**	**2.27**	**303**	P	**Pn**	**13 39 09.1**	**+0.6**
DIM				AML	AML		
DIM	**Dimitrovgrad**	**2.27**	**303**	P	**Pn**	**13 39 09.3**	**+0.8**
ALT	**Altintas**	**2.33**	**139**	Pn	**Pn**	**13 39 09.3**	**-0.1**
ALT				AML	AML		
KULA	**Kula-Manisa**	**2.35**	**170**	Pn	**Pn**	**13 39 10.1**	**+0.5**
KULA				AML	AML		
MDUB	**Mudurnu**	**2.35**	**98**	Pn	**Pn**	**13 39 10.5**	**+0.8**
MDUB				AML	AML		
MDUB	**Mudurnu**	**2.35**	**98**		**Pn**	**13 39 11.5**	**+1.8**
MANT	**Manisa**	**2.36**	**172**		**Pn**	**13 39 10.6**	**+0.6**
FOCM	**Foa**	**2.38**	**208**	Pn	**Pn**	**13 39 09.7**	**-0.2**
FOCM				AML	AML		
PRD	**Provadia**	**2.39**	**347**	S	**Sg**	**13 39 46.0**	**-2.4**
PRD	**Provadia**	**2.39**	**347**	P	**Pn**	**13 39 11.5**	**+1.4**
LIA	**Limnos Island**	**2.44**	**249**	P	**Pn**	**13 39 10.9**	**+0.1**
LIA				AML	AML		
KRBN	**Karaburun**	**2.55**	**209**	Pn	**Pn**	**13 39 12.9**	**+0.6**
KRBN				AML	AML		
ODEM	**Odemis-Izmir**	**2.55**	**181**	Pn	**Pn**	**13 39 12.9**	**+0.5**
ODEM				AML	AML		
BLCB	**Balcova**	**2.59**	**199**	P	**Pn**	**13 39 14.0**	**+1.2**
BLCB				AML	AML		
BLCB	**Balcova**	**2.59**	**199**	Pn	**Pn**	**13 39 13.7**	**+0.9**
BLCB				AML	AML		
THAS	**Thassos island**	**2.61**	**266**	P	**Pn**	**13 39 13.6**	**+0.6**
THAS				AML	AML		
RZN	**Rozhen**	**2.70**	**290**	P	**Pn**	**13 39 15.2**	**+0.6**
RZN				AML	AML		
RZN	**Rozhen**	**2.70**	**290**	S	**Sb**	**13 39 54.5**	**+1.8**
RZN	**Rozhen**	**2.70**	**290**	P	**Pn**	**13 39 15.2**	**+0.6**
YUVA	**Yuva-Kibriscik**	**2.74**	**98**	Pn	**Pn**	**13 39 15.3**	**+0.3**
YUVA				AML	AML		
KAVA	**Kavala**	**2.75**	**275**	P	**Pn**	**13 39 15.8**	**+0.7**
KAVA				AML	AML		
RUZG	**Kolk¶y-BOLU**	**2.78**	**91**	Pn	**Pn**	**13 39 16.9**	**+1.3**
RUZG				AML	AML		
PLD	**Plovdiv**	**2.87**	**298**	P	**Pn**	**13 39 17.5**	**+0.9**
PLD				AML	AML		
PLD	**Plovdiv**	**2.87**	**298**	Pn	**Pn**	**13 39 18.1**	**+1.4**
PLD				AML	AML		
PLD	**Plovdiv**	**2.87**	**298**	P	**Pb**	**13 39 22.6**	**+0.2**
NAZL	**Nazilli-Aydin**	**2.87**	**178**	Pn	**Pn**	**13 39 16.9**	**+0.2**
NAZL				AML	AML		
AYDB	**Zeytinkoy-Aydi**	**2.89**	**184**	Pn	**Pn**	**13 39 16.9**	**-0.2**
AYDB				AML	AML		
GMLD	**Gumuldur**	**2.91**	**199**	Pn	**Pn**	**13 39 18.1**	**+0.9**
GMLD				AML	AML		
SZH	**Strazhitsa**	**2.92**	**327**	P	**Pn**	**13 39 18.3**	**+0.9**
SZH				AML	AML		
SZH	**Strazhitsa**	**2.92**	**327**	S	**Sb**	**13 40 00.3**	**+1.6**
SZH	**Strazhitsa**	**2.92**	**327**	P	**Pn**	**13 39 19.6**	**+2.2**
CHOS	**Chios island**	**2.92**	**214**	P	**Pn**	**13 39 17.4**	**-0.1**
CHOS				AML	AML		
CHOS	**Chios island**	**2.92**	**214**	Pn	**Pn**	**13 39 16.5**	**-1.0**
CHOS				AML	AML		
SHUT	**Suhut-Afyon**	**2.94**	**140**	Pn	**Pn**	**13 39 19.1**	**+1.3**
SHUT				AML	AML		
SVRH	**Sivrihisar-ESK**	**2.94**	**117**	Pn	**Pn**	**13 39 18.1**	**+0.3**
SVRH				AML	AML		
PVL	**Pavlikeni**	**3.18**	**317**	S	**Sb**	**13 40 02.8**	**-3.5**
PVL	**Pavlikeni**	**3.18**	**317**	P	**Pn**	**13 39 22.3**	**+1.3**
OUR	**Ouranopolis**	**3.20**	**262**	P	**Pn**	**13 39 21.2**	**0.0**
OUR				AML	AML		
GCAM	**G?zelcaml?**	**3.21**	**193**	Pn	**Pn**	**13 39 22.9**	**+1.6**
GCAM				AML	AML		
SDAG	**Sultandagi-AFY**	**3.21**	**137**	Pn	**Pn**	**13 39 22.4**	**+0.9**
SDAG				AML	AML		
BASM	**Basmaki-Afyon**	**3.26**	**152**	Pn	**Pn**	**13 39 22.9**	**+0.7**
BASM				AML	AML		
NVR	**Nevrokopi**	**3.27**	**280**	P	**Pn**	**13 39 22.5**	**+0.2**
NVR				AML	AML		
POLA	**Polatl-ANKAR**	**3.28**	**109**	Pn	**Pn**	**13 39 23.9**	**+1.4**
POLA				AML	AML		
MFTR	**Murfatlar**	**3.35**	**4**	⇓P	**Pb**	**13 39 27.2**	**-3.4**
MMB	**Musomishta**	**3.39**	**284**	P	**Pn**	**13 39 24.7**	**+0.8**
MMB				AML	AML		
TAVA	**DENIZLI_Tavas**	**3.42**	**170**	⇑P	**Pn**	**13 39 26.5**	**+2.2**
SRS	**Serrai**	**3.45**	**276**	P	**Pn**	**13 39 25.2**	**+0.5**
SRS				AML	AML		
SAFT	**Safranbolu**	**3.46**	**82**	Pn	**Pn**	**13 39 26.2**	**+1.3**
SAFT				AML	AML		
KIZT	**Kizilcal**	**3.48**	**123**	Pn	**Pn**	**13 39 24.6**	**-0.6**
KIZT				AML	AML		
ISP	**Isparta**	**3.53**	**148**	Pn	**Pn**	**13 39 27.0**	**+1.1**
ISP	**Isparta**	**3.53**	**148**	Pn	**Pn**	**13 39 24.3**	**-1.5**
PLG	**Polygyros**	**3.60**	**264**	P	**Pn**	**13 39 26.8**	**0.0**
PLG				AML	AML		
KURC	**Kurucasile-Bar**	**3.61**	**72**	Pn	**Pn**	**13 39 28.1**	**+1.2**
KURC				AML	AML		
SOH	**Sokhos**	**3.63**	**271**	P	**Pn**	**13 39 27.7**	**+0.5**
SOH				AML	AML		
TIRR	**Tirgusor**	**3.63**	**3**		**Pn**	**13 39 26.0**	**-1.1**
LOD	**Lodumlu**	**3.66**	**103**	Pn	**Pn**	**13 39 29.0**	**+1.4**
LOD				AML	AML		
AOS	**Alonnisos**	**3.67**	**244**	P	**Pn**	**13 39 28.5**	**+0.8**
AOS				AML	AML		
YALI	**Yalozu-CANKI**	**3.68**	**89**	Pn	**Pn**	**13 39 28.9**	**+1.0**
YALI				AML	AML		
TLBR	**Topalu**	**3.71**	**359**	⇑P	**Pn**	**13 39 30.4**	**+2.2**

CIDE Kastamonu/Cide 3.77 72 ⇑P Pn 13 39 31.1 +2.0
HARR Harsova 3.86 358 ⇑P Pn 13 39 32.7 +2.4
KKB Krupnik 3.90 287 P Pn 13 39 32.3 +1.4
AFSR Afar-Bala (An 4.03 109 Pn Pn 13 39 34.3 +1.6
AFSR AML AML
TPGR Topolog 4.03 3 ⇓P Pn 13 39 35.1 +2.4
LADK Ladik-KONYA 4.19 127 Pn Pn 13 39 36.7 +1.7
LADK AML AML
ILGA Ilgaz 4.23 85 Pn 13 39 36.9 +1.2
CFR Carcaliu 4.34 360 ⇑P Pn 13 39 39.4 +2.4
BR131 Keskin Array S 4.35 103 Pn 13 39 36.2 -1.0
BRTR Keskin Array B 4.35 103 Pn Pn 13 39 37.2 0.0
0.7nm,0.3s,baz=274,slow=11,SNR=11
BRTR Sn Sn 13 40 26.8 -0.9
5.9nm,0.3s,baz=32,slow=32,SNR=9.4
BRTR Lg Lg 13 40 51.0
4.5nm,0.3s,baz=229,slow=13,SNR=8.5
1.0nm,0.4s
BRTR AML AML
BRTR Keskin Array B 4.35 103 Pn 13 39 37.4 +0.2
KONT Konya--Tatoy 4.36 130 Pn Pn 13 39 38.7 +1.5
KONT AML AML
TLCR 4.38 6 ⇑P Pn 13 39 40.0 +2.6
ISR Istrita 4.44 345 ⇑P Pn 13 39 41.7 +3.3
BZK Bozkurt 4.55 74 Pn 13 39 39.3 -0.6
BZK Bozkurt 4.55 74 ⇓P Pn 13 39 42.3 +2.5
BZK Bozkurt 4.55 74 P Pn 13 39 40.9 +1.1
BZK AML AML
KIRS Kirsehir-Merke 4.75 109 ⇓P Pn 13 39 46.0 +3.4
KEPZ Antalya-Kepez 4.77 144 ⇓P Pn 13 39 44.8 +1.9
NEHR Nehoiu 4.79 344 ⇑P Pn 13 39 46.6 +3.5
BISRR Bisoca 4.83 348 ⇑P Pn 13 39 46.9 +3.2
MLR Muntele Rosu 4.92 342 Pn Pn 13 39 48.1 +3.0
2.7nm,0.3s,baz=271,slow=24,SNR=13
MLR Lg Lg 13 41 10.7
7.3nm,0.3s,baz=221,slow=22,SNR=6.6
MLR LR LR 13 41 32.0
comp=Z,30nm,19.9s,baz=182,slow=36
8.2nm,0.3s
MLR AML AML
MLR Muntele Rosu 4.92 342 Pn 13 39 46.3 +1.2
MLR Muntele Rosu 4.92 342 ⇑P Pn 13 39 48.8 +3.7
VOIR 5.13 335 ⇑P Pn 13 39 49.9 +2.1
PLOR Plostina 5.13 348 ⇑P Pn 13 39 51.2 +3.3
VRI Vrincioaia 5.13 349 ⇓P Pn 13 39 51.0 +3.2
COVR Voineasa-Covas 5.21 345 ⇑P Pn 13 39 52.3 +3.4
SNOP Sinop 5.45 75 Pn Pn 13 39 52.9 +0.8
SEV Sevastopol' 5.51 46 *e*P Pn 13 39 53.5 +0.5
SEV ⇓*i*P Pn 13 39 53.8 +0.8
SEV pmax pmax 13 39 58.0
comp=Z,11nm,0.3s
SEV *i* S Sn 13 40 52.8 -3.2
SEV smax smax 13 41 03.4
comp=N,50nm,0.3s
SEV smax smax 13 41 03.4
comp=E,13nm,0.3s
OZUR 5.53 343 ⇑P Pn 13 39 56.7 +3.4
BOVS Bovan 5.54 303 ⇑P Pn 13 39 55.5 +2.1
TARU Tarkhankut 5.56 34 *e*x Pn 13 39 54.8 +1.1
TARU pmax pmax 13 40 02.5
comp=Z,8.0nm,0.3s
TARU *e*S Sn 13 40 55.9 -1.4
TARU smax smax 13 41 03.2
comp=E,69nm,0.3s
LOT Lotru 5.61 327 ⇓P Pn 13 39 56.1 +1.6
ONER Baraj Valea Uz 5.64 348 ⇑P Pn 13 39 57.0 +2.1
YAL Yalta 5.75 49 *e*P Pn 13 39 57.2 +1.0
YAL pmax pmax 13 40 02.4
comp=Z,14nm,0.2s
YAL *e*S Sn 13 41 00.1 -1.7
YAL smax smax 13 41 03.7
comp=N,29nm,0.2s
YAL smax smax 13 41 03.7
comp=E,68nm,0.2s
DNZ2 Donuzlav2 5.87 38 *e*x Pn 13 40 00.9 +3.1
DNZ2 pmax pmax 13 40 09.2
comp=Z,17nm,0.3s
DNZ2 *e*S Sn 13 41 04.6 -0.1
DNZ2 smax smax 13 41 12.6
comp=N,37nm,0.3s
DNZ2 smax smax 13 41 12.6
comp=E,95nm,0.4s
ALU Alushta 6.00 48 *e*x Pn 13 40 00.2 +0.4
ALU pmax pmax 13 40 03.6
comp=Z,24nm,0.3s
ALU *e*x x 13 41 05.2
ALU smax smax 13 41 10.8
comp=N,251nm,0.3s
ALU smax smax 13 41 10.8
comp=E,139nm,0.5s
SIM Simferopol' 6.02 45 *e*x Pn 13 40 01.0 +1.1
SIM pmax pmax 13 40 03.0
comp=Z,65nm,0.3s
SIM *e*S Sn 13 41 06.1 -2.4
SIM smax smax 13 41 12.3
comp=N,80nm,0.4s
SIM smax smax 13 41 12.3
comp=E,49nm,0.4s
IDI Anoyia 6.10 206 Pn Pn 13 39 58.2 -2.9
comp=E,1.9nm,0.5s,baz=30,slow=20,SNR=1.3
BNN Bunyan 6.25 106 Pn Pn 13 40 01.6 -1.7
SUDU Sudak 6.47 49 *e*P Pn 13 40 06.9 +0.8
SUDU pmax pmax 13 40 10.9
comp=Z,26nm,0.3s
SUDU *e*x x 13 41 17.9
SUDU smax smax 13 41 26.3
comp=N,116nm,0.5s
SUDU smax smax 13 41 26.3
comp=E,42nm,0.4s
BURAR Bucovina Array 7.10 344 Pn 13 40 13.9 -1.0
BUR08 Bucovina Ar. S 7.13 344 Pn Pn 13 40 13.8 -1.6
LUBAR Lubar, Ukraine 9.09 358 P Pn 13 40 42.0 -0.1
MMAI Mount Meron Ar 9.73 141 Pn Pn 13 40 50.3 -0.7
comp=E,1.0nm,0.3s,baz=354,slow=9.0,SNR=1.5
MMAI LR LR 13 44 46.8
comp=E,38nm,19.3s,baz=314,slow=39
comp=E,0.4nm,0.3s
MMAI AML AML
AK07 Malin Array Si 9.75 4 P Pn 13 40 51.2 +0.1
AK06 Malin Array Si 9.78 4 P Pn 13 40 51.5 -0.1
AK10 Malin Array Si 9.80 4 P Pn 13 40 51.7 -0.1
AK05 Malin Array Si 9.82 4 P Pn 13 40 52.0 0.0
AK09 Malin Array Si 9.82 4 P Pn 13 40 52.0 0.0
AK14 Malin Array Si 9.82 4 P Pn 13 40 52.0 -0.1
AK08 Malin Array Si 9.83 4 P Pn 13 40 53.0 +0.8
AK11 Malin Array Si 9.87 4 P Pn 13 40 53.2 +0.4
AKASG Malin Array Be 9.90 4 Pn Pn 13 40 56.5 +3.3
comp=E,1.6nm,0.3s,baz=180,slow=12,SNR=6.1
AKASG Sn Sn 13 42 44.0 +0.2
comp=E,2.4nm,0.3s,baz=268,slow=20,SNR=5.4
AKASG LR LR 13 44 43.6
comp=E,188nm,20.2s,baz=222,slow=37
comp=E,1.0nm,0.5s
AKASG AML AML
MI28 Mi28,Pidlybu 10.11 358 P Pn 13 40 55.6 -0.4
ASF Jabal al Asfar 11.14 138 LR LR 13 46 24.5
comp=E,115nm,19.6s,baz=280,slow=43
KBZ Khabaz 11.31 70 Pn Pn 13 41 15.5 +3.0
comp=E,0.2nm,0.3s,baz=278,slow=7.1,SNR=2.3
comp=E,1.3nm,0.7s
KBZ AML AML
VRAC Vranov 11.75 320 LR LR 13 46 30.5
comp=E,119nm,19.8s,baz=107,slow=40
GNI Garni 12.66 88 LR LR 13 46 43.7
comp=E,110nm,20.1s,baz=267,slow=39
GERES GERESS Array B 12.99 313 Pn Pn 13 41 39.0 +3.5
baz=124,slow=14,SNR=1.8
comp=E,0.9nm,0.2s
FUORN Ofenpass-Fuorn 14.15 300 Pn Pn 13 41 47.5 -4.0
DAVOX Davos/Dischmat 14.45 300 LR LR 13 48 26.8
comp=E,116nm,18.2s,baz=83,slow=41
CLL Collm 14.80 320 AMS AMS 13 48 00.0
comp=Z,200nm,19.5s
KEST Kesra 15.60 257 LR LR 13 49 51.1
comp=Z,45nm,19.1s,baz=4.0,slow=44
BELG Belogornoye 17.62 42 P P 13 42 38.3 +1.1
comp=Z,0.4nm,0.3s,baz=239,slow=12,SNR=5.5
comp=Z,13nm,0.9s
BELG AML AML
FINES FINESS Array B 20.68 357 P Pn 13 43 12.8 -0.2
comp=Z,1.4nm,0.8s,baz=187,slow=14,SNR=4.5
FINES LR LR 13 51 10.3
comp=Z,117nm,20.4s,baz=190,slow=36
comp=Z,1.4nm,0.8s
HFS Hagfors 21.31 340 LR LR 13 52 00.3
comp=Z,88nm,19.2s,baz=132,slow=38
KIRV Kirov 22.30 30 LR LR 13 52 48.8
comp=Z,90nm,19.8s,baz=224,slow=38
NOA NORSAR Array B 22.74 338 P P 13 43 36.2 +3.5
comp=Z,1.0nm,1.0s,baz=145,slow=12,SNR=1.8
NOA LR LR 13 53 34.4
comp=Z,59nm,18.3s,baz=135,slow=40
comp=Z,1.0nm,1.0s
AKTO Aktyubinsk 22.86 55 LR LR 13 54 45.1
comp=Z,60nm,19.6s,baz=346,slow=42
AB31 Akbulak array 23.86 59 P P 13 43 42.2 -1.9
AB31 IAmb IAmb 13 44 15.7
comp=Z,10.0nm,1.5s
ESDC Sonseca Array 24.46 278 P P 13 43 49.1 -0.7
comp=Z,0.5nm,0.8s,baz=85,slow=8.1,SNR=6.8
comp=Z,0.5nm,0.8s
ARTI Arti 25.06 41 LR LR 13 55 10.0
comp=Z,101nm,18.1s,baz=268,slow=40
ARTI Arti 25.06 41 P P 13 43 55.8 +0.8
ARTI IAmb IAmb 13 43 57.3
comp=Z,12nm,1.1s
ARCES ARCESS Array B 28.80 358 LR LR 13 56 00.3
comp=Z,133nm,19.3s,baz=147,slow=36
KKAR Karatay Array 31.35 72 P P 13 44 52.4 +1.0
ATD Arta Tunnel 31.93 152 P P 13 44 56.2 -0.5
AAK Ala-Archa 34.31 71 LR LR 14 04 06.4
comp=Z,40nm,19.2s,baz=296,slow=45
KURBB Kurchatov Arra 35.88 57 P P 13 45 32.9 +2.3
comp=Z,0.2nm,0.5s,baz=278,slow=8.6,SNR=6.3
comp=Z,0.2nm,0.5s
KURK Kurchatov 35.93 57 P P 13 45 28.4 -2.7
TORD Torodi Ar. Bea 36.00 228 P P 13 45 30.0 -2.0
comp=Z,0.1nm,0.4s,baz=42,slow=7.0,SNR=2.8
comp=Z,0.1nm,0.4s
TORD Torodi Ar. Bea 36.00 228 P P 13 45 30.5 -1.5
TORD IAmb IAmb 13 45 45.7
comp=Z,2.6nm,0.6s
BORG Borgarnes 36.88 327 LR LR 14 03 03.0
comp=Z,73nm,19.1s,baz=131,slow=40
MKAR Makanchi Array 38.87 63 P P 13 45 57.4 +1.3
comp=Z,0.9nm,0.9s,baz=280,slow=6.8,SNR=12
comp=Z,0.9nm,0.9s
MKAR Makanchi Array 38.87 63 P P 13 45 53.8 -2.3
SCO Scoresbysund 39.01 336 P P 13 45 55.7 -1.2
SCO IAmb IAmb 13 46 00.6
comp=Z,24nm,1.2s
ZALV Zalesovo Beam 39.49 51 P P 13 46 02.3 +1.2
comp=Z,0.2nm,0.2s,baz=272,slow=8.0,SNR=1.8
ZALV LR LR 14 03 46.1
comp=Z,26nm,21.8s,baz=262,slow=38
comp=Z,0.2nm,0.2s
NRIK Noril'sk 41.76 27 LR LR 14 05 04.2
comp=Z,54nm,20.2s,baz=249,slow=38
TLY Talaya 51.10 51 LR LR 14 12 02.3
comp=Z,54nm,18.2s,baz=315,slow=39
SONM Songino Array 54.17 54 P P 13 47 57.5 +1.3
comp=Z,0.2nm,0.3s,baz=302,slow=8.3,SNR=5.0
comp=Z,0.2nm,0.3s
TSUM Tsumeb 60.53 191 LR LR 14 19 07.4
comp=Z,47nm,18.1s,baz=148,slow=40
HHC Hu-ho-hao-te 60.64 60 *e*P P 13 48 42.0 +0.1
HHC pmax pmax
comp=Z,9.0nm,0.6s
HHC pmax pmax
comp=Z,82nm,4.1s
PZH PanZhiHua 61.25 79 P P 13 48 48.3 +2.1
OPO Ambohidratompo 61.69 159 LR LR 14 16 14.6
comp=Z,29nm,19.3s,baz=90,slow=37
XAN Xi'an 62.37 68 *e*P P 13 49 00.8 +7.2
CMAR Chiang Mai Arr 63.78 88 LR LR 14 22 35.4
comp=Z,11nm,21.3s,baz=285,slow=41
KSRS Korea Array 73.03 55 LR LR 14 27 46.1
comp=Z,14nm,18.1s,baz=160,slow=40

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*BGSI **24** 13:56:28.8±2.4, 21°.26S×25°.28E, h0^{km}±12^{km}, ML2.4, Presumed earthquake*
*BUL **24** 13:56:39.5±1.6, 21°.69S×25°.82E, h37^{km}±25^{km}, MD3.3, Presumed earthquake*
ISC 24 13:56:26.7±1.5**, 21°.23S**±0°.04×**25°.25E**±0°.06**, h11**^{km}±10^{km}**, n14,** σ1^{s}.**83**/24**, Botswana**

Code Station Name Δ° AZ° Phase ID Op ISC Time h m s Res ISC
KHWEE KHWEE 0.74 166 *i* P Pg 13 56 41.1 +0.1
KHWEE *i* S Sg 13 56 49.5 -1.2
KHWEE IAML 13 56 52.9
comp=N,362nm,0.4s
KHWEE KHWEE 0.74 166 *i* P Pg 13 56 40.9 -0.1
KHWEE *i* S Sg 13 56 49.6 -1.0
KHWEE IAML 13 56 56.0
comp=E,452nm,0.2s
SOOWA Sowa 1.12 54 *i* P Pg 13 56 48.9 +0.6
SOOWA *i* S Sb 13 57 03.0 +0.2
SOOWA IAML 13 57 04.5
comp=N,148nm,0.4s
SOOWA Sowa 1.12 54 *i* P Pg 13 56 49.0 +0.7
SOOWA *i* S Sb 13 57 03.3 +0.5
SOOWA IAML 13 57 04.6
comp=N,146nm,0.3s
BROLN Tlhalogang 1.95 87 *i* P Pb 13 57 02.0 -0.3
BROLN *i* S Sn 13 57 23.7 -0.6
BROLN IAML 13 57 27.6
comp=N,46nm,0.4s
BROLN Tlhalogang 1.95 87 *i* P Pb 13 57 01.8 -0.4
BROLN *i* S Sn 13 57 24.5 +0.2
BROLN IAML 13 57 27.6
comp=N,47nm,0.3s
LPHEP Lephephe 2.20 165 *i* P Pb 13 57 05.8 -0.7
LPHEP *i* S Sn 13 57 30.7 +0.2
LPHEP IAML 13 57 38.6
comp=E,199nm,0.3s
LPHEP Lephephe 2.20 165 *i* P Pb 13 57 06.2 -0.3
LPHEP IAML 13 57 38.7
comp=E,20nm,0.3s
MATP Matopo 3.14 76 *i* P Pb 13 57 22.6 0.0
MATP *i* S Sn 13 57 52.3 -1.5
BLWY Bulawayo 3.33 72 *i* P Pb 13 57 22.8 -3.0
BLWY *i* S Sn 13 57 54.7 -3.7
GRTLG Ghanzi 3.76 267 *i* P Pn 13 57 26.0 +1.2
LBTB Lobatse 3.78 175 *i* P Pn 13 57 28.2 +3.2
LBTB *i* S Sn 13 58 05.6 -3.9
MUSN Musina, Limpop 4.41 105 *i* P Pn 13 57 36.0 +2.3
MUSN *i* S Sn 13 58 15.3 -10
BOSA Boshof 7.35 180 *i* P Pn 13 58 16.2 +2.1

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*NAO **24** 14:09:36.3±2.5, 79°.64N×3°.59E, h10^{km}, ML3.3*
*BER **24** 14:09:39.5±2.2, 79°.48N×3°.47E, h10^{km}, Mw3.8, ML3.3(NAO), Confirmed Earthquake*
*KOLA **24** 14:09:40.4, 79°.65N×5°.31E, h0^{km}, ML2.4, Greenland sea, Knipovich ridge, north*
*FCIAR **24** 14:09:42.0, 79°.71N×6°.49E, h10^{km}, station OMEGA has station magnitude of 4.20 station ZFI2 has station magnitude of 4.20*
ISC 24 14:09:37.9±1.7**, 79°.3N**±0°.2×**3°.31E**±0°.05**, h10**^{km}**, n25,** σ**2**^{s}.**05**/39**, Greenland Sea**

Code Station Name Δ° AZ° Phase ID Op ISC Time h m s Res ISC
BRBB Barentsburg B 2.44 113 Pn Pn 14 10 18.7 +1.0
BRBB Sn Sn 14 10 46.9 -0.7
BRBB Barentsburg B 2.44 113 Pn Pn 14 10 18.7 +1.0
BRBB Sn Sn 14 10 46.9 -0.7
BRBB Barentsburg B 2.44 113 P Pn 14 10 18.4 +0.7
BRBB S Sn 14 10 48.1 +0.5
BRBA Barentsburg A 2.46 114 Pn Pn 14 10 18.9 +0.9
BRBA Sn Sn 14 10 47.4 -0.7
BRBA Barentsburg A 2.46 114 Pn Pn 14 10 18.9 +0.9
BRBA Sn Sn 14 10 47.4 -0.7
SPA0 Spitsbergen Ar 2.78 106 Pn Pn 14 10 23.1 +0.8
baz=311,slow=8.6
SPA0 Sn Sn 14 10 54.9 -1.0
baz=308,slow=14
SPA0 Spitsbergen Ar 2.78 106 *e*P Pn 14 10 22.4 0.0
SPA0 *e*S Sn 14 10 53.3 -2.6
SPA0 Spitsbergen Ar 2.78 106 Pn Pn 14 10 23.1 +0.8
SPA0 Sn Sn 14 10 54.9 -1.0
SPITS Spitsbergen Ar 2.78 106 P Pn 14 10 22.8 +0.4
SPITS S Sn 14 10 55.0 -1.0
DAG Danmarks Havn 5.18 253 *e*P Pn 14 10 56.5 +1.3
DAG *e*S Sn 14 11 52.0 -2.9
DAG Danmarks Havn 5.18 253 *i* S Sn 14 11 51.9 -3.0
DAG IAML 14 11 57.8
comp=Z,10.0nm,0.5s
HOPEN Hopen 5.30 110 Pn Pn 14 10 57.3 +0.4
HOPEN Sn Sn 14 11 55.0 -3.0
HOPEN Hopen 5.30 110 *e*P Pn 14 10 57.6 +0.6
HOPEN *e*S Sn 14 11 56.2 -1.8
HOPEN Hopen 5.30 110 *e*P Pn 14 10 57.5 +0.6
HOPEN *e*S Sn 14 11 54.2 -3.8
HOPEN IAML 14 12 02.5
comp=Z,13nm,1.1s
BEAR Bear Island, N 5.94 135 Pn Pn 14 11 09.8 +4.1
baz=341,slow=18
DBG Daneborg 7.26 239 P Pn 14 11 26.0 +2.3
DBG Sn Sn 14 12 43.4 -2.6
DBG Daneborg 7.26 239 *e*P Pn 14 11 26.1 +2.3
DBG Sn Sn 14 12 43.4 -2.6
DBG Daneborg 7.26 239 *i* P Pn 14 11 25.1 +1.4
DBG *i* S Sn 14 12 43.6 -2.4
DBG IAML 14 12 45.4
comp=Z,4.4nm,0.5s
ZFI2 Zemlya Franca- 7.68 57 *e*P Pn 14 11 25.7 -3.8
ZFI2 *e*S Sn 14 12 45.2 -11
comp=Z,67nm,2.7s
ZFI2 AML AML
OMEGA Omega 7.70 57 *e*P Pn 14 11 25.7 -4.1
OMEGA *e*S Sn 14 12 45.2 -12
comp=Z,63nm,3.4s
OMEGA AML AML
NEEM North Greenlan 10.78 288 *i* P Pn 14 12 09.5 -2.7
NEEM *i* S Sn 14 13 60.0 -13
NEEM IAML 14 14 04.7
comp=Z,13nm,0.7s
KEV Kevo 11.29 134 P Pn 14 12 23.6 +4.7
ARA0 ARCESS Array S 11.30 137 Pn Pn 14 12 22.4 +3.3
baz=343,slow=12
ARA0 Sn Sn 14 14 22.4 -2.8
baz=342,slow=18
ARA0 ARCESS Array S 11.30 137 Pn Pn 14 12 22.4 +3.3
ARA0 Sn Sn 14 14 22.4 -2.8
SUMG Summit 11.82 258 *i* P Pn 14 12 27.1 +0.5
SUMG *i* S Sn 14 14 27.1 -11
SUMG IAML 14 14 43.7
comp=Z,6.2nm,1.5s

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*IDC **24** 14:12:36.1±5.5, 36°.36N×71°.06E, h167^{km}±45^{km}, mb3.5/8, mbtmp4.0/13, MS3.5/3, Error ellipse: s-maj=42.2km s-min=18.3km az=38.0*
*NNC **24** 14:12:38.3±5.0, 36°.99N×70°.45E, h0^{km}, mb4.3, mpv4.0, Error ellipse: s-maj=40.1km s-min=30.1km az=166.0*
ISC 24 14:12:39.6±1.1**, 36°.65N**±0°.10×**71°.0E**±0°.1**, h188**^{km}**, n26,** σ**1**^{s}.**51**/28**, mb3.8**/7**, 3C-2D, Hindu Kush region**

Code Station Name Δ° AZ° Phase ID Op ISC Time h m s Res ISC
EKS2 Erkin-Say 6.39 19 P Pn 14 14 12.9 +1.2
SNR=21
KK31 Karatay Array 6.45 357 P Pn 14 14 11.7 -0.8
5.9nm,0.3s,baz=189,slow=14,SNR=111
KK31 ⇑S Sn 14 15 22.8 -3.2
18nm,0.4s,baz=184,slow=21,SNR=17
AAK Ala-Archa 6.57 23 P Pn 14 14 15.7 +1.4
SNR=12
AAK Ala-Archa 6.57 23 P Pn 14 14 14.9 +0.7
10nm,0.3s,baz=215,slow=4.9,SNR=46
AAK S Sn 14 15 29.5 +0.5
12nm,0.6s,baz=164,slow=20,SNR=7.7
AAK Ala-Archa 6.57 23 ⇑P Pn 14 14 14.7 +0.4
4.4nm,0.5s
AAK ⇓S Sn 14 15 28.3 -0.8
12nm,0.9s
KBK Karagaybulak 6.74 26 P Pn 14 14 18.0 +1.6
SNR=20
CHMS Chumysh 6.98 24 P Pn 14 14 20.9 +1.5
SNR=7.4
USP Ospenovka 7.15 21 P Pn 14 14 22.4 +0.8
SNR=25
TKM2 Tokmak 2 7.21 28 P Pn 14 14 23.9 +1.3
SNR=6.8
MKAR Makanchi Array 13.19 36 P Pn 14 15 39.2 -0.6
0.9nm,0.8s,baz=206,slow=11,SNR=5.2
AB31 Akbulak array 14.93 331 P Pn 14 16 02.7 +1.4
1.8nm,0.4s,baz=142,slow=9.8,SNR=64
AB31 S Sn 14 18 45.0 -3.1
1.7nm,0.7s,baz=148,slow=25,SNR=4.2
KURBB Kurchatov Arra 14.99 19 P Pn 14 16 01.0 -1.0
0.2nm,0.3s,baz=210,slow=11,SNR=4.7
BVAR Borovoye Array 16.38 359 P Pn 14 16 19.8 +1.0
2.4nm,0.5s,baz=162,slow=10,SNR=13
AKTO Aktyubinsk 16.63 330 P P 14 16 22.2 +1.2
5.0nm,0.4s,baz=143,slow=8.8,SNR=14
AKTO Aktyubinsk 16.63 330 ⇓P Pn 14 16 23.6 +1.8
5.5nm,0.9s
AKTO ⇑S S 14 19 24.5 -0.3
4.0nm,1.2s
ZALV Zalesovo Beam 19.79 25 P P 14 16 56.2 +0.9
1.5nm,0.4s,baz=222,slow=12,SNR=8.5
1.5nm,0.4s
ARTI Arti 21.49 341 LR LR 14 26 48.1
comp=Z,31nm,19.2s,baz=342,slow=39
SONM Songino Array 28.28 56 P P 14 18 15.8 +0.4
0.5nm,0.7s,baz=274,slow=8.5,SNR=2.4
0.5nm,0.7s
FINES FINESS Array B 37.34 326 P P 14 19 34.0 +0.6
2.4nm,1.0s,baz=111,slow=9.2,SNR=1.9
2.4nm,1.0s
ARCES ARCESS Array B 40.99 338 P P 14 20 04.1 +0.5
6.1nm,1.0s,baz=108,slow=7.8,SNR=6.0
6.1nm,1.0s
HFS Hagfors 42.92 322 P P 14 20 20.8 +1.4
1.7nm,0.7s,baz=96,slow=8.8,SNR=2.2
1.7nm,0.7s
JNU Nakatsue 48.59 76 LR LR 14 45 30.6
comp=Z,62nm,18.4s,baz=194,slow=41
MBAR Mbarara 52.56 234 LR LR 14 45 21.4
comp=Z,98nm,19.2s,baz=99,slow=38
YKA Yellowknife Ar 81.10 3 P P 14 24 33.6 +0.2
0.6nm,0.3s,baz=352,slow=5.5,SNR=4.1
0.6nm,0.3s
WRA Warramunga Arr 82.10 122 P P 14 24 36.6 -2.7
0.9nm,0.6s,baz=324,slow=4.9,SNR=21
0.9nm,0.6s
ASAR Alice Springs 84.37 125 P P 14 24 48.5 -2.3
1.3nm,0.6s,baz=309,slow=4.9,SNR=18
1.3nm,0.6s

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*MAN **24** 14:16:08.0, 9°.29N×123°.09E, h1^{km}, MS4.4*
MAN INTENSITY IV - VALENCIA AND SIBULAN NEGROS ORIENTAL; . INTENSITY III - DUMAGUETE CITY; AMLAN NEGROS ORIENTAL; . INTENSITY II - BACONG AND DAUIN NEGROS ORIENTAL; . INTENSITY I - PAMPLONA AND ZAMBOANGUITA NEGROS ORIENTAL.
ISC 24 14:16:08.2±1.2**, 9°.28N**±0°.03×**123°.09E**±0°.04**, h3**^{km}±10^{km}**, n21,** σ**1**^{s}.**36**/30**, Negros**

Code Station Name Δ° AZ° Phase ID Op ISC Time h m s Res ISC
SNPH Sibulan 0.16 65 *i* P Pg 14 16 11.6 +0.2
SNPH *i* S Sg 14 16 13.8 +0.3
LSIP Lazi, Siquijor 0.56 105 *e*P Pg 14 16 18.9 0.0
LSIP *e*S Sg 14 16 26.0 -0.1
TBP Tagbilaran 0.87 62 *i* P Pg 14 16 24.7 -0.2
LLP Lapu-Lapu 1.35 40 *e*P Pn 14 16 32.3 -1.6
LLP *e*S Sn 14 16 50.6 -1.7
GUIM Jordan 1.43 340 *e*P Pg 14 16 35.5 -0.1
GUIM *e*S Sg 14 16 55.7 +1.5
PAGZ Pagadian 1.45 168 *e*P Pb 14 16 35.2 -0.6
PAGZ *e*S Sg 14 16 56.2 +1.4
CGP Cagayan de Oro 1.79 117 *e*P Pb 14 16 41.0 -0.5
CGP *i* S Sg 14 17 05.3 -0.3
JAP San Jose, Anti 1.84 323 *e*P Pg 14 16 43.7 +0.2
CTBH Cotabato--PC H 2.34 151 *i* P Pb 14 16 49.7 -1.3
BUKP Musuan 2.40 125 *e*P Pb 14 16 50.1 -1.9
BUKP *e*S Sb 14 17 20.0 -2.0
ZCP Zamboanga City 2.54 203 *i* P Pn 14 16 40.8 -9.4
ZCP *i* S Sb 14 17 23.3 -2.6
PLP Palo 2.64 45 *e*P Pn 14 16 51.4 -0.3
PLP *e*S Sb 14 17 30.0 +0.9
IBAJ Ibajay, Aklan 2.68 340 *e*P Pb 14 16 55.5 -1.4
IBAJ *e*S Sb 14 17 29.9 -0.3
MMPH Masbate 3.11 10 *e*P Pg 14 17 09.9 +2.1
MMPH *e*S Sb 14 17 40.6 -1.8
BIPH Bislig 3.41 108 *e*P Pb 14 17 08.6 -0.7

BIPH				*e*S	Sn	14 17 44.9	+1.5
CDOP	Cateel, Davao	3.63	114	*e*P	Pn	14 17 06.4	+1.1
CDOP				*e*S	Sn	14 17 50.2	+1.5
LQP	Lukban	5.04	343	*e*P	Pn	14 17 19.2	-5.7
WRA	Warramunga Arr	31.08	159	P	P	14 22 29.8	+2.0
	0.2nm,0.7s,baz=339,slow=8.1,SNR=1.5						
WRA	Warramunga Arr	31.08	159				
	0.2nm,0.7s						
ASAR	Alice Springs	34.41	162	P	P	14 22 57.7	+0.8
	0.5nm,0.6s,baz=342,slow=6.9,SNR=16						
ASAR	Alice Springs	34.41	162				
	0.5nm,0.6s						

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*IDC **24** 14:16:59.9±1.6, 4°.00N×125°.63E, h0^{km}, mb3.6/5, mbtmp3.6/5, Error ellipse: s-maj=104.4km s-min=20.9km az=61.0*

*MAN **24** 14:17:41.0, 9°.32N×123°.19E, h4^{km}, MS3.9*

MAN INTENSITY IV - VALENCIA AND SIBULAN NEGROS ORIENTAL; . INTENSITY III - DUMAGUETE CITY; . INTENSITY II - DAUIN AND BACONG NEGROS ORIENTAL; INSTRUMETAL . INTENSITY III - SIBULAN NEGROS ORIENTAL.

ISC 24 14:17:41.4±1.0**, 9°.34N**±0°.04×**123°.17E**±0°.05**, h9**^{km}±6^{km}**, n15, σ1^{s}53**/25**, mb3.7**/3**, Negros**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNPH	Sibulan	0.07	89	*i* P	Pg	14 17 43.8	+0.3
SNPH				*i* S	Sg	14 17 45.9	+0.9
LSIP	Lazi, Siquijor	0.51	114	*e*P	Pg	14 17 50.8	-0.4
LSIP				*e*S	Sb	14 17 58.4	-1.6
TBP	Tagbilaran	0.77	63	*e*P	Pb	14 17 56.8	-0.2
LLP	Lapu-Lapu	1.25	39	*e*P	Pg	14 18 05.5	+0.1
LLP				*e*S	Sn	14 18 22.9	+0.9
GUIM	Jordan	1.40	336	*e*P	Pb	14 18 08.0	+0.3
GUIM				*e*S	Sg	14 18 28.3	+1.9
PAGZ	Pagadian	1.50	172	*e*P	Pn	14 18 07.7	-0.8
PAGZ				*e*S	Sg	14 18 28.4	-1.3
CGP	Cagayan de Oro	1.75	120	*e*P	Pn	14 18 10.3	-1.6
CGP				*e*S	Sb	14 18 34.0	-1.8
BUKP	Musuan	2.37	128	*e*P	Pn	14 18 20.8	+0.2
BUKP				*e*S	Sb	14 18 52.7	-1.1
PLP	Palo	2.54	44	*e*P	Pn	14 18 23.8	+0.9
PLP				*e*S	Sg	14 19 01.4	-1.8
IBAJ	Ibajay, Aklan	2.65	338	*e*P	Pn	14 18 21.9	-2.5
IBAJ				*e*S	Sb	14 18 59.8	-1.9
MMPH	Masbate	3.03	8	*e*P	Pb	14 18 33.3	-2.3
MMPH				*i* S	Sn	14 18 45.2	-21
CDOP	Cateel, Davao	3.59	115	*e*P	Pn	14 18 38.2	+0.9
CDOP				*e*S	Sn	14 19 22.4	+2.6
CMAR	Chiang Mai Arr	25.17	294	P	P	14 23 09.3	+1.9
	0.4nm,0.4s,baz=114,slow=9.2,SNR=4.4 0.4nm,0.4s						
MKAR	Makanchi Array	50.96	325	P	P	14 26 44.3	+0.9
	0.8nm,0.8s,baz=120,slow=7.9,SNR=4.5 0.8nm,0.8s						
KURBB	Kurchatov Arra	55.13	327	P	P	14 27 14.9	+0.8
	0.8nm,0.6s,baz=128,slow=5.9,SNR=5.7 0.8nm,0.6s						

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*BER **24** 14:22:40.7±1.6, 79°.55N×3°.45E, h10^{km}, Mw3.6, ML2.5(NAO), Confirmed Earthquake*

*NAO **24** 14:22:42.6±1.9, 79°.33N×4°.04E, h10^{km}, ML2.5*

*KOLA **24** 14:22:44.0, 79°.65N×6°.23E, h0^{km}, ML2.1, Greenland sea, Knipovich ridge, north*

ISC 24 14:22:42.5±3.3**, 78°.8N**±0°.4×**3°.86E**±0°.06**, h8**^{km}±24^{km}**, n12, σ0^{s}97**/24**, Greenland Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BRBB	Barentsburg B	2.19	103	Pn	Pb	14 23 21.1	-1.1
BRBB				Sn	Sb	14 23 49.8	+0.3
BRBB	Barentsburg B	2.19	103	Pn	Pb	14 23 21.1	-1.1
BRBB				Sn	Sb	14 23 49.8	+0.3
BRBB	Barentsburg B	2.19	103	P	Pb	14 23 20.9	-1.3
BRBB				S	Sb	14 23 49.7	+0.3
BRBA	Barentsburg A	2.21	103	Pn	Pb	14 23 21.4	-1.1
BRBA				Sn	Sb	14 23 50.5	+0.6
BRBA	Barentsburg A	2.21	103	Pn	Pb	14 23 21.4	-1.1
BRBA				Sn	Sb	14 23 50.5	+0.6
SPA0	Spitsbergen Ar	2.58	97	Pn	Pn	14 23 24.7	+0.2
	baz=309,slow=8.6						
SPA0				Sn	Sn	14 23 55.8	-0.2
	baz=311,slow=37						
SPA0	Spitsbergen Ar	2.58	97	Pn	Pn	14 23 24.7	+0.2
SPA0				Sn	Sn	14 23 55.8	-0.2
SPITS	Spitsbergen Ar	2.58	97	P	Pn	14 23 23.8	-0.7
SPITS				S	Sn	14 23 56.4	+0.4
HOPEN	Hopen	5.05	106	Pn	Pn	14 23 59.3	+0.9
HOPEN				Sn	Sn	14 24 57.5	+0.8
HOPEN	Hopen	5.05	106	*e*P	Pn	14 23 59.1	+0.8
HOPEN				*e*S	Sn	14 24 56.2	-0.5
HOPEN				IAML		14 24 58.9	
	comp=Z,8.0nm,0.7s						
DBG	Daneborg	7.11	244	Pn	Pn	14 24 28.0	+1.4
DBG				Sn	Sn	14 25 46.0	-1.5
DBG	Daneborg	7.11	244	Pn	Pn	14 24 28.0	+1.4
DBG				Sn	Sn	14 25 46.0	-1.5

DJA 24 14:25:32.5±0.2**, 3°S**±3°×**12°7E**±°**, h10**^{km}**, M3.8**/12**, mB4.6**/2**, mb4.3**/3**, mb4.3**/3**, mB4.6**/2**, ML3.5**/10**, MLv3.7**/11**, MLv3.6**/12**, Mw(mB)3.8**/2**, Mw(mB)3.8**/2**, Ceram Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NLAI	Namlea	0.66	148	P	Pg	14 25 44.7	-0.5
NLAI				S	Sg	14 25 54.1	+0.3
NLAI				AML	AML		
SANI	Sanana	0.99	309	P	Pg	14 25 50.8	-0.7
SANI				S	Sg	14 26 02.9	-1.4
SANI				AML	AML		
SANI				AML	AML		
LUWI	Luwuk	4.30	292	P	Pn	14 26 38.6	+0.6
LUWI				S	Sn	14 27 27.3	-0.9
LUWI				AML	AML		
LUWI				AML	AML		
LUWI				AML	AML		
SWI	Sorong	4.86	68	P	Pn	14 26 45.6	-0.1
SWI				AML	AML		
SWI				AML	AML		
SWI				AML	AML		
APSI	Ampana	5.39	289	P	Pn	14 26 55.0	+1.9
	896nm896nm51nm,0.5s,51nm,0.5s						

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*BJI **24** 14:28:09.3, 35°.79N×135°.76E, h369^{km}, mB4.5/7, mb4.7/26*

*NEIC **24** 14:28:09.2±1.8, 35°.83N±0°.09×135°.5E±0°.1, h346^{km}±7^{km}, mb4.1/12, Error ellipse: s-maj=14.3km s-min=13.1km az=118.0*

*IDC **24** 14:28:11.0±0.6, 35°.75N×135°.63E, h349^{km}±6^{km}, mb3.5/18, mbtmp4.3/25, Error ellipse: s-maj=10.5km s-min=8.2km az=80.0*

*JMA **24** 14:28:11.7±0.2, 35°.8N±0°.9×135°.6E±0°.7, h348^{km}±1^{km}, MV3.1/37, E PART OF WAKASA BAY*

*GFZ **24** 14:28:11.6±0.2, 36°N±3°×13°6E±°, h354^{km}±3^{km}, M4.4/19, mb4.4/19, Error ellipse: s-maj=7.4km s-min=6.4km az=138.7, confirmed*

ISC 24 14:28:10.8±0.5**, 35°.84N**±0°.05×**135°.65E**±0°.05**, h351**^{km}±5^{km}**, n122, σ1^{s}41**/137**, mb4.0**/32**, 1C-2D, Western Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JFM	Mihama	0.41	138	P	Pn	14 28 56.1	+1.0
JFM				S	S	14 29 30.4	-0.1
JKY	Yasaka	0.49	245	P	Pn	14 28 56.0	+0.9
JKY				*e*S	S	14 29 30.4	-0.3
JWT	Wachi	0.59	200	*i* P	Pn	14 28 56.1	+0.7
JWT				*e*S	S	14 29 30.3	-1.0
JKG	Kaga	0.71	52	P	Pn	14 28 56.6	+1.0
JKG				S	S	14 29 31.5	0.0
JYTA	Yamagatataniai	0.92	105	P	Pn	14 28 57.2	+0.8
JYTA				S	S	14 29 32.5	-0.4
INU	Inuyama	1.22	113	P	Pn	14 28 58.3	+0.7
INU	Inuyama	1.22	113		Pn	14 28 55.9	-1.8
INU	Inuyama	1.22	113	P	Pn	14 28 58.7	+1.0
JGF	Kuroka	1.41	99	P	Pn	14 28 59.1	+0.5
JGF	Kuroka	1.41	99	S	S	14 29 38.0	+1.0
JGF	Kuroka	1.41	99		Pn	14 28 55.8	-2.9
JGF				Sn	S	14 29 36.0	-1.1
JGF	Kuroka	1.41	99	P	Pn	14 28 59.5	+0.9
JWY	Kouya	1.62	182	P	Pn	14 29 00.5	+0.6
JWY				S	S	14 29 38.4	-0.9
JIE	Ise	1.69	149	P	Pn	14 29 01.2	+1.0
JIE				*e*S	S	14 29 39.6	-0.2
JOI	OKI	1.99	284	P	Pn	14 29 03.0	+0.9
JTNC	Tanabenakahech	2.02	181	P	Pn	14 29 02.7	+0.2
JTNC				*e*S	S	14 29 42.1	-1.7
MJB9	Matsu-Tunnel	2.19	70		Pn	14 29 03.2	-0.4
MAJO	Matsushiro	2.19	71	P	Pn	14 29 04.5	+1.0
MAJO	Matsushiro	2.19	71	Pn	Pn	14 29 02.1	-1.4
MAJO	Matsushiro	2.19	71	P	Pn	14 29 04.9	+1.3
MAT	Matsushiro	2.19	71	P	Pn	14 29 04.7	+1.1
MJAR	Matsushiro Arr	2.19	71	P	Pn	14 29 04.7	+1.2
	31nm,0.5s,baz=234,slow=2.4,SNR=178						
MJAR				S	S	14 29 46.6	+0.7
	12nm,0.8s,baz=8.4,slow=26,SNR=1.2						
MJAR	Matsushiro Arr	2.19	71		Pn	14 29 02.4	-1.1
JHS	Saijyo	2.23	249	P	Pn	14 29 04.3	+0.4
JAI	Aioi	2.27	206	P	Pn	14 29 04.8	+0.6
JAI				*e*S	S	14 29 46.3	-0.8
JSG	Sagara	2.38	118	P	Pn	14 29 06.8	+1.7
JSG	Sagara	2.38	118	Pn	Pn	14 29 03.0	-2.0
JSG	Sagara	2.38	118	P	Pn	14 29 06.7	+1.7
JYN	Shimob	2.38	97	*i* P	Pn	14 29 05.8	+0.7
JMN	Monobe	2.56	215	P	Pn	14 29 06.9	+0.3
JMN	Monobe	2.56	215	Pn	Pn	14 29 03.5	-3.1
JMN	Monobe	2.56	215	*e*S	S	14 29 51.5	+0.1
JRY	Ryogami san	2.65	85	*e*P	Pn	14 29 08.6	+1.4
JGT2	ShimaneMisato	2.68	254	P	Pn	14 29 07.6	+0.2
JOD2	Odawara 2	2.87	101	P	Pn	14 29 10.4	+1.3
JHT	Toyohira	2.89	247	*i* P	Pn	14 29 09.7	+0.4
JAG	Ashikaga	3.14	78	*e*P	Pn	14 29 11.4	0.0
JTO	Tosashimizu	3.79	219	P	Pn	14 29 18.4	+0.6
JNU	Nakatsue	4.78	237	P	Pn	14 29 28.3	+0.1
	60nm,0.4s,baz=45,slow=7.2,SNR=127						
JNU				S	S	14 30 29.1	-1.5
	18nm,0.9s,baz=133,slow=18,SNR=1.5						
JTU	Tsushima	5.28	257	P	Pn	14 29 33.3	-0.2
JTU	Tsushima	5.28	257	P	Pn	14 29 33.6	0.0
	comp=Z,98nm,0.7s						
JSU	Suzuyama	6.12	226	P	Pn	14 29 43.7	+0.6
JSU	Suzuyama	6.12	226	P	Pn	14 29 43.9	+0.9
	comp=Z,91nm,0.9s						
KSRS	Korea Array	6.41	287	P	Pn	14 29 47.5	+1.2
	comp=Z,20nm,0.7s,baz=107,slow=12,SNR=58						
KSAR	Wonju Array Be	6.44	287	Pn	Pn	14 29 43.5	-3.2
KS19	Wonju Array Si	6.47	287		Pn	14 29 43.8	-3.1
JTM	Tenmabayashi	6.52	39	P	P	14 29 49.1	+0.2
JTM	Tenmabayashi	6.52	39	Pn	Pn	14 29 45.2	-2.3
TJN	Taejon	6.73	277	P	P	14 29 51.0	-0.3
TJN	Taejon	6.73	277	Pn	Pn	14 29 47.8	-2.2
TJN	Taejon	6.73	277	P	P	14 29 51.3	-0.1
	comp=Z,426nm,0.6s						
INCN	Inchon	7.43	285	P	P	14 29 59.6	+0.1
	comp=Z,41nm,1.6s						
ERM	Erimo	8.50	41	Pn	Pn	14 30 10.0	-0.7
ERM	Erimo	8.50	41	P	Pn	14 30 11.1	+0.4
	comp=Z,30nm,0.9s						
USA0B	Ussuriysk Arra	8.81	343		Pn	14 30 12.7	-1.6
USRK	Ussuriysk Ar.	8.81	343	P	P	14 30 16.3	-0.4
	comp=Z,61nm,0.8s,baz=159,slow=11,SNR=57						
USRK	Ussuriysk Ar.	8.81	343		Pn	14 30 13.0	-1.3
ASAJ	Asahikawa	9.83	31	P	Pn	14 30 27.2	+0.6
	comp=Z,25nm,0.3s,baz=210,slow=15,SNR=76						
JKA	Kamikawa-asahi	9.84	31		Pn	14 30 25.4	-1.2
JKA	Kamikawa-asahi	9.84	31	P	Pn	14 30 27.3	+0.7
	comp=Z,38nm,0.5s						
MDJ	Mudanjiang	9.91	334	Pn	Pn	14 30 22.9	-4.5
MDJ	Mudanjiang	9.91	334	P	P	14 30 29.7	+0.7
	comp=Z,55nm,1.1s						
JOW	Kunigami	10.96	217	P	P	14 30 40.9	-0.1
DL2	Dalian	11.57	290	P	P	14 30 48.9	+1.5
DL2				*e*sP		14 32 04.6	
DL2				S	S	14 32 59.3	+3.0
DL2				pmax	pmax		
	comp=Z,67nm,0.7s						
DL2				pmax	pmax		
	comp=Z,120nm,4.2s						
BNX	BinXian	11.69	330	⇑P	P	14 30 49.3	+0.6
BNX				pmax	pmax		
	comp=Z,97nm,0.9s						
YSS	Yuzhno-Sakhali	12.31	23		P	14 30 52.5	-3.1
YSS	Yuzhno-Sakhali	12.31	23	P	Pn	14 30 57.7	+1.7
	comp=Z,56nm,0.6s						
KLR	Kul'dur	13.68	349	P	P	14 31 10.3	-0.4
	comp=Z,18nm,0.5s,baz=167,slow=8.9,SNR=31						
TIA	Tai'an	15.00	277	P	P	14 31 25.5	+0.2
TIA				pmax	pmax		
	comp=Z,20nm,0.6s						
HNS	HongShan	16.88	281	⇓P	P	14 31 45.3	-0.3
HNS				pmax	pmax		
	comp=Z,60nm,0.8s						
HILR	Hailar Array B	17.96	325	P	P	14 31 56.1	-0.9
	comp=Z,4.7nm,0.4s,baz=124,slow=13,SNR=4.7						
WHN	Wuhan	18.58	260	⇓P	P	14 32 03.3	-0.5
WHN				pmax	pmax		
	comp=Z,44nm,0.6s						
HHC	Hu-ho-hao-te	19.52	292	*e*P	P	14 32 12.8	-1.0
HHC				pmax	pmax		
	comp=Z,5.0nm,0.5s						
HHC				pmax	pmax		
	comp=Z,100nm,4.5s						
ENH	Enshi	22.59	263	P	P	14 32 42.0	-0.3
	comp=Z,31nm,0.8s						
PETK	Petropavlovsk-	23.20	35	P	P	14 32 49.0	+1.4
	comp=Z,1.9nm,0.9s,baz=222,slow=5.8,SNR=1.9 comp=Z,1.9nm,0.9s						
GUMO	Guam	23.66	157	P	P	14 32 53.1	+1.0
	comp=Z,25nm,0.4s,baz=355,slow=5.8,SNR=7.6						
GUMO	Guam	23.66	157	P	P	14 32 50.8	-1.3
GUMO	Guam	23.66	157	P	P	14 32 54.1	+2.0
	comp=Z,93nm,2.1s						
SONM	Songino Array	24.71	308	P	P	14 33 03.1	+1.7
	comp=Z,2.4nm,0.7s,baz=124,slow=8.2,SNR=12 comp=Z,2.4nm,0.7s						
SONM	Songino Array	24.71	308	P	P	14 33 01.5	+0.1
LZDM	Lanzhou Array	25.82	280	P	P	14 33 11.9	+0.3
	comp=Z,5.5nm,0.4s,baz=76,slow=9.4,SNR=6.5 comp=Z,5.5nm,0.4s						
YAK	Yakutsk	26.48	354	P	P	14 33 17.7	+1.0
	comp=Z,22nm,0.8s						
QIZ	Qiongzhong	28.24	240	P	P	14 33 34.0	+1.1
QIZ				S	S	14 37 51.8	-0.9
QIZ				sS	sS	14 39 53.3	+0.9
CHTO	Chiang Mai	36.49	252	P	P	14 34 44.1	+0.2
	comp=Z,4.8nm,0.9s						
CMAR	Chiang Mai Arr	36.70	252	P	P	14 34 45.9	+0.2
	comp=Z,0.7nm,0.5s,baz=45,slow=6.7,SNR=8.5 comp=Z,0.7nm,0.5s						
CMAR	Chiang Mai Arr	36.70	252	P	P	14 34 41.8	-3.9
WMQ	Urumqi	37.24	297	*e*P	P	14 34 50.8	+0.8
NPW	Naypyitaw	38.15	256	P	P	14 34 58.3	+0.6
	comp=Z,9.7nm,0.7s						
FAKI	Fak Fak	38.69	185	P	P	14 35 02.0	-0.2
	comp=Z,31nm,0.8s						
ZALV	Zalesovo Beam	39.32	314	P	P	14 35 08.2	+1.3
	comp=Z,0.7nm,0.4s,baz=91,slow=7.9,SNR=5.1 comp=Z,0.7nm,0.4s						
MKAR	Makanchi Array	40.82	303	P	P	14 35 20.0	+0.7
	comp=Z,2.3nm,0.6s,baz=85,slow=11,SNR=17 comp=Z,2.3nm,0.6s						
MKAR	Makanchi Array	40.82	303	P	P	14 35 15.6	-3.7
MAKZ	Makanchi	41.03	303	P	P	14 35 22.3	+1.3
	comp=Z,3.8nm,1.0s						
NRIK	Noril'sk	42.47	337	P	P	14 35 33.8	+1.7
	comp=Z,5.8nm,0.6s,baz=122,slow=9.0,SNR=5.8 comp=Z,5.8nm,0.6s						
NRIK	Noril'sk	42.47	337	P	P	14 35 29.0	-3.1
NRIK				IAmb	IAmb	14 35 34.8	
	comp=Z,5.6nm,0.6s						
KURK	Kurchatov	43.02	309	P	P	14 35 33.3	-3.4
KURK				IAmb	IAmb	14 35 38.8	
	comp=Z,2.2nm,0.5s						
KURBB	Kurchatov Arra	43.08	308	P	P	14 35 37.3	+0.1
	comp=Z,1.3nm,0.6s,baz=92,slow=7.9,SNR=11 comp=Z,1.3nm,0.6s						
BVAR	Borovoye Array	47.93	312	P	P	14 36 15.7	+0.9
	comp=Z,0.6nm,0.4s,baz=96,slow=8.0,SNR=5.7 comp=Z,0.6nm,0.4s						
ILAR	Eielson Array	52.97	32	P	P	14 36 53.2	+1.2
	comp=Z,0.3nm,0.6s,baz=264,slow=6.8,SNR=6.3 comp=Z,0.3nm,0.6s						
FITZ	Fitzroy Crossi	54.47	192	P	P	14 37 01.4	-1.8
	comp=Z,17nm,1.1s,baz=14,slow=14,SNR=14 comp=Z,17nm,1.1s						
FITZ	Fitzroy Crossi	54.47	192	P	P	14 37 01.2	-2.1
	comp=Z,3.2nm,1.1s						
WB0	Warramunga Arr	55.31	181	P	P	14 37 07.0	-2.2
WB0				IAmb	IAmb	14 37 09.3	
	comp=Z,7.5nm,0.5s						
WRAB	Tennant Creek	55.48	181	P	P	14 37 07.7	-2.7
WRAB				IAmb	IAmb	14 37 10.5	
	comp=Z,5.8nm,0.6s						
WRAB	Tennant Creek	55.48	181	P	P	14 37 09.9	-0.5
	comp=Z,9.0nm,0.9s						
WRA	Warramunga Arr	55.49	181	P	P	14 37 09.8	-0.6
	comp=Z,5.6nm,0.5s,baz=357,slow=7.7,SNR=173 comp=Z,5.6nm,0.5s						
WRA	Warramunga Arr	55.49	181	P	P	14 37 07.8	-2.7
WR8	Warramunga Arr	55.50	181	P	P	14 37 08.7	-1.9
QIS	Mount Isa	56.21	176	P	P	14 37 15.6	+0.1
	comp=Z,8.3nm,0.9s						
G31M	Satah River	57.64	28	P	P	14 37 24.1	-0.7
G31M				IAmb	IAmb	14 38 00.1	
	comp=Z,19nm,1.5s						
MBWA	Marble Bar	58.66	197	P	P	14 37 31.8	-0.6
MBWA				IAmb	IAmb	14 38 07.3	
	comp=Z,8.0nm,1.0s						
AS31	Alice Springs	59.20	182		P	14 37 35.9	-0.2
ASAR	Alice Springs	59.21	182	P	P	14 37 36.1	-0.1
	comp=Z,2.9nm,0.7s,baz=5.0,slow=7.1,SNR=67 comp=Z,2.9nm,0.7s						
ASAR	Alice Springs	59.21	182	P	P	14 37 35.5	-0.7
SPITS	Spitsbergen Ar	60.76	348	P	P	14 37 46.0	+0.1
	comp=Z,13nm,1.0s,baz=51,slow=7.3,SNR=2.2 comp=Z,13nm,1.0s						
ARCES	ARCESS Array B	63.43	338	P	P	14 38 03.6	0.0
	comp=Z,4.3nm,0.9s,baz=54,slow=11,SNR=4.4 comp=Z,4.3nm,0.9s						
ARCES	ARCESS Array B	63.43	338	P	P	14 38 02.6	-0.9
STKA	Stephens Creek	67.59	175	P	P	14 38 30.7	+0.3
	comp=Z,1.9nm,0.7s,baz=9.1,slow=7.7,SNR=4.1 comp=Z,1.9nm,0.7s						
STKA	Stephens Creek	67.59	175	P	P	14 38 30.9	+0.5
	comp=Z,37nm,2.6s						
FINES	FINESS Array B	67.64	331	P	P	14 38 30.7	+0.4
	comp=Z,2.9nm,0.9s,baz=55,slow=5.6,SNR=11 comp=Z,2.9nm,0.9s						
FINES	FINESS Array B	67.64	331	P	P	14 38 29.0	-1.4
CMSA	Cobar Meteorol	67.68	171	P	P	14 38 32.1	+1.2
	comp=Z,6.3nm,2.0s						
NOA	NORSAR Array B	73.40	335	P	P	14 39 05.4	+0.5
	comp=Z,0.5nm,0.6s,baz=43,slow=8.4,SNR=2.0 comp=Z,0.5nm,0.6s						

JMA 24 14:28:38.9±0.1**, 34°.3N**±0°.1×**136°.1E**±0°.1**, h10**^{km}**, MV0.3**/12**, SOUTHERN MIE PREF, Western Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JKN2	Miekihoku	0.15	113	P	Pg	14 28 42.4	+0.1
JKN2				*i* S	Sg	14 28 44.6	0.0
JNTK	Naratenkawa	0.19	262	*i* P	Pg	14 28 43.0	0.0

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*IDC **24** 14:31:11.6±0.5, 9°.22N×126°.54E, h0^{km}, mb4.2/21, mbtmp4.3/23, ML4.6/2, MS3.5/21, Error ellipse: s-maj=24.1km s-min=11.3km az=78.0*

*NEIC **24** 14:31:14.1±1.4, 9°.37N±0°.08×126°.54E±0°.06, h10^{km}±1^{km}, mb4.6/19, Error ellipse: s-maj=14.1km s-min=9.8km az=166.0*

*MAN **24** 14:31:15.0, 9°.32N×126°.78E, h17^{km}, MS4.7*

*DJA **24** 14:31:32.3±1.1, 9°N±8°×12°7E±°, h94^{km}±28^{km}, M4.7/15, mB4.9/6, mB4.9/6, mb4.6/15, mb4.6/15, MLv5.1/5, MLv5.1/5, Mw(mB)4.2/6, Mw(mB)4.2/6*

ISC 24 14:31:13.5±1.5**, 9°.25N**±0°.03×**126°.59E**±0°.05**, h13**^{km}±9^{km}**, n101, σ1^{s}41**/90**, mb4.4**/29**, MS3.6**/18**, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BIPH	Bislig	1.08	192	*e*P	Pn	14 31 39.9	+5.6
BIPH				*e*S	Sn	14 31 51.1	+1.9
CDOP	Cateel, Davao	1.47	186	*i* P	Pg	14 31 41.4	-0.3
CDOP				*e*S	Sg	14 32 00.1	-0.7
CGP	Cagayan de Oro	2.03	247	*i* P	Pg	14 31 51.6	-0.9
CGP				*i* S	Sg	14 32 21.4	+2.5
BUKP	Musuan	2.03	228	*e*P	Pg	14 31 52.9	+0.3
BUKP				*e*S	Sg	14 32 21.3	+2.3
DMPH	Davao City--Mi	2.41	206	*e*P	Pg	14 31 58.6	-1.0
DMPH				*i* S	Sg	14 32 29.8	-1.1
PLP	Palo	2.47	320	*e*P	Pb	14 31 56.1	-1.7
PLP				*e*S	Sb	14 32 29.6	+1.4
KCP	Kidapawan	2.68	214	*e*P	Pb	14 32 00.9	-0.4
KCP				*i* S	Sb	14 32 32.3	-1.8
TBP	Tagbilaran	2.72	279	*e*P	Pb	14 32 01.9	-0.1
TBP				*i* S	Sg	14 32 42.2	+1.1
LLP	Lapu-Lapu	2.79	293	*e*P	Pb	14 32 02.9	-0.3
LLP				*e*S	Sg	14 32 43.1	-0.2
LSIP	Lazi, Siquijor	2.92	268	*e*P	Pb	14 32 04.3	-1.1
LSIP				*e*S	Sb	14 32 42.6	+1.6
CTBH	Cotabato--PC H	3.07	229	*e*P	Pb	14 32 06.8	-1.2
SNPH	Sibulan	3.31	272	*e*P	Pb	14 32 10.7	-1.4
SNPH				*e*S	Sb	14 32 50.3	-2.0
PAGZ	Pagadian	3.46	246	*e*P	Pb	14 32 13.2	-1.5
PAGZ				*e*S	Sb	14 32 57.4	+0.7
GSPH	General Santos	3.54	207	*i* P	Pb	14 32 13.9	-2.2
GSPH				*i* S	Sn	14 32 47.7	-2.3
GUIM	Jordan	4.17	289	*e*P	Pn	14 32 20.2	+3.4
GUIM				*e*S	Sb	14 33 13.9	-3.1
MMPH	Masbate	4.24	317	*i* P	Pb	14 32 26.8	-1.2
MMPH				*i* S	Sn	14 32 47.6	-20
GQP	Guinayangan	6.15	319	*e*P	Pn	14 32 46.7	+2.6
LQP	Lukban	6.91	315	*e*P	Pn	14 32 51.4	-3.3
TNTI	Ternate	8.46	175	Pn	Pn	14 33 16.0	+0.2
TNTI	Ternate	8.46	175	P	Pn	14 33 24.2	+8.4
	31nm,1.0s,31nm,1.0s						
GTOI	Gorontalo	9.27	203	P	Pn	14 33 38.0	+11
	29nm,0.6s,29nm,0.6s						
LUWI	Luwuk	10.91	201	Pn	Pn	14 33 53.5	+4.1
LUWI	Luwuk	10.91	201	P	Pn	14 34 03.5	+14
	652nm652nm41nm,1.1s,41nm,1.1s						
SIJI	Sorong	11.08	155	Pn	Pn	14 33 54.1	+2.3
	1.4nm,0.3s,baz=336,slow=14,SNR=4.6						
SIJI				Sn	Sn	14 35 45.7	-10
	0.3nm,0.3s,baz=193,slow=23,SNR=1.1 2.4nm,0.3s						
SIJI				AML	AML		
APSI	Ampana	11.23	206	P	Pn	14 34 08.1	+14
	31nm,1.3s,31nm,1.3s						
SANI	Sanana	11.24	183	P	Pn	14 34 04.5	+11
	15nm,0.7s,15nm,0.7s						
FAKI	Fak Fak	13.34	155	Pn	Pn	14 34 24.5	+1.8
KAPI	Kappang	15.72	206	LR	LR	14 41 42.6	
	comp=Z,112nm,18.4s,baz=28,slow=40						
HKPS	Hong Kong Po S	17.62	319	Pn	Pn	14 35 17.3	-1.6
HKPS				IAmb	IAmb	14 35 23.5	
	comp=Z,33nm,1.1s						
JAY	Jayapura	18.29	129	LR	LR	14 42 11.9	
	comp=Z,190nm,19.8s,baz=2.5,slow=36						
GUMO	Guam	18.43	75	LR	LR	14 42 47.9	
	comp=Z,159nm,18.4s,baz=244,slow=38						
BATI	Baumata	19.55	189	P	P	14 35 38.9	-2.2
	comp=Z,5.4nm,0.3s,baz=177,slow=1.3,SNR=8.1 comp=Z,48nm,0.7s						
BATI				AML	AML		
LEM	Lembang	24.75	230	P	P	14 36 36.2	+1.0
	comp=Z,6.7nm,0.3s,baz=36,slow=14,SNR=4.8 comp=Z,6.7nm,0.3s						
KNRA	Kununurra	24.86	175	P	P	14 36 36.4	+0.5
KNRA				IAmb	IAmb	14 37 11.4	
	comp=Z,6.1nm,0.8s						
SLVN	Son La	24.92	301	P	P	14 36 35.2	-1.3
IPM	Ipoh	25.81	261		P	14 36 45.1	+0.4
IPM				IAmb	IAmb	14 36 49.3	
	comp=Z,21nm,0.8s						
FITZ	Fitzroy Crossi	27.19	182	P	P	14 36 57.3	+0.3
	comp=Z,14nm,1.0s,baz=13,slow=12,SNR=8.1 comp=Z,14nm,1.0s						
FITZ	Fitzroy Crossi	27.19	182		P	14 36 57.8	+0.8
KSRS	Korea Array	28.10	2	P	P	14 37 06.7	+1.7
	comp=Z,1.8nm,0.7s,baz=185,slow=9.9,SNR=6.3						
KSRS				LR	LR	14 49 51.2	
	comp=Z,102nm,19.3s,baz=185,slow=40 comp=Z,1.8nm,0.7s						
RPSI	Rantau Prapat	28.26	258	P	P	14 37 07.1	+0.4

RPSI				IAmb	IAmb	14 37 10.2	
	comp=Z,17nm,1.1s						
CMAR	**Chiang Mai Arr**	**28.32**	**292**	P	**P**	**14 37 08.7**	**+1.4**
	comp=Z,1.3nm,0.9s,baz=102,slow=6.7,SNR=7.2						
CMAR				PcP	**PcP**	**14 40 20.4**	**+0.1**
	comp=Z,0.4nm,0.3s,baz=129,slow=1.7,SNR=4.4						
CMAR				LR	LR	14 49 15.2	
	comp=Z,98nm,18.1s,baz=110,slow=38						
	comp=Z,1.3nm,0.9s						
CMAR	**Chiang Mai Arr**	**28.32**	**292**	P	**P**	**14 37 06.8**	**-0.4**
CHTO	**Chiang Mai**	**28.41**	**293**	P	**P**	**14 37 05.2**	**-2.8**
MJAR	**Matsushiro Arr**	**29.15**	**19**	LR	LR	14 48 42.0	
	comp=Z,57nm,20.0s,baz=200,slow=36						
GSI	**Gunungsitoli**	**29.92**	**256**		**P**	**14 37 22.1**	**+0.6**
WRA	**Warramunga Arr**	**30.00**	**165**	PcP	**PcP**	**14 40 24.4**	**0.0**
	comp=Z,0.5nm,0.7s,baz=343,slow=2.7,SNR=2.3						
BJT	**Baijiatuau**	**32.02**	**345**		**P**	**14 37 39.3**	**-0.3**
BJT				IAmb	IAmb	14 37 42.1	
	comp=Z,15nm,1.1s						
ASAR	**Alice Springs**	**33.49**	**168**	P	**P**	**14 37 52.9**	**+0.2**
	comp=Z,0.4nm,0.4s,baz=4.5,slow=15,SNR=4.8						
ASAR				PcP	**PcP**	**14 40 34.1**	**+0.4**
	comp=Z,0.5nm,0.6s,baz=348,slow=2.7,SNR=5.7						
	comp=Z,0.4nm,0.4s						
LZDM	**Lanzhou Array**	**33.78**	**325**	LR	LR	14 52 16.4	
	comp=Z,121nm,21.5s,baz=180,slow=37						
CTA	**Charters Tower**	**35.00**	**147**	LR	LR	14 54 12.5	
	comp=Z,48nm,18.1s,baz=319,slow=40						
USRK	**Ussuriysk Ar.**	**35.13**	**7**	P	**P**	**14 38 07.7**	**+1.0**
	comp=Z,4.2nm,0.8s,baz=184,slow=9.5,SNR=6.6						
	comp=Z,4.2nm,0.8s						
USRK	**Ussuriysk Ar.**	**35.13**	**7**	P	**P**	**14 38 06.7**	**0.0**
BRDH	**Bariadhala**	**36.04**	**296**	LR	LR	14 55 46.8	
	comp=Z,71nm,18.2s,baz=187,slow=41						
HNR	**Honiara**	**38.05**	**118**	LR	LR	14 53 19.6	
	comp=Z,36nm,19.7s,baz=8.0,slow=35						
H11S3	**WAKE ISLAND Hy**	**39.92**	**72**	T	T	15 21 52.6	
	baz=329,slow=77,SNR=24						
H11S1	**WAKE ISLAND Hy**	**39.93**	**72**	T	T	15 21 52.7	
	baz=329,slow=77,SNR=20						
H11S2	**WAKE ISLAND Hy**	**39.94**	**72**	T	T	15 21 53.1	
	baz=329,slow=77,SNR=15						
KLR	**Kul'dur**	**40.08**	**5**	P	**P**	**14 38 49.5**	**+0.9**
	comp=Z,1.1nm,0.5s,baz=187,slow=8.3,SNR=4.9						
	comp=Z,1.1nm,0.5s						
H11N1	**WAKE ISLAND Hy**	**40.29**	**70**	T	T	15 22 24.7	
	baz=265,slow=74,SNR=14						
H11N2	**WAKE ISLAND Hy**	**40.30**	**70**	T	T	15 22 25.2	
	baz=265,slow=74,SNR=13						
H11N3	**WAKE ISLAND Hy**	**40.31**	**70**	T	T	15 22 33.0	
	baz=265,slow=74,SNR=15						
SONM	**Songino Array**	**42.08**	**340**	P	**P**	**14 39 05.4**	**+0.2**
	comp=Z,1.0nm,0.6s,baz=150,slow=9.8,SNR=4.2						
SONM				LR	LR	14 58 28.0	
	comp=Z,79nm,18.3s,baz=99,slow=39						
	comp=Z,1.0nm,0.6s						
SONM	**Songino Array**	**42.08**	**340**	P	**P**	**14 39 06.6**	**+1.4**
STKA	**Stephens Creek**	**43.34**	**161**	P	**P**	**14 39 15.4**	**-0.1**
	comp=Z,2.1nm,0.8s,baz=330,slow=8.5,SNR=4.2						
	comp=Z,2.1nm,0.8s						
PETK	**Petropavlovsk-**	**50.43**	**24**	P	**P**	**14 40 11.5**	**+0.8**
	comp=Z,1.9nm,0.9s,baz=230,slow=8.2,SNR=1.9						
PETK				LR	LR	15 01 26.1	
	comp=Z,49nm,20.2s,baz=155,slow=36						
	comp=Z,1.9nm,0.9s						
PETK	**Petropavlovsk-**	**50.43**	**24**	P	**P**	**14 40 11.0**	**+0.3**
MKAR	**Makanchi Array**	**53.02**	**323**	P	**P**	**14 40 30.1**	**-0.1**
	comp=Z,5.6nm,0.8s,baz=124,slow=8.4,SNR=28						
MKAR				LR	LR	15 06 03.6	
	comp=Z,55nm,18.1s,baz=98,slow=40						
	comp=Z,5.6nm,0.8s						
MKAR	**Makanchi Array**	**53.02**	**323**		**P**	**14 40 29.7**	**-0.4**
PDGK	**Podgornoye**	**53.16**	**318**		**P**	**14 40 31.1**	**-0.2**
MAKZ	**Makanchi**	**53.22**	**323**	P	**P**	**14 40 31.5**	**-0.1**
MAKZ				IAmb	IAmb	14 40 32.7	
	comp=Z,4.8nm,0.8s						
MA2	**Magadan**	**53.43**	**15**	LR	LR	15 03 25.8	
	comp=Z,27nm,19.8s,baz=226,slow=36						
NIL	**Nilore**	**54.56**	**305**	P	**P**	**14 40 40.9**	**-0.8**
NRN	**Naryn**	**54.79**	**315**	P	**P**	**14 40 43.0**	**-0.6**
NRN				IAmb	IAmb	14 40 45.1	
	comp=Z,8.2nm,1.2s						
ZALV	**Zalesovo Beam**	**55.66**	**332**	P	**P**	**14 40 48.4**	**-0.8**
	comp=Z,1.1nm,0.6s,baz=120,slow=6.9,SNR=4.6						
	comp=Z,1.1nm,0.6s						
ZALV	**Zalesovo Beam**	**55.66**	**332**	P	**P**	**14 40 47.9**	**-1.3**
AAK	**Ala-Archa**	**56.27**	**316**	LR	LR	15 07 40.8	
	comp=Z,81nm,18.7s,baz=86,slow=39						
KURK	**Kurchatov**	**57.08**	**326**		**P**	**14 40 59.2**	**-0.2**
KURBB	**Kurchatov Arra**	**57.08**	**326**	P	**P**	**14 40 59.1**	**-0.3**
	comp=Z,5.7nm,0.2s,baz=124,slow=6.4,SNR=18						
	comp=Z,5.7nm,0.2s						
KKAR	**Karatay Array**	**59.19**	**315**	P	**P**	**14 41 13.4**	**-1.0**
BVAR	**Borovoye Array**	**62.68**	**326**	P	**P**	**14 41 37.7**	**-0.1**
	comp=Z,6.6nm,0.9s,baz=118,slow=8.6,SNR=21						
	comp=Z,6.6nm,0.9s						
BORK	**Borovoye**	**62.72**	**326**		**P**	**14 41 37.9**	**-0.2**
NRIK	**Noril'sk**	**65.07**	**346**	P	**P**	**14 41 53.5**	**+0.2**
	comp=Z,4.3nm,0.6s,baz=139,slow=7.1,SNR=4.8						
NRIK				LR	LR	15 12 08.9	
	comp=Z,54nm,21.0s,baz=136,slow=38						
	comp=Z,4.3nm,0.6s						
NRIK	**Noril'sk**	**65.07**	**346**		**P**	**14 41 53.6**	**+0.3**
NRIK				IAmb	IAmb	14 41 54.6	
	comp=Z,6.2nm,0.8s						
AB31	**Akbulak array**	**67.85**	**320**		**P**	**14 42 10.7**	**-0.7**
AB31				IAmb	IAmb	14 42 12.2	
	comp=Z,4.3nm,1.1s						
ARTI	**Arti**	**70.33**	**327**	LR	LR	15 13 01.2	
	comp=Z,33nm,20.5s,baz=110,slow=36						
KDAK	**Kodiak Island**	**77.34**	**33**	LR	LR	15 12 57.1	
	comp=Z,161nm,20.9s,baz=216,slow=32						
GNI	**Garni**	**77.88**	**309**	LR	LR	15 22 32.6	
	comp=Z,33nm,19.4s,baz=40,slow=40						
RAYN	**Ar Rayn**	**78.24**	**292**		**P**	**14 43 13.1**	**-0.5**
RAYN				IAmb	IAmb	14 43 14.2	
	comp=Z,5.0nm,0.7s						
KBZ	**Khabaz**	**79.12**	**313**	P	**P**	**14 43 18.2**	**+0.3**
	comp=Z,2.6nm,0.8s,baz=68,slow=5.4,SNR=3.9						
	comp=Z,2.6nm,0.8s						
ILAR	**Eielson Array**	**80.22**	**26**	P	**P**	**14 43 24.1**	**+0.6**
	comp=Z,0.3nm,0.6s,baz=280,slow=4.7,SNR=6.3						
	comp=Z,0.3nm,0.6s						
ARCES	**ARCESS Array B**	**85.25**	**340**	P	**P**	**14 43 49.9**	**+0.3**
	comp=Z,3.7nm,0.8s,baz=83,slow=5.2,SNR=5.7						
	comp=Z,3.7nm,0.8s						
BRTR	**Keskin Array B**	**86.42**	**309**	P	**P**	**14 43 56.3**	**+0.1**
	comp=Z,0.6nm,0.8s,baz=102,slow=3.4,SNR=2.7						
	comp=Z,0.6nm,0.8s						
BRTR	**Keskin Array B**	**86.42**	**309**	P	**P**	**14 43 52.7**	**-3.4**
EIL	**Elat**	**86.90**	**299**	LR	LR	15 27 57.7	
	comp=Z,24nm,19.1s,baz=268,slow=39						
FINES	**FINESS Array B**	**86.93**	**332**	P	**P**	**14 43 58.3**	**+0.3**
	comp=Z,2.1nm,0.8s,baz=75,slow=5.1,SNR=5.9						
	comp=Z,2.1nm,0.8s						
VNDA	**Vanda**	**88.89**	**173**	P	**P**	**14 44 07.2**	**+0.2**
	comp=Z,0.6nm,0.7s,baz=333,slow=4.6,SNR=3.7						
	comp=Z,0.6nm,0.7s						
VNDA	**Vanda**	**88.89**	**173**	P	**P**	**14 44 06.8**	**-0.1**
VNDA				IAmb	IAmb	14 44 27.7	
	comp=Z,2.5nm,1.1s						
NOA	**NORSAR Array B**	**93.80**	**334**	LR	LR	15 33 01.7	
	comp=Z,18nm,19.2s,baz=275,slow=40						
TXAR	**Lajitas Array**	**118.25**	**50**	PKP	**PKiKP**	**14 50 02.1**	**+0.7**
	comp=Z,0.4nm,0.7s,baz=316,slow=3.5,SNR=4.1						
TORD	**Torodi Ar. Bea**	**120.93**	**291**	PKP	**PKPdf**	**14 50 06.1**	**-0.6**
	comp=Z,1.6nm,1.2s,baz=74,slow=2.1,SNR=3.5						
PLCA	**Paso Flores**	**145.15**	**157**	PKPbc	**PKPbc**	**14 50 48.5**	**-2.2**
	comp=Z,1.0nm,0.8s,baz=212,slow=1.3,SNR=3.3						

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*LDG **24** 14:41:11.1±0.2, 42°.87N×1°.52W, h2^{km}, Md2.4/2, Ml2.5/2, Error ellipse: s-maj=3.4km s-min=3.1km az=146.0*

*MDD **24** 14:41:11.4±0.3, 42°.82N×1°.47W, h4^{km}, mb_Lg1.9/16, Error ellipse: s-maj=2.9km s-min=1.9km az=9.0*

ISC 24 14:41:10.6±1.0, **42°.82N**±0°.04×**1°.48W**±0°.03, **h6**^{km}±8^{km}, **n10**, σ1^{s}.**13**/20, **Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EARA	**Aranguren**	**0.08**	**237**	Pg	**Pg**	**14 41 12.6**	**+0.1**
EARA				Sg	**Sg**	**14 41 14.3**	**+0.5**
EARA				IVmb_Lg		14 41 15.0	
SJPF	**Ste Jean**	**0.35**	**33**	*e*Pg	**Pg**	**14 41 17.2**	**-0.2**
SJPF				*e*Sg	**Sg**	**14 41 20.1**	**-2.0**
EALK	**Alkurruntz**	**0.40**	**358**	Pg	**Pg**	**14 41 18.5**	**+0.1**
EALK				Sg	**Sg**	**14 41 24.6**	**+0.9**
EALK				IVmb_Lg		14 41 26.9	
ETSF	**Etsaut**	**0.69**	**83**	*e*Pg	**Pg**	**14 41 24.4**	**+0.6**
ETSF				*e*Sg	**Sg**	**14 41 32.5**	**-0.2**
	8.2nm,0.3s						
ETSF				*e*Sg	**Sb**	**14 41 33.0**	**-1.8**
	8.5nm,0.2s						
ECHI	**Chisagues Biel**	**1.25**	**97**	Pg	**Pg**	**14 41 35.2**	**+0.7**
ECHI				Sg	**Sn**	**14 41 51.5**	**-0.4**
ECHI				IVmb_Lg		14 41 55.9	
ESAC	**San Caprasio**	**1.33**	**145**	Sg	**Sn**	**14 41 53.8**	**-0.1**
ESAC				IVmb_Lg		14 41 58.9	
EPF	**Esparros**	**1.36**	**80**	*e*Pg	**Pn**	**14 41 35.5**	**-0.6**
EPF	**Esparros**	**1.36**	**80**	*e*Pg	**Pg**	**14 41 37.9**	**+1.3**
EPF				*e*Sg	**Sg**	**14 41 56.1**	**+1.9**
	11nm,0.3s						
EPF				*e*Sg	**Sn**	**14 41 56.6**	**+2.1**
	6.3nm,0.2s						
EPF				AML	AML		
EPF				AML	AML		
ELAN	**Lanestosa**	**1.49**	**287**	Pg	**Pn**	**14 41 38.4**	**+0.5**
ELAN				Sg	**Sg**	**14 41 59.1**	**+0.7**
ELAN				IVmb_Lg		14 42 07.5	
ETOR	**Torete**	**2.04**	**192**	Pg	**Pb**	**14 41 47.6**	**-0.5**
ETOR				Sg	**Sg**	**14 42 15.7**	**-0.5**
ETOR				IVmb_Lg		14 42 17.0	

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*IDC **24** 14:42:25.4±2.7, 39°.93N×122°.54W, h0^{km}, mbtmp2.9/4, ML3.4/4, Error ellipse: s-maj=37.8km s-min=13.5km az=60.0*

*NEIC **24** 14:42:27.2±1.5, 38°.783N±0°.010×122°.78W±0°.01, h5^{km}±1^{km}, ML2.8/82, ML2.8/39(NCEDC), Error ellipse: s-maj=2.4km s-min=1.5km az=5.0*

*NCEDC **24** 14:42:27.3±0.7, 38°.79N±0°.01×122°.765W±0°.009, h2^{km}±1^{km}, Error ellipse: s-maj=1.6km s-min=1.0km az=202.0*

ISC 24 14:42:27.3±1.5, **38°.78N**±0°.02×**122°.76W**±0°.02, **h1**^{km}±15^{km}, **n83**, σ1^{s}.**04**/68, **Northern California**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GDXM	**Geysers**	**0.04**	**321**		**Pg**	**14 42 28.1**	**-0.1**
GDXM	**Geysers**	**0.04**	**321**	IAML		14 42 28.8	
	comp=N,317µm,0.2s						
GDXM				IAML		14 42 28.9	
	comp=E,186µm,0.1s						
GGPM	**Geyser Peak**	**0.07**	**261**		**Pg**	**14 42 28.9**	**+0.2**
GBGM	**Boggs Mountain**	**0.07**	**59**		**Pg**	**14 42 29.2**	**+0.3**
GSGM	**Seigler Mounta**	**0.10**	**24**		**Pg**	**14 42 29.7**	**+0.5**
GPMM	**Pine Mountain**	**0.16**	**297**		**Pg**	**14 42 30.8**	**+0.3**
GRTM	**Round Top Moun**	**0.18**	**24**		**Pg**	**14 42 30.9**	**+0.1**
GCVM	**Cloverdale**	**0.20**	**269**		**Pg**	**14 42 31.7**	**+0.6**
NMTM	**Middletown**	**0.25**	**83**		**Pg**	**14 42 32.5**	**+0.4**
NWRM	**Wright Ranch**	**0.33**	**197**		**Pg**	**14 42 34.4**	**+0.8**
GHGM	**Hogback Ridge**	**0.36**	**352**		**Pg**	**14 42 34.3**	**+0.1**
GDCM	**Dry Creek**	**0.37**	**269**		**Pg**	**14 42 35.2**	**+0.7**
GSNM	**Snow Mountain**	**0.38**	**296**		**Pg**	**14 42 35.1**	**+0.7**
NTYM	**Taylor**	**0.39**	**169**		**Pg**	**14 42 35.6**	**+0.8**
OAKV	**Oakville Exper**	**0.44**	**141**		**Pg**	**14 42 36.4**	**+0.7**
NIMB	**Iron Mountain**	**0.44**	**119**		**Pg**	**14 42 36.5**	**+0.8**
CVS	**Carmenet Viney**	**0.49**	**151**		**Pg**	**14 42 37.1**	**+0.5**
CVS				IAML		14 42 50.3	
	comp=E,784nm,0.9s						
CVS				IAML		14 42 50.4	
	comp=N,653nm,0.8s						
BONV	**Boonville, CA**	**0.51**	**295**		**Pb**	**14 42 37.8**	**-1.2**
NAPC	**Atlas Peak**	**0.52**	**130**		**Pg**	**14 42 38.0**	**+0.7**
GWRM	**Wonder Ranch**	**0.60**	**316**		**Pb**	**14 42 39.9**	**-0.8**
LOC	**Lincoln School**	**0.62**	**177**		**Pg**	**14 42 39.7**	**+0.4**
MCCM	**Marconi Confer**	**0.64**	**188**		**Pb**	**14 42 40.5**	**-0.7**
MCCM				IAML		14 42 54.3	
	comp=N,527nm,0.9s						
MCCM				IAML		14 42 55.4	
	comp=E,444nm,0.9s						
SNT	**Sears Point**	**0.64**	**158**		**Pg**	**14 42 39.8**	**+0.2**
GHOM	**Hamilton Openi**	**0.66**	**294**		**Pb**	**14 42 40.8**	**-1.0**
NADM	**Allendale**	**0.69**	**117**		**Pn**	**14 42 42.7**	**-1.6**
NOLM	**Olema**	**0.73**	**182**		**Pb**	**14 42 42.1**	**-0.8**
RUSS	**Russell Ranch**	**0.74**	**108**		**Pn**	**14 42 44.0**	**-0.9**
SVIN	**Saint Vincent’**	**0.76**	**166**		**Pg**	**14 42 42.0**	**0.0**
GNAM	**Navarro Ridge**	**0.80**	**302**		**Pb**	**14 42 43.5**	**-0.5**
NPRM	**Point Reyes**	**0.80**	**195**		**Pb**	**14 42 43.6**	**-0.4**
NLHM	**Lake Herman**	**0.81**	**143**		**Pg**	**14 42 43.3**	**+0.4**
DCMP	**DeCamp, Califo**	**0.82**	**327**		**Pb**	**14 42 43.7**	**-0.7**
KRKM	**Rackout Spring**	**0.85**	**338**		**Pb**	**14 42 44.8**	**-0.2**
OSUM	**Sutter Buttes**	**0.86**	**55**		**Pg**	**14 42 43.8**	**0.0**
CPMM	**Point Molate**	**0.87**	**161**		**Pg**	**14 42 44.3**	**+0.3**
SUTB	**Sutter Butte**	**0.89**	**59**		**Pg**	**14 42 43.2**	**-1.1**
SUTB				IAML		14 43 00.8	
	comp=E,274nm,0.6s						
SUTB				IAML		14 43 01.5	
	comp=N,294nm,0.6s						
CSPM	**San Pablo Ridg**	**0.89**	**156**		**Pb**	**14 42 45.1**	**-0.4**
BRIB	**Briones**	**0.98**	**151**		**Pg**	**14 42 45.9**	**-0.2**
BL67	**Building 67, L**	**0.98**	**156**		**Pb**	**14 42 46.8**	**-0.4**
VAK	**Adit at Lawren**	**0.98**	**156**		**Pg**	**14 42 45.3**	**-0.8**
BKS	**Berkeley--Byer**	**0.99**	**155**		**Pg**	**14 42 46.3**	**+0.1**
JPRM	**Presidio of Sa**	**1.00**	**167**		**Pg**	**14 42 46.8**	**+0.2**
INGLE	**Inglenook, Smi**	**1.05**	**316**		**Pn**	**14 42 48.4**	**-0.7**
SMCB	**Saint Mary’s C**	**1.06**	**151**		**Pb**	**14 42 48.0**	**-0.6**
BDM	**Black Diamond**	**1.08**	**139**		**Pg**	**14 42 47.7**	**-0.3**
FARB	**Farallon Islan**	**1.09**	**190**		**Pb**	**14 42 47.4**	**-1.5**
FARB				IAML		14 43 11.6	
	comp=E,141nm,1.4s						
CRHM	**Round Hill Res**	**1.10**	**146**		**Pb**	**14 42 48.1**	**-1.0**
BGC	**Bolinger Road**	**1.10**	**150**		**Pb**	**14 42 48.4**	**-0.9**
KCPM	**Cahto Peak**	**1.11**	**325**		**Pn**	**14 42 49.0**	**-1.1**
KCPM				IAML		14 43 13.1	
	comp=N,198nm,0.8s						
JSBM	**San Bruno Moun**	**1.13**	**165**		**Pb**	**14 42 48.6**	**-1.0**
CSLM	**San Leandro Hi**	**1.17**	**154**		**Pb**	**14 42 49.4**	**-0.8**
CLCB	**Lake Chabot**	**1.17**	**152**		**Pb**	**14 42 49.1**	**-1.2**
KIPM	**Iron Peak**	**1.17**	**332**		**Pn**	**14 42 50.9**	**-0.1**
OGOM	**Van Goodin Ran**	**1.25**	**45**		**Pn**	**14 42 48.4**	**-3.5**
ORV	**Oroville**	**1.25**	**51**		**Pn**	**14 42 48.6**	**-3.4**
O02D	**Mt. Diablo Mer**	**1.40**	**359**		**Pg**	**14 42 55.5**	**+1.4**
AFDM	**Forest Hills D**	**1.41**	**82**		**Pn**	**14 42 51.7**	**-2.4**
JRSC	**Jasper Ridge**	**1.43**	**163**		**Pb**	**14 42 54.4**	**-0.3**
JRSC				IAML		14 43 21.0	
	comp=N,150nm,0.9s						
JRSC				IAML		14 43 21.7	
	comp=E,180nm,1.1s						
KMRM	**Mail Ridge**	**1.62**	**333**		**Pg**	**14 42 59.5**	**+1.1**
MHC	**Mount Hamilton**	**1.68**	**148**		**Pn**	**14 42 56.8**	**-1.1**
MHC				IAML		14 43 25.2	
	comp=N,76nm,1.0s						
O03E	**Paynes Creek**	**1.69**	**26**		**Pn**	**14 42 57.2**	**-0.8**
CMB	**Columbia Colle**	**2.01**	**111**		**Pn**	**14 43 01.4**	**-0.9**
CMB				IAML		14 43 33.6	
	comp=N,49nm,0.7s						
BEKR	**Beckworth**	**2.16**	**59**		**Pn**	**14 43 04.7**	**+0.1**
BEKR				IAML		14 43 39.2	
	comp=N,42nm,0.7s						
BEKR				IAML		14 43 39.7	
	comp=E,48nm,0.7s						
MPK	**Martis Peak**	**2.19**	**75**		**Pn**	**14 43 05.2**	**+0.1**
PNTR	**Pine Nut**	**2.49**	**82**		**Pn**	**14 43 09.6**	**+0.5**
WAKR	**Walker**	**2.62**	**95**		**Pn**	**14 43 11.9**	**+1.0**
WAKR				IAML		14 43 49.3	
	comp=N,42nm,0.7s						
WAKR				IAML		14 43 51.1	
	comp=E,54nm,0.7s						
YERR	**Yerington**	**2.76**	**85**	IAML		14 44 14.3	
	comp=N,46nm,1.2s						
PAHR	**Pah Rah Range**	**2.78**	**69**	IAML		14 44 18.4	
	comp=E,23nm,1.6s						
YBH	**Yreka Blue Hor**	**2.95**	**1**	Pn	Pn	14 42 56.3	-19
	comp=E,0.1nm,0.3s,baz=98,slow=3.0,SNR=3.2						
YBH				Lg	Lg	14 43 23.3	
	comp=E,0.3nm,0.3s,baz=147,slow=5.5,SNR=4.7						
HULI	**Fort Hunter Li**	**3.00**	**156**	IAML		14 44 08.0	
	comp=E,36nm,1.5s						
MDPB	**Devils Postpil**	**3.12**	**110**	IAML		14 44 01.8	
	comp=E,26nm,1.1s						
RYN	**Ryan**	**3.32**	**91**	IAML		14 44 09.7	
	comp=E,27nm,1.1s						
NVAR	**Mina Array Bea**	**3.51**	**94**	Pn	**Pn**	**14 43 23.4**	**+0.2**
	comp=E,0.4nm,0.3s,baz=284,slow=14,SNR=8.7						
NVAR				Pg	**Pb**	**14 43 31.8**	**+1.5**
	comp=E,2.4nm,0.3s,baz=285,slow=17,SNR=26						
NVAR				Lg	Lg	14 44 17.9	
	comp=E,0.9nm,0.3s,baz=280,slow=26,SNR=6.0						
	comp=E,0.7nm,0.4s						
NVAR				AML	AML		
NV11	**Mina Array Sit**	**3.62**	**94**	IAML		14 44 24.6	
	comp=E,18nm,2.0s						
NV11				IAML		14 44 25.7	
	comp=N,22nm,1.9s						
MOD	**Modoc Plateau**	**3.65**	**30**	IAML		14 43 59.4	
	comp=N,14nm,4.8s						
MOD				IAML		14 44 20.1	
	comp=E,18nm,4.8s						
KVN	**Kaiserville**	**3.65**	**84**	IAML		14 44 23.8	
	comp=E,13nm,2.0s						
KVN				IAML		14 44 27.0	
	comp=N,12nm,4.0s						
CWC	**Cottonwood Cre**	**4.39**	**121**	IAML		14 44 46.2	
	comp=N,9.9nm,1.4s						
CWC				IAML		14 44 47.5	
	comp=E,9.1nm,1.0s						
TPH	**Tonopah**	**4.41**	**97**	IAML		14 44 49.2	
	comp=E,13nm,2.9s						
TPH				IAML		14 44 59.1	
	comp=N,8.5nm,1.5s						
GMN	**Gold Mountain**	**4.59**	**107**	IAML		14 45 06.9	
	comp=E,5.6nm,2.4s						
GMN				IAML		14 45 28.9	
	comp=N,6.1nm,2.6s						
MPMC	**Manual Prospec**	**5.00**	**121**	IAML		14 46 12.0	
	comp=E,7.7nm,5.0s						
PFO	**Pinyon Flats O**	**7.24**	**133**	Pn	Pn	14 44 22.5	+8.1
	comp=E,0.2nm,0.3s,baz=337,slow=15,SNR=1.4						
	comp=E,0.8nm,0.3s						
PFO				AML	AML		
PDAR	**Pinedale Array**	**10.78**	**64**	Pn	Pn	14 44 56.0	-6.9
	comp=E,0.1nm,0.3s,baz=268,slow=7.7,SNR=2.0						
	comp=E,0.1nm,0.3s						
PDAR				AML	AML		
TXAR	**Lajitas Array**	**18.38**	**115**	P	**P**	**14 46 45.9**	**+2.2**
	comp=E,0.1nm,0.3s,baz=314,slow=11,SNR=2.9						
	comp=E,0.2nm,0.5s						
TXAR				AML	AML		

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*AUST **24** 14:53:57.9±0.3, 33°S±2°×13°9E±°, h1^{km}±2^{km}, ML2.6/8, Error ellipse: s-maj=4.9km s-min=3.9km az=67.0*

*IDC **24** 14:54:02.1±4.8, 32°.95S×139°.07E, h0^{km}, mbtmp2.8/3, ML2.7/3, Error ellipse: s-maj=55.4km s-min=17.3km az=11.0*

ISC 24 14:53:57.5±0.9, **33°.34S**±0°.03×**138°.83E**±0°.05, **h9**^{km}±7^{km}, **n34**, σ1^{s}.**51**/43, **Near coast of South Australia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HTT	**Hallett**	**0.12**	**140**	P	**Pg**	**14 54 00.4**	**0.0**
HTT				S	**Sg**	**14 54 02.0**	**-0.5**
HTT				AML	AML		
HTT	**Hallett**	**0.12**	**140**	P	**Pg**	**14 54 00.3**	**0.0**
HTT				S	**Sg**	**14 54 01.7**	**-0.7**
HTT				AML	AML		
NAPP	**Napperby**	**0.59**	**285**	P	**Pb**	**14 54 10.1**	**+0.1**
NAPP				S	**Pb**	**14 54 10.1**	**+0.1**
NAPP				AML	AML		
NAPP	**Napperby**	**0.59**	**285**	P	**Pb**	**14 54 10.1**	**+0.1**
NAPP				AML	AML		
PTPS	**Port Pirie**	**0.72**	**283**	P	**Pb**	**14 54 12.5**	**+0.3**
PTPS				AML	AML		
PTPS	**Port Pirie**	**0.72**	**283**	P	**Pb**	**14 54 11.9**	**-0.2**
PTPS				AML	AML		
SDAN	**Sedan**	**1.24**	**160**	P	**Pg**	**14 54 20.5**	**-0.8**
SDAN				S	**Sb**	**14 54 38.0**	**+0.8**
SDAN				AML	AML		
SDAN	**Sedan**	**1.24**	**160**	P	**Pg**	**14 54 20.6**	**-0.8**
SDAN				S	**Sg**	**14 54 37.7**	**+0.2**
SDAN				AML	AML		
YAPP	**Yappala Statio**	**1.53**	**343**	P	**Pn**	**14 54 26.6**	**+1.7**
YAPP				S	**Sg**	**14 54 48.5**	**+1.8**
YAPP				AML	AML		
YAPP	**Yappala Statio**	**1.53**	**343**	P	**Pn**	**14 54 26.2**	**+1.3**
YAPP				S	**Sg**	**14 54 48.0**	**+1.3**
YAPP				AML	AML		
AUMBR	**Murray Bridge**	**1.83**	**168**	P	**Pn**	**14 54 30.5**	**+1.4**
AUMBR				AML	AML		
AUMBR	**Murray Bridge**	**1.83**	**168**	P	**Pn**	**14 54 30.5**	**+1.4**
AUMBR				S	**Sn**	**14 54 53.7**	**+1.3**
AUMBR				AML	AML		
BBOO	**Buckleboo**	**2.39**	**282**	P	**Pb**	**14 54 39.2**	**-1.4**
BBOO				AML	AML		
BBOO	**Buckleboo**	**2.39**	**282**	P	**Pb**	**14 54 38.9**	**-1.7**
BBOO				AML	AML		
AUCAS	**Cummins Area S**	**2.75**	**250**	P	**Pb**	**14 54 46.0**	**-0.7**
AUCAS				AML	AML		
STKA	**Stephens Creek**	**2.75**	**59**	P	**Pn**	**14 54 43.7**	**+2.0**
STKA				AML	AML		
STKA	**Stephens Creek**	**2.75**	**59**	P	**Pn**	**14 54 43.2**	**+1.4**
STKA				S	**Sn**	**14 55 15.5**	**+0.5**
STKA				AML	AML		
STKA	**Stephens Creek**	**2.75**	**59**	Pn	**Pn**	**14 54 42.1**	**+0.4**
	1.0nm,0.3s,baz=260,slow=12,SNR=14						
STKA				Lg	Lg	14 55 18.2	
	1.5nm,0.3s,baz=228,slow=8.3,SNR=4.7						
	2.0nm,0.3s						
STKA				AML	AML		
LCRK	**Leigh Creek**	**2.93**	**350**	P	**Pn**	**14 54 46.2**	**+2.0**
LCRK				AML	AML		
LCRK	**Leigh Creek**	**2.93**	**350**	P	**Pn**	**14 54 46.0**	**+1.9**
LCRK				AML	AML		
KELC	**Kelly Hill Cav**	**3.08**	**210**	P	**Pn**	**14 54 48.3**	**+2.2**
KELC				AML	AML		
KELC	**Kelly Hill Cav**	**3.08**	**210**	P	**Pn**	**14 54 48.4**	**+2.2**
KELC				AML	AML		
ARPS	**Mount Arapiles**	**4.22**	**145**	P	**Pn**	**14 55 02.2**	**+0.3**
ARPS				AML	AML		
ARPS	**Mount Arapiles**	**4.22**	**145**	P	**Pn**	**14 55 02.6**	**+0.7**
ARPS				AML	AML		
MGBR	**Mount Gambier**	**4.60**	**163**	P	**Pn**	**14 55 08.3**	**+1.1**
MGBR				AML	AML		
MULG	**Mulgathing**	**5.08**	**306**	P	**Pn**	**14 55 14.3**	**+0.5**
MULG				AML	AML		
MULG	**Mulgathing**	**5.08**	**306**	P	**Pn**	**14 55 14.2**	**+0.5**
	comp=Z,9.1nm,2.4s,comp=Z,0.0nm						
MULG				AML	AML		
CMSA	**Cobar Meteorol**	**6.07**	**75**	P	**Pn**	**14 55 27.8**	**+0.4**
CMSA				AML	AML		
CMSA	**Cobar Meteorol**	**6.07**	**75**	P	**Pn**	**14 55 27.4**	**0.0**
CMSA				AML	AML		
FORT	**Forrest**	**9.49**	**283**	P	**Pn**	**14 56 15.7**	**+1.4**
FORT				AML	AML		
FORT	**Forrest**	**9.49**	**283**	P	**Pn**	**14 56 15.6**	**+1.4**
	comp=Z,12nm,0.9s,comp=Z,0.0nm						
FORT				AML	AML		
YARR	**Yarramundi, NS**	**9.91**	**95**	P	**Pn**	**14 56 21.4**	**+1.4**
YARR				AML	AML		
ASAR	**Alice Springs**	**10.56**	**335**	Pn	**Pn**	**14 56 29.0**	**-0.1**
	comp=Z,0.1nm,0.3s,baz=152,slow=14,SNR=17						
ASAR				Sn	**Sn**	**14 58 21.7**	**-5.8**
	comp=Z,0.1nm,0.3s,baz=158,slow=22,SNR=5.1						
	comp=Z,0.1nm,0.4s						
ASAR				AML	AML		
WRA	**Warramunga Arr**	**13.93**	**342**	Pn	Pn	14 57 11.3	-3.7
	baz=156,slow=13,SNR=1.4						
WRA				Sn	Sn	14 59 28.4	-22
	baz=175,slow=29						
	comp=Z,0.4nm,1.0s						

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*IDC **24** 15:02:12.3±0.7, 6°.79N×72°.96W, h161^{km}±9^{km}, mb2.8/2, mbtmp3.6/4, Error ellipse: s-maj=35.0km s-min=7.5km az=131.0*

*RSNC **24** 15:02:13.4±0.0, 7°N±1°×7°3W±°, h143^{km}±2^{km}, M3.7, mB5.0, mb4.0, ML3.3, Mw(mB)4.3*

*FUNV **24** 15:02:16.0, 7°.08N×73°.18W, h16^{km}, MW3.8, Presumed earthquake*

ISC 24 15:02:12.0±0.8, **6°.83N**±0°.03×**73°.13W**±0°.04, **h150**^{km}±6^{km}, **n43**, σ1^{s}.**77**/82, **Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BARC	**Barichara**	**0.24**	**192**	P	**Pn**	**15 02 33.1**	**+0.4**
BARC				S	**Sn**	**15 02 47.8**	**-0.6**
BRJC	**Barrancabermej**	**0.62**	**283**	P	**Pn**	**15 02 34.8**	**+0.8**
BRJC				S	**Sn**	**15 02 50.7**	**0.0**
PAMC	**Pamplona, Colo**	**0.66**	**41**	P	**Pn**	**15 02 35.9**	**+1.1**
PAMC				S	**Sn**	**15 02 52.6**	**+0.4**

RUSC	La Rusia	0.94	177	P	Pn	15 02 36.9	+0.1
RUSC				S	Sn	15 02 54.4	-1.3
RUSC	La Rusia	0.94	177	*e*P	Pn	15 02 37.1	+0.2
RUSC				*e*S	Sn	15 02 53.5	-2.3
PTBC	PUERTO BERRIO,	1.35	258	P	Pn	15 02 39.8	-0.2
PTBC				S	Sn	15 03 00.1	-1.3
TAMC	Tame, Arauca	1.39	106	P	Pn	15 02 41.4	+0.9
TAMC				S	Sn	15 03 02.3	+0.1
OCAC	Ocana	1.41	352	P	Pn	15 02 41.3	+0.5
OCAC				S	Sn	15 03 02.8	0.0
SPBC	San Pablo de B	1.50	219	P	Pn	15 02 42.0	+0.3
SPBC				S	Sn	15 03 03.4	-1.0
NORC	Norcasia	2.14	234	P	Pn	15 02 49.1	+0.3
NORC				S	Sn	15 03 16.5	-0.6
CHIC	Chingaza	2.27	195	P	Pn	15 02 51.3	+0.5
CHIC				S	Sn	15 03 20.0	-0.5
ROSC	El Rosal	2.31	211	P	Pn	15 02 52.9	+1.7
	73nm,0.3s,baz=61,slow=13,SNR=24						
ROSC				S	Sn	15 03 24.4	+3.1
	484nm,0.5s,baz=358,slow=21,SNR=23						
ROSC	El Rosal	2.31	211	P	Pn	15 02 53.0	+1.8
ROSC				S	Sn	15 03 21.8	+0.5
HELC	Santa Helena	2.46	255	P	Pn	15 02 53.7	+0.6
HELC				S	Sn	15 03 24.0	-0.6
HELC	Santa Helena	2.46	255	*e*P	Pn	15 02 55.4	+2.3
HELC				*e*S	Sn	15 03 24.5	-0.1
CVER	Cruz Verde, Cu	2.48	202	P	Pn	15 02 54.8	+1.4
CVER				S	Sn	15 03 25.0	-0.2
UREC	San Jos de Ur	2.55	291	P	Pn	15 02 53.2	-0.6
UREC				S	Sn	15 03 25.0	-0.9
GUY2C	Guyana, Caldas	2.74	234	P	Pn	15 02 57.8	+1.3
GUY2C				S	Sn	15 03 29.6	-1.2
VILC	Villavicencio,	2.76	192	P	Pn	15 02 56.4	-0.1
VILC				S	Sn	15 03 29.7	-1.2
CBOC	Ciudad Bolivar	3.02	252	P	Pn	15 03 01.2	+1.4
CBOC				S	Sn	15 03 37.1	+0.4
ARGC	Ariguani, Magd	3.20	340	P	Pn	15 03 03.4	+1.5
ARGC				S	Sn	15 03 40.8	+0.2
SDV	Santo Domingo	3.21	50	P	Pn	15 03 02.6	+0.4
	89nm,0.3s,baz=235,slow=9.9,SNR=56						
SDV				S	Sn	15 03 39.9	-1.1
	188nm,0.5s,baz=91,slow=22,SNR=18						
SDV	Santo Domingo	3.21	50	P	Pn	15 03 02.7	+0.5
SDV				S	Sn	15 03 39.0	-2.1
SDV	Santo Domingo	3.21	50	*e*P	Pn	15 03 02.9	+0.7
SDV				*e*S	Sn	15 03 39.0	-2.1
PRAC	Prado	3.56	209	P	Pn	15 03 07.0	+0.4
PRAC				S	Sn	15 03 48.2	-0.7
APAC	Apartado, Choc	3.58	287	P	Pn	15 03 07.6	+0.8
APAC				S	Sn	15 03 47.9	-1.4
ORTC	Ortega, Tolima	3.59	216	P	Pn	15 03 07.8	+0.8
ORTC				S	Sn	15 03 49.4	-0.2
SJCC	San Jacinto, C	3.66	326	P	Pn	15 03 07.5	-0.3
SJCC				S	Sn	15 03 48.5	-2.7
SJCC	San Jacinto, C	3.66	326	*e*P	Pn	15 03 07.6	-0.3
SJCC				*e*S	Sn	15 03 47.0	-4.2
LCBC	Los crdobas,	3.78	302	P	Pn	15 03 09.0	-0.4
LCBC				S	Sn	15 03 54.3	+0.3
GUVC	San Jose del G	4.29	173	P	Pn	15 03 15.1	-1.0
GUVC				S	Sn	15 04 00.4	-5.6
SOLC	Bahia Solano	4.29	262	P	Pn	15 03 15.3	-0.8
SOLC				S	Sn	15 04 06.1	+0.2
MACC	Macarena, Meta	4.71	189	P	Pn	15 03 20.4	-1.3
MACC				S	Sn	15 04 11.1	-4.9
BETC	Betania	4.72	209	P	Pn	15 03 21.1	-0.8
BETC				S	Sn	15 04 14.5	-1.8
URIC	Uribia, Colomb	4.97	13	P	Pn	15 03 23.8	-1.2
URIC				S	Sn	15 04 17.9	-4.1
UPD2	Meteti	5.13	290	P	Pn	15 03 27.0	-0.2
UPD2				S	Sn	15 04 25.1	-0.7
GARC	Garzon, Huila	5.18	207	P	Pn	15 03 27.5	-0.6
GARC				S	Sn	15 04 21.2	-6.3
GARC				AML	AML		
POPC	Popayan, Colom	5.54	220	P	Pn	15 03 33.1	+0.3
	11nm,0.9s						
POPC				S	Sn	15 04 32.3	-3.6
	11nm,0.9s						
POPC				AML	AML		
BBAC	Balboa, Cauca	6.30	221	P	Pn	15 03 44.3	+1.3
BBAC				S	Sn	15 04 51.0	-3.1
TXAR	Lajitas Array	36.44	312	P	P	15 09 03.1	+0.4
	0.2nm,0.5s,baz=131,slow=8.8,SNR=4.2						
	0.2nm,0.5s						
PDAR	Pinedale Array	48.06	324	P	P	15 10 36.9	+0.3
	0.2nm,0.5s,baz=137,slow=8.0,SNR=2.2						
	0.2nm,0.5s						
ASAR	Alice Springs	149.11	234	PKPbc	PKPdf	15 21 42.3	+3.0
	0.8nm,0.6s,baz=118,slow=3.3,SNR=14						
WRA	Warramunga Arr	150.33	241	PKPbc	PKPbc	15 21 45.4	-1.2
	0.5nm,0.4s,baz=107,slow=2.9,SNR=21						

BJI ***24*** *15:09:17.9, 54°.68N×159°.33W, h12^{km}, mB5.0/6, mb4.8/24*

IDC ***24*** *15:09:20.6±0.8, 54°.98N×159°.49W, h0^{km}, mb4.2/24, mbtmp4.2/27, ML3.9/3, MS3.5/36, Error ellipse: s-maj=20.6km s-min=10.4km az=157.0*

NEIC ***24*** *15:09:22.7±1.5, 54°.67N±0°.05×159°.25W±0°.07, h26^{km}±4^{km}, mb4.5/52, ML4.4/38, Mwr4.2/24, ML4.2(AEIC), Error ellipse: s-maj=8.1km s-min=5.3km az=168.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}1.18; $M_{\theta\theta}$-1.59; $M_{\phi\phi}$0.41; $M_{r\theta}$1.77; $M_{\theta\phi}$-0.06; $M_{\phi r}$1.00; Fault plane solution: $M_0$2.48000×10^{15} NP1:ϕ_s294.61000°, δ23.24000°, λ137.30000°. NP2:ϕ_s64.90000°, δ74.48000°, λ72.48000°. Principal axes: T 2.4261, Plg57.0000°, Azm312.0000°; N 0.1080, Plg17.0000°, Azm70.0000°; P -2.5342, Plg27.0000°, Azm169.0000°;*

AEIC ***24*** *15:09:22.3±1.7, 54°.65N±0°.05×159°.20W±0°.06, h18^{km}±4^{km} Error ellipse: s-maj=8.1km s-min=5.3km az=168.0*

NEIC ***24*** *15:09:23.2, 54°.70N×159°.27W, h27^{km}*

ISC 24 15:09:22.7±0.9**, 54°.72N**±0°.05×**159°.24W**±0°.04**, h26**^{km}±6^{km}**, n300,** σ**1^{s}03**/279**, mb4.5**/48**, MS3.6**/32**, 1C, South of Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CNBA	Chernabura Isl	0.22	297		Pb	15 09 29.1	+0.4
CNBA				Sg	Sb	15 09 33.5	+0.7
CNBA				IAML		15 09 34.0	
	comp=N,61µm,0.3s						
CNBA				IAML		15 09 34.4	
	comp=E,29µm,0.4s						
CHNA	Chernabura Isl	0.23	299	P	Pb	15 09 29.1	+0.3
CHNA	Chernabura Isl	0.23	299	S	Sb	15 09 33.8	+0.9
SDPT	Sand Point	0.95	312	P	Pb	15 09 40.0	-0.5
SDPT	Sand Point	0.95	312	S	Sn	15 09 53.6	+0.5
SDPT	Sand Point	0.95	312		Pb	15 09 40.3	-0.2
SDPT					Sb	15 09 53.2	+0.6
SDPT				IAML		15 09 55.2	
	comp=E,6µm,0.4s						
VNKR	Veniaminof 5	1.32	357		Pb	15 09 46.3	-0.5
VNSW	Veniaminof 7	1.37	353		Pb	15 09 47.3	-0.4
VNSG	Veniaminof 6	1.41	4		Pb	15 09 47.9	-0.5
VNSS	Veniaminof 8	1.52	356		Pb	15 09 49.8	-0.4
DOL	Dolgoi Island	1.57	287		Pn	15 09 49.2	+0.3
DOL					Sn	15 10 09.2	+0.7
VNFG	Fog Glacier, M	1.58	354		Pb	15 09 51.1	-0.2
VNFG					Sb	15 10 10.5	-0.3
VNFG	Fog Glacier, M	1.58	354		Pb	15 09 51.3	0.0
PS1A	Pavlof South-1	1.60	297		Pn	15 09 50.3	+0.9
PS1A					Sb	15 10 11.5	+0.2
PVV	Pavlof Volcano	1.61	295		Pn	15 09 50.2	+0.8
PS4A	Pavlof South-4	1.63	294		Pn	15 09 50.5	+0.7
CHGN	Chignik	1.65	16		Pn	15 09 50.6	+0.5
CHGN				Sn	Sn	15 10 11.8	+1.4
CHGN				IAML		15 10 15.2	
	comp=N,8µm,0.7s						
DTNA	Dutton South F	1.79	285		Sb	15 10 15.9	-0.9
DT1	Dutton Round H	1.80	284		Sn	15 10 15.6	+1.6
S12K	Black Hills	1.89	303		Pn	15 09 54.2	+0.8
S12K				Sn	Sn	15 10 17.3	+0.9
S12K				IAML		15 10 22.8	
	comp=N,6µm,0.4s						
BPBCA	Veniaminof	1.93	13		Pn	15 09 54.9	+1.1
ANPK	Aniakchak Peak	2.22	16		Pn	15 09 59.5	+1.5
AZAC	Aniakchak	2.25	14		Pn	15 10 00.2	+1.7
ANNW	Aniakchak Nort	2.33	14		Pn	15 10 01.4	+2.0
CHIR	Chirikof Islan	2.35	60	P	Pn	15 10 00.4	+0.8
CHIR	Chirikof Islan	2.35	60		Pn	15 10 00.1	+0.5
CHIR				IAML		15 10 46.6	
	comp=E,3µm,0.9s						
CHIR				IAML		15 10 50.5	
	comp=N,2µm,1.2s						
SSLN	Shishaldin Nor	2.75	274		Pn	15 10 06.9	+1.7
SSLN					Pb	15 10 07.5	-3.7
SSLS	Shishaldin Sou	2.76	272		Pn	15 10 06.9	+1.6
SSBA	Shishaldin	2.83	273		Pn	15 10 08.0	+1.7
R16K	Pilot Point	3.00	17	Pn	Pn	15 10 09.8	+1.2
R16K				IAML		15 11 07.3	
	comp=N,2µm,1.0s						
R16K				IAML		15 11 10.8	
	comp=E,1µm,1.0s						
SII	Sitkinak Islan	3.41	55	P	Pn	15 10 15.1	+0.9
SII	Sitkinak Islan	3.41	55		Pn	15 10 14.4	+0.2
SII				IAML		15 11 22.7	
	comp=N,1µm,1.0s						
SII				IAML		15 11 31.8	
	comp=E,1µm,0.8s						
PLK1	Peulik 1	3.42	24		Pn	15 10 15.8	+1.4
PLK5	Peulik 5	3.54	21		Pn	15 10 17.2	+1.3
AKUT	Akutan	3.86	264	P	Pn	15 10 22.2	+1.9
AKUT	Akutan	3.86	264	S	Sn	15 11 06.8	+2.0
AKUT	Akutan	3.86	264		Pn	15 10 20.8	+0.4
AKUT				IAML		15 11 32.5	
	comp=E,359nm,0.7s						
AKUT				IAML		15 11 33.1	
	comp=N,387nm,0.7s						
KJL	Kejulik	3.92	30		Pn	15 10 22.4	+1.2
AKBBA	Akutan Broad B	3.96	264		Pn	15 10 23.5	+1.8
AKLV	Akutan Long Va	3.96	265		Pn	15 10 23.3	+1.5
AKV	Akutan Volcano	3.97	264		Pn	15 10 23.8	+1.8
CAHL	Cahill	4.00	32		Pn	15 10 23.2	+1.0
LVA	Lava Point	4.00	265	Pn	Pn	15 10 23.1	+0.7
LVA				IAML		15 11 42.1	
	comp=N,589nm,0.7s						
Q17K	Contact Creek	4.01	26		Pn	15 10 23.7	+1.2
ANCK	Angle Creek	4.06	29		Pn	15 10 24.4	+1.2
MGLS	Mageik Landsli	4.11	32		Pn	15 10 24.6	+0.9
ACHA	Angle Creek He	4.12	30		Pn	15 10 24.8	+0.8
KABU	Katmai Buttres	4.18	30		Pn	15 10 26.2	+1.3
OHAK	Old Harbor	4.18	51	P	Pn	15 10 24.8	0.0
OHAK	Old Harbor	4.18	51		Pn	15 10 25.1	+0.4
KAKN	Katmai Knife C	4.27	31		Pn	15 10 27.1	+1.0
UNV	Unalaska Valle	4.34	261	P	Pn	15 10 28.2	+1.2
UNV	Unalaska Valle	4.34	261		Pn	15 10 27.7	+0.7
P16K	Nushagak River	4.38	9		Pn	15 10 28.8	+1.3
P16K				IAML		15 11 58.1	
	comp=N,757nm,1.0s						
KAWH	Katmai	4.42	32		Pn	15 10 28.6	+0.5
MNAT	Makushin Natee	4.44	262		Pn	15 10 29.4	+1.1
O15K	Ungalikthiuk R	4.48	356		Pn	15 10 29.5	+0.6
O15K				IAML		15 11 58.9	
	comp=E,291nm,1.3s						
MREP	Makushin Rep’t	4.49	261		Pn	15 10 30.5	+1.4
MGOD	Makushin Gods	4.57	261		Pn	15 10 31.4	+1.3
Q18K	Katmai Hardscr	4.58	29		Pn	15 10 31.5	+1.1
KAHG	Katmai Hook Gl	4.59	33		Pn	15 10 31.4	+1.0
MAPS	Pakushin South	4.61	262		Pn	15 10 31.9	+1.3
O14K	Tigyukauivet M	4.68	347		Pn	15 10 32.7	+1.1
P17K	Kvichak River	4.74	18		Pn	15 10 31.7	-0.7
KDAK	Kodiak Island	4.82	48	Pn	Pn	15 10 33.1	-0.4
	comp=E,2.1nm,0.3s,baz=37,slow=2.0,SNR=48						
KDAK				Sn	Sn	15 11 26.2	-2.2
	comp=E,9.1nm,0.3s,baz=28,slow=16,SNR=6.8						
KDAK				Lg	Lg	15 11 51.3	
	comp=E,8.3nm,0.3s,baz=320,slow=23,SNR=1.7						
	comp=E,6.7nm,0.3s						
KDAK				AML	AML		
KDAK	Kodiak Island	4.82	48		Pn	15 10 33.5	0.0
KDAK					Sn	15 11 26.9	-1.5
KDAK				IAML		15 12 04.3	
	comp=E,174nm,1.2s						
KDAK				IAML		15 12 26.0	
	comp=E,173nm,1.3s						
O16K	Kokwok River B	4.93	7		Pn	15 10 35.3	+0.3
O16K				IAML		15 12 09.3	
	comp=E,147nm,1.5s						
O16K				IAML		15 12 09.6	
	comp=N,147nm,0.8s						
P18K	Big Mountain,	5.17	23		Pn	15 10 39.3	+0.9
O17K	Koliganek Bris	5.20	12		Pn	15 10 39.8	+1.1
Q19K	Cape Douglas,	5.22	34		Pn	15 10 40.0	+0.9
OKTU	Okmok Mt. Tuli	5.35	259		Pn	15 10 42.5	+1.6
N14K	Kuskokwak Cree	5.38	347		Pn	15 10 42.1	+0.9
OKCE	Okmok Cone E	5.41	260		Pn	15 10 43.5	+1.8
O18K	Koktuh Hills	5.59	21		Pn	15 10 45.2	+1.0
AUI	Augustine Isla	5.61	32		Pn	15 10 45.9	+1.5
N16K	Nishlik Lake	5.78	2		Pn	15 10 48.1	+1.4
P19K	Oil Pt	5.93	31		Pn	15 10 50.3	+1.6
N17K	Nushagak Hills	5.93	10		Pn	15 10 49.6	+0.9
O19K	Port Alsworth	6.10	24		Pn	15 10 52.9	+1.9
M13K	Dall Lake	6.12	341		Pn	15 10 52.4	+1.1
M14K	Bethel	6.22	348		Pn	15 10 53.3	+0.5
ILSW	Iliamna Southw	6.22	30		Pn	15 10 53.1	+0.2
N18K	Kilae Creek	6.24	15		Pn	15 10 54.0	+0.9
IVE	Iliamna Volcan	6.29	30		Pn	15 10 54.8	+1.0
M16K	Timber Creek	6.32	1		Pn	15 10 55.3	+1.1
HOM	Homer	6.45	37	Pn	Pn	15 10 55.3	-0.5
O20K	Slope Mountain	6.45	31		Pn	15 10 57.5	+1.5
CNPM	China Poot	6.50	39	Pn	Pn	15 10 56.0	-0.6
CLCO	Concord Point,	6.51	257		Pn	15 10 57.3	+0.5
CLES	Cleveland East	6.59	258	Pn	Pn	15 10 55.6	-2.3
N19K	Bonanza Creek	6.62	21		Pn	15 10 59.1	+0.8
SPIA	Saint Paul Isl	6.65	296	P	Pn	15 11 00.5	+1.8
SPIA	Saint Paul Isl	6.65	296	Pn	Pn	15 10 59.8	+1.1
RDSO	Redoubt South	6.72	29		Pn	15 11 00.9	+1.1
NCT	North Crescent	6.76	27		Pn	15 11 01.7	+1.3
M17K	Holitna River	6.77	7		Pn	15 11 01.1	+0.9
BRLK	Bradley Lake	6.79	38	Pn	Pn	15 10 59.9	-0.7
M11K	Mekoryuk	6.80	329	Pn	Pn	15 11 00.6	0.0
BRSE	Bradley Lake S	6.83	39		Pn	15 11 00.8	-0.3
L14K	Kuka Creek	6.89	346		Pn	15 11 02.7	+0.9
RDT	Redoubt	6.92	29		Pn	15 11 04.1	+1.7
L16K	Owhat River	7.01	359		Pn	15 11 03.8	+0.2
SPBG	Spurr Blockage	7.50	26		Pn	15 11 11.4	+1.0
SEW	Seward	7.55	40	Pn	Pn	15 11 11.8	+0.8
SLKM	Skilak Lake	7.55	36	Pn	Pn	15 11 11.2	+0.2
L18K	Granite Mounta	7.64	9		Pn	15 11 12.9	+0.7
M19K	Big River Lodg	7.64	18		Pn	15 11 14.0	+1.7
K15K	Wolf Creek Mou	7.69	352		Pn	15 11 14.6	+1.7
K13K	Kusilvak Mount	7.77	341		Pn	15 11 15.4	+1.4
L19K	White Mountain	7.83	15		Pn	15 11 16.2	+1.4
STLK	Strandline Lak	7.84	27		Pn	15 11 16.1	+1.0
M20K	Styx River	7.87	22		Pn	15 11 17.6	+2.2
K17K	Iditarod	8.04	3		Pn	15 11 18.3	+0.7
SUA	Susitna One	8.12	30		Pn	15 11 19.4	+0.5
RC01	Rabbit Creek A	8.14	35		Pn	15 11 19.0	-0.1
L20K	Farewell, AK	8.27	18		Pn	15 11 20.7	-0.1
P23K	Montague Islan	8.30	46	Pn	Pn	15 11 21.9	+0.7
SKT	Skwentna	8.33	26		Pn	15 11 22.4	+0.7
J14K	Nanvaranak Lak	8.36	346		Pn	15 11 23.1	+1.1
MID	Middleton Isla	8.46	51	Pn	Pn	15 11 24.1	+0.7
PWL	Port Wells	8.47	39		Pn	15 11 22.8	-0.8
J16K	Anvik River	8.62	356		Pn	15 11 26.3	+0.7
J17K	VABM Dome	8.70	0		Pn	15 11 26.4	-0.4
KNK	Knik Glacier	8.80	36		Pn	15 11 29.4	+1.2
J18K	Innoko River	8.87	7		Pn	15 11 29.8	+0.8
HIN	Hinchinbrook I	8.89	45	Pn	Pn	15 11 29.2	-0.2
GHO	Glory Hole Cre	8.91	33		Pn	15 11 29.4	-0.3
GLI	Glacier Island	8.94	41		Pn	15 11 29.6	-0.5
PPLA	Purkeypile	8.97	21	Pn	Pn	15 11 31.5	+0.9
K20K	Telida	9.06	15		Pn	15 11 33.3	+1.6
FID	Port Fidalgo	9.11	43		Pn	15 11 30.8	-1.5
SML	Sawmill	9.13	35		Pn	15 11 32.8	+0.1
I17K	Unalakleet	9.22	356		Pn	15 11 34.6	+0.7
ATKA	Atka Island	9.27	260	P	Pn	15 11 35.5	+0.9
ATKA	Atka Island	9.27	260	Pn	Pn	15 11 35.5	+0.9
EYAK	Cordova Ski Ar	9.29	46	P	Pn	15 11 35.1	+0.3
EYAK	Cordova Ski Ar	9.29	46		Pn	15 11 34.8	0.0
CAST	Castle Rocks	9.46	20		Pn	15 11 38.3	+1.1
J19K	Poorman	9.48	10		Pn	15 11 37.2	-0.3
SCM	Sheep Creek Mo	9.49	36		Pn	15 11 37.5	-0.1
KAIM	Kayak Island	9.56	51	Pn	Pn	15 11 39.6	+1.2
DIV	Divide	9.61	43		Pn	15 11 38.5	-0.7
GOAT	Goat Mountain	9.73	47		Pn	15 11 40.9	-0.1
WAT7	Susitna Watana	9.75	29		Pn	15 11 40.7	-0.5
KLU	Klutina	9.77	41		Pn	15 11 41.4	-0.1
KTH	Kantishna Hill	9.83	22	Pn	Pn	15 11 43.0	+0.7
J20K	Nowinta River	9.83	13		Pn	15 11 43.9	+1.7
WAT1	Susitna Watana	9.83	30		Pn	15 11 41.9	-0.4
TRF	Thorofare Moun	9.88	24		Pn	15 11 43.2	+0.1
WAT6	Susitna Watana	9.89	33		Pn	15 11 42.2	-0.9
BMRM	Bremner River	9.99	45		Pn	15 11 44.3	-0.2
BPAW	Bear Paw Mtn.	10.29	21		Pn	15 11 48.4	-0.2
ANM	Nome	10.34	345	Pn	Pn	15 11 50.1	+0.9
H18K	Honhosa River	10.48	2		Pn	15 11 50.8	-0.3
ADK	Adak	10.81	262	P	Pn	15 11 56.7	+1.0
ADK	Adak	10.81	262	Pn	Pn	15 11 55.8	+0.1
G16K	Koyuk River	10.82	353		Pn	15 11 56.3	+0.6
GAMB	Gambell	11.07	330	Pn	Pn	15 12 00.9	+1.8
KIWB	Kanaga Island	11.10	262		Pn	15 12 00.4	+0.8
MLY	Manley	11.18	19		Pn	15 12 01.6	+0.9
G18K	Tagagawik	11.22	1		Pn	15 12 00.8	-0.4
BARN	Barnard Glacie	11.29	49	Pn	Pn	15 12 02.4	+0.1
TNA	Tin City	11.69	342	Pn	Pn	15 12 08.1	+0.6
F17K	Baldwin Pennin	11.80	356		Pn	15 12 08.7	-0.5
O28M	Mount Upton	11.82	51		Pn	15 12 09.0	-0.7
ILAR	Eielson Array	11.82	27	Pn	Pn	15 12 06.7	-2.7
	comp=N,0.3nm,0.3s,baz=217,slow=13,SNR=29						
ILAR				Sn	Sn	15 14 16.5	-3.9
	comp=N,0.3nm,0.3s,baz=217,slow=22,SNR=4.4						
ILAR				LR	LR	15 16 53.5	
	comp=N,138nm,19.8s,baz=250,slow=39						
	comp=N,1.5nm,0.5s						
ILAR				AML	AML		
PNL	Peninsula	11.83	57	P	Pn	15 12 10.8	+1.2
SCRK	Sand Creek	12.07	34		Pn	15 12 12.0	-1.0
L27K	Beaver Creek,	12.25	40		Pn	15 12 14.5	-0.8
BCAR	Beaver Creek A	12.27	40		Pn	15 12 15.4	-0.2
S31K	Pelican	13.15	66	Pn	Pn	15 12 27.5	-0.1
M29M	Somme Creek	13.27	46		Pn	15 12 29.2	-0.1
AMKA	Amchitka	13.32	264	Pn	Pn	15 12 29.5	-0.4
RDOG	Red Dog Mine	13.49	354		Pn	15 12 34.0	+1.8
SIT	Sitka	13.61	70	Pn	Pn	15 12 33.3	-0.5
BESE	Bessie Mountai	13.93	64	Pn	Pn	15 12 39.7	+1.4
U33K	Whale Pass	14.87	74	Pn	Pn	15 12 50.3	-0.6
J30M	Hart River	15.12	40		Pn	15 12 52.7	-1.8
P33M	Teslin, Yukon	15.18	58		Pn	15 12 53.3	-1.9
H29M	Whitestone	15.35	33	IAmb	IAmb	15 13 17.1	
	comp=Z,21nm,0.8s						
I30M	Mount Dempster	15.44	38	IAmb	IAmb	15 13 23.9	
	comp=Z,14nm,0.7s						
SHEM	Shemya Is, Ala	15.87	274	LR	LR	15 19 18.2	
	comp=Z,121nm,19.4s,baz=106,slow=38						
EPYK	Eagle Plains	15.97	34	IAmb	IAmb	15 13 16.3	
	comp=Z,54nm,0.9s						
DLBC	Dease Lake	16.45	65	Pn	P	15 13 15.8	+1.6
	comp=Z,0.2nm,0.3s,baz=277,slow=13,SNR=3.9						
G30M	tAoh Zraii Nji	16.49	33	IAmb	IAmb	15 13 24.3	
	comp=Z,24nm,0.8s						
F30M	Barrier River	17.01	31		Pn	15 13 18.2	-0.3
G31M	Satah River	17.09	35		Pn	15 13 18.2	-1.2
INK	Inuvik	18.11	31	P	P	15 13 32.6	+0.3
	comp=Z,0.9nm,0.3s,baz=232,slow=13,SNR=14						
INK				LR	LR	15 20 56.8	
	comp=Z,163nm,18.3s,baz=241,slow=39						
	comp=Z,3.8nm,0.4s						
INK				AML	AML		
INK	Inuvik	18.11	31		Pn	15 13 30.9	-1.2
BBB	Bella Bella	18.63	85	LR	LR	15 18 47.4	
	comp=Z,178nm,19.7s,baz=194,slow=30						
C36M	Paulatuk	21.60	34	P	P	15 14 09.9	-0.2
YKA	Yellowknife Ar	24.07	53	P	P	15 14 38.3	+2.8
	comp=Z,1.2nm,0.6s,baz=273,slow=9.6,SNR=2.5						
	comp=Z,1.2nm,0.6s						
PEA0B	Petropavlovsk-	25.12	284	P	P	15 14 43.9	-1.4
PEA0B				IAmb	IAmb	15 14 46.1	
	comp=Z,25nm,1.1s						
PETK	Petropavlovsk-	25.12	284	P	P	15 14 45.2	-0.1
	comp=Z,7.2nm,0.6s,baz=79,slow=14,SNR=47						
PETK				LR	LR	15 24 38.4	
	comp=Z,37nm,20.2s,baz=106,slow=37						
	comp=Z,7.2nm,0.6s						
PETK	Petropavlovsk-	25.12	284	P	P	15 14 44.0	-1.3
NEW	Newport	26.68	86	LR	LR	15 23 37.3	
	comp=Z,98nm,21.9s,baz=260,slow=32						
MA2	Magadan	27.00	301	LR	LR	15 26 45.6	
	comp=Z,56nm,18.1s,baz=88,slow=39						
YBH	Yreka Blue Hor	27.25	103	LR	LR	15 23 30.1	
	comp=Z,165nm,18.9s,baz=302,slow=31						
BBGB	Big Mountain B	31.76	109	P	P	15 15 43.4	-1.3
NVAR	Mina Array Bea	31.96	104	P	P	15 15 51.6	+4.9
	comp=Z,0.5nm,0.6s,baz=296,slow=7.5,SNR=4.6						
NVAR				LR	LR	15 26 25.5	
	comp=Z,92nm,20.6s,baz=313,slow=32						
	comp=Z,0.5nm,0.6s						
ELK	Elko	32.15	97	LR	LR	15 26 54.6	
	comp=Z,128nm,19.6s,baz=350,slow=33						
TIXI	Tiksi	33.93	327	LR	LR	15 31 32.1	
	comp=Z,78nm,18.3s,baz=35,slow=40						
TIXI	Tiksi	33.93	327	P	P	15 16 02.0	-1.2
TIXI				IAmb	IAmb	15 16 05.3	
	comp=Z,6.1nm,0.8s						
YAK	Yakutsk	36.20	311	LR	LR	15 32 37.4	
	comp=Z,126nm,18.7s,baz=68,slow=39						
YAK	Yakutsk	36.20	311	P	P	15 16 21.1	-1.7
YAK				IAmb	IAmb	15 16 27.3	
	comp=Z,8.6nm,0.7s						
ILON	Igloolik, Nuna	36.25	36	P	P	15 16 23.2	0.0
PFO	Pinyon Flats O	36.48	108	LR	LR	15 30 07.7	
	comp=Z,70nm,18.2s,baz=286,slow=34						
PV03	Paradox Valley	37.50	95	P	P	15 16 34.2	-0.1
PV03				IAmb	IAmb	15 16 51.4	
	comp=Z,4.2nm,0.9s						
PV13	Radium Mtn., P	37.58	95	P	P	15 16 35.2	+0.1
PV13				IAmb	IAmb	15 16 51.0	
	comp=Z,14nm,1.2s						
ULM	Lac du Bonnet	37.68	70	LR	LR	15 31 56.8	
	comp=Z,70nm,18.1s,baz=232,slow=36						
JKA	Kamikawa-asahi	38.23	279	P	P	15 16 39.5	-0.7
KLR	Kul'dur	41.29	292	LR	LR	15 33 48.5	
	comp=Z,64nm,20.5s,baz=40,slow=36						
H11N2	WAKE ISLAND Hy	43.35	230	T	T	16 03 52.0	
	baz=28,slow=76,SNR=14						
H11N3	WAKE ISLAND Hy	43.36	230	T	T	16 03 36.4	
	baz=28,slow=76,SNR=11						
H11N1	WAKE ISLAND Hy	43.37	230	T	T	16 03 35.7	
	baz=28,slow=76,SNR=10						
USRK	Ussuriysk Ar.	44.19	286	LR	LR	15 35 42.4	
	comp=Z,36nm,21.9s,baz=14,slow=36						
H11S1	WAKE ISLAND Hy	44.51	229	T	T	16 04 59.6	
	baz=28,slow=76,SNR=11						
H11S2	WAKE ISLAND Hy	44.53	229	T	T	16 04 59.8	
	baz=28,slow=76,SNR=11						
H11S3	WAKE ISLAND Hy	44.53	229	T	T	16 05 02.6	
	baz=28,slow=76,SNR=7.9						
MJAR	Matsushiro Arr	45.71	273	P	P	15 17 41.6	+0.2
	comp=Z,2.9nm,1.0s,baz=28,slow=6.8,SNR=2.7						
MJAR				LR	LR	15 42 41.0	
	comp=Z,7.0nm,18.4s,baz=89,slow=44						
	comp=Z,2.9nm,1.0s						
MJAR	Matsushiro Arr	45.71	273	IAmb	IAmb	15 17 57.5	
	comp=Z,5.7nm,1.4s						
SUMG	Summit	46.59	21	P	P	15 17 48.4	+0.1
JGF	Kuroka	46.86	273	P	P	15 17 51.2	+0.7
TX31	Lajitas Ar. Si	46.89	99	P	P	15 17 51.3	+0.5
TXAR	Lajitas Array	46.89	99	P	P	15 17 53.2	+2.3
	comp=Z,0.8nm,0.7s,baz=302,slow=6.0,SNR=7.2						
TXAR				LR	LR	15 35 27.2	
	comp=Z,95nm,20.1s,baz=272,slow=33						
	comp=Z,0.8nm,0.7s						
TXAR	Lajitas Array	46.89	99	P	P	15 17 50.5	-0.3
NRIK	Noril'sk	47.13	334	P	P	15 17 51.8	-0.3
	comp=Z,8.0nm,0.8s,baz=56,slow=7.3,SNR=8.7						
NRIK				LR	LR	15 38 58.5	
	comp=Z,69nm,18.4s,baz=59,slow=38						
	comp=Z,8.0nm,0.8s						
NRIK	Noril'sk	47.13	334	P	P	15 17 52.0	-0.1
LPIG	La Paz	47.23	110	LR	LR	15 34 48.1	
	comp=Z,61nm,18.1s,baz=167,slow=32						
SPITS	Spitsbergen Ar	47.33	1	P	P	15 17 53.6	0.0
	comp=Z,8.4nm,1.1s,baz=3.8,slow=8.5,SNR=5.9						
	comp=Z,8.4nm,1.1s						
SFJD	Kangerlussuaq	47.46	30	LR	LR	15 39 55.9	
	comp=Z,69nm,18.5s,baz=199,slow=39						
SFJD	Kangerlussuaq	47.46	30	P	P	15 17 54.7	+0.1
KSRS	Korea Array	50.99	282	P	P	15 18 22.4	+0.4
	comp=Z,4.4nm,0.8s,baz=53,slow=7.8,SNR=12						
KSRS				LR	LR	15 40 55.6	
	comp=Z,16nm,19.3s,baz=45,slow=37						
	comp=Z,4.4nm,0.8s						
JNU	Nakatsue	52.38	276	LR	LR	15 40 33.4	
	comp=Z,28nm,21.9s,baz=19,slow=36						
XLT	XiLinHaoTe	53.01	296	*e*P	P	15 18 37.8	+0.7
XLT				pmax	pmax		
	comp=Z,11nm,0.8s						
XLT				pmax	pmax		
	comp=Z,84nm,4.3s						
TLY	Talaya	53.66	310	LR	LR	15 41 37.3	

	comp=Z,39nm,20.1s,baz=20,slow=36						
SONM	Songino Array	55.10	305	P	P	15 18 52.6	+0.3
	comp=Z,2.7nm,0.7s,baz=49,slow=6.9,SNR=12						
SONM				LR	LR	15 45 00.6	
	comp=Z,72nm,18.1s,baz=70,slow=39						
	comp=Z,2.7nm,0.7s						
SONM	Songino Array	55.10	305	P	P	15 18 52.1	-0.2
SONM				IAmb	IAmb	15 18 53.7	
	comp=Z,5.2nm,1.2s						
KEV	Kevo	55.75	357	P	P	15 18 56.9	+0.4
ARCES	ARCESS Array B	56.01	358	P	P	15 18 58.8	+0.3
	comp=Z,3.1nm,0.7s,baz=14,slow=5.4,SNR=8.2						
	comp=Z,3.1nm,0.7s						
ARCES	ARCESS Array B	56.01	358	P	P	15 18 58.7	+0.3
HHC	Hu-ho-hao-te	57.53	296	*e*P	P	15 19 10.1	+0.4
HHC				pmax	pmax		
	comp=Z,14nm,0.6s						
HHC				pmax	pmax		
	comp=Z,91nm,4.4s						
HNS	HongShan	58.37	291	⇑P	P	15 19 16.4	+0.9
HNS				pmax	pmax		
	comp=Z,15nm,0.7s						
ZAA0	Zalesovo Array	59.54	322	P	P	15 19 22.7	-0.6
ZAA0				IAmb	IAmb	15 19 25.2	
	comp=Z,1.5nm,0.7s						
ZALV	Zalesovo Beam	59.54	322	P	P	15 19 22.9	-0.5
	comp=Z,1.3nm,0.5s,baz=18,slow=7.4,SNR=7.6						
ZALV				LR	LR	15 47 08.8	
	comp=Z,90nm,19.3s,baz=34,slow=38						
	comp=Z,1.3nm,0.5s						
ZALV	Zalesovo Beam	59.54	322	P	P	15 19 22.6	-0.8
FIA1	FINESS Array S	64.10	357	P	P	15 19 53.3	-0.6
FINES	FINESS Array B	64.10	357	P	P	15 19 54.1	+0.1
	comp=Z,1.9nm,0.5s,baz=17,slow=7.4,SNR=15						
	comp=Z,1.9nm,0.5s						
FINES	FINESS Array B	64.10	357	P	P	15 19 53.5	-0.4
NB2	NORSAR Subarra	64.34	5	P	P	15 19 56.1	+0.5
	comp=Z,1.9nm,0.8s,baz=356,slow=6.9						
NOA	NORSAR Array B	64.34	5	P	P	15 19 55.7	+0.2
	comp=Z,2.1nm,0.9s,baz=355,slow=6.6,SNR=5.5						
	comp=Z,2.1nm,0.9s						
KURK	Kurchatov	64.37	323	P	P	15 19 55.8	-0.1
KURK				IAmb	IAmb	15 19 57.2	
	comp=Z,4.5nm,1.1s						
KURBB	Kurchatov Arra	64.48	323	P	P	15 19 56.7	+0.1
	comp=Z,1.7nm,0.8s,baz=27,slow=6.5,SNR=6.9						
KURBB				LR	LR	15 50 41.8	
	comp=Z,77nm,18.5s,baz=178,slow=39						
	comp=Z,1.7nm,0.8s						
GTA2	Gaotai	64.52	303	*e*P	P	15 19 57.8	+0.6
GTA2				pmax	pmax		
	comp=Z,11nm,1.0s						
BVAR	Borovoye Array	65.03	329	P	P	15 20 00.5	+0.3
	comp=Z,3.2nm,0.7s,baz=36,slow=7.4,SNR=17						
BVAR				PcP	PcP	15 20 34.4	+1.4
	comp=Z,2.1nm,0.6s,baz=30,slow=1.2,SNR=5.1						
	comp=Z,3.2nm,0.7s						
BORK	Borovoye	65.03	330	P	P	15 19 59.7	-0.5
BORK				IAmb	IAmb	15 20 01.1	
	comp=Z,2.4nm,0.9s						
ARTI	Arti	65.08	338	LR	LR	15 50 56.8	
	comp=Z,48nm,19.2s,baz=351,slow=38						
ARTI	Arti	65.08	338	P	P	15 20 00.0	-0.4
HFS	Hagfors	65.36	4	P	P	15 20 02.5	+0.4
	comp=Z,3.5nm,0.7s,baz=27,slow=6.6,SNR=4.0						
	comp=Z,3.5nm,0.7s						
MK31	Makanchi Array	66.31	319	P	P	15 20 08.0	-0.6
MK31				IAmb	IAmb	15 20 09.3	
	comp=Z,2.5nm,0.8s						
MKAR	Makanchi Array	66.31	319	P	P	15 20 08.2	-0.4
	comp=Z,1.3nm,0.7s,baz=40,slow=6.2,SNR=8.2						
	comp=Z,1.3nm,0.7s						
MKAR	Makanchi Array	66.31	319	P	P	15 20 07.9	-0.7
MAKZ	Makanchi	66.42	319	P	P	15 20 08.5	-0.8
MAKZ				IAmb	IAmb	15 20 09.7	
	comp=Z,2.4nm,0.8s						
WMQ	Urumqi	66.58	313	*e*P	P	15 20 09.0	-1.4
WMQ				pmax	pmax		
	comp=Z,22nm,0.9s						
EKA	Eskdalemuir Ar	68.57	14	P	P	15 20 23.4	+0.8
	comp=Z,2.1nm,0.8s,baz=328,slow=7.8,SNR=3.9						
	comp=Z,2.1nm,0.8s						
AFI	Afiamalu	69.18	193	LR	LR	15 43 32.6	
	comp=Z,46nm,21.9s,baz=160,slow=30						
PABE	Paberze	70.11	358	P	P	15 20 32.5	+0.4
PDGK	Podgornoye	70.30	319	P	P	15 20 34.0	+0.2
AKTO	Aktyubinsk	70.68	336	LR	LR	15 55 40.0	
	comp=Z,36nm,18.2s,baz=124,slow=40						
AB31	Akbulak array	71.30	334		P	15 20 39.8	+0.3
AB31				IAmb	IAmb	15 20 40.6	
	comp=Z,3.9nm,0.8s						
ABKAR	Akbulak array	71.30	334		P	15 20 39.8	+0.3
BOOM	Boomskoye usch	72.35	320	P	P	15 20 46.5	+0.2
AAK	Ala-Archa	72.75	321	LR	LR	15 55 22.2	
	comp=Z,114nm,18.2s,baz=32,slow=38						
AAK	Ala-Archa	72.75	321		P	15 20 49.0	+0.4
AAK				IAmb	IAmb	15 20 50.6	
	comp=Z,8.7nm,1.4s						
NRN	Naryn	73.25	320	P	P	15 20 51.7	0.0
NRN				IAmb	IAmb	15 20 54.0	
	comp=Z,6.3nm,1.2s						
KK31	Karatay Array	73.74	324		P	15 20 54.2	0.0
KK31				IAmb	IAmb	15 20 55.7	
	comp=Z,6.2nm,0.9s						
KKAR	Karatay Array	73.74	324		P	15 20 54.2	0.0
CLL	Collm	74.14	5	*e*P	P	15 20 57.0	+0.6
ARSB	Arslanbob	74.45	322	P	P	15 20 58.5	0.0
ARSB				IAmb	IAmb	15 20 59.8	
	comp=Z,3.5nm,0.8s						
AKASG	Malin Array Be	74.71	354	P	P	15 20 59.5	-0.2
	comp=Z,4.9nm,0.7s,baz=6.5,slow=5.8,SNR=15						
AKASG				LR	LR	15 55 28.1	
	comp=Z,25nm,19.1s,baz=3.5,slow=37						
	comp=Z,4.9nm,0.7s						
AKBB	Malin Array Si	74.71	354		P	15 20 59.1	-0.6
KIEV	Kiev	74.72	354		P	15 20 59.1	-0.6
KIEV				IAmb	IAmb	15 21 00.6	
	comp=Z,7.6nm,0.8s						
KSH2	Kashi	75.40	319	P	P	15 21 05.4	+1.3
KSH2				pmax	pmax		
	comp=Z,11nm,0.7s						
BTK	Batken	76.33	323	P	P	15 21 09.2	-0.1
BTK				IAmb	IAmb	15 21 11.0	
	comp=Z,3.1nm,0.8s						
GERES	GERESS Array B	76.64	5	P	P	15 21 11.3	+0.5
	comp=Z,0.5nm,0.3s,baz=19,slow=3.5,SNR=4.1						
	comp=Z,0.5nm,0.3s						
GERES	GERESS Array B	76.64	5	P	P	15 21 10.9	0.0
BUR08	Bucovina Ar. S	77.94	357	P	P	15 21 18.1	-0.1
BUR08				IAmb	IAmb	15 21 25.8	
	comp=Z,9.7nm,1.5s						
BURAR	Bucovina Array	77.97	357	P	P	15 21 18.3	0.0
KBZ	Khabaz	80.13	344	P	P	15 21 30.5	+0.4
	comp=Z,4.5nm,0.9s,baz=14,slow=5.7,SNR=7.8						
KBZ				LR	LR	16 01 09.0	
	comp=Z,30nm,19.0s,baz=20,slow=39						
	comp=Z,4.5nm,0.9s						
CMAR	Chiang Mai Arr	81.75	290	P	P	15 21 40.0	+0.8
	comp=Z,2.6nm,0.9s,baz=16,slow=5.2,SNR=14						
CMAR				LR	LR	16 00 23.6	
	comp=Z,12nm,18.8s,baz=215,slow=38						
	comp=Z,2.6nm,0.9s						
CMAR	Chiang Mai Arr	81.75	290		P	15 21 39.4	+0.3
GNI	Garni	83.29	342	LR	LR	16 06 28.0	
	comp=Z,27nm,18.1s,baz=37,slow=41						
ESDC	Sonseca Array	83.62	19	P	P	15 21 50.1	+1.5
	comp=Z,4.4nm,1.0s,baz=338,slow=5.3,SNR=16						
ESDC				LR	LR	16 00 24.8	
	comp=Z,16nm,19.9s,baz=316,slow=37						
	comp=Z,4.4nm,1.0s						
ESDC	Sonseca Array	83.62	19		P	15 21 49.9	+1.2
BR131	Keskin Array S	85.28	350	P	P	15 21 56.0	-1.1
BR131				IAmb	IAmb	15 21 60.0	
	comp=Z,3.5nm,1.2s						
BRTR	Keskin Array B	85.28	350	P	P	15 21 57.9	+0.7
	comp=Z,0.6nm,0.6s,baz=28,slow=4.2,SNR=7.6						
	comp=Z,0.6nm,0.6s						
BRTR	Keskin Array B	85.28	350		P	15 21 57.0	-0.2
BNN	Bunyan	85.90	348		P	15 22 01.6	+1.4
QSPA	South Pole Qui	144.50	180	PKP	PKPdf	15 28 54.9	-0.3
	comp=Z,5.6nm,1.0s,baz=58,slow=1.8,SNR=28						
QSPA	South Pole Qui	144.50	180		PKPdf	15 28 55.1	-0.1

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*JMA **24** 15:13:09.4±0.2, 25°N±3°×122°.9E±0°.7, h113^{km}±1^{km}, MV2.3/13, NW OFF ISHIGAKIJIMA IS*

*TAP **24** 15:13:09.5, 24°.57N×122°.89E, h112^{km}, ML3.5, C*

ISC 24 15:13:09.9±1.5, **24°.58N**±0°.05×**122°.91E**±0°.03, **h110**^{km}±8^{km}, **n101**, σ**0^{s}.70**/152, **5C-1D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JYNG	Yonagunijimaku	0.13	165	P	Pn	15 13 25.2	+0.1
JYNG				S	Sn	15 13 36.8	+0.4
YOJ	Yonaguni jima	0.15	141	P	Pn	15 13 25.1	0.0
YOJ				S	Sn	15 13 36.5	0.0
YOJ	Yonaguni jima	0.15	141	P	Pn	15 13 25.2	0.0
YOJ				*e*S	Sn	15 13 36.5	0.0
EOS3	EOS3	0.61	242	P	Pn	15 13 28.0	+0.7
EOS3				S	Sn	15 13 41.8	+1.4
EOS2	EOS2	0.64	256	P	Pn	15 13 27.8	+0.2
EOS2				S	Sn	15 13 41.7	+0.9
EOS4	EOS4	0.70	230	P	Pn	15 13 28.1	+0.3
EOS4				S	Sn	15 13 41.8	+0.4
IRIF	Iriomote-Funau	0.79	108	P	Pn	15 13 29.0	0.0
TWC	Suao	0.96	272	⇓*i*P	Pn	15 13 30.2	-0.4
TWC				*i* S	Sn	15 13 45.4	-1.0
ESAO	Su ao	0.97	270	*e*P	Pn	15 13 30.5	-0.2
ESAO				*e*S	Sn	15 13 45.4	-1.0
EWUT	Wuta	1.04	263	*e*P	Pn	15 13 31.3	-0.1
EWUT				*e*S	Sn	15 13 47.3	-0.4
TIPB	Shuangxi	1.06	292	*e*P	Pn	15 13 31.4	-0.2
TIPB				*e*S	Sn	15 13 47.2	-1.0
JKRS	Kuro-shima	1.06	108	P	Pn	15 13 32.2	+0.5
JKRS				*e*S	Sn	15 13 48.5	+0.4
SXI1	Grass Mountain	1.07	299	P	Pn	15 13 31.7	-0.1
SXI1				S	Sn	15 13 48.4	0.0
ILA	Ilan	1.07	280	*e*P	Pn	15 13 32.1	+0.3
ILA				*e*S	Sn	15 13 48.1	-0.2
NDS	Dongshan	1.09	273	*e*P	Pn	15 13 31.7	-0.2
EAHA	Aohua	1.09	257	P	Pn	15 13 31.8	-0.2
EAHA				S	Sn	15 13 49.1	+0.3
WFSB	Wu-fen Shan	1.13	296	*e*P	Pn	15 13 32.8	+0.3
TWE	Neicheng	1.14	277	⇑*i*P	Pn	15 13 32.3	-0.2
JIJ	Ishigaki jima	1.15	101	P	Pn	15 13 32.6	0.0
FUSB	Fushanzhiwuyua	1.21	279	P	Pn	15 13 33.3	-0.1
FUSB				S	Sn	15 13 50.5	-0.7
ETL	Fush Village	1.24	251	P	Pn	15 13 33.3	-0.5
ETL				S	Sn	15 13 51.3	-0.5
LATG	Datong	1.26	268	P	Pn	15 13 33.9	-0.1
LATG				S	Sn	15 13 51.9	-0.3
NACB	Ninganchiao	1.26	252	P	Pn	15 13 33.1	-0.8
NACB				S	Sn	15 13 51.6	-0.5
TWA	Mucha	1.27	289	*i* P	Pn	15 13 34.0	0.0
TWA				*i* S	Sn	15 13 51.6	-0.6
NDT	Datong Townshi	1.27	271	*e*P	Pn	15 13 34.4	+0.4
NDT				*e*S	Sn	15 13 52.3	0.0
JISG	Ishigakijimahi	1.28	89	P	Pn	15 13 33.9	-0.2
JISG				S	Sn	15 13 51.4	-1.0
PCYT	Pengchaiyu	1.29	324	P	Pn	15 13 34.4	+0.2
NWLT	Wulai	1.29	279	*e*P	Pn	15 13 34.3	0.0
NWLT				*e*S	Sn	15 13 52.1	-0.7
NHDH	Xindian Distri	1.31	287	*e*S	Sn	15 13 52.3	-0.8
HWA	Hwalien	1.33	243	P	Pn	15 13 34.5	-0.1
HWA				*e*S	Sn	15 13 54.0	+0.5
YM01	YM01	1.34	295	*e*P	Pn	15 13 34.9	+0.1
YM08	YM08	1.34	297	*e*P	Pn	15 13 35.1	+0.3
ETLH	Xiulin Townshi	1.35	254	P	Pn	15 13 34.8	-0.2
ETLH				S	Sn	15 13 53.6	-0.5
ZUZH	Zhuzihu	1.37	295	*e*P	Pn	15 13 34.4	-0.8
ZUZH				*e*S	Sn	15 13 53.9	-0.4
TEYL	Yanliau Villag	1.39	240	*e*S	Sn	15 13 55.0	+0.3
NNSB	Datong	1.40	264	P	Pn	15 13 35.1	-0.5
NNSB				*e*S	Sn	15 13 54.0	-1.0
YHNB	Yeheng	1.40	274	P	Pn	15 13 35.7	+0.1
YHNB				S	Sn	15 13 54.6	-0.4
NNS	Nan Shan	1.40	265	*i* P	Pn	15 13 35.5	-0.2
NNS				*i* S	Sn	15 13 55.0	-0.2
NSK	Sanguang	1.41	274	P	Pn	15 13 35.8	0.0
NSK				S	Sn	15 13 54.8	-0.5
ETM	Tongmen	1.43	245	P	Pn	15 13 35.3	-0.6
ETM				S	Sn	15 13 54.5	-1.1
NTST	Danshui	1.45	294	*e*S	Sn	15 13 56.4	+0.5
SHUL	Shoufeng	1.46	238	P	Pn	15 13 36.0	-0.1
SHUL				*e*S	Sn	15 13 55.9	-0.3
LXIB	Xiulin Townshi	1.47	248	⇑P	Pn	15 13 35.8	-0.7
LXIB				S	Sn	15 13 56.2	-0.5
ESL	Shilin	1.55	241	*i* P	Pn	15 13 36.8	-0.4
ESL				*i* S	Sn	15 13 56.8	-1.2
FUSS	Fushou	1.55	258	*e*P	Pn	15 13 37.5	-0.1
FUSS				*e*S	Sn	15 13 58.7	+0.2
WHF	Hehuan Shan	1.56	254	*i* P	Pn	15 13 37.6	-0.2
WHF				*i* S	Sn	15 13 57.8	-1.1
KSHI	Guanxi Townshi	1.59	277	P	Pn	15 13 38.0	+0.3
KSHI				*e*S	Sn	15 13 59.7	+0.8
TWT	Tachien	1.61	259	*e*P	Pn	15 13 39.1	+0.9
TWT				*e*S	Sn	15 14 00.0	+0.3
NCUH	Zhongli	1.61	284	*e*P	Pn	15 13 38.6	+0.6
TDCB	Techi	1.63	259	P	Pn	15 13 38.8	+0.5
TDCB				*e*S	Sn	15 13 59.1	-0.9
NFF	Wufeng Townshi	1.63	272	*e*P	Pn	15 13 38.1	-0.2
NFF				*e*S	Sn	15 13 59.3	-0.6
WARBT	Fenglin Townsh	1.63	239	*e*P	Pn	15 13 37.7	-0.6
WARBT				*e*S	Sn	15 13 58.6	-1.3
OWD	Renai	1.70	249	*e*P	Pn	15 13 39.1	-0.1
OWD				*e*S	Sn	15 14 00.3	-1.2
LIOB	Emei	1.72	273	*e*P	Pn	15 13 39.6	+0.2
HGSD	Ruisui	1.73	232	*e*P	Pn	15 13 39.7	+0.2
HGSD				*e*S	Sn	15 14 01.7	-0.4
WUSB	Renai	1.73	251	⇑P	Pn	15 13 39.8	+0.2
WUSB				*e*S	Sn	15 14 01.8	-0.6
NSTT	Nanjuang	1.74	272	*i* P	Pn	15 13 39.6	0.0
NSTT				*i* S	Sn	15 14 01.7	-0.5
EHYH	Wanrong	1.79	233	*e*P	Pn	15 13 40.7	+0.4
EHYH				*e*S	Sn	15 14 03.5	+0.1
EHY	Hungye	1.80	234	*e*P	Pn	15 13 39.6	-0.8
VWDT	VWDT	1.81	243	⇑P	Pn	15 13 40.6	+0.1
VWDT				*e*S	Sn	15 14 03.4	-0.3
WHP	Taichung City	1.81	261	*e*P	Pn	15 13 42.1	+1.5
ECBN	Changbin	1.83	227	*e*P	Pn	15 13 40.9	+0.2
YULB	Yu-li	1.89	232	⇑P	Pn	15 13 40.9	-0.6
YULB				*e*S	Sn	15 14 04.7	-0.9
WCS	Beigang Elemen	1.89	254	*e*P	Pn	15 13 42.7	+1.2
WCS				*e*S	Sn	15 14 06.7	+1.1
EYUL	Yuli	1.90	230	*e*P	Pn	15 13 41.3	-0.3
TWF1	Yuli	1.91	231	P	Pn	15 13 41.3	-0.5
TWF1				S	Sn	15 14 05.0	-1.1
SSLB	Suanglung	1.95	247	*e*P	Pn	15 13 42.3	0.0
TWQ1	Liyutan	1.96	264	P	Pn	15 13 42.7	+0.4
TWQ1				S	Sn	15 14 07.1	0.0
SMLT	Sun Moon Lake	1.96	250	P	Pn	15 13 43.2	+0.8
TYC	Yuchr	1.99	251	*e*P	Pn	15 13 43.9	+1.2
FULB	Fuli	2.02	227	*e*P	Pn	15 13 43.4	+0.2
CHKT	Chengkung	2.04	224	P	Pn	15 13 42.5	-0.8
WHYT	Xinyi Township	2.07	245	*e*P	Pn	15 13 45.0	+1.1
YUS	Yu-Shan	2.09	239	*e*P	Pn	15 13 44.8	+0.3
EHD	Haiduan	2.11	228	*e*P	Pn	15 13 43.9	-0.4
ECS	Chishang	2.14	227	*e*P	Pn	15 13 45.5	+0.9
ALS	Alishan	2.20	241	P	Pn	15 13 46.7	+1.0
JMJ2	Miyako jima3	2.21	85	P	Pn	15 13 45.8	+0.2
JMJ2				*e*S	Sn	15 14 12.4	-0.4
ELDTW	Lidau	2.22	232	P	Pn	15 13 45.5	-0.2
CHN5	Tsauling	2.26	245	*e*P	Pn	15 13 47.8	+1.5
LONT	Longtian	2.33	225	*e*P	Pn	15 13 47.0	-0.1
WDLH	Douliu	2.34	248	*e*P	Pn	15 13 48.3	+1.1
WCKO	Fanlu	2.39	242	*e*P	Pn	15 13 49.2	+1.3
STYH	Taoyuan	2.40	235	*e*P	Pn	15 13 49.0	+1.0
WRL	Guolierlin Hig	2.41	254	*e*P	Pn	15 13 48.0	-0.1
TWGBT	Beinan	2.42	224	*e*P	Pn	15 13 47.4	-0.9
TWG	Pinlang	2.43	224	*e*P	Pn	15 13 47.7	-0.6
TPUB	Ta-pu	2.44	239	*e*P	Pn	15 13 49.7	+1.1
CHN4	Tsaushan	2.44	240	*e*P	Pn	15 13 50.2	+1.6
WTP	Ta-pu	2.48	238	P	Pn	15 13 50.1	+1.0
TWK	Hsinying	2.57	240	*e*P	Pn	15 13 51.8	+1.5
CHN1	Nanshi	2.58	238	*e*P	Pn	15 13 51.8	+1.4
SGST	Jiashian	2.60	235	*e*P	Pn	15 13 51.3	+0.7
ECL	Taimali	2.67	223	*e*P	Pn	15 13 50.3	-1.2
WSL	Shuilin Townsh	2.67	247	*e*P	Pn	15 13 51.9	+0.4
SSD	Sandimen	2.77	229	*e*P	Pn	15 13 54.8	+1.9
SCST	Cishan	2.78	233	*e*P	Pn	15 13 54.4	+1.4
TSMG	Majia	2.79	228	*e*P	Pn	15 13 54.8	+1.6
MASBT	Mashibuluo	2.86	227	*e*P	Pn	15 13 54.8	+0.7
EAST	Anshuo	2.89	221	*e*P	Pn	15 13 54.5	0.0
SLIU	Shizi	3.05	220	*e*P	Pn	15 13 56.7	+0.1

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*TIR **24** 15:34:04.9, 41°.08N×19°.72E, h38^{km}±2^{km}, Ml3.5/6*

*SKO **24** 15:34:06.2, 40°.96N×19°.79E, h11^{km}, ML3.3*

*THE **24** 15:34:06.2, 41°N±11°×2°0E±1°3, h0^{km}±13^{km}, M3.3/13, MLh3.3/13*

*BEO **24** 15:34:06.6±0.4, 40°.99N×19°.74E, h14^{km}±3^{km}, ML3.1/19*

*PRU **24** 15:34:07.9, 40°.69N×19°.01E, h10^{km}*

*PDG **24** 15:34:08.3±0.1, 41°.06N×19°.45E, h20^{km}, MD3.5/1, ML3.4/12, Error ellipse: s-maj=0.3km s-min=0.7km az=0.0*

ISC 24 15:34:06.1±1.0, **41°.03N**±0°.02×**19°.77E**±0°.02, **h12**^{km}±9^{km}, **n136**, σ**1^{s}.03**/183, **16C-11D, Albania**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TIR	Tirane	0.33	13	⇓Pg	Pg	15 34 12.0	-0.7
TIR				Sg	Sb	15 34 19.8	+0.6
TIR				AML	AML	15 34 24.4	
	13nm,0.6s						
VLO	Vlora	0.59	200	Pg	Pg	15 34 18.2	+0.5
VLO				Sg	Sn	15 34 29.7	-0.1
VLO				AML	AML	15 34 31.8	
	26nm,0.5s						
VLO	Vlora	0.59	200	P	Pg	15 34 18.2	+0.5
VLO				S	Sb	15 34 27.3	+0.5
VLO				AML	AML		
OHR	Ohrid	0.79	84	*i* Pg	Pg	15 34 20.1	-1.2
OHR				*i* Sg	Sg	15 34 31.7	+0.1
OHR				*e*Lg	Lg	15 34 32.0	
	comp=N,708nm,0.6s						
OHR				*e*Lg	Lg	15 34 34.5	
	comp=E,2µm,0.7s						
PHP	Peshkopia	0.83	38	Pg	Pg	15 34 20.7	-1.5
PHP				Sg	Sg	15 34 32.7	-0.3
PHP				AML	AML	15 34 36.8	
	comp=E,4.7nm,0.6s						
PHP	Peshkopia	0.83	38	P	Pg	15 34 20.5	-1.6
PHP				S	Sg	15 34 33.1	0.0
KBN	Korca	0.87	117	⇓Pg	Pg	15 34 21.1	-1.9
KBN				Sg	Sg	15 34 34.6	+0.2
KBN	Korca	0.87	117	P	Pg	15 34 20.9	-2.1
KBN				S	Sg	15 34 33.0	-1.4
KBN				AML	AML		
ULC	Ulcinj	1.01	337	⇓*i*Pg	Pb	15 34 25.5	-0.1
ULC				*i* Sg	Sn	15 34 40.0	-0.3
ULC				AML	AML		
SDA	Shkodra	1.04	349	Pn	Pn	15 34 26.9	+0.4
SDA				Sn	Sn	15 34 43.9	+2.9
SDA				AML	AML	15 34 46.8	
	comp=E,1.8nm,0.4s						
SRN	Sarande	1.16	171	Pg	Pb	15 34 28.4	+0.4
SRN				Sg	Sg	15 34 46.7	+3.2
SRN	Sarande	1.16	171	P	Pn	15 34 28.3	+0.2
DRME	Dracevica, Mon	1.24	340	*e*Pn	Pg	15 34 30.1	+0.2
DRME	Dracevica, Mon	1.24	340	⇓*i*Pg	Pg	15 34 30.0	+0.2
DRME				*i* Sg	Sg	15 34 47.8	+1.8
DRME				AML	AML		
KEK	Kerkira	1.31	179	Pn	Pn	15 34 29.5	-0.8
KEK				Pn	Pn	15 34 29.5	-0.8
KEK				Sn	Sn	15 34 47.9	+0.2
KEK				Sn	Sg	15 34 48.4	0.0
KEK	Kerkira	1.31	179	P	Pn	15 34 29.7	-0.6
KEK				AML	AML		
PENT	Pentalofos	1.33	128	P	Pn	15 34 29.8	-0.9
PENT				AML	AML		
BUM	Brajici-Budva	1.43	333	⇑*i*Pg	Pb	15 34 32.7	0.0
BUM				*i* Sg	Sg	15 34 52.1	0.0
BUM				AML	AML		
PDG	Podgorica	1.45	345	Pn	Pb	15 34 33.3	+0.3
PDG				Sn	Sn	15 34 50.7	-0.4
PDG	Podgorica	1.45	345	*e*Pg	Pb	15 34 33.8	+0.8
PDG				*e*Sg	Sg	15 34 54.2	+1.4
PDG	Podgorica	1.45	345	⇓P	Pg	15 34 34.1	+0.2
PDG	Podgorica	1.45	345	*e*Pn	Pb	15 34 33.4	+0.3
PDG	Podgorica	1.45	345	⇓*i*Pg	Pb	15 34 33.6	+0.6
PDG				*i* Sg	Sg	15 34 53.6	+0.8
PDG				AML	AML		
IGT	Igoumenitsa	1.56	164	Pn	Pb	15 34 35.3	+0.5
IGT				Sn	Sb	15 34 55.3	+0.9
IGT	Igoumenitsa	1.56	164	P	Pn	15 34 34.6	+1.0
IGT				AML	AML		
IGT	Igoumenitsa	1.56	164	*e*Pg	Pn	15 34 33.9	+0.3
IGT				*e*Sg	Sb	15 34 55.6	+1.2
PVY	Plav	1.57	5	⇑*i*Pn	Pb	15 34 36.1	+0.9
PVY				*i* Sn	Sg	15 34 58.5	+1.8
PVY				AML	AML		
SKO	Skopje	1.57	53	*i* Pg	Pn	15 34 35.0	+1.3
SKO				*i* Sg	Sg	15 34 57.1	+0.4
LFKM	Lefkimmi	1.60	172	P	Pn	15 34 35.0	+1.0
JAN	Janina	1.60	148	P	Pn	15 34 35.3	+1.0
JAN				AML	AML		
KPRO	Kipourio	1.62	131	P	Pn	15 34 34.4	-0.1
KPRO				AML	AML		
CEME	Cevo	1.65	338	⇑*i*Pg	Pn	15 34 35.7	+0.8
CEME				*i* Sg	Sb	15 34 57.2	+0.1
CEME				AML	AML		
KZN	Kozani	1.69	115	P	Pn	15 34 35.6	+0.1
KZN				AML	AML		
HCY	Herceg Novi	1.71	327	*e*Pn	Pn	15 34 35.3	-0.4
HCY	Herceg Novi	1.71	327	⇑*i*Pg	Pn	15 34 35.9	+0.2
HCY				*i* Sg	Sn	15 34 57.8	+0.4
HCY				AML	AML		
NKME	Niksic	1.84	341	⇑*i*Pn	Pn	15 34 38.7	+1.2
NKME				*i* Sn	Sb	15 35 02.3	-0.4
NKME				AML	AML		
IVA	Berane	1.84	3	⇓*i*Pn	Pb	15 34 39.9	+0.1
IVA				*i* Sn	Sg	15 35 04.7	-0.7
IVA				AML	AML		
TREB	Trebinje	1.99	328	*e*Pn	Pn	15 34 39.7	+0.1
TREB	Trebinje	1.99	328	*e*Pn	Pn	15 34 38.5	-1.1
GRG	Griva	2.00	91	P	Pn	15 34 39.6	0.0
GRG				AML	AML		
DBRK	Dubrovnik	2.04	324	*e*Pn	Pn	15 34 39.9	-0.3
DBRK				Sn	Sn	15 35 05.9	+0.3
TETR	Tetrakomo, Epi	2.04	145	P	Pn	15 34 41.3	+0.9
TETR				AML	AML		
NOCI	Noci	2.06	264	Pn	Pn	15 34 39.8	-0.7
NOCI				Sn	Sn	15 35 05.9	-0.3
NOCI				AML	AML	15 35 15.2	
	comp=E,3.8nm,0.3s						
BRY	Bratogost	2.08	334	*e*Pn	Pn	15 34 41.3	+0.3
BRY	Bratogost	2.08	334	⇓*i*Pn	Pn	15 34 41.5	+0.5
BRY				*i* Sn	Sn	15 35 07.4	+0.5
BRY				AML	AML		
SJES	Sjenica	2.24	4	*e*Pn	Pb	15 34 45.2	-1.3
SJES	Sjenica	2.24	4	*e*Pn	Pb	15 34 45.2	-1.3
THL	Klokotos Trika	2.26	130	⇓Pn	Pn	15 34 44.2	+1.0
THL				Sn	Sn	15 35 12.1	+1.2
THL	Klokotos Trika	2.26	130	P	Pn	15 34 43.7	+0.6
UPM	Unac-Piva	2.27	344	*e*Pn	Pn	15 34 44.6	+1.1
UPM	Unac-Piva	2.27	344	⇓*i*Pn	Pn	15 34 45.0	+1.5
UPM				*i* Sn	Sn	15 35 12.9	+1.4
UPM				AML	AML		
TYRN	Tyrnavos	2.30	124	P	Pn	15 34 44.4	+0.7
TYRN				AML	AML		
PLE	Pljevlja	2.32	353	⇑*i*Pn	Pn	15 34 46.3	+2.1
PLE				*i* Sn	Sb	15 35 15.2	-1.3
PLE				AML	AML		
BARS	Barje	2.35	40	*e*Pn	Pn	15 34 45.6	+1.1
MATE	Matera	2.35	262	⇑P	Pn	15 34 45.4	+0.9
STON	Ston	2.40	321	*e*Pn	Pn	15 34 44.8	-0.4
STON				Sn	Sn	15 35 13.9	-0.6
STON	Ston	2.40	321	*e*Pn	Pn	15 34 44.9	-0.3
SELS	Selova	2.41	24	*e*Pn	Pn	15 34 46.8	+1.5
NYDR	Nydri-Lefkada	2.42	162	P	Pn	15 34 45.0	-0.4
NYDR				AML	AML		
DRAG	Dragano-Lefkad	2.42	165	P	Pn	15 34 44.8	-0.7
BOSS	Bosilegrad	2.50	53	*e*Pn	Pn	15 34 47.7	+1.1
IVAS	Ivanjica	2.56	6	*e*Pn	Pn	15 34 48.3	+0.8
GOCS	Kraljevo Serbi	2.66	18	*e*Pn	Pn	15 34 50.3	+1.4
LSTV	Lastovo	2.76	310	*e*Pn	Pn	15 34 49.8	-0.3
LSTV				Sn	Sn	15 35 22.7	-0.6
BBLS	Lazi&#263i	2.85	355	*e*Pn	Pn	15 34 52.7	+1.3
BBLS	Lazi&#263i	2.85	355	*e*Pn	Pn	15 34 52.1	+0.7
SRS	Serrai	2.89	87	*e*Pn	Pn	15 34 52.3	+0.3
GRUS	Gruza	2.94	13	*e*Pn	Pn	15 34 53.2	+0.6
TIP	Timpagrande	2.96	232	Pn	Pn	15 34 51.9	-0.9
TIP	Timpagrande	2.96	232	⇑P	Pn	15 34 53.3	+0.4
BOVS	Bovan	2.98	28	*e*Pn	Pn	15 34 53.9	+0.8
BOVS	Bovan	2.98	28	⇑P	Pn	15 34 54.4	+1.3
VTS	Vitosha	3.04	57	*e*Pn	Pn	15 34 54.5	+0.4
MAKA	Makarska	3.04	319	*e*Pn	Pn	15 34 53.8	-0.2

MAKA				Sn	**Sn**	**15 35 29.5**	**-0.8**
DIVS	**Divibare**	**3.07**	**3**	*e*Pn	**Pn**	**15 34 55.2**	**+0.7**
ZAPS	**Zavoj**	**3.10**	**43**	*e*Pn	**Pn**	**15 34 56.0**	**+1.2**
SGRT	**San Giovanni R**	**3.11**	**285**	Pn	**Pn**	**15 34 54.5**	**-0.5**
SGRT				Sn	**Sn**	**15 35 26.9**	**-5.3**
SGRT				AML	AML	15 35 35.5	
	comp=E,0.5nm,0.2s						
RICI	**Ricice**	**3.15**	**322**	*i* Pn	**Pn**	**15 34 55.7**	**+0.3**
RICI				Sn	**Sn**	**15 35 32.3**	**-0.6**
CUC	**Castrocucco**	**3.18**	**252**	Pn	**Pn**	**15 34 55.8**	**-0.2**
CUC				Sn	**Sn**	**15 35 34.1**	**+0.2**
TRUS	**Trudelj**	**3.23**	**8**	*e*Pn	**Pn**	**15 34 57.4**	**+0.8**
HVAR	**Hvar**	**3.27**	**312**	*i* Pn	**Pn**	**15 34 56.6**	**-0.5**
HVAR				Sn	**Sn**	**15 35 34.4**	**-1.6**
ZAGS	**Zajecar**	**3.33**	**32**	*e*Pn	**Pn**	**15 34 58.6**	**+0.7**
BLKB	**Belogradchik**	**3.37**	**39**	*e*Pn	**Pn**	**15 35 00.1**	**+1.5**
BORS2	**Bor- Borsko je**	**3.48**	**28**	*e*Pn	**Pn**	**15 34 59.4**	**-0.7**
TEKS	**Tekeris**	**3.52**	**357**	*e*Pn	**Pn**	**15 35 00.7**	**+0.1**
TEKS	**Tekeris**	**3.52**	**357**	*e*Pn	**Pn**	**15 35 00.5**	**-0.1**
KUBS	**Kucevo**	**3.66**	**22**	*e*Pn	**Pn**	**15 35 02.0**	**-0.5**
AVAS	**Avala Beograd**	**3.71**	**8**	*e*Pn	**Pn**	**15 35 03.4**	**+0.3**
KIJV	**Kijevo**	**3.88**	**321**	*e*Pn	**Pn**	**15 35 06.0**	**+0.6**
KIJV				Sn	**Sn**	**15 35 50.6**	**-0.3**
MDVR	**Moldovita**	**4.01**	**20**	*e*Pn	**Pn**	**15 35 07.8**	**+0.4**
MDVR	**Moldovita**	**4.01**	**20**	⇑P	**Pn**	**15 35 08.9**	**+1.5**
FRGS	**Fruska Gora**	**4.13**	**0**	*e*Pn	**Pn**	**15 35 08.9**	**0.0**
FRGS	**Fruska Gora**	**4.13**	**0**	*e*Pn	**Pn**	**15 35 08.9**	**0.0**
MORI	**Morici**	**4.13**	**315**	*e*Pn	**Pn**	**15 35 09.7**	**+0.7**
MORI				Sn	**Sn**	**15 35 55.6**	**-1.5**
BLY	**Banja Luka**	**4.17**	**334**	⇑P	**Pn**	**15 35 11.1**	**+1.5**
BLY	**Banja Luka**	**4.17**	**334**	*e*Pn	**Pn**	**15 35 10.0**	**+0.5**
VRSS	**Vrsac**	**4.25**	**15**	*e*Pn	**Pn**	**15 35 12.0**	**+1.4**
HERR	**Herculane**	**4.31**	**26**	⇑P	**Pn**	**15 35 12.3**	**+0.8**
DUGI	**Dugi Otok**	**4.57**	**312**	*i* Pn	**Pn**	**15 35 15.3**	**+0.4**
DUGI				Sn	**Sn**	**15 36 06.0**	**-1.9**
UDBI	**Udbina**	**4.57**	**321**	*e*Pn	**Pn**	**15 35 16.2**	**+1.1**
UDBI				Sn	**Sn**	**15 36 07.6**	**-0.5**
VIRC	**Vir**	**4.76**	**315**	*e*Pn	**Pn**	**15 35 18.0**	**+0.4**
VIRC				Sn	**Sn**	**15 36 10.8**	**-1.9**
BZS	**Buzias**	**4.78**	**16**	*e*Pn	**Pn**	**15 35 18.8**	**+0.9**
BZS	**Buzias**	**4.78**	**16**	⇓P	**Pn**	**15 35 19.0**	**+1.2**
GZR	**Gura Zlata**	**4.89**	**26**	*e*Pn	**Pn**	**15 35 20.4**	**+1.0**
GZR	**Gura Zlata**	**4.89**	**26**	⇑P	**Pn**	**15 35 21.1**	**+1.7**
AQU	**L'Aquila**	**4.95**	**288**	*e*Pn	**Pn**	**15 35 20.4**	**+0.2**
SURR	**Surduc**	**5.03**	**19**	⇑P	**Pn**	**15 35 22.6**	**+1.3**
NVLJ	**Novalja**	**5.04**	**316**	*e*Pn	**Pn**	**15 35 21.6**	**+0.1**
NVLJ				Sn	**Sn**	**15 36 17.8**	**-1.9**
MOSL	**Moslavina**	**5.08**	**335**	*e*Pn	**Pn**	**15 35 22.1**	**0.0**
RABC	**Rab**	**5.22**	**317**	*e*Pn	**Pn**	**15 35 23.8**	**-0.1**
RABC				Sn	**Sn**	**15 36 22.0**	**-1.9**
MORH	**Mrgy, Hungar**	**5.25**	**351**	⇑P	**Pn**	**15 35 26.4**	**+2.1**
MORH	**Mrgy, Hungar**	**5.25**	**351**	*e*Pn	**Pn**	**15 35 24.0**	**-0.3**
OZLJ	**Ozalj**	**5.55**	**327**	*e*Pn	**Pn**	**15 35 29.2**	**+0.7**
BOJS	**Bojanci**	**5.56**	**325**	*e*Pn	**Pn**	**15 35 29.0**	**+0.5**
CRES	**Cresnjevec Ost**	**5.73**	**328**	*i* Pn	**Pn**	**15 35 31.1**	**+0.2**
GBRS	**Gornja Briga**	**5.77**	**323**	*i* Pn	**Pn**	**15 35 32.3**	**+0.8**
VOIR		**5.86**	**39**	⇑P	**Pn**	**15 35 33.8**	**+1.1**
CEY	**Cerknica**	**6.11**	**322**	*e*Pn	**Pn**	**15 35 36.4**	**+0.3**
SKDS	**Skadanscina**	**6.16**	**319**	*e*Pn	**Pn**	**15 35 36.3**	**-0.6**
VOJS	**Vojsko**	**6.58**	**321**	*e*Pn	**Pn**	**15 35 42.5**	**-0.1**
SOKA	**Soboth**	**6.60**	**330**	*i* Pn	**Pn**	**15 35 43.2**	**+0.2**
	comp=E,3.2nm,0.3s						
OBKA	**Obir**	**6.65**	**327**	*i* Pn	**Pn**	**15 35 44.1**	**+0.5**
	comp=E,2.7nm,0.2s						
ARSA	**Arzberg**	**6.93**	**335**	*e*Pn	**Pn**	**15 35 47.7**	**+0.3**
	comp=E,1.9nm,0.4s						
RONA	**Rosalia, Austr**	**7.12**	**341**	*e*Pn	**Pn**	**15 35 50.6**	**+0.6**
	comp=E,0.9nm,0.3s						
MYKA	**Terra Mystica**	**7.14**	**324**	*e*Pn	**Pn**	**15 35 50.8**	**+0.5**
	comp=E,1.4nm,0.3s						
CONA	**Conrad Observa**	**7.44**	**339**	*e*Pn	**Pn**	**15 35 55.9**	**+1.5**
	comp=E,0.5nm,0.2s						
KBA	**Koelnbreinsper**	**7.61**	**325**	*i* Pn	**Pn**	**15 35 57.2**	**+0.3**
	comp=E,1.1nm,0.3s						
ABTA	**Abfaltersbach**	**7.75**	**320**	*i* Pn	**Pn**	**15 35 58.6**	**-0.2**
	comp=E,3.6nm,0.2s						
MOA	**Molln**	**7.87**	**332**	*i* Pn	**Pn**	**15 36 02.1**	**+1.7**
	comp=E,2.8nm,0.4s						
LESA	**Schwarzleotal**	**8.17**	**324**	*e*Pn	**Pn**	**15 36 04.7**	**+0.2**
	comp=E,3.0nm,0.4s						
WTTA	**Wattenberg**	**8.54**	**320**	*i* Pn	**Pn**	**15 36 10.8**	**+1.1**
	comp=E,16nm,0.3s						
WATA	**Walderalm**	**8.62**	**320**	*i* Pn	**Pn**	**15 36 11.4**	**+0.6**
	comp=E,9.2nm,0.5s						
SQTA	**Sankt Quirin**	**8.72**	**318**	*e*Pn	**Pn**	**15 36 12.9**	**+0.7**
	comp=E,3.7nm,0.2s						
FETA	**Feichten**	**8.84**	**316**	*e*Pn	**Pn**	**15 36 14.6**	**+0.8**
	comp=E,0.7nm,0.3s						
MOTA	**Moosalm**	**8.86**	**318**	*i* Pn	**Pn**	**15 36 14.8**	**+0.7**
	comp=E,2.7nm,0.3s						
KHC	**Kasperske Hory**	**9.21**	**334**	*e*SN	**Sn**	**15 38 01.5**	**-0.6**

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*HEL **24** 15:48:44.5±0.3, 61°.08N×29°.90E, h0^{km}, ML1.7, Explosion*
*IDC **24** 15:48:50.2±4.3, 61°.19N×29°.49E, h0^{km}, mbtmp3.6/2, ML2.1/2, Error ellipse: s-maj=44.7km s-min=23.6km az=149.0*
ISC 24 15:48:44.2±1.2**, 61°.15N**±0°.05×**29°.81E**±0°.05**, h0^{km}, n22, σ1^{s}.30**/32**, Finland-Karelia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RUF	**Ruokolahti**	**0.50**	**304**	PG	**Pb**	**15 48 55.3**	**-0.6**
RUF				SG	**Sb**	**15 49 02.7**	**-1.0**
RUF				smax	smax	15 49 02.9	
	comp=Z,6.2nm,0.2s						
VJF	**Virojoki**	**1.26**	**242**	PG	**Pg**	**15 49 07.9**	**-0.5**
	baz=64						
VJF				smax	smax	15 49 22.9	
	comp=Z,6.7nm,0.2s						
VJF				SN	**Sn**	**15 49 29.2**	**+2.5**
FIA0	**FINESS Array S**	**1.82**	**281**	PG	**Pb**	**15 49 18.0**	**-0.4**
FIA0				smax	smax	15 49 40.5	
	comp=Z,3.7nm,0.2s						
FIA0				SG	**Sg**	**15 49 43.4**	**+0.6**
FINES	**FINESS Array B**	**1.82**	**281**	Pg	**Pg**	**15 49 18.5**	**-0.6**
	comp=Z,0.2nm,0.3s,baz=105,slow=16,SNR=23						
FINES				Lg	Lg	15 49 42.9	
	comp=Z,0.9nm,0.3s,baz=98,slow=25,SNR=16						
JOF	**Joensuu**	**1.91**	**21**	*e*P	**Pb**	**15 49 19.6**	**-0.3**
JOF	**Joensuu**	**1.91**	**21**	PB	**Pb**	**15 49 19.2**	**-0.8**
	baz=198						
JOF				SG	**Sb**	**15 49 44.4**	**0.0**
KAF	**Kangasniemi**	**1.93**	**302**	PG	**Pg**	**15 49 21.0**	**-0.2**
KAF				smax	smax	15 49 44.1	
	comp=Z,4.7nm,0.2s						
KAF				SG	**Sg**	**15 49 46.5**	**+0.3**
PVF	**Pernaja**	**2.02**	**254**	PG	**Pb**	**15 49 21.0**	**-0.8**
PVF				smax	smax	15 49 45.4	
	comp=Z,8.8nm,0.2s						
SUF	**Sumiainen**	**2.34**	**314**	*e*P	**Pb**	**15 49 27.6**	**+0.3**
SUF	**Sumiainen**	**2.34**	**314**	PG	**Pb**	**15 49 27.5**	**+0.3**
SUF				smax	smax	15 49 56.0	
	comp=Z,1.8nm,0.2s						
SUF				SG	**Sg**	**15 49 58.9**	**-0.4**
NIF	**Nilsia**	**2.44**	**338**	PB	**Pb**	**15 49 28.5**	**-0.4**
NIF				smax	smax	15 49 58.9	
	comp=Z,1.6nm,0.2s						
NIF				SG	**Sg**	**15 50 00.7**	**-1.8**
KEF	**Keuruu**	**2.57**	**296**	*e*P	**Pb**	**15 49 30.2**	**-0.9**
KEF	**Keuruu**	**2.57**	**296**	PB	**Pb**	**15 49 30.2**	**-0.9**
KEF				smax	smax	15 50 02.2	
	comp=Z,1.3nm,0.2s						
KEF				SG	**Sg**	**15 50 04.2**	**-2.4**
NUR	**Nurmijarvi**	**2.61**	**258**	PG	**Pb**	**15 49 31.6**	**-0.1**
NUR				smax	smax	15 50 02.2	
	comp=Z,2.7nm,0.2s						
HEL1	**Helsinki**	**2.61**	**250**	PN	**Pn**	**15 49 27.9**	**+0.3**
HEL1				SN	**Sn**	**15 49 59.2**	**-0.8**
HEL1				smax	smax	15 50 02.0	
	comp=Z,2.7nm,0.2s						
LAUT	**Lauttasaari He**	**2.63**	**250**	PN	**Pn**	**15 49 27.8**	**-0.1**
	baz=71						
LAUT				SN	**Sn**	**15 49 59.2**	**-1.3**
LAUT				smax	smax	15 50 02.8	
	comp=Z,2.0nm,0.2s						
MEF	**Metsahovi**	**2.82**	**253**	PG	**Pb**	**15 49 35.0**	**-0.4**
MEF				smax	smax	15 50 08.2	
	comp=Z,2.1nm,0.2s						
MEF				SG	**Sg**	**15 50 13.8**	**-0.9**
RMF	**Romuvaara**	**3.08**	**1**	PB	**Pb**	**15 49 38.1**	**-1.7**
VAF	**Ylistaro**	**3.85**	**303**	*e*P	**Pn**	**15 49 48.1**	**+3.5**
I43RU	**DUBNA INFRASON**	**5.87**	**136**	I	I	16 24 30.0	
	baz=325,slow=319,SNR=3.0						
HFS	**Hagfors**	**7.98**	**270**	Pn	**Pn**	**15 50 43.3**	**+2.0**
	baz=79,slow=16,SNR=1.9						
	comp=Z,5.5nm,1.1s						
ARCES	**ARCESS Array B**	**8.61**	**350**	Pn	**Pn**	**15 50 52.3**	**+2.4**
	baz=164,slow=13,SNR=2.0						
	comp=Z,3.2nm,0.9s						

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*IDC **24** 15:49:43.0±3.0, 7°.66N×125°.86E, h0^{km}, mb3.4/3, mbtmp3.4/3, MS3.7/1, Error ellipse: s-maj=248.3km s-min=29.1km az=65.0*
*MAN **24** 15:49:46.0, 7°.74N×126°.40E, h14^{km}, MS3.5*
ISC 24 15:49:47.1±1.2**, 7°.79N**±0°.05×**126°.52E**±0°.09**, h26^{km}**±6^{km}**, n14, σ1^{s}.40**/21**, mb3.3**/3**, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CDOP	**Cateel, Davao**	**0.08**	**265**	*e*P	**Pb**	**15 49 51.8**	**-0.1**
CDOP				*e*S	**Sb**	**15 49 55.3**	**+0.2**
BIPH	**Bislig**	**0.42**	**338**	*e*P	**Pb**	**15 49 55.5**	**-0.7**
BIPH				*e*S	**Sb**	**15 50 01.7**	**-0.6**
DMPH	**Davao City--Mi**	**1.23**	**235**	*i* P	**Pn**	**15 50 09.2**	**+0.5**
DMPH				*i* S	**Sb**	**15 50 27.2**	**+2.1**
BUKP	**Musuan**	**1.45**	**274**	*e*P	**Pn**	**15 50 11.2**	**-0.5**
BUKP				*e*S	**Sn**	**15 50 30.4**	**+0.6**
KCP	**Kidapawan**	**1.62**	**241**	*e*P	**Pn**	**15 50 13.6**	**-0.4**
KCP				*i* S	**Sn**	**15 50 35.8**	**+1.7**
CGP	**Cagayan de Oro**	**1.93**	**290**	*e*P	**Pn**	**15 50 17.9**	**-0.4**
CGP				*e*S	**Sn**	**15 50 42.4**	**+0.8**
CTBH	**Cotabato--PC H**	**2.33**	**256**	*i* P	**Pn**	**15 50 22.8**	**-1.0**
PAGZ	**Pagadian**	**3.11**	**271**	*e*P	**Pn**	**15 50 34.3**	**-0.3**
LSIP	**Lazi, Siquijor**	**3.15**	**295**	*e*P	**Pn**	**15 50 35.4**	**+0.3**
LSIP				*e*S	**Sn**	**15 51 12.0**	**0.0**
PLP	**Palo**	**3.68**	**336**	*e*P	**Pn**	**15 50 44.0**	**+1.6**
PLP				*e*S	**Sn**	**15 51 28.5**	**+3.5**
WRA	**Warramunga Arr**	**28.61**	**165**	P	**P**	**15 55 42.8**	**+1.2**
	0.8nm,1.1s,baz=344,slow=9.1,SNR=2.2						
	0.8nm,1.1s						
ASAR	**Alice Springs**	**32.09**	**167**	P	**P**	**15 56 11.3**	**-0.9**
	0.3nm,0.9s,baz=342,slow=7.8,SNR=4.8						
	0.3nm,0.9s						
MKAR	**Makanchi Array**	**54.15**	**324**	P	**P**	**15 59 08.0**	**-2.2**
	0.4nm,0.5s,baz=137,slow=7.9,SNR=4.1						
	0.4nm,0.5s						
SEY	**Seymchan**	**58.15**	**14**	LR	LR	16 23 23.5	
	comp=Z,64nm,21.6s,baz=331,slow=35						

CATAC 24 15:50:29.2±0.3**, 12°N**±2°×**8°7W**±°**, h33^{km}**±2^{km}**, M3.6**/32**, MLv3.6**/32**, 2C-6D, Error ellipse: s-maj=5.0km s-min=2.4km az=43.1, confirmed, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NADN	**Granada**	**0.58**	**69**	⇓P	Pn	15 50 41.9	+0.8
NADN				S	Sn	15 50 51.3	+1.7
SABN	**Sabanita**	**0.59**	**45**	⇓P	Pb	15 50 40.0	-1.2
NANN	**Nandasmo**	**0.61**	**49**	⇓P	Pb	15 50 43.2	+1.7
NANN				S	Sn	15 50 52.4	+2.2
MASN	**Masaya**	**0.62**	**44**	P	Pb	15 50 42.9	+1.1
MASN				S	Sn	15 50 52.3	+1.8
MAS3	**Al N del Volca**	**0.63**	**40**	P	Pn	15 50 41.8	0.0
MAS3				S	Sn	15 50 52.3	+1.5
ABCN	**Banco Central**	**0.64**	**25**	P	Pb	15 50 42.7	+0.6
ABCN				S	Sn	15 50 52.9	+1.9
UNAN	**Cigeo UNAN**	**0.65**	**29**	P	Pb	15 50 42.7	+0.5
UNAN				S	Sn	15 50 52.6	+1.3
TISN	**Laguna Tiscapa**	**0.68**	**28**	⇓P	Pn	15 50 42.1	-0.4
ALLN	**Telcor Managua**	**0.69**	**27**	P	Pb	15 50 43.3	+0.5
ALLN				S	Sn	15 50 54.0	+1.9
MGAN	**Managua**	**0.69**	**29**	P	Pb	15 50 43.2	+0.3
MGAN				S	Sb	15 50 53.7	+1.4
APQ2	**Apoyeque**	**0.70**	**22**	P	Pb	15 50 43.1	-0.1
APQ2				S	Sb	15 50 53.5	+0.9
AMTN	**Mateare**	**0.71**	**13**	P	Pb	15 50 43.6	+0.3
AMTN				S	Sb	15 50 54.0	+1.2
WILN	**Americas 2**	**0.73**	**32**	P	Pb	15 50 43.8	+0.2
WILN				S	Sb	15 50 54.8	+1.4
JAPN	**Al SSO del Vol**	**0.89**	**91**	P	Pb	15 50 46.0	-0.3
JAPN				S	Sb	15 50 58.9	+0.9
MOM2	**El Cardon**	**0.90**	**7**	P	Pn	15 50 45.9	+0.4
MOM2				S	Sb	15 50 58.3	+0.2
MORN	**Al O del Volca**	**0.92**	**89**	P	Pn	15 50 46.1	+0.3
MORN				S	Sb	15 50 59.3	+0.5
CNGA	**Al SSO del Vol**	**0.96**	**353**	P	Pn	15 50 46.5	+0.1
CNGA				S	Sb	15 51 00.5	+0.7
CNGN	**Cerro Negro**	**0.96**	**354**	⇓P	Pn	15 50 46.6	+0.1
CNGN				S	Sb	15 50 59.8	-0.1
ILCN	**San Idelfonso**	**1.04**	**354**	P	Pn	15 50 46.1	-1.3
ILCN				S	Sn	15 51 00.1	-0.8
PLRN	**Geotermica Pol**	**1.05**	**351**	P	Pn	15 50 47.7	0.0
PLRN				S	Sn	15 51 01.8	+0.6
TEL3	**Telica 3**	**1.06**	**346**	P	Pn	15 50 47.9	+0.1
CARN	**Rivas**	**1.10**	**108**	P	Pn	15 50 48.8	+0.5
CARN				S	Sb	15 51 03.2	-0.7
PKGN	**Cerro Pekin**	**1.19**	**341**	P	Pn	15 50 49.7	+0.2
PKGN				S	Sn	15 51 05.0	+0.5
CRIN	**San Cristobal**	**1.24**	**339**	S	Sn	15 51 06.2	+0.3
BOAB	**BOACO BROADBAN**	**1.28**	**45**	⇓P	Pn	15 50 51.0	+0.3
BOAB				S	Sn	15 51 07.7	+0.9
ACON	**Acoyapa**	**1.45**	**73**	P	Pn	15 50 52.8	-0.3
ACON				S	Sn	15 51 11.4	+0.3
MATN	**Matagalpa**	**1.53**	**25**	⇑P	Pn	15 50 54.6	+0.3
MATN				S	Sn	15 51 13.8	+0.8
LIMN	**Finca el Limon**	**1.53**	**8**	⇑P	Pn	15 50 54.6	+0.3
LIMN				S	Sn	15 51 13.8	+0.7
POTN	**Potosi Cosigui**	**1.71**	**328**	P	Pn	15 50 57.2	+0.6
POTN				S	Sn	15 51 17.8	+0.4
RCVN	**Varillal2**	**2.07**	**11**	P	Pn	15 51 02.6	+0.8
RCVN				S	Sn	15 51 27.0	+0.4
CNCH	**Conchagua**	**2.11**	**325**	P	Pn	15 51 02.2	-0.1
CNCH				S	Sn	15 51 28.1	+0.6
PACA	**Pacayal**	**2.56**	**319**	P	Pn	15 51 08.7	+0.2
PACA				S	Sn	15 51 39.3	+0.7

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*CNRM **24** 16:22:38.0, 36°.31N×12°.66W, h26^{km}, ML3.5*
*MDD **24** 16:22:42.0±0.8, 36°.80N×12°.50W, h0^{km}, Mb4.5/12, M_mb3.9/12, Error ellipse: s-maj=6.2km s-min=4.6km az=69.0*
*IGIL **24** 16:22:43.5, 36°.80N×12°.50W, h2^{km}, ML2.9*
ISC 24 16:22:43.9±3.0**, 36°.93N**±0°.08×**12°.2W**±0°.1**, h10^{km}, n52, σ2^{s}.08**/72**, 11C, Azores-Cape St. Vincent Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PFVI	**Vila Bisbo**	**2.74**	**85**	Pn	**Pn**	**16 23 29.5**	**+1.6**
PFVI				Sn	**Sn**	**16 24 03.3**	**+2.3**
PFVI	**Vila Bisbo**	**2.74**	**85**	P	**Pn**	**16 23 26.8**	**-1.1**
PFVI				S	**Sb**	**16 24 04.4**	**-2.1**
MORF	**Marmelete**	**2.89**	**81**	*e*P	**Pn**	**16 23 31.8**	**+1.8**
MORF				*e*S	**Sn**	**16 24 07.3**	**+2.4**
MORF				IAML		16 24 10.2	
	comp=N,61nm,0.2s						
PMAFR	**Mafra**	**3.09**	**48**	Pn	**Pn**	**16 23 35.0**	**+2.2**
PMAFR				Sn	**Sb**	**16 24 13.4**	**-3.3**
MESJ	**Messejana**	**3.33**	**73**	*e*P	**Pn**	**16 23 38.1**	**+2.1**
MESJ				*e*S	**Sn**	**16 24 17.7**	**+2.1**
MESJ				IAML		16 24 23.0	
	comp=E,23nm,0.0s						
PCVE	**Castro Verde**	**3.42**	**77**	Pn	**Pn**	**16 23 39.9**	**+2.6**
PCVE				Sn	**Sn**	**16 24 19.7**	**+1.8**
PBDV	**Barranco-do-Ve**	**3.46**	**83**	Pn	**Pn**	**16 23 40.1**	**+2.3**
PBDV				Sn	**Sn**	**16 24 21.8**	**+3.0**
PVAQ	**Vaqueiros**	**3.64**	**81**	P	**Pn**	**16 23 39.6**	**-0.7**
PVAQ				S	**Sn**	**16 24 27.4**	**+4.1**
EVO	**Evora**	**3.71**	**63**	Pn	**Pn**	**16 23 44.2**	**+2.9**
EVO				Sn	**Sn**	**16 24 27.0**	**+2.0**
EGRO	**El Granado**	**3.84**	**80**	Pn	**Pn**	**16 23 45.3**	**+2.3**
EGRO				Sn	**Sn**	**16 24 29.3**	**+1.0**
EGRO	**El Granado**	**3.84**	**80**	Pn	**Pn**	**16 23 45.0**	**+2.0**
EGRO				⇑IVmb_VC		16 23 53.5	
	comp=E,282nm,SNR=3.9						
EGRO				Sn	**Sn**	**16 24 28.8**	**+0.5**
PESTR	**Estremoz**	**4.15**	**61**	Pn	**Pn**	**16 23 49.0**	**+1.6**
PESTR				Sn	**Sn**	**16 24 37.6**	**+1.6**
PESTR	**Estremoz**	**4.15**	**61**	P	**Pn**	**16 23 47.9**	**+0.5**
PBAR	**Barrancos**	**4.31**	**72**	Pn	**Pn**	**16 23 51.8**	**+2.3**
PBAR				Sn	**Sn**	**16 24 41.0**	**+1.1**
EMIN	**Mina Concepcio**	**4.51**	**78**	Pn	**Pn**	**16 23 54.6**	**+2.3**
EMIN				Sn	**Sn**	**16 24 45.3**	**+0.5**
EMIN	**Mina Concepcio**	**4.51**	**78**	Pn	**Pn**	**16 23 54.2**	**+1.9**
EMIN				Sn	**Sn**	**16 24 45.8**	**+1.0**
EBAD	**Badajoz**	**4.52**	**65**	Pn	**Pn**	**16 23 54.3**	**+1.9**
EBAD				Sn	**Sn**	**16 24 46.5**	**+1.5**
EBAD	**Badajoz**	**4.52**	**65**	Pn	**Pn**	**16 23 54.0**	**+1.6**
EBAD				⇑IVmb_VC		16 24 03.0	
	comp=E,254nm,SNR=3.1						
EBAD				Sn	**Sn**	**16 24 46.5**	**+1.5**
ESPR	**Espera**	**5.11**	**89**	Pn	**Pn**	**16 24 02.2**	**+1.6**
ESPR	**Espera**	**5.11**	**89**	Pn	**Pn**	**16 24 02.2**	**+1.6**
ESPR				⇑IVmb_VC		16 24 03.9	
	comp=E,285nm,SNR=4.0						
ESPR				Sn	**Sn**	**16 25 00.6**	**+1.0**
ECAB	**El Cabril**	**5.54**	**76**	Pn	**Pn**	**16 24 08.5**	**+2.1**
ECAB				Sn	**Sn**	**16 25 10.2**	**0.0**
ECAB	**El Cabril**	**5.54**	**76**	Pn	**Pn**	**16 24 08.5**	**+2.1**
ECAB				Sn	**Sn**	**16 25 10.7**	**+0.5**
SMIR	**Smir Dam**	**5.67**	**101**	P	Pn	16 24 04.8	-3.5
SMIR				S	**Sn**	**16 25 09.8**	**-3.7**
PMAR	**Madeira**	**5.69**	**224**	P	Pn	16 23 51.4	-17
PMAR				S	Sn	16 24 49.6	-25
SRHM	**Skhour des Reh**	**5.70**	**140**	P	Pn	16 23 58.3	-10
SRHM				S	Sn	16 25 05.4	-8.9
ZHG	**ZHG**	**5.75**	**126**	P	Pn	16 23 59.7	-10
ZHG				Sn	Sn	16 25 06.0	-9.4
EPLA	**Plasencia**	**5.75**	**55**	Pn	**Pn**	**16 24 11.3**	**+1.9**
EPLA				⇑IVmb_VC		16 24 13.8	
	comp=E,145nm,SNR=1.4						
EPLA				Sn	**Sn**	**16 25 16.5**	**+1.0**
PMOZ	**Porto Moniz, M**	**5.78**	**226**	Pn	Pn	16 23 54.9	-15
PMOZ				Sn	Sn	16 24 44.6	-32
PMOZ	**Porto Moniz, M**	**5.78**	**226**	P	Pn	16 23 52.0	-18
PMOZ				S	Sn	16 24 51.5	-25
EZAM	**Zamans**	**5.89**	**27**	Pn	**Pn**	**16 24 12.2**	**+1.0**
EZAM				⇑IVmb_VC		16 24 13.4	
	comp=E,476nm,SNR=1.6						
EZAM				Sn	**Sn**	**16 25 17.0**	**-1.7**
ELOB	**Lobios**	**5.90**	**32**	Pn	**Pn**	**16 24 12.7**	**+1.3**
ELOB				⇑IVmb_VC		16 24 14.2	
	comp=E,368nm,SNR=1.6						
ELOB				Sn	**Sn**	**16 25 19.0**	**-0.1**
CIBOR	**Castaar de Ib**	**6.00**	**61**	Pn	**Pn**	**16 24 14.2**	**+1.4**
CIBOR				Sn	**Sn**	**16 25 21.3**	**-0.3**
EADA	**Adamuz**	**6.21**	**76**	Pn	**Pn**	**16 24 16.8**	**+1.1**
EADA				Sn	**Sn**	**16 25 25.4**	**-1.4**
EADA	**Adamuz**	**6.21**	**76**	Pn	**Pn**	**16 24 17.3**	**+1.7**
EADA				⇑IVmb_VC		16 24 22.8	
	comp=E,115nm,SNR=1.5						
EADA				Sn	**Sn**	**16 25 26.6**	**-0.1**
EGOR	**Sierra Gorda,**	**6.50**	**86**	Sn	**Sn**	**16 25 30.2**	**-3.9**
EMAZ	**Mazaricos**	**6.51**	**22**	Pn	**Pn**	**16 24 21.0**	**+1.2**
EMAZ				⇑IVmb_VC		16 24 29.3	
	comp=E,514nm,SNR=1.6						
EMAZ				Sn	**Sn**	**16 25 30.2**	**-3.9**
ECAL	**Calabor**	**6.57**	**39**	Pn	**Pn**	**16 24 21.8**	**+1.2**
ECAL	**Calabor**	**6.57**	**39**	Pn	**Pn**	**16 24 22.2**	**+1.6**
ECAL				Sn	**Sn**	**16 25 36.0**	**+0.4**
EAGO	**Agolada(Pontev**	**6.68**	**27**	Pn	**Pn**	**16 24 22.6**	**+0.6**
EAGO				Sn	**Sn**	**16 25 37.5**	**-0.6**
PAB	**San Pablo**	**6.74**	**65**	Pn	**Pn**	**16 24 25.2**	**+2.3**
PAB				⇑IVmb_VC		16 24 33.4	
	comp=E,104nm,SNR=1.9						
PAB				Sn	**Sn**	**16 25 39.5**	**-0.2**
IFR	**Ifrane**	**6.74**	**118**	Pn	Pn	16 24 21.0	-2.1
IFR				Sn	**Sn**	**16 25 35.2**	**-4.8**
OUK	**Oukaimeden**	**6.76**	**146**	P	Pn	16 24 13.8	-10
OUK				Sn	Sn	16 25 26.3	-14
TISM	**Timmit**	**7.07**	**136**	P	Pn	16 24 17.0	-10
TISM				S	Sn	16 25 34.9	-13
TIO	**Tiouine**	**7.27**	**144**	Pn	Pn	16 24 25.9	-4.5
TIO				Sn	Sn	16 25 41.4	-12
TIO	**Tiouine**	**7.27**	**144**	P	Pn	16 24 19.0	-11
TIO				S	Sn	16 25 39.4	-14
GUD	**Guadarrama**	**7.32**	**57**	Pn	**Pn**	**16 24 32.1**	**+1.1**
GUD				⇑IVmb_VC		16 24 36.3	
	comp=E,91nm,SNR=1.5						
GUD				Sn	**Sn**	**16 25 53.9**	**-0.3**
EQES	**Quesada**	**7.35**	**80**	Sn	**Sn**	**16 25 54.6**	**-0.3**
MD31	**MD31**	**7.36**	**121**	P	Pn	16 24 24.0	-7.5
MD31				Sn	Sn	16 25 46.5	-8.5
EPON	**Pontenova**	**7.48**	**30**	Pn	**Pn**	**16 24 33.6**	**+0.5**
EPON				⇑IVmb_VC		16 24 39.8	
	comp=E,519nm,SNR=1.4						
EPON				Sn	**Sn**	**16 25 54.3**	**-3.7**
MDT	**Midelt**	**7.49**	**121**	P	Pn	16 24 25.5	-7.8
MDT				Sn	Sn	16 25 50.9	-7.5
OUZM	**OUZ**	**7.53**	**141**	P	Pn	16 24 23.4	-10
OUZM				S	Sn	16 25 46.6	-13
JBK	**JBK**	**8.29**	**105**	P	Pn	16 24 37.3	-7.0
JBK				S	**Sn**	**16 26 12.8**	**-5.3**

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*IDC **24** 16:38:23.8±2.1, 16°.97S×174°.69W, h218^{km}±20^{km}, mb3.7/13, mbtmp4.2/15, Error ellipse: s-maj=22.5km s-min=12.0km az=144.0*
*NEIC **24** 16:38:23.1±1.7, 16°.93S±0°.08×174°.6W±0°.1, h213^{km}±6^{km}, mb4.4/55, Error ellipse: s-maj=14.4km s-min=11.2km az=98.0*
ISC 24 16:38:25.9±0.4**, 16°.97S**±0°.07×**174°.48W**±0°.07**, h250^{km}, n87, σ1^{s}.53**/91**, mb4.3**/36**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	**Afiamalu**	**4.00**	**41**	P	**Pn**	**16 39 27.9**	**-2.0**
	129nm,0.3s,baz=197,slow=2.7,SNR=112						
AFI				S	**S**	**16 40 14.5**	**-6.2**
	226nm,0.3s,baz=67,slow=19,SNR=13						
AFI	**Afiamalu**	**4.00**	**41**		**Pn**	**16 39 27.9**	**-2.0**
AFI				Sn	S	16 40 14.0	-6.7
NIUE	**Niue**	**4.81**	**117**		**Pn**	**16 39 36.2**	**-3.3**
NIUE				Sn	**S**	**16 40 35.9**	**-2.2**
MSVF	**Nonsavu**	**7.17**	**263**	P	**Pn**	**16 40 09.5**	**+0.5**
	87nm,1.1s,baz=112,slow=12,SNR=18						
MSVF	**Nonsavu**	**7.17**	**263**		**Pn**	**16 40 09.8**	**+0.9**
MARNC	**Mare, Loyalty**	**17.11**	**252**	P	**P**	**16 42 07.5**	**-1.5**
OUENC	**Ouen Island, N**	**18.40**	**250**	P	**P**	**16 42 21.8**	**-1.1**
OUENC				IAmb	IAmb	16 42 43.0	
	comp=Z,10nm,0.9s						
DZM	**Mont Dzumac**	**18.68**	**251**	P	**P**	**16 42 24.2**	**-1.9**
	comp=Z,4.9nm,0.8s,baz=74,slow=18,SNR=3.8						
TCW	**Tory Channel**	**26.03**	**200**	P	**P**	**16 43 36.8**	**+0.5**
QRZ	**Quartz Range**	**26.29**	**203**	P	**P**	**16 43 39.1**	**+0.5**
TKNZ	**Takaka Hill**	**26.32**	**202**	P	**P**	**16 43 38.6**	**-0.3**
WHZ	**Wether Hill Ro**	**32.35**	**203**	P	**P**	**16 44 32.4**	**+0.4**
PYZ	**Puysegur Point**	**33.07**	**204**	P	**P**	**16 44 37.5**	**-0.7**
EIDS	**Eidsvold**	**33.11**	**249**	P	**P**	**16 44 37.2**	**-1.6**
EIDS				IAmb	IAmb	16 44 44.3	
	comp=Z,19nm,1.5s						
ARMA	**Armidale**	**33.66**	**240**	P	**P**	**16 44 42.0**	**-1.7**
ARMA				IAmb	IAmb	16 44 44.6	
	comp=Z,6.8nm,0.8s						
CTAO	**Charters Tower**	**37.30**	**259**	P	**P**	**16 45 12.8**	**-1.9**
TOO	**Toolangi**	**40.68**	**232**	P	**P**	**16 45 41.9**	**-0.4**
STKA	**Stephens Creek**	**42.37**	**241**	P	**P**	**16 45 55.6**	**-0.4**
	comp=Z,11nm,0.8s,baz=98,slow=9.5,SNR=12						
	comp=Z,11nm,0.8s						
INKA	**Innaminka**	**42.57**	**247**	P	**P**	**16 45 57.1**	**-0.6**
MIDW	**Midway**	**45.00**	**356**	P	**P**	**16 46 14.8**	**-2.0**
JAY	**Jayapura**	**46.30**	**283**	P	**P**	**16 46 27.6**	**+0.2**
	comp=Z,5.2nm,0.9s,baz=117,slow=4.2,SNR=5.2						
	comp=Z,5.2nm,0.9s						
BBOO	**Buckleboo**	**47.14**	**241**	P	**P**	**16 46 32.1**	**-1.5**
WR8	**Warramunga Arr**	**48.34**	**258**	P	**P**	**16 46 41.5**	**-1.5**
WRA	**Warramunga Arr**	**48.49**	**258**	P	**P**	**16 46 42.7**	**-1.4**
	comp=Z,0.7nm,0.5s,baz=97,slow=7.2,SNR=27						
WRA				PcP	**PcP**	**16 48 06.7**	**+0.6**
	comp=Z,0.3nm,0.5s,baz=94,slow=3.4,SNR=2.1						
	comp=Z,0.7nm,0.5s						
WRA	**Warramunga Arr**	**48.49**	**258**	P	**P**	**16 46 41.8**	**-2.3**
AS31	**Alice Springs**	**48.65**	**253**		**P**	**16 46 44.3**	**-1.0**
AS31				IAmb	IAmb	16 46 45.4	
	comp=Z,7.1nm,0.7s						
ASAR	**Alice Springs**	**48.65**	**253**	P	**P**	**16 46 44.2**	**-1.1**
	comp=Z,23nm,0.6s,baz=88,slow=8.4,SNR=433						
ASAR				PcP	**PcP**	**16 48 07.5**	**+0.9**
	comp=Z,0.5nm,0.6s,baz=95,slow=3.5,SNR=1.9						
	comp=Z,23nm,0.6s						
MTN	**Manton Dam**	**52.59**	**267**	P	**P**	**16 47 13.2**	**-1.5**
MTN				IAmb	IAmb	16 47 42.9	
	comp=Z,8.7nm,1.4s						

FORT	Forrest	53.79	244		P	16 47 21.9	-1.3
KNRA	Kununurra	54.32	263	P	P	16 47 25.4	-1.8
KNRA				IAmb	IAmb	16 47 56.9	
	comp=Z,11nm,1.5s						
SIJI	Sorong	55.71	281	P	P	16 47 37.2	0.0
	comp=Z,5.3nm,0.6s,baz=124,slow=6.0,SNR=5.2						
	comp=Z,5.3nm,0.6s						
SOEI	Soe	59.83	268		P	16 48 04.8	-1.1
VNDA	Vanda	61.72	186	P	P	16 48 18.7	+1.2
	comp=Z,0.2nm,0.3s,baz=33,slow=5.9,SNR=2.4						
	comp=Z,0.2nm,0.3s						
VNDA	Vanda	61.72	186	P	P	16 48 18.3	+0.9
MBWA	Marble Bar	61.94	255	P	P	16 48 18.3	-1.5
AMKA	Amchitka	68.27	356	P	P	16 49 00.5	+0.8
KIWB	Kanaga Island	68.56	358	P	P	16 49 02.0	+0.5
QSPA	South Pole Qui	73.09	180	P	P	16 49 30.3	+1.6
	comp=Z,1.2nm,1.0s,baz=0.0,slow=1.0,SNR=2.7						
	comp=Z,1.2nm,1.0s						
QSPA	South Pole Qui	73.09	180	P	P	16 49 29.9	+1.2
PEA0B	Petropavlovsk-	73.81	343	P	P	16 49 33.1	+0.2
PETK	Petropavlovsk-	73.81	343	P	P	16 49 34.1	+1.2
	comp=Z,3.5nm,0.7s,baz=148,slow=5.4,SNR=8.5						
	comp=Z,3.5nm,0.7s						
PETK	Petropavlovsk-	73.81	343	P	P	16 49 33.5	+0.6
KMRM	Mail Ridge	73.93	38	P	P	16 49 36.1	+2.1
KMRM				IAmb	IAmb	16 50 12.3	
	comp=Z,11nm,1.1s						
O02D	Mt. Diablo Mer	74.44	39	P	P	16 49 38.4	+1.5
O02D				IAmb	IAmb	16 50 19.5	
	comp=Z,5.0nm,1.2s						
KSXB	Camp Six Broad	74.86	37	P	P	16 49 39.5	+0.2
M02C	Callahan	75.17	38	P	P	16 49 42.8	+1.7
M02C				IAmb	IAmb	16 49 57.8	
	comp=Z,14nm,1.4s						
YBH	Yreka Blue Hor	75.47	37	P	P	16 49 45.0	+2.2
YBH				IAmb	IAmb	16 49 45.8	
	comp=Z,7.2nm,1.2s						
NVAR	Mina Array Bea	76.18	42	P	P	16 49 49.4	+2.3
	comp=Z,1.2nm,0.7s,baz=230,slow=10,SNR=6.0						
	comp=Z,1.2nm,0.7s						
NVAR	Mina Array Bea	76.18	42	P	P	16 49 46.2	-0.9
GMN	Gold Mountain	76.22	44	P	P	16 49 48.7	+1.4
KVN	Kaiserville	76.67	42	P	P	16 49 50.7	+1.0
TPNV	Topopah Spring	76.70	44	P	P	16 49 50.5	+0.6
ILSW	Iliamna Southw	78.61	11	P	P	16 49 59.9	+0.1
ILSW				IAmb	IAmb	16 50 01.4	
	comp=Z,6.2nm,0.8s						
N18K	Kilae Creek	78.81	9	P	P	16 50 01.7	+0.9
N18K				IAmb	IAmb	16 50 11.8	
	comp=Z,15nm,1.3s						
N19K	Bonanza Creek	79.16	10	P	P	16 50 03.9	+1.1
N19K				IAmb	IAmb	16 50 20.1	
	comp=Z,15nm,1.3s						
DUN6	Lazy B Ranch	79.56	51	P	P	16 50 07.2	+1.5
L18K	Granite Mounta	80.17	8	P	P	16 50 10.2	+2.1
L18K				IAmb	IAmb	16 50 44.1	
	comp=Z,13nm,1.4s						
M19K	Big River Lodg	80.21	9	P	P	16 50 08.2	-0.1
M19K				IAmb	IAmb	16 50 44.1	
	comp=Z,9.8nm,1.3s						
PWL	Port Wells	80.35	13	P	P	16 50 09.4	+0.3
PWL				IAmb	IAmb	16 50 44.6	
	comp=Z,8.2nm,1.1s						
SUA	Susitna One	80.43	11	P	P	16 50 10.8	+1.2
SUA				IAmb	IAmb	16 50 12.7	
	comp=Z,6.9nm,0.7s						
K17K	Iditarod	80.43	7	P	P	16 50 11.4	+2.0
J16K	Anvik River	80.72	6	P	P	16 50 13.0	+2.0
J16K				IAmb	IAmb	16 50 14.4	
	comp=Z,12nm,1.1s						
KNK	Knik Glacier	80.83	12	P	P	16 50 13.3	+1.7
L20K	Farewell, AK	80.83	10	P	P	16 50 12.3	+0.7
L20K				IAmb	IAmb	16 50 40.6	
	comp=Z,7.3nm,1.4s						
BARN	Barnard Glacie	82.08	15	P	P	16 50 20.0	+1.6
BARN				IAmb	IAmb	16 51 02.5	
	comp=Z,15nm,1.4s						
TXAR	Lajitas Array	82.34	56	P	P	16 50 23.4	+3.0
	comp=Z,0.6nm,0.8s,baz=223,slow=9.5,SNR=5.4						
	comp=Z,0.6nm,0.8s						
TXAR	Lajitas Array	82.34	56	P	P	16 50 22.2	+1.9
Q32M	Nakina River	83.15	21	P	P	16 50 25.5	+1.6
Q32M				IAmb	IAmb	16 50 53.5	
	comp=Z,12nm,1.5s						
BCAR	Beaver Creek A	83.77	14	P	P	16 50 28.4	+1.6
R33M	Jennings River	83.92	21	P	P	16 50 28.8	+1.1
R33M				IAmb	IAmb	16 50 30.3	
	comp=Z,7.3nm,1.4s						
PDAR	Pinedale Array	84.12	42	P	P	16 50 30.6	+1.4
	comp=Z,0.9nm,0.7s,baz=209,slow=4.7,SNR=7.6						
	comp=Z,0.9nm,0.7s						
PDAR	Pinedale Array	84.12	42	P	P	16 50 30.0	+0.7
ILAR	Eielson Array	84.18	12	P	P	16 50 29.6	+0.9
	comp=Z,1.3nm,0.6s,baz=198,slow=4.5,SNR=11						
	comp=Z,1.3nm,0.6s						
ILAR	Eielson Array	84.18	12	P	P	16 50 29.3	+0.6
MAW	Mawson	85.98	199	P	P	16 50 38.8	+1.0
	comp=Z,0.8nm,0.8s,baz=135,slow=2.9,SNR=2.1						
	comp=Z,0.8nm,0.8s						
MAW	Mawson	85.98	199	P	P	16 50 38.4	+0.6
I28M	Miner Creek	86.22	14	P	P	16 50 40.3	+1.4
I28M				IAmb	IAmb	16 51 11.5	
	comp=Z,6.0nm,1.4s						
MMPY	Sheldon Lake,	86.26	18	P	P	16 50 40.7	+1.6
MMPY				IAmb	IAmb	16 51 03.5	
	comp=Z,11nm,1.5s						
CLL	Collm	145.22	352	*i* PKPbc	PKPab	16 57 35.1	+0.9
	comp=Z,10.0nm,0.9s						
BRTR	Keskin Array B	146.68	319	PKPbc	PKPbc	16 57 39.5	+0.7
	comp=Z,1.1nm,0.8s,baz=75,slow=2.7,SNR=6.0						
BRTR	Keskin Array B	146.68	319		PKPdf	16 57 38.0	+1.3
GERES	GERESS Array B	147.51	350	PKPbc	PKPbc	16 57 41.0	+0.3
	comp=Z,1.2nm,0.7s,baz=29,slow=3.0,SNR=7.9						
GERES	GERESS Array B	147.51	350		PKPdf	16 57 39.6	+1.9
CONA	Conrad Observa	147.97	347	*e*PKP	PKiKP	16 57 44.4	+0.9
	comp=Z,1.2nm,0.5s						
WTTA	Wattenberg	149.37	352	*i* PKP	PKiKP	16 57 47.2	+0.7
	comp=Z,4.7nm,0.6s						
FETA	Feichten	149.72	353	*e*PKP	PKiKP	16 57 48.7	+1.4
	comp=Z,2.1nm,0.8s						
ABTA	Abfaltersbach	149.74	350	*i* PKP	PKiKP	16 57 47.5	+0.3
	comp=Z,3.1nm,0.6s						

WEL 24 16:42:42.7±0.4,**37°S**±3°×**17°7E**±°,**h5**km,**M3.0**/29,**ML2.9**/30,**MLv3.0**/29,**Error ellipse: s-maj=4.3km s-min=2.3km az=4.6,confirmed,Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WSRZ	White Island S	0.08	117	P	Pg	16 42 45.7	+1.2
WSRZ				S	Sg	16 42 47.3	+1.5
WSRZ				AML	AML		
WSRZ				AML	AML		
WIZ	White Island	0.10	119	P	Pg	16 42 45.7	+0.9
WIZ				S	Sg	16 42 47.3	+1.2
WIZ				AML	AML		
WIZ				AML	AML		
WHRZ	Whale Island	0.39	193	P	Pg	16 42 50.3	+0.1
WHRZ				AML	AML		
WHRZ				AML	AML		
MARZ	Manawahe	0.60	213	P	Pg	16 42 54.3	0.0
MARZ				S	Sg	16 43 01.9	-0.2
MARZ				AML	AML		
MARZ				AML	AML		
HAZ	Te Kaha	0.62	117	P	Pg	16 42 54.4	-0.2
HAZ				S	Sg	16 43 02.5	-0.2
HAZ				AML	AML		
HAZ				AML	AML		
RUGZ	Raukumara Rang	0.68	136	P	Pg	16 42 54.9	-0.8
RUGZ				S	Sg	16 43 03.1	-1.5
RUGZ				AML	AML		
RUGZ				AML	AML		
EDRZ	Edgecumbe	0.68	203	P	Pg	16 42 55.9	0.0
EDRZ				AML	AML		
EDRZ				AML	AML		
TGRZ	Tauranga	0.70	249	P	Pb	16 42 57.2	-0.2
TGRZ				S	Sb	16 43 06.3	-1.0
TGRZ				AML	AML		
TGRZ				AML	AML		
MYRZ	Mayor Island	0.70	286	P	Pb	16 42 58.1	+0.7
LIRZ	Lichensteins R	0.76	226	P	Pb	16 42 58.3	-0.2
LIRZ				S	Sg	16 43 07.4	+0.2
LIRZ				AML	AML		
LIRZ				AML	AML		
URZ	Urewera	0.78	178	P	Pg	16 42 56.7	-1.0
URZ				S	Sg	16 43 06.0	-1.8
URZ				AML	AML		
URZ				AML	AML		
MKRZ	Makatiti	0.82	216	P	Pb	16 42 59.2	-0.3
MKRZ				S	Sb	16 43 10.4	-0.5
MKRZ				AML	AML		
MKRZ				AML	AML		
KARZ	Kaharoa	0.86	231	P	Pg	16 42 59.6	+0.4
KARZ				S	Sg	16 43 10.3	0.0
KARZ				AML	AML		
KARZ				AML	AML		
PKGZ	Pakihiroa	0.88	116	P	Pg	16 42 59.6	0.0
PKGZ				S	Sg	16 43 10.6	-0.4
PKGZ				AML	AML		
PKGZ				AML	AML		
TARZ	Mount Tarawera	0.88	211	P	Pb	16 43 00.3	-0.3
TARZ				AML	AML		
TARZ				AML	AML		
MWZ	Matawai	0.92	158	P	Pg	16 42 59.2	-1.2
MWZ				S	Sg	16 43 10.5	-1.9
NGRZ	Ngongotaha	0.94	229	P	Pb	16 43 01.6	0.0
NGRZ				AML	AML		
NGRZ				AML	AML		
HLRZ	Highlands Stat	0.96	217	P	Pb	16 43 02.2	+0.3
HLRZ				AML	AML		
HLRZ				AML	AML		
RRRZ	Republican Roa	0.97	208	P	Pg	16 43 01.3	0.0
RRRZ				AML	AML		
RRRZ				AML	AML		
MXZ	Matakaoa Point	0.98	95	P	Pn	16 43 03.7	+0.6
KMRZ	Kaimai	0.98	248	P	Pb	16 43 02.1	-0.1
KMRZ				AML	AML		
KMRZ				AML	AML		
TWGZ	Tauwhareparae	0.99	135	P	Pg	16 43 01.5	-0.3
TWGZ				AML	AML		
TWGZ				AML	AML		
MUGZ	Murupara	1.03	194	P	Pg	16 43 01.1	-1.3
MUGZ				AML	AML		
MUGZ				AML	AML		
RAGZ	Rawiri	1.05	166	P	Pg	16 43 01.7	-1.1
RAGZ				AML	AML		
RAGZ				AML	AML		
PUZ	Puketiti	1.10	123	P	Pg	16 43 03.8	0.0
PUZ				AML	AML		
PUZ				AML	AML		
WMGZ	Waiomatatini S	1.11	108	P	Pn	16 43 04.9	+0.1
WMGZ				AML	AML		
WMGZ				AML	AML		
TKGZ	Te Karaka	1.13	148	P	Pg	16 43 04.2	-0.3
TKGZ				AML	AML		
TKGZ				AML	AML		
RTZ	Ruatahuna	1.14	184	P	Pg	16 43 03.5	-1.0
RTZ				AML	AML		
RTZ				AML	AML		
RTZ	Ruatahuna	1.14	184		Pg	16 43 03.2	-1.4
TOZ	Tahuroa Road	1.28	258	P	Pn	16 43 05.6	-1.7
TOZ				AML	AML		
TOZ	Tahuroa Road	1.28	258		Pn	16 43 05.6	-1.7
RIGZ	Rimuhau	1.34	157	P	Pg	16 43 08.4	0.0
RIGZ				AML	AML		
RIGZ				AML	AML		
CNGZ	Carnagh Statio	1.34	139	P	Pg	16 43 09.0	+0.6
MTHZ	Maungataniwha	1.38	188	P	Pn	16 43 08.3	-0.5
MTHZ				AML	AML		
MTHZ				AML	AML		
RAHZ	Arahi	1.44	180	P	Pn	16 43 09.4	0.0
RAHZ				AML	AML		
RAHZ				AML	AML		
MRHZ	Matea Rd	1.45	201	P	Pn	16 43 09.7	0.0
MRHZ				AML	AML		
MRHZ				AML	AML		
TLZ	Tolley Road	1.49	235	P	Pg	16 43 11.4	+0.2
MKAZ	Moumakai	1.58	283	P	Pn	16 43 10.2	-1.1
MKAZ				AML	AML		
MKAZ				AML	AML		
KNZ	Kokohu	1.61	163	P	Pg	16 43 13.3	-0.2
NMHZ	Naumai	1.63	188	P	Pg	16 43 14.0	0.0
WIAZ	Waiheke Island	1.70	293	P	Pb	16 43 14.7	+0.2
BKZ	Black Stump Fm	1.75	195	P	Pn	16 43 14.5	+0.7
BKZ				AML	AML		
BKZ				AML	AML		
ARHZ	Aropaoanui	1.78	182	P	Pb	16 43 15.7	-0.2
ARHZ				AML	AML		
ARHZ				AML	AML		
GRZ	Great Barrier	1.79	313	P	Pn	16 43 13.8	-0.5
GRZ				AML	AML		
MHGZ	Mahia Peninsul	1.79	159	P	Pb	16 43 15.3	-0.7
MHGZ				AML	AML		
MHGZ				AML	AML		
ETAZ	East Tamaki Re	1.80	286	P	Pn	16 43 13.7	-0.7
ETAZ				AML	AML		
ETAZ				AML	AML		
MBAZ	Motutapu North	1.89	291	P	Pn	16 43 15.3	-0.3
MBAZ				AML	AML		
MBAZ				AML	AML		
HBAZ	Herne Bay Bore	1.98	288	P	Pn	16 43 16.9	0.0
HBAZ				AML	AML		
HBAZ				AML	AML		
AWAZ	Awhitu Peninsu	1.99	281	P	Pn	16 43 16.3	-0.7
AWAZ				AML	AML		
AWAZ				AML	AML		
HIZ	Hauiti	2.04	239	P	Pn	16 43 17.5	-0.2
HIZ				AML	AML		
WTAZ	Waiatarua	2.08	284	P	Pn	16 43 17.8	-0.4
RVAZ	Riverhead Bore	2.12	289	P	Pn	16 43 18.6	-0.3
KRHZ	Kereru	2.23	194	P	Pn	16 43 20.4	0.0
WCZ	Waipu Caves	2.69	304	P	Pn	16 43 26.3	-0.3
PAWZ	Paruwai Farm	4.10	198	P	Pn	16 43 47.4	+1.3

SCB 24 16:47:04.5±1.1,**22°.12S**×**64°.27W**,**h571**km±17km,**ML3.6**/2,**Error ellipse: s-maj=14.1km s-min=10.6km az=1.0,Salta Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MOCB	Mochara	1.54	304	P	P	16 48 18.2	+3.2
PB09	IPOC Station P	4.62	273	P	P	16 48 39.4	+6.6
PB06	IPOC Station P	4.94	262	P	P	16 48 41.2	+5.9
PB08	IPOC Station P	4.96	292	P	P	16 48 42.2	+6.4
PB03	IPOC Station P	5.08	270	P	P	16 48 42.2	+5.7
GO01	Chusmiza	5.21	297	P	P	16 48 45.0	+7.0
PB07	IPOC Station P	5.23	273	P	P	16 48 43.7	+6.0
PB02	IPOC Station P	5.29	278	P	P	16 48 44.9	+6.7
PB02				S	S	16 50 00.2	+5.6
PB02				IAML		16 50 07.2	
	7.5nm,0.2s						
PB05	IPOC Station P	5.53	261	P	P	16 48 47.8	+7.6
PB11	IPOC Station P	5.55	294	P	P	16 48 47.6	+7.1
PB11				S	S	16 50 04.5	+5.7
PB11				IAML		16 50 11.7	
	6.4nm,0.2s						
PSGC	Pisagua	6.02	294	P	P	16 48 52.1	+7.6
PB16	IPOC Station P	6.19	307	P	P	16 48 53.8	+7.2
SOEJ	Jacaque	6.31	323	P	P	16 48 55.6	+7.9

IDC ***24*** *17:00:32.1±1.4,0°.01S×124°.80E,h0km,mb3.3/3,mbtmp3.3/3,Error ellipse: s-maj=187.3km s-min=26.8km az=64.0*

DJA ***24*** *17:00:40.0±0.2,0°S±3°×12°5E±°,h10km,M3.9/16,ML3.6/7,MLv3.9/7,MLv3.9/16*

ISC 24 17:00:40.7±0.9,**0°.25S**±0°.05×**124°.95E**±0°.05,**h53**km,**n20**,σ**1ˢ91**/25,**mb3.2**/3,**Southern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MNI	Manado	1.69	356	P	Pn	17 01 08.5	+0.7
MNI				AML	AML		
MNI				AML	AML		
MNI				AML	AML		
MNI	Manado	1.69	356	P	Pn	17 01 07.9	+0.1
MNI				AML	AML		
SANI	Sanana	2.07	150	P	Pn	17 01 14.8	+1.8
SANI	Sanana	2.07	150	P	Pn	17 01 12.7	-0.3
SANI				S	Sn	17 01 37.6	-0.1
GTOI	Gorontalo	2.13	294	P	Pn	17 01 15.3	+1.5
GTOI				AML	AML		
GTOI				AML	AML		
GTOI				AML	AML		
GTOI	Gorontalo	2.13	294	P	Pn	17 01 14.6	+0.8
GTOI				S	Sn	17 01 40.3	+1.3
GTOI				AML	AML		
LUWI	Luwuk	2.31	250	P	Pn	17 01 18.0	+1.7
LUWI				AML	AML		
LUWI				AML	AML		
LUWI				AML	AML		
LUWI	Luwuk	2.31	250	P	Pn	17 01 16.1	-0.2
LUWI				S	Sn	17 01 46.9	+3.3
LUWI				AML	AML		
TNTI	Ternate	2.62	67	P	Pn	17 01 24.3	+3.7
TNTI	Ternate	2.62	67	P	Pn	17 01 23.2	+2.6
APSI	Ampana	3.36	259	P	Pn	17 01 32.9	+2.2
NLAI	Namlea	3.67	144	P	Pn	17 01 38.4	+3.5
NLAI	Namlea	3.67	144	P	Pn	17 01 35.2	+0.3
NLAI				AML	AML		
KDI	Kendari	4.36	212	P	Pn	17 01 44.6	+0.2
KDI	Kendari	4.36	212	P	Pn	17 01 42.3	-2.1
KDI				AML	AML		
BKSI	Bulukumba	6.97	224	P	Pn	17 02 20.3	0.0
	0.0nm7.0nm,0.7s						
BKSI				AML	AML		
BSSI	Bau Bau, Buton	7.35	217	P	Pn	17 02 26.4	+0.9
BSSI				AML	AML		
WRA	Warramunga Arr	21.63	155	P	P	17 05 26.4	-0.1
	0.3nm,0.6s,baz=333,slow=10,SNR=2.2						
WRA				PcP	PcP	17 09 27.1	+0.2
	0.3nm,1.0s,baz=336,slow=1.9,SNR=1.6						
	0.3nm,0.6s						
ASAR	Alice Springs	24.85	160	P	P	17 05 58.5	+0.1
	1.0nm,1.1s,baz=339,slow=7.9,SNR=6.9						
ASAR				PcP	PcP	17 09 34.4	+0.8
	0.3nm,0.5s,baz=355,slow=2.2,SNR=11						
	1.0nm,1.1s						
MKAR	Makanchi Array	59.86	327	P	P	17 10 37.0	-3.9
	0.5nm,0.6s,baz=125,slow=7.4,SNR=5.3						
	0.5nm,0.6s						

IDC 24 17:22:41.5±999.0,**56°.77N**×**27°.68E**,**h0**km,**Error ellipse: s-maj=1528.0km s-min=110.0km az=87.0,Baltic States-Belarus-Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I43RU	DUBNA INFRASON	5.25	87	I	I	17 54 21.2	
	baz=276,slow=324,SNR=2.7						
I31KZ	AKTYUBINSK INF	19.00	97	I	I	19 24 00.7	
	baz=298,slow=324,SNR=1.4						
I46RU	ZALESOVO INFRA	31.80	70	I	I	20 38 20.0	
	baz=297,slow=330,SNR=0.9						

BJI ***24*** *17:42:09.7,7°.47S×125°.35E,h531km,mB4.3/7,mb4.5/32*

IDC ***24*** *17:42:11.2±0.7,7°.22S×125°.05E,h501km±8km,mb3.7/20,mbtmp4.5/25,Error ellipse: s-maj=12.9km s-min=7.4km az=74.0*

NEIC ***24*** *17:42:13.0±1.7,7°.2S±0°.1×125°.1E±0°.1,h518km±8km,mb4.5/27,Error ellipse: s-maj=18.3km s-min=14.0km az=62.0*

GFZ ***24*** *17:42:13.5±0.2,7°S±3°×12°5E±°,h529km,M4.1/30,mb4.4/30*

DJA ***24*** *17:42:13.1±0.7,7°S±5°×12°5E±°,h529km±10km,M3.8/25,mB4.8/24,mB4.8/22,mb4.8/25,mb4.8/25,MLv4.9/29,MLv5.1/21,Mw(mB)4.1/22,Mw(mB)4.1/24*

ISC 24 17:42:14.0±0.3,**7°.24S**±0°.05×**125°.11E**±0°.06,**h543**km,**n151**,σ**1ˢ54**/157,**mb4.3**/61,**1C-1D**,**Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SOEI	Soe	2.63	198		P	17 43 24.5	-2.0
SOEI				S	S	17 44 20.0	-5.3
SOEI	Soe	2.63	198	P	P	17 43 24.8	-1.6
BBSI	Bau Bau	3.07	304	P	P	17 43 27.0	-1.9
MMRI	Maumere	3.17	244		P	17 43 26.5	-3.0
MMRI				S	S	17 44 24.7	-6.2
MMRI	Maumere	3.17	244	P	P	17 43 27.2	-2.3
BATI	Baumata	3.27	206	P	P	17 43 23.8	-6.5
	564nm,0.3s,baz=25,slow=1.2,SNR=223						
BATI				S	S	17 44 23.0	-9.3
	197nm,0.4s,baz=236,slow=23,SNR=9.9						
EDFI	Ende, Flores	3.71	246	P	P	17 43 29.3	-4.0
KDI	Kendari	4.10	323	P	P	17 43 35.1	-1.1
KKSI	Kolaka, Sulawe	4.60	311	P	P	17 43 38.3	-1.8
BSSI	Bau Bau, Buton	4.72	283	P	P	17 43 39.8	-1.3
SANI	Sanana	5.23	10	P	P	17 43 43.3	-2.2
	comp=Z,31nm,0.6s						
BKSI	Bulukumba	5.31	291	P	P	17 43 44.8	-1.4
	comp=Z,3µmcomp=Z,3µmcomp=Z,289nm,0.7s,comp=Z,289nm,0.7s						
LBFI	Labuhan Bajo,	5.32	256	P	P	17 43 43.3	-2.9
WSI	Waingapu	5.34	243	P	P	17 43 44.3	-2.0
KAPI	Kappang	5.77	292	P	P	17 43 49.9	-0.3
	comp=Z,77nm,0.4s,baz=132,slow=6.3,SNR=43						
KAPI	Kappang	5.77	292		P	17 43 50.1	-0.1
KAPI	Kappang	5.77	292	P	P	17 43 50.5	+0.3
	comp=Z,205nm,0.9s						
MKS	Makassar	5.96	289	P	P	17 43 51.2	-0.7
	comp=Z,1µmcomp=Z,1µmcomp=Z,161nm,1.1s,comp=Z,161nm,1.1s						
SAUI	Saumlaki	6.18	97	P	P	17 43 51.5	-2.5
SAUI	Saumlaki	6.18	97	P	P	17 43 52.1	-1.9
	comp=Z,344nm,0.7s						
LUWI	Luwuk	6.59	339		P	17 43 56.8	-1.0
LUWI	Luwuk	6.59	339	P	P	17 43 57.7	-0.2
	comp=Z,155nm,0.9s						
DBNI	Kabupaten Domp	6.85	259	P	P	17 43 57.4	-2.9
	comp=Z,1µmcomp=Z,1µmcomp=Z,117nm,0.7s,comp=Z,117nm,0.7s						
APSI	Ampana	7.17	331	P	P	17 44 03.4	-0.1
	comp=Z,1µmcomp=Z,1µmcomp=Z,134nm,0.6s,comp=Z,134nm,0.6s						
PMSI	Majene	7.20	301	P	P	17 44 04.1	+0.3
PLAI	Plampang	7.43	257	P	P	17 44 02.9	-3.1
	comp=Z,151nm,0.7s						
MMSI	Mamuju	7.66	306	P	P	17 44 08.5	+0.3
	comp=Z,2µmcomp=Z,2µmcomp=Z,224nm,0.7s,comp=Z,224nm,0.7s						
GTOI	Gorontalo	8.10	345	P	P	17 44 13.7	+1.1
MTN	Manton Dam	8.13	134		P	17 44 11.6	-1.3
PCI	Palu	8.20	320	P	P	17 44 14.9	+1.3
	comp=Z,2µmcomp=Z,2µmcomp=Z,170nm,1.1s,comp=Z,170nm,1.1s						
TWSI	Taliwang, Sumb	8.29	259	P	P	17 44 11.2	-3.2
	comp=Z,2µmcomp=Z,88nm,0.7s,comp=Z,88nm,0.7s						
FAKI	Fak Fak	8.30	59		P	17 44 11.9	-2.8
FAKI	Fak Fak	8.30	59	P	P	17 44 13.4	-1.2
	comp=Z,61nm,1.2s						
SIJI	Sorong	8.82	44	P	P	17 44 18.4	-1.4
	comp=Z,27nm,0.4s,baz=211,slow=9.9,SNR=75						
SIJI				S	S	17 45 57.9	-5.2
	comp=Z,10nm,0.4s,baz=19,slow=22,SNR=12						
KNRA	Kununurra	9.11	157		P	17 44 22.1	-0.6
TOLI2	Tolitoli	9.36	332		P	17 44 23.9	-1.4
TOLI2	Tolitoli	9.36	332	P	P	17 44 24.3	-1.0
	comp=Z,41nm,0.8s						
FITZ	Fitzroy Crossi	10.80	177	P	P	17 44 39.2	-0.9
	comp=Z,3.1nm,0.4s,baz=18,slow=9.9,SNR=29						
FITZ				S	S	17 46 37.3	-2.9
	comp=Z,6.6nm,0.5s,baz=148,slow=23,SNR=14						
FITZ	Fitzroy Crossi	10.80	177		P	17 44 39.7	-0.4
JAGI	Jajag, Banyuwa	10.93	263		P	17 44 38.2	-3.2
JAGI	Jajag, Banyuwa	10.93	263	P	P	17 44 38.3	-3.2
	comp=Z,83nm,0.7s						
WB0	Warramunga Arr	15.37	145		P	17 45 26.0	-1.5
WRAB	Tennant Creek	15.47	146	P	P	17 45 27.1	-1.4
WRAB				IAmb	IAmb	17 45 29.4	
	comp=Z,19nm,0.6s						
WRAB	Tennant Creek	15.47	146	P	P	17 45 27.4	-1.1
	comp=Z,31nm,0.5s						
WRA	Warramunga Arr	15.48	146	P	P	17 45 27.0	-1.5
	comp=Z,17nm,0.5s,baz=324,slow=11,SNR=238						
WRA				S	S	17 48 06.7	-1.6
	comp=Z,3.8nm,0.9s,baz=322,slow=16,SNR=4.9						
WRA	Warramunga Arr	15.48	146		P	17 45 26.4	-2.2
WR8	Warramunga Arr	15.58	145	P	P	17 45 28.2	-1.4
GENI	Genyem	15.69	74	P	P	17 45 29.7	-1.1
	comp=Z,108nm,1.0s						
SBUM	Sibu	16.07	306	P	P	17 45 33.7	-0.8
SBUM	Sibu	16.07	306	P	P	17 45 34.0	-0.6
	comp=Z,7.5nm,1.0s						
JAY	Jayapura	16.23	74	P	P	17 45 34.2	-1.9
	comp=Z,19nm,0.5s,baz=254,slow=13,SNR=30						
BBJI	Bungbulang	17.32	268		P	17 45 44.5	-1.7
BBJI	Bungbulang	17.32	268	P	P	17 45 44.7	-1.5
	comp=Z,30nm,0.7s						

AS31	Alice Springs	18.38	154	IAmb	IAmb	17 45 57.8	
	comp=Z,5.8nm,0.6s						
ASAR	Alice Springs	18.38	154	P	P	17 45 56.5	+0.7
	comp=Z,22nm,0.6s,baz=330,slow=8.2,SNR=497						
ASAR				S	S	17 48 58.4	+2.1
	comp=Z,4.0nm,0.8s,baz=347,slow=24,SNR=10						
ASAR	Alice Springs	18.38	154		P	17 45 56.4	+0.6
QIS	Mount Isa	19.29	135	P	P	17 46 04.3	+0.2
	comp=Z,67nm,0.5s						
MTSU	Mount Surprise	21.61	122	P	P	17 46 25.9	+0.8
	comp=Z,9.5nm,0.7s						
CTA	Charters Tower	24.15	124	P	P	17 46 48.1	+0.4
	comp=Z,5.7nm,0.8s,baz=299,slow=11,SNR=11						
	comp=Z,5.7nm,0.8s						
CTAO	Charters Tower	24.15	124		P	17 46 48.3	+0.6
CTAO				IAmb	IAmb	17 46 49.2	
	comp=Z,8.6nm,0.9s						
CTAO	Charters Tower	24.15	124	P	P	17 46 48.3	+0.6
	comp=Z,9.6nm,1.0s						
INKA	Innaminka	25.20	146	P	P	17 46 58.2	+1.3
INKA				IAmb	IAmb	17 46 59.0	
	comp=Z,9.4nm,1.4s						
QLP	Quilpie	26.47	139	P	P	17 47 09.6	+1.4
	comp=Z,65nm,0.8s						
BBOO	Buckleboo	27.40	160	P	P	17 47 16.1	0.0
BBOO	Buckleboo	27.40	160	P	P	17 47 16.2	0.0
	comp=Z,28nm,1.3s						
STKA	Stephens Creek	28.93	150	P	P	17 47 30.4	+0.8
	comp=Z,13nm,0.5s,baz=326,slow=8.8,SNR=39						
STKA				S	S	17 51 42.3	0.0
	comp=Z,2.8nm,0.8s,baz=300,slow=20,SNR=1.7						
	comp=Z,13nm,0.5s						
STKA	Stephens Creek	28.93	150	P	P	17 47 30.8	+1.2
	comp=Z,95nm,0.9s						
TWG	Pinlang	30.14	353	P	P	17 47 39.2	-0.9
TPUB	Ta-pu	30.67	352		P	17 47 43.4	-1.3
TPUB	Ta-pu	30.67	352	P	P	17 47 43.2	-1.5
	comp=Z,50nm,0.8s						
CMSA	Cobar Meteorol	30.88	144	P	P	17 47 47.6	+1.2
ARMA	Armidale	33.91	136	P	P	17 48 13.9	+1.6
	comp=Z,10nm,1.8s						
CAN	Canberra	35.52	145	P	P	17 48 27.6	+2.1
	comp=Z,31nm,1.1s						
CMAR	Chiang Mai Arr	36.31	315	P	P	17 48 32.8	+0.5
	comp=Z,1.1nm,0.7s,baz=144,slow=6.3,SNR=11						
CMAR				PcP	PcP	17 50 44.0	+1.7
	comp=Z,1.2nm,0.5s,baz=151,slow=3.1,SNR=9.4						
	comp=Z,1.1nm,0.7s						
CHTO	Chiang Mai	36.55	315	P	P	17 48 34.3	0.0
	comp=Z,3.6nm,1.2s						
WHN	Wuhan	38.96	345	P	P	17 48 54.4	+0.7
NJ2	Nanjing	39.53	352	*e*P	P	17 49 00.1	+1.9
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
ENH	Enshi	40.20	339	P	P	17 49 03.9	+0.1
	comp=Z,24nm,0.7s						
PZH	PanZhiHua	40.49	327	P	P	17 49 07.6	+1.4
SANVU	Saraoutou	42.00	105	P	P	17 49 18.8	+0.6
	comp=Z,37nm,1.0s						
XAN	Xi'an	43.83	340	P	P	17 49 31.8	-0.4
XAN				pmax	pmax		
	comp=Z,31nm,0.7s						
KSRS	Korea Array	44.54	3	P	P	17 49 37.7	+0.2
	comp=Z,1.9nm,0.8s,baz=179,slow=7.9,SNR=5.1						
KSRS				PcP	PcP	17 51 10.2	+1.3
	comp=Z,1.4nm,0.5s,baz=183,slow=2.7,SNR=5.4						
	comp=Z,1.9nm,0.8s						
MJAR	Matsushiro Arr	45.25	15	P	P	17 49 42.3	-0.8
	comp=Z,4.0nm,0.7s,baz=190,slow=8.9,SNR=8.3						
	comp=Z,4.0nm,0.7s						
MAJO	Matsushiro	45.26	15	P	P	17 49 42.6	-0.5
	comp=Z,11nm,2.7s						
HNS	HongShan	45.46	348	⇑P	P	17 49 44.6	0.0
HNS				pmax	pmax		
	comp=Z,16nm,0.8s						
LZDM	Lanzhou Array	47.46	336	P	P	17 50 00.4	+0.2
	comp=Z,3.5nm,0.4s,baz=160,slow=10,SNR=3.6						
	comp=Z,3.5nm,0.4s						
LZH	Lanzhou	47.51	337	*e*P	P	17 49 57.3	-3.1
LZH				pmax	pmax		
	comp=Z,14nm,1.1s						
LSA	Lhasa	49.14	320	P	P	17 50 12.3	-0.7
LSA				IAmb	IAmb	17 50 15.0	
	comp=Z,15nm,0.6s						
LSA	Lhasa	49.14	320	P	P	17 50 11.7	-1.3
	comp=Z,20nm,0.7s						
HHC	Hu-ho-hao-te	49.45	346	*e*P	P	17 50 17.5	+2.8
HHC				pmax	pmax		
	comp=Z,7.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,59nm,5.2s						
EVN	Everest	50.92	315	P	P	17 50 26.8	+0.5
EVN				IAmb	IAmb	17 50 27.7	
	comp=Z,8.9nm,0.7s						
EVN	Everest	50.92	315	P	P	17 50 27.1	+0.8
	comp=Z,13nm,1.0s						
XLT	XiLinHaoTe	51.55	352	*e*P	P	17 50 30.5	+0.6
XLT				pmax	pmax		
	comp=Z,13nm,0.7s						
XLT				pmax	pmax		
	comp=Z,65nm,5.7s						
USA0B	Ussuriysk Arra	51.58	6	P	P	17 50 30.2	+0.3
USA0B				IAmb	IAmb	17 50 39.3	
	comp=Z,23nm,1.4s						
USRK	Ussuriysk Ar.	51.58	6	P	P	17 50 30.4	+0.4
	comp=Z,5.4nm,0.5s,baz=184,slow=6.5,SNR=12						
	comp=Z,5.4nm,0.5s						
USRK	Ussuriysk Ar.	51.58	6	P	P	17 50 30.0	+0.1
MDJ	Mudanjiang	51.78	4	P	P	17 50 32.3	+0.9
MDJ				pmax	pmax		
	comp=Z,25nm,0.9s						
MDJ	Mudanjiang	51.78	4	P	P	17 50 31.6	+0.2
MDJ				IAmb	IAmb	17 50 32.9	
	comp=Z,25nm,1.1s						
MDJ	Mudanjiang	51.78	4	P	P	17 50 31.9	+0.5
	comp=Z,21nm,0.9s						
GTA2	Gaotai	52.08	335	*e*P	P	17 50 34.6	+0.7
GTA2				pmax	pmax		
	comp=Z,9.0nm,0.8s						
JKA	Kamikawa-asahi	53.51	16	P	P	17 50 44.4	+0.7
	comp=Z,13nm,2.3s						
ULN	Ulaanbaatar	57.14	346	P	P	17 51 09.7	+0.5
ULN	Ulaanbaatar	57.14	346	P	P	17 51 09.9	+0.7
	comp=Z,6.9nm,0.9s						
SONM	Songino Array	57.28	345	P	P	17 51 10.5	+0.4
	comp=Z,3.1nm,0.7s,baz=163,slow=8.5,SNR=14						
	comp=Z,3.1nm,0.7s						
SONM	Songino Array	57.28	345	P	P	17 51 10.5	+0.4
HEH	HeiHe	57.29	2	*e*P	P	17 51 10.6	+0.7
HEH				pmax	pmax		
	comp=Z,19nm,0.8s						
WMQ	Urumqi	61.06	330	*e*P	P	17 51 36.1	+0.7
WMQ				PP	PP	17 53 58.8	-0.1
WMQ				pmax	pmax		
	comp=Z,9.0nm,0.7s						
NIL	Nilore	63.77	313	P	P	17 51 53.0	0.0
NIL				IAmb	IAmb	17 51 53.9	
	comp=Z,13nm,0.6s						
KSH2	Kashi	65.05	319	P	P	17 52 01.8	+0.6
KSH2				pmax	pmax		
	comp=Z,7.0nm,0.7s						
MKAR	Makanchi Array	65.86	329	P	P	17 52 06.7	+0.7
	comp=Z,7.3nm,0.6s,baz=125,slow=7.1,SNR=90						
	comp=Z,7.3nm,0.6s						
MAKZ	Makanchi	66.03	329		P	17 52 07.5	+0.5
MAKZ	Makanchi	66.03	329	P	P	17 52 07.5	+0.5
	comp=Z,6.1nm,1.3s						
PETK	Petropavlovsk-	66.17	21	P	P	17 52 08.8	+1.1
	comp=Z,4.5nm,0.5s,baz=208,slow=1.6,SNR=46						
	comp=Z,4.5nm,0.5s						
PETK	Petropavlovsk-	66.17	21	P	P	17 52 09.1	+1.4
KBL	Kabul	67.26	312	P	P	17 52 15.3	+0.1
KBL				IAmb	IAmb	17 52 16.4	
	comp=Z,5.7nm,0.6s						
KBL	Kabul	67.26	312	P	P	17 52 15.7	+0.5
	comp=Z,9.2nm,1.0s						
AAK	Ala-Archa	67.67	322	P	P	17 52 18.7	+1.3
	comp=Z,8.0nm,0.7s						
DRK	Karamyk	67.70	318	P	P	17 52 15.9	-1.9
	comp=Z,36nm,0.5s						
ARK	Arkit	68.79	320	P	P	17 52 25.2	+1.0
	comp=Z,4.8nm,2.0s						
YAK	Yakutsk	69.16	2	P	P	17 52 25.9	+0.2
YAK				IAmb	IAmb	17 52 26.8	
	comp=Z,25nm,0.8s						
YAK	Yakutsk	69.16	2	P	P	17 52 26.2	+0.5
	comp=Z,36nm,0.7s						
MA2	Magadan	69.67	14	P	P	17 52 29.6	+0.7
	comp=Z,8.4nm,0.7s						
ZAA0	Zalesovo Array	69.74	336	IAmb	IAmb	17 52 30.0	
	comp=Z,12nm,1.0s						
ZALV	Zalesovo Beam	69.74	336	P	P	17 52 29.2	-0.2
	comp=Z,11nm,0.5s,baz=136,slow=5.3,SNR=56						
	comp=Z,11nm,0.5s						
ZALV	Zalesovo Beam	69.74	336		P	17 52 28.8	-0.6
KURBB	Kurchatov Arra	70.26	331	P	P	17 52 33.1	+0.6
	comp=Z,6.1nm,0.6s,baz=139,slow=5.1,SNR=56						
	comp=Z,6.1nm,0.6s						
KURK	Kurchatov	70.27	331		P	17 52 33.1	+0.5
KURK				IAmb	IAmb	17 52 34.0	
	comp=Z,11nm,0.8s						
KURK	Kurchatov	70.27	331	P	P	17 52 33.5	+0.8
	comp=Z,16nm,0.8s						
MAW	Mawson	72.98	201	P	P	17 52 49.5	+1.3
	comp=Z,0.4nm,0.4s,baz=68,slow=5.4,SNR=2.4						
	comp=Z,0.4nm,0.4s						
MAW	Mawson	72.98	201	P	P	17 52 49.4	+1.3
	comp=Z,0.5nm,2.4s						
BVAR	Borovoye Array	75.74	329	P	P	17 53 04.6	+0.6
	comp=Z,4.8nm,0.6s,baz=115,slow=7.0,SNR=20						
	comp=Z,4.8nm,0.6s						
BORK	Borovoye	75.79	329		P	17 53 04.7	+0.5
BORK				IAmb	IAmb	17 53 05.7	
	comp=Z,9.8nm,1.1s						
OPO	Ambohidratompo	76.32	253	P	P	17 53 08.8	+0.7
	comp=Z,3.0nm,0.8s,baz=94,slow=16,SNR=2.1						
	comp=Z,3.0nm,0.8s						
TIXI	Tiksi	78.77	1	P	P	17 53 19.9	0.0
TIXI				IAmb	IAmb	17 53 20.7	
	comp=Z,8.2nm,0.4s						
NRIK	Noril'sk	80.67	347	P	P	17 53 29.7	-0.4
	comp=Z,6.9nm,0.6s,baz=142,slow=5.2,SNR=7.0						
	comp=Z,6.9nm,0.6s						
QSPA	South Pole Qui	82.74	180	P	P	17 53 41.7	+0.8
	comp=Z,0.9nm,0.5s,baz=343,slow=4.9,SNR=11						
	comp=Z,0.9nm,0.5s						
RAYN	Ar Rayn	83.42	295		P	17 53 46.2	+1.1
RAYN	Ar Rayn	83.42	295	P	P	17 53 46.2	+1.1
	comp=Z,6.4nm,1.1s						
ELIB	Princess Elisa	86.79	198	*d*P	P	17 54 01.6	+1.0
	comp=Z,1.9nm,0.9s						
BOSA	Boshof	95.14	240	P	P	17 54 40.2	+0.3
	comp=Z,0.9nm,0.6s,baz=96,slow=6.9,SNR=3.9						
	comp=Z,0.9nm,0.6s						
ILAR	Eielson Array	95.64	25	P	P	17 54 40.4	-0.8
	comp=Z,0.3nm,0.6s,baz=264,slow=3.4,SNR=2.6						
	comp=Z,0.3nm,0.6s						
BRTR	Keskin Array B	95.70	309	P	P	17 54 41.5	-0.8
	comp=Z,0.3nm,0.4s,baz=92,slow=0.4,SNR=2.9						
	comp=Z,0.3nm,0.4s						
EKA	Eskdalemuir Ar	116.99	330	PKP	PKiKP	17 59 57.5	+0.4
	comp=Z,0.3nm,0.4s,baz=4.2,slow=3.7,SNR=4.2						
PDAR	Pinedale Array	120.48	44	PKP	PKiKP	18 00 05.3	+0.6
	comp=Z,0.3nm,0.5s,baz=316,slow=2.0,SNR=5.2						
TORD	Torodi Ar. Bea	124.09	281	PKP	PKiKP	18 00 12.6	+0.3
	comp=Z,1.5nm,0.6s,baz=97,slow=2.4,SNR=12						
TXAR	Lajitas Array	129.19	58	PKP	PKiKP	18 00 22.7	+0.5
	comp=Z,0.2nm,0.3s,baz=301,slow=1.5,SNR=3.8						
DBIC	Dimbokro	130.35	273	PKP	PKiKP	18 00 25.4	+0.6
	comp=Z,2.1nm,0.8s,baz=116,slow=2.8,SNR=4.2						
KMSC	Kings Mountain	143.11	37		PKPdf	18 00 46.5	-0.3
AC02	Maricunga	143.42	158		PKPbc	18 00 47.4	+0.7
CPUP	Villa Florida	146.54	176	PKPbc	PKPbc	18 00 56.5	+1.1
	comp=Z,2.0nm,0.4s,baz=188,slow=5.9,SNR=9.1						
PB07	IPOC Station P	147.67	153		PKPbc	18 00 59.2	+0.5

DJA 24 17:43:38.0±1.3**,8°S**±14°×**10°7E**±°**,h29**km±6km**,M3.0**/11**, ML3.0**/10**,MLv3.0**/10**,MLv3.0**/11**,Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CNJI	Cibinong	0.38	332	P	Pn	17 43 48.4	+0.8
CNJI				AML	AML		
CNJI				AML	AML		
CNJI				AML	AML		
CNJI	Cibinong	0.38	332	P	Pn	17 43 48.3	+0.7
CNJI				S	Sn	17 43 56.9	+2.9
CNJI				AML	AML		
BBJI	Bungbulang	0.39	61	P	Pn	17 43 47.3	-0.4
BBJI				AML	AML		
BBJI				AML	AML		
BBJI				AML	AML		
SKJI	Sukabumi	0.98	311	P	Pb	17 43 56.6	+0.1
SKJI				AML	AML		
SKJI				AML	AML		
SKJI	Sukabumi	0.98	311	P	Pn	17 43 54.9	-1.0
SKJI				S	Sn	17 44 08.2	-0.7
SKJI				AML	AML		

IDC 24 17:45:11.3±4.4**,3°.18S**×**130°.42E,h0**km**,mb3.6**/3**, mbtmp3.6**/4**,MS2.9**/3**,Error ellipse: s-maj=374.2km s-min=26.9km az=72.0,Seram**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SIJI	Sorong	2.45	20	LR	LR	17 47 27.8	
	comp=Z,65nm,20.8s,baz=272,slow=56						
FITZ	Fitzroy Crossi	15.55	197	LR	LR	17 56 52.2	
	comp=Z,83nm,18.6s,baz=194,slow=45						
WRA	Warramunga Arr	17.09	167	P	Pn	17 49 12.8	+0.9
	0.9nm,0.7s,baz=350,slow=14,SNR=2.4						
ASAR	Alice Springs	20.64	171	P	P	17 49 52.4	-0.4
	3.0nm,0.6s,baz=337,slow=11,SNR=9.0						
	3.0nm,0.6s						
CTA	Charters Tower	22.83	139	LR	LR	17 58 47.2	
	comp=Z,62nm,20.6s,baz=230,slow=36						
MKAR	Makanchi Array	65.30	326	P	P	17 55 56.3	+1.1
	0.2nm,0.6s,baz=120,slow=6.4,SNR=1.7						
	0.2nm,0.6s						
KURBB	Kurchatov Arra	69.51	328	P	P	17 56 20.9	-0.9
	0.5nm,0.8s,baz=136,slow=5.8,SNR=4.5						
	0.5nm,0.8s						

IDC 24 17:46:57.1±1.9,2°.15N×127°.96E,h0km,mb3.7/5, mbtmp3.7/5,Error ellipse: s-maj=123.6km s-min=20.6km az=71.0

DJA 24 17:47:13.7±0.8,2°N±8°×12°7E±°,h28km±9km,M3.7/10, mB4.8/2,mb4.0/2,mb4.0/2,mB4.8/2,ML3.4/10,MLv3.5/10, MLv3.5/10,Mw(mB)4.0/2,Mw(mB)4.0/2

ISC 24 17:47:11.1±1.5**,1°.9N**±0°.1×**127°.4E**±0°.1**,h112**km**,n11, σ1s.04**/11**,mb3.7**/4**,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TNTI	Ternate	1.08	184	P	Pn	17 47 34.7	+1.3
TNTI				AML	AML		
MNI	Manado	2.63	261	P	Pn	17 47 52.1	-0.3
MNI				AML	AML		
MNI				AML	AML		
MNI				AML	AML		
SANI	Sanana	4.15	201	P	Pn	17 48 12.1	-0.4
SANI				AML	AML		
SANI				AML	AML		
SANI				AML	AML		
GTOI	Gorontalo	4.59	255	P	Pn	17 48 19.7	+1.2
GTOI				AML	AML		
GTOI				AML	AML		
GTOI				AML	AML		
NLAI	Namlea	5.08	184	P	Pn	17 48 26.1	+1.1
	0.1nm0.2nm0.2nm1μm1μm23nm,1.2s,23nm,1.2s						
NLAI				AML	AML		
NLAI				AML	AML		
NLAI				AML	AML		
LUWI	Luwuk	5.49	238	P	Pn	17 48 31.8	+1.2
	0.1nm0.2nm0.2nm478nm478nm11nm,0.9s						
LUWI				AML	AML		
LUWI				AML	AML		
LUWI				AML	AML		
FITZ	Fitzroy Crossi	19.91	185	P	P	17 51 32.8	-1.3
	1.3nm,0.6s,baz=0.0,slow=9.1,SNR=1.4						
	1.3nm,0.6s						
WRA	Warramunga Arr	22.70	163	P	P	17 52 02.8	-0.8
	1.8nm,0.4s,baz=348,slow=10,SNR=14						
	1.8nm,0.4s						
ASAR	Alice Springs	26.14	166	P	P	17 52 34.4	-0.6
	0.4nm,0.4s,baz=345,slow=7.6,SNR=5.6						
	0.4nm,0.4s						
MKAR	Makanchi Array	59.49	326	P	P	17 57 02.7	+0.3
	0.6nm,0.6s,baz=120,slow=7.4,SNR=6.5						
	0.6nm,0.6s						
KURBB	Kurchatov Arra	63.69	328	P	P	17 57 30.5	-0.1
	0.3nm,0.4s,baz=131,slow=6.6,SNR=4.1						
	0.3nm,0.4s						

SDD 24 18:05:22.9±2.6,18°.49N×71°.24W,h25km±7km,MD2.6, ML2.3,MW2.8,Presumed earthquake

OSPL 24 18:05:25.9±1.6,18°.48N×71°.16W,h9km±8km,ML2.2, Presumed earthquake

ISC 24 18:05:24.6±0.9**,18°.43N**±0°.03×**71°.26W**±0°.03**,h28**km±6km**, n15,**σ**1s.69**/29**,Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NEDR	Neiba UASD	0.16	288	*i* P	Pb	18 05 28.5	-1.6
NEDR				*i* S	Sb	18 05 34.2	+0.3
NEDR				IAML		18 05 35.3	
	comp=N,429nm,0.5s						
LODU1	El Espartillar	0.22	249	*i* P	Pn	18 05 31.4	-0.7
LODU1				*e*S	Sn	18 05 36.8	+1.8
LODU1				IAML		18 05 37.1	
	comp=Z,228nm,0.3s						
LONE3	El Aguacate, B	0.26	312	*i* P	Pn	18 05 31.1	-1.6
LONE3				*e*S	Sb	18 05 36.3	+0.2
LONE3				IAML		18 05 36.9	
	comp=Z,92nm,0.4s						
PODR	Polo	0.27	185	*i* P	Pn	18 05 31.5	-1.4
PODR				*e*S	Sn	18 05 36.9	-1.3
PODR				IAML		18 05 37.3	
	comp=Z,6μm,0.1s						
PODR	Polo	0.27	185	*i* P	Pn	18 05 31.5	-1.4
PODR				*i* S	Sn	18 05 38.0	-0.1
PODR				IAML		18 05 40.7	
	comp=N,375nm,0.2s						
SDDR	Presa de Saban	0.55	357	*i* P	Pn	18 05 35.3	-1.4
SDDR				*e*S	Sn	18 05 43.2	-1.8
SDDR				IAML		18 05 44.8	
	comp=Z,37nm,0.3s						
SDDR	Presa de Saban	0.55	357	*i* P	Pn	18 05 35.3	-1.4
SDDR				*i* S	Sn	18 05 43.1	-1.8
SDDR				IAML		18 05 45.6	
	comp=N,75nm,0.2s						
JIDR	Jimani	0.57	276	*i* P	Pn	18 05 37.1	+0.3
JIDR				*i* S	Sn	18 05 44.5	-0.8
JIDR				IAML		18 06 30.2	
	comp=N,45nm,2.5s						
LOVI	El Cajuil, Ovi	0.64	190	*i* P	Pn	18 05 38.7	+0.9
LOVI				*e*S	Sn	18 05 49.3	+2.3
LOBH	Bahia de las A	0.67	213	*i* P	Pn	18 05 39.0	+0.7
ABDR	Alto Bandera	0.71	58	*i* P	Pn	18 05 38.1	-1.0
ABDR				*i* S	Sn	18 05 48.4	-0.8
ABDR				IAML		18 05 49.1	
	comp=N,55nm,0.5s						
REDR	Restauracion	0.74	350	*i* P	Pn	18 05 41.8	+2.6
REDR				*i* S	Sn	18 05 54.9	+5.2
REDR				IAML		18 05 55.7	
	comp=N,126nm,0.2s						
BANI	BANI	0.85	93	*i* P	Pn	18 05 39.7	-1.2
BANI				*i* S	Sn	18 05 53.9	+1.4
BANI				IAML		18 05 54.5	
	comp=N,163nm,0.2s						
DR08	Loma La Naviza	1.28	66	*i* P	Pb	18 05 49.1	+1.0
DR08				*i* S	Sb	18 06 04.8	+0.5
DR08				IAML		18 06 09.8	
	comp=N,322nm,0.2s						
HATOM	Hato Mayor del	1.81	78	*i* P	Pb	18 05 57.3	+0.1
HATOM				*i* S	Sb	18 06 19.3	-0.2
HATOM				IAML		18 06 21.1	
	comp=N,17nm,1.6s						

SOF 24 18:06:38.6,40°.70N±0°.04×28°.24E±0°.02,h21km±2km, MD3.5/6

ISK 24 18:06:40.7,40°.82N×28°.18E,h14km,ML3.7/38

AFAD 24 18:06:40.7,40°.81N×28°.14E,h18km±1km,MW3.6

THE 24 18:06:42.0,41°N±4°×2°8E±°,h20km,M3.4/13,MLh3.4/13

CFUSG 24 18:06:48.1,40°.90N×28°.83E,h20km,Mb2.7/6,MD3.4/6, MSH3.1/6

ISC 24 18:06:41.0±1.0**,40°.82N**±0°.01×**28°.17E**±0°.01**,h19**km±2km**, n163,**σ**1s.20**/212**,19C-15D,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOTS	Marmara Eregli	0.22	319	Pg	Pg	18 06 46.3	-0.1
BOTS				AML	AML		
SINB	Sinanoba-Istan	0.33	57	Pg	Pg	18 06 48.1	0.0
SINB				AML	AML		
IMRA	Mudanya	0.37	133	P	Pb	18 06 48.9	-0.2
ELBA	Catalca	0.38	31	P	Pg	18 06 48.6	-0.4
ELBA				S	Sg	18 06 53.0	-1.4
SLVT	Silivri	0.41	4	Pg	Pg	18 06 49.6	+0.1
SLVT				Sg	Sb	18 06 55.7	0.0
SLVT				AML	AML		
YKBL	Yakuplu-Istanb	0.41	65	Pg	Pg	18 06 49.5	0.0
AVCI	Avcilar-stanb	0.45	67	Pg	Pg	18 06 50.2	0.0
AVCI				AML	AML		
CRLT	Corlu	0.45	313	Pg	Pb	18 06 50.4	-0.1
CRLT				AML	AML		
BAND	Balkesir-Ban	0.47	187	P	Pg	18 06 50.4	-0.1
BAND				S	Sg	18 06 55.0	-2.0
BAND	Balkesir-Ban	0.47	187	⇑P	Pg	18 06 50.4	-0.1
CTKS	Kestanelik-??a	0.49	31	Pg	Pg	18 06 50.5	-0.4
CTKS				AML	AML		
MRMT	Marmara Adasi	0.49	244	Pg	Pg	18 06 50.7	-0.3
MRMT				AML	AML		
TKR	Tekirdag	0.51	290	Pg	Pb	18 06 51.5	+0.1
TKR				Sg	Sb	18 06 58.9	+0.5
TKR				AML	AML		
MADA	Marmara adas	0.53	244	P	Pg	18 06 50.9	-0.7
MADA				S	Sg	18 06 58.0	-0.7
EDC	Edincik	0.53	207	Pg	Pb	18 06 51.6	0.0
EDC				AML	AML		
CATL	atalca, ST	0.54	15	P	Pb	18 06 51.3	-0.6
CATL				S	Sg	18 06 57.4	-1.7
KCTX	Karacabey (Bur	0.57	166	Pg	Pg	18 06 52.5	+0.1
KCTX				AML	AML		
BGKT	Bogazkoy	0.58	51	Pg	Pb	18 06 52.3	-0.2
BGKT				AML	AML		
ARMT	Armutlu	0.58	116	Pg	Pg	18 06 52.6	0.0
ARMT				AML	AML		
MURA	Muratl, TEK	0.62	303	P	Pg	18 06 53.7	+0.4
ESNK	Esenk¶y	0.64	107	P	Pg	18 06 53.9	+0.2
ESNK				P	Pb	18 06 54.0	+0.6
ESNK				S	Sb	18 07 02.0	+0.1
ESNK				S	Sg	18 07 02.4	+0.2
GAZK	Gazikoy-TEKIRD	0.65	264	Pg	Pg	18 06 53.6	-0.2
GAZK				Sg	Sg	18 07 03.3	+0.8
GAZK				AML	AML		
CTYL	Yalikoy Yolu	0.66	8	Pg	Pb	18 06 53.6	-0.3
CTYL				AML	AML		
BRGA	Burgazada-Ista	0.68	84	Pg	Pg	18 06 54.5	+0.1
HYBA	Heybeliada-Ist	0.69	85	Pg	Pg	18 06 54.7	0.0
HYBA				AML	AML		
MDNY	Mudanya-Bursa	0.70	130	Pg	Pg	18 06 55.1	+0.2
YYLC	Yaylacik	0.71	136	P	Pg	18 06 55.2	+0.2
YYLC				S	Sb	18 07 04.1	0.0
ISK	Istanbul-Kandi	0.71	70	Pg	Pb	18 06 54.5	-0.3
ISK				AML	AML		
KAVV	Kandilli-Istan	0.71	70	Pg	Pb	18 06 54.6	-0.2
KAVV				AML	AML		
SART	Tekirdag	0.77	261	P	Pb	18 06 55.3	-0.4
SART				S	Sb	18 07 05.6	-0.3
RKY	Sarkoy-Tekirda	0.77	260	Pg	Pg	18 06 55.9	-0.2
RKY				AML	AML		
KLYT	Kilyos	0.79	56	Pg	Pb	18 06 56.1	0.0
KRBG	Karabiga-Canak	0.79	238	Pg	Pg	18 06 56.2	-0.3
KRBG				AML	AML		
VIZE	Kirklareli, Vi	0.80	342	P	Pb	18 06 56.1	-0.2
VIZE				S	Sb	18 07 05.7	-1.0
KURT	Yalova, Merkez	0.82	106	P	Pg	18 06 56.8	-0.2
KURT				S	Sb	18 07 07.3	0.0
CMHT	Manyas	0.82	191	P	Pg	18 06 56.8	-0.3
CMHT				S	Sg	18 07 08.0	0.0
TUZL	Tuzla-Istanbul	0.83	90	Pg	Pb	18 06 56.9	+0.1
TUZL				AML	AML		
GONE	Gonen-Balikesi	0.86	206	Pg	Pg	18 06 57.6	-0.1
GONE				AML	AML		
SUSR	Susurluk-Balik	0.86	185	Pg	Pg	18 06 57.7	-0.1
SATE	Sancaktepe,	0.86	77	P	Pb	18 06 57.1	-0.3
SATE				S	Sb	18 07 07.8	-0.8
GEML	Gemlik-BURSA	0.87	114	Pg	Pg	18 06 57.7	-0.2

GEML				AML	AML		
ATIT	Gnen	0.87	213	P	Pg	18 06 57.7	-0.3
ATIT				S	Sg	18 07 09.5	0.0
LAFA	Gebze-Kocaeli	0.90	93	Pg	Pg	18 06 58.4	-0.1
LAFA				AML	AML		
YLVH	Yalova	0.92	97	Pg	Pg	18 06 59.2	+0.3
YLVH				AML	AML		
AVDN	Avdancik/Bursa	0.92	125	P	Pn	18 06 59.1	+0.1
AVDN				S	Sg	18 07 11.1	+0.1
KRSK	Karsak	0.92	116	P	Pn	18 06 58.8	-0.2
KRSK				S	Sg	18 07 10.9	-0.3
YLV	Yalova	0.95	105	Pg	Pb	18 06 58.9	+0.1
YLV				AML	AML		
BIGA	Biga-Canakkale	0.95	236	Pg	Pn	18 06 58.9	-0.4
PHSR	Pinarhisar	0.95	329	Pg	Pn	18 06 59.1	-0.2
PHSR				AML	AML		
ORLT	Orhaneli	0.95	144	Pg	Pg	18 06 59.9	+0.4
ORLT	Orhaneli	0.95	144	P	Pn	18 06 59.2	-0.1
ORLT				S	Sb	18 07 11.2	+0.1
IGD	Bursa	0.96	125	P	Pg	18 06 59.6	-0.1
IGD				S	Sg	18 07 12.1	-0.2
ULDT	Uludag	1.00	132	P	Pb	18 06 59.9	+0.1
ULDT				S	Sb	18 07 12.8	+0.2
IZI	Iznik	1.10	116	Pn	Pg	18 07 01.9	-0.5
IZI				AML	AML		
BKES	Balkesir-Mer	1.10	190	P	Pg	18 07 02.0	-0.3
BKES				S	Sb	18 07 15.3	-0.1
HRT	Hereke	1.13	89	Pn	Pb	18 07 02.1	+0.1
HRT				AML	AML		
KESN	Edirne-Kesan	1.13	271	P	Pn	18 07 02.2	0.0
KESN				S	Sn	18 07 16.9	-0.6
YENI	Yenice-Canakka	1.13	219	Pn	Pg	18 07 02.5	-0.5
BALY	Balya	1.16	202	P	Pg	18 07 02.8	-0.7
BALY				S	Sg	18 07 17.8	-0.8
SILT	Sile	1.16	73	Pn	Pb	18 07 02.8	+0.4
SILT				AML	AML		
SILT	Sile	1.16	73	⇓P	Pg	18 07 03.1	-0.3
LAPS	Lapseki, ANA	1.17	241	P	Pb	18 07 02.4	-0.1
LAPS				S	Sb	18 07 16.8	-0.5
CANM	Can-anakkale	1.18	227	Pn	Pb	18 07 02.9	+0.2
CANM				AML	AML		
OSMT	Osmaniye	1.18	100	Pn	Pb	18 07 02.8	0.0
OSMT				AML	AML		
ARMN	Kirklareli, Me	1.19	332	P	Pb	18 07 02.8	-0.1
ARMN				S	Sb	18 07 17.5	-0.3
GOKT	Kean, EDRN	1.19	263	P	Pb	18 07 02.7	-0.2
GOKT				S	Sn	18 07 18.4	+0.3
SEMS	Kocaeli-K¶rfe	1.19	87	P	Pn	18 07 02.8	+0.1
SEMS				S	Sb	18 07 18.1	+0.2
UKOP	Uzunkopru-Edir	1.21	285	Pn	Pb	18 07 03.6	+0.4
UKOP				AML	AML		
DURS	Dursunbey	1.24	169	P	Pb	18 07 04.1	+0.3
DURS				S	Sn	18 07 19.5	-0.1
ADVT	Abdulvahap	1.25	107	Pn	Pb	18 07 03.9	-0.1
ADVT				AML	AML		
KIRK	Kırklareli	1.26	320	P	Pn	18 07 03.6	0.0
KIRK				S	Sb	18 07 17.5	-2.4
ERIK	Erikli-Kesan	1.27	264	Pn	Pb	18 07 04.1	-0.2
ERIK				AML	AML		
GELI	Tayfur-Gelibol	1.36	253	Pn	Pb	18 07 05.7	-0.2
GELI				AML	AML		
HISA	Bilecik-Osmane	1.38	104	P	Pb	18 07 06.2	0.0
HISA				S	Sb	18 07 23.8	+0.4
CAVI	Cavuskoy	1.41	115	Pn	Pb	18 07 06.7	-0.1
CAVI				AML	AML		
BILE	Bilecik/Merkez	1.45	116	P	Pb	18 07 07.0	-0.5
STEP	BALIKESIR_Sava	1.48	194	P	Pg	18 07 08.7	-0.9
STEP				S	Sb	18 07 27.2	+0.7
COMU	Canakkale	1.48	242	Pn	Pb	18 07 07.2	-0.8
COMU				AML	AML		
CAVK	Edirne/Enez-Ca	1.53	266	P	Pb	18 07 07.9	-0.8
CAVK				S	Sb	18 07 27.1	-0.6
CAVK	Edirne/Enez-Ca	1.53	266	⇓P	Pb	18 07 09.0	+0.3
ENEZ	Enez	1.54	268	P	Pb	18 07 08.1	-0.8
ENEZ				S	Sb	18 07 27.9	-0.1
ENEZ				AML	AML		
DOMA	Ktahya-Doman	1.56	131	P	Pn	18 07 08.3	+0.6
CNKL	anakkale-Mer	1.56	242	P	Pn	18 07 07.7	0.0
BUHA	Balikesir, Bur	1.56	213	P	Pb	18 07 08.4	-0.9
BUHA				S	Sg	18 07 30.3	-1.2
ALN	Alexandroupoli	1.62	273	P	Pn	18 07 08.9	+0.5
ALN				S	Sb	18 07 30.6	+0.4
ALN				AML	AML		
BAYC	CANAKKALE_Bayr	1.65	230	P	Pn	18 07 09.2	+0.3
BAYC				S	Sb	18 07 32.1	+1.0
GEYV	SAKARYA_Geyve	1.65	101	P	Pb	18 07 10.0	-0.8
KAYN	Sakarya, Kayna	1.65	84	P	Pb	18 07 10.1	-0.7
KAYN				S	Sb	18 07 31.4	+0.2
AUBOZ	BOZOYUK	1.69	122	P	Pb	18 07 10.7	-0.8
AUBOZ				S	Sb	18 07 32.3	0.0
EMET	Ktahya-Emet	1.69	148	P	Pn	18 07 10.5	+0.8
EMET				S	Sn	18 07 29.6	-1.2
EZN	Ezine	1.73	236	P	Pn	18 07 10.5	+0.5
EZN				S	Sb	18 07 32.8	-0.6
EZN				AML	AML		
DEMI	Demirci	1.82	167	P	Pn	18 07 12.2	+0.8
SIMV	Simav	1.83	159	P	Pn	18 07 12.5	+1.0
SIMV				S	Sn	18 07 33.0	-1.2
GADA	Gvkgeada	1.84	251	P	Pn	18 07 12.6	+1.0
ANDZ	Kutahya, Merke	1.86	134	P	Pn	18 07 12.9	+1.0
ANDZ				S	Sn	18 07 35.8	+0.8
AKHS	Akhisar	1.96	188	P	Pn	18 07 13.8	+0.6
BORA	Eskisehir	1.98	118	P	Pb	18 07 16.9	+0.5
BORA	Eskisehir	1.98	118	P	Pn	18 07 14.4	+0.9
GDZ	Gediz	2.00	149	P	Pn	18 07 15.2	+1.3
GDZ				S	Sn	18 07 37.6	-0.8
KUTH	Kutahya	2.01	135	P	Pg	18 07 18.5	-1.1
SAHE	Sakarya_HENDEK	2.03	88	P	Pn	18 07 14.8	+0.6
SAHE	Sakarya_HENDEK	2.03	88	⇑P	Pb	18 07 17.0	-0.3
SMTH	Samothraki Isl	2.04	261	P	Pn	18 07 14.3	0.0
JMB	Yambol	2.08	324	P	Pn	18 07 15.5	+0.7
JMB	Yambol	2.08	324	P	Pn	18 07 15.7	+0.9
SUSU	Bolu-G¶lynk-	2.09	102	P	Pn	18 07 15.2	+0.1
PRK	Paraskevi	2.15	224	P	Pn	18 07 16.4	+0.6
PRK				AML	AML		
KDZ	Kurdzhali	2.29	292	P	Pn	18 07 18.2	+0.5
KDZ				AML	AML		
KDZ	Kurdzhali	2.29	292	P	Pn	18 07 18.0	+0.3
DIM	Dimitrovgrad	2.30	303	P	Pn	18 07 18.9	+0.9
DIM	Dimitrovgrad	2.30	303	P	Pn	18 07 18.9	+0.9
PRD	Provadia	2.41	347	P	Pn	18 07 20.3	+0.9
LIA	Limnos Island	2.46	249	P	Pn	18 07 20.3	+0.2
LIA				AML	AML		
NEF	NEVSHA	2.53	345	P	Pn	18 07 22.1	+1.0
THAS	Thassos island	2.63	266	P	Pn	18 07 22.4	-0.1
RZN	Rozhen	2.73	290	P	Pn	18 07 24.8	+0.8
RZN				AML	AML		
KAVA	Kavala	2.78	275	P	Pn	18 07 25.2	+0.7
KAVA				AML	AML		
LOZB	Loznitsa	2.81	336	⇓P	Pb	18 07 32.1	+1.5
PSN	Preselentsi	2.82	359	P	Pn	18 07 26.4	+1.4
PLD	Plovdiv	2.90	298	P	Pn	18 07 28.1	+2.0
CHOS	Chios island	2.93	215	P	Pn	18 07 26.8	+0.2
CHOS				AML	AML		
SZH	Strazhitsa	2.94	327	P	Pn	18 07 27.6	+0.9
SZH				AML	AML		
SZH	Strazhitsa	2.94	327	P	Pn	18 07 27.3	+0.6
RAZG	Razgrad	3.01	336	⇓P	Pb	18 07 35.4	+1.4
OUR	Ouranopolis	3.23	263	P	Pn	18 07 30.7	0.0
OUR				AML	AML		
NVR	Nevrokopi	3.30	281	P	Pn	18 07 32.6	+0.9
ICOR	Ion Corvin	3.31	355	⇓P	Pg	18 07 43.8	-0.5
MFTR	Murfatlar	3.36	3	⇑P	Pg	18 07 43.3	-2.1
TAVA	DENIZLI_Tavas	3.40	170	⇓P	Pg	18 07 48.3	+2.2
MMB	Musomishta	3.42	284	P	Pn	18 07 34.4	+1.1
MMB				AML	AML		
SRS	Serrai	3.48	276	P	Pn	18 07 34.9	+0.7
ZIMR		3.52	325	⇓P	Pg	18 07 48.9	+0.4
PAIG	Paliouri	3.55	257	P	Pn	18 07 34.9	-0.2
PLVB	Pleven	3.68	315	⇑P	Pn	18 07 40.1	+3.1
AOS	Alonnisos	3.69	245	P	Pn	18 07 37.7	+0.7
SGRR	Singureni	3.77	335	⇑P	Pg	18 07 53.0	-0.2
HARR	Harsova	3.87	357	⇑P	Pg	18 07 54.8	-0.4
TPGR	Topolog	4.04	2	⇓P	Pg	18 07 57.5	-0.9
CFR	Carcaliu	4.36	360	⇓P	Pg	18 08 04.5	+0.1
BZK	Bozkurt	4.53	74	⇑P	Pn	18 07 51.3	+2.8
NEHR	Nehoiu	4.81	344	⇑P	Pn	18 07 56.2	+3.9
MLR	Muntele Rosu	4.95	341	⇓P	Pn	18 07 58.0	+3.6
SAHR	Sahastru	5.02	348	⇓P	Pb	18 08 03.2	-5.1
VOIR		5.15	335	⇑P	Pn	18 08 00.9	+3.7
PLOR	Plostina	5.15	348	⇑P	Pn	18 08 00.4	+3.3
VRI	Vrincioaia	5.15	349	⇑P	Pn	18 08 00.9	+3.8
COVR	Voineasa-Covas	5.22	345	⇓P	Pn	18 08 01.4	+3.2
TURR	Turia	5.46	344	⇑P	Pn	18 08 03.8	+2.4
SEV	Sevastopol'	5.50	46	⇓*i*P	Pn	18 08 02.8	+1.0
SEV				pmax	pmax	18 08 06.6	
	comp=Z,4.0nm,0.3s						
SEV				*i* S	Sn	18 09 02.3	-2.2
SEV				smax	smax	18 09 06.3	
	comp=N,4.0nm,0.3s						
SEV				smax	smax	18 09 06.3	
	comp=E,8.0nm,0.4s						
DOPR	Dopca	5.53	339	⇑P	Pn	18 08 05.6	+3.2
OZUR		5.55	343	⇑P	Pn	18 08 05.9	+3.2
TARU	Tarkhankut	5.56	34	*e*P	Pn	18 08 04.0	+1.3
TARU				pmax	pmax	18 08 10.4	
	comp=Z,1.0nm,0.2s						
TARU				*e*S	Sn	18 09 03.8	-2.2
TARU				smax	smax	18 09 12.2	
	comp=N,9.0nm,0.2s						
TARU				smax	smax	18 09 12.2	
	comp=E,10.0nm,0.3s						
LOT	Lotru	5.64	327	⇓P	Pn	18 08 10.2	+6.3
YAL	Yalta	5.73	48	*e*P	Pn	18 08 06.4	+1.4
YAL				pmax	pmax	18 08 10.1	
	comp=Z,5.0nm,0.2s						
YAL				*e*S	Sn	18 09 07.7	-2.6
YAL				smax	smax	18 09 09.1	
	comp=N,11nm,0.3s						
YAL				smax	smax	18 09 09.1	
	comp=E,7.0nm,0.4s						
TESR	Tescani	5.80	350	⇓P	Pn	18 08 09.8	+3.8
DNZ2	Donuzlav2	5.86	37	*e*P	Pn	18 08 10.0	+3.2
DNZ2				pmax	pmax	18 08 13.6	
	comp=Z,6.0nm,0.3s						
DNZ2				*e*S	Sn	18 09 13.3	-0.1
DNZ2				smax	smax	18 09 18.6	
	comp=N,10.0nm,0.3s,comp=E,11nm,0.3s						
HERR	Herculane	5.86	316	⇑P	Pn	18 08 08.8	+2.0
ALU	Alushta	5.99	48	*e*x	Pn	18 08 09.8	+1.2
ALU				pmax	pmax	18 08 14.5	
	comp=Z,3.0nm,0.3s						
ALU				*e*S	Sn	18 09 13.7	-3.0
ALU				smax	smax	18 09 19.6	
	comp=N,38nm,0.4s						
ALU				smax	smax	18 09 19.6	
	comp=E,26nm,0.4s						
GZR	Gura Zlata	6.04	321	⇑P	Pn	18 08 12.7	+3.3
MDVR	Moldovita	6.18	312	⇑P	Pn	18 08 11.7	+0.4
SUDU	Sudak	6.46	49	*e*P	Pn	18 08 16.0	+1.0
SUDU				pmax	pmax	18 08 21.5	
	comp=Z,7.0nm,0.3s						
SUDU				*e*S	Sn	18 09 25.1	-3.0
SUDU				smax	smax	18 09 29.5	
	comp=N,14nm,0.4s						
SUDU				smax	smax	18 09 29.5	
	comp=E,4.0nm,0.3s						
MARR	Marisel-Cluj	6.90	330	⇑P	Pn	18 08 24.2	+2.9
BURAR	Bucovina Array	7.12	344	⇑P	Pn	18 08 27.1	+3.0

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*ISK **24** 18:21:45.3, 39°.06N×41°.81E, h13^{km}, ML2.2/7*

AFAD 24 18:21:45.2, 39°.04N×41°.82E, h7^{km}±4^{km}, ML2.0, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VRTB	Varto-Mus	0.31	294	Pg	Pg	18 21 51.9	+0.6
VRTB				Sg	Sg	18 21 56.8	+1.4
VRTB				AML	AML		
VRTB	Varto-Mus	0.31	294	P	Pg	18 21 51.9	+0.5
VRTB				S	Sg	18 21 56.5	+1.1
VRTB				IAML		18 21 57.0	
	comp=E,206nm,0.4s						
VRTB	Varto-Mus	0.31	294	P	Pg	18 21 52.1	+0.8
VRTB				S	Sg	18 21 56.8	+1.4
VRTB				IAML		18 21 58.0	
	comp=N,579nm,0.5s						
MUSM	Mu-Merkez	0.39	218	P	Pb	18 21 53.8	-0.8
MUSM				S	Sb	18 21 59.8	-1.0
MUSM				IAML		18 22 01.0	
	comp=E,136nm,0.4s						
MUSM	Mu-Merkez	0.39	218	P	Pb	18 21 53.9	-0.6
MUSM				S	Sg	18 21 59.4	+1.3
MUSM				IAML		18 22 01.0	
	comp=N,128nm,0.3s						
MUSM				IAML		18 22 01.0	
	comp=E,136nm,0.4s						
GURO	Guroymak-BITLI	0.51	161	Pg	Pb	18 21 56.4	-0.2
GURO				AML	AML		
MLAZ	Malazgirt-MUS	0.58	79	Pg	Pg	18 21 56.9	+0.5
MLAZ				AML	AML		
SLHN	Bingol, Solhan	0.62	263	P	Pg	18 21 57.4	+0.1
SLHN				IAML		18 22 12.0	
	comp=N,84nm,0.5s						
SLHN	Bingol, Solhan	0.62	263	P	Pg	18 21 57.2	-0.1
SLHN				S	Sg	18 22 04.7	-0.8
SLHN				IAML		18 22 12.0	
	comp=N,84nm,0.5s						
BLIS	Bitlis-Merkez	0.66	159	P	Pg	18 21 57.8	-0.2
BLIS	Bitlis-Merkez	0.66	159	P	Pn	18 22 00.3	-0.8
BLIS				IAML		18 22 18.0	
	comp=E,63nm,0.5s						
ADCV	BITLIS_Adilcev	0.74	108	P	Pg	18 21 59.5	+0.1
DORK	Agr/Tutak/Do	0.82	65	P	Pg	18 22 00.8	-0.2
DORK				S	Sg	18 22 12.4	+0.6
DORK	Agr/Tutak/Do	0.82	65	P	Pb	18 22 02.0	0.0
ECAT	Cat-ERZURUM	0.87	311	P	Pg	18 22 01.6	-0.3
ECAT				S	Sg	18 22 13.0	-0.2
ECAT				IAML		18 22 20.0	
	comp=E,96nm,0.5s						
ECAT	Cat-ERZURUM	0.87	311	P	Pg	18 22 01.8	-0.2
ECAT				S	Sg	18 22 11.7	-1.5
ECAT				IAML		18 22 14.0	
	comp=N,132nm,0.5s						
ECAT				IAML		18 22 20.0	
	comp=E,96nm,0.5s						
BNGB	Bingl	0.89	267	Pg	Pg	18 22 02.6	+0.3
BNGB				Sg	Sb	18 22 15.4	+0.3
BNGB				AML	AML		
EJDE	Erzurum, Palan	0.89	334	P	Pg	18 22 00.6	-1.8
EJDE				S	Sg	18 22 14.3	+0.3
EJDE				IAML		18 22 20.0	
	comp=N,82nm,0.6s						
EJDE				IAML		18 22 25.0	
	comp=E,109nm,0.5s						
ETEKE	Tekederesi - E	0.92	325	P	Pb	18 22 03.5	-0.2
ETEKE				S	Sb	18 22 16.2	-0.1
ETEKE	Tekederesi - E	0.92	325	P	Pg	18 22 03.2	+0.2
ETEKE				S	Sg	18 22 14.5	-0.5
ERZM	Erzurum	0.94	338	P	Pg	18 22 03.2	-0.1
ERZM				S	Sb	18 22 17.1	+0.4
ERZM	Erzurum	0.94	338	P	Pb	18 22 04.2	+0.2
KOPR	Koprukoy-ERZUR	0.95	2	Pg	Pg	18 22 03.6	0.0
KOPR				AML	AML		
HOMI	Horasan	1.01	4	P	Pn	18 22 05.6	-0.4
HOMI				S	Sn	18 22 20.0	-0.7
SRTM	Siirt_Merkez	1.05	176	P	Pn	18 22 08.4	+2.0
SRTM				S	Sb	18 22 19.7	0.0
SRTM				IAML		18 22 39.0	
	comp=N,30nm,0.9s						
SRTM	Siirt_Merkez	1.05	176	P	Pn	18 22 06.3	-0.1
SRTM				IAML		18 22 39.0	
	comp=N,30nm,0.9s						
YEDI	Yedisu-Bingol	1.07	292	Pg	Pg	18 22 05.9	+0.2
YEDI				AML	AML		
AKDA	Akdag	1.12	342	P	Pn	18 22 08.1	+0.6
AKDA				S	Sg	18 22 20.1	-1.3
AKDM	Akdamar-Van	1.15	128	Pn	Pn	18 22 07.9	0.0
BTMN	Batman	1.22	201	P	Pn	18 22 11.7	+2.9
BTMN				IAML		18 22 33.0	
	comp=N,29nm,0.5s						
PERV	Siirt/Pervari-	1.23	152	P	Pn	18 22 11.7	+2.8
PERV				S	Sn	18 22 27.5	+1.7
PERV				IAML		18 22 35.0	
	comp=E,30nm,0.8s						
PERV	Siirt/Pervari-	1.23	152	P	Pn	18 22 11.8	+2.9
PERV				IAML		18 22 35.0	
	comp=E,30nm,0.8s						
PERV				IAML		18 22 38.0	
	comp=N,21nm,0.5s						
KOTA	Agri, Merkez-K	1.32	54	P	Pg	18 22 11.3	+0.8
KOTA				S	Sb	18 22 27.4	-0.2
KOPT	Kop Dagi	1.42	314	P	Pn	18 22 11.9	+0.2
KRIK	Erzurum-spir	1.47	332	P	Pn	18 22 11.3	-1.1
KRIK				S	Sn	18 22 30.7	-1.3
TNCL	Tunceli-Merkez	1.77	273	P	Pg	18 22 18.9	-0.3
TNCL				S	Sn	18 22 35.9	-3.4
TNCL				IAML		18 22 47.0	
	comp=N,16nm,0.7s						

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*IDC **24** 18:23:24.0±0.5, 63°.57N×149°.21W, h0^{km}, mb4.1/21, mbtmp4.1/26, ML3.9/5, MS3.4/3, Error ellipse: s-maj=9.9km s-min=9.3km az=101.0*

*AEIC **24** 18:23:25.8±1.6, 63°.49N±0°.02×148°.88W±0°.02, h9^{km}±4^{km}, Error ellipse: s-maj=2.9km s-min=1.1km az=159.0*

*NEIC **24** 18:23:25.4±1.7, 63°.49N±0°.02×148°.91W±0°.06, h8^{km}±4^{km}, mb4.5/46, ML4.2/234, Mwr3.9/171, ML4.0(AEIC), Error ellipse: s-maj=3.8km s-min=2.8km az=93.0, Moment Tensor Solution. Moment tensor: Scale 10^{14}Nm; M_{rr}7.78; $M_{\theta\theta}$-4.02; $M_{\phi\phi}$-3.77; $M_{r\theta}$-0.69; $M_{\theta\phi}$-4.47; $M_{\phi r}$-1.01; Fault plane solution: $M_0$8.18000×10^{14} NP1: ϕ_s47.74000°, δ40.82000°, λ92.88000°. NP2: ϕ_s223.94000°, δ49.25000°, λ87.51000°. Principal axes: T 7.8808, Plg85.0000°, Azm112.0000°; N 0.5763, Plg2.0000°, Azm226.0000°; P -8.4572, Plg4.0000°, Azm316.0000°;*

*NEIC **24** 18:23:25.4, 63°.49N×148°.90W, h7^{km}*

ISC 24 18:23:25.5±0.8, **63°.48N**±0°.02×**148°.86W**±0°.02, **h11**^{km}±5^{km}, **n324**, σ1^{s}**48**/297, **mb4.4**/42, **Central Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RND	Reindeer	0.08	178		Pg	18 23 27.9	-0.1
RND				Sg	Sg	18 23 29.7	-0.2
MCK	McKinley	0.25	352		Pg	18 23 31.0	+0.2
MCK				IAML		18 23 35.5	
	comp=E,34µm,0.7s						
MCK				IAML		18 23 35.5	
	comp=N,28µm,0.8s						
TRF	Thorofare Moun	0.64	268		Pg	18 23 37.6	-0.4
TRF				Sg	Sg	18 23 45.1	-1.4
TRF				IAML		18 23 47.3	
	comp=N,15µm,0.5s						
WAT7	Susitna Watana	0.65	179		Pg	18 23 37.9	-0.2
WAT7					Sg	18 23 46.5	-0.2
WAT1	Susitna Watana	0.67	168		Pg	18 23 38.1	-0.4
WAT1					Sg	18 23 47.0	-0.3
WAT1					Sb	18 23 47.1	-1.4
BWN	Browne	0.74	339		Pg	18 23 39.6	-0.2
BWN				IAML		18 23 54.1	
	comp=E,8µm,0.8s						
BWN				IAML		18 23 58.5	
	comp=N,8µm,0.7s						
DHY	Denali Highway	0.79	121		Pg	18 23 39.8	-0.9
DHY	Denali Highway	0.79	121		Sg	18 23 50.9	0.0
DHY	Denali Highway	0.79	121	IAML		18 23 53.0	
	comp=E,6µm,0.3s						
DHY				IAML		18 23 55.3	
	comp=N,4µm,0.6s						
KTH	Kantishna Hill	0.93	275		Pg	18 23 42.7	-0.6
WAT6	Susitna Watana	1.04	150		Pg	18 23 44.6	-0.9
WRH	Wood River Hil	1.05	19		Pg	18 23 45.3	-0.3
WRH	Wood River Hil	1.05	19		Sb	18 23 59.5	+0.1
WRH					Sg	18 23 59.8	+0.5
NEA2	Nenana	1.12	355		Pb	18 23 46.5	-0.3
NEA2				IAML		18 24 02.8	
	comp=E,4µm,0.7s						
NEA2				IAML		18 24 03.3	
	comp=N,4µm,1.2s						
NEA2	Nenana	1.12	355		Sg	18 24 01.2	-0.3
NEA2					Sn	18 24 02.1	-0.4
BPAW	Bear Paw Mtn.	1.13	304		Pb	18 23 46.3	-0.8
HDA	Harding Lake	1.26	41		Pn	18 23 48.9	-0.1
HDA	Harding Lake	1.26	41		Sb	18 24 05.4	+0.1
HDA					Sg	18 24 05.7	-0.2
HDA	Harding Lake	1.26	41	IAML		18 24 06.9	
	comp=E,4µm,0.5s						
HDA				IAML		18 24 07.0	
	comp=N,6µm,0.5s						
CCB	Clear Creek Bu	1.26	21		Pn	18 23 48.6	-0.4
CCB	Clear Creek Bu	1.26	21		Sb	18 24 04.6	-0.8
CCB					Sg	18 24 05.1	-0.8
CCB	Clear Creek Bu	1.26	21	IAML		18 24 06.7	
	comp=E,3µm,0.7s						
CCB				IAML		18 24 12.2	
	comp=N,1µm,0.5s						
CUT	Chulitna	1.26	211		Pn	18 23 48.9	-0.1
CUT	Chulitna	1.26	211		Sb	18 24 05.5	+0.1
CUT					Sg	18 24 05.8	-0.2
CUT	Chulitna	1.26	211	IAML		18 24 11.5	
	comp=N,9µm,0.4s						
CUT				IAML		18 24 12.9	
	comp=E,12µm,0.5s						
PS10	TAPS Pump St10	1.39	91		Pn	18 23 51.2	+0.3
PS10					Sb	18 24 09.4	+0.1
PS08	TAPS Pump Stn8	1.39	39		Sn	18 24 08.9	-0.4
PS08					Sb	18 24 09.4	+0.2
K24K	Donnelly Dome	1.41	75		Pb	18 23 51.8	-0.1
CAST	Castle Rocks	1.45	269		Pn	18 23 51.5	-0.2
CAST				IAML		18 24 13.9	
	comp=N,3µm,0.7s						
COLA	College	1.47	17	P	Pn	18 23 51.5	-0.3
COLA	College	1.47	17		Pn	18 23 51.8	0.0
COLA				IAML		18 24 20.1	
	comp=N,5µm,0.6s						
IL05	Eielson Array	1.55	32		Sb	18 24 14.4	+0.6
IL31		1.56	33		Pn	18 23 52.9	-0.2
ILAR	Eielson Array	1.56	33	Pg	Pn	18 23 52.7	-0.4
	comp=N,68nm,0.3s,baz=218,slow=14,SNR=544						
ILAR				Lg	Lg	18 24 14.6	
	comp=N,352nm,0.3s,baz=218,slow=27,SNR=54						
ILAR				LR	LR	18 24 31.2	
	comp=N,466nm,21.3s,baz=101,slow=43						
CHUM	Lake Minchumin	1.59	286		Pn	18 23 53.5	0.0
CHUM					Sg	18 24 15.8	-0.8
CHUM					Sb	18 24 16.4	+1.5
PAX	Paxson	1.62	107		Sn	18 24 15.6	+0.7
PAX	Paxson	1.62	107		Pn	18 23 54.4	+0.4
PAX	Paxson	1.62	107	IAML		18 24 16.6	
	comp=N,3µm,0.5s						
PAX				IAML		18 24 17.6	
	comp=E,2µm,0.5s						
PPLA	Purkeypile	1.62	250		Pb	18 23 55.0	-0.5
I23K	Minto, Yukon-K	1.69	353	IAML		18 24 20.0	
	comp=N,3µm,0.8s						
I23K				IAML		18 24 20.3	
	comp=E,3µm,1.0s						
SML	Sawmill	1.70	172		Pn	18 23 55.1	-0.1
SML	Sawmill	1.70	172		Sb	18 24 18.2	+0.1
SML					Sn	18 24 18.3	+1.4
GHO	Glory Hole Cre	1.72	181		Pn	18 23 55.4	0.0
GHO				IAML		18 24 21.3	
	comp=N,4µm,0.6s						
POKR	Poker Plat Res	1.75	20		Sb	18 24 20.1	+0.4
MLY	Manley	1.76	333		Pn	18 23 56.1	+0.1
M23K	Glacier View	1.77	162		Pn	18 23 56.3	+0.2
M23K					Sb	18 24 20.2	0.0
SCM	Sheep Creek Mo	1.80	156		Pn	18 23 56.9	+0.4
SCM				IAML		18 24 22.4	
	comp=E,3µm,1.0s						
RIDG	Independent Ri	1.81	80		Pn	18 23 57.4	+0.7
RIDG				IAML		18 24 25.9	
	comp=E,3µm,0.8s						
M22K	Willow	1.83	199		Sb	18 24 21.9	+0.1
M22K	Willow	1.83	199	IAML		18 24 24.9	
	comp=E,11µm,0.4s						
M22K				IAML		18 24 26.0	
	comp=N,12µm,0.5s						
PS07	TAPS Pump Stn7	1.85	8		Pn	18 23 57.5	+0.3
PMR	Palmer	1.90	184	P	Pn	18 23 57.9	+0.1
PMR	Palmer	1.90	184	S	Sb	18 24 23.7	-0.2
PMR	Palmer	1.90	184		Pn	18 23 58.1	+0.3
PMR				IAML		18 24 26.9	
	comp=N,3µm,0.4s						
J25K	Salcha River,	1.91	52		Pn	18 23 58.1	0.0
J25K				IAML		18 24 26.5	
	comp=N,1µm,0.6s						
SKT	Skwentna	1.95	220		Pn	18 23 59.0	+0.5
SKT				IAML		18 24 26.7	
	comp=N,2µm,0.6s						
SKT				IAML		18 24 32.2	
	comp=E,2µm,0.9s						
SKT	Skwentna	1.95	220		Sb	18 24 24.7	-0.5
HARP	HAARP	2.01	121		Pb	18 24 01.3	-0.8
KNK	Knik Glacier	2.09	175		Pn	18 24 01.2	+0.8

KNK					Sb	18 24 28.1	-1.1
PS11	**TAPS Pump St11**	**2.10**	**131**		**Pb**	**18 24 03.0**	**-0.5**
I21K	**Tanana**	**2.18**	**323**		**Pn**	**18 24 01.9**	**+0.2**
I21K				IAML		18 24 34.3	
	comp=E,1µm,0.7s						
I21K				IAML		18 24 34.7	
	comp=N,1µm,0.6s						
SUA	**Susitna One**	**2.21**	**204**		**Pn**	**18 24 02.6**	**+0.4**
SUA					**Pb**	**18 24 03.8**	**-1.7**
SUA	**Susitna One**	**2.21**	**204**	IAML		18 24 35.5	
	comp=E,2µm,0.7s						
SUA				IAML		18 24 37.5	
	comp=N,1µm,0.6s						
SCRK	**Sand Creek**	**2.23**	**75**		**Pn**	**18 24 02.6**	**+0.2**
SCRK				IAML		18 24 36.3	
	comp=E,1µm,0.5s						
K20K	**Telida**	**2.35**	**269**		**Pn**	**18 24 03.7**	**-0.3**
K20K				IAML		18 24 41.1	
	comp=E,2µm,0.6s						
K20K				IAML		18 24 46.2	
	comp=N,1µm,0.8s						
H23K	**Yukon River**	**2.37**	**353**		**Pn**	**18 24 05.2**	**+0.8**
MENT	**Mentasta**	**2.39**	**101**	P	**Pb**	**18 24 06.9**	**-1.7**
MENT	**Mentasta**	**2.39**	**101**	S	**Sb**	**18 24 39.2**	**+1.1**
MENT	**Mentasta**	**2.39**	**101**		**Pn**	**18 24 06.6**	**+2.0**
H24K	**Noodor Dome**	**2.40**	**10**		**Pn**	**18 24 05.3**	**+0.6**
H24K				IAML		18 24 40.9	
	comp=E,2µm,0.7s						
H24K				IAML		18 24 40.9	
	comp=N,935nm,0.6s						
PS06	**TAPS Pump Stn6**	**2.41**	**351**		**Pn**	**18 24 05.6**	**+0.8**
KLU	**Klutina**	**2.42**	**144**		**Pn**	**18 24 05.9**	**+0.9**
KLU	**Klutina**	**2.42**	**144**	IAML		18 24 42.6	
	comp=N,2µm,0.4s						
KLU				IAML		18 24 42.8	
	comp=E,1µm,0.6s						
STLK	**Strandline Lak**	**2.42**	**216**		**Pn**	**18 24 06.0**	**+1.0**
RC01	**Rabbit Creek A**	**2.44**	**190**		**Pn**	**18 24 06.9**	**+1.7**
J20K	**Nowinta River**	**2.44**	**289**		**Pn**	**18 24 05.2**	**-0.2**
J20K				IAML		18 24 50.2	
	comp=E,924nm,0.4s						
PRP	**Porcupine Dome**	**2.50**	**34**		**Pn**	**18 24 06.5**	**+0.3**
L20K	**Farewell, AK**	**2.50**	**249**		**Pn**	**18 24 06.7**	**+0.5**
L20K				IAML		18 24 54.2	
	comp=E,2µm,0.6s						
M20K	**Styx River**	**2.54**	**233**		**Pn**	**18 24 07.7**	**+1.0**
M20K				IAML		18 24 51.0	
	comp=E,885nm,0.7s						
PS12	**TAPS Pump St12**	**2.65**	**138**		**Pb**	**18 24 10.9**	**-2.1**
VMT	**TAPS Tl Valdez**	**2.67**	**153**		**Pn**	**18 24 10.3**	**+1.9**
SPCP	**Crater Peak Br**	**2.70**	**216**		**Pn**	**18 24 10.4**	**+1.4**
SPBG	**Spurr Blockage**	**2.77**	**218**		**Pn**	**18 24 11.4**	**+1.6**
DIV	**Divide**	**2.77**	**147**	IAML		18 24 54.1	
	comp=E,1µm,0.6s						
DIV				IAML		18 25 04.8	
	comp=N,984nm,0.7s						
H21K	**Melozitna Rive**	**2.77**	**324**	IAML		18 24 52.2	
	comp=E,1µm,0.6s						
I20K	**Naaghedeneel**	**2.79**	**301**		**Pn**	**18 24 10.3**	**+0.2**
M26K	**Nabesna, AK**	**2.89**	**109**	IAML		18 24 58.4	
	comp=E,1µm,0.4s						
M26K	**Nabesna, AK**	**2.89**	**109**		**Pn**	**18 24 13.5**	**+2.0**
M26K					**Pb**	**18 24 14.1**	**-3.0**
FID	**Port Fidalgo**	**2.96**	**157**	IAML		18 25 00.7	
	comp=N,874nm,0.7s						
M19K	**Big River Lodg**	**3.00**	**241**		**Pn**	**18 24 14.1**	**+1.1**
M19K					**Pn**	**18 24 14.6**	**+1.6**
M19K	**Big River Lodg**	**3.00**	**241**	IAML		18 25 03.0	
	comp=N,646nm,0.5s						
M19K				IAML		18 25 11.8	
	comp=E,675nm,0.8s						
O22K	**Cooper Landing**	**3.04**	**188**		**Pn**	**18 24 15.5**	**+2.0**
L19K	**White Mountain**	**3.04**	**247**		**Pn**	**18 24 14.9**	**+1.3**
L19K				IAML		18 25 06.5	
	comp=E,688nm,0.8s						
L19K				IAML		18 25 15.2	
	comp=N,699nm,1.0s						
J19K	**Poorman**	**3.05**	**283**		**Pn**	**18 24 13.5**	**-0.1**
J19K				IAML		18 25 07.0	
	comp=N,671nm,1.0s						
J19K				IAML		18 25 08.3	
	comp=E,622nm,0.6s						
SLKM	**Skilak Lake**	**3.05**	**193**		**Pn**	**18 24 16.0**	**+2.2**
SLKM				IAML		18 25 06.1	
	comp=E,1µm,0.8s						
SLKM				IAML		18 25 06.9	
	comp=N,926nm,0.9s						
K27K	**Chicken**	**3.06**	**77**		**Pn**	**18 24 14.5**	**+0.7**
K27K	**Chicken**	**3.06**	**77**	IAML		18 25 06.0	
	comp=N,659nm,0.7s						
I26K	**Coal Creek Min**	**3.08**	**51**		**Pn**	**18 24 14.8**	**+0.7**
I26K	**Coal Creek Min**	**3.08**	**51**	IAML		18 25 11.2	
	comp=E,945nm,0.7s						
H25L	**Birch Creek**	**3.08**	**24**		**Pn**	**18 24 15.1**	**+1.0**
GLB	**Gilahina Butte**	**3.11**	**129**		**Pn**	**18 24 17.3**	**+2.7**
GLB				IAML		18 25 08.2	
	comp=N,623nm,0.6s						
L27K	**Beaver Creek,**	**3.21**	**94**		**Pn**	**18 24 16.3**	**+0.5**
L27K				IAML		18 25 09.3	
	comp=N,458nm,1.0s						
BMRM	**Bremner River**	**3.21**	**140**	IAML		18 25 13.4	
	comp=E,746nm,0.8s						
BMRM				IAML		18 25 18.7	
	comp=N,671nm,1.2s						
BC03		**3.23**	**94**		**Pn**	**18 24 16.9**	**+0.9**
BC03					**Pn**	**18 24 17.0**	**+1.0**
BCAR	**Beaver Creek A**	**3.23**	**94**		**Pn**	**18 24 16.7**	**+0.6**
IMAR	**Indian Mountai**	**3.27**	**322**		**Pn**	**18 24 16.8**	**+0.2**
EYAK	**Cordova Ski Ar**	**3.29**	**152**	P	**Pn**	**18 24 19.3**	**+2.4**
EYAK	**Cordova Ski Ar**	**3.29**	**152**	S	**Sb**	**18 25 00.7**	**-3.1**
EYAK	**Cordova Ski Ar**	**3.29**	**152**		**Pn**	**18 24 19.2**	**+2.4**
EYAK				IAML		18 25 08.3	
	comp=E,647nm,0.7s						
EYAK				IAML		18 25 12.3	
	comp=N,535nm,0.6s						
HIN	**Hinchinbrook I**	**3.29**	**159**		**Pn**	**18 24 19.0**	**+2.0**
HIN	**Hinchinbrook I**	**3.29**	**159**	IAML		18 25 07.5	
	comp=N,863nm,0.9s						
RDT	**Redoubt**	**3.36**	**211**		**Pn**	**18 24 19.8**	**+1.8**
M27K	**Edge Creek, AK**	**3.39**	**106**	IAML		18 25 16.7	
	comp=E,603nm,0.7s						
M27K				IAML		18 25 16.8	
	comp=N,825nm,1.0s						
VRDI	**Verde Repeater**	**3.39**	**129**		**Pn**	**18 24 21.3**	**+2.9**
SEW	**Seward**	**3.40**	**185**		**Pn**	**18 24 21.6**	**+3.1**
SEW				IAML		18 25 14.3	
	comp=E,414nm,1.0s						
SEW				IAML		18 25 14.7	
	comp=N,467nm,0.9s						
DFR	**Drift River**	**3.42**	**214**		**Pn**	**18 24 20.2**	**+1.4**
PS05	**TAPS Pump Stn5**	**3.43**	**348**		**Pn**	**18 24 20.1**	**+1.3**
MCARA	**McCarthy VSAT**	**3.44**	**125**	IAML		18 25 13.8	
	comp=N,629nm,0.9s						
MCARA				IAML		18 25 22.3	
	comp=E,637nm,0.6s						
FYU	**Fort Yukon**	**3.46**	**25**		**Pn**	**18 24 19.9**	**+0.7**
FYU				IAML		18 25 14.2	
	comp=E,588nm,0.8s						
FYU				IAML		18 25 26.9	
	comp=N,577nm,0.7s						
GOAT	**Goat Mountain**	**3.50**	**144**		**Pn**	**18 24 21.7**	**+1.8**
J18K	**Innoko River**	**3.52**	**273**		**Pn**	**18 24 20.1**	**0.0**
J18K	**Innoko River**	**3.52**	**273**	IAML		18 25 24.9	
	comp=N,344nm,1.1s						
RDSO	**Redoubt South**	**3.55**	**213**		**Pn**	**18 24 22.6**	**+2.0**
P23K	**Montague Islan**	**3.56**	**168**	IAML		18 25 24.7	
	comp=E,611nm,1.0s						
P23K				IAML		18 25 27.7	
	comp=N,576nm,0.6s						
P23K	**Montague Islan**	**3.56**	**168**		**Pn**	**18 24 22.6**	**+1.9**
P23K					**Pn**	**18 24 23.0**	**+2.3**
G21K	**Allakaket**	**3.63**	**329**		**Pn**	**18 24 22.1**	**+0.5**
G21K				IAML		18 25 19.2	
	comp=E,380nm,0.8s						
GCSA	**Galena City Sc**	**3.74**	**293**		**Pn**	**18 24 23.6**	**+0.5**
GCSA					**Pn**	**18 24 23.9**	**+0.9**
N19K	**Bonanza Creek**	**3.76**	**227**	IAML		18 25 35.5	
	comp=N,323nm,1.0s						
N19K				IAML		18 25 36.9	
	comp=E,362nm,1.1s						
PTPK	**Patty Peak**	**3.77**	**125**		**Pn**	**18 24 27.0**	**+3.4**
I27K	**Kandik River**	**3.78**	**53**		**Pn**	**18 24 24.1**	**+0.3**
I27K				IAML		18 25 30.7	
	comp=E,579nm,0.6s						
I27K				IAML		18 25 33.9	
	comp=N,431nm,0.6s						
COLD	**Coldfoot**	**3.80**	**352**		**Pn**	**18 24 24.8**	**+0.9**
L18K	**Granite Mounta**	**3.81**	**254**		**Pn**	**18 24 24.6**	**+0.6**
L18K					**Pn**	**18 24 25.1**	**+1.1**
L18K	**Granite Mounta**	**3.81**	**254**	IAML		18 25 37.9	
	comp=N,365nm,1.0s						
L18K				IAML		18 25 39.5	
	comp=E,391nm,0.9s						
BVCY	**Beaver Creek**	**3.81**	**103**		**Pn**	**18 24 25.7**	**+1.6**
O20K	**Slope Mountain**	**3.85**	**209**		**Pn**	**18 24 27.4**	**+2.7**
O20K					**Pn**	**18 24 27.6**	**+2.9**
BRLK	**Bradley Lake**	**3.85**	**195**	IAML		18 25 32.9	
	comp=N,276nm,0.6s						
BRLK				IAML		18 25 35.4	
	comp=E,260nm,0.7s						
BRSE	**Bradley Lake S**	**3.86**	**194**		**Pn**	**18 24 27.2**	**+2.4**
BALM	**Baldy**	**3.91**	**126**		**Pn**	**18 24 27.9**	**+2.3**
ILIM	**Iliamna**	**3.93**	**212**		**Pn**	**18 24 27.9**	**+2.2**
TGL	**Tana Glacier**	**3.94**	**131**	IAML		18 25 32.7	
	comp=E,367nm,1.1s						
TGL				IAML		18 25 33.9	
	comp=N,540nm,0.9s						
IVE	**Iliamna Volcan**	**4.00**	**211**		**Pn**	**18 24 28.8**	**+2.0**
IVE					**Pn**	**18 24 29.1**	**+2.3**
ILSW	**Iliamna Southw**	**4.06**	**212**		**Pn**	**18 24 29.9**	**+2.3**
ILS	**Iliamna Low So**	**4.06**	**211**		**Pn**	**18 24 29.6**	**+2.0**
F24K	**Squaw Lake**	**4.07**	**5**		**Pn**	**18 24 28.7**	**+1.0**
F24K	**Squaw Lake**	**4.07**	**5**	IAML		18 25 16.0	
	comp=E,221nm,0.5s						
YUK2	**White River**	**4.07**	**111**		**Pn**	**18 24 30.4**	**+2.6**
G26K	**Porcupine Rive**	**4.08**	**29**	IAML		18 25 36.6	
	comp=N,274nm,0.9s						
G26K				IAML		18 25 54.4	
	comp=E,380nm,1.1s						
CNPM	**China Poot**	**4.13**	**197**		**Pn**	**18 24 30.8**	**+2.3**
CNPM	**China Poot**	**4.13**	**197**	IAML		18 25 34.6	
	comp=E,243nm,0.8s						
CNPM				IAML		18 25 38.5	
	comp=N,212nm,0.7s						
KAIM	**Kayak Island**	**4.15**	**147**		**Pn**	**18 24 30.5**	**+1.8**
KAIM	**Kayak Island**	**4.15**	**147**	IAML		18 25 41.5	
	comp=E,279nm,1.1s						
KAIM				IAML		18 25 48.5	
	comp=N,271nm,1.2s						
BARN	**Barnard Glacie**	**4.15**	**123**		**Pn**	**18 24 32.2**	**+3.3**
H27K	**Steamboat Moun**	**4.17**	**45**	IAML		18 25 39.2	
	comp=E,275nm,0.7s						
YUK3	**Moose Creek**	**4.24**	**110**		**Pn**	**18 24 33.1**	**+2.9**
YUK3					**Pn**	**18 24 33.7**	**+3.5**
DAWY	**Dawson**	**4.24**	**78**		**Pn**	**18 24 30.6**	**+0.6**
DAWY				IAML		18 25 48.2	
	comp=N,347nm,0.5s						
DAWY				IAML		18 25 56.1	
	comp=E,381nm,0.8s						
BARK	**Barkley Ridge**	**4.31**	**133**		**Pn**	**18 24 33.3**	**+2.3**
GRNC	**Granite Creek**	**4.33**	**126**		**Pn**	**18 24 33.4**	**+2.0**
GRNC	**Granite Creek**	**4.33**	**126**	IAML		18 25 43.9	
	comp=N,255nm,1.1s						
BM03	**Burnt Mountain**	**4.33**	**22**		**Pn**	**18 24 32.0**	**+0.8**
I28M	**Miner Creek**	**4.34**	**59**		**Pn**	**18 24 32.3**	**+0.9**
I28M	**Miner Creek**	**4.34**	**59**	IAML		18 25 43.3	
	comp=N,288nm,0.7s						
I28M				IAML		18 25 44.7	
	comp=E,252nm,0.6s						
N18K	**Kilae Creek**	**4.34**	**233**		**Pn**	**18 24 31.9**	**+0.6**
N18K					**Pn**	**18 24 32.9**	**+1.6**
N18K	**Kilae Creek**	**4.34**	**233**	IAML		18 25 52.0	
	comp=N,239nm,1.0s						
N18K				IAML		18 25 52.0	
	comp=E,281nm,0.9s						
BMAR	**Burnt Mountain**	**4.35**	**22**		**Pn**	**18 24 31.9**	**+0.4**
K17K	**Iditarod**	**4.36**	**264**		**Pn**	**18 24 31.9**	**+0.3**
K17K					**Pn**	**18 24 32.2**	**+0.6**
K17K	**Iditarod**	**4.36**	**264**	IAML		18 25 44.9	
	comp=E,326nm,0.7s						
K17K				IAML		18 25 57.0	
	comp=N,313nm,0.7s						
L17K	**Donlin**	**4.54**	**257**		**Pn**	**18 24 33.9**	**-0.2**
LOGN	**Logan Glacier**	**4.55**	**122**	IAML		18 25 54.8	
	comp=E,166nm,1.2s						
LOGN				IAML		18 25 57.2	
	comp=N,145nm,1.1s						
J17K	**VABM Dome**	**4.59**	**273**		**Pn**	**18 24 34.5**	**-0.2**
J17K	**VABM Dome**	**4.59**	**273**	IAML		18 25 58.0	
	comp=E,177nm,0.8s						
J17K				IAML		18 26 05.8	
	comp=N,214nm,0.7s						
YAH	**Yahtse**	**4.59**	**130**		**Pn**	**18 24 36.9**	**+1.9**
YAH	**Yahtse**	**4.59**	**130**	IAML		18 26 03.7	
	comp=N,181nm,0.9s						
E23K	**Chandalar**	**4.61**	**356**	IAML		18 25 32.8	
	comp=N,143nm,0.5s						
E24K	**Your Creek**	**4.62**	**2**		**Pn**	**18 24 36.3**	**+1.1**
AGU	**Augustine-Summ**	**4.68**	**210**		**Pn**	**18 24 39.1**	**+3.0**
AUJK	**Augustine Jueg**	**4.69**	**210**		**Pn**	**18 24 39.3**	**+3.2**
AUI	**Augustine Isla**	**4.70**	**210**		**Pn**	**18 24 39.6**	**+3.3**
O18K	**Koktuh Hills**	**4.73**	**223**		**Pn**	**18 24 37.9**	**+1.2**
O18K	**Koktuh Hills**	**4.73**	**223**	IAML		18 26 01.5	
	comp=N,145nm,0.8s						
YUK8	**Steele Glacier**	**4.77**	**113**		**Pn**	**18 24 41.2**	**+3.6**
J29N	**Klondike Camp**	**4.79**	**74**		**Pn**	**18 24 39.2**	**+1.6**
E25K	**Arctic Village**	**4.85**	**15**		**Pn**	**18 24 39.1**	**+0.8**
M29M	**Somme Creek**	**4.86**	**98**		**Pn**	**18 24 39.0**	**+0.5**
M29M	**Somme Creek**	**4.86**	**98**	IAML		18 26 04.8	
	comp=N,184nm,0.9s						
M29M				IAML		18 26 05.3	
	comp=E,220nm,0.9s						
N17K	**Nushagak Hills**	**4.92**	**237**	IAML		18 26 04.9	
	comp=N,196nm,1.1s						
N17K				IAML		18 26 10.2	
	comp=E,197nm,0.9s						
I29M	**Ogilvie Camp,**	**4.95**	**63**	IAML		18 26 12.5	
	comp=N,226nm,1.0s						
I29M				IAML		18 26 20.1	
	comp=E,234nm,0.9s						
PS04	**TAPS Pump Stn4**	**4.96**	**358**		**Pn**	**18 24 41.6**	**+1.6**
H17K	**Granite Mounta**	**5.04**	**292**		**Pn**	**18 24 41.9**	**+0.9**
K29M	**Barlow Dome**	**5.07**	**81**		**Pn**	**18 24 42.0**	**+0.5**
K29M	**Barlow Dome**	**5.07**	**81**	IAML		18 26 13.3	
	comp=E,185nm,0.9s						
K29M				IAML		18 26 15.4	
	comp=N,224nm,0.7s						
P18K	**Big Mountain,**	**5.12**	**220**		**Pn**	**18 24 43.4**	**+1.3**
Q19K	**Cape Douglas,**	**5.12**	**209**		**Pn**	**18 24 44.9**	**+2.8**
TOLK	**Toolik Lake Re**	**5.19**	**357**		**Pn**	**18 24 45.2**	**+2.2**
L16K	**Owhat River**	**5.22**	**255**		**Pn**	**18 24 43.5**	**+0.2**
L16K	**Owhat River**	**5.22**	**255**	IAML		18 26 20.4	
	comp=N,129nm,0.9s						
L16K				IAML		18 26 26.1	
	comp=E,107nm,1.0s						
H29M	**Whitestone**	**5.25**	**54**		**Pn**	**18 24 44.6**	**+0.8**
H29M	**Whitestone**	**5.25**	**54**	IAML		18 26 15.2	
	comp=E,187nm,0.7s						
H29M				IAML		18 26 38.8	
	comp=N,114nm,1.0s						
I17K	**Unalakleet**	**5.28**	**280**		**Pn**	**18 24 44.8**	**+0.6**
I17K	**Unalakleet**	**5.28**	**280**	IAML		18 26 17.8	
	comp=E,100nm,1.0s						
J16K	**Anvik River**	**5.29**	**273**	IAML		18 26 19.4	
	comp=N,121nm,0.8s						
E19K	**Redstone River**	**5.30**	**323**		**Pn**	**18 24 46.0**	**+1.6**
PCA	**Pinnacle**	**5.31**	**126**		**Pn**	**18 24 46.7**	**+2.0**
PCA					**Pn**	**18 24 47.2**	**+2.4**
M16K	**Timber Creek**	**5.33**	**247**		**Pn**	**18 24 46.1**	**+1.2**
O17K	**Koliganek Bris**	**5.41**	**230**		**Pn**	**18 24 46.8**	**+0.9**
G17K	**Kiwalik Mounta**	**5.48**	**297**		**Pn**	**18 24 47.8**	**+0.8**
D23K	**Nanushuk River**	**5.56**	**353**		**Pn**	**18 24 50.3**	**+2.3**
E27K	**Coleen River**	**5.58**	**29**		**Pn**	**18 24 48.8**	**+0.4**
Q18K	**Katmai Hardscr**	**5.69**	**214**		**Pn**	**18 24 52.5**	**+2.5**
I30M	**Mount Dempster**	**5.70**	**67**		**Pn**	**18 24 50.6**	**+0.5**
I30M					**Pn**	**18 24 51.0**	**+1.0**
G29M	**Pine Creek**	**5.71**	**48**		**Pn**	**18 24 50.6**	**+0.5**
G29M					**Pn**	**18 24 50.9**	**+0.7**
KAHG	**Katmai Hook Gl**	**5.72**	**211**		**Pn**	**18 24 52.5**	**+2.2**
O29M	**Mount Kennedy**	**5.81**	**119**		**Pn**	**18 24 55.0**	**+3.4**
N30M	**Aishikik Lake**	**5.82**	**105**		**Pn**	**18 24 53.4**	**+1.6**
KAWH	**Katmai**	**5.88**	**212**		**Pn**	**18 24 54.5**	**+2.1**
O16K	**Kokwok River B**	**5.89**	**233**		**Pn**	**18 24 53.0**	**+0.5**
K15K	**Wolf Creek Mou**	**5.92**	**264**		**Pn**	**18 24 53.2**	**+0.3**
K15K					**Pn**	**18 24 53.4**	**+0.5**
PNL	**Peninsula**	**5.92**	**126**	P	**Pn**	**18 24 55.8**	**+2.8**
PNL	**Peninsula**	**5.92**	**126**		**Pn**	**18 24 54.4**	**+1.4**
PNL					**Pn**	**18 24 54.9**	**+1.8**
D25K	**Kavik River**	**5.95**	**9**		**Pn**	**18 24 55.7**	**+2.2**
HYT	**Haines Junctio**	**5.95**	**111**		**Pn**	**18 24 56.8**	**+3.2**
KDAK	**Kodiak Island**	**6.00**	**199**	Pn	**Pn**	**18 24 54.8**	**+0.6**
	comp=N,2.3nm,0.3s,baz=27,slow=5.5,SNR=32						
KDAK				Sn	**Sn**	**18 26 02.6**	**-0.2**
	comp=N,4.3nm,0.3s,baz=206,slow=6.3,SNR=5.9						
	comp=N,5.8nm,0.3s						
KDAK				AML	AML		
KDAK	**Kodiak Island**	**6.00**	**199**		**Pn**	**18 24 55.1**	**+0.9**
KABU	**Katmai Buttres**	**6.09**	**214**		**Pn**	**18 24 57.7**	**+2.2**
L15K	**Ungalak Mounta**	**6.11**	**258**		**Pn**	**18 24 55.8**	**+0.2**
D20K	**Etivluk River**	**6.12**	**332**		**Pn**	**18 24 57.4**	**+1.6**
D20K					**Pn**	**18 24 57.7**	**+1.9**
ACHA	**Angle Creek He**	**6.16**	**214**		**Pn**	**18 24 58.5**	**+2.1**
MGLS	**Mageik Landsli**	**6.19**	**213**		**Pn**	**18 24 59.1**	**+2.4**
MGLS					**Pn**	**18 24 59.2**	**+2.5**
Q17K	**Contact Creek**	**6.26**	**216**		**Pn**	**18 24 59.8**	**+2.0**
Q17K					**Pn**	**18 25 00.2**	**+2.5**
C24K	**Franklin Bluff**	**6.27**	**1**		**Pn**	**18 24 59.3**	**+1.6**
D19K	**Kuna River**	**6.29**	**327**		**Pn**	**18 24 59.6**	**+1.6**
G30M	**tAoh Zraii Nji**	**6.36**	**51**		**Pn**	**18 24 59.3**	**+0.2**
N31M	**Braeburn, Yuko**	**6.38**	**102**		**Pn**	**18 25 00.7**	**+1.2**
E28M	**Babbage River**	**6.39**	**32**		**Pn**	**18 24 59.8**	**+0.4**
C23K	**Itkillik River**	**6.42**	**355**		**Pn**	**18 25 01.5**	**+1.6**
P30M	**Million Dollar**	**6.57**	**115**		**Pn**	**18 25 04.8**	**+2.8**
P30M					**Pn**	**18 25 04.9**	**+3.0**
OHAK	**Old Harbor**	**6.65**	**201**	P	**Pn**	**18 25 03.6**	**+0.6**
OHAK	**Old Harbor**	**6.65**	**201**		**Pn**	**18 25 03.4**	**+0.3**
H31M	**Peel River**	**6.65**	**63**		**Pn**	**18 25 03.2**	**+0.1**
J14K	**Nanvaranak Lak**	**6.71**	**270**		**Pn**	**18 25 03.6**	**-0.1**
G15K	**Niukluk**	**6.79**	**290**		**Pn**	**18 25 05.4**	**+0.5**
G31M	**Satah River**	**7.03**	**54**		**Pn**	**18 25 08.5**	**+0.3**
C19K	**Lookout Ridge**	**7.10**	**327**		**Pn**	**18 25 10.2**	**+1.0**
F15K	**North Star Dit**	**7.14**	**295**		**Pn**	**18 25 10.7**	**+0.9**
ANM	**Nome**	**7.33**	**286**		**Pn**	**18 25 13.1**	**+0.8**
K13K	**Kusilvak Mount**	**7.42**	**265**		**Pn**	**18 25 13.4**	**-0.2**
F14K	**Arctic Creek**	**7.80**	**293**		**Pn**	**18 25 19.7**	**+0.9**
INK	**Inuvik**	**7.91**	**46**	Pn	**Pn**	**18 25 20.6**	**+0.3**
	comp=N,2.0nm,0.3s,baz=245,slow=15,SNR=19						
INK				Sn	**Sn**	**18 26 47.6**	**-1.9**
	comp=N,1.0nm,0.3s,baz=293,slow=30,SNR=5.9						
INK				Lg	Lg	18 27 33.4	
	comp=N,0.8nm,0.3s,baz=209,slow=6.1,SNR=3.8						
	comp=N,15nm,0.6s						
INK				AML	AML		
P33M	**Teslin, Yukon**	**8.26**	**106**		**Pn**	**18 25 26.7**	**+1.5**
BESE	**Bessie Mountai**	**8.38**	**120**		**Pn**	**18 25 29.0**	**+2.2**
TNA	**Tin City**	**8.47**	**293**		**Pn**	**18 25 29.1**	**+1.2**
Q32M	**Nakina River**	**9.18**	**112**		**Pn**	**18 25 40.0**	**+2.1**
SIT	**Sitka**	**9.30**	**128**	P	**Pn**	**18 25 41.0**	**+1.7**
DLBC	**Dease Lake**	**10.44**	**110**	Pn	**Pn**	**18 25 57.8**	**+2.8**
	comp=N,0.3nm,0.3s,baz=309,slow=13,SNR=4.1						
DLBC				Lg	Lg	18 28 51.8	
	comp=N,0.4nm,0.3s,baz=50,slow=26,SNR=6.9						
	comp=N,1.0nm,0.3s						
DLBC				AML	AML		
YKA	**Yellowknife Ar**	**15.48**	**78**	Pn	**Pn**	**18 27 02.8**	**-0.7**
	comp=N,0.4nm,0.3s,baz=50,slow=8.6,SNR=5.3						
YKA				LR	LR	18 33 57.3	
	comp=N,71nm,18.7s,baz=297,slow=40						
	comp=N,0.9nm,0.5s						
YKA				AML	AML		
BBB	**Bella Bella**	**15.72**	**126**	Pn	**P**	**18 27 10.1**	**-0.5**
	comp=N,0.6nm,0.3s,baz=299,slow=10,SNR=2.7						
	comp=N,36nm,1.0s						
BBB				AML	AML		
BBB	**Bella Bella**	**15.72**	**126**	IAmb	IAmb	18 27 14.3	
	comp=Z,65nm,1.1s						
ATKA	**Atka Island**	**17.45**	**241**	P	**P**	**18 27 31.0**	**+1.3**
ADK	**Adak**	**18.68**	**245**	P	**Pn**	**18 27 44.3**	**+0.6**
ADK	**Adak**	**18.68**	**245**	P	**Pn**	**18 27 45.6**	**+1.9**
ADK				IAmb	IAmb	18 27 46.7	
	comp=Z,13nm,0.6s						
KIWB	**Kanaga Island**	**18.90**	**245**	P	**Pn**	**18 27 47.3**	**+1.0**
NEW	**Newport**	**23.09**	**116**	LR	LR	18 38 14.2	
	comp=Z,109nm,21.1s,baz=340,slow=38						
PINE	**Pine Mountain**	**25.38**	**128**	P	**P**	**18 28 54.4**	**+1.7**
PINE				IAmb	IAmb	18 28 55.9	
	comp=Z,11nm,1.1s						
YBH	**Yreka Blue Hor**	**26.60**	**133**	P	**P**	**18 29 04.9**	**+1.3**
	comp=Z,0.7nm,0.4s,baz=336,slow=11,SNR=1.8						
	comp=Z,0.7nm,0.4s						
YBH	**Yreka Blue Hor**	**26.60**	**133**	IAmb	IAmb	18 29 05.4	
	comp=Z,7.0nm,1.3s						
MFID	**Camas Ranch**	**27.60**	**121**	IAmb	IAmb	18 29 15.6	
	comp=Z,4.5nm,0.9s						
ELK	**Elko**	**30.12**	**123**	P	**P**	**18 29 38.0**	**+2.9**
	comp=Z,2.1nm,0.9s,baz=321,slow=9.2,SNR=7.4						
	comp=Z,2.1nm,0.9s						
BW06	**Boulder Array**	**30.64**	**114**	IAmb	IAmb	18 29 43.5	
	comp=Z,6.5nm,1.0s						
PD31	**Pinedale Array**	**30.64**	**114**	P	**P**	**18 29 41.2**	**+1.4**
PD31				IAmb	IAmb	18 29 43.5	
	comp=Z,6.6nm,1.0s						
PDAR	**Pinedale Array**	**30.64**	**114**	P	**P**	**18 29 42.4**	**+2.6**
	comp=Z,5.5nm,1.0s,baz=321,slow=6.6,SNR=22						
	comp=Z,5.5nm,1.0s						
PDAR	**Pinedale Array**	**30.64**	**114**	P	**P**	**18 29 41.6**	**+1.8**
NVAR	**Mina Array Bea**	**31.05**	**129**	P	**P**	**18 29 46.2**	**+2.8**
	comp=Z,2.0nm,0.7s,baz=317,slow=7.9,SNR=11						
	comp=Z,2.0nm,0.7s						
RSSD	**Black Hills**	**31.87**	**106**	P	**P**	**18 29 52.3**	**+1.7**
RSSD				IAmb	IAmb	18 29 53.6	
	comp=Z,4.7nm,0.8s						
BSUT	**Blindstream Ca**	**32.03**	**118**	P	**P**	**18 29 55.2**	**+3.0**
BSUT				IAmb	IAmb	18 29 56.5	
	comp=Z,7.7nm,0.9s						
PSUT	**Pine Spring**	**32.57**	**123**	IAmb	IAmb	18 30 03.5	
	comp=Z,3.2nm,0.9s						
Q16A	**Castle Valley**	**33.26**	**120**	IAmb	IAmb	18 30 06.7	
	comp=Z,9.0nm,0.9s						
PV14	**Lion Creek, Pa**	**34.58**	**117**	IAmb	IAmb	18 30 18.6	
	comp=Z,5.2nm,0.8s						
PV07	**Paradox Valley**	**34.67**	**117**	P	**P**	**18 30 16.6**	**+1.5**
PV07				IAmb	IAmb	18 30 18.0	
	comp=Z,7.6nm,1.0s						
PV17	**East Wray Mesa**	**34.68**	**117**	P	**P**	**18 30 16.7**	**+1.6**
PV17				IAmb	IAmb	18 30 18.3	
	comp=Z,7.5nm,1.0s						
PV05	**Paradox Valley**	**34.80**	**118**	IAmb	IAmb	18 30 19.3	
	comp=Z,11nm,0.9s						
PV01	**Paradox Valley**	**34.96**	**117**	IAmb	IAmb	18 30 20.8	
	comp=Z,6.2nm,0.9s						
W13A	**Hualapai Mount**	**35.60**	**126**	IAmb	IAmb	18 30 26.6	
	comp=Z,4.3nm,0.8s						
WUAZ	**Wupatki**	**36.16**	**123**	IAmb	IAmb	18 30 31.4	
	comp=Z,9.2nm,0.8s						
Y14A	**Wickenburg**	**36.96**	**126**	IAmb	IAmb	18 30 38.2	
	comp=Z,6.0nm,0.7s						
X16A	**Lo Mia Camp, P**	**37.11**	**124**	IAmb	IAmb	18 30 40.2	
	comp=Z,5.5nm,0.8s						
ANMO	**Albuquerque**	**38.57**	**117**	P	**P**	**18 30 51.0**	**+2.8**
	comp=Z,3.2nm,1.1s,baz=328,slow=8.9,SNR=4.1						
	comp=Z,3.2nm,1.1s						
ANMO	**Albuquerque**	**38.57**	**117**	P	**P**	**18 30 51.9**	**+3.6**
ALQ	**Albuquerque**	**38.57**	**117**	IAmb	IAmb	18 31 05.5	
	comp=Z,29nm,1.0s						
TX31	**Lajitas Ar. Si**	**44.62**	**118**	P	**P**	**18 31 38.2**	**+0.5**
TXAR	**Lajitas Array**	**44.62**	**118**	P	**P**	**18 31 40.0**	**+2.2**
	comp=Z,1.5nm,0.7s,baz=324,slow=6.7,SNR=18						
TXAR				PcP	**PP**	**18 33 21.3**	**-0.5**
	comp=Z,0.2nm,0.5s,baz=347,slow=3.7,SNR=1.9						
	comp=Z,1.5nm,0.7s						
TXAR	**Lajitas Array**	**44.62**	**118**	P	**P**	**18 31 39.4**	**+1.7**
SAND	**Sanderson**	**44.69**	**116**	P	**P**	**18 31 39.1**	**+0.8**
SAND				IAmb	IAmb	18 31 41.1	
	comp=Z,3.9nm,0.9s						
ARCES	**ARCESS Array B**	**47.20**	**3**	P	**P**	**18 31 57.2**	**-0.4**
	comp=Z,3.9nm,0.9s,baz=349,slow=7.3,SNR=3.7						
	comp=Z,3.9nm,0.9s						
HILR	**Hailar Array B**	**47.85**	**299**	P	**P**	**18 32 02.9**	**0.0**
	comp=Z,1.6nm,0.4s,baz=34,slow=10,SNR=2.8						
	comp=Z,1.6nm,0.4s						
SONM	**Songino Array**	**54.31**	**307**	P	**P**	**18 32 52.2**	**+0.7**
	comp=Z,0.8nm,0.9s,baz=37,slow=7.1,SNR=3.5						
	comp=Z,0.8nm,0.9s						
KSRS	**Korea Array**	**54.32**	**283**	P	**P**	**18 32 52.1**	**+0.6**
	comp=Z,1.4nm,0.7s,baz=32,slow=7.6,SNR=3.0						
	comp=Z,1.4nm,0.7s						
FINES	**FINESS Array B**	**55.33**	**3**	P	**P**	**18 32 58.0**	**-0.5**
	comp=Z,1.8nm,0.7s,baz=7.1,slow=6.1,SNR=7.3						
	comp=Z,1.8nm,0.7s						
ZALV	**Zalesovo Beam**	**55.69**	**325**	P	**P**	**18 33 00.2**	**-1.1**
	comp=Z,0.8nm,0.4s,baz=11,slow=7.9,SNR=5.4						
	comp=Z,0.8nm,0.4s						
HFS	**Hagfors**	**55.99**	**10**	P	**P**	**18 33 02.7**	**-0.6**
	comp=Z,3.3nm,0.9s,baz=355,slow=7.1,SNR=2.7						

	comp=Z,3.3nm,0.9s						
HHC	**Hu-ho-hao-te**	**58.29**	**298**	*e*P	**P**	**18 33 19.1**	**-0.9**
HHC				pmax	pmax		
	comp=Z,6.0nm,0.5s						
HHC				pmax	pmax		
	comp=Z,62nm,4.5s						
EKA	**Eskdalemuir Ar**	**58.57**	**22**	P	**P**	**18 33 21.2**	**-0.4**
	comp=Z,1.0nm,0.5s,baz=334,slow=5.8,SNR=6.4						
	comp=Z,1.0nm,0.5s						
ARTI	**Arti**	**58.62**	**343**	P	**P**	**18 33 21.1**	**-0.8**
BVAR	**Borovoye Array**	**59.86**	**334**	P	**P**	**18 33 30.2**	**-0.3**
	comp=Z,2.2nm,0.5s,baz=28,slow=6.7,SNR=12						
	comp=Z,2.2nm,0.5s						
KURK	**Kurchatov**	**60.20**	**327**	P	**P**	**18 33 32.4**	**-0.5**
KURK	**Kurchatov**	**60.20**	**327**	IAmb	IAmb	18 33 32.9	
	comp=Z,2.1nm,1.1s						
KURBB	**Kurchatov Arra**	**60.31**	**327**	P	**P**	**18 33 32.4**	**-1.3**
	comp=Z,0.8nm,0.5s,baz=22,slow=7.3,SNR=4.0						
	comp=Z,0.8nm,0.5s						
MKAR	**Makanchi Array**	**62.88**	**323**	P	**P**	**18 33 49.8**	**-1.3**
	comp=Z,1.0nm,0.4s,baz=42,slow=6.7,SNR=19						
	comp=Z,1.0nm,0.4s						
GTA2	**Gaotai**	**63.94**	**307**	*e*P	P	18 33 47.8	-11
GTA2				pmax	pmax		
	comp=Z,2.0nm,1.1s						
AB31	**Akbulak array**	**65.33**	**340**	P	**P**	**18 34 06.2**	**-0.8**
ABKAR	**Akbulak array**	**65.33**	**340**	P	**P**	**18 34 06.3**	**-0.8**
AKASG	**Malin Array Be**	**66.15**	**1**	P	**P**	**18 34 11.3**	**-1.0**
	comp=Z,4.2nm,0.6s,baz=3.0,slow=6.4,SNR=16						
	comp=Z,4.2nm,0.6s						
AKASG	**Malin Array Be**	**66.15**	**1**	IAmb	IAmb	18 34 30.8	
	comp=Z,2.0nm,1.0s						
AKBB	**Malin Array Si**	**66.15**	**1**	P	**P**	**18 34 11.2**	**-1.1**
KIEV	**Kiev**	**66.16**	**1**	P	**P**	**18 34 11.6**	**-0.8**
GERES	**GERESS Array B**	**67.17**	**12**	P	**P**	**18 34 18.9**	**-0.1**
	comp=Z,0.4nm,0.2s,baz=359,slow=7.2,SNR=3.6						
	comp=Z,0.4nm,0.2s						
BUR08	**Bucovina Ar. S**	**69.12**	**4**	P	**P**	**18 34 31.4**	**+0.1**
BUR08				IAmb	IAmb	18 34 59.3	
	comp=Z,4.0nm,1.4s						
BURAR	**Bucovina Array**	**69.15**	**4**	P	**P**	**18 34 31.6**	**+0.1**
KK31	**Karatay Array**	**69.25**	**330**	P	**P**	**18 34 31.0**	**-1.1**
KK31				IAmb	IAmb	18 34 58.8	
	comp=Z,4.8nm,1.4s						
KKAR	**Karatay Array**	**69.25**	**330**	P	**P**	**18 34 30.7**	**-1.4**
ESDC	**Sonseca Array**	**73.45**	**28**	P	**P**	**18 34 57.5**	**-0.1**
	comp=Z,1.5nm,0.8s,baz=346,slow=5.5,SNR=6.4						
	comp=Z,1.5nm,0.8s						
CMAR	**Chiang Mai Arr**	**83.09**	**298**	P	**P**	**18 35 50.1**	**-1.0**
	comp=Z,1.0nm,0.8s,baz=17,slow=5.8,SNR=9.0						
	comp=Z,1.0nm,0.8s						
BATI	**Baumata**	**97.92**	**263**	LR	LR	19 17 25.2	
	comp=Z,32nm,20.9s,baz=228,slow=33						
VNDA	**Vanda**	**143.95**	**196**	PKP	PKPbc	18 42 56.9	+0.1
	comp=Z,1.5nm,0.9s,baz=22,slow=2.6,SNR=5.5						
BOSA	**Boshof**	**144.92**	**9**	PKP	**PKPab**	**18 43 00.1**	**-1.3**
	comp=Z,2.8nm,0.6s,baz=357,slow=1.7,SNR=10.0						
QSPA	**South Pole Qui**	**153.30**	**180**	PKPbc	**PKPbc**	**18 43 21.8**	**0.0**
	comp=Z,0.8nm,0.6s,baz=165,slow=1.8,SNR=6.5						

IDC ***24*** *18:52:12.2±0.5, 35°.34N×25°.85E, h0km, mb4.2/17, mbtmp4.1/24, ML3.8/6, MS2.7/6, Error ellipse: s-maj=12.7km s-min=7.8km az=4.0*
ISK ***24*** *18:52:13.3, 35°.32N×25°.92E, h4km, ML4.0/10*
NEIC ***24*** *18:52:14.0±1.8, 35°.34N±0°.06×25°.90E±0°.05, h9km±2km, mb4.4/24, Error ellipse: s-maj=9.3km s-min=6.1km az=187.0*
ATH ***24*** *18:52:14.0, 35°.29N×25°.92E, h16km±1km, ML4.1/18, Latitude uncertainty: 1 km; Longitude uncertainty: 0 km*
MCSM ***24*** *18:52:14.8±0.6, 35°N±4°×2°6E±°, h10km±3km, mb4.2, mB4.1, MLv4.1, Mw(mB)3.1*
THE ***24*** *18:52:14.3, 35°N±2°×2°6E±°, h6km±3km, M3.9/44, MLh3.9/44*
GFZ ***24*** *18:52:15.9±0.2, 35°N±3°×2°6E±°, h10km, M4.3/15, mb4.5/15*
AFAD ***24*** *18:52:16.0, 35°.35N×25°.74E, h36km, MW3.9*
GII ***24*** *18:52:17.9±0.0, 34°.958N±0°.003×26°.175E±0°.001, h0km, Mws4.0, confirmed*
ISC 24 18:52:14.2±0.8**, 35°.31N**±0°.02×**25°.94E**±0°.02**, h14**km±5km**, n356, σ1s61**/405**, mb4.3**/29**, 12C-3D, Crete**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SIT2	**Siteia**	**0.17**	**127**	P	**Pg**	**18 52 18.4**	**+0.1**
SIT2				S	**Sg**	**18 52 21.2**	**+0.2**
SIT2				AML	AML		
AGNA	**Agios Nikolaos**	**0.22**	**237**	P	**Pg**	**18 52 18.6**	**-0.5**
AGNA				S	**Sg**	**18 52 21.7**	**-0.7**
AGNA				AML	AML		
NPS	**Neapolis**	**0.27**	**260**	P	**Pg**	**18 52 19.7**	**-0.3**
NPS				S	**Sg**	**18 52 23.2**	**-0.8**
NPS				AML	AML		
NPS	**Neapolis**	**0.27**	**260**	P	**Pg**	**18 52 19.7**	**-0.3**
NPS				S	**Sg**	**18 52 23.5**	**-0.5**
ZKR	**Zakros**	**0.30**	**131**	Pg	**Pg**	**18 52 20.3**	**-0.1**
ZKR				Sg	**Sg**	**18 52 25.5**	**+0.8**
ZKR				AML	AML		
ZKR	**Zakros**	**0.30**	**131**	P	**Pg**	**18 52 20.5**	**0.0**
ZKR				S	**Sg**	**18 52 24.6**	**-0.1**
ZKR	**Zakros**	**0.30**	**131**	P	**Pg**	**18 52 20.7**	**+0.2**
IACM	**Heraklion**	**0.71**	**270**	S	**Sg**	**18 52 37.6**	**+0.1**
IACM				AML	AML		
IACM	**Heraklion**	**0.71**	**270**	P	**Pg**	**18 52 27.5**	**-0.6**
IACM				S	**Sg**	**18 52 37.2**	**-0.3**
IDI	**Anoyia**	**0.86**	**269**	Pg	**Pb**	**18 52 29.8**	**-1.2**
	278nm,0.3s,baz=18,slow=20,SNR=466						
IDI				Lg	Lg	18 52 42.0	
	1µm,0.3s,baz=356,slow=15,SNR=21						
IDI	**Anoyia**	**0.86**	**269**	P	**Pb**	**18 52 29.8**	**-1.2**
IDI				S	**Sb**	**18 52 41.3**	**-1.1**
IDI				AML	AML		
IDI	**Anoyia**	**0.86**	**269**	Pg	**Pb**	**18 52 29.8**	**-1.2**
IDI				AML	AML		
IDI	**Anoyia**	**0.86**	**269**		**Pb**	**18 52 29.6**	**-1.4**
IDI				Sg	**Sb**	**18 52 40.9**	**-1.4**
IDI	**Anoyia**	**0.86**	**269**	P	**Pb**	**18 52 29.8**	**-1.2**
IDI				S	**Sb**	**18 52 41.0**	**-1.4**
IDI				AML	AML		
SIVA	**Sivas**	**0.97**	**253**	P	**Pb**	**18 52 32.3**	**-0.5**
SIVA				S	**Sb**	**18 52 44.9**	**-0.5**
SIVA				AML	AML		
SIVA	**Sivas**	**0.97**	**253**	P	**Pb**	**18 52 31.9**	**-0.8**
SIVA				S	**Sb**	**18 52 44.4**	**-1.0**
SIVA				AML	AML		
KARP	**Karpathos**	**1.02**	**76**	P	**Pn**	**18 52 34.3**	**+0.1**
KARP				S	**Sn**	**18 52 48.6**	**+0.4**
KARP				AML	AML		
KARP	**Karpathos**	**1.02**	**76**	Pg	**Pb**	**18 52 33.8**	**+0.1**
KARP				Sg	**Sn**	**18 52 48.7**	**+0.4**
KARP				AML	AML		
KARP	**Karpathos**	**1.02**	**76**		**Pb**	**18 52 34.1**	**+0.4**
KARP	**Karpathos**	**1.02**	**76**	P	**Pg**	**18 52 34.5**	**+0.5**
KARP				AML	AML		
KARP	**Karpathos**	**1.02**	**76**	P	**Pn**	**18 52 34.3**	**+0.1**
KARP				AML	AML		
KARP				AML	AML		
KARP	**Karpathos**	**1.02**	**76**	P	**Pn**	**18 52 34.3**	**+0.1**
KARP				S	**Sn**	**18 52 48.1**	**-0.2**
KARP				AML	AML		
KARP	**Karpathos**	**1.02**	**76**	P	**Pn**	**18 52 34.2**	**0.0**
THERA	**Ancient Thera,**	**1.12**	**340**	P	**Pb**	**18 52 34.9**	**-0.4**
THERA				S	**Sg**	**18 52 51.8**	**+1.2**
THERA				AML	AML		
THERA	**Ancient Thera,**	**1.12**	**340**	P	**Pb**	**18 52 35.0**	**-0.4**
THERA				S	**Sb**	**18 52 49.6**	**-0.3**
THERA				AML	AML		
THERA	**Ancient Thera,**	**1.12**	**340**	P	**Pb**	**18 52 35.0**	**-0.4**
THR6	**Thira Island,**	**1.14**	**337**	P	**Pb**	**18 52 35.9**	**+0.3**
THR6	**Thira Island,**	**1.14**	**337**	P	**Pn**	**18 52 35.6**	**0.0**
THR8	**Santorini-Mono**	**1.16**	**341**	P	**Pn**	**18 52 35.5**	**-0.5**
THR8	**Santorini-Mono**	**1.16**	**341**	P	**Pn**	**18 52 35.5**	**-0.5**
THRA	**Thira**	**1.18**	**340**	P	**Pg**	**18 52 37.1**	**+0.1**
THRA				S	**Sg**	**18 52 53.7**	**+1.4**
THRA				AML	AML		
THRA	**Thira**	**1.18**	**340**	P	**Pn**	**18 52 36.3**	**+0.1**
THRA				S	**Sb**	**18 52 51.2**	**-0.3**
SNT5	**Nea Kammeni, S**	**1.18**	**338**	P	**Pn**	**18 52 36.1**	**-0.1**
SNT5				S	**Sg**	**18 52 52.9**	**+0.5**
SNT5				AML	AML		
SNT5	**Nea Kammeni, S**	**1.18**	**338**	P	**Pn**	**18 52 36.0**	**-0.2**
SNT5				S	**Sn**	**18 52 52.2**	**+0.1**
THR3	**Thira Island,**	**1.18**	**338**	P	**Pn**	**18 52 35.9**	**-0.4**
SFIR	**Foira Santorin**	**1.19**	**340**	P	**Pn**	**18 52 36.3**	**-0.1**
SFIR				S	**Sg**	**18 52 52.9**	**+0.3**
THR5	**Thira Island,**	**1.21**	**337**	P	**Pn**	**18 52 36.1**	**-0.6**
THR5	**Thira Island,**	**1.21**	**337**	P	**Pn**	**18 52 36.2**	**-0.4**
THR2	**Thira island,**	**1.21**	**340**	P	**Pb**	**18 52 37.0**	**+0.1**
THR2	**Thira island,**	**1.21**	**340**	P	**Pn**	**18 52 36.6**	**-0.1**
SAP3	**Santorini-Thir**	**1.23**	**337**	P	**Pn**	**18 52 36.6**	**-0.3**
SAP3				S	**Sg**	**18 52 55.0**	**+1.2**
SAP3				AML	AML		
SAP3	**Santorini-Thir**	**1.23**	**337**	P	**Pn**	**18 52 36.6**	**-0.3**
SAP3				S	**Sn**	**18 52 53.7**	**+0.5**
CMBO	**Columbo, Santo**	**1.24**	**340**	P	**Pn**	**18 52 37.3**	**+0.2**
CMBO				AML	AML		
CMBO	**Columbo, Santo**	**1.24**	**340**	P	**Pn**	**18 52 37.0**	**-0.1**
CMBO				S	**Sb**	**18 52 53.2**	**0.0**
ASTA	**Astypalaia**	**1.28**	**15**	P	**Pn**	**18 52 37.4**	**-0.2**
ASTA				S	**Sb**	**18 52 54.3**	**-0.1**
CHNB	**Souda**	**1.54**	**277**	P	**Pn**	**18 52 41.7**	**+0.5**
CHNB				S	**Sn**	**18 52 59.3**	**-1.7**
CHAN	**Chania**	**1.56**	**278**	P	**Pn**	**18 52 41.6**	**0.0**
CH01	**Chania**	**1.58**	**278**	P	**Pn**	**18 52 41.0**	**-0.7**
CH01				AML	AML		
GVD	**Gavdhos**	**1.59**	**253**	P	**Pb**	**18 52 43.4**	**+0.1**
GVD				AML	AML		
GVD	**Gavdhos**	**1.59**	**253**	Pn	**Pb**	**18 52 43.3**	**-0.1**
GVD				AML	AML		
GVD	**Gavdhos**	**1.59**	**253**	P	**Pn**	**18 52 42.5**	**+0.6**
GVD				AML	AML		
GVD	**Gavdhos**	**1.59**	**253**	P	**Pg**	**18 52 44.2**	**-0.5**
IMMV	**Iera Moni Meta**	**1.61**	**276**	P	**Pn**	**18 52 42.1**	**0.0**
IMMV				S	**Sn**	**18 53 03.1**	**+0.4**
IMMV				AML	AML		
IMMV	**Iera Moni Meta**	**1.61**	**276**	Pn	**Pb**	**18 52 43.1**	**-0.6**
IMMV				Sn	**Sb**	**18 53 04.6**	**+0.8**
IMMV				AML	AML		
IMMV	**Iera Moni Meta**	**1.61**	**276**	P	**Pn**	**18 52 42.2**	**0.0**
IMMV				AML	AML		
IMMV	**Iera Moni Meta**	**1.61**	**276**	P	**Pb**	**18 52 43.1**	**-0.6**
YAZI	**Mula-Dat§a-**	**1.84**	**41**	P	**Pn**	**18 52 45.5**	**+0.2**
YAZI				S	**Sb**	**18 53 09.9**	**-0.6**
KLNA	**Kalymnos**	**1.84**	**27**	P	**Pn**	**18 52 45.4**	**0.0**
NAX1	**Naxos Island**	**1.85**	**346**	P	**Pn**	**18 52 44.8**	**-0.6**
MHLO	**Agia Marina, M**	**1.86**	**318**	P	**Pn**	**18 52 46.3**	**+0.7**
MHLO				AML	AML		
MHLO	**Agia Marina, M**	**1.86**	**318**	P	**Pn**	**18 52 45.9**	**+0.3**
MILOS	**Milos**	**1.89**	**320**	P	**Pn**	**18 52 44.9**	**-1.0**
KNDR	**Palaiochora Ch**	**1.90**	**268**	P	**Pn**	**18 52 47.3**	**+1.2**
KNDR				S	**Sn**	**18 53 09.8**	**0.0**
KNDR				AML	AML		
KNDR	**Palaiochora Ch**	**1.90**	**268**	P	**Pn**	**18 52 46.2**	**+0.1**
KNDR				AML	AML		
DAT	**Datca**	**1.94**	**43**	P	**Pn**	**18 52 47.4**	**+0.6**
DAT				AML	AML		
DAT	**Datca**	**1.94**	**43**	Pn	**Pn**	**18 52 48.1**	**+1.3**
DAT	**Datca**	**1.94**	**43**	P	**Pn**	**18 52 46.7**	**-0.1**
DAT				S	**Sn**	**18 53 11.1**	**0.0**
ARG	**Arkhangelos**	**1.99**	**62**	P	**Pn**	**18 52 48.3**	**+0.8**
ARG				S	**Sb**	**18 53 14.3**	**-0.6**
ARG				AML	AML		
ARG	**Arkhangelos**	**1.99**	**62**	Pn	**Pb**	**18 52 49.2**	**-1.0**
ARG				AML	AML		
ARG	**Arkhangelos**	**1.99**	**62**		**Pn**	**18 52 48.8**	**+1.3**
ARG	**Arkhangelos**	**1.99**	**62**	P	**Pn**	**18 52 47.2**	**-0.3**
ARG				AML	AML		
ARG	**Arkhangelos**	**1.99**	**62**	P	**Pb**	**18 52 50.2**	**0.0**
DATC	**Datca-Mugla**	**2.01**	**43**	Pn	**Pn**	**18 52 49.1**	**+1.4**
YKAV	**Yalikavak-Bodr**	**2.11**	**30**	Pn	**Pn**	**18 52 50.5**	**+1.4**
BDRM	**Kayabasi**	**2.13**	**34**	P	**Pn**	**18 52 49.1**	**-0.3**
BDRM				S	**Sn**	**18 53 11.8**	**-3.9**
ANKY	**Antikythira Is**	**2.22**	**285**	P	**Pn**	**18 52 50.0**	**-0.6**
ANKY				AML	AML		
ANKY	**Antikythira Is**	**2.22**	**285**	P	**Pn**	**18 52 50.0**	**-0.6**
ANKY				AML	AML		
TURN	**Turunc**	**2.37**	**51**	Pn	**Pn**	**18 52 54.1**	**+1.5**
TURN				AML	AML		
TURN	**Turunc**	**2.37**	**51**	P	**Pn**	**18 52 52.4**	**-0.3**
DDIM	**Aydin, Didim**	**2.39**	**26**	P	**Pb**	**18 52 56.1**	**-0.9**
DDIM				S	**Sn**	**18 53 23.1**	**+1.2**
MLSB	**Milas**	**2.48**	**36**	Pn	**Pn**	**18 52 55.7**	**+1.6**
MLSB				AML	AML		
KTHA	**Kythira Island**	**2.52**	**293**	P	**Pn**	**18 52 54.1**	**-0.7**
KTHA				AML	AML		
KTHA	**Kythira Island**	**2.52**	**293**	P	**Pn**	**18 52 54.0**	**-0.8**
KTHA				AML	AML		
KTHA	**Kythira Island**	**2.52**	**293**	P	**Pn**	**18 52 55.7**	**+0.9**
KRL1	**Karlovasi Samo**	**2.56**	**14**	P	**Pn**	**18 52 55.0**	**-0.2**
GCAM	**G?zelcaml?**	**2.60**	**23**	P	**Pn**	**18 52 56.7**	**+0.8**
GCAM				S	**Sn**	**18 53 21.3**	**-5.9**
NPS1	**Neapolis Lacon**	**2.63**	**298**	P	**Pn**	**18 52 56.0**	**-0.1**
YER	**Yerkesik**	**2.63**	**45**	P	**Pn**	**18 52 58.1**	**+1.9**
YER				AML	AML		
YER	**Yerkesik**	**2.63**	**45**	Pn	**Pn**	**18 52 58.1**	**+1.9**
YER				AML	AML		
DALY	**Dalyan (Mula)**	**2.66**	**55**	Pn	**Pn**	**18 52 58.5**	**+1.9**
DALY				AML	AML		
DALY	**Dalyan (Mula)**	**2.66**	**55**	P	**Pn**	**18 52 58.8**	**+2.1**
DALY				S	**Sn**	**18 53 26.2**	**-2.5**
MNVA	**Monemvasia**	**2.73**	**301**	P	**Pn**	**18 52 57.7**	**+0.2**
MULA	**Mugla, Merkez-**	**2.73**	**44**	P	**Pn**	**18 52 59.8**	**+2.1**
MULA				S	**Sn**	**18 53 28.0**	**-2.6**
VLI	**Veliai**	**2.81**	**301**	P	**Pn**	**18 52 58.3**	**-0.4**
VLI				AML	AML		
VLI	**Veliai**	**2.81**	**301**	P	**Pn**	**18 52 58.1**	**-0.6**
VLI				AML	AML		
DGB	**zmir**	**2.84**	**15**	P	**Pn**	**18 52 58.9**	**-0.2**
SABU	**Mula-Dalaman**	**2.88**	**57**	P	**Pn**	**18 53 01.6**	**+1.9**
SABU				S	**Sn**	**18 53 32.9**	**-1.2**
IZZE	**Mula-Seydike**	**2.90**	**66**	P	**Pn**	**18 53 01.7**	**+1.9**
IZZE				S	**Sn**	**18 53 32.5**	**-2.0**
ZEYE	**Izmir, Urla-Ze**	**2.96**	**9**	P	**Pn**	**18 53 00.2**	**-0.5**
KARY	**Karystos**	**2.98**	**336**	P	**Pn**	**18 53 01.3**	**+0.3**
KARY				AML	AML		
KARY	**Karystos**	**2.98**	**336**	P	**Pn**	**18 53 01.3**	**+0.3**
MET1	**Methana Town,**	**3.06**	**318**	P	**Pn**	**18 53 02.8**	**+0.7**
VLY	**Voula,Athens**	**3.07**	**326**	P	**Pn**	**18 53 02.9**	**+0.6**
VLY				AML	AML		
VLY	**Voula,Athens**	**3.07**	**326**	P	**Pn**	**18 53 02.3**	**0.0**
VLY				AML	AML		
CHOS	**Chios island**	**3.07**	**2**	P	**Pn**	**18 53 02.6**	**+0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**3.07**	**2**	P	**Pn**	**18 53 02.3**	**-0.1**
CHOS	**Chios island**	**3.07**	**2**	P	**Pb**	**18 53 06.5**	**-2.2**
MET4	**Agioi Theodoro**	**3.09**	**319**	P	**Pn**	**18 53 03.1**	**+0.6**
MET6	**Megalochori,Me**	**3.09**	**318**	P	**Pn**	**18 53 03.1**	**+0.6**
MET5	**Makryloggos,Me**	**3.11**	**319**	P	**Pn**	**18 53 03.1**	**+0.3**
MET2	**Kameni Chora,**	**3.12**	**318**	P	**Pn**	**18 53 03.4**	**+0.5**
AKAS	**Kas**	**3.12**	**72**	P	**Pn**	**18 53 05.6**	**+2.5**
AKAS				S	**Sn**	**18 53 39.9**	**-0.2**
AKAS	**Kas**	**3.12**	**72**		**Pn**	**18 53 05.2**	**+2.1**
AKAS	**Kas**	**3.12**	**72**	P	**Pb**	**18 53 08.4**	**-1.1**
MET3	**Ano Fanari,Met**	**3.15**	**317**	P	**Pn**	**18 53 03.6**	**+0.2**
ESEN	**Aydn-Nazilli**	**3.15**	**37**	P	**Pn**	**18 53 05.1**	**+1.8**
ESEN				S	**Sn**	**18 53 37.4**	**-3.4**
ATHU	**Athens Univers**	**3.17**	**327**	P	**Pn**	**18 53 04.5**	**+0.9**
ATHU				AML	AML		
ATHU	**Athens Univers**	**3.17**	**327**	P	**Pn**	**18 53 04.2**	**+0.5**
BLCB	**Balcova**	**3.19**	**16**	P	**Pn**	**18 53 04.5**	**+0.5**
DION	**Dionisos Attik**	**3.20**	**330**	P	**Pn**	**18 53 04.9**	**+0.8**
DION				AML	AML		
DION	**Dionisos Attik**	**3.20**	**330**	P	**Pn**	**18 53 04.7**	**+0.6**
DION				AML	AML		
PTL	**Penteli**	**3.20**	**329**	P	**Pn**	**18 53 05.1**	**+0.9**
PTL				AML	AML		
PTL	**Penteli**	**3.20**	**329**	P	**Pn**	**18 53 04.8**	**+0.7**
PTL				AML	AML		
ATH	**Athens Observa**	**3.21**	**327**	P	**Pn**	**18 53 05.0**	**+0.9**
ATH				AML	AML		
TAVA	**DENIZLI_Tavas**	**3.22**	**47**	P	**Pn**	**18 53 07.2**	**+2.8**
TAVA				S	**Sn**	**18 53 41.1**	**-1.6**
TAVA	**DENIZLI_Tavas**	**3.22**	**47**	⇑P	**Pb**	**18 53 08.6**	**-2.6**
IZMR	**zmir-demi**	**3.25**	**29**	P	**Pn**	**18 53 07.5**	**+2.8**
CAEL	**Denizli, Camel**	**3.28**	**55**	P	**Pn**	**18 53 07.7**	**+2.4**
CAEL				S	**Sn**	**18 53 44.6**	**+0.6**
KNIK	**Mula-Seydike**	**3.32**	**61**	P	**Pn**	**18 53 06.5**	**+0.7**
KNIK				S	**Sn**	**18 53 41.1**	**-4.0**
KARB	**zmir-Karabur**	**3.37**	**6**	P	**Pn**	**18 53 06.6**	**+0.2**
DNIZ	**Denizli-Tavas-**	**3.40**	**46**	P	**Pn**	**18 53 09.4**	**+2.5**
BAGT	**Foa**	**3.42**	**12**	P	**Pn**	**18 53 06.8**	**-0.3**
KIRA	**zmir-Kiraz**	**3.49**	**34**	P	**Pn**	**18 53 10.6**	**+2.4**
GOLH	**Golhisar**	**3.50**	**56**	P	**Pn**	**18 53 11.2**	**+2.9**
GOLH				S	**Sn**	**18 53 48.1**	**-1.5**
ELL	**Elmali**	**3.52**	**65**		**Pn**	**18 53 11.2**	**+2.6**
VLX	**Vlachokerasia**	**3.54**	**307**	P	**Pn**	**18 53 09.6**	**+0.8**
VLX				AML	AML		
VILL	**Villia**	**3.55**	**324**	P	**Pn**	**18 53 10.0**	**+1.1**
VILL				AML	AML		
SULTU	**Buldan**	**3.56**	**39**	P	**Pn**	**18 53 11.8**	**+2.7**
SULTU				S	**Sn**	**18 53 45.5**	**-5.4**
CAMT	**Merkez**	**3.60**	**17**	P	**Pn**	**18 53 10.9**	**+1.3**
CAMT				S	**Sn**	**18 53 46.7**	**-5.2**
LTK	**Loutraki**	**3.61**	**319**	P	**Pn**	**18 53 11.0**	**+1.2**
LTK				AML	AML		
KYMI	**Kymi, Euboea I**	**3.63**	**337**	P	**Pn**	**18 53 10.4**	**+0.4**
KYMI				AML	AML		
AKUM	**Antalya-Kumluc**	**3.72**	**73**	P	**Pn**	**18 53 13.8**	**+2.6**
AKUM				S	**Sn**	**18 53 51.3**	**-3.4**
ITM	**Ithomi**	**3.74**	**301**	P	**Pn**	**18 53 13.3**	**+1.8**
ITM				AML	AML		
ITM	**Ithomi**	**3.74**	**301**		**Pn**	**18 53 13.7**	**+2.1**
ITM	**Ithomi**	**3.74**	**301**	P	**Pb**	**18 53 16.3**	**-3.8**
PYL	**PYLOS**	**3.75**	**296**	P	**Pn**	**18 53 12.5**	**+0.9**
ZEDA	**zmir-Bergama**	**3.76**	**14**	P	**Pn**	**18 53 12.0**	**+0.2**
INCE	**Denizli-Bozkur**	**3.78**	**50**	P	**Pn**	**18 53 14.3**	**+2.2**
INCE				S	**Sn**	**18 53 52.4**	**-4.1**
KTTT	**Salihli**	**3.79**	**26**	P	**Pn**	**18 53 13.6**	**+1.4**
HARTU	**Esme**	**3.80**	**36**	P	**Pn**	**18 53 14.5**	**+2.2**
HARTU				S	**Sn**	**18 53 50.0**	**-6.8**
MANT	**Manisa**	**3.81**	**33**	P	**Pn**	**18 53 14.6**	**+2.1**
MANT	**Manisa**	**3.81**	**33**		**Pn**	**18 53 13.1**	**+0.5**
GUR	**Goura**	**3.91**	**313**	P	**Pn**	**18 53 14.7**	**+0.8**
GUR				AML	AML		
KORT	**Korkueli**	**3.95**	**63**	P	**Pn**	**18 53 16.6**	**+2.1**
AMT	**Artemida-Makis**	**4.07**	**304**	P	**Pn**	**18 53 18.0**	**+1.9**
AMT				AML	AML		
LKR	**Lokris**	**4.08**	**326**	P	**Pn**	**18 53 17.5**	**+1.3**
LKR				AML	AML		
BRDR	**BURDUR-Merkez**	**4.09**	**53**	P	**Pn**	**18 53 18.8**	**+2.5**
KLV	**Kalavryta, Ach**	**4.09**	**313**	P	**Pn**	**18 53 17.6**	**+1.2**
KLV				AML	AML		
ATAL	**Atalanti**	**4.11**	**326**	P	**Pn**	**18 53 17.4**	**+0.8**
PASA	**Karahalli, USA**	**4.16**	**42**	P	**Pn**	**18 53 19.1**	**+1.8**
AOS	**Alonnisos**	**4.19**	**338**	P	**Pn**	**18 53 17.9**	**+0.3**
AOS				AML	AML		
BUCA	**Burdur, Bucak-**	**4.24**	**60**	P	**Pn**	**18 53 21.8**	**+3.4**
BUCA				S	**Sn**	**18 54 07.5**	**-0.2**
DRO	**Drossia**	**4.31**	**309**	P	**Pn**	**18 53 20.7**	**+1.4**
DRO				AML	AML		
LAKA	**Lakka**	**4.32**	**314**	P	**Pn**	**18 53 20.2**	**+0.7**
LAKA				AML	AML		
DEMI	**Demirci**	**4.34**	**30**	P	**Pn**	**18 53 21.8**	**+2.0**
AXAR	**Agios Charalam**	**4.34**	**324**	P	**Pn**	**18 53 22.0**	**+2.3**
AXAR				AML	AML		
SERG	**Sergoula**	**4.39**	**316**	P	**Pn**	**18 53 21.9**	**+1.4**
SERG				AML	AML		
EFP	**Efpalio**	**4.49**	**315**	P	**Pn**	**18 53 23.0**	**+1.3**
EFP				AML	AML		
EZN	**Ezine**	**4.52**	**4**	P	**Pn**	**18 53 21.9**	**-0.3**
RLS	**Riolos of Patr**	**4.52**	**309**	P	**Pn**	**18 53 24.0**	**+1.8**
RLS				AML	AML		
VVK	**Vomvokou**	**4.54**	**314**	P	**Pn**	**18 53 23.4**	**+0.9**
VVK				AML	AML		
BALB	**Balikesir**	**4.59**	**19**		**Pn**	**18 53 24.3**	**+1.1**
XOR	**Xorichti**	**4.61**	**332**	P	**Pn**	**18 53 26.9**	**+3.5**
BALY	**Balya**	**4.62**	**16**	P	**Pn**	**18 53 24.6**	**+0.9**
AGG	**Agios Georgios**	**4.70**	**323**	P	**Pn**	**18 53 26.8**	**+2.2**
KEPZ	**Antalya-Kepez**	**4.85**	**69**	⇑P	**Pn**	**18 53 29.5**	**+2.7**
PAIG	**Paliouri**	**4.95**	**339**	P	**Pn**	**18 53 29.2**	**+1.1**
	comp=Z,19nm,0.7s						
BAND	**Balkesir-Ban**	**5.32**	**18**	⇓P	**Pn**	**18 53 37.0**	**+3.9**
ALN	**Alexandroupoli**	**5.58**	**1**		**Pn**	**18 53 37.0**	**+0.3**
BORA	**Eskisehir**	**5.80**	**37**	Pn	**Pn**	**18 53 39.8**	**-0.1**
SOH	**Sokhos**	**5.87**	**340**	P	**Pn**	**18 53 44.2**	**+3.4**
	comp=Z,24nm,0.7s						
CSS	**Mathiatis**	**6.06**	**91**		**Pn**	**18 53 44.4**	**+0.9**
CSS	**Mathiatis**	**6.06**	**91**	P	**Pn**	**18 53 44.3**	**+0.9**
	comp=Z,0.2nmcomp=Z,30nm,0.8s						
CSS				AML	AML		
CSS	**Mathiatis**	**6.06**	**91**	P	**Pn**	**18 53 44.1**	**+0.7**
	comp=Z,0.1nmcomp=Z,0.2nmcomp=Z,30nm,0.8s						
CSS				AML	AML		
CSS				AML	AML		
CSS	**Mathiatis**	**6.06**	**91**	P	**Pn**	**18 53 47.1**	**+3.7**
	comp=Z,30nm,0.8s						
SRS	**Serrai**	**6.09**	**343**	P	Pn	18 53 48.7	+5.0
	comp=Z,26nm,1.1s						
GRG	**Griva**	**6.29**	**335**	P	Pn	18 53 51.3	+4.8
	comp=Z,90nm,1.1s						
KEK	**Kerkira**	**6.57**	**314**		**Pn**	**18 53 49.5**	**-0.8**
KKUL	**Konya-Kulu**	**6.77**	**53**	P	Pn	18 53 58.2	+5.0
	comp=Z,10nm,0.9s						
KIRS	**Kirsehir-Merke**	**7.42**	**57**	⇑P	**Pn**	**18 54 04.1**	**+2.0**
BR105	**Keskin Array S**	**7.52**	**52**	P	**Pn**	**18 54 05.5**	**+2.0**
	comp=Z,0.0nmcomp=Z,69nmcomp=Z,7.2nm,0.7s						
BR105				AML	AML		
BR104	**Keskin Array S**	**7.53**	**52**	P	**Pn**	**18 54 05.7**	**+2.0**
	comp=Z,0.0nmcomp=Z,35nmcomp=Z,4.4nm,0.7s						
BR104				AML	AML		
BR106	**Keskin Array S**	**7.53**	**52**	P	**Pn**	**18 54 05.7**	**+2.0**
	comp=Z,0.0nmcomp=Z,49nmcomp=Z,6.0nm,0.7s						
BR106				AML	AML		
BRTR	**Keskin Array B**	**7.54**	**52**	Pn	**Pn**	**18 54 05.5**	**+1.8**
	comp=Z,0.5nm,0.3s,baz=221,slow=15,SNR=12						
BRTR				LR	LR	18 57 28.7	
	comp=Z,15nm,19.2s,baz=185,slow=42						
	comp=Z,1.9nm,0.5s						
BRTR				AML	AML		
BRTR	**Keskin Array B**	**7.54**	**52**		**Pn**	**18 54 04.9**	**+1.1**
BR131	**Keskin Array S**	**7.54**	**52**		**Pn**	**18 54 04.6**	**+0.8**
MMA0B	**Mount Meron ar**	**8.17**	**104**	P	**Pn**	**18 54 12.2**	**-0.2**
MMA0B				S	**Sn**	**18 55 41.2**	**-3.3**
MMAI	**Mount Meron Ar**	**8.17**	**104**	Pn	**Pn**	**18 54 12.2**	**-0.2**
	comp=Z,4.6nm,0.3s,baz=311,slow=12,SNR=22						
MMAI				Sn	**Sn**	**18 55 39.0**	**-5.5**
	comp=Z,8.3nm,0.3s,baz=326,slow=25,SNR=8.6						
	comp=Z,1.5nm,0.3s						
MMAI				AML	AML		
TIP	**Timpagrande**	**8.28**	**301**		**Pn**	**18 54 13.3**	**-0.6**
TIP	**Timpagrande**	**8.28**	**301**	⇑P	**Pn**	**18 54 13.3**	**-0.6**
HWQ	**Hawqa**	**8.29**	**94**	*e*P	**Pn**	**18 54 14.7**	**+0.5**
GEM	**Giv'at Ha'Em**	**8.31**	**102**	P	**Pn**	**18 54 17.0**	**+2.7**
GEM	**Giv'at Ha'Em**	**8.31**	**102**	P	**Pn**	**18 54 13.8**	**-0.5**
GEM				S	**Sn**	**18 55 45.2**	**-2.8**
ZAHL	**Zahle**	**8.33**	**97**	*e*P	**Pn**	**18 54 13.9**	**-0.7**
KZIT	**Kziot**	**8.34**	**119**	P	**Pn**	**18 54 14.5**	**-0.2**
	comp=Z,62nm,0.8s						
KZIT	**Kziot**	**8.34**	**119**	P	**Pn**	**18 54 16.2**	**+1.5**
	comp=Z,62nm,0.8s						
SALP	**Salfit**	**8.36**	**110**	P	**Pn**	**18 54 14.9**	**0.0**
	comp=Z,24nm,0.4s						
RCY	**Rachaya**	**8.37**	**100**	*e*P	**Pn**	**18 54 14.3**	**-1.0**
ILGA	**Ilgaz**	**8.39**	**45**	Pn	**Pn**	**18 54 15.5**	**0.0**
MMLI	**Mount Malkishu**	**8.39**	**107**	P	**Pn**	**18 54 15.5**	**+0.1**
MMLI				S	**Sn**	**18 55 45.5**	**-4.3**
AMAZ	**Amatzia**	**8.39**	**114**	P	**Pn**	**18 54 15.2**	**-0.2**
	comp=Z,989nmcomp=Z,62nm,0.8s						
AMAZ	**Amatzia**	**8.39**	**114**	P	**Pn**	**18 54 14.4**	**-1.0**
AMAZ				S	**Sn**	**18 55 44.9**	**-5.1**
CVYN	**Cohav Hayarden**	**8.40**	**106**	P	**Pn**	**18 54 15.0**	**-0.6**
CVYN				S	**Sn**	**18 55 47.5**	**-2.7**
BEIL	**Beino**	**8.45**	**92**	*e*P	**Pn**	**18 54 16.4**	**+0.2**
HMRA	**Hamra**	**8.49**	**109**	P	**Pn**	**18 54 16.1**	**-0.6**
MEFR	**Maale Efrayim**	**8.52**	**110**	P	**Pn**	**18 54 16.6**	**-0.5**
MEFR				S	**Sn**	**18 55 49.2**	**-3.8**
QRNJ	**Al-Qirein**	**8.55**	**108**	P	**Pn**	**18 54 18.7**	**+1.3**
	comp=Z,26µmcomp=Z,2µm,0.6s						
CEL	**Celeste**	**8.58**	**293**		**Pn**	**18 54 17.2**	**-0.8**
CEL	**Celeste**	**8.58**	**293**	P	**Pn**	**18 54 19.6**	**+1.6**
	comp=Z,331nmcomp=Z,17nm,0.9s						
UJAP	**Al Uja**	**8.62**	**110**	P	**Pn**	**18 54 18.2**	**-0.2**
	comp=Z,28nm,0.8s						
VJRH	**Vered Jericho**	**8.65**	**111**	P	**Pn**	**18 54 18.1**	**-0.8**
ALMO	**Almog**	**8.69**	**111**	P	**Pn**	**18 54 19.0**	**-0.4**
ALMO				S	**Sn**	**18 55 53.2**	**-3.9**
MZS	**Mizpe Shalem**	**8.74**	**113**	P	**Pn**	**18 54 19.5**	**-0.6**
PDG	**Podgorica**	**8.81**	**326**	⇑P	**Pn**	**18 54 23.2**	**+2.1**
MSBI	**Mazada**	**8.83**	**114**	P	**Pn**	**18 54 21.1**	**-0.2**
	comp=Z,6.8nm,1.1s						
BOVS	**Bovan**	**8.94**	**340**	⇑P	**Pn**	**18 54 26.6**	**+3.8**
GHAJ	**Ghor Haditha**	**8.99**	**114**		**Pn**	**18 54 23.5**	**0.0**

GHAJ	Ghor Haditha	8.99	114	P	Pn	18 54 25.3	+1.8
	comp=Z,759nmcomp=Z,33nm,0.4s						
GHAJ	Ghor Haditha	8.99	114	P	Pn	18 54 26.2	+2.6
	comp=Z,33nm,0.4s						
GHAJ	Ghor Haditha	8.99	114	P	Pn	18 54 22.6	-1.0
GHAJ				S	Sn	18 56 00.2	-4.3
KRMI	Paran Flat	9.03	123	P	Pn	18 54 23.0	-1.2
KRMI				S	Sn	18 56 00.2	-5.4
MATE	Matera	9.03	309	⇑P	Pn	18 54 24.9	+0.8
PRNI	Paran	9.09	120	P	Pn	18 54 24.3	-0.6
	comp=Z,47nm,0.7s						
CUC	Castrocucco	9.29	303	P	Pn	18 54 28.3	+0.6
	comp=Z,30nm,0.8s						
HRFI	Mount Harif	9.29	122	P	Pn	18 54 27.5	-0.3
	comp=Z,34nm,0.9s						
HRFI	Mount Harif	9.29	122	P	Pn	18 54 28.4	+0.6
	comp=Z,34nm,0.9s						
SULR		9.36	1	P	Pn	18 54 28.5	-0.1
	comp=Z,78nm,1.3s						
MARCO	Tramutola	9.44	305	P	Pn	18 54 34.0	+4.2
	comp=Z,35nm,0.9s						
EIL	Elat	9.46	124	Pn	Pn	18 54 30.0	0.0
	comp=Z,1.7nm,0.3s,baz=333,slow=5.4,SNR=18						
EIL				Sn	Sn	18 56 05.8	-10
	comp=Z,1.1nm,0.3s,baz=13,slow=13,SNR=2.2						
	comp=Z,5.6nm,0.3s						
EIL				AML	AML		
EIL	Elat	9.46	124	P	Pn	18 54 31.9	+1.9
	comp=Z,11nm,1.4s						
AQBJ	Aqaba	9.49	123	P	Pn	18 54 31.2	+0.8
RAFF	Raffo Rosso	9.54	285		Pn	18 54 31.7	+0.5
VAE	Valguarnera	9.54	286	Pn	Pn	18 54 30.7	-0.5
	comp=Z,3.5nm,0.4s,baz=280,slow=22,SNR=2.5						
VAE				Sn	Sn	18 56 09.3	-9.0
	comp=Z,1.5nm,0.3s,baz=24,slow=22,SNR=1.3						
ASF	Jabal al Asfar	9.64	106	Pn	Pn	18 54 33.3	+0.7
	comp=Z,0.8nm,0.3s,baz=291,slow=8.6,SNR=2.3						
ASF				Sn	Sn	18 56 17.4	-3.3
	comp=Z,0.4nm,0.3s,baz=116,slow=24,SNR=1.5						
ASF				LR	LR	18 59 18.1	
	comp=Z,27nm,18.9s,baz=209,slow=44						
	comp=Z,1.8nm,0.3s						
ASF				AML	AML		
HERR	Herculane	9.93	345	⇑P	Pn	18 54 40.7	+4.2
MDVR	Moldovita	10.00	342	⇑P	Pn	18 54 41.9	+4.5
VOIR		10.14	356	⇑P	Pn	18 54 44.4	+5.0
VOIR		10.14	356	P	Pn	18 54 41.9	+2.5
	comp=Z,5.3nm,2.5s						
VOIR		10.14	356	P	Pn	18 54 44.4	+5.0
	comp=Z,5.4nm,2.5s						
MLR	Muntele Rosu	10.17	0	Pn	Pn	18 54 41.5	+1.7
	comp=Z,0.1nm,0.3s,baz=90,slow=24,SNR=5.4						
	comp=Z,6.2nm,1.2s						
MLR				AML	AML		
MLR	Muntele Rosu	10.17	0	⇓P	Pn	18 54 44.8	+4.9
MLR	Muntele Rosu	10.17	0	P	Pn	18 54 43.2	+3.4
	comp=Z,6.6nm,0.8s						
MLR	Muntele Rosu	10.17	0	P	Pn	18 54 46.2	+6.4
	comp=Z,6.7nm,0.8s						
SGRT	San Giovanni R	10.25	312	Pn	Pn	18 54 39.3	-1.7
GZR	Gura Zlata	10.36	348	⇑P	Pn	18 54 46.4	+4.1
PLOR	Plostina	10.55	3	⇑P	Pn	18 54 49.8	+5.0
DOPR	Dopca	10.66	358	⇓P	Pn	18 54 51.3	+4.9
INTR	Introdacqua	11.54	309		Pn	18 54 57.0	-1.6
NRCA	Norcia	12.47	311	Pn	Pn	18 55 10.5	-0.8
FDMO	Fiordimonte	12.60	312	Pn	Pn	18 55 11.9	-1.1
KEST	Kesra	13.53	277	Pn	Pn	18 55 27.6	+1.9
	comp=Z,0.1nm,0.3s,baz=286,slow=20,SNR=4.2						
KEST				LR	LR	19 01 40.6	
	comp=Z,54nm,18.3s,baz=292,slow=42						
SOKA	Soboth	14.01	327	*e*Pn	Pn	18 55 32.1	-0.2
	comp=Z,1.3nm,0.6s						
OBKA	Obir	14.10	326	*e*Pn	Pn	18 55 34.4	+0.8
	comp=Z,1.5nm,0.6s						
RONA	Rosalia, Austr	14.32	333	*i* Pn	Pn	18 55 36.8	+0.3
	comp=Z,2.2nm,0.5s						
KBA	Koelnbreinsper	15.08	325	*i* Pn	Pn	18 55 47.4	+0.5
	comp=Z,2.7nm,0.6s						
ABTA	Abfaltersbach	15.25	323	*i* Pn	Pn	18 55 49.7	+0.6
	comp=Z,2.6nm,0.7s						
MOA	Molln	15.25	329	*e*Pn	Pn	18 55 49.2	+0.2
	comp=Z,0.8nm,0.3s						
AK07	Malin Array Si	15.42	8	P	P	18 55 55.0	-0.7
AK06	Malin Array Si	15.45	8	P	P	18 55 55.3	-0.7
AK13	Malin Array Si	15.46	7	P	P	18 55 55.7	-0.5
AK10	Malin Array Si	15.47	8	P	P	18 55 55.8	-0.5
AK05	Malin Array Si	15.49	8	P	P	18 55 56.0	-0.4
AK14	Malin Array Si	15.49	8	P	P	18 55 56.0	-0.4
AK09	Malin Array Si	15.49	8	P	P	18 55 56.0	-0.5
AK12	Malin Array Si	15.50	8	P	P	18 55 56.2	-0.4
AK08	Malin Array Si	15.51	8	P	P	18 55 56.2	-0.4
KBZ	Khabaz	15.53	52	Pn	P	18 55 58.4	+1.4
	comp=Z,0.3nm,0.3s,baz=261,slow=8.6,SNR=9.1						
KIEV	Kiev	15.56	8		P	18 55 56.8	-0.4
KIEV				IAmb	IAmb	18 56 01.6	
	comp=Z,14nm,0.8s						
KIEV	Kiev	15.56	8	P	P	18 55 59.3	+2.1
	comp=Z,19nm,1.0s						
AKASG	Malin Array Be	15.57	8	Pn	P	18 55 56.6	-0.7
	comp=Z,3.6nm,0.3s,baz=198,slow=11,SNR=22						
AKBB	Malin Array Si	15.57	8		P	18 55 56.7	-0.6
AKBB				IAmb	IAmb	18 56 01.6	
	comp=Z,16nm,0.8s						
VRAC	Vranov	15.59	337	Pn	P	18 55 56.1	-1.5
	comp=Z,0.3nm,0.3s,baz=126,slow=12,SNR=5.2						
GNI	Garni	15.63	66	LR	LR	19 01 48.7	
	comp=Z,33nm,19.1s,baz=286,slow=37						
LESA	Schwarzleotal	15.65	325	*i* Pn	Pn	18 55 54.6	+0.3
	comp=Z,3.9nm,0.6s						
RNPP5	Staryi Chortor	15.91	360	P	P	18 56 00.5	-0.7
CKRC	Cesky Krumlov	16.00	331	*e*P	P	18 56 02.2	0.0
RNPP8	Varash	16.02	360	P	P	18 56 01.5	-0.9
WTTA	Wattenberg	16.04	322	*e*Pn	Pn	18 55 59.3	-0.1
	comp=Z,3.4nm,0.7s						
WATA	Walderalm	16.12	323	*e*Pn	Pn	18 56 00.2	-0.2
	comp=Z,1.7nm,0.4s						
KRLC	Kraliky	16.20	338	P	P	18 56 06.6	+2.2
	comp=Z,8.9nm,1.4s						
SQTA	Sankt Quirin	16.23	322	*e*Pn	Pn	18 56 01.8	+0.1
	comp=Z,1.8nm,0.4s						
GERES	GERESS Array B	16.27	330	Pn	P	18 56 05.1	-0.1
	comp=Z,0.1nm,0.3s,baz=148,slow=13,SNR=16						
FUORN	Ofenpass-Fuorn	16.33	319	P	P	18 56 05.3	-0.9
FETA	Feichten	16.34	320	*i* Pn	Pn	18 56 02.3	-0.9
	comp=Z,1.3nm,0.4s						
MOTA	Moosalm	16.36	322	*e*Pn	Pn	18 56 03.9	+0.4
	comp=Z,1.9nm,0.6s						
KHC	Kasperske Hory	16.54	330	*e*P	P	18 56 08.7	+0.5
DPC	Dobruska-Polom	16.58	338	*e*P	P	18 56 08.1	-0.6
DAVOX	Davos/Dischmat	16.64	318	Pn	Pn	18 56 07.4	+0.3
	comp=Z,0.3nm,0.3s,baz=188,slow=7.7,SNR=3.6						
DAVOX				LR	LR	19 05 28.1	
	comp=Z,30nm,19.1s,baz=236,slow=48						
	comp=Z,1.4nm,0.8s						
DAVOX				AML	AML		
DAVA	Damuels	16.96	320	*e*Pn	Pn	18 56 10.5	-0.6
	comp=Z,0.7nm,0.2s						
SENIN	Lac Senin/Sane	17.87	314	P	P	18 56 22.9	-0.2
CLL	Collm	18.51	334	*e*P	Pn	18 56 31.0	+0.9
MNK	Minsk	19.24	3	*i* P	P	18 56 37.0	-0.8
	comp=Z,14nm,0.8s,baz=184						
MNK				*i* PP	PnPn	18 56 51.3	-0.5
MNK				*i* PPP	PPP	18 56 59.3	
MNK				*i* S	Sn	19 00 13.5	-0.6
MNK				*i* SS	SnSn	19 00 30.0	+1.7
MNK				*i* SSS	SSS	19 00 42.7	
MNK				*i* LQ	LQ	19 02 25.4	
MNK				*i* LR	LR	19 03 54.2	
MNK				*i* LRM	MLR	19 05 18.8	
	comp=N,66nm,22.1s						
RAYN	Ar Rayn	20.65	119	P	Pn	18 56 56.5	+0.7
TAM	Tamanrasset	21.72	240		P	18 57 06.6	+1.4
TAM	Tamanrasset	21.72	240	P	P	18 57 08.3	+3.1
	comp=Z,4.2nm,0.9s						
ESBB	Sonseca Array	24.07	289	P	P	18 57 28.9	-0.1
ESBB				IAmb	IAmb	18 57 30.7	
	comp=Z,9.2nm,1.1s						
ESDC	Sonseca Array	24.07	289	P	P	18 57 28.7	-0.4
	comp=Z,1.3nm,0.6s,baz=81,slow=9.4,SNR=11						
ESDC				LR	LR	19 06 09.5	
	comp=Z,31nm,19.3s,baz=294,slow=35						
	comp=Z,1.3nm,0.6s						
MD01	Midelt array s	25.49	273	P	P	18 57 41.1	-1.1
MD31	MD31	25.49	273	P	P	18 57 42.2	+0.1
HFS	Hagfors	26.08	346	P	P	18 57 47.7	+0.6
	comp=Z,1.5nm,0.7s,baz=106,slow=8.4,SNR=1.9						
	comp=Z,1.5nm,0.7s						
FINES	FINESS Array B	26.16	0	P	P	18 57 47.4	-0.3
	comp=Z,1.1nm,0.7s,baz=165,slow=7.9,SNR=4.3						
	comp=Z,1.1nm,0.7s						
PBRG	Braganca	26.26	294	*e*P	P	18 57 49.2	+0.3
PBAR	Barrancos	26.51	286	*e*P	P	18 57 52.1	+0.9
PBAR				*i* IAmb	IAmb	18 57 58.5	
	comp=Z,57nm,0.9s						
PMRV	Marv??o	26.72	289	*e*P	P	18 57 55.4	+2.3
PMRV				*i* IAmb	IAmb	18 57 57.1	
	comp=Z,31nm,1.6s						
PVAQ	Vaqueiros	27.11	284	*e*P	P	18 58 00.1	+3.5
PVAQ				*i* IAmb	IAmb	18 58 02.1	
	comp=Z,54nm,0.9s						
PBEJ	Beja	27.17	286	*e*P	P	18 58 00.1	+3.0
PARRA	Arraiolos	27.25	288	*e*P	P	18 57 59.8	+1.9
PBDV	Barranco-do-Ve	27.30	284	*e*P	P	18 57 57.3	-1.0
EKA	Eskdalemuir Ar	28.29	324	P	P	18 58 05.9	-1.1
	comp=Z,1.5nm,0.5s,baz=119,slow=9.0,SNR=10						
	comp=Z,1.5nm,0.5s						
AB31	Akbulak array	28.49	50		P	18 58 07.2	-1.6
ABKAR	Akbulak array	28.49	50	P	P	18 58 07.9	-0.8
TORD	Torodi Ar. Bea	31.08	231	P	P	18 58 32.3	+0.3
	comp=Z,4.8nm,0.6s,baz=33,slow=8.5,SNR=33						
	comp=Z,4.8nm,0.6s						
TORD	Torodi Ar. Bea	31.08	231	IAmb	IAmb	18 58 38.1	
	comp=Z,13nm,1.0s						
ARCES	ARCESS Array B	34.28	360	P	P	18 58 59.5	0.0
	comp=Z,6.3nm,1.1s,baz=177,slow=7.8,SNR=1.2						
	comp=Z,6.3nm,1.1s						
ARCES	ARCESS Array B	34.28	360	IAmb	IAmb	18 59 06.2	
	comp=Z,11nm,1.2s						
KK31	Karatay Array	35.06	63	P	P	18 59 05.0	-1.6
KK31				IAmb	IAmb	18 59 25.0	
	comp=Z,3.2nm,1.1s						
KKAR	Karatay Array	35.06	63	P	P	18 59 07.3	+0.7
BVAR	Borovoye Array	35.78	46	P	P	18 59 12.5	-0.2
	comp=Z,1.9nm,0.9s,baz=253,slow=8.8,SNR=5.4						
	comp=Z,1.9nm,0.9s						
NIL	Nilore	38.75	78	P	P	18 59 38.7	+0.6
NIL				IAmb	IAmb	18 59 43.3	
	comp=Z,6.3nm,1.1s						
DBIC	Dimbokro	40.16	232	P	P	18 59 49.0	-1.0
	comp=Z,1.6nm,0.4s,baz=50,slow=9.9,SNR=5.5						
	comp=Z,1.6nm,0.4s						
DBIC	Dimbokro	40.16	232	IAmb	IAmb	19 00 27.8	
	comp=Z,20nm,1.5s						
KURBB	Kurchatov Arra	40.53	51	P	P	18 59 52.7	0.0
	comp=Z,4.7nm,0.7s,baz=274,slow=8.7,SNR=26						
	comp=Z,4.7nm,0.7s						
KURK	Kurchatov	40.59	51	P	P	18 59 53.4	+0.3
KURK				IAmb	IAmb	19 00 00.9	
	comp=Z,3.8nm,0.6s						
HSPB	Hornsund (broa	42.05	356	P	P	19 00 05.5	+0.7
	comp=Z,69µm,0.6s						
MKAR	Makanchi Array	43.16	57	P	P	19 00 15.0	+0.7
	comp=Z,3.6nm,0.5s,baz=272,slow=7.9,SNR=61						
	comp=Z,3.6nm,0.5s						
MKAR	Makanchi Array	43.16	57	P	P	19 00 14.9	+0.7
SPITS	Spitsbergen Ar	43.17	357	P	P	19 00 13.9	-0.1
	comp=Z,9.6nm,1.0s,baz=174,slow=5.4,SNR=1.5						
	comp=Z,9.6nm,1.0s						
ZAA0	Zalesovo Array	44.44	46	P	P	19 00 23.7	-0.7
ZAA0				IAmb	IAmb	19 00 31.1	
	comp=Z,2.0nm,0.6s						
ZALV	Zalesovo Beam	44.44	46	P	P	19 00 24.0	-0.4
	comp=Z,1.6nm,0.4s,baz=273,slow=9.5,SNR=8.6						
	comp=Z,1.6nm,0.4s						
ZALV	Zalesovo Beam	44.44	46	P	P	19 00 24.1	-0.3
EVN	Everest	51.65	80	P	P	19 01 22.2	+0.9
MREMI	Moremi	57.58	178	P	P	19 02 05.1	+1.6
MREMI				IAmb	IAmb	19 02 10.6	
	comp=Z,6.0nm,1.0s						
SONM	Songino Array	58.90	51	P	P	19 02 13.2	+0.5
	comp=Z,0.8nm,0.7s,baz=297,slow=7.3,SNR=5.7						
	comp=Z,0.8nm,0.7s						
SONM	Songino Array	58.90	51	IAmb	IAmb	19 02 17.9	
	comp=Z,0.8nm,1.0s						
MORE	Moreh	59.32	81	P	P	19 02 15.1	-0.7
MORE				IAmb	IAmb	19 02 24.0	
	comp=Z,6.8nm,1.1s						
SCHQ	Schefferville	63.49	320	P	P	19 02 43.5	0.0
	comp=Z,5.5nm,0.6s,baz=66,slow=7.1,SNR=7.2						
	comp=Z,5.5nm,0.6s						
BOSA	Boshof	63.58	181	P	P	19 02 44.6	+0.1
	comp=Z,4.1nm,1.0s,baz=3.4,slow=6.4,SNR=6.3						
	comp=Z,4.1nm,1.0s						
BOSA	Boshof	63.58	181	IAmb	IAmb	19 02 46.8	
	comp=Z,11nm,1.3s						
CM31	Chiang Mai Arr	65.92	84	P	P	19 03 00.4	+0.4
CM31				IAmb	IAmb	19 03 05.1	
	comp=Z,3.5nm,0.9s						
CMAR	Chiang Mai Arr	65.92	84	P	P	19 03 00.3	+0.3
	comp=Z,0.6nm,0.5s,baz=296,slow=8.2,SNR=6.2						
	comp=Z,0.6nm,0.5s						
CMAR	Chiang Mai Arr	65.92	84	P	P	19 03 00.8	+0.8
KSRS	Korea Array	77.68	53	P	P	19 04 10.2	-0.2
	comp=Z,1.0nm,0.6s,baz=311,slow=4.5,SNR=4.5						
	comp=Z,1.0nm,0.6s						
NEW	Newport	90.50	336	LR	LR	19 49 16.5	
	comp=Z,84nm,20.0s,baz=252,slow=38						
WRA	Warramunga Arr	115.97	97	PKP	PKPdf	19 10 56.7	-0.2
	comp=Z,0.3nm,0.6s,baz=331,slow=2.1,SNR=6.0						
ASAR	Alice Springs	117.45	101	PKP	PKiKP	19 10 59.9	+0.1
	comp=Z,0.5nm,0.6s,baz=302,slow=1.7,SNR=3.8						
QSPA	South Pole Qui	125.16	180	PKP	PKPdf	19 11 13.5	+0.2
	comp=Z,1.4nm,0.6s,baz=276,slow=3.2,SNR=14						

AFAD ***24*** *19:09:38.9, 38.°07N×34.°06E, h14^{km}±2^{km}, MW3.9*
IDC ***24*** *19:09:39.3±0.7, 38.°03N×34.°09E, h0^{km}, mb3.7/9,*
mbtmp3.7/15, ML3.1/6, MS3.0/5, Error ellipse:
s-maj=16.9km s-min=8.2km az=84.0
ISK ***24*** *19:09:39.8, 38.°08N×34.°00E, h8^{km}, ML3.9/23*
GII ***24*** *19:09:44.4±0.0, 37.°684N±0.°005×32.°979E±0.°001, h0^{km},*
Mws3.5, confirmed
ISC 24 19:09:39.6±1.1**, 38.°07N**±0.°02×**34.°04E**±0.°02**, h3**^{km}±8^{km}**,**
n107, σ1§01/144**, mb3.5**/8**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BSIR	Belisirma, Guz	0.28	45	P	Pg	19 09 45.5	+0.6
BSIR				S	Sg	19 09 48.7	+0.1
GULA	Gulagac	0.31	30	Pg	Pg	19 09 46.4	+0.8
GULA				Sg	Sb	19 09 51.6	-1.8
GULA				AML	AML		
YESY	Yesilyurt	0.37	219	Pg	Pg	19 09 47.8	+1.0
YESY				AML	AML		
NIDE	Nigde/Merkez-G	0.59	97	P	Pg	19 09 51.2	+0.3
NIDE				S	Sg	19 09 58.1	-0.3
AKSY	AKSARAY - Alti	0.62	339	P	Pg	19 09 51.3	-0.1
AKSY				S	Sg	19 09 56.2	-3.2
KERG	Konya-Eregli	0.66	174	P	Pg	19 09 51.9	-0.3
KERG				S	Sg	19 10 01.2	+0.5
ALIN	Konya, Altinte	0.94	284	P	Pg	19 09 56.9	-0.7
ALIN				S	Sg	19 10 08.4	-1.5
SERE	Sereflikochisa	0.95	337	Pg	Pg	19 09 57.6	-0.2
SERE				AML	AML		
AVNS	Nevsehir-Avano	0.97	41	P	Pg	19 09 57.5	-0.7
AVNS				S	Sg	19 10 10.6	-0.2
GULE	Gulek	0.98	143	P	Pg	19 09 57.4	-1.0
GULE				S	Sg	19 10 10.9	-0.2
YAHY	KAYSERI_Yahyal	1.04	88	P	Pg	19 09 59.5	-0.1
YAHY				S	Sg	19 10 12.1	-1.1
KIRS	Kirsehir-Merke	1.06	355	P	Pg	19 09 59.4	-0.6
KIRS				S	Sg	19 10 13.0	-0.7
KRMN	Karaman	1.09	215	Pn	Pg	19 10 00.1	-0.3
KRMN				AML	AML		
MCUR	KIREHR	1.15	19	P	Pg	19 10 01.1	-0.6
MCUR				S	Sg	19 10 15.3	-1.4
CBEY	Konya-Cihanbey	1.16	302	P	Pg	19 10 01.9	0.0
KKBE	Karaman, Kazim	1.22	226	P	Pg	19 10 02.6	-0.3
KULU	Kulu	1.26	320	Pn	Pn	19 10 04.1	-0.1
KULU				Sn	Sg	19 10 21.2	+1.0
KOZK	Kozakli-Nevseh	1.31	29	Pn	Pg	19 10 04.9	+0.2
KOZK				Sn	Sn	19 10 23.8	+1.0
KOZK				AML	AML		
KAMT	Kaman	1.32	349	Pn	Pn	19 10 04.4	-0.6
KAMT				AML	AML		
LADK	Ladik-KONYA	1.33	276	Pn	Pn	19 10 04.2	-0.9
LADK				AML	AML		
KONT	Konya--Tatoy	1.33	265	Pn	Pn	19 10 04.7	-0.4
KONT				AML	AML		
KONT	Konya--Tatoy	1.33	265	P	Pn	19 10 04.1	-1.0
KONT				S	Sb	19 10 22.8	+0.2
CAYT	Sariam	1.36	131	P	Pn	19 10 05.0	-0.4
CAYT				S	Sb	19 10 22.5	-0.7
KMER	Konya-Meram	1.36	258	P	Pn	19 10 04.6	-0.9
KMER				S	Sb	19 10 22.4	-1.0
KKUL	Konya-Kulu	1.41	322	P	Pn	19 10 06.2	+0.1
KKUL				S	Sb	19 10 24.4	-0.5
AKPI	Kirsehir/Akpin	1.43	359	P	Pn	19 10 05.5	-1.0
AKPI				S	Sb	19 10 25.1	-0.4
GUNE	Kayseri	1.50	56	P	Pb	19 10 07.7	-0.3
SIRC	Yozgat	1.53	34	P	Pn	19 10 07.4	-0.5
SIRC				S	Sn	19 10 27.4	-0.9
KOZT	Kozan	1.54	112	Pn	Pb	19 10 08.3	-0.3
KOZT				AML	AML		
AFSR	Afar-Bala (An	1.57	331	Pn	Pn	19 10 08.5	+0.1
AFSR				AML	AML		
CDAG	Cicekdag	1.57	9	P	Pn	19 10 08.5	+0.1
CDAG				S	Sg	19 10 31.6	+1.6
KDHN	Kadinhani	1.58	287	P	Pn	19 10 08.2	-0.3
KDHN				S	Sn	19 10 28.1	-1.4
KESK	Krkkale-Ke	1.60	347	P	Pn	19 10 08.8	0.0
KESK				S	Sn	19 10 28.6	-1.4
SAIM	ADANA	1.62	93	P	Pg	19 10 10.3	-0.2
SAIM				S	Sn	19 10 27.8	-2.6
BNN	Bunyan	1.62	61	Pn	Pb	19 10 09.8	-0.3
BNN				AML	AML		
BBAL	Bala	1.63	334	P	Pn	19 10 09.3	0.0
BBAL				S	Sn	19 10 31.0	+0.1
KEBE	Keben-Mersin	1.64	189	Pn	Pb	19 10 09.8	-0.7
KEBE				AML	AML		
HDMB	Hadim	1.66	229	Pn	Pn	19 10 09.8	+0.1
HDMB				AML	AML		
BRTR	Keskin Array B	1.68	349	Pg	Pn	19 10 09.7	-0.2
	10.0nm,0.3s,baz=164,slow=18,SNR=158						
BRTR				Lg	Lg	19 10 35.8	
	27nm,0.3s,baz=164,slow=32,SNR=20						
SLFK	Silifke-Mersin	1.68	183	Pn	Pb	19 10 10.4	-0.6
BR131	Keskin Array S	1.68	349	Pn	Pn	19 10 10.1	+0.1
BR131				AML	AML		
ERMK	Ermenek	1.69	212	P	Pg	19 10 14.0	+2.1
TEVE	Tevekalti-Mers	1.70	196	Pn	Pn	19 10 10.6	+0.4
TEVE				AML	AML		
SILI	Silifke-Mersin	1.71	183	Pn	Pb	19 10 10.8	-0.7
SILI				AML	AML		
YOZG	Bozok Univ. Me	1.81	19	P	Pn	19 10 11.8	+0.2
YOZG				S	Sn	19 10 34.8	-0.4
BERE	Bereket-Mersin	1.84	201	Pn	Pn	19 10 12.6	+0.4
BERE				AML	AML		
IKL	Isikli	1.85	189	Pn	Pb	19 10 12.9	-1.1
IKL				AML	AML		
YOZ	Yozgat	1.86	32	Pn	Pn	19 10 12.9	+0.5
YOZ				AML	AML		
SEYD	Seydisehir-KON	1.87	250	Pn	Pn	19 10 12.9	+0.4
DOGA	KONYA_Doganhis	1.87	272	P	Pn	19 10 12.7	+0.1
DOGA				S	Sb	19 10 38.2	-0.1
KIZT	Kizilcal	1.88	296	Pn	Pb	19 10 14.3	-0.2
KIZT				AML	AML		
KARG	Kargicak-Mersi	1.89	188	Pn	Pn	19 10 13.3	+0.7
KARG				AML	AML		
TEPK	Tepekoy-MERSIN	1.89	192	Pn	Pn	19 10 13.3	+0.6
YESI	Yesilovacik-Me	1.90	190	Pn	Pb	19 10 13.7	-1.1
SARI	SarD1z-Kayseri	1.90	79	Pn	Pb	19 10 13.9	-1.1
SARI				AML	AML		
SEDI	Konya, Seydise	1.91	252	P	Pn	19 10 13.4	+0.3
OREN	Orenkoy-Mersin	1.92	194	Pn	Pn	19 10 13.8	+0.7
DELI	KIRIKKALE	1.93	357	P	Pn	19 10 13.6	+0.3
DELI				S	Sb	19 10 40.6	+0.8
TISA	Tisan-Mersin	1.93	189	Pn	Pn	19 10 13.9	+0.7
GOKD	Ankara-Kalecik	2.04	348	P	Pn	19 10 15.3	+0.4
GOKD				S	Sb	19 10 44.0	+0.8
LOD	Lodumlu	2.07	332	Pn	Pn	19 10 15.5	+0.3
LOD				AML	AML		
HACI	Hacifakili, Ak	2.10	39	P	Pn	19 10 16.1	+0.5
HACI				S	Sb	19 10 44.0	-0.8
CTIK	Konya-Celtik	2.11	298	P	Pb	19 10 19.3	+0.9
SUNG	orum-Sungurl	2.12	4	P	Pn	19 10 16.8	+0.8
SUNG				S	Sb	19 10 45.5	+0.2
UCKU	Afyonkarahisar	2.13	286	P	Pn	19 10 16.0	-0.1
UCKU				S	Sn	19 10 43.9	+0.8
CUSAR	Sarkisla-SIVAS	2.19	51	P	Pn	19 10 17.8	+0.9
YVAC	Isparta, Yalva	2.21	276	P	Pn	19 10 17.5	+0.2
CKRK	Yozgat, Cekere	2.30	29	P	Pn	19 10 18.6	+0.2
COAL	Corum-Alaca	2.30	18	P	Pn	19 10 19.3	+0.8
COAL				S	Sn	19 10 48.4	+1.1
AUSIV	SIVRIHISAR	2.38	306	P	Pn	19 10 18.9	-0.7
ELDT	Eldivan	2.46	349	P	Pn	19 10 20.0	-0.7
YENC	ankr-Yen	2.61	357	P	Pn	19 10 23.3	+0.7
CMDR	Camlidere-ANKA	2.71	334	P	Pb	19 10 28.3	-0.4
CSS	Mathiatis	3.16	191	P	Pn	19 10 28.8	-1.3
BEIL	Beino	3.93	153	*e*P	Pn	19 10 41.6	+0.9
HWQ	Hawqa	4.09	157	*e*P	Pn	19 10 43.8	+0.8
BHL	Bhannes	4.36	162	*e*P	Pn	19 10 46.5	-0.2
ZAHL	Zahle	4.46	160	*e*P	Pn	19 10 49.3	+1.1
DQRL	Deir Qamar	4.53	164	*e*P	Pn	19 10 49.2	+0.1
QRWL	Qaraoun	4.71	163	*e*P	Pn	19 10 52.7	+1.2
RCY	Rachaya	4.79	162	*e*P	Pn	19 10 53.4	+0.7
SHBL	Chebaa	4.91	163	*e*P	Pn	19 10 54.9	+0.4
NATI	Neve Ativ	5.00	163	P	Pn	19 10 57.4	+2.1
NATI				S	Sn	19 11 54.9	+1.3
GEM	Giv'at Ha'Em	5.03	164	P	Pn	19 10 57.5	+1.6
GEM				S	Sn	19 11 55.1	+0.6
MMA0B	Mount Meron ar	5.17	167	P	Pn	19 10 58.0	+0.1
MMA0B				S	Sn	19 11 56.9	-1.1
MMAI	Mount Meron Ar	5.17	167	Pn	Pn	19 10 58.0	+0.2
	5.6nm,0.3s,baz=357,slow=16,SNR=20						
MMAI				Sn	Sn	19 11 54.8	-3.2
	baz=0.9,slow=29						
MMAI				LR	LR	19 13 40.5	
	comp=Z,67nm,18.2s,baz=8.5,slow=47						
	3.4nm,0.3s						
MMAI				AML	AML		
KSHT	Keshet	5.28	164	P	Pn	19 11 01.5	+2.1
KNHM	Kefar Nahum	5.33	166	P	Pn	19 11 01.6	+1.6
KNHM				S	Sn	19 12 01.1	-0.7
MMLI	Mount Malkishu	5.73	168	P	Pn	19 11 06.2	+0.6
MMLI				S	Sn	19 12 09.4	-2.5
ASF	Jabal al Asfar	6.33	157	Pn	Pn	19 11 14.8	+0.9
	0.6nm,0.3s,baz=352,slow=11,SNR=13						
ASF				Sn	Sn	19 12 27.9	+1.1
	0.2nm,0.3s,baz=317,slow=19,SNR=1.3						
ASF				Lg	Lg	19 12 48.3	
	0.6nm,0.3s,baz=299,slow=18,SNR=3.5						
ASF				LR	LR	19 13 58.9	
	comp=Z,75nm,21.1s,baz=25,slow=41						
	6.5nm,0.8s						
ASF				AML	AML		
EIL	Elat	8.41	175	Pn	Pn	19 11 43.4	+1.0
	0.2nm,0.3s,baz=8.1,slow=7.1,SNR=1.5						
EIL				Sn	Sn	19 13 13.5	-4.3
	0.2nm,0.3s,baz=228,slow=23,SNR=1.0						
	2.9nm,0.8s						
EIL				AML	AML		
GNI	Garni	8.57	73	LR	LR	19 15 08.9	
	comp=Z,34nm,20.7s,baz=275,slow=39						
KBZ	Khabaz	8.77	47	Pn	Pn	19 11 49.9	+2.8
	0.1nm,0.3s,baz=258,slow=9.3,SNR=3.7						
	3.0nm,1.1s						
KBZ				AML	AML		
MLR	Muntele Rosu	9.56	323	LR	LR	19 16 28.0	
	comp=Z,166nm,18.7s,baz=180,slow=42						
GERES	GERESS Array B	18.21	313	P	P	19 13 54.6	+1.0
	baz=126,slow=14,SNR=5.2						
	0.3nm,0.3s						
DAVOX	Davos/Dischmat	19.78	304	P	Pn	19 14 12.6	+0.1
	baz=139,slow=8.7,SNR=3.6						
	5.4nm,1.1s						
AKTO	Aktyubinsk	21.05	46	P	P	19 14 24.4	-0.1
	2.1nm,0.8s,baz=242,slow=9.4,SNR=6.4						
	2.1nm,0.8s						
FINES	FINESS Array B	23.92	351	P	P	19 14 54.7	+0.4
	1.8nm,0.8s,baz=155,slow=14,SNR=2.3						
	1.8nm,0.8s						
ARCES	ARCESS Array B	31.86	354	P	P	19 16 06.1	+0.7
	2.5nm,0.9s,baz=170,slow=9.0,SNR=5.6						
	2.5nm,0.9s						
KURBB	Kurchatov Arra	33.69	54	P	P	19 16 21.0	-0.7
	0.2nm,0.5s,baz=269,slow=8.3,SNR=2.6						
	0.2nm,0.5s						
MKAR	Makanchi Array	36.17	60	P	P	19 16 43.2	+0.1
	0.2nm,0.5s,baz=269,slow=8.1,SNR=2.2						
	0.2nm,0.5s						
ZALV	Zalesovo Beam	37.79	48	P	P	19 16 57.8	+1.1
	0.3nm,0.5s,baz=268,slow=8.3,SNR=1.6						
	0.3nm,0.5s						

TORD	Torodi Ar. Bea	37.97	238	P	P	19 16 58.9	+0.3
	1.7nm,0.9s,baz=29,slow=7.5,SNR=8.3						
	1.7nm,0.9s						
KMBO	Kilima Mbogo	39.12	175	P	P	19 17 08.3	-0.3
	baz=79,slow=12						
DBIC	Dimbokro	47.08	238	P	P	19 18 13.2	+0.5
	8.5nm,1.3s,baz=31,slow=12,SNR=1.8						
	8.5nm,1.3s						
SONM	Songino Array	52.05	55	P	P	19 18 50.4	-0.1
	0.2nm,0.3s,baz=278,slow=5.5,SNR=2.5						
	0.2nm,0.3s						
JOW	Kunigami	77.08	66	LR	LR	19 59 56.1	
	comp=Z,40nm,20.5s,baz=20,slow=39						

IDC ***24*** *19:21:37.1±0.6, 40°.94N×19°.83E, h0^{km}, mb3.9/14, mbtmp3.8/28, ML3.5/12, MS3.4/25, Error ellipse: s-maj=10.2km s-min=9.6km az=177.0*

MOS ***24*** *19:21:37.6±0.9, 40°.90N×19°.64E, h14^{km}, mb4.4/6, Error ellipse: s-maj=7.5km s-min=3.9km az=68.9*

SKO ***24*** *19:21:38.9, 40°.84N×19°.72E, h6^{km}, ML3.9*

NEIC ***24*** *19:21:39.4±1.9, 40°.98N±0°.05×19°.78E±0°.07, h10^{km}±1^{km}, mb4.6/8, Error ellipse: s-maj=8.9km s-min=8.1km az=100.0*

ROM ***24*** *19:21:40.6±0.1, 41°.007N±0°.004×19°.825E±0°.006, h29^{km}, ML4.0/166, Error ellipse: s-maj=0.4km s-min=0.4km az=92.0*

TIR ***24*** *19:21:40.2, 41°.01N×19°.82E, h36^{km}±1^{km}, Ml4.2/7*

GFZ ***24*** *19:21:40.9±0.1, 41°N±2°×2°0E±°, h10^{km}, M4.3/28, mb4.3/28, confirmed*

PRU ***24*** *19:21:41.1, 40°.80N×19°.48E, h10^{km}, M4.6*

BEO ***24*** *19:21:41.6±0.4, 41°.00N×19°.72E, h15^{km}±4^{km}, ML3.7/24*

SOF ***24*** *19:21:41.4, 41°.02N±0°.07×20°.1E±0°.2, h2^{km}±2^{km}, MD3.9/9*

PDG ***24*** *19:21:42.7±0.3, 41°.07N×19°.47E, h20^{km}, MD4.0/7, ML3.9/12, Error ellipse: s-maj=0.9km s-min=1.7km az=0.0*

MCSM ***24*** *19:21:43.3±1.7, 41°N±18°×2°0E±°, h10^{km}±4^{km}, mb4.2, MLv4.5*

ISC 24 19:21:40.7±0.9, **40°.99N**±0°.02×**19°.76E**±0°.02, **h19**^{km}±6^{km}, **n478**, σ1^{s}**51**/559, **mb4.2**/22, **MS3.5**/19, **56C-26D, Albania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TIR	Tirane	0.37	13	⇓Pg	Pg	19 21 48.0	-0.6
TIR				Sg	Sb	19 21 55.6	+1.3
TIR				AML	AML	19 21 57.0	
	30nm,0.7s						
TIR				AML	AML	19 22 00.2	
	34nm,0.6s						
TIR	Tirane	0.37	13	P	Pg	19 21 48.0	-0.6
TIR				S	Sb	19 21 55.5	+1.1
VLO	Vlora	0.55	201	⇓Pg	Pg	19 21 52.0	+0.2
VLO				Sg	Sb	19 22 01.2	+2.0
VLO				AML	AML	19 22 05.2	
	183nm,0.4s						
VLO				AML	AML	19 22 09.2	
	161nm,0.4s						
VLO	Vlora	0.55	201	P	Pb	19 21 52.6	+0.9
VLO				S	Sb	19 22 01.5	+2.3
VLO				AML	AML		
	comp=N,63750µm,0.4s						
VLO				AML	AML		
	comp=E,55450µm,0.4s						
VLO	Vlora	0.55	201	P	Pb	19 21 52.3	+0.5
OHR	Ohrid	0.80	81	*i*Pg	Pg	19 21 54.8	-1.6
OHR				*i*Sg	Sg	19 22 06.6	-0.4
OHR				*e*Lg	Lg	19 22 06.8	
	comp=N,4µm,1.0s						
OHR				*e*Lg	Lg	19 22 09.2	
	comp=E,4µm,0.7s						
KBN	Korca	0.86	114	⇑Pg	Pg	19 21 55.6	-1.9
KBN				Sg	Sg	19 22 08.2	-0.8
KBN				AML	AML	19 22 09.6	
	comp=E,32nm,0.5s						
KBN	Korca	0.86	114	P	Pg	19 21 55.7	-1.9
KBN				S	Sg	19 22 08.4	-0.6
KBN	Korca	0.86	114	P	Pg	19 21 55.6	-1.9
PHP	Peshkopia	0.87	36	⇑Pg	Pg	19 21 55.4	-2.2
PHP				Sg	Sg	19 22 08.0	-1.2
PHP				AML	AML	19 22 14.4	
	comp=E,17nm,0.7s						
PHP	Peshkopia	0.87	36	P	Pg	19 21 55.5	-2.2
PHP				S	Sg	19 22 08.0	-1.2
PHP	Peshkopia	0.87	36	P	Pg	19 21 55.3	-2.4
ULC	Ulcinj	1.05	339	⇑*i*Pg	Pg	19 22 00.0	-1.1
ULC				*i*Sg	Sg	19 22 14.6	-0.4
ULC				AML	AML		
SDA	Shkodra	1.08	350	Pn	Pb	19 22 00.9	0.0
SDA				Sn	Sn	19 22 18.5	+3.1
SDA				AML	AML	19 22 21.7	
	comp=E,12nm,0.8s						
SRN	Sarande	1.12	170	⇑Pg	Pb	19 22 02.1	+0.6
SRN				Sg	Sn	19 22 18.4	+2.2
SRN				AML	AML	19 22 22.9	
	comp=E,32nm,0.6s						
SRN	Sarande	1.12	170	P	Pb	19 22 01.8	+0.3
SRN	Sarande	1.12	170	P	Pn	19 22 02.4	+1.0
KEK	Kerkira	1.27	179	Pn	Pn	19 22 03.3	-0.2
KEK				Pn	Pn	19 22 03.3	-0.2
KEK				Sn	Sn	19 22 22.1	+2.1
KEK				Sn	Sn	19 22 22.2	+2.1
KEK	Kerkira	1.27	179		Pn	19 22 02.6	-0.9
KEK				Sn	Sg	19 22 21.6	-0.4
KEK	Kerkira	1.27	179	P	Pn	19 22 03.5	-0.1
KEK	Kerkira	1.27	179	P	Pn	19 22 03.6	+0.1
DRME	Dracevica, Mon	1.27	341	⇑*i*Pn	Pn	19 22 04.9	+1.3
DRME	Dracevica, Mon	1.27	341	⇑*i*Pg	Pn	19 22 04.7	+1.1
DRME				*i*Sg	Sb	19 22 21.9	+1.7
DRME				AML	AML		
BUM	Brajici-Budva	1.47	334	⇑*i*Pg	Pn	19 22 07.2	+0.9
BUM				*i*Sg	Sn	19 22 26.2	+1.2
BUM				AML	AML		
PDG	Podgorica	1.49	346	Pg	Pn	19 22 08.1	+1.6
PDG				Sg	Sb	19 22 28.3	+1.9
PDG	Podgorica	1.49	346		Pn	19 22 07.5	+1.0
PDG	Podgorica	1.49	346	*e*Pg	Pn	19 22 08.0	+1.5
PDG				*e*Sg	Sb	19 22 28.4	+2.0
PDG	Podgorica	1.49	346	P	Pn	19 22 06.6	0.0
PDG				AML	AML		
	comp=N,2010µm,0.7s						
PDG				AML	AML		
	comp=E,2705µm,0.9s						
PDG				AML	AML		
	comp=E,2705µm,0.9s						
PDG				AML	AML		
	comp=N,2025µm,0.7s						
PDG				AML	AML		
	comp=E,2705µm,1.1s						
PDG				AML	AML		
	comp=E,2705µm,1.1s						
PDG				AML	AML		
	comp=N,2025µm,1.3s						
PDG				AML	AML		
	comp=N,2010µm,1.3s						
PDG	Podgorica	1.49	346	⇑P	Pn	19 22 07.7	+1.2
PDG	Podgorica	1.49	346	⇑*i*Pn	Pn	19 22 07.8	+1.2
PDG	Podgorica	1.49	346	P	Pn	19 22 07.9	+1.3
PDG	Podgorica	1.49	346	⇑*i*Pg	Pn	19 22 07.8	+1.3
PDG				*i*Sg	Sb	19 22 27.9	+1.5
PDG				AML	AML		
MESG	Mesagne	1.50	255	P	Pn	19 22 07.0	+0.3
MESG				S	Sn	19 22 26.2	+0.5
IGT	Igoumenitsa	1.52	163	Pn	Pb	19 22 09.1	+0.9
IGT				Sn	Sb	19 22 28.4	+1.3
IGT	Igoumenitsa	1.52	163	*e*Pg	Pg	19 22 09.8	-0.2
IGT				*e*Sg	Sg	19 22 30.5	+0.8
SKO	Skopje	1.60	51	*i*Pn	Pn	19 22 09.1	+1.0
SKO				*i*Sn	Sg	19 22 31.6	-0.9
PVY	Plav	1.61	5	⇑*i*Pg	Pn	19 22 10.1	+1.7
PVY				*i*Sg	Sg	19 22 33.0	+0.1
PVY				AML	AML		
CEME	Cevo	1.68	338	⇑*i*Pg	Pn	19 22 10.1	+0.9
CEME				*i*Sg	Sn	19 22 31.4	+1.1
CEME				AML	AML		
HCY	Herceg Novi	1.74	328	*e*Pn	Pn	19 22 10.4	+0.5
HCY	Herceg Novi	1.74	328	⇓*i*Pg	Pn	19 22 10.5	+0.5
HCY				*i*Sg	Sn	19 22 32.6	+0.9
HCY				AML	AML		
NKME	Niksic	1.88	342	⇓*i*Pn	Pn	19 22 13.3	+1.4
NKME				*i*Sn	Sn	19 22 37.6	+2.4
NKME				AML	AML		
IVA	Berane	1.89	3	⇓*i*Pn	Pb	19 22 14.6	-0.1
IVA				*i*Sn	Sb	19 22 39.3	+1.4
IVA				AML	AML		
TAR1	Taranto	1.93	257	P	Pn	19 22 12.6	0.0
TAR1				S	Sn	19 22 36.9	+0.5
TAR1				AML	AML		
	comp=E,1845µm,0.8s						
TAR1				AML	AML		
	comp=N,2210µm,0.8s						
GRG	Griva	2.00	90	P	Pn	19 22 14.3	+0.7
TREB	Trebinje	2.02	329	*e*Pn	Pn	19 22 14.1	+0.2
TREB	Trebinje	2.02	329	*e*Pn	Pn	19 22 14.2	+0.3
NOCI	Noci	2.05	265	Pn	Pn	19 22 14.5	+0.2
NOCI				Sn	Sb	19 22 44.0	+1.4
NOCI				AML	AML	19 22 47.1	
	comp=N,6.9nm,0.3s						
NOCI	Noci	2.05	265	P	Pn	19 22 14.4	+0.1
NOCI				S	Sn	19 22 39.5	+0.1
NOCI				AML	AML		
	comp=E,2175µm,0.6s						
NOCI				AML	AML		
	comp=E,2175µm,1.4s						
NOCI				AML	AML		
	comp=N,3120µm,0.6s						
DBRK	Dubrovnik	2.07	325	*i*Pn	Pn	19 22 14.7	+0.2
DBRK				Sn	Sn	19 22 40.1	+0.4
BRY	Bratogost	2.12	335	⇑*i*Pn	Pn	19 22 16.0	+0.7
BRY	Bratogost	2.12	335	⇑*i*Pn	Pn	19 22 16.1	+0.7
BRY				*i*Sn	Sn	19 22 42.4	+1.2
BRY				AML	AML		
OT15	Bari, Italy	2.18	274	P	Pn	19 22 16.2	+0.3
OT15				S	Sn	19 22 41.7	-0.8
THL	Klokotos Trika	2.23	129	Pn	Pn	19 22 18.3	+1.6
SJES	Sjenica	2.28	4	*e*Pn	Pn	19 22 20.0	+2.5
SJES	Sjenica	2.28	4	⇑*i*Pn	Pn	19 22 19.5	+2.0
UPM	Unac-Piva	2.31	344	*e*Pn	Pn	19 22 18.6	+0.7
UPM	Unac-Piva	2.31	344	⇑*i*Pn	Pn	19 22 19.2	+1.3
UPM				*i*Sn	Sn	19 22 47.2	+1.3
UPM				AML	AML		
MATE	Matera	2.34	263	P	Pn	19 22 18.3	+0.1
MATE	Matera	2.34	263	⇑P	Pn	19 22 18.8	+0.7
MATE	Matera	2.34	263	P	Pn	19 22 18.4	+0.3
PLE	Pljevlja	2.36	353	⇑*i*Pn	Pn	19 22 20.5	+1.9
PLE				*i*Sn	Sn	19 22 49.8	+2.7
PLE				AML	AML		
AMUR	Altamura	2.39	269	P	Pn	19 22 19.1	+0.1
AMUR				S	Sn	19 22 47.1	-0.6
AMUR				AML	AML		
	comp=E,982µm,0.8s						
AMUR				AML	AML		
	comp=N,899µm,0.8s						
BARS	Barje	2.39	39	*e*Pn	Pn	19 22 20.7	+1.8
STON	Ston	2.43	322	*i*Pn	Pn	19 22 19.8	+0.3
STON				Sn	Sn	19 22 47.7	-1.0
STON	Ston	2.43	322	P	Pn	19 22 19.5	+0.1
STON				S	Sn	19 22 47.9	-0.8
STON				AML	AML		
	comp=E,512µm,1.2s						
STON				AML	AML		
	comp=N,623µm,0.4s						
STON				AML	AML		
	comp=E,512µm,0.8s						
SELS	Selova	2.45	24	*e*Pn	Pn	19 22 21.8	+2.0
THE	Thessaloniki	2.46	97	Pn	Pn	19 22 20.7	+0.9
THE	Thessaloniki	2.46	97	P	Pn	19 22 20.6	+0.8
BOSS	Bosilegrad	2.54	53	*e*Pn	Pn	19 22 21.8	+0.9
MIGL	Miglionico	2.55	262	P	Pn	19 22 21.5	+0.5
MIGL				AML	AML		
	comp=E,5610µm,0.7s						
MIGL				AML	AML		
	comp=N,5995µm,0.6s						
MIGL				AML	AML		
	comp=N,5995µm,1.4s						
MIGL				AML	AML		
	comp=E,5610µm,1.3s						
CRAC	Craco	2.60	257	P	Pn	19 22 21.7	-0.2
IVAS	Ivanjica	2.61	6	*e*Pn	Pn	19 22 22.9	+1.0
KKB	Krupnik	2.68	70	P	Pn	19 22 23.5	+0.6
ORI	Oriolo Calabro	2.68	251	P	Pn	19 22 23.3	+0.3
GOCS	Kraljevo Serbi	2.71	17	*e*Pn	Pn	19 22 25.5	+2.2
LADO	San Nicola del	2.72	232	P	Pn	19 22 23.8	+0.3
LADO				S	Sn	19 22 55.9	-0.1
LADO				AML	AML		
	comp=E,1450µm,1.1s						
LADO				AML	AML		
	comp=E,1450µm,0.9s						
LADO				AML	AML		
	comp=N,877µm,0.7s						
SOH	Sokhos	2.73	92	P	Pn	19 22 24.8	+1.2
AGG	Agios Georgios	2.78	134	P	Pn	19 22 25.7	+1.4
LSTV	Lastovo	2.78	311	*e*Pn	Pn	19 22 24.6	+0.3
LSTV				Sn	Sn	19 22 56.5	-0.9
SALB	San Lorenzo Be	2.83	248	P	Pn	19 22 25.0	0.0
SALB				S	Sn	19 22 58.4	-0.3
SALB				AML	AML		
	comp=N,781µm,0.3s						
SALB				AML	AML		
	comp=N,781µm,1.7s						
SALB				AML	AML		
	comp=E,976µm,0.6s						
OT13	Castello Viest	2.83	290	P	Pn	19 22 25.1	+0.1
OT13				S	Sn	19 22 57.7	-0.9
OT13				AML	AML		
	comp=E,745µm,0.3s						
OT13				AML	AML		
	comp=N,1150µm,0.7s						
TRAN	Tran	2.84	48	P	Pn	19 22 26.8	+1.6
PTRP	Pietrapertosa	2.84	262	P	Pn	19 22 25.5	+0.3
PALZ	Palazzo San Ge	2.88	270	P	Pn	19 22 25.9	+0.3
PALZ				AML	AML		
	comp=N,2310µm,1.2s						
PALZ				AML	AML		
	comp=N,2310µm,0.8s						
PALZ				AML	AML		
	comp=E,2085µm,0.8s						
BBLS	Lazi&#263i	2.89	355	*e*Pn	Pn	19 22 27.1	+1.2
BBLS	Lazi&#263i	2.89	355	⇑*i*Pn	Pn	19 22 26.7	+0.8
SRS	Serrai	2.90	86	*e*Pn	Pn	19 22 26.6	+0.6
SRS	Serrai	2.90	86	P	Pn	19 22 27.1	+1.1
SCHR	S. Chirico Rap	2.91	256	P	Pn	19 22 26.4	+0.3
TIP	Timpagrande	2.92	233		Pn	19 22 26.4	+0.1
TIP	Timpagrande	2.92	233	P	Pn	19 22 26.6	+0.3
TIP				AML	AML		
	comp=E,267µm,1.2s						
TIP				AML	AML		
	comp=N,292µm,1.2s						
TIP				AML	AML		
	comp=E,235µm,1.2s						
TIP				AML	AML		
	comp=N,278µm,0.9s						
TIP				AML	AML		
	comp=N,292µm,0.8s						
TIP				AML	AML		
	comp=N,278µm,1.1s						
TIP	Timpagrande	2.92	233	⇑P	Pn	19 22 27.6	+1.3
TIP	Timpagrande	2.92	233	P	Pn	19 22 27.1	+0.8
TDS	Terranova Siba	2.93	244	P	Pn	19 22 26.9	+0.6
TDS				AML	AML		
	comp=E,230µm,0.9s						
TDS				AML	AML		
	comp=N,278µm,1.3s						
CELI	Celico	2.95	239	P	Pn	19 22 26.9	+0.2
CELI				AML	AML		
	comp=N,382µm,0.5s						
CELI				AML	AML		
	comp=E,320µm,1.5s						
CAPA	Cerignola FG	2.98	275	P	Pn	19 22 27.4	+0.4
CAPA				AML	AML		
	comp=E,1124µm,1.1s						
CAPA				AML	AML		
	comp=N,814µm,1.3s						
CAPA				AML	AML		
	comp=E,1690µm,1.5s						
CAPA				AML	AML		
	comp=N,2085µm,1.0s						
CAPA				AML	AML		
	comp=N,2085µm,1.0s						
CAPA				AML	AML		
	comp=E,1690µm,0.5s						
CAPA				AML	AML		
	comp=N,814µm,0.7s						
CAPA				AML	AML		
	comp=E,1124µm,0.9s						
MSAG	Monte S. Angel	2.99	285	P	Pn	19 22 27.4	+0.3
MSAG				S	Sn	19 23 01.4	-1.2
MSAG				AML	AML		
	comp=E,876µm,0.8s						
MSAG				AML	AML		
	comp=N,1046µm,0.7s						
MSAG				AML	AML		
	comp=E,376µm,0.8s						
MSAG				AML	AML		
	comp=N,440µm,0.3s						
MSAG				AML	AML		
	comp=E,376µm,1.2s						
MSAG				AML	AML		
	comp=E,876µm,1.2s						
GRUS	Gruza	2.99	13	*e*Pn	Pn	19 22 28.6	+1.5
BOVS	Bovan	3.02	28	*e*Pn	Pn	19 22 28.6	+1.1
BOVS	Bovan	3.02	28	⇓P	Pn	19 22 28.9	+1.4
PGN3	Pignola, Italy	3.04	263	P	Pn	19 22 28.2	+0.4
SERS	Sersale	3.06	231	P	Pn	19 22 27.9	-0.2
MMB	Musomishta	3.06	78	P	Pn	19 22 29.4	+1.2
SIRI	Monte Sirino -	3.07	256	P	Pn	19 22 28.4	+0.1
SIRI				S	Sn	19 23 03.5	-1.1
SIRI				AML	AML		
	comp=N,682µm,0.8s						
SIRI				AML	AML		
	comp=N,702µm,0.8s						
SIRI				AML	AML		
	comp=E,730µm,0.8s						
SIRI				AML	AML		
	comp=E,716µm,0.8s						
VTS	Vitosha	3.07	57	P	Pn	19 22 29.4	+1.0
VTS	Vitosha	3.07	57	*e*Pn	Pn	19 22 29.2	+0.8
MAKA	Makarska	3.07	319	*e*Pn	Pn	19 22 28.8	+0.6
MAKA				Sn	Sn	19 23 03.8	-0.6
MMN	Mormanno	3.08	250	P	Pn	19 22 29.2	+0.9
MARCO	Tramutola	3.08	258	P	Pn	19 22 29.4	+0.9
XOR	Xorichti	3.09	120	P	Pn	19 22 29.5	+1.0
DIVS	Divibare	3.12	3	*e*Pn	Pn	19 22 29.8	+0.8
SGRT	San Giovanni R	3.12	286	⇓Pn	Pn	19 22 29.2	+0.2
SGRT	San Giovanni R	3.12	286		Pn	19 22 29.0	+0.1
SGRT	San Giovanni R	3.12	286	P	Pn	19 22 29.1	+0.1
SGRT				S	Sn	19 23 04.6	-1.1
SGRT				AML	AML		
	comp=N,555µm,0.8s						
SGRT				AML	AML		
	comp=N,555µm,1.2s						
SGRT				AML	AML		
	comp=E,670µm,1.1s						
SPS2	Spezzano della	3.12	238	P	Pn	19 22 29.4	+0.4
SPS2				AML	AML		
	comp=N,192µm,0.4s						
SPS2				AML	AML		
	comp=E,178µm,0.8s						
PLNA	Plana	3.12	60	P	Pn	19 22 30.3	+1.2
ZAPS	Zavoj	3.13	42	*e*Pn	Pn	19 22 30.8	+1.7
CUC	Castrocucco	3.17	253	Pn	Pn	19 22 30.5	+0.9
CUC	Castrocucco	3.17	253		Pn	19 22 29.9	+0.3
CUC	Castrocucco	3.17	253	P	Pn	19 22 30.3	+0.7
CUC				S	Sn	19 23 06.1	-0.8
CUC				AML	AML		
	comp=E,834µm,0.8s						
CUC				AML	AML		
	comp=N,772µm,0.8s						
CUC				AML	AML		
	comp=E,834µm,0.8s						
CUC				AML	AML		
	comp=N,759µm,0.8s						
CUC	Castrocucco	3.17	253	P	Pn	19 22 30.8	+1.2
PAIG	Paliouri	3.17	108	P	Pn	19 22 30.2	+0.6
RICI	Ricice	3.17	323	*i*Pn	Pn	19 22 30.1	+0.4
RICI				Sn	Sn	19 23 06.1	-1.0
OT03	San Marco in L	3.18	285	P	Pn	19 22 29.6	-0.1
RDM3	Ruvo Del Monte	3.20	269	P	Pn	19 22 30.4	+0.3
OT05	Madonna di Cri	3.20	284	P	Pn	19 22 30.3	+0.2
OT05				S	Sn	19 23 06.1	-1.5
OT05				AML	AML		
	comp=E,613µm,0.9s						
OT05				AML	AML		
	comp=N,457µm,0.3s						
OT05				AML	AML		
	comp=E,613µm,1.1s						
OT06	Rignano Gargan	3.21	284	P	Pn	19 22 30.3	+0.1
CAR1	CAROLEI	3.22	239	P	Pn	19 22 30.8	+0.4
CAR1				AML	AML		
	comp=E,798µm,0.7s						
CAR1				AML	AML		
	comp=N,622µm,0.4s						
CAR1				AML	AML		
	comp=E,874µm,0.7s						
CAR1				AML	AML		
	comp=N,732µm,0.5s						
CAR1				AML	AML		
	comp=N,622µm,1.6s						
CAR1				AML	AML		
	comp=E,874µm,1.3s						
CAR1				AML	AML		
	comp=N,732µm,1.5s						
CAR1				AML	AML		
	comp=E,798µm,1.3s						
OT04	Stignano (FG)	3.23	285	P	Pn	19 22 30.6	+0.2
GRIS	Grisolia	3.23	249	P	Pn	19 22 30.9	+0.4
MRLC	Muro Lucano	3.24	267	P	Pn	19 22 31.3	+0.6
MRLC				AML	AML		
	comp=N,339µm,0.5s						
MRLC				AML	AML		
	comp=E,595µm,0.6s						
MRLC				AML	AML		
	comp=N,720µm,0.5s						
MRLC				AML	AML		
	comp=N,720µm,1.5s						
MRLC				AML	AML		
	comp=N,339µm,1.5s						
MRLC				AML	AML		
	comp=E,288µm,0.6s						
CET2	Cetraro	3.25	245	P	Pn	19 22 31.7	+0.9
CET2				S	Sn	19 23 08.0	-1.1
CET2				AML	AML		
	comp=N,1735µm,0.6s						
CET2				AML	AML		
	comp=E,1250µm,0.9s						
APRC	Apricena	3.26	285	P	Pn	19 22 31.1	+0.1
APRC				S	Sn	19 23 08.1	-1.2
APRC				AML	AML		
	comp=N,877µm,0.7s						
APRC				AML	AML		
	comp=E,848µm,0.9s						
TRUS	Trudelj	3.27	8	*e*Pn	Pn	19 22 31.9	+0.9
HVAR	Hvar	3.30	313	*i*Pn	Pn	19 22 31.2	-0.2
HVAR				Sn	Sn	19 23 08.6	-1.5
CLT3	Calitri	3.30	270	P	Pn	19 22 32.1	+0.7
MGR	Morigerati	3.31	257	P	Pn	19 22 32.1	+0.5
MGR				AML	AML		
	comp=E,740µm,0.7s						
MGR				AML	AML		
	comp=E,634µm,0.7s						
MGR				AML	AML		
	comp=N,746µm,0.7s						
MGR				AML	AML		
	comp=N,554µm,0.6s						
MGR				AML	AML		
	comp=E,634µm,1.3s						
MGR				AML	AML		
	comp=E,740µm,1.3s						
SGTA	Sant Agata di	3.32	274	P	Pn	19 22 32.2	+0.4
ZAGS	Zajecar	3.37	32	*e*Pn	Pn	19 22 33.7	+1.4
GIZZ	Gizzeria	3.38	235	P	Pn	19 22 33.0	+0.3
TREM	Isole Tremiti	3.38	291	P	Pn	19 22 33.1	+0.5
BLKB	Belogradchik	3.41	38	*e*Pn	Pn	19 22 34.8	+1.8
CAFE	Carife	3.42	272	P	Pn	19 22 33.7	+0.6
SSB3	San Sossio Bar	3.43	273	P	Pn	19 22 33.4	+0.2
SNAL	S. Angelo Dei	3.44	270	P	Pn	19 22 33.9	+0.5
SNAL				AML	AML		
	comp=E,1285µm,1.0s						
SNAL				AML	AML		
	comp=N,1132µm,1.0s						
SNAL				AML	AML		
	comp=E,1150µm,1.0s						
SNAL				AML	AML		
	comp=N,1175µm,1.1s						
SVIS	Svilajnac	3.45	18	*e*Pn	Pn	19 22 36.8	+3.3
CMPR	Campora	3.45	260	P	Pn	19 22 34.3	+0.8
CMPR				AML	AML		
	comp=E,355µm,0.9s						
CMPR				AML	AML		
	comp=N,288µm,1.5s						
CMPR				AML	AML		

	comp=N,288µm,0.5s						
BULG	Bulgheria - Ca	3.46	256	P	Pn	19 22 34.0	+0.3
BULG				AML	AML		
	comp=E,702µm,0.7s						
BULG				AML	AML		
	comp=N,1063µm,0.7s						
BULG				AML	AML		
	comp=E,764µm,0.7s						
BULG				AML	AML		
	comp=N,1096µm,0.8s						
KLV	Kalavryta, Ach	3.47	147	Pn	Pn	19 22 35.6	+1.8
MCRV	Calabrutti - M	3.48	268	P	Pn	19 22 34.8	+0.7
MCRV				AML	AML		
	comp=N,514µm,0.8s						
MCRV				AML	AML		
	comp=E,442µm,0.7s						
MCRV				AML	AML		
	comp=N,514µm,1.2s						
MOCO	Biccari - m.te	3.49	278	P	Pn	19 22 34.6	+0.4
MELA	Melanico ??? S	3.56	283	P	Pn	19 22 35.5	+0.5
MELA				S	Sn	19 23 14.9	-1.6
MELA				AML	AML		
	comp=E,1026µm,1.6s						
MELA				AML	AML		
	comp=N,1047µm,0.7s						
MELA				AML	AML		
	comp=E,1072µm,1.6s						
MELA				AML	AML		
	comp=N,1168µm,0.7s						
MELA				AML	AML		
	comp=E,1072µm,0.4s						
MELA				AML	AML		
	comp=E,1026µm,0.4s						
TEKS	Tekeris	3.57	357	ePn	Pn	19 22 35.4	+0.3
TEKS	Tekeris	3.57	357	⇑iPn	Pn	19 22 35.3	+0.2
PLAC	Placanica	3.60	226	P	Pn	19 22 35.5	-0.1
PLAC				AML	AML		
	comp=N,446µm,0.7s						
PLAC				AML	AML		
	comp=N,325µm,0.5s						
PLAC				AML	AML		
	comp=E,334µm,0.5s						
PLAC				AML	AML		
	comp=E,390µm,1.1s						
PLAC				AML	AML		
	comp=N,446µm,1.3s						
MRB1	Monte Rocchett	3.62	274	P	Pn	19 22 36.5	+0.7
MRB1				S	Sn	19 23 16.6	-1.5
MRB1				AML	AML		
	comp=E,638µm,0.8s						
MRB1				AML	AML		
	comp=N,750µm,0.7s						
MRB1				AML	AML		
	comp=E,638µm,1.2s						
MRB1				AML	AML		
	comp=N,740µm,0.6s						
MRB1				AML	AML		
	comp=E,644µm,0.9s						
PGB	Panagyurishte	3.64	64	P	Pn	19 22 37.6	+1.5
GATE	Gambatesa	3.69	280	P	Pn	19 22 37.0	+0.1
GATE				AML	AML		
	comp=E,510µm,0.8s						
GATE				AML	AML		
	comp=N,482µm,1.0s						
GATE				AML	AML		
	comp=E,534µm,0.8s						
GATE				AML	AML		
	comp=N,424µm,1.2s						
GATE				AML	AML		
	comp=N,424µm,0.8s						
KUBS	Kucevo	3.71	22	ePn	Pn	19 22 36.5	-0.5
CIGN	Sant'Elia a Pi	3.71	282	P	Pn	19 22 37.7	+0.6
CIGN				S	Sn	19 23 19.1	-1.3
CIGN				AML	AML		
	comp=E,286µm,0.6s						
CIGN				AML	AML		
	comp=N,295µm,0.8s						
CIGN				AML	AML		
	comp=E,286µm,1.4s						
CIGN				AML	AML		
	comp=N,295µm,1.2s						
PSB1	Pescosannita	3.75	275	P	Pn	19 22 38.2	+0.7
AVAS	Avala Beograd	3.75	8	ePn	Pn	19 22 38.1	+0.5
JOPP	Joppolo	3.81	233	P	Pn	19 22 38.7	+0.2
RZN	Rozhen	3.82	78	P	Pn	19 22 40.0	+1.3
SACR	S. Croce Del S	3.83	278	P	Pn	19 22 39.2	+0.4
SACR				AML	AML		
	comp=N,342µm,1.1s						
SACR				AML	AML		
	comp=N,342µm,0.9s						
SACR				AML	AML		
	comp=E,258µm,0.7s						
VITU	Vitulano (BN)	3.88	275	P	Pn	19 22 40.0	+0.5
VITU				AML	AML		
	comp=E,472µm,0.3s						
VITU				AML	AML		
	comp=N,528µm,0.7s						
VITU				AML	AML		
	comp=E,472µm,1.7s						
KIJV	Kijevo	3.91	322	ePn	Pn	19 22 40.7	+1.0
KIJV				Sn	Sn	19 23 24.3	-0.8
PLD	Plovdiv	3.92	71	P	Pn	19 22 41.3	+1.4
PLD	Plovdiv	3.92	71	ePn	Pn	19 22 41.0	+1.1
PAOL	Paolisi	3.93	272		Pn	19 22 40.8	+0.7
PAOL	Paolisi	3.93	272	P	Pn	19 22 40.6	+0.5
BSSO	Busso	3.93	280	P	Pn	19 22 40.8	+0.6
TRIV	Trivento	4.00	283	P	Pn	19 22 41.5	+0.5
TRIV				AML	AML		
	comp=N,413µm,0.7s						
TRIV				AML	AML		
	comp=E,330µm,1.1s						
TRIV				AML	AML		
	comp=E,332µm,0.6s						
TRIV				AML	AML		
	comp=N,410µm,0.7s						
TRIV				AML	AML		
	comp=E,330µm,0.9s						
CEL	Celeste	4.04	229	Pn	Pn	19 22 41.4	-0.2
CEL				Sn	Sn	19 23 27.3	-1.1
CEL	Celeste	4.04	229		Pn	19 22 41.1	-0.5
CEL	Celeste	4.04	229	P	Pn	19 22 42.0	+0.4
CEL	Celeste	4.04	229	P	Pn	19 22 42.7	+1.0
PUNG	Punghina	4.04	34	⇓P	Pn	19 22 43.4	+1.9
VBKN	Vesuvio Bunker	4.04	270	P	Pn	19 22 41.9	+0.3
VBKN				AML	AML		
	comp=E,926µm,0.8s						
VBKN				AML	AML		
	comp=N,936µm,0.9s						
MDVR	Moldovita	4.06	20	ePn	Pn	19 22 42.6	+0.7
MDVR	Moldovita	4.06	20	⇑P	Pn	19 22 42.9	+1.0
SGG	Gregorio Mates	4.08	277	P	Pn	19 22 42.7	+0.5
SGG				AML	AML		
	comp=N,528µm,0.5s						
SGG				AML	AML		
	comp=E,663µm,0.5s						
SGG				AML	AML		
	comp=N,528µm,1.5s						
SOI	Samo	4.08	226	P	Pn	19 22 42.6	+0.5
MORI	Morici	4.16	315	ePn	Pn	19 22 44.1	+0.9
MORI				Sn	Sn	19 23 29.6	-1.6
ITM	Ithomi	4.16	155		Pn	19 22 44.0	+0.7
ITM	Ithomi	4.16	155	P	Pn	19 22 43.8	+0.6
FRGS	Fruska Gora	4.17	1	ePn	Pn	19 22 43.7	+0.3
FRGS	Fruska Gora	4.17	1	⇑iPn	Pn	19 22 43.6	+0.2
MIDA	Miranda	4.20	281	P	Pn	19 22 44.3	+0.5
MIDA				AML	AML		
	comp=E,436µm,0.7s						
MIDA				AML	AML		
	comp=N,476µm,1.3s						
MIDA				AML	AML		
	comp=E,312µm,0.4s						
MIDA				AML	AML		
	comp=N,432µm,0.7s						
MIDA				AML	AML		
	comp=N,476µm,0.7s						
DJES	Djerdap	4.20	28	⇓P	Pn	19 22 45.4	+1.6
BLY	Banja Luka	4.21	334	Pn	Pn	19 22 44.9	+1.1
BLY	Banja Luka	4.21	334		Pn	19 22 43.6	-0.3
BLY	Banja Luka	4.21	334	ePn	Pn	19 22 44.7	+0.8
BLY	Banja Luka	4.21	334	P	Pn	19 22 43.5	-0.3
BLY	Banja Luka	4.21	334	⇓P	Pn	19 22 45.0	+1.1
BLY	Banja Luka	4.21	334	⇑iPn	Pn	19 22 44.0	+0.1
BLY	Banja Luka	4.21	334	P	Pn	19 22 44.4	+0.5
KDZ	Kurdzhali	4.25	79	P	Pn	19 22 45.6	+1.1
MSRU	Castanea	4.26	232	P	Pn	19 22 44.2	-0.4
MSRU				AML	AML		
	comp=N,418µm,0.6s						
MSRU				AML	AML		
	comp=E,456µm,0.7s						
VRSS	Vrsac	4.29	15	ePn	Pn	19 22 46.8	+1.8
MTTG	Motta San Giov	4.33	228	P	Pn	19 22 45.8	+0.2
PLVB	Pleven	4.34	55	⇑P	Pn	19 22 47.9	+2.2
HERR	Herculane	4.36	26	⇓P	Pn	19 22 47.1	+1.2
MILZ	Milazzo	4.42	234	P	Pn	19 22 46.3	-0.5
MILZ				AML	AML		
	comp=E,1470µm,0.8s						
MILZ				AML	AML		
	comp=N,662µm,0.3s						
MILZ				AML	AML		
	comp=N,662µm,1.7s						
MPNC	Port Mandanici	4.43	232	P	Pn	19 22 46.4	-0.6
SRE	Strehaia	4.46	33	P	Pn	19 22 48.7	+1.3
SRE	Strehaia	4.46	33	⇑P	Pn	19 22 48.8	+1.3
BANR	Banloc	4.51	12	⇑P	Pn	19 22 49.3	+1.3
INTR	Introdacqua	4.51	285		Pn	19 22 48.3	+0.1
DUGI	Dugi Otok	4.59	312	ePn	Pn	19 22 50.1	+1.0
DUGI				Sn	Sn	19 23 41.1	-0.9
UDBI	Udbina	4.60	322	ePn	Pn	19 22 50.9	+1.5
UDBI				Sn	Sn	19 23 41.9	-0.4
IFIL	Filicudi I Eol	4.67	241	P	Pn	19 22 50.2	-0.1
IFIL				AML	AML		
	comp=E,760µm,0.6s						
IFIL				AML	AML		
	comp=N,278µm,1.3s						
IFIL				AML	AML		
	comp=N,278µm,0.7s						
ALN	Alexandroupoli	4.76	89	P	Pn	19 22 52.2	+0.7
ALN	Alexandroupoli	4.76	89		Pn	19 22 52.2	+0.7
ALN	Alexandroupoli	4.76	89	P	Pn	19 22 52.8	+1.3
VIRC	Vir	4.79	315	i Pn	Pn	19 22 52.7	+0.8
VIRC				Sn	Sn	19 23 46.4	-0.4
BZS	Buzias	4.82	16	P	Pn	19 22 54.1	+1.8
BZS	Buzias	4.82	16	ePn	Pn	19 22 53.3	+1.0
BZS	Buzias	4.82	16	⇑P	Pn	19 22 54.2	+1.8
BZS	Buzias	4.82	16	P	Pn	19 22 53.5	+1.1
GZR	Gura Zlata	4.93	26	P	Pn	19 22 55.7	+1.9
GZR	Gura Zlata	4.93	26	ePn	Pn	19 22 55.5	+1.7
GZR	Gura Zlata	4.93	26	⇑P	Pn	19 22 55.7	+1.9
AQU	L'Aquila	4.95	288	P	Pn	19 22 53.3	-0.9
AQU	L'Aquila	4.95	288		Pn	19 22 53.3	-0.9
AQU	L'Aquila	4.95	288	⇑iPn	Pn	19 22 54.1	-0.1
AQU	L'Aquila	4.95	288	P	Pn	19 22 55.3	+1.1
SURR	Surduc	5.07	19	⇑P	Pn	19 22 57.3	+1.5
NVLJ	Novalja	5.07	316	i Pn	Pn	19 22 56.4	+0.7
NVLJ				Sn	Sn	19 23 52.4	-1.3
GUMA	Gualdo di Mace	5.21	296		Pn	19 22 57.5	-0.3
HUMR	Humele	5.23	46	⇓P	Pn	19 22 59.5	+1.6
HUMR	Humele	5.23	46	P	Pn	19 22 59.1	+1.2
	comp=Z,80nm,0.9s						
RABC	Rab	5.25	317	ePn	Pn	19 22 58.8	+0.7
HLNI	Lentini	5.25	228	P	Pn	19 22 56.0	-2.2
HLNI				AML	AML		
	comp=E,136µm,0.9s						
HLNI				AML	AML		
	comp=N,152µm,0.6s						
HLNI				AML	AML		
	comp=E,136µm,1.1s						
NRCA	Norcia	5.29	293		Pn	19 22 58.9	+0.1
MORH	Mrgy, Hungar	5.29	352	⇑P	Pn	19 22 59.2	+0.5
MORH	Mrgy, Hungar	5.29	352	⇑iPn	Pn	19 22 58.3	-0.4
MORH	Mrgy, Hungar	5.29	352	P	Pn	19 22 59.0	+0.3
	comp=Z,24nm,0.7s						
LOT	Lotru	5.34	32	⇓P	Pn	19 23 01.7	+2.2
LOT	Lotru	5.34	32	P	Pn	19 23 01.6	+2.0
	comp=Z,25nm,0.7s						
FDMO	Fiordimonte	5.37	295		Pn	19 23 00.0	+0.1
VAE	Valguarnera	5.43	232	Pn	Pn	19 23 01.3	+0.5
	comp=Z,6.0nm,0.6s,baz=84,slow=9.2,SNR=2.1						
VAE				Sn	Sn	19 24 01.4	-1.4
	comp=Z,1.4nm,0.3s,baz=12,slow=9.3,SNR=3.3						
SIRR	Siria	5.46	14	ePn	Pn	19 23 02.6	+1.5
SIRR	Siria	5.46	14	⇑P	Pn	19 23 02.0	+0.9
CHOS	Chios island	5.51	116	P	Pn	19 23 04.3	+2.5
	comp=Z,39nm,0.8s						
OZLJ	Ozalj	5.59	327	ePn	Pn	19 23 03.5	+0.7
BOJS	Bojanci	5.59	325	ePn	Pn	19 23 03.2	+0.4
CESX	Cesi	5.60	289		Pn	19 23 03.7	+0.6
LOZB	Loznitsa	5.61	63	⇑P	Pn	19 23 06.0	+2.8
RAFF	Raffo Rosso	5.63	230	Pn	Pn	19 23 02.6	-0.8
ARR	Arges	5.65	38	⇑P	Pn	19 23 05.8	+2.0
ARR	Arges	5.65	38	P	Pn	19 23 06.0	+2.2
	comp=Z,20nm,1.1s						
GBRS	Gornja Briga	5.80	323	i Pn	Pn	19 23 06.8	+1.0
RIY	Rijeka	5.80	320	ePn	Pn	19 23 06.5	+0.7
MURB	Monte Urbino	5.84	295		Pn	19 23 06.9	+0.5
BEHE	Becsehely	5.89	340	ePn	Pn	19 23 06.6	-0.4
BEHE	Becsehely	5.89	340	P	Pn	19 23 07.5	+0.4
	comp=Z,23nm,0.8s						
VOIR		5.89	39	P	Pn	19 23 09.4	+2.3
VOIR		5.89	39	⇓P	Pn	19 23 09.4	+2.3
VOIR		5.89	39	P	Pn	19 23 09.4	+2.3
	comp=Z,0.1nmcomp=Z,17nm,0.9s						
VOIR				AML	AML		
VOIR		5.89	39	P	Pn	19 23 09.8	+2.7
	comp=Z,17nm,1.0s						
CLTB	Caltabellotta	6.11	238	P	Pn	19 23 12.4	+2.3
	comp=Z,125nm,0.7s						
CEY	Cerknica	6.14	323	ePn	Pn	19 23 11.3	+0.9
MDB	Medias	6.15	32	P	Pn	19 23 12.8	+2.3
MDB	Medias	6.15	32	⇑P	Pn	19 23 12.9	+2.3
DRGR		6.18	19	P	Pn	19 23 12.9	+1.8
DRGR		6.18	19	ePn	Pn	19 23 12.8	+1.7
DRGR		6.18	19	⇑P	Pn	19 23 13.0	+1.8
SKDS	Skadanscina	6.19	319	ePn	Pn	19 23 10.9	-0.3
LJU	Ljubljana	6.33	325	ePn	Pn	19 23 12.7	-0.3
BALB	Balikesir	6.35	100		Pn	19 23 13.7	+0.3
CJR	Cluj-Napoca	6.36	25	P	Pn	19 23 15.0	+1.5
CJR	Cluj-Napoca	6.36	25	⇑P	Pn	19 23 15.0	+1.5
MLR	Muntele Rosu	6.38	43	Pn	Pn	19 23 13.9	0.0
	comp=Z,1.0nm,0.3s,baz=268,slow=23,SNR=14						
MLR				Sn	Sn	19 24 23.8	-2.4
	comp=Z,0.5nm,0.3s,baz=93,slow=23,SNR=3.2						
	comp=Z,10.0nm,0.9s						
MLR				AML	AML		
MLR	Muntele Rosu	6.38	43		Pn	19 23 16.4	+2.6
MLR	Muntele Rosu	6.38	43	ePn	Pn	19 23 14.9	+1.1
MLR	Muntele Rosu	6.38	43	⇓P	Pn	19 23 16.9	+3.1
MLR	Muntele Rosu	6.38	43	P	Pn	19 23 16.9	+3.1
	comp=Z,0.1nmcomp=Z,14nm,1.0s						
MLR				AML	AML		
MLR	Muntele Rosu	6.38	43	P	Pn	19 23 17.0	+3.2
	comp=Z,18nm,0.9s						
MPLH	Magyarpolny	6.39	346	P	Pn	19 23 18.9	+5.1
	comp=Z,0.4nmcomp=Z,133nm,1.0s						
MPLH				AML	AML		
MPLH	Magyarpolny	6.39	346	P	Pn	19 23 15.3	+1.5
	comp=Z,52nm,0.9s						
JAVS	Javornik	6.42	322	i Pn	Pn	19 23 14.5	+0.1
DOPR	Dopca	6.45	38	⇑P	Pn	19 23 17.6	+2.9
ISR	Istrita	6.46	48	P	Pn	19 23 17.6	+2.7
ISR	Istrita	6.46	48	⇓P	Pn	19 23 17.6	+2.7
ISR	Istrita	6.46	48	P	Pn	19 23 18.6	+3.7
	comp=Z,0.2nmcomp=Z,24nm,0.9s						
ISR				AML	AML		
BUD	Budapest	6.52	356	P	Pn	19 23 16.5	+0.9
	comp=Z,34nm,0.7s						
NEHR	Nehoiu	6.52	45	⇑P	Pn	19 23 17.7	+2.0
MOZS	Mozjanca	6.56	326	i Pn	Pn	19 23 16.6	+0.4
SOKA	Soboth	6.64	331	i Pn	Pn	19 23 17.9	+0.6
	comp=Z,6.3nm,0.3s						
SOKA				eSn	Sn	19 24 29.5	-2.9
	comp=Z,5.8nm,0.5s						
OBKA	Obir	6.69	327	i Pn	Pn	19 23 18.6	+0.6
	comp=Z,4.7nm,0.2s						
OBKA				eSn	Sn	19 24 33.9	+0.2
	comp=Z,13nm,0.4s						
OBKA	Obir	6.69	327	P	Pn	19 23 18.4	+0.4
	comp=Z,17nm,0.9s						
SABO	M.te Sabotino	6.71	320		Pn	19 23 17.2	-1.0
OZUR		6.73	39	⇑P	Pn	19 23 21.0	+2.5
COVR	Voineasa-Covas	6.75	42	⇓P	Pn	19 23 20.9	+2.0
TURR	Turia	6.81	40	⇓P	Pn	19 23 21.6	+1.9
BISRR	Bisoca	6.82	46	⇑P	Pn	19 23 21.9	+2.0
BISRR	Bisoca	6.82	46	P	Pn	19 23 22.8	+3.0
	comp=Z,0.3nmcomp=Z,46nm,0.8s						
BISRR				AML	AML		
DRE	Drenchia	6.83	321	P	Pn	19 23 19.1	-0.7
	comp=Z,15nm,1.1s						
GRER		6.86	48	⇑P	Pn	19 23 23.2	+2.8
PSZ	Piszkesteto	6.93	1	P	Pn	19 23 22.2	+0.9
PSZ	Piszkesteto	6.93	1		Pn	19 23 21.6	+0.2
PSZ	Piszkesteto	6.93	1	⇓P	Pn	19 23 22.3	+0.9
PSZ	Piszkesteto	6.93	1	P	Pn	19 23 25.0	+3.6
	comp=Z,33nm,1.3s						
ARCR	ARCALIA	6.94	27	⇑P	Pn	19 23 23.2	+1.8
ARSA	Arzberg	6.96	335	i Pn	Pn	19 23 22.6	+0.9
	comp=Z,2.5nm,0.4s						
ARSA				eSn	Sn	19 24 41.8	+1.4
	comp=Z,4.1nm,0.6s						
IDI	Anoyia	6.98	143	Pn	Pn	19 23 20.2	-1.8
	comp=Z,1.5nm,0.3s,baz=340,slow=17,SNR=6.1						
IDI				Sn	Sn	19 24 36.1	-4.8
	comp=Z,3.1nm,0.3s,baz=343,slow=20,SNR=6.0						
PLOR	Plostina	6.99	44	P	Pn	19 23 25.7	+3.6
PLOR	Plostina	6.99	44	⇑P	Pn	19 23 25.7	+3.6
VRI	Vrincioaia	7.04	44	P	Pn	19 23 24.3	+1.6
VRI	Vrincioaia	7.04	44	⇑P	Pn	19 23 24.4	+1.6
VRI	Vrincioaia	7.04	44	P	Pn	19 23 25.6	+2.8
	comp=Z,0.1nmcomp=Z,11nm,1.3s						
VRI				AML	AML		
VRI	Vrincioaia	7.04	44	P	Pn	19 23 25.8	+3.0
	comp=Z,11nm,1.3s						
HARR	Harsova	7.06	56	P	Pn	19 23 24.4	+1.5
HARR	Harsova	7.06	56	⇓P	Pn	19 23 24.5	+1.5
PRED	Cave del Predi	7.06	323		Pn	19 23 22.4	-0.7
PRED	Cave del Predi	7.06	323	P	Pn	19 23 25.5	+2.4
	comp=Z,9.3nm,0.6s						
TLBR	Topalu	7.06	57	⇓P	Pn	19 23 25.5	+2.4
BDRM	Kayabasi	7.15	121	⇑P	Pn	19 23 26.6	+2.2
RONA	Rosalia, Austr	7.16	341	i Pn	Pn	19 23 24.0	-0.4
	comp=Z,1.5nm,0.6s						
RONA				eSn	Sn	19 24 44.0	-1.1
	comp=Z,4.5nm,0.7s						
ACOM	Acomizza, Ital	7.16	323	P	Pn	19 23 27.1	+2.5
	comp=Z,29nm,0.8s						
MYKA	Terra Mystica	7.17	324	ePN	Pn	19 23 25.1	+0.5
MYKA	Terra Mystica	7.17	324	i Pn	Pn	19 23 25.3	+0.7
	comp=Z,1.4nm,0.4s						
MYKA				eSn	Sn	19 24 46.1	+0.6
	comp=Z,9.0nm,0.6s						
ONER	Baraj Valea Uz	7.19	40	⇓P	Pn	19 23 27.7	+2.9
MANT	Manisa	7.22	107		Pn	19 23 25.2	-0.4
TIRR	Tirgusor	7.26	59	P	Pn	19 23 27.6	+1.9
TIRR	Tirgusor	7.26	59	Pn	Pn	19 23 27.6	+1.9
ZCCA	Zocca	7.29	300	Pn	Pn	19 23 27.6	+1.4
FUSE	Fusea	7.31	320	P	Pn	19 23 27.6	+1.2
	comp=Z,21nm,0.9s						
ABAH	Abaujker	7.39	8	P	Pn	19 23 30.3	+2.8
	comp=Z,14nm,0.8s						
TRPA	Tarpa	7.42	15	P	Pn	19 23 30.9	+3.0
	comp=Z,10nm,0.7s						
CFR	Carcaliu	7.43	53	P	Pn	19 23 30.2	+2.2
CFR	Carcaliu	7.43	53	⇑P	Pn	19 23 30.3	+2.2
SILT	Sile	7.47	85	⇑P	Pn	19 23 31.4	+2.7
CONA	Conrad Observa	7.48	339	i Pn	Pn	19 23 31.0	+2.2
	comp=Z,0.7nm,0.3s						
CONA				eSn	Sn	19 24 52.8	-0.4
	comp=Z,1.3nm,0.3s						
KECS	Kecovo	7.51	4	eP	Pn	19 23 31.1	+1.8
KECS				e		19 24 52.5	
KECS	Kecovo	7.51	4	ePN	Pn	19 23 31.1	+1.8
KECS				eSN	Sn	19 24 52.5	-1.4
VYHS	Vyhne	7.54	355	eP	Pn	19 23 33.4	+3.8
VYHS				e		19 24 53.2	
VYHS	Vyhne	7.54	355	ePN	Pn	19 23 33.4	+3.8
VYHS				eSN	Sn	19 24 53.2	-1.3
CGRP	Cima Grappa	7.58	313	P	Pn	19 23 30.0	-0.4
	comp=Z,28nm,0.6s						
MODS	Modra-Piesok	7.59	347	eP	Pn	19 23 33.4	+3.0
MODS				e		19 24 53.2	
MODS	Modra-Piesok	7.59	347	ePN	Pn	19 23 33.4	+3.0
MODS				eSN	Sn	19 24 53.2	-2.7
MODS	Modra-Piesok	7.59	347	P	Pn	19 23 32.1	+1.7
	comp=Z,16nm,1.5s						
KBA	Koelnbreinsper	7.64	325	i Pn	Pn	19 23 31.6	+0.4
	comp=Z,2.6nm,0.3s						
KBA				eSn	Sn	19 24 55.7	-1.7
	comp=Z,5.5nm,0.5s						
KBA	Koelnbreinsper	7.64	325	P	Pn	19 23 34.2	+3.0
	comp=Z,18nm,0.9s						
BURAR	Bucovina Array	7.70	29	P	Pn	19 23 35.3	+3.4
BURAR	Bucovina Array	7.70	29		Pn	19 23 34.2	+2.3
BURAR	Bucovina Array	7.70	29	⇑P	Pn	19 23 35.3	+3.4
BUR08	Bucovina Ar. S	7.71	29		Pn	19 23 36.1	+4.0
VLDR	Vladesti	7.76	49	⇓P	Pn	19 23 34.3	+1.6
ABTA	Abfaltersbach	7.78	320	i Pn	Pn	19 23 33.0	0.0
	comp=Z,5.0nm,0.3s						
ABTA				eSn	Sn	19 24 59.3	-1.3
	comp=Z,16nm,0.7s						
TLCR		7.85	55	P	Pn	19 23 36.9	+3.1
TLCR		7.85	55	⇓P	Pn	19 23 36.9	+3.1
MOA	Molln	7.91	332	ePn	Pn	19 23 35.1	+0.4
MOA	Molln	7.91	332	i Pn	Pn	19 23 35.3	+0.6
	comp=Z,3.0nm,0.3s						
MOA				eSn	Sn	19 25 04.1	+0.5
	comp=Z,5.1nm,0.5s						
MOA	Molln	7.91	332	P	Pn	19 23 37.5	+2.8
	comp=Z,12nm,0.7s						
TAVA	DENIZLI_Tavas	7.93	113	⇑P	Pn	19 23 38.5	+3.4
BIOA	Bad Ischl, Aus	8.01	329	i Pn	Pn	19 23 36.5	+0.4
	comp=Z,2.0nm,0.3s						
BIOA				eSn	Sn	19 25 06.7	+0.6
	comp=Z,5.3nm,0.4s						
KOLS	Kolonicke sedl	8.14	12	eP	Pn	19 23 40.4	+2.5
KOLS	Kolonicke sedl	8.14	12	ePN	Pn	19 23 40.4	+2.5
KOLS	Kolonicke sedl	8.14	12	P	Pn	19 23 40.7	+2.8
	comp=Z,12nm,0.6s						
SALO	Salr	8.17	308		Pn	19 23 37.1	-1.2
LESA	Schwarzleotal	8.20	324	i Pn	Pn	19 23 38.8	0.0
	comp=Z,3.1nm,0.3s						
LESA				eSn	Sn	19 25 08.1	-2.9
	comp=Z,2.6nm,0.3s						
BORA	Eskisehir	8.23	94		Pn	19 23 41.6	+2.4
RJOB	Jochberg	8.39	326	P	Pn	19 23 42.5	+1.1
	comp=Z,14nm,0.9s						
SAHE	Sakarya_HENDEK	8.40	87	⇑P	Pn	19 23 44.0	+2.4
WTTA	Wattenberg	8.57	320	i Pn	Pn	19 23 44.8	+0.9
	comp=Z,13nm,0.3s						
WTTA				eSn	Sn	19 25 20.0	-0.1
	comp=Z,26nm,0.8s						
WTTA	Wattenberg	8.57	320	P	Pn	19 23 45.5	+1.6
	comp=Z,18nm,0.5s						
VRAC	Vranov	8.62	346	Pn	Pn	19 23 44.8	+0.4
	comp=Z,0.2nm,0.3s,baz=173,slow=15,SNR=3.2						
VRAC				LR	LR	19 27 39.6	
	comp=Z,157nm,21.1s,baz=166,slow=42						
	comp=Z,1.0nm,0.3s						
VRAC				AML	AML		
WATA	Walderalm	8.65	320	i Pn	Pn	19 23 46.2	+1.2
	comp=Z,8.2nm,0.4s						
WATA				eSn	Sn	19 25 21.8	-0.2
	comp=Z,29nm,1.1s						
MDUB	Mudurnu	8.70	90		Pn	19 23 48.4	+2.6
CKRC	Cesky Krumlov	8.73	336	eP	Pn	19 23 47.7	+1.7
CKRC				MLR	MLR		
	comp=Z,600nm,11.1s						
CKRC	Cesky Krumlov	8.73	336	ePN	Pn	19 23 47.7	+1.7
CKRC				AMS	AMS	19 28 50.0	
	comp=Z,600nm,11.1s						
SQTA	Sankt Quirin	8.75	318	i Pn	Pn	19 23 47.8	+1.4
	comp=Z,9.2nm,0.3s						
SQTA				eSn	Sn	19 25 24.0	-0.5
	comp=Z,9.2nm,0.6s						
FETA	Feichten	8.87	316	i Pn	Pn	19 23 48.9	+0.9
	comp=Z,0.7nm,0.3s						
FETA				eSn	Sn	19 25 25.6	-1.9
	comp=Z,5.5nm,0.9s						
FUORN	Ofenpass-Fuorn	8.88	313	P	Pn	19 23 49.4	+1.2
	comp=Z,15nm,1.0s						
MOTA	Moosalm	8.89	319	i Pn	Pn	19 23 49.5	+1.2
	comp=Z,3.3nm,0.3s						
MOTA				eSn	Sn	19 25 29.0	+1.1
	comp=Z,6.4nm,0.5s						
GERES	GERESS Array B	8.95	333	Pn	Pn	19 23 48.1	-1.0
	comp=Z,0.1nm,0.3s,baz=161,slow=14,SNR=15						
GERES				Sn	Sn	19 25 27.7	-1.8
	comp=Z,0.1nm,0.3s,baz=151,slow=27,SNR=2.8						
GERES				LR	LR	19 28 14.0	
	comp=Z,236nm,19.5s,baz=142,slow=44						
	comp=Z,0.8nm,0.3s						
GERES				AML	AML		
RETA	Reutte	9.16	318	i Pn	Pn	19 23 53.1	+1.3
	comp=Z,1.6nm,0.3s						

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RETA                              eSn    Sn     19 25 33.1 -1.4
       comp=Z,7.7nm,0.4s
DAVOX  Davos/Dischmat     9.18 312  Pn     Pn     19 23 53.7 +1.4
       comp=Z,0.5nm,0.3s,baz=120,slow=17,SNR=7.6
DAVOX                               Sn     Sn     19 25 35.4 +0.1
       comp=Z,0.6nm,0.3s,baz=21,slow=17,SNR=3.0
DAVOX                               LR     LR     19 27 40.7
       comp=Z,100nm,21.5s,baz=78,slow=39
       comp=Z,2.0nm,0.3s
DAVOX                               AML    AML
KHC    Kasperske Hory     9.24 334 ePN     Pn     19 23 55.0 +2.0
KHC                                e              19 25 36.1
KHC                                 MLR    MLR
       comp=Z,600nm,12.0s
KHC    Kasperske Hory     9.24 334 ePN     Pn     19 23 55.0 +2.0
KHC                                eSN     Sn     19 25 36.1 -0.3
KHC                                ex      x      19 26 17.0
KHC                                 AMS    AMS    19 29 10.0
       comp=Z,600nm,12.0s
TUE    Stuetta            9.32 310  P      Pn     19 23 55.6 +1.4
       comp=Z,18nm,0.7s
DAVA   Damuels            9.49 315 ePn     Pn     19 23 58.0 +1.5
       comp=Z,1.1nm,0.3s
DAVA                               eSn     Sn     19 25 41.8 -0.8
       comp=Z,8.7nm,0.6s
DAVA   Damuels            9.49 315  P      Pn     19 23 57.6 +1.1
       comp=Z,24nm,1.2s
DPC    Dobruska-Polom     9.67 347  AMS    AMS    19 28 30.0
       comp=Z,600nm,12.5s
KEST   Kesra              9.71 241  Pn     Pn     19 24 01.3 +1.8
       comp=Z,0.1nm,0.3s,baz=27,slow=5.0,SNR=5.0
       comp=Z,4.6nm,0.9s
KEST                                AML    AML
KEST   Kesra              9.71 241         Pn     19 24 06.1 +6.6
SENIN  Lac Senin/Sane    10.50 305         Pn     19 24 11.2 +0.9
BR131  Keskin Array S    10.67  92 i P     Pn     19 24 14.5 +1.8
BR131  Keskin Array S    10.67  92         Pn     19 24 14.6 +1.8
BRTR   Keskin Array B    10.67  92  Pn     Pn     19 24 13.5 +0.8
       comp=Z,0.2nm,0.3s,baz=267,slow=11,SNR=8.2
BRTR                                LR     LR     19 29 19.3
       comp=Z,104nm,18.2s,baz=282,slow=44
       comp=Z,0.9nm,0.5s
BRTR                                AML    AML
BRTR   Keskin Array B    10.67  92ceP      Pn     19 24 14.6 +1.8
BRTR                                pmax   pmax
       comp=Z,1.0nm,0.5s
BRTR   Keskin Array B    10.67  92  Pn     Pn     19 24 14.7 +2.0
ORIF   Oris-en-Rattie    10.90 296  P      Pn     19 24 15.3 -0.5
       comp=Z,8.7nm,1.9s
CLL    Collm             11.33 338 ex      x      19 26 23.0
CLL                                ex      x      19 27 21.0
CLL                                eSg            19 27 38.0
CLL                                 AMS    AMS    19 28 00.0
       comp=N,200nm,17.7s
CLL                                 AMS    AMS    19 28 00.0
       comp=E,300nm,18.1s
CLL                                 AMS    AMS    19 30 00.0
       comp=Z,400nm,12.5s
AK16   Malin Array Si    11.67  31  P      Pn     19 24 30.4 +4.3
AK19   Malin Array Si    11.67  30  P      Pn     19 24 29.5 +3.3
AK20   Malin Array Si    11.69  30  P      Pn     19 24 30.2 +3.8
AK18   Malin Array Si    11.69  30  P      Pn     19 24 30.3 +3.8
AKASG  Malin Array Be    11.74  31  Pn     Pn     19 24 27.1 +0.1
       comp=Z,0.2nm,0.3s,baz=219,slow=12,SNR=1.7
AKASG                               LR     LR     19 29 42.9
       comp=Z,84nm,20.4s,baz=198,slow=41
       comp=Z,0.1nm,0.3s
AKASG                               AML    AML
AKBB   Malin Array Si    11.74  31 i P     Pn     19 24 27.5 +0.4
MNK    Minsk             14.57  19 i P     Pn     19 25 05.4 -0.3
MNK                                i S     Sn     19 27 46.6  0.0
MNK                                 pmax   pmax
       comp=N,21nm,1.0s
MNK                                 pmax   pmax
       comp=E,24nm,0.9s
MNK                                 pmax   pmax
       comp=Z,17nm,0.9s
MNK    Minsk             14.57  19 i P     Pn     19 25 05.5 -0.3
       comp=E,24nm,0.9s
MNK                                i P     Pn     19 25 05.5 -0.3
       comp=N,21nm,1.0s
MNK                                i P     Pn     19 25 05.5 -0.3
       comp=Z,17nm,0.9s,baz=206
MNK                                i PP    PnPn   19 25 14.8 +1.1
MNK                                i PPP   PPP    19 25 22.4
MNK                                i S     Sn     19 27 46.6  0.0
MNK                                i SS    SnSn   19 28 00.7 +1.6
MNK                                i SSS   SSS    19 28 13.0
NACGM  Naroch            14.69  16 eP      Pn     19 25 10.4 +3.0
MMAI   Mount Meron Ar    14.80 118  Pn     Pn     19 25 05.5 -3.7
       comp=Z,0.4nm,0.3s,baz=292,slow=15,SNR=2.0
MMAI                                LR     LR     19 31 45.1
       comp=Z,75nm,19.6s,baz=310,slow=41
       comp=Z,1.2nm,0.7s
MMAI                                AML    AML
SOC    Sochi             15.00  73 eP      Pn     19 25 13.2 +1.6
SOC                                e              19 28 01.6
SOC                                 pmax   pmax
       comp=Z,11nm,0.7s
SOC                                 MLR    MLR
       comp=Z,33nm,11.0s
KZIT   Kziot             15.53 126  P      Pn     19 25 20.5 +1.8
       comp=Z,14nm,1.1s
PRNI   Paran             16.29 126  P      Pn     19 25 30.5 +2.0
       comp=Z,31nm,0.8s
ASF    Jabal al Asfar    16.32 117  LR     LR     19 33 16.3
       comp=Z,39nm,19.2s,baz=208,slow=43
HRFI   Mount Harif       16.53 127  P      Pn     19 25 33.6 +2.0
       comp=Z,16nm,1.4s
HRFI   Mount Harif       16.53 127  P      Pn     19 25 32.9 +1.3
       comp=Z,16nm,1.4s
EIL    Elat              16.74 128  Pn     Pn     19 25 31.9 -2.3
       comp=Z,0.2nm,0.3s,baz=3.7,slow=22,SNR=2.8
       comp=Z,6.9nm,0.9s
EIL                                 AML    AML
VSR    Storozhevoye      16.86  46 eP      Pn     19 25 37.3 +1.8
VSR                                 pmax   pmax
       comp=Z,5.0nm,0.9s
SHA1   Shidzhatmaz       17.14  73 i P     Pn     19 25 41.0 +1.6
KIV    Kislovodsk        17.16  72 eP      Pn     19 25 40.4 +0.8
KIV                                 pmax   pmax
       comp=Z,5.0nm,1.1s
KIV                                 MLR    MLR
       comp=Z,21nm,14.0s
KBZ    Khabaz            17.31  73  P      Pn     19 25 41.0 -0.3
       comp=Z,0.1nm,0.3s,baz=287,slow=7.7,SNR=6.1
       comp=Z,2.2nm,0.8s
KBZ                                 AML    AML
KBZ    Khabaz            17.31  73 i P     Pn     19 25 42.2 +1.0
KBZ                                 pmax   pmax
       comp=Z,11nm,2.5s
LPSR   Galich'ya Gora    17.47  42 eP      P      19 25 50.2 +6.0
LPSR                                pmax   pmax
       comp=Z,8.0nm,0.8s
OBN    Obninsk           17.99  33⇓iP      Pn     19 25 49.3 -0.2
OBN                                 S      Sn     19 29 11.0 +1.5
OBN                                 pmax   pmax
       comp=Z,7.0nm,0.0s
OBN                                 MLR    MLR
       comp=Z,52nm,15.0s
ESDC   Sonseca Array     18.12 274  P      Pn     19 25 50.1 -1.3
       comp=Z,0.1nm,0.3s,baz=86,slow=10,SNR=5.3
ESDC                                LR     LR     19 33 11.9
       comp=Z,67nm,19.2s,baz=94,slow=38
       comp=Z,0.9nm,1.1s
ESDC                                AML    AML
VRH    Novokhopyorsk     18.27  49 eP      Pn     19 25 53.2 +0.1
VRH                                 pmax   pmax
       comp=Z,10.0nm,0.9s
HAKT   HAKKARI           18.84  93  P      P      19 26 01.1 +1.3
       comp=Z,18nm,0.8s
MOS    Moscow            18.86  32 eP      Pn     19 26 08.1 +8.0
HFS    Hagfors           19.54 351  P      P      19 26 07.2 +0.3
       comp=Z,0.2nm,0.3s,baz=159,slow=12,SNR=2.5
HFS                                 LR     LR     19 35 01.8
       comp=Z,90nm,20.0s,baz=169,slow=41
       comp=Z,4.0nm,1.0s
HFS                                 AML    AML
MAK    Makhachkala       20.69  75c iP     P      19 26 17.6 -2.0
MAK                                eS      S      19 30 07.2 -2.7
MAK                                 pmax   pmax
       comp=Z,143nm,1.1s
MAK                                 MLR    MLR
       comp=Z,86nm,12.0s
NOA    NORSAR Array B    20.75 348  P      P      19 26 19.6 -0.6
       comp=Z,1.1nm,0.8s,baz=162,slow=10,SNR=3.6
NOA                                 LR     LR     19 35 44.9
       comp=Z,90nm,18.5s,baz=170,slow=41
       comp=Z,1.1nm,0.8s
EKA    Eskdalemuir Ar    20.83 321  P      P      19 26 21.1  0.0
       comp=Z,3.3nm,0.9s,baz=112,slow=8.5,SNR=4.5
       comp=Z,3.3nm,0.9s
FINES  FINESS Array B    20.85   9  P      P      19 26 20.0 -1.1
       comp=Z,1.8nm,0.7s,baz=186,slow=11,SNR=7.5
FINES                               LR     LR     19 34 54.7
       comp=Z,96nm,21.9s,baz=216,slow=38
       comp=Z,1.8nm,0.7s
AKT    Akhty             21.01  79 eP      P      19 26 23.9 +0.6
AKT                                 pmax   pmax
       comp=Z,10.0nm,1.0s
MDT    Midelt            21.07 255  P      P      19 26 24.0 +0.1
       comp=Z,0.8nm,0.5s,baz=201,slow=4.5,SNR=1.9
MDT                                 LR     LR     19 34 02.1
       comp=Z,61nm,21.3s,baz=34,slow=35
       comp=Z,0.8nm,0.5s
BELG   Belogornoye       22.12  50  P      P      19 26 34.3 -0.5
       comp=Z,12nm,1.0s,baz=260,slow=5.7,SNR=7.0
       comp=Z,12nm,1.0s
BELG   Belogornoye       22.12  50 i P     P      19 26 35.7 +0.9
BELG                                pmax   pmax
       comp=Z,3.0nm,1.0s
KLMR   Klimovskoe        23.29  25 eP      P      19 26 44.4 -2.7
KLMR                                pmax   pmax
       comp=Z,16nm,1.2s
KIRV   Kirov             25.69  37  LR     LR     19 38 34.6
       comp=Z,143nm,18.0s,baz=216,slow=40
RAYN   Ar Rayn           27.73 121  P      P      19 27 27.1 -0.9
       comp=Z,3.6nm,1.8s
ARCES  ARCESS Array B    28.77   4  P      P      19 27 36.9  0.0
       comp=Z,2.4nm,0.9s,baz=169,slow=8.5,SNR=1.7
ARCES                               LR     LR     19 39 41.9
       comp=Z,95nm,18.3s,baz=226,slow=38
       comp=Z,2.4nm,0.9s
AB31   Akbulak array     29.25  60  P      P      19 27 39.8 -1.6
ABKAR  Akbulak array     29.25  60  P      P      19 27 39.8 -1.6
ARTI   Arti              29.32  45  LR     LR     19 40 52.6
       comp=Z,39nm,18.7s,baz=247,slow=39
ARTI   Arti              29.32  45d iP     P      19 27 40.0 -1.9
ARTI                                              19 28 31.3
ARTI                                S      S      19 32 35.9 +1.8
ARTI                                pmax   pmax
       comp=Z,10.0nm,1.8s
TORD   Torodi Ar. Bea    31.92 215  P      P      19 28 04.4 -0.8
       comp=Z,0.4nm,0.7s,baz=22,slow=9.0,SNR=2.3
       comp=Z,0.4nm,0.7s
BORG   Borgarnes         33.39 329  LR     LR     19 43 45.3
       comp=Z,86nm,20.1s,baz=171,slow=40
BORK   Borovoye          35.79  53 i P     P      19 28 38.7 +0.2
BORK                                pmax   pmax
       comp=Z,9.0nm,0.7s
BORK   Borovoye          35.79  53  P      P      19 28 37.9 -0.6
BORK                                IAmb   IAmb   19 28 39.5
       comp=Z,9.2nm,0.7s
BVAR   Borovoye Array    35.83  53  P      P      19 28 38.8 -0.1
       comp=Z,6.7nm,0.7s,baz=270,slow=5.9,SNR=25
       comp=Z,6.7nm,0.7s
DBIC   Dimbokro          40.62 219  LR     LR     19 45 42.7
       comp=Z,42nm,21.2s,baz=168,slow=36
KURBB  Kurchatov Arra    41.09  56  P      P      19 29 22.4 -0.7
       comp=Z,1.1nm,0.6s,baz=288,slow=9.4,SNR=11
       comp=Z,1.1nm,0.6s
KURK   Kurchatov         41.13  56  P      P      19 29 22.4 -1.0
KURK   Kurchatov         41.13  56  P      P      19 29 21.9 -1.5
KURK   Kurchatov         41.13  56  P      P      19 29 22.4 -1.0
       comp=Z,4.1nm,1.9s
KSH2   Kashi             42.13  74  P      P      19 29 38.3 +6.3
KSH2                                pmax   pmax
       comp=Z,4.0nm,2.4s
ZAA0   Zalesovo Array    44.30  50  P      P      19 29 47.8 -1.3
ZAA0                                IAmb   IAmb   19 29 49.1
       comp=Z,8.0nm,0.7s
ZALV   Zalesovo Beam     44.30  50  P      P      19 29 48.4 -0.7
       comp=Z,8.4nm,0.6s,baz=276,slow=8.8,SNR=42
       comp=Z,8.4nm,0.6s
ZALV   Zalesovo Beam     44.30  50  P      P      19 29 47.9 -1.2
MK31   Makanchi Array    44.39  61 i P     P      19 29 50.0 +0.1
MKAR   Makanchi Array    44.39  61  P      P      19 29 48.6 -1.3
       comp=Z,0.9nm,0.7s,baz=289,slow=6.8,SNR=10
       comp=Z,0.9nm,0.7s
MKAR   Makanchi Array    44.39  61ceP      P      19 29 48.5 -1.5
MKAR                                pmax   pmax
       comp=Z,1.0nm,0.7s
MKAR   Makanchi Array    44.39  61  P      P      19 29 48.5 -1.5
NRIK   Noril'sk          44.57  28  LR     LR     19 50 23.4
       comp=Z,40nm,18.7s,baz=32,slow=39
DGZ    Jazzator, Alta    46.87  55 i P     P      19 30 10.4 +0.7
DGZ                                 pmax   pmax
       comp=Z,1.0nm,0.4s
TIXI   Tiksi             57.23  21  LR     LR     19 59 27.0
       comp=Z,58nm,18.6s,baz=334,slow=40
TSUM   Tsumeb            59.91 182  LR     LR     19 59 19.6
       comp=Z,50nm,18.1s,baz=56,slow=38
LZH    Lanzhou           63.49  64 eP      P      19 32 10.4 +0.6
LZH                                 pmax   pmax
       comp=Z,18nm,1.0s
LZH                                 LR     LR
       comp=N,270nm,13.1s
LZH                                 LR     LR
       comp=Z,160nm,14.3s
LBTB   Lobatse           65.89 174  LR     LR     20 06 31.2
       comp=Z,68nm,18.2s,baz=146,slow=41
HHC    Hu-ho-hao-te      65.95  56 eP      P      19 32 26.0 +0.3
HHC                                 pmax   pmax
       comp=Z,11nm,0.5s
HHC                                 pmax   pmax
       comp=Z,100nm,5.1s
HHC                                 LR     LR
       comp=N,340nm,17.7s
HHC                                 LR     LR
       comp=E,170nm,10.9s
HHC                                 LR     LR
       comp=Z,140nm,12.6s
PZH    PanZhiHua         67.38  74  P      P      19 32 36.8 +1.7
XAN    Xi'an             68.09  64 eP      P      19 32 46.4 +7.1
HEH    HeiHe             69.29  41 eP      P      19 32 46.4 -0.1
BOSA   Boshof            69.43 175  P      P      19 32 47.5 -0.1
       comp=Z,2.3nm,1.0s,baz=11,slow=10,SNR=3.3
       comp=Z,2.3nm,1.0s
CMAR   Chiang Mai Arr    70.10  83  P      P      19 32 49.1 -2.8
       comp=Z,0.7nm,0.8s,baz=294,slow=7.7,SNR=5.2
       comp=Z,0.7nm,0.8s
MA2    Magadan           71.97  24  LR     LR     20 09 57.5
       comp=Z,38nm,19.4s,baz=326,slow=40
KLR    Kul'dur           72.09  40  LR     LR     20 10 19.7
       comp=Z,29nm,19.0s,baz=293,slow=40
ILAR   Eielson Array     74.06 354  P      P      19 33 15.0  0.0
       comp=Z,0.5nm,0.6s,baz=352,slow=5.2,SNR=4.6
       comp=Z,0.5nm,0.6s
USRK   Ussuriysk Ar.     75.65  43  LR     LR     20 10 54.2
       comp=Z,76nm,18.1s,baz=20,slow=39
NJ2    Nanjing           75.91  60 eP      P      19 33 25.5 -0.7
NJ2                                 pmax   pmax
       comp=Z,7.0nm,0.6s
KSRS   Korea Array       78.01  51  LR     LR     20 10 23.3
       comp=Z,15nm,20.1s,baz=45,slow=38
ASAR   Alice Springs    123.01  94  PKP    PKPdf  19 40 34.4 -1.6
       comp=Z,0.8nm,0.9s,baz=303,slow=2.6,SNR=4.7
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BJI ***24*** *19:23:12.9, 51°.98N×177°.90E, h9km, mB4.9/3, mb4.8/21, Ms4.7/6, Ms7 4.3/3*

GFZ ***24*** *19:23:16.3±0.4, 52°N±9°×17°8E±°, h10km, M4.9/32, mb4.9/32, confirmed*

MOS ***24*** *19:23:19.9±1.0, 51°.70N×177°.89E, h60km, mb5.0/37, Error ellipse: s-maj=11.7km s-min=6.3km az=113.8*

IDC ***24*** *19:23:20.2±2.1, 51°.64N×177°.97E, h55km±16km, mb4.1/27, mbtmp4.4/31, ML3.9/4, MS3.3/25, Error ellipse: s-maj=16.5km s-min=10.7km az=173.0*

AEIC ***24*** *19:23:20.2±3.0, 51°.46N±0°.09×177°.83E±0°.08, h45km±5km, Error ellipse: s-maj=13.6km s-min=6.9km az=169.0*

NEIC ***24*** *19:23:21.5±1.8, 51°.62N±0°.10×177°.93E±0°.04, h61km±4km, mb4.4/120, ML4.5/14, ML4.3(AEIC), Error ellipse: s-maj=14.6km s-min=1.5km az=192.0*

ISC 24 19:23:19.2±0.7**, 51°.52N**±0°.07×**177°.81E**±0°.03**, h44**km±5km**, n426, σ1§32**/367**, mb4.6**/152**, MS3.6**/26**, 21C-30D, Rat Islands**

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Code   Station Name        Δ°  AZ°   Phase ID           Time     Res
                                    Op     ISC        h  m  s   ISC
LSSE   Little Sitkin      0.62  48         Pn     19 23 33.6 +1.8
LSNW   Little Sitkin      0.63  44         Pn     19 23 33.5 +1.7
LSPA   Little Sitkin      0.64  47         Pn     19 23 33.8 +1.8
LSPA                                       Sn     19 23 43.5 +2.3
AMKA   Amchitka           0.94  98         Pn     19 23 37.2 +1.2
AMKA                                IAML          19 23 51.4
       comp=E,13μm,0.4s
AMKA   Amchitka           0.94  98         Sn     19 23 49.5 +1.2
CESW   Semis' Southwe     1.15  70         Pn     19 23 40.4 +1.5
CEAP   Semis' Anvil P     1.20  66         Pn     19 23 41.1 +1.6
CERB   Semis' Cerberu     1.20  69         Pn     19 23 41.3 +1.7
CEPE   Semis' Perret      1.23  68         Pn     19 23 41.3 +1.4
GASW   Gareloi Southw     2.09  82         Pn     19 23 53.5 +1.8
GAKI   Gareloi-Kavalg     2.11  88         Pn     19 23 53.5 +1.6
GAKI                                       Sn     19 24 17.9 +1.0
GANO   Gareloi North      2.13  81         Pn     19 23 54.1 +1.9
GALAA  Gareloi Lava P     2.14  82         Pn     19 23 54.4 +2.0
GANE   Gareloi Northe     2.14  81         Pn     19 23 54.2 +1.7
GANE                                       Sn     19 24 20.5 +2.7
GAEA   Gareloi East       2.16  82         Pn     19 23 54.6 +1.9
GAEA                                       Sn     19 24 20.2 +2.0
TACS   Tanaga Cape Sa     2.54  81         Pn     19 23 59.8 +1.8
TANO   Tanaga North       2.56  80         Pn     19 24 00.1 +1.9
TANO                                       Sn     19 24 28.7 +0.6
SHEM   Shemya Is, Ala     2.59 299  P      Pn     19 24 00.7 +2.1
       comp=E,119nm,0.3s,baz=48,slow=2.7,SNR=33
SHEM                                S      Sn     19 24 31.0 +2.3
       comp=E,561nm,0.4s,baz=302,slow=17,SNR=16
SHEM                                LR     LR     19 25 07.6
       comp=E,218nm,21.9s,baz=72,slow=41
       comp=E,314nm,0.4s
SHEM                                AML    AML
SMY    Shemya             2.59 299  P      Pn     19 24 01.0 +2.5
SMY                                               19 24 31.0
SMY    Shemya             2.59 299         Pn     19 24 01.0 +2.5
SMY                                        Sn     19 24 31.0 +2.2
SMY    Shemya             2.59 299  IAML          19 24 36.7
       comp=N,2μm,0.8s
SMY                                 IAML          19 24 44.1
       comp=E,2μm,0.8s
TASE   Tanaga Southea     2.60  81         Sn     19 24 30.0 +0.8
TAFP   Tanaga Falls P     2.64  80         Pn     19 24 00.9 +1.6
TAFL   Tanaga Flats       2.68  83         Sn     19 24 32.7 +1.6
TAPA   Tanaga Point A     2.74  82         Pn     19 24 02.5 +1.9
KIMD   Kanaga Island      3.10  84         Pn     19 24 07.1 +1.6
KIMD                                       Sn     19 24 42.1 +0.9
KICM   Kanaga Island      3.13  81         Sn     19 24 43.0 +0.9
KIKV   Kanaga Island      3.14  82         Sn     19 24 43.4 +1.0
KIWB   Kanaga Island      3.15  82         Pn     19 24 07.7 +1.4
KIWB                                IAML          19 25 01.6
       comp=E,1μm,0.9s
KIWB                                IAML          19 25 02.5
       comp=N,2μm,0.7s
KIWB   Kanaga Island      3.15  82         Sn     19 24 44.1 +1.4
KINC   Kanaga Island      3.17  81         Pn     19 24 08.3 +1.8
KIRH   Kanaga Island      3.19  81         Pn     19 24 08.5 +1.7
KIRH                                       Sn     19 24 44.3 +0.7
ADK    Adak               3.44  82  P      Pn     19 24 11.6 +1.3
ADK                                               19 24 50.3
ADK    Adak               3.44  82         Pn     19 24 11.6 +1.3
ADK    Adak               3.44  82  IAML          19 24 52.3
       comp=N,1μm,0.7s
ADK                                 IAML          19 25 09.0
       comp=N,753nm,0.7s
ADK    Adak               3.44  82  P      Pn     19 24 11.8 +1.5
ETKA   Kagalaska Isla     3.61  82         Sn     19 24 54.4 +0.4
GSCK   Great Sitkin C     3.77  80         Pn     19 24 16.1 +1.3
GSTD   Great Sitkin T     3.79  80         Pn     19 24 16.0 +0.9
GSMY   Great Sitkin M     3.84  80         Pn     19 24 17.3 +1.5
GSMY                                       Sn     19 25 00.5 +0.9
GSTR   Great Sitkin T     3.85  79         Pn     19 24 17.1 +1.2
GSIG   Igitkin Island     3.92  81         Pn     19 24 18.1 +1.2
KOWE   Korovin West       4.98  77         Pn     19 24 32.9 +1.5
ATKA   Atka Island        5.00  79         Pn     19 24 33.5 +1.8
ATKA   Atka Island        5.00  79  IAML          19 25 30.2
       comp=E,319nm,0.7s
ATKA                                IAML          19 25 46.6
       comp=N,295nm,1.0s
KOKL   Mount Kliuchef     5.01  78         Pn     19 24 33.4 +1.6
KONW   Korovin Northw     5.01  77         Pn     19 24 33.4 +1.6
KOKV   Korovin Volcan     5.04  77         Pn     19 24 33.9 +1.7
KOFP   Korovin Flat P     5.07  78         Pn     19 24 34.4 +1.8
KOFP                                       Sn     19 25 32.0 +2.2
KOSE   Korovin Southe     5.10  78         Pn     19 24 34.6 +1.5
CLES   Cleveland East     7.67  75         Pn     19 25 09.9 +1.7
CLCO   Concord Point,     7.77  76         Pn     19 25 12.1 +2.4
OKWE   Okmok W'ng Wal     8.73  72         Pn     19 25 25.6 +2.8
OKTU   Okmok Mt. Tuli     8.84  72         Pn     19 25 27.9 +3.6
SPIA   Saint Paul Isl     8.98  46         Pn     19 25 28.7 +2.6
MNAT   Makushin Natee     9.71  70         Pn     19 25 38.8 +2.7
AKRB   Akutan Reef Bi    10.10  69         Pn     19 25 44.6 +3.1
LVA    Lava Point        10.12  69         Pn     19 25 45.2 +3.4
PEA0B  Petropavlovsk-    12.41 285  P      Pn     19 26 16.7 +3.6
PEA0B  Petropavlovsk-    12.41 285         Pn     19 26 16.6 +3.6
PETK   Petropavlovsk-    12.41 285  P      Pn     19 26 16.3 +3.3
       comp=N,0.7nm,0.3s,baz=90,slow=18,SNR=8.4
PETK                                S      Sn     19 28 23.7 -6.1
       comp=N,1.5nm,0.6s,baz=125,slow=16,SNR=1.8
PETK                                LR     LR     19 30 50.2
       comp=N,37nm,20.1s,baz=58,slow=36
       comp=N,7.6nm,0.9s
PETK                                AML    AML
M17K   Holitna River     16.77  44  P      P      19 27 12.7 +0.4
K17K   Iditarod          17.02  40         P      19 27 14.6 -0.5
MA2    Magadan           17.19 308  LR     LR     19 33 44.6
       comp=N,63nm,19.0s,baz=72,slow=36
SEY    Seymchan          17.74 320  P      P      19 27 23.6 +0.5
       comp=N,0.3nm,0.3s,baz=122,slow=9.3,SNR=4.8
       comp=N,3.6nm,0.9s
SEY                                 AML    AML
SEY    Seymchan          17.74 320 eP      P      19 27 26.8 +3.8
SEY                                 pmax   pmax
       comp=Z,6.0nm,1.3s
N19K   Bonanza Creek     17.88  48         P      19 27 24.5 -0.1
N19K                                IAmb   IAmb   19 27 29.1
       comp=Z,26nm,1.2s
J18K   Innoko River      18.02  39  P      P      19 27 26.0 -0.1
KDAK   Kodiak Island     18.14  58  P      P      19 27 25.8 -1.6
       comp=Z,0.7nm,0.3s,baz=282,slow=1.8,SNR=9.6
       comp=Z,2.6nm,0.4s
KDAK                                AML    AML
KDAK   Kodiak Island     18.14  58  IAmb   IAmb   19 27 42.6
       comp=Z,40nm,1.5s
J19K   Poorman           18.70  38         Pn     19 27 33.4 -0.9
G18K   Tagagawik         18.71  31  P      Pn     19 27 33.5 -0.9
L20K   Farewell, AK      18.74  43  P      Pn     19 27 34.4 -0.5
M20K   Styx River        18.85  45         Pn     19 27 35.8 -0.4
K20K   Telida            19.02  41         Pn     19 27 37.5 -0.7
RDOG   Red Dog Mine      19.05  22  P      Pn     19 27 37.5 -1.0
RDOG                                IAmb   IAmb   19 27 44.1
       comp=Z,21nm,0.6s
J20K   Nowinta River     19.36  38         Pn     19 27 41.2 -1.0
SKT    Skwentna          19.60  46  IAmb   IAmb   19 28 07.5
       comp=Z,14nm,0.9s
PPLA   Purkeypile        19.62  43  IAmb   IAmb   19 28 11.2
       comp=Z,44nm,1.4s
SLKM   Skilak Lake       19.82  51  IAmb   IAmb   19 28 01.7
       comp=Z,14nm,0.6s
CAST   Castle Rocks      19.87  42         Pn     19 27 47.2 -1.0
KTH    Kantishna Hill    20.40  42         Pn     19 27 53.1 -1.4
KTH                                 IAmb   IAmb   19 28 13.9
       comp=Z,27nm,1.0s
IMAR   Indian Mountai    20.40  34         Pn     19 27 52.4 -2.1
H21K   Melozitna Rive    20.57  35  IAmb   IAmb   19 27 59.2
       comp=Z,26nm,1.0s
BPAW   Bear Paw Mtn.     20.58  40         Pn     19 27 54.2 -2.5
BPAW                                IAmb   IAmb   19 27 58.2
       comp=Z,16nm,0.9s
D19K   Kuna River        20.59  25  IAmb   IAmb   19 27 58.5
       comp=Z,26nm,0.9s
TRF    Thorofare Moun    20.63  42  IAmb   IAmb   19 28 14.1
       comp=Z,23nm,0.9s
I21K   Tanana            20.65  37  P      Pn     19 27 55.6 -1.8
I21K                                IAmb   IAmb   19 27 56.8
       comp=Z,14nm,0.8s
G21K   Allakaket         20.77  33  IAmb   IAmb   19 28 01.2
       comp=Z,15nm,1.1s
KNK    Knik Glacier      20.86  49  IAmb   IAmb   19 28 16.1
       comp=Z,20nm,0.8s
SML    Sawmill           21.01  48         P      19 27 57.1 -1.6
SML                                 IAmb   IAmb   19 28 17.8
       comp=Z,48nm,1.5s
MLY    Manley            21.06  38                19 27 59.5
H22K   Ishtalitna Cre    21.20  36         P      19 28 00.7 -0.1
BWN    Browne            21.23  41  IAmb   IAmb   19 28 04.0
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	comp=Z,24nm,0.8s						
SCM	Sheep Creek Mo	21.48	48	IAmb	IAmb	19 28 23.1	
	comp=Z,20nm,0.8s						
NEA2	Nenana	21.54	40	IAmb	IAmb	19 28 07.5	
	comp=Z,18nm,0.6s						
I23K	Minto, Yukon-K	21.64	38	IAmb	IAmb	19 28 39.4	
	comp=Z,15nm,1.2s						
DHY	Denali Highway	21.76	45	IAmb	IAmb	19 28 08.9	
	comp=Z,13nm,0.6s						
H23K	Yukon River	21.85	37	IAmb	IAmb	19 28 11.1	
	comp=Z,18nm,1.1s						
KLU	Klutina	22.07	49	IAmb	IAmb	19 28 29.6	
	comp=Z,13nm,0.9s						
COLA	College	22.13	40	i P	P	19 28 10.8	+0.2
COLA				pmax	pmax		
	comp=Z,9.0nm,0.9s						
HDA	Harding Lake	22.34	41	IAmb	IAmb	19 28 31.6	
	comp=Z,16nm,1.5s						
H24K	Noodor Dome	22.48	37	IAmb	IAmb	19 28 17.7	
	comp=Z,19nm,1.1s						
ILAR	Eielson Array	22.48	40	P	P	19 28 12.9	-1.5
	comp=Z,1.8nm,0.6s,baz=244,slow=8.8,SNR=17						
	comp=Z,1.8nm,0.6s						
PAX	Paxson	22.58	45	IAmb	IAmb	19 28 35.4	
	comp=Z,8.3nm,0.8s						
K24K	Donnelly Dome	22.65	43	IAmb	IAmb	19 28 33.0	
	comp=Z,12nm,0.8s						
E23K	Chandalar	22.86	31	IAmb	IAmb	19 28 20.3	
	comp=Z,14nm,0.8s						
D23K	Nanushuk River	23.01	29	IAmb	IAmb	19 28 46.8	
	comp=Z,21nm,1.1s						
GLB	Gilahina Butte	23.06	50	IAmb	IAmb	19 28 21.9	
	comp=Z,20nm,1.3s						
F24K	Squaw Lake	23.18	33	IAmb	IAmb	19 28 23.2	
	comp=Z,18nm,0.6s						
CRQM	Cirque	23.30	51	IAmb	IAmb	19 28 40.0	
	comp=Z,21nm,0.9s						
MENT	Mentasta	23.35	46	IAmb	IAmb	19 28 49.8	
	comp=Z,11nm,0.8s						
L26K	Log Cabin Wild	23.54	46	IAmb	IAmb	19 28 26.4	
	comp=Z,8.3nm,0.7s						
D24K	Happy Valley	23.67	29	IAmb	IAmb	19 28 27.3	
	comp=Z,21nm,0.8s						
FYU	Fort Yukon	23.75	37	IAmb	IAmb	19 28 27.9	
	comp=Z,13nm,1.0s						
GRNC	Granite Creek	23.98	52	IAmb	IAmb	19 28 30.4	
	comp=Z,18nm,0.7s						
F25K	Christian Rive	24.00	34	IAmb	IAmb	19 28 31.7	
	comp=Z,16nm,0.8s						
BARN	Barnard Glacie	24.05	51	IAmb	IAmb	19 28 31.4	
	comp=Z,11nm,0.7s						
M27K	Edge Creek, AK	24.09	48	IAmb	IAmb	19 28 32.5	
	comp=Z,12nm,1.1s						
L27K	Beaver Creek,	24.22	46	IAmb	IAmb	19 28 33.0	
	comp=Z,12nm,0.8s						
E25K	Arctic Village	24.24	33	IAmb	IAmb	19 28 33.8	
	comp=Z,12nm,0.8s						
BCAR	Beaver Creek A	24.24	46		P	19 28 30.6	-1.1
K27K	Chicken	24.30	44	IAmb	IAmb	19 28 33.6	
	comp=Z,9.6nm,0.8s						
BMAR	Burnt Mountain	24.31	35	P	P	19 28 32.2	0.0
F26K	Sheenjek River	24.56	34	IAmb	IAmb	19 28 36.8	
	comp=Z,15nm,0.8s						
O28M	Mount Upton	24.75	52	IAmb	IAmb	19 28 43.5	
	comp=Z,12nm,0.8s						
DAWY	Dawson	25.46	44	IAmb	IAmb	19 29 00.5	
	comp=Z,9.3nm,0.8s						
I28M	Miner Creek	25.50	41	IAmb	IAmb	19 28 42.9	
	comp=Z,13nm,0.8s						
HYT	Haines Junctio	26.06	52	IAmb	IAmb	19 29 07.2	
	comp=Z,19nm,1.0s						
I29M	Ogilvie Camp,	26.15	41	IAmb	IAmb	19 29 15.2	
	comp=Z,10nm,1.1s						
D27M	Malcolm River	26.23	32	IAmb	IAmb	19 28 53.4	
	comp=Z,18nm,0.9s						
J30M	Hart River	26.86	43	IAmb	IAmb	19 28 58.9	
	comp=Z,12nm,1.4s						
EPYK	Eagle Plains	26.98	39	IAmb	IAmb	19 28 56.6	
	comp=Z,12nm,0.9s						
F30M	Barrier River	27.59	37	IAmb	IAmb	19 29 03.3	
	comp=Z,17nm,1.1s						
YAK	Yakutsk	27.73	311	LR	LR	19 40 15.1	
	comp=Z,46nm,18.8s,baz=58,slow=37						
YAK	Yakutsk	27.73	311	eP	P	19 29 01.4	-1.6
YAK				e*PP	pP	19 29 14.7	+0.2
YAK				eS	S	19 33 35.6	-6.5
YAK				e*SS	sS	19 33 57.3	-3.6
YAK				eSSS	SSS	19 34 58.5	
YAK				pmax	pmax		
	comp=Z,15nm,0.9s						
YAK				pmax	pmax		
	comp=N,2.0nm,1.1s						
YAK				pmax	pmax		
	comp=E,6.0nm,1.2s						
YAK				pmax	pmax		
	comp=Z,21nm,2.0s						
YAK				pmax	pmax		
	comp=E,41nm,3.5s						
YAK				pmax	pmax		
	comp=N,27nm,1.8s						
YAK				smax	smax		
	comp=E,42nm,3.5s						
YAK				smax	smax		
	comp=N,87nm,4.2s						
YAK	Yakutsk	27.73	311		P	19 29 01.4	-1.6
YAK				IAmb	IAmb	19 29 02.8	
	comp=Z,13nm,0.7s						
YAK	Yakutsk	27.73	311	P	P	19 29 02.4	-0.6
	comp=Z,21nm,0.8s						
INK	Inuvik	28.57	36	P	P	19 29 09.8	-0.6
	comp=Z,11nm,1.2s						
KLR	Kul'dur	29.09	284	d iP	P	19 29 16.1	+0.7
KLR				pmax	pmax		
	comp=Z,7.0nm,0.8s						
TIXI	Tiksi	29.48	331	LR	LR	19 40 42.7	
	comp=Z,76nm,19.7s,baz=148,slow=35						
USRK	Ussuriysk Ar.	31.17	275	P	P	19 29 34.0	+0.3
	comp=Z,1.6nm,0.8s,baz=66,slow=8.1,SNR=2.1						
	comp=Z,1.6nm,0.8s						
H11N2	WAKE ISLAND Hy	32.87	199	T	T	20 05 11.3	
	baz=11,slow=76,SNR=82						
H11N3	WAKE ISLAND Hy	32.88	199	T	T	20 05 17.0	
	baz=11,slow=76,SNR=96						
H11N1	WAKE ISLAND Hy	32.88	199	T	T	20 04 57.6	
	baz=11,slow=76,SNR=110						
H11S1	WAKE ISLAND Hy	34.09	199	T	T	20 06 52.1	
	baz=11,slow=76,SNR=45						
H11S3	WAKE ISLAND Hy	34.11	199	T	T	20 06 36.5	
	baz=11,slow=76,SNR=22						
H11S2	WAKE ISLAND Hy	34.11	199	T	T	20 06 40.8	
	baz=11,slow=76,SNR=24						
YKA	Yellowknife Ar	36.66	46	P	P	19 30 19.9	-1.2
	comp=Z,1.2nm,0.5s,baz=283,slow=8.0,SNR=4.1						
YKA				LR	LR	19 45 34.4	
	comp=Z,92nm,19.0s,baz=306,slow=36						
	comp=Z,1.2nm,0.5s						
YKA	Yellowknife Ar	36.66	46	i P	P	19 30 20.5	-0.6
YKA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
KSRS	Korea Array	37.52	268	P	P	19 30 29.6	+0.9
	comp=Z,0.5nm,0.5s,baz=58,slow=9.6,SNR=1.9						
KSRS				LR	LR	19 44 26.2	
	comp=Z,8.8nm,19.5s,baz=45,slow=34						
	comp=Z,0.5nm,0.5s						
JNU	Nakatsue	38.50	260	LR	LR	19 46 23.1	
	comp=Z,20nm,21.4s,baz=46,slow=36						
XLT	XiLinHaoTe	41.11	284	eP	P	19 30 59.8	+1.1
XLT				pmax	pmax		
	comp=Z,8.0nm,0.9s						
XLT				pmax	pmax		
	comp=Z,120nm,4.8s						
NRIK	Noril'sk	43.20	329	eP	P	19 31 13.6	-1.7
NRIK				pmax	pmax		
	comp=Z,8.0nm,1.4s						
TLY	Talaya	44.18	301	LR	LR	19 50 03.8	
	comp=Z,69nm,20.1s,baz=11,slow=36						
ULN	Ulaanbaatar	44.28	294	d iP	P	19 31 25.3	+0.8
ULN				pmax	pmax		
	comp=Z,10.0nm,0.9s						
ULN	Ulaanbaatar	44.28	294	P	P	19 31 24.0	-0.5
ULN				IAmb	IAmb	19 31 26.1	
	comp=Z,9.8nm,0.9s						
ULN	Ulaanbaatar	44.28	294	P	P	19 31 25.5	+1.0
	comp=Z,12nm,0.8s						
SONM	Songino Array	44.67	295	P	P	19 31 28.6	+1.1
	comp=Z,8.1nm,0.5s,baz=64,slow=7.9,SNR=69						
SONM				PcP	PcP	19 33 09.6	+0.3
	comp=Z,0.6nm,0.4s,baz=56,slow=3.3,SNR=2.7						
	comp=Z,8.1nm,0.5s						
SONM	Songino Array	44.67	295		P	19 31 27.8	+0.2
HLID	Hailey	44.93	72	P	P	19 31 28.9	-0.8
BCYI	Bear Canyon	45.10	71	IAmb	IAmb	19 31 30.7	
	comp=Z,3.5nm,0.9s						
HHC	Hu-ho-hao-te	45.60	284	eP	P	19 31 34.3	-0.7
HHC				pmax	pmax		
	comp=Z,20nm,0.6s						
HHC				pmax	pmax		
	comp=Z,71nm,4.5s						
HHC				L	L		
	comp=Z,340nm,18.5s						
HHC				L	L		
	comp=Z,130nm,16.8s						
NVAR	Mina Array Bea	45.63	81	P	P	19 31 35.3	-0.1
	comp=Z,1.4nm,0.7s,baz=296,slow=8.6,SNR=10						
	comp=Z,1.4nm,0.7s						
GUMO	Guam	46.20	227	LR	LR	19 46 29.0	
	comp=Z,25nm,21.6s,baz=65,slow=30						
GMN	Gold Mountain	46.98	81	P	P	19 31 47.1	+1.2
CLC	China Lake	47.72	83	P	P	19 31 51.9	+0.4
CLC				pmax	pmax		
	comp=Z,3.0nm,0.9s						
CLC	China Lake	47.72	83	P	P	19 31 51.9	+0.4
PDAR	Pinedale Array	48.27	70	P	P	19 31 53.5	-2.4
	comp=Z,1.4nm,0.8s,baz=314,slow=4.3,SNR=11						
	comp=Z,1.4nm,0.8s						
TMUT	Trail Mountain	49.42	75	IAmb	IAmb	19 32 05.7	
	comp=Z,3.6nm,0.9s						
SPITS	Spitsbergen Ar	50.07	355	P	P	19 32 07.7	-1.2
	comp=Z,5.4nm,0.4s,baz=32,slow=5.8,SNR=18						
	comp=Z,5.4nm,0.4s						
HMU	Henry Mountain	50.56	76	IAmb	IAmb	19 32 31.2	
	comp=Z,4.4nm,0.7s						
XAN	Xi'an	51.55	278	eP	P	19 32 21.8	+1.2
PV13	Radium Mtn., P	51.58	75	P	P	19 32 20.2	-0.9
PV02	Paradox Valley	51.60	74	P	P	19 32 20.5	-0.8
ZALV	Zalesovo Beam	52.37	312	P	P	19 32 25.2	-1.3
	comp=Z,1.9nm,0.5s,baz=48,slow=7.0,SNR=8.6						
ZALV				PcP	PcP	19 33 36.2	-0.6
	comp=Z,0.9nm,0.7s,baz=58,slow=3.6,SNR=1.9						
	comp=Z,1.9nm,0.5s						
ZALV	Zalesovo Beam	52.37	312	i P	P	19 32 25.7	-0.8
ZALV				pmax	pmax		
	comp=Z,2.0nm,0.5s						
GTA2	Gaotai	53.52	290	P	P	19 32 36.3	+1.0
GTA2				sP	pP	19 32 44.0	-3.3
GTA2				pmax	pmax		
	comp=Z,15nm,0.6s						
GTA2				L	L		
	comp=Z,570nm,14.3s						
GTA2				L	L		
	comp=Z,200nm,15.9s						
GTA2				L	L		
	comp=Z,210nm,16.2s						
DGZ	Jazzator, Alta	53.76	306	⇓iP	P	19 32 37.3	+0.3
DGZ				pmax	pmax		
	comp=Z,9.0nm,1.1s						
FRB	Frobisher Bay	53.99	30	LR	LR	19 58 18.1	
	comp=Z,110nm,18.2s,baz=304,slow=39						
ZSN	Zaisan	56.52	306	eP	P	19 32 57.2	+0.5
ZSN	Zaisan	56.52	306	eP	P	19 32 57.2	+0.5
KURK	Kurchatov	57.37	312	d iP	P	19 33 02.6	0.0
KURK				pmax	pmax		
	comp=Z,20nm,1.0s						
KURK	Kurchatov	57.37	312		P	19 33 02.0	-0.6
KURK	Kurchatov	57.37	312	P	P	19 33 02.7	+0.1
	comp=Z,24nm,1.0s						
WMQ	Urumqi	57.47	301	eP	P	19 33 04.6	+1.1
WMQ				PP	PP	19 35 14.1	+3.2
KURBB	Kurchatov Arra	57.47	312	P	P	19 33 03.2	-0.1
	comp=Z,13nm,0.6s,baz=42,slow=6.7,SNR=145						
	comp=Z,13nm,0.6s						
ARCES	ARCESS Array B	57.56	349	P	P	19 33 02.0	-1.7
	comp=Z,4.6nm,0.7s,baz=37,slow=6.0,SNR=21						
ARCES				LR	LR	20 01 42.0	
	comp=Z,23nm,18.3s,baz=60,slow=40						
	comp=Z,4.6nm,0.7s						
LVZ	Lovozero	57.76	344	P	P	19 33 03.9	-1.2
MNTX	Cornudas Mount	58.01	78	P	P	19 33 07.5	+0.1
APA	Apatity	58.26	345	eP	P	19 33 05.0	-3.6
APA				e		19 33 56.2	
APA				e		19 35 14.3	
APA				pmax	pmax		
	comp=Z,8.0nm,1.2s						
APA				MLR	MLR		
	comp=Z,1µm,4.2s						
MK31	Makanchi Array	58.26	306	d iP	P	19 33 08.4	-0.6
MKAR	Makanchi Array	58.26	306	P	P	19 33 08.4	-0.6
	comp=Z,4.0nm,0.5s,baz=52,slow=6.0,SNR=69						
	comp=Z,4.0nm,0.5s						
MKAR	Makanchi Array	58.26	306	i P	P	19 33 08.3	-0.7
MKAR				pmax	pmax		
	comp=Z,4.0nm,0.5s						
MKAR	Makanchi Array	58.26	306	P	P	19 33 07.8	-1.2
MAKZ	Makanchi	58.41	307	P	P	19 33 09.7	-0.3
MAKZ				pmax	pmax		
	comp=Z,7.0nm,0.6s						
MAKZ	Makanchi	58.41	307		P	19 33 09.7	-0.3
MAKZ	Makanchi	58.41	307	P	P	19 33 09.3	-0.7
	comp=Z,11nm,0.8s						
GOMU	GeErMu	58.62	290	P	P	19 33 12.1	+0.1
GOMU				pP	pP	19 33 15.5	-8.4
GOMU				sP	sP	19 33 19.4	-9.3
GOMU				pmax	pmax		
	comp=Z,3.0nm,0.5s						
BVAR	Borovoye Array	59.39	318	P	P	19 33 16.3	-0.4
	comp=Z,18nm,0.6s,baz=46,slow=7.8,SNR=66						
	comp=Z,18nm,0.6s						
BORK	Borovoye	59.40	318	d iP	P	19 33 16.6	-0.1
BORK				pmax	pmax		
	comp=Z,13nm,0.8s						
BORK	Borovoye	59.40	318		P	19 33 16.5	-0.2
SGF	Sodankyl	59.41	348	P	P	19 33 15.9	-0.6
WMOK	Wichita Mounta	59.87	71	P	P	19 33 19.6	-0.6
RNF	Rovaniemi	60.26	347	P	P	19 33 21.3	-1.1
	comp=Z,21nm,2.7s						
P40A	Paris	60.41	63	P	P	19 33 22.2	-1.7
SGCY	Sterling City	60.44	75		P	19 33 22.4	-1.9
MSF	Maaselka	60.48	346	P	P	19 33 23.1	-0.9
	comp=Z,20nm,2.8s						
W35A	Tecumseh	60.70	69	P	P	19 33 25.1	-0.8
TX31	Lajitas Ar. Si	60.72	79	IAmb	IAmb	19 33 28.7	
	comp=Z,3.6nm,1.2s						
TXAR	Lajitas Array	60.72	79	P	P	19 33 25.0	-1.2
	comp=Z,1.0nm,0.7s,baz=302,slow=5.7,SNR=12						
	comp=Z,1.0nm,0.7s						
TXAR	Lajitas Array	60.72	79	P	P	19 33 25.0	-1.2
PZH	PanZhiHua	61.23	277	P	P	19 33 30.4	+0.6
ARTI	Arti	61.43	327	LR	LR	20 03 03.1	
	comp=Z,25nm,18.8s,baz=52,slow=39						
ARTI	Arti	61.43	327	d iP	P	19 33 30.5	0.0
ARTI						19 34 16.2	
ARTI				S	S	19 41 50.5	+2.5
ARTI				SS	SS	19 45 49.2	+0.9
ARTI				pmax	pmax		
	comp=Z,10.0nm,0.6s						
ARTI	Arti	61.43	327		P	19 33 30.1	-0.5
TDK	Taldyqorghan	61.46	307	eP	P	19 33 31.4	+0.5
TDK				pmax	pmax		
	comp=Z,9.0nm,1.2s						
TDK	Taldyqorghan	61.46	307	eP	P	19 33 31.5	+0.5
	comp=Z,8.5nm,1.2s						
OUL	Oulu	61.72	347	P	P	19 33 31.3	-1.0
	comp=Z,18nm,0.9s						
SHLS	Shalkode	62.24	305	eP	P	19 33 35.4	-1.0
SHLS				pmax	pmax		
	comp=Z,5.0nm,0.6s						
SHLS	Shalkode	62.24	305	eP	P	19 33 35.4	-1.0
	comp=Z,5.0nm,0.6s						
KPKS	Kokpek	62.41	306	eP	P	19 33 38.2	+0.7
KPKS	Kokpek	62.41	306	eP	P	19 33 38.3	+0.7
UZB	Uzynbulak	62.47	305	eP	P	19 33 38.3	+0.4
UZB	Uzynbulak	62.47	305	eP	P	19 33 38.3	+0.4
KIRV	Kirov	62.49	332	LR	LR	20 03 23.9	
	comp=Z,48nm,18.1s,baz=23,slow=38						
HNR	Honiara	62.64	200	LR	LR	19 54 15.7	
	comp=Z,30nm,21.6s,baz=106,slow=30						
SATY	Saty	62.85	306	eP	P	19 33 40.9	+0.5
SATY				pmax	pmax		
	comp=Z,9.0nm,1.3s						
SATY	Saty	62.85	306	eP	P	19 33 40.9	+0.5
	comp=Z,8.9nm,1.3s						
FCAR	Ozark Folk Cen	62.92	66	IAmb	IAmb	19 33 41.2	
	comp=Z,4.8nm,0.8s						
KLMR	Klimovskoe	63.09	339	eP	P	19 33 39.4	-2.2
KLMR				pmax	pmax		
	comp=Z,14nm,1.0s						
KUU	Kurty	63.28	308	eP	P	19 33 43.7	+0.6
KUU	Kurty	63.28	308	eP	P	19 33 43.7	+0.6
MDOK	Medeo	63.46	307	eP	P	19 33 44.9	+0.4
MDOK	Medeo	63.46	307	eP	P	19 33 45.0	+0.4
TNSS	Tian-Shan	63.60	306	eP	P	19 33 45.8	+0.1
TNSS	Tian-Shan	63.60	306	eP	P	19 33 45.9	+0.1
SGDS	Sogindy	64.45	308	eP	P	19 33 51.5	+0.6
AAK	Ala-Archa	65.12	308	d iP	P	19 33 55.9	+0.5
AAK				pmax	pmax		
	comp=Z,5.0nm,0.8s						
AAK	Ala-Archa	65.12	308		P	19 33 55.5	+0.1
AAK	Ala-Archa	65.12	308	P	P	19 33 55.7	+0.3
	comp=Z,12nm,0.8s						
FINES	FINESS Array B	65.14	345	P	P	19 33 53.9	-1.1
	comp=Z,4.1nm,0.4s,baz=12,slow=7.3,SNR=53						
	comp=Z,4.1nm,0.4s						
ASAI	AK-SAY(Kyrgyzs	65.37	305	P	P	19 33 58.2	+1.0
	comp=Z,7.2nm,1.1s						
AKTO	Aktyubinsk	66.31	323	LR	LR	20 05 46.2	
	comp=Z,34nm,18.4s,baz=260,slow=38						
DZA	Taraz	66.47	310	eP	P	19 34 04.5	+0.6
DZA				pmax	pmax		
	comp=Z,5.0nm,0.7s						
DZA	Taraz	66.47	310	eP	P	19 34 04.6	+0.6
	comp=Z,5.2nm,0.7s						
AB31	Akbulak array	66.52	321		P	19 34 04.0	0.0
ABKAR	Akbulak array	66.52	321		P	19 34 03.9	-0.1
KKAR	Karatay Array	66.70	310	P	P	19 34 04.9	-0.5
KKAR	Karatay Array	66.70	310		P	19 34 04.9	-0.5
ARK	Arkit	66.99	309	P	P	19 34 08.7	+1.4
	comp=Z,6.5nm,1.2s						
ARBE	Arbavere	67.06	345	P	P	19 34 06.5	-0.8
	comp=Z,34nm,0.5s						
BRLS	Borolday	67.08	311	eP	P	19 34 10.0	+2.2
BRLS	Borolday	67.08	311	eP	P	19 34 10.0	+2.2
KSH2	Kashi	67.18	304	P	P	19 34 09.5	+0.9
KSH2				pmax	pmax		
	comp=Z,9.0nm,0.8s						
NB2	NORSAR Subarra	67.28	353	P	P	19 34 08.2	-0.5
	comp=Z,1.3nm,0.6s,baz=8.4,slow=6.5						
NOA	NORSAR Array B	67.28	353	P	P	19 34 07.8	-0.9
	comp=Z,1.8nm,0.6s,baz=10,slow=6.5,SNR=6.5						
NOA				LR	LR	20 03 22.0	
	comp=Z,9.2nm,20.3s,baz=255,slow=36						
	comp=Z,1.8nm,0.6s						
IUG	Iuzhnay	67.66	310	eP	P	19 34 12.1	+0.6
IUG				pmax	pmax		
	comp=Z,6.0nm,0.7s						
IUG	Iuzhnay	67.66	310	eP	P	19 34 12.1	+0.6
	comp=Z,5.7nm,0.7s						
CHM	Chimkent	67.73	310	eP	P	19 34 12.5	+0.6
CHM				pmax	pmax		
	comp=Z,5.0nm,0.6s						
CHM	Chimkent	67.73	310	eP	P	19 34 12.6	+0.6
	comp=Z,5.3nm,0.6s						
HFS	Hagfors	67.96	352	P	P	19 34 11.7	-1.3
	comp=Z,3.4nm,0.7s,baz=26,slow=3.8,SNR=11						
	comp=Z,3.4nm,0.7s						
MTSE	Matsula	68.10	346	P	P	19 34 13.1	-0.8
	comp=Z,112nm,0.7s						
BELG	Belogornoye	68.29	330	P	P	19 34 14.4	-0.7
	comp=Z,15nm,0.8s,baz=141,slow=4.3,SNR=10						
	comp=Z,15nm,0.8s						
BELG	Belogornoye	68.29	330	d iP	P	19 34 15.2	+0.1
BELG				pmax	pmax		
	comp=Z,3.0nm,0.9s						
CHTO	Chiang Mai	68.62	274	P	P	19 34 18.7	+0.9
	comp=Z,2.0nm,1.1s						
BTK	Batken	68.88	308	P	P	19 34 19.8	+0.6
	comp=Z,15nm,0.9s						
CMAR	Chiang Mai Arr	68.89	273	P	P	19 34 19.3	-0.2
	comp=Z,0.7nm,0.7s,baz=23,slow=7.1,SNR=5.1						
	comp=Z,0.7nm,0.7s						
CMAR	Chiang Mai Arr	68.89	273	i P	P	19 34 20.2	+0.8
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
OBN	Obninsk	68.95	337	P	P	19 34 18.8	-0.4
	comp=Z,7.8nm,0.4s,baz=158,slow=11,SNR=3.3						
	comp=Z,7.8nm,0.4s						
OBN	Obninsk	68.95	337	⇑iP	P	19 34 19.2	0.0
OBN						19 34 43.0	
OBN				e		19 43 45.3	
OBN				pmax	pmax		
	comp=Z,13nm,0.8s						
OBN				MLR	MLR		
	comp=Z,37nm,15.0s						
OBN	Obninsk	68.95	337	IAmb	IAmb	19 34 20.1	
	comp=Z,24nm,0.6s						
NPW	Naypyitaw	69.64	276	P	P	19 34 24.8	+0.7
	comp=Z,3.4nm,1.2s						
LPSR	Galich'ya Gora	70.63	335	eP	P	19 34 28.4	-1.2
LPSR				pmax	pmax		
	comp=Z,9.0nm,0.9s						
VRH	Novokhopyorsk	71.11	333	eP	P	19 34 30.4	-2.1
VRH				pmax	pmax		
	comp=Z,11nm,0.8s						
PABE	Paberze	71.15	345	P	P	19 34 32.0	-0.7
	comp=Z,21nm,0.8s						
MNK	Minsk	71.41	342	i P	P	19 34 34.2	0.0
MNK				i		19 37 13.5	
MNK				i PPP	PPP	19 38 55.3	
MNK				i S	S	19 43 51.7	+2.9
MNK				i SS	SS	19 48 23.2	+0.6
MNK				pmax	pmax		
	comp=Z,16nm,0.8s						
MNK				MLR	MLR		
	comp=N,32nm,17.0s						
MNK				MLR	MLR		
	comp=E,24nm,13.0s						
MNK	Minsk	71.41	342	i P	P	19 34 34.2	0.0
	comp=Z,16nm,0.8s,baz=199						
MNK				i PP	PP	19 37 13.6	+1.3
MNK				i PPP	PPP	19 38 55.4	
MNK				i S	S	19 43 51.8	+2.9
MNK				i SS	SS	19 48 23.2	+0.6
MNK				i SSS	SSS	19 51 44.6	
MNK				i LQ	LQ	20 01 06.9	
MNK				i LR	LR	20 06 18.7	
MNK				i LRM	MLR	20 08 16.4	
	comp=N,32nm,17.4s						
MNK				i LRM	MLR	20 08 19.1	
	comp=E,24nm,13.0s						
VSR	Storozhevoye	71.82	334	eP	P	19 34 35.8	-1.0
VSR				pmax	pmax		
	comp=Z,10.0nm,1.0s						
NIL	Nilore	72.56	302	P	P	19 34 41.8	+0.2
NIL				pmax	pmax		
	comp=Z,16nm,1.1s						
NIL	Nilore	72.56	302		P	19 34 41.8	+0.2
NIL	Nilore	72.56	302	P	P	19 34 42.7	+1.1
	comp=Z,18nm,0.9s						
EKA	Eskdalemuir Ar	73.51	1	P	P	19 34 45.4	-1.4
	comp=Z,0.5nm,0.4s,baz=356,slow=3.8,SNR=5.6						
	comp=Z,0.5nm,0.4s						
DZM	Mont Dzumac	73.95	191	LR	LR	19 59 16.8	
	comp=Z,47nm,21.4s,baz=206,slow=29						
KBL	Kabul	74.05	306	P	P	19 34 50.5	-0.1
	comp=Z,14nm,1.0s						
BSEG	Bad Segeberg	74.39	352	P	P	19 34 51.6	-0.3
	comp=Z,17nm,2.8s						
AK21	Malin Array Si	74.69	340	P	P	19 34 52.8	-0.9
AK03	Malin Array Si	74.70	340	P	P	19 34 53.0	-0.8
AK22	Malin Array Si	74.70	340	P	P	19 34 53.0	-0.8
AK04	Malin Array Si	74.71	340	P	P	19 34 53.1	-0.8
AKASG	Malin Array Be	74.72	340	P	P	19 34 53.3	-0.6
	comp=Z,13nm,0.6s,baz=25,slow=5.8,SNR=24						
	comp=Z,13nm,0.6s						
AKASG	Malin Array Be	74.72	340	i P	P	19 34 53.2	-0.7
AKASG				pmax	pmax		
	comp=Z,13nm,0.6s						
AKASG	Malin Array Be	74.72	340	P	P	19 34 53.4	-0.5
AKASG				IAmb	IAmb	19 34 54.5	
	comp=Z,3.6nm,0.8s						
AKBB	Malin Array Si	74.72	340	d iP	P	19 34 53.4	-0.5
AKBB				pmax	pmax		
	comp=Z,13nm,0.9s						
AKBB	Malin Array Si	74.72	340	P	P	19 34 53.1	-0.8
AK20	Malin Array Si	74.73	340	P	P	19 34 53.1	-0.9
KIEV	Kiev	74.73	340	P	P	19 34 53.4	-0.6
KIEV				pmax	pmax		
	comp=Z,12nm,0.7s						
KIEV	Kiev	74.73	340		P	19 34 53.4	-0.6
KIEV	Kiev	74.73	340	⇓P	P	19 34 53.3	-0.7
KIEV	Kiev	74.73	340	P	P	19 34 53.1	-0.9

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
	comp=Z,70nm,0.9s						
KIEV	Kiev	74.73	340	P	P	19 34 53.1	-0.9
	comp=Z,18nm,0.9s						
AK01	Malin Array Si	74.73	340	P	P	19 34 53.2	-0.8
AK18	Malin Array Si	74.73	340	P	P	19 34 53.2	-0.8
AK19	Malin Array Si	74.75	340	P	P	19 34 53.3	-0.8
AK15	Malin Array Si	74.75	340	P	P	19 34 53.3	-0.8
AK11	Malin Array Si	74.75	340	P	P	19 34 53.3	-0.8
AK02	Malin Array Si	74.77	340	P	P	19 34 53.4	-0.8
AK17	Malin Array Si	74.77	340	P	P	19 34 53.4	-0.8
AK05	Malin Array Si	74.80	340	P	P	19 34 53.6	-0.8
RNPP8	Varash	74.80	342	P	P	19 34 53.5	-0.9
MI28	Mi28,Pidlybu	74.83	341	P	P	19 34 52.9	-1.7
RNPP5	Staryi Chortor	74.90	342	P	P	19 34 54.7	-0.2
RAR	Rarotonga	75.05	158	LR	LR	20 03 47.1	
	comp=Z,66nm,18.1s,baz=236,slow=32						
LUBAR	Lubar, Ukraine	75.77	341	P	P	19 34 59.0	-1.0
GOF	Gofitskoye	76.17	329	ceP	P	19 35 03.2	+0.8
CTA	Charters Tower	76.48	210	LR	LR	20 09 08.8	
	comp=Z,15nm,18.6s,baz=223,slow=36						
OJC	Ojcow	76.92	346	eP	P	19 35 06.5	-0.1
OJC	Ojcow	76.92	346	P	P	19 35 05.7	-0.8
	comp=Z,9.2nm,0.9s						
OJC	Ojcow	76.92	346	P	P	19 35 06.4	-0.1
	comp=Z,9.2nm,0.9s						
KWP	Kalwaria Pacla	77.01	344	eP	P	19 35 07.7	+0.6
KWP	Kalwaria Pacla	77.01	344	P	P	19 35 06.2	-0.9
	comp=Z,42nm,0.7s						
KIV	Kislovodsk	77.27	329	eP	P	19 35 09.3	+0.6
KIV				pmax	pmax		
	comp=Z,8.0nm,1.0s						
KIV	Kislovodsk	77.27	329	P	P	19 35 07.8	-0.9
	comp=Z,10nm,0.9s						
DPC	Dobruska-Polom	77.29	348	P	P	19 35 08.6	-0.1
	comp=Z,5.4nm,1.4s						
KMPD	K-Podol'skiy	77.33	341	P	P	19 35 07.4	-1.4
KBZ	Khabaz	77.41	328	P	P	19 35 10.0	+0.7
	comp=Z,4.9nm,0.8s,baz=43,slow=1.8,SNR=13						
	comp=Z,4.9nm,0.8s						
KBZ	Khabaz	77.41	328	d iP	P	19 35 09.9	+0.7
KBZ				pmax	pmax		
	comp=Z,6.0nm,0.9s						
STHS	Stebnicka Huta	77.47	345	eP	P	19 35 10.9	+1.3
STHS				pmax	pmax		
	comp=Z,6.0nm,0.6s						
STHS	Stebnicka Huta	77.47	345	eP	P	19 35 10.8	+1.2
SHA1	Shidzhatmaz	77.48	328	d iP	P	19 35 10.5	+0.5
AKT	Akhty	77.70	324	eP	P	19 35 11.5	+0.3
AKT				e		19 38 05.4	
AKT				pmax	pmax		
	comp=Z,15nm,1.0s						
KOLS	Kolonicke sedl	77.76	344	eP	P	19 35 11.8	+0.5
KOLS				pmax	pmax		
	comp=Z,14nm,0.7s						
KOLS	Kolonicke sedl	77.76	344	eP	P	19 35 11.8	+0.5
KOLS	Kolonicke sedl	77.76	344	P	P	19 35 12.0	+0.7
	comp=Z,14nm,0.6s						
LANS	Liptovska Anna	78.02	346	eP	P	19 35 13.8	+1.1
LANS				pmax	pmax		
	comp=Z,5.0nm,0.9s						
LANS	Liptovska Anna	78.02	346	eP	P	19 35 13.8	+1.1
BURAR	Bucovina Array	78.48	341	⇑P	P	19 35 17.9	+2.5
BURAR	Bucovina Array	78.48	341	⇑P	P	19 35 17.9	+2.5
TRPA	Tarpa	78.49	343	P	P	19 35 16.0	+0.7
	comp=Z,31nm,0.7s						
KRUC	Moravsky	78.55	348	P	P	19 35 15.4	-0.1
SOC	Sochi	78.55	330	eP	P	19 35 14.7	-1.0
SOC				e		19 38 10.5	
SOC				ePPP	PPP	19 40 02.0	
SOC				eS	S	19 45 09.2	+0.5
SOC				eSS	SS	19 50 13.9	+2.5
SOC				eSSS	SSS	19 53 38.0	
SOC				pmax	pmax		
	comp=Z,8.0nm,0.8s						
VYHS	Vyhne	78.75	346	eP	P	19 35 17.1	+0.4
VYHS	Vyhne	78.75	346	eP	P	19 35 17.1	+0.4
KHC	Kasperske Hory	78.83	350	⇑iP	P	19 35 16.2	-1.0
KHC				pmax	pmax		
	comp=Z,2.0nm,0.9s						
BIZ	Bicaz	78.95	341	⇓P	P	19 35 18.3	+0.5
GERES	GERESS Array B	79.09	349	P	P	19 35 17.9	-0.8
	comp=Z,1.1nm,0.6s,baz=32,slow=5.3,SNR=5.7						
	comp=Z,1.1nm,0.6s						
MODS	Modra-Piesok	79.10	347	eP	P	19 35 19.5	+0.9
MODS	Modra-Piesok	79.10	347	eP	P	19 35 19.5	+0.9
TESR	Tescani	79.24	340	P	P	19 35 18.0	-1.4
	comp=Z,7.4nm,0.7s						
TESR	Tescani	79.24	340	P	P	19 35 19.2	-0.2
	comp=Z,10nm,0.7s						
EPOS	Posof	79.45	327	P	P	19 35 21.7	+0.8
	comp=Z,5.1nm,0.5s						
GHRR		79.51	340	P	P	19 35 19.6	-1.3
VLDR	Vladesti	79.56	339	⇑P	P	19 35 21.8	+0.6
CONA	Conrad Observa	79.73	348	i pP	P	19 35 22.6	+0.5
	comp=Z,6.9nm,1.1s						
DRGR		79.75	343	⇑P	P	19 35 21.8	-0.5
DRGR		79.75	343	⇑P	P	19 35 21.8	-0.5
DRGR		79.75	343	P	P	19 35 22.3	0.0
	comp=Z,11nm,0.8s						
MARR	Marisel-Cluj	79.79	343	⇑P	P	19 35 20.5	-2.0
VRI	Vrincioaia	79.84	340	⇓P	P	19 35 23.7	+1.0
VRI	Vrincioaia	79.84	340	⇓P	P	19 35 23.7	+1.0
PLOR	Plostina	79.87	340	⇑P	P	19 35 23.3	+0.4
PLOR	Plostina	79.87	340	⇑P	P	19 35 23.3	+0.4
GNI	Garni	79.95	325	LR	LR	20 14 52.7	
	comp=Z,39nm,18.9s,baz=42,slow=39						
COVR	Voineasa-Covas	79.97	340	⇓P	P	19 35 24.1	+0.6
SAHR	Sahastru	79.98	340	⇓P	P	19 35 24.4	+0.9
MOA	Molln	80.01	349	epP	P	19 35 23.5	-0.1
	comp=Z,12nm,1.9s						
TLCR		80.02	338	⇑P	P	19 35 23.9	+0.3
TLCR		80.02	338	⇑P	P	19 35 23.9	+0.3
CFR	Carcaliu	80.18	339	⇓P	P	19 35 24.9	+0.4
CFR	Carcaliu	80.18	339	⇓P	P	19 35 24.9	+0.4
MPLH	Magyarpolny	80.24	346	P	P	19 35 23.4	-1.4
	comp=Z,19nm,1.1s						
MLR	Muntele Rosu	80.36	340	⇓P	P	19 35 26.7	+1.0
MLR	Muntele Rosu	80.36	340	⇓P	P	19 35 26.7	+1.0
MLR	Muntele Rosu	80.36	340	P	P	19 35 25.6	-0.1
	comp=Z,10nm,0.9s						
MLR	Muntele Rosu	80.36	340	P	P	19 35 27.0	+1.3
	comp=Z,10nm,0.9s						
SIRR	Siria	80.45	343	⇑P	P	19 35 26.5	+0.5
VOIR		80.60	341	⇓P	P	19 35 27.5	+0.6
VOIR		80.60	341	⇓P	P	19 35 27.5	+0.6
VOIR		80.60	341	P	P	19 35 26.6	-0.3
VOIR		80.60	341	P	P	19 35 27.7	+0.8
	comp=Z,8.6nm,0.9s						
LESA	Schwarzleotal	80.61	350	epP	P	19 35 27.2	+0.3
	comp=Z,2.5nm,0.7s						
WRA	Warramunga Arr	80.69	221	P	P	19 35 27.4	0.0
	comp=Z,0.8nm,0.6s,baz=33,slow=6.3,SNR=15						
	comp=Z,0.8nm,0.6s						
WRA	Warramunga Arr	80.69	221	i P	P	19 35 28.1	+0.7
WRA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ARR	Arges	80.75	341	⇑P	P	19 35 28.4	+0.7
ARR	Arges	80.75	341	P	P	19 35 28.5	+0.7
	comp=Z,5.8nm,0.7s						
WATA	Walderalm	80.81	351	epP	P	19 35 28.0	-0.1
	comp=Z,3.7nm,0.6s						
LOT	Lotru	80.84	342	⇑P	P	19 35 25.3	-3.0
MOTA	Moosalm	80.85	351	eP	P	19 35 27.2	-1.1
	comp=Z,9.4nm,1.6s						
SURR	Surduc	80.86	343	⇓P	P	19 35 28.4	+0.3
KBA	Koelnbreinsper	80.88	349	i pP	P	19 35 28.9	+0.5
	comp=Z,8.9nm,0.5s						
KBA	Koelnbreinsper	80.88	349	P	P	19 35 29.2	+0.7
	comp=Z,18nm,0.9s						
WTTA	Wattenberg	80.88	351	epP	P	19 35 28.3	-0.2
	comp=Z,6.0nm,0.7s						
SQTA	Sankt Quirin	80.97	351	epP	P	19 35 29.1	+0.2
	comp=Z,7.3nm,0.9s						
HOMI	Horasan	81.03	327	⇑P	P	19 35 29.9	+0.4
SOKA	Soboth	81.06	348	i pP	P	19 35 29.9	+0.6
	comp=Z,3.3nm,0.5s						
BZS	Buzias	81.08	343	⇓P	P	19 35 29.1	-0.3
BZS	Buzias	81.08	343	⇓P	P	19 35 29.1	-0.3
BZS	Buzias	81.08	343	P	P	19 35 29.5	+0.1
	comp=Z,9.8nm,1.0s						
GZR	Gura Zlata	81.09	342	⇓P	P	19 35 29.5	0.0
GZR	Gura Zlata	81.09	342	⇓P	P	19 35 29.5	0.0
FETA	Feichten	81.21	351	i pP	P	19 35 30.5	+0.2
	comp=Z,6.2nm,1.2s						
OBKA	Obir	81.29	348	i pP	P	19 35 30.7	+0.1
	comp=Z,3.0nm,0.4s						
OBKA	Obir	81.29	348	P	P	19 35 30.9	+0.4
	comp=Z,7.7nm,0.8s						
ABTA	Abfaltersbach	81.30	350	epP	P	19 35 30.4	-0.2
	comp=Z,6.1nm,1.3s						
OZAP	Van, Ozalp-Mer	81.54	325	⇑P	P	19 35 34.2	+2.0
HERR	Herculane	81.65	343	⇑P	P	19 35 32.3	-0.1
MDVR	Moldovita	81.87	343	⇑P	P	19 35 33.5	-0.1
HAKT	HAKKARI	82.62	325	P	P	19 35 38.5	+0.5
	comp=Z,31nm,0.9s						
PLVB	Pleven	82.65	341	⇑P	P	19 35 37.9	+0.3
FITZ	Fitzroy Crossi	82.91	229	P	P	19 35 39.3	+0.1
	comp=Z,2.3nm,1.0s,baz=43,slow=8.5,SNR=5.8						
	comp=Z,2.3nm,1.0s						
BOVS	Bovan	82.98	343	⇓P	P	19 35 39.1	-0.3
BR131	Keskin Array S	83.89	333	eP	P	19 35 44.3	0.0
BRTR	Keskin Array B	83.89	333	P	P	19 35 44.3	0.0
	comp=Z,4.0nm,0.7s,baz=19,slow=1.3,SNR=7.8						
BRTR				LR	LR	20 18 50.0	
	comp=Z,25nm,18.3s,baz=277,slow=40						
	comp=Z,4.0nm,0.7s						
BRTR	Keskin Array B	83.89	333	i P	P	19 35 43.2	-1.1
BRTR				pmax	pmax		
	comp=Z,4.0nm,0.6s						
ASAR	Alice Springs	84.20	220	P	P	19 35 45.6	-0.1
	comp=Z,0.4nm,0.5s,baz=29,slow=5.2,SNR=3.0						
PDG	Podgorica	84.59	344	P	P	19 35 47.1	-0.5
	comp=Z,7.6nm,1.1s						
KKUL	Konya-Kulu	84.61	333	P	P	19 35 48.6	+0.6
	comp=Z,22nm,0.8s						
ANDN	Andirin	85.07	330	P	P	19 35 50.5	+0.3
	comp=Z,61nm,0.8s						
STKA	Stephens Creek	88.94	210	LR	LR	20 12 56.5	
	comp=Z,31nm,19.5s,baz=207,slow=33						
URZ	Urewera	89.41	181	LR	LR	20 10 14.3	
	comp=Z,41nm,19.8s,baz=84,slow=31						
RPZ	Rata Peaks	95.04	185	LR	LR	20 12 57.5	
	comp=Z,6.8nm,20.8s,baz=332,slow=31						
TORD	Torodi Ar. Bea	115.51	356	PKP	PKiKP	19 41 54.1	-2.4
	comp=Z,0.5nm,0.5s,baz=352,slow=2.3,SNR=6.5						
H03N2	Juan Fernandez	123.23	103	T	T	21 57 05.0	
	baz=309,slow=76,SNR=3.7						
H03N1	Juan Fernandez	123.25	103	T	T	21 57 02.6	
	baz=313,slow=76,SNR=5.6						
MAW	Mawson	145.30	218	PKPbc	PKPdf	19 42 50.5	0.0
	comp=Z,1.0nm,0.7s,baz=96,slow=4.2,SNR=7.6						
BOSA	Boshof	149.26	308	PKPbc	PKPbc	19 43 02.5	-0.4
	comp=Z,2.3nm,0.5s,baz=24,slow=1.3,SNR=10						

NOU 24 19:26:25.5, 17°.18S×168°.58E, h3^{km}, MLv3.7/12, Vanuatu Islands, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTV	Rentapao	0.63	194	P	Pg	19 26 38.2	+0.6
RTV	Rentapao	0.63	194	S	Sg	19 26 46.0	+0.3
DVP	Devils Point	0.66	215	P	Pb	19 26 39.2	-0.5
DVP	Devils Point	0.66	215	S	Sg	19 26 47.2	+0.5
SANVU	Saraoutou	2.17	322	P	Pn	19 27 02.6	0.0
NOUC	Port Laguerre	5.34	203	P	Pn	19 27 46.8	+0.6
OUENC	Ouen Island, N	5.46	197	P	Pn	19 27 48.0	+0.2

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*IDC **24** 19:41:17.4±1.1, 34°.10N×84°.92E, h0^{km}, mb3.4/5, mbtmp3.5/9, ML2.9/4, MS3.2/5, Error ellipse: s-maj=34.2km s-min=19.5km az=62.0*

ISC 24 19:41:22.4±1.0, **34°.2N**±0°.1×**85°.0E**±0°.2, **h35^{km}, n14,** σ**0^{s}.74**/9, **mb3.4**/4, **MS3.4**/4, **Xizang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AAK	Ala-Archa	11.82	319	LR	LR	19 49 52.4	
	comp=Z,36nm,18.1s,baz=223,slow=44						
MKAR	Makanchi Array	12.79	351	Pn	Pn	19 44 20.9	-0.7
	0.1nm,0.3s,baz=167,slow=13,SNR=4.2						
	0.6nm,0.8s						
MKAR				AML	AML		
KURBB	Kurchatov Arra	17.12	346	P	Pn	19 45 18.5	-0.3
	baz=163,slow=11,SNR=10						
	1.4nm,0.7s						
ZALV	Zalesovo Beam	19.78	360	P	Pn	19 45 50.1	-1.0
	0.2nm,0.3s,baz=186,slow=12,SNR=5.9						
	0.6nm,0.3s						
ZALV				AML	AML		
CMAR	Chiang Mai Arr	19.97	138	P	Pn	19 45 53.4	-0.2
	baz=336,slow=11,SNR=2.8						
	0.5nm,0.9s						
SONM	Songino Array	21.04	43	P	P	19 46 04.2	+0.9
	0.6nm,0.8s,baz=225,slow=12,SNR=4.3						
	0.6nm,0.8s						
BVAR	Borovoye Array	21.55	335	P	P	19 46 09.4	+0.9
	1.0nm,0.7s,baz=144,slow=9.4,SNR=3.9						
	1.0nm,0.7s						
KVAR	Kislovodsk Arr	33.97	299	LR	LR	20 04 21.9	
	comp=Z,12nm,18.6s,baz=332,slow=41						
ASF	Jabal al Asfar	40.04	281	LR	LR	20 08 48.9	
	comp=Z,37nm,18.4s,baz=131,slow=41						
EIL	Elat	42.40	278	LR	LR	20 08 35.9	
	comp=Z,64nm,18.4s,baz=159,slow=39						
GERES	GERESS Array B	53.48	309	P	P	19 50 39.2	-0.1
	0.4nm,0.3s,baz=73,slow=7.1,SNR=4.4						
	0.4nm,0.3s						
EKA	Eskdalemuir Ar	61.72	320	LR	LR	20 18 24.8	
	comp=Z,45nm,19.3s,baz=5.0,slow=36						
WRA	Warramunga Arr	71.40	131	P	P	19 52 38.9	-0.2
	0.3nm,0.7s,baz=323,slow=5.8,SNR=6.9						
	0.3nm,0.7s						
TORD	Torodi Ar. Bea	77.28	277	P	P	19 53 13.8	+0.2
	0.5nm,0.8s,baz=35,slow=5.7,SNR=2.6						
	0.5nm,0.8s						

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*IDC **24** 19:51:31.0±1.8, 37°.89N×142°.35E, h0^{km}, mb3.6/5, mbtmp3.5/7, ML2.5/2, Error ellipse: s-maj=29.3km s-min=23.4km az=102.0*

*JMA **24** 19:51:38.5±0.1, 37°.8N±0°.2×141°.8E±0°.2, h44^{km}, MV3.5/35, SE OFF MIYAGI PREF*

ISC 24 19:51:35.2±2.3, **37°.74N**±0°.05×**141°.9E**±0°.1, **h15^{km}**±12^{km}, **n22,** σ**0^{s}.77**/22, **mb3.5**/5, **11D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JIKH	Ishinomakikobu	0.68	327	⇓iP	Pn	19 51 50.7	+0.4
JIKH				⇓S	Sb	19 51 58.8	+0.8
JIO	Ouri	0.85	327	⇓iP	Pn	19 51 53.1	+0.5
JIO				⇓S	Sg	19 52 03.0	+0.1
JMM	Marumori	0.92	278	i P	Pn	19 51 53.8	+0.2
JMM				S	Sg	19 52 04.5	-0.5
JFK	Kawauchi	0.93	246	⇓P	Pn	19 51 54.0	+0.2
ONAJ	Iwakimizuishiy	1.11	235	⇓iP	Pg	19 51 56.7	0.0
ONAJ				⇓S	Sb	19 52 09.6	-0.9
JKMT	Kesennumamotoy	1.13	341	⇓iP	Pg	19 51 57.2	+0.2
JKMT				⇓S	Sb	19 52 10.0	-0.8
JOU	Okura	1.18	302	⇓iP	Pg	19 51 57.9	-0.2
JOTO	OTAMA OYAMA	1.29	262	i P	Pg	19 51 59.9	-0.1
JMK	Ichinoseki	1.33	335	⇓iP	Pg	19 52 00.2	-0.6
MJAR	Matsushiro Arr	3.21	249	Pn	Pn	19 52 27.3	+2.1
	0.2nm,0.3s,baz=75,slow=18,SNR=14						
MJAR				Sn	Sb	19 53 10.2	-0.8
	0.3nm,0.3s,baz=105,slow=15,SNR=5.1						
	2.2nm,0.6s						
MJAR				AML	AML		
USRK	Ussuriysk Ar.	9.91	314	Pn	Pn	19 53 57.8	+0.8
	0.1nm,0.3s,baz=125,slow=11,SNR=1.5						
	1.1nm,0.7s						
USRK				AML	AML		
SONM	Songino Array	27.75	303	P	P	19 57 23.5	+0.3
	0.6nm,0.7s,baz=97,slow=9.3,SNR=5.1						
	0.6nm,0.7s						
H11N2	WAKE ISLAND Hy	28.16	123	T	T	20 27 17.4	
	baz=315,slow=75,SNR=10						
H11N1	WAKE ISLAND Hy	28.17	123	T	T	20 27 14.9	
	baz=315,slow=75,SNR=13						
H11N3	WAKE ISLAND Hy	28.18	123	T	T	20 27 24.8	
	baz=315,slow=75,SNR=13						
H11S1	WAKE ISLAND Hy	28.90	125	T	T	20 28 02.3	
	baz=316,slow=76,SNR=6.4						
H11S3	WAKE ISLAND Hy	28.91	125	T	T	20 28 01.6	
	baz=316,slow=76,SNR=6.8						
H11S2	WAKE ISLAND Hy	28.92	125	T	T	20 28 02.7	
	baz=316,slow=76,SNR=7.7						
ZALV	Zalesovo Beam	41.75	312	P	P	19 59 22.5	-1.1
	0.6nm,0.6s,baz=79,slow=7.8,SNR=2.6						
	0.6nm,0.6s						
MKAR	Makanchi Array	44.10	302	P	P	19 59 42.5	-0.3
	0.3nm,0.7s,baz=90,slow=9.8,SNR=2.4						
	0.3nm,0.7s						
KURBB	Kurchatov Arra	45.90	308	P	P	19 59 56.6	-0.3
	0.9nm,0.6s,baz=84,slow=8.3,SNR=7.2						
	0.9nm,0.6s						
WRA	Warramunga Arr	57.82	188	P	P	20 01 25.6	-0.5
	0.3nm,0.6s,baz=5.7,slow=7.3,SNR=5.6						
	0.3nm,0.6s						

KRSC 24 19:54:01.6±2.8, **48°.82N×156°.59E, h6^{km}**±44^{km}, **Ml4.3, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	1.89	351	eP	Pn	19 54 34.3	0.0
SKR				eS	Sn	19 54 56.9	-1.4
PAU	Pauzhetka	2.65	3	eP	Pn	19 54 46.1	+1.3
KDTR	Khodutka, Kamc	3.14	17	eP	Pb	19 54 54.6	-3.1
KDTR				eS	Sb	19 55 35.3	-0.9
MTVR	Mutnovka	3.80	15	eP	Pn	19 55 04.6	+3.9
MTVR				eS	Sb	19 55 52.1	-3.3
RUS	Russkaya	3.82	18	eP	Pn	19 55 04.0	+3.2
RUS				eS	Sb	19 55 51.1	-4.6
GRL	Gorelyy	3.85	14	eP	Pn	19 55 05.4	+4.0
UGLR	Uglovaya	4.61	17	eP	Pn	19 55 16.2	+4.4
AVH	Avacha	4.65	16	eP	Pn	19 55 17.2	+4.9
KOK	Koryaka	4.66	15	eP	Pn	19 55 17.6	+5.1
SMAR	Somma	4.66	17	eP	Pn	19 55 17.9	+5.4
KRER	Koryakskii	4.69	16	eP	Pn	19 55 17.9	+4.9
SDLR	Sedlovina	4.69	17	eP	Pn	19 55 17.2	+4.3
KRX	Arik	4.72	15	eP	Pn	19 55 17.9	+4.6
SPN	Mys Shipunski	4.80	26	eP	Pn	19 55 19.4	+5.2
GNL	Ganaly	4.95	9	eP	Pn	19 55 21.0	+4.5
MKZ	Mys Kozlova	6.57	27	eP	Pn	19 55 41.7	+3.2
KBTR	Krutoberegovo	8.31	25	eP	Pn	19 56 05.9	+3.5

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*ISK **24** 20:51:39.4, 36°.68N×26°.44E, h7^{km}, ML2.1/7*

*THE **24** 20:51:40.3, 37°N±28°×2°7E±2°0, h7^{km}±26^{km}, M2.2/9, MLh2.2/9*

*AFAD **24** 20:51:40.8, 36°.78N×26°.54E, h18^{km}±2^{km}, ML2.0*

*ATH **24** 20:51:40.6, 36°.82N×26°.50E, h48^{km}±13^{km}, ML2.5/5, Latitude uncertainty: 3 km; Longitude uncertainty: 1 km*

ISC 24 20:51:38.7±1.2, **36°.70N**±0°.02×**26°.43E**±0°.02, **h7^{km}**±10^{km}, **n48,** σ**0^{s}.71**/70, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YAZI	Mula-Dat§a-	0.82	91	P	Pb	20 51 55.2	-0.1
YAZI				S	Sb	20 52 06.1	-0.5
THR8	Santorini-Mono	0.82	249	P	Pn	20 51 56.2	-0.5
THR8	Santorini-Mono	0.82	249	P	Pn	20 51 57.0	+0.3
THERA	Ancient Thera,	0.84	247	P	Pn	20 51 57.2	+0.1
THERA				S	Sn	20 52 09.4	-0.3
THERA				AML	AML		
THERA	Ancient Thera,	0.84	247	P	Pn	20 51 57.1	+0.1
THERA				S	Sn	20 52 10.2	+0.5
THR2	Thira island,	0.84	253	P	Pn	20 51 56.8	-0.2
CMBO	Columbo, Santo	0.86	255	P	Pn	20 51 57.0	-0.2
CMBO				S	Sn	20 52 11.0	+0.9
CMBO				AML	AML		
CMBO	Columbo, Santo	0.86	255	P	Pn	20 51 57.7	+0.5
CMBO				S	Sn	20 52 10.0	0.0
THR3	Thira Island,	0.88	251	P	Pn	20 51 58.0	+0.4
SNT5	Nea Kammeni, S	0.89	251	P	Pn	20 51 57.2	-0.5
SNT5				AML	AML		
SNT5	Nea Kammeni, S	0.89	251	P	Pn	20 51 58.2	+0.5
SNT5				S	Sn	20 52 10.9	+0.1
BDRM	Kayabasi	0.89	66	P	Pg	20 51 55.5	-0.3
BDRM				S	Sg	20 52 06.9	-0.4
BDRM				IAML		20 52 11.0	
	comp=N,74nm,0.4s						
DAT	Datca	0.92	88	P	Pb	20 51 56.8	-0.3
DAT				AML	AML		
DAT	Datca	0.92	88	Pg	Pb	20 51 57.3	+0.2
DAT				AML	AML		
DAT	Datca	0.92	88	P	Pb	20 51 57.1	0.0
DAT				IAML		20 52 14.0	
	comp=N,39nm,0.4s						
DDIM	Aydin, Didim	0.99	40	P	Pg	20 51 57.9	+0.1
DDIM				S	Sb	20 52 12.1	+0.5
DDIM				IAML		20 52 15.0	
	comp=N,86nm,0.8s						
DDIM				IAML		20 52 20.0	
	comp=E,96nm,1.0s						
GCAM	G?zelcaml?	1.18	32	Pn	Pn	20 52 02.8	+1.1
GCAM	G?zelcaml?	1.18	32	P	Pn	20 52 01.6	-0.1
GCAM				S	Sg	20 52 16.7	-0.1
GCAM				IAML		20 52 21.0	
	comp=E,71nm,0.4s						
GCAM				IAML		20 52 26.0	
	comp=N,44nm,0.5s						
MLSB	Milas	1.23	61	Pn	Pg	20 52 03.2	+0.9
MLSB				Sn	Sn	20 52 20.9	+1.6
MLSB				AML	AML		
KARP	Karpathos	1.29	153	P	Pg	20 52 03.5	0.0
KARP				S	Sb	20 52 20.2	-0.1
KARP				AML	AML		
KARP	Karpathos	1.29	153	Pn	Pg	20 52 04.0	+0.4
KARP				Sn	Sn	20 52 22.5	+1.6
KARP				AML	AML		
KARP	Karpathos	1.29	153	P	Pg	20 52 03.5	0.0
KARP				S	Sn	20 52 20.7	-0.2
KARP				AML	AML		
DGB	zmir	1.39	15	P	Pg	20 52 05.9	+0.4
DGB				S	Sb	20 52 22.4	-0.7
DGB				IAML		20 52 26.0	
	comp=E,42nm,0.6s						
DGB				IAML		20 52 28.0	
	comp=N,29nm,0.5s						
ARG	Arkhangelos	1.45	109	Pn	Pg	20 52 06.4	-0.1
ARG				AML	AML		
TURN	Turunc	1.46	87	Pn	Pg	20 52 06.6	-0.1
TURN				AML	AML		
TURN	Turunc	1.46	87	P	Pn	20 52 05.4	0.0
TURN				S	Sn	20 52 22.0	-2.8
ZEYE	Izmir, Urla-Ze	1.54	2	P	Pg	20 52 07.8	-0.3
ZEYE				S	Sg	20 52 28.1	+0.1
YER	Yerkesik	1.54	73	Pn	Pb	20 52 07.9	+0.2
NPS	Neapolis	1.58	205	P	Pn	20 52 07.5	+0.2
NPS				AML	AML		
NPS	Neapolis	1.58	205	P	Pb	20 52 08.2	-0.1
NPS				S	Sb	20 52 28.9	+0.3
NPS				AML	AML		
ZKR	Zakros	1.59	186	Pn	Pb	20 52 08.3	-0.3
ZKR	Zakros	1.59	186	P	Pb	20 52 08.2	-0.3
ZKR				S	Sb	20 52 28.8	-0.1
ZKR				AML	AML		
AYDB	Zeytinkoy-Aydi	1.70	43	Pn	Pb	20 52 10.5	+0.1
CHOS	Chios island	1.71	350	S	Sg	20 52 35.9	+2.3
CHOS				AML	AML		
DALY	Dalyan (Mula)	1.79	86	Pn	Pb	20 52 11.3	-0.5
DALY	Dalyan (Mula)	1.79	86	P	Pb	20 52 11.7	-0.1
DALY				IAML		20 53 01.0	
	comp=N,19nm,2.0s						
DALY				IAML		20 53 12.0	
	comp=E,14nm,1.4s						
IZMR	zmir-demi	1.87	40	P	Pb	20 52 13.3	0.0
IZMR				S	Sg	20 52 38.2	-0.8
IZMR				IAML		20 52 47.0	
	comp=E,12nm,0.7s						
ESEN	Aydn-Nazilli	1.88	54	P	Pg	20 52 14.6	-0.2
ESEN				S	Sb	20 52 36.5	-0.6
IDI	Anoyia	1.89	222	P	Pn	20 52 11.8	+0.4
IDI				AML	AML		
IDI	Anoyia	1.89	222	Pn	Pb	20 52 12.6	-0.9
BAGT	Foa	1.98	10	P	Pb	20 52 15.0	-0.1
BAGT				S	Sb	20 52 39.0	-0.9
SABU	Mula-Dalaman	2.04	86	P	Pb	20 52 16.2	+0.1
SABU				IAML		20 52 49.0	
	comp=N,18nm,1.4s						
SABU				IAML		20 53 25.0	
	comp=E,13nm,2.4s						
KARY	Karystos	2.07	310	P	Pb	20 52 15.8	-0.8
TAVA	DENIZLI_Tavas	2.12	68	P	Pg	20 52 18.6	-0.9
KIRA	zmir-Kiraz	2.16	46	P	Pb	20 52 18.4	+0.1
KIRA				S	Sb	20 52 44.6	-0.8
IZZE	Mula-Seydike	2.26	96	P	Pn	20 52 08.7	-7.9
IZZE				IAML		20 53 04.0	

	comp=E,20nm,1.3s						
SULTU	Buldan	2.30	53	P	Pg	20 52 22.2	-0.5
SULTU				S	Sb	20 52 48.7	-0.5
SULTU				IAML		20 53 03.0	
	comp=N,14nm,1.6s						
CAME	Cameli-Denizli	2.31	83	Pn	Pn	20 52 18.8	+1.4

MEX ***24*** *21:02:55.2±0.7, 14°03N×92°23W, h20km, MD3.9, Presumed earthquake*
GCG ***24*** *21:02:57.7±1.1, 14°42N×91°85W, h58km±9km, MD3.8, ML4.0, Presumed earthquake*
ISC 24 21:02:49.8±1.8**, 13°9N**±0°1×**92°06W**±0°06**, h55**km±30km**,**
n17, σ**2s82**/29**, Off coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RTAL	Retalhuleu	0.76	28	*e*P	Pn	21 03 07.4	+2.9
RTAL				*e*S	Sn	21 03 15.6	+0.3
STG8	El Palmar, Qui	0.91	49	*i* P	Pn	21 03 09.3	+2.6
STG8				*i* S	Sn	21 03 18.7	-0.4
STG8				IAML		21 03 20.8	
	comp=E,8µm,0.1s						
SMCA	Catarina	1.00	359	*i* P	Pn	21 03 09.2	+1.5
SMCA				*i* S	Sn	21 03 18.1	-2.7
THIG		1.07	349	*e*P	Pn	21 03 08.4	-0.2
THIG				*e*S	Sn	21 03 20.1	-2.4
CHUJ	Union Juarez	1.24	358	*e*P	Pn	21 03 11.4	+0.3
CHUJ				*e*S	Sn	21 03 23.5	-3.4
PATR	El Naranjo	1.27	352	*e*P	Pn	21 03 11.8	+0.2
PATR				*e*S	Sn	21 03 24.3	-3.4
ESSG	Sabana Grande	1.31	66	*i* P	Pn	21 03 15.6	+3.8
ESSG				*i* S	Sn	21 03 29.8	+1.5
PAVE	Pavencul	1.34	355	*e*P	Pn	21 03 12.8	+0.4
PAVE				*e*S	Sn	21 03 25.9	-3.4
FG8	Yepocapa, Chim	1.51	74	*i* P	Pn	21 03 14.8	+0.2
FG8				*i* S	Sn	21 03 28.2	-5.1
FG16	Alotenango, Sa	1.56	74	*i* P	Pn	21 03 15.8	+0.4
FG16				*i* S	Sn	21 03 28.8	-5.8
PCG5	San Vicente Pa	1.67	77	*i* P	Pn	21 03 18.6	+1.8
QUIS	Sacapulas	1.71	33	*i* P	Pn	21 03 18.7	+1.3
APG	El Apazote	1.93	53	*i* P	Pn	21 03 22.6	+2.3
NUBE	Las Nubes	2.21	88	*i* P	Pn	21 03 30.6	+6.4
TGIG		3.09	341	*e*P	Pn	21 03 40.6	+4.5
TGIG				*e*S	Sn	21 04 10.8	-1.0
UXUV	UXUV	3.99	330	*e*P	Pn	21 03 50.3	+1.8
UXUV				*e*S	Sn	21 04 35.5	+1.5
HUIG	Huatulco	4.36	296	*e*P	Pn	21 03 55.6	+2.2
HUIG				*e*S	Sn	21 04 39.1	-3.9

IDC ***24*** *21:08:23.1±1.3, 24°05N×127°00E, h0km, mb3.3/2, mbtmp3.6/4, ML3.7/2, Error ellipse: s-maj=45.1km s-min=15.8km az=102.0*
JMA ***24*** *21:08:27.0±0.4, 24°N±2°×12°7E±°, h102km, MV2.9/25, NEAR MIYAKOJIMA ISLAND*
ISC 24 21:08:23.9±2.2**, 24°24N**±0°09×**126°84E**±0°05**, h18**km±13km**,**
n28, σ**1s05**/31**, mb3.4**/3**, Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JOGS	Gusukube	1.41	292	P	Pg	21 08 50.4	-0.7
JOGS				*e*S	Sb	21 09 07.8	+0.5
JMJ2	Miyako jima3	1.47	290	*e*P	Pb	21 08 51.2	+0.5
JMJ2				*e*S	Sn	21 09 08.2	-0.2
JIKM	Ikemajima	1.60	295	*e*P	Pb	21 08 53.0	0.0
JIRJ	Irabujima	1.61	292	P	Pb	21 08 52.9	-0.3
JTJ	Tarama	1.99	282	P	Pn	21 08 57.9	+1.2
JTJ				*e*S	Sn	21 09 20.8	-0.5
JKE	Kume jima 2	2.08	359	P	Pn	21 08 58.9	+0.9
JJT3	Tamagusuku3	2.08	24	*e*S	Sn	21 09 22.8	-0.6
JISG	Ishigakijimahi	2.33	279	P	Pn	21 09 02.5	+1.0
JISG				*e*S	Sn	21 09 29.1	-0.6
JAGN	Aguni-jima	2.37	9	P	Pn	21 09 03.2	+1.3
JIJ	Ishigaki jima	2.46	273	P	Pn	21 09 04.2	+0.9
JNTH	Nagotoyohara	2.51	25	P	Pn	21 09 04.8	+0.9
JKRS	Kuro-shima	2.58	270	*e*P	Pn	21 09 06.1	+1.2
JKRS				*e*S	Sn	21 09 34.7	-1.3
HATJ	Hateruma jima	2.78	267	*e*P	Pn	21 09 08.1	+0.5
HATJ				*e*S	Sn	21 09 38.9	-1.8
JOW	Kunigami	2.89	26	Pn	Pn	21 09 10.0	+0.9
	11nm,0.3s,baz=104,slow=24,SNR=51						
JOW				Sn	Sn	21 09 40.9	-2.5
	2.6nm,0.3s,baz=104,slow=30,SNR=1.5						
	23nm,0.3s						
JOW				AML	AML		
JOW	Kunigami	2.89	26	P	Pn	21 09 10.3	+1.2
JIH	Iheya	2.96	20	P	Pn	21 09 11.2	+1.0
JYRO	Yoronjima	3.13	27	P	Pn	21 09 13.6	+1.2
JOKE	Okinoerabujima	3.48	26	P	Pn	21 09 18.2	+1.0
JTK	Tokunoshima	4.01	28	P	Pn	21 09 25.2	+0.7
JAMN	Amaminishikomi	4.50	27	P	Pn	21 09 31.9	+0.6
JAM	Amami Oshima	4.84	30	*e*P	Pn	21 09 36.6	+0.7
JNU	Nakatsue	9.53	21	Pn	Pn	21 10 41.4	+1.0
	1.1nm,0.3s,baz=216,slow=11,SNR=11						
	3.4nm,0.3s						
JNU				AML	AML		
H11N1	WAKE ISLAND Hy	37.32	89	T	T	21 54 22.0	
	baz=277						
H11N2	WAKE ISLAND Hy	37.32	89	T	T	21 54 34.1	
	baz=277						
H11N3	WAKE ISLAND Hy	37.34	89	T	T	21 54 25.0	
	baz=277						
MKAR	Makanchi Array	41.96	314	P	P	21 16 18.0	+4.1
	0.1nm,0.4s,baz=94,slow=8.8,SNR=1.6						
	0.1nm,0.4s						
WRA	Warramunga Arr	44.52	170	P	P	21 16 34.4	-0.4
	0.4nm,0.7s,baz=348,slow=8.9,SNR=6.6						
	0.4nm,0.7s						
ASAR	Alice Springs	48.11	171	P	P	21 17 03.5	+0.5
	0.3nm,0.7s,baz=357,slow=13,SNR=1.9						

NEIC ***24*** *21:19:16.5±1.1, 12°1N±0°1×140°2E±0°1, h10km±1km, mb4.6/29, Error ellipse: s-maj=20.0km s-min=18.3km az=127.0*
GCMT ***24*** *21:19:19.5±0.3, 12°08N±0°02×140°13E±0°02, h20km±1km, MW4.7/96, Moment Tensor Solution. s12,c12; s96,c131; Duration: 0 Moment tensor: Scale 10^{16}Nm; Mrr-0.40±.10; Mθθ0.36±.08; Mφφ0.03±.07; Mrθ0.31±.14; Mθφ1.51±.06; Mφr-0.22±.13; Best double couple: M0 1.58600×10^{16} NP1:φs5.00000°,δ75.00000°,λ-168.00000°. NP2: φs271.00000°,δ78.00000°,λ-16.00000°. Principal axes: T 1.7230, Plg2.0000°, Azm318.0000°; N -0.2740, Plg70.0000°, Azm55.0000°; P -1.4480, Plg19.0000°, Azm228.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
IDC ***24*** *21:19:21.2±2.8, 12°18N×140°46E, h54km±28km, mb4.0/16, mbtmp4.3/19, ML4.2/3, MS3.6/49 Error ellipse: s-maj=18.3km s-min=13.4km az=96.0*
DJA ***24*** *21:19:21.8±0.8, 12°N±6°×14°0E±°, h83km±12km, M4.6/17, mB5.2/7, mB5.1/8, mb4.7/17, mb4.7/16, MLv4.7/1, MLv4.7/1, Mw(mB)4.6/7, Mw(mB)4.5/8, MwMwp5.2/1, Mwp5.4/1*
ISC 24 21:19:18.7±0.5**, 12°16N**±0°06×**140°32E**±0°07**, h30**km**, n97,**
σ**1s17**/63**, mb4.5**/32**, MS3.6**/45**, Western Caroline Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUMO	Guam	4.65	72	P	Pn	21 20 28.4	+1.4
	12nm,0.3s,baz=205,slow=9.9,SNR=8.8						
GUMO				S	Sn	21 21 18.9	-1.1
	51nm,0.4s,baz=238,slow=22,SNR=1.2						
	54nm,0.4s						
GUMO				AML	AML		
GUMO	Guam	4.65	72	Pn	Pn	21 20 28.2	+1.3
GUMO					Pn	21 20 28.5	+1.4
DPSS	Saipan	6.13	59		Pn	21 20 48.1	+0.8
MWPI	Manokwari, Pap	14.43	206	P	Pn	21 22 43.3	+2.3
	49nm,0.7s						
JAY	Jayapura	14.59	178	P	Pn	21 22 45.6	+2.4
	2.4nm,0.3s,baz=13,slow=6.3,SNR=22						
JAY				S	Sn	21 25 21.9	-2.1
	2.0nm,0.4s,baz=24,slow=20,SNR=1.3						
JAY				LR	LR	21 27 11.3	
	comp=Z,338nm,18.7s,baz=358,slow=32						
	17nm,0.5s						
JAY				AML	AML		
GENI	Genyem	14.66	181	P	P	21 22 48.6	-1.5
DAV	Davao City (W)	15.39	252	LR	LR	21 27 57.1	
	comp=Z,117nm,20.1s,baz=80,slow=33						
SIJI	Sorong	15.76	215	P	Pn	21 22 59.4	+0.6
	0.4nm,0.3s,baz=359,slow=13,SNR=3.9						
SIJI				LR	LR	21 27 42.9	
	comp=Z,252nm,20.6s,baz=54,slow=32						
	5.4nm,0.7s						
SIJI				AML	AML		
FAKI	Fak Fak	17.00	209	P	P	21 23 18.0	+2.0
	4µm1µm29nm,1.5s						
JOW	Kunigami	18.47	324	LR	LR	21 29 11.9	
	comp=Z,213nm,19.8s,baz=193,slow=32						
RABL	Rabaul	20.06	143	P	P	21 23 50.4	+0.7
KRVT	Keravat (AS076	20.07	144	P	Pn	21 23 51.1	-0.7
	32nm,0.3s,baz=42,slow=14,SNR=5.6						
KRVT				LR	LR	21 30 15.5	
	comp=Z,301nm,20.7s,baz=265,slow=33						
	32nm,0.3s						
GTOI	Gorontalo	20.64	238	P	P	21 23 56.0	-0.1
	38nm,1.0s,38nm,1.0s						
YULB	Yu-li	21.25	304	P	P	21 24 02.0	-0.6
YULB				IAmb	IAmb	21 24 11.0	
	comp=Z,23nm,1.1s						
SSLB	Suanglung	21.72	305		P	21 24 08.2	+0.5
SSLB				IAmb	IAmb	21 24 12.0	
	comp=Z,32nm,1.0s						
TPUB	Ta-pu	21.75	303	P	P	21 24 07.0	-1.0
TPUB				IAmb	IAmb	21 24 18.0	
	comp=Z,50nm,1.1s						
LUWI	Luwuk	21.81	234	P	P	21 24 07.1	-1.6
TOLI2	Tolitoli	22.27	242		P	21 24 12.3	-1.3
TOLI2				IAmb	IAmb	21 24 23.4	
	comp=Z,13nm,0.8s						
PMG	Port Moresby	22.48	162	LR	LR	21 33 33.0	
	comp=Z,126nm,18.1s,baz=346,slow=38						
JNU	Nakatsue	22.59	339	LR	LR	21 31 47.8	
	comp=Z,92nm,20.6s,baz=138,slow=33						
APSI	Ampana	22.64	236	P	P	21 24 18.7	+1.2
	comp=Z,640nmcomp=Z,640nmcomp=Z,40nm,1.3s,comp=Z,40nm,1.3s						
MYLDM	Lahad Datu	22.65	254	P	P	21 24 16.1	-1.6
KDI	Kendari	23.80	229	P	P	21 24 28.3	-0.8
	comp=Z,3µmcomp=Z,3µmcomp=Z,11nm,1.0s						
MJAR	Matsushiro Arr	24.35	356	P	P	21 24 32.6	-1.5
	comp=Z,2.3nm,1.1s,baz=175,slow=8.4,SNR=2.0						
MJAR				LR	LR	21 33 20.3	
	comp=Z,91nm,19.1s,baz=130,slow=34						
	comp=Z,2.3nm,1.1s						
KAPI	Kappang	26.64	231	LR	LR	21 34 14.8	
	comp=Z,39nm,20.7s,baz=30,slow=33						
SOEI	Soe	26.99	217	P	P	21 24 58.2	-0.1
KSRS	Korea Array	27.53	338	P	P	21 25 02.4	-0.3
	comp=Z,1.6nm,0.9s,baz=149,slow=9.9,SNR=1.8						
KSRS				LR	LR	21 34 28.7	
	comp=Z,142nm,20.8s,baz=150,slow=33						
	comp=Z,1.6nm,0.9s						
BATI	Baumata	27.71	217	LR	LR	21 35 15.5	
	comp=Z,72nm,20.5s,baz=64,slow=34						
HNR	Honiara	28.99	137	LR	LR	21 35 20.1	
	comp=Z,87nm,21.6s,baz=54,slow=33						
ASAJ	Asahikawa	31.90	3	LR	LR	21 38 55.0	
	comp=Z,58nm,19.2s,baz=148,slow=37						
WR8	Warramunga Arr	32.42	190	P	P	21 25 45.5	-0.8
WR8				IAmb	IAmb	21 25 55.4	
	comp=Z,11nm,1.0s						
WRAB	Tennant Creek	32.43	191	P	P	21 25 46.6	+0.3
WB2	Warramunga Arr	32.44	191	P	P	21 25 45.2	-1.2
WB2				IAmb	IAmb	21 25 55.5	
	comp=Z,4.8nm,1.1s						
WRA	Warramunga Arr	32.44	191	P	P	21 25 45.3	-1.1
	comp=Z,0.9nm,0.6s,baz=7.0,slow=9.6,SNR=7.9						
	comp=Z,0.9nm,0.6s						
WRA	Warramunga Arr	32.44	191	P	P	21 25 45.8	-0.6
CTA	Charters Tower	32.57	170	LR	LR	21 38 01.5	
	comp=Z,74nm,18.3s,baz=24,slow=34						
USRK	Ussuriysk Ar.	32.72	349	LR	LR	21 37 04.9	
	comp=Z,121nm,21.4s,baz=166,slow=32						
FITZ	Fitzroy Crossi	33.38	206	P	P	21 25 51.4	-3.2
ASAR	Alice Springs	36.16	190	P	P	21 26 18.4	-0.2
	comp=Z,11nm,0.3s,baz=25,slow=9.5,SNR=3.1						
ASAR				LR	LR	21 41 24.1	
	comp=Z,124nm,18.6s,baz=60,slow=37						
	comp=Z,11nm,0.3s						
LEM	Lembang	37.59	242	LR	LR	21 45 05.6	
	comp=Z,40nm,18.1s,baz=232,slow=41						
KLR	Kul'dur	37.63	351	LR	LR	21 39 52.4	
	comp=Z,44nm,19.2s,baz=168,slow=33						
CMAR	Chiang Mai Arr	40.33	284	P	P	21 26 55.3	+1.4
	comp=Z,1.9nm,0.9s,baz=90,slow=6.8,SNR=14						
CMAR				LR	LR	21 41 16.2	
	comp=Z,41nm,21.5s,baz=105,slow=32						
	comp=Z,1.9nm,0.9s						
LZDM	Lanzhou Array	40.62	312	LR	LR	21 42 13.7	
	comp=Z,97nm,21.5s,baz=220,slow=34						
STKA	Stephens Creek	43.80	178	P	P	21 27 21.6	-0.3
	comp=Z,2.7nm,0.8s,baz=333,slow=7.7,SNR=4.5						
STKA				LR	LR	21 46 02.5	
	comp=Z,128nm,19.6s,baz=22,slow=36						
	comp=Z,2.7nm,0.8s						
SONM	Songino Array	45.47	328	P	P	21 27 35.5	+0.3
	comp=Z,1.2nm,0.7s,baz=138,slow=9.1,SNR=6.8						
SONM				LR	LR	21 47 15.7	
	comp=Z,99nm,18.9s,baz=100,slow=37						
	comp=Z,1.2nm,0.7s						
SONM	Songino Array	45.47	328	P	P	21 27 35.9	+0.6
MSVF	Nonsavu	47.64	128	LR	LR	21 45 19.8	
	comp=Z,173nm,21.8s,baz=157,slow=33						
TLY	Talaya	49.30	331	LR	LR	21 48 27.6	
	comp=Z,62nm,20.7s,baz=116,slow=35						
AFI	Afiamalu	54.08	117	LR	LR	21 49 45.4	
	comp=Z,53nm,18.0s,baz=246,slow=34						
MKAR	Makanchi Array	59.48	317	P	P	21 29 19.6	+0.5
	comp=Z,1.7nm,0.8s,baz=106,slow=7.5,SNR=9.9						
MKAR				LR	LR	21 55 45.3	
	comp=Z,31nm,19.8s,baz=106,slow=37						
	comp=Z,1.7nm,0.8s						
MKAR	Makanchi Array	59.48	317	P	P	21 29 18.8	-0.3
MAKZ	Makanchi	59.70	317	P	P	21 29 20.9	+0.4
MAKZ				IAmb	IAmb	21 29 37.3	
	comp=Z,5.0nm,1.1s						
TIXI	Tiksi	59.86	356	LR	LR	21 52 18.0	
	comp=Z,36nm,21.7s,baz=196,slow=33						
ZALV	Zalesovo Beam	60.25	326	P	P	21 29 24.0	-0.1
	comp=Z,1.2nm,0.5s,baz=108,slow=7.0,SNR=6.7						
ZALV				LR	LR	21 56 44.1	
	comp=Z,67nm,18.3s,baz=110,slow=37						
	comp=Z,1.2nm,0.5s						
ZALV	Zalesovo Beam	60.25	326	P	P	21 29 23.4	-0.7
URZ	Urewera	60.83	147	LR	LR	21 52 39.2	
	comp=Z,54nm,19.1s,baz=336,slow=33						
RPZ	Rata Peaks	62.27	155	LR	LR	21 55 51.3	
	comp=Z,12nm,18.3s,baz=144,slow=35						
KURK	Kurchatov	62.85	321		P	21 29 41.9	+0.1
KURBB	Kurchatov Arra	62.89	321	P	P	21 29 42.5	+0.6
	comp=Z,5.3nm,0.7s,baz=105,slow=7.1,SNR=35						
	comp=Z,5.3nm,0.7s						
AAK	Ala-Archa	64.11	312	LR	LR	21 58 48.2	
	comp=Z,24nm,20.1s,baz=96,slow=37						
O15K	Ungalikthiuk R	64.39	30	P	P	21 29 53.5	+1.7
NRIK	Noril'sk	66.07	342	LR	LR	21 57 39.3	
	comp=Z,63nm,21.6s,baz=133,slow=35						
KDAK	Kodiak Island	67.63	32	LR	LR	21 58 25.5	
	comp=Z,45nm,19.1s,baz=181,slow=35						
BVAR	Borovoye Array	68.32	322	P	P	21 30 17.4	+0.3
	comp=Z,4.1nm,0.6s,baz=106,slow=7.6,SNR=17						
	comp=Z,4.1nm,0.6s						
K20K	Telida	68.35	26	P	P	21 30 17.9	+0.9
K20K				IAmb	IAmb	21 30 34.1	
	comp=Z,3.5nm,1.0s						
BORK	Borovoye	68.36	322		P	21 30 17.2	-0.1
BORK				IAmb	IAmb	21 30 28.0	
	comp=Z,6.6nm,0.8s						
J20K	Nowinta River	68.56	25	P	P	21 30 19.7	+1.4
J20K				IAmb	IAmb	21 30 30.7	
	comp=Z,3.4nm,0.7s						
MLY	Manley	70.20	25		P	21 30 29.3	+0.7
MLY				IAmb	IAmb	21 30 39.5	
	comp=Z,3.0nm,0.7s						
E23K	Chandalar	71.38	22		P	21 30 37.4	+1.6
H24K	Noodor Dome	71.55	24	P	P	21 30 37.1	+0.3
ILAR	Eielson Array	71.75	26	P	P	21 30 36.6	-1.3
	comp=Z,0.7nm,0.6s,baz=261,slow=4.8,SNR=5.0						
	comp=Z,0.7nm,0.6s						
D24K	Happy Valley	71.93	21	P	P	21 30 40.2	+1.4
F26K	Sheenjek River	73.34	23	P	P	21 30 48.6	+1.2
F26K				IAmb	IAmb	21 31 00.2	
	comp=Z,5.4nm,0.8s						
AB31	Akbulak array	74.62	318	P	P	21 30 55.0	-0.2
D27M	Malcolm River	74.70	21	P	P	21 30 56.2	+0.9
D27M				IAmb	IAmb	21 31 10.7	
	comp=Z,3.6nm,0.8s						
I28M	Miner Creek	74.76	25	P	P	21 30 56.4	+0.7
F28M	Old Crow	74.95	23	P	P	21 30 57.7	+0.9
F28M				IAmb	IAmb	21 31 16.5	
	comp=Z,8.6nm,1.1s						
M29M	Somme Creek	75.24	28	P	P	21 30 58.2	-0.4
M29M				IAmb	IAmb	21 31 17.1	
	comp=Z,6.4nm,1.1s						
ARTI	Arti	75.51	325	LR	LR	22 06 13.4	
	comp=Z,93nm,19.4s,baz=89,slow=37						
AKTO	Aktyubinsk	75.84	319	LR	LR	22 05 09.8	
	comp=Z,28nm,21.7s,baz=233,slow=36						
KIRV	Kirov	80.20	328	LR	LR	22 08 14.8	
	comp=Z,68nm,21.5s,baz=78,slow=36						
BBB	Bella Bella	81.46	38	LR	LR	22 01 17.4	
	comp=Z,58nm,21.1s,baz=190,slow=31						
YKA	Yellowknife Ar	86.14	27	P	P	21 31 55.1	-1.6
	comp=Z,0.6nm,0.6s,baz=292,slow=4.7,SNR=1.3						
	comp=Z,0.6nm,0.6s						
GNI	Garni	86.47	310	LR	LR	22 12 37.1	
	comp=Z,19nm,21.2s,baz=62,slow=37						
KBZ	Khabaz	86.99	314	LR	LR	22 14 40.7	
	comp=Z,51nm,19.3s,baz=60,slow=38						
ARCES	ARCESS Array B	87.04	341	P	P	21 32 00.4	-0.7
	comp=Z,9.6nm,1.2s,baz=63,slow=5.6,SNR=4.0						
ARCES				LR	LR	22 15 58.2	
	comp=Z,43nm,18.6s,baz=47,slow=39						
	comp=Z,9.6nm,1.2s						
FINES	FINESS Array B	90.54	334	P	P	21 32 16.9	-0.8
	comp=Z,2.6nm,0.7s,baz=95,slow=3.6,SNR=11						
FINES				LR	LR	22 14 59.0	
	comp=Z,50nm,20.3s,baz=66,slow=37						
	comp=Z,2.6nm,0.7s						
FINES	FINESS Array B	90.54	334	P	P	21 32 16.6	-1.1
NVAR	Mina Array Bea	91.25	50	LR	LR	22 06 28.2	
	comp=Z,38nm,19.3s,baz=270,slow=31						
AKASG	Malin Array Be	93.57	324	LR	LR	22 18 02.3	
	comp=Z,50nm,19.2s,baz=25,slow=38						
PFO	Pinyon Flats O	94.09	55	LR	LR	22 10 45.0	
	comp=Z,25nm,19.0s,baz=284,slow=33						
BRTR	Keskin Array B	94.78	312	LR	LR	22 18 20.5	
	comp=Z,22nm,20.9s,baz=86,slow=37						
HFS	Hagfors	96.36	336	LR	LR	22 20 13.9	
	comp=Z,91nm,18.4s,baz=27,slow=38						
NOA	NORSAR Array B	96.74	338	LR	LR	22 20 12.0	
	comp=Z,28nm,19.2s,baz=295,slow=38						
EIL	Elat	97.04	302	LR	LR	22 22 05.5	
	comp=Z,23nm,18.2s,baz=223,slow=39						
MLR	Muntele Rosu	97.77	320	LR	LR	22 19 27.1	
	comp=Z,44nm,21.4s,baz=0.0,slow=37						
LPAZ	La Paz	152.13	102	PKPbc	PKPbc	21 39 13.1	+0.1
	comp=Z,0.9nm,0.5s,baz=340,slow=3.6,SNR=5.0						

IDC ***24*** *21:22:52.9±0.6, 35°26N×25°88E, h0km, mb3.9/10, mbtmp3.8/20, ML3.2/6, MS2.3/1, Error ellipse: s-maj=14.7km s-min=8.2km az=12.0*
ISK ***24*** *21:22:53.6, 35°33N×25°92E, h6km, ML3.6/12*
ATH ***24*** *21:22:54.1, 35°30N×25°92E, h14km±2km, ML3.8/11, Latitude uncertainty: 1 km; Longitude uncertainty: 0 km*
NEIC ***24*** *21:22:54.8±1.5, 35°22N±0°07×25°85E±0°03, h10km±1km, mb4.1/22, Error ellipse: s-maj=11.9km s-min=4.2km az=171.0*
THE ***24*** *21:22:54.9, 35°N±2°×2°6E±°, h3km±2km, M3.7/25, MLh3.7/25*
AFAD ***24*** *21:22:59.7, 35°67N×25°98E, h19km±2km, MW3.7*
GII ***24*** *21:23:00.3±0.0, 34°845N±0°002×26°156E±0°001, h0km, Mws3.9, confirmed*
ISC 24 21:22:54.6±0.7**, 35°25N**±0°03×**25°92E**±0°02**, h17**km±5km**,**
n216, σ**1s80**/271**, mb4.1**/17**, Crete**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SIT2	Siteia	0.16	107	P	Pg	21 22 58.4	-0.4
SIT2				S	Sb	21 23 01.9	-0.3
AGNA	Agios Nikolaos	0.18	249	P	Pg	21 22 58.9	-0.2
AGNA				S	Sg	21 23 01.7	-0.4
AGNA				AML	AML		
NPS	Neapolis	0.25	272	P	Pg	21 22 59.9	-0.4
NPS				S	Sg	21 23 03.4	-0.8
NPS				AML	AML		
NPS	Neapolis	0.25	272	P	Pg	21 22 59.6	-0.7
NPS				S	Sg	21 23 03.6	-0.5
ZKR	Zakros	0.28	120	P	Pg	21 23 00.7	0.0
ZKR	Zakros	0.28	120	Pg	Pg	21 23 00.5	-0.2
ZKR				Sg	Sb	21 23 05.6	0.0
ZKR				AML	AML		
ZKR	Zakros	0.28	120	P	Pg	21 23 00.5	-0.2
ZKR				S	Sg	21 23 04.9	+0.1
IACM	Heraklion	0.70	275	P	Pg	21 23 07.7	-0.7
IACM				AML	AML		
IACM	Heraklion	0.70	275	P	Pg	21 23 07.3	-1.0
IDI	Anoyia	0.84	273	Pg	Pb	21 23 09.7	-1.1
	157nm,0.3s,baz=105,slow=5.1,SNR=846						
IDI				Lg	Lg	21 23 21.3	
	587nm,0.3s,baz=2.3,slow=17,SNR=19						
IDI	Anoyia	0.84	273	P	Pb	21 23 10.0	-0.9
IDI				S	Sb	21 23 21.4	-0.6
IDI				AML	AML		
IDI	Anoyia	0.84	273	Pg	Pb	21 23 10.1	-0.9
IDI				AML	AML		
IDI	Anoyia	0.84	273	P	Pb	21 23 09.8	-1.1
SIVA	Sivas	0.94	256	P	Pb	21 23 12.7	+0.2
SIVA				S	Sb	21 23 25.1	+0.4
SIVA				AML	AML		
SIVA	Sivas	0.94	256	P	Pb	21 23 12.6	+0.2
SIVA				S	Sb	21 23 24.9	+0.2
KARP	Karpathos	1.05	74	P	Pb	21 23 14.4	0.0
KARP				AML	AML		
KARP	Karpathos	1.05	74	Pg	Pb	21 23 13.9	-0.6
KARP				Sg	Sg	21 23 28.8	-0.1
KARP				AML	AML		
KARP	Karpathos	1.05	74		Pb	21 23 14.2	-0.3
KARP	Karpathos	1.05	74	P	Pb	21 23 14.5	0.0
KARP				AML	AML		
KARP				AML	AML		
KARP	Karpathos	1.05	74	P	Pb	21 23 14.3	-0.2
KARP				S	Sg	21 23 28.7	-0.1
KARP				AML	AML		
THERA	Ancient Thera,	1.17	342	P	Pn	21 23 15.1	-1.2
THERA				AML	AML		
THERA	Ancient Thera,	1.17	342	P	Pn	21 23 14.8	-1.5
THERA				S	Sb	21 23 30.4	-0.9
THERA				AML	AML		
SNT5	Nea Kammeni, S	1.23	340	P	Pn	21 23 16.2	-0.8
SNT5				AML	AML		
SNT5	Nea Kammeni, S	1.23	340	P	Pn	21 23 17.2	+0.2
SNT5				S	Sb	21 23 31.5	-1.4
SFIR	Foira Santorin	1.23	341	P	Pn	21 23 16.3	-0.8
SAP3	Santorini-Thir	1.27	339	P	Pn	21 23 16.8	-0.9
SAP3				AML	AML		
SAP3	Santorini-Thir	1.27	339	P	Pn	21 23 16.8	-0.9
SAP3				S	Sb	21 23 34.0	-0.2
CMBO	Columbo, Santo	1.28	341	P	Pn	21 23 17.4	-0.4
CMBO				AML	AML		
CMBO	Columbo, Santo	1.28	341	P	Pn	21 23 17.0	-0.9
CMBO				S	Sb	21 23 33.8	-0.8
VAM	Vamos	1.42	277	P	Pb	21 23 21.0	+0.3
VAM				S	Sn	21 23 37.6	-0.3
CHAN	Chania	1.56	280	P	Pb	21 23 22.8	-0.2
GVD	Gavdhos	1.56	255	P	Pb	21 23 23.6	+0.5
GVD				AML	AML		
GVD	Gavdhos	1.56	255	Pn	Pb	21 23 23.0	-0.1
GVD				AML	AML		
GVD	Gavdhos	1.56	255	P	Pb	21 23 23.6	+0.5
GVD				AML	AML		
CH01	Chania	1.58	280	P	Pn	21 23 21.4	-0.4
CH01				AML	AML		
IMMV	Iera Moni Meta	1.60	278	P	Pn	21 23 22.4	+0.2
IMMV				AML	AML		
IMMV	Iera Moni Meta	1.60	278	Pn	Pn	21 23 23.0	+0.8
IMMV				AML	AML		
IMMV	Iera Moni Meta	1.60	278	P	Pn	21 23 22.4	+0.2
IMMV				AML	AML		
KNDR	Palaiochora Ch	1.88	270	P	Pb	21 23 28.0	-0.5
KNDR				AML	AML		
KNDR	Palaiochora Ch	1.88	270	P	Pn	21 23 26.9	+0.9
KNDR				AML	AML		
YAZI	Mula-Dat§a-	1.89	41	P	Pn	21 23 25.6	-0.5
YAZI				S	Sn	21 23 46.9	-2.7
MHLO	Agia Marina, M	1.89	320	P	Pn	21 23 26.6	+0.5

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
MHLO				AML	AML		
MHLO	Agia Marina, M	1.89	320	P	Pn	21 23 26.5	+0.3
NAX1	Naxos Island	1.90	347	P	Pn	21 23 25.1	-1.1
DAT	Datca	1.99	42	P	Pn	21 23 28.4	+0.7
DAT	Datca	1.99	42	Pn	Pn	21 23 27.6	-0.1
DAT				AML	AML		
DAT	Datca	1.99	42	P	Pn	21 23 27.7	0.0
ARG	Arkhangelos	2.03	61	P	Pn	21 23 28.9	+0.8
ARG				AML	AML		
ARG	Arkhangelos	2.03	61	Pn	Pn	21 23 28.8	+0.7
ARG				Sn	Sn	21 23 54.5	+1.3
ARG				AML	AML		
ARG	Arkhangelos	2.03	61		Pn	21 23 28.9	+0.8
ARG	Arkhangelos	2.03	61	P	Pn	21 23 28.6	+0.5
ARG				AML	AML		
DATC	Datca-Mugla	2.06	43	Pn	Pn	21 23 29.0	+0.5
DATC				AML	AML		
BDRM	Kayabasi	2.19	34	P	Pn	21 23 29.3	-1.0
BDRM				S	Sn	21 23 52.5	-4.5
ANKY	Antikythira Is	2.22	287	P	Pn	21 23 30.4	-0.3
ANKY				AML	AML		
ANKY	Antikythira Is	2.22	287	P	Pn	21 23 30.3	-0.4
ANKY				AML	AML		
TURN	Turunc	2.42	50	Pn	Pn	21 23 34.1	+0.7
TURN				AML	AML		
TURN	Turunc	2.42	50	P	Pn	21 23 33.0	-0.4
TURN				S	Sn	21 24 00.0	-2.6
DDIM	Aydin, Didim	2.44	25	P	Pb	21 23 37.8	-0.3
MLSB	Milas	2.53	36	Pn	Pn	21 23 35.5	+0.5
MLSB				AML	AML		
KTHA	Kythira Island	2.53	294	P	Pn	21 23 34.3	-0.7
KTHA				AML	AML		
GCAM	G?zelcaml?	2.66	23	P	Pn	21 23 36.7	-0.1
YER	Yerkesik	2.68	45	P	Pn	21 23 38.3	+1.3
YER	Yerkesik	2.68	45	Pn	Pn	21 23 37.9	+0.8
YER				AML	AML		
DALY	Dalyan (Mula)	2.71	54	Pn	Pn	21 23 38.5	+1.1
DALY				AML	AML		
DALY	Dalyan (Mula)	2.71	54	P	Pn	21 23 38.7	+1.3
DALY				S	Sn	21 24 07.4	-2.4
MULA	Mugla, Merkez-	2.78	43	P	Pn	21 23 39.8	+1.2
MULA				S	Sn	21 24 11.1	-0.8
VLI	Veliai	2.83	302	P	Pn	21 23 38.5	-0.6
VLI				AML	AML		
DGB	zmir	2.90	15	P	Pn	21 23 38.9	-1.1
FETY	Fethiye	2.91	61	P	Pn	21 23 42.8	+2.5
FETY				S	Sn	21 24 17.4	+2.5
SABU	Mula-Dalaman	2.92	57	P	Pn	21 23 41.7	+1.3
SABU				S	Sn	21 24 13.4	-1.8
IZZE	Mula-Seydike	2.93	65	P	Pn	21 23 42.0	+1.5
IZZE				S	Sn	21 24 12.1	-3.3
ZEYE	Izmir, Urla-Ze	3.02	9	P	Pn	21 23 39.8	-1.9
KARY	Karystos	3.02	337	P	Pn	21 23 41.6	-0.1
VLY	Voula,Athens	3.11	327	P	Pn	21 23 43.6	+0.7
VLY				AML	AML		
CHOS	Chios island	3.13	2	P	Pn	21 23 43.0	-0.2
AKAS	Kas	3.15	71	P	Pn	21 23 45.7	+2.1
AKAS				S	Sn	21 24 16.9	-4.1
AKAS	Kas	3.15	71		Pn	21 23 46.2	+2.5
ESEN	Aydn-Nazilli	3.20	37	P	Pn	21 23 44.4	+0.2
ATHU	Athens Univers	3.21	328	P	Pn	21 23 44.7	+0.4
DION	Dionisos Attik	3.24	331	P	Pn	21 23 44.9	+0.2
DION				AML	AML		
ATH	Athens Observa	3.24	327	P	Pn	21 23 45.1	+0.3
ATH				AML	AML		
PTL	Penteli	3.24	330	P	Pn	21 23 45.4	+0.6
PTL				AML	AML		
BLCB	Balcova	3.25	16	P	Pn	21 23 44.6	-0.3
TAVA	DENIZLI_Tavas	3.27	47	P	Pn	21 23 47.2	+1.9
TAVA				S	Sn	21 24 21.4	-2.4
IZMR	zmir-demi	3.31	29	P	Pn	21 23 45.5	-0.2
CAEL	Denizli, Camel	3.32	55	P	Pn	21 23 45.3	-0.6
CAEL				S	Sn	21 24 24.2	-1.0
KNIK	Mula-Seydike	3.36	61	P	Pn	21 23 48.6	+2.1
KNIK				S	Sn	21 24 23.0	-3.0
KARB	zmir-Karabur	3.43	6	P	Pn	21 23 46.8	-0.5
DNIZ	Denizli-Tavas-	3.45	46	P	Pn	21 23 49.4	+1.6
BAGT	Foa	3.48	12	P	Pn	21 23 47.6	-0.4
STFN	Stefani	3.49	327	P	Pn	21 23 48.6	+0.4
STFN				AML	AML		
GOLH	Golhisar	3.54	55	P	Pn	21 23 50.8	+1.8
GOLH				S	Sn	21 24 29.1	-1.5
KIRA	zmir-Kiraz	3.55	33	P	Pn	21 23 50.7	+1.6
VLX	Vlachokerasia	3.56	307	P	Pn	21 23 49.8	+0.6
ELL	Elmali	3.56	64		Pn	21 23 51.2	+2.0
VILL	Villia	3.58	325	P	Pn	21 23 50.9	+1.4
SULTU	Buldan	3.61	38	P	Pn	21 23 52.1	+2.1
SULTU				S	Sn	21 24 30.8	-1.5
LTK	Loutraki	3.65	320	P	Pn	21 23 51.5	+1.2
LTK				AML	AML		
CAMT	Merkez	3.66	17	P	Pn	21 23 50.3	-0.2
CAMT				S	Sn	21 24 27.4	-5.9
KYMI	Kymi, Euboea I	3.67	337	P	Pn	21 23 50.8	0.0
AKUM	Antalya-Kumluc	3.75	72	P	Pn	21 23 54.3	+2.6
AKUM				S	Sn	21 24 32.3	-3.1
ITM	Ithomi	3.76	302	P	Pn	21 23 53.6	+1.8
ITM				AML	AML		
ITM	Ithomi	3.76	302		Pn	21 23 53.0	+1.2
ZEDA	zmir-Bergama	3.82	14	P	Pn	21 23 52.1	-0.6
INCE	Denizli-Bozkur	3.83	49	P	Pn	21 23 54.6	+1.6
INCE				S	Sn	21 24 34.0	-3.6
KTTT	Salihli	3.84	26	P	Pn	21 23 52.6	-0.4
HARTU	Esme	3.85	36	P	Pn	21 23 54.4	+1.2
HARTU				S	Sn	21 24 31.3	-6.8
MANT	Manisa	3.86	32	P	Pn	21 23 55.2	+1.7
MANT	Manisa	3.86	32		Pn	21 23 55.2	+1.7
GUR	Goura	3.93	314	P	Pn	21 23 54.9	+0.6
KORT	Korkueli	3.99	63	P	Pn	21 23 58.1	+3.0
KORT				S	Sn	21 24 36.9	-4.7
PRK	Paraskevi	4.00	4	P	Pn	21 23 55.1	0.0
BRDR	BURDUR-Merkez	4.13	53	P	Pn	21 23 58.6	+1.5
PASA	Karahalli, USA	4.21	42	P	Pn	21 23 59.6	+1.5
AOS	Alonnisos	4.24	338	P	Pn	21 23 58.8	+0.3
USAK	Uak-Merkez	4.25	35	P	Pn	21 23 59.6	+0.9
BUCA	Burdur, Bucak-	4.28	60	P	Pn	21 24 02.4	+3.3
DEMI	Demirci	4.39	30	P	Pn	21 24 02.2	+1.6
ALN	Alexandroupoli	5.63	1	Pn	Pn	21 24 18.0	+0.4
BORA	Eskisehir	5.85	37	Pn	Pn	21 24 22.1	+1.3
CSS	Mathiatis	6.08	91		Pn	21 24 24.0	+0.2
CSS	Mathiatis	6.08	91	P	Pn	21 24 24.2	+0.4
	0.1nm0.1nm11nm,0.5s						
CSS				AML	AML		
CSS				AML	AML		
CSS	Mathiatis	6.08	91	P	Pn	21 24 24.8	+1.0
CSS				S	Sn	21 25 32.1	-0.9
KEK	Kerkira	6.60	314	Pn	Pn	21 24 28.9	-1.9
BRTR	Keskin Array B	7.58	52	Pn	Pn	21 24 46.8	+2.2
	0.2nm,0.3s,baz=220,slow=15,SNR=6.2						
BRTR				LR	LR	21 28 36.3	
	comp=Z,21nm,21.1s,baz=188,slow=45						
	0.6nm,0.5s						
BRTR				AML	AML		
BRTR	Keskin Array B	7.58	52	Pn	Pn	21 24 46.6	+2.1
MMA0B	Mount Meron ar	8.17	103	P	Pn	21 24 53.2	+0.7
MMA0B				S	Sn	21 26 22.1	-2.5
MMAI	Mount Meron Ar	8.17	103	Pn	Pn	21 24 53.3	+0.7
	1.2nm,0.2s,baz=303,slow=11,SNR=13						
MMAI				Sn	Sn	21 26 20.5	-4.1
	5.0nm,0.3s,baz=314,slow=28,SNR=6.9						
QRWL	Qaraoun	8.24	99	*e*P	Pn	21 24 53.0	-0.5
TIP	Timpagrande	8.29	301		Pn	21 24 53.2	-0.9
HWQ	Hawqa	8.31	94	*e*P	Pn	21 24 54.6	+0.2
GEM	Giv'at Ha'Em	8.32	101	P	Pn	21 24 55.2	+0.6
GEM				S	Sn	21 26 26.1	-2.0
KZIT	Kziot	8.33	119	P	Pn	21 24 53.8	-0.8
	26nm,0.8s						
KZIT	Kziot	8.33	119	P	Pn	21 24 54.0	-0.6
KZIT				S	Sn	21 26 23.6	-4.7
SHBL	Chebaa	8.35	100	*e*P	Pn	21 24 54.0	-1.0
SALP	Salfit	8.35	110	P	Pn	21 24 55.1	+0.1
	20nm,0.5s						
RCY	Rachaya	8.38	99	*e*P	Pn	21 24 54.3	-1.2
AMAZ	Amatzia	8.38	114	P	Pn	21 24 55.4	-0.1
AMAZ				S	Sn	21 26 25.1	-4.6
MMLI	Mount Malkishu	8.39	107	P	Pn	21 24 56.1	+0.7
MMLI				S	Sn	21 26 26.4	-3.4
ILGA	Ilgaz	8.44	44	Pn	Pn	21 24 56.5	+0.2
BEIL	Beino	8.46	92	*e*P	Pn	21 24 56.2	-0.3
ROII	Roi	8.51	108	P	Pn	21 24 57.4	+0.3
ROII				S	Sn	21 26 28.9	-3.9
QRNJ	Al-Qirein	8.54	107	P	Pn	21 24 58.1	+0.5
	26µm731nm,0.6s						
YITV	Yitav	8.58	110	P	Pn	21 24 58.0	-0.1
YITV				S	Sn	21 26 30.9	-3.7
CEL	Celeste	8.59	293	Pn	Pn	21 24 57.8	-0.4
UJAP	Al Uja	8.61	110	P	Pn	21 25 00.6	+2.1
	16nm,0.5s						
UJAP	Al Uja	8.61	110	P	Pn	21 24 58.8	+0.3
ALMO	Almog	8.68	111	P	Pn	21 24 59.4	0.0
ALMO				S	Sn	21 26 33.4	-3.6
BNN	Bunyan	8.71	63	Pn	Pn	21 25 01.9	+1.9
MZS	Mizpe Shalem	8.73	112	P	Pn	21 25 00.2	+0.1
MZS				S	Sn	21 26 33.9	-4.4
RMNI	Mount Ramon	8.76	120	P	Pn	21 25 00.1	-0.6
RMNI				S	Sn	21 26 34.1	-5.0
MSBI	Mazada	8.82	114	P	Pn	21 25 00.6	-0.8
	4.3nm,1.0s						
MSBI	Mazada	8.82	114	P	Pn	21 25 00.8	-0.5
MSBI				S	Sn	21 26 36.6	-3.8
PDG	Podgorica	8.85	326	Pn	Pn	21 25 01.8	+0.1
GHAJ	Ghor Haditha	8.98	113		Pn	21 25 04.5	+0.9
GHAJ	Ghor Haditha	8.98	113	P	Pn	21 25 05.5	+1.9
GHAJ	Ghor Haditha	8.98	113	P	Pn	21 25 03.9	+0.3
GHAJ				S	Sn	21 26 40.1	-4.2
PRNI	Paran	9.07	120	P	Pn	21 25 04.0	-0.9
	26nm,0.6s						
ZFRI	Zfri	9.08	118	P	Pn	21 25 04.0	-1.0
ZFRI				S	Sn	21 26 41.4	-5.4
HRFI	Mount Harif	9.28	122	P	Pn	21 25 07.2	-0.5
	13nm,0.4s						
HRFI	Mount Harif	9.28	122	P	Pn	21 25 07.0	-0.6
HRFI				S	Sn	21 26 46.6	-5.1
CUC	Castrocucco	9.31	304		Pn	21 25 07.4	-0.7
WDD	Wied Dalam	9.31	277	Pn	Pn	21 25 08.0	-0.1
EIL	Elat	9.44	124	Pn	Pn	21 25 09.1	-0.8
	1.1nm,0.3s,baz=317,slow=4.4,SNR=24						
EIL				Sn	Sn	21 26 48.9	-6.8
	1.9nm,0.3s,baz=285,slow=12,SNR=5.6						
	2.6nm,0.3s						
EIL				AML	AML		
EIL	Elat	9.44	124	P	Pn	21 25 09.2	-0.7
EIL				S	Sn	21 26 49.6	-6.0
RAFF	Raffo Rosso	9.54	285		Pn	21 25 11.8	+0.5
VAE	Valguarnera	9.54	287	Pn	Pn	21 25 11.2	-0.1
	3.5nm,0.8s,baz=44,slow=21,SNR=1.5						
VAE				Sn	Sn	21 26 54.1	-4.2
	0.6nm,0.3s,baz=0.0,slow=15,SNR=2.1						
ASF	Jabal al Asfar	9.64	105	Pn	Pn	21 25 12.8	0.0
	0.3nm,0.3s,baz=292,slow=19,SNR=2.3						
ASF				Sn	Sn	21 26 55.2	-5.6
	0.2nm,0.3s,baz=296,slow=23,SNR=1.9						
	1.4nm,0.6s						
ASF				AML	AML		
MLR	Muntele Rosu	10.23	0	Pn	Pn	21 25 21.8	+1.1
	6.9nm,1.3s,baz=90,slow=23,SNR=3.6						
SGRT	San Giovanni R	10.28	312	Pn	Pn	21 25 18.3	-3.1
INTR	Introdacqua	11.56	309	Pn	Pn	21 25 39.4	+0.4
NRCA	Norcia	12.50	311	Pn	Pn	21 25 51.5	-0.2
KEST	Kesra	13.52	277	Pn	Pn	21 26 05.3	-0.5
	baz=45,slow=5.7,SNR=1.6						
	1.9nm,1.0s						
KIV	Kislovodsk	15.55	51	Pn	P	21 26 36.0	-1.4
KBZ	Khabaz	15.58	52	Pn	P	21 26 36.0	-1.6
	0.1nm,0.3s,baz=255,slow=9.3,SNR=12						
	1.6nm,0.8s						
KBZ				AML	AML		
KIEV	Kiev	15.62	8		P	21 26 36.8	-1.1
KIEV				IAmb	IAmb	21 26 41.6	
	comp=Z,6.7nm,0.8s						
AKASG	Malin Array Be	15.62	8	Pn	Pn	21 26 35.8	+1.8
	comp=Z,0.7nm,0.3s,baz=198,slow=11,SNR=8.7						
AKASG	Malin Array Be	15.62	8	Pn	Pn	21 26 35.6	+1.6
AKBB	Malin Array Si	15.62	8		P	21 26 36.3	-1.8
AKBB				IAmb	IAmb	21 26 41.6	
	comp=Z,8.0nm,0.8s						
GERES	GERESS Array B	16.30	330	Pn	Pn	21 26 43.8	+1.0
	baz=144,slow=11,SNR=6.9						
	comp=Z,1.0nm,0.5s						
GERES	GERESS Array B	16.30	330		Pn	21 26 43.4	+0.6
KHC	Kasperske Hory	16.58	331	Pn	Pn	21 26 46.0	-0.2
SENIN	Lac Senin/Sane	17.89	314	P	P	21 27 04.2	+0.7
PABE	Paberze	20.30	357	P	Pn	21 27 30.7	-0.8
PABE				IAmb	IAmb	21 27 33.5	
	comp=Z,13nm,1.0s						
CEST	Esterri de Car	20.50	298	P	P	21 27 30.6	-1.3
CEST				IAmb	IAmb	21 27 41.7	
	comp=Z,15nm,1.2s						
ESBB	Sonseca Array	24.07	289	P	P	21 28 09.3	+0.1
ESBB				IAmb	IAmb	21 28 20.3	
	comp=Z,4.0nm,1.1s						
ESDC	Sonseca Array	24.07	289	P	P	21 28 09.0	-0.2
	comp=Z,0.5nm,0.5s,baz=78,slow=9.4,SNR=6.6						
	comp=Z,0.5nm,0.5s						
ESDC	Sonseca Array	24.07	289	P	P	21 28 09.7	+0.5
PAB	San Pablo	24.37	289	P	P	21 28 12.4	+0.5
PAB				IAmb	IAmb	21 28 25.1	
	comp=Z,8.0nm,1.1s						
FINES	FINESS Array B	26.21	0	P	P	21 28 28.0	-0.3
	comp=Z,0.6nm,0.6s,baz=189,slow=9.2,SNR=2.2						
	comp=Z,0.6nm,0.6s						
FINES	FINESS Array B	26.21	0	P	P	21 28 28.1	-0.2
EKA	Eskdalemuir Ar	28.33	324	P	P	21 28 48.6	+1.3
	comp=Z,0.9nm,0.5s,baz=122,slow=9.9,SNR=5.0						
	comp=Z,0.9nm,0.5s						
ESK	Eskdalemuir	28.34	324	P	P	21 28 47.8	+0.4
ESK				IAmb	IAmb	21 28 58.8	
	comp=Z,3.0nm,0.9s						
AB31	Akbulak array	28.53	50	P	P	21 28 49.7	+0.4
ABKAR	Akbulak array	28.53	50	P	P	21 28 51.3	+2.1
TORD	Torodi Ar. Bea	31.03	231	P	P	21 29 12.6	+1.0
	comp=Z,2.3nm,0.6s,baz=32,slow=8.6,SNR=24						
	comp=Z,2.3nm,0.6s						
ARCES	ARCESS Array B	34.34	360	P	P	21 29 41.1	+1.1
	comp=Z,1.9nm,0.8s,baz=145,slow=7.2,SNR=3.7						
	comp=Z,1.9nm,0.8s						
KKAR	Karatay Array	35.10	63	P	P	21 29 49.0	+2.0
DBIC	Dimbokro	40.11	232	P	P	21 30 29.5	-0.2
KURBB	Kurchatov Arra	40.58	51	P	P	21 30 33.6	+0.5
	comp=Z,2.4nm,0.6s,baz=275,slow=8.7,SNR=10.0						
	comp=Z,2.4nm,0.6s						
KURK	Kurchatov	40.64	51	P	P	21 30 34.3	+0.7
KURK				IAmb	IAmb	21 30 37.7	
	comp=Z,2.8nm,0.7s						
MAKZ	Makanchi	42.99	57	P	P	21 30 53.5	+0.6
MAKZ				IAmb	IAmb	21 31 02.8	
	comp=Z,4.7nm,1.0s						
MK31	Makanchi Array	43.20	57	P	P	21 30 55.4	+0.7
MK31				IAmb	IAmb	21 30 59.9	
	comp=Z,2.0nm,0.6s						
MKAR	Makanchi Array	43.20	57	P	P	21 30 55.4	+0.7
	comp=Z,1.4nm,0.3s,baz=269,slow=8.0,SNR=22						
	comp=Z,1.4nm,0.3s						
MKAR	Makanchi Array	43.20	57	P	P	21 30 55.6	+0.9
ZALV	Zalesovo Beam	44.49	46	P	P	21 31 04.2	-0.7
	comp=Z,1.0nm,0.4s,baz=261,slow=9.1,SNR=4.6						
	comp=Z,1.0nm,0.4s						
LPHEP	Lephephe	58.30	180	P	P	21 32 49.7	+1.1
LPHEP				IAmb	IAmb	21 32 51.0	
	comp=Z,3.0nm,0.9s						
SONM	Songino Array	58.94	51	P	P	21 32 54.9	+1.8
	comp=Z,0.2nm,0.3s,baz=324,slow=9.3,SNR=3.5						
	comp=Z,0.2nm,0.3s						
SONM	Songino Array	58.94	51	P	P	21 32 54.8	+1.8
ULN	Ulaanbaatar	59.35	51	P	P	21 32 58.9	+2.9
ULN				IAmb	IAmb	21 33 17.4	
	comp=Z,1.3nm,0.8s						
POGA	Pongola	62.50	174	P	P	21 33 17.8	+0.6
CMAR	Chiang Mai Arr	65.94	84	P	P	21 33 39.6	-0.6
	comp=Z,0.3nm,0.2s,baz=291,slow=7.1,SNR=4.7						
	comp=Z,0.3nm,0.2s						
D62A	Allapoint, All	68.22	313	P	P	21 33 55.3	+1.1
F64A	Sherman	68.38	311	P	P	21 33 56.0	+0.8
ASAR	Alice Springs	117.45	101	PKP	PKPdf	21 41 39.7	-0.1
	comp=Z,0.3nm,0.6s,baz=336,slow=2.5,SNR=1.9						
QSPA	South Pole Qui	125.11	180	PKP	PKiKP	21 41 53.9	+0.4
	comp=Z,0.8nm,0.7s,baz=170,slow=1.1,SNR=2.2						

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*CATAC **24** 21:26:51.8±0.5, 7°N±2°×7°3W±°, h161^{km}±5^{km}, M4.2/8, mb4.3/2, MLv4.2/8, Error ellipse: s-maj=7.6km s-min=4.8km az=110.8, confirmed*

*RSNC **24** 21:26:53.8±0.0, 7°N±1°×7°3W±°, h149^{km}±2^{km}, M3.9, mB5.0, mb4.3, ML3.4, Mw(mB)4.3*

*FUNV **24** 21:26:55.5, 7°.12N×73°.12W, h20^{km}, MW4.0, Presumed*

earthquake

ISC 24 21:26:51.0±1.3**, 6°.87N**±0°.03×**73°.14W**±0°.04**, h161**^{km}±9^{km}**,** **n44,** σ1ˢ.98/86**, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BARC	Barichara	0.28	189	P	Pn	21 27 14.0	+0.8
BARC				S	Sn	21 27 29.2	-0.9
BRJC	Barrancabermej	0.61	280	P	Pn	21 27 15.7	+1.5
BRJC				S	Sn	21 27 32.3	+0.4
PAMC	Pamplona, Colo	0.64	43	P	Pn	21 27 16.9	+1.9
PAMC				S	Sn	21 27 34.0	+0.7
RUSC	La Rusia	0.97	177	P	Pn	21 27 17.9	+0.7
RUSC				S	Sn	21 27 36.5	-0.8
RUSC	La Rusia	0.97	177	*e*P	Pn	21 27 17.9	+0.7
RUSC				*e*S	Sn	21 27 33.7	-3.5
RUSC	La Rusia	0.97	177	P	Pn	21 27 17.9	+0.7
RUSC				S	Sn	21 27 37.0	-0.2
PTBC	PUERTO BERRIO,	1.35	256	P	Pn	21 27 20.3	+0.3
PTBC				S	Sn	21 27 40.9	-1.3
OCAC	Ocana	1.38	353	P	Pn	21 27 22.1	+1.7
OCAC				S	Sn	21 27 44.0	+0.9
TAMC	Tame, Arauca	1.40	108	P	Pn	21 27 22.4	+1.9
TAMC				S	Sn	21 27 44.0	+0.8
SPBC	San Pablo de B	1.52	218	P	Pn	21 27 22.7	+0.9
SPBC				S	Sn	21 27 44.4	-1.1
NORC	Norcasia	2.15	233	P	Pn	21 27 29.5	+0.8
NORC				S	Sn	21 27 57.0	-0.7
CHIC	Chingaza	2.30	195	P	Pn	21 27 31.8	+1.1
CHIC				S	Sn	21 28 01.0	-0.4
ROSC	El Rosal	2.33	210	P	Pn	21 27 33.5	+2.4
ROSC				S	Sn	21 28 01.7	-0.3
HELC	Santa Helena	2.47	254	P	Pn	21 27 34.8	+2.1
HELC				S	Sn	21 28 03.4	-1.4
HELC	Santa Helena	2.47	254	*e*P	Pn	21 27 35.0	+2.4
HELC				*e*S	Sn	21 28 05.3	+0.5
CVER	Cruz Verde, Cu	2.51	202	P	Pn	21 27 35.4	+2.1
CVER				S	Sn	21 28 05.4	-0.6
UREC	San Jos de Ur	2.53	290	P	Pn	21 27 33.7	+0.6
UREC				S	Sn	21 28 04.7	-1.0
GUY2C	Guyana, Caldas	2.75	234	P	Pn	21 27 37.8	+1.6
GUY2C				S	Sn	21 28 10.7	-0.5
VILC	Villavicencio,	2.79	191	P	Pn	21 27 37.2	+0.8
VILC				S	Sn	21 28 11.1	-0.5
CBOC	Ciudad Bolivar	3.02	251	P	Pn	21 27 41.9	+2.6
CBOC				S	Sn	21 28 16.2	-0.6
ARGC	Ariguani, Magd	3.17	340	P	Pn	21 27 43.9	+2.9
ARGC				S	Sn	21 28 21.0	+1.2
SDV	Santo Domingo	3.19	51	P	Pn	21 27 43.6	+2.2
SDV				S	Sn	21 28 20.2	-0.4
SDV	Santo Domingo	3.19	51	*e*P	Pn	21 27 41.8	+0.4
SDV				*e*S	Sn	21 28 15.9	-4.7
APAC	Apartado, Choc	3.56	287	P	Pn	21 27 47.8	+1.8
APAC				S	Sn	21 28 27.8	-0.9
PRAC	Prado	3.58	209	P	Pn	21 27 46.9	+0.6
PRAC				S	Sn	21 28 29.3	0.0
PRAC	Prado	3.58	209	P	Pn	21 27 47.6	+1.3
PRAC				S	Sn	21 28 30.4	+1.1
ORTC	Ortega, Tolima	3.61	216	P	Pn	21 27 48.1	+1.5
ORTC				S	Sn	21 28 29.7	-0.2
SJCC	San Jacinto, C	3.63	326	P	Pn	21 27 47.6	+0.8
SJCC				S	Sn	21 28 29.1	-1.2
SJCC	San Jacinto, C	3.63	326	*e*P	Pn	21 27 47.7	+0.9
SJCC				*e*S	Sn	21 28 24.8	-5.5
SJCC	San Jacinto, C	3.63	326	P	Pn	21 27 47.5	+0.6
SJCC				S	Sn	21 28 30.1	-0.3
LCBC	Los crdobas,	3.76	302	P	Pn	21 27 49.8	+1.3
LCBC				S	Sn	21 28 34.7	+1.4
PIZC	Pizarro, Choco	4.60	246	P	Pn	21 28 02.1	+2.6
PIZC				S	Sn	21 28 48.5	-4.4
MACC	Macarena, Meta	4.74	189	P	Pn	21 28 01.4	+0.1
MACC				S	Sn	21 28 52.2	-4.1
BETC	Betania	4.75	209	P	Pn	21 28 02.4	+1.0
BETC				S	Sn	21 28 54.7	-1.7
URI	Uribia	4.94	13	P	Pn	21 28 04.0	+0.2
URIC	Uribia, Colomb	4.94	13	P	Pn	21 28 04.3	+0.5
	27nm,0.4s						
URIC				S	Sn	21 28 59.1	-1.7
	27nm,0.4s						
URIC				AML	AML		
URIC	Uribia, Colomb	4.94	13	*e*P	Pn	21 28 04.4	+0.5
URIC				*e*S	Sn	21 28 54.7	-6.0
GARC	Garzon, Huila	5.21	207	P	Pn	21 28 07.7	+0.1
GARC				S	Sn	21 29 02.2	-5.3
GARC				AML	AML		
POPC	Popayan, Colom	5.56	220	P	Pn	21 28 13.7	+1.4
	24nm,0.7s						
POPC				S	Sn	21 29 15.3	-0.5
	24nm,0.7s						
POPC				AML	AML		
BENV	Beln	6.29	60	*e*P	Pn	21 28 22.4	+0.7
BENV				*e*S	Sn	21 29 28.7	-4.1
BBAC	Balboa, Cauca	6.32	221	P	Pn	21 28 25.2	+2.9
	976nm23nm,0.4s						
BBAC				S	Sn	21 29 33.4	-0.5
	976nm23nm,0.4s						
TACV	Tcata	6.86	61	*e*P	Pn	21 28 29.9	+0.5
TACV				*e*S	Sn	21 29 42.3	-4.4
BCIP	Isla Barro Col	7.02	289	P	Pn	21 28 31.6	+0.2
BCIP				S	Sn	21 29 48.6	-1.7
BCIP	Isla Barro Col	7.02	289	P	Pn	21 28 31.0	-0.4

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*KRNET **24** 21:30:47.5±0.1, 41°.85N×72°.63E, h23^{km}, mb2.5*

*SOME **24** 21:30:47.2, 41°.83N×72°.65E, h15^{km}*

*NNC **24** 21:30:48.5±0.6, 41°.92N×72°.64E, h10^{km}±4^{km}, mb2.6, mpv2.6, Error ellipse: s-maj=5.7km s-min=2.1km az=163.0*

ISC 24 21:30:47.3±1.0**, 41°.85N**±0°.03×**72°.63E**±0°.02**, h13**^{km}±10^{km}**,** **n20,** σ0ˢ.86/35**, 12C-10D, Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ARK	Arkit	0.50	264	⇑*i*P	Pg	21 30 57.3	+0.2
ARK				⇑*i*S	Sg	21 31 04.7	+0.9
ARSB	Arslanbob	0.59	153	⇑*i*P	Pg	21 30 58.7	-0.2
ARSB				⇑*i*S	Sg	21 31 07.1	+0.4
MRKS	Merke	1.00	26	P	Pb	21 31 06.5	0.0
	1.5nm,0.1s						
MRKS				S	Sn	21 31 20.4	-0.8
	20nm,0.1s						
MRKS	Merke	1.00	26	*e*P	Pb	21 31 06.5	0.0
	1.5nm,0.1s						
MRKS				*e*S	Sn	21 31 20.4	-0.8
	20nm,0.1s						
TRKS	Terek-Say	1.16	254	⇑*i*P	Pn	21 31 09.0	-0.4
TRKS				⇑*i*S	Sb	21 31 24.5	+0.2
EKS2	Erkin-Say	1.18	46	⇓*i*P	Pn	21 31 09.3	-0.3
EKS2				⇓*i*S	Sg	21 31 25.4	+0.1
SALK	Salom-Alik	1.32	137	⇓*e*P	Pb	21 31 12.0	-0.1
SALK				⇓*e*S	Sg	21 31 30.0	+0.1
AAK	Ala-Archa	1.59	60	⇑P	Pb	21 31 16.4	-0.3
	1.2nm,0.8s						
AAK				⇓S	Sb	21 31 36.8	0.0
	9.9nm,1.3s						
AAK	Ala-Archa	1.59	60	⇑*i*P	Pb	21 31 16.7	0.0
AAK				⇑*i*S	Sg	21 31 37.8	-0.8
SFK	Sufi-Kurgan	1.95	160	⇑*i*P	Pb	21 31 21.8	-1.1
SFK				⇑*i*S	Sb	21 31 46.9	-0.4
IUG	Iuzhnay	1.96	280	Pg	Pg	21 31 24.3	-0.5
	4.3nm,0.2s						
IUG				Lg	Lg	21 31 51.1	
	27nm,0.3s						
IUG	Iuzhnay	1.96	280	*e*P	Pg	21 31 24.3	-0.5
	4.3nm,0.2s						
IUG				*e*S	Sg	21 31 51.1	+0.8
	27nm,0.3s						
USP	Ospenovka	1.98	44	⇓*i*P	Pb	21 31 22.1	-1.1
USP				⇓*i*S	Sb	21 31 47.3	-0.5
KK31	Karatay Array	2.00	309	⇑Pg	Pb	21 31 24.2	+0.6
	0.6nm,0.3s,baz=121,slow=17,SNR=7.8						
KK31				⇓Lg	Lg	21 31 51.1	
	0.8nm,0.2s,baz=121,slow=28,SNR=9.2						
SGDS	Sogindy	2.18	42	Pg	Pb	21 31 27.3	+0.7
	1.0nm,0.2s						
SGDS				Lg	Lg	21 31 55.9	
	3.5nm,0.3s						
BRLS	Borolday	2.38	301	Pg	Pg	21 31 31.8	-1.0
	0.5nm,0.1s						
BRLS				Lg	Lg	21 32 03.7	
	4.0nm,0.3s						
BRLS	Borolday	2.38	301	*e*P	Pg	21 31 31.8	-1.0
	0.5nm,0.1s						

BRLS	4.0nm,0.3s			*e*S	**Sg**	**21 32 03.8**	**+0.1**
TKM2	**Tokmak 2**	**2.44**	**63**	⇓*i*P	**Pn**	**21 31 28.8**	**+1.7**
TKM2				⇓*i*S	**Sn**	**21 31 58.7**	**+1.7**
KST	**Kastek** 0.6nm,0.1s	**2.74**	**63**	Pg	**Pb**	**21 31 38.0**	**+1.7**
KST	4.7nm,0.3s			Lg	Lg	21 32 14.2	
KST	**Kastek** 0.6nm,0.1s	**2.74**	**63**	*e*P	**Pb**	**21 31 38.0**	**+1.7**
KST	4.7nm,0.3s			*e*S	**Sg**	**21 32 14.2**	**-1.1**

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*IDC **24** 21:57:09.2±1.4, 6°.77S×128°.53E, h170^{km}±17^{km}, mb3.3/2, mbtmp4.0/7, Error ellipse: s-maj=25.5km s-min=12.7km az=119.0*

ISC 24 21:57:07.8±0.9**, 6°.95S**±0°.06×**128°.76E**±0°.10**, h150**^{km}**, n7, σ2^{s}.66**/12**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BATI	**Baumata** 15nm,0.3s,baz=68,slow=11,SNR=4.4	**5.99**	**237**	P	**Pn**	**21 58 35.5**	**+1.0**
BATI	48nm,0.6s,baz=318,slow=23,SNR=10			S	**Sn**	**21 59 41.9**	**-0.3**
SIJI	**Sorong** 2.9nm,0.2s,baz=224,slow=22,SNR=20	**6.54**	**23**	P	**Pn**	**21 58 44.1**	**+2.5**
SIJI	4.6nm,0.3s,baz=242,slow=23,SNR=7.3			S	**Sn**	**21 59 54.5**	**-0.8**
FITZ	**Fitzroy Crossi** 1.0nm,0.3s,baz=19,slow=14,SNR=15	**11.49**	**195**	P	**Pn**	**21 59 50.6**	**+3.1**
FITZ	1.8nm,0.3s,baz=304,slow=23,SNR=6.5			S	**Sn**	**22 01 53.6**	**-0.9**
WRA	**Warramunga Arr** 0.2nm,0.3s,baz=338,slow=13,SNR=18	**14.00**	**158**	P	**Pn**	**22 00 21.8**	**+2.0**
WRA	0.7nm,0.5s,baz=323,slow=25,SNR=5.8			S	**Sn**	**22 02 51.2**	**-3.9**
ASAR	**Alice Springs** 13nm,0.3s,baz=338,slow=11,SNR=5.1	**17.34**	**164**	P	**Pn**	**22 01 03.2**	**+2.4**
ASAR	0.3nm,0.6s,baz=319,slow=20,SNR=1.8			S	**S**	**22 04 12.1**	**-0.9**
MKAR	**Makanchi Array** 0.6nm,0.6s,baz=137,slow=5.7,SNR=7.1 0.6nm,0.6s	**67.52**	**327**	P	**P**	**22 07 46.3**	**-1.5**
KURBB	**Kurchatov Arra** 0.4nm,0.5s,baz=115,slow=5.3,SNR=4.2 0.4nm,0.5s	**71.83**	**329**	P	**P**	**22 08 09.9**	**-4.2**

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*CATAC **24** 22:32:02.8±0.7, 13°N±3°×9°0W±°, h9^{km}±3^{km}, M3.3/13, MLv3.3/13, Error ellipse: s-maj=7.3km s-min=5.9km az=31.4, confirmed*

*SNET **24** 22:32:04.0±1.3, 13°.12N×90°.01W, h14^{km}, ML3.3, Presumed earthquake*

*GCG **24** 22:32:04.2±0.7, 13°.19N×90°.08W, h12^{km}±18^{km}, MD4.0, Presumed earthquake*

ISC 24 22:32:02.5±2.5**, 13°.06N**±0°.09×**90°.03W**±0°.07**, h11**^{km}±10^{km}**, n31, σ0^{s}.55**/49**, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FAME	**Alcaldia de Sa**	**0.78**	**1**	P	**Pg**	**22 32 17.6**	**+0.1**
FAME				S	**Sb**	**22 32 28.2**	**-0.3**
LALI	**Alcalda de L**	**0.81**	**58**	P	**Pg**	**22 32 18.8**	**+0.7**
LALI				S	**Sg**	**22 32 29.2**	**+0.6**
JAYA	**Jayaque - finc**	**0.81**	**44**	*i* P	**Pg**	**22 32 18.6**	**+0.4**
JAYA				*i* S	**Sg**	**22 32 29.2**	**+0.3**
JAYA	**Jayaque - finc**	**0.81**	**44**	*e*P	**Pg**	**22 32 18.6**	**+0.4**
JAYA				*e*S	**Sb**	**22 32 29.5**	**-0.3**
JAYA	**Jayaque - finc**	**0.81**	**44**	P	**Pg**	**22 32 18.7**	**+0.4**
JAYA				S	**Sb**	**22 32 29.5**	**-0.3**
CEVE	**Cerro Verde**	**0.86**	**27**	*e*P	**Pg**	**22 32 19.4**	**+0.4**
CEVE	**Cerro Verde**	**0.86**	**27**	P	**Pb**	**22 32 19.9**	**+0.5**
CEVE				S	**Sb**	**22 32 31.5**	**+0.4**
SBLS	**San Blas**	**0.87**	**27**	*e*P	**Pg**	**22 32 19.3**	**+0.1**
NUBE	**Las Nubes**	**0.87**	**16**	*i* P	**Pg**	**22 32 19.2**	**-0.2**
NUBE				*i* S	**Sg**	**22 32 30.5**	**-0.2**
NUBE	**Las Nubes**	**0.87**	**16**	*e*P	**Pg**	**22 32 19.0**	**-0.3**
NUBE				*e*S	**Sb**	**22 32 30.8**	**-0.5**
NUBE	**Las Nubes**	**0.87**	**16**	P	**Pg**	**22 32 19.1**	**-0.2**
NUBE				S	**Sb**	**22 32 31.0**	**-0.4**
SNJE	**San Jose**	**0.90**	**27**	*e*P	**Pg**	**22 32 20.1**	**+0.3**
PMON	**Piamonte**	**0.95**	**47**	P	**Pg**	**22 32 20.9**	**+0.1**
PMON				S	**Sb**	**22 32 34.3**	**+0.8**
LOAL	**Lomas de Alarc**	**0.96**	**15**	*e*P	**Pb**	**22 32 21.9**	**+0.7**
LOAL	**Lomas de Alarc**	**0.96**	**15**	P	**Pg**	**22 32 21.0**	**0.0**
LOAL				S	**Sb**	**22 32 34.2**	**+0.3**
BOQS	**Boqueron**	**0.99**	**47**	*e*P	**Pg**	**22 32 21.6**	**0.0**
PANCS	**Alcalda de**	**0.99**	**57**	*e*P	**Pg**	**22 32 21.1**	**-0.4**
PANCS	**Alcalda de**	**0.99**	**57**	P	**Pg**	**22 32 21.2**	**-0.4**
LOMA	**Loma Larga**	**1.01**	**55**	P	**Pg**	**22 32 21.5**	**-0.5**
LOMA				S	**Sg**	**22 32 35.5**	**+0.2**
LFRS	**El Faro**	**1.09**	**59**	*e*P	**Pb**	**22 32 22.4**	**-1.0**
RBDL	**Robledal**	**1.09**	**18**	*e*P	**Pb**	**22 32 22.8**	**-0.7**
RBDL				*e*S	**Sb**	**22 32 38.1**	**+0.2**
SJTE	**Alcalda de S**	**1.14**	**61**	*e*P	**Pb**	**22 32 23.2**	**-0.9**
COEG	**Centro de Oper**	**1.25**	**64**	*e*P	**Pn**	**22 32 24.8**	**-1.1**
COEG	**Centro de Oper**	**1.25**	**64**	P	**Pn**	**22 32 25.1**	**-0.8**
COEG				S	**Sb**	**22 32 41.9**	**-0.3**
TECO	**Alcaldia de Te**	**1.30**	**69**	*e*P	**Pn**	**22 32 25.7**	**-0.9**
TECO	**Alcaldia de Te**	**1.30**	**69**	P	**Pn**	**22 32 25.8**	**-0.9**
TECO				S	**Sb**	**22 32 43.6**	**-0.1**
MTO3	**Montecristo**	**1.48**	**26**	*i* P	**Pn**	**22 32 28.8**	**-0.4**
MTO3	**Montecristo**	**1.48**	**26**	P	**Pn**	**22 32 28.7**	**-0.5**
MTO3				S	**Sn**	**22 32 48.6**	**0.0**
PACA	**Pacayal**	**1.71**	**76**	P	**Pn**	**22 32 32.7**	**+0.4**
PACA				S	**Sn**	**22 32 55.1**	**+0.9**
APG	**El Apazote**	**1.98**	**348**	*i* P	**Pn**	**22 32 36.0**	**-0.1**
CNCH	**Conchagua**	**2.15**	**84**	P	**Pn**	**22 32 38.9**	**+0.6**
CNCH				S	**Sn**	**22 33 06.2**	**+1.1**

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*SJA **24** 22:33:14.6±0.7, 24°.00S×66°.76W, h237^{km}±5^{km}, ML3.7, MW3.5*

*GUC **24** 22:33:17.5±0.6, 23°.80S×66°.80W, h208^{km}±9^{km}, ML4.0*

ISC 24 22:33:14.3±1.8**, 23°.97S**±0°.03×**66°.77W**±0°.05**, h233**^{km}±15^{km}**, n38, σ1^{s}.61**/61**, 8C-2D, Jujuy Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SALTA		**0.47**	**123**	*e*P	**Pn**	**22 33 46.3**	**+0.5**
SLA	**San Lorenzo**	**1.38**	**123**	*e*P	**Pn**	**22 33 51.3**	**+1.0**
SLA				*e*S	**S**	**22 34 18.4**	**-0.1**
SLA	**San Lorenzo**	**1.38**	**123**	⇓*e*P	**Pn**	**22 33 51.3**	**+1.0**
SLA				*e*S	**S**	**22 34 17.6**	**-0.9**
HJA	**Humahuaca**	**1.46**	**59**	*e*P	**Pn**	**22 33 51.7**	**+0.4**
AF01	**San Pedro de A**	**1.64**	**308**	*e*P	Pn	22 33 34.9	-18
AF01	comp=Z,212nm,0.5s			IAML		22 33 54.7	
AF01	**San Pedro de A**	**1.64**	**308**	*e*P	**Pn**	**22 33 54.2**	**+1.6**
YJA	**Yavi**	**2.13**	**33**	*e*P	**Pn**	**22 33 58.6**	**+1.4**
YJA				*e*S	**S**	**22 34 31.9**	**+1.2**
YJA	**Yavi**	**2.13**	**33**	*e*P	**Pn**	**22 33 57.3**	**+0.1**
FSA	**Cafayete**	**2.25**	**162**	*e*P	**Pn**	**22 33 59.1**	**+1.1**
FSA				*e*S	**S**	**22 34 31.2**	**-1.1**
PB06	**IPOC Station P**	**2.87**	**296**	*e*P	**Pn**	**22 34 05.8**	**+1.3**
PB06				*e*S	**S**	**22 34 43.4**	**-0.5**
PB06	**IPOC Station P**	**2.87**	**296**	⇑*i*P	**Pn**	**22 34 05.9**	**+1.4**
AHML	**Horco Molle**	**3.09**	**155**	*e*P	**Pn**	**22 34 05.7**	**-1.1**
AHML				*e*S	**S**	**22 34 45.3**	**-2.9**
PB09	**IPOC Station P**	**3.14**	**313**	*e*P	**Pn**	**22 34 09.2**	**+1.6**
PB09				*e*S	**S**	**22 34 49.1**	**-0.4**
PB09	comp=Z,89nm,0.2s			IAML		22 34 52.4	
PB09	**IPOC Station P**	**3.14**	**313**	⇑*e*P	**Pn**	**22 34 09.2**	**+1.6**
PB05	**IPOC Station P**	**3.34**	**289**	*e*P	**Pn**	**22 34 11.0**	**+1.2**
PB05				*e*S	**S**	**22 34 53.2**	**-0.2**
PB05	comp=Z,76nm,0.5s			IAML		22 34 56.2	
PB05	**IPOC Station P**	**3.34**	**289**	⇑*e*P	**Pn**	**22 34 10.9**	**+1.1**
PB05				*e*S	**S**	**22 34 51.1**	**-2.3**
PB05	comp=N,108nm,0.2s			IAML		22 34 54.9	
PB03	**IPOC Station P**	**3.35**	**304**	*e*P	**Pn**	**22 34 11.1**	**+1.1**
PB03				*e*S	**S**	**22 34 52.2**	**-1.5**
PB03	comp=Z,159nm,0.2s			IAML		22 34 55.0	
PB03	**IPOC Station P**	**3.35**	**304**	⇑*e*P	**Pn**	**22 34 11.0**	**+1.1**
PB03				*e*S	**S**	**22 34 51.2**	**-2.4**
AC02	**Maricunga**	**3.56**	**216**	*e*P	**Pn**	**22 34 15.0**	**+2.3**
AC02				*e*S	**S**	**22 34 58.1**	**-0.5**
AC02	**Maricunga**	**3.56**	**216**	⇓*e*P	**Pn**	**22 34 14.9**	**+2.3**
PB07	**IPOC Station P**	**3.64**	**307**	*e*P	**Pn**	**22 34 14.3**	**+0.9**
PB07				*e*S	**S**	**22 34 58.0**	**-1.8**
PB07	comp=Z,98nm,0.7s			IAML		22 35 04.9	
PB07	**IPOC Station P**	**3.64**	**307**	⇑*e*P	**Pn**	**22 34 14.2**	**+0.9**
PB07				*e*S	**S**	**22 34 57.2**	**-2.6**
PB07	comp=E,164nm,0.2s			IAML		22 34 59.3	
PB02	**IPOC Station P**	**3.91**	**312**	*e*P	**Pn**	**22 34 17.3**	**+0.8**
PB02				*e*S	**S**	**22 35 04.4**	**-1.1**
PB02	comp=Z,163nm,0.3s			IAML		22 35 08.5	
PB02	**IPOC Station P**	**3.91**	**312**	⇑*e*P	**Pn**	**22 34 17.0**	**+0.5**
PB02				*e*S	**S**	**22 35 02.3**	**-3.2**
AC01	**Pan de Azucar**	**4.09**	**237**	*e*P	**Pn**	**22 34 19.5**	**+1.0**
AC01				*e*S	**S**	**22 35 08.2**	**-1.0**
AC01	comp=Z,35nm,0.2s			IAML		22 35 08.8	
AC01	**Pan de Azucar**	**4.09**	**237**	*e*P	**Pn**	**22 34 19.4**	**+0.9**
AC01				*e*S	**S**	**22 35 07.8**	**-1.4**
TINO	**Tinogasta**	**4.14**	**190**	*e*P	**Pn**	**22 34 21.9**	**+2.8**
TINO				*e*S	**S**	**22 35 07.2**	**-3.2**
PB08	**IPOC Station P**	**4.41**	**329**	*e*P	**Pn**	**22 34 24.8**	**+2.0**
PB08				*e*S	**S**	**22 35 16.2**	**-0.6**
PB08	comp=Z,56nm,0.8s			IAML		22 35 19.8	
PB08	**IPOC Station P**	**4.41**	**329**	⇑*e*P	**Pn**	**22 34 24.0**	**+1.3**
TA01	**Diego Aracena**	**4.63**	**316**	*e*P	**Pn**	**22 34 26.1**	**+1.0**
TA01	comp=Z,28nm,0.2s			IAML		22 35 27.1	
TA01	**Diego Aracena**	**4.63**	**316**	*e*P	**Pn**	**22 34 25.3**	**+0.2**
AC06	**Mina Casimiro**	**4.67**	**223**	⇑*e*P	**Pn**	**22 34 26.6**	**+1.1**
GO03	**Copiapo**	**4.77**	**220**	*e*P	**Pn**	**22 34 27.8**	**+1.1**
GO03				*e*S	**S**	**22 35 23.6**	**-0.6**
GO03	comp=Z,18nm,0.3s			IAML		22 35 25.7	
GO03	**Copiapo**	**4.77**	**220**	*e*P	**Pn**	**22 34 27.6**	**+0.9**
GO01	**Chusmiza**	**4.84**	**332**	*e*P	**Pn**	**22 34 30.1**	**+1.9**
GO01				*e*S	**S**	**22 35 26.6**	**0.0**
GO01	comp=Z,38nm,0.5s			IAML		22 35 27.0	
VCA	**Vinchina**	**4.92**	**195**	*e*P	**Pn**	**22 34 32.9**	**+4.2**
VCA				*e*S	**S**	**22 35 26.6**	**-1.1**
PB11	**IPOC Station P**	**4.97**	**327**	*e*P	**Pn**	**22 34 30.0**	**+0.5**
PB11				*e*S	**S**	**22 35 26.6**	**-2.5**
PB11				*e*S	S	22 35 26.7	-2.4
PB11	comp=Z,54nm,0.2s			IAML		22 35 29.3	
PSGCX	**Pisagua**	**5.35**	**324**	*e*P	**Pn**	**22 34 33.9**	**-0.2**

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*NAO **24** 22:38:34.9, 38°.82N×15°.17E, h33^{km}, MB3.4*

*ROM **24** 22:38:50.5±0.2, 38°.863N±0°.010×15°.62E±0°.02, h216^{km}±1^{km}, ML3.4/169, Error ellipse: s-maj=1.6km s-min=0.7km az=120.0*

*IDC **24** 22:38:51.1±0.6, 38°.98N×15°.42E, h221^{km}±15^{km}, mb3.4/9, mbtmp3.8/19, Error ellipse: s-maj=20.8km s-min=12.0km az=36.0*

*NEIC **24** 22:38:51.2±2.1, 38°.91N±0°.07×15°.59E±0°.07, h212^{km}±7^{km}, mb4.2/12, Error ellipse: s-maj=9.6km s-min=7.4km az=174.0*

ISC 24 22:38:50.5±0.6**, 38°.90N**±0°.04×**15°.62E**±0°.04**, h215**^{km}±5^{km}**, n172, σ1^{s}.12**/210**, mb4.2**/13**, 2C-37D, Sicily**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IST3	**Stromboli F**	**0.32**	**252**	P	**Pn**	**22 39 19.5**	**+0.7**
IST3	comp=E,772µm,0.1s			AML	AML		
IST3	comp=N,721µm,0.1s			AML	AML		
IST3	comp=N,721µm,0.1s			AML	AML		
IST3	comp=E,772µm,0.1s			AML	AML		
JOPP	**Joppolo**	**0.36**	**144**	⇓P	**Pn**	**22 39 19.1**	**+0.2**
JOPP				S	**S**	**22 39 40.2**	**-1.0**
JOPP	comp=E,966µm,0.3s			AML	AML		
JOPP	comp=N,974µm,1.3s			AML	AML		
JOPP	comp=E,968µm,0.3s			AML	AML		
JOPP	comp=N,918µm,0.5s			AML	AML		
GIZZ	**Gizzeria**	**0.47**	**80**	⇓P	**Pn**	**22 39 19.7**	**+0.4**
GIZZ				S	**S**	**22 39 40.7**	**-1.0**
CAR1	**CAROLEI**	**0.58**	**52**	P	**Pn**	**22 39 20.2**	**+0.6**
CAR1				S	**S**	**22 39 41.5**	**-1.0**
FERC	**Galatro**	**0.60**	**138**	P	**Pn**	**22 39 20.3**	**+0.6**
FERC				S	**S**	**22 39 41.6**	**-0.9**
GRI	**Girifalco**	**0.63**	**97**	⇑P	**Pn**	**22 39 20.9**	**+1.1**
GRI				S	**S**	**22 39 42.7**	**0.0**
GRI	comp=E,1500µm,0.3s			AML	AML		
GRI	comp=N,1290µm,1.2s			AML	AML		
GRI	comp=E,1502µm,0.3s			AML	AML		
GRI	comp=N,1250µm,0.4s			AML	AML		
GRI	comp=E,1502µm,1.7s			AML	AML		
GRI	comp=N,1250µm,1.6s			AML	AML		
MSRU	**Castanea**	**0.64**	**188**	⇓P	**Pn**	**22 39 19.6**	**-0.3**
MSRU				S	**S**	**22 39 41.7**	**-1.1**
MSRU	comp=E,1470µm,0.2s			AML	AML		
MSRU	comp=N,904µm,0.3s			AML	AML		
MSRU	comp=E,1471µm,0.2s			AML	AML		
MSRU	comp=N,904µm,0.3s			AML	AML		
CEL	**Celeste**	**0.67**	**161**		**Pn**	**22 39 19.6**	**-0.5**
CEL	**Celeste**	**0.67**	**161**	⇓P	**Pn**	**22 39 20.1**	**0.0**
CEL				S	**S**	**22 39 41.7**	**-1.5**
CEL	comp=E,535µm,0.2s			AML	AML		
CEL	comp=N,824µm,0.3s			AML	AML		
CEL	comp=N,826µm,0.3s			AML	AML		
CEL	comp=E,570µm,0.2s			AML	AML		
CEL	comp=E,535µm,0.2s			AML	AML		
CEL	comp=N,827µm,0.3s			AML	AML		
CEL	comp=E,569µm,0.2s			AML	AML		
CEL	comp=N,825µm,0.3s			AML	AML		
CEL	comp=E,569µm,1.8s			AML	AML		
CEL	comp=E,535µm,1.8s			AML	AML		
CEL	comp=N,827µm,1.7s			AML	AML		
CEL	comp=N,825µm,1.7s			AML	AML		
CET2	**Cetraro**	**0.68**	**22**	⇓P	**Pn**	**22 39 20.7**	**+0.7**
CET2				S	**S**	**22 39 42.6**	**-0.7**
CET2	comp=E,1580µm,1.0s			AML	AML		
CET2	comp=N,3120µm,0.4s			AML	AML		
CET2	comp=E,1583µm,1.0s			AML	AML		
CET2	comp=N,3120µm,0.4s			AML	AML		
SPS2	**Spezzano della**	**0.69**	**54**	⇓P	**Pn**	**22 39 20.9**	**+0.8**
SPS2				S	**S**	**22 39 43.3**	**+0.1**
SPS2	comp=E,714µm,0.4s			AML	AML		
SPS2	comp=N,1055µm,1.0s			AML	AML		
SPS2	comp=N,991µm,0.4s			AML	AML		
SPS2	comp=E,714µm,0.4s			AML	AML		
ILOS	**Lipari Osserat**	**0.69**	**230**	⇓P	**Pn**	**22 39 21.0**	**+0.9**
ILOS	comp=E,2305µm,0.5s			AML	AML		
ILOS	comp=E,2485µm,0.5s			AML	AML		
ILOS	comp=N,2750µm,0.4s			AML	AML		
ILOS	comp=N,2880µm,0.4s			AML	AML		
ILOS	comp=E,2485µm,0.5s			AML	AML		
ILOS	comp=N,2881µm,0.4s			AML	AML		
ILOS	comp=N,2751µm,0.4s			AML	AML		
ILOS	comp=E,2306µm,0.5s			AML	AML		
MILZ	**Milazzo**	**0.69**	**206**	P	**Pn**	**22 39 20.0**	**-0.1**
MILZ				S	**S**	**22 39 42.2**	**-0.9**
IVUG	**Vulcano Grillo**	**0.70**	**225**	P	**Pn**	**22 39 20.5**	**+0.3**
IVGP	**Vulcano Grotta**	**0.72**	**226**	P	**Pn**	**22 39 20.3**	**+0.1**
VPL	**Vulcano Piano**	**0.72**	**224**	⇓P	**Pn**	**22 39 20.3**	**0.0**
VPL	comp=E,1073µm,0.4s			AML	AML		
VPL	comp=N,2190µm,0.5s			AML	AML		
VPL	comp=E,1073µm,0.4s			AML	AML		
VPL	comp=N,2007µm,0.5s			AML	AML		
VPL	comp=E,1073µm,1.6s			AML	AML		
GMB	**Gambarie**	**0.75**	**167**	⇓P	**Pn**	**22 39 20.8**	**+0.2**
GMB				S	**S**	**22 39 43.4**	**-0.5**
GMB	comp=E,5555µm,0.2s			AML	AML		
GMB	comp=N,3780µm,0.2s			AML	AML		
GMB	comp=E,5553µm,0.2s			AML	AML		
GMB	comp=N,3778µm,0.2s			AML	AML		
ALB1	**ALBI**	**0.77**	**80**	P	**Pn**	**22 39 22.0**	**+1.5**
ALB1				S	**S**	**22 39 44.8**	**+0.8**
MPNC	**Port Mandanici**	**0.78**	**196**	⇓P	**Pn**	**22 39 20.2**	**-0.4**
MPNC				S	**S**	**22 39 43.4**	**-0.6**
MPNC	comp=E,970µm,0.3s			AML	AML		
MPNC	comp=N,986µm,0.4s			AML	AML		
MPNC	comp=N,899µm,0.1s			AML	AML		
MPNC	comp=E,970µm,0.3s			AML	AML		
PLAC	**Placanica**	**0.78**	**125**	⇓P	**Pn**	**22 39 21.3**	**+0.7**
PLAC				S	**S**	**22 39 43.7**	**-0.3**
PLAC	comp=N,682µm,0.7s			AML	AML		
PLAC	comp=N,748µm,0.6s			AML	AML		
PLAC	comp=E,678µm,0.6s			AML	AML		
PLAC	comp=E,734µm,0.7s			AML	AML		
PLAC	comp=E,669µm,0.3s			AML	AML		
PLAC	comp=N,659µm,0.3s			AML	AML		
PLAC	comp=N,723µm,0.2s			AML	AML		
PLAC	comp=E,704µm,0.3s			AML	AML		
SERS	**Sersale**	**0.84**	**80**	⇓P	**Pn**	**22 39 22.2**	**+1.2**
SERS				S	**S**	**22 39 45.2**	**+0.5**
SERS	comp=E,520µm,0.4s			AML	AML		
SERS	comp=N,725µm,0.4s			AML	AML		
SERS	comp=E,520µm,0.4s			AML	AML		
SERS	comp=N,582µm,1.5s			AML	AML		
SERS	comp=E,724µm,0.5s			AML	AML		
SERS	comp=N,554µm,0.2s			AML	AML		
SERS	comp=E,520µm,0.4s			AML	AML		
SERS	comp=E,724µm,0.5s			AML	AML		
SERS	comp=N,725µm,0.4s			AML	AML		
CELI	**Celico**	**0.86**	**54**	P	**Pn**	**22 39 22.7**	**+1.6**
CELI	comp=E,496µm,0.4s			AML	AML		
CELI	comp=N,404µm,0.6s			AML	AML		
CELI	comp=E,496µm,0.4s			AML	AML		
CELI	comp=N,408µm,0.6s			AML	AML		
CELI	comp=E,495µm,0.4s			AML	AML		
CELI	comp=E,496µm,0.4s			AML	AML		
CELI	comp=N,408µm,0.6s			AML	AML		
CELI	comp=N,403µm,0.6s			AML	AML		
CELI	comp=N,403µm,1.4s			AML	AML		
CELI	comp=E,495µm,0.4s			AML	AML		
GRIS	**Grisolia**	**0.86**	**12**	P	**Pn**	**22 39 21.7**	**+0.8**
GRIS				S	**S**	**22 39 44.3**	**-0.6**
IFIL	**Filicudi I Eol**	**0.89**	**248**	⇓P	**Pn**	**22 39 21.5**	**+0.4**
IFIL				S	**S**	**22 39 44.3**	**-0.6**
IFIL	comp=E,1550µm,0.6s			AML	AML		
IFIL	comp=N,516µm,0.7s			AML	AML		
IFIL	comp=E,1548µm,0.6s			AML	AML		
IFIL	comp=N,515µm,0.7s			AML	AML		
IFIL	comp=E,1548µm,1.4s			AML	AML		
IFIL	comp=N,515µm,1.4s			AML	AML		
SOI	**Samo**	**0.89**	**157**	⇓P	**Pn**	**22 39 21.5**	**+0.3**
SOI				S	**S**	**22 39 44.4**	**-0.6**
SOI	comp=E,360µm,0.5s			AML	AML		
SOI	comp=N,312µm,0.8s			AML	AML		
SOI	comp=E,360µm,0.5s			AML	AML		
SOI	comp=N,311µm,0.4s			AML	AML		
SOI	comp=E,360µm,1.5s			AML	AML		
MTTG	**Motta San Giov**	**0.90**	**176**	⇓P	**Pn**	**22 39 21.6**	**+0.4**
MTTG				S	**S**	**22 39 44.7**	**-0.4**
MTTG	comp=E,487µm,1.6s			AML	AML		
MTTG	comp=N,766µm,0.6s			AML	AML		
MTTG	comp=E,432µm,0.6s			AML	AML		
MTTG	comp=N,767µm,0.6s			AML	AML		
MTTG	comp=N,767µm,1.4s			AML	AML		
TIP	**Timpagrande**	**0.93**	**72**		**Pn**	**22 39 22.6**	**+1.1**
TIP				Sn	**S**	**22 39 46.2**	**+0.7**
TIP	**Timpagrande**	**0.93**	**72**	P	**Pn**	**22 39 22.8**	**+1.3**
TIP	comp=E,354µm,0.7s			AML	AML		
TIP	comp=N,328µm,1.0s			AML	AML		
TIP	comp=N,322µm,1.0s			AML	AML		
TIP	comp=E,355µm,0.6s			AML	AML		
TIP	comp=N,327µm,1.0s			AML	AML		
TIP	comp=N,327µm,1.0s			AML	AML		

TIP				AML	AML		
	comp=N,323µm,1.0s						
TIP				AML	AML		
	comp=E,355µm,0.6s						
TIP				AML	AML		
	comp=E,354µm,0.7s						
TDS	**Terranova Siba**	**0.94**	**36**	P	**Pn**	**22 39 22.7**	**+1.3**
TDS				S	**S**	**22 39 45.7**	**+0.1**
TDS				AML	AML		
	comp=N,252µm,0.5s						
TDS				AML	AML		
	comp=E,360µm,0.9s						
TDS				AML	AML		
	comp=N,252µm,0.5s						
TDS				AML	AML		
	comp=E,359µm,0.9s						
TDS				AML	AML		
	comp=N,252µm,1.5s						
NOV	**Novara**	**0.95**	**204**	⇓P	**Pn**	**22 39 22.1**	**+0.5**
NOV				AML	AML		
	comp=E,2260µm,1.1s						
NOV				AML	AML		
	comp=N,2045µm,0.6s						
NOV				AML	AML		
	comp=E,2065µm,0.2s						
NOV				AML	AML		
	comp=N,2046µm,0.6s						
NOV				AML	AML		
	comp=N,2046µm,1.4s						
AIO	**Antillo**	**0.97**	**198**	⇓P	**Pn**	**22 39 22.2**	**+0.5**
AIO				AML	AML		
	comp=E,798µm,1.1s						
AIO				AML	AML		
	comp=N,966µm,0.5s						
AIO				AML	AML		
	comp=E,746µm,0.2s						
AIO				AML	AML		
	comp=N,966µm,0.5s						
MMN	**Mormanno**	**1.03**	**16**	P	**Pn**	**22 39 23.1**	**+1.1**
MMN				AML	AML		
	comp=E,272µm,0.7s						
MMN				AML	AML		
	comp=N,440µm,0.2s						
MMN				AML	AML		
	comp=E,221µm,0.8s						
MMN				AML	AML		
	comp=N,440µm,0.2s						
MUCR	**Ucria**	**1.03**	**215**	⇓P	**Pn**	**22 39 22.0**	**-0.1**
MUCR				AML	AML		
	comp=E,344µm,1.0s						
MUCR				AML	AML		
	comp=N,298µm,0.3s						
MUCR				AML	AML		
	comp=N,298µm,0.3s						
MUCR				AML	AML		
	comp=E,333µm,0.2s						
IACL	**Alicudi**	**1.05**	**250**	P	**Pn**	**22 39 22.6**	**+0.4**
ECTS	**Castiglione**	**1.09**	**201**	P	**Pn**	**22 39 23.1**	**+0.7**
ECTS				AML	AML		
	comp=E,378µm,0.5s						
ECTS				AML	AML		
	comp=N,519µm,0.3s						
ECTS				AML	AML		
	comp=E,372µm,0.1s						
ECTS				AML	AML		
	comp=N,519µm,0.3s						
ECTS				AML	AML		
	comp=E,372µm,1.9s						
CUC	**Castrocucco**	**1.10**	**8**		**Pn**	**22 39 22.9**	**+0.4**
CUC				Sn	**S**	**22 39 47.4**	**-0.1**
CUC	**Castrocucco**	**1.10**	**8**	P	**Pn**	**22 39 23.5**	**+1.0**
CUC				AML	AML		
	comp=E,238µm,0.8s						
CUC				AML	AML		
	comp=N,160µm,0.6s						
CUC				AML	AML		
	comp=E,176µm,1.0s						
CUC				AML	AML		
	comp=N,146µm,0.6s						
CUC				AML	AML		
	comp=N,160µm,0.6s						
CUC				AML	AML		
	comp=N,146µm,0.6s						
CUC				AML	AML		
	comp=E,238µm,0.8s						
CUC				AML	AML		
	comp=N,160µm,0.6s						
CUC				AML	AML		
	comp=E,175µm,0.4s						
LADO	**San Nicola del**	**1.13**	**70**	P	**Pn**	**22 39 23.7**	**+1.1**
LADO				AML	AML		
	comp=E,768µm,0.7s						
LADO				AML	AML		
	comp=N,614µm,0.5s						
LADO				AML	AML		
	comp=N,614µm,0.5s						
LADO				AML	AML		
	comp=N,614µm,0.5s						
LADO				AML	AML		
	comp=E,651µm,0.3s						
LADO				AML	AML		
	comp=N,614µm,1.5s						
SALB	**San Lorenzo Be**	**1.13**	**30**	P	**Pn**	**22 39 24.3**	**+1.6**
SALB				AML	AML		
	comp=E,552µm,0.8s						
SALB				AML	AML		
	comp=N,282µm,0.3s						
SALB				AML	AML		
	comp=E,538µm,0.3s						
SALB				AML	AML		
	comp=E,538µm,1.7s						
SALB				AML	AML		
	comp=N,282µm,0.3s						
EFIU	**Fiumefreddo**	**1.15**	**196**	P	**Pn**	**22 39 23.1**	**+0.3**
EPIT	**Pozzo Pitarron**	**1.17**	**202**	⇓P	**Pn**	**22 39 24.2**	**+0.9**
MSFR	**San Fratello**	**1.18**	**223**	P	**Pn**	**22 39 23.4**	**+0.3**
MSFR				AML	AML		
	comp=E,119µm,0.3s						
MSFR				AML	AML		
	comp=N,154µm,0.3s						
MSFR				AML	AML		
	comp=E,119µm,0.3s						
MSFR				AML	AML		
	comp=N,154µm,0.3s						
MSFR				AML	AML		
	comp=E,119µm,1.7s						
ECBD	**Case Bada**	**1.19**	**201**	⇓P	**Pn**	**22 39 24.1**	**+0.7**
BULG	**Bulgheria - Ca**	**1.20**	**351**	⇑P	**Pn**	**22 39 24.6**	**+1.5**
BULG				AML	AML		
	comp=E,123µm,1.2s						
BULG				AML	AML		
	comp=N,272µm,1.3s						
BULG				AML	AML		
	comp=E,122µm,1.2s						
BULG				AML	AML		
	comp=N,284µm,1.3s						
BULG				AML	AML		
	comp=E,116µm,1.2s						
BULG				AML	AML		
	comp=N,259µm,1.0s						
BULG				AML	AML		
	comp=E,123µm,1.2s						
BULG				AML	AML		
	comp=E,116µm,1.2s						
BULG				AML	AML		
	comp=N,253µm,1.0s						
EMCN	**Etna Monte Con**	**1.20**	**203**	P	**Pn**	**22 39 24.8**	**+1.3**
EMCN				AML	AML		
	comp=E,1297µm,0.3s						
EMCN				AML	AML		
	comp=N,1191µm,0.3s						
EMCN				AML	AML		
	comp=N,1212µm,0.3s						
EMCN				AML	AML		
	comp=N,1191µm,1.7s						
EMCN				AML	AML		
	comp=N,1212µm,1.7s						
EMCN				AML	AML		
	comp=E,1269µm,0.3s						
EMSG	**Monte Spagnolo**	**1.20**	**206**	P	**Pn**	**22 39 24.5**	**+1.1**
EMSG				AML	AML		
	comp=E,770µm,1.5s						
EMSG				AML	AML		
	comp=N,937µm,1.3s						
EMSG				AML	AML		
	comp=E,747µm,0.2s						
EMSG				AML	AML		
	comp=N,816µm,0.4s						
EPZF	**Pizzo Felice**	**1.23**	**209**	⇓P	**Pn**	**22 39 24.4**	**+0.9**
EPZF				AML	AML		
	comp=N,739µm,0.4s						
EPZF				AML	AML		
	comp=E,691µm,0.5s						
EPZF				AML	AML		
	comp=E,691µm,0.5s						
EPZF				AML	AML		
	comp=N,739µm,0.4s						
EPZF				AML	AML		
	comp=N,739µm,1.6s						
MGR	**Morigerati**	**1.24**	**358**	P	**Pn**	**22 39 24.7**	**+1.3**
MGR				S	**S**	**22 39 49.9**	**+0.8**
MGR				AML	AML		
	comp=N,119µm,1.0s						
MGR				AML	AML		
	comp=E,115µm,0.7s						
MGR				AML	AML		
	comp=E,188µm,1.2s						
MGR				AML	AML		
	comp=E,115µm,0.7s						
MGR				AML	AML		
	comp=N,119µm,1.0s						
MGR				AML	AML		
	comp=E,115µm,1.3s						
MGR				AML	AML		
	comp=E,188µm,0.8s						
MGR				AML	AML		
	comp=N,196µm,0.6s						
EVRN	**Santa Venerina**	**1.27**	**198**	P	**Pn**	**22 39 24.2**	**+0.5**
EVRN				AML	AML		
	comp=E,859µm,0.5s						
EVRN				AML	AML		
	comp=E,859µm,0.5s						
EVRN				AML	AML		
	comp=N,1256µm,0.9s						
EVRN				AML	AML		
	comp=E,936µm,0.9s						
EVRN				AML	AML		
	comp=N,1190µm,0.2s						
EVRN				AML	AML		
	comp=E,858µm,0.4s						
EVRN				AML	AML		
	comp=N,1190µm,0.2s						
EVRN				AML	AML		
	comp=N,1252µm,0.2s						
EVRN				AML	AML		
	comp=E,859µm,0.5s						
SIRI	**Monte Sirino -**	**1.30**	**8**	P	**Pn**	**22 39 25.1**	**+1.1**
SIRI				AML	AML		
	comp=E,133µm,0.3s						
SIRI				AML	AML		
	comp=N,153µm,0.3s						
SIRI				AML	AML		
	comp=E,138µm,0.4s						
SIRI				AML	AML		
	comp=N,157µm,0.3s						
SIRI				AML	AML		
	comp=E,133µm,0.3s						
SIRI				AML	AML		
	comp=E,138µm,0.4s						
SIRI				AML	AML		
	comp=N,153µm,0.3s						
SIRI				AML	AML		
	comp=N,157µm,0.3s						
ECHR	**Santa Chiara**	**1.33**	**205**	P	**Pn**	**22 39 25.5**	**+1.2**
ORI	**Oriolo Calabro**	**1.33**	**29**	P	**Pn**	**22 39 25.6**	**+1.5**
ORI				AML	AML		
	comp=E,774µm,0.8s						
ORI				AML	AML		
	comp=N,603µm,0.3s						
ORI				AML	AML		
	comp=N,603µm,0.3s						
ORI				AML	AML		
	comp=E,728µm,0.7s						
ENIC	**Nicolosi**	**1.35**	**201**	P	**Pn**	**22 39 25.5**	**+1.1**
ENIC				AML	AML		
	comp=E,916µm,1.3s						
ENIC				AML	AML		
	comp=N,1211µm,1.3s						
ENIC				AML	AML		
	comp=E,882µm,1.1s						
ENIC				AML	AML		
	comp=N,751µm,0.2s						
ENIC				AML	AML		
	comp=E,821µm,0.9s						
ENIC				AML	AML		
	comp=N,751µm,0.2s						
ENIC				AML	AML		
	comp=N,916µm,0.9s						
ENIC				AML	AML		
	comp=E,862µm,0.3s						
SCHR	**S. Chirico Rap**	**1.35**	**15**	P	**Pn**	**22 39 26.1**	**+1.8**
SCHR				AML	AML		
	comp=E,75µm,1.5s						
SCHR				AML	AML		
	comp=N,100µm,0.8s						
SCHR				AML	AML		
	comp=N,100µm,0.8s						
SCHR				AML	AML		
	comp=N,100µm,1.2s						
SCHR				AML	AML		
	comp=E,67µm,0.6s						
ESML	**S. M. di Licod**	**1.40**	**205**	P	**Pn**	**22 39 25.3**	**+0.5**
ESML				AML	AML		
	comp=E,345µm,1.2s						
ESML				AML	AML		
	comp=N,288µm,0.5s						
ESML				AML	AML		
	comp=N,288µm,0.5s						
ESML				AML	AML		
	comp=E,336µm,0.7s						
MCEL	**Monticello**	**1.43**	**6**	P	**Pn**	**22 39 26.8**	**+1.8**
EPOZ	**Pozzillo**	**1.45**	**197**	⇓P	**Pn**	**22 39 24.0**	**-1.1**
EPOZ				AML	AML		
	comp=E,209µm,0.9s						
EPOZ				AML	AML		
	comp=N,202µm,1.3s						
EPOZ				AML	AML		
	comp=E,496µm,0.9s						
EPOZ				AML	AML		
	comp=N,522µm,0.4s						
EPOZ				AML	AML		
	comp=N,183µm,0.9s						
EPOZ				AML	AML		
	comp=E,443µm,0.5s						
EPOZ				AML	AML		
	comp=N,441µm,0.3s						
EPOZ				AML	AML		
	comp=E,176µm,0.5s						
PLLN	**Pollina**	**1.47**	**233**	P	**Pn**	**22 39 25.2**	**-0.1**
PLLN				AML	AML		
	comp=E,251µm,0.6s						
PLLN				AML	AML		
	comp=N,200µm,1.5s						
PLLN				AML	AML		
	comp=N,200µm,0.6s						
PLLN				AML	AML		
	comp=E,251µm,0.6s						
PLLN				AML	AML		
	comp=N,200µm,1.4s						
GIB	**Gibilmanna**	**1.54**	**235**	P	**Pn**	**22 39 25.9**	**-0.1**
CAGR	**Agira**	**1.55**	**215**	P	**Pn**	**22 39 27.5**	**+1.5**
CAGR				AML	AML		
	comp=E,660µm,0.3s						
CAGR				AML	AML		
	comp=N,754µm,0.5s						
CAGR				AML	AML		
	comp=E,660µm,0.3s						
CAGR				AML	AML		
	comp=N,754µm,0.5s						
CSLB	**Castelbuono**	**1.56**	**232**	⇓P	**Pn**	**22 39 25.9**	**-0.2**
CSLB				S	**S**	**22 39 52.8**	**-0.7**
CSLB				AML	AML		
	comp=E,46µm,0.6s						
CSLB				AML	AML		
	comp=N,67µm,1.0s						
CSLB				AML	AML		
	comp=E,47µm,0.6s						
CSLB				AML	AML		
	comp=N,63µm,1.0s						
CRAC	**Craco**	**1.60**	**23**	P	**Pn**	**22 39 27.8**	**+1.5**
CRAC				S	**S**	**22 39 56.3**	**+2.2**
CRAC				AML	AML		
	comp=E,836µm,0.3s						
CRAC				AML	AML		
	comp=N,750µm,1.1s						
CRAC				AML	AML		
	comp=N,631µm,0.8s						
CRAC				AML	AML		
	comp=E,835µm,0.3s						
CRAC				AML	AML		
	comp=N,631µm,1.2s						
CDRU	**Civita di Ruta**	**1.61**	**351**	P	**Pn**	**22 39 28.0**	**+1.5**
HLNI	**Lentini**	**1.66**	**201**	P	**Pn**	**22 39 26.8**	**-0.1**
HLNI				AML	AML		
	comp=E,277µm,0.9s						
HLNI				AML	AML		
	comp=N,292µm,1.3s						
HLNI				AML	AML		
	comp=N,280µm,0.2s						
HLNI				AML	AML		
	comp=E,277µm,0.2s						
PTRP	**Pietrapertosa**	**1.66**	**12**	P	**Pn**	**22 39 29.5**	**+2.5**
AGST	**Augusta-Monte**	**1.67**	**191**	P	**Pn**	**22 39 26.1**	**-0.9**
AGST				AML	AML		
	comp=E,156µm,1.3s						
AGST				AML	AML		
	comp=N,270µm,0.2s						
AGST				AML	AML		
	comp=N,271µm,0.2s						
AGST				AML	AML		
	comp=E,154µm,0.5s						
HCRL	**Carlentini**	**1.68**	**196**	⇓P	**Pn**	**22 39 26.9**	**-0.2**
PGN3	**Pignola, Italy**	**1.68**	**5**	P	**Pn**	**22 39 29.5**	**+2.4**
VAE	**Valguarnera**	**1.71**	**214**	P	**Pn**	**22 39 29.4**	**+2.0**
	comp=E,37nm,0.5s,baz=157,slow=9.4,SNR=38						
VAE				S	**S**	**22 39 57.6**	**+1.7**
	comp=E,28nm,0.5s,baz=184,slow=12,SNR=3.2						
VAE	**Valguarnera**	**1.71**	**214**	P	**Pn**	**22 39 29.4**	**+2.0**
RESU	**Resuttano**	**1.75**	**225**	P	**Pn**	**22 39 29.9**	**+2.0**
RESU				AML	AML		
	comp=E,97µm,0.6s						
RESU				AML	AML		
	comp=N,142µm,0.6s						
RESU				AML	AML		
	comp=E,97µm,0.6s						
RESU				AML	AML		
	comp=N,143µm,0.6s						
SCIAR	**Sciara**	**1.75**	**238**	P	**Pn**	**22 39 28.1**	**+0.3**
SCIAR				AML	AML		
	comp=E,192µm,0.3s						
SCIAR				AML	AML		
	comp=N,164µm,0.3s						
SCIAR				AML	AML		
	comp=N,178µm,2.2s						
SCIAR				AML	AML		
	comp=E,208µm,0.7s						
SCIAR				AML	AML		
	comp=E,192µm,0.3s						
SCIAR				AML	AML		
	comp=E,208µm,1.3s						
SCIAR				AML	AML		
	comp=N,164µm,0.3s						
SCIAR				AML	AML		
	comp=N,178µm,0.2s						
SSY	**Sortino**	**1.79**	**194**	⇓P	**Pn**	**22 39 27.8**	**-0.5**
SSY				AML	AML		
	comp=E,573µm,0.6s						
MIGL	**Miglionico**	**1.82**	**20**	P	**Pn**	**22 39 29.0**	**+0.6**
MIGL				S	**S**	**22 39 57.9**	**+0.1**
MIGL				AML	AML		
	comp=E,756µm,0.4s						
MIGL				AML	AML		
	comp=N,378µm,0.3s						
MIGL				AML	AML		
	comp=E,756µm,0.4s						
MIGL				AML	AML		
	comp=E,756µm,1.6s						
MIGL				AML	AML		
	comp=N,379µm,0.3s						
HVZN	**Vizzini**	**1.86**	**203**	⇓P	**Pn**	**22 39 29.2**	**+0.4**
HVZN				S	**S**	**22 39 58.7**	**+0.2**
MRLC	**Muro Lucano**	**1.86**	**357**	P	**Pn**	**22 39 30.9**	**+2.1**
CPTP	**Pietraperzia**	**1.88**	**218**	⇓P	**Pn**	**22 39 31.2**	**+2.2**
CPTP				AML	AML		
	comp=E,296µm,1.4s						
CPTP				AML	AML		
	comp=N,248µm,0.8s						
CPTP				AML	AML		
	comp=E,296µm,1.4s						
CPTP				AML	AML		
	comp=N,248µm,0.8s						
MPG	**Monte Pellegri**	**1.92**	**248**	P	**Pn**	**22 39 29.8**	**+0.5**
MPG				S	**S**	**22 40 00.4**	**+1.0**
MATE	**Matera**	**1.94**	**25**	P	**Pn**	**22 39 29.6**	**+0.2**
MATE				S	**S**	**22 39 58.9**	**-0.9**
MATE				AML	AML		
	comp=E,464µm,0.3s						
MATE				AML	AML		
	comp=N,370µm,0.4s						
MATE				AML	AML		
	comp=E,463µm,0.3s						
MATE				AML	AML		
	comp=N,370µm,0.4s						
RAFF	**Raffo Rosso**	**1.94**	**211**		**Pn**	**22 39 30.1**	**+0.5**
RAFF	**Raffo Rosso**	**1.94**	**211**	⇓P	**Pn**	**22 39 30.5**	**+0.9**
RAFF				S	**S**	**22 40 01.0**	**+1.2**
RAFF				AML	AML		
	comp=E,190µm,0.6s						
RAFF				AML	AML		
	comp=N,328µm,0.9s						
RAFF				AML	AML		
	comp=N,328µm,0.9s						
RAFF				AML	AML		
	comp=E,190µm,0.6s						
RAFF				AML	AML		
	comp=N,328µm,1.1s						
HAVL	**Avola**	**1.97**	**192**	⇓P	**Pn**	**22 39 29.6**	**-0.3**
HMDC	**Modica**	**2.05**	**199**	⇓P	**Pn**	**22 39 30.9**	**+0.3**
ACATE	**Acate (RG)**	**2.07**	**206**	⇓P	**Pn**	**22 39 31.4**	**+0.6**
ACATE				AML	AML		
	comp=E,437µm,0.9s						
ACATE				AML	AML		
	comp=N,408µm,0.3s						
ACATE				AML	AML		
	comp=E,422µm,0.7s						
ACATE				AML	AML		
	comp=N,382µm,0.3s						
ACATE				AML	AML		
	comp=N,382µm,0.3s						
ACATE				AML	AML		
	comp=E,422µm,0.7s						
ACATE				AML	AML		
	comp=E,422µm,1.3s						
ACATE				AML	AML		
	comp=N,408µm,0.3s						
ACATE				AML	AML		
	comp=E,429µm,0.3s						
TAR1	**Taranto**	**2.07**	**38**	⇓P	**Pn**	**22 39 30.9**	**+0.1**
TAR1				S	**S**	**22 40 01.0**	**-1.1**
TAR1				AML	AML		
	comp=E,394µm,1.2s						
TAR1				AML	AML		
	comp=N,682µm,0.4s						
TAR1				AML	AML		
	comp=E,369µm,0.4s						
TAR1				AML	AML		
	comp=N,681µm,0.4s						
CORL	**Corleone**	**2.08**	**242**	P	**Pn**	**22 39 31.4**	**+0.4**
CORL				AML	AML		
	comp=E,193µm,0.8s						
CORL				AML	AML		
	comp=N,204µm,1.4s						
CORL				AML	AML		
	comp=E,193µm,0.8s						
CORL				AML	AML		
	comp=E,193µm,1.2s						
CORL				AML	AML		
	comp=N,187µm,1.1s						
AMUR	**Altamura**	**2.15**	**20**	⇓P	**Pn**	**22 39 32.0**	**+0.4**
AMUR				S	**S**	**22 40 03.1**	**-0.4**
AMUR				AML	AML		
	comp=E,143µm,0.4s						
AMUR				AML	AML		
	comp=N,236µm,0.4s						
AMUR				AML	AML		
	comp=N,237µm,0.4s						
AMUR				AML	AML		
	comp=E,132µm,0.2s						
CLTA	**Licata**	**2.17**	**218**	⇓P	**Pn**	**22 39 33.2**	**+1.3**
CLTA				S	**S**	**22 40 06.1**	**+2.2**
CLTA				AML	AML		

	comp=E,220µm,1.1s						
CLTA				AML	AML		
	comp=N,212µm,0.5s						
CLTA				AML	AML		
	comp=N,212µm,0.5s						
CLTA				AML	AML		
	comp=E,221µm,1.1s						
CLTA				AML	AML		
	comp=N,212µm,1.5s						
NOCI	**Noci**	**2.19**	**30**	⇓P	**Pn**	**22 39 32.0**	**0.0**
NOCI				S	**S**	**22 40 03.5**	**-0.8**
NOCI				AML	AML		
	comp=E,258µm,0.3s						
NOCI				AML	AML		
	comp=N,397µm,0.5s						
NOCI				AML	AML		
	comp=N,397µm,0.5s						
NOCI				AML	AML		
	comp=E,259µm,0.3s						
NOCI				AML	AML		
	comp=E,259µm,1.7s						
CROCE	**Santa Croce Ca**	**2.23**	**203**	⇓P	**Pn**	**22 39 33.0**	**+0.5**
CROCE				AML	AML		
	comp=E,242µm,0.4s						
CROCE				AML	AML		
	comp=N,318µm,1.3s						
CROCE				AML	AML		
	comp=E,182µm,0.3s						
CROCE				AML	AML		
	comp=N,236µm,1.4s						
CROCE				AML	AML		
	comp=N,219µm,0.4s						
CROCE				AML	AML		
	comp=N,307µm,0.4s						
CROCE				AML	AML		
	comp=E,182µm,0.3s						
CROCE				AML	AML		
	comp=N,219µm,1.6s						
CROCE				AML	AML		
	comp=N,307µm,1.6s						
CROCE				AML	AML		
	comp=E,243µm,0.3s						
HPAC	**Pachino**	**2.23**	**191**	⇓P	**Pn**	**22 39 32.9**	**+0.4**
HPAC				AML	AML		
	comp=E,343µm,0.3s						
HPAC				AML	AML		
	comp=N,538µm,0.9s						
HPAC				AML	AML		
	comp=N,488µm,0.6s						
HPAC				AML	AML		
	comp=E,343µm,0.3s						
HPAC				AML	AML		
	comp=E,343µm,1.7s						
PAOL	**Paolisi**	**2.28**	**340**		**Pn**	**22 39 33.6**	**+0.7**
MBFT	**Monte Bonifato**	**2.30**	**246**	P	**Pn**	**22 39 33.4**	**+0.2**
MBFT				S	**S**	**22 40 06.5**	**+0.2**
MBFT				AML	AML		
	comp=E,108µm,1.4s						
MBFT				AML	AML		
	comp=N,70µm,0.9s						
MBFT				AML	AML		
	comp=N,141µm,1.6s						
MBFT				AML	AML		
	comp=E,107µm,1.4s						
MBFT				AML	AML		
	comp=N,71µm,0.9s						
MBFT				AML	AML		
	comp=E,141µm,1.6s						
MBFT				AML	AML		
	comp=N,141µm,0.4s						
MBFT				AML	AML		
	comp=E,141µm,0.4s						
MBFT				AML	AML		
	comp=N,71µm,1.1s						
CLTB	**Caltabellotta**	**2.31**	**236**	P	**Pn**	**22 39 33.7**	**+0.4**
CLTB				S	**S**	**22 40 06.7**	**+0.2**
CLTB				AML	AML		
	comp=E,678µm,0.5s						
CLTB				AML	AML		
	comp=N,922µm,0.4s						
CLTB				AML	AML		
	comp=N,924µm,0.4s						
CLTB				AML	AML		
	comp=E,678µm,0.5s						
CRJA	**Costa Raja**	**2.33**	**243**	P	**Pn**	**22 39 34.6**	**+1.1**
CRJA				S	**S**	**22 40 08.2**	**+1.4**
CRJA				AML	AML		
	comp=E,192µm,1.0s						
CRJA				AML	AML		
	comp=N,144µm,1.4s						
CRJA				AML	AML		
	comp=N,144µm,0.5s						
CRJA				AML	AML		
	comp=E,192µm,1.0s						
CRJA				AML	AML		
	comp=E,192µm,1.0s						
CRJA				AML	AML		
	comp=N,144µm,1.5s						
SCIAC	**Sciacca**	**2.42**	**236**	P	**Pn**	**22 39 33.9**	**-0.5**
SCIAC				AML	AML		
	comp=E,95µm,0.3s						
SCIAC				AML	AML		
	comp=N,81µm,1.1s						
SCIAC				AML	AML		
	comp=N,74µm,0.2s						
SCIAC				AML	AML		
	comp=E,95µm,0.3s						
CAVT	**Castelvetrano**	**2.56**	**243**	P	**Pn**	**22 39 36.3**	**+0.3**
CAVT				S	**S**	**22 40 10.2**	**-1.0**
CAVT				AML	AML		
	comp=E,318µm,1.1s						
CAVT				AML	AML		
	comp=N,254µm,0.4s						
CAVT				AML	AML		
	comp=N,254µm,0.4s						
CAVT				AML	AML		
	comp=E,318µm,1.1s						
CAVT				AML	AML		
	comp=N,254µm,1.6s						
SGRT	**San Giovanni R**	**2.86**	**2**	Pn	**Pn**	**22 39 38.9**	**-0.3**
OT13	**Castello Viest**	**3.01**	**8**	AML	AML		
	comp=N,195µm,1.4s						
OT13				AML	AML		
	comp=E,118µm,1.3s						
OT13				AML	AML		
	comp=N,195µm,0.6s						
OT13				AML	AML		
	comp=E,118µm,0.7s						
KEK	**Kerkira**	**3.34**	**75**	Pn	**Pn**	**22 39 44.9**	**0.0**
KEK	**Kerkira**	**3.34**	**75**	P	**Pn**	**22 39 44.9**	**0.0**
KEK				AML	AML		
	comp=E,74µm,0.7s						
KEK				AML	AML		
	comp=N,68µm,1.3s						
KEK				AML	AML		
	comp=N,61µm,0.8s						
KEK				AML	AML		
	comp=E,74µm,0.7s						
KEK				AML	AML		
	comp=N,61µm,1.2s						
INTR	**Introdacqua**	**3.38**	**338**		**Pn**	**22 39 47.3**	**+2.1**
AQU	**L'Aquila**	**3.84**	**335**		**Pn**	**22 39 52.6**	**+1.7**
NRCA	**Norcia**	**4.37**	**335**	Pn	**Pn**	**22 39 58.6**	**+1.3**
PDG	**Podgorica**	**4.48**	**37**	Pn	**Pn**	**22 39 59.5**	**+0.9**
FDMO	**Fiordimonte**	**4.56**	**336**	Pn	**Pn**	**22 40 00.4**	**+0.8**
VSL	**Villasalto**	**4.89**	**279**	Pn	**Pn**	**22 40 04.1**	**+0.3**
ITM	**Ithomi**	**5.27**	**107**	Pn	**Pn**	**22 40 09.3**	**+0.7**
KEST	**Kesra**	**5.91**	**240**	P	**Pn**	**22 40 17.9**	**+0.9**
	comp=N,4.8nm,0.9s,baz=276,slow=6.7,SNR=5.1						
KEST	**Kesra**	**5.91**	**240**		**Pn**	**22 40 16.9**	**-0.1**
BLY	**Banja Luka**	**5.96**	**11**	Pn	**Pn**	**22 40 17.4**	**+0.1**
SABO	**M.te Sabotino**	**7.23**	**349**	Pn	**Pn**	**22 40 34.1**	**+0.4**
OBKA	**Obir**	**7.65**	**354**	*e*Pn	**Pn**	**22 40 39.9**	**+0.8**
	comp=N,6.8nm,0.7s						
SOKA	**Soboth**	**7.79**	**357**	*e*Pn	**Pn**	**22 40 41.1**	**+0.2**
	comp=N,5.2nm,1.5s						
ABTA	**Abfaltersbach**	**8.17**	**345**	*e*Pn	**Pn**	**22 40 47.1**	**+1.2**
	comp=N,4.3nm,0.7s						
IDI	**Anoyia**	**8.24**	**113**	P	**Pn**	**22 40 49.8**	**+2.9**
	comp=N,4.5nm,0.8s,baz=289,slow=16,SNR=1.5						
IDI				S	**S**	**22 42 22.0**	**+2.1**
	comp=N,15nm,1.1s,baz=307,slow=4.5,SNR=3.1						
IDI	**Anoyia**	**8.24**	**113**		**Pn**	**22 40 49.3**	**+2.5**
ARSA	**Arzberg**	**8.35**	**360**	*e*Pn	**Pn**	**22 40 49.0**	**+0.9**
	comp=N,4.4nm,0.9s						
FUORN	**Ofenpass-Fuorn**	**8.66**	**335**	Pn	**Pn**	**22 40 52.6**	**+0.3**
RONA	**Rosalia, Austr**	**8.81**	**3**	*e*Pn	**Pn**	**22 40 55.4**	**+1.4**
	comp=N,3.3nm,0.9s						
TUE	**Stuetta**	**8.87**	**331**	Pn	**Pn**	**22 40 55.8**	**+0.8**
FETA	**Feichten**	**8.87**	**338**	*i* Pn	**Pn**	**22 40 58.1**	**+3.1**
	comp=N,7.3nm,0.6s						
BIOA	**Bad Ischl, Aus**	**8.91**	**351**	*e*Pn	**Pn**	**22 40 56.6**	**+1.3**
	comp=N,1.8nm,0.4s						
SQTA	**Sankt Quirin**	**8.92**	**340**	*i* Pn	**Pn**	**22 40 57.8**	**+2.3**
	comp=N,4.2nm,0.6s						
DAVOX	**Davos/Dischmat**	**8.93**	**334**	P	**Pn**	**22 40 56.3**	**+0.5**
	comp=N,3.5nm,0.8s,baz=147,slow=14,SNR=7.5						
MOTA	**Moosalm**	**9.06**	**340**	*i* Pn	**Pn**	**22 40 59.6**	**+2.1**
	comp=N,7.8nm,0.9s						
RETA	**Reutte**	**9.29**	**339**	*i* Pn	**Pn**	**22 41 03.3**	**+3.1**
	comp=N,3.5nm,0.5s						
DAVA	**Damuels**	**9.37**	**335**	*i* Pn	**Pn**	**22 41 04.9**	**+3.4**
	comp=N,5.4nm,0.5s						
KARP	**Karpathos**	**9.79**	**106**	Pn	**Pn**	**22 41 07.4**	**+0.6**
CKRC	**Cesky Krumlov**	**9.96**	**355**	*e*P	**Pn**	**22 41 09.7**	**+0.8**
GEC2	**GERESS Array S**	**10.04**	**353**	Pn	**Pn**	**22 41 10.9**	**+1.0**
GERES	**GERESS Array B**	**10.04**	**353**	P	**Pn**	**22 41 10.9**	**+1.0**
	comp=N,3.0nm,0.7s,baz=161,slow=13,SNR=16						
MLR	**Muntele Rosu**	**10.10**	**46**	P	**Pn**	**22 41 12.3**	**+1.6**
	comp=N,1.4nm,1.0s,baz=210,slow=18,SNR=1.9						
ARG	**Arkhangelos**	**10.28**	**101**	Pn	**Pn**	**22 41 14.3**	**+1.2**
KHC	**Kasperske Hory**	**10.34**	**353**	*e*P	**Pn**	**22 41 14.3**	**+0.7**
BFO	**Black Forest**	**10.80**	**333**	Pn	**Pn**	**22 41 21.1**	**+1.5**
ECH	**Echery**	**11.15**	**329**	Pn	**Pn**	**22 41 24.6**	**+0.6**
AKAS	**Kas**	**11.41**	**99**	Pn	**Pn**	**22 41 28.8**	**+1.2**
DPC	**Dobruska-Polom**	**11.46**	**2**	*e*P	**P**	**22 41 33.1**	**+0.1**
ELL	**Elmali**	**11.51**	**96**	Pn	**Pn**	**22 41 29.9**	**+1.1**
UPC	**Upice**	**11.61**	**1**	*e*P	**P**	**22 41 35.6**	**+1.0**
OSTC	**Ostas**	**11.67**	**2**	*e*P	**P**	**22 41 36.8**	**+1.6**
BRG	**Berggiesshubel**	**12.03**	**355**	*e*P	**P**	**22 41 40.2**	**+0.9**
BRG				Amp		22 41 42.4	
	comp=Z,4.3nm,0.8s						
CLL	**Collm**	**12.55**	**352**	LH		22 45 00.0	
CLL				LV		22 46 00.0	
BRTR	**Keskin Array B**	**13.98**	**81**	P	**P**	**22 42 01.2**	**0.0**
	comp=Z,0.8nm,0.9s,baz=268,slow=12,SNR=4.1						
ESDC	**Sonseca Array**	**15.19**	**279**	P	**Pn**	**22 42 13.4**	**-0.9**
	comp=Z,0.8nm,1.0s,baz=78,slow=9.2,SNR=4.3						
AKASG	**Malin Array Be**	**15.22**	**35**	P	**P**	**22 42 14.9**	**+0.3**
	comp=Z,0.4nm,0.3s,baz=229,slow=11,SNR=5.2						
MMAI	**Mount Meron Ar**	**17.05**	**104**	P	**Pn**	**22 42 36.3**	**-0.3**
	comp=Z,0.3nm,0.3s,baz=285,slow=12,SNR=4.0						
PABE	**Paberze**	**17.53**	**16**	P	**P**	**22 42 40.2**	**+0.3**
PABE				IAmb	IAmb	22 42 41.4	
	comp=Z,9.3nm,0.8s						
ASF	**Jabal al Asfar**	**18.55**	**105**	P	**Pn**	**22 42 53.7**	**-0.6**
	comp=Z,2.6nm,0.7s,baz=143,slow=10,SNR=6.3						
EKA	**Eskdalemuir Ar**	**20.71**	**329**	P	**P**	**22 43 11.6**	**-2.5**
	comp=Z,1.1nm,0.4s,baz=136,slow=10,SNR=13						
	comp=Z,1.1nm,0.4s						
ESK	**Eskdalemuir**	**20.72**	**329**	P	**P**	**22 43 11.9**	**-2.3**
EKB	**Eskdalemuir**	**20.73**	**329**	P	**P**	**22 43 12.3**	**-1.9**
HFS	**Hagfors**	**21.29**	**357**	P	**P**	**22 43 18.6**	**-1.5**
	comp=Z,1.4nm,0.3s,baz=171,slow=10,SNR=19						
	comp=Z,1.4nm,0.3s						
NC602	**NORSAR Array S**	**22.01**	**355**	P	**P**	**22 43 25.8**	**-1.3**
NAO01	**NORSAR Array S**	**22.17**	**354**	P	**P**	**22 43 27.5**	**-1.2**
NB2	**NORSAR Subarra**	**22.34**	**354**	P	**P**	**22 43 29.6**	**-0.6**
	comp=Z,0.7nm,0.4s,baz=172,slow=10						
NOA	**NORSAR Array B**	**22.34**	**354**	P	**P**	**22 43 29.5**	**-0.7**
	comp=Z,0.4nm,0.3s,baz=160,slow=9.5,SNR=5.8						
	comp=Z,0.4nm,0.3s						
NB201	**NORSAR Array S**	**22.34**	**354**	P	**P**	**22 43 29.6**	**-0.6**
NB201				IAmb	IAmb	22 43 48.0	
	comp=Z,8.0nm,1.1s						
NBO00	**NORSAR Array S**	**22.36**	**354**	P	**P**	**22 43 28.9**	**-1.5**
NBO00				IAmb	IAmb	22 43 38.2	
	comp=Z,7.3nm,1.1s						
NC405	**NORSAR Array S**	**22.37**	**355**	P	**P**	**22 43 29.4**	**-1.1**
NC405				IAmb	IAmb	22 43 47.3	
	comp=Z,6.8nm,1.1s						
NC303	**NORSAR Array S**	**22.51**	**355**	P	**P**	**22 43 31.2**	**-0.6**
NC303				IAmb	IAmb	22 43 34.1	
	comp=Z,6.8nm,1.0s						
NC204	**NORSAR Array S**	**22.61**	**354**	P	**P**	**22 43 32.2**	**-0.5**
NC204				IAmb	IAmb	22 43 34.8	
	comp=Z,8.3nm,1.1s						
FINES	**FINESS Array B**	**23.48**	**13**	P	**P**	**22 43 40.0**	**-0.5**
	comp=Z,3.2nm,0.4s,baz=181,slow=8.2,SNR=41						
	comp=Z,3.2nm,0.4s						
FINES	**FINESS Array B**	**23.48**	**13**	P	**P**	**22 43 40.6**	**+0.1**
FIA1	**FINESS Array S**	**23.49**	**13**	P	**P**	**22 43 40.3**	**-0.2**
ARCES	**ARCESS Array B**	**31.15**	**7**	P	**P**	**22 44 47.9**	**-0.8**
	comp=Z,3.4nm,0.5s,baz=174,slow=4.4,SNR=1.6						
	comp=Z,3.4nm,0.5s						
SPITS	**Spitsbergen Ar**	**39.39**	**0**	P	**P**	**22 45 58.9**	**+0.2**
	comp=Z,11nm,0.9s,baz=199,slow=8.5,SNR=7.6						
	comp=Z,11nm,0.9s						
BVAR	**Borovoye Array**	**39.62**	**51**	P	**P**	**22 46 01.9**	**+0.9**
	comp=Z,0.5nm,0.5s,baz=274,slow=9.7,SNR=2.9						
	comp=Z,0.5nm,0.5s						
ZALV	**Zalesovo Beam**	**48.07**	**48**	P	**P**	**22 47 08.0**	**0.0**
	comp=Z,0.7nm,0.4s,baz=273,slow=7.0,SNR=3.6						
	comp=Z,0.7nm,0.4s						
MKAR	**Makanchi Array**	**48.19**	**58**	P	**P**	**22 47 10.2**	**+1.1**
	comp=Z,0.5nm,0.3s,baz=283,slow=7.4,SNR=20						
	comp=Z,0.5nm,0.3s						
MKAR	**Makanchi Array**	**48.19**	**58**	P	**P**	**22 47 09.9**	**+0.8**

SJA ***24*** *22:49:39.3±0.8, 21°.38S×69°.88W, h50^{km}±7^{km}, ML3.9, MW3.8*

GUC ***24*** *22:49:41.3±0.6, 21°.38S×69°.83W, h44^{km}±2^{km}, ML4.1*

ISC 24 22:49:41.4±1.2**, 21°.39S**±0°.03×**69°.93W**±0°.06**, h41**^{km}±7^{km}**, n32, σ1^{s}.36**/45**, 4C-9D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB02	**IPOC Station P**	**0.08**	**24**	*e*P	**Pn**	**22 49 48.1**	**-0.1**
PB02				IAML		22 49 55.1	
	comp=Z,12µm,0.2s						
PB02	**IPOC Station P**	**0.08**	**24**	⇓*i*P	**Pn**	**22 49 48.2**	**-0.1**
PB02				*e*S	**Sn**	**22 49 52.9**	**0.0**
PB02				IAML		22 49 53.9	
	comp=E,39µm,0.3s						
PB07	**IPOC Station P**	**0.33**	**173**	*e*P	**Pn**	**22 49 49.9**	**-0.5**
PB07				IAML		22 49 58.3	
	comp=Z,7µm,0.2s						
PB07	**IPOC Station P**	**0.33**	**173**	⇑*e*P	**Pn**	**22 49 50.2**	**-0.1**
PB07				*e*S	**Sn**	**22 49 57.1**	**+0.6**
PB03	**IPOC Station P**	**0.67**	**166**	*e*P	**Pn**	**22 49 54.0**	**-0.7**
PB03				*e*S	**Sn**	**22 50 04.3**	**+0.1**
PB03				IAML		22 50 05.5	
	comp=Z,11µm,0.2s						
PB03	**IPOC Station P**	**0.67**	**166**	⇓*i*P	**Pn**	**22 49 54.2**	**-0.5**
PB03				*e*S	**Sn**	**22 50 03.4**	**-0.8**
PB03				IAML		22 50 05.4	
	comp=E,14µm,0.1s						
PB09	**IPOC Station P**	**0.76**	**122**	*e*P	**Pn**	**22 49 54.8**	**-1.1**
PB09				*e*S	**Sn**	**22 50 05.2**	**-1.1**
PB09				IAML		22 50 05.8	
	comp=Z,8µm,0.2s						
PB09	**IPOC Station P**	**0.76**	**122**	⇑*i*P	**Pn**	**22 49 54.9**	**-0.9**
PB09				*e*S	**Sn**	**22 50 04.9**	**-1.4**
PB09				IAML		22 50 06.0	
	comp=E,17µm,0.2s						
TA01	**Diego Aracena**	**0.86**	**344**	*e*P	**Pn**	**22 49 56.0**	**-1.1**
TA01				*e*S	**Sn**	**22 50 07.1**	**-1.3**
TA01	**Diego Aracena**	**0.86**	**344**	⇓*i*P	**Pn**	**22 49 55.8**	**-1.3**
TA02	**Huaiquique**	**1.13**	**350**	*e*P	**Pn**	**22 49 59.9**	**-0.9**
TA02				*e*S	**Sn**	**22 50 15.0**	**-0.1**
TA02				IAML		22 50 17.8	
	comp=Z,2µm,0.3s						
TA02	**Huaiquique**	**1.13**	**350**	⇓*e*P	**Pn**	**22 50 00.0**	**-0.9**
TA02				IAML		22 50 17.1	
	comp=N,6µm,0.1s						
PB06	**IPOC Station P**	**1.35**	**166**	⇓*e*P	**Pn**	**22 50 03.2**	**-0.8**
PB08	**IPOC Station P**	**1.44**	**30**	*e*P	**Pn**	**22 50 04.6**	**-0.9**
PB08				*e*S	**Sn**	**22 50 22.9**	**-0.5**
PB08				IAML		22 50 23.3	
	comp=Z,1µm,0.4s						
PB08	**IPOC Station P**	**1.44**	**30**	⇓*i*P	**Pn**	**22 50 04.5**	**-1.0**
PB05	**IPOC Station P**	**1.47**	**190**	*e*P	**Pn**	**22 50 05.5**	**-0.2**
PB05				*e*S	**Sn**	**22 50 26.7**	**+2.9**
PB05	**IPOC Station P**	**1.47**	**190**	⇓*e*P	**Pn**	**22 50 05.4**	**-0.2**
PB11	**IPOC Station P**	**1.65**	**9**	*e*P	**Pn**	**22 50 07.2**	**-0.8**
PB11				*e*S	**Sn**	**22 50 28.0**	**0.0**
PB11				IAML		22 50 30.6	
	comp=Z,1µm,0.3s						
PB11	**IPOC Station P**	**1.65**	**9**	⇓*i*P	**Pn**	**22 50 07.1**	**-0.8**
PB11				*e*S	**Sn**	**22 50 27.4**	**-0.6**
PB11				IAML		22 50 30.8	
	comp=N,3µm,0.6s						
PSGCX	**Pisagua**	**1.80**	**354**	*e*P	**Pn**	**22 50 09.4**	**-0.7**
PSGCX				*e*S	**Sn**	**22 50 33.4**	**+1.7**
PSGCX				IAML		22 50 34.8	
	comp=Z,494nm,0.3s						
PSGCX	**Pisagua**	**1.80**	**354**	⇑*e*P	**Pn**	**22 50 09.4**	**-0.7**
GO01	**Chusmiza**	**1.85**	**22**	*e*P	**Pn**	**22 50 10.6**	**-0.5**
GO01				*e*S	**Sn**	**22 50 33.9**	**+0.4**
GO01				IAML		22 50 35.7	
	comp=Z,1µm,0.3s						
GO01	**Chusmiza**	**1.85**	**22**	⇓*e*P	**Pn**	**22 50 10.6**	**-0.5**
GO01				IAML		22 50 36.0	
	comp=N,4µm,0.1s						
AF01	**San Pedro de A**	**2.25**	**134**	*e*P	**Pn**	**22 50 19.3**	**+2.9**
PX02	**IPOC Station P**	**2.43**	**354**	*e*P	**Pn**	**22 50 18.4**	**-0.3**
PB12	**IPOC Station P**	**2.79**	**352**	*e*P	**Pn**	**22 50 23.1**	**-0.7**
PB12				*e*S	Sn	22 51 09.0	+13
PB12				IAML		22 51 12.5	
	comp=Z,198nm,0.7s						
PB12	**IPOC Station P**	**2.79**	**352**	⇑*e*P	**Pn**	**22 50 22.9**	**-0.8**
AP01	**Chacalluta**	**3.03**	**353**	*e*P	Pn	22 50 33.1	+6.2
PB16	**IPOC Station P**	**3.07**	**8**	*e*P	**Pn**	**22 50 28.5**	**+0.5**
PB16				*e*S	**Sn**	**22 51 09.3**	**+5.6**
PB16	**IPOC Station P**	**3.07**	**8**	*e*P	**Pn**	**22 50 28.4**	**+0.4**
PB18	**Visviri**	**3.81**	**7**	*e*P	Pn	22 50 42.7	+4.6
AC01	**Pan de Azucar**	**4.77**	**187**	*e*P	**Pn**	**22 50 48.8**	**-2.0**

IDC ***24*** *23:01:28.7±0.5, 26°.92N×111°.15W, h0^{km}, mb4.4/21, mbtmp4.4/30, ML3.8/9, MS4.6/74, Error ellipse: s-maj=11.9km s-min=8.1km az=66.0*

MEX ***24*** *23:01:29.4±0.6, 26°.89N×111°.32W, h14^{km}±14^{km}, MD4.8, Presumed earthquake*

MOS ***24*** *23:01:29.9±1.3, 27°.16N×111°.21W, h15^{km}, mb5.2/29, Error ellipse: s-maj=6.6km s-min=4.0km az=99.5*

NEIC ***24*** *23:01:29.9, 27°.14N×111°.54W, h10^{km}*

NEIC ***24*** *23:01:30.4, 26°.54N×111°.43W, h18^{km}, Moment Tensor Solution. Duration: 2^{s}.3 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-0.87; M$_{\theta\theta}$-8.50; M$_{\phi\phi}$9.37; M$_{r\theta}$0.29; M$_{\theta\phi}$-0.94; M$_{\phi r}$-3.12; Fault plane solution: M$_0$9.55000×10^{16} NP1: φ$_s$223.12000°, δ78.27000°, λ10.51000°. NP2: φ$_s$130.96000°, δ79.71000°, λ168.07000°. Principal axes: T 10.3020, Plg16.0000°, Azm87.0000°; N -1.7480, Plg74.0000°, Azm271.0000°; P -8.5540, Plg1.0000°, Azm177.0000°;*

NEIC ***24*** *23:01:30.4±1.4, 27°.16N±0°.09×111°.41W±0°.06, h10^{km}±1^{km}, mb5.0/343, Mww5.3/45 Error ellipse: s-maj=15.1km s-min=8.2km az=196.0*

GCMT ***24*** *23:01:31.4±0.1, 26°.97N±0°.01×111°.36W±0°.01, h18^{km}, MW5.3/145, Moment Tensor Solution. s96,c138; s145,c272; Duration: 1^{s}.0 Moment tensor: Scale 10^{17} Nm; M$_{rr}$-0.15±.01; M$_{\theta\theta}$-0.84±.01; M$_{\phi\phi}$0.98±.01; M$_{r\theta}$-0.31±.03; M$_{\theta\phi}$-0.18±.01; M$_{\phi r}$-0.07±.03; Best double couple: M$_0$0.99000×10^{17} NP1:φ$_s$131.00000°, δ74.00000°, λ-167.00000°. NP2:φ$_s$37.00000°, δ77.00000°, λ-17.00000°. Principal axes: T 1.0060, Plg2.0000°, Azm85.0000°; N -0.0320, Plg69.0000°, Azm180.0000°; P -0.9740, Plg21.0000°, Azm354.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

GFZ ***24*** *23:01:32.2±0.3, 27°N±3°×11°1W±°, h10^{km}, M4.8/24, mb4.8/24*

GFZ ***24*** *23:01:33.9, 27°.08N×111°.12W, h20^{km}, Mw5.2/61, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M$_{rr}$0.58; M$_{\theta\theta}$-8.29; M$_{\phi\phi}$7.71; M$_{r\theta}$-1.93; M$_{\theta\phi}$-1.63; M$_{\phi r}$-2.12; Fault plane solution: M$_0$8.66822×10^{16} NP1: φ$_s$129.23818°, δ70.61325°, λ178.97878°. NP2: φ$_s$219.57720°, δ89.03669°, λ19.38960°. Principal axes: T 8.3631, Plg14.2768°, Azm86.0848°; N 0.5811, Plg70.5874°, Azm222.3121°; P -8.9441, Plg12.8754°, Azm352.7503°;*

ISC 24 23:01:29.5±0.3**, 26°.97N**±0°.02×**111°.36W**±0°.03**, h10**^{km}**, n821, σ1^{s}.67**/757**, mb5.0**/183**, MS4.8**/74**, 10C-15D, Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNIRB	**San Nicol¡s**	**0.46**	**202**	⇓*i*P	**Pg**	**23 01 36.2**	**-2.4**
SNIRB				*e*S	**Sg**	**23 01 42.0**	**-2.7**
SNIRB				IAML		23 01 44.1	
	comp=E,161µm,0.7s						
SNIRB				⇓*e*		23 01 44.1	
SNIRB				⇑*e*		23 01 52.5	
SNIRB				IAML		23 01 52.5	
	comp=N,113µm,1.1s						
SRIG	**Santa Rosalia**	**0.86**	**294**	⇑*e*P	**Pg**	**23 01 43.6**	**-2.6**
SRIG				*e*S	**Sg**	**23 01 55.5**	**-1.9**
SRIG				IAML		23 01 57.0	
	comp=N,193µm,0.5s						
SRIG				*e*		23 01 57.0	
SRIG				IAML		23 01 57.4	
	comp=E,142µm,0.5s						
SRIG				*e*		23 01 57.4	
SRIG	**Santa Rosalia**	**0.86**	**294**	*e*P	**Pg**	**23 01 43.6**	**-2.6**
SRIG				*i* S	**Sg**	**23 01 56.0**	**-1.4**
SRIG	**Santa Rosalia**	**0.86**	**294**	Pg	**Pg**	**23 01 43.0**	**-3.2**
SRIG					**Sg**	**23 01 54.9**	**-2.5**
SRIG	**Santa Rosalia**	**0.86**	**294**	P	**Pg**	**23 01 43.3**	**-2.9**
NE77	**Loreto B.C.S**	**0.95**	**180**	⇓*e*P	**Pg**	**23 01 44.4**	**-3.5**
NE77				*e*S	**Sg**	**23 01 55.8**	**-4.5**
GUYB	**Guaymas**	**1.02**	**25**	⇓*i*P	**Pg**	**23 01 46.6**	**-2.6**
GUYB				*e*S	**Sg**	**23 01 59.7**	**-2.7**
GUYB	**Guaymas**	**1.02**	**25**	*e*P	**Pg**	**23 01 46.5**	**-2.6**
GUYB				*e*S	**Sg**	**23 01 59.2**	**-3.1**
UAGRB	**Rancho Ultima**	**1.41**	**176**	⇓*i*P	**Pn**	**23 01 50.9**	**-4.3**
UAGRB				*e*S	**Sn**	**23 02 07.5**	**-6.3**
NE80	**Navojoa**	**1.90**	**91**	*e*P	**Pn**	**23 01 58.4**	**-3.5**
NE80				*e*		23 02 26.6	
NE80				⇑*e*		23 02 38.6	
SFQB	**San Francisqui**	**1.95**	**317**	⇓*e*P	**Pn**	**23 01 59.1**	**-3.7**
HSIG		**2.07**	**10**	⇓*e*P	**Pn**	**23 02 02.2**	**-2.2**
HSIG		**2.07**	**10**	*e*P	**Pn**	**23 02 02.2**	**-2.2**
HSIG		**2.07**	**10**		**Pn**	**23 02 01.8**	**-2.6**
EVAR0	**San Evaristo**	**2.13**	**164**	⇓*e*P	**Pn**	**23 02 01.3**	**-3.9**
EVAR0				*e*S	**Sn**	**23 02 24.3**	**-7.4**
EVAR0				⇑*e*		23 02 50.4	
NOVRB	**El Novillo Son**	**2.48**	**37**	⇓*e*P	**Pn**	**23 02 07.8**	**-2.1**
NOVRB				*e*S	**Sn**	**23 02 36.5**	**-3.8**
NOVRB				*e*		23 02 55.1	
TSIG	**Topolobambo**	**2.49**	**123**	*e*P	Pn	23 02 05.1	-5.0
NE74	**Guerrero Negro**	**2.58**	**294**	⇑*e*P	**Pn**	**23 02 10.0**	**-1.3**
NE74				*e*S	**Sn**	**23 02 39.7**	**-3.0**
NE74				IAML		23 02 51.0	
	comp=N,14µm,0.6s						
NE74				IAML		23 02 51.1	
	comp=E,12µm,0.6s						
NE74				⇓*e*		23 02 51.1	
CSIG	**Choix**	**2.67**	**92**	*e*P	**Pn**	**23 02 09.0**	**-3.6**
BAHB	**Baha de los**	**2.77**	**316**	⇓*e*P	**Pn**	**23 02 10.6**	**-3.3**
BAHB				*e*S	**Sn**	**23 02 42.0**	**-5.4**
BAHB				⇑*e*		23 03 17.2	
LPIG	**La Paz**	**3.01**	**161**	Pn	**Pn**	**23 02 14.4**	**-2.9**
	comp=E,45nm,0.3s,baz=321,slow=2.3,SNR=18						
LPIG				Sn	**Sn**	**23 02 49.2**	**-4.3**
	comp=E,91nm,0.3s,baz=188,slow=21,SNR=3.8						
LPIG				LR	LR	23 03 32.0	
	comp=E,13µm,19.9s,baz=344,slow=42						
	comp=E,217nm,0.4s						
LPIG				AML	AML		
LPIG	**La Paz**	**3.01**	**161**	*e*P	**Pn**	**23 02 13.8**	**-3.5**
PLIB	**Puerto Liberta**	**3.16**	**338**	⇓*e*P	**Pn**	**23 02 17.2**	**-2.2**
LAPR	**La Primavera**	**3.62**	**347**	⇓*e*		23 03 50.0	
NZIG	**Nacozari, Sono**	**3.74**	**25**	*e*P	**Pn**	**23 02 26.5**	**-1.0**
NZIG	**Nacozari, Sono**	**3.74**	**25**		**Pn**	**23 02 26.5**	**-1.0**
SSIG	**Sanalona**	**4.36**	**119**	*e*P	**Pb**	**23 02 47.0**	**+0.8**
SSIG				*e*S	**Sg**	**23 03 48.4**	**-1.2**
SSIG	**Sanalona**	**4.36**	**119**		**Pb**	**23 02 47.0**	**+0.8**
319A	**Douglas**	**4.75**	**22**		**Pn**	**23 02 40.1**	**-1.2**
PIX	**Pinacate**	**4.93**	**339**	Pn	**Pn**	**23 02 41.1**	**-2.5**
HPIG		**5.08**	**89**	*e*P	**Pn**	**23 02 41.2**	**-4.7**
HPIG				*i* S	**Sb**	**23 03 57.4**	**-2.4**
HPIG		**5.08**	**89**		**Pn**	**23 02 45.5**	**-0.5**
HPIG		**5.08**	**89**	P	**Pn**	**23 02 45.4**	**-0.5**
	comp=Z,351nm,1.1s						
TUC	**Tucson**	**5.34**	**5**	P	**Pn**	**23 02 48.4**	**-1.0**
TUC	**Tucson**	**5.34**	**5**		**Pn**	**23 02 48.4**	**-1.0**
VTX	**Valle De La Tr**	**5.86**	**320**		**Pn**	**23 02 57.4**	**+0.9**

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DUN6  Lazy B Ranch     5.90  19          Pn     23 02 56.7 -0.5
113A  Mohawk Valley,   6.14 341          Pn     23 02 59.5 -0.9
121A  Cookes Peak, D   6.35  28          Pn     23 03 02.8 -0.6
EPT   El Paso          6.38  40          Pn     23 03 04.8 +1.0
ESJX  Sierra Juarez    6.42 322          Pn     23 03 05.2 +0.9
CPBX  Cerro Prieto     6.42 329          Pn     23 03 04.2  0.0
CCX   Cicese           6.72 318          Pn     23 03 09.5 +1.2
VHRN  Van Horn         6.75  54          Pn     23 03 08.9  0.0
YUH   Yuha Desert      6.91 326          Pn     23 03 11.3 +0.5
MNTX  Cornudas Mount   7.03  46          Pn     23 03 12.6 +0.1
MNTX  Cornudas Mount   7.03  46   P      Pn     23 03 14.7 +2.2
      comp=Z,32nm,0.8s
CBX   Cerro Bola       7.05 320          Pn     23 03 13.6 +0.8
Y14A  Wickenburg       7.09 349          Pn     23 03 13.5 +0.1
TX31  Lajitas Ar. Si   7.18  69          Pn     23 03 14.6 -0.2
TXAR  Lajitas Array    7.18  69   Pn     Pn     23 03 13.8 -0.9
      comp=Z,1.8nm,0.3s,baz=237,slow=14,SNR=50
TXAR                              Sn     Sn     23 04 35.1 -1.4
      comp=Z,1.6nm,0.3s,baz=241,slow=25,SNR=4.1
TXAR                              Lg     Lg     23 05 10.8
      comp=Z,3.2nm,0.3s,baz=82,slow=29,SNR=5.1
TXAR                              LR     LR     23 06 12.7
      comp=Z,12µm,19.0s,baz=248,slow=40
      comp=Z,4.3nm,0.5s
TXAR                              AML    AML
TXAR  Lajitas Array    7.18  69          Pn     23 03 14.6 -0.1
BLYC  Blythe           7.29 339          Pn     23 03 15.7 -0.4
TJX   Tijuana          7.42 319   Pn     Pn     23 03 18.9 +1.1
X16A  Lo Mia Camp, P   7.42 359          Pn     23 03 17.7 -0.4
BC3   Big Chuckawall   7.54 333          Pn     23 03 20.4 +0.7
ALPN  Alpine           7.58  62          Pn     23 03 20.4 +0.1
TPB28                  7.59  50          Pn     23 03 21.5 +1.1
X18A  Snowflake        7.63   9          Pn     23 03 20.4 -0.5
BORC  Borrego Spring   7.65 326          Pn     23 03 21.2 +0.1
DPP   Dos Picos Cty    7.71 322          Pn     23 03 21.5 -0.4
TPB01 Permian Basin    7.72  57          Pn     23 03 21.8 -0.4
SBM   South Baldy      7.85  26          Pn     23 03 23.7 -0.5
IRM   Iron Mountain    7.87 336          Pn     23 03 23.7 -0.4
PECS  Pecos            7.88  54          Pn     23 03 24.9 +0.7
Y22A  Socorro          7.91  28          Pn     23 03 24.4 -0.3
PMD   Palm Desert      7.94 328          Pn     23 03 25.2 +0.1
PFO   Pinyon Flats O   7.95 328   Pn     Pn     23 03 28.8 +3.5
      comp=Z,0.2nm,0.3s,baz=146,slow=9.0,SNR=13
PFO                               Lg     Lg     23 05 41.2
      comp=Z,0.2nm,0.3s,baz=59,slow=19,SNR=4.0
PFO                               LR     LR     23 06 16.3
      comp=Z,3µm,19.1s,baz=148,slow=36
      comp=Z,11nm,0.9s
PFO                               AML    AML
PFO   Pinyon Flats O   7.95 328 i P      Pn     23 03 23.2 -2.1
PFO   Pinyon Flats O   7.95 328          Pn     23 03 25.2 -0.1
DNR   Dunn Ranch,Anz   8.00 327   Pn     Pn     23 03 27.5 +1.5
GDL2  Guadalupe Moun   8.01  48          Pn     23 03 26.6 +0.4
CRNM  Carthage         8.02  29          Pn     23 03 26.0 -0.3
TPB05 Hovey Rd         8.06  59          Pn     23 03 27.5 +0.7
BELC  Belle Mtn. Jos   8.07 331          Pn     23 03 27.9 +1.0
TPB11 China Draw       8.07  50          Pn     23 03 28.0 +1.1
BMNM  Bear Mountains   8.09  25          Pn     23 03 27.3  0.0
LENM  Lemitar          8.10  27          Pn     23 03 27.2 -0.2
W18A  Petrified Fore   8.24   9          Pn     23 03 30.2 +1.0
CLNB  Carlsbad         8.37  49          Pn     23 03 32.4 +1.3
W13A  Hualapai Mount   8.39 346          Pn     23 03 31.4 +0.1
DANC  Danby, Needles   8.39 337   Pn     Pn     23 03 30.7 -0.5
ELS   Elsinore Mount   8.47 323          Pn     23 03 33.7 +1.3
TPB06 Permian Basin    8.49  55          Pn     23 03 32.6 -0.1
WUAZ  Wupatki          8.52 360          Pn     23 03 33.7 +0.6
SAND  Sanderson        8.65  68          Pn     23 03 35.1 +0.2
MNHN  Monahans         8.68  58          Pn     23 03 35.6 +0.3
CPRX  Cap Rock         8.86  45          Pn     23 03 39.8 +1.9
ALQ   Albuquerque      8.99  27          Pn     23 03 38.8 -0.8
ALQ   Albuquerque      8.99  27          Pn     23 03 39.0 -0.6
TASM  ASL Pad, Albuq   8.99  27          Pn     23 03 39.1 -0.5
TASM  ASL Pad, Albuq   8.99  27          Pn     23 03 38.4 -1.2
ANMO  Albuquerque      8.99  27   Pn     Pn     23 03 40.6 +1.0
      comp=Z,0.2nm,0.3s,baz=209,slow=13,SNR=20
ANMO                              Lg     Lg     23 06 10.7
      comp=Z,0.3nm,0.3s,baz=305,slow=23,SNR=8.3
ANMO                              LR     LR     23 06 43.2
      comp=Z,4µm,20.7s,baz=202,slow=35
      comp=Z,11nm,1.1s
ANMO                              AML    AML
ANMO  Albuquerque      8.99  27 i P      Pn     23 03 40.0 +0.4
ANMO  Albuquerque      8.99  27          Pn     23 03 39.5 -0.1
ANMO  Albuquerque      8.99  27   P      Pn     23 03 43.4 +3.8
      comp=Z,38nm,1.7s
ZAIG  Zacatecas        9.01 116          Pn     23 03 41.2 +1.2
ZAIG  Zacatecas        9.01 116   P      Pn     23 03 41.8 +1.8
      comp=Z,11nm,1.5s
BFSC  Mount Baldy Ra   9.05 325          Pn     23 03 40.9 +0.5
MTPC  Mountain Pass    9.21 338          Pn     23 03 42.1 -0.6
ODSA  Odessa           9.22  54   Pn     Pn     23 03 43.1 +0.4
MWC   Mount Wilson     9.25 323   P      Pn     23 03 43.3 +0.1
MWC   Mount Wilson     9.25 323          Pn     23 03 43.3 +0.1
PASC  Pasadena Art C   9.28 322   Pn     Pn     23 03 44.1 +0.7
TMB01 Midkiff          9.35  58          Pn     23 03 44.2 -0.2
U15A  North Rim        9.46 355          Pn     23 03 46.3 +0.1
GSC   Goldstone, Bar   9.52 332   P      Pn     23 03 46.6 -0.3
GSC   Goldstone, Bar   9.52 332   Pn     Pn     23 03 46.6 -0.3
128A  Castleberry Fa   9.54  52          Pn     23 03 47.0 -0.1
229A  Bryant Ranch,    9.69  57          Pn     23 03 50.1 +1.0
OZNA  Ozona            9.79  64          Pn     23 03 51.5 +1.1
SHOC  Shoshone, Teco   9.84 336          Pn     23 03 51.8 +0.7
OSI   Osito Audit: C   9.90 322   Pn     Pn     23 03 53.5 +1.5
CCCA  Chr Cany lake    9.95 330          Pn     23 03 53.7 +1.0
129A  Stewart Farms,   9.98  53          Pn     23 03 53.4 +0.3
SHPR  Sheep Range     10.04 342          Pn     23 03 54.5 +0.6
LRMC  Laurel Mtn Rad  10.06 329          Pn     23 03 55.3 +1.1
QSM   Queen of Sheba  10.12 334          Pn     23 03 56.0 +1.0
LCMT  Little Creek M  10.14 351          Pn     23 03 55.9 +0.6
MSTX  Muleshoe        10.17  45          Pn     23 03 57.0 +1.3
SGCY  Sterling City   10.18  59          Pn     23 03 57.5 +1.7
GWY   Greenwater Val  10.24 335          Pn     23 03 57.4 +0.7
MPMC  Manual Prospec  10.46 332          Pn     23 04 00.0 +0.3
PKCU  Pink Cliffs     10.47 356          Pn     23 04 01.1 +1.0
POST  Post            10.48  52          Pn     23 04 00.8 +0.9
MVCO  Mesa Verde      10.49  13          Pn     23 03 59.4 -0.8
MVCO  Mesa Verde      10.49  13   P      Pn     23 04 03.5 +3.2
      comp=Z,82nm,1.2s
FURC  Furnace Creek,  10.56 335          Pn     23 04 03.1 +2.2
ISA   Isabella, Lake  10.58 327   P      Pn     23 04 03.7 +2.3
ISA   Isabella, Lake  10.58 327          Pn     23 04 03.7 +2.3
CCUT  Cedar City      10.68 351          Pn     23 04 04.4 +1.6
833A  Chaparral WMA,  10.69  80          Pn     23 04 02.2 -0.6
JCT   Junction City   10.72  68   P      Pn     23 04 04.4 +1.1
JCT   Junction City   10.72  68          Pn     23 04 04.4 +1.1
WCT   Wildcat Mounta  10.76 337          Pn     23 04 04.5 +0.7
TPNV  Topopah Spring  10.78 339   P      Pn     23 04 04.1  0.0
TPNV  Topopah Spring  10.78 339          Pn     23 04 04.1  0.0
PRN   Pahroc Range    10.86 344          Pn     23 04 07.0 +1.7
SN07  Snyder 07       10.92  54          Pn     23 04 07.0 +1.1
HNDO  Hondo           10.95  74          Pn     23 04 06.7 +0.4
HMU   Henry Mountain  10.95   3          Pn     23 04 08.2 +1.7
VES   Vestal, Richgr  11.03 325          Pn     23 04 08.5 +1.2
CWC   Cottonwood Cre  11.04 330          Pn     23 04 08.5 +0.9
DKNS  Dickens         11.21  51          Pn     23 04 10.5 +0.6
GRAC  Grapevine Rang  11.22 334          Pn     23 04 10.8 +0.8
PV05  Paradox Valley  11.24   9          Pn     23 04 11.8 +1.4
HBVL  Hebbronville    11.31  87          Pn     23 04 14.1 +2.8
PV13  Radium Mtn., P  11.36  10          Pn     23 04 12.7 +0.6
PV01  Paradox Valley  11.38  11          Pn     23 04 12.9 +0.6
PV02  Paradox Valley  11.42  10          Pn     23 04 13.3 +0.4
PV18  Skein Mesa, Pa  11.43  10          Pn     23 04 13.7 +0.7
GMN   Gold Mountain   11.45 336          Pn     23 04 14.4 +1.2
PV03  Paradox Valley  11.45  10          Pn     23 04 14.3 +1.1
AMTX  Amarillo        11.45  44          Pn     23 04 14.1 +0.9
PV17  East Wray Mesa  11.45  10          Pn     23 04 14.0 +0.7
PV19  Morning Glory   11.48   9          Pn     23 04 13.3 -0.4
PV11  David Mesa, Pa  11.49  10          Pn     23 04 14.6 +0.8
EF02  Christine       11.49  78   Pn     Pn     23 04 14.4 +0.8
PV16  Nyswonger Mesa  11.49  10          Pn     23 04 14.3 +0.4
PV20  West Nyswonger  11.51   9          Pn     23 04 13.7 -0.5
PV12  Saucer Basin,   11.52  10          Pn     23 04 13.7 -0.6
PV14  Lion Creek, Pa  11.54   9          Pn     23 04 13.2 -1.4
PV10  Paradox Valley  11.54   9          Pn     23 04 14.3 -0.3
PV04  Paradox Valley  11.57  10          Pn     23 04 14.5 -0.5
PV15  Paradox Valley  11.59  11          Pn     23 04 15.0 -0.3
APMT  Aspermont       11.60  54          Pn     23 04 15.1 -0.1
PV23  Carpenter Ridg  11.62   9          Pn     23 04 14.5 -1.1
TIN   Tinemaha, Big   11.62 332   P      Pn     23 04 17.3 +1.8
TIN   Tinemaha, Big   11.62 332   Pn     Pn     23 04 17.3 +1.8
ABTX  Abilene, Hawle  11.62  58          Pn     23 04 16.0 +0.5
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BRDY  Brady           11.62  65   Pn     Pn     23 04 16.1 +0.5
PH02  Texas Public H  11.63  42          Pn     23 04 15.2 -0.4
TCRU  Three Creeks R  11.64 356   Pn     Pn     23 04 16.8 +0.8
PV07  Paradox Valley  11.66  11          Pn     23 04 16.2  0.0
T25A  Trinidad        11.72  28          Pn     23 04 18.0 +1.0
PSUT  Pine Spring     11.72 350          Pn     23 04 18.0 +1.0
PV21  Cone Mtn., Par  11.73   9          Pn     23 04 16.9 -0.3
PV22  Blue Mesa, Par  11.73  10          Pn     23 04 17.0 -0.1
MOIG  Morelia         11.82 126   Pn     Pn     23 04 23.3 +4.8
PKD   Bear Valley Ra  11.89 321          Pn     23 04 20.7 +1.6
RTBA  Rita Blanca     11.95  36          Pn     23 04 19.6 -0.4
KVTX  Kingsville      11.99  84   Pn     Pn     23 04 22.7 +2.1
TPH   Tonopah         12.12 337   P      Pn     23 04 24.7 +2.2
TPH   Tonopah         12.12 337          Pn     23 04 24.7 +2.2
SRU   San Rafael Swe  12.13   3   P      Pn     23 04 21.4 -1.1
SRU   San Rafael Swe  12.13   3          Pn     23 04 21.4 -1.1
735A  Kenedy          12.13  78   Pn     Pn     23 04 23.1 +0.7
EF04  Eagle Ford 04   12.18  76          Pn     23 04 24.1 +0.9
PMPB  Monarch Peak    12.23 321          Pn     23 04 25.2 +1.4
TMUT  Trail Mountain  12.29   1          Pn     23 04 24.8 -0.1
HULI  Fort Hunter Li  12.34 319          Pn     23 04 25.8 +0.5
MDPB  Devils Postpil  12.47 330          Pn     23 04 28.2 +0.9
P17A  Butcher Ranch,  12.48   2          Pn     23 04 26.8 -0.6
SMWD  Samnorwood      12.50  47          Pn     23 04 27.5 -0.1
BBGB  Big Mountain B  12.62 322          Pn     23 04 28.9 -0.4
435B  Jarrell         12.65  69   Pn     Pn     23 04 30.5 +1.0
P18A  Preston Nutter  12.66   4          Pn     23 04 29.7 -0.2
PLPT  Palo Pinto      12.72  60          Pn     23 04 30.5  0.0
LHV   Little Huntoon  12.75 334          Pn     23 04 32.1 +1.2
NV11  Mina Array Sit  12.78 335          Pn     23 04 32.1 +0.7
Q09A  Carvers         12.80 339          Pn     23 04 32.5 +0.8
NVAR  Mina Array Bea  12.83 335   Pn     Pn     23 04 36.9 +4.7
      comp=Z,0.2nm,0.3s,baz=154,slow=14,SNR=28
      comp=Z,6.8nm,1.0s
NVAR                              AML    AML
MLDN  Muldoon         12.89  74   Pn     Pn     23 04 33.1 +0.3
NLU   North Lily Min  12.96 358          Pn     23 04 34.5 +0.5
SAO   San Andreas Ge  12.98 321   P      Pn     23 04 35.7 +1.6
SAO   San Andreas Ge  12.98 321   Pn     Pn     23 04 35.7 +1.6
MPU   Maple Canyon    13.01 359   Pn     Pn     23 04 35.7 +1.1
WTFS  Witchita Falls  13.02  56          Pn     23 04 34.2 -0.4
WHTX  Lake Whitney,   13.10  64          Pn     23 04 34.6 -1.1
FW13  Cleburne        13.24  63          Pn     23 04 36.7 -0.9
DUG   Dugway, Tooele  13.24 355   P      Pn     23 04 37.9 +0.1
DUG   Dugway, Tooele  13.24 355   Pn     Pn     23 04 37.9 +0.1
DUG   Dugway, Tooele  13.24 355   P      P      23 04 42.8 -5.0
      comp=Z,88nm,2.1s
WMOK  Wichita Mounta  13.28  51   P      Pn     23 04 38.1 -0.1
WMOK  Wichita Mounta  13.28  51          Pn     23 04 38.1 -0.1
WMOK  Wichita Mounta  13.28  51   P      Pn     23 04 39.2 +1.0
      comp=Z,51nm,1.4s
KVN   Kaiserville     13.30 337   P      Pn     23 04 40.3 +1.7
KVN   Kaiserville     13.30 337          Pn     23 04 40.3 +1.7
WAKR  Walker          13.35 331          Pn     23 04 41.7 +2.4
FW06  Azle            13.37  60          Pn     23 04 39.1 -0.2
O20A  White River Ci  13.38  10          Pn     23 04 40.1 +0.4
CMB   Columbia Colle  13.40 328   P      Pn     23 04 41.7 +1.9
CMB   Columbia Colle  13.40 328          Pn     23 04 41.7 +1.9
MHC   Mount Hamilton  13.51 322   P      Pn     23 04 43.1 +1.7
MHC   Mount Hamilton  13.51 322          Pn     23 04 43.1 +1.7
BSUT  Blindstream Ca  13.54   2          Pn     23 04 42.2 +0.2
ELIS  Ellis County    13.62  45   Pn     Pn     23 04 44.6 +1.8
RDMU  Red Mountain    13.64   6          Pn     23 04 44.0 +0.7
ISCO  Idaho Springs   13.66  19   P      Pn     23 04 44.4 +0.8
ISCO  Idaho Springs   13.66  19          Pn     23 04 44.4 +0.8
NOQ   North Oquirrh   13.66 358          Pn     23 04 46.3 +2.9
YERR  Yerington       13.68 333          Pn     23 04 47.0 +3.3
CTU   Camp Tracy      13.69 359          Pn     23 04 45.9 +2.0
Z35A  Perchaven, San  13.74  59          Pn     23 04 44.2 -0.2
X34A  Smith Ranch, M  13.88  54          Pn     23 04 46.6 +0.2
JRSC  Jasper Ridge    13.88 321          Pn     23 04 47.5 +1.1
PNTR  Pine Nut        13.91 332          Pn     23 04 49.3 +2.4
HAYD  Hayden          13.93  13          Pn     23 04 48.0 +0.7
HKT   Hockley         13.97  74 i P      Pn     23 04 47.5  0.0
HKT                               pmax   pmax
      comp=Z,54nm,1.6s
HKT   Hockley         13.97  74          Pn     23 04 46.6 -1.0
HKT   Hockley         13.97  74   P      Pn     23 04 47.6  0.0
KSCO  Kaye Shedlock'  14.05  29   Pn     Pn     23 04 47.8 -1.0
LOOK  Love County     14.08  57          Pn     23 04 47.2 -1.8
ELK   Elko            14.11 348   Pn     Pn     23 04 53.2 +3.6
      comp=Z,0.2nm,0.3s,baz=168,slow=12,SNR=38
ELK                               Lg     Lg     23 08 53.1
      comp=Z,0.1nm,0.3s,baz=153,slow=18,SNR=4.7
ELK                               LR     LR     23 10 34.4
      comp=Z,4µm,19.7s,baz=169,slow=38
      comp=Z,16nm,1.2s
ELK                               AML    AML
ELK   Elko            14.11 348          Pn     23 04 49.4 -0.3
TCUT  Toone Canyon    14.11 360          Pn     23 04 48.9 -0.8
MPK   Martis Peak     14.27 332   Pn     Pn     23 04 53.2 +1.3
BMN   Battle Mountai  14.28 342   P      Pn     23 04 52.7 +0.7
BMN   Battle Mountai  14.28 342          Pn     23 04 52.6 +0.7
NOKA  Waynoka         14.28  45          Pn     23 04 53.2 +1.3
OK038 West end E0370  14.31  45          Pn     23 04 53.4 +1.2
SPUT  South Promonto  14.33 357          Pn     23 04 54.5 +1.9
PAHR  Pah Rah Range   14.35 334          Pn     23 04 53.5 +0.5
AFDM  Forest Hills D  14.40 328          Pn     23 04 54.7 +1.2
HNVL  Huntsville, TX  14.42  71   Pn     Pn     23 04 51.5 -2.3
TREL  Terrell         14.43  63          Pn     23 04 53.0 -0.9
FNO   Franklin        14.52  52          Pn     23 04 53.9 -1.2
OKCSW OKLAHOMA CITY   14.57  51   Pn     Pn     23 04 55.8  0.0
HWUT  Hardware Ranch  14.60 359          Pn     23 04 56.8 +0.4
HWUT  Hardware Ranch  14.60 359   P      P      23 05 00.1 -2.8
      comp=Z,119nm,1.5s
CVS   Carmenet Viney  14.68 323          Pn     23 04 56.6 -0.8
OK029 Liberty Lake    14.76  50          Pn     23 04 57.9 -0.5
MCCM  Marconi Confer  14.77 322          Pn     23 04 57.3 -1.1
CROK  Carrier         14.81  47   Pn     Pn     23 04 58.9 -0.2
HVU   Hansel Valley   14.82 356   P      Pn     23 04 58.9 -0.4
HVU   Hansel Valley   14.82 356          Pn     23 04 58.9 -0.4
W35A  Tecumseh        14.84  53          Pn     23 04 58.4 -1.0
BEKR  Beckworth       14.88 332          Pn     23 05 01.6 +1.4
SUTB  Sutter Butte    15.01 327          Pn     23 05 03.1 +1.4
TLIG  Tlapa           15.08 126          Pn     23 05 05.7 +2.7
TLIG                              IAmb   IAmb   23 05 11.3
      comp=Z,90nm,1.6s
GC02  Grant County #  15.10  46   Pn     Pn     23 05 02.3 -0.6
ORV   Oroville        15.13 329   P      Pn     23 05 04.7 +1.3
ORV   Oroville        15.13 329          Pn     23 05 04.7 +1.3
GDXM  Geysers         15.20 324          Pn     23 05 04.8 +0.5
KAN08 Anthony NE Sta  15.25  45          Pn     23 05 06.1 +1.1
CBKS  Cedar Bluff     15.30  37   P      Pn     23 05 05.8 +0.2
CBKS                              pmax   pmax
      comp=Z,9.0nm,0.6s
CBKS  Cedar Bluff     15.30  37          Pn     23 05 05.8 +0.2
NATX  Nacogdoches     15.31  68   Pn     Pn     23 05 05.1 -0.7
OK052 Battle Ridge R  15.31  50          Pn     23 05 04.8 -1.0
KAN01 Argonia South   15.34  45   Pn     Pn     23 05 06.1 -0.1
OK048 Pawnee Station  15.45  49          Pn     23 05 06.4 -1.1
OK048                             IAmb   IAmb   23 05 13.3
      comp=Z,69nm,1.4s
DEOK  Depew           15.45  51          Pn     23 05 05.9 -1.6
DEOK                              IAmb   IAmb   23 05 12.8
      comp=Z,60nm,1.4s
QUOK  Quay            15.47  50          Pn     23 05 05.8 -2.1
QUOK                              IAmb   IAmb   23 05 13.4
      comp=Z,49nm,0.9s
Z38A  Mt. Pleasant    15.48  62          Pn     23 05 06.7 -1.3
Z38A                              IAmb   IAmb   23 05 14.0
      comp=Z,169nm,1.4s
OK051 E0350 and S346  15.57  49   Pn     Pn     23 05 07.6 -1.5
OK051                             IAmb   IAmb   23 05 14.3
      comp=Z,112nm,1.7s
R32A  Long Quarter,   15.59  40   Pn     Pn     23 05 09.4 -0.1
AHID  Auburn Hatcher  15.76   1   P      Pn     23 05 11.2 -0.5
AHID  Auburn Hatcher  15.76   1   P      P      23 05 14.4 -1.3
      comp=Z,32nm,1.7s
BW06  Boulder Array   15.83   5          Pn     23 05 10.2 -2.5
PD31  Pinedale Array  15.83   5          Pn     23 05 10.2 -2.5
PDAR  Pinedale Array  15.83   5   Pn     Pn     23 05 14.2 +1.5
      comp=Z,0.2nm,0.3s,baz=186,slow=12,SNR=21
PDAR                              Lg     Lg     23 09 47.8
      comp=Z,0.3nm,0.3s,baz=186,slow=28,SNR=1.6
      comp=Z,5.2nm,0.8s
PDAR                              AML    AML
PDAR  Pinedale Array  15.83   5          Pn     23 05 10.3 -2.4
O03E  Paynes Creek    15.86 330          P      23 05 15.4 -1.4
O03E                              IAmb   IAmb   23 05 18.6
      comp=Z,230nm,1.8s
OGNE  Ogallala        15.92  27   P      Pn     23 05 15.1 +1.3
OGNE                              IAmb   IAmb   23 05 20.4
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      comp=Z,197nm,1.5s
DCMP  DeCamp, Califo  15.97 324          Pn     23 05 11.7 -2.7
TUL3  Leonard         15.98  52          Pn     23 05 12.5 -1.9
T35A  Sooner Cattle   16.01  48          Pn     23 05 13.7 -1.2
K22A  Casper          16.13  13          Pn     23 05 15.0 -1.5
HATC  Hat Creek Radi  16.14 331          Pn     23 05 15.1 -1.5
HATC                              IAmb   IAmb   23 05 21.5
      comp=Z,93nm,1.4s
O02D  Mt. Diablo Mer  16.23 327          Pn     23 05 16.4 -1.4
KCPM  Cahto Peak      16.26 324          Pn     23 05 16.2 -1.9
441A  DeRidder        16.35  72   Pn     Pn     23 05 18.0 -1.2
441A                              IAmb   IAmb   23 05 20.1
      comp=Z,159nm,1.9s
SNOW  Snow King Moun  16.46   2          Pn     23 05 18.1 -2.7
WVOR  Wild Horse Val  16.53 341   P      Pn     23 05 22.6 +1.0
WVOR                              pmax   pmax
      comp=Z,287nm,2.0s
WVOR  Wild Horse Val  16.53 341   P      Pn     23 05 22.6 +1.0
WVOR                              IAmb   IAmb   23 05 26.6
      comp=Z,287nm,2.0s
WVOR  Wild Horse Val  16.53 341   P      P      23 05 25.2 +1.0
      comp=Z,71nm,2.1s
MOD   Modoc Plateau   16.61 336          P      23 05 24.7 -0.4
MOD                               IAmb   IAmb   23 05 27.9
      comp=Z,156nm,1.6s
LOHW  Long Hollow     16.61   2          Pn     23 05 20.1 -2.6
FXWY  Fox Creek       16.63   1          Pn     23 05 20.1 -2.8
HLID  Hailey          16.74 352          P      23 05 25.8 -0.8
HLID  Hailey          16.74 352   P      P      23 05 27.8 +1.2
      comp=Z,20nm,1.3s
M03C  McCloud         16.80 331   P      P      23 05 26.7 -0.5
M03C                              IAmb   IAmb   23 05 30.6
      comp=Z,284nm,1.9s
MFID  Camas Ranch     16.80 349          P      23 05 27.4 +0.2
MFID                              IAmb   IAmb   23 05 30.4
      comp=Z,124nm,1.9s
KHBM  Hayfork Bally   16.82 327   P      P      23 05 27.1 -0.4
MIAR  Mount Ida       17.03  59   P      Pn     23 05 24.3 -3.5
MIAR                              pmax   pmax
      comp=Z,46nm,1.4s
MIAR  Mount Ida       17.03  59          Pn     23 05 24.3 -3.5
KMPM  Mount Pierce    17.08 325          Pn     23 05 27.0 -1.5
KMPM                              IAmb   IAmb   23 05 34.8
      comp=Z,204nm,1.7s
WLAR  White Oak Lake  17.10  63          Pn     23 05 26.9 -1.8
WLAR                              IAmb   IAmb   23 05 37.7
      comp=Z,190nm,1.4s
M02C  Callahan        17.22 330          Pn     23 05 28.3 -1.9
Z41A  Richland Creek  17.22  64          Pn     23 05 28.3 -1.9
Z41A                              IAmb   IAmb   23 05 34.2
      comp=Z,224nm,1.8s
KHMM  Horse Mountain  17.23 327   Pn     Pn     23 05 28.4 -2.1
KHMM                              IAmb   IAmb   23 05 35.6
      comp=Z,119nm,1.8s
U38A  Gravette        17.23  53          Pn     23 05 28.6 -1.7
YPP   Pitchstone Pla  17.27   1   P      Pn     23 05 31.2 +0.1
YPP                               IAmb   IAmb   23 05 35.6
      comp=Z,131nm,1.9s
KSU1  Kansas State U  17.27  42          Pn     23 05 29.1 -1.7
J08A  Circle Bar Ran  17.34 342          Pn     23 05 28.9 -2.9
BCYI  Bear Canyon     17.38 355   P      P      23 05 33.4 -0.4
BCYI                              IAmb   IAmb   23 05 39.7
      comp=Z,175nm,2.0s
YBH   Yreka Blue Hor  17.43 331   P      P      23 05 36.1 +1.9
      comp=Z,0.1nm,0.3s,baz=203,slow=7.6,SNR=4.0
YBH                               LR     LR     23 11 57.9
      comp=Z,2µm,21.0s,baz=282,slow=36
      comp=Z,3.8nm,1.0s
YBH                               AML    AML
YBH   Yreka Blue Hor  17.43 331   P      P      23 05 34.6 +0.4
YFT   Old Faithful    17.45   1   P      P      23 05 34.3 -0.1
HHAR  Hobbs           17.47  54          Pn     23 05 30.6 -2.8
HHAR                              IAmb   IAmb   23 05 39.3
      comp=Z,90nm,1.4s
K05A  Summer Lake     17.54 336          Pn     23 05 32.3 -2.0
K05A                              IAmb   IAmb   23 05 39.3
      comp=Z,124nm,1.4s
X40A  Basin Creek Fa  17.58  60          Pn     23 05 31.7 -3.0
L04D  Klamath Falls   17.65 332          Pn     23 05 33.8 -1.9
YMR   Madison River   17.66   1          Pn     23 05 33.1 -2.7
YMR                               IAmb   IAmb   23 05 41.0
      comp=Z,129nm,1.7s
YNR   Norris Junctio  17.71   2   P      Pn     23 05 35.2 -1.4
YNM   Yellowstone No  17.73   2          Pn     23 05 35.3 -1.4
YHB   Horse Butte     17.74   0   Pn     Pn     23 05 34.7 -2.2
YMP   Mirror Lake Pl  17.76   3          Pn     23 05 35.2 -1.9
K04D  Chiloquin, OR   17.77 334   P      Pn     23 05 35.8 -1.4
K04D                              IAmb   IAmb   23 05 42.7
      comp=Z,279nm,1.4s
YHH   Holmes Hill     17.78   1          Pn     23 05 35.2 -2.3
YHH                               IAmb   IAmb   23 05 42.4
      comp=Z,176nm,1.8s
KRMB  Red Mountain    17.81 328   P      Pn     23 05 37.8 +0.2
KRMB                              IAmb   IAmb   23 05 43.6
      comp=Z,125nm,1.9s
QLMT  Earthquake Lak  17.82 360          Pn     23 05 35.3 -2.5
YHL   Hebgen Lake     17.84   0          Pn     23 05 36.2 -2.0
YHL                               IAmb   IAmb   23 05 44.6
      comp=Z,171nm,1.7s
MCMT  McKenzie Canyo  17.86 357   P      P      23 05 40.1 +1.1
YNE   Yellowstone No  18.03   3   P      P      23 05 41.6 +0.7
BGNE  Belgrade        18.04  34   P      P      23 05 41.5 +0.7
BGNE                              IAmb   IAmb   23 05 47.5
      comp=Z,86nm,1.3s
UALR  University of   18.06  60   Pn     Pn     23 05 39.1 -1.5
RSSD  Black Hills     18.10  17   P      Pn     23 05 38.4 -2.9
RSSD                              pmax   pmax
      comp=Z,46nm,1.2s
RSSD  Black Hills     18.10  17          Pn     23 05 38.4 -2.9
RSSD  Black Hills     18.10  17   P      P      23 05 42.7 +1.0
      comp=Z,32nm,0.9s
CMIG  Matias Romero   18.14 119   P      Pn     23 05 41.0 -0.7
      baz=304,slow=9.3,SNR=12
      comp=Z,24nm,1.2s
J05D  Fort Rock, OR   18.15 336   P      P      23 05 42.8 +0.7
J05D                              IAmb   IAmb   23 05 48.6
      comp=Z,94nm,1.3s
RLMT  Red Lodge       18.19   5   P      P      23 05 42.6  0.0
RLMT                              IAmb   IAmb   23 05 49.2
      comp=Z,382nm,2.0s
143A  Socs Landing,   18.22  67          Pn     23 05 39.2 -3.3
CCAR  Cane Creek      18.23  63          Pn     23 05 39.7 -3.1
CCAR                              IAmb   IAmb   23 05 49.5
      comp=Z,281nm,1.6s
WHAR  Wooly Hollow    18.29  58          Pn     23 05 41.9 -1.5
WHAR                              IAmb   IAmb   23 05 49.8
      comp=Z,133nm,1.4s
K30B  Basset          18.36  28          Pn     23 05 42.1 -2.2
BBOR  Butler Butte    18.36 333          Pn     23 05 41.8 -2.7
DLMT  Dillon          18.38 357   P      Pn     23 05 42.1 -2.5
J04A  Umpqua Nationa  18.43 334   P      P      23 05 43.2 -2.1
J04A                              IAmb   IAmb   23 05 54.2
      comp=Z,273nm,1.8s
PLID  Pearl Lake      18.46 350          P      23 05 43.3 -2.3
BMO   Blue Mountains  18.47 347   P      P      23 05 43.1 -2.5
BMO                               pmax   pmax
      comp=Z,112nm,2.0s
BMO   Blue Mountains  18.47 347          P      23 05 43.1 -2.5
PINE  Pine Mountain   18.49 338          P      23 05 42.9 -3.0
PINE                              IAmb   IAmb   23 05 51.6
      comp=Z,220nm,1.6s
S39A  Bolivar         18.58  50          P      23 05 43.9 -2.8
BOZ   Bozeman (W)     18.59 359   P      P      23 05 44.4 -2.5
BOZ                               pmax   pmax
      comp=Z,69nm,1.6s
BOZ   Bozeman (W)     18.59 359   P      P      23 05 44.4 -2.5
FCAR  Ozark Folk Cen  18.64  57   P      P      23 05 46.5 -0.9
GCMT  Greycliff       18.83   4   P      P      23 05 46.4 -3.2
VBMS  Vicksburg       18.85  69   P      P      23 05 49.3 -0.4
I04A  Tendick Farm,   19.02 335          P      23 05 48.6 -3.0
BUT   Butte           19.03 357   P      P      23 05 51.6 -0.1
WIFE  Three Sisters-  19.03 336          P      23 05 50.1 -1.8
I05D  Terrebonne, OR  19.11 338   P      P      23 05 51.0 -1.5
J01E  Myrtle Point    19.12 331   P      P      23 05 50.5 -2.1
J01E                              IAmb   IAmb   23 06 01.7
      comp=Z,68nm,1.2s
LCAR  Lake Charles    19.43  57          P      23 05 55.2 -0.9
LCAR                              IAmb   IAmb   23 06 02.7
      comp=Z,119nm,1.9s
P38A  Dawn            19.48  45          P      23 05 55.9 -0.7
P38A                              IAmb   IAmb   23 06 08.4
      comp=Z,107nm,1.8s
F10A  Beach Ranch, E  19.53 348   P      P      23 05 55.4 -1.9
R40A  Maddies Statio  19.60  50   P      P      23 05 55.6 -2.4
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LNOR	**Lincton Mounta**	**19.65**	**345**	P	**P**	**23 05 56.7**	**-1.8**
LNOR				IAmb	IAmb	23 06 07.9	
	comp=Z,96nm,1.5s						
I02E	**Swisshome, OR**	**19.85**	**333**	P	**P**	**23 05 59.0**	**-1.5**
I02E				IAmb	IAmb	23 06 10.1	
	comp=Z,246nm,1.8s						
T42A	**Van Buren**	**19.86**	**55**	P	**P**	**23 05 59.9**	**-0.8**
GBMT	**Granite Butte,**	**19.87**	**358**	P	**P**	**23 05 58.6**	**-2.4**
G05A	**Wamic**	**19.90**	**339**	P	**P**	**23 05 59.6**	**-1.6**
G05A				IAmb	IAmb	23 06 07.0	
	comp=Z,116nm,1.2s						
MSO	**Missoula**	**19.93**	**355**	P	**P**	**23 06 00.1**	**-1.4**
Y45A	**Yeager Farm, C**	**20.01**	**65**	P	**P**	**23 06 02.2**	**-0.1**
Y45A				IAmb	IAmb	23 06 11.7	
	comp=Z,165nm,1.4s						
CCM	**Cathedral Cave**	**20.20**	**52**	P	**P**	**23 06 04.1**	**-0.3**
CCM				pmax	pmax		
	comp=Z,19nm,1.0s						
CCM	**Cathedral Cave**	**20.20**	**52**	P	**P**	**23 06 04.1**	**-0.3**
P40A	**Paris**	**20.38**	**47**	P	**P**	**23 06 04.0**	**-2.4**
P40A				IAmb	IAmb	23 06 16.0	
	comp=Z,79nm,1.3s						
HAWA	**Hanford**	**20.44**	**344**	P	**P**	**23 06 04.8**	**-2.2**
ECSD	**EROS Data Cent**	**20.54**	**32**	P	**P**	**23 06 07.1**	**-1.1**
ECSD				IAmb	IAmb	23 06 13.1	
	comp=Z,135nm,1.6s						
ECSD	**EROS Data Cent**	**20.54**	**32**	P	Pn	23 06 09.4	-1.0
	comp=Z,51nm,1.8s						
E07A	**Sunnyside**	**20.68**	**343**	P	**P**	**23 06 07.9**	**-1.7**
FVM	**French Village**	**20.75**	**53**	P	**P**	**23 06 10.1**	**-0.3**
FVM				pmax	pmax		
	comp=Z,39nm,0.9s						
FVM	**French Village**	**20.75**	**53**	P	**P**	**23 06 10.1**	**-0.3**
FVM				IAmb	IAmb	23 06 17.6	
	comp=Z,38nm,0.9s						
D08A	**Wollman Farm,**	**20.92**	**345**		**P**	**23 06 10.3**	**-1.9**
SCIA	**State Center**	**21.05**	**40**	P	**P**	**23 06 11.6**	**-2.1**
SCIA				IAmb	IAmb	23 06 24.6	
	comp=Z,122nm,1.0s						
EGMT	**Eagleton**	**21.05**	**3**	P	**P**	**23 06 12.7**	**-1.0**
EGMT				IAmb	IAmb	23 06 16.6	
	comp=Z,113nm,1.4s						
HICK	**Hickman**	**21.05**	**58**	P	**P**	**23 06 13.8**	**0.0**
Z47A	**Carrollton**	**21.06**	**67**	P	**P**	**23 06 12.7**	**-1.1**
Z47A				IAmb	IAmb	23 06 24.1	
	comp=Z,203nm,1.9s						
STD	**Studebaker Rid**	**21.08**	**339**	P	**P**	**23 06 12.6**	**-1.4**
STD				IAmb	IAmb	23 06 25.8	
	comp=Z,43nm,1.1s						
JRO	**Jston Ridge Ob**	**21.11**	**339**	P	**P**	**23 06 13.4**	**-1.0**
JRO				IAmb	IAmb	23 06 24.1	
	comp=Z,142nm,1.9s						
SLM	**Saint Louis**	**21.17**	**51**	P	**P**	**23 06 15.6**	**+0.7**
SLM				pmax	pmax		
	comp=Z,31nm,0.7s						
SLM	**Saint Louis**	**21.17**	**51**	P	**P**	**23 06 15.6**	**+0.7**
SLM				IAmb	IAmb	23 06 25.1	
	comp=Z,31nm,0.7s						
F04D	**Rainier, OR**	**21.20**	**337**	P	**P**	**23 06 13.4**	**-1.8**
E28A	**Huff**	**21.31**	**21**	P	**P**	**23 06 15.5**	**-0.9**
LON	**Longmire**	**21.40**	**340**	IAmb	IAmb	23 06 30.3	
	comp=Z,70nm,1.2s						
S44A	**Carbondale**	**21.47**	**55**	IAmb	IAmb	23 06 25.5	
	comp=Z,98nm,1.3s						
LDM	**Libby Dam**	**21.67**	**353**	IAmb	IAmb	23 06 30.6	
	comp=Z,69nm,1.1s						
NEW	**Newport**	**21.73**	**350**	P	**P**	**23 06 22.1**	**+1.1**
	comp=Z,17nm,0.9s,baz=164,slow=11,SNR=15						
NEW				LR	LR	23 15 42.9	
	comp=Z,2µm,20.9s,baz=180,slow=39						
	comp=Z,17nm,0.9s						
NEW	**Newport**	**21.73**	**350**	IAmb	IAmb	23 06 29.2	
	comp=Z,36nm,1.1s						
NEW	**Newport**	**21.73**	**350**	P	**P**	**23 06 21.8**	**+0.9**
	comp=Z,25nm,1.1s						
D05A	**Enumclaw**	**21.85**	**340**	IAmb	IAmb	23 06 38.6	
	comp=Z,116nm,1.4s						
LRAL	**Lakeview Retre**	**21.92**	**68**	IAmb	IAmb	23 06 39.6	
	comp=Z,70nm,1.6s						
WVT	**Waverly**	**21.98**	**60**	P	**P**	**23 06 22.6**	**-1.1**
WVT				pmax	pmax		
	comp=Z,48nm,1.0s						
WVT	**Waverly**	**21.98**	**60**	P	**P**	**23 06 22.6**	**-1.1**
WVT				IAmb	IAmb	23 06 38.8	
	comp=Z,48nm,0.9s						
WVT	**Waverly**	**21.98**	**60**	P	**P**	**23 06 24.7**	**+0.9**
	comp=Z,61nm,1.5s						
Q44A	**Meyer Farm, Va**	**22.14**	**52**	P	**P**	**23 06 25.9**	**+0.6**
Q44A				IAmb	IAmb	23 06 43.6	
	comp=Z,99nm,1.1s						
X48A	**Hartselle**	**22.16**	**64**	IAmb	IAmb	23 06 35.7	
	comp=Z,148nm,2.0s						
TEIG	**Tepich**	**22.17**	**103**	P	**P**	**23 06 25.8**	**-0.1**
TEIG				IAmb	IAmb	23 06 38.9	
	comp=Z,67nm,1.4s						
TEIG	**Tepich**	**22.17**	**103**	P	P	23 06 13.9	-12
	comp=Z,3µmcomp=Z,1µmcomp=Z,33nm,0.4s						
DGMT	**Dagmar**	**22.18**	**13**	P	**P**	**23 06 23.7**	**-2.0**
DGMT				IAmb	IAmb	23 06 29.4	
	comp=Z,111nm,1.4s						
L40A	**Anamosa**	**22.32**	**42**	IAmb	IAmb	23 06 34.5	
	comp=Z,73nm,1.1s						
F33A	**5 Mile Ranch,**	**22.32**	**29**	P	**P**	**23 06 25.7**	**-1.6**
F33A				IAmb	IAmb	23 06 41.0	
	comp=Z,173nm,2.0s						
I37A	**Lemond, Waseca**	**22.34**	**36**	IAmb	IAmb	23 06 47.8	
	comp=Z,44nm,1.1s						
OLIL	**Olney**	**22.72**	**53**	IAmb	IAmb	23 06 46.5	
	comp=Z,62nm,1.2s						
APG	**El Apazote**	**22.81**	**117**	P	**P**	**23 06 32.0**	**-0.9**
	comp=Z,0.4nm,0.8s,baz=208,slow=14,SNR=10						
CLTN	**Cedars of Leba**	**23.13**	**61**	IAmb	IAmb	23 06 47.0	
	comp=Z,26nm,1.0s						
SWET	**Sewanee**	**23.22**	**63**	IAmb	IAmb	23 06 48.8	
	comp=Z,56nm,1.4s						
FPAL	**Fort Paine**	**23.33**	**65**	P	**P**	**23 06 36.9**	**-1.1**
JFWS	**Jewell Farm**	**23.40**	**42**	P	**P**	**23 06 37.3**	**-1.3**
JFWS				pmax	pmax		
	comp=Z,44nm,1.1s						
JFWS	**Jewell Farm**	**23.40**	**42**	P	**P**	**23 06 37.3**	**-1.3**
JFWS				IAmb	IAmb	23 06 54.8	
	comp=Z,44nm,1.1s						
A04D	**Lummi Island**	**23.44**	**341**	P	**P**	**23 06 36.9**	**-1.9**
A04D				IAmb	IAmb	23 06 41.9	
	comp=Z,44nm,0.8s						
SPMN	**Marine on St.**	**23.49**	**34**	P	**P**	**23 06 37.6**	**-1.8**
SPMN				IAmb	IAmb	23 06 53.5	
	comp=Z,51nm,1.1s						
A05A	**Maple Falls**	**23.51**	**342**	P	**P**	**23 06 38.9**	**-0.7**
A05A				IAmb	IAmb	23 06 42.1	
	comp=Z,39nm,1.0s						
U49A	**Red Boiling Sp**	**23.68**	**60**	P	**P**	**23 06 40.2**	**-1.1**
U49A				IAmb	IAmb	23 06 54.3	
	comp=Z,83nm,1.7s						
W50A	**Signal Mountai**	**23.71**	**63**	IAmb	IAmb	23 07 01.3	
	comp=Z,37nm,1.0s						
152A	**Waverly Hall**	**23.77**	**70**	IAmb	IAmb	23 06 57.1	
	comp=Z,108nm,1.6s						
I40A	**Norwalk**	**23.78**	**39**	IAmb	IAmb	23 07 06.7	
	comp=Z,27nm,1.0s						
WCI	**Wyandotte Cave**	**23.84**	**56**	P	**P**	**23 06 42.8**	**-0.1**
WCI				pmax	pmax		
	comp=Z,69nm,1.3s						
WCI	**Wyandotte Cave**	**23.84**	**56**	P	**P**	**23 06 42.8**	**-0.1**
WCI				IAmb	IAmb	23 06 57.3	
	comp=Z,69nm,1.3s						
WCI	**Wyandotte Cave**	**23.84**	**56**	P	**P**	**23 06 45.3**	**+2.4**
	comp=Z,40nm,1.5s						
X51A	**Calhoun**	**23.95**	**65**	IAmb	IAmb	23 06 59.3	
	comp=Z,97nm,1.4s						
MTO3	**Montecristo**	**24.03**	**117**	P	**P**	**23 06 46.3**	**+1.1**
MTO3				IAmb	IAmb	23 06 52.6	
	comp=Z,56nm,1.8s						
CPCT	**Cooper Cave**	**24.40**	**63**	IAmb	IAmb	23 07 01.9	
	comp=Z,87nm,1.6s						
AGMN	**Agassiz Nation**	**24.48**	**25**	IAmb	IAmb	23 06 59.9	
	comp=Z,39nm,1.1s						
AGMN	**Agassiz Nation**	**24.48**	**25**	P	**P**	**23 06 48.7**	**0.0**
	comp=Z,34nm,0.8s						
R49A	**Shelbyville**	**24.69**	**56**	IAmb	IAmb	23 06 59.1	
	comp=Z,94nm,1.5s						
G40A	**Rib Lake**	**24.88**	**37**	IAmb	IAmb	23 07 09.4	
	comp=Z,34nm,1.0s						
GOGA	**Godfrey**	**24.90**	**68**	P	**P**	**23 06 51.0**	**-1.7**
GOGA				pmax	pmax		
	comp=Z,30nm,1.4s						
GOGA	**Godfrey**	**24.90**	**68**	P	**P**	**23 06 51.0**	**-1.7**
GOGA				IAmb	IAmb	23 07 06.2	
	comp=Z,30nm,1.4s						
GOGA	**Godfrey**	**24.90**	**68**	P	**P**	**23 06 55.6**	**+2.9**
	comp=Z,20nm,1.5s						
P48A	**Milroy**	**24.92**	**53**	P	**P**	**23 06 52.8**	**+0.1**
P48A				IAmb	IAmb	23 06 59.2	
	comp=Z,13nm,0.7s						
LLLB	**Lillooet**	**24.94**	**344**	P	**P**	**23 06 53.0**	**+0.1**
LLLB				IAmb	IAmb	23 07 06.0	
	comp=Z,84nm,1.6s						
TKL	**Tuckaleechee C**	**25.04**	**63**	LR	LR	23 17 13.2	
	comp=Z,2µm,18.3s,baz=249,slow=38						
TKL	**Tuckaleechee C**	**25.04**	**63**	P	**P**	**23 06 53.4**	**-0.5**
TKL				pmax	pmax		
	comp=Z,58nm,1.2s						
TKL	**Tuckaleechee C**	**25.04**	**63**	P	**P**	**23 06 53.4**	**-0.5**
TKL				IAmb	IAmb	23 07 07.9	
	comp=Z,58nm,1.2s						
N47A	**Urbana**	**25.30**	**50**	P	**P**	**23 06 56.1**	**-0.1**
N47A				IAmb	IAmb	23 07 04.8	
	comp=Z,58nm,1.3s						
R50A	**Paris**	**25.31**	**57**	P	**P**	**23 06 56.2**	**-0.1**
R50A				IAmb	IAmb	23 07 04.4	
	comp=Z,17nm,0.9s						
O48B	**Farmland**	**25.42**	**52**	P	**P**	**23 06 57.3**	**0.0**
O48B				IAmb	IAmb	23 07 13.7	
	comp=Z,54nm,1.3s						
TZTN	**Tazewell**	**25.42**	**61**	P	**P**	**23 06 57.6**	**+0.2**
TZTN				IAmb	IAmb	23 07 08.4	
	comp=Z,49nm,1.3s						
TZTN	**Tazewell**	**25.42**	**61**	P	**P**	**23 07 00.2**	**+2.8**
	comp=Z,36nm,1.4s						
BG3	**Lake Jocassee**	**25.58**	**65**	P	**P**	**23 06 59.4**	**+0.5**
BG3				IAmb	IAmb	23 07 10.1	
	comp=Z,75nm,1.7s						
S51A	**Beattyville**	**25.68**	**59**	P	**P**	**23 06 58.9**	**-0.8**
S51A				IAmb	IAmb	23 07 14.2	
	comp=Z,69nm,1.4s						
V53A	**Saluda**	**25.81**	**63**	P	**P**	**23 07 00.2**	**-0.7**
TGUH	**Tegucigalpa,Un**	**25.90**	**115**	P	**P**	**23 07 03.2**	**+1.2**
TGUH	**Tegucigalpa,Un**	**25.90**	**115**	P	**P**	**23 06 58.3**	**-3.7**
	comp=Z,913nmcomp=Z,46nm,1.7s						
TGUH	**Tegucigalpa,Un**	**25.90**	**115**	P	**P**	**23 07 06.6**	**+4.6**
	comp=Z,46nm,1.7s						
O49A	**Covington**	**25.97**	**53**	P	**P**	**23 07 01.6**	**-0.7**
O49A				IAmb	IAmb	23 07 18.4	
	comp=Z,28nm,1.1s						
HODGE	**Hodges**	**26.01**	**67**	P	**P**	**23 07 02.3**	**-0.4**
HODGE				IAmb	IAmb	23 07 13.8	
	comp=Z,46nm,1.4s						
EYMN	**Ely**	**26.07**	**31**	P	**P**	**23 07 02.8**	**-0.3**
EYMN				IAmb	IAmb	23 07 12.5	
	comp=Z,33nm,1.1s						
EYMN	**Ely**	**26.07**	**31**	P	**P**	**23 07 05.8**	**+2.6**
	comp=Z,32nm,1.2s						
ULM	**Lac du Bonnet**	**26.10**	**23**	P	**P**	**23 07 03.2**	**-0.1**
	comp=Z,4.3nm,0.7s,baz=172,slow=11,SNR=3.0						
ULM				LR	LR	23 18 20.6	
	comp=Z,880nm,19.7s,baz=208,slow=39						
	comp=Z,4.3nm,0.7s						
ULM	**Lac du Bonnet**	**26.10**	**23**	*i* P	**P**	**23 07 02.5**	**-0.8**
ULM	**Lac du Bonnet**	**26.10**	**23**	IAmb	IAmb	23 07 20.7	
	comp=Z,24nm,1.1s						
EDM	**Edmonton**	**26.26**	**357**	P	**P**	**23 07 04.1**	**-0.8**
EDM				pmax	pmax		
	comp=Z,121nm,1.2s						
EDM	**Edmonton**	**26.26**	**357**	P	**P**	**23 07 04.1**	**-0.8**
EPLO	**Experimental L**	**26.42**	**26**	P	**P**	**23 07 04.2**	**-2.2**
EPLO				IAmb	IAmb	23 07 08.1	
	comp=Z,30nm,1.1s						
PAULI	**Pauline**	**26.46**	**66**	P	**P**	**23 07 06.5**	**-0.4**
PAULI				IAmb	IAmb	23 07 21.1	
	comp=Z,36nm,1.6s						
U54A	**Nelsons Funny**	**26.77**	**62**	P	**P**	**23 07 08.1**	**-1.6**
U54A				IAmb	IAmb	23 07 35.2	
	comp=Z,54nm,1.4s						
KMSC	**Kings Mountain**	**26.90**	**65**	P	**P**	**23 07 10.9**	**+0.2**
KMSC				IAmb	IAmb	23 07 26.1	
	comp=Z,41nm,1.5s						
V55A	**Taylorsville**	**27.12**	**63**	P	**P**	**23 07 11.1**	**-1.6**
V55A				IAmb	IAmb	23 07 25.4	
	comp=Z,19nm,1.0s						
M50A	**Fremont**	**27.34**	**51**	P	**P**	**23 07 14.6**	**0.0**
P52A	**Corning**	**27.36**	**55**	P	**P**	**23 07 14.3**	**-0.6**
P52A				IAmb	IAmb	23 07 29.3	
	comp=Z,34nm,1.4s						
N51A	**Ashland**	**27.63**	**52**	P	**P**	**23 07 17.4**	**+0.1**
N51A				IAmb	IAmb	23 07 33.3	
	comp=Z,32nm,1.4s						
O52A	**Adamsville**	**27.74**	**54**	P	**P**	**23 07 18.1**	**-0.2**
O52A				IAmb	IAmb	23 07 37.1	
	comp=Z,16nm,1.0s						
BOAB	**BOACO BROADBAN**	**28.09**	**116**	P	P	23 07 26.4	+4.9
	comp=Z,20nm,1.7s						
BBB	**Bella Bella**	**28.16**	**338**	LR	LR	23 18 25.3	
	comp=Z,2µm,20.9s,baz=168,slow=36						
R55A	**Marlinton**	**28.49**	**59**	P	**P**	**23 07 24.9**	**-0.2**
R55A				IAmb	IAmb	23 07 39.9	
	comp=Z,45nm,1.4s						
JTS	**Las Juntas de**	**29.92**	**119**	LR	LR	23 19 17.1	
	comp=Z,1µm,20.1s,baz=313,slow=36						
JTS	**Las Juntas de**	**29.92**	**119**	*i* P	**P**	**23 07 42.0**	**+4.1**
JTS				pmax	pmax		
	comp=Z,13nm,1.0s						
T59A	**Double "B" Far**	**30.22**	**62**	P	**P**	**23 07 39.4**	**-1.0**
T59A				IAmb	IAmb	23 07 47.8	
	comp=Z,20nm,1.3s						
P57A	**Homestead Farm**	**30.38**	**57**	P	**P**	**23 07 41.0**	**-0.8**
P57A				IAmb	IAmb	23 07 48.4	
	comp=Z,37nm,1.7s						
CBN	**Corbin Frederi**	**30.59**	**60**	P	**P**	**23 07 43.5**	**0.0**
CBN				IAmb	IAmb	23 07 55.0	
	comp=Z,24nm,1.0s						
LCR2	**La Lucha 2**	**30.99**	**118**	P	**P**	**23 07 47.2**	**-0.3**
RAFA	**San Farael, Vo**	**31.01**	**118**	P	**P**	**23 07 47.6**	**-0.3**
SADO	**Sadowa**	**31.30**	**47**	LR	LR	23 22 17.5	
	comp=Z,435nm,20.6s,baz=268,slow=40						
MMNY	**Mt. Morris Dam**	**31.39**	**51**	P	**P**	**23 07 51.2**	**+0.6**
L56A	**Greenwood**	**31.44**	**52**	P	**P**	**23 07 50.0**	**-1.1**
L56A				IAmb	IAmb	23 08 06.5	
	comp=Z,33nm,1.2s						
VLDQ	**Val d'Or**	**33.77**	**42**	P	**P**	**23 08 09.6**	**-1.8**
VLDQ				IAmb	IAmb	23 08 19.8	
	comp=Z,40nm,1.3s						
DLBC	**Dease Lake**	**34.06**	**343**	LR	LR	23 23 00.8	
	comp=Z,2µm,20.7s,baz=138,slow=38						
TRQ	**Mont Tremblant**	**34.83**	**47**	P	**P**	**23 08 20.3**	**-0.4**
TRQ				IAmb	IAmb	23 08 38.2	
	comp=Z,33nm,1.3s						
R33M	**Jennings River**	**35.14**	**343**	P	**P**	**23 08 22.2**	**-1.0**
R33M				IAmb	IAmb	23 08 26.3	
	comp=Z,19nm,1.1s						
WTLY	**Watson Lake, Y**	**35.23**	**345**	P	**P**	**23 08 22.6**	**-1.2**
WTLY				IAmb	IAmb	23 08 32.5	
	comp=Z,13nm,1.0s						
YKA	**Yellowknife Ar**	**35.58**	**357**	P	**P**	**23 08 26.8**	**-0.1**
	comp=Z,3.6nm,0.8s,baz=180,slow=8.6,SNR=10						
YKA				PcP	**PcP**	**23 10 57.6**	**+2.1**
	comp=Z,2.0nm,0.9s,baz=178,slow=3.6,SNR=4.7						
YKA				LR	LR	23 23 44.0	
	comp=Z,3µm,18.9s,baz=188,slow=38						
	comp=Z,3.6nm,0.8s						
YKA	**Yellowknife Ar**	**35.58**	**357**	P	**P**	**23 08 25.5**	**-1.3**
I62A	**Tamworth**	**36.31**	**52**	P	**P**	**23 08 33.6**	**+0.3**
WRGLY	**Wrigley**	**37.12**	**351**	P	**P**	**23 08 38.2**	**-1.7**
WRGLY				IAmb	IAmb	23 08 49.2	
	comp=Z,48nm,1.2s						
N32M	**Quiet Lake**	**37.19**	**343**	P	**P**	**23 08 39.0**	**-1.7**
N32M				IAmb	IAmb	23 08 43.6	
	comp=Z,15nm,1.0s						
MMPY	**Sheldon Lake,**	**38.00**	**345**	P	**P**	**23 08 46.2**	**-1.3**
MMPY				IAmb	IAmb	23 08 57.7	
	comp=Z,30nm,1.2s						
LMQ	**La Malbaie**	**38.01**	**46**	P	**P**	**23 08 47.2**	**-0.5**
LMQ				IAmb	IAmb	23 08 52.4	
	comp=Z,28nm,1.3s						
SJCC	**San Jacinto, C**	**38.11**	**110**	P	**P**	**23 08 48.9**	**-0.1**
	comp=Z,2µmcomp=Z,38nm,1.4s						
HYT	**Haines Junctio**	**38.20**	**340**	P	**P**	**23 08 47.3**	**-2.0**
HYT				IAmb	IAmb	23 09 01.0	
	comp=Z,43nm,2.0s						
UREC	**San Jos de Ur**	**38.96**	**113**	P	**P**	**23 08 56.1**	**0.0**
	comp=Z,30nm,1.4s						
O28M	**Mount Upton**	**39.03**	**338**	P	**P**	**23 08 55.7**	**-0.8**
O28M				IAmb	IAmb	23 09 07.6	
	comp=Z,38nm,1.4s						
CBOC	**Ciudad Bolivar**	**39.65**	**116**	P	**P**	**23 09 02.6**	**+0.6**
	comp=Z,838nmcomp=Z,32nm,1.7s						
M29M	**Somme Creek**	**39.75**	**341**	P	**P**	**23 09 01.8**	**-0.5**
HELC	**Santa Helena**	**39.85**	**115**	P	**P**	**23 09 04.9**	**+1.0**
	comp=Z,12nm,1.4s						
L29M	**L29M**	**40.17**	**341**	P	**P**	**23 09 03.9**	**-1.8**
MCARA	**McCarthy VSAT**	**40.44**	**337**	P	**P**	**23 09 06.7**	**-1.2**
MCARA				IAmb	IAmb	23 09 26.5	
	comp=Z,27nm,1.2s						
PTBC	**PUERTO BERRIO,**	**40.52**	**113**	P	**P**	**23 09 09.0**	**-0.1**
	comp=Z,42nm,1.4s						
GUY2C	**Guyana, Caldas**	**40.54**	**116**	P	**P**	**23 09 08.7**	**-1.1**
	comp=Z,554nmcomp=Z,22nm,1.7s						
NORC	**Norcasia**	**40.74**	**115**	P	**P**	**23 09 10.3**	**-0.7**
	comp=Z,27nm,1.6s						
GLB	**Gilahina Butte**	**40.76**	**337**	P	**P**	**23 09 09.5**	**-1.0**
GLB				IAmb	IAmb	23 09 21.4	
	comp=Z,45nm,1.3s						
BRJC	**Barrancabermej**	**40.87**	**112**	P	**P**	**23 09 11.9**	**-0.1**
	comp=Z,1µmcomp=Z,51nm,1.1s						
J30M	**Hart River**	**40.87**	**344**	P	**P**	**23 09 10.4**	**-1.1**
BBAC	**Balboa, Cauca**	**41.04**	**121**	P	**P**	**23 09 14.4**	**+0.8**
	comp=Z,674nmcomp=Z,33nm,1.7s						
M26K	**Nabesna, AK**	**41.14**	**338**	P	**P**	**23 09 13.3**	**-0.4**
M26K				IAmb	IAmb	23 09 24.6	
	comp=Z,22nm,1.4s						
POPC	**Popayan, Colom**	**41.14**	**120**	P	**P**	**23 09 15.7**	**+1.2**
	comp=Z,15nm,1.2s						
BCAR	**Beaver Creek A**	**41.23**	**340**	P	**P**	**23 09 13.2**	**-1.2**
CMBC	**Cumbal**	**41.30**	**123**	P	P	23 09 23.2	+7.1
OTAV	**Otavalo**	**41.31**	**125**	P	**P**	**23 09 16.7**	**+0.6**
OTAV				pmax	pmax		
	comp=Z,48nm,1.6s						
OTAV	**Otavalo**	**41.31**	**125**	P	**P**	**23 09 16.6**	**+0.6**
OTAV				IAmb	IAmb	23 09 23.9	
	comp=Z,48nm,1.6s						
OTAV	**Otavalo**	**41.31**	**125**	P	**P**	**23 09 18.3**	**+2.2**
	comp=Z,556nmcomp=Z,18nm,1.7s						
OTAV	**Otavalo**	**41.31**	**125**	*e*P	**P**	**23 09 16.2**	**+0.1**
OTAV	**Otavalo**	**41.31**	**125**	P	**P**	**23 09 18.0**	**+1.9**
	comp=Z,18nm,1.6s						
SPBC	**San Pablo de B**	**41.34**	**114**	P	P	23 09 21.0	+5.1
	comp=Z,23nm,1.4s						
I30M	**Mount Dempster**	**41.42**	**344**	P	**P**	**23 09 14.8**	**-1.2**
ORTC	**Ortega, Tolima**	**41.42**	**117**	P	**P**	**23 09 20.4**	**+3.9**
	comp=Z,813nmcomp=Z,24nm,1.4s						
H31M	**Peel River**	**41.44**	**346**	P	**P**	**23 09 16.5**	**+0.4**
TULM	**Tulcn-Chalpat**	**41.48**	**123**	P	P	23 09 24.1	+6.5
PAMC	**Pamplona, Colo**	**41.53**	**111**	P	**P**	**23 09 17.5**	**-0.5**
BARC	**Barichara**	**41.54**	**112**	P	**P**	**23 09 17.8**	**0.0**
	comp=Z,74nm,1.5s						
GLI	**Glacier Island**	**41.60**	**335**	P	**P**	**23 09 16.3**	**-1.2**
ROSC	**El Rosal**	**41.61**	**115**	P	**P**	**23 09 17.3**	**-1.2**
	comp=Z,3.9nm,0.2s,baz=22,slow=9.5,SNR=4.4						
ROSC				LR	LR	23 28 39.5	
	comp=Z,692nm,19.3s,baz=341,slow=39						
	comp=Z,3.9nm,0.2s						
ROSC	**El Rosal**	**41.61**	**115**	P	**P**	**23 09 19.7**	**+1.2**
	comp=Z,835nmcomp=Z,33nm,1.6s						
L26K	**Log Cabin Wild**	**41.70**	**339**	P	**P**	**23 09 18.3**	**+0.1**
L26K				IAmb	IAmb	23 09 29.7	
	comp=Z,72nm,2.0s						
SLOR	**San Lorenzo -**	**41.94**	**126**	P	**P**	**23 09 22.4**	**+1.2**
I29M	**Ogilvie Camp,**	**42.01**	**344**	P	**P**	**23 09 18.7**	**-2.0**
RUSC	**La Rusia**	**42.01**	**113**	P	**P**	**23 09 20.7**	**-1.2**
	comp=Z,774nmcomp=Z,60nm,1.4s						
BETC	**Betania**	**42.01**	**119**	P	**P**	**23 09 25.7**	**+4.3**
CASC	**Dorado de Casc**	**42.20**	**124**	P	**P**	**23 09 24.4**	**+1.4**
	comp=Z,40nm,1.6s						
CHIC	**Chingaza**	**42.20**	**115**	P	P	23 09 28.5	+5.1
	comp=Z,33nm,1.6s						
KDAK	**Kodiak Island**	**42.23**	**328**	LR	LR	23 24 17.1	
	comp=Z,745nm,19.2s,baz=122,slow=32						
KDAK	**Kodiak Island**	**42.23**	**328**	*i* P	**P**	**23 09 25.5**	**+3.0**
KDAK				pmax	pmax		
	comp=Z,25nm,1.1s						
SCM	**Sheep Creek Mo**	**42.28**	**336**	P	**P**	**23 09 21.8**	**-1.3**
SCM				pmax	pmax		
	comp=Z,49nm,1.3s						
SCM	**Sheep Creek Mo**	**42.28**	**336**	P	**P**	**23 09 21.8**	**-1.3**
SCM				IAmb	IAmb	23 09 37.6	
	comp=Z,49nm,1.3s						
OHAK	**Old Harbor**	**42.29**	**327**	P	**P**	**23 09 21.9**	**-1.2**
PAX	**Paxson**	**42.36**	**338**	P	**P**	**23 09 22.3**	**-1.4**
PAX				pmax	pmax		
	comp=Z,25nm,1.8s						
PAX	**Paxson**	**42.36**	**338**	P	**P**	**23 09 22.3**	**-1.4**
G31M	**Satah River**	**42.38**	**347**	P	**P**	**23 09 24.0**	**+0.3**
G31M				IAmb	IAmb	23 09 32.4	
	comp=Z,17nm,1.0s						
O22K	**Cooper Landing**	**42.40**	**333**	P	**P**	**23 09 24.2**	**+0.2**
EPYK	**Eagle Plains**	**42.45**	**345**	P	**P**	**23 09 24.1**	**-0.2**
EPYK				IAmb	IAmb	23 09 26.7	
	comp=Z,52nm,1.6s						
KNK	**Knik Glacier**	**42.45**	**335**	P	**P**	**23 09 23.2**	**-1.2**
SDV	**Santo Domingo**	**42.47**	**107**	LR	LR	23 28 54.3	
	comp=Z,871nm,18.8s,baz=294,slow=39						
SDV	**Santo Domingo**	**42.47**	**107**	P	**P**	**23 09 25.6**	**+0.2**
SDV				IAmb	IAmb	23 09 31.4	
	comp=Z,66nm,1.6s						
SDV	**Santo Domingo**	**42.47**	**107**	P	**P**	**23 09 25.5**	**+0.2**
	comp=Z,175nm,1.2s						
SDV	**Santo Domingo**	**42.47**	**107**	P	**P**	**23 09 25.6**	**+0.2**
	comp=Z,175nm,1.2s						
BRLK	**Bradley Lake**	**42.48**	**332**	P	**P**	**23 09 24.0**	**-0.7**
SJG	**San Juan**	**42.49**	**92**	P	**P**	**23 09 25.5**	**+0.3**
SJG				pmax	pmax		
	comp=Z,15nm,1.0s						
SJG	**San Juan**	**42.49**	**92**	P	**P**	**23 09 25.5**	**+0.3**
SJG				IAmb	IAmb	23 09 31.5	
	comp=Z,15nm,0.9s						
I28M	**Miner Creek**	**42.50**	**343**	P	**P**	**23 09 23.1**	**-1.7**
VILC	**Villavicencio,**	**42.54**	**116**	P	**P**	**23 09 28.5**	**+2.7**
	comp=Z,54µmcomp=Z,52nm,1.8s						
SCRK	**Sand Creek**	**42.57**	**339**	P	**P**	**23 09 24.2**	**-1.3**
SCRK				IAmb	IAmb	23 09 35.5	
	comp=Z,72nm,2.0s						
SCHQ	**Schefferville**	**42.60**	**37**	P	**P**	**23 09 25.1**	**-0.6**
	comp=Z,12nm,1.1s,baz=248,slow=5.1,SNR=4.1						
SCHQ				LR	LR	23 28 44.3	
	comp=Z,862nm,19.1s,baz=256,slow=38						
	comp=Z,12nm,1.1s						
SCHQ	**Schefferville**	**42.60**	**37**	P	**P**	**23 09 24.4**	**-1.2**
RIDG	**Independent Ri**	**42.68**	**339**	P	**P**	**23 09 25.1**	**-1.1**
RIDG				IAmb	IAmb	23 09 35.9	
	comp=Z,31nm,1.5s						
F31M	**Tsiigehtchic**	**42.73**	**347**	P	**P**	**23 09 25.1**	**-1.4**
F31M				IAmb	IAmb	23 09 35.2	
	comp=Z,22nm,0.8s						
KIP	**Kipapa**	**42.73**	**273**	P	**P**	**23 09 24.1**	**-3.0**
KIP				pmax	pmax		
	comp=Z,339nm,1.6s						
KIP	**Kipapa**	**42.73**	**273**	P	**P**	**23 09 24.1**	**-3.0**
TAMC	**Tame, Arauca**	**42.78**	**111**	P	**P**	**23 09 28.4**	**+0.7**
	comp=Z,1µmcomp=Z,103nm,1.4s						
G30M	**tAoh Zraii Nji**	**42.84**	**346**	P	**P**	**23 09 24.8**	**-2.7**
G30M				IAmb	IAmb	23 09 40.9	
	comp=Z,63nm,2.0s						
GHO	**Glory Hole Cre**	**42.84**	**335**	P	**P**	**23 09 25.5**	**-2.1**
GHO				IAmb	IAmb	23 09 36.2	
	comp=Z,33nm,1.0s						
K24K	**Donnelly Dome**	**43.03**	**338**	P	**P**	**23 09 27.8**	**-1.2**
K24K				IAmb	IAmb	23 09 38.2	
	comp=Z,23nm,0.8s						
G29M	**Pine Creek**	**43.19**	**345**	P	**P**	**23 09 29.3**	**-1.0**
I26K	**Coal Creek Min**	**43.28**	**341**	P	**P**	**23 09 29.9**	**-1.1**
F30M	**Barrier River**	**43.28**	**347**	P	**P**	**23 09 29.5**	**-1.5**
F30M				IAmb	IAmb	23 09 34.4	
	comp=Z,51nm,1.4s						
INK	**Inuvik**	**43.44**	**348**	LR	LR	23 28 32.3	
	comp=Z,2µm,18.8s,baz=166,slow=37						
INK	**Inuvik**	**43.44**	**348**	P	**P**	**23 09 30.9**	**-1.4**
INK				pmax	pmax		
	comp=Z,19nm,1.1s						
INK	**Inuvik**	**43.44**	**348**	P	**P**	**23 09 30.9**	**-1.4**
INK				IAmb	IAmb	23 09 41.5	
	comp=Z,19nm,1.1s						
J25K	**Salcha River,**	**43.45**	**339**	P	**P**	**23 09 31.7**	**-0.8**
J25K				IAmb	IAmb	23 09 42.3	
	comp=Z,33nm,1.5s						
H27K	**Steamboat Moun**	**43.52**	**343**	P	**P**	**23 09 32.2**	**-0.8**
ILSW	**Iliamna Southw**	**43.57**	**331**	P	**P**	**23 09 32.2**	**-1.4**
MACC	**Macarena, Meta**	**43.59**	**118**	P	**P**	**23 09 38.7**	**+4.5**
	comp=Z,16nm,1.7s						
HDA	**Harding Lake**	**43.82**	**339**	P	**P**	**23 09 34.1**	**-1.3**

HDA				IAmb	IAmb	23 09 46.4	
	comp=Z,47nm,1.8s						
STLK	Strandline Lak	43.82	333	P	P	23 09 35.3	-0.2
STLK				IAmb	IAmb	23 09 43.9	
	comp=Z,42nm,1.3s						
SKT	Skwentna	43.97	334	P	P	23 09 36.9	+0.2
SKT				IAmb	IAmb	23 09 47.5	
	comp=Z,53nm,1.2s						
IL31		44.04	339	P	P	23 09 36.5	-0.6
IL31				IAmb	IAmb	23 09 45.6	
	comp=Z,17nm,0.9s						
ILAR	Eielson Array	44.04	339	P	P	23 09 38.1	+0.9
	comp=Z,2.4nm,0.8s,baz=148,slow=7.1,SNR=20						
ILAR				PcP	PcP	23 11 25.1	+2.6
	comp=Z,4.3nm,1.2s,baz=152,slow=4.0,SNR=4.6						
ILAR				LR	LR	23 28 49.7	
	comp=Z,946nm,18.1s,baz=124,slow=37						
	comp=Z,2.4nm,0.8s						
ILAR	Eielson Array	44.04	339	P	P	23 09 37.1	-0.1
MCK	McKinley	44.05	337	P	P	23 09 36.9	-0.4
MCK				pmax	pmax		
	comp=Z,135nm,2.0s						
MCK	McKinley	44.05	337	P	P	23 09 36.9	-0.4
KEKH	Kekaha	44.08	274	P	P	23 09 36.9	-1.2
PTLC	Puerto Leguiza	44.09	121	P	P	23 09 44.1	+5.9
	comp=Z,48nm,1.4s						
PRP	Porcupine Dome	44.13	340	P	P	23 09 37.8	-0.3
PRP				IAmb	IAmb	23 09 47.6	
	comp=Z,16nm,1.1s						
F28M	Old Crow	44.18	345	P	P	23 09 38.0	-0.3
F28M				IAmb	IAmb	23 09 56.4	
	comp=Z,12nm,0.9s						
CCB	Clear Creek Bu	44.25	338	P	P	23 09 38.2	-0.6
TRF	Thorofare Moun	44.36	336	P	P	23 09 38.1	-1.8
E29M	Blow River	44.37	346	P	P	23 09 38.1	-1.7
E29M				IAmb	IAmb	23 09 51.3	
	comp=Z,22nm,1.0s						
N19K	Bonanza Creek	44.56	331	P	P	23 09 40.3	-1.2
NEA2	Nenana	44.64	338	P	P	23 09 41.1	-0.9
NEA2				IAmb	IAmb	23 09 51.9	
	comp=Z,26nm,1.2s						
KTH	Kantishna Hill	44.65	336	P	P	23 09 41.7	-0.5
G26K	Porcupine Rive	44.66	343	P	P	23 09 42.4	+0.4
G26K				IAmb	IAmb	23 09 51.5	
	comp=Z,15nm,0.8s						
FYU	Fort Yukon	44.78	342	IAmb	IAmb	23 09 53.6	
	comp=Z,37nm,1.3s						
E28M	Babbage River	44.90	346	P	P	23 09 43.7	-0.3
E28M				IAmb	IAmb	23 10 08.9	
	comp=Z,23nm,1.2s						
BPAW	Bear Paw Mtn.	44.99	337	P	P	23 09 44.4	-0.4
CAST	Castle Rocks	45.00	335	P	P	23 09 44.4	-0.4
H24K	Noodor Dome	45.06	340	P	P	23 09 44.0	-1.3
H24K				IAmb	IAmb	23 09 54.8	
	comp=Z,42nm,1.7s						
I23K	Minto, Yukon-K	45.09	338	P	P	23 09 44.6	-0.8
I23K				IAmb	IAmb	23 09 56.0	
	comp=Z,40nm,1.4s						
N18K	Kilae Creek	45.10	331	P	P	23 09 44.5	-1.2
BMAR	Burnt Mountain	45.22	343	P	P	23 09 45.9	-0.7
TAOE	Nuku Hiva Isla	45.26	222	*e*LR	LR	23 22 27.0	
	comp=Z,898nm,22.9s						
F26K	Sheenjek River	45.30	343	P	P	23 09 46.1	-1.1
F26K				IAmb	IAmb	23 09 58.1	
	comp=Z,24nm,1.1s						
MLY	Manley	45.47	338	P	P	23 09 47.7	-0.9
MLY				IAmb	IAmb	23 09 57.1	
	comp=Z,30nm,1.2s						
N17K	Nushagak Hills	45.60	330	P	P	23 09 49.9	+0.3
O16K	Kokwok River B	45.61	329	P	P	23 09 48.8	-0.9
F25K	Christian Rive	45.62	342	P	P	23 09 48.7	-1.1
F25K				IAmb	IAmb	23 10 00.8	
	comp=Z,23nm,1.4s						
FRB	Frobisher Bay	45.95	25	LR	LR	23 28 07.8	
	comp=Z,1µm,18.9s,baz=242,slow=35						
I21K	Tanana	45.98	338	P	P	23 09 51.8	-0.8
M17K	Holitna River	46.10	331	P	P	23 09 51.8	-1.8
L18K	Granite Mounta	46.17	332	P	P	23 09 53.9	-0.2
J20K	Nowinta River	46.18	336	P	P	23 09 53.3	-0.9
F24K	Squaw Lake	46.19	342	P	P	23 09 52.8	-1.5
F24K				IAmb	IAmb	23 10 06.3	
	comp=Z,50nm,1.8s						
H22K	Ishtalitna Cre	46.21	339	P	P	23 09 54.2	-0.2
H21K	Melozitna Rive	46.54	338	P	P	23 09 56.7	-0.3
ATAH	Atahualpa	46.57	132	LR	LR	23 27 34.7	
	comp=Z,414nm,18.9s,baz=327,slow=34						
J19K	Poorman	46.63	335	P	P	23 09 56.6	-1.1
COLD	Coldfoot	46.67	340	P	P	23 09 57.2	-0.8
COLD				IAmb	IAmb	23 10 07.7	
	comp=Z,16nm,1.0s						
J18K	Innoko River	46.79	334	P	P	23 09 59.1	+0.2
E23K	Chandalar	47.05	341	P	P	23 10 01.3	+0.3
IMAR	Indian Mountai	47.05	338	P	P	23 10 00.1	-0.8
K17K	Iditarod	47.07	333	P	P	23 10 01.1	-0.1
L16K	Owhat River	47.12	331	P	P	23 10 01.2	-0.3
D23K	Nanushuk River	47.94	342	P	P	23 10 06.8	-1.0
J16K	Anvik River	48.26	333	P	P	23 10 09.3	-1.1
RES	Resolute Bay	48.52	6	LR	LR	23 30 47.0	
	comp=Z,1µm,19.3s,baz=212,slow=36						
F19K	Shaleruckik Mo	48.87	338	P	P	23 10 14.6	-0.4
J14K	Nanvaranak Lak	49.28	331	P	P	23 10 16.5	-1.7
D19K	Kuna River	49.85	339	P	P	23 10 21.8	-0.8
D19K				IAmb	IAmb	23 10 31.1	
	comp=Z,28nm,1.1s						
SGC2	Sao Gabriel da	50.45	115	*e*P	P	23 10 28.1	+0.3
CZSB	Cruzeiro do Su	50.92	127	P	P	23 10 31.8	+0.6
CZSB	Cruzeiro do Su	50.92	127	P	P	23 10 34.1	+2.8
	comp=Z,77nm,1.4s						
CZSB	Cruzeiro do Su	50.92	127	*e*P	P	23 10 31.9	+0.6
RDOG	Red Dog Mine	51.20	338	P	P	23 10 30.7	-2.0
NNA	Nana	51.21	135	LR	LR	23 30 01.7	
	comp=Z,286nm,20.7s,baz=320,slow=34						
NNA	Nana	51.21	135	*i* P	P	23 10 36.0	+2.5
NNA				pmax	pmax		
	comp=Z,41nm,1.2s						
RPN	Rapa Nui	53.82	178	LR	LR	23 28 19.1	
	comp=Z,833nm,18.9s,baz=330,slow=30						
SFJD	Kangerlussuaq	54.10	25	LR	LR	23 33 00.3	
	comp=Z,683nm,19.3s,baz=246,slow=35						
ADK	Adak	54.20	316	P	P	23 10 58.6	+3.4
	comp=Z,34nm,1.4s						
BOAV	Boa Vista	54.41	108	P	P	23 10 56.2	-1.0
BOAV	Boa Vista	54.41	108	P	P	23 10 54.8	-2.4
BOAV	Boa Vista	54.41	108	*e*P	P	23 10 54.9	-2.4
PTCN	Pitcairn Islan	54.81	201	P	P	23 11 04.0	+4.2
	comp=Z,689nm,0.5s						
PPT	Papeete	57.76	224	LR	LR	23 28 52.9	
	comp=Z,434nm,18.8s,baz=14,slow=28						
PPT2	Papeete2	57.77	224	*e*LR	LR	23 28 05.4	
	comp=Z,604nm,24.5s						
PPT2				*e*LR	LR	23 28 11.9	
	comp=Z,804nm,23.8s						
MDP	Montagnes des	59.90	100	LR	LR	23 40 59.3	
	comp=Z,197nm,19.4s,baz=272,slow=40						
LPAZ	La Paz	60.08	131	P	P	23 11 38.1	+0.1
	comp=Z,23nm,1.4s,baz=341,slow=7.2,SNR=12						
LPAZ				LR	LR	23 36 00.2	
	comp=Z,367nm,20.5s,baz=331,slow=35						
	comp=Z,23nm,1.4s						
LPAZ	La Paz	60.08	131	P	P	23 11 38.0	+0.1
LPAZ				pmax	pmax		
	comp=Z,19nm,1.3s						
LPAZ	La Paz	60.08	131	P	P	23 11 38.0	+0.1
LPAZ				IAmb	IAmb	23 11 44.0	
	comp=Z,19nm,1.2s						
LPAZ	La Paz	60.08	131	*e*P	P	23 11 37.5	-0.3
PB18	Visviri	60.11	133	P	P	23 11 39.3	+1.3
PB12	IPOC Station P	60.31	134	P	P	23 11 40.3	+1.5
PB16	IPOC Station P	60.63	133	P	P	23 11 42.5	+0.9
PSGCX	Pisagua	61.16	135	P	P	23 11 46.2	+1.6
PSGCX				IAmb	IAmb	23 11 52.2	
	comp=Z,23nm,1.3s						
PB11	IPOC Station P	61.58	135	P	P	23 11 48.9	+1.4
GO01	Chusmiza	61.80	134	P	P	23 11 49.3	-0.1
GO01	Chusmiza	61.80	134	P	P	23 11 52.5	+3.1
	comp=Z,24nm,1.3s						
TA01	Diego Aracena	61.84	136	P	P	23 11 50.2	+1.2
TA01	Diego Aracena	61.84	136	P	P	23 11 53.8	+4.8
	comp=Z,41nm,1.2s						
ITTB	Itaituba	62.07	111	*e*P	P	23 11 50.8	0.0
PB08	IPOC Station P	62.18	134	P	P	23 11 53.1	+1.3
BILL	Bilibino	62.45	335	*i* P	P	23 11 53.1	+0.6
BILL				pmax	pmax		
	comp=Z,36nm,1.1s						
BILL	Bilibino	62.45	335	P	P	23 11 51.6	-1.0
PB02	IPOC Station P	62.58	136	P	P	23 11 55.9	+1.7
PB07	IPOC Station P	62.89	136	P	P	23 11 57.4	+1.1
PB03	IPOC Station P	63.21	136	P	P	23 11 59.5	+1.2
PB09	IPOC Station P	63.34	136	P	P	23 12 01.6	+2.3
PB05	IPOC Station P	63.53	137	P	P	23 12 02.1	+1.6
VILB	Vilhena	63.56	122	P	P	23 12 01.9	+1.1
VILB	Vilhena	63.56	122	*e*P	P	23 12 01.1	+0.4
PB06	IPOC Station P	63.81	137	P	P	23 12 03.5	+1.2
AF01	San Pedro de A	64.85	136	P	P	23 12 10.1	+0.7
CLDB	Colider	65.72	117	*e*P	P	23 12 13.5	-1.3
CLDB	Colider	65.72	117	P	P	23 12 16.7	+1.9
	comp=Z,32nm,1.4s						
PTLB	Pontes e Lacer	65.93	123	P	P	23 12 16.8	+0.7
PTLB	Pontes e Lacer	65.93	123	*e*P	P	23 12 16.6	+0.5
BORG	Borgarnes	65.96	28	LR	LR	23 42 21.1	
	comp=Z,267nm,18.8s,baz=281,slow=37						
BORG	Borgarnes	65.96	28	P	P	23 12 16.3	+0.7
BORG	Borgarnes	65.96	28	P	P	23 12 16.3	+0.7
SALTA		66.93	135	P	P	23 12 26.8	+3.9
	comp=Z,19nm,1.9s						
RAR	Rarotonga	67.02	229	LR	LR	23 35 05.8	
	comp=Z,563nm,18.3s,baz=50,slow=30						
AC02	Maricunga	67.17	139	P	P	23 12 25.5	+1.0
LCO	Las Campanas	67.95	142	P	P	23 12 29.7	+0.6
LCO				pmax	pmax		
	comp=Z,11nm,0.6s						
LCO	Las Campanas	67.95	142	P	P	23 12 29.7	+0.6
AC05	El Transito	68.05	142	P	P	23 12 30.4	+0.8
SALV	Santo Antonio	68.80	122	*e*P	P	23 12 35.0	+0.7
JMIC	Jan Mayen	68.83	20	LR	LR	23 42 52.8	
	comp=Z,725nm,18.7s,baz=268,slow=36						
CO01	Juntas del Tor	69.03	142	P	P	23 12 36.6	+0.8
SEY	Seymchan	69.11	331	*i* P	P	23 12 35.7	+0.2
SEY				pmax	pmax		
	comp=Z,19nm,1.1s						
PEA0B	Petropavlovsk-	69.45	320	P	P	23 12 36.8	-1.0
PEA0B				pmax	pmax		
	comp=Z,73nm,1.4s						
PEA0B	Petropavlovsk-	69.45	320	P	P	23 12 36.8	-1.0
PETK	Petropavlovsk-	69.45	320	P	P	23 12 38.5	+0.7
	comp=Z,2.6nm,0.8s,baz=76,slow=12,SNR=12						
PETK				LR	LR	23 37 12.3	
	comp=Z,97nm,21.0s,baz=45,slow=31						
	comp=Z,2.6nm,0.8s						
PETK	Petropavlovsk-	69.45	320	P	P	23 12 37.5	-0.4
COIM	Forte Coimbra	69.76	126	*e*P	P	23 12 40.4	+0.2
SNDB	Serra Nova Dou	69.95	115	*e*P	P	23 12 41.7	+0.2
PP1B	Ponte de Pedra	70.46	122	*e*P	P	23 12 44.9	+0.3
SPITS	Spitsbergen Ar	70.80	10	LR	LR	23 46 19.4	
	comp=Z,554nm,18.8s,baz=306,slow=38						
VA03	San Esteban	70.96	144	P	P	23 12 49.5	+2.1
MA2	Magadan	70.97	328	LR	LR	23 41 43.7	
	comp=Z,181nm,20.7s,baz=64,slow=34						
MA2	Magadan	70.97	328	*ce*P	P	23 12 48.0	+1.0
MA2				pmax	pmax		
	comp=Z,12nm,0.7s						
MA2	Magadan	70.97	328	P	P	23 12 47.0	-0.1
ZON	Zonda	71.02	142	P	P	23 12 48.5	+0.8
ZON				pmax	pmax		
	comp=Z,102nm,0.5s						
ZON	Zonda	71.02	142	P	P	23 12 48.5	+0.8
MT02	Curacav	71.05	145	P	P	23 12 50.0	+2.2
SMTB	Santa Maria do	71.29	111	*e*P	P	23 12 48.2	-1.5
AFI	Afiamalu	71.34	243	LR	LR	23 38 22.3	
	comp=Z,399nm,18.1s,baz=70,slow=31						
AQDB	Aquidauana	71.63	125	P	P	23 12 53.1	+1.6
AQDB				IAmb	IAmb	23 12 56.6	
	comp=Z,25nm,1.3s						
AQDB	Aquidauana	71.63	125	*e*P	P	23 12 51.9	+0.4
ARAG	Araguaiana, MT	71.68	119	*e*P	P	23 12 52.2	+0.3
TIXI	Tiksi	73.29	343	LR	LR	23 49 05.8	
	comp=Z,254nm,19.7s,baz=80,slow=39						
TIXI	Tiksi	73.29	343	*i* P	P	23 13 04.9	+4.2
TIXI				pmax	pmax		
	comp=Z,19nm,1.0s						
TIXI	Tiksi	73.29	343	P	P	23 12 58.8	-1.9
TIXI				IAmb	IAmb	23 13 07.4	
	comp=Z,18nm,1.1s						
BI02	San Fabin de	73.69	147	P	P	23 13 05.3	+1.7
BI02				IAmb	IAmb	23 13 10.1	
	comp=Z,32nm,1.4s						
SJPY	San Joaquin	74.22	129	*e*P	P	23 13 07.2	+0.3
CPUP	Villa Florida	74.25	131	P	P	23 13 07.2	+0.2
	comp=Z,13nm,1.1s,baz=319,slow=7.8,SNR=15						
CPUP				LR	LR	23 44 20.3	
	comp=Z,146nm,21.7s,baz=332,slow=35						
	comp=Z,13nm,1.1s						
CPUP	Villa Florida	74.25	131	P	P	23 13 09.1	+2.1
BDFB	Brasilia	74.64	117	P	P	23 13 09.7	0.0
	comp=Z,2.5nm,0.6s,baz=307,slow=9.4,SNR=6.3						
BDFB				LR	LR	23 49 14.9	
	comp=Z,331nm,20.3s,baz=314,slow=38						
	comp=Z,2.5nm,0.6s						
BDFB	Brasilia	74.64	117	P	P	23 13 09.6	0.0
BDFB				pmax	pmax		
	comp=Z,11nm,1.1s						
BDFB	Brasilia	74.64	117	P	P	23 13 09.6	0.0
BDFB				IAmb	IAmb	23 13 16.3	
	comp=Z,11nm,1.1s						
SDBA	SAO DESIDERIO	75.40	112	*e*P	P	23 13 14.0	0.0
IPMB	Ipameri, GO	75.80	119	*e*P	P	23 13 16.1	-0.1
PTGB	Pitanga	76.89	127	*e*P	P	23 13 22.6	+0.4
ITQB	Itaqui	76.92	133	*e*P	P	23 13 22.6	+0.4
PSAL	Palomas, Salto	77.23	135	*e*P	P	23 13 24.5	+0.5
PLCA	Paso Flores	77.28	149	P	P	23 13 24.8	+0.7
	comp=Z,12nm,1.2s,baz=325,slow=6.8,SNR=9.1						
PLCA				LR	LR	23 40 37.0	
	comp=Z,622nm,18.8s,baz=320,slow=30						
	comp=Z,12nm,1.2s						
PLCA	Paso Flores	77.28	149	P	P	23 13 26.0	+1.9
PLCA				IAmb	IAmb	23 13 31.1	
	comp=Z,20nm,1.1s						
PLCA	Paso Flores	77.28	149	*e*P	P	23 13 25.0	+0.8
PMNB	Patos De Minas	77.50	118	*e*P	P	23 13 26.0	+0.1
EKA	Eskdalemuir Ar	77.82	34	P	P	23 13 29.0	+2.0
	comp=Z,0.4nm,0.6s,baz=299,slow=7.2,SNR=3.5						
EKA				LR	LR	23 46 36.4	
	comp=Z,424nm,19.6s,baz=303,slow=35						
	comp=Z,0.4nm,0.6s						
NBMA	Muriti-CE	78.03	105	*e*P	P	23 13 28.7	-0.2
NBPN	Ponto Novo - B	78.53	108	*e*P	P	23 13 31.2	-0.4
YAK	Yakutsk	78.81	335	LR	LR	23 51 28.1	
	comp=Z,154nm,18.4s,baz=52,slow=38						
YAK	Yakutsk	78.81	335	*e*P	P	23 13 37.6	+5.3
YAK				*e**PP	PcP	23 13 45.2	+4.1
YAK				*e*S	S	23 23 35.9	+6.0
YAK				*e**SS	SKSac	23 23 47.4	-0.2
YAK				*e*		23 24 26.8	
YAK				pmax	pmax		
	comp=Z,68nm,1.5s						
YAK				pmax	pmax		
	comp=N,10.0nm,1.4s						
YAK				pmax	pmax		
	comp=E,24nm,1.5s						
YAK				pmax	pmax		
	comp=Z,174nm,5.7s						
YAK				pmax	pmax		
	comp=N,80nm,3.8s						
YAK				pmax	pmax		
	comp=E,95nm,4.9s						
YAK				smax	smax		
	comp=N,35nm,2.7s						
YAK				smax	smax		
	comp=E,14nm,1.9s						
YAK				MLR	MLR		
	comp=Z,309nm,25.0s						
YAK				MLR	MLR		
	comp=E,125nm,18.0s						
ARCES	ARCESS Array B	78.86	14	LR	LR	23 49 55.6	
	comp=E,362nm,20.3s,baz=324,slow=37						
CPSB	Cacapava Do Su	79.49	132	*e*P	P	23 13 36.9	+0.4
RCBR	Riachuelo	79.78	102	LR	LR	23 49 37.4	
	comp=E,148nm,22.0s,baz=237,slow=36						
ARCA	Ara§uai, MG	80.17	115	*e*P	P	23 13 40.3	-0.2
BSCB	Bom Sucesso	80.17	120	*e*P	P	23 13 40.6	+0.1
PLTB	Pedras Altas	80.25	133	*e*P	P	23 13 41.0	+0.4
YSS	Yuzhno-Sakhali	80.72	318	*e*P	P	23 13 43.5	+0.5
YSS				pmax	pmax		
	comp=Z,20nm,0.8s						
NOA	NORSAR Array B	80.78	25	P	P	23 13 44.8	+1.7
	comp=Z,1.3nm,0.9s,baz=300,slow=5.5,SNR=1.2						
	comp=Z,1.3nm,0.9s						
MSVF	Nonsavu	81.60	245	LR	LR	23 43 01.6	
	comp=Z,635nm,18.9s,baz=9.9,slow=30						
ASAJ	Asahikawa	82.23	316	LR	LR	23 47 05.1	
	comp=Z,100nm,19.5s,baz=80,slow=33						
HFS	Hagfors	82.30	24	P	P	23 13 51.8	+0.7
	comp=Z,4.2nm,1.0s,baz=319,slow=4.2,SNR=2.8						
HFS				LR	LR	23 51 17.1	
	comp=Z,487nm,18.1s,baz=310,slow=36						
	comp=Z,4.2nm,1.0s						
NRIK	Noril'sk	82.98	353	LR	LR	23 53 30.4	
	comp=Z,418nm,19.1s,baz=33,slow=38						
RAO	Raoul Island	84.79	234	LR	LR	23 47 22.4	
	comp=Z,166nm,18.6s,baz=322,slow=32						
ESDC	Sonseca Array	85.36	48	P	P	23 14 06.2	-1.0
	comp=Z,0.5nm,0.9s,baz=286,slow=5.3,SNR=4.6						
ESDC				LR	LR	23 51 18.3	
	comp=Z,323nm,18.0s,baz=296,slow=35						
	comp=Z,0.5nm,0.9s						
ESDC	Sonseca Array	85.36	48	P	P	23 14 04.9	-2.4
FINES	FINESS Array B	85.42	19	P	P	23 14 06.4	-0.6
	comp=Z,2.1nm,0.8s,baz=333,slow=2.1,SNR=5.5						
FINES				LR	LR	23 52 45.5	
	comp=Z,530nm,19.1s,baz=320,slow=36						
	comp=Z,2.1nm,0.8s						
FINES	FINESS Array B	85.42	19	P	P	23 14 04.0	-3.0
KLR	Kul'dur	85.64	324	*ce*P	P	23 14 08.6	+0.2
KLR				pmax	pmax		
	comp=Z,2.0nm,1.0s						
HEH	HeiHe	87.20	327	*e*P	P	23 14 19.3	+3.3
HEH				pmax	pmax		
	comp=Z,15nm,1.6s						
HEH				L	L		
	comp=Z,260nm,12.6s						
HEH				L	L		
	comp=Z,190nm,12.9s						
HEH				L	L		
	comp=Z,360nm,13.3s						
CLL	Collm	87.99	31	*e*S	S	23 25 06.0	+2.7
CLL				*e*SS	SS	23 30 42.0	-7.8
CLL				*e*SSS	SSS	23 37 30.0	
CLL				LH		23 43 00.0	
CLL				AMS	AMS	23 55 00.0	
	comp=N,300nm,18.8s						
CLL				AMS	AMS	23 55 00.0	
	comp=E,400nm,16.8s						
CLL				AMS	AMS	23 55 00.0	
	comp=Z,600nm,18.3s						
MDT	Midelt	88.47	54	LR	LR	23 51 44.2	
	comp=Z,437nm,18.7s,baz=324,slow=34						
USRK	Ussuriysk Ar.	88.54	320	P	P	23 14 24.1	+1.6
	comp=Z,6.9nm,1.1s,baz=35,slow=7.0,SNR=7.2						
USRK				LR	LR	23 52 58.9	
	comp=Z,77nm,19.1s,baz=37,slow=35						
	comp=Z,6.9nm,1.1s						
MJAR	Matsushiro Arr	89.05	311	LR	LR	23 48 16.1	
	comp=Z,339nm,19.7s,baz=64,slow=32						
KLMR	Klimovskoe	89.33	14	*e*P	P	23 14 27.9	+2.0
KLMR				*e*		23 17 57.2	
KLMR				pmax	pmax		
	comp=Z,12nm,1.5s						
DAVOX	Davos/Dischmat	89.44	36	LR	LR	23 54 01.0	
	comp=Z,577nm,18.4s,baz=294,slow=35						
JHJ	Hachijo jima 2	89.82	307	LR	LR	23 53 41.2	
	comp=Z,97nm,18.2s,baz=226,slow=35						
GERES	GERESS Array B	90.00	33	LR	LR	23 54 57.0	
	comp=Z,528nm,19.1s,baz=292,slow=36						
VRAC	Vranov	91.04	31	LR	LR	23 57 00.7	
	comp=Z,445nm,18.8s,baz=296,slow=37						
CN2	Changchun	92.44	323	P	P	23 14 39.8	-0.9
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
HNR	Honiara	93.06	261	LR	LR	23 48 37.4	
	comp=Z,577nm,20.8s,baz=153,slow=30						
URZ	Urewera	93.19	228	LR	LR	23 48 19.4	
	comp=Z,385nm,20.2s,baz=65,slow=30						
KIRV	Kirov	93.27	10	LR	LR	00 00 35.8	
	comp=Z,292nm,18.7s,baz=338,slow=38						
OBN	Obninsk	93.74	18	LR	LR	23 57 36.2	
	comp=Z,826nm,19.8s,baz=352,slow=36						
KSRS	Korea Array	95.14	317	P	P	23 14 55.0	+1.7
	comp=Z,0.4nm,0.3s,baz=56,slow=4.8,SNR=5.8						
KSRS				LR	LR	23 54 47.0	
	comp=Z,69nm,19.2s,baz=45,slow=34						
	comp=Z,0.4nm,0.3s						
AKASG	Malin Array Be	95.18	24	P	P	23 14 53.2	+0.1
	comp=Z,0.2nm,0.4s,baz=318,slow=3.7,SNR=4.3						
AKASG				LR	LR	23 59 32.0	
	comp=Z,616nm,18.5s,baz=326,slow=37						
	comp=Z,0.2nm,0.4s						
GUMO	Guam	95.81	288	LR	LR	23 49 16.9	
	comp=Z,444nm,21.9s,baz=70,slow=30						
TLY	Talaya	95.86	339	LR	LR	00 02 40.1	
	comp=Z,226nm,18.4s,baz=19,slow=38						
TLY	Talaya	95.86	339	*ce*P	P	23 14 58.8	+2.5
TLY				pmax	pmax		
	comp=Z,17nm,1.5s						
JNU	Nakatsue	95.94	312	LR	LR	23 53 49.9	
	comp=Z,122nm,19.1s,baz=55,slow=33						
KEST	Kesra	96.22	45	LR	LR	23 56 41.2	
	comp=Z,460nm,20.4s,baz=330,slow=34						
ARTI	Arti	96.52	6	LR	LR	00 03 09.6	
	comp=Z,612nm,19.8s,baz=341,slow=38						
KRVT	Keravat (AS076	97.83	269	LR	LR	23 52 05.8	
	comp=Z,760nm,20.1s,baz=83,slow=31						
ULN	Ulaanbaatar	97.89	335	*i* P	Pdif	23 15 07.2	+1.4
ULN				pmax	pmax		
	comp=Z,8.0nm,1.1s						
SONM	Songino Array	98.17	335	P	Pdif	23 15 08.4	+1.4
	comp=Z,0.8nm,0.8s,baz=0.0,slow=5.0,SNR=3.5						
SONM				LR	LR	00 01 55.5	
	comp=Z,193nm,18.2s,baz=32,slow=37						
	comp=Z,0.8nm,0.8s						
SONM	Songino Array	98.17	335	P	P	23 15 05.8	-1.2
ZALV	Zalesovo Beam	98.21	350	P	Pdif	23 15 09.3	+2.4
	comp=Z,0.2nm,0.2s,baz=108,slow=42,SNR=1.4						
ZALV				LR	LR	00 04 04.5	
	comp=Z,178nm,19.5s,baz=6.5,slow=38						
	comp=Z,0.2nm,0.2s						
BELG	Belogornoye	98.86	13	LR	LR	00 01 02.3	
	comp=Z,569nm,18.7s,baz=305,slow=36						
RPZ	Rata Peaks	99.88	226	LR	LR	23 54 13.3	
	comp=Z,96nm,18.2s,baz=148,slow=32						
BVAR	Borovoye Array	100.33	359	P	Pdif	23 15 18.1	+1.7
	comp=Z,1.2nm,0.7s,baz=32,slow=8.5,SNR=5.1						
HHC	Hu-ho-hao-te	101.64	328	*e*P	Pdif	23 15 20.0	-2.6
KURK	Kurchatov	102.15	354	P	Pdif	23 15 26.0	+1.5
KURBB	Kurchatov Arra	102.25	354	P	Pdif	23 15 26.0	+1.1
	comp=Z,0.1nm,0.3s,baz=359,slow=4.6,SNR=1.8						
TIA	Tai'an	102.30	322	P	Pdif	23 15 29.9	+4.4
TIA				pmax	pmax		
	comp=Z,6.0nm,0.5s						
WMQ	Urumqi	107.42	346	Pdif	Pdif	23 15 51.5	+3.3
WMQ				L	L		
	comp=Z,250nm,23.9s						
WMQ				L	L		
	comp=Z,240nm,22.1s						
WMQ				L	L		
	comp=Z,290nm,24.1s						
MAK	Makhachkala	107.74	16	*e*P	Pdif	23 15 48.2	-1.3
MAK				*e*		23 20 14.2	
MAK				*e*		23 26 24.5	
MAK				*e*		23 27 12.9	
MAK				*e*SS	SS	23 35 25.7	-1.3
MAK				*e*SSS	SSS	23 39 32.8	
MAK				pmax	pmax		
	comp=Z,122nm,1.3s						
MAK				MLR	MLR		
	comp=Z,509nm,16.0s						
XAN	Xi'an	108.30	326	*e*Pdif	Pdif	23 15 48.3	-4.0
XAN				L	L		
	comp=Z,290nm,23.4s						
XAN				L	L		
	comp=Z,170nm,20.6s						
XAN				L	L		
	comp=Z,260nm,17.2s						
PZH	PanZhiHua	118.02	326	PKP	PKPdf	23 20 15.4	-1.9
VNA3	Neumayer Olymp	119.04	159	P	PKiKP	23 20 21.1	+3.4
QIZ	Qiongzhong	119.28	314	PKP	PKPdf	23 20 18.3	-1.5
QIZ				SS	SS	23 37 56.4	-4.9
QIZ				L	L		
	comp=Z,140nm,14.7s						
QIZ				L	L		
	comp=Z,130nm,9.3s						
QIZ				L	L		
	comp=Z,170nm,13.7s						
VNA2	Neumayer--Watz	119.79	158	P	PKiKP	23 20 22.7	+3.5
	baz=311,slow=4.1						
WRA	Warramunga Arr	119.90	262	PKP	PKPdf	23 20 20.5	-0.4
	comp=Z,2.4nm,0.8s,baz=70,slow=2.0,SNR=5.3						
ASAR	Alice Springs	121.50	258	PKP	PKPdf	23 20 22.8	-1.1

	comp=Z,0.3nm,0.6s,baz=72,slow=1.7,SNR=1.8						
NVL	N'lazarevskaya	125.98	160	ePKIKP	PKiKP	23 20 45.4	+14
NVL				pmax	pmax		
	comp=Z,8.0nm,0.8s						
CMAR	Chiang Mai Arr	126.12	324	PKP	PKiKP	23 20 34.6	+1.3
	comp=Z,1.9nm,0.8s,baz=318,slow=1.4,SNR=10						
ELIB	Princess Elisa	128.64	164	dPKP	PKPdf	23 20 34.9	-1.3
ELIB				dpPKP	sPKPdf	23 20 39.8	-0.2
HYB	Hyderabad	134.84	347	ePKiKP	PKiKP	23 20 50.4	-0.6
HYB				ePP	PP	23 23 22.1	+0.4
HYB				⇑eSKKS		23 37 14.7	
MAW	Mawson	139.20	177	PKP	PKPdf	23 20 57.0	+1.1
	comp=Z,9.1nm,1.3s,baz=120,slow=11,SNR=6.6						
MAW	Mawson	139.20	177	PKIKP	PKPdf	23 20 57.0	+1.1

DJA 24 23:02:03.9±0.8, 1°N±7°×12°4E±°, h331^{km}±9^{km}, M4.1/11, MLv4.1/11, Minahassa Peninsula, Sulawesi

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GTOI	Gorontalo	0.74	227	P	Pn	23 02 47.3	+0.6
GTOI	Gorontalo	0.74	227	P	Pn	23 02 48.0	+1.3
LUWI	Luwuk	2.31	200	S	S	23 03 37.0	-0.5
LUWI	Luwuk	2.31	200	P	Pn	23 02 57.2	+1.3
LUWI				S	S	23 03 37.6	+0.1
LUWI				AML	AML		
LUWI				AML	AML		
TNTI	Ternate	3.83	96	P	Pn	23 03 10.0	-0.1
TNTI				AML	AML		
SANI	Sanana	4.00	143	P	Pn	23 03 12.0	+0.1
SANI				AML	AML		
SANI	Sanana	4.00	143	P	Pn	23 03 13.0	+1.1
SANI				AML	AML		
SANI				AML	AML		

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*IPEC **24** 23:04:32.6±0.2, 50°.24N×18°.97E, h1^{km}, ML1.7/7, Error ellipse: s-maj=1.5km s-min=0.7km az=8.0*

PRU 24 23:04:33.3, 50°.20N×18°.97E, h0^{km}, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OJC	Ojcow	0.53	88	ePg	Pg	23 04 42.7	-0.8
OJC				eSg	Sg	23 04 50.4	0.0
OKC	Ostrava-Krasne	0.64	236	ePG	Pg	23 04 46.0	+0.4
OKC				eSG	Sg	23 04 53.8	-0.1
	comp=Z,6.0nm,0.4s						
OKC				AML	AML		
STEB	Steborice	0.82	251	ePG	Pg	23 04 48.9	0.0
STEB				eSG	Sg	23 05 00.3	+0.8
	comp=Z,22nm,0.7s						
STEB				AML	AML		
MORC	Moravsky Berou	1.01	246	ePg	Pg	23 04 52.5	-0.2
	baz=63						
MORC				eSg	Sg	23 05 04.9	-0.9
	10nm,0.3s,baz=63						
MORC				AML	AML		
ANAC	Anensky vrch	1.03	264	ePg	Pg	23 04 52.6	-0.5
	baz=80						
ANAC				eSg	Sg	23 05 05.3	-1.1
	9.3nm,0.1s,baz=80						
ANAC				AML	AML		
LANS	Liptovska Anna	1.10	163	ePG	Pg	23 04 54.5	+0.2
LANS				eSG	Sb	23 05 09.5	-0.6
LANS				eLG	Lg	23 05 13.3	
NIE	Niedzica	1.16	132	ePg	Pb	23 04 56.0	-0.3
NIE				eSg	Sb	23 05 12.6	+0.7
LOSC	Losov	1.18	241	ePg	Pg	23 04 55.6	-0.4
	baz=59						
LOSC				eSg	Sg	23 05 10.5	-0.8
	11nm,0.3s,baz=59						
LOSC				AML	AML		
STHS	Stebnicka Huta	1.67	117	ePG	Pn	23 05 03.7	-0.1
STHS				eSG	Sg	23 05 28.4	+1.5
DPC	Dobruska-Polom	1.71	276	ePG	Pn	23 05 03.6	-0.7
DPC				eSG	Sn	23 05 26.4	-0.5
	comp=Z,7.0nm,0.7s						
DPC				AML	AML		
VYHS	Vyhne	1.71	183	ePN	Pn	23 05 03.8	-0.6
VYHS				eSN	Sn	23 05 26.3	-0.6
VRAC	Vranov	1.78	241	ePn	Pn	23 05 04.7	-0.6
	baz=58						
VRAC				eSg	Sn	23 05 28.7	0.0
	8.4nm,0.4s,baz=58						
VRAC				AML	AML		
OSTC	Ostas	1.80	282	ePG	Pn	23 05 05.0	-0.6
OSTC				eSG	Sg	23 05 30.8	-0.3
CHVC	Chvalec	1.91	283	eP	Pg	23 05 15.2	+5.4
KRUC	Moravsky	2.02	237	ePn	Pn	23 05 08.0	-0.7
	baz=54						
KRUC				eSg	Sb	23 05 36.6	-0.1
	3.0nm,0.3s,baz=54						
KRUC				AML	AML		
KHC	Kasperske Hory	3.66	255	ePN	Pn	23 05 35.0	+3.8
KHC				eSG	Sg	23 06 29.6	-1.3

PRU 24 23:05:27.1, 50°.13N×19°.12E, h0^{km}, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OKC	Ostrava-Krasne	0.69	245	eSG	Sg	23 05 50.2	+0.9
	comp=Z,12nm,0.4s						
OKC				AML	AML		
STEB	Steborice	0.89	258	ePG	Pg	23 05 44.5	+0.4
STEB				eSG	Sg	23 05 56.6	+0.9
	comp=Z,19nm,0.4s						
STEB				AML	AML		
LANS	Liptovska Anna	1.01	167	ePG	Pg	23 05 45.8	-0.6
LANS				eSG	Sg	23 05 59.5	+0.1
LANS				eLG	Lg	23 06 00.1	
MORC	Moravsky Berou	1.08	251	ePG	Pg	23 05 47.5	-0.2
MORC				eSG	Sg	23 06 02.0	+0.3
STHS	Stebnicka Huta	1.55	117	ePN	Pn	23 05 55.0	-1.0
STHS				eSN	Sn	23 06 16.0	-0.8
STHS				eLG	Lg	23 06 22.7	
JAVC	Velka Javorina	1.58	217	ePN	Pb	23 05 57.3	0.0
VYHS	Vyhne	1.65	187	ePG	Pn	23 05 55.8	-1.5
VYHS	Vyhne	1.65	187	eSG	Sn	23 06 17.6	-1.6
VYHS	Vyhne	1.65	187	eLG	Lg	23 06 22.6	
DPC	Dobruska-Polom	1.81	278	ePG	Pn	23 06 00.2	+0.6
DPC				eSG	Sn	23 06 23.3	+0.1
	comp=Z,9.2nm,0.6s						
DPC				AML	AML		
VRAC	Vranov	1.83	244	eSG	Sb	23 06 24.5	-0.5
OSTC	Ostas	1.91	284	eSG	Sb	23 06 27.6	+0.4
KRUC	Moravsky	2.07	240	eSG	Sb	23 06 31.7	-0.1
KOLS	Kolonicke sedl	2.38	119	eSN	Sn	23 06 35.8	-1.4
KOLS				eLG	Lg	23 06 44.8	
CKRC	Cesky Krumlov	3.40	249	eSG	Sg	23 07 14.5	-1.8
KHC	Kasperske Hory	3.74	257	eSG	Sg	23 07 24.9	-2.2

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*IDC **24** 23:06:42.4±0.8, 26°.87N×111°.10W, h0^{km}, mb3.9/7, mbtmp3.9/13, ML3.6/4, Error ellipse: s-maj=17.6km s-min=11.0km az=71.0*

*NEIC **24** 23:06:42.1±1.9, 27°.08N±0°.10×111°.27W±0°.07, h10^{km}±1^{km}, mb4.6/90, Error ellipse: s-maj=18.0km s-min=6.1km az=207.0*

*MEX **24** 23:06:45.8±0.8, 27°.05N×111°.36W, h10^{km}, MD4.4, Presumed earthquake*

*GCMT **24** 23:06:45.1±0.5, 26°.94N±0°.03×111°.36W±0°.03, h25^{km}±1^{km}, MW4.8/91, Moment Tensor Solution. s7,c8; s91,c114; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.36±.16; $M_{\theta\theta}$-1.82±.11; $M_{\phi\phi}$2.18±.13; $M_{r\theta}$-0.59±.25; $M_{\theta\phi}$-0.64±.10; $M_{\phi r}$0.16±.21; Best double couple: $M_0$2.20000×10^{16} NP1: ϕ_s35.00000°, δ74.00000°, λ-9.00000°. NP2: ϕ_s128.00000°, δ81.00000°, λ-163.00000°. Principal axes: T 2.3020, Plg5.0000°, Azm260.0000°; N -0.2010, Plg71.0000°, Azm154.0000°; P -2.0970, Plg18.0000°, Azm352.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 24 23:06:40.9±1.1, 26°.95N±0°.02×111°.35W±0°.03, h9^{km}±7^{km}, n170, σ1s.44/178, mb4.5/34, 1C-6D, Gulf of California

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNIRB	San Nicol¡s	0.44	204	⇓eP	Pg	23 06 50.4	+1.0
SNIRB				eS	Sg	23 06 56.4	+1.1
SNIRB				IAML		23 06 58.3	
	comp=E,150µm,0.7s						
SNIRB				⇑e		23 06 59.2	
SNIRB				IAML		23 06 59.2	
	comp=N,81µm,0.8s						
SRIG	Santa Rosalia	0.88	295	eP	Pg	23 06 57.4	-0.4
SRIG				eS	Sg	23 07 08.4	-0.8
SRIG				IAML		23 07 11.9	
	comp=N,25µm,1.1s						
SRIG				⇓e		23 07 11.9	
SRIG	Santa Rosalia	0.88	295	eP	Pg	23 06 58.8	+1.0
SRIG				i S	Sg	23 07 10.8	+1.6
SRIG	Santa Rosalia	0.88	295	Pg	Pg	23 06 58.4	+0.6
SRIG					Sg	23 07 10.9	+1.8
NE77	Loreto B.C.S	0.93	181	⇓eP	Pg	23 06 58.7	-0.1
NE77				eS	Sg	23 07 09.9	-0.9
GUYB	Guaymas	1.04	24	⇓eP	Pg	23 07 00.8	0.0
GUYB				eS	Sn	23 07 16.1	-0.2
GUYB	Guaymas	1.04	24	eP	Pb	23 07 00.9	-0.1
GUYB				eS	Sg	23 07 13.4	-0.9
UAGRB	Rancho Ultima	1.38	176	eP	Pn	23 07 05.1	-1.3
UAGRB				eS	Sb	23 07 22.6	-2.1
UAGRB				⇓e		23 07 33.6	
SFQB	San Francisqui	1.98	318	eP	Pn	23 07 13.6	-0.9
HSIG		2.09	10	Pn	Pn	23 07 14.7	-1.6
EVAR0	San Evaristo	2.11	164	⇓eP	Pn	23 07 15.4	-1.0
EVAR0				eS	Sn	23 07 40.3	-2.4
TSIG	Topolobambo	2.47	122	eP	Pb	23 07 24.7	-0.8
TSIG	Topolobambo	2.47	122		Pb	23 07 24.7	-0.8
NOVRB	El Novillo Son	2.49	37	eP	Pn	23 07 21.7	0.0
NOVRB				eS	Sn	23 07 51.2	-1.2
NE74	Guerrero Negro	2.59	295	eP	Pn	23 07 21.5	-1.5
NE74				eS	Sn	23 07 50.8	-3.9
CSIG	Choix	2.67	92	eP	Pb	23 07 28.9	0.0
CSIG	Choix	2.67	92		Pb	23 07 28.9	0.0
BAHB	Baha de los	2.79	316	eP	Pn	23 07 24.9	-0.9
BAHB	Baha de los	2.79	316	eP	Pg	23 07 35.3	+0.9
BAHB	Baha de los	2.79	316		Pg	23 07 35.3	+0.9
LPIG	La Paz	2.99	161	Pn	Pn	23 07 28.2	-0.2
	comp=N,30nm,0.3s,baz=204,slow=4.9,SNR=4.3						
LPIG				Lg	Lg	23 08 13.3	
	comp=N,64nm,0.3s,baz=270,slow=20,SNR=4.8						
	comp=N,246nm,0.9s						
LPIG				AML	AML		
LPIG	La Paz	2.99	161	i P	Pn	23 07 28.3	-0.2
LAPR	La Primavera	3.64	347	eP	Pn	23 07 37.7	+0.2
NZIG	Nacozari, Sono	3.76	24	eP	Pn	23 07 41.1	+1.8
NZIG	Nacozari, Sono	3.76	24		Pn	23 07 41.1	+1.8
319A	Douglas	4.77	22	Pn	Pn	23 07 51.8	-1.3
PIX	Pinacate	4.95	339	Pn	Pn	23 07 53.9	-1.6
HPIG		5.08	89	Pn	Pn	23 07 56.3	-1.1
TUC	Tucson	5.37	5	Pn	Pn	23 08 01.0	-0.3
DUN6	Lazy B Ranch	5.92	19	Pn	Pn	23 08 10.1	+1.2
113A	Mohawk Valley,	6.17	341	Pn	Pn	23 08 13.4	+1.2
121A	Cookes Peak, D	6.37	28	Pn	Pn	23 08 17.1	+1.9
VHRN	Van Horn	6.76	54	Pn	Pn	23 08 22.6	+2.0
MNTX	Cornudas Mount	7.04	46	Pn	Pn	23 08 25.8	+1.6
CBX	Cerro Bola	7.07	320	Pn	Pn	23 08 25.1	+0.4
Y14A	Wickenburg	7.11	349	Pn	Pn	23 08 26.6	+1.4
TX31	Lajitas Ar. Si	7.19	69	Pn	Pn	23 08 27.3	+1.0
TXAR	Lajitas Array	7.19	69	Pn	Pn	23 08 26.6	+0.3
	comp=N,0.4nm,0.3s,baz=237,slow=13,SNR=11						
TXAR				Lg	Lg	23 10 24.1	
	comp=N,0.6nm,0.3s,baz=258,slow=28,SNR=2.1						
	comp=N,2.4nm,0.5s						
TXAR				AML	AML		
TXAR	Lajitas Array	7.19	69	Pn	Pn	23 08 27.9	+1.6
BLYC	Blythe	7.31	339	Pn	Pn	23 08 28.1	+0.2
X16A	Lo Mia Camp, P	7.45	359		Pn	23 08 27.7	-2.2
TPB28		7.61	50	Pn	Pn	23 08 33.5	+1.4
X18A	Snowflake	7.65	9	Pn	Pn	23 08 33.6	+0.8
TPB01	Permian Basin	7.73	57	Pn	Pn	23 08 34.9	+1.1
SBM	South Baldy	7.87	26	Pn	Pn	23 08 37.4	+1.4
PECS	Pecos	7.89	54	Pn	Pn	23 08 35.5	-0.4
IRM	Iron Mountain	7.89	336	Pn	Pn	23 08 36.9	+1.0
Y22A	Socorro	7.93	27	Pn	Pn	23 08 35.2	-1.3
PFO	Pinyon Flats O	7.97	328	Lg	Lg	23 10 59.3	
	comp=N,0.2nm,0.3s,baz=239,slow=15,SNR=5.9						
GDL2	Guadalupe Moun	8.02	48	Pn	Pn	23 08 40.1	+2.3
CRNM	Carthage	8.04	29	Pn	Pn	23 08 39.7	+1.6
BMNM	Bear Mountains	8.11	25	Pn	Pn	23 08 40.4	+1.3
LENM	Lemitar	8.12	27	Pn	Pn	23 08 40.8	+1.6
W13A	Hualapai Mount	8.41	346	Pn	Pn	23 08 43.8	+0.6
TPB06	Permian Basin	8.50	55	Pn	Pn	23 08 44.4	+0.1
SAND	Sanderson	8.66	68	Pn	Pn	23 08 44.4	-2.1
MNHN	Monahans	8.69	58	Pn	Pn	23 08 49.4	+2.5
ANMO	Albuquerque	9.01	27	Lg	Lg	23 11 25.8	
	comp=N,0.1nm,0.3s,baz=149,slow=18,SNR=1.6						
LCMT	Little Creek M	10.16	351	Pn	Pn	23 09 08.6	+1.5
MSTX	Muleshoe	10.18	45	Pn	Pn	23 09 08.8	+1.3
SGCY	Sterling City	10.19	59	Pn	Pn	23 09 09.7	+2.2
NVAR	Mina Array Bea	12.85	335	Pn	Pn	23 09 50.9	+6.8
	comp=N,1.8nm,1.0s,baz=153,slow=11,SNR=5.4						
ELK	Elko	14.13	348	Pn	P	23 10 07.8	-1.5
	comp=N,0.1nm,0.3s,baz=169,slow=9.4,SNR=5.3						
	comp=N,2.9nm,1.1s						
ELK				AML	AML		
BEKR	Beckworth	14.91	332		Pn	23 10 11.1	-1.0
TLIG	Tlapa	15.06	126	Pn	Pn	23 10 14.6	+0.4
TLIG				IAmb	IAmb	23 10 31.6	
	comp=Z,22nm,1.3s						
PDAR	Pinedale Array	15.85	5	Pn	P	23 10 29.0	+0.7
	comp=Z,2.9nm,1.0s,baz=182,slow=7.0,SNR=4.0						
O03E	Paynes Creek	15.89	330		P	23 10 29.0	+0.4
O03E				IAmb	IAmb	23 10 51.4	
	comp=Z,85nm,1.4s						
K22A	Casper	16.15	13		P	23 10 32.8	+1.1
K22A				IAmb	IAmb	23 10 47.2	
	comp=Z,73nm,1.4s						
O02D	Mt. Diablo Mer	16.26	327		P	23 10 34.7	+2.0
KSU1	Kansas State U	17.28	42		Pn	23 10 38.7	-3.8
KSU1				IAmb	IAmb	23 10 55.9	
	comp=Z,73nm,1.1s						
BCYI	Bear Canyon	17.41	355	P	Pn	23 10 45.3	+1.1
HHAR	Hobbs	17.48	54		Pn	23 10 44.2	-0.8
HHAR				IAmb	IAmb	23 11 09.3	
	comp=Z,83nm,1.5s						
K05A	Summer Lake	17.56	336		Pn	23 10 45.9	-0.3
K05A				IAmb	IAmb	23 11 01.3	
	comp=Z,53nm,1.4s						
X40A	Basin Creek Fa	17.59	60	Pn	Pn	23 10 44.5	-1.8
YMR	Madison River	17.69	1	Pn	Pn	23 10 44.7	-3.0
YNR	Norris Junctio	17.74	2	P	Pn	23 10 47.7	-0.7
YNM	Yellowstone No	17.75	2		Pn	23 10 45.5	-3.0
YMP	Mirror Lake Pl	17.78	3	Pn	Pn	23 10 47.3	-1.7
YMP				IAmb	IAmb	23 11 23.8	
	comp=Z,41nm,1.3s						
K04D	Chiloquin, OR	17.80	334	Pn	Pn	23 10 46.8	-2.2
K04D				IAmb	IAmb	23 11 03.9	
	comp=Z,62nm,1.2s						
YHH	Holmes Hill	17.81	1	Pn	Pn	23 10 46.5	-2.8
YHL	Hebgen Lake	17.87	0	Pn	Pn	23 10 48.6	-1.4
MCMT	McKenzie Canyo	17.88	357		Pn	23 10 49.2	-1.0
YNE	Yellowstone No	18.05	3	Pn	Pn	23 10 49.1	-3.1
RSSD	Black Hills	18.13	17	Pn	Pn	23 10 48.5	-4.7
CMIG	Matias Romero	18.13	119	P	P	23 10 54.1	+0.7
	comp=Z,0.1nm,0.3s,baz=283,slow=7.9,SNR=6.6						
	comp=Z,6.9nm,1.0s						
CMIG				AML	AML		
CCAR	Cane Creek	18.24	63		Pn	23 10 52.5	-1.9
CCAR				IAmb	IAmb	23 11 05.9	
	comp=Z,88nm,1.3s						
WHAR	Wooly Hollow	18.30	58	Pn	Pn	23 10 52.4	-2.7
WHAR				IAmb	IAmb	23 10 58.5	
	comp=Z,34nm,1.3s						
DLMT	Dillon	18.40	357		Pn	23 10 54.8	-1.7
J04A	Umpqua Nationa	18.46	334	P	P	23 10 55.1	-2.0
J04A				IAmb	IAmb	23 11 20.2	
	comp=Z,51nm,1.4s						
PLID	Pearl Lake	18.48	350		P	23 10 56.3	-1.1
BMO	Blue Mountains	18.50	347	P	P	23 10 58.4	+0.9
PINE	Pine Mountain	18.51	338		P	23 10 56.7	-1.1
BOZ	Bozeman (W)	18.61	359	P	P	23 10 57.3	-1.5
WIFE	Three Sisters-	19.05	336	P	P	23 11 03.5	-0.2
I05D	Terrebonne, OR	19.13	338	P	P	23 11 04.7	+0.3
I05D				IAmb	IAmb	23 11 27.6	
	comp=Z,40nm,1.5s						
346A	Big Creek Wild	19.61	72	P	P	23 11 09.1	-0.5
346A				IAmb	IAmb	23 11 23.6	
	comp=Z,52nm,1.0s						
R40A	Maddies Statio	19.61	50	P	P	23 11 09.2	-0.5
R40A				IAmb	IAmb	23 11 50.5	
	comp=Z,28nm,1.4s						
LNOR	Lincton Mounta	19.68	345	P	P	23 11 09.2	-1.1
LNOR				IAmb	IAmb	23 11 19.0	
	comp=Z,32nm,1.5s						
MSO	Missoula	19.95	355	P	P	23 11 11.8	-1.5
FVM	French Village	20.76	53		P	23 11 21.9	-0.2
FVM				IAmb	IAmb	23 11 31.3	
	comp=Z,13nm,0.7s						
S44A	Carbondale	21.48	55	P	P	23 11 28.6	-1.3
LDM	Libby Dam	21.69	353		P	23 11 29.3	-2.8
LDM				IAmb	IAmb	23 11 45.6	
	comp=Z,17nm,1.1s						
NEW	Newport	21.75	350	P	P	23 11 34.8	+2.1
	comp=Z,4.0nm,0.9s,baz=170,slow=15,SNR=3.0						
	comp=Z,4.0nm,0.9s						
NEW	Newport	21.75	350	P	P	23 11 32.1	-0.6
WVT	Waverly	21.99	60		P	23 11 34.4	-1.0
WVT				IAmb	IAmb	23 11 47.0	
	comp=Z,17nm,0.8s						
Q44A	Meyer Farm, Va	22.15	52	P	P	23 11 36.1	-1.0
Q44A				IAmb	IAmb	23 11 46.1	
	comp=Z,25nm,0.7s						
TEIG	Tepich	22.16	103	P	P	23 11 36.9	-0.4
TEIG				IAmb	IAmb	23 11 41.6	
	comp=Z,25nm,1.2s						
X48A	Hartselle	22.16	64		P	23 11 38.2	+1.0
L40A	Anamosa	22.34	42	P	P	23 11 38.8	-0.3
L40A				IAmb	IAmb	23 11 56.3	
	comp=Z,21nm,1.2s						
CLTN	Cedars of Leba	23.14	61	P	P	23 11 47.1	-0.5
CLTN				IAmb	IAmb	23 11 57.5	
	comp=Z,14nm,1.2s						
SWET	Sewanee	23.23	63	P	P	23 11 48.5	0.0
FPAL	Fort Paine	23.34	65	P	P	23 11 49.3	-0.3
W50A	Signal Mountai	23.72	63	P	P	23 11 52.5	-0.9
W50A				IAmb	IAmb	23 12 03.5	
	comp=Z,11nm,0.8s						
P46A	Rosedale	23.73	52	P	P	23 11 53.7	+0.3
152A	Waverly Hall	23.77	70	P	P	23 11 53.1	-0.8
152A				IAmb	IAmb	23 12 33.9	
	comp=Z,24nm,1.4s						
WCI	Wyandotte Cave	23.85	56	P	P	23 11 56.3	+1.8
WCI				IAmb	IAmb	23 11 59.2	
	comp=Z,15nm,1.0s						
X51A	Calhoun	23.95	65	P	P	23 11 55.5	-0.1
X51A				IAmb	IAmb	23 12 12.2	
	comp=Z,17nm,1.1s						
SFIN	Lafayette	24.13	50	P	P	23 11 57.2	0.0
R49A	Shelbyville	24.70	56	P	P	23 12 01.6	-0.8
R49A				IAmb	IAmb	23 12 07.7	
	comp=Z,25nm,1.3s						
G40A	Rib Lake	24.90	37	P	P	23 12 03.5	-0.7
G40A				IAmb	IAmb	23 12 15.9	
	comp=Z,14nm,1.0s						
TKL	Tuckaleechee C	25.05	63		P	23 12 05.6	0.0
TKL				IAmb	IAmb	23 12 17.5	
	comp=Z,8.2nm,0.9s						
N47A	Urbana	25.31	50	P	P	23 12 06.5	-1.4
N47A				IAmb	IAmb	23 12 18.0	
	comp=Z,12nm,0.7s						
R50A	Paris	25.32	57	P	P	23 12 07.7	-0.3
R50A				IAmb	IAmb	23 12 19.0	
	comp=Z,9.4nm,0.8s						
O48B	Farmland	25.43	52		P	23 12 08.4	-0.6
O48B				IAmb	IAmb	23 12 18.8	
	comp=Z,13nm,0.8s						
S51A	Beattyville	25.68	59	P	P	23 12 11.3	0.0
S51A				IAmb	IAmb	23 12 20.3	
	comp=Z,13nm,0.8s						
R55A	Marlinton	28.50	59	P	P	23 12 36.3	-0.4
R55A				IAmb	IAmb	23 12 45.7	
	comp=Z,12nm,0.8s						
PAGS	Pennsylvania G	31.53	56	P	P	23 13 04.2	+0.8
YKA	Yellowknife Ar	35.61	357	P	P	23 13 41.0	+2.4
	comp=Z,0.9nm,0.7s,baz=182,slow=9.0,SNR=4.9						
	comp=Z,0.9nm,0.7s						
MMPY	Sheldon Lake,	38.03	345		P	23 13 58.9	-0.4
MMPY				IAmb	IAmb	23 14 10.2	
	comp=Z,7.6nm,1.0s						
OTAV	Otavalo	41.29	125	P	P	23 14 28.2	+0.6
ILAR	Eielson Array	44.06	339	P	P	23 14 53.9	+5.0
	comp=Z,1.9nm,1.0s,baz=152,slow=6.8,SNR=26						
	comp=Z,1.9nm,1.0s						
ILAR	Eielson Array	44.06	339	P	P	23 14 48.5	-0.5
N19K	Bonanza Creek	44.59	331		P	23 14 52.0	-1.3
CNBA	Chernabura Isl	44.63	322	P	P	23 14 52.8	-0.8
KTH	Kantishna Hill	44.67	336	P	P	23 14 54.5	+0.6
KTH				IAmb	IAmb	23 15 04.6	
	comp=Z,12nm,0.9s						
SABA	Saba	45.25	91	P	P	23 14 59.6	+0.6
L19K	White Mountain	45.43	333	P	P	23 14 59.1	-0.8
H23K	Yukon River	45.60	339	P	P	23 15 00.8	-0.4
H23K				IAmb	IAmb	23 15 12.6	
	comp=Z,7.5nm,0.8s						
N17K	Nushagak Hills	45.63	330	P	P	23 15 00.9	-0.5
K20K	Telida	45.73	335	P	P	23 15 02.0	-0.3
K20K				IAmb	IAmb	23 15 12.3	
	comp=Z,7.5nm,0.9s						
A36M	Sachs Harbour	45.73	354	P	P	23 15 02.2	+0.1
IMAR	Indian Mountai	47.07	338	P	P	23 15 13.5	+0.8
K17K	Iditarod	47.09	333	P	P	23 15 13.5	+0.6
L16K	Owhat River	47.14	331	P	P	23 15 14.3	+1.0
BOAV	Boa Vista	54.40	108	P	P	23 16 08.1	-0.6
BOAV				IAmb	IAmb	23 16 18.8	
	comp=Z,5.7nm,1.0s						
MACA	Manacapuru-AM	57.30	113	P	P	23 16 30.6	+1.1
LPAZ	La Paz	60.06	131	P	P	23 16 50.4	+1.0
	comp=Z,0.6nm,0.7s,baz=309,slow=6.5,SNR=2.0						
	comp=Z,0.6nm,0.7s						
PB16	IPOC Station P	60.61	133	P	P	23 16 51.3	-1.7
PB16				IAmb	IAmb	23 17 01.7	
	comp=Z,3.9nm,1.0s						
PB11	IPOC Station P	61.56	135	P	P	23 16 58.2	-0.7
GO01	Chusmiza	61.78	134	P	P	23 17 00.0	-0.9
PB08	IPOC Station P	62.16	134	P	P	23 17 03.7	+0.4
PB08				IAmb	IAmb	23 17 11.9	
	comp=Z,5.8nm,0.9s						
PB02	IPOC Station P	62.56	136	P	P	23 17 06.2	+0.6
PB07	IPOC Station P	62.87	136		P	23 17 07.9	+0.2
PB03	IPOC Station P	63.19	136		P	23 17 10.1	+0.2
PB05	IPOC Station P	63.52	137	P	P	23 17 12.9	+1.0
VILB	Vilhena	63.55	122	P	P	23 17 11.8	-0.4
PB06	IPOC Station P	63.79	137	P	P	23 17 12.9	-0.9
PTLB	Pontes e Lacer	65.91	123	P	P	23 17 27.7	+0.2
PTLB				IAmb	IAmb	23 17 39.3	
	comp=Z,4.0nm,1.1s						
CPUP	Villa Florida	74.23	131	P	P	23 18 20.5	+2.0
	comp=Z,2.6nm,0.8s,baz=312,slow=7.4,SNR=5.9						
	comp=Z,2.6nm,0.8s						
BDFB	Brasilia	74.62	117	P	P	23 18 23.2	+2.1
	comp=Z,1.3nm,0.6s,baz=225,slow=5.7,SNR=1.6						
	comp=Z,1.3nm,0.6s						
BDFB	Brasilia	74.62	117	P	P	23 18 22.4	+1.3
BDFB				IAmb	IAmb	23 18 48.6	
	comp=Z,7.8nm,1.4s						
GO06	Curarrehue	75.92	149	P	P	23 18 27.1	-1.0
GO06				IAmb	IAmb	23 18 43.8	
	comp=Z,6.7nm,1.2s						
PLCA	Paso Flores	77.26	149	P	P	23 18 38.3	+2.7
	comp=Z,0.6nm,0.7s,baz=285,slow=2.5,SNR=3.4						
	comp=Z,0.6nm,0.7s						
HHC	Hu-ho-hao-te	101.67	328	eP	Pdif	23 20 33.3	-1.0
NJ2	Nanjing	104.31	318	eP	Pdif	23 20 44.3	-1.7
NJ2				pmax	pmax		
	comp=Z,11nm,0.5s						
WMQ	Urumqi	107.44	346	Pdif	Pdif	23 20 55.4	-4.5
WMQ				PP	PP	23 25 28.3	+2.1
WMQ				LR	LR		
	comp=N,190nm,22.9s						
WMQ				LR	LR		
	comp=E,280nm,24.5s						
WMQ				LR	LR		
	comp=Z,300nm,21.3s						
PZH	PanZhiHua	118.04	326	PKP	PKPdf	23 25 27.8	-1.2
WRA	Warramunga Arr	119.90	262	PKP	PKiKP	23 25 34.1	+1.5
	comp=Z,0.5nm,0.6s,baz=70,slow=2.4,SNR=8.0						
WRA	Warramunga Arr	119.90	262		PKPdf	23 25 33.4	+1.0
ASAR	Alice Springs	121.50	258	PKP	PKiKP	23 25 38.4	+2.8
	comp=Z,0.4nm,0.6s,baz=82,slow=2.3,SNR=1.8						

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*VIE **24** 23:09:24.6±0.3, 50°.11N×18°.40E, h0^{km}, mb2.2/2, ml2.6/4, Error ellipse: s-maj=3.1km s-min=1.7km az=159.0 33 km NNE of Ostrava Suspected Mining induced.*

*IPEC **24** 23:09:25.2±0.2, 50°.08N×18°.46E, h1^{km}, ML2.4/6, Error*

ellipse: s-maj=1.7km s-min=1.0km az=165.0
PRU ***24*** *23:09:26.4, 50.°01N×18.°41E, h0km*
ISC 24 23:09:25.2±0.8**, 50.°06N**±0.°03×**18.°45E**±0.°02**, h0**km**, n33, σ0.s94**/59**, Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAC	Raciborz	0.17	279	ePG	Pg	23 09 29.5	+1.0
RAC				eSG	Sg	23 09 32.7	+2.1
OKC	Ostrava-Krasne	0.30	222	ePG	Pg	23 09 31.7	+0.8
OKC				eSG	Sg	23 09 35.5	+0.8
	comp=Z,279nm,0.7s						
OKC				AML	AML		
STEB	Steborice	0.46	255	ePG	Pg	23 09 34.7	+0.7
STEB				eSG	Sg	23 09 41.0	+1.2
	comp=Z,166nm,0.6s						
STEB				AML	AML		
MORC	Moravsky Berou	0.65	245	ePg	Pg	23 09 37.9	+0.2
	baz=63						
MORC				eSg	Sg	23 09 46.1	-0.1
	67nm,0.5s,baz=63						
MORC				AML	AML		
ANAC	Anensky vrch	0.69	272	ePg	Pg	23 09 38.6	+0.1
	baz=89						
ANAC				eSg	Sg	23 09 47.2	-0.2
	56nm,0.4s,baz=89						
ANAC				AML	AML		
LOSC	Losov	0.82	238	ePg	Pg	23 09 41.3	+0.3
	baz=57						
LOSC				eSg	Sg	23 09 51.8	+0.1
	41nm,0.4s,baz=57						
LOSC				AML	AML		
OJC	Ojcow	0.88	79	ePg	Pg	23 09 41.8	-0.3
OJC				eSg	Sg	23 09 54.0	+0.5
LANS	Liptovska Anna	1.12	144	ePG	Pb	23 09 47.3	-0.2
LANS				eSG	Sn	23 10 04.5	+0.1
LANS				eLG	Lg	23 10 06.5	
JAVC	Velka Javorina	1.30	203	ePg	Pb	23 09 50.4	-0.2
	baz=23						
JAVC	Velka Javorina	1.30	203	ePG	Pb	23 09 50.5	-0.2
NIE	Niedzica	1.36	117	ePg	Pb	23 09 51.5	-0.1
NIE				eSg	Sn	23 10 10.8	+0.6
DPC	Dobruska-Polom	1.40	283	ePG	Pn	23 09 51.4	-0.7
DPC				eSG	Sb	23 10 10.7	0.0
	comp=Z,81nm,0.5s						
DPC				AML	AML		
VRAC	Vranov	1.42	239	ePg	Pn	23 09 51.7	-0.6
	baz=57						
VRAC				eSg	Sg	23 10 10.2	-0.7
	33nm,0.5s,baz=57						
VRAC				AML	AML		
OSTC	Ostas	1.52	290	ePG	Pn	23 09 52.8	-0.9
OSTC				eSG	Sn	23 10 15.0	+0.8
VYHS	Vyhne	1.58	171	ePG	Pn	23 09 54.4	-0.2
VYHS				eSG	Sg	23 10 16.3	+0.2
VYHS				eLG	Lg	23 10 18.3	
KSP	Ksiaz	1.59	300	ePg	Pn	23 09 53.5	-1.1
KSP				eSg	Sb	23 10 15.9	-0.2
CHVC	Chvalec	1.63	290	ePG	Pn	23 09 54.7	-0.5
CHVC				eSG	Sg	23 10 17.6	+0.1
	comp=Z,20nm,0.6s						
CHVC				AML	AML		
UPC	Upice	1.63	287	ePG	Pn	23 09 54.9	-0.3
UPC				eSG	Sb	23 10 17.2	0.0
	comp=Z,16nm,0.5s						
UPC				AML	AML		
KRUC	Moravsky	1.67	234	ePg	Pn	23 09 55.8	+0.1
	baz=52						
KRUC				eSg	Sn	23 10 17.8	0.0
	47nm,0.6s,baz=52						
KRUC				AML	AML		
MODS	Modra-Piesok	1.85	205	eSG	Sb	23 10 23.5	-0.2
STHS	Stebnicka Huta	1.92	108	ePG	Pb	23 10 01.3	+0.2
STHS				eSG	Sg	23 10 30.3	+3.4
KECS	Kecovo	2.06	139	ePN	Pn	23 10 00.8	-0.3
KECS				eSN	Sn	23 10 27.0	-0.5
KECS				eLG	Lg	23 10 31.3	
TREC	Trest	2.07	250	eSG	Sb	23 10 29.6	-0.4
	comp=Z,13nm,0.5s						
TREC				AML	AML		
PVCC	Panska Ves	2.54	282	ePG	Pb	23 10 12.2	+0.6
PVCC				eSG	Sg	23 10 47.2	+0.6
	comp=Z,17nm,0.4s						
PVCC				AML	AML		
CONA	Conrad Observa	2.73	220	ePn	Pn	23 10 10.2	-0.2
	0.2nm,0.1s						
CONA				i Sn	Sn	23 10 44.5	+0.4
	2.6nm,0.4s						
KOLS	Kolonicke sedl	2.73	113	ePG	Pg	23 10 16.3	-1.3
CKRC	Cesky Krumlov	2.97	247	eSG	Sb	23 10 58.3	+2.3
	comp=Z,18nm,0.9s						
CKRC				AML	AML		
BRG	Berggiesshubel	3.00	288	Pg	Pb	23 10 20.4	+1.0
BRG				Sg	Sg	23 11 00.3	-1.1
BRG				Amp		23 11 05.4	
	comp=Z,7.5nm,0.5s						
HSKC	Hora Svate Kat	3.26	282	eSG	Sg	23 11 10.2	+0.2
	comp=Z,9.4nm,0.7s						
HSKC				AML	AML		
KHC	Kasperske Hory	3.30	256	ePN	Pn	23 10 17.0	-1.2
KHC				ePG	Pb	23 10 25.0	+0.3
KHC				eSG	Sg	23 11 08.9	-2.4
	comp=Z,12nm,0.5s						
KHC				AML	AML		
MOA	Molln	3.54	233	ePn	Pn	23 10 20.3	-1.1
	comp=Z,0.1nm,0.1s						
MOA				eSn	Sn	23 11 03.0	-0.9
	comp=Z,9.5nm,0.6s						
CLL	Collm	3.69	292	ePg	Pg	23 10 36.0	+0.2
CLL				eSg	Sg	23 11 22.0	-1.6
	comp=Z,10.0nm,0.7s						
NKC	Novy Kostel	3.87	275	eSG	Sg	23 11 28.2	-1.2

TXNET ***24*** *23:14:13.7, 31.°7N±0.°5×104.°4W±0.°5, h6km±1km, ML3.5/25, Error ellipse: s-maj=0.9km s-min=0.8km az=35.0, final*
NEIC ***24*** *23:14:13.8±0.6, 31.°65N±0.°01×104.°38W±0.°01, h5km±1km, mb_Lg3.4/65, ML3.4/50, Error ellipse: s-maj=2.7km s-min=2.1km az=267.0*
ISC 24 23:14:14.0±0.8**, 31.°66N**±0.°02×**104.°38W**±0.°02**, h10**km±6km**, n108, σ0.s85**/120**, 3C-1D, Western Texas**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TPB28		0.10	276	Pg	Pg	23 14 16.9	+0.1
TPB28				Sg	Sg	23 14 18.7	0.0
TPB28				IAML		23 14 18.9	
	20μm,0.3s						
TPB28				IAML		23 14 19.0	
	15μm,0.3s						
TPB28		0.10	276	P	Pg	23 14 16.8	+0.1
TPB28				S	Sg	23 14 18.6	0.0
TPB28				AML	AML		
TPB28				AML	AML		
TPB09	Culberson Coun	0.14	31		Pg	23 14 17.1	-0.1
TPB09					Sg	23 14 19.2	-0.3
TPB09	Culberson Coun	0.14	31	P	Pg	23 14 17.1	-0.1
TPB09				S	Sg	23 14 19.2	-0.3
TPB09				AML	AML		
TPB09				AML	AML		
TPB29		0.15	310		Pg	23 14 17.5	+0.1
TPB29					Sg	23 14 19.9	+0.1
TPB29		0.15	310	P	Pg	23 14 17.5	+0.1
TPB29				S	Sg	23 14 19.9	+0.1
TPB29				AML	AML		
TPB29				AML	AML		
TPB11	China Draw	0.41	47	Pg	Pg	23 14 21.9	-0.1
TPB11				Sg	Sg	23 14 27.1	-0.3
TPB11				IAML		23 14 30.2	
	4μm,0.6s						
TPB11				IAML		23 14 30.3	
	3μm,0.7s						
TPB11	China Draw	0.41	47	⇑P	Pg	23 14 21.9	-0.1
TPB11				AML	AML		
TPB11				AML	AML		
PECS	Pecos	0.53	123	Pg	Pg	23 14 24.5	+0.2
PECS				Sg	Sg	23 14 31.3	+0.1
PECS	Pecos	0.53	123	P	Pg	23 14 24.5	+0.2
PECS				S	Sg	23 14 31.6	+0.4
PECS				AML	AML		
PECS				AML	AML		
GDL2	Guadalupe Moun	0.54	2	Pg	Pg	23 14 24.5	-0.1
GDL2	Guadalupe Moun	0.54	2	⇑P	Pg	23 14 24.5	-0.1
TPB12	Southwest of T	0.57	141		Pg	23 14 25.2	+0.1
TPB12					Sg	23 14 33.1	+0.3
TPB12	Southwest of T	0.57	141	P	Pg	23 14 25.2	+0.1
TPB12				S	Sg	23 14 33.1	+0.3
TPB12				AML	AML		
TPB12				AML	AML		
TPB07	Mentone	0.61	97		Pg	23 14 26.2	+0.2
TPB07					Sb	23 14 35.0	-0.7
TPB07	Mentone	0.61	97	P	Pg	23 14 26.2	+0.2
TPB07				S	Sb	23 14 35.0	-0.7
TPB07				AML	AML		
TPB07				AML	AML		
TPB10	Southeast of T	0.65	125		Pb	23 14 27.0	-0.6
TPB10	Southeast of T	0.65	125	P	Pb	23 14 27.0	-0.6
TPB10				S	Sb	23 14 36.3	-0.5
TPB10				AML	AML		
TPB10				AML	AML		
CLNB	Carlsbad	0.74	35	Pg	Pg	23 14 28.2	-0.2
CLNB	Carlsbad	0.74	35	P	Pg	23 14 28.0	-0.3
CLNB				AML	AML		
CLNB				AML	AML		
CLNB	Carlsbad	0.74	35	P	Pg	23 14 28.1	-0.2
LWM1	Layne Water Mi	0.77	123	P	Pb	23 14 29.2	-0.4
LWM1				AML	AML		
LWM2	Layne Water Mi	0.78	119	P	Pb	23 14 29.5	-0.3
LWM2				S	Sb	23 14 40.5	-0.1
LWM2				AML	AML		
LWM2				AML	AML		
CBET	Carlsbad E Tow	0.83	24	P	Pg	23 14 29.7	-0.4
MNTX	Cornudas Mount	0.85	273	Pg	Pg	23 14 30.2	-0.3
MNTX	Cornudas Mount	0.85	273	P	Pg	23 14 30.2	-0.3
MNTX				AML	AML		
MNTX				AML	AML		
TPB01	Permian Basin	0.88	144	Pg	Pg	23 14 30.3	-0.7
TPB01	Permian Basin	0.88	144	P	Pg	23 14 30.4	-0.6
TPB03	Saragosa	0.94	127	⇓P	Pg	23 14 32.1	0.0
TPB03				S	Sb	23 14 44.6	-0.4
TPB03				AML	AML		
TPB30		0.98	112	P	Pb	23 14 33.1	-0.1
TPB30				S	Sb	23 14 46.5	+0.3
TPB30				AML	AML		
TPB06	Permian Basin	0.99	90	Pg	Pb	23 14 33.1	-0.3
TPB06				IAML		23 14 57.1	
	781nm,0.9s						
TPB06				IAML		23 15 06.3	
	760nm,0.5s						
VHRN	Van Horn	1.01	211		Pg	23 14 33.2	-0.3
VHRN					Sg	23 14 46.7	+0.1
VHRN	Van Horn	1.01	211	⇑P	Pg	23 14 33.2	-0.3
VHRN				S	Sg	23 14 46.7	+0.1
VHRN				AML	AML		
HTMS	Hat Mesa	1.03	38	P	Pg	23 14 33.5	-0.4
HTMS				S	Sb	23 14 47.4	-0.4
HTMS				AML	AML		
HTMS				AML	AML		
TPB04	Verhalen	1.06	116	P	Pg	23 14 34.2	-0.2
TPB04				AML	AML		
TPB04				AML	AML		
NM01	Eunice	1.09	50	P	Pg	23 14 34.4	-0.5
NM01				AML	AML		
TPB16	Coyonosa	1.10	119	P	Pg	23 14 35.0	-0.3
TPB16				AML	AML		
TPB16				AML	AML		
TPB18		1.11	114	P	Pg	23 14 35.0	-0.4
TPB18				AML	AML		
TPB18				AML	AML		
TPB19	West of Imperi	1.15	108	P	Pg	23 14 35.7	-0.5
TPB19				AML	AML		
TPB05	Hovey Rd	1.17	129	Pg	Pg	23 14 36.0	-0.5
TPB05				IAML		23 15 10.2	
	573nm,0.6s						
TPB05				IAML		23 15 10.3	
	793nm,0.6s						
TPB05	Hovey Rd	1.17	129	P	Pg	23 14 35.9	-0.5
TPB17		1.24	122	P	Pg	23 14 37.4	-0.5
TPB17				AML	AML		
MNHN	Monahans	1.42	102	Pg	Pn	23 14 40.0	0.0
MNHN	Monahans	1.42	102	P	Pn	23 14 40.0	0.0
ALPN	Alpine	1.43	153		Pn	23 14 39.8	-0.5
ALPN	Alpine	1.43	153	P	Pn	23 14 40.0	-0.2
ALPN				S	Sb	23 14 58.7	-0.6
CPRX	Cap Rock	1.44	18		Pn	23 14 40.5	+0.2
CPRX	Cap Rock	1.44	18	P	Pn	23 14 40.6	+0.3
ODSA	Odessa	1.63	73		Pn	23 14 42.8	-0.1
ODSA	Odessa	1.63	73	S	Sn	23 15 04.5	+0.6
EPT	El Paso	1.81	274	Pn	Pn	23 14 45.2	-0.3
EPT				IAML		23 15 29.4	
	comp=N,347nm,0.7s						
EPT				IAML		23 15 30.0	
	comp=E,429nm,0.4s						
TMB07		1.84	79	P	Pb	23 14 47.5	-0.4
TMB07				S	Sb	23 15 11.4	+0.2
TMB07				AML	AML		
128A	Castleberry Fa	1.87	59	Pn	Pb	23 14 47.8	-0.7
TMB04	Seminole	1.87	59	P	Pb	23 14 47.7	-0.7
TMB04				AML	AML		
TMB02	Rankin	2.06	102		Pn	23 14 50.2	+1.4
TMB02	Rankin	2.06	102	P	Pn	23 14 50.2	+1.4
TMB02				AML	AML		
229A	Bryant Ranch,	2.21	81		Pb	23 14 52.9	-1.3
TMB06	Greenwood	2.22	81	P	Pb	23 14 52.9	-1.5
TMB06				AML	AML		
129A	Stewart Farms,	2.34	65	Pn	Pn	23 14 54.6	+1.8
TMB05	Klondike	2.35	65	P	Pn	23 14 54.7	+1.9
TMB05				AML	AML		
TX31	Lajitas Ar. Si	2.40	165		Pn	23 14 55.1	+1.6
TX31	Lajitas Ar. Si	2.40	165	P	Pn	23 14 55.1	+1.6
TX31				AML	AML		
TXAR	Lajitas Array	2.40	165	Pn	Pn	23 14 54.9	+1.4
SAND	Sanderson	2.58	131	Pn	Pn	23 14 57.9	+1.9
SAND				IAmb_Lg		23 15 35.0	
	comp=Z,105nm,0.9s						
MSTX	Muleshoe	2.67	30	Pn	Pn	23 14 59.4	+2.0
SGCY	Sterling City	2.78	84	Pn	Pn	23 15 00.3	+1.6
SGCY				IAmb_Lg		23 15 44.5	
	comp=Z,129nm,1.0s						
POST	Post	2.81	59	Pn	Pn	23 15 00.2	+1.0
OZNA	Ozona	2.88	104	Pn	Pn	23 15 00.7	+0.6
OZNA				IAmb_Lg		23 15 49.6	
	comp=Z,100nm,0.8s						
121A	Cookes Peak, D	3.02	288	Pn	Pn	23 15 03.8	+1.7
121A				IAML		23 16 08.5	
	comp=E,137nm,0.5s						
SN07	Snyder 07	3.28	63	Pn	Pn	23 15 06.9	+1.3
SN07				IAmb_Lg		23 16 05.8	
	comp=Z,114nm,0.9s						
SBM	South Baldy	3.30	315	Pn	Pn	23 15 06.4	+0.2
LENM	Lemitar	3.32	320	Pn	Pn	23 15 06.8	+0.6
DKNS	Dickens	3.54	55	Pn	Pn	23 15 08.8	-0.3
DKNS				IAmb_Lg		23 16 14.6	
	comp=Z,113nm,0.8s						
ALQ	Albuquerque	3.71	333	IAmb_Lg		23 16 12.0	
	comp=Z,69nm,0.8s						
ALQ	Albuquerque	3.71	333	IAmb_Lg		23 16 11.8	
	comp=Z,71nm,0.8s						
ALQ				IAmb_Lg		23 16 11.9	
	comp=Z,72nm,0.8s						
TASM	ASL Pad, Albuq	3.71	333	Pn	Pn	23 15 12.4	+0.7
TASM				IAmb_Lg		23 16 11.9	
	comp=Z,67nm,0.8s						
TASM	ASL Pad, Albuq	3.71	333	Pn	Pn	23 15 12.4	+0.7
TASM				IAML		23 16 10.8	
	comp=Z,79nm,1.0s						
TASM				IAmb_Lg		23 16 11.9	
	comp=Z,67nm,0.8s						
TASM				IAmb_Lg		23 16 12.0	
	comp=Z,68nm,0.8s						
TASM				IAML		23 16 24.3	
	comp=Z,115nm,0.8s						
AMTX	Amarillo	3.93	34	Pn	Pn	23 15 15.9	+1.3
APMT	Aspermont	3.96	64	Pn	Pn	23 15 16.2	+1.2
APMT				IAmb_Lg		23 16 30.5	
	comp=Z,118nm,0.7s						
JCT	Junction City	4.10	105	Pn	Pn	23 15 18.1	+1.2
JCT				IAmb_Lg		23 16 26.0	
	comp=Z,91nm,0.8s						
ABTX	Abilene, Hawle	4.13	75	Pn	Pn	23 15 18.5	+1.1
ABTX				IAmb_Lg		23 16 25.5	
	comp=Z,55nm,0.7s						
PH02	Texas Public H	4.24	28	Pn	Pn	23 15 20.7	+1.9
PH02				IAmb_Lg		23 16 35.1	
	comp=Z,104nm,0.9s						
BRDY	Brady	4.61	93	Pn	Pn	23 15 24.8	+0.8
HPIG		4.84	194	Pn	Pn	23 15 28.5	+1.3
HPIG				IAML		23 17 03.7	
	comp=N,26nm,0.8s						
SMWD	Samnorwood	4.88	44	Pn	Pn	23 15 29.2	+1.6
HNDO	Hondo	4.88	114	Pn	Pn	23 15 28.3	+0.7
RTBA	Rita Blanca	4.96	16	Pn	Pn	23 15 30.9	+2.2
RTBA				IAmb_Lg		23 17 00.1	
	comp=Z,45nm,0.7s						
PLPT	Palo Pinto	5.27	76	Pn	Pn	23 15 33.2	+0.3
PLPT				IAmb_Lg		23 17 16.0	
	comp=Z,81nm,1.1s						
WTFS	Witchita Falls	5.41	66	Pn	Pn	23 15 36.0	+1.2
833A	Chaparral WMA,	5.46	126	Pn	Pn	23 15 37.5	+2.0
T25A	Trinidad	5.47	360	Pn	Pn	23 15 37.1	+1.2
T25A				IAmb_Lg		23 17 14.4	
	comp=Z,49nm,0.8s						
WMOK	Wichita Mounta	5.61	55	Pn	Pn	23 15 39.2	+1.6
WMOK				IAmb_Lg		23 17 26.3	
	comp=Z,40nm,0.9s						
WMOK	Wichita Mounta	5.61	55		Pn	23 15 39.4	+1.8
WHTX	Lake Whitney,	5.90	85	Pn	Pn	23 15 41.5	-0.1
FW06	Azle	5.92	75	Pn	Pn	23 15 42.0	+0.1
ELIS	Ellis County	6.03	42	Pn	Pn	23 15 43.7	+0.3
ELIS				IAmb_Lg		23 17 41.4	
	comp=Z,55nm,0.8s						
X34A	Smith Ranch, M	6.23	60	Pn	Pn	23 15 46.9	+0.8
LOOK	Love County	6.49	67	Pn	Pn	23 15 50.5	+0.8
OK038	West end E0370	6.71	43	IAmb_Lg		23 17 58.2	
	comp=Z,37nm,0.9s						
NOKA	Waynoka	6.71	41	IAmb_Lg		23 18 03.3	
	comp=Z,60nm,0.7s						
W35A	Tecumseh	7.18	59	IAmb_Lg		23 18 21.9	
	comp=Z,37nm,0.9s						
PV05	Paradox Valley	7.49	330	IAmb_Lg		23 18 12.2	
	comp=Z,47nm,1.1s						
PV11	David Mesa, Pa	7.58	332	IAmb_Lg		23 18 26.4	
	comp=Z,54nm,1.2s						
PV17	East Wray Mesa	7.60	332	Pn	Pn	23 16 06.1	+1.0
PV23	Carpenter Ridg	7.77	332	Pn	Pn	23 16 07.5	+0.1
HMU	Henry Mountain	8.16	322	IAmb_Lg		23 18 49.1	
	comp=Z,24nm,0.8s						
R32A	Long Quarter,	8.19	33	IAmb_Lg		23 18 56.5	
	comp=Z,36nm,0.9s						
OGNE	Ogallala	9.46	11	IAmb_Lg		23 19 23.7	
	comp=Z,27nm,0.7s						

KRNET ***24*** *23:20:22.4±0.1, 39.°79N×73.°95E, h24km, mb3.0*
NNC ***24*** *23:20:30.7±4.6, 40.°11N×73.°65E, h0km, mb3.5, mpv3.2, Error ellipse: s-maj=37.0km s-min=15.3km az=176.0*
SOME ***24*** *23:20:38.3, 40.°73N×73.°55E, h5km*
ISC 24 23:20:28.1±1.3**, 39.°99N**±0.°07×**73.°72E**±0.°03**, h17**km±7km**, n37, σ2.s18**/58**, 17C-28D, Tajikistan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SFK	Sufi-Kurgan	0.17	279	⇑iP	Pg	23 20 31.0	-1.6
SFK				⇑iS	Sg	23 20 37.3	+1.7
OHH	Osh	0.89	307	⇑eP	Pg	23 20 43.5	-1.9
OHH				⇑iS	Sn	23 20 59.2	+0.6
SALK	Salom-Alik	0.90	5	⇑eP	Pg	23 20 42.6	-3.0
SALK				⇑eS	Sb	23 20 57.9	+0.7
ARSB	Arslanbob	1.45	338	⇓eP	Pn	23 20 53.1	-0.6
ARSB				⇓eS	Sn	23 21 15.3	+2.9
DRK	Karamyk	1.56	252	⇑iP	Pn	23 20 52.7	-2.7
DRK				⇑eS	Sn	23 21 15.0	-0.4
BTK	Batken	2.23	273	⇓eP	Pn	23 21 03.1	-1.2
BTK				⇓iS	Sn	23 21 32.5	+1.0
ARK	Arkit	2.25	324	⇓iP	Pn	23 21 04.2	-0.4
ARK				⇓iS	Sn	23 21 34.8	+2.8
NRN	Naryn	2.26	49	⇑iP	Pn	23 21 00.5	-4.5
NRN				⇑iS	Sn	23 21 28.2	-4.4
UCH	Uchtor	2.32	15	⇓eP	Pn	23 21 03.9	-2.0
UCH				⇓iS	Sn	23 21 34.3	0.0
TRKS	Terek-Say	2.49	309	⇓iP	Pn	23 21 06.7	-1.3
TRKS				⇓iS	Sn	23 21 39.1	+1.0
EKS2	Erkin-Say	2.67	1	⇑eP	Pn	23 21 09.2	-1.3
EKS2				⇑eS	Sn	23 21 43.5	+0.9
AAK	Ala-Archa	2.71	12	⇑Pg	Pn	23 21 15.8	+4.7
	2.1nm,0.5s						
AAK				⇑Lg	Lg	23 21 52.9	
	3.3nm,0.5s						
AAK	Ala-Archa	2.71	12	⇓eP	Pn	23 21 09.4	-1.7
AAK				⇓iS	Sn	23 21 43.6	0.0
MRKS	Merke	2.78	353	Pg	Pb	23 21 16.7	-0.7
	2.8nm,0.2s						
MRKS				Lg	Lg	23 21 42.1	
	3.3nm,0.2s						
MRKS	Merke	2.78	353	eP	Pb	23 21 16.7	-0.7
	2.8nm,0.2s						
MRKS				eS	Sn	23 21 42.1	-3.1
	3.3nm,0.2s						
KBK	Karagaybulak	2.82	19	⇓eP	Pn	23 21 10.6	-2.0
KBK				⇓eS	Sn	23 21 45.7	-0.7
FRU1	Bishkek	2.90	13	⇓eP	Pn	23 21 12.2	-1.4
FRU1				⇓iS	Sn	23 21 48.4	+0.2
ULHL	Ulahol	2.96	39	⇓eP	Pn	23 21 11.0	-3.4
ULHL				⇓eS	Sn	23 21 46.7	-3.0
BOOM	Boomskoye usch	3.01	33	⇑eP	Pn	23 21 12.3	-2.9
BOOM				⇑eS	Sn	23 21 48.7	-2.3
CHMS	Chumysh	3.11	14	⇓eP	Pn	23 21 14.7	-1.7
CHMS				⇓eS	Sn	23 21 52.6	-0.6
TKM2	Tokmak 2	3.25	25	⇓eP	Pn	23 21 16.2	-2.4
TKM2				⇓eS	Sn	23 21 55.3	-1.7
USP	Ospenovka	3.33	10	⇓eP	Pn	23 21 17.9	-1.5
USP				⇓eS	Sn	23 21 58.2	-0.5
KDJ	Kajisay	3.38	50	⇓eP	Pn	23 21 16.5	-3.8
KDJ				⇓eS	Sn	23 21 55.9	-4.3
KST	Kastek	3.49	28	Pg	Pb	23 21 32.8	+3.4
	1.0nm,0.4s						
KST				Lg	Lg	23 22 10.0	
	17nm,0.6s						
KST	Kastek	3.49	28	eP	Pb	23 21 32.8	+3.4
	1.0nm,0.4s						
KST				eS	Sb	23 22 09.9	-1.7
	17nm,0.6s						
IUG	Iuzhnay	3.52	309	Pg	Pg	23 21 34.0	-1.6
	22nm,0.3s						
IUG				Lg	Lg	23 22 12.0	
	37nm,0.3s						
IUG	Iuzhnay	3.52	309	eP	Pg	23 21 34.0	-1.6
	22nm,0.3s						
IUG				eS	Sb	23 22 12.0	-0.6
	37nm,0.3s						
SGDS	Sogindy	3.53	11	Pg	Pb	23 21 32.2	+2.0
	3.1nm,0.4s						
SGDS				Lg	Lg	23 22 08.6	
	2.4nm,0.5s						
TNSS	Tian-Shan	3.90	37	Pg	Pg	23 21 43.0	+0.3
	1.5nm,0.3s						
TNSS				Lg	Lg	23 22 27.1	
	2.9nm,0.5s						
TNSS	Tian-Shan	3.90	37	eP	Pg	23 21 43.0	+0.3
	1.5nm,0.3s						
TNSS				eS	Sb	23 22 27.1	+3.5
	2.9nm,0.5s						
KK31	Karatay Array	3.94	323	⇓Pg	Pg	23 21 41.2	-2.2
	0.5nm,0.2s,baz=145,slow=15,SNR=6.3						
KK31				⇓Sn	Sn	23 22 17.9	+4.3
	3.5nm,0.7s,baz=171,slow=28,SNR=4.3						
KK31				⇑Lg	Lg	23 22 34.2	
	2.4nm,0.4s,baz=144,slow=27,SNR=2.9						
MDOK	Medeo	4.04	37	Pg	Pg	23 21 45.3	-0.1
	13nm,1.7s						
MDOK				Lg	Lg	23 22 31.3	
	15nm,0.9s						
MDOK	Medeo	4.04	37	eP	Pg	23 21 45.3	-0.1
	13nm,1.7s						
MDOK				eS	Sb	23 22 31.3	+3.9
	15nm,0.9s						
KOTS	Kotyrbulak	4.12	37	Pg	Pg	23 21 47.0	0.0
	4.6nm,0.4s						
KOTS				Lg	Lg	23 22 34.5	
	21nm,0.8s						
KOTS	Kotyrbulak	4.12	37	eP	Pg	23 21 47.0	0.0
	4.6nm,0.4s						
KOTS				eS	Sb	23 22 34.5	+4.5
	21nm,0.8s						
BRLS	Borolday	4.21	317	Pg	Pb	23 21 43.9	+2.2
	2.3nm,0.3s						
BRLS				Lg	Lg	23 22 28.6	
	3.5nm,0.4s						

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BRLS	Borolday	4.21	317	eP	Pb	23 21 43.9	+2.2
	2.3nm,0.3s						
BRLS				eS	Sb	23 22 28.6	-3.6
	3.5nm,0.4s						

JMA **24** *23:28:14.1±0.1, 39°.7N±0°.2×144°.5E±0°.3, h32km±1km, MV3.3/30, FAR E OFF NORTH HONSHU*

IDC 24 23:28:51.8±16.0, 37°.90N×141°.03E, h238km±89km, mb2.9/3, mbtmp3.4/4, Error ellipse: s-maj=303.0km s-min=26.1km az=65.0, Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MJAR	Matsushiro Arr	2.63	240	P	Pn	23 29 39.5	-0.1
	2.2nm,0.6s,baz=61,slow=9.9,SNR=6.7						
H11N2	WAKE ISLAND Hy	28.85	122	T	T	00 03 01.2	
	baz=322						
H11N1	WAKE ISLAND Hy	28.86	122	T	T	00 03 01.9	
	baz=322						
H11N3	WAKE ISLAND Hy	28.87	122	T	T	00 03 02.6	
	baz=322						
MKAR	Makanchi Array	43.41	301	P	P	23 36 29.6	-1.4
	0.3nm,0.8s,baz=77,slow=6.4,SNR=2.2						
	0.3nm,0.8s						
KURBB	Kurchatov Arra	45.23	307	P	P	23 36 46.2	+0.8
	0.7nm,0.5s,baz=81,slow=8.8,SNR=4.4						
	0.7nm,0.5s						
WRA	Warramunga Arr	57.87	187	P	P	23 38 18.9	0.0
	0.8nm,1.1s,baz=8.5,slow=6.9,SNR=5.0						
	0.8nm,1.1s						

DNK **24** *23:41:51.8±1.3, 51°.64N×16°.13E, h0km, ML2.5, Suspected explosion*
IPEC **24** *23:41:53.7±0.2, 51°.59N×16°.01E, h1km, ML2.6/8, Error ellipse: s-maj=1.9km s-min=1.1km az=63.0*
PRU **24** *23:41:54.8, 51°.58N×15°.98E, h0km*
VIE **24** *23:41:55.1±1.3, 51°.44N×15°.83E, h0km, mb2.6/4, ml2.8/7, Error ellipse: s-maj=7.3km s-min=6.2km az=120.0 88 km NE of Liberec Suspected Mining induced.*

ISC 24 23:41:52.6±0.8, 51°.65N±0°.03×15°.96E±0°.02, h0km, n41, σ1s.29/86, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	Ksiaz	0.83	165	ePg	Pg	23 42 08.8	+0.2
KSP				eSg	Sg	23 42 19.2	-0.1
CHVC	Chvalec	1.06	177	ePG	Pg	23 42 13.3	+0.3
CHVC				eSG	Sg	23 42 27.3	+0.6
	comp=Z,76nm,0.6s						
CHVC				AML	AML		
OSTC	Ostas	1.10	171	ePG	Pg	23 42 14.2	+0.4
OSTC				eSG	Sg	23 42 28.5	+0.4
	comp=Z,61nm,0.4s						
OSTC				AML	AML		
UPC	Upice	1.14	178	ePG	Pg	23 42 14.6	+0.1
UPC				eSG	Sg	23 42 28.6	-0.7
	comp=Z,59nm,0.4s						
UPC				AML	AML		
DPC	Dobruska-Polom	1.32	170	ePG	Pg	23 42 17.5	-0.4
DPC				eSG	Sg	23 42 34.8	-0.2
	comp=Z,57nm,0.6s						
DPC				AML	AML		
PVCC	Panska Ves	1.42	218	ePG	Pn	23 42 19.8	+0.1
PVCC				eSG	Sn	23 42 39.9	+0.8
	comp=Z,173nm,0.2s						
PVCC				AML	AML		
BRG	Berggiesshubel	1.48	239	Pg	Pg	23 42 21.8	+0.8
BRG				Sg	Sn	23 42 41.7	+1.1
BRG				Amp		23 42 42.5	
	comp=Z,85nm,0.4s						
PIVO	Bartosovice	1.51	165	ePg	Pn	23 42 20.6	-0.4
	baz=347						
PIVO				eSg	Sg	23 42 38.8	-2.3
	comp=Z,56nm,0.3s,baz=347						
PIVO				AML	AML		
ANAC	Anensky vrch	1.82	150	ePn	Pn	23 42 25.0	-0.2
	baz=331						
ANAC				eSg	Sn	23 42 48.3	-0.6
	comp=Z,34nm,0.4s,baz=331						
ANAC				AML	AML		
RYBC	Ceska Rybna	1.84	178	ePn	Pn	23 42 25.5	0.0
	baz=359						
RYBC				eSg	Sn	23 42 49.5	0.0
	comp=Z,49nm,0.4s,baz=359						
RYBC				AML	AML		
CLL	Collm	1.88	261	i Pn	Pn	23 42 26.3	+0.3
CLL				ePg	Pg	23 42 29.0	+0.4
CLL				i x	x	23 42 33.0	
CLL				eSg	Sg	23 42 55.0	+2.1
	comp=Z,25nm,0.5s						
HSKC	Hora Svate Kat	1.90	238	eSG	Sg	23 42 54.1	+0.4
	comp=Z,63nm,0.5s						
HSKC				AML	AML		
STEB	Steborice	2.07	145	eSG	Sg	23 42 58.3	-0.7
	comp=Z,89nm,0.5s						
STEB				AML	AML		
MORC	Moravsky Berou	2.13	151	ePn	Pn	23 42 29.1	-0.4
	baz=332						
MORC				eSg	Sb	23 42 58.3	-0.7
	comp=Z,38nm,0.7s,baz=332						
MORC				AML	AML		
MORC	Moravsky Berou	2.13	151	ePN	Pn	23 42 29.2	-0.3
MORC				eSG	Sb	23 42 58.4	-0.6
TREC	Trest	2.38	187	eSG	Sg	23 43 07.9	-1.0
	comp=Z,18nm,0.3s						
TREC				AML	AML		
VRAC	Vranov	2.38	170	ePn	Pn	23 42 32.8	-0.1
	baz=351						
VRAC				eSg	Sb	23 43 05.9	-0.2
	comp=Z,27nm,0.7s,baz=351						
VRAC				AML	AML		
VRAC	Vranov	2.38	170	ePN	Pn	23 42 32.9	0.0
VRAC				eSG	Sb	23 43 06.0	-0.2
KRUC	Moravsky	2.60	174	ePn	Pn	23 42 36.1	+0.1
	baz=355						
KRUC				eSg	Sb	23 43 13.1	+0.4
	comp=Z,40nm,1.1s,baz=355						
KRUC				AML	AML		
NKC	Novy Kostel	2.63	239	ePN	Pn	23 42 37.4	+1.0
NKC				ePG	Pg	23 42 43.6	+0.5
NKC				eSG	Sg	23 43 17.8	+0.6
	comp=Z,38nm,0.4s						
NKC				AML	AML		
STAC	Stalkov	2.66	189	ePn	Pn	23 42 36.7	0.0
	baz=9.8						
STAC				eSg	Sb	23 43 15.2	+1.0
	comp=Z,21nm,0.4s,baz=9.8						
STAC				AML	AML		
KHC	Kasperske Hory	2.94	212	ePN	Pn	23 42 41.1	+0.4
KHC				ePG	Pb	23 42 46.1	+0.1
KHC				eSN	Sn	23 43 17.0	+0.3
KHC				eSG	Sg	23 43 25.4	-1.7
	comp=Z,12nm,0.4s						
KHC				AML	AML		
JAVC	Velka Javorina	3.00	158	ePn	Pn	23 42 41.3	-0.2
	baz=339						
JAVC	Velka Javorina	3.00	158	ePN	Pn	23 42 41.4	-0.1
CKRC	Cesky Krumlov	3.02	201	ePN	Pn	23 42 42.5	+0.8
CKRC				ePG	Pb	23 42 48.7	+1.4
CKRC				eSG	Sg	23 43 29.1	-0.6
	comp=Z,22nm,0.5s						
CKRC				AML	AML		
LANS	Liptovska Anna	3.36	137	ePN	Pn	23 42 47.0	+0.6
LANS				ePG	Pg	23 42 57.2	+0.2
LANS				eSG	Sg	23 43 39.5	-1.1
MODS	Modra-Piesok	3.39	165	ePN	Pn	23 42 48.1	+1.4
MODS				ePG	Pg	23 42 57.7	+0.2
MODS				eSG	Sg	23 43 40.9	-0.5
BSD	Bornholm Skovb	3.53	350	i P	Pn	23 42 48.6	0.0
BSD				i S	Sn	23 43 31.0	0.0
BSD				IAML		23 43 37.5	
	comp=Z,5.5nm,0.3s						
WINA	Alland / Wiene	3.55	179	ePn	Pn	23 42 49.7	+0.8
	SNR=4.4						
WINA				eSg	Sg	23 43 44.8	-1.6
VYHS	Vyhne	3.66	148	ePN	Pn	23 42 50.0	-0.5
VYHS				ePG	Pg	23 43 03.5	+0.7
VYHS				eSG	Sg	23 43 49.7	-0.5
CONA	Conrad Observa	3.73	181	ePn	Pn	23 42 52.1	+0.7
	comp=Z,0.8nm,0.2s						
CONA				eSg	Sg	23 43 49.6	-2.6
	comp=Z,14nm,0.5s						
MOA	Molln	3.96	197	ePn	Pn	23 42 55.0	+0.4
	comp=Z,2.4nm,0.3s,SNR=9.4						
MOA				eSg	Sg	23 43 57.0	-2.6
	comp=Z,4.8nm,0.4s						
STHS	Stebnicka Huta	4.05	121	ePN	Pn	23 42 58.1	+2.3
STHS				ePG	Pg	23 43 09.3	-0.8
STHS				eSG	Sg	23 44 06.3	+3.8
BIOA	Bad Ischl, Aus	4.24	202	i Pn	Pn	23 42 58.9	+0.5
	comp=Z,1.2nm,0.2s						
BIOA				eSg	Sg	23 44 04.8	-3.8
	comp=Z,3.0nm,0.3s						
LUNU	Lund	4.26	340	i P	Pn	23 42 58.9	+0.2
LUNU				i S	Sn	23 43 47.8	-1.2
BLEU	Blekinge	4.67	359	i P	Pn	23 43 04.5	+0.2
BLEU				i S	Sn	23 43 56.4	-2.7
LESA	Schwarzleotal	4.74	208	i Pn	Pn	23 43 06.0	+0.6
	comp=Z,0.6nm,0.2s						
LESA				eSg	Sg	23 44 21.9	-2.7
	comp=Z,1.3nm,0.3s						
KOLS	Kolonicke sedl	4.88	121	ePN	Pn	23 43 06.9	-0.3
KOLS				ePG	Pg	23 43 28.9	+2.9
KBA	Koelnbreinsper	4.88	201	ePn	Pn	23 43 08.2	+0.8
	comp=Z,0.6nm,0.2s,SNR=4.1						
KBA				eSg	Sg	23 44 25.8	-3.5
	comp=Z,11nm,0.8s						
DEL	Delary	4.99	347	i P	Pn	23 43 08.2	-0.4
DEL				i S	Sn	23 44 03.9	-3.0
FABU	Falkenberg	5.69	342	i P	Pn	23 43 18.1	-0.2
FABU				i S	Sn	23 44 21.7	-2.5

RSNC **24** *23:48:39.1±0.4, 9°N±3°×7°1W±°, h0km, M2.3, ML2.1*
FUNV **24** *23:48:40.0, 8°.80N×71°.13W, h5km, MW2.7, Presumed earthquake*

ISC 24 23:48:38.4±3.2, 8°.94N±0°.04×71°.13W±0°.03, h8km±24km, n13, σ1s.53/26, Venezuela

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SDV	Santo Domingo	0.50	96	P	Pb	23 48 49.3	-0.3
SDV				S	Sb	23 48 56.4	-0.7
SDV	Santo Domingo	0.50	96	eP	Pb	23 48 49.5	0.0
SDV				eS	Sb	23 48 57.1	0.0
PAMC	Pamplona, Colo	2.22	224	P	Pb	23 49 17.8	-1.3
PAMC				S	Sb	23 49 47.7	+0.7
OCAC	Ocana	2.27	252	P	Pn	23 49 16.3	-0.1
OCAC				S	Sn	23 49 45.0	+0.3
TAMC	Tame, Arauca	2.57	195	P	Pn	23 49 22.6	+2.1
TAMC				S	Sb	23 49 55.2	-1.5
URIC	Uribia, Colomb	2.87	343	eP	Pn	23 49 26.5	+1.9
URIC				eS	Sb	23 50 02.5	-2.8
BRJC	Barrancabermej	3.24	233	P	Pb	23 49 36.4	+0.1
BRJC				S	Sn	23 50 11.4	+2.9
RUSC	La Rusia	3.59	213	P	Pn	23 49 36.1	+1.2
RUSC				S	Sn	23 50 14.3	-3.5
BENV	Beln	3.63	73	eP	Pn	23 49 35.6	+0.5
BENV				eS	Sn	23 50 18.8	+0.5
PTBC	PUERTO BERRIO,	4.07	234	P	Pn	23 49 41.3	+0.3
PTBC				S	Sn	23 50 28.5	-0.4
SJCC	San Jacinto, C	4.10	284	P	Pn	23 49 42.9	+1.3
SJCC				S	Sn	23 50 30.7	+0.9
SJCC	San Jacinto, C	4.10	284	eP	Pn	23 49 42.6	+1.0
SJCC				eS	Sn	23 50 29.7	-0.1
TACV	Tcata	4.22	73	eP	Pn	23 49 44.3	+1.1
TACV				eS	Sn	23 50 31.3	-1.5

SDD **24** *23:51:00.0±4.2, 19°.76N×70°.70W, h10km±999km, MD2.9, ML1.7, MW3.5, Presumed earthquake*
OSPL **24** *23:51:01.2±1.3, 20°.10N×70°.96W, h0km±8km, ML1.9, Presumed earthquake*

ISC 24 23:51:01.3±1.7, 19°.95N±0°.10×70°.83W±0°.05, h16km±10km, n9, σ1s.15/16, 5C-4D, Dominican Republic region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LUDR	Luperon	0.12	246⇑	ePg	Pg	23 51 06.5	+1.5
LOPP1	Punta Rusia, P	0.36	255	i P	Pg	23 51 07.2	-1.4
LOPP1				eS	Sg	23 51 11.9	-1.7
LOPP1				IAML		23 51 16.3	
	comp=Z,88nm,0.3s						
SDDR	Presa de Saban	1.05	204	i P	Pb	23 51 21.1	0.0
SDDR				eS	Sn	23 51 37.2	+1.5
SDDR				IAML		23 51 38.9	
	comp=Z,22nm,0.5s						
SDDR	Presa de Saban	1.05	204⇑	ePg	Pb	23 51 21.4	+0.2
SDDR			⇑	eSg	Sg	23 51 34.3	-1.1
SDDR				IAML		23 51 40.5	
	comp=N,20nm,0.5s						
ABDR	Alto Bandera	1.14	170⇓	ePg	Pn	23 51 23.9	+0.9
ABDR			⇓	eSg	Sn	23 51 38.7	+0.2
LONE3	El Aguacate, B	1.46	204	i P	Pb	23 51 28.1	0.0
LONE3				eS	Sg	23 51 48.7	+0.3
LONE3				IAML		23 51 52.5	
	comp=Z,11nm,1.8s						
BANI	BANI	1.61	164⇑	ePg	Pb	23 51 30.4	-0.3
BANI			⇓	eSg	Sb	23 51 51.4	+0.6
LODU1	El Espartillar	1.69	201	i P	Pg	23 51 32.7	-1.2
LODU1				IAML		23 52 01.1	
	comp=Z,21nm,1.0s						
HATOM	Hato Mayor del	1.79	130⇑	ePg	Pb	23 51 33.3	-0.4
HATOM			⇓	eSg	Sg	23 51 57.5	-1.5

IDC **25** *00:27:22.0±1.2, 3°.45S×128°.29E, h0km, mb3.8/3, mbtmp3.7/6, ML3.2/3, Error ellipse: s-maj=27.7km s-min=17.1km az=114.0*
DJA **25** *00:27:26.1±0.3, 4°S±6°×12°8E±°, h23km±7km, M3.4/9, ML3.0/5, MLv3.4/6, MLv3.4/9*

ISC 25 00:27:23.8±1.1, 3°.48S±0°.09×128°.32E±0°.06, h10km, n11, σ1s.41/10, Seram

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NLAI	Namlea	1.24	281	P	Pn	00 27 48.4	+1.2
NLAI				AML	AML		
NLAI				AML	AML		
NLAI				AML	AML		
BNDI	Bandanaira	1.89	123	P	Pn	00 27 56.5	+0.4
BNDI				AML	AML		
SANI	Sanana	2.73	301	P	Pn	00 28 08.0	+0.3
SANI				AML	AML		
SWI	Sorong	3.92	49	P	Pn	00 28 26.8	+2.7
SIJI	Sorong	3.92	49	Pn	Pn	00 28 22.9	-1.3
	6.1nm,0.3s,baz=229,slow=19,SNR=7.1						
SIJI				Sn	Sn	00 29 09.5	-0.8
	baz=233,slow=20						
	12nm,0.3s						
SIJI				AML	AML		
FAKI	Fak Fak	3.96	82	P	Pn	00 28 26.0	+1.3
FITZ	Fitzroy Crossi	14.76	190	Pn	Pn	00 30 47.1	-5.8
	baz=13,slow=14,SNR=0.9						
	0.8nm,0.8s						
WRA	Warramunga Arr	17.38	161	P	Pn	00 31 26.2	-0.5
	0.1nm,0.3s,baz=340,slow=13,SNR=11						
	0.9nm,0.8s						
WRA				AML	AML		
ASAR	Alice Springs	20.78	165	P	Pn	00 32 07.0	-0.7
	9.4nm,0.3s,baz=343,slow=9.7,SNR=15						
	9.4nm,0.3s						
MKAR	Makanchi Array	64.39	327	P	P	00 37 59.2	-0.9
	0.6nm,0.9s,baz=133,slow=6.1,SNR=2.0						
	0.6nm,0.9s						
KURBB	Kurchatov Arra	68.66	329	P	P	00 38 27.3	+0.1
	0.1nm,0.3s,baz=129,slow=5.1,SNR=1.6						
	0.1nm,0.3s						

IDC **25** *00:29:00.0±1.6, 7°.07S×129°.20E, h167km±15km, mb3.6/10, mbtmp4.1/15, Error ellipse: s-maj=18.6km s-min=11.8km az=73.0*
DJA **25** *00:29:01.7±0.7, 7°S±5°×13°0E±°, h240km±19km, M4.2/7, mB4.6/2, mb4.0/5, mb4.0/5, mB4.6/2, ML4.0/4, MLv4.3/7, MLv4.3/7, Mw(mB)3.8/2, Mw(mB)3.8/2*
NEIC **25** *00:29:01.1±1.1, 7°.00S±0°.07×129°.26E±0°.09, h174km±9km, mb4.1/6, Error ellipse: s-maj=14.0km s-min=8.2km az=57.0*

ISC 25 00:29:02.4±0.6, 6°.96S±0°.06×129°.5E±0°.1, h200km, n36, σ1s.69/37, mb3.9/11, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SAUI	Saumlaki	2.03	120		Pn	00 29 40.7	-0.6
SAUI	Saumlaki	2.03	120	P	Pn	00 29 42.6	+1.3
SAUI				AML	AML		
SAUI				AML	AML		
SAUI				AML	AML		
FAKI	Fak Fak	4.84	34	Pn	Pn	00 30 15.2	+0.3
FAKI	Fak Fak	4.84	34	P	Pn	00 30 15.0	+0.1
FAKI				AML	AML		
FAKI				AML	AML		
FAKI				AML	AML		
SOEI	Soe	5.90	242	Pn	Pn	00 30 23.5	-5.1
SOEI	Soe	5.90	242	P	Pn	00 30 27.7	-0.8
	0.3nm0.3nm20nm,0.6s,20nm,0.6s						
SOEI				AML	AML		
SOEI				AML	AML		
MTN	Manton Dam	6.06	165	Pn	Pn	00 30 28.7	-1.8
SIJI	Sorong	6.29	16	P	Pn	00 30 31.9	-1.6
	4.6nm,0.3s,baz=197,slow=19,SNR=13						
SIJI				S	Sn	00 31 42.4	-3.4
	15nm,0.4s,baz=197,slow=19,SNR=5.3						
BATI	Baumata	6.63	240	P	Pn	00 30 30.5	-7.5
	21nm,0.3s,baz=41,slow=1.8,SNR=4.4						
BATI				S	Sn	00 31 42.1	-12
	29nm,0.5s,baz=135,slow=20,SNR=3.9						
KNRA	Kununurra	8.70	185	Pn	Pn	00 31 02.2	-2.6
FITZ	Fitzroy Crossi	11.70	199	P	Pn	00 31 39.7	-3.8
	2.5nm,0.3s,baz=22,slow=11,SNR=23						
FITZ				S	Sn	00 33 39.5	-15
	11nm,0.6s,baz=9.0,slow=19,SNR=6.8						
FITZ	Fitzroy Crossi	11.70	199		Pn	00 31 43.3	-0.2
WB0	Warramunga Arr	13.58	160	Pn	Pn	00 32 05.5	-1.7
WRAB	Tennant Creek	13.72	161	P	P	00 32 11.1	-0.1
WRA	Warramunga Arr	13.73	161	P	Pn	00 32 06.0	-3.0
	1.5nm,0.6s,baz=339,slow=10,SNR=20						
WRA				S	S	00 34 31.9	-10
	4.2nm,0.5s,baz=334,slow=24,SNR=6.7						
WRA	Warramunga Arr	13.73	161		Pn	00 32 06.7	-2.3
WR8	Warramunga Arr	13.79	160	Pn	Pn	00 32 07.2	-2.6
AS31	Alice Springs	17.14	166		P	00 32 49.0	+0.1
AS31				IAmb	IAmb	00 32 52.0	
	comp=Z,10nm,0.6s						
ASAR	Alice Springs	17.14	166	P	P	00 32 49.5	+0.5
	comp=Z,33nm,0.6s,baz=340,slow=9.7,SNR=4.4						
ASAR				S	S	00 35 54.3	-2.9
	comp=Z,1.4nm,0.8s,baz=346,slow=23,SNR=4.9						
ASAR				ScP	ScP	00 40 40.0	+1.4
	comp=Z,0.5nm,0.8s,baz=308,slow=1.6,SNR=4.8						
CTA	Charters Tower	20.82	130	P	P	00 33 31.8	+3.1
	comp=Z,2.4nm,0.6s,baz=303,slow=12,SNR=7.0						
	comp=Z,2.4nm,0.6s						
INKA	Innaminka	23.25	154	P	P	00 33 53.4	+1.3
INKA				IAmb	IAmb	00 33 54.5	
	comp=Z,3.5nm,0.7s						
FORT	Forrest	23.74	183	P	P	00 33 56.7	+0.3
FORT				IAmb	IAmb	00 33 59.3	
	comp=Z,9.2nm,0.7s						
BBOO	Buckleboo	26.43	168	P	P	00 34 20.8	0.0
STKA	Stephens Creek	27.23	157	P	P	00 34 28.5	+0.6
	comp=Z,4.5nm,0.7s,baz=333,slow=9.0,SNR=4.1						
	comp=Z,4.5nm,0.7s						
CMAR	Chiang Mai Arr	39.35	310	P	P	00 36 12.1	-0.5
	comp=Z,1.2nm,0.3s,baz=132,slow=9.2,SNR=4.5						
	comp=Z,1.2nm,0.3s						
SONM	Songino Array	58.26	342	P	P	00 38 37.2	+1.2
	comp=Z,0.7nm,0.6s,baz=157,slow=6.6,SNR=3.6						
	comp=Z,0.7nm,0.6s						
MKAR	Makanchi Array	67.94	327	P	P	00 39 41.1	+1.4
	comp=Z,1.7nm,0.7s,baz=123,slow=8.1,SNR=14						
	comp=Z,1.7nm,0.7s						
MKAR	Makanchi Array	67.94	327	P	P	00 39 40.7	+1.1
ZALV	Zalesovo Beam	71.34	334	P	P	00 40 00.5	+0.3
	comp=Z,2.1nm,0.5s,baz=135,slow=6.0,SNR=12						
	comp=Z,2.1nm,0.5s						
ZALV	Zalesovo Beam	71.34	334	P	P	00 40 01.0	+0.8
KURBB	Kurchatov Arra	72.23	329	P	P	00 40 06.8	+1.1
	comp=Z,1.6nm,0.6s,baz=127,slow=5.1,SNR=15						
	comp=Z,1.6nm,0.6s						
VNDA	Vanda	72.55	173	P	P	00 40 07.3	+0.2
	comp=Z,0.5nm,0.9s,baz=199,slow=8.0,SNR=2.7						
	comp=Z,0.5nm,0.9s						
MAW	Mawson	74.82	201	P	P	00 40 21.3	+0.9
	comp=Z,0.8nm,0.9s,baz=7.1,slow=4.3,SNR=1.9						
	comp=Z,0.8nm,0.9s						
MAW	Mawson	74.82	201	P	P	00 40 21.3	+0.9
QSPA	South Pole Qui	83.02	180	P	P	00 41 05.6	+0.4
	comp=Z,0.9nm,0.9s,baz=323,slow=1.2,SNR=2.1						
	comp=Z,0.9nm,0.9s						
QSPA	South Pole Qui	83.02	180	P	P	00 41 05.5	+0.4
QSPA				IAmb	IAmb	00 41 07.3	
	comp=Z,0.7nm,0.8s						

IDC **25** *00:47:32.5±1.1, 5°.25S×133°.78E, h0km, mb3.7/6, mbtmp4.0/11, ML4.3/5, MS3.3/3, Error ellipse: s-maj=31.5km s-min=13.4km az=82.0*
DJA **25** *00:47:34.8±0.4, 5°S±3°×13°4E±°, h73km±6km, M4.2/7, mB4.8/4, mb4.6/7, mb4.6/7, mB4.8/4, ML4.0/7, MLv4.1/7, MLv4.1/7, Mw(mB)4.1/4, Mw(mB)4.1/4*

ISC 25 00:47:36.7±1.0, 5°.38S±0°.07×133°.6E±0°.2, h35km, n16, σ3s.31/17, mb3.7/6, Aru Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FAKI	Fak Fak	2.77	332	P	Pn	00 48 18.2	-0.4
FAKI				S	Sn	00 48 48.5	-2.3
FAKI				AML	AML		
FAKI				AML	AML		
FAKI				AML	AML		
SIJI	Sorong	5.03	333	Pn	Pn	00 48 49.4	-0.3
	3.8nm,0.3s,baz=156,slow=20,SNR=14						
SIJI				Sn	Sn	00 49 40.1	-6.5
	7.9nm,0.3s,baz=164,slow=20,SNR=11						
SIJI				LR	LR	00 51 18.6	
	comp=Z,93nm,21.5s,baz=28,slow=45						
	11nm,0.3s						
SIJI				AML	AML		
SWI	Sorong	5.03	333	P	Pn	00 48 48.0	-1.8
SWI				AML	AML		
SWI				AML	AML		
SWI				AML	AML		
SOEI	Soe	10.18	244	P	Pn	00 50 02.1	+1.5
BATI	Baumata	10.91	243	Pn	Pn	00 50 12.9	+2.4
	4.4nm,0.3s,baz=63,slow=2.3,SNR=1.5						
BATI				Sn	Sn	00 52 05.1	-6.3
	3.8nm,0.3s,baz=6.0,slow=19,SNR=1.5						
	19nm,0.3s						
BATI				AML	AML		
WRA	Warramunga Arr	14.50	177	Pn	Pn	00 50 56.2	-3.3
	0.7nm,0.3s,baz=2.1,slow=13,SNR=26						
WRA				Sn	Sn	00 53 28.5	-11
	0.1nm,0.3s,baz=355,slow=23,SNR=2.1						
	1.2nm,0.4s						
WRA				AML	AML		
FITZ	Fitzroy Crossi	14.82	211	Pn	Pn	00 51 02.1	-1.7
	2.3nm,0.3s,baz=32,slow=11,SNR=50						
FITZ				Sn	Sn	00 53 39.3	-7.7
	0.6nm,0.3s,baz=72,slow=16,SNR=5.8						
	5.5nm,0.3s						
FITZ				AML	AML		
ASAR	Alice Springs	18.19	179	Pn	P	00 51 45.7	-1.0
	1.0nm,0.3s,baz=3.4,slow=12,SNR=23						
ASAR				Sn	Sn	00 55 01.1	-7.7
	0.1nm,0.3s,baz=2.4,slow=26,SNR=2.2						
	6.9nm,0.7s						
ASAR				AML	AML		
HNR	Honiara	26.48	100	LR	LR	01 03 00.9	
	comp=Z,70nm,18.3s,baz=6.5,slow=35						
MSVF	Nonsavu	45.17	110	LR	LR	01 13 07.6	
	comp=Z,146nm,19.8s,baz=216,slow=34						
MKAR	Makanchi Array	68.87	325	P	P	00 58 39.6	+1.7
	0.3nm,0.6s,baz=114,slow=8.2,SNR=2.2						
	0.3nm,0.6s						
KURBB	Kurchatov Arra	73.03	327	P	P	00 59 04.4	+1.4
	0.3nm,0.6s,baz=120,slow=5.5,SNR=5.9						
	0.3nm,0.6s						
VNDA	Vanda	73.65	174	P	P	00 59 08.4	+2.2
	0.6nm,0.6s,baz=338,slow=5.4,SNR=9.5						
	0.6nm,0.6s						
MAW	Mawson	77.75	202	P	P	00 59 32.5	+2.6
	0.5nm,0.6s,baz=79,slow=7.1,SNR=1.8						
	0.5nm,0.6s						
BVAR	Borovoye Array	78.62	327	P	P	00 59 36.0	+1.1
	0.6nm,0.5s,baz=130,slow=13,SNR=1.4						
	0.6nm,0.5s						

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
QSPA	**South Pole Qui**	84.59	180	P	P	01 00 08.2	+1.8
	1.1nm,1.0s,baz=324,slow=3.8,SNR=2.5						
	1.1nm,1.0s						

SDD ***25*** *01:24:18.9±1.4, 18.°33N×71.°69W, h30^{km}±12^{km}, MD2.9, ML2.1, MW3.1, Presumed earthquake*

OSPL ***25*** *01:24:21.8±1.0, 18.°39N×71.°74W, h3^{km}±97^{km}, ML2.0, Presumed earthquake*

ISC 25 01:24:20.9±1.1**, 18.°36N**±0.°04×**71.°68W**±0.°04**, h17**^{km}±7^{km}**, n11,** σ**0^{s}89**/19**, 4C-5D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LODU1	**El Espartillar**	0.20	92	*i* P	Pg	01 24 25.5	-0.3
LODU1				*e*S	Sg	01 24 29.3	+0.2
LODU1				IAML		01 24 31.1	
	comp=Z,205nm,0.2s						
JIDR	**Jimani**	0.20	309	⇑*e*Pg	Pb	01 24 26.5	+0.4
JIDR				⇓*e*Sg	Sb	01 24 31.3	+1.6
JIDR				IAML		01 24 36.8	
	comp=N,58nm,0.3s						
NEDR	**Neiba UASD**	0.28	64	⇑*e*Pg	Pb	01 24 28.2	+0.8
NEDR				⇓*e*Sg	Sn	01 24 34.3	-1.7
NEDR				IAML		01 24 34.7	
	comp=N,148nm,0.3s						
LONE3	**El Aguacate, B**	0.32	41	*i* P	Pb	01 24 28.4	+0.1
LONE3				IAML		01 24 36.9	
	comp=Z,117nm,0.3s						
PODR	**Polo**	0.43	117	*i* P	Pb	01 24 30.5	+0.4
PODR				*e*S	Sb	01 24 37.6	+1.2
PODR				IAML		01 24 43.4	
	comp=Z,2μm,0.1s						
LOBH	**Bahia de las A**	0.50	175	*i* P	Pb	01 24 31.2	+0.1
LOBH				*e*S	Sb	01 24 38.6	+0.4
LOBH				IAML		01 24 42.6	
	comp=Z,42nm,1.7s						
LOVI	**El Cajuil, Ovi**	0.64	152	*i* P	Pn	01 24 34.0	-1.1
LOVI				IAML		01 24 45.1	
	comp=Z,72nm,0.9s						
SDDR	**Presa de Saban**	0.72	31	*i* P	Pb	01 24 34.8	-0.3
SDDR				*e*S	Sg	01 24 44.4	-0.4
SDDR				IAML		01 24 51.9	
	comp=Z,16nm,0.8s						
ABDR	**Alto Bandera**	1.10	66	⇑*e*Pg	Pn	01 24 41.8	0.0
ABDR				⇓*e*Sg	Sg	01 24 57.6	+0.9
BANI	**BANI**	1.26	88	⇑*e*Pg	Pn	01 24 43.0	-0.8
BANI				⇓*e*Sg	Sn	01 25 01.3	+0.9
BANI				IAML		01 25 09.7	
	comp=N,32nm,0.9s						
MADR	**Mao Valverde**	1.32	25	⇓*e*Pg	Pb	01 24 44.6	-0.6
MADR				IAML		01 25 50.0	
	comp=N,108nm,0.2s						

NOU ***25*** *01:25:17.4, 32.°24S×179.°62W, h362^{km}, mb4.3/26, South of Kermadec Islands*

NEIC ***25*** *01:25:18.5±1.5, 32.°11S±0.°09×179.°8E±0.°1, h333^{km}±7^{km}, mb4.1/17, Error ellipse: s-maj=14.6km s-min=12.1km az=70.0*

IDC ***25*** *01:25:19.7±1.4, 31.°91S×179.°92E, h358^{km}±14^{km}, mb3.8/8, mbtmp4.6/12, Error ellipse: s-maj=15.7km s-min=12.6km az=79.0*

WEL ***25*** *01:25:19.3±1.0, 32°S±5°×17°9W±1°4, h321^{km}±14^{km}, M4.4/18, mB4.9/14, ML4.7/7, MLv5.0/18, Mw(mB)4.2/14, Error ellipse: s-maj=19.1km s-min=4.6km az=107.3, confirmed*

ISC 25 01:25:18.5±0.5**, 32.°17S**±0.°05×**179.°84W**±0.°08**, h350**^{km}**, n130,** σ**1^{s}92**/143**, mb4.0**/20**, 5C, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GLKZ	**Green Lake**	3.33	30	P	Pn	01 26 19.7	-1.3
GLKZ				S	S	01 27 08.3	-2.9
GLKZ				AML	AML		
RAO	**Raoul Island**	3.34	30	P	Pn	01 26 19.9	-1.2
	256nm,0.3s,baz=270,slow=20,SNR=8.2						
RAO				S	S	01 27 00.2	-11
	239nm,0.5s,baz=198,slow=20,SNR=1.6						
RAO	**Raoul Island**	3.34	30	P	Pn	01 26 20.7	-0.4
RAO	**Raoul Island**	3.34	30		Pn	01 26 20.3	-0.8
RIZ	**Raoul Island**	3.35	30	P	Pn	01 26 20.2	-0.9
RIZ				S	S	01 27 10.6	-0.9
RIZ				AML	AML		
MXZ	**Matakaoa Point**	5.59	195	P	Pn	01 26 44.6	+0.1
MXZ	**Matakaoa Point**	5.59	195	S	S	01 27 54.9	+0.6
MXZ	**Matakaoa Point**	5.59	195		Pn	01 26 44.2	-0.3
MXZ	**Matakaoa Point**	5.59	195	P	Pn	01 26 43.9	-0.6
MXZ				S	S	01 27 52.5	-1.8
MXZ				AML	AML		
MXZ				AML	AML		
GRZ	**Great Barrier**	5.64	222	P	Pn	01 26 47.7	+2.7
WMGZ	**Waiomatatini S**	5.82	194	P	Pn	01 26 47.1	+0.1
WMGZ				S	S	01 27 57.6	-1.3
WMGZ				AML	AML		
WMGZ				AML	AML		
HAZ	**Te Kaha**	5.91	199	P	Pn	01 26 47.3	-0.7
HAZ				S	S	01 27 59.0	-1.7
HAZ				AML	AML		
HAZ				AML	AML		
PKGZ	**Pakihiroa**	5.94	196	P	Pn	01 26 47.6	-0.8
PKGZ				S	S	01 28 00.1	-1.4
PKGZ				AML	AML		
MYRZ	**Mayor Island**	6.04	211	P	Pn	01 26 52.4	+2.9
MYRZ				AML	AML		
MYRZ				AML	AML		
PUZ	**Puketiti**	6.09	194	P	Pn	01 26 48.0	-2.2
PUZ				S	S	01 28 02.1	-2.6
PUZ				AML	AML		
WCZ	**Waipu Caves**	6.12	230	P	Pn	01 26 53.5	+3.0
RUGZ	**Raukumara Rang**	6.13	199	P	Pn	01 26 51.4	+0.6
RUGZ				AML	AML		
RUGZ				AML	AML		
WIAZ	**Waiheke Island**	6.21	221	P	Pn	01 26 54.7	+3.2
WIAZ				AML	AML		
TWGZ	**Tauwhareparae**	6.25	196	P	Pn	01 26 52.1	0.0
TWGZ				S	S	01 28 05.7	-2.5
TWGZ				AML	AML		
TWGZ				AML	AML		
OUZ	**Omahuta**	6.26	239	P	Pn	01 26 53.9	+1.7
OUZ	**Omahuta**	6.26	239	P	Pn	01 26 54.2	+2.1
MBAZ	**Motutapu North**	6.32	222	P	Pn	01 26 56.2	+3.4
MBAZ				AML	AML		
MKAZ	**Moumakai**	6.42	219	P	Pn	01 26 57.0	+3.0
MKAZ				AML	AML		
CNGZ	**Carnagh Statio**	6.50	194	P	Pn	01 26 55.2	+0.3
CNGZ				S	S	01 28 14.4	+1.2
CNGZ				AML	AML		
CNGZ				AML	AML		
MWZ	**Matawai**	6.52	199	P	Pn	01 26 53.8	-1.4
MWZ				S	S	01 28 12.2	-1.5
MWZ				AML	AML		
URZ	**Urewera**	6.57	201	P	Pn	01 26 53.6	-2.1
	28nm,0.3s,baz=317,slow=3.2,SNR=38						
URZ				S	S	01 28 10.6	-4.0
	256nm,0.7s,baz=66,slow=20,SNR=20						
URZ	**Urewera**	6.57	201	P	Pn	01 26 54.4	-1.3
URZ	**Urewera**	6.57	201	S	S	01 28 14.2	-0.5
URZ	**Urewera**	6.57	201	P	Pn	01 26 53.8	-1.9
URZ				AML	AML		
URZ				AML	AML		
KMRZ	**Kaimai**	6.64	210	P	Pn	01 26 59.5	+3.0
KMRZ				AML	AML		
KMRZ				AML	AML		
AWAZ	**Awhitu Peninsu**	6.67	221	P	Pn	01 27 00.0	+3.1
AWAZ				AML	AML		
TOZ	**Tahuroa Road**	6.74	213		Pn	01 26 58.8	+1.2
TOZ	**Tahuroa Road**	6.74	213	P	Pn	01 26 59.5	+1.8
TOZ				AML	AML		
RIGZ	**Rimuhau**	6.81	196	P	Pn	01 26 56.7	-1.8
RIGZ				AML	AML		
MUGZ	**Murupara**	6.88	203	P	Pn	01 26 59.8	+0.5
MUGZ				AML	AML		
RTZ	**Ruatahuna**	6.94	201		Pn	01 26 59.2	-0.9
KNZ	**Kokohu**	7.13	196	P	Pn	01 27 00.3	-1.9
TLZ	**Tolley Road**	7.22	210	P	Pn	01 27 03.9	+0.6
TLZ				AML	AML		
BKZ	**Black Stump Fm**	7.59	202	P	Pn	01 27 06.0	-1.7
BKZ	**Black Stump Fm**	7.59	202	S	S	01 28 34.6	-2.1
BKZ	**Black Stump Fm**	7.59	202	P	Pn	01 27 05.6	-2.1
HIZ	**Hauiti**	7.67	213	P	Pn	01 27 09.8	+1.2
HIZ	**Hauiti**	7.67	213	P	Pn	01 27 09.6	+1.0
NGZ	**Ngauruhoe**	7.91	207	P	Pn	01 27 10.1	-1.5
VRZ	**Vera Road**	8.21	211	P	Pn	01 27 16.8	+1.8
PXZ	**Pawanui**	8.29	198	P	Pn	01 27 13.1	-2.7
KHEZ	**Kahui Hut**	8.69	213	P	Pn	01 27 21.7	+1.0
BFZ	**Birch Farm**	9.06	199	P	Pn	01 27 23.2	-1.9
BFZ	**Birch Farm**	9.06	199		Pn	01 27 22.8	-2.2
MRZ	**Mangatainoka R**	9.24	202	P	Pn	01 27 23.7	-3.6
SNZO	**South Karori**	10.12	204	P	Pn	01 27 36.4	-1.2
TUWZ	**Tuamarina**	10.50	207		Pn	01 27 38.6	-3.6
NNZ	**Nelson**	10.54	209	P	Pn	01 27 39.4	-3.3
QRZ	**Quartz Range**	10.60	213	P	Pn	01 27 41.8	-1.6
QRZ	**Quartz Range**	10.60	213	P	Pn	01 27 40.4	-3.0
THZ	**Tophouse**	11.19	209	P	Pn	01 27 46.8	-3.7
KHZ	**Kahutara**	11.50	205	P	Pn	01 27 52.7	-1.4
KHZ	**Kahutara**	11.50	205	P	Pn	01 27 50.7	-3.4
DSZ	**Denniston Nort**	11.66	213	P	Pn	01 27 52.9	-3.2
GVZ	**Greta Valley S**	12.17	206	P	P	01 28 00.2	-1.5
LTZ	**Lake Taylor**	12.30	208	P	P	01 27 59.4	-3.9
INZ	**Inchbonnie**	12.60	211	P	P	01 28 03.5	-3.0
OXZ	**Oxford**	12.85	208	P	P	01 28 06.2	-3.1
MQZ	**McQueen's Vall**	12.95	205	P	P	01 28 08.4	-1.9
RPZ	**Rata Peaks**	13.57	209	P	P	01 28 17.0	-0.3
TMZ	**Timaru**	14.14	208	P	P	01 28 23.0	-0.6
MSVF	**Nonsavu**	14.50	352	P	P	01 28 25.4	-2.4
	6.1nm,0.5s,baz=164,slow=15,SNR=8.0						
MSVF	**Nonsavu**	14.50	352	P	P	01 28 26.8	-1.0
MSVF	**Nonsavu**	14.50	352	P	P	01 28 27.2	-0.6
ODZ	**Otahua Downs**	14.84	207	P	P	01 28 30.3	-0.8
ODZ	**Otahua Downs**	14.84	207	P	P	01 28 32.2	+1.1
JCZ	**Jackson Bay**	14.86	214	P	P	01 28 31.2	-0.3
DZM	**Mont Dzumac**	15.80	306	P	P	01 28 40.6	-1.4
	2.4nm,0.6s,baz=140,slow=17,SNR=8.1						
AFI	**Afiamalu**	19.61	24	P	P	01 29 23.1	+0.3
	30nm,0.2s,baz=255,slow=20,SNR=3.2						
AFI	**Afiamalu**	19.61	24	IAmb	IAmb	01 29 26.3	
	comp=Z,77nm,1.1s						
NGOA	**Tingoa Renbel**	27.63	313	P	P	01 30 34.7	-0.5
TOO	**Toolangi**	28.85	250	P	P	01 30 46.4	+0.6
TOO				IAmb	IAmb	01 30 55.0	
	comp=Z,11nm,1.5s						
CMSA	**Cobar Meteorol**	29.21	262	P	P	01 30 49.1	0.0
STKA	**Stephens Creek**	32.58	260	P	P	01 31 18.6	+0.2
	comp=Z,6.9nm,0.5s,baz=101,slow=12,SNR=12						
	comp=Z,6.9nm,0.5s						
STKA	**Stephens Creek**	32.58	260	P	P	01 31 17.9	-0.5
CTAO	**Charters Tower**	32.60	283		P	01 31 15.2	-3.4
CTAO				IAmb	IAmb	01 31 19.2	
	comp=Z,6.2nm,0.7s						
HTT	**Hallett**	34.53	257	P	P	01 31 34.9	-0.2
BBOO	**Buckleboo**	37.00	257	P	P	01 31 54.8	-1.1
BBOO	**Buckleboo**	37.00	257	P	P	01 31 55.0	-0.9
QIS	**Mount Isa**	37.93	278	P	P	01 32 02.4	-1.3
AS01	**Alice Springs**	41.45	270	P	P	01 32 31.1	-1.3
AS31	**Alice Springs**	41.48	270		P	01 32 31.4	-1.3
AS31				IAmb	IAmb	01 32 32.9	
	comp=Z,3.0nm,0.5s						
ASAR	**Alice Springs**	41.48	270	P	P	01 32 31.4	-1.4
	comp=Z,7.3nm,0.7s,baz=111,slow=8.2,SNR=117						
ASAR				PcP	sP	01 34 21.1	+1.4
	comp=Z,0.6nm,0.7s,baz=99,slow=4.7,SNR=2.8						
	comp=Z,7.3nm,0.7s						
ASAR	**Alice Springs**	41.48	270	P	P	01 32 30.8	-1.9
WR8	**Warramunga Arr**	42.49	275		P	01 32 39.3	-1.6
WR8				IAmb	IAmb	01 32 39.9	
	comp=Z,7.0nm,0.6s						
WRAB	**Tennant Creek**	42.63	275	P	P	01 32 40.1	-1.8
WRA	**Warramunga Arr**	42.64	275	P	P	01 32 40.1	-1.8
	comp=Z,8.8nm,0.3s,baz=115,slow=8.1,SNR=253						
WRA				PcP	PcP	01 34 26.1	-0.7
	comp=Z,0.4nm,0.6s,baz=121,slow=4.0,SNR=2.6						
WRA				ScP	ScP	01 37 40.3	-3.3
	comp=Z,0.2nm,0.6s,baz=108,slow=4.0,SNR=1.9						
	comp=Z,8.8nm,0.3s						
WRA	**Warramunga Arr**	42.64	275		P	01 32 38.8	-3.2
FORT	**Forrest**	44.10	257	P	P	01 32 52.6	-0.7
FORT				IAmb	IAmb	01 33 17.8	
	comp=Z,12nm,1.1s						
SBA	**Scott Base**	46.17	184		P	01 33 13.2	+4.5
SBA				IAmb	IAmb	01 33 14.2	
	comp=Z,12nm,1.4s						
VNDA	**Vanda**	46.19	185	P	P	01 33 11.1	+2.2
	comp=Z,1.0nm,0.9s,baz=358,slow=9.1,SNR=15						
VNDA				PcP	PcP	01 34 39.5	+1.5
	comp=Z,0.7nm,0.8s,baz=27,slow=2.3,SNR=3.7						
	comp=Z,1.0nm,0.9s						
VNDA	**Vanda**	46.19	185	P	P	01 33 12.0	+3.1
FITZ	**Fitzroy Crossi**	50.82	272	P	P	01 33 43.6	-1.1
MORW	**Morawa**	54.54	255	P	P	01 34 10.0	-1.6
MORW				IAmb	IAmb	01 34 44.5	
	comp=Z,15nm,1.3s						
QSPA	**South Pole Qui**	57.95	180	P	P	01 34 38.2	+3.2
	comp=Z,26nm,0.7s,baz=26,slow=0.6,SNR=128						
	comp=Z,26nm,0.7s						
QSPA	**South Pole Qui**	57.95	180	P	P	01 34 38.1	+3.2
GIRL	**Giralia**	58.51	262	P	P	01 34 39.3	0.0
BELA	**Belgrano 2**	68.25	173	P	P	01 35 43.5	+1.8
BELA				IAmb	IAmb	01 35 44.4	
	comp=Z,2.8nm,0.9s						
MAW	**Mawson**	70.10	201	P	P	01 35 53.4	+0.3
	comp=Z,1.7nm,0.7s,baz=127,slow=10,SNR=8.2						
	comp=Z,1.7nm,0.7s						
MAW	**Mawson**	70.10	201	P	P	01 35 53.4	+0.3
TROLL	**Troll, Antarti**	76.10	181	⇑P	P	01 36 29.6	+1.6
	comp=Z,312nm,0.7s						
SNAA	**Sanae**	76.43	179	⇑P	P	01 36 31.3	+1.6
	comp=Z,70nm,0.3s						
SNAA	**Sanae**	76.43	179	P	P	01 36 31.4	+1.6
	comp=Z,3.3nm,0.3s,baz=198,slow=16,SNR=11						
	comp=Z,3.3nm,0.3s						
SNAA	**Sanae**	76.43	179	P	P	01 36 31.4	+1.6
SNAA				IAmb	IAmb	01 36 32.3	
	comp=Z,6.3nm,0.8s						
VNA3	**Neumayer Olymp**	76.64	177	⇑P	P	01 36 32.5	+1.6
	comp=Z,0.3nm,0.2s						
VNA2	**Neumayer--Watz**	77.06	177	⇑P	P	01 36 35.1	+1.9
	comp=Z,6.5nm,0.4s,baz=186,slow=5.9						
VNA1	**Neumayer--Stat**	77.30	177	⇑P	P	01 36 36.5	+2.0
	comp=Z,13nm,1.1s						
PLCA	**Paso Flores**	82.44	134	P	P	01 37 05.2	+2.6
	comp=Z,0.7nm,0.5s,baz=203,slow=13,SNR=3.7						
	comp=Z,0.7nm,0.5s						
HHC	**Hu-ho-hao-te**	96.34	315	*e*P	P	01 38 11.8	+3.8
HHC				pmax	pmax		
	comp=Z,14nm,0.6s						
HHC				pmax	pmax		
	comp=Z,90nm,4.9s						
MKAR	**Makanchi Array**	117.70	310	PKP	PKPdf	01 43 22.2	-0.9
	comp=Z,0.3nm,0.5s,baz=98,slow=2.9,SNR=2.2						
KURBB	**Kurchatov Arra**	121.16	313	PKP	PKPdf	01 43 28.5	-1.1
	comp=Z,1.1nm,0.2s,baz=95,slow=2.1,SNR=7.0						
BVAR	**Borovoye Array**	126.55	315	PKP	PKPdf	01 43 39.4	-0.4
	comp=Z,0.8nm,0.4s,baz=94,slow=1.1,SNR=6.6						
ARCES	**ARCESS Array B**	139.96	346	PKP	PKPdf	01 44 04.2	-0.3
	comp=Z,3.5nm,0.9s,baz=60,slow=2.2,SNR=2.5						
KBZ	**Khabaz**	144.74	302	PKP	PKPbc	01 44 12.6	-0.9
	comp=Z,3.4nm,0.9s,baz=56,slow=3.6,SNR=7.0						
FIA1	**FINESS Array S**	146.22	338	PKPdf	PKPdf	01 44 16.6	+1.0
FINES	**FINESS Array B**	146.22	338	PKPbc	PKPdf	01 44 16.9	+1.3
	comp=Z,5.0nm,0.4s,baz=40,slow=4.5,SNR=65						
NOA	**NORSAR Array B**	150.22	349	PKPbc	PKPbc	01 44 27.2	-0.6
	comp=Z,0.7nm,0.8s,baz=22,slow=3.6,SNR=1.9						
MMAI	**Mount Meron Ar**	150.38	281	PKPbc	PKPbc	01 44 28.7	-0.4
	comp=Z,1.2nm,0.4s,baz=80,slow=4.8,SNR=5.2						
HFS	**Hagfors**	150.62	346	PKPbc	PKPbc	01 44 27.6	-1.0
	comp=Z,2.0nm,0.9s,baz=60,slow=7.0,SNR=4.9						
PABE	**Paberze**	151.31	331	PKPbc	PKPbc	01 44 30.4	0.0
AKASG	**Malin Array Be**	151.68	319	PKPbc	PKPbc	01 44 30.3	-1.0
	comp=Z,0.5nm,0.4s,baz=57,slow=2.8,SNR=5.5						
ILGA	**Ilgaz**	151.78	298		PKPbc	01 44 32.1	-0.2
BRTR	**Keskin Array B**	151.99	295	PKPbc	PKPbc	01 44 31.2	-1.4
	comp=Z,1.5nm,0.5s,baz=113,slow=3.0,SNR=12						
BRTR	**Keskin Array B**	151.99	295		PKPbc	01 44 31.7	-0.9
TORD	**Torodi Ar. Bea**	161.02	185	PKPab	PKPab	01 45 23.0	+0.4
	comp=Z,1.7nm,0.8s,baz=180,slow=4.4,SNR=11						

NEIC ***25*** *01:42:53.6±2.2, 22.°07S±0.°06×176.°6W±0.°1, h184^{km}±7^{km}, mb4.2/12, Error ellipse: s-maj=18.4km s-min=6.5km az=113.0*

IDC ***25*** *01:42:58.4±3.7, 21.°93S×176.°91W, h235^{km}±31^{km}, mb3.3/8, mbtmp3.8/9, Error ellipse: s-maj=29.2km s-min=19.4km az=134.0*

ISC 25 01:42:57.2±0.5**, 22.°0S**±0.°1×**176.°86W**±0.°09**, h223**^{km}**, n61,** σ**1^{s}46**/58**, mb3.7**/14**, 7C-7D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	6.38	311	P	Pn	01 44 31.0	+1.2
	6.0nm,0.6s,baz=136,slow=18,SNR=4.2						
MSVF	**Nonsavu**	6.38	311		Pn	01 44 30.8	+0.9
NIUE	**Niue**	7.11	67	Pn	Pn	01 44 31.1	-8.0
RAO	**Raoul Island**	7.30	187	Pn	Pn	01 44 35.9	-5.5
DZM	**Mont Dzumac**	15.48	267	P	Pn	01 46 27.9	+3.5
	7.0nm,0.7s,baz=87,slow=18,SNR=10						
DZM				S	S	01 49 09.5	-5.9
	2.1nm,0.9s,baz=83,slow=17,SNR=1.2						
CTAO	**Charters Tower**	34.43	266	P	P	01 49 25.2	+1.4
CTAO				IAmb	IAmb	01 49 25.7	
	comp=Z,6.9nm,0.6s						
STKA	**Stephens Creek**	38.13	246	P	P	01 49 54.8	-0.2
	comp=Z,1.9nm,0.6s,baz=83,slow=11,SNR=3.1						
	comp=Z,1.9nm,0.6s						
BBOO	**Buckleboo**	42.86	245	P	P	01 50 34.1	+0.4
AS31	**Alice Springs**	45.23	258	P	P	01 50 53.9	+1.2
AS31				IAmb	IAmb	01 50 54.6	
	comp=Z,1.5nm,0.3s						
ASAR	**Alice Springs**	45.23	258	P	P	01 50 52.2	-0.5
	comp=Z,2.4nm,0.8s,baz=96,slow=8.2,SNR=18						
ASAR				PcP	PcP	01 52 29.2	+0.5
	comp=Z,0.4nm,0.6s,baz=100,slow=3.6,SNR=3.2						
	comp=Z,2.4nm,0.8s						
ASAR	**Alice Springs**	45.23	258	P	P	01 50 53.5	+0.9
WR8	**Warramunga Arr**	45.31	263	P	P	01 50 53.0	-0.2
WR8				IAmb	IAmb	01 51 25.2	
	comp=Z,12nm,1.5s						
WRA	**Warramunga Arr**	45.46	263	P	P	01 50 53.8	-0.7
	comp=Z,1.2nm,0.5s,baz=101,slow=4.9,SNR=35						
WRA				PcP	PcP	01 52 28.4	-1.2
	comp=Z,0.3nm,0.7s,baz=93,slow=3.6,SNR=2.1						
	comp=Z,1.2nm,0.5s						
WRA	**Warramunga Arr**	45.46	263	P	P	01 50 54.0	-0.4
FORT	**Forrest**	49.70	248	P	P	01 51 26.0	-0.8
FORT				IAmb	IAmb	01 51 26.1	
	comp=Z,14nm,1.1s						
KNRA	**Kununurra**	51.63	267	P	P	01 51 41.5	+0.1
KNRA				IAmb	IAmb	01 52 13.5	
	comp=Z,8.1nm,1.5s						
FITZ	**Fitzroy Crossi**	53.89	263	P	P	01 51 58.1	+0.1
FITZ				IAmb	IAmb	01 52 00.2	
	comp=Z,3.3nm,1.4s						
VNDA	**Vanda**	56.54	185	P	P	01 52 15.8	-0.1
MBWA	**Marble Bar**	58.58	258	P	P	01 52 31.3	+0.3
QSPA	**South Pole Qui**	68.09	180	P	P	01 53 31.9	-0.9
	comp=Z,0.8nm,0.8s,baz=27,slow=0.2,SNR=2.2						
	comp=Z,0.8nm,0.8s						
MYLDM	**Lahad Datu**	68.74	285	P	P	01 53 37.4	0.0
MAW	**Mawson**	80.53	200	P	P	01 54 45.1	+1.0
	comp=Z,0.9nm,0.7s,baz=127,slow=5.1,SNR=4.6						
	comp=Z,0.9nm,0.7s						
MAW	**Mawson**	80.53	200	P	P	01 54 45.4	+1.2
NVAR	**Mina Array Bea**	81.38	43	P	P	01 54 49.3	-0.1
	comp=Z,0.2nm,0.6s,baz=246,slow=4.7,SNR=1.6						
	comp=Z,0.2nm,0.6s						
H03S2	**Juan Fernandez**	84.28	124	T	T	03 27 16.4	
	baz=246,slow=75,SNR=6.2						
H03S1	**Juan Fernandez**	84.30	124	T	T	03 27 33.5	
	baz=246,slow=75,SNR=7.0						
H03S3	**Juan Fernandez**	84.30	124	T	T	03 27 25.6	
	baz=246,slow=75,SNR=6.2						
TXAR	**Lajitas Array**	86.97	57	P	P	01 55 16.7	-0.9
	comp=Z,0.2nm,0.9s,baz=241,slow=5.4,SNR=2.1						
	comp=Z,0.2nm,0.9s						
ILAR	**Eielson Array**	89.52	12	P	P	01 55 27.7	-0.8
	comp=Z,0.5nm,0.6s,baz=205,slow=4.4,SNR=4.4						
	comp=Z,0.5nm,0.6s						
ZALV	**Zalesovo Beam**	112.31	321	PKiKP	PKiKP	02 01 04.6	-1.5
	comp=Z,0.7nm,0.3s,baz=132,slow=2.1,SNR=4.4						
MKAR	**Makanchi Array**	112.98	313	PKiKP	PKiKP	02 01 06.7	-0.9
	comp=Z,0.3nm,0.6s,baz=46,slow=4.2,SNR=2.4						
MKAR	**Makanchi Array**	112.98	313		PKiKP	02 01 06.9	-0.7
KURBB	**Kurchatov Arra**	115.85	317	PKP	PKPdf	02 01 12.1	-0.9
	comp=Z,0.3nm,0.3s,baz=96,slow=1.8,SNR=1.4						
BVAR	**Borovoye Array**	120.89	320	PKP	PKPdf	02 01 21.0	-1.6
	comp=Z,1.4nm,0.4s,baz=129,slow=2.8,SNR=6.0						
ARCES	**ARCESS Array B**	130.56	350	PKP	PKPdf	02 01 40.2	-0.4
	comp=Z,2.5nm,1.0s,baz=25,slow=1.5,SNR=1.3						
HFS	**Hagfors**	141.16	352	PKhKP	PKPpre	02 01 53.7	
	comp=Z,2.0nm,0.9s,baz=11,slow=1.5,SNR=6.6						
LODK	**Lodwar**	143.70	244	PKPdf	PKPdf	02 02 06.1	-0.5
AKASG	**Malin Array Be**	144.82	331	PKP	PKPbc	02 02 04.7	-2.2
	comp=Z,0.8nm,0.4s,baz=44,slow=4.3,SNR=7.8						
AKBB	**Malin Array Si**	144.82	331		PKPdf	02 02 07.0	-0.3
KIEV	**Kiev**	144.83	331	PKPbc	PKPdf	02 02 06.8	-0.5
BRTR	**Keskin Array B**	148.61	311	PKPbc	PKPbc	02 02 18.3	+0.1
	comp=Z,0.6nm,0.6s,baz=124,slow=5.0,SNR=5.6						
BURAR	**Bucovina Array**	148.87	331	PKPbc	PKiKP	02 02 20.5	+0.8
BURAR	**Bucovina Array**	148.87	331	⇓P	PKiKP	02 02 19.8	+0.1
BIZ	**Bicaz**	148.94	329	⇑P	PKiKP	02 02 18.9	-0.8
MMAI	**Mount Meron Ar**	149.46	298	PKPbc	PKiKP	02 02 21.4	+0.1
	comp=Z,1.2nm,0.5s,baz=127,slow=3.8,SNR=4.4						
CLL	**Collm**	149.73	348	*i* PKPbc	PKiKP	02 02 21.1	-0.1
CLL				*e*PKPab	PKPab	02 02 29.0	+2.7
DOPR	**Dopca**	149.98	328	⇓P	PKPdf	02 02 17.9	+1.9
MLR	**Muntele Rosu**	150.04	327	⇑P	PKPbc	02 02 19.1	-2.4
MARR	**Marisel-Cluj**	150.52	331	⇓P	PKPbc	02 02 21.2	-1.3
VOIR		150.52	328	⇑P	PKPdf	02 02 19.2	+2.3
DRGR		150.61	332	⇑P	PKiKP	02 02 23.5	+0.2
BORA	**Eskisehir**	150.72	314		PKPbc	02 02 23.0	-0.2
ARR	**Arges**	150.78	328	⇓P	PKPbc	02 02 20.5	-2.6
LOT	**Lotru**	151.14	329	⇑P	PKPbc	02 02 20.7	-3.4
SIRR	**Siria**	151.47	333	⇓P	PKiKP	02 02 25.2	+0.2
GZR	**Gura Zlata**	151.65	330	⇓P	PKPbc	02 02 24.3	-0.8
SURR	**Surduc**	151.67	331	⇑P	PKiKP	02 02 25.3	-0.1
GERES	**GERESS Array B**	151.90	345	PKPbc	PKiKP	02 02 26.4	+0.4
	comp=Z,0.5nm,0.3s,baz=46,slow=2.8,SNR=4.4						
BZS	**Buzias**	152.00	332	⇓P	PKiKP	02 02 25.8	-0.3
HERR	**Herculane**	152.20	330	⇑P	PKPbc	02 02 25.3	-1.0
TORD	**Torodi Ar. Bea**	171.11	171	PKPab	PKPab	02 04 01.5	+1.6
	comp=Z,0.2nm,0.6s,baz=197,slow=4.5,SNR=1.4						

IDC ***25*** *02:00:20.6±1.1, 42.°89N×1.°56W, h0^{km}, mb3.8/1, mbtmp3.5/5, ML3.2/4, Error ellipse: s-maj=20.0km s-min=10.0km az=120.0*

INMG ***25*** *02:00:22.5±2.4, 42.°84N×1.°52W, h2^{km}±4^{km}, ML3.1, Error ellipse: s-maj=2.9km s-min=2.7km az=137.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Pireneus (ESP)*

MDD ***25*** *02:00:22.8±0.1, 42.°85N×1.°49W, h0^{km}, mb_Lg3.4/57, Error ellipse: s-maj=1.2km s-min=0.8km az=170.0*

LDG ***25*** *02:00:23.1±0.1, 42.°90N×1.°47W, h2^{km}, Md3.3/1, Ml3.5/36, Error ellipse: s-maj=1.8km s-min=1.5km az=141.0*

SFS ***25*** *02:00:24.5, 42.°89N×1.°51W, h21^{km}, mb4.0/11, ML3.6/21, ML4.0/21, MLv4.1/16*

ISC 25 02:00:21.0±0.8**, 42.°89N**±0.°02×**1.°53W**±0.°02**, h16**^{km}±5^{km}**, n134,** σ**2^{s}26**/290**, 13D, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EARA	**Aranguren**	0.12	198	⇓Pg	Pg	02 00 23.7	-1.0
EARA				Sg	Sg	02 00 25.4	-1.7
EORO	**Oroz-Betelu**	0.16	89	Pg	Pg	02 00 24.8	-0.4
EORO				Sg	Sg	02 00 26.9	-1.2
SJPF	**Ste Jean**	0.32	45	*e*Pg	Pb	02 00 28.5	+0.2
SJPF				*e*Sg	Sg	02 00 31.6	-0.7
	3μm,0.3s						
EALK	**Alkurruntz**	0.33	3	Pg	Pb	02 00 29.3	+0.7
EALK				Sg	Sb	02 00 34.5	+0.8
EALK				IVmb_Lg		02 00 38.8	
ETSF	**Etsaut**	0.71	89	*e*Pg	Pg	02 00 34.7	-0.3
ETSF				*e*Sg	Sg	02 00 43.5	-0.9
	380nm,0.2s						
ECHI	**Chisagues Biel**	1.29	99	Pg	Pb	02 00 44.9	0.0
ECHI				Sg	Sg	02 01 03.3	+0.6
ECHI				IVmb_Lg		02 01 08.7	
EPF	**Esparros**	1.38	83	*e*Pn	Pg	02 00 47.1	-0.5
EPF				*e*Pg	Pb	02 00 49.0	+2.6
EPF				*e*Sg	Sg	02 01 05.7	+0.2
	491nm,0.3s						
EPF				AML	AML		
ESAC	**San Caprasio**	1.41	146	Pg	Pb	02 00 47.0	+0.1
ESAC				Sg	Sb	02 01 05.4	+0.9
ELAN	**Lanestosa**	1.44	284	Pn	Pg	02 00 49.1	+0.4
ELAN				Sg	Sg	02 01 10.2	+2.8
ELAN				IVmb_Lg		02 01 15.4	

ETOR	Torete	2.10	191	Pn	Pn	02 00 57.2	+1.6
ETOR				Pg	Pg	02 01 01.0	-0.4
ETOR				Sn	Sn	02 01 23.5	+2.0
ETOR				Sg	Sg	02 01 27.9	-0.8
ETOR				IVmb_Lg		02 01 33.2	
ERTA	Horta de San J	2.38	144	Pn	Pn	02 00 60.0	+0.6
ERTA				Pg	Pg	02 01 06.4	-0.3
ERTA				Sn	Sn	02 01 28.3	+0.2
ERTA				Sg	Sg	02 01 35.5	-1.9
ERTA				IVmb_Lg		02 01 45.1	
EMIR	Miracle	2.46	112	Pn	Pn	02 01 02.3	+1.7
EMIR				Pg	Pg	02 01 07.7	-0.5
EMIR				Sn	Sn	02 01 32.1	+1.8
EMIR				Sg	Sg	02 01 40.1	-0.1
EMIR				IVmb_Lg		02 01 43.9	
EPOB	Poblet	2.47	127	Pn	Pn	02 01 01.3	+0.7
EPOB				Pg	Pb	02 01 06.6	+1.6
EPOB				Sn	Sn	02 01 30.7	+0.2
EPOB				Sg	Sg	02 01 39.1	-1.4
EPOB				IVmb_Lg		02 01 42.0	
LFF	La Frestale	2.62	38	ePn	Pn	02 01 04.1	+1.4
LFF				eSn	Sb	02 01 38.5	-1.1
	83nm,0.3s						
LFF				AML	AML		
EMOS	Mosqueruela	2.64	162	Pn	Pn	02 01 04.9	+1.8
EMOS				Pg	Pg	02 01 11.1	-0.6
EMOS				Sn	Sn	02 01 37.7	+2.7
EMOS				Sg	Sg	02 01 47.5	+1.5
EMOS				IVmb_Lg		02 01 53.1	
EARI	Arriondas	2.73	280	Pn	Pn	02 01 06.7	+2.6
EARI				Pg	Pg	02 01 12.6	-0.7
EARI				Sn	Sn	02 01 40.4	+3.6
EARI				Sg	Sg	02 01 50.9	+2.3
EARI				IVmb_Lg		02 01 54.8	
MTLF	Montolieu	2.78	79	ePn	Pn	02 01 07.1	+2.3
MTLF				eSn	Sn	02 01 40.6	+2.6
	80nm,0.4s						
MTLF				AML	AML		
UCM	Universidad Co	2.88	207	Pn	Pn	02 01 07.3	+1.0
UCM				Sg	Sg	02 01 52.5	-1.1
RJF	Les Rejaudoux	3.26	41	ePn	Pn	02 01 12.0	+0.5
RJF				eSn	Sn	02 01 49.6	-0.3
	66nm,0.3s						
RJF				AML	AML		
EJON	La Jonquera	3.29	96	Pn	Pn	02 01 14.4	+2.6
EJON				Sg	Sg	02 02 04.9	-1.7
EJON	La Jonquera	3.29	96	Pn	Pn	02 01 13.8	+2.0
EJON				Pg	Pb	02 01 21.0	+2.1
EJON				Sn	Sn	02 01 52.4	+1.8
EJON				Sg	Sg	02 02 05.7	-0.8
EJON				IVmb_Lg		02 02 16.9	
CAF	Calviac	3.30	51	ePn	Pn	02 01 13.0	+1.0
CAF				eSn	Sn	02 01 49.7	-1.2
	53nm,0.3s						
CAF				AML	AML		
ECHE	Chera	3.32	173	Pn	Pn	02 01 14.8	+2.4
ECHE				Sg	Sg	02 02 04.2	-3.5
CLAF	Gruissan	3.40	84	ePn	Pn	02 01 15.7	+2.4
ESDC	Sonseca Array	3.70	211	Pn	Pn	02 01 18.3	+0.8
	0.8nm,0.3s,baz=32,slow=13,SNR=36						
ESDC				Pg	Pg	02 01 29.7	-2.2
	1.5nm,0.3s,baz=32,slow=18,SNR=15						
ESDC				Sn	Sn	02 01 59.8	-1.0
	1.7nm,0.3s,baz=31,slow=24,SNR=5.6						
ESDC				Lg	Lg	02 02 17.2	
	3.8nm,0.3s,baz=31,slow=30,SNR=6.8						
	2.1nm,0.4s						
ESDC				AML	AML		
MFF	Saint Martin d	3.84	14	ePn	Pn	02 01 21.0	+1.6
MFF				eSn	Sn	02 02 02.7	-1.5
	20nm,0.3s						
MFF				eSg	Sg	02 02 22.0	-2.3
	33nm,0.4s						
MFF				AML	AML		
MFF				AML	AML		
PAB	San Pablo	3.96	213	Pn	Pn	02 01 21.7	+0.6
PAB				Pg	Pg	02 01 34.5	-2.3
PAB				Sn	Sn	02 02 09.1	+1.9
PAB				Sg	Sg	02 02 26.3	-1.8
PAB				IVmb_Lg		02 02 36.3	
ECAL	Calabor	3.97	258	Pn	Pn	02 01 23.3	+2.1
ECAL				Sn	Sn	02 02 07.6	+0.1
ECAL				Sg	Sg	02 02 24.3	-4.2
ECAL	Calabor	3.97	258	Pn	Pn	02 01 23.2	+1.9
ECAL				Sn	Sn	02 02 11.1	+3.6
ECAL				Sg	Sg	02 02 28.2	-0.3
ECAL				IVmb_Lg		02 02 32.1	
PBRG	Braganca	4.01	256	ePn	Pn	02 01 23.8	+2.0
PBRG				eSn	Sn	02 02 08.3	-0.2
PBRG				eSg	Sg	02 02 27.6	-2.2
PBRG				i IAML		02 02 31.2	
PBRG				i IAML		02 02 32.5	
PBRG				i IAML		02 02 32.9	
LASF	Ste Croix	4.09	71	ePn	Pn	02 01 24.1	+1.2
LASF				eSn	Sn	02 02 11.2	+0.7
	82nm,0.6s						
LASF				AML	AML		
EPON	Pontenova	4.14	278	Pn	Pn	02 01 26.4	+2.9
EPON				Pg	Pg	02 01 38.7	-1.6
EPON				Sn	Sn	02 02 15.9	+4.4
EPON				Sg	Sg	02 02 36.6	+2.8
EPON				IVmb_Lg		02 02 39.0	
ETOB	Tobarra	4.24	180	Pn	Pn	02 01 27.4	+2.5
ETOB	Tobarra	4.24	180	Pn	Pn	02 01 27.0	+2.0
ETOB				Pg	Pb	02 01 38.6	+3.4
ETOB				Sn	Sn	02 02 15.8	+1.7
ETOB				IVmb_Lg		02 02 48.1	
TCF	Toulx Ste Croi	4.32	37	ePn	Pn	02 01 26.2	+0.2
TCF				eSn	Sn	02 02 15.2	-0.9
	22nm,0.3s						
TCF				AML	AML		
CIBOR	Castaar de Ib	4.38	223	Pn	Pn	02 01 28.8	+1.9
CIBOR				Sn	Sn	02 02 18.0	+0.4
EPLA	Plasencia	4.43	232	Pn	Pn	02 01 29.1	+1.5
EPLA				Sn	Sn	02 02 18.4	-0.5
ETOS	Mallorca	4.52	132	Pn	Pn	02 01 29.1	+0.3
ETOS				Sn	Sn	02 02 18.6	-2.3
ETOS	Mallorca	4.52	132	Pn	Pn	02 01 29.0	+0.3
ETOS				Sn	Sn	02 02 18.6	-2.3
ETOS				IVmb_Lg		02 02 19.5	
BGF	Bois d'Agland	4.81	39	ePn	Pn	02 01 33.6	+0.8
BGF				eSn	Sn	02 02 27.7	-0.5
	117nm,0.5s						
BGF				AML	AML		
EAGO	Agolada(Pontev	4.83	271	Pn	Pn	02 01 35.4	+2.5
EAGO				Sn	Sn	02 02 30.0	+1.5
EAGO				IVmb_Lg		02 03 01.5	
PVRL	Vila Real	4.88	253	ePn	Pn	02 01 35.6	+1.9
PVRL				eSn	Sn	02 02 29.9	+0.1
PVRL				eSg	Sg	02 02 53.0	-4.5
PVRL				i IAML		02 02 55.6	
PVRL				i IAML		02 02 57.8	
PVRL				i IAML		02 02 58.0	
VIVF	Saint-Julien-l	4.89	64	ePn	Pn	02 01 35.1	+1.2
VIVF				eSn	Sn	02 02 32.3	+2.1
	23nm,0.3s						
VIVF				AML	AML		
POLO	Lamas de Olo	4.90	254	ePn	Pn	02 01 36.4	+2.4
POLO				eSn	Sn	02 02 31.8	+1.4
POLO				eSg	Sg	02 02 53.2	-5.1
POLO				i IAML		02 03 03.7	
POLO				i IAML		02 03 05.8	
POLO				i IAML		02 03 11.4	
ELOB	Lobios	4.95	260	Pn	Pn	02 01 36.2	+1.5
ELOB				Sn	Sn	02 02 32.7	+1.2
ELOB				Sg	Sg	02 03 03.7	+4.0
ELOB				IVmb_Lg		02 03 14.0	
PCAB	Cabril	4.96	258	ePn	Pn	02 01 36.6	+1.7
PCAB				eSn	Sn	02 02 32.7	+0.8
PCAB				eSg	Sg	02 02 56.0	-4.2
PCAB				i IAML		02 03 00.8	
PCAB				i IAML		02 03 04.8	
PCAB				i IAML		02 03 12.1	
EMUR	La Murta	5.05	177	Pn	Pn	02 01 37.8	+1.8
PGAV	Gavieira, Arco	5.07	262	ePn	Pn	02 01 38.3	+1.9
PGAV				eSn	Sn	02 02 37.1	+2.3
PGAV				eSg	Sg	02 03 02.2	-1.6
PGAV				i IAML		02 03 08.9	
PGAV				i IAML		02 03 10.9	
PGAV				i IAML		02 03 20.9	
MTE	Manteigas	5.15	243	ePn	Pn	02 01 39.4	+1.9
MTE				eSg	Sg	02 03 03.6	-2.6
MTE				i IAML		02 03 06.9	
MTE				i IAML		02 03 07.2	
MTE				i IAML		02 03 07.6	
QUIF	Quistinic	5.16	348	ePn	Pn	02 01 39.9	+2.4
QUIF				eSn	Sn	02 02 34.7	-1.9
	27nm,0.5s						
QUIF				AML	AML		
EQES	Quesada	5.21	194	Pn	Pn	02 01 40.2	+1.8
EQES				Pg	Pg	02 01 57.7	-3.2
EQES				Sn	Sn	02 02 39.3	+1.1
EQES				Sg	Sg	02 03 07.1	-1.3
EQES				IVmb_Lg		02 03 10.2	
AVF	Avril sur Loir	5.22	40	ePn	Pn	02 01 39.3	+1.0
AVF				eSn	Sn	02 02 35.6	-2.6
	7.2nm,0.3s						
AVF				AML	AML		
PVIS	Viseu	5.23	248	ePn	Pn	02 01 40.2	+1.6
PVIS				eSn	Sn	02 02 38.4	-0.1
PVIS				eSg	Sg	02 03 04.9	-3.9
EADA	Adamuz	5.26	207	Pn	Pn	02 01 40.0	+1.1
EADA				Sn	Sn	02 02 39.0	-0.2
EADA	Adamuz	5.26	207	Pn	Pn	02 01 40.1	+1.2
EADA				Pg	Pb	02 01 56.1	+3.6
EADA				Sn	Sn	02 02 38.5	-0.6
EADA				Sg	Sg	02 03 09.4	-0.3
EADA				IVmb_Lg		02 03 13.6	
HYF	Humbligny	5.28	33	eSn	Sn	02 02 37.7	-2.0
	103nm,0.2s						
HYF				AML	AML		
MAHO	Mahon	5.29	123	Sn	Sn	02 02 36.9	-2.8
SMRF	Simiane la Rot	5.29	76	ePn	Pn	02 01 41.6	+2.3
SMRF				eSn	Sn	02 02 37.5	-2.4
	6.5nm,0.3s						
SMRF				AML	AML		
SMF	Signal de Mont	5.36	44	ePn	Pn	02 01 40.5	+0.2
SMF				eSn	Sn	02 02 40.5	-1.1
	14nm,0.4s						
SMF				AML	AML		
PCBR	Castelo Branco	5.41	238	ePn	Pn	02 01 43.1	+2.1
PCBR				eSn	Sn	02 02 43.4	+0.4
PCBR				eSg	Sg	02 03 11.3	-3.4
PCBR				i IAML		02 03 17.6	
PCBR				i IAML		02 03 21.8	
PCBR				i IAML		02 03 30.0	
SGMF	Saint Gilles	5.41	353	eSn	Sn	02 02 41.4	-1.5
	7.4nm,0.3s						
SGMF				eSg	Sg	02 03 15.1	+0.4
	14nm,0.5s						
SGMF				AML	AML		
SGMF				AML	AML		
EMAZ	Mazaricos	5.47	273	Pn	Pn	02 01 43.5	+1.7
EMAZ				Sn	Sn	02 02 43.5	-0.8
EMAZ				IVmb_Lg		02 03 00.7	
SSF	Saint Saulge	5.49	39	ePn	Pn	02 01 41.8	-0.3
SSF				eSn	Sn	02 02 41.1	-3.7
	10.0nm,0.3s						
SSF				AML	AML		
GRR	Gorron	5.52	5	eSn	Sn	02 02 43.4	-2.1
	21nm,0.3s						
GRR				AML	AML		
PTO	Porto	5.55	254	eSg	Sg	02 03 15.6	-3.5
PTO				i IAML		02 03 22.9	
PTO				i IAML		02 03 24.5	
PTO				i IAML		02 03 26.7	
ROSF	Rostrenen	5.58	348	ePn	Pn	02 01 45.3	+2.0
ROSF				eSn	Sn	02 02 44.0	-3.1
	14nm,0.4s						
ROSF				AML	AML		
PMRV	Marv??o	5.62	234	ePn	Pn	02 01 45.2	+1.4
PMRV				eSn	Sn	02 02 47.6	-0.3
PMRV				eSg	Sg	02 03 19.2	-2.0
PMRV				i IAML		02 03 29.6	
PMRV				i IAML		02 03 33.7	
PMRV				i IAML		02 03 34.0	
ECAB	El Cabril	5.65	213	Pn	Pn	02 01 45.7	+1.4
ECAB				Sn	Sn	02 02 45.4	-3.4
ECAB	El Cabril	5.65	213	Pn	Pn	02 01 45.9	+1.6
ECAB				Pg	Pg	02 02 05.1	-4.0
ECAB				Sn	Sn	02 02 46.0	-2.8
ECAB				Sg	Sg	02 03 20.5	-1.7
ECAB				IVmb_Lg		02 03 25.9	
ORIF	Oris-en-Rattie	5.72	67	ePn	Pn	02 01 47.7	+2.4
ORIF				eSn	Sn	02 02 48.6	-2.1
	7.0nm,0.3s						
ORIF				AML	AML		
LDF	La Druitiere	5.79	9	ePn	Pn	02 01 48.0	+1.9
LDF				eSn	Sn	02 02 50.0	-2.2
	6.4nm,0.3s						
LDF				eSg	Sg	02 03 23.1	-3.6
	14nm,0.4s						
LDF				AML	AML		
LDF				AML	AML		
LOR	Lormes	5.81	39	ePn	Pn	02 01 46.5	+0.1
	baz=222						
LOR				eSn	Sn	02 02 50.2	-2.4
	9.6nm,0.4s						
LOR				AML	AML		
EBAD	Badajoz	5.86	227	Pn	Pn	02 01 47.9	+0.7
EBAD				Sn	Sn	02 02 52.2	-1.7
EBAD	Badajoz	5.86	227	Pn	Pn	02 01 47.7	+0.6
EBAD				Sn	Sn	02 02 55.5	+1.6
EBAD				Sg	Sg	02 03 30.6	+1.6
EBAD				IVmb_Lg		02 03 40.6	
EQTA	Presa de Quent	5.86	195	Pn	Pn	02 01 49.7	+2.5
EQUE	Quentar	5.86	195	Pn	Pn	02 01 49.3	+2.1
EQUE				Sn	Sn	02 02 54.6	+0.4
EQUE				Sg	Sg	02 03 25.8	-3.3
EQUE				IVmb_Lg		02 03 33.1	
LMR	La Mourre	5.90	83	ePn	Pn	02 01 49.2	+1.5
LMR				eSn	Sn	02 02 52.5	-2.4
FLN	La Foliniere	5.92	7	ePn	Pn	02 01 50.2	+2.3
FLN				eSn	Sn	02 02 53.4	-2.0
	7.2nm,0.3s						
FLN				eSg	Sg	02 03 28.2	-2.7
	16nm,0.3s						
FLN				AML	AML		
FLN				AML	AML		
ENIJ	Nijar	5.93	185	Pn	Pn	02 01 50.7	+2.5
PCAS	Casmilo, Conde	5.95	244	ePn	Pn	02 01 51.1	+2.7
PCAS				eSn	Sn	02 02 55.8	-0.4
PCAS				eSg	Sg	02 03 29.9	-2.1
PCAS				i IAML		02 03 39.9	
PCAS				i IAML		02 03 40.5	
PCAS				i IAML		02 03 41.3	
PSARD	Sardoal	5.98	239	ePn	Pn	02 01 49.8	+0.9
PSARD				eSn	Sn	02 02 56.5	-0.5
PSARD				eSg	Sg	02 03 31.3	-1.6
PSARD				i IAML		02 03 35.8	
PSARD				i IAML		02 03 36.6	
PSARD				i IAML		02 03 41.5	
EBER	Berja	6.07	190	Pn	Pn	02 01 53.7	+3.4
EGOR	Sierra Gorda,	6.10	200	Pn	Pn	02 01 53.4	+2.8
PESTR	Estremoz	6.10	231	Pn	Pn	02 01 51.7	+1.2
PESTR				Sn	Sn	02 02 57.8	-2.1
PESTR	Estremoz	6.10	231	ePn	Pn	02 01 51.6	+1.1
PESTR				eSn	Sn	02 02 59.6	-0.3
PESTR				eSg	Sg	02 03 35.0	-1.8
PESTR				i IAML		02 03 48.4	
PESTR				i IAML		02 03 48.8	
PESTR				i IAML		02 04 02.3	
ELGU	Los Guajares,	6.23	196	Pn	Pn	02 01 55.0	+2.8
ELGU	Los Guajares,	6.23	196	Pn	Pn	02 01 54.9	+2.6
ELGU				IVmb_Lg		02 03 45.0	
MBDF	Montbardon	6.28	70	ePn	Pn	02 01 56.9	+3.9
MBDF				eSn	Sn	02 03 02.6	-1.9
	5.0nm,0.4s						
MBDF				AML	AML		
PBAR	Barrancos	6.31	224	Pn	Pn	02 01 54.9	+1.7
PBAR				Sn	Sn	02 03 02.1	-2.9
PBAR	Barrancos	6.31	224	ePn	Pn	02 01 54.7	+1.4
PBAR				eSn	Sn	02 03 04.0	-0.9
PBAR				eSg	Sg	02 03 41.4	-2.0
PBAR				i IAML		02 03 48.1	
PBAR				i IAML		02 03 51.4	
PBAR				i IAML		02 04 10.2	
PMTG	Montargil	6.34	235	ePn	Pn	02 01 56.1	+2.4
PMTG				eSg	Sg	02 03 39.8	-4.7
PMTG				i IAML		02 03 45.5	
PMTG				i IAML		02 03 51.5	
PMTG				i IAML		02 04 04.8	
PARRA	Arraiolos	6.40	233	ePn	Pn	02 01 55.5	+0.9
PARRA				eSn	Sn	02 03 08.7	+1.6
PARRA				eSg	Sg	02 03 44.2	-2.0
PARRA				i IAML		02 03 50.9	
PARRA				i IAML		02 03 51.7	
PARRA				i IAML		02 04 00.3	
PSBE	So Bento	6.43	241	ePn	Pn	02 01 57.6	+2.6
PSBE				eSg	Sg	02 03 45.1	-2.2
PSBE				i IAML		02 03 54.7	
PSBE				i IAML		02 03 54.8	
PSBE				i IAML		02 03 56.8	
LPL	La Plagne	6.49	63	ePn	Pn	02 01 57.9	+1.9
LPL				eSn	Sn	02 03 05.9	-3.9
	5.8nm,0.6s						
LPL				AML	AML		
LPG	La Plagne	6.50	64	eSn	Sn	02 03 07.0	-3.1
	4.7nm,0.4s						
LPG				AML	AML		
EVO	Evora	6.57	231	Pn	Pn	02 01 58.2	+1.3
EVO				Sn	Sn	02 03 09.7	-1.8
EVO	Evora	6.57	231	ePn	Pn	02 01 58.5	+1.6
EVO				eSn	Sn	02 03 10.8	-0.7
EVO				eSg	Sg	02 03 49.1	-2.7
EVO				i IAML		02 03 56.5	
EVO				i IAML		02 03 59.0	
EVO				i IAML		02 03 59.9	
CABF	La Chapelle	6.58	53	ePn	Pn	02 01 55.8	-1.2
CABF				eSn	Sn	02 03 08.7	-3.0
	9.0nm,0.6s						
CABF				AML	AML		
SBF	Sospel	6.61	78	ePn	Pn	02 01 57.8	+0.4
SBF				eSn	Sn	02 03 07.6	-4.8
MOE	Montemor	6.77	232	ePn	Pn	02 02 00.4	+0.8
MOE				eSn	Sn	02 03 14.2	-2.3
MOE				eSg	Sg	02 03 54.5	-3.7
MOE				i IAML		02 04 01.2	
MOE				i IAML		02 04 05.2	
MOE				i IAML		02 04 05.5	
EMIJ	Mijas	6.79	203	Pn	Pn	02 02 02.0	+2.0
ESPR	Espera	6.87	210	Pn	Pn	02 02 03.4	+2.3
SFTF	Sexfontaines	7.04	39	ePn	Pn	02 02 03.0	-0.2
SFTF				eSn	Sn	02 03 19.8	-3.0
PLOUS	Minas do Lousa	7.15	230	ePn	Pn	02 02 06.2	+1.3
PLOUS				eSn	Sn	02 03 25.4	-0.3
PLOUS				eSg	Sg	02 04 10.2	-0.2
PLOUS				i IAML		02 04 15.5	
PLOUS				i IAML		02 04 18.7	
PLOUS				i IAML		02 04 20.8	
MESJ	Messejana	7.18	228	eSn	Sn	02 03 24.2	-2.2
MESJ				eSg	Sg	02 04 13.1	+1.8
MESJ				i IAML		02 04 14.3	
MESJ				i IAML		02 04 17.1	
MESJ				i IAML		02 04 25.3	
PCVE	Castro Verde	7.23	226	eSn	Sn	02 03 29.3	+1.6
PCVE				eSg	Sg	02 04 16.0	+2.9
PCVE				i IAML		02 04 21.6	
PCVE				i IAML		02 04 24.9	
PCVE				i IAML		02 04 27.2	
PVAQ	Vaqueiros	7.24	223	ePn	Pn	02 02 07.8	+1.6
PVAQ				eSn	Sn	02 03 24.5	-3.5
PVAQ				eSg	Sg	02 04 15.3	+1.9
PVAQ				i IAML		02 04 16.4	
PVAQ				i IAML		02 04 19.2	
PVAQ				i IAML		02 04 24.4	
MEZF	Maizieres J'vi	7.26	37	ePn	Pn	02 02 06.2	-0.1
MEZF				eSn	Sn	02 03 21.4	-6.9
SAVF	Savonnieres en	7.38	37	ePn	Pn	02 02 09.2	+1.3
SAVF	Savonnieres en	7.38	37	ePn	Pn	02 02 09.3	+1.3
SAVF				eSn	Sn	02 03 27.7	-3.5
SAVF				eSn	Sb	02 03 28.5	-28
PBDV	Barranco-do-Ve	7.47	223	eSg	Sg	02 04 21.2	+0.4
PBDV				i IAML		02 04 30.5	
PBDV				i IAML		02 04 32.9	
PBDV				i IAML		02 04 38.7	
HAU	Haudompre	7.54	45	ePn	Pn	02 02 09.9	-0.3
HAU				eSn	Sn	02 03 30.7	-4.6
	4.6nm,0.4s						
HAU				AML	AML		
PAGF	Fort de Pagny	7.61	39	ePn	Pn	02 02 09.4	-1.7
PTEO	Sao Teotonio	7.67	228	ePn	Pn	02 02 13.7	+1.7
PTEO				i IAML		02 04 40.5	
PTEO				i IAML		02 04 44.8	
PTEO				i IAML		02 04 44.9	
HINF	Hinteralfeld	7.69	47	ePn	Pn	02 02 13.0	+0.8
HINF				eSn	Sn	02 03 37.5	-1.5
	1.5nm,0.3s						
HINF				AML	AML		
BAIF	Baives	8.19	27	ePn	Pn	02 02 19.4	+0.3
BAIF				eSn	Sn	02 03 46.7	-4.5
CDF	Champ du Feu	8.28	45	ePn	Pn	02 02 20.0	-0.4
CDF				eSn	Sn	02 03 49.3	-4.2
	2.4nm,0.4s						
CDF				AML	AML		
DOU	Dourbes	8.35	28	dP	Pn	02 02 23.3	+2.0
DOU				dS	Sn	02 03 54.6	-0.6
GIVF	Givet	8.44	29	ePn	Pn	02 02 23.6	+1.1
GIVF				eSn	Sn	02 03 52.8	-4.5
	11nm,0.4s						
GIVF				AML	AML		
BMRD	Maredsous	8.59	28	dP	Pn	02 02 25.9	+1.4
BMRD				dS	Sn	02 04 00.5	-0.4
WLF	Walferdange	8.61	35	dP	Pn	02 02 26.0	+1.1
WLF				dS	Sn	02 04 03.6	+2.0
RCHB	Rochefort	8.63	30	dP	Pn	02 02 25.5	+0.4
RCHB				dS	Sn	02 03 58.0	-4.0
BCLA	Clavier	8.87	30	dP	Pn	02 02 29.7	+1.3
BCLA				dS	Sn	02 04 05.2	-2.8
MEM	Membach	9.29	31	dP	Pn	02 02 34.8	+0.7
MEM				dS	Sn	02 04 10.5	-7.7
FETA	Feichten	9.62	60	i Pn	Pn	02 02 44.1	+5.2
	1.1nm,0.3s						
RETA	Reutte	9.82	58	i Pn	Pn	02 02 45.7	+4.2
	1.1nm,0.3s						
MOTA	Moosalm	9.98	59	i Pn	Pn	02 02 48.4	+4.7
	2.1nm,0.4s						
SQTA	Sankt Quirin	10.00	60	ePn	Pn	02 02 48.1	+4.1
	3.1nm,0.7s						
WATA	Walderalm	10.27	60	i Pn	Pn	02 02 52.4	+4.7
	1.0nm,0.2s						
WTTA	Wattenberg	10.29	60	ePn	Pn	02 02 53.1	+5.1
	0.7nm,0.3s						
KEST	Kesra	11.04	127	Pn	Pn	02 03 01.9	+3.6
	0.1nm,0.3s,baz=320,slow=14,SNR=1.6						
	1.6nm,1.0s						
KEST				AML	AML		
GERES	GERESS Array B	12.16	55	Pn	Pn	02 03 14.8	+1.3
	baz=245,slow=14,SNR=6.5						
GERES				Sn	Sn	02 05 24.0	-4.9
	baz=248,slow=23,SNR=1.4						
	0.6nm,0.3s						
EKA	Eskdalemuir Ar	12.50	356	Pn	Pn	02 03 17.4	-0.7
	baz=179,slow=13						
EKA				Sn	Sn	02 05 30.9	-6.0
	baz=173,slow=25						
	0.8nm,0.6s						
FINES	FINESS Array B	24.82	32	P	P	02 05 44.2	+2.2
	1.9nm,0.8s,baz=233,slow=6.4,SNR=2.2						
	1.9nm,0.8s						

DJA ***25*** *02:09:46.6±0.8, 14˚N±9˚×14˚5E±˚, h181^{km}±6^{km}, M5.0/32, mB5.6/20, mB5.5/20, mb5.2/32, mb5.2/32, MLv4.4/1, Mw(mB)5.1/20, Mw(mB)5.0/20*

IDC ***25*** *02:09:48.2±0.3, 13˚.91N×144˚.80E, h186^{km}±2^{km}, mb4.2/29, mbtmp4.8/33, MS3.8/26, Error ellipse: s-maj=10.8km s-min=5.7km az=82.0*

BJI ***25*** *02:09:48.1, 13˚.98N×144˚.74E, h191^{km}, mB4.8/18, mb4.9/58*

GFZ ***25*** *02:09:49.9±0.4, 14˚N±3˚×14˚5E±˚, h181^{km}±5^{km}, M4.9/23, mb4.9/23*

NEIC ***25*** *02:09:49.7±2.6, 13˚.93N±0˚.08×144˚.62E±0˚.09, h183^{km}±4^{km}, mb4.6/94, Error ellipse: s-maj=14.1km s-min=9.5km az=53.0*

GCMT ***25*** *02:09:49.7±0.3, 13˚.78N±0˚.02×144˚.67E±0˚.02, h194^{km}±2^{km}, MW5.2/85, Moment Tensor Solution. s52,c62; s85,c114; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-0.77±.17; M$_{\theta\theta}$-0.08±.21; M$_{\phi\phi}$0.85±.21; M$_{r\theta}$-0.26±.17; M$_{\theta\phi}$-7.08±.17; M$_{\phi r}$1.16±.18; Best double couple: M$_0$7.18900×10^{16} NP1:ϕ_s272.00000°, δ81.00000°,* *λ179.00000°. NP2:φs2.00000°,δ89.00000°,λ9.00000°. Principal axes: T 7.6060, Plg7.0000°, Azm227.0000°; N -0.8350, Plg81.0000°, Azm7.0000°; P -6.7710, Plg6.0000°, Azm136.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 25 02:09:49.4±0.4**, 13°93N**±0°04×**144°66E**±0°05**, h189^{km}**±3^{km}**, h189^{km}:pP-P, n293, σ1^{s}21**/294**, mb4.7**/116**, 3C-2D, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GUMO	Guam	0.40	149	P	Pn	02 10 14.3	-0.6
	2μm,0.3s,baz=63,slow=2.3,SNR=235						
GUMO				S	Sn	02 10 33.1	-1.5
	5μm,0.3s,baz=345,slow=20,SNR=11						
GUMO	Guam	0.40	149	P	Pn	02 10 14.3	-0.6
GUMO	Guam	0.40	149	S	Sn	02 10 32.9	-1.7
GUMO	Guam	0.40	149		Pn	02 10 14.5	-0.3
GUMO	Guam	0.40	149	P	Pn	02 10 14.6	-0.3
DPSS	Saipan	1.70	40		Pn	02 10 24.3	+0.2
JCJ	Chichijima	13.30	350	P	Pn	02 12 49.6	-1.4
	38nm,0.5s,baz=180,slow=0.0						
PATS	Pohnpei	15.16	116	P	P	02 13 15.8	+0.9
PATS	Pohnpei	15.16	116		P	02 13 16.7	+1.7
PATS	Pohnpei	15.16	116	P	P	02 13 16.2	+1.2
	comp=Z,501nm,0.7s						
MANU	Manus Island	16.10	170	P	Pn	02 13 26.6	+1.0
MANU				IAmb	IAmb	02 13 27.8	
	comp=Z,25nm,0.9s						
JAY	Jayapura	16.80	194	P	P	02 13 33.9	+0.8
	comp=Z,53nm,0.9s,baz=358,slow=3.6,SNR=15						
JAY				S	Sn	02 16 41.7	-1.5
	comp=Z,5.6nm,0.9s,baz=12,slow=20,SNR=1.4						
GENI	Genyem	17.01	196	P	P	02 13 35.6	+0.3
GENI	Genyem	17.01	196	P	Pn	02 13 38.3	+1.8
	comp=Z,132nm,1.3s						
BAKI	Biak	17.25	210	P	Pn	02 13 42.1	+2.7
	comp=Z,110nm,1.2s						
JMZ	Minamidaito 2	17.29	315	P	P	02 13 39.5	+1.3
JMZ	Minamidaito 2	17.29	315		Pn	02 13 40.3	+0.6
JMZ	Minamidaito 2	17.29	315	P	Pn	02 13 41.5	+1.8
	comp=Z,626nm,1.1s						
MWPI	Manokwari, Pap	18.13	216	P	Pn	02 13 49.9	+0.2
RABL	Rabaul	19.48	157	P	P	02 14 04.3	+2.0
KRVT	Keravat (AS076	19.54	158	P	P	02 14 02.1	-0.7
	comp=Z,72nm,0.3s,baz=54,slow=8.7,SNR=7.1						
SIJI	Sorong	19.81	223	P	P	02 14 06.6	+0.9
	comp=Z,98nm,0.9s,baz=23,slow=13,SNR=33						
SIJI				S	S	02 17 40.7	+2.1
	comp=Z,5.5nm,0.4s,baz=322,slow=19,SNR=1.1						
SWI	Sorong	19.81	223	P	P	02 14 07.4	+1.7
	comp=Z,3μmcomp=Z,3μmcomp=Z,207nm,1.4s,comp=Z,207nm,1.4s						
JOW	Kunigami	19.98	312	P	P	02 14 09.0	+1.5
	comp=Z,191nm,0.9s,baz=131,slow=9.3,SNR=22						
JOW				S	S	02 17 44.6	+2.7
	comp=Z,9.9nm,0.9s,baz=108,slow=18,SNR=1.5						
	comp=Z,191nm,0.9s						
JOW	Kunigami	19.98	312	P	P	02 14 08.8	+1.3
JOW	Kunigami	19.98	312		P	02 14 09.2	+1.7
JOW	Kunigami	19.98	312	P	P	02 14 09.4	+1.9
	comp=Z,246nm,1.2s						
FAKI	Fak Fak	20.78	217	P	P	02 14 16.8	+0.8
FAKI	Fak Fak	20.78	217	S	S	02 17 57.1	-0.4
FAKI	Fak Fak	20.78	217		P	02 14 17.1	+1.0
FAKI	Fak Fak	20.78	217	P	P	02 14 17.2	+1.2
	comp=Z,217nm,0.9s						
TNTI	Ternate	21.54	234	P	P	02 14 23.5	-0.5
TNTI	Ternate	21.54	234	P	P	02 14 22.2	-1.8
TNTI	Ternate	21.54	234	P	P	02 14 22.6	-1.4
	comp=Z,55nm,0.9s						
H11S3	WAKE ISLAND Hy	21.63	75	T	T	02 36 19.3	
	baz=263,slow=75,SNR=11						
H11S1	WAKE ISLAND Hy	21.64	75	T	T	02 36 21.4	
	baz=263,slow=75,SNR=11						
H11S2	WAKE ISLAND Hy	21.64	75	T	T	02 36 07.5	
	baz=263,slow=75,SNR=7.8						
JSU	Suzuyama	21.81	326	P	P	02 14 27.1	+0.4
JSU	Suzuyama	21.81	326		P	02 14 25.9	-0.9
JSU	Suzuyama	21.81	326	P	P	02 14 27.4	+0.7
	comp=Z,170nm,0.8s						
JMN	Monobe	22.01	335	P	P	02 14 29.4	+0.8
JMN	Monobe	22.01	335	P	P	02 14 28.3	-0.3
H11N1	WAKE ISLAND Hy	22.03	72	T	T	02 36 32.1	
	baz=260,slow=75,SNR=8.8						
H11N2	WAKE ISLAND Hy	22.04	72	T	T	02 36 40.5	
	baz=260,slow=75,SNR=11						
H11N3	WAKE ISLAND Hy	22.05	72	T	T	02 36 34.3	
	baz=260,slow=75,SNR=11						
INU	Inuyama	22.41	343	P	P	02 14 33.4	+1.1
INU	Inuyama	22.41	343	P	P	02 14 32.9	+0.6
INU	Inuyama	22.41	343	P	P	02 14 33.2	+0.9
	comp=Z,39nm,1.5s						
JGF	Kuroka	22.55	344	P	P	02 14 35.3	+1.6
JGF	Kuroka	22.55	344	P	P	02 14 34.9	+1.1
JGF				IAmb	IAmb	02 14 36.2	
	comp=Z,42nm,1.1s						
JNU	Nakatsue	22.86	329	P	P	02 14 37.1	+0.6
	comp=Z,158nm,0.8s,baz=144,slow=9.2,SNR=61						
JNU				S	S	02 18 33.7	+2.1
	comp=Z,9.4nm,0.9s,baz=128,slow=19,SNR=2.2						
	comp=Z,158nm,0.8s						
JNU	Nakatsue	22.86	329	IAmb	IAmb	02 15 11.8	
	comp=Z,15nm,0.8s						
MSAI	Masohi	23.20	223	P	P	02 14 40.4	+0.7
	comp=Z,10μmcomp=Z,10μmcomp=Z,213nm,1.0s,comp=Z,213nm,1.0s						
MJAR	Matsushiro Arr	23.24	347	P	P	02 14 39.1	-0.9
	comp=Z,16nm,0.9s,baz=166,slow=9.6,SNR=21						
MJAR				S	S	02 18 39.8	+2.0
	comp=Z,8.6nm,1.0s,baz=168,slow=18,SNR=5.3						
MJAR				LR	LR	02 22 20.7	
	comp=Z,182nm,21.5s,baz=150,slow=32						
	comp=Z,16nm,0.9s						
MJAR	Matsushiro Arr	23.24	347	P	P	02 14 40.5	+0.5
MJAR				IAmb	IAmb	02 14 42.2	
	comp=Z,9.4nm,0.8s						
MAJO	Matsushiro	23.25	347	P	P	02 14 40.8	+0.9
MAJO	Matsushiro	23.25	347	P	P	02 14 40.4	+0.4
MAJO				IAmb	IAmb	02 14 41.9	
	comp=Z,31nm,0.6s						
MAJO	Matsushiro	23.25	347	P	P	02 14 40.8	+0.9
	comp=Z,44nm,0.6s						
MJB9	Matsu-Tunnel	23.25	347	P	P	02 14 41.7	+1.7
PMG	Port Moresby	23.32	174	P	P	02 14 41.3	+0.6
PMG	Port Moresby	23.32	174		P	02 14 41.4	+0.6
PMG				IAmb	IAmb	02 14 42.0	
	comp=Z,40nm,0.8s						
PMG	Port Moresby	23.32	174	P	P	02 14 41.3	+0.6
	comp=Z,53nm,0.9s						
AAI	Ambon	23.94	224	P	P	02 14 45.4	-1.1
SANI	Sanana	24.39	231	P	P	02 14 50.3	-0.2
SSLB	Suanglung	24.45	297	P	P	02 14 51.9	+0.9
SSLB	Suanglung	24.45	297	P	P	02 14 52.0	+0.9
SSLB	Suanglung	24.45	297	P	P	02 14 50.8	-0.3
	comp=Z,54nm,0.9s						
GTOI	Gorontalo	25.17	240	P	P	02 14 55.3	-2.3
	comp=Z,37nm,0.8s,comp=Z,37nm,0.8s						
LUWI	Luwuk	26.30	237	P	P	02 15 06.5	-1.3
LUWI	Luwuk	26.30	237		P	02 15 06.1	-1.6
LUWI	Luwuk	26.30	237	P	P	02 15 06.4	-1.4
	comp=Z,234nm,0.9s						
TATA	Tatamba Isabel	26.79	145	P	P	02 15 12.4	+0.3
TOLI2	Tolitoli	26.84	244	P	P	02 15 12.2	-0.4
TOLI2	Tolitoli	26.84	244	P	P	02 15 10.4	-2.2
TOLI2				IAmb	IAmb	02 15 26.5	
	comp=Z,22nm,1.0s						
TOLI2	Tolitoli	26.84	244	P	P	02 15 11.8	-0.8
	comp=Z,22nm,1.2s						
APSI	Ampana	27.15	239	P	P	02 15 13.1	-2.3
	comp=Z,1μmcomp=Z,1μmcomp=Z,52nm,1.0s,comp=Z,52nm,1.0s						
MYLDM	Lahad Datu	27.20	254	P	P	02 15 17.1	+1.3
MYLDM	Lahad Datu	27.20	254	P	P	02 15 16.9	+1.1
MYLDM	Lahad Datu	27.20	254	P	P	02 15 17.6	+1.8
	comp=Z,47nm,1.3s						
TJN	Taejon	27.20	328	P	P	02 15 15.4	-0.1
KSRS	Korea Array	27.77	331	P	P	02 15 20.4	-0.1
	comp=Z,26nm,0.9s,baz=143,slow=9.2,SNR=50						
KSRS				PcP	PcP	02 18 33.1	+0.9
	comp=Z,3.4nm,0.8s,baz=144,slow=1.9,SNR=5.7						
	comp=Z,26nm,0.9s						
KSAR	Wonju Array Be	27.78	330		P	02 15 20.4	-0.3
MPSI	Mapaga	27.98	243	P	P	02 15 22.7	-0.1
	comp=Z,20nm,1.1s,comp=Z,20nm,1.1s						
KDI	Kendari	28.18	232	P	P	02 15 24.2	-0.3
NJ2	Nanjing	29.70	312	*e*P	P	02 15 39.0	+1.2
NJ2				pmax	pmax		
	comp=Z,12nm,0.5s						
ASAJ	Asahikawa	30.13	357	LR	LR	02 26 43.7	
	comp=Z,92nm,21.5s,baz=76,slow=34						
SOEI	Soe	31.04	222	P	P	02 15 48.2	-1.7
SOEI	Soe	31.04	222	P	P	02 15 47.9	-1.9
	comp=Z,45nm,0.9s						
KAPI	Kappang	31.07	234	P	P	02 15 49.6	-0.4
KAPI	Kappang	31.07	234	P	P	02 15 49.2	-0.8
KAPI				IAmb	IAmb	02 15 49.8	
	comp=Z,18nm,1.1s						
BATI	Baumata	31.77	222	LR	LR	02 28 52.7	
	comp=Z,134nm,20.9s,baz=197,slow=36						
MTSU	Mount Surprise	31.86	181	P	P	02 15 57.8	+0.9
MTSU	Mount Surprise	31.86	181	P	P	02 15 58.2	+1.3
	comp=Z,5.6nm,0.9s						
USA0B	Ussuriysk Arra	32.05	343	P	P	02 15 59.3	+1.1
USA0B				IAmb	IAmb	02 16 40.2	
	comp=Z,17nm,1.1s						
USRK	Ussuriysk Ar.	32.05	343	P	P	02 15 58.8	+0.5
	comp=Z,3.7nm,0.7s,baz=168,slow=9.6,SNR=7.3						
USRK				LR	LR	02 27 27.6	
	comp=Z,77nm,19.7s,baz=147,slow=33						
	comp=Z,3.7nm,0.7s						
USRK	Ussuriysk Ar.	32.05	343	P	P	02 15 59.1	+0.8
EDFI	Ende, Flores	32.05	227	P	P	02 15 57.0	-1.8
	comp=Z,21nm,0.8s,comp=Z,21nm,0.8s						
DL2	Dalian	32.13	325	P	P	02 16 00.0	+1.0
WHN	Wuhan	32.42	306	P	P	02 16 02.8	+1.1
WHN				pmax	pmax		
	comp=Z,56nm,0.7s						
TV1H	Townsville Har	33.05	176	P	P	02 16 08.1	+0.9
MDJ	Mudanjiang	33.17	340	P	P	02 16 09.3	+1.3
MDJ				pmax	pmax		
	comp=Z,27nm,1.0s						
MDJ	Mudanjiang	33.17	340	P	P	02 16 09.6	+1.6
MDJ	Mudanjiang	33.17	340	IAmb	IAmb	02 16 10.4	
	comp=Z,27nm,1.1s						
TIA	Tai'an	33.17	317	P	P	02 16 08.5	+0.3
TIA				pmax	pmax		
	comp=Z,28nm,0.8s						
KNRA	Kununurra	33.35	209	IAmb	IAmb	02 16 11.1	
	comp=Z,15nm,0.9s						
QIZ	Qiongzhong	33.73	283	P	P	02 16 13.8	+0.6
QIZ				S	S	02 21 23.8	+1.1
QIZ				sS	sS	02 22 30.3	-0.3
QIZ				pmax	pmax		
	comp=Z,8.0nm,0.9s						
QIZ				pmax	pmax		
	comp=Z,79nm,5.5s						
CTA	Charters Tower	33.84	177	P	P	02 16 14.8	+0.7
CTAO	Charters Tower	33.84	177	P	P	02 16 15.2	+1.1
CTAO	Charters Tower	33.84	177	P	P	02 16 14.9	+0.8
CTAO	Charters Tower	33.84	177	P	P	02 16 15.2	+1.1
	comp=Z,7.6nm,0.8s						
CN2	Changchun	34.01	335	P	P	02 16 03.0	-12
CN2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
CN2				LR	LR		
	comp=N,200nm,15.0s						
CN2				LR	LR		
	comp=E,200nm,15.0s						
CN2				LR	LR		
	comp=Z,100nm,15.0s						
SBUM	Sibu	34.02	253	P	P	02 16 16.1	+0.3
SBUM	Sibu	34.02	253	P	P	02 16 16.0	+0.3
SBUM				IAmb	IAmb	02 16 17.1	
	comp=Z,19nm,0.9s						
SBUM	Sibu	34.02	253	P	P	02 16 16.2	+0.5
	comp=Z,23nm,1.2s						
QIS	Mount Isa	34.63	188	P	P	02 16 21.0	+0.1
QIS	Mount Isa	34.63	188	P	P	02 16 21.0	+0.1
	comp=Z,34nm,0.9s						
BNX	BinXian	34.90	339	⇓P	P	02 16 23.3	+0.4
BNX				pmax	pmax		
	comp=Z,54nm,1.3s						
WR8	Warramunga Arr	35.13	197	P	P	02 16 24.7	-0.4
WR8				IAmb	IAmb	02 16 25.6	
	comp=Z,21nm,0.9s						
WRAB	Tennant Creek	35.15	197	P	P	02 16 24.8	-0.5
WRAB	Tennant Creek	35.15	197	P	P	02 16 25.0	-0.3
	comp=Z,44nm,0.9s						
WRA	Warramunga Arr	35.16	197	P	P	02 16 24.4	-1.0
	comp=Z,21nm,0.8s,baz=18,slow=8.8,SNR=92						
WRA				S	S	02 21 41.4	-3.1
	comp=Z,1.7nm,0.9s,baz=21,slow=15,SNR=5.0						
WRA				ScP	ScP	02 22 20.3	0.0
	comp=Z,1.2nm,0.8s,baz=25,slow=3.7,SNR=4.1						
	comp=Z,21nm,0.8s						
WRA	Warramunga Arr	35.16	197	P	P	02 16 23.6	-1.8
HNS	HongShan	35.44	317	⇓P	P	02 16 28.8	+1.2
HNS				PP	PP	02 17 53.0	+0.8
HNS				S	S	02 21 48.9	+0.4
HNS				pmax	pmax		
	comp=Z,180nm,0.9s						
HNS				L	L		
	comp=Z,220nm,15.9s						
HNS				L	L		
	comp=Z,190nm,17.5s						
LYN	LuoYang	35.58	311	P	P	02 16 29.8	+0.9
LYN				pmax	pmax		
	comp=Z,150nm,0.8s						
STKI	Sintang	35.62	250	P	P	02 16 29.3	-0.1
BJI2	Beijing	36.04	321	P	P	02 16 33.4	+0.7
BJI2				pmax	pmax		
	comp=Z,29nm,0.8s						
BJT	Baijiatuau	36.04	321	P	P	02 16 33.3	+0.6
ENH	Enshi	36.23	303	P	P	02 16 35.7	+1.2
ENH	Enshi	36.23	303	P	P	02 16 35.1	+0.6
ENH				IAmb	IAmb	02 16 36.4	
	comp=Z,27nm,0.9s						
KHKI	Kahang-Kahang	36.36	234	P	P	02 16 35.9	+0.2
	comp=Z,1μmcomp=Z,1μmcomp=Z,148nm,1.1s,comp=Z,148nm,1.1s						
SANVU	Saraoutou	36.73	142	P	P	02 16 40.2	+1.4
SANVU	Saraoutou	36.73	142	P	P	02 16 39.8	+1.0
SANVU	Saraoutou	36.73	142	P	P	02 16 40.0	+1.3
	comp=Z,76nm,1.2s						
KLR	Kul'dur	36.77	346	P	P	02 16 38.5	-0.2
	comp=Z,4.2nm,0.6s,baz=148,slow=9.5,SNR=12						
KLR				pP	pP	02 17 17.7	+0.5
	comp=Z,4.9nm,0.8s,baz=146,slow=8.7,SNR=3.1						
KLR				PcP	PcP	02 18 56.8	+0.1
	comp=Z,4.4nm,0.6s,baz=224,slow=1.7,SNR=3.5						
KLR				S	S	02 22 08.8	+0.5
	comp=Z,0.5nm,0.3s,baz=124,slow=15,SNR=2.3						
	comp=Z,4.2nm,0.6s						
RTBI	Rangdo, Negare	36.94	235	P	P	02 16 40.1	-0.6
	comp=Z,152nm,1.3s,comp=Z,152nm,1.3s						
FITZ	Fitzroy Crossi	36.94	211	LR	LR	02 31 44.5	
	comp=Z,71nm,21.6s,baz=18,slow=36						
AUNRC	North Rockhamp	37.50	171	P	P	02 16 46.0	+0.9
JAGI	Jajag, Banyuwa	37.58	235	P	P	02 16 46.5	+0.5
BLJI	Banyuglugur	37.61	237	P	P	02 16 48.2	+2.0
XAN	Xi'an	38.02	308	P	P	02 16 50.3	+0.7
XAN				sP	sP	02 17 52.3	+2.8
XAN				pmax	pmax		
	comp=Z,33nm,0.8s						
XAN				L	L		
	comp=Z,310nm,13.1s						
XAN				L	L		
	comp=Z,210nm,13.7s						
XAN				L	L		
	comp=Z,160nm,16.5s						
XLT	XiLinHaoTe	38.58	326	*e*P	P	02 16 54.5	+0.4
XLT				pP	pP	02 17 34.5	+1.5
XLT				pmax	pmax		
	comp=Z,56nm,0.7s						
XLT				pmax	pmax		
	comp=Z,100nm,3.6s						
AS01	Alice Springs	38.81	196	P	P	02 16 55.8	-0.3
AS31	Alice Springs	38.82	196	P	P	02 16 55.1	-1.1
AS31				IAmb	IAmb	02 16 57.9	
	comp=Z,3.9nm,0.4s						
ASAR	Alice Springs	38.82	196	P	P	02 16 55.5	-0.8
	comp=Z,3.5nm,0.7s,baz=18,slow=11,SNR=33						
ASAR				ScP	ScP	02 22 33.0	-1.0
	comp=Z,4.1nm,1.1s,baz=24,slow=2.5,SNR=10.0						
ASAR				S	S	02 22 38.2	-1.7
	comp=Z,2.0nm,1.1s,baz=10,slow=22,SNR=4.7						
ASAR				LR	LR	02 33 15.0	
	comp=Z,122nm,20.5s,baz=48,slow=36						
	comp=Z,3.5nm,0.7s						
ASAR	Alice Springs	38.82	196	P	P	02 16 55.7	-0.5
HEH	HeiHe	38.86	342	*e*P	P	02 16 56.6	+0.4
HEH				pP	pP	02 17 35.9	+0.8
HEH				PcP	PcP	02 19 03.8	+0.6
HEH				ScP	ScP	02 22 33.1	-0.5
HEH				pmax	pmax		
	comp=Z,53nm,1.1s						
SNJI	Sawahan-Nganju	39.14	239	P	P	02 16 59.4	+0.2
	comp=Z,93nm,1.2s,comp=Z,93nm,1.2s						
HHC	Hu-ho-hao-te	39.38	319	*e*P	P	02 17 01.8	+1.0
HHC				pmax	pmax		
	comp=Z,31nm,0.7s						
HHC				pmax	pmax		
	comp=Z,39nm,4.0s						
SLVN	Son La	39.44	287	P	P	02 17 02.8	+1.2
PCJI	Pacitan	39.84	238	P	P	02 17 04.0	-0.8
UGM	Wanagama	40.23	239	P	P	02 17 07.3	-0.8
UGM	Wanagama	40.23	239	P	P	02 17 07.0	-1.0
TPI	Tanjungpandan	40.27	248	P	P	02 17 08.1	-0.2
	comp=Z,52nm,0.8s,comp=Z,52nm,0.8s						
QLP	Quilpie	40.27	181	P	P	02 17 07.8	-0.3
PETK	Petropavlovsk-	40.43	12	PcP	PcP	02 19 08.1	-0.2
	comp=Z,1.7nm,0.6s,baz=220,slow=6.6,SNR=3.8						
PETK				ScP	ScP	02 22 37.9	-1.8
	comp=Z,2.1nm,0.5s,baz=203,slow=6.8,SNR=3.5						
PETK				LR	LR	02 32 24.2	
	comp=Z,131nm,21.6s,baz=195,slow=34						
HIA	Hailar	40.75	335	P	P	02 17 13.2	+1.4
HIA	Hailar	40.75	335	P	P	02 17 13.2	+1.4
HIA				IAmb	IAmb	02 17 14.2	
	comp=Z,32nm,1.0s						
HILR	Hailar Array B	40.97	335	P	P	02 17 11.4	-2.3
	comp=Z,7.3nm,0.7s,baz=153,slow=16,SNR=7.6						
	comp=Z,7.3nm,0.7s						
CD2	Chengdu	41.14	301	P	P	02 17 15.0	-0.4
CD2				S	S	02 23 14.5	+0.1
CD2				SS	SS	02 26 24.8	-0.3
CD2				pmax	pmax		
	comp=Z,10.0nm,0.4s						
CD2				L	L		
	comp=Z,220nm,10.2s						
INKA	Innaminka	41.60	185	P	P	02 17 18.6	-0.4
NOUC	Port Laguerre	41.63	149	P	P	02 17 20.6	+1.3
PZH	PanZhiHua	41.98	294	P	P	02 17 22.8	+0.5
MYKOM	Kota Tinggi	42.10	257	P	P	02 17 23.5	+0.2
MYKOM	Kota Tinggi	42.10	257	P	P	02 17 22.7	-0.6
MYKOM				IAmb	IAmb	02 17 24.9	
	comp=Z,18nm,0.8s						
MYKOM	Kota Tinggi	42.10	257	P	P	02 17 23.3	0.0
	comp=Z,28nm,1.0s						
BBJI	Bungbulang	42.44	242	P	P	02 17 23.9	-2.2
BBJI	Bungbulang	42.44	242	P	P	02 17 23.0	-3.1
BBJI				IAmb	IAmb	02 17 24.6	
	comp=Z,56nm,1.2s						
MBWA	Marble Bar	42.61	216	P	P	02 17 26.5	-0.7
MBWA	Marble Bar	42.61	216	P	P	02 17 26.5	-0.7
MBWA				IAmb	IAmb	02 17 27.5	
	comp=Z,28nm,1.1s						
MBWA	Marble Bar	42.61	216	P	P	02 17 26.7	-0.5
	comp=Z,27nm,1.7s						
LZH	Lanzhou	42.65	309	*e*P	P	02 17 28.8	+1.2
LZH				pP	pwP	02 18 11.6	-0.5
LZH				S	S	02 23 37.0	+0.4
LZH				SS	SS	02 26 47.8	-6.8
LZH				pmax	pmax		
	comp=Z,49nm,1.6s						
LZH				L	L		
	comp=Z,170nm,16.2s						
LZH				L	L		
	comp=Z,200nm,16.5s						
LZH				L	L		
	comp=Z,220nm,16.5s						
LZDM	Lanzhou Array	42.72	308	P	P	02 17 28.3	0.0
	comp=Z,5.7nm,0.3s,baz=109,slow=7.8,SNR=8.9						
	comp=Z,5.7nm,0.3s						
CMAR	Chiang Mai Arr	44.05	282	P	P	02 17 38.9	+0.1
	comp=Z,2.1nm,0.4s,baz=91,slow=7.9,SNR=17						
CMAR				pP	pP	02 18 20.6	+2.0
	comp=Z,2.6nm,0.6s,baz=93,slow=8.0,SNR=2.3						
CMAR				ScP	ScP	02 22 54.1	-0.9
	comp=Z,0.9nm,0.3s,baz=99,slow=3.8,SNR=4.5						
	comp=Z,2.1nm,0.4s						
CMAR	Chiang Mai Arr	44.05	282	P	P	02 17 39.3	+0.4
CMSA	Cobar Meteorol	45.22	179	P	P	02 17 48.7	+0.9
SHEM	Shemya Is, Ala	45.24	25	LR	LR	02 33 32.2	
	comp=Z,59nm,21.0s,baz=284,slow=32						
STKA	Stephens Creek	45.64	184	P	P	02 17 49.6	-1.5
	comp=Z,5.1nm,0.4s,baz=3.7,slow=7.4,SNR=12						
	comp=Z,5.1nm,0.4s						
MA2	Magadan	45.79	4	LR	LR	02 34 40.8	
	comp=Z,43nm,20.5s,baz=62,slow=33						
ULN	Ulaanbaatar	45.98	325	P	P	02 17 54.5	+0.6
ULN				IAmb	IAmb	02 17 55.8	
	comp=Z,25nm,1.1s						
ULN	Ulaanbaatar	45.98	325	P	P	02 17 54.9	+1.0
	comp=Z,27nm,1.1s						
SONM	Songino Array	46.34	325	P	P	02 17 57.0	+0.4
	comp=Z,9.7nm,0.7s,baz=132,slow=7.0,SNR=54						
SONM				ScP	ScP	02 23 02.3	-1.7
	comp=Z,2.2nm,1.0s,baz=128,slow=2.4,SNR=3.6						
	comp=Z,9.7nm,0.7s						
SONM	Songino Array	46.34	325	P	P	02 17 57.8	+1.2
SONM				IAmb	IAmb	02 17 59.5	
	comp=Z,23nm,1.2s						
GTA2	Gaotai	46.86	312	P	P	02 18 01.8	+1.0
GTA2				S	S	02 24 36.6	-0.5
GTA2				pmax	pmax		
	comp=Z,29nm,0.7s						
GTA2				L	L		
	comp=Z,120nm,15.5s						
GTA2				L	L		
	comp=Z,120nm,15.9s						
GTA2				L	L		
	comp=Z,150nm,20.6s						
FORT	Forrest	47.23	200	P	P	02 18 03.4	-0.1
FORT				IAmb	IAmb	02 18 04.5	
	comp=Z,19nm,0.7s						
GSI	Gunungsitoli	48.21	259	P	P	02 18 10.7	-0.7
GSI	Gunungsitoli	48.21	259	P	P	02 18 09.9	-1.5
GSI				IAmb	IAmb	02 18 10.9	
	comp=Z,46nm,1.4s						
GSI	Gunungsitoli	48.21	259	P	P	02 18 10.3	-1.1
	comp=Z,22nm,0.8s						
GOMU	GeErMu	49.67	306	P	P	02 18 21.1	-1.6
GOMU				pmax	pmax		
	comp=Z,6.0nm,0.7s						
GOMU				L	L		
	comp=Z,82nm,8.7s						
GOMU				L	L		
	comp=Z,56nm,8.1s						
GOMU				L	L		
	comp=Z,130nm,8.3s						
MORW	Morawa	50.91	213	P	P	02 18 30.3	-1.2
MORW	Morawa	50.91	213	P	P	02 18 30.4	-1.1
MORW				IAmb	IAmb	02 18 31.5	
	comp=Z,26nm,0.8s						
AFI	Afiamalu	51.24	121	LR	LR	02 37 15.6	
	comp=Z,43nm,19.7s,baz=226,slow=32						
LSA	Lhasa	51.66	297	*e*P	P	02 18 41.3	+3.6
BLDU	Ballidu	51.82	211	P	P	02 18 37.4	-0.8
EVN	Everest	55.34	294	P	P	02 19 04.5	-0.2
EVN				IAmb	IAmb	02 19 07.6	
	comp=Z,5.8nm,0.6s						
WMQ	Urumqi	56.75	313	*e*P	P	02 19 15.4	+1.6
WMQ				pmax	pmax		
	comp=Z,30nm,0.7s						
WMQ				L	L		
	comp=Z,55nm,15.3s						
ZSN	Zaisan	59.52	317	*e*P	P	02 19 33.2	+0.4
QRZ	Quartz Range	60.29	156	P	P	02 19 39.2	+1.1
MKAR	Makanchi Array	61.10	316	P	P	02 19 44.2	+0.5
	comp=Z,13nm,0.6s,baz=95,slow=8.8,SNR=95						
MKAR				pP	pP	02 20 26.3	+0.3
	comp=Z,4.0nm,0.9s,baz=92,slow=8.4,SNR=2.5						
MKAR				ScP	ScP	02 24 07.0	-1.3
	comp=Z,0.9nm,0.8s,baz=107,slow=4.8,SNR=3.1						
MKAR				S	S	02 27 48.2	+0.5
	comp=Z,0.1nm,0.4s,baz=74,slow=15,SNR=2.3						
	comp=Z,13nm,0.6s						
ZAA0	Zalesovo Array	61.23	324	P	P	02 19 43.6	-0.6
ZAA0				IAmb	IAmb	02 19 47.0	
	comp=Z,5.3nm,0.7s						
ZALV	Zalesovo Beam	61.23	324	P	P	02 19 43.6	-0.7
	comp=Z,4.7nm,0.6s,baz=107,slow=6.7,SNR=22						
ZALV				S	S	02 27 48.2	-0.7
	comp=Z,0.5nm,0.6s,baz=108,slow=5.9,SNR=1.8						
	comp=Z,4.7nm,0.6s						
ZALV	Zalesovo Beam	61.23	324	P	P	02 19 44.0	-0.3
MAKZ	Makanchi	61.32	316	P	P	02 19 45.8	+0.7
BFZ	Birch Farm	61.73	153	P	P	02 19 50.0	+2.3

SHLS	Shalkode	62.54	312	eP	P	02 19 51.5	-1.9
UZB	Uzynbulak	62.86	311	eP	P	02 19 55.7	+0.1
	comp=Z,8.3nm,1.3s						
KPKS	Kokpek	63.14	312	eP	P	02 19 57.5	+0.2
ODZ	Otahua Downs	63.26	160	P	P	02 19 59.5	+1.7
SATY	Saty	63.30	311	eP	P	02 19 58.6	+0.2
	comp=Z,11nm,1.3s						
TDK	Taldyqorghan	63.51	313	eP	P	02 20 00.0	+0.4
	comp=Z,15nm,0.8s						
KURK	Kurchatov	64.19	320	P	P	02 20 03.9	0.0
KURK	Kurchatov	64.19	320	P	P	02 20 04.1	+0.2
	comp=Z,54nm,0.8s						
KURBB	Kurchatov Arra	64.23	320	P	P	02 20 04.1	-0.1
	comp=Z,30nm,0.6s,baz=102,slow=6.8,SNR=204						
KURBB				pP	pP	02 20 46.5	-0.5
	comp=Z,9.2nm,0.8s,baz=100,slow=6.5,SNR=3.2						
KURBB				S	S	02 28 25.7	-0.8
	comp=Z,0.3nm,0.3s,baz=98,slow=10,SNR=5.2						
KURBB				LR	LR	02 49 08.7	
	comp=Z,80nm,19.7s,baz=182,slow=37						
	comp=Z,30nm,0.6s						
MDOK	Medeo	64.30	311	eP	P	02 20 05.1	+0.1
TNSS	Tian-Shan	64.36	311	eP	P	02 20 05.5	-0.2
ASAI	AK-SAY(Kyrgyzs	64.53	309	P	P	02 20 07.8	+1.0
	comp=Z,5.5nm,1.7s						
KUU	Kurty	64.87	312	eP	P	02 20 08.9	+0.4
KSH2	Kashi	65.17	307	P	P	02 20 11.6	+0.9
KSH2				pmax	pmax		
	comp=Z,4.0nm,0.7s						
NRIK	Noril'sk	65.74	341	P	P	02 20 13.1	-0.4
	comp=Z,8.9nm,0.9s,baz=116,slow=7.3,SNR=7.6						
NRIK				LR	LR	02 48 11.5	
	comp=Z,80nm,19.8s,baz=111,slow=35						
	comp=Z,8.9nm,0.9s						
NRIK	Noril'sk	65.74	341	P	P	02 20 13.2	-0.4
NRIK				IAmb	IAmb	02 20 14.3	
	comp=Z,18nm,1.1s						
CAST	Castle Rocks	65.78	26	P	P	02 20 13.3	-0.7
CAST				IAmb	IAmb	02 20 57.2	
	comp=Z,7.6nm,1.1s						
SGDS	Sogindy	66.08	312	eP	P	02 20 16.5	+0.2
AAK	Ala-Archa	66.14	311	LR	LR	02 50 30.6	
	comp=Z,53nm,19.7s,baz=98,slow=37						
E23K	Chandalar	68.18	22	IAmb	IAmb	02 20 35.1	
	comp=Z,11nm,1.0s						
ILAR	Eielson Array	68.35	25	P	P	02 20 27.5	-2.6
	comp=Z,0.8nm,0.4s,baz=256,slow=5.7,SNR=13						
ILAR				pP	pP	02 21 11.8	-2.1
	comp=Z,2.1nm,0.6s,baz=255,slow=5.5,SNR=3.8						
ILAR				LR	LR	02 47 05.5	
	comp=Z,40nm,21.9s,baz=223,slow=33						
	comp=Z,0.8nm,0.4s						
ILAR	Eielson Array	68.35	25	P	P	02 20 28.1	-2.0
KK31	Karatay Array	69.07	311	P	P	02 20 35.2	+0.2
KKAR	Karatay Array	69.07	311	P	P	02 20 35.1	+0.1
IUG	Iuzhnay	69.43	310	eP	P	02 20 37.6	+0.2
BVAR	Borovoye Array	69.53	322	P	P	02 20 37.0	-0.6
	comp=Z,29nm,0.6s,baz=102,slow=8.0,SNR=85						
BVAR				pP	pP	02 21 20.3	-0.7
	comp=Z,4.0nm,0.8s,baz=99,slow=6.4,SNR=1.6						
	comp=Z,29nm,0.6s						
BORK	Borovoye	69.58	322	P	P	02 20 38.2	+0.4
CHM	Chimkent	69.75	310	eP	P	02 20 39.3	+0.2
L29M	L29M	71.89	28	P	P	02 20 52.0	+0.3
L29M				IAmb	IAmb	02 21 36.3	
	comp=Z,6.4nm,0.9s						
K29M	Barlow Dome	72.23	27	P	P	02 20 53.6	-0.2
AB31	Akbulak array	76.15	318	IAmb	IAmb	02 21 17.0	
	comp=Z,5.0nm,0.7s						
ABKAR	Akbulak array	76.15	318	P	P	02 21 16.0	-0.6
ARTI	Arti	76.47	325	LR	LR	02 57 59.0	
	comp=Z,67nm,18.3s,baz=84,slow=38						
ARTI	Arti	76.47	325	P	P	02 21 17.8	-0.4
ARTI				IAmb	IAmb	02 21 18.4	
	comp=Z,10nm,0.6s						
AKTO	Aktyubinsk	77.27	319	LR	LR	02 55 56.2	
	comp=Z,55nm,19.7s,baz=306,slow=36						
KIRV	Kirov	80.95	328	LR	LR	02 58 50.9	
	comp=Z,87nm,19.6s,baz=56,slow=36						
YKA	Yellowknife Ar	82.65	27	P	P	02 21 50.6	-0.8
	comp=Z,1.0nm,0.5s,baz=285,slow=5.1,SNR=7.4						
YKA				pP	pP	02 22 36.7	-0.1
	comp=Z,1.0nm,0.6s,baz=280,slow=5.2,SNR=2.2						
	comp=Z,1.0nm,0.5s						
YKA	Yellowknife Ar	82.65	27	P	P	02 21 50.9	-0.5
PINE	Pine Mountain	83.62	47	P	P	02 21 58.3	+1.2
PINE				IAmb	IAmb	02 22 42.4	
	comp=Z,9.9nm,0.9s						
SPITS	Spitsbergen Ar	83.68	351	P	P	02 21 56.3	-0.2
	comp=Z,10nm,0.9s,baz=42,slow=14,SNR=1.8						
	comp=Z,10nm,0.9s						
CASY	Casey	83.89	193	P	P	02 21 57.1	-0.4
BEKR	Beckworth	84.96	50	P	P	02 22 04.6	+0.7
BEKR				IAmb	IAmb	02 22 05.6	
	comp=Z,4.5nm,0.6s						
ARCES	ARCESS Array B	86.70	342	P	P	02 22 10.3	-1.3
	comp=Z,3.5nm,0.4s,baz=60,slow=5.3,SNR=3.6						
ARCES				LR	LR	03 04 30.1	
	comp=Z,50nm,18.2s,baz=34,slow=38						
	comp=Z,3.5nm,0.4s						
NVAR	Mina Array Bea	86.87	51	P	P	02 22 13.4	+0.1
	comp=Z,2.3nm,0.6s,baz=286,slow=6.4,SNR=18						
NVAR				pP	pP	02 22 57.5	-2.0
	comp=Z,2.0nm,0.7s,baz=294,slow=4.8,SNR=3.6						
	comp=Z,2.3nm,0.6s						
NVAR	Mina Array Bea	86.87	51	P	P	02 22 14.2	+0.9
MFID	Camas Ranch	87.31	46	IAmb	IAmb	02 22 17.8	
	comp=Z,8.1nm,0.9s						
TPH	Tonopah	87.78	51	IAmb	IAmb	02 22 19.1	
	comp=Z,4.0nm,0.8s						
FURC	Furnace Creek,	88.50	53	IAmb	IAmb	02 22 23.6	
	comp=Z,4.3nm,0.7s						
QSM	Queen of Sheba	88.63	53	IAmb	IAmb	02 22 25.3	
	comp=Z,3.6nm,0.8s						
OBN	Obninsk	88.70	327	LR	LR	03 03 25.0	
	comp=Z,131nm,19.6s,baz=186,slow=36						
GWY	Greenwater Val	88.73	53	IAmb	IAmb	02 22 25.1	
	comp=Z,5.2nm,1.1s						
KBZ	Khabaz	88.78	315	P	P	02 22 21.1	-0.8
	comp=Z,1.5nm,0.9s,baz=83,slow=8.1,SNR=3.2						
	comp=Z,1.5nm,0.9s						
TPNV	Topopah Spring	88.84	52	IAmb	IAmb	02 22 24.2	
	comp=Z,4.7nm,0.7s						
GSC	Goldstone, Bar	88.87	54	IAmb	IAmb	02 22 24.3	
	comp=Z,3.8nm,0.6s						
SHPR	Sheep Range	89.80	52	P	P	02 22 28.3	+1.2
BELC	Belle Mtn. Jos	89.87	55	IAmb	IAmb	02 22 32.8	
	comp=Z,4.0nm,0.9s						
PSUT	Pine Spring	90.18	50	IAmb	IAmb	02 23 15.0	
	comp=Z,4.5nm,1.0s						
SPUT	South Promonto	90.34	47	IAmb	IAmb	02 22 32.4	
	comp=Z,6.2nm,1.3s						
FINES	FINESS Array B	90.77	335	P	P	02 22 29.3	-1.5
	comp=Z,5.2nm,0.7s,baz=57,slow=5.1,SNR=17						
FINES				LR	LR	03 03 21.3	
	comp=Z,35nm,21.2s,baz=42,slow=35						
	comp=Z,5.2nm,0.7s						
FINES	FINESS Array B	90.77	335	P	P	02 22 28.6	-2.2
HWUT	Hardware Ranch	90.87	47	IAmb	IAmb	02 22 35.0	
	comp=Z,9.2nm,1.5s						
VNDA	Vanda	91.82	176	P	P	02 22 35.3	+0.1
	comp=Z,1.5nm,1.0s,baz=303,slow=6.4,SNR=6.5						
	comp=Z,1.5nm,1.0s						
VNDA	Vanda	91.82	176	P	P	02 22 35.7	+0.4
PDAR	Pinedale Array	91.87	45	P	P	02 22 34.8	-1.9
	comp=Z,0.4nm,0.6s,baz=278,slow=4.2,SNR=6.0						
	comp=Z,0.4nm,0.6s						
PDAR	Pinedale Array	91.87	45	P	P	02 22 36.1	-0.6
Y14A	Wickenburg	92.26	54	IAmb	IAmb	02 22 43.0	
	comp=Z,3.1nm,1.0s						
PV21	Cone Mtn., Par	93.78	49	IAmb	IAmb	02 22 48.2	
	comp=Z,4.5nm,0.9s						
HFS	Hagfors	96.40	338	P	P	02 22 55.0	-1.7
	comp=Z,2.0nm,0.8s,baz=28,slow=3.4,SNR=2.7						
HFS				LR	LR	03 07 27.1	
	comp=Z,50nm,20.7s,baz=354,slow=36						
	comp=Z,2.0nm,0.8s						
NB2	NORSAR Subarra	96.66	339	P	P	02 22 54.6	-3.3
	comp=Z,1.2nm,0.7s,baz=48,slow=4.4						
NOA	NORSAR Array B	96.66	339	P	P	02 22 54.4	-3.5
	comp=Z,1.5nm,0.9s,baz=47,slow=5.6,SNR=4.4						
NOA				LR	LR	03 09 24.4	
	comp=Z,24nm,20.0s,baz=265,slow=37						
BRTR	Keskin Array B	96.68	314	P	P	02 22 58.3	-0.3
	comp=Z,0.1nm,0.3s,baz=70,slow=6.3,SNR=1.4						
	comp=Z,0.1nm,0.3s						
ANMO	Albuquerque	96.99	52	LR	LR	03 01 51.6	
	comp=Z,59nm,18.8s,baz=30,slow=32						
ULM	Lac du Bonnet	97.08	34	LR	LR	03 05 04.8	
	comp=Z,72nm,20.0s,baz=18,slow=34						
FRB	Frobisher Bay	98.45	14	LR	LR	03 06 32.5	
	comp=Z,46nm,21.0s,baz=107,slow=35						
MAW	Mawson	99.66	203	LR	LR	03 06 31.0	
	comp=Z,116nm,20.0s,baz=198,slow=34						
KEST	Kesra	115.00	321	PKP	PKiKP	02 28 07.1	-1.4
	comp=Z,1.7nm,0.8s,baz=38,slow=12,SNR=2.1						
KEST	Kesra	115.00	321		PKiKP	02 28 08.7	+0.2
TROLL	Troll, Antarti	117.75	192	⇑PKPdf	PKPdf	02 28 12.9	+0.2
	comp=Z,42nm,0.4s						
SNAA	Sanae	119.08	191	PKP	PKPdf	02 28 14.1	-1.1
	comp=Z,1.0nm,0.5s,baz=143,slow=5.1,SNR=2.0						
ESDC	Sonseca Array	119.19	333	PKP	PKPdf	02 28 16.4	0.0
	comp=Z,0.6nm,0.8s,baz=30,slow=2.3,SNR=2.6						
VNA2	Neumayer--Watz	120.53	190	⇑PKPdf	PKPdf	02 28 17.9	0.0
	comp=Z,4.7nm,0.6s,baz=148,slow=1.5						
VNA3	Neumayer Olymp	120.63	189	⇑PKPdf	PKPdf	02 28 17.8	-0.3
	comp=Z,3.1nm,0.8s						
TORD	Torodi Ar. Bea	134.50	305	PKP	PKPdf	02 28 46.2	+0.1
	comp=Z,0.9nm,0.7s,baz=40,slow=2.6,SNR=9.8						
TORD				SKPbc	SKPbc	02 31 57.1	-1.4
	comp=Z,3.2nm,0.9s,baz=42,slow=3.0,SNR=12						
PLCA	Paso Flores	139.32	138	PKP	PKPdf	02 28 54.6	+0.2
	comp=Z,1.0nm,0.7s,baz=229,slow=5.0,SNR=5.2						
PLCA				SKPbc	SKPbc	02 32 11.2	-0.9
	comp=Z,1.3nm,0.9s,baz=247,slow=14,SNR=3.0						
DBIC	Dimbokro	143.47	302	PKP	PKPab	02 28 60.0	+0.8
	comp=Z,3.1nm,0.6s,baz=49,slow=3.9,SNR=6.8						
AC05	El Transito	144.41	120		PKPdf	02 29 04.3	+0.4
PB11	IPOC Station P	146.69	105		PKPdf	02 29 09.5	+1.4
LPAZ	La Paz	148.28	98	PKPbc	PKPdf	02 29 12.6	+1.3
	comp=Z,2.8nm,0.7s,baz=311,slow=1.5,SNR=8.6						
LPAZ	La Paz	148.28	98		PKPbc	02 29 16.1	+1.2
CPUP	Villa Florida	156.00	124	PKPab	PKPab	02 29 48.9	-1.0
	comp=Z,0.9nm,0.7s,baz=180,slow=4.0,SNR=3.8						

IDC 25 02:34:15.5±1.8**,33°.99S**×**178°.48W,h0**^{km}**,mb3.6**/3**, mbtmp3.6**/4**,ML3.9**/1**,Error ellipse: s-maj=56.6km s-min=29.7km az=143.0,South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	5.55	219	Pn	Pn	02 35 41.1	+1.7
	3.7nm,0.3s,baz=70,slow=18,SNR=14						
URZ				Sn	Sn	02 36 42.5	-1.4
	3.1nm,0.3s,baz=27,slow=11,SNR=7.0						
	9.1nm,0.3s						
URZ				AML	AML		
ASAR	Alice Springs	42.64	271	P	P	02 42 13.6	-0.4
	0.6nm,0.6s,baz=115,slow=8.0,SNR=7.0						
	0.6nm,0.6s						
WRA	Warramunga Arr	43.95	276	P	P	02 42 23.8	-0.8
	0.4nm,0.5s,baz=120,slow=7.6,SNR=8.6						
	0.4nm,0.5s						
TXAR	Lajitas Array	94.66	58	P	P	02 47 36.8	-1.9
	0.1nm,0.6s,baz=230,slow=4.7,SNR=1.9						
	0.1nm,0.6s						
FINES	FINESS Array B	148.34	338	PKPbc	PKiKP	02 54 04.2	-0.4
	0.6nm,0.5s,baz=45,slow=4.1,SNR=6.6						

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*SFS **25** 03:21:58.4, 36°.94N×8°.82W, h22^{km}, ML2.7/14, ML2.8/14, MLv2.8/12*

*MDD **25** 03:21:58.0±0.7, 36°.92N×8°.69W, h3^{km}±3^{km}, mb_Lg2.9/10, Error ellipse: s-maj=5.1km s-min=3.6km az=53.0*

*IGIL **25** 03:21:59.9, 36°.99N×8°.79W, h21^{km}, ML2.5*

*INMG **25** 03:21:59.7±1.7, 36°.98N×8°.79W, h21^{km}±2^{km}, ML2.4, Error ellipse: s-maj=3.6km s-min=2.2km az=83.0, #DIST_RANGE: LOCAL #IPMA_REGION: SW Lagos*

ISC 25 03:21:57.8±1.1**,36°.92N**±0°.04×**8°.78W**±0°.04**,h23**^{km}±6^{km}**, n60,**σ1§**41**/119**,1C-5D,West of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLAGO	Lagos	0.19	22	⇓ePg	Pb	03 22 04.0	+0.8
PLAGO				eSg	Sb	03 22 07.4	+0.5
PLAGO				i IAML		03 22 07.6	
PLAGO				i IAML		03 22 07.8	
PLAGO				i IAML		03 22 07.8	
PSVI	Cabo S. Vicent	0.21	302	ePg	Pb	03 22 04.0	+0.6
PSVI				eSg	Sb	03 22 06.7	-0.5
PSVI				i IAML		03 22 07.5	
PSVI				i IAML		03 22 07.5	
PSVI				i IAML		03 22 08.2	
PFVI	Vila Bisbo	0.22	350	Pg	Pb	03 22 04.2	+0.6
PFVI				Sg	Sb	03 22 07.6	+0.1
PFVI	Vila Bisbo	0.22	350	⇓iPg	Pb	03 22 04.2	+0.6
PFVI				i Sg	Sb	03 22 07.6	+0.1
PFVI				i IAML		03 22 07.7	
PFVI				i IAML		03 22 07.8	
PFVI				i IAML		03 22 08.0	
PPOR	Portimao	0.29	42	ePg	Pn	03 22 05.4	-1.3
PPOR				eSg	Sb	03 22 09.5	+0.2
PPOR				i IAML		03 22 09.8	
PPOR				i IAML		03 22 10.0	
PPOR				i IAML		03 22 10.3	
MORF	Marmelete	0.40	14	eP	Pb	03 22 06.7	+0.3
MORF				eS	Sb	03 22 11.5	-0.7
MORF				IAML		03 22 12.5	
	comp=E,314nm,0.2s						
MORF	Marmelete	0.40	14	⇓iPg	Pb	03 22 06.8	+0.3
MORF				eSg	Sb	03 22 11.9	-0.3
MORF				i IAML		03 22 12.3	
MORF				i IAML		03 22 12.4	
MORF				i IAML		03 22 12.5	
PALJ	Aljezur	0.40	358	⇓ePg	Pb	03 22 06.8	+0.4
PALJ				eSg	Sb	03 22 12.2	0.0
PALJ				i IAML		03 22 12.7	
PALJ				i IAML		03 22 13.1	
PALJ				i IAML		03 22 13.2	
PALBU	Albufeira	0.46	67	ePg	Pn	03 22 08.4	-0.6
PALBU				eSg	Sn	03 22 14.6	-1.8
PALBU				i IAML		03 22 15.0	
PALBU				i IAML		03 22 16.3	
PALBU				i IAML		03 22 16.9	
PTEO	Sao Teotonio	0.63	4	⇓iPg	Pb	03 22 10.6	+0.4
PTEO				eSg	Sb	03 22 18.4	-0.2
PTEO				i IAML		03 22 19.3	
PTEO				i IAML		03 22 19.7	
PTEO				i IAML		03 22 20.4	
PFARO	Faro	0.69	81	ePg	Pn	03 22 12.7	+0.6
PFARO				eSg	Sn	03 22 22.8	+0.6
PBDV	Barranco-do-Ve	0.75	64	Pg	Pn	03 22 12.9	-0.1
PBDV				Sg	Sn	03 22 22.4	-1.3
PBDV	Barranco-do-Ve	0.75	64	eP	Pn	03 22 12.9	-0.1
PBDV				eS	Sn	03 22 23.2	-0.5
PBDV				i IAML		03 22 24.3	
PBDV				i IAML		03 22 24.6	
PBDV				i IAML		03 22 25.0	
PTAV	Tavira	0.92	77	eP	Pn	03 22 16.2	+0.9
PTAV				eS	Sn	03 22 28.6	+0.7
PTAV				i IAML		03 22 29.3	
PTAV				i IAML		03 22 30.2	
PTAV				i IAML		03 22 30.3	
PCVE	Castro Verde	0.93	39	Pg	Pb	03 22 15.1	-0.1
PCVE				Sg	Sn	03 22 27.3	-0.7
PCVE	Castro Verde	0.93	39	eP	Pb	03 22 15.1	-0.1
PCVE				eS	Sn	03 22 27.4	-0.6
PCVE				i IAML		03 22 27.5	
PCVE				i IAML		03 22 28.4	
PCVE				i IAML		03 22 29.0	
PVAQ	Vaqueiros	0.98	60	⇑iP	Pb	03 22 15.9	-0.2
PVAQ				eS	Sn	03 22 29.2	-0.1
PVAQ				i IAML		03 22 30.4	
PVAQ				i IAML		03 22 31.3	
PVAQ				i IAML		03 22 33.3	
MESJ	Messejana	1.02	26	eP	Pn	03 22 16.4	-0.3
MESJ				eS	Sb	03 22 29.0	-0.9
MESJ				IAML		03 22 30.7	
	comp=N,114nm,0.2s						
MESJ	Messejana	1.02	26	eP	Pn	03 22 16.4	-0.3
MESJ				eS	Sb	03 22 29.9	0.0
MESJ				i IAML		03 22 30.8	
MESJ				i IAML		03 22 30.9	
MESJ				i IAML		03 22 30.9	
PLOUS	Minas do Lousa	1.15	14	ePn	Pn	03 22 17.8	-0.6
PLOUS				eSg	Sn	03 22 33.2	-0.3
PLOUS				i IAML		03 22 33.8	
PLOUS				i IAML		03 22 34.1	
PLOUS				i IAML		03 22 34.4	
EGRO	El Granado	1.20	59	Pn	Pn	03 22 18.8	-0.4
EGRO				Sn	Sb	03 22 36.0	+0.9
EGRO	El Granado	1.20	59	Pg	Pn	03 22 18.7	-0.5
EGRO				Sg	Sn	03 22 34.0	-0.8
EGRO				IVmb_Lg		03 22 38.5	
PBEJ	Beja	1.32	33	ePn	Pn	03 22 20.4	-0.5
PBEJ				eSg	Sb	03 22 39.4	+0.8
PBEJ				i IAML		03 22 40.4	
PBEJ				i IAML		03 22 40.8	
PBEJ				i IAML		03 22 42.3	
MOE	Montemor	1.64	12	ePn	Pn	03 22 25.0	-0.3
MOE				eSg	Sb	03 22 48.6	+0.9
MOE				i IAML		03 22 51.8	
MOE				i IAML		03 22 52.3	
MOE				i IAML		03 22 52.3	
EVO	Evora	1.72	20	Pn	Pn	03 22 25.6	-0.8
EVO				Sn	Sn	03 22 44.9	-2.7
EVO				Sg	Sb	03 22 50.5	+0.4
EVO	Evora	1.72	20	ePn	Pn	03 22 25.6	-0.8
EVO				eSg	Sb	03 22 51.1	+1.0
EVO				i IAML		03 22 52.8	
EVO				i IAML		03 22 54.3	
EVO				i IAML		03 22 54.3	
PBAR	Barrancos	1.87	47	Pn	Pn	03 22 27.8	-0.5
PBAR				Sg	Sb	03 22 56.3	+2.1
PBAR	Barrancos	1.87	47	ePn	Pn	03 22 27.8	-0.5
PBAR				eSg	Sb	03 22 56.6	+2.4
PBAR				i IAML		03 22 59.1	
PBAR				i IAML		03 23 01.1	
PBAR				i IAML		03 23 01.6	
EMIN	Mina Concepcio	1.88	62	Pn	Pn	03 22 27.7	-0.9
EMIN				Sg	Sb	03 22 56.8	+2.2
EMIN	Mina Concepcio	1.88	62	Pn	Pn	03 22 28.2	-0.3
EMIN				Sn	Sb	03 22 52.7	-1.9
EMIN				IVmb_Lg		03 23 10.8	
PARRA	Arraiolos	1.98	17	ePn	Pn	03 22 29.2	-0.8
PARRA				eSg	Sb	03 22 59.5	+1.9
PARRA				i IAML		03 23 00.7	
PARRA				i IAML		03 23 01.1	
PARRA				i IAML		03 23 02.5	
PMAFR	Mafra	2.08	349	Pn	Pn	03 22 31.7	+0.5
PMAFR	Mafra	2.08	349	ePn	Pn	03 22 32.0	+0.7
PMAFR				eSg	Sb	03 23 03.1	+3.0
PMAFR				i IAML		03 23 05.4	
PMAFR				i IAML		03 23 05.5	
PESTR	Estremoz	2.16	25	Pn	Pn	03 22 31.5	-0.9
PESTR				Sg	Sb	03 23 02.9	+0.2
PESTR	Estremoz	2.16	25	ePn	Pn	03 22 31.6	-0.9
PESTR				eSg	Sb	03 23 04.3	+1.6
PESTR				i IAML		03 23 08.3	
PESTR				i IAML		03 23 08.5	
PESTR				i IAML		03 23 09.0	
PMTG	Montargil	2.19	11	ePn	Pn	03 22 32.2	-0.6
PMTG				eSg	Sb	03 23 05.3	+1.7
PMTG				i IAML		03 23 06.5	
PMTG				i IAML		03 23 08.3	
PMTG				i IAML		03 23 08.6	
EBAD	Badajoz	2.31	37	Pn	Pn	03 22 33.3	-1.1
EBAD				Sg	Sb	03 23 08.6	+1.8
EBAD	Badajoz	2.31	37	Pn	Pn	03 22 34.5	+0.1
EBAD				Sn	Sn	03 23 03.1	+1.1
EBAD				IVmb_Lg		03 23 12.1	
ESPR	Espera	2.34	90	Pn	Pn	03 22 35.9	+1.0
ESPR				Sn	Sn	03 23 01.8	-1.1
ESPR	Espera	2.34	90	Pn	Pn	03 22 35.0	+0.1
ESPR				Sn	Sn	03 23 03.6	+0.7
ESPR				IVmb_Lg		03 23 07.5	
PSBE	So Bento	2.59	360	ePn	Pn	03 22 38.1	-0.3
PSBE				eSg	Sb	03 23 18.6	+3.5
PSBE				i IAML		03 23 23.3	
PSBE				i IAML		03 23 24.4	
PSBE				i IAML		03 23 24.5	
PSARD	Sardoal	2.72	10	ePn	Pn	03 22 39.6	-0.6
PSARD				eSn	Sn	03 23 10.1	-2.3
PSARD				eSg	Sb	03 23 21.1	+2.3
PSARD				i IAML		03 23 23.6	
PSARD				i IAML		03 23 24.9	
PSARD				i IAML		03 23 26.1	
PMRV	Marv??o	2.74	23	ePn	Pn	03 22 39.6	-0.7
PMRV				eSn	Sn	03 23 10.5	-2.2
PMRV				eSg	Sb	03 23 22.0	+2.8
PMRV				i IAML		03 23 24.9	
PMRV				i IAML		03 23 25.4	
PMRV				i IAML		03 23 27.5	
ECAB	El Cabril	2.91	66	Pn	Pn	03 22 42.5	-0.3
ECAB				Sn	Sn	03 23 15.4	-1.6
ECAB	El Cabril	2.91	66	Pn	Pn	03 22 43.0	+0.2
ECAB				Sn	Sn	03 23 18.1	+1.1
ECAB				IVmb_Lg		03 23 36.5	
PCBR	Castelo Branco	3.09	19	ePn	Pn	03 22 45.0	-0.2
PCBR				eSn	Sn	03 23 19.4	-2.0
PCBR				eSg	Sb	03 23 32.3	+2.9
PCBR				i IAML		03 23 33.1	
PCBR				i IAML		03 23 36.4	
PCBR				i IAML		03 23 37.5	
PCAS	Casmilo, Conde	3.14	4	eSn	Sn	03 23 20.9	-1.7
PCAS				eSg	Sb	03 23 35.2	+4.4
PCAS				i IAML		03 23 40.3	
PCAS				i IAML		03 23 44.1	
PCAS				i IAML		03 23 46.2	
EMIJ	Mijas	3.24	95	Pn	Pn	03 22 46.9	-0.3
EMIJ				IVmb_Lg		03 23 20.5	
EMIJ				Sn	Sn	03 23 25.4	+0.4
EADA	Adamuz	3.56	68	Pn	Pn	03 22 51.3	-0.4
EADA				Sn	Sn	03 23 31.8	-1.4
EADA	Adamuz	3.56	68	Pn	Pn	03 22 50.6	-1.1
EADA				Sn	Sn	03 23 32.2	-0.9
EADA				IVmb_Lg		03 24 00.4	
MTE	Manteigas	3.61	15	eSn	Sn	03 23 32.0	-2.3
MTE				eSg	Sb	03 23 49.3	+4.9
MTE				i IAML		03 23 54.0	
MTE				i IAML		03 23 54.0	
MTE				i IAML		03 23 58.1	
CIBOR	Castaar de Ib	3.79	43	Pn	Pn	03 22 53.7	-1.1
CIBOR				Sn	Sn	03 23 36.8	-1.8
ELGU	Los Guajares,	4.13	89	Pn	Pn	03 22 58.7	-0.8
ELGU				Sn	Sn	03 23 44.0	-3.1
PAB	San Pablo	4.37	52	Pn	Pn	03 23 01.7	-1.1
PAB				Sn	Sn	03 23 52.3	-0.6
PAB				IVmb_Lg		03 23 56.0	
PVRL	Vila Real	4.43	10	eSn	Sn	03 23 52.8	-1.8
POLO	Lamas de Olo	4.52	9	eSn	Sn	03 23 54.0	-2.7
IFR	Ifrane	4.52	138	Pn	Pn	03 23 05.4	+0.4
IFR				Sn	Sn	03 23 53.4	-3.5
EQES	Quesada	4.63	77	Pn	Pn	03 23 06.7	+0.2
EQES				Sn	Sn	03 23 57.5	-2.0
EQES				IVmb_Lg		03 24 12.1	
PCAB	Cabril	4.82	7	ePn	Pn	03 23 08.5	-0.5
PGAV	Gavieira, Arco	5.06	4	ePn	Pn	03 23 12.6	+0.3

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*IDC **25** 03:36:01.4±1.2, 6°.51N×72°.78W, h166^{km}±11^{km}, mb3.0/1, mbtmp3.8/3, Error ellipse: s-maj=79.3km s-min=7.8km az=132.0*

*RSNC **25** 03:36:03.8±0.0, 7°N±1°×7°3W±°, h143^{km}±2^{km}, M3.4, mB4.8, mb3.8, ML3.0, Mw(mB)4.0*

ISC 25 03:36:02.6±1.0**, 6°.81N**±0°.03×**73°.13W**±0°.04**, h148**^{km}±7^{km}**, n36,**σ1§**40**/68**, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BARC	Barichara	0.23	194	P	Pn	03 36 23.4	+0.4
BARC				S	Sn	03 36 38.2	-0.4
BRJC	Barrancabermej	0.63	285	P	Pn	03 36 25.2	+0.7
BRJC				S	Sn	03 36 41.8	+0.7
PAMC	Pamplona, Colo	0.67	39	P	Pn	03 36 26.4	+1.1
PAMC				S	Sn	03 36 43.1	+0.5
RUSC	La Rusia	0.92	177	P	Pn	03 36 27.4	+0.3
RUSC				S	Sn	03 36 45.1	-0.6
PTBC	PUERTO BERRIO,	1.35	258	P	Pn	03 36 30.0	-0.5
PTBC				S	Sn	03 36 50.8	-1.0
TAMC	Tame, Arauca	1.38	106	P	Pn	03 36 31.8	+1.0
TAMC				S	Sn	03 36 51.1	-1.3
OCAC	Ocana	1.43	352	P	Pn	03 36 31.8	+0.3
OCAC				S	Sn	03 36 53.9	+0.3
SPBC	San Pablo de B	1.49	219	P	Pn	03 36 32.5	+0.5
SPBC				S	Sn	03 36 54.2	-0.3
NORC	Norcasia	2.13	234	P	Pn	03 36 39.8	+0.6
NORC				S	Sn	03 37 07.3	-0.1

CHIC	Chingaza	2.25	196	P	Pn	03 36 41.5	+0.5
CHIC				S	Sn	03 37 10.4	-0.2
ROSC	El Rosal	2.29	211	P	Pn	03 36 42.5	+1.1
	41nm,0.3s,baz=56,slow=7.3,SNR=37						
ROSC				S	Sn	03 37 11.5	+0.1
	61nm,0.3s,baz=94,slow=19,SNR=10						
ROSC	El Rosal	2.29	211	P	Pn	03 36 43.3	+1.8
ROSC				S	Sn	03 37 11.9	+0.5
CVER	Cruz Verde, Cu	2.46	203	P	Pn	03 36 44.3	+0.6
CVER				S	Sn	03 37 15.5	+0.2
MEDEC	Medelln, Ant	2.50	258	P	Pn	03 36 45.7	+1.8
MEDEC				S	Sn	03 37 16.0	+0.4
UREC	San Jos de Ur	2.56	291	P	Pn	03 36 44.5	+0.1
UREC				S	Sn	03 37 15.8	-0.9
GUY2C	Guyana, Caldas	2.73	235	P	Pn	03 36 47.9	+1.0
GUY2C				S	Sn	03 37 19.8	-1.3
VILC	Villavicencio,	2.74	192	P	Pn	03 36 46.9	+0.1
VILC				S	Sn	03 37 20.7	-0.2
CBOC	Ciudad Bolivar	3.02	252	P	Pn	03 36 51.6	+1.3
CBOC				S	Sn	03 37 27.7	+0.6
SDV	Santo Domingo	3.22	50	P	Pn	03 36 53.3	+0.4
	46nm,0.3s,baz=233,slow=10,SNR=26						
SDV				S	Sn	03 37 30.9	-0.8
	69nm,0.4s,baz=266,slow=19,SNR=18						
SDV	Santo Domingo	3.22	50	P	Pn	03 36 52.9	+0.1
SDV				S	Sn	03 37 30.4	-1.3
ARGC	Ariguani, Magd	3.22	340	P	Pn	03 36 54.0	+1.3
ARGC				S	Sn	03 37 32.6	+1.0
PRAC	Prado	3.54	210	P	Pn	03 36 57.1	+0.2
PRAC				S	Sn	03 37 38.8	-0.2
ORTC	Ortega, Tolima	3.57	216	P	Pn	03 36 58.1	+0.8
ORTC				S	Sn	03 37 39.0	-0.8
APAC	Apartado, Choc	3.59	288	P	Pn	03 36 58.0	+0.5
APAC				S	Sn	03 37 39.7	-0.3
SJCC	San Jacinto, C	3.68	327	P	Pn	03 36 57.6	-1.0
SJCC				S	Sn	03 37 39.3	-2.9
LCBC	Los crdobas,	3.80	303	P	Pn	03 36 58.9	-1.3
LCBC				S	Sn	03 37 46.4	+1.5
PIZC	Pizarro, Choco	4.59	247	P	Pn	03 37 11.8	+1.2
PIZC				S	Sn	03 38 04.4	+0.8
MACC	Macarena, Meta	4.69	189	P	Pn	03 37 10.5	-1.5
MACC				S	Sn	03 38 01.8	-4.2
URIC	Uribia, Colomb	4.99	13	P	Pn	03 37 14.1	-1.7
	24nm,1.4s						
URIC				S	Sn	03 38 09.1	-3.8
	24nm,1.4s						
URIC				AML	AML		
GARC	Garzon, Huila	5.17	207	P	Pn	03 37 17.2	-1.2
GARC				S	Sn	03 38 13.0	-4.6
GARC				AML	AML		
POPC	Popayan, Colom	5.53	220	P	Pn	03 37 23.0	-0.2
	6.9nm,0.5s						
POPC				S	Sn	03 38 24.9	-1.2
	6.9nm,0.5s						
POPC				AML	AML		
BBAC	Balboa, Cauca	6.29	221	P	Pn	03 37 34.4	+1.1
BBAC				S	Sn	03 38 40.9	-3.4
BCIP	Isla Barro Col	7.04	290	P	Pn	03 37 41.6	-1.7
CASC	Dorado de Casc	7.85	213	P	Pn	03 37 55.0	+0.8
YKA	Yellowknife Ar	63.27	340	P	P	03 46 14.7	-0.4
	0.4nm,0.7s,baz=131,slow=6.1,SNR=2.0						
	0.4nm,0.7s						
WRA	Warramunga Arr	150.33	241	PKPbc	PKPdf	03 55 33.7	+1.8
	0.2nm,0.4s,baz=105,slow=2.6,SNR=5.7						

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*IDC **25** 03:54:49.8±0.5, 60.°18S×26.°54W, h0km, mb4.2/11, mbtmp4.3/13, ML4.7/2, MS3.7/14, Error ellipse: s-maj=20.4km s-min=13.4km az=57.0*

*MOS **25** 03:54:50.0±1.2, 60.°28S×26.°43W, h10km, mb5.0/6, Error ellipse: s-maj=32.6km s-min=12.3km az=111.9*

*NEIC **25** 03:54:51.4±1.7, 60.°1S±0.°1×26.°2W±0.°1, h10km±1km, mb5.0/50, Error ellipse: s-maj=20.2km s-min=8.2km az=196.0*

*GFZ **25** 03:54:56.6±0.3, 61°S±4°×2°7W±°, h58km±2km, M5.2/40, mb4.9/40, Error ellipse: s-maj=10.1km s-min=4.7km az=41.6, confirmed*

ISC 25 03:54:56.4±0.3**, 60.°55S**±0.°06×**26.°49W**±0.°06**, h50km, n185,** σ1.s**94**/166**, mb5.0**/61**, MS3.8**/13**, 3C-6D, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HOPE	Hope Point	8.28	315	P	Pn	03 56 57.1	+3.4
HOPE	Hope Point	8.28	315	P	Pn	03 56 57.1	+3.4
	comp=Z,124nm,1.5s						
ORCD	Orcadas	8.97	261	Pn	Pn	03 57 07.6	+4.6
VNA1	Neumayer--Stat	12.55	151	⇓P	Pn	03 57 50.5	-1.4
	comp=Z,29nm,0.3s						
VNA3	Neumayer Olymp	12.67	155	⇓P	Pn	03 57 52.0	-1.6
	comp=Z,24nm,0.3s						
VNA3				⇑S	Sn	04 00 01.5	-11
	comp=N,20nm,0.4s						
VNA3	Neumayer Olymp	12.67	155	P	Pn	03 57 52.5	-1.2
	comp=Z,53nm,0.9s						
VNA2	Neumayer--Watz	12.95	151	⇓P	Pn	03 57 55.7	-1.7
	comp=Z,4.9nm,0.3s,baz=305,slow=15						
VNA2				⇑S	Sn	04 00 09.8	-10
	comp=N,14nm,0.4s,baz=307,slow=18						
VNA2	Neumayer--Watz	12.95	151	P	Pn	03 57 57.3	-0.1
	comp=Z,14nm,0.6s						
ESPZ	Base Esperanza	14.54	246	P	P	03 58 24.1	-0.2
SNAA	Sanae	14.55	150	⇓P	Pn	03 58 18.7	-0.4
	comp=Z,244nm,0.5s						
SNAA				⇓S	Sn	04 00 49.9	-8.8
	comp=N,246nm,0.6s						
SNAA	Sanae	14.55	150	Pn	Pn	03 58 17.5	-1.6
	comp=N,2.2nm,0.3s,baz=307,slow=13,SNR=23						
SNAA				Sn	Sn	04 00 46.7	-12
	comp=N,1.0nm,0.3s,baz=286,slow=18,SNR=9.2						
SNAA				LR	LR	04 03 00.1	
	comp=N,208nm,18.9s,baz=332,slow=33						
	comp=N,10nm,0.5s						
SNAA				AML	AML		
SNAA	Sanae	14.55	150	*i* P	Pn	03 58 17.7	-1.3
SNAA				pmax	pmax		
	comp=Z,7.0nm,0.5s						
SNAA	Sanae	14.55	150		Pn	03 58 17.8	-1.3
SNAA	Sanae	14.55	150	P	Pn	03 58 17.4	-1.6
	comp=Z,14nm,0.6s						
TROLL	Troll, Antarti	16.13	147	⇓P	Pn	03 58 39.6	+0.1
	comp=Z,208nm,0.5s						
TROLL				⇑S	Sn	04 01 27.5	-10
	comp=N,314nm,0.7s						
PMSA	Palmer Station	17.57	240	P	P	03 58 59.6	+1.8
	comp=N,4.2nm,0.3s,baz=83,slow=8.5,SNR=8.4						
	comp=N,19nm,0.9s						
PMSA				AML	AML		
PMSA	Palmer Station	17.57	240	P	P	03 59 03.8	+6.0
PMSA	Palmer Station	17.57	240	P	Pn	03 58 53.5	-3.8
	comp=Z,70nm,1.3s						
BELA	Belgrano 2	17.61	186	P	P	03 59 01.7	+3.5
NVL	N'lazarevskaya	18.43	139	*e*P	Pn	03 59 08.9	+1.2
NVL				*e*S	S	04 02 36.4	+1.8
NVL				pmax	pmax		
	comp=Z,6.0nm,0.8s						
EFI	East Falkland	19.54	283	*i* P	Pn	03 59 21.2	0.0
EFI				pmax	pmax		
	comp=Z,175nm,2.3s						
EFI	East Falkland	19.54	283	P	Pn	03 59 21.0	-0.1
EFI				IAmb	IAmb	03 59 27.1	
	comp=Z,110nm,1.4s						
EFI	East Falkland	19.54	283	P	Pn	03 59 20.1	-1.1
	comp=Z,93nm,1.4s						
MG02	Cerro Sombrero	24.35	269		P	04 00 08.9	-0.3
MG02	Cerro Sombrero	24.35	269	P	P	04 00 08.9	-0.3
	comp=Z,357nm,1.6s						
GO10	Punta Arenas	25.03	267	P	P	04 00 13.3	-2.2
	comp=Z,183nm,1.7s						
QSPA	South Pole Qui	29.69	180	P	P	04 01 00.0	+2.8
	comp=Z,1.6nm,0.7s,baz=82,slow=0.5,SNR=12						
	comp=Z,1.6nm,0.7s						
QSPA	South Pole Qui	29.69	180	P	P	04 01 00.9	+3.7
LL02	Futaleuf	32.13	282	P	P	04 01 16.1	-2.6
GO07	Milladeo Hill,	33.07	280	P	P	04 01 25.5	-1.4
	comp=Z,35nm,1.4s						
PLCA	Paso Flores	33.39	286	P	P	04 01 27.8	-2.1
	comp=Z,4.2nm,0.7s,baz=143,slow=10,SNR=23						
PLCA				LR	LR	04 14 02.5	
	comp=Z,176nm,18.8s,baz=182,slow=35						
	comp=Z,4.2nm,0.7s						
PLCA	Paso Flores	33.39	286	*e*P	P	04 01 28.4	-1.5
PLCA				pmax	pmax		
	comp=Z,4.0nm,0.7s						
PLCA	Paso Flores	33.39	286		P	04 01 29.3	-0.6
PLCA				IAmb	IAmb	04 01 29.7	
	comp=Z,12nm,1.3s						
PLCA	Paso Flores	33.39	286	P	P	04 01 28.7	-1.2
	comp=Z,11nm,1.2s						
LL06	Loncomilla	33.73	281	P	P	04 01 28.7	-4.0
	comp=Z,192nm,0.9s						
PLTB	Pedras Altas	33.89	316	P	P	04 01 33.4	-0.9
	comp=Z,11nm,0.9s						
GO06	Curarrehue	34.73	286		P	04 01 40.0	-1.6
GO06	Curarrehue	34.73	286	P	P	04 01 39.8	-1.7
	comp=Z,8.0nm,0.8s						
GO06				pP	pP	04 01 55.3	+1.3
CPSB	Cacapava Do Su	35.08	317	P	P	04 01 42.6	-1.8
	comp=Z,6.1nm,2.4s						
LR03	Panguipulli	35.11	285	P	P	04 01 43.8	-0.8
LR03				IAmb	IAmb	04 01 45.0	
	comp=Z,30nm,1.2s						
MAW	Mawson	36.38	140	P	P	04 01 57.5	+2.3
	comp=Z,1.3nm,0.8s,baz=242,slow=17,SNR=3.5						
MAW				LR	LR	04 15 42.2	
	comp=Z,139nm,18.8s,baz=230,slow=34						
	comp=Z,1.3nm,0.8s						
MAW	Mawson	36.38	140	P	P	04 01 57.5	+2.3
MAW				pmax	pmax		
	comp=Z,3.0nm,2.0s						
MAW	Mawson	36.38	140	P	P	04 01 56.5	+1.3
BI02	San Fabin de	36.98	290	P	P	04 02 00.1	-0.7
	comp=Z,7.2nm,1.0s						
BI02				pP	pwP	04 02 13.9	-1.6
ML02	Panimavida	37.78	290	P	P	04 02 05.9	-1.5
ML02				IAmb	IAmb	04 02 07.9	
	comp=Z,17nm,0.7s						
ML02	Panimavida	37.78	290	P	P	04 02 05.9	-1.5
	comp=Z,27nm,0.9s						
BI05	Punta Hualpn	37.81	288	P	P	04 02 07.1	-0.5
BO02	Sierra Bellavi	38.29	292		P	04 02 10.6	-1.3
BO02				IAmb	IAmb	04 02 12.2	
	comp=Z,13nm,0.7s						
BO02	Sierra Bellavi	38.29	292	P	P	04 02 10.9	-0.9
	comp=Z,19nm,0.7s						
GO05	Hualane	38.64	290		P	04 02 13.7	-1.0
GO05				IAmb	IAmb	04 02 16.1	
	comp=Z,43nm,0.9s						
GO05	Hualane	38.64	290	P	P	04 02 13.5	-1.2
	comp=Z,50nm,0.9s						
BO01	Tunca	38.76	292		P	04 02 14.6	-1.1
BO01				IAmb	IAmb	04 02 15.6	
	comp=Z,27nm,0.8s						
BO01	Tunca	38.76	292	P	P	04 02 14.8	-0.9
	comp=Z,44nm,0.9s						
BO04	La Punta	38.88	293		P	04 02 15.7	-1.1
BO04				IAmb	IAmb	04 02 17.5	
	comp=Z,46nm,0.8s						
MT13	San Alfonso	38.93	293	P	P	04 02 16.9	-0.4
MT13				IAmb	IAmb	04 02 23.1	
	comp=Z,13nm,0.6s						
MT08	Bocatoma Ro	39.06	294	P	P	04 02 18.0	-0.5
MT08				IAmb	IAmb	04 02 20.1	
	comp=Z,30nm,0.7s						
BO03	Pichilemu	39.08	291	P	P	04 02 17.7	-0.6
	comp=Z,67nm,1.1s						
MT09	Talagante	39.23	293		P	04 02 18.8	-1.0
MT03	Universidad Ad	39.24	293	P	P	04 02 19.3	-0.6
MT01	Popeta	39.27	292		P	04 02 19.0	-1.0
MT01				IAmb	IAmb	04 02 19.8	
	comp=Z,40nm,0.7s						
MT16	CCHEN	39.31	293	P	P	04 02 20.2	-0.2
MT05	Renca	39.43	293	P	P	04 02 21.5	+0.1
VA05	Santo Domingo	39.61	292	P	P	04 02 22.4	-0.4
	comp=Z,78nm,0.8s						
PEL	Peldehue	39.62	293	P	P	04 02 22.9	0.0
PEL				pmax	pmax		
	comp=Z,88nm,0.8s						
PEL	Peldehue	39.62	293	P	P	04 02 22.9	0.0
PEL	Peldehue	39.62	293	P	P	04 02 22.9	0.0
	comp=Z,147nm,0.8s						
MT02	Curacav	39.73	293	IAmb	IAmb	04 02 24.5	
	comp=Z,39nm,1.0s						
VA03	San Esteban	39.88	294	P	P	04 02 25.4	+0.3
	comp=Z,76nm,1.0s						
ZON	Zonda	40.08	297	P	P	04 02 26.2	-0.5
ZON	Zonda	40.08	297	IAmb	IAmb	04 02 27.2	
	comp=Z,42nm,1.4s						
ZON	Zonda	40.08	297	P	P	04 02 26.2	-0.5
	comp=E,14nm,1.2s						
ZON				pP	pwP	04 02 40.6	-1.7
CPUP	Villa Florida	40.16	314	P	P	04 02 24.1	-3.2
	comp=E,2.4nm,0.6s,baz=153,slow=10,SNR=13						
CPUP				LR	LR	04 18 48.7	
	comp=E,103nm,18.7s,baz=227,slow=36						
	comp=E,2.4nm,0.6s						
CPUP	Villa Florida	40.16	314	P	P	04 02 25.0	-2.4
VA01	Torpederas	40.16	293	P	P	04 02 26.2	-1.1
	comp=Z,33nm,0.8s						
CO04	Los Peladeros	40.68	294		P	04 02 31.7	-0.3
CO04				IAmb	IAmb	04 02 33.5	
	comp=Z,30nm,0.5s						
CO04	Los Peladeros	40.68	294	P	P	04 02 31.8	-0.1
CO02	Combarbal	41.40	295	P	P	04 02 37.5	-0.3
	comp=Z,60nm,0.5s						
CO03	El Pedregal	41.57	295	P	P	04 02 36.5	-2.5
	comp=Z,21nm,1.2s						
BSCB	Bom Sucesso	41.57	334	P	P	04 02 36.7	-2.5
SUR	Sutherland	41.68	69	LR	LR	04 15 53.4	
	comp=Z,80nm,18.8s,baz=188,slow=30						
CO01	Juntas del Tor	42.04	297	IAmb	IAmb	04 02 44.6	
	comp=Z,23nm,0.8s						
CO01	Juntas del Tor	42.04	297	P	P	04 02 43.6	+0.5
	comp=Z,31nm,1.0s						
VNDA	Vanda	42.08	183	P	P	04 02 46.0	+3.4
	comp=Z,0.4nm,0.7s,baz=144,slow=8.7,SNR=2.7						
	comp=Z,0.4nm,0.7s						
VNDA	Vanda	42.08	183	P	P	04 02 46.0	+3.4
VNDA				pmax	pmax		
	comp=Z,3.0nm,1.2s						
CO06	Fray Jorge	42.13	294		P	04 02 43.1	-0.5
CO06				IAmb	IAmb	04 02 44.3	
	comp=Z,35nm,1.4s						
GO04	Tololo Observa	42.19	296	IAmb	IAmb	04 02 44.4	
	comp=Z,34nm,1.1s						
BSFB	Barra de Sao F	42.92	340	P	P	04 02 49.2	-0.8
	comp=Z,15nm,2.9s						
AC05	El Transito	43.10	297		P	04 02 51.2	-0.3
AC05	El Transito	43.10	297	P	P	04 02 51.3	-0.3
	comp=Z,88nm,0.8s						
AC04	Llanos de Chal	44.00	297	P	P	04 02 58.2	-0.5
	comp=Z,47nm,1.0s						
PMNB	Patos De Minas	44.32	332	P	P	04 02 58.8	-2.6
AC02	Maricunga	44.34	300	P	P	04 03 01.7	-0.3
	comp=Z,23nm,0.8s						
AC06	Mina Casimiro	44.42	298	IAmb	IAmb	04 03 01.8	
	comp=Z,12nm,0.8s						
AQDB	Aquidauana	45.03	320	P	P	04 03 03.9	-3.0
	comp=Z,5.0nm,1.8s						
H04S2	CROZET ISLANDS	45.52	110	T	T	04 53 45.0	
	baz=224						
H04S3	CROZET ISLANDS	45.53	110	T	T	04 53 46.3	
	baz=224,slow=74						
H04S1	CROZET ISLANDS	45.54	110	T	T	04 53 46.2	
	baz=224,slow=74						
C2SB	Chapadao do Su	45.77	324	P	P	04 03 10.7	-2.0
BOSA	Boshof	46.90	71	P	P	04 03 20.5	-1.3
	comp=Z,2.4nm,0.7s,baz=221,slow=8.1,SNR=6.6						
BOSA				LR	LR	04 18 05.9	
	comp=Z,75nm,18.8s,baz=214,slow=30						
	comp=Z,2.4nm,0.7s						
BOSA	Boshof	46.90	71	P	P	04 03 19.9	-1.9
BOSA	Boshof	46.90	71	P	P	04 03 21.0	-0.8
	comp=Z,10nm,1.9s						
BDFB	Brasilia	47.48	331	P	P	04 03 23.9	-2.5
	comp=Z,1.9nm,0.5s,baz=163,slow=11,SNR=5.1						
BDFB				LR	LR	04 20 44.1	
	comp=Z,80nm,20.3s,baz=143,slow=33						
	comp=Z,1.9nm,0.5s						
BDFB	Brasilia	47.48	331	P	P	04 03 23.9	-2.5
BDFB				pmax	pmax		
	comp=Z,24nm,1.8s						
BDFB	Brasilia	47.48	331	IAmb	IAmb	04 04 30.0	
	comp=Z,24nm,1.8s						
PB06	IPOC Station P	48.17	302	P	P	04 03 29.5	-2.2
	comp=Z,19nm,0.9s						
PB05	IPOC Station P	48.30	301	IAmb	IAmb	04 03 32.4	
	comp=Z,16nm,1.0s						
PB05	IPOC Station P	48.30	301	P	P	04 03 30.6	-2.1
	comp=Z,21nm,1.1s						
PB03	IPOC Station P	48.83	302	IAmb	IAmb	04 03 37.2	
	comp=Z,12nm,1.0s						
PB03	IPOC Station P	48.83	302	P	P	04 03 36.1	-0.7
	comp=Z,12nm,1.0s						
PB09	IPOC Station P	48.84	303	IAmb	IAmb	04 03 39.0	
	comp=Z,26nm,1.3s						
PB09	IPOC Station P	48.84	303	P	P	04 03 37.1	+0.3
	comp=Z,18nm,1.2s						
PB07	IPOC Station P	49.17	302	IAmb	IAmb	04 03 40.0	
	comp=Z,15nm,1.1s						
PB07	IPOC Station P	49.17	302	P	P	04 03 38.0	-1.4
	comp=Z,14nm,0.8s						
PB02	IPOC Station P	49.54	303	IAmb	IAmb	04 03 42.9	
	comp=Z,12nm,0.9s						
PB02	IPOC Station P	49.54	303	P	P	04 03 42.0	-0.2
	comp=Z,15nm,1.1s						
LBTB	Lobatse	50.13	69	LR	LR	04 21 28.0	
	comp=Z,97nm,18.1s,baz=222,slow=32						
PB08	IPOC Station P	50.28	304	P	P	04 03 47.9	-0.2
	comp=Z,8.1nm,1.0s						
GO01	Chusmiza	50.72	304	P	P	04 03 50.7	-0.8
	comp=Z,10nm,0.9s						
PB11	IPOC Station P	50.83	304	IAmb	IAmb	04 03 52.4	
	comp=Z,15nm,1.1s						
PB11	IPOC Station P	50.83	304	P	P	04 03 51.3	-0.7
	comp=Z,14nm,1.6s						
POGA	Pongola	51.03	76	P	P	04 03 53.9	+0.6
PSGCX	Pisagua	51.17	303	P	P	04 03 53.6	-0.9
	comp=Z,11nm,1.9s						
TSUM	Tsumeb	51.70	57	LR	LR	04 21 37.9	
	comp=Z,42nm,20.0s,baz=174,slow=31						
TSUM	Tsumeb	51.70	57	P	P	04 03 59.8	+1.3
	comp=Z,4.4nm,2.0s						
PB16	IPOC Station P	52.05	305	P	P	04 04 00.3	-1.3
	comp=Z,4.8nm,1.0s						
H10S2	ASCENSION HYDR	52.24	15	T	T	05 00 53.8	
	baz=186						
H10S3	ASCENSION HYDR	52.25	15	T	T	05 01 00.8	
	baz=34						
LPAZ	La Paz	53.35	307	P	P	04 04 10.0	-1.2
	comp=Z,3.1nm,0.4s,baz=135,slow=4.7,SNR=21						
LPAZ				LR	LR	04 28 48.7	
	comp=Z,52nm,18.8s,baz=162,slow=38						
	comp=Z,3.1nm,0.4s						
LPAZ	La Paz	53.35	307	*e*P	P	04 04 10.3	-0.9
LPAZ				pmax	pmax		
	comp=Z,3.0nm,0.4s						
LPAZ	La Paz	53.35	307	P	P	04 04 10.5	-0.8
	comp=Z,9.2nm,1.8s						
H10N1	ASCENSION HYDR	53.36	15	T	T	05 02 19.9	
	baz=186						
H10N3	ASCENSION HYDR	53.36	15	T	T	05 02 12.2	
	baz=186						
H10N2	ASCENSION HYDR	53.38	15	T	T	05 02 13.6	
	baz=186						
CLDB	Colider	54.11	324	P	P	04 04 14.9	-1.3
	comp=Z,2.8nm,1.0s						
MATP	Matopo	55.42	69	LR	LR	04 24 42.5	
	comp=Z,69nm,18.2s,baz=343,slow=32						
NNA	Nana	60.80	300	*i* P	P	04 05 02.1	-1.1
NNA				pmax	pmax		
	comp=Z,24nm,1.0s						
MDP	Montagnes des	68.59	332	LR	LR	04 35 03.8	
	comp=Z,78nm,18.9s,baz=210,slow=35						
DBIC	Dimbokro	69.15	23	P	P	04 05 55.6	-1.7
	comp=Z,1.9nm,0.5s,baz=188,slow=7.7,SNR=6.8						
	comp=Z,1.9nm,0.5s						
DBIC	Dimbokro	69.15	23	P	P	04 05 56.0	-1.3
DBIC				pmax	pmax		
	comp=Z,34nm,1.7s						
DBIC	Dimbokro	69.15	23	P	P	04 05 56.0	-1.3
DBIC				IAmb	IAmb	04 06 00.5	
	comp=Z,34nm,1.6s						
OTAV	Otavalo	72.49	304	P	P	04 06 18.1	-0.1
OTAV	Otavalo	72.49	304	P	P	04 06 18.1	-0.1
	comp=Z,7.3nm,1.4s						
MBAR	Mbarara	73.94	61	LR	LR	04 35 43.2	
	comp=Z,58nm,18.3s,baz=219,slow=33						
ROSC	El Rosal	75.07	310	P	P	04 06 33.9	+0.7
	comp=Z,6.0nm,0.4s,baz=156,slow=20,SNR=3.1						
ROSC				LR	LR	04 42 42.3	
	comp=Z,41nm,18.9s,baz=56,slow=38						
	comp=Z,6.0nm,0.4s						
ROSC	El Rosal	75.07	310	P	P	04 06 35.0	+1.8
ROSC				IAmb	IAmb	04 07 07.0	
	comp=Z,34nm,2.0s						
TORD	Torodi Ar. Bea	76.83	28	P	P	04 06 42.2	-0.5
	comp=Z,20nm,0.5s,baz=196,slow=6.5,SNR=235						
ASAR	Alice Springs	94.58	162	P	P	04 08 13.7	+2.2
	comp=Z,0.7nm,1.0s,baz=177,slow=4.8,SNR=2.8						
	comp=Z,0.7nm,1.0s						
HYB	Hyderabad	112.40	94	*e*PKiKP	PKiKP	04 13 27.2	+0.6
HYB				*e*SKSac	SKSac	04 20 09.6	+4.4
HYB				*e*SKKSac	SKKSac	04 21 13.1	+2.5
CLL	Collm	115.94	26	*e*(PKiKP)	PKiKP	04 13 36.0	+3.8
CLL				*e*x	x	04 14 11.0	
PDAR	Pinedale Array	122.97	299	PKP	PKPdf	04 13 45.8	-0.6
	comp=Z,0.4nm,0.5s,baz=133,slow=3.0,SNR=7.6						
CMAR	Chiang Mai Arr	123.06	113	PKP	PKiKP	04 13 48.6	+1.4
	comp=Z,1.1nm,0.4s,baz=181,slow=4.7,SNR=1.7						
NOA	NORSAR Array B	124.69	21	PKP	PKiKP	04 13 48.7	-0.4
	comp=Z,1.0nm,0.9s,baz=198,slow=1.8,SNR=2.3						
OBN	Obninsk	125.66	39	*e*PKIKP	PKiKP	04 13 51.0	-0.1
OBN				*e*		04 15 44.1	
OBN				*e*PPP	PPP	04 18 20.7	
OBN				pmax	pmax		
	comp=Z,3.0nm,0.8s						
FINES	FINESS Array B	128.18	29	PKP	PKiKP	04 13 55.8	-0.2
	comp=Z,4.3nm,0.7s,baz=182,slow=4.2,SNR=12						
PZH	PanZhiHua	131.29	110	PKP	PKiKP	04 14 02.8	-0.8
ARCES	ARCESS Array B	134.98	23	PKP	PKiKP	04 14 08.5	-1.0
	comp=Z,2.7nm,0.7s,baz=218,slow=2.2,SNR=2.7						
BVAR	Borovoye Array	136.77	61	PKP	PKiKP	04 14 12.4	-1.2
	comp=Z,1.2nm,0.9s,baz=325,slow=1.8,SNR=3.7						
MKAR	Makanchi Array	137.81	76	PKP	PKPdf	04 14 13.2	-0.9
	comp=Z,0.6nm,0.8s,baz=169,slow=1.5,SNR=3.3						
WMQ	Urumqi	138.28	83	*e*PKP	PKiKP	04 14 16.4	-0.7
KURBB	Kurchatov Arra	138.74	69	PKP	PKPdf	04 14 14.1	-1.5
	comp=Z,0.3nm,0.6s,baz=310,slow=2.3,SNR=1.7						
KURK	Kurchatov	138.85	69	PKIKP	PKPdf	04 14 14.1	-1.6
YKA	Yellowknife Ar	139.68	314	PKP	PKPdf	04 14 17.1	+0.3
	comp=Z,1.4nm,0.5s,baz=132,slow=2.2,SNR=17						
YKA	Yellowknife Ar	139.68	314	*e*PKIKP	PKiKP	04 14 17.6	-1.6
YKA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
XAN	Xi'an	140.95	112	*e*PKP	PKPdf	04 14 19.6	-0.6
NJ2	Nanjing	143.54	126	*e*P	PKPdf	04 14 25.8	+1.0
NJ2				pmax	pmax		
	comp=Z,6.0nm,0.5s						
ZALV	Zalesovo Beam	143.84	69	PKhKP	PKPpre	04 14 21.9	
	comp=Z,0.7nm,0.4s,baz=248,slow=3.8,SNR=3.3						
P33M	Teslin, Yukon	145.35	303		PKPbc	04 14 26.6	-0.6
P32M	Atlin	145.38	301		PKPbc	04 14 26.7	-0.5
TIA	Tai'an	146.41	120	PKPbc	PKiKP	04 14 39.6	+5.6
TIA				pPKP	pPKPdf	04 14 42.9	-0.2
BTO2	Baotou	146.82	107	*e*PKPbc	PKPab	04 14 33.3	-0.4
BTO2				pmax	pmax		
	comp=Z,16nm,0.8s						
BTO2				pmax	pmax		
	comp=Z,340nm,6.2s						
HHC	Hu-ho-hao-te	147.70	108	*e*P	PKPdf	04 14 32.6	+0.8
H31M	Peel River	148.71	311		PKPbc	04 14 35.6	-0.8
INK	Inuvik	149.42	316	PKP2	PKPbc	04 14 37.2	-0.8
INK	Inuvik	149.42	316		PKPbc	04 14 37.2	-0.8
SONM	Songino Array	150.34	94	PKPbc	PKiKP	04 14 41.8	0.0
	comp=Z,3.4nm,0.8s,baz=232,slow=1.6,SNR=12						
SONM	Songino Array	150.34	94	PKIKP	PKiKP	04 14 41.6	-0.2
SONM	Songino Array	150.34	94		PKiKP	04 14 41.6	-0.2
ZAK	Zakamensk	150.48	87	*e*PKIKP	PKiKP	04 14 41.5	-0.5
ZAK				pmax	pmax		
	comp=Z,7.0nm,1.1s						
KSRS	Korea Array	151.78	133	PKPbc	PKiKP	04 14 46.0	+1.0
	comp=Z,0.8nm,0.3s,baz=207,slow=5.2,SNR=4.5						
KSRS	Korea Array	151.78	133	PKIKP	PKiKP	04 14 46.0	+1.0
D27M	Malcolm River	152.28	316	PKPbc	PKiKP	04 14 45.3	+0.2
J25K	Salcha River,	152.54	305		PKiKP	04 14 45.9	+0.1
BMAR	Burnt Mountain	153.10	311	PKPbc	PKiKP	04 14 47.2	+0.4
ILAR	Eielson Array	153.21	305	PKPbc	PKPbc	04 14 46.3	-0.6
	comp=Z,1.5nm,0.6s,baz=100,slow=0.2,SNR=24						
ILAR	Eielson Array	153.21	305		PKiKP	04 14 46.9	-0.2

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*TEH **25** 04:20:56.2, 35.°06N×45.°14E, h8km±38km, ML3.3, Presumed earthquake*

*ISN **25** 04:21:00.0±1.1, 35.°06N×45.°14E, h8km, ML3.0, Presumed* *earthquake*

ISC 25 04:20:59.2±1.2,**35°.03N**±0°.08×**45°.17E**±0°.06,**h10km,n9, σ0ˢ.84**/11,**Iran-Iraq border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IKRK	**Kirkuk**	**0.78**	**299**	*i* P	**Pg**	**04 21 13.7**	**-0.6**
	baz=118						
IKRK				*i* S	**Sb**	**04 21 25.5**	**0.0**
IKRK				IAML		04 21 31.0	
	comp=N,813nm,0.6s						
IKRK				IAML		04 21 31.4	
	comp=E,541nm,0.5s						
IDHR	**Dehrash**	**1.05**	**108**	Pg	**Pg**	**04 21 18.1**	**-1.4**
IDHR				Sg	**Sg**	**04 21 33.9**	**+0.8**
IGHG	**Ghaleghazi**	**1.34**	**121**	Pg	**Pn**	**04 21 24.3**	**0.0**
SNJK	**Sanadaj _Korde**	**1.61**	**75**	Pg	**Pn**	**04 21 28.3**	**+0.3**
ILBA	**Ilam Banvizeh**	**1.64**	**148**	Pg	**Pn**	**04 21 28.5**	**+0.3**
MAHB	**Mahabad**	**1.79**	**14**	Pg	**Pn**	**04 21 30.6**	**+0.2**
SNQR	**Sonqor, Kerman**	**2.02**	**94**	Pn	**Pn**	**04 21 34.5**	**+0.9**
IBZA	**Bozab**	**2.28**	**103**	Pn	**Pn**	**04 21 38.3**	**+1.1**
IKFM	**Kafar-mosalman**	**2.67**	**123**	Pn	**Pn**	**04 21 43.2**	**+0.9**

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*NEIC **25** 04:31:35.7±2.4, 6°.20S±0°.03×151°.7E±0°.1, h10km±1km, mb4.3/10, Error ellipse: s-maj=20.1km s-min=3.9km az=99.0*

*IDC **25** 04:31:41.0±2.1, 6°.12S×151°.45E, h49km±20km, mb3.8/5, mbtmp4.0/6, ML2.0/1, MS3.4/10, Error ellipse: s-maj=51.7km s-min=8.9km az=123.0*

ISC 25 04:31:40.0±0.8,**6°.13S**±0°.08×**151°.5E**±0°.1,**h41km,n34, σ0ˢ.79**/28,**mb4.2**/10,**MS3.6**/7,**New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRVT	**Keravat (AS076**	**1.88**	**15**	P	**Pn**	**04 32 09.3**	**-0.3**
	625nm,0.5s,baz=340,slow=1.7,SNR=17						
KRVT				S	**Sn**	**04 32 34.4**	**+2.2**
	2μm,0.5s,baz=278,slow=22,SNR=8.6						
RABL	**Rabaul**	**2.03**	**18**		**Pn**	**04 32 11.1**	**-0.6**
PMG	**Port Moresby**	**5.41**	**233**	P	**Pn**	**04 32 58.1**	**0.0**
	3.6nm,0.3s,baz=46,slow=4.4,SNR=4.9						
PMG				S	**Sn**	**04 33 59.2**	**0.0**
	80nm,0.7s,baz=330,slow=15,SNR=7.8						
PMG				LR	LR	04 34 50.8	
	comp=Z,118nm,21.8s,baz=349,slow=35						
	14nm,0.7s						
PMG				AML	AML		
PMG	**Port Moresby**	**5.41**	**233**	Pn	**Pn**	**04 32 58.9**	**+0.7**
MANU	**Manus Island**	**5.80**	**314**	Pn	**Pn**	**04 33 03.7**	**+0.1**
HNR	**Honiara**	**8.97**	**112**	LR	LR	04 36 59.7	
	comp=Z,132nm,20.7s,baz=339,slow=35						
CTA	**Charters Tower**	**14.79**	**200**	LR	LR	04 39 56.6	
	comp=Z,97nm,21.0s,baz=28,slow=34						
SIJI	**Sorong**	**20.88**	**284**	LR	LR	04 45 30.2	
	comp=Z,69nm,20.8s,baz=81,slow=40						
DZM	**Mont Dzumac**	**21.43**	**139**	LR	LR	04 43 19.9	
	comp=Z,121nm,19.5s,baz=357,slow=32						
WR8	**Warramunga Arr**	**21.50**	**229**		**P**	**04 36 26.1**	**+0.6**
WR8				IAmb	IAmb	04 36 39.2	
	comp=Z,13nm,1.2s						
WRA	**Warramunga Arr**	**21.61**	**229**	P	**P**	**04 36 26.9**	**+0.2**
	comp=Z,3.4nm,0.5s,baz=55,slow=11,SNR=39						
	comp=Z,3.4nm,0.5s						
WRA	**Warramunga Arr**	**21.61**	**229**		**P**	**04 36 25.8**	**-1.0**
KNRA	**Kununurra**	**24.25**	**245**	P	**P**	**04 36 53.8**	**+0.4**
KNRA				IAmb	IAmb	04 37 02.0	
	comp=Z,5.3nm,0.8s						
AS31	**Alice Springs**	**24.31**	**222**		**P**	**04 36 55.2**	**+1.3**
AS31				IAmb	IAmb	04 37 00.3	
	comp=Z,2.3nm,0.8s						
ASAR	**Alice Springs**	**24.31**	**222**	P	**P**	**04 36 54.5**	**+0.6**
	comp=Z,2.3nm,0.6s,baz=52,slow=9.5,SNR=24						
	comp=Z,2.3nm,0.6s						
ASAR	**Alice Springs**	**24.31**	**222**	P	**P**	**04 36 54.7**	**+0.7**
STKA	**Stephens Creek**	**27.24**	**199**	P	**P**	**04 37 20.7**	**+0.4**
	comp=Z,1.8nm,0.7s,baz=0.0,slow=6.1,SNR=3.0						
STKA				LR	LR	04 47 26.0	
	comp=Z,49nm,18.7s,baz=186,slow=35						
	comp=Z,1.8nm,0.7s						
FITZ	**Fitzroy Crossi**	**27.91**	**242**	P	**P**	**04 37 26.2**	**-0.2**
TOLI2	**Tolitoli**	**31.52**	**282**	P	**P**	**04 37 58.4**	**-0.1**
TOLI2				IAmb	IAmb	04 37 59.5	
	comp=Z,4.0nm,0.7s						
URZ	**Urewera**	**39.52**	**148**	LR	LR	04 54 18.5	
	comp=Z,80nm,18.0s,baz=228,slow=34						
BBJI	**Bungbulang**	**43.57**	**266**	P	**P**	**04 39 39.0**	**-1.5**
KLR	**Kul'dur**	**57.77**	**345**	LR	LR	05 06 46.4	
	comp=Z,49nm,18.3s,baz=202,slow=36						
IMAR	**Indian Mountai**	**82.06**	**20**	P	**P**	**04 43 55.9**	**+0.2**
MLY	**Manley**	**82.58**	**21**	P	**P**	**04 43 58.4**	**0.0**
MLY				IAmb	IAmb	04 44 00.8	
	comp=Z,6.8nm,1.4s						
QSPA	**South Pole Qui**	**83.84**	**180**	P	**P**	**04 44 05.6**	**+0.5**
	comp=Z,0.6nm,0.7s,baz=330,slow=3.8,SNR=5.1						
	comp=Z,0.6nm,0.7s						
QSPA	**South Pole Qui**	**83.84**	**180**	P	**P**	**04 44 05.1**	**0.0**
QSPA				IAmb	IAmb	04 44 11.8	
	comp=Z,4.2nm,1.1s						
ILAR	**Eielson Array**	**83.87**	**22**	P	**P**	**04 44 04.0**	**-1.0**
	comp=Z,1.3nm,0.7s,baz=251,slow=5.5,SNR=15						
	comp=Z,1.3nm,0.7s						
ILAR	**Eielson Array**	**83.87**	**22**	P	**P**	**04 44 04.5**	**-0.5**
J25K	**Salcha River,**	**84.37**	**23**	P	**P**	**04 44 06.6**	**-1.1**
BBB	**Bella Bella**	**88.92**	**37**	LR	LR	05 15 51.2	
	comp=Z,115nm,20.4s,baz=266,slow=30						
ARTI	**Arti**	**96.80**	**326**	LR	LR	05 29 11.0	
	comp=Z,27nm,19.7s,baz=330,slow=36						
GERES	**GERESS Array B**	**124.50**	**327**	PKP	**PKPdf**	**04 50 35.3**	**+0.2**
	comp=Z,1.1nm,0.5s,baz=116,slow=3.1,SNR=6.1						
TORD	**Torodi Ar. Bea**	**149.47**	**285**	PKPbc	**PKPbc**	**04 51 25.2**	**-0.6**
	comp=Z,2.3nm,0.7s,baz=67,slow=3.0,SNR=12						
BDFB	**Brasilia**	**150.97**	**138**	PKPbc	**PKPbc**	**04 51 29.5**	**-0.1**
	comp=Z,0.9nm,0.4s,baz=163,slow=6.3,SNR=3.5						

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*IDC **25** 05:08:10.4±1.8, 16°.93S×179°.43W, h558km±19km, mb3.0/7, mbtmp3.9/9, Error ellipse: s-maj=88.4km s-min=17.2km az=151.0*

ISC 25 05:08:10.1±1.3,**16°.8S**±0°.5×**179°.5W**±0°.4,**h550km,n10, σ0ˢ.98**/10,**mb3.2**/7,**Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**2.58**	**247**	P	**P**	**05 09 23.4**	**+0.6**
	11nm,0.6s,baz=116,slow=5.7,SNR=6.2						
DZM	**Mont Dzumac**	**14.32**	**246**	P	**P**	**05 11 14.3**	**+1.6**
	2.1nm,0.5s,baz=134,slow=22,SNR=6.4						
STKA	**Stephens Creek**	**38.34**	**240**	P	**P**	**05 14 43.0**	**-1.4**
	1.0nm,0.4s,baz=75,slow=13,SNR=3.6						
	1.0nm,0.4s						
WRA	**Warramunga Arr**	**43.88**	**258**	P	**P**	**05 15 27.6**	**-0.9**
	0.5nm,0.3s,baz=91,slow=8.2,SNR=15						
	0.5nm,0.3s						
ASAR	**Alice Springs**	**44.16**	**253**	P	**P**	**05 15 30.0**	**-0.7**
	6.7nm,0.6s,baz=88,slow=8.0,SNR=53						
	6.7nm,0.6s						
NVAR	**Mina Array Bea**	**79.29**	**44**	P	**P**	**05 19 19.1**	**-0.1**
	0.4nm,0.7s,baz=221,slow=9.1,SNR=5.3						
	0.4nm,0.7s						
ILAR	**Eielson Array**	**84.99**	**13**	P	**P**	**05 19 47.2**	**0.0**
	0.3nm,0.4s,baz=226,slow=5.3,SNR=6.0						
	0.3nm,0.4s						
TXAR	**Lajitas Array**	**86.22**	**58**	P	**P**	**05 19 54.5**	**+0.5**
	0.4nm,0.8s,baz=214,slow=8.8,SNR=4.2						
	0.4nm,0.8s						
PDAR	**Pinedale Array**	**87.20**	**44**	P	**P**	**05 19 58.0**	**-0.5**
	0.2nm,0.5s,baz=256,slow=4.1,SNR=2.2						
	0.2nm,0.5s						
GERES	**GERESS Array B**	**146.24**	**344**	PKPbc	**PKPbc**	**05 26 49.6**	**+0.3**
	1.2nm,0.2s,baz=32,slow=5.3,SNR=4.3						

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*NNC **25** 05:18:59.2±0.8, 43°.13N×76°.83E, h0km, mpv2.8, Error ellipse: s-maj=5.3km s-min=2.2km az=104.0*

*KRNET **25** 05:18:59.1±0.1, 42°.99N×77°.12E, h24km, mb2.3*

*SOME **25** 05:18:59.3, 43°.03N×77°.10E, h0km*

ISC 25 05:18:58.3±0.9,**43°.02N**±0°.04×**77°.10E**±0°.03,**h15km**±7km,**n13, σ0ˢ.70**/25,**6C-8D,Lake Issyk-Kul region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TNSS	**Tian-Shan**	**0.12**	**280**	P	**Pg**	**05 19 01.9**	**-0.3**
	10nm,0.1s						
TNSS				S	**Sb**	**05 19 03.7**	**-1.5**
	30nm,0.1s						
TNSS	**Tian-Shan**	**0.12**	**280**	*e*P	**Pg**	**05 19 01.9**	**-0.3**
	10nm,0.1s						
TNSS				*e*S	**Sb**	**05 19 03.7**	**-1.5**
	30nm,0.1s						
MDOK	**Medeo**	**0.15**	**345**	Pg	**Pg**	**05 19 02.5**	**+0.1**
	26nm,0.2s						
MDOK				Lg	Lg	05 19 04.7	
	26nm,0.1s						
MDOK	**Medeo**	**0.15**	**345**	*e*P	**Pg**	**05 19 02.5**	**+0.1**
	26nm,0.2s						
MDOK				*e*S	**Sg**	**05 19 04.7**	**-0.3**
	26nm,0.1s						
KOTS	**Kotyrbulak**	**0.22**	**2**	P	**Pg**	**05 19 03.8**	**+0.5**
	8.5nm,0.1s						
KOTS				S	**Sg**	**05 19 07.0**	**+0.3**
	49nm,0.3s						
KOTS	**Kotyrbulak**	**0.22**	**2**	*e*P	**Pg**	**05 19 03.8**	**+0.5**
	8.5nm,0.1s						
KOTS				*e*S	**Sg**	**05 19 07.0**	**+0.3**
	49nm,0.3s						
ANVS	**Anan'yevo**	**0.47**	**119**	⇑*i*P	**Pg**	**05 19 08.0**	**+0.2**
ANVS				⇑*i*S	**Sg**	**05 19 14.4**	**+0.2**
KDJ	**Kajisay**	**0.89**	**176**	⇑*i*P	**Pb**	**05 19 15.5**	**0.0**
KDJ				⇑*i*S	**Sb**	**05 19 27.2**	**0.0**
BOOM	**Boomskoye usch**	**1.00**	**239**	⇑*i*P	**Pn**	**05 19 17.9**	**-0.1**
BOOM				⇑*i*S	**Sg**	**05 19 31.4**	**+0.5**
PRZ	**Przheval'sk**	**1.09**	**119**	⇓*i*P	**Pn**	**05 19 19.0**	**-0.2**
PRZ				⇓*i*S	**Sn**	**05 19 33.3**	**-0.9**
TKM2	**Tokmak 2**	**1.11**	**266**	⇓*i*P	**Pg**	**05 19 20.0**	**+0.3**
TKM2				⇓*i*S	**Sg**	**05 19 35.0**	**+0.8**
TARG	**Taragay, Kyrgy**	**1.39**	**158**	⇓*i*P	**Pb**	**05 19 24.2**	**+0.1**
TARG				⇓*i*S	**Sb**	**05 19 42.3**	**+0.5**
USP	**Ospenovka**	**1.92**	**278**	⇓*i*P	**Pb**	**05 19 33.5**	**+0.5**
USP				⇓*i*S	**Sb**	**05 19 58.4**	**+1.5**

IDC 25 05:46:58.3±1.3,**51°.74N**×**82°.57E,h0km,mbtmp2.5**/2,**ML2.0**/2,**Error ellipse: s-maj=19.0km s-min=10.0km az=121.0,Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
I46RU	**ZALESOVO INFRA**	**2.60**	**31**	I	I	06 03 20.0	
	baz=207,slow=325,SNR=1.6						
ZALV	**Zalesovo Beam**	**2.60**	**31**	Pn	Pn	05 47 42.4	+0.9
	0.4nm,0.3s,baz=216,slow=15,SNR=6.0						
ZALV				Pg	Pb	05 47 45.8	+0.2
	0.6nm,0.3s,baz=216,slow=16,SNR=7.6						
ZALV				Lg	Lg	05 48 18.9	
	0.7nm,0.3s,baz=214,slow=25,SNR=5.6						
	2.0nm,0.4s						
ZALV				AML	AML		
KURBB	**Kurchatov Arra**	**2.78**	**248**	Pg	Pg	05 47 51.1	-0.3
	baz=66,slow=19						
KURBB				Lg	Lg	05 48 24.5	
	0.2nm,0.3s,baz=69,slow=33,SNR=5.6						
MKAR	**Makanchi Array**	**4.96**	**182**	Pn	Pn	05 48 16.2	+2.2
	0.3nm,0.3s,baz=7.5,slow=11,SNR=6.4						
MKAR				Lg	Lg	05 49 32.1	
	0.3nm,0.3s,baz=9.9,slow=29,SNR=7.2						
	0.3nm,0.4s						
MKAR				AML	AML		

IDC 25 05:51:36.8±2.2,**6°.44S**×**151°.93E,h0km,mb4.0**/2,**mbtmp4.2**/4,**ML2.2**/1,**MS3.5**/7,**Error ellipse: s-maj=52.1km s-min=14.5km az=116.0,New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KRVT	**Keravat (AS076**	**2.12**	**3**	Pn	Pn	05 52 11.8	-1.7
	338nm,0.3s,baz=334,slow=8.7,SNR=10						
KRVT				Sn	Sn	05 52 40.4	-0.3
	192nm,0.3s,baz=262,slow=20,SNR=14						
KRVT				LR	LR	05 52 42.1	
	comp=Z,496nm,19.9s,baz=214,slow=31						
PMG	**Port Moresby**	**5.57**	**238**	Pn	Pn	05 53 01.4	+0.4
	4.2nm,0.3s,baz=24,slow=14,SNR=5.1						
PMG				Sn	Sn	05 54 05.0	-0.7
	7.7nm,0.3s,baz=327,slow=15,SNR=7.0						
PMG				LR	LR	05 54 41.6	
	comp=Z,33nm,19.8s,baz=342,slow=33						
	14nm,0.4s						
PMG				AML	AML		
HNR	**Honiara**	**8.48**	**111**	LR	LR	05 57 02.1	
	comp=Z,171nm,20.0s,baz=350,slow=38						
CTA	**Charters Tower**	**14.64**	**202**	LR	LR	06 00 00.3	
	comp=Z,114nm,20.5s,baz=36,slow=34						
SIJI	**Sorong**	**21.34**	**284**	LR	LR	06 06 50.3	
	comp=Z,56nm,18.4s,baz=110,slow=43						
WRA	**Warramunga Arr**	**21.72**	**230**	P	P	05 56 29.5	-0.3
	9.5nm,1.2s,baz=54,slow=11,SNR=39						
	9.5nm,1.2s						
ASAR	**Alice Springs**	**24.36**	**223**	P	P	05 56 57.5	+0.7
	2.6nm,0.7s,baz=54,slow=9.5,SNR=27						
	2.6nm,0.7s						
STKA	**Stephens Creek**	**27.09**	**200**	LR	LR	06 07 42.9	
	comp=Z,99nm,19.1s,baz=22,slow=36						
BBB	**Bella Bella**	**88.92**	**37**	LR	LR	06 36 44.5	
	comp=Z,217nm,21.1s,baz=228,slow=30						
YBH	**Yreka Blue Hor**	**90.79**	**48**	LR	LR	06 38 17.8	
	comp=Z,54nm,19.1s,baz=355,slow=31						
TORD	**Torodi Ar. Bea**	**149.94**	**285**	PKPbc	PKPbc	06 11 28.9	-1.4
	0.5nm,0.3s,baz=88,slow=3.3,SNR=6.1						

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*MOS **25** 05:57:52.8±0.9, 55°.23N×157°.99W, h12km, mb5.4/75, MS4.4/8, Error ellipse: s-maj=9.1km s-min=4.2km az=94.5*

*BJI **25** 05:57:55.0, 55°.20N×157°.90W, h30km, mB5.2/23, mb5.3/68, Ms4.9/43, Ms7 4.6/45*

*NEIC **25** 05:57:56.7±1.3, 55°.13N±0°.02×157°.85W±0°.04, h29km±3km, mb5.2/141, ML5.1/42, Mwr4.8/25, Mww4.9/39, ML4.9(AEIC), Error ellipse: s-maj=4.1km s-min=2.2km az=137.0, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}-0.17; $M_{\theta\theta}$1.04; $M_{\phi\phi}$-0.87; $M_{r\theta}$1.75; $M_{\theta\phi}$-0.19; $M_{\phi r}$1.05; Fault plane solution: $M_0$2.26000×10^{16} NP1: ϕ_s237.41000°, δ86.93000°, λ-114.76000°. NP2: ϕ_s140.79000°, δ24.94000°, λ-7.29000°. Principal axes: T 2.3518, Plg37.0000°, Azm349.0000°; N -0.1873, Plg25.0000°, Azm239.0000°; P -2.1645, Plg43.0000°, Azm124.0000°;*

*NEIC **25** 05:57:56.4, 55°.15N×157°.88W, h26km*

*IDC **25** 05:57:56.6±3.0, 55°.27N×158°.04W, h24km±18km, mb4.9/39, mbtmp5.0/42, ML4.7/3, MS4.2/79, Error ellipse: s-maj=14.0km s-min=8.4km az=174.0*

*NEIC **25** 05:57:56.4, 55°.18N×157°.91W, h23km*

*AEIC **25** 05:57:56.7±1.5, 55°.04N±0°.05×157°.76W±0°.06, h27km±4km, Error ellipse: s-maj=6.9km s-min=4.4km az=159.0*

*GFZ **25** 05:57:57.1±0.3, 55°N±4°×15°8W±°, h24km±2km, M5.5/91, mb5.3/91, Mw4.9/17, Error ellipse: s-maj=8.6km s-min=5.2km az=176.6, confirmed*

*GCMT **25** 05:57:58.7±0.3, 55°.01N±0°.02×157°.77W±0°.03, h36km±1km, MW4.9/90, Moment Tensor Solution. s52,c63; s90,c119; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}2.07±.13; $M_{\theta\theta}$-1.58±.09; $M_{\phi\phi}$-0.49±.10; $M_{r\theta}$2.02±.12; $M_{\theta\phi}$-1.17±.06; $M_{\phi r}$0.98±.09; Best double couple: $M_0$3.14300×10^{16} NP1: ϕ_s231.00000°, δ23.00000°, λ80.00000°. NP2: ϕ_s63.00000°, δ68.00000°, λ94.00000°. Principal axes: T 3.0240, Plg67.0000°, Azm340.0000°; N 0.2370, Plg4.0000°, Azm241.0000°; P -3.2620, Plg23.0000°, Azm149.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*NEIC **25** 05:58:00.9, 55°.05N×157°.70W, h36km, Moment Tensor Solution. Duration: 1ˢ.5 Moment tensor: Scale 10^{16}Nm; M_{rr}1.76; $M_{\theta\theta}$-1.49; $M_{\phi\phi}$-0.27; $M_{r\theta}$1.57; $M_{\theta\phi}$-1.05; $M_{\phi r}$0.66; Fault plane solution: $M_0$2.58000×10^{16} NP1: ϕ_s233.10000°, δ24.69000°, λ78.85000°. NP2: ϕ_s65.34000°, δ65.81000°, λ95.08000°. Principal axes: T 2.4106, Plg69.0000°, Azm345.0000°; N 0.3180, Plg5.0000°, Azm243.0000°; P -2.7286, Plg21.0000°, Azm152.0000°;*

ISC 25 05:57:57.0±0.5,**55°.25N**±0°.04×**157°.91W**±0°.03,**h26km**±2km,**h26km:pP-P,n965, σ1ˢ.16**/960,**mb5.2**/274,**MS4.3**/97,**64C-11D,Alaska Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CHNA	**Chernabura Isl**	**1.05**	**247**	P	**Pn**	**05 58 14.8**	**-1.3**
CNBA	**Chernabura Isl**	**1.06**	**247**		**Pn**	**05 58 14.3**	**-1.8**
CNBA	**Chernabura Isl**	**1.06**	**247**		**Sn**	**05 58 28.6**	**-1.5**
CHGN	**Chignik**	**1.09**	**345**		**Pb**	**05 58 17.7**	**+0.4**
CHGN					**Sb**	**05 58 34.6**	**+3.6**
CHGN	**Chignik**	**1.09**	**345**	IAML		05 58 38.9	
	comp=E,26μm,0.8s						
CHGN				IAML		05 58 39.7	
	comp=N,31μm,0.7s						
VNKR	**Veniaminof 5**	**1.14**	**314**		**Pb**	**05 58 18.5**	**+0.4**
VNSS	**Veniaminof 8**	**1.31**	**319**		**Pb**	**05 58 21.3**	**+0.2**
BPBCA	**Veniaminof**	**1.38**	**347**		**Pb**	**05 58 22.0**	**-0.1**
S14K	**Fog Glacier**	**1.39**	**319**		**Pb**	**05 58 22.6**	**+0.2**
S14K					**Sb**	**05 58 42.4**	**+2.7**
VNFG	**Fog Glacier, M**	**1.39**	**319**		**Pb**	**05 58 22.4**	**0.0**
VNFG					**Sb**	**05 58 39.8**	**0.0**
VNFG	**Fog Glacier, M**	**1.39**	**319**		**Pb**	**05 58 22.6**	**+0.2**
CHIR	**Chirikof Islan**	**1.42**	**65**	P	**Pn**	**05 58 21.0**	**-0.2**
CHIR	**Chirikof Islan**	**1.42**	**65**		**Pn**	**05 58 20.3**	**-0.9**
CHIR				IAML		05 58 51.8	
	comp=N,20μm,1.0s						
CHIR				IAML		05 58 52.4	
	comp=E,22μm,0.9s						
CHIR	**Chirikof Islan**	**1.42**	**65**		**Sn**	**05 58 38.1**	**-0.9**
SDPT	**Sand Point**	**1.47**	**275**	P	**Pn**	**05 58 21.4**	**-0.4**
SDPT	**Sand Point**	**1.47**	**275**	S	**Sn**	**05 58 40.4**	**+0.2**
SDPT	**Sand Point**	**1.47**	**275**		**Pn**	**05 58 21.4**	**-0.4**
SDPT					**Sn**	**05 58 40.5**	**+0.2**
SDPT				IAML		05 58 49.1	
	comp=E,26μm,0.8s						
SDPT				IAML		05 58 54.6	
	comp=N,23μm,1.2s						
ANPB	**Aniakchak Plen**	**1.57**	**353**		**Pb**	**05 58 24.6**	**-0.8**
ANPK	**Aniakchak Peak**	**1.60**	**356**		**Pb**	**05 58 25.2**	**-0.8**
ANNW	**Aniakchak Nort**	**1.73**	**354**		**Pb**	**05 58 27.3**	**-0.8**
PS1A	**Pavlof South-1**	**2.19**	**276**		**Pn**	**05 58 31.9**	**+0.1**
PS4A	**Pavlof South-4**	**2.26**	**274**		**Pn**	**05 58 32.6**	**-0.1**
PS4A					**Sn**	**05 59 00.9**	**+1.2**
DOL	**Dolgoi Island**	**2.27**	**269**		**Pn**	**05 58 32.5**	**-0.3**
DOL					**Sn**	**05 59 00.1**	**+0.2**
R16K	**Pilot Point**	**2.33**	**4**		**Pn**	**05 58 34.8**	**+1.1**
R16K				IAML		05 59 24.7	
	comp=N,15μm,1.2s						
R16K				IAML		05 59 37.5	
	comp=E,13μm,1.0s						
PN7A	**Pavlof North-7**	**2.34**	**276**		**Pn**	**05 58 34.2**	**+0.3**
S12K	**Black Hills**	**2.41**	**283**		**Pn**	**05 58 34.9**	**+0.2**
S12K				IAML		05 59 19.5	
	comp=E,12μm,0.8s						
S12K				IAML		05 59 22.2	
	comp=N,13μm,0.9s						
SII	**Sitkinak Islan**	**2.48**	**56**	P	**Pn**	**05 58 35.7**	**0.0**
SII	**Sitkinak Islan**	**2.48**	**56**		**Pn**	**05 58 35.2**	**-0.4**
SII				IAML		05 59 21.7	
	comp=E,10μm,1.0s						
SII				IAML		05 59 36.5	
	comp=N,18μm,1.1s						
DTNA	**Dutton South F**	**2.49**	**269**		**Pn**	**05 58 35.8**	**0.0**
DT1	**Dutton Round H**	**2.51**	**269**		**Pn**	**05 58 35.8**	**-0.3**
PLBL	**Peulik Blue Cr**	**2.53**	**13**		**Pn**	**05 58 38.1**	**+1.7**
R17L	**Mt. Peulik Vol**	**2.54**	**19**		**Pn**	**05 58 38.1**	**+1.5**
PLK1	**Peulik 1**	**2.66**	**15**		**Pn**	**05 58 39.8**	**+1.7**
PLK5	**Peulik 5**	**2.81**	**11**		**Pn**	**05 58 41.8**	**+1.6**
KJL	**Kejulik**	**3.09**	**24**		**Pn**	**05 58 45.2**	**+1.0**
CAHL	**Cahill**	**3.16**	**26**		**Pn**	**05 58 46.0**	**+0.9**
Q17K	**Contact Creek**	**3.22**	**19**		**Pn**	**05 58 47.0**	**+1.0**
ANCK	**Angle Creek**	**3.24**	**23**		**Pn**	**05 58 47.3**	**+1.0**
OHAK	**Old Harbor**	**3.25**	**51**	P	**Pn**	**05 58 45.7**	**-0.6**
OHAK	**Old Harbor**	**3.25**	**51**	S	**Sn**	**05 59 24.3**	**+0.2**
OHAK	**Old Harbor**	**3.25**	**51**		**Pn**	**05 58 46.6**	**+0.3**
OHAK				IAML		05 59 50.4	
	comp=N,3μm,1.1s						
MGLS	**Mageik Landsli**	**3.27**	**27**		**Pn**	**05 58 47.3**	**+0.7**
ACHA	**Angle Creek He**	**3.29**	**25**		**Pn**	**05 58 48.1**	**+1.2**
KABU	**Katmai Buttres**	**3.36**	**24**		**Pn**	**05 58 49.1**	**+1.2**
ISNN	**Isanotski Nort**	**3.40**	**265**		**Pn**	**05 58 48.7**	**+0.3**
KAKN	**Katmai Knife C**	**3.43**	**26**		**Pn**	**05 58 49.9**	**+0.9**
SSLN	**Shishaldin Nor**	**3.53**	**265**		**Pn**	**05 58 50.5**	**+0.3**
KAWH	**Katmai**	**3.58**	**27**		**Pn**	**05 58 51.4**	**+0.5**
SSBA	**Shishaldin**	**3.61**	**265**		**Pn**	**05 58 51.4**	**+0.1**
KARR	**Katmai Rainbow**	**3.70**	**27**		**Pn**	**05 58 53.2**	**+0.7**
KAHG	**Katmai Hook Gl**	**3.74**	**28**		**Pn**	**05 58 53.7**	**+0.6**
Q18K	**Katmai Hardscr**	**3.76**	**24**		**Pn**	**05 58 54.1**	**+0.7**
P16K	**Nushagak River**	**3.79**	**359**		**Pn**	**05 58 55.3**	**+1.6**
P16K				IAML		06 00 04.1	
	comp=N,5μm,1.0s						
KDAK	**Kodiak Island**	**3.89**	**47**	Pn	**Pn**	**05 58 54.6**	**-0.5**
	comp=N,15nm,0.3s,baz=222,slow=6.3,SNR=125						
KDAK				Sn	**Sn**	**05 59 37.5**	**-2.5**
	comp=N,36nm,0.3s,baz=304,slow=9.1,SNR=3.8						
KDAK				LR	LR	05 59 45.5	
	comp=N,485nm,21.1s,baz=230,slow=28						
	comp=N,134nm,0.7s						
KDAK				AML	AML		
KDAK	**Kodiak Island**	**3.89**	**47**	*i* P	**Pn**	**05 58 54.5**	**-0.6**
KDAK	**Kodiak Island**	**3.89**	**47**		**Pn**	**05 58 54.6**	**-0.5**
KDAK				IAML		06 00 11.4	
	comp=N,2μm,1.1s						
KDAK				IAML		06 00 20.1	
	comp=N,2μm,1.9s						
KDAK	**Kodiak Island**	**3.89**	**47**	P	**Pn**	**05 58 54.9**	**-0.2**
P17K	**Kvichak River**	**4.04**	**11**		**Pn**	**05 58 57.5**	**+0.5**
O15K	**Ungalikthiuk R**	**4.07**	**346**		**Pn**	**05 58 58.6**	**+1.0**
O15K				IAML		06 00 23.9	
	comp=E,1μm,0.9s						
O16K	**Kokwok River B**	**4.36**	**359**		**Pn**	**05 59 02.7**	**+1.2**
O16K				IAML		06 00 25.8	
	comp=E,1μm,0.9s						
Q19K	**Cape Douglas,**	**4.36**	**30**		**Pn**	**05 59 03.0**	**+1.4**
P18K	**Big Mountain,**	**4.40**	**18**		**Pn**	**05 59 02.8**	**+0.7**
O14K	**Tigyukauivet M**	**4.41**	**337**		**Pn**	**05 59 03.7**	**+1.5**
O17K	**Koliganek Bris**	**4.56**	**5**		**Pn**	**05 59 05.1**	**+0.9**
AKUT	**Akutan**	**4.70**	**259**	P	**Pn**	**05 59 06.3**	**+0.2**
AKUT	**Akutan**	**4.70**	**259**	S	**Sn**	**05 59 59.0**	**-0.7**
AKUT	**Akutan**	**4.70**	**259**		**Pn**	**05 59 05.8**	**-0.3**
AKUT				IAML		06 00 23.6	
	comp=N,2μm,1.7s						
AKUT				IAML		06 00 26.6	
	comp=E,2μm,1.0s						
AUI	**Augustine Isla**	**4.76**	**29**		**Pn**	**05 59 08.3**	**+1.2**
AUJK	**Augustine Jueg**	**4.78**	**29**		**Pn**	**05 59 08.7**	**+1.4**
AGU	**Augustine-Summ**	**4.78**	**29**		**Pn**	**05 59 08.7**	**+1.2**
AKLV	**Akutan Long Va**	**4.79**	**260**		**Pn**	**05 59 07.0**	**-0.5**
AKBBA	**Akutan Broad B**	**4.80**	**259**		**Pn**	**05 59 06.9**	**-0.6**
LVA	**Lava Point**	**4.83**	**260**		**Pn**	**05 59 08.4**	**+0.3**
LVA				IAML		06 00 40.0	
	comp=E,2μm,1.0s						
O18K	**Koktuh Hills**	**4.84**	**16**		**Pn**	**05 59 08.8**	**+0.7**
O18K				IAML		06 00 51.1	
	comp=N,824nm,1.2s						
N15K	**Kwethluk River**	**5.07**	**348**		**Pn**	**05 59 13.2**	**+1.9**
P19K	**Oil Pt**	**5.09**	**28**		**Pn**	**05 59 12.8**	**+1.3**
N14K	**Kuskokwak Cree**	**5.11**	**338**		**Pn**	**05 59 12.9**	**+1.1**
UNV	**Unalaska Valle**	**5.20**	**258**	P	**Pn**	**05 59 12.0**	**-1.0**
UNV	**Unalaska Valle**	**5.20**	**258**	S	**Sn**	**06 00 11.2**	**-0.8**
UNV	**Unalaska Valle**	**5.20**	**258**		**Pn**	**05 59 12.1**	**-1.0**
N16K	**Nishlik Lake**	**5.26**	**355**		**Pn**	**05 59 15.4**	**+1.5**
MNAT	**Makushin Natee**	**5.28**	**259**		**Pn**	**05 59 13.4**	**-0.8**
N17K	**Nushagak Hills**	**5.31**	**4**		**Pn**	**05 59 15.8**	**+1.2**
O19K	**Port Alsworth**	**5.32**	**20**		**Pn**	**05 59 15.4**	**+0.7**
MSW	**Makushin Switc**	**5.33**	**259**		**Pn**	**05 59 14.0**	**-0.8**
ILS	**Iliamna Low So**	**5.39**	**27**		**Pn**	**05 59 16.9**	**+1.1**
ILSW	**Iliamna Southw**	**5.39**	**26**		**Pn**	**05 59 16.8**	**+0.9**
MGOD	**Makushin Gods**	**5.42**	**258**		**Pn**	**05 59 15.4**	**-0.8**
IVE	**Iliamna Volcan**	**5.46**	**27**		**Pn**	**05 59 17.5**	**+0.8**
N18K	**Kilae Creek**	**5.55**	**10**		**Pn**	**05 59 19.1**	**+1.2**
HOM	**Homer**	**5.56**	**35**		**Pn**	**05 59 18.9**	**+0.9**
CNPM	**China Poot**	**5.60**	**37**		**Pn**	**05 59 18.8**	**+0.1**
O20K	**Slope Mountain**	**5.61**	**28**		**Pn**	**05 59 19.7**	**+0.9**
M15K	**Kasigluk River**	**5.66**	**346**		**Pn**	**05 59 20.6**	**+1.3**
M16K	**Timber Creek**	**5.82**	**355**		**Pn**	**05 59 23.3**	**+1.7**
N19K	**Bonanza Creek**	**5.87**	**17**		**Pn**	**05 59 23.4**	**+1.1**
BRLK	**Bradley Lake**	**5.90**	**37**		**Pn**	**05 59 22.1**	**-0.7**
RDSO	**Redoubt South**	**5.90**	**26**		**Pn**	**05 59 23.5**	**+0.6**
M14K	**Bethel**	**5.92**	**340**		**Pn**	**05 59 24.2**	**+1.3**
BRSE	**Bradley Lake S**	**5.93**	**38**		**Pn**	**05 59 22.7**	**-0.4**
M13K	**Dall Lake**	**5.94**	**333**		**Pn**	**05 59 24.4**	**+1.3**
NCT	**North Crescent**	**5.95**	**24**		**Pn**	**05 59 24.1**	**+0.6**
RDJH	**Redoubt Jeurge**	**6.01**	**25**		**Pn**	**05 59 24.8**	**+0.5**
DFR	**Drift River**	**6.04**	**25**		**Pn**	**05 59 25.1**	**+0.5**
RDT	**Redoubt**	**6.09**	**27**		**Pn**	**05 59 26.2**	**+0.9**
OKFG	**Magazine Ridge**	**6.13**	**257**		**Pn**	**05 59 25.3**	**-0.6**
M17K	**Holitna River**	**6.17**	**2**		**Pn**	**05 59 27.8**	**+1.4**
OKTU	**Okmok Mt. Tuli**	**6.22**	**257**		**Pn**	**05 59 26.3**	**-0.7**

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OKNC  Okmok New Cone    6.24 257         Pn     05 59 26.4 -0.9
M18K  Stony River       6.36   9         Pn     05 59 30.2 +1.3
L16K  Owhat River       6.53 353         Pn     05 59 31.8 +0.5
L14K  Kuka Creek        6.61 340         Pn     05 59 33.6 +1.3
CKL   Chakachamna La    6.65  24         Pn     05 59 33.6 +0.6
SEW   Seward            6.65  40         Pn     05 59 31.9 -1.0
SPWE  Spurr West        6.67  23         Pn     05 59 34.0 +0.7
SLKM  Skilak Lake       6.68  35         Pn     05 59 33.1 -0.3
SPBG  Spurr Blockage    6.70  24         Pn     05 59 34.5 +0.8
L15K  Ungalak Mounta    6.71 345         Pn     05 59 34.7 +0.9
SPNN  North Nagishla    6.72  22         Pn     05 59 35.0 +0.9
M11K  Mekoryuk          6.79 323         Pn     05 59 36.2 +1.4
O22K  Cooper Landing    6.82  36         Pn     05 59 36.8 +1.5
L17K  Donlin            6.91 358         Pn     05 59 37.3 +0.8
M19K  Big River Lodg    6.92  14         Pn     05 59 38.2 +1.5
L18K  Granite Mounta    7.02   5         Pn     05 59 39.1 +1.0
STLK  Strandline Lak    7.03  25         Pn     05 59 39.0 +0.8
M20K  Styx River        7.10  19         Pn     05 59 40.7 +1.4
L19K  White Mountain    7.13  12         Pn     05 59 41.3 +1.7
SPIA  Saint Paul Isl    7.15 291  P      Pn     05 59 40.1 +0.4
SPIA  Saint Paul Isl    7.15 291         Pn     05 59 40.9 +1.1
RC01  Rabbit Creek A    7.27  33         Pn     05 59 41.4 -0.1
SUA   Susitna One       7.28  28         Pn     05 59 42.0 +0.4
K15K  Wolf Creek Mou    7.31 347         Pn     05 59 43.8 +1.8
P23K  Montague Islan    7.38  46         Pn     05 59 42.4 -0.5
CLCO  Concord Point,    7.38 255         Pn     05 59 41.5 -1.5
K17K  Iditarod          7.49 359         Pn     05 59 45.4 +0.9
SKT   Skwentna          7.52  24         Pn     05 59 45.2 +0.3
L20K  Farewell, AK      7.54  14         Pn     05 59 47.2 +2.0
K13K  Kusilvak Mount    7.57 335         Pn     05 59 46.7 +1.2
PWL   Port Wells        7.57  38         Pn     05 59 44.9 -0.8
PMR   Palmer            7.85  32  P      Pn     05 59 48.6 -0.8
PMR   Palmer            7.85  32  P      Pn     05 59 48.4 -1.0
PMR   Palmer            7.85  32         Pn     05 59 48.4 -1.0
KNK   Knik Glacier      7.93  35         Pn     05 59 49.6 -0.9
HIN   Hinchinbrook I    7.98  45         Pn     05 59 49.8 -1.4
GLI   Glacier Island    8.04  41         Pn     05 59 50.4 -1.7
GHO   Glory Hole Cre    8.05  32         Pn     05 59 52.0 -0.2
J16K  Anvik River       8.18 351         Pn     05 59 54.9 +1.1
CUT   Chulitna          8.19  26         Pn     05 59 54.2 +0.2
SML   Sawmill           8.26  33         Pn     05 59 55.2 +0.1
J18K  Innoko River      8.26   4         Pn     05 59 55.7 +0.6
K20K  Telida            8.37  12         Pn     05 59 57.4 +0.9
EYAK  Cordova Ski Ar    8.37  46  P      Pn     05 59 55.7 -0.8
EYAK  Cordova Ski Ar    8.37  46         Pn     05 59 55.1 -1.4
DIV   Divide            8.70  42         Pn     06 00 01.0 -0.1
CAST  Castle Rocks      8.71  18         Pn     06 00 02.5 +1.3
RAGM  Ragged Mountai    8.73  48         Pn     06 00 00.2 -1.4
I17K  Unalakleet        8.78 352         Pn     06 00 02.9 +0.8
J19K  Poorman           8.85   7         Pn     06 00 04.1 +1.0
WAT7  Susitna Watana    8.92  28         Pn     06 00 02.6 -1.5
WAT1  Susitna Watana    8.99  29         Pn     06 00 04.6 -0.5
WAT6  Susitna Watana    9.03  31         Pn     06 00 04.2 -1.5
KTH   Kantishna Hill    9.05  20         Pn     06 00 06.0 +0.1
BMRM  Bremner River     9.07  45         Pn     06 00 05.2 -1.0
TRF   Thorofare Moun    9.09  22         Pn     06 00 06.2 -0.4
J20K  Nowinta River     9.15  10         Pn     06 00 07.6 +0.3
BERG  Berg Lake         9.16  50         Pn     06 00 06.4 -1.0
RND   Reindeer          9.39  26  P      Pn     06 00 10.5  0.0
RND   Reindeer          9.39  26         Pn     06 00 10.5  0.0
N25K  Chitina, Valde    9.44  42         Pn     06 00 10.1 -1.2
DHY   Denali Highway    9.52  30         Pn     06 00 10.8 -1.6
GCSA  Galena City Sc    9.54   3         Pn     06 00 12.9 +0.4
CRQM  Cirque            9.58  49         Pn     06 00 12.9 -0.4
MCK   McKinley          9.64  24  P      Pn     06 00 13.4 -0.6
MCK   McKinley          9.64  24         Pn     06 00 13.4 -0.6
GLB   Gilahina Butte    9.65  44         Pn     06 00 13.4 -0.7
VRDI  Verde Repeater    9.68  46         Pn     06 00 13.1 -1.6
TGL   Tana Glacier      9.71  49         Pn     06 00 14.4 -0.6
I20K  Naaghedeneel      9.73   9         Pn     06 00 15.7 +0.7
HARP  HAARP             9.74  37         Pn     06 00 14.3 -0.9
H17K  Granite Mounta    9.77 355         Pn     06 00 17.1 +1.4
WASW  Wrangell South    9.79  41         Pn     06 00 15.8 -0.5
BWN   Browne            9.90  22         Pn     06 00 17.9 +0.4
KIAG  Kiagna River      9.99  49         Pn     06 00 17.2 -1.7
PAX   Paxson           10.02  34  P      Pn     06 00 19.7 +0.4
PAX   Paxson           10.02  34         Pn     06 00 19.7 +0.4
BALM  Baldy            10.05  48         Pn     06 00 18.2 -1.5
ANM   Nome             10.06 341  P      Pn     06 00 21.3 +1.7
ANM   Nome             10.06 341         Pn     06 00 21.3 +1.7
ATKA  Atka Island      10.12 259  P      Pn     06 00 19.4 -1.1
ATKA  Atka Island      10.12 259         Pn     06 00 19.4 -1.1
BARN  Barnard Glacie   10.36  49         Pn     06 00 23.4 -0.5
I21K  Tanana           10.38  14         Pn     06 00 24.5 +0.5
G16K  Koyuk River      10.41 350         Pn     06 00 26.3 +1.9
MLY   Manley           10.43  17         Pn     06 00 23.9 -0.9
LOGN  Logan Glacier    10.54  51         Pn     06 00 26.0 -0.4
PCA   Pinnacle         10.61  56         Pn     06 00 27.7 +0.3
CCB   Clear Creek Bu   10.68  24         Pn     06 00 26.5 -1.7
G18K  Tagagawik        10.69 358         Pn     06 00 29.2 +0.9
HDA   Harding Lake     10.70  26         Pn     06 00 26.9 -1.5
H21K  Melozitna Rive   10.74  11         Pn     06 00 30.0 +1.0
RIDG  Independent Ri   10.77  33         Pn     06 00 29.0 -0.5
L26K  Log Cabin Wild   10.78  38         Pn     06 00 30.4 +0.8
COLA  College          10.87  23  P      Pn     06 00 29.1 -1.5
COLA  College          10.87  23 iP      Pn     06 00 28.5 -2.1
COLA  College          10.87  23  P      Pn     06 00 28.9 -1.8
      comp=Z,129nm,0.9s
O28M  Mount Upton      10.89  52         Pn     06 00 31.1 -0.1
PNL   Peninsula        10.90  58  P      Pn     06 00 31.1 -0.1
IMAR  Indian Mountai   10.96   9         Pn     06 00 32.7 +0.8
ILAR  Eielson Array    11.01  25  Pn     Pn     06 00 29.6 -3.0
      comp=Z,1.1nm,0.3s,baz=216,slow=13,SNR=94
ILAR                              Sn     Sn     06 02 29.9 -4.8
      comp=Z,0.3nm,0.3s,baz=215,slow=12,SNR=1.2
ILAR                              LR     LR     06 05 38.8
      comp=Z,2µm,18.3s,baz=214,slow=42
      comp=Z,13nm,0.8s
ILAR                              AML    AML
H22K  Ishtalitna Cre   11.14  14         Pn     06 00 34.7 +0.2
F17K  Baldwin Pennin   11.35 353         Pn     06 00 39.4 +2.3
L27K  Beaver Creek,    11.35  40         Pn     06 00 37.1 -0.2
TNA   Tin City         11.45 339         Pn     06 00 39.3 +0.7
O29M  Mount Kennedy    11.48  56         Pn     06 00 38.8 -0.4
G21K  Allakaket        11.50   9         Pn     06 00 39.6 +0.2
F19K  Shaleruckik Mo   11.62   0         Pn     06 00 41.9 +0.8
ADK   Adak             11.65 261  P      Pn     06 00 40.2 -1.3
ADK   Adak             11.65 261  P      Pn     06 00 40.4 -1.0
ADK   Adak             11.65 261         Pn     06 00 40.4 -1.0
ADK   Adak             11.65 261  P      Pn     06 00 41.3 -0.2
      comp=Z,126nm,0.6s
KIWB  Kanaga Island    11.93 261         Pn     06 00 43.7 -1.5
HYT   Haines Junctio   12.14  54         Pn     06 00 49.2 +1.0
S31K  Pelican          12.24  68         Pn     06 00 48.5 -0.9
M29M  Somme Creek      12.34  46         Pn     06 00 50.9 -0.1
SIT   Sitka            12.71  73  P      Pn     06 00 54.6 -1.2
L29M  L29M             12.79  44         Pn     06 00 57.4 +0.4
SKAG  Skagway          12.87  62  P      Pn     06 00 59.5 +1.4
SKAG  Skagway          12.87  62         Pn     06 00 58.7 +0.6
FYU   Fort Yukon       12.88  23         Pn     06 00 57.6 -0.6
BESE  Bessie Mountai   13.01  66         Pn     06 00 59.2 -0.8
S32K  Killisnoo        13.11  71         Pn     06 01 01.1 -0.2
F24K  Squaw Lake       13.19  17         Pn     06 01 01.1 -1.3
JIS   Juneau Island    13.23  67  P      Pn     06 01 03.3 +0.3
J29N  Klondike Camp    13.46  39         Pn     06 01 06.9 +0.7
I28M  Miner Creek      13.49  34         Pn     06 01 06.9 +0.3
P32M  Atlin            13.71  62         Pn     06 01 09.7 +0.2
I29M  Ogilvie Camp,    13.96  36         Pn     06 01 13.0  0.0
M31M  Drury Creek, Y   14.00  51         Pn     06 01 13.3 -0.2
F26K  Sheenjek River   14.06  22         Pn     06 01 12.3 -2.0
CRAG  Craig            14.08  79  P      Pn     06 01 14.0 -0.6
J30M  Hart River       14.22  40         Pn     06 01 17.6 +1.0
Q32M  Nakina River     14.38  65         Pn     06 01 18.1 -0.8
WRAK  Wrangell Islan   14.39  75  Pn     Pn     06 01 18.1 -0.6
H29M  Whitestone       14.48  33         Pn     06 01 20.3 +0.3
I30M  Mount Dempster   14.55  38         Pn     06 01 21.2 +0.1
F28M  Old Crow         15.02  27         Pn     06 01 27.4 +0.2
G29M  Pine Creek       15.04  31         Pn     06 01 27.4 -0.2
EPYK  Eagle Plains     15.10  34         Pn     06 01 28.5 +0.2
EPYK                              IAmb   IAmb   06 01 36.3
      comp=Z,158nm,0.8s
MMPY  Sheldon Lake,    15.51  51  Pn     Pn     06 01 34.6 +0.8
DLBC  Dease Lake       15.53  67  Pn     Pn     06 01 35.3 +1.2
      comp=Z,0.6nm,0.3s,baz=252,slow=11,SNR=14
DLBC                              LR     LR     06 07 27.4
      comp=Z,935nm,19.2s,baz=262,slow=37
H31M  Peel River       15.58  38         Pn     06 01 34.9 +0.3
H31M                              IAmb   IAmb   06 01 41.4
      comp=Z,186nm,0.9s
G30M  tAoh Zraii Nji   15.63  33  Pn     Pn     06 01 35.0 -0.3
G30M                              IAmb   IAmb   06 01 42.0
      comp=Z,168nm,0.8s
E28M  Babbage River    15.84  25  Pn     Pn     06 01 37.7 -0.2
E29M  Blow River       16.09  27  Pn     Pn     06 01 41.6 +0.4
F30M  Barrier River    16.16  31  Pn     Pn     06 01 42.2 +0.2
F30M                              IAmb   IAmb   06 01 49.3
      comp=Z,157nm,0.7s
G31M  Satah River      16.21  34  Pn     Pn     06 01 42.0 -0.7
G31M                              IAmb   IAmb   06 01 47.3
      comp=Z,174nm,0.8s
SHEM  Shemya Is, Ala   16.60 273  LR     LR     06 08 14.9
      comp=Z,1µm,21.7s,baz=84,slow=37
F31M  Tsiigehtchic     16.68  33  Pn     Pn     06 01 48.1 -0.5
F31M                              IAmb   IAmb   06 01 53.1
      comp=Z,128nm,0.9s
INK   Inuvik           17.26  31  P      Pn     06 01 55.5 -0.4
      comp=Z,12nm,0.3s,baz=216,slow=11,SNR=88
INK                               LR     LR     06 09 09.8
      comp=Z,2µm,19.1s,baz=228,slow=39
      comp=Z,161nm,0.8s
INK                               AML    AML
INK   Inuvik           17.26  31  Pn     Pn     06 01 55.2 -0.7
INK                               IAmb   IAmb   06 01 59.1
      comp=Z,269nm,1.1s
INK   Inuvik           17.26  31  P      Pn     06 01 55.6 -0.3
      comp=Z,206nm,1.0s
BBB   Bella Bella      17.83  88  LR     LR     06 07 28.3
      comp=Z,923nm,19.2s,baz=280,slow=32
WRGLY Wrigley          19.13  51  P      Pn     06 02 18.5 -0.3
WRGLY                             IAmb   IAmb   06 02 24.8
      comp=Z,108nm,1.1s
C36M  Paulatuk         20.73  34  P      P      06 02 34.9 -0.2
BILI  Bilibino, Chuk   20.83 322  P      P      06 02 37.0 +0.7
      comp=Z,74nm,1.0s
BILL  Bilibino         20.89 322 iP      P      06 02 35.3 -1.6
BILL                              MLR    MLR
      comp=Z,2µm,17.0s
A36M  Sachs Harbour    21.70  27  P      P      06 02 44.9 -0.6
A05A  Maple Falls      22.68  91  P      P      06 02 54.5 -1.7
A05A                              IAmb   IAmb   06 03 07.7
      comp=Z,164nm,1.7s
GNW   Green Mountain   23.00  95  P      P      06 03 00.5 +1.0
YKAW3 Yellowknife Wh   23.13  54  P      P      06 03 00.9 +0.2
YKA   Yellowknife Ar   23.14  54  P      P      06 03 00.1 -0.7
      comp=Z,9.3nm,0.7s,baz=273,slow=8.8,SNR=49
YKA                               LR     LR     06 12 42.1
      comp=Z,733nm,19.5s,baz=275,slow=38
      comp=Z,9.3nm,0.7s
YKA   Yellowknife Ar   23.14  54 iP      P      06 03 00.2 -0.7
YKA                               pmax   pmax
      comp=Z,11nm,0.6s
YKA   Yellowknife Ar   23.14  54  P      P      06 02 59.6 -1.3
YKAW1 Yellowknife Wh   23.19  54  P      P      06 03 00.9 -0.5
B08A  Colville Reser   24.58  90  P      P      06 03 13.8 -0.9
HOOD  Mount Hood Mea   24.94  98  P      P      06 03 16.5 -1.6
HOOD                              IAmb   IAmb   06 03 36.6
      comp=Z,37nm,0.9s
EPH   Ephrata          24.96  92  P      P      06 03 16.9 -1.2
MXC   Moxie City       24.98  95  P      P      06 03 18.6 +0.2
PET   Petropavlovsk    25.24 283 iP      P      06 03 19.6 -0.9
WAH2  Wahluke Slope    25.30  94  P      P      06 03 21.6 +0.4
WAH2                              IAmb   IAmb   06 03 31.6
      comp=Z,128nm,1.7s
C09A  Chrisman Ranch   25.47  90  P      P      06 03 22.9 +0.1
D08A  Wollman Farm,    25.50  92  P      P      06 03 21.9 -1.2
PEA0B Petropavlovsk-   25.74 284  P      P      06 03 23.8 -1.3
PEA0B                             pmax   pmax
      comp=Z,102nm,0.8s
PEA0B Petropavlovsk-   25.74 284  P      P      06 03 23.8 -1.3
PETK  Petropavlovsk-   25.74 284  P      P      06 03 24.0 -1.1
      comp=Z,116nm,0.8s,baz=77,slow=14,SNR=115
PETK                              LR     LR     06 13 46.1
      comp=Z,371nm,19.8s,baz=82,slow=37
      comp=Z,116nm,0.8s
EDM   Edmonton         25.79  76  P      P      06 03 26.2 +0.5
EDM                               pmax   pmax
      comp=Z,38nm,0.9s
EDM   Edmonton         25.79  76  P      P      06 03 26.2 +0.5
EDM                               IAmb   IAmb   06 03 49.2
      comp=Z,38nm,0.9s
NEW   Newport          25.89  89  LR     LR     06 11 46.7
      comp=Z,713nm,21.6s,baz=294,slow=32
NEW   Newport          25.89  89  P      P      06 03 26.6  0.0
NEW                               pmax   pmax
      comp=Z,37nm,1.3s
NEW   Newport          25.89  89  P      P      06 03 26.6  0.0
SEY   Seymchan         26.05 307  P      P      06 03 26.1 -1.6
      comp=Z,43nm,0.7s,baz=96,slow=9.2,SNR=95
SEY                               LR     LR     06 14 49.5
      comp=Z,2µm,18.6s,baz=90,slow=39
      comp=Z,43nm,0.7s
SEY   Seymchan         26.05 307ceP      P      06 03 25.8 -2.0
SEY                               pmax   pmax
      comp=Z,42nm,0.8s
J05D  Fort Rock, OR    26.43 102  P      P      06 03 31.3 -0.4
YBH   Yreka Blue Hor   26.64 106  LR     LR     06 11 45.2
      comp=Z,2µm,20.5s,baz=310,slow=31
MA2   Magadan          27.40 300  P      P      06 03 38.8 -1.2
      comp=Z,8.6nm,0.5s,baz=114,slow=9.7,SNR=4.7
MA2                               LR     LR     06 16 28.4
      comp=Z,603nm,18.4s,baz=95,slow=41
      comp=Z,8.6nm,0.5s
MA2   Magadan          27.40 300 iP      P      06 03 38.6 -1.4
MA2                               pmax   pmax
      comp=Z,21nm,1.0s
MA2   Magadan          27.40 300  P      P      06 03 40.4 +0.4
      comp=Z,35nm,0.8s
JTMT  Jette            27.79  87  P      P      06 03 44.4 +0.6
MOD   Modoc Plateau    27.86 103  P      P      06 03 41.9 -2.5
O03E  Paynes Creek     28.12 107  P      P      06 03 45.2 -1.6
WVOR  Wild Horse Val   28.44 100  P      P      06 03 47.4 -2.2
WVOR                              pmax   pmax
      comp=Z,25nm,1.2s
WVOR  Wild Horse Val   28.44 100  P      P      06 03 47.4 -2.2
BEKR  Beckworth        29.21 106  P      P      06 03 55.3 -1.2
GBMT  Granite Butte,   29.31  87  P      P      06 03 57.2 -0.2
MFID  Camas Ranch      29.41  96  P      P      06 03 58.4 +0.2
AFDM  Forest Hills D   29.53 108  P      P      06 03 58.9 -0.2
HLID  Hailey           30.12  94  P      P      06 04 05.8 +1.2
      comp=Z,11nm,1.2s
HLID                              P      pP     06 04 13.6 +1.4
      comp=Z,11nm,1.2s
PNTR  Pine Nut         30.18 106  P      P      06 04 04.2 -0.9
PNTR                              IAmb   IAmb   06 04 15.8
      comp=Z,65nm,1.4s
BOZ   Bozeman (W)      30.50  89  P      P      06 04 07.4 -0.5
BOZ                               pmax   pmax
      comp=Z,15nm,1.3s
BOZ   Bozeman (W)      30.50  89  P      P      06 04 07.4 -0.5
RES   Resolute Bay     30.75  28  LR     LR     06 17 46.1
      comp=Z,479nm,18.3s,baz=282,slow=39
RES   Resolute Bay     30.75  28  P      P      06 04 09.7 +0.1
RES                               pmax   pmax
      comp=Z,14nm,0.8s
RES   Resolute Bay     30.75  28  P      P      06 04 09.7 +0.1
KVN   Kaiserville      31.03 105  P      P      06 04 11.9 -0.8
KVN                               pmax   pmax
      comp=Z,26nm,1.4s
KVN   Kaiserville      31.03 105  P      P      06 04 11.9 -0.8
BLKN  Baker Lake       31.20  48  P      P      06 04 13.6  0.0
BLKN                              IAmb   IAmb   06 04 14.8
      comp=Z,46nm,0.9s
NVAR  Mina Array Bea   31.36 106  P      P      06 04 16.9 +1.4
      comp=Z,2.1nm,0.6s,baz=307,slow=8.5,SNR=23
NVAR                              PcP    PcP    06 07 08.3 -0.5
      comp=Z,0.6nm,0.6s,baz=290,slow=2.7,SNR=3.9
NVAR                              ScP    ScP    06 10 49.0 -0.9
      comp=Z,0.9nm,0.8s,baz=313,slow=3.1,SNR=4.2
NVAR                              LR     LR     06 14 59.7
      comp=Z,1µm,18.3s,baz=304,slow=32
      comp=Z,2.1nm,0.6s
YMR   Madison River    31.43  90  P      P      06 04 16.4 +0.3
DUG   Dugway, Tooele   33.21  98  P      P      06 04 32.8 +1.1
      comp=Z,27nm,1.1s
PD31  Pinedale Array   33.40  91  P      P      06 04 31.4 -2.0
PDAR  Pinedale Array   33.40  91  P      P      06 04 34.4 +1.0
      comp=Z,1.3nm,0.7s,baz=312,slow=4.8,SNR=18
PDAR                              LR     LR     06 16 29.5
      comp=Z,144nm,18.1s,baz=312,slow=33
NLU   North Lily Min   33.79  98  P      P      06 04 36.1 -0.8
TIXI  Tiksi            33.90 327  P      P      06 04 36.2 -1.0
      comp=Z,55nm,0.9s,baz=111,slow=10.0,SNR=18
TIXI                              LR     LR     06 20 21.5
      comp=Z,759nm,19.2s,baz=111,slow=40
      comp=Z,55nm,0.9s
TIXI  Tiksi            33.90 327ceP      P      06 04 35.7 -1.4
TIXI                              pmax   pmax
      comp=Z,60nm,0.9s
TIXI  Tiksi            33.90 327  P      P      06 04 35.8 -1.4
BSUT  Blindstream Ca   34.15  96  P      P      06 04 39.9 -0.3
BSUT                              IAmb   IAmb   06 04 50.6
      comp=Z,43nm,1.4s
TYV   Tymovskoe        35.04 288 eP      P      06 04 47.1 -0.2
TYV                              eS      S      06 10 24.5 +6.8
TYV                               pmax   pmax
      comp=Z,300nm,2.8s
TYV                               pmax   pmax
      comp=Z,61nm,0.8s
TYV                               smax   smax
      comp=N,300nm,4.4s
TYV                               smax   smax
      comp=E,200nm,4.4s
ILON  Igloolik, Nuna   35.37  36  P      P      06 04 49.6 -0.3
RSSD  Black Hills      35.72  85  P      P      06 04 52.8 -0.7
RSSD                              pmax   pmax
      comp=Z,29nm,0.9s
RSSD  Black Hills      35.72  85  P      P      06 04 52.8 -0.7
RSSD                              IAmb   IAmb   06 05 03.4
      comp=Z,29nm,0.9s
RSSD  Black Hills      35.72  85  P      P      06 04 54.4 +0.9
      comp=Z,39nm,1.0s
PFO   Pinyon Flats O   35.92 110  LR     LR     06 17 11.0
      comp=Z,1µm,19.4s,baz=314,slow=32
UGL   Uglegorsk        36.31 286 eP      P      06 04 58.5 +0.3
UGL                               pmax   pmax
      comp=Z,200nm,0.9s
YAK   Yakutsk          36.43 311  P      P      06 04 57.3 -1.7
      comp=Z,243nm,0.8s,baz=63,slow=3.5,SNR=42
YAK                               LR     LR     06 21 03.0
      comp=Z,516nm,21.2s,baz=75,slow=38
YAK   Yakutsk          36.43 311 eP      P      06 04 57.1 -1.9
YAK                              e              06 06 19.2
YAK                              e              06 07 21.0
YAK                              eS      S      06 10 37.1 -1.6
YAK                              eSS     SnSn   06 13 06.8 -0.5
YAK                              e              06 15 10.2
YAK                               pmax   pmax
      comp=Z,239nm,1.0s
YAK                               pmax   pmax
      comp=E,55nm,1.5s
YAK                               pmax   pmax
      comp=N,37nm,2.7s
YAK                               pmax   pmax
      comp=Z,233nm,5.9s
YAK                               pmax   pmax
      comp=E,140nm,4.8s
YAK                               smax   smax
      comp=N,112nm,5.2s
YAK                               smax   smax
      comp=E,151nm,6.3s
YAK                               MLR    MLR
      comp=Z,578nm,26.0s
YAK                               MLR    MLR
      comp=N,680nm,27.0s
YAK                               MLR    MLR
      comp=E,596nm,28.0s
YAK   Yakutsk          36.43 311  P      P      06 04 57.4 -1.7
YAK   Yakutsk          36.43 311  P      P      06 04 57.6 -1.5
      comp=Z,320nm,0.8s
ULM   Lac du Bonnet    36.78  71  P      P      06 05 01.9 -0.2
      comp=Z,9.8nm,0.9s,baz=304,slow=10,SNR=5.8
ULM                               LR     LR     06 20 12.3
      comp=Z,512nm,18.7s,baz=244,slow=36
      comp=Z,9.8nm,0.9s
YSS   Yuzhno-Sakhali   37.12 283 eP      P      06 05 04.5 -0.6
YSS                              e              06 06 27.7
YSS                              eS      S      06 10 49.1 -0.5
YSS                               pmax   pmax
      comp=Z,200nm,3.6s
YSS                               pmax   pmax
      comp=Z,50nm,0.9s
YSS   Yuzhno-Sakhali   37.12 283  P      P      06 05 04.5 -0.6
YSS                               IAmb   IAmb   06 05 07.0
      comp=Z,40nm,0.9s
YSS   Yuzhno-Sakhali   37.12 283  P      P      06 05 04.5 -0.6
      comp=Z,51nm,1.1s
MVCO  Mesa Verde       37.71  98  P      P      06 05 11.3 +0.7
      comp=Z,17nm,0.9s
AGMN  Agassiz Nation   37.86  74  P      P      06 05 11.5 +0.1
GRNR  Gornyy           38.45 291⇑iP      P      06 05 15.0 -1.3
GRNR                              pmax   pmax
      comp=Z,20nm,1.1s
GRNR                              MLR    MLR
      comp=N,180nm,17.0s
GRNR                              MLR    MLR
      comp=E,130nm,17.0s
GRNR                              MLR    MLR
      comp=Z,280nm,15.0s
JKA   Kamikawa-asahi   38.91 279  P      P      06 05 20.1 -0.2
      comp=Z,97nm,1.0s
ASAJ  Asahikawa        38.91 279  P      P      06 05 19.1 -1.1
      comp=Z,67nm,0.9s,baz=57,slow=4.6,SNR=16
ASAJ                              LR     LR     06 22 56.2
      comp=Z,134nm,18.1s,baz=88,slow=39
      comp=Z,67nm,0.9s
JEM   Erimo            39.92 276  P      P      06 05 28.4 -0.3
ERM   Erimo            39.92 276  P      P      06 05 28.3 -0.4
NEEM  North Greenlan   40.21  19 iP      P      06 05 31.2 +0.1
NEEM                              IAmb   IAmb   06 05 31.9
      comp=Z,128nm,0.8s
KULLO Kullorsuaq       40.40  24 iP      P      06 05 33.2 +1.0
KULLO                             IAmb   IAmb   06 05 35.9
      comp=Z,39nm,1.0s
KULLO Kullorsuaq       40.40  24  P      P      06 05 33.1 +0.9
      comp=Z,50nm,0.8s
EYMN  Ely              40.45  72  P      P      06 05 33.4 +0.4
      comp=Z,25nm,0.8s
ANMO  Albuquerque      40.48  98  LR     LR     06 21 26.6
      comp=Z,500nm,18.1s,baz=297,slow=35
ANMO  Albuquerque      40.48  98  P      P      06 05 33.9 +0.2
      comp=Z,11nm,1.2s
ZEA   Zeya             41.54 300 eP      P      06 05 40.1 -1.8
ZEA                               pmax   pmax
      comp=Z,20nm,0.7s
UPNV  Upernavik        41.60  26 iP      P      06 05 42.8 +0.7
UPNV                              IAmb   IAmb   06 05 44.7
      comp=Z,41nm,1.0s
KLR   Kul'dur          41.81 292  P      P      06 05 43.0 -1.2
      comp=Z,20nm,0.9s,baz=59,slow=8.6,SNR=31
      comp=Z,20nm,0.9s
KLR   Kul'dur          41.81 292ceP      P      06 05 42.8 -1.3
KLR                               pmax   pmax
      comp=Z,40nm,1.2s
NOR   Nord             41.82   8 iP      P      06 05 44.1 +0.3
NOR                               IAmb   IAmb   06 05 44.9
      comp=Z,30nm,0.9s
NOR   Nord             41.82   8  P      P      06 05 44.2 +0.3
      comp=Z,36nm,1.1s
FRB   Frobisher Bay    42.51  41  LR     LR     06 24 06.9
      comp=Z,656nm,18.2s,baz=292,slow=37
I40A  Norwalk          43.43  76  P      P      06 05 56.9 -0.5
I40A                              IAmb   IAmb   06 06 06.4
      comp=Z,74nm,1.6s
HEH   HeiHe            43.47 296 eP      P      06 05 55.6 -2.0
HEH                               pmax   pmax
      comp=Z,24nm,0.8s
HEH                               L      L
      comp=Z,430nm,17.8s
HEH                               L      L
      comp=Z,330nm,19.8s
HEH                               L      L
      comp=Z,470nm,18.4s
MNTX  Cornudas Mount   43.48 101  P      P      06 05 58.9 +1.0
      comp=Z,19nm,1.2s
SAATT Saattut          43.89  27 iP      P      06 06 01.0 +0.3
SAATT                             IAmb   IAmb   06 06 03.9
      comp=Z,47nm,1.1s
H11N2 WAKE ISLAND Hy   44.28 231  T      T      06 53 15.2
      baz=28,slow=76,SNR=13
H11N3 WAKE ISLAND Hy   44.29 231  T      T      06 53 19.3
      baz=28,slow=76,SNR=14
H11N1 WAKE ISLAND Hy   44.30 231  T      T      06 53 19.5
      baz=28,slow=76,SNR=13
USRK  Ussuriysk Ar.    44.78 286  P      P      06 06 05.6 -2.6
      comp=Z,4.0nm,0.7s,baz=56,slow=11,SNR=4.6
USRK                              LR     LR     06 25 22.1
      comp=Z,270nm,20.2s,baz=55,slow=37
      comp=Z,4.0nm,0.7s
WMOK  Wichita Mounta   45.01  92  P      P      06 06 10.7 +0.5
      comp=Z,41nm,1.1s
H11S1 WAKE ISLAND Hy   45.44 230  T      T      06 54 53.5
      baz=28,slow=76,SNR=71
H11S2 WAKE ISLAND Hy   45.45 230  T      T      06 54 43.9
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         baz=28,slow=76,SNR=71
H11S3 WAKE ISLAND Hy 45.46 230   T        T          06 54 54.8
         baz=28,slow=76,SNR=42
DAG   Danmarks Havn  45.74  12 i P        P          06 06 15.5 +0.1
DAG                              IAmb     IAmb       06 06 16.1
         comp=Z,140nm,0.7s
DAG   Danmarks Havn  45.74  12   P        P          06 06 15.5 +0.1
         comp=Z,202nm,0.8s
SUMG  Summit         45.82  21 i P        P          06 06 16.9 +0.3
SUMG                             IAmb     IAmb       06 06 26.9
         comp=Z,39nm,0.8s
SUMG  Summit         45.82  21   P        P          06 06 16.7 +0.2
         comp=Z,53nm,0.8s
MDJ   Mudanjiang     45.83 288   P        P          06 06 14.8 -1.7
MDJ                              pmax     pmax
         comp=Z,30nm,0.8s
TXAR  Lajitas Array  46.23 101   P        P          06 06 20.9 +1.0
         comp=Z,2.3nm,0.6s,baz=310,slow=5.6,SNR=40
TXAR                             PcP      PcP        06 07 54.8 -0.4
         comp=Z,1.0nm,0.6s,baz=194,slow=1.5,SNR=4.2
TXAR                             ScP      ScP        06 11 46.1 -0.4
         comp=Z,1.6nm,1.0s,baz=297,slow=5.5,SNR=7.0
TXAR                             LR       LR         06 24 44.3
         comp=Z,908nm,18.4s,baz=308,slow=35
         comp=Z,2.3nm,0.6s
TXAR  Lajitas Array  46.23 101   P        P          06 06 20.2 +0.2
BNX   BinXian        46.28 291 ⇑P        P          06 06 18.9 -1.1
BNX                              pmax     pmax
         comp=Z,43nm,1.0s
MAJO  Matsushiro     46.45 274 i P        P          06 06 21.3 -0.2
MAJO                             pmax     pmax
         comp=Z,42nm,1.0s
MAJO  Matsushiro     46.45 274   P        P          06 06 20.7 -0.8
MAJO                             IAmb     IAmb       06 06 23.0
         comp=Z,44nm,1.0s
MAJO  Matsushiro     46.45 274   P        P          06 06 20.6 -0.9
         comp=Z,60nm,1.5s
MJAR  Matsushiro Arr 46.45 274   P        P          06 06 20.5 -1.0
         comp=Z,23nm,1.2s,baz=36,slow=6.2,SNR=15
MJAR                             LR       LR         06 23 32.9
         comp=Z,178nm,20.6s,baz=59,slow=33
         comp=Z,23nm,1.2s
MJB9  Matsu-Tunnel   46.45 274   P        P          06 06 21.4 -0.1
SFJD  Kangerlussuaq  46.61  31   LR       LR         06 25 53.9
         comp=Z,400nm,19.4s,baz=310,slow=36
SFJD  Kangerlussuaq  46.61  31 i P        P          06 06 22.5 +0.2
SFJD                             IAmb     IAmb       06 06 23.3
         comp=Z,34nm,0.8s
SFJD  Kangerlussuaq  46.61  31   P        P          06 06 22.6 +0.3
LPIG  La Paz         46.71 112   LR       LR         06 23 16.3
         comp=Z,224nm,20.9s,baz=340,slow=32
SPA0  Spitsbergen Ar 46.78   2 eP        P          06 06 23.4 -0.2
SPITS Spitsbergen Ar 46.78   2   P        P          06 06 22.7 -0.9
         comp=Z,15nm,0.7s,baz=57,slow=6.1,SNR=11
SPITS                            LR       LR         06 25 39.7
         comp=Z,443nm,18.4s,baz=334,slow=36
         comp=Z,15nm,0.7s
CCM   Cathedral Cave 46.98  83   P        P          06 06 23.7 -1.9
         comp=Z,14nm,2.1s
NRIK  Noril'sk       46.99 334   P        P          06 06 25.1 -0.2
         comp=Z,78nm,0.8s,baz=56,slow=7.0,SNR=60
NRIK                             LR       LR         06 29 49.9
         comp=Z,749nm,18.2s,baz=52,slow=41
         comp=Z,78nm,0.8s
NRIK  Noril'sk       46.99 334c iP        P          06 06 25.2 -0.1
NRIK                             pmax     pmax
         comp=Z,96nm,0.9s
NRIK  Noril'sk       46.99 334   P        P          06 06 24.9 -0.4
JGF   Kuroka         47.60 274   P        P          06 06 30.3 -0.2
DBG   Daneborg       47.65  14 i P        P          06 06 30.2 -0.1
DBG                              IAmb     IAmb       06 06 31.1
         comp=Z,63nm,0.8s
DBG   Daneborg       47.65  14   P        P          06 06 30.4  0.0
         comp=Z,87nm,0.9s
HILR  Hailar Array B 47.79 299   P        P          06 06 30.8 -1.1
         comp=Z,4.4nm,0.5s,baz=60,slow=8.9,SNR=6.4
HILR                             LR       LR         06 28 29.4
         comp=Z,151nm,19.4s,baz=40,slow=38
         comp=Z,4.4nm,0.5s
JHJ   Hachijo jima 2 48.00 269   LR       LR         06 25 16.3
         comp=Z,84nm,21.3s,baz=40,slow=34
MIAR  Mount Ida      48.13  88   P        P          06 06 34.0 -0.6
         comp=Z,36nm,1.1s
MIAR                             pP       pP         06 06 42.4  0.0
NUUK  Nuuk           48.15  34 i P        P          06 06 34.9 +0.6
NUUK                             IAmb     IAmb       06 06 36.1
         comp=Z,30nm,0.8s
HOPEN Hopen          48.49 359 eP        P          06 06 36.4 -0.5
SCHQ  Schefferville  48.51  51   P        P          06 06 36.6 -0.7
         comp=Z,11nm,0.6s,baz=258,slow=9.8,SNR=9.4
SCHQ                             LR       LR         06 28 45.3
         comp=Z,771nm,19.0s,baz=297,slow=38
         comp=Z,11nm,0.6s
CN2   Changchun      48.60 290   P        P          06 06 37.3 -0.8
CN2                              pmax     pmax
         comp=Z,60nm,0.8s
CN2                              L        L
         comp=Z,200nm,14.0s
CN2                              L        L
         comp=Z,200nm,14.0s
CN2                              L        L
         comp=Z,200nm,15.0s
PARMO Parma          48.80  83   P        P          06 06 38.6 -1.1
WVT   Waverly        50.27  82   P        P          06 06 50.2 -0.7
WVT                              pmax     pmax
         comp=Z,68nm,1.3s
WVT   Waverly        50.27  82   P        P          06 06 50.1 -0.7
WVT   Waverly        50.27  82   P        P          06 06 50.8 -0.1
         comp=Z,48nm,1.8s
WVT                              pP       pP         06 06 58.9 +0.1
H06N1 SOCORRO T-PHAS50.67 117   T        T          07 01 19.2
         SNR=9.2
SOEG  Soedalen       50.71  23 i P        P          06 06 54.1 +0.3
SOEG                             IAmb     IAmb       06 06 55.5
         comp=Z,45nm,1.1s
O52A  Adamsville     50.81  74   P        P          06 06 53.6 -1.4
O52A                             IAmb     IAmb       06 07 04.7
         comp=Z,49nm,1.5s
ISOG  Isortoq, Green 50.94  28 i P        P          06 06 54.9 -0.7
ISOG                             IAmb     IAmb       06 07 04.0
         comp=Z,48nm,1.0s
WBO   Williamsburg   50.96  65   P        P          06 06 55.1 -0.9
WBO                              IAmb     IAmb       06 07 05.2
         comp=Z,35nm,1.3s
O53A  New Philadelph 51.06  73   P        P          06 06 55.0 -1.9
O53A                             IAmb     IAmb       06 07 04.7
         comp=Z,39nm,1.6s
O54A  Avella         51.57  73   P        P          06 06 59.6 -1.0
O54A                             IAmb     IAmb       06 07 00.1
         comp=Z,20nm,0.7s
LONY  Lake Ozonia    51.58  65   P        P          06 06 59.2 -1.5
LONY                             IAmb     IAmb       06 07 09.8
         comp=Z,57nm,1.9s
KSRS  Korea Array    51.63 282   P        P          06 07 01.4 +0.3
         comp=Z,29nm,0.8s,baz=46,slow=7.2,SNR=68
KSRS                             LR       LR         06 27 28.3
         comp=Z,81nm,21.3s,baz=50,slow=34
         comp=Z,29nm,0.8s
L56A  Greenwood      51.73  69   P        P          06 07 01.4 -0.4
L56A                             IAmb     IAmb       06 07 02.2
         comp=Z,32nm,0.8s
JMIC  Jan Mayen      52.19  12   LR       LR         06 30 38.0
         comp=Z,268nm,20.4s,baz=46,slow=38
MCWV  Mont Chateau   52.23  73   P        P          06 07 04.7 -0.8
MCWV                             IAmb     IAmb       06 07 05.2
         comp=Z,15nm,0.8s
NRS   Narsarsuaq     52.35  34 i P        P          06 07 06.0 -0.1
NRS                              IAmb     IAmb       06 07 07.5
         comp=Z,76nm,1.1s
W50A  Signal Mountai 52.36  81   P        P          06 07 05.6 -1.0
W50A                             IAmb     IAmb       06 07 15.1
         comp=Z,27nm,1.1s
TJN   Taejon         52.71 282c iP        P          06 07 09.7 +0.6
TJN   Taejon         52.71 282   P        P          06 07 08.3 -0.9
         comp=Z,327nm,0.9s
TKL   Tuckaleechee C 52.90  79   LR       LR         06 28 58.4
         comp=Z,377nm,19.4s,baz=326,slow=35
JTU   Tsushima       52.90 279   P        P          06 07 10.4 -0.2
R55A  Marlinton      53.05  74   P        P          06 07 10.9 -0.8
JNU   Nakatsue       53.08 276   P        P          06 07 12.0  0.0
         comp=Z,17nm,1.0s,baz=153,slow=11,SNR=3.6
JNU                              LR       LR         06 29 06.3
         comp=Z,218nm,21.3s,baz=45,slow=35
         comp=Z,17nm,1.0s
G62A  West of Eustis 53.24  62   P        P          06 07 12.0 -0.9
G62A                             IAmb     IAmb       06 07 28.3
         comp=Z,23nm,1.1s
P57A  Homestead Farm 53.35  72   P        P          06 07 12.6 -1.2
P57A                             IAmb     IAmb       06 07 22.2
         comp=Z,32nm,1.3s
XLT   XiLinHaoTe     53.47 296 eP        P          06 07 14.8  0.0
XLT                              pP       sP         06 07 26.3 +0.6
XLT                              sP       pP         06 07 27.6 +4.9
XLT                              pmax     pmax
         comp=Z,130nm,0.9s
XLT                              pmax     pmax
         comp=Z,63nm,3.9s
XLT                              L        L
         comp=Z,350nm,18.3s
XLT                              L        L
         comp=Z,360nm,17.4s
PAGS  Pennsylvania G 53.52  70   P        P          06 07 14.1 -1.0
PAGS                             IAmb     IAmb       06 07 35.1
         comp=Z,29nm,1.1s
F64A  Sherman        53.88  60   P        P          06 07 16.4 -1.2
F64A                             IAmb     IAmb       06 07 17.2
         comp=Z,24nm,1.1s
TLY   Talaya         53.90 310   P        P          06 07 17.5 -0.2
         comp=Z,25nm,0.9s,baz=18,slow=7.9,SNR=13
         comp=Z,25nm,0.9s
TLY   Talaya         53.90 310ceP        P          06 07 17.8  0.0
TLY                              pmax     pmax
         comp=Z,33nm,0.9s
TLY   Talaya         53.90 310   P        P          06 07 17.3 -0.4
TLY   Talaya         53.90 310   P        P          06 07 17.8  0.0
         comp=Z,52nm,0.8s
DL2   Dalian         54.07 288   P        P          06 07 18.1 -1.0
DL2                             eS        S          06 14 55.3 +1.7
DL2                              pmax     pmax
         comp=Z,52nm,0.9s
DL2                              pmax     pmax
         comp=Z,170nm,3.6s
DL2                              L        L
         comp=Z,440nm,21.4s
DL2                              L        L
         comp=Z,390nm,20.7s
DL2                              L        L
         comp=Z,560nm,20.9s
HAMF  Hammerfest     54.40 359 eP        P          06 07 21.0 -0.1
VADS  Vadso          54.82 357 eP        P          06 07 23.9 -0.2
WES   Weston         54.84  65   P        P          06 07 23.8 -0.8
WES                              pmax     pmax
         comp=Z,15nm,0.8s
WES   Weston         54.84  65   P        P          06 07 23.8 -0.8
WES                              IAmb     IAmb       06 07 25.0
         comp=Z,15nm,0.8s
ZAK   Zakamensk      54.99 309 eP        P          06 07 24.6 -1.2
ZAK                             e                    06 08 26.5
ZAK                              pmax     pmax
         comp=Z,15nm,1.1s
ZAK                              pmax     pmax
         comp=Z,13nm,1.0s
ULN   Ulaanbaatar    55.09 305c iP        P          06 07 26.1 -0.6
ULN                              pmax     pmax
         comp=Z,20nm,1.0s
ULN   Ulaanbaatar    55.09 305   P        P          06 07 25.7 -0.9
ULN                              IAmb     IAmb       06 07 38.2
         comp=Z,21nm,1.1s
ULN   Ulaanbaatar    55.09 305   P        P          06 07 26.0 -0.6
ULN   Ulaanbaatar    55.09 305   P        P          06 07 26.2 -0.4
         comp=Z,25nm,1.1s
KEV   Kevo           55.25 358   P        P          06 07 26.6 -0.6
KEV                              pmax     pmax
         comp=Z,46nm,0.9s
KEV   Kevo           55.25 358   P        P          06 07 26.6 -0.6
KEV   Kevo           55.25 358   P        P          06 07 26.4 -0.8
         comp=Z,72nm,1.4s
V58A  Windy Hill, Pi 55.40  76   P        P          06 07 27.8 -1.0
V58A                             IAmb     IAmb       06 07 44.0
         comp=Z,15nm,1.0s
TRO   Tromso         55.40   1 eP        P          06 07 28.0 -0.3
T59A  Double "B" Far 55.41  74   P        P          06 07 27.6 -1.2
T59A                             IAmb     IAmb       06 07 28.8
         comp=Z,14nm,0.9s
SONM  Songino Array  55.42 305   P        P          06 07 28.8 -0.2
         comp=Z,21nm,0.9s,baz=50,slow=7.4,SNR=44
SONM                             PcP      PcP        06 08 29.3 +0.3
         comp=Z,14nm,0.8s,baz=57,slow=2.3,SNR=8.5
         comp=Z,21nm,0.9s
JETT  Jettan, Norway 55.49   1 eP        P          06 07 29.1 +0.1
ARA0  ARCESS Array S 55.50 359 eP        P          06 07 28.2 -0.8
ARCES ARCESS Array B 55.50 359   P        P          06 07 27.9 -1.1
         comp=Z,23nm,0.9s,baz=6.2,slow=12,SNR=4.1
ARCES                            LR       LR         06 32 38.7
         comp=Z,221nm,18.8s,baz=7.0,slow=38
         comp=Z,23nm,0.9s
ARCES ARCESS Array B 55.50 359   P        P          06 07 28.0 -1.1
LMN   Caledonia Moun 55.62  58   P        P          06 07 29.2 -1.0
LMN                              IAmb     IAmb       06 07 30.1
         comp=Z,24nm,1.0s
BORG  Borgarnes      55.79  21   LR       LR         06 33 40.9
         comp=Z,199nm,18.3s,baz=331,slow=38
KTK1  Kautokeino     56.05 360 eP        P          06 07 32.2 -0.8
BJI2  Beijing        56.19 293   P        P          06 07 33.8 -0.6
BJI2                             pmax     pmax
         comp=Z,7.0nm,0.7s
BJT   Baijiatuau     56.19 293   P        P          06 07 33.9 -0.5
         comp=Z,15nm,1.2s
LVZ   Lovozero       56.81 354ceP        P          06 07 37.3 -1.2
LVZ                              pmax     pmax
         comp=Z,44nm,0.8s
LVZ   Lovozero       56.81 354   P        P          06 07 38.2 -0.3
         comp=Z,100nm,2.2s
LVZ   Lovozero       56.81 354   P        P          06 07 38.5  0.0
         comp=Z,92nm,2.2s
STEI  Steigen        57.03   3 eP        P          06 07 40.2 +0.2
APA   Apatity        57.21 355 eP        P          06 07 37.5 -3.7
APA                             e                    06 08 33.8
APA                             e                    06 09 46.5
APA                              pmax     pmax
         comp=Z,17nm,0.9s
APA                              MLR      MLR
         comp=Z,471nm,6.0s
KNGR  Kungurtug, Tuv 57.31 313 i P        P          06 07 43.7 +1.3
KNGR                             pmax     pmax
         comp=Z,36nm,1.3s
FAUS  Fauske         57.58   3 eP        P          06 07 43.5 -0.3
SGF   Sodankyl       57.58 358   P        P          06 07 43.6 -0.2
         comp=Z,68nm,0.9s
HHC   Hu-ho-hao-te   57.98 297 eP        P          06 07 49.8 +2.6
HHC                              pmax     pmax
         comp=Z,14nm,0.7s
HHC                              pmax     pmax
         comp=Z,120nm,4.7s
HHC                              L        L
         comp=Z,220nm,15.2s
HHC                              L        L
         comp=Z,280nm,16.0s
HHC                              L        L
         comp=Z,270nm,15.7s
VAGH  Vaagaholmen    58.16   4 eP        P          06 07 48.1 +0.2
KONS  Konsvik        58.38   4 eP        P          06 07 49.4 -0.1
TIA   Tai'an         58.48 289   P        P          06 07 49.5 -1.1
TIA                              pmax     pmax
         comp=Z,17nm,1.1s
RAUS  Rausandaksla   58.48   4 eP        P          06 07 49.8 -0.4
STOK  Stokkvaagen    58.55   4 eP        P          06 07 50.7 +0.1
LEIR  Leirfjorden    58.77   4 eP        P          06 07 52.4 +0.2
HNS   HongShan       58.89 292 ⇑P        P          06 07 53.3 -0.1
HNS                              S        S          06 15 57.9 +0.4
HNS                              pmax     pmax
         comp=Z,64nm,1.0s
HNS                              L        L
         comp=Z,380nm,20.7s
HNS                              L        L
         comp=Z,380nm,19.1s
MSF   Maaselka       59.05 357   P        P          06 07 54.3 +0.2
         comp=Z,75nm,0.9s
ZAA0  Zalesovo Array 59.59 322   P        P          06 07 57.4 -0.6
ZAA0                             IAmb     IAmb       06 08 11.8
         comp=Z,18nm,0.8s
ZALV  Zalesovo Beam  59.59 322   P        P          06 07 57.6 -0.4
         comp=Z,11nm,0.8s,baz=46,slow=6.4,SNR=32
ZALV                             PcP      PcP        06 08 45.2 +0.2
         comp=Z,11nm,0.8s,baz=23,slow=4.9,SNR=7.2
ZALV                             LR       LR         06 36 15.3
         comp=Z,887nm,18.2s,baz=40,slow=39
         comp=Z,11nm,0.8s
OUL   Oulu           59.96 358   P        P          06 08 00.1 -0.3
         comp=Z,109nm,1.1s
NSS   Namsos         60.30   5 eP        P          06 08 02.0 -0.7
GUMO  Guam           60.47 250   LR       LR         06 30 59.5
         comp=Z,68nm,20.3s,baz=77,slow=33
ADZR  Andozero       60.49 352 eP        P          06 08 02.4 -1.6
ADZR                             pmax     pmax
         comp=Z,50nm,0.6s
NJ2   Nanjing        60.64 285 eP        P          06 08 06.3 +0.8
NJ2                              pmax     pmax
         comp=Z,13nm,0.5s
CMIG  Matias Romero  60.80 102   LR       LR         06 34 17.9
         comp=Z,210nm,18.1s,baz=338,slow=36
MOL   Molde          61.97   8 eP        P          06 08 14.3 +0.2
DGZ   Jazzator, Alta 62.07 318c iP        P          06 08 15.3 +0.1
DGZ                              pmax     pmax
         comp=Z,22nm,1.9s
LYN   LuoYang        62.23 291   P        P          06 08 16.1 -0.1
LYN                              sP       sP         06 08 27.8 +0.5
LYN                              pmax     pmax
         comp=Z,54nm,0.8s
LYN                              pmax     pmax
         comp=Z,210nm,4.3s
LYN                              L        L
         comp=Z,440nm,17.5s
LYN                              L        L
         comp=Z,380nm,17.9s
LYN                              L        L
         comp=Z,410nm,19.6s
AKN   Aaknes         62.31   8 eP        P          06 08 16.8 +0.4
DOMB  Dombas         62.60   7 eP        P          06 08 17.9 -0.5
FOO   Floro          62.72   9 eP        P          06 08 19.2 +0.1
KLMR  Klimovskoe     63.42 351 eP        P          06 08 22.2 -1.5
KLMR                             pmax     pmax
         comp=Z,82nm,1.0s
NC204 NORSAR Array S 63.47   6   P        P          06 08 24.1 -0.1
FIA1  FINESS Array S 63.61 358   P        P          06 08 24.5 -0.5
FINES FINESS Array B 63.61 358   P        P          06 08 24.4 -0.5
         comp=Z,34nm,0.7s,baz=14,slow=8.6,SNR=71
         comp=Z,34nm,0.7s
FINES FINESS Array B 63.61 358   P        P          06 08 24.8 -0.2
NB201 NORSAR Array S 63.73   6   P        P          06 08 25.6 -0.3
NB2   NORSAR Subarra 63.73   6   P        P          06 08 25.6 -0.3
         comp=Z,36nm,0.9s,baz=354,slow=6.5
NB2   NORSAR Subarra 63.73   6   P        P          06 08 25.6 -0.3
NOA   NORSAR Array B 63.73   6   P        P          06 08 25.8 -0.1
         comp=Z,20nm,0.8s,baz=353,slow=6.6,SNR=48
         comp=Z,20nm,0.8s
ASK   Askoy          63.84   9 eP        P          06 08 26.6 +0.1
SKAR  Skarslia       63.90   8 eP        P          06 08 27.3 +0.2
SVE   Sverdlovsk     63.98 338 eP        P          06 08 27.8 +0.3
SVE                              pmax     pmax
         comp=Z,50nm,0.9s
NC602 NORSAR Array S 64.06   6 eP        P          06 08 28.4 +0.5
WHN   Wuhan          64.27 287   P        P          06 08 32.8 +3.0
KURK  Kurchatov      64.40 324   P        P          06 08 30.7 +0.3
KURK  Kurchatov      64.40 324   P        P          06 08 30.1 -0.3
KURK                             IAmb     IAmb       06 08 43.6
         comp=Z,18nm,0.8s
KURK  Kurchatov      64.40 324   P        P          06 08 29.9 -0.5
         comp=Z,27nm,0.8s
KIRV  Kirov          64.41 345   LR       LR         06 41 28.8
         comp=Z,459nm,18.3s,baz=3.9,slow=41
KIRV  Kirov          64.41 345ceP        P          06 08 29.8 -0.5
XAN   Xi'an          64.50 293   P        P          06 08 30.8 -0.6
XAN                              pmax     pmax
         comp=Z,31nm,0.9s
XAN                              L        L
         comp=Z,320nm,20.6s
XAN                              L        L
         comp=Z,300nm,18.5s
XAN                              L        L
         comp=Z,310nm,19.2s
KURBB Kurchatov Arra 64.51 324   P        P          06 08 30.7 -0.4
         comp=Z,5.5nm,0.9s,baz=25,slow=6.3,SNR=25
KURBB                            LR       LR         06 39 31.6
         comp=Z,682nm,18.2s,baz=194,slow=39
         comp=Z,5.5nm,0.9s
ODD1  Odda           64.53   9 eP        P          06 08 31.0 -0.1
HFS   Hagfors        64.77   5   P        P          06 08 32.5 -0.1
         comp=Z,21nm,0.8s,baz=46,slow=9.4,SNR=20
HFS                              LR       LR         06 37 06.5
         comp=Z,21nm,20.7s,baz=347,slow=36
         comp=Z,21nm,0.8s
ARTI  Arti           64.87 339   LR       LR         06 39 14.5
         comp=Z,408nm,20.0s,baz=26,slow=38
ARTI  Arti           64.87 339   P        P          06 08 32.6 -0.8
ARTI                             pmax     pmax
         comp=Z,56nm,0.7s
ARTI  Arti           64.87 339   P        P          06 08 32.6 -0.8
GTA2  Gaotai         64.87 303   P        P          06 08 33.3 -0.5
GTA2                             sP       sP         06 08 44.6 -0.3
GTA2                             pmax     pmax
         comp=Z,53nm,1.0s
GTA2                             pmax     pmax
         comp=Z,150nm,9.2s
GTA2                             L        L
         comp=Z,360nm,16.8s
GTA2                             L        L
         comp=Z,310nm,19.0s
GTA2                             L        L
         comp=Z,660nm,19.7s
BVAR  Borovoye Array 64.96 330   P        P          06 08 34.0  0.0
         comp=Z,37nm,0.7s,baz=36,slow=6.8,SNR=128
         comp=Z,37nm,0.7s
BVAR  Borovoye Array 64.96 330   P        P          06 08 34.0  0.0
BORK  Borovoye       64.96 330c iP        P          06 08 33.8 -0.2
BORK                             pmax     pmax
         comp=Z,19nm,0.7s
BORK  Borovoye       64.96 330   P        P          06 08 33.3 -0.7
BORK                             IAmb     IAmb       06 08 35.1
         comp=Z,18nm,0.7s
BLS5  Blasjo         64.99   9 eP        P          06 08 34.5 +0.3
KONO  Kongsberg      65.02   7ceP        P          06 08 35.5 +1.3
KONO                             pmax     pmax
         comp=Z,21nm,0.8s
KONO  Kongsberg      65.02   7 eP        P          06 08 34.7 +0.5
PUL   Pulkovo        65.14 355ceP        P          06 08 35.9 +0.9
PUL                              pmax     pmax
         comp=Z,106nm,0.8s
LZH   Lanzhou        65.53 298 eP        P          06 08 38.3 +0.1
LZH                              sP       pP         06 08 47.4 +1.2
LZH                              pmax     pmax
         comp=Z,83nm,1.3s
LZH                              L        L
         comp=Z,280nm,15.2s
LZH                              L        L
         comp=Z,290nm,14.9s
LZH                              L        L
         comp=Z,230nm,14.9s
TAOE  Nuku Hiva Isla 65.58 161 eLR       LR         06 28 05.8
         comp=Z,422nm,23.5s
ARBE  Arbavere       65.62 358   P        P          06 08 38.3 +0.2
         comp=Z,318nm,0.8s
LZDM  Lanzhou Array  65.70 298   P        P          06 08 38.7 -0.8
         comp=Z,9.0nm,0.5s,baz=29,slow=3.4,SNR=10
LZDM                             LR       LR         06 39 31.1
         comp=Z,178nm,19.5s,baz=50,slow=38
         comp=Z,9.0nm,0.5s
STRU  Stroemstad     65.73   6 i P        P          06 08 39.2 +0.4
SSLB  Suanglung      65.82 277   P        P          06 08 38.7 -1.3
SSLB  Suanglung      65.82 277   P        P          06 08 38.3 -1.7
         comp=Z,38nm,1.0s
SNART Snartemo       66.13   9 i P        P          06 08 41.8 +0.3
HOMB  Homborsund     66.31   8 eP        P          06 08 42.3 -0.2
HOMB  Homborsund     66.31   8 i P        P          06 08 43.4 +0.8
MTSE  Matsula        66.38 359   P        P          06 08 43.3 +0.3
         comp=Z,142nm,1.0s
MK31  Makanchi Array 66.41 319c iP        P          06 08 42.5 -1.0
MKAR  Makanchi Array 66.41 319   P        P          06 08 42.6 -0.9
         comp=Z,8.0nm,0.8s,baz=48,slow=6.3,SNR=64
MKAR                             PP       PP         06 11 06.0 -3.3
         comp=Z,2.2nm,0.8s,baz=55,slow=9.1,SNR=3.6
         comp=Z,8.0nm,0.8s
MKAR  Makanchi Array 66.41 319   P        P          06 08 42.5 -1.0
MAKZ  Makanchi       66.51 320   P        P          06 08 43.6 -0.6
MAKZ  Makanchi       66.51 320   P        P          06 08 43.3 -0.8
MAKZ                             IAmb     IAmb       06 08 44.5
         comp=Z,12nm,0.9s
MAKZ  Makanchi       66.51 320   P        P          06 08 43.4 -0.7
         comp=Z,17nm,0.8s
VSU   Vasula         66.58 357ceP        P          06 08 43.3 -1.0
VSU                              pmax     pmax
         comp=Z,101nm,0.8s
VSU   Vasula         66.58 357   P        P          06 08 43.5 -0.8
         comp=Z,119nm,0.8s
TJOU  Tjoern         66.76   6 i P        P          06 08 45.5 +0.1
WMQ   Urumqi         66.76 314 eP        P          06 08 46.4 +0.5
WMQ                              sP       sP         06 08 59.3 +2.3
WMQ                              PP       PP         06 11 16.9 +4.4
WMQ                              pmax     pmax
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	comp=Z,22nm,1.1s						
WMQ				L	L		
	comp=Z,280nm,23.9s						
ENH	**Enshi**	**67.12**	**290**	P	**P**	**06 08 47.7**	**-0.6**
	comp=Z,32nm,1.4s						
IDGL	**Inch Island, C**	**67.40**	**18**	P	**P**	**06 08 50.5**	**+0.9**
ONAU	**Onsala**	**67.41**	**6**	*i* P	**P**	**06 08 49.7**	**+0.2**
FABU	**Falkenberg**	**67.85**	**6**	*i* P	**P**	**06 08 52.3**	**-0.1**
EKA	**Eskdalemuir Ar**	**67.86**	**15**	P	**P**	**06 08 53.0**	**+0.6**
	comp=Z,18nm,0.7s,baz=329,slow=4.6,SNR=31						
EKA				LR	LR	06 38 19.4	
	comp=Z,200nm,21.0s,baz=359,slow=36						
	comp=Z,18nm,0.7s						
MUD	**Monsted U'grnd**	**68.16**	**8**	*i* P	**P**	**06 08 55.3**	**+1.0**
MUD				IAmb	IAmb	06 08 57.1	
	comp=Z,31nm,1.0s						
DEL	**Delary**	**68.44**	**5**	*i* P	**P**	**06 08 55.8**	**-0.3**
ILTH	**Belurgan, Co L**	**68.60**	**18**	P	**P**	**06 08 57.4**	**+0.3**
IGLA	**Glengowla, Co**	**68.63**	**20**	P	**P**	**06 08 57.4**	**+0.1**
MOS	**Moscow**	**68.65**	**351**	*e*P	**P**	**06 08 56.9**	**-0.5**
MOS				*e*		06 09 20.5	
BLEU	**Blekinge**	**68.69**	**4**	*i* P	**P**	**06 08 56.7**	**-0.9**
LUNU	**Lund**	**69.25**	**5**	*i* P	**P**	**06 09 01.3**	**+0.2**
DSB	**Dublin**	**69.34**	**18**	P	**P**	**06 09 02.5**	**+0.7**
OBN	**Obninsk**	**69.36**	**351**	LR	LR	06 43 45.9	
	comp=Z,112nm,21.1s,baz=1.0,slow=40						
OBN	**Obninsk**	**69.36**	**351**	*c i*P	**P**	**06 09 01.0**	**-0.8**
OBN				*i* *PP	**pP**	**06 09 08.9**	**-1.0**
OBN				*e*		06 11 35.6	
OBN				*e*PPP	PPP	06 13 16.2	
OBN				*e*S	**S**	**06 18 09.0**	**+2.5**
OBN				*e*SS	**SS**	**06 22 37.2**	**+4.8**
OBN				pmax	pmax		
	comp=Z,37nm,0.9s						
OBN				MLR	MLR		
	comp=Z,257nm,18.0s						
PABE	**Paberze**	**69.59**	**359**	P	**P**	**06 09 03.1**	**-0.2**
PABE	**Paberze**	**69.59**	**359**	P	**P**	**06 09 03.4**	**+0.1**
	comp=Z,116nm,0.8s						
CD2	**Chengdu**	**69.65**	**295**	P	**P**	**06 09 03.9**	**-0.2**
CD2				pmax	pmax		
	comp=Z,60nm,1.0s						
CD2				L	L		
	comp=Z,250nm,12.7s						
CD2				L	L		
	comp=Z,290nm,10.8s						
CD2				L	L		
	comp=Z,210nm,14.6s						
BSD	**Bornholm Skovb**	**69.84**	**4**	*i* P	**P**	**06 09 05.4**	**+0.6**
BSD				IAmb	IAmb	06 09 06.5	
	comp=Z,11nm,0.8s						
GOMU	**GeErMu**	**69.85**	**305**	P	**P**	**06 09 05.0**	**-0.6**
GOMU				S	**S**	**06 18 14.3**	**+0.6**
GOMU				pmax	pmax		
	comp=Z,15nm,0.8s						
GOMU				L	L		
	comp=Z,410nm,16.6s						
GOMU				L	L		
	comp=Z,350nm,17.0s						
GOMU				L	L		
	comp=Z,470nm,16.9s						
IWEX	**Carrickbyrne,**	**70.11**	**18**	P	**P**	**06 09 06.4**	**-0.1**
PDGK	**Podgornoye**	**70.40**	**319**	P	**P**	**06 09 08.8**	**+0.1**
PDGK	**Podgornoye**	**70.40**	**319**	P	**P**	**06 09 08.8**	**+0.1**
AKTO	**Aktyubinsk**	**70.50**	**337**	LR	LR	06 43 36.0	
	comp=Z,340nm,20.0s,baz=356,slow=39						
MNK	**Minsk**	**70.51**	**356**	*i* P	**P**	**06 09 07.6**	**-1.3**
MNK				*i*		06 09 29.8	
MNK				*i*		06 11 41.9	
MNK				*i* PPP	PPP	06 13 23.3	
MNK				*i* S	**S**	**06 18 19.0**	**-1.0**
MNK				*i* SSS	SSS	06 26 04.2	
MNK				pmax	pmax		
	comp=N,12nm,0.7s						
MNK				pmax	pmax		
	comp=E,9.0nm,0.8s						
MNK				pmax	pmax		
	comp=Z,53nm,0.9s						
MNK				MLR	MLR		
	comp=Z,92nm,15.0s						
MNK				MLR	MLR		
	comp=N,116nm,21.0s						
MNK				MLR	MLR		
	comp=E,90nm,17.0s						
MNK	**Minsk**	**70.51**	**356**	*i* P	**P**	**06 09 07.6**	**-1.3**
	comp=E,9.0nm,0.8s						
MNK				*i* P	**P**	**06 09 07.6**	**-1.3**
	comp=N,12nm,0.7s						
MNK				*i* P	**P**	**06 09 07.6**	**-1.3**
	comp=Z,53nm,0.9s,baz=3.9						
MNK				*i* PcP	**PcP**	**06 09 29.8**	**-0.2**
MNK				*i* PP	**PP**	**06 11 41.9**	**-2.5**
MNK				*i* PPP	PPP	06 13 23.4	
MNK				*i* S	**S**	**06 18 19.1**	**-1.0**
MNK				*i* SS	**SS**	**06 22 46.6**	**-3.5**
MNK				*i* SSS	SSS	06 26 04.3	
MNK				*i* LQ	LQ	06 34 57.1	
MNK				*i* LR	LR	06 39 42.9	
MNK				*i* LRM	MLR	06 41 54.4	
	comp=Z,92nm,14.6s						
MNK				*i* LRM	MLR	06 42 11.8	
	comp=N,116nm,20.7s						
MNK				*i* LRM	MLR	06 42 13.7	
	comp=E,90nm,16.7s						
BELG	**Belogornoye**	**70.66**	**344**	LR	LR	06 44 06.0	
	comp=E,392nm,19.2s,baz=62,slow=39						
BELG	**Belogornoye**	**70.66**	**344**	*c i*P	**P**	**06 09 09.3**	**-0.5**
BELG				pmax	pmax		
	comp=Z,14nm,0.8s						
BSEG	**Bad Segeberg**	**70.75**	**7**	P	**P**	**06 09 11.0**	**+0.7**
	comp=Z,25nm,1.1s						
SUW	**Suwalki**	**71.10**	**359**	P	**P**	**06 09 11.9**	**-0.6**
SUW	**Suwalki**	**71.10**	**359**	P	**P**	**06 09 11.9**	**-0.6**
AB31	**Akbulak array**	**71.15**	**335**	P	**P**	**06 09 12.4**	**-0.5**
ABKAR	**Akbulak array**	**71.15**	**335**	P	**P**	**06 09 12.7**	**-0.2**
LPSR	**Galich'ya Gora**	**71.61**	**349**	*e*P	**P**	**06 09 14.2**	**-1.4**
LPSR				pmax	pmax		
	comp=Z,38nm,0.8s						
GYA	**Guiyang**	**71.65**	**290**	⇑P	**P**	**06 09 16.0**	**-0.5**
GYA				pmax	pmax		
	comp=Z,30nm,0.7s						
WUS	**Wushi**	**72.33**	**318**	P	**P**	**06 09 20.2**	**-0.2**
WUS				IAmb	IAmb	06 09 21.6	
	comp=Z,26nm,0.8s						
WUS	**Wushi**	**72.33**	**318**	P	**P**	**06 09 20.7**	**+0.3**
	comp=Z,42nm,1.0s						
TARG	**Taragay, Kyrgy**	**72.41**	**320**	P	**P**	**06 09 21.0**	**-0.2**
TARG				pmax	pmax		
	comp=Z,22nm,1.1s						
TARG	**Taragay, Kyrgy**	**72.41**	**320**	P	**P**	**06 09 21.0**	**-0.2**
TARG				IAmb	IAmb	06 09 33.8	
	comp=Z,22nm,1.1s						
BOOM	**Boomskoye usch**	**72.43**	**321**	P	**P**	**06 09 21.2**	**+0.3**
BOOM				pmax	pmax		
	comp=Z,23nm,0.7s						
BOOM	**Boomskoye usch**	**72.43**	**321**	P	**P**	**06 09 21.2**	**+0.3**
BOOM				IAmb	IAmb	06 09 22.3	
	comp=Z,23nm,0.7s						
VORR	**Voronezh**	**72.50**	**349**	*e*P	**P**	**06 09 19.9**	**-1.1**
VORR				pmax	pmax		
	comp=Z,17nm,0.6s						
HDC	**Heredia**	**72.61**	**98**	*e*P	**P**	**06 09 24.8**	**+2.5**
VRH	**Novokhopyorsk**	**72.66**	**347**	*e*P	**P**	**06 09 20.0**	**-1.9**
VRH				pmax	pmax		
	comp=Z,24nm,0.8s						
AAK	**Ala-Archa**	**72.81**	**322**	*c i*P	**P**	**06 09 23.6**	**+0.4**
AAK				pmax	pmax		
	comp=Z,24nm,0.9s						
AAK	**Ala-Archa**	**72.81**	**322**	P	**P**	**06 09 23.4**	**+0.2**
AAK				IAmb	IAmb	06 09 24.6	
	comp=Z,21nm,0.9s						
AAK	**Ala-Archa**	**72.81**	**322**	P	**P**	**06 09 23.8**	**+0.6**
	comp=Z,32nm,1.0s						
CLZ	**Clausthal**	**72.83**	**8**	P	**P**	**06 09 24.2**	**+1.2**
	comp=Z,21nm,0.8s						
PPT	**Papeete**	**72.87**	**172**	LR	LR	06 34 31.1	
	comp=Z,208nm,19.8s,baz=329,slow=30						
PPT2	**Papeete2**	**72.89**	**172**	*e*LR	LR	06 31 25.1	
	comp=Z,262nm,22.2s						
PPT2				*e*LR	LR	06 31 33.9	
	comp=Z,249nm,25.0s						
VSR	**Storozhevoye**	**72.95**	**349**	*e*P	**P**	**06 09 22.1**	**-1.6**
VSR				pmax	pmax		
	comp=Z,46nm,1.0s						
BUG	**Bochum--Univer**	**72.97**	**10**	P	**P**	**06 09 24.3**	**+0.6**
	comp=Z,36nm,0.8s						
GTTG	**Gottingen**	**73.10**	**8**	P	**P**	**06 09 25.4**	**+0.9**
VORD	**Divnogorie**	**73.19**	**349**	*e*P	**P**	**06 09 22.7**	**-2.3**
VORD				pmax	pmax		
	comp=Z,50nm,0.9s						
NRN	**Naryn**	**73.33**	**321**	P	**P**	**06 09 26.3**	**-0.2**
NRN				pmax	pmax		
	comp=Z,29nm,1.0s						
NRN	**Naryn**	**73.33**	**321**	P	**P**	**06 09 26.3**	**-0.2**
NRN				IAmb	IAmb	06 09 28.3	
	comp=Z,29nm,1.0s						
HNR	**Honiara**	**73.42**	**224**	LR	LR	06 35 43.6	
	comp=Z,170nm,21.7s,baz=106,slow=31						
CLL	**Collm**	**73.54**	**6**	*i* P	**P**	**06 09 27.1**	**-0.1**
CLL				*e**PP	**pP**	**06 09 36.0**	**+0.7**
CLL				pmax	pmax		
	comp=Z,16nm,0.9s						
CLL	**Collm**	**73.54**	**6**	P	**P**	**06 09 27.0**	**-0.1**
CLL				IAmb	IAmb	06 09 39.3	
	comp=Z,16nm,0.8s						
CLL	**Collm**	**73.54**	**6**	P	**P**	**06 09 27.5**	**+0.4**
	comp=Z,23nm,0.9s						
CLL	**Collm**	**73.54**	**6**	*i* P	**P**	**06 09 27.1**	**-0.1**
	comp=Z,16nm,0.9s						
CLL				*e*pP	**pP**	**06 09 36.0**	**+0.7**
CLL				*i* (sP)	**sP**	**06 09 38.5**	**+0.2**
CLL				*e*PP	**PP**	**06 12 17.0**	**+6.6**
CLL				*e*PS	**PnS**	**06 19 28.0**	**-0.7**
CLL				*e*SS	SS	06 23 36.0	-0.6
CLL				*e*x	x	06 27 48.0	
CLL				L	L	06 33 00.0	
CLL				AMS	AMS	06 42 00.0	
	comp=N,200nm,17.6s						
CLL				AMS	AMS	06 42 00.0	
	comp=E,100nm,16.6s						
CLL				AMS	AMS	06 43 00.0	
	comp=Z,200nm,16.8s						
NEUB	**Neuenburg**	**73.56**	**7**	P	**P**	**06 09 27.5**	**+0.3**
	comp=Z,40nm,1.1s						
ASAI	**AK-SAY(Kyrgyzs**	**73.59**	**320**	P	**P**	**06 09 28.7**	**+0.7**
	comp=Z,23nm,1.4s						
RNPP8	**Varash**	**73.74**	**358**	P	**P**	**06 09 27.9**	**-0.4**
KK31	**Karatay Array**	**73.75**	**325**	P	**P**	**06 09 28.1**	**-0.4**
KK31				pmax	pmax		
	comp=Z,36nm,0.8s						
KK31	**Karatay Array**	**73.75**	**325**	P	**P**	**06 09 28.1**	**-0.4**
KKAR	**Karatay Array**	**73.75**	**325**	P	**P**	**06 09 28.0**	**-0.5**
KKAR	**Karatay Array**	**73.75**	**325**	P	**P**	**06 09 28.0**	**-0.5**
BCLA	**Clavier**	**73.77**	**11**	*d*P	**P**	**06 09 27.9**	**-0.6**
BMRD	**Maredsous**	**73.83**	**11**	*d*P	**P**	**06 09 29.2**	**+0.3**
RNPP5	**Staryi Chortor**	**73.84**	**358**	P	**P**	**06 09 28.9**	**0.0**
BRG	**Berggiesshubel**	**74.03**	**5**	*i* P	**P**	**06 09 30.5**	**+0.5**
BRG				Amp		06 09 31.4	
	comp=Z,17nm,1.0s						
MI28	**Mi28,Pidlybu**	**74.09**	**356**	P	**P**	**06 09 29.3**	**-1.0**
MOX	**Moxa**	**74.11**	**7**	P	**P**	**06 09 31.0**	**+0.4**
	comp=Z,23nm,1.1s						
AK21	**Malin Array Si**	**74.18**	**355**	P	**P**	**06 09 30.0**	**-0.9**
AK22	**Malin Array Si**	**74.20**	**355**	P	**P**	**06 09 30.1**	**-0.9**
AK20	**Malin Array Si**	**74.22**	**355**	P	**P**	**06 09 30.2**	**-0.9**
PZH	**PanZhiHua**	**74.23**	**294**	P	**P**	**06 09 34.8**	**+3.1**
AK18	**Malin Array Si**	**74.24**	**355**	P	**P**	**06 09 30.4**	**-0.8**
AKASG	**Malin Array Be**	**74.25**	**355**	P	**P**	**06 09 30.5**	**-0.8**
	comp=Z,18nm,0.7s,baz=7.9,slow=5.8,SNR=69						
AKASG				LR	LR	06 45 55.5	
	comp=Z,175nm,18.6s,baz=8.5,slow=39						
	comp=Z,18nm,0.7s						
AKASG	**Malin Array Be**	**74.25**	**355**	P	**P**	**06 09 31.0**	**-0.3**
AKASG				pmax	pmax		
	comp=Z,11nm,1.2s						
AKASG	**Malin Array Be**	**74.25**	**355**	P	**P**	**06 09 30.9**	**-0.3**
AKBB	**Malin Array Si**	**74.25**	**355**	*ce*P	**P**	**06 09 30.5**	**-0.8**
AKBB				pmax	pmax		
	comp=Z,33nm,0.9s						
AKBB	**Malin Array Si**	**74.25**	**355**	P	**P**	**06 09 30.4**	**-0.9**
AKBB	**Malin Array Si**	**74.25**	**355**	P	**P**	**06 09 30.4**	**-0.9**
KIEV	**Kiev**	**74.26**	**355**	P	**P**	**06 09 30.0**	**-1.3**
KIEV				pmax	pmax		
	comp=Z,33nm,0.8s						
KIEV	**Kiev**	**74.26**	**355**	P	**P**	**06 09 30.0**	**-1.3**
KIEV	**Kiev**	**74.26**	**355**	⇓P	**P**	**06 09 29.9**	**-1.4**
KIEV	**Kiev**	**74.26**	**355**	P	**P**	**06 09 30.4**	**-0.9**
	comp=Z,189nm,0.9s						
KIEV	**Kiev**	**74.26**	**355**	P	**P**	**06 09 30.7**	**-0.7**
	comp=Z,48nm,0.9s						
HSKC	**Hora Svate Kat**	**74.27**	**6**	*e*P	**P**	**06 09 31.9**	**+0.5**
HSKC	**Hora Svate Kat**	**74.27**	**6**	P	**P**	**06 09 31.7**	**+0.2**
	comp=Z,29nm,0.9s						
AK11	**Malin Array Si**	**74.28**	**355**	P	**P**	**06 09 30.6**	**-0.8**
RICC	**Richard**	**74.36**	**5**	*e*P	**P**	**06 09 32.9**	**+0.9**
PVCC	**Panska Ves**	**74.41**	**5**	*e*P	**P**	**06 09 32.9**	**+0.7**
PVCC				*e*		06 09 43.1	
PVCC	**Panska Ves**	**74.41**	**5**	*e*P	**P**	**06 09 32.9**	**+0.7**
PVCC				*e*pP	**sP**	**06 09 43.1**	**-0.3**
PVCC	**Panska Ves**	**74.41**	**5**	P	**P**	**06 09 32.6**	**+0.4**
	comp=Z,53nm,0.8s						
CHVC	**Chvalec**	**74.41**	**4**	*e*P	**P**	**06 09 32.7**	**+0.4**
CHVC				*e*		06 09 42.1	
CHVC	**Chvalec**	**74.41**	**4**	*e*P	**P**	**06 09 32.7**	**+0.4**
CHVC				*e*x	x	06 09 42.1	
OSTC	**Ostas**	**74.45**	**4**	*e*P	**P**	**06 09 33.2**	**+0.7**
OSTC	**Ostas**	**74.45**	**4**	*e*P	**P**	**06 09 33.2**	**+0.7**
UPC	**Upice**	**74.49**	**4**	*e*P	**P**	**06 09 33.0**	**+0.3**
UPC	**Upice**	**74.49**	**4**	*e*P	**P**	**06 09 33.0**	**+0.3**
UPC	**Upice**	**74.49**	**4**	P	**P**	**06 09 32.3**	**-0.5**
	comp=Z,16nm,1.0s						
ARSB	**Arslanbob**	**74.50**	**323**	P	**P**	**06 09 32.5**	**-0.6**
ARSB				pmax	pmax		
	comp=Z,27nm,1.0s						
ARSB	**Arslanbob**	**74.50**	**323**	P	**P**	**06 09 32.5**	**-0.6**
ARSB				IAmb	IAmb	06 09 34.8	
	comp=Z,27nm,1.0s						
NKC	**Novy Kostel**	**74.58**	**6**	*e*P	**P**	**06 09 33.8**	**+0.5**
NKC				*e*		06 09 44.0	
NKC	**Novy Kostel**	**74.58**	**6**	*e*P	**P**	**06 09 33.8**	**+0.5**
NKC				*e*pP	**sP**	**06 09 44.0**	**-0.5**
NKC	**Novy Kostel**	**74.58**	**6**	P	**P**	**06 09 33.8**	**+0.5**
	comp=Z,17nm,0.9s						
WLF	**Walferdange**	**74.61**	**11**	*d*P	**P**	**06 09 35.0**	**+1.6**
DPC	**Dobruska-Polom**	**74.66**	**4**	*e*P	**P**	**06 09 34.4**	**+0.6**
DPC	**Dobruska-Polom**	**74.66**	**4**	*e*P	**P**	**06 09 34.4**	**+0.6**
DPC	**Dobruska-Polom**	**74.66**	**4**	P	**P**	**06 09 34.1**	**+0.3**
	comp=Z,22nm,1.2s						
DPC	**Dobruska-Polom**	**74.66**	**4**	P	**P**	**06 09 34.3**	**+0.6**
	comp=Z,22nm,1.2s						
KMI2	**Kunming**	**74.80**	**292**	P	**P**	**06 09 36.0**	**+0.8**
KMI2				pmax	pmax		
	comp=Z,14nm,1.0s						
KMI2				L	L		
	comp=Z,180nm,17.3s						
KMI2				L	L		
	comp=Z,260nm,22.1s						
KMI2				L	L		
	comp=Z,270nm,25.1s						
OJC	**Ojcow**	**74.88**	**2**	P	**P**	**06 09 34.4**	**-0.6**
OJC	**Ojcow**	**74.88**	**2**	P	**P**	**06 09 34.4**	**-0.6**
OJC	**Ojcow**	**74.88**	**2**	P	**P**	**06 09 35.1**	**+0.1**
	comp=Z,13nm,0.8s						
KRLC	**Kraliky**	**74.95**	**4**	P	**P**	**06 09 36.4**	**+0.9**
	comp=Z,29nm,0.8s						
LUBAR	**Lubar, Ukraine**	**75.09**	**356**	P	**P**	**06 09 35.2**	**-1.0**
STEB	**Steborice**	**75.12**	**3**	*e*P	**P**	**06 09 36.7**	**+0.3**
OKC	**Ostrava-Krasne**	**75.23**	**3**	*e*P	**P**	**06 09 37.7**	**+0.7**
OKC				*e*		06 09 46.2	
OKC	**Ostrava-Krasne**	**75.23**	**3**	*e*P	**P**	**06 09 37.7**	**+0.7**
OKC				*e*pP	**pP**	**06 09 46.2**	**+1.0**
OKC	**Ostrava-Krasne**	**75.23**	**3**	P	**P**	**06 09 37.8**	**+0.7**
	comp=Z,27nm,1.2s						
MORC	**Moravsky Berou**	**75.28**	**3**	P	**P**	**06 09 37.1**	**-0.2**
MORC	**Moravsky Berou**	**75.28**	**3**	P	**P**	**06 09 36.9**	**-0.4**
MORC	**Moravsky Berou**	**75.28**	**3**	*e*P	**P**	**06 09 36.9**	**-0.4**
MORC	**Moravsky Berou**	**75.28**	**3**	⇑P	**P**	**06 09 37.1**	**-0.2**
MORC	**Moravsky Berou**	**75.28**	**3**	P	**P**	**06 09 37.5**	**+0.1**
	comp=Z,9.4nm,1.0s						
OHH	**Osh**	**75.28**	**322**	P	**P**	**06 09 36.5**	**-1.1**
	comp=Z,20nm,1.0s						
GRB4	**Grafenberg Arr**	**75.28**	**7**	P	**P**	**06 09 37.9**	**+0.6**
	comp=Z,26nm,1.0s						
GRB3	**Grafenberg Arr**	**75.42**	**7**	P	**P**	**06 09 39.1**	**+1.0**
	comp=Z,33nm,1.1s						
KSH2	**Kashi**	**75.49**	**320**	P	**P**	**06 09 39.4**	**+0.5**
KSH2				sP	pP	06 09 48.4	+1.3
KSH2				pmax	pmax		
	comp=Z,41nm,0.9s						
KSH2				L	L		
	comp=Z,790nm,19.2s						
KSH2				L	L		
	comp=Z,530nm,17.7s						
KSH2				L	L		
	comp=Z,1μm,20.2s						
MSVF	**Nonsavu**	**75.51**	**204**	LR	LR	06 34 43.9	
	comp=Z,210nm,21.7s,baz=8.9,slow=29						
WET	**Wettzell**	**75.69**	**6**	P	**P**	**06 09 40.0**	**+0.3**
	comp=Z,9.8nm,1.1s						
STHS	**Stebnicka Huta**	**75.70**	**1**	*e*P	**P**	**06 09 40.4**	**+0.7**
STHS				*e*		06 09 50.4	
STHS				pmax	pmax		
	comp=Z,21nm,0.7s						
STHS	**Stebnicka Huta**	**75.70**	**1**	*e*P	**P**	**06 09 40.4**	**+0.7**
STHS				*e*		06 09 50.3	
VRAC	**Vranov**	**75.71**	**4**	LR	LR	06 47 06.4	
	comp=Z,80nm,18.4s,baz=13,slow=39						
VRAC	**Vranov**	**75.71**	**4**	P	**P**	**06 09 39.3**	**-0.5**
VRAC	**Vranov**	**75.71**	**4**	*e*P	**P**	**06 09 39.8**	**0.0**
VRAC	**Vranov**	**75.71**	**4**	⇑P	**P**	**06 09 39.4**	**-0.5**
VRAC	**Vranov**	**75.71**	**4**	P	**P**	**06 09 40.2**	**+0.4**
	comp=Z,5.2nm,0.8s						
KHC	**Kasperske Hory**	**75.75**	**6**	*ce*P	**P**	**06 09 40.2**	**+0.2**
KHC				pmax	pmax		
	comp=Z,19nm,1.0s						
KHC	**Kasperske Hory**	**75.75**	**6**	*e*P	**P**	**06 09 40.6**	**+0.6**
KHC				*e*pP	**sP**	**06 09 50.2**	**-1.0**
KHC	**Kasperske Hory**	**75.75**	**6**	P	**P**	**06 09 40.0**	**0.0**
KHC				IAmb	IAmb	06 09 53.0	
	comp=Z,14nm,0.8s						
KHC	**Kasperske Hory**	**75.75**	**6**	P	**P**	**06 09 40.4**	**+0.4**
	comp=Z,19nm,0.9s						
KHC	**Kasperske Hory**	**75.75**	**6**	P	**P**	**06 09 40.7**	**+0.7**
	comp=Z,19nm,0.9s						
QIZ	**Qiongzhong**	**75.85**	**283**	P	**P**	**06 09 40.8**	**-0.2**
QIZ				S	**S**	**06 19 24.8**	**+3.1**
QIZ				pmax	pmax		
	comp=Z,16nm,1.0s						
QIZ				L	L		
	comp=Z,110nm,17.3s						
QIZ				L	L		
	comp=Z,130nm,20.0s						
QIZ				L	L		
	comp=Z,140nm,19.2s						
LANS	**Liptovska Anna**	**75.95**	**2**	*e*P	**P**	**06 09 42.0**	**+0.8**
LANS				*e*		06 09 53.7	
LANS				pmax	pmax		
	comp=Z,12nm,0.9s						
LANS	**Liptovska Anna**	**75.95**	**2**	*e*P	**P**	**06 09 42.0**	**+0.8**
LANS				*e*		06 09 53.7	
KRUC	**Moravsky**	**75.95**	**4**	*e*P	**P**	**06 09 40.9**	**-0.2**
KRUC	**Moravsky**	**75.95**	**4**	P	**P**	**06 09 40.6**	**-0.5**
	comp=Z,10.0nm,1.3s						
GEC2	**GERESS Array S**	**76.04**	**6**	P	**P**	**06 09 41.2**	**-0.6**
GEC2	**GERESS Array S**	**76.04**	**6**	P	**P**	**06 09 42.5**	**+0.7**
	comp=Z,13nm,0.9s						
GERES	**GERESS Array B**	**76.04**	**6**	P	**P**	**06 09 41.8**	**0.0**
	comp=Z,3.9nm,0.6s,baz=345,slow=4.1,SNR=22						
	comp=Z,3.9nm,0.6s						
GERES	**GERESS Array B**	**76.04**	**6**	P	**P**	**06 09 41.7**	**-0.1**
CKRC	**Cesky Krumlov**	**76.10**	**5**	*e*P	**P**	**06 09 42.1**	**+0.1**
CKRC	**Cesky Krumlov**	**76.10**	**5**	*e*P	**P**	**06 09 42.1**	**+0.1**
ECH	**Echery**	**76.14**	**10**	P	**P**	**06 09 41.9**	**-0.4**
ECH				pmax	pmax		
	comp=Z,17nm,0.9s						
ECH	**Echery**	**76.14**	**10**	P	**P**	**06 09 41.9**	**-0.4**
ECH				IAmb	IAmb	06 09 55.2	
	comp=Z,17nm,0.9s						
ECH	**Echery**	**76.14**	**10**	P	**P**	**06 09 42.5**	**+0.2**
	comp=Z,22nm,0.9s						
BFO	**Black Forest**	**76.15**	**9**	*i* P	**P**	**06 09 43.5**	**+1.2**
RAR	**Rarotonga**	**76.17**	**182**	LR	LR	06 37 27.7	
	comp=Z,157nm,18.4s,baz=360,slow=31						
KOLS	**Kolonicke sedl**	**76.19**	**360**	*e*P	**P**	**06 09 43.6**	**+1.1**
KOLS				*e*		06 09 55.0	
KOLS				pmax	pmax		
	comp=Z,14nm,0.8s						
KOLS	**Kolonicke sedl**	**76.19**	**360**	*e*P	**P**	**06 09 43.6**	**+1.1**
KOLS				*e*		06 09 55.0	
KOLS	**Kolonicke sedl**	**76.19**	**360**	P	**P**	**06 09 43.5**	**+1.1**
	comp=Z,27nm,0.8s						
JAVC	**Velka Javorina**	**76.20**	**3**	*e*P	**P**	**06 09 43.7**	**+1.1**
JAY	**Jayapura**	**76.22**	**245**	LR	LR	06 38 55.5	
	comp=Z,62nm,19.6s,baz=337,slow=32						
BTK	**Batken**	**76.37**	**324**	P	**P**	**06 09 43.4**	**-0.4**
BTK				pmax	pmax		
	comp=Z,30nm,0.9s						
BTK	**Batken**	**76.37**	**324**	P	**P**	**06 09 43.4**	**-0.4**
BTK				IAmb	IAmb	06 09 44.8	
	comp=Z,30nm,0.9s						
SMOL	**Smolenice**	**76.53**	**3**	*e*P	**P**	**06 09 45.9**	**+1.4**
SMOL				pmax	pmax		
	comp=Z,5.0nm,1.0s						
DAV	**Davao City (W)**	**76.54**	**263**	LR	LR	06 38 07.1	
	comp=Z,165nm,21.7s,baz=48,slow=32						
VYHS	**Vyhne**	**76.59**	**2**	*e*P	**P**	**06 09 45.8**	**+1.0**
VYHS				*e*		06 09 56.7	
VYHS	**Vyhne**	**76.59**	**2**	*e*P	**P**	**06 09 45.8**	**+1.0**
VYHS				*e*		06 09 56.7	
VYHS	**Vyhne**	**76.59**	**2**	P	**P**	**06 09 44.8**	**0.0**
	comp=Z,5.3nm,0.9s						
KECS	**Kecovo**	**76.63**	**1**	*e*P	**P**	**06 09 46.1**	**+1.1**
KECS				pmax	pmax		
	comp=Z,16nm,0.8s						
KECS	**Kecovo**	**76.63**	**1**	*e*P	**P**	**06 09 46.1**	**+1.1**
KECS	**Kecovo**	**76.63**	**1**	P	**P**	**06 09 45.8**	**+0.8**
	comp=Z,12nm,0.7s						
MODS	**Modra-Piesok**	**76.67**	**3**	*e*P	**P**	**06 09 46.2**	**+0.9**
MODS				pmax	pmax		
	comp=Z,42nm,1.1s						
MODS	**Modra-Piesok**	**76.67**	**3**	*e*P	**P**	**06 09 46.2**	**+0.9**
MODS	**Modra-Piesok**	**76.67**	**3**	P	**P**	**06 09 46.0**	**+0.7**
	comp=Z,27nm,1.1s						
ABAH	**Abaujker**	**76.82**	**1**	P	**P**	**06 09 45.8**	**-0.3**
	comp=Z,24nm,0.8s						
SORM	**Soroca**	**76.85**	**356**	P	**P**	**06 09 45.6**	**-0.6**
SORM	**Soroca**	**76.85**	**356**	⇑P	**P**	**06 09 45.6**	**-0.6**
SORM	**Soroca**	**76.85**	**356**	P	**P**	**06 09 45.3**	**-0.9**
	comp=Z,983nmcomp=Z,53nm,0.8s						
LSA	**Lhasa**	**76.93**	**303**	⇓*i*P	**P**	**06 09 51.5**	**+3.9**
LSA	**Lhasa**	**76.93**	**303**	P	**P**	**06 09 47.4**	**-0.2**
LSA				pmax	pmax		
	comp=Z,29nm,0.8s						
LSA	**Lhasa**	**76.93**	**303**	P	**P**	**06 09 47.4**	**-0.2**
LSA				IAmb	IAmb	06 10 02.2	
	comp=Z,29nm,0.8s						
LSA	**Lhasa**	**76.93**	**303**	P	**P**	**06 09 48.2**	**+0.6**
	comp=Z,42nm,0.9s						
TRPA	**Tarpa**	**76.99**	**360**	P	**P**	**06 09 47.5**	**+0.5**
	comp=Z,32nm,0.8s						
CONA	**Conrad Observa**	**77.06**	**4**	*i* P	**P**	**06 09 48.2**	**+0.6**
	comp=Z,17nm,1.2s						
MOA	**Molln**	**77.06**	**5**	*i* P	**P**	**06 09 50.0**	**+2.6**
	comp=Z,11nm,1.2s						
RJOB	**Jochberg**	**77.09**	**6**	P	**P**	**06 09 48.0**	**+0.3**
	comp=Z,22nm,0.8s						
BIOA	**Bad Ischl, Aus**	**77.19**	**6**	*i* P	**P**	**06 09 50.5**	**+2.4**
	comp=Z,5.2nm,0.7s						
PSZ	**Piszkesteto**	**77.19**	**2**	P	**P**	**06 09 49.0**	**+0.7**
PSZ				pmax	pmax		
	comp=Z,22nm,1.1s						
PSZ	**Piszkesteto**	**77.19**	**2**	P	**P**	**06 09 49.0**	**+0.7**
PSZ				IAmb	IAmb	06 09 50.1	
	comp=Z,22nm,1.1s						
PSZ	**Piszkesteto**	**77.19**	**2**	⇑P	**P**	**06 09 48.8**	**+0.6**
PSZ	**Piszkesteto**	**77.19**	**2**	P	**P**	**06 09 49.1**	**+0.9**
	comp=Z,18nm,1.3s						
RETA	**Reutte**	**77.19**	**8**	*e*P	**P**	**06 09 48.7**	**+0.4**
	comp=Z,13nm,1.2s						
SLVN	**Son La**	**77.26**	**289**	P	**P**	**06 09 48.2**	**-0.8**
SLVN				IAmb	IAmb	06 09 50.0	
	comp=Z,17nm,0.8s						
SLVN	**Son La**	**77.26**	**289**	P	**P**	**06 09 48.2**	**-0.8**
	comp=Z,26nm,0.9s						
RONA	**Rosalia, Austr**	**77.31**	**4**	*i* P	**P**	**06 09 49.9**	**+1.0**
	comp=Z,13nm,1.3s						
DAVA	**Damuels**	**77.32**	**8**	*e*P	**P**	**06 09 50.1**	**+1.0**
	comp=Z,8.4nm,1.0s						
MOTA	**Moosalm**	**77.36**	**8**	*i* P	**P**	**06 09 49.9**	**+0.6**
	comp=Z,13nm,0.9s						
LESA	**Schwarzleotal**	**77.39**	**7**	*e*P	**P**	**06 09 49.8**	**+0.3**
	comp=Z,4.9nm,0.7s						
WATA	**Walderalm**	**77.40**	**7**	*i* P	**P**	**06 09 49.6**	**+0.1**
	comp=Z,22nm,1.1s						
BUR08	**Bucovina Ar. S**	**77.44**	**358**	P	**P**	**06 09 49.6**	**-0.1**

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BUR08                                      IAmb   IAmb   06 10 02.1
         comp=Z,13nm,0.8s
BURAR  Bucovina Array    77.47 358  P      P      06 09 49.7 -0.2
BURAR  Bucovina Array    77.47 358  P      P      06 09 49.8 -0.2
BURAR                               IAmb   IAmb   06 10 02.6
         comp=Z,15nm,0.8s
BURAR  Bucovina Array    77.47 358 ⇑P      P      06 09 49.7 -0.2
WTTA   Wattenberg        77.48   7 i P     P      06 09 50.4 +0.4
         comp=Z,20nm,0.9s
WTTA   Wattenberg        77.48   7  P      P      06 09 50.6 +0.5
         comp=Z,25nm,1.1s
SQTA   Sankt Quirin      77.49   8 i P     P      06 09 50.4 +0.4
         comp=Z,18nm,0.9s,SNR=6.4
FETA   Feichten          77.65   8 i P     P      06 09 51.5 +0.6
         comp=Z,18nm,1.0s,SNR=5.4
ARSA   Arzberg           77.72   5 i P     P      06 09 51.8 +0.6
         comp=Z,7.3nm,0.9s
ARSA   Arzberg           77.72   5  P      P      06 09 51.9 +0.6
         comp=Z,18nm,0.8s
KBA    Koelnbreinsper    77.78   6 eP      P      06 09 52.8 +1.1
         comp=Z,21nm,0.8s
KBA    Koelnbreinsper    77.78   6  P      P      06 09 52.7 +1.1
         comp=Z,29nm,1.1s
DAVOX  Davos/Dischmat    77.82   9  LR     LR     06 49 25.7
         comp=Z,64nm,18.1s,baz=334,slow=40
MPLH   Magyarpolny       77.88   3  P      P      06 09 52.9 +0.9
         comp=Z,20nm,1.4s
FUORN  Ofenpass-Fuorn    78.01   8  P      P      06 09 53.0 -0.1
FUORN                               IAmb   IAmb   06 10 09.3
         comp=Z,14nm,0.8s
FUORN  Ofenpass-Fuorn    78.01   8  P      P      06 09 54.0 +0.9
         comp=Z,18nm,0.9s
ABTA   Abfaltersbach     78.05   7 i P     P      06 09 54.4 +1.2
         comp=Z,12nm,0.9s
TUE    Stuetta           78.08   9  P      P      06 09 53.1 -0.3
TUE    Stuetta           78.08   9  P      P      06 09 54.6 +1.1
         comp=Z,14nm,1.0s
BIZ    Bicaz             78.13 357 ⇑P      P      06 09 53.7 +0.3
MYKA   Terra Mystica     78.24   6 eP      P      06 09 54.7 +0.6
         comp=Z,5.8nm,0.8s
SOKA   Soboth            78.27   5 i P     P      06 09 55.0 +0.7
         comp=Z,25nm,1.1s,SNR=6.2
DRGR                     78.33 360  P      P      06 09 54.3 -0.3
DRGR                     78.33 360 ⇑P      P      06 09 54.3 -0.3
DRGR                     78.33 360  P      P      06 09 54.6  0.0
         comp=Z,11nm,0.8s
OBKA   Obir              78.41   5 i P     P      06 09 55.6 +0.5
         comp=Z,27nm,0.7s,SNR=5.2
OBKA   Obir              78.41   5  P      P      06 09 55.6 +0.5
         comp=Z,64nm,0.8s
MARR   Marisel-Cluj      78.44 359 ⇑P      P      06 09 54.0 -1.3
GOF    Gofitskoye        78.50 345ceP      P      06 09 55.3 -0.2
ONER   Baraj Valea Uz    78.72 357 ⇓P      P      06 09 56.9 +0.2
MORH   Mrgy, Hungar      78.87   2 ⇑P      P      06 09 57.1 -0.4
PMG    Port Moresby      78.96 235  LR     LR     06 38 45.5
         comp=Z,71nm,21.7s,baz=24,slow=31
TURR   Turia             79.01 357 ⇑P      P      06 09 57.7 -0.7
DOPR   Dopca             79.12 358 ⇑P      P      06 09 59.4 +0.5
VRI    Vrincioaia        79.18 357  P      P      06 09 58.6 -0.6
VRI    Vrincioaia        79.18 357 ⇑P      P      06 09 58.6 -0.6
VRI    Vrincioaia        79.18 357  P      P      06 10 00.1 +0.8
         comp=Z,12nm,0.8s
PLOR   Plostina          79.20 357  P      P      06 09 59.5 +0.2
PLOR   Plostina          79.20 357 ⇓P      P      06 09 59.6 +0.2
COVR   Voineasa-Covas    79.22 357 ⇓P      P      06 09 59.6 +0.1
SAHR   Sahastru          79.32 357 ⇑P      P      06 10 00.1  0.0
SURR   Surduc            79.37 360 ⇑P      P      06 10 00.3  0.0
TEOL   Teolo             79.38   7  P      P      06 10 00.3  0.0
TEOL                                IAmb   IAmb   06 10 01.4
         comp=Z,31nm,0.8s
BZS    Buzias            79.51   0  P      P      06 10 00.1 -0.9
BZS    Buzias            79.51   0 ⇑P      P      06 10 00.1 -0.9
BZS    Buzias            79.51   0  P      P      06 10 01.1 +0.1
         comp=Z,14nm,0.9s
MLR    Muntele Rosu      79.58 357  P      P      06 10 02.3 +0.7
MLR                                 pmax   pmax
         comp=Z,20nm,1.4s
MLR    Muntele Rosu      79.58 357  P      P      06 10 02.3 +0.7
MLR    Muntele Rosu      79.58 357 ⇑P      P      06 10 00.5 -1.1
MLR    Muntele Rosu      79.58 357  P      P      06 10 02.7 +1.2
         comp=Z,7.8nm,0.9s
KIV    Kislovodsk        79.63 345 eP      P      06 10 02.5 +0.7
KIV                                 pmax   pmax
         comp=Z,31nm,1.1s
KIV    Kislovodsk        79.63 345  P      P      06 10 01.7 -0.2
KIV    Kislovodsk        79.63 345 ⇑P      P      06 10 02.8 +1.0
KIV    Kislovodsk        79.63 345  P      P      06 10 02.0 +0.2
         comp=Z,44nm,0.8s
SIM    Simferopol'       79.66 351 eP      P      06 10 01.2 -0.6
SIM                                 pmax   pmax
         comp=Z,25nm,1.0s
VOIR                     79.66 358  P      P      06 10 01.9  0.0
VOIR                     79.66 358 ⇑P      P      06 10 02.0  0.0
VOIR                     79.66 358  P      P      06 10 02.2 +0.3
VOIR                     79.66 358  P      P      06 10 02.6 +0.7
         comp=Z,9.9nm,0.9s
LOT    Lotru             79.67 359 ⇓P      P      06 10 01.9 -0.1
GZR    Gura Zlata        79.73 360  P      P      06 10 01.1 -1.2
GZR    Gura Zlata        79.73 360 ⇑P      P      06 10 01.1 -1.2
ARR    Arges             79.73 358 ⇑P      P      06 10 02.7 +0.4
ARR    Arges             79.73 358  P      P      06 10 03.2 +0.9
         comp=Z,19nm,1.0s
PGAV   Gavieira, Arco    79.76  23 eP      P      06 10 03.7 +1.1
TLCR                     79.78 355  P      P      06 10 02.2 -0.2
TLCR                     79.78 355 ⇑P      P      06 10 02.3 -0.2
MAK    Makhachkala       79.80 341c iP     P      06 09 59.8 -2.8
MAK                                e              06 12 59.0
MAK                                eS      S      06 19 59.2 -4.4
MAK                                eSS     SS     06 25 15.1 +3.8
MAK                                eSSS    SSS    06 28 37.7
MAK                                 pmax   pmax
         comp=Z,148nm,1.1s
MAK                                 MLR    MLR
         comp=Z,482nm,17.0s
CFR    Carcaliu          79.81 356  P      P      06 10 02.3 -0.3
CFR    Carcaliu          79.81 356 ⇑P      P      06 10 02.4 -0.3
KBZ    Khabaz            79.82 345  P      P      06 10 03.0 +0.3
         comp=Z,29nm,0.9s,baz=336,slow=3.4,SNR=52
KBZ                                 LR     LR     06 50 49.4
         comp=Z,216nm,18.5s,baz=11,slow=40
         comp=Z,29nm,0.9s
KBZ    Khabaz            79.82 345c iP     P      06 10 03.2 +0.5
KBZ                                 pmax   pmax
         comp=Z,31nm,0.9s
SHA1   Shidzhatmaz       79.85 345c iP     P      06 10 03.5 +0.3
SWI    Sorong            79.88 254  P      P      06 10 03.1 -0.3
         comp=Z,1µmcomp=Z,36nm,1.2s
PCAB   Cabril            80.06  22 eP      P      06 10 05.1 +1.0
TPGR   Topolog           80.12 355 ⇑P      P      06 10 04.1 -0.3
HERR   Herculane         80.24 360 ⇑P      P      06 10 04.1 -0.9
PBRG   Braganca          80.25  21 eP      P      06 10 06.1 +1.0
HARR   Harsova           80.31 356  P      P      06 10 05.2 -0.1
HARR   Harsova           80.31 356 ⇓P      P      06 10 05.3 -0.1
SOC    Sochi             80.41 347 eP      P      06 10 06.1 +0.2
SOC                                eS      S      06 20 04.7 -5.3
SOC                                eSSS    SSS    06 28 46.0
SOC                                 pmax   pmax
         comp=Z,33nm,0.7s
SOC                                 MLR    MLR
         comp=Z,238nm,23.0s
POLO   Lamas de Olo      80.43  22 eP      P      06 10 07.2 +1.0
EVN    Everest           80.44 306  P      P      06 10 06.6 -0.5
PTO    Porto             80.48  23 eP      P      06 10 07.2 +0.9
VSLR   Vesyoloye         80.48 347 i P     P      06 10 06.9 +0.6
VSLR                                pmax   pmax
         comp=Z,31nm,0.9s
TIRR   Tirgusor          80.52 355  P      P      06 10 05.9 -0.5
TIRR   Tirgusor          80.52 355 ⇑P      P      06 10 06.0 -0.5
TIRR   Tirgusor          80.52 355  P      P      06 10 06.6 +0.1
TIRR   Tirgusor          80.52 355  P      P      06 10 06.9 +0.4
         comp=Z,26nm,0.9s
PVRL   Vila Real         80.54  22 eP      P      06 10 07.9 +1.1
PVIS   Viseu             81.04  23 eP      P      06 10 10.1 +0.7
FAKI   Fak Fak           81.05 252  P      P      06 10 09.1 -0.6
AKT    Akhty             81.19 341 eP      P      06 10 10.4 +0.1
AKT                                e              06 13 15.9
AKT                                eS      S      06 20 15.0 -3.6
AKT                                eSS     SS     06 25 39.9 +7.4
AKT                                 pmax   pmax
         comp=Z,33nm,0.8s
AKT                                 MLR    MLR
         comp=Z,400nm,20.0s
SDV    Santo Domingo     81.22  87  LR     LR     06 48 31.8
         comp=Z,105nm,19.0s,baz=329,slow=37
SDV    Santo Domingo     81.22  87 eP      P      06 10 13.4 +2.6
NIL    Nilore            81.22 319  P      P      06 10 10.5  0.0
NIL                                 pmax   pmax
         comp=Z,80nm,0.9s
NIL    Nilore            81.22 319  P      P      06 10 10.4  0.0
NIL    Nilore            81.22 319  P      P      06 10 11.0 +0.5
         comp=Z,108nm,1.0s
MTE    Manteigas         81.42  22 eP      P      06 10 12.4 +1.0
BOVS   Bovan             81.49   0 ⇑P      P      06 10 10.4 -1.3
PCAS   Casmilo, Conde    81.54  23 eP      P      06 10 12.7 +0.7
KBL    Kabul             81.95 322  P      P      06 10 12.4 -2.1
KBL                                 pmax   pmax
         comp=Z,20nm,0.9s
KBL    Kabul             81.95 322  P      P      06 10 12.4 -2.1
KBL                                 IAmb   IAmb   06 10 14.1
         comp=Z,20nm,0.8s
PCBR   Castelo Branco    81.97  23 eP      P      06 10 14.8 +0.6
CHTO   Chiang Mai        81.98 291  P      P      06 10 13.4 -1.3
CHTO                                pmax   pmax
         comp=Z,10.0nm,0.8s
CHTO   Chiang Mai        81.98 291  P      P      06 10 13.4 -1.3
CHTO   Chiang Mai        81.98 291  P      P      06 10 13.6 -1.1
         comp=Z,12nm,0.8s
CHTO   Chiang Mai        81.98 291  P      P      06 10 13.7 -0.9
         comp=Z,12nm,0.8s
EPOS   Posof             82.02 344  P      P      06 10 15.9 +1.1
         comp=Z,15nm,0.5s
CM31   Chiang Mai Arr    82.28 291  P      P      06 10 15.5 -0.7
CMAR   Chiang Mai Arr    82.28 291  P      P      06 10 15.8 -0.4
         comp=Z,35nm,0.8s,baz=13,slow=5.4,SNR=137
CMAR                                LR     LR     06 51 21.3
         comp=Z,114nm,18.1s,baz=30,slow=39
         comp=Z,35nm,0.8s
CMAR   Chiang Mai Arr    82.28 291 i P     P      06 10 15.8 -0.4
CMAR                                pmax   pmax
         comp=Z,37nm,0.8s
PMAFR  Mafra             82.41  24 eP      P      06 10 17.5 +0.9
BRDH   Bariadhala        82.56 299  LR     LR     06 51 32.1
         comp=Z,112nm,18.0s,baz=142,slow=39
NPW    Naypyitaw         82.67 294  P      P      06 10 17.5 -0.7
         comp=Z,43nm,0.9s
DZM    Mont Dzumac       82.80 213  LR     LR     06 40 47.8
         comp=Z,118nm,20.0s,baz=26,slow=31
PARRA  Arraiolos         82.83  23 eP      P      06 10 18.9 +0.1
ESBB   Sonseca Array     82.86  20  P      P      06 10 18.8 -0.2
ESBB                                IAmb   IAmb   06 10 20.5
         comp=Z,20nm,0.8s
ESDC   Sonseca Array     82.86  20  P      P      06 10 19.1 +0.1
         comp=Z,20nm,0.8s,baz=339,slow=4.7,SNR=72
ESDC                                LR     LR     06 49 49.8
         comp=Z,113nm,18.9s,baz=343,slow=38
         comp=Z,20nm,0.8s
PAB    San Pablo         82.91  20  P      P      06 10 18.5 -0.8
PAB    San Pablo         82.91  20  P      P      06 10 19.4 +0.1
PAB                                 IAmb   IAmb   06 10 20.7
         comp=Z,14nm,0.9s
GNI    Garni             83.02 343  LR     LR     06 53 31.2
         comp=Z,340nm,18.7s,baz=14,slow=40
MOE    Montemor          83.03  24 eP      P      06 10 19.8  0.0
EVO    Evora             83.10  23 eP      P      06 10 20.9 +0.7
PHP    Peshkopia         83.43   1  P      P      06 10 21.9  0.0
         comp=Z,22nm,1.0s
PLOUS  Minas do Lousa    83.49  24 eP      P      06 10 22.8 +0.7
ILGA   Ilgaz             83.56 351  P      P      06 10 22.9  0.0
ILGA                                IAmb   IAmb   06 10 24.9
         comp=Z,15nm,1.0s
PBEJ   Beja              83.62  23 eP      P      06 10 23.5 +0.6
PBAR   Barrancos         83.66  23 eP      P      06 10 23.7 +0.7
OTAV   Otavalo           83.79  99 eP      P      06 10 26.5 +1.9
KELT   Kelkit            83.85 347  P      P      06 10 25.0 +0.8
         comp=Z,68nm,1.4s
PCVE   Castro Verde      83.96  24 eP      P      06 10 25.8 +1.2
SAHE   Sakarya_HENDEK    83.98 353 ⇑P      P      06 10 24.8 +0.1
MORF   Marmelete         84.13  24 eP      P      06 10 26.3 +0.7
ALN    Alexandroupoli    84.16 357  P      P      06 10 25.2 -0.4
ALN                                 pmax   pmax
         comp=Z,16nm,1.1s
ALN    Alexandroupoli    84.16 357  P      P      06 10 25.2 -0.4
ALN                                 IAmb   IAmb   06 10 26.7
         comp=Z,16nm,1.1s
ALN    Alexandroupoli    84.16 357  P      P      06 10 25.7 +0.1
         comp=Z,17nm,0.9s
GRG    Griva             84.16 360  P      P      06 10 26.3 +0.7
         comp=Z,44nm,1.2s
PVAQ   Vaqueiros         84.25  23 eP      P      06 10 26.9 +0.8
PFVI   Vila Bisbo        84.25  24 eP      P      06 10 26.9 +0.8
SOH    Sokhos            84.29 359  P      P      06 10 27.1 +0.7
         comp=Z,17nm,1.2s
HRA    Herat             84.32 328  P      P      06 10 26.8  0.0
HRA                                 IAmb   IAmb   06 10 41.3
         comp=Z,26nm,1.3s
MDUB   Mudurnu           84.33 353  P      P      06 10 26.9 +0.3
MATE   Matera            84.36   4 ⇑P      P      06 10 26.2 -0.3
OZAP   Van, Ozalp-Mer    84.60 343 ⇑P      P      06 10 27.3 -0.8
COEN   Coen              84.81 237  P      P      06 10 30.7 +1.7
         comp=Z,633nm,0.9s
BR131  Keskin Array S    84.88 351 i P     P      06 10 29.2 -0.2
BR131  Keskin Array S    84.88 351  P      P      06 10 29.6 +0.1
BR131                               IAmb   IAmb   06 10 30.8
         comp=Z,16nm,0.9s
BRTR   Keskin Array B    84.88 351  P      P      06 10 29.8 +0.3
         comp=Z,10nm,0.8s,baz=25,slow=2.2,SNR=55
BRTR                                LR     LR     06 54 32.6
         comp=Z,77nm,19.9s,baz=326,slow=40
         comp=Z,10nm,0.8s
BRTR   Keskin Array B    84.88 351 i P     P      06 10 29.7 +0.3
BRTR                                pmax   pmax
         comp=Z,11nm,0.8s
BRTR   Keskin Array B    84.88 351  P      P      06 10 29.2 -0.2
BORA   Eskisehir         84.97 354  P      P      06 10 29.7 -0.1
BALY   Balya             85.26 356  P      P      06 10 31.2  0.0
         comp=Z,61nm,0.9s
KIRS   Kirsehir-Merke    85.44 351 ⇑P      P      06 10 31.4 -0.8
KKUL   Konya-Kulu        85.49 352  P      P      06 10 33.4 +0.9
         comp=Z,32nm,1.1s
BNN    Bunyan            85.53 349  P      P      06 10 33.2 +0.5
HAKT   HAKKARI           85.72 343  P      P      06 10 34.4 +0.6
         comp=Z,75nm,1.0s
TIP    Timpagrande       85.83   4  P      P      06 10 33.5 -0.6
TIP    Timpagrande       85.83   4 ⇑P      P      06 10 33.9 -0.1
TIP    Timpagrande       85.83   4  P      P      06 10 34.2 +0.1
         comp=Z,36nm,1.2s
RAO    Raoul Island      85.89 197  LR     LR     06 41 13.7
         comp=Z,95nm,21.3s,baz=90,slow=30
AGG    Agios Georgios    86.10 360  P      P      06 10 34.7 -0.7
         comp=Z,26nm,0.8s
CHOS   Chios island      86.67 357  P      P      06 10 38.0 -0.2
         comp=Z,16nm,1.4s
ANDN   Andirin           86.73 349  P      P      06 10 39.6 +1.0
         comp=Z,82nm,1.5s
TAVA   DENIZLI_Tavas     87.47 355 ⇓P      P      06 10 42.5 +0.4
MTSU   Mount Surprise    87.89 234  P      P      06 10 43.8 -0.3
         comp=Z,6.3nm,0.8s
BDRM   Kayabasi          87.94 356 ⇑P      P      06 10 43.4 -0.9
ITM    Ithomi            87.94   0  P      P      06 10 43.8 -0.5
ITM    Ithomi            87.94   0  P      P      06 10 43.9 -0.4
         comp=Z,29nm,1.0s
CTA    Charters Tower    88.72 231  P      P      06 10 56.7 +8.7
CTA    Charters Tower    88.72 231  LR     LR     06 46 11.3
         comp=Z,61nm,19.9s,baz=38,slow=33
CTAO   Charters Tower    88.72 231  P      P      06 10 46.9 -1.1
CTAO                                pmax   pmax
         comp=Z,19nm,1.4s
CTAO   Charters Tower    88.72 231  P      P      06 10 46.9 -1.1
CTAO                                IAmb   IAmb   06 10 57.4
         comp=Z,19nm,1.4s
CTAO   Charters Tower    88.72 231  P      P      06 10 47.6 -0.4
         comp=Z,8.7nm,0.8s
KEST   Kesra             88.72  10  P      P      06 10 48.1  0.0
         comp=Z,8.6nm,0.9s,baz=355,slow=4.8,SNR=8.3
KEST                                LR     LR     06 51 22.7
         comp=Z,124nm,21.9s,baz=334,slow=36
         comp=Z,8.6nm,0.9s
ARG    Arkhangelos       88.75 355  P      P      06 10 47.2 -0.9
ARG                                 pmax   pmax
         comp=Z,49nm,0.9s
ARG    Arkhangelos       88.75 355  P      P      06 10 47.2 -0.9
ARG    Arkhangelos       88.75 355  P      P      06 10 47.3 -0.8
         comp=Z,64nm,1.0s
KDU    Kakadu            89.10 246  P      P      06 10 56.6 +6.8
MD31   MD31              89.26  22  P      P      06 10 50.2 -0.5
MD31                                IAmb   IAmb   06 10 51.6
         comp=Z,6.6nm,0.8s
KAPI   Kappang           89.72 261  LR     LR     06 47 56.2
         comp=Z,34nm,19.9s,baz=29,slow=34
KAPI   Kappang           89.72 261  P      P      06 10 53.0 +0.1
MMAI   Mount Meron Ar    91.35 349  LR     LR     06 56 39.8
         comp=Z,44nm,18.6s,baz=3.5,slow=39
RPN    Rapa Nui          91.96 138  LR     LR     06 43 06.2
         comp=Z,110nm,21.2s,baz=330,slow=29
ASF    Jabal al Asfar    92.01 347  LR     LR     06 54 30.5
         comp=Z,62nm,21.6s,baz=26,slow=37
BOAV   Boa Vista         92.27  83 eP      P      06 11 07.3 +2.5
CZSB   Cruzeiro do Su    93.56  98 eP      P      06 11 13.3 +2.6
WRA    Warramunga Arr    94.24 241  P      P      06 11 11.9 -1.8
         comp=Z,1.3nm,0.8s,baz=42,slow=5.5,SNR=15
         comp=Z,1.3nm,0.8s
MDP    Montagnes des     94.46  75  LR     LR     06 52 37.6
         comp=Z,145nm,20.7s,baz=322,slow=35
EIL    Elat              94.71 349  LR     LR     07 00 35.9
         comp=Z,86nm,18.1s,baz=40,slow=40
URZ    Urewera           95.56 200  LR     LR     06 45 59.6
         comp=Z,106nm,21.5s,baz=22,slow=30
FITZ   Fitzroy Crossi    97.21 249  LR     LR     06 51 41.6
         comp=Z,41nm,20.2s,baz=4.0,slow=33
ASAR   Alice Springs     97.59 239  P      P      06 11 27.4 -1.5
         comp=Z,0.5nm,0.8s,baz=36,slow=3.1,SNR=5.1
ASAR                                LR     LR     06 48 58.7
         comp=Z,104nm,20.1s,baz=68,slow=31
         comp=Z,0.5nm,0.8s
ITTB   Itaituba         100.51  82 eP      Pdif   06 11 44.9 +2.8
LPAZ   La Paz           103.09 100 eP      Pdif   06 11 56.2 +2.0
VILB   Vilhena          104.92  91 eP      Pdif   06 12 04.2 +2.5
CLDB   Colider          105.77  86 eP      Pdif   06 12 07.8 +2.3
PLCA   Paso Flores      120.86 118  PKP    PKPdf  06 16 44.5 -1.7
         comp=Z,1.2nm,1.0s,baz=256,slow=4.2,SNR=3.9
PLCA   Paso Flores      120.86 118 eP      PKiKP  06 16 48.0 +1.7
QSPA   South Pole Qui   145.03 180  PKPbc  PKPbc  06 17 28.3 -1.5
         comp=Z,8.6nm,0.6s,baz=322,slow=0.4,SNR=57
BOSA   Boshof           153.28 354  PKPbc  PKPbc  06 17 51.1 -1.3
         comp=Z,6.8nm,0.9s,baz=149,slow=3.5,SNR=6.7
MAW    Mawson           157.43 221  PKPab  PKPab  06 18 19.6 -1.3
         comp=Z,1.9nm,0.8s,baz=127,slow=6.4,SNR=4.3
VNA3   Neumayer Olymp   158.95 152 ⇑PKPab  PKPab  06 18 33.7 +6.3
         comp=Z,6.4nm,0.7s
VNA1   Neumayer--Stat   159.66 151  PKPab  PKPab  06 18 36.3 +5.8
         comp=Z,5.6nm,0.8s
VNA2   Neumayer--Watz   159.74 152 ⇑PKPab  PKPab  06 18 35.9 +5.1
         comp=Z,5.7nm,0.8s,baz=241,slow=2.7
SNAA   Sanae            160.39 157 ⇑PKPab  PKPab  06 18 39.8 +6.0
         comp=Z,47nm,0.8s
TROLL  Troll, Antarti   161.25 161 ⇑PKPab  PKPab  06 18 43.2 +5.6
         comp=Z,224nm,0.7s
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*IDC **25** 06:09:17.1±0.9, 8°.42N×82°.81W, h0^{km}, mb3.7/9, mbtmp3.7/12, ML3.4/3, MS3.2/3, Error ellipse: s-maj=42.3km s-min=13.9km az=45.0*

*UCR **25** 06:09:17.7±0.6, 8°.30N×82°.94W, h6^{km}±3^{km}, MW4.5, Presumed earthquake*

*RSNC **25** 06:09:17.8±0.6, 8°N±4°×8°3W±°, h4^{km}±2^{km}, mB5.5, mb5.2, ML3.5, Mw(mB)4.9*

*UPA **25** 06:09:18.0±1.6, 8°.35N×82°.92W, h3^{km}±2^{km}, MW4.5, Fault plane solution: NP1:ϕ_s145.00000°, δ48.00000°, λ-25.00000°., Presumed earthquake*

*CATAC **25** 06:09:20.0±0.3, 8°N±2°×8°3W±°, h1^{km}, M4.6/18, mb5.0/7, mB5.0/6, MLv4.5/18, Mw(mB)4.4/6, Error ellipse: s-maj=5.3km s-min=2.6km az=9.3, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M$_{rr}$-1.46; M$_{\theta\theta}$1.83; M$_{\phi\phi}$-0.37; M$_{r\theta}$0.21; M$_{\theta\phi}$0.67; M$_{\phi r}$0.09; Fault plane solution: M$_0$1.81484×10^{15} NP1:ϕ_s76.14411°, δ41.24105°, λ-87.42184°. NP2:ϕ_s252.71722°, δ48.80977°, λ-92.25834°. Principal axes: T 2.0276, Plg3.7860°, Azm344.3174°; N -0.5554, Plg1.6993°, Azm254.2049°; P -1.4722, Plg85.8491°, Azm140.0769°; confirmed*

ISC 25 06:09:18.5±0.8**, 8°.30N**±0°.02×**82°.92W**±0°.02**, h14**^{km}±5^{km}**, n161, σ1^{s}.55**/225**, mb3.8**/8**, 29C-8D, Panama-Costa Rica border region**

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Code   Station Name       Δ°   AZ°    Phase ID          Time       Res
                                     Op      ISC     h  m  s     ISC
PTPM   Petroterminale     0.11 157⇑iP    Pg      06 09 21.3 -0.4
PTPM                              eP             06 09 21.4
PTPA   Petro Terminal     0.12 154⇑eP    Pg      06 09 21.2 -0.6
LIMO3  Limones            0.21 164⇑iP    Pg      06 09 23.1 -0.1
LIMO3                             eS     Sg      06 09 28.0 +1.7
LMNES  Limones            0.21 163⇑eP    Pg      06 09 23.0 -0.2
LMNES  Limones            0.21 163⇑eP    Pg      06 09 23.1 -0.2
LMNES                             eS     Sg      06 09 27.6 +1.2
CDITO  Canoas             0.27  10  P    Pg      06 09 23.9 -0.4
CDITO                               S    Sg      06 09 28.2  0.0
NELY   Ciudad Neily       0.34 356⇑eP    Pg      06 09 25.1 -0.5
NELY                              eS     Sb      06 09 30.8 -1.0
NELY   Ciudad Neily       0.34 356⇑iP    Pg      06 09 25.2 -0.4
NELY                              eS     Sb      06 09 31.9  0.0
FITO   Golfito            0.39 324⇑eP    Pg      06 09 25.1 -1.4
FITO                              eS     Sg      06 09 30.6 -1.2
PIRO   Carate, Puerto     0.42 284  P    Pb      06 09 26.6 -1.2
PIRO                                S    Sb      06 09 33.2 -0.9
PIRO   Carate, Puerto     0.42 284⇓eP    Pg      06 09 26.0 -0.9
PIRO   Carate, Puerto     0.42 284⇓iP    Pg      06 09 26.2 -0.8
PIRO                              eS     Sb      06 09 32.6 -1.4
JIME   Puerto Jimenez     0.46 300 eP    Pg      06 09 26.9 -0.8
DVD    David              0.48  74 eP    Pg      06 09 28.0 -0.1
DVD                               eP     Pb      06 09 28.2 -0.6
MLIR3  Monte Lirio, C     0.49  11⇑iP    Pb      06 09 28.5 -0.6
MLIR3                             eS     Sb      06 09 35.8 -0.5
VITO   San Vito           0.51 355 eP    Pb      06 09 28.6 -0.9
VITO   San Vito           0.51 355 eP    Pb      06 09 28.6 -0.9
VITO                              eS     Sb      06 09 38.0 +1.1
CLLRA  Cordillera,        0.53  35⇑eP    Pg      06 09 29.0 -0.1
CLLRA  Cordillera,        0.53  35⇑iP    Pb      06 09 29.1 -0.7
BRU2   Volcan             0.54  25  P    Pb      06 09 29.2 -0.6
BRU2                                S    Sg      06 09 36.7 +0.3
BRU2   Volcan             0.54  25⇑eP    Pg      06 09 29.0 -0.1
BRU2   Volcan             0.54  25⇑iP    Pg      06 09 29.0 -0.1
BRU2                              eS     Sb      06 09 38.4 +0.8
BRU2   Volcan             0.54  25  P    Pb      06 09 29.3 -0.6
LOMA3  Las Lomas, Chi     0.54  76⇓iP    Pg      06 09 29.0 -0.1
LOMA3                             eS     Sb      06 09 38.1 +0.7
SCLRA  Santa Clara, W     0.54  15 eP    Pg      06 09 28.9 -0.4
SCLRA  Santa Clara, W     0.54  15 i P   Pb      06 09 29.3 -0.7
PTAR3  Potrerillos Ar     0.57  47 eP    Pg      06 09 29.8  0.0
PTAR3                             eS     Sb      06 09 38.5 +0.1
CHIR3  Chiriqui UPA,      0.59  81⇓iP    Pg      06 09 29.8 -0.3
CHIR3                             eS     Sb      06 09 40.0 +1.0
BGUAL  Bijagual, Pana     0.62  71⇓eP    Pg      06 09 30.3 -0.3
BGUAL  Bijagual, Pana     0.62  71⇓eP    Pg      06 09 30.4 -0.2
BQTLY  Boquete Panama     0.64  45⇑eP    Pg      06 09 30.5 -0.6
BQTLY  Boquete Panama     0.64  45⇑eP    Pg      06 09 30.6 -0.6
BQTLY                             eS     Sb      06 09 41.1 +0.5
BQSF3  Alto Boquete,      0.65  48 eP    Pg      06 09 30.8 -0.4
BQSF3                             eS     Sb      06 09 41.0 +0.2
LNBQ3  Los Naranjos,      0.68  44 eP    Pg      06 09 30.8 -1.0
LNBQ3                             eS     Sb      06 09 41.3 -0.3
EDP2   Potrero Grande     0.75 340⇑eP    Pg      06 09 32.3 -0.9
FIMO   Fila Mora          0.81 328⇑eP    Pg      06 09 32.9 -1.2
FIMO                              eS     Sb      06 09 44.9 -0.3
PANP   Palmar Norte       0.84 321 eP    Pg      06 09 32.9 -1.9
PANP                              eS     Sg      06 09 44.6 -1.3
PBNVO  Pueblo Nuevo,      0.93  51⇑eP    Pg      06 09 34.9 -1.6
PBNVO  Pueblo Nuevo,      0.93  51 eP    Pg      06 09 34.9 -1.6
PBNVO                             eS     Sg      06 09 48.0 -0.7
RBALA  Bur                0.95  53 eP    Pg      06 09 35.5 -1.4
RBALA  Bur                0.95  53 eP    Pg      06 09 35.6 -1.3
RBALA                             eS     Sb      06 09 49.8 +0.5
BURE   Buenos Aires       0.96 335 eP    Pg      06 09 35.7 -1.4
EDPE   Pejibaye, P        1.06 323 eP    Pg      06 09 36.8 -2.3
SAJE   San Jernim         1.19 331⇑eP    Pg      06 09 38.8 -2.6
CNI2   El Empalme, Bo     1.20  22 eP    Pg      06 09 39.7 -1.9
CNI2                              eS     Sg      06 09 54.9 -2.3
PDCAN  Manzana , Fuen     1.21  91 eP    Pg      06 09 39.3 -2.5
PDCAN  Manzana , Fuen     1.21  91⇑iP    Pg      06 09 39.6 -2.2
KKNTU  Kakintº            1.22  64 eP    Pg      06 09 39.5 -2.6
KKNTU  Kakintº            1.22  64⇓iP    Pg      06 09 39.7 -2.4
KKNTU                             eS     Sg      06 09 56.3 -1.8
ZEDO   Perez Zeledon      1.29 324 eP    Pg      06 09 41.7 -1.7
CEUA   Cerro Uatsi, L     1.31 359 eP    Pn      06 09 42.7 +0.2
QUEP   Quepos             1.66 312  P    Pn      06 09 47.4 +0.1
QUEP                                S    Sg      06 10 11.7 -0.4
QUEP   Quepos             1.66 312 eP    Pn      06 09 47.0 -0.4
PIEC   Cerro El Cedra     1.66 322⇓eP    Pn      06 09 46.9 -0.7
RAZU   San Marcos de      1.73 321 eP    Pn      06 09 48.8 +0.3
PITB   Pirrs, San         1.73 321 eP    Pn      06 09 48.7 +0.3
GMAL   Guarumal, Vera     1.76 108  P    Pn      06 09 46.8 -1.8
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GMAL				S	Sn	06 10 11.4	+0.6
GMAL	Guarumal, Vera	1.76	108	eP	Pn	06 09 47.0	-1.6
GMAL	Guarumal, Vera	1.76	108	eP	Pn	06 09 47.3	-1.3
GMAL				eS	Sn	06 10 11.3	+0.5
RSUS3	Rio de Jesus,	1.77	100	eP	Pn	06 09 47.3	-1.5
RSUS3				eS	Sn	06 10 04.1	-7.1
VINA	Juan Vinas	1.78	333	eP	Pn	06 09 48.5	-0.6
REPA	Paraso	1.78	328	eP	Pn	06 09 48.5	-0.6
LCR2	La Lucha 2	1.79	323	P	Pn	06 09 49.8	+0.6
LCR2				S	Sg	06 10 14.5	-1.5
LCR2	La Lucha 2	1.79	323	eP	Pn	06 09 49.1	-0.1
LCR2	La Lucha 2	1.79	323	eP	Pn	06 09 48.7	-0.5
LCR2				eP	Pn	06 09 49.1	-0.1
LCR2				eS	Sb	06 10 14.0	+0.4
ABE2	San Pablo	1.79	321	eP	Pn	06 09 49.2	0.0
TAAN	Batan	1.82	347	eP	Pn	06 09 50.2	+0.7
PICV	PH. Pirrs	1.82	316	eP	Pn	06 09 49.6	0.0
PCAYA	Pacayas	1.83	331	eP	Pn	06 09 49.8	0.0
SAFE3	Santa Fe, Vera	1.84	83	eP	Pn	06 09 49.5	-0.3
SAFE3				eS	Sn	06 10 14.4	+1.6
TAGO	Cartago	1.84	328	eP	Pn	06 09 50.2	+0.2
VTCV	VTCV, Calle Va	1.85	335	⇑eP	Pn	06 09 49.9	-0.2
RESJ	San Isidro (Tu	1.86	337	⇑eP	Pn	06 09 50.6	+0.5
RAFA	San Farael, Vo	1.86	332	eP	Pn	06 09 50.3	-0.1
ABRB	Las Abras (San	1.86	335	eP	Pn	06 09 50.7	+0.4
LCOCO	El Coco	1.88	340	eP	Pn	06 09 50.6	+0.3
CVTQ	Turrialba Volc	1.89	334	⇑eP	Pn	06 09 50.8	0.0
VTR0	Volcan Turrial	1.89	334	⇑eP	Pn	06 09 50.8	-0.1
CVTR	Volcan Turrial	1.90	334	⇑eP	Pn	06 09 50.8	-0.1
VICA	Volcano Irazu	1.90	331	eP	Pn	06 09 50.5	-0.5
RVLA	Villa Bonita	1.91	340	eP	Pn	06 09 51.1	+0.4
TRIO	Tres Rios	1.91	326	eP	Pn	06 09 50.4	-0.5
ACOS	Acosta	1.93	320	eP	Pn	06 09 51.0	-0.1
STIA3	Santiago, Vera	1.94	96	eP	Pn	06 09 51.0	-0.1
ECI	Escuela Centro	1.97	326	eP	Pn	06 09 51.9	+0.2
LUJA	Lujan	1.97	325	eP	Pn	06 09 52.5	+0.7
SJS	Escuela Geolog	1.97	326	eP	Pn	06 09 51.6	-0.1
CENT	San Jose	1.98	325	eP	Pn	06 09 52.5	+0.6
PAVB	Pavas, San Jos	2.01	324	eP	Pn	06 09 53.1	+0.8
MARI3	Mariato, Verag	2.02	109	eP	Pn	06 09 53.5	+1.3
MARI3				eS	Sb	06 10 20.1	0.0
DOMI	Santo Domingo	2.03	325	eP	Pn	06 09 53.1	+0.6
HDC	Heredia	2.06	325	eP	Pn	06 09 53.1	+0.2
CALO3	Calobre, Verag	2.06	89	eP	Pn	06 09 52.7	0.0
PILE	Guapiles	2.08	336	eP	Pn	06 09 53.8	+0.6
BITO	Garabito Jaco	2.13	308	eP	Pn	06 09 53.8	+0.1
VBV1	V. Barva	2.14	327	eP	Pn	06 09 54.4	+0.2
CARI	Cariari	2.20	339	eP	Pn	06 09 55.6	+0.9
TCS1	Tacares	2.20	322	P	Pb	06 09 57.0	-1.2
TCS1				S	Sb	06 10 25.9	+0.5
ATEO	Atenas	2.20	319	eP	Pn	06 09 54.8	0.0
CACAO	El Cacao, Vera	2.25	115	P	Pn	06 09 55.8	+0.4
CACAO				S	Sn	06 10 25.6	+2.5
CACAO	El Cacao, Vera	2.25	115	eP	Pn	06 09 56.1	+0.7
CACAO				eP	Pb	06 09 56.7	-2.3
CACAO				eS	Sn	06 10 25.4	+2.4
PESE3	Pese, Herrera	2.32	100	eP	Pn	06 09 57.7	+1.3
PESE3				eS	Sn	06 10 26.4	+1.6
RAMO	San Ramon	2.34	319	eP	Pn	06 09 56.7	-0.1
TRT2	Tortugero	2.38	340	⇑eP	Pn	06 09 57.3	+0.2
TRT2	Tortugero	2.38	340	eP	Pn	06 09 58.2	+1.0
VPL1	V. Platanar	2.41	324	eP	Pn	06 09 58.5	+0.7
VPL2	V. Platanar	2.46	324	eP	Pn	06 09 59.5	+1.0
CHIT3	Chitre	2.50	98	eP	Pn	06 09 59.9	+1.0
TOSI3	Tonosi	2.61	110	eP	Pn	06 10 01.6	+1.2
TOSI3				eS	Sn	06 10 33.2	+1.3
AZU	Azuero	2.67	101	P	Pn	06 10 03.3	+2.1
AZU				S	Sb	06 10 38.1	-0.7
AZU	Azuero	2.67	101	eP	Pn	06 10 02.4	+1.3
AZU	Azuero	2.67	101	eP	Pn	06 10 02.2	+1.1
AZU				eS	Sn	06 10 35.9	+2.5
VTON	El Valle, Cocl	2.79	84	eP	Pb	06 10 06.1	-2.2
VTON				eS	Sb	06 10 43.3	+0.8
COVE	Coope Vega, Sa	2.81	329	P	Pb	06 10 06.1	-2.5
COVE				S	Sb	06 10 40.9	-2.0
JTS	Las Juntas de	2.81	315	Pn	Pn	06 10 04.2	+1.0
	54nm,0.3s,baz=196,slow=4.3,SNR=112						
JTS				Sn	Sn	06 10 39.7	+2.7
	39nm,0.3s,baz=328,slow=22,SNR=12						
JTS				LR	LR	06 10 54.0	
	comp=Z,114nm,21.6s,baz=141,slow=34 160nm,0.4s						
JTS				AML	AML		
JTS	Las Juntas de	2.81	315	P	Pn	06 10 05.6	+2.4
JTS				S	Sn	06 10 38.2	+1.2
JTS	Las Juntas de	2.81	315	P	Pb	06 10 06.1	-2.6
JTS				S	Sb	06 10 40.9	-2.1
JTS	Las Juntas de	2.81	315	eP	Pn	06 10 02.7	-0.5
JTS				eS	Sn	06 10 37.8	+0.8
NYURE	Nandayure	2.85	306	eP	Pn	06 10 03.9	+0.2
ACHO3	Achotines, Los	2.86	108	eP	Pn	06 10 04.7	+0.9
CMARA	Lajas Hojancha	3.00	305	P	Pn	06 10 06.5	+0.7
CMARA				S	Sb	06 10 45.8	-2.7
CMARA	Lajas Hojancha	3.00	305	⇑iP	Pn	06 10 06.1	+0.3
CMARA				eS	Sg	06 10 56.8	+1.8
ZANG	Zanguenga, Cho	3.09	78	eP	Pn	06 10 07.0	+0.1
ZANG				eP	Pb	06 10 10.7	-2.6
ZANG				eS	Sn	06 10 44.3	+0.6
BCIP	Isla Barro Col	3.17	74	P	Pn	06 10 09.1	+1.1
BCIP				S	Sb	06 10 53.2	+0.1
BCIP	Isla Barro Col	3.17	74	eP	Pn	06 10 08.5	+0.6
BCIP	Isla Barro Col	3.17	74	eP	Pn	06 10 08.6	+0.6
BCIP				eS	Sn	06 10 46.4	+0.8
GAMB1	Gamboa	3.28	75	eP	Pn	06 10 09.9	+0.4
GAMB1				eS	Sn	06 10 49.7	+1.4
FRIJ	El Hiral	3.29	74	eP	Pn	06 10 10.8	+1.1
FRIJ				eS	Sn	06 10 49.9	+1.3
UPAL	Upala	3.30	321	P	Pn	06 10 12.5	+2.6
UPAL				S	Sn	06 10 53.0	+4.0
FLAM	Flamenco Islan	3.40	80	eP	Pn	06 10 11.9	+0.7
FLAM				eS	Sn	06 10 52.4	+0.9
UPA	Univ. de Panam	3.42	78	P	Pb	06 10 17.1	-1.8
UPA				S	Sb	06 11 00.4	+0.1
UPA	Univ. de Panam	3.42	78	⇑eP	Pb	06 10 17.2	-1.6
ALIBA	Liberia Airpor	3.45	312	⇑eP	Pn	06 10 14.2	+2.3
BLUN	Bluefields	3.77	347	P	Pn	06 10 17.3	+0.9
BLUN				S	Sn	06 11 05.5	+4.9
CARN	Rivas	3.84	318	P	Pn	06 10 20.1	+2.7
CARN				S	Sn	06 11 06.4	+4.0
ACON	Acoyapa	4.26	329	P	Pn	06 10 25.5	+2.4
ACON				S	Sn	06 11 16.6	+3.9
BOAB	BOACO BROADBAN	4.92	327	P	Pn	06 10 35.2	+3.0
BOAB				S	Sn	06 11 33.0	+4.0
PRVC	Isla de Provid	5.27	17	P	Pn	06 10 37.3	+0.4
	1µm87nm,0.9s						
PRVC				S	Sn	06 11 38.4	+0.9
	1µm87nm,0.9s						
PRVC				AML	AML		
PRVC	Isla de Provid	5.27	17	P	Pn	06 10 39.7	+2.7
PRVC				S	Sn	06 11 41.4	+3.9
MATN	Matagalpa	5.46	328	P	Pn	06 10 42.3	+2.6
MATN				S	Sn	06 11 46.3	+3.8
CNGA	Al SSO del Vol	5.58	319	P	Pn	06 10 44.1	+2.8
CNGA				S	Sn	06 11 49.6	+4.2
CNGN	Cerro Negro	5.58	319	P	Pn	06 10 43.0	+1.7
CNGN				AML	AML		
TGUH	Tegucigalpa,Un	7.13	324	P	Pn	06 11 09.4	+6.7
PACA	Pacayal	7.38	315	P	Pn	06 11 08.9	+2.8
JAYA	Jayaque - finc	8.33	310	P	Pn	06 11 21.5	+2.4
SLOZ	Alcaldia de Sa	8.81	311	P	Pn	06 11 28.5	+2.8
APG	El Apazote	9.94	313	Pn	Pn	06 11 43.8	+2.4
	0.1nm,0.3s,baz=132,slow=12,SNR=6.1 0.5nm,0.6s						
APG				AML	AML		
SDV	Santo Domingo	12.16	86	LR	LR	06 17 45.1	
	comp=Z,190nm,19.9s,baz=242,slow=42						
CMIG	Matias Romero	14.57	308	Pn	P	06 12 47.8	-3.2
	0.1nm,0.3s,baz=119,slow=14,SNR=4.4 1.1nm,0.3s						
CMIG				AML	AML		
ATAH	Atahualpa	15.99	163	LR	LR	06 18 29.9	
	comp=Z,262nm,20.7s,baz=0.1,slow=34						
TXAR	Lajitas Array	28.59	320	P	P	06 15 16.0	+1.4
	0.2nm,0.8s,baz=104,slow=6.1,SNR=2.4 0.2nm,0.8s						
SIV	San Ignacio	32.41	138	P	P	06 15 49.2	+0.8
	1.1nm,0.9s,baz=314,slow=9.5,SNR=5.1 1.1nm,0.9s						
PDAR	Pinedale Array	41.54	330	P	P	06 17 05.9	-0.1
	0.2nm,0.7s,baz=126,slow=7.5,SNR=3.7 0.2nm,0.7s						
ULM	Lac du Bonnet	43.18	348	P	P	06 17 17.8	-1.2
	6.6nm,0.9s,baz=141,slow=6.9,SNR=5.3 6.6nm,0.9s						
NVAR	Mina Array Bea	43.74	319	P	P	06 17 24.8	+0.9
	0.6nm,0.7s,baz=131,slow=9.0,SNR=7.1 0.6nm,0.7s						
PLCA	Paso Flores	50.11	168	P	P	06 18 14.0	+0.6
	1.5nm,0.9s,baz=328,slow=12,SNR=3.4 1.5nm,0.9s						
YKA	Yellowknife Ar	58.80	343	P	P	06 19 15.2	-1.0
	0.5nm,0.6s,baz=141,slow=8.0,SNR=5.0 0.5nm,0.6s						
ILAR	Eielson Array	71.59	336	P	P	06 20 39.5	+0.3
	0.7nm,0.7s,baz=108,slow=4.4,SNR=8.4 0.7nm,0.7s						
TORD	Torodi Ar. Bea	82.94	78	P	P	06 21 45.6	+1.7
	1.3nm,1.1s,baz=29,slow=3.4,SNR=5.2 1.3nm,1.1s						
ASAR	Alice Springs	141.59	242	PKP	PKPdf	06 28 50.5	+0.1
	0.5nm,0.8s,baz=106,slow=2.1,SNR=4.2						
WRA	Warramunga Arr	142.15	248	PKP	PKPdf	06 28 51.0	-0.5
	0.6nm,0.9s,baz=101,slow=2.2,SNR=6.1						

SJA ***25*** *06:16:41.0±0.8, 18°.22S×69°.51W, h137^{km}±4^{km}, ML3.4, MW3.5*

IDC ***25*** *06:16:41.2±2.8, 18°.34S×69°.20W, h122^{km}±20^{km}, mb3.6/3, mbtmp3.9/6, MS3.9/1, Error ellipse: s-maj=29.4km s-min=23.7km az=70.0*

GUC ***25*** *06:16:43.9±0.8, 18°.20S×69°.44W, h114^{km}±5^{km}, ML3.4*

ISC 25 06:16:41.7±0.9**, 18°.21S**±0°.04×**69°.40W**±0°.07**, h128**^{km}±7^{km}**, n34,** σ**1**^{s}**80**/54**, 4C-2D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB16	IPOC Station P	0.16	220	eP	Pn	06 17 00.5	+0.5
PB16				eS	Sn	06 17 15.0	+1.4
PB16				IAML		06 17 15.2	
	comp=Z,1µm,0.4s						
PB16	IPOC Station P	0.16	220	⇑iP	Pn	06 17 00.4	+0.5
PB16				i S	Sn	06 17 13.4	-0.2
PB16				IAML		06 17 14.7	
	comp=E,1µm,0.4s						
PB18	Visviri	0.62	353	⇓iP	Pn	06 17 03.1	+1.2
AP01	Chacalluta	0.91	260	eP	Pn	06 17 03.5	0.0
AP01				eS	Sn	06 17 20.6	+0.5
AP01				IAML		06 17 26.0	
	comp=Z,361nm,0.3s						
AP01	Chacalluta	0.91	260	eP	Pn	06 17 03.4	-0.1
AP01				i S	Sn	06 17 19.2	-0.8
AP01				IAML		06 17 21.4	
	comp=E,2µm,0.4s						
PB12	IPOC Station P	0.97	245	eP	Pn	06 17 03.8	-0.3
PB12				eS	Sn	06 17 21.2	0.0
PB12	IPOC Station P	0.97	245	⇑iP	Pn	06 17 03.7	-0.5
PB12				i S	Sn	06 17 20.6	-0.6
PX02	IPOC Station P	1.06	225	eP	Pn	06 17 04.1	-1.0
GO01	Chusmiza	1.46	172	eP	Pn	06 17 11.2	+1.5
GO01				eS	Sn	06 17 33.5	+2.5
GO01				IAML		06 17 33.8	
	comp=Z,274nm,0.2s						
GO01	Chusmiza	1.46	172	eP	Pn	06 17 11.3	+1.5
GO01				i S	Sn	06 17 32.8	+1.8
GO01				IAML		06 17 37.5	
	comp=E,795nm,0.1s						
PSGCX	Pisagua	1.54	206	eP	Pn	06 17 10.2	+0.1
PSGCX				eS	Sn	06 17 31.8	-0.1
PSGCX				IAML		06 17 32.0	
	comp=Z,377nm,0.7s						
PSGCX	Pisagua	1.54	206	⇑iP	Pn	06 17 10.1	-0.1
PSGCX				i S	Sn	06 17 31.1	-0.8
PB11	IPOC Station P	1.56	189	eP	Pn	06 17 11.1	+0.7
PB11				eS	Sn	06 17 33.4	+1.0
PB11				IAML		06 17 37.6	
	comp=Z,236nm,0.2s						
PB11	IPOC Station P	1.56	189	⇑iP	Pn	06 17 11.0	+0.5
PB11				i S	Sn	06 17 32.7	+0.2
PB11				IAML		06 17 34.2	
	comp=N,561nm,0.2s						
PB08	IPOC Station P	1.93	173	eP	Pn	06 17 16.8	+1.7
PB08				eS	Sn	06 17 42.8	+2.2
PB08				IAML		06 17 43.5	
	comp=Z,136nm,0.5s						
PB08	IPOC Station P	1.93	173	eP	Pn	06 17 16.6	+1.5
PB08				i S	Sn	06 17 41.6	+1.0
PB08				IAML		06 17 44.2	
	comp=E,317nm,0.1s						
TA02	Huaiquique	2.16	198	eP	Pn	06 17 01.2	-16
TA02				IAML		06 17 50.2	
	comp=Z,144nm,0.1s						
LPAZ	La Paz	2.27	33	P	Pn	06 17 20.3	+0.8
	comp=Z,38nm,0.3s,baz=197,slow=2.7,SNR=398						
LPAZ				S	Sn	06 17 48.0	-0.2
	comp=Z,20nm,0.4s,baz=206,slow=6.5,SNR=7.3						
LPAZ	La Paz	2.27	33	eP	Pn	06 17 21.1	+1.6
LPAZ	La Paz	2.27	33	⇓iP	Pn	06 17 21.0	+1.6
TA01	Diego Aracena	2.45	197	eP	Pn	06 17 21.3	+0.1
TA01				eS	Sn	06 17 43.5	-8.0
TA01	Diego Aracena	2.45	197	eP	Pn	06 17 21.1	-0.1
TA01				i S	Sn	06 17 49.0	-2.6
TA01				IAML		06 17 56.8	
	comp=N,155nm,0.2s						
PB02	IPOC Station P	3.13	188	eP	Pn	06 17 30.7	+0.7
PB02				eS	Sn	06 18 06.6	-0.7
PB02				IAML		06 18 16.1	
	comp=Z,206nm,0.3s						
PB02	IPOC Station P	3.13	188	eP	Pn	06 17 30.9	+0.9
PB07	IPOC Station P	3.53	187	eP	Pn	06 17 35.8	+0.5
PB07				eS	Sn	06 18 15.2	-1.5
PB07				IAML		06 18 23.9	
	comp=Z,95nm,0.3s						
PB09	IPOC Station P	3.57	178	eP	Pn	06 17 37.0	+1.1
PB09				eS	Sn	06 18 17.4	-0.4
PB09				IAML		06 18 22.3	
	comp=Z,74nm,0.7s						
PB03	IPOC Station P	3.83	185	eP	Pn	06 17 40.0	+0.7
PB03				eS	Sn	06 18 22.6	-1.3
PB03				IAML		06 18 26.6	
	comp=Z,65nm,0.1s						
PB05	IPOC Station P	4.68	189	eP	Pn	06 17 50.2	-0.3
PB05				eS	Sn	06 18 41.9	-2.2
PB05				IAML		06 18 48.1	
	comp=Z,46nm,0.6s						
SIV	San Ignacio	8.26	76	P	Pn	06 18 36.1	-2.6
	comp=Z,3.9nm,0.4s,baz=256,slow=7.8,SNR=38						
SIV				S	Sn	06 20 05.2	-5.4
	comp=Z,1.0nm,0.5s,baz=159,slow=22,SNR=1.4						
CFA	Coronel Fontan	13.38	176	P	Pn	06 19 43.2	-3.3
	comp=Z,0.4nm,0.4s,baz=28,slow=15,SNR=6.6						
CFA				S	Sn	06 22 04.6	-10
	comp=Z,0.3nm,0.4s,baz=274,slow=17,SNR=1.8						
BDFB	Brasilia	20.62	86	P	P	06 21 10.9	-0.3
	comp=Z,2.2nm,0.4s,baz=275,slow=9.4,SNR=6.8 comp=Z,2.2nm,0.4s						
LPIG	La Paz	57.97	315	LR	LR	06 46 53.5	
	comp=Z,94nm,18.2s,baz=10.0,slow=31						
TORD	Torodi Ar. Bea	76.72	71	P	P	06 28 18.7	-0.6
	comp=Z,1.1nm,0.5s,baz=254,slow=5.5,SNR=8.5 comp=Z,1.1nm,0.5s						
YKA	Yellowknife Ar	87.95	341	P	P	06 29 17.4	+0.8
	comp=Z,0.4nm,0.6s,baz=137,slow=4.6,SNR=4.7 comp=Z,0.4nm,0.6s						

IDC ***25*** *06:26:23.3±1.0, 40°.46N×79°.26E, h0^{km}, mb3.8/6, mbtmp3.7/12, ML3.2/6, MS3.2/2, Error ellipse: s-maj=13.3km s-min=12.2km az=79.0*

NEIC ***25*** *06:26:26.3±2.6, 40°.62N±0°.02×79°.27E±0°.10, h10^{km}±1^{km}, mb4.3/8, Error ellipse: s-maj=12.9km s-min=3.2km az=85.0*

SOME ***25*** *06:26:27.4, 40°.82N×79°.15E, h5^{km}*

NNC ***25*** *06:26:29.0±1.0, 40°.82N×79°.13E, h0^{km}, mb5.0, mpv4.5, Error ellipse: s-maj=6.8km s-min=4.6km az=157.0*

KRNET ***25*** *06:26:28.8±0.1, 40°.75N×79°.09E, mb4.4*

ISC 25 06:26:24.8±1.5**, 40°.57N**±0°.04×**79°.29E**±0°.03**, h4**^{km}±9^{km}**, n128,** σ**1**^{s}**94**/173**, mb4.0**/5**, 31C-13D, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WUS	Wushi	0.63	355		Pg	06 26 37.1	+0.2
WUS					Sg	06 26 45.1	-0.1
TARG	Taragay, Kyrgy	1.61	316	⇑eP	Pn	06 26 54.8	+0.5
TARG				⇑iS	Sn	06 27 13.5	-2.3
TARG	Taragay, Kyrgy	1.61	316		Pb	06 26 55.4	+0.1
PRZ	Przheval'sk	2.03	341	⇑eP	Pb	06 27 02.5	+0.3
PRZ				⇑iS	Sb	06 27 27.2	-0.7
KDJ	Kajisay	2.23	315	⇑eP	Pb	06 27 05.2	-0.4
KDJ				⇑iS	Sb	06 27 31.8	-1.8
KDJ	Kajisay	2.23	315		Pn	06 27 02.5	-0.1
ANVS	Anan'yevo	2.52	332	⇑eP	Pb	06 27 09.7	-1.0
ANVS				⇑iS	Sn	06 27 39.3	+1.4
SATY	Saty	2.57	345	Pg	Pb	06 27 11.5	-0.1
	328nm,0.4s						
SATY				Lg	Lg	06 27 43.3	
	1µm,0.4s						
SATY	Saty	2.57	345	eP	Pb	06 27 10.1	-1.5
SATY				eS	Sb	06 27 40.9	-2.7
SATY	Saty	2.57	345	eP	Pb	06 27 11.5	-0.1
	328nm,0.4s						
SATY				eS	Sb	06 27 43.3	-0.3
	1µm,0.4s						
UZB	Uzynbulak	2.58	356	Pg	Pb	06 27 10.5	-1.3
	479nm,0.4s						
UZB				Lg	Lg	06 27 41.7	
	393nm,0.3s						
UZB	Uzynbulak	2.58	356	eP	Pb	06 27 10.3	-1.5
UZB	Uzynbulak	2.58	356	eP	Pb	06 27 10.4	-1.3
	479nm,0.4s						
UZB				eS	Sb	06 27 41.6	-2.2
	393nm,0.3s						
SHLS	Shalkode	2.59	3	Pg	Pg	06 27 13.8	-0.6
	399nm,0.3s						
SHLS				Lg	Lg	06 27 47.2	
	1µm,0.4s						
SHLS	Shalkode	2.59	3	eP	Pb	06 27 10.9	-0.9
SHLS				eS	Sb	06 27 41.9	-2.1
SHLS	Shalkode	2.59	3	eP	Pb	06 27 12.7	+0.9
	414nm,0.3s						
SHLS				eS	Sb	06 27 45.1	+1.1
	1µm,0.5s						
NRN	Naryn	2.63	290	⇑iP	Pb	06 27 11.6	-1.1
NRN				⇑iS	Sb	06 27 43.2	-2.3
NRN	Naryn	2.63	290		Pn	06 27 10.2	+1.9
PDGK	Podgornoye	2.76	3	⇑Pg	Pb	06 27 15.0	+0.2
	167nm,0.3s						
PDGK				⇑Lg	Lg	06 27 48.5	
	886nm,0.7s						
PDGK	Podgornoye	2.76	3		Pn	06 27 11.6	+1.7
ULHL	Ulahol	2.84	307	⇓iP	Pn	06 27 13.9	+2.9
ULHL				⇓iS	Sn	06 27 46.8	+1.1
KPKS	Kokpek	2.93	351	Pg	Pb	06 27 17.9	+0.4
	0.3nm,0.2s						
KPKS				Lg	Lg	06 27 54.2	
	401nm,0.3s						
KPKS	Kokpek	2.93	351	eP	Pn	06 27 14.5	+2.3
KPKS	Kokpek	2.93	351	eP	Pb	06 27 17.9	+0.4
	0.3nm,0.2s						
KPKS				eS	Sb	06 27 54.2	+0.4
	401nm,0.3s						
KTMS	Ketmen	2.98	15	Pg	Pb	06 27 19.4	+0.9
	63nm,0.3s						
KTMS				Lg	Lg	06 27 57.0	
	263nm,0.3s						
KTMS	Ketmen	2.98	15	eP	Pb	06 27 19.4	+0.9
	63nm,0.3s						
KTMS				eS	Sb	06 27 57.0	+1.7
	263nm,0.3s						
TNSS	Tian-Shan	3.02	325	Pg	Pb	06 27 19.3	0.0
	44nm,0.4s						
TNSS				Lg	Lg	06 27 56.6	
	178nm,0.6s						
TNSS	Tian-Shan	3.02	325	eP	Pn	06 27 16.8	+3.1
TNSS	Tian-Shan	3.02	325	eP	Pb	06 27 19.4	0.0
	44nm,0.4s						
TNSS				eS	Sb	06 27 56.6	-0.2
	178nm,0.6s						
KURS	Kuram	3.03	344	Pg	Pb	06 27 19.9	+0.5
	311nm,0.3s						
KURS				Lg	Lg	06 27 57.5	
	474nm,0.5s						
KURS	Kuram	3.03	344	eP	Pb	06 27 19.9	+0.5
	311nm,0.3s						
KURS				eS	Sb	06 27 57.5	+0.8
	474nm,0.5s						
MDOK	Medeo	3.08	328	Pg	Pb	06 27 20.7	+0.4
	178nm,0.4s						
MDOK				Lg	Lg	06 27 59.3	
	482nm,0.6s						
MDOK	Medeo	3.08	328	eP	Pb	06 27 17.6	-2.7
MDOK				eS	Sn	06 27 54.1	+2.4
MDOK	Medeo	3.08	328	eP	Pb	06 27 20.7	+0.4
	178nm,0.4s						
MDOK				eS	Sb	06 27 59.3	+1.0
	482nm,0.6s						
KOTS	Kotyrbulak	3.12	329	Pg	Pb	06 27 19.5	-1.4
	84nm,0.3s						
KOTS				Lg	Lg	06 27 57.3	
	871nm,0.6s						
KOTS	Kotyrbulak	3.12	329	eP	Pb	06 27 19.5	-1.4
	84nm,0.3s						
KOTS				eS	Sb	06 27 57.3	-2.0
	871nm,0.6s						
BOOM	Boomskoye usch	3.16	308	⇑iP	Pn	06 27 18.4	+3.0
BOOM				⇑iS	Sn	06 27 54.7	+1.0
BOOM	Boomskoye usch	3.16	308		Pn	06 27 17.4	+1.9
KNDC	Almaty	3.16	328	⇓Pg	Pb	06 27 23.1	+1.6
	247nm,0.6s						
KNDC				⇑Lg	Lg	06 28 03.6	
	839nm,0.7s						
IZV	Izvestkoviy	3.17	322	Pg	Pb	06 27 22.4	+0.6
	131nm,0.2s						
IZV				Lg	Lg	06 28 02.3	
	576nm,0.4s						
IZV	Izvestkoviy	3.17	322	eP	Pb	06 27 22.4	+0.6
	131nm,0.2s						
IZV				eS	Sb	06 28 02.3	+1.4
	576nm,0.4s						
AAA	Alma-Ata	3.18	327	Pg	Pb	06 27 19.6	-2.2
	464nm,0.2s						
AAA				Lg	Lg	06 27 57.5	
	62nm,0.3s						
AAA	Alma-Ata	3.18	327	eP	Pn	06 27 18.9	+3.4
AAA	Alma-Ata	3.18	327	eP	Pb	06 27 19.6	-2.2
	464nm,0.2s						
AAA				eS	Sb	06 27 57.5	-3.3
	62nm,0.3s						
KSH2	Kashi	3.20	245	Pn	Pn	06 27 17.9	+2.0
KSH2				Sn	Sb	06 28 03.0	+1.5
KSH2				smax	smax		
	comp=N,840nm,0.8s						
KSH2				smax	smax		
	comp=E,800nm,0.7s						
KST	Kastek	3.50	316	Pg	Pb	06 27 27.0	-0.4
	comp=E,51nm,0.5s						
KST				Lg	Lg	06 28 09.9	
	comp=E,416nm,0.5s						
KST	Kastek	3.50	316	eP	Pb	06 27 27.0	-0.4
	comp=E,51nm,0.5s						
KST				eS	Sb	06 28 09.9	-0.4
	comp=E,416nm,0.5s						
BLB	Baldybastay	3.58	351	Pg	Pb	06 27 29.3	+0.7
	comp=E,371nm,0.4s						
BLB				Lg	Lg	06 28 14.1	
	comp=E,282nm,0.5s						
TKM2	Tokmak 2	3.63	312	⇑iP	Pn	06 27 25.0	+3.2
TKM2				⇑iS	Sn	06 28 05.7	+0.6
KTBS	Karatobe	3.69	329	Pg	Pb	06 27 31.9	+1.3
KTBS				Lg	Lg	06 28 17.9	
KTBS	Karatobe	3.69	329	eP	Pb	06 27 31.4	+0.9
	comp=E,5.6nm,0.1s						
KTBS				eS	Sb	06 28 17.1	+1.5
	comp=E,504nm,0.5s						
DJR	Jarkent	3.78	5	Pg	Pb	06 27 32.9	+0.9
	comp=E,29nm,0.3s						
DJR				Lg	Lg	06 28 20.4	
	comp=E,84nm,0.4s						
DJR	Jarkent	3.78	5	eP	Pb	06 27 32.9	+0.9
	comp=E,29nm,0.3s						
DJR				eS	Sb	06 28 20.4	+2.2
	comp=E,84nm,0.4s						
KNOS	Konyrlen	3.79	359	Pg	Pb	06 27 32.9	+0.6
	comp=E,45nm,0.2s						
KNOS				Lg	Lg	06 28 20.3	
	comp=E,229nm,0.6s						
ARXS	Arharly	3.80	344	Pg	Pb	06 27 33.2	+0.8
	comp=E,78nm,0.3s						
ARXS				Lg	Lg	06 28 20.9	
	comp=E,249nm,0.3s						
ARXS	Arharly	3.80	344	eP	Pb	06 27 33.2	+0.8
	comp=E,78nm,0.3s						

ARXS				eS	Sb	06 28 20.9	+2.2
	comp=E,249nm,0.3s						
KBK	Karagaybulak	3.86	304	⇑eP	Pn	06 27 28.3	+3.2
KBK				⇑iS	Sn	06 28 11.7	+0.7
KUU	Kurty	3.98	328	Pg	Pb	06 27 36.2	+0.8
KUU				Lg	Lg	06 28 25.9	
	comp=E,197nm,0.6s						
KUU	Kurty	3.98	328	eP	Pn	06 27 29.9	+3.3
KUU	Kurty	3.98	328	eP	Pb	06 27 36.2	+0.8
	comp=E,3.9nm,0.1s						
KUU				eS	Sb	06 28 25.9	+2.0
	comp=E,200nm,0.6s						
KRBS	Karabastau	4.12	321	Pg	Pb	06 27 39.3	+1.4
	comp=E,30nm,0.4s						
KRBS				Lg	Lg	06 28 30.6	
	comp=E,140nm,0.5s						
KRBS	Karabastau	4.12	321	eP	Pb	06 27 39.3	+1.4
	comp=E,30nm,0.4s						
KRBS				eS	Sb	06 28 30.6	+2.6
	comp=E,140nm,0.5s						
FRU1	Bishkek	4.14	304	⇑iP	Pn	06 27 32.4	+3.6
FRU1				⇑iS	Sn	06 28 18.7	+1.0
AAK	Ala-Archa	4.14	301	Pn	Pn	06 27 32.5	+3.5
	comp=E,1.7nm,0.3s,baz=120,slow=9.5,SNR=8.1						
AAK				Pg	Pb	06 27 40.9	+2.6
	comp=E,20nm,0.3s,baz=136,slow=14,SNR=27						
AAK				Lg	Lg	06 28 34.4	
	comp=E,14nm,0.3s,baz=272,slow=23,SNR=12						
AAK				LR	LR	06 29 20.8	
	comp=E,138nm,20.5s,baz=138,slow=42						
	comp=E,5.3nm,0.4s						
AAK				AML	AML		
AAK	Ala-Archa	4.14	301	⇑Pg	Pb	06 27 40.6	+2.3
	comp=E,25nm,0.6s						
AAK				⇑Lg	Lg	06 28 33.4	
	comp=E,244nm,0.8s						
AAK	Ala-Archa	4.14	301	⇑eP	Pn	06 27 32.3	+3.4
AAK				⇑iS	Sn	06 28 18.5	+0.6
AAK	Ala-Archa	4.14	301		Pn	06 27 30.1	+1.1
CHMS	Chumysh	4.17	307	⇓eP	Pn	06 27 32.5	+3.3
CHMS				⇓iS	Sn	06 28 18.7	+0.4
SFK	Sufi-Kurgan	4.46	265	⇑iP	Pn	06 27 37.3	+4.0
SFK				⇑iS	Sn	06 28 28.2	+2.5
USP	Ospenovka	4.47	309	⇑iP	Pn	06 27 36.7	+3.4
USP				⇑iS	Sn	06 28 26.0	+0.2
TDK	Taldyqorghan	4.48	352	eP	Pn	06 27 36.2	+2.8
SGDS	Sogindy	4.51	311	Pg	Pb	06 27 46.5	+2.0
	comp=E,32nm,0.5s						
SGDS				Lg	Lg	06 28 43.4	
	comp=E,133nm,0.5s						
EKS2	Erkin-Say	4.63	299	⇓iP	Pn	06 27 38.9	+3.4
EKS2				⇓iS	Sn	06 28 30.0	+0.2
KAPS	Kapalarasan	4.71	1	Pg	Pb	06 27 50.4	+2.4
	comp=E,65nm,0.4s						
KAPS				Lg	Lg	06 28 49.8	
	comp=E,174nm,0.4s						
KAPS	Kapalarasan	4.71	1	eP	Pb	06 27 50.4	+2.4
	comp=E,65nm,0.4s						
KAPS				eS	Sb	06 28 49.8	+4.7
	comp=E,174nm,0.4s						
ARSB	Arslanbob	4.83	281		Pn	06 27 40.5	+2.1
MRKS	Merke	5.03	298	Pg	Pb	06 27 57.3	+3.9
	comp=E,38nm,0.4s						
MRKS				Lg	Lg	06 29 01.8	
	comp=E,113nm,0.7s						
MRKS	Merke	5.03	298	eP	Pb	06 27 57.3	+3.9
	comp=E,38nm,0.4s						
MRKS				eS	Sg	06 29 01.8	-4.6
	comp=E,113nm,0.7s						
ARK	Arkit	5.66	285	⇓eP	Pn	06 27 53.4	+3.7
ARK				⇓eS	Sn	06 28 55.4	+0.2
BTK	Batken	6.49	268	⇓eP	Pn	06 28 05.6	+4.5
BTK				⇓iS	Sn	06 29 16.3	+0.7
MAKZ	Makanchi	6.54	16		Pn	06 28 02.9	+1.3
MK31	Makanchi Array	6.59	18	Pn	Pn	06 28 04.0	+1.6
	comp=E,0.6nm,0.2s,baz=200,slow=13,SNR=107						
MK31				⇑Sn	Sn	06 29 17.8	-0.1
	comp=E,8.1nm,0.6s,baz=194,slow=24,SNR=2.7						
MK31				⇓Lg	Lg	06 29 47.6	
	comp=E,7.7nm,0.5s,baz=159,slow=43,SNR=3.7						
MKAR	Makanchi Array	6.59	18	Pn	Pn	06 28 04.2	+1.8
	comp=E,2.4nm,0.3s,baz=198,slow=13,SNR=68						
MKAR				Sn	Sn	06 29 19.0	+1.1
	comp=E,6.2nm,0.3s,baz=175,slow=27,SNR=6.9						
MKAR				Lg	Lg	06 29 52.4	
	comp=E,3.4nm,0.3s,baz=172,slow=32,SNR=2.0						
	comp=E,2.7nm,0.3s						
MKAR				AML	AML		
MKAR	Makanchi Array	6.59	18		Pn	06 28 03.3	+0.9
KK31	Karatay Array	7.03	294	⇓Pg	Pb	06 28 32.0	+4.7
	comp=E,10nm,0.6s,baz=113,slow=16,SNR=31						
KK31				⇑Lg	Lg	06 30 03.1	
	comp=E,14nm,0.5s,baz=98,slow=28,SNR=6.0						
KK31	Karatay Array	7.03	294	Pn	Pn	06 28 09.9	+1.6
KKAR	Karatay Array	7.03	294	Pn	Pn	06 28 09.8	+1.4
WMQ	Urumqi	7.04	60	Pn	Pn	06 28 10.8	+2.2
WMQ				Sn	Sn	06 29 28.8	-0.2
WMQ				smax	smax		
	comp=N,93nm,1.9s						
WMQ				smax	smax		
	comp=E,110nm,1.7s						
IUG	Iuzhnay	7.14	286	Pg	Pg	06 28 37.0	-4.5
	comp=E,70nm,0.7s						
IUG				Lg	Lg	06 30 10.5	
	comp=E,118nm,0.7s						
IUG	Iuzhnay	7.14	286	eP	Pn	06 28 13.9	+3.9
IUG	Iuzhnay	7.14	286	eP	Pg	06 28 37.0	-4.5
	comp=E,70nm,0.7s						
IUG				eS	Sg	06 30 10.5	-3.5
	comp=E,118nm,0.7s						
BRLS	Borolday	7.48	292	eP	Pn	06 28 19.0	+4.4
CHM	Chimkent	7.48	287	eP	Pn	06 28 18.4	+3.8
ZSN	Zaisan	7.97	28	eP	Pn	06 28 23.7	+2.4
NIL	Nilore	8.42	217		Pn	06 28 29.7	+2.2
KURBB	Kurchatov Arra	10.07	357	Pn	Pn	06 28 51.0	+0.9
	comp=E,0.1nm,0.3s,baz=184,slow=12,SNR=6.2						
KURBB				Sn	Sn	06 30 45.6	+2.3
	comp=E,0.2nm,0.3s,baz=170,slow=18,SNR=4.3						
KURBB				Lg	Lg	06 31 41.7	
	comp=E,0.3nm,0.3s,baz=183,slow=31,SNR=9.4						
	comp=E,0.3nm,0.5s						
KURBB				AML	AML		
KBL	Kabul	10.11	237		Pn	06 28 51.6	+0.8
KURK	Kurchatov	10.16	358	Pn	Pn	06 28 52.3	+1.1
GOMU	GeErMu	12.94	105	P	Pn	06 29 29.8	+0.1
GOMU				pP		06 29 33.5	
GOMU				sP		06 29 37.1	
GOMU				S	Sn	06 31 54.9	+0.7
GOMU				pmax	pmax		
	comp=Z,5.0nm,0.5s						
GOMU				LR	LR		
	comp=N,120nm,10.8s						
GOMU				LR	LR		
	comp=E,120nm,10.1s						
GOMU				LR	LR		
	comp=Z,150nm,10.3s						
BVAR	Borovoye Array	13.86	337	Pn	Pn	06 29 41.1	-0.6
	comp=Z,0.1nm,0.3s,baz=170,slow=9.0,SNR=4.1						
	comp=Z,0.8nm,0.6s						
BVAR				AML	AML		
BORK	Borovoye	13.89	337		Pn	06 29 43.0	+0.8
ZAA0	Zalesovo Array	13.90	14	Pn	Pn	06 29 42.8	+0.5
ZALV	Zalesovo Beam	13.90	14	Pn	Pn	06 29 40.7	-1.6
	comp=Z,0.3nm,0.3s,baz=195,slow=13,SNR=7.5						
	comp=Z,1.7nm,0.6s						
ZALV				AML	AML		
ZALV	Zalesovo Beam	13.90	14	Pn	Pn	06 29 41.5	-0.8
HRA	Herat	14.86	251	Pn	Pn	06 29 56.7	+0.9
GTA2	Gaotai	15.72	87	P	Pn	06 30 07.1	0.0
GTA2				sP	sP	06 30 17.3	+3.8
GTA2				pmax	pmax		
	comp=Z,3.0nm,0.5s						
GTA2				LR	LR		
	comp=N,360nm,17.5s						
GTA2				LR	LR		
	comp=E,310nm,19.7s						
GTA2				LR	LR		
	comp=Z,660nm,18.4s						
AB31	Akbulak array	16.19	309	Pn	Pn	06 30 12.8	-0.1
ABKAR	Akbulak array	16.19	309	Pn	Pn	06 30 12.4	-0.5
AKTO	Aktyubinsk	17.82	311	P	Pn	06 30 31.7	-1.8
	comp=Z,0.2nm,0.3s,baz=116,slow=14,SNR=2.0						
	comp=Z,0.8nm,0.4s						
AKTO				AML	AML		
SONM	Songino Array	20.68	60	P	P	06 31 06.3	+0.6
	comp=Z,1.1nm,0.4s,baz=258,slow=11,SNR=7.7						
	comp=Z,1.1nm,0.4s						
SONM	Songino Array	20.68	60	P	P	06 31 05.9	+0.2
ARTI	Arti	20.90	326	P	P	06 31 09.3	+1.4
	comp=Z,1.8nm,0.3s,baz=129,slow=5.0,SNR=4.0						
	comp=Z,1.8nm,0.3s						
PZH	PanZhiHua	23.30	120	P	P	06 31 32.8	-1.0
HHC	Hu-ho-hao-te	24.40	79	eP	P	06 31 42.1	-2.1
HHC				pmax	pmax		
	comp=Z,9.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,99nm,4.8s						
RAYN	Ar Rayn	33.04	249	P	P	06 33 00.5	-0.8
RAYN				IAmb	IAmb	06 33 02.3	
	comp=Z,2.8nm,0.6s						
BR131	Keskin Array S	34.60	284	P	P	06 33 14.1	-0.8
BR131				IAmb	IAmb	06 33 15.6	
	comp=Z,1.9nm,0.7s						
BRTR	Keskin Array B	34.60	284	P	P	06 33 15.0	+0.1
	comp=Z,1.3nm,0.7s,baz=96,slow=8.5,SNR=7.5						
	comp=Z,1.3nm,0.7s						
BRTR	Keskin Array B	34.60	284	P	P	06 33 13.6	-1.3
FINES	FINESS Array B	38.06	321	P	P	06 33 43.5	-0.4
TIXI	Tiksi	39.56	22	LR	LR	06 52 14.1	
	comp=Z,63nm,20.2s,baz=232,slow=39						
KOLS	Kolonicke sedl	40.49	302	eP	P	06 34 02.8	-1.6
VYHS	Vyhne	42.81	302	eP	P	06 34 25.2	+1.8
SRO	Srobarova	43.31	301	eP	P	06 34 30.1	+2.7
ANGG	Ammassalik, Gr	63.50	336	P	P	06 36 54.4	-1.1
I21K	Tanana	67.29	21	P	P	06 37 18.8	-1.2
TORD	Torodi Ar. Bea	72.19	272	P	P	06 37 49.1	-2.0
	comp=Z,0.7nm,1.0s,baz=50,slow=6.2,SNR=3.6						
	comp=Z,0.7nm,1.0s						
WRA	Warramunga Arr	79.00	128	P	P	06 38 28.8	-1.1
	comp=Z,0.4nm,0.5s,baz=315,slow=5.9,SNR=3.5						
	comp=Z,0.4nm,0.5s						
ASAR	Alice Springs	81.61	131	P	P	06 38 42.9	-1.0
	comp=Z,0.6nm,0.6s,baz=326,slow=5.7,SNR=6.4						
	comp=Z,0.6nm,0.6s						

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*NOU **25** 06:26:37.8, 22°.88S×149°.67E, h0^{km}, MLv3.6/5, Queensland, Australia*

*IDC **25** 06:26:39.5±3.3, 23°.26S×148°.97E, h0^{km}, mbtmp3.3/4, ML3.2/4, Error ellipse: s-maj=37.5km s-min=19.1km az=80.0*

ISC 25 06:26:33.0±1.4**, 22°.9S**±0°.1×**149°.33E**±0°.10**, h10**^{km}**, n9, σ1^{s}.84**/9**, Queensland**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RK1H	Rockhampton Ha	1.17	114	P	Pb	06 26 54.9	-0.5
EIDS	Eidsvold	2.92	147	P	Pb	06 27 24.1	-1.1
CTA	Charters Tower	4.01	314	Pn	Pb	06 27 42.1	-1.8
	1.8nm,0.3s,baz=136,slow=15,SNR=14						
CTA				Lg	Lg	06 28 46.8	
	2.2nm,0.3s,baz=193,slow=18,SNR=8.2						
	4.5nm,0.2s						
CTA				AML	AML		
CTA	Charters Tower	4.01	314	P	Pb	06 27 42.9	-1.0
CTAO	Charters Tower	4.01	314	P	Pb	06 27 42.9	-1.0
TV1H	Townsville Har	4.34	327	P	Pb	06 27 48.2	-1.2
STKA	Stephens Creek	11.26	216	Pn	Pn	06 29 13.5	-0.5
	0.2nm,0.3s,baz=34,slow=8.5,SNR=1.6						
	2.1nm,0.7s						
STKA				AML	AML		
ASAR	Alice Springs	14.19	264	Pn	Pn	06 29 54.2	-0.1
	0.1nm,0.3s,baz=93,slow=13,SNR=8.3						
ASAR				Lg	Lg	06 33 53.9	
	0.1nm,0.3s,baz=82,slow=28,SNR=6.2						
	0.4nm,0.7s						
ASAR				AML	AML		
WRA	Warramunga Arr	14.27	279	Pn	Pn	06 29 58.7	+3.5
	0.1nm,0.3s,baz=102,slow=10,SNR=4.8						
WRA				Lg	Lg	06 34 00.1	
	baz=100,slow=29,SNR=4.8						
	0.2nm,0.8s						
WRA				AML	AML		

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*IDC **25** 06:28:49.8±2.8, 20°.31S×177°.74W, h514^{km}±30^{km}, mb3.4/5, mbtmp4.2/6, Error ellipse: s-maj=71.3km s-min=28.5km az=29.0*

ISC 25 06:28:49.4±2.7**, 20°.5S**±0°.3×**177°.8W**±0°.4**, h500**^{km}**, n6, σ0^{s}.73**/7**, mb3.8**/5**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	Nonsavu	4.82	304	P	P	06 30 15.5	+0.5
	3.8nm,0.4s,baz=133,slow=18,SNR=11						
STKA	Stephens Creek	37.98	244	P	P	06 35 24.6	+0.6
	1.9nm,0.5s,baz=85,slow=11,SNR=4.9						
	1.9nm,0.5s						
ASAR	Alice Springs	44.73	257	P	P	06 36 17.8	0.0
	6.6nm,0.5s,baz=97,slow=7.5,SNR=126						
ASAR				PcP	PcP	06 37 48.9	-0.7
	0.4nm,0.5s,baz=113,slow=4.1,SNR=4.2						
	6.6nm,0.5s						
WRA	Warramunga Arr	44.81	262	P	P	06 36 17.5	-1.0
	1.1nm,0.3s,baz=97,slow=7.6,SNR=51						
	1.1nm,0.3s						
FITZ	Fitzroy Crossi	53.24	262	P	P	06 37 20.8	-0.2
	1.5nm,0.4s,baz=98,slow=9.1,SNR=7.3						
	1.5nm,0.4s						
QSPA	South Pole Qui	69.56	180	P	P	06 39 07.6	+0.2
	1.5nm,0.7s,baz=135,slow=0.5,SNR=9.6						
	1.5nm,0.7s						

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*MAN **25** 06:46:25.0, 10°.48N×126°.84E, h11^{km}, MS3.3*

*IDC **25** 06:46:27.4±3.4, 10°.28N×126°.05E, h0^{km}, mb3.8/4, mbtmp3.8/4, Error ellipse: s-maj=336.5km s-min=27.5km az=68.0*

ISC 25 06:46:26.7±2.3**, 10°.35N**±0°.06×**126°.47E**±0°.08**, h3**^{km}±14^{km}**, n11, σ1^{s}.00**/19**, mb3.8**/4**, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PLP	Palo	1.68	299	eP	Pg	06 46 58.4	-0.5
PLP				eS	Sn	06 47 17.8	-1.3
BIPH	Bislig	2.15	183	eP	Pb	06 47 04.9	-1.5
BIPH				eS	Sn	06 47 30.1	-0.7
LLP	Lapu-Lapu	2.47	270	eP	Pg	06 47 14.1	+0.1
LLP				eS	Sg	06 47 47.9	+1.8
CDOP	Cateel, Davao	2.55	181	i P	Pn	06 47 09.7	+0.7
CDOP				i S	Sn	06 47 40.0	-0.6
CGP	Cagayan de Oro	2.57	223	eP	Pb	06 47 12.2	-1.3
CGP				eS	Sb	06 47 44.6	-1.0
TBP	Tagbilaran	2.65	256	eP	Pb	06 47 14.6	-0.3
TBP				eS	Sg	06 47 51.6	-0.4
BUKP	Musuan	2.82	210	i P	Pb	06 47 17.4	-0.3
BUKP				i S	Sb	06 47 53.8	+1.0
ASAR	Alice Springs	34.58	168	P	P	06 53 18.4	+1.3
	0.3nm,0.6s,baz=343,slow=7.5,SNR=4.9						
	0.3nm,0.6s						
MKAR	Makanchi Array	52.09	323	P	P	06 55 38.4	+0.3
	0.4nm,0.5s,baz=118,slow=8.4,SNR=5.2						
MKAR				PcP	PcP	06 56 50.3	+0.1
	1.0nm,0.9s,baz=134,slow=4.3,SNR=4.7						
	0.4nm,0.5s						
ZALV	Zalesovo Beam	54.65	331	P	P	06 55 56.4	-0.5
	1.2nm,0.7s,baz=110,slow=6.7,SNR=5.3						
	1.2nm,0.7s						
KURBB	Kurchatov Arra	56.12	325	P	P	06 56 07.2	-0.3
	1.3nm,0.2s,baz=133,slow=7.0,SNR=1.4						
	1.3nm,0.2s						

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*IDC **25** 06:52:41.6±13.0, 5°.69N×126°.84E, h156^{km}±121^{km}, mb3.4/4, mbtmp3.8/4, Error ellipse: s-maj=175.9km s-min=27.6km az=63.0*

*MAN **25** 06:52:42.0, 5°.78N×126°.63E, h136^{km}, MS3.6*

ISC 25 06:52:40.9±0.9**, 5°.69N**±0°.09×**126°.7E**±0°.1**, h150**^{km}**, n10, σ0^{s}.80**/15**, mb3.6**/4**, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DAV	Davao City (W)	1.74	322	S	Sn	06 53 38.3	+0.5
	310nm,0.4s,baz=333,slow=23,SNR=8.0						
DMPH	Davao City--Mi	1.79	320	eP	Pn	06 53 20.5	+6.7
DMPH				i S	Sn	06 53 38.0	-0.9
KCP	Kidapawan	2.04	310	i P	Pn	06 53 17.0	+0.5
KCP				i S	Sn	06 53 42.7	-1.2
CDOP	Cateel, Davao	2.09	354	i P	Pn	06 53 16.8	-0.3
CDOP				i S	Sn	06 53 43.8	-1.2
BIPH	Bislig	2.49	353	i P	Pn	06 53 22.7	+0.7
BIPH				eS	Sn	06 53 53.7	0.0
BUKP	Musuan	2.69	324	i P	Pn	06 53 24.4	-0.1
BUKP				i S	Sn	06 53 57.9	-0.2
WRA	Warramunga Arr	26.57	164	P	P	06 58 04.2	-1.0
	0.6nm,0.6s,baz=344,slow=10,SNR=7.6						
	0.6nm,0.6s						
ASAR	Alice Springs	30.02	167	P	P	06 58 35.6	-0.2
	0.7nm,0.4s,baz=348,slow=7.4,SNR=14						
ASAR				PcP	PcP	07 01 33.6	-0.8
	0.2nm,0.6s,baz=340,slow=2.6,SNR=4.8						
	0.7nm,0.4s						
STKA	Stephens Creek	39.98	160	P	P	07 00 01.4	+0.5
	3.1nm,0.7s,baz=340,slow=9.9,SNR=3.9						
	3.1nm,0.7s						
MKAR	Makanchi Array	55.92	325	P	P	07 02 04.2	+0.9
	0.3nm,0.5s,baz=123,slow=5.3,SNR=2.8						
	0.3nm,0.5s						

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*IDC **25** 07:03:19.3±2.1, 0°.27N×125°.99E, h0^{km}, mb3.2/3, mbtmp3.3/4, ML3.2/1, Error ellipse: s-maj=132.5km s-min=27.8km az=68.0*

*DJA **25** 07:03:25.1±0.3, 0°S±5°×12°5E±°, h10^{km}, M3.5/6, ML3.5/6, MLv3.5/7, MLv3.6/6*

ISC 25 07:03:27.6±1.1**, 0°.11S**±0°.08×**125°.2E**±0°.1**, h53**^{km}**, n8, σ1^{s}.38**/8**, mb3.0**/3**, Southern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MNI	Manado	1.58	348	P	Pn	07 03 53.3	0.0
MNI				AML	AML		
MNI				AML	AML		
MNI				AML	AML		
SANI	Sanana	2.09	157	P	Pn	07 04 01.0	+0.8
SANI				AML	AML		
SANI				AML	AML		
SANI				AML	AML		
GTOI	Gorontalo	2.29	289	P	Pn	07 04 04.7	+1.8
GTOI				AML	AML		
GTOI				AML	AML		
GTOI				AML	AML		
APSI	Ampana	3.62	257	P	Pn	07 04 20.1	-1.0
FITZ	Fitzroy Crossi	17.88	179	P	P	07 07 33.8	+1.1
	0.1nm,0.3s,baz=336,slow=10.0,SNR=1.8						
	1.0nm,0.8s						
FITZ				AML	AML		
WRA	Warramunga Arr	21.65	156	P	P	07 08 12.0	-1.8
	0.2nm,0.4s,baz=337,slow=10,SNR=5.5						
	0.2nm,0.4s						
ASAR	Alice Springs	24.90	161	P	P	07 08 45.2	-0.5
	0.5nm,0.9s,baz=347,slow=9.2,SNR=3.6						
	0.5nm,0.9s						
MKAR	Makanchi Array	59.87	327	P	P	07 13 27.7	-0.2
	0.2nm,0.5s,baz=118,slow=5.2,SNR=3.0						
	0.2nm,0.5s						

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*IDC **25** 07:06:16.3±0.9, 23°.62N×121°.89E, h0^{km}, mb3.5/9, mbtmp3.6/11, ML3.8/2, MS2.9/3, Error ellipse: s-maj=20.9km s-min=19.4km az=96.0*

*NIED **25** 07:06:21.0, 23°.54N×121°.86E, h45^{km}, MW4.0, Moment Tensor Solution. s2 Moment tensor: Scale 10^{15}Nm; M_{rr}-0.02; $M_{\theta\theta}$1.07; $M_{\phi\phi}$-1.05; $M_{r\theta}$0.37; $M_{\theta\phi}$-0.58; $M_{\phi r}$0.25; Fault plane solution: $M_0$1.29000×10^{15} NP1: ϕ_s149.00000°, δ70.00000°, λ-1.00000°. NP2: ϕ_s240.00000°, δ89.00000°, λ-160.00000°.*

*TAP **25** 07:06:21.6, 23°.60N×121°.86E, h32^{km}, ML4.6, C*

*JMA **25** 07:06:21.0±0.1, 23°.5N±0°.6×121°.9E±0°.7, h45^{km}±2^{km}, MV4.4/18, TAIWAN REGION*

ISC 25 07:06:20.0±1.0**, 23°.57N**±0°.01×**121°.90E**±0°.02**, h24**^{km}±9^{km}**, n201, σ1^{s}.04**/340**, mb3.5**/9**, MS2.7**/3**, 21C-24D, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TEGC	Jichi Village	0.36	292	⇓eP	Pn	07 06 29.1	-0.6
TEGC				eS	Sn	07 06 35.0	-1.0
SHUL	Shoufeng	0.38	305	⇓iP	Pn	07 06 29.4	-0.5
SHUL				i S	Sn	07 06 35.6	-0.9
TEYL	Yanliau Villag	0.40	317	i P	Pn	07 06 30.1	-0.2
TEYL				eS	Sn	07 06 36.6	-0.5
HGSD	Ruisui	0.45	260	⇓iP	Pn	07 06 30.3	-0.6
HGSD				eS	Sn	07 06 36.8	-1.4
HWA	Hwalien	0.48	326	⇑iP	Pn	07 06 31.1	-0.4
HWA				S	Sn	07 06 38.2	-0.9
ECBN	Changbin	0.49	238	P	Pn	07 06 31.2	-0.2
ECBN				S	Sn	07 06 38.1	-1.1
ESL	Shilin	0.49	299	⇓iP	Pb	07 06 30.4	+0.3
ESL				S	Sb	07 06 37.1	+0.2
WARBT	Fenglin Townsh	0.49	287	⇓iP	Pn	07 06 30.7	-0.9
WARBT				S	Sn	07 06 38.0	-1.4
EHYH	Wanrong	0.52	261	⇓iP	Pn	07 06 31.6	-0.3
EHYH				S	Sn	07 06 39.4	-0.5
EHY	Hungye	0.54	263	⇓iP	Pn	07 06 31.9	-0.2
EHY				S	Sn	07 06 39.5	-0.9
ETM	Tongmen	0.54	316	⇓iP	Pn	07 06 31.3	-0.9
ETM				i S	Sb	07 06 38.7	+0.4
TWD	Chiawan	0.58	331	⇓iP	Pn	07 06 32.0	-0.7
TWD				i S	Sb	07 06 39.6	+0.3
EYUL	Yuli	0.58	247	⇑iP	Pn	07 06 32.5	-0.2
EYUL				eS	Sn	07 06 41.0	-0.5
YULB	Yu-li	0.58	252	P	Pn	07 06 32.2	-0.6
YULB	Yu-li	0.58	252	S	Sb	07 06 39.7	+0.2
YULB	Yu-li	0.58	252	⇑iP	Pn	07 06 32.4	-0.4
YULB				i S	Sn	07 06 41.2	-0.4
TWF1	Yuli	0.60	249	⇑iP	Pn	07 06 32.7	-0.3
TWF1				S	Sn	07 06 41.1	-0.8
CHKH	Chenggong	0.60	231	⇑iP	Pb	07 06 32.3	+0.4
CHKH				S	Sb	07 06 40.2	+0.2
LXIB	Xiulin Townshi	0.63	315	⇓iP	Pn	07 06 32.9	-0.7
LXIB				i S	Sn	07 06 41.7	-1.3
ETL	Fush Village	0.64	336	P	Pn	07 06 32.9	-0.6
ETL				eS	Sb	07 06 41.3	+0.2
NACB	Ninganchiao	0.66	335	P	Pb	07 06 32.9	0.0
NACB	Ninganchiao	0.66	335	S	Sb	07 06 41.8	+0.1
EOS4	EOS4	0.67	35	⇑iP	Pn	07 06 34.2	+0.7
EOS4				S	Sn	07 06 43.5	+0.4
FULB	Fuli	0.67	236	⇑iP	Pb	07 06 33.5	+0.3
FULB				eS	Sn	07 06 43.0	-0.7
CHKT	Chengkung	0.68	226	⇑iP	Pb	07 06 33.5	+0.2
CHKT				i S	Sb	07 06 42.1	-0.2
VWDT	VWDT	0.72	285	⇓iP	Pn	07 06 34.7	0.0
VWDT				i S	Sn	07 06 44.9	0.0
ETLH	Xiulin Townshi	0.74	329	P	Pn	07 06 34.5	-0.5
ETLH				S	Sn	07 06 44.3	-1.3
EHP	Heping Village	0.75	349	P	Pn	07 06 35.0	-0.1
EHP				i S	Sn	07 06 45.4	-0.3
EHD	Haiduan	0.77	237	⇑P	Pn	07 06 35.1	-0.2
EHD				eS	Sb	07 06 45.0	+0.3
OWD	Renai	0.77	300	⇓iP	Pn	07 06 35.0	-0.4
OWD				S	Sb	07 06 44.8	0.0
EAHA	Aohua	0.77	349	i P	Pn	07 06 35.3	0.0
EAHA				S	Sn	07 06 45.4	-0.7
ECS	Chishang	0.79	233	eP	Pn	07 06 35.9	+0.3
ECS				i S	Sn	07 06 46.9	+0.3
EOS3	EOS3	0.81	28	⇑iP	Pn	07 06 36.7	+1.0
EOS3				S	Sn	07 06 48.2	+1.3
EDH	Donghe	0.81	223	⇑P	Pb	07 06 35.4	-0.1
EDH				eS	Sb	07 06 46.2	+0.2
WHF	Hehuan Shan	0.81	314	⇓iP	Pn	07 06 35.8	-0.5
WHF				i S	Sb	07 06 46.1	-0.4
WUSB	Renai	0.83	300	⇓iP	Pn	07 06 36.2	-0.1
WUSB				eS	Sb	07 06 46.5	-0.2
ENA	Nanau	0.86	350	⇑eP	Pb	07 06 34.1	-2.3
ENA				eS	Sb	07 06 45.1	-2.5
YUS	Yu-Shan	0.88	265	⇓eP	Pn	07 06 37.4	+0.2
YUS				eS	Sb	07 06 48.4	0.0
EWUT	Wuta	0.88	353	⇑P	Pn	07 06 36.9	+0.1
EWUT				S	Sn	07 06 47.9	-0.9
SSLB	Suanglung	0.89	284	P	Pn	07 06 36.7	-0.4
SSLB	Suanglung	0.89	284	S	Sb	07 06 47.9	-0.5
SSLB	Suanglung	0.89	284	⇓iP	Pn	07 06 37.0	-0.1
SSLB				eS	Sb	07 06 48.0	-0.4
EOS2	EOS2	0.90	20	eP	Pn	07 06 38.2	+1.2
ELDTW	Lidau	0.90	245	eP	Pb	07 06 37.0	0.0
ELDTW				eS	Sb	07 06 47.8	-0.8
FUSS	Fushou	0.90	318	⇓iP	Pn	07 06 37.5	+0.1
FUSS				i S	Sn	07 06 48.8	-1.0
TWT	Tachien	0.95	316	⇑P	Pn	07 06 38.5	+0.5
TWT				S	Sb	07 06 49.8	-0.4
TDCB	Techi	0.96	315	⇓iP	Pn	07 06 38.5	+0.4

TDCB				S	Sb	07 06 49.8	-0.6
SMLT	Sun Moon Lake	0.97	289	⇓iP	Pn	07 06 38.4	+0.2
SMLT				eS	Sn	07 06 51.5	+0.2
WHYT	Xinyi Township	0.97	277	⇓iP	Pn	07 06 38.6	+0.5
WHYT				S	Sn	07 06 51.1	-0.1
LONT	Longtian	0.97	227	⇑iP	Pb	07 06 38.0	-0.1
LONT				eS	Sb	07 06 50.2	-0.4
NNSB	Datong	0.97	331	i P	Pn	07 06 38.5	+0.2
NNSB				i S	Sb	07 06 50.3	-0.5
LDUT	Ludao	0.98	204	eP	Pb	07 06 37.6	-0.7
LDUT				eS	Sb	07 06 50.1	-0.8
NNS	Nan Shan	0.99	331	eP	Pn	07 06 38.8	+0.3
NNS				S	Sb	07 06 50.4	-0.9
ESAO	Su ao	1.00	357	eP	Pn	07 06 39.4	+0.8
ESAO				eS	Sn	07 06 52.0	+0.2
ALS	Alishan	1.01	267	⇓iP	Pn	07 06 39.7	+0.8
ALS				i S	Sn	07 06 52.5	0.0
TYC	Yuchr	1.01	289	⇓eP	Pn	07 06 39.0	+0.3
LATG	Datong	1.02	340	P	Pn	07 06 39.2	+0.3
LATG				i S	Sn	07 06 52.1	-0.4
WCS	Beigang Elemen	1.03	298	⇓iP	Pn	07 06 39.4	+0.5
TWGBT	Beinan	1.07	225	P	Pn	07 06 39.0	-0.4
TWGBT	Beinan	1.07	225	S	Sb	07 06 52.8	-0.5
TWGBT	Beinan	1.07	225	⇑iP	Pn	07 06 39.0	-0.4
TWGBT				eS	Sb	07 06 51.3	-2.0
NDS	Dongshan	1.07	351	⇑P	Pb	07 06 40.0	+0.2
NDS				eS	Sn	07 06 53.1	-0.5
TWG	Pinlang	1.07	226	⇑P	Pn	07 06 39.0	-0.4
TWG				eS	Sb	07 06 52.0	-1.3
TTN	Taitung	1.07	221	eP	Pn	07 06 39.8	+0.3
TTN				eS	Sn	07 06 54.3	+0.7
NDT	Datong Townshi	1.08	341	P	Pb	07 06 40.3	+0.1
NDT				eS	Sn	07 06 54.0	+0.1
WJS	Zhushan	1.10	283	eP	Pb	07 06 41.4	+1.0
WJS				eS	Sn	07 06 55.8	+1.4
STYH	Taoyuan	1.11	249	⇑iP	Pb	07 06 40.8	+0.3
STYH				S	Sn	07 06 54.4	-0.1
WHP	Taichung City	1.12	309	eP	Pb	07 06 41.2	+0.4
WHP				eS	Sn	07 06 55.5	+0.6
WNT	Mingjian	1.16	285	⇓eP	Pb	07 06 42.4	+1.1
WNT				eS	Sn	07 06 57.3	+1.6
TWE	Neicheng	1.16	349	eP	Pb	07 06 41.6	+0.2
TWE				eS	Sn	07 06 56.6	+0.8
YHNB	Yeheng	1.19	336	P	Pb	07 06 41.8	-0.2
YHNB	Yeheng	1.19	336	S	Sb	07 06 55.7	-1.4
YHNB	Yeheng	1.19	336	⇑iP	Pb	07 06 42.0	-0.1
YHNB				S	Sb	07 06 56.2	-0.8
ILA	Ilan	1.20	353	eP	Pb	07 06 42.9	+0.9
ILA				eS	Sn	07 06 58.4	+1.7
WCKO	Fanlu	1.20	264	P	Pb	07 06 43.2	+1.2
WCKO				i S	Sn	07 06 58.5	+1.7
TPUB	Ta-pu	1.20	257	i P	Pb	07 06 42.9	+0.8
TPUB				i S	Sn	07 06 58.3	+1.5
NSK	Sanguang	1.21	336	i P	Pb	07 06 42.1	-0.1
NSK				i S	Sb	07 06 56.3	-1.1
FUSB	Fushanzhiwuyua	1.22	346	i P	Pb	07 06 42.4	0.0
FUSB				S	Sn	07 06 57.5	+0.2
CHN4	Tsaushan	1.22	260	⇑iP	Pb	07 06 43.6	+1.2
CHN4				eS	Sb	07 07 00.0	+2.2
WTP	Ta-pu	1.23	255	i P	Pb	07 06 43.4	+0.9
WTP				i S	Sb	07 06 58.4	+0.5
NWLT	Wulai	1.25	343	eP	Pb	07 06 42.8	-0.2
NWLT				S	Sn	07 06 57.8	-0.4
WDLH	Douliu	1.25	276	eP	Pb	07 06 43.9	+0.9
WDLH				i S	Sb	07 06 59.7	+0.9
WDL	Douliou City	1.26	277	eP	Pb	07 06 43.8	+0.7
WDL				eS	Sb	07 07 01.3	+2.5
TCU	Taichung	1.26	297	P	Pb	07 06 44.2	+1.1
TCU				i S	Sb	07 07 01.9	+3.1
EGS		1.27	1	eP	Pb	07 06 43.9	+0.7
NFF	Wufeng Townshi	1.27	326	eP	Pb	07 06 43.7	+0.3
NFF				eS	Sb	07 07 00.1	+0.7
TWQ1	Liyutan	1.29	307	i P	Pb	07 06 44.6	+1.0
TWQ1				i S	Sb	07 07 01.2	+1.4
SLGT	Liugui	1.29	244	eP	Pb	07 06 44.0	+0.4
SLGT				S	Sb	07 07 01.0	+1.2
JYNG	Yonagunijimaku	1.29	47	P	Pb	07 06 44.2	+0.5
JYNG				S	Sb	07 07 00.5	+0.6
ECL	Taimali	1.30	222	P	Pn	07 06 42.1	-0.6
SGST	Jiashian	1.31	248	i P	Pb	07 06 44.0	+0.1
SGST				S	Sb	07 07 01.2	+1.0
CHN1	Nanshi	1.32	253	i P	Pb	07 06 45.1	+1.0
CHN1				S	Sb	07 07 02.7	+2.0
WCHH	Zhanghua	1.33	293	P	Pb	07 06 45.1	+0.8
WCHH				i S	Sb	07 07 02.7	+1.8
TWK	Hsinying	1.33	257	i P	Pb	07 06 45.1	+0.8
TWK				S	Sb	07 07 02.0	+1.0
NSTT	Nanjuang	1.34	322	eP	Pb	07 06 45.2	+0.8
NSTT				eS	Sb	07 07 01.2	+0.1
WCH1	Changhua City	1.34	292	eP	Pb	07 06 45.8	+1.4
WCH1				eS	Sb	07 07 03.8	+2.7
LIOB	Emei	1.34	323	i P	Pb	07 06 45.4	+0.9
LIOB				eS	Sb	07 07 01.4	+0.1
YOJ	Yonaguni jima	1.35	49	P	Pb	07 06 44.8	+0.2
YOJ	Yonaguni jima	1.35	49	S	Sb	07 07 02.1	+0.7
YOJ	Yonaguni jima	1.35	49	i P	Pb	07 06 45.1	+0.6
YOJ				i S	Sb	07 07 02.3	+0.9
YOJ	Yonaguni jima	1.35	49	P	Pb	07 06 44.9	+0.4
YOJ				eS	Sb	07 07 01.8	+0.4
CHY	Chiayi	1.36	267	eP	Pb	07 06 45.6	+0.9
CHY				i S	Sb	07 07 02.6	+0.9
KSHI	Guanxi Townshi	1.37	331	P	Pb	07 06 46.0	+1.1
KSHI				S	Sb	07 07 02.6	+0.6
WDJ	Dajia District	1.39	304	i P	Pb	07 06 46.1	+0.9
WDJ				i S	Sb	07 07 03.8	+1.2
WTK	Tuku	1.39	275	i P	Pb	07 06 45.9	+0.6
WTK				S	Sb	07 07 03.8	+1.1
TIPB	Shuangxi	1.40	357	i P	Pb	07 06 45.7	+0.3
TIPB				i S	Sb	07 07 02.4	-0.4
NMLH	Miaoli	1.40	314	eP	Pb	07 06 46.2	+0.8
NMLH				eS	Sb	07 07 04.3	+1.4
NHDH	Xindian Distri	1.43	346	eP	Pb	07 06 46.5	+0.6
NHDH				eS	Sb	07 07 03.9	+0.2
SSD	Sandimen	1.43	235	eP	Pb	07 06 45.5	-0.5
SSD				eS	Sb	07 07 04.8	+1.1
TWA	Mucha	1.43	348	i P	Pb	07 06 46.6	+0.5
TWA				i S	Sb	07 07 03.0	-0.8
TWB1	Santiao Chiao	1.43	3	eP	Pb	07 06 45.9	-0.1
TWB1				eS	Sb	07 07 05.2	+1.4
WRL	Guolierlin Hig	1.43	283	P	Pb	07 06 46.4	+0.4
WRL				i S	Sb	07 07 04.9	+1.0
TSMG	Majia	1.44	233	eP	Pb	07 06 45.5	-0.7
TSMG				eS	Sb	07 07 04.7	+0.6
TATO	Taipei	1.45	345	P	Pb	07 06 46.3	0.0
TATO	Taipei	1.45	345	S	Sb	07 07 03.7	-0.6
RLNB	Erlin	1.45	283	eP	Pb	07 06 47.1	+0.8
RLNB				S	Sb	07 07 05.4	+1.2
SCST	Cishan	1.46	242	eP	Pb	07 06 47.5	+0.9
SCST				S	Sb	07 07 08.2	+3.5
SBCB	Hsinchu	1.47	326	eP	Pb	07 06 47.4	+0.7
SBCB				eS	Sb	07 07 05.4	+0.4
HSN	Hsinchu	1.49	325	eP	Pb	07 06 47.8	+0.8
HSN				eS	Sb	07 07 06.4	+0.9
NHY	Taipei	1.49	348	eP	Pb	07 06 47.2	+0.1
NHY				eS	Sb	07 07 05.3	-0.2
WFSB	Wu-fen Shan	1.50	356	i P	Pb	07 06 47.7	+0.6
WFSB				i S	Sb	07 07 06.2	+0.5
ICHU	Yijhu	1.50	262	P	Pb	07 06 48.1	+0.9
ICHU				S	Sb	07 07 07.2	+1.3
TAP	Taipei	1.50	346	eS	Sb	07 07 05.6	-0.3
MASBT	Mashibuluo	1.51	231	eP	Pn	07 06 46.0	+0.5
MASBT				eS	Sn	07 07 04.4	0.0
WTCT	Ta-ch'eng	1.51	281	eP	Pb	07 06 48.5	+1.1
WTCT				i S	Sb	07 07 07.9	+1.7
SXI1	Grass Mountain	1.52	359	i P	Pb	07 06 47.6	+0.2
SXI1				i S	Sb	07 07 07.6	+1.3
TAW	Tawu	1.52	218	eP	Pn	07 06 45.9	+0.2
EAST	Anshuo	1.53	220	P	Pn	07 06 45.7	-0.2
EAST				eS	Sn	07 07 03.7	-1.3
NCUH	Zhongli	1.54	335	eP	Pb	07 06 48.0	+0.2
NCUH				S	Sb	07 07 07.2	+0.4
WSL	Shuilin Townsh	1.54	268	P	Pb	07 06 47.8	0.0
WSL				S	Sb	07 07 06.6	-0.3
WSF	Szhu	1.54	273	eP	Pb	07 06 47.8	0.0
WSF				S	Sb	07 07 07.0	+0.1
SSHA	Shanhua	1.54	254	eP	Pb	07 06 48.6	+0.7
SSHA				eS	Sb	07 07 09.4	+2.3
SGLT	Jiouru	1.55	237	eP	Pb	07 06 48.5	+0.5
SGLT				eS	Sb	07 07 11.5	+4.4
TWM1	Shoushan	1.55	242	eP	Pb	07 06 49.9	+1.8
TWM1				eS	Sb	07 07 12.2	+4.9
LAY	Lan-yu	1.56	192	P	Pn	07 06 46.2	-0.1
LAY				S	Sn	07 07 03.9	-1.9
CHN8	Yiju	1.57	262	eP	Pb	07 06 48.5	+0.1
CHN8				eS	Sb	07 07 08.2	+0.4
TNOU	National Taiwa	1.57	356	eP	Pb	07 06 48.3	-0.2
TNOU				eS	Sb	07 07 07.5	-0.4
TWS1	Kuangyinshan	1.58	344	eP	Pb	07 06 48.5	-0.1
TWS1				eS	Sb	07 07 08.0	-0.2
LYUB	Lan-yu	1.59	191	eP	Pn	07 06 45.6	-1.0
YM01	YM01	1.59	349	eP	Pb	07 06 48.2	-0.6
YM01				S	Sb	07 07 07.9	-0.7
ZUZH	Zhuzihu	1.61	348	P	Pb	07 06 48.8	-0.4
ZUZH				i S	Sn	07 07 07.5	+0.4
YM08	YM08	1.63	350	P	Pb	07 06 48.4	-1.1
YM08				i S	Sn	07 07 07.8	+0.2
NTST	Danshui	1.64	346	eP	Pb	07 06 49.4	-0.2
NTST				eS	Sb	07 07 09.0	-0.8
ANP	Anpu	1.64	348	eP	Pb	07 06 48.5	-1.2
SCZT	Fangliau	1.68	225	eP	Pb	07 06 49.2	-1.0
SCZT				eS	Sb	07 07 10.6	-0.3
SLIU	Shizi	1.69	217	eP	Pn	07 06 48.0	0.0
TWY	Chenhua	1.72	351	eP	Pb	07 06 50.3	-0.6
TSCK	Chigu Township	1.72	256	eP	Pb	07 06 50.2	-0.7
TSCK				eS	Sb	07 07 11.5	-0.6
WSSB	Gushan	1.77	239	eP	Pb	07 06 52.5	+0.7
WSSB				eS	Sb	07 07 15.7	+2.1
HATJ	Hateruma jima	1.81	74	P	Pn	07 06 51.2	+1.5
HATJ				S	Sn	07 07 12.8	+1.0
SMST	Manzhou Townsh	1.83	213	eP	Pn	07 06 49.8	-0.1
SMST				S	Sn	07 07 11.9	-0.4
IRIF	Iriomote-Funau	1.84	65	P	Pb	07 06 51.9	-1.0
IRIF				eS	Sb	07 07 14.3	-1.2
HEN	Hengchun	1.89	215	eP	Pn	07 06 51.8	+1.0
TSEB	Hengchuen, Pin	1.90	209	eP	Pn	07 06 52.1	+1.1
TSEB				eS	Sn	07 07 15.5	+1.4
TWKBT	Hengchun	1.91	212	P	Pn	07 06 51.4	+0.4
TWK1	Hengchun	1.91	212	eP	Pn	07 06 51.7	+0.6
JKRS	Kuro-shima	2.04	71	P	Pb	07 06 55.0	-1.4
JKRS				S	Sn	07 07 19.1	+1.6
PCYT	Pengchaiyu	2.05	4	eP	Pn	07 06 54.0	+1.0
WDGT	Dungji	2.08	262	P	Pn	07 06 54.4	+1.0
WDGT				S	Sn	07 07 18.6	0.0
PHUB	P'eng-hu	2.14	269	P	Pn	07 06 55.7	+1.5
PHUB				S	Sn	07 07 19.8	-0.2
PNG	Penghu	2.15	270	eP	Pn	07 06 55.7	+1.3
PNG				eS	Sn	07 07 20.2	-0.1
JIJ	Ishigaki jima	2.20	69	P	Pn	07 06 56.4	+1.4
JIJ				S	Sn	07 07 22.0	+0.6
VCHM	Qimei	2.30	261	eP	Pn	07 06 57.7	+1.3
VCHM				eS	Sn	07 07 25.2	+1.3
JISG	Ishigakijimahi	2.42	65	eS	Sn	07 07 26.9	-0.1
VWUC	VWUC	2.65	303	eP	Pn	07 07 01.7	+0.5
VWUC				S	Sn	07 07 31.0	-1.5
JTJ	Tarama	2.77	67	S	Sn	07 07 36.1	+0.5
PTMZ	Houxiangcun	2.93	300	eP	Pn	07 07 05.7	+0.7
PTMZ				i S	Sn	07 07 37.4	-2.0
MATB	Ma-tsu	3.12	326	i P	Pn	07 07 08.6	+0.9
MATB				eS	Sn	07 07 43.0	-1.2
JIRJ	Irabujima	3.26	67	S	Sn	07 07 47.8	+0.2
KNM	Kinmen	3.28	286	eP	Pn	07 07 12.2	+2.3
KNM				eS	Sn	07 07 49.7	+1.5
JIKM	Ikemajima	3.34	66	S	Sn	07 07 49.7	+0.1
JMJ2	Miyako jima3	3.34	69	P	Pn	07 07 12.4	+1.8
JMJ2				S	Sn	07 07 50.5	+0.9
JOGS	Gusukube	3.41	69	eS	Sn	07 07 52.9	+1.5
LYJJ	Jianjiangzhen	3.54	327	eP	Pn	07 07 14.3	+0.8
LYJJ				eS	Sn	07 07 53.2	-1.4
MHZQ	Yeshan	3.62	315	eP	Pn	07 07 14.6	0.0
MHZQ				eS	Sn	07 07 55.0	-1.6
XPSS	Dashiqiu	3.68	335	eP	Pn	07 07 14.8	-0.6
ZPLA	Ao Xicun	3.82	276	eP	Pn	07 07 18.4	+1.1
ZPLA				eS	Sn	07 07 59.8	-1.6
AXDP	Jialang	3.82	291	eP	Pn	07 07 17.8	+0.5
AXDP				eS	Sn	07 07 59.6	-2.0
DSXP	Dongshan	4.11	273	eP	Pn	07 07 22.9	+1.7
DSXP				eS	Sn	07 08 07.2	-1.3
SXFK	Yanhouchang	4.78	307	eP	Pn	07 07 30.6	+0.1
SXFK				eS	Sn	07 08 22.7	-2.4
PACPP	Pamplona Cagay	5.11	186	i P	Pn	07 07 35.3	+0.2
PACPP				i S	Sn	07 08 31.7	-1.7
CVP	Callao Caves	5.84	181	eP	Pn	07 07 47.9	+2.8
CVP				eS	Sn	07 08 46.9	-4.5
JOW	Kunigami	6.62	59	Pn	Pn	07 07 55.0	-0.8
	3.5nm,0.3s,baz=78,slow=26,SNR=5.6						
	4.7nm,0.3s						
JOW				AML	AML		
KSRS	Korea Array	14.77	19	Pn	Pn	07 09 46.5	-0.8
	0.8nm,0.3s,baz=198,slow=12,SNR=14						
	3.0nm,0.8s						
KSRS				AML	AML		
CMAR	Chiang Mai Arr	22.02	261	P	P	07 11 11.5	-1.2
	0.9nm,0.3s,baz=66,slow=8.0,SNR=1.3						
CMAR				LR	LR	07 20 37.8	
	comp=Z,28nm,19.2s,baz=30,slow=39						
	0.9nm,0.3s						
GUMO	Guam	23.89	110	LR	LR	07 21 09.2	
	comp=Z,16nm,18.1s,baz=91,slow=37						
ASAJ	Asahikawa	26.61	35	LR	LR	07 23 30.5	
	comp=Z,37nm,18.5s,baz=80,slow=39						
MKAR	Makanchi Array	39.23	316	P	P	07 13 46.9	+0.5
	0.7nm,0.8s,baz=120,slow=9.0,SNR=6.0						
	0.7nm,0.8s						
ZALV	Zalesovo Beam	41.11	327	P	P	07 14 00.9	-1.0
	0.4nm,0.5s,baz=102,slow=11,SNR=1.8						
	0.4nm,0.5s						
H11N1	WAKE ISLAND Hy	41.87	86	T	T	07 59 15.0	
	baz=283,slow=75,SNR=34						
H11N2	WAKE ISLAND Hy	41.87	86	T	T	07 59 15.8	
	baz=283,slow=75,SNR=31						
H11N3	WAKE ISLAND Hy	41.88	86	T	T	07 59 15.7	
	baz=283,slow=75,SNR=27						
H11S3	WAKE ISLAND Hy	41.98	88	T	T	07 59 24.8	
	baz=284,slow=75,SNR=38						
H11S1	WAKE ISLAND Hy	41.99	88	T	T	07 59 26.9	
	baz=284,slow=75,SNR=29						
H11S2	WAKE ISLAND Hy	42.00	88	T	T	07 59 26.5	
	baz=284,slow=75,SNR=32						
KURBB	Kurchatov Arra	43.00	320	P	P	07 14 15.5	-1.8
	0.2nm,0.5s,baz=112,slow=9.6,SNR=1.7						
	0.2nm,0.5s						
WRA	Warramunga Arr	44.92	163	P	P	07 14 32.9	-0.2
	0.3nm,0.5s,baz=345,slow=8.9,SNR=6.4						
	0.3nm,0.5s						
ASAR	Alice Springs	48.38	165	P	P	07 15 00.4	+0.3
	0.6nm,1.0s,baz=340,slow=8.7,SNR=2.5						
	0.6nm,1.0s						
BVAR	Borovoye Array	48.56	321	P	P	07 15 02.4	+1.2
	0.4nm,0.5s,baz=127,slow=9.6,SNR=2.3						
	0.4nm,0.5s						
ILAR	Eielson Array	69.45	27	P	P	07 17 26.1	+0.2
	0.2nm,0.5s,baz=292,slow=8.2,SNR=5.1						
	0.2nm,0.5s						
YKA	Yellowknife Ar	83.28	23	P	P	07 18 45.0	+0.6
	0.4nm,0.6s,baz=307,slow=5.1,SNR=2.4						
	0.4nm,0.6s						

NNC ***25*** *07:17:58.6±2.0, 50°.25N×79°.39E, h0km, mb2.5, mpv2.2, Error ellipse: s-maj=32.6km s-min=10.6km az=44.0, Suspected Mining explosion.*

IDC ***25*** *07:17:59.0±1.4, 50°.03N×78°.77E, h0km, mbtmp2.6/2, ML2.2/2, Error ellipse: s-maj=13.6km s-min=10.2km az=57.0*

ISC 25 07:17:56.9±5.4**, 49°.99N**±0°.06×**78°.2E**±0°.5**, h0km, n7, σ0s.59**/10**, 2C-4D, Eastern Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KURBB	Kurchatov Arra	0.68	20	Pg	Pg	07 18 10.2	+0.4
	1.4nm,0.3s,baz=168,slow=18,SNR=69						
KURBB				Lg	Lg	07 18 19.2	
	2.3nm,0.3s,baz=164,slow=34,SNR=27						
KURBB	Kurchatov Arra	0.68	20	⇓P	Pg	07 18 09.9	+0.1
	6.5nm,0.3s						
KURBB				⇓S	Sb	07 18 21.3	-0.1
	39nm,0.6s						
KURK	Kurchatov	0.78	22	⇓P	Pg	07 18 11.9	-0.1
	0.6nm,0.3s						
KURK				⇓S	Sg	07 18 22.3	+0.3
	5.0nm,0.5s						
MK31	Makanchi Array	4.21	138	⇑Pn	Pn	07 19 02.4	0.0
	baz=333,slow=13,SNR=11						
MK31				⇑Pg	Pb	07 19 13.0	+1.1
	0.1nm,0.2s,baz=333,slow=15,SNR=4.4						
MK31				Lg	Lg	07 20 05.0	
	1.6nm,0.5s,baz=332,slow=27,SNR=9.8						
MKAR	Makanchi Array	4.21	138	Pn	Pn	07 19 02.0	-0.4
	0.1nm,0.3s,baz=321,slow=10,SNR=17						
MKAR				Pg	Pb	07 19 11.1	-0.8
	0.3nm,0.3s,baz=328,slow=16,SNR=5.9						
MKAR				Lg	Lg	07 20 04.2	
	0.7nm,0.3s,baz=326,slow=26,SNR=11						
	0.2nm,0.3s						
MKAR				AML	AML		
ZALV	Zalesovo Beam	5.71	43	Pn	Pn	07 19 22.5	-0.4
	0.3nm,0.3s,baz=230,slow=14,SNR=4.5						
	0.8nm,0.4s						
ZALV				AML	AML		
I46RU	ZALESOVO INFRA	5.71	43	I	I	07 51 20.0	
	baz=222,slow=322,SNR=8.5						

ASRS ***25*** *07:30:25.0±0.5, 54°.10N×86°.51E, h0km, M2.6(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 25 07:30:41.8±3.4**, 54°.13N×86°.45E, h0km, mbtmp2.9**/2**, ML2.7**/2**, Error ellipse: s-maj=25.9km s-min=13.9km az=74.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	0.98	260	I	I	07 36 50.0	
	baz=79,slow=332,SNR=2.8						
ZALV	Zalesovo Beam	0.98	260	Pg	Pg	07 30 59.7	-0.8
	0.8nm,0.3s,baz=77,slow=16,SNR=4.1						
ZALV				Lg	Lg	07 31 12.3	
	1.6nm,0.3s,baz=77,slow=28,SNR=8.9						
KURBB	Kurchatov Arra	5.99	237	Pn	Pn	07 32 13.6	+2.1
	0.1nm,0.3s,baz=54,slow=14,SNR=5.0						
KURBB				Lg	Lg	07 33 51.9	
	baz=55,slow=36,SNR=6.5						
	0.7nm,0.6s						
KURBB				AML	AML		
MKAR	Makanchi Array	7.81	201	Pn	Pn	07 32 37.0	+0.5
	0.2nm,0.3s,baz=25,slow=13,SNR=6.3						
MKAR				Lg	Lg	07 34 45.2	
	baz=26,slow=31,SNR=2.9						
	0.2nm,0.3s						
MKAR				AML	AML		

MOS ***25*** *07:41:30.3, 42°.71N×46°.48E, h5km, MPVA4.1*

NORS ***25*** *07:41:31.8, 42°.73N×46°.53E, h9km, MPVA4.0*

DRS ***25*** *07:41:32.2, 42°.72N×46°.49E, h9km*

ISC 25 07:41:32.9±1.0**, 42°.72N**±0°.02×**46°.52E**±0°.01**, h4km**±8km**, n62, σ1s.25**/126**, 4C-2D, Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
UNCR	Uncukul	0.20	91	i Pg	Pg	07 41 37.1	+0.3
UNCR				eSg	Sg	07 41 41.0	+1.5
UNCR	Uncukul	0.20	91	⇑iPG	Pg	07 41 37.1	+0.3
UNCR				eS	Sg	07 41 41.0	+1.5
HNZR	Khunzah	0.21	138	i PG	Pg	07 41 37.6	+0.5
HNZR				eS	Sg	07 41 41.5	+1.6
XNZR	Khunzakh	0.22	142	i Pg	Pg	07 41 37.6	+0.3
XNZR				eSg	Sg	07 41 41.5	+1.3
BTLR	Botlikh	0.23	257	ePg	Pg	07 41 35.9	-1.4
BTLR				eSg	Sg	07 41 39.9	-0.4
BTLR	Botlikh	0.23	257	ePG	Pg	07 41 36.1	-1.2
KRNR	Karanay	0.30	69	ePg	Pg	07 41 39.0	+0.1
KRNR				eSg	Sb	07 41 44.2	-2.3
KRNR	Karanay	0.30	69	⇑ePG	Pg	07 41 39.0	+0.1
KRNR				eS	Sb	07 41 44.2	-2.3
DLMR	Dylym	0.36	13	ePg	Pg	07 41 39.8	-0.1
DLMR				eSg	Sb	07 41 46.4	-1.7
DLMR	Dylym	0.36	13	ePG	Pg	07 41 39.8	-0.1
DLMR				eS	Sb	07 41 46.3	-1.7
ARKR	Arakani	0.37	108	ePg	Pb	07 41 40.6	-1.5
ARKR				eSg	Sb	07 41 47.1	-1.1
ARKR	Arakani	0.37	108	ePG	Pb	07 41 40.6	-1.5
ARKR				eS	Sb	07 41 47.1	-1.1
DVE	Vedeno	0.38	310	i Pg	Pg	07 41 38.8	-1.4
DVE				eSg	Sg	07 41 44.5	-0.7
DVE	Vedeno	0.38	310	⇓iPG	Pg	07 41 38.8	-1.4
DVE				eS	Sg	07 41 44.5	-0.7
DBC	Dubki	0.38	37	i Pg	Pg	07 41 40.1	-0.1
DBC				eSg	Sb	07 41 46.6	-2.0
DBC	Dubki	0.38	37	i PG	Pg	07 41 40.1	-0.1
DBC				eS	Sb	07 41 46.6	-2.0
BUJR	Buynaksk	0.45	76	ePg	Pb	07 41 42.7	-0.7
BUJR				eSg	Sb	07 41 50.0	-0.5
BUJR	Buynaksk	0.45	76	ePG	Pb	07 41 42.7	-0.7
BUJR				eS	Sb	07 41 50.0	-0.5
GNBR	Gunib	0.46	135	ePG	Pb	07 41 42.7	-1.0
GNBR				eS	Sb	07 41 50.2	-0.8
TLTR	Tlyarata	0.62	191	i Pg	Pg	07 41 44.5	-0.4
TLTR				eSg	Sb	07 41 53.8	-1.9
TLTR	Tlyarata	0.62	191	⇓iPG	Pg	07 41 44.5	-0.4
TLTR				eS	Sb	07 41 53.8	-1.9
GROC	Groznyy	0.72	313	ePg	Pg	07 41 46.8	+0.1
GROC				eSg	Sb	07 41 57.9	-0.4
GROC	Groznyy	0.72	313	ePG	Pg	07 41 46.8	+0.1
GROC				eS	Sb	07 41 57.9	-0.4
KMKR	Kumukh	0.73	144	i PG	Pb	07 41 47.4	-0.9
KMKR				eS	Sb	07 41 59.0	+0.3
MAK	Makhachkala	0.76	71	ePg	Pn	07 41 49.5	-1.0
MAK				eSg	Sn	07 42 02.1	-0.4
MAK	Makhachkala	0.76	71	ePG	Pg	07 41 47.4	-0.2
MAK				eS	Sb	07 41 59.7	+0.1
MAK				pmax	pmax		
	comp=Z,152nm,0.3s						
MAK				smax	smax		
	comp=N,587nm,0.4s						
MAK				smax	smax		
	comp=N,489nm,0.4s						
SGKR	Sergokala	0.88	107	ePg	Pn	07 41 51.0	-1.2
SGKR				eSg	Sn	07 42 04.3	-1.1
SGKR	Sergokala	0.88	107	ePG	Pn	07 41 51.0	-1.2
SGKR				eS	Sn	07 42 04.3	-1.1
URKR	Urkarakh	0.99	123	ePg	Pn	07 41 52.7	-1.1
URKR				eSg	Sn	07 42 08.0	-0.3
URKR	Urkarakh	0.99	123	ePG	Pn	07 41 52.7	-1.1
URKR				eS	Sn	07 42 08.0	-0.3
KMGR	Komgaron	1.26	286	ePg	Pg	07 41 57.8	+0.7
KMGR				eSg	Sn	07 42 17.0	+2.1
KMGR	Komgaron	1.26	286	ePG	Pg	07 41 57.8	+0.7
KMGR				eS	Sn	07 42 17.0	+2.1
VLKR	Vladikavkaz	1.39	284	ePg	Pn	07 41 59.0	-0.3
VLKR				eSg	Sg	07 42 19.3	+1.6
VLKR	Vladikavkaz	1.39	284	ePG	Pn	07 41 59.0	-0.3
VLKR				eS	Sg	07 42 19.3	+1.6
DRN	Derbent	1.51	116	ePg	Pg	07 42 02.2	+0.4
DRN				eSg	Sg	07 42 24.6	+3.4
DRN	Derbent	1.51	116	ePG	Pg	07 42 03.8	+2.0
DRN				eS	Sg	07 42 25.0	+3.7
AKT	Akhty	1.53	144	ePg	Pb	07 42 01.2	-0.8
AKT				eSg	Sg	07 42 23.7	+1.6
AKT	Akhty	1.53	144	cePG	Pg	07 42 01.4	-0.8
AKT				eS	Sg	07 42 21.7	-0.3
AKT				pmax	pmax		
	comp=Z,332nm,0.4s						
BTKR	Batakoyurt	1.59	295	ePG	Pg	07 42 03.6	+0.2
BTKR				eS	Sg	07 42 25.8	+1.8
KSMR	Kasumkent	1.63	132	ePg	Pg	07 42 03.9	-0.3
KSMR				eSg	Sg	07 42 27.5	+2.1
KSMR	Kasumkent	1.63	132	ePN	Pg	07 42 03.9	-0.3
KSMR				eS	Sg	07 42 27.5	+2.1
LACR	Lac	1.64	275	ePN	Pn	07 42 02.7	0.0
LACR				eS	Sb	07 42 24.8	-0.1
TRKR	Terskaya	1.65	308	ePg	Pb	07 42 03.3	-0.6
TRKR				eSg	Sg	07 42 27.5	+1.6
TRKR	Terskaya	1.65	308	ePN	Pb	07 42 03.3	-0.6
TRKR				eS	Sg	07 42 27.5	+1.6
ARNR	Ardon	1.71	287	ePg	Pb	07 42 04.0	-0.9
ARNR				eSg	Sb	07 42 26.9	+0.2
ARNR	Ardon	1.71	287	ePN	Pb	07 42 04.0	-0.9
ARNR				eS	Sb	07 42 26.9	+0.2
KORR	Kora	1.84	282	ePg	Pb	07 42 06.8	-0.3
KORR				eSg	Sg	07 42 33.4	+1.3
KORR	Kora	1.84	282	ePN	Pb	07 42 06.8	-0.3
KORR				eS	Sg	07 42 33.3	+1.3
STDR	Stavd-Durt	1.92	291	ePg	Pb	07 42 08.6	+0.2
STDR				eSg	Sg	07 42 35.4	+0.9

STDR	Stavd-Durt	1.92	291	ePN	Pb	07 42 08.6	+0.2
STDR				eS	Sg	07 42 35.4	+0.9
DIGR	Digorskoe uzhe	2.17	276	ePg	Pb	07 42 11.3	-1.6
DIGR				eSg	Sb	07 42 39.0	-1.3
DIGR	Digorskoe uzhe	2.17	276	ePN	Pb	07 42 11.3	-1.6
DIGR				eS	Sb	07 42 39.0	-1.3
KBZ	Khabaz	2.83	292	ePN	Pn	07 42 18.1	-0.9
KBZ				eS	Sb	07 42 56.1	-3.0
NEUR	Neytrino	2.85	282	ePn	Pn	07 42 21.1	+1.7
NEUR				eSn	Sb	07 42 58.7	-1.2
NEUR	Neytrino	2.85	282	ePN	Pn	07 42 21.1	+1.7
NEUR				eS	Sb	07 42 58.7	-1.2
SHA1	Shidzhatmaz	3.00	291	ePn	Pn	07 42 21.2	-0.3
SHA1				eSn	Sn	07 42 58.8	+0.7
SHA1	Shidzhatmaz	3.00	291	ePN	Pn	07 42 21.2	-0.3
SHA1				eS	Sn	07 42 58.8	+0.7
KIV	Kislovodsk	3.06	295	ePn	Pn	07 42 21.1	-1.1
KIV				eSn	Sn	07 43 01.3	+2.0
KIV	Kislovodsk	3.06	295	ePN	Pn	07 42 21.1	-1.1
KIV				eS	Sn	07 43 01.3	+2.0
GOF	Gofitskoye	3.43	314	cePN	Pg	07 42 39.5	+0.8
MNK	Minsk	16.99	320	i P	Pn	07 45 31.6	+0.3
MNK				i S	Sn	07 48 39.8	-0.6
MNK				pmax	pmax		
	comp=E,18nm,0.7s						
MNK				pmax	pmax		
	comp=Z,8.0nm,0.5s						
MNK				pmax	pmax		
	comp=N,27nm,1.1s						
MNK	Minsk	16.99	320	i P	Pn	07 45 31.6	+0.3
	comp=E,18nm,0.7s						
MNK				i P	Pn	07 45 31.6	+0.3
	comp=N,27nm,1.1s						
MNK				i P	Pn	07 45 31.6	+0.3
	comp=Z,8.0nm,0.5s,baz=126						
MNK				i PP	PnPn	07 45 41.3	+0.5
MNK				i PPP	PPP	07 45 49.0	
MNK				i S	Sn	07 48 39.9	-0.6
MNK				i SS	SnSn	07 48 56.2	+2.7
MNK				i SSS	SSS	07 49 09.0	
MNK				i LR	LR	07 51 51.4	

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*WEL **25** 07:42:48.3±0.8, 33°S±4°×17°7W±1°2, h12^{km}, M4.8/12, mB5.2/7, ML4.5/13, MLv5.1/12, Mw(mB)4.5/7, Error ellipse: s-maj=15.7km s-min=3.1km az=107.9, confirmed*

*IDC **25** 07:42:49.1±0.6, 32°.98S×177°.94W, h0^{km}, mb4.4/9, mbtmp4.5/13, ML4.8/4, MS3.6/16, Error ellipse: s-maj=25.1km s-min=13.7km az=100.0*

*NEIC **25** 07:42:51.2±1.7, 32°.88S±0°.05×177°.9W±0°.2, h10^{km}±2^{km}, mb4.8/13, Error ellipse: s-maj=27.8km s-min=7.9km az=86.0*

*NOU **25** 07:42:52.4, 33°.10S×177°.46W, h41^{km}, mb4.7/29, South of Kermadec Islands*

ISC 25 07:42:51.8±0.5**, 32°.96S**±0°.05×**177°.55W**±0°.08**, h26**^{km}**, n137, σ1^{s}.81**/146**, mb4.6**/16**, MS3.6**/14**, 3C, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GLKZ	Green Lake	3.70	355	P	Pn	07 43 45.7	-1.6
GLKZ				S	Sn	07 44 25.2	-4.9
GLKZ				AML	AML		
GLKZ				AML	AML		
RAO	Raoul Island	3.71	355	Pn	Pn	07 43 46.3	-1.1
	122nm,0.3s,baz=124,slow=9.9,SNR=7.0						
RAO				Sn	Sn	07 44 28.4	-2.0
	686nm,0.3s,baz=67,slow=23,SNR=13						
	361nm,0.3s						
RAO				AML	AML		
RAO	Raoul Island	3.71	355	P	Pn	07 43 46.7	-0.7
RAO	Raoul Island	3.71	355		Pn	07 43 45.9	-1.6
RIZ	Raoul Island	3.72	355	P	Pn	07 43 46.5	-1.0
RIZ				S	Sn	07 44 26.6	-4.0
RIZ				AML	AML		
RIZ				AML	AML		
MXZ	Matakaoa Point	5.70	215	P	Pn	07 44 13.5	-1.3
MXZ	Matakaoa Point	5.70	215	Pn	Pn	07 44 13.4	-1.3
MXZ	Matakaoa Point	5.70	215	P	Pn	07 44 14.1	-0.6
MXZ				S	Sn	07 45 16.0	-3.3
MXZ				AML	AML		
MXZ				AML	AML		
WMGZ	Waiomatatini S	5.86	213	P	Pn	07 44 17.3	+0.4
WMGZ				S	Sn	07 45 21.6	-1.5
WMGZ				AML	AML		
WMGZ				AML	AML		
PKGZ	Pakihiroa	6.05	215	P	Pn	07 44 20.0	+0.4
PKGZ				S	Sn	07 45 26.6	-1.4
PKGZ				AML	AML		
PKGZ				AML	AML		
HAZ	Te Kaha	6.11	217	P	Pn	07 44 21.0	+0.6
HAZ				S	Sn	07 45 29.3	-0.2
HAZ				AML	AML		
HAZ				AML	AML		
PUZ	Puketiti	6.13	213	P	Pn	07 44 19.8	-0.9
PUZ				S	Sn	07 45 28.7	-1.4
PUZ				AML	AML		
PUZ				AML	AML		
RUGZ	Raukumara Rang	6.33	217	P	Pn	07 44 23.3	-0.2
RUGZ				S	Sn	07 45 34.0	-0.9
RUGZ				AML	AML		
RUGZ				AML	AML		
TWGZ	Tauwhareparae	6.35	214	P	Pn	07 44 23.8	+0.1
TWGZ				S	Sn	07 45 34.0	-1.3
TWGZ				AML	AML		
TWGZ				AML	AML		
CNGZ	Carnagh Statio	6.50	211	P	Pn	07 44 25.3	-0.4
CNGZ				AML	AML		
CNGZ				AML	AML		
TKGZ	Te Karaka	6.62	213	P	Pn	07 44 26.5	-0.9
TKGZ				S	Sn	07 45 39.9	-2.0
TKGZ				AML	AML		
TKGZ				AML	AML		
GRZ	Great Barrier	6.63	238	P	Pn	07 44 30.6	+3.1
GRZ				AML	AML		
GRZ				AML	AML		
MWZ	Matawai	6.69	215	P	Pn	07 44 27.6	-0.7
MWZ				S	Sn	07 45 41.4	-2.4
MWZ				AML	AML		
MWZ				AML	AML		
URZ	Urewera	6.84	218	Pn	Pn	07 44 28.8	-1.5
	3.5nm,0.3s,baz=300,slow=3.9,SNR=5.3						
	8.8nm,0.3s						
URZ				AML	AML		
URZ	Urewera	6.84	218	P	Pn	07 44 29.7	-0.7
URZ	Urewera	6.84	218	P	Pn	07 44 29.5	-0.9
RAGZ	Rawiri	6.87	215	P	Pn	07 44 30.1	-0.8
RAGZ				S	Sn	07 45 45.5	-2.7
RIGZ	Rimuhau	6.88	212	P	Pn	07 44 30.2	-0.7
RIGZ				S	Sn	07 45 46.8	-1.5
TGRZ	Tauranga	6.94	225	P	Pn	07 44 32.7	+1.0
PRGZ	Paritu Road	7.00	211	P	Pn	07 44 31.1	-1.5
PRGZ				S	Sn	07 45 49.6	-1.8
KNZ	Kokohu	7.18	211	P	Pn	07 44 32.8	-2.2
RTZ	Ruatahuna	7.18	217	Pn	Pn	07 44 34.6	-0.5
MUGZ	Murupara	7.18	218	P	Pn	07 44 34.6	-0.5
MHGZ	Mahia Peninsul	7.19	209	P	Pn	07 44 33.4	-1.7
MKAZ	Moumakai	7.26	233	P	Pn	07 44 39.3	+3.1
MKAZ				AML	AML		
MKAZ				AML	AML		
MBAZ	Motutapu North	7.27	236	P	Pn	07 44 39.5	+3.2
MBAZ				AML	AML		
MBAZ				AML	AML		
WCZ	Waipu Caves	7.32	244	P	Pn	07 44 40.9	+4.0
WCZ				AML	AML		
WCZ				AML	AML		
RAHZ	Arahi	7.36	215	P	Pn	07 44 37.4	-0.1
TOZ	Tahuroa Road	7.40	228	Pn	Pn	07 44 38.5	+0.4
TOZ	Tahuroa Road	7.40	228	P	Pn	07 44 39.9	+1.8
MTHZ	Maungataniwha	7.43	216	P	Pn	07 44 38.2	-0.3
MRHZ	Matea Rd	7.63	218	P	Pn	07 44 40.2	-1.1
ARHZ	Aropaoanui	7.68	214	P	Pn	07 44 40.3	-1.6
OUZ	Omahuta	7.68	251	P	Pn	07 44 44.6	+2.7
OUZ	Omahuta	7.68	251	S	Sn	07 46 09.1	+1.1
OUZ	Omahuta	7.68	251	P	Pn	07 44 45.7	+3.8
OUZ				AML	AML		
BKZ	Black Stump Fm	7.84	216	P	Pn	07 44 43.1	-1.1
BKZ	Black Stump Fm	7.84	216	S	Sn	07 46 08.9	-3.2
BKZ	Black Stump Fm	7.84	216	P	Pn	07 44 43.7	-0.4
CKHZ	Cape Kidnapper	7.96	211	P	Pn	07 44 42.3	-3.4
KAHZ	Kahuranaki	8.16	212	P	Pn	07 44 45.9	-2.6
HIZ	Hauiti	8.29	226	P	Pn	07 44 51.0	+0.7
HIZ	Hauiti	8.29	226	S	Sn	07 46 22.7	-0.3
HIZ	Hauiti	8.29	226	Pn	Pn	07 44 50.0	-0.3
HIZ	Hauiti	8.29	226	P	Pn	07 44 52.0	+1.7
PXZ	Pawanui	8.36	211	P	Pn	07 44 47.6	-3.6
PXZ				S	Sn	07 46 19.0	-5.8
FWVZ	Far West T-bar	8.40	220	P	Pn	07 44 51.8	-0.1
PRHZ	Porangahau	8.65	211	P	Pn	07 44 51.7	-3.5
TSZ	Takapari Road	8.79	215	P	Pn	07 44 54.7	-2.5
MRZ	Mangatainoka R	9.45	214	Pn	Pn	07 45 05.6	-0.6
MSWZ	Moikau Station	10.20	212	Pn	Pn	07 45 15.6	-0.9
BHW	Baring Head	10.37	213	Pn	Pn	07 45 16.9	-1.8
SNZO	South Karori	10.37	214	P	Pn	07 45 18.0	-0.7
CTZ	Chatham Island	10.78	176	P	Pn	07 45 24.3	0.0
CTZ	Chatham Island	10.78	176		Pn	07 45 25.8	+1.4
QRZ	Quartz Range	11.16	222	P	Pn	07 45 29.2	-0.3
THZ	Tophouse	11.60	218	Pn	Pn	07 45 32.8	-2.8
KHZ	Kahutara	11.77	214	P	Pn	07 45 35.1	-2.8
RPZ	Rata Peaks	13.95	216	Pn	Pn	07 46 05.7	-2.1
	1.0nm,0.3s,baz=76,slow=4.7,SNR=6.2						
	4.6nm,0.5s						
RPZ				AML	AML		
RPZ	Rata Peaks	13.95	216	P	Pn	07 46 05.7	-2.1
ODZ	Otahua Downs	15.13	214	P	Pn	07 46 20.5	-3.2
JCZ	Jackson Bay	15.38	220	P	Pn	07 46 23.7	-3.4
NIUE	Niue	15.43	28	P	Pn	07 46 25.2	-2.5
NIUE				S	Sn	07 49 00.6	-17
MSVF	Nonsavu	15.68	344	Pn	Pn	07 46 30.0	-1.0
	0.9nm,0.3s,baz=142,slow=14,SNR=6.2						
MSVF				LR	LR	07 51 44.0	
	comp=Z,214nm,20.8s,baz=142,slow=34						
	11nm,0.7s						
MSVF				AML	AML		
MSVF	Nonsavu	15.68	344	P	Pn	07 46 31.6	+0.6
MSVF	Nonsavu	15.68	344	Pn	Pn	07 46 29.7	-1.3
MSVF				IAmb	IAmb	07 46 58.7	
	comp=Z,59nm,1.4s						
SYZ	Scrubby Hill	16.95	213	P	Pn	07 46 46.3	-0.7
PYZ	Puysegur Point	17.89	218	P	Pn	07 46 56.8	-1.8
NOUC	Port Laguerre	17.92	303	P	P	07 47 01.2	+1.5
RAR	Rarotonga	19.65	58	LR	LR	07 54 37.9	
	comp=Z,86nm,19.3s,baz=231,slow=36						
AFI	Afiamalu	19.69	17	P	Pn	07 47 20.7	+0.1
AFI	Afiamalu	19.69	17	P	Pn	07 47 20.2	-0.4
AFI	Afiamalu	19.69	17	P	Pn	07 47 21.6	+0.9
TAU	Tasmania Unive	29.25	240	P	P	07 48 51.8	+0.3
PPT	Papeete	29.46	65	LR	LR	08 00 57.1	
	comp=Z,70nm,18.6s,baz=188,slow=37						
STKA	Stephens Creek	34.35	260	P	P	07 49 35.4	-1.1
	comp=Z,4.4nm,0.9s,baz=84,slow=10.0,SNR=4.0						
STKA				LR	LR	08 01 58.2	
	comp=Z,117nm,19.2s,baz=31,slow=34						
	comp=Z,4.4nm,0.9s						
CTA	Charters Tower	34.66	283	LR	LR	08 01 18.3	
	comp=Z,95nm,21.1s,baz=66,slow=32						
CTA	Charters Tower	34.66	283	P	P	07 49 39.5	+0.3
CTAO	Charters Tower	34.66	283	P	P	07 49 39.5	+0.3
CTAO	Charters Tower	34.66	283		P	07 49 38.5	-0.8
CTAO				IAmb	IAmb	07 49 40.4	
	comp=Z,21nm,1.2s						
INKA	Innaminka	36.19	267		P	07 49 51.0	-1.3
INKA				IAmb	IAmb	07 49 53.8	
	comp=Z,8.8nm,0.9s						
HTT	Hallett	36.23	257	P	P	07 49 52.2	-0.5
BBOO	Buckleboo	38.71	257	P	P	07 50 12.3	-1.3
BBOO	Buckleboo	38.71	257	P	P	07 50 11.7	-2.0
BBOO				IAmb	IAmb	07 50 23.6	
	comp=Z,24nm,1.2s						
QIS	Mount Isa	39.95	277	P	P	07 50 23.1	-1.0
PMG	Port Moresby	40.09	298	LR	LR	08 05 57.5	
	comp=Z,57nm,18.5s,baz=248,slow=35						
AS01	Alice Springs	43.37	269	P	P	07 50 51.0	-1.2
AS31	Alice Springs	43.41	269		P	07 50 50.7	-1.7
ASAR	Alice Springs	43.41	269	P	P	07 50 51.0	-1.4
	comp=Z,9.2nm,0.7s,baz=110,slow=7.7,SNR=138						
ASAR				PcP	PcP	07 52 40.6	0.0
	comp=Z,2.2nm,0.8s,baz=122,slow=4.6,SNR=7.1						
ASAR				LR	LR	08 07 58.7	
	comp=Z,39nm,19.0s,baz=104,slow=35						
	comp=Z,9.2nm,0.7s						
ASAR	Alice Springs	43.41	269		P	07 50 50.4	-2.1
WR8	Warramunga Arr	44.49	275	P	P	07 50 59.5	-1.7
WR8				IAmb	IAmb	07 51 00.4	
	comp=Z,11nm,0.9s						
WRAB	Tennant Creek	44.62	275	P	P	07 51 00.6	-1.6
WRA	Warramunga Arr	44.63	275	P	P	07 51 00.5	-1.8
	comp=Z,7.4nm,0.3s,baz=113,slow=7.9,SNR=226						
WRA				PcP	PcP	07 52 44.9	+0.1
	comp=Z,3.2nm,0.8s,baz=120,slow=3.4,SNR=8.6						
	comp=Z,7.4nm,0.3s						
WRA	Warramunga Arr	44.63	275		P	07 50 59.3	-2.9
JAY	Jayapura	49.44	299	LR	LR	08 10 54.2	
	comp=Z,42nm,19.3s,baz=7.5,slow=34						
FITZ	Fitzroy Crossi	52.77	272	LR	LR	08 13 37.1	
	comp=Z,99nm,18.2s,baz=182,slow=35						
CASY	Casey	53.07	209	P	P	07 52 07.6	+1.3
MORW	Morawa	56.20	255	P	P	07 52 27.5	-2.2
MORW				IAmb	IAmb	07 52 31.4	
	comp=Z,23nm,1.4s						
QSPA	South Pole Qui	57.15	180	P	P	07 52 38.7	+2.7
	comp=Z,2.0nm,0.6s,baz=52,slow=1.3,SNR=20						
QSPA				LR	LR	08 14 27.8	
	comp=Z,59nm,19.4s,baz=119,slow=33						
	comp=Z,2.0nm,0.6s						
QSPA	South Pole Qui	57.15	180	P	P	07 52 39.2	+3.1
QSPA				IAmb	IAmb	07 52 54.2	
	comp=Z,7.0nm,0.8s						
RPN	Rapa Nui	58.42	104	LR	LR	08 14 17.5	
	comp=Z,29nm,20.0s,baz=132,slow=32						
KAPI	Kappang	64.46	281	LR	LR	08 22 16.3	
	comp=Z,35nm,18.6s,baz=192,slow=37						
MAW	Mawson	70.05	201	P	P	07 54 01.7	+0.8
	comp=Z,0.7nm,0.7s,baz=158,slow=7.2,SNR=3.5						
	comp=Z,0.7nm,0.7s						
MAW	Mawson	70.05	201	P	P	07 54 02.3	+1.4
LEM	Lembang	73.60	272	LR	LR	08 25 48.5	
	comp=Z,94nm,19.5s,baz=228,slow=35						
TROLL	Troll, Antarti	75.32	180	⇑P	P	07 54 34.5	+2.2
	comp=Z,58nm,0.5s						
VNA3	Neumayer Olymp	75.73	176	⇑P	P	07 54 36.4	+1.8
	comp=Z,4.1nm,0.8s						
VNA1	Neumayer--Stat	76.39	176	⇑P	P	07 54 40.6	+2.3
	comp=Z,2.4nm,0.8s						
MJAR	Matsushiro Arr	80.56	325	LR	LR	08 26 18.9	
	comp=Z,26nm,21.5s,baz=142,slow=32						
LPIG	La Paz	85.57	58	LR	LR	08 30 55.0	
	comp=Z,84nm,18.2s,baz=20,slow=34						
SHEM	Shemya Is, Ala	85.64	355	LR	LR	08 26 31.4	
	comp=Z,42nm,21.8s,baz=44,slow=31						
KSRS	Korea Array	86.54	320	P	P	07 55 32.5	+0.1
	comp=Z,2.2nm,0.8s,baz=142,slow=6.0,SNR=5.1						
	comp=Z,2.2nm,0.8s						
PETK	Petropavlovsk-	88.38	345	P	P	07 55 42.0	+1.2
	comp=Z,0.8nm,0.5s,baz=113,slow=6.3,SNR=5.7						
	comp=Z,0.8nm,0.5s						
PETK	Petropavlovsk-	88.38	345	P	P	07 55 42.2	+1.4
USRK	Ussuriysk Ar.	89.50	326	P	P	07 55 46.6	+0.3
	comp=Z,6.7nm,0.8s,baz=113,slow=5.2,SNR=7.3						
	comp=Z,6.7nm,0.8s						
USRK	Ussuriysk Ar.	89.50	326	P	P	07 55 47.7	+1.4
NVAR	Mina Array Bea	89.86	42	P	P	07 55 51.1	+2.6
	comp=Z,0.7nm,0.8s,baz=223,slow=7.4,SNR=6.1						
	comp=Z,0.7nm,0.8s						
KURBB	Kurchatov Arra	123.11	312	PKP	PKiKP	08 01 45.2	-0.5
	comp=Z,1.9nm,0.8s,baz=112,slow=2.0,SNR=13						
BVAR	Borovoye Array	128.48	314	PKP	PKiKP	08 01 56.8	+0.5
	comp=Z,1.2nm,0.5s,baz=139,slow=0.4,SNR=6.3						
ARCES	ARCESS Array B	141.17	347	PKP	PKPdf	08 02 17.8	-1.1
	comp=Z,5.0nm,1.0s,baz=57,slow=1.9,SNR=6.3						
KBZ	Khabaz	146.80	301	PKPbc	PKPab	08 02 31.9	-0.7
	comp=Z,7.1nm,0.9s,baz=169,slow=3.0,SNR=12						
FINES	FINESS Array B	147.67	339	PKPbc	PKiKP	08 02 33.7	-1.4
	comp=Z,7.9nm,0.5s,baz=49,slow=3.6,SNR=42						
NB2	NORSAR Subarra	151.34	351	PKP	PKiKP	08 02 43.3	+0.5
	comp=Z,1.4nm,0.6s,baz=16,slow=2.6						
NOA	NORSAR Array B	151.34	351	PKPbc	PKPbc	08 02 41.6	-0.7
	comp=Z,2.2nm,0.7s,baz=14,slow=4.1,SNR=7.4						
HFS	Hagfors	151.82	348	PKPbc	PKiKP	08 02 43.4	-0.4
	comp=Z,2.3nm,0.7s,baz=232,slow=8.9,SNR=4.8						
HFS				PKPab	PKPab	08 02 53.7	+1.2
	comp=Z,1.4nm,0.6s,baz=81,slow=11,SNR=5.3						
MMAI	Mount Meron Ar	152.42	279	PKPbc	PKiKP	08 02 47.8	+1.8
	comp=Z,2.2nm,0.4s,baz=70,slow=7.2,SNR=6.4						
DBIC	Dimbokro	152.97	164	PKPbc	PKiKP	08 02 48.9	+1.3
	comp=Z,2.6nm,0.5s,baz=264,slow=2.7,SNR=5.1						
AKASG	Malin Array Be	153.54	320	PKPbc	PKiKP	08 02 49.1	+1.5
	comp=Z,0.3nm,0.3s,baz=68,slow=2.1,SNR=6.3						
AKASG				PKPab	PKPab	08 02 59.8	-0.2
	comp=Z,3.8nm,0.6s,baz=52,slow=4.9,SNR=16						
BRTR	Keskin Array B	154.07	294	PKPbc	PKiKP	08 02 49.5	+0.3
	comp=Z,1.1nm,0.6s,baz=145,slow=4.5,SNR=7.1						
BRTR				PKPab	PKPab	08 03 02.3	-0.6
	comp=Z,1.4nm,0.8s,baz=134,slow=3.6,SNR=5.3						
CLL	Collm	160.11	340	ePKPab	PKPab	08 03 29.0	+0.8
TORD	Torodi Ar. Bea	160.26	178	PKPab	PKPab	08 03 31.4	+1.7
	comp=Z,0.9nm,0.9s,baz=176,slow=4.5,SNR=4.6						
GERES	GERESS Array B	162.03	335	PKPab	PKPab	08 03 37.4	+0.6
	comp=Z,0.5nm,0.3s,baz=187,slow=1.1,SNR=5.2						

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*SDD **25** 08:01:07.5±3.9, 19°.55N×70°.65W, h35^{km}±37^{km}, MD3.0, ML2.0, MW3.0, Presumed earthquake*

*OSPL **25** 08:01:09.4±0.7, 19°.72N×70°.62W, h6^{km}±4^{km}, ML1.8, Presumed earthquake*

ISC 25 08:01:07.4±1.8**, 19°.7N**±0°.1×**70°.63W**±0°.04**, h28**^{km}±13^{km}**, n11, σ0^{s}.63**/17**, 5C-7D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SC01	Santiago de lo	0.32	196	i P	Pb	08 01 15.0	+0.1
SC01				IAML		08 01 24.6	
	comp=Z,42nm,1.2s						
SC01	Santiago de lo	0.32	196	⇓ePg	Pb	08 01 15.0	+0.1
SC01				IAML		08 01 28.8	
	comp=N,62nm,1.2s						
MADR	Mao Valverde	0.47	249	⇑ePg	Pn	08 01 18.3	0.0
MADR				⇓eSg	Sn	08 01 25.6	-0.1
MADR				IAML		08 01 53.2	
	comp=N,67nm,3.9s						
LOPP1	Punta Rusia, P	0.55	282	i P	Pn	08 01 19.4	+0.1
LOPP1				IAML		08 01 30.3	
	comp=Z,45nm,3.0s						
ABDR	Alto Bandera	0.92	180	⇑ePg	Pb	08 01 24.6	-0.4
ABDR				IAML		08 01 39.9	
	comp=N,33nm,2.5s						
BANI	BANI	1.36	169	⇑ePg	Pb	08 01 32.4	+0.1
BANI				⇓eSg	Sb	08 01 49.2	-0.2
BANI				IAML		08 01 54.9	
	comp=N,36nm,1.6s						
LONE3	El Aguacate, B	1.37	215	i P	Pb	08 01 32.8	+0.3
LONE3				eS	Sb	08 01 50.7	+1.1
LONE3				IAML		08 01 52.5	
	comp=Z,19nm,4.6s						
HATOM	Hato Mayor del	1.51	128	⇑ePg	Pb	08 01 36.0	+1.2
HATOM				⇓eSg	Sb	08 01 52.9	-0.7
HATOM				IAML		08 02 04.8	
	comp=N,28nm,3.8s						
LODU1	El Espartillar	1.59	210	i P	Pb	08 01 36.6	+0.4
LODU1				IAML		08 02 00.1	
	comp=Z,20nm,2.4s						
JIDR	Jimani	1.69	223	⇓ePg	Pb	08 01 36.9	-0.9
JIDR				⇓eSg	Sn	08 01 55.9	+0.1
JIDR				IAML		08 02 02.1	
	comp=N,30nm,0.6s						
HIDR	Higuey Centro	2.14	122	⇑ePg	Pb	08 01 45.4	0.0
HIDR				⇓eSg	Sb	08 02 10.7	-0.8
HIDR				IAML		08 02 31.0	
	comp=N,25nm,2.6s						

IDC 25 08:20:14.5±1.5**, 29°.52N×104°.87E, h0**^{km}**, mb3.4**/3**, mbtmp3.5**/4**, ML4.1**/1**, MS2.7**/1**, Error ellipse: s-maj=97.0km s-min=23.0km az=66.0, Sichuan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LZDM	Lanzhou Array	6.49	352	Pn	Pn	08 21 52.4	+0.8
	baz=174,slow=16						
LZDM				Sn	Sn	08 23 05.4	-1.1
	baz=168,slow=23						
	5.1nm,0.4s						
KSRS	Korea Array	20.76	62	LR	LR	08 34 06.3	
	comp=Z,21nm,21.2s,baz=255,slow=40						
MKAR	Makanchi Array	24.61	321	P	P	08 25 36.5	+0.1
	0.3nm,0.4s,baz=126,slow=9.7,SNR=2.7						
	0.3nm,0.4s						
WRA	Warramunga Arr	56.80	146	P	P	08 30 00.1	-0.6
	0.4nm,0.8s,baz=333,slow=7.3,SNR=3.8						
	0.4nm,0.8s						
ASAR	Alice Springs	59.80	149	P	P	08 30 21.9	+0.3
	0.4nm,0.8s,baz=339,slow=8.5,SNR=4.7						
	0.4nm,0.8s						

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*IDC **25** 08:37:07.8±1.4, 49°.78N×81°.61E, h0^{km}, mbtmp2.7/2, ML2.2/2, Error ellipse: s-maj=15.6km s-min=11.1km az=82.0*

*NNC **25** 08:37:09.2±2.2, 49°.59N×81°.58E, h0^{km}, mb3.2, mpv2.8, Error ellipse: s-maj=37.7km s-min=6.7km az=53.0, Suspected Mining explosion.*

ISC 25 08:37:06.6±1.2**, 49°.61N**±0°.08×**81°.56E**±0°.10**, h0**^{km}**, n7, σ0^{s}.77**/8**, 4D, Eastern Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KURK	Kurchatov	2.19	301	⇓Pn	Pb	08 37 47.1	+0.1
	4.8nm,0.7s						
KURK				⇓Sn	Sg	08 38 16.3	-0.7
	3.9nm,0.4s						
KURBB	Kurchatov Arra	2.20	299	Pg	Pb	08 37 47.8	+0.6
	0.4nm,0.3s,baz=112,slow=19,SNR=38						
KURBB				Lg	Lg	08 38 17.0	
	1.0nm,0.3s,baz=108,slow=30,SNR=19						
KURBB	Kurchatov Arra	2.20	299	⇓Pn	Pb	08 37 47.6	+0.4
	16nm,0.7s						
KURBB				⇓Sn	Sb	08 38 15.8	+0.8
	25nm,0.4s						
MK31	Makanchi Array	2.86	170	Pg	Pg	08 38 00.5	-0.8
	0.6nm,0.3s,baz=356,slow=14,SNR=26						
MK31				Lg	Lg	08 38 40.1	
	3.2nm,0.5s,baz=22,slow=29,SNR=8.6						
MKAR	Makanchi Array	2.86	170	Pn	Pb	08 37 59.3	+0.8
	1.2nm,0.3s,baz=353,slow=15,SNR=28						
MKAR				Lg	Lg	08 38 40.1	
	1.9nm,0.3s,baz=350,slow=32,SNR=16						
	1.9nm,0.3s						
MKAR				AML	AML		
ZALV	Zalesovo Beam	4.79	24	Pn	Pn	08 38 20.0	0.0
	0.1nm,0.3s,baz=214,slow=12,SNR=2.3						
ZALV				Lg	Lg	08 39 34.7	
	0.5nm,0.3s,baz=200,slow=29,SNR=7.2						
	0.4nm,0.3s						
ZALV				AML	AML		
I46RU	ZALESOVO INFRA	4.79	24	I	I	09 04 55.0	
	baz=202,slow=323,SNR=11						

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*IDC **25** 08:46:11.7±0.6, 7°.82N×127°.09E, h0^{km}, mb4.3/18, mbtmp4.3/19, ML4.0/1, MS3.6/21, Error ellipse: s-maj=15.8km s-min=11.3km az=107.0*

*NEIC **25** 08:46:13.9±1.3, 7°.72N±0°.05×126°.95E±0°.06, h10^{km}±1^{km}, mb4.6/41, Error ellipse: s-maj=13.7km s-min=2.9km az=130.0*

*MAN **25** 08:46:15.0, 7°.72N×127°.17E, h20^{km}, MS4.5*

ISC 25 08:46:14.0±1.6**, 7°.73N**±0°.04×**127°.09E**±0°.05**, h15**^{km}±9^{km}**, n116, σ1^{s}.47**/111**, mb4.5**/38**, MS3.7**/20**, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CDOP	Cateel, Davao	0.64	275	i P	Pn	08 46 29.5	+0.9
CDOP				i S	Sn	08 46 41.3	+2.9
BIPH	Bislig	0.85	302	eP	Pn	08 46 32.4	+1.0
BIPH				eS	Sb	08 46 42.6	+1.0
DAV	Davao City (W)	1.63	246	Pg	Pb	08 46 43.7	-0.1
	77nm,0.3s,baz=56,slow=6.1,SNR=13						
DAV				Lg	Lg	08 47 06.8	
	133nm,0.3s,baz=126,slow=12,SNR=5.6						
DAV				LR	LR	08 47 39.1	
	comp=Z,3µm,19.9s,baz=54,slow=52						
DAV	Davao City (W)	1.63	246		Pn	08 46 41.1	-1.0
DAV	Davao City (W)	1.63	246	P	Pg	08 46 45.0	-0.4
DMPH	Davao City--Mi	1.69	248	eP	Pg	08 46 46.7	+0.2
DMPH				i S	Sn	08 47 03.4	-1.0
BUKP	Musuan	2.01	274	i P	Pb	08 46 51.6	+1.3
BUKP				i S	Sg	08 47 19.4	+0.7
KCP	Kidapawan	2.10	250	i P	Pb	08 46 52.4	+0.5
KCP				i S	Sn	08 47 00.4	-14
CGP	Cagayan de Oro	2.48	287	i P	Pb	08 46 57.4	-0.8

CGP				*i* S	Sb	08 47 29.8	+1.4
TBP	**Tagbilaran**	3.73	302	*e*P	Pn	08 47 14.4	+3.3
TBP				*e*S	Sb	08 48 07.6	+2.8
DCPH	**Dipolog City**	3.79	283	*i* P	Pb	08 47 17.0	-3.6
DCPH				*i* S	Sb	08 48 10.4	+4.0
PLP	**Palo**	4.00	329	*e*P	Pn	08 47 16.0	+1.3
PLP				*e*S	Sg	08 48 20.0	-2.4
LLP	**Lapu-Lapu**	4.01	310	*e*P	Pn	08 47 18.5	+3.5
LLP				*e*S	Sb	08 48 14.1	+1.3
SNPH	**Sibulan**	4.13	293	*i* P	Pn	08 47 20.6	+4.0
SNPH				*i* S	Sb	08 48 15.5	-0.7
TNTI	**Ternate**	6.92	178	Pn	Pn	08 47 55.7	+0.9
LQP	**Lukban**	8.36	320	*e*P	Pn	08 48 24.2	+9.3
MYLDM	**Lahad Datu**	8.90	254	Pn	Pn	08 48 20.4	-1.6
TOLI2	**Tolitoli**	9.09	224		Pn	08 48 23.7	-1.1
TOLI2				Sn	Sn	08 49 56.5	-10
SIJI	**Sorong**	9.50	154	LR	LR	08 52 42.9	
	comp=Z,292nm,18.4s,baz=2.0,slow=41						
LUWI	**Luwuk**	9.72	206	Pn	Pn	08 48 34.3	+1.0
KKM	**Kota Kinabalu**	10.92	262	Pn	Pn	08 48 49.9	0.0
SZP	**Santa**	11.71	327	Pn	Pn	08 49 01.3	+0.7
FAKI	**Fak Fak**	11.77	154	Pn	Pn	08 49 01.1	-0.3
KAPI	**Kappang**	14.62	210	Pn	Pn	08 49 41.9	+1.4
	0.7nm,0.3s,baz=38,slow=8.8,SNR=6.0						
KAPI				LR	LR	08 54 40.3	
	comp=Z,73nm,21.4s,baz=38,slow=35						
	14nm,0.8s						
KAPI				AML	AML		
TWG	**Pinlang**	16.08	340	Pn	Pn	08 49 60.0	+0.3
TWG				IAmb	IAmb	08 50 02.1	
	comp=Z,61nm,1.3s						
TPUB	**Ta-pu**	16.68	339		Pn	08 50 07.8	+0.5
TPUB				IAmb	IAmb	08 50 29.9	
	comp=Z,60nm,1.4s						
JAY	**Jayapura**	16.98	126	LR	LR	08 57 09.4	
	comp=Z,302nm,18.3s,baz=294,slow=39						
SOEI	**Soe**	17.59	189	Pn	Pn	08 50 16.1	-2.8
SOEI				IAmb	IAmb	08 50 58.8	
	comp=Z,48nm,1.0s						
GUMO	**Guam**	18.41	70	LR	LR	08 56 37.6	
	comp=Z,99nm,19.1s,baz=244,slow=34						
JOW	**Kunigami**	19.03	3	P	P	08 50 35.2	-0.3
JOW				IAmb	IAmb	08 50 53.2	
	comp=Z,52nm,0.9s						
QIZ	**Qiongzhong**	20.16	306	P	P	08 50 48.5	+0.5
QIZ				S	S	08 54 32.8	-1.3
QIZ				LR	LR		
	comp=N,220nm,13.9s						
QIZ				LR	LR		
	comp=E,220nm,15.5s						
QIZ				LR	LR		
	comp=Z,350nm,15.3s						
QIZ	**Qiongzhong**	20.16	306	P	P	08 50 46.3	-1.7
QIZ				IAmb	IAmb	08 51 20.2	
	comp=Z,35nm,1.4s						
MTN	**Manton Dam**	20.83	169		P	08 50 55.2	0.0
KNRA	**Kununurra**	23.31	176		P	08 51 21.6	+0.1
KNRA				IAmb	IAmb	08 51 38.5	
	comp=Z,16nm,1.1s						
MYKOM	**Kota Tinggi**	23.89	257	P	P	08 51 25.0	-2.3
MYKOM				IAmb	IAmb	08 51 41.3	
	comp=Z,13nm,1.0s						
NJ2	**Nanjing**	25.39	344	*e*P	P	08 51 42.5	+1.8
NJ2				pmax	pmax		
	comp=Z,9.0nm,0.5s						
FITZ	**Fitzroy Crossi**	25.70	183		P	08 51 43.8	0.0
PMG	**Port Moresby**	26.26	130	LR	LR	09 02 27.3	
	comp=Z,68nm,20.3s,baz=325,slow=37						
JMN	**Monobe**	26.62	13	P	P	08 51 52.8	+0.8
WB0	**Warramunga Arr**	28.25	165	P	P	08 52 06.6	-0.2
WB0				IAmb	IAmb	08 52 48.9	
	comp=Z,5.1nm,0.7s						
WRA	**Warramunga Arr**	28.41	166	P	P	08 52 08.1	0.0
	comp=Z,1.4nm,0.8s,baz=349,slow=9.8,SNR=11						
	comp=Z,1.4nm,0.8s						
WR8	**Warramunga Arr**	28.46	165	P	P	08 52 07.9	-0.7
WR8				IAmb	IAmb	08 52 46.8	
	comp=Z,12nm,1.3s						
CMAR	**Chiang Mai Arr**	29.36	294	P	P	08 52 15.5	-1.2
	comp=Z,0.5nm,0.4s,baz=113,slow=7.4,SNR=5.2						
CMAR				LR	LR	09 04 29.5	
	comp=Z,63nm,19.5s,baz=110,slow=37						
	comp=Z,0.5nm,0.4s						
CMAR	**Chiang Mai Arr**	29.36	294	P	P	08 52 15.1	-1.6
CHTO	**Chiang Mai**	29.47	295	P	P	08 52 15.8	-1.9
KSRS	**Korea Array**	29.60	1	P	P	08 52 17.2	-1.3
	comp=Z,1.8nm,0.7s,baz=183,slow=8.7,SNR=5.0						
KSRS				LR	LR	09 04 55.4	
	comp=Z,95nm,19.5s,baz=190,slow=38						
	comp=Z,1.8nm,0.7s						
MJAR	**Matsushiro Arr**	30.42	18	P	P	08 52 25.6	-0.3
	comp=Z,2.7nm,0.8s,baz=205,slow=9.9,SNR=4.4						
	comp=Z,2.7nm,0.8s						
PZH	**PanZhiHua**	30.47	311	P	P	08 52 27.8	+1.3
AS31	**Alice Springs**	31.91	168	P	P	08 52 39.8	+0.7
ASAR	**Alice Springs**	31.91	168	P	P	08 52 40.1	+1.1
	comp=Z,0.6nm,0.5s,baz=349,slow=7.2,SNR=12						
ASAR				PcP	PcP	08 55 31.4	+1.8
	comp=Z,0.6nm,0.6s,baz=356,slow=2.4,SNR=5.1						
	comp=Z,0.6nm,0.5s						
ASAR	**Alice Springs**	31.91	168	P	P	08 52 39.5	+0.4
CTA	**Charters Tower**	33.47	146	LR	LR	09 08 13.7	
	comp=Z,136nm,19.2s,baz=356,slow=39						
CTAO	**Charters Tower**	33.47	146	P	P	08 52 53.8	+1.1
HHC	**Hu-ho-hao-te**	35.76	340	*e*P	P	08 53 15.5	+3.0
HHC				pmax	pmax		
	comp=Z,7.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,57nm,4.2s						
HHC				LR	LR		
	comp=N,83nm,10.6s						
HHC				LR	LR		
	comp=E,130nm,12.0s						
HHC				LR	LR		
	comp=Z,69nm,12.9s						
USRK	**Ussuriysk Ar.**	36.58	6	P	P	08 53 19.2	-0.1
	comp=Z,7.4nm,0.8s,baz=186,slow=8.9,SNR=7.9						
	comp=Z,7.4nm,0.8s						
USRK	**Ussuriysk Ar.**	36.58	6	P	P	08 53 20.0	+0.7
HNR	**Honiara**	36.91	117	LR	LR	09 10 09.3	
	comp=Z,58nm,18.0s,baz=353,slow=39						
BRDH	**Bariadhala**	37.16	298	LR	LR	09 08 26.1	
	comp=Z,95nm,20.1s,baz=148,slow=36						
MORW	**Morawa**	38.10	196	P	P	08 53 31.2	-1.2
FORT	**Forrest**	38.30	179	P	P	08 53 33.9	-0.1
FORT				IAmb	IAmb	08 53 55.8	
	comp=Z,8.3nm,0.8s						
ASAJ	**Asahikawa**	38.70	18	LR	LR	09 08 51.2	
	comp=Z,122nm,19.6s,baz=244,slow=35						
JKA	**Kamikawa-asahi**	38.70	18	P	P	08 53 36.1	-1.1
GOMU	**GeErMu**	40.86	319	P	P	08 53 54.5	-1.3
GOMU				pP	pP	08 53 58.0	-0.8
GOMU				sP	pwP	08 54 02.5	-3.9
GOMU				pmax	pmax		
	comp=Z,2.0nm,0.5s						
BBOO	**Buckleboo**	41.21	168	P	P	08 53 58.0	-0.3
STKA	**Stephens Creek**	41.75	161	P	P	08 54 04.4	+1.7
	comp=Z,2.0nm,0.5s,baz=335,slow=2.1,SNR=3.6						
STKA				LR	LR	09 18 17.6	
	comp=Z,65nm,18.4s,baz=18,slow=46						
	comp=Z,2.0nm,0.5s						
HILR	**Hailar Array B**	42.14	353	P	P	08 54 06.2	+0.4
	comp=Z,4.6nm,0.5s,baz=155,slow=11,SNR=4.9						
	comp=Z,4.6nm,0.5s						
HEH	**HeiHe**	42.39	0	*e*P	P	08 54 09.5	+1.9
HEH				pmax	pmax		
	comp=Z,14nm,1.1s						
EVN	**Everest**	43.01	303	P	P	08 54 12.2	-1.6
SONM	**Songino Array**	43.67	340	P	P	08 54 18.2	0.0
PALK	**Pallekele**	45.97	273	LR	LR	09 14 35.0	
	comp=Z,60nm,18.1s,baz=93,slow=37						
TLY	**Talaya**	47.88	340	P	P	08 54 51.7	+0.3
TLY				IAmb	IAmb	08 55 12.5	
	comp=Z,11nm,1.3s						
WMQ	**Urumqi**	49.72	323	*e*P	P	08 55 07.8	+2.1
WMQ				LR	LR		
	comp=Z,67nm,16.5s						
YAK	**Yakutsk**	54.23	2	P	P	08 55 39.7	+0.9
MKAR	**Makanchi Array**	54.53	324	P	P	08 55 41.6	+0.2
	comp=Z,8.5nm,0.7s,baz=124,slow=8.1,SNR=72						
MKAR				PcP	PcP	08 56 44.6	0.0
	comp=Z,2.3nm,0.8s,baz=125,slow=3.5,SNR=3.9						
MKAR				LR	LR	09 21 24.5	
	comp=Z,68nm,18.2s,baz=66,slow=39						
	comp=Z,8.5nm,0.7s						
MKAR	**Makanchi Array**	54.53	324		P	08 55 41.0	-0.4
PDGK	**Podgornoye**	54.62	319		P	08 55 41.7	-0.6
MAKZ	**Makanchi**	54.72	323		P	08 55 42.6	-0.2
MAKZ				IAmb	IAmb	08 55 43.6	
	comp=Z,8.5nm,0.8s						
MA2	**Magadan**	54.77	14	LR	LR	09 20 03.4	
	comp=Z,44nm,19.7s,baz=46,slow=37						
MSVF	**Nonsavu**	56.33	117	LR	LR	09 18 07.7	
	comp=Z,47nm,21.3s,baz=19,slow=34						
ZAA0	**Zalesovo Array**	57.23	332		P	08 55 59.7	-0.8
ZAA0				IAmb	IAmb	08 56 00.6	
	comp=Z,3.5nm,0.8s						
ZALV	**Zalesovo Beam**	57.23	332	P	P	08 56 00.1	-0.5
	comp=Z,5.1nm,0.8s,baz=116,slow=6.8,SNR=14						
	comp=Z,5.1nm,0.8s						
ZALV	**Zalesovo Beam**	57.23	332		P	08 55 59.4	-1.2
AAK	**Ala-Archa**	57.70	316	LR	LR	09 22 18.6	
	comp=Z,83nm,20.8s,baz=85,slow=38						
KURK	**Kurchatov**	58.61	326		P	08 56 09.7	-0.6
KURBB	**Kurchatov Arra**	58.61	326	P	P	08 56 09.6	-0.7
	comp=Z,5.3nm,0.6s,baz=128,slow=6.2,SNR=15						
	comp=Z,5.3nm,0.6s						
KK31	**Karatay Array**	60.61	315		P	08 56 23.4	-0.8
KK31				IAmb	IAmb	08 56 24.6	
	comp=Z,3.6nm,0.8s						
KKAR	**Karatay Array**	60.61	315		P	08 56 23.1	-1.2
TIXI	**Tiksi**	63.87	1	LR	LR	09 25 16.3	
	comp=Z,60nm,20.4s,baz=184,slow=37						
TIXI	**Tiksi**	63.87	1	P	P	08 56 46.1	+0.5
BVAR	**Borovoye Array**	64.20	326	P	P	08 56 47.9	-0.2
	comp=Z,4.8nm,0.7s,baz=119,slow=9.3,SNR=14						
	comp=Z,4.8nm,0.7s						
BORK	**Borovoye**	64.25	326	P	P	08 56 47.9	-0.5
NRIK	**Noril'sk**	66.66	346	P	P	08 57 03.0	-0.7
	comp=Z,6.3nm,0.7s,baz=154,slow=7.7,SNR=8.1						
	comp=Z,6.3nm,0.7s						
AB31	**Akbulak array**	69.32	320		P	08 57 20.0	-0.8
ABKAR	**Akbulak array**	69.32	320	P	P	08 57 19.4	-1.4
ARTI	**Arti**	71.87	327	LR	LR	09 31 31.1	
	comp=Z,68nm,18.2s,baz=346,slow=38						
CASY	**Casey**	74.80	187	P	P	08 57 51.5	-1.7
CASY				IAmb	IAmb	08 58 17.9	
	comp=Z,3.9nm,0.9s						
CAST	**Castle Rocks**	79.03	27		P	08 58 18.6	+1.3
CAST				IAmb	IAmb	08 58 20.1	
	comp=Z,7.0nm,1.0s						
I21K	**Tanana**	79.22	25	P	P	08 58 20.5	+2.3
I21K				IAmb	IAmb	08 58 27.0	
	comp=Z,12nm,1.4s						
RAYN	**Ar Rayn**	79.27	292		P	08 58 18.4	-1.1
RAYN				IAmb	IAmb	08 58 19.5	
	comp=Z,5.3nm,0.8s						
BPAW	**Bear Paw Mtn.**	79.56	26		P	08 58 22.1	+1.9
TRF	**Thorofare Moun**	79.83	27	P	P	08 58 23.3	+1.5
TRF				IAmb	IAmb	08 58 24.1	
	comp=Z,9.0nm,1.0s						
I23K	**Minto, Yukon-K**	80.32	25	P	P	08 58 26.2	+2.1
H24K	**Noodor Dome**	80.96	25		P	08 58 29.1	+1.3
H24K				IAmb	IAmb	08 58 43.8	
	comp=Z,6.5nm,1.0s						
ILAR	**Eielson Array**	81.37	26	P	P	08 58 30.0	+0.2
	comp=Z,1.8nm,0.8s,baz=247,slow=6.2,SNR=18						
	comp=Z,1.8nm,0.8s						
I27K	**Kandik River**	83.56	25		P	08 58 43.8	+2.4
H29M	**Whitestone**	84.82	24	P	P	08 58 49.7	+2.0
PPT2	**Papeete2**	86.01	108	*e*LR	LR	09 26 19.0	
	comp=Z,55nm,21.2s						
ARCES	**ARCESS Array B**	86.84	340	P	P	08 58 57.8	+0.2
	comp=Z,4.7nm,1.1s,baz=46,slow=5.2,SNR=4.2						
VNDA	**Vanda**	87.32	173	P	P	08 58 59.8	+0.1
	comp=Z,1.5nm,1.0s,baz=296,slow=5.2,SNR=8.8						
	comp=Z,1.5nm,1.0s						
VNDA	**Vanda**	87.32	173	P	P	08 59 00.4	+0.7
BRTR	**Keskin Array B**	87.76	310	P	P	08 59 01.0	-1.9
	comp=Z,1.1nm,0.7s,baz=103,slow=4.3,SNR=5.7						
	comp=Z,1.1nm,0.7s						
FINES	**FINESS Array B**	88.50	332	P	P	08 59 04.1	-1.6
	comp=Z,2.3nm,0.8s,baz=132,slow=2.8,SNR=5.8						
	comp=Z,2.3nm,0.8s						
NOA	**NORSAR Array B**	95.38	334	LR	LR	09 46 29.9	
	comp=Z,27nm,19.6s,baz=330,slow=38						
YKA	**Yellowknife Ar**	95.73	24	P	P	08 59 39.7	+0.6
	comp=Z,0.3nm,0.7s,baz=300,slow=4.7,SNR=3.6						
	comp=Z,0.3nm,0.7s						
VRAC	**Vranov**	97.24	322	LR	LR	09 45 47.2	
	comp=Z,74nm,18.3s,baz=258,slow=37						
TORD	**Torodi Ar. Bea**	121.93	291	PKP	PKPdf	09 05 07.7	-1.1
	comp=Z,0.9nm,0.7s,baz=20,slow=1.1,SNR=7.0						

IDC 25 08:54:25.9±1.1**,5°.13S**×**150°.31E,h0km,mb3.7**/3**,mbtmp3.7**/4**,ML1.5**/1**,Error ellipse: s-maj=50.0km s-min=13.4km az=138.0,New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRVT	**Keravat (AS076**	1.90	65	Pn	Pn	08 54 58.8	-0.8
	168nm,0.3s,baz=36,slow=14,SNR=4.9						
KRVT				Sn	Sb	08 55 25.4	-0.4
	372nm,0.3s,baz=306,slow=22,SNR=9.1						
PMG	**Port Moresby**	5.27	216	Pn	Pn	08 55 47.2	+1.1
	1.1nm,0.3s,baz=61,slow=13,SNR=1.5						
PMG				Sn	Sn	08 56 49.5	+1.9
	3.1nm,0.3s,baz=108,slow=15,SNR=7.2						
	7.8nm,0.5s						
PMG				AML	AML		
WRA	**Warramunga Arr**	21.41	225	P	P	08 59 17.0	+1.4
	1.8nm,0.8s,baz=52,slow=11,SNR=4.8						
	1.8nm,0.8s						
ASAR	**Alice Springs**	24.28	219	P	P	08 59 45.3	+0.1
	1.8nm,0.8s,baz=45,slow=9.7,SNR=12						
	1.8nm,0.8s						
ILAR	**Eielson Array**	83.41	23	P	P	09 06 53.8	-1.2
	0.4nm,0.6s,baz=237,slow=4.8,SNR=7.8						
	0.4nm,0.6s						
TORD	**Torodi Ar. Bea**	148.03	287	PKPbc	PKPbc	09 14 15.2	+0.6
	1.3nm,0.7s,baz=60,slow=2.5,SNR=6.7						

IDC ***25*** *08:55:41.7±2.4,7°.15S×129°.51E,h104km±26km,mb3.8/1,mbtmp4.0/5,MS3.4/1,Error ellipse: s-maj=28.5km s-min=20.7km az=125.0*

DJA ***25*** *08:55:41.9±0.6,7°S±4°×13°0E±°,h220km±14km,M4.3/7,mB4.4/1,mB4.4/1,mb4.0/2,mb3.9/3,MLv4.5/6,MLv4.4/6,Mw(mB)3.5/1,Mw(mB)3.5/1*

ISC 25 08:55:39.5±1.0**,7°.05S**±0°.07×**129°.55E**±0°.08**,h200km,n9,**σ**2s.46**/8**,Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SAUI	**Saumlaki**	1.96	118	P	Pn	08 56 18.8	+1.1
SAUI				AML	AML		
SAUI				AML	AML		
FAKI	**Fak Fak**	4.90	33	P	Pn	08 56 53.5	+0.8
FAKI				AML	AML		
FAKI				AML	AML		
SOEI	**Soe**	5.88	242	P	Pn	08 57 10.6	+5.2
	0.4nm0.4nm44nm,0.8s						
SOEI				AML	AML		
SOEI				AML	AML		
SIJI	**Sorong**	6.37	16	P	Pn	08 57 14.8	+3.1
	8.9nm,0.3s,baz=8.6,slow=8.0,SNR=15						
SIJI				S	Sn	08 58 20.8	-3.9
	14nm,0.3s,baz=113,slow=23,SNR=7.6						
BATI	**Baumata**	6.62	241	P	Pn	08 57 15.0	+0.1
	26nm,0.3s,baz=307,slow=22,SNR=1.9						
BATI				S	Sn	08 58 29.2	-1.1
	64nm,0.3s,baz=178,slow=22,SNR=8.9						
WRA	**Warramunga Arr**	13.63	161	P	P	08 58 47.9	+0.6
	0.8nm,0.3s,baz=343,slow=14,SNR=30						
WRA				S	S	09 01 08.4	-8.6
	3.2nm,0.4s,baz=341,slow=22,SNR=9.5						
ASAR	**Alice Springs**	17.04	166	P	Pn	08 59 34.5	+8.0
	0.4nm,0.3s,baz=340,slow=8.8,SNR=18						
ASAR				S	S	09 02 31.1	-1.4
	1.2nm,0.6s,baz=348,slow=26,SNR=8.4						
RPZ	**Rata Peaks**	51.47	142	LR	LR	09 25 39.5	
	comp=Z,32nm,18.2s,baz=38,slow=35						
MKAR	**Makanchi Array**	68.02	327	P	P	09 06 30.2	+13
	0.9nm,0.4s,baz=120,slow=7.7,SNR=11						
	0.9nm,0.4s						

IDC ***25*** *09:00:12.4±3.8,54°.39N×87°.30E,h0km,mbtmp3.0/2,ML2.4/2,Error ellipse: s-maj=28.7km s-min=20.6km az=69.0*

ASRS 25 09:00:13.0±0.8**,54°.27N**×**87°.07E,h0km,M2.7**(MOS)**,The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.,Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	1.36	257	I	I	09 09 10.0	
	baz=76,slow=330,SNR=4.0						
ZALV	**Zalesovo Beam**	1.36	257	Pg	Pb	09 00 40.5	+1.1
	0.8nm,0.3s,baz=74,slow=15,SNR=8.1						
ZALV				Lg	Lg	09 01 01.6	
	1.1nm,0.3s,baz=72,slow=22,SNR=9.2						
KURBB	**Kurchatov Arra**	6.37	239	Pn	Pn	09 01 49.4	+1.4
	0.1nm,0.3s,baz=54,slow=14,SNR=4.4						
KURBB				Lg	Lg	09 03 41.5	
	baz=48,slow=31,SNR=4.6						
	0.9nm,0.2s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	8.08	204	Pn	Pn	09 02 15.3	+3.8
	0.1nm,0.3s,baz=22,slow=12,SNR=2.4						
MKAR				Lg	Lg	09 04 30.9	
	baz=14,slow=31,SNR=3.9						
	0.2nm,0.5s						
MKAR				AML	AML		

DJA ***25*** *09:13:39.0±1.3,0°S±5°×12°6E±°,h151km±18km,M3.3/7,MLv3.4/7,MLv3.3/7*

IDC 25 09:13:43.4±2.3**,0°.62N**×**126°.79E,h0km,mb3.3**/3**,mbtmp3.3**/3**,MS2.5**/1**,Error ellipse: s-maj=196.2km s-min=28.2km az=66.0,Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TNTI	**Ternate**	0.59	76	P	Pn	09 14 09.1	+10
TNTI				AML	AML		
MNI	**Manado**	2.11	293	P	Pn	09 14 14.8	-5.2
SANI	**Sanana**	2.77	197	P	Pn	09 14 11.6	-18
KAPI	**Kappang**	8.99	231	LR	LR	09 20 06.3	
	comp=Z,26nm,19.3s,baz=283,slow=43						
WRA	**Warramunga Arr**	21.74	161	P	P	09 18 37.1	+0.6
	0.7nm,0.7s,baz=340,slow=10,SNR=8.8						
	0.7nm,0.7s						
ASAR	**Alice Springs**	25.11	164	P	P	09 19 09.8	-0.4
	0.4nm,0.6s,baz=342,slow=10.0,SNR=8.8						
	0.4nm,0.6s						
MKAR	**Makanchi Array**	60.14	326	P	P	09 23 52.9	0.0
	0.2nm,0.3s,baz=118,slow=8.5,SNR=3.1						
	0.2nm,0.3s						

LDG ***25*** *09:15:05.6±0.1,42°.86N×1°.50W,h2km,Md2.5/2,Ml2.6/1,Error ellipse: s-maj=2.5km s-min=2.2km az=129.0*

MDD ***25*** *09:15:06.0±0.2,42°.84N×1°.46W,h0km±3km,mb_Lg2.3/21,Error ellipse: s-maj=2.4km s-min=1.5km az=8.0*

ISC 25 09:15:05.4±1.1**,42°.83N**±0°.03×**1°.46W**±0°.03**,h2km**±11km**,n11,**σ**0s.79**/25**,Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EARA	**Aranguren**	0.11	236	Pg	Pg	09 15 07.1	-0.4
EARA				Sg	Sg	09 15 08.8	0.0
EARA				IVmb_Lg		09 15 09.4	
SJPF	**Ste Jean**	0.33	31	*e*Pg	Pg	09 15 12.0	+0.2
SJPF				*e*Sg	Sg	09 15 14.9	-1.2
	22nm,0.2s						
EALK	**Alkurruntz**	0.39	355	Pg	Pg	09 15 12.5	-0.4
EALK				Sg	Sg	09 15 19.1	+1.1
EALK				IVmb_Lg		09 15 21.4	
ETSF	**Etsaut**	0.67	84	*e*Pg	Pg	09 15 18.8	+0.6
ETSF				*e*Sg	Sg	09 15 26.9	+0.1
ETSF				*e*Sg	Sg	09 15 26.9	+0.1
	12nm,0.3s						
ECHI	**Chisagues Biel**	1.23	97	Pg	Pg	09 15 28.4	-0.6
ECHI				Sg	Sg	09 15 46.1	+1.2
ECHI				IVmb_Lg		09 15 51.1	
ESAC	**San Caprasio**	1.33	146	Pg	Pg	09 15 30.2	-0.7
ESAC				Sg	Sg	09 15 48.6	+0.4
ESAC				IVmb_Lg		09 15 52.7	
EPF	**Esparros**	1.34	81	*e*Pg	Pg	09 15 30.5	-0.5
EPF	**Esparros**	1.34	81	*e*Pg	Pg	09 15 30.8	-0.2
EPF				*e*Sg	Sg	09 15 47.8	-0.6
	14nm,0.3s						
EPF				*e*Sg	Sb	09 15 48.5	-0.3
EPF				AML	AML		
ELAN	**Lanestosa**	1.50	286	Pg	Pn	09 15 32.9	-0.6
ELAN				Sg	Sn	09 15 54.3	+0.7
ETOR	**Torete**	2.06	193	Pg	Pb	09 15 44.1	+0.5
ETOR				Sn	Sn	09 16 06.6	-0.8
ETOR				Sg	Sg	09 16 12.4	+0.8
ETOR				IVmb_Lg		09 16 24.2	
EPOB	**Poblet**	2.40	127	Pn	Pn	09 15 44.8	-1.0
EPOB				Pg	Pb	09 15 49.9	+0.5
EPOB				Sg	Sb	09 16 21.2	+1.8
EPOB				IVmb_Lg		09 16 26.3	

IDC ***25*** *09:26:41.9±1.4,49°.71N×81°.50E,h0km,mbtmp2.5/2,ML1.9/2,Error ellipse: s-maj=15.5km s-min=11.1km az=80.0*

NNC ***25*** *09:26:42.1±1.3,49°.60N×81°.66E,h0km,mb2.9,mpv2.5,Error ellipse: s-maj=18.0km s-min=6.9km az=49.0,Suspected Mining explosion.*

ISC 25 09:26:36.0±1.4**,49°.82N**±0°.06×**82°.05E**±0°.07**,h0km,n7,**σ**0s.83**/8**,2C-2D,Eastern Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KURK	**Kurchatov**	2.38	294	⇓Pn	Pg	09 27 20.9	-0.6
	3.4nm,0.7s						
KURK				⇑Sn	Sb	09 27 49.8	+0.3
	12nm,0.8s						
KURBB	**Kurchatov Arra**	2.40	291	Pg	Pg	09 27 21.3	-0.6
	0.2nm,0.3s,baz=112,slow=18,SNR=20						
KURBB				Lg	Lg	09 27 49.6	
	0.3nm,0.3s,baz=110,slow=31,SNR=12						
KURBB	**Kurchatov Arra**	2.40	291	⇑Pn	Pb	09 27 20.5	+0.5
	6.6nm,0.6s						
KURBB				⇓Sn	Sb	09 27 50.2	+0.1
	33nm,0.7s						
MK31	**Makanchi Array**	3.03	177	Pg	Pg	09 27 33.0	-1.0
	0.1nm,0.2s,baz=353,slow=15,SNR=31						
MK31				Lg	Lg	09 28 14.4	
	3.7nm,0.7s,baz=351,slow=27,SNR=14						
MKAR	**Makanchi Array**	3.03	177	Pn	Pb	09 27 31.9	+1.0
	0.6nm,0.3s,baz=352,slow=15,SNR=28						
MKAR				Lg	Lg	09 28 13.9	
	0.7nm,0.3s,baz=352,slow=29,SNR=19						
	1.0nm,0.4s						
MKAR				AML	AML		
ZALV	**Zalesovo Beam**	4.48	21	Pn	Pb	09 27 55.9	+0.4
	0.1nm,0.3s,baz=207,slow=14,SNR=3.9						
ZALV				Lg	Lg	09 29 11.2	
	0.3nm,0.3s,baz=205,slow=27,SNR=9.8						
	0.9nm,0.8s						
ZALV				AML	AML		
I46RU	**ZALESOVO INFRA**	4.48	21	I	I	09 53 50.0	
	baz=201,slow=326,SNR=4.5						

JMA ***25*** *09:37:40.1±0.0,22°.2N±0°.1×12°1E±°,h21km,TAIWAN REGION*

TAP ***25*** *09:37:43.1,22°.39N×121°.04E,h9km,ML3.6,C*

ISC 25 09:37:42.1±1.0**,22°.32N**±0°.02×**121°.11E**±0°.02**,h7km**±8km**,n95,**σ**0s.97**/137**,2C-9D,Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TAW	**Tawu**	0.20	281	*i* P	Pg	09 37 46.8	+0.7
TAW				S	Sg	09 37 49.2	+0.3
EAST	**Anshuo**	0.25	285	⇓*i*P	Pg	09 37 47.5	+0.5
EAST				*i* S	Sg	09 37 50.3	-0.2
SLIU	**Shizi**	0.31	251	⇓*i*P	Pb	09 37 49.4	-0.4
ECL	**Taimali**	0.31	333	⇓*i*P	Pg	09 37 48.2	-0.1
ECL				S	Sg	09 37 51.9	-0.5
TTN	**Taitung**	0.43	5	P	Pb	09 37 52.4	+0.4
TTN				S	Sb	09 38 00.1	+1.3
SCZT	**Fangliau**	0.46	277	⇓*i*P	Pb	09 37 51.3	-1.1
SCZT				S	Sg	09 37 56.4	-0.6
TSEB	**Hengchuen, Pin**	0.46	205	P	Pn	09 37 54.2	-0.8
TSEB				*i* S	Sb	09 38 02.8	+3.4
HEN	**Hengchun**	0.47	228	*e*P	Pn	09 37 53.7	-1.4
HEN				*i* S	Sb	09 38 01.2	+1.6
TWKBT	**Hengchun**	0.47	216	⇓*i*P	Pn	09 37 53.7	-1.4
TWKBT				S	Sb	09 38 01.3	+1.6

TWK1	Hengchun	0.47	217	⇓iP	Pn	09 37 53.8	-1.4
TWK1				S	Sb	09 38 01.6	+1.9
LAY	Lan-yu	0.49	124	eP	Pn	09 37 55.1	-0.4
TWGBT	Beinan	0.50	357	⇑iP	Pg	09 37 51.9	+0.2
TWGBT				eS	Sg	09 37 58.5	+0.3
TWG	Pinlang	0.50	356	i P	Pg	09 37 51.9	+0.2
TWG				eS	Sg	09 37 58.6	+0.2
SSPT	Xinbi	0.53	288	⇓iP	Pb	09 37 53.0	-0.7
SSPT				S	Sb	09 38 00.4	-1.0
MASBT	Mashibuluo	0.53	304	⇓iP	Pg	09 37 52.1	-0.2
MASBT				i S	Sg	09 37 58.4	-0.8
LYUB	Lan-yu	0.54	126	eP	Pb	09 37 53.8	0.0
LYUB				eS	Sb	09 38 02.3	+0.5
TSMG	Majia	0.58	312	eP	Pg	09 37 52.8	-0.4
TSMG				eS	Sg	09 37 59.0	-1.7
LONT	Longtian	0.58	2	⇑iP	Pg	09 37 53.4	0.0
LONT				eS	Sg	09 38 02.0	+0.9
SSD	Sandimen	0.61	314	i P	Pg	09 37 53.4	-0.5
SSD				S	Sg	09 38 00.6	-1.4
EDH	Donghe	0.68	15	eP	Pg	09 37 55.5	+0.5
TWP	Hsiaoliuchiu	0.69	272	eP	Pn	09 37 58.9	+0.7
SGLT	Jiouru	0.70	305	P	Pb	09 37 56.0	-0.5
SGLT				eS	Sb	09 38 06.2	-0.2
ECS	Chishang	0.78	7	P	Pg	09 37 56.6	-0.5
ECS				eS	Sg	09 38 07.2	0.0
SCST	Cishan	0.80	315	⇓iP	Pb	09 37 58.0	-0.3
SCST				S	Sb	09 38 09.1	-0.3
TWM1	Shoushan	0.81	308	P	Pn	09 37 58.9	-1.0
CHKT	Chengkung	0.81	17	eP	Pg	09 37 58.2	+0.5
CHKT				S	Sb	09 38 09.7	+0.1
WSSB	Gushan	0.85	292	eP	Pn	09 38 01.3	+0.9
WSSB				eS	Sn	09 38 15.3	+2.2
ELDTW	Lidau	0.87	354	eP	Pg	09 37 57.8	-1.1
FULB	Fuli	0.89	11	eP	Pg	09 37 58.9	-0.3
FULB				eS	Sb	09 38 12.4	+0.5
SGST	Jiashian	0.90	327	P	Pg	09 37 58.5	-0.9
STYH	Taoyuan	0.90	340	eP	Pb	09 37 59.6	-0.4
CHKH	Chenggong	0.91	17	eP	Pg	09 37 59.2	-0.3
CHKH				eS	Sg	09 38 11.1	-0.3
CHN1	Nanshi	1.02	328	i P	Pn	09 38 02.6	-0.1
CHN1				eS	Sn	09 38 17.3	0.0
CHN3	Shinhua	1.02	318	i P	Pn	09 38 04.0	+1.2
CHN3				eS	Sn	09 38 20.6	+3.3
WTP	Ta-pu	1.03	334	P	Pn	09 38 02.4	-0.5
WTP				eS	Sn	09 38 17.0	-0.6
EYUL	Yuli	1.04	11	eP	Pg	09 38 01.2	-0.9
TWF1	Yuli	1.04	9	P	Pg	09 38 00.8	-1.3
TPUB	Ta-pu	1.07	336	eP	Pn	09 38 03.2	-0.3
YULB	Yu-li	1.08	9	eP	Pg	09 38 01.5	-1.4
TWK	Hsinying	1.10	329	eP	Pn	09 38 04.1	+0.1
TWK				eS	Sn	09 38 19.8	+0.4
CHN4	Tsaushan	1.13	335	eP	Pn	09 38 04.4	+0.1
CHN4				S	Sn	09 38 21.3	+1.2
YUS	Yu-Shan	1.17	353	eP	Pg	09 38 04.5	-0.2
EHYH	Wanrong	1.19	10	eP	Pg	09 38 05.6	+0.7
EHY	Hungye	1.20	9	eP	Pn	09 38 04.5	-0.8
HGSD	Ruisui	1.20	14	eP	Pn	09 38 04.9	-0.4
WCKO	Fanlu	1.21	337	eP	Pg	09 38 05.8	+0.5
WCKO				S	Sn	09 38 22.8	+0.8
ALS	Alishan	1.22	347	eP	Pg	09 38 06.4	+0.9
TSCK	Chigu Township	1.25	311	eP	Pg	09 38 06.4	+0.2
TSCK				eS	Sn	09 38 23.9	+0.8
ICHU	Yijhu	1.29	324	eP	Pb	09 38 06.4	-0.2
CHN5	Tsauling	1.33	343	eP	Pg	09 38 08.0	+0.4
CHN5				S	Sg	09 38 26.6	+1.6
CHY	Chiayi	1.33	332	eP	Pg	09 38 07.7	0.0
CHY				eS	Sg	09 38 26.1	+1.1
WHYT	Xinyi Township	1.39	350	eP	Pb	09 38 08.2	-0.2
WARBT	Fenglin Townsh	1.42	10	eP	Pn	09 38 07.1	-1.1
VWDT	VWDT	1.43	1	eP	Pb	09 38 08.7	-0.3
WSL	Shuilin Townsh	1.45	326	eP	Pn	09 38 08.3	-0.3
WDLH	Douliu	1.46	339	P	Pb	09 38 09.4	-0.1
WDLH				S	Sg	09 38 29.7	+0.6
SSLB	Suanglung	1.47	354	eP	Pb	09 38 09.5	-0.3
WTK	Tuku	1.52	334	eP	Pb	09 38 09.8	-0.7
WTK				eS	Sg	09 38 31.3	+0.5
ESL	Shilin	1.52	11	eP	Pn	09 38 09.6	0.0
SHUL	Shoufeng	1.52	16	eP	Pn	09 38 09.9	+0.3
WJS	Zhushan	1.54	347	eP	Pb	09 38 11.1	+0.2
SMLT	Sun Moon Lake	1.57	353	eP	Pg	09 38 12.1	-0.1
SMLT				eS	Sg	09 38 34.5	+1.9
TYC	Yuchr	1.59	352	eP	Pb	09 38 12.1	+0.2
TYC				eS	Sg	09 38 34.1	+0.8
WNT	Mingjian	1.60	346	eP	Pb	09 38 12.3	+0.3
OWD	Renai	1.63	2	eP	Pg	09 38 13.4	0.0
WDGT	Dungji	1.63	305	eP	Pn	09 38 10.9	-0.2
WUSB	Renai	1.67	0	eP	Pb	09 38 13.4	+0.3
ETM	Tongmen	1.68	12	eP	Pn	09 38 12.0	+0.2
WRL	Guolierlin Hig	1.71	337	eP	Pn	09 38 12.3	0.0
WRL				eS	Sb	09 38 35.7	+0.1
LXIB	Xiulin Townshi	1.72	9	eP	Pn	09 38 11.9	-0.6
WCS	Beigang Elemen	1.74	354	eP	Pb	09 38 14.3	0.0
WCS				eS	Sb	09 38 37.5	+1.2
VCHM	Qimei	1.79	300	eP	Pn	09 38 12.2	-1.1
VCHM				eS	Sn	09 38 34.6	-1.6
WHF	Hehuan Shan	1.82	4	eP	Pb	09 38 16.2	+0.2
PHUB	P'eng-hu	1.85	310	eP	Pn	09 38 13.0	-1.1
NACB	Ninganchiao	1.90	13	eP	Pn	09 38 14.4	-0.5
NACB				eS	Sn	09 38 37.9	-1.2
ETLH	Xiulin Townshi	1.91	10	eP	Pn	09 38 16.2	+1.1
FUSS	Fushou	1.92	4	eP	Pb	09 38 17.2	-0.4
TDCB	Techi	1.93	1	eP	Pb	09 38 16.5	-1.1
TWT	Tachien	1.93	2	eP	Pb	09 38 16.9	-0.7
TWQ1	Liyutan	2.04	351	eP	Pb	09 38 18.6	-0.9
NNSB	Datong	2.12	7	eP	Pn	09 38 18.9	+1.0
NNS	Nan Shan	2.12	6	eP	Pb	09 38 20.6	-0.3
LATG	Datong	2.24	10	eP	Pn	09 38 21.2	+1.5
NFF	Wufeng Townshi	2.30	0	eP	Pb	09 38 22.6	-1.4
LIOB	Emei	2.32	358	eP	Pb	09 38 22.3	-1.9
EOS2	EOS2	2.33	26	eP	Pn	09 38 21.4	+0.7
YHNB	Yeheng	2.35	6	eP	Pn	09 38 22.9	+1.7
NSK	Sanguang	2.36	5	eP	Pb	09 38 23.5	-1.4
NDS	Dongshan	2.37	13	eP	Pb	09 38 23.7	-1.4
FUSB	Fushanzhiwuyua	2.47	10	eP	Pn	09 38 24.6	+1.8
HATJ	Hateruma jima	3.02	55	eS	Sn	09 39 05.8	-0.9
VWUC	VWUC	3.06	331	eP	Pn	09 38 30.4	-0.5
VWUC				eS	Sn	09 39 06.6	-1.2
JKRS	Kuro-shima	3.28	54	eS	Sn	09 39 11.0	-2.1
JISG	Ishigakijimahi	3.71	52	eS	Sn	09 39 22.3	-1.3
MHZQ	Yeshan	4.22	334	eP	Pn	09 38 46.2	-0.5

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*IDC **25** 09:38:36.9±0.6, 15.°12S×173.°69W, h0^{km}, mb4.0/10, mbtmp4.0/11, ML4.8/1, MS3.7/14, Error ellipse: s-maj=30.8km s-min=15.4km az=138.0*

*NEIC **25** 09:38:37.7±2.4, 15.°05S±0.°09×173.°42W±0.°09, h10^{km}±1^{km}, mb4.3/8, Error ellipse: s-maj=16.0km s-min=14.0km az=135.0*

ISC 25 09:38:39.5±0.6, **15.°0S**±0.°1×**173.°30W**±0.°10, **h30^{km}, n40,** σ**1.s72**/27, **mb4.0**/12, **MS4.0**/11, **Samoa Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	1.81	55	Pn	Pb	09 39 09.9	-2.1
	279nm,0.3s,baz=204,slow=1.1,SNR=227						
AFI				Sn	Sn	09 39 29.6	-1.1
	915nm,0.3s,baz=228,slow=22,SNR=38						
AFI				LR	LR	09 39 53.6	
	comp=Z,615nm,19.1s,baz=248,slow=35						
	1µm,0.5s						
AFI				AML	AML		
NIUE	Niue	5.20	142	Pn	Pn	09 39 53.9	-1.4
MSVF	Nonsavu	8.75	251	LR	LR	09 43 43.0	
	comp=Z,582nm,19.5s,baz=143,slow=37						
RAR	Rarotonga	14.27	118	LR	LR	09 46 13.1	
	comp=Z,66nm,20.9s,baz=268,slow=31						
MARNC	Mare, Loyalty	18.87	247	P	P	09 42 56.9	-0.6
DZM	Mont Dzumac	20.45	247	LR	LR	09 49 57.5	
	comp=Z,178nm,19.3s,baz=49,slow=34						
PPT	Papeete	22.91	100	LR	LR	09 49 56.6	
	comp=Z,111nm,19.1s,baz=300,slow=29						
HNR	Honiara	26.71	279	LR	LR	09 53 10.1	
	comp=Z,58nm,19.0s,baz=156,slow=33						
CTA	Charters Tower	38.84	257	LR	LR	09 59 15.0	
	comp=Z,93nm,20.1s,baz=44,slow=32						
STKA	Stephens Creek	44.34	240	P	P	09 46 45.6	-1.5
	1.5nm,0.6s,baz=98,slow=10,SNR=7.5						
	1.5nm,0.6s						
WRA	Warramunga Arr	50.04	256	P	P	09 47 30.4	-1.3
	0.9nm,0.6s,baz=98,slow=6.0,SNR=35						
	0.9nm,0.6s						
WRA	Warramunga Arr	50.04	256	P	P	09 47 29.4	-2.4
AS31	Alice Springs	50.34	252	P	P	09 47 33.0	-1.1
AS31				IAmb	IAmb	09 47 45.0	
	comp=Z,2.0nm,0.8s						
ASAR	Alice Springs	50.34	252	P	P	09 47 32.4	-1.6
	comp=Z,4.6nm,0.5s,baz=88,slow=8.3,SNR=110						
ASAR				LR	LR	10 06 50.3	
	comp=Z,142nm,21.4s,baz=98,slow=34						
	comp=Z,4.6nm,0.5s						
ASAR	Alice Springs	50.34	252	P	P	09 47 32.0	-2.0
SBA	Scott Base	63.68	185	P	P	09 49 09.0	+1.4
SBA				IAmb	IAmb	09 49 19.2	
	comp=Z,4.5nm,1.4s						
VNDA	Vanda	63.81	186	P	P	09 49 09.9	+1.5
	comp=Z,1.0nm,0.8s,baz=359,slow=6.0,SNR=8.6						
	comp=Z,1.0nm,0.8s						
VNDA	Vanda	63.81	186	P	P	09 49 10.3	+1.9
VNDA				IAmb	IAmb	09 49 13.4	
	comp=Z,1.1nm,1.0s						
SHEM	Shemya Is, Ala	68.30	352	LR	LR	10 13 04.2	
	comp=Z,36nm,21.8s,baz=124,slow=30						
PFO	Pinyon Flats O	72.56	47	LR	LR	10 15 56.6	
	comp=Z,82nm,21.3s,baz=21,slow=31						
YBH	Yreka Blue Hor	73.20	37	LR	LR	10 15 29.2	
	comp=Z,89nm,20.4s,baz=21,slow=30						
NVAR	Mina Array Bea	73.94	42	P	P	09 50 16.3	+4.0
	comp=Z,0.5nm,0.6s,baz=229,slow=9.1,SNR=6.6						
	comp=Z,0.5nm,0.6s						
NVAR	Mina Array Bea	73.94	42	P	P	09 50 14.4	+2.1
KDAK	Kodiak Island	74.48	11	LR	LR	10 19 33.6	
	comp=Z,108nm,18.4s,baz=69,slow=33						
QSPA	South Pole Qui	75.07	180	P	P	09 50 19.5	+1.2
	comp=Z,4.6nm,0.9s,baz=30,slow=1.4,SNR=18						
	comp=Z,4.6nm,0.9s						
QSPA	South Pole Qui	75.07	180	P	P	09 50 19.6	+1.2
QSPA				IAmb	IAmb	09 50 20.4	
	comp=Z,4.5nm,0.8s						
TCRU	Three Creeks R	77.92	44	P	P	09 50 35.3	+0.3
TXAR	Lajitas Array	80.29	56	P	P	09 50 52.6	+4.6
	comp=Z,0.4nm,0.9s,baz=251,slow=3.8,SNR=3.4						
	comp=Z,0.4nm,0.9s						
TXAR	Lajitas Array	80.29	56	P	P	09 50 49.5	+1.5
PDAR	Pinedale Array	81.88	42	P	P	09 51 01.6	+5.2
	comp=Z,0.5nm,0.9s,baz=224,slow=6.2,SNR=4.0						
PDAR				LR	LR	10 22 51.5	
	comp=Z,112nm,19.4s,baz=31,slow=32						
	comp=Z,0.5nm,0.9s						
PDAR	Pinedale Array	81.88	42	P	P	09 50 57.9	+1.6
ILAR	Eielson Array	82.01	11	P	P	09 50 59.5	+3.3
	comp=Z,0.5nm,0.8s,baz=228,slow=6.5,SNR=8.9						
	comp=Z,0.5nm,0.8s						
ILAR	Eielson Array	82.01	11	P	P	09 50 59.0	+2.8
MAW	Mawson	88.23	199	P	P	09 51 28.1	+0.7
	comp=Z,1.1nm,0.6s,baz=154,slow=10,SNR=3.0						
	comp=Z,1.1nm,0.6s						
MAW	Mawson	88.23	199	P	P	09 51 28.0	+0.5
TKL	Tuckaleechee C	98.19	55	LR	LR	10 30 31.8	
	comp=Z,162nm,18.3s,baz=28,slow=32						
GERES	GERESS Array B	145.73	352	PKPbc	PKiKP	09 58 18.2	-1.1
	comp=Z,1.0nm,0.2s,baz=344,slow=2.9,SNR=3.9						
GERES	GERESS Array B	145.73	352		PKPab	09 58 15.3	-0.6
BRTR	Keskin Array B	145.89	321	PKPbc	PKiKP	09 58 18.0	-2.0
	comp=Z,1.1nm,0.8s,baz=135,slow=3.4,SNR=7.5						
BRTR	Keskin Array B	145.89	321		PKPdf	09 58 14.8	-1.0

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*NEIC **25** 09:50:40.7±1.8, 34.°54N±0.°04×24.°96E±0.°07, h10^{km}±1^{km}, mb4.3/6, Error ellipse: s-maj=9.6km s-min=7.2km az=99.0*

*IDC **25** 09:50:40.5±1.2, 34.°73N×24.°95E, h0^{km}, mb4.1/6, mbtmp4.0/10, ML4.0/4, MS3.2/1, Error ellipse: s-maj=19.9km s-min=13.5km az=47.0*

*ISK **25** 09:50:43.7, 34.°68N×25.°20E, h19^{km}, ML3.4/13*

*GII **25** 09:50:44.6±0.0, 34.°47N±0.°09×25.°42E±0.°03, h0^{km}, Mws3.7, confirmed*

*THE **25** 09:50:45.1, 35°N±3°×2°5E±°, h10^{km}±3^{km}, M3.6/12, MLh3.6/12*

*ATH **25** 09:50:45.6, 34.°68N×25.°09E, h19^{km}±1^{km}, ML3.6/25, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*

ISC 25 09:50:40.9±1.3, **34.°53N**±0.°04×**25.°25E**±0.°03, **h9^{km}**±8^{km}, **n105,** σ**1.s61**/132, **mb4.1**/9, **Crete**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SIVA	Sivas	0.60	324	P	Pb	09 50 54.3	+0.6
SIVA				S	Sg	09 51 00.0	-0.5
SIVA				AML	AML		
SIVA	Sivas	0.60	324	P	Pb	09 50 54.2	+0.6
SIVA				S	Sg	09 51 00.0	-0.5
SIVA				AML	AML		
AGNA	Agios Nikolaos	0.76	30	P	Pn	09 50 59.1	+1.3
AGNA				AML	AML		
IACM	Heraklion	0.79	350	P	Pn	09 50 58.0	-0.2
IACM				S	Sb	09 51 07.8	+0.3
IACM				AML	AML		
IACM	Heraklion	0.79	350	P	Pn	09 50 58.1	0.0
IACM				S	Sb	09 51 06.6	-0.8
NPS	Neapolis	0.79	22	P	Pn	09 50 59.1	+0.9
NPS				S	Sn	09 51 10.3	+0.1
NPS				AML	AML		
NPS	Neapolis	0.79	22	P	Pn	09 50 59.3	+1.1
NPS				S	Sn	09 51 09.5	-0.7
NPS				AML	AML		
IDI	Anoyia	0.81	339	Pn	Pb	09 50 57.5	+0.3
	275nm,0.3s,baz=161,slow=14,SNR=1151						
IDI				Sn	Sg	09 51 07.0	-0.1
	551nm,0.3s,baz=262,slow=13,SNR=33						
IDI	Anoyia	0.81	339	P	Pb	09 50 57.5	+0.3
IDI				S	Sg	09 51 06.6	-0.4
IDI				AML	AML		
IDI	Anoyia	0.81	339	Pg	Pb	09 50 57.7	+0.5
IDI				Sg	Sg	09 51 06.7	-0.4
IDI				AML	AML		
IDI	Anoyia	0.81	339	Pg	Pg	09 50 55.1	-1.4
IDI	Anoyia	0.81	339	P	Pb	09 50 57.5	+0.3
IDI				S	Sg	09 51 06.5	-0.6
IDI				AML	AML		
SIT2	Siteia	0.98	46	P	Pn	09 51 04.5	+3.7
ZKR	Zakros	0.99	54	P	Pn	09 51 04.6	+3.6
ZKR	Zakros	0.99	54	P	Pn	09 51 04.5	+3.6
ZKR				S	Sn	09 51 18.8	+3.8
ZKR				AML	AML		
GVD	Gavdhos	1.00	288	P	Pb	09 51 00.7	+0.2
GVD				S	Sg	09 51 14.1	+0.9
GVD				AML	AML		
GVD	Gavdhos	1.00	288	Pg	Pn	09 51 02.3	+1.2
GVD				Sg	Sb	09 51 14.9	+1.2
GVD	Gavdhos	1.00	288	P	Pn	09 51 01.3	+0.2
GVD				AML	AML		
GVDS	Gavdos	1.02	288	P	Pn	09 51 01.7	+0.2
GVDS				S	Sn	09 51 15.8	-0.1
GVDS				AML	AML		
GVDS	Gavdos	1.02	288	P	Pn	09 51 02.2	+0.8
VAM	Vamos	1.23	316	S	Sn	09 51 22.2	+1.3
VAM				AML	AML		
VAM	Vamos	1.23	316	P	Pg	09 51 06.9	+2.5
VAM				AML	AML		
CHNB	Souda	1.36	315	P	Pg	09 51 07.5	+0.6
IMMV	Iera Moni Meta	1.39	312	P	Pb	09 51 07.4	+0.3
IMMV				S	Sb	09 51 25.1	+0.2
IMMV				AML	AML		
IMMV	Iera Moni Meta	1.39	312	Pn	Pb	09 51 07.6	+0.5
IMMV				Sn	Sn	09 51 24.2	-0.8
IMMV				AML	AML		
IMMV	Iera Moni Meta	1.39	312	P	Pb	09 51 07.3	+0.3
IMMV				AML	AML		
CHAN	Chania	1.40	315	P	Pb	09 51 07.6	+0.5
CHAN				AML	AML		
KNDR	Palaiochora Ch	1.51	298	P	Pg	09 51 10.3	+0.5
KNDR				AML	AML		
THERA	Ancient Thera,	1.84	6	P	Pg	09 51 15.6	-0.6
KARP	Karpathos	1.87	57	P	Pg	09 51 18.5	+1.8
KARP				AML	AML		
KARP	Karpathos	1.87	57	Pn	Pb	09 51 15.3	+0.1
KARP				AML	AML		
KARP	Karpathos	1.87	57		Pb	09 51 15.2	-0.1
KARP	Karpathos	1.87	57	P	Pg	09 51 17.2	+0.5
KARP				AML	AML		
SNT5	Nea Kammeni, S	1.87	4	P	Pb	09 51 14.6	-0.6
THR3	Thira Island,	1.88	4	P	Pb	09 51 15.2	-0.1
THR8	Santorini-Mono	1.88	6	P	Pb	09 51 14.8	-0.6
THR5	Thira Island,	1.88	3	P	Pb	09 51 15.2	-0.2
SAP3	Santorini-Thir	1.90	2	P	Pb	09 51 15.9	+0.1
ANKY	Antikythira Is	2.08	310	P	Pn	09 51 16.6	+0.7
ANKY				S	Sn	09 51 42.3	+0.5
ANKY				AML	AML		
ANKY	Antikythira Is	2.08	310	P	Pn	09 51 17.0	+1.1
ANKY				AML	AML		
MHLO	Agia Marina, M	2.26	343	P	Pn	09 51 19.8	+1.3
MHLO				AML	AML		
KTHA	Kythira Island	2.48	315	P	Pn	09 51 22.5	+1.0
KTHA				AML	AML		
KTHA	Kythira Island	2.48	315	Pn	Pn	09 51 22.8	+1.3
KTHA				AML	AML		
KTHA	Kythira Island	2.48	315	P	Pn	09 51 22.4	+0.9
KTHA				AML	AML		
VLI	Veliai	2.88	320	P	Pn	09 51 28.7	+1.7
VLI				AML	AML		
ARG	Arkhangelos	2.89	54	P	Pb	09 51 31.5	-1.1
ARG	Arkhangelos	2.89	54	Pn	Pb	09 51 29.8	-2.8
ARG				AML	AML		
ARG	Arkhangelos	2.89	54	Pn	Pb	09 51 30.7	-2.0
ARG	Arkhangelos	2.89	54	P	Pb	09 51 31.0	-1.6
ARG				AML	AML		
MET4	Agioi Theodoro	3.43	335	P	Pn	09 51 35.7	+1.3
MET4				AML	AML		
MET5	Makryloggos,Me	3.44	334	P	Pn	09 51 35.8	+1.1
MET3	Ano Fanari,Met	3.45	332	P	Pn	09 51 35.1	+0.3
MET3				AML	AML		
KARY	Karystos	3.55	350	P	Pn	09 51 37.1	+0.9
DION	Dionisos Attik	3.69	344	P	Pn	09 51 39.0	+0.9
DION				AML	AML		
FETY	Fethiye	3.77	55	Pn	Pn	09 51 42.4	+3.2
FETY				AML	AML		
ITM	Ithomi	3.77	315	Pn	Pn	09 51 40.5	+1.2
ITM				AML	AML		
ITM	Ithomi	3.77	315	Pn	Pn	09 51 37.5	-1.8
ITM	Ithomi	3.77	315	P	Pn	09 51 40.0	+0.8
LTK	Loutraki	3.94	333	P	Pn	09 51 42.5	+1.0
LTK				AML	AML		
AKAS	Kas	3.94	63	Pn	Pn	09 51 44.8	+3.1
AKAS				Sn	Sn	09 52 28.8	+0.6
AKAS				AML	AML		
AKAS	Kas	3.94	63	Pn	Pn	09 51 44.0	+2.3
VIL2	Platees	4.00	337	P	Pn	09 51 42.2	-0.3
VIL2				AML	AML		
CAME	Cameli-Denizli	4.08	53	Pn	Pn	09 51 46.7	+3.1
CAME				AML	AML		
GUR	Goura	4.13	326	P	Pn	09 51 45.0	+0.8
GUR				AML	AML		
ELL	Elmali	4.39	58	Pn	Pn	09 51 51.2	+3.3
ELL				AML	AML		
ELL	Elmali	4.39	58	Pn	Pn	09 51 50.9	+3.0
APMY	Acipayam-Deniz	4.41	47	Pn	Pn	09 51 50.5	+2.5
MANT	Manisa	4.77	33	Pn	Pn	09 51 55.2	+2.1
KORT	Korkueli	4.83	58	Pn	Pn	09 51 57.1	+3.3
CSS	Mathiatis	6.67	84	Pn	Pn	09 52 22.4	+3.4
CSS	Mathiatis	6.67	84	P	Pn	09 52 20.4	+1.4
CSS				S	Sn	09 53 36.1	+0.9
CY604	RAF Akrotiri,	7.66	89	Pn	Pn	09 52 35.2	+2.8
TIP	Timpagrande	8.23	307	Pn	Pn	09 52 36.7	-3.8
CEL	Celeste	8.41	299	Pn	Pn	09 52 39.2	-3.7
KZIT	Kziot	8.52	113	P	Pn	09 52 46.6	+2.2
KZIT				S	Sn	09 54 20.7	+0.1
MMAI	Mount Meron Ar	8.59	97	Pn	Pn	09 52 46.9	+1.4
	2.5nm,0.3s,baz=253,slow=10,SNR=2.8						
MMAI				Sn	Sn	09 54 23.9	+1.4
	4.7nm,0.3s,baz=312,slow=28,SNR=5.3						
	0.8nm,0.3s						
MMAI				AML	AML		
AMAZ	Amatzia	8.65	108	P	Pn	09 52 48.0	+1.7
AMAZ				S	Sn	09 54 23.9	0.0
MMLI	Mount Malkishu	8.75	101	P	Pn	09 52 49.5	+1.8
MMLI				S	Sn	09 54 25.7	-0.8
GEM	Giv'at Ha'Em	8.76	96	P	Pn	09 52 49.0	+1.2
GEM				S	Sn	09 54 27.2	+0.5
RMNI	Mount Ramon	8.94	113	P	Pn	09 52 52.4	+2.1
RMNI				S	Sn	09 54 31.4	+0.3
MZS	Mizpe Shalem	9.02	106	P	Pn	09 52 52.7	+1.4
MZS				S	Sn	09 54 32.4	-0.5
MSBI	Mazada	9.09	108	P	Pn	09 52 54.4	+2.3
MSBI				S	Sn	09 54 34.4	-0.1
GHAJ	Ghor Haditha	9.25	107		Pn	09 52 57.3	+2.8
HRFI	Mount Harif	9.42	116	P	Pn	09 52 57.8	+1.0
EIL	Elat	9.55	118	Pn	Pn	09 53 01.8	+3.2
	1.3nm,0.3s,baz=334,slow=6.9,SNR=16						
EIL				Sn	Sn	09 54 44.8	-1.2
	1.2nm,0.3s,baz=190,slow=23,SNR=4.1						
	3.0nm,0.3s						
EIL				AML	AML		
EIL	Elat	9.55	118	P	Pn	09 53 01.3	+2.8
AKASG	Malin Array Be	16.42	9	Pn	Pn	09 54 31.9	+0.5
	0.9nm,0.3s,baz=203,slow=11,SNR=4.2						
	0.3nm,0.3s						
AKASG				AML	AML		
AKASG	Malin Array Be	16.42	9		Pn	09 54 31.0	-0.3
KBZ	Khabaz	16.46	51	Pn	P	09 54 36.2	+1.5
	0.2nm,0.3s,baz=245,slow=10.0,SNR=11						
	4.9nm,0.8s						
KBZ				AML	AML		
FINES	FINESS Array B	26.93	1	P	P	09 56 19.7	-2.5
	2.2nm,0.9s,baz=180,slow=8.7,SNR=5.3						
	2.2nm,0.9s						
FINES	FINESS Array B	26.93	1	P	P	09 56 20.2	-2.0
AKTO	Aktyubinsk	28.63	46	LR	LR	10 09 51.1	
	comp=Z,46nm,18.3s,baz=201,slow=40						
TORD	Torodi Ar. Bea	30.14	231	P	P	09 56 52.0	+0.7
	0.9nm,0.4s,baz=34,slow=8.6,SNR=11						
	0.9nm,0.4s						
TORD	Torodi Ar. Bea	30.14	231	P	P	09 56 49.3	-1.9
TORD				IAmb	IAmb	09 57 01.4	
	comp=Z,3.5nm,1.0s						
ARTI	Arti	31.41	36	P	P	09 57 02.6	+0.5
ARTI				IAmb	IAmb	09 57 07.5	
	comp=Z,8.4nm,1.2s						
ARCES	ARCESS Array B	35.06	0	P	P	09 57 32.8	-0.9
	comp=Z,8.5nm,0.6s,baz=104,slow=15,SNR=8.6						
	comp=Z,8.5nm,0.6s						
KK31	Karatay Array	35.93	62	P	P	09 57 41.5	-0.1
KK31				IAmb	IAmb	09 57 47.2	
	comp=Z,2.5nm,1.2s						
KKAR	Karatay Array	35.93	62	P	P	09 57 41.7	+0.2
KURBB	Kurchatov Arra	41.46	50	P	P	09 58 28.6	+0.8
	comp=Z,1.0nm,0.3s,baz=276,slow=8.6,SNR=6.3						
	comp=Z,1.0nm,0.3s						
MKAR	Makanchi Array	44.06	56	P	P	09 58 50.1	+1.0
	comp=Z,0.4nm,0.5s,baz=289,slow=3.7,SNR=5.1						
	comp=Z,0.4nm,0.5s						
MKAR	Makanchi Array	44.06	56	P	P	09 58 49.8	+0.7
ZAA0	Zalesovo Array	45.39	46	P	P	09 59 00.2	+0.7
ZALV	Zalesovo Beam	45.39	46	P	P	09 59 01.7	+2.2
	comp=Z,0.6nm,0.3s,baz=276,slow=9.0,SNR=7.3						
	comp=Z,0.6nm,0.3s						
ZALV	Zalesovo Beam	45.39	46	P	P	09 58 59.2	-0.3
KSANE	Kasane	52.04	180	P	P	09 59 49.7	-1.3
KSANE				IAmb	IAmb	10 00 02.6	
	comp=Z,3.9nm,0.7s						

ISK 25 09:51:12.1, 37.°32N×28.°28E, h5^{km}, ML2.2/4, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YER	Yerkesik	0.18	180	Pg	Pg	09 51 16.2	+0.5
YER				Sg	Sg	09 51 19.2	+1.1
YER				AML	AML		
MLSB	Milas	0.40	267	Pg	Pg	09 51 20.4	+0.5
MLSB				Sg	Sg	09 51 26.6	+1.4
MLSB				AML	AML		
DAT	Datca	0.81	224	AML	AML		
DAT	Datca	0.81	224	Pg	Pb	09 51 28.3	-0.5
DAT				Sg	Sb	09 51 40.1	0.0
DAT				AML	AML		
DAT	Datca	0.81	224	Pn	Pb	09 51 28.8	0.0
BODT	Bodrum	0.82	252	Pg	Pb	09 51 28.4	-0.4
BODT				Sg	Sb	09 51 39.9	-0.2
BODT				AML	AML		

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*IDC **25** 09:52:20.4±1.0, 10.°36N×126.°38E, h0^{km}, mb4.0/9, mbtmp4.0/9, MS3.3/7, Error ellipse: s-maj=65.5km s-min=16.6km az=64.0*

*MAN **25** 09:52:21.0, 10.°46N×126.°67E, h7^{km}, MS4.4*

ISC 25 09:52:20.4±2.1, **10.°34N**±0.°05×**126.°52E**±0.°07, **h1^{km}**±13^{km}, **n31,** σ**1.s47**/33, **mb4.1**/10, **MS3.4**/5, **Philippine Islands**

region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLP	**Palo**	**1.73**	**299**	*e*P	**Pg**	**09 52 52.9**	**-0.6**
PLP				*e*S	**Sg**	**09 53 16.7**	**+0.8**
BIPH	**Bislig**	**2.15**	**184**	*e*P	**Pn**	**09 52 59.4**	**+2.0**
BIPH				*e*S	**Sb**	**09 53 27.7**	**+0.4**
LLP	**Lapu-Lapu**	**2.52**	**270**	*e*P	**Pb**	**09 53 05.1**	**-1.3**
LLP				*e*S	**Sg**	**09 53 43.5**	**+2.1**
CDOP	**Cateel, Davao**	**2.54**	**182**	*i* P	**Pn**	**09 53 05.1**	**+2.3**
CDOP				*i* S	**Sn**	**09 53 31.8**	**-2.6**
CGP	**Cagayan de Oro**	**2.60**	**224**	*i* P	**Pn**	**09 53 05.9**	**+2.3**
CGP				*i* S	**Sn**	**09 53 37.1**	**+1.3**
TBP	**Tagbilaran**	**2.70**	**256**	*e*P	**Pb**	**09 53 07.8**	**-1.8**
TBP				*e*S	**Sb**	**09 53 43.1**	**-0.1**
BUKP	**Musuan**	**2.84**	**211**	*i* P	**Pb**	**09 53 10.5**	**-1.4**
BUKP				*e*S	**Sb**	**09 53 46.7**	**-0.6**
LSIP	**Lazi, Siquijor**	**3.10**	**247**	*i* P	**Pb**	**09 53 15.4**	**-0.8**
LSIP				*i* S	**Sb**	**09 53 54.9**	**+0.4**
DAV	**Davao City (W)**	**3.38**	**196**	LR	LR	09 54 36.4	
	comp=Z,448nm,19.8s,baz=30,slow=40						
DMPH	**Davao City--Mi**	**3.39**	**197**	*e*P	Pg	09 53 31.9	+6.5
DMPH				*i* S	**Sb**	**09 54 01.9**	**-1.1**
SNPH	**Sibulan**	**3.39**	**253**	*e*P	**Pb**	**09 53 19.7**	**-1.6**
SNPH				*e*S	**Sb**	**09 54 00.8**	**-2.2**
MMPH	**Masbate**	**3.48**	**305**	*i* P	**Pn**	**09 53 17.5**	**+1.8**
MMPH				*e*S	Sn	09 53 41.2	-16
DCPH	**Dipolog City**	**3.58**	**241**	*i* P	**Pb**	**09 53 21.8**	**-2.8**
DCPH				*i* S	**Sb**	**09 54 09.3**	**+0.7**
SIJI	**Sorong**	**12.09**	**157**	LR	LR	10 01 34.5	
	comp=Z,92nm,19.2s,baz=22,slow=46						
GUMO	**Guam**	**18.23**	**78**	LR	LR	10 02 42.5	
	comp=Z,100nm,18.9s,baz=245,slow=34						
KSRS	**Korea Array**	**27.03**	**2**	LR	LR	10 11 25.7	
	comp=Z,54nm,18.0s,baz=190,slow=42						
CMAR	**Chiang Mai Arr**	**27.88**	**290**	P	**P**	**09 58 10.9**	**-1.1**
	0.9nm,0.5s,baz=96,slow=6.5,SNR=6.4						
CMAR				LR	LR	10 10 03.5	
	comp=Z,19nm,19.4s,baz=335,slow=38						
	0.9nm,0.5s						
WRA	**Warramunga Arr**	**31.06**	**166**	P	**P**	**09 58 40.7**	**+0.5**
	0.4nm,0.8s,baz=345,slow=7.5,SNR=4.7						
	0.4nm,0.8s						
ASAR	**Alice Springs**	**34.56**	**168**	P	**P**	**09 59 11.2**	**+0.4**
	0.2nm,0.3s,baz=352,slow=7.1,SNR=9.3						
ASAR				PcP	**PcP**	**10 01 46.4**	**+0.5**
	0.4nm,0.5s,baz=350,slow=2.6,SNR=5.9						
	0.2nm,0.3s						
ASAJ	**Asahikawa**	**36.42**	**20**	LR	LR	10 15 41.4	
	comp=Z,63nm,18.5s,baz=117,slow=38						
GTA2	**Gaotai**	**37.55**	**325**	*e*P	**P**	**09 59 37.3**	**+0.9**
GTA2				pP	pwP	09 59 45.0	-0.3
GTA2				pmax	pmax		
	comp=Z,8.0nm,1.0s						
GTA2				LR	LR		
	comp=N,120nm,12.7s						
GTA2				LR	LR		
	comp=E,81nm,15.6s						
GTA2				LR	LR		
	comp=Z,110nm,16.8s						
H11N1	**WAKE ISLAND Hy**	**40.00**	**72**	T	T	10 43 17.9	
	baz=264,slow=74,SNR=11						
H11N2	**WAKE ISLAND Hy**	**40.00**	**72**	T	T	10 43 26.0	
	baz=264,slow=74,SNR=9.9						
H11N3	**WAKE ISLAND Hy**	**40.01**	**72**	T	T	10 43 22.5	
	baz=264,slow=74,SNR=10.0						
STKA	**Stephens Creek**	**44.39**	**162**	P	**P**	**10 00 32.8**	**+0.2**
	comp=Z,1.6nm,0.7s,baz=39,slow=6.8,SNR=4.1						
	comp=Z,1.6nm,0.7s						
PALK	**Pallekele**	**45.36**	**270**	LR	LR	10 18 37.1	
	comp=Z,48nm,21.2s,baz=126,slow=35						
MKAR	**Makanchi Array**	**52.12**	**323**	P	**P**	**10 01 31.0**	**-1.3**
	comp=Z,0.9nm,0.5s,baz=112,slow=7.7,SNR=11						
	comp=Z,0.9nm,0.5s						
ZALV	**Zalesovo Beam**	**54.69**	**331**	P	**P**	**10 01 50.2**	**-0.8**
	comp=Z,1.5nm,0.3s,baz=111,slow=7.4,SNR=7.3						
	comp=Z,1.5nm,0.3s						
KURBB	**Kurchatov Arra**	**56.16**	**325**	P	**P**	**10 02 01.7**	**0.0**
	comp=Z,1.1nm,0.4s,baz=127,slow=6.5,SNR=8.5						
	comp=Z,1.1nm,0.4s						
ARCES	**ARCESS Array B**	**84.22**	**340**	P	**P**	**10 04 53.0**	**-0.4**
	comp=Z,4.1nm,0.5s,baz=76,slow=5.3,SNR=4.5						
	comp=Z,4.1nm,0.5s						
FINES	**FINESS Array B**	**85.95**	**332**	P	**P**	**10 05 02.1**	**0.0**
	comp=Z,2.3nm,0.8s,baz=61,slow=3.7,SNR=7.7						
	comp=Z,2.3nm,0.8s						

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*IDC **25** 09:55:10.9±4.3, 54°.22N×87°.26E, h0^{km}, mbtmp2.8/2, ML2.4/2, Error ellipse: s-maj=40.7km s-min=23.9km az=63.0*

ASRS 25 09:55:13.0±1.2**, 54°.14N×87°.18E, h0**^{km}**, M2.7**(MOS)**, The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	**ZALESOVO INFRA**	**1.41**	**263**	I	I	10 04 40.0	
	baz=80,slow=327,SNR=1.4						
ZALV	**Zalesovo Beam**	**1.41**	**263**	Pg	Pn	09 55 36.5	-3.4
	0.6nm,0.3s,baz=79,slow=16,SNR=11						
ZALV				Lg	Lg	09 55 59.0	
	1.1nm,0.3s,baz=79,slow=24,SNR=5.4						
KURBB	**Kurchatov Arra**	**6.36**	**240**	Pn	Pn	09 56 48.3	+0.4
	0.1nm,0.3s,baz=53,slow=13,SNR=4.5						
	0.6nm,0.4s						
KURBB				AML	AML		
MKAR	**Makanchi Array**	**7.98**	**205**	Pn	Pn	09 57 11.2	+0.9
	0.1nm,0.3s,baz=28,slow=14,SNR=1.4						
	0.1nm,0.3s						
MKAR				AML	AML		

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*IDC **25** 10:17:26.4±0.8, 14°.09S×166°.83E, h0^{km}, mb4.1/14, mbtmp4.1/16, ML4.2/2, MS3.3/6, Error ellipse: s-maj=22.3km s-min=12.6km az=77.0*

*NEIC **25** 10:17:28.0±1.3, 14°.14S±0°.07×166°.8E±0°.1, h10^{km}±1^{km}, mb4.7/23, Error ellipse: s-maj=17.7km s-min=9.8km az=62.0*

*NOU **25** 10:17:29.5, 14°.09S×166°.84E, h9^{km}, MLv5.0/26, Vanuatu Islands*

ISC 25 10:17:28.0±0.6**, 14°.07S**±0°.06×**166°.83E**±0°.08**, h10**^{km}**, n68,** σ**1**^{s}.**27**/62**, mb4.4**/22**, MS3.4**/3**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SANVU	**Saraoutou**	**1.42**	**165**	P	**Pn**	**10 17 53.1**	**-0.7**
SANVU	**Saraoutou**	**1.42**	**165**	S	**Sn**	**10 18 13.7**	**+1.2**
SANVU	**Saraoutou**	**1.42**	**165**		**Pn**	**10 17 52.8**	**-1.0**
DVP	**Devils Point**	**3.86**	**160**	P	**Pn**	**10 18 29.7**	**+2.3**
DVP	**Devils Point**	**3.86**	**160**	S	**Sn**	**10 19 15.2**	**+2.3**
RTV	**Rentapao**	**4.00**	**158**	P	**Pn**	**10 18 29.3**	**-0.1**
RTV	**Rentapao**	**4.00**	**158**	S	**Sn**	**10 19 18.8**	**+2.4**
KOUNC	**Koumac, New Ca**	**6.89**	**200**	Pn	Pn	10 19 06.7	-2.4
NGOA	**Tingoa Renbel**	**7.06**	**290**	P	**Pn**	**10 19 12.0**	**+0.5**
NGOA	**Tingoa Renbel**	**7.06**	**290**	S	**Sn**	**10 20 34.3**	**+2.4**
MARNC	**Mare, Loyalty**	**7.46**	**171**	P	**Pn**	**10 19 19.7**	**+2.8**
MARNC	**Mare, Loyalty**	**7.46**	**171**	S	**Sn**	**10 20 43.2**	**+1.6**
MARNC	**Mare, Loyalty**	**7.46**	**171**	Pn	Pn	10 19 14.8	-2.1
YATNC	**Mamie plateau,**	**7.95**	**180**	P	**Pn**	**10 19 25.0**	**+1.4**
DZM	**Mont Dzumac**	**7.97**	**183**	Pn	**Pn**	**10 19 24.1**	**+0.1**
	1.4nm,0.3s,baz=342,slow=14,SNR=19						
DZM				Sn	**Sn**	**10 20 52.1**	**-2.1**
	baz=332,slow=20						
DZM				LR	LR	10 22 15.2	
	comp=Z,227nm,19.3s,baz=348,slow=36						
	4.5nm,0.3s						
DZM				AML	AML		
NOUC	**Port Laguerre**	**8.00**	**184**	P	**Pn**	**10 19 26.3**	**+1.9**
HNR	**Honiara**	**8.17**	**304**	Pn	**Pn**	**10 19 28.0**	**+1.3**
	6.0nm,0.3s,baz=122,slow=19,SNR=1.5						
HNR				Sn	**Sn**	**10 20 58.3**	**-0.8**
	4.9nm,0.3s,baz=137,slow=19,SNR=2.0						
HNR				LR	LR	10 22 20.7	
	comp=Z,160nm,21.1s,baz=224,slow=36						
	26nm,0.4s						
HNR				AML	AML		
HNR	**Honiara**	**8.17**	**304**		**Pn**	**10 19 26.5**	**-0.2**
ONTNC	**Ouen Toro**	**8.20**	**182**	P	**Pn**	**10 19 29.7**	**+2.6**
ONTNC	**Ouen Toro**	**8.20**	**182**	Pn	Pn	10 19 24.5	-2.6
SAVO	**Savo Central**	**8.44**	**305**	P	**Pn**	**10 19 33.6**	**+3.2**
TATA	**Tatamba Isabel**	**8.91**	**309**	P	**Pn**	**10 19 38.8**	**+1.9**
MSVF	**Nonsavu**	**11.39**	**110**	LR	LR	10 23 45.5	
	comp=Z,220nm,19.2s,baz=0.4,slow=33						
EIDS	**Eidsvold**	**18.59**	**230**	P	**P**	**10 21 44.0**	**-1.4**
LHI	**Lord Howe Isla**	**18.77**	**201**	P	**P**	**10 21 45.2**	**-2.1**
LHI				IAmb	IAmb	10 21 58.0	
	comp=Z,80nm,1.4s						
CTA	**Charters Tower**	**20.55**	**250**	P	**P**	**10 22 07.4**	**+0.4**
	comp=Z,0.4nm,0.3s,baz=37,slow=15,SNR=1.6						
CTA				LR	LR	10 29 15.3	
	comp=Z,54nm,18.9s,baz=32,slow=34						
	comp=Z,0.4nm,0.3s						
PATS	**Pohnpei**	**22.43**	**337**	P	**P**	**10 22 26.5**	**-0.6**
PATS				IAmb	IAmb	10 22 36.3	
	comp=Z,104nm,1.3s						
NIUE	**Niue**	**22.81**	**106**	P	**P**	**10 22 30.0**	**-1.2**
STKA	**Stephens Creek**	**29.11**	**228**	P	**P**	**10 23 28.6**	**-0.4**
	comp=Z,2.8nm,0.5s,baz=46,slow=8.8,SNR=5.6						
	comp=Z,2.8nm,0.5s						
WRAB	**Tennant Creek**	**31.57**	**255**	P	P	10 23 49.1	-1.9
WRAB				IAmb	IAmb	10 24 09.1	
	comp=Z,6.9nm,1.4s						
WRA	**Warramunga Arr**	**31.58**	**255**	P	**P**	**10 23 49.4**	**-1.7**
	comp=Z,0.9nm,0.8s,baz=85,slow=9.4,SNR=7.3						
	comp=Z,0.9nm,0.8s						
WRA	**Warramunga Arr**	**31.58**	**255**	P	**P**	**10 23 49.6**	**-1.5**
AS31	**Alice Springs**	**32.52**	**248**	P	**P**	**10 23 58.2**	**-1.2**
ASAR	**Alice Springs**	**32.52**	**248**	P	**P**	**10 23 57.6**	**-1.7**
	comp=Z,1.0nm,0.5s,baz=73,slow=9.7,SNR=4.2						
ASAR				LR	LR	10 36 03.5	
	comp=Z,71nm,18.6s,baz=108,slow=34						
	comp=Z,1.0nm,0.5s						
ASAR	**Alice Springs**	**32.52**	**248**	P	**P**	**10 23 58.1**	**-1.2**
BBOO	**Buckleboo**	**33.66**	**231**	P	**P**	**10 24 08.8**	**-0.3**
KNRA	**Kununurra**	**36.80**	**263**	P	P	10 24 34.0	-2.3
KNRA				IAmb	IAmb	10 24 47.3	
	comp=Z,3.6nm,1.2s						
SIJI	**Sorong**	**37.55**	**287**	LR	LR	10 40 53.4	
	comp=Z,56nm,18.2s,baz=193,slow=38						
FORT	**Forrest**	**39.28**	**238**	P	**P**	**10 24 56.5**	**-0.6**
FORT				IAmb	IAmb	10 25 11.9	
	comp=Z,17nm,1.3s						
FITZ	**Fitzroy Crossi**	**39.73**	**259**	P	**P**	**10 25 00.7**	**-0.3**
PPTF	**Pamatai, Papee**	**42.03**	**101**	P	P	10 25 19.0	-1.1
PPTF				IAmb	IAmb	10 25 19.6	
	comp=Z,37nm,0.9s						
MJAR	**Matsushiro Arr**	**57.13**	**333**	P	**P**	**10 27 15.4**	**+0.5**
	comp=Z,2.0nm,0.8s,baz=160,slow=8.3,SNR=2.8						
	comp=Z,2.0nm,0.8s						
MJAR	**Matsushiro Arr**	**57.13**	**333**	P	**P**	**10 27 15.2**	**+0.3**
MJAR				IAmb	IAmb	10 27 43.5	
	comp=Z,8.6nm,1.5s						
MAJO	**Matsushiro**	**57.13**	**333**	P	**P**	**10 27 14.3**	**-0.6**
MAJO				IAmb	IAmb	10 27 20.4	
	comp=Z,13nm,1.3s						
MJB9	**Matsu-Tunnel**	**57.13**	**333**	P	**P**	**10 27 15.1**	**+0.1**
MJB9				IAmb	IAmb	10 27 21.0	
	comp=Z,25nm,1.4s						
JKA	**Kamikawa-asahi**	**61.98**	**340**	P	**P**	**10 27 48.1**	**-0.1**
KSRS	**Korea Array**	**62.96**	**326**	P	**P**	**10 27 56.1**	**+1.2**
	comp=Z,1.2nm,0.7s,baz=129,slow=6.9,SNR=2.5						
	comp=Z,1.2nm,0.7s						
KS19	**Wonju Array Si**	**63.03**	**326**	P	**P**	**10 27 55.5**	**+0.1**
VNDA	**Vanda**	**63.51**	**181**	P	**P**	**10 27 57.9**	**0.0**
	comp=Z,1.1nm,0.7s,baz=1.1,slow=5.6,SNR=12						
	comp=Z,1.1nm,0.7s						
VNDA	**Vanda**	**63.51**	**181**	P	**P**	**10 27 58.0**	**0.0**
VNDA				IAmb	IAmb	10 28 05.8	
	comp=Z,1.8nm,0.9s						
INCN	**Inchon**	**63.69**	**325**	P	**P**	**10 27 59.9**	**+0.2**
SBA	**Scott Base**	**63.79**	**180**	P	**P**	**10 27 59.8**	**-0.1**
SBA				IAmb	IAmb	10 28 05.2	
	comp=Z,3.7nm,0.8s						
USRK	**Ussuriysk Ar.**	**66.11**	**333**	P	**P**	**10 28 15.6**	**+0.3**
	comp=Z,3.7nm,0.9s,baz=138,slow=14,SNR=4.0						
	comp=Z,3.7nm,0.9s						
USRK	**Ussuriysk Ar.**	**66.11**	**333**	P	**P**	**10 28 15.0**	**-0.3**
CMAR	**Chiang Mai Arr**	**74.30**	**294**	P	**P**	**10 29 06.2**	**+0.1**
	comp=Z,1.4nm,0.3s,baz=117,slow=6.4,SNR=6.1						
	comp=Z,1.4nm,0.3s						
CMAR	**Chiang Mai Arr**	**74.30**	**294**	P	**P**	**10 29 05.2**	**-0.9**
QSPA	**South Pole Qui**	**75.95**	**180**	P	**P**	**10 29 14.9**	**-0.1**
	comp=Z,1.4nm,0.6s,baz=91,slow=3.2,SNR=12						
	comp=Z,1.4nm,0.6s						
QSPA	**South Pole Qui**	**75.95**	**180**	P	**P**	**10 29 15.1**	**+0.1**
QSPA				IAmb	IAmb	10 29 25.1	
	comp=Z,6.3nm,1.1s						
SONM	**Songino Array**	**81.72**	**324**	P	**P**	**10 29 47.9**	**+1.0**
	comp=Z,0.4nm,0.3s,baz=130,slow=6.0,SNR=4.2						
	comp=Z,0.4nm,0.3s						
SONM	**Songino Array**	**81.72**	**324**	P	**P**	**10 29 47.0**	**+0.1**
ILAR	**Eielson Array**	**86.03**	**18**	P	**P**	**10 30 08.1**	**-0.4**
	comp=Z,0.9nm,0.6s,baz=238,slow=5.2,SNR=21						
	comp=Z,0.9nm,0.6s						
ILAR	**Eielson Array**	**86.03**	**18**	P	**P**	**10 30 08.2**	**-0.2**
MKAR	**Makanchi Array**	**96.44**	**317**	P	**P**	**10 30 58.2**	**+0.7**
	comp=Z,0.4nm,0.5s,baz=99,slow=6.3,SNR=4.9						
	comp=Z,0.4nm,0.5s						
MKAR	**Makanchi Array**	**96.44**	**317**	P	**P**	**10 30 57.9**	**+0.4**
ZAA0	**Zalesovo Array**	**96.61**	**324**	P	**P**	**10 30 57.2**	**-0.9**
ZAA0				IAmb	IAmb	10 30 58.2	
	comp=Z,1.6nm,0.7s						
ZALV	**Zalesovo Beam**	**96.61**	**324**	P	**P**	**10 30 57.5**	**-0.6**
	comp=Z,1.0nm,0.6s,baz=75,slow=6.3,SNR=4.2						
	comp=Z,1.0nm,0.6s						
ZALV	**Zalesovo Beam**	**96.61**	**324**	P	**P**	**10 30 57.7**	**-0.4**
ARCES	**ARCESS Array B**	**119.51**	**345**	PKP	**PKPdf**	**10 36 17.1**	**-0.3**
	comp=Z,2.9nm,0.7s,baz=64,slow=2.8,SNR=12						

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*IDC **25** 10:31:40.6±1.2, 45°.70N×154°.80E, h0^{km}, mb3.4/6, mbtmp3.4/7, ML2.2/1, MS3.1/2, Error ellipse: s-maj=65.7km s-min=20.3km az=115.0*

ISC 25 10:31:41.5±1.4**, 45°.9N**±0°.2×**154°.4E**±0°.4**, h10**^{km}**, n14,** σ**1**^{s}.**63**/7**, mb3.5**/6**, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PETK	**Petropavlovsk-**	**7.54**	**15**	Pn	**Pn**	**10 33 31.9**	**+0.6**
	0.2nm,0.3s,baz=198,slow=14,SNR=6.2						
PETK				LR	LR	10 36 18.6	
	comp=Z,58nm,21.8s,baz=158,slow=36						
	2.7nm,0.8s						
PETK				AML	AML		
H11N2	**WAKE ISLAND Hy**	**28.04**	**154**	T	T	11 07 29.9	
	baz=352,slow=76,SNR=9.7						
H11N1	**WAKE ISLAND Hy**	**28.05**	**154**	T	T	11 07 24.2	
	baz=352,slow=76,SNR=13						
H11N3	**WAKE ISLAND Hy**	**28.05**	**154**	T	T	11 07 16.6	
	baz=352,slow=76,SNR=8.8						
H11S1	**WAKE ISLAND Hy**	**29.14**	**156**	T	T	11 08 48.1	
	baz=352,slow=74						
H11S3	**WAKE ISLAND Hy**	**29.14**	**156**	T	T	11 08 49.4	
	baz=352,slow=74						
H11S2	**WAKE ISLAND Hy**	**29.15**	**156**	T	T	11 08 50.9	
	baz=352						
ILAR	**Eielson Array**	**36.67**	**38**	P	**P**	**10 38 46.6**	**-1.3**
	0.5nm,1.0s,baz=281,slow=7.4,SNR=3.5						
	0.5nm,1.0s						
NVAR	**Mina Array Bea**	**62.02**	**63**	P	**P**	**10 42 03.8**	**+1.6**
	0.1nm,0.3s,baz=301,slow=6.1,SNR=2.0						
	0.1nm,0.3s						
PDAR	**Pinedale Array**	**64.52**	**54**	P	**P**	**10 42 18.5**	**-0.1**
	0.5nm,0.9s,baz=328,slow=3.9,SNR=4.2						
	0.5nm,0.9s						
MSVF	**Nonsavu**	**66.84**	**155**	LR	LR	11 08 47.4	
	comp=Z,30nm,18.2s,baz=148,slow=33						
WRA	**Warramunga Arr**	**68.00**	**200**	P	**P**	**10 42 39.2**	**-1.6**
	0.4nm,0.8s,baz=10,slow=6.6,SNR=1.2						
	0.4nm,0.8s						
ASAR	**Alice Springs**	**71.69**	**200**	P	**P**	**10 43 05.2**	**+1.8**
	0.5nm,0.8s,baz=353,slow=2.9,SNR=5.8						
	0.5nm,0.8s						
TXAR	**Lajitas Array**	**77.12**	**61**	P	**P**	**10 43 34.8**	**-0.5**
	0.2nm,0.8s,baz=299,slow=3.5,SNR=3.6						
	0.2nm,0.8s						

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*HEL **25** 10:35:37.8±0.2, 60°.92N×29°.24E, h0^{km}, ML1.5, Suspected explosion*

*IDC **25** 10:35:42.6±4.3, 61°.02N×28°.86E, h0^{km}, mbtmp3.3/1, Error ellipse: s-maj=41.1km s-min=23.4km az=129.0*

ISC 25 10:35:37.2±1.4**, 60°.91N**±0°.05×**29°.28E**±0°.06**, h0**^{km}**, n22,** σ**0**^{s}.**97**/30**, Baltic States-Belarus-Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RUF	**Ruokolahti**	**0.54**	**343**	PG	**Pg**	**10 35 47.6**	**+0.1**
RUF				SG	**Sg**	**10 35 54.0**	**-0.5**
RUF				smax	smax	10 35 54.9	
	comp=Z,5.6nm,0.2s						
VJF	**Virojoki**	**0.93**	**247**	PG	**Pg**	**10 35 54.5**	**-0.4**
VJF				smax	smax	10 36 05.8	
	comp=Z,12nm,0.2s						
VJF				SB	**Sg**	**10 36 06.7**	**-0.2**
FIA0	**FINESS Array S**	**1.64**	**290**	PG	**Pn**	**10 36 06.3**	**-1.0**
	baz=112						
FIA0				smax	smax	10 36 26.3	
	comp=Z,3.1nm,0.2s						
FIA0				SN	**Sn**	**10 36 28.5**	**-0.5**
FINES	**FINESS Array B**	**1.64**	**290**	Pg	**Pn**	**10 36 06.5**	**-0.7**
	comp=Z,0.4nm,0.3s,baz=116,slow=16,SNR=13						
FINES				Lg	Lg	10 36 27.9	
	comp=Z,0.8nm,0.3s,baz=104,slow=28,SNR=14						
FINES				Rg	Rg	10 36 36.2	
	comp=Z,7.2nm,0.8s,baz=101,slow=29,SNR=5.6						
PVF	**Pernaja**	**1.72**	**259**	PG	**Pn**	**10 36 08.0**	**-0.4**
PVF				smax	smax	10 36 28.6	
	comp=Z,2.4nm,0.2s						
PVF				SN	**Sg**	**10 36 32.9**	**+0.6**
KAF	**Kangasniemi**	**1.86**	**312**	PG	**Pb**	**10 36 11.6**	**-0.6**
KAF				smax	smax	10 36 32.7	
	comp=Z,3.9nm,0.2s						
KAF				SG	**Sg**	**10 36 37.0**	**0.0**
VUOS	**Vuosaari Helsi**	**2.17**	**252**	PG	**Pb**	**10 36 16.4**	**-0.8**
VUOS				smax	smax	10 36 41.5	
	comp=Z,2.5nm,0.2s						
JOF	**Joensuu**	**2.23**	**25**	*e*P	**Pb**	**10 36 18.0**	**-0.4**
JOF	**Joensuu**	**2.23**	**25**	PG	**Pb**	**10 36 17.7**	**-0.7**
	baz=204						
JOF				SG	**Sb**	**10 36 46.4**	**-0.1**
HEL1	**Helsinki**	**2.29**	**253**	PG	**Pb**	**10 36 18.6**	**-0.8**
	baz=70						
HEL1				smax	smax	10 36 45.2	
	comp=Z,2.5nm,0.2s						
NUR	**Nurmijarvi**	**2.31**	**262**	PG	**Pb**	**10 36 18.5**	**-1.2**
	baz=76						
NUR				smax	smax	10 36 45.7	
	comp=Z,1.7nm,0.2s						
SUF	**Sumiainen**	**2.34**	**322**	*e*P	**Pb**	**10 36 19.3**	**-0.9**
SUF	**Sumiainen**	**2.34**	**322**	PG	**Pb**	**10 36 19.8**	**-0.4**
SUF				smax	smax	10 36 46.7	
	comp=Z,1.2nm,0.2s						
SUF				SG	**Sb**	**10 36 49.7**	**0.0**
KEF	**Keuruu**	**2.46**	**303**	*e*P	**Pn**	**10 36 19.5**	**+1.0**
KEF	**Keuruu**	**2.46**	**303**	PB	**Pn**	**10 36 20.4**	**+1.9**
KEF				smax	smax	10 36 49.8	
	comp=Z,1.2nm,0.2s						
KEF				SG	**Sb**	**10 36 53.1**	**+0.1**
MEF	**Metsahovi**	**2.51**	**256**	*e*P	**Pn**	**10 36 20.7**	**+1.6**
MEF	**Metsahovi**	**2.51**	**256**	PB	**Pn**	**10 36 21.0**	**+1.8**
MEF				smax	smax	10 36 51.4	
	comp=Z,1.6nm,0.2s						
NIF	**Nilsia**	**2.58**	**345**	PG	**Pb**	**10 36 23.2**	**-1.1**
	baz=164						
NIF				smax	smax	10 36 53.7	
	comp=Z,1.4nm,0.2s						
NIF				SG	**Sb**	**10 36 56.2**	**-0.3**
RAF	**Rauma**	**3.66**	**275**	*e*P	**Pn**	**10 36 36.3**	**+1.2**
RAF	**Rauma**	**3.66**	**275**	PG	**Pb**	**10 36 43.4**	**+0.6**
I43RU	**DUBNA INFRASON**	**5.89**	**132**	I	I	11 12 20.0	
	baz=320,slow=324,SNR=3.2						
ARCES	**ARCESS Array B**	**8.80**	**351**	Pn	**Pn**	**10 37 47.6**	**+2.1**
	comp=Z,1.4nm,0.8s,baz=167,slow=12,SNR=1.4						

IDC 25 10:36:44.7±4.5**, 3°.14S**×**129°.05E, h318**^{km}±65^{km}**, mb2.6**/2**, mbtmp3.1**/4**, Error ellipse: s-maj=121.5km s-min=20.5km az=76.0, Seram**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SIJI	**Sorong**	**3.17**	**44**	P	Pn	10 37 44.5	+1.2
	3.5nm,0.5s,baz=270,slow=2.0,SNR=13						
SIJI				S	S	10 38 30.4	0.0
	10.0nm,0.2s,baz=198,slow=20,SNR=8.8						
WRA	**Warramunga Arr**	**17.48**	**163**	P	P	10 40 26.3	-1.5
	0.1nm,0.5s,baz=342,slow=10,SNR=5.5						
ASAR	**Alice Springs**	**20.93**	**167**	P	P	10 41 04.4	+0.7
	0.6nm,0.7s,baz=344,slow=11,SNR=8.6						
	0.6nm,0.7s						
MKAR	**Makanchi Array**	**64.51**	**326**	P	P	10 46 47.9	-0.3
	0.2nm,0.5s,baz=116,slow=6.6,SNR=2.3						
	0.2nm,0.5s						

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*SDD **25** 10:45:46.2±3.3, 18°.66N×70°.41W, h37^{km}±14^{km}, MD2.7, ML2.6, MW3.1, Presumed earthquake*

*OSPL **25** 10:45:50.2±1.3, 18°.60N×70°.45W, h4^{km}±4^{km}, ML2.3, Presumed earthquake*

ISC 25 10:45:48.7±0.9**, 18°.62N**±0°.04×**70°.40W**±0°.02**, h32**^{km}±7^{km}**, n17,** σ**0**^{s}.**81**/31**, 7C-9D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BANI	**BANI**	**0.23**	**171**	⇓*e*Pg	**Pb**	**10 45 55.7**	**0.0**
BANI				⇓*e*Sg	**Sb**	**10 46 01.4**	**+1.1**
BANI				IAML		10 46 01.6	
	comp=N,1µm,0.1s						
ABDR	**Alto Bandera**	**0.29**	**311**	⇑*e*Pg	**Pb**	**10 45 56.1**	**-0.6**
ABDR				IAML		10 46 01.5	
	comp=N,1µm,0.5s						
ABDR				⇓*e*Sg	**Sb**	**10 46 01.5**	**-0.5**
SDD	**Santo Domingo**	**0.48**	**109**	*i* P	**Pn**	**10 45 59.9**	**+0.4**
SDD				*e*S	**Sn**	**10 46 06.7**	**-0.1**
SDD				IAML		10 46 07.2	
	comp=Z,184nm,0.1s						
SDD	**Santo Domingo**	**0.48**	**109**	⇑*e*Pg	**Pn**	**10 45 59.5**	**+0.1**
SDD				⇑*e*Sg	**Sn**	**10 46 07.4**	**+0.6**
SDD				IAML		10 46 09.1	
	comp=N,91nm,0.3s						
DR08	**Loma La Naviza**	**0.49**	**46**	⇑*e*Pg	**Pb**	**10 45 59.1**	**-0.1**
DR08				⇓*e*Sg	**Sb**	**10 46 06.1**	**-0.3**
DR08				IAML		10 46 06.6	
	comp=N,9µm,0.1s						
SC01	**Santiago de lo**	**0.86**	**339**	*i* P	**Pn**	**10 46 05.4**	**+0.7**
SC01				*e*S	**Sn**	**10 46 17.4**	**+1.2**
SC01				IAML		10 46 25.4	
	comp=Z,41nm,0.3s						
SDDR	**Presa de Saban**	**0.92**	**293**	*i* P	**Pn**	**10 46 05.7**	**+0.3**
SDDR				*e*S	**Sn**	**10 46 18.0**	**+0.4**
SDDR				IAML		10 46 20.3	
	comp=Z,36nm,0.4s						
PODR	**Polo**	**0.95**	**242**	*i* P	**Pn**	**10 46 06.5**	**+0.4**
PODR				*e*S	**Sb**	**10 46 18.5**	**-0.8**
PODR				IAML		10 46 22.9	
	comp=Z,1µm,0.4s						
PODR	**Polo**	**0.95**	**242**	⇑*e*Pg	**Pb**	**10 46 06.0**	**-0.9**
PODR				IAML		10 46 22.1	
	comp=N,157nm,0.3s						
HATOM	**Hato Mayor del**	**0.98**	**80**	⇓*e*Pg	**Pb**	**10 46 06.7**	**-0.6**
HATOM				⇓*e*Sg	**Sb**	**10 46 19.1**	**-0.8**
HATOM				IAML		10 46 21.3	
	comp=N,54nm,0.2s						
NEDR	**Neiba UASD**	**0.98**	**262**	⇓*e*Pg	**Pn**	**10 46 06.8**	**+0.5**
NEDR				⇓*e*Sg	**Sb**	**10 46 17.7**	**-2.1**
NEDR				IAML		10 46 25.7	
	comp=N,65nm,0.6s						
LONE3	**El Aguacate, B**	**1.01**	**269**	*i* P	**Pb**	**10 46 07.0**	**-0.7**
LONE3				*e*S	**Sn**	**10 46 21.3**	**+1.4**
LONE3				IAML		10 46 22.8	
	comp=Z,64nm,0.3s						
LODU1	**El Espartillar**	**1.06**	**256**	*i* P	**Pb**	**10 46 08.4**	**-0.1**
LODU1				IAML		10 46 23.6	
	comp=Z,110nm,0.3s						
LOVI	**El Cajuil, Ovi**	**1.23**	**229**	*i* P	**Pb**	**10 46 10.9**	**-0.6**
LOVI				*e*S	**Sb**	**10 46 26.1**	**-0.9**
LOVI				IAML		10 46 28.6	
	comp=Z,65nm,1.1s						
JIDR	**Jimani**	**1.39**	**265**	⇑*e*Pg	**Pb**	**10 46 13.3**	**-0.7**
JIDR				IAML		10 46 37.9	
	comp=N,36nm,0.5s						
LOBH	**Bahia de las A**	**1.40**	**238**	*i* P	**Pb**	**10 46 14.1**	**-0.2**
LOBH				*e*S	**Sb**	**10 46 32.5**	**+0.7**
LOBH				IAML		10 46 42.8	
	comp=Z,39nm,2.3s						
HIDR	**Higuey Centro**	**1.59**	**91**	⇑*e*Pg	**Pb**	**10 46 16.8**	**-0.7**
HIDR				⇓*e*Sg	**Sb**	**10 46 36.6**	**-0.7**
HIDR				IAML		10 46 45.7	
	comp=N,94nm,0.1s						

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*MOS **25** 10:57:11.9±1.1, 34°.30N×78°.18E, h11^{km}, mb5.4/60, MS4.7/16, Error ellipse: s-maj=5.4km s-min=3.0km*

az=111.0

IDC ***25*** *10:57:11.6±0.3, 34°.25N×78°.11E, h0^{km}, mb4.8/46, mbtmp4.8/51, ML4.5/5, MS4.5/81, Error ellipse: s-maj=8.2km s-min=6.7km az=41.0*

BJI ***25*** *10:57:12.3, 34°.27N×78°.12E, h14^{km}, mB5.1/40, mb4.6/64, ML5.5/3, Ms5.2/68, Ms7 4.9/64*

NEIC ***25*** *10:57:13.2±1.2, 34°.25N±0°.05×78°.21E±0°.07, h10^{km}±1^{km}, mb5.1/234, Mww5.3/18, Error ellipse: s-maj=10.4km s-min=9.2km az=83.0*

GFZ ***25*** *10:57:14.3, 34°.21N×78°.21E, h10^{km}, Mw5.1/58, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}-4.91; $M_{\theta\theta}$1.31; $M_{\phi\phi}$3.59; $M_{r\theta}$0.59; $M_{\theta\phi}$2.02; $M_{\phi r}$0.53; Fault plane solution: $M_0$4.90603×10^{16} NP1: ϕ_s213.03683°, δ49.53078°, λ-86.47521°. NP2: ϕ_s27.61542°, δ40.59610°, λ-94.12176°. Principal axes: T 4.8321, Plg4.4723°, Azm300.5376°; N 0.1447, Plg2.6808°, Azm30.7474°; P -4.9768, Plg84.7830°, Azm151.5984°;*

GFZ ***25*** *10:57:14.8±0.2, 34°N±3°×7°8E±°, h10^{km}, M5.0/23, mb5.1/23*

GCMT ***25*** *10:57:17.2±0.1, 34°.28N±0°.01×78°.04E±0°.01, h12^{km}, MW5.2/129, Moment Tensor Solution. s90,c129; s129,c225; Duration: 1^{s}0 Moment tensor: Scale 10^{17} Nm; M_{rr}-0.30±.01; $M_{\theta\theta}$-0.03±.01; $M_{\phi\phi}$0.32±.01; $M_{r\theta}$0.54±.04; $M_{\theta\phi}$0.71±.01; $M_{\phi r}$-0.14±.04; Best double couple: $M_0$0.95400×10^{17} NP1: ϕ_s360.00000°, δ55.00000°, λ-159.00000°. NP2: ϕ_s257.00000°, δ73.00000°, λ-37.00000°. Principal axes: T 0.9280, Plg12.0000°, Azm312.0000°; N 0.0510, Plg50.0000°, Azm57.0000°; P -0.9800, Plg38.0000°, Azm213.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

NNC ***25*** *10:57:18.0±5.3, 34°.33N×78°.19E, h78^{km}±48^{km}, mb5.0, mpv5.6 Error ellipse: s-maj=42.1km s-min=37.4km az=136.0*

BGR ***25*** *10:57:22.2, 34°.81N×77°.89E, h33^{km}, mb5.1, Ms4.8*

ISC 25 10:57:13.0±0.5**, 34°.26N**±0°.03×**78°.18E**±0°.02**, h8**^{km}±2^{km}**, h9**^{km}**:pP-P, n874,** σ**1**^{s}**70**/880**, mb5.1**/287**, MS4.7**/121**, 49C-36D, Kashmir-Xizang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ALCI	**Alchi Leh**	**0.83**	**267**	*e*P	**Pg**	**10 57 27.2**	**-1.7**
ALCI				*e*x	x	10 57 39.0	
ALCI				IAML		10 57 39.5	
	comp=N,34µm,0.3s						
ALCI				IAML		10 57 39.9	
	comp=E,36µm,0.6s						
HNLY	**HANLEY**	**1.62**	**156**	*e*P	**Pb**	**10 57 43.4**	**0.0**
HNLY				*e*S	**Sn**	**10 58 03.8**	**+0.3**
HNLY				IAML		10 58 07.5	
	comp=E,32µm,0.3s						
HNLY				IAML		10 58 07.5	
	comp=N,27µm,0.3s						
TSSA	**Tissa**	**2.21**	**231**	*e*P	**Pn**	**10 57 49.7**	**-0.4**
TSSA				*e*S	**Sg**	**10 58 24.4**	**+0.3**
TSSA				IAML		10 58 26.7	
	comp=N,12µm,0.9s						
TSSA				IAML		10 58 27.8	
	comp=E,12µm,1.1s						
DHRM	**DHARAMSHALA**	**2.55**	**219**	*e*P	**Pn**	**10 57 56.0**	**+1.2**
DHRM				*e*S	**Sg**	**10 58 34.3**	**-0.6**
DHRM				IAML		10 58 42.1	
	comp=E,15µm,0.8s						
DHRM				IAML		10 58 45.5	
	comp=N,12µm,0.9s						
KLP	**Kalpa**	**2.72**	**179**	*e*P	**Pn**	**10 57 59.6**	**+2.4**
KLP				*e*S	**Sg**	**10 58 41.4**	**+1.0**
KLP				IAML		10 58 54.3	
	comp=N,11µm,2.6s						
KLP				IAML		10 58 55.1	
	comp=E,15µm,2.0s						
THN	**Thein Dam**	**2.72**	**229**	*e*P	**Pn**	**10 57 56.7**	**-0.3**
THN				*e*S	**Sb**	**10 58 36.4**	**+0.9**
THN				IAML		10 58 50.0	
	comp=E,11µm,1.1s						
THN				IAML		10 58 50.7	
	comp=N,11µm,1.6s						
TLWR	**Talawar**	**2.96**	**220**	*e*P	**Pn**	**10 58 01.1**	**+0.8**
TLWR				*e*S	**Sb**	**10 58 44.1**	**+1.7**
TLWR				IAML		10 58 58.4	
	comp=E,7µm,0.5s						
TLWR				IAML		10 58 59.8	
	comp=N,6µm,0.7s						
JMU	**Jammu**	**3.16**	**243**	*e*P	**Pn**	**10 58 00.5**	**-2.5**
JMU				*e*S	**Sn**	**10 58 42.6**	**+1.6**
JMU				IAML		10 59 02.5	
	comp=N,1µm,0.7s						
JMU				IAML		10 59 04.2	
	comp=E,2µm,1.2s						
SMLA	**Simla**	**3.24**	**196**	*e*P	**Pn**	**10 58 06.4**	**+2.4**
SMLA				*e*S	**Sb**	**10 58 53.3**	**+3.1**
SMLA				IAML		10 58 58.5	
	comp=N,3µm,0.5s						
SMLA				IAML		10 58 59.5	
	comp=E,4µm,0.5s						
NIL	**Nilore**	**4.14**	**263**	P	**Pn**	**10 58 19.4**	**+2.8**
NIL	**Nilore**	**4.14**	**263**	P	**Pn**	**10 58 17.2**	**+0.7**
NIL	**Nilore**	**4.14**	**263**		**Pn**	**10 58 17.2**	**+0.7**
NIL	**Nilore**	**4.14**	**263**	P	**Pn**	**10 58 18.5**	**+2.0**
KSH2	**Kashi**	**5.31**	**337**	Pn	**Pn**	**10 58 35.8**	**+3.1**
KSH2				L	L		
	comp=E,26µm,6.7s						
KSH2				L	L		
	comp=E,22µm,6.5s						
KSH2				L	L		
	comp=E,27µm,6.6s						
UGON	**Onchagaon**	**5.94**	**182**	*e*P	**Pn**	**10 58 44.2**	**+3.0**
UGON				*e*S	**Sn**	**10 59 57.7**	**+8.4**
UGON				IAML		11 00 33.4	
	comp=N,1µm,1.8s						
UGON				IAML		11 00 40.3	
	comp=E,1µm,1.8s						
ASAI	**AK-SAY(Kyrgyzs**	**6.78**	**349**	P	**Pn**	**10 58 55.7**	**+2.8**
	comp=Z,463nm,0.9s						
WUS	**Wushi**	**6.98**	**6**		**Pn**	**10 58 57.1**	**+1.6**
DRK	**Karamyk**	**7.30**	**317**	P	**Pn**	**10 58 59.9**	**-0.2**
DRK	**Karamyk**	**7.30**	**317**		**Pn**	**10 58 59.9**	**-0.2**
NRN	**Naryn**	**7.37**	**347**	P	**Pn**	**10 59 01.3**	**+0.2**
NRN	**Naryn**	**7.37**	**347**	Pn	**Pn**	**10 59 01.3**	**+0.2**
TARG	**Taragay, Kyrgy**	**7.46**	**358**	P	**Pn**	**10 59 01.5**	**-1.0**
TARG	**Taragay, Kyrgy**	**7.46**	**358**	Pn	**Pn**	**10 59 01.5**	**-1.0**
TARG	**Taragay, Kyrgy**	**7.46**	**358**	P	**Pn**	**10 59 07.1**	**+4.6**
	comp=Z,350nm,1.0s						
KBL	**Kabul**	**7.56**	**275**	P	**Pn**	**10 59 03.5**	**-0.1**
	SNR=44						
KBL				S	**Sn**	**11 00 29.9**	**+0.3**
KBL	**Kabul**	**7.56**	**275**	P	**Pn**	**10 59 03.1**	**-0.5**
KBL	**Kabul**	**7.56**	**275**		**Pn**	**10 59 03.1**	**-0.5**
KBL	**Kabul**	**7.56**	**275**	P	**Pn**	**10 59 03.2**	**-0.4**
	comp=Z,150nm,0.9s						
KDJ	**Kajisay**	**7.90**	**355**	P	**Pn**	**10 59 09.3**	**+1.1**
KDJ	**Kajisay**	**7.90**	**355**		**Pn**	**10 59 09.3**	**+1.1**
ULHL	**Ulahol**	**8.12**	**350**	P	**Pn**	**10 59 14.3**	**+3.0**
	SNR=7.2						
ARSB	**Arslanbob**	**8.16**	**331**	P	**Pn**	**10 59 12.1**	**+0.3**
ARSB	**Arslanbob**	**8.16**	**331**		**Pn**	**10 59 12.1**	**+0.3**
BTK	**Batken**	**8.25**	**317**	P	**Pn**	**10 59 12.6**	**-0.3**
BTK	**Batken**	**8.25**	**317**		**Pn**	**10 59 12.6**	**-0.3**
BOOM	**Boomskoye usch**	**8.40**	**349**	P	**Pn**	**10 59 15.9**	**+0.8**
BOOM	**Boomskoye usch**	**8.40**	**349**	Pn	**Pn**	**10 59 15.9**	**+0.8**
KBK	**Karagaybulak**	**8.76**	**344**	P	**Pn**	**10 59 21.9**	**+1.9**
	SNR=68						
SATY	**Saty**	**8.79**	**1**	*e*P	**Pn**	**10 59 21.3**	**+1.0**
SATY				*e*S	**Sn**	**11 01 00.6**	**+1.0**
SATY	**Saty**	**8.79**	**1**	*e*P	**Pn**	**10 59 21.4**	**+1.0**
SATY				*e*S	**Sn**	**11 01 00.7**	**+1.0**
TNSS	**Tian-Shan**	**8.82**	**354**	*e*P	**Pn**	**10 59 21.8**	**+0.8**
TNSS	**Tian-Shan**	**8.82**	**354**	*e*P	**Pn**	**10 59 21.9**	**+0.8**
AAK	**Ala-Archa**	**8.85**	**342**	P	**Pn**	**10 59 24.2**	**+2.9**
	SNR=48						
AAK	**Ala-Archa**	**8.85**	**342**	Pn	**Pn**	**10 59 23.5**	**+2.2**
	comp=Z,7.6nm,0.3s,baz=155,slow=7.3,SNR=50						
AAK				Sn	**Sn**	**11 01 05.8**	**+4.6**
	baz=198,slow=20						
AAK				Lg	Lg	11 01 47.9	
	comp=Z,2.1nm,0.3s,baz=198,slow=20,SNR=3.7						
	comp=Z,30nm,0.5s						
AAK				AML	AML		
AAK	**Ala-Archa**	**8.85**	**342**	⇓Pn	**Pn**	**10 59 22.1**	**+0.9**
	comp=Z,170nm,0.9s						
AAK				⇓Sn	**Sn**	**11 01 01.6**	**+0.4**
	comp=Z,206nm,1.0s						
AAK	**Ala-Archa**	**8.85**	**342**	P	**Pn**	**10 59 24.4**	**+3.2**
AAK	**Ala-Archa**	**8.85**	**342**	*c i*P	**Pn**	**10 59 23.6**	**+2.4**
AAK	**Ala-Archa**	**8.85**	**342**	Pn	**Pn**	**10 59 21.3**	**0.0**
AAK	**Ala-Archa**	**8.85**	**342**	P	**Pn**	**10 59 24.1**	**+2.9**
AAK	**Ala-Archa**	**8.85**	**342**	P	**Pn**	**10 59 23.7**	**+2.4**
	comp=Z,235nm,1.2s						
TKM2	**Tokmak 2**	**8.88**	**348**	P	**Pn**	**10 59 24.0**	**+2.2**
	SNR=28						
UZB	**Uzynbulak**	**8.90**	**4**	*e*P	**Pn**	**10 59 22.6**	**+0.7**
UZB				*e*S	**Sn**	**11 01 03.7**	**+1.3**
UZB	**Uzynbulak**	**8.90**	**4**	*e*P	**Pn**	**10 59 22.7**	**+0.7**
UZB				*e*S	**Sn**	**11 01 03.7**	**+1.3**
MDOK	**Medeo**	**8.93**	**355**	*e*P	**Pn**	**10 59 23.5**	**+1.1**
MDOK	**Medeo**	**8.93**	**355**	*e*P	**Pn**	**10 59 23.6**	**+1.1**
SHLS	**Shalkode**	**8.94**	**6**	*e*P	**Pn**	**10 59 24.2**	**+1.7**
SHLS				*e*S	**Sn**	**11 01 05.7**	**+2.3**
SHLS	**Shalkode**	**8.94**	**6**	*e*P	**Pn**	**10 59 24.2**	**+1.7**
SHLS				*e*S	**Sn**	**11 01 05.7**	**+2.3**
FRU1	**Bishkek**	**8.98**	**343**	P	**Pn**	**10 59 23.0**	**+0.1**
FRU1	**Bishkek**	**8.98**	**343**	Pn	**Pn**	**10 59 23.0**	**+0.1**
AAA	**Alma-Ata**	**8.99**	**354**	*e*P	**Pn**	**10 59 24.2**	**+1.1**
AAA	**Alma-Ata**	**8.99**	**354**	*e*P	**Pn**	**10 59 24.2**	**+1.1**
KNDC	**Almaty**	**8.99**	**354**	⇑Pn	Pn	10 59 28.5	+5.3
	comp=Z,312nm,0.8s						
KNDC	**Almaty**	**8.99**	**354**	P	Pn	10 59 29.8	+6.6
EKS2	**Erkin-Say**	**9.07**	**339**	P	**Pn**	**10 59 26.7**	**+2.4**
	SNR=40						
PDGK	**Podgornoye**	**9.11**	**6**	⇑Pn	**Pn**	**10 59 26.2**	**+1.3**
	comp=Z,140nm,0.7s						
PDGK				⇓Sn	**Sn**	**11 01 08.4**	**+0.7**
	comp=Z,628nm,0.8s						
PDGK	**Podgornoye**	**9.11**	**6**	P	**Pn**	**10 59 26.1**	**+1.3**
PDGK						11 01 08.3	
PDGK	**Podgornoye**	**9.11**	**6**		**Pn**	**10 59 26.2**	**+1.3**
CHMS	**Chumysh**	**9.13**	**344**	P	**Pn**	**10 59 27.4**	**+2.4**
	SNR=13						
KPKS	**Kokpek**	**9.20**	**2**	*e*P	**Pn**	**10 59 26.8**	**+0.8**
KPKS	**Kokpek**	**9.20**	**2**	*e*P	**Pn**	**10 59 26.9**	**+0.8**
ALBI	**Allahabad**	**9.46**	**160**	*e*P	**Pn**	**10 59 30.6**	**+1.1**
ALBI				*e*S	**Sn**	**11 01 11.2**	**-4.8**
ALBI				IAML		11 01 12.4	
	comp=N,866nm,2.3s						
ALBI				IAML		11 01 16.5	
	comp=E,875nm,1.1s						
SGDS	**Sogindy**	**9.59**	**344**	*e*P	**Pn**	**10 59 32.5**	**+1.2**
SGDS				*e*S	**Sn**	**11 01 20.7**	**+1.5**
EVN	**Everest**	**9.71**	**128**		**Pn**	**10 59 31.9**	**-1.6**
EVN	**Everest**	**9.71**	**128**	P	**Pn**	**10 59 34.3**	**+0.8**
	comp=Z,114nm,0.7s						
KUU	**Kurty**	**9.72**	**352**	*e*P	**Pn**	**10 59 34.6**	**+1.5**
KUU				*e*S	**Sn**	**11 01 24.2**	**+1.7**
KUU	**Kurty**	**9.72**	**352**	*e*P	**Pn**	**10 59 34.7**	**+1.5**
KUU				*e*S	**Sn**	**11 01 24.3**	**+1.7**
CHM	**Chimkent**	**10.49**	**323**	*e*P	**Pn**	**10 59 45.4**	**+1.8**
CHM	**Chimkent**	**10.49**	**323**	*e*P	**Pn**	**10 59 45.4**	**+1.8**
KK31	**Karatay Array**	**10.67**	**328**	⇓Pn	**Pn**	**10 59 44.5**	**-1.5**
	comp=Z,275nm,1.1s,baz=139,slow=12,SNR=744						
KK31				⇑Sn	**Sn**	**11 01 41.5**	**-4.1**
	comp=Z,42nm,0.5s,baz=158,slow=24,SNR=2.6						
KK31	**Karatay Array**	**10.67**	**328**	*i* P	**Pn**	**10 59 44.5**	**-1.5**
KK31				*e*		11 01 41.5	
KK31	**Karatay Array**	**10.67**	**328**		**Pn**	**10 59 45.2**	**-0.8**
KKAR	**Karatay Array**	**10.67**	**328**	P	**Pn**	**10 59 45.2**	**-0.8**
KKAR	**Karatay Array**	**10.67**	**328**		**Pn**	**10 59 45.2**	**-0.8**
TDK	**Taldyqorghan**	**10.73**	**1**	*e*P	**Pn**	**10 59 48.2**	**+1.3**
TDK	**Taldyqorghan**	**10.73**	**1**	*e*P	**Pn**	**10 59 48.2**	**+1.3**
BHPL	**Bhopal**	**11.00**	**184**	*e*P	**Pn**	**10 59 52.6**	**+1.9**
LSA	**Lhasa**	**11.91**	**109**	*e*P	Pn	11 00 09.0	+5.5
LSA				S	**Sn**	**11 02 13.3**	**-3.5**
LSA				L	L		
	comp=Z,8µm,16.1s						
LSA				L	L		
	comp=Z,4µm,15.2s						
LSA				L	L		
	comp=Z,4µm,12.0s						
WMQ	**Urumqi**	**12.07**	**35**	⇑P	**Pn**	**11 00 06.5**	**+1.3**
WMQ				S	**Sn**	**11 02 20.5**	**+0.5**
WMQ				pmax	pmax		
	comp=Z,20nm,1.7s						
WMQ				pmax	pmax		
	comp=Z,220nm,3.7s						
WMQ				L	L		
	comp=Z,4µm,13.3s						
WMQ				L	L		
	comp=Z,6µm,11.3s						
WMQ				L	L		
	comp=Z,3µm,20.9s						
BOK	**Bokaro**	**12.41**	**145**	*e*P	**Pn**	**11 00 08.9**	**-1.0**
MAKZ	**Makanchi**	**12.86**	**12**	⇑Pn	**Pn**	**11 00 14.7**	**-1.3**
	comp=Z,94nm,1.2s						
MAKZ				⇑Sn	**Sn**	**11 02 35.5**	**-3.8**
	comp=Z,104nm,1.1s						
MAKZ	**Makanchi**	**12.86**	**12**	P	**Pn**	**11 00 15.4**	**-0.6**
MAKZ	**Makanchi**	**12.86**	**12**		**Pn**	**11 00 15.4**	**-0.6**
MAKZ	**Makanchi**	**12.86**	**12**	P	**Pn**	**11 00 15.5**	**-0.6**
	comp=Z,113nm,1.1s						
MK31	**Makanchi Array**	**12.90**	**13**	⇑Pn	**Pn**	**11 00 14.8**	**-1.8**
	comp=Z,12nm,0.6s,baz=188,slow=12,SNR=138						
MK31				Sn	**Sn**	**11 02 39.7**	**-0.6**
	comp=Z,170nm,1.2s,baz=177,slow=27,SNR=3.6						
MK31	**Makanchi Array**	**12.90**	**13**	*c i*P	**Pn**	**11 00 15.7**	**-0.9**
MK31	**Makanchi Array**	**12.90**	**13**	Pn	**Pn**	**11 00 15.8**	**-0.7**
MKAR	**Makanchi Array**	**12.90**	**13**	Pn	**Pn**	**11 00 16.0**	**-0.6**
	comp=Z,1.0nm,0.3s,baz=190,slow=13,SNR=25						
MKAR				Sn	**Sn**	**11 02 38.1**	**-2.2**
	comp=Z,1.3nm,0.3s,baz=184,slow=18,SNR=7.3						
MKAR				Lg	Lg	11 04 03.3	
	baz=193,slow=33						
MKAR				LR	LR	11 05 58.5	
	comp=Z,3µm,18.8s,baz=186,slow=41						
	comp=Z,16nm,0.8s						
MKAR				AML	AML		
MKAR	**Makanchi Array**	**12.90**	**13**		**Pn**	**11 00 15.6**	**-1.0**
HRA	**Herat**	**13.18**	**275**		**Pn**	**11 00 20.4**	**-0.2**
GOMU	**GeErMu**	**13.74**	**77**	P	**Pn**	**11 00 30.0**	**+1.7**
GOMU				pP	P	11 00 33.5	-3.6
GOMU				sP		11 00 37.5	
GOMU				S	**Sn**	**11 03 07.3**	**+6.0**
GOMU				pmax	pmax		
	comp=Z,2.0nm,0.5s						
GOMU				L	L		
	comp=Z,12µm,14.3s						
GOMU				L	L		
	comp=Z,4µm,14.1s						
GOMU				L	L		
	comp=Z,3µm,14.2s						
SHL	**Shillong**	**14.69**	**122**	P	**Pn**	**11 00 39.9**	**-1.4**
SHL	**Shillong**	**14.69**	**122**	P	**Pn**	**11 00 38.8**	**-2.5**
SHL	**Shillong**	**14.69**	**122**		**Pn**	**11 00 38.8**	**-2.5**
KURBB	**Kurchatov Arra**	**16.36**	**1**	Pn	**Pn**	**11 01 00.4**	**-2.4**
	comp=Z,0.3nm,0.3s,baz=186,slow=12,SNR=43						
KURBB				Sn	**Sn**	**11 04 03.1**	**-1.2**
	baz=164,slow=27						
KURBB				Lg	Lg	11 05 43.8	
	baz=186,slow=27						
KURBB				LR	LR	11 07 26.3	
	comp=Z,2µm,18.4s,baz=172,slow=38						
	comp=Z,30nm,1.1s						
KURBB				AML	AML		
KURBB	**Kurchatov Arra**	**16.36**	**1**	⇓P	**Pn**	**11 01 00.1**	**-2.6**
	comp=Z,69nm,1.2s						
KURK	**Kurchatov**	**16.45**	**1**	⇑P	**Pn**	**11 00 59.6**	**-4.4**
	comp=Z,40nm,0.9s						
KURK	**Kurchatov**	**16.45**	**1**	P	**Pn**	**11 01 01.2**	**-2.8**
KURK				S	**Sn**	**11 04 09.6**	**+3.0**
KURK	**Kurchatov**	**16.45**	**1**	*d i*P	**Pn**	**11 01 01.4**	**-2.6**
KURK				pmax	pmax		
	comp=Z,62nm,1.3s						
KURK	**Kurchatov**	**16.45**	**1**		**Pn**	**11 01 01.0**	**-2.9**
KURK				IAmb	IAmb	11 01 12.4	
	comp=Z,110nm,0.9s						
KURK	**Kurchatov**	**16.45**	**1**	P	**Pn**	**11 01 01.2**	**-2.8**
	comp=Z,139nm,0.9s						
BRDH	**Bariadhala**	**16.51**	**131**	Pn	**Pn**	**11 01 01.3**	**-3.6**
	comp=Z,18nm,0.3s,baz=270,slow=19,SNR=1.1						
BRDH				LR	LR	11 08 34.8	
	comp=Z,2µm,20.4s,baz=335,slow=41						
	comp=Z,89nm,0.3s						
BRDH				AML	AML		
HYB	**Hyderabad**	**16.78**	**179**	*e*P	**P**	**11 01 10.2**	**-0.3**
HYB				*e*S	**S**	**11 04 26.0**	**+0.1**
DGZ	**Jazzator, Alta**	**16.87**	**21**	*d e*P	**Pn**	**11 01 08.2**	**-1.3**
NGCH	**Negor - Chabah**	**17.23**	**244**	P	**P**	**11 01 18.7**	**+3.2**
	SNR=5.1						
NGCH				S	**Sn**	**11 04 29.8**	**+4.0**
GTA2	**Gaotai**	**18.02**	**67**	*e*P	**P**	**11 01 26.0**	**+1.6**
GTA2				S	**S**	**11 04 49.5**	**-1.8**
GTA2				pmax	pmax		
	comp=Z,8.0nm,1.3s						
GTA2				pmax	pmax		
	comp=Z,370nm,3.8s						
GTA2				L	L		
	comp=Z,7µm,19.0s						
GTA2				L	L		
	comp=Z,4µm,15.6s						
GTA2				L	L		
	comp=Z,4µm,14.3s						
JASK	**Jask - Hormozg**	**19.45**	**250**	P	**Pn**	**11 01 42.1**	**+1.0**
	SNR=12						
JASK				S	**S**	**11 05 21.8**	**+1.8**
BVAR	**Borovoye Array**	**19.57**	**346**	Pn	**P**	**11 01 41.3**	**+0.3**
	comp=Z,1.6nm,0.3s,baz=156,slow=12,SNR=91						
BVAR				S	**Sn**	**11 05 18.6**	**-3.3**
	comp=Z,5.4nm,0.9s,baz=163,slow=30,SNR=2.1						
BVAR				Lg	Lg	11 07 31.5	
	baz=169,slow=34,SNR=2.2						
	comp=Z,183nm,1.1s						
BVAR				AML	AML		
BORK	**Borovoye**	**19.60**	**346**	*c i*P	**P**	**11 01 41.2**	**-0.2**
BORK				pmax	pmax		
	comp=Z,183nm,0.9s						
BORK	**Borovoye**	**19.60**	**346**	P	**P**	**11 01 41.3**	**-0.2**
BORK				IAmb	IAmb	11 01 47.5	
	comp=Z,132nm,0.9s						
TNCH	**TengChong**	**19.90**	**112**	P	**Pn**	**11 01 46.8**	**+0.1**
TNCH				S	**S**	**11 05 27.8**	**-1.6**
TNCH				pmax	pmax		
	comp=Z,170nm,0.9s						
TNCH				pmax	pmax		
	comp=Z,1µm,4.9s						
TNCH				L	L		
	comp=Z,2µm,13.4s						
TNCH				L	L		
	comp=Z,2µm,13.3s						
TNCH				L	L		
	comp=Z,2µm,11.5s						
AB31	**Akbulak array**	**20.16**	**323**	⇑P	**P**	**11 01 46.1**	**-1.4**
	comp=Z,36nm,0.7s,baz=122,slow=5.2,SNR=395						
AB31	**Akbulak array**	**20.16**	**323**	*i* P	**P**	**11 01 46.1**	**-1.4**
AB31	**Akbulak array**	**20.16**	**323**		**P**	**11 01 46.8**	**-0.7**
AB31				IAmb	IAmb	11 01 53.6	
	comp=Z,91nm,1.1s						
ABKAR	**Akbulak array**	**20.16**	**323**	P	**P**	**11 01 47.1**	**-0.5**
ZAA0	**Zalesovo Array**	**20.23**	**11**	P	**P**	**11 01 47.1**	**-1.2**
ZALV	**Zalesovo Beam**	**20.23**	**11**	P	**P**	**11 01 47.5**	**-0.8**
	comp=Z,7.9nm,0.4s,baz=202,slow=10,SNR=30						
ZALV				S	**S**	**11 05 33.0**	**-2.3**
	comp=Z,6.4nm,0.9s,baz=195,slow=21,SNR=2.3						
	comp=Z,7.9nm,0.4s						
ZALV	**Zalesovo Beam**	**20.23**	**11**	*i* P	**P**	**11 01 47.0**	**-1.3**
ZALV				pmax	pmax		
	comp=Z,8.0nm,0.4s						
ZALV	**Zalesovo Beam**	**20.23**	**11**	P	**P**	**11 01 46.8**	**-1.5**
WSAR	**Wadi Sarin**	**20.32**	**242**	LR	LR	11 12 03.8	
	comp=Z,5.0nm,18.5s,baz=70,slow=44						
WSAR	**Wadi Sarin**	**20.32**	**242**	P	Pn	11 01 51.7	+0.2
	SNR=16						
WSAR				S	Sn	11 05 39.4	-1.2
JLN	**Jalan Bani Buh**	**20.43**	**239**	P	Pn	11 01 53.0	+0.2
	SNR=8.6						
WBK	**Wadi Bani Khal**	**20.46**	**240**	P	Pn	11 01 53.4	+0.3
	SNR=10						
WBK				S	Sn	11 05 42.9	-1.0
BANOM	**Banah**	**20.65**	**252**	P	Pn	11 01 55.7	+0.3
BANOM				S	Sn	11 05 48.0	-0.5
BANOM	**Banah**	**20.65**	**252**	P	Pn	11 01 54.9	-0.5
SHME	**Shamm**	**20.71**	**253**	P	Pn	11 01 55.9	-0.2
	SNR=13						
SHME				S	**S**	**11 05 46.3**	**+1.1**
SHME	**Shamm**	**20.71**	**253**	*i* P	**P**	**11 01 53.8**	**+0.1**
	SNR=19						
SMDO	**Samad**	**20.86**	**243**	P	Pn	11 01 56.7	-1.2
	SNR=13						
SMDO				S	**S**	**11 05 50.1**	**+1.8**
LZDM	**Lanzhou Array**	**20.93**	**78**	P	**P**	**11 01 55.5**	**-0.8**
	comp=Z,2.7nm,0.4s,baz=273,slow=8.2,SNR=8.7						
LZDM				S	Sn	11 05 53.2	-2.4
	comp=Z,1.8nm,0.3s,baz=298,slow=19,SNR=1.5						
LZDM				LR	LR	11 10 02.1	
	comp=Z,551nm,19.0s,baz=330,slow=37						
	comp=Z,2.7nm,0.4s						
MDH	**Madha**	**20.95**	**251**	P	**P**	**11 01 57.4**	**+1.0**
	SNR=11						
MDH				S	**S**	**11 05 51.3**	**+1.3**
MDH	**Madha**	**20.95**	**251**	*i* P	**P**	**11 01 57.5**	**+1.0**
	SNR=13						
MASF	**Masafi**	**21.03**	**251**	P	**P**	**11 01 59.7**	**+2.5**
	SNR=21						
MASF				S	**S**	**11 05 53.5**	**+1.9**
MSFE	**Esma-Masafi**	**21.03**	**251**	*i* P	**P**	**11 01 57.7**	**+0.4**
	SNR=14						
LZH	**Lanzhou**	**21.04**	**78**	P	**P**	**11 02 00.3**	**+2.9**
LZH				sP	sP	11 02 11.0	+7.8
LZH				S	**S**	**11 05 51.0**	**-1.0**
LZH				pmax	pmax		
	comp=Z,43nm,1.5s						
LZH				pmax	pmax		
	comp=Z,330nm,4.8s						
LZH				L	L		
	comp=Z,4µm,14.0s						
LZH				L	L		
	comp=Z,3µm,14.9s						
LZH				L	L		
	comp=Z,3µm,14.9s						
HOQ	**Hoqain**	**21.10**	**245**	P	**P**	**11 01 59.0**	**+1.1**
	SNR=18						
UOSS	**Minazif**	**21.21**	**250**	P	**P**	**11 02 02.1**	**+3.0**
UOSS				S	**S**	**11 05 55.9**	**+0.8**
UOSS	**Minazif**	**21.21**	**250**		**P**	**11 01 56.9**	**-2.3**
UOSS	**Minazif**	**21.21**	**250**	*i* P	**P**	**11 01 58.8**	**-0.3**
	SNR=6.3						
UOSS	**Minazif**	**21.21**	**250**	P	**P**	**11 01 59.3**	**+0.2**
	comp=Z,35nm,1.6s						
JMDO	**Jabal Madar**	**21.23**	**241**	P	**P**	**11 02 01.4**	**+2.0**
	SNR=13						
HATD	**Hatta, Dubai**	**21.33**	**250**	P	**P**	**11 02 03.9**	**+3.5**
	SNR=16						
HATD				S	**S**	**11 05 58.7**	**+1.3**
HATD	**Hatta, Dubai**	**21.33**	**250**	*i* P	**P**	**11 01 59.9**	**-0.5**
	SNR=13						
UMQ	**Umm Al-Quwin**	**21.34**	**252**	P	**P**	**11 02 02.7**	**+2.2**
UMQ				S	**S**	**11 05 57.9**	**+0.2**
SOHO	**SOHO**	**21.38**	**248**	P	**P**	**11 02 01.0**	**0.0**
SOHO				S	**S**	**11 06 02.2**	**+3.7**
SOHO	**SOHO**	**21.38**	**248**	*i* P	**P**	**11 02 00.7**	**-0.3**
	SNR=7.5						
ASHO	**Ashiyiah**	**21.46**	**249**	P	**P**	**11 02 04.1**	**+2.3**
	SNR=44						
ASHO				S	**S**	**11 06 03.5**	**+3.4**
ASHO	**Ashiyiah**	**21.46**	**249**	*i* P	**P**	**11 02 03.6**	**+1.8**
	SNR=30						
NPW	**Naypyitaw**	**21.49**	**128**	P	**P**	**11 02 02.2**	**+0.1**
	comp=Z,126nm,1.1s						
KNGR	**Kungurtug, Tuv**	**21.59**	**35**	⇑*e*P	**P**	**11 02 06.7**	**+3.6**
KNGR				pmax	pmax		
	comp=Z,108nm,1.3s						
NAZ	**Nazwa, Dubai**	**21.61**	**251**	P	**P**	**11 02 07.5**	**+4.1**
	SNR=18						
NAZ				S	**S**	**11 06 05.6**	**+2.6**
NAZ	**Nazwa, Dubai**	**21.61**	**251**	*i* P	**P**	**11 02 05.5**	**+2.1**
	SNR=22						
BSY	**Bisya**	**21.67**	**244**	P	**P**	**11 02 06.3**	**+2.2**
	SNR=14						
PZH	**PanZhiHua**	**21.71**	**105**	P	**P**	**11 02 04.8**	**+0.1**
PZH				PP	**PnPn**	**11 02 27.5**	**+2.0**
PZH				S	**S**	**11 06 05.8**	**+0.5**
PZH				SS	**SnSn**	**11 06 38.5**	**+9.1**
PZH				pmax	pmax		
	comp=Z,20nm,1.9s						
PZH				pmax	pmax		
	comp=Z,220nm,4.1s						
PZH				L	L		
	comp=Z,1µm,10.1s						
PZH				L	L		
	comp=Z,2µm,8.5s						
PZH				L	L		
	comp=Z,2µm,9.0s						
FAQ	**Al Faqa, Dubai**	**21.79**	**250**	P	**P**	**11 02 10.0**	**+4.6**

	SNR=13						
FAQ				S	S	11 06 08.2	+1.8
FAQ	Al Faqa, Dubai	21.79	250	i P	P	11 02 06.9	+1.5
	SNR=15						
CD2	Chengdu	21.79	92	P	P	11 02 02.5	-2.9
CD2				S	S	11 06 01.5	-5.1
CD2				pmax	pmax		
	comp=Z,10.0nm,0.4s						
CD2				pmax	pmax		
	comp=Z,240nm,3.5s						
CD2				L	L		
	comp=Z,4µm,9.4s						
CD2				L	L		
	comp=Z,3µm,6.7s						
CD2				L	L		
	comp=Z,3µm,10.8s						
ARQ	Araqi	21.83	246	P	P	11 02 09.3	+3.5
	SNR=30						
ARQ				S	S	11 06 10.0	+2.5
AKTO	Aktyubinsk	21.88	324	P	P	11 02 05.3	-0.8
	comp=Z,49nm,0.5s,baz=114,slow=8.3,SNR=114						
AKTO				S	S	11 06 05.7	-2.1
	comp=Z,12nm,0.9s,baz=119,slow=10,SNR=3.2						
AKTO				LR	LR	11 11 11.9	
	comp=Z,5µm,20.2s,baz=109,slow=38						
	comp=Z,49nm,0.5s						
AKTO	Aktyubinsk	21.88	324	⇑P	P	11 02 03.8	-2.3
	comp=Z,36nm,0.7s						
ALNE	Al Ain	22.03	248	P	P	11 02 09.7	+1.7
	SNR=31						
ALNE				S	S	11 06 13.9	+2.8
ALNE	Al Ain	22.03	248	i P	P	11 02 09.9	+2.0
	SNR=21						
ASUD	Al Ashush, Dub	22.05	250	P	P	11 02 11.1	+2.9
ASUD				S	S	11 06 13.2	+1.6
ASUD	Al Ashush, Dub	22.05	250	P	P	11 02 10.1	+1.9
MHTO	MHTO	22.21	239	P	P	11 02 11.9	+2.0
	SNR=30						
MHTO				S	S	11 06 16.0	+1.5
AJN	Ajban	22.35	251	P	P	11 02 14.8	+3.4
	SNR=11						
AJN				S	S	11 06 19.0	+1.7
AJN	Ajban	22.35	251	i P	P	11 02 12.8	+1.4
	SNR=13						
KMI2	Kunming	23.14	107	P	P	11 02 20.8	+0.8
KMI2				S	S	11 06 22.0	-10
KMI2				pmax	pmax		
	comp=Z,25nm,1.2s						
KMI2				pmax	pmax		
	comp=Z,370nm,4.5s						
KMI2				L	L		
	comp=Z,890nm,7.3s						
KMI2				L	L		
	comp=Z,2µm,11.0s						
KMI2				L	L		
	comp=Z,1µm,9.2s						
UMZA	Um Al Zommool	23.22	246	P	P	11 02 22.3	+1.8
UMZA				S	S	11 06 33.1	+0.4
MZWR	Madinat Zayed	23.63	250	P	P	11 02 26.4	+1.8
MZWR				S	S	11 06 39.8	+0.4
JRN	Qarnain Island	23.85	254	P	P	11 02 27.2	+0.4
	SNR=6.4						
JRN				S	S	11 06 42.0	-0.9
CHTO	Chiang Mai	24.05	125	P	P	11 02 27.9	-0.7
CHTO	Chiang Mai	24.05	125	S	S	11 06 40.8	-5.3
CHTO	Chiang Mai	24.05	125	P	P	11 02 28.4	-0.2
CHTO				S	S	11 06 46.9	+0.8
CHTO	Chiang Mai	24.05	125	P	P	11 02 27.5	-1.1
CHTO				pmax	pmax		
	comp=Z,20nm,0.8s						
CHTO	Chiang Mai	24.05	125	P	P	11 02 27.5	-1.1
CHTO	Chiang Mai	24.05	125	P	P	11 02 27.6	-1.1
	comp=Z,34nm,1.3s						
CM31	Chiang Mai Arr	24.29	125	P	P	11 02 30.8	-0.1
	SNR=36						
CM31	Chiang Mai Arr	24.29	125	P	P	11 02 31.1	+0.2
CM31				IAmb	IAmb	11 02 47.5	
	comp=Z,58nm,0.9s						
CMAR	Chiang Mai Arr	24.29	125	P	P	11 02 30.7	-0.2
	comp=Z,27nm,0.9s,baz=312,slow=9.7,SNR=104						
CMAR				PcP	PcP	11 06 10.5	-0.4
	comp=Z,3.3nm,0.8s,baz=318,slow=1.9,SNR=4.7						
CMAR				S	S	11 06 53.3	+3.3
	comp=Z,0.3nm,0.3s,baz=316,slow=16,SNR=1.1						
CMAR				ScP	ScP	11 09 48.3	-1.4
	comp=Z,1.1nm,0.8s,baz=302,slow=4.6,SNR=6.3						
	comp=Z,27nm,0.9s						
GHWR	Ruwais	24.31	252	P	P	11 02 32.1	+1.0
MZR	Muzera	24.35	249	P	P	11 02 31.8	+0.4
	SNR=18						
MZR	Muzera	24.35	249	i P	P	11 02 31.8	+0.4
	SNR=16						
ZAK	Zakamensk	24.41	41	eP	P	11 02 32.5	+0.7
ZAK				pmax	pmax		
	comp=Z,15nm,1.1s						
AKT	Akhty	25.01	296	eP	P	11 02 38.1	+0.7
AKT				ePPP	PPP	11 03 18.0	
AKT				eS	S	11 07 01.1	-0.4
AKT				eSS	SnSn	11 07 52.1	+2.3
AKT				pmax	pmax		
	comp=Z,187nm,1.2s						
SONM	Songino Array	25.07	49	P	P	11 02 39.5	+1.7
	comp=Z,30nm,1.0s,baz=247,slow=9.7,SNR=40						
SONM				PcP	PcP	11 06 12.6	+0.3
	comp=Z,2.0nm,0.6s,baz=192,slow=4.0,SNR=1.8						
SONM				LR	LR	11 13 18.6	
	comp=Z,1µm,20.3s,baz=262,slow=38						
	comp=Z,30nm,1.0s						
SONM	Songino Array	25.07	49	P	P	11 02 38.3	+0.5
SONM						11 06 12.2	
SONM				pmax	pmax		
	comp=Z,31nm,0.9s						
SONM	Songino Array	25.07	49	P	P	11 02 38.3	+0.5
SONM				IAmb	IAmb	11 02 45.2	
	comp=Z,31nm,0.9s						
SONM					PcP	11 06 12.2	-0.1
SLWR	Sila	25.20	253	P	P	11 02 39.3	+0.3
SLWR				S	S	11 07 03.4	-1.1
SAKB	Bahrain	25.24	258	P	P	11 02 39.8	+0.4
SAKB				S	S	11 07 02.1	-3.1
TLY	Talaya	25.30	39	LR	LR	11 15 02.7	
	comp=Z,540nm,18.6s,baz=242,slow=42						
TLY	Talaya	25.30	39	P	P	11 02 39.7	-0.1
MAK	Makhachkala	25.39	299	c iP	P	11 02 36.6	-4.0
MAK				eS	S	11 07 01.0	-6.2
MAK				pmax	pmax		
	comp=Z,180nm,1.3s						
MAK				MLR	MLR		
	comp=Z,2µm,12.0s						
XAN	Xi'an	25.40	82	P	P	11 02 41.3	+0.4
XAN				S	S	11 07 07.8	+0.1
XAN				pmax	pmax		
	comp=Z,40nm,1.1s						
XAN				L	L		
	comp=Z,6µm,19.2s						
XAN				L	L		
	comp=Z,2µm,18.6s						
XAN				L	L		
	comp=Z,3µm,13.7s						
ULN	Ulaanbaatar	25.49	49	ceP	P	11 02 43.1	+1.4
ULN				pmax	pmax		
	comp=Z,33nm,0.9s						
ULN	Ulaanbaatar	25.49	49	P	P	11 02 41.5	-0.2
ULN					P	11 02 41.7	0.0
ULN	Ulaanbaatar	25.49	49	P	P	11 02 41.7	0.0
ULN	Ulaanbaatar	25.49	49	P	P	11 02 43.3	+1.6
	comp=Z,36nm,0.9s						
SVE	Sverdlovsk	25.55	337	eP	P	11 02 42.0	+0.1
SVE				eS	S	11 07 13.1	+3.6
SVE				pmax	pmax		
	comp=Z,50nm,1.2s						
SVE				MLR	MLR		
	comp=Z,919nm,9.0s						
GYA	Guiyang	25.72	100	⇓P	P	11 02 45.0	+1.1
GYA				S	S	11 07 10.5	-2.6
GYA				pmax	pmax		
	comp=Z,16nm,1.0s						
SHAO	Shalim	25.82	237	P	P	11 02 46.4	+1.6
BTO2	Baotou	25.87	66	eP	P	11 02 46.5	+1.2
BTO2				PP	PnPn	11 03 29.5	+7.3
BTO2				S	S	11 07 16.8	+1.5
BTO2				pmax	pmax		
	comp=Z,30nm,0.8s						
BTO2				pmax	pmax		
	comp=Z,650nm,4.7s						
BTO2				L	L		
	comp=Z,6µm,13.7s						
BTO2				L	L		
	comp=Z,6µm,13.3s						
BTO2				L	L		
	comp=Z,8µm,13.8s						
ARTI	Arti	25.96	335	P	P	11 02 45.6	-0.1
	comp=Z,39nm,0.8s,baz=144,slow=6.6,SNR=22						
	comp=Z,39nm,0.8s						
ARTI	Arti	25.96	335	c iP	P	11 02 45.5	-0.2
ARTI						11 03 20.5	
ARTI						11 06 12.2	
ARTI				S	S	11 07 15.4	-0.7
ARTI				pmax	pmax		
	comp=Z,62nm,1.1s						
ARTI				MLR	MLR		
	comp=Z,929nm,13.0s						
ARTI	Arti	25.96	335		P	11 02 45.6	-0.1
SLVN	Son La	26.06	113	P	P	11 02 48.0	+1.0
SLVN	Son La	26.06	113	S	S	11 07 13.9	-4.5
SLVN	Son La	26.06	113	P	P	11 02 45.4	-1.7
SLVN	Son La	26.06	113	P	P	11 02 48.3	+1.2
	comp=Z,32nm,0.9s						
PBA	Port Blair	26.13	146	P	P	11 02 44.8	-2.8
KBD	Kabd	26.37	267	P	P	11 02 50.7	+1.0
KBD				S	S	11 07 21.7	-1.4
DOK	Doka	26.48	240	P	P	11 02 51.8	+1.0
DMTO	DMTO	26.50	237	P	P	11 02 52.5	+1.6
ENH	Enshi	26.71	90	P	P	11 02 55.6	+2.8
ENH	Enshi	26.71	90	S	S	11 07 24.6	-4.0
ENH	Enshi	26.71	90	P	P	11 02 51.1	-1.7
ENH				IAmb	IAmb	11 03 06.7	
	comp=Z,31nm,0.8s						
PALK	Pallekele	26.96	174	P	P	11 02 54.0	-1.1
	comp=Z,26nm,1.1s,baz=349,slow=9.0,SNR=4.4						
PALK				LR	LR	11 12 10.9	
	comp=Z,1µm,19.6s,baz=356,slow=33						
	comp=Z,26nm,1.1s						
PALK	Pallekele	26.96	174	P	P	11 02 56.2	+1.1
PALK	Pallekele	26.96	174	i P	P	11 02 56.8	+1.7
PALK	Pallekele	26.96	174	P	P	11 02 54.0	-1.1
PALK				IAmb	IAmb	11 02 57.1	
	comp=Z,59nm,1.4s						
PALK	Pallekele	26.96	174	P	P	11 02 56.2	+1.1
	comp=Z,35nm,1.3s,comp=Z,35nm,1.3s						
PALK	Pallekele	26.96	174	P	P	11 02 56.4	+1.4
	comp=Z,35nm,1.3s						
HHC	Hu-ho-hao-te	27.16	66	eP	P	11 02 56.5	-0.3
HHC				pP	sP	11 03 08.5	+5.8
HHC				S	S	11 07 32.0	-3.6
HHC				pmax	pmax		
	comp=Z,12nm,0.7s						
HHC				pmax	pmax		
	comp=Z,120nm,4.2s						
HHC				L	L		
	comp=Z,2µm,14.7s						
HHC				L	L		
	comp=Z,2µm,14.7s						
HHC				L	L		
	comp=Z,2µm,14.1s						
RBK	Rabkut	27.17	238	P	P	11 02 57.9	+0.9
GNI	Garni	27.17	292	P	P	11 02 56.8	-0.2
	comp=Z,30nm,0.4s,baz=151,slow=3.2,SNR=9.6						
GNI				LR	LR	11 17 12.6	
	comp=Z,348nm,21.4s,baz=108,slow=44						
	comp=Z,30nm,0.4s						
GNI	Garni	27.17	292	⇑eP	P	11 02 57.0	0.0
GNI				pmax	pmax		
	comp=Z,427nm,1.2s						
GNI	Garni	27.17	292	P	P	11 02 56.1	-0.9
GNI	Garni	27.17	292	P	P	11 03 00.6	+3.6
	comp=Z,292nm,1.4s						
WHFO	Wadi Hawf	27.20	239	P	P	11 02 57.8	+0.5
ABTO	Aybut	27.91	239	P	P	11 03 04.3	+0.6
LYN	LuoYang	28.21	80	P	P	11 03 08.0	+1.8
LYN				sS	sS	11 07 57.5	-1.3
LYN				pmax	pmax		
	comp=Z,13nm,0.8s						
LYN				L	L		
	comp=Z,2µm,9.6s						
LYN				L	L		
	comp=Z,1µm,8.2s						
LYN				L	L		
	comp=Z,3µm,11.0s						
NCK	Nalchik	28.29	299	⇑eP	P	11 03 08.1	+1.3
NCK				pmax	pmax		
	comp=Z,29nm,0.4s						
BELG	Belogornoye	28.37	319	P	P	11 03 07.2	-0.1
	comp=Z,37nm,0.8s,baz=21,slow=8.6,SNR=8.8						
BELG				LR	LR	11 15 45.2	
	comp=Z,3µm,19.2s,baz=107,slow=39						
	comp=Z,37nm,0.8s						
BELG	Belogornoye	28.37	319	c iP	P	11 03 07.0	-0.4
BELG				pmax	pmax		
	comp=Z,28nm,1.1s						
EPOS	Posof	28.75	295	P	P	11 03 13.8	+2.7
	comp=Z,31nm,1.6s						
KBZ	Khabaz	28.82	300	P	P	11 03 11.5	0.0
	comp=Z,8.8nm,1.1s,baz=89,slow=3.8,SNR=6.5						
KBZ				LR	LR	11 17 00.1	
	comp=Z,1µm,18.9s,baz=90,slow=41						
	comp=Z,8.8nm,1.1s						
KBZ	Khabaz	28.82	300	d iP	P	11 03 12.1	+0.6
KBZ				pmax	pmax		
	comp=Z,18nm,1.3s						
GOF	Gofitskoye	28.91	302	ceP	P	11 03 14.0	+1.7
KVAR	Kislovodsk Arr	29.00	300	P	P	11 03 13.0	-0.2
	comp=Z,2.1nm,0.4s,baz=7.1,slow=8.1,SNR=1.5						
KVAR				LR	LR	11 16 39.6	
	comp=Z,1µm,19.1s,slow=40						
	comp=Z,2.1nm,0.4s						
SHA1	Shidzhatmaz	29.00	300	d iP	P	11 03 14.5	+1.1
KIV	Kislovodsk	29.00	300	eP	P	11 03 13.9	+0.7
KIV				eS	S	11 08 05.9	+1.4
KIV				pmax	pmax		
	comp=Z,16nm,1.0s						
KIV				MLR	MLR		
	comp=Z,569nm,15.0s						
KIV	Kislovodsk	29.00	300	P	P	11 03 13.1	-0.1
KIV				IAmb	IAmb	11 04 04.5	
	comp=Z,62nm,1.0s						
GULI	GuiLin	29.23	99	P	P	11 03 16.5	+1.2
GULI				S	S	11 08 13.5	+5.2
GULI				pmax	pmax		
	comp=Z,10.0nm,1.2s						
GULI				L	L		
	comp=Z,4µm,16.1s						
GULI				L	L		
	comp=Z,1µm,16.7s						
GULI				L	L		
	comp=Z,2µm,21.2s						
HNS	HongShan	29.66	73	⇑P	P	11 03 24.3	+5.3
HNS				S	S	11 08 21.3	+6.5
HNS				pmax	pmax		
	comp=Z,10.0nm,0.8s						
HNS				L	L		
	comp=Z,6µm,19.1s						
HNS				L	L		
	comp=Z,890nm,18.3s						
HNS				L	L		
	comp=Z,2µm,12.8s						
KOPT	Kop Dagi	30.43	292	P	P	11 03 24.1	-2.0
KOPT				IAmb	IAmb	11 03 36.4	
	comp=Z,31nm,1.1s						
RAYN	Ar Rayn	30.43	258	P	P	11 03 25.9	-0.2
RAYN	Ar Rayn	30.43	258	P	P	11 03 25.8	-0.2
RAYN	Ar Rayn	30.43	258	P	P	11 03 24.8	-1.2
RAYN				PcP	PcP	11 06 25.9	+0.3
RAYN	Ar Rayn	30.43	258	i P	P	11 03 25.5	-0.5
	SNR=19						
RAYN	Ar Rayn	30.43	258	P	P	11 03 25.7	-0.3
	comp=Z,25nm,1.5s						
LABN	Labinsk	30.48	301	eP	P	11 03 25.6	-0.7
LABN				eS	S	11 08 28.9	+1.3
LABN				pmax	pmax		
	comp=Z,40nm,0.7s						
LABN				MLR	MLR		
	comp=E,3µm,12.0s						
BJT	Baijiatuau	30.66	68	P	P	11 03 31.1	+3.3
BJI2	Beijing	30.66	68	P	P	11 03 33.3	+5.5
BJI2				S	S	11 08 36.5	+6.1
BJI2				pmax	pmax		
	comp=E,7.0nm,0.7s						
BJI2				L	L		
	comp=E,1µm,23.9s						
BJI2				L	L		
	comp=E,390nm,19.6s						
WHN	Wuhan	30.66	87	P	P	11 03 31.3	+3.4
WHN				S	S	11 08 30.5	-0.1
WHN				pmax	pmax		
	comp=E,66nm,1.2s						
WHN				L	L		
	comp=E,4µm,10.5s						
WHN				L	L		
	comp=E,4µm,11.2s						
WHN				L	L		
	comp=E,6µm,11.8s						
XLT	XiLinHaoTe	30.72	60	eP	P	11 03 30.0	+1.5
XLT				pP	sP	11 03 34.5	+0.1
XLT				PP	PnPn	11 04 27.8	-0.2
XLT				S	S	11 08 34.0	+2.5
XLT				pmax	pmax		
	comp=E,6.0nm,0.8s						
XLT				pmax	pmax		
	comp=E,130nm,3.5s						
XLT				L	L		
	comp=E,1µm,10.6s						
XLT				L	L		
	comp=E,1µm,11.5s						
ERBR	Yeremizino-Bor	30.80	303	eP	P	11 03 29.5	+0.5
ERBR				pmax	pmax		
	comp=Z,58nm,1.3s						
KIRV	Kirov	30.95	331	P	P	11 03 30.2	+0.1
	comp=Z,101nm,0.7s,baz=98,slow=3.1,SNR=15						
KIRV				LR	LR	11 16 45.1	
	comp=Z,2µm,20.0s,baz=133,slow=38						
KIRV	Kirov	30.95	331	deP	P	11 03 29.9	-0.2
SOC	Sochi	31.11	299	eP	P	11 03 32.5	+0.8
SOC				e		11 04 28.7	
SOC				eS	S	11 08 40.8	+3.5
SOC				eSS	ScP	11 10 13.4	+3.3
SOC				pmax	pmax		
	comp=Z,7.0nm,0.7s						
SOC				MLR	MLR		
	comp=Z,645nm,21.0s						
VRH	Novokhopyorsk	31.28	314	eP	P	11 03 32.8	-0.3
VRH				pmax	pmax		
	comp=Z,43nm,0.8s						
KELT	Kelkit	31.37	292	P	P	11 03 36.5	+2.1
	comp=Z,129nm,1.3s						
QIZ	Qiongzhong	31.95	110	P	P	11 03 38.5	-0.9
QIZ				S	S	11 08 50.5	-0.4
QIZ				L	L		
	comp=Z,580nm,8.7s						
QIZ				L	L		
	comp=Z,670nm,9.7s						
QIZ				L	L		
	comp=Z,1µm,15.6s						
ARPR	Arapgir-MALATY	32.14	290	P	P	11 03 40.5	-0.5
ARPR				PcP	PcP	11 06 29.5	-0.5
ARPR	Arapgir-MALATY	32.14	290	P	P	11 03 43.2	+2.2
	comp=Z,60nm,1.4s						
VORD	Divnogorie	32.67	313	eP	P	11 03 43.0	-2.4
VORD				pmax	pmax		
	comp=Z,40nm,1.0s						
BSI	Banda Aceh	32.72	147	P	P	11 03 43.9	-2.3
	comp=Z,32nm,1.0s,comp=Z,32nm,1.0s						
VSR	Storozhevoye	32.82	313	eP	P	11 03 46.2	-0.5
VSR				pmax	pmax		
	comp=Z,49nm,0.9s						
ANN	Anapa	32.84	301	eP	P	11 03 47.1	+0.2
ANN				e*PP	pP	11 03 50.0	-1.0
ANN				e		11 04 55.7	
ANN				eS	S	11 09 05.1	+0.9
ANN				pmax	pmax		
	comp=Z,26nm,1.1s						
ANN				MLR	MLR		
	comp=Z,1µm,12.0s						
VORR	Voronezh	32.92	314	eP	P	11 03 47.7	+0.2
VORR				pmax	pmax		
	comp=Z,31nm,0.6s						
GAZ	Gaziantep	33.21	287	P	P	11 03 50.0	-0.4
LPSR	Galich'ya Gora	33.36	315	eP	P	11 03 51.4	0.0
LPSR				pmax	pmax		
	comp=Z,73nm,0.9s						
ANDN	Andirin	33.84	288	P	P	11 03 59.0	+3.1
	comp=Z,76nm,1.2s						
KAAM	Kaadhehdhoo	33.94	189	P	P	11 04 01.7	+4.9
NJ2	Nanjing	33.97	82	eP	P	11 03 56.3	-0.6
NJ2				pmax	pmax		
	comp=Z,7.0nm,0.5s						
NJ2				L	L		
	comp=Z,1µm,11.4s						
NJ2				L	L		
	comp=Z,570nm,11.6s						
NJ2				L	L		
	comp=Z,1µm,15.2s						
HILR	Hailar Array B	34.03	51	P	P	11 03 58.2	+0.9
	comp=Z,1.1nm,0.3s,baz=255,slow=10,SNR=1.7						
HILR				LR	LR	11 18 53.9	
	comp=Z,678nm,19.1s,baz=75,slow=38						
	comp=Z,1.1nm,0.3s						
ASF	Jabal al Asfar	34.44	278	P	P	11 04 00.4	-0.7
	comp=Z,1.8nm,0.6s,baz=154,slow=4.0,SNR=4.1						
ASF				LR	LR	11 19 40.5	
	comp=Z,1µm,19.0s,baz=64,slow=39						
	comp=Z,1.8nm,0.6s						
DL2	Dalian	34.95	69	P	P	11 04 06.0	+0.7
DL2				S	S	11 09 37.5	+0.4
DL2				pmax	pmax		
	comp=Z,22nm,1.0s						
DL2				pmax	pmax		
	comp=Z,240nm,4.3s						
DL2				L	L		
	comp=Z,3µm,18.0s						
DL2				L	L		
	comp=Z,730nm,17.6s						
DL2				L	L		
	comp=Z,2µm,19.1s						
MOS	Moscow	35.11	320	eP	P	11 04 07.3	+0.8
MOS				e		11 05 22.4	
MOS				ePPP	PPP	11 05 39.9	
MOS				eS	S	11 09 38.5	-0.7
MOS				pmax	pmax		
	comp=Z,67nm,0.7s						
MOS				MLR	MLR		
	comp=Z,2µm,16.0s						
SIM	Simferopol'	35.20	301	eP	P	11 04 08.6	+1.2
SIM				pmax	pmax		
	comp=Z,45nm,1.3s						
SIM				MLR	MLR		
	comp=Z,700nm,19.0s						
DLV	Lat	35.41	122	P	P	11 04 09.5	-0.3
MMAI	Mount Meron Ar	35.45	280	LR	LR	11 19 50.7	
	comp=Z,688nm,20.4s,baz=77,slow=38						
OBN	Obninsk	35.47	319	P	P	11 04 09.4	-0.2
	comp=Z,45nm,0.5s,baz=103,slow=13,SNR=10.0						
OBN				LR	LR	11 19 45.5	
	comp=Z,3µm,18.6s,baz=110,slow=38						
	comp=Z,45nm,0.5s						
OBN	Obninsk	35.47	319	ceP	P	11 04 09.6	0.0
OBN				e*PP	pP	11 04 13.2	-0.5
OBN				e*SP	sP	11 04 15.4	0.0
OBN				e		11 05 28.6	
OBN				e		11 06 39.4	
OBN				pmax	pmax		
	comp=Z,50nm,1.1s						
OBN				MLR	MLR		
	comp=Z,2µm,17.0s						
OBN	Obninsk	35.47	319	P	P	11 04 09.7	+0.2
OBN	Obninsk	35.47	319	P	P	11 04 09.8	+0.2
	comp=Z,84nm,1.2s						
NRIK	Noril'sk	35.52	6	P	P	11 04 10.5	+0.6
	comp=Z,25nm,1.0s,baz=180,slow=5.1,SNR=9.8						
NRIK				LR	LR	11 20 12.7	
	comp=Z,657nm,19.6s,baz=196,slow=39						
	comp=Z,25nm,1.0s						
NRIK	Noril'sk	35.52	6	c iP	P	11 04 10.2	+0.3
NRIK				pmax	pmax		
	comp=Z,56nm,1.3s						
NRIK	Noril'sk	35.52	6		P	11 04 10.6	+0.6
NRIK				IAmb	IAmb	11 04 14.0	
	comp=Z,55nm,1.2s						
NRIK				PcP	PcP	11 06 36.9	-1.9
ILGA	Ilgaz	35.55	294		P	11 04 09.4	-1.4
ILGA				IAmb	IAmb	11 04 17.7	
	comp=Z,21nm,1.0s						
ILGA				PcP	PcP	11 06 38.3	-1.5
KIRS	Kirsehir-Merke	35.56	291	⇓P	P	11 04 11.5	+0.8
TPTI		35.56	146	P	P	11 04 08.1	-2.6
	comp=Z,26nm,1.2s,comp=Z,26nm,1.2s						
KULM	Kulim	35.56	139	P	P	11 04 11.1	+0.3

KULM	Kulim	35.56	139	P	P	11 04 09.0	-1.8
KULM				IAmb	IAmb	11 04 16.9	
	comp=Z,56nm,1.4s						
BR104	Keskin Array S	35.71	292	P	P	11 04 12.5	+0.4
	comp=Z,90nmcomp=Z,9.6nm,1.2s						
BR131	Keskin Array S	35.71	292	P	P	11 04 12.6	+0.6
	SNR=16						
BR131	Keskin Array S	35.71	292	*ce*P	P	11 04 12.3	+0.2
BR131	Keskin Array S	35.71	292	P	P	11 04 11.0	-1.1
BRTR	Keskin Array B	35.71	292	P	P	11 04 11.9	-0.1
	comp=Z,3.5nm,0.6s,baz=97,slow=8.7,SNR=18						
BRTR				PP	PP	11 05 33.9	+0.8
	comp=Z,5.4nm,1.0s,baz=93,slow=6.3,SNR=3.8						
BRTR				LR	LR	11 22 47.8	
	comp=Z,341nm,18.4s,baz=92,slow=43						
	comp=Z,3.5nm,0.6s						
BRTR	Keskin Array B	35.71	292	*i* P	P	11 04 12.5	+0.4
BRTR				pmax	pmax		
	comp=Z,4.0nm,0.6s						
BRTR	Keskin Array B	35.71	292		P	11 04 12.0	-0.1
BRTR				PcP	PcP	11 06 39.8	-0.4
BR106	Keskin Array S	35.73	292	P	P	11 04 12.6	+0.4
	comp=Z,99nmcomp=Z,11nm,1.1s						
BR106				pP	pP	11 04 16.4	0.0
	comp=Z,99nmcomp=Z,11nm,1.1s						
BR105	Keskin Array S	35.73	292	P	P	11 04 12.7	+0.5
	comp=Z,129nmcomp=Z,11nm,0.9s						
GHAJ	Ghor Haditha	35.76	277	P	P	11 04 12.2	-0.2
GHAJ	Ghor Haditha	35.76	277	P	P	11 04 16.8	+4.4
	comp=Z,24nm,1.6s						
SNSI	Sinabang, Aceh	35.93	148	P	P	11 04 12.7	-1.2
SNY	Shenyang	36.20	64	P	P	11 04 10.8	-5.2
SNY				S	S	11 09 57.0	+0.8
SNY				pmax	pmax		
	comp=Z,4.0nm,0.4s						
SNY				pmax	pmax		
	comp=Z,150nm,3.6s						
SNY				LR	LR		
	comp=N,590nm,17.2s						
SNY				LR	LR		
	comp=E,690nm,12.7s						
SNY				LR	LR		
	comp=Z,620nm,13.7s						
KLMR	Klimovskoe	36.37	329	*e*P	P	11 04 15.2	-2.0
KLMR				*e*		11 05 38.0	
KLMR				pmax	pmax		
	comp=Z,90nm,1.3s						
KLMR				MLR	MLR		
	comp=Z,981nm,11.0s						
IPM	Ipoh	36.44	139	P	P	11 04 17.5	-0.8
EIL	Elat	36.76	275	P	P	11 04 19.8	-1.2
	comp=Z,8.6nm,1.0s,baz=324,slow=4.3,SNR=5.0						
EIL				LR	LR	11 21 04.6	
	comp=Z,2µm,21.8s,baz=87,slow=39						
	comp=Z,8.6nm,1.0s						
EIL	Elat	36.76	275	P	P	11 04 23.3	+2.3
	comp=Z,15nm,1.6s						
KZIT	Kziot	36.84	277	P	P	11 04 23.6	+1.9
	comp=Z,25nm,1.4s						
GSI	Gunungsitoli	37.47	147	P	P	11 04 26.6	-0.5
GSI	Gunungsitoli	37.47	147	P	P	11 04 25.6	-1.5
GSI	Gunungsitoli	37.47	147	P	P	11 04 27.8	+0.7
	comp=Z,56nm,1.4s						
CN2	Changchun	37.49	61	P	P	11 04 38.0	+11
CN2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
CN2				LR	LR		
	comp=N,600nm,15.0s						
CN2				LR	LR		
	comp=E,600nm,15.0s						
CN2				LR	LR		
	comp=Z,800nm,16.0s						
MDUB	Mudurnu	37.50	294	P	P	11 04 27.3	0.0
MDUB				IAmb	IAmb	11 04 40.0	
	comp=Z,24nm,0.9s						
BORA	Eskisehir	38.13	293	P	P	11 04 32.4	-0.2
PURM	Purcari	38.21	304	P	P	11 04 34.8	+1.7
BNX	BinXian	38.85	58	⇓P	P	11 04 42.8	+4.4
BNX				pmax	pmax		
	comp=Z,16nm,1.1s						
AK09	Malin Array Si	38.85	310	P	P	11 04 38.7	+0.3
AK10	Malin Array Si	38.87	310	P	P	11 04 38.7	+0.2
AK08	Malin Array Si	38.87	310	P	P	11 04 38.7	+0.2
YLV	Yalova	38.87	294	P	P	11 04 39.1	+0.3
	comp=Z,11nm,1.1s						
AK07	Malin Array Si	38.89	310	P	P	11 04 38.5	-0.2
AKASG	Malin Array Be	38.89	310	P	P	11 04 38.9	+0.1
	comp=Z,3.7nm,0.5s,baz=81,slow=7.8,SNR=33						
AKASG				PP	PP	11 06 04.2	-3.5
	comp=Z,8.7nm,0.9s,baz=73,slow=9.9,SNR=4.9						
AKASG				LR	LR	11 23 23.3	
	comp=Z,2µm,19.7s,baz=88,slow=40						
	comp=Z,3.7nm,0.5s						
AKASG	Malin Array Be	38.89	310	*i* P	P	11 04 38.2	-0.6
AKASG				pmax	pmax		
	comp=Z,12nm,0.6s						
AKASG	Malin Array Be	38.89	310	P	P	11 04 38.8	+0.1
AKBB	Malin Array Si	38.89	310	*ce*P	P	11 04 38.3	-0.5
AKBB				pmax	pmax		
	comp=Z,67nm,1.6s						
AKBB	Malin Array Si	38.89	310		P	11 04 38.8	0.0
AKBB				IAmb	IAmb	11 05 51.3	
	comp=Z,107nm,1.6s						
AKBB	Malin Array Si	38.89	310	P	P	11 04 38.2	-0.5
AK06	Malin Array Si	38.90	310	P	P	11 04 39.1	+0.3
KIEV	Kiev	38.90	310	P	P	11 04 38.3	-0.5
KIEV				pmax	pmax		
	comp=Z,105nm,1.6s						
KIEV	Kiev	38.90	310	P	P	11 04 38.3	-0.5
KIEV				IAmb	IAmb	11 05 51.3	
	comp=Z,105nm,1.6s						
KIEV	Kiev	38.90	310	P	P	11 04 38.4	-0.4
	comp=Z,105nm,0.7s						
HEH	HeiHe	39.03	51	*e*P	P	11 04 46.5	+6.6
HEH				pmax	pmax		
	comp=Z,9.0nm,1.0s						
HEH				LR	LR		
	comp=N,2µm,13.7s						
HEH				LR	LR		
	comp=E,1µm,12.6s						
HEH				LR	LR		
	comp=Z,2µm,14.3s						
ELL	Elmali	39.05	288	P	P	11 04 39.7	-0.7
ELL				pmax	pmax		
	comp=Z,81nm,0.8s						
ELL	Elmali	39.05	288	P	P	11 04 39.7	-0.7
INCN	Inchon	39.05	71	P	P	11 04 39.6	-0.7
INCN				pmax	pmax		
	comp=Z,114nm,1.8s						
INCN	Inchon	39.05	71	P	P	11 04 39.6	-0.7
INCN				IAmb	IAmb	11 05 03.0	
	comp=Z,114nm,1.8s						
TWG	Pinlang	39.11	95	P	P	11 04 39.7	-1.2
TPGR	Topolog	39.25	301	⇑P	P	11 04 43.1	+1.3
TIRR	Tirgusor	39.27	300	P	P	11 04 40.8	-1.2
TIRR				pmax	pmax		
	comp=Z,18nm,1.1s						
TIRR	Tirgusor	39.27	300	P	P	11 04 40.8	-1.2
SORM	Soroca	39.29	306	P	P	11 04 43.3	+1.2
SORM	Soroca	39.29	306	⇓P	P	11 04 43.3	+1.2
SORM	Soroca	39.29	306	P	P	11 04 42.5	+0.4
	comp=Z,35nm,0.8s						
ATD	Arta Tunnel	39.33	243	LR	LR	11 23 53.4	
	comp=Z,16nm,19.2s,baz=42,slow=41						
ZEA	Zeya	39.37	45	*e*P	P	11 04 48.1	+5.4
CFR	Carcaliu	39.44	301	P	P	11 04 44.6	+1.3
CFR	Carcaliu	39.44	301	⇓P	P	11 04 44.6	+1.3
HARR	Harsova	39.60	301	P	P	11 04 45.9	+1.2
HARR	Harsova	39.60	301	⇓P	P	11 04 46.0	+1.2
MI29	MI29, Kamyanyy	39.74	310	P	P	11 04 44.6	-1.2
	comp=Z,159nm,1.1s						
LUBAR	Lubar, Ukraine	39.77	309	P	P	11 04 45.3	-0.8
MANT	Manisa	39.79	291		P	11 04 45.1	-1.6
BAND	Balkesir-Ban	39.86	294	⇑P	P	11 04 47.4	+0.4
MI28	Mi28,Pidlybu	39.90	310	P	P	11 04 45.9	-1.2
BKNI	Bangkinang	39.97	143	P	P	11 04 47.6	-0.5
KSRS	Korea Array	40.07	71	P	P	11 04 49.4	+0.6
	comp=Z,4.7nm,1.1s,baz=282,slow=6.6,SNR=6.0						
KSRS				LR	LR	11 23 31.4	
	comp=Z,690nm,18.1s,baz=250,slow=39						
	comp=Z,4.7nm,1.1s						
PUL	Pulkovo	40.14	324	⇑*e*P	P	11 04 50.4	+1.4
PUL				pmax	pmax		
	comp=Z,90nm,0.7s						
MNK	Minsk	40.20	316	*d i*P	P	11 04 50.0	+0.4
MNK	Minsk	40.20	316	*i* P	P	11 04 50.4	+0.7
	comp=E,14nm,0.6s						
MNK				*i* P	P	11 04 50.4	+0.7
	comp=N,23nm,1.0s						
MNK				*i* P	P	11 04 50.4	+0.7
	comp=Z,32nm,0.9s,baz=99						
MNK				*i* PP	PP	11 06 23.2	+1.3
MNK				*i* PPP	PPP	11 06 47.5	
MNK				*i* S	S	11 10 59.5	+3.0
MNK				*i* SS	SnSn	11 13 58.4	+0.2
MNK				*i* SSS	SSS	11 14 20.6	
MNK				*i* LQ	LQ	11 18 33.2	
MNK				*i* LR	LR	11 21 13.7	
MNK				*i* LRM	MLR	11 22 41.1	
	comp=E,492nm,13.9s						
MNK				*i* LRM	MLR	11 22 43.0	
	comp=Z,2µm,17.3s						
MNK				*i* LRM	MLR	11 22 50.8	
	comp=N,2µm,18.6s						
MYKOM	Kota Tinggi	40.22	138	P	P	11 04 50.4	+0.2
MYKOM	Kota Tinggi	40.22	138	P	P	11 04 49.3	-0.9
VRI	Vrincioaia	40.40	303	P	P	11 04 53.4	+2.0
VRI	Vrincioaia	40.40	303	⇓P	P	11 04 53.7	+2.3
VRI	Vrincioaia	40.40	303	P	P	11 04 53.2	+1.8
	comp=N,871nmcomp=N,68nm,1.2s						
SAHR	Sahastru	40.44	302	⇑P	P	11 04 53.5	+1.8
TESR	Tescani	40.44	304	⇓P	P	11 04 53.0	+1.3
TESR	Tescani	40.44	304	P	P	11 04 52.8	+1.1
	comp=N,44nm,1.3s						
PLOR	Plostina	40.46	303	P	P	11 04 53.9	+2.0
PLOR	Plostina	40.46	303	⇑P	P	11 04 53.9	+2.0
BTDF	Bukit Timah Da	40.54	138	P	P	11 04 53.1	+0.3
BTDF	Bukit Timah Da	40.54	138	P	P	11 04 51.3	-1.5
	comp=N,382nmcomp=N,382nmcomp=N,27nm,1.2s, comp=N,27nm,1.2s						
KMPD	K-Podol'skiy	40.56	307	P	P	11 04 52.5	-0.2
ONER	Baraj Valea Uz	40.62	303	⇑P	P	11 04 54.9	+1.7
NEHR	Nehoiu	40.72	302	⇑P	P	11 04 55.9	+1.8
COVR	Voineasa-Covas	40.77	303	⇑P	P	11 04 56.2	+1.8
BIZ	Bicaz	40.80	304	⇓P	P	11 04 56.2	+1.5
NACGM	Naroch	40.90	316	*e*P	P	11 04 55.8	+0.4
MLR	Muntele Rosu	40.97	302	P	P	11 04 57.3	+1.1
	comp=N,128nm,1.1s,baz=69,slow=8.6,SNR=55						
MLR				LR	LR	11 26 34.6	
	comp=N,627nm,18.6s,baz=186,slow=43						
MLR	Muntele Rosu	40.97	302	⇑P	P	11 04 58.4	+2.1
RNPP5	Staryi Chortor	41.04	311	P	P	11 04 56.7	+0.1
RNPP8	Varash	41.07	311	P	P	11 04 57.2	+0.4
DOPR	Dopca	41.33	303	⇑P	P	11 05 00.9	+1.7
ALN	Alexandroupoli	41.34	295	P	P	11 04 58.5	-0.6
ALN				pmax	pmax		
	comp=Z,3.0nm,1.1s						
ALN	Alexandroupoli	41.34	295	P	P	11 04 58.5	-0.6
BURAR	Bucovina Array	41.40	305	P	P	11 05 01.2	+1.5
BURAR	Bucovina Array	41.40	305	P	P	11 05 00.2	+0.5
BURAR	Bucovina Array	41.40	305	⇑P	P	11 05 01.5	+1.8
BUR08	Bucovina Ar. S	41.41	305	P	P	11 04 59.6	-0.2
KARP	Karpathos	41.48	287		P	11 04 59.2	-1.2
KARP	Karpathos	41.48	287	P	P	11 05 01.0	+0.5
	comp=Z,119nm,1.0s						
VSU	Vasula	41.58	322	⇓*i*P	P	11 05 00.0	-0.9
VSU				pmax	pmax		
	comp=Z,209nm,4.4s						
VOIR		41.60	302	P	P	11 05 02.3	+1.0
VOIR		41.60	302	⇑P	P	11 05 02.4	+1.0
VOIR		41.60	302	P	P	11 05 02.1	+0.7
	comp=Z,21nm,1.3s						
LVZ	Lovozero	41.76	337	*de*P	P	11 05 04.4	+2.1
LVZ				pmax	pmax		
	comp=Z,51nm,0.9s						
LVZ	Lovozero	41.76	337	P	P	11 05 00.9	-1.4
LVZ				IAmb	IAmb	11 05 21.4	
	comp=Z,46nm,0.8s						
KLR	Kul'dur	41.79	52	P	P	11 05 03.8	+1.0
	comp=Z,4.3nm,0.8s,baz=276,slow=8.3,SNR=11						
KLR				LR	LR	11 24 19.6	
	comp=Z,756nm,18.1s,baz=266,slow=39						
	comp=Z,4.3nm,0.8s						
KLR	Kul'dur	41.79	52	⇓*e*P	P	11 05 04.4	+1.6
KLR				pmax	pmax		
	comp=Z,26nm,2.0s						
ARR	Arges	41.90	302	⇓P	P	11 05 04.9	+1.1
ARCR	ARCALIA	42.00	304	⇓P	P	11 05 06.1	+1.5
APA	Apatity	42.01	336	⇓*e*P	P	11 05 06.2	+1.9
APA				pmax	pmax		
	comp=Z,46nm,1.1s						
APA				MLR	MLR		
	comp=Z,1µm,5.8s						
MDB	Medias	42.02	303	P	P	11 05 06.6	+1.9
MDB	Medias	42.02	303	⇓P	P	11 05 06.7	+1.9
USRK	Ussuriysk Ar.	42.18	60	P	P	11 05 07.3	+1.3
	comp=Z,1.6nm,0.5s,baz=265,slow=6.4,SNR=4.5						
	comp=Z,1.6nm,0.5s						
LOT	Lotru	42.50	302	⇑P	P	11 05 09.8	+1.1
YAK	Yakutsk	42.50	33	P	P	11 05 09.0	+0.7
	comp=Z,21nm,0.5s,baz=251,slow=13,SNR=6.7						
YAK				LR	LR	11 24 38.8	
	comp=Z,2µm,18.1s,baz=253,slow=39						
	comp=Z,21nm,0.5s						
YAK	Yakutsk	42.50	33	*e*P	P	11 05 08.5	+0.1
YAK				*e**PP	sP	11 05 16.2	+1.9
YAK				*e*		11 06 45.5	
YAK				*e*		11 07 00.7	
YAK				*e*PPP	PPP	11 07 19.2	
YAK				*e*S	S	11 11 29.1	-1.3
YAK				*e*SS	SS	11 14 39.3	-0.2
YAK				*e*		11 15 08.8	
YAK				pmax	pmax		
	comp=Z,28nm,1.3s						
YAK				pmax	pmax		
	comp=N,5.0nm,1.4s						
YAK				pmax	pmax		
	comp=E,17nm,1.4s						
YAK				pmax	pmax		
	comp=Z,123nm,4.6s						
YAK				pmax	pmax		
	comp=N,121nm,4.7s						
YAK				pmax	pmax		
	comp=E,67nm,4.4s						
YAK				smax	smax		
	comp=N,89nm,3.5s						
YAK				smax	smax		
	comp=E,190nm,5.3s						
YAK				MLR	MLR		
	comp=Z,2µm,18.0s						
YAK				MLR	MLR		
	comp=N,780nm,22.0s						
YAK				MLR	MLR		
	comp=E,630nm,17.0s						
YAK	Yakutsk	42.50	33	P	P	11 05 08.4	+0.1
YAK				IAmb	IAmb	11 05 14.8	
	comp=Z,44nm,0.8s						
CJR	Cluj-Napoca	42.53	304	P	P	11 05 10.9	+2.0
CJR	Cluj-Napoca	42.53	304	⇑P	P	11 05 11.0	+2.0
PABE	Paberze	42.58	317		P	11 05 08.0	-1.0
FIA1	FINESS Array S	42.62	326	P	P	11 05 09.2	-0.2
FINES	FINESS Array B	42.62	326	P	P	11 05 09.3	0.0
	comp=Z,23nm,0.5s,baz=111,slow=8.9,SNR=135						
FINES				PP	PP	11 06 43.8	-4.1
	comp=Z,12nm,0.9s,baz=106,slow=15,SNR=2.1						
FINES				LR	LR	11 24 03.5	
	comp=Z,1µm,20.1s,baz=103,slow=38						
	comp=Z,23nm,0.5s						
DRGR		43.14	304	P	P	11 05 15.3	+1.5
DRGR		43.14	304	⇑P	P	11 05 15.4	+1.5
KOLS	Kolonicke sedl	43.33	307	*e*P	P	11 05 20.1	+4.8
KOLS	Kolonicke sedl	43.33	307	*e*P	P	11 05 20.1	+4.8
IDI	Anoyia	43.34	287	P	P	11 05 15.5	-0.1
IDI				IAmb	IAmb	11 05 46.0	
	comp=Z,35nm,1.2s						
JOW	Kunigami	43.42	86	LR	LR	11 24 52.2	
	comp=Z,1µm,21.3s,baz=265,slow=38						
SURR	Surduc	43.62	303	⇑P	P	11 05 19.2	+1.5
SIRR	Siria	43.90	303	⇓P	P	11 05 21.6	+1.7
BZS	Buzias	43.99	303	P	P	11 05 21.9	+1.3
BZS	Buzias	43.99	303	⇑P	P	11 05 21.9	+1.3
STHS	Stebnicka Huta	43.99	308	*e*P	P	11 05 24.1	+3.4
STHS	Stebnicka Huta	43.99	308	*e*P	P	11 05 24.1	+3.4
MDVR	Moldovita	44.01	301	⇓P	P	11 05 22.5	+1.6
BOVS	Bovan	44.16	300	⇑P	P	11 05 23.2	+1.2
VADS	Vadso	44.51	338	*e*P	P	11 05 24.8	+0.3
SBUM	Sibu	44.80	127	P	P	11 05 27.7	+0.2
SBUM	Sibu	44.80	127		P	11 05 27.3	-0.2
OJC	Ojcow	44.90	309	P	P	11 05 27.6	-0.2
OJC	Ojcow	44.90	309	P	P	11 05 27.6	-0.2
PSZ	Piszkesteto	44.97	306	P	P	11 05 28.6	0.0
PSZ				pmax	pmax		
	comp=Z,16nm,1.0s						
PSZ	Piszkesteto	44.97	306	P	P	11 05 28.6	0.0
KKM	Kota Kinabalu	44.98	120	P	P	11 05 29.8	+0.8
KKM	Kota Kinabalu	44.98	120	P	P	11 05 27.7	-1.2
KEV	Kevo	45.08	337	P	P	11 05 29.9	+0.9
KEV				pmax	pmax		
	comp=Z,252nm,2.0s						
KEV	Kevo	45.08	337	P	P	11 05 29.9	+0.9
ARA0	ARCESS Array S	45.48	337	*e*P	P	11 05 32.5	+0.3
ARCES	ARCESS Array B	45.48	337	P	P	11 05 32.5	+0.3
	comp=Z,23nm,0.7s,baz=104,slow=7.5,SNR=21						
ARCES				LR	LR	11 25 09.1	
	comp=Z,856nm,18.7s,baz=109,slow=37						
ARCES	ARCESS Array B	45.48	337	P	P	11 05 31.7	-0.5
ARCES				pmax	pmax		
	comp=Z,2µm,1.0s						
ARCES	ARCESS Array B	45.48	337	P	P	11 05 31.7	-0.5
VYHS	Vyhne	45.63	307	*e*P	P	11 05 35.4	+1.7
VYHS	Vyhne	45.63	307	*e*P	P	11 05 35.4	+1.7
TIXI	Tiksi	45.76	20	P	P	11 05 35.4	+1.0
	comp=Z,5.4nm,0.5s,baz=200,slow=6.1,SNR=5.3						
TIXI				LR	LR	11 26 47.4	
	comp=Z,1µm,18.6s,baz=262,slow=39						
	comp=Z,5.4nm,0.5s						
TIXI	Tiksi	45.76	20	⇓*e*P	P	11 05 36.3	+2.0
TIXI				pmax	pmax		
	comp=Z,17nm,0.9s						
TIXI	Tiksi	45.76	20	P	P	11 05 34.8	+0.4
TIXI				IAmb	IAmb	11 05 42.5	
	comp=Z,18nm,1.0s						
OKC	Ostrava-Krasne	45.98	309	AMS	AMS	11 27 20.0	
	comp=Z,700nm,17.6s						
MORH	Mrgy, Hungar	45.99	304	⇓P	P	11 05 37.3	+0.8
MORH	Mrgy, Hungar	45.99	304	P	P	11 05 37.3	+0.8
	comp=Z,19nm,1.6s						
KTK1	Kautokeino	46.04	336	*e*P	P	11 05 36.5	-0.2
STEB	Steborice	46.22	309	*e*P	P	11 05 39.2	+0.9
JAVC	Velka Javorina	46.37	307	*e*P	P	11 05 40.1	+0.5
MORC	Moravsky Berou	46.38	309	P	P	11 05 38.4	-1.2
MORC				pmax	pmax		
	comp=Z,21nm,1.0s						
MORC	Moravsky Berou	46.38	309	P	P	11 05 38.4	-1.2
MORC				IAmb	IAmb	11 05 47.4	
	comp=Z,21nm,1.0s						
MORC	Moravsky Berou	46.38	309	*e*P	P	11 05 40.3	+0.7
HAMF	Hammerfest	46.47	338	*e*P	P	11 05 39.9	-0.1
MODS	Modra-Piesok	46.67	307	*e*P	P	11 05 44.1	+2.2
MODS	Modra-Piesok	46.67	307	*e*P	P	11 05 44.1	+2.2
KRLC	Kraliky	46.84	309	*e*P	P	11 05 44.3	+1.0
KRLC	Kraliky	46.84	309	*e*P	P	11 05 44.3	+1.0
VRAC	Vranov	47.03	308	P	P	11 05 44.9	+0.2
	comp=Z,7.5nm,0.8s,baz=59,slow=5.7,SNR=6.1						
VRAC				LR	LR	11 28 03.5	
	comp=Z,545nm,20.0s,baz=84,slow=39						
	comp=Z,7.5nm,0.8s						
VRAC	Vranov	47.03	308	*e*P	P	11 05 45.6	+0.9
VRAC	Vranov	47.03	308	⇑P	P	11 05 45.9	+1.2
DPC	Dobruska-Polom	47.12	310	*e*P	P	11 05 46.6	+1.2
DPC				MLR	MLR		
	comp=Z,1µm,15.1s						
DPC	Dobruska-Polom	47.12	310	*e*P	P	11 05 46.6	+1.2
DPC				AMS	AMS	11 27 20.0	
	comp=Z,1µm,15.1s						
DPC	Dobruska-Polom	47.12	310	P	P	11 05 46.3	+0.9
	comp=Z,11nm,0.9s						
OSTC	Ostas	47.17	310	AMS	AMS	11 27 30.0	
	comp=Z,1µm,17.6s						
KRUC	Moravsky	47.18	308	*e*P	P	11 05 47.2	+1.3
BLEU	Blekinge	47.21	318	*i* P	P	11 05 46.0	+0.1
MYLDM	Lahad Datu	47.22	119	P	P	11 05 47.2	+0.7
MYLDM	Lahad Datu	47.22	119	P	P	11 05 46.4	-0.2
CHVC	Chvalec	47.27	310	*e*P	P	11 05 47.8	+1.2
CHVC				MLR	MLR		
	comp=Z,1µm,17.9s						
CHVC	Chvalec	47.27	310	*e*P	P	11 05 47.8	+1.2
CHVC				AMS	AMS	11 27 30.0	
	comp=Z,1µm,17.9s						
UPC	Upice	47.30	310	*e*P	P	11 05 47.9	+1.1
UPC				MLR	MLR		
	comp=Z,1µm,17.9s						
UPC	Upice	47.30	310	*e*P	P	11 05 47.9	+1.1
UPC				AMS	AMS	11 27 30.0	
	comp=Z,1µm,17.9s						
RONA	Rosalia, Austr	47.40	306	*i* P	P	11 05 48.2	+0.5
	comp=Z,17nm,1.0s						
CONA	Conrad Observa	47.66	306	*i* pP	P	11 05 50.7	+0.9
	comp=Z,30nm,1.3s,SNR=14						
TRO	Tromso	47.69	336	*e*P	P	11 05 49.4	-0.1
ARSA	Arzberg	47.98	305	P	P	11 05 52.2	0.0
ARSA				IAmb	IAmb	11 05 59.7	
	comp=Z,21nm,1.3s						
ARSA	Arzberg	47.98	305	*e*pP	P	11 05 53.2	+1.0
	comp=Z,12nm,1.1s						
PVCC	Panska Ves	48.22	310	AMS	AMS	11 28 10.0	
	comp=Z,1µm,20.5s						
MJB9	Matsu-Tunnel	48.28	69	P	P	11 05 54.1	-0.6
MJB9				IAmb	IAmb	11 06 09.2	
	comp=Z,35nm,1.5s						
MAJO	Matsushiro	48.28	69	⇓*e*P	P	11 05 56.1	+1.5
MAJO				pmax	pmax		
	comp=Z,83nm,4.0s						
MAJO	Matsushiro	48.28	69	P	P	11 05 53.7	-1.0
DEL	Delary	48.29	318	*i* P	P	11 05 54.4	+0.1
MJAR	Matsushiro Arr	48.29	69	P	P	11 05 56.2	+1.6
	comp=Z,7.3nm,1.0s,baz=292,slow=9.2,SNR=7.6						
MJAR				PcP	PcP	11 07 24.4	+2.8
	comp=Z,1.2nm,0.5s,baz=288,slow=4.2,SNR=4.5						
MJAR				LR	LR	11 27 55.7	
	comp=Z,504nm,18.2s,baz=294,slow=38						
	comp=Z,7.3nm,1.0s						
MJAR	Matsushiro Arr	48.29	69	P	P	11 05 53.7	-1.0
MJAR					PcP	11 07 20.4	-1.1
SOKA	Soboth	48.40	305	*i* pP	P	11 05 56.2	+0.7
	comp=Z,55nm,1.3s,SNR=11						
HFS	Hagfors	48.42	323	P	P	11 05 55.8	+0.5
	comp=Z,27nm,0.6s,baz=96,slow=11,SNR=22						
HFS				LR	LR	11 27 24.2	
	comp=Z,2µm,20.6s,baz=91,slow=38						
	comp=Z,27nm,0.6s						
FAUS	Fauske	48.49	333	*e*P	P	11 05 56.1	+0.4
RICC	Richard	48.51	310	AMS	AMS	11 28 30.0	
	comp=Z,2µm,18.0s						
LUNU	Lund	48.55	317	*i* P	P	11 05 56.9	+0.5
UGL	Uglegorsk	48.55	52	*e*P	P	11 05 58.1	+1.6
UGL				*e*S	S	11 12 57.3	-0.7
UGL				MLR	MLR		
	comp=E,2µm,10.0s						
UGL				MLR	MLR		
	comp=N,1µm,11.0s						
UGL				MLR	MLR		
	comp=Z,2µm,13.0s						
BRG	Berggiesshubel	48.58	310	*e*P	P	11 05 57.4	+0.7
	comp=Z,13nm,0.8s,baz=88,slow=6.7						
BRG	Berggiesshubel	48.58	310	*e*P	P	11 05 57.7	+1.1
BRG				Amp		11 06 04.5	
	comp=Z,16nm,0.8s						
BRG	Berggiesshubel	48.58	310	Amp		11 07 54.1	
	comp=Z,9.8nm,1.1s						
BRG	Berggiesshubel	48.58	310	SS	SS	11 16 34.0	+6.0
BRG	Berggiesshubel	48.58	310	P	PcP	11 07 27.5	+5.2
BRG	Berggiesshubel	48.58	310	Amp		11 07 28.0	
	comp=Z,9.2nm,1.0s						
BRG	Berggiesshubel	48.58	310	PP	PP	11 07 53.1	+3.8
CKRC	Cesky Krumlov	48.58	308	*e*P	P	11 06 00.5	+3.8
CKRC				MLR	MLR		
	comp=Z,600nm,20.2s						
CKRC	Cesky Krumlov	48.58	308	*e*P	P	11 06 00.5	+3.8
CKRC				AMS	AMS	11 28 30.0	
	comp=Z,600nm,20.2s						
STEI	Steigen	48.61	333	*e*P	P	11 05 56.5	-0.2
MOR8	Moi Rana	48.63	331	*e*P	P	11 05 56.1	-0.7
TIP	Timpagrande	48.66	295	P	P	11 05 57.6	0.0
TIP				IAmb	IAmb	11 06 31.1	
	comp=Z,27nm,1.2s						
MOA	Molln	48.74	306	*i* P	P	11 05 58.6	+0.6
	comp=Z,53nm,1.9s						
OBKA	Obir	48.75	305	*i* P	P	11 05 58.3	0.0
	comp=Z,25nm,1.2s						
RAUS	Rausandaksla	48.83	331	*e*P	P	11 05 59.0	+0.7
FABU	Falkenberg	48.91	319	*i* P	P	11 05 59.3	+0.2
GEC2	GERESS Array S	48.97	308	P	P	11 05 59.2	-0.7
GEC2				IAmb	IAmb	11 06 07.5	

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      comp=Z,19nm,1.2s
GEC2  GERESS Array S   48.97 308 eP     P      11 06 00.6 +0.7
      comp=Z,41nm,1.6s,baz=88,slow=6.7
GERES GERESS Array B   48.97 308  P     P      11 06 00.2 +0.4
      comp=Z,1.7nm,0.6s,baz=100,slow=6.9,SNR=7.7
GERES                             PP    PP     11 07 52.7 -0.4
      comp=Z,4.9nm,0.8s,baz=82,slow=9.6,SNR=5.3
GERES                             LR    LR     11 30 02.0
      comp=Z,602nm,18.7s,baz=78,slow=40
      comp=Z,1.7nm,0.6s
GERES GERESS Array B   48.97 308  P     P      11 05 59.0 -0.9
KHC   Kasperske Hory   49.02 308 eP     P      11 06 01.0 +0.9
KHC                               MLR   MLR
      comp=Z,1µm,15.9s
KHC   Kasperske Hory   49.02 308 eP     P      11 06 01.0 +0.9
KHC                               AMS   AMS    11 28 40.0
      comp=Z,1µm,15.9s
CLL   Collm            49.12 311 eP     P      11 06 01.0 +0.2
CLL                               pmax  pmax
      comp=Z,37nm,1.8s
CLL   Collm            49.12 311  P     P      11 06 00.2 -0.6
CLL   Collm            49.12 311 eP     P      11 06 01.0 +0.2
      comp=Z,37nm,1.8s
CLL                              ePP    PP     11 07 59.0 +4.7
CLL                              ePPPP         11 08 58.0
CLL                              eS     S      11 13 00.0 -6.0
CLL                              eSS    SS     11 16 42.0 +5.3
CLL                              eSSS   SSS    11 18 06.0
CLL                               L     L      11 21 00.0
CLL                               AMS   AMS    11 25 00.0
      comp=N,1µm,18.1s
CLL                               AMS   AMS    11 25 00.0
      comp=E,800nm,33.0s
CLL                               AMS   AMS    11 30 00.0
      comp=Z,1µm,16.5s
LEIR  Leirfjorden      49.16 331 eP     P      11 06 01.6 +0.7
CUC   Castrocucco      49.17 296  P     P      11 06 01.1 -0.3
CUC                               IAmb  IAmb   11 06 25.8
      comp=Z,39nm,1.1s
VAGH  Vaagaholmen      49.17 332 eP     P      11 06 00.2 -0.7
BIOA  Bad Ischl, Aus   49.18 306 i P    P      11 06 02.0 +0.6
      comp=Z,29nm,1.7s
KONS  Konsvik          49.20 331 eP     P      11 06 02.0 +0.8
YSS   Yuzhno-Sakhali   49.32  55 eP     P      11 06 05.6 +3.2
YSS                              eS     S      11 13 11.6 +2.7
YSS                               pmax  pmax
      comp=Z,10.0nm,0.9s
YSS                               MLR   MLR
      comp=Z,900nm,14.0s
YSS                               MLR   MLR
      comp=N,600nm,13.0s
YSS                               MLR   MLR
      comp=E,700nm,14.0s
MYKA  Terra Mystica    49.35 305 i P    P      11 06 02.9 +0.2
      comp=E,12nm,1.1s
NC405 NORSAR Array S   49.42 324        P      11 06 02.5 -0.5
PRED  Cave del Predi   49.44 305  P     P      11 06 02.6 -0.8
PRED                              IAmb  IAmb   11 06 16.4
      comp=Z,28nm,1.3s
LEM   Lembang          49.45 140  LR    LR     11 29 12.8
      comp=Z,557nm,19.9s,baz=312,slow=39
WET   Wettzell         49.47 308 eP     P      11 06 04.1 +0.5
      comp=Z,41nm,1.7s,baz=88,slow=6.7
NC602 NORSAR Array S   49.50 324 eP     P      11 06 03.9 +0.3
NC602 NORSAR Array S   49.50 324  P     P      11 06 02.8 -0.8
TANN  Tannenbergstha   49.57 310 eP     P      11 06 05.2 +0.8
      comp=Z,40nm,1.7s,baz=88,slow=6.7
NC303 NORSAR Array S   49.59 324  P     P      11 06 04.1 -0.2
NC303                             IAmb  IAmb   11 06 09.8
      comp=Z,34nm,0.9s
NB2   NORSAR Subarra   49.67 324  P     P      11 06 04.2 -0.7
      comp=Z,21nm,0.7s,baz=91,slow=7.9
NB2   NORSAR Subarra   49.67 324  P     P      11 06 04.2 -0.7
NOA   NORSAR Array B   49.67 324  P     P      11 06 04.5 -0.5
      comp=Z,13nm,0.7s,baz=90,slow=7.6,SNR=39
NOA                               LR    LR     11 28 11.7
      comp=Z,2µm,19.5s,baz=90,slow=38
      comp=Z,13nm,0.7s
ASAJ  Asahikawa        49.73  58  P     P      11 06 06.4 +0.8
      comp=Z,7.9nm,0.9s,baz=287,slow=16,SNR=5.4
ASAJ                              LR    LR     11 27 44.0
      comp=Z,758nm,20.3s,baz=270,slow=37
      comp=Z,7.9nm,0.9s
PLN   Plauen           49.75 310 eP     P      11 06 06.5 +0.9
      comp=Z,6.1nm,1.3s,baz=88,slow=6.7
LESA  Schwarzleotal    49.87 306 eP     P      11 06 07.1 +0.4
      comp=Z,37nm,1.1s
MOX   Moxa             50.07 310 eP     P      11 06 08.1  0.0
      comp=Z,12nm,0.8s,baz=88,slow=6.7
MOX                              eL     L      11 29 34.6
      comp=Z,1µm,20.9s
ABTA  Abfaltersbach    50.10 305 epP    P      11 06 09.3 +0.8
      comp=Z,22nm,1.6s
FLTG  Flechtingen      50.10 313 eP     P      11 06 08.2  0.0
      comp=Z,28nm,1.0s,baz=88,slow=6.7
LODK  Lodwar           50.23 242  P     P      11 06 11.3 +1.5
      SNR=9.6
LODK  Lodwar           50.23 242  P     P      11 06 10.2 +0.4
LODK                              IAmb  IAmb   11 06 12.4
      comp=Z,36nm,1.2s
FDMO  Fiordimonte      50.45 300  P     P      11 06 10.9 -0.2
GRF   Grafenberg Arr   50.46 309 eP     P      11 06 13.5 +2.5
      comp=Z,37nm,1.3s,baz=88,slow=6.7
GRF                              eL     L      11 30 32.9
      comp=Z,926nm,19.3s
BSEG  Bad Segeberg     50.47 315 eP     P      11 06 13.2 +2.2
      comp=Z,21nm,0.7s,baz=88,slow=6.7
NRCA  Norcia           50.47 300  IAmb  IAmb   11 06 28.2
      comp=Z,67nm,1.6s
KONO  Kongsberg        50.48 322  P     P      11 06 11.2 +0.1
KONO                              pmax  pmax
      comp=Z,169nm,2.0s
KONO  Kongsberg        50.48 322 eP     P      11 06 11.4 +0.4
KONO  Kongsberg        50.48 322  P     P      11 06 11.2 +0.1
WTTA  Wattenberg       50.59 306 i P    P      11 06 12.6 +0.3
      comp=Z,17nm,1.1s
WATA  Walderalm        50.62 306 i P    P      11 06 12.2 -0.2
      comp=Z,25nm,1.7s
FUR   Furstenfeldbru   50.67 307 eP     P      11 06 14.4 +1.7
      comp=Z,101nm,1.5s,baz=88,slow=6.7
CLZ   Clausthal        50.69 312 eP     P      11 06 14.5 +1.7
      comp=Z,27nm,1.2s,baz=88,slow=6.7
DOMB  Dombas           50.70 325 eP     P      11 06 13.0 +0.3
CTI   Castel Tesino    50.81 304  P     P      11 06 13.1 -0.8
CTI                               pmax  pmax
      comp=Z,32nm,1.2s
CTI   Castel Tesino    50.81 304  P     P      11 06 13.1 -0.8
CTI                               IAmb  IAmb   11 06 27.1
      comp=Z,32nm,1.2s
SQTA  Sankt Quirin     50.89 306 eP     P      11 06 14.6 +0.2
      comp=Z,15nm,0.7s
CESX  Cesi             50.91 300  IAmb  IAmb   11 06 19.3
      comp=Z,49nm,1.3s
MOTA  Moosalm          50.93 306 eP     P      11 06 14.6 -0.3
      comp=Z,16nm,1.3s
TEOL  Teolo            50.94 304  P     P      11 06 13.8 -1.0
TEOL                              IAmb  IAmb   11 06 18.8
      comp=Z,25nm,0.9s
GTTG  Gottingen        50.98 312 eP     P      11 06 15.0 +0.1
      comp=Z,48nm,1.2s,baz=88,slow=6.7
RAFF  Raffo Rosso      51.01 293  P     P      11 06 15.1 -0.3
SPA0  Spitsbergen Ar   51.02 346 eP     P      11 06 15.3 +0.4
SPITS Spitsbergen Ar   51.02 346  P     P      11 06 15.1 +0.2
      comp=Z,14nm,0.9s,baz=98,slow=12,SNR=6.7
SPITS                             LR    LR     11 31 07.5
      comp=Z,1µm,21.1s,baz=108,slow=40
      comp=Z,14nm,0.9s
SPITS Spitsbergen Ar   51.02 346  P     P      11 06 14.9  0.0
SPITS                             pmax  pmax
      comp=Z,73nm,1.3s
SKAR  Skarslia         51.09 324 eP     P      11 06 16.4 +0.7
HOMB  Homborsund       51.12 320 eP     P      11 06 16.5 +0.7
HOMB  Homborsund       51.12 320 i P    P      11 06 16.0 +0.2
RETA  Reutte           51.13 306 eP     P      11 06 16.1 -0.2
      comp=Z,19nm,1.2s
FETA  Feichten         51.25 306 eP     P      11 06 16.9 -0.4
      comp=Z,7.0nm,0.6s
DAV   Davao City (W)   51.32 111  LR    LR     11 29 08.5
      comp=Z,432nm,20.4s,baz=321,slow=37
MOL   Molde            51.40 326 eP     P      11 06 18.0 +0.1
FUORN Ofenpass-Fuorn   51.64 305  P     P      11 06 20.1 -0.2
FUORN                             IAmb  IAmb   11 06 39.3
      comp=Z,64nm,1.8s
TOLI2 Tolitoli         51.66 120  P     P      11 06 20.4 -0.1
TOLI2 Tolitoli         51.66 120        P      11 06 19.5 -1.0
TOLI2                             IAmb  IAmb   11 06 25.7
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      comp=Z,24nm,0.8s
DAVA  Damuels          51.76 306 eP     P      11 06 21.1  0.0
      comp=Z,19nm,0.7s
DAVOX Davos/Dischmat   51.87 306  LR    LR     11 31 48.3
      comp=Z,868nm,19.5s,baz=81,slow=40
KMBO  Kilima Mbogo     52.07 236  P     P      11 06 23.2 -0.6
      baz=41,slow=11
KMBO                              LR    LR     11 30 07.1
      comp=Z,378nm,19.4s,baz=92,slow=38
TNS   Taunus Mts       52.14 310 eP     P      11 06 24.6 +0.9
      comp=Z,24nm,1.2s,baz=88,slow=6.7
KIBK  Kibwezi          52.41 234  P     P      11 06 27.3 +1.1
KIBK  Kibwezi          52.41 234  P     P      11 06 25.7 -0.4
KIBK                              IAmb  IAmb   11 06 28.1
      comp=Z,24nm,1.3s
MA2   Magadan          52.52  38  P     P      11 06 27.4 +1.1
      comp=Z,11nm,0.9s,baz=272,slow=7.3,SNR=8.0
MA2                               LR    LR     11 32 00.4
      comp=Z,272nm,18.5s,baz=272,slow=40
      comp=Z,11nm,0.9s
MA2   Magadan          52.52  38  P     P      11 06 29.7 +3.4
MA2   Magadan          52.52  38⇑eP     P      11 06 26.9 +0.6
MA2                               pmax  pmax
      comp=Z,17nm,1.1s
MA2   Magadan          52.52  38  P     P      11 06 26.4 +0.1
BUG   Bochum--Univer   52.66 312 eP     P      11 06 30.3 +2.8
      comp=Z,37nm,1.3s,baz=88,slow=6.7
SEY   Seymchan         53.03  33  P     P      11 06 30.5 +0.5
      comp=Z,18nm,0.9s,baz=265,slow=7.2,SNR=22
SEY                               LR    LR     11 31 10.5
      comp=Z,832nm,19.8s,baz=300,slow=38
      comp=Z,18nm,0.9s
SEY   Seymchan         53.03  33⇓eP     P      11 06 30.3 +0.3
SEY                               pmax  pmax
      comp=Z,16nm,0.9s
GTOI  Gorontalo        53.59 119  P     P      11 06 31.7 -3.1
      comp=Z,459nmcomp=Z,459nmcomp=Z,35nm,0.7s,comp=Z,35nm,0.7s
APSI  Ampana           53.69 121  P     P      11 06 34.9 -0.6
      comp=Z,40nm,0.9s,comp=Z,40nm,0.9s
SENIN Lac Senin/Sane   53.69 306  P     P      11 06 35.2 -0.2
SENIN                             IAmb  IAmb   11 06 41.6
      comp=Z,14nm,0.8s
BMRD  Maredsous        54.44 311 dP     P      11 06 41.0 +0.5
      comp=Z,14nm,1.3s
BNI   Bardonecchia     54.44 304  P     P      11 06 40.5 -0.3
BNI                               pmax  pmax
      comp=Z,57nm,1.5s
BNI   Bardonecchia     54.44 304  P     P      11 06 40.5 -0.3
KEST  Kesra            55.31 293  P     P      11 06 47.8 +0.6
      comp=Z,29nm,0.9s,baz=207,slow=0.6,SNR=21
KEST                              LR    LR     11 36 58.2
      comp=Z,153nm,18.1s,baz=24,slow=43
      comp=Z,29nm,0.9s
KEST  Kesra            55.31 293  P     P      11 06 48.3 +1.1
      SNR=6.0
KEST  Kesra            55.31 293  P     P      11 06 47.8 +0.6
KAPI  Kappang          55.34 127  LR    LR     11 36 50.9
      comp=Z,214nm,18.1s,baz=291,slow=43
MBAR  Mbarara          56.34 242  LR    LR     11 34 12.2
      comp=Z,565nm,18.3s,baz=38,slow=40
MBAR  Mbarara          56.34 242ceP     P      11 06 55.4 +0.5
MBAR                              pmax  pmax
      comp=Z,47nm,2.5s
MBAR  Mbarara          56.34 242  P     P      11 06 54.6 -0.2
MBAR                              IAmb  IAmb   11 06 55.8
      comp=Z,15nm,0.9s
TNTI  Ternate          56.72 115  P     P      11 06 57.4  0.0
TNTI  Ternate          56.72 115  P     P      11 06 57.2 -0.1
NOR   Nord             57.05 350 i P    P      11 06 58.8  0.0
NOR                               IAmb  IAmb   11 07 02.9
      comp=Z,12nm,0.7s
PEA0B Petropavlovsk-   57.46  45  P     P      11 07 02.1  0.0
PEA0B Petropavlovsk-   57.46  45  P     P      11 07 02.1  0.0
PEA0B                             IAmb  IAmb   11 08 53.1
      comp=Z,50nm,1.4s
PETK  Petropavlovsk-   57.46  45  P     P      11 07 02.4 +0.2
      comp=Z,1.7nm,0.6s,baz=276,slow=1.6,SNR=6.5
PETK                              LR    LR     11 34 39.1
      comp=Z,619nm,18.2s,baz=290,slow=39
      comp=Z,1.7nm,0.6s
PETK  Petropavlovsk-   57.46  45  P     P      11 07 02.7 +0.5
PETK  Petropavlovsk-   57.46  45  P     P      11 07 02.7 +0.5
SANI  Sanana           57.59 119  P     P      11 07 02.3 -1.2
EKA   Eskdalemuir Ar   57.92 318  P     P      11 07 05.2 -0.1
      comp=Z,8.4nm,0.6s,baz=90,slow=6.4,SNR=17
EKA                               LR    LR     11 33 46.3
      comp=Z,883nm,19.3s,baz=70,slow=38
      comp=Z,8.4nm,0.6s
ESK   Eskdalemuir      57.95 318 i P    P      11 07 06.6 +1.1
BILL  Bilibino         58.02  26⇓eP     P      11 07 07.5 +1.6
BILL                              pmax  pmax
      comp=Z,65nm,3.0s
DAG   Danmarks Havn    58.49 344 i P    P      11 07 08.0 -1.0
DBG   Daneborg         59.58 342 i P    P      11 07 16.9 +0.3
DBG                               IAmb  IAmb   11 07 17.7
      comp=Z,9.0nm,1.0s
ABPO  Ambohimpanom     60.63 214  P     P      11 07 24.4 -0.3
ABPO                              pmax  pmax
      comp=Z,35nm,1.5s
ABPO  Ambohimpanom     60.63 214  P     P      11 07 24.4 -0.3
ABPO                              IAmb  IAmb   11 07 25.7
      comp=Z,35nm,1.4s
SIJI  Sorong           60.73 114  LR    LR     11 36 31.9
      comp=Z,67nm,21.5s,baz=14,slow=39
SCO   Scoresbysund     61.39 338 i P    P      11 07 32.5 +3.5
BATI  Baumata          61.77 127  LR    LR     11 37 28.1
      comp=Z,350nm,21.6s,baz=308,slow=39
SOEI  Soe              61.84 126  P     P      11 07 31.3 -1.6
SOEI  Soe              61.84 126  P     P      11 07 31.1 -1.8
SOEI  Soe              61.84 126  P     P      11 07 31.6 -1.3
DPSS  Saipan           63.20  89  P     P      11 07 40.7 -1.3
GUMO  Guam             63.29  91  LR    LR     11 34 42.4
      comp=Z,132nm,21.1s,baz=300,slow=36
VOI   Vohitsoka        63.34 213  P     P      11 07 42.7 -0.1
VOI   Vohitsoka        63.34 213  P     P      11 07 42.5 -0.3
ESBB  Sonseca Array    63.66 301  P     P      11 07 45.0 +0.2
ESDC  Sonseca Array    63.66 301  P     P      11 07 44.3 -0.5
      comp=Z,2.7nm,0.6s,baz=55,slow=6.4,SNR=15
ESDC                              LR    LR     11 40 47.9
      comp=Z,354nm,18.1s,baz=44,slow=41
      comp=Z,2.7nm,0.6s
ESDC  Sonseca Array    63.66 301  P     P      11 07 44.9 +0.1
TAM   Tamanrasset      63.66 281  P     P      11 07 44.3 -0.8
TAM                               pmax  pmax
      comp=Z,51nm,0.2s
TAM   Tamanrasset      63.66 281  P     P      11 07 44.3 -0.8
PAB   San Pablo        63.98 301  P     P      11 07 46.3 -0.6
PAB                               pmax  pmax
      comp=Z,49nm,1.5s
PAB   San Pablo        63.98 301  P     P      11 07 46.3 -0.6
NEEM  North Greenlan   64.40 349 i P    P      11 07 49.9 +0.6
NEEM                              IAmb  IAmb   11 07 53.1
      comp=Z,58nm,0.7s
SUMG  Summit           65.01 343  P     P      11 07 53.8 +0.3
SUMG                              pmax  pmax
      comp=Z,32nm,0.9s
SUMG  Summit           65.01 343  P     P      11 07 53.8 +0.3
SUMG  Summit           65.01 343 i P    P      11 07 54.4 +0.9
SUMG                              IAmb  IAmb   11 07 57.9
      comp=Z,25nm,0.7s
SHEM  Shemya Is, Ala   66.87  41  LR    LR     11 39 11.0
      comp=Z,458nm,20.7s,baz=293,slow=38
MDT   Midelt           67.06 295  LR    LR     11 42 21.2
      comp=Z,90nm,18.9s,baz=47,slow=40
MD01  Midelt array s   67.15 295  P     P      11 08 07.8 +0.2
LSZ   Lusaka           68.46 233  LR    LR     11 39 42.9
      comp=Z,174nm,18.7s,baz=20,slow=37
LSZ   Lusaka           68.46 233  P     P      11 08 15.7 -0.2
LSZ                               pmax  pmax
      comp=Z,15nm,0.9s
LSZ   Lusaka           68.46 233        P      11 08 15.7 -0.2
LSZ                               IAmb  IAmb   11 08 16.4
      comp=Z,15nm,0.8s
GENI  Genyem           68.69 109  P     P      11 08 17.6 +0.3
MTN   Manton Dam       68.72 123  P     P      11 08 16.5 -0.9
      comp=Z,5.9nm,0.9s
MTN   Manton Dam       68.72 123  P     P      11 08 16.4 -1.0
FITZ  Fitzroy Crossi   68.92 131  P     P      11 08 18.4 -0.2
      comp=Z,3.0nm,1.3s
FITZ  Fitzroy Crossi   68.92 131  P     P      11 08 17.8 -0.7
      comp=Z,3.0nm,1.3s
FITZ  Fitzroy Crossi   68.92 131  LR    LR     11 42 16.1
      comp=Z,145nm,21.2s,baz=322,slow=39
FITZ  Fitzroy Crossi   68.92 131  P     P      11 08 17.9 -0.7
FITZ  Fitzroy Crossi   68.92 131  P     P      11 08 17.9 -0.7
JAY   Jayapura         69.06 108  LR    LR     11 39 58.3
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      comp=Z,114nm,20.1s,baz=290,slow=37
KNRA  Kununurra        69.14 127  P     P      11 08 19.6 -0.3
      comp=Z,18nm,0.8s
KNRA  Kununurra        69.14 127  P     P      11 08 19.3 -0.6
      comp=Z,18nm,0.8s
KNRA  Kununurra        69.14 127  P     P      11 08 19.7 -0.3
KNRA                              IAmb  IAmb   11 08 24.1
      comp=Z,14nm,0.8s
KDU   Kakadu           69.55 122  P     P      11 08 21.6 -0.9
KDU   Kakadu           69.55 122  P     P      11 08 21.8 -0.7
EDA   Edea             69.76 260  P     P      11 08 23.1 -0.9
EDA                               IAmb  IAmb   11 08 23.6
      comp=Z,11nm,0.6s
NIAQ  Niaqornat        69.77 345 i P    P      11 08 25.4 +2.3
NIAQ                              IAmb  IAmb   11 08 28.9
      comp=Z,69nm,1.0s
SAQQ  Saqqaq           69.96 344 i P    P      11 08 26.4 +2.1
SAQQ                              IAmb  IAmb   11 08 27.8
      comp=Z,22nm,0.9s
ILULI Ilulissat        70.35 343  P     P      11 08 27.1 +0.4
ILULI                             pmax  pmax
      comp=Z,35nm,0.8s
ILULI Ilulissat        70.35 343  P     P      11 08 27.1 +0.4
ILULI Ilulissat        70.35 343 i P    P      11 08 27.4 +0.7
ILULI                             IAmb  IAmb   11 08 30.7
      comp=Z,32nm,0.7s
F19K  Shaleruckik Mo   70.66  20  IAmb  IAmb   11 08 32.2
      comp=Z,15nm,1.3s
GDH   Godhavn          70.90 344 i P    P      11 08 31.1 +1.0
GDH                               IAmb  IAmb   11 08 33.1
      comp=Z,84nm,1.0s
RES   Resolute Bay     71.23 358  LR    LR     11 42 40.3
      comp=Z,339nm,20.3s,baz=14,slow=38
TORD  Torodi Ar. Bea   71.63 274  P     P      11 08 33.8 -1.5
      comp=Z,9.6nm,0.8s,baz=46,slow=4.9,SNR=47
TORD                              PP    PP     11 11 12.3 -2.0
      comp=Z,1.7nm,0.8s,baz=44,slow=7.2,SNR=2.6
TORD                              LR    LR     11 42 52.8
      comp=Z,629nm,20.3s,baz=62,slow=38
      comp=Z,9.6nm,0.8s
TORD  Torodi Ar. Bea   71.63 274  P     P      11 08 33.9 -1.5
TORD                              IAmb  IAmb   11 08 35.0
      comp=Z,13nm,1.1s
MEEK  Meekatharra      71.68 142  P     P      11 08 41.0 +5.7
MEEK  Meekatharra      71.68 142  P     P      11 08 34.4 -0.9
SFJD  Kangerlussuaq    71.86 341  LR    LR     11 41 12.0
      comp=Z,299nm,18.8s,baz=40,slow=37
SFJD  Kangerlussuaq    71.86 341 i P    P      11 08 37.7 +1.8
SFJD                              IAmb  IAmb   11 08 39.6
      comp=Z,34nm,0.9s
E23K  Chandalar        71.93  17  P     P      11 08 36.6 +0.1
E23K                              IAmb  IAmb   11 08 42.1
      comp=Z,16nm,1.0s
KSANE Kasane           72.28 233  IAmb  IAmb   11 08 40.3
      comp=Z,22nm,0.8s
KSANE Kasane           72.28 233  P     P      11 08 39.8 +0.6
IMAR  Indian Mountai   72.41  20  P     P      11 08 39.5 +0.3
MORW  Morawa           72.45 146  P     P      11 08 35.9 -4.0
MORW  Morawa           72.45 146  P     P      11 08 39.0 -0.9
MORW  Morawa           72.45 146  IAmb  IAmb   11 08 48.8
      comp=Z,26nm,1.1s
J17K  VABM Dome        72.62  23  IAmb  IAmb   11 10 24.9
      comp=Z,31nm,1.7s
H21K  Melozitna Rive   72.91  20  IAmb  IAmb   11 08 48.2
      comp=Z,14nm,1.0s
I20K  Naaghedeneel     73.06  21  IAmb  IAmb   11 08 49.6
      comp=Z,30nm,1.1s
H22K  Ishtalitna Cre   73.13  19  IAmb  IAmb   11 09 16.1
      comp=Z,31nm,2.0s
F25K  Christian Rive   73.23  16  IAmb  IAmb   11 08 50.0
      comp=Z,16nm,1.1s
BROLN Tlhalogang       73.28 229  P     P      11 08 44.9 -0.2
J19K  Poorman          73.30  22  IAmb  IAmb   11 08 50.5
      comp=Z,17nm,1.0s
K17K  Iditarod         73.35  24  IAmb  IAmb   11 08 51.5
      comp=Z,24nm,1.1s
I21K  Tanana           73.50  20  IAmb  IAmb   11 08 51.3
      comp=Z,24nm,1.1s
BMAR  Burnt Mountain   73.61  16        P      11 08 46.4 +0.1
J20K  Nowinta River    73.62  21  IAmb  IAmb   11 08 52.7
      comp=Z,12nm,0.8s
L16K  Owhat River      73.64  25        P      11 08 46.3 -0.3
L16K                              IAmb  IAmb   11 08 51.8
      comp=Z,23nm,1.2s
H23K  Yukon River      73.67  19  IAmb  IAmb   11 08 51.3
      comp=Z,34nm,1.8s
E28M  Babbage River    73.69  14  IAmb  IAmb   11 08 53.3
      comp=Z,39nm,1.7s
FYU   Fort Yukon       74.16  17  IAmb  IAmb   11 08 56.1
      comp=Z,50nm,1.5s
E29M  Blow River       74.19  13  IAmb  IAmb   11 08 55.0
      comp=Z,22nm,0.9s
L18K  Granite Mounta   74.23  23  IAmb  IAmb   11 08 54.8
      comp=Z,16nm,1.2s
I23K  Minto, Yukon-K   74.24  19  IAmb  IAmb   11 08 55.5
      comp=Z,23nm,1.3s
NUUK  Nuuk             74.27 340 i P    P      11 08 52.5 +2.3
NUUK                              IAmb  IAmb   11 08 53.5
      comp=Z,28nm,1.0s
F28M  Old Crow         74.47  14  IAmb  IAmb   11 09 00.8
      comp=Z,25nm,1.4s
M17K  Holitna River    74.56  24  IAmb  IAmb   11 08 56.9
      comp=Z,25nm,1.1s
BPAW  Bear Paw Mtn.    74.60  20  IAmb  IAmb   11 08 57.2
      comp=Z,17nm,1.0s
NEA2  Nenana           74.75  19  IAmb  IAmb   11 08 58.5
      comp=Z,25nm,0.9s
CAST  Castle Rocks     74.80  21  IAmb  IAmb   11 08 58.9
      comp=Z,24nm,1.0s
COLA  College          74.86  19  P     P      11 08 56.1 +2.5
COLA  College          74.86  19⇑eP     P      11 08 53.9 +0.3
COLA                              pmax  pmax
      comp=Z,35nm,1.0s
COLA  College          74.86  19  P     P      11 08 54.0 +0.3
COLA                              IAmb  IAmb   11 08 58.6
      comp=Z,27nm,0.9s
PRP   Porcupine Dome   74.94  17  IAmb  IAmb   11 09 45.2
      comp=Z,28nm,1.7s
MUN   Mundaring        74.98 147  P     P      11 08 53.8 -0.9
KTH   Kantishna Hill   75.03  21  IAmb  IAmb   11 09 00.4
      comp=Z,21nm,1.0s
INK   Inuvik           75.04  12  LR    LR     11 48 28.4
      comp=Z,189nm,18.4s,baz=336,slow=41
INK   Inuvik           75.04  12  IAmb  IAmb   11 08 58.2
      comp=Z,30nm,1.3s
ILAR  Eielson Array    75.19  18  P     P      11 08 55.1 -0.5
      comp=Z,7.5nm,0.9s,baz=314,slow=4.7,SNR=30
ILAR                              PP    PP     11 11 41.3 -1.9
      comp=Z,2.2nm,1.0s,baz=330,slow=5.6,SNR=4.6
ILAR                              LR    LR     11 46 26.7
      comp=Z,594nm,18.9s,baz=298,slow=39
      comp=Z,7.5nm,0.9s
ILAR  Eielson Array    75.19  18        P      11 08 55.0 -0.6
F30M  Barrier River    75.26  13  P     P      11 08 56.1 +0.2
F30M                              IAmb  IAmb   11 09 01.1
      comp=Z,31nm,1.1s
IVI   Ivigtut          75.37 336 i P    P      11 08 59.9 +3.3
IVI                               IAmb  IAmb   11 09 02.5
      comp=Z,49nm,1.1s
G29M  Pine Creek       75.44  14  IAmb  IAmb   11 09 06.1
      comp=Z,44nm,1.8s
POGA  Pongola          75.44 222  IAmb  IAmb   11 08 58.7
      comp=Z,28nm,1.0s
I26K  Coal Creek Min   75.68  17  IAmb  IAmb   11 09 03.8
      comp=Z,20nm,1.2s
G30M  tAoh Zraii Nji   75.73  13  IAmb  IAmb   11 09 04.0
      comp=Z,26nm,1.0s
WRKA  Warakurna        75.76 134  P     P      11 08 59.3 -0.1
      comp=Z,13nm,0.8s
WB9   Warramunga Arr   75.81 126  P     P      11 08 58.9 -0.8
WB6   Warramunga Arr   75.84 126  P     P      11 08 59.0 -0.9
LPHEP Lephephe         75.86 229  IAmb  IAmb   11 09 01.4
      comp=Z,33nm,1.1s
WRA   Warramunga Arr   75.88 126  P     P      11 08 59.1 -1.1
      comp=Z,17nm,0.8s,baz=328,slow=5.3,SNR=68
      comp=Z,17nm,0.8s
WRA   Warramunga Arr   75.88 126 i P    P      11 08 59.0 -1.1
WRA                               pmax  pmax
      comp=Z,18nm,0.8s
WRA   Warramunga Arr   75.88 126        P      11 08 58.6 -1.5
WRAB  Tennant Creek    75.88 126  P     P      11 08 59.6 -0.5
WRAB  Tennant Creek    75.88 126d iP    P      11 08 59.1 -1.0
WRAB                              pmax  pmax
      comp=Z,33nm,0.9s
WRAB  Tennant Creek    75.88 126  P     P      11 08 59.2 -1.0
WRAB                              IAmb  IAmb   11 09 04.1
      comp=Z,27nm,0.9s
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N19K	Bonanza Creek	75.98	24	IAmb	IAmb	11 09 08.8	
	comp=Z,19nm,1.1s						
WR8	Warramunga Arr	76.00	126	IAmb	IAmb	11 09 04.6	
	comp=Z,21nm,0.9s						
SKT	Skwentna	76.05	22	IAmb	IAmb	11 09 05.2	
	comp=Z,16nm,0.9s						
EPYK	Eagle Plains	76.17	14	IAmb	IAmb	11 09 05.8	
	comp=Z,15nm,0.9s						
NWAO	Narrogin (SRO)	76.25	147	LR	LR	11 41 21.9	
	comp=Z,270nm,21.9s,baz=292,slow=35						
I28M	Miner Creek	76.30	15	IAmb	IAmb	11 09 06.6	
	comp=Z,46nm,1.7s						
DHY	Denali Highway	76.41	20	IAmb	IAmb	11 09 07.1	
	comp=Z,16nm,1.3s						
O18K	Koktuh Hills	76.44	25	IAmb	IAmb	11 09 09.2	
	comp=Z,28nm,0.9s						
O19K	Port Alsworth	76.49	24	IAmb	IAmb	11 09 07.7	
	comp=Z,16nm,1.0s						
RIDG	Independent Ri	76.55	18	IAmb	IAmb	11 09 07.9	
	comp=Z,20nm,0.9s						
SCRK	Sand Creek	76.58	18	IAmb	IAmb	11 09 08.7	
	comp=Z,14nm,1.1s						
KDWAN	Kaudwane	76.62	229	P	P	11 09 04.6	+0.2
GHO	Glory Hole Cre	77.00	21	IAmb	IAmb	11 09 25.0	
	comp=Z,16nm,0.7s						
K27K	Chicken	77.01	17	IAmb	IAmb	11 09 11.5	
	comp=Z,16nm,1.2s						
PAX	Paxson	77.02	19	IAmb	IAmb	11 09 11.6	
	comp=Z,22nm,1.3s						
PMR	Palmer	77.08	21	P	P	11 09 08.9	+2.6
PMR	Palmer	77.08	21	IAmb	IAmb	11 09 11.0	
	comp=Z,12nm,0.8s						
H31M	Peel River	77.13	13	IAmb	IAmb	11 09 14.8	
	comp=Z,26nm,1.1s						
LBTB	Lobatse	77.24	228	LR	LR	11 44 44.4	
	comp=Z,144nm,18.5s,baz=30,slow=37						
LBTB	Lobatse	77.24	228	P	P	11 09 08.4	+0.6
I30M	Mount Dempster	77.25	14	IAmb	IAmb	11 09 12.1	
	comp=Z,15nm,0.8s						
GRTLG	Ghanzi	77.41	233	P	P	11 09 09.9	+1.0
MENT	Mentasta	77.50	18	P	P	11 09 10.9	+2.1
SLKM	Skilak Lake	77.59	22	IAmb	IAmb	11 09 14.3	
	comp=Z,31nm,1.4s						
DAWY	Dawson	77.61	16	IAmb	IAmb	11 09 14.1	
	comp=Z,12nm,1.0s						
J30M	Hart River	77.83	14	IAmb	IAmb	11 09 15.7	
	comp=Z,16nm,1.1s						
BCAR	Beaver Creek A	77.89	17		P	11 09 11.1	+0.1
SKOMA	Sekoma	77.90	229	P	P	11 09 11.8	+0.3
M26K	Nabesna, AK	78.14	18		P	11 09 11.2	-1.2
AS15	Alice Springs	78.21	129	P	P	11 09 12.8	-0.4
	comp=Z,15nm,1.1s						
AS15	Alice Springs	78.21	129	P	P	11 09 12.4	-0.8
	comp=Z,15nm,1.1s						
K29M	Barlow Dome	78.22	15		P	11 09 13.2	+0.4
K29M				IAmb	IAmb	11 09 17.9	
	comp=Z,13nm,1.0s						
AS14	Alice Springs	78.22	129	P	P	11 09 12.7	-0.6
	comp=Z,15nm,1.0s						
AS31	Alice Springs	78.23	129	P	P	11 09 12.8	-0.5
	comp=Z,3.1nm,0.7s						
AS31	Alice Springs	78.23	129		P	11 09 12.4	-0.9
ASAR	Alice Springs	78.23	129	P	P	11 09 12.3	-1.0
	comp=Z,13nm,1.0s,baz=320,slow=5.4,SNR=63						
ASAR				PKKPbc	PKKPbc	11 28 13.2	+1.2
	comp=Z,0.2nm,0.6s,baz=124,slow=2.2,SNR=4.2						
ASAR				LR	LR	11 48 11.4	
	comp=Z,93nm,18.1s,baz=300,slow=39						
	comp=Z,13nm,1.0s						
AUALC	St Philip's Co	78.23	129	P	P	11 09 12.7	-0.6
AS05	Alice Springs	78.24	129	P	P	11 09 12.8	-0.6
	comp=Z,14nm,1.0s						
AS01	Alice Springs	78.26	129	P	P	11 09 12.9	-0.6
AS09	Alice Springs	78.28	129	P	P	11 09 13.2	-0.4
	comp=Z,19nm,1.0s						
AS17	Alice Springs	78.28	129	P	P	11 09 13.2	-0.5
	comp=Z,19nm,1.3s						
PMG	Port Moresby	78.33	110	P	P	11 09 13.4	-0.6
PMG				pmax	pmax		
	comp=Z,22nm,0.9s						
PMG	Port Moresby	78.33	110	P	P	11 09 13.4	-0.6
PMG				IAmb	IAmb	11 09 18.1	
	comp=Z,22nm,0.9s						
TSUM	Tsumeb	78.40	237	LR	LR	11 46 18.8	
	comp=Z,216nm,19.7s,baz=338,slow=38						
TSUM	Tsumeb	78.40	237	P	P	11 09 13.7	-0.7
TSUM	Tsumeb	78.40	237	P	P	11 09 15.0	+0.5
M27K	Edge Creek, AK	78.46	18	P	P	11 09 13.7	-0.5
L29M	L29M	78.72	16	IAmb	IAmb	11 09 20.9	
	comp=Z,18nm,1.1s						
FRB	Frobisher Bay	78.82	346	LR	LR	11 49 44.0	
	comp=Z,269nm,18.8s,baz=24,slow=40						
BMRM	Bremner River	78.89	20	P	P	11 09 16.3	-0.3
KDAK	Kodiak Island	78.90	25	LR	LR	11 50 17.6	
	comp=Z,408nm,18.8s,baz=329,slow=40						
EYAK	Cordova Ski Ar	78.91	20	P	P	11 09 19.3	+2.8
MCARA	McCarthy VSAT	78.98	19	P	P	11 09 16.4	-0.6
MCARA				IAmb	IAmb	11 09 40.1	
	comp=Z,16nm,1.0s						
VRDI	Verde Repeater	78.99	19		P	11 09 16.6	-0.6
VRDI				IAmb	IAmb	11 09 22.5	
	comp=Z,18nm,1.0s						
KRVT	Keravat (AS076	79.16	103	LR	LR	11 43 24.0	
	comp=Z,143nm,20.2s,baz=282,slow=35						
BARN	Barnard Glacie	79.61	18	IAmb	IAmb	11 09 24.9	
	comp=Z,17nm,1.2s						
QIS	Mount Isa	79.89	123	P	P	11 09 21.6	-0.8
	comp=Z,18nm,0.9s						
QIS	Mount Isa	79.89	123	P	P	11 09 21.8	-0.7
	comp=Z,18nm,0.9s						
QIS	Mount Isa	79.89	123	P	P	11 09 21.2	-1.2
FORT	Forrest	79.98	138	P	P	11 09 22.2	-0.5
	comp=Z,38nm,0.8s						
FORT	Forrest	79.98	138	P	P	11 09 22.5	-0.1
	comp=Z,38nm,0.8s						
FORT	Forrest	79.98	138	IAmb	IAmb	11 09 26.2	
	comp=Z,26nm,0.7s						
BOSA	Boshof	80.09	225	P	P	11 09 23.1	-0.4
	comp=Z,23nm,1.1s,baz=39,slow=3.3,SNR=17						
BOSA				LR	LR	11 41 23.1	
	comp=Z,147nm,21.9s,baz=30,slow=33						
	comp=Z,23nm,1.1s						
BOSA	Boshof	80.09	225	P	P	11 09 23.1	-0.4
DBIC	Dimbokro	80.54	272	P	P	11 09 25.4	-0.7
	comp=Z,7.2nm,1.1s,baz=30,slow=4.9,SNR=4.4						
DBIC				LR	LR	11 48 25.0	
	comp=Z,330nm,18.7s,baz=57,slow=38						
	comp=Z,7.2nm,1.1s						
DBIC	Dimbokro	80.54	272	IAmb	IAmb	11 09 26.6	
	comp=Z,34nm,1.4s						
N31M	Braeburn, Yuko	80.68	16	IAmb	IAmb	11 09 31.4	
	comp=Z,25nm,0.9s						
WIN	Windhoek	81.00	235	IAmb	IAmb	11 09 30.9	
	comp=Z,50nm,1.5s						
WIN	Windhoek	81.00	235	P	P	11 09 29.9	+1.3
WHY	Whitehorse	81.61	16	IAmb	IAmb	11 09 36.5	
	comp=Z,23nm,1.2s						
MTSU	Mount Surprise	81.65	118	P	P	11 09 31.0	-0.9
	comp=Z,5.0nm,0.8s						
MTSU	Mount Surprise	81.65	118	P	P	11 09 31.8	-0.1
P33M	Teslin, Yukon	82.47	15	IAmb	IAmb	11 09 40.6	
	comp=Z,19nm,1.1s						
SKAG	Skagway	82.58	17	P	P	11 09 39.0	+2.8
YKAW3	Yellowknife Wh	82.97	6	IAmb	IAmb	11 09 43.0	
	comp=Z,10nm,1.0s						
YKA	Yellowknife Ar	83.03	6	P	P	11 09 38.1	-0.4
	comp=Z,11nm,0.7s,baz=345,slow=5.4,SNR=38						
YKA				LR	LR	11 50 08.7	
	comp=Z,349nm,18.1s,baz=2.0,slow=38						
	comp=Z,11nm,0.7s						
YKAW1	Yellowknife Wh	83.06	6	IAmb	IAmb	11 09 42.2	
	comp=Z,17nm,0.8s						
CTA	Charters Tower	84.30	119	P	P	11 09 44.8	-0.9
	comp=Z,8.0nm,0.9s						
CTA	Charters Tower	84.30	119	LR	LR	11 50 04.0	
	comp=Z,72nm,21.8s,baz=268,slow=38						
CTA	Charters Tower	84.30	119	P	P	11 09 44.7	-0.9
CTAO	Charters Tower	84.30	119	P	P	11 09 44.7	-0.9
CTAO	Charters Tower	84.30	119	P	P	11 09 44.1	-1.5
CTAO				pmax	pmax		
	comp=Z,15nm,0.9s						
CTAO	Charters Tower	84.30	119	P	P	11 09 44.1	-1.5
CTAO				IAmb	IAmb	11 09 49.4	
	comp=Z,15nm,0.8s						
DLBC	Dease Lake	84.68	14	LR	LR	11 52 24.9	
	comp=Z,332nm,19.1s,baz=320,slow=39						
SUR	Sutherland	85.45	226	LR	LR	11 47 57.5	
	comp=Z,207nm,19.5s,baz=3.5,slow=36						
INKA	Innaminka	85.48	128		P	11 09 50.4	-0.9
INKA				IAmb	IAmb	11 09 52.4	
	comp=Z,32nm,1.7s						
SCHQ	Schefferville	86.30	341	P	P	11 09 54.9	-0.3
	comp=Z,5.1nm,0.7s,baz=113,slow=4.4,SNR=4.5						
SCHQ				LR	LR	11 51 30.2	
	comp=Z,424nm,18.3s,baz=69,slow=38						
	comp=Z,5.1nm,0.7s						
SCHQ	Schefferville	86.30	341	P	P	11 09 54.6	-0.6
QLP	Quilpie	87.04	125	P	P	11 09 58.9	-0.2
	comp=Z,21nm,0.9s						
QLP	Quilpie	87.04	125	P	P	11 09 58.8	-0.2
HNR	Honiara	88.52	102	LR	LR	11 49 28.5	
	comp=Z,133nm,20.7s,baz=26,slow=35						
STKA	Stephens Creek	88.81	130	P	P	11 10 05.8	-1.6
	comp=Z,3.8nm,0.6s,baz=353,slow=5.9,SNR=7.6						
STKA				LR	LR	11 54 18.6	
	comp=Z,105nm,21.9s,baz=310,slow=39						
	comp=Z,3.8nm,0.6s						
BBB	Bella Bella	90.89	16	LR	LR	11 55 57.6	
	comp=Z,306nm,18.9s,baz=346,slow=39						
ULM	Lac du Bonnet	95.69	356	LR	LR	11 57 38.8	
	comp=Z,607nm,18.9s,baz=12,slow=38						
NEW	Newport	96.71	10	LR	LR	11 57 18.5	
	comp=Z,326nm,21.6s,baz=350,slow=37						
SADO	Sadowa	98.69	344	LR	LR	12 00 44.2	
	comp=Z,360nm,18.6s,baz=36,slow=39						
PDAR	Pinedale Array	103.02	6	PKiKP	PKiKP	11 15 31.9	-0.4
	comp=Z,0.5nm,0.6s,baz=64,slow=3.4,SNR=5.5						
NVAR	Mina Array Bea	106.08	13	PKiKP	PKiKP	11 15 38.0	0.0
	comp=Z,0.4nm,0.7s,baz=318,slow=2.0,SNR=4.4						
SAND	Sanderson	116.13	0		PKPdf	11 15 57.9	+0.8
TXAR	Lajitas Array	116.72	2	PKP	PKPdf	11 15 57.9	-0.5
	comp=Z,0.7nm,1.0s,baz=48,slow=1.9,SNR=5.5						
TXAR				PKKPbc	PKKPbc	11 26 23.4	-1.2
	comp=Z,0.3nm,0.7s,baz=167,slow=5.8,SNR=3.9						
TROLL	Troll, Antarti	117.96	200	⇑PKPdf	PKPdf	11 15 59.1	-0.1
	comp=Z,99nm,0.6s						
VNDA	Vanda	121.81	165	PKP	PKPdf	11 16 04.8	-1.5
	comp=Z,0.5nm,0.8s,baz=308,slow=4.4,SNR=3.1						
ZAIG	Zacatecas	123.28	1		PKPpre	11 16 05.7	
QSPA	South Pole Qui	124.05	180	PKP	PKPdf	11 16 09.4	-1.6
	comp=Z,3.6nm,0.8s,baz=275,slow=0.4,SNR=11						
QSPA	South Pole Qui	124.05	180		PKPdf	11 16 09.3	-1.7
SMTB	Santa Maria do	124.35	284	*e*P	PKPdf	11 16 12.2	-0.9
BOAV	Boa Vista	126.76	305		PKiKP	11 16 18.3	+0.1
BOAV	Boa Vista	126.76	305	*e*P	PKPdf	11 16 16.8	-1.0
CLDB	Colider	132.06	288	*e*P	PKPdf	11 16 26.7	-1.1
PPT2	Papeete2	134.38	81	*e*LR	LR	11 59 25.0	
	comp=Z,149nm,23.8s						
PPT2				*e*LR	LR	11 59 37.2	
	comp=Z,126nm,33.8s						
TAOE	Nuku Hiva Isla	136.70	63	*e*LR	LR	12 00 39.4	
	comp=Z,178nm,29.1s						
PTLB	Pontes e Lacer	137.35	285	*e*P	PKPdf	11 16 37.7	+0.1
COIM	Forte Coimbra	138.59	279	*e*P	PKPdf	11 16 39.7	0.0
OTAV	Otavalo	139.29	323	*e*P	PKPdf	11 16 41.6	-0.3
SJPY	San Joaquin	139.49	271	*e*P	PKPdf	11 16 40.2	-1.1
CPUP	Villa Florida	141.03	269	PKP	PKPdf	11 16 42.0	-2.0
	comp=Z,2.0nm,0.7s,baz=46,slow=3.6,SNR=4.5						
CPUP	Villa Florida	141.03	269	*e*P	PKPdf	11 16 43.7	-0.3
PAYG	Puerto Ayora	144.89	340	PKPdf	PKPab	11 16 49.2	-1.1
LPAZ	La Paz	144.89	292	PKP	PKPdf	11 16 51.5	-0.3
	comp=Z,3.5nm,0.6s,baz=4.1,slow=5.1,SNR=5.1						
LPAZ	La Paz	144.89	292	PKIKP	PKPab	11 16 48.4	-2.6
LPAZ	La Paz	144.89	292		PKPab	11 16 48.4	-2.6
LPAZ	La Paz	144.89	292	*e*P	PKPab	11 16 50.8	-0.2
PB18	Visviri	146.70	292	PKPdf	PKPdf	11 16 52.5	-2.3
PB16	IPOC Station P	147.15	291	PKPdf	PKPdf	11 16 54.0	-1.7
TRQA	Tornquist	147.78	252	PKP2	PKPbc	11 16 58.3	0.0
TRQA	Tornquist	147.78	252	PKPbc	PKPbc	11 16 58.3	0.0
NNA	Nana	148.24	308	PKP2	PKiKP	11 17 01.2	-0.7
NNA	Nana	148.24	308		PKiKP	11 17 01.2	-0.7
AC02	Maricunga	150.98	276		PKPbc	11 17 06.3	-1.0
PLCA	Paso Flores	154.45	246	PKPbc	PKPbc	11 17 13.8	-0.2
	comp=Z,3.9nm,1.0s,baz=112,slow=3.5,SNR=6.7						

IDC 25 11:02:33.9±517.0**, 48°.73N**×**47°.50E, h0**^{km}**, Error ellipse: s-maj=185.0km s-min=138.8km az=60.0, Western Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I31KZ	AKTYUBINSK INF	7.05	72	I	I	11 42 30.5	
	0.1nm,0.6s,baz=262,slow=322,SNR=3.3						
I43RU	DUBNA INFRASON	10.14	326	I	I	12 06 45.4	
	baz=139,slow=311,SNR=1.8						
I46RU	ZALESOVO INFRA	23.69	63	I	I	13 29 30.0	
	baz=268,slow=324,SNR=0.8						

KRSC 25 11:13:20.3±2.0**, 49°.28N**×**158°.75E, h34**^{km}±27^{km}**, Ml3.7, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	2.20	311	*e*P	Pn	11 13 55.9	+1.5
SKR				*e*S	Sn	11 14 22.4	+2.0
PAU	Pauzhetka	2.51	331	*e*S	Sb	11 14 33.2	-2.0
KDTR	Khodutka, Kamc	2.57	351	*e*P	Pn	11 14 02.4	+3.1
KDTR				*e*S	Sb	11 14 33.1	-3.6
ASAK	Asacha	3.15	351	*e*P	Pb	11 14 13.0	-2.6
RUS	Russkaya	3.16	357	*e*P	Pn	11 14 10.7	+3.2
RUS				*e*S	Sn	11 14 47.3	+3.3
MTVR	Mutnovka	3.23	354	*e*P	Pn	11 14 12.0	+3.4
MTVR				*e*S	Sn	11 14 49.7	+3.8
GRL	Gorelyy	3.30	353	*e*P	Pn	11 14 13.9	+4.2
GRL				*e*S	Sn	11 14 52.4	+4.8
KRMR	Karymshinskiy	3.57	354	*e*S	Sb	11 15 00.1	-5.5
DALK	Dalny	3.75	0	*e*P	Pn	11 14 19.2	+3.5
SMAR	Somma	3.99	0	*e*P	Pn	11 14 24.4	+5.3
KRX	Arik	4.08	359	*e*P	Pn	11 14 24.4	+4.0
GNL	Ganaly	4.45	354	*e*P	Pn	11 14 30.3	+5.0
MKZ	Mys Kozlova	5.59	18	*e*P	Pn	11 14 45.2	+4.3

IDC ***25*** *11:15:45.1±1.7, 34°.23N×78°.24E, h0*^{km}*, mb3.5/5, mbtmp3.5/9, ML2.8/4, Error ellipse: s-maj=35.4km s-min=17.8km az=61.0*

ISC 25 11:15:50.2±1.8**, 34°.3N**±0°.2×**78°.4E**±0°.2**, h35**^{km}**, n9,** σ**0**^{s}**.94**/9**,** **mb3.5**/4**, Kashmir-Xizang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AAK	Ala-Archa	8.89	341	Pn	Pn	11 17 57.3	+1.1
	0.2nm,0.3s,baz=235,slow=18,SNR=1.5						
AAK				Lg	Lg	11 20 17.3	
	0.4nm,0.3s,baz=176,slow=19,SNR=1.6						
	0.8nm,0.4s						
AAK				AML	AML		
MKAR	Makanchi Array	12.86	12	Pn	Pn	11 18 49.9	-0.5
	0.1nm,0.3s,baz=192,slow=12,SNR=2.9						
MKAR				Lg	Lg	11 22 27.1	
	baz=189,slow=26,SNR=3.0						
	0.3nm,0.5s						
MKAR				AML	AML		
KURBB	Kurchatov Arra	16.34	0	Pn	Pn	11 19 36.3	-0.5
	baz=175,slow=16,SNR=2.5						
	0.3nm,0.3s						
BVAR	Borovoye Array	19.60	346	P	P	11 20 15.0	-0.1
	baz=161,slow=9.2,SNR=5.1						
	1.5nm,0.5s						
ZALV	Zalesovo Beam	20.19	11	P	P	11 20 22.7	+1.0
	0.4nm,0.3s,baz=213,slow=10,SNR=1.6						
	0.4nm,0.3s						
AKTO	Aktyubinsk	21.96	323	P	P	11 20 41.1	+0.4
	0.9nm,0.3s,baz=135,slow=8.6,SNR=1.4						
	0.9nm,0.3s						
CMAR	Chiang Mai Arr	24.16	125	P	P	11 21 03.6	+0.4
	1.1nm,0.7s,baz=313,slow=10,SNR=6.3						
	1.1nm,0.7s						
SONM	Songino Array	24.94	49	P	P	11 21 10.5	+0.3
	0.5nm,0.4s,baz=240,slow=8.4,SNR=4.1						
	0.5nm,0.4s						
FINES	FINESS Array B	42.70	326	P	P	11 23 41.9	-1.5
	0.6nm,0.5s,baz=112,slow=8.5,SNR=4.3						
	0.6nm,0.5s						

JMA ***25*** *11:27:34.9±0.1, 24°.2N±0°.9×122°.0E±0°.5, h44*^{km}*±2*^{km}*, MV3.1/13, TAIWAN REGION*

TAP ***25*** *11:27:35.2, 24°.37N×122°.03E, h40*^{km}*, ML3.6, C*

ISC 25 11:27:35.8±0.9**, 24°.32N**±0°.02×**122°.07E**±0°.02**, h29**^{km}±5^{km}**, n132,** σ**1**^{s}**.00**/187**, 1C-3D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EOS2	EOS2	0.18	56	P	Pb	11 27 41.5	0.0
EOS2				S	Sb	11 27 46.7	+1.2
EOS3	EOS3	0.23	98	⇓P	Pb	11 27 42.3	+0.2
EOS3				*i* S	Sb	11 27 47.9	+1.5
EWUT	Wuta	0.29	296	P	Pb	11 27 42.0	-1.1
EWUT				S	Sb	11 27 47.0	-1.1
EHP	Heping Village	0.30	269	*e*P	Pb	11 27 42.4	-0.8
EHP				*e*S	Sb	11 27 48.4	+0.2
EAHA	Aohua	0.30	272	P	Pb	11 27 42.3	-0.8
EAHA				*e*S	Sb	11 27 48.1	-0.1
EOS4	EOS4	0.30	130	P	Pb	11 27 42.8	-0.1
EOS4				*e*S	Sn	11 27 50.2	+1.1
ESAO	Su ao	0.33	322	P	Pb	11 27 42.5	-1.0
ESAO				S	Sb	11 27 47.5	-1.4
ETL	Fush Village	0.43	249	*e*P	Pb	11 27 44.5	-0.7
ETL				S	Sb	11 27 53.4	+1.8
NDS	Dongshan	0.45	315	*e*P	Pb	11 27 44.2	-1.2
NDS				*e*S	Sb	11 27 51.6	-0.3
NACB	Ninganchiao	0.45	252	P	Pb	11 27 44.7	-0.8
NACB	Ninganchiao	0.45	252	S	Sb	11 27 50.1	-1.9
NACB	Ninganchiao	0.45	252	*i* P	Pb	11 27 44.6	-0.8
NACB				S	Sb	11 27 52.2	+0.2
TWD	Chiawan	0.49	241	⇓*i*P	Pb	11 27 45.7	-0.3
TWD				*i* S	Sb	11 27 54.6	+1.6
ILA	Ilan	0.53	327	*e*P	Pb	11 27 46.3	-0.5
ILA				*e*S	Sb	11 27 54.3	+0.2
LATG	Datong	0.54	294	P	Pb	11 27 46.1	-0.8
LATG				*i* S	Sb	11 27 55.6	+1.1
EGS		0.54	347	*i* P	Pb	11 27 46.2	-0.6
EGS				*i* S	Sb	11 27 53.9	-0.5
HWA	Hwalien	0.54	231	*e*P	Pb	11 27 46.7	-0.1
TWE	Neicheng	0.54	318	*i* P	Pb	11 27 46.0	-0.9
TWE				*i* S	Sb	11 27 54.3	-0.1
ETLH	Xiulin Townshi	0.55	258	*i* P	Pb	11 27 46.0	-0.9
ETLH				S	Sb	11 27 55.5	+0.9
NTC	Toucheng	0.58	338	*e*S	Sb	11 27 54.9	-0.5
NDT	Datong Townshi	0.58	299	P	Pb	11 27 47.2	-0.3
NDT				S	Sb	11 27 55.4	-0.1
TEYL	Yanliau Villag	0.62	224	*e*P	Pb	11 27 47.6	-0.5
FUSB	Fushanzhiwuyua	0.62	315	*i* P	Pb	11 27 47.5	-0.7
FUSB				*e*S	Sb	11 27 56.2	-0.5
ETM	Tongmen	0.63	236	*i* P	Pb	11 27 47.4	-0.9
ETM				*e*S	Sb	11 27 57.6	+0.8
NNSB	Datong	0.63	280	*i* P	Pb	11 27 48.0	-0.5
NNSB				*i* S	Sb	11 27 57.1	0.0
NNS	Nan Shan	0.64	281	*i* P	Pb	11 27 48.1	-0.5
NNS				*e*S	Sb	11 27 57.4	0.0
LXIB	Xiulin Townshi	0.67	244	⇓P	Pb	11 27 48.0	-1.0
LXIB				S	Sb	11 27 58.7	+0.7
TIPB	Shuangxi	0.69	341	*i* P	Pb	11 27 48.8	-0.6
TIPB				*i* S	Sb	11 27 58.1	-0.5
NWLT	Wulai	0.69	312	*i* P	Pb	11 27 48.6	-0.7
NWLT				*e*S	Sb	11 27 58.0	-0.6
TWB1	Santiao Chiao	0.69	354	*e*P	Pb	11 27 48.9	-0.5
TWB1				*i* S	Sb	11 27 58.9	+0.3
SHUL	Shoufeng	0.70	221	*e*P	Pb	11 27 48.5	-1.0
YHNB	Yeheng	0.72	299	P	Pb	11 27 49.4	-0.5
YHNB	Yeheng	0.72	299	S	Sb	11 27 59.5	0.0
YHNB	Yeheng	0.72	299	⇑P	Pb	11 27 49.2	-0.7
YHNB				*e*S	Sb	11 27 59.4	-0.1
NSK	Sanguang	0.74	299	*i* P	Pb	11 27 49.4	-0.8
NSK				*i* S	Sb	11 27 59.2	-0.8
WHF	Hehuan Shan	0.75	257	*i* P	Pb	11 27 49.6	-1.0
WHF				*i* S	Sb	11 28 01.4	+0.6
FUSS	Fushou	0.75	265	*i* P	Pb	11 27 49.8	-0.7
FUSS				*e*S	Sb	11 28 00.8	+0.2
ESL	Shilin	0.77	229	*i* P	Pb	11 27 49.1	-1.5
ESL				*i* S	Sb	11 28 01.8	+1.1
TEGC	Jichi Village	0.77	219	*e*P	Pb	11 27 50.2	-0.5
TEGC				*e*S	Sn	11 28 02.9	+1.6
SXI1	Grass Mountain	0.79	347	P	Pb	11 27 50.5	-0.6
SXI1				*i* S	Sb	11 28 02.1	+0.6
TWA	Mucha	0.79	326	*i* P	Pb	11 27 50.9	-0.1
TWA				S	Sb	11 28 02.2	+0.7
WFSB	Wu-fen Shan	0.79	341	*e*P	Pb	11 27 51.0	-0.1
WFSB				*i* S	Sb	11 28 02.5	+1.0
JYNG	Yonagunijimaku	0.81	80	P	Pb	11 27 50.6	-0.8
JYNG				*e*S	Sb	11 28 01.8	-0.2
TWT	Tachien	0.81	266	*e*P	Pb	11 27 52.1	+0.5
TWT				*e*S	Sb	11 28 03.6	+1.3
TDCB	Techi	0.83	266	*i* P	Pb	11 27 52.2	+0.4
TDCB				*e*S	Sb	11 28 03.3	+0.6
TATO	Taipei	0.84	321	P	Pb	11 27 51.9	+0.1
NHY	Taipei	0.85	328	*e*S	Sb	11 28 04.2	+1.1
WARBT	Fenglin Townsh	0.86	226	*e*P	Pb	11 27 50.4	-1.8
TNOU	National Taiwa	0.87	342	*e*P	Pb	11 27 51.9	-0.4
TNOU				*e*S	Sb	11 28 03.9	+0.2
YOJ	Yonaguni jima	0.87	80	P	Pb	11 27 51.7	-0.7
YOJ	Yonaguni jima	0.87	80	S	Sb	11 28 03.8	+0.1
YOJ	Yonaguni jima	0.87	80	*i* P	Pb	11 27 51.7	-0.7
YOJ				S	Sb	11 28 04.3	+0.6
YOJ	Yonaguni jima	0.87	80	P	Pb	11 27 51.7	-0.7
YOJ				S	Sb	11 28 03.9	+0.1
TAP	Taipei	0.88	325	*i* P	Pb	11 27 52.9	+0.3
TAP				*e*S	Sb	11 28 04.4	+0.4
OWD	Renai	0.89	246	*i* P	Pb	11 27 51.6	-1.2
OWD				S	Sb	11 28 03.8	-0.6
NFF	Wufeng Townshi	0.92	290	*e*P	Pb	11 27 52.6	-0.6
NFF				S	Sb	11 28 06.2	+1.1
WUSB	Renai	0.93	250	*i* P	Pb	11 27 52.4	-1.0
WUSB				S	Sb	11 28 05.3	0.0
YM01	YM01	0.94	331	*e*P	Pb	11 27 53.6	0.0
ZUZH	Zhuzihu	0.97	331	P	Pb	11 27 53.5	-0.5
YM08	YM08	0.97	334	*e*P	Pb	11 27 53.4	-0.7
TWS1	Kuangyinshan	0.98	323	*e*P	Pb	11 27 53.7	-0.4
ANP	Anpu	1.00	330	*e*P	Pb	11 27 54.5	-0.1
HGSD	Ruisui	1.01	216	*e*P	Pb	11 27 52.8	-1.9
LIOB	Emei	1.01	289	*i* P	Pb	11 27 54.9	+0.2
NTST	Danshui	1.01	326	*e*P	Pb	11 27 54.7	0.0
VWDT	VWDT	1.01	237	*i* P	Pb	11 27 53.5	-1.2
NSTT	Nanjuang	1.02	288	*e*P	Pb	11 27 54.7	-0.1
NSTT				S	Sb	11 28 08.2	+0.3
WHP	Taichung City	1.02	268	*e*P	Pb	11 27 54.9	0.0
NCUH	Zhongli	1.03	309	*e*P	Pb	11 27 54.5	-0.6
NCUH				*e*S	Sb	11 28 08.5	+0.3
EHYH	Wanrong	1.05	219	*e*P	Pn	11 27 52.9	-1.6
EHY	Hungye	1.06	220	*e*P	Pn	11 27 53.0	-1.6
WCS	Beigang Elemen	1.09	256	*i* P	Pn	11 27 55.2	+0.2
SBCB	Hsinchu	1.09	296	*e*P	Pn	11 27 55.1	+0.1
ECBN	Changbin	1.15	210	*e*P	Pn	11 27 54.2	-1.6
SSLB	Suanglung	1.15	243	P	Pn	11 27 55.3	-0.6
SSLB	Suanglung	1.15	243	*e*P	Pn	11 27 55.5	-0.4
SMLT	Sun Moon Lake	1.15	248	*i* P	Pn	11 27 55.8	-0.2
YULB	Yu-li	1.16	218	P	Pn	11 27 54.1	-1.9
YULB	Yu-li	1.16	218	*e*P	Pn	11 27 54.1	-1.9
TYC	Yuchr	1.18	250	*e*P	Pn	11 27 56.1	-0.2
EYUL	Yuli	1.18	215	*e*P	Pn	11 27 55.8	-0.6
TWF1	Yuli	1.19	216	*e*P	Pn	11 27 55.9	-0.6
WHYT	Xinyi Township	1.27	241	*i* P	Pn	11 27 57.9	+0.3
CHKH	Chenggong	1.28	209	*e*P	Pn	11 27 57.5	-0.1
PCYT	Pengchaiyu	1.31	0	*e*P	Pn	11 27 58.1	+0.1
YUS	Yu-Shan	1.31	231	*e*P	Pn	11 27 58.1	-0.4
WJS	Zhushan	1.32	248	*e*P	Pn	11 27 59.5	+1.3
FULB	Fuli	1.32	213	*e*P	Pn	11 27 58.1	-0.2
WNT	Mingjian	1.34	251	*e*P	Pn	11 28 00.0	+1.6
CHKT	Chengkung	1.37	208	*e*P	Pn	11 27 57.0	-1.9
EHD	Haiduan	1.41	214	*e*P	Pn	11 27 58.2	-1.2
ALS	Alishan	1.41	235	P	Pn	11 27 60.0	+0.3
ECS	Chishang	1.44	213	*e*P	Pn	11 27 58.8	-1.2
CHN5	Tsauling	1.46	241	*e*P	Pn	11 28 01.6	+1.4
ELDTW	Lidau	1.48	221	*e*P	Pn	11 28 00.3	-0.2
EDH	Donghe	1.51	208	*e*P	Pn	11 27 58.8	-2.0
IRIF	Iriomote-Funau	1.52	89	P	Pn	11 28 00.8	-0.1
IRIF				*e*S	Sn	11 28 19.5	-0.2
WDLH	Douliu	1.53	246	*e*P	Pn	11 28 02.4	+1.3
WRL	Guolierlin Hig	1.60	255	P	Pn	11 28 03.5	+1.5
STYH	Taoyuan	1.64	226	*e*P	Pn	11 28 04.0	+1.3
LONT	Longtian	1.65	212	*e*P	Pn	11 28 02.8	+0.1
CHN4	Tsaushan	1.66	235	*e*P	Pn	11 28 03.9	+1.0
WTK	Tuku	1.66	248	*e*P	Pn	11 28 04.6	+1.7
TPUB	Ta-pu	1.66	233	P	Pn	11 28 03.6	+0.7
TPUB	Ta-pu	1.66	233	*e*P	Pn	11 28 03.7	+0.7
TPUB				*e*S	Sn	11 28 25.2	+2.0
WTP	Ta-pu	1.71	232	*e*P	Pn	11 28 04.3	+0.7
CHY	Chiayi	1.71	242	P	Pn	11 28 06.2	+2.6
TWGBT	Beinan	1.75	211	P	Pn	11 28 03.1	-0.9

TWGBT	Beinan	1.75	211	*e*P	Pn	11 28 03.2	-0.9
TWG	Pinlang	1.75	212	P	Pn	11 28 02.8	-1.3
JKRS	Kuro-shima	1.77	92	*e*P	Pn	11 28 05.2	+0.7
JKRS				S	Sn	11 28 27.2	+1.2
TWK	Hsinying	1.79	234	*e*P	Pn	11 28 05.7	+1.0
CHN1	Nanshi	1.81	232	*e*P	Pn	11 28 06.4	+1.5
SGST	Jiashian	1.83	228	P	Pn	11 28 06.3	+1.0
SLGT	Liugui	1.85	225	*e*P	Pn	11 28 07.7	+2.1
WSL	Shuilin Townsh	1.86	245	*e*P	Pn	11 28 06.9	+1.3
WSL				S	Sn	11 28 31.2	+3.0
ICHU	Yijhu	1.89	240	*e*P	Pn	11 28 08.1	+2.0
JIJ	Ishigaki jima	1.89	88	P	Pn	11 28 06.0	-0.1
JIJ				*e*S	Sn	11 28 28.6	-0.4
ECL	Taimali	1.99	211	*e*P	Pn	11 28 07.4	-0.1
SCST	Cishan	2.03	226	*e*P	Pn	11 28 10.0	+2.0
SSD	Sandimen	2.04	220	*e*P	Pn	11 28 09.6	+1.4
JISG	Ishigakijimahi	2.06	82	P	Pn	11 28 07.9	-0.5
JISG				*e*S	Sn	11 28 33.3	+0.1
TSMG	Majia	2.07	219	*e*P	Pn	11 28 10.4	+1.9
MASBT	Mashibuluo	2.15	218	*e*P	Pn	11 28 11.0	+1.4
TSCK	Chigu Township	2.16	238	P	Pn	11 28 10.9	+1.2
LYUB	Lan-yu	2.35	191	*e*P	Pn	11 28 10.0	-2.3
SCZT	Fangliau	2.35	215	*e*P	Pn	11 28 13.5	+1.1
SLIU	Shizi	2.39	209	*e*P	Pn	11 28 12.1	-1.0
WDGT	Dungji	2.44	245	*e*P	Pn	11 28 14.4	+0.7
VWUC	VWUC	2.47	286	*e*P	Pn	11 28 13.9	-0.1
VWUC				*i* S	Sn	11 28 41.3	-2.0
PTMZ	Houxiangcun	2.77	286	*e*P	Pn	11 28 18.1	-0.1
PTMZ				S	Sn	11 28 50.0	-0.8
AXDP	Jialang	3.77	280	*e*P	Pn	11 28 31.8	-0.2
AXDP				*e*S	Sn	11 29 14.0	-1.3

IDC 25 11:28:46.4±999.0**, 50°.55N×56°.50E, h0^{km}, Error ellipse: s-maj=634.8km s-min=22.3km az=97.0, Western Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I31KZ	AKTYUBINSK INF	0.99	97	I	I	11 34 10.0	
	0.4nm,0.7s,baz=279,slow=320,SNR=2.9						
I46RU	ZALESOVO INFRA	17.62	68	I	I	13 12 35.1	
	baz=272,slow=328						
I45RU	USSURIYSK INFR	49.45	66	I	I	16 35 50.0	
	baz=303,slow=322,SNR=3.0						

AUST 25 11:30:53.0±0.3**, 33°S**±1°×**13°8E**±°**, h6^{km}**±1^{km}**, mb3.7**/1**, ML2.4**/13**, Error ellipse: s-maj=3.9km s-min=2.9km az=88.1, confirmed, Near coast of South Australia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NAPP	Napperby	0.41	197	P	Pb	11 31 02.2	-0.5
NAPP				AML	AML		
PTPS	Port Pirie	0.46	213	P	Pb	11 31 03.0	-0.6
PTPS				S	Sg	11 31 08.5	+0.6
PTPS				AML	AML		
PTPS	Port Pirie	0.46	213	P	Pb	11 31 02.8	-0.8
PTPS				S	Sg	11 31 08.3	+0.3
PTPS				AML	AML		
HTT	Hallett	0.83	141	P	Pg	11 31 08.8	-0.2
HTT				S	Sg	11 31 19.5	-0.3
HTT				AML	AML		
HTT	Hallett	0.83	141	P	Pg	11 31 08.7	-0.3
HTT				S	Sg	11 31 20.2	+0.4
HTT				AML	AML		
YAPP	Yappala Statio	0.92	1	P	Pb	11 31 11.3	-0.1
YAPP				S	Sb	11 31 23.5	-0.4
YAPP				AML	AML		
BBOO	Buckleboo	1.88	269	P	Pn	11 31 26.4	+0.6
BBOO				S	Sn	11 31 49.8	-0.1
BBOO				AML	AML		
BBOO	Buckleboo	1.88	269	P	Pn	11 31 26.2	+0.4
BBOO				S	Sn	11 31 50.2	+0.3
BBOO				AML	AML		
SDAN	Sedan	1.92	153	P	Pn	11 31 26.4	+0.1
SDAN				S	Sn	11 31 51.7	+0.8
SDAN				AML	AML		
LCRK	Leigh Creek	2.33	358	P	Pn	11 31 32.4	+0.4
LCRK				S	Sn	11 32 01.2	+0.2
LCRK				AML	AML		
LCRK	Leigh Creek	2.33	358	P	Pn	11 31 32.3	+0.4
LCRK				S	Sn	11 32 01.9	+0.9
LCRK				AML	AML		
AUMBR	Murray Bridge	2.48	161	P	Pn	11 31 33.4	-0.6
AUMBR				S	Sn	11 31 59.8	-4.8
AUMBR				AML	AML		
AUMBR	Murray Bridge	2.48	161	P	Pn	11 31 33.9	-0.1
AUMBR				AML	AML		
AUCAS	Cummins Area S	2.60	235	P	Pn	11 31 35.7	0.0
AUCAS				S	Sn	11 32 07.2	-0.4
STKA	Stephens Creek	2.94	73	P	Pn	11 31 40.4	+0.1
STKA				S	Sn	11 32 16.0	+0.2
STKA				AML	AML		
MULG	Mulgathing	4.40	304	P	Pn	11 32 00.7	+0.4
MULG				S	Sn	11 32 50.5	-1.4
MULG				AML	AML		
ARPS	Mount Arapiles	4.93	145	P	Pn	11 32 07.2	-0.5
ARPS				S	Sn	11 33 02.6	-2.4
ARPS				AML	AML		
INKA	Innaminka	5.46	23	P	Pn	11 32 16.4	+1.5
INKA				S	Sn	11 33 14.8	-3.3
INKA				AML	AML		
FORT	Forrest	8.94	280	P	Pn	11 33 02.6	-0.2
	comp=Z,8.3nm,1.9s,comp=Z,0.0nm						
FORT				AML	AML		

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*NDI **25** 11:59:01.6±1.0, 34°.91N×78°.05E, h10^{km}, ML3.8, MW3.6, Presumed earthquake*

*IDC **25** 11:59:03.7±0.9, 34°.08N×78°.03E, h0^{km}, mb3.7/10, mbtmp3.7/14, ML3.3/3, MS3.7/2, Error ellipse: s-maj=25.1km s-min=12.4km az=64.0*

ISC 25 11:59:07.3±0.7**, 34°.41N**±0°.05×**78°.03E**±0°.06**, h10^{km}, n22,** σ**2^{s}52**/29**, mb3.8**/9**, Kashmir-Xizang border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ALCI	Alchi Leh	0.73	255	*e*P	Pg	11 59 19.9	-1.6
ALCI				*e*x	Sg	11 59 30.9	-0.1
ALCI				IAML		11 59 31.0	
	comp=N,2μm,0.2s						
ALCI				IAML		11 59 31.1	
	comp=E,3μm,0.1s						
TSSA	Tissa	2.22	226	*e*P	Pn	11 59 44.8	+0.5
TSSA				*e*S	Sn	12 00 15.2	+3.3
TSSA				IAML		12 00 19.8	
	comp=N,2μm,0.6s						
TSSA				IAML		12 00 21.6	
	comp=E,2μm,0.2s						
DHRM	DHARAMSHALA	2.59	214	*e*P	Pn	11 59 50.1	+0.5
DHRM				*e*S	Sn	12 00 24.9	+3.7
DHRM				IAML		12 00 33.4	
	comp=N,1μm,0.5s						
DHRM				IAML		12 00 34.6	
	comp=E,1μm,0.5s						
THN	Thein Dam	2.73	225	*e*P	Pn	11 59 50.6	-0.7
THN				*e*S	Sn	12 00 26.6	+2.1
THN				IAML		12 00 36.6	
	comp=N,838nm,0.3s						
THN				IAML		12 00 36.6	
	comp=E,824nm,0.4s						
KLP	Kalpa	2.87	176	*e*P	Pn	11 59 54.3	+0.8
KLP				*e*S	Sn	12 00 32.4	+4.1
KLP				IAML		12 00 39.3	
	comp=N,559nm,0.2s						
KLP				IAML		12 00 39.9	
	comp=E,584nm,0.3s						
JMU	Jammu	3.12	240	*e*P	Pn	11 59 54.6	-2.1
JMU				*e*S	Sn	12 00 34.9	+0.8
JMU				IAML		12 00 53.1	
	comp=N,225nm,0.1s						
JMU				IAML		12 00 53.2	
	comp=E,274nm,0.0s						
SMLA	Simla	3.35	193	*e*P	Pn	12 00 01.1	+1.4
SMLA				*e*S	Sn	12 00 44.3	+4.7
SMLA				IAML		12 00 51.1	
	comp=E,80nm,0.7s						
SMLA				IAML		12 00 51.4	
	comp=N,85nm,0.6s						
AAK	Ala-Archa	8.67	342	Pn	Pn	12 01 18.4	+5.4
	comp=N,0.8nm,0.4s,baz=195,slow=21,SNR=0.5						
AAK				Sn	Sn	12 02 56.5	+5.7
	comp=N,0.2nm,0.3s,baz=225,slow=20,SNR=1.2						
AAK				Lg	Lg	12 03 40.7	
	comp=N,1.3nm,0.3s,baz=241,slow=14,SNR=5.6						
MKAR	Makanchi Array	12.79	13	Pn	Pn	12 02 10.7	+1.6
	comp=N,0.1nm,0.3s,baz=194,slow=13,SNR=4.2						
MKAR				Sn	Sn	12 04 30.8	-0.7
	baz=191,slow=22,SNR=3.9						
MKAR				Lg	Lg	12 06 00.1	
	comp=N,0.1nm,0.3s,baz=202,slow=23,SNR=0.9						
	comp=N,0.5nm,0.7s						
MKAR				AML	AML		
KURBB	Kurchatov Arra	16.21	1	Pn	Pn	12 02 57.4	+2.3
	comp=N,0.2nm,0.3s,baz=188,slow=12,SNR=5.8						
	comp=N,0.6nm,0.3s						
KURBB				AML	AML		
BVAR	Borovoye Array	19.39	346	P	P	12 03 34.8	+1.5
	comp=N,0.1nm,0.3s,baz=155,slow=11,SNR=8.4						
	comp=N,2.5nm,0.7s						
BVAR				AML	AML		
ZALV	Zalesovo Beam	20.11	12	P	P	12 03 42.5	+1.4
	comp=N,0.4nm,0.4s,baz=196,slow=9.1,SNR=4.8						
	comp=N,0.4nm,0.4s						
AKTO	Aktyubinsk	21.68	324	P	P	12 03 58.3	+0.2
	comp=N,1.6nm,0.5s,baz=119,slow=15,SNR=7.2						
	comp=N,1.6nm,0.5s						
CMAR	Chiang Mai Arr	24.48	125	P	P	12 04 22.5	-4.2
	comp=N,2.9nm,0.9s,baz=316,slow=10,SNR=13						
	comp=N,2.9nm,0.9s						
SONM	Songino Array	25.06	49	P	P	12 04 32.0	+0.1
	comp=N,1.5nm,0.6s,baz=246,slow=10,SNR=7.2						
	comp=N,1.5nm,0.6s						
KVAR	Kislovodsk Arr	28.81	300	LR	LR	12 19 26.5	
	comp=N,162nm,21.9s,baz=266,slow=42						
BRTR	Keskin Array B	35.54	292	P	P	12 06 03.1	-1.6
	comp=N,0.2nm,0.3s,baz=116,slow=6.6,SNR=1.6						
	comp=N,0.2nm,0.3s						
FINES	FINESS Array B	42.43	326	P	P	12 07 01.7	-0.2
	comp=N,2.9nm,0.9s,baz=129,slow=7.6,SNR=7.8						
	comp=N,2.9nm,0.9s						
NOA	NORSAR Array B	49.47	324	P	P	12 07 57.6	0.0
	comp=N,0.7nm,0.8s,baz=96,slow=7.0,SNR=1.3						
	comp=N,0.7nm,0.8s						
WRA	Warramunga Arr	76.07	126	P	P	12 10 52.1	-3.2
	comp=N,0.7nm,0.9s,baz=317,slow=4.2,SNR=4.9						
	comp=N,0.7nm,0.9s						
ASAR	Alice Springs	78.42	129	P	P	12 11 05.2	-3.3
	comp=N,0.7nm,0.9s,baz=315,slow=5.9,SNR=6.2						
ASAR				LR	LR	12 53 40.8	
	comp=N,43nm,19.6s,baz=221,slow=42						
	comp=N,0.7nm,0.9s						
YKA	Yellowknife Ar	82.90	6	P	P	12 11 32.5	+0.6
	comp=N,0.9nm,0.7s,baz=343,slow=5.6,SNR=3.2						
	comp=N,0.9nm,0.7s						

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*LVSN **25** 12:29:59.1±3.5, 59°.64N×25°.29E, h0^{km}±34^{km}, ML2.1, Presumed earthquake*

*HEL **25** 12:30:01.0±0.0, 59°.58N×24°.58E, h0^{km}, ML1.8, Explosion*

*EST **25** 12:30:01.0±0.0, 59°.58N×24°.58E, h0^{km}, ML1.8(HEL), Explosion*

*IDC **25** 12:30:02.4±3.0, 59°.63N×24°.55E, h0^{km}, mbtmp2.8/2, ML2.0/3, Error ellipse: s-maj=31.0km s-min=11.7km az=157.0*

ISC 25 12:29:58.9±0.7**, 59°.61N**±0°.02×**24°.56E**±0°.02**, h0^{km}, n40,** σ**0^{s}79**/60**, Baltic States-Belarus-Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EE02	Kiisa, Saku	0.42	171	*e*P	Pb	12 30 07.9	-1.2
EE02				*e*S	Sg	12 30 12.8	+0.5
LAUT	Lauttasaari He	0.57	15	*e*P	Pb	12 30 11.6	-0.1
LAUT				*e*S	Sb	12 30 19.3	-1.0
MEF	Metsahovi	0.62	352	*e*P	Pb	12 30 12.7	+0.2
MEF				AML	AML	12 30 27.2	
	comp=Z,25nm,0.5s						
MEF				AML	AML	12 30 28.6	
	comp=N,24nm,0.1s						
MEF				AML	AML	12 30 32.5	
	comp=E,31nm,0.1s						
MEF	Metsahovi	0.62	352	*e*P	Pb	12 30 12.7	+0.2
MEF	Metsahovi	0.62	352	*e*P	Pb	12 30 12.7	+0.2
MEF				*e*S	Sb	12 30 21.0	-0.7
EE01	Perakula, Nova	0.63	231	*e*P	Pb	12 30 11.9	-0.7
EE01				*e*S	Sg	12 30 19.6	+0.7
VUOS	Vuosaari Helsi	0.66	26	*e*P	Pb	12 30 13.0	-0.1
VUOS				*e*S	Sb	12 30 21.9	-1.0
TVF	Tvarminne	0.71	290	*e*P	Pb	12 30 13.9	-0.1
TVF				*e*S	Sb	12 30 23.3	-1.0
ARBE	Arbavere	0.74	103	*e*S	Sg	12 30 11.6	-11
ARBE	Arbavere	0.74	103	*e*P	Pb	12 30 14.5	-0.2
NUR	Nurmijarvi	0.91	3	*e*P	Pb	12 30 17.7	+0.3
NUR				*e*S	Sb	12 30 29.9	-0.1
MTSE	Matsula	0.97	204	*e*P	Pb	12 30 18.1	-0.4
MTSE	Matsula	0.97	204	*e*P	Pb	12 30 18.1	-0.4
MTSE	Matsula	0.97	204	*e*P	Pb	12 30 18.2	-0.4
MTSE				*e*S	Sg	12 30 30.4	+0.3
EE08	Sarghaua, Vand	1.01	160	*e*P	Pb	12 30 18.8	-0.5
EE08				*e*S	Sg	12 30 31.3	0.0
EE06	Soera, Palade,	1.09	235	*e*P	Pb	12 30 20.4	-0.1
EE06				*e*S	Sg	12 30 34.1	+0.4
PVF	Pernaja	1.15	34	*e*P	Pn	12 30 21.9	-0.2
PVF				*e*S	Sb	12 30 36.7	-0.2
EE03	Tooma soojaam,	1.15	129	*e*P	Pb	12 30 21.1	-0.4
EE03				*e*S	Sb	12 30 36.1	-0.8
VSU	Vasula	1.61	135	AML	AML	12 30 28.7	
	comp=Z,30nm,0.1s						
VSU				AML	AML	12 30 57.9	
	comp=E,62nm,0.3s						
VSU				AML	AML	12 31 01.2	
	comp=N,58nm,0.4s						
VSU	Vasula	1.61	135	*e*P	Pn	12 30 28.4	0.0
VSU	Vasula	1.61	135	*e*P	Pb	12 30 29.2	-0.1
VSU				*e*S	Sn	12 30 49.6	-0.2
EE04	Vaivara Sinima	1.71	96	*e*P	Pb	12 30 31.0	0.0
EE04				*e*PN	Pg	12 30 32.4	+0.9
EE04				*e*S	Sb	12 30 52.8	-0.2
VJF	Virojoki	1.77	57	*e*P	Pg	12 30 32.4	-0.3
VJF				*e*S	Sg	12 30 55.4	-0.3
VJF				smax	smax	12 30 57.1	
	comp=Z,5.2nm,0.1s						
FIA0	FINESS Array S	1.99	21	*e*PG	Pg	12 30 37.1	+0.2
FIA0				*e*SG	Sg	12 31 03.0	+0.2
FIA0				smax	smax	12 31 05.2	
	comp=Z,3.7nm,0.1s						
FINES	FINESS Array B	1.99	21	Pg	Pg	12 30 37.0	0.0
	comp=Z,3.0nm,0.3s,baz=201,slow=15,SNR=170						
FINES				Lg	Lg	12 31 02.7	
	comp=Z,3.1nm,0.3s,baz=205,slow=29,SNR=16						
RAF	Rauma	1.99	317	*e*P	Pg	12 30 36.8	-0.2
RAF				AML	AML	12 30 37.2	
	comp=Z,7.1nm,0.2s						
RAF				*e*S	Sg	12 31 03.5	+0.7
RAF				AML	AML	12 31 06.0	
	comp=E,9.7nm,0.2s						
RAF				AML	AML	12 31 07.0	
	comp=N,9.6nm,0.2s						
RAF	Rauma	1.99	317	*e*P	Pg	12 30 37.0	+0.1
RAF	Rauma	1.99	317	*e*PG	Pg	12 30 37.1	+0.1
RAF				*e*SG	Sg	12 31 03.0	+0.3
RAF				smax	smax	12 31 05.9	
	comp=Z,3.7nm,0.1s						
SLIT	Slitere, Latvi	2.31	212	*e*P	Pb	12 30 41.3	-0.1
SLIT				AML	AML	12 30 41.6	
	comp=Z,213nm,0.1s						
SLIT				*e*S	Sg	12 31 12.3	-0.8
SLIT				AML	AML	12 31 13.8	
	comp=E,189nm,0.4s						
SLIT				AML	AML	12 31 17.2	
	comp=N,120nm,0.2s						
SLIT	Slitere, Latvi	2.31	212	*e*P	Pb	12 30 41.2	-0.1
SLIT	Slitere, Latvi	2.31	212	*e*PG	Pb	12 30 41.0	-0.3
EE07	Piusa Caves, O	2.33	138	*e*PB	Pb	12 30 41.5	-0.1
EE07				*e*SG	Sb	12 31 11.3	+0.4
KPF	Kankaanpaa	2.55	332	*e*PB	Pb	12 30 45.5	+0.1
KPF				smax	smax	12 31 20.5	
	comp=Z,4.5nm,0.1s						
KEF	Keuruu	2.57	3	*e*P	Pb	12 30 45.7	-0.1
KEF	Keuruu	2.57	3	smax	smax	12 31 21.4	
	comp=Z,2.8nm,0.1s						
SUF	Sumiainen	3.22	13	*e*P	Pb	12 30 53.9	-2.9
JOF	Joensuu	4.65	42	*e*P	Pn	12 31 12.5	+2.2
HFS	Hagfors	5.50	280	Pn	Pn	12 31 23.3	+1.4
	comp=Z,0.1nm,0.3s,baz=95,slow=17,SNR=2.4						
HFS				Sn	Sn	12 32 25.9	+0.1
	comp=Z,0.3nm,0.3s,baz=83,slow=17,SNR=4.5						
HFS				Lg	Lg	12 32 50.7	
	comp=Z,0.2nm,0.3s,baz=93,slow=22,SNR=1.3						
	comp=Z,1.6nm,0.8s						
HFS				AML	AML		
NOA	NORSAR Array B	6.78	288	Pn	Pn	12 31 40.4	+0.8
	baz=81,slow=14,SNR=7.2						
NOA				Sn	Sn	12 32 54.5	-2.9
	baz=91,slow=17,SNR=1.9						
NOA				Lg	Lg	12 33 30.7	
	baz=75,slow=18,SNR=1.4						
	comp=Z,0.5nm,0.8s						
ARCES	ARCESS Array B	9.98	2	Pn	Pn	12 32 24.0	+0.7
	baz=181,slow=13,SNR=8.4						

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*IDC **25** 12:40:50.2±10.0, 0°.53S×98°.26E, h0^{km}, mb3.3/3, mbtmp3.3/3, Error ellipse: s-maj=548.3km s-min=28.6km az=54.0*

*DJA **25** 12:41:13.6±0.7, 1°N±6°×10°0E±°, h157^{km}±7^{km}, M3.0/7, MLv2.9/6, MLv3.0/7*

ISC 25 12:41:12.9±1.1**, 0°.61N**±0°.10×**99°.9E**±0°.1**, h150^{km}, n9,** σ**1^{s}39**/9**, mb2.9**/3**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PBSI	Pulau Batu	1.73	248	P	Pn	12 41 46.3	+1.3
PBSI				AML	AML		
SDSI	Sungai Dareh	2.17	135	P	Pn	12 41 51.9	+1.8
GSI	Gunungsitoli	2.41	287	P	Pn	12 41 54.0	+1.1
PPSI	Pulau Pagai	3.35	178	P	Pn	12 42 04.6	-0.2
KCSI	Kotacane, Aceh	3.58	324	P	Pn	12 42 08.4	+0.7
TPTI		3.77	314	P	Pn	12 42 10.8	+0.6
WRA	Warramunga Arr	39.46	123	P	P	12 48 29.4	+0.6
	0.1nm,0.4s,baz=301,slow=7.8,SNR=5.1						
	0.1nm,0.4s						
ASAR	Alice Springs	40.91	128	P	P	12 48 38.9	-1.9
	0.2nm,0.8s,baz=301,slow=7.9,SNR=2.2						
	0.2nm,0.8s						
MKAR	Makanchi Array	48.50	344	P	P	12 49 39.8	-0.7
	0.5nm,0.3s,baz=163,slow=8.2,SNR=9.4						
	0.5nm,0.3s						

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*NEIC **25** 12:59:58.6±1.2, 8°.91S±0°.09×79°.7W±0°.1, h57^{km}±9^{km}, mb4.2/13, Error ellipse: s-maj=17.3km s-min=11.0km az=61.0*

*IDC **25** 13:00:01.0±1.7, 8°.94S×79°.65W, h72^{km}±14^{km}, mb3.6/13, mbtmp3.9/16, MS3.6/8, Error ellipse: s-maj=16.4km s-min=8.8km az=72.0*

*VAO **25** 13:00:06.1±1.7, 8°.31S×79°.14W, h103^{km}±11^{km}, mb4.4, Presumed earthquake*

ISC 25 12:59:57.5±0.5**, 8°.90S**±0°.05×**79°.74W**±0°.07**, h45^{km}, n71,** σ**1^{s}54**/61**, mb4.0**/13**, MS3.6**/5**, Near coast of northern Peru**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ATAH	Atahualpa	2.21	37	P	Pn	13 00 33.8	+1.8
	582nm,0.4s,baz=180,slow=7.2,SNR=404						
ATAH				S	Sn	13 01 03.4	+5.1
	514nm,0.3s,baz=118,slow=20,SNR=7.4						
ATAH				LR	LR	13 01 43.7	
	comp=Z,950nm,21.3s,baz=210,slow=47						
NNA	Nana	4.19	137	P	Pn	13 00 59.4	+0.5
	48nm,0.2s,baz=355,slow=10.0,SNR=26						
NNA				S	Sn	13 01 48.7	+2.0
	117nm,0.3s,baz=180,slow=19,SNR=6.7						
CZSB	Cruzeiro do Su	7.06	81	Pn	Pn	13 01 39.5	+1.1
CZSB	Cruzeiro do Su	7.06	81	*e*P	Pn	13 01 37.0	-1.3
SLOR	San Lorenzo -	8.21	9		Pn	13 01 55.6	+1.0
OTAV	Otavalo	9.17	8		Pn	13 02 08.2	+0.6
OTAV	Otavalo	9.17	8	*e*P	Pn	13 02 06.8	-0.9
PAYG	Puerto Ayora	13.30	307	Pn	Pn	13 03 04.6	+0.7
LPAZ	La Paz	13.50	124	P	Pn	13 03 08.5	+1.5
	0.6nm,0.4s,baz=228,slow=6.3,SNR=1.9						
LPAZ				S	Sn	13 05 35.8	-0.2
	0.7nm,0.3s,baz=176,slow=6.8,SNR=1.3						
LPAZ	La Paz	13.50	124		Pn	13 03 07.8	+0.8
PB16	IPOC Station P	13.66	134	Pn	Pn	13 03 09.4	+0.2
GO01	Chusmiza	14.79	137	Pn	Pn	13 03 24.4	+0.1
SGC2	Sao Gabriel da	15.40	56	*e*P	Pn	13 03 27.5	-4.4
PB07	IPOC Station P	15.89	144	P	Pn	13 03 38.8	+0.5
PB07				IAmb	IAmb	13 03 45.7	
	comp=Z,22nm,1.5s						
PB09	IPOC Station P	16.32	143		P	13 03 45.3	-0.9
SIV	San Ignacio	19.54	113	P	P	13 04 20.5	-1.0
	comp=Z,1.6nm,0.7s,baz=296,slow=11,SNR=8.7						
SIV				S	S	13 07 58.0	-1.9
	comp=Z,0.4nm,0.4s,baz=248,slow=24,SNR=0.9						
VILB	Vilhena	19.60	104	P	P	13 04 21.0	-1.2
VILB	Vilhena	19.60	104	*e*P	P	13 04 21.9	-0.3
JTS	Las Juntas de	19.76	345	LR	LR	13 10 54.6	
	comp=Z,127nm,18.3s,baz=180,slow=33						
SDV	Santo Domingo	19.86	27	LR	LR	13 12 50.5	
	comp=Z,210nm,20.8s,baz=238,slow=39						
AC06	Mina Casimiro	20.39	155	P	P	13 04 29.5	-1.2
AC06				IAmb	IAmb	13 04 48.0	
	comp=Z,18nm,1.2s						
AC02	Maricunga	20.47	152	P	P	13 04 31.9	-0.2
AC02				IAmb	IAmb	13 04 41.0	
	comp=Z,9.4nm,1.1s						
PTLB	Pontes e Lacer	21.16	110	P	P	13 04 37.5	-1.5
PTLB				IAmb	IAmb	13 04 51.9	
	comp=Z,12nm,0.9s						
PTLB	Pontes e Lacer	21.16	110	*e*P	P	13 04 39.6	+0.7
BOAV	Boa Vista	22.20	61	P	P	13 04 49.2	-1.1
CLDB	Colider	23.67	97	*e*P	P	13 05 03.7	-1.5
COIM	Forte Coimbra	23.88	120	*e*P	P	13 05 07.9	+0.8
ITTB	Itaituba	24.26	81	*e*P	P	13 05 07.6	-3.1
H03N2	Juan Fernandez	24.43	178	T	T	13 30 35.0	
	baz=266,slow=74,SNR=89						
H03N1	Juan Fernandez	24.43	178	T	T	13 30 29.4	
	baz=356,slow=74,SNR=129						
H03N3	Juan Fernandez	24.45	178	T	T	13 29 25.5	
	SNR=172						
SALV	Santo Antonio	24.48	109	*e*P	P	13 05 12.8	+0.2
CPUP	Villa Florida	27.43	132	P	P	13 05 40.8	+1.6
	comp=Z,0.6nm,0.6s,baz=181,slow=19,SNR=1.7						
CPUP				LR	LR	13 19 34.5	
	comp=Z,61nm,19.8s,baz=256,slow=43						
	comp=Z,0.6nm,0.6s						
SJPY	San Joaquin	27.63	128	*e*P	P	13 05 43.0	+2.0
ARAG	Araguaiana, MT	28.09	107	*e*P	P	13 05 44.9	-0.3
MDP	Montagnes des	30.39	64	LR	LR	13 19 28.8	
	comp=Z,129nm,19.1s,baz=138,slow=38						
BDFB	Brasilia	31.69	105	LR	LR	13 19 15.8	
	comp=Z,127nm,21.9s,baz=294,slow=37						
PLCA	Paso Flores	32.73	167	P	P	13 06 26.8	+0.8
	comp=Z,2.3nm,1.0s,baz=351,slow=11,SNR=2.9						
	comp=Z,2.3nm,1.0s						
RPN	Rapa Nui	33.33	233	LR	LR	13 16 18.5	
	comp=Z,109nm,20.3s,baz=84,slow=29						
TX31	Lajitas Ar. Si	44.46	330	P	P	13 08 03.5	-1.0
TXAR	Lajitas Array	44.46	330	P	P	13 08 07.0	+2.5
	comp=Z,0.2nm,0.5s,baz=104,slow=6.3,SNR=2.4						
	comp=Z,0.2nm,0.5s						
TXAR	Lajitas Array	44.46	330	P	P	13 08 04.0	-0.4
PDAR	Pinedale Array	58.18	334	P	P	13 09 48.8	+1.6
	comp=Z,0.4nm,0.3s,baz=120,slow=3.6,SNR=4.4						
	comp=Z,0.4nm,0.3s						
PDAR	Pinedale Array	58.18	334	P	P	13 09 45.2	-2.0
NVAR	Mina Array Bea	59.23	325	P	P	13 09 54.8	+0.2
	comp=Z,0.2nm,0.5s,baz=94,slow=4.9,SNR=5.0						
	comp=Z,0.2nm,0.5s						
NVAR	Mina Array Bea	59.23	325	P	P	13 09 53.0	-1.5
ULM	Lac du Bonnet	60.56	348	P	P	13 10 02.5	-0.7
	comp=Z,1.1nm,0.6s,baz=138,slow=6.8,SNR=3.3						
	comp=Z,1.1nm,0.6s						
DBIC	Dimbokro	76.22	81	P	P	13 11 42.5	+0.6
	comp=Z,3.1nm,0.7s,baz=256,slow=9.4,SNR=3.2						
	comp=Z,3.1nm,0.7s						
SNAA	Sanae	77.49	162	P	P	13 11 49.0	+1.0
	comp=Z,2.1nm,0.7s,baz=321,slow=3.6,SNR=6.5						
	comp=Z,2.1nm,0.7s						
SNAA	Sanae	77.49	162	P	P	13 11 48.2	+0.2
SNAA				IAmb	IAmb	13 11 50.7	
	comp=Z,2.2nm,0.7s						
QSPA	South Pole Qui	81.21	180	P	P	13 12 10.1	+1.6
	comp=Z,3.7nm,0.9s,baz=144,slow=1.6,SNR=16						
	comp=Z,3.7nm,0.9s						
QSPA	South Pole Qui	81.21	180	P	P	13 12 08.6	+0.2
QSPA				IAmb	IAmb	13 12 11.3	
	comp=Z,4.3nm,0.9s						

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TORD   Torodi Ar. Bea    83.77  76    P       P        13 12 23.1 +0.4
        comp=Z,1.5nm,0.9s,baz=271,slow=4.7,SNR=8.7
        comp=Z,1.5nm,0.9s
ESDC   Sonseca Array     84.86  49    P       P        13 12 28.1 +0.3
        comp=Z,1.3nm,0.9s,baz=266,slow=5.1,SNR=4.5
        comp=Z,1.3nm,0.9s
BCAR   Beaver Creek A    85.75 336    P       P        13 12 32.0 +0.3
VNDA   Vanda             87.26 191    P       P        13 12 39.2 +0.4
        comp=Z,0.2nm,0.5s,baz=99,slow=1.9,SNR=3.0
        comp=Z,0.2nm,0.5s
VNDA   Vanda             87.26 191    P       P        13 12 38.6 -0.2
VNDA                                  IAmb    IAmb     13 12 56.8
        comp=Z,1.3nm,1.1s
IL31                     88.53 337    P       P        13 12 42.1 -2.8
ILAR   Eielson Array     88.53 337    P       P        13 12 43.9 -1.1
        comp=Z,0.2nm,0.8s,baz=143,slow=2.6,SNR=2.2
ILAR                                  LR      LR       13 55 29.3
        comp=Z,64nm,18.7s,baz=81,slow=38
        comp=Z,0.2nm,0.8s
ILAR   Eielson Array     88.53 337    P       P        13 12 41.5 -3.5
H11N3  WAKE ISLAND Hy    14.86 288    T       T        15 23 23.4
        baz=92,slow=75,SNR=22
H11N2  WAKE ISLAND Hy    14.88 288    T       T        15 23 27.1
        baz=92,slow=75,SNR=23
H11N1  WAKE ISLAND Hy    14.88 288    T       T        15 23 31.8
        baz=92,slow=75,SNR=28
H11S2  WAKE ISLAND Hy    15.03 286    T       T        15 23 39.4
        baz=92,slow=75,SNR=21
H11S1  WAKE ISLAND Hy    15.04 286    T       T        15 23 39.0
        baz=92,slow=75,SNR=12
H11S3  WAKE ISLAND Hy    15.05 286    T       T        15 23 39.6
        baz=92,slow=75,SNR=17
ZALV   Zalesovo Beam    133.39  13    PKP     PKPdf    13 19 08.6  0.0
        comp=Z,1.0nm,0.6s,baz=318,slow=1.9,SNR=3.9
ASAR   Alice Springs    133.85 225    PKP     PKPdf    13 19 09.9 -0.6
        comp=Z,0.3nm,0.5s,baz=121,slow=2.1,SNR=6.0
KURBB  Kurchatov Arra   134.69  19    PKP     PKPdf    13 19 10.5 -0.7
        comp=Z,0.6nm,0.3s,baz=330,slow=3.2,SNR=2.0
WRA    Warramunga Arr   135.87 229    PKP     PKPdf    13 19 14.2 -0.2
        comp=Z,0.4nm,0.5s,baz=123,slow=2.2,SNR=11
GTA2   Gaotai           149.54   1   eP       PKPbc    13 19 42.3 -0.2
GTA2                                  sP      pPKPdf   13 19 52.5 +0.6
GTA2                                  pmax    pmax
        comp=Z,5.0nm,0.9s
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*IDC **25** 13:04:27.7±1.3, 8.°88S×80.°06W, h0^{km}, mb3.6/2, mbtmp3.8/4, ML3.8/2, Error ellipse: s-maj=22.7km s-min=18.1km az=92.0*

ISC 25 13:04:32.6±1.1, **8.°95S**±0.°07×**79.°9W**±0.°1, **h35^{km}, n6,** σ**0^{s}62**/8, **Near coast of northern Peru**

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Code   Station Name        Δ°   AZ°    Phase ID          Time      Res
                                      Op      ISC      h  m  s     ISC
ATAH   Atahualpa          2.35  40    Pn      Pn       13 05 09.0 -0.2
        51nm,0.3s,baz=204,slow=6.3,SNR=18
ATAH                                  Sn      Sn       13 05 37.3 +0.3
        55nm,0.3s,baz=123,slow=21,SNR=10
        138nm,0.4s
ATAH                                  AML     AML
NNA    Nana               4.27 135    Pn      Pn       13 05 35.2 -0.1
        4.3nm,0.3s,baz=323,slow=16,SNR=2.9
NNA                                   Sn      Sn       13 06 23.9 -0.1
        7.2nm,0.3s,baz=357,slow=19,SNR=1.8
        15nm,0.3s
NNA                                   AML     AML
NVAR   Mina Array Bea    59.16 325    P       P        13 14 30.4 +0.1
        0.1nm,0.5s,baz=125,slow=7.4,SNR=1.9
        0.1nm,0.5s
QSPA   South Pole Qui    81.16 180    P       P        13 16 45.2 +0.7
        1.3nm,0.9s,baz=194,slow=3.5,SNR=5.5
        1.3nm,0.9s
ASAR   Alice Springs    133.70 225    PKP     PKPdf    13 23 45.5 -1.1
        0.2nm,0.8s,baz=129,slow=2.5,SNR=2.0
WRA    Warramunga Arr   135.71 229    PKP     PKPdf    13 23 50.2 -0.3
        0.3nm,0.9s,baz=116,slow=2.0,SNR=1.9
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*TEH **25** 13:12:02.9, 34.°78N×46.°28E, h8^{km}±39^{km}, ML2.6, Presumed earthquake*

*ISN **25** 13:12:05.5±1.4, 34.°78N×46.°28E, h8^{km}, ML3.0, Presumed earthquake*

ISC 25 13:12:03.8±1.2, **34.°77N**±0.°05×**46.°31E**±0.°05, **h9^{km}**±11^{km}, **n10,** σ**0^{s}65**/11, **Western Iran**

```
Code   Station Name        Δ°   AZ°    Phase ID          Time      Res
                                      Op      ISC      h  m  s     ISC
IDHR   Dehrash            0.09 137    Pg      Pg       13 12 06.2 -0.1
IGHG   Ghaleghazi         0.48 154    Pg      Pg       13 12 12.7 -0.5
KCHF   Cheshme Sefid,     0.78 129    Pg      Pg       13 12 18.0 -0.8
SNJK   Sanadaj _Korde     0.92  43    Pg      Pg       13 12 20.9 -0.6
SNQR   Sonqor, Kerman     1.09  85    Pg      Pg       13 12 24.1 -0.6
ILBA   Ilam Banvizeh      1.14 184    Pg      Pg       13 12 25.0 -0.7
IBZA   Bozab              1.31 103    Pg      Pn       13 12 29.2 +0.7
IKRK   Kirkuk             1.74 292   iP       Pb       13 12 35.7 -0.2
IKRK                                 iS       Sg       13 13 00.3 +0.6
        baz=111
IKRK                                  IAML             13 13 01.6
        comp=E,193nm,0.6s
IKRK                                  IAML             13 13 01.7
        comp=N,244nm,0.5s
IKFM   Kafar-mosalman     1.77 134    Pg      Pb       13 12 36.5  0.0
IDOB   Doab               1.83 122    Pn      Pb       13 12 37.7 +0.1
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*SJA **25** 13:12:40.4±1.2, 23.°70S×67.°18W, h192^{km}±16^{km}, ML3.2, MW3.5*

*GUC **25** 13:12:41.7±0.7, 23.°66S×67.°47W, h221^{km}±9^{km}, ML3.6*

ISC 25 13:12:38.9±2.0, **23.°68S**±0.°04×**67.°20W**±0.°06, **h210^{km}**±17^{km}, **n26,** σ**1^{s}33**/38, **5C, Chile-Argentina border region**

```
Code   Station Name        Δ°   AZ°    Phase ID          Time      Res
                                      Op      ISC      h  m  s     ISC
SALTA                     0.95 125   iP       Pn       13 13 10.6 +0.6
SALTA                                 IAML             13 13 37.1
        comp=Z,31nm,1.1s
HJA    Humahuaca          1.71  74   iP       Pn       13 13 16.6 +0.7
HJA                                  iS       S        13 13 42.9 -1.4
HJA                                   IAML             13 13 47.4
        comp=Z,22nm,0.6s
PB06   IPOC Station P     2.39 293   iP       Pn       13 13 24.2 +1.7
PB06                                  IAML             13 13 59.8
        comp=Z,163nm,0.1s
PB06   IPOC Station P     2.39 293   iP       Pn       13 13 23.4 +0.9
PB06                                 iS       S        13 13 55.4 -0.6
PB06                                  IAML             13 13 57.2
        comp=N,171nm,0.1s
PB09   IPOC Station P     2.66 314   iP       Pn       13 13 27.1 +1.7
PB09                                  IAML             13 14 05.2
        comp=Z,64nm,0.4s
PB09   IPOC Station P     2.66 314⇑iP       Pn       13 13 27.2 +1.7
PB09                                 iS       S        13 14 01.2 -0.1
PB09                                  IAML             13 14 02.5
        comp=E,74nm,0.3s
FSA    Cafayete           2.66 156   iP       Pn       13 13 26.7 +1.3
PB03   IPOC Station P     2.86 304   iP       Pn       13 13 29.2 +1.5
PB03                                  IAML             13 14 08.1
        comp=Z,106nm,0.2s
PB03   IPOC Station P     2.86 304⇑iP       Pn       13 13 28.9 +1.2
PB03                                 iS       S        13 14 04.0 -1.4
PB03                                  IAML             13 14 07.0
        comp=N,162nm,0.3s
PB05   IPOC Station P     2.88 286   iP       Pn       13 13 29.3 +1.4
PB05                                  IAML             13 14 11.0
        comp=Z,50nm,0.6s
PB05   IPOC Station P     2.88 286⇑iP       Pn       13 13 28.9 +1.0
PB05                                 iS       S        13 14 04.1 -1.6
PB05                                  IAML             13 14 09.4
        comp=N,78nm,0.4s
PB14   IPOC Station P     3.08 252   iP       Pn       13 13 31.5 +1.2
PB14                                 iS       S        13 14 09.4 -0.6
PB14                                  IAML             13 14 12.0
        comp=Z,52nm,0.3s
PB14   IPOC Station P     3.08 252⇑iP       Pn       13 13 31.5 +1.2
PB14                                 iS       S        13 14 08.8 -1.2
PB07   IPOC Station P     3.15 308   iP       Pn       13 13 32.5 +1.4
PB07                                  IAML             13 14 17.5
        comp=Z,93nm,0.3s
PB07   IPOC Station P     3.15 308⇑iP       Pn       13 13 32.2 +1.1
PB07                                 iS       S        13 14 10.0 -1.5
PB07                                  IAML             13 14 11.9
        comp=E,128nm,0.6s
PB02   IPOC Station P     3.43 313   iP       Pn       13 13 36.6 +2.4
PB02                                  IAML             13 14 21.8
        comp=Z,66nm,0.1s
PB02   IPOC Station P     3.43 313   iP       Pn       13 13 35.1 +0.8
PB02                                 iS       S        13 14 15.0 -2.2
AC02   Maricunga          3.59 209   iP       Pn       13 13 38.4 +1.8
AC02                                  IAML             13 14 28.8
        comp=Z,14nm,0.6s
AC02   Maricunga          3.59 209   iP       Pn       13 13 38.2 +1.6
AC01   Pan de Azucar      3.94 231   iP       Pn       13 13 40.8 +0.5
AC01                                  IAML             13 14 31.3
        comp=Z,22nm,0.5s
AC01   Pan de Azucar      3.94 231   iP       Pn       13 13 40.6 +0.2
PB08   IPOC Station P     3.96 332   iP       Pn       13 13 42.8 +1.8
PB08                                 iS       S        13 14 29.0 -0.4
PB11   IPOC Station P     4.52 329   iP       Pn       13 13 47.9 +0.2
PB11                                 iS       S        13 14 40.6 -1.1
PB11                                  IAML             13 14 43.4
        comp=Z,16nm,0.3s
GO03   Copiapo            4.76 214   iP       Pn       13 13 51.1 +0.4
GO03                                 iS       S        13 14 45.5 -1.5
GO03                                  IAML             13 14 48.4
        comp=Z,46nm,0.3s
GO03   Copiapo            4.76 214   iP       Pn       13 13 51.0 +0.4
PSGCX  Pisagua            4.89 326   iP       Pn       13 13 52.0 -0.4
PSGCX                                 IAML             13 14 50.3
        comp=Z,20nm,0.8s
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*IDC **25** 13:42:38.1±0.7, 31.°99N×105.°09E, h0^{km}, mb3.9/10, mbtmp3.8/14, ML3.8/4, MS3.1/2, Error ellipse: s-maj=25.1km s-min=12.2km az=68.0*

ISC 25 13:42:40.6±0.6, **32.°05N**±0.°05×**105.°09E**±0.°06, **h14^{km}, n18,** σ**1^{s}64**/23, **mb3.9**/10, **Sichuan**

```
Code   Station Name        Δ°   AZ°    Phase ID          Time      Res
                                      Op      ISC      h  m  s     ISC
CD2    Chengdu            1.61 225    Pg      Pb       13 43 10.0 -0.1
CD2                                   Sg      Sg       13 43 34.0 +1.6
CD2                                   smax    smax
        comp=N,2µm,0.8s
CD2                                   smax    smax
        comp=E,2µm,0.7s
XAN    Xi'an              3.78  57    Pg      Pb       13 43 47.0 -0.2
XAN                                   Sg      Sb       13 44 35.8 +3.0
XAN                                   smax    smax
        comp=N,250nm,0.6s
XAN                                   smax    smax
        comp=E,370nm,1.0s
XAN                                   LR      LR
        comp=N,410nm,4.0s
XAN                                   LR      LR
        comp=E,810nm,4.0s
XAN                                   LR      LR
        comp=Z,540nm,4.7s
LZDM   Lanzhou Array      4.06 344    Pn      Pn       13 43 41.0 -1.7
        baz=167,slow=14
LZDM                                  Sn      Sn       13 44 32.5 +2.3
        baz=149,slow=18
LZDM                                  Lg      Lg       13 44 48.9
        baz=159,slow=25
        comp=Z,12nm,0.4s
LZH    Lanzhou            4.15 346    Pn      Pn       13 43 46.3 +2.5
LZH                                   Pg      Pg       13 43 59.3 -0.9
LZH                                   Sn      Sn       13 44 36.0 +3.8
LZH                                   Sg      Sg       13 44 51.3 -2.7
LZH                                   smax    smax
        comp=N,310nm,1.8s
LZH                                   smax    smax
        comp=E,490nm,1.4s
LZH                                   LR      LR
        comp=N,650nm,9.5s
LZH                                   LR      LR
        comp=E,1µm,9.8s
LZH                                   LR      LR
        comp=Z,320nm,9.1s
CMAR   Chiang Mai Arr    14.63 204    Pn      Pn       13 46 06.5 -0.8
        comp=Z,0.2nm,0.3s,baz=25,slow=11,SNR=6.0
CMAR                                  LR      LR       13 52 18.2
        comp=Z,37nm,19.4s,baz=215,slow=40
        comp=Z,0.6nm,0.4s
CMAR                                  AML     AML
SONM   Songino Array     15.79   3    Pn      Pn       13 46 21.9 -0.8
        comp=Z,0.3nm,0.3s,baz=190,slow=16,SNR=2.1
        comp=Z,0.3nm,0.4s
SONM                                  AML     AML
KSRS   Korea Array       19.50  68    P       P        13 47 06.9 -0.4
        comp=Z,0.2nm,0.3s,baz=250,slow=11,SNR=4.1
        comp=Z,1.7nm,0.8s
KSRS                                  AML     AML
MKAR   Makanchi Array    22.84 317    P       P        13 47 44.4 +1.1
        comp=Z,1.8nm,0.8s,baz=116,slow=11,SNR=12
        comp=Z,1.8nm,0.8s
ZALV   Zalesovo Beam     26.25 332    P       P        13 48 15.4 +0.3
        comp=Z,0.4nm,0.4s,baz=128,slow=9.3,SNR=4.1
        comp=Z,0.4nm,0.4s
KURBB  Kurchatov Arra    27.01 321    P       P        13 48 22.3 +0.3
        comp=Z,0.5nm,0.6s,baz=126,slow=11,SNR=6.7
        comp=Z,0.5nm,0.6s
BVAR   Borovoye Array    32.58 320    P       P        13 49 11.9 +0.5
        comp=Z,0.6nm,0.4s,baz=97,slow=12,SNR=3.1
        comp=Z,0.6nm,0.4s
PETK   Petropavlovsk-    42.93  45    P       P        13 50 38.3 -0.5
        comp=Z,4.3nm,0.9s,baz=254,slow=8.9,SNR=3.4
        comp=Z,4.3nm,0.9s
FINES  FINESS Array B    57.25 326    P       P        13 52 27.0 -0.2
        comp=Z,1.2nm,0.8s,baz=83,slow=6.1,SNR=4.6
        comp=Z,1.2nm,0.8s
PMG    Port Moresby      57.57 128    LR      LR       14 19 43.4
        comp=Z,33nm,18.0s,baz=154,slow=39
WRA    Warramunga Arr    58.81 147    P       P        13 52 37.9 -0.7
        comp=Z,2.2nm,0.8s,baz=332,slow=7.0,SNR=26
        comp=Z,2.2nm,0.8s
ASAR   Alice Springs     61.88 150    P       P        13 52 59.1 -0.5
        comp=Z,1.2nm,0.8s,baz=332,slow=6.4,SNR=13
        comp=Z,1.2nm,0.8s
NOA    NORSAR Array B    64.31 327    P       P        13 53 14.5 -0.9
        comp=Z,0.3nm,0.6s,baz=67,slow=6.6,SNR=2.0
        comp=Z,0.3nm,0.6s
STKA   Stephens Creek    72.35 148    P       P        13 54 05.5 -0.4
        comp=Z,2.7nm,0.8s,baz=299,slow=10,SNR=2.9
        comp=Z,2.7nm,0.8s
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*IDC **25** 13:51:52.3±3.5, 43.°05N×139.°97E, h212^{km}±34^{km}, mb2.8/4, mbtmp3.4/5, Error ellipse: s-maj=35.1km s-min=21.1km az=91.0*

*JMA **25** 13:51:53.1±0.2, 43.°0N±0.°8×14°0E±°, h210^{km}±1^{km}, MV2.8/22, NW OFF SHAKOTAN PEN*

ISC 25 13:51:52.4±1.0, **43.°03N**±0.°09×**139.°61E**±0.°09, **h200^{km}, n15,** σ**1^{s}70**/17, **mb3.1**/4, **Eastern Sea of Japan**

```
Code   Station Name        Δ°   AZ°    Phase ID          Time      Res
                                      Op      ISC      h  m  s     ISC
JSH    Shimam             0.50 140   eP       Pn       13 52 21.2 +1.7
JHST   Hiyamasetana       0.64 162    S       Sn       13 52 43.7 +2.3
JSK    Shakotan           0.71  63    P       Pn       13 52 22.1 +1.8
JOSM   Okushiri--Mats     0.95 186   eP       Pn       13 52 23.7 +1.8
JYM2   Yakumo 2           1.07 148   eP       Pn       13 52 24.3 +1.6
JEW    Eniwo              1.36  97    S       Sn       13 52 52.4 +2.3
JKB    Kayabe             1.55 137   eP       Pn       13 52 27.5 +0.9
JKK2   Kamakawa 2         2.43  69   eP       Pn       13 52 36.9 +1.4
JKK2                                 eS       Sn       13 53 10.2 +1.1
JNBK   Urakawa-nobuka     2.44 107   eP       Pn       13 52 36.6 +1.1
JNBK                                 eS       Sn       13 53 10.0 +0.9
JANG   Nango              3.01 151    P       Pn       13 52 42.1 -0.1
MJAR   Matsushiro Arr     6.57 190    P       Pn       13 53 28.1 +1.0
        1.7nm,0.7s,baz=10,slow=15,SNR=2.6
KURBB  Kurchatov Arra    41.41 303    P       P        13 59 19.2 +0.3
        0.4nm,0.6s,baz=77,slow=8.9,SNR=4.9
        0.4nm,0.6s
ILAR   Eielson Array     45.29  35    P       P        13 59 46.9 -2.8
        0.2nm,0.6s,baz=280,slow=7.1,SNR=4.2
        0.2nm,0.6s
WRA    Warramunga Arr    62.85 186    P       P        14 01 55.4 -1.5
        0.3nm,0.6s,baz=2.4,slow=7.0,SNR=6.2
        0.3nm,0.6s
ASAR   Alice Springs     66.57 186    P       P        14 02 20.1 -0.8
        0.2nm,0.6s,baz=3.7,slow=4.6,SNR=5.6
        0.2nm,0.6s
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*SOME **25** 14:03:08.5, 40.°08N×70.°87E, h0^{km}*

*ISU **25** 14:03:09, 40.°17N×70.°62E, h5^{km}*

*KRNET **25** 14:03:11.0±0.1, 40.°16N×70.°64E, h29^{km}, mb2.5*

ISC 25 14:03:13.3±1.0, **40.°16N**±0.°06×**70.°79E**±0.°05, **h11^{km}**±9^{km}, **n17,** σ**1^{s}62**/28, **10C-6D, Tajikistan**

```
Code   Station Name        Δ°   AZ°    Phase ID          Time      Res
                                      Op      ISC      h  m  s     ISC
BTK    Batken             0.10 165⇑iP       Pg       14 03 15.6 -0.5
BTK                                ⇑iS       Sg       14 03 19.0 +0.9
FRG    Fergana            0.80  74    S       Sb       14 03 39.6 -0.3
DRK    Karamyk            1.03 130⇑iP       Pg       14 03 32.0 -1.2
DRK                                ⇑iS       Sg       14 03 47.4 +0.8
TSTA   Tashata            1.36  71    S       Sg       14 04 00.9 +3.8
TRKS   Terek-Say          1.40  11⇑iP       Pn       14 03 36.2 -2.7
TRKS                               ⇑iS       Sb       14 03 54.7 -2.8
CHMG   Chimgan            1.51 337    S       Sg       14 04 04.0 +2.0
OHH    Osh                1.57  76⇓iP       Pn       14 03 41.5 +0.3
OHH                                ⇓iS       Sg       14 04 03.7 -0.2
TVKS   Tavaksay           1.66 329    P       Pn       14 03 43.5 +1.2
TVKS                                  S       Sg       14 04 06.5 -0.1
PSK    Pskem              1.80 350    S       Sn       14 03 53.5  -14
ARK    Arkit              1.87  28⇓iP       Pn       14 03 45.1 -0.2
ARK                                ⇓iS       Sb       14 04 09.8 -1.1
ARSB   Arslanbob          2.04  54⇑eP       Pn       14 03 47.8 +0.2
ARSB                               ⇑iS       Sb       14 04 14.8 -1.0
IUG    Iuzhnay            2.07 344   eP       Pn       14 03 48.8 +0.7
        8.1nm,0.4s
IUG                                  eS       Sb       14 04 18.0 +1.3
        45nm,0.9s
SFK    Sufi-Kurgan        2.09  93⇓iP       Pn       14 03 49.0 +0.6
SFK                                ⇓iS       Sb       14 04 16.5 -0.9
SALK   Salom-Alik         2.43  72⇑eP       Pn       14 03 53.2 +0.2
SALK                               ⇑eS       Sn       14 04 24.5 +1.8
KK31   Karatay Array      2.95 356    Pg      Pb       14 04 05.4 -0.5
        0.4nm,0.3s,baz=170,slow=14,SNR=6.0
KK31                                  Lg      Lg       14 04 46.9
        1.7nm,0.5s,baz=172,slow=29,SNR=5.5
BRLS   Borolday           2.96 346   eP       Pn       14 04 01.9 +1.7
        1.1nm,0.1s
BRLS                                 eS       Sb       14 04 40.1 -2.1
        0.9nm,0.1s
MRKS   Merke              3.17  35   eP       Pb       14 04 08.2 -1.5
        0.4nm,0.1s
MRKS                                 eS       Sb       14 04 50.9 +2.6
        4.3nm,0.2s
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*SJA **25** 14:04:55.9±0.8, 22.°40S×69.°52W, h87^{km}±4^{km}, ML3.9, MW3.8*

*GUC **25** 14:04:58.0±0.8, 22.°40S×69.°52W, h81^{km}±4^{km}, ML4.1*

ISC 25 14:04:56.4±1.3, **22.°29S**±0.°03×**69.°66W**±0.°05, **h93^{km}**±7^{km}, **n31,** σ**2^{s}83**/50, **3C-6D, Northern Chile**

```
Code   Station Name        Δ°   AZ°    Phase ID          Time      Res
                                      Op      ISC      h  m  s     ISC
PB03   IPOC Station P     0.26 341   eP       Pn       14 05 10.5 +0.2
PB03                                  IAML             14 05 24.4
        comp=Z,4µm,0.3s
PB03   IPOC Station P     0.26 341⇓iP       Pn       14 05 10.7 +0.4
PB03                                 iS       Sn       14 05 20.7 +0.2
PB03                                  IAML             14 05 21.8
        comp=E,7µm,0.6s
PB06   IPOC Station P     0.42 169   eP       Pn       14 05 09.8 -1.4
PB06                                 eS       Sn       14 05 19.0 -3.0
PB06                                  IAML             14 05 20.9
        comp=Z,7µm,0.3s
PB06   IPOC Station P     0.42 169⇓iP       Pn       14 05 09.7 -1.4
PB06                                 iS       Sn       14 05 18.8 -3.2
PB06                                  IAML             14 05 19.2
        comp=N,20µm,0.2s
PB07   IPOC Station P     0.60 340   eP       Pn       14 05 13.9 +1.4
PB07                                 eS       Sn       14 05 26.5 +2.0
PB07                                  IAML             14 05 26.8
        comp=Z,4µm,0.4s
PB07   IPOC Station P     0.60 340⇓iP       Pn       14 05 14.0 +1.4
PB07                                 iS       Sn       14 05 26.4 +1.9
PB09   IPOC Station P     0.63  38   eP       Pn       14 05 13.0 +0.3
PB09                                 eS       Sn       14 05 25.5 +0.6
PB09                                  IAML             14 05 27.0
        comp=Z,2µm,0.4s
PB09   IPOC Station P     0.63  38⇓iP       Pn       14 05 13.1 +0.3
PB09                                 iS       Sn       14 05 25.3 +0.4
PB05   IPOC Station P     0.75 222   eP       Pn       14 05 14.2 +0.4
PB05                                 eS       Sn       14 05 27.6 +0.7
PB05                                  IAML             14 05 27.9
        comp=Z,2µm,0.7s
PB05   IPOC Station P     0.75 222⇑iP       Pn       14 05 14.2 +0.4
PB05                                 iS       Sn       14 05 27.1 +0.3
PB05                                  IAML             14 05 29.0
        comp=E,4µm,0.3s
PB02   IPOC Station P     0.99 347   eP       Pn       14 05 18.5 +2.1
PB02                                  IAML             14 05 38.4
        comp=Z,4µm,0.2s
PB02   IPOC Station P     0.99 347⇓iP       Pn       14 05 18.6 +2.3
PB02                                 iS       Sn       14 05 34.6 +3.3
PB02                                  IAML             14 05 36.7
        comp=E,5µm,0.3s
AF01   San Pedro de A     1.52 116   eP       Pn       14 05 20.9 -2.0
AF01                                 eS       Sn       14 05 42.5 -0.3
AF01                                  IAML             14 05 53.6
        comp=Z,3µm,0.4s
AF01   San Pedro de A     1.52 116   eP       Pn       14 05 22.8 -0.1
AF01                                 iS       Sn       14 05 40.7 -2.1
AF01                                  IAML             14 05 51.6
        comp=N,10µm,0.9s
TA01   Diego Aracena      1.79 344   eP       Pn       14 05 25.5 -0.5
TA01                                 eP                14 05 28.4
TA01                                 eS       Sn       14 05 41.5 -6.9
PB08   IPOC Station P     2.19  13   eP       Pn       14 05 34.3 +2.6
PB08                                 eS       Sn       14 06 05.5 +7.0
PB08   IPOC Station P     2.19  13⇓iP       Pn       14 05 34.3 +2.6
PB14   IPOC Station P     2.42 196   eP       Pn       14 05 34.5 -0.2
PB14                                 eS       Sn       14 06 06.2 +2.5
PB14                                  IAML             14 06 10.4
        comp=Z,552nm,0.2s
PB14   IPOC Station P     2.42 196   eP       Pn       14 05 36.0 +1.4
PB11   IPOC Station P     2.52   0   eP       Pn       14 05 37.7 +1.9
PB11                                 eS       Sn       14 06 01.5 -4.4
PB11                                  IAML             14 06 02.6
        comp=Z,205nm,0.3s
PB11   IPOC Station P     2.52   0   eP       Pn       14 05 37.7 +1.9
GO01   Chusmiza           2.65  10   eP       Pn       14 05 39.7 +1.9
GO01                                 eS       Sn       14 06 02.2 -7.2
GO01                                  IAML             14 06 04.7
        comp=Z,202nm,0.3s
GO01   Chusmiza           2.65  10⇑iP       Pn       14 05 39.4 +1.6
GO01   Chusmiza           2.65  10   eP       Pn       14 05 39.5 +1.8
PSGCX  Pisagua            2.72 351   eP       Pn       14 05 37.1 -1.3
PSGCX                                eS       Sn       14 06 04.2 -6.3
PSGCX                                 IAML             14 06 05.5
        comp=Z,178nm,0.3s
PSGCX  Pisagua            2.72 351⇑eP       Pn       14 05 36.9 -1.4
AC01   Pan de Azucar      3.93 192   eP       Pn       14 05 52.7 -2.0
AC01                                 eS       Sn       14 06 45.5 +5.8
AC01                                  IAML             14 06 53.0
        comp=Z,130nm,0.5s
HJA    Humahuaca          4.03 104   eP       Pn       14 05 58.0 +1.8
SLA    San Lorenzo        4.52 123   eP       Pn       14 06 05.1 +2.4
AC02   Maricunga          4.55 174   eP       Pn       14 06 03.2 -0.2
AC02                                 eS       Sn       14 07 12.0  +17
AC02                                  IAML             14 07 21.8
        comp=Z,87nm,0.7s
GO03   Copiapo            5.30 186   eP       Pn       14 06 11.0 -2.3
GO03                                 eS       Sn       14 07 24.5  +11
GO03                                  IAML             14 07 43.0
        comp=Z,89nm,0.3s
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GUC 25 14:05:12.4±0.3, **18.°33S**×**69.°62W, h102^{km}**±3^{km}, **ML3.0, 4D, Northern Chile**

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Code   Station Name        Δ°   AZ°    Phase ID          Time      Res
                                      Op      ISC      h  m  s     ISC
PB16   IPOC Station P     0.11  94⇓iP       Pn       14 05 27.9 +0.6
PB16                                 iS       Sn       14 05 39.4 +1.0
PB16                                  IAML             14 05 40.5
        comp=N,1µm,0.2s
AP01   Chacalluta         0.69 266   iS       Sn       14 05 43.1 +0.2
AP01   Chacalluta         0.69 266⇓iP       Pn       14 05 29.4 -0.5
AP01                                 iS       Sn       14 05 42.8 -0.2
AP01   Chacalluta         0.69 266⇓iP       Pn       14 05 29.5 -0.3
PB12   IPOC Station P     0.73 247   iS       Sn       14 05 43.8  0.0
PB12   IPOC Station P     0.73 247   iP       Pn       14 05 29.7 -0.7
PB12                                 iS       Sn       14 05 43.2 -0.7
PB12                                  IAML             14 05 44.2
        comp=N,617nm,0.1s
PB12   IPOC Station P     0.73 247⇓iP       Pn       14 05 29.7 -0.7
PB18   Visviri            0.75  10   iP       Pn       14 05 31.1 +0.1
```

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
PX02	IPOC Station P	0.84	221	*e*P	Pn	14 05 30.3	-1.1

IDC 25 14:12:48.0±2.5**, 5°.74S**×**147°.38E, h207**^{km}±24^{km}**, mb3.4**/2**, mbtmp3.9**/5**, Error ellipse: s-maj=59.9km s-min=15.8km az=120.0, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	3.65	183	P	Pn	14 13 46.5	+0.7
	8.5nm,0.3s,baz=0.0,slow=13,SNR=25						
PMG				S	S	14 14 31.2	+0.4
	84nm,0.8s,baz=43,slow=17,SNR=12						
CTA	Charters Tower	14.30	184	P	Pn	14 16 01.8	+0.2
	2.8nm,1.0s,baz=15,slow=16,SNR=3.0						
WRA	Warramunga Arr	18.98	221	P	P	14 16 54.5	+0.4
	4.0nm,0.6s,baz=42,slow=11,SNR=129						
WRA				S	S	14 20 16.0	-2.7
	0.3nm,0.7s,baz=44,slow=21,SNR=1.9						
ASAR	Alice Springs	22.05	215	P	P	14 17 27.5	+1.2
	4.7nm,0.8s,baz=49,slow=8.6,SNR=69						
ASAR				S	S	14 21 16.6	+2.2
	0.7nm,1.1s,baz=30,slow=17,SNR=6.3						
	4.7nm,0.8s						
ILAR	Eielson Array	85.09	23	P	P	14 24 59.1	-1.2
	0.6nm,0.7s,baz=255,slow=6.0,SNR=6.8						
	0.6nm,0.7s						

IDC 25 14:17:34.7±5.6**, 6°.21S**×**147°.52E, h0**^{km}**, mb3.5**/2**, mbtmp3.3**/4**, ML2.4**/2**, MS3.6**/1**, Error ellipse: s-maj=81.7km s-min=49.0km az=66.0, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	3.20	186	Pn	Pn	14 18 27.6	+1.3
	4.4nm,0.3s,baz=2.8,slow=12,SNR=8.8						
PMG				Pg	Pb	14 18 32.6	+0.1
	4.1nm,0.3s,baz=44,slow=7.3,SNR=7.2						
PMG				Sn	Sn	14 18 59.6	-5.6
	4.9nm,0.3s,baz=230,slow=19,SNR=7.5						
	8.0nm,0.4s						
PMG				AML	AML		
WRA	Warramunga Arr	18.72	222	P	P	14 21 54.3	-0.8
	baz=49,slow=11,SNR=2.0						
	0.2nm,0.5s						
ASAR	Alice Springs	21.75	216	P	P	14 22 27.4	-0.7
	0.2nm,0.4s,baz=41,slow=10,SNR=7.1						
	0.2nm,0.4s						
STKA	Stephens Creek	26.13	192	P	P	14 23 10.9	+0.3
	1.7nm,0.6s,baz=331,slow=14,SNR=3.0						
	1.7nm,0.6s						
NWAO	Narrogin (SRO)	38.73	223	LR	LR	14 40 17.6	
	comp=Z,86nm,18.9s,baz=206,slow=35						

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*IDC **25** 14:19:45.3±0.6, 2°.77S×76°.67W, h115^{km}±5^{km}, mb3.9/18, mbtmp4.4/24, MS3.0/1, Error ellipse: s-maj=17.1km s-min=9.0km az=68.0*

*NEIC **25** 14:19:45.9±2.6, 2°.87S±0°.03×76°.69W±0°.08, h116^{km}±6^{km}, mb4.5/81, Error ellipse: s-maj=11.7km s-min=3.9km az=101.0*

*VAO **25** 14:19:46.6±0.4, 2°.74S×76°.53W, h120^{km}±3^{km}, mb4.6, Presumed earthquake*

*GFZ **25** 14:19:46.9±0.2, 3°S±3°×7°7W±°, h127^{km}, M4.5/26, mb4.5/26, confirmed*

*CATAC **25** 14:20:00.8±0.7, 2°S±5°×7°7W±°, h124^{km}±9^{km}, M4.3/8, mb4.5/5, mB5.0/3, MLv4.3/8, Mw(mB)4.3/3, Error ellipse: s-maj=12.5km s-min=10.6km az=79.2, confirmed*

ISC 25 14:19:45.2±0.5**, 2°.80S**±0°.04×**76°.69W**±0°.06**, h115**^{km}±4^{km}**, h116**^{km}**:pP-P, n198,** σ**1**^{s}**.32**/187**, mb4.5**/58**, 1C-4D, Peru-Ecuador border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PUYO	Puyo, Santa Ro	1.86	314	S	Sn	14 20 40.6	-0.4
CHSH	Refugio Sur-Vo	2.54	301	S	Sn	14 20 56.6	-0.3
ANTS	Antisana-Sarah	2.73	327	P	Pn	14 20 28.9	+0.6
ANTS				S	Sn	14 20 52.4	-9.0
SLOR	San Lorenzo -	2.74	319		Pn	14 20 29.6	+1.2
SLOR	San Lorenzo -	2.74	319	P	Pn	14 20 29.4	+1.1
SLOR				S	Sn	14 20 55.2	-6.3
CASC	Dorado de Casc	2.99	347	P	Pn	14 20 32.4	+1.1
GGPC	Guagua Pichinc	3.23	324	P	Pn	14 20 35.3	+0.4
PULU	Pululahua	3.34	327	P	Pn	14 20 37.8	+1.6
PULU				S	Sn	14 21 06.6	-8.9
IMBA	Imbabura, San	3.41	334	S	Sn	14 21 04.9	-12
OTAV	Otavalo	3.50	330		Pn	14 20 40.1	+1.8
OTAV	Otavalo	3.50	330	P	Pn	14 20 39.9	+1.6
OTAV	Otavalo	3.50	330	P	Pn	14 20 40.1	+1.8
OTAV				S	Sn	14 21 07.0	-12
OTAV	Otavalo	3.50	330	*e*P	Pn	14 20 40.0	+1.8
OTAV	Otavalo	3.50	330	P	Pn	14 20 40.3	+1.9
PTLC	Puerto Leguiza	3.51	33	P	Pn	14 20 36.1	-2.0
CUSE	Cuicocha Este	3.53	331	P	Pn	14 20 40.4	+1.7
TULM	Tulcn-Chalpat	3.66	343	P	Pn	14 20 43.8	+3.2
TULM	Tulcn-Chalpat	3.66	343	P	Pn	14 20 42.3	+1.7
TULM				S	Sn	14 21 11.1	-12
PAC1	Pacto, Paraso	3.70	325	P	Pn	14 20 42.3	+1.5
CMBC	Cumbal	3.89	343	P	Pn	14 20 46.6	+3.1
FLF1	Flavio Alfaro-	3.98	308	P	Pn	14 20 43.9	-0.5
CRUC	La Cruz	4.35	357	P	Pn	14 20 50.9	+1.3
ATAH	Atahualpa	4.63	201	P	Pn	14 20 53.0	-0.4
	786nm,0.7s,baz=26,slow=9.2,SNR=380						
ATAH				S	Sn	14 21 42.4	-4.1
	351nm,0.6s,baz=338,slow=20,SNR=6.9						
BBAC	Balboa, Cauca	4.82	353	P	Pn	14 20 54.6	-1.3
GARC	Garzon, Huila	5.10	14	P	Pn	14 21 00.5	+0.9
	23µm538nm,0.5s						
GARC				AML	AML		
POPC	Popayan, Colom	5.31	0	P	Pn	14 21 04.6	+2.2
	919nm88nm,0.6s						
POPC				AML	AML		
BETC	Betania	5.59	13	P	Pn	14 21 08.6	+2.5
MACC	Macarena, Meta	5.68	30	P	Pn	14 21 08.2	+1.0
	10µm489nm,0.6s						
MACC				AML	AML		
CZSB	Cruzeiro do Su	6.30	141	Pn	Pn	14 21 16.0	+0.3
CZSB	Cruzeiro do Su	6.30	141	P	Pn	14 21 15.7	0.0
	3µm50nm,0.4s						
CZSB	Cruzeiro do Su	6.30	141	*e*P	Pn	14 21 16.3	+0.6
PRAC	Prado	6.72	16	P	Pn	14 21 23.5	+2.1
	2µm58nm,0.5s						
PRAC	Prado	6.72	16	P	Pn	14 21 23.7	+2.3
ORTC	Ortega, Tolima	6.82	12	P	Pn	14 21 23.7	+0.9
	2µm110nm,0.8s						
VILC	Villavicencio,	7.49	24	P	Pn	14 21 33.6	+1.7
CVER	Cruz Verde, Cu	7.73	20	P	Pn	14 21 39.2	+3.7
	3µm118nm,0.7s						
PIZC	Pizarro, Choco	7.74	355	P	Pn	14 21 34.3	-0.9
	472nm,1.0s						
CHIC	Chingaza	7.95	22	P	Pn	14 21 40.9	+2.5
	1µm75nm,1.2s						
ROSC	El Rosal	7.95	17	P	Pn	14 21 38.9	+0.5
	13nm,0.5s,baz=158,slow=16,SNR=5.0						
ROSC	El Rosal	7.95	17	Pn	Pn	14 21 39.3	+0.9
SPBC	San Pablo de B	8.79	17	P	Pn	14 21 52.7	+3.2
	20nm,1.0s						
HELC	Santa Helena	9.01	7	P	Pn	14 21 54.0	+1.3
NNA	Nana	9.13	181	P	Pn	14 21 53.8	-0.2
	53nm,0.4s,baz=326,slow=11,SNR=18						
NNA				S	Sn	14 23 24.5	-11
	37nm,0.3s,baz=95,slow=22,SNR=6.7						
NNA	Nana	9.13	181		Pn	14 21 53.3	-0.8
NNA	Nana	9.13	181	P	Pn	14 21 52.7	-1.3
	2µm68nm,0.5s						
NNA	Nana	9.13	181	P	Pn	14 21 53.1	-1.0
	comp=Z,66nm,0.6s						
RUSC	La Rusia	9.36	23	P	Pn	14 21 59.6	+2.1
	comp=Z,1µmcomp=Z,120nm,0.9s						
RUSC	La Rusia	9.36	23	P	Pn	14 22 00.0	+2.5
PTBC	PUERTO BERRIO,	9.54	14	P	Pn	14 22 00.8	+1.2
	comp=Z,13nm,0.8s						
BARC	Barichara	9.97	21	P	Pn	14 22 06.5	+1.0
	comp=Z,33nm,1.1s						
SGC2	Sao Gabriel da	10.06	75	P	Pn	14 22 05.4	-1.2
	comp=Z,3µmcomp=Z,144nm,0.9s						
SGC2	Sao Gabriel da	10.06	75	*e*P	Pn	14 22 05.4	-1.2
UREC	San Jos de Ur	10.55	6	P	Pn	14 22 14.6	+1.4
SDV	Santo Domingo	13.09	27	P	Pn	14 22 47.7	+0.8
	comp=Z,11nm,0.4s,baz=45,slow=21,SNR=6.5						
SDV	Santo Domingo	13.09	27		Pn	14 22 48.7	+1.7
SDV	Santo Domingo	13.09	27	P	Pn	14 22 48.4	+1.4
	comp=Z,108nm,0.7s						
JTS	Las Juntas de	15.39	328	P	Pn	14 23 16.7	+0.4
	comp=Z,4.4nm,0.6s,baz=117,slow=14,SNR=2.1						
JTS				LR	LR	14 28 07.6	
	comp=Z,62nm,19.9s,baz=37,slow=33						
JTS	Las Juntas de	15.39	328	IAmb	IAmb	14 23 18.8	
	comp=Z,13nm,1.1s						
LPAZ	La Paz	15.83	148	P	Pn	14 23 23.5	+1.2
	comp=Z,2.5nm,0.5s,baz=336,slow=9.3,SNR=15						
LPAZ				S	Sn	14 26 18.1	+0.1
	comp=Z,2.5nm,0.8s,baz=136,slow=20,SNR=1.3						
LPAZ	La Paz	15.83	148		Pn	14 23 23.8	+1.6
LPAZ	La Paz	15.83	148	*e*P	Pn	14 23 23.3	+1.1
LPAZ	La Paz	15.83	148	P	P	14 23 24.7	+1.0
	comp=Z,5.5nm,0.7s						
PB12	IPOC Station P	16.91	159		Pn	14 23 35.4	+0.5
PB12				IAmb	IAmb	14 24 11.9	
	comp=Z,21nm,0.8s						
PB12	IPOC Station P	16.91	159	P	Pn	14 23 34.3	-0.6
	comp=Z,25nm,0.5s						
BOAV	Boa Vista	16.97	72		Pn	14 23 35.0	-0.7
BOAV	Boa Vista	16.97	72	*e*P	Pn	14 23 35.1	-0.7
PB16	IPOC Station P	16.97	156	P	P	14 23 36.0	-0.3
PB16				IAmb	IAmb	14 23 38.4	
	comp=Z,15nm,0.6s						
PB16	IPOC Station P	16.97	156	P	P	14 23 37.6	+1.3
	comp=Z,20nm,0.7s						
PSGCX	Pisagua	17.88	159	P	P	14 23 46.6	+0.8
PB11	IPOC Station P	18.20	158		P	14 23 50.2	+0.8
PB11	IPOC Station P	18.20	158	P	P	14 23 50.4	+0.9
	comp=Z,25nm,0.7s						
GO01	Chusmiza	18.29	157	P	P	14 23 52.4	+1.7
GO01				IAmb	IAmb	14 24 01.2	
	comp=Z,13nm,0.6s						
GO01	Chusmiza	18.29	157	P	P	14 23 52.5	+1.7
	comp=Z,18nm,0.6s						
PB08	IPOC Station P	18.74	157	P	P	14 23 56.8	+1.3
PB08	IPOC Station P	18.74	157	P	P	14 23 57.4	+1.8
	comp=Z,10.0nm,0.5s						
PB02	IPOC Station P	19.56	161	P	P	14 24 05.5	+1.4
PB02				IAmb	IAmb	14 24 14.5	
	comp=Z,16nm,0.5s						
PB07	IPOC Station P	19.94	161		P	14 24 09.7	+1.4
PB07				IAmb	IAmb	14 24 10.7	
	comp=Z,17nm,0.9s						
PB07	IPOC Station P	19.94	161	P	P	14 24 10.0	+1.7
	comp=Z,22nm,1.0s						
SIV	San Ignacio	20.20	131	P	P	14 24 12.0	+0.9
	comp=Z,5.6nm,0.3s,baz=318,slow=11,SNR=42						
	comp=Z,5.6nm,0.3s						
PB09	IPOC Station P	20.22	160	P	P	14 24 11.8	+0.5
PB09				IAmb	IAmb	14 24 14.4	
	comp=Z,18nm,0.9s						
PB09	IPOC Station P	20.22	160	P	P	14 24 12.9	+1.6
	comp=Z,21nm,1.1s						
PB03	IPOC Station P	20.28	161	P	P	14 24 13.4	+1.4
PB03				IAmb	IAmb	14 24 17.9	
	comp=Z,18nm,0.7s						
PB03	IPOC Station P	20.28	161	P	P	14 24 13.6	+1.6
	comp=Z,26nm,0.9s						
PB05	IPOC Station P	20.90	163	P	P	14 24 19.0	+0.4
	comp=Z,16nm,0.8s						
ITTB	Itaituba	20.97	95	*e*P	P	14 24 18.7	-0.6
ITTB				*e*pP	pP	14 24 40.5	-0.3
MTO3	Montecristo	21.21	324	P	P	14 24 24.7	+2.6
PTLB	Pontes e Lacer	21.38	127		P	14 24 21.4	-2.2
PTLB	Pontes e Lacer	21.38	127	*e*P	P	14 24 24.1	+0.4
CLDB	Colider	22.22	112	*e*P	P	14 24 32.9	+0.2
CLDB	Colider	22.22	112	P	P	14 24 33.0	+0.4
	comp=Z,17nm,0.6s						
AOPR	Arecibo Observ	23.18	25	P	P	14 24 40.4	-1.6
PDPR	Patillas Dam,	23.21	27	P	P	14 24 40.4	-1.7
PDPR				IAmb	IAmb	14 24 42.8	
	comp=Z,14nm,0.8s						
SJG	San Juan	23.23	26	P	P	14 24 41.5	-0.8
SJG	San Juan	23.23	26	P	P	14 24 41.5	-0.8
	comp=Z,38nm,0.7s						
AC02	Maricunga	24.97	164		P	14 24 59.8	+1.1
AC02	Maricunga	24.97	164	P	P	14 25 00.6	+1.9
	comp=Z,14nm,1.5s						
AC05	El Transito	26.60	167	IAmb	IAmb	14 25 15.7	
	comp=Z,15nm,1.3s						
AC05	El Transito	26.60	167	P	P	14 25 14.6	+1.6
	comp=Z,13nm,1.3s						
CO03	El Pedregal	28.46	169	P	P	14 25 30.3	+0.8
	comp=Z,8.1nm,0.8s						
CO02	Combarbal	28.76	170	P	P	14 25 33.0	+0.8
	comp=Z,26nm,1.3s						
SJPY	San Joaquin	29.67	140	*e*P	P	14 25 39.8	-0.4
SJPY				*e*pP	pP	14 26 05.5	-0.1
CFA	Coronel Fontan	29.74	165	P	P	14 25 41.0	+0.3
	comp=Z,1.4nm,0.4s,baz=320,slow=9.5,SNR=4.4						
	comp=Z,1.4nm,0.4s						
CPUP	Villa Florida	29.88	143	P	P	14 25 42.0	0.0
	comp=Z,1.5nm,0.6s,baz=348,slow=14,SNR=6.9						
	comp=Z,1.5nm,0.6s						
CPUP	Villa Florida	29.88	143		P	14 25 42.0	0.0
CPUP	Villa Florida	29.88	143	P	P	14 25 41.4	-0.6
	comp=Z,6.5nm,2.8s						
VA03	San Esteban	30.36	170	P	P	14 25 47.8	+1.6
	comp=Z,14nm,1.1s						
BDFB	Brasilia	30.99	116	P	P	14 25 52.8	+0.7
	comp=Z,2.3nm,0.5s,baz=136,slow=1.5,SNR=3.2						
	comp=Z,2.3nm,0.5s						
BDFB	Brasilia	30.99	116	P	P	14 25 50.0	-2.0
BDFB				IAmb	IAmb	14 25 55.6	
	comp=Z,14nm,1.4s						
MT09	Talagante	31.27	171	IAmb	IAmb	14 25 56.5	
	comp=Z,9.5nm,0.7s						
MT13	San Alfonso	31.36	170	IAmb	IAmb	14 25 59.2	
	comp=Z,15nm,1.0s						
IPMB	Ipameri, GO	31.73	120	*e*P	P	14 25 58.4	-0.1
BI02	San Fabin de	34.06	172	P	P	14 26 19.6	+1.0
	comp=Z,8.9nm,2.2s						
JANB	Januaria	34.16	113	*e*P	P	14 26 19.6	-0.1
PLTB	Pedras Altas	36.09	145	P	P	14 26 35.1	-0.8
	comp=Z,7.2nm,1.0s						
LL04	Puerto Octay	38.13	175	P	P	14 26 55.5	+2.4
	comp=Z,0.3nm,0.9s						
PLCA	Paso Flores	38.16	172	P	P	14 26 53.7	+0.3
	comp=Z,5.7nm,0.8s,baz=345,slow=9.6,SNR=13						
	comp=Z,5.7nm,0.8s						
PLCA	Paso Flores	38.16	172		P	14 26 54.1	+0.7
PLCA				IAmb	IAmb	14 26 55.0	
	comp=Z,7.8nm,0.9s						
PLCA	Paso Flores	38.16	172	P	P	14 26 54.2	+0.7
	comp=Z,11nm,1.0s						
HNDO	Hondo	38.75	328		P	14 26 59.6	+1.1
HNDO				IAmb	IAmb	14 27 00.1	
	comp=Z,11nm,0.8s						
LL02	Futaleuf	40.45	175	P	P	14 27 12.6	+0.3
PLPT	Palo Pinto	40.91	332	IAmb	IAmb	14 27 17.7	
	comp=Z,12nm,0.8s						
TXAR	Lajitas Array	41.10	323	P	P	14 27 18.7	+0.7
	comp=Z,0.7nm,0.6s,baz=134,slow=8.9,SNR=7.0						
TXAR				pP	pP	14 27 45.3	+1.0
	comp=Z,0.8nm,0.6s,baz=138,slow=9.6,SNR=3.7						
TXAR				PcP	PcP	14 29 16.4	+0.8
	comp=Z,1.6nm,0.7s,baz=144,slow=6.2,SNR=11						
	comp=Z,0.7nm,0.6s						
TXAR	Lajitas Array	41.10	323	P	P	14 27 18.0	0.0
TXAR				PcP	PcP	14 29 16.0	+0.5
ABTX	Abilene, Hawle	41.40	330	IAmb	IAmb	14 27 21.7	
	comp=Z,11nm,0.7s						
TPB05	Hovey Rd	42.06	325	IAmb	IAmb	14 27 28.3	
	comp=Z,6.1nm,0.7s						
APMT	Aspermont	42.20	330	IAmb	IAmb	14 27 28.0	
	comp=Z,7.8nm,0.7s						
WMOK	Wichita Mounta	42.72	333	P	P	14 27 31.2	+0.2
WMOK				IAmb	IAmb	14 27 31.7	
	comp=Z,5.7nm,0.8s						
WMOK	Wichita Mounta	42.72	333	P	P	14 27 31.0	0.0
	comp=Z,11nm,0.8s						
CCM	Cathedral Cave	42.83	343	P	P	14 27 30.4	-1.4
CCM	Cathedral Cave	42.83	343	P	P	14 27 30.4	-1.4
VHRN	Van Horn	42.93	323	IAmb	IAmb	14 28 02.8	
	comp=Z,5.2nm,0.8s						
MNTX	Cornudas Mount	43.83	324	P	P	14 27 40.2	+0.2
	comp=Z,9.5nm,2.8s						
MNTX				pP	pP	14 28 08.7	+2.2
CROK	Carrier	43.86	335	P	P	14 27 39.4	-0.7
ALQ	Albuquerque	46.80	326	IAmb	IAmb	14 28 05.3	
	comp=Z,8.4nm,0.8s						
ALQ	Albuquerque	46.80	326	IAmb	IAmb	14 28 05.3	
	comp=Z,8.3nm,0.8s						
ANMO	Albuquerque	46.80	326	P	P	14 28 04.6	+1.0
	comp=Z,10nm,0.8s						
TASM	ASL Pad, Albuq	46.80	326	IAmb	IAmb	14 28 05.3	
	comp=Z,7.7nm,0.8s						
TASM	ASL Pad, Albuq	46.80	326	IAmb	IAmb	14 28 05.3	
	comp=Z,7.8nm,0.8s						
T25A	Trinidad	47.36	330	IAmb	IAmb	14 28 09.9	
	comp=Z,5.5nm,0.9s						
TUC	Tucson	47.58	320	P	P	14 28 09.5	-0.1
SDCO	Great Sand Dun	48.38	329	IAmb	IAmb	14 28 17.7	
	comp=Z,7.9nm,0.9s						
PV01	Paradox Valley	50.28	327	IAmb	IAmb	14 28 32.1	
	comp=Z,3.3nm,0.8s						
PV15	Paradox Valley	50.39	327	IAmb	IAmb	14 28 33.5	
	comp=Z,7.1nm,0.9s						
PV17	East Wray Mesa	50.60	327	IAmb	IAmb	14 28 34.1	
	comp=Z,7.2nm,0.8s						
EYMN	Ely	52.17	347	P	P	14 28 42.5	-1.5
	comp=Z,7.0nm,1.7s						
RSSD	Black Hills	52.75	335	P	P	14 28 49.2	+0.7
BSUT	Blindstream Ca	53.19	328	IAmb	IAmb	14 28 54.2	
	comp=Z,8.3nm,1.1s						
AGMN	Agassiz Nation	53.57	344	P	P	14 28 53.1	-1.0
	comp=Z,12nm,0.7s						
TPNV	Topopah Spring	54.00	321	IAmb	IAmb	14 29 30.9	
	comp=Z,3.9nm,0.9s						
PDAR	Pinedale Array	54.20	330	P	P	14 28 59.2	0.0
	comp=Z,1.0nm,0.5s,baz=123,slow=9.6,SNR=14						
PDAR				pP	pP	14 29 26.8	+0.1
	comp=Z,0.6nm,0.7s,baz=155,slow=5.9,SNR=2.4						
PDAR				PcP	PcP	14 30 01.2	-1.0
	comp=Z,1.0nm,0.5s,baz=132,slow=7.0,SNR=6.7						
	comp=Z,1.0nm,0.5s						
PDAR	Pinedale Array	54.20	330	P	P	14 28 58.8	-0.4
PDAR				PcP	PcP	14 30 01.9	-0.3
HWUT	Hardware Ranch	54.38	328	IAmb	IAmb	14 29 01.3	
	comp=Z,2.8nm,0.7s						
HWUT	Hardware Ranch	54.38	328	P	P	14 29 00.6	+0.1
	comp=Z,6.7nm,1.9s						
ULM	Lac du Bonnet	55.36	345	P	P	14 29 05.9	-1.1
	comp=Z,4.4nm,0.5s,baz=154,slow=6.9,SNR=9.6						
	comp=Z,4.4nm,0.5s						
ULM	Lac du Bonnet	55.36	345	IAmb	IAmb	14 29 39.8	
	comp=Z,5.5nm,1.1s						
NVAR	Mina Array Bea	56.19	321	P	P	14 29 13.5	0.0
	comp=Z,1.0nm,0.5s,baz=103,slow=5.5,SNR=5.5						
	comp=Z,1.0nm,0.5s						
BMN	Battle Mountai	56.76	324	IAmb	IAmb	14 29 18.9	
	comp=Z,4.7nm,0.8s						
HLID	Hailey	57.25	328	P	P	14 29 21.5	+0.7
BOZ	Bozeman (W)	57.30	331	IAmb	IAmb	14 29 22.1	
	comp=Z,3.2nm,0.8s						
WVOR	Wild Horse Val	58.85	325	P	P	14 29 32.7	+0.7
	comp=Z,6.6nm,2.5s						
YKA	Yellowknife Ar	71.16	342	P	P	14 30 50.4	-0.7
	comp=Z,1.3nm,0.5s,baz=141,slow=5.6,SNR=7.7						
	comp=Z,1.3nm,0.5s						
DBIC	Dimbokro	72.32	82	P	P	14 30 58.9	-0.1
	comp=Z,5.0nm,0.4s,baz=256,slow=6.5,SNR=5.7						
	comp=Z,5.0nm,0.4s						
DBIC	Dimbokro	72.32	82	P	P	14 30 58.2	-0.7
DLBC	Dease Lake	74.19	334	P	P	14 31 09.3	+0.1
	comp=Z,2.1nm,0.7s,baz=63,slow=6.3,SNR=5.6						
	comp=Z,2.1nm,0.7s						
BELA	Belgrano 2	78.22	172	P	P	14 31 31.7	+0.1
ESDC	Sonseca Array	78.58	49	P	P	14 31 34.4	0.0
	comp=Z,1.1nm,0.7s,baz=268,slow=5.0,SNR=4.1						
	comp=Z,1.1nm,0.7s						
ESDC	Sonseca Array	78.58	49	P	P	14 31 35.0	+0.6
TORD	Torodi Ar. Bea	79.34	76	P	P	14 31 38.8	-0.2
	comp=Z,1.1nm,0.4s,baz=277,slow=5.8,SNR=21						
TORD				pP	pP	14 32 07.0	-1.3
	comp=Z,2.6nm,0.5s,baz=286,slow=6.1,SNR=9.7						
	comp=Z,1.1nm,0.4s						
VNA3	Neumayer Olymp	80.09	162	⇓P	P	14 31 42.3	+0.4
	comp=Z,9.1nm,0.7s						
VNA3	Neumayer Olymp	80.09	162	P	P	14 31 41.6	-0.3
	comp=Z,17nm,0.8s						
VNA1	Neumayer--Stat	80.32	162	⇓P	P	14 31 43.9	+0.9
	comp=Z,8.7nm,0.8s						
VNA2	Neumayer--Watz	80.68	162	⇑P	P	14 31 45.6	+0.6
	comp=Z,5.3nm,0.5s,baz=304,slow=5.2						
INK	Inuvik	80.91	342	P	P	14 31 46.3	+0.1
	comp=Z,3.0nm,0.7s,baz=127,slow=3.5,SNR=4.5						
	comp=Z,3.0nm,0.7s						
INK	Inuvik	80.91	342	IAmb	IAmb	14 31 47.3	
	comp=Z,7.5nm,1.1s						
INK	Inuvik	80.91	342	P	P	14 31 46.6	+0.4
I28M	Miner Creek	81.73	338		P	14 31 51.5	+0.6
K27K	Chicken	81.98	336	IAmb	IAmb	14 31 54.0	
	comp=Z,6.7nm,0.9s						
SNAA	Sanae	82.30	162	⇓P	P	14 31 53.9	+0.2
	comp=Z,106nm,0.5s						
SNAA	Sanae	82.30	162	P	P	14 31 54.2	+0.5
	comp=Z,4.5nm,0.6s,baz=262,slow=5.7,SNR=13						
	comp=Z,4.5nm,0.6s						
SNAA	Sanae	82.30	162		P	14 31 53.6	-0.1
SNAA				IAmb	IAmb	14 31 54.9	
	comp=Z,5.8nm,0.8s						
SNAA	Sanae	82.30	162	P	P	14 31 54.2	+0.5
	comp=Z,11nm,0.8s						
J25K	Salcha River,	83.53	336	P	P	14 32 00.5	+0.4
TROLL	Troll, Antarti	84.02	162	⇓P	P	14 32 03.1	+0.5
	comp=Z,390nm,0.6s						
ILAR	Eielson Array	84.19	336	P	P	14 32 03.0	-0.3
	comp=Z,0.9nm,0.8s,baz=121,slow=3.3,SNR=7.7						
	comp=Z,0.9nm,0.8s						
ILAR	Eielson Array	84.19	336	P	P	14 32 02.9	-0.5
QSPA	South Pole Qui	87.27	180	P	P	14 32 19.1	+0.4
	comp=Z,4.2nm,0.8s,baz=186,slow=0.9,SNR=18						
QSPA				pP	pP	14 32 49.3	+0.7
	comp=Z,4.7nm,0.9s,baz=151,slow=4.7,SNR=5.4						
	comp=Z,4.2nm,0.8s						
QSPA	South Pole Qui	87.27	180	P	P	14 32 19.4	+0.6
QSPA				IAmb	IAmb	14 32 19.7	
	comp=Z,6.8nm,0.9s						
QSPA	South Pole Qui	87.27	180	P	P	14 32 19.2	+0.5
	comp=Z,9.4nm,2.3s						
VNDA	Vanda	93.78	191	P	P	14 32 49.4	+0.7
VNDA				IAmb	IAmb	14 33 24.2	
	comp=Z,4.1nm,1.5s						
BVAR	Borovoye Array	123.03	23	PKP	PKPdf	14 38 27.4	-0.6
	comp=Z,1.2nm,0.6s,baz=55,slow=12,SNR=2.4						
ZALV	Zalesovo Beam	126.80	14	PKP	PKPdf	14 38 35.3	0.0
	comp=Z,1.7nm,0.5s,baz=267,slow=2.5,SNR=11						
ZALV				pPKP	pPKPdf	14 39 06.4	-0.2
	comp=Z,0.6nm,0.4s,baz=282,slow=2.7,SNR=3.0						
KURBB	Kurchatov Arra	127.96	20	PKP	PKPdf	14 38 38.2	+0.7
	comp=Z,1.6nm,0.6s,baz=317,slow=2.4,SNR=18						
MKAR	Makanchi Array	132.52	20	PKP	PKPdf	14 38 46.1	-0.2
	comp=Z,0.6nm,0.5s,baz=314,slow=2.5,SNR=12						
SONM	Songino Array	135.06	357	PKP	PKPdf	14 38 51.5	+0.2
	comp=Z,0.8nm,0.4s,baz=4.4,slow=1.9,SNR=2.8						
ASAR	Alice Springs	140.26	227	PKhKP	PKPpre	14 38 53.8	
	comp=Z,0.4nm,0.4s,baz=126,slow=3.4,SNR=6.8						
ASAR				PKP	PKPdf	14 39 00.1	-1.3
	comp=Z,1.0nm,0.5s,baz=120,slow=2.2,SNR=9.3						
ASAR				PP	PP	14 41 59.2	-0.5
	comp=Z,0.4nm,0.5s,baz=91,slow=7.8,SNR=8.3						
WRA	Warramunga Arr	142.07	232	PKhKP	PKPpre	14 38 58.6	
	comp=Z,1.0nm,0.7s,baz=120,slow=2.3,SNR=9.5						
WRA				PKP	PKPdf	14 39 06.2	+1.4
	comp=Z,1.3nm,0.5s,baz=119,slow=1.8,SNR=12						
FITZ	Fitzroy Crossi	149.75	226	PKPbc	PKPbc	14 39 21.6	-0.9
	comp=Z,3.8nm,0.5s,baz=159,slow=2.9,SNR=16						
CMAR	Chiang Mai Arr	163.86	15	PKPab	PKPab	14 40 26.9	-1.6
	comp=Z,1.0nm,0.6s,baz=0.1,slow=4.9,SNR=5.2						

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*IDC **25** 14:28:48.6±4.7, 30°.37S×151°.02E, h0^{km}, mbtmp3.6/4, ML3.7/3, Error ellipse: s-maj=48.4km s-min=23.4km az=120.0*

*AUST **25** 14:28:55.0±0.2, 31°S±2°×15°1E±°, h10^{km}, ML3.6/27, Error ellipse: s-maj=4.4km s-min=4.0km az=169.1, confirmed*

*NOU **25** 14:28:54.8, 30°.52S×150°.69E, h0^{km}, MLv4.4/10, New South Wales, Australia*

ISC 25 14:28:54.0±0.7**, 30°.54S**±0°.04×**150°.61E**±0°.04**, h10**^{km}**, n57,** σ**1**^{s}**.99**/71**, New South Wales**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AUPHS	Peel High Scho	0.61	157	P	Pg	14 29 04.2	-1.7
AUPHS				S	Sg	14 29 11.1	-2.9
AUPHS				AML	AML		
ARMA	Armidale	0.89	83	P	Pg	14 29 10.0	-1.1
ARMA				S	Sg	14 29 20.8	-2.0
ARMA				AML	AML		
ARMA	Armidale	0.89	83	P	Pg	14 29 09.9	-1.2
ARMA	Armidale	0.89	83	S	Sg	14 29 20.8	-2.0

AULRC	Lightning Ridg	2.53	295	P	Pb	14 29 38.8	-0.7
AULRC				AML	AML		
NTLS	Newcastle Soft	2.58	158	S	Sn	14 30 08.1	+0.7
MGCD	Mangrove Creek	2.70	171	P	Pn	14 29 38.5	+1.0
MGCD				S	Sn	14 30 11.5	+1.3
MGCD				AML	AML		
MGCD	Mangrove Creek	2.70	171	P	Pn	14 29 39.5	+2.0
MGCD	Mangrove Creek	2.70	171	S	Sb	14 30 13.7	-1.9
AUKHS	Kincumber High	2.99	168	P	Pn	14 29 41.9	+0.5
AUKHS				S	Sn	14 30 18.7	+1.4
AUKHS				AML	AML		
YARR	Yarramundi, NS	3.07	179	P	Pn	14 29 43.8	+1.2
YARR				S	Sn	14 30 21.0	+1.6
YARR				AML	AML		
SYDH	Sydney Hard Ro	3.22	178	P	Pn	14 29 45.2	+0.6
SYDH				AML	AML		
SYDH	Sydney Hard Ro	3.22	178	P	Pn	14 29 47.3	+2.7
OKDL	Oakdale	3.53	182	P	Pn	14 29 50.3	+1.4
OKDL				S	Sn	14 30 31.9	+1.2
OKDL				AML	AML		
MABG	Mt Annan Botan	3.53	178	P	Pn	14 29 50.1	+1.2
MABG				S	Sn	14 30 31.9	+1.2
MABG				AML	AML		
CMSA	Cobar Meteorol	4.34	255	P	Pn	14 30 02.4	+2.4
CMSA				S	Sn	14 30 52.5	+1.9
CMSA				AML	AML		
CMSA	Cobar Meteorol	4.34	255	P	Pn	14 30 02.8	+2.8
DLN	Dalton (NSW)	4.35	196	P	Pn	14 30 01.1	+0.9
DLN				S	Sn	14 30 52.4	+1.5
DLN				AML	AML		
CNB	Canberra Magne	4.88	192	P	Pn	14 30 08.6	+1.1
CNB				AML	AML		
CNB	Canberra Magne	4.88	192	P	Pn	14 30 08.3	+0.8
CNB				AML	AML		
CAN	Canberra	4.96	195	P	Pn	14 30 09.6	+1.1
CAN				AML	AML		
CAN	Canberra	4.96	195	P	Pn	14 30 11.2	+2.6
EIDS	Eidsvold	5.16	5	P	Pn	14 30 13.9	+2.5
EIDS				S	Sn	14 31 13.1	+2.1
EIDS				AML	AML		
EIDS	Eidsvold	5.16	5	P	Pn	14 30 14.0	+2.6
MILA	Mila	6.61	190	P	Pn	14 30 32.7	+1.4
	comp=Z,16nm,2.4s,comp=Z,0.1nm						
MILA				AML	AML		
MILA	Mila	6.61	190	P	Pn	14 30 32.3	+1.0
	comp=Z,21nm,2.9s,comp=Z,0.1nm						
MILA				S	Sn	14 31 48.2	+1.4
MILA				AML	AML		
QLP	Quilpie	6.85	304	P	Pn	14 30 36.9	+2.4
QLP				AML	AML		
QLP	Quilpie	6.85	304	P	Pn	14 30 37.1	+2.6
STKA	Stephens Creek	7.83	258	P	Pn	14 30 49.5	+1.5
	comp=Z,43nm,1.6s,comp=Z,0.2nm						
STKA				AML	AML		
STKA	Stephens Creek	7.83	258	P	Pn	14 30 49.5	+1.5
	comp=Z,43nm,1.6s,comp=Z,0.2nm						
STKA				S	Sn	14 32 16.0	-0.8
STKA				AML	AML		
STKA	Stephens Creek	7.83	258	Pn	Pn	14 30 49.5	+1.5
	comp=Z,0.4nm,0.3s,baz=81,slow=15,SNR=7.8						
STKA				Sn	Sn	14 32 11.2	-5.6
	comp=Z,1.3nm,0.3s,baz=199,slow=22,SNR=4.3						
STKA				Lg	Lg	14 33 06.8	
	comp=Z,1.3nm,0.3s,baz=4.8,slow=16,SNR=3.9 comp=Z,1.0nm,0.3s						
STKA				AML	AML		
STKA	Stephens Creek	7.83	258	P	Pn	14 30 49.6	+1.5
TOO	Toolangi	8.20	210	P	Pn	14 30 55.1	+2.1
	comp=Z,9.2nm,2.2s,comp=Z,0.0nm						
TOO				AML	AML		
TOO	Toolangi	8.20	210	P	Pn	14 30 54.6	+1.6
	comp=Z,9.3nm,2.2s,comp=Z,0.0nm						
TOO				S	Sn	14 32 28.5	+2.7
TOO				AML	AML		
INKA	Innaminka	9.06	285	P	Pn	14 31 08.2	+3.4
	comp=Z,4.0nm,0.7s,comp=Z,0.0nm						
INKA				AML	AML		
INKA	Innaminka	9.06	285	P	Pn	14 31 07.3	+2.5
	comp=Z,4.1nm,0.9s,comp=Z,0.0nm						
INKA				AML	AML		
ARPS	Mount Arapiles	9.59	227	P	Pn	14 31 14.8	+2.7
ARPS				AML	AML		
ARPS	Mount Arapiles	9.59	227	P	Pn	14 31 14.1	+2.0
ARPS				AML	AML		
ARPS	Mount Arapiles	9.59	227	P	Pn	14 31 13.4	+1.2
ARPS				AML	AML		
SDAN	Sedan	10.30	244	P	Pn	14 31 23.3	+1.4
	comp=Z,8.0nm,1.5s,comp=Z,0.0nm						
SDAN				AML	AML		
SDAN	Sedan	10.30	244	P	Pn	14 31 23.2	+1.3
	comp=Z,8.0nm,1.5s,comp=Z,0.0nm						
SDAN				AML	AML		
HTT	Hallett	10.34	251	P	Pn	14 31 24.2	+1.9
	comp=Z,8.6nm,2.9s,comp=Z,0.0nm						
HTT				AML	AML		
HTT	Hallett	10.34	251	P	Pn	14 31 24.0	+1.6
	comp=Z,8.6nm,2.9s,comp=Z,0.0nm						
HTT				AML	AML		
YAPP	Yappala Statio	10.61	260	P	Pn	14 31 27.3	+1.1
	comp=Z,6.2nm,0.6s,comp=Z,0.0nm						
YAPP				AML	AML		
YAPP	Yappala Statio	10.61	260	P	Pn	14 31 26.8	+0.7
	comp=Z,6.2nm,0.6s,comp=Z,0.0nm						
YAPP				AML	AML		
LCRK	Leigh Creek	10.69	267	P	Pn	14 31 28.5	+1.3
	comp=Z,6.9nm,2.1s,comp=Z,0.0nm						
LCRK				AML	AML		
LCRK	Leigh Creek	10.69	267	P	Pn	14 31 28.8	+1.6
	comp=Z,6.9nm,2.1s,comp=Z,0.0nm						
LCRK				AML	AML		
CTA	Charters Tower	11.12	338	Pn	Pn	14 31 26.6	-6.6
	comp=Z,0.8nm,0.4s,baz=132,slow=9.8,SNR=1.0						
CTA				Lg	Lg	14 34 40.5	
	comp=Z,0.2nm,0.3s,baz=51,slow=20,SNR=1.2						
BBOO	Buckleboo	12.60	256	P	Pn	14 31 55.8	+2.5
QIS	Mount Isa	14.04	312	P	Pn	14 32 14.2	+1.1
	comp=Z,6.7nm,0.7s						
QIS	Mount Isa	14.04	312	P	Pn	14 32 13.1	+0.1
	comp=Z,5.8nm,0.6s						
MULG	Mulgathing	14.29	267	P	Pn	14 32 17.5	+1.1
	comp=Z,6.6nm,1.6s						
AS17	Alice Springs	16.29	291	P	Pn	14 32 44.0	+1.0
	comp=Z,7.3nm,0.9s						
AS31	Alice Springs	16.36	291	P	Pn	14 32 44.9	+1.1
	comp=Z,2.5nm,1.0s						
ASAR	Alice Springs	16.36	291	Pn	Pn	14 32 41.5	-2.4
	comp=Z,0.4nm,0.3s,baz=120,slow=13,SNR=35						
ASAR				Sn	Sn	14 35 39.9	-5.7
	comp=Z,0.1nm,0.3s,baz=116,slow=23,SNR=1.4 comp=Z,2.2nm,0.7s						
ASAR				AML	AML		
WR8	Warramunga Arr	17.96	302	P	P	14 33 05.3	+0.9
WRA	Warramunga Arr	18.08	302	Pn	Pn	14 33 05.4	0.0
	comp=Z,0.3nm,0.3s,baz=127,slow=11,SNR=20 comp=Z,0.4nm,0.3s						
WRA				AML	AML		

WEL 25 14:34:06.3±0.7**, 37°S**±5°×**17°7E**±°**, h5**km**, M2.5**/13**, ML2.4**/18**, MLv2.5**/13**, Error ellipse: s-maj=8.0km s-min=3.2km az=39.2, confirmed, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WIZ	White Island	0.76	176	P	Pg	14 34 21.3	+0.4
WIZ				S	Sb	14 34 31.9	-0.8
WIZ				AML	AML		
WIZ				AML	AML		
MYRZ	Mayor Island	0.87	234	P	Pb	14 34 23.8	-0.1
MYRZ				AML	AML		
MYRZ				AML	AML		
HAZ	Te Kaha	1.12	152	P	Pg	14 34 26.2	-1.6
HAZ				S	Sg	14 34 42.3	-0.1
HAZ				AML	AML		
HAZ				AML	AML		
TGRZ	Tauranga	1.18	215	P	Pg	14 34 28.9	-0.1
TGRZ				AML	AML		
TGRZ				AML	AML		
MXZ	Matakaoa Point	1.24	130	P	Pg	14 34 28.1	-1.9
MXZ	Matakaoa Point	1.24	130	P	Pg	14 34 27.9	-2.1
MXZ				AML	AML		
RUGZ	Raukumara Rang	1.28	160	P	Pg	14 34 29.7	-1.1
RUGZ				S	Sg	14 34 45.7	-1.6
RUGZ				AML	AML		
RUGZ				AML	AML		
PKGZ	Pakihiroa	1.34	145	P	Pb	14 34 31.9	0.0
PKGZ				AML	AML		
PKGZ				AML	AML		
KMRZ	Kaimai	1.43	221	P	Pb	14 34 33.6	+0.1
KMRZ				AML	AML		
KMRZ				AML	AML		
GRZ	Great Barrier	1.43	291	P	Pn	14 34 32.0	-0.9
GRZ				S	Sb	14 34 50.6	-1.4
GRZ				AML	AML		
GRZ				AML	AML		
WMGZ	Waiomatatini S	1.47	136	P	Pn	14 34 33.2	-0.3
WMGZ				S	Sg	14 34 53.7	+0.1
WMGZ				AML	AML		
WMGZ				AML	AML		
URZ	Urewera	1.49	180	P	Pn	14 34 33.0	-0.8
URZ				S	Sn	14 34 52.8	-0.8
URZ				AML	AML		
TWGZ	Tauwhareparae	1.56	154	P	Pb	14 34 35.7	-0.1
TWGZ				AML	AML		
TWGZ				AML	AML		
PUZ	Puketiti	1.59	145	P	Pb	14 34 35.7	-0.5
PUZ				AML	AML		
WIAZ	Waiheke Island	1.59	268	P	Pn	14 34 35.4	+0.2
WIAZ				AML	AML		
WIAZ				AML	AML		
MWZ	Matawai	1.60	168	P	Pn	14 34 33.8	-1.5
MWZ				AML	AML		
MKAZ	Moumakai	1.60	257	P	Pn	14 34 34.7	-0.6
MKAZ				AML	AML		
TOZ	Tahuroa Road	1.61	233	P	Pn	14 34 35.2	-0.2
TOZ				AML	AML		
ETAZ	East Tamaki Re	1.77	263	P	Pn	14 34 37.6	0.0
ETAZ				AML	AML		
ETAZ				AML	AML		
TKGZ	Te Karaka	1.77	161	P	Pn	14 34 37.8	+0.2
TKGZ				AML	AML		
TKGZ				AML	AML		
MBAZ	Motutapu North	1.78	269	P	Pn	14 34 37.8	+0.1
MBAZ				AML	AML		
MBAZ				AML	AML		
TLZ	Tolley Road	2.00	218	P	Pn	14 34 40.6	-0.3
TLZ				AML	AML		
AWAZ	Awhitu Peninsu	2.01	261	P	Pn	14 34 40.3	-0.5
AWAZ				AML	AML		
AWAZ				AML	AML		
WTAZ	Waiatarua	2.05	265	P	Pg	14 34 47.9	+2.4
MTHZ	Maungataniwha	2.09	186	P	Pg	14 34 47.1	+0.6
BKZ	Black Stump Fm	2.44	191	P	Pb	14 34 48.9	-1.9
BKZ	Black Stump Fm	2.44	191	P	Pn	14 34 46.8	-0.2
BKZ				AML	AML		
HIZ	Hauiti	2.50	225	P	Pn	14 34 48.2	+0.5
OUZ	Omahuta	3.25	297	P	Pn	14 34 57.4	-0.5
OUZ				AML	AML		

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*IDC **25** 15:02:33.4±4.9, 62°.33N×33°.01E, h0km, mbtmp3.1/2, ML2.4/2, Error ellipse: s-maj=53.0km s-min=20.5km az=116.0*

*HEL **25** 15:02:35.0±0.3, 62°.46N×32°.56E, h0km, ML1.6, Explosion*

ISC 25 15:02:33.8±1.8**, 62°.52N**±0°.05×**32°.42E**±0°.09**, h0**km**, n21,** σ1ˢ.**58**/31**, Baltic States-Belarus-Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JOF	Joensuu	0.64	308	PG	Pb	15 02 48.0	+0.1
	baz=126						
JOF				SG	Sb	15 02 58.4	+0.9
RUF	Ruokolahti	1.97	238	PG	Pb	15 03 10.5	0.0
RUF				smax	smax	15 03 34.4	
	comp=Z,2.5nm,0.2s						
RUF				SG	Sg	15 03 36.9	-0.2
RMF	Romuvaara	2.04	328	PG	Pg	15 03 12.8	0.0
RMF				smax	smax	15 03 38.0	
	comp=Z,3.4nm,0.2s						
RMF				SG	Sg	15 03 41.2	+2.0
NIF	Nilsia	2.28	294	PG	Pg	15 03 16.6	-0.8
	baz=112						
NIF				smax	smax	15 03 45.0	
	comp=Z,1.9nm,0.2s						
NIF				SG	Sg	15 03 47.2	+0.3
KAF	Kangasniemi	2.88	264	PB	Pb	15 03 25.6	-0.4
	baz=81						
KAF				smax	smax	15 04 01.5	
	comp=Z,2.5nm,0.2s						
KAF				SB	Sb	15 04 02.8	+1.0
SUF	Sumiainen	2.90	277	PB	Pb	15 03 26.2	-0.1
SUF				smax	smax	15 04 02.6	
	comp=Z,1.2nm,0.2s						
SUF				SB	Sg	15 04 04.5	-2.5
VJF	Virojoki	3.06	232	smax	smax	15 04 05.4	
	comp=Z,1.2nm,0.2s						
VJF				SB	Sb	15 04 06.8	-0.2
FIA0	FINESS Array S	3.18	253	PN	Pn	15 03 27.1	+2.1
FINES	FINESS Array B	3.18	253	Pn	Pn	15 03 27.4	+2.4
	comp=Z,0.8nm,0.3s,baz=67,slow=14,SNR=35						
FINES				Sn	Sb	15 04 08.1	-2.3
	comp=Z,1.0nm,0.3s,baz=72,slow=26,SNR=14 comp=Z,1.7nm,0.3s						
FINES				AML	AML		
KU1	Kurvinen	3.30	339	PN	Pn	15 03 27.1	+0.5
KEF	Keuruu	3.54	268	PB	Pb	15 03 35.6	-1.6
KEF				SB	Sb	15 04 21.5	+0.9
MSF	Maaselka	3.71	338	PG	Pg	15 03 42.8	-1.9
MSF				SN	Sn	15 04 17.7	+1.1
OUL	Oulu	3.87	315	PG	Pg	15 03 46.8	-1.0
	baz=126						
OUF	Merijarvi	3.92	302	SG	Sg	15 04 39.0	-0.5
OLKF	Oulanka, Finla	4.03	342	SN	Sn	15 04 25.5	+0.9
VUOS	Vuosaari Helsi	4.21	239	SB	Sb	15 04 40.4	+0.5
RANF	Ranua	4.28	327	PN	Pn	15 03 42.5	+2.4
	baz=146						
RANF				SN	Sn	15 04 34.3	+3.7
OBF8	Ulkokalla	4.42	298	PB	Pb	15 03 50.8	-1.4
VAF	Ylistaro	4.51	281	SG	Sg	15 04 56.6	-1.8
I43RU	DUBNA INFRASON	6.31	155	I	I	15 40 50.0	
	baz=342,slow=327,SNR=5.0						
ARCES	ARCESS Array B	7.58	341	Pn	Pn	15 04 24.1	-1.2
	comp=Z,0.1nm,0.3s,baz=151,slow=13,SNR=1.5						
ARCES				Sn	Sn	15 05 49.7	-2.1
	comp=Z,0.1nm,0.3s,baz=152,slow=25,SNR=3.8 comp=Z,2.1nm,0.9s						
ARCES				AML	AML		

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*NOU **25** 15:02:08.5, 33°.74S×178°.51W, h356km, mb4.3/10, South of Kermadec Islands*

*WEL **25** 15:02:42.1±1.0, 35°S±5°×17°9E±°, h12km, M4.2/19, ML4.0/20, MLv4.2/19, Error ellipse: s-maj=12.2km s-min=6.1km az=81.6, confirmed*

*IDC **25** 15:02:48.3±4.3, 34°.93S×178°.57E, h256km±41km, mb3.9/5, mbtmp4.5/7, Error ellipse: s-maj=22.1km s-min=17.5km az=97.0*

ISC 25 15:02:43.3±0.9**, 35°.49S**±0°.07×**178°.82E**±0°.08**, h243**km±7km**, n133,** σ1ˢ.**61**/153**, mb4.1**/5**, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	Matakaoa Point	2.10	191	P	Pn	15 03 25.0	-1.1
MXZ	Matakaoa Point	2.10	191	P	Pn	15 03 24.6	-1.5
MXZ				S	S	15 03 57.4	-2.5
MXZ				AML	AML		
MXZ				AML	AML		
WMGZ	Waiomatatini S	2.34	188	P	Pn	15 03 27.7	-0.7
WMGZ				S	S	15 04 03.1	-1.0
WMGZ				AML	AML		
WMGZ				AML	AML		
HAZ	Te Kaha	2.41	200	P	Pn	15 03 27.8	-1.2
HAZ				S	S	15 04 04.6	-0.6
HAZ				AML	AML		
HAZ				AML	AML		
PKGZ	Pakihiroa	2.44	194	P	Pn	15 03 30.3	+0.8
PKGZ				S	S	15 04 04.6	-1.3
PKGZ				AML	AML		
PKGZ				AML	AML		
PUZ	Puketiti	2.61	190	P	Pn	15 03 30.0	-1.2
PUZ				S	S	15 04 07.4	-1.6
PUZ				AML	AML		
PUZ				AML	AML		
RUGZ	Raukumara Rang	2.63	200	P	Pn	15 03 30.5	-1.0
RUGZ				AML	AML		
RUGZ				AML	AML		
MYRZ	Mayor Island	2.74	229	P	Pn	15 03 32.5	0.0
MYRZ				AML	AML		
MYRZ				AML	AML		
TWGZ	Tauwhareparae	2.76	194	P	Pn	15 03 33.8	+1.0
TWGZ				S	S	15 04 13.3	+1.4
TWGZ				AML	AML		
TWGZ				AML	AML		
WHRZ	Whale Island	2.79	212	P	Pn	15 03 35.4	+2.4
WHRZ				S	S	15 04 13.6	+1.4
WHRZ				AML	AML		
WHRZ				AML	AML		
GRZ	Great Barrier	2.83	254	P	Pn	15 03 31.0	-2.5
GRZ				AML	AML		
GRZ				AML	AML		
MWZ	Matawai	3.02	200	P	Pn	15 03 34.9	-0.6
MWZ				S	S	15 04 16.8	-0.1
MWZ				AML	AML		
MWZ				AML	AML		
CNGZ	Carnagh Statio	3.02	189	P	Pn	15 03 35.3	-0.3
CNGZ				S	S	15 04 18.3	+1.5
CNGZ				AML	AML		
CNGZ				AML	AML		
MARZ	Manawahe	3.02	214	P	Pn	15 03 35.7	+0.1
MARZ				S	S	15 04 18.9	+1.9
MARZ				AML	AML		
MARZ				AML	AML		
TGRZ	Tauranga	3.04	222	P	Pn	15 03 35.9	+0.3
TGRZ				AML	AML		
TGRZ				AML	AML		
TKGZ	Te Karaka	3.04	195	P	Pn	15 03 35.0	-0.8
TKGZ				S	S	15 04 17.2	0.0
TKGZ				AML	AML		
TKGZ				AML	AML		
URZ	Urewera	3.08	206	P	Pn	15 03 35.2	-1.0
URZ	Urewera	3.08	206	P	Pn	15 03 35.0	-1.1
URZ				S	S	15 04 17.3	-0.7
URZ				AML	AML		
URZ				AML	AML		
EDRZ	Edgecumbe	3.10	212	P	Pn	15 03 37.5	+1.1
EDRZ				AML	AML		
EDRZ				AML	AML		
RAGZ	Rawiri	3.20	200	P	Pn	15 03 37.4	-0.2
RAGZ				S	S	15 04 21.0	+0.5
RAGZ				AML	AML		
RAGZ				AML	AML		
WIAZ	Waiheke Island	3.25	245	P	Pn	15 03 37.1	-1.0
WIAZ				AML	AML		
WIAZ				AML	AML		
KARZ	Kaharoa	3.26	219	P	Pn	15 03 39.2	+1.0
KARZ				AML	AML		
KARZ				AML	AML		
KMRZ	Kaimai	3.30	224	P	Pn	15 03 39.2	+0.5
KMRZ				AML	AML		
KMRZ				AML	AML		
RIGZ	Rimuhau	3.31	194	P	Pn	15 03 38.1	-0.7
RIGZ				S	S	15 04 23.1	+0.3
RIGZ				AML	AML		
RIGZ				AML	AML		
NGRZ	Ngongotaha	3.35	218	P	Pn	15 03 40.9	+1.6
NGRZ				AML	AML		
NGRZ				AML	AML		
MKAZ	Moumakai	3.36	240	P	Pn	15 03 38.9	-0.4
MKAZ				AML	AML		
RRRZ	Republican Roa	3.39	212	P	Pn	15 03 40.3	+0.7
HLRZ	Highlands Stat	3.39	215	P	Pn	15 03 40.7	+1.0
MUGZ	Murupara	3.40	208	P	Pn	15 03 39.0	-0.8
UTU	Utuhina	3.41	217	P	Pn	15 03 42.1	+2.2
ABAZ	Army Bay	3.41	250	P	Pn	15 03 39.1	-0.8
ABAZ				AML	AML		
ABAZ				AML	AML		
MBAZ	Motutapu North	3.42	247	P	Pn	15 03 39.2	-0.8
MBAZ				AML	AML		
MBAZ				AML	AML		
RTZ	Ruatahuna	3.44	205	P	Pn	15 03 39.3	-1.1
ETAZ	East Tamaki Re	3.47	244	P	Pn	15 03 40.2	-0.3
TOZ	Tahuroa Road	3.48	229	P	Pn	15 03 41.4	+0.7
PRGZ	Paritu Road	3.50	192	P	Pn	15 03 40.2	-0.8
HRRZ	Handcock Road	3.53	214	P	Pn	15 03 42.7	+1.3
PRRZ	Plateau Road	3.57	212	P	Pn	15 03 41.9	+0.1
GRRZ	Galatos Road	3.58	217	P	Pn	15 03 43.7	+1.8
KNZ	Kokohu	3.64	194	P	Pn	15 03 41.3	-1.2
ALRZ	Allen Road	3.65	212	P	Pn	15 03 42.8	+0.1
RVAZ	Riverhead Bore	3.66	248	P	Pn	15 03 42.7	0.0
WCZ	Waipu Caves	3.67	262	P	Pn	15 03 40.7	-2.2
RAHZ	Arahi	3.69	202	P	Pn	15 03 43.0	-0.1
WPRZ	Whakapapatarin	3.69	214	P	Pn	15 03 44.5	+1.3
MTHZ	Maungataniwha	3.71	205	P	Pn	15 03 42.8	-0.5
AWAZ	Awhitu Peninsu	3.72	244	P	Pn	15 03 43.5	+0.1
WTAZ	Waiatarua	3.72	246	P	Pn	15 03 43.4	-0.1
MHGZ	Mahia Peninsul	3.72	191	P	Pn	15 03 42.9	-0.6
WHHZ	Waihua	3.79	199	P	Pn	15 03 43.8	-0.5
KUTZ	Kaahu Road	3.83	218	P	Pn	15 03 46.4	+1.6
MRHZ	Matea Rd	3.85	209	P	Pn	15 03 44.5	-0.5
TLZ	Tolley Road	3.86	222	P	Pn	15 03 46.6	+1.4
NMHZ	Naumai	3.94	203	P	Pn	15 03 45.8	-0.2
ARHZ	Aropaoanui	4.03	201	P	Pn	15 03 46.4	-0.7
BKZ	Black Stump Fm	4.11	206	P	Pn	15 03 47.4	-0.7
BKZ	Black Stump Fm	4.11	206	P	Pn	15 03 47.3	-0.8
BKZ				S	S	15 04 39.6	+0.1
RATZ	Rangitukua	4.15	215	P	Pn	15 03 49.3	+0.7
RITZ	Rihia Road	4.20	213	P	Pn	15 03 49.7	+0.6
OUZ	Omahuta	4.28	272	P	Pn	15 03 47.3	-2.8
OUZ	Omahuta	4.28	272	P	Pn	15 03 47.3	-2.8
MCHZ	McNeill Hill	4.29	203	P	Pn	15 03 49.7	-0.5
KWHZ	Kaweka Forest	4.36	205	P	Pn	15 03 50.6	-0.5
KWHZ				S	S	15 04 42.9	-2.1
HIZ	Hauiti	4.38	225	P	Pn	15 03 53.2	+2.0
HIZ	Hauiti	4.38	225	P	Pn	15 03 53.2	+2.0
CKHZ	Cape Kidnapper	4.38	198	P	Pn	15 03 51.2	0.0
CKHZ				S	S	15 04 44.4	-0.9
NTVZ	North Tongarir	4.38	214	P	Pn	15 03 51.7	+0.3
TMVZ	Te Maari	4.39	214	P	Pn	15 03 51.5	0.0
ETVZ	East Tongariro	4.40	213	P	Pn	15 03 51.6	0.0
WTVZ	West Tongariro	4.44	215	P	Pn	15 03 50.3	-1.8
SNVZ	South Ngauruho	4.47	214	P	Pn	15 03 47.6	-4.9
TWVZ	Taurewa	4.47	216	P	Pn	15 03 52.6	+0.1
NGZ	Ngauruhoe	4.48	214	P	Pn	15 03 52.8	+0.2
COVZ	Chateau Observ	4.53	214	P	Pn	15 03 53.7	+0.5
TUVZ	Tukino	4.53	213	P	Pn	15 03 53.6	+0.3
TUVZ				S	S	15 04 47.3	-1.5
BHHZ	Black Hill Sta	4.55	208	P	Pn	15 03 52.2	-1.2
BHHZ				S	S	15 04 50.8	+1.7
KAHZ	Kahuranaki	4.56	199	P	Pn	15 03 52.6	-0.9
KAHZ				S	S	15 04 50.6	+1.4
FWVZ	Far West T-bar	4.57	214	P	Pn	15 03 53.7	0.0
MAVZ	Matarangi	4.57	214	P	Pn	15 03 54.1	+0.1
WHVZ	Whangaehu Hut	4.57	213	P	Pn	15 03 53.9	+0.1
KRHZ	Kereru	4.58	204	P	Pn	15 03 52.4	-1.3
MOVZ	Moawhango	4.61	211	P	Pn	15 03 52.9	-1.2
WNVZ	Wahianoa	4.61	213	P	Pn	15 03 54.2	0.0
PKVZ	Pokaka	4.69	215	P	Pn	15 03 55.0	-0.1
PXZ	Pawanui	4.79	198	P	Pn	15 03 54.2	-2.0
VRZ	Vera Road	4.86	221	P	Pn	15 03 58.4	+1.3
PNHZ	Pukenui	4.88	204	P	Pn	15 03 55.7	-1.6
WPHZ	Waipukurau	4.94	202	P	Pn	15 03 57.0	-1.0
PRHZ	Porangahau	5.07	199	P	Pn	15 03 59.0	-0.6
TSZ	Takapari Road	5.09	206	P	Pn	15 03 58.9	-1.1
WAZ	Wanganui	5.23	214	P	Pn	15 04 01.6	-0.1
NEZ	North Egmont	5.33	224	P	Pn	15 04 05.2	+2.3
PKE	Pukeiti	5.33	225	P	Pn	15 04 05.2	+2.2
KHEZ	Kahui Hut	5.39	224	P	Pn	15 04 05.9	+2.2
KHEZ	Kahui Hut	5.39	224	P	Pn	15 04 05.8	+2.2
POWZ	Post Office Ro	5.45	205	P	Pn	15 04 03.4	-1.0
PRWZ	Pori Road	5.53	203	P	Pn	15 04 00.8	-4.6
BFZ	Birch Farm	5.56	201	P	Pn	15 04 04.3	-1.5
BFZ	Birch Farm	5.56	201	P	Pn	15 04 04.2	-1.5
MRZ	Mangatainoka R	5.76	205	P	Pn	15 04 06.5	-1.7
TIWZ	Tintock	5.76	203	P	Pn	15 04 07.4	-0.8
CPWZ	Castlepoint	5.79	200	P	Pn	15 04 08.0	-0.5
HOWZ	Holdsworth Sta	5.99	205	P	Pn	15 04 08.9	-2.2
OGWZ	Otaki Gorge	6.04	207	P	Pn	15 04 09.6	-2.1
TMWZ	Te Maipa	6.06	201	P	Pn	15 04 10.1	-1.9
KIW	Kapiti Island	6.18	209	P	Pn	15 04 11.3	-2.2
MTW	Mount Morrison	6.23	204	P	Pn	15 04 11.7	-2.3
CAW	Cannon Point	6.33	207	P	Pn	15 04 13.0	-2.4
TRWZ	Traveller	6.39	202	P	Pn	15 04 14.4	-1.6

PAWZ	**Paruwai Farm**	**6.45**	**203**	P	**Pn**	**15 04 15.3**	**-1.6**
MSWZ	**Moikau Station**	**6.54**	**204**	P	**Pn**	**15 04 15.8**	**-2.2**
DUWZ	**D'Urville Isla**	**6.55**	**215**	P	**Pn**	**15 04 16.4**	**-1.8**
WEL	**Wellington**	**6.60**	**208**	P	**Pn**	**15 04 16.3**	**-2.4**
SNZO	**South Karori**	**6.64**	**208**	P	**Pn**	**15 04 17.3**	**-2.0**
BHW	**Baring Head**	**6.67**	**206**	P	**Pn**	**15 04 17.2**	**-2.4**
BHW				S	**S**	**15 05 33.0**	**-3.7**
PLWZ	**Palliser**	**6.68**	**204**	P	**Pn**	**15 04 17.1**	**-2.7**
PLWZ				S	**S**	**15 05 31.7**	**-5.3**
TCW	**Tory Channel**	**6.73**	**211**	P	**Pn**	**15 04 17.6**	**-2.7**
TCW				S	**S**	**15 05 32.8**	**-5.3**
GLKZ	**Green Lake**	**6.80**	**25**	P	Pn	15 04 06.6	-15
GLKZ				S	S	15 05 17.8	-22
TUWZ	**Tuamarina**	**7.05**	**211**	P	**Pn**	**15 04 22.1**	**-2.3**
TUWZ				S	**S**	**15 05 43.0**	**-2.5**
QRZ	**Quartz Range**	**7.27**	**221**	P	**Pn**	**15 04 25.9**	**-1.3**
KHZ	**Kahutara**	**8.04**	**209**	P	**Pn**	**15 04 34.4**	**-2.6**
CTZ	**Chatham Island**	**8.95**	**158**	P	Pn	15 04 58.3	+10
DZM	**Mont Dzumac**	**17.20**	**318**	P	**P**	**15 06 27.2**	**-0.6**
	9.6nm,1.1s,baz=135,slow=16,SNR=3.7						
MSVF	**Nonsavu**	**17.70**	**358**	P	**P**	**15 06 30.6**	**-2.7**
	4.1nm,0.5s,baz=149,slow=8.3,SNR=7.1						
AFI	**Afiamalu**	**23.10**	**24**	P	**P**	**15 07 28.1**	**0.0**
	25nm,1.0s,baz=180,slow=23,SNR=1.7						
	25nm,1.0s						
ASAR	**Alice Springs**	**40.49**	**274**	P	**P**	**15 10 00.7**	**+1.8**
	2.0nm,0.3s,baz=115,slow=8.5,SNR=47						
	2.0nm,0.3s						
WRA	**Warramunga Arr**	**41.95**	**280**	P	**P**	**15 10 11.7**	**+1.0**
	2.2nm,0.3s,baz=120,slow=7.5,SNR=36						
	2.2nm,0.3s						
QSPA	**South Pole Qui**	**54.63**	**180**	P	P	15 11 54.8	+8.1
	6.3nm,0.6s,baz=333,slow=0.4,SNR=74						
	6.3nm,0.6s						
PETK	**Petropavlovsk-**	**90.13**	**347**	P	**P**	**15 15 15.6**	**+0.3**
	1.7nm,0.9s,baz=103,slow=6.6,SNR=4.7						
	1.7nm,0.9s						
ARCES	**ARCESS Array B**	**142.90**	**345**	PKP	**PKiKP**	**15 21 51.1**	**+1.0**
	2.5nm,0.9s,baz=50,slow=2.3,SNR=2.2						
FINES	**FINESS Array B**	**148.81**	**335**	PKPbc	**PKiKP**	**15 22 02.7**	**+0.3**
	1.6nm,0.5s,baz=46,slow=4.0,SNR=15						
BRTR	**Keskin Array B**	**152.20**	**289**	PKPbc	**PKiKP**	**15 22 12.3**	**+2.0**
	0.4nm,0.5s,baz=131,slow=4.0,SNR=2.4						
TORD	**Torodi Ar. Bea**	**157.60**	**187**	PKPab	**PKPab**	**15 22 47.8**	**+3.6**
	0.7nm,0.6s,baz=160,slow=4.1,SNR=5.8						

*IDC **25** 15:10:33.5±2.2, 4°.32S×144°.70E, h103^{km}±21^{km}, mb3.2/3, mbtmp3.7/7, MS3.8/1, Error ellipse: s-maj=31.1km s-min=12.6km az=49.0*

ISC 25 15:10:33.6±1.2**, 4°.3S**±0°.1×**144°.7E**±0°.1**, h100^{km}, n8, σ1^{s}.40**/9**, mb3.5**/3**, Near north coast of New Guinea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAY	**Jayapura**	**4.37**	**294**	P	**Pn**	**15 11 39.6**	**+1.8**
	5.7nm,0.3s,baz=122,slow=12,SNR=23						
JAY				S	**Sn**	**15 12 27.7**	**+0.1**
	4.6nm,0.4s,baz=316,slow=18,SNR=1.0						
PMG	**Port Moresby**	**5.62**	**154**	P	**Pn**	**15 11 56.3**	**+1.6**
	7.9nm,0.3s,baz=331,slow=10,SNR=20						
PMG				S	**Sn**	**15 12 56.6**	**-1.4**
	5.6nm,0.3s,baz=108,slow=20,SNR=5.9						
SIJI	**Sorong**	**13.84**	**284**	P	**Pn**	**15 13 43.9**	**-1.7**
	1.8nm,0.3s,baz=194,slow=21,SNR=4.1						
WRA	**Warramunga Arr**	**18.52**	**212**	P	**P**	**15 14 41.7**	**-0.6**
	0.4nm,0.4s,baz=37,slow=10,SNR=18						
ASAR	**Alice Springs**	**21.87**	**207**	P	**P**	**15 15 18.3**	**-0.2**
	0.3nm,0.4s,baz=37,slow=8.0,SNR=12						
	0.3nm,0.4s						
LEM	**Lembang**	**36.98**	**264**	LR	LR	15 37 36.7	
	comp=Z,128nm,18.9s,baz=186,slow=44						
VNDA	**Vanda**	**73.72**	**176**	P	**P**	**15 21 56.3**	**+0.1**
	0.8nm,0.6s,baz=273,slow=4.1,SNR=3.7						
	0.8nm,0.6s						
ILAR	**Eielson Array**	**84.86**	**24**	P	**P**	**15 22 56.0**	**-0.9**
	0.5nm,0.8s,baz=262,slow=5.3,SNR=4.5						
	0.5nm,0.8s						

*NEIC **25** 15:16:58.1±2.7, 62°.13S±0°.07×58°.15W±0°.08, h10^{km}±2^{km}, mb4.6/12, Error ellipse: s-maj=12.6km s-min=5.6km az=344.0*

*IDC **25** 15:16:59.4±0.9, 62°.14S×57°.87W, h0^{km}, mb4.0/9, mbtmp4.0/9, MS3.6/15, Error ellipse: s-maj=47.0km s-min=17.0km az=77.0*

ISC 25 15:17:00.2±0.6**, 62°.24S**±0°.06×**58°.29W**±0°.08**, h10^{km}, n61, σ1^{s}.99**/44**, mb4.6**/21**, MS3.6**/15**, 4D, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ESPZ	**Base Esperanza**	**1.30**	**153**		**Pn**	**15 17 22.2**	**-2.2**
ESPZ				Sn	**Sb**	**15 17 41.2**	**-0.3**
PMSA	**Palmer Station**	**3.62**	**223**	Pn	**Pn**	**15 17 54.5**	**-1.7**
PMSA	**Palmer Station**	**3.62**	**223**	P	**Sb**	**15 18 48.4**	**+0.3**
	comp=Z,235nm,1.3s						
SMAI	**San Martin Ant**	**6.97**	**208**	Pn	**Pn**	**15 18 40.4**	**-1.8**
GO10	**Punta Arenas**	**11.36**	**318**	P	Pn	15 20 14.6	+32
	comp=Z,199nm,2.8s						
COYC	**Coyhaique**	**18.50**	**328**	P	**Pn**	**15 21 20.9**	**+4.5**
	comp=Z,13nm,1.2s						
VNA3	**Neumayer Olymp**	**20.57**	**136**	⇓P	Pn	15 21 41.8	+0.8
	comp=Z,4.7nm,0.6s						
VNA3	**Neumayer Olymp**	**20.57**	**136**	P	P	15 21 22.4	-16
	comp=Z,11nm,0.8s						
LL02	**Futaleuf**	**20.69**	**331**	P	Pn	15 21 42.3	-0.2
VNA1	**Neumayer--Stat**	**21.04**	**135**	⇓P	**P**	**15 21 46.4**	**+2.7**
	comp=Z,6.3nm,0.7s						
SNAA	**Sanae**	**22.75**	**138**	⇓P	**P**	**15 22 04.0**	**+2.0**
	comp=Z,81nm,0.8s						
SNAA	**Sanae**	**22.75**	**138**	P	**P**	**15 22 03.4**	**+1.3**
	comp=Z,3.6nm,0.9s,baz=264,slow=7.7,SNR=6.8						
SNAA				LR	LR	15 29 29.1	
	comp=Z,128nm,21.6s,baz=293,slow=33						
	comp=Z,3.6nm,0.9s						
PLCA	**Paso Flores**	**22.77**	**335**	P	**P**	**15 22 03.7**	**+1.1**
	comp=Z,5.2nm,0.9s,baz=164,slow=9.6,SNR=9.7						
PLCA				LR	LR	15 29 36.3	
	comp=Z,194nm,20.7s,baz=188,slow=33						
	comp=Z,5.2nm,0.9s						
PLCA	**Paso Flores**	**22.77**	**335**	P	**P**	**15 22 03.6**	**+1.0**
	comp=Z,16nm,2.6s						
GO06	**Curarrehue**	**24.06**	**334**	P	**P**	**15 22 13.6**	**-1.9**
GO06				IAmb	IAmb	15 22 21.0	
	comp=Z,17nm,1.0s						
GO06	**Curarrehue**	**24.06**	**334**	P	**P**	**15 22 16.1**	**+0.6**
	comp=Z,22nm,1.0s						
TROLL	**Troll, Antarti**	**24.38**	**139**	⇓P	**P**	**15 22 20.7**	**+2.4**
	comp=Z,118nm,0.8s						
BI02	**San Fabin de**	**26.85**	**336**	P	**P**	**15 22 37.4**	**-3.3**
BI02	**San Fabin de**	**26.85**	**336**	P	**P**	**15 22 42.0**	**+1.3**
QSPA	**South Pole Qui**	**27.98**	**180**	P	**P**	**15 22 53.0**	**+2.2**
	comp=Z,2.3nm,0.8s,baz=164,slow=3.0,SNR=14						
QSPA				LR	LR	15 35 14.8	
	comp=Z,124nm,19.7s,baz=160,slow=39						
	comp=Z,2.3nm,0.8s						
QSPA	**South Pole Qui**	**27.98**	**180**	P	**P**	**15 22 51.6**	**+0.8**
QSPA				IAmb	IAmb	15 23 00.7	
	comp=Z,8.3nm,1.1s						
BO02	**Sierra Bellavi**	**28.58**	**338**	P	**P**	**15 22 51.8**	**-4.4**
BO02				IAmb	IAmb	15 23 12.1	
	comp=Z,18nm,1.4s						
BO02	**Sierra Bellavi**	**28.58**	**338**	P	**P**	**15 22 57.1**	**+0.9**
	comp=Z,8.9nm,1.1s						
BO01	**Tunca**	**29.03**	**338**	P	**P**	**15 22 59.7**	**-0.4**
BO04	**La Punta**	**29.34**	**339**	P	**P**	**15 22 59.8**	**-3.1**
BO04				IAmb	IAmb	15 23 04.8	
	comp=Z,9.5nm,0.8s						
MT08	**Bocatoma Ro**	**29.77**	**340**	P	**P**	**15 23 06.8**	**-0.2**
MT08				IAmb	IAmb	15 23 15.1	
	comp=Z,13nm,1.0s						
PEL	**Peldehue**	**30.18**	**339**	P	**P**	**15 23 11.1**	**+0.7**
	comp=Z,15nm,1.8s						
VA03	**San Esteban**	**30.52**	**339**	P	**P**	**15 23 11.2**	**-2.3**
VA03	**San Esteban**	**30.52**	**339**	P	**P**	**15 23 15.4**	**+1.9**
	comp=Z,20nm,0.9s						
CO04	**Los Peladeros**	**31.30**	**339**	P	**P**	**15 23 18.3**	**-2.2**
	comp=Z,13nm,1.1s						
CO02	**Combarbal**	**32.12**	**339**	P	**P**	**15 23 26.5**	**-1.1**
	comp=Z,24nm,1.0s						
CO03	**El Pedregal**	**32.43**	**340**	P	**P**	**15 23 29.8**	**-0.5**
	comp=Z,14nm,1.0s						
GO04	**Tololo Observa**	**33.10**	**340**	P	**P**	**15 23 35.6**	**-0.7**
	comp=Z,14nm,1.0s						
CO01	**Juntas del Tor**	**33.18**	**341**	P	**P**	**15 23 37.1**	**0.0**
CO01	**Juntas del Tor**	**33.18**	**341**	P	**P**	**15 23 38.5**	**+1.5**
	comp=Z,12nm,1.0s						
AC04	**Llanos de Chal**	**35.07**	**340**	P	**P**	**15 23 50.0**	**-3.1**
CPUP	**Villa Florida**	**35.91**	**1**	P	**P**	**15 24 00.1**	**-0.3**
	comp=Z,0.6nm,0.3s,baz=178,slow=20,SNR=2.9						
CPUP				LR	LR	15 40 27.6	
	comp=Z,54nm,18.6s,baz=256,slow=39						
	comp=Z,0.6nm,0.3s						
AC02	**Maricunga**	**36.13**	**343**	P	**P**	**15 23 59.5**	**-3.4**
AC02				IAmb	IAmb	15 24 08.8	
	comp=Z,7.8nm,0.6s						
AC02	**Maricunga**	**36.13**	**343**	P	**P**	**15 24 01.2**	**-1.6**
	comp=Z,16nm,2.3s						
VNDA	**Vanda**	**38.31**	**193**	LR	LR	15 41 38.7	
	comp=Z,59nm,18.4s,baz=170,slow=38						
MAW	**Mawson**	**43.67**	**152**	P	**P**	**15 25 06.0**	**+1.6**
	comp=Z,0.5nm,0.4s,baz=151,slow=13,SNR=1.2						
MAW				LR	LR	15 43 25.7	
	comp=Z,116nm,18.3s,baz=234,slow=36						
	comp=Z,0.5nm,0.4s						
LPAZ	**La Paz**	**46.42**	**347**	P	**P**	**15 25 28.9**	**+1.4**
	comp=Z,1.0nm,0.8s,baz=153,slow=6.2,SNR=2.5						
LPAZ				LR	LR	15 45 50.5	
	comp=Z,45nm,18.6s,baz=151,slow=37						
	comp=Z,1.0nm,0.8s						
LPAZ	**La Paz**	**46.42**	**347**	P	**P**	**15 25 24.9**	**-2.6**
BDFB	**Brasilia**	**47.11**	**14**	P	**P**	**15 25 32.1**	**-0.2**
	comp=Z,3.2nm,0.7s,baz=180,slow=6.7,SNR=5.5						
	comp=Z,3.2nm,0.7s						
RPN	**Rapa Nui**	**48.46**	**292**	LR	LR	15 41 08.4	
	comp=Z,54nm,18.2s,baz=193,slow=30						
CASY	**Casey**	**51.52**	**174**	P	**P**	**15 26 04.8**	**-0.6**
SUR	**Sutherland**	**56.92**	**97**	LR	LR	15 46 40.3	
	comp=Z,50nm,18.1s,baz=160,slow=31						
H10S3	**ASCENSION HYDR**	**61.87**	**51**	T	T	16 34 36.6	
	baz=18,slow=74,SNR=16						
H10S2	**ASCENSION HYDR**	**61.88**	**51**	T	T	16 34 31.8	
	baz=202,slow=74,SNR=12						
BOSA	**Boshof**	**62.15**	**99**	LR	LR	15 49 02.2	
	comp=Z,41nm,18.3s,baz=212,slow=31						
H10N3	**ASCENSION HYDR**	**62.96**	**50**	T	T	16 35 53.6	
	baz=201,slow=74,SNR=17						
H10N1	**ASCENSION HYDR**	**62.96**	**50**	T	T	16 35 53.9	
	baz=201,slow=74,SNR=16						
H10N2	**ASCENSION HYDR**	**62.98**	**50**	T	T	16 35 55.0	
	baz=201,slow=74,SNR=15						
LBTB	**Lobatse**	**65.37**	**97**	LR	LR	15 50 49.6	
	comp=Z,50nm,19.6s,baz=228,slow=31						
MATP	**Matopo**	**70.66**	**97**	LR	LR	15 53 55.0	
	comp=Z,66nm,19.0s,baz=234,slow=31						
SDV	**Santo Domingo**	**71.56**	**347**	LR	LR	16 00 51.5	
	comp=Z,46nm,19.9s,baz=238,slow=37						
LSZ	**Lusaka**	**74.98**	**94**	LR	LR	15 57 55.8	
	comp=Z,69nm,18.3s,baz=222,slow=33						
CMIG	**Matias Romero**	**84.18**	**325**	LR	LR	16 02 39.6	
	comp=Z,48nm,19.0s,baz=170,slow=32						
TORD	**Torodi Ar. Bea**	**88.37**	**58**	P	**P**	**15 29 50.5**	**-1.5**
	comp=Z,0.7nm,0.8s,baz=197,slow=3.1,SNR=4.4						
	comp=Z,0.7nm,0.8s						
WRA	**Warramunga Arr**	**97.48**	**192**	P	**P**	**15 30 33.8**	**-0.4**
	comp=Z,0.8nm,1.1s,baz=172,slow=4.9,SNR=5.5						
	comp=Z,0.8nm,1.1s						
MKAR	**Makanchi Array**	**152.94**	**106**	PKPbc	**PKPbc**	**15 36 56.0**	**-0.5**
	comp=Z,1.2nm,0.8s,baz=240,slow=3.4,SNR=8.4						

*KRNET **25** 16:02:39.1±0.1, 40°.66N×79°.29E, mb3.1*

*SOME **25** 16:02:40.0, 40°.77N×79°.33E, h10^{km}*

*NNC **25** 16:02:43.7±2.0, 40°.87N×79°.22E, h0^{km}, mb3.6, mpv3.0, Error ellipse: s-maj=14.0km s-min=12.6km az=0.0*

ISC 25 16:02:40.7±2.2**, 40°.6N**±0°.1×**79°.32E**±0°.07**, h10^{km}, n34, σ1^{s}.27**/54**, 8C-12D, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TARG	**Taragay, Kyrgy**	**1.59**	**314**	⇓*e*P	**Pn**	**16 03 08.1**	**-1.2**
TARG				⇓*i*S	**Sn**	**16 03 29.4**	**-0.7**
PRZ	**Przheval'sk**	**1.98**	**340**	⇑*i*P	**Pb**	**16 03 15.3**	**-1.7**
PRZ				⇑*i*S	**Sb**	**16 03 41.8**	**0.0**
KDJ	**Kajisay**	**2.21**	**314**	⇓*i*P	**Pn**	**16 03 18.2**	**+0.7**
KDJ				⇓*i*S	**Sb**	**16 03 46.8**	**-1.4**
ANVS	**Anan'yevo**	**2.49**	**331**	⇑*i*P	**Pn**	**16 03 22.4**	**+1.0**
ANVS				⇑*e*S	**Sb**	**16 03 53.6**	**-2.8**
SATY	**Saty**	**2.53**	**345**	Pg	**Pb**	**16 03 25.1**	**-1.1**
	4.2nm,0.3s						
SATY				Lg	Lg	16 03 57.8	
	34nm,0.3s						
SATY	**Saty**	**2.53**	**345**	*e*P	**Pb**	**16 03 25.1**	**-1.1**
	4.2nm,0.3s						
SATY				*e*S	**Sb**	**16 03 57.8**	**+0.3**
	34nm,0.3s						
UZB	**Uzynbulak**	**2.53**	**355**	Pg	**Pb**	**16 03 24.0**	**-2.3**
	5.3nm,0.5s						
UZB				Lg	Lg	16 03 55.6	
	14nm,0.3s						
UZB	**Uzynbulak**	**2.53**	**355**	*e*P	**Pb**	**16 03 24.0**	**-2.3**
	5.3nm,0.5s						
UZB				*e*S	**Sb**	**16 03 55.6**	**-2.0**
	14nm,0.3s						
SHLS	**Shalkode**	**2.53**	**2**	Pg	**Pb**	**16 03 24.8**	**-1.5**
	6.5nm,0.2s						
SHLS				Lg	Lg	16 03 57.2	
	33nm,0.4s						
SHLS	**Shalkode**	**2.53**	**2**	*e*P	**Pb**	**16 03 24.8**	**-1.5**
	6.5nm,0.2s						
SHLS				*e*S	**Sb**	**16 03 57.2**	**-0.4**
	33nm,0.4s						
NRN	**Naryn**	**2.64**	**289**	⇑*i*P	**Pn**	**16 03 24.7**	**+1.1**
NRN				⇑*i*S	**Sb**	**16 03 58.0**	**-2.8**
PDGK	**Podgornoye**	**2.71**	**3**	⇓Pn	**Pb**	**16 03 28.0**	**-1.3**
	3.5nm,0.3s						
PDGK				⇓Lg	Lg	16 03 59.3	
	19nm,0.6s						
ULHL	**Ulahol**	**2.83**	**306**	⇓*i*P	**Pn**	**16 03 26.8**	**+0.7**
ULHL				⇓*i*S	**Sn**	**16 04 01.7**	**+1.4**
JNKS	**Jany-Kuch**	**2.84**	**280**	⇓*i*P	**Pn**	**16 03 27.0**	**+0.7**
JNKS				⇓*i*S	**Sn**	**16 04 02.0**	**+1.4**
KPKS	**Kokpek**	**2.88**	**351**	Pg	**Pb**	**16 03 31.0**	**-1.3**
	0.1nm,0.1s						
KPKS				Lg	Lg	16 04 07.5	
	27nm,0.3s						
KPKS	**Kokpek**	**2.88**	**351**	*e*P	**Pb**	**16 03 31.0**	**-1.3**
	0.1nm,0.1s						
KPKS				*e*S	**Sb**	**16 04 07.5**	**-0.1**
	27nm,0.3s						
KTMS	**Ketmen**	**2.92**	**15**	Pg	**Pb**	**16 03 31.7**	**-1.3**
	1.3nm,0.1s						
KTMS				Lg	Lg	16 04 08.9	
	5.9nm,0.2s						
KTMS	**Ketmen**	**2.92**	**15**	*e*P	**Pb**	**16 03 31.7**	**-1.3**
	1.3nm,0.1s						
KTMS				*e*S	**Sb**	**16 04 08.9**	**0.0**
	5.9nm,0.2s						
KURS	**Kuram**	**2.99**	**344**	Pg	**Pb**	**16 03 33.9**	**-0.2**
	4.1nm,0.4s						
KURS				Lg	Lg	16 04 12.7	
	12nm,0.4s						
KURS	**Kuram**	**2.99**	**344**	*e*P	**Pb**	**16 03 32.8**	**-1.3**
	4.1nm,0.4s						
KURS				*e*S	**Sb**	**16 04 10.5**	**-0.1**
	20nm,0.8s						
TNSS	**Tian-Shan**	**2.99**	**324**	Pg	**Pb**	**16 03 33.8**	**-0.6**
TNSS				Lg	Lg	16 04 12.5	
TNSS	**Tian-Shan**	**2.99**	**324**	*e*P	**Pb**	**16 03 33.8**	**-0.6**
TNSS				*e*S	**Sb**	**16 04 12.5**	**+1.4**
MDOK	**Medeo**	**3.05**	**327**	Pg	**Pb**	**16 03 34.3**	**-0.9**
	7.5nm,0.6s						
MDOK				Lg	Lg	16 04 13.6	
	24nm,0.5s						
MDOK	**Medeo**	**3.05**	**327**	*e*P	**Pb**	**16 03 34.3**	**-0.9**
	7.5nm,0.6s						
MDOK				*e*S	**Sb**	**16 04 13.6**	**+1.0**
	24nm,0.5s						
KOTS	**Kotyrbulak**	**3.09**	**328**	Pg	**Pb**	**16 03 34.7**	**-1.1**
	2.2nm,0.2s						
KOTS				Lg	Lg	16 04 14.2	
	18nm,0.5s						
KOTS	**Kotyrbulak**	**3.09**	**328**	*e*P	**Pb**	**16 03 34.7**	**-1.1**
	2.2nm,0.2s						
KOTS				*e*S	**Sb**	**16 04 14.2**	**+0.6**
	18nm,0.5s						
BOOM	**Boomskoye usch**	**3.15**	**307**	⇑*i*P	**Pn**	**16 03 31.5**	**+1.0**
BOOM				⇑*i*S	**Sn**	**16 04 09.5**	**+1.3**
KST	**Kastek**	**3.48**	**315**	Pg	**Pb**	**16 03 41.7**	**-0.8**
	0.6nm,0.2s						
KST				Lg	Lg	16 04 26.0	
	15nm,0.4s						
KST	**Kastek**	**3.48**	**315**	*e*P	**Pb**	**16 03 41.7**	**-0.8**
	0.6nm,0.2s						
KST				*e*S	**Sb**	**16 04 26.0**	**+1.0**
	15nm,0.4s						
BLB	**Baldybastay**	**3.53**	**350**	Pg	**Pb**	**16 03 43.5**	**+0.3**
	6.5nm,0.5s						
BLB				Lg	Lg	16 04 29.6	
	6.7nm,0.3s						
TKM2	**Tokmak 2**	**3.61**	**311**	⇓*i*P	**Pn**	**16 03 37.7**	**+0.8**
TKM2				⇓*i*S	**Sn**	**16 04 20.7**	**+1.1**
DJR	**Jarkent**	**3.72**	**5**	Pg	**Pb**	**16 03 46.9**	**+0.3**
	0.8nm,0.1s						
DJR				Lg	Lg	16 04 34.9	
	2.3nm,0.3s						
DJR	**Jarkent**	**3.72**	**5**	*e*P	**Pb**	**16 03 46.2**	**-0.4**
	0.8nm,0.1s						
DJR				*e*S	**Sb**	**16 04 34.0**	**+2.2**
	2.3nm,0.3s						
KNOS	**Konyrlen**	**3.73**	**358**	Pg	**Pb**	**16 03 46.5**	**-0.3**
	0.9nm,0.2s						
KNOS				Lg	Lg	16 04 34.4	
	6.1nm,0.3s						

*MOS **25** 16:46:42.3±0.9, 33°.12N×139°.83E, h109^{km}, mb4.8/55, Error ellipse: s-maj=7.9km s-min=4.2km az=110.0*

*GFZ **25** 16:46:44.9±0.4, 33°N±3°×14°0E±°, h118^{km}±3^{km}, M5.0/19, mb5.0/19*

*NEIC **25** 16:46:45.6±2.0, 33°.22N±0°.07×139°.78E±0°.09, h122^{km}±3^{km}, mb5.0/336, Mww4.8/18, Error ellipse: s-maj=11.1km s-min=10.6km az=94.0*

*JMA **25** 16:46:45.7±0.1, 33°.2N±0°.2×140°.0E±0°.7, h116^{km}, MD4.6/39, MW4.9/39, NEAR HACHIJOJIMA ISLAND*

JMA Felt I J1 at NEAR HACHIJOJIMA ISLAND .

*IDC **25** 16:46:45.2±0.2, 33°.12N×139°.77E, h120^{km}±2^{km}, mb4.4/27, mbtmp4.7/31, MS3.5/42, Error ellipse: s-maj=11.4km s-min=6.7km az=70.0*

*NIED **25** 16:46:45.7, 33°.24N×139°.95E, h116^{km}, MW4.8, Moment Tensor Solution. s3 Moment tensor: Scale 10^{16}Nm; M_{rr}0.49; $M_{\theta\theta}$-0.64; $M_{\phi\phi}$0.14; $M_{r\theta}$0.15; $M_{\theta\phi}$-0.76; $M_{\phi r}$-1.76; Fault plane solution: $M_0$1.95000×10^{16} NP1:ϕ_s87.00000°, δ28.00000°, λ166.00000°. NP2:ϕ_s189.00000°, δ84.00000°, λ63.00000°.*

*GCMT **25** 16:46:48.6±0.3, 33°.28N±0°.02×139°.84E±0°.02, h121^{km}±3^{km}, MW4.9/115, Moment Tensor Solution. s27,c29; s115,c170; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}1.08±.10; $M_{\theta\theta}$-0.61±.11; $M_{\phi\phi}$-0.47±.13; $M_{r\theta}$0.38±.06; $M_{\theta\phi}$-1.48±.10; $M_{\phi r}$-2.74±.07; Best double couple: $M_0$3.24100×10^{16} NP1:ϕ_s77.00000°, δ30.00000°, λ159.00000°. NP2:ϕ_s185.00000°, δ80.00000°, λ61.00000°. Principal axes: T 3.5090, Plg47.0000°, Azm65.0000°; N -0.5410, Plg28.0000°, Azm191.0000°; P -2.9730, Plg29.0000°, Azm298.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 25 16:46:45.1±0.3**, 33°.20N**±0°.03×**139°.86E**±0°.04**, h121^{km}**±2^{km}**, h121^{km}:pP-P, n709, σ1^{s}.30**/605**, mb4.9**/271**, 44C-37D, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHJ2	**Mitsune**	**0.09**	**201**	P	**Pn**	**16 47 01.8**	**+0.2**
JHJ2	**Mitsune**	**0.09**	**201**	S	**Sn**	**16 47 14.1**	**+0.2**
JHJ2	**Mitsune**	**0.09**	**201**		**Pn**	**16 47 01.4**	**-0.2**
JHJ2				Sn	**Sn**	**16 47 14.3**	**+0.3**
JHJ2	**Mitsune**	**0.09**	**201**	P	**Pn**	**16 47 01.9**	**+0.3**
JHJ2	**Mitsune**	**0.09**	**201**	P	**Pn**	**16 47 01.8**	**+0.2**
JHJ2				A	A	16 47 01.8	
	comp=N,111nm,0.4s,comp=E,177nm,0.3s						
JHJ2				S	**Sn**	**16 47 14.2**	**+0.2**
JHJ	**Hachijo jima 2**	**0.10**	**218**	P	**Pn**	**16 47 01.8**	**+0.2**
	comp=E,19µm,0.3s,baz=277,slow=23,SNR=1299						
JHJ				S	**Sn**	**16 47 14.3**	**+0.3**
	comp=E,36µm,0.3s,baz=302,slow=22,SNR=37						
JHCJ	**Hachijojimakas**	**0.14**	**201**	P	**Pn**	**16 47 01.7**	**0.0**
JHCJ				A	A	16 47 01.7	
	comp=N,65nm,2.1s,comp=E,98nm,5.0s						
JHCJ				*e*S	**Sn**	**16 47 14.4**	**+0.2**
JMKN	**Mikurajimanish**	**0.73**	**342**	*i* P	**Pn**	**16 47 04.7**	**-0.1**
JMKN				A	A	16 47 04.7	
	comp=N,30nm,2.8s,comp=E,40nm,2.0s						
JMKN				*e*S	**Sn**	**16 47 18.7**	**-0.9**
JAOM	**Aogashimamukai**	**0.74**	**186**	P	**Pn**	**16 47 05.7**	**+0.8**
JAOM				A	A	16 47 05.7	
	comp=N,108nm,2.2s,comp=E,108nm,3.2s						
JMYK	**Miyake Tsubota**	**0.90**	**343**	P	**Pn**	**16 47 06.4**	**+0.2**
JMYK				A	A	16 47 06.4	
	comp=N,38nm,2.9s,comp=E,70nm,2.4s						
JMYK				*e*S	**Sn**	**16 47 22.3**	**+0.1**
JKO	**Kozu shima**	**1.15**	**329**	P	**Pn**	**16 47 09.4**	**+0.7**
JKO				A	A	16 47 09.4	
	comp=N,59nm,3.3s,comp=E,48nm,2.0s						
JNIO	**Niijimaoohara**	**1.25**	**337**	A	A	16 47 10.2	
	comp=N,46nm,3.0s,comp=E,44nm,1.0s						
JSKK	**Shikinejimakit**	**1.25**	**335**	A	A	16 47 10.2	
	comp=N,30nm,2.3s,comp=E,26nm,1.5s						
JTHY	**Toshimahigashi**	**1.40**	**340**	P	**Pn**	**16 47 12.3**	**+0.8**
JTHY				A	A	16 47 12.3	
	comp=N,26nm,3.5s,comp=E,25nm,2.4s						
JIM2	**Oshima 3**	**1.56**	**347**	P	**Pn**	**16 47 13.8**	**+0.6**
JIM2				A	A	16 47 13.8	
	comp=N,34nm,1.3s,comp=E,48nm,1.6s						
JIM2				*e*S	**Sn**	**16 47 34.5**	**-0.2**
BSO3	**Boso 3**	**1.69**	**19**	P	**Pn**	**16 47 14.7**	**+0.2**
JIZS	**Izushimoda**	**1.72**	**332**	P	**Pn**	**16 47 16.1**	**+0.9**
JIZS				A	A	16 47 16.1	
	comp=N,10.0nm,3.3s,comp=E,12nm,1.3s						
BSO1	**Boso 1**	**1.72**	**32**	P	**Pn**	**16 47 14.5**	**-0.2**
TATJ	**Tateyama 2**	**1.83**	**1**	A	A	16 47 16.7	
	comp=N,18nm,1.1s,comp=E,27nm,2.2s						
BSO4	**Boso 4**	**1.83**	**12**	P	**Pn**	**16 47 16.9**	**+0.5**
KTJ3	**Kamata3**	**1.85**	**340**	P	**Pn**	**16 47 17.2**	**+0.5**
KTJ3				*e*S	**Sn**	**16 47 42.5**	**+1.6**
JHTM	**Izuhatsuma**	**1.89**	**338**	A	A	16 47 17.9	
	comp=N,19nm,3.5s,comp=E,21nm,1.6s						
JKUC	**kamogawauchiur**	**1.98**	**8**	A	A	16 47 18.4	
	comp=N,14nm,1.4s,comp=E,11nm,1.4s						
JSG	**Sagara**	**2.02**	**317**	P	**Pn**	**16 47 20.8**	**+1.9**
JSG	**Sagara**	**2.02**	**317**		**Pn**	**16 47 20.0**	**+1.1**
JSG	**Sagara**	**2.02**	**317**	P	**Pn**	**16 47 20.8**	**+1.9**
JSG	**Sagara**	**2.02**	**317**	A	A	16 47 20.0	
	comp=N,19nm,3.3s,comp=E,19nm,4.1s						
JYO	**Yokosk**	**2.02**	**356**	A	A	16 47 19.3	
	comp=N,12nm,1.2s,comp=E,17nm,2.8s						
TTO5	**TONANKAI O.B.S**	**2.07**	**301**	A	A	16 47 20.9	
	comp=N,19nm,2.2s,comp=E,43nm,2.5s						
TTO4	**TONANKAI O.B.S**	**2.10**	**293**	A	A	16 47 21.4	
	comp=N,26nm,4.5s,comp=E,24nm,2.9s						
JOD2	**Odawara 2**	**2.15**	**343**	P	**Pn**	**16 47 21.4**	**+0.8**
JOD2				*e*S	**Sn**	**16 47 48.5**	**+0.8**
TTO3	**TONANKAI O.B.S**	**2.16**	**289**	A	A	16 47 22.5	
	comp=N,32nm,4.0s,comp=E,30nm,5.0s						
JKKS	**Kakegawashinom**	**2.19**	**315**	A	A	16 47 22.1	
	comp=N,12nm,3.0s,comp=E,14nm,3.5s						
JFNN	**Fujinakano**	**2.21**	**334**	A	A	16 47 22.1	
	comp=N,11nm,2.9s,comp=E,8.0nm,5.2s						
SHZ3	**Shizuoka 3**	**2.31**	**324**	P	**Pn**	**16 47 24.1**	**+1.5**
SHZ3				A	A	16 47 24.1	
	comp=N,5.0nm,4.0s,comp=E,5.0nm,2.7s						
SHZ3				S	**Sn**	**16 47 53.8**	**+2.5**
TTO2	**TONANKAI O.B.S**	**2.42**	**283**	P	**Pn**	**16 47 25.4**	**+1.7**
TTO2				A	A	16 47 25.4	
	comp=N,24nm,4.2s,comp=E,30nm,3.2s						
JSGW	**Sagamiharawaka**	**2.46**	**348**	A	A	16 47 25.0	
	comp=N,5.0nm,1.6s,comp=E,7.0nm,1.8s						
JYN	**Shimob**	**2.54**	**335**	⇓P	**Pn**	**16 47 27.0**	**+1.6**
JYN				A	A	16 47 27.0	
	comp=N,8.0nm,3.3s,comp=E,7.0nm,5.0s						
JYN				⇓*e*S	**Sn**	**16 48 01.5**	**+5.0**
JAA	**Atsumi**	**2.67**	**303**	A	A	16 47 28.7	
	comp=N,5.0nm,2.4s,comp=E,5.0nm,2.3s						
JNY	**Yasuok**	**2.71**	**323**	A	A	16 47 29.0	
	comp=N,5.0nm,3.9s,comp=E,4.0nm,2.5s						
JIE	**Ise**	**2.88**	**295**	A	A	16 47 31.6	
	comp=N,6.0nm,2.3s,comp=E,7.0nm,2.5s						
JGF	**Kuroka**	**3.16**	**320**	P	**Pn**	**16 47 35.1**	**+1.5**
JGF	**Kuroka**	**3.16**	**320**		**Pn**	**16 47 35.1**	**+1.5**
JGF	**Kuroka**	**3.16**	**320**	P	**Pn**	**16 47 35.3**	**+1.7**
INU	**Inuyama**	**3.18**	**313**	P	**Pn**	**16 47 35.2**	**+1.4**
INU	**Inuyama**	**3.18**	**313**	S	**Sn**	**16 48 12.8**	**+1.4**
INU	**Inuyama**	**3.18**	**313**		**Pn**	**16 47 34.9**	**+1.1**

INU	Inuyama	3.18	313	P	Pn	16 47 35.4	+1.6
MJAR	Matsushiro Arr	3.60	338	P	Pn	16 47 40.0	+0.7
	comp=E,81nm,0.4s,baz=165,slow=13,SNR=326						
MJAR				S	Sn	16 48 22.2	+0.9
	comp=E,99nm,0.5s,baz=139,slow=28,SNR=4.9						
MJAR				LR	LR	16 49 08.7	
	comp=E,715nm,18.4s,baz=76,slow=39						
MAJO	Matsushiro	3.60	338	P	Pn	16 47 40.4	+1.1
MAJO	Matsushiro	3.60	338	P	Pn	16 47 40.2	+0.9
MAJO	Matsushiro	3.60	338		Pn	16 47 40.2	+0.9
MAJO	Matsushiro	3.60	338	P	Pn	16 47 40.5	+1.2
MJB9	Matsu-Tunnel	3.60	338		Pn	16 47 41.2	+1.8
JWT	Wachi	4.24	301		Sn	16 48 31.2	-5.2
JMN	Monobe	5.02	278	P	Pn	16 47 59.8	+1.4
JMN	Monobe	5.02	278	S	Sn	16 48 56.7	+1.2
JMN	Monobe	5.02	278		Pn	16 48 00.0	+1.6
JMN	Monobe	5.02	278	P	Pn	16 48 00.5	+2.0
	comp=Z,415nm,0.7s						
JCJ	Chichijima	6.41	161	P	Pn	16 48 10.4	-6.7
	baz=0.0,slow=0.0						
JCJ				S	Sn	16 49 16.1	-13
	baz=0.0,slow=0.0						
JNU	Nakatsue	7.53	272	P	Pn	16 48 34.5	+2.3
	comp=Z,60nm,0.7s,baz=92,slow=3.4,SNR=36						
JNU				S	Sn	16 49 53.9	-2.1
	comp=Z,10nm,0.8s,baz=202,slow=22,SNR=0.7						
JTM	Tenmabayashi	7.63	7	P	Pn	16 48 32.7	-0.8
JTM	Tenmabayashi	7.63	7	Pn	Pn	16 48 31.7	-1.8
JTU	Tsushima	8.80	282	P	Pn	16 48 51.7	+2.4
ERM	Erimo	9.18	16	P	Pn	16 48 53.5	-0.9
ERM	Erimo	9.18	16	⇑eP	Pn	16 48 52.3	-2.1
ERM	Erimo	9.18	16		Pn	16 48 51.4	-3.0
JEM	Erimo	9.18	16	P	Pn	16 48 53.7	-0.7
JMZ	Minamidaito 2	10.51	228	P	Pn	16 49 13.1	+0.6
KSRS	Korea Array	10.63	297	P	Pn	16 49 15.9	+2.0
	comp=Z,12nm,0.7s,baz=106,slow=13,SNR=26						
KSRS	Korea Array	10.63	297	P	Pn	16 49 16.0	+2.0
KSAR	Wonju Array Be	10.66	297	P	Pn	16 49 14.3	0.0
KSAR	Wonju Array Be	10.66	297		Pn	16 49 14.3	0.0
ASAJ	Asahikawa	11.11	10	P	Pn	16 49 17.5	-2.8
	comp=Z,68nm,0.4s,baz=217,slow=12,SNR=111						
ASAJ				S	Sn	16 51 24.5	+2.0
	comp=Z,41nm,0.9s,baz=173,slow=19,SNR=3.7						
ASAJ				LR	LR	16 54 02.7	
	comp=Z,138nm,18.6s,baz=270,slow=39						
ASAJ	Asahikawa	11.11	10	P	Pn	16 49 16.1	-4.3
JKA	Kamikawa-asahi	11.11	10		Pn	16 49 16.1	-4.3
JKA	Kamikawa-asahi	11.11	10	P	Pn	16 49 17.8	-2.6
	comp=Z,96nm,0.7s						
NMR	Nemuro--Hokkai	11.15	23	eP	Pn	16 49 16.0	-4.9
RUSJ	Misakicho	11.67	20	eP	Pn	16 49 26.1	-1.7
RUSJ				eS	Sn	16 51 27.5	-8.7
YUK	Yuzh-Kuril'sk	11.79	22	P	Pn	16 49 27.9	-1.4
YUK				pmax	pmax		
	comp=Z,178nm,0.3s						
JOW	Kunigami	11.87	241	LR	LR	16 53 59.8	
	comp=Z,146nm,19.2s,baz=28,slow=37						
USRK	Ussuriysk Ar.	12.58	333	P	Pn	16 49 39.2	-0.5
	comp=Z,2.2nm,0.6s,baz=141,slow=12,SNR=9.3						
USRK	Ussuriysk Ar.	12.58	333	Pn	Pn	16 49 38.6	-1.1
KUR	Kuril'sk	13.52	25	P	Pn	16 49 43.5	-8.3
KUR				pmax	pmax		
	comp=Z,55nm,0.7s						
KUR				pmax	pmax		
	comp=N,15nm,0.5s						
KUR				pmax	pmax		
	comp=E,12nm,0.4s						
MDJ	Mudanjiang	13.91	328	P	Pn	16 49 58.1	+1.2
MDJ	Mudanjiang	13.91	328		Pn	16 49 55.8	-1.1
YSS	Yuzhno-Sakhali	13.91	8	P	Pn	16 49 55.0	-2.0
YSS	Yuzhno-Sakhali	13.91	8	eP	Pn	16 49 53.2	-3.8
YSS				eS	Sn	16 52 24.5	-5.8
YSS				pmax	pmax		
	comp=Z,70nm,0.6s						
YSS				pmax	pmax		
	comp=Z,300nm,6.7s						
YSS				MLR	MLR		
	comp=Z,300nm,16.0s						
YSS	Yuzhno-Sakhali	13.91	8		Pn	16 49 53.4	-3.6
YSS	Yuzhno-Sakhali	13.91	8	P	Pn	16 49 54.2	-2.7
	comp=Z,88nm,0.6s						
CN2	Changchun	15.45	317	P	Pn	16 50 15.3	-1.0
CN2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
CN2				L	L		
	comp=Z,200nm,11.0s						
CN2				L	L		
	comp=Z,200nm,11.0s						
CN2				L	L		
	comp=Z,300nm,13.0s						
BNX	BinXian	15.76	326	⇑P	Pn	16 50 20.3	0.0
BNX				pmax	pmax		
	comp=Z,10.0nm,0.7s						
KLR	Kul'dur	17.12	342	P	P	16 50 33.6	-3.0
	comp=Z,12nm,0.6s,baz=139,slow=10,SNR=20						
KLR				LR	LR	16 56 18.7	
	comp=Z,122nm,21.9s,baz=166,slow=33						
YOJ	Yonaguni jima	17.12	244	P	Pn	16 50 37.5	+0.4
NJ2	Nanjing	17.73	272	eP	Pn	16 50 44.8	+0.4
NJ2				pmax	pmax		
	comp=Z,15nm,0.5s						
NJ2				L	L		
	comp=Z,1µm,10.4s						
NJ2				L	L		
	comp=Z,130nm,9.0s						
NJ2				L	L		
	comp=Z,390nm,14.2s						
GRNR	Gornyy	17.74	353	⇑iP	P	16 50 42.3	-1.1
GRNR				pmax	pmax		
	comp=Z,3.0nm,1.0s						
GRNR				MLR	MLR		
	comp=E,90nm,17.0s						
TYV	Tymovskoe	17.77	6	eP	P	16 50 44.0	+0.3
TYV				eS	S	16 53 55.4	-6.6
TYV				pmax	pmax		
	comp=Z,100nm,2.5s						
TYV				pmax	pmax		
	comp=Z,35nm,0.5s						
TYV				smax	smax		
	comp=N,200nm,4.2s						
TYV				smax	smax		
	comp=E,400nm,4.2s						
TYV				smax	smax		
	comp=N,22nm,1.8s						
TYV				smax	smax		
	comp=E,24nm,1.8s						
YHNB	Yeheng	18.25	247	P	Pn	16 50 50.5	-0.3
NACB	Ninganchiao	18.35	245	P	P	16 50 50.0	-0.4
NACB	Ninganchiao	18.35	245	P	P	16 50 47.1	-3.3
YULB	Yu-li	19.02	244	P	P	16 50 57.7	+0.1
YULB	Yu-li	19.02	244		P	16 50 58.2	+0.6
YULB	Yu-li	19.02	244	P	Pn	16 50 59.7	0.0
	comp=Z,35nm,0.9s						
SSLB	Suanglung	19.05	245	P	Pn	16 50 59.6	-0.6
SSLB	Suanglung	19.05	245		P	16 50 58.6	+0.5
SSLB	Suanglung	19.05	245	P	Pn	16 51 00.2	0.0
	comp=Z,54nm,0.9s						
HEH	HeiHe	19.36	335	eP	P	16 51 01.8	+0.7
HEH				ScP	ScP	16 58 42.8	+0.1
HEH				pmax	pmax		
	comp=Z,17nm,0.7s						
TWG	Pinlang	19.52	243	P	P	16 51 03.0	-0.1
TWG	Pinlang	19.52	243	P	Pn	16 51 05.9	+0.4
	comp=Z,45nm,0.8s						
TPUB	Ta-pu	19.57	245	P	Pn	16 51 05.6	-0.6
GUMO	Guam	20.05	166	P	P	16 51 08.6	-0.3
	comp=Z,28nm,0.5s,baz=202,slow=7.6,SNR=7.7						
GUMO				LR	LR	16 56 57.1	
	comp=Z,41nm,20.7s,baz=354,slow=31						
GUMO	Guam	20.05	166	P	P	16 51 09.0	+0.2
GUMO	Guam	20.05	166	P	P	16 51 08.8	-0.1
GUMO	Guam	20.05	166		P	16 51 08.8	-0.1
GUMO	Guam	20.05	166	P	P	16 51 09.6	+0.8
	comp=Z,96nm,1.4s						
HNS	HongShan	20.93	289	⇓P	P	16 51 18.5	+0.4
HNS				S	S	16 55 06.0	+1.4
HNS				pmax	pmax		
	comp=Z,9.0nm,1.0s						
HNS				L	L		
	comp=Z,290nm,17.5s						
HNS				L	L		
	comp=Z,220nm,14.2s						
XLT	XiLinHaoTe	21.37	307	eP	P	16 51 22.5	-0.5
XLT				sP	sP	16 52 00.0	+0.4
XLT				S	S	16 55 13.0	-0.2
XLT				pmax	pmax		
	comp=Z,6.0nm,0.7s						
XLT				pmax	pmax		
	comp=Z,92nm,4.3s						
WHN	Wuhan	21.81	270	P	P	16 51 28.0	+0.4
WHN				pP	pwP	16 51 53.3	-0.6
HILR	Hailar Array B	22.13	324	P	P	16 51 30.8	0.0
	comp=Z,6.9nm,0.5s,baz=116,slow=10,SNR=6.3						
	comp=Z,6.9nm,0.5s						
ZEA	Zeya	22.41	340	eP	P	16 51 34.1	+0.6
ZEA				pmax	pmax		
	comp=E,100nm,0.9s						
ZEA				pmax	pmax		
	comp=Z,200nm,0.7s						
ZEA				pmax	pmax		
	comp=E,140nm,0.8s						
ZEA				pmax	pmax		
	comp=N,120nm,0.7s						
ZEA				pmax	pmax		
	comp=Z,310nm,0.7s						
PEA0B	Petropavlovsk-	23.66	27	⇓eP	P	16 51 47.0	+1.7
PETK	Petropavlovsk-	23.66	27	P	P	16 51 46.2	+0.9
	comp=Z,20nm,0.9s,baz=237,slow=6.2,SNR=27						
PETK				LR	LR	17 01 34.6	
	comp=Z,70nm,19.8s,baz=209,slow=37						
	comp=Z,20nm,0.9s						
HHC	Hu-ho-hao-te	23.77	297	eP	P	16 51 45.3	-1.4
HHC				pmax	pmax		
	comp=Z,14nm,0.6s						
HHC				pmax	pmax		
	comp=Z,140nm,5.2s						
PET	Petropavlovsk	23.97	29	P	P	16 51 48.6	+0.5
PET	Petropavlovsk	23.97	29	eP	P	16 51 48.8	+0.7
PET				eS	S	16 55 58.6	+2.7
PET				pmax	pmax		
	comp=Z,52nm,0.9s						
PET				pmax	pmax		
	comp=Z,100nm,6.5s						
PET				MLR	MLR		
	comp=Z,200nm,14.0s						
PET				MLR	MLR		
	comp=Z,100nm,16.0s						
PET	Petropavlovsk	23.97	29	P	P	16 51 47.9	-0.2
BTO2	Baotou	25.02	296	eP	P	16 51 59.0	+1.0
BTO2				S	S	16 56 16.0	+2.7
BTO2				pmax	pmax		
	comp=Z,24nm,0.7s						
BTO2				pmax	pmax		
	comp=Z,160nm,6.5s						
BTO2				L	L		
	comp=Z,480nm,14.5s						
BTO2				L	L		
	comp=Z,380nm,8.8s						
BTO2				L	L		
	comp=Z,530nm,13.3s						
XAN	Xi'an	25.73	280	eP	P	16 52 05.8	+1.4
XAN				pP	pwP	16 52 33.5	+1.3
XAN				S	S	16 56 28.5	+4.1
XAN				L	L		
	comp=Z,320nm,17.2s						
XAN				L	L		
	comp=Z,150nm,14.4s						
ENH	Enshi	25.95	272	P	P	16 52 05.0	-1.4
ENH	Enshi	25.95	272	P	P	16 52 04.2	-2.2
MA2	Magadan	27.36	12	LR	LR	17 02 52.2	
	comp=Z,75nm,20.2s,baz=208,slow=35						
MA2	Magadan	27.36	12	d iP	P	16 52 19.5	+0.8
MA2				pmax	pmax		
	comp=Z,18nm,0.7s						
MA2	Magadan	27.36	12	P	P	16 52 19.4	+0.8
	comp=Z,31nm,0.8s						
MA2	Magadan	27.36	12	P	P	16 52 19.6	+1.0
	comp=Z,28nm,0.8s						
H11N2	WAKE ISLAND Hy	27.58	112	T	T	17 21 22.3	
	baz=306,slow=75,SNR=89						
H11N1	WAKE ISLAND Hy	27.58	112	T	T	17 21 16.9	
	baz=306,slow=75,SNR=92						
H11N3	WAKE ISLAND Hy	27.59	112	T	T	17 21 17.8	
	baz=306,slow=75						
H11S3	WAKE ISLAND Hy	28.13	115	T	T	17 21 58.0	
	baz=306						
H11S1	WAKE ISLAND Hy	28.14	115	T	T	17 22 01.8	
	baz=306,slow=74						
H11S2	WAKE ISLAND Hy	28.15	115	T	T	17 22 01.3	
	baz=306,slow=74						
ULN	Ulaanbaatar	28.66	310	c iP	P	16 52 32.1	+1.5
ULN				pmax	pmax		
	comp=Z,8.0nm,0.6s						
ULN	Ulaanbaatar	28.66	310		P	16 52 30.5	-0.1
ULN	Ulaanbaatar	28.66	310	P	P	16 52 32.1	+1.5
	comp=Z,15nm,0.8s						
SONM	Songino Array	29.07	310	P	P	16 52 34.5	+0.3
	comp=Z,6.1nm,0.6s,baz=113,slow=8.6,SNR=26						
SONM				ScP	ScP	16 59 08.2	-1.5
	comp=Z,3.3nm,0.8s,baz=175,slow=3.1,SNR=11						
SONM				LR	LR	17 04 22.1	
	comp=Z,87nm,19.7s,baz=85,slow=36						
	comp=Z,6.1nm,0.6s						
SONM	Songino Array	29.07	310	P	P	16 52 33.3	-0.9
DAV	Davao City (W)	29.18	210	LR	LR	17 02 30.5	
	comp=Z,47nm,20.9s,baz=58,slow=32						
YAK	Yakutsk	29.58	350	eP	P	16 52 38.1	-0.1
YAK				e*PP	pP	16 52 58.0	-6.2
YAK				e		16 53 35.2	
YAK				e		16 55 38.1	
YAK				eS	S	16 57 25.4	+1.2
YAK				e*SS	sS	16 58 08.4	-1.4
YAK				eSS	ScP	16 59 15.1	+4.3
YAK				e		17 03 00.0	
YAK				pmax	pmax		
	comp=Z,19nm,1.1s						
YAK				pmax	pmax		
	comp=N,2.0nm,0.9s						
YAK				pmax	pmax		
	comp=E,2.0nm,0.9s						
YAK				pmax	pmax		
	comp=Z,72nm,3.8s						
YAK				pmax	pmax		
	comp=N,44nm,4.3s						
YAK				pmax	pmax		
	comp=E,52nm,3.8s						
YAK				smax	smax		
	comp=N,113nm,5.3s						
YAK				smax	smax		
	comp=E,59nm,3.6s						
YAK	Yakutsk	29.58	350	P	P	16 52 38.3	+0.1
	comp=Z,25nm,0.7s						
CD2	Chengdu	30.59	276	P	P	16 52 46.5	-1.2
CD2				pmax	pmax		
	comp=Z,20nm,0.8s						
SEY	Seymchan	30.79	11	⇓iP	P	16 52 49.9	+0.9
SEY				pmax	pmax		
	comp=Z,6.0nm,1.0s						
SHEM	Shemya Is, Ala	31.34	41	LR	LR	17 04 47.5	
	comp=Z,44nm,18.5s,baz=168,slow=34						
ZAK	Zakamensk	31.82	314	eP	P	16 52 57.7	-0.6
ZAK				pmax	pmax		
	comp=Z,5.0nm,1.0s						
TLY	Talaya	32.04	316	LR	LR	17 05 04.1	
	comp=Z,100nm,19.4s,baz=103,slow=34						
TLY	Talaya	32.04	316	d iP	P	16 53 01.0	+0.8
TLY				pmax	pmax		
	comp=Z,13nm,0.7s						
TLY	Talaya	32.04	316	P	P	16 53 01.8	+1.7
	comp=Z,19nm,0.8s						
TLY	Talaya	32.04	316	P	P	16 53 02.1	+2.0
GTA2	Gaotai	32.70	293	eP	P	16 53 05.5	-0.7
GTA2				PcP	PcP	16 55 51.5	+2.4
GTA2				ScP	ScP	16 59 20.5	-1.4
GTA2				pmax	pmax		
	comp=Z,5.0nm,0.7s						
GTA2				L	L		
	comp=Z,160nm,16.2s						
GTA2				L	L		
	comp=Z,170nm,15.2s						
GTA2				L	L		
	comp=Z,160nm,16.5s						
PZH	PanZhiHua	33.59	269	P	P	16 53 15.0	+1.0
AMKA	Amchitka	33.85	46	P	P	16 53 17.4	+1.6
AMKA				IAmb	IAmb	16 53 18.8	
	comp=Z,30nm,0.6s						
KNGR	Kungurtug, Tuv	35.42	312	⇓eP	P	16 53 32.0	+2.5
KNGR				pmax	pmax		
	comp=Z,7.0nm,0.8s						
KIWB	Kanaga Island	36.11	46	P	P	16 53 36.2	+1.0
ADK	Adak	36.40	46	P	P	16 53 38.4	+0.7
ADK	Adak	36.40	46	P	P	16 53 37.8	+0.1
ADK				pmax	pmax		
	comp=Z,46nm,1.4s						
ADK	Adak	36.40	46	P	P	16 53 37.8	+0.1
ADK				IAmb	IAmb	16 53 39.9	
	comp=Z,46nm,1.4s						
TOLI2	Tolitoli	36.61	213	P	P	16 53 38.0	-1.8
TOLI2	Tolitoli	36.61	213	P	P	16 53 37.5	-2.3
FAKI	Fak Fak	36.64	193	P	P	16 53 39.1	-0.9
FAKI	Fak Fak	36.64	193	P	P	16 53 39.1	-0.9
FAKI				IAmb	IAmb	16 54 15.2	
	comp=Z,54nm,1.4s						
GSTR	Great Sitkin T	36.82	46	P	P	16 53 42.3	+1.0
GOMU	GeErMu	36.90	288	P	P	16 53 42.5	-0.1
GOMU				pmax	pmax		
	comp=Z,7.0nm,0.5s						
SANI	Sanana	37.43	203	P	P	16 53 44.3	-2.4
SANI	Sanana	37.43	203	P	P	16 53 44.0	-2.8
	comp=Z,22nm,0.9s						
LUWI	Luwuk	37.68	209	P	P	16 53 48.4	-0.4
ATKA	Atka Island	37.97	46	P	P	16 53 51.8	+0.9
ATKA	Atka Island	37.97	46	P	P	16 53 50.5	-0.3
BILL	Bilibino	38.06	16	⇑iP	P	16 53 52.4	+1.0
BILL				pmax	pmax		
	comp=Z,30nm,1.9s						
TIXI	Tiksi	38.96	354	LR	LR	17 13 18.2	
	comp=Z,63nm,18.3s,baz=172,slow=41						
TIXI	Tiksi	38.96	354	⇑iP	P	16 53 58.9	0.0
TIXI				pmax	pmax		
	comp=Z,10.0nm,0.6s						
TIXI	Tiksi	38.96	354	P	P	16 53 57.5	-1.4
TIXI				IAmb	IAmb	16 53 59.3	
	comp=Z,13nm,0.6s						
CHTO	Chiang Mai	39.21	259	P	P	16 54 01.1	-0.6
CHTO				pmax	pmax		
	comp=Z,3.0nm,0.6s						
CHTO	Chiang Mai	39.21	259	P	P	16 54 01.1	-0.6
CHTO	Chiang Mai	39.21	259	P	P	16 54 02.8	+1.1
	comp=Z,6.2nm,0.8s						
CMAR	Chiang Mai Arr	39.38	258	P	P	16 54 03.0	-0.1
	comp=Z,2.1nm,0.7s,baz=51,slow=7.3,SNR=18						
CMAR				PcP	PcP	16 56 10.2	+1.1
	comp=Z,0.5nm,0.7s,baz=158,slow=0.8,SNR=4.0						
CMAR				ScP	ScP	16 59 47.2	+0.7
	comp=Z,1.5nm,0.5s,baz=31,slow=3.8,SNR=10						
CMAR				LR	LR	17 11 50.3	
	comp=Z,39nm,19.0s,baz=70,slow=38						
	comp=Z,2.1nm,0.7s						
CMAR	Chiang Mai Arr	39.38	258	P	P	16 54 01.3	-1.8
CLES	Cleveland East	40.66	46	P	P	16 54 12.8	-0.5
NPW	Naypyitaw	41.06	262	P	P	16 54 17.8	+0.8
	comp=Z,12nm,0.9s						
WMQ	Urumqi	41.55	300	eP	P	16 54 21.8	+1.0
WMQ				L	L		
	comp=Z,88nm,20.5s						
DGZ	Jazzator, Alta	41.72	309	⇓iP	P	16 54 22.7	+0.5
DGZ				pmax	pmax		
	comp=Z,16nm,0.7s						
UNV	Unalaska Valle	42.81	45	P	P	16 54 30.6	-0.1
PMG	Port Moresby	42.94	169	P	P	16 54 33.3	+1.2
PMG	Port Moresby	42.94	169	P	P	16 54 31.4	-0.7
PMG				pmax	pmax		
	comp=Z,11nm,0.8s						
PMG	Port Moresby	42.94	169	P	P	16 54 31.4	-0.7
ZSN	Zaisan	43.39	306	eP	P	16 54 35.8	+0.3
ZSN				pmax	pmax		
	comp=Z,12nm,1.0s						
ZSN	Zaisan	43.39	306	eP	P	16 54 35.9	+0.3
	comp=Z,12nm,1.0s						
BRDH	Bariadhala	43.54	269	LR	LR	17 13 44.1	
	comp=Z,151nm,19.8s,baz=352,slow=37						
ZAA0	Zalesovo Array	43.65	315	P	P	16 54 36.9	-0.6
ZALV	Zalesovo Beam	43.65	315	P	P	16 54 37.4	-0.1
	comp=Z,5.1nm,0.3s,baz=109,slow=8.2,SNR=42						
ZALV				PcP	PcP	16 56 22.4	-0.1
	comp=Z,3.6nm,0.5s,baz=126,slow=3.3,SNR=7.1						
ZALV				ScP	ScP	17 00 02.0	-0.9
	comp=Z,1.8nm,0.6s,baz=116,slow=3.4,SNR=6.4						
ZALV				LR	LR	17 11 54.2	
	comp=Z,79nm,19.3s,baz=94,slow=35						
	comp=Z,5.1nm,0.3s						
ZALV	Zalesovo Beam	43.65	315		PcP	16 56 22.5	-0.1
ZALV					ScP	17 00 01.6	-1.3
MK31	Makanchi Array	45.17	305	c iP	P	16 54 50.3	+0.5
MKAR	Makanchi Array	45.17	305	P	P	16 54 49.5	-0.4
	comp=Z,9.7nm,0.6s,baz=89,slow=9.7,SNR=89						
MKAR				ScP	ScP	17 00 08.4	-1.0
	comp=Z,2.1nm,0.6s,baz=78,slow=5.7,SNR=9.9						
	comp=Z,9.7nm,0.6s						
MKAR	Makanchi Array	45.17	305	P	P	16 54 49.4	-0.4
MKAR					ScP	17 00 08.9	-0.5
SOEI	Soe	45.22	202	P	P	16 54 49.1	-1.5
SOEI	Soe	45.22	202	P	P	16 54 49.0	-1.5
SOEI				IAmb	IAmb	16 55 03.4	
	comp=Z,16nm,0.7s						
SOEI	Soe	45.22	202	P	P	16 54 49.6	-1.0
	comp=Z,30nm,0.9s						
MAKZ	Makanchi	45.39	305	P	P	16 54 50.8	-0.7
MAKZ				pmax	pmax		
	comp=Z,12nm,0.9s						
MAKZ	Makanchi	45.39	305	P	P	16 54 50.8	-0.7
MAKZ	Makanchi	45.39	305	P	P	16 54 52.2	+0.7
	comp=Z,17nm,0.7s						
TATA	Tatamba Isabel	45.50	152	P	P	16 54 52.4	-0.2
ANM	Nome	45.54	30	P	P	16 54 53.6	+1.3
ANM				pmax	pmax		
	comp=Z,147nm,1.4s						
ANM	Nome	45.54	30	P	P	16 54 53.6	+1.3
KDU	Kakadu	46.17	190	P	P	16 54 56.0	-1.8
	comp=Z,5.5nm,0.9s						
KDU	Kakadu	46.17	190	P	P	16 54 57.8	+0.1
	comp=Z,5.4nm,0.9s						
M14K	Bethel	46.23	35	P	P	16 54 58.3	+0.5
M14K				IAmb	IAmb	16 55 01.3	
	comp=Z,36nm,0.8s						
NRIK	Noril'sk	46.25	337	P	P	16 54 58.0	+0.2
	comp=Z,5.2nm,0.6s,baz=131,slow=9.2,SNR=8.6						
NRIK				LR	LR	17 14 22.4	
	comp=Z,74nm,20.1s,baz=112,slow=36						
	comp=Z,5.2nm,0.6s						
NRIK	Noril'sk	46.25	337	deP	P	16 54 57.9	0.0
NRIK				pmax	pmax		
	comp=Z,6.0nm,0.6s						
SDPT	Sand Point	46.43	43	P	P	16 54 59.4	0.0
HNR	Honiara	46.51	152	LR	LR	17 12 46.7	
	comp=Z,24nm,20.1s,baz=70,slow=34						
HNR	Honiara	46.51	152	P	P	16 55 00.5	0.0
MTN	Manton Dam	46.54	192	P	P	16 54 59.7	-0.9
	comp=Z,6.0nm,0.5s						
MTN	Manton Dam	46.54	192	P	P	16 54 59.1	-1.6
CHNA	Chernabura Isl	46.92	44	P	P	16 55 03.1	-0.2
CNBA	Chernabura Isl	46.92	44	P	P	16 55 03.4	+0.2
O15K	Ungalikthiuk R	47.08	38	P	P	16 55 05.7	+1.2
KURK	Kurchatov	47.38	311	d iP	P	16 55 06.3	-0.6
KURK				pmax	pmax		
	comp=Z,46nm,0.8s						
KURK	Kurchatov	47.38	311	P	P	16 55 06.7	-0.2
KURK	Kurchatov	47.38	311	P	P	16 55 06.6	-0.3
	comp=Z,65nm,0.7s						
KURK	Kurchatov	47.38	311	P	P	16 55 06.6	-0.2
KURBB	Kurchatov Arra	47.44	311	P	P	16 55 06.9	-0.5
	comp=Z,15nm,0.6s,baz=87,slow=7.5,SNR=199						
KURBB				ScP	ScP	17 00 16.9	-1.8
	comp=Z,0.5nm,0.6s,baz=93,slow=4.2,SNR=4.3						
KURBB				LR	LR	17 15 22.1	
	comp=Z,54nm,18.1s,baz=168,slow=36						
	comp=Z,15nm,0.6s						
PDGK	Podgornoye	47.53	301	P	P	16 55 07.9	-0.5
PDGK	Podgornoye	47.53	301	P	P	16 55 07.9	-0.5
SHLS	Shalkode	47.58	300	c iP	P	16 55 06.4	-2.3
SHLS				pmax	pmax		
	comp=Z,6.0nm,0.6s						
SHLS	Shalkode	47.58	300	⇑iP	P	16 55 06.4	-2.3
	comp=Z,5.7nm,0.6s						
CHGN	Chignik	47.64	42	P	P	16 55 08.2	-0.6
UZB	Uzynbulak	47.90	301	c iP	P	16 55 11.1	-0.1
UZB				pmax	pmax		
	comp=Z,5.0nm,0.5s						
UZB	Uzynbulak	47.90	301	⇑iP	P	16 55 11.1	-0.1
	comp=Z,4.9nm,0.5s						
J17K	VABM Dome	47.99	32	P	P	16 55 12.5	+1.1
J17K				IAmb	IAmb	16 55 15.1	
	comp=Z,37nm,0.8s						
TDK	Taldyqorghan	48.06	303	eP	P	16 55 12.6	+0.3
TDK				pmax	pmax		

	comp=Z,13nm,0.5s						
TDK	Taldyqorghan	48.06	303	eP	P	16 55 12.6	+0.3
	comp=Z,13nm,0.5s						
KPKS	Kokpek	48.09	301	eP	P	16 55 12.7	+0.1
KPKS	Kokpek	48.09	301	eP	P	16 55 12.8	+0.1
NGOA	Tingoa Renbel	48.50	153	P	P	16 55 17.1	+1.3
H18K	Honhosa River	48.59	30	P	P	16 55 17.2	+1.2
J18K	Innoko River	49.05	32	P	P	16 55 20.8	+1.2
J18K				IAmb	IAmb	16 55 22.8	
	comp=Z,36nm,1.8s						
F19K	Shaleruckik Mo	49.13	28	P	P	16 55 21.3	+1.2
F19K				IAmb	IAmb	16 55 22.7	
	comp=Z,20nm,0.7s						
MDOK	Medeo	49.32	301	eP	P	16 55 22.6	+0.5
MDOK	Medeo	49.32	301	eP	P	16 55 22.7	+0.5
ACHA	Angle Creek He	49.37	39	P	P	16 55 22.3	+0.2
ACHA				IAmb	IAmb	16 55 23.7	
	comp=Z,12nm,0.6s						
AAA	Alma-Ata	49.41	301	eP	P	16 55 22.8	+0.1
AAA				pmax	pmax		
	comp=Z,14nm,0.7s						
AAA	Alma-Ata	49.41	301	eP	P	16 55 22.9	+0.1
	comp=Z,14nm,0.7s						
TNSS	Tian-Shan	49.42	301	eP	P	16 55 22.7	-0.4
TNSS	Tian-Shan	49.42	301	eP	P	16 55 22.8	-0.4
UGM	Wanagama	49.49	220	P	P	16 55 21.9	-1.6
KNRA	Kununurra	49.74	194	P	P	16 55 24.4	-0.8
	comp=Z,5.6nm,0.5s						
KNRA	Kununurra	49.74	194	P	P	16 55 24.2	-1.0
N19K	Bonanza Creek	49.88	36	P	P	16 55 25.1	-0.9
N19K				IAmb	IAmb	16 55 29.3	
	comp=Z,15nm,0.9s						
K20K	Telida	50.23	32		P	16 55 28.1	-0.3
Q19K	Cape Douglas,	50.26	38	P	P	16 55 28.9	+0.1
OHAK	Old Harbor	50.46	40	P	P	16 55 30.7	+0.4
OHAK	Old Harbor	50.46	40	P	P	16 55 30.6	+0.4
IMAR	Indian Mountai	50.60	29	P	P	16 55 32.6	+1.3
GSI	Gunungsitoli	50.77	240	P	P	16 55 31.8	-1.4
KDAK	Kodiak Island	50.83	40	LR	LR	17 19 30.0	
	comp=Z,48nm,18.0s,baz=241,slow=39						
KDAK	Kodiak Island	50.83	40	P	P	16 55 33.5	+0.5
KDAK				pmax	pmax		
	comp=Z,68nm,0.7s						
KDAK	Kodiak Island	50.83	40	P	P	16 55 33.5	+0.5
KDAK	Kodiak Island	50.83	40	P	P	16 55 33.7	+0.7
	comp=Z,95nm,0.7s						
KDAK	Kodiak Island	50.83	40	P	P	16 55 33.6	+0.5
SGDS	Sogindy	51.00	302	eP	P	16 55 34.7	+0.1
PPLA	Purkeypile	51.05	33	P	P	16 55 36.7	+1.8
CAST	Castle Rocks	51.12	32	P	P	16 55 37.0	+1.8
CAST				IAmb	IAmb	16 55 38.6	
	comp=Z,19nm,0.9s						
STLK	Strandline Lak	51.18	35	P	P	16 55 37.3	+1.6
STLK				IAmb	IAmb	16 55 39.3	
	comp=Z,8.4nm,0.7s						
MTSU	Mount Surprise	51.22	175	P	P	16 55 36.6	+0.2
	comp=Z,3.0nm,1.1s						
MTSU	Mount Surprise	51.22	175	P	P	16 55 36.3	-0.1
AAK	Ala-Archa	51.27	301	LR	LR	17 16 33.2	
	comp=Z,48nm,21.2s,baz=88,slow=35						
AAK	Ala-Archa	51.27	301	d iP	P	16 55 36.1	-0.7
AAK				pmax	pmax		
	comp=Z,7.0nm,1.1s						
AAK	Ala-Archa	51.27	301	P	P	16 55 37.5	+0.7
I21K	Tanana	51.27	30	P	P	16 55 37.7	+1.5
I21K				IAmb	IAmb	16 55 39.9	
	comp=Z,30nm,1.2s						
SKT	Skwentna	51.33	34	IAmb	IAmb	16 55 39.4	
	comp=Z,14nm,0.7s						
CNPM	China Poot	51.49	37	IAmb	IAmb	16 55 40.1	
	comp=Z,25nm,0.8s						
BPAW	Bear Paw Mtn.	51.64	32	IAmb	IAmb	16 55 42.3	
	comp=Z,24nm,1.3s						
KTH	Kantishna Hill	51.65	32	P	P	16 55 40.4	+1.2
KTH				IAmb	IAmb	16 55 43.0	
	comp=Z,30nm,1.4s						
BRLK	Bradley Lake	51.66	37	P	P	16 55 39.5	+0.3
BRLK				IAmb	IAmb	16 55 42.9	
	comp=Z,21nm,0.8s						
MLY	Manley	51.78	30	IAmb	IAmb	16 55 43.5	
	comp=Z,25nm,0.8s						
TRF	Thorofare Moun	51.93	32	IAmb	IAmb	16 55 46.0	
	comp=Z,11nm,1.0s						
SLKM	Skilak Lake	51.97	36	IAmb	IAmb	16 55 43.4	
	comp=Z,19nm,0.8s						
D23K	Nanushuk River	52.09	25	IAmb	IAmb	16 55 46.0	
	comp=Z,41nm,1.4s						
COLD	Coldfoot	52.12	28	IAmb	IAmb	16 55 45.7	
	comp=Z,50nm,1.8s						
RC01	Rabbit Creek A	52.20	35	IAmb	IAmb	16 55 45.8	
	comp=Z,26nm,1.1s						
BVAR	Borovoye Array	52.27	314	P	P	16 55 44.0	+0.1
	comp=Z,6.6nm,0.5s,baz=86,slow=6.6,SNR=29						
BVAR				PcP	PcP	16 56 53.3	-0.3
	comp=Z,8.2nm,0.7s,baz=99,slow=2.7,SNR=8.6						
BVAR				ScP	ScP	17 00 39.5	+0.1
	comp=Z,1.6nm,0.7s,baz=120,slow=5.2,SNR=3.6						
	comp=Z,6.6nm,0.5s						
BORK	Borovoye	52.31	314	d iP	P	16 55 43.9	-0.2
BORK				pmax	pmax		
	comp=Z,7.0nm,0.7s						
BORK	Borovoye	52.31	314		P	16 55 43.0	-1.2
H23K	Yukon River	52.31	29	IAmb	IAmb	16 55 47.8	
	comp=Z,18nm,0.8s						
I23K	Minto, Yukon-K	52.37	30	IAmb	IAmb	16 55 47.6	
	comp=Z,12nm,0.9s						
SEW	Seward	52.37	37	IAmb	IAmb	16 55 48.5	
	comp=Z,29nm,0.8s						
PMR	Palmer	52.48	35	IAmb	IAmb	16 55 47.2	
	comp=Z,20nm,0.8s						
MCK	McKinley	52.54	32	IAmb	IAmb	16 55 49.6	
	comp=Z,22nm,0.9s						
FITZ	Fitzroy Crossi	52.79	197	P	P	16 55 46.5	-1.4
FITZ	Fitzroy Crossi	52.79	197	P	P	16 55 47.4	-0.6
WRH	Wood River Hil	52.91	31	IAmb	IAmb	16 55 52.0	
	comp=Z,16nm,0.8s						
H24K	Noodor Dome	53.00	29	IAmb	IAmb	16 55 52.6	
	comp=Z,19nm,0.8s						
COLA	College	53.01	31	P	P	16 55 50.6	+1.5
COLA	College	53.01	31	d iP	P	16 55 51.3	+2.2
COLA				pmax	pmax		
	comp=Z,25nm,0.7s						
COLA	College	53.01	31	P	P	16 55 50.3	+1.2
	comp=Z,41nm,0.8s						
COLA	College	53.01	31	P	P	16 55 50.3	+1.2
COLA				pP	pP	16 56 18.7	+1.6
CCB	Clear Creek Bu	53.03	31	IAmb	IAmb	16 55 52.9	
	comp=Z,14nm,0.7s						
F24K	Squaw Lake	53.03	27	IAmb	IAmb	16 55 52.6	
	comp=Z,21nm,0.8s						
WRAB	Tennant Creek	53.09	186	P	P	16 55 49.0	-1.3
WRAB	Tennant Creek	53.09	186	c iP	P	16 55 49.3	-0.9
WRAB				pmax	pmax		
	comp=Z,11nm,0.6s						
WRAB	Tennant Creek	53.09	186	P	P	16 55 48.9	-1.3
WRAB				IAmb	IAmb	16 55 50.4	
	comp=Z,11nm,0.7s						
WRAB	Tennant Creek	53.09	186	P	P	16 55 49.5	-0.7
	comp=Z,16nm,0.5s						
WRAB	Tennant Creek	53.09	186	P	P	16 55 48.9	-1.3
WR8	Warramunga Arr	53.10	186	P	P	16 55 49.2	-1.1
WRA	Warramunga Arr	53.11	186	P	P	16 55 48.9	-1.4
	comp=Z,9.9nm,0.6s,baz=3.6,slow=7.5,SNR=249						
WRA				ScP	ScP	17 00 43.9	+0.6
	comp=Z,2.9nm,0.8s,baz=7.1,slow=4.5,SNR=11						
WRA				S	S	17 03 09.3	-2.2
	comp=Z,1.1nm,0.8s,baz=8.0,slow=13,SNR=5.7						
	comp=Z,9.9nm,0.6s						
CTA	Charters Tower	53.34	172	P	P	16 55 52.7	+0.7
	comp=Z,4.8nm,2.1s						
CTA	Charters Tower	53.34	172	LR	LR	17 19 39.1	
	comp=Z,17nm,18.8s,baz=355,slow=37						
CTA	Charters Tower	53.34	172	P	P	16 55 52.3	+0.3
CTAO	Charters Tower	53.34	172	P	P	16 55 52.4	+0.4
CTAO	Charters Tower	53.34	172	P	P	16 55 50.7	-1.3
CTAO				pmax	pmax		
	comp=Z,29nm,1.5s						
CTAO	Charters Tower	53.34	172		P	16 55 50.7	-1.3
CTAO				IAmb	IAmb	16 55 53.7	
	comp=Z,29nm,1.5s						
CTAO	Charters Tower	53.34	172	P	P	16 55 52.9	+0.9
	comp=Z,12nm,1.7s						
HDA	Harding Lake	53.40	31	P	P	16 55 51.7	-0.3
P23K	Montague Islan	53.40	37	P	P	16 55 52.0	-0.1
IL31		53.42	31	IAmb	IAmb	16 55 54.0	
	comp=Z,18nm,0.8s						
ILAR	Eielson Array	53.42	31	P	P	16 55 52.3	+0.2
	comp=Z,13nm,0.7s,baz=270,slow=5.9,SNR=108						
ILAR				PcP	PcP	16 56 57.9	+0.2
	comp=Z,1.3nm,0.5s,baz=268,slow=3.5,SNR=4.5						
ILAR				LR	LR	17 23 34.8	
	comp=Z,34nm,18.0s,baz=17,slow=41						
	comp=Z,13nm,0.7s						
ILAR	Eielson Array	53.42	31	P	P	16 55 50.9	-1.2
ILAR				PcP	PcP	16 56 57.8	+0.2
QIS	Mount Isa	53.46	180	P	P	16 55 52.3	-0.5
	comp=Z,17nm,0.7s						
QIS	Mount Isa	53.46	180	P	P	16 55 52.0	-0.9
QIS	Mount Isa	53.46	180	P	P	16 55 52.6	-0.3
	comp=Z,17nm,0.7s						
F25K	Christian Rive	53.90	27	IAmb	IAmb	16 55 59.6	
	comp=Z,24nm,0.9s						
K24K	Donnelly Dome	53.94	32	P	P	16 55 56.6	+0.7
PRP	Porcupine Dome	53.98	30	IAmb	IAmb	16 55 59.0	
	comp=Z,9.8nm,0.7s						
KK31	Karatay Array	54.01	302	P	P	16 55 56.6	-0.2
KK31				pmax	pmax		
	comp=Z,13nm,0.8s						
KK31	Karatay Array	54.01	302	P	P	16 55 56.5	-0.2
KK31				IAmb	IAmb	16 55 58.2	
	comp=Z,13nm,0.8s						
KKAR	Karatay Array	54.01	302	P	P	16 55 56.4	-0.4
KKAR	Karatay Array	54.01	302	P	P	16 55 56.4	-0.4
KLU	Klutina	54.02	35	IAmb	IAmb	16 55 59.4	
	comp=Z,20nm,0.9s						
FYU	Fort Yukon	54.07	28	IAmb	IAmb	16 56 00.6	
	comp=Z,28nm,1.0s						
PAX	Paxson	54.12	33	IAmb	IAmb	16 56 00.1	
	comp=Z,12nm,0.8s						
EYAK	Cordova Ski Ar	54.18	36	IAmb	IAmb	16 56 00.6	
	comp=Z,23nm,0.8s						
BMAR	Burnt Mountain	54.31	27		P	16 55 59.2	+0.6
HARP	HAARP	54.31	34	P	P	16 55 59.7	+1.1
RIDG	Independent Ri	54.35	32	IAmb	IAmb	16 56 01.2	
	comp=Z,12nm,0.8s						
BRLS	Borolday	54.51	302	eP	P	16 56 01.7	+1.3
BRLS	Borolday	54.51	302	eP	P	16 56 01.8	+1.3
IUG	Iuzhnay	54.59	301	c iP	P	16 56 01.3	+0.2
IUG				pmax	pmax		
	comp=Z,15nm,0.8s						
IUG	Iuzhnay	54.59	301	⇑iP	P	16 56 01.4	+0.2
	comp=Z,15nm,0.8s						
G26K	Porcupine Rive	54.63	28	IAmb	IAmb	16 56 04.7	
	comp=Z,17nm,1.0s						
NIL	Nilore	54.67	290	P	P	16 56 03.3	+1.5
	comp=Z,15nm,0.6s						
CHM	Chimkent	54.85	301	eP	P	16 56 03.1	+0.2
CHM				pmax	pmax		
	comp=Z,5.0nm,0.4s						
CHM	Chimkent	54.85	301	eP	P	16 56 03.1	+0.2
	comp=Z,4.6nm,0.4s						
SANVU	Saraoutou	54.98	147	P	P	16 56 04.7	+0.8
I26K	Coal Creek Min	54.98	30	IAmb	IAmb	16 57 06.0	
	comp=Z,38nm,1.9s						
GLB	Gilahina Butte	55.03	35	IAmb	IAmb	16 56 08.5	
	comp=Z,12nm,1.1s						
VRDI	Verde Repeater	55.23	35	IAmb	IAmb	16 56 08.4	
	comp=Z,14nm,1.0s						
M26K	Nabesna, AK	55.31	34	IAmb	IAmb	16 56 09.1	
	comp=Z,11nm,0.8s						
MCARA	McCarthy VSAT	55.41	35	IAmb	IAmb	16 56 09.8	
	comp=Z,22nm,0.8s						
K27K	Chicken	55.55	31	IAmb	IAmb	16 56 10.7	
	comp=Z,22nm,0.8s						
D27M	Malcolm River	55.58	25	IAmb	IAmb	16 56 10.7	
	comp=Z,13nm,0.6s						
H27K	Steamboat Moun	55.58	29	IAmb	IAmb	16 56 11.4	
	comp=Z,11nm,0.8s						
TGL	Tana Glacier	55.59	35	IAmb	IAmb	16 56 11.5	
	comp=Z,37nm,1.4s						
I27K	Kandik River	55.60	30	P	P	16 56 09.5	+1.6
I27K				IAmb	IAmb	16 56 11.3	
	comp=Z,17nm,0.8s						
L27K	Beaver Creek,	55.77	33	IAmb	IAmb	16 56 12.4	
	comp=Z,18nm,0.8s						
BCAR	Beaver Creek A	55.79	33	P	P	16 56 10.2	+0.9
F28M	Old Crow	56.10	27	IAmb	IAmb	16 56 15.7	
	comp=Z,13nm,0.9s						
BARN	Barnard Glacie	56.11	35	IAmb	IAmb	16 56 14.3	
	comp=Z,11nm,0.7s						
GRNC	Granite Creek	56.11	35	IAmb	IAmb	16 56 14.2	
	comp=Z,14nm,0.6s						
YAH	Yahtse	56.17	36	IAmb	IAmb	16 56 15.2	
	comp=Z,16nm,1.0s						
E29M	Blow River	56.76	26	IAmb	IAmb	16 56 19.5	
	comp=Z,9.1nm,0.8s						
AS15	Alice Springs	56.80	187	P	P	16 56 16.0	-0.9
	comp=Z,15nm,0.8s						
AS17	Alice Springs	56.82	186	P	P	16 56 16.8	-0.3
AS01	Alice Springs	56.83	186	P	P	16 56 16.8	-0.2
ASAR	Alice Springs	56.83	187	P	P	16 56 16.4	-0.7
	comp=Z,5.9nm,0.4s,baz=358,slow=6.1,SNR=214						
ASAR				PcP	PcP	16 57 11.8	+0.4
	comp=Z,4.1nm,0.6s,baz=0.4,slow=3.8,SNR=6.8						
ASAR				ScP	ScP	17 00 59.7	0.0
	comp=Z,0.5nm,0.5s,baz=4.4,slow=4.8,SNR=5.1						
ASAR				S	S	17 03 59.3	-1.9
	comp=Z,2.3nm,0.8s,baz=15,slow=20,SNR=13						
	comp=Z,5.9nm,0.4s						
ASAR	Alice Springs	56.83	187	P	P	16 56 16.4	-0.7
ASAR				ScP	ScP	17 01 00.1	+0.4
H29M	Whitestone	56.85	29	IAmb	IAmb	16 56 22.7	
	comp=Z,9.2nm,0.7s						
AS09	Alice Springs	56.86	186	P	P	16 56 16.7	-0.6
	comp=Z,13nm,0.6s						
O28M	Mount Upton	56.86	35	IAmb	IAmb	16 56 20.8	
	comp=Z,16nm,1.3s						
PCA	Pinnacle	56.95	36	IAmb	IAmb	16 56 20.4	
	comp=Z,17nm,0.9s						
I29M	Ogilvie Camp,	57.00	30	IAmb	IAmb	16 56 20.8	
	comp=Z,22nm,0.8s						
SVE	Sverdlovsk	57.22	320	eP	P	16 56 19.6	+0.2
SVE				pmax	pmax		
	comp=Z,17nm,0.6s						
MBWA	Marble Bar	57.37	202	P	P	16 56 20.2	-0.6
MBWA	Marble Bar	57.37	202	P	P	16 56 18.8	-2.0
MBWA				IAmb	IAmb	16 56 23.0	
	comp=Z,47nm,1.8s						
PNL	Peninsula	57.45	36	P	P	16 56 22.7	+1.6
K29M	Barlow Dome	57.57	31	IAmb	IAmb	16 56 25.3	
	comp=Z,20nm,0.8s						
G30M	tAoh Zraii Nji	57.59	28	P	P	16 56 22.8	+0.8
J30M	Hart River	57.95	30	IAmb	IAmb	16 56 28.3	
	comp=Z,15nm,1.1s						
HYT	Haines Junctio	58.15	35	IAmb	IAmb	16 56 29.8	
	comp=Z,25nm,1.2s						
INK	Inuvik	58.38	26	IAmb	IAmb	16 56 29.7	
	comp=Z,13nm,0.7s						
ARTI	Arti	58.53	320	LR	LR	17 24 30.6	
	comp=Z,40nm,18.3s,baz=14,slow=39						
ARTI	Arti	58.53	320	d iP	P	16 56 28.4	-0.2
ARTI				*PP	pP	16 56 55.9	-1.1
ARTI						16 57 16.9	
ARTI				S	S	17 04 22.2	-0.5
ARTI				SS	SS	17 08 14.1	-2.4
ARTI				pmax	pmax		
	comp=Z,27nm,0.6s						
ARTI	Arti	58.53	320		P	16 56 27.6	-1.0
ARTI	Arti	58.53	320	P	P	16 56 28.4	-0.2
POHA	Pohakuloa	58.55	86	P	P	16 56 29.7	+0.1
N31M	Braeburn, Yuko	58.83	34	P	P	16 56 32.2	+1.5
N31M				IAmb	IAmb	16 56 34.2	
	comp=Z,16nm,1.0s						
WRKA	Warakurna	58.95	192	P	P	16 56 32.0	+0.2
	comp=Z,5.0nm,0.5s						
WRKA	Warakurna	58.95	192	P	P	16 56 31.3	-0.5
EIDS	Eidsvold	59.22	168	P	P	16 56 34.9	+1.3
EIDS	Eidsvold	59.22	168	P	P	16 56 34.5	+0.9
EIDS				IAmb	IAmb	16 58 30.1	
	comp=Z,35nm,1.5s						
M31M	Drury Creek, Y	59.30	33	IAmb	IAmb	16 56 36.8	
	comp=Z,13nm,0.9s						
ABKAR	Akbulak array	59.48	312		P	16 56 33.5	-1.8
QLP	Quilpie	59.60	175	P	P	16 56 36.5	+0.3
	comp=Z,22nm,1.2s						
QLP	Quilpie	59.60	175	P	P	16 56 36.3	+0.1
	comp=Z,22nm,1.2s						
QLP	Quilpie	59.60	175	P	P	16 56 36.1	-0.1
QLP	Quilpie	59.60	175	P	P	16 56 36.5	+0.3
	comp=Z,22nm,1.2s						
N32M	Quiet Lake	60.17	34	IAmb	IAmb	16 56 42.7	
	comp=Z,11nm,0.8s						
P32M	Atlin	60.28	36	IAmb	IAmb	16 56 43.9	
	comp=Z,9.4nm,0.8s						
NOUC	Port Laguerre	60.51	152	P	P	16 56 43.7	+1.2
P33M	Teslin, Yukon	60.55	35		P	16 56 43.2	+0.7
P33M				IAmb	IAmb	16 56 46.3	
	comp=Z,12nm,0.8s						
MMPY	Sheldon Lake,	60.61	32		P	16 56 43.1	+0.3
MMPY				IAmb	IAmb	16 56 46.3	
	comp=Z,32nm,1.7s						
INKA	Innaminka	60.61	179		P	16 56 42.7	-0.4
INKA				IAmb	IAmb	16 56 45.5	
	comp=Z,5.5nm,0.6s						
S34M	Telegraph Cree	62.06	37	IAmb	IAmb	16 58 30.5	
	comp=Z,39nm,1.9s						
DLBC	Dease Lake	62.44	36	LR	LR	17 32 25.7	
	comp=Z,27nm,18.0s,baz=9.5,slow=44						
WTLY	Watson Lake, Y	62.49	34	IAmb	IAmb	16 56 58.6	
	comp=Z,16nm,1.0s						
KIRV	Kirov	62.56	324	LR	LR	17 25 33.1	
	comp=Z,36nm,20.6s,baz=100,slow=37						
KIRV	Kirov	62.56	324	d iP	P	16 56 55.7	-0.2
MEEK	Meekatharra	62.84	201	P	P	16 56 57.3	-0.8
SPA0	Spitsbergen Ar	64.03	349	eP	P	16 57 06.6	+1.2
SPITS	Spitsbergen Ar	64.03	349	P	P	16 57 06.7	+1.4
	comp=Z,4.9nm,0.6s,baz=102,slow=6.2,SNR=8.2						
	comp=Z,4.9nm,0.6s						
FORT	Forrest	64.61	191	P	P	16 57 09.6	0.0
	comp=Z,14nm,0.6s						
FORT	Forrest	64.61	191	P	P	16 57 09.2	-0.4
FORT				IAmb	IAmb	16 57 15.5	
	comp=Z,10nm,0.8s						
STKA	Stephens Creek	64.75	178	P	P	16 57 11.1	+0.6
	comp=Z,81nm,0.8s						
STKA	Stephens Creek	64.75	178	P	P	16 57 11.5	+1.0
	comp=Z,11nm,0.5s,baz=346,slow=6.8,SNR=16						
STKA				LR	LR	17 25 26.6	
	comp=Z,43nm,18.5s,baz=24,slow=36						
	comp=Z,11nm,0.5s						
STKA	Stephens Creek	64.75	178	P	P	16 57 10.5	0.0
STKA	Stephens Creek	64.75	178	c iP	P	16 57 11.7	+1.2
VADS	Vadso	65.69	339	eP	P	16 57 17.9	+1.8
BBB	Bella Bella	65.72	42	LR	LR	17 23 32.1	
	comp=Z,48nm,19.8s,baz=253,slow=34						
BELG	Belogornoye	65.75	318	c iP	P	16 57 16.4	-0.4
BELG				pmax	pmax		
	comp=Z,5.0nm,0.8s						
BBOO	Buckleboo	65.76	184	P	P	16 57 16.6	-0.4
MORW	Morawa	65.92	203	P	P	16 57 16.8	-1.3
HTT	Hallett	66.28	181	P	P	16 57 20.4	0.0
RES	Resolute Bay	66.62	14	IAmb	IAmb	16 57 24.1	
	comp=Z,22nm,0.6s						
ARCES	ARCESS Array B	67.13	340	P	P	16 57 25.9	+0.5
	comp=Z,5.7nm,0.6s,baz=64,slow=8.2,SNR=5.4						
ARCES				LR	LR	17 29 13.6	
	comp=Z,52nm,21.4s,baz=338,slow=38						
BLDU	Ballidu	67.14	202	P	P	16 57 25.4	-0.4
KLBR	Kellerberrin	67.74	200	P	P	16 57 29.2	-0.4
	comp=Z,37nm,1.3s						
KLBR	Kellerberrin	67.74	200	P	P	16 57 29.5	-0.1
YKA	Yellowknife Ar	67.77	29	P	P	16 57 30.1	+0.7
	comp=Z,5.9nm,0.8s,baz=302,slow=6.2,SNR=16						
	comp=Z,5.9nm,0.8s						
KTK1	Kautokeino	68.10	340	eP	P	16 57 32.2	+0.8
NWAO	Narrogin (SRO)	69.14	200	P	P	16 57 38.6	+0.3
NEEM	North Greenlan	69.41	3	i P	P	16 57 40.8	+0.9
NEEM				IAmb	IAmb	16 57 41.7	
	comp=Z,19nm,0.6s						
DAG	Danmarks Havn	69.47	355	i P	P	16 57 40.4	+0.6
DAG				IAmb	IAmb	16 57 41.4	
	comp=Z,12nm,0.8s						
VRH	Novokhopyorsk	69.58	318	eP	P	16 57 38.5	-2.4
VRH				pmax	pmax		
	comp=Z,8.0nm,0.8s						
AKT	Akhty	70.35	307	eP	P	16 57 46.0	0.0
AKT				e*PP	pP	16 58 15.4	+0.1
AKT				i *SP	sP	16 58 28.5	+0.4
AKT				e		17 00 23.0	
AKT				pmax	pmax		
	comp=Z,49nm,0.6s						
OBN	Obninsk	70.41	324	eP	P	16 57 46.9	+1.1
OBN				e		16 58 05.9	
OBN				e*PP	pP	16 58 15.8	+0.6
OBN				e*SP	sP	16 58 30.2	+2.2
OBN				e		17 00 21.6	
OBN				ePPP	PPP	17 02 06.4	
OBN				pmax	pmax		
	comp=Z,4.0nm,0.9s						
VSR	Storozhevoye	70.98	319	eP	P	16 57 47.5	-1.9
VSR				pmax	pmax		
	comp=Z,7.0nm,1.1s						
STEI	Steigen	71.06	341	eP	P	16 57 50.1	+0.5
BANOM	Banah	71.24	289	P	P	16 57 52.0	+0.5
SHME	Shamm	71.30	289	i P	P	16 57 52.0	+0.2
	SNR=17						
FAUS	Fauske	71.42	340	eP	P	16 57 52.4	+0.6
FINES	FINESS Array B	71.61	332	P	P	16 57 53.0	0.0
	comp=Z,7.7nm,0.6s,baz=83,slow=5.2,SNR=69						
	comp=Z,7.7nm,0.6s						
FINES	FINESS Array B	71.61	332	P	P	16 57 52.3	-0.7
MSFE	Esma-Masafi	71.61	289	P	P	16 57 53.9	+0.1
UOSS	Minazif	71.78	288		P	16 57 54.2	-0.5
HATD	Hatta, Dubai	71.89	288	i P	P	16 57 55.4	0.0
	SNR=8.5						
SOHO	SOHO	71.90	287	i P	P	16 57 55.0	-0.4
	SNR=17						
DBG	Daneborg	71.95	354	i P	P	16 57 55.5	+0.6
DBG				IAmb	IAmb	16 57 56.7	
	comp=Z,5.7nm,1.0s						
ASHO	Ashiyiah	72.02	288	i P	P	16 57 55.5	-0.7
	SNR=9.9						
NCK	Nalchik	72.11	311	⇑eP	P	16 57 56.9	+0.5
NCK				pmax	pmax		
	comp=Z,14nm,0.5s						
LTY	Liberty	72.24	45	IAmb	IAmb	16 58 00.0	
	comp=Z,79nm,1.9s						
FAQ	Al Faqa, Dubai	72.36	288	P	P	16 57 57.6	-0.6
RAUS	Rausandaksla	72.44	340	eP	P	16 57 58.0	+0.1
KBZ	Khabaz	72.44	311	P	P	16 57 59.2	+1.0
	comp=Z,16nm,0.8s,baz=68,slow=3.5,SNR=41						
KBZ				LR	LR	17 31 21.9	
	comp=Z,49nm,18.6s,baz=42,slow=37						
	comp=Z,16nm,0.8s						
KBZ	Khabaz	72.44	311	d iP	P	16 57 58.6	+0.3
KBZ				pmax	pmax		
	comp=Z,19nm,0.9s						
KIV	Kislovodsk	72.46	311	eP	P	16 58 00.0	+1.4
KIV				pmax	pmax		
	comp=Z,21nm,1.0s						
KIV	Kislovodsk	72.46	311	P	P	16 57 58.0	-0.6
KIV	Kislovodsk	72.46	311	⇓P	P	16 57 59.7	+1.1
KIV	Kislovodsk	72.46	311	P	P	16 57 59.5	+0.9
	comp=Z,381nmcomp=Z,27nm,0.7s						
B08A	Colville Reser	72.47	43	IAmb	IAmb	16 58 01.1	
	comp=Z,15nm,0.8s						
MOR8	Moi Rana	72.51	340	eP	P	16 57 57.4	-0.9
ALNE	Al Ain	72.56	288	i P	P	16 57 59.5	+0.1
	SNR=5.7						
SHA1	Shidzhatmaz	72.58	311	⇓eP	P	16 58 01.0	+1.5
LEIR	Leirfjorden	72.93	340	eP	P	16 58 01.1	+0.3
GNI	Garni	72.98	307	LR	LR	17 31 24.6	
	comp=Z,51nm,19.1s,baz=54,slow=37						
GNI	Garni	72.98	307	P	P	16 58 01.6	-0.2
GNI				pmax	pmax		
	comp=Z,12nm,0.8s						
GNI	Garni	72.98	307	P	P	16 58 01.6	-0.2
GNI				IAmb	IAmb	16 58 09.0	
	comp=Z,12nm,0.8s						
GNI	Garni	72.98	307	P	P	16 58 02.8	+1.0
GNI	Garni	72.98	307	P	P	16 58 03.0	+1.2
	comp=Z,15nm,0.8s						
VSU	Vasula	73.11	330	⇓eP	P	16 58 01.1	-0.8
VSU				pmax	pmax		
	comp=Z,43nm,2.0s						
EDM	Edmonton	73.15	37	IAmb	IAmb	16 58 04.5	
	comp=Z,21nm,0.7s						
C09A	Chrisman Ranch	73.37	44	IAmb	IAmb	16 58 06.3	
	comp=Z,11nm,0.6s						
D08A	Wollman Farm,	73.37	44	IAmb	IAmb	16 58 06.4	
	comp=Z,17nm,0.9s						
BLKN	Baker Lake	73.41	22	IAmb	IAmb	16 58 05.2	
	comp=Z,33nm,0.7s						
YBH	Yreka Blue Hor	73.73	51	IAmb	IAmb	16 59 16.9	
	comp=Z,61nm,2.0s						
L04D	Klamath Falls	73.75	50	IAmb	IAmb	16 58 09.3	
	comp=Z,25nm,1.0s						
PINE	Pine Mountain	73.81	48	IAmb	IAmb	16 58 09.7	

	comp=Z,20nm,0.7s						
RAO	**Raoul Island**	**73.88**	**142**	LR	LR	17 27 45.1	
	comp=Z,22nm,19.9s,baz=94,slow=33						
OZAP	**Van, Ozalp-Mer**	**74.22**	**306**	⇑P	**P**	**16 58 10.7**	**+1.5**
M03C	**McCloud**	**74.34**	**51**	IAmb	IAmb	16 58 12.6	
	comp=Z,23nm,0.9s						
VSLR	**Vesyoloye**	**74.37**	**312**	⇑*e*P	**P**	**16 58 10.2**	**+0.5**
VSLR				pmax	pmax		
	comp=Z,10.0nm,0.6s						
NSS	**Namsos**	**74.41**	**339**	*e*P	**P**	**16 58 09.5**	**0.0**
SUMG	**Summit**	**74.50**	**359**	IAmb	IAmb	16 58 12.8	
	comp=Z,28nm,1.0s						
SUMG	**Summit**	**74.50**	**359**	*i* P	**P**	**16 58 12.0**	**+1.6**
SUMG				IAmb	IAmb	16 58 13.2	
	comp=Z,41nm,1.1s						
HOMI	**Horasan**	**74.92**	**308**	⇑P	**P**	**16 58 13.9**	**+0.7**
MNK	**Minsk**	**74.95**	**326**	*i* P	**P**	**16 58 13.8**	**+1.1**
MNK				*i* *PP	**pwP**	**16 58 44.0**	**-0.5**
MNK				*i* *SP	**sP**	**16 58 57.5**	**+2.3**
MNK				*i*		17 01 02.9	
MNK				*i* PPP	PPP	17 02 49.9	
MNK				*i* S	**S**	**17 07 41.6**	**+1.4**
MNK				*i* *SS	**sS**	**17 08 34.6**	**+2.9**
MNK				*i* SSS	SSS	17 15 51.6	
MNK				pmax	pmax		
	comp=Z,9.0nm,0.8s						
MNK				pmax	pmax		
	comp=N,5.0nm,0.6s						
MNK				pmax	pmax		
	comp=E,18nm,1.0s						
MNK	**Minsk**	**74.95**	**326**	*i* P	**P**	**16 58 13.9**	**+1.1**
	comp=E,18nm,1.0s						
MNK				*i* P	**P**	**16 58 13.9**	**+1.1**
	comp=N,5.0nm,0.6s						
MNK				*i* P	**P**	**16 58 13.9**	**+1.1**
	comp=Z,9.0nm,0.8s,baz=54						
MNK				*i* pP	**pwP**	**16 58 44.0**	**-0.5**
MNK				*i* sP	**sP**	**16 58 57.5**	**+2.3**
MNK				*i* PP	**PP**	**17 01 02.9**	**+1.5**
MNK				*i* PPP	PPP	17 02 49.9	
MNK				*i* S	**S**	**17 07 41.6**	**+1.4**
MNK				*i* sS	**sS**	**17 08 34.7**	**+2.9**
MNK				*i* SS	**SS**	**17 12 23.8**	**-6.3**
MNK				*i* SSS	SSS	17 15 51.6	
MNK				*i* LR	LR	17 29 26.3	
MOD	**Modoc Plateau**	**75.19**	**50**	IAmb	IAmb	16 58 17.8	
	comp=Z,43nm,1.8s						
ANN	**Anapa**	**75.27**	**314**	*e*P	**P**	**16 58 15.0**	**+0.2**
ANN				*e**PP	**pP**	**16 58 44.7**	**+0.3**
ANN				*e*S	**S**	**17 07 44.7**	**+0.6**
ANN				pmax	pmax		
	comp=Z,30nm,1.6s						
BMO	**Blue Mountains**	**75.49**	**46**	IAmb	IAmb	16 58 18.4	
	comp=Z,8.1nm,0.6s						
J08A	**Circle Bar Ran**	**75.57**	**48**	IAmb	IAmb	16 58 19.3	
	comp=Z,11nm,0.6s						
SCO	**Scoresbysund**	**75.78**	**354**	*i* P	**P**	**16 58 18.8**	**+1.6**
SCO				IAmb	IAmb	16 58 23.1	
	comp=Z,39nm,1.4s						
PABE	**Paberze**	**76.12**	**328**	IAmb	IAmb	16 58 21.6	
	comp=Z,21nm,1.0s						
BEKR	**Beckworth**	**76.21**	**51**		**P**	**16 58 20.6**	**+0.1**
AK03	**Malin Array Si**	**76.53**	**322**	P	**P**	**16 58 21.4**	**-0.4**
AKASG	**Malin Array Be**	**76.54**	**322**	P	**P**	**16 58 21.6**	**-0.2**
	comp=Z,2.5nm,0.4s,baz=50,slow=6.1,SNR=21						
	comp=Z,2.5nm,0.4s						
AKASG	**Malin Array Be**	**76.54**	**322**	P	**P**	**16 58 21.2**	**-0.7**
AKBB	**Malin Array Si**	**76.54**	**322**	⇓*e*P	**P**	**16 58 21.5**	**-0.4**
AKBB				pmax	pmax		
	comp=Z,7.0nm,0.6s						
AKBB	**Malin Array Si**	**76.54**	**322**	IAmb	IAmb	16 58 24.4	
	comp=Z,8.3nm,0.6s						
AK01	**Malin Array Si**	**76.55**	**322**	P	**P**	**16 58 21.8**	**-0.2**
KIEV	**Kiev**	**76.56**	**322**	P	**P**	**16 58 21.6**	**-0.3**
KIEV				pmax	pmax		
	comp=Z,7.0nm,0.6s						
KIEV	**Kiev**	**76.56**	**322**		**P**	**16 58 21.6**	**-0.3**
KIEV	**Kiev**	**76.56**	**322**	P	**P**	**16 58 21.9**	**-0.1**
KIEV	**Kiev**	**76.56**	**322**	P	**P**	**16 58 21.4**	**-0.5**
	comp=Z,48nm,0.6s						
KIEV	**Kiev**	**76.56**	**322**	P	**P**	**16 58 21.8**	**-0.1**
AK04	**Malin Array Si**	**76.56**	**322**	P	**P**	**16 58 21.5**	**-0.5**
AK11	**Malin Array Si**	**76.58**	**322**	P	**P**	**16 58 21.9**	**-0.2**
AK22	**Malin Array Si**	**76.59**	**322**	P	**P**	**16 58 21.7**	**-0.4**
AK21	**Malin Array Si**	**76.59**	**322**	P	**P**	**16 58 21.7**	**-0.5**
AK18	**Malin Array Si**	**76.61**	**322**	P	**P**	**16 58 21.9**	**-0.4**
SAQQ	**Saqqaq**	**76.73**	**4**	*i* P	**P**	**16 58 24.4**	**+1.9**
PAHR	**Pah Rah Range**	**76.94**	**51**		**P**	**16 58 24.7**	**+0.2**
NC405	**NORSAR Array S**	**77.00**	**337**	IAmb	IAmb	16 58 25.3	
	comp=Z,14nm,0.8s						
HFS	**Hagfors**	**77.05**	**336**	P	**P**	**16 58 24.6**	**+0.1**
	comp=Z,5.2nm,0.6s,baz=73,slow=5.1,SNR=15						
HFS				LR	LR	17 35 04.3	
	comp=Z,42nm,18.2s,baz=5.0,slow=38						
	comp=Z,5.2nm,0.6s						
DOMB	**Dombas**	**77.14**	**339**	*e*P	**P**	**16 58 24.9**	**-0.2**
CMB	**Columbia Colle**	**77.16**	**53**	IAmb	IAmb	16 58 29.1	
	comp=Z,26nm,1.5s						
MFID	**Camas Ranch**	**77.16**	**46**	IAmb	IAmb	16 58 28.0	
	comp=Z,8.7nm,0.6s						
MOL	**Molde**	**77.19**	**339**	*e*P	**P**	**16 58 26.1**	**+0.8**
NB2	**NORSAR Subarra**	**77.22**	**337**	P	**P**	**16 58 25.3**	**-0.3**
	comp=Z,4.0nm,0.6s,baz=43,slow=5.6						
NB2	**NORSAR Subarra**	**77.22**	**337**	P	**P**	**16 58 25.3**	**-0.3**
NOA	**NORSAR Array B**	**77.22**	**337**	P	**P**	**16 58 25.6**	**+0.1**
	comp=Z,5.3nm,0.7s,baz=43,slow=5.7,SNR=33						
NOA				LR	LR	17 36 06.4	
	comp=Z,28nm,20.1s,baz=245,slow=38						
	comp=Z,5.3nm,0.7s						
NC602	**NORSAR Array S**	**77.33**	**337**	*e*P	**P**	**16 58 25.7**	**-0.5**
NBO00	**NORSAR Array S**	**77.37**	**337**	P	**P**	**16 58 25.7**	**-0.6**
GDH	**Godhavn**	**77.38**	**5**	*i* P	**P**	**16 58 25.3**	**-0.9**
GDH				IAmb	IAmb	16 58 35.5	
	comp=Z,158nm,1.4s						
ILULI	**Ilulissat**	**77.57**	**4**	*i* P	**P**	**16 58 26.9**	**-0.4**
ILULI				IAmb	IAmb	16 58 29.9	
	comp=Z,22nm,1.0s						
FFC	**Flin Flon**	**77.62**	**32**	P	**P**	**16 58 28.7**	**+0.8**
FFC				pmax	pmax		
	comp=Z,13nm,0.8s						
FFC	**Flin Flon**	**77.62**	**32**		**P**	**16 58 28.7**	**+0.8**
FFC				IAmb	IAmb	16 58 29.1	
	comp=Z,13nm,0.8s						
ARPR	**Arapgir-MALATY**	**77.76**	**309**	IAmb	IAmb	16 58 34.6	
	comp=Z,13nm,0.8s						
LUBAR	**Lubar, Ukraine**	**77.76**	**322**	P	**P**	**16 58 28.1**	**-0.6**
DLMT	**Dillon**	**77.98**	**43**	IAmb	IAmb	16 58 32.8	
	comp=Z,16nm,0.7s						
KVN	**Kaiserville**	**78.13**	**51**	IAmb	IAmb	16 58 33.9	
	comp=Z,12nm,0.7s						
PKD	**Bear Valley Ra**	**78.17**	**55**	IAmb	IAmb	16 58 33.5	
	comp=Z,19nm,0.6s						
LHV	**Little Huntoon**	**78.30**	**52**	IAmb	IAmb	16 58 36.0	
	comp=Z,20nm,1.3s						
NVAR	**Mina Array Bea**	**78.33**	**52**	P	**P**	**16 58 33.8**	**+1.3**
	comp=Z,5.9nm,0.6s,baz=292,slow=5.4,SNR=25						
NVAR				LR	LR	17 27 20.8	
	comp=Z,69nm,21.8s,baz=316,slow=31						
	comp=Z,5.9nm,0.6s						
BOZ	**Bozeman (W)**	**78.39**	**43**	P	**P**	**16 58 32.7**	**+0.2**
BOZ				pmax	pmax		
	comp=Z,8.0nm,0.7s						
BOZ	**Bozeman (W)**	**78.39**	**43**	P	**P**	**16 58 32.7**	**+0.2**
HIZ	**Hauiti**	**78.41**	**153**	P	**P**	**16 58 33.6**	**+1.3**
SKAR	**Skarslia**	**78.42**	**338**	*e*P	**P**	**16 58 33.1**	**+0.8**
SOEG	**Soedalen**	**78.69**	**357**	*i* P	**P**	**16 58 34.8**	**+1.3**
STRU	**Stroemstad**	**78.72**	**336**	*i* P	**P**	**16 58 33.8**	**0.0**
BZK	**Bozkurt**	**78.92**	**313**	⇑P	**P**	**16 58 35.5**	**+0.3**
BZK	**Bozkurt**	**78.92**	**313**	P	**P**	**16 58 35.0**	**-0.2**
	comp=Z,31nm,1.0s						
BLEU	**Blekinge**	**79.00**	**332**	*i* P	**P**	**16 58 34.6**	**-0.8**
RAR	**Rarotonga**	**79.00**	**124**	LR	LR	17 31 27.4	
	comp=Z,36nm,18.6s,baz=174,slow=34						
TJOU	**Tjoern**	**79.31**	**335**	*i* P	**P**	**16 58 37.2**	**+0.2**
QRZ	**Quartz Range**	**79.59**	**155**	P	**P**	**16 58 39.1**	**+0.5**
ILGA	**Ilgaz**	**79.61**	**312**	IAmb	IAmb	16 58 42.0	
	comp=Z,15nm,0.7s						
BKZ	**Black Stump Fm**	**79.62**	**152**	P	**P**	**16 58 38.2**	**-0.7**
DEL	**Delary**	**79.63**	**333**	*i* P	**P**	**16 58 39.4**	**+0.6**
ONAU	**Onsala**	**79.68**	**334**	*i* P	**P**	**16 58 39.4**	**+0.4**
GRAC	**Grapevine Rang**	**79.74**	**53**	IAmb	IAmb	16 58 42.6	
	comp=Z,27nm,1.4s						
SFJD	**Kangerlussuaq**	**79.80**	**4**	*i* P	**P**	**16 58 40.0**	**+0.5**
SFJD				IAmb	IAmb	16 58 41.7	
	comp=Z,8.9nm,0.6s						
HVU	**Hansel Valley**	**79.95**	**46**	IAmb	IAmb	16 58 43.9	
	comp=Z,11nm,0.6s						
VLDR	**Vladesti**	**80.08**	**319**	⇓P	**P**	**16 58 41.9**	**+0.5**
BSD	**Bornholm Skovb**	**80.20**	**331**	*i* P	**P**	**16 58 42.0**	**+0.1**
BSD				IAmb	IAmb	16 58 50.6	
	comp=Z,276nm,1.6s						
TPO	**Tropico Hills**	**80.33**	**55**	IAmb	IAmb	16 58 45.8	
	comp=Z,17nm,0.7s						
FURC	**Furnace Creek,**	**80.37**	**53**	IAmb	IAmb	16 58 45.9	
	comp=Z,17nm,0.9s						
BR131	**Keskin Array S**	**80.43**	**311**	*de*P	**P**	**16 58 43.9**	**+0.3**
BR131	**Keskin Array S**	**80.43**	**311**	IAmb	IAmb	16 58 47.6	
	comp=Z,11nm,0.8s						
BRTR	**Keskin Array B**	**80.43**	**311**	P	**P**	**16 58 44.2**	**+0.6**
	comp=Z,6.8nm,0.7s,baz=116,slow=5.0,SNR=50						
	comp=Z,6.8nm,0.7s						
BRTR	**Keskin Array B**	**80.43**	**311**		**P**	**16 58 43.7**	**0.0**
BR106	**Keskin Array S**	**80.43**	**311**	P	**P**	**16 58 44.8**	**+1.1**
	comp=Z,70nmcomp=Z,9.6nm,0.7s						
BR104	**Keskin Array S**	**80.44**	**311**	P	**P**	**16 58 44.1**	**+0.4**
	comp=Z,86nmcomp=Z,11nm,0.8s						
BR105	**Keskin Array S**	**80.44**	**311**	P	**P**	**16 58 44.2**	**+0.5**
	comp=Z,85nmcomp=Z,11nm,0.8s						
S11A	**Rachel**	**80.45**	**51**	IAmb	IAmb	16 58 46.6	
	comp=Z,29nm,1.3s						
TESR	**Tescani**	**80.45**	**320**	P	**P**	**16 58 44.0**	**+0.6**
	comp=Z,15nm,0.6s						
CFR	**Carcaliu**	**80.46**	**318**	⇓P	**P**	**16 58 44.0**	**+0.5**
CFR	**Carcaliu**	**80.46**	**318**	⇓P	**P**	**16 58 44.0**	**+0.5**
BIZ	**Bicaz**	**80.47**	**321**	⇑P	**P**	**16 58 44.6**	**+1.0**
KWP	**Kalwaria Pacla**	**80.49**	**324**	P	**P**	**16 58 44.1**	**+0.5**
	comp=Z,13nm,1.5s						
TPGR	**Topolog**	**80.49**	**318**	⇑P	**P**	**16 58 44.6**	**+0.9**
BUR08	**Bucovina Ar. S**	**80.50**	**321**	IAmb	IAmb	16 58 49.6	
	comp=Z,31nm,1.8s						
TPNV	**Topopah Spring**	**80.51**	**52**	IAmb	IAmb	16 58 46.6	
	comp=Z,21nm,1.0s						
BURAR	**Bucovina Array**	**80.51**	**321**	⇑P	**P**	**16 58 44.6**	**+0.7**
BURAR	**Bucovina Array**	**80.51**	**321**		**P**	**16 58 44.1**	**+0.2**
BURAR	**Bucovina Array**	**80.51**	**321**	⇑P	**P**	**16 58 44.6**	**+0.7**
KIRS	**Kirsehir-Merke**	**80.59**	**311**	⇓P	**P**	**16 58 45.3**	**+0.8**
QSM	**Queen of Sheba**	**80.65**	**53**	IAmb	IAmb	16 58 48.5	
	comp=Z,23nm,0.8s						
GWY	**Greenwater Val**	**80.66**	**53**	IAmb	IAmb	16 58 47.2	
	comp=Z,15nm,0.8s						
VRI	**Vrincioaia**	**80.81**	**319**	⇑P	**P**	**16 58 46.2**	**+0.8**
VRI	**Vrincioaia**	**80.81**	**319**	⇑P	**P**	**16 58 46.2**	**+0.8**
DUG	**Dugway, Tooele**	**80.85**	**48**	IAmb	IAmb	16 58 48.3	
	comp=Z,9.4nm,0.6s						
RAYN	**Ar Rayn**	**80.92**	**292**	⇑P	**P**	**16 58 46.8**	**+0.4**
RAYN	**Ar Rayn**	**80.92**	**292**		**P**	**16 58 46.2**	**-0.2**
RAYN				IAmb	IAmb	16 58 47.4	
	comp=Z,13nm,0.5s						
RAYN	**Ar Rayn**	**80.92**	**292**	*i* P	**P**	**16 58 46.4**	**+0.1**
	SNR=18						
RAYN	**Ar Rayn**	**80.92**	**292**	P	**P**	**16 58 46.5**	**+0.1**
SAHR	**Sahastru**	**80.92**	**319**	⇑P	**P**	**16 58 47.8**	**+1.8**
TURR	**Turia**	**81.08**	**320**	⇑P	**P**	**16 58 48.3**	**+1.5**
COVR	**Voineasa-Covas**	**81.11**	**320**	⇓P	**P**	**16 58 48.4**	**+1.4**
TCUT	**Toone Canyon**	**81.17**	**46**	IAmb	IAmb	16 58 50.3	
	comp=Z,14nm,0.7s						
OZUR		**81.17**	**320**	⇑P	**P**	**16 58 48.7**	**+1.3**
PDAR	**Pinedale Array**	**81.28**	**44**	P	**P**	**16 58 48.5**	**+0.3**
	comp=Z,3.7nm,0.6s,baz=260,slow=1.7,SNR=48						
	comp=Z,3.7nm,0.6s						
PDAR	**Pinedale Array**	**81.28**	**44**		**P**	**16 58 48.3**	**0.0**
DOPR	**Dopca**	**81.47**	**320**	⇑P	**P**	**16 58 50.4**	**+1.5**
MDUB	**Mudurnu**	**81.51**	**313**	IAmb	IAmb	16 58 52.0	
	comp=Z,29nm,0.8s						
MPU	**Maple Canyon**	**81.69**	**47**	IAmb	IAmb	16 58 53.0	
	comp=Z,23nm,1.4s						
VOIR		**81.99**	**320**	⇓P	**P**	**16 58 52.7**	**+1.0**
VOIR		**81.99**	**320**	⇓P	**P**	**16 58 52.7**	**+1.0**
TCRU	**Three Creeks R**	**82.01**	**49**	IAmb	IAmb	16 58 55.1	
	comp=Z,14nm,0.6s						
DNR	**Dunn Ranch,Anz**	**82.16**	**55**	IAmb	IAmb	16 58 55.3	
	comp=Z,20nm,0.6s						
PFO	**Pinyon Flats O**	**82.25**	**55**	LR	LR	17 28 01.8	
	comp=Z,72nm,19.8s,baz=322,slow=30						
PFO	**Pinyon Flats O**	**82.25**	**55**	P	**P**	**16 58 53.0**	**-0.4**
PFO				pmax	pmax		
	comp=Z,17nm,1.3s						
PFO	**Pinyon Flats O**	**82.25**	**55**	P	**P**	**16 58 53.0**	**-0.4**
PFO				IAmb	IAmb	16 58 55.6	
	comp=Z,17nm,1.2s						
PMD	**Palm Desert**	**82.29**	**55**	IAmb	IAmb	16 58 55.5	
	comp=Z,9.7nm,0.6s						
TMUT	**Trail Mountain**	**82.38**	**48**	IAmb	IAmb	16 58 57.9	
	comp=Z,27nm,1.7s						
LANS	**Liptovska Anna**	**82.38**	**325**	*e*P	**P**	**16 58 56.7**	**+3.1**
LANS				pmax	pmax		
	comp=Z,3.0nm,0.7s						
LANS	**Liptovska Anna**	**82.38**	**325**	*e*P	**P**	**16 58 56.7**	**+3.1**
LCMT	**Little Creek M**	**82.44**	**51**	IAmb	IAmb	16 58 57.1	
	comp=Z,14nm,1.0s						
NUUK	**Nuuk**	**82.52**	**5**	*i* P	**P**	**16 58 54.9**	**+0.9**
NUUK				IAmb	IAmb	16 58 56.5	
	comp=Z,33nm,0.6s						
P17A	**Butcher Ranch,**	**82.56**	**47**	IAmb	IAmb	16 58 57.3	
	comp=Z,18nm,0.6s						
RDMU	**Red Mountain**	**82.61**	**46**	IAmb	IAmb	16 58 57.8	
	comp=Z,24nm,0.6s						
STEB	**Steborice**	**82.64**	**326**	*e*P	**P**	**16 58 55.2**	**+0.3**
KNB	**Kanab**	**82.71**	**50**	IAmb	IAmb	16 58 59.4	
	comp=Z,19nm,1.1s						
P18A	**Preston Nutter**	**82.77**	**47**	IAmb	IAmb	16 58 59.2	
	comp=Z,14nm,0.5s						
IRM	**Iron Mountain**	**82.84**	**54**	IAmb	IAmb	16 58 59.5	
	comp=Z,21nm,1.6s						
CBX	**Cerro Bola**	**82.85**	**56**	IAmb	IAmb	16 58 58.7	
	comp=Z,17nm,0.7s						
MORC	**Moravsky Berou**	**82.86**	**326**	⇓P	**P**	**16 58 56.7**	**+0.6**
MORC	**Moravsky Berou**	**82.86**	**326**	⇓P	**P**	**16 58 56.7**	**+0.6**
BC3	**Big Chuckawall**	**82.92**	**54**	IAmb	IAmb	16 58 59.1	
	comp=Z,9.5nm,0.8s						
PSZ	**Piszkesteto**	**83.02**	**324**	⇓P	**P**	**16 58 57.7**	**+0.7**
PSZ	**Piszkesteto**	**83.02**	**324**	IAmb	IAmb	16 59 00.6	
	comp=Z,14nm,1.0s						
PSZ	**Piszkesteto**	**83.02**	**324**	⇓P	**P**	**16 58 57.7**	**+0.7**
K22A	**Casper**	**83.10**	**43**	IAmb	IAmb	16 58 59.2	
	comp=Z,6.8nm,0.6s						
MMAI	**Mount Meron Ar**	**83.12**	**305**	P	**P**	**16 58 58.0**	**+0.2**
	comp=Z,2.8nm,0.7s,baz=54,slow=7.3,SNR=5.3						
MMAI				LR	LR	17 39 32.5	
	comp=Z,29nm,19.8s,baz=126,slow=38						
	comp=Z,2.8nm,0.7s						
VYHS	**Vyhne**	**83.14**	**325**	*e*P	**P**	**16 58 58.4**	**+0.9**
VYHS	**Vyhne**	**83.14**	**325**	*e*P	**P**	**16 58 58.4**	**+0.9**
GZR	**Gura Zlata**	**83.24**	**321**	⇑P	**P**	**16 58 58.5**	**+0.3**
GZR	**Gura Zlata**	**83.24**	**321**	⇑P	**P**	**16 58 58.5**	**+0.3**
SURR	**Surduc**	**83.34**	**321**	⇓P	**P**	**16 58 59.3**	**+0.8**
KEPZ	**Antalya-Kepez**	**83.38**	**310**	⇑P	**P**	**16 58 59.3**	**+0.3**
ULM	**Lac du Bonnet**	**83.41**	**32**	P	**P**	**16 58 59.2**	**+0.3**
	comp=Z,3.3nm,0.7s,baz=326,slow=6.7,SNR=5.1						
	comp=Z,3.3nm,0.7s						
BAND	**Balkesir-Ban**	**83.45**	**314**	⇑P	**P**	**16 59 00.0**	**+0.7**
HMU	**Henry Mountain**	**83.49**	**49**	IAmb	IAmb	16 59 02.2	
	comp=Z,14nm,0.7s						
SRE	**Strehaia**	**83.49**	**320**	⇑P	**P**	**16 59 00.4**	**+1.0**
SRE	**Strehaia**	**83.49**	**320**	⇑P	**P**	**16 59 00.4**	**+1.0**
VRAC	**Vranov**	**83.62**	**327**	⇑P	**P**	**16 59 00.7**	**+0.7**
VRAC	**Vranov**	**83.62**	**327**	⇑P	**P**	**16 59 00.7**	**+0.7**
BRG	**Berggiesshubel**	**83.68**	**329**	*e*P	**P**	**16 59 00.6**	**+0.3**
BRG				Amp		16 59 03.8	
	comp=Z,2.8nm,0.7s						
BZS	**Buzias**	**83.70**	**322**	⇑P	**P**	**16 59 00.5**	**+0.1**
BZS	**Buzias**	**83.70**	**322**	⇑P	**P**	**16 59 00.5**	**+0.1**
CLL	**Collm**	**83.77**	**330**	*i* P	**P**	**16 59 00.6**	**0.0**
CLL				pmax	pmax		
	comp=Z,13nm,1.2s						
CLL	**Collm**	**83.77**	**330**	*i* P	**P**	**16 59 00.6**	**0.0**
	comp=Z,13nm,1.2s						
CLL				*e*PP	**PP**	**17 02 15.0**	**+0.5**
SMOL	**Smolenice**	**83.80**	**326**	*e*P	**P**	**16 59 02.2**	**+1.3**
SMOL				pmax	pmax		
	comp=Z,6.0nm,0.7s						
GHAJ	**Ghor Haditha**	**84.00**	**303**	IAmb	IAmb	16 59 03.7	
	comp=Z,17nm,0.6s						
PRU	**Pruhonice**	**84.06**	**328**	*e*P	**P**	**16 59 03.3**	**+1.1**
PRU	**Pruhonice**	**84.06**	**328**	*e*P	**P**	**16 59 03.3**	**+1.1**
HSKC	**Hora Svate Kat**	**84.10**	**329**	*e*P	**P**	**16 59 02.3**	**-0.1**
PPT	**Papeete**	**84.11**	**115**	LR	LR	17 35 36.5	
	comp=Z,34nm,19.3s,baz=328,slow=35						
PPT2	**Papeete2**	**84.12**	**115**	*e*LR	LR	17 25 20.9	
	comp=Z,97nm,27.0s						
TREC	**Trest**	**84.14**	**327**	*e*P	**P**	**16 59 03.9**	**+1.3**
TREC	**Trest**	**84.14**	**327**	*e*P	**P**	**16 59 03.9**	**+1.3**
MDVR	**Moldovita**	**84.21**	**321**	⇓P	**P**	**16 59 03.2**	**+0.1**
PV22	**Blue Mesa, Par**	**84.34**	**47**	IAmb	IAmb	16 59 07.4	
	comp=Z,14nm,0.6s						
PV04	**Paradox Valley**	**84.35**	**47**	IAmb	IAmb	16 59 07.6	
	comp=Z,24nm,0.8s						
PV16	**Nyswonger Mesa**	**84.40**	**47**	IAmb	IAmb	16 59 06.9	
	comp=Z,16nm,0.6s						
PV03	**Paradox Valley**	**84.47**	**47**	IAmb	IAmb	16 59 08.0	
	comp=Z,36nm,1.1s						
PV07	**Paradox Valley**	**84.48**	**47**	IAmb	IAmb	16 59 07.2	
	comp=Z,33nm,1.7s						
PV02	**Paradox Valley**	**84.57**	**47**	IAmb	IAmb	16 59 07.8	
	comp=Z,19nm,0.8s						
ABNA	**Allensteig Bun**	**84.61**	**327**	*e*PcP	**P**	**16 59 05.9**	**+0.8**
	comp=Z,7.6nm,0.8s						
PV15	**Paradox Valley**	**84.65**	**47**	IAmb	IAmb	16 59 09.9	
	comp=Z,11nm,0.7s						
WINA	**Alland / Wiene**	**84.72**	**326**	*i* PcP	**P**	**16 59 06.7**	**+1.2**
	comp=Z,18nm,1.4s						
RONA	**Rosalia, Austr**	**84.91**	**326**	*e*PcP	**P**	**16 59 07.5**	**+0.9**
	comp=Z,7.5nm,1.1s						
CONA	**Conrad Observa**	**84.95**	**326**	*e*PcP	**P**	**16 59 07.9**	**+1.1**
	comp=Z,5.0nm,0.8s						
CKRC	**Cesky Krumlov**	**85.02**	**327**	*e*P	**P**	**16 59 07.4**	**+0.3**
CKRC	**Cesky Krumlov**	**85.02**	**327**	*e*P	**P**	**16 59 07.4**	**+0.3**
KHC	**Kasperske Hory**	**85.12**	**328**	*e*P	**P**	**16 59 07.9**	**+0.3**
KHC	**Kasperske Hory**	**85.12**	**328**	*e*P	**P**	**16 59 07.9**	**+0.3**
GERES	**GERESS Array B**	**85.28**	**328**	P	**P**	**16 59 07.8**	**-0.6**
	comp=Z,3.8nm,0.7s,baz=30,slow=6.2,SNR=7.0						
GERES	**GERESS Array B**	**85.28**	**328**	P	**P**	**16 59 08.0**	**-0.4**
GERES	**GERESS Array B**	**85.28**	**328**	P	**P**	**16 59 08.0**	**-0.4**
ISCO	**Idaho Springs**	**85.45**	**45**	IAmb	IAmb	16 59 12.4	
	comp=Z,31nm,1.9s						
MOA	**Molln**	**85.75**	**327**	*i* PcP	**PcP**	**16 59 12.1**	**-1.2**
	comp=Z,15nm,1.5s						
BDRM	**Kayabasi**	**85.91**	**312**	⇑P	**P**	**16 59 11.6**	**-0.1**
SESA	**Seetaler Alpe,**	**86.14**	**326**	*i* PcP	**PcP**	**16 59 14.7**	**-0.7**
	comp=Z,14nm,1.0s						
SOKA	**Soboth**	**86.24**	**325**	*i* PcP	**PcP**	**16 59 14.7**	**-1.0**
	comp=Z,5.2nm,0.9s						
EKA	**Eskdalemuir Ar**	**86.30**	**340**	P	**P**	**16 59 13.5**	**+0.3**
	comp=Z,2.2nm,0.8s,baz=38,slow=4.6,SNR=4.2						
	comp=Z,2.2nm,0.8s						
TAOE	**Nuku Hiva Isla**	**86.53**	**103**	*e*LR	LR	17 26 48.4	
	comp=Z,338nm,29.5s						
OBKA	**Obir**	**86.59**	**326**	*e*PcP	**PcP**	**16 59 16.6**	**-0.6**
	comp=Z,14nm,1.4s						
MYKA	**Terra Mystica**	**86.93**	**326**	*i* PcP	**PcP**	**16 59 17.9**	**-0.7**
	comp=Z,10.0nm,1.1s						
ANMO	**Albuquerque**	**88.05**	**49**	⇓*e*P	**P**	**16 59 24.0**	**+1.7**
ANMO				pmax	pmax		
	comp=Z,27nm,5.7s						
SCHQ	**Schefferville**	**89.36**	**15**	P	**P**	**16 59 28.6**	**+0.7**
	comp=Z,5.4nm,0.7s,baz=2.6,slow=7.3,SNR=4.6						
SCHQ				LR	LR	17 41 42.4	
	comp=Z,85nm,18.7s,baz=89,slow=37						
	comp=Z,5.4nm,0.7s						
SCHQ	**Schefferville**	**89.36**	**15**	P	**P**	**16 59 27.2**	**-0.7**
G40A	**Rib Lake**	**89.67**	**33**	IAmb	IAmb	16 59 31.2	
	comp=Z,11nm,0.7s						
AMTX	**Amarillo**	**91.04**	**46**	IAmb	IAmb	16 59 38.5	
	comp=Z,17nm,1.1s						
TPB28		**91.41**	**50**	IAmb	IAmb	16 59 40.5	
	comp=Z,4.2nm,0.5s						
VHRN	**Van Horn**	**91.67**	**51**	IAmb	IAmb	16 59 44.9	
	comp=Z,19nm,1.9s						
SMWD	**Samnorwood**	**91.76**	**45**	IAmb	IAmb	16 59 41.8	
	comp=Z,6.5nm,0.7s						
LPIG	**La Paz**	**92.22**	**59**	LR	LR	17 42 44.4	
	comp=Z,49nm,18.2s,baz=360,slow=36						
DKNS	**Dickens**	**92.33**	**47**	IAmb	IAmb	16 59 45.1	
	comp=Z,11nm,0.7s						
TPB05	**Hovey Rd**	**92.66**	**50**	IAmb	IAmb	16 59 46.0	
	comp=Z,6.5nm,0.7s						
WMOK	**Wichita Mounta**	**92.88**	**45**	IAmb	IAmb	16 59 46.3	
	comp=Z,4.5nm,0.8s						
P40A	**Paris**	**93.13**	**38**	IAmb	IAmb	16 59 47.2	
	comp=Z,5.5nm,0.7s						
SGCY	**Sterling City**	**93.39**	**48**	IAmb	IAmb	16 59 48.7	
	comp=Z,15nm,1.1s						
TXAR	**Lajitas Array**	**93.48**	**52**	P	**P**	**16 59 48.6**	**+1.1**
	comp=Z,10.0nm,0.7s,baz=294,slow=3.1,SNR=114						
TXAR				LR	LR	17 36 46.5	
	comp=Z,54nm,20.8s,baz=12,slow=32						
TXAR	**Lajitas Array**	**93.48**	**52**		**P**	**16 59 48.0**	**+0.4**
SADO	**Sadowa**	**94.68**	**27**	LR	LR	17 45 31.6	
	comp=Z,37nm,18.1s,baz=342,slow=37						
TORD	**Torodi Ar. Bea**	**119.03**	**312**	PKP	**PKPdf**	**17 05 19.3**	**-1.0**
	comp=Z,0.6nm,0.5s,baz=57,slow=2.1,SNR=5.7						
QSPA	**South Pole Qui**	**122.95**	**180**	PKP	**PKPdf**	**17 05 26.0**	**-0.2**
	comp=Z,3.0nm,0.7s,baz=242,slow=1.2,SNR=28						
TROLL	**Troll, Antarti**	**135.20**	**197**	⇑PKPdf	**PKiKP**	**17 05 51.4**	**+0.4**
	comp=Z,158nm,0.7s						
TROLL				⇓SKPbc	**SKPbc**	**17 09 09.3**	**+0.2**
	comp=Z,213nm,0.5s						
SNAA	**Sanae**	**136.72**	**196**	SKPbc	**SKPbc**	**17 09 12.8**	**-0.9**
	comp=Z,1.8nm,0.7s,baz=151,slow=2.3,SNR=5.2						
VNA2	**Neumayer--Watz**	**138.29**	**196**	SKPbc	**SKPbc**	**17 09 18.3**	**+0.1**
	comp=Z,7.0nm,0.6s,slow=1.7						
LPAZ	**La Paz**	**149.65**	**63**	PKPbc	**PKPbc**	**17 06 22.1**	**+0.2**
	comp=Z,7.8nm,0.6s,baz=183,slow=1.7,SNR=26						
LPAZ	**La Paz**	**149.65**	**63**		**PKiKP**	**17 06 23.6**	**+0.8**
PLCA	**Paso Flores**	**154.66**	**116**	PKPbc	**PKiKP**	**17 06 32.2**	**+0.3**
	comp=Z,1.3nm,0.6s,baz=284,slow=4.2,SNR=4.6						
PLCA				PKPab	**PKPab**	**17 06 48.3**	**+1.1**
	comp=Z,3.4nm,0.7s,baz=218,slow=5.2,SNR=7.7						

SNET ***25*** *16:50:44.8±0.9, 12°.80N×88°.94W, h27^{km}±22^{km}, ML4.2,*
Presumed earthquake
CATAC ***25*** *16:50:44.6±0.3, 13°N±2°×8°9W±°, h24^{km}±2^{km}, M4.3/42,*
MLv4.3/42, Error ellipse: s-maj=4.3km s-min=1.7km
az=33.6, confirmed
GCG ***25*** *16:50:48.4±1.0, 13°.01N×89°.04W, h34^{km}±7^{km}, MD4.6,*
ML4.8, Presumed earthquake
IDC ***25*** *16:50:51.2±2.1, 13°.34N×88°.84W, h82^{km}±22^{km}, mb3.3/4,*
mbtmp3.7/6, MS3.4/2, Error ellipse: s-maj=83.3km
s-min=22.1km az=43.0
ISC 25 16:50:44.1±1.2, **12°.80N**±0°.04×**88°.95W**±0°.03, **h32**^{km}±9^{km},
n102, σ**1**^{s}**27**/149, **mb3.5**/4, **5C-35D, Off coast of central**
America

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ALJI	**Alcalda de J**	**0.64**	**35**	⇓*i*P	**Pn**	**16 50 57.6**	**+0.6**
ALJI				*e*S	**Sn**	**16 51 06.7**	**+0.6**
ALJI	**Alcalda de J**	**0.64**	**35**	⇓P	**Pn**	**16 50 57.6**	**+0.6**
ALJI				S	**Sn**	**16 51 07.0**	**+0.9**
TECO	**Alcaldia de Te**	**0.75**	**12**	⇓*i*P	**Pn**	**16 50 58.9**	**+0.3**
TECO	**Alcaldia de Te**	**0.75**	**12**	⇓P	**Pn**	**16 50 58.9**	**+0.3**
TECO				S	**Sn**	**16 51 09.2**	**+0.3**
LALI	**Alcalda de L**	**0.78**	**332**	*i* P	**Pb**	**16 50 59.5**	**+0.2**
LALI	**Alcalda de L**	**0.78**	**332**	*e*P	**Pb**	**16 50 59.4**	**+0.2**
LALI	**Alcalda de L**	**0.78**	**332**	⇓P	**Pb**	**16 50 59.4**	**+0.2**
LALI				S	**Sb**	**16 51 09.7**	**+0.2**
SJTE	**Alcalda de S**	**0.81**	**356**	*e*P	**Pb**	**16 50 59.5**	**-0.4**
SJTE				*e*S	**Sb**	**16 51 10.5**	**-0.1**
JUCU	**Jucuar¡n**	**0.82**	**56**	⇓*e*P	**Pb**	**16 50 59.8**	**-0.1**
JUCU				*e*S	**Sn**	**16 51 10.7**	**+0.1**
TECA	**Tecapa**	**0.82**	**32**	⇓*i*P	**Pn**	**16 51 00.1**	**+0.5**
COEG	**Centro de Oper**	**0.82**	**4**	⇓*i*P	**Pb**	**16 50 59.7**	**-0.2**
COEG	**Centro de Oper**	**0.82**	**4**	⇓P	**Pb**	**16 50 59.8**	**-0.2**
COEG				S	**Sb**	**16 51 10.6**	**-0.2**
LFRS	**El Faro**	**0.83**	**352**	⇑*e*P	**Pb**	**16 50 60.0**	**-0.2**
PANCS	**Alcalda de**	**0.84**	**344**	*e*P	**Pb**	**16 50 60.0**	**-0.3**
PANCS	**Alcalda de**	**0.84**	**344**	P	**Pb**	**16 51 00.0**	**-0.3**
PANCS				S	**Sb**	**16 51 10.7**	**-0.6**
LOMA	**Loma Larga**	**0.87**	**345**	⇓*e*P	**Pb**	**16 51 00.7**	**-0.2**
LOMA	**Loma Larga**	**0.87**	**345**	⇓P	**Pb**	**16 51 00.7**	**-0.2**
LOMA				S	**Sb**	**16 51 12.1**	**-0.1**
LCY	**Lacayo**	**0.89**	**45**	*e*P	**Pb**	**16 51 00.9**	**-0.2**
RANC	**El Ranchito**	**0.90**	**45**	⇑*e*P	**Pb**	**16 51 01.2**	**-0.2**
RANC	**El Ranchito**	**0.90**	**45**	⇑P	**Pb**	**16 51 01.2**	**-0.2**
RANC				S	**Sn**	**16 51 14.3**	**+1.6**
PACA	**Pacayal**	**0.90**	**42**	⇓*e*P	**Pn**	**16 51 01.2**	**+0.5**
PACA				*e*S	**Sn**	**16 51 13.3**	**+0.6**
PACA	**Pacayal**	**0.90**	**42**	⇓P	**Pn**	**16 51 01.3**	**+0.5**
PACA				S	**Sn**	**16 51 13.7**	**+1.0**
PQSS	**Presa 15 de Se**	**0.90**	**24**	*e*P	**Pn**	**16 51 01.7**	**+1.0**
PQSS	**Presa 15 de Se**	**0.90**	**24**	P	**Pn**	**16 51 01.6**	**+1.0**
PQSS				S	**Sn**	**16 51 14.4**	**+1.8**
PAVA	**Las Pavas**	**0.91**	**0**	⇓*e*P	**Pb**	**16 51 01.3**	**-0.2**

PAVA	Las Pavas	0.91	0	⇓P	Pb	16 51 01.3	-0.2
PAVA				S	Sn	16 51 13.5	+0.6
UTEC	Universidad Te	0.93	344	P	Pb	16 51 01.5	-0.3
UTEC				S	Sb	16 51 13.6	-0.3
IGN	Direccin Gen	0.94	346	P	Pn	16 51 01.9	+0.8
IGN				S	Sn	16 51 14.0	+0.5
SEMO	Seminario San	0.94	343	P	Pb	16 51 01.8	-0.2
SEMO				S	Sb	16 51 14.0	-0.1
BLLM	Bellamira	0.94	47	⇑*e*P	Pb	16 51 01.7	-0.3
MAGS	Ministerio de	0.94	339	*e*P	Pb	16 51 01.8	-0.3
INTP	Intipuca	0.95	65	*e*P	Pb	16 51 01.8	-0.4
UEES	Universidad Ev	0.96	343	*e*P	Pb	16 51 01.9	-0.3
UEES	Universidad Ev	0.96	343	⇓P	Pb	16 51 02.0	-0.3
UEES				S	Sb	16 51 14.5	-0.1
LFU	La Fuente	0.96	350	*e*P	Pb	16 51 02.0	-0.3
PMON	Piamonte	0.98	338	⇓*i*P	Pb	16 51 02.4	-0.2
PMON	Piamonte	0.98	338	⇓P	Pb	16 51 02.4	-0.2
PMON				S	Sb	16 51 15.1	-0.2
JAYA	Jayaque - finc	0.98	330	*i* P	Pb	16 51 02.4	-0.4
JAYA				*i* S	Sb	16 51 14.2	-1.3
JAYA				IAML		16 51 15.7	
	comp=E,73µm,0.3s						
JAYA	Jayaque - finc	0.98	330	⇓*i*P	Pb	16 51 02.4	-0.4
JAYA	Jayaque - finc	0.98	330	⇓P	Pb	16 51 02.4	-0.4
JAYA				S	Sb	16 51 14.9	-0.5
BOQS	Boqueron	0.99	341	⇓*i*P	Pb	16 51 02.7	-0.2
PIC2	El Picacho	0.99	342	⇓*e*P	Pn	16 51 02.9	+0.8
CEDA	San Andres	1.09	336	*e*P	Pn	16 51 04.0	+0.7
CEDA	San Andres	1.09	336	P	Pn	16 51 04.1	+0.9
CEDA				S	Sn	16 51 18.2	+0.9
LCND	La Caada	1.15	64	⇓*e*P	Pn	16 51 04.6	+0.6
LCND	La Caada	1.15	64	⇓P	Pn	16 51 04.6	+0.6
CNCH	Conchagua	1.18	66	⇓*e*P	Pn	16 51 04.9	+0.4
CNCH	Conchagua	1.18	66	⇓P	Pn	16 51 05.0	+0.4
CNCH				S	Sb	16 51 20.9	-0.2
P5NO	Presa 5 de nov	1.20	9	P	Pn	16 51 05.6	+0.9
P5NO				S	Sb	16 51 21.5	+0.1
CEVE	Cerro Verde	1.22	327	*e*P	Pn	16 51 06.0	+0.8
CEVE	Cerro Verde	1.22	327	P	Pn	16 51 06.0	+0.8
CEVE				S	Sb	16 51 22.4	+0.1
SBLS	San Blas	1.23	328	*e*P	Pn	16 51 06.1	+0.8
SNJE	San Jose	1.24	329	⇓*e*P	Pn	16 51 06.3	+0.8
RTR	El Retiro	1.29	328	*e*P	Pn	16 51 07.2	+1.1
UNIC	Universidad Ca	1.31	334	P	Pn	16 51 07.4	+1.0
UNIC				S	Sb	16 51 24.3	-0.6
LLGN	La Laguna	1.36	0	*e*P	Pn	16 51 08.0	+1.0
LLGN	La Laguna	1.36	0	⇓P	Pn	16 51 08.0	+1.0
LLGN				S	Sb	16 51 25.6	-0.5
NUBE	Las Nubes	1.37	324	*i* P	Pn	16 51 07.8	+0.7
NUBE				*i* S	Sn	16 51 23.4	-0.9
NUBE				IAML		16 51 26.6	
	comp=N,8µm,0.2s						
NUBE	Las Nubes	1.37	324	⇓*e*P	Pn	16 51 07.9	+0.7
NUBE	Las Nubes	1.37	324	⇓P	Pn	16 51 07.9	+0.7
NUBE				S	Sn	16 51 24.8	+0.6
POTN	Potosi Cosigui	1.42	82	P	Pn	16 51 08.4	+0.8
POTN				S	Sb	16 51 27.1	-0.6
LOAL	Lomas de Alarc	1.44	326	P	Pn	16 51 09.8	+1.7
LOAL				S	Sb	16 51 28.8	+0.3
FAME	Alcaldia de Sa	1.47	315	P	Pn	16 51 09.1	+0.6
FAME				S	Sn	16 51 28.2	+1.6
RBDL	Robledal	1.49	331	⇓*i*P	Pn	16 51 10.1	+1.2
MTO3	Montecristo	1.64	346	*i* P	Pn	16 51 12.1	+1.0
MTO3	Montecristo	1.64	346	⇓*i*P	Pn	16 51 12.0	+1.0
MTO3	Montecristo	1.64	346	⇓P	Pn	16 51 12.1	+1.0
MTO3				S	Sn	16 51 32.2	+1.0
JUAM	Asuncion Mita	1.70	334	*i* P	Pn	16 51 12.8	+1.2
ESQI	Esquipulas	1.79	348	⇓P	Pn	16 51 14.5	+1.5
ESQI				S	Sn	16 51 36.1	+1.4
CRIN	San Cristobal	1.85	93	P	Pn	16 51 15.9	+2.1
CRIN				S	Sn	16 51 37.4	+1.3
SARH	Santa Rosa de	1.97	5	*i* P	Pn	16 51 17.0	+1.6
SARH	Santa Rosa de	1.97	5	P	Pn	16 51 17.3	+1.8
SARH				S	Sn	16 51 40.7	+1.5
TGUH	Tegucigalpa,Un	2.05	52	⇓P	Pn	16 51 17.8	+1.2
TGUH				S	Sn	16 51 42.3	+1.1
QUEN	Al S del Volca	2.05	95	P	Pn	16 51 17.2	+0.7
TEL3	Telica 3	2.06	96	P	Pn	16 51 16.8	+0.3
PLRN	Geotermica Pol	2.13	95	P	Pn	16 51 18.2	+0.6
PLRN				S	Sn	16 51 45.3	+2.2
CNGA	Al SSO del Vol	2.21	98	⇑P	Pn	16 51 18.6	-0.1
CNGN	Cerro Negro	2.21	97	P	Pn	16 51 19.6	+1.0
CNGN				S	Sn	16 51 46.1	+1.1
MOMN	Momotombo	2.38	99	P	Pn	16 51 22.3	+1.3
MOMN				S	Sn	16 51 50.7	+1.6
MOM3	MOM3	2.39	97	P	Pn	16 51 22.0	+1.0
MOM2	El Cardon	2.43	98	P	Pn	16 51 22.9	+1.3
MOM2				S	Sn	16 51 52.7	+2.4
APG	El Apazote	2.64	326	P	Pn	16 51 26.5	+1.7
	comp=N,1.0nm,0.3s,baz=122,slow=11,SNR=13						
APG				S	Sb	16 52 01.7	-1.4
	comp=N,3.0nm,0.5s,baz=96,slow=15,SNR=4.4						
APG	El Apazote	2.64	326	*i* P	Pn	16 51 26.4	+1.6
UNAN	Cigeo UNAN	2.70	104	P	Pn	16 51 27.4	+2.0
UNAN				S	Sn	16 51 57.5	+0.6
MGAN	Managua	2.71	104	S	Sn	16 51 58.1	+0.8
RCFN	Al S de San Ju	2.76	74	P	Pn	16 51 26.2	-0.1
WILN	Americas 2	2.77	103	P	Pn	16 51 27.6	+1.4
WILN				S	Sn	16 51 59.3	+0.7
RCVN	Varillal2	2.79	73	P	Pn	16 51 27.7	+1.0
MAS3	Al N del Volca	2.81	106	P	Pn	16 51 29.2	+2.3
MAS3				S	Sn	16 52 01.0	+1.2
MASN	Masaya	2.85	106	S	Sn	16 52 03.4	+2.7
RCPN	Sur Rio San Ju	2.87	75	P	Pn	16 51 29.3	+1.5
NANN	Nandasmo	2.89	107	S	Sn	16 52 03.6	+1.9
MATN	Matagalpa	2.95	87	P	Pn	16 51 29.7	+0.8
MATN				S	Sn	16 52 03.3	+0.1
JTS	Las Juntas de	4.64	122	P	Pb	16 52 02.3	-2.5
	comp=N,53nm,0.4s,baz=314,slow=6.6,SNR=44						
JTS				S	Sb	16 53 03.5	+3.2
	comp=N,94nm,0.9s,baz=294,slow=20,SNR=12						
CMIG	Matias Romero	7.15	307	P	Pn	16 52 30.0	+3.4
	comp=N,1.7nm,0.3s,baz=119,slow=9.1,SNR=9.3						
CMIG				S	Sn	16 53 55.0	+8.2
	comp=N,7.0nm,0.6s,baz=177,slow=18,SNR=4.5						
SDV	Santo Domingo	18.40	100	LR	LR	17 02 57.1	
	comp=N,36nm,18.9s,baz=60,slow=39						
TXAR	Lajitas Array	21.40	323	P	P	16 55 30.4	+1.0
	comp=N,0.8nm,0.5s,baz=139,slow=8.3,SNR=20						
	comp=N,0.8nm,0.5s						
PDAR	Pinedale Array	34.79	333	P	P	16 57 29.3	-2.8
	comp=N,0.3nm,0.6s,baz=132,slow=10,SNR=3.9						
	comp=N,0.3nm,0.6s						
NVAR	Mina Array Bea	36.49	320	P	P	16 57 45.5	-1.3
	comp=N,0.4nm,0.5s,baz=125,slow=6.7,SNR=2.6						
	comp=N,0.4nm,0.5s						
YKA	Yellowknife Ar	52.90	345	P	P	16 59 54.9	-2.0
	comp=N,1.1nm,0.5s,baz=132,slow=8.5,SNR=6.8						
YKA				LR	LR	17 27 16.2	
	comp=N,85nm,18.4s,baz=94,slow=42						
	comp=N,1.1nm,0.5s						
WRA	Warramunga Arr	137.96	254	PKP	PKPdf	17 10 06.3	-0.2
	comp=N,0.2nm,0.6s,baz=89,slow=2.4,SNR=7.2						
ASAR	Alice Springs	138.04	249	PKP	PKPdf	17 10 07.3	+0.7
	comp=N,0.1nm,0.5s,baz=92,slow=2.0,SNR=1.3						

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*NEIC **25** 17:10:11.0±1.0, 33°.951N±0°.007×116°.408W±0°.009, h5^{km}±1^{km}, ML3.5/116, ML3.7/213(PAS), Error ellipse: s-maj=1.7km s-min=1.2km az=165.0*

*IDC **25** 17:10:11.8±2.8, 33°.96N×116°.53W, h0^{km}, mb3.3/1, mbtmp3.2/4, ML3.7/3, Error ellipse: s-maj=50.9km s-min=16.6km az=51.0*

*PAS **25** 17:10:11.4±0.8, 33°.947N±0°.007×116°.396W±0°.009, h3^{km}±1^{km}, Error ellipse: s-maj=1.1km s-min=1.0km az=53.0*

ISC 25 17:10:11.9±0.8, **33°.94N**±0°.01×**116°.40W**±0°.01, **h9**^{km}±6^{km}, **n154**, σ**1**^{s}**10**/210, **Southern California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EW2	E Wide Canyon	0.01	299		Sg	17 10 13.1	-1.6
DEVC	Devers	0.15	269		Pg	17 10 14.9	-0.2
DEVC					Sg	17 10 17.6	+0.3
PMD	Palm Desert	0.29	176		Pg	17 10 17.0	-0.7
PMD				Sg	Sg	17 10 20.8	-0.7
PFO	Pinyon Flats O	0.33	188		Pg	17 10 17.8	-0.7
PFO				Sg	Sg	17 10 22.4	-0.5
PFO	Pinyon Flats O	0.33	188		Pg	17 10 17.8	-0.7
PFO					Sg	17 10 22.6	-0.2
XPFO	Pinon Flat	0.33	188		Pg	17 10 17.8	-0.7
XPFO					Sg	17 10 22.5	-0.4
BELC	Belle Mtn. Jos	0.34	79		Pg	17 10 17.9	-0.8
BELC				Sg	Sg	17 10 22.5	-0.8
BELC				IAML		17 10 23.1	
	comp=E,7µm,0.2s						
BELC				IAML		17 10 26.3	
	comp=N,7µm,0.6s						
GVDA	Garner Valley	0.35	220		Pg	17 10 18.3	-0.6
GVDA					Sg	17 10 23.3	-0.2
RAY	Raywood Flat	0.35	286		Pg	17 10 18.4	-0.6
RAY					Sg	17 10 24.0	+0.3
VG2	Vista Grande	0.35	253		Pg	17 10 18.3	-0.6
VG2					Sg	17 10 23.7	+0.1
GTM	Goat Mountain	0.36	6		Pg	17 10 17.9	-1.1
GTM					Sg	17 10 22.8	-1.0
DNR	Dunn Ranch,Anz	0.42	207		Pg	17 10 19.6	-0.5
DNR				Sg	Sg	17 10 25.5	-0.1
DNR				IAML		17 10 26.6	
	comp=N,7µm,0.3s						
SNDA	J Saunders Pla	0.42	205		Pg	17 10 19.8	-0.5
SNDA					Sg	17 10 25.8	0.0
CTCC	Cactus City	0.44	129		Pg	17 10 20.2	-0.4
CTCC					Sg	17 10 26.7	+0.3
CRY	Cary Ranch	0.47	217		Pg	17 10 20.5	-0.5
CRY					Sg	17 10 26.8	-0.4
MLL	Mill Creek	0.47	289		Pg	17 10 20.5	-0.6
MLL					Sg	17 10 27.3	0.0
FRD	Ford Ranch, An	0.47	201		Pg	17 10 20.6	-0.5
FRD					Sg	17 10 27.3	-0.1
FRD	Ford Ranch, An	0.47	201		Pg	17 10 20.6	-0.5
FRD					Sg	17 10 27.1	-0.2
BBSC	Beaumont Base	0.48	268		Pg	17 10 20.9	-0.4
BBSC					Sg	17 10 27.9	+0.3
BZNA	Buzz No.'s Pla	0.50	206		Pg	17 10 21.1	-0.5
BZNA					Sg	17 10 28.1	0.0
POB	Polly Butte	0.50	240		Pg	17 10 21.2	-0.5
POB					Sg	17 10 28.4	+0.1
CTW	Cottonwood Mou	0.51	120		Pg	17 10 21.4	-0.5
CTW					Sg	17 10 28.3	-0.3
BBRC	Big Bear Solar	0.54	307		Pg	17 10 21.7	-0.8
BBRC					Sg	17 10 29.5	-0.1
SIL	Silver Peak	0.54	319		Pg	17 10 21.7	-0.8
SIL					Sg	17 10 29.3	-0.3
HMTC	Hemet	0.55	246		Pg	17 10 22.0	-0.6
HMTC					Sg	17 10 29.8	-0.1
DGR	Domenigoni Val	0.58	241		Pg	17 10 22.6	-0.7
DGR					Sg	17 10 30.4	-0.4
CFT	Crafton Hills	0.60	280		Pg	17 10 23.1	-0.4
SVD	Seven Oaks Dam	0.60	286		Pg	17 10 22.9	-0.7
SVD					Sg	17 10 31.3	-0.2
BACC	Bachelor Mtn.	0.62	239		Pg	17 10 23.3	-0.7
BACC					Sg	17 10 31.8	-0.3
HAY	Hayfield	0.64	111		Pg	17 10 24.2	-0.1
HAY					Sg	17 10 33.2	+0.5
BORC	Borrego Spring	0.67	181		Pg	17 10 24.1	-0.7
BORC					Sg	17 10 32.8	-0.8
PLM	Palomar	0.70	213		Pg	17 10 24.9	-0.5
PLM					Sg	17 10 34.4	-0.2
HLNC	Highland	0.70	285		Sg	17 10 34.6	-0.1
MURC	Murrieta	0.74	243		Pg	17 10 25.4	-0.8
MURC					Sg	17 10 35.5	-0.4
SALN	Salton City	0.74	152		Pg	17 10 25.8	-0.4
SALN				Sg	Sg	17 10 36.5	+0.6
MATG	Mataguay Scout	0.76	196		Pg	17 10 26.1	-0.6
MATG					Sg	17 10 36.6	-0.1
RSBC	Riverside Bore	0.77	273		Pg	17 10 25.4	-1.4
RSBC					Sg	17 10 35.8	-1.0
RSBC	Riverside Bore	0.77	273		Pg	17 10 25.9	-0.9
RSBC					Sg	17 10 35.8	-1.0
CLTC	Calectric	0.78	282		Sb	17 10 37.5	-0.8
BRGC	Borrego Mounta	0.79	166		Pg	17 10 26.7	-0.4
BOMB	Bombay Beach	0.80	135		Pg	17 10 27.0	-0.3
BOMB					Sb	17 10 38.9	-0.1
5271	Bombay Beach	0.81	136		Sb	17 10 39.2	0.0
RVR	Riverside	0.81	274		Pg	17 10 26.4	-1.1
RVR					Sg	17 10 36.9	-1.2
FRK	Frink	0.83	130		Pg	17 10 26.9	-1.1
FRK					Sg	17 10 38.5	-0.3
BC3	Big Chuckawall	0.84	109		Pg	17 10 27.4	-0.7
BC3				Sg	Sg	17 10 38.4	-0.6
BC3				IAML		17 10 41.5	
	comp=N,2µm,0.8s						
BC3				IAML		17 10 42.6	
	comp=E,1µm,0.4s						
JUEM	Julian Eagle M	0.87	191		Pg	17 10 28.0	-0.7
JUEM					Sg	17 10 39.3	-0.8
HEC	Hector,Ludlow	0.89	4		Pg	17 10 27.8	-1.3
HEC					Sg	17 10 39.9	-0.8
ELS	Elsinore Mount	0.90	252		Pg	17 10 28.1	-1.2
ELS				Sg	Sg	17 10 39.9	-1.1
ELS				IAML		17 10 40.3	
	comp=N,1µm,0.5s						
ELS				IAML		17 10 44.2	
	comp=E,1µm,0.3s						
ERRC	Elmore Ranch	0.95	149		Sb	17 10 43.3	0.0
MLSC	Mira Loma	0.97	274		Sg	17 10 41.8	-1.3
VTV	Victorville	0.99	309		Pg	17 10 29.7	-1.3
VTV					Sg	17 10 42.8	-1.0
DPP	Dos Picos Cty	1.04	206		Pg	17 10 30.4	-1.5
DPP				Sg	Sg	17 10 43.8	-1.6
DPP				IAML		17 10 45.0	
	comp=N,1µm,0.4s						
DPP				IAML		17 10 47.4	
	comp=E,1µm,0.2s						
GORC	Green Oak Ranc	1.04	222		Pg	17 10 30.5	-1.5
GMRC	Granite Mounta	1.04	36		Pg	17 10 30.5	-1.5
ADO	Adelanto Recei	1.05	306		Pg	17 10 31.3	-0.8
RRX	Edison Barstow	1.06	332		Pg	17 10 31.2	-1.0
IRM	Iron Mountain	1.07	78		Pg	17 10 31.1	-1.4
IRM				Sg	Sg	17 10 45.2	-1.1
IRM				IAML		17 10 47.7	
	comp=E,1µm,0.3s						
IRM				IAML		17 10 48.4	
	comp=N,1µm,0.3s						
BFSC	Mount Baldy Ra	1.08	286		Pg	17 10 31.4	-1.4
BFSC				Sg	Sg	17 10 45.8	-1.1
BFSC				IAML		17 10 50.0	
	comp=E,1µm,0.4s						
BFSC				IAML		17 10 50.5	
	comp=N,903nm,0.6s						
DANC	Danby, Needles	1.10	50		Pg	17 10 31.6	-1.4
DANC				Sg	Sg	17 10 46.8	-0.5
EML	El Monte Cty P	1.11	200		Pg	17 10 31.8	-1.4
CRR	Carrizo Plain	1.11	161		Pg	17 10 31.4	-1.8
SWSC	Sam W. Stewart	1.11	153		Pg	17 10 31.2	-2.1
ALV	Alvord Mountai	1.14	351		Pg	17 10 32.3	-1.5
SLVP	Salvation Pass	1.15	127		Pg	17 10 32.2	-1.9
TMC	Table Mountain	1.16	293		Pg	17 10 32.8	-1.3
PSRC	Puddingstone R	1.18	278		Pg	17 10 33.2	-1.3
BAR	Barrett	1.27	190		Pg	17 10 34.6	-1.8
BAR				Sg	Sg	17 10 50.8	-2.1
BAR				IAML		17 10 52.1	
	comp=E,679nm,0.2s						
BAR				IAML		17 10 52.5	
	comp=N,1µm,0.2s						
SDRC	San Diego Road	1.28	201		Pg	17 10 34.7	-1.8
HOLC	Holcomb Ridge	1.30	294		Pg	17 10 35.4	-1.6
SDMC	San Diego Miss	1.30	208		Pg	17 10 35.2	-1.8
IKP	In-Ko-Pah, Jac	1.31	169		Pg	17 10 34.7	-2.3
HYS	Haystack Butte	1.34	314		Pg	17 10 35.6	-2.0
YUH	Yuha Desert	1.35	163		Pn	17 10 34.7	-2.3
YUH					Sg	17 10 51.5	-3.8
DUZA	Dulzura	1.36	193		Pn	17 10 36.1	-1.1
OLP	Otay Lakes Par	1.40	199		Pn	17 10 37.0	-0.7
GSC	Goldstone, Bar	1.40	346		Pn	17 10 36.5	-1.3
GSC					Sg	17 10 55.9	-1.1
GSC				IAML		17 11 03.9	
	comp=N,385nm,0.6s						
GSC				IAML		17 11 09.4	
	comp=E,636nm,0.8s						
MWC	Mount Wilson	1.40	282		Pn	17 10 37.0	-0.9
MWC					Sg	17 10 55.3	-1.8
PASC	Pasadena Art C	1.50	279		Pn	17 10 38.4	-0.7
PASC					Sn	17 10 57.9	-0.9
PASC				IAML		17 11 03.7	
	comp=N,1µm,0.6s						
TJX	Tijuana	1.52	201		Pn	17 10 38.5	-1.0
TJX					Sn	17 10 58.9	-0.6
BLYC	Blythe	1.57	96		Pn	17 10 40.4	+0.3
BLYC					Sn	17 11 01.3	+0.7
BLYC				IAML		17 11 03.3	
	comp=E,655nm,0.4s						
BLYC				IAML		17 11 05.6	
	comp=N,644nm,0.4s						
CBX	Cerro Bola	1.64	188		Pn	17 10 40.2	-0.8
CBX					Sn	17 11 01.8	-0.5
MTPC	Mountain Pass	1.69	24		Pn	17 10 40.8	-1.1
MTPC				IAML		17 11 05.5	
	comp=N,368nm,0.6s						
MTPC				IAML		17 11 06.1	
	comp=E,504nm,0.4s						
CCCA	Chr Cany lake	1.77	334		Pn	17 10 41.9	-1.0
CCCA				IAML		17 11 12.7	
	comp=N,596nm,0.8s						
CCCA				IAML		17 11 21.5	
	comp=E,592nm,0.6s						
CPBX	Cerro Prieto	1.77	148		Pn	17 10 41.9	-1.0
CPBX				IAML		17 11 23.9	
	comp=N,445nm,0.5s						
CPBX				IAML		17 11 28.3	
	comp=E,492nm,0.6s						
TPO	Tropico Hills	1.78	302		Pn	17 10 41.9	-1.1
TPO				IAML		17 11 10.9	
	comp=E,677nm,0.7s						
TPO				IAML		17 11 11.9	
	comp=N,809nm,0.6s						
LRMC	Laurel Mtn Rad	1.86	326		Pn	17 10 43.0	-1.2
LRMC				IAML		17 11 17.2	
	comp=E,272nm,0.5s						
LRMC				IAML		17 11 19.2	
	comp=N,277nm,0.5s						
SHOC	Shoshone, Teco	1.96	3		Pn	17 10 44.2	-1.2
ESJX	Sierra Juarez	1.96	169		Pn	17 10 44.8	-0.9
OSI	Osito Audit: C	2.04	290		Pn	17 10 46.2	-0.3
OSI				IAML		17 11 20.4	
	comp=E,306nm,0.7s						
OSI				IAML		17 11 24.0	
	comp=N,461nm,0.6s						
QSM	Queen of Sheba	2.06	349		Pn	17 10 45.6	-1.2
QSM				IAML		17 11 20.3	
	comp=E,217nm,0.4s						
QSM				IAML		17 11 29.5	
	comp=N,208nm,0.7s						
CLC	China Lake	2.12	333		Pn	17 10 46.0	-1.6
GWY	Greenwater Val	2.25	355		Pn	17 10 48.2	-1.4
MPMC	Manual Prospec	2.30	337		Pn	17 10 49.0	-1.2
W13A	Hualapai Mount	2.38	60		Pn	17 10 49.8	-1.6
W13A				IAML		17 11 34.0	
	comp=N,148nm,0.9s						
W13A				IAML		17 11 36.9	
	comp=E,138nm,0.6s						
LVN	Las Vegas	2.40	25	Pn	Pn	17 10 50.3	-1.2
ISA	Isabella, Lake	2.42	316		Pn	17 10 50.8	-1.1
113A	Mohawk Valley,	2.50	117		Pn	17 10 53.0	+0.2
FURC	Furnace Creek,	2.55	352		Pn	17 10 53.0	-0.5
FURC				IAML		17 11 47.3	
	comp=N,365nm,0.9s						
VTX	Valle De La Tr	2.59	168		Pn	17 10 53.9	-0.3
VTX				IAML		17 11 36.9	
	comp=N,111nm,0.7s						
VTX				IAML		17 11 39.0	
	comp=E,118nm,0.7s						
Y14A	Wickenburg	2.83	89		Pn	17 10 56.2	-1.1
Y14A				IAML		17 11 47.4	
	comp=N,174nm,0.6s						
Y14A				IAML		17 11 50.8	
	comp=E,129nm,0.6s						
CWC	Cottonwood Cre	2.85	332		Pn	17 10 56.8	-1.0
WCT	Wildcat Mounta	2.85	356		Pn	17 10 57.3	-0.5
VES	Vestal, Richgr	2.91	311		Pn	17 10 57.6	-0.9
VES				IAML		17 11 49.5	
	comp=E,143nm,1.6s						
VES				IAML		17 11 57.4	
	comp=N,143nm,0.8s						
TPNV	Topopah Spring	3.01	2		Pn	17 10 58.7	-1.3
TPNV				IAML		17 11 49.9	
	comp=N,109nm,0.6s						
TPNV				IAML		17 11 50.5	
	comp=N,152nm,0.5s						
GRAC	Grapevine Rang	3.15	346	Pn	Pn	17 11 01.4	-0.5
GRAC				IAML		17 11 56.9	
	comp=N,155nm,1.0s						
GRAC				IAML		17 12 01.5	
	comp=E,149nm,0.6s						
GMN	Gold Mountain	3.43	348		Pn	17 11 05.6	-0.2
PIX	Pinacate	3.43	133	Pn	Pn	17 11 06.5	+0.9
TIN	Tinemaha, Big	3.45	335		Pn	17 11 05.8	-0.2
PRN	Pahroc Range	3.63	17		Pn	17 11 08.6	+0.1
S11A	Rachel	3.74	8		Pn	17 11 10.1	+0.1
PKD	Bear Valley Ra	3.95	302		Pn	17 11 12.0	-0.8
PKD				IAML		17 12 12.2	
	comp=N,45nm,4.9s						
PKD				IAML		17 12 14.1	
	comp=E,53nm,4.2s						
LCMT	Little Creek M	4.01	39		Pn	17 11 12.6	-1.1
X16A	Lo Mia Camp, P	4.14	82		Pn	17 11 14.9	-0.7
TPH	Tonopah	4.18	351		Pn	17 11 16.0	-0.2
U15A	North Rim	4.18	52		Pn	17 11 15.4	-0.8
PMPB	Monarch Peak	4.26	303	Pn	Pn	17 11 17.4	+0.2
MDPB	Devils Postpil	4.28	330		Pn	17 11 18.2	+0.6
CCUT	Cedar City	4.37	34		Pn	17 11 18.9	+0.1
WUAZ	Wupatki	4.43	68		Pn	17 11 18.8	-0.7
WUAZ				IAML		17 12 37.2	
	comp=E,48nm,0.6s						
WUAZ				IAML		17 12 38.5	
	comp=E,45nm,0.6s						
HULI	Fort Hunter Li	4.48	299	Pn	Pn	17 11 17.9	-2.1
SZCU	Shurtz Canyon	4.54	35		Pn	17 11 18.5	-2.5
BBGB	Big Mountain B	4.62	306	Pn	Pn	17 11 22.1	0.0
LHV	Little Huntoon	4.63	339		Pn	17 11 22.5	+0.4
NV11	Mina Array Sit	4.70	343		Pn	17 11 23.2	-0.1
NVAR	Mina Array Bea	4.74	342	Pn	Pn	17 11 23.6	-0.2
	comp=E,2.2nm,0.3s,baz=160,slow=12,SNR=27						
NVAR				Pg	Pb	17 11 38.4	+3.0
	comp=E,1.9nm,0.3s,baz=163,slow=18,SNR=9.2						
NVAR				Lg	Lg	17 12 39.9	
	baz=155,slow=30						
	comp=E,2.2nm,0.4s						
NVAR				AML	AML		
NVAR	Mina Array Bea	4.74	342		Pn	17 11 23.4	-0.4
PKCU	Pink Cliffs	4.83	42		Pn	17 11 25.5	+0.4
Q09A	Carvers	4.93	353	Pn	Pn	17 11 26.6	+0.2
RYN	Ryan	4.98	341	Pn	Pn	17 11 27.4	+0.2
TUC	Tucson	4.99	107	Pn	Pn	17 11 25.5	-1.6
TUC				IAML		17 12 58.3	
	comp=E,17nm,1.6s						
SAO	San Andreas Ge	5.00	306	Pn	Pn	17 11 25.2	-1.9
PSUT	Pine Spring	5.03	23		Pn	17 11 27.6	-0.2
WAKR	Walker	5.17	333		Pn	17 11 29.7	-0.1
CMB	Columbia Colle	5.21	323	Pn	Pn	17 11 30.8	+0.6
KVN	Kaiserville	5.28	345		Pn	17 11 31.4	+0.2
X18A	Snowflake	5.38	82		Pn	17 11 32.9	+0.3
MHC	Mount Hamilton	5.45	310	Pn	Pn	17 11 33.3	-0.2
YERR	Yerington	5.53	336		Pn	17 11 35.1	+0.4
W18A	Petrified Fore	5.63	76		Pn	17 11 36.3	+0.3
PNTR	Pine Nut	5.75	334		Pn	17 11 38.2	+0.5
HMU	Henry Mountain	6.08	47	Pn	Pn	17 11 42.5	+0.2
PAHR	Pah Rah Range	6.23	338		Pn	17 11 44.4	+0.1
BEKR	Beckworth	6.71	333		Pn	17 11 50.8	-0.1
ELK	Elko	6.86	7		Pn	17 11 52.4	-0.6
MVCO	Mesa Verde	7.22	61		Pn	17 11 57.5	-0.4
121A	Cookes Peak, D	7.36	99		Pn	17 11 59.1	-0.6
PV18	Skein Mesa, Pa	7.43	53		Pn	17 12 00.3	-0.6
PV13	Radium Mtn., P	7.45	53		Pn	17 11 58.2	-2.8
PV16	Nyswonger Mesa	7.46	52		Pn	17 11 57.9	-3.4
PV23	Carpenter Ridg	7.48	51		Pn	17 11 59.1	-2.5
PV02	Paradox Valley	7.53	53		Pn	17 11 59.4	-2.7
PDAR	Pinedale Array	10.32	29	Pn	Pn	17 12 44.2	+3.8
	comp=E,0.1nm,0.3s,baz=225,slow=14,SNR=2.0						
	comp=E,0.3nm,0.6s						
PDAR				AML	AML		
TXAR	Lajitas Array	11.78	109	Pn	Pn	17 13 02.0	+1.7
	comp=E,0.2nm,0.3s,baz=292,slow=12,SNR=6.0						
TXAR				Lg	Lg	17 16 13.5	
	baz=291,slow=25,SNR=2.0						
	comp=E,0.2nm,0.3s						
TXAR				AML	AML		
ILAR	Eielson Array	35.99	338	P	P	17 17 13.7	+0.8
	comp=E,0.2nm,0.4s,baz=139,slow=8.4,SNR=2.5						
	comp=E,0.2nm,0.4s						

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*NEIC **25** 17:20:07.6±1.1, 47°.59N±0°.05×92°.52W±0°.06, h0^{km}±2^{km}, mb_Lg3.0/17, ML3.1/12, Error ellipse: s-maj=7.7km s-min=6.8km az=5.0*

*IDC **25** 17:20:10.2±4.3, 47°.43N×93°.36W, h0^{km}, mbtmp2.9/2, ML0.7/1, Error ellipse: s-maj=41.8km s-min=19.5km az=101.0*

ISC 25 17:20:04.5±0.9**, 47°.59N**±0°.03×**92°.44W**±0°.04**, h0^{km}, n24, σ1s.80**/22**, Minnesota**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EYMN	Ely	0.73	60		Pn	17 20 22.2	+0.2
EYMN	Ely	0.73	60	IAML		17 20 38.2	
	512nm,1.0s						
E38A	The Farm, Brul	1.15	148		Pn	17 20 29.4	+1.5
E38A				IAML		17 21 03.0	
	268nm,1.5s						
E38A				IAML		17 21 10.4	
	235nm,1.4s						
EPLO	Experimental L	2.25	338		Pb	17 20 45.4	-0.6
TBO	Thunder Bay	2.29	61	Pn	Pb	17 20 46.8	+0.1
TBO					Pg	17 20 47.1	-1.1
TBO				IAML		17 21 33.1	
	comp=E,121nm,1.2s						
TBO				IAML		17 21 33.7	
	comp=N,145nm,1.1s						
SPMN	Marine on St.	2.38	186		Pb	17 20 47.3	-0.9
SPMN					Pg	17 20 48.0	-2.0
AGMN	Agassiz Nation	2.41	288		Pn	17 20 46.3	+1.1
AGMN				IAML		17 21 19.7	
	comp=N,131nm,0.8s						
G40A	Rib Lake	2.79	146		Pb	17 20 53.9	-1.2
F33A	5 Mile Ranch,	3.18	238		Pn	17 20 57.4	+1.6
ULM	Lac du Bonnet	3.50	321	Pn	Pn	17 21 02.0	+1.9
	comp=N,0.1nm,0.3s,baz=152,slow=17,SNR=1.7						
ULM				Pg	Pg	17 21 10.4	-1.1
	comp=N,0.3nm,0.3s,baz=147,slow=12,SNR=4.8						
ULM				Sn	Sn	17 21 41.8	-0.4
	comp=N,0.8nm,0.3s,baz=151,slow=13,SNR=3.7						
ULM				Lg	Lg	17 21 53.5	
	comp=N,4.4nm,0.3s,baz=217,slow=20,SNR=30						
	comp=N,1.8nm,0.8s						
ULM				AML	AML		
ULM	Lac du Bonnet	3.50	321	Pn	Pn	17 21 02.8	+2.7
ULM				IAmb_Lg		17 21 56.7	
	comp=Z,58nm,1.0s						
I10CA	LAC DU BONNET	3.53	319	I	I	17 44 10.0	
	baz=151,slow=316,SNR=2.3						
I37A	Lemond, Waseca	3.64	191		Pn	17 21 03.6	+1.6
I37A				IAmb_Lg		17 22 02.5	
	comp=Z,25nm,1.1s						
I40A	Norwalk	3.91	160		Pn	17 21 08.1	+2.3
I40A				IAmb_Lg		17 22 16.1	
	comp=Z,19nm,0.7s						
I42A	Draeger Farm,	4.45	145	Pn	Pn	17 21 15.2	+2.1
I42A				IAmb_Lg		17 22 28.1	
	comp=Z,50nm,1.0s						
H43A	Windswept, Lux	4.50	132	Pn	Pn	17 21 16.3	+2.4
ECSD	EROS Data Cent	4.84	219		Pn	17 21 20.6	+2.0
JFWS	Jewell Farm	4.92	161		Pn	17 21 22.1	+2.5
L40A	Anamosa	5.59	171		Pn	17 21 31.2	+2.3
L40A				IAmb_Lg		17 23 07.0	
	comp=Z,25nm,1.0s						
K43A	Burlington	5.68	148	IAmb_Lg		17 23 05.8	
	comp=Z,38nm,1.0s						
E28A	Huff	5.73	263	IAmb_Lg		17 23 18.7	
	comp=Z,27nm,0.9s						
L42A	Oliver, Polo	5.92	160	Pn	Pn	17 21 34.4	+1.0
BGNE	Belgrade	7.41	216	IAmb_Lg		17 24 06.4	
	comp=Z,26nm,0.8s						
PDAR	Pinedale Array	13.00	255	Pn	Pn	17 23 04.7	-5.9
	comp=Z,0.2nm,0.3s,baz=54,slow=14,SNR=4.9						
PDAR				Lg	Lg	17 26 37.9	
	comp=Z,0.1nm,0.3s,baz=65,slow=28,SNR=2.2						

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*IDC **25** 17:26:13.6±3.8, 22°.06N×144°.01E, h99^{km}±34^{km}, mb3.3/8, mbtmp3.7/9, Error ellipse: s-maj=45.2km s-min=17.5km az=82.0*

ISC 25 17:26:14.4±1.1**, 22°.2N**±0°.1×**143°.9E**±0°.3**, h105^{km}, n9, σ1s.23**/10**, mb3.6**/8**, Volcano Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JCJ	Chichijima	5.16	343	P	Pn	17 27 30.1	+0.8
	20nm,0.4s,baz=180,slow=0.0						
JCJ				S	Sn	17 28 25.5	-2.2
	baz=180,slow=0.0						
WRA	Warramunga Arr	42.87	193	P	P	17 34 01.6	-0.9
	0.4nm,0.5s,baz=12,slow=8.0,SNR=18						
	0.4nm,0.5s						
ASAR	Alice Springs	46.57	193	P	P	17 34 31.1	-0.8
	0.3nm,0.6s,baz=9.5,slow=6.7,SNR=10						
	0.3nm,0.6s						
ZALV	Zalesovo Beam	54.27	321	P	P	17 35 30.0	+0.6
	0.4nm,0.4s,baz=91,slow=7.6,SNR=2.5						
	0.4nm,0.4s						
MKAR	Makanchi Array	54.88	312	P	P	17 35 34.9	+0.8
	0.4nm,0.7s,baz=77,slow=6.4,SNR=2.9						
	0.4nm,0.7s						
KURBB	Kurchatov Arra	57.64	317	P	P	17 35 54.3	+0.7
	0.3nm,0.3s,baz=97,slow=8.7,SNR=4.7						
	0.3nm,0.3s						
BVAR	Borovoye Array	62.76	319	P	P	17 36 30.0	+1.5
	0.6nm,0.3s,baz=89,slow=7.8,SNR=1.9						
	0.6nm,0.3s						
NVAR	Mina Array Bea	82.34	52	P	P	17 38 25.1	0.0
	0.4nm,0.5s,baz=290,slow=6.0,SNR=2.9						
	0.4nm,0.5s						
FINES	FINESS Array B	83.05	335	P	P	17 38 27.9	-0.1
	0.9nm,0.8s,baz=46,slow=6.0,SNR=4.2						
	0.9nm,0.8s						

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*TRN **25** 17:43:03.7, 13°.92N×60°.33W, h27^{km}, MD3.7, East of Saint Lucia.*

*FUNV **25** 17:43:04.1, 13°.83N×60°.35W, h15^{km}, MW3.7, Presumed earthquake*

ISC 25 17:43:04.2±1.2**, 13°.90N**±0°.03×**60°.28W**±0°.05**, h28^{km}**±12^{km}**, n20, σ1s.03**/36**, Windward Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SLAC	Saint Lucia, A	0.60	270	*e*P	Pn	17 43 16.8	-0.1
SLAC				*e*S	Sn	17 43 26.1	+0.3
SLBI	Saint Lucia, B	0.69	281	*e*P	Pb	17 43 17.5	-0.2
SLBI				*e*S	Sb	17 43 27.1	+0.2
SLCP	Castries, St.	0.70	279	*e*S	Sb	17 43 27.6	+0.3
BIM	Bigot	0.99	309	*e*P	Pn	17 43 22.0	-0.3
BIM				*e*S	Sb	17 43 35.2	-0.2
BIM	Bigot	0.99	309	*e*P	Pn	17 43 22.0	-0.3
BIM				*e*S	Sb	17 43 35.2	-0.2
BBGH	Gun Hill	1.02	137	*e*P	Pb	17 43 23.0	-0.4
BBGH				*e*S	Sn	17 43 36.7	+0.5
BBGH	Gun Hill	1.02	137	*e*P	Pb	17 43 23.4	0.0
ILAM	Ilet Lapin Mar	1.05	327	*e*P	Pn	17 43 22.9	-0.1
ILAM				*e*S	Sn	17 43 36.2	-0.6
SVN	Savane Anatole	1.28	318	*e*P	Pn	17 43 26.2	-0.1
SVN				*e*S	Sn	17 43 42.7	+0.2
DSLB	Salisbury	1.89	324	*e*P	Pn	17 43 35.3	+0.6
DSLB				*e*S	Sn	17 43 58.3	+0.6
DWS	Wesley	1.94	329	*e*P	Pn	17 43 35.4	0.0
DWS				*e*S	Sn	17 43 58.2	-0.6
GRSS	Sisters	2.05	220	*e*P	Pn	17 43 37.9	+1.0
GRSS				*e*S	Sn	17 44 02.2	+0.6
GRW	Mount Saint Ca	2.19	218	*e*P	Pn	17 43 40.2	+1.3
GRW				*e*S	Sn	17 44 05.8	+0.7
GRGR	Grenville	2.21	218	*e*P	Pn	17 43 39.5	+0.4
GRGR				*e*S	Sn	17 44 03.3	-2.2
GRGR	Grenville	2.21	218	*e*P	Pn	17 43 40.1	+1.0
GRGR				*e*S	Sn	17 44 06.3	+0.9
MAGL	Barre de l’ile	2.26	335	*e*P	Pn	17 43 39.5	-0.3
MAGL				*e*S	Sn	17 44 06.4	-0.4
DHSZ	Broadband at M	2.77	329	*e*P	Pn	17 43 47.5	+0.8
DHSZ				*e*S	Sn	17 44 19.6	+0.3
TRN	Trinidad (W)	3.41	199	*e*P	Pn	17 43 54.9	-0.7
TRN				*e*S	Sn	17 44 31.2	-4.0
TRN	Trinidad (W)	3.41	199	*e*P	Pn	17 43 57.2	+1.6
SKI	Saint Kitts	4.16	326	*e*P	Pn	17 44 07.1	+1.2

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*IDC **25** 18:06:56.2±1.4, 38°.37N×142°.71E, h0^{km}, mb3.6/5, mbtmp3.6/6, ML2.7/1, MS3.4/3, Error ellipse: s-maj=26.9km s-min=23.3km az=116.0*

*JMA **25** 18:07:04.0±0.1, 38°.3N±0°.2×142°.1E±0°.2, h41^{km}, MV4.0/37, E OFF MIYAGI PREF*

JMA Felt I J1 at E OFF MIYAGI PREF .

*NIED **25** 18:07:04.0, 38°.29N×142°.10E, h41^{km}, MW3.6, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}-1.42; $M_{\theta\theta}$0.71; $M_{\phi\phi}$0.71; $M_{r\theta}$1.93; $M_{\theta\phi}$-1.62; $M_{\phi r}$0.15; Fault plane solution: $M_0$2.81000×10^{14} NP1: ϕ_s167.00000°, δ38.00000°, λ-31.00000°. NP2: ϕ_s282.00000°, δ71.00000°, λ-124.00000°.*

ISC 25 18:07:02.9±2.7**, 38°.28N**±0°.07×**142°.2E**±0°.1**, h32^{km}**±16^{km}**, n22, σ0s.97**/20**, mb3.8**/5**, 5D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JIKH	Ishinomakikobu	0.54	274	P	Pn	18 07 14.7	+0.3
JIKH				*e*S	Sb	18 07 21.8	0.0
JIO	Ouri	0.66	286	P	Pn	18 07 16.3	+0.4
JIO				S	Sn	18 07 24.7	-0.4
JKMT	Kesennumamotoy	0.75	315	⇓P	Pn	18 07 17.7	+0.5
JKMT				⇓S	Sn	18 07 27.2	-0.4
OFUJ	Ofunato	0.89	335	⇓P	Pn	18 07 19.5	+0.4
JMK	Ichinoseki	0.99	313	⇓P	Pn	18 07 21.2	+0.6
JMK				⇓S	Sn	18 07 33.3	-0.2
JMM	Marumori	1.15	249	P	Pn	18 07 22.8	+0.1
JOU	Okura	1.18	275	P	Pn	18 07 23.9	+0.8
JOU				*e*S	Sn	18 07 38.6	+0.6
JOM	Ohasama	1.37	331	P	Pn	18 07 26.8	+1.1
MJAR	Matsushiro Arr	3.59	242	Pn	Pn	18 07 58.4	+2.1
	0.5nm,0.3s,baz=62,slow=11,SNR=24						
MJAR				Sn	Sb	18 08 47.1	-1.6
	0.3nm,0.3s,baz=117,slow=15,SNR=4.8						
MJAR				LR	LR	18 09 45.9	
	comp=Z,61nm,20.5s,baz=32,slow=42						
	4.9nm,0.5s						
MJAR				AML	AML		
H11N2	WAKE ISLAND Hy	28.31	124	T	T	18 43 13.9	
	baz=316,slow=76,SNR=114						
H11N1	WAKE ISLAND Hy	28.32	124	T	T	18 43 13.3	
	baz=316,slow=76,SNR=120						
H11N3	WAKE ISLAND Hy	28.33	124	T	T	18 43 14.0	
	baz=316,slow=76,SNR=105						
H11S1	WAKE ISLAND Hy	29.07	126	T	T	18 44 06.4	
	baz=318,slow=76,SNR=59						
H11S3	WAKE ISLAND Hy	29.08	126	T	T	18 44 06.5	
	baz=318,slow=76,SNR=102						
H11S2	WAKE ISLAND Hy	29.09	126	T	T	18 44 07.6	
	baz=318,slow=76,SNR=85						
MKAR	Makanchi Array	43.97	301	P	P	18 15 08.4	+1.5
	0.3nm,0.8s,baz=77,slow=7.6,SNR=3.8						
	0.3nm,0.8s						
KURBB	Kurchatov Arra	45.71	307	P	P	18 15 20.1	-0.5
	0.6nm,0.4s,baz=77,slow=8.7,SNR=1.2						
	0.6nm,0.4s						
WRA	Warramunga Arr	58.37	189	P	P	18 16 53.7	-1.4
	0.5nm,0.6s,baz=6.3,slow=6.8,SNR=8.1						
	0.5nm,0.6s						
RES	Resolute Bay	61.25	15	LR	LR	18 45 24.8	
	comp=Z,75nm,18.1s,baz=29,slow=38						
ASAR	Alice Springs	62.10	189	P	P	18 17 20.7	+0.2
	0.3nm,0.8s,baz=2.1,slow=6.5,SNR=5.9						
	0.3nm,0.8s						
FINES	FINESS Array B	67.99	332	P	P	18 17 57.9	-0.5
	3.2nm,1.0s,baz=346,slow=14,SNR=2.3						
	3.2nm,1.0s						
GERES	GERESS Array B	81.96	329	LR	LR	19 00 33.7	
	comp=Z,44nm,19.6s,baz=348,slow=39						

IDC 25 18:12:08.6±3.8**, 37°.02N**×**134°.68E, h335^{km}**±100^{km}**, mb2.4**/1**, mbtmp3.2**/3**, Error ellipse: s-maj=202.8km s-min=26.7km az=57.0, Sea of Japan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MJAR	Matsushiro Arr	2.88	99	P	Pn	18 13 05.1	-0.6
	8.3nm,0.6s,baz=284,slow=9.5,SNR=23						
MJAR				S	S	18 13 53.0	+1.5
	1.3nm,0.8s,baz=324,slow=16,SNR=1.5						
USRK	Ussuriysk Ar.	7.45	345	P	Pn	18 13 56.1	+0.3
	1.4nm,0.5s,baz=149,slow=7.5,SNR=4.1						
WRA	Warramunga Arr	56.66	180	P	P	18 21 17.9	0.0
	0.1nm,0.6s,baz=0.5,slow=7.1,SNR=1.2						
	0.1nm,0.6s						

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*NEIC **25** 18:14:35.5±2.2, 34°.02N±0°.06×78°.17E±0°.08, h10^{km}±1^{km}, mb3.8/16, Error ellipse: s-maj=14.2km s-min=3.7km az=131.0*

*IDC **25** 18:14:36.3±0.8, 34°.14N×78°.01E, h0^{km}, mb3.7/11, mbtmp3.8/15, ML3.6/4, MS2.9/2, Error ellipse: s-maj=23.2km s-min=12.7km az=65.0*

*NNC **25** 18:14:40.9±13.0, 34°.03N×77°.86E, h31^{km}±111^{km}, mb3.7, mpv3.6, Error ellipse: s-maj=101.1km s-min=76.2km az=48.0*

*NDI **25** 18:14:40.5±0.8, 34°.02N×78°.17E, h10^{km}, ML3.8, MW3.8, mb3.8(NEIC), Presumed earthquake*

ISC 25 18:14:36.2±0.5**, 34°.18N**±0°.04×**78°.22E**±0°.05**, h10^{km}, n65, σ1s.66**/71**, mb3.8**/11**, 3C-1D, Kashmir-Xizang border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ALCI	Alchi Leh	0.86	273	*e*P	Pn	18 14 56.0	+1.3
ALCI				*e*x	Sg	18 15 03.3	-0.8
ALCI				IAML		18 15 04.3	
	comp=E,3µm,0.2s						
ALCI				IAML		18 15 04.5	
	comp=N,3µm,0.1s						
TSSA	Tissa	2.18	233	*e*P	Pb	18 15 15.7	-0.3
TSSA				*e*S	Sn	18 15 41.8	+1.8
TSSA				IAML		18 15 51.6	
	comp=N,2µm,1.1s						
TSSA				IAML		18 15 54.3	
	comp=E,1µm,0.3s						
DHRM	DHARAMSHALA	2.50	220	*e*P	Pn	18 15 19.5	+2.3
DHRM				*e*S	Sn	18 15 48.1	+0.1
DHRM				IAML		18 16 04.2	
	comp=N,1µm,0.2s						
DHRM				IAML		18 16 06.5	
	comp=E,1µm,0.1s						
KLP	Kalpa	2.63	179	⇑*e*P	Pn	18 15 20.7	+1.6
KLP				*e*S	Sn	18 15 50.9	-0.4
KLP				IAML		18 16 11.3	
	comp=N,964nm,0.5s						
KLP				IAML		18 16 11.6	
	comp=E,966nm,0.1s						
TLWR	Talawar	2.92	221	*e*P	Pn	18 15 25.5	+2.8
JMU	Jammu	3.15	245	*e*P	Pn	18 15 28.9	+2.9
JMU				*e*S	Sn	18 16 04.5	+0.8
JMU				IAML		18 16 23.2	
	comp=E,213nm,0.4s						
JMU				IAML		18 16 23.6	
	comp=N,244nm,0.9s						
SMLA	Simla	3.17	197	*e*P	Pn	18 15 28.7	+2.6
SMLA				*e*S	Sn	18 16 03.6	-0.3
SMLA				IAML		18 16 22.8	
	comp=E,268nm,0.4s						
SMLA				IAML		18 16 22.8	
	comp=N,197nm,0.4s						
NIL	Nilore	4.16	264	Pn	Pn	18 15 37.0	-2.8
NIL				Sn	Sn	18 16 29.3	+0.7
WUS	Wushi	7.05	6	Pn	Pn	18 16 20.1	+0.4
DRK	Karamyk	7.38	318	Pn	Pn	18 16 24.1	-0.1
DRK				Sn	Sn	18 17 48.4	+0.1
NRN	Naryn	7.45	347	Pn	Pn	18 16 27.0	+1.7
TARG	Taragay, Kyrgy	7.55	358		Pn	18 16 28.8	+2.1
KBL	Kabul	7.60	275	Pn	Pn	18 16 27.8	+0.6
KDJ	Kajisay	7.98	354	Pn	Pn	18 16 33.9	+1.5
ARSB	Arslanbob	8.25	331		Pn	18 16 38.4	+2.3
BOOM	Boomskoye usch	8.49	349	Pn	Pn	18 16 41.1	+1.7
DZET	Dzherino	8.86	304	Pn	Pn	18 16 46.6	+2.2
AAK	Ala-Archa	8.94	342	Pn	Pn	18 16 48.7	+3.2
	comp=N,0.8nm,0.3s,baz=166,slow=8.1,SNR=8.2						
AAK				Lg	Lg	18 19 11.7	
	comp=N,0.3nm,0.3s,baz=203,slow=13,SNR=1.3						
AAK				LR	LR	18 20 34.0	
	comp=N,66nm,21.2s,baz=148,slow=40						
	comp=N,3.3nm,0.5s						
AAK				AML	AML		
AAK	Ala-Archa	8.94	342	⇑P	Pn	18 16 49.4	+3.9
	comp=N,1.6nm,0.6s						
AAK	Ala-Archa	8.94	342		Pn	18 16 46.3	+0.8
PDGK	Podgornoye	9.19	6		Pn	18 16 50.4	+1.4
EVN	Everest	9.63	128	Pn	Pn	18 16 48.3	-7.1
KK31	Karatay Array	10.75	328	P	Pn	18 17 10.6	+0.3
	comp=N,1.5nm,0.4s,baz=141,slow=12,SNR=16						
KK31				S	Sn	18 19 12.5	+1.8
	comp=N,2.4nm,0.6s,baz=166,slow=24,SNR=6.6						
KK31	Karatay Array	10.75	328		Pn	18 17 09.3	-0.9
KKAR	Karatay Array	10.75	328		Pn	18 17 09.3	-0.9
MAKZ	Makanchi	12.94	12		Pn	18 17 39.7	-0.4
MK31	Makanchi Array	12.98	13	P	Pn	18 17 47.4	+6.8
	comp=N,1.4nm,0.8s,baz=190,slow=14,SNR=6.4						
MKAR	Makanchi Array	12.98	13	Pn	Pn	18 17 41.1	+0.5
	comp=N,0.3nm,0.3s,baz=189,slow=13,SNR=8.4						
MKAR				Sn	Sn	18 20 04.7	-0.4
	comp=N,0.2nm,0.3s,baz=188,slow=22,SNR=5.0						
	comp=N,1.0nm,0.6s						
MKAR				AML	AML		
MKAR	Makanchi Array	12.98	13	Pn	Pn	18 17 39.7	-0.9
KURBB	Kurchatov Arra	16.44	1	Pn	Pn	18 18 26.5	-0.4
	comp=N,0.2nm,0.3s,baz=189,slow=11,SNR=7.1						
	comp=N,1.0nm,0.3s						
KURBB				AML	AML		
KURK	Kurchatov	16.53	1		Pn	18 18 26.2	-1.8
BVA1	Borovoye Array	19.65	346	⇓P	Pn	18 19 06.9	+0.5
	comp=N,2.4nm,0.5s						
BVAR	Borovoye Array	19.65	346	P	Pn	18 19 06.8	+0.4
	comp=N,0.2nm,0.3s,baz=146,slow=12,SNR=13						
	comp=N,2.8nm,0.4s						
BVAR				AML	AML		
BORK	Borovoye	19.69	346	P	P	18 19 04.5	-0.9
BORK				IAmb	IAmb	18 19 15.0	
	comp=Z,6.1nm,0.7s						
TNCH	TengChong	19.84	112	*e*P	Pn	18 19 09.5	+0.5
TNCH				pmax	pmax		
	comp=Z,9.0nm,0.6s						
AB31	Akbulak array	20.25	324	P	Pn	18 19 15.7	+2.3
	comp=Z,1.1nm,0.6s,baz=128,slow=12,SNR=15						
AB31	Akbulak array	20.25	324	P	P	18 19 10.1	-1.4
AB31				IAmb	IAmb	18 19 23.3	
	comp=Z,2.6nm,0.7s						
ABKAR	Akbulak array	20.25	324	P	P	18 19 10.3	-1.2
ZAA0	Zalesovo Array	20.31	11	P	P	18 19 11.0	-1.1
ZAA0				IAmb	IAmb	18 19 21.7	
	comp=Z,2.4nm,0.7s						
ZALV	Zalesovo Beam	20.31	11	P	Pn	18 19 14.7	+0.6
	comp=Z,1.6nm,0.6s,baz=208,slow=9.5,SNR=8.4						
	comp=Z,1.6nm,0.6s						
ZALV	Zalesovo Beam	20.31	11	P	P	18 19 11.2	-0.9
UOSS	Minazif	21.21	250	P	P	18 19 19.9	-2.3
UOSS				IAmb	IAmb	18 19 29.2	
	comp=Z,3.5nm,0.8s						
AKTO	Aktyubinsk	21.96	324	P	P	18 19 30.3	+0.3
	comp=Z,4.0nm,0.6s,baz=115,slow=10,SNR=9.3						
	comp=Z,4.0nm,0.6s						
AKTO	Aktyubinsk	21.96	324	⇑P	P	18 19 30.4	+0.3
	comp=Z,2.8nm,0.8s						
CM31	Chiang Mai Arr	24.22	125	P	P	18 19 51.9	-1.3
CM31				IAmb	IAmb	18 20 06.9	
	comp=Z,4.4nm,0.9s						
CMAR	Chiang Mai Arr	24.22	125	P	P	18 19 56.1	+2.9
	comp=Z,1.3nm,0.7s,baz=312,slow=10,SNR=11						
	comp=Z,1.3nm,0.7s						
CMAR	Chiang Mai Arr	24.22	125	P	P	18 19 51.3	-1.9
SONM	Songino Array	25.10	49	P	P	18 20 04.4	+3.3
	comp=Z,0.5nm,0.5s,baz=240,slow=10,SNR=6.8						
	comp=Z,0.5nm,0.5s						
SONM	Songino Array	25.10	49	P	P	18 20 01.4	+0.3
SONM				IAmb	IAmb	18 20 40.4	
	comp=Z,2.7nm,1.3s						
ARTI	Arti	26.05	335	P	P	18 20 09.0	-0.4
KAAM	Kaadhehdhoo	33.86	189	P	P	18 21 16.3	-2.7
MLR	Muntele Rosu	41.04	302	P	P	18 22 18.1	-1.7
BURAR	Bucovina Array	41.47	305	P	P	18 22 22.4	-0.9
FIA1	FINESS Array S	42.70	326	P	P	18 22 32.0	-1.0
FINES	FINESS Array B	42.70	326	P	P	18 22 34.7	+1.7
	comp=Z,1.4nm,0.4s,baz=112,slow=8.4,SNR=21						
	comp=Z,1.4nm,0.4s						
FINES	FINESS Array B	42.70	326	P	P	18 22 32.3	-0.7
ARCES	ARCESS Array B	45.57	337	P	P	18 22 57.6	+1.7
	comp=Z,1.9nm,0.8s,baz=109,slow=8.1,SNR=2.1						
	comp=Z,1.9nm,0.8s						
ARCES	ARCESS Array B	45.57	337	P	P	18 22 55.5	-0.4
HFS	Hagfors	48.51	323	P	P	18 23 21.1	+2.2
	comp=Z,0.9nm,0.6s,baz=108,slow=4.7,SNR=4.0						
	comp=Z,0.9nm,0.6s						
NOA	NORSAR Array B	49.75	324	P	P	18 23 29.6	+1.1
	comp=Z,0.5nm,0.6s,baz=96,slow=7.3,SNR=3.4						
NOA				LR	LR	18 44 31.8	
	comp=Z,18nm,19.8s,baz=250,slow=36						
	comp=Z,0.5nm,0.6s						
TORD	Torodi Ar. Bea	71.67	274	P	P	18 25 57.9	-0.6
	comp=Z,0.2nm,0.4s,baz=46,slow=5.4,SNR=3.3						
	comp=Z,0.2nm,0.4s						
WRA	Warramunga Arr	75.81	126	P	P	18 26 24.6	+1.9
	comp=Z,0.5nm,0.8s,baz=316,slow=6.1,SNR=7.4						
	comp=Z,0.5nm,0.8s						
WRA	Warramunga Arr	75.81	126	P	P	18 26 20.7	-2.0
WR8	Warramunga Arr	75.92	126	P	P	18 26 21.6	-1.7
ASAR	Alice Springs	78.15	129	P	P	18 26 38.6	+2.8
	comp=Z,0.5nm,0.7s,baz=316,slow=5.7,SNR=6.3						
	comp=Z,0.5nm,0.7s						

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*IDC **25** 18:35:31.4±0.7, 6°.60N×125°.71E, h197^{km}±7^{km}, mb3.2/6, mbtmp3.8/7, Error ellipse: s-maj=125.1km s-min=14.1km az=64.0*

*MAN **25** 18:35:31.0, 7°.03N×126°.65E, h161^{km}, MS3.4*

ISC 25 18:35:29.2±0.8**, 7°.07N**±0°.08×**126°.72E**±0°.09**, h183^{km}**±7^{km}**, n14, σ1s.07**/22**, mb3.8**/6**, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CDOP	Cateel, Davao	0.76	338	*i* P	Pn	18 35 56.3	+0.7
CDOP				*i* S	Sn	18 36 14.4	-1.8
DAV	Davao City (W)	1.14	270	P	Pn	18 35 59.1	+0.8
	269nm,0.4s,baz=91,slow=0.7,SNR=2.4						
DAV				S	Sn	18 36 19.8	-0.8
	151nm,0.4s,baz=197,slow=14,SNR=5.7						
BIPH	Bislig	1.16	342	*e*P	Pn	18 35 59.1	+0.6
BIPH				*e*S	Sn	18 36 20.6	-0.6
DMPH	Davao City--Mi	1.21	270	*i* P	Pn	18 35 59.5	+0.6
DMPH				*i* S	Sn	18 36 21.8	+0.1
KCP	Kidapawan	1.62	268	*i* P	Pn	18 36 02.7	0.0
KCP				*i* S	Sn	18 36 27.5	-1.1
BUKP	Musuan	1.83	296	*i* P	Pn	18 36 04.9	+0.2
BUKP				*i* S	Sn	18 36 33.4	+1.1
CGP	Cagayan de Oro	2.44	304	*e*P	Pn	18 36 11.7	+0.3
CGP				*e*S	Sn	18 36 43.5	-0.7
SIJI	Sorong	9.10	150	P	Pn	18 37 39.3	+2.2
	1.7nm,0.3s,baz=315,slow=19,SNR=5.7						
SIJI				S	Sn	18 39 16.4	-2.3
	2.0nm,0.5s,baz=270,slow=11,SNR=2.1						
WRA	Warramunga Arr	27.87	165	P	P	18 41 01.9	-0.2
	0.2nm,0.8s,baz=329,slow=10,SNR=1.2						
	0.2nm,0.8s						
ASAR	Alice Springs	31.35	167	P	P	18 41 32.2	-0.6
	0.4nm,0.9s,baz=341,slow=7.0,SNR=4.0						
	0.4nm,0.9s						
MKAR	Makanchi Array	54.84	324	P	P	18 44 40.5	-0.1
	0.6nm,0.4s,baz=116,slow=7.1,SNR=13						
	0.6nm,0.4s						
ZALV	Zalesovo Beam	57.63	332	P	P	18 44 59.5	-0.6
	0.7nm,0.3s,baz=116,slow=6.6,SNR=4.7						
	0.7nm,0.3s						
KURBB	Kurchatov Arra	58.95	326	P	P	18 45 08.6	-0.7
	1.7nm,0.7s,baz=125,slow=6.1,SNR=22						
	1.7nm,0.7s						
BVAR	Borovoye Array	64.54	326	P	P	18 45 46.3	-0.3
	1.1nm,0.5s,baz=116,slow=6.6,SNR=6.6						
	1.1nm,0.5s						

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*IDC **25** 18:54:41.4±2.0, 6°.88S×129°.72E, h66^{km}±30^{km}, mb3.2/1, mbtmp3.7/6, ML3.8/5, Error ellipse: s-maj=41.4km s-min=15.8km az=103.0*

ISC 25 18:54:40.2±1.0**, 7°.01S**±0°.07×**129°.8E**±0°.1**, h50^{km}, n6, σ3s.09**/9**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SIJI	Sorong	6.28	14	P	Pn	18 56 11.8	+1.4
	0.7nm,0.3s,baz=195,slow=20,SNR=15						
SIJI				S	Sn	18 57 18.6	-2.2
	4.7nm,0.2s,baz=245,slow=21,SNR=6.6						
	1.8nm,0.3s						
SIJI				AML	AML		
BATI	Baumata	6.83	242	P	Pn	18 56 20.4	+2.4
	3.3nm,0.3s,baz=66,slow=12,SNR=1.9						
BATI				S	Sn	18 57 33.2	-1.3
	15nm,0.3s,baz=66,slow=23,SNR=12						

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      8.3nm,0.4s
BATI                                AML    AML
FITZ  Fitzroy Crossi   11.74 200    P      Pn       18 57 27.9 +2.8
      0.4nm,0.3s,baz=24,slow=12,SNR=24
FITZ                                S      Sn       18 59 29.4 -5.3
      3.9nm,0.4s,baz=108,slow=20,SNR=9.6
      0.7nm,0.3s
FITZ                                AML    AML
WRA   Warramunga Arr   13.60 161    P      Pn       18 57 51.2 +0.7
      0.7nm,0.3s,baz=336,slow=13,SNR=20
WRA                                 S      Sn       19 00 14.3 -5.8
      1.8nm,0.5s,baz=7.3,slow=22,SNR=10
      0.7nm,0.4s
WRA                                 AML    AML
ASAR  Alice Springs    17.03 167    P      Pn       18 58 36.9 +1.9
      0.4nm,0.3s,baz=343,slow=10,SNR=33
ASAR                                S      Sn       19 01 37.1 -6.4
      0.5nm,0.5s,baz=347,slow=25,SNR=7.1
      0.8nm,0.5s
ASAR                                AML    AML
MKAR  Makanchi Array   68.12 327    P      P        19 05 33.3 -1.7
      0.5nm,0.9s,baz=129,slow=6.9,SNR=2.6
      0.5nm,0.9s
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IDC ***25*** *19:12:28.1±4.2, 12°.59N×146°.16E, h0^{km}, mb3.5/6, mbtmp3.5/6, Error ellipse: s-maj=177.2km s-min=32.6km az=84.0*

ISC 25 19:12:32.9±3.7**, 12°.6N**±0°.2×**14°6E**±°**, h35**^{km}**, n9,** σ**1**^{s}**54**/6**, mb3.6**/6**, South of Mariana Islands**

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Code  Station Name       Δ°  AZ°    Phase ID            Time     Res
                                    Op     ISC        h  m  s   ISC
H11S3 WAKE ISLAND Hy   20.51  71    T      T        19 39 07.2
      baz=262,slow=74
H11S1 WAKE ISLAND Hy   20.53  71    T      T        19 39 03.5
      baz=262,slow=74
H11S2 WAKE ISLAND Hy   20.53  71    T      T        19 39 07.4
      baz=262
ASAR  Alice Springs    38.00 199    P      P        19 19 47.6 -0.3
      0.2nm,0.9s,baz=18,slow=9.8,SNR=1.1
      0.2nm,0.9s
SONM  Songino Array    48.35 325    P      P        19 21 10.8 -0.5
      0.3nm,0.7s,baz=124,slow=7.7,SNR=2.3
      0.3nm,0.7s
MKAR  Makanchi Array   63.17 316    P      P        19 22 58.9 +1.4
      0.1nm,0.4s,baz=96,slow=8.0,SNR=4.2
      0.1nm,0.4s
ZALV  Zalesovo Beam    63.24 324    P      P        19 22 55.8 -1.9
      0.7nm,0.8s,baz=104,slow=7.9,SNR=2.0
      0.7nm,0.8s
KURBB Kurchatov Arra   66.28 320    P      P        19 23 17.6  0.0
      0.5nm,0.6s,baz=103,slow=6.9,SNR=5.1
      0.5nm,0.6s
FINES FINESS Array B   92.65 335    P      P        19 25 42.0 +1.1
      1.2nm,0.8s,baz=50,slow=7.2,SNR=5.4
      1.2nm,0.8s
```

BJI ***25*** *19:28:38.8, 1°.35N×127°.98E, h109^{km}, mB5.0/4, mb4.8/25*

IDC ***25*** *19:28:45.9±1.2, 1°.92N×127°.51E, h110^{km}±10^{km}, mb4.2/16, mbtmp4.6/20, MS3.1/2, Error ellipse: s-maj=16.1km s-min=7.0km az=71.0*

NEIC ***25*** *19:28:46.7±2.1, 1°.93N±0°.03×127°.37E±0°.06, h111^{km}±6^{km}, mb4.6/73, Error ellipse: s-maj=8.5km s-min=4.7km az=101.0*

GFZ ***25*** *19:28:46.1±0.2, 2°N±2°×12°7E±°, h108^{km}, M4.4/39, mb4.7/39*

DJA ***25*** *19:28:47.1±0.4, 2°N±4°×12°7E±°, h96^{km}±7^{km}, M4.5/17, mB5.0/13, mB4.9/12, mb4.6/17, mb4.7/18, MLv4.5/19, MLv4.5/12, Mw(mB)4.2/12, Mw(mB)4.3/13*

ISC 25 19:28:46.3±0.3**, 1°.93N**±0°.03×**127°.37E**±0°.05**, h112**^{km}**, n211,** σ**1**^{s}**08**/228**, mb4.6**/75**, Halmahera**

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Code  Station Name       Δ°  AZ°    Phase ID            Time     Res
                                    Op     ISC        h  m  s   ISC
TNTI  Ternate           1.15 180    P      Pn       19 29 09.6 +0.3
TNTI  Ternate           1.15 180    S      Sn       19 29 27.5 +0.8
TNTI  Ternate           1.15 180           Pn       19 29 09.5 +0.3
TNTI                                Sn     Sn       19 29 26.1 -0.5
TNTI  Ternate           1.15 180    P      Pn       19 29 09.3  0.0
TNTI  Ternate           1.15 180    P      Pn       19 29 09.8 +0.5
MNI   Manado            2.57 259    P      Pn       19 29 26.2 -0.6
MNI                                 S      Sn       19 29 56.5 -1.3
MNI                                 AML    AML
SANI  Sanana            4.18 199    P      Pn       19 29 47.0 -1.3
SANI  Sanana            4.18 199    P      Pn       19 29 46.5 -1.8
SANI                                AML    AML
SANI  Sanana            4.18 199    P      Pn       19 29 47.2 -1.1
GTOI  Gorontalo         4.54 254    P      Pn       19 29 53.7 +0.7
GTOI                                AML    AML
GTOI                                AML    AML
SWI   Sorong            4.78 125    P      Pn       19 29 57.5 +1.2
SWI   Sorong            4.78 125    P      Pn       19 29 55.0 -1.3
SIJI  Sorong            4.79 125    P      Pn       19 29 55.8 -0.7
      4.3nm,0.3s,baz=292,slow=13,SNR=9.6
SIJI                                S      Sn       19 30 47.3 -3.6
      5.7nm,0.5s,baz=200,slow=23,SNR=1.2
NLAI  Namlea            5.14 183    P      Pn       19 30 01.2 +0.1
NLAI                                AML    AML
NLAI  Namlea            5.14 183    P      Pn       19 30 01.1 -0.1
DAV   Davao City (W)    5.41 341    P      Pn       19 30 05.0 +0.2
      117nm,0.4s,baz=235,slow=21,SNR=1.8
DAV                                 S      Sn       19 31 06.3 +0.5
      289nm,0.6s,baz=34,slow=23,SNR=5.9
DAV                                 LR     LR       19 31 46.1
      comp=Z,68nm,20.9s,baz=128,slow=33
DAV   Davao City (W)    5.41 341    Pn     Pn       19 30 03.2 -1.5
LUWI  Luwuk             5.46 237    P      Pn       19 30 05.9 +0.5
LUWI  Luwuk             5.46 237    S      Sn       19 31 07.9 +0.8
LUWI  Luwuk             5.46 237           Pn       19 30 04.6 -0.8
LUWI  Luwuk             5.46 237    P      Pn       19 30 06.0 +0.5
      2µm2µm105nm,0.6s
LUWI  Luwuk             5.46 237    P      Pn       19 30 06.6 +1.1
      comp=Z,103nm,0.5s
KCP   Kidapawan         5.53 336  i P      Pn       19 30 06.3 -0.2
KCP                               eS       Sn       19 30 31.1  -38
CDOP  Cateel, Davao     5.89 351  eP       Pn       19 30 09.4 -1.9
CDOP                              eS       Sn       19 31 12.6 -4.8
BIPH  Bislig            6.29 351  eP       Pn       19 30 18.3 +1.6
BIPH                              eS       Sn       19 31 27.7 +0.4
BUKP  Musuan            6.34 339  i P      Pn       19 30 16.9 -0.5
BUKP                              i S      Sn       19 31 26.8 -1.7
APSI  Ampana            6.37 244    P      Pn       19 30 16.3 -1.5
      comp=Z,0.8nmcomp=Z,1µmcomp=Z,1µmcomp=Z,91nm,1.0s,
      comp=Z,91nm,1.0s
APSI                                AML    AML
APSI  Ampana            6.37 244    P      Pn       19 30 18.1 +0.3
      comp=Z,92nm,1.0s
TOLI2 Tolitoli          6.63 263    P      Pn       19 30 20.5 -0.8
TOLI2 Tolitoli          6.63 263    S      Sn       19 31 35.2 -0.3
TOLI2 Tolitoli          6.63 263           Pn       19 30 20.3 -1.0
TOLI2 Tolitoli          6.63 263    P      Pn       19 30 20.2 -1.1
      comp=Z,56nm,0.7s
FAKI  Fak Fak           6.86 135    Pn     Pn       19 30 25.9 +1.5
FAKI  Fak Fak           6.86 135    P      Pn       19 30 26.2 +1.8
      comp=Z,0.1nmcomp=Z,31nm,0.9s,comp=Z,31nm,0.9s
FAKI                                AML    AML
CGP   Cagayan de Oro    7.01 338  eP       Pn       19 30 25.6 -0.8
CGP                               eS       Sn       19 31 42.1 -2.6
PAGZ  Pagadian          7.09 326  i P      Pn       19 30 26.0 -1.6
KDI   Kendari           7.53 219    P      Pn       19 30 32.9 -0.6
KDI                                 AML    AML
KKSI  Kolaka, Sulawe    8.33 223    P      Pn       19 30 43.1 -1.2
      comp=Z,859nmcomp=Z,859nmcomp=Z,69nm,0.7s,comp=Z,69nm,0.7s
KKSI  Kolaka, Sulawe    8.33 223    P      Pn       19 30 43.1 -1.2
      comp=Z,37nm,0.7s
BBSI  Bau Bau           8.79 213    P      Pn       19 30 51.1 +0.6
      comp=Z,41nm,1.1s,comp=Z,41nm,1.1s
BBSI  Bau Bau           8.79 213    P      Pn       19 30 51.2 +0.6
      comp=Z,24nm,1.2s
MYLDM Lahad Datu        9.42 290           Pn       19 31 00.1 +1.1
MYLDM                               Sn     Sn       19 32 40.2 -3.1
MYLDM Lahad Datu        9.42 290    P      Pn       19 31 01.0 +1.9
      comp=Z,32nm,1.0s
MYLDM Lahad Datu        9.42 290    P      Pn       19 30 59.2 +0.1
      comp=Z,32nm,1.0s
PLP   Palo              9.48 346  eP       Pn       19 31 00.3 +0.4
BKSI  Bulukumba        10.21 225    P      Pn       19 31 10.6 +0.8
      comp=Z,785nmcomp=Z,785nmcomp=Z,32nm,0.5s
BKSI  Bulukumba        10.21 225    P      Pn       19 31 11.0 +1.2
      comp=Z,31nm,0.8s
KAPI  Kappang          10.27 228    P      Pn       19 31 11.0 +0.4
      comp=Z,26nm,0.4s,baz=41,slow=9.3,SNR=12
KAPI                                S      Sn       19 32 59.2 -4.7
      comp=Z,16nm,0.4s,baz=5.5,slow=22,SNR=8.0
KAPI  Kappang          10.27 228    P      Pn       19 31 11.9 +1.3
KAPI  Kappang          10.27 228           Pn       19 31 08.9 -1.7
KAPI  Kappang          10.27 228    P      Pn       19 31 10.9 +0.3
      comp=Z,34nm,0.5s
BSSI  Bau Bau, Buton   10.55 221    P      Pn       19 31 14.4 -0.2
      comp=Z,49nm,0.7s
SOEI  Soe              12.01 195    P      Pn       19 31 35.1 +1.1
      comp=Z,28nm,0.9s
EDFI  Ende, Flores     12.02 208    P      Pn       19 31 34.3 +0.1
      comp=Z,30nm,0.5s
BATI  Baumata          12.61 197    P      Pn       19 31 40.5 -1.3
      comp=Z,12nm,0.3s,baz=90,slow=3.0,SNR=5.6
LBFI  Labuhan Bajo,    12.75 216    P      Pn       19 31 43.6  0.0
      comp=Z,31nm,0.6s
GQP   Guinayangan      12.86 338  eP       Pn       19 31 46.8 +1.7
LQP   Lukban           13.40 335  eP       Pn       19 31 52.1 -0.3
DBNI  Kabupaten Domp   13.74 221    P      Pn       19 31 57.1 +0.5
      comp=Z,16nm,0.8s
PLAI  Plampang         14.34 222    P      Pn       19 32 05.2 +0.9
PLAI  Plampang         14.34 222    P      Pn       19 32 05.1 +0.9
      comp=Z,103nm,0.9s
TWSI  Taliwang, Sumb   14.88 224    P      Pn       19 32 12.2 +1.1
      comp=Z,100nm,1.2s
SBUM  Sibu             15.14 272    Pn     Pn       19 32 15.0 +0.6
SBUM  Sibu             15.14 272    P      Pn       19 32 16.1 +1.7
      comp=Z,6.8nm,0.9s
MTN   Manton Dam       15.15 166           Pn       19 32 13.3 -1.2
MTN                                 IAmb   IAmb     19 32 18.9
      comp=Z,13nm,0.4s
JAGI  Jajag, Banyuwa   16.74 232    P      Pn       19 32 33.4 -0.8
JAGI                                IAmb   IAmb     19 32 39.5
      comp=Z,39nm,1.1s
JAGI  Jajag, Banyuwa   16.74 232    P      P        19 32 35.3 +0.7
      comp=Z,33nm,1.3s
BLJI  Banyuglugur      16.76 235    P      Pn       19 32 34.8 +0.2
      comp=Z,50nm,0.6s
KNRA  Kununurra        17.55 176           P        19 32 43.1 -0.3
PCJI  Pacitan          19.02 238    P      Pn       19 33 01.2 -0.4
      comp=Z,70nm,1.4s
UGM   Wanagama         19.44 240           P        19 33 04.3 +0.1
FITZ  Fitzroy Crossi   19.97 185    P      P        19 33 09.0 -0.9
      comp=Z,10nm,0.5s,baz=17,slow=8.9,SNR=60
FITZ  Fitzroy Crossi   19.97 185    P      P        19 33 09.3 -0.6
FITZ  Fitzroy Crossi   19.97 185           P        19 33 08.8 -1.2
FITZ  Fitzroy Crossi   19.97 185    P      P        19 33 09.0 -0.9
      comp=Z,3.7nm,0.7s
KPJI  Karang Pucung    20.57 243    P      P        19 33 17.2 +0.8
      comp=Z,22nm,1.5s
LEM   Lembang          21.54 246    P      P        19 33 29.4 +2.3
      comp=Z,14nm,0.5s,baz=100,slow=12,SNR=4.7
      comp=Z,14nm,0.5s
TWG   Pinlang          21.65 344    P      P        19 33 25.8 -2.1
TWG                                 IAmb   IAmb     19 33 26.1
      comp=Z,30nm,0.9s
BBJI  Bungbulang       21.77 244    P      P        19 33 27.5 -1.8
BBJI                                IAmb   IAmb     19 33 34.7
      comp=Z,20nm,1.0s
BBJI  Bungbulang       21.77 244    P      P        19 33 29.3  0.0
      comp=Z,14nm,0.7s
YULB  Yu-li            22.13 345    P      P        19 33 30.0 -3.0
YULB                                IAmb   IAmb     19 33 33.0
      comp=Z,18nm,0.6s
YULB  Yu-li            22.13 345    P      P        19 33 32.2 -0.8
      comp=Z,28nm,0.7s
TPUB  Ta-pu            22.23 343           P        19 33 32.0 -2.0
TPUB                                IAmb   IAmb     19 33 36.3
      comp=Z,34nm,0.8s
SSLB  Suanglung        22.60 345           P        19 33 36.1 -1.7
SSLB                                IAmb   IAmb     19 33 40.2
      comp=Z,69nm,1.3s
SSLB  Suanglung        22.60 345    P      P        19 33 36.8 -0.9
      comp=Z,43nm,1.1s
WB0   Warramunga Arr   22.64 163           P        19 33 37.2 -0.9
WB0                                 IAmb   IAmb     19 33 38.2
      comp=Z,38nm,1.1s
WRAB  Tennant Creek    22.78 163    P      P        19 33 38.9 -0.7
WRAB  Tennant Creek    22.78 163    P      P        19 33 38.7 -0.9
WRAB  Tennant Creek    22.78 163    P      P        19 33 38.7 -0.9
      comp=Z,54nm,0.8s
WRA   Warramunga Arr   22.79 163    P      P        19 33 39.1 -0.5
      comp=Z,30nm,0.6s,baz=344,slow=11,SNR=359
WRA                                 PcP    PcP      19 37 27.7 +0.1
      comp=Z,0.5nm,0.5s,baz=340,slow=2.0,SNR=2.7
WRA                                 S      S        19 37 39.5 -0.9
      comp=Z,0.6nm,0.8s,baz=345,slow=18,SNR=3.1
WRA                                 ScP    ScP      19 40 54.7 -0.6
      comp=Z,0.6nm,0.9s,baz=341,slow=3.0,SNR=6.8
      comp=Z,30nm,0.6s
WRA   Warramunga Arr   22.79 163           P        19 33 37.1 -2.5
YOJ   Yonaguni jima    22.79 350    P      P        19 33 39.3 -0.3
YOJ   Yonaguni jima    22.79 350    P      P        19 33 39.4 -0.2
      comp=Z,134nm,1.2s
NACB  Ninganchiao      22.81 346    P      P        19 33 40.4 +0.6
      comp=Z,18nm,0.9s
WR8   Warramunga Arr   22.85 162           P        19 33 39.3 -0.9
YHNB  Yeheng           23.34 346    P      P        19 33 44.6 -0.2
YHNB                                IAmb   IAmb     19 33 53.2
      comp=Z,48nm,1.2s
MDSI  Maura Dua        24.03 255    P      P        19 33 51.5 +0.3
      comp=Z,8.6nm,1.2s
JMZ   Minamidaito 2    24.04   9    P      P        19 33 49.7 -1.4
JMZ   Minamidaito 2    24.04   9    P      P        19 33 50.7 -0.4
      comp=Z,160nm,2.1s
MBWA  Marble Bar       24.13 198    P      P        19 33 51.2 -0.8
MBWA                                IAmb   IAmb     19 33 52.7
      comp=Z,9.9nm,0.8s
MBWA  Marble Bar       24.13 198    P      P        19 33 51.6 -0.4
      comp=Z,15nm,0.9s
QIZ   Qiongzhong       24.15 316    P      P        19 33 52.3 +0.1
      comp=Z,14nm,1.4s
JOW   Kunigami         24.78   2    P      P        19 33 57.3 -0.5
JOW                                 IAmb   IAmb     19 33 57.6
      comp=Z,41nm,1.0s
QIS   Mount Isa        25.36 152    P      P        19 34 03.9 +0.7
QIS   Mount Isa        25.36 152    P      P        19 34 02.9 -0.3
AS31  Alice Springs    26.22 166           P        19 34 10.5 -0.5
AS31                                IAmb   IAmb     19 34 14.8
      comp=Z,4.5nm,0.4s
ASAR  Alice Springs    26.23 166    P      P        19 34 10.4 -0.6
      comp=Z,4.6nm,0.5s,baz=344,slow=7.6,SNR=163
ASAR                                PcP    PcP      19 37 35.1  0.0
      comp=Z,0.7nm,0.5s,baz=351,slow=2.1,SNR=4.4
ASAR                                S      S        19 38 34.3 -0.9
      comp=Z,1.5nm,0.8s,baz=348,slow=17,SNR=7.2
ASAR                                ScP    ScP      19 41 04.5 -0.3
      comp=Z,1.2nm,0.8s,baz=344,slow=3.3,SNR=9.8
      comp=Z,4.6nm,0.5s
ASAR  Alice Springs    26.23 166    P      P        19 34 10.1 -0.9
ASAR                                       PcP      19 37 34.8 -0.4
ASAR                                       ScP      19 41 03.9 -1.0
AS01  Alice Springs    26.23 166    P      P        19 34 10.6 -0.5
GIRL  Giralia          27.58 207    P      P        19 34 23.8 +0.7
CTAO  Charters Tower   28.67 141    P      P        19 34 32.9  0.0
CTAO  Charters Tower   28.67 141    P      P        19 34 33.0 +0.1
      comp=Z,8.4nm,2.7s
MEEK  Meekatharra      29.63 196    P      P        19 34 41.0 -0.3
      comp=Z,18nm,0.6s
NJ2   Nanjing          31.02 346  eP       P        19 34 55.3 +1.9
NJ2                                 pmax   pmax
      comp=Z,13nm,0.5s
INKA  Innaminka        32.19 157           P        19 35 01.6 -2.2
INKA                                IAmb   IAmb     19 35 04.8
      comp=Z,4.1nm,0.5s
CMAR  Chiang Mai Arr   32.34 302    P      P        19 35 05.7 +0.4
      comp=Z,0.4nm,0.6s,baz=127,slow=7.2,SNR=6.2
CMAR  Chiang Mai Arr   32.34 302    P      P        19 35 04.5 -0.8
CHTO  Chiang Mai       32.51 303    P      P        19 35 06.3 -0.4
CHTO  Chiang Mai       32.51 303    P      P        19 35 06.6 -0.1
      comp=Z,3.4nm,2.3s
FORT  Forrest          32.53 179    P      P        19 35 05.8 -0.9
FORT                                IAmb   IAmb     19 35 20.3
      comp=Z,8.7nm,1.0s
MORW  Morawa           32.68 199    P      P        19 35 07.7 -0.4
MORW                                IAmb   IAmb     19 35 09.0
      comp=Z,8.6nm,0.7s
MORW  Morawa           32.68 199    P      P        19 35 07.8 -0.2
      comp=Z,18nm,2.3s
ENH   Enshi            32.90 331    P      P        19 35 09.8 -0.2
      comp=Z,6.0nm,0.8s
COCO  West Island      33.41 244    P      P        19 35 15.5 +0.9
      comp=Z,166nm,0.5s
BLDU  Ballidu          33.92 197    P      P        19 35 18.8  0.0
      comp=Z,31nm,2.2s
INU   Inuyama          34.44  14    P      P        19 35 23.1  0.0
INU   Inuyama          34.44  14    P      P        19 35 23.2  0.0
      comp=Z,17nm,1.3s
KLBR  Kellerberrin     34.56 195    P      P        19 35 24.2 -0.1
      comp=Z,48nm,0.8s
PZH   PanZhiHua        34.68 317    P      P        19 35 27.5 +1.9
JGF   Kuroka           34.76  14    P      P        19 35 26.0 -0.1
JGF   Kuroka           34.76  14    P      P        19 35 25.5 -0.6
LYN   LuoYang          35.30 338    P      P        19 35 32.3 +1.6
LYN                                 pmax   pmax
      comp=Z,30nm,0.7s
KSRS  Korea Array      35.36   1    P      P        19 35 30.8 -0.2
      comp=Z,3.5nm,0.8s,baz=176,slow=9.7,SNR=7.0
      comp=Z,3.5nm,0.8s
KS19  Wonju Array Si   35.40   1    P      P        19 35 31.0 -0.5
BBOO  Buckleboo        35.52 167    P      P        19 35 31.9 -0.7
EIDS  Eidsvold         35.55 141    P      P        19 35 31.6 -1.3
EIDS                                IAmb   IAmb     19 36 08.3
      comp=Z,21nm,1.3s
MAJO  Matsushiro       35.87  15    P      P        19 35 34.5 -1.1
MAJO                                IAmb   IAmb     19 35 37.0
      comp=Z,12nm,1.0s
MJAR  Matsushiro Arr   35.87  15    P      P        19 35 33.8 -1.8
      comp=Z,3.1nm,0.4s,baz=186,slow=8.5,SNR=25
      comp=Z,3.1nm,0.4s
MJAR  Matsushiro Arr   35.87  15    P      P        19 35 34.3 -1.2
MJB9  Matsu-Tunnel     35.87  15    P      P        19 35 35.2 -0.4
MJB9                                IAmb   IAmb     19 35 37.9
      comp=Z,12nm,1.0s
NWAO  Narrogin (SRO)   35.97 195    P      P        19 35 36.1 -0.2
STKA  Stephens Creek   36.23 159    P      P        19 35 38.8 +0.2
      comp=Z,12nm,0.4s,baz=333,slow=8.5,SNR=33
      comp=Z,12nm,0.4s
STKA  Stephens Creek   36.23 159    P      P        19 35 39.1 +0.5
      comp=Z,125nm,1.2s
XAN   Xi'an            36.30 334    P      P        19 35 40.5 +1.2
XAN                                 pP     pP       19 36 02.0 -1.7
XAN                                 pmax   pmax
      comp=Z,12nm,0.9s
BJI2  Beijing          39.26 346    P      P        19 36 04.8 +0.8
BJI2                                pmax   pmax
      comp=Z,11nm,0.7s
ARMA  Armidale         39.62 146    P      P        19 36 07.7 +0.3
ARMA                                IAmb   IAmb     19 36 17.6
      comp=Z,11nm,1.3s
LZDM  Lanzhou Array    40.34 330    LR     LR       19 54 01.4
      comp=Z,71nm,19.2s,baz=265,slow=38
CAN   Canberra         42.23 153    P      P        19 36 29.6 +1.1
USRK  Ussuriysk Ar.    42.29   5    P      P        19 36 28.3 -0.5
      comp=Z,6.0nm,0.8s,baz=173,slow=4.4,SNR=6.5
      comp=Z,6.0nm,0.8s
USRK  Ussuriysk Ar.    42.29   5    P      P        19 36 29.4 +0.6
TOO   Toolangi         42.74 159    P      P        19 36 33.1 +0.5
TOO                                 IAmb   IAmb     19 36 49.4
      comp=Z,15nm,1.3s
XLT   XiLinHaoTe       42.98 348  eP       P        19 36 34.8 +0.3
XLT                                 pmax   pmax
      comp=Z,9.0nm,0.8s
LSA   Lhasa            44.11 312    P      P        19 36 44.9 +0.6
      comp=Z,6.2nm,0.7s
JKA   Kamikawa-asahi   44.13  16    P      P        19 36 44.1 +0.4
GTA2  Gaotai           45.04 330    P      P        19 36 52.3 +1.1
GTA2                                pmax   pmax
      comp=Z,10.0nm,0.8s
EVN   Everest          46.58 308           P        19 37 04.2 +0.2
EVN                                 IAmb   IAmb     19 37 05.7
      comp=Z,7.5nm,0.7s
EVN   Everest          46.58 308    P      P        19 37 03.8 -0.2
      comp=Z,11nm,1.0s
ULN   Ulaanbaatar      49.02 342           P        19 37 22.5 +0.6
ULN                                 IAmb   IAmb     19 37 23.8
      comp=Z,9.4nm,1.1s
ULN   Ulaanbaatar      49.02 342    P      P        19 37 22.1 +0.2
      comp=Z,9.5nm,0.9s
SONM  Songino Array    49.20 341    P      P        19 37 24.3 +1.1
      comp=Z,3.3nm,0.7s,baz=155,slow=8.2,SNR=20
      comp=Z,3.3nm,0.7s
SONM  Songino Array    49.20 341    P      P        19 37 24.4 +1.1
WMQ   Urumqi           54.56 325  eP       P        19 38 05.5 +2.5
WMQ                                 pmax   pmax
      comp=Z,18nm,0.7s
PETK  Petropavlovsk-   56.86  21    P      P        19 38 20.1 +0.9
      comp=Z,1.5nm,0.7s,baz=199,slow=4.1,SNR=2.0
      comp=Z,1.5nm,0.7s
PDGK  Podgornoye       59.20 321    P      P        19 38 36.3 +0.4
MKAR  Makanchi Array   59.39 326    P      P        19 38 37.9 +0.8
      comp=Z,6.6nm,0.4s,baz=117,slow=7.9,SNR=113
      comp=Z,6.6nm,0.4s
MAKZ  Makanchi         59.57 325           P        19 38 39.1 +0.8
MAKZ  Makanchi         59.57 325    P      P        19 38 39.2 +0.9
      comp=Z,13nm,0.7s
YAK   Yakutsk          59.98   1           P        19 38 40.6 -0.1
YAK   Yakutsk          59.98   1    P      P        19 38 41.1 +0.4
      comp=Z,26nm,0.8s
KHZ   Kahutara         60.66 142    P      P        19 38 45.5 -0.2
KHZ                                 IAmb   IAmb     19 39 12.9
      comp=Z,11nm,1.0s
RTZ   Ruatahuna        60.89 137    P      P        19 38 47.6 +0.1
ZAA0  Zalesovo Array   62.47 333    P      P        19 38 57.1 -0.6
ZALV  Zalesovo Beam    62.47 333    P      P        19 38 57.1 -0.6
      comp=Z,0.6nm,0.3s,baz=115,slow=7.0,SNR=6.3
      comp=Z,0.6nm,0.3s
ZALV  Zalesovo Beam    62.47 333    P      P        19 38 56.9 -0.8
ARSB  Arslanbob        62.59 316    P      P        19 38 59.9 +0.9
ARSB                                IAmb   IAmb     19 39 04.1
      comp=Z,6.0nm,1.1s
DRK   Karamyk          62.70 314    P      P        19 39 00.3 +0.3
DRK                                 IAmb   IAmb     19 39 03.3
      comp=Z,6.4nm,0.7s
DRK   Karamyk          62.70 314    P      P        19 39 00.8 +0.9
      comp=Z,6.2nm,0.8s
KBL   Kabul            63.12 308    P      P        19 39 02.0 -0.6
KBL                                 IAmb   IAmb     19 39 04.6
      comp=Z,3.1nm,0.7s
ARK   Arkit            63.48 317    P      P        19 39 05.4 +0.6
      comp=Z,9.8nm,0.9s
KURBB Kurchatov Arra   63.59 328    P      P        19 39 05.5 +0.4
      comp=Z,7.4nm,0.6s,baz=129,slow=6.1,SNR=70
      comp=Z,7.4nm,0.6s
KURK  Kurchatov        63.59 328           P        19 39 05.4 +0.2
KURK                                IAmb   IAmb     19 39 06.2
      comp=Z,8.5nm,0.6s
KURK  Kurchatov        63.59 328    P      P        19 39 05.6 +0.5
      comp=Z,14nm,0.8s
KK31  Karatay Array    64.97 317           P        19 39 14.1 -0.3
KK31                                IAmb   IAmb     19 39 17.5
      comp=Z,3.8nm,0.8s
KKAR  Karatay Array    64.97 317           P        19 39 14.5 +0.1
KIWB  Kanaga Island    67.82  33    P      P        19 39 32.7 +0.4
CASY  Casey            69.12 187    P      P        19 39 40.4 +0.4
BVAR  Borovoye Array   69.17 327    P      P        19 39 40.8 +0.1
      comp=Z,3.5nm,0.8s,baz=134,slow=7.2,SNR=9.2
      comp=Z,3.5nm,0.8s
BORK  Borovoye         69.21 327    P      P        19 39 41.1 +0.2
BORK                                IAmb   IAmb     19 39 41.9
      comp=Z,3.4nm,0.7s
ATKA  Atka Island      69.62  34    P      P        19 39 43.7 +0.3
NRIK  Noril'sk         72.32 346    P      P        19 39 59.3 -0.1
NRIK                                IAmb   IAmb     19 40 00.3
      comp=Z,4.3nm,0.8s
AB31  Akbulak array    73.94 321           P        19 40 09.1 -0.3
ABKAR Akbulak array    73.94 321    P      P        19 40 09.1 -0.3
VNDA  Vanda            81.57 173    P      P        19 40 51.2 +0.1
      comp=Z,1.0nm,0.5s,baz=314,slow=7.2,SNR=14
      comp=Z,1.0nm,0.5s
VNDA  Vanda            81.57 173    P      P        19 40 51.0 -0.1
G18K  Tagagawik        81.73  24    P      P        19 40 53.4 +1.2
G18K                                IAmb   IAmb     19 41 24.3
      comp=Z,7.8nm,1.4s
L18K  Granite Mounta   81.76  27    P      P        19 40 53.9 +1.5
L18K                                IAmb   IAmb     19 41 07.5
      comp=Z,11nm,1.4s
VOI   Vohitsoka        81.97 248           P        19 40 54.4 -0.2
J18K  Innoko River     82.00  26    P      P        19 40 54.7 +1.0
SII   Sitkinak Islan   82.03  33    P      P        19 40 53.9 -0.1
MAW   Mawson           82.30 200    P      P        19 40 55.4 +0.3
      comp=Z,3.9nm,0.6s,baz=78,slow=5.8,SNR=15
      comp=Z,3.9nm,0.6s
MAW   Mawson           82.30 200    P      P        19 40 55.6 +0.5
N19K  Bonanza Creek    82.55  29    P      P        19 40 57.8 +1.1
N19K                                IAmb   IAmb     19 41 40.3
      comp=Z,7.6nm,1.2s
J19K  Poorman          82.59  26    P      P        19 40 57.9 +1.2
OHAK  Old Harbor       82.61  33    P      P        19 40 57.9 +0.9
OHAK                                IAmb   IAmb     19 41 35.4
      comp=Z,18nm,1.2s
KDAK  Kodiak Island    83.06  32    P      P        19 41 00.1 +0.8
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Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
IMAR	**Indian Mountai**	**83.72**	**24**	P	**P**	**19 41 03.1**	**+0.6**
SKT	**Skwentna**	**84.12**	**28**	P	**P**	**19 41 04.5**	**-0.2**
PWL	**Port Wells**	**85.54**	**29**	P	**P**	**19 41 12.2**	**+0.4**
PWL				IAmb	IAmb	19 41 46.4	
	comp=Z,17nm,1.4s						
BMAR	**Burnt Mountain**	**87.48**	**23**	P	**P**	**19 41 22.2**	**+1.1**
FINES	**FINESS Array B**	**93.71**	**332**	P	**P**	**19 41 49.3**	**-0.9**
	comp=Z,1.3nm,0.8s,baz=90,slow=5.6,SNR=4.1						
	comp=Z,1.3nm,0.8s						
TORD	**Torodi Ar. Bea**	**124.07**	**287**	PKP	**PKPdf**	**19 47 32.3**	**-0.4**
	comp=Z,0.4nm,0.8s,baz=89,slow=2.4,SNR=2.1						

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*IDC **25** 19:57:03.3±2.1, 32°.65N×132°.09E, h34^{km}±17^{km}, mb3.4/8, mbtmp3.6/11, ML3.2/3, MS3.0/4, Error ellipse: s-maj=17.2km s-min=15.6km az=70.0*

*NIED **25** 19:57:04.4, 32°.69N×132°.12E, h39^{km}, MW4.0, Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M$_{rr}$-0.95; M$_{\theta\theta}$-0.08; M$_{\phi\phi}$1.03; M$_{r\theta}$0.37; M$_{\theta\phi}$-0.07; M$_{\phi r}$-0.10; Fault plane solution: M$_0$1.06000×10^{15} NP1: ϕ_s195.00000°, δ45.00000°, λ-61.00000°. NP2: ϕ_s338.00000°, δ52.00000°, λ-115.00000°.*

*NEIC **25** 19:57:04.8±2.1, 32°.74N±0°.06×132°.12E±0°.06, h49^{km}±8^{km}, mb4.5/18 Error ellipse: s-maj=9.5km s-min=7.1km az=151.0*

*JMA **25** 19:57:04.4±0.0, 32°.7N±0°.1×132°.1E±0°.1, h39^{km}, MD3.9/38, MV4.0/38, HYUGANADA REGION*

JMA Felt II J1 at HYUGANADA REGION .

ISC 25 19:57:03.8±0.8**, 32°.70N**±0°.04×**132°.12E**±0°.03**, h43**^{km}±7^{km}**, n69,** σ**1**^{s}**10**/78**, mb4.1**/16**, 2D, Shikoku**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JSKE	**Saikikamae**	**0.21**	**298**	⇓P	**Pn**	**19 57 11.5**	**0.0**
JSKE				A	A	19 57 11.5	
	comp=N,21nm,0.7s,comp=E,45nm,0.5s						
JSKE				⇓S	**Sn**	**19 57 16.7**	**-0.1**
JUS	**Usuki**	**0.48**	**320**	*i* P	**Pn**	**19 57 14.8**	**+0.4**
JUS				A	A	19 57 14.8	
	comp=N,10.0nm,0.8s,comp=E,22nm,1.2s						
JUS				S	**Sn**	**19 57 22.3**	**+0.4**
JHHC	**Hyugahichiya**	**0.48**	**238**	*i* P	**Pn**	**19 57 14.5**	**+0.1**
JHHC				A	A	19 57 14.5	
	comp=N,16nm,0.4s,comp=E,8.0nm,0.3s						
JHHC				S	**Sn**	**19 57 22.1**	**+0.1**
JKIT	**Kitakata**	**0.57**	**262**	P	**Pn**	**19 57 15.8**	**+0.3**
JKIT				A	A	19 57 15.8	
	comp=N,19nm,0.3s,comp=E,14nm,0.3s						
JKIT				S	**Sn**	**19 57 24.4**	**+0.4**
JTO	**Tosashimizu**	**0.60**	**75**	P	**Pn**	**19 57 16.4**	**+0.5**
JTO				S	**Sn**	**19 57 25.0**	**+0.3**
UWA2	**Uwa jima 2**	**0.66**	**40**	*i* P	**Pn**	**19 57 17.3**	**+0.4**
UWA2				A	A	19 57 17.3	
	comp=N,6.0nm,3.3s,comp=E,4.0nm,1.2s						
UWA2				S	**Sn**	**19 57 26.7**	**+0.5**
JTSN	**Tsuno**	**0.69**	**229**	*i* P	**Pn**	**19 57 17.5**	**+0.3**
JTSN				A	A	19 57 17.5	
	comp=N,8.0nm,0.6s,comp=E,11nm,1.0s						
JTSN				S	**Sn**	**19 57 27.6**	**+0.8**
JBEP	**Beppuamama**	**0.87**	**317**	A	A	19 57 20.5	
	comp=N,13nm,0.4s,comp=E,12nm,1.8s						
JNA	**Nagahama**	**0.90**	**19**	*i* P	**Pn**	**19 57 20.8**	**+0.7**
JKU	**Kubokawa**	**1.00**	**52**	P	**Pn**	**19 57 21.9**	**+0.5**
JKI	**Kunimi**	**1.04**	**334**	A	A	19 57 23.0	
	comp=N,11nm,0.7s,comp=E,6.0nm,1.1s						
JIU3	**Izumi3**	**1.11**	**262**	*i* P	**Pn**	**19 57 24.4**	**+1.4**
JIU3				*e*S	**Sn**	**19 57 38.9**	**+1.7**
JNU	**Nakatsue**	**1.12**	**292**	Pg	**Pn**	**19 57 24.7**	**+1.5**
	comp=E,375nm,0.3s,baz=106,slow=6.0,SNR=8871						
JNU				Lg	Lg	19 57 39.6	
	comp=E,312nm,0.3s,baz=18,slow=20,SNR=11						
JTZ	**Takazaki**	**1.18**	**228**	*i* P	**Pn**	**19 57 24.8**	**+0.9**
JET	**Tanbara**	**1.33**	**36**	P	**Pn**	**19 57 26.7**	**+0.8**
JZO	**Okuchi**	**1.40**	**247**	A	A	19 57 28.2	
	comp=N,3.0nm,0.7s,comp=E,3.0nm,1.2s						
JMN	**Monobe**	**1.79**	**55**	Pn	**Pn**	**19 57 32.7**	**+0.3**
JSU	**Suzuyama**	**1.85**	**230**	Pn	**Pn**	**19 57 34.1**	**+1.0**
JTU	**Tsushima**	**2.91**	**309**	Pn	**Pn**	**19 57 48.7**	**+1.1**
JTU				Sn	**Sn**	**19 58 21.7**	**+0.4**
INU	**Inuyama**	**4.85**	**56**		**Pn**	**19 58 16.2**	**+1.9**
INU				Sn	**Sn**	**19 59 09.0**	**-0.1**
JGF	**Kuroka**	**5.22**	**55**		**Pn**	**19 58 20.4**	**+1.0**
JGF				Sn	**Sn**	**19 59 16.0**	**-2.3**
TJN	**Taejon**	**5.37**	**314**	Pn	**Pn**	**19 58 22.7**	**+1.3**
TJN				Sn	**Sn**	**19 59 19.3**	**-2.6**
JSG	**Sagara**	**5.43**	**67**		**Pn**	**19 58 22.9**	**+0.7**
KSRS	**Korea Array**	**5.86**	**325**	Pn	**Pn**	**19 58 30.9**	**+2.8**
	comp=E,0.4nm,0.3s,baz=146,slow=14,SNR=4.8						
KSRS				Sn	**Sn**	**19 59 34.5**	**+0.7**
	comp=E,0.6nm,0.3s,baz=146,slow=25,SNR=4.2						
KSRS				LR	LR	20 01 01.3	
	comp=E,73nm,21.2s,baz=150,slow=40						
	comp=E,1.4nm,0.5s						
KSRS				AML	AML		
KSAR	**Wonju Array Be**	**5.87**	**325**	Pn	**Pn**	**19 58 28.0**	**-0.2**
KS19	**Wonju Array Si**	**5.92**	**325**	Pn	**Pn**	**19 58 29.2**	**+0.3**
MAJO	**Matsushiro**	**6.31**	**51**		**Pn**	**19 58 35.8**	**+1.4**
MJB9	**Matsu-Tunnel**	**6.31**	**51**		**Pn**	**19 58 36.6**	**+2.2**
MJAR	**Matsushiro Arr**	**6.31**	**51**	Pn	**Pn**	**19 58 36.3**	**+1.9**
	comp=E,0.4nm,0.3s,baz=243,slow=14,SNR=34						
MJAR				Sn	**Sn**	**19 59 46.3**	**+1.1**
	baz=148,slow=34						
MJAR				LR	LR	20 01 28.2	
	comp=E,129nm,19.7s,baz=226,slow=42						
	comp=E,4.1nm,0.5s						
MJAR				AML	AML		
MJAR	**Matsushiro Arr**	**6.31**	**51**		**Pn**	**19 58 35.6**	**+1.3**
JOW	**Kunigami**	**6.74**	**211**	Pn	**Pn**	**19 58 40.4**	**+0.2**
KLR	**Kul'dur**	**16.51**	**359**	Pn	**P**	**20 00 55.4**	**+1.1**
	comp=E,0.1nm,0.3s,baz=214,slow=5.3,SNR=4.3						
KLR				LR	LR	20 06 53.0	
	comp=E,49nm,18.9s,baz=200,slow=36						
	comp=E,1.1nm,0.5s						
KLR				AML	AML		
HKPS	**Hong Kong Po S**	**19.00**	**241**	P	**P**	**20 01 20.0**	**-1.9**
HKPS				IAmb	IAmb	20 01 21.8	
	comp=Z,66nm,1.1s						
SONM	**Songino Array**	**24.62**	**315**	P	**P**	**20 02 21.5**	**+1.4**
	comp=Z,0.6nm,0.9s,baz=128,slow=9.3,SNR=4.2						
SONM				LR	LR	20 13 12.2	
	comp=Z,50nm,18.7s,baz=92,slow=39						
	comp=Z,0.6nm,0.9s						
CMAR	**Chiang Mai Arr**	**32.96**	**253**	P	**P**	**20 03 33.9**	**-0.6**
	comp=Z,0.3nm,0.6s,baz=68,slow=8.9,SNR=2.1						
	comp=Z,0.3nm,0.6s						
H11N2	**WAKE ISLAND Hy**	**33.61**	**104**	T	T	20 39 47.2	
	baz=299						
H11N1	**WAKE ISLAND Hy**	**33.62**	**104**	T	T	20 39 44.4	
	baz=299						
H11N3	**WAKE ISLAND Hy**	**33.63**	**104**	T	T	20 39 50.8	
	baz=299						
FAKI	**Fak Fak**	**35.43**	**180**	P	**P**	**20 03 55.8**	**-0.1**
MKAR	**Makanchi Array**	**40.15**	**305**	P	**P**	**20 04 35.4**	**-0.1**
	comp=Z,0.2nm,0.5s,baz=95,slow=8.8,SNR=2.0						
	comp=Z,0.2nm,0.5s						
MTN	**Manton Dam**	**45.30**	**181**	P	**P**	**20 05 16.3**	**-1.1**
MTN				IAmb	IAmb	20 05 18.4	
	comp=Z,5.8nm,1.1s						
BORK	**Borovoye**	**47.99**	**314**	P	**P**	**20 05 38.1**	**-0.2**
BORK				IAmb	IAmb	20 06 17.2	
	comp=Z,1.4nm,0.6s						
KNRA	**Kununurra**	**48.21**	**184**	P	**P**	**20 05 40.4**	**+0.2**
KNRA				IAmb	IAmb	20 05 53.4	
	comp=Z,4.7nm,1.2s						
KK31	**Karatay Array**	**48.72**	**301**	P	**P**	**20 05 43.2**	**-0.8**
KK31				IAmb	IAmb	20 05 56.7	
	comp=Z,7.0nm,1.4s						
KKAR	**Karatay Array**	**48.72**	**301**	P	**P**	**20 05 43.0**	**-1.1**
M14K	**Bethel**	**50.41**	**36**	P	**P**	**20 05 58.0**	**+1.5**
FITZ	**Fitzroy Crossi**	**50.89**	**188**	P	**P**	**20 06 00.7**	**+0.1**
CNBA	**Chernabura Isl**	**51.76**	**43**	P	**P**	**20 06 06.9**	**+0.2**
WB0	**Warramunga Arr**	**52.22**	**177**	P	**P**	**20 06 11.0**	**+0.5**
WB0				IAmb	IAmb	20 06 28.6	
	comp=Z,9.4nm,1.4s						
WRA	**Warramunga Arr**	**52.39**	**177**	P	**P**	**20 06 11.2**	**-0.7**
	comp=Z,1.7nm,0.8s,baz=352,slow=7.6,SNR=13						
WRA				PcP	**PcP**	**20 07 22.8**	**+0.6**
	comp=Z,0.3nm,0.6s,baz=351,slow=3.7,SNR=2.3						
	comp=Z,1.7nm,0.8s						
WRA	**Warramunga Arr**	**52.39**	**177**	P	**P**	**20 06 12.6**	**+0.7**
WR8	**Warramunga Arr**	**52.41**	**177**	P	**P**	**20 06 12.5**	**+0.5**
WR8				IAmb	IAmb	20 06 13.6	
	comp=Z,3.3nm,0.9s						
AB31	**Akbulak array**	**54.88**	**310**	P	**P**	**20 06 28.6**	**-1.2**
AB31				IAmb	IAmb	20 06 53.0	
	comp=Z,1.5nm,0.8s						
ABKAR	**Akbulak array**	**54.88**	**310**	P	**P**	**20 06 28.7**	**-1.1**
KDAK	**Kodiak Island**	**55.34**	**39**	P	**P**	**20 06 32.7**	**-0.3**
ASAR	**Alice Springs**	**56.08**	**178**	P	**P**	**20 06 39.3**	**+0.6**
	comp=Z,1.5nm,0.9s,baz=11,slow=13,SNR=14						
	comp=Z,1.5nm,0.9s						
ASAR	**Alice Springs**	**56.08**	**178**	P	**P**	**20 06 40.0**	**+1.3**
ILAR	**Eielson Array**	**57.15**	**30**	P	**P**	**20 06 48.4**	**+2.6**
	comp=Z,0.1nm,0.5s,baz=283,slow=6.3,SNR=1.1						
	comp=Z,0.1nm,0.5s						
BMAR	**Burnt Mountain**	**57.72**	**27**	P	**P**	**20 06 50.4**	**+0.6**
BCAR	**Beaver Creek A**	**59.68**	**32**	P	**P**	**20 07 02.5**	**-1.0**
I28M	**Miner Creek**	**59.92**	**29**	P	**P**	**20 07 05.0**	**-0.2**
G30M	**tAoh Zraii Nji**	**61.00**	**27**	P	**P**	**20 07 12.3**	**-0.2**
G30M				IAmb	IAmb	20 07 49.6	
	comp=Z,9.9nm,1.4s						
STKA	**Stephens Creek**	**64.85**	**171**	P	**P**	**20 07 38.9**	**+0.5**
	comp=Z,2.3nm,0.7s,baz=5.7,slow=10,SNR=4.4						
	comp=Z,2.3nm,0.7s						
ARA0	**ARCESS Array S**	**65.25**	**338**	PN	**P**	**20 07 40.4**	**-0.1**
ARCES	**ARCESS Array B**	**65.25**	**338**	P	**P**	**20 07 39.7**	**-0.8**
ARCES	**ARCESS Array B**	**65.25**	**338**	P	**P**	**20 07 39.8**	**-0.8**
FIA1	**FINESS Array S**	**68.92**	**330**	P	**P**	**20 08 02.7**	**-1.2**
FINES	**FINESS Array B**	**68.92**	**330**	P	**P**	**20 08 02.7**	**-1.2**
	comp=Z,0.6nm,0.6s,baz=71,slow=6.4,SNR=3.5						
	comp=Z,0.6nm,0.6s						
FINES	**FINESS Array B**	**68.92**	**330**	P	**P**	**20 08 02.5**	**-1.4**

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*DJA **25** 20:06:12.7±0.6, 1°S±4°×9°8E±°, h10^{km}, M3.9/7, MLv3.8/12, MLv3.9/7*

*IDC **25** 20:06:13.6±4.2, 0°.56S×98°.45E, h0^{km}, mb3.5/5, mbtmp3.5/5, Error ellipse: s-maj=177.8km s-min=24.1km az=57.0*

ISC 25 20:06:12.9±1.4**, 1°.1S**±0°.1×**97°.4E**±0°.1**, h23**^{km}**, n18,** σ**1**^{s}**05**/13**, mb3.4**/5**, Southwest of Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PBSI	**Pulau Batu**	**1.40**	**40**	P	**Pn**	**20 06 36.9**	**-0.1**
PBSI				S	**Sn**	**20 06 54.6**	**-0.1**
PBSI				AML	AML		
GSI	**Gunungsitoli**	**2.43**	**4**	P	**Pn**	**20 06 51.1**	**-0.2**
MNSI	**Mandailing Nat**	**2.91**	**49**	P	**Pn**	**20 06 58.4**	**+0.5**
PPI	**Padang Panjang**	**3.08**	**77**	P	**Pn**	**20 06 59.3**	**-0.9**
PPI				AML	AML		
PPI				AML	AML		
SDSI	**Sungai Dareh**	**4.04**	**87**	P	**Pn**	**20 07 13.9**	**+0.5**
SDSI				AML	AML		
TPTI		**4.37**	**357**	P	**Pn**	**20 07 17.1**	**-0.8**
KCSI	**Kotacane, Aceh**	**4.64**	**5**	P	**Pn**	**20 07 21.1**	**-0.6**
H08S2	**Diego Garcia H**	**25.64**	**255**	T	T	20 39 34.3	
	baz=75						
H08S3	**Diego Garcia H**	**25.64**	**255**	T	T	20 39 26.8	
	baz=75						
H08S1	**Diego Carcia H**	**25.66**	**255**	T	T	20 39 43.5	
	baz=75						
H01W3	**Cape Leeuwin H**	**37.03**	**157**	T	T	20 53 19.7	
	baz=334,slow=76,SNR=3.4						
H01W2	**Cape Leeuwin H**	**37.04**	**157**	T	T	20 53 00.3	
	baz=334,slow=76,SNR=2.9						
H01W1	**Cape Leeuwin H**	**37.05**	**157**	T	T	20 53 11.6	
	baz=334,slow=76,SNR=3.2						
WRA	**Warramunga Arr**	**40.68**	**120**	P	**P**	**20 13 50.3**	**-1.6**
	0.4nm,0.8s,baz=301,slow=8.1,SNR=2.6						
	0.4nm,0.8s						
ASAR	**Alice Springs**	**41.87**	**125**	P	**P**	**20 14 01.9**	**+0.2**
	0.2nm,0.7s,baz=298,slow=8.4,SNR=4.1						
	0.2nm,0.7s						
SONM	**Songino Array**	**49.40**	**8**	P	**P**	**20 15 00.2**	**-0.8**
	0.1nm,0.2s,baz=196,slow=4.2,SNR=1.4						
	0.1nm,0.2s						
MKAR	**Makanchi Array**	**49.54**	**346**	P	**P**	**20 15 03.9**	**+2.0**
	0.6nm,0.6s,baz=153,slow=8.1,SNR=5.6						
	0.6nm,0.6s						
ZALV	**Zalesovo Beam**	**55.88**	**351**	P	**P**	**20 15 49.8**	**+1.2**
	1.1nm,0.5s,baz=175,slow=7.2,SNR=6.8						
	1.1nm,0.5s						

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*KOLA **25** 20:06:44.2, 67°.66N×33°.74E, h0^{km}, ML1.5, Error ellipse: s-maj=2.5km s-min=1.4km az=130.0, Khibiny, mines Kirovsk, Yukspor*

HEL 25 20:06:44.7±0.3**, 67°.65N**×**33°.71E, h0**^{km}**, ML1.3, Explosion, Baltic States-Belarus-Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APA	**Apatity**	**0.14**	**237**	P	Pg	20 06 46.6	-0.7
APA0	**Apatity Array**	**0.28**	**262**	P	Pg	20 06 49.0	-0.9
APA0				S	Sg	20 06 53.0	-0.5
LVZ	**Lovozero**	**0.44**	**54**	S	Sg	20 06 57.2	-1.6
LVZ	**Lovozero**	**0.44**	**54**	PG	Pg	20 06 52.9	-0.2
LVZ				SG	Sg	20 06 57.5	-1.3
KVDA	**Kovda**	**1.01**	**199**	P	Pg	20 07 03.6	-0.5
KVDA				S	Sg	20 07 15.8	-1.3
VRF	**Varrio**	**1.57**	**276**	PG	Pn	20 07 13.3	-0.5
	baz=92						
VRF				smax	smax	20 07 31.6	
	comp=Z,2.2nm,0.2s						
VRF				SG	Sn	20 07 32.4	-2.4
TERR	**Teriberka**	**1.65**	**18**	S	Sn	20 07 34.4	-2.3
OLKF	**Oulanka, Finla**	**2.15**	**234**	PG	Pn	20 07 22.9	+1.1
OLKF				smax	smax	20 07 48.5	
	comp=Z,1.1nm,0.2s						
OLKF				SG	Sb	20 07 51.6	-0.1
RAJF	**Raja-Jooseppi**	**2.19**	**295**	PG	Pn	20 07 23.4	+1.0
RAJF				SN	Sn	20 07 49.0	-1.1
KU6	**Riekki**	**2.22**	**225**	PG	Pn	20 07 24.0	+1.3
KU6				smax	smax	20 07 50.5	
	comp=Z,0.8nm,0.2s						
KU6				SG	Sb	20 07 53.7	+0.1
MSF	**Maaselka**	**2.54**	**229**	SG	Sg	20 08 04.7	-1.5
VADS	**Vadso**	**2.94**	**330**	S	Sn	20 08 07.1	-1.5
RNF	**Rovaniemi**	**3.18**	**254**	PB	Pn	20 07 37.2	+1.3
	baz=68						
RNF				SB	Sn	20 08 15.5	+1.1
RANF	**Ranua**	**3.19**	**242**	SG	Sb	20 08 22.8	+1.3
KEV	**Kevo**	**3.24**	**314**	PN	Pn	20 07 37.3	+0.7
KEV				SN	Sn	20 08 15.0	-0.8
KLF	**Kolari**	**3.78**	**268**	SG	Sb	20 08 41.1	+2.7
ERTU	**Ertsjaerv**	**4.63**	**262**	SN	Sn	20 08 50.3	+0.1

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*GII **25** 20:22:20.4±0.0, 26°.595N±0°.003×33°.995E±0°.001, h0^{km}, Mws3.9, confirmed*

*HLW **25** 20:22:34.0, 27°.49N×33°.99E, h16^{km}±2^{km}, Ml3.8*

*SGS **25** 20:22:35.3, 27°.57N×34°.16E, h9^{km}, Ml2.7*

ISC 25 20:22:33.5±1.9**, 27°.51N**±0°.03×**34°.02E**±0°.03**, h15**^{km}±16^{km}**, n58,** σ**1**^{s}**53**/70**, Red Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HHRG	**Al Ghardaqah**	**0.49**	**235**	P	**Pb**	**20 22 45.0**	**+1.2**
HHRG				S	**Sb**	**20 22 52.2**	**+1.4**
TR1	**Tor 1**	**0.50**	**353**	P	**Pb**	**20 22 43.9**	**-0.1**
NSFG	**Safaga**	**0.74**	**186**	P	**Pb**	**20 22 48.5**	**+0.5**
TR2	**Tor 2**	**0.92**	**343**	P	**Pb**	**20 22 50.5**	**-0.5**
RSHS		**1.05**	**41**	P	**Pb**	**20 22 52.5**	**-0.8**
KRABS	**KRABS**	**1.24**	**61**	P	**Pn**	**20 22 55.4**	**-0.8**
KRABS				S	**Sb**	**20 23 10.3**	**-2.1**
AYUS	**`Aynunah**	**1.30**	**58**	P	**Pn**	**20 22 56.3**	**-0.7**
AYUS				S	**Sb**	**20 23 12.0**	**-2.0**
HDHB	**Dhahab**	**1.32**	**23**	P	**Pn**	**20 22 57.1**	**-0.2**
BDAS	**Al Bad`**	**1.33**	**46**	P	**Pn**	**20 22 56.5**	**-1.0**
GRB	**Gharib**	**1.33**	**305**	P	**Pn**	**20 22 55.9**	**-1.6**
MWLHS	**Almuwaylih**	**1.35**	**79**	P	**Pn**	**20 22 57.0**	**-0.7**
HRDS	**Abu Rudays**	**1.36**	**332**	P	**Pn**	**20 22 57.2**	**-0.7**
NUB	**Nuweibaa**	**1.61**	**20**	P	**Pn**	**20 23 00.6**	**-0.7**
HAQS	**Haql**	**1.73**	**27**	P	**Pn**	**20 23 02.5**	**-0.5**
JLOS		**1.79**	**46**	P	**Pn**	**20 23 03.5**	**-0.4**
DESA	**DESA**	**1.90**	**89**	P	**Pn**	**20 23 05.8**	**+0.4**
HQLS		**2.01**	**27**	P	**Pn**	**20 23 06.6**	**-0.3**
ZNM	**Zenema**	**2.12**	**332**	P	**Pn**	**20 23 08.9**	**+0.6**
ASUT		**2.19**	**268**	P	**Pn**	**20 23 09.0**	**-0.2**
NADB	**Abo Dabab**	**2.20**	**169**	P	**Pn**	**20 23 09.2**	**-0.2**
NADB				S	**Sn**	**20 23 33.9**	**-2.5**
WJHS		**2.25**	**109**	P	**Pn**	**20 23 10.2**	**+0.1**
URD07	**Al Anba**	**2.30**	**85**	P	**Pn**	**20 23 11.9**	**+1.0**
EIL	**Elat**	**2.31**	**21**	P	**Pn**	**20 23 11.1**	**+0.2**
EIL				AML	AML		
EIL	**Elat**	**2.31**	**21**	P	**Pn**	**20 23 11.6**	**+0.7**
EIL				S	**Sg**	**20 23 50.1**	**+2.4**
TBKS	**Tabuk**	**2.34**	**72**	P	**Pn**	**20 23 12.6**	**+1.2**
URD06	**Shuwaq**	**2.44**	**91**	P	**Pn**	**20 23 13.8**	**+0.9**
YTVT	**Yotvata**	**2.55**	**21**	P	**Pn**	**20 23 15.5**	**+1.3**
YTVT				S	**Sg**	**20 23 56.8**	**+1.5**
SUZ	**Suez**	**2.55**	**336**	P	**Pn**	**20 23 14.7**	**+0.4**
URD05	**Al Faraah**	**2.63**	**95**	P	**Pn**	**20 23 16.4**	**+0.9**
NBNS	**Bani Suef**	**2.65**	**295**	P	**Pn**	**20 23 15.9**	**+0.2**
HRFI	**Mount Harif**	**2.68**	**19**	P	**Pn**	**20 23 16.5**	**+0.5**
HRFI				AML	AML		
HRFI	**Mount Harif**	**2.68**	**19**	P	**Pn**	**20 23 16.7**	**+0.7**
HRFI				S	**Sg**	**20 24 00.1**	**+0.6**
BIDS	**Bi'r al Bayda'**	**2.69**	**103**	P	**Pn**	**20 23 17.1**	**+0.9**
URD12	**Shuwaq**	**2.71**	**84**	P	**Pn**	**20 23 17.8**	**+1.3**
TAMRE	**El Minia**	**2.76**	**274**	P	**Pn**	**20 23 16.4**	**-0.7**
URD04	**Abu Rakah**	**2.91**	**98**	P	**Pn**	**20 23 20.5**	**+1.2**
PRNI	**Paran**	**2.96**	**17**	P	**Pn**	**20 23 21.0**	**+1.0**
PRNI				AML	AML		
URD15	**Abu Rakah**	**3.06**	**94**	P	**Pn**	**20 23 23.3**	**+1.8**
HSNJ	**Maan**	**3.11**	**28**	P	**Pn**	**20 23 23.3**	**+1.3**
HSNJ				AML	AML		
RMNI	**Mount Ramon**	**3.15**	**12**	P	**Pn**	**20 23 24.3**	**+1.8**
RMNI				S	**Sg**	**20 24 12.7**	**-1.9**
ZFRI	**Zfri**	**3.20**	**18**	P	**Pn**	**20 23 24.3**	**+1.1**
ZFRI				S	**Sg**	**20 24 13.8**	**-2.6**
HAGS	**Hagol**	**3.23**	**164**	P	**Pn**	**20 23 23.9**	**+0.3**
URD14	**Abu Rakah**	**3.31**	**90**	P	**Pn**	**20 23 26.8**	**+2.0**
KZIT	**Kziot**	**3.41**	**5**	P	**Pn**	**20 23 26.6**	**+0.6**
KZIT				AML	AML		
KZIT	**Kziot**	**3.41**	**5**	P	**Pn**	**20 23 26.5**	**+0.6**
KZIT				S	**Sg**	**20 24 19.1**	**-3.8**
HZVA	**Hazeva**	**3.43**	**18**	P	**Pn**	**20 23 27.1**	**+0.7**
HZVA				S	**Sb**	**20 24 18.6**	**+3.1**
IDAN	**Idan**	**3.49**	**18**	P	**Pn**	**20 23 28.0**	**+0.8**
IDAN				S	**Sb**	**20 24 20.4**	**+3.2**
RYAN	**Fayoum**	**3.66**	**296**	P	**Pn**	**20 23 29.5**	**+0.1**
LISJ	**El Lisan**	**3.94**	**19**	P	**Pn**	**20 23 37.2**	**+4.0**
LISJ				AML	AML		
KASR	**Kasr**	**3.97**	**192**	P	**Pn**	**20 23 33.5**	**-0.2**
MSBI	**Mazada**	**3.97**	**17**	P	**Pn**	**20 23 34.7**	**+0.9**
MSBI				AML	AML		
MSBI	**Mazada**	**3.97**	**17**	P	**Pn**	**20 23 34.6**	**+0.9**
GHAJ	**Ghor Haditha**	**4.02**	**19**	P	**Pn**	**20 23 36.1**	**+1.7**
GHAJ				AML	AML		
GHAJ	**Ghor Haditha**	**4.02**	**19**	P	**Pn**	**20 23 36.0**	**+1.7**
AMAZ	**Amatzia**	**4.09**	**11**	P	**Pn**	**20 23 39.3**	**+3.9**
AMAZ				AML	AML		
AMAZ	**Amatzia**	**4.09**	**11**	P	**Pn**	**20 23 37.1**	**+1.7**
YITV	**Yitav**	**4.59**	**15**	P	**Pn**	**20 23 44.0**	**+1.7**
SALP	**Salfit**	**4.66**	**12**	P	**Pn**	**20 23 45.0**	**+1.7**

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*IDC **25** 20:24:19.4±0.5, 10°.25S×117°.67E, h0^{km}, mb4.4/21, mbtmp4.4/26, ML4.2/5, MS3.8/22, Error ellipse: s-maj=13.7km s-min=9.9km az=56.0*

*NEIC **25** 20:24:20.7±2.2, 10°.53S±0°.07×117°.55E±0°.06, h15^{km}±4^{km}, mb4.7/66, Error ellipse: s-maj=10.7km s-min=7.7km az=200.0*

*GFZ **25** 20:24:21.3±0.2, 11°S±3°×11°7E±°, h10^{km}, M4.6/20, mb4.7/20, confirmed*

*DJA **25** 20:24:21.6±0.7, 11°S±8°×11°7E±°, h10^{km}, M4.7/19, mB5.1/8, mB5.1/8, mb5.1/9, mb5.1/9, ML4.6/9, MLv4.8/19, MLv4.8/18, Mw(mB)4.5/8, Mw(mB)4.4/8, MwMwp4.8/1, Mwp5.2/1*

ISC 25 20:24:20.2±0.3**, 10°.53S**±0°.04×**117°.54E**±0°.03**, h10**^{km}**, n213,** σ**1**^{s}**82**/169**, mb4.7**/65**, MS3.8**/21**, 1C-2D, South of Sumbawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLAI	**Plampang**	**1.71**	**8**	P	**Pn**	**20 24 51.5**	**+1.4**
PLAI	**Plampang**	**1.71**	**8**	P	**Pn**	**20 24 52.3**	**+2.3**
TWSI	**Taliwang, Sumb**	**1.90**	**340**	P	**Pn**	**20 24 54.4**	**+1.7**
TWSI				AML	AML		
DBNI	**Kabupaten Domp**	**2.15**	**21**	P	**Pn**	**20 24 59.7**	**+3.5**
DBNI				AML	AML		
DBNI				AML	AML		
KHKI	**Kahang-Kahang**	**2.88**	**318**	P	**Pn**	**20 25 10.4**	**+4.3**
KHKI				AML	AML		
KHKI				AML	AML		
KHKI				AML	AML		
IGBI	**Denpasar**	**2.91**	**306**	P	**Pb**	**20 25 13.2**	**+0.9**
IGBI				AML	AML		
IGBI				AML	AML		
IGBI				AML	AML		
DNP	**Denpasar**	**2.95**	**308**	P	**Pn**	**20 25 08.8**	**+1.7**
LBFI	**Labuhan Bajo,**	**3.08**	**49**	P	**Pn**	**20 25 12.9**	**+3.9**
RTBI	**Rangdo, Negare**	**3.29**	**309**	P	**Pn**	**20 25 13.0**	**+1.2**
RTBI				AML	AML		
RTBI				AML	AML		
SRBI	**Singaraja**	**3.35**	**316**	P	**Pn**	**20 25 15.5**	**+2.9**
SRBI				AML	AML		
SRBI				AML	AML		
JAGI	**Jajag, Banyuwa**	**3.92**	**301**	P	**Pn**	**20 25 20.6**	**+0.1**
JAGI	**Jajag, Banyuwa**	**3.92**	**301**	S	**Sn**	**20 26 05.7**	**-1.0**
JAGI	**Jajag, Banyuwa**	**3.92**	**301**		**Pn**	**20 25 20.2**	**-0.3**
JAGI				Sn	**Sn**	**20 26 02.5**	**-4.2**
JAGI	**Jajag, Banyuwa**	**3.92**	**301**	P	**Pn**	**20 25 22.5**	**+2.0**
JAGI				AML	AML		
JAGI	**Jajag, Banyuwa**	**3.92**	**301**	P	**Pn**	**20 25 20.8**	**+0.3**
ABJI	**Asem Bagus**	**4.25**	**309**	P	Pn	20 25 30.0	+5.0
ABJI				AML	AML		
EDFI	**Ende, Flores**	**4.46**	**67**	P	**Pn**	**20 25 31.3**	**+3.4**
EDFI				AML	AML		
BLJI	**Banyuglugur**	**4.78**	**305**	P	**Pn**	**20 25 33.5**	**+1.2**
BLJI				AML	AML		
MMRI	**Maumere**	**5.00**	**68**	P	Pn	20 25 42.1	+6.8
MMRI	**Maumere**	**5.00**	**68**		**Pn**	**20 25 34.9**	**-0.5**
MMRI	**Maumere**	**5.00**	**68**	P	Pn	20 25 42.5	+7.2
	0.9nm2µm162nm,0.8s						
MMRI				AML	AML		
MMRI	**Maumere**	**5.00**	**68**	P	Pn	20 25 39.9	+4.6
	comp=Z,162nm,1.0s						
BSSI	**Bau Bau, Buton**	**5.25**	**34**	P	**Pn**	**20 25 43.0**	**+4.3**
BKSI	**Bulukumba**	**5.77**	**26**	P	**Pn**	**20 25 50.3**	**+4.3**
	comp=Z,0.7nmcomp=Z,2µmcomp=Z,2µmcomp=Z,189nm,0.6s,						
	comp=Z,189nm,0.6s						
BKSI				AML	AML		
KAPI	**Kappang**	**5.90**	**22**	Pn	Pn	20 25 45.1	-2.6
	comp=Z,4.1nm,0.3s,baz=197,slow=8.7,SNR=10						
KAPI				Sn	Sn	20 26 46.7	-8.8
	baz=220,slow=23						
KAPI				LR	LR	20 28 30.2	
	comp=Z,1µm,18.8s,baz=217,slow=45						
	comp=Z,3.0nm,0.3s						
KAPI				AML	AML		
KAPI	**Kappang**	**5.90**	**22**		**Pn**	**20 25 48.1**	**+0.4**
KAPI	**Kappang**	**5.90**	**22**	P	Pn	20 25 52.5	+4.7
	comp=Z,62nm,0.8s						
BATI	**Baumata**	**6.03**	**87**	Pn	Pn	20 25 46.8	-2.7
	comp=Z,14nm,0.3s,baz=277,slow=4.9,SNR=15						
BATI				Sn	**Sn**	**20 26 54.0**	**-4.7**
	comp=Z,20nm,0.3s,baz=164,slow=22,SNR=6.2						
	comp=Z,34nm,0.3s						
BATI				AML	AML		
SNJI	**Sawahan-Nganju**	**6.33**	**295**	P	**Pb**	**20 26 11.7**	**+1.0**
SOEI	**Soe**	**6.66**	**84**	P	Pn	20 26 03.7	+5.4
SOEI	**Soe**	**6.66**	**84**		**Pn**	**20 25 58.6**	**+0.2**
SOEI	**Soe**	**6.66**	**84**	P	Pn	20 26 06.7	+8.4
SOEI	**Soe**	**6.66**	**84**	P	**Pn**	**20 26 02.3**	**+4.0**
	comp=Z,92nm,0.7s						
BBSI	**Bau Bau**	**7.06**	**45**	P	Pb	20 26 19.1	-3.9
UGM	**Wanagama**	**7.40**	**290**	Pn	**Pn**	**20 26 07.9**	**-0.5**
KKSI	**Kolaka, Sulawe**	**7.52**	**33**	P	Pn	20 26 17.6	+7.6
	comp=Z,0.2nmcomp=Z,60nm,0.6s,comp=Z,60nm,0.6s						
KKSI				AML	AML		
KDI	**Kendari**	**8.24**	**38**	P	Pn	20 26 32.8	+13
BBJI	**Bungbulang**	**10.24**	**287**	Pn	**Pn**	**20 26 46.7**	**-0.6**
LEM	**Lembang**	**10.48**	**290**	LR	LR	20 32 08.8	
	comp=Z,441nm,19.2s,baz=114,slow=45						
MBWA	**Marble Bar**	**10.77**	**169**		**Pn**	**20 26 52.5**	**-2.1**
MBWA	**Marble Bar**	**10.77**	**169**	P	**Pn**	**20 26 53.2**	**-1.4**
	comp=Z,42nm,0.7s						
FITZ	**Fitzroy Crossi**	**10.87**	**135**	Pn	**Pn**	**20 26 55.8**	**-0.1**
	comp=Z,2.3nm,0.3s,baz=323,slow=9.5,SNR=65						
FITZ				Sn	Sn	20 28 48.7	-8.9
	comp=Z,3.1nm,0.3s,baz=168,slow=20,SNR=5.3						
FITZ				LR	LR	20 31 20.6	
	comp=Z,488nm,19.1s,baz=314,slow=38						

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       comp=Z,15nm,0.6s
FITZ                                AML     AML
FITZ   Fitzroy Crossi    10.87 135  P       Pn      20 26 55.8  -0.1
FITZ   Fitzroy Crossi    10.87 135          Pn      20 26 55.2  -0.6
FITZ   Fitzroy Crossi    10.87 135  P       Pn      20 26 56.6  +0.7
       comp=Z,4.8nm,0.7s
SANI   Sanana            11.89  45  P       Pn      20 27 17.5  +7.6
SANI   Sanana            11.89  45  P       Pn      20 27 13.9  +4.0
       comp=Z,23nm,1.2s
TOLI2  Tolitoli          12.01  16  P       Pn      20 27 18.7  +7.2
TOLI2  Tolitoli          12.01  16          Pn      20 27 16.7  +5.2
KNRA   Kununurra         12.06 116          Pn      20 27 11.8  -0.5
GIRL   Giralia           12.45 194          Pn      20 27 15.7  -1.9
MTN    Manton Dam        13.51 101  Pn      Pn      20 27 31.1  -0.9
SBUM   Sibu              13.94 337          Pn      20 27 37.2  -0.8
TNTI   Ternate           14.89  42  P       P       20 27 58.3  +1.7
TNTI   Ternate           14.89  42          Pn      20 27 50.2  -0.7
TNTI   Ternate           14.89  42  P       Pn      20 27 55.0  +4.1
       comp=Z,36nm,1.0s
MYLDM  Lahad Datu        15.64   4          Pn      20 27 58.4  -2.4
MYLDM                               IAmb    IAmb    20 28 17.5
       comp=Z,52nm,1.2s
MNAI   Manna             15.71 292  Pn      Pn      20 27 57.9  -3.9
MEEK   Meekatharra       16.05 177  P       Pn      20 28 04.7  -1.5
       comp=Z,40nm,0.7s
FAKI   Fak Fak           16.44  64          Pn      20 28 09.3  -1.8
FAKI                                IAmb    IAmb    20 28 16.4
       comp=Z,38nm,0.9s
FAKI   Fak Fak           16.44  64  P       Pn      20 28 12.4  +1.3
       comp=Z,48nm,0.9s
KKM    Kota Kinabalu     16.52 355          Pn      20 28 11.6  -0.7
SIJI   Sorong            16.68  56  Pn      Pn      20 28 12.9  -1.3
       comp=Z,0.9nm,0.3s,baz=209,slow=5.3,SNR=9.9
SIJI                                LR      LR      20 34 59.4
       comp=Z,287nm,20.0s,baz=310,slow=39
       comp=Z,7.7nm,0.6s
SIJI                                AML     AML
MORW   Morawa            18.50 184  P       P       20 28 34.7  -1.9
MORW                                IAmb    IAmb    20 28 39.2
       comp=Z,19nm,0.6s
WB0    Warramunga Arr    18.66 121  P       P       20 28 36.7  -1.8
WRA    Warramunga Arr    18.70 122  P       P       20 28 39.0  +0.1
       comp=Z,0.4nm,0.3s,baz=295,slow=14,SNR=19
WRA                                 S       Sn      20 31 53.1   -15
       comp=Z,1.5nm,0.8s,baz=302,slow=25,SNR=2.3
       comp=Z,1.5nm,0.6s
WRA                                 AML     AML
WR8    Warramunga Arr    18.84 122  P       P       20 28 39.7  -0.7
BLDU   Ballidu           20.00 182  P       P       20 28 55.6  +2.5
       comp=Z,60nm,1.0s
AS31   Alice Springs     20.34 132  P       P       20 28 56.4  -0.5
ASAR   Alice Springs     20.34 132  P       P       20 28 59.9  +3.0
       comp=Z,5.0nm,0.7s,baz=300,slow=9.6,SNR=52
ASAR                                S       S       20 32 38.0  -7.1
       comp=Z,2.1nm,0.7s,baz=307,slow=23,SNR=7.0
ASAR                                LR      LR      20 36 54.7
       comp=Z,224nm,20.3s,baz=304,slow=37
       comp=Z,5.0nm,0.7s
ASAR   Alice Springs     20.34 132  P       P       20 28 56.5  -0.4
KLBR   Kellerberrin      20.96 179  P       Pn      20 29 07.7  +1.7
       comp=Z,54nm,0.9s
IPM    Ipoh              22.20 311  P       P       20 29 15.7  -1.3
NWAO   Narrogin (SRO)    22.29 181  LR      LR      20 38 07.4
       comp=Z,154nm,20.6s,baz=30,slow=37
NWAO   Narrogin (SRO)    22.29 181  P       P       20 29 18.0  +0.2
NWAO                                IAmb    IAmb    20 29 48.1
       comp=Z,53nm,1.4s
FORT   Forrest           22.39 156  P       P       20 29 17.8  -1.0
FORT                                IAmb    IAmb    20 29 34.1
       comp=Z,12nm,0.8s
RPSI   Rantau Prapat     22.72 304  P       P       20 29 23.4  +0.9
RPSI                                IAmb    IAmb    20 29 27.8
       comp=Z,52nm,1.5s
RPSI   Rantau Prapat     22.72 304  P       P       20 29 24.5  +2.0
       comp=Z,21nm,1.4s
GSI    Gunungsitoli      23.09 299  P       P       20 29 24.6  -1.8
GSI                                 IAmb    IAmb    20 29 51.2
       comp=Z,55nm,1.4s
QIS    Mount Isa         23.45 118  P       P       20 29 33.7  +3.8
       comp=Z,16nm,0.8s
JAY    Jayapura          24.33  72  P       P       20 29 39.4  +0.9
       comp=Z,6.9nm,0.8s,baz=242,slow=15,SNR=3.5
       comp=Z,6.9nm,0.8s
MTSU   Mount Surprise    26.99 109  P       P       20 30 06.5  +3.9
       comp=Z,6.2nm,0.8s
PMG    Port Moresby      29.18  90  LR      LR      20 44 50.9
       comp=Z,241nm,19.6s,baz=334,slow=42
CTAO   Charters Tower    29.23 112  P       P       20 30 19.6  -2.9
CTAO                                IAmb    IAmb    20 30 21.4
       comp=Z,10.0nm,1.4s
STKA   Stephens Creek    30.75 137  P       P       20 30 39.0  +3.2
       comp=Z,2.9nm,0.9s,baz=303,slow=11,SNR=2.8
STKA                                LR      LR      20 43 58.1
       comp=Z,214nm,18.6s,baz=313,slow=38
       comp=Z,2.9nm,0.9s
PBA    Port Blair        33.06 311  P       P       20 30 54.0  -2.3
CMAR   Chiang Mai Arr    34.16 327  P       P       20 31 05.5  -0.3
       comp=Z,1.0nm,0.7s,baz=155,slow=7.0,SNR=7.7
       comp=Z,1.0nm,0.7s
CMAR   Chiang Mai Arr    34.16 327  P       P       20 31 04.5  -1.3
SSLB   Suanglung         34.27   6  P       P       20 31 05.8  -0.9
SLVN   Son La            34.38 337  P       P       20 31 05.8  -2.0
SLVN                                IAmb    IAmb    20 31 49.7
       comp=Z,7.8nm,1.5s
CHTO   Chiang Mai        34.45 328  P       P       20 31 06.0  -2.3
NACB   Ninganchiao       34.72   7  P       P       20 31 09.0  -1.5
RABL   Rabaul            34.88  82  P       P       20 31 09.5  -2.7
NPW    Naypyitaw         36.77 325  P       P       20 31 26.7  -1.4
       comp=Z,6.0nm,1.0s
DPSS   Saipan            37.93  48  P       P       20 31 37.6  -0.6
JOW    Kunigami          38.58  15  P       P       20 31 43.2  -0.2
PZH    PanZhiHua         39.89 338  P       P       20 31 57.3  +2.8
PALK   Pallekele         40.72 294  LR      LR      20 49 23.8
       comp=Z,88nm,19.9s,baz=112,slow=37
PALK   Pallekele         40.72 294  P       P       20 31 58.7  -2.9
PALK                                IAmb    IAmb    20 32 03.4
       comp=Z,19nm,1.1s
MORE   Moreh             41.35 327  P       P       20 32 04.3  -2.2
MORE                                IAmb    IAmb    20 32 09.4
       comp=Z,7.1nm,0.7s
NJ2    Nanjing           42.36   2 eP       P       20 32 16.5  +1.9
NJ2                                 pmax    pmax
       comp=Z,11nm,0.5s
XAN    Xi'an             45.08 350  P       P       20 32 34.3  -2.3
XAN                                 pP      pwP     20 32 48.5  +4.5
XAN                                 pmax    pmax
       comp=Z,8.0nm,0.8s
XAN                                 L       L
       comp=Z,180nm,21.3s
XAN                                 L       L
       comp=Z,130nm,20.6s
XAN                                 L       L
       comp=Z,270nm,18.6s
TIA    Tai'an            46.49 360  P       P       20 32 47.0  -0.7
TIA                                 pmax    pmax
       comp=Z,8.0nm,0.7s
EVN    Everest           48.47 323  P       P       20 33 03.4  -0.5
EVN                                 IAmb    IAmb    20 33 17.9
       comp=Z,14nm,1.5s
KSRS   Korea Array       48.72  11  P       P       20 33 04.8   0.0
       comp=Z,5.1nm,0.8s,baz=189,slow=9.1,SNR=11
KSRS                                LR      LR      20 55 24.9
       comp=Z,49nm,18.6s,baz=310,slow=38
       comp=Z,5.1nm,0.8s
JGF    Kuroka            49.56  21  P       P       20 33 11.4  -0.1
JGF                                 IAmb    IAmb    20 33 53.3
       comp=Z,8.5nm,1.2s
BJI2   Beijing           50.31 359  P       P       20 33 19.0  +2.0
BJI2                                pmax    pmax
       comp=Z,4.0nm,0.6s
MAJO   Matsushiro        50.70  22  P       P       20 33 19.1  -1.1
MAJO                                IAmb    IAmb    20 33 34.0
       comp=Z,28nm,1.5s
MJAR   Matsushiro Arr    50.70  22  P       P       20 33 19.1  -1.0
       comp=Z,5.2nm,0.8s,baz=197,slow=7.5,SNR=13
       comp=Z,5.2nm,0.8s
MJAR   Matsushiro Arr    50.70  22          P       20 33 18.1  -2.0
MJAR                                IAmb    IAmb    20 33 20.3
       comp=Z,7.8nm,1.3s
MJB9   Matsu-Tunnel      50.70  22  P       P       20 33 19.9  -0.3
MJB9                                IAmb    IAmb    20 33 34.9
       comp=Z,28nm,1.5s
JYT    Yasato            51.17  24  P       P       20 33 22.8  -0.8
JYT    Yasato            51.17  24  P       P       20 33 23.9  +0.3
       comp=Z,1.1nm,1.2s
GTA2   Gaotai            52.44 343  P       P       20 33 33.8  +0.6
GTA2                                pmax    pmax
       comp=Z,3.0nm,1.2s
GTA2                                L       L
       comp=Z,140nm,14.3s
GTA2                                L       L
       comp=Z,110nm,17.5s
GTA2                                L       L
       comp=Z,130nm,17.1s
XLT    XiLinHaoTe        54.19 359 eP       P       20 33 45.8  -0.1
XLT                                 pmax    pmax
       comp=Z,6.0nm,0.6s
MDJ    Mudanjiang        55.96  10  P       P       20 33 59.0  +0.4
MDJ                                 pmax    pmax
       comp=Z,35nm,0.7s
USA0B  Ussuriysk Arra    56.03  12  P       P       20 33 58.6  -0.5
USRK   Ussuriysk Ar.     56.03  12  P       P       20 33 59.3  +0.2
       comp=Z,6.9nm,0.5s,baz=184,slow=5.7,SNR=16
       comp=Z,6.9nm,0.5s
USRK   Ussuriysk Ar.     56.03  12  P       P       20 33 58.6  -0.5
BNX    BinXian           56.71   8 ⇓P       P       20 34 03.3  -0.6
BNX                                 pmax    pmax
       comp=Z,7.0nm,0.5s
ULN    Ulaanbaatar       58.88 352          P       20 34 18.2  -1.2
ULN                                 IAmb    IAmb    20 34 20.0
       comp=Z,6.2nm,0.9s
ULN    Ulaanbaatar       58.88 352  P       P       20 34 19.3  -0.1
       comp=Z,9.7nm,0.9s
SONM   Songino Array     58.95 351  P       P       20 34 19.7  -0.1
       comp=Z,8.3nm,0.8s,baz=172,slow=8.5,SNR=40
SONM                                LR      LR      21 01 04.3
       comp=Z,93nm,18.2s,baz=184,slow=38
       comp=Z,8.3nm,0.8s
SONM   Songino Array     58.95 351          P       20 34 19.0  -0.8
SONM                                IAmb    IAmb    20 34 20.4
       comp=Z,7.9nm,0.8s
HILR   Hailar Array B    59.86   2  P       P       20 34 25.1  -0.9
       comp=Z,4.0nm,0.6s,baz=189,slow=8.8,SNR=3.9
       comp=Z,4.0nm,0.6s
WMQ    Urumqi            60.52 336 eP       P       20 34 32.5  +1.8
WMQ                                 L       L
       comp=Z,60nm,22.5s
HEH    HeiHe             61.14   7 eP       P       20 34 34.5  -0.1
HEH                                 pmax    pmax
       comp=Z,19nm,0.8s
RAO    Raoul Island      62.76 117  LR      LR      21 01 02.8
       comp=Z,98nm,19.9s,baz=292,slow=35
TLY    Talaya            63.11 350  LR      LR      21 05 06.0
       comp=Z,61nm,18.0s,baz=173,slow=39
TARG   Taragay, Kyrgy    63.54 328  P       P       20 34 51.3  -0.2
SHLS   Shalkode          63.73 330 eP       P       20 34 51.0  -1.3
       comp=Z,4.7nm,0.8s
PDGK   Podgornoye        63.84 330  P       P       20 34 52.6  -0.4
UZB    Uzynbulak         63.94 330 eP       P       20 34 53.5  -0.3
       comp=Z,5.3nm,1.4s
KDJ    Kajisay           64.15 328  P       P       20 34 53.4  -1.8
SATY   Saty              64.18 329 eP       P       20 34 54.7  -0.6
       comp=Z,12nm,1.4s
KBL    Kabul             64.19 317          P       20 34 54.9  -0.7
KBL    Kabul             64.19 317  P       P       20 34 54.9  -0.7
       comp=Z,16nm,0.6s
KPKS   Kokpek            64.34 330 eP       P       20 34 55.1  -1.2
ZSN    Zaisan            64.63 336 eP       P       20 34 58.0   0.0
TNSS   Tian-Shan         64.91 328 eP       P       20 34 59.8  -0.6
MDOK   Medeo             64.95 328 eP       P       20 35 00.1  -0.3
AAA    Alma-Ata          65.05 328 eP       P       20 35 00.6  -0.3
BOOM   Boomskoye usch    65.06 327  P       P       20 35 00.7  -0.4
MK31   Makanchi Array    65.18 334  P       P       20 35 00.9  -0.7
MKAR   Makanchi Array    65.18 334  P       P       20 35 01.1  -0.5
       comp=Z,2.3nm,0.5s,baz=151,slow=6.9,SNR=43
MKAR                                LR      LR      21 05 28.0
       comp=Z,66nm,19.6s,baz=138,slow=38
       comp=Z,2.3nm,0.5s
MKAR   Makanchi Array    65.18 334          P       20 35 00.5  -1.1
MAKZ   Makanchi          65.33 334  P       P       20 35 01.3  -1.2
MAKZ                                IAmb    IAmb    20 35 16.9
       comp=Z,4.7nm,1.4s
CTZ    Chatham Island    65.36 133  P       P       20 35 01.1  -1.8
DRK    Karamyk           65.41 322          P       20 35 02.4  -1.2
DRK                                 IAmb    IAmb    20 35 06.9
       comp=Z,8.0nm,0.7s
DRK    Karamyk           65.41 322  P       P       20 35 04.0  +0.5
       comp=Z,12nm,1.0s
TDK    Taldyqorghan      65.60 331 eP       P       20 35 04.0  -0.3
       comp=Z,6.2nm,0.7s
ARSB   Arslanbob         65.91 325  P       P       20 35 05.6  -0.9
AAK    Ala-Archa         65.94 327  P       P       20 35 06.4  -0.3
AAK                                 IAmb    IAmb    20 35 07.9
       comp=Z,6.7nm,0.9s
BTK    Batken            66.36 322  P       P       20 35 08.4  -1.0
BTK                                 IAmb    IAmb    20 35 22.2
       comp=Z,3.9nm,0.7s
BTK    Batken            66.36 322  P       P       20 35 08.6  -0.8
       comp=Z,6.2nm,0.7s
SGDS   Sogindy           66.42 327 eP       P       20 35 09.1  -0.6
ARK    Arkit             66.79 324  P       P       20 35 09.0  -3.2
       comp=Z,8.6nm,1.2s
FOMA   Nahampoana Res    68.09 247  P       P       20 35 18.0  -2.6
IUG    Iuzhnay           68.13 324 eP       P       20 35 20.2  -0.4
       comp=Z,5.0nm,0.7s
VOI    Vohitsoka         68.38 251  P       P       20 35 20.1  -2.6
KK31   Karatay Array     68.45 325  P       P       20 35 20.9  -1.7
KK31                                IAmb    IAmb    20 35 25.0
       comp=Z,2.4nm,0.8s
KKAR   Karatay Array     68.45 325  P       P       20 35 21.1  -1.4
CHM    Chimkent          68.48 324 eP       P       20 35 22.5  -0.3
       comp=Z,4.8nm,0.7s
BRLS   Borolday          68.79 324 eP       P       20 35 23.8  -0.8
KURBB  Kurchatov Arra    69.71 335  P       P       20 35 29.6  -0.5
       comp=Z,2.3nm,0.7s,baz=146,slow=5.7,SNR=29
       comp=Z,2.3nm,0.7s
KURK   Kurchatov         69.75 335          P       20 35 29.7  -0.7
KURK                                IAmb    IAmb    20 35 30.8
       comp=Z,4.7nm,0.8s
KURK   Kurchatov         69.75 335  P       P       20 35 30.1  -0.2
       comp=Z,9.1nm,1.1s
ZAA0   Zalesovo Array    69.97 340          P       20 35 30.0  -1.6
ZAA0                                IAmb    IAmb    20 35 31.4
       comp=Z,4.7nm,0.8s
ZALV   Zalesovo Beam     69.97 340  P       P       20 35 30.5  -1.2
       comp=Z,3.7nm,0.6s,baz=141,slow=4.3,SNR=23
       comp=Z,3.7nm,0.6s
ZALV   Zalesovo Beam     69.97 340          P       20 35 29.7  -2.0
VNDA   Vanda             70.71 171  P       P       20 35 37.8  +1.8
       comp=Z,1.5nm,1.0s,baz=66,slow=16,SNR=5.8
VNDA                                LR      LR      21 04 46.4
       comp=Z,44nm,18.9s,baz=247,slow=34
       comp=Z,1.5nm,1.0s
VNDA   Vanda             70.71 171  P       P       20 35 37.3  +1.4
VNDA                                IAmb    IAmb    20 35 50.3
       comp=Z,3.8nm,1.2s
VNDA   Vanda             70.71 171  P       P       20 35 38.9  +2.9
       comp=Z,3.1nm,1.6s
PETK   Petropavlovsk-    72.05  24  P       P       20 35 44.2  -0.1
YAK    Yakutsk           72.96   6          P       20 35 47.2  -2.3
YAK    Yakutsk           72.96   6  P       P       20 35 47.6  -1.9
       comp=Z,13nm,1.2s
BVAR   Borovoye Array    74.98 333  P       P       20 36 01.3  -0.3
       comp=Z,3.8nm,0.7s,baz=135,slow=7.4,SNR=23
       comp=Z,3.8nm,0.7s
BORK   Borovoye          75.02 333          P       20 36 01.2  -0.6
AB31   Akbulak array     77.99 326          P       20 36 18.2  -0.5
AB31                                IAmb    IAmb    20 36 32.4
       comp=Z,6.3nm,0.9s
ABKAR  Akbulak array     77.99 326          P       20 36 18.3  -0.4
RAYN   Ar Rayn           78.10 297          P       20 36 19.4  -0.6
QSPA   South Pole Qui    79.47 180  P       P       20 36 28.5  +1.7
       comp=Z,1.1nm,1.0s,baz=72,slow=1.0,SNR=3.4
QSPA                                LR      LR      21 12 09.9
       comp=Z,42nm,18.0s,baz=241,slow=36
       comp=Z,1.1nm,1.0s
TIXI   Tiksi             82.35   4          P       20 36 39.9  -1.9
TIXI                                IAmb    IAmb    20 36 55.5
       comp=Z,7.2nm,0.9s
ARTI   Arti              82.56 331  LR      LR      21 17 45.7
       comp=Z,89nm,18.3s,baz=128,slow=39
EPOS   Posof             85.78 313  P       P       20 37 02.0  +1.8
KBZ    Khabaz            86.35 316  P       P       20 37 04.2  +1.5
       comp=Z,4.5nm,0.8s,baz=106,slow=4.2,SNR=11
       comp=Z,4.5nm,0.8s
MBAR   Mbarara           86.75 270  LR      LR      21 11 43.9
       comp=Z,63nm,18.3s,baz=98,slow=33
KOPT   Kop Dagi          86.96 311          P       20 37 07.6  +1.4
BOSA   Boshof            87.02 242  P       P       20 37 07.5  +0.9
       comp=Z,2.6nm,1.0s,baz=90,slow=5.1,SNR=1.4
       comp=Z,2.6nm,1.0s
BOSA   Boshof            87.02 242  P       P       20 37 07.3  +0.7
LBTB   Lobatse           87.36 245  P       P       20 37 09.3  +1.0
LPHEP  Lephephe          87.42 247  P       P       20 37 09.8  +1.2
TROLL  Troll, Antarti    87.51 196 ⇓P       P       20 37 11.1  +3.0
       comp=Z,73nm,0.6s
KELT   Kelkit            87.92 311  P       P       20 37 12.9  +2.3
       comp=Z,17nm,1.3s
EIL    Elat              88.80 300  LR      LR      21 21 02.9
       comp=Z,48nm,18.3s,baz=106,slow=38
SNAA   Sanae             89.15 196  P       P       20 37 18.3  +2.6
       comp=Z,0.9nm,0.6s,baz=86,slow=6.3,SNR=3.8
SNAA                                LR      LR      21 12 40.2
       comp=Z,68nm,21.1s,baz=82,slow=32
       comp=Z,0.9nm,0.6s
SNAA   Sanae             89.15 196  IAmb    IAmb    20 37 30.8
       comp=Z,3.8nm,1.1s
MMAI   Mount Meron Ar    89.17 304  LR      LR      21 22 12.8
       comp=Z,41nm,19.1s,baz=102,slow=39
PPT2   Papeete2          89.58 108 eLR      LR      21 06 02.2
       comp=Z,64nm,24.8s
VNA2   Neumayer--Watz    90.78 196 ⇑PcP     P       20 37 23.1  -0.2
       comp=Z,10.0nm,0.4s,slow=3.5
BRTR   Keskin Array B    92.01 310  P       P       20 37 30.2  +0.4
       comp=Z,0.7nm,0.8s,baz=142,slow=6.3,SNR=4.2
       comp=Z,0.7nm,0.8s
AKASG  Malin Array Be    97.00 320  P       P       20 37 50.3  -1.8
       comp=Z,0.2nm,0.3s,baz=83,slow=2.4,SNR=1.7
       comp=Z,0.2nm,0.3s
AKASG  Malin Array Be    97.00 320  IAmb    IAmb    20 38 17.5
       comp=Z,3.0nm,1.2s
FINES  FINESS Array B    99.87 331  P       Pdif    20 38 04.5  -0.3
       comp=Z,3.1nm,0.8s,baz=98,slow=6.7,SNR=8.6
FINES                               LR      LR      21 29 19.7
       comp=Z,56nm,18.5s,baz=97,slow=39
       comp=Z,3.1nm,0.8s
TORD   Torodi Ar. Bea   117.30 279  PKP     PKPdf   20 43 07.8  +0.9
       comp=Z,1.0nm,0.8s,baz=74,slow=3.8,SNR=4.1
NVAR   Mina Array Bea   123.09  51  PKP     PKPdf   20 43 20.2  +2.5
       comp=Z,0.2nm,0.5s,baz=335,slow=5.9,SNR=2.5
TXAR   Lajitas Array    137.26  58  PKP     PKPdf   20 43 46.0  +1.3
       comp=Z,0.3nm,0.8s,baz=322,slow=5.4,SNR=2.4
ACSO   Alum Creek Sta   145.27  28          PKPbc   20 43 59.6  +1.3
J59A   Piesco           145.56  16          PKPdf   20 44 00.9  +1.9
AQDB   Aquidauana       148.48 192          PKPdf   20 44 08.7  +4.1
V53A   Saluda           148.88  33          PKPbc   20 44 10.2  +1.4
BDFB   Brasilia         150.32 209  PKPbc   PKPdf   20 44 12.1  +4.3
       comp=Z,2.2nm,0.5s,baz=36,slow=2.6,SNR=3.5
LPAZ   La Paz           152.77 168  PKPbc   PKPbc   20 44 19.2   0.0
       comp=Z,0.7nm,0.7s,baz=206,slow=5.1,SNR=1.9
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IDC ***25*** *20:34:07.7±0.9, 28.°02N×105.°05E, h0km, mb4.1/17, mbtmp4.1/19, ML4.6/2, MS3.4/6, Error ellipse: s-maj=23.4km s-min=17.8km az=39.0*

BJI ***25*** *20:34:09.2, 28.°08N×105.°07E, h16km, mB4.5/5, mb4.3/29, ML4.4/20, Ms3.9/22, Ms7 3.8/16*

NEIC ***25*** *20:34:13.8±1.6, 28.°05N±0.°07×105.°11E±0.°04, h40km±5km, mb4.5/50, Error ellipse: s-maj=10.1km s-min=4.4km az=174.0*

ISC 25 20:34:09.5±0.4, **28.°09N**±0.°04×**105.°11E**±0.°04, **h10km, n118,** σ1.**71**/123, **mb4.5**/41, **MS3.4**/6, **2C-1D, Sichuan**

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Code   Station Name        Δ°   AZ°    Phase ID          Time      Res
                                    Op      ISC      h  m  s    ISC
GYA    Guiyang            2.13 139 ⇓Pg      Pb      20 34 48.0  -0.4
CD2    Chengdu            3.05 338  Pn      Pn      20 35 00.0  +2.1
CD2                                 Pg      Pg      20 35 07.0  -1.0
CD2                                 Sn      Sn      20 35 38.0  +3.5
CD2                                 Sg      Sg      20 35 45.8  -1.8
CD2                                 AML     AML
       2µm,0.8s
CD2                                 AML     AML
       3µm,0.8s
PZH    PanZhiHua          3.38 243  Pg      Pn      20 35 06.5  +4.0
PZH                                 Sg      Sg      20 35 56.8  -1.4
PZH                                 AML     AML
       330nm,1.1s
PZH                                 AML     AML
       250nm,1.2s
ENH    Enshi              4.41  59          Pn      20 35 19.4  +2.9
TNCH   TengChong          6.64 244  Pn      Pn      20 35 50.0  +2.7
TNCH                                AML     AML
       190nm,1.4s
TNCH                                AML     AML
       130nm,1.2s
XAN    Xi'an              6.78  28  Pn      Pn      20 35 50.8  +1.7
XAN                                 Sn      Sn      20 37 07.0  +0.6
XAN                                 Sg      Sg      20 37 43.0  -4.1
XAN                                 AML     AML
       650nm,0.9s
XAN                                 AML     AML
       650nm,1.2s
XAN                                 L       L
       comp=N,630nm,4.5s
XAN                                 L       L
       comp=Z,640nm,11.0s
SLVN   Son La             6.81 189          Pn      20 35 51.2  +1.6
CNSH   ChangSha           6.91  87  Pn      Pn      20 35 54.0  +3.1
CNSH                                Sn      Sn      20 37 10.8  +1.2
CNSH                                AML     AML
       140nm,0.7s
CNSH                                AML     AML
       190nm,0.7s
LZDM   Lanzhou Array      7.94 352  Pn      Pn      20 36 07.0  +1.7
       baz=174,slow=15
       3.3nm,0.3s
WHN    Wuhan              8.43  71  P       Pn      20 36 14.5  +2.7
WHN                                 S       Sn      20 37 43.8  -3.3
WHN                                 AML     AML
       140nm,0.6s
WHN                                 AML     AML
       470nm,0.6s
GZH2   Guangzhou          8.87 118  P       Pn      20 36 19.0  +1.1
GZH2                                S       Sn      20 38 00.5  +2.6
GZH2                                AML     AML
       150nm,1.0s
GZH2                                AML     AML
       150nm,1.0s
LYN    LuoYang            9.01  42  P       Pn      20 36 20.3  +0.6
LYN                                 pmax    pmax
       comp=Z,54nm,0.5s
LYN                                 L       L
       comp=Z,810nm,6.7s
QIZ    Qiongzhong        10.01 153  P       Pn      20 36 35.0  +1.6
QIZ                                 S       Sn      20 38 27.0  +1.2
QIZ                                 L       L
       comp=N,530nm,13.0s
QIZ                                 L       L
       comp=Z,200nm,7.0s
HKPS   Hong Kong Po S    10.02 123  Pn      Pn      20 36 34.5  +0.9
MORE   Moreh             10.44 251          Pn      20 36 41.4  +2.1
CHTO   Chiang Mai        10.82 213          Pn      20 36 46.0  +1.4
CM31   Chiang Mai Arr    11.13 212  Pn      Pn      20 36 50.2  +1.4
CMAR   Chiang Mai Arr    11.13 212  Pn      Pn      20 36 53.9  +5.1
       baz=29,slow=12
CMAR   Chiang Mai Arr    11.13 212          Pn      20 36 52.1  +3.3
GTA2   Gaotai            12.21 340  P       Pn      20 37 05.0  +1.4
GTA2                                pmax    pmax
       comp=Z,7.0nm,1.3s
GTA2                                L       L
       comp=N,480nm,14.3s
HNS    HongShan          12.30  39 ⇑P       Pn      20 37 08.3  +3.5
HNS                                eS       Sn      20 39 26.5  +4.5
HNS                                 L       L
       comp=N,260nm,6.0s
HNS                                 L       L
       comp=Z,300nm,7.1s
LSA    Lhasa             12.34 281 eP       Pn      20 37 11.3  +5.6
LSA    Lhasa             12.34 281          Pn      20 37 06.7  +1.0
NJ2    Nanjing           12.54  68 eP       Pn      20 37 08.5  +0.4
NJ2                                 pmax    pmax
       comp=Z,13nm,0.5s
NJ2                                 L       L
       comp=E,330nm,9.5s
NJ2                                 L       L
       comp=Z,400nm,9.8s
TIA    Tai'an            13.00  48  P       Pn      20 37 17.0  +2.6
BTO2   Baotou            13.22  16 eP       Pn      20 37 17.3  -0.2
BTO2                                S       Sn      20 39 43.0  -1.7
BTO2                                pmax    pmax
       comp=Z,47nm,0.8s
BTO2                                L       L
       comp=E,600nm,7.7s
BTO2                                L       L
       comp=Z,640nm,13.5s
SSLB   Suanglung         14.88 103  Pn      Pn      20 37 40.0  -0.2
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BJI2	Beijing	15.01	35	P	Pn	20 37 41.5	-0.2
BJI2				pmax	pmax		
	comp=Z,4.0nm,0.4s						
EVN	Everest	16.16	274		Pn	20 37 57.2	-0.2
XLT	XiLinHaoTe	18.08	26	*e*P	Pn	20 38 20.5	-0.4
XLT				pP	sP	20 38 30.5	+4.7
XLT				sP	pP	20 38 33.8	+9.4
XLT				PP	PnPn	20 38 38.0	+6.0
XLT				pmax	pmax		
	comp=Z,9.0nm,0.8s						
XLT				pmax	pmax		
	comp=Z,68nm,3.7s						
SONM	Songino Array	19.74	3	P	Pn	20 38 41.0	0.0
	1.0nm,0.3s,baz=183,slow=12,SNR=20						
SONM				LR	LR	20 47 21.6	
	comp=Z,99nm,18.1s,baz=205,slow=40						
	2.8nm,0.4s						
SONM				AML	AML		
SONM	Songino Array	19.74	3		P	20 38 40.2	+0.7
ULN	Ulaanbaatar	19.81	4		P	20 38 40.9	+0.6
PBA	Port Blair	20.03	218	P	P	20 38 42.5	-0.2
JOW	Kunigami	20.59	88		P	20 38 48.6	-0.2
JOW				IAmb	IAmb	20 39 29.0	
	comp=Z,71nm,1.5s						
WMQ	Urumqi	21.03	323	*e*P	P	20 38 57.3	+3.8
KSAR	Wonju Array Be	21.26	58	P	P	20 38 55.1	-0.9
KS19	Wonju Array Si	21.27	58	P	P	20 38 56.5	+0.5
KS19				IAmb	IAmb	20 38 57.9	
	comp=Z,25nm,1.1s						
KSRS	Korea Array	21.30	58	P	P	20 38 57.0	+0.7
	comp=Z,4.0nm,0.6s,baz=242,slow=11,SNR=12						
	comp=Z,4.0nm,0.6s						
CN2	Changchun	22.65	41	P	P	20 39 11.5	+0.7
CN2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
TLY	Talaya	23.59	358	LR	LR	20 49 40.0	
	comp=Z,109nm,18.2s,baz=168,slow=39						
HIA	Hailar	23.96	24	P	P	20 39 24.4	+0.5
HIA				IAmb	IAmb	20 39 25.5	
	comp=Z,8.7nm,0.5s						
HILR	Hailar Array B	24.20	24	P	P	20 39 27.1	+0.8
	comp=Z,4.9nm,0.4s,baz=202,slow=11,SNR=7.6						
	comp=Z,4.9nm,0.4s						
BNX	BinXian	24.93	39	⇑P	P	20 39 34.0	+1.2
BNX				pmax	pmax		
	comp=Z,8.0nm,1.0s						
PDGK	Podgornoye	25.63	313		P	20 39 40.3	+0.9
MKAR	Makanchi Array	25.86	322	P	P	20 39 42.0	+0.7
	comp=Z,3.0nm,0.6s,baz=125,slow=12,SNR=20						
MKAR				ScP	ScP	20 46 48.3	-1.7
	comp=Z,1.0nm,0.9s,baz=92,slow=4.8,SNR=6.5						
MKAR				LR	LR	20 51 05.2	
	comp=Z,41nm,19.0s,baz=132,slow=39						
	comp=Z,3.0nm,0.6s						
MKAR	Makanchi Array	25.86	322		P	20 39 41.8	+0.4
MAKZ	Makanchi	26.04	322		P	20 39 43.6	+0.7
TARG	Taragay, Kyrgy	26.07	309	P	P	20 39 38.9	-4.9
TARG				IAmb	IAmb	20 39 57.3	
	comp=Z,29nm,1.3s						
HYB	Hyderabad	26.63	252	*e*P	P	20 39 48.3	-0.3
HYB				*e*PcP	PcP	20 43 11.3	-1.3
HYB				*e*S	S	20 44 21.4	-2.3
USA0B	Ussuriysk Arra	26.85	46	P	P	20 39 47.0	-3.2
USA0B				IAmb	IAmb	20 40 00.0	
	comp=Z,10.0nm,0.8s						
USRK	Ussuriysk Ar.	26.85	46	P	P	20 39 50.1	-0.2
	comp=Z,3.5nm,0.8s,baz=260,slow=9.5,SNR=4.7						
	comp=Z,3.5nm,0.8s						
USRK	Ussuriysk Ar.	26.85	46	P	P	20 39 47.2	-3.0
JGF	Kuroka	28.31	66	P	P	20 40 02.4	-1.1
ZAA0	Zalesovo Array	29.82	336		P	20 40 15.9	-0.6
ZAA0				IAmb	IAmb	20 40 20.2	
	comp=Z,4.0nm,0.7s						
ZALV	Zalesovo Beam	29.82	336	P	P	20 40 17.2	+0.6
	comp=Z,3.6nm,0.6s,baz=136,slow=8.0,SNR=19						
ZALV				LR	LR	20 53 01.1	
	comp=Z,41nm,19.4s,baz=168,slow=38						
	comp=Z,3.6nm,0.6s						
ZALV	Zalesovo Beam	29.82	336		P	20 40 16.2	-0.4
KURBB	Kurchatov Arra	30.19	325	P	P	20 40 21.3	+1.4
	comp=Z,2.3nm,0.6s,baz=129,slow=9.8,SNR=16						
KURBB				PcP	PcP	20 43 20.1	-0.7
	comp=Z,0.3nm,0.5s,baz=124,slow=2.9,SNR=4.9						
	comp=Z,2.3nm,0.6s						
KURK	Kurchatov	30.20	326		P	20 40 20.0	0.0
KURK	Kurchatov	30.20	326		PcP	20 43 20.1	-0.7
KKAR	Karatay Array	31.62	308	P	P	20 40 31.8	-0.8
LUWI	Luwuk	33.56	147	P	P	20 40 47.4	-2.5
TNTI	Ternate	34.52	138	P	P	20 40 56.3	-2.0
BVAR	Borovoye Array	35.72	324	P	P	20 41 09.1	+1.0
	comp=Z,0.5nm,0.5s,baz=115,slow=8.4,SNR=4.0						
BVAR				PcP	PcP	20 43 35.7	-0.4
	comp=Z,0.7nm,0.6s,baz=126,slow=2.6,SNR=3.7						
	comp=Z,0.5nm,0.5s						
YAK	Yakutsk	37.64	19		P	20 41 24.1	-0.3
AB31	Akbulak array	40.36	314		P	20 41 47.7	+0.3
ABKAR	Akbulak array	40.36	314	P	P	20 41 47.7	+0.3
NRIK	Noril'sk	42.54	351	P	P	20 42 05.4	+0.5
	comp=Z,7.1nm,0.5s,baz=147,slow=6.6,SNR=9.7						
	comp=Z,7.1nm,0.5s						
NRIK	Noril'sk	42.54	351		P	20 42 05.0	0.0
NRIK				IAmb	IAmb	20 42 06.6	
	comp=Z,11nm,0.8s						
TIXI	Tiksi	45.55	10	LR	LR	21 03 09.6	
	comp=Z,82nm,21.0s,baz=168,slow=38						
TIXI	Tiksi	45.55	10	P	P	20 42 28.1	-0.9
TIXI				IAmb	IAmb	20 42 29.5	
	comp=Z,5.2nm,0.9s						
RAYN	Ar Rayn	53.40	280		P	20 43 29.0	-0.8
KRVT	Keravat (AS076	55.47	118	LR	LR	21 08 08.2	
	comp=Z,29nm,18.2s,baz=176,slow=37						
ASAR	Alice Springs	58.47	149	P	P	20 44 06.4	+0.5
	comp=Z,2.7nm,0.6s,baz=329,slow=6.4,SNR=27						
	comp=Z,2.7nm,0.6s						
BRTR	Keskin Array B	59.02	301	P	P	20 44 11.2	+1.3
	comp=Z,0.8nm,0.6s,baz=64,slow=5.6,SNR=3.8						
	comp=Z,0.8nm,0.6s						
BRTR	Keskin Array B	59.02	301	P	P	20 44 10.5	+0.6
KEV	Kevo	59.84	337	P	P	20 44 14.6	-0.2
AKASG	Malin Array Be	60.10	315	P	P	20 44 15.2	-1.7
	comp=Z,0.3nm,0.3s,baz=72,slow=7.4,SNR=3.0						
	comp=Z,0.3nm,0.3s						
AKASG	Malin Array Be	60.10	315	IAmb	IAmb	20 44 17.4	
	comp=Z,2.8nm,1.2s						
KIEV	Kiev	60.11	315	P	P	20 44 15.1	-1.9
KIEV				IAmb	IAmb	20 44 27.1	
	comp=Z,8.2nm,1.4s						
ARCES	ARCESS Array B	60.36	337	P	P	20 44 16.7	-1.7
	comp=Z,1.3nm,0.5s,baz=81,slow=7.5,SNR=5.7						
	comp=Z,1.3nm,0.5s						
ARCES	ARCESS Array B	60.36	337	P	P	20 44 17.2	-1.3
FIA1	FINESS Array S	60.56	327	P	P	20 44 18.8	-1.0
FINES	FINESS Array B	60.56	327	P	P	20 44 18.7	-1.1
	comp=Z,1.3nm,0.5s,baz=111,slow=4.3,SNR=16						
	comp=Z,1.3nm,0.5s						
FINES	FINESS Array B	60.56	327	P	P	20 44 18.9	-0.9
BURAR	Bucovina Array	63.27	312	P	P	20 44 41.5	+3.0
BUR08	Bucovina Ar. S	63.27	312	P	P	20 44 39.6	+1.0
BUR08				IAmb	IAmb	20 45 23.7	
	comp=Z,4.5nm,1.4s						
F17K	Baldwin Pennin	66.03	26	P	P	20 44 56.3	+0.3
J14K	Nanvaranak Lak	66.03	30	P	P	20 44 56.6	+0.6
HFS	Hagfors	66.76	327	P	P	20 45 00.4	-0.4
	comp=Z,1.3nm,0.4s,baz=98,slow=6.0,SNR=12						
	comp=Z,1.3nm,0.4s						
G18K	Tagagawik	67.20	26	P	P	20 45 03.0	-0.6
G18K				IAmb	IAmb	20 45 24.2	
	comp=Z,7.8nm,1.4s						
NC405	NORSAR Array S	67.42	328	P	P	20 45 04.9	-0.1
H18K	Honhosa River	67.54	27	P	P	20 45 05.6	-0.2
H18K				IAmb	IAmb	20 45 38.6	
	comp=Z,9.0nm,1.3s						
NB2	NORSAR Subarra	67.67	328	P	P	20 45 05.7	-1.0
	comp=Z,3.2nm,0.5s,baz=74,slow=6.9						
NOA	NORSAR Array B	67.67	328	P	P	20 45 06.2	-0.4
	comp=Z,0.7nm,0.5s,baz=75,slow=4.9,SNR=5.0						
	comp=Z,0.7nm,0.5s						
NC204	NORSAR Array S	67.81	329	P	P	20 45 07.3	-0.2
NAO01	NORSAR Array S	67.88	328	P	P	20 45 09.1	+1.1
RER	Riviere de l'E	68.34	230	P	P	20 45 11.0	-0.4
G21K	Allakaket	68.95	25	P	P	20 45 14.5	0.0
G21K				IAmb	IAmb	20 45 24.6	
	comp=Z,5.3nm,1.2s						
D23K	Nanushuk River	69.00	22	P	P	20 45 15.4	+0.6
J19K	Poorman	69.05	28	P	P	20 45 16.0	+0.8
J19K				IAmb	IAmb	20 45 17.3	
	comp=Z,2.9nm,0.8s						
IMAR	Indian Mountai	69.06	25	P	P	20 45 15.1	-0.2
GERES	GERESS Array B	70.29	315	P	P	20 45 21.8	-1.4
	comp=Z,0.5nm,0.3s,baz=70,slow=6.4,SNR=1.4						
MLY	Manley	70.59	26	IAmb	IAmb	20 45 26.2	
	comp=Z,5.0nm,1.0s						
BPAW	Bear Paw Mtn.	70.88	27	IAmb	IAmb	20 45 31.8	
	comp=Z,5.0nm,1.0s						
NEA2	Nenana	71.42	26	IAmb	IAmb	20 45 31.2	
	comp=Z,5.0nm,0.9s						
BMAR	Burnt Mountain	71.72	22		P	20 45 32.4	+0.9
ILAR	Eielson Array	72.18	25	P	P	20 45 33.4	-0.9
	comp=Z,0.3nm,0.4s,baz=286,slow=4.1,SNR=7.4						
	comp=Z,0.3nm,0.4s						
PRP	Porcupine Dome	72.33	24	IAmb	IAmb	20 45 36.8	
	comp=Z,4.6nm,0.9s						
OHAK	Old Harbor	72.77	34	P	P	20 45 38.2	+0.4
KDAK	Kodiak Island	72.87	33	P	P	20 45 38.3	-0.2
KLU	Klutina	74.15	28	IAmb	IAmb	20 45 57.5	
	comp=Z,9.5nm,1.2s						
F30M	Barrier River	74.46	20	P	P	20 45 47.6	-0.1
F30M				IAmb	IAmb	20 46 13.9	
	comp=Z,11nm,1.2s						
BMRM	Bremner River	74.97	28	IAmb	IAmb	20 45 54.9	
	comp=Z,5.6nm,0.8s						
K29M	Barlow Dome	76.13	24	P	P	20 45 57.5	0.0
K29M				IAmb	IAmb	20 46 06.8	
	comp=Z,4.5nm,1.2s						
L29M	L29M	76.34	25	P	P	20 45 58.9	+0.3
L29M				IAmb	IAmb	20 46 00.8	
	comp=Z,6.8nm,1.1s						
DZM	Mont Dzumac	77.40	123	LR	LR	21 18 25.4	
	comp=Z,738nm,20.3s,baz=196,slow=34						
YKA	Yellowknife Ar	84.31	17	P	P	20 46 41.6	+0.3
	comp=Z,0.9nm,0.5s,baz=327,slow=4.7,SNR=5.3						
	comp=Z,0.9nm,0.5s						

*DJA **25** 20:39:17.8±0.5, 2°N±4°×12°9E±°, h42^{km}±7^{km}, M4.2/10, mB4.7/1, mB4.7/1, mb4.3/2, mb4.3/2, MLv4.0/4, MLv4.2/10, Mw(mB)3.9/1, Mw(mB)3.9/1*

*NEIC **25** 20:39:20.3±1.6, 1°7N±0°1×128°41E±0°08, h103^{km}±11^{km}, mb4.3/11, Error ellipse: s-maj=16.3km s-min=11.2km az=201.0*

*IDC **25** 20:39:22.3±1.9, 1°94N×128°92E, h132^{km}±26^{km}, mb3.5/4, mbtmp4.1/6, MS2.9/1, Error ellipse: s-maj=54.1km s-min=20.3km az=53.0*

ISC 25 20:39:19.1±0.6**, 1°97N**±0°07×**128°46E**±0°09**, h92^{km}, n37, σ1^{s}89**/29**, mb4.1**/8**, 1D, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TNTI	Ternate	1.61	222		Pn	20 39 45.1	-1.4
MNI	Manado	3.65	262	P	Pn	20 40 10.3	-3.3
MNI				AML	AML		
SWI	Sorong	3.97	135	P	Pn	20 40 16.9	-0.9
SWI				AML	AML		
SIJI	Sorong	3.98	135	P	Pn	20 40 17.1	-0.9
	20nm,0.3s,baz=338,slow=19,SNR=85						
SIJI				S	Sn	20 41 00.8	-2.9
	41nm,0.4s,baz=168,slow=20,SNR=20						
GTOI	Gorontalo	5.61	256	P	Pn	20 40 41.2	+1.2
	0.1nm19nm,0.6s						
GTOI				AML	AML		
DAV	Davao City (W)	5.82	331	P	Pn	20 40 50.1	+7.1
	152nm,0.4s,baz=144,slow=8.7,SNR=3.6						
DAV				LR	LR	20 43 27.0	
	comp=Z,111nm,19.7s,baz=173,slow=40						
DAV	Davao City (W)	5.82	331		Pn	20 40 47.9	+4.9
CDOP	Cateel, Davao	6.12	341	*i* P	Pn	20 40 45.3	-1.7
CDOP				*i* S	Sn	20 41 47.3	-8.2
FAKI	Fak Fak	6.16	142	Pn	Pn	20 40 47.1	-0.6
BIPH	Bislig	6.52	341	*e*P	Pn	20 40 50.1	-2.3
BIPH				*e*S	Sn	20 41 59.0	-6.4
BUKP	Musuan	6.77	330	*i* P	Pn	20 40 56.9	+0.9
BUKP				*i* S	Sn	20 42 13.0	+1.3
YULB	Yu-li	22.40	343	P	P	20 44 09.3	-0.9
YULB				IAmb	IAmb	20 44 16.0	
	comp=Z,29nm,1.4s						
TPUB	Ta-pu	22.52	341	P	P	20 44 10.3	-1.2
YHNB	Yeheng	23.58	344	P	P	20 44 21.6	-0.2
GSI	Gunungsitoli	30.88	269	P	P	20 45 25.4	-1.7
MJAR	Matsushiro Arr	35.56	14	P	P	20 46 06.3	-1.3
	comp=Z,2.2nm,0.8s,baz=184,slow=9.9,SNR=6.8						
	comp=Z,2.2nm,0.8s						
H11S3	WAKE ISLAND Hy	40.90	64	T	T	21 30 24.5	
	baz=251,slow=75,SNR=8.0						
H11S2	WAKE ISLAND Hy	40.92	64	T	T	21 30 24.4	
	baz=251,slow=75,SNR=5.2						
H11S1	WAKE ISLAND Hy	40.92	64	T	T	21 30 17.6	
	baz=251,slow=75,SNR=5.2						
H11N1	WAKE ISLAND Hy	41.50	62	T	T	21 30 59.6	
	baz=250,slow=75,SNR=13						
H11N2	WAKE ISLAND Hy	41.51	62	T	T	21 31 03.7	
	baz=250,slow=75,SNR=9.0						
H11N3	WAKE ISLAND Hy	41.51	62	T	T	21 31 03.1	
	baz=250,slow=75,SNR=12						
EVN	Everest	47.42	307	P	P	20 47 46.0	+0.6
EVN				IAmb	IAmb	20 47 48.8	
	comp=Z,5.0nm,0.5s						
SONM	Songino Array	49.51	341	P	P	20 48 00.7	+0.2
	comp=Z,0.5nm,0.7s,baz=147,slow=6.5,SNR=3.1						
	comp=Z,0.5nm,0.7s						
SONM	Songino Array	49.51	341	IAmb	IAmb	20 48 10.3	
	comp=Z,1.1nm,1.1s						
MKAR	Makanchi Array	59.98	325	P	P	20 49 16.6	+0.6
	comp=Z,0.9nm,0.5s,baz=113,slow=8.4,SNR=6.3						
	comp=Z,0.9nm,0.5s						
MKAR	Makanchi Array	59.98	325	P	P	20 49 16.4	+0.4
KURBB	Kurchatov Arra	64.14	327	P	P	20 49 44.5	+0.8
	comp=Z,0.5nm,0.3s,baz=129,slow=6.0,SNR=8.7						
	comp=Z,0.5nm,0.3s						
KURK	Kurchatov	64.14	327	P	P	20 49 44.5	+0.8
KURK	Kurchatov	64.14	327	IAmb	IAmb	20 49 46.0	
	comp=Z,1.4nm,0.8s						
AB31	Akbulak array	74.59	321	P	P	20 50 48.2	0.0
ABKAR	Akbulak array	74.59	321	P	P	20 50 48.2	0.0
OHAK	Old Harbor	81.99	33	P	P	20 51 30.7	+1.9
KDAK	Kodiak Island	82.45	32	P	P	20 51 33.0	+1.8
SML	Sawmill	85.06	28	P	P	20 51 46.0	+1.5
SML				IAmb	IAmb	20 51 58.9	
	comp=Z,8.3nm,1.3s						
GLI	Glacier Island	85.58	29	P	P	20 51 48.6	+1.5
TROLL	Troll, Antarti	102.40	195	⇓PKPdf	Pdif	20 53 01.7	-2.8
	comp=Z,35nm,0.7s						

*IDC **25** 20:40:23.7±1.6, 6°77S×129°62E, h147^{km}±15^{km}, mb4.0/12, mbtmp4.6/19, MS3.5/2, Error ellipse: s-maj=14.3km s-min=9.2km az=56.0*

*DJA **25** 20:40:25.1±0.3, 7°S±4°×13°0E±°, h195^{km}±8^{km}, M4.8/10, mB5.2/9, mB5.2/9, mb4.8/10, mb4.8/10, MLv5.0/13, MLv5.0/7, Mw(mB)4.6/9, Mw(mB)4.6/9*

*NEIC **25** 20:40:25.4±1.8, 6°62S±0°06×129°76E±0°07, h159^{km}±7^{km}, mb4.5/44, Error ellipse: s-maj=9.9km s-min=8.4km az=85.0*

*GFZ **25** 20:40:26.0±0.2, 7°S±3°×13°0E±°, h169^{km}, M4.3/25, mb4.5/25, confirmed*

ISC 25 20:40:27.3±0.3**, 6°66S**±0°04×**129°90E**±0°04**, h200^{km}, n142, σ2^{s}70**/131**, mb4.5**/35**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SAUI	Saumlaki	1.91	134	P	Pn	20 41 02.7	-2.2
SAUI	Saumlaki	1.91	134		Pn	20 41 02.1	-2.8
SAUI				Sn	Sn	20 41 26.2	-8.0
SAUI	Saumlaki	1.91	134	P	Pn	20 41 02.7	-2.2
BNDI	Bandanaira	2.12	0	P	Pn	20 41 05.0	-2.1
BNDI	Bandanaira	2.12	0	P	Pn	20 41 05.2	-1.9
FAKI	Fak Fak	4.39	32	P	Pn	20 41 30.5	-3.5
FAKI	Fak Fak	4.39	32		Pn	20 41 30.2	-3.8
FAKI				Sn	Sn	20 42 19.1	-7.4
FAKI	Fak Fak	4.39	32	P	Pn	20 41 30.7	-3.3
NLAI	Namlea	4.40	320	P	Pn	20 41 32.8	-1.3
NLAI				AML	AML		
DRS	Darwin Rock St	5.82	170	P	Pn	20 41 49.7	-2.5
SIJI	Sorong	5.91	13	P	Pn	20 41 50.5	-3.0
	84nm,0.3s,baz=225,slow=23,SNR=52						
SIJI				S	Sn	20 42 53.1	-8.5
	52nm,0.3s,baz=240,slow=9.2,SNR=5.2						
SWI	Sorong	5.92	13	P	Pn	20 41 50.9	-2.6
SANI	Sanana	6.02	319	P	Pn	20 41 54.0	-0.8
SANI	Sanana	6.02	319	P	Pn	20 41 53.8	-1.0
	0.3nm0.3nm1μm1μm86nm,0.8s,86nm,0.8s						
SANI				AML	AML		
SANI				AML	AML		
SANI	Sanana	6.02	319	P	Pn	20 41 54.1	-0.7
	comp=Z,85nm,0.8s						
MTN	Manton Dam	6.26	169		Pn	20 41 55.0	-3.1
MTN				Sn	Sn	20 43 01.9	-8.0
SOEI	Soe	6.37	241	P	Pn	20 41 56.9	-2.6
SOEI	Soe	6.37	241		Pn	20 41 56.9	-2.6
SOEI				Sn	Sn	20 43 04.8	-7.7
SOEI	Soe	6.37	241	P	Pn	20 41 57.2	-2.3
	comp=Z,146nm,1.2s						
BATI	Baumata	7.11	240	P	Pn	20 42 00.6	-8.4
	comp=Z,181nm,0.4s,baz=87,slow=3.9,SNR=88						
BATI				S	Sn	20 43 16.7	-13
	comp=Z,103nm,0.4s,baz=260,slow=21,SNR=14						
BBSI	Bau Bau	7.38	279	P	Pn	20 42 12.2	-0.4
	comp=Z,0.2nmcomp=Z,65nm,1.0s						
BBSI				AML	AML		
TNTI	Ternate	7.80	341	Pn	Pn	20 42 15.3	-2.8
TNTI	Ternate	7.80	341	P	Pn	20 42 16.7	-1.4
	comp=Z,25nm,0.7s						
MMRI	Maumere	7.85	255	P	Pn	20 42 17.4	-1.2
MMRI	Maumere	7.85	255		Pn	20 42 15.9	-2.7
MMRI	Maumere	7.85	255	P	Pn	20 42 17.5	-1.1
	comp=Z,52nm,0.6s						
BAKI	Biak	8.23	49	P	Pn	20 42 26.8	+3.1
KNRA	Kununurra	9.03	187		Pn	20 42 30.3	-3.7
LUWI	Luwuk	9.04	308	Pn	Pn	20 42 31.5	-2.6
APSI	Ampana	10.02	304	P	P	20 42 52.7	-2.2
LBFI	Labuhan Bajo,	10.09	259	P	Pn	20 42 44.8	-3.0
GENI	Genyem	11.00	69	P	Pn	20 43 00.7	+1.2
	comp=Z,38nm,0.4s						
JAY	Jayapura	11.53	70	P	P	20 43 08.4	-3.3
	comp=Z,6.1nm,0.3s,baz=208,slow=15,SNR=12						
PCI	Palu	11.55	299	P	P	20 43 13.6	+1.6
TOLI2	Tolitoli	11.94	310	Pn	Pn	20 43 10.5	-0.9
FITZ	Fitzroy Crossi	12.11	200	P	Pn	20 43 09.8	-3.8
	comp=Z,7.0nm,0.3s,baz=27,slow=11,SNR=90						
FITZ				S	Sn	20 45 14.9	-14
	comp=Z,14nm,0.3s,baz=94,slow=15,SNR=7.8						
FITZ	Fitzroy Crossi	12.11	200	Pn	Pn	20 43 08.4	-5.2
PLAI	Plampang	12.21	259	P	Pn	20 43 10.9	-4.0
PLAI	Plampang	12.21	259	P	Pn	20 43 09.9	-5.1
	comp=Z,52nm,0.7s						
WB0	Warramunga Arr	13.74	162		Pn	20 43 29.8	-4.3
WRAB	Tennant Creek	13.88	162	P	Pn	20 43 31.9	-4.0
WRAB	Tennant Creek	13.88	162	P	Pn	20 43 32.7	-3.2
	comp=Z,37nm,0.8s						
WRA	Warramunga Arr	13.89	162	P	Pn	20 43 32.9	-3.1
	comp=Z,8.8nm,0.6s,baz=338,slow=13,SNR=56						
WRA				S	S	20 46 00.2	-10
	comp=Z,11nm,0.5s,baz=349,slow=22,SNR=12						
WRA	Warramunga Arr	13.89	162		Pn	20 43 30.1	-5.8
WR8	Warramunga Arr	13.95	162		Pn	20 43 32.5	-4.2
JAGI	Jajag, Banyuwa	15.72	262	Pn	P	20 43 54.6	-3.6
JAGI				IAmb	IAmb	20 43 59.3	
	comp=Z,55nm,1.2s						
JAGI	Jajag, Banyuwa	15.72	262	P	P	20 43 54.6	-3.6
	comp=Z,41nm,1.0s						
QIS	Mount Isa	16.71	147	P	Pn	20 44 10.6	+0.3
	comp=Z,36nm,0.5s						
PMG	Port Moresby	17.30	100	P	Pn	20 44 20.3	+3.0
	comp=Z,9.9nm,0.7s,baz=211,slow=4.4,SNR=3.2						
PMG				S	S	20 47 24.1	-1.4
	comp=Z,10nm,0.9s,baz=304,slow=11,SNR=3.3						
PMG	Port Moresby	17.30	100	IAmb	IAmb	20 44 23.5	
	comp=Z,28nm,1.2s						
AS31	Alice Springs	17.34	168		Pn	20 44 16.8	-1.0
AS31				IAmb	IAmb	20 44 20.2	
	comp=Z,15nm,0.7s						
ASAR	Alice Springs	17.34	168	P	Pn	20 44 17.3	-0.4
	comp=Z,32nm,0.7s,baz=342,slow=9.7,SNR=57						
ASAR				S	S	20 47 21.3	-4.8
	comp=Z,3.5nm,0.5s,baz=351,slow=22,SNR=7.2						
ASAR	Alice Springs	17.34	168		Pn	20 44 16.3	-1.4
MBWA	Marble Bar	17.46	213	P	Pn	20 44 17.0	-2.0
MBWA				IAmb	IAmb	20 44 42.5	
	comp=Z,21nm,1.4s						
MBWA	Marble Bar	17.46	213	P	Pn	20 44 17.4	-1.6
	comp=Z,13nm,1.9s						
MTSU	Mount Surprise	18.10	130	P	Pn	20 44 25.7	-1.0
	comp=Z,10.0nm,0.8s						
UGM	Wanagama	19.26	265	P	P	20 44 36.1	-0.9
SBUM	Sibu	19.84	297	P	P	20 44 42.5	-0.6
CTA	Charters Tower	20.74	132	P	Pn	20 44 55.2	-3.2
	comp=Z,19nm,0.9s,baz=296,slow=10,SNR=16						
CTA				S	S	20 48 37.0	+4.0
	comp=Z,1.1nm,0.4s,baz=37,slow=9.2,SNR=3.2						
	comp=Z,19nm,0.9s						
CTAO	Charters Tower	20.74	132		Pn	20 44 54.9	-3.6
CTAO				IAmb	IAmb	20 44 57.7	
	comp=Z,20nm,0.9s						
CTAO	Charters Tower	20.74	132	P	Pn	20 44 55.2	-3.2
	comp=Z,25nm,0.8s						
GIRL	Giralia	21.92	222	P	P	20 45 05.7	+0.9
BBJI	Bungbulang	22.10	267	P	P	20 45 06.0	-0.7
BBJI				IAmb	IAmb	20 45 26.6	
	comp=Z,49nm,1.4s						
LEM	Lembang	22.13	268	P	P	20 45 05.5	-1.7
	comp=Z,19nm,0.3s,baz=139,slow=19,SNR=3.6						
	comp=Z,19nm,0.3s						
CNJI	Cibinong	22.61	267	P	P	20 45 11.1	-0.2
	comp=Z,86nm,1.1s						
INKA	Innaminka	23.36	155		P	20 45 19.8	+1.9
INKA				IAmb	IAmb	20 45 22.1	
	comp=Z,18nm,0.9s						
CGJI	Cibinong	24.05	269	P	P	20 45 23.5	-0.9
	comp=Z,30nm,0.9s						
FORT	Forrest	24.06	184		P	20 45 25.6	+1.3
FORT				IAmb	IAmb	20 45 27.8	
	comp=Z,9.1nm,0.7s						
QLP	Quilpie	24.06	147	P	P	20 45 26.6	+2.2
	comp=Z,51nm,0.6s						
GUMO	Guam	25.01	36	LR	LR	20 57 34.3	
	comp=Z,30nm,18.0s,baz=281,slow=41						
MORW	Morawa	25.85	209	P	P	20 45 41.1	+0.6
MORW				IAmb	IAmb	20 45 46.1	
	comp=Z,21nm,1.4s						
BBOO	Buckleboo	26.64	168	P	P	20 45 48.8	+1.2
BBOO				IAmb	IAmb	20 45 52.8	
	comp=Z,11nm,0.5s						
BBOO	Buckleboo	26.64	168	P	P	20 45 48.8	+1.2
	comp=Z,18nm,1.7s						
STKA	Stephens Creek	27.36	158	P	P	20 45 55.7	+1.7
	comp=Z,7.8nm,0.5s,baz=340,slow=7.9,SNR=28						
	comp=Z,7.8nm,0.5s						
STKA	Stephens Creek	27.36	158	P	P	20 45 55.6	+1.6
	comp=Z,60nm,1.3s						
EIDS	Eidsvold	27.50	135	P	P	20 45 56.6	+1.4
EIDS				IAmb	IAmb	20 46 15.8	
	comp=Z,16nm,1.3s						
CMSA	Cobar Meteorol	28.82	151	P	P	20 46 08.7	+1.7
	comp=Z,48nm,2.6s						
ARMA	Armidale	31.22	142		P	20 46 30.0	+1.8
ARMA	Armidale	31.22	142	P	P	20 46 31.2	+2.9
MGBR	Mount Gambier	32.41	164	P	P	20 46 40.2	+1.9
GSI	Gunungsitoli	33.22	283	P	P	20 46 45.5	-0.2
CAN	Canberra	33.50	151	P	P	20 46 50.5	+2.6
CAN	Canberra	33.50	151	P	P	20 46 51.0	+3.1
	comp=Z,34nm,1.8s						
TOO	Toolangi	33.88	157	P	P	20 46 53.7	+2.5
TOO				IAmb	IAmb	20 47 04.2	
	comp=Z,20nm,1.4s						
CMAR	Chiang Mai Arr	39.44	310	P	P	20 47 39.2	+0.9
	comp=Z,0.8nm,0.6s,baz=137,slow=6.9,SNR=6.5						
	comp=Z,0.8nm,0.6s						
CMAR	Chiang Mai Arr	39.44	310	P	P	20 47 37.7	-0.6
CHTO	Chiang Mai	39.65	310		P	20 47 39.4	-0.7
CHTO	Chiang Mai	39.65	310	P	P	20 47 40.4	+0.4
	comp=Z,4.3nm,0.8s						
NJ2	Nanjing	39.91	345	*e*P	P	20 47 45.0	+3.1
NJ2				pmax	pmax		
	comp=Z,8.0nm,0.5s						
PZH	PanZhiHua	42.81	322	P	P	20 48 08.8	+3.0
MORE	Moreh	46.35	313	P	P	20 48 32.7	-0.9
MORE				IAmb	IAmb	20 48 33.8	
	comp=Z,4.5nm,0.4s						
QRZ	Quartz Range	50.98	139	P	P	20 49 11.1	+2.5
WHZ	Wether Hill Ro	51.04	146	P	P	20 49 11.1	+2.1
MRNZ	Matariki Terra	51.41	139	P	P	20 49 14.8	+2.9
THZ	Tophouse	51.69	139	P	P	20 49 16.5	+2.5
TUWZ	Tuamarina	52.20	139	P	P	20 49 20.2	+2.5
TCW	Tory Channel	52.32	138	P	P	20 49 20.3	+1.8
GTA2	Gaotai	53.72	331	P	P	20 49 31.0	+2.1

GTA2				pP	pP	20 49 37.8	-34
GTA2				pmax	pmax		
	comp=Z,5.0nm,1.0s						
SONM	Songino Array	58.09	342	P	P	20 50 01.9	+2.1
	comp=Z,0.5nm,0.3s,baz=166,slow=7.1,SNR=5.1						
	comp=Z,0.5nm,0.3s						
SONM	Songino Array	58.09	342	P	P	20 50 02.0	+2.2
CASY	Casey	61.02	189	P	P	20 50 20.7	+1.3
CASY				IAmb	IAmb	20 50 53.7	
	comp=Z,4.8nm,1.4s						
PDGK	Podgornoye	67.47	322	P	P	20 51 03.3	+1.5
TARG	Taragay, Kyrgy	67.64	320	P	P	20 51 05.2	+1.9
MKAR	Makanchi Array	67.89	327	P	P	20 51 06.3	+2.1
	comp=Z,14nm,0.5s,baz=116,slow=8.1,SNR=111						
	comp=Z,14nm,0.5s						
MKAR	Makanchi Array	67.89	327		P	20 51 06.5	+2.2
MAKZ	Makanchi	68.07	327		P	20 51 07.5	+2.1
MAKZ	Makanchi	68.07	327	P	P	20 51 07.5	+2.1
	comp=Z,15nm,0.8s						
KDJ	Kajisay	68.25	320	P	P	20 51 08.8	+2.0
BOOM	Boomskoye usch	69.22	320	P	P	20 51 15.2	+2.4
AAK	Ala-Archa	70.22	320	P	P	20 51 19.8	+0.9
	comp=Z,1.7nm,0.3s,baz=152,slow=7.1,SNR=4.6						
	comp=Z,1.7nm,0.3s						
AAK	Ala-Archa	70.22	320	P	P	20 51 21.2	+2.4
AAK				IAmb	IAmb	20 51 22.6	
	comp=Z,7.2nm,1.2s						
AAK	Ala-Archa	70.22	320	P	P	20 51 21.6	+2.8
	comp=Z,6.3nm,1.1s						
ARSB	Arslanbob	70.57	318	P	P	20 51 23.1	+2.1
ARSB				IAmb	IAmb	20 51 24.2	
	comp=Z,6.0nm,0.7s						
ZAA0	Zalesovo Array	71.24	334	P	P	20 51 25.7	+1.2
ZALV	Zalesovo Beam	71.24	334	P	P	20 51 25.6	+1.2
	comp=Z,1.3nm,0.6s,baz=135,slow=5.1,SNR=5.7						
	comp=Z,1.3nm,0.6s						
ZALV	Zalesovo Beam	71.24	334	P	P	20 51 25.8	+1.3
BTK	Batken	71.47	316	P	P	20 51 27.6	+1.2
BTK	Batken	71.47	316	P	P	20 51 28.4	+2.1
	comp=Z,3.9nm,1.9s						
ARK	Arkit	71.47	318	P	P	20 51 29.0	+2.7
	comp=Z,10nm,1.3s						
KURBB	Kurchatov Arra	72.17	328	P	P	20 51 31.9	+1.8
	comp=Z,3.5nm,0.6s,baz=127,slow=4.9,SNR=21						
	comp=Z,3.5nm,0.6s						
KURK	Kurchatov	72.18	329	P	P	20 51 31.7	+1.6
KURK				IAmb	IAmb	20 51 33.3	
	comp=Z,11nm,1.4s						
KURK	Kurchatov	72.18	329	P	P	20 51 31.9	+1.7
	comp=Z,4.4nm,2.1s						
VNDA	Vanda	72.80	173	P	P	20 51 35.5	+2.1
	comp=Z,1.0nm,0.5s,baz=317,slow=7.2,SNR=12						
	comp=Z,1.0nm,0.5s						
VNDA	Vanda	72.80	173	P	P	20 51 35.2	+1.8
KK31	Karatay Array	73.02	319	P	P	20 51 36.5	+1.1
KKAR	Karatay Array	73.02	319	P	P	20 51 36.8	+1.4
MAW	Mawson	75.23	201	P	P	20 51 50.1	+2.4
MAW	Mawson	75.23	201	P	P	20 51 50.5	+2.9
BVAR	Borovoye Array	77.72	328	P	P	20 52 03.5	+1.6
	comp=Z,1.0nm,0.5s,baz=116,slow=9.8,SNR=5.0						
	comp=Z,1.0nm,0.5s						
VOI	Vohitsoka	81.17	249	P	P	20 52 23.0	+1.6
VOI				IAmb	IAmb	20 52 34.0	
	comp=Z,21nm,1.3s						
VOI	Vohitsoka	81.17	249	P	P	20 52 23.4	+2.0
	comp=Z,13nm,2.2s						
AB31	Akbulak array	82.18	322	P	P	20 52 27.1	+1.2
ABKAR	Akbulak array	82.18	322	P	P	20 52 26.9	+1.0
QSPA	South Pole Qui	83.31	180	P	P	20 52 33.1	+1.5
	comp=Z,1.5nm,0.5s,baz=293,slow=1.2,SNR=19						
	comp=Z,1.5nm,0.5s						
QSPA	South Pole Qui	83.31	180	P	P	20 52 33.0	+1.5
QSPA	South Pole Qui	83.31	180	P	P	20 52 33.2	+1.6
	comp=Z,2.8nm,1.1s						
RAYN	Ar Rayn	87.52	294	P	P	20 52 55.0	+1.9
RAYN				IAmb	IAmb	20 52 55.7	
	comp=Z,4.1nm,0.6s						
RAYN	Ar Rayn	87.52	294	P	P	20 52 55.0	+1.9
	comp=Z,8.8nm,0.8s						
BELG	Belogornoye	90.53	323	LR	LR	21 40 09.3	
	comp=Z,58nm,18.1s,baz=95,slow=40						
TGL	Tana Glacier	94.42	29	P	P	20 53 27.1	+2.7
CPUP	Villa Florida	146.47	168	PKPbc	PKiKP	20 59 47.9	-0.5
	comp=Z,1.8nm,0.6s,baz=90,slow=1.0,SNR=4.4						
LPAZ	La Paz	151.05	142	PKPbc	PKPab	21 00 00.8	-5.6
	comp=Z,1.1nm,0.7s,baz=206,slow=7.0,SNR=4.3						
LPAZ				PKPab	PKiKP	21 00 10.5	+12
	comp=Z,1.0nm,0.7s,baz=217,slow=12,SNR=3.6						

IDC ***25*** *20:44:39.0±1.9, 34°.14N×78°.24E, h0^{km}, mb3.4/3, mbtmp3.5/7, ML3.0/4, MS3.4/1, Error ellipse: s-maj=40.5km s-min=19.8km az=68.0*

ISC 25 20:44:44.5±1.6**, 34°.3N**±0°.1×**78°.5E**±0°.1**, h35^{km}, n10, σ0^{s}86**/11**, 1D, Kashmir-Xizang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AAK	Ala-Archa	8.93	341	Pn	Pn	20 46 51.9	+0.8
	0.3nm,0.3s,baz=204,slow=10.0,SNR=4.8						
AAK				Sn	Sn	20 48 31.3	+0.7
	0.3nm,0.3s,baz=43,slow=20,SNR=1.2						
	0.8nm,0.3s						
AAK				AML	AML		
KK31	Karatay Array	10.80	327	P	Pn	20 47 11.5	-5.1
	4.2nm,0.8s,baz=144,slow=13,SNR=20						
KK31				⇓S	Sn	20 49 15.6	-0.7
	1.6nm,0.7s,baz=145,slow=26,SNR=2.5						
MKAR	Makanchi Array	12.86	12	Pn	Pn	20 47 46.0	+1.3
	0.1nm,0.3s,baz=200,slow=13,SNR=4.1						
MKAR				Sn	Sn	20 50 05.5	-0.9
	baz=181,slow=21,SNR=6.0						
	0.4nm,0.5s						
MKAR				AML	AML		
KURBB	Kurchatov Arra	16.36	0	Pn	Pn	20 48 31.3	0.0
	baz=187,slow=12,SNR=8.7						
	0.7nm,0.8s						
BVAR	Borovoye Array	19.63	345	P	P	20 49 08.6	-1.3
	baz=160,slow=9.2,SNR=6.6						
	1.4nm,0.6s						
ZALV	Zalesovo Beam	20.19	11	P	P	20 49 15.8	-0.2
	0.4nm,0.5s,baz=202,slow=9.5,SNR=4.9						
	0.4nm,0.5s						
AB31	Akbulak array	20.31	323	P	P	20 49 17.6	+0.3
	3.0nm,1.0s,baz=125,slow=7.9,SNR=18						
CMAR	Chiang Mai Arr	24.09	126	P	P	20 49 56.6	-0.2
	0.7nm,0.7s,baz=316,slow=9.6,SNR=4.6						
	0.7nm,0.7s						
HILR	Hailar Array B	33.84	50	LR	LR	21 07 48.1	
	comp=Z,69nm,21.7s,baz=30,slow=41						
FINES	FINESS Array B	42.76	326	P	P	20 52 38.0	-0.2
	1.5nm,0.8s,baz=108,slow=6.2,SNR=7.0						
	1.5nm,0.8s						

SSNC 25 20:54:13.2±0.3**, 20°.54N×75°.90W, h5^{km}, MD0.8, ML0.4, Presumed earthquake, Cuba region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PINC	Pinares de May	0.12	116	*e*P	Pg	20 54 16.0	+0.4
PINC				*e*		20 54 16.1	
	baz=296,slow=22						
PINC				*e*S	Sg	20 54 18.0	+0.8
PINC				IAML		20 54 18.3	
	comp=E,15nm,0.1s						
PINC				IAML		20 54 18.3	
	comp=N,12nm,0.1s						
PINC	Pinares de May	0.12	116	*e*P	Pg	20 54 16.1	+0.5
PINC				*e*S	Sg	20 54 18.1	+0.9
PINC				IAML		20 54 18.3	
	comp=E,15nm,0.1s						
PINC				IAML		20 54 18.3	
	comp=N,12nm,0.1s						

SSNC 25 20:54:14.8±0.3**, 19°.82N×77°.19W, h5^{km}±5^{km}, MD1.6, ML1.5, Presumed earthquake, Cuba region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PILO	Pilon	0.22	293	*e*P	Pg	20 54 19.6	+0.3
PILO				*e*S	Sg	20 54 22.9	+0.7
PILO				IAML		20 54 23.9	
	comp=E,427nm,0.2s						
PILO				IAML		20 54 23.9	
	comp=N,610nm,0.3s						
LMGC	Las Mercedes	0.29	35	*e*P	Pg	20 54 20.4	-0.1
LMGC				*e*		20 54 20.5	
	baz=216,slow=28						
LMGC				*e*S	Sg	20 54 24.8	+0.3
LMGC				IAML		20 54 24.9	
	comp=E,8.5nm,0.0s						
LMGC				IAML		20 54 25.1	
	comp=N,10nm,0.1s						

IDC ***25*** *21:14:50.5±7.6, 1°.98S×101°.74E, h0^{km}, mb3.3/2, mbtmp3.3/2, Error ellipse: s-maj=513.3km s-min=83.3km az=47.0*

DJA ***25*** *21:15:02.3±0.8, 3°S±7°×10°1E±°, h63^{km}±11^{km}, M3.4/7, ML3.5/7, MLv3.4/8, MLv3.4/7*

ISC 25 21:14:52.0±2.3**, 3°.1S**±0°.1×**100°.4E**±0°.3**, h35^{km}, n8, σ1^{s}45**/8**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KRJI	Kerinci	1.47	49	P	Pn	21 15 16.8	+0.6
KRJI				AML	AML		
KRJI				AML	AML		
MASI	Maura Aman, Be	1.88	92	P	Pn	21 15 21.5	-0.3
MASI				AML	AML		
UBSI	University, Be	2.03	110	P	Pn	21 15 25.5	+1.7
UBSI				AML	AML		
KSI	Kapahiang	2.31	105	P	Pn	21 15 28.9	+1.3
KSI				AML	AML		
SDSI	Sungai Dareh	2.38	27	P	Pn	21 15 29.5	+0.9
WRA	Warramunga Arr	37.16	119	P	P	21 21 57.9	-2.0
	0.2nm,0.4s,baz=296,slow=7.7,SNR=1.9						
	0.2nm,0.4s						
ASAR	Alice Springs	38.34	125	P	P	21 22 09.3	-0.6
	0.3nm,0.6s,baz=303,slow=8.3,SNR=4.8						
	0.3nm,0.6s						
TXAR	Lajitas Array	145.32	39	PKP	PKPdf	21 34 27.7	+0.6
	0.3nm,0.4s,baz=310,slow=1.7,SNR=6.8						

IDC ***25*** *21:19:57.7±1.1, 51°.68N×15°.87E, h0^{km}, mbtmp3.3/7, ML3.0/7, Error ellipse: s-maj=17.4km s-min=11.1km az=110.0*

VIE ***25*** *21:19:58.7±0.4, 51°.60N×16°.04E, h0^{km}, mb3.0/12, ml3.0/17, ml3.0/17, ms3.9/1, Error ellipse: s-maj=4.0km s-min=2.3km az=22.0 88 km NW of Wroclaw Suspected Mining induced.*

BGR ***25*** *21:19:59.0±0.3, 51°.62N×16°.03E, h1^{km}, ML3.0/15, Error ellipse: s-maj=3.3km s-min=1.1km az=18.0*

IPEC ***25*** *21:19:58.4±0.2, 51°.62N×16°.05E, h1^{km}, ML2.9/8, Error ellipse: s-maj=1.9km s-min=1.1km az=64.0*

DNK ***25*** *21:19:58.1±1.8, 51°.72N×16°.15E, h0^{km}, ML2.2, Suspected explosion*

ISC 25 21:19:56.9±0.7**, 51°.68N**±0°.02×**16°.01E**±0°.02**, h0^{km}, n80, σ1^{s}15**/177**, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	Ksiaz	0.86	168	*e*Pg	Pg	21 20 14.0	+0.7
KSP				*e*Sg	Sg	21 20 24.6	+0.2
KSP	Ksiaz	0.86	168	*e*Pg	Pg	21 20 14.0	+0.7
KSP				*e*Pn	Pn	21 20 16.0	-0.2
KSP				*e*Sg	Sg	21 20 24.2	-0.2
CHVC	Chvalec	1.09	178	*e*PG	Pb	21 20 18.4	-0.3
CHVC				*e*SG	Sb	21 20 32.9	-0.6
	comp=Z,114nm,0.4s						
CHVC				AML	AML		
OSTC	Ostas	1.13	173	*e*PG	Pb	21 20 19.6	+0.2
OSTC				*e*SG	Sg	21 20 33.5	+0.3
	comp=Z,127nm,0.6s						
OSTC				AML	AML		
UPC	Upice	1.17	180	*e*PG	Pg	21 20 19.7	+0.3
UPC				*e*SG	Sg	21 20 34.6	0.0
	comp=Z,139nm,0.3s						
UPC				AML	AML		
DPC	Dobruska-Polom	1.34	171	*e*Pn	Pg	21 20 22.6	0.0
DPC				*e*Sg	Sg	21 20 39.6	-0.5
PVCC	Panska Ves	1.47	219	*e*PG	Pb	21 20 25.2	+0.2
PVCC				*e*SG	Sn	21 20 44.9	+0.4
	comp=Z,261nm,0.4s						
PVCC				AML	AML		
BRG	Berggiesshubel	1.53	239	*e*Pn	Pg	21 20 26.5	+0.4
BRG				*e*Sg	Sn	21 20 46.9	+0.9
BRG	Berggiesshubel	1.53	239	Pn	Pn	21 20 25.7	+0.2
BRG				Pg	Pg	21 20 26.9	+0.7
BRG				Sg	Sn	21 20 47.0	+1.0
BRG				Amp		21 20 47.6	
	comp=Z,148nm,0.5s						
PIVO	Bartosovice	1.53	167	*e*Pg	Pn	21 20 25.8	+0.2
	baz=348						
PIVO				*e*Sg	Sg	21 20 44.4	-1.7
	comp=Z,126nm,0.4s,baz=348						
PIVO				AML	AML		
RICC	Richard	1.65	227	*e*PG	Pb	21 20 27.9	-0.4
ANAC	Anensky vrch	1.83	151	*e*Pn	Pn	21 20 29.8	+0.2
	baz=332						
ANAC				*e*Sg	Sn	21 20 53.8	+0.3
	comp=Z,41nm,0.3s,baz=332						
ANAC				AML	AML		
FBE	Freiberg	1.83	247	*e*Pn	Pn	21 20 30.0	+0.4
FBE				*e*Sn	Sn	21 20 53.5	0.0
RYBC	Ceska Rybna	1.87	179	*e*Pn	Pn	21 20 30.7	+0.5
	baz=360						
RYBC				*e*Sg	Sn	21 20 55.2	+0.6
	comp=Z,81nm,0.3s,baz=360						
RYBC				AML	AML		
CLL	Collm	1.91	260	*e*Pn	Pn	21 20 31.1	+0.3
CLL				*e*Pg	Pg	21 20 34.4	+0.8
CLL				*e*Sn	Sn	21 20 55.2	-0.3
CLL				*e*Sg	Sg	21 20 59.8	+1.4
CLL	Collm	1.91	260	*i* Pn	Pn	21 20 31.2	+0.4
	comp=Z,24nm,0.5s						
CLL				*i* Pg	Pg	21 20 34.1	+0.5
CLL				*i* x	x	21 20 38.1	
CLL				*e*Sg	Sg	21 20 59.0	+0.6
	comp=Z,53nm,0.6s						
PRU	Pruhonice	1.93	209	*e*PN	Pn	21 20 31.1	+0.1
PRU				*e*PG	Pb	21 20 33.1	+0.1
PRU				*e*SG	Sb	21 20 57.5	-0.1
	comp=Z,52nm,0.5s						
PRU				AML	AML		
HSKC	Hora Svate Kat	1.94	238	*e*PG	Pb	21 20 33.6	+0.4
HSKC				*e*SG	Sg	21 20 59.7	+0.4
STEB	Steborice	2.08	147	*e*PG	Pg	21 20 36.3	-0.4
STEB				*e*SG	Sb	21 21 02.7	+0.9
	comp=Z,167nm,0.6s						
STEB				AML	AML		
MORC	Moravsky Berou	2.14	152	*e*Pn	Pn	21 20 34.1	+0.1
MORC				*e*Pg	Pg	21 20 37.5	-0.4
MORC				*e*Sn	Sn	21 20 59.4	-1.8
MORC				*e*Sg	Sg	21 21 05.1	-0.5
MORC	Moravsky Berou	2.14	152	*e*Pn	Pn	21 20 34.0	+0.1
	baz=333						
MORC				*e*Sg	Sb	21 21 03.3	-0.4
	comp=Z,67nm,0.6s,baz=333						
MORC				AML	AML		
OKC	Ostrava-Krasne	2.29	143	*e*PN	Pn	21 20 35.7	-0.3
OKC				*e*PG	Pg	21 20 40.3	-0.5
OKC				*e*SG	Sg	21 21 10.4	-0.1
	comp=Z,85nm,0.5s						
OKC				AML	AML		
OKC	Ostrava-Krasne	2.29	143	*e*Pn	Pn	21 20 35.9	0.0
OKC				*e*Pg	Pg	21 20 40.5	-0.3
OKC				*e*Sg	Sg	21 21 09.9	-0.6
VRAC	Vranov	2.40	171	Pn	Pn	21 20 38.5	+1.0
	comp=Z,3.2nm,0.3s,baz=346,slow=15,SNR=35						
VRAC				Sn	Sn	21 21 09.4	+1.8
	comp=Z,6.3nm,0.3s,baz=84,slow=20,SNR=18						
	comp=Z,6.3nm,0.3s						
VRAC				AML	AML		
VRAC	Vranov	2.40	171	*e*Pn	Pn	21 20 38.0	+0.5
	baz=352						
VRAC				*e*Sg	Sb	21 21 11.7	+0.5
	comp=Z,58nm,0.7s,baz=352						
VRAC				AML	AML		
TREC	Trest	2.41	188	*e*PN	Pn	21 20 37.9	+0.3
TREC				*e*SG	Sg	21 21 13.1	-1.2
	comp=Z,41nm,0.3s						
TREC				AML	AML		
TANN	Tannenbergstha	2.57	242	*e*Pn	Pn	21 20 40.6	+0.7
TANN				*e*Pg	Pg	21 20 47.4	+1.3
TANN				*e*Sg	Sg	21 21 19.1	-0.4
MAUC	Maruska	2.59	153	*e*PN	Pn	21 20 40.9	+0.8
MAUC				*e*PG	Pg	21 20 45.6	-1.0
MAUC				*e*SG	Sg	21 21 20.7	+0.6
	comp=Z,85nm,0.5s						
MAUC				AML	AML		
KRUC	Moravsky	2.63	174	*e*Pn	Pn	21 20 41.2	+0.6
	baz=355						
KRUC				*e*Sg	Sb	21 21 18.6	+0.8
	comp=Z,65nm,0.9s,baz=355						
KRUC				AML	AML		
WERD	Werda	2.64	244	*e*Pn	Pn	21 20 41.2	+0.4
WERD				*e*Pg	Pg	21 20 48.7	+1.2
WERD				*e*Sg	Sg	21 21 22.1	+0.4
NKC	Novy Kostel	2.67	239	*e*PN	Pn	21 20 42.4	+1.1
NKC				*e*PG	Pg	21 20 48.3	+0.1
NKC				*e*SG	Sg	21 21 23.2	+0.4
	comp=Z,61nm,0.5s						
NKC				AML	AML		
STAC	Stalkov	2.69	190	*e*Pn	Pn	21 20 42.0	+0.5
	baz=10						
STAC				*e*Sg	Sb	21 21 20.9	+1.4
	comp=Z,49nm,0.4s,baz=10						
STAC				AML	AML		
OJC	Ojcow	2.81	120	*e*Pn	Pn	21 20 42.2	-0.9
OJC				*e*Pg	Pg	21 20 51.2	+0.5
OJC				*e*Sg	Sg	21 21 28.0	+0.9
OJC	Ojcow	2.81	120	*e*Pg	Pg	21 20 50.5	-0.2
OJC				*e*Sg	Sg	21 21 27.2	+0.1
MOX	Moxa	2.95	251	*e*Pn	Pn	21 20 45.5	+0.4
MOX				*e*Pg	Pg	21 20 54.0	+0.5
MOX				*e*Sn	Sn	21 21 19.1	-2.1
MOX				*e*Sg	Sg	21 21 32.2	+0.5
KHC	Kasperske Hory	2.99	212	*e*PN	Pn	21 20 46.3	+0.7
KHC				*e*PG	Pb	21 20 52.1	+1.1
KHC				*e*SG	Sg	21 21 30.8	-2.0
	comp=Z,31nm,0.7s						
KHC				AML	AML		
JAVC	Velka Javorina	3.02	159	*e*Pn	Pn	21 20 46.3	+0.3
	baz=340						
ABNA	Allensteig Bun	3.03	187	*i* Pn	Pn	21 20 47.0	+0.8
	comp=Z,4.1nm,0.1s						
ABNA				*e*Sg	Sg	21 21 32.3	-2.0
	comp=Z,12nm,0.1s						
CKRC	Cesky Krumlov	3.06	201	*e*PN	Pn	21 20 47.9	+1.3
CKRC				*e*PG	Pb	21 20 54.0	+1.7
ROTZ	Rotzenmuhle	3.08	233	*e*Pn	Pn	21 20 47.7	+0.9
ROTZ				*e*Pg	Pg	21 20 56.2	+0.3
ROTZ				*e*Sg	Sg	21 21 35.3	-0.6
GEC2	GERESS Array S	3.20	208	*e*Pn	Pn	21 20 49.7	+1.1
GEC2				*e*Pg	Pg	21 20 58.1	-0.1
GERES	GERESS Array B	3.20	208	Pn	Pn	21 20 49.0	+0.4
	comp=Z,1.3nm,0.3s,baz=25,slow=16,SNR=6.4						
GERES				Sn	Sn	21 21 29.7	+2.3
	comp=Z,2.0nm,0.3s,baz=29,slow=26,SNR=5.9						
	comp=Z,3.6nm,0.3s						
GERES				AML	AML		
WET	Wettzell	3.23	219	*e*Pn	Pn	21 20 49.7	+0.8
WET				*e*Sg	Sg	21 21 40.8	+0.2
LANS	Liptovska Anna	3.36	137	*e*PN	Pn	21 20 51.8	+1.1
LANS				*e*PG	Pg	21 21 01.5	+0.2
LANS				*e*SG	Sg	21 21 44.0	-0.9
MODS	Modra-Piesok	3.41	166	*e*PN	Pn	21 20 53.1	+1.8
MODS				*e*PG	Pg	21 21 01.5	-0.7
MODS				*e*SG	Sg	21 21 46.2	-0.2
BSD	Bornholm Skovb	3.50	350	*i* P	Pn	21 20 53.6	+1.0
BSD				*i* S	Sn	21 21 34.6	-0.1
BSD				IAML		21 21 42.6	
	comp=Z,2.6nm,0.4s						
CLZ	Clausthal	3.50	275	*e*Pn	Pn	21 20 53.9	+1.2
CLZ				*e*Pg	Pg	21 21 04.6	+0.5
CLZ				*e*Sn	Sn	21 21 33.0	-1.8
CLZ				*e*Sg	Sg	21 21 50.7	+1.2
NIE	Niedzica	3.55	128	*e*Pn	Pn	21 20 54.5	+1.2
NIE				*e*Pg	Pg	21 21 05.2	+0.2
NIE				*e*Sg	Sg	21 21 50.5	-0.5
ZST	Bratislava	3.56	168	*e*SG	Sg	21 21 50.8	-0.3
GRF	Grafenberg Arr	3.63	239	*e*Pn	Pn	21 20 55.6	+1.2
GRF				*e*Pg	Pg	21 21 08.0	+1.4
GRF				*e*Sg	Sg	21 21 53.7	+0.1
VYHS	Vyhne	3.67	149	*e*PN	Pn	21 20 55.3	+0.3
VYHS				*e*PG	Pg	21 21 06.2	-1.1
VYHS				*e*SG	Sg	21 21 54.1	-0.7
CONA	Conrad Observa	3.75	181	*i* Pn	Pn	21 20 57.1	+0.9
	comp=Z,1.7nm,0.2s,SNR=5.3						
CONA				Sg	Sg	21 21 55.0	-2.5
	comp=Z,33nm,0.5s						
RONA	Rosalia, Austr	3.99	177	*i* Pn	Pn	21 21 00.6	+1.2
	comp=Z,0.6nm,0.2s						
RONA				*e*Sg	Sg	21 22 02.4	-2.5
	comp=Z,10nm,0.4s						
MOA	Molln	4.00	197	*i* Pn	Pn	21 21 00.2	+0.8
	comp=Z,5.6nm,0.2s,SNR=17						
MOA				*e*Sg	Sg	21 22 03.6	-1.6
	comp=Z,23nm,0.6s						
STHS	Stebnicka Huta	4.04	122	*e*PN	Pn	21 21 01.1	+1.1
STHS				*e*PG	Pg	21 21 14.5	+0.3
STHS				*e*SG	Sg	21 22 10.0	+3.5
LUNU	Lund	4.24	340	*i* P	Pn	21 21 03.4	+0.6
LUNU				*i* S	Sn	21 21 52.3	-0.6
BIOA	Bad Ischl, Aus	4.28	202	*i* Pn	Pn	21 21 04.0	+0.8
	comp=Z,2.9nm,0.2s						
BIOA				*e*Sg	Sg	21 22 12.3	-2.0
	comp=Z,24nm,0.6s						
ARSA	Arzberg	4.44	184	*i* Pn	Pn	21 21 07.1	+1.5
	comp=Z,1.3nm,0.3s						
ARSA				*e*Sg	Sg	21 22 18.8	-0.8
	comp=Z,19nm,0.5s						
BLEU	Blekinge	4.64	359	*i* P	Pn	21 21 09.9	+1.7
BLEU				*i* S	Sn	21 22 00.6	-2.1
LESA	Schwarzleotal	4.78	208	*i* Pn	Pn	21 21 10.8	+0.6
	comp=Z,0.5nm,0.1s						
LESA				*e*Sg	Sg	21 22 27.7	-2.6
	comp=Z,5.4nm,0.4s						
KOLS	Kolonicke sedl	4.87	122	*e*PN	Pn	21 21 12.5	+1.1
KOLS				*e*PG	Pg	21 21 31.7	+1.6
KOLS				*e*SG	Sg	21 22 35.0	+1.8
KBA	Koelnbreinsper	4.92	202	*i* Pn	Pn	21 21 12.5	+0.2
	comp=Z,2.9nm,0.3s						
KBA				*e*Sg	Sg	21 22 35.4	+0.5
	comp=Z,6.1nm,0.4s						
DEL	Delary	4.96	346	*i* P	Pn	21 21 13.4	+0.7
DEL				*i* S	Sn	21 22 09.4	-1.3
SOKA	Soboth	5.04	188	*e*Sg	Sg	21 22 40.7	+1.8
	comp=Z,3.0nm,0.3s						
WATA	Walderalm	5.22	215	*i* Pn	Pn	21 21 17.2	+0.9
	comp=Z,1.4nm,0.4s						
WATA				Sg	Sg	21 22 42.4	-2.0
	comp=Z,4.6nm,0.3s						
WTTA	Wattenberg	5.26	215	*i* Pn	Pn	21 21 18.7	+1.8
	comp=Z,0.6nm,0.2s						
WTTA				Sg	Sg	21 22 42.8	-2.9
	comp=Z,8.8nm,0.5s						
MYKA	Terra Mystica	5.29	198	*e*Sg	Sg	21 22 44.6	-2.1
	comp=Z,2.9nm,0.4s						
MOTA	Moosalm	5.38	218	*i* Pn	Pn	21 21 19.5	+0.9
	comp=Z,1.1nm,0.2s						
MOTA				*e*Sg	Sg	21 22 50.5	+0.7
	comp=Z,10.0nm,0.7s						
RETA	Reutte	5.41	221	*i* Pn	Pn	21 21 19.1	+0.3
	comp=Z,1.0nm,0.2s						
RETA				Sg	Sg	21 22 48.0	-2.5
	comp=Z,8.5nm,0.6s						
ABTA	Abfaltersbach	5.44	206	*i* Pn	Pn	21 21 20.9	+1.6
	comp=Z,2.1nm,0.6s						
ABTA				*e*Sg	Sg	21 22 52.7	+1.1
	comp=Z,9.7nm,0.6s						
SQTA	Sankt Quirin	5.45	217	*i* Pn	Pn	21 21 21.4	+2.0
	comp=Z,1.5nm,0.2s						
SQTA				Sg	Sg	21 22 51.1	-0.8
	comp=Z,11nm,0.6s						
FABU	Falkenberg	5.67	341	*i* P	Pn	21 21 22.4	+0.1
FABU				*i* S	Sn	21 22 24.4	-3.7
FETA	Feichten	5.80	219	*e*Sn	Sn	21 22 30.8	-0.7
	comp=Z,1.6nm,0.7s						
DAVA	Damuels	5.94	225	*i* Pn	Pn	21 21 25.8	-0.4
	comp=Z,1.5nm,0.2s						
DAVA				Sg	Sg	21 23 06.3	-1.2
	comp=Z,11nm,0.6s						
ONAU	Onsala	6.20	339	*i* P	Pn	21 21 32.0	+2.3
ONAU				*i* S	Sn	21 22 39.0	-2.2
DAVOX	Davos/Dischmat	6.33	222	Pn	Pn	21 21 31.5	-0.1
	comp=Z,0.1nm,0.3s,baz=14,slow=17,SNR=1.5						
DAVOX				Lg	Lg	21 23 15.0	
	comp=Z,0.4nm,0.3s,baz=204,slow=21,SNR=3.6						

	comp=Z,1.3nm,0.5s						
DAVOX				AML	AML		
AKASG	**Malin Array Be**	**8.36**	**92**	Pn	**Pn**	**21 21 58.8**	**-0.6**
	comp=Z,0.8nm,0.3s,baz=280,slow=11,SNR=3.0						
	comp=Z,0.5nm,0.4s						
AKASG				AML	AML		
NOA	**NORSAR Array B**	**9.75**	**346**	Pn	**Pn**	**21 22 15.7**	**-2.6**
	baz=158,slow=13,SNR=3.8						
	comp=Z,0.7nm,0.9s						
FINES	**FINESS Array B**	**11.24**	**26**	Pn	**Pn**	**21 22 38.0**	**-0.7**
	comp=Z,0.2nm,0.3s,baz=216,slow=12,SNR=14						
	comp=Z,0.7nm,0.3s						
FINES				AML	AML		
EKA	**Eskdalemuir Ar**	**11.97**	**295**	Pn	**Pn**	**21 22 46.6**	**-2.2**
	baz=102,slow=13						
	comp=Z,1.9nm,0.8s						

IDC ***25*** *21:23:35.1±0.6, 2°.71N×31°.26W, h0^{km}, mb4.0/13, mbtmp4.0/14, ML4.2/1, MS3.8/47, Error ellipse: s-maj=21.4km s-min=12.7km az=131.0*

NEIC ***25*** *21:23:37.7±1.3, 2°.53N±0°.08×31°.23W±0°.09, h10^{km}±1^{km}, mb4.7/28, Error ellipse: s-maj=19.9km s-min=4.5km az=313.0*

GCMT ***25*** *21:23:39.7±0.4, 2°.50N±0°.05×31°.23W±0°.02, h14^{km}±1^{km}, MW4.8/77, Moment Tensor Solution. s16,c16; s77,c89; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.30±.14; $M_{\theta\theta}$-0.02±.08; $M_{\phi\phi}$1.32±.10; $M_{r\theta}$-1.49±.27; $M_{\theta\phi}$0.07±.06; $M_{\phi r}$-0.20±.17; Best double couple: $M_0$1.83900×10^{16} NP1:ϕ_s164.00000°,δ41.00000°,λ-139.00000°. NP2: ϕ_s41.00000°,δ65.00000°,λ-56.00000°. Principal axes: T 1.3910, Plg13.0000°, Azm107.0000°; N 0.8960, Plg30.0000°, Azm205.0000°; P -2.2860, Plg57.0000°, Azm356.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 25 21:23:36.7±0.4**, 2°.49N**±0°.08×**31°.26W**±0°.08**, h10**^{km}**, n89, σ1^{s}.28**/50**, mb4.5**/23**, MS3.8**/46**, Central Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RCBR	**Riachuelo**	**9.47**	**209**	Pn	**Pn**	**21 25 53.3**	**0.0**
	2.3nm,0.3s,baz=21,slow=19,SNR=42						
RCBR				Sn	Sn	21 27 33.1	-6.8
	0.7nm,0.3s,baz=304,slow=22,SNR=6.4						
RCBR				LR	LR	21 28 56.6	
	comp=Z,145nm,18.6s,baz=36,slow=33						
	5.2nm,0.3s						
RCBR				AML	AML		
RCBR	**Riachuelo**	**9.47**	**209**		**Pn**	**21 25 54.4**	**+1.0**
RCBR					**Sn**	**21 27 34.1**	**-5.8**
H10N3	**ASCENSION HYDR**	**19.61**	**122**	T	T	21 48 27.6	
	baz=301,slow=76,SNR=284						
H10N2	**ASCENSION HYDR**	**19.62**	**122**	T	T	21 48 31.3	
	baz=301,slow=76,SNR=309						
H10N1	**ASCENSION HYDR**	**19.64**	**122**	T	T	21 48 32.5	
	baz=301,slow=76,SNR=468						
MDP	**Montagnes des**	**21.49**	**278**	LR	LR	21 34 58.2	
	comp=Z,199nm,20.6s,baz=70,slow=32						
BDFB	**Brasilia**	**24.47**	**222**	P	**P**	**21 28 57.3**	**+0.9**
	2.8nm,0.6s,baz=48,slow=11,SNR=5.6						
BDFB				LR	LR	21 37 35.6	
	comp=Z,243nm,19.5s,baz=12,slow=34						
	2.8nm,0.6s						
BDFB	**Brasilia**	**24.47**	**222**	P	**P**	**21 28 56.9**	**+0.6**
BDFB				IAmb	IAmb	21 29 38.2	
	comp=Z,12nm,1.3s						
DBIC	**Dimbokro**	**26.64**	**80**	P	**P**	**21 29 15.4**	**-0.5**
	comp=Z,14nm,1.1s,baz=254,slow=9.6,SNR=5.4						
DBIC				LR	LR	21 37 45.7	
	comp=Z,410nm,18.9s,baz=260,slow=32						
	comp=Z,14nm,1.1s						
DBIC	**Dimbokro**	**26.64**	**80**	P	**P**	**21 29 15.3**	**-0.6**
DBIC				IAmb	IAmb	21 29 17.3	
	comp=Z,10nm,0.9s						
BOAV	**Boa Vista**	**29.23**	**270**	P	**P**	**21 29 39.6**	**+0.5**
BBGH	**Gun Hill**	**29.93**	**292**	P	**P**	**21 29 44.8**	**-0.5**
SPB	**Sao Paulo**	**30.33**	**210**	P	**P**	**21 29 49.5**	**+0.8**
SPB				IAmb	IAmb	21 30 07.0	
	comp=Z,20nm,1.3s						
TORD	**Torodi Ar. Bea**	**34.27**	**70**	P	**P**	**21 30 23.1**	**-0.3**
	comp=Z,7.9nm,0.9s,baz=258,slow=7.9,SNR=26						
TORD				LR	LR	21 42 16.8	
	comp=Z,253nm,20.0s,baz=294,slow=33						
	comp=Z,7.9nm,0.9s						
TORD	**Torodi Ar. Bea**	**34.27**	**70**	P	**P**	**21 30 22.4**	**-1.1**
TORD				IAmb	IAmb	21 30 25.6	
	comp=Z,6.3nm,1.0s						
SIV	**San Ignacio**	**34.72**	**237**	LR	LR	21 44 32.8	
	comp=Z,349nm,19.4s,baz=117,slow=36						
SMRT	**St. Maarten**	**34.82**	**299**	P	**P**	**21 30 28.9**	**+0.8**
SJG	**San Juan**	**37.56**	**297**	LR	LR	21 42 35.6	
	comp=Z,131nm,21.1s,baz=89,slow=30						
CPUP	**Villa Florida**	**38.15**	**220**	P	**P**	**21 30 57.8**	**+1.4**
	comp=Z,1.8nm,0.8s,baz=37,slow=10,SNR=5.1						
CPUP				LR	LR	21 46 22.0	
	comp=Z,144nm,18.2s,baz=68,slow=36						
	comp=Z,1.8nm,0.8s						
CPUP	**Villa Florida**	**38.15**	**220**	P	**P**	**21 30 58.5**	**+2.1**
CPUP				IAmb	IAmb	21 31 05.7	
	comp=Z,8.3nm,1.2s						
AOPR	**Arecibo Observ**	**38.18**	**297**	P	**P**	**21 30 57.8**	**+1.0**
PRSN	**Puerto Rico Se**	**38.48**	**296**	P	**P**	**21 31 00.9**	**+1.6**
PRSN				IAmb	IAmb	21 31 43.7	
	comp=Z,45nm,1.3s						
MDT	**Midelt**	**39.18**	**37**	LR	LR	21 45 30.4	
	comp=Z,187nm,20.1s,baz=230,slow=34						
SDV	**Santo Domingo**	**39.67**	**281**	LR	LR	21 47 33.2	
	comp=Z,124nm,20.3s,baz=82,slow=36						
PFVI	**Vila Bisbo**	**40.19**	**28**	P	**P**	**21 31 14.8**	**+1.4**
LPAZ	**La Paz**	**40.92**	**242**	P	**P**	**21 31 21.8**	**+1.3**
	comp=Z,1.2nm,0.7s,baz=54,slow=2.9,SNR=4.9						
LPAZ				LR	LR	21 48 16.1	
	comp=Z,397nm,18.4s,baz=55,slow=36						
	comp=Z,1.2nm,0.7s						
LPAZ	**La Paz**	**40.92**	**242**	P	**P**	**21 31 19.5**	**-0.9**
TAM	**Tamanrasset**	**40.97**	**57**	P	**P**	**21 31 19.9**	**-0.3**
TAM				IAmb	IAmb	21 31 47.2	
	comp=Z,9.8nm,0.4s						
CZSB	**Cruzeiro do Su**	**42.57**	**256**	P	**P**	**21 31 33.9**	**+0.6**
CZSB				IAmb	IAmb	21 31 51.6	
	comp=Z,26nm,1.3s						
ROSC	**El Rosal**	**43.03**	**274**	LR	LR	21 50 03.6	
	comp=Z,255nm,18.1s,baz=64,slow=37						
ROSC	**El Rosal**	**43.03**	**274**	P	**P**	**21 31 38.0**	**+0.5**
ROSC				IAmb	IAmb	21 31 46.7	
	comp=Z,11nm,0.5s						
GO01	**Chusmiza**	**43.27**	**238**	P	**P**	**21 31 39.3**	**-0.1**
GO01				IAmb	IAmb	21 31 41.9	
	comp=Z,9.2nm,1.4s						
ESDC	**Sonseca Array**	**44.55**	**30**	P	**P**	**21 31 48.3**	**-0.7**
	comp=Z,1.7nm,1.0s,baz=211,slow=7.3,SNR=5.7						
ESDC				LR	LR	21 47 52.4	
	comp=Z,47nm,20.2s,baz=266,slow=33						
	comp=Z,1.7nm,1.0s						
NNA	**Nana**	**47.52**	**251**	LR	LR	21 51 50.9	
	comp=Z,217nm,18.4s,baz=66,slow=36						
ATAH	**Atahualpa**	**48.00**	**258**	LR	LR	21 52 38.6	
	comp=Z,209nm,21.2s,baz=104,slow=36						
KEST	**Kesra**	**50.05**	**44**	LR	LR	21 53 12.3	
	comp=Z,174nm,19.9s,baz=324,slow=36						
TSUM	**Tsumeb**	**52.61**	**116**	LR	LR	21 51 30.4	
	comp=Z,117nm,18.3s,baz=330,slow=32						
JTS	**Las Juntas de**	**53.85**	**281**	LR	LR	21 57 06.2	
	comp=Z,50nm,18.8s,baz=48,slow=37						
PLCA	**Paso Flores**	**55.97**	**215**	LR	LR	21 56 18.1	
	comp=Z,188nm,18.6s,baz=91,slow=35						
DAVOX	**Davos/Dischmat**	**56.75**	**33**	LR	LR	21 55 58.6	
	comp=Z,37nm,18.1s,baz=258,slow=34						
TKL	**Tuckaleechee C**	**58.66**	**311**	LR	LR	21 53 53.5	
	comp=Z,124nm,21.0s,baz=103,slow=31						
SADO	**Sadowa**	**59.50**	**322**	LR	LR	21 53 18.3	
	comp=Z,80nm,21.0s,baz=108,slow=30						
GERES	**GERESS Array B**	**60.05**	**33**	LR	LR	21 58 17.1	
	comp=Z,48nm,18.9s,baz=64,slow=35						
SUR	**Sutherland**	**60.22**	**130**	LR	LR	21 55 18.9	
	comp=Z,81nm,18.4s,baz=308,slow=32						
LSZ	**Lusaka**	**61.39**	**109**	LR	LR	21 55 08.3	
	comp=Z,144nm,21.9s,baz=296,slow=31						
LSZ	**Lusaka**	**61.39**	**109**	P	**P**	**21 33 54.7**	**+0.9**
LSZ				IAmb	IAmb	21 33 57.4	
	comp=Z,11nm,1.3s						
LBTB	**Lobatse**	**61.48**	**120**	LR	LR	21 55 22.1	
	comp=Z,65nm,20.1s,baz=288,slow=31						
MBAR	**Mbarara**	**62.06**	**92**	LR	LR	21 57 40.5	
	comp=Z,103nm,19.3s,baz=284,slow=33						
BOSA	**Boshof**	**62.35**	**124**	P	**P**	**21 34 00.2**	**+0.2**
	comp=Z,7.5nm,1.0s,baz=311,slow=2.8,SNR=4.5						
BOSA				LR	LR	21 55 47.9	
	comp=Z,70nm,21.2s,baz=312,slow=31						
	comp=Z,7.5nm,1.0s						
BOSA	**Boshof**	**62.35**	**124**	P	**P**	**21 34 00.4**	**+0.4**
MATP	**Matopo**	**62.81**	**114**	LR	LR	21 57 11.9	
	comp=Z,108nm,19.2s,baz=306,slow=32						
CMIG	**Matias Romero**	**64.08**	**288**	LR	LR	22 03 46.6	
	comp=Z,36nm,18.1s,baz=106,slow=38						
NOA	**NORSAR Array B**	**66.66**	**21**	LR	LR	21 58 18.0	
	comp=Z,17nm,20.7s,baz=265,slow=31						
EIL	**Elat**	**68.17**	**59**	LR	LR	22 05 00.7	
	comp=Z,180nm,18.7s,baz=266,slow=36						
BR131	**Keskin Array S**	**69.25**	**48**	P	**P**	**21 34 43.4**	**-1.0**
BRTR	**Keskin Array B**	**69.25**	**48**	P	**P**	**21 34 43.2**	**-1.2**
	comp=Z,0.9nm,0.8s,baz=218,slow=5.8,SNR=6.9						
BRTR				LR	LR	22 04 51.5	
	comp=Z,31nm,21.6s,baz=310,slow=36						
	comp=Z,0.9nm,0.8s						
BRTR	**Keskin Array B**	**69.25**	**48**		**P**	**21 34 44.0**	**-0.4**
PLPT	**Palo Pinto**	**69.44**	**304**	P	**P**	**21 34 45.5**	**-0.1**
PLPT				IAmb	IAmb	21 34 48.8	
	comp=Z,11nm,0.9s						
AKASG	**Malin Array Be**	**69.74**	**36**	P	**P**	**21 34 46.2**	**-0.8**
	comp=Z,0.1nm,0.3s,baz=252,slow=5.6,SNR=4.5						
	comp=Z,0.1nm,0.3s						
AKASG	**Malin Array Be**	**69.74**	**36**	P	**P**	**21 34 46.7**	**-0.3**
CROK	**Carrier**	**69.90**	**308**	P	**P**	**21 34 48.5**	**+0.1**
ASF	**Jabal al Asfar**	**70.24**	**57**	LR	LR	22 05 37.0	
	comp=Z,45nm,19.8s,baz=206,slow=36						
SAND	**Sanderson**	**72.20**	**301**	P	**P**	**21 35 02.1**	**-0.4**
SAND				IAmb	IAmb	21 35 10.0	
	comp=Z,3.2nm,0.8s						
TXAR	**Lajitas Array**	**73.46**	**300**	P	**P**	**21 35 10.5**	**+0.5**
	comp=Z,0.4nm,0.7s,baz=77,slow=5.5,SNR=7.8						
	comp=Z,0.4nm,0.7s						
TXAR	**Lajitas Array**	**73.46**	**300**	P	**P**	**21 35 10.1**	**+0.1**
TX31	**Lajitas Ar. Si**	**73.46**	**300**	P	**P**	**21 35 09.9**	**-0.1**
SNAA	**Sanae**	**76.28**	**171**	P	**P**	**21 35 27.2**	**+1.9**
	comp=Z,1.1nm,0.7s,baz=347,slow=4.8,SNR=4.4						
	comp=Z,1.1nm,0.7s						
SNAA	**Sanae**	**76.28**	**171**	P	**P**	**21 35 26.6**	**+1.2**
ANMO	**Albuquerque**	**76.45**	**305**	LR	LR	22 05 21.5	
	comp=Z,47nm,20.8s,baz=74,slow=33						
GNI	**Garni**	**77.71**	**50**	LR	LR	22 12 47.4	
	comp=Z,38nm,18.0s,baz=278,slow=38						
PV19	**Morning Glory**	**78.83**	**308**	P	**P**	**21 35 39.9**	**-0.7**
PV10	**Paradox Valley**	**78.88**	**308**	P	**P**	**21 35 40.8**	**-0.1**
PV10				IAmb	IAmb	21 35 55.1	
	comp=Z,24nm,1.3s						
LPIG	**La Paz**	**78.99**	**294**	LR	LR	22 08 24.4	
	comp=Z,16nm,21.2s,baz=177,slow=34						
PDAR	**Pinedale Array**	**79.72**	**313**	P	**P**	**21 35 43.5**	**-1.9**
	comp=Z,0.3nm,0.6s,baz=104,slow=4.5,SNR=4.2						
PDAR				LR	LR	22 06 31.2	
	comp=Z,38nm,21.9s,baz=86,slow=32						
	comp=Z,0.3nm,0.6s						
KIRV	**Kirov**	**83.02**	**31**	LR	LR	22 10 00.8	
	comp=Z,32nm,21.6s,baz=268,slow=34						
PFO	**Pinyon Flats O**	**84.63**	**303**	LR	LR	22 10 36.9	
	comp=Z,26nm,19.9s,baz=24,slow=33						
YKA	**Yellowknife Ar**	**84.73**	**332**	P	**P**	**21 36 08.2**	**-2.6**
	comp=Z,1.1nm,0.8s,baz=98,slow=5.7,SNR=4.0						
	comp=Z,1.1nm,0.8s						
NVAR	**Mina Array Bea**	**86.15**	**308**	LR	LR	22 10 53.0	
	comp=Z,45nm,19.5s,baz=89,slow=33						
ARTI	**Arti**	**87.75**	**34**	LR	LR	22 15 44.4	
	comp=Z,39nm,19.0s,baz=319,slow=36						
YBH	**Yreka Blue Hor**	**89.45**	**312**	LR	LR	22 14 05.2	
	comp=Z,60nm,19.3s,baz=30,slow=34						
INK	**Inuvik**	**92.23**	**339**	LR	LR	22 15 10.1	
	comp=Z,55nm,18.6s,baz=340,slow=34						
BBB	**Bella Bella**	**92.26**	**322**	LR	LR	22 14 38.6	
	comp=Z,33nm,19.5s,baz=182,slow=33						
DLBC	**Dease Lake**	**92.49**	**329**	LR	LR	22 14 15.8	
	comp=Z,43nm,19.4s,baz=34,slow=33						
ILAR	**Eielson Array**	**98.41**	**337**	LR	LR	22 20 20.0	
	comp=Z,79nm,18.3s,baz=84,slow=35						
PPT2	**Papeete2**	**117.71**	**252**	*e*LR	LR	22 18 07.7	
	comp=Z,83nm,25.8s						
CMAR	**Chiang Mai Arr**	**126.77**	**65**	PKP	**PKPdf**	**21 42 41.5**	**-0.2**
	comp=Z,0.2nm,0.3s,baz=297,slow=3.5,SNR=4.9						
STKA	**Stephens Creek**	**150.00**	**168**	PKPbc	**PKPbc**	**21 43 27.8**	**-0.4**
	comp=Z,2.6nm,1.0s,baz=214,slow=3.6,SNR=3.1						
ASAR	**Alice Springs**	**154.51**	**147**	PKPbc	**PKiKP**	**21 43 39.9**	**+1.2**
	comp=Z,0.6nm,0.8s,baz=197,slow=1.9,SNR=5.8						
ASAR				PKPab	**PKPab**	**21 43 53.5**	**+0.5**
	comp=Z,1.8nm,1.0s,baz=217,slow=4.2,SNR=9.0						
WRA	**Warramunga Arr**	**157.66**	**142**	PKPab	**PKPab**	**21 44 06.3**	**-0.2**
	comp=Z,0.4nm,0.7s,baz=206,slow=2.2,SNR=6.3						

AFAD ***25*** *21:32:08.3, 36°.14N×44°.00E, h7^{km}±3^{km}, ML2.7*

ISN ***25*** *21:32:09.3±0.7, 36°.29N×44°.34E, h10^{km}, ML2.6, Presumed earthquake*

TEH ***25*** *21:32:11.5, 36°.22N×44°.34E, h10^{km}±60^{km}, ML2.6, Presumed earthquake*

ISC 25 21:32:10.1±1.5**, 36°.22N**±0°.05×**44°.25E**±0°.06**, h9**^{km}±13^{km}**, n11, σ1^{s}.22**/19**, Iran-Iraq border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IKRK	**Kirkuk**	**0.82**	**175**	*i* P	**Pg**	**21 32 25.7**	**-0.2**
IKRK				*i* S	**Sb**	**21 32 38.8**	**+1.1**
	baz=360						
IKRK				IAML		21 32 40.5	
	comp=E,358nm,0.7s						
IKRK				IAML		21 32 40.5	
	comp=N,110nm,0.3s						
CUKT	**Cukurca**	**1.15**	**334**	P	**Pb**	**21 32 30.7**	**-1.5**
CUKT				S	**Sb**	**21 32 46.8**	**-0.6**
CUKT				IAML		21 32 52.0	
	comp=N,138nm,0.4s						
CUKT				IAML		21 32 53.0	
	comp=N,209nm,0.6s						
MAHB	**Mahabad**	**1.30**	**65**	Pg	**Pn**	**21 32 35.2**	**+0.6**
YOVA	**Hakkari_Yksek**	**1.37**	**1**	P	**Pn**	**21 32 35.9**	**+0.3**
YOVA				S	**Sg**	**21 32 55.9**	**+1.8**
YOVA				IAML		21 32 57.0	
	comp=N,168nm,1.2s						
YOVA				IAML		21 32 59.0	
	comp=N,108nm,0.7s						
HAKT	**HAKKARI**	**1.41**	**342**	P	**Pn**	**21 32 36.0**	**-0.2**
HAKT				S	**Sn**	**21 32 55.9**	**+1.0**
HAKT				IAML		21 32 57.0	
	comp=N,118nm,0.4s						
HAKT				IAML		21 32 57.0	
	comp=N,136nm,0.2s						
SIRN	**Sırnak**	**1.95**	**311**	P	**Pn**	**21 32 43.1**	**-0.3**
SIRN				S	**Sn**	**21 33 09.1**	**+1.0**
SIRN				IAML		21 33 15.0	
	comp=N,59nm,0.7s						
SIRN				IAML		21 33 15.0	
	comp=N,76nm,0.5s						
PERV	**Siirt/Pervari-**	**2.20**	**322**	P	**Pn**	**21 32 46.3**	**-0.7**
PERV				S	**Sn**	**21 33 12.9**	**-1.5**
PERV				IAML		21 33 21.0	
	comp=N,38nm,0.4s						
PERV				IAML		21 33 30.0	
	comp=N,35nm,0.6s						
IDHR	**Dehrash**	**2.31**	**130**	Pn	**Pb**	**21 32 51.2**	**-0.9**
SNJK	**Sanadaj _Korde**	**2.43**	**108**	Pn	**Pb**	**21 32 52.6**	**-1.6**
SRTM	**Siirt_Merkez**	**2.57**	**314**	P	**Pn**	**21 32 54.4**	**+2.4**
SRTM				S	**Sb**	**21 33 28.9**	**+0.8**
SRTM				IAML		21 33 36.0	
	comp=N,29nm,0.5s						
SRTM				IAML		21 33 38.0	
	comp=N,30nm,0.5s						
MIDY	**Mardin/Midyat-**	**2.58**	**298**	P	**Pn**	**21 32 51.9**	**-0.2**
MIDY				S	**Sn**	**21 33 24.0**	**+0.4**
MIDY				IAML		21 33 34.0	
	comp=N,62nm,0.6s						
MIDY				IAML		21 33 40.0	
	comp=N,52nm,0.3s						

IDC ***25*** *21:41:23.0±0.7, 49°.11N×158°.48E, h0^{km}, mb4.0/19, mbtmp4.1/23, ML3.7/4, MS3.1/10, Error ellipse: s-maj=14.5km s-min=14.3km az=155.0*

NEIC ***25*** *21:41:25.3±1.7, 49°.18N±0°.09×158°.5E±0°.1, h10^{km}±1^{km}, mb4.5/43, Error ellipse: s-maj=15.4km s-min=13.1km az=140.0*

KRSC ***25*** *21:41:26.5±1.4, 49°.39N×158°.75E, h44^{km}±37^{km}, Ml4.7*

MOS ***25*** *21:41:27.5±0.8, 49°.29N×158°.46E, h41^{km}, mb4.5/17, Error ellipse: s-maj=12.2km s-min=3.4km az=90.6*

ISC 25 21:41:26.0±0.5**, 49°.26N**±0°.06×**158°.53E**±0°.04**, h18**^{km}**, n193, σ1^{s}.49**/211**, mb4.4**/50**, MS3.3**/7**, 5C-7D, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	**2.11**	**313**	⇑ *i*PN	**Pn**	**21 42 00.1**	**-0.3**
SKR				*i* S	**Sn**	**21 42 25.7**	**-0.4**
SKR				pmax	pmax		
	comp=Z,391nm,0.3s						
SKR				smax	smax		
	comp=N,5μm,0.5s						
SKR				smax	smax		
	comp=E,9μm,0.5s						
SKR				MLR	MLR		
	comp=Z,2μm,14.0s						
SKR	**Severo-Kuril's**	**2.11**	**313**	*e*P	**Pn**	**21 42 00.3**	**-0.1**
SKR				*e*S	**Sn**	**21 42 26.2**	**0.0**
PAU	**Pauzhetka**	**2.47**	**334**	PN	**Pn**	**21 42 06.6**	**+1.3**
PAU				S	**Sn**	**21 42 36.6**	**+1.6**
PAU	**Pauzhetka**	**2.47**	**334**	*e*P	**Pn**	**21 42 06.7**	**+1.3**
PAU				*e*S	**Sn**	**21 42 36.7**	**+1.6**
KDTR	**Khodutka, Kamc**	**2.57**	**354**	PN	**Pn**	**21 42 07.0**	**+0.3**
KDTR				S	**Sn**	**21 42 36.6**	**-0.9**
KDTR	**Khodutka, Kamc**	**2.57**	**354**	*e*P	**Pn**	**21 42 07.0**	**+0.3**
KDTR				*e*S	**Sn**	**21 42 36.6**	**-0.9**
ASAK	**Asacha**	**3.16**	**353**	PN	**Pn**	**21 42 16.4**	**+1.6**
ASAK				S	**Sn**	**21 42 51.2**	**-0.8**
ASAK	**Asacha**	**3.16**	**353**	*e*P	**Pn**	**21 42 16.4**	**+1.6**
ASAK				*e*S	**Sn**	**21 42 51.2**	**-0.8**
RUS	**Russkaya**	**3.18**	**360**	PN	**Pn**	**21 42 15.4**	**+0.3**
RUS				S	**Sn**	**21 42 51.0**	**-1.5**
RUS	**Russkaya**	**3.18**	**360**	*e*P	**Pn**	**21 42 15.4**	**+0.3**
RUS				*e*S	**Sn**	**21 42 51.0**	**-1.5**
MIPR	**Malaya Ipel'ka**	**3.23**	**340**	PN	**Pn**	**21 42 17.8**	**+2.1**
MIPR	**Malaya Ipel'ka**	**3.23**	**340**	*e*P	**Pn**	**21 42 17.9**	**+2.1**
MTVR	**Mutnovka**	**3.24**	**356**	PN	**Pn**	**21 42 16.4**	**+0.4**
MTVR				S	**Sn**	**21 42 53.2**	**-0.9**
MTVR	**Mutnovka**	**3.24**	**356**	*e*P	**Pn**	**21 42 16.5**	**+0.4**
MTVR				*e*S	**Sn**	**21 42 53.3**	**-0.9**
GRL	**Gorelyy**	**3.31**	**355**	PN	**Pn**	**21 42 18.2**	**+1.2**
GRL				S	**Sn**	**21 42 55.6**	**-0.3**
GRL	**Gorelyy**	**3.31**	**355**	*e*P	**Pn**	**21 42 18.2**	**+1.2**
GRL				*e*S	**Sn**	**21 42 55.7**	**-0.3**
KRMR	**Karymshinskiy**	**3.59**	**356**	PN	**Pn**	**21 42 22.0**	**+1.3**
KRMR				S	**Sn**	**21 43 02.8**	**+0.3**
KRMR	**Karymshinskiy**	**3.59**	**356**	*e*P	**Pn**	**21 42 22.0**	**+1.3**
KRMR				*e*S	**Sn**	**21 43 02.9**	**+0.3**
APC	**Apacha**	**3.77**	**347**	PN	**Pn**	**21 42 24.9**	**+1.7**
APC	**Apacha**	**3.77**	**347**	*e*P	**Pn**	**21 42 24.9**	**+1.7**
PET	**Petropavlovsk**	**3.77**	**1**	*d i*PN	**Pn**	**21 42 23.7**	**+0.5**
PET				*i* S	**Sn**	**21 43 06.2**	**-0.9**
PET	**Petropavlovsk**	**3.77**	**1**		**Pn**	**21 42 23.9**	**+0.7**
PET				Sn	**Sn**	**21 43 06.4**	**-0.7**
DALK	**Dalny**	**3.78**	**2**	PN	**Pn**	**21 42 23.5**	**+0.2**
DALK				S	**Sn**	**21 43 06.1**	**-1.2**
DALK	**Dalny**	**3.78**	**2**	*e*P	**Pn**	**21 42 23.6**	**+0.2**
DALK				*e*S	**Sn**	**21 43 06.1**	**-1.2**
INSR	**Institute**	**3.81**	**1**	PN	**Pn**	**21 42 24.8**	**+1.0**
INSR				S	**Sn**	**21 43 07.4**	**-0.8**
INSR	**Institute**	**3.81**	**1**	*e*P	**Pn**	**21 42 24.9**	**+1.0**
INSR				*e*S	**Sn**	**21 43 07.4**	**-0.8**
PEA0B	**Petropavlovsk-**	**3.89**	**353**	PN	**Pn**	**21 42 26.5**	**+1.6**
PEA0B	**Petropavlovsk-**	**3.89**	**353**		**Pn**	**21 42 26.5**	**+1.6**
PETK	**Petropavlovsk-**	**3.89**	**353**	Pn	**Pn**	**21 42 26.4**	**+1.5**
	comp=Z,5.8nm,0.3s,baz=145,slow=16,SNR=58						
PETK				Sn	**Sn**	**21 43 08.8**	**-1.3**
	comp=Z,5.4nm,0.3s,baz=130,slow=16,SNR=4.3						
PETK				LR	LR	21 44 56.9	
	comp=Z,57nm,18.3s,baz=163,slow=53						
	comp=Z,15nm,0.5s						
PETK				AML	AML		
PETK	**Petropavlovsk-**	**3.89**	**353**		**Pn**	**21 42 26.0**	**+1.1**
NLC	**Nalytchevo**	**3.95**	**7**	PN	**Pn**	**21 42 25.4**	**-0.3**
NLC	**Nalytchevo**	**3.95**	**7**	*e*P	**Pn**	**21 42 25.4**	**-0.3**
SPN	**Mys Shipunski**	**3.96**	**13**	PN	**Pn**	**21 42 26.7**	**+0.9**
SPN				S	**Sn**	**21 43 10.7**	**-1.0**
SPN	**Mys Shipunski**	**3.96**	**13**	*e*P	**Pn**	**21 42 26.7**	**+0.9**
SPN				*e*S	**Sn**	**21 43 10.7**	**-1.0**
UGLR	**Uglovaya**	**3.96**	**3**	PN	**Pn**	**21 42 26.7**	**+0.8**
UGLR	**Uglovaya**	**3.96**	**3**	*e*P	**Pn**	**21 42 26.8**	**+0.8**
SMAR	**Somma**	**4.02**	**2**	PN	**Pn**	**21 42 28.4**	**+1.7**
SMAR	**Somma**	**4.02**	**2**	*e*P	**Pn**	**21 42 28.5**	**+1.7**
AVH	**Avacha**	**4.02**	**2**	PN	**Pn**	**21 42 27.8**	**+1.2**
AVH	**Avacha**	**4.02**	**2**	*e*P	**Pn**	**21 42 27.8**	**+1.2**
SDLR	**Sedlovina**	**4.03**	**3**	PN	**Pn**	**21 42 28.9**	**+2.0**
SDLR	**Sedlovina**	**4.03**	**3**	*e*P	**Pn**	**21 42 29.0**	**+2.0**
KOK	**Koryaka**	**4.04**	**1**	PN	**Pn**	**21 42 28.3**	**+1.3**
KOK	**Koryaka**	**4.04**	**1**	*e*P	**Pn**	**21 42 28.4**	**+1.3**
KRER	**Koryakskii**	**4.06**	**2**	PN	**Pn**	**21 42 28.0**	**+0.7**
KRER	**Koryakskii**	**4.06**	**2**	*e*P	**Pn**	**21 42 28.1**	**+0.7**
KRX	**Arik**	**4.11**	**1**	PN	**Pn**	**21 42 28.8**	**+0.9**
KRX	**Arik**	**4.11**	**1**	*e*P	**Pn**	**21 42 28.9**	**+0.9**
GNL	**Ganaly**	**4.46**	**356**	PN	**Pn**	**21 42 34.6**	**+1.8**
GNL	**Ganaly**	**4.46**	**356**	*e*P	**Pn**	**21 42 34.7**	**+1.8**
KII	**Karymskiy**	**4.82**	**6**	PN	**Pn**	**21 42 39.1**	**+1.4**
KII	**Karymskiy**	**4.82**	**6**	*e*P	**Pn**	**21 42 39.1**	**+1.4**
MKZ	**Mys Kozlova**	**5.67**	**19**	PN	**Pn**	**21 42 48.7**	**-0.5**
MKZ	**Mys Kozlova**	**5.67**	**19**	*e*P	**Pn**	**21 42 48.8**	**-0.5**
ESO	**Esso**	**6.68**	**1**	PN	**Pn**	**21 43 04.8**	**+1.7**
ESO	**Esso**	**6.68**	**1**	*e*P	**Pn**	**21 43 04.9**	**+1.7**
BZP	**Bezymyannyi-Pe**	**6.78**	**10**	PN	**Pn**	**21 43 06.4**	**+1.8**
BZP	**Bezymyannyi-Pe**	**6.78**	**10**	*e*P	**Pn**	**21 43 06.5**	**+1.8**
BZMR	**Bezymyannaya**	**6.80**	**9**	PN	**Pn**	**21 43 07.2**	**+2.4**
BZMR	**Bezymyannaya**	**6.80**	**9**	*e*P	**Pn**	**21 43 07.3**	**+2.4**
KIRR	**Kirishev**	**6.80**	**9**	PN	**Pn**	**21 43 06.2**	**+1.3**
KIRR	**Kirishev**	**6.80**	**9**	*e*P	**Pn**	**21 43 06.2**	**+1.3**
KPT	**Kopyto**	**6.80**	**8**	PN	**Pn**	**21 43 06.7**	**+1.9**
KPT	**Kopyto**	**6.80**	**8**	*e*P	**Pn**	**21 43 06.8**	**+1.9**
BZWR	**Bezymyannyi-We**	**6.83**	**9**	PN	**Pn**	**21 43 07.5**	**+2.3**
BZWR	**Bezymyannyi-We**	**6.83**	**9**	*e*P	**Pn**	**21 43 07.6**	**+2.3**
KBTR	**Krutoberegovo**	**7.43**	**19**	PN	**Pn**	**21 43 14.0**	**+0.6**
KBTR	**Krutoberegovo**	**7.43**	**19**	*e*P	**Pn**	**21 43 14.1**	**+0.6**
SMKR	**Semkarok**	**7.55**	**12**	PN	**Pn**	**21 43 16.6**	**+1.5**
SMKR	**Semkarok**	**7.55**	**12**	*e*P	**Pn**	**21 43 16.7**	**+1.5**
SHEM	**Shemya Is, Ala**	**10.41**	**65**	Pn	**Pn**	**21 43 54.4**	**+0.1**
	comp=Z,6.0nm,0.3s,baz=198,slow=1.7,SNR=4.7						
SHEM				Sn	**Sn**	**21 45 42.8**	**-7.6**
	comp=Z,8.2nm,0.3s,baz=238,slow=19,SNR=11						
	comp=Z,22nm,0.4s						
SHEM				AML	AML		
SHEM	**Shemya Is, Ala**	**10.41**	**65**		**Pn**	**21 43 53.9**	**-0.3**
SMY	**Shemya**	**10.41**	**65**	PN	**Pn**	**21 43 54.3**	**0.0**
SMY	**Shemya**	**10.41**	**65**	Pn	**Pn**	**21 43 54.3**	**0.0**
YSS	**Yuzhno-Sakhali**	**10.80**	**264**	*e*PN	Pn	21 43 51.9	-7.7
MA2	**Magadan**	**11.27**	**339**	LR	LR	21 48 40.8	
	comp=Z,82nm,19.4s,baz=123,slow=38						
JKA	**Kamikawa-asahi**	**12.08**	**251**	Pn	**Pn**	**21 44 15.8**	**-1.4**
ASAJ	**Asahikawa**	**12.08**	**251**	LR	LR	21 49 23.5	
	comp=Z,34nm,19.6s,baz=274,slow=40						
ASAJ	**Asahikawa**	**12.08**	**251**	PN	**Pn**	**21 44 15.8**	**-1.3**
AMKA	**Amchitka**	**13.44**	**73**	Pn	**Pn**	**21 44 36.2**	**+0.6**
SEY	**Seymchan**	**14.12**	**348**	Pn	**Pn**	**21 44 46.9**	**+2.0**
	comp=Z,0.3nm,0.3s,baz=151,slow=9.5,SNR=7.3						
	comp=Z,0.6nm,0.2s						
SEY				AML	AML		
SEY	**Seymchan**	**14.12**	**348**	*ce*P	**Pn**	**21 44 46.6**	**+1.7**
SEY				pmax	pmax		
	comp=Z,10.0nm,1.5s						
KIWB	**Kanaga Island**	**15.66**	**71**	Pn	**Pn**	**21 45 06.5**	**+1.0**
ADK	**Adak**	**15.95**	**71**	P	**P**	**21 45 13.1**	**+0.4**
ADK				pmax	pmax		
	comp=Z,20nm,1.4s						
ADK	**Adak**	**15.95**	**71**	P	**P**	**21 45 13.1**	**+0.4**
KLR	**Kul'dur**	**17.46**	**280**	P	**Pn**	**21 45 29.3**	**+1.0**
	comp=Z,0.2nm,0.3s,baz=79,slow=6.6,SNR=4.7						
KLR				LR	LR	21 51 52.3	
	comp=Z,49nm,19.5s,baz=87,slow=36						
	comp=Z,1.2nm,0.8s						
KLR				AML	AML		
KLR	**Kul'dur**	**17.46**	**280**	*ce*P	**P**	**21 45 29.9**	**+0.4**
KLR				pmax	pmax		
	comp=Z,8.0nm,1.6s						
HEH	**HeiHe**	**20.06**	**285**	*e*P	Pn	21 45 59.8	0.0
YAK	**Yakutsk**	**20.48**	**319**	P	**P**	**21 46 01.4**	**-1.1**
	comp=Z,9.3nm,0.4s,baz=277,slow=3.5,SNR=7.1						
YAK				LR	LR	21 55 42.6	
	comp=Z,54nm,18.8s,baz=99,slow=42						
	comp=Z,9.3nm,0.4s						

YAK	Yakutsk	20.48	319	eP	P	21 46 01.2	-1.3
YAK				e		21 46 17.9	
YAK				ePPP	PPP	21 46 26.7	
YAK				eS	S	21 49 51.8	+1.1
YAK				eSS	SnSn	21 50 09.8	+0.6
YAK				eSSS	SSS	21 50 22.5	
YAK				pmax	pmax		
	comp=Z,13nm,1.0s						
YAK				pmax	pmax		
	comp=N,2.0nm,1.3s						
YAK				pmax	pmax		
	comp=E,8.0nm,1.5s						
YAK				pmax	pmax		
	comp=Z,106nm,3.8s						
YAK				pmax	pmax		
	comp=N,27nm,2.5s						
YAK				pmax	pmax		
	comp=E,59nm,3.5s						
YAK				smax	smax		
	comp=N,65nm,3.3s						
YAK				smax	smax		
	comp=E,21nm,2.8s						
YAK				MLR	MLR		
	comp=Z,103nm,15.0s						
YAK	Yakutsk	20.48	319		P	21 46 01.9	-0.6
YAK				IAmb	IAmb	21 46 06.0	
	comp=Z,16nm,0.8s						
M14K	Bethel	25.00	48	P	P	21 46 49.0	+0.6
M14K				IAmb	IAmb	21 46 54.3	
	comp=Z,15nm,1.0s						
HILR	Hailar Array B	25.05	286	P	P	21 46 49.9	+0.8
	comp=Z,3.0nm,0.5s,baz=86,slow=8.5,SNR=2.8						
	comp=Z,3.0nm,0.5s						
TIXI	Tiksi	26.25	339	⇓eP	P	21 47 01.2	+1.6
TIXI				pmax	pmax		
	comp=Z,9.0nm,0.6s						
TIXI	Tiksi	26.25	339		P	21 46 59.7	+0.2
M17K	Holitna River	27.27	47	P	P	21 47 10.6	+1.7
M17K				IAmb	IAmb	21 47 13.8	
	comp=Z,19nm,1.2s						
H11N2	WAKE ISLAND Hy	30.21	164	T	T	22 19 10.4	
	baz=349,slow=76						
H11N3	WAKE ISLAND Hy	30.23	164	T	T	22 19 14.5	
	baz=349,slow=76						
H11N1	WAKE ISLAND Hy	30.23	164	T	T	22 19 11.7	
	baz=349,slow=76						
H11S1	WAKE ISLAND Hy	31.38	165	T	T	22 20 40.7	
	baz=350,slow=76						
H11S3	WAKE ISLAND Hy	31.39	165	T	T	22 20 46.1	
	baz=350,slow=76						
H11S2	WAKE ISLAND Hy	31.39	165	T	T	22 20 40.8	
	baz=350,slow=76						
SML	Sawmill	31.63	46	P	P	21 47 47.8	+0.2
COLA	College	31.89	41	⇓eP	P	21 47 51.8	+2.0
COLA				pmax	pmax		
	comp=Z,36nm,4.8s						
ILAR	Eielson Array	32.30	41	P	P	21 47 53.6	+0.2
	comp=Z,0.7nm,0.8s,baz=246,slow=7.5,SNR=7.1						
	comp=Z,0.7nm,0.8s						
KLU	Klutina	32.79	47	P	P	21 47 59.0	+1.2
KLU				IAmb	IAmb	21 48 24.1	
	comp=Z,13nm,1.5s						
BMAR	Burnt Mountain	33.38	36	P	P	21 48 03.6	+0.7
BMRM	Bremner River	33.47	48	P	P	21 48 04.2	+0.5
BMRM				IAmb	IAmb	21 48 14.7	
	comp=Z,5.0nm,1.0s						
ULN	Ulaanbaatar	33.56	288	⇓eP	P	21 48 04.4	-0.4
ULN				pmax	pmax		
	comp=Z,3.0nm,1.0s						
GLB	Gilahina Butte	33.81	47	P	P	21 48 08.0	+1.3
GLB				IAmb	IAmb	21 48 15.6	
	comp=Z,6.2nm,1.2s						
SONM	Songino Array	33.98	288	P	P	21 48 08.2	-0.2
	comp=Z,0.2nm,0.3s,baz=64,slow=6.7,SNR=2.2						
SONM				LR	LR	22 01 39.2	
	comp=Z,28nm,19.4s,baz=74,slow=36						
	comp=Z,0.2nm,0.3s						
VRDI	Verde Repeater	34.00	47	P	P	21 48 09.5	+1.0
VRDI				IAmb	IAmb	21 48 12.8	
	comp=Z,9.3nm,1.4s						
NJ2	Nanjing	34.19	255	eP	P	21 48 09.0	-1.2
NJ2				pmax	pmax		
	comp=Z,9.0nm,0.5s						
L27K	Beaver Creek,	34.58	44		P	21 48 15.1	+1.7
L27K				IAmb	IAmb	21 48 16.0	
	comp=Z,4.3nm,0.9s						
BCAR	Beaver Creek A	34.60	44	P	P	21 48 15.2	+1.7
M27K	Edge Creek, AK	34.62	45	P	P	21 48 15.6	+1.7
BARN	Barnard Glacie	34.88	47	P	P	21 48 17.7	+1.5
BARN				IAmb	IAmb	21 48 26.5	
	comp=Z,6.0nm,1.0s						
GRNC	Granite Creek	34.88	48	P	P	21 48 17.1	+0.9
GRNC				IAmb	IAmb	21 48 18.5	
	comp=Z,8.6nm,1.1s						
F28M	Old Crow	35.19	36	P	P	21 48 21.4	+2.9
F28M				IAmb	IAmb	21 48 42.8	
	comp=Z,7.4nm,1.4s						
O28M	Mount Upton	35.64	48	P	P	21 48 24.1	+1.3
O28M				IAmb	IAmb	21 48 24.9	
	comp=Z,11nm,1.2s						
H29M	Whitestone	35.83	38	P	P	21 48 24.2	+0.1
E29M	Blow River	35.93	34	P	P	21 48 28.5	+3.7
E29M				IAmb	IAmb	21 49 03.5	
	comp=Z,9.9nm,1.4s						
G29M	Pine Creek	35.93	37	P	P	21 48 27.0	+2.1
G29M				IAmb	IAmb	21 48 44.0	
	comp=Z,5.6nm,1.2s						
L29M	L29M	36.24	43	P	P	21 48 29.8	+2.1
L29M				IAmb	IAmb	21 48 30.7	
	comp=Z,8.2nm,0.9s						
K29M	Barlow Dome	36.42	42	P	P	21 48 31.4	+2.2
HYT	Haines Junctio	36.92	47	P	P	21 48 35.2	+1.6
INK	Inuvik	37.55	34	P	P	21 48 39.7	+1.0
INK				pmax	pmax		
	comp=Z,8.0nm,1.3s						
INK	Inuvik	37.55	34	P	P	21 48 39.7	+1.0
INK				IAmb	IAmb	21 48 40.7	
	comp=Z,8.3nm,1.2s						
P33M	Teslin, Yukon	39.32	47	P	P	21 48 56.0	+2.3
MMPY	Sheldon Lake,	39.43	43	P	P	21 48 55.5	+1.0
Q32M	Nakina River	39.95	49	P	P	21 49 01.7	+2.7
Q32M				IAmb	IAmb	21 49 38.2	
	comp=Z,11nm,1.5s						
R33M	Jennings River	40.45	48		P	21 49 05.6	+2.4
R33M				IAmb	IAmb	21 49 06.6	
	comp=Z,7.5nm,0.9s						
ZALV	Zalesovo Beam	44.11	305	P	P	21 49 32.5	-0.3
	comp=Z,0.7nm,0.4s,baz=68,slow=6.2,SNR=4.1						
	comp=Z,0.7nm,0.4s						
ZALV	Zalesovo Beam	44.11	305	i P	P	21 49 36.2	+3.4
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.4s						
ZALV	Zalesovo Beam	44.11	305	P	P	21 49 32.4	-0.4
DGZ	Jazzator, Alta	44.57	299	⇑eP	P	21 49 36.1	-0.7
DGZ				pmax	pmax		
	comp=Z,3.0nm,1.3s						
YKA	Yellowknife Ar	46.71	40	P	P	21 49 53.8	+0.5
	comp=Z,2.5nm,0.9s,baz=295,slow=7.4,SNR=5.0						
	comp=Z,2.5nm,0.9s						
YKA	Yellowknife Ar	46.71	40	i P	P	21 49 53.7	+0.4
YKA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
PZH	PanZhiHua	48.93	264	P	P	21 50 12.0	+0.8
KURK	Kurchatov	48.99	304	⇑iP	P	21 50 10.9	-0.3
KURK				pmax	pmax		
	comp=Z,5.0nm,1.2s						
KURK	Kurchatov	48.99	304		P	21 50 11.6	+0.4
KURK				IAmb	IAmb	21 50 13.0	
	comp=Z,11nm,1.4s						
MK31	Makanchi Array	49.00	298	⇓eP	P	21 50 11.5	+0.1
MKAR	Makanchi Array	49.00	298	P	P	21 50 11.7	+0.4
	comp=Z,0.9nm,0.6s,baz=45,slow=6.8,SNR=16						
MKAR				LR	LR	22 10 42.5	
	comp=Z,51nm,18.9s,baz=355,slow=36						
	comp=Z,0.9nm,0.6s						
MKAR	Makanchi Array	49.00	298	i P	P	21 50 11.6	+0.2
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	Makanchi Array	49.00	298	P	P	21 50 11.4	+0.1
KURBB	Kurchatov Arra	49.09	304	P	P	21 50 12.5	+0.6
	comp=Z,2.2nm,0.7s,baz=63,slow=7.6,SNR=11						
	comp=Z,2.2nm,0.7s						
MAKZ	Makanchi	49.18	298	P	P	21 50 13.0	+0.3
MAKZ				pmax	pmax		
	comp=Z,5.0nm,1.5s						
MAKZ	Makanchi	49.18	298	P	P	21 50 13.0	+0.3
NLWA	Neilton Lookou	49.47	61	P	P	21 50 15.1	+0.2
BVAR	Borovoye Array	52.05	310	P	P	21 50 34.9	+0.6
	comp=Z,2.5nm,0.5s,baz=51,slow=12,SNR=12						
	comp=Z,2.5nm,0.5s						
BORK	Borovoye	52.08	310	⇓eP	P	21 50 34.6	+0.2
BORK				pmax	pmax		
	comp=Z,8.0nm,1.8s						
BORK	Borovoye	52.08	310	P	P	21 50 34.5	+0.1
ARTI	Arti	55.69	318	d iP	P	21 51 00.1	-0.7
ARTI						21 51 55.7	
ARTI				S	S	21 58 41.3	-4.6
ARTI				SS	SS	22 02 21.3	-9.2
ARTI				pmax	pmax		
	comp=Z,6.0nm,1.1s						
ARCES	ARCESS Array B	56.63	342	LR	LR	22 20 38.0	
	comp=Z,23nm,18.0s,baz=88,slow=42						
NVAR	Mina Array Bea	58.08	67	P	P	21 51 19.3	+1.1
	comp=Z,0.7nm,0.5s,baz=321,slow=6.3,SNR=4.9						
	comp=Z,0.7nm,0.5s						
AB31	Akbulak array	59.56	311	P	P	21 51 29.3	+1.2
AB31				IAmb	IAmb	21 51 33.1	
	comp=Z,5.5nm,1.1s						
ABKAR	Akbulak array	59.56	311	P	P	21 51 28.7	+0.6
PD31	Pinedale Array	60.33	58	P	P	21 51 33.9	+0.1
PD31				IAmb	IAmb	21 51 36.2	
	comp=Z,4.3nm,1.0s						
PDAR	Pinedale Array	60.33	58	P	P	21 51 35.0	+1.2
	comp=Z,2.2nm,0.8s,baz=308,slow=4.0,SNR=14						
	comp=Z,2.2nm,0.8s						
PDAR	Pinedale Array	60.33	58	P	P	21 51 34.0	+0.1
RSSD	Black Hills	62.42	54	P	P	21 51 48.2	+0.3
RSSD				pmax	pmax		
	comp=Z,8.0nm,0.9s						
RSSD	Black Hills	62.42	54		P	21 51 48.2	+0.3
FINES	FINESS Array B	63.25	337	P	P	21 51 53.3	+0.5
	comp=Z,2.0nm,0.6s,baz=52,slow=7.5,SNR=11						
	comp=Z,2.0nm,0.6s						
FINES	FINESS Array B	63.25	337	P	P	21 51 53.1	+0.3
FINES	FINESS Array B	63.25	337	P	P	21 51 53.1	+0.3
PV22	Blue Mesa, Par	63.60	61	P	P	21 51 57.1	+1.2
PV18	Skein Mesa, Pa	63.73	61	P	P	21 51 57.7	+1.0
PV05	Paradox Valley	63.73	62	P	P	21 51 58.0	+1.3
PV03	Paradox Valley	63.76	61	P	P	21 51 57.7	+0.8
ISCO	Idaho Springs	64.53	58	P	P	21 52 02.7	+0.7
ISCO				pmax	pmax		
	comp=Z,6.0nm,1.0s						
ISCO	Idaho Springs	64.53	58		P	21 52 02.7	+0.7
OBN	Obninsk	65.22	328	eP	P	21 52 05.4	-0.4
OBN				e*PP	pwP	21 52 18.4	+0.4
OBN				e*SP	sP	21 52 24.7	+14
OBN				e		21 52 36.6	
OBN				ePPP	PPP	21 56 01.8	
OBN				pmax	pmax		
	comp=Z,5.0nm,1.2s						
OBN				MLR	MLR		
	comp=Z,43nm,14.0s						
NB2	NORSAR Subarra	66.95	343	P	P	21 52 17.1	+0.2
	comp=Z,3.0nm,0.8s,baz=23,slow=6.5						
NOA	NORSAR Array B	66.95	343	P	P	21 52 17.2	+0.3
	comp=Z,1.5nm,0.7s,baz=24,slow=6.4,SNR=5.1						
NOA				LR	LR	22 26 01.0	
	comp=Z,7.8nm,18.4s,baz=275,slow=40						
	comp=Z,1.5nm,0.7s						
HFS	Hagfors	67.30	342	P	P	21 52 19.7	+0.6
	comp=Z,3.8nm,1.1s,baz=72,slow=4.7,SNR=1.8						
	comp=Z,3.8nm,1.1s						
AKASG	Malin Array Be	71.39	329	P	P	21 52 43.8	-0.8
	comp=Z,0.5nm,0.5s,baz=31,slow=6.0,SNR=2.1						
	comp=Z,0.5nm,0.5s						
WMOK	Wichita Mounta	71.94	58	P	P	21 52 48.0	-0.2
WMOK				pmax	pmax		
	comp=Z,7.0nm,1.2s						
WMOK	Wichita Mounta	71.94	58	P	P	21 52 48.0	-0.2
WMOK				IAmb	IAmb	21 52 49.2	
	comp=Z,7.3nm,1.2s						
WRA	Warramunga Arr	72.17	204	P	P	21 52 48.1	-1.4
	comp=Z,1.5nm,0.6s,baz=23,slow=6.4,SNR=11						
	comp=Z,1.5nm,0.6s						
WRA	Warramunga Arr	72.17	204	P	P	21 52 48.2	-1.4
WRA	Warramunga Arr	72.17	204	P	P	21 52 48.2	-1.4
APMT	Aspermont	72.23	60	P	P	21 52 50.0	+0.1
TX31	Lajitas Ar. Si	73.11	65	P	P	21 52 55.9	+0.5
TX31				IAmb	IAmb	21 52 56.9	
	comp=Z,3.5nm,1.1s						
TXAR	Lajitas Array	73.11	65	P	P	21 52 55.9	+0.5
	comp=Z,2.5nm,0.8s,baz=300,slow=5.1,SNR=25						
	comp=Z,2.5nm,0.8s						
EKA	Eskdalemuir Ar	74.66	349	P	P	21 53 04.6	+0.7
	comp=Z,1.2nm,0.7s,baz=14,slow=6.1,SNR=4.3						
	comp=Z,1.2nm,0.7s						
ASAR	Alice Springs	75.84	203	P	P	21 53 10.7	-0.3
	comp=Z,0.5nm,0.7s,baz=15,slow=5.3,SNR=7.6						
	comp=Z,0.5nm,0.7s						
VYHS	Vyhne	76.60	334	eP	P	21 53 16.2	+1.1
VYHS	Vyhne	76.60	334	eP	P	21 53 16.2	+1.1
MLR	Muntele Rosu	76.99	328	LR	LR	22 32 35.9	
	comp=Z,33nm,18.1s,baz=132,slow=40						
KHC	Kasperske Hory	77.45	337	eP	P	21 53 38.0	+18
KHC				ex	x	21 54 07.5	
GERES	GERESS Array B	77.68	337	P	P	21 53 21.8	+0.6
	comp=Z,0.3nm,0.3s,baz=360,slow=6.6,SNR=1.4						
QSPA	South Pole Qui	139.00	180	PKP	PKPdf	22 00 49.9	-0.2
	comp=Z,0.4nm,0.5s,baz=358,slow=1.9,SNR=6.0						
QSPA	South Pole Qui	139.00	180		PKPdf	22 00 50.4	+0.4

IDC 25 22:08:22.8±1.3, 25°.62N×141°.32E, h0^{km}, mb3.4/3, mbtmp3.4/3, MS3.7/1, Error ellipse: s-maj=50.2km s-min=17.7km az=110.0, Volcano Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JCJ	Chichijima	1.67	28	Pn	Pn	22 08 51.4	-1.8
	baz=180,slow=0.0						
JCJ				Sn	Sn	22 09 12.8	-2.5
	baz=0.0,slow=0.0						
H11N2	WAKE ISLAND Hy	24.30	99	T	T	22 38 58.1	
	baz=288						
H11N1	WAKE ISLAND Hy	24.30	99	T	T	22 38 56.4	
	baz=288						
H11N3	WAKE ISLAND Hy	24.31	99	T	T	22 38 59.3	
	baz=288						
H11S3	WAKE ISLAND Hy	24.53	102	T	T	22 39 14.2	
	baz=291,slow=75,SNR=29						
H11S1	WAKE ISLAND Hy	24.54	102	T	T	22 39 14.5	
	baz=291,slow=75,SNR=36						
H11S2	WAKE ISLAND Hy	24.55	102	T	T	22 39 15.9	
	baz=291,slow=75,SNR=49						
WRA	Warramunga Arr	45.79	189	P	P	22 16 46.4	0.0
	1.6nm,0.7s,baz=10,slow=8.6,SNR=13						
	1.6nm,0.7s						
LEM	Lembang	45.97	230	LR	LR	22 38 05.4	
	comp=Z,77nm,18.6s,baz=292,slow=39						
ASAR	Alice Springs	49.52	189	P	P	22 17 14.8	-0.5
	0.2nm,0.6s,baz=8.7,slow=7.2,SNR=1.4						
	0.2nm,0.6s						
MKAR	Makanchi Array	50.83	311	P	P	22 17 24.9	-0.2
	0.2nm,0.6s,baz=96,slow=5.8,SNR=2.0						
	0.2nm,0.6s						

IDC 25 22:43:51.7±70.0, 20°.76S×178°.92E, h0^{km}, mb3.9/3, mbtmp3.9/3, Error ellipse: s-maj=1243.0km s-min=161.5km az=82.0, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	35.08	244	P	P	22 50 46.5	-0.2
	1.3nm,0.3s,baz=76,slow=10,SNR=3.6						
	1.3nm,0.3s						
ASAR	Alice Springs	41.65	257	P	P	22 51 42.1	-0.1
	1.1nm,0.6s,baz=100,slow=7.9,SNR=13						
	1.1nm,0.6s						
WRA	Warramunga Arr	41.71	263	P	P	22 51 42.5	-0.1
	0.4nm,0.3s,baz=94,slow=8.4,SNR=8.6						
	0.4nm,0.3s						

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*ISK **25** 23:02:44.5, 38°.39N×43°.28E, h8^{km}, ML2.9/14*

*AFAD **25** 23:02:44.7, 38°.38N×43°.33E, h17^{km}±2^{km}, ML2.8*

ISC 25 23:02:44.7±0.9, 38°.40N±0°.03×43°.35E±0°.03, h14^{km}±6^{km}, n22, σ1^{s}13/35, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TVAN	Van	0.13	18	P	Pg	23 02 49.2	+0.6
TVAN				S	Sg	23 02 51.9	+0.7
TVAN				IAML		23 02 52.0	
	comp=N,5µm,0.4s						
TVAN				IAML		23 02 52.0	
	comp=E,5µm,0.3s						
VANB	Van	0.20	8	Pg	Pg	23 02 48.7	-0.7
VANB				Sg	Sg	23 02 50.9	-1.6
VANB				AML	AML		
GEVA	Gevas	0.25	249	P	Pg	23 02 49.9	-0.3
GEVA				S	Sg	23 02 54.8	+0.9
GEVA				IAML		23 02 56.0	
	comp=N,2µm,0.5s						
GEVA				IAML		23 02 56.0	
	comp=E,3µm,0.3s						
AKDM	Akdamar-Van	0.30	256	Pg	Pg	23 02 50.4	-0.7
AKDM				AML	AML		
ERCV	ERCIS-VAN	0.62	359	Pg	Pb	23 02 57.2	-0.2
ERCV				Sg	Sb	23 03 06.5	+0.5
ERCV				AML	AML		
ADCV	BITLIS_Adilcev	0.64	310	P	Pb	23 02 57.8	+0.1
ADCV				S	Sb	23 03 06.3	-0.3
ADCV				IAML		23 03 09.0	
	comp=E,416nm,0.6s						
ADCV				IAML		23 03 10.0	
	comp=N,280nm,0.4s						
PERV	Siirt/Pervari-	0.78	235	P	Pb	23 02 58.4	-1.8
PERV				S	Sb	23 03 10.8	0.0
PERV				IAML		23 03 14.0	
	comp=E,806nm,0.5s						
PERV				IAML		23 03 18.0	
	comp=N,723nm,0.5s						
CLDR	Caldiran	0.86	31	Pg	Pn	23 03 02.2	-0.5
CLDR				Sg	Sn	23 03 15.3	+0.1
CLDR				AML	AML		
HAKT	HAKKARI	0.89	161	P	Pb	23 03 01.5	-0.6
HAKT				S	Sb	23 03 14.4	+0.6
HAKT				IAML		23 03 18.0	
	comp=E,259nm,0.3s						
HAKT				IAML		23 03 20.0	
	comp=N,224nm,0.6s						
MLAZ	Malazgirt-MUS	0.97	320	Pg	Pb	23 03 03.1	-0.3
MLAZ				Sg	Sn	23 03 16.7	-1.0
MLAZ				AML	AML		
BLIS	Bitlis-Merkez	0.97	271	P	Pb	23 03 02.1	-1.4
BLIS				S	Sb	23 03 13.6	-2.7
BLIS				IAML		23 03 21.0	
	comp=E,115nm,0.6s						
BLIS				IAML		23 03 26.0	
	comp=N,136nm,0.4s						
GURO	Guroymak-BITLI	1.05	279	Pg	Pb	23 03 03.5	-1.2
GURO				AML	AML		
CUKT	Cukurca	1.17	170	Pn	Pn	23 03 06.7	-0.1
CUKT				AML	AML		
SIRN	Sırnak	1.17	220	P	Pn	23 03 07.2	+0.4
SIRN				S	Sg	23 03 24.2	+1.6
SIRN				IAML		23 03 26.0	
	comp=N,249nm,0.5s						
SIRN				IAML		23 03 27.0	
	comp=E,321nm,0.7s						
SRTM	Siirt_Merkez	1.20	250	P	Pb	23 03 08.1	+0.8
SRTM				S	Sg	23 03 26.3	+2.8
SRTM				IAML		23 03 28.0	
	comp=E,191nm,0.7s						
SRTM				IAML		23 03 33.0	
	comp=N,238nm,0.5s						
AGRB	Hanur-Agry	1.21	347	Pn	Pb	23 03 07.4	-0.1
AGRB				Sn	Sg	23 03 24.2	+0.4
AGRB				AML	AML		
VRTB	Varto-Mus	1.67	298	Pn	Pn	23 03 14.4	+0.8
VRTB				AML	AML		
TASB	TASBURUN-IGDIR	1.72	23	Pn	Pb	23 03 16.1	-0.1
TASB				AML	AML		
KOPR	Koprukoy-ERZUR	1.97	324	Pn	Pn	23 03 18.6	+0.8
KOPR				AML	AML		
GNI	Garni	2.05	31	Pn	Pb	23 03 20.9	-1.0
GNI				AML	AML		
KARS	Kars	2.23	355	Pn	Pn	23 03 22.8	+1.4
KARS				AML	AML		
SENK	Senkaya-Erzuru	2.29	341	Pn	Pn	23 03 23.9	+1.6

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*CATAC **25** 23:37:53.8±0.5, 8°N±3°×8°3W±°, h8^{km}±1^{km}, M4.4/11, MLv4.4/11, Error ellipse: s-maj=6.5km s-min=3.4km az=4.3, confirmed*

*UCR **25** 23:37:53.1±0.8, 8°.29N×82°.82W, h26^{km}±2^{km}, MW4.6, Presumed earthquake*

*UPA **25** 23:37:53.5±1.1, 8°.32N×82°.80W, h21^{km}±2^{km}, MW4.5, Fault plane solution: NP1:ϕ_s131.00000°, δ59.00000°, λ58.00000°., Presumed earthquake*

*IDC **25** 23:37:55.0±5.3, 8°.01N×83°.19W, h68^{km}±36^{km}, mb3.4/6, mbtmp3.6/8, ML3.4/2, MS3.3/5, Error ellipse: s-maj=80.2km s-min=36.1km az=42.0*

ISC 25 23:37:52.3±0.7, 8°.31N±0°.03×82°.82W±0°.02, h32^{km}±4^{km}, n101, σ1^{s}25/143, mb3.7/5, MS3.4/3, 9C-25D, Panama-Costa Rica border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTPA	Petro Terminal	0.12	207	⇑eP	Pb	23 37 57.9	-0.1
PTPA				eS	Sb	23 38 02.6	+0.7
PTPM	Petroterminale	0.12	212	⇑iP	Pb	23 37 58.0	0.0
PTPM				eS	Sb	23 38 01.5	-0.5
LIMO3	Limones	0.21	193	⇑iP	Pb	23 37 59.0	+0.1
LIMO3				eS	Sb	23 38 03.4	+0.1
LMNES	Limones	0.21	192	⇑eP	Pb	23 37 58.9	0.0
LMNES	Limones	0.21	192	⇑iP	Pb	23 37 59.0	+0.1
LMNES				eS	Sb	23 38 01.2	-2.1
CDITO	Canoas	0.27	348	P	Pb	23 37 59.6	0.0
CDITO				S	Sn	23 38 05.4	+0.2
NELY	Ciudad Neily	0.36	339	⇓eP	Pb	23 38 01.1	+0.2
NELY				eS	Sn	23 38 07.7	+0.1
NELY	Ciudad Neily	0.36	339	⇑iP	Pn	23 38 01.4	-0.1
NELY				eS	Sn	23 38 07.9	+0.4
DVD	David	0.38	70	⇓iP	Pb	23 38 01.6	+0.5
DVD				eS	Sb	23 38 06.1	-1.0
LOMA3	Las Lomas, Chi	0.44	74	⇓iP	Pb	23 38 02.4	+0.5
LOMA3				eS	Sn	23 38 09.3	0.0
FITO	Golfito	0.46	313	eP	Pb	23 38 01.9	-0.3
FITO				eS	Sb	23 38 08.6	-0.4
FITO	Golfito	0.46	313	⇓eP	Pb	23 38 02.1	-0.2
FITO				eS	Sb	23 38 09.1	0.0
CLLRA	Cordillera,	0.48	25	⇓eP	Pn	23 38 03.3	+0.2
CLLRA	Cordillera,	0.48	25	⇓iP	Pn	23 38 03.4	+0.2
MLIR3	Monte Lirio, C	0.48	359	eP	Pn	23 38 03.9	+0.7
MLIR3				eS	Sn	23 38 10.4	-0.2
CHIR3	Chiriqui UPA,	0.49	80	⇓iP	Pb	23 38 03.1	+0.4
CHIR3				eS	Sb	23 38 09.9	+0.2
EDAD	Golfito	0.49	315	⇑eP	Pb	23 38 02.2	-0.5
PTAR3	Potrerillos Ar	0.50	39	⇓iP	Pn	23 38 03.6	+0.3
PTAR3				eS	Sb	23 38 09.9	-0.3
BRU2	Volcan	0.50	14	P	Pn	23 38 03.3	-0.1
BRU2				S	Sn	23 38 12.8	+1.7
BRU2	Volcan	0.50	14	⇓eP	Pn	23 38 03.6	+0.2
BRU2	Volcan	0.50	14	⇓iP	Pn	23 38 03.7	+0.2
BRU2				eS	Sn	23 38 12.0	+0.9
BGUAL	Bijagual, Pana	0.52	67	⇓eP	Pn	23 38 03.6	+0.1
BGUAL	Bijagual, Pana	0.52	67	⇓iP	Pn	23 38 03.7	+0.1
BGUAL				eS	Sb	23 38 08.4	-2.2
SCLRA	Santa Clara, W	0.52	4	⇓eP	Pn	23 38 04.2	+0.4
SCLRA	Santa Clara, W	0.52	4	⇓eP	Pn	23 38 04.3	+0.5
SCLRA				eS	Sn	23 38 14.3	+2.7
PIRO	Carate, Puerto	0.53	281	P	Pb	23 38 03.6	+0.3
PIRO				S	Sb	23 38 10.5	-0.3
PIRO	Carate, Puerto	0.53	281	⇓eP	Pb	23 38 03.2	-0.1
PIRO	Carate, Puerto	0.53	281	⇓iP	Pb	23 38 03.3	0.0
PIRO				eS	Sb	23 38 11.4	+0.6
VITO	San Vito	0.53	343	eP	Pn	23 38 04.1	+0.3
VITO	San Vito	0.53	343	⇑iP	Pn	23 38 04.6	+0.7
VITO				eS	Sn	23 38 13.7	+1.8
JIME	Puerto Jimenez	0.55	295	⇓eP	Pb	23 38 04.0	+0.3
BQTLY	Boquete Panama	0.57	38	⇓eP	Pn	23 38 04.5	+0.1
BQTLY	Boquete Panama	0.57	38	⇓iP	Pn	23 38 04.6	+0.1
BQTLY				eS	Sn	23 38 12.8	0.0
BQSF3	Alto Boquete,	0.57	41	⇓iP	Pn	23 38 04.5	+0.1
BQSF3				eS	Sn	23 38 12.5	-0.4
EDP2	Potrero Grande	0.79	333	eP	Pb	23 38 08.3	+0.7
ISECA	Islas Secas	0.84	113	eP	Pb	23 38 10.0	+1.5
ISECA				eS	Sb	23 38 19.5	+0.1
PBNVO	Pueblo Nuevo,	0.85	47	⇓eP	Pn	23 38 08.3	+0.3
PBNVO	Pueblo Nuevo,	0.85	47	i P	Pn	23 38 08.4	+0.3
PBNVO				eS	Sn	23 38 19.8	+0.3

FIMO	**Fila Mora**	0.86	322	eP	Pb	23 38 09.2	+0.2
RBALA	**Bur**	0.87	49	⇓eP	Pb	23 38 09.0	+0.1
RBALA	**Bur**	0.87	49	⇓iP	Pb	23 38 09.0	+0.1
RBALA				eS	Sn	23 38 21.1	+1.2
BURE	**Buenos Aires**	1.00	329	eP	Pb	23 38 11.5	+0.2
DRK0	**Durika**	1.04	336	P	Pn	23 37 58.1	-13
DRK0				S	Sn	23 38 12.3	-12
DRK0	**Durika**	1.04	336	eP	Pn	23 37 57.6	-13
DRK0				eS	Sn	23 38 12.2	-12
PDCAN	**Manzana , Fuen**	1.11	91	eP	Pn	23 38 12.4	+0.7
PDCAN	**Manzana , Fuen**	1.11	91	eP	Pn	23 38 12.7	+1.0
KKNTU	**Kakintº**	1.13	62	⇓eP	Pn	23 38 12.3	+0.3
KKNTU	**Kakintº**	1.13	62	⇓iP	Pn	23 38 12.4	+0.4
CNI2	**El Empalme, Bo**	1.16	17	eP	Pn	23 38 12.7	+0.3
CNI2				eS	Sn	23 38 26.5	-0.7
SAJE	**San Jernim**	1.24	326	eP	Pb	23 38 14.7	-0.6
RGM0	**Gandoca**	1.29	9	P	Pb	23 38 17.3	+1.2
RGM0				S	Sb	23 38 36.3	+4.0
RGM0	**Gandoca**	1.29	9	eP	Pb	23 38 16.8	+0.7
RGM0	**Gandoca**	1.29	9	eP	Pb	23 38 17.2	+1.2
CEUA	**Cerro Uatsi, L**	1.31	355	eP	Pb	23 38 17.9	+1.5
BUS1	**Rivas**	1.54	323	eP	Pb	23 38 19.8	-0.8
GMAL	**Guarumal, Vera**	1.66	109	eP	Pn	23 38 19.8	+0.5
GMAL				eS	Sn	23 38 40.6	+1.1
RSUS3	**Rio de Jesus,**	1.67	101	eP	Pn	23 38 20.5	+1.1
RSUS3				eS	Sn	23 38 41.2	+1.5
PIEC	**Cerro El Cedra**	1.73	319	eP	Pb	23 38 22.6	-1.0
SAFE3	**Santa Fe, Vera**	1.73	83	eP	Pn	23 38 21.8	+1.5
SAFE3				eS	Sn	23 38 42.7	+1.3
QUEP	**Quepos**	1.74	310	P	Pb	23 38 23.6	0.0
QUEP				S	Sb	23 38 46.1	+0.9
STIA3	**Santiago, Vera**	1.84	96	eP	Pn	23 38 23.1	+1.4
STIA3				eS	Sn	23 38 45.7	+1.8
LCR2	**La Lucha 2**	1.85	321	P	Pb	23 38 25.5	-0.2
LCR2				S	Sb	23 38 49.0	+0.5
LCR2	**La Lucha 2**	1.85	321	eP	Pb	23 38 23.9	-1.7
ABRB	**Las Abras (San**	1.91	332	eP	Pb	23 38 25.7	-1.0
MARI3	**Mariato, Verag**	1.92	110	eP	Pn	23 38 24.5	+1.6
MARI3				eS	Sn	23 38 47.5	+1.5
VTR0	**Volcan Turrial**	1.94	331	⇑eP	Pb	23 38 26.5	-0.9
CALO3	**Calobre, Verag**	1.95	89	eP	Pn	23 38 25.2	+1.9
CALO3				eS	Sn	23 38 48.2	+1.4
HDC	**Heredia**	2.12	323	P	Pb	23 38 29.7	-0.5
HDC				S	Sb	23 38 57.9	+1.8
BELE	**Belen**	2.14	321	eP	Pb	23 38 29.3	-1.3
TCS1	**Tacares**	2.26	320	P	Pb	23 38 32.1	-0.6
TRB2	**Turrubares**	2.27	315	S	Sb	23 39 00.6	+0.2
CHIT3	**Chitre**	2.40	98	eP	Pn	23 38 31.4	+2.0
CHIT3				eS	Sn	23 38 59.6	+1.8
AZU	**Azuero**	2.57	101	eP	Pn	23 38 33.6	+1.9
AZU				eS	Sn	23 39 03.2	+1.3
ACHO3	**Achotines, Los**	2.76	109	eP	Pn	23 38 36.0	+1.5
PEDA3	**Pedasi**	2.87	105	eP	Pn	23 38 37.5	+1.6
JTS	**Las Juntas de**	2.89	313	P	Pn	23 38 38.9	+2.7
	46nm,0.3s,baz=116,slow=11,SNR=51						
JTS				S	Sn	23 39 12.1	+2.2
	141nm,0.5s,baz=331,slow=22,SNR=5.2						
JTS				LR	LR	23 39 49.3	
	comp=Z,204nm,20.3s,baz=128,slow=40						
	97nm,0.4s						
JTS				AML	AML		
JTS	**Las Juntas de**	2.89	313	P	Pb	23 38 41.0	-2.2
JTS				S	Sn	23 39 12.7	+2.8
JTS	**Las Juntas de**	2.89	313	eP	Pn	23 38 38.4	+2.2
JTS				eS	Sn	23 39 11.7	+1.8
ZANG	**Zanguenga, Cho**	2.99	77	eP	Pn	23 38 38.2	+0.7
ZANG				eS	Sn	23 39 11.9	-0.4
BCIP	**Isla Barro Col**	3.06	74	P	Pb	23 38 45.5	-0.7
BCIP				S	Sb	23 39 21.7	-1.6
BCIP	**Isla Barro Col**	3.06	74	eP	Pn	23 38 39.8	+1.1
BCIP				eS	Sb	23 39 21.5	-1.7
CHOR3	**La Chorrera**	3.07	79	eP	Pn	23 38 40.1	+1.4
CHOR3				eS	Sn	23 39 15.4	+1.0
INDI	**Punta indio, G**	3.07	300	P	Pn	23 38 40.5	+1.8
INDI				S	Sn	23 39 16.1	+1.7
CMARA	**Lajas Hojancha**	3.09	304	P	Pn	23 38 41.3	+2.3
GAMB1	**Gamboa**	3.17	75	eP	Pn	23 38 41.4	+1.3
FLAM	**Flamenco Islan**	3.30	79	eP	Pn	23 38 43.1	+1.2
UPA	**Univ. de Panam**	3.31	78	eP	Pn	23 38 43.4	+1.4
UPA				eS	Sn	23 39 21.5	+1.2
UPAL	**Upala**	3.37	320	P	Pn	23 38 45.8	+3.1
APG	**El Apazote**	10.02	312	P	Pn	23 40 15.8	+1.5
	baz=72,slow=22,SNR=2.5						
	0.4nm,0.7s						
ATAH	**Atahualpa**	15.96	164	LR	LR	23 47 03.6	
	comp=Z,111nm,18.6s,baz=27,slow=35						
TKL	**Tuckaleechee C**	27.24	358	LR	LR	23 53 38.2	
	comp=Z,54nm,21.7s,baz=177,slow=34						
PDAR	**Pinedale Array**	41.59	330	P	P	23 45 37.5	-0.2
	0.2nm,0.4s,baz=116,slow=6.8,SNR=3.9						
	0.2nm,0.4s						
ULM	**Lac du Bonnet**	43.20	348	P	P	23 45 51.4	+1.1
	4.2nm,0.9s,baz=157,slow=7.7,SNR=2.9						
	4.2nm,0.9s						
NVAR	**Mina Array Bea**	43.80	319	P	P	23 45 53.6	-2.1
	0.2nm,0.4s,baz=157,slow=8.0,SNR=4.7						
	0.2nm,0.4s						
RCBR	**Riachuelo**	48.84	105	LR	LR	00 08 14.4	
	comp=Z,40nm,20.9s,baz=10.0,slow=37						
FRB	**Frobisher Bay**	56.28	8	LR	LR	00 11 04.6	
	comp=Z,90nm,18.7s,baz=104,slow=35						
YKA	**Yellowknife Ar**	58.82	343	P	P	23 47 46.3	-1.2
	0.6nm,0.7s,baz=136,slow=6.8,SNR=3.1						
	0.6nm,0.7s						
ILAR	**Eielson Array**	71.63	336	P	P	23 49 10.7	+0.1
	0.7nm,0.8s,baz=93,slow=6.3,SNR=4.4						
	0.7nm,0.8s						
TORD	**Torodi Ar. Bea**	82.84	78	P	P	23 50 14.5	+0.1
	0.5nm,0.8s,baz=267,slow=7.7,SNR=3.0						
	0.5nm,0.8s						
ASAR	**Alice Springs**	141.69	242	PKP	PKPdf	23 57 17.4	-4.2
	0.4nm,0.8s,baz=113,slow=3.4,SNR=4.3						
WRA	**Warramunga Arr**	142.25	248	PKP	PKPdf	23 57 19.7	-2.9
	0.3nm,0.7s,baz=84,slow=1.3,SNR=1.8						

ZUR 25 23:49:34.0, 46°.98N×8°.90E, h5^{km}±2^{km}, MLh1.5/49, 2C-7D, Error ellipse: s-maj=4838.2km s-min=716.8km az=83.0, Switzerland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SLTM2	**Linthal, Matt**	0.09	129	⇓Pg	Pg	23 49 36.1	+0.2
SLTM2				Sg	Sg	23 49 37.7	+0.5
SLTM2				AML	AML		
SLTM2	**Linthal, Matt**	0.09	129	⇓Pg	Pg	23 49 36.1	+0.2
SLTM2				Sg	Sg	23 49 37.7	+0.5
SLTM2				AML	AML		
SGLK	**Glarus, Kanton**	0.13	59	Pg	Pg	23 49 37.3	+0.6
SGLK				AML	AML		
SGLK	**Glarus, Kanton**	0.13	59	Pg	Pg	23 49 37.2	+0.5
SGLK				Sg	Sg	23 49 40.1	+1.7
SGLK				AML	AML		
LLS	**Linth-Limmern**	0.15	151	Sg	Sg	23 49 39.6	+0.5
SWYZ	**Schwyz, Kanton**	0.18	285	⇓Pg	Pg	23 49 37.9	+0.3
SWYZ				Sg	Sg	23 49 40.9	+1.0
SWYZ				AML	AML		
SWYZ	**Schwyz, Kanton**	0.18	285	⇓Pg	Pg	23 49 37.9	+0.3
SWYZ				Sg	Sg	23 49 40.9	+1.0
SWYZ				AML	AML		
MUO	**Muotathal**	0.18	267	⇓Pg	Pg	23 49 38.0	+0.2
MUO				Sg	Sg	23 49 41.0	+0.8
MUO				AML	AML		
MUO	**Muotathal**	0.18	267	⇓Pg	Pg	23 49 37.9	+0.2
MUO				Sg	Sg	23 49 41.1	+0.9
MUO				AML	AML		
PANIX	**Pigniu (Panix)**	0.21	137	Pg	Pg	23 49 38.2	+0.1
PANIX				Sg	Sg	23 49 41.5	+0.6
PANIX				AML	AML		
PANIX	**Pigniu (Panix)**	0.21	137	Pg	Pg	23 49 38.2	0.0
PANIX				Sg	Sg	23 49 41.5	+0.6
PANIX				AML	AML		
SEFS	**Erstfeld, Schu**	0.24	228	Sg	Sg	23 49 42.8	+1.0
SEFS				AML	AML		
PLONS	**Plons/SG**	0.33	78	⇓Pg	Pg	23 49 40.8	+0.3
PLONS				Sg	Sg	23 49 45.6	+0.7
PLONS				AML	AML		
PLONS	**Plons/SG**	0.33	78	Pg	Pg	23 49 40.9	+0.3
PLONS				Sg	Sg	23 49 45.7	+0.7
PLONS				AML	AML		
BNALP	**Bannalp**	0.34	252	⇑Pg	Pg	23 49 41.1	+0.4
BNALP				Sg	Sg	23 49 46.4	+1.0
BNALP				AML	AML		
BNALP	**Bannalp**	0.34	252	⇑Pg	Pg	23 49 41.1	+0.3
BNALP				Sg	Sg	23 49 46.4	+1.1
BNALP				AML	AML		
SENGL	**Engelberg, Klo**	0.37	245	Sg	Sg	23 49 47.1	+1.0
SENGL				AML	AML		
WILA	**Wila**	0.44	0	Pg	Pb	23 49 43.6	-0.7
WILA				Sg	Sb	23 49 51.1	-0.2
WILA				AML	AML		
DAVA	**Damuels**	0.73	65	ePg	Pg	23 49 48.3	+0.1
	0.3nm,0.1s						
DAVA				eSg	Sb	23 50 00.3	+0.4
	2.4nm,0.3s						
FETA	**Feichten**	1.25	87	i Sg	Sn	23 50 17.7	+2.0
	0.6nm,0.1s						
RETA	**Reutte**	1.36	67	ePg	Pg	23 50 00.7	+0.5
	0.7nm,0.2s						
RETA				eSg	Sn	23 50 19.5	+1.1
	0.4nm,0.2s						
MOTA	**Moosalm**	1.55	75	i Pg	Pg	23 50 03.9	+0.2
	0.2nm,0.1s						
MOTA				i Sg	Sg	23 50 25.1	+1.4
	1.6nm,0.3s						

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*WEL **25** 23:55:51.1±0.6, 34°S±6°×18°0E±1°3, h12^{km}, M4.0/14, mB4.8/6, ML3.9/22, MLv4.0/14, Mw(mB)4.0/6, Error ellipse: s-maj=18.0km s-min=4.6km az=109.1, confirmed*

*NOU **25** 23:56:19.6, 36°.35S×179°.11E, h184^{km}, MLv3.4/5, Off E. Coast of N. Island, N.Z.*

ISC 25 23:55:50.0±1.6, **34°.00S**±0°.09×**179°.6E**±0°.1, **h10^{km}, n54,** σ**1^{s}.95**/56, **South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	3.71	196	P	Pn	23 56 50.9	+3.6
MXZ	**Matakaoa Point**	3.71	196	P	Pn	23 56 50.1	+2.8
MXZ				S	Sn	23 57 32.8	+1.7
MXZ				AML	AML		
WMGZ	**Waiomatatini S**	3.93	194	P	Pn	23 56 52.8	+2.4
WMGZ				S	Sn	23 57 37.9	+1.3
WMGZ				AML	AML		
WMGZ				AML	AML		
HAZ	**Te Kaha**	4.03	201	P	Pn	23 56 54.3	+2.5
HAZ				S	Sn	23 57 40.1	+1.1
HAZ				AML	AML		
HAZ				AML	AML		
PKGZ	**Pakihiroa**	4.05	197	P	Pn	23 56 54.3	+2.2
PKGZ				S	Sn	23 57 41.0	+1.4
PKGZ				AML	AML		
PKGZ				AML	AML		
PUZ	**Puketiti**	4.21	195	P	Pn	23 56 55.4	+1.1
PUZ				S	Sn	23 57 44.1	+0.7
PUZ				AML	AML		
PUZ				AML	AML		
RUGZ	**Raukumara Rang**	4.25	201	P	Pn	23 56 57.3	+2.3
RUGZ				S	Sn	23 57 43.7	-1.0
RUGZ				AML	AML		
RUGZ				AML	AML		
TWGZ	**Tauwhareparae**	4.37	197	P	Pn	23 57 00.3	+3.8
TWGZ				S	Sn	23 57 48.2	+0.7
TWGZ				AML	AML		
TWGZ				AML	AML		
CNGZ	**Carnagh Statio**	4.61	194	P	Pn	23 57 02.6	+2.8
CNGZ				AML	AML		
CNGZ				AML	AML		
MWZ	**Matawai**	4.64	201	P	Pn	23 57 00.7	+0.5
MWZ				S	Sn	23 57 53.7	-0.4
MWZ				AML	AML		
MWZ				AML	AML		
TKGZ	**Te Karaka**	4.65	197	P	Pn	23 57 00.5	+0.2
TKGZ				S	Sn	23 57 54.2	-0.1
TKGZ				AML	AML		
TKGZ				AML	AML		
URZ	**Urewera**	4.70	205	P	Pn	23 57 02.3	+1.3
URZ	**Urewera**	4.70	205	P	Pn	23 57 02.1	+1.1
URZ				S	Sn	23 57 54.9	-0.7
URZ				AML	AML		
WCZ	**Waipu Caves**	4.73	244	P	Pn	23 57 03.2	+1.8
WCZ				AML	AML		
RIGZ	**Rimuhau**	4.92	197	P	Pn	23 57 06.2	+2.1
RIGZ				AML	AML		
RIGZ				AML	AML		
MUGZ	**Murupara**	5.02	206	P	Pn	23 57 06.5	+1.1
MUGZ				AML	AML		
MUGZ				AML	AML		
PRGZ	**Paritu Road**	5.10	195	P	Pn	23 57 08.3	+1.7
PRGZ				AML	AML		
PRGZ				AML	AML		
GLKZ	**Green Lake**	5.17	25	S	Sn	23 58 05.6	-1.7
KNZ	**Kokohu**	5.25	197	P	Pn	23 57 08.4	-0.1
KNZ				AML	AML		
ALRZ	**Allen Road**	5.26	209	P	Pn	23 57 09.9	+1.2
ALRZ				AML	AML		
ALRZ				AML	AML		
RAHZ	**Arahi**	5.31	202	P	Pn	23 57 09.8	+0.5
RAHZ				S	Sn	23 58 07.8	-2.8
RAHZ				AML	AML		
RAHZ				AML	AML		
MHGZ	**Mahia Peninsul**	5.32	194	P	Pn	23 57 10.9	+1.4
MHGZ				AML	AML		
MHGZ				AML	AML		
WHHZ	**Waihua**	5.41	200	P	Pn	23 57 11.1	+0.3
WHHZ				AML	AML		
WHHZ				AML	AML		
ARHZ	**Aropaoanui**	5.66	201	P	Pn	23 57 14.4	+0.3
ARHZ				AML	AML		
BKZ	**Black Stump Fm**	5.73	205	P	Pn	23 57 14.7	-0.5
BKZ	**Black Stump Fm**	5.73	205	P	Pn	23 57 15.2	0.0
BKZ				AML	AML		
MCHZ	**McNeill Hill**	5.91	202	P	Pn	23 57 17.4	-0.3
MCHZ				AML	AML		
HIZ	**Hauiti**	5.91	219	P	Pn	23 57 21.1	+3.4
KWHZ	**Kaweka Forest**	5.99	204	P	Pn	23 57 17.8	-0.9
KWHZ				S	Sn	23 58 23.4	-3.9
KWHZ				AML	AML		
KWHZ				AML	AML		
TMVZ	**Te Maari**	5.99	210	P	Pn	23 57 18.8	0.0
TMVZ				AML	AML		
CKHZ	**Cape Kidnapper**	6.00	199	P	Pn	23 57 17.6	-1.2
CKHZ				AML	AML		
ETVZ	**East Tongariro**	6.00	210	P	Pn	23 57 18.7	-0.4
ETVZ				AML	AML		
OTVZ	**Oturere**	6.05	210	P	Pn	23 57 19.6	-0.1
OTVZ				AML	AML		
OTVZ				AML	AML		
BHHZ	**Black Hill Sta**	6.17	206	P	Pn	23 57 17.7	-3.6
FWVZ	**Far West T-bar**	6.17	211	P	Pn	23 57 20.8	-0.6
KAHZ	**Kahuranaki**	6.18	200	P	Pn	23 57 20.5	-0.9
KRHZ	**Kereru**	6.20	204	P	Pn	23 57 19.7	-1.9
WNVZ	**Wahianoa**	6.21	210	P	Pn	23 57 21.2	-0.7
PXZ	**Pawanui**	6.41	199	P	Pn	23 57 19.2	-5.2
PNHZ	**Pukenui**	6.50	204	P	Pn	23 57 23.2	-2.5
PRHZ	**Porangahau**	6.69	200	P	Pn	23 57 26.1	-2.2
TSZ	**Takapari Road**	6.71	205	P	Pn	23 57 25.8	-2.8
PRWZ	**Pori Road**	7.15	203	P	Pn	23 57 32.5	-2.2
BFZ	**Birch Farm**	7.18	201	P	Pn	23 57 31.9	-3.2
BFZ	**Birch Farm**	7.18	201	P	Pn	23 57 31.6	-3.5
MRZ	**Mangatainoka R**	7.38	205	P	Pn	23 57 33.5	-4.2
OGWZ	**Otaki Gorge**	7.66	206	P	Pn	23 57 37.1	-4.6
TMWZ	**Te Maipa**	7.68	201	P	Pn	23 57 37.8	-4.2
KIW	**Kapiti Island**	7.80	207	P	Pn	23 57 38.5	-5.0
MTW	**Mount Morrison**	7.85	203	P	Pn	23 57 39.2	-5.1
CAW	**Cannon Point**	7.96	206	P	Pn	23 57 40.3	-5.4
TRWZ	**Traveller**	8.01	202	P	Pn	23 57 41.7	-4.7
MSWZ	**Moikau Station**	8.16	204	P	Pn	23 57 43.0	-5.6
TCW	**Tory Channel**	8.34	209	P	Pn	23 57 45.1	-5.9

IDC 25 23:59:21.6±15.0, **7°.19S**×**129°.34E, h317^{km}**±181^{km}, **mb2.9**/1, **mbtmp3.5**/4, **Error ellipse: s-maj=121.8km s-min=54.3km az=33.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	11.43	198	P	Pn	00 01 55.9	-1.0
	1.0nm,0.8s,baz=28,slow=14,SNR=7.6						
FITZ				S	S	00 03 58.0	-6.6
	0.9nm,0.7s,baz=216,slow=20,SNR=1.5						
WRA	**Warramunga Arr**	13.57	160	P	P	00 02 21.6	-0.5
	0.3nm,0.4s,baz=340,slow=11,SNR=7.4						
WRA				S	S	00 04 42.2	-10
	0.4nm,0.7s,baz=327,slow=23,SNR=5.9						
ASAR	**Alice Springs**	16.96	166	P	P	00 03 00.2	+1.0
	0.6nm,0.5s,baz=345,slow=9.3,SNR=8.9						
MKAR	**Makanchi Array**	68.03	327	P	P	00 09 47.4	+0.1
	0.3nm,0.5s,baz=133,slow=8.1,SNR=4.9						
	0.3nm,0.5s						

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*SJA **26** 00:11:27.2±0.7, 33°.00S×72°.25W, h12^{km}±2^{km}, ML3.4, MW3.6*

*GUC **26** 00:11:31.4±0.7, 33°.05S×72°.09W, h20^{km}±2^{km}, ML3.3*

ISC 26 00:11:29.9±1.7, **33°.04S**±0°.03×**72°.14W**±0°.07, **h16^{km}**±10^{km}, **n28,** σ**0^{s}.72**/55, **Off coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VA01	**Torpederas**	0.41	88	eP	Pb	00 11 39.1	+0.2
VA01				IAML		00 11 45.4	
	comp=Z,1μm,0.2s						
VA01				eS	Sb	00 11 45.5	+0.5
VA01	**Torpederas**	0.41	88	eP	Pb	00 11 39.0	+0.2
VA01				eS	Sb	00 11 44.6	-0.3
VA01				IAML		00 11 45.5	
	comp=E,3μm,0.2s						
VA05	**Santo Domingo**	0.76	145	eP	Pg	00 11 44.6	-0.1
VA05				eS	Sb	00 11 55.1	+0.2
VA05				IAML		00 11 56.2	
	comp=E,3μm,0.4s						
MT02	**Curacav**	0.87	105	eP	Pb	00 11 46.3	-0.4
MT02				eS	Sb	00 11 58.0	-0.1
ROCH	**El Roble**	0.95	86	eP	Pb	00 11 47.9	-0.3
ROCH				eS	Sb	00 12 00.2	-0.4
ROCH				IAML		00 12 02.6	
	comp=N,2μm,0.2s						
MT01	**Popeta**	1.11	138	eP	Pn	00 11 50.1	-0.8
MT01				eS	Sb	00 12 05.3	+0.3
MT01				IAML		00 12 05.6	
	comp=Z,2μm,0.5s						
MT01	**Popeta**	1.11	138	eP	Pn	00 11 50.1	-0.8
MT01				eS	Sb	00 12 04.6	-0.5
MT01				IAML		00 12 06.0	
	comp=N,1μm,0.3s						
MT09	**Talagante**	1.21	128	eP	Pn	00 11 52.0	-0.4
MT09				eS	Sb	00 12 07.9	-0.3
MT09				IAML		00 12 08.6	
	comp=N,1μm,0.4s						
PEL	**Peldehue**	1.23	95	eP	Pb	00 11 52.6	-0.1
PEL				eS	Sb	00 12 08.6	+0.2
PEL				IAML		00 12 12.5	
	comp=N,1μm,0.4s						
MT05	**Renca**	1.23	107	eP	Pb	00 11 52.5	-0.3
MT05				IAML		00 12 18.7	
	comp=Z,401nm,0.6s						
MT05	**Renca**	1.23	107	eP	Pb	00 11 52.5	-0.3
MT05				eS	Sb	00 12 08.4	-0.1
MT05				IAML		00 12 12.6	
	comp=E,1μm,0.4s						
VA03	**San Esteban**	1.36	79	eP	Pb	00 11 54.7	-0.5
VA03				eS	Sg	00 12 14.1	+0.1
VA03				IAML		00 12 21.6	
	comp=Z,688nm,0.5s						
VA03	**San Esteban**	1.36	79	eP	Pn	00 11 54.5	+0.1
VA03				eS	Sn	00 12 12.2	-0.1
VA03				IAML		00 12 20.8	
	comp=N,1μm,0.4s						
MT10	**Hacienda Santa**	1.36	100	eP	Pb	00 11 54.8	-0.4
MT10				eS	Sb	00 12 12.6	+0.1
MT14	**Cerro Cal¡n**	1.39	105	eP	Pb	00 11 55.3	-0.3
MT14				eS	Sn	00 12 12.7	-0.2
MT14				IAML		00 12 19.4	
	comp=N,2μm,0.6s						
MT16	**CCHEN**	1.41	107	eP	Pb	00 11 55.5	-0.4
MT16				eS	Sn	00 12 12.9	-0.5
MT16				IAML		00 12 19.5	
	comp=E,524nm,0.5s						
MT03	**Universidad Ad**	1.44	109	eP	Pb	00 11 56.1	-0.3
MT03				eS	Sg	00 12 17.3	+0.9
MT03				IAML		00 12 22.8	
	comp=Z,876nm,0.3s						
BO01	**Tunca**	1.61	147	eP	Pn	00 11 57.6	-0.1
BO01				eS	Sb	00 12 19.6	+0.1
BO01				IAML		00 12 23.7	
	comp=Z,212nm,0.6s						
MT13	**San Alfonso**	1.70	115	eP	Pb	00 12 00.2	-0.8
MT13				eS	Sn	00 12 19.6	-1.1
MT13				eS	Sg	00 12 25.1	+0.2
MT13				IAML		00 12 26.7	
	comp=Z,578nm,0.5s						
MT04	**Ro Olivares**	1.72	103	eP	Pb	00 12 00.7	-0.6
MT04				eS	Sb	00 12 24.1	+1.3
MT04				IAML		00 12 27.0	
	comp=Z,394nm,0.5s						
MT08	**Bocatoma Ro**	1.82	104	eP	Pb	00 12 02.4	-0.7
MT08				eS	Sg	00 12 28.7	-0.1
MT08				IAML		00 12 31.5	
	comp=Z,333nm,0.5s						
CO02	**Combarbal**	2.07	28	eP	Pn	00 12 04.6	+0.5
CO02				eS	Sb	00 12 31.6	-1.1
CO02				IAML		00 12 40.9	
	comp=Z,325nm,0.5s						
BO02	**Sierra Bellavi**	2.08	148	eP	Pn	00 12 05.2	+0.9
BO02				eS	Sb	00 12 34.7	+1.5
BO02				IAML		00 12 41.1	
	comp=Z,264nm,0.8s						
CO03	**El Pedregal**	2.51	30	eP	Pn	00 12 11.0	+0.7
CO03				eS	Sb	00 12 44.1	-1.4
CO03				IAML		00 12 53.3	
	comp=Z,117nm,0.6s						
RTLS	**Leoncito**	2.70	64	eP	Pb	00 12 16.1	-2.0
RTLS				eS	Sb	00 12 51.1	-0.1
RTLS				IAML		00 13 04.7	
	comp=Z,205nm,1.7s						
AAGR	**Agrelo**	2.78	92	eP	Pn	00 12 15.6	+1.6
AAGR				IAML		00 13 10.7	
	comp=Z,84nm,0.9s						
GO04	**Tololo Observa**	3.08	22	eP	Pn	00 12 18.4	+0.3
GO04				eS	Sb	00 13 02.1	+0.3
GO04				IAML		00 13 09.5	
	comp=Z,156nm,0.5s						
AC05	**El Transito**	4.48	21	eP	Pn	00 12 38.4	+1.1
AC05				eS	Sn	00 13 30.8	+1.5
AC05				IAML		00 14 02.8	
	comp=Z,32nm,0.8s						

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*IDC **26** 00:19:30.2±2.0, 2°.57S×129°.90E, h0^{km}, mb3.4/3, mbtmp3.5/5, ML3.4/2, MS3.3/1, Error ellipse: s-maj=104.3km s-min=23.3km az=76.0*

*DJA **26** 00:19:34.3±0.4, 3°S±4°×12°8E±°, h10^{km}, M3.5/6, ML3.4/5, MLv3.5/6, MLv3.5/4*

ISC 26 00:19:34.0±1.1, **3°.2S**±0°.2×**128°.26E**±0°.09, **h10^{km}, n8,** σ**1^{s}.00**/7, **mb3.5**/3, **Seram**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSAI	**Masohi**	0.69	105	P	Pg	00 19 47.2	-0.2
MSAI				AML	AML		
NLAI	**Namlea**	1.16	266	P	Pb	00 19 55.4	-0.7
NLAI				AML	AML		
NLAI				AML	AML		
BATI	**Baumata**	8.35	213	LR	LR	00 26 25.9	
	comp=Z,170nm,18.1s,baz=289,slow=42						
FITZ	**Fitzroy Crossi**	15.06	190	Pn	P	00 23 13.8	+1.4
	0.1nm,0.3s,baz=17,slow=14,SNR=1.8						
	1.7nm,0.9s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	17.70	161	P	Pn	00 23 39.8	-1.1
	0.2nm,0.3s,baz=347,slow=13,SNR=6.8						
	0.2nm,0.4s						
WRA				AML	AML		
ASAR	**Alice Springs**	21.10	165	P	P	00 24 18.6	-0.3
	1.8nm,0.7s,baz=346,slow=11,SNR=14						
	1.8nm,0.7s						
MKAR	**Makanchi Array**	64.09	327	P	P	00 30 08.5	+0.2
	0.3nm,0.6s,baz=108,slow=7.3,SNR=1.7						
	0.3nm,0.6s						
KURBB	**Kurchatov Arra**	68.35	328	P	P	00 30 36.1	+0.5
	0.2nm,0.7s,baz=131,slow=5.8,SNR=1.9						
	0.2nm,0.7s						

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*IDC **26** 00:22:43.2±1.7, 60°.87S×153°.79E, h0^{km}, mb4.0/6,*

mbtmp4.0/7, ML3.8/1, MS3.7/15, Error ellipse: s-maj=117.1km s-min=21.2km az=77.0

ISC 26 00:22:43.9±1.5**, 60°.9S**±0°.2×**154°.1E**±0°.7**, h10km, n26, σ1^{s}06**/9**, mb4.0**/6**, MS3.7**/14**, West of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VNDA	Vanda	16.85	174	Pn	Pn	00 26 38.1	-1.3
	0.3nm,0.3s,baz=348,slow=13,SNR=22						
VNDA				LR	LR	00 32 23.0	
	comp=Z,228nm,19.9s,baz=356,slow=34						
	1.3nm,0.5s						
VNDA				AML	AML		
URZ	Urewera	26.88	43	LR	LR	00 37 42.4	
	comp=Z,80nm,19.7s,baz=195,slow=33						
QSPA	South Pole Qui	29.15	180	P	P	00 28 46.2	+1.4
	0.9nm,0.9s,baz=11,slow=5.1,SNR=2.2						
QSPA				LR	LR	00 40 36.4	
	comp=Z,148nm,18.3s,baz=16,slow=37						
	0.9nm,0.9s						
STKA	Stephens Creek	30.22	339	P	P	00 28 55.0	+0.6
	1.9nm,0.8s,baz=142,slow=12,SNR=2.8						
STKA				LR	LR	00 38 18.2	
	comp=Z,79nm,21.5s,baz=210,slow=31						
	1.9nm,0.8s						
H01W1	Cape Leeuwin H	36.43	297	T	T	01 08 19.7	
	baz=147,slow=75,SNR=126						
H01W2	Cape Leeuwin H	36.43	297	T	T	01 08 18.3	
	baz=147,slow=75,SNR=109						
H01W3	Cape Leeuwin H	36.44	297	T	T	01 08 21.4	
	baz=147,slow=75,SNR=112						
MAW	Mawson	36.67	220	LR	LR	00 43 44.4	
	comp=Z,116nm,21.0s,baz=110,slow=34						
RAO	Raoul Island	36.77	43	LR	LR	00 44 15.1	
	comp=Z,73nm,18.4s,baz=9.0,slow=35						
ASAR	Alice Springs	39.79	330	P	P	00 30 17.2	+0.4
	1.5nm,0.9s,baz=169,slow=8.3,SNR=12						
ASAR				PcP	PcP	00 32 21.7	-1.2
	0.4nm,0.7s,baz=148,slow=4.0,SNR=2.8						
	1.5nm,0.9s						
DZM	Mont Dzumac	39.79	18	LR	LR	00 42 50.3	
	comp=Z,81nm,21.2s,baz=124,slow=30						
CTA	Charters Tower	41.19	349	P	P	00 30 28.5	+0.1
	3.1nm,0.7s,baz=158,slow=10,SNR=5.7						
CTA				LR	LR	00 45 10.5	
	comp=Z,84nm,18.3s,baz=212,slow=33						
	3.1nm,0.7s						
WRA	Warramunga Arr	43.27	332	P	P	00 30 44.9	-0.5
	2.3nm,0.8s,baz=163,slow=7.2,SNR=13						
WRA				PcP	PcP	00 32 33.9	-0.4
	0.7nm,0.8s,baz=161,slow=3.7,SNR=5.4						
	2.3nm,0.8s						
SNAA	Sanae	46.70	190	LR	LR	00 51 40.1	
	comp=Z,115nm,18.0s,baz=156,slow=37						
FITZ	Fitzroy Crossi	47.34	322	P	P	00 31 16.8	-0.9
	3.0nm,0.8s,baz=161,slow=10,SNR=4.6						
FITZ				LR	LR	00 48 54.1	
	comp=Z,86nm,18.7s,baz=190,slow=33						
	3.0nm,0.8s						
HNR	Honiara	51.59	7	LR	LR	00 50 48.1	
	comp=Z,70nm,18.2s,baz=260,slow=33						
PMG	Port Moresby	51.69	351	LR	LR	00 51 18.3	
	comp=Z,92nm,18.1s,baz=160,slow=33						
BATI	Baumata	55.39	323	LR	LR	00 53 55.2	
	comp=Z,145nm,18.7s,baz=275,slow=34						
H03S1	Juan Fernandez	76.15	137	T	T	01 59 13.4	
	baz=204						
H03S2	Juan Fernandez	76.15	137	T	T	01 59 11.9	
	baz=204						
H03S3	Juan Fernandez	76.17	137	T	T	01 59 10.7	
	baz=204						
H08S2	Diego Garcia H	79.28	274	T	T	02 02 05.4	
	baz=146,slow=76						
H08S1	Diego Carcia H	79.29	274	T	T	02 02 05.5	
	baz=146						
H08S3	Diego Garcia H	79.31	274	T	T	02 02 06.2	
	baz=146,slow=76						
SUR	Sutherland	79.52	219	LR	LR	01 09 54.8	
	comp=Z,48nm,18.1s,baz=180,slow=36						
CMAR	Chiang Mai Arr	90.57	309	LR	LR	01 16 42.4	
	comp=Z,36nm,18.2s,baz=185,slow=36						

IDC 26 01:19:52.2±7.5**, 4°.86S×154°.62E, h0km, mb3.8**/3**, mbtmp3.8**/3**, Error ellipse: s-maj=228.1km s-min=42.5km az=106.0, Bougainville-Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	24.79	231	P	P	01 25 16.5	+0.4
	0.9nm,0.5s,baz=58,slow=9.2,SNR=13						
	0.9nm,0.5s						
ASAR	Alice Springs	27.36	225	P	P	01 25 38.9	-0.4
	0.6nm,0.3s,baz=56,slow=9.0,SNR=15						
	0.6nm,0.3s						
MKAR	Makanchi Array	81.57	319	P	P	01 32 12.0	0.0
	0.6nm,0.7s,baz=93,slow=5.9,SNR=2.1						
	0.6nm,0.7s						

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*JMA **26** 01:21:55.8±0.2, 37°.6N±0°.6×13°9E±°, h172km±1km, MV2.6/29, NE NIIGATA PREF*

*IDC **26** 01:21:56.1±3.4, 37°.61N×138°.91E, h177km±15km, mb3.2/4, mbtmp3.7/4, Error ellipse: s-maj=88.6km s-min=20.1km az=64.0*

ISC 26 01:21:55.5±1.0**, 37°.61N**±0°.07×**139°.0E**±0°.1**, h172km, n15, σ0^{s}61**/18**, mb3.5**/4**, Near west coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JUON	Uonuma	0.41	172	*e*P	Pn	01 22 19.4	+0.3
JUON				*e*S	Sn	01 22 37.4	+0.4
JFY	Yanaizu	0.61	109	P	Pn	01 22 20.5	+0.6
JAW	Awa shima	0.87	14	P	Pn	01 22 21.9	+0.5
JOTO	OTAMA OYAMA	1.07	92	P	Pn	01 22 23.5	+0.5
MAT	Matsushiro	1.23	210	P	Pn	01 22 25.0	+0.7
MJAR	Matsushiro Arr	1.23	210	P	Pn	01 22 25.2	+0.8
	12nm,0.4s,baz=25,slow=8.6,SNR=30						
JAG	Ashikaga	1.24	162	P	Pn	01 22 24.6	+0.2
JRY	Ryogami san	1.59	182	P	Pn	01 22 28.2	+0.4
JRY				*e*S	Sn	01 22 53.1	+0.4
JYK	Kaneyama	1.70	39	*e*P	Pn	01 22 29.2	+0.5
JYN	Shimob	2.14	190	P	Pn	01 22 34.2	+0.5
JYN				S	Sn	01 23 03.5	+0.3
JOD2	Odawara 2	2.34	178	S	Sn	01 23 05.9	-1.4
SONM	Songino Array	25.86	304	P	P	01 27 10.9	-0.3
	0.9nm,0.7s,baz=110,slow=11,SNR=1.8						
	0.9nm,0.7s						
ZALV	Zalesovo Beam	40.09	312	P	P	01 29 13.4	-0.5
	0.4nm,0.4s,baz=90,slow=8.6,SNR=1.9						
	0.4nm,0.4s						
KURBB	Kurchatov Arra	44.12	307	P	P	01 29 46.1	-0.3
	1.1nm,0.6s,baz=83,slow=8.1,SNR=11						
	1.1nm,0.6s						
WRA	Warramunga Arr	57.41	185	P	P	01 31 26.1	0.0
	0.4nm,0.5s,baz=358,slow=7.4,SNR=8.7						
	0.4nm,0.5s						

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*NEIC **26** 01:48:54.5±1.8, 34°.53N±0°.05×24°.87E±0°.03, h10km±2km, mb4.5/5, Error ellipse: s-maj=8.7km s-min=3.8km az=162.0*

*HLW **26** 01:48:56.6, 34°.41N×25°.01E, h3km±6km, Ml3.7*

*IDC **26** 01:48:56.5±2.6, 34°.77N×24°.89E, h23km±17km, mb3.7/11, mbtmp3.8/16, ML3.5/6, MS3.1/2, Error ellipse: s-maj=16.3km s-min=12.7km az=15.0*

*ISK **26** 01:48:57.4, 34°.71N×25°.06E, h23km, ML3.4/20*

*ATH **26** 01:48:58.5, 34°.72N×24°.94E, h23km±1km, ML3.6/16, Latitude uncertainty: 1 km; Longitude uncertainty: 0 km*

*THE **26** 01:48:59.2, 35°N±3°×2°5E±°, h19km±2km, M3.3/25, MLh3.3/25*

*GII **26** 01:49:00.2±0.0, 34°.370N±0°.002×25°.363E±0°.001, h0km, Mws3.8, confirmed*

*AFAD **26** 01:49:03.0, 34°.83N×25°.44E, h15km, ML2.8*

ISC 26 01:48:56.6±1.0**, 34°.61N**±0°.04×**24°.99E**±0°.02**, h32km**±7km**, n192, σ1^{s}79**/240**, mb3.7**/12**, Crete**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SIVA	Sivas	0.43	340	P	Pb	01 49 05.2	-0.8
SIVA				S	Sb	01 49 11.3	-1.1
SIVA				AML	AML		
SIVA	Sivas	0.43	340	P	Pb	01 49 05.8	-0.2
SIVA				S	Sb	01 49 11.3	-1.1
SIVA				AML	AML		
IDI	Anoyia	0.68	353	Pg	Pb	01 49 08.8	-1.3
	92nm,0.3s,baz=182,slow=17,SNR=648						
IDI				Lg	Lg	01 49 19.1	
	345nm,0.3s,baz=61,slow=16,SNR=28						
IDI	Anoyia	0.68	353	P	Pb	01 49 09.4	-0.7
IDI				S	Sb	01 49 19.1	-0.2
IDI				AML	AML		
IDI	Anoyia	0.68	353	Pg	Pb	01 49 09.7	-0.4
IDI				Sg	Sb	01 49 19.1	-0.2
IDI				AML	AML		
IDI	Anoyia	0.68	353	P	Pb	01 49 09.5	-0.7
IDI				S	Sb	01 49 18.5	-0.8
IDI				AML	AML		
IACM	Heraklion	0.70	6	P	Pb	01 49 10.4	+0.1
IACM				S	Sb	01 49 19.3	-0.3
IACM	Heraklion	0.70	6	P	Pb	01 49 10.3	0.0
IACM				S	Sb	01 49 18.9	-0.7
GVD	Gavdhos	0.78	287	P	Pb	01 49 12.6	+1.0
GVD				S	Sn	01 49 23.9	+2.0
GVD				AML	AML		
GVD	Gavdhos	0.78	287	Pg	Pb	01 49 13.6	+2.0
GVD				Sg	Sn	01 49 26.0	+4.1
GVD				AML	AML		
GVD	Gavdhos	0.78	287	P	Pb	01 49 12.6	+1.0
GVD				S	Sb	01 49 22.5	+0.6
GVD				AML	AML		
GVDS	Gavdos	0.80	287	P	Pb	01 49 12.6	+0.6
GVDS				S	Sn	01 49 23.7	+1.3
GVDS				AML	AML		
NPS	Neapolis	0.83	38	P	Pb	01 49 13.0	+0.5
NPS				S	Sn	01 49 24.2	+0.9
NPS				AML	AML		
NPS	Neapolis	0.83	38	P	Pb	01 49 13.0	+0.5
NPS				S	Sb	01 49 23.7	+0.4
AGNA	Agios Nikolaos	0.83	46	P	Pb	01 49 13.5	+1.0
AGNA				S	Sn	01 49 24.3	+1.0
AGNA				AML	AML		
VAM	Vamos	1.02	321	P	Pb	01 49 17.4	+1.6
VAM				S	Sn	01 49 28.4	+0.3
VAM				AML	AML		
SIT2	Siteia	1.09	57	P	Pb	01 49 18.9	+1.9
SIT2				S	Sb	01 49 32.4	+1.5
SIT2				AML	AML		
ZKR	Zakros	1.13	63	P	Pb	01 49 19.0	+1.4
ZKR				S	Sb	01 49 34.9	+3.1
ZKR	Zakros	1.13	63	Pg	Pb	01 49 17.8	+0.3
ZKR				AML	AML		
ZKR	Zakros	1.13	63	P	Pb	01 49 18.6	+1.0
ZKR				S	Sb	01 49 34.1	+2.2
ZKR				AML	AML		
CHNB	Souda	1.16	319	P	Pn	01 49 18.0	+1.4
CHNB				S	Sn	01 49 31.6	+0.3
IMMV	Iera Moni Meta	1.18	316	P	Pn	01 49 17.8	+0.8
IMMV				S	Sn	01 49 32.7	+0.7
IMMV				AML	AML		
IMMV	Iera Moni Meta	1.18	316	Pn	Pb	01 49 18.7	+0.2
IMMV				AML	AML		
IMMV	Iera Moni Meta	1.18	316	P	Pn	01 49 17.8	+0.8
IMMV				S	Sn	01 49 32.4	+0.4
IMMV				AML	AML		
CHAN	Chania	1.19	320	P	Pn	01 49 18.3	+1.2
CHAN				S	Sn	01 49 32.7	+0.5
CHAN				AML	AML		
CH01	Chania	1.20	319	P	Pb	01 49 19.0	+0.3
CH01				S	Sn	01 49 32.9	+0.5
CH01				AML	AML		
KNDR	Palaiochora Ch	1.28	299	P	Pb	01 49 20.4	+0.2
KNDR				S	Sn	01 49 35.4	+1.0
KNDR				AML	AML		
KNDR	Palaiochora Ch	1.28	299	P	Pb	01 49 20.3	+0.2
KNDR				AML	AML		
THR6	Thira Island,	1.77	11	P	Pb	01 49 27.5	-0.9
THERA	Ancient Thera,	1.80	13	P	Pn	01 49 27.1	+1.7
THERA				AML	AML		
THERA	Ancient Thera,	1.80	13	P	Pn	01 49 26.9	+1.5
SNT5	Nea Kammeni, S	1.82	10	P	Pn	01 49 28.0	+2.3
SNT5				AML	AML		
SNT5	Nea Kammeni, S	1.82	10	P	Pn	01 49 27.7	+2.1
THR3	Thira Island,	1.82	11	P	Pn	01 49 27.6	+1.8
THR3	Thira Island,	1.82	11	P	Pn	01 49 27.9	+2.1
THR5	Thira Island,	1.82	9	P	Pn	01 49 28.1	+2.3
THR8	Santorini-Mono	1.84	12	P	Pn	01 49 27.3	+1.4
THR8	Santorini-Mono	1.84	12	P	Pn	01 49 27.3	+1.4
SAP3	Santorini-Thir	1.84	9	P	Pb	01 49 28.6	-1.0
SAP3				AML	AML		
SAP3	Santorini-Thir	1.84	9	P	Pn	01 49 28.1	+2.1
ANKY	Antikythira Is	1.86	313	P	Pb	01 49 28.9	-1.1
ANKY				AML	AML		
ANKY	Antikythira Is	1.86	313	P	Pn	01 49 28.6	+2.3
THR2	Thira island,	1.87	11	P	Pn	01 49 28.4	+2.0
CMBO	Columbo, Santo	1.89	10	P	Pn	01 49 28.9	+2.3
CMBO				AML	AML		
CMBO	Columbo, Santo	1.89	10	P	Pn	01 49 28.5	+1.9
KARP	Karpathos	2.01	62	P	Pb	01 49 32.0	-0.5
KARP				AML	AML		
KARP	Karpathos	2.01	62	Pn	Pn	01 49 29.7	+1.3
KARP				AML	AML		
KARP	Karpathos	2.01	62		Pb	01 49 32.8	+0.2
KARP	Karpathos	2.01	62	P	Pb	01 49 32.7	+0.2
KARP				AML	AML		
KARP				AML	AML		
KARP	Karpathos	2.01	62	P	Pb	01 49 32.5	0.0
KARP				AML	AML		
MHLO	Agia Marina, M	2.13	347	P	Pn	01 49 32.1	+2.2
MHLO				AML	AML		
MILOS	Milos	2.17	348	P	Pn	01 49 32.0	+1.4
MILOS				AML	AML		
KTHA	Kythira Island	2.27	317	P	Pn	01 49 33.7	+1.7
KTHA				AML	AML		
KTHA	Kythira Island	2.27	317	Pn	Pn	01 49 34.2	+2.2
KTHA				AML	AML		
KTHA	Kythira Island	2.27	317	P	Pn	01 49 33.9	+2.0
KTHA				AML	AML		
NPS1	Neapolis Lacon	2.46	321	P	Pn	01 49 36.8	+2.3
VLI	Veliai	2.69	322	P	Pn	01 49 38.5	+0.9
VLI				AML	AML		
VLI	Veliai	2.69	322	P	Pn	01 49 39.0	+1.4
YAZI	Mula-Dat§a-	2.88	43	P	Pn	01 49 40.9	+0.7
ARG	Arkhangelos	3.02	57	P	Pn	01 49 44.8	+2.6
ARG				AML	AML		
ARG	Arkhangelos	3.02	57	Pn	Pn	01 49 43.8	+1.6
ARG				AML	AML		
ARG	Arkhangelos	3.02	57		Pn	01 49 45.7	+3.5
ARG	Arkhangelos	3.02	57	P	Pn	01 49 45.1	+2.9
MET6	Megalochori,Me	3.25	337	P	Pn	01 49 46.7	+1.3
MET4	Agioi Theodoro	3.27	337	P	Pn	01 49 46.9	+1.3
MET5	Makryloggos,Me	3.28	337	P	Pn	01 49 47.6	+1.7
MET2	Kameni Chora,	3.28	336	P	Pn	01 49 47.2	+1.4
MET3	Ano Fanari,Met	3.28	335	P	Pn	01 49 47.0	+1.1
VLY	Voula,Athens	3.38	344	P	Pn	01 49 48.7	+1.6
VLY				AML	AML		
VLY	Voula,Athens	3.38	344	P	Pn	01 49 48.8	+1.7
TURN	Turunc	3.42	50	Pn	Pn	01 49 49.4	+1.7
TURN				AML	AML		
TURN	Turunc	3.42	50	P	Pn	01 49 48.0	+0.3
KARY	Karystos	3.44	353	P	Pn	01 49 49.5	+1.5
KARY	Karystos	3.44	353	P	Pn	01 49 49.5	+1.5
ATHU	Athens Univers	3.49	344	P	Pn	01 49 49.8	+1.1
PYL	PYLOS	3.49	312	P	Pn	01 49 49.3	+0.7
MLSB	Milas	3.50	39	Pn	Pn	01 49 50.6	+1.7
MLSB				AML	AML		
PTL	Penteli	3.55	346	P	Pn	01 49 50.7	+1.2
DION	Dionisos Attik	3.56	346	P	Pn	01 49 51.1	+1.5
DION				AML	AML		
DION	Dionisos Attik	3.56	346	P	Pn	01 49 50.9	+1.2
ITM	Ithomi	3.57	317	P	Pn	01 49 50.9	+1.2
ITM				AML	AML		
ITM	Ithomi	3.57	317	Pn	Pn	01 49 51.8	+2.0
ITM				AML	AML		
ITM	Ithomi	3.57	317		Pn	01 49 51.5	+1.7
ITM	Ithomi	3.57	317	P	Pn	01 49 51.0	+1.2
GCAM	G?zelcaml?	3.58	30	Pn	Pn	01 49 51.5	+1.6
GCAM				AML	AML		
YER	Yerkesik	3.67	46	P	Pn	01 49 54.4	+3.1
YER	Yerkesik	3.67	46	Pn	Pn	01 49 52.6	+1.3
YER				AML	AML		
ACOR	Acrocorinthos	3.69	333	P	Pn	01 49 51.6	+0.2
DALY	Dalyan (Mula)	3.71	53	Pn	Pn	01 49 53.4	+1.8
DALY				AML	AML		
DALY	Dalyan (Mula)	3.71	53	P	Pn	01 49 54.7	+3.0
DALY				S	Sn	01 50 32.5	-1.7
DALY				IAML		01 50 39.0	
	comp=N,21nm,1.0s						
DALY				IAML		01 51 02.0	
	comp=E,30nm,1.0s						
MATC	Matruh	3.76	149	P	Pn	01 49 53.1	+0.7
LTK	Loutraki	3.77	335	P	Pn	01 49 54.7	+2.1
LTK				AML	AML		
MULA	Mugla, Merkez-	3.78	45	P	Pn	01 49 55.4	+2.6
MULA				IAML		01 50 57.0	
	comp=E,24nm,0.8s						
VILL	Villia	3.79	340	P	Pn	01 49 53.9	+1.0
VILL				AML	AML		
VIL2	Platees	3.85	339	P	Pn	01 49 54.0	+0.3
CHOS	Chios island	3.87	13	P	Pn	01 49 56.1	+2.2
CHOS				AML	AML		
CHOS	Chios island	3.87	13	Pn	Pn	01 49 55.5	+1.6
CHOS				AML	AML		
CHOS	Chios island	3.87	13	P	Pn	01 49 56.1	+2.2
FETY	Fethiye	3.90	58	Pn	Pn	01 49 56.3	+2.0
FETY				AML	AML		
IZZE	Mula-Seydike	3.91	61	P	Pn	01 49 56.7	+2.3
IZZE				S	Sn	01 50 38.7	-0.5
IZZE				IAML		01 50 42.0	
	comp=E,61nm,0.3s						
SABU	Mula-Dalaman	3.92	55	P	Pn	01 49 57.4	+2.8
SABU				IAML		01 51 06.0	
	comp=N,32nm,0.8s						
SABU				IAML		01 51 12.0	
	comp=E,28nm,1.2s						
AMT	Artemida-Makis	3.94	319	P	Pn	01 49 56.5	+1.6
AMT				AML	AML		
GUR	Goura	3.95	328	P	Pn	01 49 56.1	+1.1
GUR				AML	AML		
GUR	Goura	3.95	328	P	Pn	01 49 56.1	+1.1
AYDB	Zeytinkoy-Aydi	4.07	34	Pn	Pn	01 49 58.3	+1.5
AYDB				AML	AML		
KYMI	Kymi, Euboea I	4.08	350	P	Pn	01 49 57.9	+1.2
KYMI	Kymi, Euboea I	4.08	350	P	Pn	01 49 58.1	+1.4
KLV	Kalavryta, Ach	4.12	327	P	Pn	01 49 58.7	+1.3
ESEN	Aydn-Nazilli	4.18	40	P	Pn	01 50 01.2	+3.1
CAME	Cameli-Denizli	4.21	55	Pn	Pn	01 50 00.6	+1.9
CAME				AML	AML		
DRO	Drossia	4.26	322	P	Pn	01 50 01.3	+2.1
TAVA	DENIZLI_Tavas	4.27	47	P	Pn	01 50 02.3	+2.9
TAVA				IAML		01 51 24.0	
	comp=E,16nm,0.8s						
NAZL	Nazilli-Aydin	4.28	38	Pn	Pn	01 50 01.5	+1.9
NAZL				AML	AML		
AIOA	Agios Ioannis,	4.29	327	P	Pn	01 50 01.6	+2.0
CAEL	Denizli, Camel	4.32	53	P	Pn	01 50 02.1	+1.9
CAEL				IAML		01 51 31.0	
	comp=E,56nm,0.7s						
LKR	Lokris	4.34	339	P	Pn	01 50 01.7	+1.4
AGEO	AgiosGiorgios,	4.34	328	P	Pn	01 50 01.2	+0.9
KNIK	Mula-Seydike	4.34	58	P	Pn	01 50 02.8	+2.2
KNIK				IAML		01 50 56.0	
	comp=E,17nm,0.7s						
ODEM	Odemis-Izmir	4.42	33	Pn	Pn	01 50 03.5	+1.9
APMY	Acipayam-Deniz	4.51	50	Pn	Pn	01 50 04.5	+1.7
APMY				AML	AML		
KIRA	zmir-Kiraz	4.51	37	P	Pn	01 50 05.5	+2.7
ELL	Elmali	4.54	61		Pn	01 50 04.5	+1.4
GOLH	Golhisar	4.54	53	P	Pn	01 50 06.4	+3.1
GOLH				S	Sn	01 50 56.7	+1.7
GOLH				IAML		01 51 23.0	
	comp=E,20nm,0.9s						
GOLH				IAML		01 51 44.0	
	comp=N,23nm,1.7s						
SULTU	Buldan	4.59	41	P	Pn	01 50 07.4	+3.4
SULTU				IAML		01 51 20.0	
	comp=N,12nm,1.7s						
SULTU				IAML		01 51 24.0	
	comp=E,12nm,1.3s						
MANT	Manisa	4.82	36		Pn	01 50 09.4	+2.2
INCE	Denizli-Bozkur	4.83	49	P	Pn	01 50 09.3	+2.1
INCE				S	Sn	01 51 01.2	-0.9
INCE				IAML		01 51 27.0	
	comp=E,11nm,0.9s						
INCE				IAML		01 51 41.0	
	comp=N,9.6nm,1.2s						
SWA2		5.37	176	P	Pn	01 50 14.1	-0.4
KEK	Kerkira	6.56	322	Pn	Pn	01 50 30.0	-0.9
HNAT	Natroun	6.89	135	P	Pn	01 50 36.0	+0.6
HNAT				S	Sn	01 51 48.6	-4.1
RYAN	Fayoum	7.11	139	P	Pn	01 50 39.2	+0.7
CY603	RAF Akrotiri,	7.86	89	Pn	Pn	01 50 49.6	+1.2
CY601	RAF Akrotiri,	7.86	89	Pn	Pn	01 50 49.7	+1.2
HFRF	Wahat Farafira	7.97	158	P	Pn	01 50 51.5	+1.3
CEL	Celeste	8.18	299	Pn	Pn	01 50 52.8	-0.4
OFRI	\`Ofer	8.57	101	P	Pn	01 50 58.8	+0.3
OFRI				S	Sn	01 52 31.9	-2.3
BRTR	Keskin Array B	8.58	51	Pn	Pn	01 51 01.0	+2.3
	0.1nm,0.3s,baz=217,slow=12,SNR=1.9						
BRTR				LR	LR	01 55 16.8	
	comp=Z,24nm,21.4s,baz=326,slow=44						
BRTR				AML	AML		
KZIT	Kziot	8.74	112	P	Pn	01 51 01.4	+0.6
	7.5nm,1.0s						
KZIT	Kziot	8.74	112	P	Pn	01 51 00.8	0.0
KZIT				S	Sn	01 52 34.9	-3.4
MMA0B	Mount Meron ar	8.81	97	P	Pn	01 51 02.3	+0.5
MMA0B				S	Sn	01 52 38.1	-2.0
MMAI	Mount Meron Ar	8.81	97	Pn	Pn	01 51 02.9	+1.1
	0.9nm,0.3s,baz=279,slow=10,SNR=9.9						
MMAI				Sn	Sn	01 52 32.9	-7.2
	0.7nm,0.3s,baz=275,slow=17,SNR=1.7						
	0.3nm,0.2s						
MMAI				AML	AML		
AMAZ	Amatzia	8.88	107	P	Pn	01 51 02.6	-0.1
AMAZ				S	Sn	01 52 38.1	-3.5
SALP	Salfit	8.90	104	P	Pn	01 51 03.0	-0.1
	9.5nm,0.8s						
ARIL	Ariel Universi	8.91	103	P	Pn	01 51 03.5	+0.4
ARIL				S	Sn	01 52 39.6	-2.8
MMLI	Mount Malkishu	8.98	101	P	Pn	01 51 04.5	+0.5
MMLI				S	Sn	01 52 41.4	-2.7
GEM	Giv'at Ha'Em	8.98	96	P	Pn	01 51 07.0	+2.9
	0.1nm,3.2s						
GEM	Giv'at Ha'Em	8.98	96	P	Pn	01 51 04.8	+0.7
GEM				S	Sn	01 52 41.9	-2.3
PDG	Podgorica	9.00	332	Pn	Pn	01 51 04.0	-0.3
RAFF	Raffo Rosso	9.00	290	Pn	Pn	01 51 04.3	-0.1
JER	Jerusalem	9.01	105	P	Pn	01 51 04.8	+0.2
JER				S	Sn	01 52 42.4	-2.6
QRNJ	Al-Qirein	9.13	101	P	Pn	01 51 08.3	+2.2
	522nm,0.8s						
YITV	Yitav	9.13	104	P	Pn	01 51 06.5	+0.4
YITV				S	Sn	01 52 44.4	-3.4
UJAP	Al Uja	9.16	104	P	Pn	01 51 06.8	+0.3
UJAP				S	Sn	01 52 45.4	-3.1
RMNI	Mount Ramon	9.16	113	P	Pn	01 51 06.5	-0.1
RMNI				S	Sn	01 52 45.6	-3.1
ALMO	Almog	9.22	105	P	Pn	01 51 07.2	-0.1
ALMO				S	Sn	01 52 46.9	-3.0
MZS	Mizpe Shalem	9.25	106	P	Pn	01 51 07.8	+0.1
MZS				S	Sn	01 52 47.4	-3.3
MSBI	Mazada	9.31	108	P	Pn	01 51 09.0	+0.4
	2.1nm,1.9s						
MSBI	Mazada	9.31	108	P	Pn	01 51 08.6	0.0
MSBI				S	Sn	01 52 49.1	-3.1
IDAN	Idan	9.45	111	P	Pn	01 51 10.1	-0.4
IDAN				S	Sn	01 52 51.9	-3.7
PRNI	Paran	9.46	114	P	Pn	01 51 11.7	+0.9
	21nm,0.8s						
GHAJ	Ghor Haditha	9.48	107	Pn	Pn	01 51 13.0	+2.1
GHAJ	Ghor Haditha	9.48	107	P	Pn	01 51 13.7	+2.8
	10nm,0.4s						
GHAJ	Ghor Haditha	9.48	107	P	Pn	01 51 11.3	+0.4
GHAJ				S	Sn	01 52 53.1	-3.3
ZFRI	Zfri	9.50	112	P	Pn	01 51 10.8	-0.4
ZFRI				S	Sn	01 52 52.4	-4.5
HRFI	Mount Harif	9.65	115	P	Pn	01 51 14.6	+1.3
	8.7nm,1.5s						
HRFI	Mount Harif	9.65	115	P	Pn	01 51 13.0	-0.2
HRFI				S	Sn	01 52 56.6	-3.9
EIL	Elat	9.78	118	Pn	Pn	01 51 15.4	+0.5
	0.6nm,0.3s,baz=229,slow=0.7,SNR=10						
	2.3nm,0.5s						
EIL				AML	AML		

EIL	Elat	9.78	118	P	Pn	01 51 15.6	+0.6
	4.8nm,1.3s						
EIL	Elat	9.78	118	P	Pn	01 51 14.7	-0.3
EIL				S	Sn	01 53 00.4	-3.3
AQBJ	Aqaba	9.82	117	P	Pn	01 51 17.0	+1.4
	18nm,0.6s						
AKASG	Malin Array Be	16.37	10	Pn	Pn	01 52 44.5	+0.6
	1.5nm,0.3s,baz=203,slow=11,SNR=6.6						
	0.2nm,0.3s						
AKASG				AML	AML		
GEC2	GERESS Array S	16.50	333	Pn	Pn	01 52 46.8	+1.1
GERES	GERESS Array B	16.50	333	Pn	Pn	01 52 41.2	-4.4
	0.1nm,0.3s,baz=174,slow=10,SNR=12						
	0.5nm,0.3s						
GERES				AML	AML		
GERES	GERESS Array B	16.50	333	Pn	Pn	01 52 46.8	+1.1
KBZ	Khabaz	16.58	51	Pn	P	01 52 48.6	-0.2
	0.1nm,0.3s,baz=282,slow=6.9,SNR=5.7						
	2.6nm,1.0s						
KBZ				AML	AML		
CLL	Collm	18.81	336	*e*P	P	01 53 13.0	-0.4
ESDC	Sonseca Array	23.57	291	P	P	01 54 04.9	+0.5
	1.0nm,1.1s,baz=87,slow=9.0,SNR=2.0						
	1.0nm,1.1s						
HFS	Hagfors	26.58	347	P	P	01 54 31.8	+0.2
	1.8nm,0.9s,baz=110,slow=12,SNR=1.2						
	1.8nm,0.9s						
FINES	FINESS Array B	26.86	1	P	P	01 54 32.4	-1.7
	1.7nm,0.9s,baz=172,slow=10,SNR=8.2						
	1.7nm,0.9s						
NAO01	NORSAR Array S	27.78	345	P	P	01 54 41.9	-0.5
NAO01				IAmb	IAmb	01 54 43.6	
	comp=Z,23nm,1.4s						
EKA	Eskdalemuir Ar	28.41	325	P	P	01 54 48.7	+0.7
	comp=Z,0.8nm,0.6s,baz=127,slow=10,SNR=1.6						
	comp=Z,0.8nm,0.6s						
TORD	Torodi Ar. Bea	30.03	230	P	P	01 55 04.4	+1.7
	comp=Z,2.0nm,0.4s,baz=34,slow=8.4,SNR=44						
	comp=Z,2.0nm,0.4s						
ARCES	ARCESS Array B	34.98	0	P	P	01 55 43.7	-1.8
	comp=Z,4.6nm,1.1s,baz=182,slow=8.7,SNR=4.4						
	comp=Z,4.6nm,1.1s						
DBIC	Dimbokro	39.12	232	P	P	01 56 21.1	-0.2
	comp=Z,1.4nm,0.5s,baz=40,slow=7.6,SNR=1.3						
	comp=Z,1.4nm,0.5s						
DBIC	Dimbokro	39.12	232	P	P	01 56 21.1	-0.2
DBIC				IAmb	IAmb	01 56 55.2	
	comp=Z,20nm,1.5s						
BOOM	Boomskoye usch	40.11	63	P	P	01 56 30.0	+0.6
KURBB	Kurchatov Arra	41.58	51	P	P	01 56 41.9	+0.7
	comp=Z,0.4nm,0.3s,baz=271,slow=8.6,SNR=5.5						
	comp=Z,0.4nm,0.3s						
MK31	Makanchi Array	44.20	56	P	P	01 57 03.6	+1.1
MK31				IAmb	IAmb	01 57 12.0	
	comp=Z,4.8nm,1.2s						
MKAR	Makanchi Array	44.20	56	P	P	01 57 03.8	+1.2
	comp=Z,0.5nm,0.3s,baz=266,slow=7.8,SNR=11						
	comp=Z,0.5nm,0.3s						
MKAR	Makanchi Array	44.20	56	P	P	01 57 03.7	+1.1
ZALV	Zalesovo Beam	45.49	46	P	P	01 57 12.8	+0.2
	comp=Z,0.4nm,0.4s,baz=261,slow=8.2,SNR=2.5						
	comp=Z,0.4nm,0.4s						
LZDM	Lanzhou Array	62.51	64	LR	LR	02 28 53.3	
	comp=Z,76nm,20.4s,baz=175,slow=38						
YKA	Yellowknife Ar	77.93	342	P	P	02 00 51.1	0.0
	comp=Z,0.2nm,0.6s,baz=31,slow=5.7,SNR=1.6						
	comp=Z,0.2nm,0.6s						

IDC 26 01:52:19.8±9.4**, 18°.80S×176°.34W, h486**^{km}±81^{km}**,**
mb2.5/3**, mbtmp3.4**/4**, Error ellipse: s-maj=320.4km**
s-min=32.6km az=157.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	Nonsavu	5.43	280	P	P	01 53 50.2	0.0
	2.3nm,0.4s,baz=158,slow=11,SNR=4.4						
WRA	Warramunga Arr	46.41	260	P	P	02 00 02.2	0.0
	0.2nm,0.3s,baz=96,slow=7.7,SNR=8.7						
	0.2nm,0.3s						
ASAR	Alice Springs	46.45	255	P	P	02 00 02.1	-0.3
	0.3nm,0.6s,baz=94,slow=7.7,SNR=5.4						
	0.3nm,0.6s						
TXAR	Lajitas Array	84.82	57	P	P	02 04 02.8	-0.1
	0.1nm,0.6s,baz=268,slow=5.7,SNR=3.1						
	0.1nm,0.6s						

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*SOME **26** 02:03:56.0, 40°.90N×78°.85E, h10^{km}*
*KRNET **26** 02:03:57.6±0.1, 40°.87N×78°.78E, h21^{km}, mb3.4*
*NNC **26** 02:03:59.2±1.1, 40°.97N×78°.84E, h0^{km}, mb3.8, mpv3.4,*
Error ellipse: s-maj=7.9km s-min=6.0km az=170.0
ISC 26 02:03:57.1±2.2**, 40°.91N**±0°.08×**78°.70E**±0°.05**, h4**^{km}±13^{km}**,**
n41, σ**1^{s}.52**/61**, 22C-8D, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TARG	Taragay, Kyrgy	1.06	321	⇓*i*P	Pn	02 04 18.9	-0.3
TARG				⇓*i*S	Sn	02 04 34.3	-0.4
PRZ	Przheval'sk	1.59	352	⇓*i*P	Pg	02 04 27.9	+0.3
PRZ				⇓*i*S	Sg	02 04 50.2	+2.0
KDJ	Kajisay	1.67	317	⇑*i*P	Pb	02 04 29.0	+0.4
KDJ				⇑*i*S	Sg	02 04 52.2	+1.3
ANVS	Anan'yevo	2.03	338	⇑*i*P	Pb	02 04 34.8	+0.1
ANVS				⇑*i*S	Sg	02 05 02.1	-0.1
NRN	Naryn	2.11	285	⇑*i*P	Pb	02 04 36.5	+0.4
NRN				⇑*i*S	Sb	02 05 04.8	+2.0
SATY	Saty	2.16	354	Pg	Pg	02 04 37.5	-1.0
	18nm,0.5s						
SATY				Lg	Lg	02 05 07.8	
	92nm,0.4s						
SATY	Saty	2.16	354	*e*P	Pg	02 04 37.5	-1.0
	10nm,0.5s						
SATY				*e*S	Sg	02 05 07.8	+1.3
	116nm,0.5s						
UZB	Uzynbulak	2.25	6	Pg	Pg	02 04 38.3	-1.9
	8.8nm,0.2s						
UZB				Lg	Lg	02 05 09.3	
	84nm,0.3s						
UZB	Uzynbulak	2.25	6	*e*P	Pg	02 04 38.3	-1.9
	8.8nm,0.2s						
UZB				*e*S	Sg	02 05 09.3	0.0
	84nm,0.3s						
ULHL	Ulahol	2.28	307	⇑*i*P	Pb	02 04 38.5	-0.5
ULHL				⇑*i*S	Sb	02 05 08.4	+0.8
SHLS	Shalkode	2.31	14	Pg	Pg	02 04 41.1	-0.4
	34nm,0.6s						
SHLS				Lg	Lg	02 05 14.4	
	181nm,0.3s						
SHLS	Shalkode	2.31	14	*e*P	Pg	02 04 41.1	-0.4
	34nm,0.6s						
SHLS				*e*S	Sg	02 05 14.4	+2.9
	181nm,0.3s						
JNKS	Jany-Kuch	2.33	275	⇑*i*P	Pb	02 04 38.9	-1.0
JNKS				⇑*i*S	Sb	02 05 09.0	-0.2
PDGK	Podgornoye	2.49	13	⇑Pn	Pb	02 04 40.6	-1.9
	31nm,0.8s						
PDGK				⇑Lg	Lg	02 05 15.8	
	123nm,0.8s						
TNSS	Tian-Shan	2.50	329	Pg	Pg	02 04 44.7	-0.3
	6.5nm,0.5s						
TNSS				Lg	Lg	02 05 19.7	
	24nm,0.4s						
TNSS	Tian-Shan	2.50	329	*e*P	Pg	02 04 44.7	-0.3
	6.5nm,0.5s						
TNSS				*e*S	Sg	02 05 19.7	+2.3
	24nm,0.4s						
KPKS	Kokpek	2.55	360	Pg	Pg	02 04 44.3	-1.8
	0.2nm,0.2s						
KPKS				Lg	Lg	02 05 19.4	
	144nm,0.3s						
KPKS	Kokpek	2.55	360	*e*P	Pg	02 04 44.3	-1.8
	0.2nm,0.2s						
KPKS				*e*S	Sg	02 05 19.4	+0.3
	144nm,0.3s						
MDOK	Medeo	2.57	332	Pg	Pg	02 04 45.5	-0.8
	28nm,0.2s						
MDOK				Lg	Lg	02 05 21.5	
	136nm,0.7s						
MDOK	Medeo	2.57	332	*e*P	Pg	02 04 45.5	-0.8
	28nm,0.2s						
MDOK				*e*S	Sg	02 05 21.5	+1.9
	136nm,0.7s						
BOOM	Boomskoye usch	2.60	308	⇑*e*P	Pb	02 04 43.0	-1.5
BOOM				⇑*e*S	Sb	02 05 15.7	-1.2
KOTS	Kotyrbulak	2.61	333	Pg	Pg	02 04 46.5	-0.6
	12nm,0.3s						
KOTS				Lg	Lg	02 05 22.9	
	148nm,0.7s						
KOTS	Kotyrbulak	2.61	333	*e*P	Pg	02 04 46.5	-0.6
	12nm,0.3s						
KOTS				*e*S	Sg	02 05 22.9	+2.0
	148nm,0.7s						
KNDC	Almaty	2.64	331	⇑Pg	Pg	02 04 49.4	+1.6
	20nm,0.5s						
KNDC				⇑Lg	Lg	02 05 24.6	
	157nm,0.6s						
MTBS	Maitube	2.79	323	Pg	Pg	02 04 50.0	-0.6
	3.1nm,0.0s						
MTBS				Lg	Lg	02 05 29.2	
	37nm,0.3s						
MTBS	Maitube	2.79	323	*e*P	Pg	02 04 50.0	-0.6
	3.1nm,0.0s						
MTBS				*e*S	Sg	02 05 29.2	+2.4
	37nm,0.3s						
KST	Kastek	2.95	317	Pg	Pg	02 04 52.5	-1.2
	2.8nm,0.5s						
KST				Lg	Lg	02 05 33.5	
	34nm,0.6s						
KST	Kastek	2.95	317	*e*P	Pg	02 04 52.5	-1.2
	2.8nm,0.5s						
KST				*e*S	Sg	02 05 33.5	+1.5
	34nm,0.6s						
TKM2	Tokmak 2	3.07	312	⇓*i*P	Pb	02 04 49.6	-2.8
TKM2				⇓*i*S	Sb	02 05 27.5	-2.8
KTBS	Karatobe	3.18	333	Pg	Pb	02 04 55.6	+1.4
	0.3nm,0.1s						
KTBS				Lg	Lg	02 05 38.8	
	20nm,0.4s						
KTBS	Karatobe	3.18	333	*e*P	Pb	02 04 55.6	+1.4
	0.3nm,0.1s						
KTBS				*e*S	Sg	02 05 38.8	-0.4
	20nm,0.4s						
BLB	Baldybastay	3.19	357	Pg	Pg	02 04 55.8	-2.4
	9.8nm,0.3s						
BLB				Lg	Lg	02 05 39.2	
	37nm,0.6s						
ARXS	Arharly	3.36	349	Pg	Pg	02 04 59.3	-2.3
	9.0nm,0.5s						
ARXS				Lg	Lg	02 05 45.0	
	79nm,0.3s						
ARXS	Arharly	3.36	349	*e*P	Pg	02 04 59.3	-2.3
	9.0nm,0.5s						
ARXS				*e*S	Sg	02 05 45.0	-0.1
	79nm,0.3s						
KNOS	Konyrlen	3.46	6	Pg	Pb	02 04 59.7	+0.5
	3.3nm,0.2s						
KNOS				Lg	Lg	02 05 45.8	
	29nm,0.3s						
KRBS	Karabastau	3.58	322	Pg	Pg	02 05 03.4	-2.3
	3.2nm,0.2s						
KRBS				Lg	Lg	02 05 52.1	
	4.9nm,0.4s						
KRBS	Karabastau	3.58	322	*e*P	Pg	02 05 03.4	-2.3
	3.2nm,0.2s						
KRBS				*e*S	Sg	02 05 52.1	+0.1
	4.9nm,0.4s						
AAK	Ala-Archa	3.59	300	⇑Pg	Pg	02 05 06.9	+1.0
	1.7nm,0.5s						
AAK				⇓Lg	Lg	02 05 57.4	
	19nm,1.1s						
MAKZ	Makanchi	6.35	21	⇑Pn	Pn	02 05 35.6	+4.1
	5.8nm,1.1s						
MAKZ				⇑Lg	Lg	02 07 16.3	
	3.3nm,0.9s						
MK31	Makanchi Array	6.43	23	⇑Pn	Pn	02 05 35.0	+2.5
	0.3nm,0.5s,baz=200,slow=13,SNR=9.2						
MK31				⇑Lg	Lg	02 07 20.9	
	1.8nm,0.7s						
KK31	Karatay Array	6.48	292	⇓Pg	Pg	02 05 59.7	-1.6
	0.5nm,0.7s,baz=106,slow=17,SNR=4.4						
KK31				⇑Lg	Lg	02 07 30.5	
	1.2nm,0.6s,baz=100,slow=26,SNR=5.0						

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*IDC **26** 02:11:54.4±1.1, 38°.95S×46°.58E, h0^{km}, mb3.8/5,*
mbtmp3.8/5, MS3.4/6, Error ellipse: s-maj=72.3km
s-min=21.2km az=32.0
ISC 26 02:11:57.6±1.1**, 39°.2S**±0°.3×**46°.4E**±0°.3**, h18**^{km}**, n17,**
σ**1^{s}.48**/9**, mb3.8**/4**, MS3.3**/6**, Southwest Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
H04N1	CROZET ISLANDS	8.01	152	Pn	Pn	02 13 53.4	+0.5
	baz=1.8,slow=76						
H04N1				T	T	02 22 37.7	
	baz=333,slow=76,SNR=87						
H04N2	CROZET ISLANDS	8.03	152	Pn	Pn	02 13 53.1	+0.1
	baz=1.8,slow=76						
H04N2				T	T	02 22 28.5	
	baz=333,slow=76,SNR=81						
H04N3	CROZET ISLANDS	8.03	152	Pn	Pn	02 13 53.6	+0.5
	baz=1.8,slow=76						
H04N3				T	T	02 22 48.9	
	baz=333,slow=76,SNR=46						
BOSA	Boshof	20.42	295	P	P	02 16 34.2	+0.3
	6.0nm,1.2s,baz=186,slow=16,SNR=1.7						
	6.0nm,1.2s						
LBTB	Lobatse	22.51	303	P	P	02 16 55.2	-1.2
	3.1nm,0.8s,baz=180,slow=8.1,SNR=4.4						
LBTB				LR	LR	02 24 20.7	
	comp=Z,53nm,19.0s,baz=110,slow=33						
	3.1nm,0.8s						
MATP	Matopo	24.22	315	P	P	02 17 16.6	+3.1
	1.3nm,0.5s,baz=117,slow=9.0,SNR=11						
LSZ	Lusaka	28.69	321	LR	LR	02 27 56.9	
	comp=Z,57nm,18.8s,baz=151,slow=34						
TSUM	Tsumeb	31.86	300	LR	LR	02 30 15.1	
	comp=Z,51nm,19.4s,baz=332,slow=34						
QSPA	South Pole Qui	51.00	180	LR	LR	02 40 13.3	
	comp=Z,38nm,22.0s,baz=220,slow=33						
H01W2	Cape Leeuwin H	53.11	108	T	T	03 18 28.3	
	baz=245						
H01W3	Cape Leeuwin H	53.11	108	T	T	03 18 21.5	
	baz=245						
H01W1	Cape Leeuwin H	53.12	108	T	T	03 18 24.3	
	baz=245						
PALK	Pallekele	56.11	42	LR	LR	02 40 40.1	
	comp=Z,53nm,18.4s,baz=156,slow=31						
VNDA	Vanda	57.20	166	LR	LR	02 43 08.8	
	comp=Z,28nm,19.0s,baz=210,slow=33						
TORD	Torodi Ar. Bea	66.68	312	P	P	02 22 46.9	-0.6
	0.9nm,1.1s,baz=146,slow=4.9,SNR=2.9						
	0.9nm,1.1s						
ASAR	Alice Springs	73.62	107	P	P	02 23 29.2	-0.9
	0.7nm,0.9s,baz=241,slow=4.7,SNR=5.7						
	0.7nm,0.9s						
WRA	Warramunga Arr	76.14	104	P	P	02 23 44.3	-0.5
	0.6nm,0.7s,baz=227,slow=5.0,SNR=6.6						
	0.6nm,0.7s						

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*NEIC **26** 02:40:29.0±1.4, 19°.40N±0°.03×67°.56W±0°.04, h10^{km}±1^{km},*
ML3.4/38, Md3.5/10(RSPR), Error ellipse: s-maj=8.1km
s-min=3.1km az=57.0
*SDD **26** 02:40:30.0±1.7, 19°.28N×67°.60W, h30^{km}±104^{km}, MD3.5,*
ML3.3, MW3.4, Presumed earthquake
*OSPL **26** 02:40:30.8±0.6, 19°.36N×67°.57W, h3^{km}±3^{km}, ML3.6,*
Presumed earthquake
*RSPR **26** 02:40:31.4, 19°.44N×67°.62W, h10^{km}±31^{km}, MD3.5/10*
ISC 26 02:40:27.9±1.5**, 19°.40N**±0°.06×**67°.57W**±0°.03**, h7**^{km}±10^{km}**,**
n63, σ**0^{s}.74**/79**, 10C-13D, Mona Passage**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IDE	Isla Desecheo	1.01	175		Pb	02 40 47.8	+0.2
IDE					Sb	02 41 00.8	-0.2
IDE	Isla Desecheo	1.01	175	⇑*e*P	Pb	02 40 47.8	+0.2
IDE				*e*S	Sb	02 41 00.8	-0.2
AGPR	Aguadilla, PR	1.02	155		Pn	02 40 48.6	+0.1
AGPR					Sb	02 41 01.4	0.0
AGPR				IAML		02 41 04.8	
	1µm,0.3s						
AGPR	Aguadilla, PR	1.02	155	⇑*e*P	Pn	02 40 48.7	+0.1
AGPR	Aguadilla, PR	1.02	155	*i* P	Pn	02 40 48.6	+0.1
AGPR				*e*S	Sb	02 41 01.5	+0.1
AGPR	Aguadilla, PR	1.02	155	*e*Pg	Pn	02 40 48.6	+0.1
AGPR				⇓*e*Sg	Sn	02 41 02.1	-1.0
AGPR				IAML		02 41 04.5	
	comp=N,1µm,0.4s						
AGPR				IAML		02 41 04.7	
	comp=E,827nm,0.3s						
PCDR	Punta Cana, DR	1.17	221		Pn	02 40 50.8	+0.2
PCDR				IAML		02 41 09.2	
	comp=N,1µm,0.9s						
PCDR				IAML		02 41 12.6	
	comp=E,539nm,0.4s						
PCDR	Punta Cana, DR	1.17	221		Sn	02 41 06.3	-0.4
PCDR	Punta Cana, DR	1.17	221	⇑*e*P	Pn	02 40 50.8	+0.2
PCDR				*e*S	Sn	02 41 06.3	-0.4
PCDR	Punta Cana, DR	1.17	221	*i* P	Pn	02 40 50.8	+0.2
PCDR				*e*S	Sn	02 41 06.2	-0.5
PCDR				IAML		02 41 08.6	
	comp=Z,452nm,0.2s						
PCDR	Punta Cana, DR	1.17	221	⇑*e*Pg	Pn	02 40 50.8	+0.2
PCDR				⇓*e*Sg	Sn	02 41 06.5	-0.3
PCDR				IAML		02 41 09.1	
	comp=N,637nm,0.3s						
PCDR				IAML		02 41 09.7	
	comp=E,258nm,0.2s						
PRSN	Puerto Rico Se	1.24	161		Pn	02 40 51.9	+0.3
PRSN	Puerto Rico Se	1.24	161		Sn	02 41 08.5	0.0
PRSN	Puerto Rico Se	1.24	161	⇓*e*P	Pn	02 40 52.0	+0.4
PRSN	Puerto Rico Se	1.24	161	*e*Pg	Pn	02 40 51.9	+0.3
PRSN				IAML		02 41 10.9	
	comp=N,2µm,0.3s						
PRSN				IAML		02 41 11.6	
	comp=E,1µm,0.3s						
AOPR	Arecibo Observ	1.30	143		Pb	02 40 52.7	+0.1
AOPR				IAML		02 41 20.6	
	comp=E,561nm,0.3s						
AOPR	Arecibo Observ	1.30	143	⇓*e*P	Pb	02 40 53.6	+1.1
AOPR	Arecibo Observ	1.30	143	*e*Pg	Pb	02 40 53.1	+0.5
AOPR				IAML		02 41 20.5	
	comp=N,496nm,0.4s						
AOPR				IAML		02 41 20.7	
	comp=E,916nm,0.3s						
LSP	Las Mesas	1.30	159		Pn	02 40 53.2	+0.8
LSP					Sn	02 41 10.0	0.0
LSP	Las Mesas	1.30	159	⇑*e*P	Pn	02 40 53.2	+0.8
LSP				*e*S	Sn	02 41 10.0	0.0
HIDR	Higuey Centro	1.35	234	⇓*e*P	Pg	02 40 53.8	0.0
HIDR	Higuey Centro	1.35	234	*e*Pg	Pg	02 40 53.9	+0.1
HIDR				IAML		02 41 13.8	
	comp=N,1µm,0.3s						
HIDR				IAML		02 41 15.1	
	comp=E,950nm,0.2s						
CRPR	Cabo Rojo, PR	1.45	162		Pg	02 40 55.3	-0.4
CRPR	Cabo Rojo, PR	1.45	162		Sg	02 41 13.7	-0.8
CRPR	Cabo Rojo, PR	1.45	162	⇑*e*P	Pg	02 40 55.2	-0.6
CRPR	Cabo Rojo, PR	1.45	162	*i* P	Pg	02 40 55.1	-0.6
CRPR				*e*S	Sg	02 41 13.6	-0.9
CRPR	Cabo Rojo, PR	1.45	162	*e*Pg	Pg	02 40 55.1	-0.6
CRPR				⇓*e*Sg	Sg	02 41 15.8	+1.3
CRPR				IAML		02 41 18.8	
	comp=N,567nm,0.4s						
CRPR				IAML		02 41 19.3	
	comp=E,376nm,0.3s						
MIDR	Miches	1.46	254	*e*Pg	Pg	02 40 56.8	+0.9
MIDR				IAML		02 41 18.7	
	comp=E,192nm,0.6s						
MIDR				IAML		02 41 20.8	
	comp=N,117nm,0.3s						
MIDR				IAML		02 41 20.9	
	comp=N,117nm,0.3s						
MLPR	Magueyes Islan	1.50	161		Pb	02 40 56.0	-0.1
MLPR	Magueyes Islan	1.50	161		Sg	02 41 16.0	-0.3
MLPR	Magueyes Islan	1.50	161	⇑*e*P	Pb	02 40 56.0	-0.1
MLPR	Magueyes Islan	1.50	161	*e*Pg	Pb	02 40 55.9	-0.1
MLPR				⇓*e*Sg	Sg	02 41 16.3	0.0
MLPR				IAML		02 41 16.6	
	comp=N,90nm,0.5s						
MLPR				IAML		02 41 17.6	
	comp=E,99nm,0.4s						
SMDR	Samana, DR	1.53	266	*e*Pg	Pg	02 40 57.7	+0.4
SMDR				IAML		02 41 22.4	
	comp=N,277nm,0.7s						
GBPR	Guanica, Bosqu	1.56	155		Pb	02 40 57.0	0.0
GBPR					Sg	02 41 17.1	-0.8
GBPR	Guanica, Bosqu	1.56	155	⇑*e*P	Pb	02 40 57.0	0.0
GBPR				*e*S	Sg	02 41 17.1	-0.8
ECPR	Experimental S	1.56	133		Pb	02 40 57.1	0.0
ECPR				IAML		02 41 25.0	
	comp=N,501nm,0.2s						
ECPR	Experimental S	1.56	133		Sg	02 41 17.9	-0.3
ECPR	Experimental S	1.56	133	⇓*e*P	Pb	02 40 57.1	0.0
CELP	Cerrillos	1.61	144		Pn	02 40 57.4	+0.7
CELP	Cerrillos	1.61	144		Sb	02 41 18.5	0.0
CELP	Cerrillos	1.61	144	IAML		02 41 22.2	
	comp=N,350nm,0.6s						
CELP				IAML		02 41 24.4	
	comp=N,367nm,0.5s						
CELP	Cerrillos	1.61	144	⇑*e*P	Pb	02 40 58.2	+0.3
CELP	Cerrillos	1.61	144	*e*Pg	Pg	02 40 58.5	-0.3
CELP				⇓*e*Sg	Sg	02 41 20.6	+0.8
CELP				IAML		02 41 24.3	
	comp=N,129nm,0.5s						
SADR	Isla Saona	1.66	224	*e*Pg	Pg	02 41 00.2	+0.5
SADR				⇓*e*Sg	Sg	02 41 22.7	+1.4
SADR				IAML		02 41 24.1	
	comp=N,670nm,0.6s						
SADR				IAML		02 41 31.6	
	comp=E,305nm,0.5s						
DR12	Loma Pena Alta	1.82	251		Pb	02 41 01.6	+0.1
HATOM	Hato Mayor del	1.82	251	*e*Pg	Pg	02 41 02.4	-0.3
HATOM				IAML		02 41 30.6	
	comp=N,92nm,0.4s						
HATOM				IAML		02 41 39.3	
	comp=E,108nm,0.3s						
SJG	San Juan	1.85	133		Pb	02 41 01.5	-0.6
SJG	San Juan	1.85	133	⇑*e*P	Pb	02 41 01.8	-0.3
SJG	San Juan	1.85	133	*i* P	Pb	02 41 01.5	-0.6
SJG				IAML		02 41 32.1	
	comp=Z,2µm,0.2s						
IGPR	InterUniversit	1.99	136		Pn	02 41 03.2	+1.3
IGPR	InterUniversit	1.99	136	⇓*e*P	Pn	02 41 03.2	+1.3
PDPR	Patillas Dam,	2.01	133		Pn	02 41 03.3	+1.1
PDPR	Patillas Dam,	2.01	133	⇓*e*P	Pb	02 41 03.9	-0.7
HUMP	Col San Antoni	2.05	127		Pn	02 41 04.1	+1.4
HUMP	Col San Antoni	2.05	127	⇓*e*P	Pn	02 41 04.3	+1.6
NADR	Nagua	2.16	269	*e*Pg	Pg	02 41 09.0	-0.3
NADR				IAML		02 41 41.2	
	comp=N,651nm,0.5s						
NADR				IAML		02 41 57.5	
	comp=E,376nm,0.5s						
DR08	Loma La Naviza	2.36	260	*e*Pg	Pb	02 41 11.5	+0.8
DR08				IAML		02 41 44.8	
	comp=E,1µm,0.2s						
DR08				IAML		02 41 47.6	
	comp=N,2µm,0.2s						
SDD	Santo Domingo	2.41	248	Pn	Pb	02 41 11.0	-0.5
SDD				IAML		02 41 54.5	
	comp=E,240nm,0.7s						
BANI	BANI	2.82	250		Pb	02 41 18.0	-0.7
BANI	BANI	2.82	250	*e*Pg	Pb	02 41 19.6	+0.9
BANI				IAML		02 42 07.8	
	comp=N,124nm,0.2s						
BANI				IAML		02 42 08.4	
	comp=E,135nm,0.8s						
ABDR	Alto Bandera	2.95	259	*e*Pg	Pb	02 41 22.4	+1.4
ABDR				IAML		02 42 12.0	
	comp=E,123nm,0.8s						
ABDR				IAML		02 42 21.4	
	comp=N,114nm,0.7s						
SC01	Santiago de lo	2.98	271	Pn	Pb	02 41 19.7	-1.6
SC01				IAML		02 42 17.2	
	comp=N,155nm,0.7s						
SC01				IAML		02 42 22.4	
	comp=E,167nm,0.6s						
SDDR	Presa de Saban	3.54	264	Pn	Pb	02 41 27.9	-2.9
SDDR				IAML		02 42 31.9	
	comp=E,100nm,0.7s						

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*IDC **26** 02:47:12.7±0.6, 66°.52N×17°.83W, h0^{km}, mb3.9/15,*
mbtmp3.9/23, ML3.4/7, MS3.6/39, Error ellipse:
s-maj=13.1km s-min=10.1km az=179.0
*REY **26** 02:47:12.1, 66°.62N×17°.81W, h14^{km}*
*NEIC **26** 02:47:14.3±2.3, 66°.57N±0°.06×18°.0W±0°.2, h10^{km}±1^{km},*
mb4.5/15, Error ellipse: s-maj=12.2km s-min=6.9km
az=132.0
ISC 26 02:47:12.9±1.0**, 66°.55N**±0°.03×**17°.74W**±0°.02**, h5**^{km}±7^{km}**,**
n120, σ**1^{s}.55**/108**, mb4.2**/23**, MS3.6**/35**, Iceland region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC

IGRI	Grimsey	0.11	266	P	Pg	02 47 15.3	+0.1
IGRI				S	Sg	02 47 17.3	+0.7
IBRE	Brettingsstaoi	0.43	189	P	Pg	02 47 21.2	0.0
IBRE				S	Sb	02 47 28.3	-1.5
IHED	Heoinshofoi	0.50	159	P	Pg	02 47 22.2	-0.3
IHED				S	Sb	02 47 30.3	-1.5
ILEI	Leirhofn	0.52	105	P	Pg	02 47 22.2	-0.7
ILEI				S	Sg	02 47 30.1	+0.4
ISIG	Siglufjorour	0.63	229	P	Pg	02 47 23.6	-1.4
ISIG				S	Sg	02 47 32.4	-0.8
IGRA	Granastaoir	0.64	174	P	Pg	02 47 24.4	-0.7
IGRA				S	Sg	02 47 33.8	+0.5
IHLA	Hella	0.66	204	P	Pg	02 47 24.6	-1.0
IHLA				S	Sg	02 47 34.2	+0.1
IDIM	Dimmadalss	0.68	151	P	Pg	02 47 25.1	-0.8
IDIM				S	Sg	02 47 35.1	+0.5
IGIL	Gilhagi	0.73	129	P	Pg	02 47 25.8	-1.2
IGIL				S	Sg	02 47 36.2	-0.3
IGHA	Grjothals	0.83	148	P	Pg	02 47 27.6	-1.3
IGHA				S	Sg	02 47 39.6	-0.1
IKVO	Krokottuvotn	0.91	157	P	Pg	02 47 28.8	-1.5
IREN	Reynihlio	0.97	159	P	Pg	02 47 29.8	-1.7
IREN				S	Sg	02 47 43.6	-0.4
IHRN	Hraun	1.06	246	P	Pg	02 47 29.6	-3.5
IMEL	Melhnausar	1.08	155	P	Pg	02 47 31.8	-1.8
IGRS	Grimsstaoir	1.13	143	P	Pg	02 47 32.2	-2.3
IGRS				S	Sg	02 47 48.1	-1.0
ISVA	Svartarkot	1.23	170	P	Pg	02 47 33.9	-2.6
ISVA				S	Sg	02 47 51.4	-1.0
IASK	Askja	1.57	163	P	Pn	02 47 39.5	-2.0
IMKO	Mokollar	1.68	159	P	Pn	02 47 40.7	-2.3
THOR	Thorvaldshraun	1.68	164	P	Pn	02 47 40.8	-2.2
IDYN	Dyngjuhals	1.77	175	P	Pn	02 47 42.2	-2.1
IKRE	Kreppuhraun	1.86	162	P	Pn	02 47 43.4	-2.1
ISTE	Stelbrattur	1.87	205	P	Pn	02 47 43.8	-1.8
IVON	Vonarskard	1.88	180	P	Pn	02 47 43.9	-1.9
IKIS	Kista	1.89	178	P	Pn	02 47 44.2	-1.7
ISKR	Skrokkalda	2.02	188	P	Pn	02 47 45.9	-1.7
IDJK	Dyngjujokull	2.06	174	P	Pn	02 47 46.9	-1.4
IGRF	Grimsfjall	2.16	175	P	Pn	02 47 48.3	-1.4
IJOK	Jokulheimar	2.25	185	P	Pn	02 47 49.6	-1.3
IVOT	Vottur	2.30	174	P	Pn	02 47 50.5	-1.0
IASB	sbjarnarstai	2.34	221	P	Pn	02 47 50.6	-1.4
IASB				S	Sn	02 48 20.4	-0.7
BORG	Borgarnes	2.34	221	Pn	Pn	02 47 50.6	-1.4
	1µm,0.6s,baz=30,slow=7.0,SNR=555						
BORG				Sn	Sn	02 48 20.8	-0.3
	80nm,0.3s,baz=131,slow=22,SNR=23						
IVAT	Vatnsfell	2.42	192	P	Pn	02 47 52.0	-1.2
IIEY	Innrieyrar	2.47	184	P	Pn	02 47 52.7	-1.1
IGYG	Gygjarholskot	2.50	206	P	Pn	02 47 53.0	-1.1
IKAL	Kalfafell	2.61	179	P	Pn	02 47 54.8	-0.9
IFAL	Falljokull	2.63	171	P	Pn	02 47 55.4	-0.6
IKVI	Kvisker	2.64	167	P	Pn	02 47 55.2	-0.9
IFED	Fedgar	2.66	199	P	Pn	02 47 55.5	-0.9
IFAG	Fagurholsmyri	2.72	170	P	Pn	02 47 56.7	-0.5
IHAU	Haukadalur	2.75	201	P	Pn	02 47 57.0	-0.7
ISAU	Saurbar	2.80	205	P	Pn	02 47 57.4	-0.9
IMOR	Morastadir	2.81	218	P	Pn	02 47 56.8	-1.6
IASM	Asmuli	2.98	205	P	Pn	02 47 60.0	-0.9
IKAS	Kald??rsel	3.07	216	P	Pn	02 48 00.9	-1.1
SCO	Scoresbysund	4.24	341		Pn	02 48 15.9	-2.2
SCO	Scoresbysund	4.24	341	*i* P	Pn	02 48 15.8	-2.4
JMIC	Jan Mayen	5.57	33	Pn	Pn	02 48 36.9	+0.5
	7.5nm,0.3s,baz=158,slow=5.4,SNR=1.9						
JMIC				Sn	Sn	02 49 32.4	-8.3
	6.1nm,0.3s,baz=194,slow=19,SNR=1.5						
	42nm,0.5s						
JMIC				AML	AML		
SUMG	Summit	9.38	319	Pn	Pn	02 49 27.8	-1.1
SFJD	Kangerlussuaq	12.90	287	Pn	Pn	02 50 16.3	-0.2
	0.1nm,0.3s,baz=164,slow=7.1,SNR=3.7						
SFJD				LR	LR	02 54 47.8	
	comp=Z,477nm,18.2s,baz=70,slow=35						
	14nm,0.9s						
SFJD				AML	AML		
EKA	Eskdalemuir Ar	13.24	141	Pn	Pn	02 50 23.3	+1.9
	baz=343,slow=12						
	1.9nm,0.8s						
NOA	NORSAR Array B	13.83	100	Pn	Pn	02 50 32.2	+2.7
	baz=304,slow=14,SNR=1.3						
NOA				LR	LR	02 55 18.5	
	comp=Z,103nm,21.6s,baz=305,slow=35						
	0.3nm,0.5s						
SPITS	Spitsbergen Ar	15.19	26	Pn	P	02 50 50.5	-2.4
	baz=221,slow=13						
	6.6nm,0.9s						
HFS	Hagfors	15.36	100	Pn	P	02 50 54.6	-0.2
	0.1nm,0.3s,baz=304,slow=16,SNR=3.7						
HFS				LR	LR	02 56 15.4	
	comp=Z,157nm,19.1s,baz=327,slow=35						
ARCES	ARCESS Array B	16.18	60	Pn	Pn	02 51 00.3	-0.3
	0.1nm,0.3s,baz=266,slow=13,SNR=6.0						
ARCES				LR	LR	02 55 51.2	
	comp=Z,278nm,20.1s,baz=256,slow=32						
	6.4nm,1.1s						
ARCES				AML	AML		
FINES	FINESS Array B	19.53	84	P	P	02 51 40.6	-0.2
	0.3nm,0.3s,baz=316,slow=11,SNR=13						
FINES				LR	LR	02 58 43.3	
	comp=Z,220nm,19.2s,baz=293,slow=35						
	1.3nm,0.5s						
FINES				AML	AML		
FINES	FINESS Array B	19.53	84	P	P	02 51 41.3	+0.5
FIA1	FINESS Array S	19.53	84	P	Pn	02 51 41.8	-0.3
FRB	Frobisher Bay	21.05	286	LR	LR	02 59 32.1	
	comp=Z,338nm,18.9s,baz=40,slow=35						
CLL	Collm	21.67	120	*e*Px	Px	02 52 03.0	
CLL				*e*S	S	02 56 03.0	-1.1
CLL				*e*SSS	SSS	02 56 54.0	
CLL				L	L	02 57 00.0	
CLL				AMS	AMS	03 01 00.0	
	comp=N,200nm,16.4s						
CLL				AMS	AMS	03 01 00.0	
	comp=E,100nm,22.4s						
CLL				AMS	AMS	03 03 00.0	
	comp=Z,100nm,15.6s						
GERES	GERESS Array B	24.00	122	P	P	02 52 28.4	+0.1
	comp=Z,0.7nm,0.4s,baz=322,slow=8.5,SNR=7.5						
GERES				LR	LR	03 03 08.2	
	comp=Z,80nm,19.0s,baz=269,slow=40						
	comp=Z,0.7nm,0.4s						
GERES	GERESS Array B	24.00	122	P	P	02 52 28.9	+0.6
SENIN	Lac Senin/Sane	24.19	134	P	P	02 52 29.2	-1.0
SSB	Saint Sauveur	24.43	140	P	P	02 52 32.1	-0.1
SSB				IAmb	IAmb	02 52 53.1	
	comp=Z,20nm,1.4s						
DAVOX	Davos/Dischmat	24.57	130	LR	LR	03 03 10.5	
	comp=Z,184nm,18.5s,baz=262,slow=39						
SCHQ	Schefferville	25.96	267	P	P	02 52 46.2	+0.2
	comp=Z,3.5nm,0.7s,baz=46,slow=18,SNR=1.5						
SCHQ				LR	LR	03 01 48.6	
	comp=Z,233nm,19.6s,baz=92,slow=34						
	comp=Z,3.5nm,0.7s						
OBN	Obninsk	27.84	87	LR	LR	03 04 14.2	
	comp=Z,155nm,18.1s,baz=264,slow=37						
ESDC	Sonseca Array	28.03	157	P	P	02 53 05.6	+0.9
	comp=Z,0.5nm,0.8s,baz=342,slow=9.3,SNR=1.6						
	comp=Z,0.5nm,0.8s						
AKASG	Malin Array Be	28.24	101	P	P	02 53 05.9	-0.6
	comp=Z,0.5nm,0.5s,baz=328,slow=9.6,SNR=5.1						
	comp=Z,0.5nm,0.5s						
KIRV	Kirov	30.45	72	LR	LR	03 04 38.8	
	comp=Z,139nm,18.3s,baz=312,slow=34						
MLR	Muntele Rosu	31.25	111	LR	LR	03 07 41.0	
	comp=Z,66nm,19.2s,baz=1.0,slow=39						
HAL	Halifax	32.78	251	P	P	02 53 46.1	-0.5
MD01	Midelt array s	34.59	161	P	P	02 54 04.0	+1.4
NRIK	Noril'sk	34.99	37	LR	LR	03 09 53.1	
	comp=Z,25nm,18.8s,baz=339,slow=39						
ARTI	Arti	35.41	69	LR	LR	03 07 43.3	
	comp=Z,264nm,18.9s,baz=316,slow=35						
YKA	Yellowknife Ar	37.87	311	P	P	02 54 29.9	-0.2
	comp=Z,2.3nm,0.8s,baz=46,slow=8.4,SNR=10						
	comp=Z,2.3nm,0.8s						
SADO	Sadowa	38.77	267	LR	LR	03 09 30.1	
	comp=Z,138nm,18.0s,baz=52,slow=34						
KVAR	Kislovodsk Arr	39.06	95	LR	LR	03 11 31.3	
	comp=Z,12nm,19.4s,baz=298,slow=37						
BRTR	Keskin Array B	39.10	107	P	P	02 54 42.2	+1.3
	comp=Z,1.4nm,0.8s,baz=327,slow=7.0,SNR=8.6						
BRTR				LR	LR	03 12 08.4	
	comp=Z,28nm,20.9s,baz=338,slow=38						
	comp=Z,1.4nm,0.8s						
BRTR	Keskin Array B	39.10	107	P	P	02 54 41.4	+0.4
KBZ	Khabaz	39.33	95	LR	LR	03 10 51.2	
	comp=Z,81nm,20.1s,baz=350,slow=36						
G31M	Satah River	39.49	326	P	P	02 54 42.6	-1.1
G31M				IAmb	IAmb	02 54 56.5	
	comp=Z,23nm,1.2s						
AKTO	Aktyubinsk	39.87	75	LR	LR	03 10 38.9	
	comp=Z,128nm,18.8s,baz=194,slow=35						
TIXI	Tiksi	40.24	16	LR	LR	03 12 30.6	
	comp=Z,21nm,18.5s,baz=24,slow=38						
EPLO	Experimental L	40.57	284	P	P	02 54 52.6	-0.2
EPLO				IAmb	IAmb	02 54 54.2	
	comp=Z,6.2nm,0.8s						
ULM	Lac du Bonnet	40.93	286	P	P	02 54 56.1	+0.3
	comp=Z,3.6nm,0.7s,baz=48,slow=10.0,SNR=4.4						
ULM				LR	LR	03 11 23.3	
	comp=Z,198nm,19.3s,baz=26,slow=36						
	comp=Z,3.6nm,0.7s						
ULM	Lac du Bonnet	40.93	286	P	P	02 54 56.7	+0.9
ULM				IAmb	IAmb	02 55 04.1	
	comp=Z,21nm,1.5s						
BVAR	Borovoye Array	42.42	64	P	P	02 55 08.6	+0.6
	comp=Z,0.7nm,0.7s,baz=318,slow=1.9,SNR=1.4						
	comp=Z,0.7nm,0.7s						
GNI	Garni	43.09	96	LR	LR	03 13 40.7	
	comp=Z,66nm,20.7s,baz=316,slow=37						
J25K	Salcha River,	43.82	330		P	02 55 20.8	+1.6
ILAR	Eielson Array	43.97	331	P	P	02 55 22.1	+1.7
	comp=Z,2.2nm,1.0s,baz=24,slow=6.2,SNR=12						
	comp=Z,2.2nm,1.0s						
M29M	Somme Creek	44.26	325	P	P	02 55 25.2	+2.3
M29M				IAmb	IAmb	02 55 29.5	
	comp=Z,6.8nm,1.0s						
BCAR	Beaver Creek A	44.45	327	P	P	02 55 26.6	+2.3
NEA2	Nenana	44.54	332	P	P	02 55 25.2	+0.3
NEA2				IAmb	IAmb	02 55 30.2	
	comp=Z,3.8nm,0.7s						
ZALV	Zalesovo Beam	46.55	53	LR	LR	03 16 40.8	
	comp=Z,37nm,20.7s,baz=312,slow=38						
ECSD	EROS Data Cent	46.58	282	P	P	02 55 42.2	+0.9
ECSD				IAmb	IAmb	02 56 03.0	
	comp=Z,5.3nm,1.4s						
KURK	Kurchatov	47.22	59	P	P	02 55 49.2	+3.0
KURK				IAmb	IAmb	02 55 50.3	
	comp=Z,2.6nm,0.8s						
KURBB	Kurchatov Arra	47.27	60	P	P	02 55 46.6	0.0
	comp=Z,1.4nm,0.8s,baz=328,slow=7.5,SNR=11						
	comp=Z,1.4nm,0.8s						
TKL	Tuckaleechee C	48.38	265	LR	LR	03 15 19.1	
	comp=Z,114nm,18.8s,baz=26,slow=35						
NEW	Newport	50.34	301	LR	LR	03 18 13.5	
	comp=Z,88nm,18.5s,baz=48,slow=37						
MKAR	Makanchi Array	51.83	59	P	P	02 56 21.8	+0.3
	comp=Z,1.4nm,0.9s,baz=341,slow=6.4,SNR=4.1						
MKAR				LR	LR	03 18 15.0	
	comp=Z,54nm,18.0s,baz=324,slow=36						
	comp=Z,1.4nm,0.9s						
MKAR	Makanchi Array	51.83	59	P	P	02 56 22.0	+0.5
PDAR	Pinedale Array	52.36	292	P	P	02 56 25.7	0.0
	comp=Z,1.1nm,0.8s,baz=49,slow=7.0,SNR=9.3						
PDAR				LR	LR	03 19 24.3	
	comp=Z,51nm,19.6s,baz=22,slow=37						
	comp=Z,1.1nm,0.8s						
AAK	Ala-Archa	52.63	68	LR	LR	03 17 57.7	
	comp=Z,93nm,19.7s,baz=330,slow=35						
TLY	Talaya	54.03	41	LR	LR	03 22 53.1	
	comp=Z,33nm,18.6s,baz=306,slow=40						
TORD	Torodi Ar. Bea	54.92	157	P	P	02 56 44.2	-0.2
	comp=Z,1.8nm,0.9s,baz=333,slow=7.2,SNR=6.9						
	comp=Z,1.8nm,0.9s						
KSH2	Kashi	56.07	69	P	P	02 56 55.0	+2.3
KSH2				pmax	pmax		
	comp=Z,5.0nm,0.9s						
SJG	San Juan	57.60	237	LR	LR	03 20 55.9	
	comp=Z,13nm,18.7s,baz=38,slow=35						
ANMO	Albuquerque	58.00	284	LR	LR	03 21 51.6	
	comp=Z,141nm,19.0s,baz=30,slow=36						
SONM	Songino Array	58.27	41	LR	LR	03 24 57.9	
	comp=Z,53nm,20.7s,baz=279,slow=39						
KVN	Kaiserville	58.74	296	P	P	02 57 11.6	0.0
KVN				IAmb	IAmb	02 57 12.8	
	comp=Z,3.2nm,0.9s						
NVAR	Mina Array Bea	59.36	296	P	P	02 57 15.3	-0.6
	comp=Z,0.7nm,0.9s,baz=20,slow=8.4,SNR=4.3						
	comp=Z,0.7nm,0.9s						
TXAR	Lajitas Array	61.87	279	P	P	02 57 33.1	+0.1
	comp=Z,0.9nm,0.8s,baz=45,slow=4.9,SNR=9.6						
	comp=Z,0.9nm,0.8s						
TXAR	Lajitas Array	61.87	279	P	P	02 57 33.6	+0.6
KLR	Kul'dur	62.23	22	LR	LR	03 25 47.4	
	comp=Z,31nm,19.3s,baz=218,slow=37						
USRK	Ussuriysk Ar.	67.17	23	LR	LR	03 28 07.6	
	comp=Z,52nm,18.7s,baz=339,slow=36						
LPIG	La Paz	69.16	282	LR	LR	03 29 11.6	
	comp=Z,116nm,18.4s,baz=21,slow=36						
CMIG	Matias Romero	69.34	265	LR	LR	03 29 59.8	
	comp=Z,70nm,18.8s,baz=36,slow=37						
JTS	Las Juntas de	71.63	253	LR	LR	03 30 28.1	
	comp=Z,43nm,18.2s,baz=357,slow=36						
KSRS	Korea Array	73.03	28	LR	LR	03 33 15.2	
	comp=Z,24nm,18.6s,baz=180,slow=38						
JNU	Nakatsue	77.78	27	LR	LR	03 34 54.8	
	comp=Z,34nm,18.7s,baz=146,slow=37						

CATAC ***26*** *02:57:55.2±0.5, 13°N±2°×9°0W±°, h10km±5km, M3.5/19, MLv3.5/19, Error ellipse: s-maj=9.3km s-min=4.9km az=86.7, confirmed*

SNET ***26*** *02:57:58.0±0.9, 12°.92N×90°.32W, h35km±5km, ML3.4, Presumed earthquake*

GCG ***26*** *02:58:00.9±1.7, 13°.12N×90°.28W, h40km±14km, MD4.3, Presumed earthquake*

ISC 26 02:57:56.1±2.1**, 12°.86N**±0°.07×**90°.23W**±0°.06**, h6**km±10km**, n49, σ0ˢ94**/71**, 1C, Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FAME	Alcaldia de Sa	1.00	12	P	Pb	02 58 15.2	-0.7
FAME				S	Sn	02 58 29.7	-1.5
LALI	Alcalda de L	1.09	55	*i* P	Pn	02 58 17.7	-0.1
LALI	Alcalda de L	1.09	55	*e*P	Pb	02 58 17.5	+0.2
JAYA	Jayaque - finc	1.10	44	*i* P	Pb	02 58 17.8	+0.1
JAYA	Jayaque - finc	1.10	44	⇑*e*P	Pb	02 58 17.8	+0.1
NUBE	Las Nubes	1.13	23	*i* P	Pg	02 58 17.3	-0.6
NUBE				*i* S	Sg	02 58 29.9	-2.6
NUBE	Las Nubes	1.13	23	*e*P	Pg	02 58 17.4	-0.4
NUBE				*e*S	Sb	02 58 33.0	-0.1
NUBE	Las Nubes	1.13	23	P	Pg	02 58 17.6	-0.3
NUBE				S	Sn	02 58 33.6	-0.9
CEVE	Cerro Verde	1.13	31	*e*P	Pb	02 58 18.0	-0.3
CEVE	Cerro Verde	1.13	31	P	Pn	02 58 18.4	-0.4
CEVE				S	Sn	02 58 34.9	+0.2
SBLS	San Blas	1.14	31	*e*P	Pg	02 58 17.8	-0.3
SBLS				*e*S	Sn	02 58 34.4	-0.6
SNJE	San Jose	1.18	31	*e*P	Pg	02 58 18.5	-0.2
RTR	El Retiro	1.18	29	*e*P	Pb	02 58 18.8	-0.3
LOAL	Lomas de Alarc	1.22	21	*e*P	Pg	02 58 19.1	-0.5
LOAL	Lomas de Alarc	1.22	21	P	Pb	02 58 19.2	-0.4
LOAL				S	Sn	02 58 36.4	-0.1
PMON	Piamonte	1.23	46	*e*P	Pb	02 58 19.8	-0.1
PMON	Piamonte	1.23	46	P	Pb	02 58 19.9	0.0
PMON				S	Sn	02 58 38.6	+1.6
SLOZ	Alcaldia de Sa	1.24	20	*e*P	Pg	02 58 19.0	-1.0
SLOZ	Alcaldia de Sa	1.24	20	P	Pg	02 58 19.3	-0.7
SLOZ				S	Sn	02 58 41.1	+4.0
PANCS	Alcalda de	1.27	54	P	Pg	02 58 20.3	-0.2
PANCS				S	Sn	02 58 38.3	+0.4
BOQS	Boqueron	1.27	47	*e*P	Pb	02 58 20.6	0.0
UEES	Universidad Ev	1.29	48	*e*P	Pn	02 58 20.5	-0.2
UEES	Universidad Ev	1.29	48	P	Pb	02 58 20.9	0.0
LOMA	Loma Larga	1.29	53	*e*P	Pn	02 58 20.7	-0.2
LOMA	Loma Larga	1.29	53	P	Pn	02 58 20.7	-0.2
LOMA				S	Sn	02 58 39.0	+0.4
UNIC	Universidad Ca	1.30	31	P	Pn	02 58 20.3	-0.6
UNIC				S	Sn	02 58 38.1	-0.5
RBDL	Robledal	1.36	23	*e*P	Pn	02 58 21.2	-0.6
LFRS	El Faro	1.37	56	*e*P	Pn	02 58 21.9	0.0
LFU	La Fuente	1.40	51	*e*P	Pn	02 58 22.5	+0.2
SJTE	Alcalda de S	1.41	58	*e*P	Pn	02 58 22.0	-0.4
FG8	Yepocapa, Chim	1.43	347	*i* P	Pg	02 58 25.4	+1.7
FG16	Alotenango, Sa	1.43	349	*i* P	Pg	02 58 25.0	+1.3
COEG	Centro de Oper	1.52	60	*e*P	Pn	02 58 23.4	-0.5
COEG	Centro de Oper	1.52	60	P	Pn	02 58 23.2	-0.6
COEG				S	Sg	02 58 47.7	+2.7
PAVA	Las Pavas	1.52	56	*e*P	Pn	02 58 24.1	+0.1
PAVA	Las Pavas	1.52	56	P	Pn	02 58 24.4	+0.4
PAVA				S	Sg	02 58 46.6	+1.5
TECO	Alcaldia de Te	1.57	64	P	Pn	02 58 23.8	-0.7
TECO				S	Sn	02 58 45.1	0.0
MTO3	Montecristo	1.75	29	*i* P	Pn	02 58 27.3	0.0
MTO3	Montecristo	1.75	29	P	Pn	02 58 27.5	+0.2
MTO3				S	Sg	02 58 51.5	-1.0
P5NO	Presa 5 de nov	1.82	52	P	Pn	02 58 28.5	+0.5
P5NO				S	Sb	02 58 53.8	+0.9
ESQI	Esquipulas	1.90	27	P	Pn	02 58 29.7	+0.5
ESQI				S	Sb	02 58 54.9	-0.4
PACA	Pacayal	1.96	72	*e*P	Pn	02 58 30.2	+0.3
PACA	Pacayal	1.96	72	P	Pn	02 58 30.6	+0.6
PACA				S	Sb	02 58 57.7	+0.8
APG	El Apazote	2.15	354	*i* P	Pn	02 58 32.6	-0.1
CNCH	Conchagua	2.37	80	P	Pn	02 58 36.0	+0.3
CNCH				S	Sn	02 59 06.0	+0.8
QUEN	Al S del Volca	3.31	94	P	Pn	02 58 48.1	-0.4
QUEN				S	Sn	02 59 27.2	-1.0
TEL3	Telica 3	3.32	95	P	Pn	02 58 48.5	-0.1
CNGA	Al SSO del Vol	3.46	96	P	Pn	02 58 49.2	-1.5
CNGN	Cerro Negro	3.46	95	P	Pn	02 58 49.2	-1.4
CNGN				S	Sn	02 59 31.1	-1.0

IDC ***26*** *03:11:46.0±1.1, 32°.99N×68°.04E, h0km, mb3.8/7, mbtmp3.9/11, ML3.8/4, MS3.0/3, Error ellipse: s-maj=23.9km s-min=18.0km az=98.0*

ISC 26 03:11:47.5±1.0**, 32°.92N**±0°.09×**68°.0E**±0°.1**, h10**km**, n16, σ1ˢ71**/14**, mb3.9**/5**, MS2.8**/3**, 2C-2D, Southeastern Afghanistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KK31	Karatay Array	10.35	10	⇑P	Pn	03 14 16.6	+0.6
	2.4nm,0.5s,baz=178,slow=13,SNR=20						
KK31				⇓S	Sn	03 16 16.1	+4.0
	1.5nm,0.6s,baz=174,slow=27						
AAK	Ala-Archa	10.96	26	Pn	Pn	03 14 25.0	+0.4
	2.0nm,0.3s,baz=188,slow=7.2,SNR=14						
AAK				Sn	Sn	03 16 25.8	-1.4
	0.4nm,0.3s,baz=142,slow=19,SNR=3.1						
	8.4nm,0.5s						
AAK				AML	AML		
AAK	Ala-Archa	10.96	26	⇓P	Pn	03 14 19.5	-5.0
	3.9nm,0.6s						
AAK				⇑S	Sn	03 16 14.0	-13
	2.4nm,0.7s						
MKAR	Makanchi Array	17.62	34	P	Pn	03 15 51.6	-1.5
	0.4nm,0.3s,baz=208,slow=10,SNR=12						
	2.1nm,0.7s						
MKAR				AML	AML		
AKTO	Aktyubinsk	19.00	340	P	P	03 16 08.5	-0.7
	0.2nm,0.3s,baz=118,slow=8.3,SNR=7.3						
	2.7nm,0.8s						
AKTO				AML	AML		
KURBB	Kurchatov Arra	19.30	21	P	P	03 16 11.3	-1.3
	0.1nm,0.3s,baz=212,slow=10,SNR=7.9						
	1.2nm,0.6s						
KURBB				AML	AML		
GNI	Garni	20.02	298	LR	LR	03 26 00.8	
	comp=Z,29nm,21.2s,baz=180,slow=43						
BVAR	Borovoye Array	20.16	4	P	P	03 16 21.0	-1.0
	1.2nm,0.4s,baz=192,slow=12,SNR=5.2						
	1.2nm,0.4s						
ZALV	Zalesovo Beam	24.18	25	P	P	03 17 02.6	-1.3
	1.6nm,0.5s,baz=216,slow=10,SNR=9.2						
	1.6nm,0.5s						
EIL	Elat	28.39	272	LR	LR	03 31 37.8	
	comp=Z,53nm,18.4s,baz=99,slow=42						
BRTR	Keskin Array B	28.40	294	LR	LR	03 29 55.0	
	comp=Z,24nm,18.7s,baz=270,slow=38						
CMAR	Chiang Mai Arr	31.22	110	P	P	03 18 09.3	+2.0
	1.0nm,0.3s,baz=298,slow=8.9,SNR=4.1						
	1.0nm,0.3s						
FINES	FINESS Array B	39.20	329	P	P	03 19 14.5	-0.9
	3.0nm,1.0s,baz=180,slow=8.7,SNR=2.4						
	3.0nm,1.0s						
TORD	Torodi Ar. Bea	63.19	269	P	P	03 22 17.1	+0.8
	0.7nm,0.7s,baz=46,slow=6.7,SNR=5.3						
	0.7nm,0.7s						
WRA	Warramunga Arr	82.27	120	P	P	03 24 08.4	-1.1
	0.6nm,0.9s,baz=313,slow=5.0,SNR=5.8						
	0.6nm,0.9s						
ASAR	Alice Springs	84.30	123	P	P	03 24 19.7	-0.2
	0.2nm,0.5s,baz=314,slow=5.7,SNR=4.5						
	0.2nm,0.5s						

IDC ***26*** *03:14:20.9±1.8, 60°.86S×153°.62E, h0km, mb4.3/5, mbtmp4.2/6, ML3.9/1, MS3.7/20, Error ellipse: s-maj=46.1km s-min=31.2km az=69.0*

NEIC ***26*** *03:14:25.9±2.8, 60°.4S±0°.1×153°.9E±0°.3, h10km±2km, mb4.4/12, Error ellipse: s-maj=32.1km s-min=4.4km az=124.0*

ISC 26 03:14:26.0±1.8**, 60°.5S**±0°.2×**153°.8E**±0°.2**, h14**km**, n44, σ1ˢ15**/19**, mb4.3**/9**, MS3.8**/18**, West of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MCQ	Macquarie Isla	6.59	27	Pn	Pn	03 16 00.2	-2.2
WHZ	Wether Hill Ro	16.82	36		P	03 18 24.2	+1.3
WHZ				IAmb	IAmb	03 19 07.7	
	comp=Z,42nm,1.3s						
VNDA	Vanda	17.35	174	Pn	Pn	03 18 14.6	-13
	comp=Z,0.4nm,0.3s,baz=344,slow=12,SNR=22						
VNDA				LR	LR	03 24 08.0	
	comp=Z,377nm,18.5s,baz=354,slow=35						
	comp=Z,1.5nm,0.5s						
VNDA				AML	AML		
RPZ	Rata Peaks	19.73	40	LR	LR	03 24 55.0	
	comp=Z,80nm,21.4s,baz=146,slow=32						
CASY	Casey	19.89	235	P	Pn	03 18 57.4	-0.7
KHZ	Kahutara	21.71	43	P	P	03 19 16.4	+0.1
KHZ				IAmb	IAmb	03 19 18.9	
	comp=Z,33nm,1.3s						
TOO	Toolangi	23.51	343	P	P	03 19 36.7	+1.4
RTZ	Ruatahuna	26.28	44	P	P	03 20 02.9	+2.2
URZ	Urewera	26.64	44	P	P	03 20 03.8	-0.1
	comp=Z,4.9nm,0.7s,baz=210,slow=7.9,SNR=4.2						
URZ				LR	LR	03 28 58.6	
	comp=Z,101nm,20.0s,baz=200,slow=32						
	comp=Z,4.9nm,0.7s						
QSPA	South Pole Qui	29.63	180	LR	LR	03 32 01.2	
	comp=Z,193nm,19.1s,baz=16,slow=36						
STKA	Stephens Creek	29.71	339	P	P	03 20 31.7	+0.4
	comp=Z,3.1nm,0.7s,baz=167,slow=7.4,SNR=4.8						
STKA				LR	LR	03 31 20.6	
	comp=Z,127nm,18.1s,baz=167,slow=34						
	comp=Z,3.1nm,0.7s						
BBOO	Buckleboo	30.01	329	P	P	03 20 34.9	+0.9
H01W1	Cape Leeuwin H	36.06	297	T	T	03 59 56.7	
	baz=147,slow=75,SNR=248						
H01W2	Cape Leeuwin H	36.07	297	T	T	03 59 57.1	
	baz=147,slow=75,SNR=220						
H01W3	Cape Leeuwin H	36.08	297	T	T	04 00 00.3	
	baz=147,slow=75,SNR=147						
RAO	Raoul Island	36.53	44	LR	LR	03 34 55.2	
	comp=Z,157nm,20.4s,baz=182,slow=34						
MAW	Mawson	36.94	220	LR	LR	03 36 06.5	
	comp=Z,159nm,20.2s,baz=100,slow=36						
ASAR	Alice Springs	39.29	331	P	P	03 21 53.8	-0.4
	comp=Z,2.3nm,0.9s,baz=165,slow=8.7,SNR=16						
	comp=Z,2.3nm,0.9s						
ASAR	Alice Springs	39.29	331	P	P	03 21 53.0	-1.1
CTA	Charters Tower	40.69	349	P	P	03 22 05.8	+0.1
	comp=Z,5.9nm,0.9s,baz=163,slow=9.2,SNR=7.7						
	comp=Z,5.9nm,0.9s						
CTAO	Charters Tower	40.69	349	P	P	03 22 06.9	+1.2
CTAO				IAmb	IAmb	03 22 07.6	
	comp=Z,7.2nm,1.0s						
WR8	Warramunga Arr	42.72	333	P	P	03 22 21.9	-0.5
WR8				IAmb	IAmb	03 22 22.1	
	comp=Z,7.9nm,1.2s						
WRA	Warramunga Arr	42.77	333	P	P	03 22 22.0	-0.8
	comp=Z,2.8nm,0.8s,baz=163,slow=7.1,SNR=19						
	comp=Z,2.8nm,0.8s						
WB0	Warramunga Arr	42.93	333	P	P	03 22 22.9	-1.2
WB0				IAmb	IAmb	03 22 38.5	
	comp=Z,6.0nm,0.8s						
MSVF	Nonsavu	46.09	33	LR	LR	03 41 13.3	
	comp=Z,77nm,18.2s,baz=155,slow=35						
FITZ	Fitzroy Crossi	46.86	322	P	P	03 22 55.2	-0.2
SNAA	Sanae	47.15	190	LR	LR	03 42 57.4	
	comp=Z,219nm,20.7s,baz=131,slow=37						
KNRA	Kununurra	48.26	327	P	P	03 23 05.4	-0.9

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KNRA                                IAmb     IAmb      03 23 06.3
       comp=Z,2.4nm,0.7s
HNR    Honiara             51.13   8 LR       LR        03 40 13.1
       comp=Z,141nm,21.7s,baz=279,slow=30
PMG    Port Moresby        51.19 352 LR       LR        03 42 54.8
       comp=Z,116nm,18.7s,baz=152,slow=33
AFI    Afiamalu            52.82  44 LR       LR        03 46 00.3
       comp=Z,31nm,18.1s,baz=218,slow=36
PPT2   Papeete2            58.61  69 eLR      LR        03 41 27.7
       comp=Z,65nm,22.8s
PPT    Papeete             58.63  69 LR       LR        03 45 29.3
       comp=Z,58nm,18.3s,baz=176,slow=32
JAY    Jayapura            58.66 345 LR       LR        03 49 17.4
       comp=Z,88nm,19.9s,baz=346,slow=36
FAKI   Fak Fak             59.72 335          P         03 24 29.8  -0.2
LEM    Lembang             63.68 307 LR       LR        03 48 33.3
       comp=Z,60nm,20.6s,baz=199,slow=32
PLCA   Paso Flores         72.83 146 LR       LR        03 51 21.7
       comp=Z,86nm,19.7s,baz=245,slow=31
H08S2  Diego Garcia H      79.10 274 T        T         04 53 42.3
       baz=150,slow=76
H08S1  Diego Carcia H      79.11 274 T        T         04 53 47.6
       baz=150
H08S3  Diego Garcia H      79.12 274 T        T         04 53 44.7
       baz=150,slow=76
BOSA   Boshof              81.81 224 LR       LR        03 59 35.1
       comp=Z,40nm,18.8s,baz=83,slow=33
LBTB   Lobatse             84.99 226 LR       LR        04 01 09.2
       comp=Z,25nm,19.5s,baz=154,slow=33
CMAR   Chiang Mai Arr      90.14 309 LR       LR        04 08 47.5
       comp=Z,27nm,18.1s,baz=150,slow=36
TSUM   Tsumeb              93.10 221 LR       LR        04 06 49.0
       comp=Z,28nm,21.5s,baz=156,slow=34
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*IDC **26** 03:15:19.4±10.0, 24°.11S×179°.25W, h447km±109km, mb3.4/4, mbtmp4.3/4, Error ellipse: s-maj=135.0km s-min=48.3km az=168.0*

ISC 26 03:15:14.0±3.3**, 24°S**±2°×**179°.1W**±0°.5**, h392km, n6, σ0s.99**/6**, mb3.8**/4**, South of Fiji Islands**

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Code   Station Name         Δ°   AZ°    Phase ID              Time     Res
                                      Op       ISC         h  m  s    ISC
CTA    Charters Tower      32.31 270 P        P         03 21 09.4  +0.9
       6.0nm,0.4s,baz=94,slow=10.0,SNR=27
       6.0nm,0.4s
ASAR   Alice Springs       42.83 261 P        P         03 22 35.5  -0.1
       2.3nm,0.7s,baz=96,slow=7.5,SNR=25
       2.3nm,0.7s
WRA    Warramunga Arr      43.23 266 P        P         03 22 38.0  -0.7
       4.1nm,0.4s,baz=103,slow=7.9,SNR=120
       4.1nm,0.4s
TXAR   Lajitas Array       89.82  58 P        P         03 27 30.1  +0.5
       0.2nm,0.7s,baz=217,slow=7.6,SNR=3.9
       0.2nm,0.7s
AKASG  Malin Array Be     145.57 328 PKPbc    PKPdf     03 34 05.8  -0.1
       0.9nm,0.6s,baz=48,slow=3.4,SNR=5.2
BRTR   Keskin Array B     148.35 307 PKPbc    PKPbc     03 34 14.0  -1.2
       0.6nm,0.6s,baz=116,slow=3.1,SNR=3.8
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*IDC **26** 03:16:07.4±2.5, 50°.64N×179°.46E, h0km, mb4.0/7, mbtmp4.0/9, ML4.0/2, Error ellipse: s-maj=75.7km s-min=19.6km az=4.0*

*AEIC **26** 03:16:14.2±1.9, 51°.07N±0°.06×179°.21E±0°.06, h22km±5km, Error ellipse: s-maj=9.5km s-min=4.7km az=198.0*

*NEIC **26** 03:16:15.7±1.6, 51°.16N±0°.03×179°.32E±0°.03, h35km±5km, mb4.0/11, ML3.5/12, ML3.3(AEIC), Error ellipse: s-maj=4.6km s-min=2.4km az=197.0*

ISC 26 03:16:11.6±2.2**, 50°.97N**±0°.09×**179°.19E**±0°.03**, h16km**±11km**, n61, σ1s.37**/70**, mb4.2**/11**, Rat Islands**

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Code   Station Name         Δ°   AZ°    Phase ID              Time     Res
                                      Op       ISC         h  m  s    ISC
AMKA   Amchitka             0.41  10          Pb        03 16 21.7  +1.1
AMKA   Amchitka             0.41  10          Sb        03 16 27.1  +0.6
CESW   Semis' Southwe       0.96  14          Pg        03 16 30.5  +0.3
CERB   Semis' Cerberu       1.00  16          Pn        03 16 31.4  +0.4
CEPE   Semis' Perret        1.03  16          Pg        03 16 31.7   0.0
LSSE   Little Sitkin        1.03 338          Pb        03 16 31.8  +0.6
LSSE                                          Sb        03 16 44.1  -0.5
LSPA   Little Sitkin        1.06 339          Pb        03 16 32.1  +0.6
LSPA                                          Sg        03 16 45.0  -0.8
LSSA   Little Sitkin        1.06 337          Pb        03 16 32.1  +0.4
LSSA                                          Sg        03 16 45.5  -0.6
LSNW   Little Sitkin        1.08 338          Pb        03 16 32.2  +0.2
GAKI   Gareloi-Kavalg       1.39  64          Pn        03 16 36.3   0.0
GAKI                                          Sn        03 16 53.8  -0.5
GASW   Gareloi Southw       1.47  56          Pn        03 16 38.2  +0.8
GASW                                          Sb        03 16 56.4  -0.6
GALAA  Gareloi Lava P       1.50  58          Pn        03 16 38.6  +0.7
GANO   Gareloi North        1.52  55          Pn        03 16 38.9  +0.7
GANO                                          Sb        03 16 58.4   0.0
GAEA   Gareloi East         1.53  57          Pn        03 16 38.9  +0.6
GAEA                                          Sg        03 16 59.6  -1.2
GANE   Gareloi Northe       1.53  56          Pn        03 16 38.9  +0.6
GANE                                          Sb        03 16 58.5  -0.4
TANO   Tanaga North         1.93  60          Pn        03 16 44.9  +1.1
TANO                                          Sb        03 17 09.7  -0.7
TASE   Tanaga Southea       1.94  63          Pn        03 16 45.6  +1.6
TAFL   Tanaga Flats         1.99  66          Pn        03 16 46.0  +1.4
KIMD   Kanaga Island        2.38  69          Pn        03 16 51.2  +1.3
KIMD                                          Sn        03 17 19.7  +0.9
KICM   Kanaga Island        2.45  66          Pn        03 16 52.2  +1.2
KIWB   Kanaga Island        2.46  68          Pn        03 16 52.7  +1.7
KIWB                                 IAML               03 17 34.1
       comp=N,257nm,0.8s
KIWB   Kanaga Island        2.46  68          Sn        03 17 22.9  +2.2
ADK    Adak                 2.74  69          Pn        03 16 56.6  +1.7
ADK                                  IAML               03 17 42.8
       comp=N,224nm,0.8s
ADK                                  IAML               03 17 46.5
       comp=N,165nm,0.8s
ADK    Adak                 2.74  69          Sn        03 17 28.5  +0.8
ETKA   Kagalaska Isla       2.90  70          Pn        03 16 58.5  +1.4
ETKA                                          Sn        03 17 31.8  +0.1
GSCK   Great Sitkin C       3.09  69          Pn        03 17 01.5  +1.7
GSTD   Great Sitkin T       3.11  68          Pn        03 17 01.6  +1.4
GSIG   Igitkin Island       3.22  70          Pn        03 17 03.1  +1.5
SHEM   Shemya Is, Ala       3.61 301 Pn       Pn        03 17 10.5  +3.6
       comp=N,19nm,0.3s,baz=130,slow=2.7,SNR=16
SHEM                                 Sn       Sb        03 17 55.5  -3.0
       comp=N,8.0nm,0.3s,baz=321,slow=17,SNR=6.3
       comp=N,61nm,0.4s
SHEM                                 AML      AML
SHEM   Shemya Is, Ala       3.61 301          Pn        03 17 10.3  +3.4
SHEM                                 IAML               03 18 05.5
       comp=E,94nm,0.8s
SMY    Shemya               3.61 301          Pn        03 17 10.4  +3.5
ATKA   Atka Island          4.31  71          Pn        03 17 17.9  +1.4
ATKA                                 IAML               03 18 20.1
       comp=E,75nm,0.9s
ATKA                                 IAML               03 18 26.4
       comp=N,66nm,1.1s
KOWE   Korovin West         4.32  69          Pn        03 17 18.9  +2.3
KOKL   Mount Kliuchef       4.33  69          Pn        03 17 19.0  +2.1
UNV    Unalaska Valle       9.21  66 Pn       Pn        03 18 25.8  +2.1
O15K   Ungalikthiuk R      14.51  47 P        P         03 19 42.1  -0.5
L16K   Owhat River         15.90  39 P        P         03 19 57.6  -0.4
L16K                                 IAmb     IAmb      03 20 22.5
       comp=Z,11nm,1.4s
KDAK   Kodiak Island       17.71  56 P        Pn        03 20 15.4  -1.8
       comp=Z,0.3nm,0.3s,baz=226,slow=5.0,SNR=8.7
       comp=Z,7.8nm,1.0s
KDAK                                 AML      AML
KDAK   Kodiak Island       17.71  56 P        Pn        03 20 15.5  -1.8
J18K   Innoko River        17.93  37 P        Pn        03 20 20.7  +0.8
J20K   Nowinta River       19.27  37 Pn       P         03 20 36.2  +0.9
DHY    Denali Highway      21.56  43 P        P         03 20 59.7  -0.6
DHY                                  IAmb     IAmb      03 21 04.7
       comp=Z,2.9nm,0.6s
F24K   Squaw Lake          23.18  32 P        P         03 21 17.7  +0.4
G26K   Porcupine Rive      24.36  35 P        P         03 21 27.5  -1.0
G26K                                 IAmb     IAmb      03 21 30.4
       comp=Z,7.8nm,1.1s
KLR    Kul'dur             30.07 285 P        P         03 22 20.9  +1.1
       comp=Z,1.8nm,0.5s,baz=49,slow=9.3,SNR=4.7
       comp=Z,1.8nm,0.5s
H11N2  WAKE ISLAND Hy      32.66 202 T        T         03 57 53.9
       baz=21
H11N3  WAKE ISLAND Hy      32.66 202 T        T         03 57 55.5
       baz=21
H11N1  WAKE ISLAND Hy      32.67 202 T        T         03 57 56.2
       baz=21
YKA    Yellowknife Ar      36.43  46 P        P         03 23 14.5  -0.6
       comp=Z,0.4nm,0.6s,baz=280,slow=8.6,SNR=2.0
       comp=Z,0.4nm,0.6s
PDAR   Pinedale Array      47.64  71 P        P         03 24 45.0  -2.1
       comp=Z,0.9nm,0.7s,baz=320,slow=3.5,SNR=9.6
       comp=Z,0.9nm,0.7s
PDAR   Pinedale Array      47.64  71 P        P         03 24 46.0  -1.1
PV10   Paradox Valley      50.62  75 P        P         03 25 09.7  -0.3
PV10                                 IAmb     IAmb      03 25 10.6
       comp=Z,1.6nm,0.9s
KURBB  Kurchatov Arra      58.48 313 P        P         03 26 07.0  +0.5
       comp=Z,1.2nm,0.6s,baz=43,slow=6.6,SNR=10
       comp=Z,1.2nm,0.6s
MKAR   Makanchi Array      59.28 307 P        P         03 26 12.3  +0.1
       comp=Z,0.8nm,0.8s,baz=54,slow=5.9,SNR=3.5
       comp=Z,0.8nm,0.8s
MKAR   Makanchi Array      59.28 307 P        P         03 26 11.7  -0.6
BVAR   Borovoye Array      60.37 319 P        P         03 26 20.4  +0.8
       comp=Z,2.3nm,0.6s,baz=30,slow=6.8,SNR=7.7
       comp=Z,2.3nm,0.6s
146A   Union               66.45  67 P        P         03 26 58.6  -1.6
AKTO   Aktyubinsk          67.27 324 P        P         03 27 05.5  +0.5
       comp=Z,1.5nm,0.6s,baz=32,slow=6.3,SNR=4.7
       comp=Z,1.5nm,0.6s
AB31   Akbulak array       67.48 322 P        P         03 27 07.0  +0.6
AB31                                 IAmb     IAmb      03 27 17.2
       comp=Z,1.9nm,1.1s
ABKAR  Akbulak array       67.48 322 P        P         03 27 07.0  +0.6
UNH    University of       68.32  48 P        P         03 27 11.7  -0.1
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*IDC **26** 03:18:05.3±1.2, 23°.68S×177°.21W, h0km, mb3.9/6, mbtmp3.9/6, MS3.4/5, Error ellipse: s-maj=41.1km s-min=29.2km az=1.0*

ISC 26 03:18:24.0±1.0**, 23°.7S**±0°.3×**177°.5W**±0°.2**, h150km, n14, σ0s.90**/8**, mb3.8**/6**, South of Fiji Islands**

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Code   Station Name         Δ°   AZ°    Phase ID              Time     Res
                                      Op       ISC         h  m  s    ISC
MSVF   Nonsavu              7.30 324 LR       LR        03 22 30.0
       comp=Z,310nm,19.0s,baz=77,slow=36
RAR    Rarotonga           16.54  85 LR       LR        03 28 29.0
       comp=Z,49nm,18.2s,baz=238,slow=38
PPT    Papeete             26.77  82 LR       LR        03 31 19.9
       comp=Z,57nm,19.9s,baz=261,slow=30
CTA    Charters Tower      33.80 269 P        P         03 24 52.2  +0.2
       1.1nm,0.5s,baz=94,slow=12,SNR=2.3
       1.1nm,0.5s
ASAR   Alice Springs       44.35 260 P        P         03 26 19.5  -0.1
       1.1nm,0.9s,baz=101,slow=8.6,SNR=6.9
ASAR                                 LR       LR        03 43 41.1
       comp=Z,73nm,18.9s,baz=110,slow=34
       1.1nm,0.9s
WRA    Warramunga Arr      44.74 265 P        P         03 26 21.7  -1.0
       1.1nm,1.0s,baz=103,slow=8.4,SNR=5.0
WRA                                  LR       LR        03 42 10.5
       comp=Z,127nm,19.4s,baz=91,slow=32
       1.1nm,1.0s
QSPA   South Pole Qui      66.34 180 P        P         03 28 56.5  +0.1
       1.7nm,0.9s,baz=67,slow=3.4,SNR=4.9
       1.7nm,0.9s
H03S2  Juan Fernandez      83.76 124 T        T         05 02 37.2
       baz=244,slow=74,SNR=12
H03S1  Juan Fernandez      83.77 124 T        T         05 02 37.2
       baz=244,slow=74,SNR=12
H03S3  Juan Fernandez      83.78 124 T        T         05 02 37.1
       baz=244,slow=74,SNR=14
SNAA   Sanae               84.77 178 P        P         03 30 41.0  -0.1
       0.7nm,0.3s,baz=202,slow=5.4,SNR=4.1
       0.7nm,0.3s
TXAR   Lajitas Array       88.38  57 P        P         03 30 58.5  -0.8
       0.8nm,1.0s,baz=265,slow=6.4,SNR=6.9
       0.8nm,1.0s
AKASG  Malin Array Be     146.06 329 PKPbc    PKPdf     03 37 46.4  +1.5
       0.2nm,0.3s,baz=43,slow=3.4,SNR=1.9
CLL    Collm              151.31 346 i Px     PKPbc     03 38 00.1  +0.5
       comp=Z,12nm,1.2s
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*NOU **26** 03:22:13.8, 18°.77S×169°.33E, h240km, mb4.8/72, Vanuatu Islands*

*NEIC **26** 03:22:13.5±1.9, 18°.72S±0°.09×169°.39E±0°.09, h243km±6km, mb4.7/199, Error ellipse: s-maj=13.6km s-min=11.3km az=131.0*

*IDC **26** 03:22:14.6±1.1, 18°.77S×169°.27E, h255km±9km, mb4.2/25, mbtmp4.9/28, Error ellipse: s-maj=10.1km s-min=8.4km az=101.0*

*GFZ **26** 03:22:15.8±0.2, 19°S±4°×16°9E±°, h270km, M4.7/31, mb4.7/31, confirmed*

ISC 26 03:22:13.4±0.3**, 18°.77S**±0°.04×**169°.33E**±0°.05**, h246km, n319, σ1s.05**/240**, mb4.7**/152**, 5C-7D, Vanuatu Islands**

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Code   Station Name         Δ°   AZ°    Phase ID              Time     Res
                                      Op       ISC         h  m  s    ISC
RTV    Rentapao             1.29 318 P        Pn        03 22 49.4  -0.5
RTV    Rentapao             1.29 318 S        S         03 23 18.4  -0.1
MARNC  Mare, Loyalty        2.96 204 P        Pn        03 23 04.5  -0.7
MARNC  Mare, Loyalty        2.96 204 P        S         03 23 44.3  -1.9
MARNC  Mare, Loyalty        2.96 204          Pn        03 23 04.5  -0.7
YATNC  Mamie plateau,       3.99 214 P        Pn        03 23 16.8  -0.2
YATNC  Mamie plateau,       3.99 214 S        S         03 24 06.7  -0.7
DZM    Mont Dzumac          4.26 219 P        Pn        03 23 20.7  +0.5
       50nm,0.4s,baz=148,slow=18,SNR=69
DZM                                  S        S         03 24 14.7  +1.5
       47nm,0.4s,baz=133,slow=11,SNR=9.3
OUENC  Ouen Island, N       4.32 212          Pn        03 23 21.3  +0.5
NOUC   Port Laguerre        4.36 220 P        Pn        03 23 22.4  +1.0
NOUC   Port Laguerre        4.36 220 S        S         03 24 15.9  +0.5
ONTNC  Ouen Toro            4.43 217 P        Pn        03 23 23.0  +0.8
ONTNC  Ouen Toro            4.43 217 S        S         03 24 17.4  +0.5
ONTNC  Ouen Toro            4.43 217          Pn        03 23 22.1  -0.1
KOUNC  Koumac, New Ca       5.07 249 P        Pn        03 23 31.9  +1.9
KOUNC  Koumac, New Ca       5.07 249 S        S         03 24 32.7  +1.8
KOUNC  Koumac, New Ca       5.07 249 Pn       Pn        03 23 31.6  +1.7
MSVF   Nonsavu              8.35  84 P        Pn        03 24 13.0  +1.6
       102nm,0.8s,baz=262,slow=9.8,SNR=36
MSVF   Nonsavu              8.35  84 P        Pn        03 24 12.5  +1.2
MSVF   Nonsavu              8.35  84 S        S         03 25 47.2  +0.9
MSVF   Nonsavu              8.35  84          Pn        03 24 13.7  +2.4
MSVF   Nonsavu              8.35  84 P        Pn        03 24 13.8  +2.4
       comp=Z,201nm,1.1s
DGTI   Dogotuki            10.23  78 P        Pn        03 24 36.4  +1.4
HURO   Huro Makira         10.94 318 P        Pn        03 24 45.4  +1.4
NGOA   Tingoa Renbel       11.46 307 P        Pn        03 24 51.1  +0.6
HNR    Honiara             12.99 314 P        Pn        03 25 09.3  -0.2
       comp=Z,345nm,0.7s,baz=45,slow=0.8,SNR=6.9
HNR    Honiara             12.99 314 P        Pn        03 25 10.1  +0.6
SAVO   Savo Central        13.29 315 P        P         03 25 14.7   0.0
TATA   Tatamba Isabel      13.86 317 P        P         03 25 22.0  +1.0
OUZ    Omahuta             16.82 168 P        Pn        03 25 54.6  -0.6
       comp=Z,22nm,0.9s
AUBSH  Beerwah State       17.10 239 P        Pn        03 25 58.7   0.0
GD1S   Gladstone Soft      17.65 250 P        P         03 26 03.8  +1.2
AUNRC  North Rockhamp      18.12 252 P        Pn        03 26 09.4  -1.3
EIDS   Eidsvold            18.13 246 P        Pn        03 26 09.5  -1.3
EIDS   Eidsvold            18.13 246          Pn        03 26 09.6  -1.3
EIDS                                 IAmb     IAmb      03 26 10.8
       comp=Z,27nm,1.0s
EIDS   Eidsvold            18.13 246 P        Pn        03 26 09.8  -1.0
       comp=Z,33nm,0.8s
TW1H   Toowoomba 1 Ha      18.18 238 P        Pn        03 26 10.5  -0.9
AUTOO  Toowoomba Stat      18.18 238 P        Pn        03 26 10.9  -0.5
ARMA   Armidale            19.81 231 P        P         03 26 27.0  +1.2
ARMA   Armidale            19.81 231          P         03 26 27.4  +1.5
ARMA                                 IAmb     IAmb      03 26 28.5
       comp=Z,32nm,0.8s
ARMA   Armidale            19.81 231 P        P         03 26 25.9  +0.1
       comp=Z,44nm,0.7s
URZ    Urewera             20.57 162 P        P         03 26 34.5  +0.7
       comp=Z,6.4nm,0.7s,baz=286,slow=2.6,SNR=5.3
URZ                                  S        S         03 30 10.0  +1.1
       comp=Z,2.6nm,0.8s,baz=28,slow=17,SNR=1.7
       comp=Z,6.4nm,0.7s
AUPHS  Peel High Scho      20.71 230 P        P         03 26 36.5  +1.2
BKZ    Black Stump Fm      21.26 164 P        P         03 26 42.6  +1.8
TV1H   Townsville Har      21.31 265 P        P         03 26 42.9  +1.5
AUKHS  Kincumber High      21.72 224 P        P         03 26 46.7  +1.6
MGCD   Mangrove Creek      21.75 225 P        P         03 26 47.1  +1.7
MGCD   Mangrove Creek      21.75 225 P        P         03 26 47.6  +2.2
       comp=Z,86nm,0.8s
CTA    Charters Tower      21.80 263 P        P         03 26 46.8  +0.7
       comp=Z,17nm,0.9s,baz=87,slow=11,SNR=27
       comp=Z,17nm,0.9s
CTAO   Charters Tower      21.80 263 P        P         03 26 46.5  +0.4
CTAO   Charters Tower      21.80 263          P         03 26 46.5  +0.4
CTAO                                 IAmb     IAmb      03 26 48.0
       comp=Z,26nm,1.1s
CTAO   Charters Tower      21.80 263 P        P         03 26 47.1  +1.0
       comp=Z,24nm,1.0s
AULRC  Lightning Ridg      22.15 237 P        P         03 26 49.9  +0.7
SYDH   Sydney Hard Ro      22.32 224 P        P         03 26 52.1  +1.4
MRZ    Mangatainoka R      22.47 167          P         03 26 52.2  +0.2
WOLH   Wollongong Har      22.63 223 P        P         03 26 55.0  +1.5
AUDCS  Dubbo College       22.94 230 P        P         03 26 57.5  +1.1
MSWZ   Moikau Station      23.14 169 P        P         03 26 57.6  -0.4
PLWZ   Palliser            23.29 169 P        P         03 26 59.3  -0.1
PMG    Port Moresby        23.40 290 P        P         03 27 01.4  +0.7
PMG                                  IAmb     IAmb      03 27 02.4
       comp=Z,27nm,0.9s
PMG    Port Moresby        23.40 290 P        P         03 27 00.9  +0.2
       comp=Z,35nm,0.9s
MTSU   Mount Surprise      23.73 268 P        P         03 27 04.7  +1.0
MTSU   Mount Surprise      23.73 268 P        P         03 27 05.1  +1.3
       comp=Z,39nm,0.8s
AUMHS  Melrose High S      24.37 223 P        P         03 27 10.7  +1.3
QLP    Quilpie             24.39 247 P        P         03 27 09.9  +0.3
QLP    Quilpie             24.39 247 P        P         03 27 10.2  +0.5
       comp=Z,80nm,0.9s
CMSA   Cobar Meteorol      24.82 235 P        P         03 27 13.9  +0.5
CMSA   Cobar Meteorol      24.82 235 P        P         03 27 14.0  +0.5
       comp=Z,37nm,1.0s
PATS   Pohnpei             27.66 336 P        P         03 27 38.7  -0.2
PATS   Pohnpei             27.66 336          P         03 27 38.1  -0.8
PATS   Pohnpei             27.66 336 P        P         03 27 38.1  -0.8
       comp=Z,80nm,0.9s
INKA   Innaminka           27.68 246 P        P         03 27 38.6  -0.5
QIS    Mount Isa           28.03 261 P        P         03 27 42.7  +0.5
QIS    Mount Isa           28.03 261 P        P         03 27 42.5  +0.3
       comp=Z,12nm,0.9s
STKA   Stephens Creek      28.17 237 P        P         03 27 44.1  +0.8
       comp=Z,34nm,0.7s,baz=65,slow=8.6,SNR=66
       comp=Z,34nm,0.7s
STKA   Stephens Creek      28.17 237 P        P         03 27 43.8  +0.5
STKA   Stephens Creek      28.17 237 P        P         03 27 44.4  +1.0
       comp=Z,215nm,1.0s
HTT    Hallett             30.83 236 P        P         03 28 07.6  +0.8
AUMBR  Murray Bridge       31.19 232 P        P         03 28 10.7  +0.9
GENI   Genyem              32.76 296 P        P         03 28 24.7  +1.0
GENI   Genyem              32.76 296 P        P         03 28 24.0  +0.3
       comp=Z,92nm,1.4s
GENI   Genyem              32.76 296 P        P         03 28 24.5  +0.8
       comp=Z,91nm,1.4s
WR8    Warramunga Arr      32.85 262 P        P         03 28 23.4  -1.1
WR8                                  IAmb     IAmb      03 28 24.4
       comp=Z,11nm,0.8s
BBOO   Buckleboo           32.90 238 P        P         03 28 25.1  +0.3
BBOO   Buckleboo           32.90 238 P        P         03 28 25.0  +0.3
BBOO   Buckleboo           32.90 238 P        P         03 28 25.1  +0.3
       comp=Z,56nm,0.9s
WRAB   Tennant Creek       32.99 262 P        P         03 28 24.6  -1.1
WRAB   Tennant Creek       32.99 262 P        P         03 28 24.8  -0.9
       comp=Z,14nm,0.9s
WRA    Warramunga Arr      33.00 262 P        P         03 28 24.8  -1.0
       comp=Z,9.1nm,0.8s,baz=96,slow=9.7,SNR=63
WRA                                  S        S         03 33 21.9  -4.0
       comp=Z,5.3nm,1.0s,baz=91,slow=14,SNR=20
WRA                                  ScP      ScP       03 34 24.8  +0.5
       comp=Z,2.6nm,1.1s,baz=91,slow=4.4,SNR=5.5
       comp=Z,9.1nm,0.8s
WRA    Warramunga Arr      33.00 262 P        P         03 28 23.3  -2.5
AS01   Alice Springs       33.28 255 P        P         03 28 27.9  -0.3
AS31   Alice Springs       33.32 255 P        P         03 28 28.3  -0.3
ASAR   Alice Springs       33.33 255 P        P         03 28 28.3  -0.3
       comp=Z,55nm,0.6s,baz=84,slow=8.9,SNR=686
ASAR                                 S        S         03 33 28.2  -2.7
       comp=Z,2.2nm,0.8s,baz=79,slow=18,SNR=11
ASAR                                 ScP      ScP       03 34 25.3  -0.1
       comp=Z,1.5nm,1.1s,baz=96,slow=3.8,SNR=4.8
       comp=Z,55nm,0.6s
ASAR   Alice Springs       33.33 255 P        P         03 28 28.2  -0.4
AUALC  St Philip's Co      33.34 255 P        P         03 28 28.5  -0.3
BAKI   Biak                36.96 294 P        P         03 29 00.0  +0.4
       comp=Z,72nm,1.5s
FAKI   Fak Fak             39.55 289 P        P         03 29 20.4  -0.7
FAKI                                 IAmb     IAmb      03 29 21.5
       comp=Z,27nm,1.3s
FAKI   Fak Fak             39.55 289 P        P         03 29 20.4  -0.7
       comp=Z,16nm,1.1s
FAKI   Fak Fak             39.55 289 P        P         03 29 20.4  -0.7
       comp=Z,16nm,1.1s
DPSS   Saipan              40.98 324 P        P         03 29 32.1  -0.6
SIJI   Sorong              41.35 291 P        P         03 29 35.6  -0.3
       comp=Z,16nm,0.6s,baz=96,slow=11,SNR=7.2
       comp=Z,16nm,0.6s
SWI    Sorong              41.35 291 P        P         03 29 34.5  -1.4
       comp=Z,37nm,0.9s
FITZ   Fitzroy Crossi      41.37 264 P        P         03 29 36.4  +0.4
FITZ   Fitzroy Crossi      41.37 264 P        P         03 29 36.5  +0.4
FITZ   Fitzroy Crossi      41.37 264 P        P         03 29 36.5  +0.5
       comp=Z,7.5nm,0.9s
SANI   Sanana              45.57 286 P        P         03 30 10.4  +1.0
       comp=Z,8.4nm,1.4s
MBWA   Marble Bar          46.53 258 P        P         03 30 17.4  +0.5
MBWA   Marble Bar          46.53 258 P        P         03 30 16.8   0.0
MBWA                                 IAmb     IAmb      03 30 18.2
       comp=Z,22nm,0.9s
MBWA   Marble Bar          46.53 258 P        P         03 30 17.1  +0.2
       comp=Z,29nm,0.8s
MEEK   Meekatharra         47.19 251 P        P         03 30 21.8  -0.1
MEEK   Meekatharra         47.19 251 P        P         03 30 22.0  +0.1
       comp=Z,58nm,0.9s
KLBR   Kellerberrin        47.99 244 P        P         03 30 27.5  -0.5
KLBR   Kellerberrin        47.99 244 P        P         03 30 27.2  -0.7
       comp=Z,80nm,0.8s
GTOI   Gorontalo           49.40 288 P        P         03 30 38.8   0.0
       comp=Z,19nm,0.7s
MORW   Morawa              49.43 248 P        P         03 30 38.5  -0.4
       comp=Z,30nm,1.8s
TOLI2  Tolitoli            51.61 287 P        P         03 30 55.1  -0.3
TOLI2  Tolitoli            51.61 287 P        P         03 30 55.1  -0.3
TOLI2  Tolitoli            51.61 287 P        P         03 30 55.3  -0.1
       comp=Z,18nm,1.0s
MPSI   Mapaga              52.09 286 P        P         03 30 58.3  -0.6
       comp=Z,15nm,1.2s
VNDA   Vanda               58.90 182 P        P         03 31 46.3   0.0
       comp=Z,1.3nm,0.9s,baz=357,slow=5.5,SNR=5.1
       comp=Z,1.3nm,0.9s
VNDA   Vanda               58.90 182 P        P         03 31 46.4  +0.1
VNDA   Vanda               58.90 182 P        P         03 31 44.6  -1.7
       comp=Z,2.8nm,1.5s
SBA    Scott Base          59.13 181 P        P         03 31 49.2  +1.3
SBA    Scott Base          59.13 181 P        P         03 31 49.1  +1.3
       comp=Z,15nm,1.1s
JOW    Kunigami            60.34 318 P        P         03 31 56.5  -0.3
       comp=Z,22nm,0.8s,baz=154,slow=6.9,SNR=3.9
       comp=Z,22nm,0.8s
CASY   Casey               60.59 203 P        P         03 31 57.7  -0.2
       comp=Z,12nm,1.1s
MJAR   Matsushiro Arr      62.38 332 P        P         03 32 09.8  -0.5
       comp=Z,9.3nm,0.9s,baz=165,slow=6.5,SNR=19
       comp=Z,9.3nm,0.9s
MJAR   Matsushiro Arr      62.38 332 P        P         03 32 09.6  -0.6
MAJO   Matsushiro          62.38 332 P        P         03 32 09.9  -0.3
MAJO   Matsushiro          62.38 332 P        P         03 32 10.0  -0.3
MAJO                                 IAmb     IAmb      03 32 10.9
       comp=Z,25nm,1.3s
MAJO   Matsushiro          62.38 332 P        P         03 32 09.5  -0.8
       comp=Z,14nm,0.8s
MJB9   Matsu-Tunnel        62.38 332 P        P         03 32 10.7  +0.4
MJB9                                 IAmb     IAmb      03 32 11.8
       comp=Z,24nm,1.3s
TPUB   Ta-pu               63.31 309 P        P         03 32 15.6  -1.0
       comp=Z,39nm,0.9s
JNU    Nakatsue            63.33 324 P        P         03 32 16.2  -0.4
       comp=Z,14nm,0.8s,baz=35,slow=1.3,SNR=5.0
       comp=Z,14nm,0.8s
JNU    Nakatsue            63.33 324 IAmb     IAmb      03 33 00.3
       comp=Z,8.6nm,0.5s
SSLB   Suanglung           63.37 310 P        P         03 32 16.2  -0.8
       comp=Z,34nm,3.0s
ASAJ   Asahikawa           67.19 339 P        P         03 32 41.8  +0.7
       comp=Z,33nm,0.9s,baz=224,slow=3.7,SNR=7.1
       comp=Z,33nm,0.9s
NJ2    Nanjing             69.93 316 eP       P         03 32 59.0  +0.8
NJ2                                  pmax     pmax
       comp=Z,7.0nm,0.7s
QSPA   South Pole Qui      71.28 180 P        P         03 33 05.8  -0.2
       comp=Z,6.7nm,0.8s,baz=36,slow=2.1,SNR=20
       comp=Z,6.7nm,0.8s
QSPA   South Pole Qui      71.28 180 P        P         03 33 05.8  -0.2
USRK   Ussuriysk Ar.       71.36 333 P        P         03 33 06.9  +0.3
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	comp=Z,5.6nm,0.7s,baz=133,slow=4.8,SNR=11						
	comp=Z,5.6nm,0.7s						
ADK	Adak	71.40	9	P	P	03 33 06.2	-0.4
	comp=Z,35nm,1.4s						
ATKA	Atka Island	72.11	11	P	P	03 33 10.3	-0.5
ATKA	Atka Island	72.11	11	P	P	03 33 10.1	-0.7
PEA0B	Petropavlovsk-	72.28	353	P	P	03 33 12.5	+0.7
PETK	Petropavlovsk-	72.28	353	P	P	03 33 12.2	+0.4
	comp=Z,29nm,0.8s,baz=147,slow=6.2,SNR=34						
	comp=Z,29nm,0.8s						
MDJ	Mudanjiang	72.75	331	P	P	03 33 15.5	+0.7
TIA	Tai'an	73.65	318	P	P	03 33 20.5	+0.3
TIA				pP	pP	03 34 20.0	+2.5
TIA				pmax	pmax		
	comp=Z,14nm,0.8s						
UNV	Unalaska Valle	75.25	15	P	P	03 33 27.9	-1.0
LYN	LuoYang	75.70	315	P	P	03 33 32.8	+0.8
LYN				pmax	pmax		
	comp=Z,35nm,0.8s						
HNS	HongShan	75.91	318	⇑P	P	03 33 33.5	+0.4
BJI2	Beijing	76.62	321	P	P	03 33 37.5	+0.5
BJI2				pmax	pmax		
	comp=Z,9.0nm,0.8s						
BJT	Baijiatuau	76.62	321	P	P	03 33 37.4	+0.3
	comp=Z,18nm,1.0s						
XAN	Xi'an	77.86	312	P	P	03 33 44.5	+0.4
XAN				pmax	pmax		
	comp=Z,18nm,0.8s						
KMI2	Kunming	78.10	302	P	P	03 33 47.0	+1.1
KMI2				pmax	pmax		
	comp=Z,24nm,0.8s						
CMAR	Chiang Mai Arr	78.39	294	P	P	03 33 48.7	+1.3
	comp=Z,4.7nm,0.7s,baz=129,slow=4.4,SNR=26						
	comp=Z,4.7nm,0.7s						
CMAR	Chiang Mai Arr	78.39	294	P	P	03 33 48.1	+0.8
CHTO	Chiang Mai	78.53	294	P	P	03 33 49.0	+0.9
CHTO	Chiang Mai	78.53	294	P	P	03 33 48.1	0.0
CHTO	Chiang Mai	78.53	294	P	P	03 33 47.2	-0.9
	comp=Z,11nm,0.9s						
CHTO	Chiang Mai	78.53	294	P	P	03 33 49.1	+0.9
	comp=Z,11nm,0.9s						
MAW	Mawson	78.90	202	P	P	03 33 49.9	+0.7
	comp=Z,5.6nm,0.8s,baz=100,slow=6.1,SNR=12						
	comp=Z,5.6nm,0.8s						
MAW	Mawson	78.90	202	IAmb	IAmb	03 33 51.0	
	comp=Z,1.2nm,0.9s						
MA2	Magadan	79.52	351	P	P	03 33 52.0	-0.5
	comp=Z,7.0nm,0.4s,baz=59,slow=4.6,SNR=4.0						
	comp=Z,7.0nm,0.4s						
MA2	Magadan	79.52	351	IAmb	IAmb	03 33 52.9	
	comp=Z,12nm,1.0s						
MA2	Magadan	79.52	351	P	P	03 33 51.8	-0.7
	comp=Z,13nm,0.9s						
PZH	PanZhiHua	79.53	303	P	P	03 33 55.3	+1.8
HHC	Hu-ho-hao-te	79.92	319	*e*P	P	03 33 56.3	+1.1
HHC				pmax	pmax		
	comp=Z,13nm,0.5s						
HHC				pmax	pmax		
	comp=Z,91nm,5.1s						
HIA	Hailar	80.75	330	P	P	03 33 59.1	-0.2
	comp=Z,5.5nm,0.4s						
NPW	Naypyitaw	81.34	294	P	P	03 34 04.7	+1.6
	comp=Z,10nm,0.7s						
SEY	Seymchan	82.52	352	P	P	03 34 08.3	+0.1
	comp=Z,3.2nm,0.5s,baz=168,slow=6.3,SNR=6.5						
	comp=Z,3.2nm,0.5s						
M14K	Bethel	82.56	14	IAmb	IAmb	03 34 12.6	
	comp=Z,18nm,0.9s						
N18K	Kilae Creek	83.99	16	IAmb	IAmb	03 34 17.8	
	comp=Z,15nm,1.3s						
L18K	Granite Mounta	85.09	15	IAmb	IAmb	03 34 22.7	
	comp=Z,7.0nm,0.7s						
SLKM	Skilak Lake	85.48	19	P	P	03 34 21.5	-1.7
SLKM				IAmb	IAmb	03 34 23.5	
	comp=Z,10nm,0.8s						
L19K	White Mountain	85.53	16	IAmb	IAmb	03 34 26.3	
	comp=Z,12nm,1.0s						
J17K	VABM Dome	85.54	14	IAmb	IAmb	03 34 25.3	
	comp=Z,19nm,1.0s						
L20K	Farewell, AK	86.03	16	IAmb	IAmb	03 34 26.8	
	comp=Z,11nm,0.9s						
KHBM	Hayfork Bally	86.05	45	IAmb	IAmb	03 34 27.9	
	comp=Z,14nm,1.0s						
SUA	Susitna One	86.08	18	IAmb	IAmb	03 34 28.5	
	comp=Z,9.8nm,1.0s						
J18K	Innoko River	86.14	15	IAmb	IAmb	03 34 27.4	
	comp=Z,12nm,0.7s						
PWL	Port Wells	86.33	19	IAmb	IAmb	03 34 28.9	
	comp=Z,13nm,0.9s						
ULN	Ulaanbaatar	86.54	323	P	P	03 34 28.9	+0.1
ULN				IAmb	IAmb	03 34 30.1	
	comp=Z,20nm,1.1s						
ULN	Ulaanbaatar	86.54	323	P	P	03 34 28.1	-0.8
ULN	Ulaanbaatar	86.54	323	P	P	03 34 29.2	+0.3
	comp=Z,19nm,1.0s						
ELIB	Princess Elisa	86.62	190	*d*P	P	03 34 28.1	-0.8
	comp=Z,3.1nm,1.0s						
ELIB				*d*pP	pP	03 35 25.3	-2.5
G16K	Koyuk River	86.63	11	IAmb	IAmb	03 34 30.4	
	comp=Z,13nm,0.8s						
ORV	Oroville	86.70	46	P	P	03 34 29.8	+0.1
ORV				IAmb	IAmb	03 34 30.4	
	comp=Z,7.8nm,0.9s						
GLI	Glacier Island	86.74	20	IAmb	IAmb	03 34 30.3	
	comp=Z,12nm,1.2s						
CMB	Columbia Colle	86.78	48	IAmb	IAmb	03 34 31.3	
	comp=Z,11nm,0.9s						
AFDM	Forest Hills D	86.78	47	P	P	03 34 30.6	+0.5
AFDM				IAmb	IAmb	03 34 31.4	
	comp=Z,11nm,0.9s						
O03E	Paynes Creek	86.83	46	IAmb	IAmb	03 34 31.7	
	comp=Z,14nm,1.0s						
FID	Port Fidalgo	86.84	20	IAmb	IAmb	03 34 30.3	
	comp=Z,9.2nm,1.0s						
SONM	Songino Array	86.89	323	P	P	03 34 30.9	+0.3
	comp=Z,8.4nm,0.8s,baz=142,slow=5.6,SNR=31						
	comp=Z,8.4nm,0.8s						
SONM	Songino Array	86.89	323	P	P	03 34 30.4	-0.2
SONM				IAmb	IAmb	03 34 31.7	
	comp=Z,13nm,1.0s						
GTA2	Gaotai	86.94	313	*e*P	P	03 34 31.5	+0.5
GTA2				pmax	pmax		
	comp=Z,11nm,0.8s						
ISA	Isabella, Lake	87.12	51	IAmb	IAmb	03 34 33.3	
	comp=Z,8.6nm,0.8s						
BFSC	Mount Baldy Ra	87.12	52	IAmb	IAmb	03 34 32.8	
	comp=Z,6.0nm,0.7s						
DPP	Dos Picos Cty	87.15	54	IAmb	IAmb	03 34 33.1	
	comp=Z,8.9nm,0.9s						
CAST	Castle Rocks	87.27	16	IAmb	IAmb	03 34 31.1	
	comp=Z,10nm,1.2s						
L04D	Klamath Falls	87.40	44	P	P	03 34 33.9	+0.8
BERG	Berg Lake	87.51	21	IAmb	IAmb	03 34 34.0	
	comp=Z,17nm,1.0s						
LRMC	Laurel Mtn Rad	87.63	51	IAmb	IAmb	03 34 36.7	
	comp=Z,14nm,1.3s						
BORC	Borrego Spring	87.66	54	IAmb	IAmb	03 34 35.7	
	comp=Z,9.0nm,0.8s						
TRF	Thorofare Moun	87.78	17	IAmb	IAmb	03 34 35.8	
	comp=Z,7.8nm,0.8s						
G18K	Tagagawik	87.80	13	IAmb	IAmb	03 34 36.5	
	comp=Z,9.7nm,1.1s						
CLC	China Lake	87.83	51	IAmb	IAmb	03 34 37.7	
	comp=Z,11nm,1.1s						
CCCA	Chr Cany lake	87.88	51	IAmb	IAmb	03 34 36.5	
	comp=Z,7.8nm,0.7s						
LHV	Little Huntoon	88.21	49	IAmb	IAmb	03 34 38.8	
	comp=Z,13nm,1.5s						
PAHR	Pah Rah Range	88.22	47	IAmb	IAmb	03 34 38.6	
	comp=Z,20nm,1.4s						
BELC	Belle Mtn. Jos	88.28	53	IAmb	IAmb	03 34 38.9	
	comp=Z,10nm,0.8s						
RYN	Ryan	88.36	48	IAmb	IAmb	03 34 36.6	
	comp=Z,11nm,0.8s						
NVAR	Mina Array Bea	88.43	48	P	P	03 34 38.5	+0.4
	comp=Z,3.1nm,0.8s,baz=226,slow=8.2,SNR=23						
	comp=Z,3.1nm,0.8s						
NVAR	Mina Array Bea	88.43	48	P	P	03 34 38.3	+0.1
BC3	Big Chuckawall	88.56	54	IAmb	IAmb	03 34 40.3	
	comp=Z,8.8nm,1.1s						
MOD	Modoc Plateau	88.58	45	IAmb	IAmb	03 34 40.1	
	comp=Z,14nm,1.0s						
FURC	Furnace Creek,	88.64	51	IAmb	IAmb	03 34 40.4	
	comp=Z,12nm,1.0s						
GWY	Greenwater Val	88.67	51	IAmb	IAmb	03 34 41.0	
	comp=Z,12nm,1.3s						
I21K	Tanana	88.72	15	IAmb	IAmb	03 34 38.8	
	comp=Z,6.1nm,0.8s						
F19K	Shaleruckik Mo	88.79	12	IAmb	IAmb	03 34 40.3	
	comp=Z,11nm,1.3s						
KVN	Kaiserville	88.84	48	IAmb	IAmb	03 34 40.8	
	comp=Z,5.3nm,0.8s						
SHOC	Shoshone, Teco	88.84	51	IAmb	IAmb	03 34 41.1	
	comp=Z,14nm,1.0s						
IMAR	Indian Mountai	88.95	14	P	P	03 34 39.2	-0.5
IRM	Iron Mountain	88.99	53	IAmb	IAmb	03 34 42.5	
	comp=Z,15nm,1.4s						
TROLL	Troll, Antarti	89.01	184	⇑P	P	03 34 39.8	-0.4
	comp=Z,324nm,0.6s						
TROLL				pP	pP	03 35 38.5	-1.2
	comp=Z,245nm,1.0s						
O28M	Mount Upton	89.01	22	IAmb	IAmb	03 34 40.4	
	comp=Z,6.4nm,0.8s						
WRH	Wood River Hil	89.19	17	IAmb	IAmb	03 34 42.2	
	comp=Z,4.8nm,0.7s						
TPNV	Topopah Spring	89.29	51	IAmb	IAmb	03 34 43.6	
	comp=Z,7.7nm,0.8s						
BLYC	Blythe	89.30	54	IAmb	IAmb	03 34 43.9	
	comp=Z,12nm,1.2s						
CCB	Clear Creek Bu	89.41	17	IAmb	IAmb	03 34 41.3	
	comp=Z,9.9nm,1.4s						
G21K	Allakaket	89.45	14	IAmb	IAmb	03 34 42.1	
	comp=Z,6.2nm,0.8s						
HDA	Harding Lake	89.47	17	IAmb	IAmb	03 34 41.5	
	comp=Z,7.9nm,1.0s						
113A	Mohawk Valley,	89.51	55	IAmb	IAmb	03 34 44.6	
	comp=Z,15nm,1.4s						
L26K	Log Cabin Wild	89.53	20	IAmb	IAmb	03 34 43.6	
	comp=Z,11nm,1.3s						
COLA	College	89.57	17	P	P	03 34 41.5	-1.0
COLA	College	89.57	17	P	P	03 34 40.9	-1.6
	comp=Z,12nm,1.0s						
RIDG	Independent Ri	89.58	19	IAmb	IAmb	03 34 43.8	
	comp=Z,6.9nm,0.8s						
GNW	Green Mountain	89.62	39	IAmb	IAmb	03 34 44.8	
	comp=Z,11nm,0.8s						
SNAA	Sanae	89.63	182	⇑P	P	03 34 42.1	-1.0
	comp=Z,77nm,0.7s						
SNAA	Sanae	89.63	182	P	P	03 34 42.2	-0.8
	comp=Z,2.7nm,0.7s,baz=161,slow=3.9,SNR=8.5						
	comp=Z,2.7nm,0.7s						
SNAA	Sanae	89.63	182	P	P	03 34 42.2	-0.8
IL31		89.76	17	P	P	03 34 41.1	-2.2
ILAR	Eielson Array	89.76	17	P	P	03 34 41.7	-1.8
	comp=Z,2.9nm,0.7s,baz=235,slow=5.6,SNR=28						
	comp=Z,2.9nm,0.7s						
ILAR	Eielson Array	89.76	17	P	P	03 34 41.0	-2.5
WVOR	Wild Horse Val	89.92	45	IAmb	IAmb	03 34 46.5	
	comp=Z,15nm,1.1s						
WVOR	Wild Horse Val	89.92	45	P	P	03 34 45.6	+0.7
	comp=Z,15nm,1.5s						
SCRK	Sand Creek	90.02	19	IAmb	IAmb	03 34 46.0	
	comp=Z,6.1nm,0.9s						
BMN	Battle Mountai	90.03	47	IAmb	IAmb	03 34 47.0	
	comp=Z,7.8nm,0.9s						
VNA3	Neumayer Olymp	90.22	180	⇑P	P	03 34 44.7	-1.0
	comp=Z,11nm,0.8s						
VNA3	Neumayer Olymp	90.22	180	P	P	03 34 44.7	-1.0
	comp=Z,16nm,0.8s						
W13A	Hualapai Mount	90.31	53	IAmb	IAmb	03 34 48.6	
	comp=Z,6.5nm,0.8s						
HSIG		90.36	60	IAmb	IAmb	03 34 49.3	
	comp=Z,11nm,1.0s						
TLY	Talaya	90.42	325	P	P	03 34 46.3	-0.6
	comp=Z,5.6nm,0.7s,baz=197,slow=4.9,SNR=5.8						
	comp=Z,5.6nm,0.7s						
TLY	Talaya	90.42	325	IAmb	IAmb	03 34 47.4	
	comp=Z,6.5nm,0.7s						
J08A	Circle Bar Ran	90.43	44	IAmb	IAmb	03 34 48.7	
	comp=Z,13nm,0.8s						
VNA2	Neumayer--Watz	90.51	181	⇑P	P	03 34 45.8	-1.3
	comp=Z,6.5nm,0.5s,baz=156,slow=3.0						
K27K	Chicken	90.64	19	IAmb	IAmb	03 34 49.4	
	comp=Z,12nm,1.2s						
MXC	Moxie City	90.69	41	IAmb	IAmb	03 34 49.5	
	comp=Z,9.8nm,1.0s						
P32M	Atlin	90.72	25	IAmb	IAmb	03 34 48.4	
	comp=Z,9.8nm,0.9s						
LTY	Liberty	90.77	40	IAmb	IAmb	03 34 49.2	
	comp=Z,14nm,1.2s						
COLD	Coldfoot	90.80	15	IAmb	IAmb	03 34 49.2	
	comp=Z,7.2nm,1.0s						
S34M	Telegraph Cree	90.81	27	IAmb	IAmb	03 34 50.0	
	comp=Z,11nm,1.0s						
HAWA	Hanford	91.08	41	IAmb	IAmb	03 34 51.7	
	comp=Z,11nm,0.8s						
N31M	Braeburn, Yuko	91.09	23	IAmb	IAmb	03 34 50.1	
	comp=Z,10.0nm,0.9s						
I26K	Coal Creek Min	91.23	18	IAmb	IAmb	03 34 51.6	
	comp=Z,7.1nm,1.0s						
E08A	Dider Farm, El	91.42	41	IAmb	IAmb	03 34 53.1	
	comp=Z,15nm,1.2s						
LCMT	Little Creek M	91.53	51	IAmb	IAmb	03 34 54.0	
	comp=Z,8.4nm,0.9s						
TUC	Tucson	91.68	57	P	P	03 34 52.9	-0.3
TUC				IAmb	IAmb	03 34 55.2	
	comp=Z,9.4nm,1.1s						
TUC	Tucson	91.68	57	P	P	03 34 53.8	+0.6
	comp=Z,9.6nm,1.0s						
KNB	Kanab	91.84	52	IAmb	IAmb	03 34 55.7	
	comp=Z,5.4nm,0.9s						
X16A	Lo Mia Camp, P	91.92	54	IAmb	IAmb	03 34 56.9	
	comp=Z,10nm,1.0s						
K29M	Barlow Dome	92.00	21	IAmb	IAmb	03 34 53.6	
	comp=Z,6.2nm,1.1s						
MFID	Camas Ranch	92.21	45	IAmb	IAmb	03 34 56.6	
	comp=Z,4.4nm,0.8s						
G26K	Porcupine Rive	92.23	17	IAmb	IAmb	03 34 56.2	
	comp=Z,6.2nm,0.8s						
WUAZ	Wupatki	92.37	53	IAmb	IAmb	03 34 58.1	
	comp=Z,6.2nm,0.9s						
WTLY	Watson Lake, Y	93.05	26	IAmb	IAmb	03 34 59.7	
	comp=Z,8.3nm,0.8s						
I30M	Mount Dempster	93.27	20	IAmb	IAmb	03 35 00.5	
	comp=Z,6.6nm,0.8s						
MMPY	Sheldon Lake,	93.48	23	IAmb	IAmb	03 35 01.2	
	comp=Z,7.1nm,1.0s						
VHRN	Van Horn	95.83	60	IAmb	IAmb	03 35 13.8	
	comp=Z,2.9nm,0.9s						
PDAR	Pinedale Array	96.23	47	P	P	03 35 15.3	+1.2
	comp=Z,0.7nm,0.8s,baz=188,slow=2.2,SNR=4.5						
	comp=Z,0.7nm,0.8s						
TXAR	Lajitas Array	96.47	61	P	P	03 35 15.9	+0.7
	comp=Z,1.3nm,0.8s,baz=221,slow=5.5,SNR=18						
	comp=Z,1.3nm,0.8s						
YKA	Yellowknife Ar	100.21	27	P	Pdif	03 35 30.9	-0.1
	comp=Z,2.8nm,0.7s,baz=254,slow=4.6,SNR=11						
MKAR	Makanchi Array	101.46	316	P	Pdif	03 35 37.8	+0.7
	comp=Z,1.0nm,0.7s,baz=92,slow=7.3,SNR=6.0						
ARCES	ARCESS Array B	124.64	345	PKP	PKPdf	03 40 42.0	-1.0
	comp=Z,4.0nm,0.8s,baz=38,slow=1.9,SNR=2.2						
FINES	FINESS Array B	130.18	338	SKPbc	SKPbc	03 43 51.7	-1.6
	comp=Z,4.6nm,1.1s,baz=31,slow=5.1,SNR=4.3						
AKASG	Malin Array Be	135.16	325	SKPbc	SKPbc	03 44 10.1	-0.7
	comp=Z,1.4nm,0.6s,baz=46,slow=3.4,SNR=7.9						
KECS	Kecovo	141.10	327	*e*PKP	PKPdf	03 41 13.8	-0.6
STEB	Steborice	141.48	330	*e*PKP	PKPdf	03 41 11.2	-3.9
DPC	Dobruska-Polom	141.85	332	*e*PKP	PKPdf	03 41 11.4	-4.4
MODS	Modra-Piesok	142.79	329	*e*PKP	PKPdf	03 41 16.5	-1.0
ZST	Bratislava	142.99	329	*e*PKP	PKPdf	03 41 18.8	+1.0
EKA	Eskdalemuir Ar	143.05	353	PKhKP	PKPpre	03 41 13.4	
	comp=Z,3.5nm,0.9s,baz=347,slow=2.6,SNR=4.6						
NKC	Novy Kostel	143.59	335	*e*PKP	PKPab	03 41 16.3	+0.3
RONA	Rosalia, Austr	143.73	329	*e*PKP	PKPbc	03 41 17.8	+0.3
	comp=Z,15nm,1.0s						
CONA	Conrad Observa	143.78	329	*e*PKP	PKPbc	03 41 18.2	+0.5
	comp=Z,6.6nm,1.0s						
CKRC	Cesky Krumlov	143.86	332	*e*PKP	PKPab	03 41 16.4	-0.7
KHC	Kasperske Hory	143.96	333	*e*PKP	PKPab	03 41 17.3	-0.2
GERES	GERESS Array B	144.12	332	PKP	PKPab	03 41 17.8	-0.4
	comp=Z,6.6nm,0.8s,baz=29,slow=3.0,SNR=25						
GERES	GERESS Array B	144.12	332		PKPab	03 41 18.0	-0.2
ARSA	Arzberg	144.42	329	*e*PKP	PKPab	03 41 19.1	-0.2
	comp=Z,19nm,1.6s						
MOA	Molln	144.59	331	*e*PKP	PKPab	03 41 19.9	0.0
	comp=Z,26nm,1.0s						
SESA	Seetaler Alpe,	144.98	330	*e*PKP	PKPbc	03 41 20.7	-0.8
	comp=Z,44nm,1.3s						
BIOA	Bad Ischl, Aus	145.00	331	*e*PKP	PKPbc	03 41 20.3	-1.0
	comp=Z,9.4nm,0.8s						
SOKA	Soboth	145.06	329	*e*PKP	PKPbc	03 41 20.6	-0.9
	comp=Z,10nm,0.9s						
OBKA	Obir	145.41	329	*e*PKP	PKPdf	03 41 21.5	-0.7
	comp=Z,0.7nm,0.3s						
LESA	Schwarzleotal	145.63	332	*e*PKP	PKPdf	03 41 21.7	-0.8
	comp=Z,9.8nm,0.7s						
UCC	Uccle	145.88	343	*d*PKP	PKPdf	03 41 22.9	+0.2
WATA	Walderalm	146.19	332	*e*PKP	PKPdf	03 41 23.9	+0.3
	comp=Z,3.8nm,0.6s						
BMRD	Maredsous	146.21	342	*d*PKP	PKPbc	03 41 24.2	-0.6
BMRD				*d*PKiKP	PKPab	03 41 25.1	-0.9
ABTA	Abfaltersbach	146.21	331	*e*PKP	PKPdf	03 41 23.4	-0.1
	comp=Z,4.9nm,0.6s						
WTTA	Wattenberg	146.22	332	*e*PKP	PKPdf	03 41 24.3	+0.6
	comp=Z,5.3nm,0.7s						
WLF	Walferdange	146.34	340	*d*PKP	PKPbc	03 41 25.4	+0.2
MOTA	Moosalm	146.39	333	*e*PKP	PKPdf	03 41 24.7	+0.8
	comp=Z,9.3nm,0.9s						
RETA	Reutte	146.43	333	*e*PKP	PKPdf	03 41 24.7	+0.8
	comp=Z,12nm,1.3s						
SQTA	Sankt Quirin	146.44	333	*e*PKP	PKPdf	03 41 24.9	+0.9
	comp=Z,10nm,0.6s						
DOU	Dourbes	146.44	342	*d*PKP	PKPdf	03 41 23.6	-0.1
FETA	Feichten	146.80	333	*e*PKP	PKPbc	03 41 26.2	-0.6
	comp=Z,6.6nm,0.6s						
DAVA	Damuels	146.95	334	*e*PKP	PKPbc	03 41 26.4	-0.8
	comp=Z,14nm,0.8s						
ESDC	Sonseca Array	158.37	346	PKPab	PKPab	03 42 16.6	-0.6
	comp=Z,0.8nm,0.9s,baz=13,slow=3.4,SNR=5.0						

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*IDC **26** 03:26:52.4±26.0, 14°.71N×119°.57E, h0^{km}, mb4.3/4, mbtmp4.3/4, Error ellipse: s-maj=469.8km s-min=171.1km az=147.0*

*NEIC **26** 03:26:57.8±1.6, 14°.7N±0°.1×120°.3E±0°.2, h10^{km}±1^{km}, mb4.2/8, Error ellipse: s-maj=37.1km s-min=15.6km az=254.0*

*MAN **26** 03:27:16.0, 14°.65N×120°.41E, h160^{km}, MS3.6*

ISC 26 03:26:57.0±0.8**, 14°.6N**±0°.1×**120°.3E**±0°.3**, h10**^{km}**, n16,** σ**0^s.55**/16**, mb4.3**/9**, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SZP	Santa	2.90	3	Pn	Pn	03 27 42.8	-0.4
TPUB	Ta-pu	8.62	2	Pn	Pn	03 29 02.6	+0.7
FITZ	Fitzroy Crossi	32.95	171	P	P	03 33 32.6	+0.6
FITZ				IAmb	IAmb	03 33 54.6	
	comp=Z,0.6nm,0.9s						
WRA	Warramunga Arr	37.03	158	P	P	03 34 06.5	-0.7
	comp=Z,0.9nm,0.3s,baz=332,slow=8.9,SNR=26						
	comp=Z,0.9nm,0.3s						
WRA	Warramunga Arr	37.03	158	P	P	03 34 06.7	-0.5
WR8	Warramunga Arr	37.10	158	P	P	03 34 07.5	-0.3
WR8				IAmb	IAmb	03 34 26.6	
	comp=Z,12nm,1.4s						
AS31	Alice Springs	40.32	161	P	P	03 34 35.2	+0.3
AS31				IAmb	IAmb	03 34 35.8	
	comp=Z,2.2nm,0.3s						
ASAR	Alice Springs	40.32	161	P	P	03 34 35.0	+0.2
	comp=Z,3.6nm,0.3s,baz=336,slow=7.6,SNR=79						
	comp=Z,3.6nm,0.3s						
ASAR	Alice Springs	40.32	161	P	P	03 34 35.3	+0.4
CTA	Charters Tower	42.91	143	P	P	03 34 56.5	+0.3
	comp=Z,1.8nm,0.7s,baz=344,slow=9.1,SNR=3.9						
	comp=Z,1.8nm,0.7s						
MORW	Morawa	43.64	185	P	P	03 35 01.7	-0.1
FORT	Forrest	45.77	171	P	P	03 35 18.6	-0.2
FORT				IAmb	IAmb	03 35 19.2	
	comp=Z,5.8nm,0.8s						
BBOO	Buckleboo	49.52	163	P	P	03 35 47.3	-0.7
STKA	Stephens Creek	50.55	156	P	P	03 35 55.4	-0.4
	comp=Z,1.6nm,0.5s,baz=321,slow=7.8,SNR=5.4						
	comp=Z,1.6nm,0.5s						
AB31	Akbulak array	59.78	319	P	P	03 37 02.8	+0.5
AB31				IAmb	IAmb	03 37 15.5	
	comp=Z,1.6nm,1.2s						
ABKAR	Akbulak array	59.78	319	P	P	03 37 01.4	-0.9

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*IDC **26** 03:32:03.9±0.7, 66°.49N×17°.79W, h0^{km}, mb3.8/11, mbtmp3.8/16, ML3.2/6, MS3.6/23, Error ellipse: s-maj=15.4km s-min=11.9km az=0.0*

*REY **26** 03:32:03.3, 66°.61N×17°.81W, h15^{km}*

*NEIC **26** 03:32:05.5±1.7, 66°.53N±0°.07×17°.6W±0°.2, h10^{km}±1^{km}, mb4.2/9, Error ellipse: s-maj=13.1km s-min=9.1km az=39.0*

ISC 26 03:32:03.6±1.1**, 66°.45N**±0°.03×**17°.80W**±0°.03**, h2**^{km}±8^{km}**, n86,** σ**1^s.30**/83**, mb3.7**/13**, MS3.5**/20**, Iceland region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IGRI	Grimsey	0.12	317	P	Pg	03 32 06.4	+0.4
IGRI				S	Sg	03 32 08.5	+0.8
IBRE	Brettingsstaoi	0.33	188	P	Pb	03 32 12.4	+0.1
IBRE				S	Sb	03 32 19.2	+1.2
IHED	Heoinshofoi	0.42	152	P	Pb	03 32 13.3	-0.4
IHED				S	Sb	03 32 20.9	+0.4
ILEI	Leirhofn	0.53	94	P	Pg	03 32 13.4	-0.3
ILEI				S	Sg	03 32 21.4	+0.9
IGRA	Granastaoir	0.54	171	P	Pb	03 32 15.5	-0.3
IGRA				S	Sn	03 32 24.8	-3.1
ISIG	Siglufjorour	0.56	235	P	Pg	03 32 14.8	+0.5
ISIG				S	Sb	03 32 23.2	-1.1
IHLA	Hella	0.56	205	P	Pb	03 32 15.7	-0.4
IHLA				S	Sb	03 32 24.9	+0.3
IDIM	Dimmadalss	0.60	144	P	Pb	03 32 16.2	-0.7
IDIM				S	Sb	03 32 25.9	+0.1
IGIL	Gilhagi	0.70	122	P	Pg	03 32 16.8	-0.1
IGIL				S	Sb	03 32 27.6	-0.8
IGHA	Grjothals	0.77	142	P	Pg	03 32 18.6	+0.3
IGHA				S	Sb	03 32 30.5	+0.1
IKVO	Krokottuvotn	0.83	153	P	Pg	03 32 19.8	+0.3
IREN	Reynihlio	0.89	155	P	Pg	03 32 20.6	+0.1
IREN				S	Sn	03 32 34.4	-2.1
IMEL	Melhnausar	1.00	152	P	Pg	03 32 22.5	-0.3
IHRN	Hraun	1.00	251	P	Pg	03 32 20.8	-2.0
IGRS	Grimsstaoir	1.06	139	P	Pg	03 32 23.3	-0.7
ISVA	Svartarkot	1.14	169	P	Pb	03 32 24.9	-1.1
ISVA				S	Sn	03 32 42.1	-0.7
IASK	Askja	1.48	161	P	Pn	03 32 30.7	-0.7
THOR	Thorvaldshraun	1.59	163	P	Pn	03 32 31.9	-0.9
IMKO	Mokollar	1.60	157	P	Pn	03 32 31.6	-1.3
IDYN	Dyngjuhals	1.68	174	P	Pn	03 32 33.3	-0.7
ISTE	Stelbrattur	1.77	206	P	Pn	03 32 35.1	-0.2
IKRE	Kreppuhraun	1.77	160	P	Pn	03 32 34.4	-0.9
IVON	Vonarskard	1.79	179	P	Pn	03 32 35.1	-0.4
IKIS	Kista	1.79	177	P	Pn	03 32 34.9	-0.7
ISKR	Skrokkalda	1.92	188	P	Pn	03 32 37.0	-0.2
IJOK	Jokulheimar	2.15	185	P	Pn	03 32 40.7	+0.2
IASB	sbjarnarstai	2.25	222	P	Pn	03 32 41.6	-0.2
BORG	Borgarnes	2.25	222	Pn	Pn	03 32 41.6	-0.2
	51nm,0.3s,baz=38,slow=8.3,SNR=146						
BORG				Sn	Sb	03 33 11.5	-1.7
	71nm,0.3s,baz=33,slow=23,SNR=34						
	308nm,0.5s						
BORG				AML	AML		
IVAT	Vatnsfell	2.32	192	P	Pn	03 32 43.1	+0.2
IIEY	Innrieyrar	2.37	183	P	Pn	03 32 43.6	+0.1
IKAL	Kalfafell	2.52	179	P	Pn	03 32 46.1	+0.7
IMOR	Morastadir	2.72	219	P	Pn	03 32 48.2	-0.1
SCO	Scoresbysund	4.33	341		Pn	03 33 07.1	-3.2
DBG	Daneborg	7.94	355	*e*P	Pn	03 33 59.8	+0.1
DAG	Danmarks Havn	10.38	359	*i* P	Pn	03 34 33.5	+0.3
EKA	Eskdalemuir Ar	13.18	141	Pn	Pn	03 35 12.7	+1.1
	baz=335,slow=12						
	1.0nm,0.7s						
NOA	NORSAR Array B	13.84	99	Pn	Pn	03 35 21.4	+0.8
	baz=316,slow=1.9,SNR=3.5						
	1.0nm,1.0s						
SPITS	Spitsbergen Ar	15.29	26	Pn	P	03 35 41.7	-3.4
	baz=225,slow=14						
	3.9nm,1.0s						
HFS	Hagfors	15.36	99	LR	LR	03 40 54.3	
	comp=Z,160nm,18.2s,baz=321,slow=34						
ARCES	ARCESS Array B	16.25	60	Pn	Pn	03 35 52.1	-0.4
	baz=284,slow=11,SNR=1.8						
ARCES				LR	LR	03 40 42.2	
	comp=Z,105nm,19.8s,baz=263,slow=32						
FINES	FINESS Array B	19.57	84	P	Pn	03 36 32.7	-0.8
	0.1nm,0.3s,baz=301,slow=11,SNR=7.7						
FINES				LR	LR	03 44 11.7	
	comp=Z,185nm,19.6s,baz=272,slow=37						
	2.8nm,0.8s						
FINES				AML	AML		
FINES	FINESS Array B	19.57	84	P	P	03 36 30.0	-2.3
FRB	Frobisher Bay	21.05	287	LR	LR	03 44 33.1	
	comp=Z,252nm,19.0s,baz=78,slow=36						
CLL	Collm	21.64	119	*e*P	P	03 36 53.0	-1.9

CLL				*e*x	x	03 36 59.0	
CLL				*e*PPP	PPP	03 37 19.0	
CLL				*e*S	S	03 40 54.0	-0.9
CLL				*e*SS	SnSn	03 41 24.0	+5.9
BRG	Berggiesshubel	22.34	119	*e*P	P	03 37 04.4	+2.1
BRG				Amp		03 37 08.5	
	comp=Z,6.7nm,1.1s						
GERES	GERESS Array B	23.97	122	P	P	03 37 19.8	+0.7
	comp=Z,0.5nm,0.2s,baz=316,slow=9.4,SNR=5.9						
GERES				LR	LR	03 46 21.5	
	comp=Z,66nm,18.6s,baz=270,slow=36						
	comp=Z,0.5nm,0.2s						
DAVOX	Davos/Dischmat	24.53	130	LR	LR	03 47 32.3	
	comp=Z,123nm,18.5s,baz=290,slow=38						
VRAC	Vranov	24.58	117	LR	LR	03 47 09.4	
	comp=Z,52nm,19.7s,baz=313,slow=37						
SCHQ	Schefferville	25.93	267	LR	LR	03 46 59.4	
	comp=Z,189nm,18.5s,baz=63,slow=34						
OBN	Obninsk	27.87	87	LR	LR	03 48 35.6	
	comp=Z,106nm,21.0s,baz=2.5,slow=36						
AKASG	Malin Array Be	28.25	101	P	P	03 37 56.8	-0.8
	comp=Z,0.7nm,0.6s,baz=327,slow=9.6,SNR=4.4						
AKASG				LR	LR	03 49 37.3	
	comp=Z,158nm,18.3s,baz=344,slow=37						
	comp=Z,0.7nm,0.6s						
KIRV	Kirov	30.50	72	LR	LR	03 49 30.4	
	comp=Z,106nm,20.7s,baz=331,slow=34						
MLR	Muntele Rosu	31.23	110	LR	LR	03 52 23.5	
	comp=Z,71nm,19.4s,baz=358,slow=39						
VAE	Valguarnera	34.38	131	LR	LR	03 51 32.3	
	comp=Z,97nm,19.8s,baz=316,slow=34						
ARTI	Arti	35.47	69	LR	LR	03 54 17.8	
	comp=Z,130nm,19.1s,baz=316,slow=38						
YKA	Yellowknife Ar	37.91	311	P	P	03 39 21.6	0.0
	comp=Z,1.2nm,0.9s,baz=44,slow=8.7,SNR=6.7						
	comp=Z,1.2nm,0.9s						
SADO	Sadowa	38.74	267	LR	LR	03 53 47.6	
	comp=Z,85nm,18.8s,baz=56,slow=34						
BRTR	Keskin Array B	39.10	107	P	P	03 39 33.4	+1.4
	comp=Z,0.8nm,0.7s,baz=332,slow=7.0,SNR=5.7						
	comp=Z,0.8nm,0.7s						
BRTR	Keskin Array B	39.10	107	P	P	03 39 32.0	0.0
KBZ	Khabaz	39.34	94	LR	LR	03 56 19.3	
	comp=Z,40nm,19.0s,baz=353,slow=37						
BINY	Binghamton	39.63	262	P	P	03 39 37.0	+0.7
FFC	Flin Flon	39.69	295	P	P	03 39 36.2	-0.4
FFC				IAmb	IAmb	03 39 41.2	
	comp=Z,7.3nm,1.1s						
AKTO	Aktyubinsk	39.92	75	LR	LR	03 55 21.7	
	comp=Z,83nm,19.2s,baz=360,slow=35						
EPLO	Experimental L	40.57	284	P	P	03 39 44.9	+0.9
ULM	Lac du Bonnet	40.94	287	P	P	03 39 47.4	+0.4
	comp=Z,4.3nm,0.7s,baz=38,slow=8.2,SNR=6.7						
ULM				LR	LR	03 55 43.0	
	comp=Z,181nm,18.4s,baz=44,slow=35						
	comp=Z,4.3nm,0.7s						
ULM	Lac du Bonnet	40.94	287	P	P	03 39 47.1	+0.1
GNI	Garni	43.10	96	LR	LR	03 58 50.6	
	comp=Z,72nm,20.2s,baz=342,slow=37						
H22K	Ishtalitna Cre	43.85	335	P	P	03 40 11.0	+0.4
ILAR	Eielson Array	44.05	331	P	P	03 40 13.2	+1.1
	comp=Z,1.1nm,0.9s,baz=23,slow=6.1,SNR=6.3						
	comp=Z,1.1nm,0.9s						
ILAR	Eielson Array	44.05	331	P	P	03 40 13.6	+1.6
BCAR	Beaver Creek A	44.52	327	P	P	03 40 19.1	+3.1
MLY	Manley	44.52	334	P	P	03 40 17.6	+1.6
MLY				IAmb	IAmb	03 40 21.4	
	comp=Z,3.0nm,0.8s						
NEA2	Nenana	44.62	333	P	P	03 40 17.4	+0.7
NEA2				IAmb	IAmb	03 40 21.4	
	comp=Z,3.1nm,0.8s						
MMAI	Mount Meron Ar	45.67	110	LR	LR	04 02 59.1	
	comp=Z,20nm,18.9s,baz=288,slow=41						
KURBB	Kurchatov Arra	47.33	59	P	P	03 40 37.8	-0.4
	comp=Z,0.3nm,0.3s,baz=330,slow=7.1,SNR=4.1						
	comp=Z,0.3nm,0.3s						
TKL	Tuckaleechee C	48.34	265	LR	LR	03 59 37.2	
	comp=Z,112nm,18.2s,baz=30,slow=34						
BBB	Bella Bella	50.53	312	LR	LR	04 01 55.2	
	comp=Z,53nm,20.8s,baz=142,slow=36						
MKAR	Makanchi Array	51.90	59	P	P	03 41 13.1	0.0
	comp=Z,0.9nm,0.9s,baz=356,slow=5.8,SNR=3.5						
	comp=Z,0.9nm,0.9s						
MKAR	Makanchi Array	51.90	59	P	P	03 41 12.7	-0.4
PD31	Pinedale Array	52.38	292	P	P	03 41 17.2	+0.2
PD31				IAmb	IAmb	03 41 17.8	
	comp=Z,2.5nm,0.9s						
PDAR	Pinedale Array	52.38	292	P	P	03 41 16.8	-0.2
	comp=Z,0.9nm,0.7s,baz=52,slow=6.1,SNR=9.5						
	comp=Z,0.9nm,0.7s						
PDAR	Pinedale Array	52.38	292	P	P	03 41 17.3	+0.3
TORD	Torodi Ar. Bea	54.84	157	P	P	03 41 35.8	+0.9
	comp=Z,0.8nm,0.7s,baz=344,slow=7.0,SNR=5.2						
	comp=Z,0.8nm,0.7s						
TXAR	Lajitas Array	61.86	279	P	P	03 42 24.7	+0.6
	comp=Z,0.4nm,0.7s,baz=55,slow=5.1,SNR=6.6						
	comp=Z,0.4nm,0.7s						
TXAR	Lajitas Array	61.86	279	P	P	03 42 25.4	+1.3
PFO	Pinyon Flats O	63.00	292	LR	LR	04 09 45.7	
	comp=Z,61nm,20.3s,baz=8.0,slow=36						

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*REY **26** 03:33:56.8, 66°.62N×17°.82W, h14^{km}*

*IDC **26** 03:33:57.2±0.7, 66°.48N×17°.75W, h0^{km}, mb3.8/11, mbtmp3.8/13, ML3.4/2, MS3.6/5, Error ellipse: s-maj=18.3km s-min=13.3km az=178.0*

*NEIC **26** 03:33:59.4±1.3, 66°.56N±0°.08×17°.7W±0°.1, h10^{km}±1^{km}, mb4.2/12, Error ellipse: s-maj=12.8km s-min=8.7km az=351.0*

ISC 26 03:33:58.2±0.5**, 66°.49N**±0°.03×**17°.82W**±0°.02**, h10**^{km}**, n75,** σ**1^{s}.32**/86**, mb4.0**/17**, MS3.6**/6**, Iceland region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IGRI	Grimsey	0.10	307	P	Pg	03 33 59.9	-0.8
IGRI				S	Sg	03 34 01.9	-0.6
IBRE	Brettingsstaoi	0.37	186	P	Pb	03 34 06.0	-0.8
IBRE				S	Sb	03 34 12.9	+0.4
IHED	Heoinshofoi	0.46	153	P	Pb	03 34 07.0	-1.3
IHED				S	Sb	03 34 14.4	-0.7
ILEI	Leirhofn	0.54	98	P	Pg	03 34 07.0	-1.8
ILEI				S	Sg	03 34 14.8	-1.0
ISIG	Siglufjorour	0.57	232	P	Pg	03 34 08.3	-1.0
ISIG				S	Sb	03 34 16.9	-1.4
IGRA	Granastaoir	0.58	170	P	Pb	03 34 09.1	-1.3
IGRA				S	Sb	03 34 18.3	-0.3
IHLA	Hella	0.59	203	P	Pb	03 34 09.3	-1.3
IHLA				S	Sb	03 34 18.6	-0.4
IDIM	Dimmadalss	0.64	145	P	Pb	03 34 09.8	-1.6
IDIM				S	Sb	03 34 19.4	-0.9
IGIL	Gilhagi	0.72	124	P	Pg	03 34 10.5	-1.7
IGIL				S	Sb	03 34 21.1	-1.7
IGHA	Grjothals	0.80	143	P	Pg	03 34 12.2	-1.3
IGHA				S	Sb	03 34 23.9	-1.1
IKVO	Krokottuvotn	0.86	153	P	Pg	03 34 13.6	-1.3
IKVO				S	Sb	03 34 26.1	-0.9
IREN	Reynihlio	0.92	156	P	Pg	03 34 14.5	-1.4
IREN				S	Sb	03 34 27.8	-0.7
IHRN	Hraun	1.00	249	P	Pg	03 34 14.4	-3.1
IHRN				S	Sg	03 34 27.9	-2.7
IMEL	Melhnausar	1.03	152	P	Pg	03 34 16.3	-1.8
IGRS	Grimsstaoir	1.10	140	P	Pb	03 34 17.3	-2.0
ISVA	Svartarkot	1.18	168	P	Pb	03 34 18.9	-1.8
ISVA				S	Sn	03 34 35.4	-1.4
IASK	Askja	1.52	161	P	Pn	03 34 24.1	-1.4
THOR	Thorvaldshraun	1.63	163	P	Pn	03 34 26.4	-0.6
IMKO	Mokollar	1.63	157	P	Pn	03 34 26.3	-0.8
IDYN	Dyngjuhals	1.71	173	P	Pn	03 34 27.1	-1.1
ISTE	Stelbrattur	1.80	205	P	Pn	03 34 28.6	-0.7
ISTE				S	Sb	03 34 52.7	-1.1
IVON	Vonarskard	1.82	179	P	Pn	03 34 28.7	-1.0
IKIS	Kista	1.82	177	P	Pn	03 34 28.8	-0.9
ISKR	Skrokkalda	1.95	187	P	Pn	03 34 30.8	-0.5
IDJK	Dyngjujokull	2.00	173	P	Pn	03 34 31.4	-0.8
IJOK	Jokulheimar	2.19	185	P	Pn	03 34 34.3	-0.4
IASB	sbjarnarstai	2.27	221	P	Pn	03 34 35.2	-0.5
BORG	Borgarnes	2.27	221	Pn	Pn	03 34 35.2	-0.5
	60nm,0.3s,baz=37,slow=7.4,SNR=7.4						
BORG				Sn	Sb	03 35 05.3	-2.1
	112nm,0.3s,baz=209,slow=22,SNR=22						
	795nm,0.7s						
BORG				AML	AML		
BORG	Borgarnes	2.27	221		Pn	03 34 35.6	-0.1
IVAT	Vatnsfell	2.35	192	P	Pn	03 34 36.6	-0.4
IIEY	Innrieyrar	2.40	183	P	Pn	03 34 37.4	-0.3
IGYG	Gygjarholskot	2.43	205	P	Pn	03 34 37.6	-0.3
IKAL	Kalfafell	2.55	179	P	Pn	03 34 39.6	+0.1
IFAL	Falljokull	2.57	170	P	Pn	03 34 39.9	0.0
IMOR	Morastadir	2.74	219	P	Pn	03 34 41.5	-0.7
SCO	Scoresbysund	4.29	341		Pn	03 35 00.4	-3.1
SCO	Scoresbysund	4.29	341	*i* P	Pn	03 35 00.0	-3.5
FINES	FINESS Array B	19.57	84	P	Pn	03 38 26.3	-0.9
	0.1nm,0.3s,baz=289,slow=5.8,SNR=6.2						
	1.0nm,0.6s						
FINES				AML	AML		
FINES	FINESS Array B	19.57	84	P	Pn	03 38 25.6	-1.6
CLL	Collm	21.67	119	*e*P	P	03 38 49.0	+0.4
CLL				*e*S	Sn	03 42 54.0	-3.0
CLL				*e*SSS	SSS	03 43 24.0	
CLL				AMS	AMS	03 45 00.0	
	comp=N,100nm,17.5s						
CLL				AMS	AMS	03 45 00.0	
	comp=E,100nm,25.0s						
CLL				AMS	AMS	03 45 00.0	
	comp=Z,100nm,20.3s						
BRG	Berggiesshubel	22.36	119	*e*P	P	03 38 58.0	+1.9
BRG				Amp		03 39 02.2	
	comp=Z,3.6nm,1.0s						
GERES	GERESS Array B	23.99	122	P	P	03 39 13.6	+0.8
	comp=Z,0.5nm,0.6s,baz=352,slow=8.5,SNR=4.4						
	comp=Z,0.5nm,0.6s						
AKASG	Malin Array Be	28.26	101	P	P	03 39 50.6	-0.5
	comp=Z,0.5nm,0.4s,baz=329,slow=9.3,SNR=4.1						
	comp=Z,0.5nm,0.4s						
MD01	Midelt array s	34.54	160	P	P	03 40 48.8	+2.1
YKA	Yellowknife Ar	37.88	311	P	P	03 41 15.1	+0.3
	comp=Z,2.3nm,0.9s,baz=43,slow=7.9,SNR=7.0						
	comp=Z,2.3nm,0.9s						
BRTR	Keskin Array B	39.12	107	P	P	03 41 27.0	+1.5
	comp=Z,1.2nm,0.7s,baz=325,slow=5.9,SNR=6.9						
	comp=Z,1.2nm,0.7s						
BRTR	Keskin Array B	39.12	107	P	P	03 41 26.2	+0.7
G31M	Satah River	39.52	326	P	P	03 41 29.4	+0.9
FFC	Flin Flon	39.66	295	P	P	03 41 31.3	+1.5
FFC				IAmb	IAmb	03 41 31.7	
	comp=Z,6.0nm,0.9s						
EPLO	Experimental L	40.55	284	P	P	03 41 38.3	+1.1
ULM	Lac du Bonnet	40.92	286	P	P	03 41 41.2	+1.0
	comp=Z,4.1nm,0.7s,baz=61,slow=9.5,SNR=7.1						
	comp=Z,4.1nm,0.7s						
ULM	Lac du Bonnet	40.92	286	P	P	03 41 41.2	+1.0
I26K	Coal Creek Min	42.80	330	P	P	03 41 57.4	+2.0
I26K				IAmb	IAmb	03 42 01.7	
	comp=Z,4.8nm,1.1s						
ILAR	Eielson Array	44.01	331	P	P	03 42 06.4	+1.2
	comp=Z,1.4nm,1.0s,baz=20,slow=6.3,SNR=7.5						
	comp=Z,1.4nm,1.0s						
IMAR	Indian Mountai	44.13	336	P	P	03 42 07.4	+1.2
M29M	Somme Creek	44.29	325	P	P	03 42 10.4	+2.8
M29M				IAmb	IAmb	03 42 10.7	
	comp=Z,4.8nm,1.1s						
MLY	Manley	44.49	334	P	P	03 42 10.8	+1.7
ECSD	EROS Data Cent	46.57	282	P	P	03 42 27.0	+1.2
KURK	Kurchatov	47.28	59	P	P	03 42 31.7	+0.6
KURK				IAmb	IAmb	03 42 35.1	
	comp=Z,1.2nm,0.7s						
KURBB	Kurchatov Arra	47.32	59	P	P	03 42 31.7	+0.2
	comp=Z,0.9nm,0.6s,baz=328,slow=7.4,SNR=9.6						
	comp=Z,0.9nm,0.6s						
BOZ	Bozeman (W)	50.69	295	P	P	03 42 59.0	+1.4
BOZ				IAmb	IAmb	03 42 59.7	
	comp=Z,3.0nm,0.9s						
MKAR	Makanchi Array	51.89	59	P	P	03 43 06.2	-0.2
	comp=Z,0.8nm,0.8s,baz=317,slow=5.9,SNR=3.6						
	comp=Z,0.8nm,0.8s						
PD31	Pinedale Array	52.36	292	P	P	03 43 11.2	+0.9
PDAR	Pinedale Array	52.36	292	P	P	03 43 10.3	+0.1
	comp=Z,1.0nm,0.7s,baz=55,slow=5.9,SNR=10						
	comp=Z,1.0nm,0.7s						
PDAR	Pinedale Array	52.36	292	P	P	03 43 10.6	+0.4
TORD	Torodi Ar. Bea	54.87	157	P	P	03 43 27.7	-0.9
	comp=Z,1.2nm,1.0s,baz=339,slow=8.0,SNR=4.0						
	comp=Z,1.2nm,1.0s						
KSH2	Kashi	56.12	69	P	P	03 43 38.8	+1.3
KSH2				pmax	pmax		
	comp=Z,4.0nm,0.9s						
SJG	San Juan	57.54	237	LR	LR	04 03 44.7	
	comp=Z,7.7nm,19.7s,baz=58,slow=31						
YBH	Yreka Blue Hor	57.98	301	LR	LR	04 10 09.9	
	comp=Z,89nm,19.3s,baz=348,slow=38						
BRDY	Brady	58.26	276	P	P	03 43 53.4	+0.7
BRDY				IAmb	IAmb	03 43 56.7	
	comp=Z,4.8nm,1.3s						
TXAR	Lajitas Array	61.85	279	P	P	03 44 18.1	+0.8
	comp=Z,0.8nm,0.8s,baz=56,slow=5.7,SNR=8.8						
	comp=Z,0.8nm,0.8s						
TXAR	Lajitas Array	61.85	279	P	P	03 44 17.6	+0.2
JTS	Las Juntas de	71.58	253	LR	LR	04 15 53.7	
	comp=Z,20nm,18.5s,baz=310,slow=35						
PALK	Pallekele	86.78	79	LR	LR	04 29 33.7	
	comp=Z,75nm,18.2s,baz=0.5,slow=38						
MATP	Matopo	93.32	137	LR	LR	04 33 13.0	
	comp=Z,42nm,18.5s,baz=200,slow=38						

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*LDG **26** 03:48:25.4±0.2, 42°.86N×1°.46W, h2^{km}, Md2.6/2, Ml2.5/16, Error ellipse: s-maj=2.8km s-min=2.7km az=63.0*

*MDD **26** 03:48:25.5±0.2, 42°.86N×1°.50W, h0^{km}, mb_Lg2.5/30, Error ellipse: s-maj=2.0km s-min=1.3km az=1.0*

ISC 26 03:48:23.8±1.0**, 42°.91N**±0°.02×**1°.48W**±0°.03**, h6**^{km}±8^{km}**, n28,** σ**1^{s}.23**/56**, 1D, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EARA	Aranguren	0.16	208	⇓Pg	Pg	03 48 25.8	-1.1
EARA				Sg	Sg	03 48 27.7	-1.4
SJPF	Ste Jean	0.28	42	*e*Pg	Pg	03 48 30.3	+1.1
SJPF				*e*Sg	Sg	03 48 33.5	+0.7
EALK	Alkurruntz	0.31	356	Pg	Pb	03 48 31.6	-0.2
EALK				Sg	Sb	03 48 36.8	-0.3
EALK				IVmb_Lg		03 48 40.6	
ETSF	Etsaut	0.68	91	*e*Pg	Pg	03 48 36.8	0.0
	baz=267						
ETSF	Etsaut	0.68	91	*e*Pg	Pg	03 48 36.9	+0.1
ETSF				*e*Sg	Sb	03 48 46.7	-0.8
	21nm,0.2s						
ETSF				*e*Sg	Sb	03 48 46.8	-0.8
E1202	Enciso (La Rio	0.95	218	Pg	Pg	03 48 42.5	+0.6
E1202				Sg	Sg	03 48 54.7	+0.4
ECHI	Chisagues Biel	1.26	101	Pg	Pn	03 48 48.4	+0.5
ECHI				Sg	Sn	03 49 05.2	0.0
ECHI				IVmb_Lg		03 49 12.0	
EPF	Esparros	1.34	84	*e*Pg	Pn	03 48 49.0	0.0
EPF	Esparros	1.34	84	*e*Pg	Pb	03 48 51.0	+1.7
EPF				*e*Sg	Sn	03 49 08.2	+1.1
EPF				*e*Sg	Sn	03 49 08.3	+1.1
	32nm,0.3s						
EPF				AML	AML		
ESAC	San Caprasio	1.40	147	Pg	Pn	03 48 49.7	-0.2
ESAC				Sg	Sb	03 49 08.6	+0.1
ELAN	Lanestosa	1.47	283	Pg	Pn	03 48 52.1	+1.3
ELAN				Sn	Sn	03 49 11.9	+1.6
ELAN				IVmb_Lg		03 49 14.9	
ETOR	Torete	2.13	192	Pn	Pn	03 49 00.3	+0.4
ETOR				Sn	Sn	03 49 26.9	+0.1
ETOR				IVmb_Lg		03 49 39.6	
EPOB	Poblet	2.46	128	Pn	Pn	03 49 03.7	-0.7
EPOB				Sn	Sn	03 49 35.5	+0.8
EPOB				IVmb_Lg		03 49 45.2	
LFF	La Frestale	2.58	38	*e*Pn	Pn	03 49 07.8	+1.7
LFF				*e*Sn	Sb	03 49 39.8	-2.7
	11nm,0.7s						
LFF				AML	AML		
MTLF	Montolieu	2.74	80	*e*Pn	Pn	03 49 08.7	+0.5
MTLF				*e*Sn	Sn	03 49 39.4	-2.2
	12nm,0.8s						
MTLF				AML	AML		
RJF	Les Rejaudoux	3.22	41	*e*Pn	Pn	03 49 16.1	+1.3
RJF				*e*Sn	Sn	03 49 52.9	-0.6
	3.8nm,0.3s						
RJF				AML	AML		
CAF	Calviac	3.26	51	*e*Pn	Pn	03 49 16.2	+0.8
CAF				*e*Sn	Sn	03 49 54.9	+0.5
	4.7nm,0.3s						
CAF				AML	AML		
MFF	Saint Martin d	3.81	14	*e*Pn	Pn	03 49 24.0	+1.1
MFF	Saint Martin d	3.81	14	*e*Pn	Pn	03 49 24.2	+1.3
MFF				*e*Sn	Sn	03 50 07.5	-0.5
	1.1nm,0.3s						
MFF				*e*Sn	Sb	03 50 07.8	-10
MFF				*e*Sg	Sg	03 50 26.0	-0.1
MFF				AML	AML		
LASF	Ste Croix	4.05	71	*e*Pn	Pn	03 49 27.1	+0.8
LASF				*e*Sn	Sn	03 50 13.0	-1.0
	1.9nm,0.4s						
LASF				AML	AML		
TCF	Toulx Ste Croi	4.28	37	*e*Pn	Pn	03 49 30.0	+0.6
TCF				*e*Sn	Sn	03 50 17.4	-2.3
	0.6nm,0.2s						
TCF				AML	AML		
BGF	Bois d'Agland	4.77	39	*e*Pn	Pn	03 49 36.6	+0.4
BGF				*e*Sn	Sn	03 50 30.0	-1.8
	6.7nm,0.3s						
BGF				AML	AML		
VIVF	Saint-Julien-l	4.85	64	*e*Pn	Pn	03 49 39.2	+1.9
VIVF				*e*Sn	Sn	03 50 33.1	-0.7
	1.2nm,0.6s						
VIVF				AML	AML		
QUIF	Quistinic	5.14	347	*e*Pn	Pn	03 49 42.3	+1.1
QUIF				*e*Sn	Sn	03 50 40.5	-0.4
	4.3nm,0.3s						
QUIF				AML	AML		
AVF	Avril sur Loir	5.18	40	*e*Pn	Pn	03 49 40.8	-0.9
AVF				*e*Sn	Sn	03 50 39.0	-2.8
	1.3nm,0.3s						
AVF				AML	AML		
SMF	Signal de Mont	5.32	44	*e*Pn	Pn	03 49 44.7	+1.1
SMF				*e*Sn	Sn	03 50 44.0	-1.2
	0.5nm,0.2s						
SMF				AML	AML		
SSF	Saint Saulge	5.45	39	*e*Pn	Pn	03 49 46.3	+0.8
SSF				*e*Sn	Sn	03 50 46.2	-2.2
	1.3nm,0.4s						
SSF				AML	AML		
ROSF	Rostrenen	5.57	348	*e*Pn	Pn	03 49 47.1	0.0
ROSF				*e*Sn	Sn	03 50 48.9	-2.5
	1.2nm,0.3s						
ROSF				AML	AML		

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*AZER **26** 03:49:16.6, 38°.52N×45°.03E, h6^{km}, ml2.4*

*TEH **26** 03:49:18.6, 38°.42N×45°.13E, h6^{km}±53^{km}, ML2.5, Presumed earthquake*

ISC 26 03:49:18.0±1.2**, 38°.49N**±0°.03×**45°.15E**±0°.03**, h9**^{km}±11^{km}**, n18,** σ**0^{s}.84**/28**, Iran-Armenia-Azerbaijan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ISHB	Shabestar	0.42	119	Pg	Pb	03 49 28.2	+0.6
IMRD	Marand	0.48	62	Pg	Pb	03 49 29.2	+0.4
NAX	Nakhchivan	0.73	21	P	Pn	03 49 33.6	-1.0
NAX				S	Sn	03 49 44.9	-1.1
ORD	Ordubad	0.79	56	P	Pb	03 49 34.5	+0.6
ORD				S	Sn	03 49 46.8	-0.6
ITBZ	Tabriz	0.82	108	Pg	Pg	03 49 33.2	-0.6
ITBZ				Sg	Sb	03 49 46.0	+0.3
SBZ	Shahbuz	0.96	19	P	Pn	03 49 37.4	-0.4
SBZ				S	Sn	03 49 51.7	+0.2
IAZR	Azarshahr	1.04	141	Pg	Pg	03 49 38.0	0.0
HYR	Heyderabad	1.25	349	P	Pb	03 49 41.4	-0.4
HYR				S	Sn	03 50 00.2	+1.5
HAKT	HAKKARI	1.47	231	Pn	Pb	03 49 44.5	-1.1
HAKT				Sn	Sg	03 50 07.3	+1.9
IHRS	Heris	1.49	96	Pg	Pg	03 49 46.7	0.0
IHSH	Hashtrud	2.04	125	Pn	Pb	03 49 55.4	-0.1
ISRB	Sarab	2.09	108	Pn	Pb	03 49 56.1	0.0
GRMI	Germi	2.17	81	Pn	Pb	03 49 57.9	+0.4
GDB	GEDABAY	2.28	12	Pn	Pb	03 49 59.3	0.0
GDB				Sn	Sg	03 50 30.5	-0.7
GANJ	Ganja	2.34	22	Pn	Pg	03 50 03.3	+0.5
GANJ				Sn	Sg	03 50 32.7	-0.3
YRD	Yardimli	2.45	79	Pn	Pg	03 50 03.8	-1.2
YRD				Sn	Sg	03 50 37.2	+0.4
LRK	Lerik	2.50	85	Pn	Pb	03 50 03.8	+0.6
LRK				Sn	Sg	03 50 38.4	0.0
QZX	Qazax, Azerbai	2.57	4	Sn	Sb	03 50 37.6	+1.6

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*SJA **26** 04:02:02.9±0.8, 30°.66S×71°.62W, h16^{km}±3^{km}, ML3.5, MW3.5*

*GUC **26** 04:02:07.2±0.7, 30°.68S×71°.32W, h41^{km}±1^{km}, ML3.7*

ISC 26 04:02:05.4±1.3**, 30°.71S**±0°.02×**71°.31W**±0°.04**, h15**^{km}±10^{km}**, n47,** σ**2^{s}.45**/91**, 1C-1D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CO06	Fray Jorge	0.29	278	⇑*e*P	Pn	04 02 15.1	0.0
CO06				*e*S	Sn	04 02 21.8	+0.7
CO02	Combarbal	0.56	152	*e*P	Pn	04 02 19.1	+0.3
CO02				*e*S	Sn	04 02 28.9	+1.0
CO02				IAML		04 02 29.7	
	comp=Z,6µm,0.1s						
CO02	Combarbal	0.56	152	*e*P	Pn	04 02 19.7	+0.8
CO02				*e*S	Sn	04 02 28.9	+1.0
GO04	Tololo Observa	0.69	39	*e*P	Pn	04 02 20.9	0.0
GO04				*e*S	Sn	04 02 32.1	+0.6
GO04				IAML		04 02 32.5	
	comp=Z,4µm,0.3s						
GO04	Tololo Observa	0.69	39	*e*P	Pn	04 02 20.9	0.0
GO04				*e*S	Sn	04 02 31.6	+0.1
GO04				IAML		04 02 34.4	
	comp=N,7µm,0.3s						
CO01	Juntas del Tor	1.28	55	*e*P	Pg	04 02 30.4	+0.3
CO01				*e*S	Sg	04 02 48.2	+1.4
CO01				IAML		04 02 51.6	
	comp=Z,594nm,0.2s						
CO01	Juntas del Tor	1.28	55	*e*P	Pg	04 02 30.3	+0.2
CO01				*e*S	Sg	04 02 47.7	+0.9
CO04	Los Peladeros	1.35	168	⇓*e*P	Pn	04 02 30.8	+0.7
CO04				*e*S	Sb	04 02 48.1	+0.2
CO04				IAML		04 02 51.3	
	comp=N,3µm,0.3s						
AROD	Rodeo	1.67	71	*e*P	Pg	04 02 38.1	+0.4
AROD				*e*S	Sg	04 03 00.9	+1.5
LCO	Las Campanas	1.78	17	*e*P	Pn	04 02 36.1	+0.3
LCO				*e*S	Sn	04 02 49.4	-8.9
LCO				IAML		04 03 00.2	
	comp=Z,751nm,0.1s						
LCO	Las Campanas	1.78	17	*e*P	Pn	04 02 35.9	+0.1
LCO				*e*S	Sn	04 02 57.7	-0.6
ACCO	Cerro Coronel	1.94	87	*e*P	Pg	04 02 42.1	-0.5
ACCO				*e*S	Sn	04 02 55.1	-7.1
ACDV	Cuesta del Vie	1.96	75	*e*P	Pb	04 02 42.2	+1.3
ACDV				*e*S	Sn	04 02 55.5	-7.3
RTLS	Leoncito	2.03	123	*e*P	Pb	04 02 43.2	+1.0
RTLS				*e*S	Sg	04 03 14.8	+3.9
RTLS				IAML		04 03 17.8	
	comp=Z,381nm,0.3s						
AC05	El Transito	2.08	26	*e*P	Pn	04 02 41.1	+1.3
AC05				*e*S	Sb	04 03 08.4	-0.1
AC05				IAML		04 03 11.6	
	comp=Z,182nm,0.5s						
AC05	El Transito	2.08	26	*e*P	Pn	04 02 41.0	+1.2
AC05				*e*S	Sn	04 03 06.5	+1.0
AC05				IAML		04 03 14.2	
	comp=E,409nm,0.2s						
VA03	San Esteban	2.14	163	*e*P	Pn	04 02 42.3	+1.5
VA03				*e*S	Sb	04 03 11.8	+1.4
VA03				IAML		04 03 18.6	
	comp=Z,263nm,0.6s						
VA03	San Esteban	2.14	163	*e*P	Pn	04 02 42.2	+1.5
VA03				*e*S	Sb	04 03 09.6	-0.9
VA03				IAML		04 03 12.9	
	comp=E,882nm,0.1s						
ROCH	El Roble	2.27	174	*e*P	Pn	04 02 44.0	+1.4
ROCH				*e*S	Sn	04 03 12.8	+2.5
ROCH				IAML		04 03 18.2	
	comp=N,426nm,0.3s						
ZON	Zonda	2.40	111	*e*P	Pb	04 02 48.0	-0.4
ZON				*e*S	Sn	04 03 05.3	-8.1
ZON				IAML		04 03 29.6	
	comp=Z,101nm,0.5s						
PEL	Peldehue	2.48	168	*e*P	Pn	04 02 46.3	+1.0
PEL				*e*S	Sb	04 03 18.6	-1.5
PEL				IAML		04 03 29.7	
	comp=N,196nm,0.4s						
RTLL	Cerro Villicun	2.51	105	*e*P	Pb	04 02 48.9	-1.3
RTLL				*e*S	Sg	04 03 31.1	+5.1
RTLL				IAML		04 03 40.1	
	comp=Z,249nm,0.4s						
AC04	Llanos de Chal	2.51	5	*e*P	Pn	04 02 45.6	-0.1

AC04				*e*S	Sn	04 03 01.1	-15
AC04				IAML		04 03 28.7	
	comp=Z,112nm,0.2s						
MT02	**Curacav**	**2.54**	**177**	*e*P	**Pn**	**04 02 46.9**	**+0.8**
MT02				*e*S	**Sb**	**04 03 22.6**	**+0.7**
MT02				IAML		04 03 28.6	
	comp=Z,163nm,0.6s						
MT02	**Curacav**	**2.54**	**177**	*e*P	**Pn**	**04 02 46.6**	**+0.5**
MT02				*e*S	**Sn**	**04 03 16.8**	**0.0**
MT02				IAML		04 03 31.4	
	comp=E,173nm,0.1s						
MT10	**Hacienda Santa**	**2.63**	**166**	*e*P	**Pn**	**04 02 48.9**	**+1.4**
MT10				*e*S	**Sn**	**04 03 21.4**	**+2.2**
MT10				IAML		04 03 33.5	
	comp=N,587nm,0.5s						
MT05	**Renca**	**2.71**	**170**	*e*P	**Pn**	**04 02 50.0**	**+1.5**
MT05				*e*S	**Sb**	**04 03 27.6**	**+0.8**
MT05				IAML		04 03 33.3	
	comp=Z,170nm,0.7s						
MT14	**Cerro Cal¡n**	**2.75**	**166**	*e*P	**Pn**	**04 02 50.8**	**+1.7**
MT14				*e*S	**Sb**	**04 03 26.4**	**-1.5**
MT14				IAML		04 03 35.2	
CFA	**Coronel Fontan**	**2.78**	**109**	*e*P	**Pb**	**04 02 52.9**	**-1.9**
CFA				IAML		04 03 36.0	
	comp=Z,137nm,0.3s						
MT03	**Universidad Ad**	**2.85**	**167**	*e*P	**Pn**	**04 02 52.4**	**+1.9**
MT03				*e*S	**Sb**	**04 03 28.6**	**-2.2**
MT03				*e*S	**Sg**	**04 03 32.1**	**-5.0**
MT03				IAML		04 03 39.5	
	comp=Z,257nm,0.4s						
MT03	**Universidad Ad**	**2.85**	**167**	*e*P	**Pn**	**04 02 52.1**	**+1.6**
MT03				*e*S	**Sn**	**04 03 27.5**	**+2.8**
MT03				IAML		04 03 38.0	
	comp=E,472nm,0.3s						
MT04	**Ro Olivares**	**2.86**	**160**	*e*P	**Pn**	**04 02 53.7**	**+3.0**
MT04				*e*S	**Sb**	**04 03 31.4**	**+0.2**
MT04				IAML		04 03 35.4	
	comp=Z,176nm,0.6s						
ARCO	**CERRO ARCO**	**2.93**	**137**	*e*P	**Pb**	**04 02 56.6**	**-0.8**
ARCO				IAML		04 03 44.8	
	comp=Z,97nm,0.3s						
MT08	**Bocatoma Ro**	**2.94**	**158**	*e*P	**Pb**	**04 02 55.5**	**-2.1**
MT08				*e*S	**Sb**	**04 03 32.1**	**-1.2**
MT08				IAML		04 03 41.7	
	comp=Z,95nm,0.6s						
MT01	**Popeta**	**3.14**	**179**	*e*P	**Pn**	**04 02 55.1**	**+0.8**
MT01				*e*P	Pb	04 02 55.2	-5.8
MT01				*e*S	**Sn**	**04 03 35.0**	**+3.4**
MT01				IAML		04 03 42.0	
	comp=Z,82nm,0.4s						
MT13	**San Alfonso**	**3.14**	**164**	*e*P	**Pn**	**04 02 57.0**	**+2.6**
MT13				*e*S	**Sb**	**04 03 40.9**	**+1.6**
MT13				*e*S	**Sg**	**04 03 41.1**	**-5.3**
MT13				IAML		04 03 42.6	
	comp=Z,88nm,0.3s						
AAGR	**Agrelo**	**3.17**	**139**	*e*P	**Pn**	**04 02 55.1**	**+0.3**
AAGR				*e*P	**Pb**	**04 02 59.5**	**-2.0**
AAGR				IAML		04 03 58.0	
	comp=Z,54nm,0.7s						
GO03	**Copiapo**	**3.25**	**17**	*e*P	**Pn**	**04 02 56.5**	**+0.7**
GO03				*e*S	**Sn**	**04 03 38.6**	**+4.3**
GO03				IAML		04 03 47.4	
	comp=Z,85nm,0.7s						
VCA	**Vinchina**	**3.34**	**55**	*e*P	**Pb**	**04 03 01.9**	**-2.6**
VCA				*e*S	**Sb**	**04 03 48.0**	**+3.0**
VCA				IAML		04 03 54.0	
	comp=Z,299nm,0.5s						
BO01	**Tunca**	**3.67**	**177**	*e*P	**Pn**	**04 03 02.8**	**+1.1**
BO01				*e*S	**Sn**	**04 03 47.6**	**+3.0**
BO01				IAML		04 03 57.6	
	comp=Z,36nm,0.5s						
ACAN	**Cantantal**	**3.85**	**115**	*e*P	**Pn**	**04 03 07.2**	**+3.1**
ACAN				IAML		04 04 01.9	
	comp=Z,208nm,0.3s						
ACLC	**CERRO LA CRUZ**	**3.99**	**72**	*e*P	**Pn**	**04 03 09.2**	**+3.0**
ACLC				*e*S	**Sb**	**04 04 00.7**	**-2.9**
ACLC				IAML		04 04 05.9	
	comp=Z,81nm,0.6s						
BO02	**Sierra Bellavi**	**4.09**	**174**	*e*P	**Pn**	**04 03 09.0**	**+1.5**
BO02				*e*S	**Sn**	**04 03 59.5**	**+4.4**
BO02				IAML		04 04 17.0	
	comp=Z,69nm,0.5s						
TINO	**Tinogasta**	**4.20**	**52**	*e*P	**Pn**	**04 03 11.9**	**+2.9**
TINO				*e*S	**Sb**	**04 04 07.2**	**-2.4**
TINO				IAML		04 04 12.6	
	comp=Z,67nm,0.5s						
AC02	**Maricunga**	**4.31**	**27**	*e*P	**Pn**	**04 03 12.5**	**+1.6**
AC02				*e*S	**Sb**	**04 04 10.2**	**-3.1**
AC02				IAML		04 04 23.7	
	comp=Z,45nm,0.5s						
GO05	**Hualane**	**4.32**	**187**	*e*P	**Pn**	**04 03 09.7**	**-0.9**
GO05				*e*S	**Sg**	**04 04 20.9**	**-3.1**
AC01	**Pan de Azucar**	**4.59**	**8**	*e*P	**Pn**	**04 03 12.6**	**-1.7**
AC01				*e*S	**Sb**	**04 04 23.6**	**+2.7**
AC01				IAML		04 04 27.9	
	comp=Z,25nm,0.4s						

BJI ***26*** *04:04:44.4, 36°.03N×69°.53E, h112^{km}, mB4.5/5, mb4.8/41*
NNC ***26*** *04:04:45.9±6.5, 36°.10N×69°.23E, h124^{km}±58^{km}, mb4.2, mpv4.7, Error ellipse: s-maj=49.5km s-min=30.1km az=19.0*
MOS ***26*** *04:04:45.1±0.9, 35°.97N×69°.72E, h112^{km}, mb4.6/27, Error ellipse: s-maj=6.0km s-min=3.7km az=79.8*
NEIC ***26*** *04:04:46.8±2.4, 35°.99N±0°.06×69°.66E±0°.07, h113^{km}±7^{km}, mb4.5/62, Error ellipse: s-maj=9.0km s-min=8.0km az=136.0*
IDC ***26*** *04:04:46.6±2.4, 35°.91N×69°.71E, h113^{km}±21^{km}, mb4.0/27, mbtmp4.4/31, MS3.2/9, Error ellipse: s-maj=15.0km s-min=8.1km az=26.0*
GFZ ***26*** *04:04:46.9±0.3, 36°N±3°×7°0E±°, h101^{km}±4^{km}, M4.4/21, mb5.0/21*
ISC 26 04:04:46.9±0.4**, 35°.97N**±0°.03×**69°.70E**±0°.03**, h114**^{km}±3^{km}**, h113**^{km}**:pP-P, n349,** σ1^{s}**81**/376**, mb4.5**/102**, 19C-15D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBL	**Kabul**	**1.52**	**201**	P	**Pn**	**04 05 14.2**	**-0.2**
	SNR=223						
KBL				S	**Sn**	**04 05 34.9**	**-0.4**
KBL	**Kabul**	**1.52**	**201**	PN	**Pn**	**04 05 14.1**	**-0.3**
KBL	**Kabul**	**1.52**	**201**		**Pn**	**04 05 14.1**	**-0.3**
KBL	**Kabul**	**1.52**	**201**	P	**Pn**	**04 05 14.2**	**-0.2**
NIL	**Nilore**	**3.73**	**127**	PN	**Pn**	**04 05 43.2**	**+0.5**
NIL	**Nilore**	**3.73**	**127**		**Pn**	**04 05 43.1**	**+0.5**
NIL	**Nilore**	**3.73**	**127**	P	**Pn**	**04 05 43.2**	**+0.5**
BTK	**Batken**	**4.18**	**12**	PN	**Pn**	**04 05 50.2**	**+1.5**
BTK	**Batken**	**4.18**	**12**	Pn	**Pn**	**04 05 50.2**	**+1.5**
SRNI	**Srinagar**	**4.60**	**113**	*e*P	**Pn**	**04 05 56.2**	**+1.6**
SRNI				*e*S	**Sn**	**04 06 44.5**	**-2.6**
SRNI				IAML		04 06 52.4	
	comp=E,1µm,0.1s						
SRNI				IAML		04 06 53.5	
	comp=N,1µm,0.1s						
OHH	**Osh**	**5.16**	**27**	P	Pn	04 05 55.4	-6.5
	comp=Z,81nm,0.5s						
JMU	**Jammu**	**5.30**	**125**	*e*P	**Pn**	**04 06 03.2**	**-0.6**
JMU				*e*S	**Sn**	**04 07 02.9**	**-0.8**
JMU				IAML		04 07 04.5	
	comp=N,657nm,0.3s						
JMU				IAML		04 07 05.0	
	comp=E,753nm,0.2s						
KSH2	**Kashi**	**5.63**	**54**	P	**Pn**	**04 06 10.8**	**+2.4**
KSH2				S	**Sn**	**04 07 14.5**	**+2.5**
KSH2				SMN			
	comp=E,970nm,1.0s						
KSH2				SME			
	comp=E,930nm,1.0s						
ARSB	**Arslanbob**	**5.93**	**25**	PN	**Pn**	**04 06 11.2**	**-1.2**
ARSB	**Arslanbob**	**5.93**	**25**	Pn	**Pn**	**04 06 11.2**	**-1.2**
ARK	**Arkit**	**6.08**	**16**	P	**Pn**	**04 06 13.8**	**-0.6**
	comp=Z,67nm,0.6s						
THN	**Thein Dam**	**6.13**	**123**	*e*P	**Pn**	**04 06 16.4**	**+1.3**
THN				*e*S	**Sn**	**04 07 21.2**	**-2.5**
THN				IAML		04 07 23.9	
	comp=E,979nm,0.0s						
THN				IAML		04 07 24.5	
	comp=N,962nm,0.1s						
IUG	**Iuzhnay**	**6.17**	**2**	*e*PN	**Pn**	**04 06 14.9**	**-0.7**
IUG	**Iuzhnay**	**6.17**	**2**	*e*P	**Pn**	**04 06 15.0**	**-0.7**
TSSA	**Tissa**	**6.18**	**119**	*e*P	**Pn**	**04 06 14.8**	**-1.0**
TSSA				*e*S	**Sn**	**04 07 21.9**	**-3.3**
TSSA				IAML		04 07 23.8	
	comp=E,949nm,0.2s						
TSSA				IAML		04 07 24.1	
	comp=N,931nm,0.2s						
HRA	**Herat**	**6.31**	**258**		**Pn**	**04 06 16.6**	**-1.0**
CHM	**Chimkent**	**6.34**	**359**	*e*PN	**Pn**	**04 06 17.6**	**-0.2**
CHM	**Chimkent**	**6.34**	**359**	*e*P	**Pn**	**04 06 17.6**	**-0.2**
ALCI	**Alchi Leh**	**6.38**	**104**	*e*P	**Pn**	**04 06 18.8**	**+0.1**
ALCI				*e*S	**Sn**	**04 07 26.2**	**-4.1**
ALCI				IAML		04 07 28.3	
	comp=E,728nm,0.1s						
ALCI				IAML		04 07 31.2	
	comp=N,848nm,0.4s						
TLWR	**Talawar**	**6.56**	**126**	*e*P	**Pn**	**04 06 21.8**	**+1.0**
TLWR				*e*S	**Sn**	**04 07 30.1**	**-4.1**
TLWR				IAML		04 07 33.4	
	comp=N,720nm,0.1s						
TLWR				IAML		04 08 15.0	
	comp=E,756nm,5.1s						
DZA	**Taraz**	**7.03**	**10**	*e*PN	**Pn**	**04 06 26.5**	**-0.6**
DZA	**Taraz**	**7.03**	**10**	*e*P	**Pn**	**04 06 26.5**	**-0.6**
BRLS	**Borolday**	**7.05**	**1**	*e*PN	**Pn**	**04 06 23.1**	**-4.4**
BRLS	**Borolday**	**7.05**	**1**	*e*P	**Pn**	**04 06 23.1**	**-4.4**
KK31	**Karatay Array**	**7.15**	**5**	⇓P	**Pn**	**04 06 27.9**	**-0.9**
	comp=E,29nm,0.6s,baz=198,slow=16,SNR=16						
KK31				⇑S	**Sn**	**04 07 47.5**	**-1.0**
	comp=E,67nm,0.7s,baz=194,slow=20						
KK31	**Karatay Array**	**7.15**	**5**	PN	**Pn**	**04 06 28.4**	**-0.4**
KK31	**Karatay Array**	**7.15**	**5**	Pn	**Pn**	**04 06 28.4**	**-0.4**
KKAR	**Karatay Array**	**7.15**	**5**	PN	**Pn**	**04 06 28.1**	**-0.7**
KKAR	**Karatay Array**	**7.15**	**5**	Pn	**Pn**	**04 06 28.1**	**-0.7**
BHK	**Bhakra**	**7.20**	**127**	*e*P	Pn	04 06 34.4	+4.9
BHK				*e*S	**Sn**	**04 07 48.9**	**-0.8**
BHK				IAML		04 07 49.4	
	comp=E,450nm,0.2s						
BHK				IAML		04 07 50.5	
	comp=N,434nm,0.1s						
ASAI	**AK-SAY(Kyrgyzs**	**7.28**	**45**	P	**Pn**	**04 06 31.8**	**+1.0**
	comp=Z,80nm,1.2s						
NRN	**Naryn**	**7.35**	**40**	PN	**Pn**	**04 06 30.2**	**-1.5**
NRN	**Naryn**	**7.35**	**40**		**Pn**	**04 06 30.2**	**-1.5**
EKS2	**Erkin-Say**	**7.39**	**24**	P	**Pn**	**04 06 32.1**	**-0.1**
	SNR=22						
AAK	**Ala-Archa**	**7.62**	**28**	P	**Pn**	**04 06 35.4**	**+0.1**
	SNR=30						
AAK	**Ala-Archa**	**7.62**	**28**	P	**Pn**	**04 06 35.3**	**+0.1**
	comp=Z,58nm,0.3s,baz=191,slow=5.6,SNR=56						
AAK				S	**Sn**	**04 07 58.5**	**-1.6**
	comp=Z,97nm,0.8s,baz=166,slow=18,SNR=7.9						
AAK	**Ala-Archa**	**7.62**	**28**	⇑P	**Pn**	**04 06 34.9**	**-0.4**
	comp=Z,25nm,0.5s						
AAK				⇑S	**Sn**	**04 08 00.3**	**+0.1**
	comp=Z,190nm,1.0s						
AAK	**Ala-Archa**	**7.62**	**28**	P	**Pn**	**04 06 31.7**	**-3.7**
AAK				S	**Sn**	**04 07 55.9**	**-4.2**
AAK	**Ala-Archa**	**7.62**	**28**	*d* *i*PN	**Pn**	**04 06 34.9**	**-0.4**
AAK				pmax	pmax		
	comp=Z,79nm,0.7s						
AAK	**Ala-Archa**	**7.62**	**28**		**Pn**	**04 06 35.4**	**+0.1**
AAK	**Ala-Archa**	**7.62**	**28**	P	**Pn**	**04 06 35.2**	**-0.1**
AAK	**Ala-Archa**	**7.62**	**28**	P	**Pn**	**04 06 35.5**	**+0.1**
	comp=Z,114nm,0.6s						
KBK	**Karagaybulak**	**7.82**	**30**	P	**Pn**	**04 06 38.1**	**+0.2**
	SNR=8.9						
FRU1	**Bishkek**	**7.82**	**28**	PN	**Pn**	**04 06 37.0**	**-0.9**
FRU1	**Bishkek**	**7.82**	**28**		**Pn**	**04 06 37.0**	**-0.9**
SMLA	**Simla**	**7.88**	**126**	*e*P	**Pn**	**04 06 37.5**	**-1.2**
SMLA				*e*S	**Sn**	**04 08 01.2**	**-5.0**
SMLA				IAML		04 08 03.1	
	comp=E,533nm,0.5s						
SMLA				IAML		04 08 03.9	
	comp=N,437nm,0.5s						
CHMS	**Chumysh**	**8.03**	**28**	P	**Pn**	**04 06 40.4**	**-0.3**
	SNR=57						
BOOM	**Boomskoye usch**	**8.11**	**35**	PN	**Pn**	**04 06 41.8**	**-0.2**
BOOM	**Boomskoye usch**	**8.11**	**35**		**Pn**	**04 06 41.8**	**-0.2**
USP	**Ospenovka**	**8.17**	**25**	P	**Pn**	**04 06 41.7**	**-1.0**
	SNR=22						
HNLY	**HANLEY**	**8.30**	**110**	*e*P	**Pn**	**04 06 44.7**	**-0.1**
HNLY				*e*S	**Sn**	**04 08 10.5**	**-6.7**
HNLY				IAML		04 08 19.9	
	comp=N,441nm,0.6s						
HNLY				IAML		04 08 22.7	
	comp=E,414nm,0.5s						
TKM2	**Tokmak 2**	**8.30**	**31**	P	**Pn**	**04 06 43.9**	**-0.7**
	SNR=38						
KLP	**Kalpa**	**8.38**	**119**	*e*P	**Pn**	**04 06 46.9**	**+1.1**
KLP				*e*S	**Sn**	**04 08 11.1**	**-7.7**
KLP				IAML		04 08 21.7	
	comp=E,341nm,0.8s						
KLP				IAML		04 08 22.8	
	comp=N,371nm,0.6s						
SGDS	**Sogindy**	**8.38**	**25**	*e*P	**Pn**	**04 06 44.2**	**-1.2**
TARG	**Taragay, Kyrgy**	**8.54**	**45**	PN	**Pn**	**04 06 47.4**	**-0.6**
TARG	**Taragay, Kyrgy**	**8.54**	**45**		**Pn**	**04 06 47.4**	**-0.6**
TNSS	**Tian-Shan**	**9.01**	**36**	*e*P	**Pn**	**04 06 53.4**	**-0.9**
TNSS				*e*S	**Sn**	**04 08 33.4**	**-0.6**
TNSS	**Tian-Shan**	**9.01**	**36**	*e*P	**Pn**	**04 06 53.4**	**-0.9**
TNSS				*e*S	**Sn**	**04 08 33.5**	**-0.6**
WUS	**Wushi**	**9.10**	**52**		**Pn**	**04 06 55.6**	**+0.3**
MDOK	**Medeo**	**9.15**	**36**	*e*P	**Pn**	**04 06 56.4**	**+0.5**
MDOK				*e*S	**Sn**	**04 08 38.0**	**+0.8**
MDOK	**Medeo**	**9.15**	**36**	*e*P	**Pn**	**04 06 56.5**	**+0.5**
MDOK				*e*S	**Sn**	**04 08 38.0**	**+0.8**
BTLS	**Baital**	**9.64**	**19**	*e*P	**Pn**	**04 07 02.7**	**+0.2**
BTLS	**Baital**	**9.64**	**19**	*e*P	**Pn**	**04 07 02.8**	**+0.2**
SATY	**Saty**	**9.76**	**41**	*e*P	**Pn**	**04 07 04.4**	**+0.2**
SATY				*e*S	**Sn**	**04 08 52.6**	**+0.7**
SATY	**Saty**	**9.76**	**41**	*e*P	**Pn**	**04 07 04.5**	**+0.2**
SATY				*e*S	**Sn**	**04 08 52.7**	**+0.7**
UZB	**Uzynbulak**	**10.15**	**42**	*e*P	**Pn**	**04 07 10.0**	**+0.5**
UZB	**Uzynbulak**	**10.15**	**42**	*e*P	**Pn**	**04 07 10.0**	**+0.5**
KPKS	**Kokpek**	**10.19**	**40**	*e*P	**Pn**	**04 07 09.7**	**-0.3**
KPKS	**Kokpek**	**10.19**	**40**	*e*P	**Pn**	**04 07 09.7**	**-0.3**
SHLS	**Shalkode**	**10.40**	**43**	*e*P	**Pn**	**04 07 15.9**	**+3.1**
SHLS	**Shalkode**	**10.40**	**43**	*e*P	**Pn**	**04 07 16.0**	**+3.1**
AJM	**Ajmer**	**10.40**	**155**	*e*P	**Pn**	**04 07 13.1**	**+0.2**
AJM				*e*S	Sn	04 08 58.2	-9.4
AJM				IAML		04 09 04.8	
	comp=N,248nm,0.2s						
AJM				IAML		04 09 06.5	
	comp=E,267nm,0.1s						
PDGK	**Podgornoye**	**10.53**	**43**	⇑P	**Pn**	**04 07 12.7**	**-1.9**
	comp=E,32nm,1.1s						
PDGK	**Podgornoye**	**10.53**	**43**	P	**Pn**	**04 07 12.7**	**-1.9**
PDGK	**Podgornoye**	**10.53**	**43**		**Pn**	**04 07 13.1**	**-1.5**
TDK	**Taldyqorghan**	**11.19**	**34**	*e*P	**Pn**	**04 07 22.7**	**-0.6**
TDK	**Taldyqorghan**	**11.19**	**34**	*e*P	**Pn**	**04 07 22.8**	**-0.6**
NGCH	**Negor - Chabah**	**12.88**	**217**	P	**Pn**	**04 07 45.6**	**-0.2**
MAKZ	**Makanchi**	**14.20**	**37**	P	**Pn**	**04 08 01.7**	**-1.0**
MAKZ	**Makanchi**	**14.20**	**37**		**Pn**	**04 08 01.7**	**-1.0**
MAKZ	**Makanchi**	**14.20**	**37**	P	**Pn**	**04 08 02.0**	**-0.7**
	comp=Z,195nm,0.8s						
JASK	**Jask - Hormozg**	**14.29**	**228**	P	**P**	**04 08 07.9**	**+0.2**
	SNR=12						
MK31	**Makanchi Array**	**14.34**	**37**	P	**P**	**04 08 07.0**	**-1.2**
	comp=Z,49nm,0.7s,baz=214,slow=9.8,SNR=7.2						
MK31	**Makanchi Array**	**14.34**	**37**	⇑*e*P	**Pn**	**04 08 03.3**	**-1.2**
MKAR	**Makanchi Array**	**14.34**	**37**	P	**Pn**	**04 08 04.7**	**+0.2**
	comp=Z,57nm,0.7s,baz=225,slow=14,SNR=61						
MKAR	**Makanchi Array**	**14.34**	**37**		**Pn**	**04 08 03.4**	**-1.2**
AB31	**Akbulak array**	**15.08**	**335**	P	**Pn**	**04 08 11.4**	**-2.3**
	comp=Z,3.4nm,0.4s,baz=155,slow=12,SNR=42						
AB31				⇓S	**Sn**	**04 10 50.7**	**-10**
	comp=Z,13nm,0.7s,baz=149,slow=23,SNR=6.6						
AB31	**Akbulak array**	**15.08**	**335**	*i* P	**Pn**	**04 08 11.4**	**-2.3**
AB31	**Akbulak array**	**15.08**	**335**		**Pn**	**04 08 11.5**	**-2.3**
ABKAR	**Akbulak array**	**15.08**	**335**		**Pn**	**04 08 11.3**	**-2.4**
BANOM	**Banah**	**15.23**	**233**	P	**P**	**04 08 18.7**	**+0.4**
BANOM	**Banah**	**15.23**	**233**	*i* P	**Pn**	**04 08 15.3**	**-0.6**
	SNR=8.0						
SHME	**Shamm**	**15.25**	**233**	P	**P**	**04 08 18.6**	**+0.3**
SHME	**Shamm**	**15.25**	**233**	*i* P	**Pn**	**04 08 17.0**	**+1.0**
	SNR=7.7						
MDH	**Madha**	**15.67**	**231**	P	**Pn**	**04 08 21.5**	**0.0**
MDH	**Madha**	**15.67**	**231**	*i* P	**Pn**	**04 08 21.4**	**0.0**
	SNR=8.6						
MASF	**Masafi**	**15.71**	**231**	P	**P**	**04 08 23.7**	**+0.1**
	SNR=6.1						
MSFE	**Esma-Masafi**	**15.72**	**231**	*i* P	**Pn**	**04 08 22.3**	**+0.4**
	SNR=7.8						
WMQ	**Urumqi**	**15.86**	**55**	*e*P	**P**	**04 08 24.5**	**-0.6**
WSAR	**Wadi Sarin**	**15.91**	**220**	P	**Pn**	**04 08 24.4**	**+0.1**
KURBB	**Kurchatov Arra**	**15.98**	**21**	P	**Pn**	**04 08 23.2**	**-1.8**
	comp=Z,26nm,1.2s,baz=210,slow=11,SNR=60						
KURBB	**Kurchatov Arra**	**15.98**	**21**	⇑P	**Pn**	**04 08 22.3**	**-2.6**
	comp=Z,63nm,0.7s						
KURBB	**Kurchatov Arra**	**15.98**	**21**	P	**Pn**	**04 08 22.3**	**-2.6**
UOSS	**Minazif**	**15.99**	**230**	P	**Pn**	**04 08 24.8**	**-0.5**
UOSS	**Minazif**	**15.99**	**230**		**Pn**	**04 08 24.3**	**-1.0**
UOSS				IAmb	IAmb	04 08 29.2	
	comp=Z,19nm,0.8s						
UOSS	**Minazif**	**15.99**	**230**	*i* P	**Pn**	**04 08 24.2**	**-1.0**
	SNR=7.5						
UOSS	**Minazif**	**15.99**	**230**	P	**Pn**	**04 08 25.5**	**+0.2**
	comp=Z,30nm,0.7s						
KURK	**Kurchatov**	**16.09**	**21**	P	**Pn**	**04 08 23.2**	**-3.1**
KURK				S	**Sn**	**04 11 22.0**	**-2.5**
KURK	**Kurchatov**	**16.09**	**21**	*c* *i*P	**Pn**	**04 08 23.6**	**-2.7**
KURK				pmax	pmax		
	comp=Z,19nm,1.3s						
KURK	**Kurchatov**	**16.09**	**21**		**Pn**	**04 08 24.5**	**-1.7**
KURK				IAmb	IAmb	04 08 30.6	
	comp=Z,45nm,0.9s						
KURK	**Kurchatov**	**16.09**	**21**	P	**Pn**	**04 08 23.9**	**-2.3**
	comp=Z,62nm,1.0s						
ZSN	**Zaisan**	**16.09**	**40**	*e*P	**P**	**04 08 26.9**	**-0.6**
ZSN	**Zaisan**	**16.09**	**40**	*e*P	**P**	**04 08 27.0**	**-0.6**
HATD	**Hatta, Dubai**	**16.12**	**230**	P	**P**	**04 08 28.7**	**+0.7**
	SNR=5.5						
HATD				S	**Sn**	**04 11 28.3**	**+2.6**
HATD	**Hatta, Dubai**	**16.12**	**230**	P	**Pn**	**04 08 27.1**	**+0.2**
WBK	**Wadi Bani Khal**	**16.26**	**218**	P	**P**	**04 08 31.6**	**+2.0**
	SNR=5.1						
ASHO	**Ashiyiah**	**16.27**	**230**	P	**P**	**04 08 30.6**	**+0.9**
	SNR=16						
ASHO				S	**Sn**	**04 11 29.0**	**-0.4**
ASHO	**Ashiyiah**	**16.27**	**230**	*i* P	**Pn**	**04 08 29.0**	**+0.2**
	SNR=34						
NAZ	**Nazwa, Dubai**	**16.30**	**232**	P	**Pn**	**04 08 29.5**	**+0.4**
HOQ	**Hoqain**	**16.35**	**224**	P	**P**	**04 08 32.4**	**+1.7**
SMDO	**Samad**	**16.36**	**221**	P	**P**	**04 08 31.5**	**+0.7**
SOHO	**SOHO**	**16.38**	**228**	P	**P**	**04 08 32.3**	**+1.4**
JLN	**Jalan Bani Buh**	**16.43**	**216**	P	**Pn**	**04 08 31.1**	**+0.4**
	SNR=8.9						
JLN				S	**Sn**	**04 11 34.6**	**+1.4**
FAQ	**Al Faqa, Dubai**	**16.51**	**231**	P	**Pn**	**04 08 32.0**	**+0.2**
FAQ	**Al Faqa, Dubai**	**16.51**	**231**	P	**Pn**	**04 08 32.0**	**+0.2**
EVN	**Everest**	**16.56**	**114**	P	**Pn**	**04 08 30.3**	**-2.7**
EVN	**Everest**	**16.56**	**114**	P	**Pn**	**04 08 30.7**	**-2.3**
	comp=Z,45nm,0.7s						
AKTO	**Aktyubinsk**	**16.75**	**333**	P	**Pn**	**04 08 33.8**	**-0.7**
	comp=Z,11nm,0.7s,baz=144,slow=9.8,SNR=13						
AKTO				S	Sn	04 11 27.1	-13
	comp=Z,11nm,0.8s,baz=183,slow=21,SNR=3.9						
AKTO	**Aktyubinsk**	**16.75**	**333**	⇑P	**Pn**	**04 08 30.8**	**-3.6**
	comp=Z,13nm,1.1s						
AKTO				⇑S	**Sn**	**04 11 32.1**	**-8.5**
	comp=Z,6.6nm,0.8s						
AKTO	**Aktyubinsk**	**16.75**	**333**	P	**P**	**04 08 34.3**	**-0.5**
AKTO				S	Sn	04 11 25.5	-15
ASUD	**Al Ashush, Dub**	**16.77**	**232**	P	**P**	**04 08 35.4**	**+0.2**
LKRN	**Lenkeran, Azer**	**16.86**	**286**	P	**Pn**	**04 08 35.6**	**-0.3**
JMDO	**Jabal Madar**	**16.90**	**220**	P	**P**	**04 08 38.2**	**+1.6**
ALNE	**Al Ain**	**16.92**	**229**	P	**P**	**04 08 37.6**	**+0.7**
	SNR=12						
ALNE	**Al Ain**	**16.92**	**229**	*i* P	**Pn**	**04 08 36.2**	**-0.5**
	SNR=9.4						
ARQ	**Araqi**	**17.00**	**226**	P	**P**	**04 08 39.3**	**+1.6**
ARQ				S	**S**	**04 11 49.0**	**-0.2**
AJN	**Ajban**	**17.03**	**232**	P	**Pn**	**04 08 39.0**	**+1.0**
BVAR	**Borovoye Array**	**17.06**	**1**	P	**Pn**	**04 08 37.2**	**-1.0**
	comp=Z,15nm,0.6s,baz=171,slow=9.8,SNR=34						
BSY	**Bisya**	**17.08**	**223**	P	**Pn**	**04 08 40.2**	**+1.4**
BORK	**Borovoye**	**17.08**	**1**	*d* *i*P	**Pn**	**04 08 38.1**	**-0.4**
BORK	**Borovoye**	**17.08**	**1**	P	**P**	**04 08 37.4**	**-1.0**
BORK				IAmb	IAmb	04 08 40.9	
	comp=Z,19nm,0.8s						
MHTO	**MHTO**	**18.12**	**218**	P	**Pn**	**04 08 52.0**	**+0.7**
MHTO				S	**Sn**	**04 12 17.4**	**+3.6**
JRN	**Qarnain Island**	**18.19**	**237**	P	**P**	**04 08 50.0**	**-0.7**
UMZA	**Um Al Zommool**	**18.28**	**228**	P	**Pn**	**04 08 52.5**	**-0.6**
UMZA				S	**S**	**04 12 10.9**	**-4.2**
SEKA	**Sheki**	**18.34**	**293**	P	**P**	**04 08 51.3**	**-1.1**
MNGR	**Mingechevir, A**	**18.36**	**292**	P	**P**	**04 08 52.3**	**-0.2**
GHWR	**Ruwais**	**18.83**	**235**	P	**P**	**04 08 57.3**	**-0.5**
DGZ	**Jazzator, Alta**	**18.84**	**38**	*c* *i*P	**Pn**	**04 08 59.2**	**-0.5**
DGZ				pmax	pmax		
	comp=Z,39nm,0.6s						
GANJ	**Ganja**	**18.92**	**291**	P	**P**	**04 08 58.3**	**-0.4**
LSA	**Lhasa**	**19.06**	**103**	*e*P	**Pn**	**04 09 02.3**	**-0.5**
LSA	**Lhasa**	**19.06**	**103**	P	**P**	**04 08 59.7**	**-1.1**
LSA				pmax	pmax		
	comp=Z,24nm,0.8s						
LSA	**Lhasa**	**19.06**	**103**		**P**	**04 08 59.7**	**-1.1**
LSA				IAmb	IAmb	04 09 09.0	
	comp=Z,24nm,0.8s						
MZR	**Muzera**	**19.11**	**232**	P	**P**	**04 09 00.4**	**-0.5**
	SNR=18						
MZR	**Muzera**	**19.11**	**232**	*i* P	**P**	**04 08 59.7**	**-1.1**
	SNR=8.3						
NAX	**Nakhchivan**	**19.44**	**287**	P	**P**	**04 09 04.1**	**-0.3**
SLWR	**Sila**	**19.55**	**238**	P	**P**	**04 09 04.9**	**-0.8**
GNI	**Garni**	**20.07**	**290**	P	Pn	04 09 14.5	+0.4
	comp=Z,90nm,0.6s,baz=118,slow=2.1,SNR=18						
GNI	**Garni**	**20.07**	**290**	P	Pn	04 09 14.7	+0.5
GNI	**Garni**	**20.07**	**290**	*d* *i*P	Pn	04 09 14.6	+0.4
GNI				pmax	pmax		
	comp=Z,99nm,0.7s						
GNI	**Garni**	**20.07**	**290**	P	Pn	04 09 14.8	+0.6
	comp=Z,141nm,0.9s						
HYB	**Hyderabad**	**20.08**	**155**	*e*P	**P**	**04 09 11.4**	**0.0**
HYB				*e*pP	**pP**	**04 09 39.5**	**+6.3**
HYB				*e*sP	**sP**	**04 09 46.9**	**-0.7**
HYB				*e*S	**S**	**04 12 51.9**	**+1.0**
GOMU	**GeErMu**	**20.29**	**82**	P	**P**	**04 09 15.0**	**+1.1**
GOMU				pmax	pmax		
	comp=Z,7.0nm,1.3s						
GOMU				L	L		
	comp=Z,67nm,10.8s						
GOMU				L	L		
	comp=Z,44nm,10.2s						
GOMU				L	L		
	comp=Z,94nm,10.6s						
ZAA0	**Zalesovo Array**	**20.84**	**26**	⇑P	**P**	**04 09 17.9**	**-1.3**
	comp=Z,8.5nm,0.6s						
ZAA0	**Zalesovo Array**	**20.84**	**26**	P	**P**	**04 09 19.4**	**+0.1**
ZAA0				IAmb	IAmb	04 09 23.4	
	comp=Z,24nm,0.8s						
ZALV	**Zalesovo Beam**	**20.84**	**26**	P	**P**	**04 09 19.6**	**+0.3**
	comp=Z,15nm,0.4s,baz=220,slow=10,SNR=93						
	comp=Z,15nm,0.4s						
ZALV	**Zalesovo Beam**	**20.84**	**26**	P	**P**	**04 09 19.2**	**0.0**
HAKT	**HAKKARI**	**20.87**	**282**	P	Pn	04 09 22.4	-1.2
	comp=Z,74nm,1.4s						
NCK	**Nalchik**	**21.38**	**299**	⇓*e*P	**P**	**04 09 26.3**	**+1.1**
NCK				pmax	pmax		
	comp=Z,36nm,0.8s						
EPOS	**Posof**	**21.71**	**293**	P	**P**	**04 09 31.4**	**+2.5**
	comp=Z,25nm,1.3s						
SVE	**Sverdlovsk**	**21.74**	**346**	*e*P	**P**	**04 09 30.0**	**+1.1**
SVE				*e*S	**S**	**04 13 28.3**	**+6.0**
SVE				pmax	pmax		
	comp=Z,25nm,1.2s						
SHAO	**Shalim**	**21.79**	**219**	P	**P**	**04 09 29.6**	**-0.1**
ARTI	**Arti**	**21.82**	**343**	P	**P**	**04 09 29.9**	**+0.2**
	comp=Z,5.5nm,0.5s,baz=144,slow=6.7,SNR=7.1						
ARTI				LR	LR	04 18 38.7	
	comp=Z,43nm,20.2s,baz=106,slow=38						
	comp=Z,5.5nm,0.5s						
ARTI	**Arti**	**21.82**	**343**	*d* *i*P	**P**	**04 09 31.2**	**+1.5**
ARTI						04 10 02.3	
ARTI				S	**S**	**04 13 25.6**	**+1.9**
ARTI				SS	**SnSn**	**04 14 11.0**	**+11**
ARTI				pmax	pmax		
	comp=Z,22nm,1.3s						
ARTI	**Arti**	**21.82**	**343**	P	**P**	**04 09 30.4**	**+0.7**
ARTI				IAmb	IAmb	04 10 07.6	
	comp=Z,18nm,0.5s						
KBZ	**Khabaz**	**21.93**	**299**	P	**P**	**04 09 30.3**	**-0.5**
	comp=Z,5.9nm,0.9s,baz=109,slow=9.2,SNR=7.7						
KBZ				S	**S**	**04 13 28.2**	**+2.5**
	comp=Z,0.8nm,0.3s,baz=248,slow=19,SNR=1.5						
KBZ				LR	LR	04 21 15.9	
	comp=Z,29nm,18.8s,baz=63,slow=45						
	comp=Z,5.9nm,0.9s						
KBZ	**Khabaz**	**21.93**	**299**	*d* *i*P	**P**	**04 09 30.4**	**-0.5**
KBZ				pmax	pmax		

	comp=Z,8.0nm,0.9s						
DOK	**Doka**	22.09	223	P	P	04 09 32.6	-0.2
SHA1	**Shidzhatmaz**	22.10	299	d *i*P	P	04 09 33.4	+0.4
KVAR	**Kislovodsk Arr**	22.11	299	P	P	04 09 33.4	+0.3
	comp=Z,2.3nm,0.4s,baz=264,slow=9.2,SNR=1.3						
KVAR				S	S	04 13 30.6	+1.3
	comp=Z,2.1nm,0.5s,baz=166,slow=19,SNR=1.1						
	comp=Z,2.3nm,0.4s						
KIV	**Kislovodsk**	22.12	299	P	P	04 09 34.1	+1.0
KIV				S	S	04 13 29.6	+0.1
KIV	**Kislovodsk**	22.12	299	*e*P	P	04 09 33.5	+0.4
KIV				*e*S	S	04 13 30.8	+1.4
KIV				pmax	pmax		
	comp=Z,13nm,1.0s						
KIV	**Kislovodsk**	22.12	299	P	P	04 09 32.0	-1.1
KIV	**Kislovodsk**	22.12	299	P	P	04 09 36.1	+3.0
	comp=Z,62nm,0.9s						
GURO	**Guroymak-BITLI**	22.14	285	P	P	04 09 35.1	+1.7
DMTO	**DMTO**	22.39	220	P	P	04 09 35.6	-0.4
BELG	**Belogornoye**	22.67	323	P	P	04 09 38.8	+0.4
	comp=Z,17nm,0.5s,baz=208,slow=0.7,SNR=4.1						
	comp=Z,17nm,0.5s						
BELG	**Belogornoye**	22.67	323	⇑ *e*P	P	04 09 39.0	+0.6
BELG				pmax	pmax		
	comp=Z,3.0nm,0.6s						
WHFO	**Wadi Hawf**	22.85	222	P	P	04 09 40.3	-0.3
RBK	**Rabkut**	22.96	221	P	P	04 09 41.9	+0.2
KOPT	**Kop Dagi**	23.32	289	P	P	04 09 46.6	+1.5
ABTO	**Aybut**	23.57	222	P	P	04 09 47.3	0.0
LABN	**Labinsk**	23.64	300	*e*P	P	04 09 51.2	+3.6
LABN				*e**PP	pP	04 10 13.4	+2.4
LABN				pmax	pmax		
	comp=Z,14nm,0.5s						
GTA2	**Gaotai**	23.98	73	*e*P	P	04 09 52.5	+1.6
GTA2				pmax	pmax		
	comp=Z,22nm,0.8s						
ERBR	**Yeremizino-Bor**	24.04	303	*e*P	P	04 09 51.8	+0.6
ERBR				pmax	pmax		
	comp=Z,10.0nm,0.8s						
MORE	**Moreh**	24.21	112	P	P	04 09 53.6	+0.6
KELT	**Kelkit**	24.27	289	P	P	04 09 56.8	+3.2
	comp=Z,44nm,1.1s						
RAYN	**Ar Rayn**	24.32	246	P	P	04 09 53.8	-0.3
RAYN	**Ar Rayn**	24.32	246	P	P	04 09 53.3	-0.7
RAYN				pmax	pmax		
	comp=Z,11nm,0.7s						
RAYN	**Ar Rayn**	24.32	246	P	P	04 09 53.3	-0.7
RAYN				IAmb	IAmb	04 09 54.9	
	comp=Z,11nm,0.7s						
RAYN	**Ar Rayn**	24.32	246	P	P	04 09 53.8	-0.3
KNGR	**Kungurtug, Tuv**	24.79	45	⇓ *i*P	P	04 10 00.9	+2.8
KNGR				pmax	pmax		
	comp=Z,11nm,0.6s						
ARPR	**Arapgir-MALATY**	25.01	287	IAmb	IAmb	04 10 04.1	
	comp=Z,13nm,0.9s						
VRH	**Novokhopyorsk**	25.15	316	*e*P	P	04 10 02.3	+1.1
VRH				pmax	pmax		
	comp=Z,10.0nm,0.9s						
KIRV	**Kirov**	26.28	336	c *e*P	P	04 10 12.1	+0.8
VSR	**Storozhevoye**	26.61	314	*e*P	P	04 10 13.4	-1.0
VSR				pmax	pmax		
	comp=Z,10.0nm,0.9s						
VORR	**Voronezh**	26.77	315	*e*P	P	04 10 15.4	-0.4
VORR				pmax	pmax		
	comp=Z,10.0nm,1.0s						
LPSR	**Galich'ya Gora**	27.31	317	*e*P	P	04 10 21.7	+1.0
LPSR				pmax	pmax		
	comp=Z,5.0nm,1.0s						
ASF	**Jabal al Asfar**	27.36	272	LR	LR	04 23 51.2	
	comp=Z,39nm,18.9s,baz=26,slow=42						
LZDM	**Lanzhou Array**	27.44	80	P	P	04 10 23.2	+0.9
	comp=Z,1.0nm,0.3s,baz=292,slow=4.7,SNR=4.2						
	comp=Z,1.0nm,0.3s						
LZH	**Lanzhou**	27.53	80	*e*P	P	04 10 24.3	+1.3
LZH				pP	pP	04 10 48.5	-0.4
LZH				pmax	pmax		
	comp=Z,22nm,1.3s						
BR131	**Keskin Array S**	28.60	288	P	P	04 10 33.3	+0.8
BR131				pmax	pmax		
	comp=Z,4.0nm,0.8s						
BR131	**Keskin Array S**	28.60	288	P	P	04 10 33.3	+0.8
BRTR	**Keskin Array B**	28.60	288	P	P	04 10 33.3	+0.8
	comp=Z,2.5nm,0.8s,baz=98,slow=9.0,SNR=17						
	comp=Z,2.5nm,0.8s						
BRTR	**Keskin Array B**	28.60	288	c *e*P	P	04 10 33.7	+1.2
BRTR				pmax	pmax		
	comp=Z,3.0nm,0.8s						
BRTR	**Keskin Array B**	28.60	288	P	P	04 10 32.8	+0.3
TLY	**Talaya**	28.77	46	⇑ *e*P	P	04 10 35.0	+1.4
TLY				pmax	pmax		
	comp=Z,4.0nm,0.8s						
PZH	**PanZhiHua**	28.87	100	P	P	04 10 36.0	+1.1
SONM	**Songino Array**	29.50	55	P	P	04 10 41.0	+0.7
	comp=Z,1.0nm,0.6s,baz=248,slow=9.9,SNR=4.6						
	comp=Z,1.0nm,0.6s						
OBN	**Obninsk**	29.67	321	⇑ *e*P	P	04 10 41.6	+0.1
OBN				*i* *PP	pP	04 11 06.7	0.0
OBN				*e*		04 11 45.2	
OBN				*e*S	S	04 15 21.3	-7.3
OBN				pmax	pmax		
	comp=Z,7.0nm,0.4s						
EIL	**Elat**	29.77	268	LR	LR	04 25 18.2	
	comp=Z,53nm,18.9s,baz=96,slow=41						
ULN	**Ulaanbaatar**	29.94	55	⇑ *e*P	P	04 10 44.8	+0.6
ULN				pmax	pmax		
	comp=Z,8.0nm,1.9s						
CHTO	**Chiang Mai**	30.91	116	P	P	04 10 54.4	+1.5
CHTO	**Chiang Mai**	30.91	116	P	P	04 10 53.4	+0.5
CHTO				pmax	pmax		
	comp=Z,5.0nm,0.8s						
CHTO	**Chiang Mai**	30.91	116	P	P	04 10 53.4	+0.5
CHTO				IAmb	IAmb	04 10 55.0	
	comp=Z,4.7nm,0.8s						
CMAR	**Chiang Mai Arr**	31.14	116	P	P	04 10 55.5	+0.6
	comp=Z,4.0nm,0.6s,baz=295,slow=8.3,SNR=20						
	comp=Z,4.0nm,0.6s						
CMAR	**Chiang Mai Arr**	31.14	116	*i* P	P	04 10 56.2	+1.3
CMAR				pmax	pmax		
	comp=Z,4.0nm,0.6s						
CMAR	**Chiang Mai Arr**	31.14	116	P	P	04 10 55.1	+0.2
XAN	**Xi'an**	32.04	82	P	P	04 11 03.5	+0.8
XAN				pmax	pmax		
	comp=Z,22nm,0.9s						
AKASG	**Malin Array Be**	32.47	310	P	P	04 11 06.5	+0.3
	comp=Z,0.6nm,0.4s,baz=89,slow=7.0,SNR=8.5						
	comp=Z,0.6nm,0.4s						
AKASG	**Malin Array Be**	32.47	310	IAmb	IAmb	04 11 07.4	
	comp=Z,3.8nm,1.1s						
HHC	**Hu-ho-hao-te**	32.93	69	*e*P	P	04 11 10.0	-0.5
HHC				pmax	pmax		
	comp=Z,12nm,0.6s						
HHC				pmax	pmax		
	comp=Z,31nm,4.2s						
SLVN	**Son La**	33.18	107	P	P	04 11 14.4	+1.6
SLVN	**Son La**	33.18	107	IAmb	IAmb	04 11 15.2	
	comp=Z,15nm,1.2s						
SLVN	**Son La**	33.18	107	P	P	04 11 14.7	+1.9
	comp=Z,13nm,1.0s						
MLR	**Muntele Rosu**	34.13	300	P	P	04 11 23.8	+2.9
	comp=Z,16nm,0.9s						
MNK	**Minsk**	34.15	316	*i* P	P	04 11 21.8	+1.1
MNK				*i* *PP	pP	04 11 46.3	+0.2
MNK				*i*		04 12 39.6	
MNK				*i*		04 13 56.2	
MNK				*i* S	S	04 16 40.6	+2.3
MNK				*i* *SS	sS	04 17 24.0	+0.3
MNK				*i*		04 21 33.4	
MNK				pmax	pmax		
	comp=N,12nm,0.8s						
MNK				pmax	pmax		
	comp=Z,6.0nm,0.7s						
MNK				pmax	pmax		
	comp=E,5.0nm,0.6s						
MNK	**Minsk**	34.15	316	*i* P	P	04 11 21.9	+1.1
	comp=E,5.0nm,0.6s						
MNK				*i* P	P	04 11 21.9	+1.1
	comp=N,12nm,0.8s						
MNK				*i* P	P	04 11 21.9	+1.1
	comp=Z,6.0nm,0.7s,baz=105						
MNK				*i* pP	pP	04 11 46.4	+0.2
MNK				*i* PP	PP	04 12 39.6	-0.5
MNK				*i* S	S	04 16 40.7	+2.3
MNK				*i* sS	sS	04 17 24.0	+0.3
MNK				*i* SS	SnSn	04 19 01.9	+3.1
LYN	**LuoYang**	34.75	80	P	P	04 11 28.0	+1.9
LYN				pmax	pmax		
	comp=Z,32nm,0.8s						
NRIK	**Noril'sk**	34.84	11	P	P	04 11 26.7	+0.2
	comp=Z,16nm,0.7s,baz=177,slow=6.3,SNR=9.0						
NRIK				LR	LR	04 27 16.1	
	comp=Z,31nm,18.6s,baz=198,slow=39						
	comp=Z,16nm,0.7s						
NRIK	**Noril'sk**	34.84	11	d *i*P	P	04 11 28.2	+1.7
NRIK				pmax	pmax		
	comp=Z,18nm,0.8s						
NRIK	**Noril'sk**	34.84	11	P	P	04 11 26.9	+0.4
HNS	**HongShan**	35.86	74	⇓ P	P	04 11 36.8	+1.2
HNS				pmax	pmax		
	comp=Z,8.0nm,1.2s						
FINES	**FINESS Array B**	37.35	327	P	P	04 11 48.5	+0.5
	comp=Z,1.0nm,0.6s,baz=114,slow=8.5,SNR=6.2						
	comp=Z,1.0nm,0.6s						
FINES	**FINESS Array B**	37.35	327	P	P	04 11 48.0	+0.1
WHN	**Wuhan**	37.48	85	P	P	04 11 50.8	+1.4
TIA	**Tai'an**	38.02	75	P	P	04 11 55.0	+1.1
TIA				pmax	pmax		
	comp=Z,13nm,0.6s						
ZST	**Bratislava**	40.16	304	*e*P	P	04 12 16.9	+5.3
ZST	**Bratislava**	40.16	304	*e*P	P	04 12 16.9	+5.3
NJ2	**Nanjing**	40.59	81	*e*P	P	04 12 16.5	+1.2
NJ2				pmax	pmax		
	comp=Z,16nm,0.9s						
ARCES	**ARCESS Array B**	41.24	338	P	P	04 12 20.7	+0.5
	comp=Z,2.6nm,0.6s,baz=119,slow=8.6,SNR=3.3						
IPM	**Ipoh**	42.59	130	P	P	04 12 32.2	+0.4
IPM	**Ipoh**	42.59	130	P	P	04 12 32.0	+0.2
IPM	**Ipoh**	42.59	130	P	P	04 12 32.2	+0.4
	comp=Z,54nm,0.8s						
PSI	**Prapat**	42.65	134	P	P	04 12 32.5	+0.1
PSI	**Prapat**	42.65	134	P	P	04 12 31.1	-1.3
PSI				pmax	pmax		
	comp=Z,17nm,0.9s						
PSI	**Prapat**	42.65	134	P	P	04 12 30.6	-1.8
	comp=Z,21nm,1.0s,comp=Z,21nm,1.0s						
RPSI	**Rantau Prapat**	42.73	134	P	P	04 12 31.1	-1.8
RPSI	**Rantau Prapat**	42.73	134	P	P	04 12 31.6	-1.4
	comp=Z,21nm,1.0s						
HFS	**Hagfors**	42.84	322	P	P	04 12 33.3	0.0
	comp=Z,1.3nm,0.5s,baz=176,slow=4.5,SNR=7.8						
HFS				LR	LR	04 32 12.4	
	comp=Z,58nm,18.2s,baz=326,slow=38						
	comp=Z,1.3nm,0.5s						
HEH	**HeiHe**	43.40	52	*e*P	P	04 12 38.8	+0.8
HEH				pP	pP	04 13 08.5	+3.1
HEH				pmax	pmax		
	comp=Z,16nm,0.9s						
NB2	**NORSAR Subarra**	44.18	323	P	P	04 12 43.8	-0.3
	comp=Z,0.6nm,0.4s,baz=100,slow=8.6						
NOA	**NORSAR Array B**	44.18	323	P	P	04 12 43.9	-0.1
	comp=Z,1.2nm,0.6s,baz=99,slow=7.9,SNR=6.7						
NOA				LR	LR	04 33 50.3	
	comp=Z,20nm,18.8s,baz=355,slow=39						
	comp=Z,1.2nm,0.6s						
YAK	**Yakutsk**	45.01	35	*e*P	P	04 12 50.8	+0.3
YAK				*e**PP	pP	04 13 16.8	-0.7
YAK				*e*		04 14 29.5	
YAK				*e*		04 14 38.4	
YAK				*e*S	S	04 19 21.5	+1.3
YAK				*e**SS	sS	04 20 06.9	-0.1
YAK				*e*		04 22 36.3	
YAK				pmax	pmax		
	comp=Z,17nm,0.9s						
YAK				pmax	pmax		
	comp=E,5.0nm,1.1s						
YAK				pmax	pmax		
	comp=N,5.0nm,1.4s						
YAK				pmax	pmax		
	comp=Z,105nm,3.3s						
YAK				pmax	pmax		
	comp=N,33nm,2.9s						
YAK				pmax	pmax		
	comp=E,45nm,3.3s						
YAK				smax	smax		
	comp=N,21nm,2.3s						
YAK				smax	smax		
	comp=E,17nm,2.5s						
KSRS	**Korea Array**	46.05	70	P	P	04 12 59.0	-0.1
	comp=E,3.6nm,0.7s,baz=277,slow=7.0,SNR=7.3						
KSRS				LR	LR	04 33 45.4	
	comp=E,20nm,20.5s,baz=305,slow=38						
	comp=E,3.6nm,0.7s						
KSRS	**Korea Array**	46.05	70	P	P	04 12 59.0	-0.1
PPI	**Padang Panjang**	46.14	135	P	P	04 12 59.0	-1.0
	comp=E,55nm,0.9s,comp=E,55nm,0.9s						
KLR	**Kul'dur**	46.30	53	⇓ *e*P	P	04 13 00.6	-0.4
KLR				pmax	pmax		
	comp=Z,6.0nm,1.1s						
MYKOM	**Kota Tinggi**	46.44	129	P	P	04 13 03.4	+1.1
MYKOM	**Kota Tinggi**	46.44	129	P	P	04 13 03.4	+1.1
MYKOM	**Kota Tinggi**	46.44	129	P	P	04 13 00.6	-1.8
	comp=Z,42nm,0.9s,comp=Z,42nm,0.9s						
PDSI	**Padang**	46.55	135	P	P	04 13 02.4	-0.9
	comp=Z,61nm,0.7s,comp=Z,61nm,0.7s						
TIXI	**Tiksi**	46.66	22	⇓ *i*P	P	04 13 03.8	+0.4
TIXI				pmax	pmax		
	comp=Z,16nm,0.9s						
TIXI	**Tiksi**	46.66	22	P	P	04 13 02.4	-1.0
SDSI	**Sungai Dareh**	47.12	134	P	P	04 13 05.4	-2.3
	comp=Z,6µmcomp=Z,6µmcomp=Z,22nm,0.6s,comp=Z,22nm,0.6s						
SPITS	**Spitsbergen Ar**	47.77	347	P	P	04 13 13.2	+1.2
	comp=Z,4.9nm,0.7s,baz=111,slow=9.1,SNR=4.8						
	comp=Z,4.9nm,0.7s						
KEST	**Kesra**	48.21	288	P	P	04 13 17.3	+1.3
	comp=Z,2.4nm,0.6s,baz=90,slow=5.1,SNR=1.3						
	comp=Z,2.4nm,0.6s						
MBAR	**Mbarara**	51.35	234	P	P	04 13 40.2	+0.1
MBAR				pmax	pmax		
	comp=Z,9.0nm,0.7s						
MBAR	**Mbarara**	51.35	234	P	P	04 13 40.2	+0.1
MBAR	**Mbarara**	51.35	234	P	P	04 13 40.4	+0.3
	comp=Z,12nm,0.9s						
KKM	**Kota Kinabalu**	51.95	114	P	P	04 13 46.3	+1.8
KKM	**Kota Kinabalu**	51.95	114	P	P	04 13 45.7	+1.2
KKM	**Kota Kinabalu**	51.95	114	P	P	04 13 46.4	+1.8
	comp=Z,49nm,1.1s						
YSS	**Yuzhno-Sakhali**	53.99	54	*e*P	P	04 13 59.3	+0.4
YSS				pmax	pmax		
	comp=Z,20nm,0.9s						
MJAR	**Matsushiro Arr**	54.12	68	P	P	04 13 59.4	-0.7
	comp=Z,3.5nm,0.8s,baz=293,slow=12,SNR=9.5						
	comp=Z,3.5nm,0.8s						
DAG	**Danmarks Havn**	54.94	344	*i* P	P	04 14 05.6	+0.2
DAG				IAmb	IAmb	04 14 10.0	
	comp=Z,6.6nm,1.0s						
MA2	**Magadan**	55.43	38	⇑ *e*P	P	04 14 09.3	+0.2
MA2				pmax	pmax		
	comp=Z,6.0nm,0.7s						
SEY	**Seymchan**	55.44	33	⇑ *e*P	P	04 14 09.9	+0.7
SEY				pmax	pmax		
	comp=Z,7.0nm,0.9s						
LEM	**Lembang**	55.50	132	LR	LR	04 39 06.8	
	comp=Z,52nm,20.5s,baz=352,slow=37						
ESDC	**Sonseca Array**	56.78	298	P	P	04 14 19.1	0.0
	comp=Z,1.2nm,0.8s,baz=56,slow=7.5,SNR=9.8						
	comp=Z,1.2nm,0.8s						
SCO	**Scoresbysund**	57.12	336	*i* P	P	04 14 16.8	-4.2
SCO				IAmb	IAmb	04 14 20.4	
	comp=Z,8.8nm,0.8s						
BILL	**Bilibino**	59.54	26	⇓ *e*P	P	04 14 38.8	+1.0
BILL				pmax	pmax		
	comp=Z,13nm,1.3s						
SUMG	**Summit**	61.22	341	*i* P	P	04 14 50.5	+0.8
SUMG				IAmb	IAmb	04 14 53.7	
	comp=Z,6.8nm,1.0s						
NEEM	**North Greenlan**	61.33	348	*i* P	P	04 14 50.5	+0.3
NEEM				IAmb	IAmb	04 14 52.9	
	comp=Z,7.5nm,1.2s						
KAPI	**Kappang**	62.09	120	P	P	04 14 56.1	+0.3
	comp=Z,6.9nm,0.6s,baz=230,slow=8.5,SNR=3.7						
	comp=Z,6.9nm,0.6s						
SANI	**Sanana**	64.58	113	P	P	04 15 12.1	-0.2
SANI	**Sanana**	64.58	113	P	P	04 15 12.1	-0.2
	comp=Z,18nm,0.7s						
TORD	**Torodi Ar. Bea**	64.65	268	P	P	04 15 11.5	-1.3
	comp=Z,2.4nm,0.6s,baz=46,slow=5.9,SNR=18						
	comp=Z,2.4nm,0.6s						
SIJI	**Sorong**	67.83	108	P	P	04 15 32.3	-0.7
	comp=Z,13nm,0.7s,baz=336,slow=7.4,SNR=10						
	comp=Z,13nm,0.7s						
SOEI	**Soe**	68.58	120	P	P	04 15 39.2	+1.4
SOEI	**Soe**	68.58	120	P	P	04 15 34.2	-3.6
	comp=Z,32nm,0.6s						
FAKI	**Fak Fak**	69.88	109	P	P	04 15 45.6	-0.2
FAKI	**Fak Fak**	69.88	109	P	P	04 15 44.5	-1.3
FAKI	**Fak Fak**	69.88	109	P	P	04 15 45.5	-0.3
	comp=Z,20nm,1.0s						
COLD	**Coldfoot**	72.76	15	IAmb	IAmb	04 16 03.4	
	comp=Z,6.8nm,0.9s						
F25K	**Christian Rive**	73.36	13	IAmb	IAmb	04 16 07.6	
	comp=Z,6.0nm,0.9s						
E28M	**Babbage River**	73.49	11		P	04 16 07.6	+1.1
E29M	**Blow River**	73.93	10		P	04 16 09.9	+0.9
E29M				IAmb	IAmb	04 16 10.6	
	comp=Z,7.1nm,0.9s						
INK	**Inuvik**	74.59	9	IAmb	IAmb	04 16 14.1	
	comp=Z,7.3nm,0.7s						
NEA2	**Nenana**	75.24	16	IAmb	IAmb	04 16 17.4	
	comp=Z,7.4nm,0.9s						
COLA	**College**	75.27	16	P	P	04 16 17.2	+0.3
H27K	**Steamboat Moun**	75.32	13	IAmb	IAmb	04 16 18.9	
	comp=Z,6.4nm,0.9s						
FITZ	**Fitzroy Crossi**	75.43	125	P	P	04 16 19.1	+0.7
	comp=Z,3.5nm,2.2s						
CAST	**Castle Rocks**	75.52	18	IAmb	IAmb	04 16 19.3	
	comp=Z,7.5nm,1.0s						
ILAR	**Eielson Array**	75.57	15	P	P	04 16 18.0	-0.6
	comp=Z,1.8nm,0.9s,baz=318,slow=4.5,SNR=14						
	comp=Z,1.8nm,0.9s						
ILAR	**Eielson Array**	75.57	15	P	P	04 16 17.6	-1.1
KNRA	**Kununurra**	75.83	122	P	P	04 16 18.9	-1.9
	comp=Z,9.5nm,0.9s						
KNRA	**Kununurra**	75.83	122	P	P	04 16 21.2	+0.4
	comp=Z,9.5nm,0.9s						
KNRA	**Kununurra**	75.83	122	P	P	04 16 20.8	+0.1
KNRA				IAmb	IAmb	04 16 21.7	
	comp=Z,5.6nm,0.8s						
H29M	**Whitestone**	75.86	11	IAmb	IAmb	04 16 21.5	
	comp=Z,7.8nm,0.8s						
I28M	**Miner Creek**	76.31	12	IAmb	IAmb	04 16 23.6	
	comp=Z,5.8nm,0.8s						
K24K	**Donnelly Dome**	76.66	15	IAmb	IAmb	04 16 24.9	
	comp=Z,8.1nm,0.8s						
BOSA	**Boshof**	76.67	219	P	P	04 16 25.1	-0.3
	comp=Z,5.8nm,1.1s,baz=41,slow=3.0,SNR=6.6						
	comp=Z,5.8nm,1.1s						
BOSA	**Boshof**	76.67	219	P	P	04 16 24.6	-0.8
I30M	**Mount Dempster**	77.10	11	IAmb	IAmb	04 16 28.2	
	comp=Z,6.2nm,0.8s						
DAWY	**Dawson**	77.67	13	P	P	04 16 30.6	0.0
DAWY				IAmb	IAmb	04 16 31.0	
	comp=Z,7.2nm,1.1s						
SML	**Sawmill**	77.81	17	IAmb	IAmb	04 16 32.2	
	comp=Z,14nm,1.2s						
HARP	**HAARP**	78.03	16	IAmb	IAmb	04 16 34.1	
	comp=Z,14nm,1.0s						
K29M	**Barlow Dome**	78.20	12	IAmb	IAmb	04 16 34.7	
	comp=Z,4.9nm,0.8s						
M27K	**Edge Creek, AK**	78.76	14	IAmb	IAmb	04 16 38.1	
	comp=Z,9.5nm,1.0s						
EYAK	**Cordova Ski Ar**	79.53	17	IAmb	IAmb	04 16 42.4	
	comp=Z,12nm,1.1s						
YKA	**Yellowknife Ar**	81.82	2	P	P	04 16 52.5	-0.3
	comp=Z,2.7nm,0.8s,baz=353,slow=5.3,SNR=13						
	comp=Z,2.7nm,0.8s						
YKA	**Yellowknife Ar**	81.82	2	P	P	04 16 52.3	-0.5
P33M	**Teslin, Yukon**	82.39	11	IAmb	IAmb	04 16 57.0	
	comp=Z,11nm,1.3s						
WB5	**Warramunga Arr**	82.58	121	P	P	04 16 57.1	-0.4
WRA	**Warramunga Arr**	82.61	121	P	P	04 16 56.5	-1.1
	comp=Z,2.0nm,0.6s,baz=326,slow=4.9,SNR=52						
	comp=Z,2.0nm,0.6s						
WRA	**Warramunga Arr**	82.61	121	P	P	04 16 55.3	-2.3
WR8	**Warramunga Arr**	82.73	121	P	P	04 16 57.0	-1.2
WR8				IAmb	IAmb	04 16 57.9	
	comp=Z,6.5nm,1.0s						
AS15	**Alice Springs**	84.80	124	P	P	04 17 05.3	-3.5
ASAR	**Alice Springs**	84.82	124	P	P	04 17 08.2	-0.7
	comp=Z,1.7nm,0.5s,baz=310,slow=5.0,SNR=31						
	comp=Z,1.7nm,0.5s						
ASAR	**Alice Springs**	84.82	124	P	P	04 17 08.1	-0.8
AS17	**Alice Springs**	84.88	124	P	P	04 17 09.1	0.0
	comp=Z,3.0nm,0.9s						
CTAO	**Charters Tower**	91.28	114	P	P	04 17 38.7	-1.0
CTAO				pmax	pmax		
	comp=Z,4.0nm,0.8s						
CTAO	**Charters Tower**	91.28	114	P	P	04 17 38.7	-1.0
CTAO				IAmb	IAmb	04 17 39.5	
	comp=Z,4.3nm,0.8s						
QSPA	**South Pole Qui**	125.77	180	PKP	PKPdf	04 23 33.6	-0.5
	comp=Z,2.5nm,1.1s,baz=251,slow=1.7,SNR=6.6						

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*IDC **26** 04:05:08.6±1.5, 7°.53N×126°.65E, h0^{km}, mb3.8/4, mbtmp3.8/4, Error ellipse: s-maj=27.5km s-min=19.4km az=170.0*

*MAN **26** 04:05:16.0, 6°.81N×126°.27E, h29^{km}, MS3.2*

ISC 26 04:05:18.2±1.1, **6°.86N**±0°.07×**126°.25E**±0°.07, **h35**^{km}, **n11**, σ**1^{s}.48**/15, **mb3.6**/4, **Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
DAV	**Davao City (W)**	0.70	288	Pg	Pn	04 05 31.9	+0.4
	84nm,0.3s,baz=21,slow=8.6,SNR=4.1						
DAV				Lg	Lg	04 05 43.9	
	98nm,0.3s,baz=264,slow=21,SNR=18						
DMPH	**Davao City--Mi**	0.77	287	*i* P	Pn	04 05 32.5	-0.1
DMPH				*i* S	Sn	04 05 44.1	+1.2
CDOP	**Cateel, Davao**	0.94	11	*i* P	Pn	04 05 33.5	-1.3
CDOP				*e*S	Sn	04 05 45.8	-1.3
KCP	**Kidapawan**	1.16	277	*i* P	Pn	04 05 37.5	-0.5
KCP				*i* S	Sn	04 05 53.0	+0.3
BIPH	**Bislig**	1.32	5	*e*P	Pn	04 05 40.5	+0.3
BIPH				*e*S	Sn	04 05 57.7	+1.1
BUKP	**Musuan**	1.56	311	*e*P	Pn	04 05 43.1	-0.3
BUKP				*i* S	Sn	04 05 58.9	-3.5
PLP	**Palo**	4.46	344	*e*P	Pn	04 06 26.1	+2.7
PLP				*e*S	Sn	04 06 44.3	-30
WRA	**Warramunga Arr**	27.80	164	P	P	04 11 03.9	-0.3
	0.3nm,0.8s,baz=347,slow=9.4,SNR=2.6						
	0.3nm,0.8s						
ASAR	**Alice Springs**	31.25	166	P	P	04 11 34.5	-0.2
	0.2nm,0.3s,baz=340,slow=7.2,SNR=4.3						
	0.2nm,0.3s						
STKA	**Stephens Creek**	41.21	160	P	P	04 12 60.0	+0.3
	1.0nm,0.4s,baz=336,slow=7.0,SNR=4.8						
	1.0nm,0.4s						
NRIK	**Noril'sk**	67.30	346	P	P	04 16 01.2	-7.8
	3.9nm,0.6s,baz=147,slow=5.3,SNR=3.8						
	3.9nm,0.6s						

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*KRSC **26** 04:28:47.2±0.6, 54°.45N×161°.04E, h85^{km}±7^{km}, Ml4.1*

*MOS **26** 04:28:48.2±0.6, 54°.44N×161°.05E, h80^{km}, mb4.1/3, Error ellipse: s-maj=10.2km s-min=4.1km az=78.7*

*IDC **26** 04:28:50.5±3.4, 55°.14N×159°.57E, h108^{km}±21^{km}, mb3.3/7, mbtmp3.6/8, Error ellipse: s-maj=131.6km s-min=15.9km az=130.0*

ISC 26 04:28:49.3±0.7, **54°.44N**±0°.03×**161°.04E**±0°.04, **h79**^{km}±6^{km}, **n102**, σ**0^{s}.71**/133, **mb3.6**/9, **Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
MKZ	**Mys Kozlova**	0.42	74	PN	Pn	04 29 02.2	0.0
MKZ				S	Sn	04 29 12.0	+0.2
MKZ	**Mys Kozlova**	0.42	74	*e*P	Pn	04 29 02.3	0.0
MKZ				*e*S	Sn	04 29 12.1	+0.2
TUMR	**Tumrok**	0.98	329	PN	Pn	04 29 07.8	-0.4
TUMR	**Tumrok**	0.98	329	*e*P	Pn	04 29 07.8	-0.4
KII	**Karymskiy**	1.02	247	PN	Pn	04 29 07.7	-0.9
KII				S	Sn	04 29 22.3	-0.6
KII	**Karymskiy**	1.02	247	*e*P	Pn	04 29 07.7	-0.9
KII				*e*S	Sn	04 29 22.3	-0.6
KMNR	**Kamenistaya**	1.39	341	PN	Pn	04 29 12.9	-0.4
KMNR				S	Sn	04 29 33.0	+1.7
KMNR	**Kamenistaya**	1.39	341	*e*P	Pn	04 29 13.0	-0.4
KMNR				*e*S	Sn	04 29 33.0	+1.7
SPN	**Mys Shipunski**	1.48	204	PN	Pn	04 29 14.2	-0.1
SPN				S	Sn	04 29 33.3	+0.3
SPN	**Mys Shipunski**	1.48	204	*e*P	Pn	04 29 14.2	-0.1
SPN				*e*S	Sn	04 29 33.4	+0.3
BZP	**Bezymyannyi-Pe**	1.50	349	PN	Pn	04 29 14.3	-0.4
BZP				S	Sn	04 29 34.3	+0.5
BZP	**Bezymyannyi-Pe**	1.50	349	*e*P	Pn	04 29 14.4	-0.4
BZP				*e*S	Sn	04 29 34.4	+0.5
BZGR	**Bezymyannyi-Gr**	1.51	353	PN	Pn	04 29 14.5	-0.3

BZGR				S	Sn	04 29 33.6	-0.5
BZGR	Bezymyannyi-Gr	1.51	353	eP	Pn	04 29 14.6	-0.3
BZGR				eS	Sn	04 29 33.7	-0.5
BZMR	Bezymyannaya	1.53	348	PN	Pn	04 29 14.9	-0.2
BZMR				S	Sn	04 29 34.7	+0.3
BZMR	Bezymyannaya	1.53	348	eP	Pn	04 29 14.9	-0.2
BZMR				eS	Sn	04 29 34.8	+0.3
BZWR	Bezymyannyi-We	1.55	349	PN	Pn	04 29 15.3	-0.1
BZWR				S	Sn	04 29 36.0	+0.8
BZWR	Bezymyannyi-We	1.55	349	eP	Pn	04 29 15.4	-0.1
BZWR				eS	Sn	04 29 36.0	+0.8
KIRR	Kirishev	1.56	346	PN	Pn	04 29 15.0	-0.5
KIRR				S	Sn	04 29 35.4	+0.1
KIRR	Kirishev	1.56	346	eP	Pn	04 29 15.0	-0.5
KIRR				eS	Sn	04 29 35.4	+0.1
ZLN	Zelenaya	1.58	355	PN	Pn	04 29 15.8	+0.1
ZLN	Zelenaya	1.58	355	eP	Pn	04 29 15.8	+0.1
KPT	Kopyto	1.59	343	PN	Pn	04 29 15.1	-0.8
KPT	Kopyto	1.59	343	eP	Pn	04 29 15.1	-0.8
NLC	Nalytchevo	1.62	219	PN	Pn	04 29 15.8	-0.3
NLC				S	Sn	04 29 36.5	+0.1
NLC	Nalytchevo	1.62	219	eP	Pn	04 29 15.8	-0.3
NLC				eS	Sn	04 29 36.6	+0.1
LGNR	Loginova	1.65	353	PN	Pn	04 29 17.3	+0.4
LGNR				S	Sn	04 29 38.8	+1.2
LGNR	Loginova	1.65	353	eP	Pn	04 29 17.3	+0.4
LGNR				eS	Sn	04 29 38.9	+1.2
CIRR	Tsirk	1.68	355	PN	Pn	04 29 17.5	+0.4
CIRR	Tsirk	1.68	355	eP	Pn	04 29 17.6	+0.4
SDLR	Sedlovina	1.73	228	PN	Pn	04 29 17.5	-0.2
SDLR				S	Sn	04 29 39.6	+0.5
SDLR	Sedlovina	1.73	228	eP	Pn	04 29 17.5	-0.2
SDLR				eS	Sn	04 29 39.7	+0.5
KOZ	Kozyrevsk	1.75	338	PN	Pn	04 29 17.2	-0.6
KOZ				S	Sn	04 29 39.2	-0.2
KOZ	Kozyrevsk	1.75	338	eP	Pn	04 29 17.2	-0.6
KOZ				eS	Sn	04 29 39.3	-0.2
KRER	Koryakskii	1.77	231	PN	Pn	04 29 18.4	+0.1
KRER	Koryakskii	1.77	231	eP	Pn	04 29 18.5	+0.1
SMAR	Somma	1.77	229	PN	Pn	04 29 18.0	-0.4
SMAR	Somma	1.77	229	eP	Pn	04 29 18.0	-0.4
KRX	Arik	1.78	233	PN	Pn	04 29 18.1	-0.3
KRX	Arik	1.78	233	eP	Pn	04 29 18.2	-0.3
AVH	Avacha	1.80	230	PN	Pn	04 29 18.6	0.0
AVH	Avacha	1.80	230	eP	Pn	04 29 18.6	0.0
UGLR	Uglovaya	1.80	228	PN	Pn	04 29 18.1	-0.5
UGLR	Uglovaya	1.80	228	eP	Pn	04 29 18.2	-0.5
KOK	Koryaka	1.83	232	PN	Pn	04 29 18.9	-0.1
KOK	Koryaka	1.83	232	eP	Pn	04 29 19.0	-0.1
KLY	Klyuchi	1.89	353	PN	Pn	04 29 19.2	-0.4
KLY				S	Sn	04 29 42.2	-0.4
KLY	Klyuchi	1.89	353	eP	Pn	04 29 19.3	-0.4
KLY				eS	Sn	04 29 42.3	-0.4
DALK	Dalny	1.96	225	PN	Pn	04 29 20.3	-0.3
DALK				S	Sn	04 29 44.1	-0.3
DALK	Dalny	1.96	225	eP	Pn	04 29 20.3	-0.3
DALK				eS	Sn	04 29 44.1	-0.3
GNL	Ganaly	1.97	249	PN	Pn	04 29 20.8	-0.1
GNL	Ganaly	1.97	249	eP	Pn	04 29 20.9	-0.1
INSR	Institute	2.00	227	eS	Sn	04 29 45.8	+0.5
ESO	Esso	2.00	319	PN	Pn	04 29 19.9	-1.2
ESO	Esso	2.00	319	eP	Pn	04 29 20.0	-1.2
PET	Petropavlovsk	2.01	226	ePN	Pn	04 29 21.2	0.0
PET				eS	Sn	04 29 45.8	+0.3
PET				pmax	pmax		
	comp=Z,41nm,0.2s						
PET				smax	smax		
	comp=E,839nm,0.5s						
PET				smax	smax		
	comp=N,655nm,0.4s						
SRDR	Sredinnyy	2.02	339	PN	Pn	04 29 20.4	-1.1
SRDR	Sredinnyy	2.02	339	eP	Pn	04 29 20.4	-1.1
KBTR	Krutoberegovo	2.04	29	PN	Pn	04 29 21.4	-0.3
KBTR				S	Sn	04 29 45.8	-0.5
KBTR	Krutoberegovo	2.04	29	eP	Pn	04 29 21.4	-0.3
KBTR				eS	Sn	04 29 45.8	-0.5
SMKR	Semkarok	2.16	6	PN	Pn	04 29 23.4	+0.1
SMKR	Semkarok	2.16	6	eP	Pn	04 29 23.4	+0.1
KRMR	Karymshinskiy	2.37	228	PN	Pn	04 29 26.8	+0.7
KRMR	Karymshinskiy	2.37	228	eP	Pn	04 29 26.8	+0.7
PEA0B	Petropavlovsk-	2.39	237	PN	Pn	04 29 26.3	-0.1
PETK	Petropavlovsk-	2.39	237	P	Pn	04 29 26.4	0.0
	comp=N,6.0nm,0.5s,baz=65,slow=17,SNR=35						
PETK				S	Sn	04 29 56.5	+1.7
	comp=N,18nm,0.3s,baz=89,slow=22,SNR=5.6						
RUS	Russkaya	2.52	218	PN	Pn	04 29 27.8	-0.2
RUS				S	Sn	04 29 56.7	-1.0
RUS	Russkaya	2.52	218	eP	Pn	04 29 27.9	-0.2
RUS				eS	Sn	04 29 56.8	-1.0
GRL	Gorelyy	2.59	224	PN	Pn	04 29 29.8	+0.6
GRL	Gorelyy	2.59	224	eP	Pn	04 29 29.8	+0.6
MTVR	Mutnovka	2.60	222	PN	Pn	04 29 29.9	+0.6
MTVR	Mutnovka	2.60	222	eP	Pn	04 29 30.0	+0.6
APC	Apacha	2.76	238	PN	Pn	04 29 32.1	+0.8
APC	Apacha	2.76	238	eP	Pn	04 29 32.2	+0.8
ASAK	Asacha	2.79	224	PN	Pn	04 29 32.5	+0.7
ASAK	Asacha	2.79	224	eP	Pn	04 29 32.6	+0.7
KDTR	Khodutka, Kamc	3.19	215	PN	Pn	04 29 36.8	-0.3
KDTR	Khodutka, Kamc	3.19	215	eP	Pn	04 29 36.8	-0.3
TIGL	Tigil	3.58	339	PN	Pn	04 29 41.9	-0.6
TIGL	Tigil	3.58	339	eP	Pn	04 29 41.9	-0.6
TILK	Tilichiki	6.62	23	PN	Pn	04 30 24.5	+0.8
TILK	Tilichiki	6.62	23	eP	Pn	04 30 24.6	+0.8
BILL	Bilibino	13.86	8	iP	P	04 32 04.6	-3.0
BILL				pmax	pmax		
	comp=Z,6.0nm,1.4s						
YAK	Yakutsk	18.01	308	eP	Pn	04 32 55.4	+1.4
YAK				eS	S	04 36 16.9	+2.1
YAK				pmax	pmax		
	comp=Z,11nm,0.9s						
YAK				pmax	pmax		
	comp=E,2.0nm,1.0s						
YAK				smax	smax		
	comp=N,57nm,3.3s						
YAK				smax	smax		
	comp=E,21nm,2.3s						
HIA	Hailar	25.74	276	iP	P	04 34 12.4	+0.2
HIA				pmax	pmax		
	comp=Z,5.0nm,0.9s						
ILAR	Eielson Array	27.48	47	P	P	04 34 27.9	+0.2
	comp=Z,0.4nm,0.9s,baz=269,slow=7.3,SNR=4.4						
	comp=Z,0.4nm,0.9s						
ILAR	Eielson Array	27.48	47	eP	P	04 34 29.4	+1.8
ULN	Ulaanbaatar	33.76	281	iP	P	04 35 23.0	-0.3
ULN				pmax	pmax		
	comp=Z,1.0nm,0.7s						
H11N2	WAKE ISLAND Hy	34.94	170	T	T	05 12 54.7	
	baz=355,slow=76,SNR=246						
H11N3	WAKE ISLAND Hy	34.96	170	T	T	05 12 57.8	
	baz=355,slow=76,SNR=189						
H11N1	WAKE ISLAND Hy	34.96	170	T	T	05 12 55.7	
	baz=355,slow=76,SNR=229						
H11S1	WAKE ISLAND Hy	36.13	171	T	T	05 14 18.2	
	baz=352,slow=76,SNR=2.7						
H11S3	WAKE ISLAND Hy	36.15	171	T	T	05 14 15.7	
	baz=352						
H11S2	WAKE ISLAND Hy	36.15	171	T	T	05 14 26.1	
	baz=352,slow=76						
YKA	Yellowknife Ar	41.79	44	P	P	04 36 29.6	-0.9
	comp=Z,0.4nm,0.8s,baz=299,slow=7.7,SNR=1.7						
	comp=Z,0.4nm,0.8s						
DGZ	Jazzator, Alta	43.58	295	iP	P	04 36 46.6	+1.2
DGZ				pmax	pmax		
	comp=Z,1.0nm,0.9s						
PDAR	Pinedale Array	56.38	62	P	P	04 38 23.6	+1.2
	comp=Z,0.2nm,0.6s,baz=298,slow=11,SNR=2.2						
	comp=Z,0.2nm,0.6s						
TXAR	Lajitas Array	69.60	68	P	P	04 39 50.9	+0.9
	comp=Z,0.3nm,0.6s,baz=298,slow=4.3,SNR=6.1						
	comp=Z,0.3nm,0.6s						
WRA	Warramunga Arr	77.54	206	P	P	04 40 35.7	-0.6
	comp=Z,0.6nm,0.7s,baz=20,slow=6.0,SNR=9.9						
	comp=Z,0.6nm,0.7s						
FITZ	Fitzroy Crossi	78.33	214	P	P	04 40 39.3	-1.4
	comp=Z,2.5nm,1.2s,baz=18,slow=9.6,SNR=1.7						
	comp=Z,2.5nm,1.2s						
ASAR	Alice Springs	81.22	205	P	P	04 40 56.0	-0.2
	comp=Z,0.7nm,0.7s,baz=15,slow=6.2,SNR=7.2						
	comp=Z,0.7nm,0.7s						
QSPA	South Pole Qui	144.19	180	PKP	PKPab	04 48 11.4	-1.1
	comp=Z,0.7nm,0.6s,baz=344,slow=1.2,SNR=7.6						

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*IDC **26** 04:35:20.2±0.5, 18°.70N×145°.62E, h150^{km}±4^{km}, mb3.8/16, mbtmp4.2/16, Error ellipse: s-maj=18.4km s-min=10.2km az=99.0*

*NEIC **26** 04:35:21.4±2.2, 18°.62N±0°.07×145°.7E±0°.1, h149^{km}±3^{km}, mb4.8/26, Error ellipse: s-maj=15.9km s-min=10.4km az=76.0*

ISC 26 04:35:20.7±0.5**, 18°.51N**±0°.06×**145°.9E**±0°.1**, h147**^{km}±5^{km}**, h148**^{km}**:pP-P, n61, σ1^{s}.37**/64**, mb4.6**/32**, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DPSS	Saipan	3.25	182		Pn	04 36 09.9	-1.3
PATS	Pohnpei	16.77	132	P	P	04 39 07.7	+0.9
MJAR	Matsushiro Arr	19.19	341	P	Pn	04 39 35.2	-0.4
	1.9nm,0.6s,baz=173,slow=10,SNR=4.2						
H11S3	WAKE ISLAND Hy	19.73	87	T	T	05 00 33.7	
	baz=274,slow=74,SNR=6.2						
H11S1	WAKE ISLAND Hy	19.75	87	T	T	05 00 34.7	
	baz=274,slow=74,SNR=11						
H11S2	WAKE ISLAND Hy	19.75	87	T	T	05 00 35.6	
	baz=274,slow=74,SNR=6.9						
H11N1	WAKE ISLAND Hy	19.89	83	T	T	05 00 45.6	
	baz=267,slow=74,SNR=8.1						
H11N2	WAKE ISLAND Hy	19.90	83	T	T	05 00 51.6	
	baz=267,slow=74,SNR=6.2						
H11N3	WAKE ISLAND Hy	19.91	83	T	T	05 01 06.1	
	baz=267,slow=74,SNR=6.1						
MANU	Manus Island	20.48	176		P	04 39 47.1	0.0
JAY	Jayapura	21.50	194	P	P	04 39 59.5	+1.3
	4.5nm,0.6s,baz=337,slow=8.5,SNR=3.6						
	4.5nm,0.6s						
FAKI	Fak Fak	25.17	214	P	P	04 40 33.8	+1.2
NJ2	Nanjing	27.82	304	eP	P	04 40 58.0	+1.8
NJ2				pmax	pmax		
	comp=Z,6.0nm,0.8s						
CN2	Changchun	30.52	330	eP	P	04 41 23.5	+3.6
CN2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
KKM	Kota Kinabalu	31.46	251	P	P	04 41 29.4	+0.7
MTN	Manton Dam	34.38	206		P	04 41 53.5	-0.4
MTN				IAmb	IAmb	04 41 54.7	
	comp=Z,7.5nm,0.6s						
HHC	Hu-ho-hao-te	36.86	315	eP	P	04 42 15.8	+0.8
HHC				pmax	pmax		
	comp=Z,12nm,0.5s						
HHC				pmax	pmax		
	comp=Z,81nm,5.7s						
KNRA	Kununurra	37.92	207		P	04 42 24.4	+0.4
KNRA				IAmb	IAmb	04 42 25.0	
	comp=Z,8.3nm,0.7s						
CTA	Charters Tower	38.36	179	P	P	04 42 28.3	+0.7
	comp=Z,1.5nm,0.4s,baz=335,slow=7.8,SNR=4.7						
	comp=Z,1.5nm,0.4s						
WR8	Warramunga Arr	39.82	197		P	04 42 39.6	-0.2
WR8				IAmb	IAmb	04 42 41.3	
	comp=Z,9.1nm,0.8s						
WRA	Warramunga Arr	39.86	197	P	P	04 42 39.9	-0.1
	comp=Z,5.3nm,0.4s,baz=20,slow=8.4,SNR=43						
WRA				PcP	PcP	04 44 42.0	-1.1
	comp=Z,0.4nm,0.5s,baz=17,slow=3.5,SNR=8.7						
	comp=Z,5.3nm,0.4s						
WRA	Warramunga Arr	39.86	197		P	04 42 39.4	-0.7
WRA	Warramunga Arr	39.86	197		PcP	04 44 42.0	-1.1
PZH	PanZhiHua	41.38	289	P	P	04 42 54.8	+2.0
FITZ	Fitzroy Crossi	41.46	210	P	P	04 42 53.6	+0.4
	comp=Z,10nm,0.5s,baz=24,slow=8.8,SNR=96						
	comp=Z,10nm,0.5s						
FITZ	Fitzroy Crossi	41.46	210		P	04 42 53.8	+0.6
AS31	Alice Springs	43.52	196		P	04 43 10.3	+0.4
ASAR	Alice Springs	43.52	196	P	P	04 43 10.1	+0.3
	comp=Z,2.9nm,0.6s,baz=18,slow=8.2,SNR=41						
ASAR				PcP	PP	04 44 54.2	0.0
	comp=Z,0.7nm,0.6s,baz=30,slow=2.8,SNR=4.6						
	comp=Z,2.9nm,0.6s						
EIDS	Eidsvold	43.91	173	P	P	04 43 11.9	-1.0
EIDS				IAmb	IAmb	04 44 04.7	
	comp=Z,65nm,1.9s						
MBWA	Marble Bar	47.01	214	P	P	04 43 37.5	+0.2
MBWA				IAmb	IAmb	04 43 59.2	
	comp=Z,33nm,1.6s						
ARMA	Armidale	48.96	173	P	P	04 43 52.1	-0.2
STKA	Stephens Creek	50.27	185	P	P	04 44 01.1	-1.0
	comp=Z,3.7nm,0.8s,baz=356,slow=8.3,SNR=5.7						
	comp=Z,3.7nm,0.8s						
BBOO	Buckleboo	51.89	191	P	P	04 44 14.1	-0.1
FORT	Forrest	51.92	200	P	P	04 44 14.7	+0.3
FORT				IAmb	IAmb	04 44 27.1	
	comp=Z,14nm,1.2s						
CAN	Canberra	53.62	177	P	P	04 44 27.4	+0.6
MORW	Morawa	55.39	212	P	P	04 44 39.5	-0.2
MORW				IAmb	IAmb	04 44 40.1	
	comp=Z,13nm,0.7s						
NWAO	Narrogin (SRO)	58.02	208	P	P	04 44 57.4	-0.8
	comp=Z,9.6nm,0.9s,baz=41,slow=5.6,SNR=3.1						
	comp=Z,9.6nm,0.9s						
ZALV	Zalesovo Beam	58.27	323	P	P	04 44 57.7	-2.0
	comp=Z,0.6nm,0.5s,baz=99,slow=8.9,SNR=2.3						
ZALV				pP	pP	04 45 31.0	-2.2
	comp=Z,1.1nm,0.7s,baz=101,slow=6.2,SNR=2.9						
	comp=Z,0.6nm,0.5s						
MKAR	Makanchi Array	58.72	314	P	P	04 45 00.7	-2.3
	comp=Z,0.5nm,0.5s,baz=92,slow=7.3,SNR=4.2						
	comp=Z,0.5nm,0.5s						
KURK	Kurchatov	61.53	318	P	P	04 45 19.6	-2.4
KURK					pP	04 45 53.8	-2.1
KURBB	Kurchatov Arra	61.57	318	P	P	04 45 19.6	-2.7
	comp=Z,0.6nm,0.3s,baz=97,slow=7.2,SNR=10						
KURBB				pP	pP	04 45 53.8	-2.4
	comp=Z,1.4nm,0.7s,baz=93,slow=7.6,SNR=4.2						
	comp=Z,0.6nm,0.3s						
BPAW	Bear Paw Mtn.	61.85	26	P	P	04 45 24.7	+0.7
BPAW				IAmb	IAmb	04 46 37.2	
	comp=Z,23nm,1.9s						
KSH2	Kashi	63.45	305	P	P	04 45 35.3	+0.1
KSH2				pmax	pmax		
	comp=Z,5.0nm,0.9s						
KLU	Klutina	63.52	30	P	P	04 45 35.5	+0.4
KLU				IAmb	IAmb	04 47 02.1	
	comp=Z,20nm,1.7s						
ILAR	Eielson Array	63.74	26	P	P	04 45 35.4	-1.1
	comp=Z,0.5nm,0.4s,baz=253,slow=6.0,SNR=15						
ILAR				pP	pP	04 46 10.7	+0.1
	comp=Z,1.2nm,0.7s,baz=266,slow=5.3,SNR=9.6						
	comp=Z,0.5nm,0.4s						
BFZ	Birch Farm	65.31	155	P	P	04 45 46.2	-0.7
BVAR	Borovoye Array	66.73	320	P	P	04 45 53.3	-2.6
	comp=Z,2.3nm,0.7s,baz=100,slow=6.8,SNR=5.9						
	comp=Z,2.3nm,0.7s						
YKA	Yellowknife Ar	78.07	28	P	P	04 47 01.6	-1.4
	comp=Z,1.1nm,0.6s,baz=291,slow=5.4,SNR=5.9						
YKA				pP	pP	04 47 39.2	+0.9
	comp=Z,1.0nm,0.5s,baz=289,slow=5.7,SNR=4.9						
	comp=Z,1.1nm,0.6s						
NVAR	Mina Array Bea	83.12	52	P	P	04 47 31.0	+0.4
	comp=Z,1.9nm,0.6s,baz=272,slow=5.5,SNR=17						
NVAR				pP	pP	04 48 08.9	+2.6
	comp=Z,1.7nm,0.7s,baz=266,slow=6.1,SNR=5.9						
	comp=Z,1.9nm,0.6s						
GMN	Gold Mountain	84.26	53	P	P	04 47 37.2	+0.8
FINES	FINESS Array B	87.13	335	P	P	04 47 46.6	-3.2
	comp=Z,0.7nm,0.3s,baz=66,slow=4.9,SNR=19						
FINES				pP	pP	04 48 24.9	-1.2
	comp=Z,0.9nm,0.4s,baz=90,slow=4.4,SNR=2.0						
	comp=Z,0.7nm,0.3s						
SZCU	Shurtz Canyon	87.28	51	IAmb	IAmb	04 47 55.8	
	comp=Z,6.5nm,0.7s						
PDAR	Pinedale Array	87.83	46	P	P	04 47 53.2	-0.6
	comp=Z,0.3nm,0.4s,baz=179,slow=1.2,SNR=7.3						
PDAR				pP	pP	04 48 31.2	+1.3
	comp=Z,0.5nm,0.7s,baz=207,slow=0.3,SNR=4.4						
	comp=Z,0.3nm,0.4s						
PV23	Carpenter Ridg	89.93	49	P	P	04 48 04.6	+0.7
PV23				IAmb	IAmb	04 48 42.7	
	comp=Z,13nm,0.9s						
PV17	East Wray Mesa	90.04	49	IAmb	IAmb	04 48 43.1	
	comp=Z,11nm,1.0s						
PV11	David Mesa, Pa	90.09	49	P	P	04 48 04.9	+0.4
BO04	La Punta	144.04	123		PKPab	04 54 38.1	+1.0
MT13	San Alfonso	144.37	122		PKPab	04 54 39.7	+1.3
CO02	Combarbal	144.40	118		PKPab	04 54 39.2	+0.6
PB08	IPOC Station P	146.94	99		PKPdf	04 54 45.8	+0.8
LPAZ	La Paz	147.50	91	PKPbc	PKPdf	04 54 46.6	+0.3
	comp=Z,1.4nm,0.4s,baz=339,slow=3.3,SNR=8.0						
LPAZ				pPKPbc	pPKPbc	04 55 28.4	+1.7
	comp=Z,1.0nm,0.5s,baz=1.1,slow=2.1,SNR=2.6						

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*SFS **26** 05:17:25.7, 35°.71N×3°.18W, h18^{km}, ML2.0/11, ML2.4/11, MLv2.6/9*

*CNRM **26** 05:17:25.2, 35°.67N×3°.22W, h24^{km}, ML2.1*

*MDD **26** 05:17:25.1±0.5, 35°.75N×3°.28W, h14^{km}±4^{km}, mb_Lg2.3/11, Error ellipse: s-maj=5.2km s-min=3.2km az=69.0*

ISC 26 05:17:24.7±1.1**, 35°.73N**±0°.02×**3°.19W**±0°.04**, h21**^{km}±2^{km}**, n26, σ1^{s}.19**/48**, 1D, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EALB	Alboran	0.25	30	Pg	Pb	05 17 30.9	+0.2
EALB				Sg	Sb	05 17 34.7	-0.2
EALB	Alboran	0.25	30	Pg	Pb	05 17 30.9	+0.2
EALB				Sg	Sb	05 17 34.8	-0.2
EALB				IVmb_Lg		05 17 35.8	
WMELI	Melilla	0.45	155	Pg	Pb	05 17 34.3	+0.5
WMELI				Sg	Sb	05 17 39.7	-0.3
EMEL	Melilla	0.46	156	⇓Pg	Pb	05 17 34.7	+0.7
EMEL				Sg	Sb	05 17 41.0	+0.5
EMLI	Melilla	0.47	156	Pg	Pb	05 17 34.7	+0.6
PALE	Palemas	0.80	231	P	Pn	05 17 41.0	+0.3
PALE				S	Sb	05 17 50.2	0.0
TAF	Taforalt	1.11	145	P	Pn	05 17 45.1	0.0
TAF				S	Sb	05 17 58.6	-0.5
EBER	Berja	1.19	11	Pn	Pn	05 17 46.1	-0.2
EBER				Sn	Sn	05 18 02.6	+0.6
EBER	Berja	1.19	11	Pg	Pn	05 17 46.5	+0.2
EBER				Sg	Sn	05 18 02.6	+0.6
EBER				IVmb_Lg		05 18 04.6	
ELGU	Los Guajares,	1.19	343	Pn	Pn	05 17 45.6	-0.6
ELGU				Sn	Sn	05 18 02.4	+0.5
ELGU	Los Guajares,	1.19	343	Pg	Pn	05 17 45.6	-0.6
ELGU				Sg	Sb	05 17 59.6	-2.0
ELGU				IVmb_Lg		05 18 04.0	
AKLM	AKL	1.33	205	P	Pn	05 17 47.8	-0.3
AKLM				S	Sn	05 18 02.5	-2.8
EMAL	Malaga-Limoner	1.44	316	Pn	Pb	05 17 50.8	0.0
EMAL				Pg	Pn	05 17 52.1	+2.5
EMAL				Sg	Sb	05 18 11.4	+2.7
ENIJ	Nijar	1.47	32	Pn	Pn	05 17 50.4	+0.4
ENIJ				Sn	Sn	05 18 07.7	-1.0
ENIJ				IVmb_Lg		05 18 21.1	
JBK	JBK	1.48	160	P	Pn	05 17 50.5	+0.3
JBK				S	Sn	05 18 09.1	+0.1
EQUE	Quentar	1.49	352	Pn	Pb	05 17 51.5	-0.2
EQUE				Sn	Sn	05 18 06.2	-3.0
EQUE				IVmb_Lg		05 18 23.5	
EQTA	Presa de Quent	1.49	352	Pn	Pb	05 17 51.9	+0.2
EMIJ	Mijas	1.53	304	Pn	Pn	05 17 50.7	-0.1
EMIJ				Sn	Sn	05 18 09.1	-1.1
EMIJ	Mijas	1.53	304	Pn	Pn	05 17 50.7	-0.1
EMIJ				Sn	Sn	05 18 06.7	-3.5
EMIJ				IVmb_Lg		05 18 17.5	
EGOR	Sierra Gorda,	1.57	332	Pg	Pb	05 17 54.0	+1.0
EGOR	Sierra Gorda,	1.57	332	Sn	Sn	05 18 11.5	+0.2
EGOR				IVmb_Lg		05 18 19.2	
SMIR	Smir Dam	1.79	269	P	Pn	05 17 54.2	-0.1
SMIR				S	Sn	05 18 15.8	-0.6
EQES	Quesada	2.08	3	Pg	Pb	05 18 00.8	-0.9
EQES				Sn	Sn	05 18 23.9	+0.2
EQES				IVmb_Lg		05 18 35.4	
EADA	Adamuz	2.68	336	Pn	Pn	05 18 08.2	+1.6
EADA				Sn	Sn	05 18 37.1	-1.4
ECAB	El Cabril	2.95	323	Pg	Pb	05 18 17.5	+1.0
MD31	MD31	3.13	205	P	Pn	05 18 14.0	+1.1
MD31				S	Sn	05 18 49.0	-0.8

IDC 26 05:20:16.3±2.2**, 22°.35S**×**177°.07W, h0**^{km}**, mb3.9**/3**, mbtmp3.9**/3**, Error ellipse: s-maj=59.8km s-min=45.3km az=28.0, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ASAR	Alice Springs	44.97	258	P	P	05 28 33.6	+0.1
	1.9nm,0.7s,baz=92,slow=8.1,SNR=20						
	1.9nm,0.7s						
WRA	Warramunga Arr	45.23	264	P	P	05 28 35.4	-0.3
	0.8nm,0.5s,baz=102,slow=8.4,SNR=32						
	0.8nm,0.5s						
QSPA	South Pole Qui	67.73	180	P	P	05 31 15.5	+0.1
	0.5nm,0.7s,baz=82,slow=2.5,SNR=2.0						
	0.5nm,0.7s						
AKASG	Malin Array Be	145.04	331	PKPbc	PKPbc	05 39 53.9	-0.9
	1.1nm,0.6s,baz=48,slow=4.1,SNR=6.9						

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*TEH **26** 05:46:51.6, 38°.12N×55°.99E, h6^{km}±40^{km}, ML5.2, Presumed earthquake*

*BJI **26** 05:46:53.4, 38°.10N×56°.00E, h10^{km}, mB5.1/25, mb4.8/59, Ms5.6/62, Ms7 5.3/59*

*IDC **26** 05:46:54.5±0.5, 38°.04N×55°.87E, h0^{km}, mb4.6/35, mbtmp4.6/43, ML4.3/9, MS4.7/77, Error ellipse: s-maj=11.6km s-min=7.9km az=2.0*

*MOS **26** 05:46:54.0±1.3, 38°.10N×55°.99E, h10^{km}, mb5.1/33, MS4.5/21, Error ellipse: s-maj=4.9km s-min=3.4km az=38.0*

*THR **26** 05:46:54.2±0.0, 38°.04N×56°.02E, h10^{km}±3^{km}, ML5.2, Presumed earthquake*

*GCMT **26** 05:46:55.5±0.1, 38°.09N±0°.01×56°.06E±0°.01, h13^{km}, MW5.2/148, Moment Tensor Solution. s88,c129; s148,c287; Duration: 1^{s}.0 Moment tensor: Scale 10^{17} Nm; M_{rr}0.09±.01; $M_{\theta\theta}$-0.90±.01; $M_{\phi\phi}$0.81±.01; $M_{r\theta}$0.01±.03; $M_{\theta\phi}$0.30±.01; $M_{\phi r}$-0.10±.03; Best double couple: $M_0$0.91200×10^{17} NP1:ϕ_s235.00000°, δ84.00000°, λ4.00000°. NP2:ϕ_s144.00000°, δ86.00000°, λ174.00000°. Principal axes: T 0.8740, Plg7.0000°, Azm100.0000°; N 0.0770, Plg83.0000°, Azm292.0000°; P -0.9510, Plg1.0000°, Azm190.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*DSN **26** 05:46:55.5±0.8, 38°.18N×56°.06E, h10^{km}, mb5.2/4 Error ellipse: s-maj=13.4km s-min=8.3km az=66.0*

*NEIC **26** 05:46:55.5±1.7, 38°.20N±0°.08×56°.05E±0°.08, h10^{km}±1^{km}, mb5.0/62, Mww5.2/20, Error ellipse: s-maj=13.3km s-min=10.7km az=181.0*

*GFZ **26** 05:46:56.4±0.2, 38°N±4°×5°6E±°, h10^{km}, M4.7/24, mb5.0/24*

*NNC **26** 05:47:01.1±3.4, 38°.52N×56°.55E, h0^{km}, mb5.1, Error ellipse: s-maj=35.1km s-min=21.0km az=48.0*

ISC 26 05:46:55.5±0.2**, 38°.13N**±0°.03×**56°.03E**±0°.03**, h10**^{km}**, n662, σ1^{s}.81**/675**, mb4.9**/135**, MS4.8**/111**, 62C-28D, Iran-Turkmenistan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MRVT	Maraveh tapeh	0.48	175	ePg	Pg	05 47 01.7	-3.2
MRVT	Maraveh tapeh	0.48	175	Pg	Pg	05 47 01.9	-3.0
MRVT				Sg	Sg	05 47 09.1	-2.1
IMND	Minoodasht	1.01	210	Pg	Pg	05 47 11.5	-3.4
IMND				Sg	Sg	05 47 26.8	-1.2
BJRD	Bojnurd	1.17	111	ePg	Pb	05 47 15.4	-2.5
BJRD				IAML		05 47 54.0	
	comp=Z,19μm,1.0s						
ISFR	Sfrayin	1.90	124	Pn	Pb	05 47 28.2	-2.2
SHRO	Shahrood	2.14	181	ePn	Pn	05 47 30.1	-1.4
SHRO				IAML		05 47 52.1	
	comp=Z,2.1nm,1.0s						
SHRO	Shahrood	2.14	181	Pn	Pn	05 47 30.3	-1.2
SBZV	Sabzevar	2.15	144	ePn	Pn	05 47 31.8	+0.1
SBZV				IAML		05 48 17.8	
	comp=Z,18μm,1.0s						
SBZV	Sabzevar	2.15	144	Pn	Pn	05 47 31.6	-0.1
IEMG	Emamgholi	2.19	108	Pn	Pn	05 47 32.5	+0.2
IGLO	Ghaloghah	2.40	228	Pn	Pn	05 47 34.1	-1.0
IAKL	Akhelmad	2.65	124	Pn	Pn	05 47 38.7	0.0
IANJ	Anjilo	3.16	213	Pn	Pn	05 47 44.8	-0.8
ISHM	Shahmirzad	3.20	224	Pn	Pn	05 47 45.9	-0.3
IALA	Alasht	3.29	233	Pn	Pn	05 47 46.6	-0.9
IMOG	Moghan	3.33	126	Pn	Pn	05 47 48.0	+0.1
TAPT	Tabas- Tapeh t	3.37	164	Pn	Pn	05 47 47.8	-0.6
IPRN	Peran	3.50	239	Pn	Pn	05 47 49.0	-1.2
TBHD	Torbat heydari	3.74	136	Pn	Pn	05 47 53.8	+0.3
DAMV	Damavand	4.11	234	ePn	Pn	05 47 59.2	+0.6
DAMV				IAML		05 49 22.1	
	comp=Z,2μm,1.0s						
TNSJ	Nastanj	4.19	173	Pn	Pn	05 47 58.7	-0.9

TSHB	Tabas_ShorAb	4.45	175	Pn	Pn	05 48 02.0	-1.1
CHTH	Charan	4.51	242	ePn	Pn	05 48 04.3	+0.1
CHTH				IAML		05 49 37.6	
	comp=Z,790nm,1.0s						
TABS	Tabas	4.56	169	ePn	Pn	05 48 04.7	0.0
TABS				IAML		05 49 32.6	
	comp=Z,3µm,1.0s						
THKV	Tehran--Karaj	4.68	243	ePn	Pn	05 48 07.2	+0.7
THKV				IAML		05 49 35.0	
	comp=Z,2µm,1.0s						
IGZV	Ghazvin	4.96	251	Pn	Pn	05 48 09.4	-0.8
ANAR	Anarak	5.28	202	Pn	Pn	05 48 13.7	-0.9
GHVR	GHOM	5.29	228	ePn	Pn	05 48 14.7	0.0
GHVR				IAML		05 50 07.6	
	comp=Z,2µm,1.0s						
CSN1	Caspian	5.52	266	Pn	Pn	05 48 16.6	-1.2
SHRT	Shahrakht	5.66	141	ePn	Pn	05 48 19.2	-0.5
SHRT				IAML		05 50 14.2	
	comp=Z,1µm,1.0s						
LKRN	Lenkeran, Azer	5.73	278	P	Pn	05 48 18.9	-1.7
YZKH	Yazd	5.85	192	ePn	Pn	05 48 21.9	-0.5
YZKH				IAML		05 50 28.1	
	comp=Z,780nm,1.0s						
ASAO	Ashtian	6.03	235	ePn	Pn	05 48 25.8	+0.8
ASAO				IAML		05 50 27.8	
	comp=Z,400nm,1.0s						
ZNJK	Zanjan	6.03	258	ePn	Pn	05 48 24.5	-0.5
ZNJK				IAML		05 49 15.9	
	comp=Z,230nm,1.0s						
ZNJK	Zanjan	6.03	258	Pn	Pn	05 48 23.8	-1.2
HRA	Herat	6.26	125		Pn	05 48 28.7	+0.6
KHMZ	Khomeyn	6.60	230	ePn	Pn	05 48 33.5	+0.7
KHMZ				IAML		05 50 45.9	
	comp=Z,240nm,1.0s						
BSRN	Basiran	6.66	157	ePn	Pn	05 48 33.6	0.0
BSRN				IAML		05 50 56.0	
	comp=Z,460nm,1.0s						
IHSH	Hashtrud	7.00	266	Pn	Pn	05 48 37.0	-1.5
IHRS	Heris	7.08	274	Pn	Pn	05 48 38.8	-0.7
MNGR	Mingechevir, A	7.41	294	P	Pn	05 48 44.9	+1.2
SEKA	Sheki	7.47	297	P	Pn	05 48 44.9	+0.2
SNGE	Sanandaj	7.62	249	ePn	Pn	05 48 46.7	-0.1
SNGE				IAML		05 50 47.4	
	comp=Z,78nm,1.0s						
GANJ	Ganja	7.93	291	P	Pn	05 48 48.9	-2.0
VSHL	Vashlovani	8.05	296	P	Pn	05 48 51.8	-0.7
VSHL				S	Sn	05 50 20.9	-2.6
MAK	Makhachkala	8.09	309c	iP	Pn	05 48 47.9	-5.1
MAK				eS	Sn	05 50 17.2	-7.2
MAK				pmax	pmax		
	comp=Z,270nm,1.4s						
MAK				MLR	MLR		
	comp=Z,7µm,13.0s						
NAX	Nakhchivan	8.31	280	P	Pn	05 48 55.7	-0.5
DDFL	Dedoflistskaro	8.32	297	P	Pn	05 48 56.8	+0.5
DDFL				S	Sn	05 50 34.0	+3.7
DDFL	Dedoflistskaro	8.32	297	P	Pn	05 48 56.8	+0.5
DDFL				S	Sn	05 50 34.0	+3.7
SRSL	SARDASHT	8.68	260	ePn	Pn	05 49 01.3	0.0
SRSL				IAML_BB		05 49 06.6	
	comp=Z,760nm,1.0s						
DGRG	David-gareji	8.85	295	P	Pn	05 49 02.2	-1.3
DGRG				S	Sn	05 50 41.8	-1.5
DGRG	David-gareji	8.85	295	P	Pn	05 49 02.2	-1.3
DGRG				S	Sn	05 50 41.8	-1.5
GNI	Garni	9.00	286	Pn	Pn	05 49 04.4	-1.3
	comp=Z,5.7nm,0.3s,baz=149,slow=7.4,SNR=11						
GNI				Sn	Sn	05 50 48.4	+1.2
	comp=Z,9.7nm,0.3s,baz=14,slow=20,SNR=1.7						
	comp=Z,151nm,0.8s						
GNI				AML	AML		
GNI	Garni	9.00	286	P	Pn	05 49 06.3	+0.6
GNI				S	Sn	05 50 46.8	-0.5
GNI	Garni	9.00	286d	eP	Pn	05 49 06.1	+0.3
GNI	Garni	9.00	286		Pn	05 49 05.6	-0.1
GNI	Garni	9.00	286	P	Pn	05 49 06.0	+0.3
GNI	Garni	9.00	286	P	Pn	05 49 05.9	+0.2
	comp=Z,2µmcomp=Z,316nm,0.9s						
GNI	Garni	9.00	286	P	Pn	05 49 07.3	+1.6
	comp=Z,317nm,0.9s						
ILBA	Ilam Banvizeh	9.15	244	ePn	Pn	05 49 08.2	+0.5
ILBA				IAML_BB		05 50 02.9	
	comp=Z,440nm,1.0s						
ZHSF	Zahedan	9.37	154	ePn	Pn	05 49 11.5	+0.7
ZHSF				IAML_BB		05 50 01.7	
	comp=Z,750nm,1.0s						
TBLG	Delisi	9.39	296	P	Pn	05 49 09.7	-1.2
TBLG				S	Sn	05 50 49.4	-7.1
TBLG	Delisi	9.39	296	P	Pn	05 49 09.7	-1.2
TBLG				S	Sn	05 50 49.4	-7.1
SHTL	Shatili	9.45	302	P	Pn	05 49 13.9	+2.1
SHTL	Shatili	9.45	302	P	Pn	05 49 13.9	+2.1
CHRG	Chargali	9.47	300	P	Pn	05 49 10.6	-1.5
CHRG				S	Sn	05 50 53.5	-5.2
HAKT	HAKKARI	9.77	270	P	Pn	05 49 18.2	+1.9
	comp=Z,534nm,1.0s						
TRLG	Trialeti	9.79	294	P	Pn	05 49 30.2	+14
TRLG				S	Sn	05 51 16.7	+10
TRLG	Trialeti	9.79	294	P	Pn	05 49 30.2	+14
TRLG				S	Sn	05 51 16.7	+10
AKH	Akhalkalaki	10.19	293	P	Pn	05 49 20.9	-1.1
AKH				S	Sn	05 51 14.2	-2.3
AKH	Akhalkalaki	10.19	293	P	Pn	05 49 20.9	-1.1
AKH				S	Sn	05 51 14.2	-2.3
GEVA	Gevas	10.21	275		Pn	05 49 23.5	+1.1
GARIG	Gari	10.57	299	P	Pn	05 49 28.0	+0.8
GARIG				S	Sn	05 51 23.4	-2.3
EPOS	Posof	10.77	292	P	Pn	05 49 30.6	+0.6
	comp=Z,50nm,1.0s						
NCK	Nalchik	10.84	304	⇑eP	Pn	05 49 31.9	+1.2
GURO	Guroymak-BITLI	11.01	276		Pn	05 49 33.3	+0.1
KBL	Kabul	11.09	105	P	Pn	05 49 34.1	-0.2
	SNR=25						
KBL	Kabul	11.09	105	P	Pn	05 49 34.4	0.0
KBL	Kabul	11.09	105		Pn	05 49 34.4	0.0
KBL	Kabul	11.09	105	P	Pn	05 49 35.1	+0.7
	comp=Z,74nm,0.9s						
CHM	Chimkent	11.18	64	eP	Pn	05 49 35.7	+0.3
CHM	Chimkent	11.18	64	eP	Pn	05 49 35.8	+0.3
KBD	Kabd	11.31	220	P	Pn	05 49 38.6	+1.4
KBD				S	Sn	05 51 45.7	+2.0
KBZ	Khabaz	11.39	304	Pn	Pn	05 49 35.9	-2.4
	comp=Z,4.2nm,0.3s,baz=108,slow=9.9,SNR=18						
KBZ				Sn	Sn	05 51 34.7	-11
	comp=Z,5.2nm,0.3s,baz=283,slow=11,SNR=4.3						
	comp=Z,8.6nm,0.4s						
KBZ				AML	AML		
KBZ	Khabaz	11.39	304d	eP	Pn	05 49 35.1	-3.2
IUG	Iuzhnay	11.44	65	eP	Pn	05 49 38.9	-0.1
IUG				eS	Sn	05 51 44.6	-2.3
IUG	Iuzhnay	11.44	65	eP	Pn	05 49 39.0	-0.1
IUG				eS	Sn	05 51 44.6	-2.3
AB31	Akbulak array	11.47	13	⇓P	Pn	05 49 38.2	-1.1
	comp=Z,17nm,0.4s,baz=204,slow=16,SNR=508						
AB31				S	Sn	05 51 45.6	-1.8
	comp=Z,104nm,0.7s,baz=202,slow=23,SNR=9.9						
AB31	Akbulak array	11.47	13	P	Pn	05 49 36.8	-2.5
AB31				S	Sn	05 51 45.6	-1.8
AB31	Akbulak array	11.47	13		Pn	05 49 37.4	-1.9
ABKAR	Akbulak array	11.47	13		Pn	05 49 37.5	-1.8
SHA1	Shidzhatmaz	11.56	303c	iP	Pn	05 49 38.7	-2.1
BRLS	Borolday	11.57	61	eP	Pn	05 49 38.3	-2.5
BRLS	Borolday	11.57	61	eP	Pn	05 49 38.4	-2.5
BRLS				eS	Sn	05 51 43.1	-7.0
KVAR	Kislovodsk Arr	11.62	304	Pn	Pn	05 49 38.8	-2.8
	baz=90,slow=20						
KIV	Kislovodsk	11.63	304	P	Pn	05 49 40.2	-1.4
KIV				S	Sn	05 51 45.6	-6.0
KIV	Kislovodsk	11.63	304	eP	Pn	05 49 40.9	-0.8
KIV				eS	Sn	05 51 49.1	-2.4
KIV				pmax	pmax		
	comp=Z,61nm,1.1s						
KIV				MLR	MLR		
	comp=Z,799nm,13.0s						
KIV	Kislovodsk	11.63	304		Pn	05 49 40.2	-1.4
KIV	Kislovodsk	11.63	304	P	Pn	05 49 40.8	-0.8
KIV	Kislovodsk	11.63	304	P	Pn	05 49 40.7	-0.9
	comp=Z,843nmcomp=Z,86nm,0.8s						
KIV	Kislovodsk	11.63	304	P	Pn	05 49 41.0	-0.6
	comp=Z,110nm,0.8s						
BTK	Batken	11.65	76	P	Pn	05 49 39.1	-2.8
BTK	Batken	11.65	76		Pn	05 49 39.1	-2.8
SHME	Shamm	12.05	180	P	Pn	05 49 47.8	+0.4
SHME				S	Sn	05 52 06.3	+4.4
SHME	Shamm	12.05	180	iP	Pn	05 49 47.7	+0.4
	SNR=9.3						
KK31	Karatay Array	12.07	61	⇑P	Pn	05 49 45.0	-2.5
	comp=Z,35nm,0.6s,baz=273,slow=7.7,SNR=10						
KK31				⇓S	Sn	05 51 58.5	-3.6
	comp=Z,79nm,0.7s,baz=16,slow=30,SNR=5.2						
KK31	Karatay Array	12.07	61	P	Pn	05 49 46.0	-1.5
KK31	Karatay Array	12.07	61		Pn	05 49 46.0	-1.5
KKAR	Karatay Array	12.07	61	P	Pn	05 49 45.7	-1.8
KKAR	Karatay Array	12.07	61		Pn	05 49 45.6	-1.8
BANOM	Banah	12.18	179	P	Pn	05 49 50.9	+1.8
BANOM	Banah	12.18	179	P	Pn	05 49 53.0	+3.9
KOPT	Kop Dagi	12.22	284		Pn	05 49 50.9	+0.9
JASK	Jask - Hormozg	12.33	172	P	Pn	05 49 54.3	+3.1
	SNR=13						
DRK	Karamyk	12.38	79	P	Pn	05 49 49.8	-2.2
DRK	Karamyk	12.38	79		Pn	05 49 49.8	-2.2
AKTO	Aktyubinsk	12.38	6	Pn	Pn	05 49 50.9	-0.9
	comp=Z,40nm,0.3s,baz=182,slow=11,SNR=180						
AKTO				Sn	Sn	05 52 04.2	-5.5
	comp=Z,4.1nm,0.3s,baz=180,slow=19,SNR=1.9						
AKTO				LR	LR	05 55 42.3	
	comp=Z,10µm,19.5s,baz=183,slow=42						
AKTO	Aktyubinsk	12.38	6	⇑P	Pn	05 49 51.2	-0.5
	comp=Z,159nm,0.7s						
AKTO				⇓S	Sn	05 52 09.7	0.0
	comp=Z,107nm,0.9s						
AKTO	Aktyubinsk	12.38	6	P	Pn	05 49 51.2	-0.5
AKTO				S	Sn	05 52 09.6	0.0
DZA	Taraz	12.57	63	eP	Pn	05 49 54.3	-0.1
DZA	Taraz	12.57	63	eP	Pn	05 49 54.4	-0.1
MASF	Masafi	12.73	179	P	Pn	05 49 56.8	+0.2
	SNR=22						
MASF				S	Sn	05 52 23.8	+5.3
MSFE	Esma-Masafi	12.74	179	iP	Pn	05 49 57.4	+0.6
	SNR=13						
MDH	Madha	12.80	179	P	Pn	05 50 00.4	+2.8
MDH	Madha	12.80	179	P	Pn	05 50 00.1	+2.5
SAKB	Bahrain	12.98	203	P	Pn	05 50 01.7	+1.7
NAZ	Nazwa, Dubai	13.11	181	P	Pn	05 50 04.0	+2.2
NAZ	Nazwa, Dubai	13.11	181	iP	Pn	05 50 02.4	+0.5
	SNR=5.9						
UOSS	Minazif	13.15	179	P	Pn	05 50 04.2	+1.8
UOSS	Minazif	13.15	179		Pn	05 50 01.3	-1.1
UOSS	Minazif	13.15	179	iP	Pn	05 50 02.4	0.0
	SNR=9.2						
UOSS	Minazif	13.15	179	P	Pn	05 50 01.3	-1.1
	comp=Z,40nm,1.3s						
KELT	Kelkit	13.18	284	P	Pn	05 50 03.8	+0.8
	comp=Z,107nm,1.3s						
LABN	Labinsk	13.20	304	eP	Pn	05 50 06.8	+3.9
LABN				eS	Sn	05 52 32.6	+2.9
LABN				pmax	pmax		
	comp=Z,64nm,0.8s						
LABN				MLR	MLR		
	comp=Z,3µm,12.0s						
VSLR	Vesyoloye	13.23	299	⇓eP	Pn	05 50 04.1	+0.6
HATD	Hatta, Dubai	13.27	180	P	Pn	05 50 04.0	+0.1
	SNR=17						
HATD	Hatta, Dubai	13.27	180	iP	Pn	05 50 04.1	+0.1
	SNR=7.1						
FAQ	Al Faqa, Dubai	13.35	182	P	Pn	05 50 07.7	+2.5
ASHO	Ashiyiah	13.41	180	P	Pn	05 50 05.6	-0.4
	SNR=21						
ASHO	Ashiyiah	13.41	180	iP	Pn	05 50 05.1	-0.8
	SNR=9.8						
JRN	Qarnain Island	13.43	193	P	Pn	05 50 06.0	-0.2
	SNR=6.1						
SOC	Sochi	13.49	299	eP	Pn	05 49 58.9	-8.0
SOC				eSS	Sn	05 52 44.2	+7.3
SOC				pmax	pmax		
	comp=Z,108nm,0.9s						
SOC				MLR	MLR		
	comp=Z,2µm,13.0s						
ERBR	Yeremizino-Bor	13.82	308	eP	Pn	05 50 14.1	+2.7
ERBR				eS	Sn	05 52 46.5	+1.6
ERBR				pmax	pmax		
	comp=Z,63nm,0.7s						
ERBR				MLR	MLR		
	comp=Z,1µm,12.0s						
ARPR	Arapgir-MALATY	13.88	279	Pn	Pn	05 50 11.8	-0.6
SOHO	SOHO	13.96	178	P	Pn	05 50 15.6	+2.1
HOQ	Hoqain	14.55	175	P	Pn	05 50 22.7	+1.2
NIL	Nilore	14.65	103	P	Pn	05 50 21.3	-1.6
NIL	Nilore	14.65	103	P	Pn	05 50 20.9	-2.0
NIL	Nilore	14.65	103		Pn	05 50 20.9	-2.0
NIL	Nilore	14.65	103	P	Pn	05 50 20.7	-2.2
	comp=Z,73nm,1.2s						
ARQ	Araqi	14.76	178	P	P	05 50 26.3	-4.1
	SNR=8.4						
AAK	Ala-Archa	14.77	66	Pn	Pn	05 50 23.3	-1.3
	comp=Z,1.7nm,0.3s,baz=232,slow=22,SNR=14						
AAK				Sn	Sn	05 53 07.8	-0.4
	comp=Z,1.6nm,0.3s,baz=239,slow=20,SNR=1.9						
AAK				LR	LR	05 56 55.1	
	comp=Z,8µm,18.4s,baz=271,slow=40						
	comp=Z,15nm,0.6s						
AAK				AML	AML		
AAK	Ala-Archa	14.77	66	⇓P	Pn	05 50 22.6	-2.0
	comp=Z,32nm,0.7s						
AAK				⇓S	Sn	05 53 01.7	-6.5
	comp=Z,38nm,0.9s						
AAK	Ala-Archa	14.77	66	P	Pn	05 50 23.4	-1.2
AAK	Ala-Archa	14.77	66c	iP	Pn	05 50 21.5	-3.0
AAK	Ala-Archa	14.77	66		Pn	05 50 22.4	-2.1
AAK	Ala-Archa	14.77	66	P	Pn	05 50 23.4	-1.2
AAK	Ala-Archa	14.77	66	P	Pn	05 50 22.7	-1.8
	comp=Z,87nm,0.9s						
GAZ	Gaziantep	14.95	272	Pn	Pn	05 50 25.9	-1.0
WSAR	Wadi Sarin	15.01	171	LR	LR	05 56 52.9	
	comp=Z,8.2nm,19.3s,baz=7.5,slow=40						
WSAR	Wadi Sarin	15.01	171	P	P	05 50 29.6	-3.7
SGDS	Sogindy	15.04	63	eP	Pn	05 50 28.2	0.0
BTLS	Baital	15.13	57	eP	Pn	05 50 29.6	+0.4
BTLS	Baital	15.13	57	eP	Pn	05 50 29.7	+0.4
SMDO	Samad	15.13	173	P	Pn	05 50 30.2	+0.8
MZR	Muzera	15.24	189	P	Pn	05 50 31.5	+0.7
	SNR=8.1						
KSH2	Kashi	15.30	80	P	Pn	05 50 27.5	-4.2
KSH2				S	Sn	05 53 23.0	+1.7
KSH2				L	L		
	comp=Z,18µm,12.3s						
KSH2				L	L		
	comp=Z,12µm,12.9s						
KSH2				L	L		
	comp=Z,16µm,12.8s						
TOKA	Tokat	15.31	284	Pn	Pn	05 50 31.2	-0.5
BSY	Bisya	15.37	176	P	P	05 50 34.3	-3.0
BELG	Belogornoye	15.42	340	Pn	Pn	05 50 30.3	-2.7
	comp=Z,7.3nm,0.3s,baz=350,slow=2.7,SNR=36						
BELG				Sn	Sn	05 53 11.3	-12
	comp=Z,6.9nm,0.3s,baz=94,slow=23,SNR=7.4						
BELG				LR	LR	05 58 21.7	
	comp=Z,3µm,19.1s,baz=155,slow=44						
	comp=Z,131nm,0.8s						
BELG				AML	AML		
BELG	Belogornoye	15.42	340c	iP	Pn	05 50 29.9	-3.1
ANN	Anapa	15.44	301	eP	Pn	05 50 34.4	+1.1
ANN				eS	Sn	05 53 22.2	-2.0
ANN				pmax	pmax		
	comp=Z,181nm,1.2s						
ANN				MLR	MLR		
	comp=E,3µm,20.0s						
ANN				MLR	MLR		
	comp=Z,2µm,20.0s						
ANDN	Andirin	15.56	274	P	Pn	05 50 35.5	+0.4
	comp=Z,292nm,1.1s						
WBK	Wadi Bani Khal	15.68	170	P	P	05 50 37.5	-3.2
NRN	Naryn	15.70	72	P	Pn	05 50 33.3	-3.7
NRN				pmax	pmax		
	comp=Z,46nm,0.9s						
NRN	Naryn	15.70	72	Pn	Pn	05 50 33.3	-3.7
JMDO	Jabal Madar	15.81	173	P	Pn	05 50 38.6	+0.2
BNN	Bunyan	15.83	279	Pn	Pn	05 50 37.6	-1.0
ASAI	AK-SAY(Kyrgyzs	16.05	74	P	P	05 50 44.5	-0.6
	comp=Z,36nm,1.0s						
JLN	Jalan Bani Buh	16.19	169	P	P	05 50 44.9	-1.5
VRH	Novokhopyorsk	16.52	327	eP	Pn	05 50 46.5	-0.7
VRH				pmax	pmax		
	comp=Z,40nm,0.8s						
VRH				MLR	MLR		
	comp=Z,2µm,16.0s						
AAA	Alma-Ata	16.62	66	eP	P	05 50 49.0	-2.1
AAA	Alma-Ata	16.62	66	eP	P	05 50 49.0	-2.1
MDOK	Medeo	16.71	66	eP	P	05 50 50.2	-2.0
MDOK				eS	Sn	05 53 52.4	-3.0
MDOK	Medeo	16.71	66	eP	P	05 50 50.2	-2.0
MDOK				eS	Sn	05 53 52.5	-3.0
ASF	Jabal al Asfar	16.73	255	Pn	Pn	05 50 49.2	-0.9
	comp=Z,0.4nm,0.3s,baz=7.5,slow=2.5,SNR=14						
ASF				LR	LR	05 58 47.7	
	comp=Z,2µm,20.9s,baz=43,slow=43						
	comp=Z,77nm,1.4s						
ASF				AML	AML		
ASF	Jabal al Asfar	16.73	255	P	P	05 50 51.9	-0.5
	comp=Z,12µmcomp=Z,7µmcomp=Z,511nm,1.2s						
TARG	Taragay, Kyrgy	17.07	71	P	P	05 50 59.3	+2.8
	comp=Z,73nm,1.0s						
RAYN	Ar Rayn	17.12	215	P	Pn	05 50 52.4	-2.6
RAYN	Ar Rayn	17.12	215	iP	Pn	05 50 53.4	-1.7
	SNR=9.0						
RAYN	Ar Rayn	17.12	215	P	Pn	05 50 51.9	-3.2
	comp=Z,64nm,1.0s						
MHTO	MHTO	17.17	174	P	P	05 50 57.9	+0.7
	SNR=5.2						
GEM	Giv'at Ha'Em	17.26	260	P	P	05 50 58.8	+0.7
BZK	Bozkurt	17.29	290	Pn	Pn	05 50 55.3	-1.6
BZK				IAmb	IAmb	05 50 59.9	
	comp=Z,160nm,1.1s						
BZK	Bozkurt	17.29	290	⇓P	P	05 50 57.2	-1.1
KIRS	Kirsehir-Merke	17.31	280	⇑P	Pn	05 50 56.5	-0.9
ILGA	Ilgaz	17.44	287	Pn	Pn	05 50 57.9	-1.2
ILGA				IAmb	IAmb	05 51 03.8	
	comp=Z,154nm,1.8s						
VORD	Divnogorie	17.46	323	eP	Pn	05 50 56.1	-3.0
VORD				pmax	pmax		
	comp=Z,130nm,1.0s						
BR104	Keskin Array S	17.49	282	P	Pn	05 50 58.4	-1.3
	comp=Z,144nmcomp=Z,17nm,1.0s						
BR131	Keskin Array S	17.49	282	P	P	05 50 59.5	-1.3
	SNR=21						
BR131	Keskin Array S	17.49	282	P	Pn	05 50 59.0	-0.7
BR131				pmax	pmax		
	comp=Z,37nm,1.3s						
BR131	Keskin Array S	17.49	282		Pn	05 50 59.0	-0.7
BRTR	Keskin Array B	17.49	282	P	Pn	05 50 58.9	-0.8
	comp=Z,0.1nm,0.3s,baz=96,slow=12,SNR=32						
	comp=Z,5.6nm,0.8s						
BRTR				AML	AML		
BRTR	Keskin Array B	17.49	282		Pn	05 50 58.5	-1.2
BR106	Keskin Array S	17.51	282	P	Pn	05 50 58.8	-1.1
	comp=Z,146nmcomp=Z,19nm,1.0s						
BR105	Keskin Array S	17.51	282	P	Pn	05 50 58.7	-1.2
	comp=Z,162nmcomp=Z,21nm,1.0s						
MMAI	Mount Meron Ar	17.53	259	P	Pn	05 50 57.5	-2.6
	comp=Z,0.5nm,0.3s,baz=64,slow=17,SNR=13						
MMAI				LR	LR	05 59 12.4	
	comp=Z,2µm,19.9s,baz=59,slow=42						
	comp=Z,0.9nm,0.4s						
MMAI				AML	AML		
SATY	Saty	17.67	67	eP	P	05 51 02.1	-0.7
SATY	Saty	17.67	67	eP	P	05 51 02.2	-0.7
VSR	Storozhevoye	17.69	323	eP	Pn	05 50 59.3	-2.6
VSR				pmax	pmax		
	comp=Z,46nm,0.8s						
VSR				MLR	MLR		
	comp=Z,1µm,16.0s						
SIM	Simferopol'	17.73	300	eP	P	05 51 02.0	-1.3
SIM				eS	Sn	05 54 14.0	-6.1
SIM				pmax	pmax		
	comp=Z,89nm,0.8s						
SIM				MLR	MLR		
	comp=Z,2µm,21.8s						
MMLI	Mount Malkishu	17.75	258	P	P	05 51 04.6	+0.9
	comp=Z,41nm,2.3s						
BORK	Borovoye	17.90	29d	iP	P	05 51 04.0	-1.1
BORK	Borovoye	17.90	29		Pn	05 51 02.6	-1.9
BVAR	Borovoye Array	17.91	29	P	Pn	05 51 03.2	-1.4
	comp=Z,33nm,0.6s,baz=217,slow=12,SNR=47						
UJAP	Al Uja	17.92	256	P	Pn	05 51 03.7	-1.1
VORR	Voronezh	17.97	324	eP	P	05 51 05.3	-0.6
VORR				pmax	pmax		
	comp=Z,131nm,0.7s						
VORR				MLR	MLR		
	comp=Z,1µm,15.0s						
TDK	Taldyqorghan	18.06	61	eP	P	05 51 07.3	+0.3
TDK	Taldyqorghan	18.06	61	eP	P	05 51 07.3	+0.3
KKUL	Konya-Kulu	18.08	280	P	P	05 51 06.4	-0.9
	comp=Z,92nm,1.2s						
UZB	Uzynbulak	18.13	67	eP	P	05 51 08.0	+0.1
UZB	Uzynbulak	18.13	67	eP	P	05 51 08.1	+0.1
GHAJ	Ghor Haditha	18.14	254	P	P	05 51 07.3	-0.5
GHAJ	Ghor Haditha	18.14	254	P	P	05 51 09.6	+1.8
	comp=Z,39nm,1.0s						
MSBI	Mazada	18.29	254	P	P	05 51 15.1	+5.6
	comp=Z,298nmcomp=Z,9.0nm,1.3s						
MSBI	Mazada	18.29	254	P	P	05 51 11.6	+2.1
	comp=Z,36nm,1.3s						
ARTI	Arti	18.33	4	P	Pn	05 51 08.2	-1.5
	comp=Z,67nm,0.7s,baz=200,slow=7.5,SNR=66						
ARTI				LR	LR	05 59 44.2	
	comp=Z,3µm,20.2s,baz=179,slow=42						
ARTI	Arti	18.33	4d	iP	P	05 51 08.9	-0.9
ARTI				S	Sn	05 54 32.8	-1.5
ARTI				pmax	pmax		
	comp=Z,69nm,0.7s						
ARTI				MLR	MLR		
	comp=Z,5µm,20.0s						
ARTI	Arti	18.33	4	P	Pn	05 51 08.0	-1.7
ARTI				IAmb	IAmb	05 51 11.4	
	comp=Z,104nm,0.8s						
PDGK	Podgornoye	18.50	66	⇓P	Pn	05 51 13.7	+1.7
	comp=Z,28nm,0.8s						
PDGK	Podgornoye	18.50	66	P	Pn	05 51 13.7	+1.7
LPSR	Galich'ya Gora	18.73	326	eP	Pn	05 51 13.5	-1.2
LPSR				eS	Sn	05 54 39.0	-5.1
LPSR				pmax	pmax		
	comp=Z,180nm,0.7s						
LPSR				smax	smax		
	comp=N,2µm,5.7s						
LPSR				MLR	MLR		
	comp=Z,2µm,14.0s						
SVE	Sverdlovsk	18.95	8	eP	Pn	05 51 17.1	-0.1
SVE				eS	S	05 54 51.1	-0.6
SVE				pmax	pmax		
	comp=Z,61nm,0.9s						
SVE				MLR	MLR		
	comp=Z,6µm,13.0s						
PRNI	Paran	19.02	252	P	Pn	05 51 20.0	+1.7
	comp=Z,3µmcomp=Z,219nm,1.2s						
HRFI	Mount Harif	19.15	251	P	Pn	05 51 21.3	+1.4
	comp=Z,1µmcomp=Z,60nm,1.6s						
HRFI	Mount Harif	19.15	251	P	Pn	05 51 20.2	+0.4
	comp=Z,60nm,1.6s						
KZIT	Kziot	19.21	254	P	Pn	05 51 22.4	+1.8
	comp=Z,1µmcomp=Z,65nm,1.1s						
KZIT	Kziot	19.21	254	P	Pn	05 51 22.2	+1.7
	comp=Z,65nm,1.1s						
AQBJ	Aqaba	19.30	250	P	Pn	05 51 25.8	+4.2
	comp=Z,3µmcomp=Z,115nm,1.3s						
MDUB	Mudurnu	19.35	285	P	Pn	05 51 21.3	-1.0
MDUB				IAmb	IAmb	05 51 25.5	
	comp=Z,135nm,1.4s						
EIL	Elat	19.40	250	P	Pn	05 51 21.4	-1.4
	comp=Z,0.8nm,0.3s,baz=48,slow=8.1,SNR=16						
EIL				LR	LR	06 00 10.9	
	comp=Z,3µm,21.0s,baz=61,slow=41						
	comp=Z,65nm,1.1s						
EIL				AML	AML		
EIL	Elat	19.40	250	P	Pn	05 51 24.0	+1.1
	comp=Z,1µmcomp=Z,57nm,1.1s						
EIL	Elat	19.40	250	P	Pn	05 51 23.8	+0.9
	comp=Z,57nm,1.1s						
KEPZ	Antalya-Kepez	19.41	274	⇓P	Pn	05 51 22.9	-0.1
DOK	Doka	19.52	185	P	P	05 51 22.2	-0.9
BORA	Eskisehir	19.94	283	P	P	05 51 27.3	-0.4
BORA				IAmb	IAmb	05 51 31.3	
	comp=Z,79nm,0.9s						
SHAO	Shalim	20.04	181	P	Pn	05 51 28.8	-1.7
SHAO	Shalim	20.04	181	P	P	05 51 28.1	-0.6
ISP	Isparta	20.10	277	P	Pn	05 51 29.5	-1.8
ISP				pmax	pmax		
	comp=Z,114nm,1.2s						
ISP	Isparta	20.10	277	P	Pn	05 51 29.5	-1.8
ISP				IAmb	IAmb	05 51 32.2	
	comp=Z,114nm,1.2s						
WHFO	Wadi Hawf	20.24	186	P	Pn	05 51 30.9	-2.0
KURBB	Kurchatov Arra	20.26	45	P	Pn	05 51 34.1	+1.2
	comp=Z,7.2nm,0.6s,baz=243,slow=11,SNR=35						
KURBB				LR	LR	06 00 17.7	

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      comp=Z,3µm,18.5s,baz=240,slow=39
      comp=Z,7.2nm,0.6s
KURBB Kurchatov Arra   20.26  45 ⇑P      Pn     05 51 33.0  0.0
      comp=Z,47nm,0.8s
KURBB Kurchatov Arra   20.26  45  P      Pn     05 51 32.9  0.0
KURK  Kurchatov        20.36  45  P      P      05 51 31.5 -0.5
KURK  Kurchatov        20.36  45d iP     Pn     05 51 34.7 +0.7
KURK                              pmax   pmax
      comp=Z,51nm,1.2s
KURK  Kurchatov        20.36  45  P      Pn     05 51 35.1 +1.1
      comp=Z,42nm,0.9s
NE56  Odesa            20.36 303  P      P      05 51 31.3 -0.8
DMTO  DMTO             20.36 183  P      P      05 51 31.3 -1.0
RBK   Rabkut           20.62 185  P      P      05 51 35.0 -0.1
YLV   Yalova           20.73 285  P      P      05 51 36.1 -0.2
      comp=Z,2µmcomp=Z,283nm,1.3s
ELL   Elmali           20.77 274  P      Pn     05 51 37.5 -1.7
ELL                               pmax   pmax
      comp=Z,99nm,0.9s
ELL   Elmali           20.77 274  P      Pn     05 51 37.5 -1.6
ABTO  Aybut            20.84 187  P      P      05 51 37.5 -0.1
KIRV  Kirov            20.91 350  P      P      05 51 37.9  0.0
      comp=Z,71nm,0.8s,baz=135,slow=5.7,SNR=17
KIRV                              LR     LR     06 01 25.5
      comp=Z,4µm,19.5s,baz=171,slow=42
      comp=Z,71nm,0.8s
KIRV  Kirov            20.91 350d iP     Pn     05 51 39.3 -1.1
MAKZ  Makanchi         20.93  57  P      Pn     05 51 39.7 -1.2
MAKZ  Makanchi         20.93  57  P      P      05 51 36.7 -1.6
MAKZ                              IAmb   IAmb   05 51 46.6
      comp=Z,34nm,0.7s
KLYT  Kilyos           20.97 287  P      P      05 51 38.9 +0.2
      comp=Z,821nmcomp=Z,88nm,1.0s
PURM  Purcari          21.01 302 ⇓P      P      05 51 39.7 +0.6
PURM  Purcari          21.01 302  P      P      05 51 38.8 -0.3
      comp=Z,12µmcomp=Z,573nm,0.9s
MK31  Makanchi Array   21.14  57 ⇑P      P      05 51 42.6 +2.0
      comp=Z,20nm,0.7s,baz=253,slow=8.3,SNR=16
MK31  Makanchi Array   21.14  57c iP     P      05 51 40.3 -0.3
MKAR  Makanchi Array   21.14  57  P      P      05 51 41.5 +0.9
      comp=Z,12nm,0.8s,baz=247,slow=8.4,SNR=76
MKAR                              LR     LR     06 01 05.1
      comp=Z,2µm,21.2s,baz=247,slow=40
      comp=Z,12nm,0.8s
MKAR  Makanchi Array   21.14  57  P      P      05 51 40.2 -0.4
JURR  Jurilovca        21.35 297 ⇑P      P      05 51 43.1 +0.4
TAVA  DENIZLI_Tavas    21.42 277 ⇑P      P      05 51 44.2 +0.6
EFOR  EFORIE           21.43 295 ⇑P      P      05 51 44.8 +1.2
MANR  Mangalia         21.43 294 ⇑P      P      05 51 44.2 +0.5
TLCR                   21.46 298  P      P      05 51 43.7 -0.2
TLCR                   21.46 298 ⇑P      P      05 51 43.7 -0.2
OBN   Obninsk          21.49 328  P      P      05 51 44.0 -0.1
      comp=Z,51nm,0.7s,baz=321,slow=3.4,SNR=12
      comp=Z,51nm,0.7s
OBN   Obninsk          21.49 328⇑iP      P      05 51 44.8 +0.6
OBN                              e              05 52 02.6
OBN                              i S     S      05 55 40.2 -2.1
OBN                               pmax   pmax
      comp=Z,114nm,1.3s
OBN                               MLR    MLR
      comp=Z,2µm,14.0s
OBN   Obninsk          21.49 328  P      P      05 51 43.0 -1.2
OBN   Obninsk          21.49 328 ⇑P      P      05 51 44.7 +0.6
OBN   Obninsk          21.49 328  P      P      05 51 44.8 +0.6
      comp=Z,113nm,0.9s
OBN   Obninsk          21.49 328  P      P      05 51 45.1 +1.0
      comp=Z,114nm,0.9s
MOS   Moscow           21.52 331 eP      P      05 51 45.8 +1.3
MOS                              eS      Sn     05 55 46.4 -4.6
MOS                              e              05 56 30.7
MOS                               pmax   pmax
      comp=Z,137nm,0.8s
MOS                               MLR    MLR
      comp=Z,2µm,15.0s
CTYL  Yalikoy Yolu     21.54 288  P      P      05 51 45.2 +0.4
      comp=Z,173nm,1.1s
MANT  Manisa           21.54 280  P      P      05 51 44.2 -0.9
MANT                              IAmb   IAmb   05 51 46.9
      comp=Z,45nm,0.9s
BAL3X Bal3x, Balta     21.57 305  P      P      05 51 45.2 +0.1
MFTR  Murfatlar        21.59 295 ⇑P      P      05 51 45.7 +0.4
TIRR  Tirgusor         21.63 296  P      P      05 51 46.2 +0.4
TIRR  Tirgusor         21.63 296  P      P      05 51 45.6 -0.2
TIRR                              IAmb   IAmb   05 51 50.1
      comp=Z,65nm,0.8s
TIRR  Tirgusor         21.63 296 ⇑P      P      05 51 46.2 +0.4
TIRR  Tirgusor         21.63 296  P      P      05 51 45.0 -0.8
      comp=Z,755nmcomp=Z,94nm,1.3s
TIRR  Tirgusor         21.63 296  P      P      05 51 46.0 +0.2
      comp=Z,94nm,1.3s
TPGR  Topolog          21.68 297 ⇑P      P      05 51 46.8 +0.4
BAND  Balkesir-Ban     21.71 285 ⇑P      P      05 51 48.2 +1.4
PSN   Preselentsi      21.74 293  P      P      05 51 48.0 +1.0
TLBR  Topalu           21.90 296 ⇓P      P      05 51 49.1 +0.4
CFR   Carcaliu         21.93 298  P      P      05 51 48.9 -0.1
CFR   Carcaliu         21.93 298 ⇑P      P      05 51 48.9 -0.1
BALB  Balikesir        21.93 283  P      P      05 51 49.2 +0.1
BALB                              IAmb   IAmb   05 51 51.5
      comp=Z,79nm,1.1s
HARR  Harsova          22.00 296  P      P      05 51 50.0 +0.2
HARR  Harsova          22.00 296 ⇑P      P      05 51 50.0 +0.2
ICOR  Ion Corvin       22.03 295 ⇑P      P      05 51 51.4 +1.3
VLDR  Vladesti         22.08 299 ⇑P      P      05 51 51.0 +0.4
BALY  Balya            22.13 283  P      P      05 51 51.6 +0.4
      comp=Z,154nm,1.1s
SCHLR Schela           22.19 298 ⇑P      P      05 51 51.7 -0.1
PRD   Provadia         22.23 292  P      P      05 51 54.6 +2.3
ARG   Arkhangelos      22.29 274  P      P      05 51 51.6 -1.4
ARG                               pmax   pmax
      comp=Z,85nm,1.2s
ARG   Arkhangelos      22.29 274  P      P      05 51 51.6 -1.4
ARG                               IAmb   IAmb   05 51 57.4
      comp=Z,85nm,1.2s
ARG   Arkhangelos      22.29 274  P      P      05 51 51.6 -1.4
      comp=Z,69nm,0.9s
NEF   NEVSHA           22.34 292  P      P      05 51 55.0 +1.6
SORM  Soroca           22.43 305  P      P      05 51 54.7 +0.4
SORM  Soroca           22.43 305 ⇑P      P      05 51 54.8 +0.4
SORM  Soroca           22.43 305  P      P      05 51 54.0 -0.3
      comp=Z,952nmcomp=Z,79nm,0.7s
GHRR                   22.58 300  P      P      05 51 58.1 +2.1
      comp=Z,252nm,0.7s
AK09  Malin Array Si   22.69 312  P      P      05 51 56.7 -0.4
AKASG Malin Array Be   22.76 312  P      P      05 51 57.5 -0.3
      comp=Z,54nm,0.7s,baz=116,slow=9.7,SNR=56
AKASG                             LR     LR     06 02 10.5
      comp=Z,3µm,19.1s,baz=113,slow=40
      comp=Z,54nm,0.7s
AKBB  Malin Array Si   22.76 312c iP     P      05 51 57.1 -0.7
AKBB                              pmax   pmax
      comp=Z,125nm,0.7s
AKBB  Malin Array Si   22.76 312  P      P      05 51 56.4 -1.4
AKBB  Malin Array Si   22.76 312  P      P      05 51 56.9 -0.9
KIEV  Kiev             22.76 312  P      P      05 51 57.2 -0.6
KIEV  Kiev             22.76 312  P      P      05 51 56.6 -1.2
KIEV  Kiev             22.76 312  P      P      05 51 57.6 -0.2
KIEV  Kiev             22.76 312 ⇑P      P      05 51 57.3 -0.6
KIEV  Kiev             22.76 312  P      P      05 51 56.8 -1.1
      comp=Z,6µmcomp=Z,670nm,0.9s
LOZB  Loznitsa         22.84 293 ⇑P      P      05 51 59.9 +1.1
BISRR Bisoca           22.98 298  P      P      05 52 01.2 +0.9
      comp=Z,5µmcomp=Z,200nm,0.9s
VRI   Vrincioaia       23.02 299  P      P      05 52 01.1 +0.5
VRI   Vrincioaia       23.02 299 ⇑P      P      05 52 01.2 +0.5
VRI   Vrincioaia       23.02 299  P      P      05 52 00.5 -0.1
      comp=Z,51nm,0.8s
VRI   Vrincioaia       23.02 299  P      P      05 52 01.1 +0.5
      comp=Z,51nm,0.8s
SAHR  Sahastru         23.02 299 ⇑P      P      05 52 01.5 +0.8
ISR   Istrita          23.04 297  P      P      05 52 01.4 +0.6
ISR   Istrita          23.04 297 ⇑P      P      05 52 01.5 +0.6
ISR   Istrita          23.04 297  P      P      05 52 01.5 +0.6
      comp=Z,140nm,1.0s
PLOR  Plostina         23.07 299  P      P      05 52 01.5 +0.4
PLOR  Plostina         23.07 299 ⇓P      P      05 52 01.5 +0.4
TESR  Tescani          23.18 301 ⇑P      P      05 52 03.1 +0.9
TESR  Tescani          23.18 301  P      P      05 52 02.6 +0.4
      comp=Z,931nmcomp=Z,74nm,1.0s
TESR  Tescani          23.18 301  P      P      05 52 02.8 +0.5
      comp=Z,75nm,0.9s
SULR                   23.19 296  P      P      05 52 05.5 +3.2
      comp=Z,136nm,0.9s
KARP  Karpathos        23.21 273  P      P      05 52 01.3 -1.4
KARP  Karpathos        23.21 273 eP      P      05 52 02.3 -0.3
KARP  Karpathos        23.21 273  P      P      05 52 02.4 -0.3
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      comp=Z,1µmcomp=Z,179nm,0.9s
KARP  Karpathos        23.21 273  P      P      05 52 02.9 +0.2
KARP  Karpathos        23.21 273  P      P      05 52 02.7  0.0
      comp=Z,179nm,0.9s
SZH   Strazhitsa       23.29 292  P      P      05 52 04.9 +1.5
ONER  Baraj Valea Uz   23.32 300 ⇑P      P      05 52 04.3 +0.6
LUBAR Lubar, Ukraine   23.35 309  P      P      05 52 04.2 +0.3
COVR  Voineasa-Covas   23.37 299 ⇑P      P      05 52 05.6 +1.4
MLR   Muntele Rosu     23.50 298  P      P      05 52 06.5 +0.9
      comp=Z,64nm,1.2s,baz=86,slow=23,SNR=14
MLR                               LR     LR     06 03 22.2
      comp=Z,2µm,19.7s,baz=100,slow=42
      comp=Z,64nm,1.2s
MLR   Muntele Rosu     23.50 298  P      P      05 52 06.3 +0.6
MLR                               pmax   pmax
      comp=Z,125nm,1.2s
MLR   Muntele Rosu     23.50 298  P      P      05 52 06.3 +0.6
MLR   Muntele Rosu     23.50 298 ⇑P      P      05 52 07.1 +1.4
TURR  Turia            23.54 299 ⇑P      P      05 52 07.7 +1.9
BIZ   Bicaz            23.63 301 ⇑P      P      05 52 06.6 -0.1
PRAR  RASCA            23.63 303 ⇑P      P      05 52 07.4 +0.7
MI28  Mi28,Pidlybu     23.76 312  P      P      05 52 08.2 +0.3
PVL   Pavlikeni        23.87 292  P      P      05 52 12.4 +3.3
DOPR  Dopca            23.95 299 ⇑P      P      05 52 10.1 +0.2
VOIR                   24.12 298  P      P      05 52 12.0 +0.5
VOIR                   24.12 298 ⇑P      P      05 52 12.0 +0.5
VOIR                   24.12 298  P      P      05 52 11.7 +0.2
      comp=Z,49nm,0.8s
PLVB  Pleven           24.28 292 ⇑P      P      05 52 14.2 +1.3
BURAR Bucovina Array   24.35 303  P      P      05 52 14.5 +0.9
BURAR Bucovina Array   24.35 303  P      P      05 52 12.9 -0.7
BURAR Bucovina Array   24.35 303 ⇑P      P      05 52 14.6 +0.9
BUR08 Bucovina Ar. S   24.37 303  P      P      05 52 13.2 -0.6
BUR08                             IAmb   IAmb   05 52 39.1
      comp=Z,50nm,0.9s
ARR   Arges            24.41 297 ⇑P      P      05 52 15.4 +1.3
WMQ   Urumqi           24.48  66 eP      P      05 52 18.3 +3.5
WMQ                               sP     sP     05 52 21.8 +2.4
WMQ                               S      S      05 56 37.5 +2.6
WMQ                               pmax   pmax
      comp=Z,44nm,0.7s
WMQ                               L      L
      comp=Z,7µm,12.9s
WMQ                               L      L
      comp=Z,4µm,14.1s
WMQ                               L      L
      comp=Z,2µm,18.1s
RNPP5 Staryi Chortor   24.91 311  P      P      05 52 18.8 +0.2
RNPP5                             pP     sP     05 52 22.2 -0.9
MPEP  Malo Peshtene    24.92 292  P      P      05 52 19.4 +0.7
KLMR  Klimovskoe       25.00 341 eP      P      05 52 20.0 +0.8
KLMR                              S      S      05 56 43.1 +0.3
KLMR                              pmax   pmax
      comp=Z,130nm,1.2s
KLMR                              MLR    MLR
      comp=Z,4µm,13.0s
LOT   Lotru            25.02 297 ⇑P      P      05 52 20.6 +0.9
IDI   Anoyia           25.07 273  P      P      05 52 19.3 -0.9
      comp=Z,54nm,0.7s,baz=55,slow=11,SNR=28
      comp=Z,54nm,0.7s
IDI   Anoyia           25.07 273  P      P      05 52 18.8 -1.4
SRS   Serrai           25.09 287  P      P      05 52 20.8 +0.6
      comp=Z,47nm,1.3s
MNK   Minsk            25.17 320 i P     P      05 52 21.1 +0.3
MNK                              i PPP   PPP    05 53 02.3
MNK                              i              05 55 55.6
MNK                              i S     S      05 56 46.1 +0.4
MNK                              i SSS   SSS    05 57 49.9
MNK                               pmax   pmax
      comp=Z,90nm,0.7s
MNK                               pmax   pmax
      comp=N,26nm,0.8s
MNK                               pmax   pmax
      comp=E,11nm,0.8s
MNK                               MLR    MLR
      comp=N,1µm,17.0s
MNK                               MLR    MLR
      comp=E,1µm,16.0s
MNK                               MLR    MLR
      comp=Z,1µm,18.0s
MNK   Minsk            25.17 320 i P     P      05 52 21.1 +0.3
      comp=E,11nm,0.8s
MNK                              i P     P      05 52 21.1 +0.3
      comp=N,26nm,0.8s
MNK                              i P     P      05 52 21.1 +0.3
      comp=Z,90nm,0.7s,baz=118
MNK                              i PP    PnPn   05 52 54.3 -0.3
MNK                              i PPP   PPP    05 53 02.4
MNK                              i S     S      05 56 46.2 +0.4
MNK                              i SS    SnSn   05 57 36.2 +0.7
MNK                              i SSS   SSS    05 57 49.9
MNK                              i LQ    LQ     06 00 11.8
MNK                              i LR    LR     06 02 11.8
MNK                              i LRM   MLR    06 03 34.1
      comp=N,1µm,16.8s
MNK                              i LRM   MLR    06 03 36.6
      comp=E,1µm,16.2s
MNK                              i LRM   MLR    06 03 37.2
      comp=Z,1µm,17.9s
DGZ   Jazzator, Alta   25.21  53⇓eP      P      05 52 22.0 +0.5
DGZ                               pmax   pmax
      comp=Z,20nm,0.7s
ZAA0  Zalesovo Array   25.24  42  P      P      05 52 20.2 -1.2
ZAA0                              IAmb   IAmb   05 52 33.4
      comp=Z,22nm,1.1s
ZALV  Zalesovo Beam    25.24  42  P      P      05 52 23.6 +2.1
      comp=Z,9.1nm,0.5s,baz=251,slow=8.8,SNR=29
ZALV                              LR     LR     06 03 35.4
      comp=Z,1µm,19.9s,baz=234,slow=39
      comp=Z,9.1nm,0.5s
ZALV  Zalesovo Beam    25.24  42 i P     P      05 52 22.2 +0.7
ZALV                              pmax   pmax
      comp=Z,5.0nm,0.4s
CJR   Cluj-Napoca      25.29 300  P      P      05 52 23.8 +1.8
CJR   Cluj-Napoca      25.29 300 ⇑P      P      05 52 23.9 +1.8
VTS   Vitosha          25.29 291  P      P      05 52 23.5 +1.3
BMR   Baia Mare        25.51 302  P      P      05 52 25.5 +1.6
BMR   Baia Mare        25.51 302 ⇑P      P      05 52 25.6 +1.6
MARR  Marisel-Cluj     25.61 300 ⇑P      P      05 52 24.7 -0.4
DEV   Deva             25.67 298  P      P      05 52 26.2 +0.8
DEV   Deva             25.67 298 ⇑P      P      05 52 26.3 +0.8
DRGR                   25.90 300  P      P      05 52 28.6 +0.9
DRGR                   25.90 300 ⇑P      P      05 52 28.6 +0.9
NACGM Naroch           25.92 320 eP      P      05 52 31.2 +3.5
      comp=E,35nm,0.8s
HERR  Herculane        25.93 296 ⇓P      P      05 52 27.4 -0.5
BOVS  Bovan            26.40 293 ⇑P      P      05 52 33.3 +1.1
MDVR  Moldovita        26.43 296 ⇑P      P      05 52 33.4 +1.0
BZS   Buzias           26.54 297  P      P      05 52 32.5 -0.8
BZS   Buzias           26.54 297 ⇑P      P      05 52 32.6 -0.8
KOLS  Kolonicke sedl   26.54 305 eP      P      05 52 35.2 +1.8
KOLS                              pmax   pmax
      comp=Z,9.0nm,0.7s
KOLS  Kolonicke sedl   26.54 305 eP      P      05 52 35.2 +1.8
ITM   Ithomi           26.93 279  P      P      05 52 35.1 -1.9
ITM                               IAmb   IAmb   05 53 00.5
      comp=Z,26nm,0.7s
SUW   Suwalki          27.45 316  P      P      05 52 40.6 -0.8
SUW   Suwalki          27.45 316  P      P      05 52 40.6 -0.8
EVN   Everest          27.62 102  P      P      05 52 43.4 -0.5
PABE  Paberze          27.64 319  P      P      05 52 43.5 +0.4
PABE  Paberze          27.64 319 eP      P      05 52 43.0 -0.1
VSU   Vasula           27.80 327⇑eP      P      05 52 45.7 +1.2
VSU                               pmax   pmax
      comp=Z,101nm,3.1s
NIE   Niedzica         27.90 305 eP      P      05 52 47.9 +2.3
PSZ   Piszkesteto      27.94 302  P      P      05 52 45.0 -1.0
PSZ                               pmax   pmax
      comp=Z,39nm,1.0s
PSZ   Piszkesteto      27.94 302  P      P      05 52 45.0 -1.0
PSZ                               IAmb   IAmb   05 53 23.3
      comp=Z,39nm,1.0s
PSZ   Piszkesteto      27.94 302 eP      P      05 52 45.8 -0.3
BEL   Belsk            28.13 311 eP      P      05 52 47.5 -0.1
OJC   Ojcow            28.37 307 eP      P      05 52 49.6 -0.2
OJC   Ojcow            28.37 307  P      P      05 52 48.6 -1.1
OJC   Ojcow            28.37 307  P      P      05 52 48.6 -1.1
LANS  Liptovska Anna   28.40 305 eP      P      05 52 52.0 +2.0
LANS                              pmax   pmax
      comp=Z,3.0nm,1.0s
LANS  Liptovska Anna   28.40 305 eP      P      05 52 52.0 +2.0
HYB   Hyderabad        28.55 130 eP      P      05 52 51.6  0.0
HYB                              ePP     PP     05 53 56.0  0.0
HYB                              ePcP    PcP    05 56 02.4 -0.6
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HYB                              eS      S      05 57 40.8 +1.1
ARBE  Arbavere         28.67 328 eP      P      05 52 53.7 +1.5
VYHS  Vyhne            28.72 303 eP      P      05 52 53.6 +0.7
VYHS  Vyhne            28.72 303 eP      P      05 52 53.6 +0.7
PBUR  Paburge          28.90 319 eP      P      05 52 55.9 +1.5
ATD   Arta Tunnel      29.00 207  LR     LR     06 05 43.5
      comp=Z,79nm,19.6s,baz=23,slow=39
JOF   Joensuu          29.00 337 eP      P      05 52 55.2  0.0
OKC   Ostrava-Krasne   29.35 306  AMS    AMS    06 07 20.0
      comp=Z,800nm,13.5s
JAVC  Velka Javorina   29.53 304 eP      P      05 52 59.1 -1.0
STEB  Steborice        29.61 306 eP      P      05 53 01.6 +0.9
MORC  Moravsky Berou   29.73 306  P      P      05 53 01.9  0.0
MORC  Moravsky Berou   29.73 306  P      P      05 53 00.6 -1.3
MORC  Moravsky Berou   29.73 306 eP      P      05 53 02.3 +0.4
MORC  Moravsky Berou   29.73 306 ⇑P      P      05 53 01.9  0.0
MODS  Modra-Piesok     29.74 303 eP      P      05 53 04.5 +2.6
MODS  Modra-Piesok     29.74 303 eP      P      05 53 04.5 +2.6
MEF   Metsahovi        29.77 328 eP      P      05 53 02.1 +0.1
FINES FINESS Array B   29.82 331  P      P      05 53 04.8 +2.3
      comp=Z,2.0nm,0.6s,baz=127,slow=8.1,SNR=8.6
FINES                             LR     LR     06 07 31.2
      comp=Z,1µm,21.6s,baz=132,slow=41
      comp=Z,2.0nm,0.6s
ZST   Bratislava       29.84 302 eP      P      05 53 05.8 +3.1
ZST   Bratislava       29.84 302 eP      P      05 53 05.8 +3.1
LSA   Lhasa            30.19  96 eP      P      05 53 10.8 +4.2
LSA                               L      L
      comp=Z,3µm,17.7s
LSA                               L      L
      comp=Z,2µm,23.9s
LSA                               L      L
      comp=Z,4µm,19.2s
KRLC  Kraliky          30.26 306  AMS    AMS    06 05 50.0
      comp=Z,1µm,20.4s
VRAC  Vranov           30.29 304  P      P      05 53 07.8 +1.1
      comp=Z,2.2nm,0.5s,baz=71,slow=4.5,SNR=4.1
VRAC                              LR     LR     06 07 13.7
      comp=Z,1µm,20.8s,baz=84,slow=40
      comp=Z,2.2nm,0.5s
VRAC  Vranov           30.29 304 eP      P      05 53 07.5 +0.8
RONA  Rosalia, Austr   30.34 301 eP      P      05 53 07.6 +0.3
      comp=Z,1.9nm,1.0s
KRUC  Moravsky         30.39 304 eP      P      05 53 07.8 +0.2
SUF   Sumiainen        30.59 333 eP      P      05 53 09.3 +0.1
DPC   Dobruska-Polom   30.59 306 eP      P      05 53 11.1 +1.6
DPC                               MLR    MLR
      comp=Z,1µm,16.6s
DPC   Dobruska-Polom   30.59 306 eP      P      05 53 11.1 +1.6
DPC                               AMS    AMS    06 07 00.0
      comp=Z,1µm,16.6s
KSP   Ksiaz            30.68 307 eP      P      05 53 12.1 +1.9
OSTC  Ostas            30.69 307 eP      P      05 53 12.7 +2.4
OSTC                              MLR    MLR
      comp=Z,1µm,16.8s
OSTC  Ostas            30.69 307 eP      P      05 53 12.7 +2.4
OSTC                              AMS    AMS    06 07 50.0
      comp=Z,1µm,16.8s
KEF   Keuruu           30.72 332 eP      P      05 53 10.4  0.0
CHVC  Chvalec          30.80 307 eP      P      05 53 11.2 -0.1
CHVC  Chvalec          30.80 307 eP      P      05 53 11.2 -0.1
UPC   Upice            30.81 307  AMS    AMS    06 07 20.0
      comp=Z,1µm,17.9s
GOMU  GeErMu           30.82  81  P      P      05 53 11.3 -0.7
GOMU                              pP     sP     05 53 15.0 -1.6
GOMU                              sP     pP     05 53 18.5 +3.3
GOMU                              S      S      05 58 17.5 +1.7
GOMU                              pmax   pmax
      comp=Z,3.0nm,0.5s
GOMU                              L      L
      comp=Z,3µm,15.3s
GOMU                              L      L
      comp=Z,2µm,15.5s
GOMU                              L      L
      comp=Z,3µm,15.6s
ARSA  Arzberg          30.84 300  P      P      05 53 09.7 -2.0
ARSA                              IAmb   IAmb   05 53 34.6
      comp=Z,16nm,1.1s
ARSA  Arzberg          30.84 300 eP      P      05 53 12.2 +0.5
      comp=Z,1.6nm,0.5s
SOKA  Soboth           31.16 299 eP      P      05 53 14.3 -0.3
      comp=Z,2.1nm,0.8s
SESA  Seetaler Alpe,   31.49 300 epP     P      05 53 18.4 +0.8
      comp=Z,46nm,0.7s
PRU   Pruhonice        31.68 305  AMS    AMS    06 08 10.0
      comp=Z,1µm,10.8s
PVCC  Panska Ves       31.73 307 eP      P      05 53 21.1 +1.7
PVCC                              MLR    MLR
      comp=Z,1µm,16.6s
PVCC  Panska Ves       31.73 307 eP      P      05 53 21.1 +1.7
PVCC                              AMS    AMS    06 08 30.0
      comp=Z,1µm,16.6s
CKRC  Cesky Krumlov    31.74 303 eP      P      05 53 21.1 +1.5
CKRC                              MLR    MLR
      comp=Z,1µm,20.9s
CKRC  Cesky Krumlov    31.74 303 eP      P      05 53 21.1 +1.5
CKRC                              AMS    AMS    06 07 50.0
      comp=Z,1µm,20.9s
KNGR  Kungurtug, Tuv   31.75  53⇑eP      P      05 53 18.8 -1.0
KNGR                              pmax   pmax
      comp=Z,19nm,1.0s
VAF   Ylistaro         32.06 332 eP      P      05 53 23.3 +1.2
APA   Apatity          32.09 344 eP      P      05 53 23.2 +0.8
APA                              e              05 56 12.8
APA                              eS      S      05 58 34.3  0.0
APA                               pmax   pmax
      comp=Z,13nm,1.1s
APA                               MLR    MLR
      comp=Z,5µm,18.3s
LVZ   Lovozero         32.10 345⇑eP      P      05 53 23.3 +0.7
LVZ                               pmax   pmax
      comp=Z,140nm,2.6s
GERES GERESS Array B   32.14 303  P      P      05 53 23.3 +0.1
      comp=Z,2.9nm,0.5s,baz=95,slow=8.2,SNR=11
      comp=Z,2.9nm,0.5s
BRG   Berggiesshubel   32.16 307 eP      P      05 53 25.0 +1.8
BRG                               Amp           05 53 28.6
      comp=Z,9.0nm,0.9s
BRG   Berggiesshubel   32.16 307  S      S      05 58 42.0 +6.2
KHC   Kasperske Hory   32.24 304 eP      P      05 53 24.1 +0.1
KHC                               MLR    MLR
      comp=Z,1µm,20.8s
KHC   Kasperske Hory   32.24 304 eP      P      05 53 24.1 +0.1
KHC                               AMS    AMS    06 07 50.0
      comp=Z,1µm,20.8s
KHC   Kasperske Hory   32.24 304  P      P      05 53 23.5 -0.5
HSKC  Hora Svate Kat   32.46 307 eP      P      05 53 27.2 +1.3
HSKC                              AMS    AMS    06 08 40.0
      comp=Z,1µm,17.6s
LESA  Schwarzleotal    32.78 301 eP      P      05 53 29.0 +0.2
      comp=Z,7.4nm,0.7s
CLL   Collm            32.80 308 eP      P      05 53 29.0 +0.2
CLL                              eS      S      05 58 47.0 +1.3
CLL   Collm            32.80 308 eP      P      05 53 29.0 +0.2
CLL                              ex      x      05 54 22.0
CLL                              ePP     PP     05 54 42.0 -0.8
CLL                              ePPP    PPP    05 54 48.0
CLL                              eS      S      05 58 47.0 +1.3
CLL                              eSSSS          06 01 24.0
CLL                               LH            06 02 00.0
CLL                               AMS    AMS    06 06 00.0
      comp=N,2µm,18.8s
CLL                               AMS    AMS    06 06 00.0
      comp=E,1µm,21.7s
CLL                               AMS    AMS    06 06 00.0
      comp=Z,2µm,22.3s
CLL                               AMS    AMS    06 09 00.0
      comp=Z,2µm,16.9s
ABTA  Abfaltersbach    32.89 299 eP      P      05 53 29.5 -0.3
      comp=Z,11nm,1.1s
NKC   Novy Kostel      33.05 306  AMS    AMS    06 08 50.0
      comp=Z,1µm,17.7s
WTTA  Wattenberg       33.49 300 eP      P      05 53 34.6 -0.5
      comp=Z,14nm,0.9s
WATA  Walderalm        33.53 300 eP      P      05 53 34.7 -0.7
      comp=Z,9.7nm,0.8s
SQTA  Sankt Quirin     33.78 300 eP      P      05 53 37.2 -0.3
      comp=Z,1.3nm,0.6s
MOTA  Moosalm          33.85 300 eP      P      05 53 37.4 -0.8
      comp=Z,0.8nm,0.5s
GTA2  Gaotai           33.85  74 eP      P      05 53 39.8 +1.5
GTA2                              sS     sS     05 59 10.0 +2.0
GTA2                              pmax   pmax
      comp=Z,9.0nm,1.4s
GTA2                              L      L
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	comp=Z,4µm,20.6s						
GTA2				L	L		
	comp=Z,3µm,19.0s						
GTA2				L	L		
	comp=Z,4µm,18.7s						
RETA	Reutte	34.08	301	eP	P	05 53 39.4	-0.7
	comp=Z,7.4nm,1.0s						
FETA	Feichten	34.11	300	eP	P	05 53 40.1	-0.4
	comp=Z,9.3nm,1.1s						
BRDH	Bariadhala	34.12	107	LR	LR	06 09 16.7	
	comp=Z,2µm,18.8s,baz=327,slow=39						
FUORN	Ofenpass-Fuorn	34.45	299	P	P	05 53 42.2	-1.3
FUORN				IAmb	IAmb	05 54 36.4	
	comp=Z,15nm,1.1s						
HFS	Hagfors	34.50	323	P	P	05 53 44.4	+0.8
	comp=Z,8.2nm,0.8s,baz=106,slow=14,SNR=9.1						
	comp=Z,8.2nm,0.8s						
DAVA	Damuels	34.68	300	eP	P	05 53 44.9	-0.6
	comp=Z,12nm,1.3s						
DAVOX	Davos/Dischmat	34.70	299	P	P	05 53 45.4	-0.2
	comp=Z,3.6nm,0.5s,baz=118,slow=13,SNR=5.0						
DAVOX				LR	LR	06 09 43.4	
	comp=Z,460nm,21.2s,baz=79,slow=40						
	comp=Z,3.6nm,0.5s						
TUE	Stuetta	35.09	299	P	P	05 53 47.6	-1.4
STU	Stuttgart	35.12	303	P	P	05 53 48.3	-0.6
STU				pmax	pmax		
	comp=Z,29nm,1.2s						
STU	Stuttgart	35.12	303	P	P	05 53 48.3	-0.6
STU				IAmb	IAmb	05 53 51.8	
	comp=Z,28nm,1.2s						
ZAK	Zakamensk	35.40	54	eP	P	05 53 52.2	+0.7
ZAK				pmax	pmax		
	comp=Z,6.0nm,1.6s						
ARCES	ARCESS Array B	35.46	342	P	P	05 53 52.2	+0.6
	comp=Z,6.6nm,1.0s,baz=134,slow=8.1,SNR=3.1						
ARCES				LR	LR	06 09 48.9	
	comp=Z,1µm,21.4s,baz=132,slow=39						
NRIK	Noril'sk	35.56	19	P	P	05 53 53.5	+0.9
	comp=Z,2.0nm,0.4s,baz=230,slow=8.2,SNR=3.7						
NRIK				LR	LR	06 08 58.6	
	comp=Z,2µm,21.9s,baz=215,slow=37						
	comp=Z,2.0nm,0.4s						
NRIK	Noril'sk	35.56	19	⇓eP	P	05 53 55.3	+2.8
NRIK				pmax	pmax		
	comp=Z,11nm,1.1s						
NC602	NORSAR Array S	35.71	324	P	P	05 53 53.4	-0.6
NC602				IAmb	IAmb	05 55 08.2	
	comp=Z,27nm,1.1s						
NC405	NORSAR Array S	35.75	325	P	P	05 53 53.4	-0.9
NB2	NORSAR Subarra	35.96	324	P	P	05 53 55.5	-0.6
	comp=Z,86nm,2.5s,baz=109,slow=8.6						
NB2	NORSAR Subarra	35.96	324	P	P	05 53 55.5	-0.6
NOA	NORSAR Array B	35.96	324	P	P	05 53 55.9	-0.2
	comp=Z,7.8nm,0.8s,baz=110,slow=8.3,SNR=27						
NOA				LR	LR	06 11 52.1	
	comp=Z,788nm,18.2s,baz=115,slow=42						
	comp=Z,7.8nm,0.8s						
ECH	Echery	36.48	302	P	P	05 53 59.8	-0.9
ECH				pmax	pmax		
	comp=Z,26nm,1.3s						
ECH	Echery	36.48	302	P	P	05 53 59.8	-0.9
ECH				IAmb	IAmb	05 54 02.4	
	comp=Z,26nm,1.3s						
SENIN	Lac Senin/Sane	36.51	299	P	P	05 54 01.6	+0.4
SENIN				IAmb	IAmb	05 54 35.5	
	comp=Z,64nm,1.8s						
KEST	Kesra	37.09	281	P	P	05 54 05.7	-0.5
	comp=Z,13nm,0.9s,baz=59,slow=15,SNR=5.6						
	comp=Z,13nm,0.9s						
SONM	Songino Array	37.50	58	P	P	05 54 11.4	+1.9
	comp=Z,2.3nm,0.8s,baz=259,slow=8.5,SNR=7.6						
SONM				LR	LR	06 10 06.0	
	comp=Z,1µm,19.7s,baz=280,slow=37						
	comp=Z,2.3nm,0.8s						
LZDM	Lanzhou Array	37.78	78	LR	LR	06 12 04.9	
	comp=Z,2µm,19.2s,baz=295,slow=40						
LZH	Lanzhou	37.85	78	eP	P	05 54 09.8	-2.9
LZH				PP	PnPn	05 55 44.5	+4.4
LZH				S	S	06 00 08.0	+4.0
LZH				pmax	pmax		
	comp=Z,34nm,1.6s						
LZH				L	L		
	comp=Z,7µm,14.6s						
LZH				L	L		
	comp=Z,5µm,14.3s						
LZH				L	L		
	comp=Z,5µm,14.9s						
ULN	Ulaanbaatar	37.94	58	P	P	05 54 15.3	+2.0
ULN	Ulaanbaatar	37.94	58	⇑eP	P	05 54 14.8	+1.5
ULN				pmax	pmax		
	comp=Z,16nm,0.9s						
ULN	Ulaanbaatar	37.94	58	P	P	05 54 12.6	-0.7
ULN	Ulaanbaatar	37.94	58	P	P	05 54 14.6	+1.3
	comp=Z,1µmcomp=Z,63nm,0.8s						
PALK	Pallekele	37.98	138	LR	LR	06 10 41.3	
	comp=Z,2µm,20.8s,baz=323,slow=38						
TNCH	TengChong	38.16	97	eP	P	05 54 14.3	-1.1
TNCH				S	S	06 00 06.8	-2.1
TNCH				pmax	pmax		
	comp=Z,21nm,0.6s						
TNCH				pmax	pmax		
	comp=Z,160nm,4.0s						
TNCH				L	L		
	comp=Z,1µm,12.8s						
TNCH				L	L		
	comp=Z,930nm,15.5s						
TNCH				L	L		
	comp=Z,3µm,15.7s						
SSB	Saint Sauveur	38.54	298	P	P	05 54 17.4	-0.9
SSB				pmax	pmax		
	comp=Z,40nm,1.5s						
SSB	Saint Sauveur	38.54	298	P	P	05 54 17.4	-0.9
SSB				IAmb	IAmb	05 54 25.4	
	comp=Z,40nm,1.5s						
CD2	Chengdu	39.62	86	P	P	05 54 26.3	-1.1
CD2				S	S	06 00 34.5	+4.0
CD2				pmax	pmax		
	comp=Z,10.0nm,0.7s						
CD2				L	L		
	comp=Z,2µm,14.6s						
CD2				L	L		
	comp=Z,4µm,14.6s						
CD2				L	L		
	comp=Z,3µm,15.2s						
PZH	PanZhiHua	39.97	93	P	P	05 54 28.3	-2.2
PZH				S	S	06 00 37.8	+1.8
PZH				pmax	pmax		
	comp=Z,20nm,1.2s						
PZH				pmax	pmax		
	comp=Z,150nm,5.9s						
PZH				L	L		
	comp=Z,2µm,15.5s						
PZH				L	L		
	comp=Z,2µm,19.8s						
PZH				L	L		
	comp=Z,2µm,19.8s						
KAAM	Kaadhehdhoo	40.58	153	P	P	05 54 34.0	-1.4
BTO2	Baotou	41.12	69	eP	P	05 54 36.8	-3.1
BTO2				PP	PP	05 56 14.8	+0.2
BTO2				S	S	06 00 48.3	-4.6
BTO2				SS	SS	06 03 53.5	-1.7
BTO2				pmax	pmax		
	comp=Z,14nm,0.8s						
BTO2				pmax	pmax		
	comp=Z,200nm,6.6s						
BTO2				L	L		
	comp=Z,4µm,13.5s						
BTO2				L	L		
	comp=Z,4µm,13.1s						
BTO2				L	L		
	comp=Z,4µm,15.2s						
KMI2	Kunming	41.42	94	P	P	05 54 43.8	+1.2
KMI2				S	S	06 00 58.3	+0.5
KMI2				pmax	pmax		
	comp=Z,26nm,1.1s						
KMI2				pmax	pmax		
	comp=Z,110nm,3.4s						
KMI2				L	L		
	comp=Z,2µm,19.5s						
KMI2				L	L		
	comp=Z,940nm,21.5s						
KMI2				L	L		
	comp=Z,1µm,16.6s						
CHTO	Chiang Mai	41.91	105	P	P	05 54 46.9	+0.6
CHTO	Chiang Mai	41.91	105	P	P	05 54 45.6	-0.8
CHTO				pmax	pmax		
	comp=Z,28nm,1.5s						
CHTO	Chiang Mai	41.91	105	P	P	05 54 45.6	-0.8
CHTO				IAmb	IAmb	05 54 52.8	
	comp=Z,28nm,1.5s						
CHTO	Chiang Mai	41.91	105	P	P	05 54 47.8	+1.4
	comp=Z,11nm,1.1s						
CMAR	Chiang Mai Arr	42.12	106	P	P	05 54 49.7	+1.6
	comp=Z,6.2nm,0.7s,baz=297,slow=8.5,SNR=19						
CMAR				LR	LR	06 17 21.5	
	comp=Z,654nm,18.6s,baz=305,slow=43						
	comp=Z,6.2nm,0.7s						
CMAR	Chiang Mai Arr	42.12	106	i P	P	05 54 48.5	+0.4
CMAR				pmax	pmax		
	comp=Z,6.0nm,0.7s						
CMAR	Chiang Mai Arr	42.12	106	P	P	05 54 47.9	-0.2
HHC	Hu-ho-hao-te	42.33	68	eP	P	05 54 48.5	-1.2
HHC				S	S	06 01 08.5	-2.3
HHC				sS	sS	06 01 16.5	+0.2
HHC				SS	SS	06 04 14.0	-5.2
HHC				pmax	pmax		
	comp=Z,13nm,0.5s						
HHC				pmax	pmax		
	comp=Z,130nm,4.4s						
HHC				L	L		
	comp=Z,3µm,14.5s						
HHC				L	L		
	comp=Z,2µm,15.3s						
HHC				L	L		
	comp=Z,2µm,16.0s						
XAN	Xi'an	42.46	79	P	P	05 54 53.8	+3.0
XAN				pP	sP	05 54 58.3	+2.9
XAN				S	S	06 01 16.0	+3.3
XAN				pmax	pmax		
	comp=Z,13nm,1.2s						
XAN				L	L		
	comp=Z,6µm,13.7s						
XAN				L	L		
	comp=Z,2µm,12.4s						
XAN				L	L		
	comp=Z,2µm,14.4s						
EKA	Eskdalemuir Ar	42.66	314	P	P	05 54 52.3	+0.3
	comp=Z,4.9nm,0.7s,baz=96,slow=9.1,SNR=6.9						
EKA				LR	LR	06 16 52.4	
	comp=Z,587nm,19.7s,baz=78,slow=42						
	comp=Z,4.9nm,0.7s						
KMBO	Kilima Mbogo	42.74	208	LR	LR	06 15 40.3	
	comp=Z,1µm,18.6s,baz=24,slow=40						
SPITS	Spitsbergen Ar	43.37	349	P	P	05 54 59.2	+1.6
	comp=Z,1.7nm,0.4s,baz=140,slow=10,SNR=13						
SPITS				LR	LR	06 16 13.1	
	comp=Z,2µm,19.1s,baz=137,slow=40						
	comp=Z,1.7nm,0.4s						
KIBK	Kibwezi	43.58	207	P	P	05 55 02.0	+2.1
KIBK	Kibwezi	43.58	207	P	P	05 54 59.9	-0.1
GYA	Guiyang	43.87	90	⇓P	P	05 55 03.3	+1.0
GYA				S	S	06 01 33.3	-0.4
GYA				pmax	pmax		
	comp=Z,16nm,1.1s						
LYN	LuoYang	45.01	77	P	P	05 55 15.8	+4.6
LYN				sP	sP	05 55 24.5	+8.7
LYN				S	S	06 01 55.5	+5.7
LYN				sS	sS	06 02 00.3	+5.1
LYN				pmax	pmax		
	comp=Z,23nm,0.6s						
LYN				pmax	pmax		
	comp=Z,180nm,4.0s						
LYN				L	L		
	comp=Z,7µm,14.1s						
LYN				L	L		
	comp=Z,5µm,15.5s						
LYN				L	L		
	comp=Z,7µm,17.3s						
HNS	HongShan	45.70	72	⇓P	P	05 55 19.5	+2.9
HNS				S	S	06 02 06.0	+6.3
HNS				pmax	pmax		
	comp=Z,10.0nm,1.1s						
HNS				L	L		
	comp=Z,5µm,18.0s						
HNS				L	L		
	comp=Z,3µm,17.2s						
HNS				L	L		
	comp=Z,3µm,15.9s						
ESBB	Sonseca Array	45.94	292	P	P	05 55 17.9	-0.7
ESDC	Sonseca Array	45.94	292	P	P	05 55 18.2	-0.5
	comp=Z,8.1nm,0.8s,baz=62,slow=7.8,SNR=29						
ESDC				LR	LR	06 19 25.7	
	comp=Z,370nm,18.4s,baz=59,slow=42						
	comp=Z,8.1nm,0.8s						
HILR	Hailar Array B	46.05	54	LR	LR	06 16 16.6	
	comp=Z,1µm,18.1s,baz=75,slow=38						
JMIC	Jan Mayen	46.20	336	LR	LR	06 15 53.2	
	comp=Z,569nm,20.7s,baz=100,slow=38						
PAB	San Pablo	46.27	292	P	P	05 55 20.8	-0.4
PAB				pmax	pmax		
	comp=Z,39nm,1.5s						
PAB	San Pablo	46.27	292	P	P	05 55 20.8	-0.4
WHN	Wuhan	48.06	81	P	P	05 55 37.5	+2.3
WHN				S	S	06 02 37.0	+3.3
WHN				L	L		
	comp=Z,10µm,14.4s						
WHN				L	L		
	comp=Z,7µm,12.8s						
WHN				L	L		
	comp=Z,7µm,14.4s						
POLO	Lamas de Olo	48.19	295	eP	P	05 55 37.1	+0.9
MTE	Manteigas	48.32	294	eP	P	05 55 38.5	+1.3
PCBR	Castelo Branco	48.45	293	eP	P	05 55 37.4	-0.7
PVIS	Viseu	48.47	294	eP	P	05 55 37.8	-0.6
PBAR	Barrancos	48.70	291	eP	P	05 55 40.9	+0.8
PESTR	Estremoz	48.87	292	eP	P	05 55 42.4	+1.0
PESTR	Estremoz	48.87	292	P	P	05 55 40.7	-0.7
MDT	Midelt	48.91	283	LR	LR	06 18 35.5	
	comp=Z,308nm,20.8s,baz=70,slow=39						
TIXI	Tiksi	48.93	24	LR	LR	06 19 09.8	
	comp=Z,2µm,18.6s,baz=282,slow=39						
TIXI	Tiksi	48.93	24	⇓eP	P	05 55 43.5	+2.2
TIXI				pmax	pmax		
	comp=Z,11nm,0.9s						
TIXI	Tiksi	48.93	24	P	P	05 55 41.4	+0.1
TIXI				IAmb	IAmb	05 56 20.4	
	comp=Z,11nm,0.8s						
MD01	Midelt array s	49.01	283	P	P	05 55 42.3	-0.3
PMTG	Montargil	49.26	292	eP	P	05 55 45.5	+1.1
PBEJ	Beja	49.37	291	eP	P	05 55 46.1	+0.9
PVAQ	Vaqueiros	49.48	290	eP	P	05 55 47.0	+1.0
YAK	Yakutsk	49.69	36	eP	P	05 55 49.6	+2.4
YAK				e		05 57 10.1	
YAK				e		05 57 43.9	
YAK				eS	S	06 02 58.4	+2.8
YAK				e		06 05 41.6	
YAK				pmax	pmax		
	comp=Z,19nm,0.8s						
YAK				pmax	pmax		
	comp=E,6.0nm,1.0s						
YAK				pmax	pmax		
	comp=N,2.0nm,1.2s						
YAK				pmax	pmax		
	comp=Z,97nm,3.5s						
YAK				pmax	pmax		
	comp=E,65nm,4.3s						
YAK				pmax	pmax		
	comp=N,68nm,4.4s						
YAK				smax	smax		
	comp=N,148nm,3.5s						
YAK				smax	smax		
	comp=E,67nm,3.6s						
YAK				MLR	MLR		
	comp=Z,936nm,13.0s						
YAK				MLR	MLR		
	comp=E,675nm,12.0s						
YAK				MLR	MLR		
	comp=N,483nm,12.0s						
DAG	Danmarks Havn	49.73	343	i P	P	05 55 49.0	+1.6
DAG				IAmb	IAmb	05 55 51.9	
	comp=Z,6.9nm,0.9s						
DBG	Daneborg	50.00	340	i P	P	05 55 52.4	+2.9
DBG				IAmb	IAmb	05 55 54.6	
	comp=Z,3.6nm,0.7s						
NOR	Nord	50.01	349	i P	P	05 55 51.8	+2.4
NOR				IAmb	IAmb	05 55 52.7	
	comp=Z,6.9nm,1.0s						
QIZ	Qiongzhong	50.22	97	P	P	05 55 52.8	+0.9
QIZ				S	S	06 03 02.0	-2.2
QIZ				SS	SS	06 06 38.3	+0.7
QIZ				pmax	pmax		
	comp=Z,14nm,1.6s						
QIZ				L	L		
	comp=Z,590nm,13.6s						
QIZ				L	L		
	comp=Z,2µm,17.0s						
QIZ				L	L		
	comp=Z,1µm,18.1s						
DL2	Dalian	50.29	67	P	P	05 55 53.8	+1.6
DL2				S	S	06 03 13.8	+9.1
DL2				pmax	pmax		
	comp=Z,20nm,0.8s						
DL2				pmax	pmax		
	comp=Z,350nm,8.5s						
DL2				L	L		
	comp=Z,3µm,18.0s						
DL2				L	L		
	comp=Z,2µm,20.0s						
DL2				L	L		
	comp=Z,2µm,18.1s						
HEH	HeiHe	50.72	52	eP	P	05 55 57.0	+1.8
HEH				pmax	pmax		
	comp=Z,21nm,0.9s						
HEH				L	L		
	comp=Z,7µm,18.4s						
HEH				L	L		
	comp=Z,3µm,17.6s						
HEH				L	L		
	comp=Z,2µm,17.3s						
NJ2	Nanjing	50.90	77	eP	P	05 55 56.3	-0.6
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.8s						
NJ2				L	L		
	comp=Z,2µm,17.6s						
NJ2				L	L		
	comp=Z,2µm,13.8s						
NJ2				L	L		
	comp=Z,2µm,16.1s						
BORG	Borgarnes	50.99	327	LR	LR	06 18 51.3	
	comp=Z,971nm,19.3s,baz=81,slow=38						
CN2	Changchun	51.33	60	eP	P	05 55 59.5	-0.4
CN2				esP	sP	05 56 06.0	+1.5
CN2				eS	S	06 03 15.5	-3.5
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
CN2				pmax	pmax		
	comp=Z,100nm,5.0s						
CN2				L	L		
	comp=Z,2µm,11.0s						
CN2				L	L		
	comp=Z,700nm,11.0s						
CN2				L	L		
	comp=Z,500nm,12.0s						
BNX	BinXian	52.02	57	⇓P	P	05 56 04.0	-1.1
BNX				pmax	pmax		
	comp=Z,8.0nm,0.8s						
PSI	Prapat	52.63	121	P	P	05 56 09.6	-0.5
PSI				pmax	pmax		
	comp=Z,15nm,0.8s						
PSI	Prapat	52.63	121	P	P	05 56 09.2	-0.9
	comp=Z,19nm,0.9s						
RPSI	Rantau Prapat	52.71	121	P	P	05 56 09.6	-1.0
RPSI				IAmb	IAmb	05 56 17.2	
	comp=Z,15nm,0.8s						
SSE	Sheshan	53.11	77	P	P	05 56 10.3	-3.0
SSE				S	S	06 03 41.0	-2.7
SSE				pmax	pmax		
	comp=Z,9.0nm,0.5s						
SSE				pmax	pmax		
	comp=Z,140nm,3.5s						
SSE				L	L		
	comp=Z,2µm,14.8s						
SSE				L	L		
	comp=Z,740nm,14.8s						
KLR	Kul'dur	53.71	52	LR	LR	06 19 38.6	
	comp=Z,1µm,20.8s,baz=290,slow=36						
KLR	Kul'dur	53.71	52	⇓eP	P	05 56 17.5	0.0
KLR				pmax	pmax		
	comp=Z,8.0nm,0.9s						
TORD	Torodi Ar. Bea	54.07	258	P	P	05 56 20.1	-0.5
	comp=Z,9.7nm,1.0s,baz=54,slow=6.2,SNR=31						
TORD				LR	LR	06 24 08.4	
	comp=Z,237nm,19.7s,baz=57,slow=41						
	comp=Z,9.7nm,1.0s						
TORD	Torodi Ar. Bea	54.07	258	P	P	05 56 19.2	-1.3
TORD				IAmb	IAmb	05 56 21.5	
	comp=Z,9.7nm,0.9s						
SUMG	Summit	55.40	339	i P	P	05 56 34.0	+4.0
SUMG				IAmb	IAmb	05 56 35.1	
	comp=Z,6.0nm,0.7s						
KSRS	Korea Array	55.43	67	P	P	05 56 31.4	+1.2
	comp=Z,7.7nm,0.7s,baz=285,slow=6.6,SNR=15						
KSRS				LR	LR	06 20 48.9	
	comp=Z,2µm,18.3s,baz=290,slow=37						
	comp=Z,7.7nm,0.7s						
USRK	Ussuriysk Ar.	55.61	58	P	P	05 56 33.5	+2.1
	comp=Z,8.6nm,0.7s,baz=271,slow=6.3,SNR=6.9						
USRK				LR	LR	06 22 06.6	
	comp=Z,1µm,18.6s,baz=291,slow=38						
	comp=Z,8.6nm,0.7s						
NEEM	North Greenlan	56.68	346	i P	P	05 56 40.4	+1.5
NEEM				IAmb	IAmb	05 56 42.9	
	comp=Z,10nm,0.9s						
OPO	Ambohidratompo	57.01	190	LR	LR	06 19 55.5	
	comp=Z,641nm,21.1s,baz=131,slow=35						
LSZ	Lusaka	59.21	212	LR	LR	06 25 21.2	
	comp=Z,1µm,18.5s,baz=32,slow=39						
JNU	Nakatsue	59.51	70	LR	LR	06 24 54.4	
	comp=Z,1µm,19.0s,baz=295,slow=38						
SEY	Seymchan	59.54	32	LR	LR	06 25 07.7	
	comp=Z,1µm,18.0s,baz=301,slow=38						
SEY	Seymchan	59.54	32	⇑iP	P	05 57 02.2	+3.5
SEY				pmax	pmax		
	comp=Z,9.0nm,1.3s						
TYV	Tymovskoe	59.66	47	eP	P	05 57 05.1	+5.4
TYV				pmax	pmax		
	comp=Z,8.0nm,0.9s						
TYV				pmax	pmax		
	comp=Z,100nm,3.8s						
SAATT	Saattut	59.92	339	i P	P	05 57 02.3	+1.1
SAATT				IAmb	IAmb	05 57 05.3	
	comp=Z,15nm,0.7s						
MA2	Magadan	60.25	36	LR	LR	06 27 00.8	
	comp=Z,745nm,19.1s,baz=290,slow=40						
MA2	Magadan	60.25	36	⇑eP	P	05 57 06.7	+3.0
MA2				pmax	pmax		
	comp=Z,9.0nm,0.9s						
JOW	Kunigami	60.59	78	LR	LR	06 27 52.0	
	comp=Z,1µm,19.3s,baz=254,slow=40						
YSS	Yuzhno-Sakhali	61.39	51	eP	P	05 57 10.9	-0.7
YSS				eS	S	06 05 25.7	-6.6
YSS				eSS	SS	06 09 40.6	+8.3
YSS				pmax	pmax		
	comp=Z,20nm,1.1s						
YSS				MLR	MLR		
	comp=Z,2µm,17.0s						
YSS				MLR	MLR		
	comp=N,1µm,16.0s						
YSS				MLR	MLR		
	comp=E,1µm,16.0s						
SFJD	Kangerlussuaq	61.53	335	LR	LR	06 25 09.2	
	comp=E,1µm,18.4s,baz=54,slow=37						
ASAJ	Asahikawa	62.57	54	LR	LR	06 26 18.3	
	comp=E,2µm,18.6s,baz=264,slow=38						
DBIC	Dimbokro	63.13	257	P	P	05 57 23.5	-0.2
	comp=E,7.1nm,0.7s,baz=58,slow=6.7,SNR=8.3						
DBIC				LR	LR	06 29 14.4	
	comp=E,361nm,18.4s,baz=52,slow=40						
	comp=E,7.1nm,0.7s						
MAJO	Matsushiro	63.19	63	⇓eP	P	05 57 24.8	+0.9
MAJO				pmax	pmax		
	comp=Z,23nm,1.3s						
MJAR	Matsushiro Arr	63.19	63	P	P	05 57 26.1	+2.1
	comp=Z,4.3nm,0.9s,baz=307,slow=8.6,SNR=8.4						
MJAR				LR	LR	06 24 59.4	
	comp=Z,404nm,20.3s,baz=304,slow=36						
	comp=Z,4.3nm,0.9s						
MJAR	Matsushiro Arr	63.19	63	P	P	05 57 23.6	-0.4
MATP	Matopo	63.74	209	LR	LR	06 28 45.8	
	comp=Z,2µm,18.4s,baz=22,slow=40						
LEM	Lembang	65.55	121	LR	LR	06 31 27.7	
	comp=Z,340nm,18.5s,baz=344,slow=41						
RES	Resolute Bay	65.82	352	LR	LR	06 30 14.3	
	comp=Z,865nm,19.5s,baz=26,slow=40						
JHJ	Hachijo jima 2	66.02	66	LR	LR	06 27 37.0	
	comp=Z,703nm,19.1s,baz=318,slow=37						
PETK	Petropavlovsk-	66.77	40	LR	LR	06 27 45.8	
	comp=Z,736nm,18.2s,baz=295,slow=37						
LBTB	Lobatse	69.01	209	LR	LR	06 31 58.5	

	comp=Z,868nm,18.5s,baz=24,slow=39						
FRB	**Frobisher Bay**	**69.41**	**337**	LR	LR	06 29 42.4	
	comp=Z,602nm,19.6s,baz=38,slow=37						
DAV	**Davao City (W)**	**69.59**	**97**	LR	LR	06 33 40.8	
	comp=Z,987nm,18.7s,baz=350,slow=40						
D27M	**Malcolm River**	**72.20**	**6**	P	**P**	**05 58 19.8**	**-0.5**
F19K	**Shaleruckik Mo**	**72.21**	**13**	P	**P**	**05 58 21.4**	**+1.1**
BOSA	**Boshof**	**72.38**	**208**	P	**P**	**05 58 20.5**	**-1.3**
	comp=Z,3.3nm,0.6s,baz=39,slow=3.5,SNR=6.5						
BOSA				LR	LR	06 31 13.1	
	comp=Z,1µm,21.1s,baz=32,slow=37						
	comp=Z,3.3nm,0.6s						
KAPI	**Kappang**	**72.88**	**111**	LR	LR	06 35 17.1	
	comp=Z,166nm,18.8s,baz=313,slow=40						
F25K	**Christian Rive**	**73.32**	**9**	P	**P**	**05 58 27.5**	**+0.6**
F25K				IAmb	IAmb	05 58 51.7	
	comp=Z,18nm,1.5s						
INK	**Inuvik**	**73.64**	**4**	LR	LR	06 35 24.2	
	comp=Z,176nm,19.5s,baz=8.5,slow=40						
G30M	**tAoh Zraii Nji**	**74.79**	**5**	P	**P**	**05 58 35.4**	**-0.1**
G30M				IAmb	IAmb	05 58 42.3	
	comp=Z,15nm,0.9s						
G31M	**Satah River**	**74.97**	**4**	P	**P**	**05 58 36.8**	**+0.3**
J19K	**Poorman**	**75.17**	**14**	P	**P**	**05 58 37.6**	**-0.1**
J19K				IAmb	IAmb	05 59 20.8	
	comp=Z,23nm,1.6s						
SCHQ	**Schefferville**	**75.29**	**330**	P	**P**	**05 58 38.8**	**+0.3**
	comp=Z,5.0nm,0.8s,baz=42,slow=8.2,SNR=4.2						
SCHQ				LR	LR	06 32 38.9	
	comp=Z,495nm,19.8s,baz=46,slow=36						
	comp=Z,5.0nm,0.8s						
COLA	**College**	**75.63**	**10**	⇓*e*P	**P**	**05 58 42.9**	**+2.6**
COLA				pmax	pmax		
	comp=Z,11nm,1.0s						
ILAR	**Eielson Array**	**75.86**	**10**	P	**P**	**05 58 42.9**	**+1.3**
	comp=Z,1.7nm,0.9s,baz=335,slow=4.6,SNR=11						
ILAR				LR	LR	06 35 15.0	
	comp=Z,633nm,21.6s,baz=302,slow=38						
	comp=Z,1.7nm,0.9s						
ILAR	**Eielson Array**	**75.86**	**10**	P	**P**	**05 58 42.1**	**+0.5**
CAST	**Castle Rocks**	**76.33**	**13**	P	**P**	**05 58 44.9**	**+0.5**
CAST				IAmb	IAmb	05 58 54.3	
	comp=Z,10nm,0.9s						
I30M	**Mount Dempster**	**76.52**	**5**	P	**P**	**05 58 45.6**	**+0.1**
I30M				IAmb	IAmb	05 59 04.9	
	comp=Z,8.1nm,0.9s						
SUR	**Sutherland**	**77.45**	**210**	LR	LR	06 35 20.0	
	comp=Z,843nm,19.0s,baz=30,slow=38						
K29M	**Barlow Dome**	**77.79**	**6**	P	**P**	**05 58 53.2**	**+0.5**
BCAR	**Beaver Creek A**	**78.14**	**8**	P	**P**	**05 58 55.1**	**+0.6**
N19K	**Bonanza Creek**	**78.29**	**15**	P	**P**	**05 58 55.5**	**+0.1**
N19K				IAmb	IAmb	05 59 06.0	
	comp=Z,11nm,0.8s						
SIJI	**Sorong**	**78.95**	**100**	P	**P**	**05 59 01.5**	**+1.8**
	comp=Z,3.9nm,0.3s,baz=352,slow=2.4,SNR=4.9						
SIJI				LR	LR	06 38 07.5	
	comp=Z,193nm,20.6s,baz=174,slow=39						
	comp=Z,3.9nm,0.3s						
BATI	**Baumata**	**79.21**	**112**	LR	LR	06 37 13.9	
	comp=Z,620nm,21.8s,baz=302,slow=38						
SOEI	**Soe**	**79.36**	**111**	P	P	05 59 11.4	+9.4
YKA	**Yellowknife Ar**	**79.43**	**356**	P	**P**	**05 59 02.9**	**+1.4**
	comp=Z,3.2nm,0.8s,baz=6.5,slow=6.2,SNR=15						
YKA				LR	LR	06 37 38.7	
	comp=Z,647nm,21.0s,baz=10,slow=38						
	comp=Z,3.2nm,0.8s						
YKA	**Yellowknife Ar**	**79.43**	**356**	*i* P	**P**	**05 59 04.4**	**+2.8**
YKA				pmax	pmax		
	comp=Z,3.0nm,0.8s						
KDAK	**Kodiak Island**	**81.46**	**15**	LR	LR	06 39 05.0	
	comp=Z,678nm,20.9s,baz=335,slow=38						
DLBC	**Dease Lake**	**83.65**	**3**	LR	LR	06 41 51.6	
	comp=Z,421nm,19.3s,baz=316,slow=39						
FITZ	**Fitzroy Crossi**	**85.90**	**117**	P	**P**	**05 59 37.5**	**+1.7**
	comp=Z,5.2nm,1.1s,baz=264,slow=5.2,SNR=4.7						
FITZ				LR	LR	06 39 25.9	
	comp=Z,140nm,21.4s,baz=324,slow=37						
	comp=Z,5.2nm,1.1s						
JAY	**Jayapura**	**87.34**	**95**	LR	LR	06 42 00.9	
	comp=Z,152nm,19.5s,baz=4.0,slow=38						
KDU	**Kakadu**	**87.35**	**108**	P	**P**	**05 59 45.5**	**+2.4**
	comp=Z,5.7nm,0.9s						
SADO	**Sadowa**	**88.10**	**330**	LR	LR	06 38 44.7	
	comp=Z,271nm,21.6s,baz=52,slow=35						
ULM	**Lac du Bonnet**	**88.58**	**342**	P	**P**	**05 59 49.5**	**+1.1**
	comp=Z,2.5nm,0.6s,baz=68,slow=2.5,SNR=5.7						
ULM				LR	LR	06 40 43.7	
	comp=Z,544nm,19.9s,baz=20,slow=36						
	comp=Z,2.5nm,0.6s						
BBB	**Bella Bella**	**89.98**	**3**	LR	LR	06 47 04.5	
	comp=Z,350nm,18.4s,baz=354,slow=40						
NWAO	**Narrogin (SRO)**	**90.75**	**133**	LR	LR	06 39 59.7	
	comp=Z,271nm,19.7s,baz=300,slow=35						
WRA	**Warramunga Arr**	**93.33**	**113**	P	**P**	**06 00 11.5**	**+0.5**
	comp=Z,0.9nm,0.9s,baz=318,slow=4.4,SNR=7.0						
	comp=Z,0.9nm,0.9s						
WRA	**Warramunga Arr**	**93.33**	**113**	*i* P	**P**	**06 00 11.3**	**+0.3**
WRA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
NEW	**Newport**	**93.76**	**355**	LR	LR	06 48 14.6	
	comp=Z,589nm,19.2s,baz=4.5,slow=39						
RCBR	**Riachuelo**	**95.08**	**267**	LR	LR	06 45 27.4	
	comp=Z,95nm,20.4s,baz=30,slow=37						
ASAR	**Alice Springs**	**95.37**	**116**	P	**P**	**06 00 21.1**	**+0.9**
	comp=Z,0.7nm,0.9s,baz=305,slow=4.9,SNR=6.2						
ASAR				LR	LR	06 47 37.0	
	comp=Z,155nm,19.2s,baz=295,slow=38						
	comp=Z,0.7nm,0.9s						
PMG	**Port Moresby**	**96.61**	**97**	LR	LR	06 49 57.9	
	comp=Z,106nm,18.5s,baz=300,slow=39						
PDAR	**Pinedale Array**	**98.42**	**349**	LR	LR	06 48 55.3	
	comp=Z,530nm,20.4s,baz=358,slow=38						
CNB	**Canberra Magne**	**113.04**	**117**	P	**Pdif**	**06 01 38.9**	**0.0**
TROLL	**Troll, Antarti**	**116.02**	**196**	PKPdf	**PKiKP**	**06 05 37.8**	**+0.1**
	comp=Z,96nm,0.8s						
VNA3	**Neumayer Olymp**	**118.48**	**200**	PKPdf	**PKiKP**	**06 05 42.0**	**-0.3**
	comp=Z,4.4nm,0.7s						
CPUP	**Villa Florida**	**123.50**	**261**	PKP	**PKiKP**	**06 05 53.6**	**+0.1**
	comp=Z,0.6nm,0.7s,baz=79,slow=5.2,SNR=3.1						
LPAZ	**La Paz**	**126.63**	**278**	PKP	**PKiKP**	**06 06 00.2**	**-0.6**
	comp=Z,0.6nm,0.8s,baz=284,slow=4.2,SNR=1.8						
QSPA	**South Pole Qui**	**127.95**	**180**	PKP	**PKiKP**	**06 06 00.7**	**-0.4**
	comp=Z,2.8nm,0.9s,baz=307,slow=1.9,SNR=13						
PPT2	**Papeete2**	**149.65**	**55**	*e*LR	LR	06 56 09.5	
	comp=Z,347nm,24.5s						
PPT2				*e*LR	LR	06 56 10.6	
	comp=Z,418nm,23.8s						

DJA ***26*** *05:58:45.8±0.4, 8°S±4°×11°9E±°, h262^{km}±6^{km}, M3.9/15, mb3.9/4, MLv3.9/15*

IDC ***26*** *05:58:49.7±4.1, 7°.62S×119°.58E, h327^{km}±50^{km}, mb3.3/3, mbtmp3.9/5, Error ellipse: s-maj=107.0km s-min=16.3km az=49.0*

ISC 26 05:58:45.5±0.9, **7°.73S**±0°.08×**119°.42E**±0°.07, **h300**^{km}**, n18,** σ**2**^{s}**84**/23, **mb3.8**/3, **Flores Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LBFI	**Labuhan Bajo,**	**0.88**	**148**	P	**Pn**	**05 59 22.0**	**-3.3**
DBNI	**Kabupaten Domp**	**1.34**	**235**	P	**Pn**	**05 59 24.6**	**-3.1**
DBNI				S	**S**	**05 59 55.8**	**-5.4**
DBNI				AML	AML		
WSI	**Waingapu**	**2.11**	**156**	P	**Pn**	**05 59 29.9**	**-3.2**
WSI				AML	AML		
EDFI	**Ende, Flores**	**2.46**	**114**	P	**Pn**	**05 59 33.9**	**-2.4**
EDFI				AML	AML		
BKSI	**Bulukumba**	**2.49**	**16**	P	**Pn**	**05 59 33.5**	**-3.0**
TWSI	**Taliwang, Sumb**	**2.71**	**248**	P	**Pn**	**05 59 36.1**	**-2.3**
TWSI				AML	AML		
BASI	**Baing, Sumba**	**2.72**	**155**	P	**Pn**	**05 59 36.3**	**-2.2**
BASI				S	**S**	**06 00 15.5**	**-5.4**
BASI				AML	AML		
KHKI	**Kahang-Kahang**	**3.83**	**260**	P	**Pn**	**05 59 48.9**	**-0.9**
KHKI				S	**S**	**06 00 37.4**	**-4.0**
KHKI				AML	AML		
BBSI	**Bau Bau**	**3.84**	**55**	P	**Pn**	**05 59 48.0**	**-2.0**
BBSI				AML	AML		
IGBI	**Denpasar**	**4.37**	**255**	P	**Pn**	**05 59 54.7**	**-1.1**
IGBI				AML	AML		
JAGI	**Jajag, Banyuwa**	**5.27**	**262**	P	**Pn**	**06 00 06.2**	**0.0**
	0.2nm20nm,1.1s						
JAGI				AML	AML		
SNJI	**Sawahan-Nganju**	**7.59**	**269**	P	**Pn**	**06 00 34.6**	**+0.3**
	24nm,1.6s						
WOJI	**Wonogiri, Jawa**	**8.42**	**269**	P	**Pn**	**06 00 44.3**	**0.0**
	58nm,1.8s						
FITZ	**Fitzroy Crossi**	**11.95**	**150**	P	**P**	**06 01 32.0**	**+3.1**
	2.8nm,0.7s,baz=336,slow=10,SNR=11						
FITZ				S	**S**	**06 03 41.3**	**+0.8**
	3.1nm,0.5s,baz=224,slow=16,SNR=7.6						
WRA	**Warramunga Arr**	**18.88**	**132**	P	**P**	**06 02 46.1**	**+1.5**
	0.8nm,0.5s,baz=303,slow=12,SNR=16						
WRA				S	**S**	**06 06 03.8**	**+0.7**
	0.3nm,0.6s,baz=297,slow=20,SNR=4.7						
ASAR	**Alice Springs**	**21.07**	**140**	P	**P**	**06 03 09.4**	**+2.3**
	1.6nm,0.3s,baz=317,slow=8.8,SNR=40						
	1.6nm,0.3s						
STKA	**Stephens Creek**	**31.68**	**142**	P	**P**	**06 04 44.1**	**+2.5**
	1.0nm,0.3s,baz=297,slow=7.0,SNR=5.1						
	1.0nm,0.3s						
MKAR	**Makanchi Array**	**63.53**	**332**	P	**P**	**06 08 45.4**	**+1.0**
	0.8nm,0.7s,baz=146,slow=8.8,SNR=4.2						
	0.8nm,0.7s						

ISK ***26*** *06:17:51.8, 37°.05N×27°.95E, h10^{km}, ML3.6/22*

THE ***26*** *06:17:52.5, 37°N±2°×2°8E±°, h5^{km}±2^{km}, M3.1/9, MLh3.1/9*

AFAD ***26*** *06:17:52.0, 37°.05N×27°.94E, h6^{km}±3^{km}, MW3.6*

GII ***26*** *06:17:56.6±0.0, 36°.865N±0°.001×28°.393E±0°.001, h0^{km}, Mws4.0, confirmed*

ISC 26 06:17:52.5±0.8, **37°.04N**±0°.02×**27°.96E**±0°.02, **h15**^{km}±6^{km}, **n92,** σ**1**^{s}**64**/155, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YER	**Yerkesik**	**0.28**	**70**	P	**Pg**	**06 17 58.2**	**-0.3**
YER				S	**Sg**	**06 18 01.8**	**-0.8**
YER				AML	AML		
YER	**Yerkesik**	**0.28**	**70**	Pg	**Pg**	**06 17 58.1**	**-0.4**
YER				Sg	**Sg**	**06 18 01.9**	**-0.7**
YER				AML	AML		
MLSB	**Milas**	**0.29**	**331**	Pg	**Pg**	**06 17 58.0**	**-0.8**
MLSB				Sg	**Sg**	**06 18 02.5**	**-0.6**
MLSB				AML	AML		
TURN	**Turunc**	**0.35**	**138**	Pg	**Pg**	**06 17 59.3**	**-0.4**
TURN				Sg	**Sg**	**06 18 04.9**	**+0.3**
TURN				AML	AML		
TURN	**Turunc**	**0.35**	**138**	P	**Pg**	**06 17 59.2**	**-0.5**
TURN				S	**Sg**	**06 18 04.6**	**0.0**
TURN				IAML		06 18 07.0	
	comp=E,3µm,0.3s						
TURN				IAML		06 18 08.0	
	comp=N,5µm,0.3s						
MULA	**Mugla, Merkez-**	**0.36**	**53**	P	**Pg**	**06 17 59.7**	**-0.3**
MULA				S	**Sg**	**06 18 04.3**	**-0.9**
MULA				IAML		06 18 05.0	
	comp=E,7µm,0.2s						
MULA				IAML		06 18 05.0	
	comp=N,4µm,0.2s						
DATC	**Datca-Mugla**	**0.36**	**220**	Pg	**Pg**	**06 17 59.9**	**-0.1**
DATC				AML	AML		
BDRM	**Kayabasi**	**0.41**	**274**	P	**Pg**	**06 18 00.3**	**-0.5**
BDRM				S	**Sg**	**06 18 06.9**	**+0.5**
BDRM				IAML		06 18 07.0	
	comp=N,2µm,0.3s						
BDRM				IAML		06 18 07.0	
	comp=E,1µm,0.4s						
BODA	**Bodrum-Mula**	**0.42**	**270**	Pg	**Pg**	**06 18 00.5**	**-0.5**
DAT	**Datca**	**0.43**	**225**	P	**Pg**	**06 18 00.9**	**-0.4**
DAT				S	**Sg**	**06 18 06.8**	**-0.4**
DAT				AML	AML		
DAT	**Datca**	**0.43**	**225**	Pg	**Pg**	**06 18 00.8**	**-0.4**
DAT				AML	AML		
DAT	**Datca**	**0.43**	**225**	P	**Pg**	**06 18 00.9**	**-0.4**
DAT				S	**Sg**	**06 18 07.4**	**+0.2**
DAT				IAML		06 18 08.0	
	comp=E,2µm,0.4s						
BODT	**Bodrum**	**0.52**	**273**	P	**Pg**	**06 18 02.2**	**-0.6**
BODT				S	**Sg**	**06 18 09.9**	**+0.1**
BODT				AML	AML		
BODT	**Bodrum**	**0.52**	**273**	Pg	**Pg**	**06 18 02.3**	**-0.5**
BODT				AML	AML		
YAZI	**Mula-Dat§a-**	**0.54**	**229**	P	**Pg**	**06 18 03.0**	**-0.2**
YAZI				S	**Sg**	**06 18 10.2**	**-0.1**
YAZI				IAML		06 18 14.0	
	comp=N,655nm,0.4s						
YAZI				IAML		06 18 14.0	
	comp=E,1µm,0.5s						
YKAV	**Yalikavak-Bodr**	**0.55**	**279**	Pg	**Pg**	**06 18 02.7**	**-0.6**
DALY	**Dalyan (Mula)**	**0.60**	**111**	Pg	**Pg**	**06 18 04.0**	**-0.3**
DALY				AML	AML		
DALY	**Dalyan (Mula)**	**0.60**	**111**	P	**Pg**	**06 18 04.7**	**+0.4**
DALY				S	**Sb**	**06 18 13.5**	**+0.5**
DALY				IAML		06 18 15.0	
	comp=N,3µm,0.7s						
DALY				IAML		06 18 18.0	
	comp=E,2µm,0.4s						
DIDI	**Didim-Aydin**	**0.66**	**301**	Pg	**Pg**	**06 18 04.9**	**-0.6**
DIDI				AML	AML		
DDIM	**Aydin, Didim**	**0.71**	**307**	P	**Pg**	**06 18 06.0**	**-0.3**
DDIM				S	**Sg**	**06 18 15.5**	**-0.2**
DDIM				IAML		06 18 21.0	
	comp=E,1µm,0.9s						
DDIM				IAML		06 18 28.0	
	comp=N,1µm,0.7s						
ESEN	**Aydn-Nazilli**	**0.82**	**22**	P	**Pg**	**06 18 07.5**	**-1.0**
ESEN				S	**Sg**	**06 18 16.7**	**-2.6**
ESEN				IAML		06 18 23.0	
	comp=E,1µm,0.8s						
ESEN				IAML		06 18 24.0	
	comp=N,988nm,0.5s						
ARG	**Arkhangelos**	**0.83**	**170**	P	**Pg**	**06 18 07.9**	**-0.7**
ARG				S	**Sb**	**06 18 20.9**	**+1.2**
ARG				AML	AML		
ARG	**Arkhangelos**	**0.83**	**170**	Pg	**Pg**	**06 18 08.3**	**-0.4**
ARG				AML	AML		
SABU	**Mula-Dalaman**	**0.84**	**104**	P	**Pg**	**06 18 08.8**	**-0.1**
SABU				S	**Sg**	**06 18 19.1**	**-0.8**
SABU				IAML		06 18 24.0	
	comp=N,706nm,0.4s						
SABU				IAML		06 18 27.0	
	comp=E,412nm,0.5s						
TAVA	**DENIZLI_Tavas**	**0.88**	**61**	P	**Pg**	**06 18 08.9**	**-0.6**
TAVA				S	**Sg**	**06 18 20.8**	**-0.3**
TAVA				IAML		06 18 24.0	
	comp=E,928nm,0.3s						
TAVA				IAML		06 18 25.0	
	comp=N,474nm,0.2s						
GCAM	**G?zelcaml?**	**0.88**	**319**	Pg	**Pg**	**06 18 08.8**	**-0.7**
GCAM				AML	AML		
GCAM	**G?zelcaml?**	**0.88**	**319**	P	**Pg**	**06 18 09.0**	**-0.5**
GCAM				S	**Sg**	**06 18 19.8**	**-1.3**
GCAM				IAML		06 18 23.0	
	comp=E,935nm,0.4s						
GCAM				IAML		06 18 24.0	
	comp=N,1µm,1.1s						
AYDB	**Zeytinkoy-Aydi**	**0.91**	**357**	Pg	**Pg**	**06 18 09.5**	**-0.7**
AYDB				AML	AML		
NAZL	**Nazilli-Aydin**	**0.96**	**16**	Pg	**Pg**	**06 18 10.5**	**-0.7**
NAZL				AML	AML		
KUSD	**Kusadasi-Aydin**	**0.98**	**327**	Pg	**Pg**	**06 18 10.9**	**-0.6**
KUSD				AML	AML		
FETY	**Fethiye**	**0.99**	**114**	Pg	**Pg**	**06 18 11.4**	**-0.3**
FETY				AML	AML		
FETY	**Fethiye**	**0.99**	**114**	P	**Pn**	**06 18 13.5**	**+1.6**
FETY				S	**Sn**	**06 18 27.0**	**+1.4**
DNIZ	**Denizli-Tavas-**	**1.04**	**55**	P	**Pg**	**06 18 12.1**	**-0.7**
DNIZ				S	**Sg**	**06 18 25.1**	**-1.3**
DNIZ				IAML		06 18 30.0	
	comp=N,2µm,0.4s						
DNIZ				IAML		06 18 33.0	
	comp=E,3µm,0.4s						
CAEL	**Denizli, Camel**	**1.09**	**85**	P	**Pn**	**06 18 14.8**	**+1.4**
CAEL				S	**Sn**	**06 18 31.5**	**+3.1**
CAEL				IAML		06 18 42.0	
	comp=E,1µm,0.6s						
CAEL				IAML		06 18 47.0	
	comp=N,911nm,0.9s						
IZMR	**zmir-demi**	**1.10**	**360**	P	**Pg**	**06 18 12.7**	**-1.0**
IZMR				S	**Sg**	**06 18 27.7**	**-0.4**
IZMR				IAML		06 18 29.0	
	comp=N,499nm,0.6s						
IZMR				IAML		06 18 33.0	
	comp=E,402nm,0.4s						
APMY	**Acipayam-Deniz**	**1.16**	**68**	Pn	**Pg**	**06 18 14.3**	**-0.6**
APMY				AML	AML		
IZZE	**Mula-Seydike**	**1.18**	**120**	P	**Pn**	**06 18 16.4**	**+1.8**
IZZE				S	**Sn**	**06 18 33.2**	**+2.8**
IZZE				IAML		06 18 38.0	
	comp=E,1µm,0.3s						
IZZE				IAML		06 18 39.0	
	comp=N,3µm,0.4s						
SULTU	**Buldan**	**1.20**	**32**	P	**Pg**	**06 18 14.9**	**-0.9**
SULTU				S	**Sb**	**06 18 31.9**	**+1.4**
SULTU				IAML		06 18 36.0	
	comp=N,595nm,0.4s						
SULTU				IAML		06 18 38.0	
	comp=E,978nm,0.5s						
KIRA	**zmir-Kiraz**	**1.21**	**17**	P	**Pg**	**06 18 14.8**	**-1.0**
KIRA				S	**Sg**	**06 18 30.7**	**-1.0**
KIRA				IAML		06 18 36.0	
	comp=N,426nm,0.3s						
KIRA				IAML		06 18 38.0	
	comp=E,435nm,0.6s						
ODEM	**Odemis-Izmir**	**1.24**	**4**	Pn	**Pg**	**06 18 15.5**	**-1.0**
ODEM				AML	AML		
GOLH	**Golhisar**	**1.30**	**81**	P	**Pg**	**06 18 17.9**	**+0.4**
GOLH				S	**Sn**	**06 18 36.8**	**+3.5**
GOLH				IAML		06 18 40.0	
	comp=N,720nm,0.4s						
GOLH				IAML		06 18 40.0	
	comp=E,928nm,0.7s						
KNIK	**Mula-Seydike**	**1.31**	**98**	P	**Pn**	**06 18 17.0**	**+0.7**
KNIK				S	**Sn**	**06 18 38.2**	**+4.6**
KNIK				IAML		06 18 40.0	
	comp=E,335nm,0.3s						
KNIK				IAML		06 18 40.0	
	comp=N,304nm,0.3s						
DGB	**zmir**	**1.32**	**320**	P	**Pn**	**06 18 16.2**	**-0.2**
DGB				S	**Sb**	**06 18 31.5**	**-2.3**
DGB				IAML		06 18 39.0	
	comp=E,167nm,0.8s						
DGB				IAML		06 18 46.0	
	comp=N,122nm,0.7s						
INCE	**Denizli-Bozkur**	**1.45**	**62**	P	**Pb**	**06 18 19.7**	**+0.4**
INCE				S	**Sg**	**06 18 40.3**	**+0.9**
INCE				IAML		06 18 46.0	
	comp=E,493nm,0.6s						
INCE				IAML		06 18 47.0	
	comp=N,429nm,0.5s						
HARTU	**Esme**	**1.46**	**27**	P	**Pn**	**06 18 19.0**	**+0.5**
HARTU				S	**Sn**	**06 18 36.3**	**-1.1**
HARTU				IAML		06 18 44.0	
	comp=E,243nm,1.3s						
MANT	**Manisa**	**1.53**	**18**	P	**Pn**	**06 18 19.8**	**+0.4**
MANT				S	**Sn**	**06 18 39.9**	**+0.7**
MANT				IAML		06 18 45.0	
	comp=N,173nm,0.3s						
MANT				IAML		06 18 47.0	
	comp=E,226nm,0.5s						
BLCB	**Balcova**	**1.53**	**332**	Pn	**Pn**	**06 18 19.7**	**+0.4**
KULA	**Kula-Manisa**	**1.58**	**21**	Pn	**Pn**	**06 18 20.5**	**+0.5**
KARP	**Karpathos**	**1.62**	**204**	P	**Pn**	**06 18 20.8**	**+0.2**
KARP				S	**Sn**	**06 18 42.1**	**+0.9**
KARP				AML	AML		
KARP	**Karpathos**	**1.62**	**204**	Pn	**Pn**	**06 18 20.9**	**+0.3**
KARP				AML	AML		
KTTT	**Salihli**	**1.65**	**4**	P	**Pn**	**06 18 20.7**	**-0.3**
KTTT				S	**Sn**	**06 18 39.7**	**-2.3**
KTTT				IAML		06 18 59.0	
	comp=N,103nm,0.7s						
ZEYE	**Izmir, Urla-Ze**	**1.66**	**317**	P	**Pn**	**06 18 22.4**	**+1.3**
ZEYE				S	**Sb**	**06 18 44.8**	**+1.2**
ZEYE				IAML		06 18 52.0	
	comp=N,249nm,1.0s						
ZEYE				IAML		06 18 55.0	
	comp=E,144nm,1.1s						
GOMA	**Golmarmara-Man**	**1.67**	**359**	Pn	**Pn**	**06 18 21.6**	**+0.4**
CAMT	**Merkez**	**1.78**	**344**	P	**Pb**	**06 18 25.8**	**+0.9**
CAMT				S	**Sb**	**06 18 48.0**	**+1.0**
CAMT				IAML		06 19 00.0	
	comp=N,431nm,0.6s						
PASA	**Karahalli, USA**	**1.79**	**42**	P	**Pn**	**06 18 23.6**	**+0.7**
PASA				S	**Sn**	**06 18 44.6**	**-0.8**
PASA				IAML		06 19 00.0	
	comp=N,111nm,0.7s						
PASA				IAML		06 19 02.0	
	comp=E,140nm,0.5s						
BRDR	**BURDUR-Merkez**	**1.80**	**68**	P	**Pn**	**06 18 24.8**	**+1.7**
BRDR				S	**Sb**	**06 18 48.2**	**+0.5**
BRDR				IAML		06 18 58.0	
	comp=N,280nm,0.8s						
BRDR				IAML		06 19 00.0	
	comp=E,190nm,0.5s						
BAGT	**Foa**	**1.84**	**332**	P	**Pg**	**06 18 27.4**	**-0.4**
BAGT				S	**Sg**	**06 18 53.4**	**+1.8**
BAGT				IAML		06 18 58.0	
	comp=N,249nm,0.8s						
BAGT				IAML		06 18 59.0	
	comp=E,283nm,0.9s						
USAK	**Uak-Merkez**	**1.87**	**26**	P	**Pn**	**06 18 24.4**	**+0.3**
USAK				S	**Sn**	**06 18 44.8**	**-2.6**
USAK				IAML		06 18 59.0	
	comp=E,80nm,0.5s						
GORD	**Gordes-Manisa**	**1.88**	**5**	Pn	**Pn**	**06 18 24.4**	**+0.3**
GORD				AML	AML		
BASM	**Basmaki-Afyon**	**1.88**	**62**	Pn	**Pn**	**06 18 24.7**	**+0.5**
BASM				AML	AML		
KORT	**Korkueli**	**1.92**	**90**	Pn	**Pn**	**06 18 25.5**	**+0.8**
KORT				AML	AML		
KORT	**Korkueli**	**1.92**	**90**	P	**Pb**	**06 18 28.4**	**+1.2**
KORT				S	**Sb**	**06 18 53.0**	**+2.0**
KORT				IAML		06 18 58.0	
	comp=N,166nm,0.5s						
KORT				IAML		06 18 59.0	
	comp=E,204nm,0.6s						
ZEDA	**zmir-Bergama**	**2.05**	**340**	P	**Pb**	**06 18 30.3**	**+0.9**
ZEDA				S	**Sb**	**06 18 56.6**	**+1.9**
ZEDA				IAML		06 19 04.0	
	comp=N,100nm,1.6s						
ZEDA				IAML		06 19 08.0	
	comp=E,104nm,0.7s						
AKUM	**Antalya-Kumluc**	**2.05**	**110**	P	**Pb**	**06 18 30.6**	**+1.2**
AKUM				S	**Sg**	**06 18 58.2**	**-0.2**
AKUM				IAML		06 19 04.0	
	comp=E,211nm,0.4s						
AKUM				IAML		06 19 04.0	
	comp=N,161nm,0.4s						
BUCA	**Burdur, Bucak-**	**2.10**	**81**	P	**Pb**	**06 18 31.2**	**+0.9**
BUCA				S	**Sb**	**06 18 58.3**	**+2.1**
BUCA				IAML		06 19 08.0	
	comp=N,92nm,0.5s						
BUCA				IAML		06 19 14.0	
	comp=E,129nm,0.8s						
SOMA	**Soma-Manisa**	**2.14**	**351**	Pn	**Pn**	**06 18 28.4**	**+0.7**
SOMA				AML	AML		
ISP	**Isparta**	**2.19**	**68**	Pn	**Pn**	**06 18 29.2**	**+0.8**
SIMA	**Simav-Kutahya**	**2.20**	**21**	Pn	**Pn**	**06 18 29.2**	**+0.6**
SIMA				AML	AML		
NPS	**Neapolis**	**2.59**	**228**	P	**Pn**	**06 18 35.0**	**+1.1**
NPS				AML	AML		
IDI	**Anoyia**	**3.03**	**236**	P	**Pn**	**06 18 41.4**	**+1.3**
IDI				AML	AML		
DION	**Dionisos Attik**	**3.36**	**289**	P	**Pn**	**06 18 45.3**	**+0.8**
DION				AML	AML		
LIA	**Limnos Island**	**3.59**	**324**	P	**Pn**	**06 18 48.3**	**+0.7**
HNTI	**Hanita**	**7.11**	**122**	P	**Pn**	**06 19 35.5**	**-0.5**
HNTI				S	**Sn**	**06 20 52.8**	**-3.7**
ZRT	**Zar'it**	**7.18**	**121**	P	**Pn**	**06 19 36.5**	**-0.5**
ZRT				S	**Sn**	**06 20 54.6**	**-3.8**
OFRI	**`Ofer**	**7.27**	**125**	P	**Pn**	**06 19 37.5**	**-0.7**
OFRI				S	**Sn**	**06 20 56.6**	**-3.8**
MMA0B	**Mount Meron ar**	**7.31**	**121**	P	**Pn**	**06 19 38.5**	**-0.3**
MMA0B				S	**Sn**	**06 20 58.1**	**-3.4**
KIRY	**Kiryat Shemona**	**7.31**	**119**	P	**Pn**	**06 19 38.3**	**-0.5**
KIRY				S	**Sn**	**06 20 57.6**	**-3.9**
GEM	**Giv'at Ha'Em**	**7.38**	**119**	P	**Pn**	**06 19 39.3**	**-0.4**
GEM				S	**Sn**	**06 20 59.3**	**-3.8**
ZEFT	**Zefat**	**7.40**	**121**	P	**Pn**	**06 19 40.0**	**0.0**
ZEFT				S	**Sn**	**06 21 00.1**	**-3.6**
NATI	**Neve Ativ**	**7.40**	**118**	P	**Pn**	**06 19 39.8**	**-0.2**
NATI				S	**Sn**	**06 21 00.3**	**-3.3**
KNHM	**Kefar Nahum**	**7.50**	**121**	P	**Pn**	**06 19 41.0**	**-0.4**
KNHM				S	**Sn**	**06 21 02.3**	**-3.9**
TVER	**Teveria**	**7.54**	**122**	P	**Pn**	**06 19 41.5**	**-0.3**
TVER				S	**Sn**	**06 21 03.3**	**-3.6**
KSHT	**Keshet**	**7.61**	**120**	P	**Pn**	**06 19 42.3**	**-0.6**
KSHT				S	**Sn**	**06 21 04.8**	**-4.0**
MMLI	**Mount Malkishu**	**7.67**	**125**	P	**Pn**	**06 19 43.5**	**-0.2**
MMLI				S	**Sn**	**06 21 06.6**	**-3.7**
KZIT	**Kziot**	**8.12**	**137**	P	**Pn**	**06 19 49.8**	**-0.1**

KZIT				S	**Sn**	**06 21 18.6**	**-2.9**
MZS	**Mizpe Shalem**	**8.22**	**129**	P	**Pn**	**06 19 51.3**	**0.0**
MZS				S	**Sn**	**06 21 19.9**	**-4.1**
MSBI	**Mazada**	**8.38**	**131**	P	**Pn**	**06 19 52.8**	**-0.6**
MSBI				S	**Sn**	**06 21 23.9**	**-3.8**
RMNI	**Mount Ramon**	**8.56**	**137**	P	**Pn**	**06 19 55.8**	**-0.2**
RMNI				S	**Sn**	**06 21 29.3**	**-3.1**
ZFRI	**Zfri**	**8.83**	**135**	P	**Pn**	**06 19 59.8**	**+0.3**
ZFRI				S	**Sn**	**06 21 34.9**	**-3.8**
HRFI	**Mount Harif**	**9.14**	**138**	P	**Pn**	**06 20 03.8**	**-0.1**
HRFI				S	**Sn**	**06 21 43.9**	**-2.7**
YTVT	**Yotvata**	**9.27**	**138**	P	**Pn**	**06 20 05.3**	**-0.3**
YTVT				S	**Sn**	**06 21 46.9**	**-2.7**
EIL	**Elat**	**9.39**	**139**	P	**Pn**	**06 20 07.5**	**+0.2**
EIL				S	**Sn**	**06 21 49.4**	**-3.2**

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*IDC **26** 06:23:44.1±0.7, 23°.97N×123°.14E, h0^{km}, mb4.2/15, mbtmp4.2/18, ML3.4/3, MS4.0/14, Error ellipse: s-maj=16.0km s-min=15.3km az=178.0*

*BJI **26** 06:23:44.7, 23°.79N×123°.42E, h21^{km}, mB4.8/5, mb4.3/31, ML4.1/3, Ms4.1/9, Ms7 3.9/8*

*NEIC **26** 06:23:48.1±2.0, 23°.88N±0°.07×123°.31E±0°.06, h27^{km}±4^{km}, mb4.6/21, Error ellipse: s-maj=9.5km s-min=7.6km az=167.0*

*NIED **26** 06:23:49.3, 23°.91N×123°.26E, h41^{km}, MW4.5, Moment Tensor Solution. s2 Moment tensor: Scale 10^{15}Nm; M$_{rr}$2.23; M$_{\theta\theta}$3.71; M$_{\phi\phi}$-5.93; M$_{r\theta}$2.91; M$_{\theta\phi}$0.21; M$_{\phi r}$3.04; Fault plane solution: M$_0$6.66000×10^{15} NP1: φ$_s$139.00000°, δ46.00000°, λ18.00000°. NP2:φ$_s$36.00000°, δ77.00000°, λ134.00000°.*

*JMA **26** 06:23:49.3±0.2, 24°N±1°×123°.3E±0°.5, h41^{km}±2^{km}, MD4.8/14, MV4.3/14, NEAR ISHIGAKIJIMA ISLAND*

JMA Felt I J1 at NEAR ISHIGAKIJIMA ISLAND.

ISC 26 06:23:48.9±1.2**, 23°.93N**±0°.05×**123°.29E**±0°.03**, h32**^{km}±9^{km}**, n130, σ1^{s}.48**/125**, mb4.4**/30**, MS4.0**/14**, 2C-1D, Southwestern Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HATJ	**Hateruma jima**	**0.48**	**74**	P	**Pn**	**06 24 00.1**	**+0.5**
HATJ				A	A	06 24 00.1	
	comp=N,61nm,3.5s,comp=E,122nm,3.6s						
HATJ				*e*S	**Sn**	**06 24 08.1**	**+1.1**
IRIF	**Iriomote-Funau**	**0.57**	**44**	P	**Pn**	**06 24 01.5**	**+0.7**
IRIF				A	A	06 24 01.5	
	comp=N,89nm,1.4s,comp=E,83nm,2.1s						
IRIF				S	**Sn**	**06 24 09.7**	**+0.6**
YOJ	**Yonaguni jima**	**0.59**	**334**	P	**Pn**	**06 24 00.8**	**-0.3**
YOJ	**Yonaguni jima**	**0.59**	**334**	S	**Sn**	**06 24 10.1**	**+0.5**
YOJ	**Yonaguni jima**	**0.59**	**334**		**Pn**	**06 24 01.0**	**0.0**
YOJ	**Yonaguni jima**	**0.59**	**334**	P	**Pn**	**06 24 01.3**	**+0.3**
YOJ				A	A	06 24 01.3	
	comp=N,92nm,2.2s,comp=E,89nm,1.0s						
YOJ				S	**Sn**	**06 24 09.7**	**+0.1**
JYNG	**Yonagunijimaku**	**0.61**	**329**	P	**Pn**	**06 24 01.5**	**+0.2**
JYNG				A	A	06 24 01.5	
	comp=N,65nm,4.1s,comp=E,101nm,1.1s						
JYNG				S	**Sn**	**06 24 10.2**	**+0.2**
JKRS	**Kuro-shima**	**0.72**	**64**	P	**Pn**	**06 24 04.0**	**+1.2**
JKRS				A	A	06 24 04.0	
	comp=N,107nm,2.0s,comp=E,59nm,1.6s						
JIJ	**Ishigaki jima**	**0.89**	**60**	P	**Pb**	**06 24 05.8**	**0.0**
JIJ				A	A	06 24 05.8	
	comp=N,79nm,1.2s,comp=E,21nm,1.1s						
JISG	**Ishigakijimahi**	**1.14**	**54**	P	**Pb**	**06 24 09.1**	**-0.9**
JISG				A	A	06 24 09.1	
	comp=N,73nm,0.9s,comp=E,47nm,1.0s						
JISG				S	**Sb**	**06 24 23.8**	**-0.8**
JTJ	**Tarama**	**1.47**	**61**	*e*P	**Pb**	**06 24 14.4**	**-1.2**
JTJ				A	A	06 24 14.4	
	comp=N,26nm,2.3s,comp=E,22nm,1.3s						
JTJ				S	**Sb**	**06 24 33.0**	**-1.0**
NACB	**Ninganchiao**	**1.57**	**279**	P	**Pn**	**06 24 14.5**	**0.0**
NACB	**Ninganchiao**	**1.57**	**279**	S	**Sn**	**06 24 34.2**	**+0.4**
NACB	**Ninganchiao**	**1.57**	**279**		**Pn**	**06 24 14.0**	**-0.6**
YHNB	**Yeheng**	**1.90**	**293**	P	**Pn**	**06 24 20.4**	**+1.3**
YHNB	**Yeheng**	**1.90**	**293**	S	**Sn**	**06 24 43.3**	**+1.3**
YHNB	**Yeheng**	**1.90**	**293**		**Pn**	**06 24 19.9**	**+0.8**
YULB	**Yu-li**	**1.91**	**254**	P	**Pn**	**06 24 18.9**	**-0.2**
YULB	**Yu-li**	**1.91**	**254**		**Pn**	**06 24 18.3**	**-0.8**
TATO	**Taipei**	**1.95**	**303**	P	**Pn**	**06 24 20.9**	**+1.2**
TATO	**Taipei**	**1.95**	**303**	S	**Sb**	**06 24 46.4**	**-1.3**
TATO	**Taipei**	**1.95**	**303**		**Pn**	**06 24 20.6**	**+0.9**
JIRJ	**Irabujima**	**1.95**	**62**	P	**Pn**	**06 24 20.8**	**+1.0**
JIRJ				A	A	06 24 20.8	
	comp=N,15nm,3.4s,comp=E,15nm,4.0s						
JMJ2	**Miyako jima3**	**2.02**	**66**	P	**Pn**	**06 24 22.1**	**+1.3**
JMJ2				A	A	06 24 22.1	
	comp=N,27nm,3.6s,comp=E,20nm,2.6s						
JMJ	**Miyako jima 2**	**2.03**	**64**	P	**Pb**	**06 24 22.6**	**-2.5**
JIKM	**Ikemajima**	**2.04**	**60**	A	A	06 24 22.7	
	comp=N,15nm,2.0s,comp=E,17nm,2.6s						
JOGS	**Gusukube**	**2.10**	**66**	P	**Pn**	**06 24 23.2**	**+1.4**
JOGS				A	A	06 24 23.2	
	comp=N,22nm,3.1s,comp=E,22nm,4.1s						
SSLB	**Suanglung**	**2.15**	**267**	P	**Pn**	**06 24 22.5**	**0.0**
SSLB	**Suanglung**	**2.15**	**267**	S	**Sn**	**06 24 49.6**	**+1.6**
SSLB	**Suanglung**	**2.15**	**267**		**Pn**	**06 24 22.4**	**-0.1**
TWGBT	**Beinan**	**2.31**	**242**	P	**Pn**	**06 24 24.3**	**-0.4**
TWG	**Pinlang**	**2.32**	**242**		**Pn**	**06 24 24.1**	**-0.7**
TPUB	**Ta-pu**	**2.52**	**256**	P	**Pn**	**06 24 28.1**	**+0.5**
TPUB	**Ta-pu**	**2.52**	**256**		**Pn**	**06 24 28.2**	**+0.6**
QZH2	**Quanzhou**	**4.40**	**284**	Pn	**Pn**	**06 24 53.0**	**-0.4**
QZH2				Sn	**Sn**	**06 25 40.5**	**-3.0**
QZH2				AML	AML		
	comp=E,290nm,0.7s						
QZH2				AML	AML		
	comp=E,280nm,1.1s						
QZH2				L	L		
	comp=E,2μm,4.9s						
QZH2				L	L		
	comp=E,2μm,17.5s						
KNMB	**Chin-men Tao**	**4.51**	**278**	Pn	**Pn**	**06 24 54.9**	**0.0**
JOW	**Kunigami**	**5.35**	**56**	Pn	**Pn**	**06 25 05.9**	**-0.6**
	comp=E,3.7nm,0.3s,baz=132,slow=22,SNR=21						
JOW				Sn	**Sn**	**06 26 06.9**	**-0.2**
	comp=E,2.2nm,0.3s,baz=104,slow=19,SNR=1.3						
	comp=E,13nm,0.2s						
JOW				AML	AML		
JOW	**Kunigami**	**5.35**	**56**		**Pn**	**06 25 05.5**	**-1.1**
JMZ	**Minamidaito 2**	**7.44**	**74**	Pn	**Pn**	**06 25 34.5**	**-0.8**
NJ2	**Nanjing**	**8.99**	**335**	⇓P	**Pn**	**06 25 57.3**	**+0.8**
NJ2				pmax	pmax		
	comp=E,11nm,0.7s						
KSRS	**Korea Array**	**14.06**	**15**	Pn	**Pn**	**06 27 07.8**	**+2.0**
	comp=E,0.3nm,0.3s,baz=193,slow=13,SNR=6.3						
KSRS				LR	LR	06 33 05.5	
	comp=E,282nm,18.2s,baz=205,slow=40						
	comp=E,2.5nm,0.7s						
KSRS				AML	AML		
LYN	**LuoYang**	**14.18**	**321**	P	**P**	**06 27 16.0**	**+1.5**
LYN				pmax	pmax		
	comp=Z,32nm,0.9s						
DL2	**Dalian**	**15.00**	**355**	P	**P**	**06 27 23.8**	**+0.2**
DL2				S	**S**	**06 30 14.8**	**-5.6**
DL2				pmax	pmax		
	comp=Z,36nm,1.3s						
DL2				pmax	pmax		
	comp=Z,670nm,8.2s						
DL2				L	L		
	comp=Z,530nm,14.1s						
DL2				L	L		
	comp=Z,630nm,16.2s						
HNS	**HongShan**	**15.32**	**333**	⇑P	**P**	**06 27 28.0**	**+0.9**
HNS				pmax	pmax		
	comp=Z,14nm,1.1s						
XAN	**Xi'an**	**16.10**	**312**	P	**P**	**06 27 36.5**	**+0.6**
XAN				pmax	pmax		
	comp=Z,10.0nm,1.4s						
BJI2	**Beijing**	**17.14**	**341**	P	**P**	**06 27 52.8**	**+5.6**
BJI2				pmax	pmax		
	comp=Z,7.0nm,1.4s						
JHJ2	**Mitsune**	**17.15**	**54**	Pn	**Pn**	**06 27 43.6**	**-2.4**
MJAR	**Matsushiro Arr**	**17.98**	**42**	P	**P**	**06 27 57.6**	**+1.0**
	baz=213,slow=11,SNR=1.6						
	comp=Z,0.4nm,0.3s						
CD2	**Chengdu**	**18.67**	**296**	P	**Pn**	**06 28 06.3**	**+1.4**
CD2				pmax	pmax		
	comp=Z,30nm,1.0s						
HHC	**Hu-ho-hao-te**	**19.54**	**333**	*e*P	Pn	06 28 24.0	+8.8
HHC				pmax	pmax		
	comp=Z,12nm,0.5s						
HHC				pmax	pmax		
	comp=Z,74nm,4.4s						
PZH	**PanZhiHua**	**19.67**	**282**	P	**Pn**	**06 28 17.8**	**+0.9**
LZH	**Lanzhou**	**20.71**	**310**	*e*P	Pn	06 28 35.0	+5.9
LZH				sP	sP	06 28 42.5	+4.2
LZH				pmax	pmax		
	comp=Z,30nm,1.5s						
XLT	**XiLinHaoTe**	**20.79**	**345**	*e*P	Pn	06 28 31.0	+1.1
XLT				pP	pP	06 28 35.0	-0.9
XLT				PP	**PnPn**	**06 28 54.3**	**+8.2**
XLT				pmax	pmax		
	comp=Z,16nm,0.8s						
XLT				L	L		
	comp=Z,360nm,16.1s						
XLT				L	L		
	comp=Z,500nm,14.9s						
BNX	**BinXian**	**22.02**	**8**	⇑P	**P**	**06 28 39.0**	**-1.4**
BNX				pmax	pmax		
	comp=Z,13nm,1.1s						
GUMO	**Guam**	**22.84**	**113**	P	**P**	**06 28 46.7**	**-2.8**
CHTO	**Chiang Mai**	**23.23**	**262**	P	**P**	**06 28 55.7**	**+2.3**
CMAR	**Chiang Mai Arr**	**23.33**	**261**	P	**P**	**06 28 55.8**	**+1.4**
	comp=Z,0.9nm,0.3s,baz=60,slow=8.8,SNR=6.0						
CMAR				LR	LR	06 39 14.4	
	comp=Z,125nm,18.2s,baz=90,slow=40						
GTA2	**Gaotai**	**25.22**	**314**	*e*P	**P**	**06 29 11.0**	**-0.9**
GTA2				pmax	pmax		
	comp=Z,5.0nm,0.8s						
HEH	**HeiHe**	**26.48**	**6**	*e*P	**P**	**06 29 22.0**	**-1.0**
SONM	**Songino Array**	**27.39**	**335**	P	**P**	**06 29 30.4**	**-1.0**
	comp=Z,7.5nm,0.9s,baz=144,slow=9.5,SNR=27						
SONM				LR	LR	06 40 23.1	
	comp=Z,217nm,19.1s,baz=126,slow=37						
	comp=Z,7.5nm,0.9s						
SONM	**Songino Array**	**27.39**	**335**		**P**	**06 29 30.3**	**-1.1**
WMQ	**Urumqi**	**35.23**	**313**	*e*P	P	06 30 46.5	+6.1
WMQ				pmax	pmax		
	comp=Z,18nm,0.7s						
MKAR	**Makanchi Array**	**39.87**	**315**	P	**P**	**06 31 18.6**	**-0.9**
	comp=Z,2.4nm,0.9s,baz=104,slow=10,SNR=15						
MKAR				PcP	**PcP**	**06 33 24.7**	**-0.2**
	comp=Z,0.8nm,0.9s,baz=95,slow=4.5,SNR=3.0						
	comp=Z,2.4nm,0.9s						
MKAR	**Makanchi Array**	**39.87**	**315**	P	**P**	**06 31 18.9**	**-0.7**
MAKZ	**Makanchi**	**40.08**	**315**		**P**	**06 31 20.6**	**-0.7**
H11S3	**WAKE ISLAND Hy**	**40.70**	**89**	T	T	07 15 09.8	
	baz=289						
H11S1	**WAKE ISLAND Hy**	**40.70**	**89**	T	T	07 15 09.2	
	baz=289						
H11S2	**WAKE ISLAND Hy**	**40.71**	**89**	T	T	07 15 12.5	
	baz=289						
PDGK	**Podgornoye**	**40.74**	**309**	P	**P**	**06 31 26.2**	**-0.7**
ZAA0	**Zalesovo Array**	**41.52**	**326**	P	**P**	**06 31 31.0**	**-2.0**
ZALV	**Zalesovo Beam**	**41.52**	**326**	P	**P**	**06 31 31.4**	**-1.6**
	comp=Z,2.9nm,0.9s,baz=114,slow=7.2,SNR=10						
ZALV				LR	LR	06 48 39.1	
	comp=Z,146nm,19.1s,baz=106,slow=36						
	comp=Z,2.9nm,0.9s						
ZALV	**Zalesovo Beam**	**41.52**	**326**		**P**	**06 31 30.7**	**-2.2**
NRN	**Naryn**	**42.90**	**306**	P	**P**	**06 31 44.1**	**-0.8**
NRN				IAmb	IAmb	06 31 46.5	
	comp=Z,5.5nm,0.7s						
KSH2	**Kashi**	**42.93**	**302**	P	**P**	**06 31 46.3**	**+1.4**
KSH2				pmax	pmax		
	comp=Z,4.0nm,1.0s						
KURBB	**Kurchatov Arra**	**43.55**	**319**	P	**P**	**06 31 48.5**	**-1.0**
	comp=Z,1.9nm,0.7s,baz=115,slow=8.8,SNR=13						
	comp=Z,1.9nm,0.7s						
AAK	**Ala-Archa**	**44.20**	**307**	LR	LR	06 50 50.4	
	comp=Z,116nm,19.1s,baz=73,slow=37						
WB0	**Warramunga Arr**	**44.76**	**165**	P	**P**	**06 31 59.8**	**+0.3**
WB0				IAmb	IAmb	06 32 01.4	
	comp=Z,8.1nm,1.4s						
WRA	**Warramunga Arr**	**44.91**	**165**	P	**P**	**06 32 01.1**	**+0.4**
	comp=Z,2.5nm,0.9s,baz=348,slow=8.1,SNR=13						
	comp=Z,2.5nm,0.9s						
WRA	**Warramunga Arr**	**44.91**	**165**	P	**P**	**06 32 00.4**	**-0.4**
KKAR	**Karatay Array**	**47.16**	**307**	P	**P**	**06 32 18.5**	**+0.2**
ASAR	**Alice Springs**	**48.42**	**167**	P	**P**	**06 32 29.2**	**+1.0**
	comp=Z,1.4nm,0.8s,baz=352,slow=6.5,SNR=14						
	comp=Z,1.4nm,0.8s						
BVAR	**Borovoye Array**	**49.10**	**320**	P	**P**	**06 32 32.0**	**-1.1**
	comp=Z,1.8nm,0.6s,baz=100,slow=9.3,SNR=6.5						
	comp=Z,1.8nm,0.6s						
NRIK	**Noril'sk**	**50.16**	**344**	LR	LR	06 56 03.3	
	comp=Z,153nm,18.5s,baz=148,slow=39						
AB31	**Akbulak array**	**55.00**	**314**		**P**	**06 33 16.4**	**-0.6**
ABKAR	**Akbulak array**	**55.00**	**314**	P	**P**	**06 33 16.7**	**-0.4**
ARTI	**Arti**	**56.57**	**323**	P	**P**	**06 33 27.5**	**-0.6**
	comp=Z,3.3nm,0.6s,baz=101,slow=5.2,SNR=3.4						
	comp=Z,3.3nm,0.6s						
ARTI	**Arti**	**56.57**	**323**	P	**P**	**06 33 27.0**	**-1.2**
ARTI				IAmb	IAmb	06 33 27.8	
	comp=Z,5.5nm,0.6s						
O15K	**Ungalikthiuk R**	**63.09**	**34**	P	**P**	**06 34 12.7**	**-0.3**
J17K	**VABM Dome**	**63.36**	**29**	P	**P**	**06 34 14.8**	**+0.1**
J19K	**Poorman**	**64.88**	**29**	P	**P**	**06 34 25.5**	**+0.9**
J19K				IAmb	IAmb	06 34 28.0	
	comp=Z,5.8nm,1.1s						
N18K	**Kilae Creek**	**64.98**	**32**	P	**P**	**06 34 24.5**	**-0.8**
H22K	**Ishtalitna Cre**	**66.53**	**27**	P	**P**	**06 34 36.4**	**+1.1**
H22K				IAmb	IAmb	06 34 37.8	
	comp=Z,6.8nm,1.0s						
GNI	**Garni**	**66.53**	**305**	LR	LR	07 06 29.1	
	comp=Z,90nm,18.9s,baz=50,slow=39						
MLY	**Manley**	**66.89**	**27**	P	**P**	**06 34 38.3**	**+0.7**
MLY				IAmb	IAmb	06 34 39.7	
	comp=Z,4.5nm,1.0s						
NEA2	**Nenana**	**67.66**	**28**	P	**P**	**06 34 42.6**	**+0.2**
NEA2				IAmb	IAmb	06 34 44.1	
	comp=Z,8.5nm,1.0s						
F25K	**Christian Rive**	**68.53**	**24**	P	**P**	**06 34 48.9**	**+1.0**
F25K				IAmb	IAmb	06 34 50.5	
	comp=Z,4.4nm,0.8s						
ILAR	**Eielson Array**	**68.56**	**27**	P	**P**	**06 34 47.7**	**-0.4**
	comp=Z,0.4nm,0.9s,baz=262,slow=5.8,SNR=7.4						
	comp=Z,0.4nm,0.9s						
BMAR	**Burnt Mountain**	**68.97**	**24**	P	**P**	**06 34 51.5**	**+0.9**
ARCES	**ARCESS Array B**	**70.49**	**338**	P	**P**	**06 34 60.0**	**0.0**
	comp=Z,6.0nm,1.0s,baz=55,slow=5.0,SNR=2.5						
ARCES				LR	LR	07 12 27.4	
	comp=Z,99nm,18.3s,baz=79,slow=42						
BCAR	**Beaver Creek A**	**71.14**	**29**	P	**P**	**06 35 04.6**	**+0.6**
FINES	**FINESS Array B**	**72.64**	**330**	P	**P**	**06 35 12.6**	**-0.3**
	comp=Z,4.4nm,0.8s,baz=72,slow=6.2,SNR=10.0						
FINES				LR	LR	07 10 35.0	
	comp=Z,240nm,18.9s,baz=57,slow=39						
	comp=Z,4.4nm,0.8s						
L29M	**L29M**	**72.72**	**28**	P	**P**	**06 35 14.5**	**+1.0**
L29M				IAmb	IAmb	06 35 16.2	
	comp=Z,8.6nm,1.1s						
I30M	**Mount Dempster**	**72.75**	**26**	P	**P**	**06 35 13.8**	**+0.1**
I30M				IAmb	IAmb	06 35 18.5	
	comp=Z,9.5nm,1.4s						
AFI	**Afiamalu**	**73.73**	**114**	LR	LR	07 06 10.2	
	comp=Z,98nm,18.3s,baz=352,slow=34						
AK09	**Malin Array Si**	**74.33**	**319**	P	**P**	**06 35 22.4**	**-0.7**
AK03	**Malin Array Si**	**74.33**	**319**	P	**P**	**06 35 22.4**	**-0.7**
AKASG	**Malin Array Be**	**74.34**	**319**	P	**P**	**06 35 22.3**	**-0.9**
	comp=Z,0.7nm,0.5s,baz=59,slow=6.2,SNR=5.7						
	comp=Z,0.7nm,0.5s						
AK08	**Malin Array Si**	**74.34**	**319**	P	**P**	**06 35 22.5**	**-0.7**
AK01	**Malin Array Si**	**74.35**	**319**	P	**P**	**06 35 22.5**	**-0.7**
AK10	**Malin Array Si**	**74.36**	**319**	P	**P**	**06 35 22.6**	**-0.7**
AK04	**Malin Array Si**	**74.37**	**319**	P	**P**	**06 35 22.3**	**-1.0**
AK05	**Malin Array Si**	**74.38**	**319**	P	**P**	**06 35 22.7**	**-0.7**
AK11	**Malin Array Si**	**74.38**	**319**	P	**P**	**06 35 22.4**	**-1.0**
ASF	**Jabal al Asfar**	**74.78**	**299**	LR	LR	07 12 09.5	
	comp=Z,71nm,18.8s,baz=27,slow=39						
BR131	**Keskin Array S**	**74.87**	**307**	P	**P**	**06 35 26.4**	**-0.3**
BR131				IAmb	IAmb	06 35 27.9	
	comp=Z,7.3nm,0.9s						
BRTR	**Keskin Array B**	**74.87**	**307**	P	**P**	**06 35 26.7**	**0.0**
	comp=Z,4.3nm,0.9s,baz=101,slow=6.4,SNR=22						
	comp=Z,4.3nm,0.9s						
LUBAR	**Lubar, Ukraine**	**75.48**	**318**	P	**P**	**06 35 29.2**	**-0.6**
KMPD	**K-Podol'skiy**	**76.76**	**317**	P	**P**	**06 35 35.6**	**-1.5**
EIL	**Elat**	**77.19**	**297**	LR	LR	07 15 28.7	
	comp=Z,87nm,18.6s,baz=88,slow=40						
HFS	**Hagfors**	**78.73**	**331**	LR	LR	07 14 04.1	
	comp=Z,155nm,19.5s,baz=58,slow=38						
KOLS	**Kolonicke sedl**	**79.17**	**319**	*e*P	**P**	**06 35 53.2**	**+2.6**
NOA	**NORSAR Array B**	**79.35**	**333**	P	**P**	**06 35 50.6**	**-0.7**
	comp=Z,1.3nm,0.6s,baz=55,slow=5.6,SNR=6.0						
	comp=Z,1.3nm,0.6s						
KECS	**Kecovo**	**80.44**	**319**	*e*P	**P**	**06 35 59.8**	**+2.4**
LANS	**Liptovska Anna**	**80.76**	**320**	*e*P	**P**	**06 35 59.6**	**+0.4**
VYHS	**Vyhne**	**81.42**	**319**	*e*P	**P**	**06 36 03.3**	**+0.6**
MODS	**Modra-Piesok**	**82.40**	**320**	*e*P	**P**	**06 36 09.1**	**+1.3**
YKA	**Yellowknife Ar**	**82.45**	**23**	P	**P**	**06 36 08.0**	**+0.3**
	comp=Z,4.9nm,0.8s,baz=312,slow=4.9,SNR=15						
	comp=Z,4.9nm,0.8s						
CLL	**Collm**	**83.41**	**324**	*i* P	**P**	**06 36 14.0**	**+1.1**
GERES	**GERESS Array B**	**84.26**	**321**	P	**P**	**06 36 17.3**	**-0.2**
	comp=Z,1.3nm,0.5s,baz=44,slow=4.2,SNR=9.5						
	comp=Z,1.3nm,0.5s						
ESDC	**Sonseca Array**	**99.85**	**321**	LR	LR	07 26 51.0	
	comp=Z,84nm,20.7s,baz=12,slow=38						

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*IDC **26** 06:31:58.3±0.6, 34°.65N×74°.35E, h0^{km}, mb4.3/22, mbtmp4.3/27, ML4.0/5, Error ellipse: s-maj=14.2km s-min=11.8km az=54.0*

*MOS **26** 06:31:59.1±1.0, 34°.70N×74°.38E, h13^{km}, mb4.7/18, Error ellipse: s-maj=8.2km s-min=4.6km az=95.6*

*NEIC **26** 06:32:00.7±1.5, 34°.72N±0°.05×74°.41E±0°.09, h10^{km}±1^{km}, mb4.6/44, Error ellipse: s-maj=13.6km s-min=6.7km az=114.0*

*NDI **26** 06:32:03.3±1.1, 34°.78N×74°.33E, h10^{km}, ML4.6, MW4.3, mb4.6(NEIC), Presumed earthquake*

*NNC **26** 06:32:05.8±4.8, 34°.91N×73°.00E, h0^{km}, mb4.4, mpv4.2, Error ellipse: s-maj=43.0km s-min=28.3km az=27.0*

*GFZ **26** 06:32:05.5±0.2, 35°N±3°×7°4E±°, h69^{km}, M4.5/12, mb4.5/12*

*BJI **26** 06:32:07.8, 34°.88N×74°.93E, h47^{km}, mb4.6/25, ML3.9/5*

ISC 26 06:32:02.9±0.8**, 34°.73N**±0°.03×**74°.33E**±0°.04**, h27**^{km}±5^{km}**, n203, σ1^{s}.74**/230**, mb4.5**/50**, MS3.6**/3**, 12C-4D, Southwestern Kashmir**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NIL	**Nilore**	**1.40**	**220**	P	**Pn**	**06 32 28.1**	**+1.4**
NIL	**Nilore**	**1.40**	**220**		**Pn**	**06 32 28.1**	**+1.4**
NIL	**Nilore**	**1.40**	**220**	P	**Pn**	**06 32 27.9**	**+1.2**
JMU	**Jammu**	**1.98**	**168**	*e*P	**Pb**	**06 32 38.2**	**-0.1**
JMU				*e*S	**Sb**	**06 33 03.9**	**+1.2**
JMU				IAML		06 33 09.1	
	comp=N,16μm,0.3s						
JMU				IAML		06 33 09.3	
	comp=E,16μm,0.0s						
ALCI	**Alchi Leh**	**2.41**	**101**	*e*P	**Pb**	**06 32 43.7**	**-2.2**
ALCI				*e*S	**Sb**	**06 33 12.8**	**-2.6**
ALCI				IAML		06 33 22.8	
	comp=E,16μm,0.6s						
TSSA	**Tissa**	**2.42**	**141**	*e*P	**Pn**	**06 32 43.2**	**+2.3**
TSSA				*e*S	**Sb**	**06 33 14.2**	**-1.1**
TSSA				IAML		06 33 17.1	
	comp=E,13μm,0.2s						
TSSA				IAML		06 33 19.1	
	comp=N,13μm,0.6s						
THN	**Thein Dam**	**2.57**	**152**	*e*P	**Pb**	**06 32 46.4**	**-2.0**
THN				*e*S	**Sb**	**06 33 17.7**	**-1.9**
THN				IAML		06 33 23.1	
	comp=N,11μm,0.5s						
THN				IAML		06 33 23.6	
	comp=E,11μm,0.4s						
DHRM	**DHARAMSHALA**	**2.97**	**146**	*e*P	**Pn**	**06 32 51.3**	**+2.8**
DHRM				*e*S	**Sn**	**06 33 26.5**	**+3.3**
DHRM				IAML		06 33 29.7	
	comp=N,2μm,0.5s						
DHRM				IAML		06 33 29.8	
	comp=E,2μm,0.6s						
TLWR	**Talawar**	**3.08**	**153**	*e*P	**Pn**	**06 32 53.5**	**+3.7**
TLWR				*e*S	**Sn**	**06 33 29.1**	**+3.3**
TLWR				IAML		06 33 37.3	
	comp=E,1μm,0.3s						
TLWR				IAML		06 33 40.0	
	comp=N,1μm,0.2s						
SMLA	**Simla**	**4.31**	**146**	*e*P	**Pn**	**06 33 08.4**	**+1.8**
SMLA				*e*S	**Sn**	**06 33 57.8**	**+1.8**
SMLA				IAML		06 34 00.8	
	comp=E,1μm,0.2s						
SMLA				IAML		06 34 01.3	
	comp=N,1μm,0.6s						
HNLY	**HANLEY**	**4.33**	**115**	*e*P	**Pn**	**06 33 10.1**	**+2.7**
HNLY				*e*S	**Sn**	**06 33 57.7**	**+0.5**
HNLY				IAML		06 34 31.0	
	comp=E,1μm,1.3s						
HNLY				IAML		06 34 31.4	
	comp=N,1μm,1.4s						
KBL	**Kabul**	**4.36**	**269**	P	**Pn**	**06 33 08.3**	**+0.7**
KBL	**Kabul**	**4.36**	**269**	Pn	**Pn**	**06 33 08.3**	**+0.7**
KBL				Pg	**Pb**	**06 33 21.5**	**+2.5**
KBL	**Kabul**	**4.36**	**269**	P	**Pn**	**06 33 10.9**	**+3.2**
KSH2	**Kashi**	**4.52**	**12**	P	Pn	06 33 15.0	+5.2
KSH2				S	**Sn**	**06 34 07.8**	**+6.3**
KSH2				AML	AML		
	comp=N,130nm,0.7s						
KSH2				AML	AML		
	comp=N,110nm,0.7s						
KLP	**Kalpa**	**4.58**	**133**	*e*P	**Pn**	**06 33 13.2**	**+2.5**
KLP				*e*S	**Sn**	**06 34 03.8**	**+0.7**
KLP				IAML		06 34 33.7	
	comp=N,1μm,0.8s						
KLP				IAML		06 34 34.0	
	comp=E,1μm,0.3s						
DRK	**Karamyk**	**5.16**	**338**	P	**Pn**	**06 33 19.7**	**+1.0**
DRK	**Karamyk**	**5.16**	**338**	Pn	**Pn**	**06 33 19.7**	**+1.0**
DRK	**Karamyk**	**5.16**	**338**	P	**Pn**	**06 33 20.6**	**+2.0**
	comp=Z,72nm,1.1s						
OHH	**Osh**	**5.92**	**348**	P	**Pn**	**06 33 29.8**	**+1.0**
	comp=Z,31nm,0.6s						
BTK	**Batken**	**6.01**	**333**	P	**Pn**	**06 33 31.9**	**+1.7**
BTK	**Batken**	**6.01**	**333**		**Pn**	**06 33 31.9**	**+1.7**
BTK	**Batken**	**6.01**	**333**	P	**Pn**	**06 33 33.1**	**+2.9**
	comp=Z,98nm,1.0s						
ASAI	**AK-SAY(Kyrgyzs**	**6.42**	**15**	P	**Pn**	**06 33 37.7**	**+1.7**
	comp=Z,30nm,0.8s						
NRN	**Naryn**	**6.83**	**11**	P	**Pn**	**06 33 42.4**	**+0.8**
NRN	**Naryn**	**6.83**	**11**		**Pn**	**06 33 42.4**	**+0.8**
ARK	**Arkit**	**7.30**	**346**	P	**Pn**	**06 33 49.0**	**+1.1**
	comp=Z,12nm,0.5s						
TARG	**Taragay, Kyrgy**	**7.51**	**20**	P	**Pn**	**06 33 52.8**	**+1.8**
TARG	**Taragay, Kyrgy**	**7.51**	**20**		**Pn**	**06 33 52.8**	**+1.8**
TARG	**Taragay, Kyrgy**	**7.51**	**20**	P	**Pn**	**06 33 52.9**	**+1.9**
	comp=Z,17nm,1.4s						
WUS	**Wushi**	**7.53**	**29**	Pn	**Pn**	**06 33 52.6**	**+1.6**
WUS	**Wushi**	**7.53**	**29**	P	**Pn**	**06 33 53.0**	**+1.9**
	comp=Z,26nm,0.8s						
KDJ	**Kajisay**	**7.72**	**16**	P	**Pn**	**06 33 56.1**	**+2.4**
KDJ	**Kajisay**	**7.72**	**16**	Pn	**Pn**	**06 33 56.1**	**+2.4**
KDJ	**Kajisay**	**7.72**	**16**	P	**Pn**	**06 33 54.0**	**+0.2**
	comp=Z,28nm,1.6s						
BOOM	**Boomskoye usch**	**7.86**	**9**	P	**Pn**	**06 33 57.8**	**+2.3**
BOOM	**Boomskoye usch**	**7.86**	**9**	Pn	**Pn**	**06 33 57.8**	**+2.3**
BOOM	**Boomskoye usch**	**7.86**	**9**	P	**Pn**	**06 33 58.2**	**+2.7**
	comp=Z,26nm,1.4s						
AAK	**Ala-Archa**	**7.90**	**1**	Pn	**Pn**	**06 33 58.0**	**+1.8**
	comp=Z,1.1nm,0.3s,baz=126,slow=5.5,SNR=5.8						
AAK				Sn	**Sn**	**06 35 27.5**	**+2.7**
	comp=Z,1.5nm,0.3s,baz=308,slow=2.4,SNR=4.3						
	comp=Z,1.9nm,0.3s						
AAK				AML	AML		
AAK	**Ala-Archa**	**7.90**	**1**	⇑P	**Pn**	**06 33 59.1**	**+2.9**
	comp=Z,3.2nm,0.7s						
AAK				⇑S	**Sn**	**06 35 32.6**	**+7.9**
	comp=Z,8.1nm,0.8s						
AAK	**Ala-Archa**	**7.90**	**1**	P	**Pn**	**06 33 56.6**	**+0.4**
AAK	**Ala-Archa**	**7.90**	**1**	Pn	**Pn**	**06 33 56.6**	**+0.4**
AAK	**Ala-Archa**	**7.90**	**1**	P	**Pn**	**06 33 57.7**	**+1.5**
	comp=Z,11nm,1.0s						
FRU1	**Bishkek**	**8.08**	**2**	P	**Pn**	**06 33 59.6**	**+1.2**
KK31	**Karatay Array**	**8.88**	**342**	⇑P	**Pn**	**06 34 10.1**	**+0.6**
	comp=Z,16nm,0.6s,baz=139,slow=12,SNR=124						
KK31				S	**Sn**	**06 35 47.1**	**-1.4**
	comp=Z,27nm,0.4s,baz=146,slow=22,SNR=14						
KK31	**Karatay Array**	**8.88**	**342**	P	**Pn**	**06 34 10.0**	**+0.6**
KK31				S	**Sn**	**06 35 47.1**	**-1.4**
KK31	**Karatay Array**	**8.88**	**342**		**Pn**	**06 34 09.7**	**+0.2**
KKAR	**Karatay Array**	**8.88**	**342**	P	**Pn**	**06 34 09.8**	**+0.4**
KKAR	**Karatay Array**	**8.88**	**342**		**Pn**	**06 34 09.8**	**+0.4**
MAKZ	**Makanchi**	**13.38**	**23**	P	**Pn**	**06 35 10.2**	**-0.8**
MAKZ	**Makanchi**	**13.38**	**23**		**Pn**	**06 35 10.2**	**-0.8**
MAKZ	**Makanchi**	**13.38**	**23**	P	**Pn**	**06 35 11.1**	**+0.1**
	comp=Z,9.1nm,1.2s						
MK31	**Makanchi Array**	**13.47**	**24**	⇓P	**P**	**06 35 20.0**	**-1.3**
	comp=Z,2.3nm,0.5s,baz=199,slow=13,SNR=27						

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MK31  Makanchi Array     13.47  24 i P     Pn       06 35 15.3 +3.1
MK31                               pmax    pmax
      comp=Z,2.0nm,0.5s
MK31  Makanchi Array     13.47  24   Pn    Pn       06 35 12.2 -0.1
MKAR  Makanchi Array     13.47  24   Pn    Pn       06 35 12.5 +0.3
      comp=Z,0.3nm,0.3s,baz=200,slow=13,SNR=7.6
      comp=Z,0.9nm,0.5s
MKAR                                 AML   AML
MKAR  Makanchi Array     13.47  24   P     Pn       06 35 11.9 -0.3
MKAR  Makanchi Array     13.47  24         Pn       06 35 11.9 -0.3
WMQ   Urumqi             13.76  45  eP     Pn       06 35 20.0 +3.8
WMQ                                  pmax  pmax
      comp=Z,33nm,0.7s
KURBB Kurchatov Arra     16.18  10   Pn    Pn       06 35 46.1 -2.2
      comp=Z,0.3nm,0.3s,baz=200,slow=11,SNR=25
      comp=Z,14nm,0.8s
KURBB                                AML   AML
KURBB Kurchatov Arra     16.18  10  ⇓P     P        06 35 53.4 +2.2
      comp=Z,21nm,0.7s
KURBB Kurchatov Arra     16.18  10   P     Pn       06 35 45.4 -2.9
KURK  Kurchatov          16.29  10ceP     P        06 35 51.3 -1.1
KURK                                 pmax  pmax
      comp=Z,25nm,0.9s
KURK  Kurchatov          16.29  10         Pn       06 35 46.0 -3.6
KURK                                 IAmb  IAmb     06 35 52.8
      comp=Z,26nm,0.8s
KURK  Kurchatov          16.29  10   P     Pn       06 35 47.1 -2.5
      comp=Z,36nm,0.9s
HYB   Hyderabad          17.64 167  eP     Pn       06 36 07.2 +0.3
HYB                                 eS     S        06 39 47.9  +18
DGZ   Jazzator, Alta     17.80  29 i P     Pn       06 36 08.1 -0.6
DGZ                                  pmax  pmax
      comp=Z,9.0nm,0.5s
AB31  Akbulak array      17.99 328   P     Pn       06 36 09.6 -1.3
      comp=Z,2.5nm,0.5s,baz=138,slow=12,SNR=92
AB31                                ⇓S     Sn       06 39 21.2 -9.4
      comp=Z,3.6nm,0.6s
AB31  Akbulak array      17.99 328   P     Pn       06 36 09.5 -1.3
AB31  Akbulak array      17.99 328         Pn       06 36 08.8 -2.1
ABKAR Akbulak array      17.99 328         Pn       06 36 08.7 -2.2
BVAR  Borovoye Array     18.51 352   P     P        06 36 16.6 -0.4
      comp=Z,0.4nm,0.3s,baz=161,slow=9.5,SNR=25
      comp=Z,11nm,0.5s
BVAR                                 AML   AML
BORK  Borovoye           18.54 352 i P     Pn       06 36 17.7 +0.1
BORK                                 pmax  pmax
      comp=Z,15nm,0.6s
BORK  Borovoye           18.54 352         P        06 36 16.9 -0.3
AKTO  Aktyubinsk         19.70 328   P     P        06 36 30.4 +0.4
      comp=Z,2.5nm,0.3s,baz=131,slow=8.1,SNR=45
AKTO                                 S     S        06 39 59.7  -11
      comp=Z,1.6nm,0.6s,baz=73,slow=17,SNR=2.1
      comp=Z,17nm,0.7s
AKTO                                 AML   AML
AKTO  Aktyubinsk         19.70 328  ⇑P     P        06 36 30.0  0.0
      comp=Z,14nm,0.8s
AKTO                                ⇓S     S        06 40 02.6 -8.0
      comp=Z,5.3nm,1.1s
MORE  Moreh              20.25 116         P        06 36 35.0 -1.2
MORE                                 IAmb  IAmb     06 36 41.9
      comp=Z,21nm,0.6s
ZAA0  Zalesovo Array     20.59  18         P        06 36 38.8 -0.8
ZALV  Zalesovo Beam      20.59  18   P     P        06 36 38.9 -0.7
      comp=Z,7.5nm,0.5s,baz=217,slow=10,SNR=25
      comp=Z,7.5nm,0.5s
ZALV  Zalesovo Beam      20.59  18         P        06 36 38.4 -1.3
GTA2  Gaotai             20.80  69  eP     P        06 36 41.8 -0.5
GTA2                                 pmax  pmax
      comp=Z,14nm,0.8s
KNGR  Kungurtug, Tuv     23.15  40 i P     P        06 37 08.1 +1.0
KNGR                                 pmax  pmax
      comp=Z,24nm,1.1s
SVE   Sverdlovsk         23.99 341  eP     P        06 37 16.0 +1.0
ARTI  Arti               24.25 338   P     P        06 37 18.1 +0.6
      comp=Z,5.6nm,0.7s,baz=358,slow=2.3,SNR=5.8
      comp=Z,5.6nm,0.7s
ARTI  Arti               24.25 338   P     P        06 37 17.8 +0.3
ARTI                                 pmax  pmax
      comp=Z,8.0nm,0.6s
ARTI  Arti               24.25 338         P        06 37 17.8 +0.3
ARTI                                 IAmb  IAmb     06 37 23.7
      comp=Z,8.0nm,0.6s
NPW   Naypyitaw          24.37 122   P     P        06 37 17.4 -1.4
      comp=Z,23nm,0.6s
PZH   PanZhiHua          24.92 102   P     P        06 37 24.8 +0.8
KBZ   Khabaz             25.83 300 i P     P        06 37 33.2 +1.3
KBZ                                  pmax  pmax
      comp=Z,2.0nm,0.9s
KIV   Kislovodsk         26.02 300  eP     P        06 37 34.2 +0.4
KIV                                  pmax  pmax
      comp=Z,5.0nm,1.0s
KMI2  Kunming            26.34 104   P     P        06 37 35.5 -1.4
KMI2                                 pmax  pmax
      comp=Z,15nm,0.7s
CHTO  Chiang Mai         26.99 120   P     P        06 37 42.7 +0.1
CHTO                                 pmax  pmax
      comp=Z,7.0nm,0.9s
CHTO  Chiang Mai         26.99 120   P     P        06 37 42.7 +0.1
CHTO                                 IAmb  IAmb     06 37 48.8
      comp=Z,7.5nm,0.9s
CHTO  Chiang Mai         26.99 120   P     P        06 37 40.9 -1.8
      comp=Z,7.9nm,0.9s
SONM  Songino Array      27.21  51   P     P        06 37 44.6 +0.1
      comp=Z,3.3nm,0.7s,baz=258,slow=9.5,SNR=11
      comp=Z,3.3nm,0.7s
CMAR  Chiang Mai Arr     27.22 120   P     P        06 37 44.2 -0.5
      comp=Z,2.3nm,0.5s,baz=308,slow=9.5,SNR=13
      comp=Z,2.3nm,0.5s
CMAR  Chiang Mai Arr     27.22 120ceP     P        06 37 47.7 +3.0
CMAR                                 pmax  pmax
      comp=Z,6.0nm,0.6s
CMAR  Chiang Mai Arr     27.22 120         P        06 37 43.8 -0.9
RAYN  Ar Rayn            27.45 254   P     P        06 37 46.3 -0.5
RAYN                                 pmax  pmax
      comp=Z,4.0nm,0.8s
RAYN  Ar Rayn            27.45 254         P        06 37 46.3 -0.5
RAYN  Ar Rayn            27.45 254   P     P        06 37 45.3 -1.5
      comp=Z,6.1nm,0.8s
SOC   Sochi              28.10 299  eP     P        06 37 53.9 +1.6
SOC                                 e               06 38 40.3
SOC                                 eS     S        06 42 36.1 +0.6
SOC                                 eSS    SnSn     06 43 55.5 +3.7
SOC                                  MLR   MLR
      comp=Z,97nm,15.0s
HHC   Hu-ho-hao-te       29.89  67  eP     P        06 38 10.0 +1.6
HHC                                  pmax  pmax
      comp=Z,12nm,0.5s
BR131 Keskin Array S     32.58 291   P     P        06 38 32.6 +0.4
BR131                                pmax  pmax
      comp=Z,4.0nm,0.9s
BR131 Keskin Array S     32.58 291         P        06 38 32.5 +0.4
BR131                                IAmb  IAmb     06 38 36.0
      comp=Z,3.8nm,0.8s
BRTR  Keskin Array B     32.58 291   P     P        06 38 32.2 +0.1
      comp=Z,1.4nm,0.6s,baz=102,slow=9.6,SNR=8.1
      comp=Z,1.4nm,0.6s
BRTR  Keskin Array B     32.58 291ceP     P        06 38 33.0 +0.8
BRTR                                 pmax  pmax
      comp=Z,1.0nm,0.6s
OBN   Obninsk            33.05 320⇑eP    P        06 38 35.7 -0.1
OBN                                 e               06 39 41.3
OBN                                  pmax  pmax
      comp=Z,7.0nm,0.6s
OBN                                  MLR   MLR
      comp=Z,101nm,15.0s
NRIK  Noril'sk           35.44   8   P     P        06 38 56.9 +0.5
      comp=Z,2.9nm,0.4s,baz=200,slow=7.3,SNR=4.7
      comp=Z,2.9nm,0.4s
NRIK  Noril'sk           35.44   8 i P     P        06 38 57.3 +0.9
NRIK                                 pmax  pmax
      comp=Z,9.0nm,1.0s
NRIK  Noril'sk           35.44   8         P        06 38 57.0 +0.6
NRIK                                 IAmb  IAmb     06 39 00.2
      comp=Z,12nm,1.1s
AKASG Malin Array Be     36.16 310   P     P        06 39 02.5 -0.4
      comp=Z,1.2nm,0.5s,baz=82,slow=6.8,SNR=9.4
      comp=Z,1.2nm,0.5s
AKASG Malin Array Be     36.16 310ceP     P        06 39 02.7 -0.2
AKASG                                pmax  pmax
      comp=Z,2.0nm,0.5s
NJ2   Nanjing            37.05  81  eP     P        06 39 10.0 -0.6
NJ2                                  pmax  pmax
      comp=Z,11nm,0.6s
MNK   Minsk              37.66 316 i P     P        06 39 15.1 -0.4
MNK                                 i               06 40 41.6
MNK                                 i               06 41 31.9
MNK                                 i S    S        06 45 01.6 -2.0
MNK                                 i SS   SnSn     06 47 44.9 +1.3
MNK                                 i               06 49 23.4
MNK                                  pmax  pmax
      comp=Z,10.0nm,0.7s
MNK                                  pmax  pmax
      comp=E,19nm,0.8s
MNK                                  pmax  pmax
      comp=N,20nm,0.9s
MNK                                  MLR   MLR
      comp=E,620nm,20.0s
MNK                                  MLR   MLR
      comp=N,458nm,21.0s
MNK                                  MLR   MLR
      comp=Z,103nm,15.0s
MNK   Minsk              37.66 316 i P     P        06 39 15.1 -0.4
      comp=E,19nm,0.8s
MNK                                 i P    P        06 39 15.1 -0.4
      comp=N,20nm,0.9s
MNK                                 i P    P        06 39 15.1 -0.4
      comp=Z,10.0nm,0.7s,baz=102
MNK                                 i pP   sP       06 39 28.3 +0.1
MNK                                 i PP   PP       06 40 41.7 +0.1
MNK                                 i S    S        06 45 01.6 -2.0
MNK                                 i sS   ScP      06 45 24.4 +6.4
MNK                                 i SS   SnSn     06 47 44.9 +1.3
MNK                                 i SSS  SSS      06 48 02.1
MNK                                 i LQ   LQ       06 51 59.7
MNK                                 i LR   LR       06 54 51.3
MNK                                 i LRM  MLR      06 56 23.8
      comp=E,620nm,20.5s
MNK                                 i LRM  MLR      06 56 31.8
      comp=N,458nm,21.3s
MNK                                 i LRM  MLR      06 56 38.2
      comp=Z,103nm,15.4s
MLR   Muntele Rosu       38.02 301   P     P        06 39 19.2 +0.3
MLR                                  pmax  pmax
      comp=Z,9.0nm,0.8s
MLR   Muntele Rosu       38.02 301         P        06 39 19.2 +0.3
MLR                                  IAmb  IAmb     06 39 21.4
      comp=Z,9.4nm,0.8s
BURAR Bucovina Array     38.52 305   P     P        06 39 23.6 +0.5
LVZ   Lovozero           40.11 338   P     P        06 39 36.6 +0.6
LVZ                                  pmax  pmax
      comp=Z,25nm,1.3s
LVZ   Lovozero           40.11 338   P     P        06 39 36.5 +0.6
LVZ                                  IAmb  IAmb     06 40 02.8
      comp=Z,25nm,1.3s
FIA1  FINESS Array S     40.46 326   P     P        06 39 38.4 -0.5
FINES FINESS Array B     40.46 326   P     P        06 39 38.9 +0.1
      comp=Z,1.3nm,0.4s,baz=120,slow=10.0,SNR=20
      comp=Z,1.3nm,0.4s
KOLS  Kolonicke sedl     40.51 307  eP     P        06 39 39.7 +0.2
KOLS  Kolonicke sedl     40.51 307  eP     P        06 39 39.7 +0.2
BNX   BinXian            41.29  58  ⇑P     P        06 39 45.5 -0.4
BNX                                  pmax  pmax
      comp=Z,6.0nm,0.6s
VYHS  Vyhne              42.80 306  eP     P        06 39 56.6 -1.6
VYHS  Vyhne              42.80 306  eP     P        06 39 56.6 -1.6
KSRS  Korea Array        42.91  70   P     P        06 39 58.6 -0.6
      comp=Z,3.7nm,0.8s,baz=284,slow=7.9,SNR=6.9
      comp=Z,3.7nm,0.8s
VADS  Vadso             42.93 339  eP     P        06 39 59.7 +0.8
KEV   Kevo               43.45 338   P     P        06 40 03.3 +0.1
KEV                                  pmax  pmax
      comp=Z,33nm,1.2s
KEV   Kevo               43.45 338   P     P        06 40 03.3 +0.1
ARA0  ARCESS Array S     43.82 338  eP     P        06 40 06.9 +0.7
ARCES ARCESS Array B     43.82 338   P     P        06 40 06.3 +0.2
      comp=Z,9.8nm,0.6s,baz=118,slow=8.4,SNR=8.4
KLR   Kul'dur            44.03  53ceP     P        06 40 07.3 -0.8
KLR                                  pmax  pmax
      comp=Z,10.0nm,2.5s
KTK1  Kautokeino         44.33 336  eP     P        06 40 10.7 +0.4
HAMF  Hammerfest         44.87 339  eP     P        06 40 15.4 +0.9
JETT  Jettan, Norway     45.47 337  eP     P        06 40 20.0 +0.7
TRO   Tromso             45.98 336  eP     P        06 40 23.7 +0.4
HFS   Hagfors            46.13 323   P     P        06 40 24.1 -0.5
      comp=Z,1.9nm,0.5s,baz=100,slow=6.2,SNR=9.0
      comp=Z,1.9nm,0.5s
GERES GERESS Array B     46.16 307   P     P        06 40 25.1 -0.1
      comp=Z,0.6nm,0.2s,baz=84,slow=11,SNR=2.2
      comp=Z,0.6nm,0.2s
TIXI  Tiksi              46.43  21ceP     P        06 40 27.2 +0.4
TIXI                                 pmax  pmax
      comp=Z,6.0nm,1.0s
TIXI  Tiksi              46.43  21   P     P        06 40 26.1 -0.7
TIXI                                 IAmb  IAmb     06 40 27.1
      comp=Z,6.7nm,0.9s
FAUS  Fauske             46.62 333  eP     P        06 40 28.6 +0.3
STEI  Steigen            46.77 334  eP     P        06 40 29.9 +0.3
RAUS  Rausandaksla       46.90 331  eP     P        06 40 30.9 +0.4
LEIR  Leirfjorden        47.20 331  eP     P        06 40 33.3 +0.4
VAGH  Vaagaholmen        47.26 332  eP     P        06 40 34.1 +0.8
KONS  Konsvik            47.27 331  eP     P        06 40 33.3 -0.1
STOK  Stokkvaagen        47.28 331  eP     P        06 40 33.9 +0.4
NC303 NORSAR Array S     47.36 324  eP     P        06 40 34.1 -0.1
HOPEN Hopen              47.37 346  eP     P        06 40 34.8 +0.7
NB201 NORSAR Array S     47.38 324   P     P        06 40 33.8 -0.6
NB2   NORSAR Subarra     47.42 324   P     P        06 40 34.2 -0.5
      comp=Z,0.9nm,0.6s,baz=93,slow=7.9
NB2   NORSAR Subarra     47.42 324   P     P        06 40 34.2 -0.5
NOA   NORSAR Array B     47.42 324   P     P        06 40 34.2 -0.5
      comp=Z,1.7nm,0.8s,baz=94,slow=7.6,SNR=5.2
      comp=Z,1.7nm,0.8s
LOF   Lofoten            47.44 334  eP     P        06 40 34.5 -0.3
KONO  Kongsberg          48.16 322  eP     P        06 40 40.3 -0.2
DOMB  Dombas             48.51 325  eP     P        06 40 43.5 +0.4
JMN   Monobe             48.60  73   P     P        06 40 44.9 +0.6
SKAR  Skarslia           48.83 323  eP     P        06 40 44.5 -1.2
SPA0  Spitsbergen Ar     49.84 347  eP     P        06 40 53.8 +0.7
SPITS Spitsbergen Ar     49.84 347   P     P        06 40 53.8 +0.7
      comp=Z,34nm,1.2s,baz=103,slow=11,SNR=11
      comp=Z,34nm,1.2s
MJAR  Matsushiro Arr     51.08  68   P     P        06 41 02.2 -0.9
      comp=Z,2.6nm,0.7s,baz=293,slow=8.6,SNR=7.5
      comp=Z,2.6nm,0.7s
YSS   Yuzhno-Sakhali     51.64  54 i P     P        06 41 05.0 -2.1
YSS                                  pmax  pmax
      comp=Z,26nm,1.5s
ASAJ  Asahikawa          52.19  58   P     P        06 41 11.3 +0.1
ASAJ                                 pmax  pmax
      comp=Z,62nm,1.3s
JKA   Kamikawa-asahi     52.19  58   P     P        06 41 11.3 +0.1
ESDC  Sonseca Array      60.69 300   P     P        06 42 11.6 -0.3
      comp=Z,0.7nm,0.7s,baz=77,slow=7.0,SNR=2.9
      comp=Z,0.7nm,0.7s
VOI   Vohitsoka          62.10 209   P     P        06 42 21.5 -0.1
NEEM  North Greenlan     63.32 348 i P     P        06 42 29.5 +0.2
SUMG  Summit             63.60 342   P     P        06 42 32.3 +1.0
SUMG                                 pmax  pmax
      comp=Z,17nm,1.2s
SUMG  Summit             63.60 342   P     P        06 42 32.3 +1.0
SUMG  Summit             63.60 342 i P     P        06 42 32.0 +0.7
TORD  Torodi Ar. Bea     68.43 271   P     P        06 43 02.2 -0.6
      comp=Z,4.5nm,0.6s,baz=44,slow=5.2,SNR=19
      comp=Z,4.5nm,0.6s
F17K  Baldwin Pennin     70.60  21   P     P        06 43 15.4 +0.1
F17K                                 IAmb  IAmb     06 43 38.9
      comp=Z,6.1nm,0.9s
F19K  Shaleruckik Mo     71.30  19   P     P        06 43 18.7 -0.8
D23K  Nanushuk River     71.42  16   P     P        06 43 20.2 -0.1
D23K                                 IAmb  IAmb     06 43 51.4
      comp=Z,7.3nm,1.3s
J19K  Poorman            74.02  21   P     P        06 43 36.1 +0.4
J19K                                 IAmb  IAmb     06 43 41.8
      comp=Z,3.0nm,0.9s
BPAW  Bear Paw Mtn.      75.22  19   P     P        06 43 42.5 -0.3
BPAW                                 IAmb  IAmb     06 43 43.2
      comp=Z,6.6nm,1.4s
NEA2  Nenana             75.32  18   P     P        06 43 43.2 -0.1
NEA2                                 IAmb  IAmb     06 43 43.8
      comp=Z,4.4nm,0.8s
KTH   Kantishna Hill     75.68  19   P     P        06 43 45.2 -0.2
KTH                                  IAmb  IAmb     06 43 56.2
      comp=Z,10nm,1.5s
ILAR  Eielson Array      75.71  17   P     P        06 43 44.8 -0.8
      comp=Z,0.9nm,0.7s,baz=310,slow=5.1,SNR=14
      comp=Z,0.9nm,0.7s
ILAR  Eielson Array      75.71  17   P     P        06 43 44.9 -0.7
ILAR  Eielson Array      75.71  17   P     P        06 43 44.9 -0.7
J25K  Salcha River,      76.20  16   P     P        06 43 48.3 -0.2
H29M  Whitestone         76.28  13   P     P        06 43 49.1 +0.4
SKT   Skwentna           76.77  20   P     P        06 43 50.6 -1.0
BOSA  Boshof             78.21 223   P     P        06 43 59.7 -0.5
      comp=Z,4.2nm,0.9s,baz=69,slow=4.7,SNR=4.4
      comp=Z,4.2nm,0.9s
WB0   Warramunga Arr     78.67 124   P     P        06 44 02.1 -0.7
WB0                                  IAmb  IAmb     06 44 22.8
      comp=Z,7.4nm,1.4s
WRA   Warramunga Arr     78.75 124   P     P        06 44 02.7 -0.5
      comp=Z,3.2nm,0.8s,baz=327,slow=5.5,SNR=51
      comp=Z,3.2nm,0.8s
WRA   Warramunga Arr     78.75 124   P     P        06 44 02.2 -1.0
WRAB  Tennant Creek      78.75 124   P     P        06 44 02.2 -1.1
WRAB                                 pmax  pmax
      comp=Z,6.0nm,1.0s
WRAB  Tennant Creek      78.75 124   P     P        06 44 02.1 -1.1
WRAB                                 IAmb  IAmb     06 44 06.0
      comp=Z,5.5nm,1.0s
WR8   Warramunga Arr     78.87 124   P     P        06 44 03.3 -0.5
WR8                                  IAmb  IAmb     06 44 09.6
      comp=Z,3.5nm,0.7s
AS31  Alice Springs      81.02 127   P     P        06 44 14.8 -0.7
ASAR  Alice Springs      81.02 127   P     P        06 44 14.8 -0.6
      comp=Z,2.1nm,0.7s,baz=310,slow=5.1,SNR=41
      comp=Z,2.1nm,0.7s
FORT  Forrest            82.49 136   P     P        06 44 22.3 -0.7
YKAW3 Yellowknife Wh     82.78   4   P     P        06 44 23.8 -0.4
P33M  Teslin, Yukon      82.80  13   P     P        06 44 24.4 -0.1
P33M                                 IAmb  IAmb     06 44 28.6
      comp=Z,7.1nm,1.2s
YKA   Yellowknife Ar     82.85   4   P     P        06 44 24.2 -0.3
      comp=Z,1.7nm,0.5s,baz=348,slow=5.5,SNR=12
      comp=Z,1.7nm,0.5s
YKAW1 Yellowknife Wh     82.87   4   P     P        06 44 24.4 -0.3
YKAW1                                IAmb  IAmb     06 44 25.4
      comp=Z,5.9nm,0.9s
SCHQ  Schefferville      84.76 339   P     P        06 44 34.7 +0.2
      comp=Z,2.3nm,0.8s,baz=315,slow=5.7,SNR=1.1
      comp=Z,2.3nm,0.8s
PLCA  Paso Flores       151.71 247   PKPbc PKPbc    06 51 54.5 -0.3
      comp=Z,1.1nm,0.8s,baz=352,slow=1.9,SNR=5.1
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*IDC **26** 06:40:40.2±0.8, 9°.06N×126°.44E, h0^{km}, mb3.9/8, mbtmp3.9/8, Error ellipse: s-maj=60.5km s-min=17.6km az=69.0*

*MAN **26** 06:40:42.0, 9°.20N×126°.88E, h6^{km}, MS4.0*

ISC 26 06:40:40.8±1.8**, 9°.20N**±0°.04×**126°.67E**±0°.06**, h3**^{km}±11^{km}**,**
n27, σ1^s.09/32**, mb4.0**/9**, Mindanao**

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Code  Station Name        Δ°   AZ°    Phase ID          Time     Res
                                     Op    ISC       h  m  s    ISC
BIPH  Bislig              1.05 197  eP     Pn       06 41 03.2 +0.7
BIPH                                eS     Sn       06 41 16.8 -0.9
CDOP  Cateel, Davao       1.43 189  eP     Pb       06 41 09.0 +1.0
CDOP                                i S    Sn       06 41 26.1 -0.7
BUKP  Musuan              2.06 230  eP     Pg       06 41 20.9 +0.6
BUKP                                i S    Sn       06 41 42.1 -0.5
CGP   Cagayan de Oro      2.08 249  i P    Pg       06 41 20.5 -0.2
CGP                                 i S    Sg       06 41 47.6 -0.2
DMPH  Davao City--Mi      2.40 209  eP     Pg       06 41 28.1 +1.4
DMPH                                i S    Sg       06 41 57.1 -0.7
PLP   Palo                2.56 320  eP     Pb       06 41 27.0 -0.5
PLP                                 eS     Sg       06 42 03.5 +0.4
KCP   Kidapawan           2.68 216  eP     Pg       06 41 30.8 -1.4
TBP   Tagbilaran          2.81 280  eP     Pb       06 41 31.7 +0.1
TBP                                 i S    Sb       06 42 05.0 -1.5
LLP   Lapu-Lapu           2.88 293  eP     Pb       06 41 32.7 -0.2
LLP                                 eS     Sg       06 42 13.2 -0.2
DCPH  Dipolog City        3.33 260  i P    Pb       06 41 39.2 -1.3
DCPH                                i S    Sn       06 42 15.9 +2.0
SNPH  Sibulan             3.39 273  i P    Pb       06 41 40.7 -0.9
SNPH                                i S    Sb       06 42 26.6 +3.4
LQP   Lukban              7.00 315  eP     Pn       06 42 32.2 +7.7
WRA   Warramunga Arr     29.93 165   P     P        06 46 49.2 -1.1
      0.6nm,0.5s,baz=346,slow=9.2,SNR=6.6
WRA                                  PcP   PcP      06 49 52.8 -0.4
      0.3nm,0.9s,baz=337,slow=2.9,SNR=2.0
      0.6nm,0.5s
ASAR  Alice Springs      33.42 168   P     P        06 47 20.2 -0.8
      0.4nm,0.4s,baz=354,slow=6.6,SNR=21
ASAR                                 PcP   PcP      06 50 02.3 -0.3
      0.2nm,0.5s,baz=353,slow=2.6,SNR=4.4
      0.4nm,0.4s
H11S3 WAKE ISLAND Hy     39.86  72   T     T        07 31 23.2
      baz=261,slow=73,SNR=17
H11S1 WAKE ISLAND Hy     39.88  72   T     T        07 31 23.2
      baz=261,slow=73,SNR=8.9
H11S2 WAKE ISLAND Hy     39.88  72   T     T        07 31 18.3
      baz=261,slow=73,SNR=8.5
H11N1 WAKE ISLAND Hy     40.23  70   T     T        07 31 55.3
      baz=265,slow=74,SNR=5.8
H11N2 WAKE ISLAND Hy     40.24  70   T     T        07 31 59.2
      baz=265,slow=74,SNR=6.3
H11N3 WAKE ISLAND Hy     40.25  70   T     T        07 31 57.7
      baz=265,slow=74,SNR=6.4
MKAR  Makanchi Array     53.11 323   P     P        06 49 59.5 -0.3
      1.2nm,0.6s,baz=123,slow=7.9,SNR=17
      1.2nm,0.6s
ZALV  Zalesovo Beam      55.75 332   P     P        06 50 18.3 -0.5
      0.4nm,0.4s,baz=124,slow=7.2,SNR=1.8
      0.4nm,0.4s
KURBB Kurchatov Arra     57.17 326   P     P        06 50 28.9 -0.1
      1.4nm,0.5s,baz=124,slow=6.9,SNR=16
      1.4nm,0.5s
BVAR  Borovoye Array     62.76 326   P     P        06 51 07.5 +0.1
      1.0nm,0.6s,baz=126,slow=7.5,SNR=3.7
      1.0nm,0.6s
ILAR  Eielson Array      80.23  26   P     P        06 52 53.8 +1.2
      0.1nm,0.5s,baz=248,slow=5.9,SNR=4.1
      0.1nm,0.5s
ARCES ARCESS Array B     85.33 340   P     P        06 53 19.3 +0.3
      3.1nm,1.0s,baz=71,slow=5.1,SNR=1.2
FINES FINESS Array B     87.01 332   P     P        06 53 26.8 -0.6
      1.9nm,0.9s,baz=199,slow=16,SNR=5.4
      1.9nm,0.9s
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*MEX **26** 06:54:42.8±0.7, 15°.16N×93°.22W, h83^{km}±36^{km}, MD4.0, Presumed earthquake*

*GCG **26** 06:54:44.1±1.5, 15°.31N×93°.08W, h55^{km}±55^{km}, MD4.3, Presumed earthquake*

ISC 26 06:54:41.8±1.6**, 15°.14N**±0°.07×**93°.25W**±0°.07**, h69**^{km}±31^{km}**,**
n16, σ1^s.28/29**, Near coast of Chiapas**

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Code  Station Name        Δ°   AZ°    Phase ID          Time     Res
                                     Op    ISC       h  m  s    ISC
THIG                      0.97 103  eP     Pn       06 55 00.3 +0.3
THIG                                eS     Sn       06 55 13.5  0.0
THIG                      0.97 103  i P    Pn       06 55 00.4 +0.4
PATR  El Naranjo          0.98  91  eP     Pn       06 55 00.0 -0.2
PATR                                eS     Sn       06 55 14.0 +0.1
PAVE  Pavencul            1.03  87  eP     Pn       06 55 01.4 +0.5
PAVE                                eS     Sn       06 55 15.8 +0.6
CHUJ  Union Juarez        1.10  92  eP     Pn       06 55 01.5 -0.3
CHUJ                                eS     Sn       06 55 16.6 -0.1
TGIG                      1.64   4  eP     Pn       06 55 08.8  0.0
TGIG                                eS     Sn       06 55 28.1 -0.9
TGIG                      1.64   4  i P    Pn       06 55 09.0 +0.3
TGIG                                i S    Sn       06 55 26.7 -2.3
QUEO  Labor Ovalle        1.69  99  i P    Pn       06 55 11.3 +1.7
QUEO                                i S    Sn       06 55 32.1 +1.5
STG8  El Palmar, Qui      1.96 110  i P    Pn       06 55 09.2 -3.9
UXUV  UXUV                2.33 338  eP     Pn       06 55 19.5 +1.5
UXUV                                eS     Sn       06 55 45.4 -0.4
CMIG  Matias Romero       2.50 321  eP     Pn       06 55 20.9 +0.7
CMIG                                eS     Sn       06 55 47.1 -2.7
APG   El Apazote          2.69  92  i P    Pn       06 55 24.1 +1.0
NEUV  Arroyo Zacate       3.55 317  eP     Pn       06 55 35.1 +0.6
NEUV                                eS     Sn       06 56 15.7 +0.5
VHO   Vista Hermosa       3.87 300  eP     Pn       06 55 39.3 +0.2
VHO                                 eS     Sn       06 56 23.4  0.0
YOIG  Yosondua            4.47 293  eP     Pn       06 55 46.9 -0.5
YOIG                                eS     Sn       06 56 38.8 +0.4
TXIG  Tlaxiaco            4.83 296  eP     Pn       06 55 53.4 +1.1
TXIG                                eS     Sn       06 56 46.9 -0.2
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*BJI **26** 07:00:13.2, 39°.39N×54°.06E, h10^{km}, mB4.9/2, mb4.6/24, Ms7 4.0/3*

*IDC **26** 07:00:15.6±0.7, 39°.43N×54°.37E, h0^{km}, mb4.4/23, mbtmp4.5/34, ML4.5/11, MS3.8/26, Error ellipse: s-maj=15.2km s-min=9.2km az=176.0*

*TEH **26** 07:00:16.9, 39°.55N×54°.49E, h10^{km}, ML4.7, Presumed earthquake*

*THR **26** 07:00:17.2±0.0, 39°.66N×54°.44E, h19^{km}±662^{km}, ML4.7,*

Presumed earthquake

GFZ **26** *07:00:17.8±0.2, 40°N±4°×5°5E±°, h10^{km}, M4.4/28, mb4.7/28*

MOS **26** *07:00:18.1±1.4, 39°.70N×54°.53E, h26^{km}, mb4.9/16, Error ellipse: s-maj=4.7km s-min=3.6km az=36.1*

NEIC **26** *07:00:18.2±1.7, 39°.65N±0°.08×54°.52E±0°.09, h10^{km}±1^{km}, mb4.9/43, Error ellipse: s-maj=13.9km s-min=11.8km az=174.0*

NNC **26** *07:00:26.2±3.7, 40°.13N×55°.24E, h0^{km}, mb4.7, Error ellipse: s-maj=36.2km s-min=20.3km az=54.0*

ISC 26 07:00:17.4±0.3**, 39°.68N**±0°.04×**54°.51E**±0°.03**, h10**^{km}**, n481,** σ**1**^{s}**80**/508**, mb4.7**/80**, MS3.7**/25**, 39C-20D, Turkmenistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MRVT	Maraveh tapeh	2.37	148	ePn	Pb	07 00 57.6	-2.6
MRVT				IAML		07 01 25.7	
	comp=Z,840nm,1.0s						
MRVT	Maraveh tapeh	2.37	148	Pn	Pb	07 00 57.5	-2.6
IMND	Minoodasht	2.52	163	Pn	Pb	07 00 59.1	-3.6
BJRD	Bojnurd	3.01	130	ePn	Pn	07 01 06.6	+1.3
BJRD				IAML		07 02 18.4	
	comp=Z,310nm,1.0s						
IGLO	Ghaloghah	3.22	190	Pn	Pn	07 01 07.6	-0.6
ISFR	Sfrayin	3.80	133	Pn	Pn	07 01 17.7	+1.5
IALA	Alasht	3.83	201	Pn	Pn	07 01 17.1	+0.4
SHRO	Shahrood	3.87	162	ePn	Pn	07 01 17.8	+0.7
SHRO				IAML		07 02 32.2	
	comp=Z,2.3nm,1.0s						
SHRO	Shahrood	3.87	162	Pn	Pn	07 01 18.1	+1.0
IEMG	Emamgholi	3.96	124	Pn	Pn	07 01 19.6	+1.2
ISHM	Shahmirzad	3.98	194	Pn	Pn	07 01 19.6	+0.8
SBZV	Sabzevar	4.10	142	ePn	Pn	07 01 21.2	+0.9
SBZV	Sabzevar	4.10	142	Pn	Pn	07 01 21.8	+1.5
IANJ	Anjilo	4.23	187	Pn	Pn	07 01 23.6	+1.5
GBS	Qobustan	4.35	283	Pn	Pn	07 01 27.2	+3.6
DAMV	Damavand	4.52	207	ePn	Pn	07 01 27.1	+1.0
DAMV				IAML		07 02 18.9	
	comp=Z,940nm,1.0s						
IDMV	Damavand	4.54	206	Pn	Pn	07 01 27.6	+1.1
GIDE	GILAN DEYLAMAN	4.54	234	ePn	Pn	07 01 25.8	-0.6
GIDE				IAML		07 02 16.9	
	comp=Z,970nm,1.0s						
LKRN	Lenkeran, Azer	4.55	260	P	Pn	07 01 26.9	+0.6
CHTH	Charan	4.62	216	ePn	Pn	07 01 27.5	0.0
CHTH				IAML		07 01 55.1	
	comp=Z,290nm,1.0s						
TEHA	Amirabad Tehra	4.64	213	Pn	Pn	07 01 28.5	+0.9
THKV	Tehran--Karaj	4.73	219	ePn	Pn	07 01 29.3	+0.4
THKV				IAML		07 02 24.8	
	comp=Z,880nm,1.0s						
GRMI	Germi	5.21	262	ePn	Pn	07 01 35.0	-0.4
GRMI				IAML		07 02 35.1	
	comp=Z,900nm,1.0s						
ZNJK	Zanjan	5.48	239	ePn	Pn	07 01 37.8	-1.5
ZNJK				IAML		07 03 18.2	
	comp=Z,340nm,1.0s						
QABG	Abgarm-Qazvin	5.56	226	Pn	Pn	07 01 41.8	+1.3
SEKA	Sheki	5.78	288	P	Pn	07 01 44.9	+1.6
MNGR	Mingechevir, A	5.78	283	P	Pn	07 01 45.6	+2.4
GHVR	GHOM	5.79	207	ePn	Pn	07 01 44.8	+1.4
GHVR				IAML		07 02 43.9	
	comp=Z,130nm,1.0s						
HGHA	Hamedan- Ghaye	6.13	229	Pn	Pn	07 01 49.2	+1.0
TSHB	Tabas_ShorAb	6.18	165	Pn	Pn	07 01 49.3	+0.5
MAK	Makhachkala	6.21	304	d iP	Pn	07 01 46.9	-2.1
MAK				eS	Sn	07 02 56.8	-3.2
MAK				pmax	pmax		
	comp=Z,366nm,1.7s						
MAK				MLR	MLR		
	comp=Z,445nm,13.0s						
ASAO	Ashtian	6.25	216	ePn	Pn	07 01 51.0	+1.1
ASAO				IAML		07 02 44.9	
	comp=Z,35nm,1.0s						
GANJ	Ganja	6.34	281	P	Pn	07 01 51.5	+0.5
VSHL	Vashlovani	6.37	287	P	Pn	07 01 54.2	+2.8
VSHL				S	Sn	07 03 02.9	-1.3
TABS	Tabas	6.38	160	ePn	Pn	07 01 53.1	+1.6
TABS				IAML		07 01 56.6	
	comp=Z,71nm,1.0s						
DDFL	Dedoflistskaro	6.63	288	P	Pn	07 01 58.9	+4.0
DDFL	Dedoflistskaro	6.63	288	P	Pn	07 01 58.9	+4.0
IMRD	Marand	6.91	265	Pn	Pn	07 02 00.5	+1.7
IAZR	Azarshahr	6.96	256	Pn	Pn	07 02 01.0	+1.3
KHMZ	Khomeyn	6.96	213	ePn	Pn	07 02 00.5	+0.8
KHMZ				IAML		07 02 21.0	
	comp=Z,29nm,1.0s						
NAX	Nakhchivan	7.00	269	P	Pn	07 02 01.5	+1.6
ISHB	Shabestar	7.06	261	Pn	Pn	07 02 02.9	+1.8
DGRG	David-gareji	7.17	287	P	Pn	07 02 03.8	+1.4
DGRG				S	Sn	07 03 20.9	-3.0
DGRG	David-gareji	7.17	287	P	Pn	07 02 03.8	+1.4
DGRG				S	Sn	07 03 21.0	-3.0
SNJK	Sanadaj _Korde	7.26	237	Pn	Pn	07 02 04.9	+1.1
YZKH	Yazd	7.28	179	ePn	Pn	07 02 04.8	+1.0
YZKH				IAML		07 02 06.7	
	comp=Z,91nm,1.0s						
SNGE	Sanandaj	7.31	233	ePn	Pn	07 02 05.1	+0.7
SNGE				IAML		07 03 04.6	
	comp=Z,17nm,1.0s						
GNI	Garni	7.52	277	Pn	Pn	07 02 06.7	-0.5
	comp=Z,16nm,0.3s,baz=18,slow=16,SNR=3.6						
GNI				Sn	Sn	07 03 32.8	+0.1
	comp=Z,17nm,0.3s,baz=230,slow=22,SNR=4.0						
	comp=Z,32nm,0.3s						
GNI				AML	AML		
GNI	Garni	7.52	277	Pn	Pn	07 02 06.6	-0.7
SHRT	Shahrakht	7.61	141	ePn	Pn	07 02 08.9	+0.6
SHRT				IAML		07 03 09.6	
	comp=Z,17nm,1.0s						
SHTL	Shatili	7.66	296	P	Pn	07 02 11.5	+2.4
SHTL				S	Sn	07 03 34.1	-1.8
SHTL	Shatili	7.66	296	P	Pn	07 02 11.5	+2.4
SHTL				S	Sn	07 03 34.1	-1.8
CHRG	Chargali	7.71	293	P	Pn	07 02 11.3	+1.5
CHRG				S	Sn	07 03 35.0	-2.3
SRSL	SARDASHT	7.96	247	ePn	Pn	07 02 14.9	+1.6
SRSL				IAML		07 02 26.7	
	comp=Z,44nm,1.0s						
IBAF	Bafgh	8.12	174	Pn	Pn	07 02 16.5	+1.1
TRLG	Trialeti	8.13	287	P	Pb	07 02 31.4	-7.0
TRLG				S	Sn	07 03 55.9	+8.3
TRLG	Trialeti	8.13	287	P	Pb	07 02 31.4	-7.0
TRLG				S	Sn	07 03 55.9	+8.3
HRA	Herat	8.13	128	Pn	Pn	07 02 15.0	-0.7
AKH	Akhalkalaki	8.56	285	P	Pn	07 02 26.5	+5.0
AKH				S	Sn	07 03 55.7	-2.5
AKH	Akhalkalaki	8.56	285	P	Pn	07 02 26.5	+5.0
AKH				S	Sn	07 03 55.7	-2.5
BSRN	Basiran	8.56	153	ePn	Pn	07 02 22.5	+1.0
BSRN				IAML_BB		07 02 34.7	
	comp=Z,290nm,1.0s						
HAKT	HAKKARI	8.71	259	P	Pn	07 02 24.6	+0.9
	comp=Z,58nm,0.7s						
GARIG	Gari	8.82	293	P	Pn	07 02 29.2	+4.2
ILBA	Ilam Banvizeh	9.00	230	ePn	Pn	07 02 28.0	+0.6
ILBA				IAML_BB		07 02 29.6	
	comp=Z,860nm,1.0s						
GEVA	Gevas	9.02	265	Pn	Pn	07 02 29.5	+1.7
EPOS	Posof	9.14	285	P	Pn	07 02 30.5	+1.0
	comp=Z,16nm,0.8s						
KBZ	Khabaz	9.58	299	Pn	Pn	07 02 35.2	0.0
	comp=Z,4.0nm,0.3s,baz=107,slow=5.8,SNR=34						
KBZ				Sn	Sn	07 04 18.0	-4.8
	comp=Z,8.9nm,0.3s,baz=307,slow=20,SNR=4.4						
	comp=Z,13nm,0.3s						
KBZ				AML	AML		
SHA1	Shidzhatmaz	9.74	298	ceP	Pn	07 02 38.5	+0.8
KVAR	Kislovodsk Arr	9.79	300	Sn	Sn	07 04 23.2	-5.2
	baz=238,slow=13						
KIV	Kislovodsk	9.80	300	P	Pn	07 02 39.0	+0.6
KIV				S	Sn	07 04 20.9	-7.7
KIV	Kislovodsk	9.80	300	eP	Pn	07 02 38.8	+0.3
KIV				eS	Sn	07 04 29.1	+0.6
KIV				pmax	pmax		
	comp=Z,50nm,1.0s						
KIV	Kislovodsk	9.80	300		Pn	07 02 38.7	+0.3
KIV	Kislovodsk	9.80	300	⇓P	Pn	07 02 39.0	+0.6
KIV	Kislovodsk	9.80	300	P	Pn	07 02 38.9	+0.6
	comp=Z,990nmcomp=Z,72nm,0.6s						
KIV	Kislovodsk	9.80	300	P	Pn	07 02 39.3	+0.8
	comp=Z,93nm,0.6s						
GOF	Gofitskoye	10.04	306	ceP	Pn	07 02 51.1	+10
AB31	Akbulak array	10.33	20	⇑P	Pn	07 02 47.7	+2.2
	comp=Z,7.2nm,0.2s,baz=200,slow=13,SNR=859						
AB31				⇓S	Sn	07 04 38.5	-2.8
	comp=Z,16nm,0.3s,baz=199,slow=25,SNR=5.5						
AB31	Akbulak array	10.33	20	P	Pn	07 02 47.6	+2.1
AB31				S	Sn	07 04 38.1	-3.2
AB31	Akbulak array	10.33	20		Pn	07 02 46.2	+0.7
ABKAR	Akbulak array	10.33	20		Pn	07 02 46.2	+0.7
KOPT	Kop Dagi	10.78	276	Pn	Pn	07 02 53.2	+1.2
AKTO	Aktyubinsk	11.04	12	Pn	Pn	07 02 56.7	+1.5
	comp=Z,9.6nm,0.3s,baz=185,slow=11,SNR=48						
AKTO				Sn	Sn	07 04 55.5	-3.1
	comp=Z,20nm,0.3s,baz=67,slow=20,SNR=7.5						
AKTO				LR	LR	07 08 26.5	
	comp=Z,638nm,18.2s,baz=155,slow=43						
	comp=Z,23nm,0.3s						
AKTO				AML	AML		
AKTO	Aktyubinsk	11.04	12	⇑P	Pn	07 02 57.3	+2.1
	comp=Z,6.3nm,0.3s						
AKTO				⇓S	Sn	07 04 56.7	-1.9
	comp=Z,28nm,0.6s						
AKTO	Aktyubinsk	11.04	12	P	Pn	07 02 57.3	+2.1
AKTO				S	Sn	07 04 56.7	-1.9
LABN	Labinsk	11.36	300	eP	Pn	07 03 01.3	+1.6
LABN				eS	Sn	07 05 08.4	+1.7
LABN				pmax	pmax		
	comp=Z,28nm,0.5s						
CHM	Chimkent	11.71	72	eP	Pn	07 03 03.5	-1.0
CHM	Chimkent	11.71	72	eP	Pn	07 03 03.6	-1.0
SOC	Sochi	11.73	294	eP	Pn	07 03 05.4	+0.6
SOC				e		07 05 16.5	
SOC				pmax	pmax		
	comp=Z,21nm,0.8s						
SOC				MLR	MLR		
	comp=Z,70nm,16.0s						
KBD	Kabd	11.89	210	P	Pn	07 03 05.5	-1.5
ERBR	Yeremizino-Bor	11.94	305	eP	Pn	07 03 07.0	-0.6
ERBR				eS	Sn	07 05 21.4	+0.5
ERBR				pmax	pmax		
	comp=Z,22nm,0.6s						
ERBR				MLR	MLR		
	comp=Z,229nm,23.0s						
BRLS	Borolday	12.00	69	eP	Pn	07 03 05.5	-2.9
BRLS	Borolday	12.00	69	eP	Pn	07 03 05.5	-2.9
IUG	Iuzhnay	12.00	73	eP	Pn	07 03 07.7	-0.8
IUG	Iuzhnay	12.00	73	eP	Pn	07 03 07.8	-0.8
KK31	Karatay Array	12.50	69	P	Pn	07 03 14.9	-0.4
	comp=Z,27nm,0.8s,baz=253,slow=16,SNR=150						
KK31				⇓S	Sn	07 05 26.7	-7.8
	comp=Z,8.0nm,0.4s,baz=329,slow=42,SNR=4.1						
KK31	Karatay Array	12.50	69	eP	Pn	07 03 14.8	-0.4
KK31				S	Sn	07 05 26.7	-7.8
KK31	Karatay Array	12.50	69		Pn	07 03 14.8	-0.4
KKAR	Karatay Array	12.50	69	P	Pn	07 03 15.0	-0.2
KKAR	Karatay Array	12.50	69		Pn	07 03 15.0	-0.2
BTK	Batken	12.54	83	P	Pn	07 03 16.1	+0.2
BTK	Batken	12.54	83		Pn	07 03 16.1	+0.2
BTK	Batken	12.54	83	P	Pn	07 03 16.5	+0.6
	comp=Z,28nm,1.0s						
DZA	Taraz	13.05	70	eP	Pn	07 03 21.9	-1.0
DZA	Taraz	13.05	70	eP	Pn	07 03 21.9	-1.0
DRK	Karamyk	13.35	85	P	Pn	07 03 26.2	-0.9
	comp=Z,35nm,0.6s						
ARK	Arkit	13.41	75	P	Pn	07 03 27.1	-0.6
	comp=Z,48nm,0.8s						
BELG	Belogornoye	13.57	342	Pn	Pn	07 03 28.7	-1.1
	comp=Z,13nm,0.3s,baz=217,slow=3.1,SNR=30						
BELG				Sn	Sn	07 05 50.3	-10
	comp=Z,5.6nm,0.3s,baz=222,slow=16,SNR=10						
	comp=Z,24nm,0.4s						
BELG				AML	AML		
BELG	Belogornoye	13.57	342	i P	Pn	07 03 29.2	-0.6
ANN	Anapa	13.64	298	eP	Pn	07 03 33.1	+2.4
ANN				eS	Sn	07 06 06.4	+4.1
ANN				pmax	pmax		
	comp=Z,29nm,0.9s						
SHME	Shamm	13.66	174	P	Pn	07 03 30.3	-0.9
OHH	Osh	14.02	81	P	Pn	07 03 33.3	-2.8
	comp=Z,44nm,0.6s						
SAKB	Bahrain	14.06	195	P	Pn	07 03 35.9	-0.8
MASF	Masafi	14.34	174	P	Pn	07 03 41.0	+0.5
ANDN	Andirin	14.35	267	P	Pn	07 03 41.2	+0.5
	comp=Z,40nm,0.8s						
MDH	Madha	14.42	173	P	Pn	07 03 41.2	-0.3
BNN	Bunyan	14.48	273	Pn	Pn	07 03 42.6	+0.1
VRH	Novokhopyorsk	14.58	326	eP	Pn	07 03 44.3	+0.7
VRH				pmax	pmax		
	comp=Z,36nm,0.8s						
UOSS	Minazif	14.76	174	P	Pn	07 03 45.2	-1.0
UOSS	Minazif	14.76	174		Pn	07 03 45.5	-0.7
UOSS	Minazif	14.76	174	P	Pn	07 03 43.6	-2.6
	comp=Z,11nm,1.2s						
HATD	Hatta, Dubai	14.88	174	P	Pn	07 03 47.4	-0.4
ASHO	Ashiyiah	15.01	175	P	Pn	07 03 49.3	-0.3
AAK	Ala-Archa	15.34	72	Pn	Pn	07 03 54.5	+0.5
	comp=Z,1.0nm,0.3s,baz=245,slow=17,SNR=5.5						
AAK				Sn	Sn	07 06 42.6	-1.4
	comp=Z,0.9nm,0.3s,baz=10,slow=16,SNR=3.8						
AAK				LR	LR	07 10 36.0	
	comp=Z,256nm,18.7s,baz=270,slow=40						
	comp=Z,4.8nm,0.5s						
AAK				AML	AML		
AAK	Ala-Archa	15.34	72	⇓P	Pn	07 03 55.6	+1.5
	comp=Z,12nm,0.7s						
AAK				⇓S	Sn	07 06 44.7	+0.6
	comp=Z,8.5nm,0.7s						
AAK	Ala-Archa	15.34	72	P	Pn	07 03 54.7	+0.7
AAK				S	Sn	07 06 43.1	-0.9
AAK	Ala-Archa	15.34	72	P	Pn	07 03 55.6	+1.5
AAK	Ala-Archa	15.34	72		Pn	07 03 54.6	+0.5
AAK	Ala-Archa	15.34	72	P	Pn	07 03 54.7	+0.7
	comp=Z,33nm,0.8s						
BTLS	Baital	15.39	63	eP	Pn	07 03 53.7	-0.8
BTLS	Baital	15.39	63	eP	Pn	07 03 53.8	-0.8
VORD	Divnogorie	15.52	322	eP	Pn	07 03 54.4	-1.7
VORD				pmax	pmax		
	comp=Z,40nm,0.7s						
SGDS	Sogindy	15.52	69	eP	Pn	07 03 55.6	-0.8
SOHO	SOHO	15.60	173	P	Pn	07 03 56.7	-0.5
BZK	Bozkurt	15.69	285	⇓P	Pn	07 03 59.8	+1.4
VSR	Storozhevoye	15.74	322	eP	Pn	07 03 57.0	-2.0
VSR				pmax	pmax		
	comp=Z,45nm,1.0s						
ILGA	Ilgaz	15.91	282	Pn	Pn	07 04 02.3	+0.8
KIRS	Kirsehir-Merke	15.93	275	⇓P	P	07 04 04.5	-0.8
VORR	Voronezh	16.02	323	eP	Pn	07 04 00.1	-2.6
VORR				pmax	pmax		
	comp=Z,60nm,0.4s						
BR104	Keskin Array S	16.06	277	P	Pn	07 04 03.5	+0.1
	comp=Z,3.8nm,0.8s						
BR131	Keskin Array S	16.06	277	P	Pn	07 04 03.4	0.0
BR131				pmax	pmax		
	comp=Z,3.0nm,0.6s						
BR131	Keskin Array S	16.06	277	Pn	Pn	07 04 03.4	0.0
BRTR	Keskin Array B	16.06	277	Pn	Pn	07 04 03.2	-0.2
	comp=Z,0.3nm,0.3s,baz=91,slow=12,SNR=5.2						
	comp=Z,0.9nm,0.7s						
BRTR				AML	AML		
BRTR	Keskin Array B	16.06	277	ceP	P	07 04 07.0	+0.2
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
BRTR	Keskin Array B	16.06	277	Pn	Pn	07 04 04.3	+0.9
BR105	Keskin Array S	16.08	277	P	Pn	07 04 03.7	+0.1
	comp=Z,4.1nm,1.0s						
ASF	Jabal al Asfar	16.10	248	Pn	Pn	07 03 59.5	-4.3
	comp=Z,0.3nm,0.3s,baz=333,slow=6.5,SNR=4.8						
	comp=Z,1.0nm,0.4s						
ASF				AML	AML		
KSH2	Kashi	16.29	85	P	Pn	07 04 07.5	+1.2
KSH2				pmax	pmax		
	comp=Z,5.0nm,0.7s						
NRN	Naryn	16.43	77	P	Pn	07 04 07.9	-0.3
NRN				pmax	pmax		
	comp=Z,12nm,0.9s						
NRN	Naryn	16.43	77		Pn	07 04 07.9	-0.3
LPSR	Galich'ya Gora	16.79	325	eP	Pn	07 04 11.9	-0.5
LPSR				pmax	pmax		
	comp=Z,90nm,0.9s						
ASAI	AK-SAY(Kyrgyzs	16.84	79	P	Pn	07 04 14.3	+0.8
	comp=Z,17nm,0.7s						
ARTI	Arti	16.91	7	Pn	Pn	07 04 13.6	-0.3
	comp=Z,4.0nm,0.3s,baz=191,slow=9.7,SNR=13						
ARTI				Sn	Sn	07 07 12.8	-9.0
	comp=Z,1.7nm,0.3s,baz=126,slow=22,SNR=3.4						
ARTI				LR	LR	07 12 15.9	
	comp=Z,440nm,19.5s,baz=196,slow=42						
ARTI	Arti	16.91	7	c iP	Pn	07 04 13.7	-0.3
ARTI				S	Sn	07 07 16.0	-5.8
ARTI				pmax	pmax		
	comp=Z,10.0nm,0.6s						
ARTI	Arti	16.91	7	Pn	Pn	07 04 14.3	+0.3
ARTI				IAmb	IAmb	07 04 25.1	
	comp=Z,69nm,0.4s						
UMZA	Um Al Zommool	16.92	178	P	Pn	07 04 12.4	-1.9
AAA	Alma-Ata	17.16	71	eP	Pn	07 04 16.1	-1.1
AAA	Alma-Ata	17.16	71	eP	Pn	07 04 16.2	-1.1
BORK	Borovoye	17.20	34	P	Pn	07 04 18.5	+0.9
BORK				pmax	pmax		
	comp=Z,29nm,1.3s						
BORK	Borovoye	17.20	34	Pn	Pn	07 04 18.5	+0.9
BVAR	Borovoye Array	17.22	34	Pn	Pn	07 04 18.4	+0.6
	comp=Z,0.2nm,0.3s,baz=220,slow=11,SNR=28						
BVAR				Sn	Sn	07 07 11.2	-18
	comp=Z,0.1nm,0.3s,baz=230,slow=22,SNR=1.7						
	comp=Z,9.4nm,0.4s						
BVAR				AML	AML		
MDOK	Medeo	17.25	71	eP	Pn	07 04 17.2	-1.3
MDOK	Medeo	17.25	71	eP	Pn	07 04 17.3	-1.3
SVE	Sverdlovsk	17.62	11	eP	Pn	07 04 24.2	+1.4
SVE				eS	Sn	07 07 32.0	-7.0
SVE				pmax	pmax		
	comp=Z,27nm,0.9s						
RAYN	Ar Rayn	17.82	208	P	Pn	07 04 23.9	-1.8
RAYN	Ar Rayn	17.82	208	P	Pn	07 04 23.7	-1.9
RAYN				pmax	pmax		
	comp=Z,22nm,0.7s						
RAYN	Ar Rayn	17.82	208		Pn	07 04 23.7	-1.9
RAYN	Ar Rayn	17.82	208	P	Pn	07 04 23.8	-1.8
	comp=Z,38nm,1.0s						
MDUB	Mudurnu	17.85	280	P	P	07 04 26.9	+0.3
JLN	Jalan Bani Buh	17.97	165	P	P	07 04 27.4	-0.4
KEPZ	Antalya-Kepez	18.18	268	⇑P	P	07 04 32.2	+2.0
SATY	Saty	18.24	72	eP	Pn	07 04 29.4	-1.2
SATY	Saty	18.24	72	eP	Pn	07 04 29.5	-1.2
BORA	Eskisehir	18.48	278	P	Pn	07 04 34.3	+0.7
HRFI	Mount Harif	18.62	245	P	Pn	07 04 35.7	+0.4
	comp=Z,21nm,1.4s						
UZB	Uzynbulak	18.69	71	eP	P	07 04 34.6	-1.3
UZB	Uzynbulak	18.69	71	eP	P	07 04 34.6	-1.3
EIL	Elat	18.90	244	P	P	07 04 35.4	-2.6
	comp=Z,0.3nm,0.3s,baz=10,slow=8.7,SNR=5.8						
	comp=Z,9.1nm,0.8s						
EIL				AML	AML		
EIL	Elat	18.90	244	P	Pn	07 04 38.2	-0.4
	comp=Z,14nm,1.3s						
SHLS	Shalkode	19.01	71	eP	Pn	07 04 41.4	+1.3
SHLS	Shalkode	19.01	71	eP	Pn	07 04 41.5	+1.3
KIRV	Kirov	19.20	352	P	Pn	07 04 42.7	+0.7
	comp=Z,9.0nm,0.3s,baz=164,slow=7.2,SNR=11						
KIRV				LR	LR	07 13 57.7	
	comp=Z,281nm,18.2s,baz=151,slow=42						
	comp=Z,27nm,0.4s						
KIRV				AML	AML		
KIRV	Kirov	19.20	352	ceP	Pn	07 04 42.6	+0.6
YLV	Yalova	19.23	281	P	Pn	07 04 42.0	-0.6
	comp=Z,23nm,0.8s						
OBN	Obninsk	19.55	328	P	P	07 04 46.2	+1.2
	comp=Z,7.8nm,0.3s,baz=203,slow=20,SNR=3.5						
OBN				S	S	07 08 18.4	-7.2
	comp=Z,28nm,0.4s,baz=217,slow=21,SNR=3.2						
	comp=Z,24nm,0.5s						
OBN				AML	AML		
OBN	Obninsk	19.55	328	⇑eP	P	07 04 46.0	+1.0
OBN				pmax	pmax		
	comp=Z,24nm,1.2s						
OBN				MLR	MLR		
	comp=Z,131nm,16.0s						
OBN	Obninsk	19.55	328	P	P	07 04 45.8	+0.8
MOS	Moscow	19.59	331	eP	P	07 04 46.6	+1.2
MOS				eS	S	07 08 19.6	-6.7
MOS				pmax	pmax		
	comp=Z,45nm,0.9s						
TLCR		19.70	295	P	Pn	07 04 47.5	-0.7
TLCR		19.70	295	⇑P	Pn	07 04 47.5	-0.7
TIRR	Tirgusor	19.91	292	P	P	07 04 49.7	+0.7
TIRR				pmax	pmax		
	comp=Z,55nm,1.6s						
TIRR	Tirgusor	19.91	292	P	P	07 04 49.7	+0.7
TIRR				IAmb	IAmb	07 04 54.2	
	comp=Z,55nm,1.6s						
TPGR	Topolog	19.95	294	⇑P	Pn	07 04 50.3	-0.8
KURBB	Kurchatov Arra	20.08	49	P	Pn	07 04 53.6	+1.0
	comp=Z,2.4nm,0.5s,baz=250,slow=10,SNR=5.4						
KURBB				S	S	07 08 28.7	-7.5
	comp=Z,2.1nm,0.6s,baz=255,slow=24,SNR=5.6						
KURBB				LR	LR	07 13 43.4	
	comp=Z,269nm,18.5s,baz=178,slow=40						
	comp=Z,2.4nm,0.5s						
KURK	Kurchatov	20.17	49	i P	P	07 04 52.5	+0.8
KURK				pmax	pmax		
	comp=Z,19nm,1.0s						
CFR	Carcaliu	20.18	294	P	P	07 04 51.9	0.0
CFR	Carcaliu	20.18	294	⇑P	P	07 04 51.9	0.0
TLBR	Topalu	20.18	293	⇑P	P	07 04 52.8	+0.8
HARR	Harsova	20.28	293	P	P	07 04 53.6	+0.6
HARR	Harsova	20.28	293	⇓P	P	07 04 53.7	+0.6
SORM	Soroca	20.58	303	P	P	07 04 56.0	-0.2
SORM	Soroca	20.58	303	⇑P	P	07 04 56.1	-0.2
SORM	Soroca	20.58	303	P	P	07 04 55.9	-0.2
	comp=Z,38nm,0.7s						
AK09	Malin Array Si	20.78	310	P	P	07 04 58.8	+0.4
AK10	Malin Array Si	20.79	310	P	P	07 04 58.2	-0.3
AK07	Malin Array Si	20.80	310	P	P	07 04 58.3	-0.3
AK08	Malin Array Si	20.80	310	P	P	07 04 58.3	-0.3
AK06	Malin Array Si	20.82	310	P	P	07 04 58.7	-0.1
AK05	Malin Array Si	20.83	310	P	P	07 04 58.8	-0.1
AK02	Malin Array Si	20.84	310	P	P	07 04 59.0	0.0
AKASG	Malin Array Be	20.84	310	P	P	07 04 59.6	+0.5
	comp=Z,37nm,0.5s,baz=108,slow=9.3,SNR=113						
AKASG				S	S	07 08 43.5	-7.9
	comp=Z,0.3nm,0.3s,baz=115,slow=22,SNR=2.2						
	comp=Z,37nm,0.5s						
AKASG	Malin Array Be	20.84	310	ceP	P	07 04 59.5	+0.4
AKASG				pmax	pmax		
	comp=Z,42nm,0.5s						
AKASG	Malin Array Be	20.84	310	P	P	07 04 59.0	-0.1
AKASG				IAmb	IAmb	07 05 00.2	
	comp=Z,58nm,0.6s						
AKBB	Malin Array Si	20.84	310	ceP	P	07 04 59.4	+0.3
AKBB				pmax	pmax		
	comp=Z,82nm,0.6s						
AKBB	Malin Array Si	20.84	310	P	P	07 04 59.1	-0.1
AKBB	Malin Array Si	20.84	310	P	P	07 04 59.0	-0.1
AK01	Malin Array Si	20.85	310	P	P	07 04 59.1	0.0
KIEV	Kiev	20.85	310	P	P	07 04 59.5	+0.3
KIEV	Kiev	20.85	310	P	P	07 04 59.3	+0.2
KIEV	Kiev	20.85	310	⇑P	P	07 04 59.5	+0.3
KIEV	Kiev	20.85	310	P	P	07 04 59.0	-0.2
	comp=Z,6μmcomp=Z,561nm,0.6s						
KIEV	Kiev	20.85	310	P	P	07 04 59.6	+0.4
	comp=Z,142nm,0.6s						
AK03	Malin Array Si	20.86	310	P	P	07 04 59.2	0.0
AK12	Malin Array Si	20.86	310	P	P	07 04 59.3	0.0
AK11	Malin Array Si	20.87	310	P	P	07 04 59.3	-0.1
AK04	Malin Array Si	20.89	310	P	P	07 04 59.5	-0.1
AK14	Malin Array Si	20.89	310	P	P	07 04 59.5	-0.1
AK15	Malin Array Si	20.90	310	P	P	07 04 59.7	0.0
AK16	Malin Array Si	20.90	310	P	P	07 04 59.7	0.0
AK13	Malin Array Si	20.91	310	P	P	07 04 59.7	-0.1
AK23	Malin Array Si	20.93	310	P	P	07 04 59.9	-0.1
AK17	Malin Array Si	20.94	310	P	P	07 05 00.0	-0.1
AK18	Malin Array Si	20.94	310	P	P	07 05 00.1	-0.1
AK22	Malin Array Si	20.96	310	P	P	07 05 00.3	0.0
AK19	Malin Array Si	20.98	310	P	P	07 05 00.5	0.0
AK21	Malin Array Si	20.98	310	P	P	07 05 00.5	-0.1
AK20	Malin Array Si	20.99	310	P	P	07 05 00.6	0.0
DOK	Doka	20.99	181	P	P	07 05 00.2	-0.7
	SNR=7.8						
ODBI	Odobesti	21.00	296	⇑P	P	07 05 01.8	+0.9
SEM	Semipalatinsk	21.01	51	eP	P	07 04 59.9	-1.3
SEM	Semipalatinsk	21.01	51	eP	P	07 04 59.9	-1.3
MAKZ	Makanchi	21.17	61	P	P	07 05 04.9	+2.2
MAKZ	Makanchi	21.17	61	P	P	07 05 04.2	+1.5
MAKZ	Makanchi	21.17	61	P	P	07 05 04.5	+1.8
	comp=Z,19nm,0.8s						
VRI	Vrincioaia	21.25	296	P	P	07 05 03.9	+0.4
VRI	Vrincioaia	21.25	296	⇓P	P	07 05 04.0	+0.4
VRI	Vrincioaia	21.25	296	P	P	07 05 04.3	+0.8

	comp=Z,23nm,0.7s						
VRI	Vrincioaia	21.25	296	P	P	07 05 04.8	+1.3
	comp=Z,23nm,0.7s						
SAHR	Sahastru	21.26	296	⇑P	P	07 05 04.2	+0.5
ISR	Istrita	21.30	294	P	P	07 05 05.4	+1.3
ISR	Istrita	21.30	294	⇑P	P	07 05 05.4	+1.3
PLOR	Plostina	21.30	296	P	P	07 05 04.7	+0.6
PLOR	Plostina	21.30	296	⇓P	P	07 05 04.8	+0.6
MKAR	Makanchi Array	21.38	61	P	P	07 05 07.5	+2.6
	comp=Z,3.4nm,0.7s,baz=256,slow=9.9,SNR=26						
MKAR				S	S	07 09 00.7	-1.6
	comp=Z,1.5nm,0.6s,baz=309,slow=18,SNR=1.9						
MKAR				LR	LR	07 14 13.4	
	comp=Z,210nm,18.0s,baz=272,slow=39						
	comp=Z,3.4nm,0.7s						
MKAR	Makanchi Array	21.38	61	P	P	07 05 06.9	+1.9
MKAR	Makanchi Array	21.38	61	P	P	07 05 06.9	+1.9
MK31	Makanchi Array	21.38	61	P	P	07 05 07.5	+2.6
	comp=Z,2.4nm,0.6s,baz=253,slow=10,SNR=27						
MK31	Makanchi Array	21.38	61	iP	P	07 05 07.5	+2.6
TESR	Tescani	21.39	298	⇑P	P	07 05 05.7	+0.7
TESR	Tescani	21.39	298	P	P	07 05 05.0	0.0
	comp=Z,37nm,0.8s						
TESR	Tescani	21.39	298	P	P	07 05 05.3	+0.3
	comp=Z,37nm,0.8s						
LUBAR	Lubar, Ukraine	21.46	307	P	P	07 05 05.6	-0.1
MI30	MI30,Zelenitsa	21.47	310	P	P	07 05 05.6	-0.3
	comp=Z,87nm,0.7s						
ONER	Baraj Valea Uz	21.54	297	⇑P	P	07 05 07.0	+0.4
MI29	MI29, Kamyanyy	21.56	309	P	P	07 05 05.8	-1.0
	comp=Z,268nm,0.9s						
COVR	Voineasa-Covas	21.61	296	⇓P	P	07 05 08.0	+0.6
WHFO	Wadi Hawf	21.69	182	P	P	07 05 07.6	-0.9
	SNR=20						
MLR	Muntele Rosu	21.75	295	P	P	07 05 10.1	+1.1
	comp=Z,13nm,0.8s,baz=358,slow=20,SNR=11						
	comp=Z,13nm,0.8s						
MLR	Muntele Rosu	21.75	295	P	P	07 05 10.4	+1.4
MLR				IAmb	IAmb	07 05 15.4	
	comp=Z,122nm,1.9s						
MLR	Muntele Rosu	21.75	295	⇑P	P	07 05 10.2	+1.2
MLR	Muntele Rosu	21.75	295	P	P	07 05 09.4	+0.3
	comp=Z,24nm,0.7s						
MLR	Muntele Rosu	21.75	295	P	P	07 05 10.8	+1.8
	comp=Z,24nm,0.7s						
BIZ	Bicaz	21.82	299	⇑P	P	07 05 09.8	+0.1
MI28	Mi28,Pidlybu	21.85	310	P	P	07 05 08.5	-1.4
DMTO	DMTO	21.89	179	P	P	07 05 09.4	-1.1
KMPD	K-Podol'skiy	21.90	303	P	P	07 05 09.2	-1.3
KARP	Karpathos	22.02	268	P	P	07 05 12.9	+1.1
KARP				IAmb	IAmb	07 05 31.3	
	comp=Z,63nm,0.9s						
KARP	Karpathos	22.02	268	eP	P	07 05 12.5	+0.6
KARP	Karpathos	22.02	268	P	P	07 05 12.9	+1.1
	comp=Z,60nm,0.9s						
RBK	Rabkut	22.10	181	P	P	07 05 11.8	-1.1
ABTO	Aybut	22.27	183	P	P	07 05 14.0	-0.7
	SNR=11						
VOIR		22.37	295	P	P	07 05 16.5	+0.8
VOIR		22.37	295	⇑P	P	07 05 16.5	+0.8
VOIR		22.37	295	P	P	07 05 15.6	-0.1
	comp=Z,15nm,0.6s						
BURAR	Bucovina Array	22.53	300	P	P	07 05 17.4	+0.1
BURAR	Bucovina Array	22.53	300	P	P	07 05 17.2	-0.2
BURAR				IAmb	IAmb	07 05 32.6	
	comp=Z,14nm,0.7s						
BURAR	Bucovina Array	22.53	300	⇑P	P	07 05 17.5	+0.1
BUR08	Bucovina Ar. S	22.55	300	P	P	07 05 17.1	-0.4
BUR08				IAmb	IAmb	07 05 40.1	
	comp=Z,12nm,0.7s						
ARR	Arges	22.66	294	⇑P	P	07 05 19.5	+0.7
ARR	Arges	22.66	294	P	P	07 05 19.8	+1.0
	comp=Z,11nm,0.8s						
RNPP5	Staryi Chortor	23.01	310	P	P	07 05 22.0	-0.2
ARCR	ARCALIA	23.03	299	⇓P	P	07 05 23.8	+1.3
RNPP8	Varash	23.06	310	P	P	07 05 22.6	-0.2
KLMR	Klimovskoe	23.15	341	eP	P	07 05 23.1	-0.5
KLMR				pmax	pmax		
	comp=Z,50nm,0.8s						
ZSN	Zaisan	23.22	60	eP	P	07 05 24.1	-0.4
ZSN	Zaisan	23.22	60	eP	P	07 05 24.2	-0.4
MNK	Minsk	23.22	318	iP	P	07 05 25.9	+1.5
MNK				i		07 05 51.3	
MNK				iPPP	PPP	07 05 59.2	
MNK				iS	S	07 09 38.7	+2.5
MNK				iSS	SnSn	07 10 13.4	+3.7
MNK				iSSS	SSS	07 10 26.8	
MNK				pmax	pmax		
	comp=E,19nm,0.8s						
MNK				pmax	pmax		
	comp=N,36nm,1.0s						
MNK				pmax	pmax		
	comp=Z,10.0nm,0.6s						
MNK				MLR	MLR		
	comp=Z,114nm,20.0s						
MNK				MLR	MLR		
	comp=E,564nm,19.0s						
MNK				MLR	MLR		
	comp=N,299nm,20.0s						
MNK	Minsk	23.22	318	iP	P	07 05 26.0	+1.5
	comp=E,19nm,0.8s						
MNK				iP	P	07 05 26.0	+1.5
	comp=N,36nm,1.0s						
MNK				iP	P	07 05 26.0	+1.5
	comp=Z,10.0nm,0.6s,baz=118						
MNK				iPP	PnPn	07 05 51.3	+1.5
MNK				iPPP	PPP	07 05 59.3	
MNK				iS	S	07 09 38.8	+2.5
MNK				iSS	SnSn	07 10 13.4	+3.7
MNK				iSSS	SSS	07 10 26.8	
MNK				iLQ	LQ	07 12 35.6	
MNK				iLR	LR	07 14 21.5	
MNK				iLRM	MLR	07 15 52.8	
	comp=Z,114nm,20.4s						
MNK				iLRM	MLR	07 15 54.0	
	comp=E,564nm,19.2s						
MNK				iLRM	MLR	07 15 57.2	
	comp=N,299nm,20.5s						
LOT	Lotru	23.27	294	⇑P	P	07 05 26.0	+0.8
LOT	Lotru	23.27	294	P	P	07 05 27.2	+2.0
	comp=Z,12nm,0.6s						
SRS	Serrai	23.53	284	P	P	07 05 29.4	+1.7
	comp=Z,17nm,1.1s						
BMR	Baia Mare	23.69	300	P	P	07 05 30.4	+1.3
	comp=Z,42nm,0.9s						
MARR	Marisel-Cluj	23.82	297	⇑P	P	07 05 30.6	0.0
IDI	Anoyia	23.85	269	P	P	07 05 30.2	-0.6
	comp=Z,7.1nm,0.3s,baz=111,slow=7.3,SNR=14						
IDI				S	S	07 09 42.3	-4.5
	comp=Z,2.3nm,0.4s,baz=104,slow=19,SNR=1.4						
	comp=Z,7.1nm,0.3s						
GZR	Gura Zlata	23.97	294	P	P	07 05 32.4	+0.5
GZR	Gura Zlata	23.97	294	⇑P	P	07 05 32.4	+0.5
NACGM	Naroch	23.98	319	eP	P	07 05 33.2	+1.4
	comp=Z,19nm,0.9s,baz=118						
DRGR		24.11	298	P	P	07 05 34.3	+1.1
DRGR		24.11	298	⇓P	P	07 05 34.4	+1.1
DRGR		24.11	298	P	P	07 05 34.5	+1.3
	comp=Z,13nm,0.8s						
HERR	Herculane	24.21	293	⇑P	P	07 05 34.2	+0.2
TRPA	Tarpa	24.39	301	P	P	07 05 37.6	+1.9
	comp=Z,16nm,0.8s						
SURR	Surduc	24.44	295	⇓P	P	07 05 37.5	+1.3
KOLS	Kolonicke sedl	24.69	303	eP	P	07 05 40.3	+1.8
KOLS				e		07 05 51.8	
KOLS	Kolonicke sedl	24.69	303	eP	P	07 05 40.3	+1.8
KOLS				e		07 05 51.8	
KOLS	Kolonicke sedl	24.69	303	P	P	07 05 40.3	+1.8
	comp=Z,15nm,0.6s						
MDVR	Moldovita	24.71	293	⇑P	P	07 05 39.2	+0.6
BOVS	Bovan	24.73	290	⇓P	P	07 05 40.4	+1.6
BZS	Buzias	24.79	295	P	P	07 05 39.4	+0.1
BZS	Buzias	24.79	295	⇓P	P	07 05 39.4	+0.1
SIRR	Siria	24.80	296	⇑P	P	07 05 40.4	+1.0
ZAA0	Zalesovo Array	24.94	45	P	P	07 05 41.8	+1.3
ZAA0				IAmb	IAmb	07 05 43.3	
	comp=Z,15nm,0.7s						
ZALV	Zalesovo Beam	24.94	45	P	P	07 05 42.7	+2.2
	comp=Z,15nm,0.6s,baz=256,slow=9.7,SNR=55						
ZALV				LR	LR	07 16 49.3	
	comp=Z,208nm,18.6s,baz=228,slow=39						
	comp=Z,15nm,0.6s						
ZALV	Zalesovo Beam	24.94	45	P	P	07 05 41.6	+1.0
WMQ	Urumqi	25.00	70	eP	P	07 05 43.3	+1.9
WMQ				pmax	pmax		
	comp=Z,22nm,0.7s						
WMQ				L	L		
	comp=Z,100nm,18.7s						
DGZ	Jazzator, Alta	25.28	56	iP	P	07 05 44.4	+0.5
DGZ				pmax	pmax		
	comp=Z,28nm,1.5s						
SUW	Suwalki	25.52	315	P	P	07 05 46.7	+0.9
SUW	Suwalki	25.52	315	P	P	07 05 46.7	+0.9
PABE	Paberze	25.69	318	P	P	07 05 48.9	+1.6
PABE	Paberze	25.69	318	eP	P	07 05 48.2	+0.9
PABE	Paberze	25.69	318	P	P	07 05 49.1	+1.8
	comp=Z,68nm,0.7s						
VSU	Vasula	25.85	326	eP	P	07 05 50.2	+1.4
VSU	Vasula	25.85	326	P	P	07 05 50.0	+1.2
	comp=Z,44nm,0.7s						
OJC	Ojcow	26.50	305	eP	P	07 05 55.0	+0.2
OJC	Ojcow	26.50	305	P	P	07 05 55.6	+0.8
OJC	Ojcow	26.50	305	P	P	07 05 55.6	+0.8
OJC	Ojcow	26.50	305	P	P	07 05 56.5	+1.7
	comp=Z,17nm,0.8s						
LANS	Liptovska Anna	26.55	303	eP	P	07 05 55.8	+0.5
LANS	Liptovska Anna	26.55	303	eP	P	07 05 55.8	+0.5
ARBE	Arbavere	26.73	327	eP	P	07 05 59.6	+2.9
VYHS	Vyhne	26.89	301	eP	P	07 06 00.6	+2.3
VYHS				e		07 06 16.1	
VYHS	Vyhne	26.89	301	eP	P	07 06 00.6	+2.3
VYHS				e		07 06 16.1	
JOF	Joensuu	27.11	337	eP	P	07 06 01.4	+1.3
MTSE	Matsula	27.28	324	eP	P	07 06 02.9	+1.3
STEB	Steborice	27.75	304	eP	P	07 06 10.9	+4.9
MEF	Metsahovi	27.83	328	eP	P	07 06 07.8	+1.2
MORC	Moravsky Berou	27.88	304	P	P	07 06 08.1	+0.9
MORC				pmax	pmax		
	comp=Z,10.0nm,1.2s						
MORC	Moravsky Berou	27.88	304	P	P	07 06 08.1	+0.9
MORC				IAmb	IAmb	07 06 13.6	
	comp=Z,10.0nm,1.2s						
MORC	Moravsky Berou	27.88	304	eP	P	07 06 08.1	+0.9
MORC	Moravsky Berou	27.88	304	⇓P	P	07 06 08.4	+1.2
MORC	Moravsky Berou	27.88	304	P	P	07 06 07.8	+0.6
	comp=Z,6.0nm,1.2s						
FINES	FINESS Array B	27.89	331	P	P	07 06 08.3	+1.2
	comp=Z,3.1nm,0.5s,baz=142,slow=8.8,SNR=15						
	comp=Z,3.1nm,0.5s						
FINES	FINESS Array B	27.89	331	P	P	07 06 07.8	+0.7
MODS	Modra-Piesok	27.91	300	eP	P	07 06 08.8	+1.3
MODS	Modra-Piesok	27.91	300	eP	P	07 06 08.8	+1.3
ZST	Bratislava	28.02	300	eP	P	07 06 10.2	+1.8
ZST	Bratislava	28.02	300	eP	P	07 06 10.2	+1.8
VRAC	Vranov	28.44	302	eP	P	07 06 12.2	0.0
SUF	Sumiainen	28.68	333	eP	P	07 06 15.8	+1.7
DPC	Dobruska-Polom	28.73	305	eP	P	07 06 16.4	+1.6
DPC	Dobruska-Polom	28.73	305	eP	P	07 06 16.4	+1.6
KEF	Keuruu	28.79	331	eP	P	07 06 15.8	+0.7
RAF	Rauma	29.36	328	eP	P	07 06 21.1	+0.9
ATD	Arta Tunnel	29.88	203	LR	LR	07 20 03.2	
	comp=Z,4.4nm,18.7s,baz=10,slow=40						
VAF	Ylistaro	30.13	331	eP	P	07 06 28.5	+1.5
BLEU	Blekinge	30.26	316	iP	P	07 06 28.4	+0.2
LVZ	Lovozero	30.30	345	P	P	07 06 29.9	+1.3
LVZ				pmax	pmax		
	comp=Z,121nm,1.7s						
LVZ	Lovozero	30.30	345	P	P	07 06 29.9	+1.3
GEC2	GERESS Array S	30.31	301	P	P	07 06 29.6	+0.7
GERES	GERESS Array B	30.31	301	P	P	07 06 29.1	+0.2
	comp=Z,3.0nm,0.5s,baz=90,slow=8.3,SNR=24						
	comp=Z,3.0nm,0.5s						
BSD	Bornholm Skovb	30.44	314	iP	P	07 06 29.7	-0.1
HYB	Hyderabad	30.45	130	eP	P	07 06 30.6	+0.3
HYB				ePcP	PcP	07 09 29.8	+0.1
HYB				eS	S	07 11 32.4	+1.0
CLL	Collm	30.92	306	eP	P	07 06 36.0	+1.9
CLL	Collm	30.92	306	eP	P	07 06 36.0	+1.9
LESA	Schwarzleotal	30.98	298	eP	P	07 06 35.8	+1.0
	comp=Z,7.9nm,0.3s						
FDMO	Fiordimonte	31.04	290	P	P	07 06 36.2	+0.9
NRCA	Norcia	31.05	289	P	P	07 06 35.6	+0.2
ABTA	Abfaltersbach	31.11	297	eP	P	07 06 37.0	+1.0
	comp=Z,3.7nm,0.7s						
DEL	Delary	31.35	316	iP	P	07 06 38.4	+0.7
LUNU	Lund	31.37	314	iP	P	07 06 39.0	+1.0
MURB	Monte Urbino	31.42	290	P	P	07 06 40.6	+1.9
WTTA	Wattenberg	31.69	298	eP	P	07 06 42.0	+0.8
	comp=Z,7.0nm,0.4s						
WATA	Walderalm	31.73	298	eP	P	07 06 42.1	+0.6
	comp=Z,0.3nm,0.2s						
SJUU	Sjulsmark	31.99	335	eP	P	07 06 44.6	+1.3
SQTA	Sankt Quirin	31.99	298	eP	P	07 06 44.1	+0.4
	comp=Z,3.0nm,0.4s						
MOTA	Moosalm	32.05	298	eP	P	07 06 44.4	+0.1
	comp=Z,0.5nm,0.2s						
FABU	Falkenberg	32.10	317	iP	P	07 06 45.2	+0.9
FETA	Feichten	32.32	298	eP	P	07 06 47.0	+0.3
	comp=Z,0.1nm,0.1s						
HFS	Hagfors	32.55	323	P	P	07 06 49.0	+0.7
	comp=Z,2.1nm,0.3s,baz=110,slow=8.1,SNR=20						
	comp=Z,2.1nm,0.3s						
FUORN	Ofenpass-Fuorn	32.67	297	P	P	07 06 50.2	+0.3
FUORN				IAmb	IAmb	07 07 50.0	
	comp=Z,20nm,1.5s						
VADS	Vadso	33.22	345	eP	P	07 06 56.2	+2.1
TUE	Stuetta	33.31	297	P	P	07 06 55.1	-0.3
TUE				IAmb	IAmb	07 07 18.3	
	comp=Z,32nm,2.0s						
KEV	Kevo	33.44	343	P	P	07 06 57.5	+1.5
KEV				pmax	pmax		
	comp=Z,170nm,2.0s						
KEV	Kevo	33.44	343	P	P	07 06 57.5	+1.5
LANU	Lannavaara	33.49	339	eP	P	07 06 57.8	+1.3
ARA0	ARCESS Array S	33.62	342	eP	P	07 06 58.9	+1.3
ARCES	ARCESS Array B	33.62	342	P	P	07 06 59.1	+1.5
	comp=Z,2.6nm,0.5s,baz=141,slow=8.3,SNR=23						
ARCES				LR	LR	07 22 39.0	
	comp=Z,108nm,18.3s,baz=58,slow=40						
	comp=Z,2.6nm,0.5s						
NC602	NORSAR Array S	33.76	323	eP	P	07 07 00.1	+1.2
NC405	NORSAR Array S	33.80	324	P	P	07 06 59.8	+0.5
NC405				IAmb	IAmb	07 07 56.3	
	comp=Z,70nm,1.8s						
KTK1	Kautokeino	33.81	340	eP	P	07 07 00.8	+1.6
NB2	NORSAR Subarra	34.01	323	P	P	07 07 01.3	+0.2
	comp=Z,1.6nm,0.5s,baz=114,slow=8.6						
NB2	NORSAR Subarra	34.01	323	P	P	07 07 01.3	+0.2
NOA	NORSAR Array B	34.01	323	P	P	07 07 01.7	+0.6
	comp=Z,3.0nm,0.7s,baz=111,slow=8.6,SNR=11						
NOA				LR	LR	07 22 40.5	
	comp=Z,78nm,18.9s,baz=110,slow=39						
	comp=Z,3.0nm,0.7s						
NRIK	Noril'sk	34.50	20	LR	LR	07 23 47.7	
	comp=Z,124nm,19.8s,baz=230,slow=41						
SENIN	Lac Senin/Sane	34.73	297	P	P	07 07 06.9	-0.9
SENIN				IAmb	IAmb	07 07 58.1	
	comp=Z,60nm,1.9s						
HAMF	Hammerfest	34.86	343	eP	P	07 07 10.3	+2.0
JETT	Jettan, Norway	34.92	340	eP	P	07 07 10.8	+2.0
NSS	Namsos	34.98	329	eP	P	07 07 10.7	+1.3
RAUS	Rausandaksla	35.08	333	eP	P	07 07 11.7	+1.4
FAUS	Fauske	35.14	335	eP	P	07 07 12.3	+1.5
LEIR	Leirfjorden	35.25	332	eP	P	07 07 13.5	+1.7
SKAR	Skarslia	35.27	322	eP	P	07 07 13.3	+1.4
DOMB	Dombas	35.30	324	eP	P	07 07 13.5	+1.2
BNI	Bardonecchia	35.33	295	P	P	07 07 13.9	+1.1
BNI				pmax	pmax		
	comp=Z,56nm,1.9s						
BNI	Bardonecchia	35.33	295	P	P	07 07 13.9	+1.1
BNI				IAmb	IAmb	07 08 07.8	
	comp=Z,56nm,1.9s						
TRO	Tromso	35.37	339	eP	P	07 07 14.3	+1.7
STOK	Stokkvaagen	35.39	332	eP	P	07 07 14.4	+1.5
KONS	Konsvik	35.44	333	eP	P	07 07 15.0	+1.7
STEI	Steigen	35.45	336	eP	P	07 07 14.6	+1.2
VAGH	Vaagaholmen	35.49	333	eP	P	07 07 15.3	+1.5
TLY	Talaya	35.71	54	LR	LR	07 22 52.5	
	comp=Z,191nm,18.0s,baz=280,slow=38						
LOF	Lofoten	36.10	335	eP	P	07 07 19.8	+0.8
MOL	Molde	36.14	325	eP	P	07 07 20.7	+1.4
SONM	Songino Array	37.73	60	P	P	07 07 35.1	+1.7
	comp=Z,1.7nm,0.6s,baz=278,slow=9.5,SNR=6.5						
	comp=Z,1.7nm,0.6s						
ULN	Ulaanbaatar	38.17	60	ceP	P	07 07 39.3	+2.3
ULN				pmax	pmax		
	comp=Z,15nm,1.0s						
ULN	Ulaanbaatar	38.17	60	P	P	07 07 39.1	+2.1
ULN				IAmb	IAmb	07 07 40.2	
	comp=Z,12nm,0.6s						
ULN	Ulaanbaatar	38.17	60	P	P	07 07 38.5	+1.4
	comp=Z,18nm,0.8s						
HOPEN	Hopen	39.12	349	eP	P	07 07 47.8	+3.4
EKA	Eskdalemuir Ar	40.73	312	P	P	07 07 58.8	+0.7
	comp=Z,11nm,0.6s,baz=105,slow=9.0,SNR=36						
	comp=Z,11nm,0.6s						
ESK	Eskdalemuir	40.76	312	P	P	07 07 58.5	+0.2
ESK				pmax	pmax		
	comp=Z,185nm,1.9s						
ESK	Eskdalemuir	40.76	312	P	P	07 07 58.5	+0.2
PZH	PanZhiHua	41.25	94	P	P	07 08 03.5	+0.6
SPB2	Spitsbergen Ar	41.62	349	P	P	07 08 07.0	+1.8
SPB2				IAmb	IAmb	07 09 20.9	
	comp=Z,60nm,1.3s						
SPA0	Spitsbergen Ar	41.63	349	eP	P	07 08 07.7	+2.5
SPITS	Spitsbergen Ar	41.63	349	P	P	07 08 06.9	+1.7
	comp=Z,9.4nm,0.8s,baz=140,slow=11,SNR=12						
	comp=Z,9.4nm,0.8s						
HHC	Hu-ho-hao-te	42.88	69	eP	P	07 08 15.5	-0.5
HHC				pmax	pmax		
	comp=Z,11nm,0.5s						
HHC				pmax	pmax		
	comp=Z,100nm,5.4s						
CMAR	Chiang Mai Arr	43.68	106	P	P	07 08 22.8	+0.2
	comp=Z,0.9nm,0.3s,baz=305,slow=8.4,SNR=6.8						
	comp=Z,0.9nm,0.3s						
CMAR	Chiang Mai Arr	43.68	106	ceP	P	07 08 23.5	+0.9
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
JNE	Jan Mayen East	44.24	335	eP	P	07 08 28.2	+1.9
ESDC	Sonseca Array	44.29	290	P	P	07 08 26.9	-0.4
	comp=Z,3.3nm,0.7s,baz=65,slow=8.0,SNR=15						
	comp=Z,3.3nm,0.7s						
ESDC	Sonseca Array	44.29	290	P	P	07 08 27.2	0.0
ESDC				IAmb	IAmb	07 09 31.0	
	comp=Z,39nm,1.9s						
TIXI	Tiksi	48.00	24	LR	LR	07 32 18.5	
	comp=Z,159nm,18.7s,baz=284,slow=40						
WHN	Wuhan	49.00	81	P	P	07 09 06.5	+2.3
YAK	Yakutsk	49.16	37	eP	P	07 09 05.0	0.0
YAK				e		07 10 25.9	
YAK				eS	S	07 16 10.8	+0.7
YAK				e		07 18 53.6	
YAK				eSS	SS	07 19 42.3	+1.6
YAK				pmax	pmax		
	comp=Z,11nm,0.9s						
YAK				pmax	pmax		
	comp=N,2.0nm,1.0s						
YAK				pmax	pmax		
	comp=E,2.0nm,1.1s						
YAK				smax	smax		
	comp=N,63nm,3.8s						
YAK				smax	smax		
	comp=E,49nm,3.5s						
ZEA	Zeya	49.64	48	eP	P	07 09 12.1	+3.3
ZEA				pmax	pmax		
	comp=Z,10.0nm,0.8s						
HEH	HeiHe	50.71	52	eP	P	07 09 19.3	+2.3
HEH				pmax	pmax		
	comp=Z,36nm,0.8s						
CN2	Changchun	51.60	61	eP	P	07 09 24.5	+0.7
CN2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
NJ2	Nanjing	51.72	77	eP	P	07 09 26.0	+1.2
NJ2				pmax	pmax		
	comp=Z,6.0nm,0.6s						
BNX	BinXian	52.20	58	⇓P	P	07 09 30.5	+2.3
BNX				pmax	pmax		
	comp=Z,8.0nm,1.0s						
TORD	Torodi Ar. Bea	53.26	256	P	P	07 09 35.0	-1.5
	comp=Z,0.3nm,0.3s,baz=45,slow=5.7,SNR=2.1						
	comp=Z,0.3nm,0.3s						
KLR	Kul'dur	53.70	52	ceP	P	07 09 41.0	+1.7
KLR				pmax	pmax		
	comp=Z,4.0nm,1.0s						
USRK	Ussuriysk Ar.	55.80	58	P	P	07 09 55.9	+1.4
	comp=Z,3.1nm,0.7s,baz=31,slow=4.4,SNR=4.4						
USRK				LR	LR	07 35 55.5	
	comp=Z,132nm,18.3s,baz=323,slow=38						
	comp=Z,3.1nm,0.7s						
KSRS	Korea Array	55.92	67	P	P	07 09 56.7	+1.2
	comp=Z,4.4nm,0.8s,baz=286,slow=6.6,SNR=9.2						
KSRS				LR	LR	07 36 21.3	
	comp=Z,27nm,19.4s,baz=350,slow=39						
	comp=Z,4.4nm,0.8s						
SEY	Seymchan	58.86	32	LR	LR	07 38 58.5	
	comp=Z,146nm,18.1s,baz=300,slow=39						
SEY	Seymchan	58.86	32	ceP	P	07 10 17.0	+1.2
SEY				pmax	pmax		
	comp=Z,8.0nm,2.5s						
MA2	Magadan	59.70	36	LR	LR	07 38 15.6	
	comp=Z,30nm,20.3s,baz=0.5,slow=38						
BILL	Bilibino	61.21	23	iP	P	07 10 33.3	+1.4
BILL				pmax	pmax		
	comp=Z,5.0nm,0.9s						
YSS	Yuzhno-Sakhali	61.35	51	eP	P	07 10 36.1	+2.9
YSS				pmax	pmax		
	comp=Z,20nm,0.8s						
ASAJ	Asahikawa	62.63	54	LR	LR	07 42 09.4	
	comp=Z,60nm,18.4s,baz=272,slow=40						
MJAR	Matsushiro Arr	63.56	63	LR	LR	07 40 08.6	
	comp=Z,68nm,18.8s,baz=334,slow=38						
PEA0B	Petropavlovsk-	66.35	40	ceP	P	07 11 05.7	-0.3
PETK	Petropavlovsk-	66.35	40	P	P	07 11 06.8	+0.8
	comp=Z,3.9nm,0.9s,baz=204,slow=3.3,SNR=3.7						
PETK				LR	LR	07 42 58.7	
	comp=Z,44nm,18.6s,baz=304,slow=38						
	comp=Z,3.9nm,0.9s						
JCJ	Chichijima	71.58	70	LR	LR	07 47 39.6	
	comp=Z,180nm,18.2s,baz=314,slow=40						
BOSA	Boshof	73.20	207	LR	LR	07 47 40.0	
	comp=Z,52nm,18.1s,baz=29,slow=39						
G31M	Satah River	73.51	4		P	07 11 50.9	+1.1
G31M				IAmb	IAmb	07 11 51.8	
	comp=Z,17nm,0.7s						
H27K	Steamboat Moun	73.70	7	P	P	07 11 53.0	+2.1
H27K				IAmb	IAmb	07 11 54.3	
	comp=Z,10nm,1.4s						
COLA	College	74.31	10	P	P	07 11 56.4	+1.9
COLA				pmax	pmax		
	comp=Z,13nm,1.0s						
COLA	College	74.31	10	P	P	07 11 56.4	+1.9
COLA				IAmb	IAmb	07 11 57.3	
	comp=Z,13nm,0.9s						
COLA	College	74.31	10	P	P	07 11 55.9	+1.5
	comp=Z,14nm,1.0s						
ILAR	Eielson Array	74.54	9	P	P	07 11 57.0	+1.2
	comp=Z,2.1nm,0.8s,baz=333,slow=4.6,SNR=30						
ILAR				LR	LR	07 47 38.4	
	comp=Z,35nm,20.6s,baz=284,slow=38						
	comp=Z,2.1nm,0.8s						
ILAR	Eielson Array	74.54	9	P	P	07 11 56.7	+0.9
I28M	Miner Creek	74.60	6		P	07 11 55.3	-1.0
I28M				IAmb	IAmb	07 11 58.5	
	comp=Z,9.2nm,0.7s						
L27K	Beaver Creek,	76.77	8		P	07 12 10.7	+2.0
L27K				IAmb	IAmb	07 12 11.4	
	comp=Z,6.1nm,0.7s						
BCAR	Beaver Creek A	76.77	8	P	P	07 12 10.4	+1.6
YKA	Yellowknife Ar	77.80	355	P	P	07 12 15.2	+0.8
	comp=Z,2.1nm,0.8s,baz=6.8,slow=5.7,SNR=7.0						
	comp=Z,2.1nm,0.8s						
YKA	Yellowknife Ar	77.80	355	ceP	P	07 12 15.0	+0.6
YKA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
DLBC	Dease Lake	82.17	2	LR	LR	07 52 25.7	
	comp=Z,39nm,21.8s,baz=22,slow=38						
BBB	Bella Bella	88.48	2	LR	LR	08 01 22.0	
	comp=Z,21nm,18.4s,baz=270,slow=41						
WRA	Warramunga Arr	95.02	112	P	P	07 13 39.9	-0.6
	comp=Z,0.7nm,0.6s,baz=320,slow=4.1,SNR=12						
	comp=Z,0.7nm,0.6s						
WRA	Warramunga Arr	95.02	112	iP	P	07 13 39.7	-0.8
WRA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
PDAR	Pinedale Array	96.67	348	LR	LR	08 00 50.2	
	comp=Z,33nm,18.5s,baz=161,slow=38						
YBH	Yreka Blue Hor	98.93	358	LR	LR	08 04 46.4	
	comp=Z,52nm,19.4s,baz=168,slow=39						

IDC 26 07:03:04.6±1.8, 51°.73N×75°.47E, h0 km, mbtmp2.9/2, ML2.2/2, Error ellipse: s-maj=28.6km s-min=15.0km az=30.0, Eastern Kazakhstan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KURBB	Kurchatov Arra	2.22	119	Pg	Pb	07 03 45.0	-0.6
	0.3nm,0.3s,baz=302,slow=18,SNR=26						
KURBB				Lg	Lg	07 04 15.4	
	0.3nm,0.3s,baz=306,slow=32,SNR=5.8						
BVAR	Borovoye Array	3.37	295	Pg	Pb	07 04 06.5	+1.3
	0.1nm,0.3s,baz=106,slow=15,SNR=4.9						
I46RU	ZALESOVO INFRA	6.09	65	I	I	07 37 50.0	
	baz=252,slow=324,SNR=2.0						
ZALV	Zalesovo Beam	6.09	65	Pn	Pn	07 04 37.1	+1.4
	0.2nm,0.3s,baz=256,slow=14,SNR=5.0						
	0.9nm,0.5s						
ZALV				AML	AML		
MKAR	Makanchi Array	6.66	135	Pn	Pn	07 04 44.1	+0.5
	0.1nm,0.3s,baz=321,slow=11,SNR=4.0						
	0.4nm,0.6s						
MKAR				AML	AML		

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*NNC **26** 07:15:36.0±1.0, 49°.98N×78°.59E, h0^{km}, mb3.1, mpv2.9, Error ellipse: s-maj=11.2km s-min=4.2km az=72.0, Suspected Mining explosion.*

*IDC **26** 07:15:37.0±1.5, 50°.02N×78°.77E, h0^{km}, mbtmp2.8/2, ML2.3/2, Error ellipse: s-maj=16.9km s-min=9.9km az=74.0*

*SOME **26** 07:15:44.1, 49°.83N×79°.10E*

ISC 26 07:15:36.6±1.2, **49°.99N**±0°.05×**78°.54E**±0°.09, **h0^{km}, n19, σ1^{s}.19**/31, **16C-9D, Eastern Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR07	Kurchatov Arra	0.60	358	⇑P	Pg	07 15 47.7	-0.3
KUR07				⇑S	Sb	07 15 57.1	-1.8
KUR06	Kurchatov Arra	0.62	359	⇑P	Pg	07 15 48.0	-0.4
KUR06				⇑S	Sg	07 15 57.6	+1.2
KUR14	Kurchatov Arra	0.63	3	⇑P	Pg	07 15 48.2	-0.4
KUR14				⇓S	Sg	07 15 57.0	+0.2
KUR15	Kurchatov Arra	0.63	1	⇓S	Sg	07 15 57.1	+0.2
KURBB	Kurchatov Arra	0.64	359	Pg	Pg	07 15 48.4	-0.5
	1.5nm,0.3s,baz=166,slow=18,SNR=65						
KURBB				Lg	Lg	07 15 57.5	
	4.8nm,0.3s,baz=218,slow=33,SNR=45						
KURBB	Kurchatov Arra	0.64	359	⇑P	Pg	07 15 48.3	-0.5
	19nm,0.5s						
KURBB				⇓S	Sb	07 15 58.3	-1.7
	131nm,0.6s						
KUR16	Kurchatov Arra	0.64	357	⇑P	Pg	07 15 48.7	-0.1
KUR16				⇑S	Sg	07 15 58.0	+0.8
KUR17	Kurchatov Arra	0.65	356	⇓P	Pg	07 15 48.7	-0.3
KUR17				⇑S	Sb	07 15 58.5	-1.9
KUR05	Kurchatov Arra	0.66	360	⇓P	Pg	07 15 48.7	-0.4
KUR05				⇑S	Sg	07 15 58.2	+0.6
KUR04	Kurchatov Arra	0.68	360	⇑P	Pg	07 15 49.0	-0.6
KUR04				⇑S	Sg	07 15 58.9	+0.6
KURK	Kurchatov	0.73	4	⇓P	Pg	07 15 49.6	-1.0
	5.2nm,0.7s						
KURK				⇓S	Sg	07 16 00.2	+0.1
	16nm,0.5s						
SEM	Semipalatinsk	1.18	68	P	Pn	07 16 02.2	+1.7
	4.8nm,0.1s						
SEM				S	Sg	07 16 12.1	-2.2
	9.6nm,0.1s						
MAKZ	Makanchi	3.92	143	⇓Pn	Pn	07 16 38.7	+0.7
	0.4nm,0.6s						
MAKZ				⇑Pg	Pb	07 16 45.0	-1.5
	1.9nm,0.6s						
MAKZ				⇑Lg	Lg	07 17 38.2	
	12nm,0.6s						
MK31	Makanchi Array	4.05	141	⇑Pn	Pn	07 16 40.2	+0.3
	0.3nm,0.5s,baz=322,slow=10,SNR=28						
MK31				⇑Pg	Pb	07 16 50.7	+1.8
	1.0nm,0.5s,baz=328,slow=14,SNR=12						
MK31				⇓Lg	Lg	07 17 43.0	
	7.3nm,0.5s,baz=320,slow=25,SNR=15						
MKAR	Makanchi Array	4.05	141	Pn	Pn	07 16 40.5	+0.6
	0.2nm,0.3s,baz=323,slow=10,SNR=23						
MKAR				Pg	Pb	07 16 47.6	-1.2
	0.6nm,0.3s,baz=330,slow=13,SNR=11						
MKAR				Lg	Lg	07 17 41.5	
	0.5nm,0.3s,baz=352,slow=24,SNR=5.1						
	0.5nm,0.5s						
MKAR				AML	AML		
ZSN	Zaisan	4.89	119	Pg	Pb	07 17 06.1	+3.0
	7.8nm,0.2s						
ZSN				Lg	Lg	07 18 05.3	
	14nm,0.4s						
ZALV	Zalesovo Beam	5.55	42	Pn	Pn	07 17 01.0	+0.7
	0.4nm,0.3s,baz=232,slow=14,SNR=6.7						
ZALV				Sn	Sn	07 18 04.5	-0.2
	0.2nm,0.3s,baz=232,slow=20,SNR=2.1						
ZALV				Lg	Lg	07 18 28.0	
	0.7nm,0.3s,baz=208,slow=31,SNR=7.2						
	1.5nm,0.4s						
ZALV				AML	AML		
I46RU	ZALESOVO INFRA	5.55	42	I	I	07 47 50.0	
	0.1nm,0.9s,baz=223,slow=326,SNR=9.6						
DJR	Jarkent	5.72	171	Pg	Pg	07 17 31.2	+5.0
	1.7nm,0.5s						
DJR				Lg	Lg	07 18 44.6	
	4.2nm,0.6s						

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*RSNC **26** 07:27:21.9±0.2, 9°N±2°×8°3W±°, h0^{km}, M4.1, mb4.1, ML3.6*

*CATAC **26** 07:27:22.5±0.3, 9°N±2°×8°3W±°, h12^{km}±1^{km}, M4.8/29, mb4.9/16, mB5.4/9, MLv4.6/29, Mw(mB)4.8/9, Error ellipse: s-maj=5.0km s-min=2.4km az=10.9, confirmed*

*UCR **26** 07:27:22.4±0.5, 8°.53N×82°.85W, h22^{km}±1^{km}, MW4.6, Fault plane solution: NP1:φs16.00000°, δ58.00000°, λ-177.00000°., Presumed earthquake*

*UPA **26** 07:27:23.0±1.0, 8°.53N×82°.77W, h11^{km}±1^{km}, MW4.6, Presumed earthquake*

ISC 26 07:27:23.3±0.8, **8°.52N**±0°.02×**82°.83W**±0°.02, **h17^{km}**±5^{km}, **n192, σ1^{s}.41**/242, **40C-15D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CDITO	Canoas	0.07	317	P	Pg	07 27 26.3	-0.3
CDITO				S	Sg	07 27 29.7	+1.0
NELY	Ciudad Neily	0.17	316	⇑eP	Pg	07 27 27.2	-0.6
NELY				eS	Sb	07 27 31.0	-0.3
MLIR3	Monte Lirio, C	0.27	0	⇑iP	Pg	07 27 29.2	-0.1
MLIR3				eS	Sg	07 27 33.5	+0.1
BRU2	Volcan	0.30	26	P	Pg	07 27 29.3	-0.6
BRU2				S	Sb	07 27 35.0	-0.1
BRU2	Volcan	0.30	26	⇓eP	Pg	07 27 29.4	-0.4
BRU2				eS	Sg	07 27 34.7	+0.3
BRU2	Volcan	0.30	26	⇓iP	Pg	07 27 29.5	-0.4
BRU2				eS	Sg	07 27 34.4	+0.1
CLLRA	Cordillera,	0.30	44	⇓eP	Pg	07 27 29.6	-0.4
SCLRA	Santa Clara, W	0.31	8	⇓eP	Pg	07 27 29.8	-0.3
PTPM	Petroterminale	0.32	190	eP	Pg	07 27 30.0	-0.2
PTPM				eS	Sb	07 27 35.2	-0.3
PTPA	Petro Terminal	0.32	188	⇓eP	Pg	07 27 29.8	-0.4
PTPA				eS	Sb	07 27 36.1	+0.4
VITO	San Vito	0.33	334	⇑eP	Pg	07 27 29.9	-0.4
VITO				eS	Sb	07 27 36.0	+0.2
FITO	Golfito	0.34	287	⇑eP	Pg	07 27 28.8	-1.7
FITO				eS	Sg	07 27 33.4	-2.0
EDAD	Golfito	0.36	291	⇑eP	Pg	07 27 29.2	-1.7
EDAD				eS	Sg	07 27 34.0	-2.0
PTAR3	Potrerillos Ar	0.37	63	⇓iP	Pg	07 27 30.5	-0.5
PTAR3				eS	Sg	07 27 36.0	-0.3
DVD	David	0.38	103	⇑iP	Pg	07 27 30.7	-0.5
DVD				eS	Sg	07 27 35.1	-1.4
LMNES	Limones	0.42	185	⇑eP	Pg	07 27 31.6	-0.3
BQTLY	Boquete Panama	0.43	57	⇓eP	Pg	07 27 31.4	-0.8
LOMA3	Las Lomas, Chi	0.44	102	⇑iP	Pg	07 27 31.5	-0.7
LOMA3				eS	Sg	07 27 36.9	-1.3
BQSF3	Alto Boquete,	0.44	61	⇓iP	Pg	07 27 31.5	-0.9
BQSF3				eS	Sg	07 27 36.9	-1.6
BGUAL	Bijagual, Pana	0.49	92	⇑eP	Pg	07 27 32.4	-0.8
JIME	Puerto Jimenez	0.49	272	⇓eP	Pg	07 27 31.6	-1.6
CHIR3	Chiriqui UPA,	0.51	105	⇑iP	Pg	07 27 32.5	-1.0
CHIR3				eS	Sg	07 27 38.8	-1.5
PIRO	Carate, Puerto	0.52	257	P	Pg	07 27 32.2	-1.5
PIRO				S	Sg	07 27 40.0	-0.7
PIRO	Carate, Puerto	0.52	257	⇓eP	Pg	07 27 32.2	-1.5
PIRO	Carate, Puerto	0.52	257	⇓iP	Pg	07 27 32.2	-1.5
PIRO				eS	Sb	07 27 42.6	+1.4
EDP2	Potrero Grande	0.60	325	⇑eP	Pg	07 27 34.1	-1.2
FIMO	Fila Mora	0.70	312	⇑eP	Pg	07 27 35.1	-2.0
PBNVO	Pueblo Nuevo,	0.72	60	⇓eP	Pb	07 27 35.6	-1.9
RBALA	Bur	0.75	62	⇓eP	Pb	07 27 36.4	-1.6
PANP	Palmar Norte	0.76	305	⇑eP	Pb	07 27 35.6	-2.5
BURE	Buenos Aires	0.82	322	⇑eP	Pb	07 27 37.2	-2.0
CNI2	El Empalme, Bo	0.96	21	⇓iP	Pb	07 27 39.7	-1.9
CNI2				eS	Sb	07 27 52.7	-1.3
EDPE	Pejibaye, P	0.97	311	⇑eP	Pb	07 27 39.1	-2.7
RGM0	Gandoca	1.08	11	P	Pb	07 27 43.1	-0.5
RGM0				S	Sg	07 27 59.2	+0.7
RGM0	Gandoca	1.08	11	eP	Pb	07 27 42.9	-0.7
RGM0	Gandoca	1.08	11	eP	Pb	07 27 43.0	-0.7
RGM0				eS	Sb	07 27 57.3	-0.2
CEUA	Cerro Uatsi, L	1.10	354	eP	Pb	07 27 42.7	-1.2
NANC3	Nancito, Chiri	1.12	105	eP	Pn	07 27 42.3	-1.9
NANC3				eS	Sb	07 27 57.4	-1.2
PDCAN	Manzana , Fuen	1.14	102	⇑eP	Pn	07 27 41.7	-2.8
ZEDO	Perez Zeledon	1.18	314	⇑eP	Pn	07 27 43.3	-1.9
PIEC	Cerro El Cedra	1.56	314	⇑eP	Pn	07 27 48.1	-2.5
QUEP	Quepos	1.60	304	P	Pn	07 27 48.7	-2.2
QUEP				S	Sb	07 28 12.4	0.0
QUEP	Quepos	1.60	304	eP	Pn	07 27 48.6	-2.2
TURIB	Turrialba	1.62	328	⇑eP	Pn	07 27 49.4	-1.7
RAZU	San Marcos de	1.64	314	eP	Pn	07 27 49.2	-2.4
TAAN	Batan	1.64	342	eP	Pn	07 27 50.4	-1.0
PITB	Pirrs, San	1.64	314	eP	Pn	07 27 49.2	-2.3
VINA	Juan Vinas	1.64	326	⇑eP	Pn	07 27 49.9	-1.6
REPA	Paraso	1.66	322	eP	Pn	07 27 49.8	-2.0
LCR2	La Lucha 2	1.68	316	P	Pn	07 27 49.7	-2.5
LCR2				S	Sb	07 28 14.1	-0.8
LCR2	La Lucha 2	1.68	316	⇑eP	Pn	07 27 49.6	-2.5
LCR2	La Lucha 2	1.68	316	eP	Pn	07 27 49.6	-2.5
LCR2				eS	Sb	07 28 14.8	-0.1
ABE2	San Pablo	1.69	314	eP	Pn	07 27 50.1	-2.2
PCAYA	Pacayas	1.69	325	⇑eP	Pn	07 27 51.0	-1.4
IRES	Siquirres	1.70	337	⇑eP	Pn	07 27 50.7	-1.6
RESJ	San Isidro (Tu	1.70	332	⇑eP	Pn	07 27 51.4	-1.0
VTCV	VTCV, Calle Va	1.70	329	⇑eP	Pn	07 27 51.3	-1.1
LCOCO	El Coco	1.71	335	eP	Pn	07 27 51.4	-1.0
ABRB	Las Abras (San	1.72	329	⇑eP	Pn	07 27 51.6	-1.1
TAGO	Cartago	1.72	321	eP	Pn	07 27 51.1	-1.6
SAFE3	Santa Fe, Vera	1.73	90	eP	Pn	07 27 51.7	-1.0
SAFE3				eS	Sn	07 28 12.9	-1.5
RSUS3	Rio de Jesus,	1.73	108	eP	Pn	07 27 51.5	-1.2
CVTQ	Turrialba Volc	1.74	328	⇑eP	Pn	07 27 51.9	-1.3
PICV	PH. Pirrs	1.74	309	eP	Pn	07 27 50.9	-1.9
RVLA	Villa Bonita	1.75	335	eP	Pn	07 27 51.8	-1.1
GMAL	Guarumal, Vera	1.75	115	P	Pn	07 27 50.9	-2.0
GMAL				S	Sn	07 28 15.6	+0.8
GMAL	Guarumal, Vera	1.75	115	eP	Pn	07 27 50.9	-2.0
GMAL	Guarumal, Vera	1.75	115	eP	Pn	07 27 51.0	-2.0
GMAL				eS	Sn	07 28 13.4	-1.4
VTR0	Volcan Turrial	1.75	328	⇑eP	Pn	07 27 52.0	-1.3
CVTR	Volcan Turrial	1.75	328	⇑eP	Pn	07 27 52.1	-1.2
VICA	Volcano Irazu	1.77	325	⇑eP	Pn	07 27 51.8	-1.7
TRIO	Tres Rios	1.79	320	eP	Pn	07 27 51.7	-2.0
AMPA	Desamparados	1.83	318	eP	Pn	07 27 51.5	-2.7
CORON	Coronado	1.85	321	eP	Pn	07 27 53.1	-1.3
CVIMO	Finca Echandi	1.85	324	⇑eP	Pb	07 27 57.2	+0.3
ECI	Escuela Centro	1.85	319	⇑eP	Pn	07 27 52.7	-1.8
SJS3	Mercedes San J	1.85	319	eP	Pn	07 27 52.9	-1.6
SJS	Escuela Geolog	1.86	319	eP	Pn	07 27 52.8	-1.7
LUJA	Lujan	1.86	319	eP	Pn	07 27 52.1	-2.4
LUPE	Guadalupe	1.86	319	eP	Pn	07 27 52.9	-1.8
CENT	San Jose	1.87	319	eP	Pn	07 27 53.1	-1.6
MEXI	Barrio Mexico	1.88	319	eP	Pn	07 27 53.4	-1.4
STIA3	Santiago, Vera	1.88	103	eP	Pn	07 27 53.2	-1.5
PAVB	Pavas, San Jos	1.90	318	eP	Pn	07 27 53.7	-1.5
DOMI	Santo Domingo	1.91	319	eP	Pn	07 27 54.0	-1.4
PILE	Guapiles	1.93	331	⇑eP	Pn	07 27 54.7	-0.8
HDC	Heredia	1.94	319	eP	Pn	07 27 54.0	-1.7
PURI	Puriscal	1.97	312	eP	Pn	07 27 54.2	-1.9
BELE	Belen	1.97	317	⇑eP	Pn	07 27 54.5	-1.6
CALO3	Calobre, Verag	1.97	96	eP	Pn	07 27 54.8	-1.2
MARI3	Mariato, Verag	2.01	115	eP	Pn	07 27 56.2	-0.3
VBV1	V. Barva	2.02	322	⇑eP	Pn	07 27 55.4	-1.5
CARI	Cariari	2.04	334	⇑eP	Pn	07 27 56.3	-0.6
POAS	San Pedro de P	2.08	318	eP	Pn	07 27 56.7	-1.0
TCS1	Tacares	2.10	316	P	Pn	07 27 56.5	-1.3
TCS1	Tacares	2.10	316	eP	Pn	07 27 56.2	-1.6
ATEO	Atenas	2.11	313	⇑eP	Pn	07 27 56.0	-2.0
TRB2	Turrubares	2.12	311	eP	Pn	07 27 56.2	-1.8
VPS8	V Poas	2.16	320	⇑eP	Pn	07 27 57.5	-1.3
SARCI	Sarchi	2.16	316	eP	Pn	07 27 57.7	-1.0
OROT	Orotina	2.17	310	eP	Pn	07 27 57.1	-1.7
NARAN	Naranjo de Ala	2.19	316	eP	Pn	07 27 57.6	-1.5
PALD	Palmares	2.20	314	eP	Pn	07 27 57.5	-1.8
TRT2	Tortugero	2.21	336	⇑eP	Pn	07 27 58.1	-1.2
SRA1	San Ramn	2.25	314	eP	Pn	07 27 58.7	-1.2
ARTO	Ro Cuarto	2.27	323	eP	Pn	07 27 58.9	-1.2
CACAO	El Cacao, Vera	2.27	121	P	Pn	07 28 00.0	-0.1
CACAO	El Cacao, Vera	2.27	121	eP	Pn	07 27 59.9	-0.1
CACAO				eS	Sn	07 28 26.7	-1.0
PESE3	Pese, Herrera	2.27	105	eP	Pn	07 27 58.9	-1.2
VPL3	V. Platanar	2.33	321	eP	Pn	07 28 00.1	-0.9
ARZA	Esparza	2.33	309	eP	Pn	07 27 59.9	-1.1
VPL2	V. Platanar	2.34	319	eP	Pn	07 28 00.1	-1.2
ITAL	Pital	2.39	323	eP	Pn	07 28 00.2	-1.5
QUEU	Ciudad Quesada	2.39	318	eP	Pn	07 28 01.7	-0.1
CHIT3	Chitre	2.45	103	eP	Pn	07 28 00.8	-1.7
CHIT3				eS	Sn	07 28 30.6	-1.5
PNME	Penonome	2.47	91	P	Pn	07 28 03.2	+0.3
PNME				S	Sb	07 28 35.9	-1.6
TOSI3	Tonosi	2.61	115	eP	Pn	07 28 03.9	-0.8
AZU	Azuero	2.63	106	P	Pn	07 28 04.6	-0.4
AZU				S	Sb	07 28 44.2	+2.2
AZU	Azuero	2.63	106	eP	Pn	07 28 04.4	-0.6
AZU	Azuero	2.63	106	eP	Pn	07 28 04.2	-0.8
AZU				eS	Sn	07 28 35.3	-1.3
MTEVE	Monteverde	2.66	312	eP	Pn	07 28 04.8	-0.8
COVE	Coope Vega, Sa	2.68	325	P	Pn	07 28 04.5	-1.2
COVE				S	Sn	07 28 40.0	+2.2
ARE1	Arenal 1	2.68	316	eP	Pn	07 28 05.0	-0.8
VARE2	V. Arenal	2.68	316	⇑eP	Pn	07 28 05.0	-0.8
CEDE	Laguna Cedeo	2.69	317	eP	Pn	07 28 05.1	-0.8
JUNT	Juntas	2.74	310	eP	Pn	07 28 05.2	-1.3
JTS	Las Juntas de	2.74	310	P	Pn	07 28 05.8	-0.7
JTS				S	Sn	07 28 40.4	+1.1
JTS	Las Juntas de	2.74	310	eP	Pn	07 28 05.6	-1.0
JTS	Las Juntas de	2.74	310	eP	Pn	07 28 07.2	+0.7
JTS				eS	Sn	07 28 40.6	+1.3
PCRI3	Pocri, Los San	2.81	108	eP	Pn	07 28 06.0	-1.6
ACHO3	Achotines, Los	2.85	113	eP	Pn	07 28 06.9	-1.2
COTE	Lago Cote	2.90	315	eP	Pn	07 28 08.2	-0.6
ZANG	Zanguenga, Cho	2.96	81	eP	Pn	07 28 09.0	-0.6
ZANG	Zanguenga, Cho	2.96	81	eP	Pn	07 28 07.4	-2.2
CMARA	Lajas Hojancha	2.96	300	P	Pn	07 28 09.9	+0.2
CMARA				S	Sn	07 28 46.1	+1.2
CMARA	Lajas Hojancha	2.96	300	eP	Pn	07 28 09.7	0.0
CMARA	Lajas Hojancha	2.96	300	eP	Pn	07 28 09.7	0.0
BCIP	Isla Barro Col	3.02	78	P	Pn	07 28 09.7	-0.7
BCIP				S	Sb	07 28 51.9	-1.5
BCIP	Isla Barro Col	3.02	78	P	Pn	07 28 10.1	-0.4
BCIP				S	Sn	07 28 48.1	+1.8
BCIP	Isla Barro Col	3.02	78	⇓eP	Pn	07 28 09.8	-0.7
BCIP	Isla Barro Col	3.02	78	eP	Pn	07 28 09.7	-0.7
BCIP				eS	Sn	07 28 44.4	-1.9
TENO	El Achiote	3.03	316	eP	Pn	07 28 10.8	+0.1
CHOR3	La Chorrera	3.05	83	eP	Pn	07 28 10.2	-0.6
CHOR3				eS	Sn	07 28 45.6	-1.3
LCHIL	Los Chiles	3.12	323	eP	Pn	07 28 10.3	-1.4
BAGA	Bagaces	3.12	310	eP	Pn	07 28 11.3	-0.5
CUI	Cuipilapa	3.13	313	eP	Pn	07 28 11.2	-0.8
GAMB1	Gamboa	3.13	79	eP	Pn	07 28 11.3	-0.7
FRIJ	El Hiral	3.14	77	eP	Pn	07 28 11.2	-0.8
UPAL	Upala	3.19	318	P	Pn	07 28 13.4	+0.6
VMAR	Armenia, Volca	3.20	315	eP	Pn	07 28 13.0	0.0
SACU	Santa Cruz	3.22	303	eP	Pn	07 28 13.7	+0.4
CLARA	Aguas Claras	3.23	314	eP	Pn	07 28 13.4	0.0
FLAM	Flamenco Islan	3.27	83	eP	Pn	07 28 13.1	-0.8
FLAM				eS	Sn	07 28 50.8	-1.8
UPA	Univ. de Panam	3.29	82	P	Pn	07 28 13.9	-0.2
UPA				S	Sn	07 28 52.9	+0.1
ALIBA	Liberia Airpor	3.38	308	eP	Pn	07 28 15.6	+0.2
BLUN	Bluefields	3.58	345	P	Pn	07 28 16.7	-1.5
BLUN				S	Sn	07 28 59.5	-0.6
CHPO	Chepo, Panama	3.72	80	eP	Pn	07 28 18.7	-1.3
CHPO				eS	Sn	07 29 02.2	-1.4
CARN	Rivas	3.75	315	P	Pn	07 28 21.1	+0.7
LCRUZ	La Cruz	3.75	313	eP	Pn	07 28 20.3	-0.3
JAPN	Al SSO del Vol	4.10	317	P	Pn	07 28 25.8	+0.6
ACON	Acoyapa	4.13	326	eP	Pn	07 28 24.4	-1.3
BOAB	BOACO BROADBAN	4.80	325	P	Pn	07 28 33.4	-1.5
BOAB				S	Sn	07 29 31.1	+0.9
PRVC	Isla de Provid	5.03	16	P	Pn	07 28 36.3	-1.8
PRVC				S	Sn	07 29 33.6	-2.3
MATN	Matagalpa	5.33	325	P	Pn	07 28 41.4	-1.0
MATN				S	Sn	07 29 44.0	+0.5
CNGA	Al SSO del Vol	5.49	316	P	Pn	07 28 44.9	+0.5
CNGN	Cerro Negro	5.49	316	P	Pn	07 28 44.3	-0.1
	547nm,0.7s						
CNGN				AML	AML		
CNGN	Cerro Negro	5.49	316	P	Pn	07 28 45.4	+1.0
CNGN				S	Sn	07 29 47.3	+0.1
SIUN	Universidad Ur	5.50	340	P	Pn	07 28 44.8	+0.3
SIUN				S	Sn	07 29 49.4	+1.9
BILN	Bilwi Airport	5.52	354	P	Pn	07 28 43.8	-1.0
SOLC	Bahia Solano	5.84	113	P	Pn	07 28 49.3	+0.1
RCFN	Al S de San Ju	5.99	327	P	Pn	07 28 49.8	-1.6
RCVN	Varillal2	6.02	327	P	Pn	07 28 51.2	-0.6
APAC	Apartado, Choc	6.21	95	P	Pn	07 28 55.4	+1.1
	21nm,0.6s						
APAC				AML	AML		
CNCH	Conchagua	6.82	314	P	Pn	07 29 01.9	-0.9
TGUH	Tegucigalpa,Un	7.02	322	P	Pn	07 29 11.0	+5.5
CBOC	Ciudad Bolivar	7.26	111	P	Pn	07 29 07.5	-1.4
	8.9nm,0.7s						
UREC	San Jos de Ur	7.26	96	P	Pn	07 29 08.7	-0.1
	12nm,0.6s						
PACA	Pacayal	7.30	313	P	Pn	07 29 11.1	+1.7
ALJI	Alcalda de J	7.39	311	P	Pn	07 29 12.2	+1.7
SJCC	San Jacinto, C	7.67	79	P	Pn	07 29 14.6	+0.2
	18nm,0.6s						
SJCC				S	Sn	07 30 38.6	-2.5
	18nm,0.6s						
COEG	Centro de Oper	7.81	311	P	Pn	07 29 18.0	+1.7
PAVA	Las Pavas	7.91	311	P	Pn	07 29 19.7	+1.9
P5NO	Presa 5 de nov	7.96	314	P	Pn	07 29 17.6	-0.7
GUY2C	Guyana, Caldas	8.10	113	P	Pn	07 29 22.9	+2.2
	9.4nm,0.9s						
JAYA	Jayaque - finc	8.26	309	P	Pn	07 29 24.4	+1.8
CEVE	Cerro Verde	8.50	309	P	Pn	07 29 28.7	+2.7
BBAC	Balboa, Cauca	8.52	139	P	Pn	07 29 28.4	+2.2
	5.4nm,0.7s						
PTBC	PUERTO BERRIO,	8.53	103	P	Pn	07 29 30.9	+4.7
POPC	Popayan, Colom	8.53	134	P	Pn	07 29 29.8	+3.4
MTO3	Montecristo	8.67	313	P	Pn	07 29 29.9	+1.6
NUBE	Las Nubes	8.67	309	P	Pn	07 29 29.7	+1.5
FAME	Alcaldia de Sa	8.81	307	P	Pn	07 29 31.5	+1.4

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*JMA **26** 07:57:55.5±0.2, 23°.2N±0°.4×12°2E±°, h26^{km}±2^{km}, MV3.3/12, TAIWAN REGION*

*TAP **26** 07:57:56.6, 23°.16N×121°.63E, h26^{km}, ML3.6, C*

ISC 26 07:57:55.9±0.9, **23°.15N**±0°.01×**121°.68E**±0°.02, **h24^{km}**±6^{km}, **n186, σ0^{s}.94**/349, **Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHKH	Chenggong	0.26	279	P	Pb	07 58 02.4	+0.1
CHKH				S	Sb	07 58 06.1	-0.5
ECBN	Changbin	0.27	308	i P	Pb	07 58 02.7	+0.3
ECBN				S	Sb	07 58 06.8	+0.1
CHKT	Chengkung	0.29	260	P	Pb	07 58 02.8	+0.1
CHKT				S	Sb	07 58 06.9	-0.4
FULB	Fuli	0.36	278	i P	Pb	07 58 03.4	-0.3
FULB				eS	Sb	07 58 08.4	-0.7
EYUL	Yuli	0.38	301	i P	Pb	07 58 04.1	0.0
EYUL				eS	Sb	07 58 09.7	-0.1
EDH	Donghe	0.39	243	i P	Pb	07 58 04.4	+0.2
EDH				eS	Sb	07 58 10.2	+0.3
TWF1	Yuli	0.40	300	i P	Pb	07 58 04.3	-0.2
TWF1				i S	Sb	07 58 10.3	0.0
HGSD	Ruisui	0.41	326	i P	Pb	07 58 04.5	-0.2
HGSD				S	Sn	07 58 12.1	-1.2
YULB	Yu-li	0.42	305	P	Pb	07 58 04.8	0.0
YULB	Yu-li	0.42	305	i P	Pb	07 58 04.8	0.0
YULB				S	Sb	07 58 11.3	+0.4
ECS	Chishang	0.42	263	i P	Pb	07 58 05.3	+0.4
ECS				S	Sb	07 58 11.9	+0.9
EHD	Haiduan	0.43	270	P	Pb	07 58 04.8	-0.2
EHD				S	Sb	07 58 10.4	-0.8
EHYH	Wanrong	0.46	318	i P	Pb	07 58 05.2	-0.2
EHYH				S	Sb	07 58 11.9	0.0
EHY	Hungye	0.48	317	eP	Pb	07 58 05.6	-0.2
EHY				S	Sb	07 58 12.4	-0.1
LDUT	Ludao	0.51	202	P	Pb	07 58 06.4	+0.1
LDUT				S	Sb	07 58 13.7	+0.3
LONT	Longtian	0.56	244	i P	Pb	07 58 07.2	+0.1
LONT				i S	Sb	07 58 15.2	+0.4
EGFH	Guangfu	0.56	336	P	Pb	07 58 06.2	-1.0
EGFH				S	Sn	07 58 15.9	-1.1
TEGC	Jichi Village	0.57	347	P	Pb	07 58 06.7	-0.6
TEGC				S	Sb	07 58 14.9	-0.1
ELDTW	Lidau	0.61	274	P	Pb	07 58 07.2	-0.8
ELDTW				S	Sb	07 58 14.2	-2.0
WARBT	Fenglin Townsh	0.62	335	i P	Pb	07 58 08.0	-0.2
WARBT				eS	Sb	07 58 15.9	-0.7
TTN	Taitung	0.63	231	P	Pb	07 58 08.8	+0.5
TTN				eS	Sb	07 58 17.5	+0.9
SHUL	Shoufeng	0.64	351	eP	Pb	07 58 08.6	+0.1
SHUL				i S	Sb	07 58 17.2	+0.2
TWGBT	Beinan	0.64	239	P	Pb	07 58 08.2	-0.3
TWGBT	Beinan	0.64	239	eP	Pb	07 58 08.4	-0.1
TWGBT				eS	Sb	07 58 17.5	+0.5
TWG	Pinlang	0.65	240	i P	Pb	07 58 08.3	-0.2
TWG				eS	Sb	07 58 16.5	-0.7
ESL	Shilin	0.70	341	P	Pb	07 58 09.1	-0.3
ESL				i S	Sb	07 58 17.8	-0.8
TEYL	Yanliau Villag	0.72	354	eP	Pn	07 58 10.5	-0.1
TEYL				eS	Sn	07 58 21.2	+0.4
VWDT	VWDT	0.78	321	i P	Pb	07 58 10.7	-0.1
VWDT				i S	Sb	07 58 20.2	-0.7
HWA	Hwalien	0.82	355	eP	Pn	07 58 12.9	+0.8
HWA				eS	Sn	07 58 24.1	+0.6
ETM	Tongmen	0.83	348	eP	Pb	07 58 11.2	-0.4
ETM				S	Sb	07 58 21.3	-1.1
STYH	Taoyuan	0.83	272	i P	Pb	07 58 11.1	-0.6
STYH				i S	Sb	07 58 21.3	-1.1
STYT	Tauyuan	0.85	271	P	Pb	07 58 12.0	0.0
STYT				S	Sb	07 58 22.6	-0.4
ECL	Taimali	0.86	231	eP	Pb	07 58 11.5	-0.8
ECL				eS	Sb	07 58 23.2	-0.2
ALS	Alishan	0.88	294	i P	Pb	07 58 12.6	-0.1
ALS				S	Sb	07 58 24.2	+0.1
LXIB	Xiulin Townshi	0.90	344	i P	Pb	07 58 12.2	-0.7
LXIB				eS	Sb	07 58 23.2	-1.4
SSLB	Suanglung	0.92	314	P	Pn	07 58 12.2	-1.2
SSLB	Suanglung	0.92	314	eP	Pn	07 58 12.6	-0.8
SSLB				S	Sb	07 58 23.2	-1.8
OWD	Renai	0.92	330	i P	Pn	07 58 12.8	-0.8
OWD				eS	Sb	07 58 23.3	-1.9
TWD	Chiawan	0.93	355	P	Pn	07 58 12.5	-1.0
TWD				S	Sb	07 58 24.6	-0.7
WHYT	Xinyi Township	0.93	306	eP	Pb	07 58 13.5	+0.1
WHYT				S	Sb	07 58 25.1	-0.3
SLGT	Liugui	0.96	261	P	Pn	07 58 13.7	-0.3
SLGT				S	Sn	07 58 27.1	+0.2
TPUB	Ta-pu	0.97	279	P	Pb	07 58 14.3	+0.1
TPUB	Ta-pu	0.97	279	S	Sb	07 58 26.5	-0.1
TPUB	Ta-pu	0.97	279	i P	Pb	07 58 14.3	+0.1
TPUB				i S	Sn	07 58 27.0	-0.3
WUSB	Renai	0.98	329	i P	Pn	07 58 13.8	-0.6
WUSB				eS	Sb	07 58 25.0	-2.0
WTP	Ta-pu	0.98	276	i P	Pb	07 58 14.3	0.0
WTP				eS	Sn	07 58 27.4	0.0
ETL	Fush Village	1.00	357	P	Pn	07 58 13.6	-1.0
ETL				S	Sb	07 58 26.9	-0.6
SGST	Jiashian	1.01	266	eP	Pb	07 58 15.3	+0.6
SGST				eS	Sn	07 58 27.7	-0.4
CHN4	Tsaushan	1.02	282	eP	Pb	07 58 15.2	+0.4
CHN4				S	Sn	07 58 29.0	+0.8
CHN5	Tsauling	1.02	296	i P	Pb	07 58 15.3	+0.3
CHN5				i S	Sn	07 58 29.1	+0.6
SMLT	Sun Moon Lake	1.02	316	i P	Pn	07 58 14.5	-0.3
SMLT				S	Sb	07 58 27.7	-0.3
NACB	Ninganchiao	1.02	356	eP	Pn	07 58 13.9	-0.9
NACB				eS	Sb	07 58 26.5	-1.4
WCKO	Fanlu	1.03	286	eP	Pb	07 58 15.4	+0.4

WCKO				eS	Sn	07 58 29.6	+1.1
SSD	**Sandimen**	1.04	248	P	Pn	07 58 14.7	-0.4
SSD				eS	Sb	07 58 29.7	+1.2
TSMG	**Majia**	1.05	245	eP	Pn	07 58 14.8	-0.3
TSMG				S	Sn	07 58 28.4	-0.7
CHN1	**Nanshi**	1.06	272	i P	Pb	07 58 15.9	+0.3
CHN1				i S	Sb	07 58 30.3	+1.3
WHF	**Hehuan Shan**	1.06	339	eP	Pn	07 58 14.9	-0.8
WHF				S	Sb	07 58 27.8	-1.7
TYC	**Yuchr**	1.06	315	P	Pn	07 58 15.3	0.0
TYC				S	Sb	07 58 29.3	+0.2
ETLH	**Xiulin Townshi**	1.07	350	eP	Pn	07 58 14.6	-0.9
ETLH				eS	Sn	07 58 26.9	-2.7
TAW	**Tawu**	1.07	223	eP	Pb	07 58 15.6	-0.1
TAW				eS	Sn	07 58 26.6	-2.9
EAST	**Anshuo**	1.08	225	P	Pn	07 58 15.2	-0.4
EAST				eS	Sn	07 58 29.6	-0.2
WPL	**Puli Township**	1.08	323	P	Pn	07 58 15.5	-0.1
WPL				eS	Sb	07 58 30.1	+0.4
TAWH	**Dawu Township**	1.09	222	P	Pn	07 58 14.7	-1.0
TAWH				S	Sn	07 58 28.6	-1.4
SNST	**Tainan City**	1.09	274	P	Pb	07 58 15.8	-0.2
SNST				S	Sb	07 58 30.6	+0.8
WJS	**Zhushan**	1.10	308	P	Pb	07 58 16.1	-0.1
WJS				S	Sb	07 58 30.8	+0.7
TWK	**Hsinying**	1.10	276	P	Pb	07 58 16.3	0.0
TWK				i S	Sb	07 58 31.1	+0.8
MASBT	**Mashibuluo**	1.10	241	eP	Pn	07 58 15.6	-0.3
MASBT				eS	Sn	07 58 28.7	-1.7
LAY	**Lan-yu**	1.11	186	P	Pn	07 58 15.2	-0.8
LAY				eS	Sb	07 58 30.8	+0.3
DPDB	**Guoxing**	1.12	322	P	Pn	07 58 15.8	-0.3
DPDB				S	Sn	07 58 30.1	-0.6
SCST	**Cishan**	1.12	257	eP	Pb	07 58 16.8	+0.2
SCST				eS	Sb	07 58 34.6	+3.8
EOS4	**EOS4**	1.13	31	eP	Pb	07 58 17.0	+0.5
EOS4				eS	Sb	07 58 30.7	0.0
WCS	**Beigang Elemen**	1.14	322	eP	Pb	07 58 16.7	-0.3
WCS				S	Sb	07 58 31.3	-0.2
LYUB	**Lan-yu**	1.15	184	eP	Pn	07 58 14.9	-1.5
LYUB				eS	Sn	07 58 28.4	-3.0
EHP	**Heping Village**	1.16	3	eP	Pb	07 58 17.3	+0.1
WGK	**Gukeng**	1.16	298	eP	Pn	07 58 16.3	-0.2
WGK				S	Sb	07 58 33.0	+1.3
FUSS	**Fushou**	1.16	340	eP	Pn	07 58 17.0	+0.1
FUSS				eS	Sn	07 58 30.2	-2.0
WNT	**Mingjian**	1.16	309	eP	Pb	07 58 17.8	+0.4
WNT				S	Sb	07 58 32.2	+0.2
CHN2	**Minshiung**	1.17	289	P	Pb	07 58 18.7	+1.3
CHN2				eS	Sb	07 58 34.5	+2.4
EAHA	**Aohua**	1.18	3	eP	Pb	07 58 17.5	0.0
EAHA				S	Sb	07 58 32.7	+0.4
WDLH	**Douliu**	1.18	297	i P	Pb	07 58 18.4	+0.8
WDLH				eS	Sb	07 58 33.4	+1.1
WNT1	**Nantou City**	1.19	310	P	Pb	07 58 17.9	+0.2
WNT1				S	Sb	07 58 33.2	+0.6
WDL	**Douliou City**	1.19	298	P	Pb	07 58 17.2	-0.5
WDL				S	Sb	07 58 32.8	+0.1
TWT	**Tachien**	1.19	337	eP	Pb	07 58 17.6	-0.3
TWT				S	Sn	07 58 31.6	-1.1
TDCB	**Techi**	1.20	337	eP	Pb	07 58 17.8	-0.2
TDCB				S	Sn	07 58 31.3	-1.5
TWM1	**Shoushan**	1.20	254	eP	Pb	07 58 20.0	+2.0
TWM1				eS	Sb	07 58 37.7	+4.6
CHY	**Chiayi**	1.20	287	P	Pb	07 58 18.7	+0.7
CHY				S	Sb	07 58 34.4	+1.2
CHN3	**Shinhua**	1.21	267	P	Pb	07 58 19.8	+1.7
CHN3				eS	Sb	07 58 33.6	+0.3
SSPT	**Xinbi**	1.22	237	P	Pn	07 58 17.8	+0.4
SSPT				S	Sn	07 58 32.9	-0.3
SHHT	**Tainan City**	1.23	264	P	Pb	07 58 20.2	+1.7
SHHT				eS	Sb	07 58 34.1	+0.2
SLIU	**Shizi**	1.23	221	P	Pn	07 58 16.7	-1.0
SLIU				S	Sn	07 58 32.5	-1.1
SCZT	**Fangliau**	1.25	232	eP	Pb	07 58 18.3	-0.4
SCZT				S	Sb	07 58 34.3	-0.1
WWF	**Wufeng**	1.26	315	P	Pb	07 58 19.5	+0.5
WWF				S	Sb	07 58 35.8	+0.9
ENA	**Nanau**	1.27	3	eP	Pn	07 58 15.3	-2.9
ENA				eS	Sn	07 58 31.4	-3.1
EOS3	**EOS3**	1.27	27	eP	Pb	07 58 20.0	+0.9
EOS3				eS	Sn	07 58 34.3	0.0
SSHA	**Shanhua**	1.28	270	P	Pb	07 58 18.9	-0.4
SSHA				eS	Sb	07 58 35.6	+0.3
WYL	**Yuanlin Townsh**	1.29	309	P	Pb	07 58 19.1	-0.4
WYL				S	Sb	07 58 36.8	+1.1
EWUT	**Wuta**	1.29	4	S	Sn	07 58 35.0	0.0
SNJT	**Kaohsiung City**	1.30	253	eP	Pn	07 58 17.8	-0.7
WTK	**Tuku**	1.30	295	eP	Pb	07 58 19.6	-0.1
WTK				S	Sb	07 58 36.1	+0.2
NNSB	**Datong**	1.30	348	eP	Pb	07 58 19.2	-0.5
NNSB				S	Sn	07 58 34.4	-1.0
NNSH	**Datong**	1.30	348	P	Pn	07 58 18.4	-0.3
NNSH				S	Sn	07 58 34.1	-1.3
ICHU	**Yijhu**	1.30	280	eP	Pb	07 58 19.4	-0.3
ICHU				i S	Sb	07 58 36.6	+0.6
WHP	**Taichung City**	1.31	329	eP	Pb	07 58 20.8	+0.9
NNS	**Nan Shan**	1.31	348	eP	Pn	07 58 18.2	-0.7
NNS				S	Sn	07 58 35.5	-0.2
TAI1	**Yung-k'ang**	1.34	266	P	Pb	07 58 19.7	-0.6
TAI1				eS	Sn	07 58 36.2	+0.1
TCU	**Taichung**	1.35	317	P	Pn	07 58 19.5	+0.2
TCU				S	Sb	07 58 37.5	0.0
EOS2	**EOS2**	1.36	22	eP	Pb	07 58 20.9	+0.3
CHN8	**Yiju**	1.36	278	eP	Pb	07 58 20.7	-0.1
CHN8				S	Sb	07 58 38.9	+1.1
SMST	**Manzhou Townsh**	1.37	215	P	Pn	07 58 19.5	0.0
SMST				eS	Sn	07 58 36.3	-0.6
TAI	**Tainan**	1.37	264	P	Pb	07 58 20.3	-0.6
TAI				eS	Sb	07 58 37.3	-0.7
WCHH	**Zhanghua**	1.38	312	i P	Pb	07 58 21.0	0.0
WCHH				S	Sb	07 58 38.3	0.0
WSL	**Shuilin Townsh**	1.38	286	eP	Pb	07 58 20.9	-0.2
WSL				i S	Sb	07 58 38.2	-0.1
WCH1	**Changhua City**	1.38	312	P	Pn	07 58 20.2	+0.5
WCH1				S	Sb	07 58 38.1	-0.3
LATG	**Datong**	1.39	354	eP	Pn	07 58 19.9	+0.1
LATG				S	Sn	07 58 36.8	-0.7
WSSB	**Gushan**	1.40	249	eP	Pb	07 58 20.8	-0.6
WSSB				eS	Sb	07 58 38.5	-0.4
WRL	**Guolierlin Hig**	1.41	302	eP	Pb	07 58 21.2	-0.3
WRL				S	Sb	07 58 38.5	-0.5
RLNB	**Erlin**	1.42	302	P	Pn	07 58 20.5	+0.3
RLNB				eS	Sb	07 58 40.3	+1.0
WSF	**Szhu**	1.42	290	P	Pb	07 58 20.9	-0.8
WSF				S	Sb	07 58 39.2	-0.3
ESAO	**Su ao**	1.43	6	P	Pb	07 58 21.2	-0.6
ESAO				eS	Sb	07 58 39.6	0.0
HEN	**Hengchun**	1.43	217	eP	Pb	07 58 21.5	-0.4
HEN				eS	Sb	07 58 39.5	-0.3
TSEB	**Hengchuen, Pin**	1.44	210	eP	Pb	07 58 21.9	-0.1
TSEB				eS	Sb	07 58 39.5	-0.4
WLCH	**Liuqiu**	1.44	237	eP	Pb	07 58 24.9	+2.9
TWKBT	**Hengchun**	1.45	214	eP	Pn	07 58 21.0	+0.4
TWKBT				i S	Sn	07 58 38.5	-0.3
TWK1	**Hengchun**	1.45	214	P	Pn	07 58 20.2	-0.4
TWK1				S	Sn	07 58 38.3	-0.6
TWQ1	**Liyutan**	1.45	325	eP	Pb	07 58 22.5	+0.2
TWQ1				eS	Sb	07 58 41.1	+0.8
NDT	**Datong Townshi**	1.45	354	eP	Pb	07 58 21.8	-0.5
NDT				eS	Sn	07 58 39.4	+0.3
TWC	**Suao**	1.46	6	eP	Pb	07 58 22.3	-0.1
TWC				eS	Sn	07 58 39.0	-0.2
TSCK	**Chigu Township**	1.47	270	P	Pb	07 58 22.1	-0.4
TSCK				eS	Sb	07 58 39.8	-0.9
NDS	**Dongshan**	1.48	1	eP	Pb	07 58 22.5	-0.2
NDS				eS	Sb	07 58 41.5	+0.5
NSY	**Sanyi**	1.51	327	P	Pb	07 58 23.4	0.0
NSY				S	Sb	07 58 43.0	+0.8
WDJ	**Dajia District**	1.52	322	P	Pb	07 58 23.8	+0.3
WDJ				S	Sb	07 58 43.2	+0.8
WWCA	**Taichung City**	1.53	316	P	Pb	07 58 22.9	-0.6
WWCA				eS	Sn	07 58 41.1	+0.3
YHNB	**Yeheng**	1.54	350	eP	Pb	07 58 22.8	-1.0
YHNB				S	Sn	07 58 41.2	0.0
NSK	**Sanguang**	1.55	349	P	Pn	07 58 22.7	+0.6
NSK				S	Sn	07 58 41.5	+0.1
NFF	**Wufeng Townshi**	1.56	341	eP	Pb	07 58 25.9	+1.7
NFF				S	Sn	07 58 42.0	+0.3
TWE	**Neicheng**	1.56	360	eP	Pb	07 58 25.5	+1.3
TWE				eS	Sb	07 58 42.6	-0.9
NSTT	**Nanjuang**	1.60	337	eP	Pn	07 58 22.5	-0.2
NSTT				S	Sn	07 58 42.9	+0.3
NMLH	**Miaoli**	1.60	330	eP	Pb	07 58 25.4	+0.5
NMLH				S	Sb	07 58 44.0	-0.6
FUSB	**Fushanzhiwuyua**	1.60	357	P	Pn	07 58 23.1	+0.2
FUSB				S	Sn	07 58 43.1	+0.3
LIOB	**Emei**	1.61	338	P	Pb	07 58 25.0	+0.1
LIOB				S	Sb	07 58 44.2	-0.6
ILA	**Ilan**	1.61	2	eP	Pn	07 58 20.6	-2.2
ILA				S	Sb	07 58 43.8	-1.0
NWLT	**Wulai**	1.63	354	eP	Pb	07 58 24.6	-0.7
NWLT				S	Sn	07 58 42.9	-0.5
NJD	**Zhudong**	1.67	341	eP	Pn	07 58 24.6	+0.9
NJD				eS	Sn	07 58 45.0	+0.7
KSHI	**Guanxi Townshi**	1.68	344	eP	Pb	07 58 26.6	+0.4
KSHI				S	Sn	07 58 45.2	+0.6
NJN	**Zhunan**	1.69	334	P	Pn	07 58 24.9	+0.9
NJN				eS	Sn	07 58 45.4	+0.5
NTC	**Toucheng**	1.70	5	eP	Pb	07 58 25.8	-0.7
NTC				S	Sn	07 58 45.9	+0.8
JYNG	**Yonagunijimaku**	1.74	42	eS	Sn	07 58 45.4	-0.7
HSN	**Hsinchu**	1.77	339	P	Pb	07 58 26.5	-1.2
HSN				eS	Sn	07 58 46.7	0.0
YOJ	**Yonaguni jima**	1.79	43	P	Pn	07 58 26.4	+1.1
YOJ				eS	Sb	07 58 50.1	+0.2
NHDH	**Xindian Distri**	1.81	356	eP	Pb	07 58 27.2	-1.2
TIPB	**Shuangxi**	1.82	4	P	Pn	07 58 26.8	+1.0
TIPB				eS	Sb	07 58 49.5	-1.4
TWA	**Mucha**	1.82	357	eP	Pb	07 58 27.6	-1.0
TWA				eS	Sb	07 58 49.5	-1.5
TATO	**Taipei**	1.82	355	eP	Pn	07 58 26.7	+0.9
TATO				eS	Sn	07 58 48.8	+0.7
BACT	**New Taipei Cit**	1.85	353	P	Pn	07 58 27.3	+1.1
BACT				eS	Sn	07 58 49.1	+0.3
WDGT	**Dungji**	1.86	274	P	Pn	07 58 27.1	+0.8
WDGT				S	Sn	07 58 48.8	-0.2
NCUH	**Zhongli**	1.86	346	eP	Pn	07 58 27.1	+0.7
NCUH				eS	Sn	07 58 49.8	+0.6
TWB1	**Santiao Chiao**	1.87	9	P	Pb	07 58 28.6	-0.9
TWB1				S	Sn	07 58 50.2	+0.9
NHY	**Taipei**	1.88	357	P	Pn	07 58 27.9	+1.4
NHY				S	Sn	07 58 50.4	+0.8
WFSB	**Wu-fen Shan**	1.91	3	eP	Pb	07 58 29.1	-1.0
WFSB				S	Sb	07 58 51.9	-1.7
SXI1	**Grass Mountain**	1.94	5	P	Pn	07 58 28.8	+1.3
SXI1				eS	Sn	07 58 52.1	+0.8
TWS1	**Kuangyinshan**	1.96	353	P	Pn	07 58 28.8	+1.2
TWS1				eS	Sn	07 58 52.0	+0.6
PHUB	**P'eng-hu**	1.97	281	eP	Pn	07 58 28.1	+0.3
PHUB				eS	Sn	07 58 50.5	-1.2
YM01	**YM01**	1.99	357	P	Pn	07 58 29.1	+1.0
YM01				eS	Sn	07 58 53.1	+0.8
TNOU	**National Taiwa**	1.99	2	P	Pn	07 58 29.4	+1.3
TNOU				S	Sn	07 58 53.0	+0.7
PNG	**Penghu**	1.99	282	eP	Pn	07 58 28.6	+0.5
PNG				eS	Sn	07 58 51.0	-1.3
ZUZH	**Zhuzihu**	2.01	357	P	Pn	07 58 29.4	+1.1
ZUZH				eS	Sn	07 58 53.4	+0.7
YM08	**YM08**	2.03	358	eP	Pn	07 58 29.9	+1.3
YM08				eS	Sn	07 58 52.9	-0.4
ANP	**Anpu**	2.03	356	eP	Pn	07 58 30.1	+1.4
ANP				eS	Sn	07 58 54.4	+0.9
VCHM	**Qimei**	2.07	272	P	Pn	07 58 28.8	-0.3
VCHM				S	Sn	07 58 53.6	-0.6
HATJ	**Hateruma jima**	2.15	65	eP	Pn	07 58 31.1	+0.8
HATJ				eS	Sn	07 58 56.3	+0.1
IRIF	**Iriomote-Funau**	2.22	58	eP	Pn	07 58 32.6	+1.4
IRIF				eS	Sn	07 58 58.5	+0.6
JKRS	**Kuro-shima**	2.40	63	eS	Sn	07 59 03.6	+1.3
JIJ	**Ishigaki jima**	2.56	61	eP	Pn	07 58 37.3	+1.3
JIJ				eS	Sn	07 59 06.7	+0.3
VWUC	**VWUC**	2.74	312	P	Pn	07 58 39.2	+0.8
JISG	**Ishigakijimahi**	2.80	59	P	Pn	07 58 39.8	+0.5
JISG				eS	Sn	07 59 12.7	+0.4
PTMZ	**Houxiangcun**	3.00	309	P	Pn	07 58 42.9	+0.9
KNM	**Kinmen**	3.23	294	P	Pn	07 58 47.6	+2.5
KNMB	**Chin-men Tao**	3.28	294	eP	Pn	07 58 45.5	-0.3
MATB	**Ma-tsu**	3.38	333	P	Pn	07 58 48.5	+1.3
MSUT	**Lienchiang**	3.40	332	P	Pn	07 58 49.5	+2.0
MSUT				eS	Sn	07 59 25.5	-1.6
ZPLA	**Ao Xicun**	3.69	283	P	Pn	07 58 53.0	+1.6
ZPLA				S	Sn	07 59 33.7	-0.4
MHZQ	**Yeshan**	3.80	321	P	Pn	07 58 54.3	+1.3
LYJJ	**Jianjiangzhen**	3.81	333	P	Pn	07 58 54.9	+1.8
AXDP	**Jialang**	3.81	298	eP	Pn	07 58 53.1	0.0
DSXP	**Dongshan**	3.94	279	eP	Pn	07 58 54.0	-1.0
DSXP				eS	Sn	07 59 39.0	-1.4
SXFK	**Yanhouchang**	4.89	312	eP	Pn	07 59 07.9	-0.1

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*IDC **26** 07:59:33.1±3.2, 2°.81S×127°.85E, h22km±19km, mb3.9/10, mbtmp4.0/12, ML4.1/2, MS3.3/6, Error ellipse: s-maj=41.0km s-min=13.8km az=76.0*

*DJA **26** 07:59:34.3±0.1, 3°S±1°×12°7E±°, h10km, M4.4/35, mB4.9/12, mb4.7/15, MLv4.5/35, Mw(mB)4.2/12*

ISC 26 07:59:32.1±0.6, **2°.88S**±0°.06×**127°.44E**±0°.06, **h10km, n34,** σ**2^{s}.56**/34, **mb4.0**/10, **MS3.0**/3, **Ceram Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NLAI	**Namlea**	0.49	224	P	Pg	07 59 42.6	+0.8
NLAI				S	Sg	07 59 49.2	+0.9
NLAI				AML	AML		
AAI	**Ambon**	1.10	137	P	Pb	07 59 55.8	+2.5
AAI				S	Sb	08 00 11.2	+3.5
AAI				AML	AML		
MSAI	**Masohi**	1.56	107	P	Pn	08 00 03.7	+3.8
MSAI				AML	AML		
SANI	**Sanana**	1.67	300	P	Pn	08 00 00.0	-1.5
BNDI	**Bandanaira**	2.95	124	P	Pn	08 00 22.1	+3.0
BNDI				AML	AML		
TNTI	**Ternate**	3.63	359	P	Pn	08 00 30.4	+2.0
TNTI				AML	AML		
SWI	**Sorong**	4.31	62	P	Pn	08 00 40.4	+2.6
SWI				AML	AML		
SIJI	**Sorong**	4.31	62	Pn	Pn	08 00 22.9	-15
	15nm,0.3s,baz=118,slow=14,SNR=6.4						
FAKI	**Fak Fak**	4.80	91	P	Pn	08 00 46.2	+1.6
FAKI				AML	AML		
KDI	**Kendari**	4.93	257	P	Pn	08 00 47.7	+1.4
KDI				AML	AML		
LUWI	**Luwuk**	5.01	291	P	Pn	08 00 47.4	0.0
LUWI				AML	AML		
APSI	**Ampana**	6.11	289	P	Pn	08 01 03.6	+1.0
	0.7nm1μm76nm,0.8s						
APSI				AML	AML		
SOEI	**Soe**	7.52	205	P	Pn	08 01 23.5	+1.4
SOEI				AML	AML		
BSSI	**Bau Bau, Buton**	7.65	245	P	Pn	08 01 26.6	+2.9
BKSI	**Bulukumba**	7.69	251	P	Pn	08 01 26.7	+2.4
	0.2nm525nm48nm,0.7s						
BKSI				AML	AML		
SPSI	**Sidrap Palu**	7.73	262	P	Pn	08 01 28.2	+3.3
KAPI	**Kappang**	7.96	254	Pn	Pn	08 01 31.6	+3.7
	4.5nm,0.3s,baz=97,slow=7.5,SNR=12						
KAPI				LR	LR	08 04 42.1	
	comp=Z,180nm,21.4s,baz=83,slow=37						
KAPI	**Kappang**	7.96	254	P	Pn	08 01 28.9	+0.9
	0.1nm27nm,0.8s						
KAPI				AML	AML		
EDFI	**Ende, Flores**	8.17	224	P	Pn	08 01 34.6	+3.7
BATI	**Baumata**	8.19	207	LR	LR	08 04 44.8	
	comp=Z,663nm,18.8s,baz=42,slow=37						
FITZ	**Fitzroy Crossi**	15.23	187	Pn	Pn	08 03 06.2	-1.2
	0.5nm,0.3s,baz=25,slow=6.2,SNR=5.3						
FITZ				LR	LR	08 09 57.4	
	comp=Z,171nm,18.6s,baz=3.5,slow=41						
	2.8nm,0.8s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	18.25	159	P	Pn	08 03 44.4	-1.2
	0.7nm,0.3s,baz=339,slow=12,SNR=34						
WRA				S	Sn	08 07 00.2	-9.4
	0.3nm,0.6s,baz=331,slow=20,SNR=1.9						
WRA				ScP	ScP	08 11 51.8	-2.4
	0.1nm,0.5s,baz=318,slow=2.1,SNR=6.1						
	2.0nm,0.5s						
WRA				AML	AML		
ASAR	**Alice Springs**	21.59	164	P	P	08 04 22.1	-0.2
	3.8nm,0.5s,baz=345,slow=12,SNR=35						
ASAR				S	S	08 08 14.0	-7.6
	6.6nm,1.1s,baz=351,slow=21,SNR=21						
ASAR				ScP	ScP	08 11 59.5	-2.4
	0.5nm,0.6s,baz=357,slow=2.5,SNR=7.2						
	3.8nm,0.5s						
GUMO	**Guam**	23.81	46	LR	LR	08 13 51.6	
	comp=Z,20nm,21.1s,baz=209,slow=37						
STKA	**Stephens Creek**	31.77	157	P	P	08 05 55.6	-1.2
	0.6nm,0.4s,baz=346,slow=10,SNR=5.4						
	0.6nm,0.4s						
HNR	**Honiara**	32.95	103	LR	LR	08 21 08.8	
	comp=Z,36nm,19.7s,baz=20,slow=40						
CMAR	**Chiang Mai Arr**	35.17	308	P	P	08 06 28.5	+1.9
	1.6nm,0.3s,baz=141,slow=8.2,SNR=7.2						
CMAR				LR	LR	08 23 06.5	
	comp=Z,27nm,19.7s,baz=105,slow=40						
	1.6nm,0.3s						
MJAR	**Matsushiro Arr**	40.49	13	P	P	08 07 08.4	-2.8
	1.3nm,0.5s,baz=185,slow=10,SNR=5.4						
	1.3nm,0.5s						
USRK	**Ussuriysk Ar.**	47.05	4	P	P	08 08 03.3	-0.5
	6.2nm,0.6s,baz=170,slow=5.7,SNR=9.4						
	6.2nm,0.6s						
SONM	**Songino Array**	53.76	343	P	P	08 08 54.2	-0.7
	0.5nm,0.4s,baz=152,slow=9.9,SNR=3.9						
	0.5nm,0.4s						
MKAR	**Makanchi Array**	63.41	327	P	P	08 10 02.2	+0.2
	1.3nm,0.9s,baz=120,slow=7.4,SNR=5.7						
	1.3nm,0.9s						
KURBB	**Kurchatov Arra**	67.69	329	P	P	08 10 29.6	+0.1
	0.8nm,0.8s,baz=126,slow=5.6,SNR=6.6						
	0.8nm,0.8s						
VNDA	**Vanda**	76.82	173	P	P	08 11 21.9	-1.8
	0.4nm,0.6s,baz=289,slow=8.8,SNR=2.0						
	0.4nm,0.6s						
QSPA	**South Pole Qui**	87.07	180	P	P	08 12 15.7	-2.2
	3.7nm,1.1s,baz=187,slow=1.5,SNR=7.5						
	3.7nm,1.1s						

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*SKHL **26** 08:03:54.2±0.0, 47°.00N×153°.10E, h88km±2km, mb4.8/4, msh5.8/4*

*MOS **26** 08:03:55.1±0.9, 47°.19N×152°.65E, h88km, mb4.5/1, Error ellipse: s-maj=19.0km s-min=8.8km az=65.7*

*NEIC **26** 08:03:55.8±1.7, 47°.1N±0°.1×152°.7E±0°.1, h77km±8km, mb4.4/15, Error ellipse: s-maj=15.7km s-min=11.7km az=165.0*

*IDC **26** 08:03:57.5±2.5, 47°.19N×152°.65E, h90km±22km, mb3.5/13, mbtmp3.9/17, Error ellipse: s-maj=20.6km s-min=14.2km az=138.0*

*JMA **26** 08:03:59.4±0.6, 46°N±3°×15°3E±°, h176km, MV3.7/17, KURILE ISLANDS REGION*

ISC 26 08:03:53.5±0.6, **47°.07N**±0°.09×**152°.85E**±0°.08, **h56km, n78,** σ**1^{s}.74**/79, **mb4.1**/21, **Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
REI	**Reidovoe**	3.81	244	eP	Pn	08 04 52.3	+2.7
REI				eS	Sn	08 05 35.9	+2.8
KUR	**Kuril'sk**	3.92	244	ePN	Pn	08 04 53.4	+2.3
KUR				eS	Sn	08 05 39.6	+3.8
KUR				pmax	pmax		
	comp=Z,79nm,0.3s						
KUR				smax	smax		
	comp=N,226nm,0.4s						
KUR				smax	smax		
	comp=E,131nm,0.3s						
KUR	**Kuril'sk**	3.92	244	eP	Pn	08 04 53.4	+2.3
KUR				AMB	AMB	08 04 54.8	
	comp=E,70nm,0.5s						
KUR				eS	Sn	08 05 39.0	+3.2
KUR				A	A	08 05 42.1	
	comp=E,230nm,0.3s						
KUR				A	A	08 05 42.1	
	comp=E,130nm,0.3s						
SKR	**Severo-Kuril's**	4.21	30	ePN	Pn	08 04 58.0	+2.9
SKR				eS	Sn	08 05 45.7	+2.7
SKR				pmax	pmax		
	comp=Z,43nm,0.8s						
SKR				smax	smax		
	comp=E,88nm,0.3s						
SKR				smax	smax		
	comp=N,180nm,0.7s						
SKR	**Severo-Kuril's**	4.21	30	eP	Pn	08 04 56.6	+1.5
SKR				AMB	AMB	08 04 59.5	
	comp=N,40nm,0.7s						
SKR				eS	Sn	08 05 43.4	+0.4
SKR				A	A	08 05 47.7	
	comp=N,90nm,0.3s						
SKR				A	A	08 05 47.7	
	comp=N,80nm,0.3s						
PAU	**Pauzhetka**	5.11	29	eP	Pn	08 05 09.1	+1.7
PAU				AMB	AMB	08 05 18.6	
	comp=N,30nm,0.3s						
PAU				eS	Sn	08 06 06.5	+1.5
PAU				A	A	08 06 09.5	
	comp=N,80nm,0.3s						
PAU				A	A	08 06 09.5	
	comp=N,130nm,0.3s						
SHO	**Shikotan**	5.30	235	eP	Pn	08 05 27.7	+18
SHO				AMB	AMB	08 05 40.1	
	comp=N,30nm,0.4s						
SHO				eS	Sn	08 06 19.6	+10
SHO				A	A	08 06 21.1	
	comp=N,130nm,0.3s						
SHO				A	A	08 06 21.1	
	comp=N,140nm,0.3s						
NEM2	**Nemuro 2**	6.24	236	eP	Pn	08 05 22.7	-0.2
NEM2				eS	Sn	08 06 29.2	-3.5
NMR	**Nemuro--Hokkai**	6.24	236	eP	Pn	08 05 22.6	-0.3
JRA	**Rausu**	6.27	243	eP	Pn	08 05 25.9	+2.6
JNK	**Nakash**	6.71	242	eP	Pn	08 05 30.7	+1.4
PEA0B	**Petropavlovsk-**	6.80	25	PN	Pn	08 05 32.8	+2.2
PEA0B	**Petropavlovsk-**	6.80	25	Pn	Pn	08 05 32.8	+2.2
PETK	**Petropavlovsk-**	6.80	25	P	Pn	08 05 33.0	+2.4
	comp=N,3.2nm,0.4s,baz=211,slow=13,SNR=4.5						
PETK	**Petropavlovsk-**	6.80	25		Pn	08 05 31.5	+0.9
YSS	**Yuzhno-Sakhali**	6.91	273	Pn	Pn	08 05 31.9	-0.1
AKK	**Akkeshi**	6.97	237	eP	Pn	08 05 33.9	+1.0
JTKR	**Abashiri--Toko**	7.00	247	eP	Pn	08 05 36.5	+3.1
JAR	**Ashorobuto**	7.44	243	eP	Pn	08 05 41.1	+1.7
JAR				eS	Sn	08 07 01.1	-1.2
JOB	**Onbets**	7.63	240	eP	Pn	08 05 42.8	+0.9
JOB				eS	Sn	08 07 04.1	-2.7
JKA	**Kamikawa-asahi**	7.77	251		Pn	08 05 46.6	+2.7
JKA	**Kamikawa-asahi**	7.77	251	eP	Pn	08 05 47.4	+3.5
ASAJ	**Asahikawa**	7.77	251	P	Pn	08 05 47.4	+3.4
	comp=N,15nm,0.7s,baz=60,slow=13,SNR=8.3						
JKK2	**Kamakawa 2**	7.79	249	eP	Pn	08 05 47.0	+2.9
JCH	**Churui**	8.08	240	eS	Sn	08 07 13.9	-4.0
ERM	**Erimo**	8.57	237	PN	Pn	08 05 54.8	0.0
ERM	**Erimo**	8.57	237	Pn	Pn	08 05 54.8	0.0
MA2	**Magadan**	12.60	355	P	Pn	08 06 51.0	+1.4
	comp=N,9.5nm,0.6s,baz=174,slow=10,SNR=6.7						
MA2	**Magadan**	12.60	355		Pn	08 06 50.6	+0.9
MJAR	**Matsushiro Arr**	15.13	231	P	P	08 07 26.6	-1.2
	comp=N,0.9nm,0.6s,baz=47,slow=9.5,SNR=6.6						
JGF	**Kuroka**	16.29	231	Pn	Pn	08 07 38.3	-0.3
JGF				IAmb	IAmb	08 08 08.2	
	comp=Z,32nm,1.5s						
KSRS	**Korea Array**	20.73	251	P	P	08 08 29.9	+0.8
	comp=Z,1.2nm,0.5s,baz=55,slow=11,SNR=4.8						
	comp=Z,1.2nm,0.5s						
H11N2	**WAKE ISLAND Hy**	29.58	152	T	T	08 41 30.0	
	baz=340,slow=76,SNR=837						
H11N1	**WAKE ISLAND Hy**	29.60	152	T	T	08 41 28.0	
	baz=340,slow=76,SNR=894						
H11N3	**WAKE ISLAND Hy**	29.60	152	T	T	08 41 31.3	
	baz=340,slow=76,SNR=632						
H11S1	**WAKE ISLAND Hy**	30.67	154	T	T	08 42 53.4	
	baz=341,slow=76,SNR=957						
H11S3	**WAKE ISLAND Hy**	30.68	154	T	T	08 42 54.6	
	baz=341,slow=76,SNR=764						
H11S2	**WAKE ISLAND Hy**	30.69	154	T	T	08 42 49.1	
	baz=341,slow=76,SNR=520						
J17K	**VABM Dome**	30.98	41	P	P	08 10 06.3	+1.3
J17K				IAmb	IAmb	08 10 35.7	
	comp=Z,14nm,1.4s						
K17K	**Iditarod**	31.23	42	P	P	08 10 08.9	+1.6
K17K				IAmb	IAmb	08 10 31.1	
	comp=Z,12nm,1.3s						
G18K	**Tagagawik**	31.62	36	P	P	08 10 10.8	+0.1
G18K				IAmb	IAmb	08 10 23.9	
	comp=Z,5.3nm,1.2s						
F19K	**Shaleruckik Mo**	32.18	34	P	P	08 10 16.7	+1.2

F19K				IAmb	IAmb	08 10 32.6	
	comp=Z,4.5nm,1.3s						
D19K	Kuna River	32.47	31	P	P	08 10 18.6	+0.5
D19K				IAmb	IAmb	08 10 51.3	
	comp=Z,14nm,1.4s						
J19K	Poorman	32.59	40	P	P	08 10 19.6	+0.5
ILSW	Iliamna Southw	33.60	47	P	P	08 10 30.8	+2.6
ILSW				IAmb	IAmb	08 11 04.2	
	comp=Z,11nm,1.2s						
IMAR	Indian Mountai	33.62	36	P	P	08 10 29.2	+1.1
G21K	Allakaket	33.79	35	P	P	08 10 31.0	+1.4
G21K				IAmb	IAmb	08 10 31.8	
	comp=Z,3.0nm,0.8s						
KDAK	Kodiak Island	34.04	51	P	P	08 10 32.3	+0.4
KDAK				pmax	pmax		
	comp=Z,32nm,1.5s						
KDAK	Kodiak Island	34.04	51	P	P	08 10 32.3	+0.4
CNPM	China Poot	34.59	48	P	P	08 10 37.1	+0.4
H23K	Yukon River	35.32	37	P	P	08 10 44.4	+1.5
H23K				IAmb	IAmb	08 10 46.4	
	comp=Z,6.5nm,1.4s						
ILAR	Eielson Array	36.41	39	P	P	08 10 52.7	+0.5
	comp=Z,1.1nm,1.0s,baz=269,slow=6.0,SNR=7.7						
	comp=Z,1.1nm,1.0s						
ZALV	Zalesovo Beam	42.28	305	P	P	08 11 39.9	-1.3
	comp=Z,0.4nm,0.4s,baz=70,slow=13,SNR=1.7						
ZALV				PcP	PcP	08 13 33.4	-0.5
	comp=Z,0.6nm,0.3s,baz=69,slow=4.9,SNR=5.5						
	comp=Z,0.4nm,0.4s						
MKAR	Makanchi Array	46.64	297	P	P	08 12 15.4	-0.6
	comp=Z,0.2nm,0.4s,baz=53,slow=8.5,SNR=2.6						
MKAR				PcP	PcP	08 13 48.2	-0.8
	comp=Z,0.4nm,0.3s,baz=67,slow=4.6,SNR=5.8						
	comp=Z,0.2nm,0.4s						
MKAR	Makanchi Array	46.64	297	P	P	08 12 14.8	-1.2
YKA	Yellowknife Ar	50.78	37	P	P	08 12 48.2	+0.6
	comp=Z,0.4nm,0.5s,baz=300,slow=7.1,SNR=1.9						
	comp=Z,0.4nm,0.5s						
FIA1	FINESS Array S	63.68	335	P	P	08 14 17.2	-1.2
FINES	FINESS Array B	63.68	335	P	P	08 14 17.8	-0.7
	comp=Z,1.2nm,0.3s,baz=38,slow=7.9,SNR=20						
	comp=Z,1.2nm,0.3s						
FINES	FINESS Array B	63.68	335	P	P	08 14 17.6	-0.8
PDAR	Pinedale Array	64.70	54	P	P	08 14 26.3	+0.4
	comp=Z,0.5nm,0.6s,baz=293,slow=1.7,SNR=8.3						
	comp=Z,0.5nm,0.6s						
PDAR	Pinedale Array	64.70	54	P	P	08 14 25.9	+0.1
NOA	NORSAR Array B	67.87	341	P	P	08 14 44.9	-0.7
	comp=Z,0.4nm,0.5s,baz=31,slow=6.7,SNR=4.4						
	comp=Z,0.4nm,0.5s						
HFS	Hagfors	68.10	339	P	P	08 14 45.6	-1.3
	comp=Z,0.8nm,0.4s,baz=56,slow=8.0,SNR=7.7						
	comp=Z,0.8nm,0.4s						
WRA	Warramunga Arr	68.75	199	P	P	08 14 50.9	-0.5
	comp=Z,0.3nm,0.7s,baz=11,slow=6.6,SNR=2.8						
	comp=Z,0.3nm,0.7s						
WRA	Warramunga Arr	68.75	199	P	P	08 14 51.9	+0.5
WRA	Warramunga Arr	68.75	199	P	P	08 14 51.9	+0.5
AKASG	Malin Array Be	71.19	326	P	P	08 15 04.3	-1.7
	comp=Z,0.7nm,0.3s,baz=34,slow=6.3,SNR=4.8						
	comp=Z,0.7nm,0.3s						
AS31	Alice Springs	72.45	198	P	P	08 15 13.5	-0.4
ASAR	Alice Springs	72.45	198	P	P	08 15 14.6	+0.8
	comp=Z,0.5nm,0.7s,baz=14,slow=4.1,SNR=5.6						
	comp=Z,0.5nm,0.7s						
ASAR	Alice Springs	72.45	198	P	P	08 15 13.6	-0.3
ASAR	Alice Springs	72.45	198	P	P	08 15 13.6	-0.3
CLL	Collm	76.10	335	*e*P	P	08 15 33.0	-1.9
TXAR	Lajitas Array	77.49	60	P	P	08 15 43.9	+0.7
	comp=Z,2.1nm,0.5s,baz=296,slow=4.7,SNR=58						
	comp=Z,2.1nm,0.5s						
H03N2	Juan Fernandez	138.93	90	T	T	10 58 25.4	
	baz=307,slow=77,SNR=47						
H03N1	Juan Fernandez	138.94	90	T	T	10 58 43.6	
	baz=307,slow=77,SNR=18						
H03N3	Juan Fernandez	138.94	90	T	T	10 58 23.8	
	baz=307,slow=77,SNR=6.0						
PLCA	Paso Flores	148.41	95	PKPbc	PKPbc	08 23 33.1	-0.2
	comp=Z,1.0nm,0.8s,baz=100,slow=1.5,SNR=3.7						
TROLL	Troll, Antarti	151.44	199	P	PKPbc	08 23 39.2	-0.5
	comp=Z,33nm,0.4s						

IDC ***26*** *08:22:31.9±1.6, 56°.98S×147°.95W, h0^{km}, mb3.8/4, mbtmp3.8/4, MS4.0/41, Error ellipse: s-maj=52.5km s-min=39.4km az=51.0*

GCMT ***26*** *08:22:37.0±0.2, 57°.60S±0°.01×147°.70W±0°.02, h13^{km}±1^{km}, MW5.0/107, Moment Tensor Solution. s28,c35; s107,c133; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.60±.12; $M_{\theta\theta}$3.21±.14; $M_{\phi\phi}$-2.60±.11; $M_{r\theta}$1.57±.38; $M_{\theta\phi}$1.95±.10; $M_{\phi r}$-0.12±.27; Best double couple: $M_0$3.79000×10^{16} NP1:ϕ_s27.00000°,δ68.00000°, λ177.00000°. NP2:ϕ_s118.00000°,δ87.00000°,λ22.00000°. Principal axes: T 4.2520, Plg17.0000°, Azm344.0000°; N -0.9160, Plg68.0000°, Azm124.0000°; P -3.3280, Plg13.0000°, Azm250.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Surface-wave location Triangular moment-rate function*

ISC 26 08:22:31.7±1.4**, 56°.7S**±0°.2×**147°.5W**±0°.3**, h10^{km}, n58, σ1.^{s}34**/9**, mb3.9**/4**, MS4.1**/41**, Pacific-Antarctic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNDA	Vanda	27.14	202	LR	LR	08 36 18.5	
	comp=Z,262nm,19.0s,baz=73,slow=31						
RPZ	Rata Peaks	29.05	279	LR	LR	08 38 06.4	
	comp=Z,97nm,18.2s,baz=69,slow=32						
URZ	Urewera	29.72	293	LR	LR	08 38 35.6	
	comp=Z,236nm,19.5s,baz=15,slow=32						
QSPA	South Pole Qui	33.49	180	P	P	08 29 09.9	-1.0
	1.3nm,1.0s,baz=188,slow=0.2,SNR=5.6						
QSPA				LR	LR	08 39 47.5	
	comp=Z,497nm,21.8s,baz=58,slow=31						
	1.3nm,1.0s						
RAO	Raoul Island	34.78	309	LR	LR	08 39 51.7	
	comp=Z,283nm,21.5s,baz=146,slow=30						
RAR	Rarotonga	36.55	341	LR	LR	08 40 41.0	
	comp=Z,354nm,18.6s,baz=144,slow=30						
PMSA	Palmer Station	38.71	137	LR	LR	08 42 34.9	
	comp=Z,229nm,18.4s,baz=250,slow=31						
PPT2	Papeete2	39.04	357	*e*S	S	08 35 56.1	-1.5
	107nm,26.5s						
PPT2				*e*LR	LR	08 40 13.7	
	951nm,25.5s						
PPT2				*e*LR	LR	08 40 16.1	
	805nm,27.8s						
PPT	Papeete	39.06	357	LR	LR	08 41 55.9	
	comp=Z,286nm,19.9s,baz=178,slow=30						
RPN	Rapa Nui	40.09	59	LR	LR	08 43 19.6	
	comp=Z,101nm,19.6s,baz=211,slow=31						
AFI	Afiamalu	46.54	327	LR	LR	08 46 35.1	
	comp=Z,174nm,18.8s,baz=170,slow=31						
MSVF	Nonsavu	46.66	312	LR	LR	08 46 16.7	
	comp=Z,265nm,21.9s,baz=147,slow=30						
SNAA	Sanae	49.58	166	LR	LR	08 52 58.8	
	comp=Z,95nm,18.6s,baz=274,slow=37						
PLCA	Paso Flores	50.45	106	LR	LR	08 47 15.3	
	comp=Z,143nm,21.3s,baz=223,slow=29						
H03S2	Juan Fernandez	50.94	94	T	T	09 26 52.1	
	baz=218,slow=74,SNR=36						
H03S1	Juan Fernandez	50.95	94	T	T	09 26 53.0	
	baz=218,slow=74,SNR=38						
H03S3	Juan Fernandez	50.96	94	T	T	09 26 51.8	
	baz=218,slow=74,SNR=42						
STKA	Stephens Creek	53.72	266	P	P	08 31 53.8	+0.1
	2.7nm,1.0s,baz=148,slow=8.4,SNR=4.2						
STKA				LR	LR	08 51 36.1	
	comp=Z,195nm,18.9s,baz=155,slow=33						
	2.7nm,1.0s						
CTA	Charters Tower	60.42	278	LR	LR	08 55 16.4	
	comp=Z,108nm,19.0s,baz=156,slow=33						
HNR	Honiara	62.17	298	LR	LR	08 54 03.1	
	comp=Z,50nm,20.8s,baz=235,slow=30						
ASAR	Alice Springs	64.36	266	P	P	08 33 07.5	-0.1
	1.3nm,1.1s,baz=130,slow=6.6,SNR=5.8						
ASAR				LR	LR	08 59 01.5	
	comp=Z,74nm,18.1s,baz=145,slow=34						
	1.3nm,1.1s						
H01W1	Cape Leeuwin H	65.87	243	T	T	09 44 46.6	
	baz=143,slow=75,SNR=89						
H01W2	Cape Leeuwin H	65.88	243	T	T	09 44 56.9	
	baz=143,slow=75,SNR=61						
H01W3	Cape Leeuwin H	65.89	243	T	T	09 44 57.8	
	baz=143,slow=75,SNR=69						
WRA	Warramunga Arr	67.10	268	P	P	08 33 25.3	0.0
	0.5nm,0.8s,baz=149,slow=5.6,SNR=4.5						
	0.5nm,0.8s						
CPUP	Villa Florida	68.50	105	LR	LR	08 59 27.0	
	comp=Z,46nm,18.4s,baz=254,slow=32						
PMG	Port Moresby	68.74	286	LR	LR	08 58 40.2	
	comp=Z,121nm,21.1s,baz=157,slow=32						
LPAZ	La Paz	70.71	90	LR	LR	08 59 33.9	
	comp=Z,57nm,18.5s,baz=202,slow=31						
ATAH	Atahualpa	72.64	76	LR	LR	08 58 49.4	
	comp=Z,90nm,19.1s,baz=223,slow=30						
FITZ	Fitzroy Crossi	73.38	262	LR	LR	09 01 57.0	
	comp=Z,223nm,21.2s,baz=168,slow=32						
SIV	San Ignacio	74.84	96	LR	LR	09 03 05.6	
	comp=Z,66nm,19.4s,baz=118,slow=32						
BATI	Baumata	80.93	265	LR	LR	09 08 14.9	
	comp=Z,201nm,18.9s,baz=221,slow=34						
BDFB	Brasilia	82.19	106	LR	LR	09 08 09.6	
	comp=Z,144nm,18.3s,baz=131,slow=33						
JTS	Las Juntas de	84.11	61	LR	LR	09 05 19.8	
	comp=Z,48nm,18.4s,baz=191,slow=30						
SIJI	Sorong	84.46	277	LR	LR	09 09 12.7	
	comp=Z,97nm,21.9s,baz=122,slow=33						
ROSC	El Rosal	84.87	73	LR	LR	09 05 57.5	
	comp=Z,154nm,19.3s,baz=174,slow=31						
LPIG	La Paz	86.36	34	LR	LR	09 05 27.0	
	comp=Z,64nm,19.7s,baz=217,slow=30						
KAPI	Kappang	87.37	265	LR	LR	09 11 56.7	
	comp=Z,146nm,19.8s,baz=154,slow=34						
SDV	Santo Domingo	90.22	74	LR	LR	09 11 04.3	
	comp=Z,80nm,18.1s,baz=206,slow=32						
SUR	Sutherland	90.75	170	LR	LR	09 11 56.2	
	comp=Z,154nm,20.0s,baz=164,slow=33						
LEM	Lembang	92.44	254	LR	LR	09 11 48.5	
	comp=Z,44nm,18.2s,baz=344,slow=32						
TXAR	Lajitas Array	93.35	37	LR	LR	09 09 31.5	
	comp=Z,43nm,19.4s,baz=206,slow=30						
PFO	Pinyon Flats O	93.70	26	LR	LR	09 10 10.0	
	comp=Z,85nm,18.3s,baz=220,slow=30						
BOSA	Boshof	94.84	174	LR	LR	09 13 57.4	
	comp=Z,207nm,20.5s,baz=208,slow=33						
RCBR	Riachuelo	96.78	111	LR	LR	09 14 58.6	
	comp=Z,35nm,20.5s,baz=281,slow=32						
MDP	Montagnes des	96.90	91	LR	LR	09 15 39.3	
	comp=Z,59nm,18.3s,baz=192,slow=33						
ANMO	Albuquerque	97.66	33	LR	LR	09 11 29.7	
	comp=Z,63nm,20.9s,baz=196,slow=30						
NVAR	Mina Array Bea	97.90	23	LR	LR	09 10 33.4	
	comp=Z,76nm,20.8s,baz=191,slow=29						
LBTB	Lobatse	98.44	174	LR	LR	09 16 36.2	
	comp=Z,184nm,19.9s,baz=175,slow=33						
H10S3	ASCENSION HYDR	104.00	132	T	T	10 33 08.0	
	baz=15,slow=74,SNR=24						
H10S2	ASCENSION HYDR	104.00	132	T	T	10 33 07.2	
	baz=205,slow=74,SNR=23						
H10N3	ASCENSION HYDR	105.07	131	T	T	10 34 20.3	
	baz=204,slow=74,SNR=21						
H10N1	ASCENSION HYDR	105.08	131	T	T	10 34 20.6	
	baz=204,slow=74,SNR=40						
H10N2	ASCENSION HYDR	105.09	131	T	T	10 34 23.6	
	baz=204,slow=74,SNR=24						
ILAR	Eielson Array	121.11	0	PKP	PKiKP	08 41 25.5	+2.4
	0.2nm,0.7s,baz=234,slow=1.5,SNR=4.0						
MKAR	Makanchi Array	148.29	273	PKPbc	PKiKP	08 42 17.8	-1.0
	0.8nm,0.7s,baz=99,slow=4.5,SNR=7.6						
ZALV	Zalesovo Beam	150.70	287	PKPbc	PKiKP	08 42 24.1	+0.7
	0.8nm,0.6s,baz=126,slow=2.6,SNR=3.5						
KURBB	Kurchatov Arra	152.49	277	PKPbc	PKiKP	08 42 28.0	+0.8
	1.2nm,0.6s,baz=111,slow=1.9,SNR=4.7						

KRSC ***26*** *08:25:12.4±1.1, 58°.85N×159°.19E, h40^{km}±11^{km}, Ml3.8*

NERS ***26*** *08:25:19.2, 59°.00N×158°.22E, h21^{km}*

ISC 26 08:25:12.2±0.8**, 58°.83N**±0°.03×**159°.21E**±0°.03**, h10^{km}, n26, σ2.^{s}21**/40**, Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALN	Palana	0.47	56	*e*P	Pb	08 25 22.9	+0.3
PALN				*e*S	Sb	08 25 31.4	+1.9
TIGL	Tigil	1.11	195	*e*P	Pb	08 25 32.3	-1.1
TIGL				*e*S	Sb	08 25 47.0	-0.9
OSSR	Ossora	2.04	76	*e*P	Pn	08 25 46.7	+0.2
OSSR				*e*S	Sn	08 26 10.4	-1.5
SRDR	Sredinnyy	2.54	174	*e*P	Pn	08 25 54.5	+1.0
SRDR				*e*S	Sn	08 26 23.9	-0.5
SMKR	Semkarok	2.56	151	*e*P	Pn	08 25 55.0	+1.2
KOZ	Kozyrevsk	2.80	172	*e*P	Pn	08 25 58.0	+0.9
CIRR	Tsirk	2.85	162	*e*P	Pn	08 25 59.3	+1.5
LGNR	Loginova	2.87	163	*e*P	Pn	08 25 58.7	+0.5
KPT	Kopyto	2.92	169	*e*P	Pn	08 25 59.8	+1.0
ESO	Esso	2.93	186	*e*P	Pn	08 25 58.7	-0.1
KIRR	Kirishev	2.95	168	*e*P	Pn	08 26 00.4	+1.1
ZLN	Zelenaya	2.95	162	*e*P	Pn	08 25 59.9	+0.7
BZWR	Bezymyannyi-We	2.96	166	*e*P	Pn	08 26 01.3	+1.9
BZMR	Bezymyannaya	2.99	166	*e*P	Pn	08 26 01.5	+1.8
BZGR	Bezymyannyi-Gr	3.01	164	*e*P	Pn	08 26 02.0	+2.0
BZP	Bezymyannyi-Pe	3.02	166	*e*P	Pn	08 26 01.2	+1.1
KMNR	Kamenistaya	3.13	169	*e*P	Pn	08 26 03.2	+1.5
KBTR	Krutoberegovo	3.27	142	*e*P	Pn	08 26 05.9	+2.4
TLAR	Talaya	4.13	307	*e*P	Pn	08 26 15.6	+0.3
TLAR				*e*Pg	Pb	08 26 26.3	+1.4
TLAR				Pgmax		08 26 33.3	
	40nm,0.8s						
TLAR				*e*S	Sn	08 27 00.3	-3.2
TLAR				*e*Sg	Sb	08 27 16.2	+1.5
TLAR				Sgmax		08 27 25.5	
	70nm,0.5s						
TLAR				Sgmax		08 27 25.5	
	130nm,0.5s						
GADL	Gadlja	4.14	285	*e*Pg	Pb	08 26 26.0	+1.0
GADL				*e*Sg	Sb	08 27 16.6	+1.6
GADL				Sgmax		08 27 37.9	
	340nm,0.7s						
MA2	Magadan	4.40	283	*e*P	Pn	08 26 19.3	+0.3
MA2				*e*Pg	Pb	08 26 31.5	+1.9
MA2				Pgmax		08 26 36.1	
	20nm,0.6s						
MA2				*e*Sg	Sb	08 27 22.7	0.0
MA2				Sgmax		08 27 30.2	
	60nm,0.7s						
MGD	Magadan 1	4.50	289	*e*P	Pn	08 26 20.0	-0.3
MGD				Pmax		08 26 21.6	
	10.0nm,0.4s						
MGD				*e*Sg	Sb	08 27 26.2	+0.9
MGD				Sgmax		08 27 39.0	
	60nm,0.4s						
GNL	Ganaly	5.20	188	*e*P	Pn	08 26 33.3	+3.2
SEY	Seymchan	5.29	324	*e*P	Pn	08 26 32.7	+1.5
SEY				*e*Pg	Pg	08 26 50.2	-3.3
SEY				Pgmax		08 27 01.7	
	10.0nm,0.8s						
SEY				*e*Sg	Sg	08 27 57.0	-5.0
SEY				Sgmax		08 28 20.6	
	10.0nm,0.7s						
SEY				Sgmax		08 28 20.6	
	10.0nm,0.7s						
TLON	Talon	5.49	284	*e*Sg	Sb	08 27 57.7	+3.9
TLON				Sgmax		08 28 08.6	
	60nm,0.5s						
SUUS	Susuman	6.69	311	*e*	Pg	08 27 21.3	+1.1
SUUS				*e*Sg	Sb	08 28 36.0	+7.5
SUUS				Sgmax		08 28 59.6	
	30nm,0.8s						

NOU ***26*** *08:26:48.1, 40°.36S×174°.17E, h88^{km}, MLv3.7/16, Cook Strait, New Zealand*

WEL ***26*** *08:26:50.1±0.6, 40°S±3°×17°4E±°, h70^{km}±8^{km}, M3.3/63, ML3.4/18, MLv3.3/63, Error ellipse: s-maj=4.9km s-min=4.0km az=101.1, confirmed*

ISC 26 08:26:48.0±1.4**, 40°.38S**±0°.03×**174°.18E**±0°.03**, h98^{km}**±8^{km}**, n128, σ1.^{s}13**/135**, Cook Strait**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DUWZ	D’Urville Isla	0.46	205	P	Pn	08 27 03.8	+0.4
DUWZ				S	Sn	08 27 14.6	-0.2
DUWZ				AML	AML		
DUWZ				AML	AML		
KIW	Kapiti Island	0.73	131	P	Pn	08 27 05.7	+0.1
KIW				S	Sn	08 27 17.3	-1.5
KIW				AML	AML		
KIW				AML	AML		
FXBS	Foxton Beach S	0.80	96	P	Pn	08 27 06.8	+0.6
FXBS				S	Sn	08 27 19.9	+0.1
WCDS	Wanganui Civil	0.80	56	S	Sn	08 27 20.4	+0.5
TCW	Tory Channel	0.83	175	P	Pn	08 27 07.3	+0.7
TCW				S	Sn	08 27 20.3	0.0
TCW				AML	AML		
TCW				AML	AML		
OGWZ	Otaki Gorge	0.87	120	P	Pn	08 27 07.0	+0.1
OGWZ				S	Sn	08 27 19.7	-1.4
OGWZ				AML	AML		
OGWZ				AML	AML		
WAZ	Wanganui	0.88	45	P	Pn	08 27 07.6	+0.5
WAZ				S	Sn	08 27 21.4	+0.1
WAZ				AML	AML		
WAZ				AML	AML		
OHWZ	Ohakea	0.89	79	P	Pn	08 27 07.4	+0.3
OHWZ				S	Sn	08 27 21.3	-0.1
OHWZ				AML	AML		
OHWZ				AML	AML		
PWES	Porirua West	0.89	147	P	Pn	08 27 07.7	+0.6
PWES				S	Sn	08 27 21.0	-0.4
POKS	Katoa Kinderga	0.89	146	P	Pn	08 27 07.9	+0.8
POKS				S	Sn	08 27 20.5	-0.9
QCCS	Picton Queen C	0.90	187	P	Pn	08 27 07.9	+0.7
PFAS	Porirua Free A	0.91	146	P	Pn	08 27 08.1	+0.8
HAVS	Havelock	0.94	198	P	Pn	08 27 08.3	+0.7
LREZ	Lake Rotokare	0.94	11	P	Pn	08 27 08.0	+0.4
LREZ				S	Sn	08 27 22.6	+0.2
LREZ				AML	AML		
LREZ				AML	AML		
CAW	Cannon Point	0.99	137	P	Pn	08 27 08.7	+0.5
CAW				AML	AML		
CAW				AML	AML		
NMEZ	Namu Road	1.00	346	P	Pn	08 27 08.4	+0.1
NMEZ				AML	AML		
NMEZ				AML	AML		
WEL	Wellington	1.00	154	P	Pn	08 27 09.1	+0.7
WEL				AML	AML		
WEL				AML	AML		
SNZO	South Karori	1.01	157	P	Pn	08 27 08.8	+0.4
SNZO	South Karori	1.01	157	S	Sn	08 27 23.9	+0.3
NNZ	Nelson	1.03	216	P	Pn	08 27 09.5	+0.9
NNZ				AML	AML		
NNZ				AML	AML		
PREZ	Palmer Road	1.04	359	P	Pn	08 27 09.0	+0.2
PREZ				AML	AML		
PREZ				AML	AML		
TUWZ	Tuamarina	1.06	190	P	Pn	08 27 10.2	+1.2
TUWZ				AML	AML		
KHEZ	Kahui Hut	1.09	353	P	Pn	08 27 09.3	-0.2
KHEZ	Kahui Hut	1.09	353	S	Sn	08 27 24.9	-0.7
KHEZ	Kahui Hut	1.09	353	P	Pn	08 27 09.6	+0.1
KHEZ				AML	AML		
KHEZ				AML	AML		
MRZ	Mangatainoka R	1.10	105	P	Pn	08 27 09.4	-0.1
MRZ				AML	AML		
MRZ				AML	AML		
NEZ	North Egmont	1.11	357	P	Pn	08 27 09.6	-0.1
NEZ				AML	AML		
NEZ				AML	AML		
TKNZ	Takaka Hill	1.13	235	P	Pn	08 27 10.5	+0.7
TKNZ				AML	AML		
TKNZ				AML	AML		
TSFS	Takaka Scotts	1.13	245	P	Pn	08 27 10.3	+0.6
HOWZ	Holdsworth Sta	1.14	117	P	Pn	08 27 09.9	0.0
HOWZ				AML	AML		
HOWZ				AML	AML		
NBEZ	Newall Road No	1.14	348	P	Pn	08 27 10.1	+0.2
NBEZ				AML	AML		
NBEZ				AML	AML		
BHW	Baring Head	1.15	153	P	Pn	08 27 10.5	+0.5
BHW				AML	AML		
BHW				AML	AML		
MOTS	Motueka DOC wo	1.16	230	P	Pn	08 27 11.0	+1.0
PKE	Pukeiti	1.20	353	P	Pn	08 27 10.8	+0.2
PKE				AML	AML		
PKE				AML	AML		
KHLK	Kaihoka Lakes	1.21	261	P	Pn	08 27 10.9	+0.3
POWZ	Post Office Ro	1.22	91	P	Pn	08 27 11.9	+1.2
POWZ				AML	AML		
POWZ				AML	AML		
MTW	Mount Morrison	1.27	128	P	Pn	08 27 11.5	+0.1
MTW				AML	AML		
MTW				AML	AML		
MHEZ	Mangahewa	1.31	5	P	Pn	08 27 12.4	+0.5
MHEZ				AML	AML		
MSWZ	Moikau Station	1.31	142	P	Pn	08 27 12.2	+0.3
MSWZ				AML	AML		
MSWZ				AML	AML		
QRZ	Quartz Range	1.33	250	P	Pn	08 27 11.9	-0.2
QRZ	Quartz Range	1.33	250	S	Sn	08 27 29.6	-0.7
QRZ	Quartz Range	1.33	250	P	Pn	08 27 12.3	+0.2
QRZ				AML	AML		
QRZ				AML	AML		
VRZ	Vera Road	1.33	20	P	Pn	08 27 12.3	+0.1
VRZ				AML	AML		
BSWZ	Blackbirch Sta	1.35	190	P	Pn	08 27 13.8	+1.5
BSWZ				AML	AML		
TIWZ	Tintock	1.36	107	P	Pn	08 27 12.5	0.0
TIWZ				AML	AML		
PAWZ	Paruwai Farm	1.38	137	P	Pn	08 27 13.0	+0.4
PAWZ				AML	AML		
PRWZ	Pori Road	1.38	98	P	Pn	08 27 12.7	0.0
PRWZ				AML	AML		
TSZ	Takapari Road	1.40	77	P	Pn	08 27 12.6	-0.4
PKVZ	Pokaka	1.42	40	P	Pn	08 27 13.9	+0.7
PKVZ				AML	AML		
PLWZ	Palliser	1.44	146	P	Pn	08 27 13.8	+0.3
PLWZ				AML	AML		
MRNZ	Matariki Terra	1.48	226	P	Pn	08 27 15.0	+1.1
MRNZ				AML	AML		
TMWZ	Te Maipa	1.49	120	P	Pn	08 27 14.3	+0.3
TMWZ				AML	AML		
TRVZ	Turoa	1.51	45	P	Pn	08 27 16.1	+1.6
TRVZ				AML	AML		
WNVZ	Wahianoa	1.52	46	P	Pn	08 27 16.0	+1.4
WNVZ				AML	AML		
DVHZ	Dannevirke	1.52	87	P	Pn	08 27 13.7	-0.7
DVHZ				AML	AML		
TRWZ	Traveller	1.53	132	P	Pn	08 27 14.8	+0.2
TRWZ				AML	AML		
MAVZ	Matarangi	1.54	44	P	Pn	08 27 17.3	+2.3
MAVZ				AML	AML		
WHVZ	Whangaehu Hut	1.55	45	P	Pn	08 27 16.6	+1.6
WHVZ				AML	AML		
FWVZ	Far West T-bar	1.55	44	P	Pn	08 27 15.3	+0.3
FWVZ				AML	AML		
MOVZ	Moawhango	1.56	52	P	Pn	08 27 15.0	0.0
MOVZ				AML	AML		
COVZ	Chateau Observ	1.58	42	P	Pn	08 27 15.7	+0.3
COVZ				AML	AML		
BFZ	Birch Farm	1.60	101	P	Pn	08 27 14.9	-0.6
BFZ	Birch Farm	1.60	101	P	Pn	08 27 15.0	-0.4
BFZ				AML	AML		
PNHZ	Pukenui	1.62	74	P	Pn	08 27 15.1	-0.6
PNHZ				AML	AML		
CPWZ	Castlepoint	1.63	110	P	Pn	08 27 16.2	+0.5
CPWZ				AML	AML		
NGZ	Ngauruhoe	1.63	43	P	Pn	08 27 18.3	+2.4
NGZ				AML	AML		
TWVZ	Taurewa	1.63	37	P	Pn	08 27 16.3	+0.4
TWVZ				AML	AML		
WTVZ	West Tongariro	1.67	41	P	Pn	08 27 16.5	+0.1
WTVZ				AML	AML		
OTVZ	Oturere	1.67	44	P	Pn	08 27 17.0	+0.5
OTVZ				AML	AML		
THZ	Tophouse	1.68	215	P	Pn	08 27 17.7	+1.2
THZ				AML	AML		
BHHZ	Black Hill Sta	1.70	59	P	Pn	08 27 16.0	-0.7
BHHZ				AML	AML		
KRVZ	Karewarewa	1.71	42	P	Pn	08 27 17.7	+0.7
KRVZ				AML	AML		
ETVZ	East Tongariro	1.72	44	P	Pn	08 27 17.5	+0.4
ETVZ				AML	AML		
NTVZ	North Tongarir	1.73	42	P	Pn	08 27 17.9	+0.8
NTVZ				AML	AML		
TMVZ	Te Maari	1.73	43	P	Pn	08 27 17.8	+0.6
TMVZ				AML	AML		
WPHZ	Waipukurau	1.76	80	P	Pn	08 27 16.9	-0.6
WPHZ				AML	AML		
KRHZ	Kereru	1.84	67	P	Pn	08 27 19.4	+0.9
KRHZ				AML	AML		

PRHZ	Porangahau	1.88	87	P	Pn	08 27 18.5	-0.5
PRHZ				AML	AML		
RITZ	Rihia Road	1.91	43	P	Pn	08 27 23.9	+4.5
RITZ				AML	AML		
HIZ	Hauiti	1.94	16	P	Pn	08 27 19.4	-0.3
HIZ	Hauiti	1.94	16	S	Sn	08 27 42.1	-1.8
HIZ	Hauiti	1.94	16	P	Pn	08 27 19.5	-0.3
HIZ				AML	AML		
RATZ	Rangitukua	1.95	40	P	Pn	08 27 22.6	+2.6
KWHZ	Kaweka Forest	1.98	62	P	Pn	08 27 23.0	+2.8
KWHZ				AML	AML		
WATZ	Wairara	2.06	36	P	Pn	08 27 23.0	+1.6
WATZ				AML	AML		
PXZ	Pawanui	2.09	81	P	Pn	08 27 21.4	-0.2
PXZ				AML	AML		
KHZ	Kahutara	2.09	193	P	Pn	08 27 21.8	+0.2
KHZ	Kahutara	2.09	193	S	Sn	08 27 46.4	-0.9
KHZ	Kahutara	2.09	193	P	Pn	08 27 22.7	+1.1
KAHZ	Kahuranaki	2.15	75	P	Pn	08 27 22.4	-0.1
KAHZ				AML	AML		
MCHZ	McNeill Hill	2.15	65	P	Pn	08 27 27.4	+4.9
MCHZ				AML	AML		
BKZ	Black Stump Fm	2.16	56	P	Pn	08 27 22.7	+0.1
BKZ	Black Stump Fm	2.16	56	S	Sn	08 27 47.7	-1.4
BKZ	Black Stump Fm	2.16	56	P	Pn	08 27 21.2	-1.5
DSZ	Denniston Nort	2.25	232	P	Pn	08 27 24.6	+0.8
KUTZ	Kaahu Road	2.28	34	P	Pn	08 27 28.6	+4.4
KUTZ				AML	AML		
TLZ	Tolley Road	2.31	28	P	Pn	08 27 24.2	-0.3
TLZ				AML	AML		
MRHZ	Matea Rd	2.32	49	P	Pn	08 27 28.6	+3.9
MRHZ				AML	AML		
NMHZ	Naumai	2.40	58	P	Pn	08 27 31.4	+5.6
NMHZ				AML	AML		
ARHZ	Aropaoanui	2.44	64	P	Pn	08 27 30.3	+4.0
RAHZ	Arahi	2.68	58	P	Pn	08 27 36.4	+6.9
RAHZ				AML	AML		
GVZ	Greta Valley S	2.72	198	P	Pn	08 27 30.3	+0.4
LTZ	Lake Taylor	2.79	210	P	Pn	08 27 31.1	+0.1
TOZ	Tahuroa Road	2.84	22	P	Pn	08 27 31.2	-0.4
TOZ				AML	AML		
TGRZ	Tauranga	3.11	32	P	Pn	08 27 35.5	+0.4
URZ	Urewera	3.11	48	P	Pn	08 27 37.6	+2.4
URZ				AML	AML		
INZ	Inchbonnie	3.11	220	P	Pn	08 27 36.7	+1.5
MWZ	Matawai	3.31	53	P	Pn	08 27 39.7	+1.8
AWAZ	Awhitu Peninsu	3.33	6	P	Pn	08 27 38.3	+0.1
AWAZ				AML	AML		
MKAZ	Moumakai	3.36	14	P	Pn	08 27 38.3	-0.3
MKAZ				AML	AML		
OKCZ	Okains Bay	3.44	194	P	Pn	08 27 39.7	0.0
OKCZ				AML	AML		
WTAZ	Waiatarua	3.46	5	P	Pn	08 27 40.2	+0.3
WTAZ				AML	AML		
ETAZ	East Tamaki Re	3.48	10	P	Pn	08 27 40.3	+0.2
ETAZ				AML	AML		
MQZ	McQueen's Vall	3.51	198	P	Pn	08 27 39.2	-1.3
AKCZ	Akaroa Harbour	3.61	195	P	Pn	08 27 41.4	-0.5
AKCZ				AML	AML		
RVAZ	Riverhead Bore	3.62	5	P	Pn	08 27 42.1	0.0
RVAZ				AML	AML		
MBAZ	Motutapu North	3.65	9	P	Pn	08 27 42.9	+0.4
MBAZ				AML	AML		
ABAZ	Army Bay	3.81	8	P	Pn	08 27 45.0	+0.3
HAZ	Te Kaha	3.84	48	P	Pn	08 27 43.4	-1.6
GRZ	Great Barrier	4.25	14	P	Pn	08 27 50.1	-0.4
WCZ	Waipu Caves	4.44	2	P	Pn	08 27 53.5	+0.4
TMZ	Timaru	4.64	209	P	Pn	08 27 56.3	+0.5
OUZ	Omahuta	5.18	355	P	Pn	08 28 02.7	-0.4
OUZ	Omahuta	5.18	355	P	Pn	08 28 03.0	-0.1
ODZ	Otahua Downs	5.33	208	P	Pn	08 28 05.4	+0.2
ODZ	Otahua Downs	5.33	208	P	Pn	08 28 05.1	-0.1
CTZ	Chatham Island	7.62	119	P	Pn	08 28 37.7	+1.4
CTZ	Chatham Island	7.62	119	P	Pn	08 28 37.3	+1.1

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*SDD **26** 08:37:47.9±2.7, 18˚.91N×68˚.90W, h30^{km}±10^{km}, MD3.4, ML3.3, MW3.5, Presumed earthquake*

*RSPR **26** 08:37:51.0, 19˚.67N×68˚.95W, h47^{km}±31^{km}, MD4.0/15*

*NEIC **26** 08:37:50.8±2.0, 18˚.81N±0˚.02×68˚.92W±0˚.02, h3^{km}±11^{km}, ML3.4/38, Md4.0/15(RSPR), Error ellipse: s-maj=3.4km s-min=2.0km az=51.0*

*PTWC **26** 08:37:51, 18˚.90N×68˚.90W, Ml3.4/18*

*OSPL **26** 08:37:53.6±2.6, 18˚.76N×68˚.90W, h0^{km}±19^{km}, ML3.1, Presumed earthquake*

ISC 26 08:37:50.9±0.8**, 18˚.81N**±0˚.03×**68˚.96W**±0˚.02**, h18**^{km}±6^{km}**, n90, σ1^{s}23**/113**, 8C-18D, Mona Passage**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MIDR	Miches	0.19	332	P	Pg	08 37 55.7	0.0
MIDR				S	Sg	08 37 58.8	-0.2
MIDR	Miches	0.19	332	⇓*e*Pg	Pg	08 37 55.8	+0.1
MIDR				⇓*e*Sg	Sg	08 37 59.0	0.0
MIDR				IAML		08 37 59.1	
	comp=N,3μm,0.1s						
MIDR				IAML		08 37 59.2	
	comp=E,6μm,0.2s						
HGY1	Higuey	0.31	134	P	Pb	08 37 58.7	+0.7
HIDR	Higuey Centro	0.32	134	⇑*e*Pg	Pb	08 37 58.6	+0.6
HIDR				*e*Sg	Sb	08 38 04.3	+1.4
HIDR				IAML		08 38 05.8	
	comp=E,4μm,0.3s						
HIDR				IAML		08 38 06.0	
	comp=N,3μm,0.2s						
HIDR				IAML		08 38 06.0	
	comp=N,3μm,0.2s						
DR12	Loma Pena Alta	0.40	267		Pb	08 38 00.2	+0.6
DR12				Sg	Sb	08 38 06.7	+1.2
HATOM	Hato Mayor del	0.40	267	⇓*e*Pg	Pb	08 38 00.2	+0.6
HATOM				⇓*e*Sg	Sb	08 38 06.8	+1.3
HATOM				IAML		08 38 06.9	
	comp=E,373nm,0.3s						
HATOM				IAML		08 38 06.9	
	comp=N,987nm,0.6s						
HATOM				IAML		08 38 06.9	
	comp=N,953nm,0.6s						
SMDR	Samana, DR	0.52	335		Pg	08 38 00.2	-1.2
SMDR					Sg	08 38 08.9	+0.3
SMDR	Samana, DR	0.52	335	P	Pg	08 38 00.1	-1.4
SMDR	Samana, DR	0.52	335	⇓*e*Pg	Pg	08 38 00.0	-1.4
SMDR				⇓*e*Sg	Sg	08 38 08.8	+0.3
SMDR				IAML		08 38 11.5	
	comp=E,875nm,0.4s						
SMDR				IAML		08 38 11.7	
	comp=N,707nm,0.3s						
SMDR				IAML		08 38 11.8	
	comp=N,707nm,0.3s						
PCDR	Punta Cana, DR	0.62	118		Pg	08 38 03.0	-0.3
PCDR					Sg	08 38 11.0	-0.5
PCDR	Punta Cana, DR	0.62	118	P	Pg	08 38 01.1	-2.1
PCDR				S	Sb	08 38 12.3	+0.7
PCDR	Punta Cana, DR	0.62	118	*i* P	Pg	08 38 03.0	-0.3
PCDR				*e*S	Sb	08 38 11.7	+0.1
PCDR				IAML		08 38 18.2	
	comp=Z,470nm,0.4s						
PCDR	Punta Cana, DR	0.62	118	⇑*e*Pg	Pg	08 38 02.9	-0.3
PCDR				IAML		08 38 12.7	
	comp=E,392nm,0.3s						
PCDR				IAML		08 38 16.6	
	comp=N,838nm,0.3s						
PCDR				IAML		08 38 16.6	
	comp=N,838nm,0.3s						
SADR	Isla Saona	0.64	165	⇑*e*Pg	Pn	08 38 05.1	0.0
SADR				IAML		08 38 19.1	
	comp=E,596nm,0.5s						
SADR				IAML		08 38 21.4	
	comp=N,780nm,0.3s						
SADR				IAML		08 38 21.4	
	comp=N,780nm,0.3s						
SDD	Santo Domingo	0.97	249		Pn	08 38 10.1	+0.4
SDD					Sn	08 38 24.2	+1.0
SDD	Santo Domingo	0.97	249	P	Pn	08 38 10.9	+1.1
SDD	Santo Domingo	0.97	249	*i* P	Pn	08 38 10.7	+1.0
SDD				*e*S	Sn	08 38 24.1	+1.0
SDD				IAML		08 38 29.3	
	comp=Z,170nm,0.2s						
SDD	Santo Domingo	0.97	249	*e*Pg	Pn	08 38 10.9	+1.1
SDD				IAML		08 38 26.2	
	comp=N,114nm,0.8s						
SDD				IAML		08 38 28.8	
	comp=N,133nm,0.3s						
SDD				IAML		08 38 29.1	
	comp=E,122nm,0.3s						
NADR	Nagua	1.01	303	P	Pb	08 38 09.4	-0.5
NADR				S	Sn	08 38 25.8	+1.8
NADR	Nagua	1.01	303	⇓*e*Pg	Pb	08 38 09.2	-0.7
NADR				IAML		08 38 27.8	
	comp=N,3μm,0.3s						
NADR				IAML		08 38 27.9	
	comp=N,3μm,0.3s						
NADR				IAML		08 38 28.1	
	comp=E,2μm,0.7s						
DR08	Loma La Naviza	1.02	279	P	Pg	08 38 09.6	-1.2
DR08	Loma La Naviza	1.02	279	*e*Pg	Pg	08 38 09.6	-1.2
DR08				IAML		08 38 26.6	
	comp=N,6μm,0.3s						
DR08				IAML		08 38 26.6	
	comp=N,6μm,0.3s						
CADR	Cabrera	1.26	313	*e*Sg	Sg	08 38 32.0	+0.2
CADR				IAML		08 38 34.0	
	comp=N,673nm,0.3s						
CADR				IAML		08 38 37.2	
	comp=E,715nm,0.3s						
BANI	BANI	1.39	253	Pn	Pb	08 38 16.5	0.0
BANI	BANI	1.39	253	*e*Pg	Pg	08 38 17.7	-0.2
BANI				IAML		08 38 37.7	
	comp=E,216nm,0.5s						
BANI				IAML		08 38 42.9	
	comp=N,349nm,0.3s						
BANI				IAML		08 38 43.0	
	comp=N,349nm,0.3s						
IDE	Isla Desecheo	1.47	107		Pn	08 38 16.6	+0.1
ABDR	Alto Bandera	1.58	270	*e*Pg	Pb	08 38 20.2	+0.3
ABDR				IAML		08 38 49.1	
	comp=N,183nm,0.5s						
AGPR	Aguadilla, PR	1.78	101		Pn	08 38 21.2	+0.3
AGPR				IAML		08 38 52.9	
	comp=N,330nm,0.4s						
AGPR				IAML		08 38 53.9	
	comp=N,349nm,0.4s						
AGPR	Aguadilla, PR	1.78	101	P	Pn	08 38 21.8	+0.9
AGPR	Aguadilla, PR	1.78	101	⇓*e*P	Pn	08 38 22.2	+1.4
AGPR	Aguadilla, PR	1.78	101	*i* P	Pn	08 38 22.1	+1.2
AGPR	Aguadilla, PR	1.78	101	*e*Pg	Pn	08 38 21.2	+0.3
AGPR				IAML		08 38 49.6	
	comp=N,225nm,0.8s						
AGPR				IAML		08 38 49.7	
	comp=N,225nm,0.8s						
AGPR				IAML		08 38 52.8	
	comp=E,241nm,0.5s						
SC01	Santiago de lo	1.78	290		Pb	08 38 24.1	+1.0
SC01				IAML		08 38 54.2	
	comp=N,484nm,0.5s						
SC01				IAML		08 38 57.3	
	comp=E,444nm,0.6s						
SC01	Santiago de lo	1.78	290	P	Pb	08 38 24.1	+1.0
SC01	Santiago de lo	1.78	290	*i* P	Pg	08 38 24.5	-0.7
SC01				IAML		08 38 54.6	
	comp=Z,299nm,0.3s						
SC01	Santiago de lo	1.78	290	⇓*e*Pg	Pg	08 38 24.4	-0.8
SC01				IAML		08 38 54.1	
	comp=N,444nm,0.3s						
SC01				IAML		08 38 54.2	
	comp=N,444nm,0.3s						
SC01				IAML		08 38 57.1	
	comp=E,396nm,0.8s						
PRSN	Puerto Rico Se	1.82	109		Pn	08 38 22.0	+0.7
PRSN	Puerto Rico Se	1.82	109	P	Pb	08 38 23.5	-0.2
PRSN	Puerto Rico Se	1.82	109	⇑*e*P	Pg	08 38 25.4	-0.5
LSP	Las Mesas	1.88	109		Pb	08 38 25.5	+0.7
LSP	Las Mesas	1.88	109	⇑*e*P	Pb	08 38 25.5	+0.7
LSP				*e*S	Sg	08 38 52.6	+0.9
CRPR	Cabo Rojo, PR	1.93	114		Pn	08 38 23.6	+0.8
CRPR	Cabo Rojo, PR	1.93	114	P	Pb	08 38 25.2	-0.4
CRPR	Cabo Rojo, PR	1.93	114	⇓*e*P	Pg	08 38 27.0	-1.0
CRPR	Cabo Rojo, PR	1.93	114	*i* P	Pn	08 38 23.4	+0.5
CRPR	Cabo Rojo, PR	1.93	114	*e*Pg	Pb	08 38 25.1	-0.4
CRPR				IAML		08 38 55.6	
	comp=N,171nm,0.5s						
CRPR				IAML		08 38 55.6	
	comp=N,171nm,0.5s						
CRPR				IAML		08 38 59.1	
	comp=E,146nm,0.4s						
MLPR	Magueyes Islan	2.00	114		Pn	08 38 24.6	+0.8
MLPR	Magueyes Islan	2.00	114	P	Pb	08 38 26.2	-0.6
MLPR	Magueyes Islan	2.00	114	⇑*e*P	Pg	08 38 28.2	-1.1
AOPR	Arecibo Observ	2.14	102		Pn	08 38 26.4	+0.6
AOPR	Arecibo Observ	2.14	102	P	Pb	08 38 28.2	-1.0
AOPR	Arecibo Observ	2.14	102	⇓*e*P	Pb	08 38 28.5	-0.7
AOPR	Arecibo Observ	2.14	102	*e*Pg	Pn	08 38 28.0	+2.1
AOPR				IAML		08 38 58.3	
	comp=N,391nm,0.3s						
AOPR				IAML		08 39 03.4	
	comp=N,273nm,0.2s						
AOPR				IAML		08 39 04.5	
	comp=E,1μm,0.4s						
GBPR	Guanica, Bosqu	2.14	113		Pb	08 38 30.1	+0.9
GBPR	Guanica, Bosqu	2.14	113	⇓*e*P	Pb	08 38 30.1	+0.9
GBPR				*e*S	Sg	08 38 59.9	+0.1
LUDR	Luperon	2.17	300	*e*Pg	Pn	08 38 28.4	+2.2
LUDR				IAML		08 39 02.2	
	comp=E,1μm,0.3s						
SDDR	Presa de Saban	2.21	275		Pb	08 38 29.0	-1.5
SDDR				IAML		08 39 06.6	
	comp=E,246nm,0.7s						
SDDR	Presa de Saban	2.21	275	*e*P	Pg	08 38 32.0	-1.5
SDDR				*e*S	Sg	08 39 01.6	-0.7
SDDR				IAML		08 39 06.3	
	comp=E,233nm,0.7s						
SDDR				IAML		08 39 07.3	
	comp=E,108nm,0.4s						
SDDR	Presa de Saban	2.21	275	*i* P	Pg	08 38 31.8	-1.7
SDDR				IAML		08 39 08.9	
	comp=Z,108nm,0.9s						
SDDR	Presa de Saban	2.21	275	⇑*e*Pg	Pg	08 38 32.2	-1.2
SDDR				IAML		08 39 06.3	
	comp=N,228nm,0.7s						
SDDR				IAML		08 39 06.3	
	comp=N,228nm,0.7s						
SDDR				IAML		08 39 07.3	
	comp=E,142nm,0.9s						
PODR	Polo	2.30	254	*i* P	Pb	08 38 32.8	+0.7
PODR				IAML		08 39 15.8	
	comp=Z,327nm,0.3s						
EMPR	Esperanza - Ma	2.32	98		Pb	08 38 31.4	-1.0
EMPR	Esperanza - Ma	2.32	98	P	Pb	08 38 32.2	-0.1
EMPR	Esperanza - Ma	2.32	98	⇑*e*P	Pb	08 38 31.4	-1.0
EMPR				*e*S	Sb	08 39 00.5	-0.2
LOPP1	Punta Rusia, P	2.36	296	*i* P	Pn	08 38 31.1	+2.3
LOPP1				*e*S	Sb	08 39 02.5	+0.8
LOPP1				IAML		08 39 18.1	
	comp=Z,139nm,0.6s						
CELP	Cerrillos	2.37	108		Pn	08 38 29.9	+0.9
CELP				IAML		08 39 05.1	
	comp=Z,226nm,0.8s						
CELP				IAML		08 39 08.5	
	comp=Z,197nm,0.6s						
CELP	Cerrillos	2.37	108	P	Pn	08 38 28.5	-0.5
CELP	Cerrillos	2.37	108	⇓*e*P	Pb	08 38 31.6	-1.6
LONE3	El Aguacate, B	2.38	265	*i* P	Pb	08 38 33.9	+0.5
LONE3				IAML		08 39 13.1	
	comp=Z,50nm,0.7s						
LODU1	El Espartillar	2.43	260	*i* P	Pb	08 38 34.8	+0.6
LODU1				IAML		08 39 18.9	
	comp=Z,60nm,0.3s						
LOVI	El Cajuil, Ovi	2.50	247	*i* P	Pb	08 38 34.0	-1.4
LOVI				IAML		08 39 07.7	
	comp=Z,45nm,1.6s						
ECPR	Experimental S	2.51	101		Pn	08 38 31.4	+0.6
ECPR	Experimental S	2.51	101	P	Pn	08 38 31.6	+0.7
ECPR	Experimental S	2.51	101	⇓*e*P	Pn	08 38 31.8	+0.9
LOBH	Bahia de las A	2.72	250	*i* P	Pb	08 38 37.3	-1.7
LOBH				IAML		08 39 22.5	
	comp=Z,32nm,1.1s						
SJG	San Juan	2.75	104		Pn	08 38 35.2	+1.0
SJG				IAML		08 39 16.9	
	comp=Z,217nm,0.4s						
SJG				IAML		08 39 17.0	
	comp=Z,161nm,0.3s						
SJG	San Juan	2.75	104	P	Pn	08 38 36.2	+2.0
SJG	San Juan	2.75	104	⇓*e*P	Pn	08 38 36.7	+2.5
SJG	San Juan	2.75	104	*i* P	Pn	08 38 36.5	+2.2
SJG				IAML		08 39 16.0	
	comp=Z,2μm,0.3s						
IGPR	InterUniversit	2.83	107		Pn	08 38 37.5	+2.2
IGPR	InterUniversit	2.83	107	P	Pn	08 38 36.6	+1.3
IGPR	InterUniversit	2.83	107	⇓*e*P	Pn	08 38 37.5	+2.2
PDPR	Patillas Dam,	2.90	105		Pn	08 38 37.2	+1.0
PDPR				IAML		08 39 19.5	
	comp=Z,108nm,0.4s						
PDPR				IAML		08 39 20.4	
	comp=Z,128nm,0.7s						
PDPR	Patillas Dam,	2.90	105	⇓*e*P	Pn	08 38 38.9	+2.7
HUMP	Col San Antoni	3.02	102		Pn	08 38 38.6	+0.7
HUMP				IAML		08 39 25.3	
	comp=Z,121nm,0.2s						
HUMP				IAML		08 39 25.7	
	comp=Z,146nm,0.2s						
HUMP	Col San Antoni	3.02	102	⇓*i*P	Pn	08 38 39.6	+1.6
QMBU	Quimbuelo	5.69	285	*e*P	Pn	08 39 13.9	-0.8
QMBU				*e*S	Sn	08 40 16.6	-3.1
QMBU				IAML		08 40 20.5	
	comp=E,4.9nm,0.3s						
QMBU				IAML		08 40 21.3	
	comp=N,5.1nm,0.5s						
GTBY	Guantanamo Bay	5.92	282	*e*P	Pn	08 39 18.4	+0.7
GTBY				*e*S	Sn	08 40 24.7	-0.4
PINC	Pinares de May	6.65	286	*e*P	Pn	08 39 26.6	-1.3
PINC				*e*S	Sn	08 40 38.9	-4.4
PINC				*e*Sg	Sn	08 40 44.1	+0.8
HLGC	Holguin	7.00	288	*e*P	Pn	08 39 30.1	-2.6
HLGC				*e*S	Sn	08 40 52.5	+0.6

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*IDC **26** 08:37:57.6±0.8, 48˚.96S×31˚.00E, h0^{km}, mb4.1/10, mbtmp4.2/11, ML4.5/1, MS3.5/9, Error ellipse: s-maj=29.4km s-min=17.4km az=64.0*

*NEIC **26** 08:37:59.3±1.1, 49˚.0S±0˚.1×31˚.0E±0˚.2, h10^{km}±1^{km}, mb4.5/17, Error ellipse: s-maj=27.1km s-min=16.6km az=60.0*

ISC 26 08:37:59.0±0.6**, 48˚.92S**±0˚.09×**31˚.0E**±0˚.2**, h10**^{km}**, n49, σ0^{s}97**/37**, mb4.5**/13**, MS3.6**/8**, South of Africa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H04S2	CROZET ISLANDS	14.17	89	T	T	08 56 08.0	
	baz=256,slow=75,SNR=56						
H04S3	CROZET ISLANDS	14.17	89	T	T	08 56 14.3	
	baz=256,slow=75,SNR=59						
H04S1	CROZET ISLANDS	14.19	89	T	T	08 56 13.1	
	baz=256,slow=75,SNR=57						
GRHM	Grahamstown, E	16.01	346	Pn	Pn	08 41 40.6	-3.6
GRHM				IAmb	IAmb	08 41 51.0	
	comp=Z,59nm,1.0s						
GRAN	Grantham	17.88	335	*e*P	Pn	08 42 07.1	-0.8
BFON	Badsfontein, M	17.97	339	*e*P	P	08 42 10.0	+0.4
BRAK	Brakfontein	18.18	337	*e*P	P	08 42 12.7	+0.9
SUR	Sutherland	18.21	331	P	P	08 42 12.2	-0.1
	comp=Z,2.0nm,0.3s,baz=141,slow=11,SNR=20						
SUR				S	Sn	08 45 20.4	-15
	comp=Z,8.5nm,0.9s,baz=296,slow=17,SNR=1.7						
SUR				LR	LR	08 47 28.0	
	comp=Z,226nm,21.3s,baz=155,slow=31						
	comp=Z,7.5nm,0.5s						
SUR				AML	AML		
SUR	Sutherland	18.21	331	P	Pn	08 42 11.2	-0.8
SUR				IAmb	IAmb	08 42 26.5	
	comp=Z,63nm,1.4s						
FRAZ	Fraserburg	18.45	333	*e*P	P	08 42 13.8	-1.1
BOSA	Boshof	20.76	346	P	P	08 42 40.5	+0.5
	comp=Z,7.8nm,0.9s,baz=169,slow=9.3,SNR=8.8						
BOSA				LR	LR	08 49 30.6	
	comp=Z,76nm,20.9s,baz=200,slow=33						
	comp=Z,7.8nm,0.9s						
BOSA	Boshof	20.76	346	P	P	08 42 39.1	-0.9
BOSA				IAmb	IAmb	08 42 43.8	
	comp=Z,30nm,1.4s						
POGA	Pongola	21.55	2	P	P	08 42 50.6	+2.2
LBTB	Lobatse	24.24	348	LR	LR	08 51 25.6	
	comp=Z,48nm,21.8s,baz=146,slow=33						
LBTB	Lobatse	24.24	348	P	P	08 43 17.5	+1.4
LBTB				IAmb	IAmb	08 43 48.5	
	comp=Z,17nm,1.4s						
MAW	Mawson	24.65	151	P	P	08 43 20.0	+0.6
	comp=Z,13nm,0.7s,baz=300,slow=11,SNR=31						
	comp=Z,13nm,0.7s						
MAW	Mawson	24.65	151	P	P	08 43 19.4	0.0
TROLL	Troll, Antarti	26.54	199	P	P	08 43 36.6	0.0
	comp=Z,492nm,0.9s						
KOOLE	Kule	27.26	338	P	P	08 43 44.2	+0.7
KOOLE				IAmb	IAmb	08 44 03.8	
	comp=Z,14nm,1.2s						
SNAA	Sanae	27.58	202	P	P	08 43 46.2	+0.3
	comp=Z,91nm,0.7s						
SNAA	Sanae	27.58	202	P	P	08 43 45.6	-0.3
	comp=Z,1.2nm,0.6s,baz=72,slow=10.0,SNR=4.1						
	comp=Z,1.2nm,0.6s						
SNAA	Sanae	27.58	202	P	P	08 43 45.2	-0.7
SNAA				IAmb	IAmb	08 43 55.5	
	comp=Z,3.5nm,0.7s						
VNA1	Neumayer--Stat	28.49	206	P	P	08 43 54.9	+0.9
	comp=Z,8.0nm,0.7s						
MATP	Matopo	28.50	355	LR	LR	08 53 43.8	
	comp=Z,81nm,20.1s,baz=36,slow=33						
TSUM	Tsumeb	31.56	335	LR	LR	08 55 39.8	
	comp=Z,142nm,21.8s,baz=150,slow=34						
LSZ	Lusaka	33.63	355	LR	LR	08 57 23.1	
	comp=Z,101nm,18.1s,baz=166,slow=35						
BELA	Belgrano 2	37.61	198	P	P	08 45 13.2	-0.1
QSPA	South Pole Qui	41.30	180	P	P	08 45 43.9	-0.4
	comp=Z,13nm,0.9s,baz=256,slow=2.6,SNR=37						
	comp=Z,13nm,0.9s						
QSPA	South Pole Qui	41.30	180	P	P	08 45 43.3	-1.0
VNDA	Vanda	50.23	168	P	P	08 46 54.5	0.0
	comp=Z,1.0nm,0.5s,baz=238,slow=7.7,SNR=21						
VNDA				LR	LR	09 07 07.9	
	comp=Z,65nm,20.7s,baz=204,slow=35						
	comp=Z,1.0nm,0.5s						
VNDA	Vanda	50.23	168	P	P	08 46 54.3	-0.1
VNDA				IAmb	IAmb	08 47 08.3	
	comp=Z,4.5nm,1.4s						
H10S2	ASCENSION HYDR	55.12	301	T	T	09 47 10.3	
	baz=144,slow=74,SNR=3.3						
H10S3	ASCENSION HYDR	55.13	301	T	T	09 47 12.4	
	baz=76,slow=74,SNR=3.1						
DBIC	Dimbokro	63.62	320	P	P	08 48 35.6	+5.4
	comp=Z,3.7nm,0.7s,baz=158,slow=5.6,SNR=4.4						
TORD	Torodi Ar. Bea	67.02	329	P	P	08 48 53.5	+1.4
	comp=Z,0.5nm,0.6s,baz=159,slow=7.9,SNR=3.7						
	comp=Z,0.5nm,0.6s						
TORD	Torodi Ar. Bea	67.02	329	P	P	08 48 53.0	+0.9
CPUP	Villa Florida	69.58	253	P	P	08 49 08.4	+0.2
	comp=Z,1.9nm,1.0s,baz=204,slow=10.0,SNR=4.5						
	comp=Z,1.9nm,1.0s						
CPUP	Villa Florida	69.58	253	P	P	08 49 08.0	-0.3
CPUP				IAmb	IAmb	08 49 11.8	
	comp=Z,4.0nm,1.2s						
STKA	Stephens Creek	78.60	126	P	P	08 50 01.1	+0.2
	comp=Z,1.7nm,0.8s,baz=196,slow=5.5,SNR=4.6						
	comp=Z,1.7nm,0.8s						
ASAR	Alice Springs	80.51	115	P	P	08 50 11.5	+0.1
	comp=Z,1.5nm,0.7s,baz=221,slow=4.6,SNR=20						
	comp=Z,1.5nm,0.7s						
ASAR	Alice Springs	80.51	115	P	P	08 50 11.3	-0.1
AS31	Alice Springs	80.51	115	P	P	08 50 11.1	-0.4
WRA	Warramunga Arr	83.59	113	P	P	08 50 27.4	-0.2
	comp=Z,0.5nm,0.6s,baz=209,slow=4.0,SNR=8.7						
	comp=Z,0.5nm,0.6s						
WRA	Warramunga Arr	83.59	113	P	P	08 50 26.9	-0.7
WR8	Warramunga Arr	83.68	113	P	P	08 50 28.0	-0.1
WR8				IAmb	IAmb	08 50 38.4	
	comp=Z,5.9nm,1.5s						
WB0	Warramunga Arr	83.75	113	P	P	08 50 28.0	-0.5
URZ	Urewera	88.14	154	LR	LR	09 26 55.7	
	comp=Z,27nm,20.7s,baz=275,slow=33						
CMAR	Chiang Mai Arr	90.08	62	LR	LR	09 26 29.9	
	comp=Z,47nm,18.3s,baz=165,slow=32						
PDAR	Pinedale Array	152.08	272	PKPbc	PKPbc	08 57 53.6	-0.6
	comp=Z,1.0nm,0.8s,baz=110,slow=3.8,SNR=8.8						

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*SDD **26** 08:44:31.1±2.4, 18˚.60N×70˚.31W, h30^{km}±12^{km}, MD2.6, ML2.1, MW2.6, Presumed earthquake*

*OSPL **26** 08:44:33.4±1.0, 18˚.62N×70˚.15W, h62^{km}±12^{km}, ML2.0, Presumed earthquake*

ISC 26 08:44:33.4±1.2**, 18˚.59N**±0˚.04×**70˚.32W**±0˚.03**, h33**^{km}±3^{km}**, n11, σ0^{s}82**/18**, 2C, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC

BANI	BANI	0.20	191	ePg	Pn	08 44 39.5	-0.1
BANI				⇑eSg	Sb	08 44 43.7	-1.1
BANI				IAML		08 44 44.9	
	comp=E,327nm,0.5s						
BANI				IAML		08 44 44.9	
	comp=N,369nm,0.1s						
ABDR	Alto Bandera	0.36	307	ePg	Pb	08 44 41.8	-0.5
ABDR				⇑eSg	Sn	08 44 47.6	-0.8
ABDR				IAML		08 44 47.8	
	comp=N,126nm,0.1s						
SDD	Santo Domingo	0.41	109	iP	Pn	08 44 43.4	+0.4
SDD				IAML		08 44 46.9	
	comp=Z,52nm,0.9s						
SDD				eS	Sn	08 44 49.6	+0.3
DR08	Loma La Naviza	0.46	37	ePg	Pn	08 44 43.7	-0.1
DR08				eSg	Sn	08 44 50.6	-0.2
DR08				IAML		08 44 50.7	
	comp=E,2µm,0.2s						
DR08				IAML		08 44 52.2	
	comp=N,948nm,0.2s						
HATOM	Hato Mayor del	0.91	78	ePg	Pb	08 44 50.8	0.0
HATOM				eSg	Sb	08 45 03.0	+0.3
HATOM				IAML		08 45 04.5	
	comp=E,6.4nm,0.1s						
HATOM				IAML		08 45 37.5	
	comp=N,16nm,3.0s						
PODR	Polo	1.01	245	iP	Pb	08 44 52.2	-0.4
PODR				eS	Sb	08 45 07.5	+1.9
PODR	Polo	1.01	245	ePg	Pb	08 44 52.1	-0.5
PODR				IAML		08 45 28.3	
	comp=N,53nm,1.9s						
LONE3	El Aguacate, B	1.08	271	iP	Pb	08 44 53.6	-0.1
LONE3				eS	Sb	08 45 09.3	+1.7
LONE3				IAML		08 45 10.4	
	comp=Z,12nm,4.8s						
REDR	Restauracion	1.17	299	ePg	Pb	08 45 00.9	+5.8
REDR				IAML		08 45 22.6	
	comp=E,15nm,0.2s						
REDR				IAML		08 45 25.1	
	comp=N,20nm,0.2s						
MIDR	Miches	1.26	72	ePg	Pb	08 44 56.4	-0.3
MIDR				IAML		08 45 18.4	
	comp=N,11nm,0.7s						
LOVI	El Cajuil, Ovi	1.27	232	iP	Pb	08 44 56.5	-0.4
LOVI				eS	Sb	08 45 12.8	-0.1
LOVI				IAML		08 45 13.2	
	comp=Z,64nm,1.7s						

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*IDC **26** 08:48:17.6±1.6, 1°.02N×124°.88E, h0^{km}, mb3.3/4, mbtmp3.3/4, MS3.5/1, Error ellipse: s-maj=203.1km s-min=22.4km az=64.0*
*DJA **26** 08:48:35.1±0.3, 0°N±3°×12°4E±°, h122^{km}±5^{km}, M4.0/23, mB4.9/2, mb3.8/7, MLv4.1/23, Mw(mB)4.2/2*
ISC 26 08:48:34.0±1.0**, 0°.09N**±0°.10×**123°.84E**±0°.08**, h110^{km}, n13, σ1^{s}85**/12**, mb3.2**/4**, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LUWI	Luwuk	1.55	223	P	Pn	08 49 02.2	+0.8
LUWI				S	Sn	08 49 22.0	-0.2
LUWI				AML	AML		
APSI	Ampana	2.40	245	P	Pn	08 49 12.2	0.0
APSI				AML	AML		
SANI	Sanana	3.03	135	P	Pn	08 49 21.2	+0.8
SANI				AML	AML		
TNTI	Ternate	3.60	79	P	Pn	08 49 30.2	+2.2
TNTI				AML	AML		
NLAI	Namlea	4.65	135	P	Pn	08 49 44.1	+2.0
SPSI	Sidrap Palu	5.72	225	P	Pn	08 49 57.5	+0.9
	0.1nm2µm8.1nm,0.9s						
SPSI				AML	AML		
FAKI	Fak Fak	8.93	110	P	Pn	08 50 40.5	+0.4
	7.7nm,1.2s						
KKM	Kota Kinabalu	9.63	308	P	Pn	08 50 51.7	+1.9
WRA	Warramunga Arr	22.41	153	P	P	08 53 21.7	-2.0
	0.2nm,0.4s,baz=335,slow=10,SNR=6.7						
	0.2nm,0.4s						
ASAR	Alice Springs	25.56	158	P	P	08 53 53.1	+0.2
	0.2nm,0.6s,baz=350,slow=8.2,SNR=1.6						
	0.2nm,0.6s						
MKAR	Makanchi Array	58.98	328	P	P	08 58 16.4	-5.7
	0.5nm,0.5s,baz=123,slow=8.0,SNR=5.9						
	0.5nm,0.5s						
PETK	Petropavlovsk-	59.88	23	LR	LR	09 27 22.4	
	comp=Z,40nm,18.8s,baz=154,slow=40						
KURBB	Kurchatov Arra	63.30	330	P	P	08 58 47.7	-3.4
	0.4nm,0.6s,baz=133,slow=5.7,SNR=7.0						
	0.4nm,0.6s						

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*UCR **26** 09:00:41.2±0.7, 7°.52N×82°.71W, h22^{km}±6^{km}, MW3.9, Presumed earthquake*
*CATAC **26** 09:00:43.6±0.6, 8°N±4°×8°3W±°, h11^{km}±2^{km}, M3.9/11, mb4.2/2, mB5.0/1, MLv3.8/11, Mw(mB)4.3/1, Error ellipse: s-maj=8.2km s-min=3.8km az=23.5, confirmed*
*UPA **26** 09:00:43.3±1.2, 7°.66N×82°.65W, h31^{km}±6^{km}, MW3.7, Presumed earthquake*
ISC 26 09:00:40.1±1.5**, 7°.54N**±0°.05×**82°.64W**±0°.03**, h17^{km}**±9^{km}**, n99, σ1^{s}26**/131**, 5C-2D, South of Panama**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LMNES	Limones	0.60	338	eP	Pn	09 00 53.4	-0.5
LIMO3	Limones	0.60	338	⇑iP	Pn	09 00 53.4	-0.4
LIMO3				eS	Sg	09 01 00.2	+0.2
PTPA	Petro Terminal	0.69	341	eP	Pn	09 00 54.7	-0.4
PTPM	Petroterminale	0.70	340	⇑eP	Pn	09 00 54.8	-0.5
PTPM				eS	Sg	09 01 03.3	+0.1
CHIR3	Chiriqui UPA,	0.90	20	eP	Pn	09 00 58.4	+0.3
CHIR3				eS	Sb	09 01 08.2	-0.9
DVD	David	0.91	12	⇓iP	Pn	09 00 58.4	+0.3
DVD				eS	Sb	09 01 07.6	-1.6
LOMA3	Las Lomas, Chi	0.92	15	eP	Pn	09 00 58.6	+0.4
LOMA3				eS	Sb	09 01 09.3	-0.2
BGUAL	Bijagual, Pana	1.01	17	eP	Pg	09 01 00.0	+0.4
CDITO	Canoas	1.05	347	P	Pb	09 00 59.7	-0.2
CDITO				S	Sn	09 01 14.4	0.0
PIRO	Carate, Puerto	1.10	321	P	Pb	09 01 00.1	-0.6
PIRO				S	Sb	09 01 14.2	-0.6
PIRO	Carate, Puerto	1.10	321	eP	Pb	09 00 59.9	-0.9
PIRO	Carate, Puerto	1.10	321	⇑iP	Pb	09 00 59.8	-0.9
PIRO				eS	Sb	09 01 13.6	-1.2
NANC3	Nancito, Chiri	1.13	52	eP	Pg	09 01 02.0	0.0
NANC3				eS	Sb	09 01 15.6	-0.1
NELY	Ciudad Neily	1.14	344	eP	Pn	09 01 01.3	0.0
NELY				eS	Sn	09 01 16.6	0.0
PTAR3	Potrerillos Ar	1.15	7	eP	Pb	09 01 01.7	0.0
PTAR3				eS	Sb	09 01 14.8	-1.6
PDCAN	Manzana , Fuen	1.19	51	eP	Pg	09 01 02.8	-0.3
FITO	Golfito	1.19	335	eP	Pn	09 01 01.1	-0.9
CLLRA	Cordillera,	1.20	1	eP	Pb	09 01 02.8	+0.3
JIME	Puerto Jimenez	1.20	325	eP	Pn	09 01 01.9	-0.2
BQSF3	Alto Boquete,	1.21	10	eP	Pn	09 01 01.7	-0.7
BQSF3				eS	Sb	09 01 16.0	-2.1
BQTLY	Boquete Panama	1.22	8	eP	Pb	09 01 02.9	+0.1
EDAD	Golfito	1.22	335	eP	Pn	09 01 01.6	-0.9
BRU2	Volcan	1.25	358	P	Pb	09 01 03.6	+0.3
BRU2				S	Sb	09 01 18.8	-0.3
BRU2	Volcan	1.25	358	eP	Pb	09 01 03.6	+0.3
BRU2	Volcan	1.25	358	iP	Pb	09 01 03.7	+0.4
BRU2				eS	Sb	09 01 17.7	-1.4
MLIR3	Monte Lirio, C	1.26	352	eP	Pn	09 01 02.7	-0.3
MLIR3				eS	Sb	09 01 17.8	-1.6
SCLRA	Santa Clara, W	1.29	354	eP	Pb	09 01 04.4	+0.3
VITO	San Vito	1.31	345	eP	Pb	09 01 04.7	+0.3
GMAL	Guarumal, Vera	1.41	81	eP	Pn	09 01 05.0	0.0
GMAL	Guarumal, Vera	1.41	81	eP	Pn	09 01 05.4	+0.4
GMAL				eS	Sb	09 01 23.8	+0.1
PBNVO	Pueblo Nuevo,	1.41	18	eP	Pn	09 01 05.4	+0.3
RBALA	Bur	1.41	20	eP	Pb	09 01 06.1	0.0
RBALA	Bur	1.41	20	⇓eP	Pb	09 01 06.0	0.0
RBALA				eS	Sn	09 01 23.3	0.0
EDP2	Potrero Grande	1.56	340	eP	Pb	09 01 08.1	-0.5
FIMO	Fila Mora	1.60	334	eP	Pn	09 01 08.4	+0.6
PANP	Palmar Norte	1.63	330	eP	Pn	09 01 08.2	+0.2
MARI3	Mariato, Verag	1.64	86	eP	Pb	09 01 09.6	-0.2
STIA3	Santiago, Vera	1.74	71	eP	Pb	09 01 11.3	-0.3
BURE	Buenos Aires	1.76	337	eP	Pn	09 01 10.9	+1.0
CACAO	El Cacao, Vera	1.77	96	⇑eP	Pb	09 01 11.3	-0.8
CACAO				eS	Sb	09 01 33.6	-0.5
SAFE3	Santa Fe, Vera	1.82	58	eP	Pb	09 01 12.4	-0.6
EDPE	Pejibaye, P	1.85	330	eP	Pn	09 01 11.9	+0.7
CNI2	El Empalme, Bo	1.88	5	eP	Pb	09 01 14.1	+0.1
CNI2				eS	Sn	09 01 32.3	-2.5
CALO3	Calobre, Verag	1.94	66	eP	Pb	09 01 14.1	-0.9
CHIT3	Chitre	2.24	79	eP	Pb	09 01 18.4	-1.7
CHIT3				eS	Sn	09 01 44.7	+1.1
BUS1	Rivas	2.28	331	eP	Pn	09 01 18.2	+0.8
AZU	Azuero	2.35	84	eP	Pn	09 01 19.8	+1.8
AZU	Azuero	2.35	84	eP	Pn	09 01 19.8	+1.8
AZU				eP	Pb	09 01 19.9	-2.2
AZU				eS	Sn	09 01 47.9	+1.3
QUEP	Quepos	2.41	321	P	Pn	09 01 18.7	0.0
QUEP				S	Sn	09 01 47.2	-0.7
PIEC	Cerro El Cedra	2.45	328	eP	Pn	09 01 20.8	+1.2
PNME	Penonome	2.47	68	eP	Pn	09 01 21.0	+1.4
PNME				eS	Sn	09 01 49.3	-0.2
RAZU	San Marcos de	2.51	327	eP	Pn	09 01 21.4	+1.1
PITB	Pirrs, San	2.51	327	eP	Pn	09 01 21.7	+1.3
LCR2	La Lucha 2	2.57	328	P	Pn	09 01 22.4	+1.2
LCR2				S	Sn	09 01 53.1	+0.9
LCR2	La Lucha 2	2.57	328	eP	Pn	09 01 22.2	+0.9
LCR2	La Lucha 2	2.57	328	eP	Pn	09 01 22.1	+0.9
LCR2				eS	Sn	09 01 51.5	-0.7
PICV	PH. Pirrs	2.58	323	eP	Pn	09 01 21.6	+0.4
VINA	Juan Vinas	2.58	335	eP	Pn	09 01 22.9	+1.6
PCAYA	Pacayas	2.63	334	eP	Pn	09 01 23.7	+1.6
VTCV	VTCV, Calle Va	2.66	336	eP	Pn	09 01 24.3	+1.9
ABRB	Las Abras (San	2.67	337	eP	Pn	09 01 24.8	+2.2
CVTQ	Turrialba Volc	2.69	336	eP	Pn	09 01 25.1	+2.1
VTR0	Volcan Turrial	2.70	336	eP	Pn	09 01 25.0	+1.8
CVTR	Volcan Turrial	2.70	336	eP	Pn	09 01 24.9	+1.7
VICA	Volcano Irazu	2.71	334	eP	Pn	09 01 24.9	+1.6
AMPA	Desamparados	2.73	329	eP	Pn	09 01 24.7	+1.4
ECI	Escuela Centro	2.76	330	eP	Pn	09 01 25.3	+1.5
CENT	San Jose	2.77	329	eP	Pn	09 01 25.2	+1.4
PILE	Guapiles	2.89	337	eP	Pn	09 01 27.8	+2.4
VBV1	V. Barva	2.94	331	eP	Pn	09 01 28.0	+1.7
TRB2	Turrubares	2.96	323	S	Sn	09 02 02.0	+0.4
TCS1	Tacares	2.98	327	P	Pn	09 01 28.5	+1.8
ZANG	Zanguenga, Cho	3.08	63	eP	Pn	09 01 28.3	+0.3
ZANG				eS	Sn	09 02 02.8	-1.7
CHOR3	La Chorrera	3.15	64	eP	Pn	09 01 29.2	+0.3
BCIP	Isla Barro Col	3.21	60	P	Pb	09 01 35.5	-1.1
BCIP				S	Sb	09 02 15.0	-0.5
BCIP	Isla Barro Col	3.21	60	eP	Pn	09 01 32.9	+3.2
BCIP	Isla Barro Col	3.21	60	eP	Pn	09 01 31.2	+1.4
BCIP				eS	Sn	09 02 07.2	-0.4
GAMB1	Gamboa	3.29	61	⇑eP	Pb	09 01 36.6	-1.4
ARE1	Arenal 1	3.56	325	eP	Pn	09 01 36.7	+2.1
JTS	Las Juntas de	3.56	320	P	Pn	09 01 37.0	+2.3
JTS				S	Sn	09 02 15.8	-0.7
JTS	Las Juntas de	3.56	320	eP	Pn	09 01 36.5	+1.8
CEDE	Laguna Cedeo	3.57	325	eP	Pn	09 01 36.8	+2.0
COVE	Coope Vega, Sa	3.61	331	P	Pn	09 01 37.4	+2.1
COVE				S	Sn	09 02 18.3	+0.8
CMARA	Lajas Hojancha	3.69	312	P	Pn	09 01 36.3	-0.2
CMARA				S	Sn	09 02 19.1	-0.6
CMARA	Lajas Hojancha	3.69	312	eP	Pn	09 01 37.0	+0.5
CMARA	Lajas Hojancha	3.69	312	eP	Pn	09 01 36.7	+0.2
JUD3	Juan Diaz 3	3.88	312	eP	Pn	09 01 39.6	+0.6
BAGA	Bagaces	3.94	319	eP	Pn	09 01 41.8	+2.0
CUI	Cuipilapa	3.98	321	eP	Pn	09 01 41.5	+1.1
MESS	Mesas	4.06	322	eP	Pn	09 01 43.4	+1.9
VMAR	Armenia, Volca	4.07	323	eP	Pn	09 01 43.5	+1.8
UPAL	Upala	4.08	325	P	Pn	09 01 44.0	+2.3
ALIBA	Liberia Airpor	4.18	317	eP	Pn	09 01 45.0	+1.9
LAPC	Finca la Perla	4.23	319	eP	Pn	09 01 45.9	+2.1
BLUN	Bluefields	4.58	346	S	Sn	09 02 42.8	+1.4
JAPN	Al SSO del Vol	4.97	323	P	Pn	09 01 56.2	+2.2
ACON	Acoyapa	5.06	331	P	Pn	09 01 57.6	+2.4
BOAB	BOACO BROADBAN	5.72	329	P	Pn	09 02 06.5	+2.2
MATN	Matagalpa	6.26	329	P	Pn	09 02 14.5	+2.8

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*IDC **26** 09:22:55.5±1.4, 51°.67N×75°.51E, h0^{km}, mbtmp2.6/3, ML2.0/3, Error ellipse: s-maj=28.2km s-min=10.7km az=31.0*
*NNC **26** 09:22:56.1±0.7, 51°.60N×75°.20E, h0^{km}, mb2.5, mpv2.1, Error ellipse: s-maj=52.6km s-min=4.4km az=24.0, Suspected Mining explosion.*
ISC 26 09:22:54.3±1.0**, 51°.7N**±0°.1×**75°.10E**±0°.08**, h0^{km}, n9, σ0^{s}58**/10**, 6C, Eastern Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KURBB	Kurchatov Arra	2.42	115	Pg	Pn	09 23 35.7	+0.6
	0.4nm,0.3s,baz=304,slow=19,SNR=14						
KURBB				Lg	Lg	09 24 04.0	
	0.4nm,0.3s,baz=307,slow=30,SNR=11						
KURBB	Kurchatov Arra	2.42	115	⇑Pn	Pn	09 23 35.4	+0.3
	4.3nm,0.6s						
KURBB				⇑Sn	Sn	09 24 05.7	+0.3
	21nm,0.6s						
KURK	Kurchatov	2.43	113	⇑Pn	Pn	09 23 35.7	+0.6
	0.4nm,0.3s						
KURK				⇑Sn	Sn	09 24 05.5	0.0
	2.1nm,0.5s						
BVA0	Borovoye Array	3.17	296	Pg	Pg	09 23 55.1	0.0
	0.1nm,0.9s,baz=117,slow=19,SNR=4.0						
BVA0				⇑Lg	Lg	09 24 42.6	
	baz=119,slow=28,SNR=6.6						
BVAR	Borovoye Array	3.17	296	Pn	Pb	09 23 51.3	-0.1
	0.1nm,0.3s,baz=112,slow=18,SNR=6.1						
BVAR				Sn	Sb	09 24 31.1	+0.4
	0.1nm,0.3s,baz=101,slow=24,SNR=5.6						
	1.4nm,0.5s						
BVAR				AML	AML		
I46RU	ZALESOVO INFRA	6.30	65	I	I	10 01 40.0	
	baz=248,slow=321,SNR=2.1						
ZALV	Zalesovo Beam	6.30	65	Pn	Pn	09 24 27.9	-0.5
	0.2nm,0.3s,baz=258,slow=14,SNR=4.0						
	0.9nm,0.4s						
ZALV				AML	AML		
MK31	Makanchi Array	6.81	133	⇑Lg	Lg	09 26 28.8	
	0.6nm,0.5s,baz=318,slow=22,SNR=4.4						
MKAR	Makanchi Array	6.81	133	Pn	Pn	09 24 34.4	-1.0
	0.1nm,0.3s,baz=304,slow=12,SNR=2.2						
MKAR				Lg	Lg	09 26 21.6	
	0.4nm,0.3s,baz=323,slow=26,SNR=7.8						
	0.1nm,0.5s						
MKAR				AML	AML		

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*IDC **26** 09:35:07.7±0.7, 7°.39N×126°.66E, h0^{km}, mb4.0/13, mbtmp4.1/15, ML3.9/2, MS3.1/8, Error ellipse: s-maj=16.3km s-min=13.0km az=76.0*
*DJA **26** 09:35:07.3±2.4, 8°N±21°×12°7E±°, h10^{km}, M4.7/15, mb4.6/15, mB5.1/6, MLv4.8/7, Mw(mB)4.5/6*
*NEIC **26** 09:35:09.7±1.6, 7°.72N±0°.09×127°.28E±0°.07, h10^{km}±1^{km}, mb4.5/16, Error ellipse: s-maj=16.3km s-min=8.7km az=31.0*
*MAN **26** 09:35:11.0, 7°.74N×127°.28E, h23^{km}, MS4.0*
ISC 26 09:35:09.5±0.5**, 7°.68N**±0°.04×**127°.26E**±0°.05**, h10^{km}, n64, σ1^{s}75**/60**, mb4.4**/21**, MS3.0**/4**, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CDOP	Cateel, Davao	0.82	277	iP	Pb	09 35 26.9	+1.0
CDOP				iS	Sn	09 35 39.1	-0.3
BIPH	Bislig	1.02	299	iP	Pn	09 35 30.1	+0.2
BIPH				eS	Sg	09 35 41.3	-1.3
DAV	Davao City (W)	1.78	250	Pg	Pn	09 35 29.0	-11
	45nm,0.3s,baz=74,slow=20,SNR=3.6						
DAV				Lg	Lg	09 35 43.3	
	65nm,0.3s,baz=1.6,slow=1.4,SNR=7.8						
DAV	Davao City (W)	1.78	250	Pn	Pn	09 35 41.8	+1.5
DAV	Davao City (W)	1.78	250	P	Pb	09 35 42.8	+0.6
DAV				AML	AML		
DAV	Davao City (W)	1.78	250	P	Pn	09 35 41.0	+0.7
BUKP	Musuan	2.19	275	eP	Pb	09 35 48.3	-1.0
BUKP				eS	Sb	09 36 16.4	-0.1
KCP	Kidapawan	2.26	253	eP	Pn	09 35 49.1	+2.1
KCP				eS	Sb	09 36 20.3	+1.9
TBP	Tagbilaran	3.91	301	eP	Pn	09 35 59.1	-11
DCPH	Dipolog City	3.97	283	iP	Pn	09 36 13.9	+3.3
PLP	Palo	4.13	327	eP	Pb	09 36 20.9	-1.5
PLP				eS	Sb	09 37 16.2	+3.9
LLP	Lapu-Lapu	4.18	309	eP	Pn	09 36 16.2	+2.8
LLP				eS	Sg	09 37 18.8	-5.0
SNPH	Sibulan	4.31	293	eP	Pn	09 36 17.7	+2.4
SNPH				eS	Sn	09 37 07.8	+2.1
TNTI	Ternate	6.87	179	Pn	Pn	09 36 50.9	+0.6
TNTI	Ternate	6.87	179	P	Pn	09 36 55.5	+5.2
	0.2nm30nm,0.8s						
TNTI				AML	AML		
GTOI	Gorontalo	8.18	211	P	Pn	09 37 10.6	+2.2
	595nm46nm,0.9s						
LQP	Lukban	8.51	319	eP		09 37 25.7	
SIJI	Sorong	9.39	155	Pn	Pn	09 37 25.4	+0.4
	2.5nm,0.3s,baz=329,slow=20,SNR=5.5						
SIJI				LR	LR	09 41 36.8	
	comp=Z,126nm,18.5s,baz=5.0,slow=41						
	9.1nm,0.5s						
SIJI				AML	AML		
SANI	Sanana	9.75	188	P	Pn	09 37 33.1	+3.2
	12nm,0.9s						
LUWI	Luwuk	9.76	208	P	Pn	09 37 36.9	+6.9
FAKI	Fak Fak	11.65	155	Pn	Pn	09 37 56.0	+0.1
FAKI	Fak Fak	11.65	155	P	Pn	09 37 57.4	+1.5
	19nm,0.9s						
KAPI	Kappang	14.67	211	LR	LR	09 44 08.3	
	comp=Z,44nm,18.3s,baz=195,slow=38						
KAPI	Kappang	14.67	211	P	P	09 38 41.8	-1.8
TPUB	Ta-pu	16.79	338	Pn	Pn	09 39 03.9	-1.0
TPUB				IAmb	IAmb	09 39 43.8	
	comp=Z,64nm,1.5s						
JAY	Jayapura	16.81	127	LR	LR	09 46 13.6	
	comp=Z,110nm,19.5s,baz=350,slow=39						
EDFI	Ende, Flores	17.24	199	P	P	09 39 14.7	+2.5
GUMO	Guam	18.27	70	LR	LR	09 45 35.0	
	comp=Z,34nm,19.4s,baz=218,slow=33						
JOW	Kunigami	19.07	3	P	Pn	09 39 35.4	+2.4
	comp=Z,0.4nm,0.3s,baz=117,slow=18,SNR=2.3						
	comp=Z,16nm,0.9s						
JOW				AML	AML		
MTN	Manton Dam	20.75	169	P	P	09 39 50.8	+0.2
KNRA	Kununurra	23.26	176	P	P	09 40 16.7	-0.6
KNRA				IAmb	IAmb	09 40 20.7	
	comp=Z,10nm,0.7s						
FITZ	Fitzroy Crossi	25.67	184	P	P	09 40 39.5	-0.2
PMG	Port Moresby	26.10	130	LR	LR	09 53 38.4	
	comp=Z,36nm,18.2s,baz=307,slow=42						
JHJ	Hachijo jima 2	27.84	23	LR	LR	09 51 36.6	
	comp=Z,59nm,21.6s,baz=48,slow=35						
WB0	Warramunga Arr	28.16	166	P	P	09 41 02.5	+0.2
WB0				IAmb	IAmb	09 41 35.5	
	comp=Z,8.0nm,1.1s						
WRAB	Tennant Creek	28.32	166	P	P	09 41 03.1	-0.4
WRAB				IAmb	IAmb	09 41 11.3	
	comp=Z,4.4nm,0.6s						
WRA	Warramunga Arr	28.32	166	P	P	09 41 02.8	-0.9
	comp=Z,0.6nm,0.7s,baz=346,slow=10,SNR=27						
	comp=Z,0.6nm,0.7s						
WRA	Warramunga Arr	28.32	166	P	P	09 41 04.1	+0.5
WR8	Warramunga Arr	28.37	166	P	P	09 41 03.4	-0.7
CMAR	Chiang Mai Arr	29.54	294	LR	LR	09 53 16.5	
	comp=Z,29nm,18.8s,baz=225,slow=37						
KSRS	Korea Array	29.64	1	P	P	09 41 17.4	+2.2
	comp=Z,1.3nm,0.8s,baz=186,slow=10,SNR=2.3						
KSRS				LR	LR	09 54 04.3	
	comp=Z,36nm,19.2s,baz=200,slow=38						
	comp=Z,1.3nm,0.8s						
ASAR	Alice Springs	31.82	168	P	P	09 41 32.4	-2.3
	comp=Z,0.2nm,0.3s,baz=336,slow=7.7,SNR=9.0						
	comp=Z,0.2nm,0.3s						
ASAR	Alice Springs	31.82	168	P	P	09 41 33.1	-1.6
CN2	Changchun	36.01	358	eP	P	09 42 09.5	-1.3
CN2				pmax	pmax		
	comp=Z,10.0nm,0.7s						
USRK	Ussuriysk Ar.	36.61	6	P	P	09 42 18.9	+3.0
	comp=Z,2.4nm,0.6s,baz=188,slow=8.7,SNR=2.4						
	comp=Z,2.4nm,0.6s						
MORW	Morawa	38.10	196	P	P	09 42 26.6	-2.1
FORT	Forrest	38.25	179	P	P	09 42 28.2	-1.7
FORT				IAmb	IAmb	09 43 03.0	
	comp=Z,12nm,1.0s						
BBOO	Buckleboo	41.13	169	P	P	09 42 53.6	-0.4
STKA	Stephens Creek	41.65	162	P	P	09 42 58.2	0.0
	comp=Z,3.4nm,1.0s,baz=345,slow=12,SNR=3.5						
	comp=Z,3.4nm,1.0s						
MKAR	Makanchi Array	54.67	323	P	P	09 44 38.2	-0.6
	comp=Z,2.2nm,0.5s,baz=121,slow=7.9,SNR=25						
	comp=Z,2.2nm,0.5s						
ZALV	Zalesovo Beam	57.35	332	P	P	09 44 56.4	-1.4
	comp=Z,0.6nm,0.3s,baz=122,slow=7.7,SNR=5.3						
	comp=Z,0.6nm,0.3s						
KURK	Kurchatov	58.74	326	P	P	09 45 06.2	-1.4
KURK				IAmb	IAmb	09 45 07.9	
	comp=Z,4.3nm,1.1s						
KURBB	Kurchatov Arra	58.75	326	P	P	09 45 07.0	-0.6
	comp=Z,1.9nm,0.6s,baz=125,slow=6.2,SNR=22						
	comp=Z,1.9nm,0.6s						
KKAR	Karatay Array	60.76	315	P	P	09 45 20.3	-1.4
BVAR	Borovoye Array	64.34	326	P	P	09 45 44.8	-0.6
	comp=Z,1.3nm,0.6s,baz=114,slow=7.2,SNR=7.0						
	comp=Z,1.3nm,0.6s						
BORK	Borovoye	64.39	326	P	P	09 45 44.6	-1.0
BORK				IAmb	IAmb	09 45 50.9	
	comp=Z,1.9nm,0.7s						
L16K	Owhat River	75.36	28	P	P	09 46 54.7	+1.6
M20K	Styx River	78.36	28	P	P	09 47 11.0	+0.9
IMAR	Indian Mountai	78.54	24	P	P	09 47 12.7	+1.8
MLY	Manley	79.70	25	P	P	09 47 17.0	-0.3
MLY				IAmb	IAmb	09 47 32.9	
	comp=Z,4.8nm,1.0s						
ILAR	Eielson Array	81.33	26	P	P	09 47 28.1	+2.1
	comp=Z,0.7nm,0.8s,baz=250,slow=4.9,SNR=8.3						
	comp=Z,0.7nm,0.8s						
ARCES	ARCESS Array B	86.94	340	P	P	09 47 54.5	0.0
	comp=Z,2.3nm,0.8s,baz=76,slow=5.1,SNR=4.2						
	comp=Z,2.3nm,0.8s						
BRTR	Keskin Array B	87.92	310	P	P	09 47 58.5	-1.6
	comp=Z,0.6nm,0.5s,baz=98,slow=3.7,SNR=4.2						
	comp=Z,0.6nm,0.5s						
FINES	FINESS Array B	88.62	332	P	P	09 48 02.1	-0.5
	comp=Z,0.9nm,0.6s,baz=56,slow=3.4,SNR=6.9						
	comp=Z,0.9nm,0.6s						

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*IDC **26** 10:06:23.9±0.9, 10°.30S×161°.33E, h0^{km}, mb3.9/8, mbtmp3.9/9, ML4.0/1, MS3.1/3, Error ellipse: s-maj=23.7km s-min=18.8km az=45.0*
*NOU **26** 10:06:28.8, 10°.31S×161°.10E, h1^{km}, MLv4.2/16, Solomon Islands*
*NEIC **26** 10:06:29.9±1.4, 10°.24S±0°.08×161°.3E±0°.1, h40^{km}±8^{km}, mb4.3/14, Error ellipse: s-maj=18.7km s-min=9.2km az=61.0*
ISC 26 10:06:31.7±0.6**, 10°.32S**±0°.05×**161°.21E**±0°.05**, h62^{km}, n41, σ1^{s}23**/39**, mb4.1**/14**, Bougainville-Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HURO	Huro Makira	0.70	102	P	Pn	10 06 44.0	-2.0
HURO	Huro Makira	0.70	102	S	Sn	10 06 54.6	-1.9
HNR	Honiara	1.53	305	Pn	Pn	10 06 54.5	-2.3
	124nm,0.3s,baz=232,slow=2.4,SNR=63						
HNR				Sn	Sn	10 07 14.3	-1.4
	235nm,0.3s,baz=274,slow=21,SNR=26						
HNR				LR	LR	10 07 39.8	
	comp=Z,164nm,20.1s,baz=170,slow=47						
HNR	Honiara	1.53	305	P	Pn	10 06 54.5	-2.3
HNR	Honiara	1.53	305	P	Sn	10 07 15.2	-0.5
HNR	Honiara	1.53	305		Pn	10 06 54.5	-2.3
HNR				Sn	Sn	10 07 13.6	-2.1
NGOA	Tingoa Renbel	1.66	223	P	Pn	10 06 57.5	-1.1
NGOA	Tingoa Renbel	1.66	223	S	Sn	10 07 19.1	+0.1
SAVO	Savo Central	1.81	310	P	Pn	10 06 59.0	-1.5
SAVO	Savo Central	1.81	310	S	Sn	10 07 22.8	+0.4
TATA	Tatamba Isabel	2.37	324	P	Pn	10 07 08.1	-0.1
TATA	Tatamba Isabel	2.37	324	P	Sn	10 07 37.4	+1.2
PMG	Port Moresby	13.88	273	LR	LR	10 14 30.3	
	comp=Z,69nm,21.0s,baz=94,slow=35						
PMG	Port Moresby	13.88	273	P	Pn	10 09 44.6	-0.8
PMG	Port Moresby	13.88	273	P	Pn	10 09 44.2	-1.2
CTA	Charters Tower	17.38	234	P	Pn	10 10 30.3	+0.2
	0.4nm,0.3s,baz=54,slow=11,SNR=3.8						
CTA				LR	LR	10 16 34.6	
	comp=Z,50nm,19.0s,baz=22,slow=35						
	0.9nm,0.3s						
CTA				AML	AML		
CAN	Canberra	27.26	202	P	P	10 12 07.7	-2.5
WR8	Warramunga Arr	27.47	246	P	P	10 12 12.9	+0.7
WR8				IAmb	IAmb	10 12 32.4	
	comp=Z,7.5nm,1.4s						
WB0	Warramunga Arr	27.51	247	P	P	10 12 13.4	+0.8

WB0				IAmb	IAmb	10 12 23.5	
	comp=Z,7.8nm,1.5s						
WRA	**Warramunga Arr**	**27.61**	**247**	P	**P**	**10 12 14.0**	**+0.6**
	comp=Z,0.9nm,0.6s,baz=77,slow=9.0,SNR=16						
	comp=Z,0.9nm,0.6s						
WRA	**Warramunga Arr**	**27.61**	**247**	P	**P**	**10 12 12.9**	**-0.6**
H11S2	**WAKE ISLAND Hy**	**29.14**	**11**	T	T	10 43 19.2	
	baz=189,slow=76,SNR=5.9						
H11S3	**WAKE ISLAND Hy**	**29.14**	**11**	T	T	10 43 21.1	
	baz=189,slow=76,SNR=5.6						
H11S1	**WAKE ISLAND Hy**	**29.16**	**11**	T	T	10 43 20.6	
	baz=189,slow=76,SNR=3.3						
ASAR	**Alice Springs**	**29.22**	**240**	P	**P**	**10 12 27.9**	**+0.1**
	comp=Z,0.6nm,0.8s,baz=74,slow=8.0,SNR=5.8						
ASAR				LR	LR	10 23 19.9	
	comp=Z,58nm,19.2s,baz=103,slow=35						
	comp=Z,0.6nm,0.8s						
FAKI	**Fak Fak**	**29.67**	**282**	P	**P**	**10 12 31.7**	**-0.2**
KNRA	**Kununurra**	**32.04**	**257**	P	**P**	**10 12 52.7**	**0.0**
KNRA				IAmb	IAmb	10 13 20.3	
	comp=Z,2.8nm,1.0s						
BBOO	**Buckleboo**	**32.21**	**222**	P	**P**	**10 12 55.6**	**+1.6**
FITZ	**Fitzroy Crossi**	**35.29**	**253**	P	**P**	**10 13 21.4**	**+0.5**
MBWA	**Marble Bar**	**41.23**	**250**	P	**P**	**10 14 10.6**	**-0.4**
MBWA				IAmb	IAmb	10 14 16.3	
	comp=Z,13nm,1.1s						
VNDA	**Vanda**	**67.18**	**180**	P	**P**	**10 17 20.1**	**+1.4**
	comp=Z,0.6nm,0.7s,baz=342,slow=5.8,SNR=4.2						
	comp=Z,0.6nm,0.7s						
VNDA	**Vanda**	**67.18**	**180**	P	**P**	**10 17 19.2**	**+0.5**
CMAR	**Chiang Mai Arr**	**67.75**	**295**	P	**P**	**10 17 24.3**	**+1.0**
	comp=Z,0.8nm,0.3s,baz=102,slow=7.0,SNR=4.1						
	comp=Z,0.8nm,0.3s						
SONM	**Songino Array**	**75.50**	**325**	P	**P**	**10 18 09.9**	**+0.5**
	comp=Z,3.1nm,0.6s,baz=137,slow=5.8,SNR=9.4						
	comp=Z,3.1nm,0.6s						
SONM	**Songino Array**	**75.50**	**325**	P	**P**	**10 18 09.3**	**-0.1**
SONM				IAmb	IAmb	10 18 10.6	
	comp=Z,2.8nm,0.6s						
QSPA	**South Pole Qui**	**79.67**	**180**	P	**P**	**10 18 33.7**	**+1.2**
	comp=Z,1.2nm,0.8s,baz=280,slow=0.2,SNR=8.6						
	comp=Z,1.2nm,0.8s						
QSPA	**South Pole Qui**	**79.67**	**180**	P	**P**	**10 18 32.6**	**+0.1**
QSPA				IAmb	IAmb	10 18 44.1	
	comp=Z,4.5nm,1.4s						
L19K	**White Mountain**	**79.91**	**19**	P	**P**	**10 18 34.2**	**+0.7**
L19K				IAmb	IAmb	10 18 39.5	
	comp=Z,3.4nm,1.2s						
L20K	**Farewell, AK**	**80.44**	**19**	P	**P**	**10 18 36.8**	**+0.4**
L20K				IAmb	IAmb	10 18 45.7	
	comp=Z,6.7nm,1.4s						
ILAR	**Eielson Array**	**84.30**	**20**	P	**P**	**10 18 56.6**	**+0.2**
	comp=Z,0.2nm,0.4s,baz=239,slow=5.0,SNR=5.9						
	comp=Z,0.2nm,0.4s						
NVAR	**Mina Array Bea**	**89.00**	**51**	P	**P**	**10 19 21.4**	**+1.2**
	comp=Z,0.4nm,0.7s,baz=258,slow=4.1,SNR=3.2						
	comp=Z,0.4nm,0.7s						

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*NEIC **26** 10:55:01.9±1.8, 17°.86N±0°.03×67°.07W±0°.03, h10^{km}±1^{km}, ML3.5/32, Md3.3/17(RSPR), Error ellipse: s-maj=6.4km s-min=3.2km az=38.0*

*RSPR **26** 10:55:02.8, 17°.93N×67°.08W, h12^{km}, MD3.3/17*

*PTWC **26** 10:55:02, 17°.90N×67°.00W, Ml3.6/14*

*OSPL **26** 10:55:03.1±0.5, 17°.92N×67°.06W, h11^{km}±1^{km}, ML3.4, Presumed earthquake*

ISC 26 10:55:01.8±1.1**, 17°.90N**±0°.06×**67°.07W**±0°.03**, h17**^{km}±4^{km}**, n49, σ0^{s}62**/66**, 1C-9D, Mona Passage**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MLPR	**Magueyes Islan**	**0.07**	**20**		**Pg**	**10 55 05.2**	**+0.1**
MLPR				Sg	**Sg**	**10 55 07.1**	**-0.2**
MLPR				IAML		10 55 07.3	
	15µm,0.1s						
MLPR	**Magueyes Islan**	**0.07**	**20**	P	**Pg**	**10 55 02.6**	**-2.5**
MLPR	**Magueyes Islan**	**0.07**	**20**	⇓iP	**Pg**	**10 55 05.2**	**+0.1**
CRPR	**Cabo Rojo, PR**	**0.11**	**341**	Pg	**Pg**	**10 55 05.5**	**+0.1**
CRPR				Sg	**Sg**	**10 55 07.7**	**-0.2**
CRPR				IAML		10 55 07.9	
	18µm,0.4s						
CRPR				IAML		10 55 07.9	
	23µm,0.4s						
CRPR	**Cabo Rojo, PR**	**0.11**	**341**	P	**Pg**	**10 55 05.6**	**+0.1**
CRPR	**Cabo Rojo, PR**	**0.11**	**341**	⇑iP	**Pg**	**10 55 05.6**	**+0.1**
CRPR	**Cabo Rojo, PR**	**0.11**	**341**	i P	**Pg**	**10 55 05.5**	**+0.1**
CRPR				eS	**Sg**	**10 55 07.6**	**-0.2**
GBPR	**Guanica, Bosqu**	**0.20**	**67**		**Pg**	**10 55 07.1**	**+0.5**
GBPR					**Sg**	**10 55 10.6**	**+0.8**
GBPR	**Guanica, Bosqu**	**0.20**	**67**	⇑iP	**Pg**	**10 55 07.1**	**+0.5**
GBPR				eS	**Sg**	**10 55 10.6**	**+0.8**
PRSN	**Puerto Rico Se**	**0.32**	**348**		**Pg**	**10 55 08.7**	**+0.1**
PRSN	**Puerto Rico Se**	**0.32**	**348**	Sg	**Sg**	**10 55 13.2**	**-0.2**
PRSN				IAML		10 55 14.9	
	12µm,0.3s						
PRSN				IAML		10 55 18.9	
	10µm,0.3s						
PRSN	**Puerto Rico Se**	**0.32**	**348**	P	**Pg**	**10 55 08.8**	**+0.1**
PRSN	**Puerto Rico Se**	**0.32**	**348**	⇑iP	**Pg**	**10 55 08.7**	**+0.1**
CELP	**Cerrillos**	**0.50**	**69**		**Pg**	**10 55 11.9**	**+0.1**
CELP					**Sg**	**10 55 19.2**	**+0.6**
CELP	**Cerrillos**	**0.50**	**69**	P	**Pg**	**10 55 11.0**	**-0.8**
CELP	**Cerrillos**	**0.50**	**69**	⇓iP	**Pg**	**10 55 12.1**	**+0.2**
AOPR	**Arecibo Observ**	**0.54**	**34**		**Pg**	**10 55 12.2**	**-0.3**
AOPR					**Sg**	**10 55 19.3**	**-0.5**
AOPR	**Arecibo Observ**	**0.54**	**34**	P	**Pg**	**10 55 12.3**	**-0.3**
AOPR	**Arecibo Observ**	**0.54**	**34**	⇓iP	**Pg**	**10 55 12.4**	**-0.2**
AGPR	**Aguadilla, PR**	**0.57**	**356**		**Pg**	**10 55 12.8**	**-0.3**
AGPR					**Sg**	**10 55 20.4**	**-0.3**
AGPR				IAML		10 55 21.6	
	2µm,0.3s						
AGPR	**Aguadilla, PR**	**0.57**	**356**	P	**Pg**	**10 55 12.8**	**-0.3**
AGPR	**Aguadilla, PR**	**0.57**	**356**	⇑iP	**Pg**	**10 55 12.9**	**-0.2**
AGPR	**Aguadilla, PR**	**0.57**	**356**	i P	**Pg**	**10 55 12.8**	**-0.3**
AGPR				eS	**Sg**	**10 55 20.4**	**-0.3**
IDE	**Isla Desecheo**	**0.62**	**322**		**Pg**	**10 55 13.6**	**-0.5**
IDE					**Sg**	**10 55 22.1**	**-0.1**
IDE	**Isla Desecheo**	**0.62**	**322**	⇓iP	**Pg**	**10 55 13.6**	**-0.5**
IDE				eS	**Sg**	**10 55 22.1**	**-0.1**
EMPR	**Esperanza - Ma**	**0.77**	**42**		**Pg**	**10 55 16.8**	**-0.1**
EMPR					**Sg**	**10 55 27.4**	**+0.3**
EMPR	**Esperanza - Ma**	**0.77**	**42**	P	**Pg**	**10 55 16.8**	**-0.1**
EMPR	**Esperanza - Ma**	**0.77**	**42**	⇓iP	**Pg**	**10 55 16.8**	**-0.1**
EMPR				eS	**Sg**	**10 55 27.4**	**+0.3**
ECPR	**Experimental S**	**0.79**	**58**		**Pg**	**10 55 16.6**	**-0.7**
ECPR					**Sg**	**10 55 27.2**	**-0.6**
ECPR				IAML		10 55 31.3	
	2µm,0.2s						
ECPR	**Experimental S**	**0.79**	**58**	P	**Pg**	**10 55 16.7**	**-0.7**
ECPR	**Experimental S**	**0.79**	**58**	⇓iP	**Pg**	**10 55 16.6**	**-0.7**
SJG	**San Juan**	**0.90**	**76**	Pg	**Pg**	**10 55 18.5**	**-0.9**
SJG	**San Juan**	**0.90**	**76**	P	**Pg**	**10 55 18.4**	**-0.9**
SJG	**San Juan**	**0.90**	**76**	⇓iP	**Pg**	**10 55 18.7**	**-0.7**
SJG	**San Juan**	**0.90**	**76**	i P	**Pg**	**10 55 18.5**	**-0.9**
SJG				eS	**Sg**	**10 55 30.6**	**-0.7**
SJG				IAML		10 55 32.4	
	comp=Z,8µm,0.1s						
IGPR	**InterUniversit**	**0.92**	**86**		**Pg**	**10 55 19.4**	**-0.3**
IGPR					**Sg**	**10 55 32.4**	**+0.6**
IGPR	**InterUniversit**	**0.92**	**86**	P	**Pg**	**10 55 19.4**	**-0.3**
IGPR	**InterUniversit**	**0.92**	**86**	⇓iP	**Pg**	**10 55 19.4**	**-0.3**
PDPR	**Patillas Dam,**	**1.01**	**83**	Pg	**Pg**	**10 55 20.5**	**-0.8**
PDPR				IAML		10 55 37.0	
	comp=Z,1µm,0.5s						
PDPR	**Patillas Dam,**	**1.01**	**83**	P	**Pg**	**10 55 20.3**	**-1.0**
PDPR				S	**Sn**	**10 55 36.4**	**+1.4**
PDPR	**Patillas Dam,**	**1.01**	**83**	⇓eP	**Pg**	**10 55 20.6**	**-0.7**
HUMP	**Col San Antoni**	**1.19**	**78**		**Pb**	**10 55 23.3**	**-0.6**
HUMP				IAML		10 55 42.0	
	comp=Z,1µm,0.4s						
HUMP				IAML		10 55 42.2	
	comp=Z,682nm,0.3s						
HUMP	**Col San Antoni**	**1.19**	**78**	P	**Pb**	**10 55 23.3**	**-0.6**
HUMP	**Col San Antoni**	**1.19**	**78**	⇑eP	**Pb**	**10 55 23.2**	**-0.6**
PCDR	**Punta Cana, DR**	**1.39**	**296**		**Pn**	**10 55 26.3**	**-0.1**
PCDR	**Punta Cana, DR**	**1.39**	**296**	P	**Pn**	**10 55 26.3**	**-0.1**
PCDR	**Punta Cana, DR**	**1.39**	**296**	i P	**Pn**	**10 55 26.7**	**+0.2**
PCDR				IAML		10 55 55.7	
	comp=Z,90nm,1.1s						
MIDR	**Miches**	**2.17**	**300**	P	**Pn**	**10 55 38.3**	**+1.2**
DR12	**Loma Pena Alta**	**2.37**	**292**	Pn	**Pn**	**10 55 40.7**	**+0.8**

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*NEIC **26** 11:26:25.9±1.4, 17°.86N±0°.02×67°.09W±0°.02, h10^{km}±1^{km}, ML3.3/32, Md3.3/16(RSPR), Error ellipse: s-maj=4.6km s-min=2.9km az=35.0*

*PTWC **26** 11:26:25, 17°.90N×67°.10W, h13^{km}, Ml3.5/12*

*RSPR **26** 11:26:27.3, 17°.95N×67°.06W, h12^{km}, MD3.3/16*

*OSPL **26** 11:26:27.4±0.8, 17°.92N×67°.07W, h11^{km}±2^{km}, ML2.5, Presumed earthquake*

ISC 26 11:26:26.1±1.0**, 17°.92N**±0°.05×**67°.08W**±0°.03**, h18**^{km}±3^{km}**, n55, σ0^{s}66**/72**, 3C-9D, Mona Passage**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MLPR	**Magueyes Islan**	**0.06**	**32**	Pg	**Pg**	**11 26 29.4**	**-0.1**
MLPR				Sg	**Sg**	**11 26 31.2**	**-0.4**
MLPR				IAML		11 26 31.4	
	8µm,0.3s						
MLPR	**Magueyes Islan**	**0.06**	**32**	P	**Pg**	**11 26 29.3**	**-0.1**
MLPR	**Magueyes Islan**	**0.06**	**32**	⇑eP	**Pg**	**11 26 29.4**	**-0.1**
CRPR	**Cabo Rojo, PR**	**0.09**	**340**	Pg	**Pg**	**11 26 29.8**	**+0.1**
CRPR				Sg	**Sg**	**11 26 31.9**	**-0.2**
CRPR				IAML		11 26 32.1	
	13µm,0.3s						
CRPR				IAML		11 26 32.1	
	15µm,0.3s						
CRPR	**Cabo Rojo, PR**	**0.09**	**340**	P	**Pg**	**11 26 29.8**	**+0.1**
CRPR	**Cabo Rojo, PR**	**0.09**	**340**	⇑iP	**Pg**	**11 26 29.8**	**+0.1**
CRPR	**Cabo Rojo, PR**	**0.09**	**340**	i P	**Pg**	**11 26 29.8**	**+0.1**
CRPR				eS	**Sg**	**11 26 31.9**	**-0.2**
GBPR	**Guanica, Bosqu**	**0.20**	**74**		**Pg**	**11 26 31.3**	**+0.3**
GBPR					**Sg**	**11 26 34.7**	**+0.4**
GBPR	**Guanica, Bosqu**	**0.20**	**74**	⇑iP	**Pg**	**11 26 31.3**	**+0.3**
GBPR				eS	**Sg**	**11 26 34.7**	**+0.4**
LSP	**Las Mesas**	**0.26**	**358**		**Pg**	**11 26 32.3**	**+0.3**
LSP					**Sg**	**11 26 34.9**	**-1.0**
LSP	**Las Mesas**	**0.26**	**358**	⇓iP	**Pg**	**11 26 32.3**	**+0.3**
LSP				eS	**Sg**	**11 26 34.9**	**-1.0**
PRSN	**Puerto Rico Se**	**0.30**	**348**	Pg	**Pg**	**11 26 33.0**	**+0.2**
PRSN				Sg	**Sg**	**11 26 37.3**	**+0.1**
PRSN	**Puerto Rico Se**	**0.30**	**348**	P	**Pg**	**11 26 32.0**	**-0.7**
PRSN	**Puerto Rico Se**	**0.30**	**348**	⇑iP	**Pg**	**11 26 33.1**	**+0.4**
CELP	**Cerrillos**	**0.50**	**72**		**Pg**	**11 26 36.2**	**0.0**
CELP					**Sg**	**11 26 43.2**	**+0.3**
CELP	**Cerrillos**	**0.50**	**72**	IAML		11 26 44.8	
	1µm,0.2s						
CELP				IAML		11 26 44.8	
	827nm,0.2s						
CELP	**Cerrillos**	**0.50**	**72**	P	**Pg**	**11 26 36.2**	**0.0**
CELP	**Cerrillos**	**0.50**	**72**	⇓iP	**Pg**	**11 26 36.2**	**0.0**
AOPR	**Arecibo Observ**	**0.52**	**36**		**Pg**	**11 26 36.6**	**-0.1**
AOPR					**Sg**	**11 26 43.4**	**-0.3**
AOPR	**Arecibo Observ**	**0.52**	**36**	IAML		11 26 43.8	
	5µm,0.2s						
AOPR				IAML		11 26 43.9	
	6µm,0.4s						
AOPR	**Arecibo Observ**	**0.52**	**36**	P	**Pg**	**11 26 36.5**	**-0.1**
AOPR	**Arecibo Observ**	**0.52**	**36**	⇓eP	**Pg**	**11 26 36.6**	**-0.1**
AGPR	**Aguadilla, PR**	**0.55**	**357**		**Pg**	**11 26 37.1**	**0.0**
AGPR				IAML		11 26 45.1	
	2µm,0.3s						
AGPR	**Aguadilla, PR**	**0.55**	**357**		**Sg**	**11 26 44.4**	**0.0**
AGPR	**Aguadilla, PR**	**0.55**	**357**	P	**Pg**	**11 26 37.1**	**0.0**
AGPR	**Aguadilla, PR**	**0.55**	**357**	⇑iP	**Pg**	**11 26 37.1**	**0.0**
AGPR	**Aguadilla, PR**	**0.55**	**357**	i P	**Pg**	**11 26 37.1**	**0.0**
AGPR				eS	**Sg**	**11 26 44.6**	**+0.2**
IDE	**Isla Desecheo**	**0.60**	**321**		**Pg**	**11 26 37.9**	**-0.2**
IDE					**Sg**	**11 26 45.6**	**-0.5**
IDE	**Isla Desecheo**	**0.60**	**321**	⇓eP	**Pg**	**11 26 37.9**	**-0.2**
IDE				eS	**Sg**	**11 26 45.6**	**-0.5**
EMPR	**Esperanza - Ma**	**0.76**	**43**		**Pg**	**11 26 41.2**	**+0.2**
EMPR					**Sg**	**11 26 51.1**	**0.0**
EMPR	**Esperanza - Ma**	**0.76**	**43**	P	**Pg**	**11 26 40.0**	**-1.0**
EMPR	**Esperanza - Ma**	**0.76**	**43**	⇓iP	**Pg**	**11 26 41.2**	**+0.2**
EMPR				eS	**Sg**	**11 26 51.1**	**0.0**
ECPR	**Experimental S**	**0.79**	**60**		**Sg**	**11 26 50.5**	**-1.4**
ECPR	**Experimental S**	**0.79**	**60**	Pg	**Pg**	**11 26 40.9**	**-0.6**
ECPR	**Experimental S**	**0.79**	**60**	IAML		11 26 52.8	
	3µm,0.2s						
ECPR				IAML		11 26 55.1	
	1µm,0.2s						
ECPR	**Experimental S**	**0.79**	**60**	P	**Pg**	**11 26 40.8**	**-0.7**
ECPR				S	**Sg**	**11 26 51.6**	**-0.4**
ECPR	**Experimental S**	**0.79**	**60**	⇓iP	**Pg**	**11 26 40.8**	**-0.7**
SJG	**San Juan**	**0.90**	**78**		**Pg**	**11 26 42.6**	**-1.0**
SJG	**San Juan**	**0.90**	**78**	P	**Pg**	**11 26 42.7**	**-1.0**
SJG	**San Juan**	**0.90**	**78**	⇓eP	**Pg**	**11 26 42.8**	**-0.9**
SJG	**San Juan**	**0.90**	**78**	i P	**Pg**	**11 26 42.7**	**-1.0**
SJG				eS	**Sg**	**11 26 55.2**	**-0.4**
IGPR	**InterUniversit**	**0.92**	**87**		**Pg**	**11 26 43.6**	**-0.5**
IGPR					**Sb**	**11 26 57.4**	**+1.9**
IGPR	**InterUniversit**	**0.92**	**87**	P	**Pg**	**11 26 43.5**	**-0.6**
IGPR	**InterUniversit**	**0.92**	**87**	⇓eP	**Pg**	**11 26 43.6**	**-0.5**
PDPR	**Patillas Dam,**	**1.01**	**84**		**Pb**	**11 26 44.6**	**-0.4**
PDPR				IAML		11 27 01.1	
	887nm,0.5s						
PDPR	**Patillas Dam,**	**1.01**	**84**		**Sg**	**11 26 58.5**	**-0.4**
PDPR	**Patillas Dam,**	**1.01**	**84**	P	**Pb**	**11 26 44.4**	**-0.6**
PDPR				S	**Sb**	**11 27 00.4**	**+2.4**
PDPR	**Patillas Dam,**	**1.01**	**84**	⇓eP	**Pb**	**11 26 44.8**	**-0.3**
HUMP	**Col San Antoni**	**1.19**	**79**		**Pb**	**11 26 47.5**	**-0.6**
HUMP				IAML		11 27 06.1	
	875nm,0.4s						
HUMP				IAML		11 27 06.3	
	476nm,0.3s						
HUMP	**Col San Antoni**	**1.19**	**79**	P	**Pb**	**11 26 47.6**	**-0.6**
HUMP	**Col San Antoni**	**1.19**	**79**	⇑eP	**Pb**	**11 26 47.8**	**-0.3**
PCDR	**Punta Cana, DR**	**1.37**	**296**		**Pn**	**11 26 51.0**	**+0.6**
PCDR	**Punta Cana, DR**	**1.37**	**296**	⇑eP	**Pn**	**11 26 51.0**	**+0.6**
PCDR				eS	**Sn**	**11 27 06.4**	**-1.8**
PCDR	**Punta Cana, DR**	**1.37**	**296**	i P	**Pn**	**11 26 51.1**	**+0.6**
PCDR				IAML		11 27 24.7	
	comp=Z,81nm,0.5s						
DR12	**Loma Pena Alta**	**2.35**	**292**	Pn	**Pn**	**11 27 04.8**	**+0.9**

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*IDC **26** 11:27:58.0±7.8, 56°.21S×27°.44W, h133^{km}±73^{km}, mb3.5/7, mbtmp3.9/8, Error ellipse: s-maj=31.6km s-min=18.2km az=63.0*

ISC 26 11:27:55.7±0.8**, 56°.2S**±0°.1×**27°.4W**±0°.2**, h112**^{km}**, n10, σ0^{s}72**/10**, mb3.8**/6**, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNAA	**Sanae**	**18.66**	**156**	P	**P**	**11 32 04.5**	**-0.1**
	1.2nm,0.4s,baz=300,slow=8.1,SNR=2.7						
PLCA	**Paso Flores**	**31.89**	**281**	P	**P**	**11 34 09.7**	**-0.6**
	1.6nm,1.0s,baz=113,slow=7.0,SNR=3.1						
	1.6nm,1.0s						
QSPA	**South Pole Qui**	**34.05**	**180**	P	**P**	**11 34 29.0**	**+0.1**
	0.6nm,0.6s,baz=337,slow=2.8,SNR=9.7						
	0.6nm,0.6s						
CPUP	**Villa Florida**	**36.81**	**312**	P	**P**	**11 34 52.8**	**+0.2**
	0.6nm,0.6s,baz=188,slow=19,SNR=1.8						
	0.6nm,0.6s						
VNDA	**Vanda**	**46.42**	**183**	P	**P**	**11 36 10.8**	**+0.5**
	1.1nm,0.7s,baz=186,slow=6.6,SNR=9.3						
	1.1nm,0.7s						
LPAZ	**La Paz**	**50.35**	**306**	P	**P**	**11 36 42.5**	**+0.6**
	1.0nm,0.4s,baz=156,slow=9.5,SNR=4.6						
	1.0nm,0.4s						
DBIC	**Dimbokro**	**65.36**	**25**	P	**P**	**11 38 26.4**	**+0.5**
	2.7nm,0.7s,baz=327,slow=8.3,SNR=2.0						
	2.7nm,0.7s						
TORD	**Torodi Ar. Bea**	**73.25**	**30**	P	**P**	**11 39 14.4**	**-0.1**
	0.4nm,0.5s,baz=193,slow=6.3,SNR=2.5						
	0.4nm,0.5s						
ILAR	**Eielson Array**	**150.11**	**312**	PKPbc	**PKPbc**	**11 47 30.8**	**-0.9**
	1.1nm,0.8s,baz=114,slow=1.6,SNR=6.9						
SONM	**Songino Array**	**150.87**	**87**	PKPbc	**PKPbc**	**11 47 33.0**	**-1.2**
	0.3nm,0.4s,baz=228,slow=3.7,SNR=2.2						

KRSC 26 11:31:39.6±2.0**, 49°.19N**×**157°.13E, h31**^{km}±26^{km}**, Ml3.8, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril's**	**1.63**	**337**	eP	Pn	11 32 06.4	+0.3
SKR				eS	Sn	11 32 26.3	+0.3
PAU	**Pauzhetka**	**2.29**	**355**	eP	Pb	11 32 17.9	-2.3
PAU				eS	Sb	11 32 45.3	-2.8
KDTR	**Khodutka, Kamc**	**2.69**	**13**	eP	Pb	11 32 24.0	-3.0
KDTR				eS	Sn	11 32 55.3	+3.2
ASAK	**Asacha**	**3.24**	**8**	eP	Pb	11 32 32.6	-3.7
MTVR	**Mutnovka**	**3.37**	**11**	eP	Pn	11 32 34.0	+3.9
RUS	**Russkaya**	**3.37**	**15**	eP	Pn	11 32 33.2	+3.3
GRL	**Gorelyy**	**3.42**	**10**	eP	Pn	11 32 35.1	+4.3
KRMR	**Karymshinskiy**	**3.70**	**9**	eP	Pn	11 32 39.2	+4.7
PET	**Petropavlovsk**	**3.96**	**13**	eP	Pn	11 32 42.0	+4.0
PET				eS	Sn	11 33 28.8	+5.5
DALK	**Dalny**	**3.98**	**14**	eP	Pn	11 32 42.5	+4.1
DALK				eS	Sn	11 33 29.8	+5.8
UGLR	**Uglovaya**	**4.17**	**14**	eP	Pn	11 32 46.3	+5.3
SMAR	**Somma**	**4.21**	**14**	eP	Pb	11 32 47.5	-5.5
KOK	**Koryaka**	**4.22**	**12**	eP	Pn	11 32 47.1	+5.4
KRER	**Koryakskii**	**4.25**	**13**	eP	Pn	11 32 47.7	+5.5
KRX	**Arik**	**4.29**	**12**	eP	Pn	11 32 47.9	+5.3
SPN	**Mys Shipunski**	**4.32**	**24**	eP	Pn	11 32 48.8	+5.8
GNL	**Ganaly**	**4.54**	**6**	eP	Pn	11 32 50.7	+4.5
MKZ	**Mys Kozlova**	**6.08**	**26**	eP	Pn	11 33 10.9	+3.7
KBTR	**Krutoberegovo**	**7.83**	**24**	eP	Pn	11 33 34.8	+3.6

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*DJA **26** 11:33:57.2±1.4, 10°N±12°×12°7E±°, h23^{km}±24^{km}, M4.8/14, mb4.7/14, mB5.1/4, MLv4.9/3, Mw(mB)4.5/4*

*MAN **26** 11:33:58.0, 9°.24N×126°.74E, h14^{km}, MS4.4*

*NEIC **26** 11:33:58.0±1.2, 9°.28N±0°.07×126°.6E±0°.1, h22^{km}±5^{km}, mb4.5/21, Error ellipse: s-maj=15.2km s-min=10.0km az=90.0*

*IDC **26** 11:34:06.2±2.2, 9°.17N×126°.56E, h92^{km}±20^{km}, mb3.9/19, mbtmp4.2/21, MS3.2/8, Error ellipse: s-maj=24.7km s-min=10.9km az=70.0*

ISC 26 11:33:59.4±1.5**, 9°.28N**±0°.03×**126°.56E**±0°.06**, h32**^{km}±10^{km}**, n90, σ1^{s}72**/98**, mb4.4**/29**, MS3.1**/5**, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BIPH	**Bislig**	**1.10**	**190**	eP	**Pn**	**11 34 17.6**	**-1.1**
BIPH				eS	**Sn**	**11 34 31.5**	**-1.3**
CDOP	**Cateel, Davao**	**1.49**	**185**	i P	**Pn**	**11 34 23.1**	**-0.9**
CDOP				i S	**Sb**	**11 34 42.9**	**-2.1**
CGP	**Cagayan de Oro**	**2.02**	**246**	i P	**Pb**	**11 34 34.5**	**-1.0**
CGP				i S	**Sb**	**11 35 02.3**	**+2.1**
BUKP	**Musuan**	**2.03**	**227**	eP	**Pb**	**11 34 35.2**	**-0.5**
BUKP				i S	**Sb**	**11 35 02.8**	**+2.1**
DAV	**Davao City (W)**	**2.40**	**204**	P	**Pb**	**11 34 41.1**	**-0.8**
	328nm,0.5s,baz=56,slow=7.3,SNR=15						
DAV				S	**Sb**	**11 35 12.5**	**+1.4**
	325nm,0.4s,baz=24,slow=23,SNR=1.7						
DAV				LR	LR	11 35 45.2	
	comp=Z,1µm,18.6s,baz=46,slow=43						
DAV	**Davao City (W)**	**2.40**	**204**	Pn	**Pn**	**11 34 37.9**	**+1.4**
DAV					**Pb**	**11 34 41.5**	**-0.4**
DAV	**Davao City (W)**	**2.40**	**204**	P	**Pb**	**11 34 40.7**	**-1.3**
DAV				S	**Sb**	**11 35 17.4**	**+6.3**
DAV				AML	AML		
DMPH	**Davao City--Mi**	**2.42**	**206**	eP	**Pb**	**11 34 40.5**	**-1.8**
DMPH				i S	**Sb**	**11 35 11.2**	**-0.5**
PLP	**Palo**	**2.44**	**320**	eP	**Pb**	**11 34 40.7**	**-2.0**
PLP				eS	**Sb**	**11 35 12.8**	**+0.4**
KCP	**Kidapawan**	**2.68**	**213**	eP	**Pb**	**11 34 44.1**	**-2.7**
KCP				i S	**Sb**	**11 35 18.9**	**-0.5**
TBP	**Tagbilaran**	**2.69**	**279**	i P	**Pb**	**11 34 45.6**	**-1.5**
TBP				eS	**Sb**	**11 35 21.9**	**+2.2**
LLP	**Lapu-Lapu**	**2.76**	**292**	eP	**Pb**	**11 34 47.1**	**-1.0**
LLP				eS	**Sb**	**11 35 26.4**	**+4.8**
LSIP	**Lazi, Siquijor**	**2.90**	**267**	eP	**Pb**	**11 34 47.9**	**-2.5**
LSIP				eS	**Sb**	**11 35 24.1**	**-1.4**
DCPH	**Dipolog City**	**3.25**	**258**	i P	**Pb**	**11 34 53.4**	**-3.0**
DCPH				i S	**Sb**	**11 35 33.7**	**-1.7**
SNPH	**Sibulan**	**3.28**	**271**	eP	**Pb**	**11 34 54.0**	**-3.0**
SNPH				eS	**Sb**	**11 35 38.7**	**+2.1**
MMPH	**Masbate**	**4.21**	**317**	eS	**Sn**	**11 35 47.9**	**-1.6**
GQP	**Guinayangan**	**6.12**	**319**	eP	**Pb**	**11 35 42.8**	**-2.5**
TNTI	**Ternate**	**8.49**	**175**	Pn	**Pn**	**11 35 59.2**	**-1.0**
TNTI	**Ternate**	**8.49**	**175**	P	**Pn**	**11 36 02.5**	**+2.3**
	865nm34nm,1.1s						
MYLDM	**Lahad Datu**	**8.97**	**244**	Pn	**Pn**	**11 36 06.8**	**0.0**
MYLDM	**Lahad Datu**	**8.97**	**244**	P	**Pn**	**11 36 10.3**	**+3.4**
GTOI	**Gorontalo**	**9.28**	**203**	P	**Pn**	**11 36 14.1**	**+3.0**
	25nm,0.6s						
TOLI2	**Tolitoli**	**9.94**	**216**	Pn	**Pn**	**11 36 20.5**	**+0.4**
KKM	**Kota Kinabalu**	**10.74**	**253**	P	**Pn**	**11 36 34.2**	**+2.9**
	21nm,1.3s						
SIJI	**Sorong**	**11.11**	**155**	P	**Pn**	**11 36 39.6**	**+3.4**
	5.2nm,0.5s,baz=265,slow=21,SNR=1.7						
SANI	**Sanana**	**11.27**	**183**	P	**Pn**	**11 36 40.5**	**+2.2**
	14nm,0.6s						
NLAI	**Namlea**	**12.44**	**178**	P	**Pn**	**11 36 57.5**	**+3.1**
	17nm,0.5s						
FAKI	**Fak Fak**	**13.38**	**155**	P	**Pn**	**11 37 08.6**	**+1.4**
KAPI	**Kappang**	**15.73**	**206**	LR	LR	11 43 16.7	
	comp=Z,38nm,20.0s,baz=36,slow=35						
TATO	**Taipei**	**16.34**	**343**	Pn	**Pn**	**11 37 45.7**	**-0.9**
GUMO	**Guam**	**18.45**	**75**	LR	LR	11 45 39.5	
	comp=Z,56nm,18.6s,baz=246,slow=38						
SOEI	**Soe**	**19.04**	**187**	P	**P**	**11 38 18.8**	**-0.4**
SOEI				IAmb	IAmb	11 38 51.8	
	comp=Z,25nm,0.8s						
MTN	**Manton Dam**	**22.44**	**168**		**P**	**11 38 54.5**	**-1.3**
KNRA	**Kununurra**	**24.89**	**175**		**P**	**11 39 19.0**	**-0.5**
KNRA				IAmb	IAmb	11 39 37.7	
	comp=Z,5.1nm,0.7s						
FITZ	**Fitzroy Crossi**	**27.21**	**182**	P	**P**	**11 39 40.0**	**-0.5**
	comp=Z,2.6nm,0.3s,baz=37,slow=4.7,SNR=20						
	comp=Z,2.6nm,0.3s						
KSRS	**Korea Array**	**28.08**	**2**	P	**P**	**11 39 48.9**	**+0.8**
	comp=Z,1.3nm,0.8s,baz=178,slow=9.6,SNR=2.4						
	comp=Z,1.3nm,0.8s						
RPSI	**Rantau Prapat**	**28.24**	**258**	P	**P**	**11 39 48.5**	**-1.4**
RPSI				IAmb	IAmb	11 39 54.4	
	comp=Z,12nm,1.1s						
CMAR	**Chiang Mai Arr**	**28.29**	**292**	P	**P**	**11 39 51.5**	**+1.2**
	comp=Z,0.3nm,0.3s,baz=105,slow=8.5,SNR=4.3						
CMAR				LR	LR	11 51 50.2	
	comp=Z,46nm,18.1s,baz=185,slow=38						
	comp=Z,0.3nm,0.3s						
CMAR	**Chiang Mai Arr**	**28.29**	**292**	P	**P**	**11 39 50.3**	**+0.1**
WB0	**Warramunga Arr**	**29.87**	**165**	P	**P**	**11 40 02.5**	**-1.8**
WRA	**Warramunga Arr**	**30.03**	**165**	P	**P**	**11 40 03.9**	**-1.7**
	comp=Z,1.4nm,0.6s,baz=348,slow=9.3,SNR=23						
WRA				PcP	**PcP**	**11 43 07.5**	**+0.1**
	comp=Z,0.3nm,0.5s,baz=345,slow=2.7,SNR=2.7						
	comp=Z,1.4nm,0.6s						
AS31	**Alice Springs**	**33.52**	**168**		**P**	**11 40 35.3**	**-1.0**
ASAR	**Alice Springs**	**33.52**	**168**	P	**P**	**11 40 35.1**	**-1.1**
	comp=Z,1.0nm,0.4s,baz=352,slow=7.0,SNR=60						
ASAR				PcP	**PcP**	**11 43 17.0**	**+0.2**
	comp=Z,0.4nm,0.5s,baz=344,slow=2.0,SNR=5.4						
	comp=Z,1.0nm,0.4s						
ASAR	**Alice Springs**	**33.52**	**168**	P	**P**	**11 40 35.2**	**-1.1**
ASAR					**PcP**	**11 43 14.0**	**-2.9**
CTA	**Charters Tower**	**35.03**	**147**	P	**P**	**11 40 50.4**	**+0.9**
	comp=Z,1.8nm,0.8s,baz=321,slow=6.5,SNR=1.7						
CTA				LR	LR	11 57 34.8	
	comp=Z,29nm,18.2s,baz=248,slow=40						
	comp=Z,1.8nm,0.8s						
HNR	**Honiara**	**38.08**	**118**	LR	LR	11 54 12.7	
	comp=Z,26nm,22.0s,baz=9.0,slow=32						
MORW	**Morawa**	**39.45**	**195**	P	**P**	**11 41 26.0**	**-0.8**
FORT	**Forrest**	**39.85**	**178**	P	**P**	**11 41 29.5**	**-0.6**
FORT				IAmb	IAmb	11 41 59.6	
	comp=Z,15nm,1.2s						
H11S3	**WAKE ISLAND Hy**	**39.94**	**72**	T	T	12 24 42.8	
	baz=261,SNR=21						
H11S1	**WAKE ISLAND Hy**	**39.95**	**72**	T	T	12 24 37.3	
	baz=261,SNR=16						
H11S2	**WAKE ISLAND Hy**	**39.95**	**72**	T	T	12 24 40.5	
	baz=261,SNR=13						
H11N1	**WAKE ISLAND Hy**	**40.30**	**70**	T	T	12 25 16.1	
	baz=265,slow=74,SNR=8.7						
H11N2	**WAKE ISLAND Hy**	**40.31**	**70**	T	T	12 25 10.8	
	baz=265,slow=74,SNR=5.8						
H11N3	**WAKE ISLAND Hy**	**40.32**	**70**	T	T	12 25 11.7	
	baz=265,slow=74,SNR=9.5						
SONM	**Songino Array**	**42.05**	**340**	LR	LR	12 01 21.8	
	comp=Z,42nm,18.2s,baz=112,slow=39						
BBOO	**Buckleboo**	**42.82**	**168**	P	**P**	**11 41 53.5**	**-1.0**
NWAO	**Narrogin (SRO)**	**42.90**	**192**	P	**P**	**11 41 54.3**	**-0.8**
STKA	**Stephens Creek**	**43.37**	**161**	P	**P**	**11 41 58.2**	**-0.7**
	comp=Z,1.2nm,0.4s,baz=339,slow=14,SNR=3.3						
STKA				LR	LR	12 07 19.1	
	comp=Z,37nm,18.3s,baz=220,slow=46						
	comp=Z,1.2nm,0.4s						
PETK	**Petropavlovsk-**	**50.42**	**24**	P	**P**	**11 42 56.1**	**+2.3**
	comp=Z,1.2nm,0.7s,baz=216,slow=7.8,SNR=1.8						
	comp=Z,1.2nm,0.7s						
PETK	**Petropavlovsk-**	**50.42**	**24**	P	**P**	**11 42 53.1**	**-0.7**

MKAR	**Makanchi Array**	**52.99**	**323**	P	**P**	**11 43 13.8**	**+0.7**
	comp=Z,3.3nm,0.6s,baz=122,slow=8.1,SNR=34						
MKAR				PcP	**PcP**	**11 44 21.2**	**-0.4**
	comp=Z,0.6nm,0.5s,baz=112,slow=5.7,SNR=1.5						
	comp=Z,3.3nm,0.6s						
MKAR	**Makanchi Array**	**52.99**	**323**	P	**P**	**11 43 12.9**	**-0.2**
PDGK	**Podgornoye**	**53.12**	**318**	P	**P**	**11 43 13.2**	**-1.1**
MAKZ	**Makanchi**	**53.18**	**323**	P	**P**	**11 43 14.5**	**-0.1**
MAKZ				IAmb	IAmb	11 43 28.3	
	comp=Z,6.0nm,1.2s						
KSH2	**Kashi**	**54.28**	**312**	P	P	11 43 29.3	+6.4
KSH2				pmax	pmax		
	comp=Z,3.0nm,1.0s						
ZALV	**Zalesovo Beam**	**55.63**	**332**	P	**P**	**11 43 32.6**	**+0.5**
	comp=Z,0.9nm,0.5s,baz=110,slow=8.1,SNR=4.8						
	comp=Z,0.9nm,0.5s						
ZALV	**Zalesovo Beam**	**55.63**	**332**	P	**P**	**11 43 32.3**	**+0.2**
KURK	**Kurchatov**	**57.05**	**326**		**P**	**11 43 42.8**	**+0.5**
KURK				IAmb	IAmb	11 43 54.8	
	comp=Z,4.8nm,0.8s						
KURBB	**Kurchatov Arra**	**57.05**	**326**	P	**P**	**11 43 43.3**	**+1.0**
	comp=Z,2.8nm,0.5s,baz=126,slow=6.7,SNR=14						
	comp=Z,2.8nm,0.5s						
KKAR	**Karatay Array**	**59.15**	**315**		**P**	**11 43 56.1**	**-1.2**
BVAR	**Borovoye Array**	**62.64**	**326**	P	**P**	**11 44 22.3**	**+1.5**
	comp=Z,1.6nm,0.6s,baz=134,slow=8.5,SNR=6.3						
	comp=Z,1.6nm,0.6s						
NRIK	**Noril'sk**	**65.04**	**346**	P	**P**	**11 44 35.6**	**-0.7**
	comp=Z,4.6nm,0.6s,baz=112,slow=6.2,SNR=5.5						
	comp=Z,4.6nm,0.6s						
NRIK	**Noril'sk**	**65.04**	**346**	P	**P**	**11 44 35.7**	**-0.6**
AB31	**Akbulak array**	**67.81**	**319**	P	**P**	**11 44 54.7**	**+0.3**
AB31				IAmb	IAmb	11 45 17.5	
	comp=Z,4.8nm,1.5s						
ABKAR	**Akbulak array**	**67.81**	**319**	P	**P**	**11 44 54.6**	**+0.3**
L18K	**Granite Mounta**	**75.67**	**28**	P	**P**	**11 45 41.7**	**+0.3**
L18K				IAmb	IAmb	11 45 58.7	
	comp=Z,6.8nm,1.3s						
CASY	**Casey**	**76.27**	**187**	P	**P**	**11 45 45.4**	**+0.9**
CASY				IAmb	IAmb	11 46 09.4	
	comp=Z,3.5nm,0.9s						
RAYN	**Ar Rayn**	**78.21**	**292**	P	**P**	**11 45 55.8**	**-0.7**
RAYN				IAmb	IAmb	11 46 09.0	
	comp=Z,4.6nm,0.8s						
CCB	**Clear Creek Bu**	**79.81**	**26**	P	**P**	**11 46 05.3**	**+1.0**
ILAR	**Eielson Array**	**80.20**	**26**	P	**P**	**11 46 07.9**	**+1.4**
	comp=Z,0.3nm,0.6s,baz=241,slow=4.7,SNR=9.4						
	comp=Z,0.3nm,0.6s						
ARCES	**ARCESS Array B**	**85.22**	**340**	P	**P**	**11 46 33.4**	**+0.9**
	comp=Z,4.2nm,0.8s,baz=81,slow=7.5,SNR=9.0						
	comp=Z,4.2nm,0.8s						
FINES	**FINESS Array B**	**86.90**	**332**	P	**P**	**11 46 39.2**	**-1.7**
	comp=Z,1.2nm,0.8s,baz=119,slow=6.7,SNR=8.0						
	comp=Z,1.2nm,0.8s						
FINES	**FINESS Array B**	**86.90**	**332**	P	**P**	**11 46 39.3**	**-1.5**
VNDA	**Vanda**	**88.91**	**173**	P	**P**	**11 46 49.7**	**-0.4**
	comp=Z,0.7nm,0.6s,baz=339,slow=6.0,SNR=8.9						
	comp=Z,0.7nm,0.6s						
VNDA	**Vanda**	**88.91**	**173**	P	**P**	**11 46 50.1**	**0.0**
VNDA				IAmb	IAmb	11 47 02.8	
	comp=Z,1.8nm,0.8s						
HFS	**Hagfors**	**93.06**	**332**	P	**P**	**11 47 10.2**	**+0.4**
	comp=Z,3.5nm,1.0s,baz=108,slow=9.3,SNR=2.3						
	comp=Z,3.5nm,1.0s						
YKA	**Yellowknife Ar**	**94.54**	**24**	P	**P**	**11 47 18.1**	**+1.5**
	comp=Z,0.7nm,0.6s,baz=303,slow=4.4,SNR=4.9						
	comp=Z,0.7nm,0.6s						
TXAR	**Lajitas Array**	**118.25**	**50**	PKP	**PKiKP**	**11 52 45.5**	**+1.2**
	comp=Z,0.1nm,0.7s,baz=11,slow=1.9,SNR=2.2						
TORD	**Torodi Ar. Bea**	**120.90**	**291**	PKP	**PKPdf**	**11 52 47.7**	**-1.9**
	comp=Z,0.2nm,0.6s,baz=39,slow=2.2,SNR=1.8						
PLCA	**Paso Flores**	**145.19**	**157**	PKPbc	**PKPbc**	**11 53 32.7**	**-1.1**
	comp=Z,1.6nm,0.7s,baz=346,slow=4.2,SNR=5.0						

PRE 26 11:37:24.6±1.1**, 27°.46S×27°.57E, h0^{km}, ML2.2,**
Suspected explosion, South Africa

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HRAO	**HartRAO**	**1.57**	**4**	*e*P	Pg	11 37 54.9	+0.3
HRAO				*e*S	Sb	11 38 17.1	+2.1
TSWA	**Tswaing Meteor**	**2.08**	**13**	*e*P	Pn	11 38 01.3	+0.4
TSWA				*e*S	Sn	11 38 28.7	+1.1
TSWA				IAML		11 38 34.2	
	comp=Z,6.9nm,0.3s						
RUST	**Rust De Winter**	**2.37**	**21**	*e*P	Pn	11 38 05.9	+1.0
RUST				*e*S	Sn	11 38 35.1	+0.3
RUST				IAML		11 38 35.2	
	comp=Z,3.9nm,0.4s						
LBTB	**Lobatse**	**3.01**	**324**	*e*P	Pn	11 38 13.6	0.0
LBTB				*e*S	Sn	11 38 50.6	+0.1
LBTB				IAML		11 39 32.9	
	comp=Z,7.1nm,0.5s						
HOED	**Hoedspruit, Li**	**4.29**	**46**	*e*P	Pn	11 38 32.5	+1.3
HOED				*e*S	Sn	11 39 20.5	-1.5
HOED				IAML		11 39 20.9	
	comp=Z,3.3nm,0.2s						
CRAIL	**Swartwater, Li**	**4.68**	**8**	*e*P	Pn	11 38 38.0	+1.4
CRAIL				*e*S	Sn	11 39 30.1	-1.5
CRAIL				IAML		11 39 43.1	
	comp=Z,714nm,0.8s						

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*RSPR **26** 11:37:32.4, 18°.20N×68°.75W, h141^{km}±2^{km}, MD3.1/6*
*SDD **26** 11:37:33.2±2.3, 18°.37N×68°.65W, h121^{km}±9^{km}, MD3.6, ML3.8, MW3.8, Presumed earthquake*
*NEIC **26** 11:37:33.2±1.4, 18°.2N±0°.1×68°.75W±0°.05, h124^{km}±11^{km}, ML3.7/40, Md3.2/6(RSPR), Error ellipse: s-maj=15.5km s-min=5.9km az=199.0*
*OSPL **26** 11:37:34.1±1.4, 18°.25N×68°.67W, h137^{km}±9^{km}, ML3.5, Presumed earthquake*
ISC 26 11:37:33.3±1.3**, 18°.28N**±0°.06×**68°.73W**±0°.03**, h129**^{km}±7^{km}**,**
n77, σ1^{s}.13/118**, 42C-8D, Mona Passage**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SADR	**Isla Saona**	**0.10**	**210**	⇓*i*P	**Pn**	**11 37 50.9**	**+0.1**
SADR				⇑*i*S	**Sn**	**11 38 02.6**	**-1.4**
SADR				IAML		11 38 07.2	
	comp=N,2µm,0.7s						
HIDR	**Higuey Centro**	**0.31**	**2**	⇑*e*P	**Pn**	**11 37 51.1**	**-0.2**
HIDR				*e*S	**Sn**	**11 38 04.4**	**-0.7**
HIDR	**Higuey Centro**	**0.31**	**2**	⇑*i*P	**Pn**	**11 37 50.6**	**-0.7**
HIDR				⇑*i*S	**Sn**	**11 38 04.3**	**-0.7**
HIDR				IAML		11 38 05.8	
	comp=N,2µm,0.2s						
PCDR	**Punta Cana, DR**	**0.40**	**55**		**Pn**	**11 37 50.9**	**-0.9**
PCDR					**Sn**	**11 38 04.5**	**-1.2**
PCDR				IAML		11 38 09.7	
	comp=N,1µm,0.5s						
PCDR	**Punta Cana, DR**	**0.40**	**55**	⇑*e*P	**Pn**	**11 37 51.5**	**-0.2**
PCDR				*e*S	**Sn**	**11 38 06.0**	**+0.3**
PCDR	**Punta Cana, DR**	**0.40**	**55**	*i* P	**Pn**	**11 37 51.6**	**-0.1**
PCDR				*e*S	**Sn**	**11 38 06.0**	**+0.3**
PCDR				IAML		11 38 09.1	
	comp=Z,458nm,0.7s						
PCDR	**Punta Cana, DR**	**0.40**	**55**	⇑*i*P	**Pn**	**11 37 51.2**	**-0.5**
PCDR				IAML		11 38 09.6	
	comp=N,659nm,0.4s						
MIDR	**Miches**	**0.76**	**337**	⇑*i*P	**Pn**	**11 37 53.7**	**-0.4**
MIDR				⇑*i*S	**Sn**	**11 38 09.5**	**-0.3**
MIDR				IAML		11 38 11.9	
	comp=N,750nm,0.3s						
DR12	**Loma Pena Alta**	**0.80**	**309**		**Pn**	**11 37 53.7**	**-0.7**
DR12	**Loma Pena Alta**	**0.80**	**309**		**Sn**	**11 38 08.9**	**-1.5**
HATOM	**Hato Mayor del**	**0.80**	**309**	⇑*i*P	**Pn**	**11 37 53.7**	**-0.7**
HATOM				⇑*i*S	**Sn**	**11 38 10.1**	**-0.3**
HATOM				IAML		11 38 12.2	
	comp=N,818nm,0.2s						
SMDR	**Samana, DR**	**1.10**	**337**		**Pn**	**11 37 57.8**	**+0.8**
SMDR					**Sn**	**11 38 18.2**	**+3.2**
SMDR	**Samana, DR**	**1.10**	**337**	⇑*i*P	**Pn**	**11 37 57.8**	**+0.8**
SMDR				*e*S	**Sn**	**11 38 18.2**	**+3.2**
SMDR	**Samana, DR**	**1.10**	**337**	⇑*i*P	**Pn**	**11 37 55.7**	**-1.3**
SMDR				⇑*i*S	**Sn**	**11 38 14.1**	**-0.9**
SMDR				IAML		11 38 18.9	
	comp=N,1µm,0.9s						
SDD	**Santo Domingo**	**1.14**	**279**		**Pn**	**11 37 56.5**	**-0.9**
SDD					**Sn**	**11 38 16.1**	**+0.3**
SDD				IAML		11 38 19.8	
	comp=N,384nm,0.5s						
SDD	**Santo Domingo**	**1.14**	**279**	⇑*e*P	**Pn**	**11 37 58.2**	**+0.8**
SDD				*e*S	**Sn**	**11 38 17.7**	**+2.0**
SDD	**Santo Domingo**	**1.14**	**279**	*i* P	**Pn**	**11 37 58.0**	**+0.6**
SDD				*e*S	**Sn**	**11 38 16.7**	**+0.9**
SDD				IAML		11 38 24.4	
	comp=Z,168nm,0.3s						
SDD	**Santo Domingo**	**1.14**	**279**	⇑*i*P	**Pn**	**11 37 57.8**	**+0.4**
SDD				⇑*i*S	**Sn**	**11 38 16.4**	**+0.7**
SDD				IAML		11 38 25.8	
	comp=N,113nm,0.2s						
IDE	**Isla Desecheo**	**1.20**	**85**		**Pn**	**11 37 57.4**	**-0.6**
IDE					**Sn**	**11 38 18.5**	**+1.7**
IDE	**Isla Desecheo**	**1.20**	**85**	⇓*e*P	**Pn**	**11 37 57.4**	**-0.6**
IDE				*e*S	**Sn**	**11 38 18.5**	**+1.7**
DR08	**Loma La Naviza**	**1.40**	**299**	⇑*i*P	**Pn**	**11 37 59.5**	**-0.8**
DR08				⇑*i*S	**Sn**	**11 38 20.8**	**0.0**
DR08				IAML		11 38 26.0	
	comp=N,11µm,0.2s						
PRSN	**Puerto Rico Se**	**1.51**	**92**	Pn	**Pn**	**11 38 01.2**	**-0.1**
PRSN					**Sn**	**11 38 21.9**	**-0.9**
PRSN	**Puerto Rico Se**	**1.51**	**92**	⇑*e*P	**Pn**	**11 38 02.2**	**+0.9**
NADR	**Nagua**	**1.51**	**315**	⇑*i*P	**Pn**	**11 38 00.7**	**-0.7**
NADR				⇑*i*S	**Sn**	**11 38 21.3**	**-1.6**
NADR				IAML		11 38 29.2	
	comp=N,5µm,0.3s						
AGPR	**Aguadilla, PR**	**1.55**	**83**	Pn	**Pn**	**11 38 01.8**	**0.0**
AGPR					**Sn**	**11 38 23.6**	**0.0**
AGPR	**Aguadilla, PR**	**1.55**	**83**	⇓*e*P	**Pn**	**11 38 02.4**	**+0.5**
AGPR	**Aguadilla, PR**	**1.55**	**83**	*i* P	**Pn**	**11 38 02.4**	**+0.5**
BANI	**BANI**	**1.55**	**274**	Pn	**Pn**	**11 38 01.1**	**-0.9**
BANI	**BANI**	**1.55**	**274**	⇓*i*P	**Pn**	**11 38 02.3**	**+0.3**
BANI				⇑*i*S	**Sn**	**11 38 27.0**	**+3.1**
BANI				IAML		11 38 35.1	
	comp=N,739nm,0.2s						
CRPR	**Cabo Rojo, PR**	**1.56**	**100**		**Pn**	**11 38 01.7**	**-0.3**
CRPR					**Sn**	**11 38 25.1**	**+1.3**
CRPR	**Cabo Rojo, PR**	**1.56**	**100**	⇓*e*P	**Pn**	**11 38 01.7**	**-0.3**
LSP	**Las Mesas**	**1.56**	**94**		**Pn**	**11 38 02.0**	**-0.1**
LSP					**Sn**	**11 38 25.7**	**+1.7**
LSP	**Las Mesas**	**1.56**	**94**	⇓*e*P	**Pn**	**11 38 02.0**	**-0.1**
LSP				*e*S	**Sn**	**11 38 25.7**	**+1.7**
MLPR	**Magueyes Islan**	**1.63**	**101**	Pn	**Pn**	**11 38 02.1**	**-0.7**
MLPR					**Sn**	**11 38 24.8**	**-0.5**
MLPR	**Magueyes Islan**	**1.63**	**101**	⇑*e*P	**Pn**	**11 38 03.0**	**+0.2**
GBPR	**Guanica, Bosqu**	**1.78**	**99**		**Pn**	**11 38 05.1**	**+0.5**
GBPR					**Sn**	**11 38 28.9**	**+0.4**
GBPR	**Guanica, Bosqu**	**1.78**	**99**	⇑*e*P	**Pn**	**11 38 05.1**	**+0.5**
GBPR				*e*S	**Sn**	**11 38 28.9**	**+0.4**
CADR	**Cabrera**	**1.79**	**320**	⇑*i*P	**Pn**	**11 38 04.8**	**+0.1**
CADR				⇑*i*S	**Sn**	**11 38 27.8**	**-0.9**
CADR				IAML		11 38 36.2	
	comp=N,932nm,0.3s						
AOPR	**Arecibo Observ**	**1.88**	**88**		**Pn**	**11 38 05.4**	**-0.3**
AOPR	**Arecibo Observ**	**1.88**	**88**		**Sn**	**11 38 29.7**	**-0.8**
AOPR	**Arecibo Observ**	**1.88**	**88**	⇑*e*P	**Pn**	**11 38 05.4**	**-0.3**
ABDR	**Alto Bandera**	**1.88**	**287**	⇑*i*P	**Pn**	**11 38 06.1**	**0.0**
ABDR				⇑*i*S	**Sn**	**11 38 33.2**	**+2.1**
ABDR				IAML		11 38 38.0	
	comp=N,408nm,0.4s						
CELP	**Cerrillos**	**2.05**	**95**	Pn	**Pn**	**11 38 07.6**	**-0.2**
CELP					**Sn**	**11 38 34.3**	**0.0**
CELP	**Cerrillos**	**2.05**	**95**	⇑*e*P	**Pn**	**11 38 07.8**	**-0.1**
EMPR	**Esperanza - Ma**	**2.10**	**84**		**Sn**	**11 38 34.9**	**-0.3**
EMPR	**Esperanza - Ma**	**2.10**	**84**	Pn	**Pn**	**11 38 07.6**	**-0.8**
EMPR	**Esperanza - Ma**	**2.10**	**84**	⇑*e*P	**Pn**	**11 38 08.7**	**+0.4**
EMPR				*e*S	**Sn**	**11 38 34.9**	**-0.3**
SC01	**Santiago de lo**	**2.21**	**301**	Pn	**Pn**	**11 38 09.9**	**+0.1**
SC01					**Sn**	**11 38 39.7**	**+1.9**
SC01				IAML		11 38 42.1	
	comp=N,777nm,0.5s						
SC01				IAML		11 38 46.8	
	comp=E,762nm,0.5s						
SC01	**Santiago de lo**	**2.21**	**301**	⇑*e*P	**Pn**	**11 38 11.2**	**+1.4**
SC01				*e*S	**Sn**	**11 38 41.0**	**+3.2**
SC01	**Santiago de lo**	**2.21**	**301**	*i* P	**Pn**	**11 38 11.0**	**+1.2**
SC01				IAML		11 38 48.2	
	comp=Z,381nm,0.7s						
SC01	**Santiago de lo**	**2.21**	**301**	⇑*i*P	**Pn**	**11 38 11.9**	**+2.1**
SC01				IAML		11 38 45.8	
	comp=N,689nm,0.4s						
ECPR	**Experimental S**	**2.25**	**89**		**Pn**	**11 38 09.4**	**-0.8**
ECPR	**Experimental S**	**2.25**	**89**	⇑*e*P	**Pn**	**11 38 10.6**	**+0.3**
PODR	**Polo**	**2.43**	**268**	*i* P	**Pn**	**11 38 12.8**	**+0.1**
PODR				IAML		11 38 49.4	
	comp=Z,2µm,0.1s						
PODR	**Polo**	**2.43**	**268**	⇑*i*P	**Pn**	**11 38 12.8**	**+0.1**
PODR				⇑*i*S	**Sn**	**11 38 45.7**	**+2.7**
PODR				IAML		11 38 51.2	
	comp=N,237nm,0.2s						
SJG	**San Juan**	**2.46**	**93**		**Pn**	**11 38 12.7**	**-0.2**
SJG	**San Juan**	**2.46**	**93**	⇓*e*P	**Pn**	**11 38 13.1**	**+0.2**
IGPR	**InterUniversit**	**2.51**	**97**		**Pn**	**11 38 13.9**	**+0.3**
IGPR					**Sn**	**11 38 46.4**	**+1.9**
IGPR	**InterUniversit**	**2.51**	**97**	⇑*e*P	**Pn**	**11 38 13.9**	**+0.3**
SDDR	**Presa de Saban**	**2.53**	**286**		**Pn**	**11 38 14.5**	**+0.7**
SDDR				IAML		11 38 51.2	
	comp=N,265nm,0.8s						
SDDR				IAML		11 38 53.0	
	comp=N,260nm,0.7s						
SDDR	**Presa de Saban**	**2.53**	**286**	*i* P	**Pn**	**11 38 14.9**	**+1.1**
SDDR				IAML		11 38 54.2	
	comp=Z,121nm,0.8s						
SDDR	**Presa de Saban**	**2.53**	**286**	⇑*i*P	**Pn**	**11 38 14.8**	**+1.0**
SDDR				⇑*i*S	**Sn**	**11 38 44.6**	**-0.4**
SDDR				IAML		11 38 52.8	
	comp=N,236nm,0.7s						
LOVI	**El Cajuil, Ovi**	**2.56**	**260**	*i* P	**Pn**	**11 38 14.1**	**0.0**
LOVI				*e*S	**Sn**	**11 38 44.0**	**-1.6**
LOVI				IAML		11 38 52.0	
	comp=Z,126nm,0.2s						
PDPR	**Patillas Dam,**	**2.59**	**95**		**Pn**	**11 38 13.8**	**-0.7**
PDPR	**Patillas Dam,**	**2.59**	**95**		**Sn**	**11 38 46.0**	**-0.2**
PDPR	**Patillas Dam,**	**2.59**	**95**	⇓*e*P	**Pn**	**11 38 14.9**	**+0.4**
MADR	**Mao Valverde**	**2.59**	**300**	⇑*i*S	**Sn**	**11 38 47.8**	**+1.5**
MADR				IAML		11 38 52.4	
	comp=N,1µm,0.4s						
LODU1	**El Espartillar**	**2.61**	**272**	*i* P	**Pn**	**11 38 15.5**	**+0.7**
LODU1				IAML		11 38 52.4	
	comp=Z,139nm,0.3s						
LONE3	**El Aguacate, B**	**2.61**	**278**	*i* P	**Pn**	**11 38 15.3**	**+0.3**
LUDR	**Luperon**	**2.65**	**308**	⇑*i*P	**Pn**	**11 38 16.1**	**+0.8**
LUDR				⇑*i*S	**Sn**	**11 38 47.6**	**-0.1**
HUMP	**Col San Antoni**	**2.74**	**92**	Pn	**Pn**	**11 38 15.3**	**-1.1**
HUMP	**Col San Antoni**	**2.74**	**92**	⇑*e*P	**Pn**	**11 38 15.4**	**-1.1**
LOBH	**Bahia de las A**	**2.80**	**262**	*i* P	**Pn**	**11 38 17.4**	**+0.2**
LOBH				*e*S	**Sn**	**11 38 49.6**	**-1.5**
LOBH				IAML		11 38 52.1	
	comp=Z,77nm,0.2s						
LOPP1	**Punta Rusia, P**	**2.81**	**304**	*i* P	**Pn**	**11 38 16.8**	**-0.6**
LOPP1				*e*S	**Sn**	**11 38 50.0**	**-1.5**
LOPP1				IAML		11 38 54.8	
	comp=Z,129nm,0.4s						
NMDO	**Nuevo Mundo**	**6.32**	**292**	Pn	**Pn**	**11 39 00.9**	**-3.2**
GDHS	**Morne Mazeau,**	**6.95**	**106**	Pn	**Pn**	**11 39 14.3**	**+1.7**
CBE	**Ff, Capester**	**7.15**	**107**	Pn	**Pn**	**11 39 16.3**	**+0.9**

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*RSPR **26** 11:38:38.2, 17°.94N×67°.07W, h12^{km}, MD3.4/17*
*NEIC **26** 11:38:38.1±1.6, 17°.93N±0°.04×67°.08W±0°.02, h10^{km}±1^{km}, ML3.7/30, Md3.4/17(RSPR), Error ellipse: s-maj=7.0km s-min=2.4km az=29.0*
ISC 26 11:38:36.8±1.4**, 17°.91N**±0°.06×**67°.09W**±0°.04**, h19**^{km}±2^{km}**,**
n36, σ0^{s}.25/41**, 3C-5D, Mona Passage**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MLPR	**Magueyes Islan**	**0.07**	**34**	Pg	**Pg**	**11 38 40.4**	**0.0**
MLPR				Sg	**Sg**	**11 38 42.3**	**-0.5**
MLPR				IAML		11 38 42.4	
	29µm,0.4s						
MLPR	**Magueyes Islan**	**0.07**	**34**	⇓*i*P	**Pg**	**11 38 40.4**	**0.0**
CRPR	**Cabo Rojo, PR**	**0.10**	**348**	Pg	**Pg**	**11 38 40.8**	**+0.1**
CRPR				Sg	**Sg**	**11 38 42.8**	**-0.4**
CRPR				IAML		11 38 43.2	
	28µm,0.2s						
CRPR				IAML		11 38 43.4	
	27µm,0.2s						
CRPR	**Cabo Rojo, PR**	**0.10**	**348**	⇑*i*P	**Pg**	**11 38 40.9**	**+0.2**
GBPR	**Guanica, Bosqu**	**0.21**	**71**		**Pg**	**11 38 42.4**	**+0.4**
GBPR					**Sg**	**11 38 45.7**	**+0.2**
GBPR	**Guanica, Bosqu**	**0.21**	**71**	⇑*i*P	**Pg**	**11 38 42.4**	**+0.4**
GBPR				*e*S	**Sg**	**11 38 45.7**	**+0.2**
PRSN	**Puerto Rico Se**	**0.31**	**350**		**Pb**	**11 38 44.0**	**+0.1**
PRSN	**Puerto Rico Se**	**0.31**	**350**	Sg	**Sb**	**11 38 48.1**	**-0.4**
PRSN				IAML		11 38 49.6	
	27µm,0.2s						
PRSN				IAML		11 38 49.8	
	24µm,0.2s						
PRSN	**Puerto Rico Se**	**0.31**	**350**	⇑*i*P	**Pb**	**11 38 44.0**	**+0.1**
CELP	**Cerrillos**	**0.51**	**71**	Pg	**Pb**	**11 38 47.1**	**0.0**
CELP	**Cerrillos**	**0.51**	**71**		**Sb**	**11 38 54.5**	**+0.2**
CELP	**Cerrillos**	**0.51**	**71**	IAML		11 38 54.8	
	2µm,0.4s						
CELP				IAML		11 38 55.0	
	3µm,0.3s						
CELP	**Cerrillos**	**0.51**	**71**	⇑*i*P	**Pb**	**11 38 47.5**	**+0.3**
AOPR	**Arecibo Observ**	**0.54**	**36**	Pg	**Pg**	**11 38 47.4**	**-0.3**
AOPR	**Arecibo Observ**	**0.54**	**36**		**Sg**	**11 38 54.5**	**-0.5**
AOPR	**Arecibo Observ**	**0.54**	**36**	IAML		11 38 54.7	
	7µm,0.3s						
AOPR				IAML		11 38 55.0	
	13µm,0.3s						
AOPR	**Arecibo Observ**	**0.54**	**36**	⇓*i*P	**Pg**	**11 38 47.5**	**-0.3**
AGPR	**Aguadilla, PR**	**0.56**	**358**		**Pb**	**11 38 48.1**	**+0.1**
AGPR					**Sb**	**11 38 55.6**	**+0.2**
AGPR	**Aguadilla, PR**	**0.56**	**358**	IAML		11 38 56.2	
	6µm,0.6s						
AGPR				IAML		11 38 56.2	
	4µm,0.2s						
AGPR	**Aguadilla, PR**	**0.56**	**358**	⇑*i*P	**Pb**	**11 38 48.1**	**+0.1**
IDE	**Isla Desecheo**	**0.60**	**322**		**Pg**	**11 38 49.0**	**+0.2**
IDE	**Isla Desecheo**	**0.60**	**322**	⇑*i*P	**Pg**	**11 38 49.0**	**+0.2**
EMPR	**Esperanza - Ma**	**0.78**	**43**		**Pg**	**11 38 52.2**	**+0.1**
EMPR					**Sg**	**11 39 02.8**	**+0.4**
EMPR	**Esperanza - Ma**	**0.78**	**43**	⇓*i*P	**Pg**	**11 38 52.2**	**+0.1**
EMPR				*e*S	**Sg**	**11 39 02.8**	**+0.4**
ECPR	**Experimental S**	**0.80**	**59**		**Pb**	**11 38 52.0**	**-0.2**
ECPR					**Sb**	**11 39 02.6**	**0.0**
ECPR	**Experimental S**	**0.80**	**59**	IAML		11 39 03.4	
	2µm,0.2s						
ECPR				IAML		11 39 03.6	
	4µm,0.2s						
ECPR	**Experimental S**	**0.80**	**59**	⇓*e*P	**Pb**	**11 38 52.0**	**-0.2**
SJG	**San Juan**	**0.92**	**77**		**Pb**	**11 38 54.1**	**0.0**
SJG	**San Juan**	**0.92**	**77**	⇑*e*P	**Pb**	**11 38 54.1**	**0.0**
IGPR	**InterUniversit**	**0.94**	**86**		**Pg**	**11 38 54.9**	**-0.1**
IGPR					**Sg**	**11 39 07.5**	**0.0**
IGPR	**InterUniversit**	**0.94**	**86**	⇑*e*P	**Pg**	**11 38 54.9**	**-0.1**
PDPR	**Patillas Dam,**	**1.02**	**84**	Pg	**Pb**	**11 38 55.9**	**0.0**
PDPR				IAML		11 39 12.1	
	2µm,0.5s						
PDPR	**Patillas Dam,**	**1.02**	**84**	⇑*e*P	**Pb**	**11 38 55.9**	**0.0**
HUMP	**Col San Antoni**	**1.20**	**79**		**Pn**	**11 38 58.4**	**-0.2**
HUMP					**Sb**	**11 39 14.1**	**0.0**
HUMP	**Col San Antoni**	**1.20**	**79**	IAML		11 39 17.2	
	1µm,0.4s						
HUMP	**Col San Antoni**	**1.20**	**79**	⇓*e*P	**Pn**	**11 38 58.4**	**-0.2**

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*BGSI **26** 11:38:56.0±0.4, 23°.78S×27°.40E, h30^{km}±20^{km}, ML2.4, Presumed earthquake*
PRE 26 11:38:56.2±0.6**, 23°.77S×28°.29E, h0^{km}, ML1.9,**
Suspected explosion, South Africa

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CRAIL	**Swartwater, Li**	**0.97**	**357**	*e*P	Pg	11 39 14.3	-0.4
CRAIL				*e*S	Sb	11 39 28.6	-0.7
RUST	**Rust De Winter**	**1.48**	**172**	*e*P	Pg	11 39 24.5	0.0
RUST				*e*S	Sn	11 39 45.1	+0.8
RUST				IAML		11 40 05.1	
	comp=Z,6.0nm,0.4s						
TSWA	**Tswaing Meteor**	**1.65**	**187**	*e*P	Pb	11 39 27.4	-0.2
TSWA				*e*S	Sg	11 39 49.8	+0.4
TSWA				IAML		11 39 59.1	
	comp=Z,7.2nm,0.6s						
HRAO	**HartRAO**	**2.18**	**194**	*e*P	Pn	11 39 34.3	+0.4
HRAO				*e*S	Sn	11 40 03.0	+1.3
LPHEP	**Lephephe**	**2.27**	**280**	*i* P	Pn	11 39 19.3	-16
LPHEP				*i* S	Sn	11 39 36.3	-27
LPHEP				IAML		11 39 45.2	
	comp=N,46nm,0.4s						
HOED	**Hoedspruit, Li**	**2.50**	**105**	*e*P	Pn	11 39 38.9	+0.7
HOED				*e*S	Sn	11 40 10.0	+0.6
HOED				IAML		11 40 36.6	
	comp=Z,7.0nm,0.3s						
CRLN	**Carolina, Mapu**	**2.72**	**145**	*e*P	Pn	11 39 42.2	+0.9
CRLN				*e*S	Sn	11 40 15.6	+0.6
CRLN				IAML		11 40 44.9	
	comp=Z,4.1nm,0.8s						
LBTB	**Lobatse**	**2.75**	**243**	*e*P	Pn	11 39 42.9	+1.2
LBTB				*e*S	Sn	11 40 15.8	+0.2
LBTB				IAML		11 40 21.8	
	comp=Z,10nm,1.0s						
BROLN	**Tlhalogang**	**2.80**	**341**	*i* P	Pn	11 39 35.6	-6.8
BROLN				*i* S	Sn	11 40 05.3	-12
BROLN				IAML		11 40 23.6	
	comp=E,22nm,0.6s						
KHWEE	**KHWEE**	**3.19**	**304**	*i* P	Pn	11 39 34.5	-13
KHWEE				*i* S	Sn	11 40 02.7	-24
KHWEE				IAML		11 40 11.8	
	comp=N,129nm,0.4s						

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*KRSC **26** 11:49:18.6±1.3, 49°.20N×156°.31E, h16^{km}±17^{km}, Ml4.1*
*IDC **26** 11:49:20.7±2.5, 49°.12N×155°.17E, h91^{km}±24^{km}, mb3.2/7, mbtmp3.6/11, MS2.6/3, Error ellipse: s-maj=29.7km s-min=14.7km az=135.0*
ISC 26 11:49:16.6±0.8**, 48°.98N**±0°.10×**155°.5E**±0°.1**, h51**^{km}**, n30,**
σ2^{s}.03/36**, mb3.4**/7**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril's**	**1.75**	**13**	*e*P	**Pn**	**11 49 44.4**	**0.0**
SKR				*e*S	**Sn**	**11 50 04.1**	**-1.5**
PAU	**Pauzhetka**	**2.63**	**18**	*e*P	**Pn**	**11 49 57.5**	**+1.0**
PAU				*e*S	**Sn**	**11 50 26.2**	**-0.9**
KDTR	**Khodutka, Kamc**	**3.28**	**29**	*e*P	**Pn**	**11 50 05.7**	**+0.3**
KDTR				*e*S	**Sn**	**11 50 40.7**	**-2.5**
ASAK	**Asacha**	**3.74**	**23**	*e*P	**Pn**	**11 50 13.5**	**+1.8**
MTVR	**Mutnovka**	**3.90**	**25**	*e*P	**Pn**	**11 50 16.1**	**+2.0**
MTVR				*e*S	**Sn**	**11 50 58.3**	**-0.4**
GRL	**Gorelyy**	**3.94**	**24**	*e*P	**Pn**	**11 50 16.6**	**+2.2**
RUS	**Russkaya**	**3.96**	**28**	*e*P	**Pn**	**11 50 15.5**	**+0.9**
RUS				*e*S	**Sn**	**11 50 57.0**	**-2.7**
PETK	**Petropavlovsk-**	**4.36**	**18**	P	**Pn**	**11 50 23.1**	**+2.9**
	4.2nm,0.6s,baz=176,slow=11,SNR=38						
PETK				S	**Sn**	**11 51 13.7**	**+3.9**
	1.4nm,0.4s,baz=201,slow=18,SNR=1.3						
PETK				LR	LR	11 52 14.2	
	comp=Z,47nm,19.8s,baz=26,slow=40						
PET	**Petropavlovsk**	**4.51**	**25**	*e*S	**Sn**	**11 51 12.1**	**-1.4**
DALK	**Dalny**	**4.55**	**26**	*e*P	**Pn**	**11 50 23.7**	**+0.9**
DALK				*e*S	**Sn**	**11 51 12.8**	**-1.5**
UGLR	**Uglovaya**	**4.73**	**25**	*e*P	**Pn**	**11 50 27.7**	**+2.4**
UGLR				*e*S	**Sn**	**11 51 19.2**	**+0.4**
KOK	**Koryaka**	**4.75**	**23**	*e*P	**Pn**	**11 50 29.0**	**+3.4**
AVH	**Avacha**	**4.75**	**24**	*e*P	**Pn**	**11 50 29.0**	**+3.3**
SMAR	**Somma**	**4.77**	**25**	*e*P	**Pn**	**11 50 28.8**	**+2.8**
KRX	**Arik**	**4.81**	**23**	*e*P	**Pn**	**11 50 29.1**	**+2.6**
GNL	**Ganaly**	**4.96**	**17**	*e*P	**Pn**	**11 50 31.4**	**+2.8**
SPN	**Mys Shipunski**	**5.02**	**33**	*e*P	**Pn**	**11 50 31.2**	**+2.0**
ASAJ	**Asahikawa**	**10.12**	**246**	P	**Pn**	**11 51 40.4**	**+1.3**
	17nm,1.2s,baz=52,slow=19,SNR=6.4						
KLR	**Kul'dur**	**15.54**	**280**	P	**Pn**	**11 52 52.4**	**+0.3**
	0.8nm,0.4s,baz=218,slow=11,SNR=1.8						
KLR				LR	LR	11 59 38.0	
	comp=Z,30nm,18.3s,baz=80,slow=40						
MJAR	**Matsushiro Arr**	**17.71**	**232**	P	**P**	**11 53 20.8**	**+1.1**
	1.5nm,0.8s,baz=16,slow=14,SNR=4.8						
KSRS	**Korea Array**	**23.02**	**250**	P	**P**	**11 54 16.8**	**-0.2**
	1.0nm,0.6s,baz=48,slow=11,SNR=2.7						
KSRS				LR	LR	12 02 14.3	
	comp=Z,18nm,21.1s,baz=10.0,slow=34						
	1.0nm,0.6s						
H11S1	**WAKE ISLAND Hy**	**31.72**	**159**	T	T	12 29 27.7	
	baz=345,slow=76,SNR=13						
H11S3	**WAKE ISLAND Hy**	**31.73**	**159**	T	T	12 29 19.6	
	baz=345,slow=76,SNR=22						
H11S2	**WAKE ISLAND Hy**	**31.74**	**159**	T	T	12 29 25.7	
	baz=345,slow=76,SNR=11						
MKAR	**Makanchi Array**	**47.35**	**297**	P	**P**	**11 57 42.0**	**-3.2**
	0.2nm,0.5s,baz=52,slow=9.7,SNR=2.2						
	0.2nm,0.5s						
KURBB	**Kurchatov Arra**	**47.57**	**303**	P	**P**	**11 57 45.6**	**-1.1**
	0.6nm,0.2s,baz=57,slow=6.6,SNR=1.3						
KURBB				PcP	**PcP**	**11 59 13.4**	**-2.5**
	0.5nm,0.2s,baz=60,slow=3.7,SNR=1.2						
	0.6nm,0.2s						

PDAR	Pinedale Array	62.16	56	P	P	11 59 32.3	-0.2
	0.1nm,0.5s,baz=305,slow=9.3,SNR=2.2 0.1nm,0.5s						
WRA	Warramunga Arr	71.16	201	P	P	12 00 29.2	-0.5
	0.5nm,0.9s,baz=12,slow=5.9,SNR=3.5 0.5nm,0.9s						
ASAR	Alice Springs	74.84	200	P	P	12 00 51.6	+0.2
	0.4nm,0.7s,baz=14,slow=5.6,SNR=8.4 0.4nm,0.7s						
TXAR	Lajitas Array	75.02	63	P	P	12 00 53.8	+1.0
	0.2nm,0.6s,baz=323,slow=6.1,SNR=3.2 0.2nm,0.6s						

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*MOS **26** 12:11:02.5±0.7, 44°.26N×141°.55E, h232km, mb3.9/1, Error ellipse: s-maj=15.7km s-min=9.6km az=84.3*

*SKHL **26** 12:11:02.2±0.1, 44°.30N×141°.30E, h212km±7km, mb4.4/2, msh5.2/5*

*IDC **26** 12:11:03.5±0.5, 44°.30N×141°.53E, h222km±4km, mb3.2/12, mbtmp3.9/20, Error ellipse: s-maj=13.0km s-min=10.9km az=127.0*

*JMA **26** 12:11:03.1±0.2, 44°.3N±0°.8×14°2E±°, h233km±1km, MV3.4/33, NW OFF HOKKAIDO*

ISC 26 12:11:03.7±0.6**, 44°.28N**±0°.04×**141°.53E**±0°.06**, h227**km±5km**, n48,** σ0s.**82**/63**, mb3.5**/12**, 1C, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JYG	Yagishiri	0.16	334	P	Pn	12 11 33.2	+0.1
JYG				eS	S	12 11 56.1	-0.1
JSS	Shosan	0.26	64	P	Pn	12 11 33.8	+0.6
JSS				eS	S	12 11 57.3	+0.9
JHR	Hokuryu	0.56	165	P	Pn	12 11 34.9	+0.8
JHR				S	S	12 11 58.9	+1.0
ASAJ	Asahikawa	0.79	102	P	Pn	12 11 34.8	-0.3
	24nm,0.5s,baz=192,slow=9.3,SNR=74						
ASAJ				S	S	12 11 58.9	-0.7
	11nm,0.4s,baz=46,slow=33,SNR=7.8						
ASAJ	Asahikawa	0.79	102	P	Pn	12 11 35.1	0.0
ASAJ				S	S	12 11 59.5	0.0
JKA	Kamikawa-asahi	0.79	102	eP	Pn	12 11 34.8	-0.3
JKA				eS	S	12 11 58.9	-0.6
JRR	Rishiri	0.87	350	P	Pn	12 11 36.0	+0.6
JKK2	Kamakawa 2	0.97	115	P	Pn	12 11 36.5	+0.4
JWK2	Keihoku	1.06	14	P	Pn	12 11 36.7	+0.2
JWK2				S	S	12 12 01.9	-0.5
JRBN	Rebuntou	1.19	344	P	Pn	12 11 37.4	+0.1
JEW	Eniwo	1.45	182	P	Pn	12 11 39.8	+0.4
JEW				S	S	12 12 07.9	+0.7
JTKR	Abashiri--Toko	1.74	100	P	Pn	12 11 42.5	+0.7
JTKR				eS	S	12 12 12.1	+0.6
JAR	Ashorobuto	1.90	120	P	Pn	12 11 43.8	+0.4
JAR				eS	S	12 12 14.9	+0.7
JCH	Churui	2.14	141	P	Pn	12 11 44.4	-1.2
JCH				S	S	12 12 15.4	-2.8
JNBK	Urakawa-nobuka	2.19	155	P	Pn	12 11 46.5	+0.3
JNBK				S	S	12 12 19.9	+0.6
JOSM	Okushiri--Mats	2.66	215	P	Pn	12 11 50.7	-0.4
AKK	Akkeshi	2.72	117	eP	Pn	12 11 50.7	-0.9
YSS	Yuzhno-Sakhali	2.81	17	⇑ePN	Pn	12 11 52.5	0.0
YSS				eS	S	12 12 30.3	-0.5
YSS				pmax	pmax		
	comp=N,110nm,1.2s						
YSS				pmax	pmax		
	comp=Z,170nm,1.2s						
YSS				pmax	pmax		
	comp=Z,100nm,2.8s						
YSS				smax	smax		
	comp=N,200nm,1.0s						
YSS				smax	smax		
	comp=E,340nm,0.9s						
YSS	Yuzhno-Sakhali	2.81	17	eP	Pn	12 11 52.5	0.0
YSS				AMB	AMB	12 11 52.9	
	comp=E,170nm,1.2s						
YSS				AMB	AMB	12 11 54.8	
	comp=E,100nm,2.8s						
YSS				eS	S	12 12 30.5	-0.3
YSS				A	A	12 12 31.5	
	comp=E,200nm,0.9s						
YSS				A	A	12 12 31.5	
	comp=E,340nm,0.9s						
JOMM	Oshimamatsumae	2.98	203	P	Pn	12 11 54.1	-0.4
YUK	Yuzh-Kuril'sk	3.13	93	eP	Pn	12 11 57.3	+1.1
YUK				AMB	AMB	12 11 58.1	
	comp=E,220nm,0.2s						
NMR	Nemuro--Hokkai	3.18	105	eP	Pn	12 11 58.7	+2.0
SHO	Shikotan	3.84	94	eS	S	12 13 05.9	+13
SHO				A	A	12 13 13.0	
	comp=E,90nm,0.3s						
SHO				A	A	12 13 13.0	
	comp=E,130nm,0.3s						
TYV	Tymovskoe	6.63	6	ePN	Pn	12 12 40.1	+0.9
TYV				eS	S	12 13 56.6	+1.3
TYV				pmax	pmax		
	comp=Z,23nm,0.6s						
TYV				pmax	pmax		
	comp=Z,100nm,2.3s						
TYV				smax	smax		
	comp=N,9.0nm,1.3s						
TYV				smax	smax		
	comp=E,8.0nm,1.3s						
TYV				smax	smax		
	comp=N,100nm,2.2s						
TYV				smax	smax		
	comp=E,100nm,2.2s						
TYV	Tymovskoe	6.63	6	eP	Pn	12 12 39.8	+0.6
TYV				AMB	AMB	12 12 42.0	
	comp=E,30nm,0.6s						
TYV				AMB	AMB	12 12 42.1	
	comp=E,100nm,2.3s						
TYV				eS	S	12 13 53.9	-1.4
USRK	Ussuriysk Ar.	6.85	273	P	Pn	12 12 42.4	+0.2
	comp=E,4.1nm,0.6s,baz=84,slow=14,SNR=6.9						
MJAR	Matsushiro Arr	8.14	199	P	Pn	12 12 57.5	-1.2
	comp=E,4.5nm,0.5s,baz=10,slow=13,SNR=21						
KLR	Kul'dur	8.34	310	P	Pn	12 13 00.8	-0.3
	comp=E,9.7nm,0.8s,baz=120,slow=13,SNR=22						
KSRS	Korea Array	12.34	241	P	Pn	12 13 51.7	-0.3
	comp=E,1.6nm,0.7s,baz=55,slow=11,SNR=3.3						
PETK	Petropavlovsk-	13.83	45	P	P	12 14 10.7	-1.1
	comp=E,6.8nm,0.7s,baz=232,slow=7.1,SNR=11						
JNU	Nakatsue	13.89	220	P	P	12 14 12.1	-0.5
	comp=E,5.7nm,0.8s,baz=44,slow=4.5,SNR=5.1						
MA2	Magadan	16.31	17	P	Pn	12 14 39.4	-0.8
	comp=E,7.0nm,0.7s,baz=173,slow=8.5,SNR=7.2						
SEY	Seymchan	19.71	15	P	P	12 15 15.1	-0.7
	comp=E,5.7nm,0.4s,baz=213,slow=8.1,SNR=23						
SONM	Songino Array	24.50	291	P	P	12 16 03.0	+0.7
	comp=E,1.2nm,0.6s,baz=88,slow=9.0,SNR=7.1 comp=E,1.2nm,0.6s						
SONM	Songino Array	24.50	291	P	P	12 16 03.0	+0.7
ZALV	Zalesovo Beam	37.41	306	P	P	12 17 54.9	+0.2
	comp=E,0.5nm,0.4s,baz=82,slow=10,SNR=2.9 comp=E,0.5nm,0.4s						
MKAR	Makanchi Array	40.71	295	P	P	12 18 22.8	+0.6
	comp=E,1.0nm,0.7s,baz=83,slow=9.5,SNR=8.7 comp=E,1.0nm,0.7s						
KURK	Kurchatov	41.84	302	P	P	12 18 31.9	+0.8
KURK	Kurchatov	41.84	302	eP	P	12 18 31.9	+0.8
KURBB	Kurchatov Arra	41.92	302	P	P	12 18 31.9	+0.1
	comp=E,1.2nm,0.6s,baz=72,slow=8.9,SNR=11 comp=E,1.2nm,0.6s						
ILAR	Eielson Array	43.46	36	P	P	12 18 43.9	-0.1
	comp=E,1.0nm,0.7s,baz=279,slow=9.7,SNR=15 comp=E,1.0nm,0.7s						
BVAR	Borovoye Array	45.99	307	P	P	12 19 04.8	+0.7
	comp=E,1.3nm,0.5s,baz=82,slow=10,SNR=3.9 comp=E,1.3nm,0.5s						
YKA	Yellowknife Ar	57.57	32	P	P	12 20 29.8	+0.6
	comp=E,0.7nm,0.5s,baz=302,slow=6.5,SNR=6.2 comp=E,0.7nm,0.5s						
FINES	FINESS Array B	62.49	331	P	P	12 21 01.5	-1.1
	comp=E,1.1nm,0.8s,baz=51,slow=6.4,SNR=4.5 comp=E,1.1nm,0.8s						
WRA	Warramunga Arr	64.25	188	P	P	12 21 14.5	-0.1
	comp=E,0.3nm,0.5s,baz=7.8,slow=6.8,SNR=7.0 comp=E,0.3nm,0.5s						
HFS	Hagfors	67.55	335	P	P	12 21 34.6	-0.5
	comp=E,1.2nm,0.9s,baz=60,slow=8.5,SNR=1.1 comp=E,1.2nm,0.9s						
ASAR	Alice Springs	67.98	188	P	P	12 21 39.1	+0.9
	comp=E,0.6nm,0.7s,baz=5.5,slow=6.0,SNR=10 comp=E,0.6nm,0.7s						
PDAR	Pinedale Array	72.58	47	P	P	12 22 07.6	+1.2
	comp=E,0.2nm,0.5s,baz=307,slow=8.9,SNR=2.5 comp=E,0.2nm,0.5s						

IDC 26 12:15:01.6±1.1**, 7°.86N×37°.26W, h0**km**, mb4.1**/5**, mbtmp4.1**/5**, MS3.4**/13**, Error ellipse: s-maj=33.1km s-min=24.9km az=148.0, Central Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H05S1	Guadeloupe/Mar	24.02	288	T	T	12 44 54.5	
	SNR=53						
BDFB	Brasilia	25.66	205	P	P	12 20 34.3	+0.8
	1.5nm,0.3s,baz=34,slow=9.1,SNR=4.2 1.5nm,0.3s						
H10N3	ASCENSION HYDR	27.53	124	T	T	12 49 38.7	
	baz=304,slow=74,SNR=28						
H10N2	ASCENSION HYDR	27.54	124	T	T	12 49 39.0	
	baz=304,slow=74,SNR=32						
H10N1	ASCENSION HYDR	27.55	124	T	T	12 49 41.7	
	baz=304,slow=74,SNR=37						
H10S3	ASCENSION HYDR	28.03	126	T	T	12 50 19.7	
	baz=303,slow=74,SNR=17						
H10S2	ASCENSION HYDR	28.05	126	T	T	12 50 20.7	
	baz=277,slow=74,SNR=16						
SJG	San Juan	29.89	293	LR	LR	12 31 57.1	
	comp=Z,30nm,18.1s,baz=85,slow=34						
ROSC	El Rosal	36.94	268	LR	LR	12 36 42.1	
	comp=Z,56nm,19.4s,baz=50,slow=35						
TORD	Torodi Ar. Bea	38.63	79	P	P	12 22 26.9	-0.2
	2.8nm,0.6s,baz=274,slow=9.4,SNR=16 2.8nm,0.6s						
LPAZ	La Paz	38.84	232	P	P	12 22 28.7	-0.8
	1.9nm,0.7s,baz=57,slow=8.5,SNR=7.1 1.9nm,0.7s						
MDT	Midelt	39.14	46	LR	LR	12 35 52.7	
	comp=Z,43nm,18.4s,baz=51,slow=32						
CPUP	Villa Florida	39.17	209	LR	LR	12 39 17.9	
	comp=Z,66nm,18.4s,baz=75,slow=37						
ESDC	Sonseca Array	43.50	38	LR	LR	12 39 49.7	
	comp=Z,42nm,18.7s,baz=273,slow=34						
JTS	Las Juntas de	47.12	277	LR	LR	12 45 33.0	
	comp=Z,25nm,18.3s,baz=125,slow=39						
SCHQ	Schefferville	52.46	339	P	P	12 24 16.2	+0.2
	4.0nm,0.8s,baz=162,slow=6.4,SNR=1.7 4.0nm,0.8s						
DAVOX	Davos/Dischmat	55.82	38	LR	LR	12 44 28.2	
	comp=Z,49nm,20.9s,baz=263,slow=32						
FRB	Frobisher Bay	60.12	345	LR	LR	12 47 05.0	
	comp=Z,65nm,19.9s,baz=149,slow=32						
TSUM	Tsumeb	60.35	117	LR	LR	12 45 36.5	
	comp=Z,48nm,20.4s,baz=341,slow=30						
VRAC	Vranov	60.98	37	LR	LR	12 47 21.4	
	comp=Z,28nm,21.8s,baz=254,slow=32						
NOA	NORSAR Array B	64.01	24	LR	LR	12 48 38.5	
	comp=Z,17nm,21.8s,baz=290,slow=32						
TXAR	Lajitas Array	65.64	299	P	P	12 25 48.3	+0.1
	0.3nm,0.6s,baz=102,slow=5.9,SNR=6.6 0.3nm,0.6s						
ANMO	Albuquerque	68.50	304	LR	LR	12 53 42.4	
	comp=Z,30nm,19.8s,baz=55,slow=34						
FINES	FINESS Array B	70.57	27	LR	LR	12 55 29.8	
	comp=Z,23nm,18.6s,baz=258,slow=34						

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*BER **26** 12:31:41.0±1.4, 67°.25N×31°.23E, h0km, ML1.6, Suspected explosion*

*UPP **26** 12:31:42.3±3.2, 67°.64N×30°.91E, h0km, ML1.9, Presumed earthquake*

*KOLA **26** 12:31:42.0±0.7, 67°.64N±0°.06×30°.1E±0°.2, h0km, M2.5(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

ISC 26 12:31:44.2±1.0**, 67°.50N**±0°.05×**30°.50E**±0°.03**, h0**km**, n16,** σ**1s.24**/26**, Baltic States-Belarus-Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APA0	Apatity Array	0.96	83	P	Pg	12 32 01.9	-0.8
APA0				S	Sb	12 32 16.5	-0.5
KVDA	Kovda	1.23	130	P	Pn	12 32 08.1	-0.5
KVDA				S	Sn	12 32 28.3	+2.3
LVZ	Lovozero	1.63	74	P	Pn	12 32 14.3	+0.1
LVZ				S	Sg	12 32 36.5	-0.1
TERR	Teriberka	2.42	43	S	Sn	12 32 56.8	+1.7
VADS	Vadso	2.66	352	eP	Pn	12 32 27.6	-0.7
VADS				eS	Sn	12 33 01.1	-0.2
VADS				IAML		12 33 09.2	
	comp=Z,3.9nm,0.4s						
HEF	Hetta	2.74	293	eP	Pn	12 32 29.9	+0.5
HEF				eS	Sn	12 33 05.2	+2.1
ARA0	ARCESS Array S	2.75	320	eP	Pn	12 32 30.7	+1.1
ARA0				eS	Sn	12 33 04.7	+1.3
ARA0				IAML		12 33 13.8	
	comp=Z,3.9nm,0.5s						
KTK1	Kautokeino	3.10	303	eP	Pn	12 32 34.1	-0.3
KTK1				eS	Sn	12 33 13.9	+1.9
LANU	Lannavaara	3.28	284	P	Pn	12 32 35.8	-1.0
ERTU	Ertsjaerv	3.40	258	P	Pn	12 32 38.7	+0.3
ERTU				S	Sn	12 33 21.4	+2.1
KOVU	Salmi	3.98	285	P	Pn	12 32 45.8	-0.7
HAMF	Hammerfest	3.99	325	eP	Pn	12 32 46.2	-0.4
HAMF				eS	Sn	12 33 34.6	+0.7
HAMF				IAML		12 33 43.4	
	comp=Z,4.3nm,0.8s						
RATU	Laukkuluspa	4.18	279	P	Pn	12 32 48.6	-0.5
JETT	Jettan, Norway	4.24	304	eP	Pn	12 32 49.5	-0.5
NIKU	Nikkaluokta	4.39	280	P	Pn	12 32 51.8	-0.3
SALU	Saltoluokta	4.62	274	eP	Pn	12 32 52.8	-2.5
SALU				eS	Sn	12 33 48.5	-1.1

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*MEX **26** 12:39:33.1±0.6, 15°.07N×92°.48W, h112km±5km, MD3.6, Presumed earthquake*

*GCG **26** 12:39:34.7±0.7, 15°.06N×92°.26W, h93km±8km, MD3.7, Presumed earthquake*

ISC 26 12:39:33.4±2.7**, 15°.1N**±0°.1×**92°.4W**±0°.2**, h102**km±14km**, n9,** σ**0s.43**/15**, Mexico-Guatemala border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PATR	El Naranjo	0.19	69	eP	Pn	12 39 47.6	-0.6
PATR				eS	Sn	12 39 59.0	-0.1
THIG		0.20	134	eP	Pn	12 39 47.7	-0.2
THIG				eS	Sn	12 39 59.5	+0.8
THIG		0.20	134	i P	Pn	12 39 47.9	0.0
THIG				i S	Sn	12 39 58.4	-0.3
PAVE	Pavencul	0.27	58	eP	Pn	12 39 48.2	-0.2
PAVE				eS	Sn	12 39 60.0	+0.3
CHUJ	Union Juarez	0.30	81	eP	Pn	12 39 48.2	-0.4
CHUJ				eS	Sn	12 40 00.6	+0.7
RTAL	Retalhuleu	0.87	127	eP	Pn	12 39 52.6	-0.1
RTAL				eS	Sn	12 40 07.1	0.0
STG8	El Palmar, Qui	1.19	120	i P	Pn	12 39 52.1	-4.3
STG8				i S	Sn	12 40 06.4	-7.3
TGIG		1.85	339	eP	Pn	12 40 04.5	+0.3
TGIG				eS	Sn	12 40 27.3	-0.4
APG	El Apazote	1.89	91	i P	Pn	12 40 04.8	-0.1

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*IDC **26** 12:40:39.4±7.3, 37°.21N×70°.10E, h208km±52km, mb3.0/1, mbtmp3.4/5, Error ellipse: s-maj=152.9km s-min=38.8km az=139.0*

ISC 26 12:40:36.9±1.9**, 36°.8N**±0°.2×**70°.5E**±0°.2**, h200**km**, n7,** σ**1s.16**/9**, 1C-3D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KK31	Karatay Array	6.25	0	⇓P	Pn	12 42 12.5	+5.2
	0.6nm,0.3s,baz=173,slow=14,SNR=15						
KK31				⇓S	Sn	12 43 19.9	+0.9
	2.9nm,0.4s,baz=184,slow=22,SNR=12						
AAK	Ala-Archa	6.55	27	P	Pn	12 42 12.0	+0.7
	1.4nm,0.4s,baz=207,slow=11,SNR=4.1						
AAK				S	Sn	12 43 25.2	-1.1
	1.4nm,0.4s,baz=126,slow=23,SNR=6.7						
AAK	Ala-Archa	6.55	27	⇑P	Pn	12 42 12.5	+1.2
	0.9nm,0.7s						
AAK				⇓S	Sn	12 43 24.8	-1.5
	2.4nm,0.7s						
MKAR	Makanchi Array	13.26	38	P	Pn	12 43 38.8	+1.3
	0.3nm,0.4s,baz=222,slow=11,SNR=4.5						
KURBB	Kurchatov Arra	14.93	20	P	Pn	12 43 57.7	-0.4
	0.2nm,0.4s,baz=205,slow=11,SNR=2.3						
ZALV	Zalesovo Beam	19.77	26	P	P	12 44 51.5	-0.1
	1.1nm,0.3s,baz=210,slow=11,SNR=7.0						
TORD	Torodi Ar. Bea	65.32	268	P	P	12 50 57.4	-0.5
	0.2nm,0.5s,baz=68,slow=8.1,SNR=1.8 0.2nm,0.5s						

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*IDC **26** 12:40:35.1±0.9, 30°.87N×103°.73E, h0km, mb3.6/6, mbtmp3.5/9, ML3.8/3, MS3.0/6, Error ellipse: s-maj=28.1km s-min=14.5km az=78.0*

ISC 26 12:40:37.6±0.9**, 30°.90N**±0°.09×**103°.8E**±0°.2**, h14**km**, n13,** σ**0s.78**/9**, mb3.5**/5**, MS3.0**/5**, Sichuan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LZDM	Lanzhou Array	5.04	359	Pn	Pn	12 41 53.6	+0.4
	baz=178,slow=14						
LZDM				Lg	Lg	12 43 15.6	
	baz=176,slow=39 1.7nm,0.3s						
CMAR	Chiang Mai Arr	13.14	201	Pn	Pn	12 43 44.6	+0.6
	0.2nm,0.3s,baz=8.3,slow=12,SNR=5.1						
CMAR				LR	LR	12 49 00.4	
	comp=Z,49nm,18.8s,baz=20,slow=39 0.2nm,0.3s						
CMAR				AML	AML		
SONM	Songino Array	17.03	6	P	Pn	12 44 36.0	+0.6
	0.2nm,0.3s,baz=187,slow=11,SNR=6.0 0.6nm,0.5s						
SONM				AML	AML		
KSRS	Korea Array	20.98	65	P	P	12 45 20.2	-0.2
	2.6nm,0.7s,baz=262,slow=9.4,SNR=7.2						
KSRS				LR	LR	12 54 15.4	
	comp=Z,22nm,21.7s,baz=85,slow=39 2.6nm,0.7s						
MKAR	Makanchi Array	22.96	320	P	P	12 45 40.0	-1.5
	0.7nm,0.8s,baz=116,slow=11,SNR=4.9 0.7nm,0.8s						
AAK	Ala-Archa	26.10	305	LR	LR	12 57 10.0	
	comp=Z,45nm,18.5s,baz=94,slow=38						
ZALV	Zalesovo Beam	26.79	335	P	P	12 46 16.8	-0.2
	0.8nm,0.6s,baz=145,slow=5.3,SNR=4.8 0.8nm,0.6s						
KURBB	Kurchatov Arra	27.24	324	P	P	12 46 21.2	+0.1
	0.6nm,0.7s,baz=127,slow=10.0,SNR=6.4 0.6nm,0.7s						
KLR	Kul'dur	27.92	41	LR	LR	12 57 29.7	
	comp=Z,41nm,18.1s,baz=222,slow=36						
MJAR	Matsushiro Arr	29.07	70	LR	LR	12 57 38.8	
	comp=Z,22nm,20.4s,baz=290,slow=35						
DAV	Davao City (W)	31.28	135	LR	LR	12 59 13.6	
	comp=Z,59nm,18.1s,baz=338,slow=36						
WRA	Warramunga Arr	58.46	146	P	P	12 50 32.6	-0.6
	0.7nm,0.6s,baz=337,slow=7.6,SNR=14 0.7nm,0.6s						
ASAR	Alice Springs	61.46	148	P	P	12 50 53.6	-0.2
	0.4nm,0.7s,baz=334,slow=6.5,SNR=7.4 0.4nm,0.7s						

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*GUC **26** 12:40:58.6±0.6, 22°.10S×68°.03W, h173km±8km, ML2.9*

*SCB **26** 12:40:58.8±1.2, 22°.06S×67°.84W, h130km±31km, MB4.1, ML2.9/2, Error ellipse: s-maj=6.6km s-min=6.5km az=0.0*

ISC 26 12:40:56.8±2.3**, 22°.13S**±0°.08×**67°.85W**±0°.08**, h165**km±23km**, n19,** σ**1s.03**/29**, 4D, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PB09	IPOC Station P	1.33	284	i P	Pn	12 41 26.9	+0.8
PB09				i S	Sn	12 41 48.4	-0.1
PB09	IPOC Station P	1.33	284	P	Pn	12 41 26.9	+0.8
PB06	IPOC Station P	1.69	250	⇓iP	Pn	12 41 30.3	+0.7
PB06				i S	Sn	12 41 54.5	-0.5
PB06				IAML		12 41 59.2	
	comp=N,66nm,0.1s						
PB06	IPOC Station P	1.69	250	P	Pn	12 41 30.3	+0.7
PB03	IPOC Station P	1.77	272	⇓iP	Pn	12 41 30.8	+0.4
PB03				i S	Sn	12 41 55.8	-0.6
PB03				IAML		12 41 57.2	
	comp=E,111nm,0.1s						
PB07	IPOC Station P	1.93	282	⇓iP	Pn	12 41 32.8	+0.5
PB07				i S	Sn	12 41 58.6	-0.9
PB07				IAML		12 41 59.7	
	comp=E,96nm,0.2s						
PB02	IPOC Station P	2.06	293	i P	Pn	12 41 34.2	+0.5
PB02				i S	Sn	12 42 00.9	-1.2
PB02				IAML		12 42 01.5	
	comp=Z,76nm,0.4s						
PB02	IPOC Station P	2.06	293	P	Pn	12 41 34.3	+0.6
PB02				S	Sn	12 42 00.9	-1.2
PB02				IAML		12 42 01.4	
	comp=Z,76nm,0.2s						
MOCB	Mochara	2.24	67	P	Pn	12 41 36.6	+0.6
PB05	IPOC Station P	2.29	251	i P	Pn	12 41 37.0	+0.7
PB05				i S	Sn	12 42 05.6	-1.2
PB08	IPOC Station P	2.32	328	⇓iP	Pn	12 41 38.6	+1.6
PB08				i S	Sn	12 42 08.5	+0.6
PB08	IPOC Station P	2.32	328	P	Pn	12 41 37.8	+0.9
GO01	Chusmiza	2.75	333	i P	Pn	12 41 43.7	+1.5
GO01	Chusmiza	2.75	333	P	Pn	12 41 43.4	+1.2
PB11	IPOC Station P	2.90	324	i P	Pn	12 41 43.8	+0.1
PB11				i S	Sn	12 42 18.5	-1.5
PB11	IPOC Station P	2.90	324	P	Pn	12 41 44.2	+0.5
PB11				S	Sn	12 42 18.5	-1.5
PB11				IAML		12 42 20.4	
	comp=Z,24nm,0.2s						
PSGCX	Pisagua	3.29	319	i P	Pn	12 41 48.9	+0.3
PB16	IPOC Station P	4.08	337	P	Pn	12 42 00.6	+1.5
SIV	San Ignacio	8.85	48	P	Pn	12 43 00.3	-1.2

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*IDC **26** 12:58:36.2±2.2, 8°.82S×117°.93E, h144km±16km, mb3.5/9, mbtmp3.9/12, Error ellipse: s-maj=28.4km s-min=10.7km az=67.0*

*NEIC **26** 12:58:37.6±1.6, 8°.57S±0°.09×118°.36E±0°.09, h139km±5km, mb4.2/12, Error ellipse: s-maj=13.5km s-min=12.0km az=66.0*

ISC 26 12:58:38.0±0.5**, 8°.74S**±0°.06×**118°.43E**±0°.07**, h152**km**, n38,** σ**2s.32**/44**, mb3.9**/11**, Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MMRI	Maumere	3.77	89		Pn	12 59 35.4	+0.1
KAPI	Kappang	3.93	20	P	Pn	12 59 40.6	+3.2
	8.4nm,0.4s,baz=134,slow=2.3,SNR=6.1						
KAPI				S	Sn	13 00 28.3	+4.7
	16nm,0.5s,baz=8.8,slow=20,SNR=5.9						
KAPI	Kappang	3.93	20	Pn	Pn	12 59 34.8	-2.7
JAGI	Jajag, Banyuwa	4.24	273		Pn	12 59 38.0	-3.5
BATI	Baumata	5.36	106	P	Pn	12 59 50.5	-5.8
	51nm,0.3s,baz=344,slow=1.7,SNR=3.0						
BATI				S	Sn	13 00 50.6	-6.9
	60nm,0.4s,baz=344,slow=6.9,SNR=1.8						
SOEI	Soe	5.85	100	Pn	Pn	13 00 01.5	-1.4
FITZ	Fitzroy Crossi	11.64	144	P	Pn	13 01 19.9	+0.2
	4.0nm,0.7s,baz=338,slow=10,SNR=21						
FITZ				S	Sn	13 03 23.9	-4.6
	8.2nm,0.4s,baz=167,slow=21,SNR=22						
KNRA	Kununurra	12.22	125	Pn	Pn	13 01 26.9	-0.3
MBWA	Marble Bar	12.41	174	Pn	Pn	13 01 30.3	+0.7
MTN	Manton Dam	13.13	109		Pn	13 01 37.8	-1.1
FAKI	Fak Fak	14.91	68	Pn	Pn	13 01 60.0	-1.4
WB0	Warramunga Arr	18.94	127		Pn	13 02 49.0	-0.9
WB0				IAmb	IAmb	13 02 55.2	
	comp=Z,13nm,1.2s						
WRA	Warramunga Arr	18.99	128	P	Pn	13 02 49.4	-1.1
	comp=Z,1.4nm,0.4s,baz=301,slow=13,SNR=34						
WRA				S	S	13 06 16.4	+0.6
	comp=Z,0.4nm,0.3s,baz=328,slow=21,SNR=5.7						
WRA				ScP	ScP	13 10 29.9	+1.0
	comp=Z,0.4nm,0.6s,baz=312,slow=2.8,SNR=4.5						
WRA	Warramunga Arr	18.99	128		P	13 02 48.8	+0.7
WR8	Warramunga Arr	19.13	127		Pn	13 02 51.1	-1.0
WR8				IAmb	IAmb	13 02 53.9	
	comp=Z,7.8nm,0.8s						
AS31	Alice Springs	20.97	137		P	13 03 11.1	+1.8
ASAR	Alice Springs	20.97	137	P	P	13 03 11.5	+2.2
	comp=Z,3.1nm,0.5s,baz=309,slow=9.1,SNR=141						
ASAR				S	S	13 06 59.3	+4.7
	comp=Z,0.4nm,0.8s,baz=306,slow=22,SNR=2.5						
ASAR				ScP	ScP	13 10 34.8	+1.3
	comp=Z,0.5nm,0.4s,baz=332,slow=1.9,SNR=6.4 comp=Z,3.1nm,0.5s						
ASAR	Alice Springs	20.97	137	P	P	13 03 11.3	+2.0
FORT	Forrest	23.70	159	P	P	13 03 38.4	+2.4
FORT				IAmb	IAmb	13 03 40.4	
	comp=Z,9.7nm,0.7s						
NWAO	Narrogin (SRO)	24.09	182	P	P	13 03 41.7	+2.1
BBOO	Buckleboo	28.98	148	P	P	13 04 25.6	+2.2
STKA	Stephens Creek	31.51	140	P	P	13 04 48.2	+2.5

	comp=Z,2.3nm,0.6s,baz=325,slow=10,SNR=6.6						
	comp=Z,2.3nm,0.6s						
CM31	Chiang Mai Arr	33.17	325	P	P	13 04 59.3	-1.1
CM31				IAmb	IAmb	13 05 08.1	
	comp=Z,1.9nm,0.7s						
CMAR	Chiang Mai Arr	33.17	325	P	P	13 04 57.9	-2.5
	comp=Z,0.2nm,0.4s,baz=135,slow=8.4,SNR=1.5						
	comp=Z,0.2nm,0.4s						
CMAR	Chiang Mai Arr	33.17	325	P	P	13 04 59.7	-0.6
KSRS	Korea Array	46.80	10	P	P	13 06 51.9	-0.5
	comp=Z,2.0nm,0.8s,baz=185,slow=9.2,SNR=3.6						
	comp=Z,2.0nm,0.8s						
USRK	Ussuriysk Ar.	54.10	12	P	P	13 07 47.3	+0.2
	comp=Z,1.4nm,0.5s,baz=190,slow=4.9,SNR=4.6						
	comp=Z,1.4nm,0.5s						
SONM	Songino Array	57.33	350	P	P	13 08 09.2	-0.9
	comp=Z,0.5nm,0.4s,baz=172,slow=6.5,SNR=3.8						
	comp=Z,0.5nm,0.4s						
ZALV	Zalesovo Beam	68.60	339	P	P	13 09 21.4	-2.9
	comp=Z,0.4nm,0.3s,baz=123,slow=6.2,SNR=4.5						
	comp=Z,0.4nm,0.3s						
PEA0B	Petropavlovsk-	70.07	24	P	P	13 09 33.7	+0.4
PETK	Petropavlovsk-	70.07	24	P	P	13 09 33.6	+0.2
	comp=Z,1.9nm,0.6s,baz=225,slow=8.2,SNR=5.5						
	comp=Z,1.9nm,0.6s						
PETK	Petropavlovsk-	70.07	24	P	P	13 09 33.9	+0.5
AB31	Akbulak array	77.03	325	P	P	13 10 13.2	-0.9
ABKAR	Akbulak array	77.03	325	P	P	13 10 13.4	-0.7
QSPA	South Pole Qui	81.25	180	P	P	13 10 36.0	-1.0
	comp=Z,0.6nm,0.8s,baz=359,slow=4.6,SNR=1.6						
	comp=Z,0.6nm,0.8s						
QSPA	South Pole Qui	81.25	180	P	P	13 10 39.1	+2.1
QSPA				IAmb	IAmb	13 11 09.6	
	comp=Z,4.4nm,1.4s						
BELA	Belgrano 2	92.22	186	P	P	13 11 32.8	+2.6
BELA				IAmb	IAmb	13 11 51.3	
	comp=Z,3.4nm,1.4s						
TKL	Tuckaleechee C	146.40	34	PKPbc	PKPbc	13 18 01.0	-0.6
	comp=Z,0.9nm,0.3s,baz=254,slow=3.2,SNR=1.5						

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*IDC **26** 13:18:33.1±1.9, 33.°04N×86.°54E, h0^{km}, mb3.5/5, mbtmp3.4/8, ML2.6/2, Error ellipse: s-maj=56.5km s-min=19.9km az=69.0*

ISC 26 13:18:37.8±1.8**, 33.°1N**±0.°2×**86.°5E**±0.°3**, h35^{km}, n8, σ0^{s}76**/8**, mb3.5**/4**, Xizang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	Makanchi Array	14.07	348	Pn	Pn	13 21 53.6	-1.0
	baz=174,slow=13,SNR=2.6						
	0.3nm,0.7s						
CMAR	Chiang Mai Arr	18.34	139	P	Pn	13 22 48.8	-0.6
	0.4nm,0.3s,baz=325,slow=12,SNR=4.3						
KURBB	Kurchatov Arra	18.49	344	P	Pn	13 22 51.4	+0.5
	baz=152,slow=12,SNR=4.4						
	0.5nm,0.9s						
ZALV	Zalesovo Beam	20.90	357	P	P	13 23 17.4	+0.6
	0.8nm,0.5s,baz=171,slow=10,SNR=3.9						
	0.8nm,0.5s						
SONM	Songino Array	21.04	40	P	P	13 23 19.3	+0.7
	0.6nm,0.4s,baz=219,slow=11,SNR=2.6						
	0.6nm,0.4s						
KSRS	Korea Array	33.90	71	P	P	13 25 16.9	-0.4
	0.8nm,0.6s,baz=286,slow=8.5,SNR=2.0						
	0.8nm,0.6s						
WRA	Warramunga Arr	69.75	132	P	P	13 29 45.1	+0.6
	0.4nm,0.5s,baz=326,slow=6.4,SNR=5.8						
	0.4nm,0.5s						
ASAR	Alice Springs	72.29	135	P	P	13 30 00.0	+0.2
	0.1nm,0.3s,baz=314,slow=5.2,SNR=1.2						
	0.1nm,0.3s						

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*KRSC **26** 13:20:23.3±1.3, 58.°92N×158.°81E, h34^{km}±14^{km}, Ml4.3*

*IDC **26** 13:20:24.3±0.6, 58.°73N×158.°94E, h0^{km}, mb3.8/15, mbtmp3.8/19, ML4.4/3, MS3.0/9, Error ellipse: s-maj=11.6km s-min=9.6km az=46.0*

*MOS **26** 13:20:27.8±1.4, 58.°80N×159.°04E, h45^{km}, mb4.0/1, Error ellipse: s-maj=15.1km s-min=4.4km az=94.5*

*NERS **26** 13:20:29.2, 59.°12N×158.°57E, h13^{km}*

ISC 26 13:20:25.2±0.5**, 58.°90N**±0.°03×**158.°83E**±0.°03**, h10^{km}, n81, σ1^{s}72**/104**, mb3.7**/15**, MS3.0**/6**, Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALN	Palana	0.62	71	PN	Pg	13 20 35.7	-1.4
PALN	Palana	0.62	71	eP	Pg	13 20 35.8	-1.4
PALN				eS	Sg	13 20 44.2	-1.1
TIGL	Tigil	1.14	184	PN	Pb	13 20 44.7	-2.1
TIGL				S	Sg	13 21 01.1	-0.6
TIGL	Tigil	1.14	184	eP	Pb	13 20 44.7	-2.1
TIGL				eS	Sg	13 21 01.1	-0.6
OSSR	Ossora	2.21	79	PN	Pn	13 21 01.3	-0.5
OSSR				S	Sn	13 21 27.0	-2.2
OSSR	Ossora	2.21	79	eP	Pn	13 21 01.3	-0.5
OSSR				eS	Sn	13 21 27.1	-2.2
SRDR	Sredinnyy	2.63	169	PN	Pn	13 21 06.4	-1.2
SRDR				S	Sn	13 21 36.4	-3.2
SRDR	Sredinnyy	2.63	169	eP	Pn	13 21 06.5	-1.2
SRDR				eS	Sn	13 21 36.4	-3.2
KLY	Klyuchi	2.77	159	PN	Pn	13 21 09.0	-0.4
KLY				S	Sn	13 21 43.0	+0.1
KLY	Klyuchi	2.77	159	eP	Pn	13 21 09.1	-0.4
KLY				eS	Sn	13 21 43.1	+0.1
KOZ	Kozyrevsk	2.90	168	PN	Pn	13 21 10.7	-0.6
KOZ				S	Sn	13 21 46.3	+0.1
KOZ	Kozyrevsk	2.90	168	eP	Pn	13 21 10.8	-0.6
KOZ				eS	Sn	13 21 46.3	+0.1
CIRR	Tsirk	2.97	159	PN	Pn	13 21 12.6	+0.2
CIRR	Tsirk	2.97	159	eP	Pn	13 21 12.7	+0.2
ESO	Esso	2.98	181	PN	Pn	13 21 11.6	-0.8
ESO				S	Sn	13 21 47.9	-0.3
ESO	Esso	2.98	181	eP	Pn	13 21 11.6	-0.8
ESO				eS	Sn	13 21 47.9	-0.3
LGNR	Loginova	2.99	160	PN	Pn	13 21 13.2	+0.4
LGNR	Loginova	2.99	160	eP	Pn	13 21 13.2	+0.4
KPT	Kopyto	3.03	165	PN	Pn	13 21 13.5	+0.3
KPT	Kopyto	3.03	165	eP	Pn	13 21 13.5	+0.3
KIRR	Kirishev	3.06	164	PN	Pn	13 21 13.0	-0.7
KIRR				S	Sn	13 21 50.2	-0.1
KIRR	Kirishev	3.06	164	eP	Pn	13 21 13.0	-0.7
KIRR				eS	Sn	13 21 50.3	-0.1
BZWR	Bezymyannyi-We	3.07	162	PN	Pn	13 21 13.3	-0.6
BZWR	Bezymyannyi-We	3.07	162	eP	Pn	13 21 13.3	-0.6
ZLN	Zelenaya	3.08	159	PN	Pn	13 21 13.9	+0.1
ZLN	Zelenaya	3.08	159	eP	Pn	13 21 14.0	+0.1
BZMR	Bezymyannaya	3.10	162	PN	Pn	13 21 14.2	0.0
BZMR	Bezymyannaya	3.10	162	eP	Pn	13 21 14.3	0.0
BZGR	Bezymyannyi-Gr	3.13	160	PN	Pn	13 21 15.2	+0.6
BZGR	Bezymyannyi-Gr	3.13	160	eP	Pn	13 21 15.2	+0.6
BZP	Bezymyannyi-Pe	3.13	162	PN	Pn	13 21 14.2	-0.4
BZP	Bezymyannyi-Pe	3.13	162	eP	Pn	13 21 14.3	-0.4
KMNR	Kamenistaya	3.24	166	PN	Pn	13 21 14.8	-1.2
KMNR	Kamenistaya	3.24	166	eP	Pn	13 21 14.9	-1.2
KBTR	Krutoberegovo	3.44	140	PN	Pn	13 21 18.9	+0.1
KBTR	Krutoberegovo	3.44	140	eP	Pn	13 21 18.9	+0.1
TLAR	Talaya	3.93	308	eP	Pn	13 21 26.9	+1.4
TLAR				ePg	Pg	13 21 37.9	-2.5
TLAR				Pgmax		13 21 46.1	
	130nm,0.6s						
TLAR				eS	Sn	13 22 13.6	+1.9
TLAR				eSg	Sg	13 22 27.5	-3.8
TLAR				Sgmax		13 22 38.5	
	190nm,0.7s						
TLAR				Sgmax		13 22 38.5	
	460nm,0.7s						
GADL	Gadlja	3.93	285	eP	Pn	13 21 27.5	+2.0
GADL				ePg	Pg	13 21 39.0	-1.4
GADL				eSg	Sg	13 22 30.0	-1.3
GADL				Sgmax		13 22 51.0	
	1μm,0.8s						
MA2	Magadan	4.20	283	Pn	Pn	13 21 31.3	+2.1
	3.8nm,0.3s,baz=118,slow=13,SNR=21						
MA2				Pg	Pg	13 21 42.8	-2.7
	5.6nm,0.3s,baz=90,slow=15,SNR=7.9						
MA2				Lg	Lg	13 22 36.7	
	9.7nm,0.3s,baz=49,slow=13,SNR=9.1						
MA2				LR	LR	13 23 13.9	
	comp=Z,56nm,20.2s,baz=156,slow=40						
	11nm,0.4s						
MA2				AML	AML		
MA2	Magadan	4.20	283	eP	Pn	13 21 31.2	+2.1
MA2				ePg	Pg	13 21 43.8	-1.7
MA2				Pgmax		13 21 51.4	
	60nm,0.7s						
MA2				eSg	Sg	13 22 38.5	-1.3
MA2				Sgmax		13 22 51.4	
	230nm,0.7s						
MA2				Sgmax		13 22 51.4	
	70nm,0.7s						
MGD	Magadan 1	4.29	289	eP	Pn	13 21 32.7	+2.3
MGD				Pmax		13 21 34.7	
	40nm,0.4s						
MGD				eSg	Sg	13 22 40.8	-2.0
MGD				Sgmax		13 22 50.6	
	190nm,0.7s						
SEY	Seymchan	5.13	325	Pn	Pn	13 21 43.4	+1.4
	1.3nm,0.3s,baz=134,slow=17,SNR=9.0						
SEY				Pg	Pg	13 21 59.8	-3.5
	1.5nm,0.3s,baz=139,slow=17,SNR=9.3						
SEY				Lg	Lg	13 23 09.7	
	2.9nm,0.3s,baz=171,slow=15,SNR=4.4						
SEY	Seymchan	5.13	325	eP	Pn	13 21 43.6	+1.7
SEY				ePg	Pg	13 22 00.2	-3.1
SEY				Pgmax		13 22 14.7	
	20nm,0.7s						
SEY				eSg	Sg	13 23 04.5	-5.1
SEY				Sgmax		13 23 41.7	
	50nm,0.9s						
SEY				Sgmax		13 23 41.7	
	20nm,0.9s						
GNL	Ganaly	5.24	186	PN	Pn	13 21 43.3	-0.2
GNL	Ganaly	5.24	186	eP	Pn	13 21 43.4	-0.2
TLON	Talon	5.28	284	eS	Sg	13 23 08.5	-6.1
TLON				Sgmax		13 23 35.1	
	250nm,0.6s						
KRX	Arik	5.55	181	PN	Pn	13 21 48.1	+0.3
KRX	Arik	5.55	181	eP	Pn	13 21 48.1	+0.3
KOK	Koryaka	5.62	181	PN	Pn	13 21 49.5	+0.8
KOK	Koryaka	5.62	181	eP	Pn	13 21 49.5	+0.8
AVH	Avacha	5.64	181	PN	Pn	13 21 50.9	+1.8
AVH	Avacha	5.64	181	eP	Pn	13 21 50.9	+1.8
SMAR	Somma	5.65	180	PN	Pn	13 21 49.9	+0.7
SMAR	Somma	5.65	180	eP	Pn	13 21 49.9	+0.7
PETK	Petropavlovsk-	5.83	187	Pn	Pn	13 21 51.6	0.0
	0.2nm,0.3s,baz=60,slow=9.1,SNR=6.7						
PETK				Lg	Lg	13 23 25.2	
	baz=14,slow=26						
SUUS	Susuman	6.50	311	eP	Pn	13 22 04.6	+3.8
SUUS				Pmax		13 22 05.4	
SUUS				eSg	Sg	13 23 49.8	-3.9
SUUS				Sgmax		13 24 17.4	
	120nm,0.8s						
YAK	Yakutsk	14.65	295	Pn	P	13 23 55.7	-2.8
	1.5nm,0.3s,baz=276,slow=2.4,SNR=1.7						
	4.0nm,0.4s						
YAK				AML	AML		
ASAJ	Asahikawa	17.84	221	LR	LR	13 32 19.8	
	comp=Z,49nm,20.8s,baz=261,slow=40						
KLR	Kul'dur	18.48	250	P	Pn	13 24 41.6	+0.5
	0.1nm,0.3s,baz=348,slow=2.6,SNR=2.3						
KLR				LR	LR	13 33 05.2	
	comp=Z,40nm,18.1s,baz=42,slow=41						
	1.3nm,0.6s						
KLR				AML	AML		
USRK	Ussuriysk Ar.	22.04	240	LR	LR	13 35 38.6	
	comp=Z,61nm,19.0s,baz=337,slow=42						
ILAR	Eielson Array	25.56	54	P	P	13 25 53.8	0.0
	0.7nm,0.7s,baz=264,slow=7.7,SNR=9.1						
ILAR				LR	LR	13 38 04.7	
	comp=Z,20nm,20.7s,baz=250,slow=41						
	0.7nm,0.7s						
MJAR	Matsushiro Arr	26.11	220	P	P	13 25 59.4	+0.5
	1.3nm,0.7s,baz=16,slow=10,SNR=5.2						
MJAR				LR	LR	13 39 08.6	
	comp=Z,45nm,18.4s,baz=34,slow=43						
	1.3nm,0.7s						
KSRS	Korea Array	29.30	237	P	P	13 26 28.3	+0.8
	0.5nm,0.5s,baz=39,slow=10.0,SNR=1.6						
	0.5nm,0.5s						
SONM	Songino Array	32.35	273	P	P	13 26 56.3	+1.9
	0.4nm,0.3s,baz=74,slow=11,SNR=1.6						
SONM				LR	LR	13 40 54.5	
	comp=Z,36nm,18.0s,baz=60,slow=38						
	0.4nm,0.3s						
DLBC	Dease Lake	35.40	59	LR	LR	13 41 39.2	
	comp=Z,62nm,19.4s,baz=220,slow=36						
KURK	Kurchatov	44.29	296	P	P	13 28 37.0	+2.4
KURBB	Kurchatov Arra	44.39	296	P	P	13 28 37.0	+1.5
	3.5nm,1.0s,baz=48,slow=7.9,SNR=15						
	3.5nm,1.0s						
MKAR	Makanchi Array	45.25	290	P	P	13 28 44.8	+2.5
	0.5nm,0.8s,baz=65,slow=7.2,SNR=4.4						
	0.5nm,0.8s						
BVAR	Borovoye Array	46.40	304	P	P	13 28 54.0	+2.7
	0.8nm,0.4s,baz=46,slow=10,SNR=6.0						
	0.8nm,0.4s						
BVAR	Borovoye Array	46.40	304	P	P	13 28 54.0	+2.7
GUMO	Guam	46.41	199	LR	LR	13 49 24.1	
	comp=Z,4.3nm,18.6s,baz=37,slow=38						
ARCES	ARCESS Array B	47.56	340	P	P	13 29 02.1	+1.9
	3.8nm,1.0s,baz=25,slow=4.5,SNR=1.1						
	3.8nm,1.0s						
FINES	FINESS Array B	54.54	334	P	P	13 29 54.8	+2.2
	2.9nm,1.1s,baz=353,slow=9.8,SNR=1.6						
	2.9nm,1.1s						
NVAR	Mina Array Bea	54.57	73	P	P	13 29 54.7	+1.2
	0.4nm,0.7s,baz=316,slow=6.8,SNR=3.7						
	0.4nm,0.7s						
PDAR	Pinedale Array	55.42	63	P	P	13 30 00.6	+1.0
	0.3nm,0.5s,baz=15,slow=4.0,SNR=4.5						
	0.3nm,0.5s						
ULM	Lac du Bonnet	55.43	49	P	P	13 30 01.6	+2.3
	2.8nm,0.9s,baz=299,slow=13,SNR=3.1						
	2.8nm,0.9s						
TXAR	Lajitas Array	69.06	68	P	P	13 31 31.5	+0.4
	0.4nm,0.9s,baz=5.7,slow=2.5,SNR=3.5						
	0.4nm,0.9s						
WRA	Warramunga Arr	81.10	203	P	P	13 32 40.9	+0.6
	0.5nm,0.7s,baz=13,slow=5.9,SNR=3.7						
	0.5nm,0.7s						
ASAR	Alice Springs	84.81	203	P	P	13 32 59.0	-0.4
	0.3nm,0.5s,baz=14,slow=5.9,SNR=2.3						
	0.3nm,0.5s						
ASAR	Alice Springs	84.81	203	P	P	13 32 59.0	-0.4
QSPA	South Pole Qui	148.65	180	PKPbc	PKiKP	13 40 10.1	-2.2
	1.5nm,0.8s,baz=248,slow=1.5,SNR=11						

DJA 26 13:25:54.5±0.2**, 0°S**±2°×**12°3E**±°**, h76^{km}**±6^{km}**, M4.2**/30**, mB5.0**/1**, mb4.2**/3**, MLv4.2**/30**, Mw(mB)4.3**/1**, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LUWI	Luwuk	0.85	216	P	Pn	13 26 12.2	+0.6
LUWI				S	Sn	13 26 26.2	+1.9
LUWI				AML	AML		
APSI	Ampana	1.72	251	P	Pn	13 26 22.3	-0.3
APSI				AML	AML		
MNI	Manado	2.37	41	P	Pn	13 26 31.4	+0.1
MNI				AML	AML		
SANI	Sanana	3.19	122	P	Pn	13 26 40.7	-1.7
SANI				AML	AML		
PCI	Palu	3.49	261	P	Pn	13 26 47.7	+1.3
PCI				AML	AML		
KDI	Kendari	3.64	190	P	Pn	13 26 46.8	-1.8
KDI				AML	AML		
KKSI	Kolaka, Sulawe	4.13	203	P	Pn	13 26 54.6	-0.6
KKSI				AML	AML		
NLAI	Namlea	4.78	127	P	Pn	13 27 04.7	+0.7
MMSI	Mamuju	4.95	242	P	Pn	13 27 06.6	+0.2
MMSI				AML	AML		
BBSI	Bau Bau	5.15	188	P	Pn	13 27 08.6	-0.6
	0.2nm24nm,0.8s						
BBSI				AML	AML		

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*SDD **26** 14:25:44.4±1.9, 18.°19N×71.°56W, h30^{km}±5^{km}, MD3.3, ML2.1, MW2.8, Presumed earthquake*

*OSPL **26** 14:25:46.8±1.3, 18.°16N×71.°58W, h27^{km}±11^{km}, ML2.3, Presumed earthquake*

ISC 26 14:25:45.8±1.0**, 18.°14N**±0.°03×**71.°56W**±0.°05**, h29^{km}**±7^{km}**, n13, σ1^{s}07**/23**, 12C-1D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LODU1	El Espartillar	0.22	20	i P	Pb	14 25 51.8	-0.4
LODU1				eS	Sb	14 25 56.2	-0.4
LODU1				IAML		14 25 56.8	
	comp=Z,499nm,0.6s						
PODR	Polo	0.26	85	i P	Pb	14 25 52.8	-0.1
PODR				eS	Sb	14 25 58.1	+0.4
PODR				IAML		14 26 00.7	
	comp=Z,2μm,0.2s						
PODR	Polo	0.26	85	⇑iP	Pb	14 25 52.7	-0.1
PODR				⇑iS	Sb	14 25 58.1	+0.4
PODR				IAML		14 26 02.5	
	comp=N,295nm,0.8s						
LOBH	Bahia de las A	0.29	196	i P	Pb	14 25 53.1	0.0
LOBH				eS	Sb	14 25 58.7	+0.7
LOBH				IAML		14 25 59.5	
	comp=Z,185nm,0.4s						
NEDR	Neiba UASD	0.36	21	⇑iP	Pb	14 25 53.2	-0.9
NEDR				⇑iS	Sn	14 26 00.8	-0.4
NEDR				IAML		14 26 01.4	
	comp=N,338nm,0.1s						
LOVI	El Cajuil, Ovi	0.39	152	i P	Pb	14 25 54.7	+0.3
LOVI				eS	Sn	14 26 01.8	+0.1
LOVI				IAML		14 26 03.0	
	comp=Z,119nm,0.6s						
JIDR	Jimani	0.45	321	⇓iP	Pn	14 25 55.5	-0.7
JIDR				⇑iS	Sn	14 26 01.9	-1.4
JIDR				IAML		14 26 03.5	
	comp=N,146nm,0.5s						
LONE3	El Aguacate, B	0.47	11	i P	Pb	14 25 55.6	-0.2
LONE3				eS	Sn	14 26 03.2	-0.8
LONE3				IAML		14 26 05.6	
	comp=Z,54nm,0.3s						
SDDR	Presa de Saban	0.87	17	⇑iS	Sn	14 26 14.7	+0.8
SDDR				IAML		14 26 17.1	
	comp=N,18nm,0.8s						
REDR	Restauracion	1.03	9	⇑iP	Pb	14 26 06.2	+1.2
REDR				⇑iS	Sb	14 26 21.0	+2.8
REDR				IAML		14 26 22.7	
	comp=N,89nm,0.2s						
ABDR	Alto Bandera	1.10	53	⇑iP	Pn	14 26 05.4	-0.2
ABDR				⇑iS	Sb	14 26 22.4	+1.7
ABDR				IAML		14 26 42.6	
	comp=N,19nm,0.7s						
BANI	BANI	1.17	77	⇑iP	Pn	14 26 06.2	0.0
BANI				IAML		14 26 27.7	
	comp=N,43nm,0.3s						
HATOM	Hato Mayor del	2.16	72	⇑iP	Pb	14 26 22.4	-1.8
HATOM				IAML		14 27 02.9	
	comp=N,15nm,3.0s						

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*MAN **26** 14:32:17.0, 9.°20N×126.°72E, h13^{km}, MS3.4*

*IDC **26** 14:32:23.7±7.8, 9.°26N×126.°96E, h92^{km}±67^{km}, mb3.3/5, mbtmp3.7/6, ML4.3/1, Error ellipse: s-maj=82.5km s-min=21.4km az=67.0*

ISC 26 14:32:13.4±1.8**, 9.°31N**±0.°04×**126.°82E**±0.°07**, h1^{km}**±11^{km}**, n15, σ1^{s}46**/25**, mb3.6**/5**, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BIPH	Bislig	1.21	202	eP	Pg	14 32 36.8	+0.3
BIPH				eS	Sn	14 32 54.3	0.0
CDOP	Cateel, Davao	1.56	194	i P	Pb	14 32 42.4	-0.6
CDOP				i S	Sb	14 33 02.6	-0.7
BUKP	Musuan	2.24	231	eP	Pb	14 32 54.9	+0.2
BUKP				i S	Sb	14 33 21.6	-1.4
CGP	Cagayan de Oro	2.27	248	i P	Pn	14 32 53.0	+1.1
CGP				i S	Sn	14 33 21.0	+0.5
DAV	Davao City (W)	2.54	209	P	Pg	14 33 03.7	+1.6
	55nm,0.3s,baz=277,slow=2.7,SNR=2.1						
DAV				S	Sg	14 33 34.7	-0.3
	111nm,0.4s,baz=287,slow=22,SNR=4.4						
	150nm,0.4s						
DAV				AML	AML		
PLP	Palo	2.59	316	eP	Pb	14 33 00.0	-0.5
PLP				eS	Sg	14 33 35.4	-1.1
KCP	Kidapawan	2.85	217	eP	Pb	14 33 03.0	-2.2
KCP				i S	Sb	14 33 38.1	-2.6
TBP	Tagbilaran	2.94	278	eP	Pb	14 33 04.2	-2.5
TBP				i S	Sb	14 33 44.1	+1.0
LLP	Lapu-Lapu	2.99	290	eP	Pb	14 33 04.6	-2.8
LLP				eS	Sg	14 33 49.8	+0.4
DCPH	Dipolog City	3.50	258	i P	Pn	14 33 11.8	+2.9
DCPH				i S	Sn	14 33 51.9	+0.9
FITZ	Fitzroy Crossi	27.26	182	P	P	14 37 58.9	-0.4
	1.6nm,0.7s,baz=1.0,slow=12,SNR=2.3						
	1.6nm,0.7s						
WRA	Warramunga Arr	29.99	166	P	P	14 38 22.9	-0.9
	0.4nm,0.8s,baz=348,slow=9.0,SNR=2.9						
	0.4nm,0.8s						
ASAR	Alice Springs	33.50	168	P	P	14 38 54.2	-0.2
	0.2nm,0.4s,baz=348,slow=8.6,SNR=3.1						
	0.2nm,0.4s						
MKAR	Makanchi Array	53.12	323	P	P	14 41 32.6	-0.1
	0.6nm,0.7s,baz=124,slow=8.3,SNR=5.8						
	0.6nm,0.7s						
KURBB	Kurchatov Arra	57.17	326	P	P	14 42 02.0	+0.2
	0.3nm,0.4s,baz=118,slow=7.8,SNR=3.0						
	0.3nm,0.4s						

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*SJA **26** 14:50:34.7±0.7, 30.°17S×69.°23W, h27^{km}±2^{km}, ML3.3, MW3.5*

*GUC **26** 14:50:35.6±0.7, 30.°10S×69.°26W, h21^{km}±3^{km}, ML3.5*

ISC 26 14:50:36.1±1.0**, 30.°14S**±0.°03×**69.°23W**±0.°03**, h26^{km}**±7^{km}**, n24, σ1^{s}74**/38**, 3D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACDV	Cuesta del Vie	0.10	109	eP	Pb	14 50 40.2	-0.9
AROD	Rodeo	0.21	261	eP	Pb	14 50 41.8	-0.5
AROD				eS	Sb	14 50 47.3	+0.9
ACCO	Cerro Coronel	0.47	162	eP	Pb	14 50 44.8	-1.3
ACCO				eS	Sb	14 50 53.2	+0.3
ACCO				IAML		14 50 54.0	
	comp=Z,1μm,0.2s						
CO01	Juntas del Tor	0.76	282	⇓iP	Pb	14 50 49.3	-1.5
CO01				i S	Sb	14 51 00.1	-0.9
CO01				IAML		14 51 00.4	
	comp=N,3μm,0.4s						
GO04	Tololo Observa	1.36	268	⇓iP	Pn	14 50 59.0	-0.6
GO04				i S	Sb	14 51 17.4	-0.5
GO04				IAML		14 51 18.5	
	comp=E,2μm,0.5s						
RTLL	Cerro Villicun	1.36	151	eP	Pn	14 50 58.6	-0.8
RTLL				eS	Sb	14 51 16.7	-1.1
RTLL				IAML		14 51 17.0	
	comp=Z,572nm,0.4s						
AC05	El Transito	1.58	325	i P	Pb	14 51 03.0	-1.7
AC05				i S	Sb	14 51 24.0	-0.3
VCA	Vinchina	1.66	33	eP	Pb	14 51 04.8	-1.3
VCA				eS	Sb	14 51 28.5	+1.9
VCA				IAML		14 51 32.1	
	comp=Z,462nm,0.6s						
RTLS	Leoncito	1.66	182	eP	Pn	14 51 04.1	+0.3
RTLS				eS	Sb	14 51 26.8	+0.1
RTLS				IAML		14 51 30.4	
	comp=Z,453nm,0.8s						
CFA	Coronel Fontan	1.70	150	eP	Pn	14 51 04.1	-0.1
CFA				eS	Sb	14 51 26.4	-1.2
CFA				IAML		14 51 26.8	
	comp=Z,450nm,0.3s						
LCO	Las Campanas	1.70	311	⇓iP	Pn	14 51 04.6	+0.2
LCO				i S	Sb	14 51 27.6	-0.3
CO02	Combarbal	1.86	235	i S	Sb	14 51 32.3	0.0
CO02				IAML		14 51 34.2	
	comp=N,1μm,0.3s						
ACLC	CERRO LA CRUZ	2.11	71	eP	Pn	14 51 10.9	+1.0
ACLC				eS	Sb	14 51 39.0	-0.5
TINO	Tinogasta	2.53	36	eP	Pn	14 51 17.2	+1.6
TINO				eS	Sb	14 51 48.4	-3.1
TINO				IAML		14 51 54.1	
	comp=Z,131nm,0.4s						
VA03	San Esteban	2.85	203	eP	Pn	14 51 21.8	+1.8
VA03				IAML		14 52 04.7	
	comp=E,244nm,0.4s						
ROCH	El Roble	3.21	208	eP	Pn	14 51 25.7	+0.6
ROCH				IAML		14 52 20.3	
	comp=E,74nm,0.4s						
PEL	Peldehue	3.24	202	eP	Pn	14 51 26.8	+1.4
MT10	Hacienda Santa	3.32	199	i P	Pn	14 51 27.9	+1.4
MT10				i S	Sn	14 52 08.6	+3.3
MT10				IAML		14 52 22.0	
	comp=E,158nm,0.4s						
MT04	Ro Olivares	3.35	193	eP	Pn	14 51 29.6	+2.6
MT04				IAML		14 52 20.4	

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
	comp=E,37nm,0.9s						
MT14	Cerro Cal¡n	3.43	198	eP	Pn	14 51 29.7	+1.7
MT03	Universidad Ad	3.52	198	eP	Pn	14 51 31.4	+2.2
MT03				eS	Sb	14 52 14.5	-5.6
MT12	Pirque	3.76	197	eP	Pn	14 51 33.9	+1.4
LMEL	Las Melosas	3.79	192	eP	Pn	14 51 35.0	+1.9
MT01	Popeta	4.09	204	i P	Pn	14 51 37.4	+0.4

NOU ***26*** *15:08:35.5, 37°.97S×175°.08E, h97^{km}, MLv3.9/13, North Island, New Zealand*

WEL ***26*** *15:08:39.6±0.7, 38°S±4°×17°6E±°, h152^{km}±6^{km}, M3.2/27, ML2.2/2, MLv3.2/27, Error ellipse: s-maj=5.5km s-min=5.1km az=167.0, confirmed*

ISC 26 15:08:33.8±1.8**, 38°.22S**±0°.05×**175°.88E**±0°.05**, h197**^{km}±10^{km}**, n105,** σ**1^{s}97**/118**, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GRRZ	Galatos Road	0.22	125	P	Pn	15 09 01.3	+1.5
KUTZ	Kaahu Road	0.27	189	P	Pn	15 09 01.6	+1.6
TLZ	Tolley Road	0.29	248	P	Pn	15 09 01.8	+1.8
TLZ				AML	AML		
TLZ				AML	AML		
KARZ	Kaharoa	0.35	56	P	Pn	15 09 01.4	+1.2
HRRZ	Handcock Road	0.36	118	P	Pn	15 09 01.5	+1.3
KMRZ	Kaimai	0.38	8	P	Pn	15 09 01.7	+1.4
PRRZ	Plateau Road	0.49	125	P	Pn	15 09 02.0	+1.5
WATZ	Wairara	0.50	193	P	Pn	15 09 02.4	+1.7
ALRZ	Allen Road	0.50	133	P	Pn	15 09 02.1	+1.5
RRRZ	Republican Roa	0.52	103	P	Pn	15 09 01.8	+1.1
TOZ	Tahuroa Road	0.57	329	P	Pn	15 09 02.6	+1.7
TOZ				S	Sn	15 09 19.8	-2.0
TOZ				AML	AML		
TGRZ	Tauranga	0.58	32	P	Pn	15 09 02.2	+1.3
RATZ	Rangitukua	0.65	187	P	Pn	15 09 03.1	+1.9
MRHZ	Matea Rd	0.74	145	P	Pn	15 09 03.2	+1.4
MRHZ				AML	AML		
MUGZ	Murupara	0.75	110	P	Pn	15 09 03.2	+1.5
MUGZ				AML	AML		
MUGZ				AML	AML		
RITZ	Rihia Road	0.76	181	P	Pn	15 09 03.9	+2.1
HIZ	Hauiti	0.85	250	P	Pn	15 09 04.4	+2.1
NTVZ	North Tongarir	0.89	190	P	Pn	15 09 04.7	+2.0
TMVZ	Te Maari	0.90	189	P	Pn	15 09 04.8	+2.1
WTVZ	West Tongariro	0.92	194	P	Pn	15 09 04.9	+2.0
ETVZ	East Tongariro	0.92	188	P	Pn	15 09 05.1	+2.2
RTZ	Ruatahuna	0.95	115	P	Pn	15 09 04.6	+1.5
RTZ				S	Sn	15 09 23.6	-2.1
OTVZ	Oturere	0.96	190	P	Pn	15 09 05.1	+2.0
URZ	Urewera	0.97	93	P	Pn	15 09 03.8	+0.7
URZ	Urewera	0.97	93	S	Sn	15 09 23.9	-1.8
URZ	Urewera	0.97	93	P	Pn	15 09 03.9	+0.9
URZ				S	Sn	15 09 23.5	-2.2
URZ				AML	AML		
MTHZ	Maungataniwha	0.98	130	P	Pn	15 09 05.0	+1.8
MTHZ				S	Sn	15 09 24.1	-2.0
MTHZ				AML	AML		
COVZ	Chateau Observ	1.01	195	P	Pn	15 09 05.6	+2.1
BKZ	Black Stump Fm	1.06	153	P	Pn	15 09 05.2	+1.5
BKZ	Black Stump Fm	1.06	153	P	Sn	15 09 25.4	-1.7
BKZ	Black Stump Fm	1.06	153	P	Pn	15 09 05.4	+1.7
BKZ				S	Sn	15 09 25.2	-1.9
BKZ				AML	AML		
FWVZ	Far West T-bar	1.06	194	P	Pn	15 09 06.0	+2.1
WHVZ	Whangaehu Hut	1.08	192	P	Pn	15 09 06.4	+2.2
WNVZ	Wahianoa	1.13	191	P	Pn	15 09 06.5	+2.1
WNVZ				S	Sn	15 09 26.2	-2.0
NMHZ	Naumai	1.14	141	P	Pn	15 09 07.0	+2.6
NMHZ				AML	AML		
RAHZ	Arahi	1.18	127	P	Pn	15 09 07.0	+2.4
RAHZ				S	Sn	15 09 27.2	-1.3
RAHZ				AML	AML		
MOVZ	Moawhango	1.19	185	P	Pn	15 09 06.4	+1.7
MOVZ				S	Sn	15 09 27.1	-1.9
MOVZ				AML	AML		
MKAZ	Moumakai	1.25	333	P	Pn	15 09 07.3	+2.2
VRZ	Vera Road	1.26	224	P	Pn	15 09 07.9	+2.8
VRZ				AML	AML		
BHHZ	Black Hill Sta	1.27	174	P	Pn	15 09 07.1	+1.7
BHHZ				S	Sn	15 09 27.9	-2.2
BHHZ				AML	AML		
KWHZ	Kaweka Forest	1.27	161	P	Pn	15 09 07.5	+2.1
KWHZ				S	Sn	15 09 29.8	-0.3
KWHZ				AML	AML		
MWZ	Matawai	1.30	96	P	Pn	15 09 07.0	+1.4
MWZ				S	Sn	15 09 28.0	-2.3
MWZ				AML	AML		
ARHZ	Aropaoanui	1.36	140	P	Pn	15 09 08.4	+2.4
ARHZ				S	Sn	15 09 30.6	-0.5
ARHZ				AML	AML		
WHHZ	Waihua	1.36	129	P	Pn	15 09 08.3	+2.2
WHHZ				S	Sn	15 09 31.2	0.0
WHHZ				AML	AML		
MCHZ	McNeill Hill	1.38	153	P	Pn	15 09 08.8	+2.7
MCHZ				AML	AML		
RUGZ	Raukumara Rang	1.44	80	P	Pn	15 09 07.6	+0.7
RUGZ				S	Sn	15 09 29.0	-3.5
RUGZ				AML	AML		
KRHZ	Kereru	1.47	165	P	Pn	15 09 09.2	+2.1
KRHZ				AML	AML		
AWAZ	Awhitu Peninsu	1.51	319	P	Pn	15 09 09.8	+2.4
RIGZ	Rimuhau	1.56	109	P	Pn	15 09 09.8	+2.0
RIGZ				AML	AML		
TKGZ	Te Karaka	1.57	99	P	Pn	15 09 10.0	+2.2
TKGZ				AML	AML		
HAZ	Te Kaha	1.57	73	P	Pn	15 09 09.4	+1.5
HAZ				AML	AML		
KNZ	Kokohu	1.62	120	P	Pn	15 09 10.2	+1.9
TWGZ	Tauwhareparae	1.66	89	P	Pn	15 09 11.0	+2.2
TWGZ				AML	AML		
WAZ	Wanganui	1.68	204	P	Pn	15 09 11.7	+2.8
PNHZ	Pukenui	1.71	172	P	Pn	15 09 11.3	+2.0
PNHZ				AML	AML		
CKHZ	Cape Kidnapper	1.71	147	P	Pn	15 09 11.7	+2.5
CKHZ				AML	AML		
PRGZ	Paritu Road	1.72	115	P	Pn	15 09 11.4	+2.1
KAHZ	Kahuranaki	1.75	154	P	Pn	15 09 12.1	+2.4
KAHZ				AML	AML		
PKE	Pukeiti	1.77	236	P	Pn	15 09 13.2	+3.4
PKE				AML	AML		
PKGZ	Pakihiroa	1.77	79	P	Pn	15 09 12.1	+2.3
PKGZ				AML	AML		
TSZ	Takapari Road	1.84	178	P	Pn	15 09 12.4	+2.0
TSZ				AML	AML		
MHGZ	Mahia Peninsul	1.84	121	P	Pn	15 09 12.8	+2.3
MHGZ				AML	AML		
CNGZ	Carnagh Statio	1.85	99	P	Pn	15 09 13.1	+2.5
CNGZ				AML	AML		
PUZ	Puketiti	1.88	86	P	Pn	15 09 12.6	+1.7
PUZ				AML	AML		
NBEZ	Newall Road No	1.89	236	P	Pn	15 09 14.3	+3.4
WPHZ	Waipukurau	1.89	167	P	Pn	15 09 13.0	+2.0
WPHZ				AML	AML		
PXZ	Pawanui	1.96	157	P	Pn	15 09 13.9	+2.3
PXZ				AML	AML		
OHWZ	Ohakea	2.03	192	P	Pn	15 09 15.0	+2.7
MXZ	Matakaoa Point	2.03	72	P	Pn	15 09 14.5	+2.0
MXZ	Matakaoa Point	2.03	72	P	Pn	15 09 14.4	+2.0
WMGZ	Waiomatatini S	2.04	79	P	Pn	15 09 14.1	+1.5
WMGZ				AML	AML		
DVHZ	Dannevirke	2.09	174	P	Pn	15 09 14.7	+1.7
PRHZ	Porangahau	2.13	164	P	Pn	15 09 15.5	+2.1
POWZ	Post Office Ro	2.17	182	P	Pn	15 09 15.6	+1.8
ANWZ	Angora Road	2.28	168	P	Pn	15 09 17.1	+2.1
PRWZ	Pori Road	2.33	178	P	Pn	15 09 17.6	+2.0
MRZ	Mangatainoka R	2.45	185	P	Pn	15 09 18.3	+1.5
BFZ	Birch Farm	2.48	173	P	Pn	15 09 18.8	+1.6
BFZ	Birch Farm	2.48	173	P	Pn	15 09 18.8	+1.6
OGWZ	Otaki Gorge	2.65	192	P	Pn	15 09 20.6	+1.4
CPWZ	Castlepoint	2.70	175	P	Pn	15 09 21.9	+2.2
KIW	Kapiti Island	2.74	196	P	Pn	15 09 21.6	+1.4
MTW	Mount Morrison	2.95	186	P	Pn	15 09 23.7	+1.0
CAW	Cannon Point	2.95	192	P	Pn	15 09 23.8	+1.2
DUWZ	D'Urville Isla	2.99	210	P	Pn	15 09 24.6	+1.5
PAWZ	Paruwai Farm	3.18	186	P	Pn	15 09 26.2	+0.8
TRWZ	Traveller	3.18	183	P	Pn	15 09 26.7	+1.3
WEL	Wellington	3.18	195	P	Pn	15 09 26.5	+1.2
SNZO	South Karori	3.22	196	P	Pn	15 09 26.1	+0.3
SNZO	South Karori	3.22	196	S	Sn	15 10 03.5	-3.1
MSWZ	Moikau Station	3.23	188	P	Pn	15 09 26.8	+0.8
TCW	Tory Channel	3.23	202	P	Pn	15 09 27.3	+1.3
PLWZ	Palliser	3.38	188	P	Pn	15 09 28.4	+0.6
TUWZ	Tuamarina	3.53	204	P	Pn	15 09 31.3	+1.7
NNZ	Nelson	3.56	212	P	Pn	15 09 31.1	+1.2
TKNZ	Takaka Hill	3.60	218	P	Pn	15 09 34.1	+3.6
QRZ	Quartz Range	3.67	224	P	Pn	15 09 27.0	-4.3
BSWZ	Blackbirch Sta	3.81	203	P	Pn	15 09 34.2	+1.1
THZ	Tophouse	4.21	212	P	Pn	15 09 39.4	+1.3
KHZ	Kahutara	4.56	202	P	Pn	15 09 42.9	+0.5
KHZ	Kahutara	4.56	202	S	Sn	15 10 35.4	-1.0
KHZ	Kahutara	4.56	202	P	Pn	15 09 43.1	+0.8
INZ	Inchbonnie	5.63	216	P	Pn	15 09 57.4	+1.3
ODZ	Otahua Downs	7.86	208	P	Pn	15 10 26.5	+1.4
CTZ	Chatham Island	7.91	137	P	Pn	15 10 36.4	+11

IDC ***26*** *15:19:20.0±1.6, 1°.27N×126°.24E, h0^{km}, mb3.5/5, mbtmp3.5/6, ML3.4/1, Error ellipse: s-maj=124.5km s-min=19.9km az=69.0*

DJA ***26*** *15:19:29.1±1.5, 1°N±4°×12°7E±°, h35^{km}±35^{km}, M3.7/18, mB5.5/2, mb3.6/3, MLv3.7/18, Mw(mB)5.0/2*

ISC 26 15:19:26.9±1.1**, 1°.3N**±0°.1×**126°.68E**±0°.08**, h47**^{km}**, n14,** σ**2^{s}06**/14**, mb3.6**/5**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TNTI	Ternate	0.87	128	P	Pn	15 19 45.5	+2.7
TNTI				AML	AML		
MNI	Manado	1.85	274	P	Pn	15 19 59.0	+2.9
MNI				AML	AML		
LBMI	Labuha	2.10	157	P	Pn	15 20 02.1	+2.5
SANI	Sanana	3.41	192	P	Pn	15 20 18.0	+0.5
SANI				AML	AML		
GTOI	Gorontalo	3.73	260	P	Pn	15 20 24.6	+2.6
GTOI				AML	AML		
NLAI	Namlea	4.53	175	P	Pn	15 20 34.4	+1.4
NLAI				AML	AML		
LUWI	Luwuk	4.55	239	P	Pn	15 20 35.3	+2.0
APSI	Ampana	5.49	246	P	Pn	15 20 47.3	+1.1
APSI				AML	AML		
FITZ	Fitzroy Crossi	19.31	183	P	P	15 23 47.0	-1.2
	0.1nm,0.3s,baz=6.1,slow=10,SNR=1.4						
	0.6nm,0.6s						
FITZ				AML	AML		
WRA	Warramunga Arr	22.41	161	P	P	15 24 20.7	-1.0
	0.5nm,0.3s,baz=337,slow=11,SNR=10						
	0.5nm,0.3s						
ASAR	Alice Springs	25.80	165	P	P	15 24 54.2	+0.5
	0.4nm,0.8s,baz=347,slow=11,SNR=7.0						
	0.4nm,0.8s						
MKAR	Makanchi Array	59.52	326	P	P	15 29 23.8	-1.6
	0.2nm,0.4s,baz=132,slow=6.5,SNR=2.6						
	0.2nm,0.4s						
KURBB	Kurchatov Arra	63.75	328	P	P	15 29 52.3	-1.6
	0.3nm,0.5s,baz=131,slow=5.9,SNR=3.2						
	0.3nm,0.5s						
BVAR	Borovoye Array	69.32	328	P	P	15 30 27.8	-1.6
	0.3nm,0.4s,baz=116,slow=6.6,SNR=2.4						
	0.3nm,0.4s						

IDC ***26*** *15:30:49.4±8.7, 0°.89S×101°.39E, h148^{km}±78^{km}, mb3.7/12, mbtmp4.1/13, Error ellipse: s-maj=55.8km s-min=11.1km az=58.0*

DJA ***26*** *15:30:54.5±0.3, 1°S±3°×10°1E±°, h194^{km}±4^{km}, M4.6/43, mB5.1/8, mb5.0/8, MLv4.4/43, Mw(mB)4.5/8*

ISC 26 15:30:54.6±0.9**, 0°.95S**±0°.06×**101°.41E**±0°.06**, h203**^{km}±8^{km}**, n40,** σ**1^{s}49**/36**, mb3.8**/12**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SDSI	Sungai Dareh	0.02	48	P	Pn	15 31 19.9	-1.2
RGRI	Rengat	1.10	57	P	Pn	15 31 25.4	0.0
PPI	Padang Panjang	1.12	296	P	Pn	15 31 24.6	-1.0
PPI				AML	AML		
KRJI	Kerinci	1.14	177	P	Pn	15 31 25.4	-0.4
KRJI				AML	AML		
BKNI	Bangkinang	1.32	344	P	Pn	15 31 26.1	-1.0
BKNI				AML	AML		
PPSI	Pulau Pagai	2.28	218	P	Pn	15 31 36.4	0.0
PPSI				AML	AML		
MASI	Maura Aman, Be	2.33	159	P	Pn	15 31 36.9	0.0
MASI				AML	AML		
JMBI	JAMBI	2.33	107	P	Pn	15 31 37.4	+0.5
JMBI				AML	AML		
KSI	Kapahiang	2.93	156	P	Pn	15 31 44.1	+0.3
KSI				AML	AML		
DSRI	Dabo	3.20	82	P	Pn	15 31 47.0	+0.2
PBSI	Pulau Batu	3.25	286	P	Pn	15 31 47.0	-0.5
PBSI				AML	AML		
TPRI	Tanjung Pinang	3.62	59	P	Pn	15 31 51.8	-0.1
TPRI				AML	AML		
MNAI	Manna	3.73	156	P	Pn	15 31 53.7	+0.5
MNAI				AML	AML		
PMBI	Palembang	3.89	120	P	Pn	15 31 55.4	+0.2
PMBI				AML	AML		
GSI	Gunungsitoli	4.44	300	P	Pn	15 32 00.6	-1.5
GSI				AML	AML		
MDSI	Maura Dua	4.47	142	P	Pn	15 31 59.7	-2.7
MDSI				AML	AML		
PSI	Prapat	4.48	326	P	Pn	15 32 02.3	-0.4
PSI				AML	AML		
KCSI	Kotacane, Aceh	5.74	321	P	Pn	15 32 18.4	-0.3
KCSI				AML	AML		
TPTI		5.95	315	P	Pn	15 32 21.7	+0.4
	0.7nm2μm174nm,0.7s						
TPTI				AML	AML		
MLSI	Meulaboh, Aceh	7.20	316	P	Pn	15 32 35.9	-1.7
	4μm275nm,0.6s						
CMAR	Chiang Mai Arr	19.44	353	P	P	15 35 05.7	-0.2
	2.2nm,0.6s,baz=184,slow=10.0,SNR=23						
WRA	Warramunga Arr	37.34	123	P	P	15 37 47.8	-0.1
	1.5nm,0.5s,baz=304,slow=8.9,SNR=32						
	1.5nm,0.5s						
ASAR	Alice Springs	38.76	128	P	P	15 37 59.7	-0.1
	3.9nm,0.8s,baz=302,slow=7.8,SNR=74						
ASAR				PcP	PcP	15 40 08.5	+1.4
	0.4nm,0.7s,baz=294,slow=2.8,SNR=2.4						
ASAR				S	S	15 43 35.7	-6.2
	0.2nm,0.7s,baz=301,slow=14,SNR=2.0						
	3.9nm,0.8s						
SONM	Songino Array	48.78	4	P	P	15 39 19.7	+0.5
	0.8nm,0.5s,baz=190,slow=9.3,SNR=5.0						
	0.8nm,0.5s						
STKA	Stephens Creek	48.81	133	P	P	15 39 20.0	+0.3
	3.0nm,0.5s,baz=310,slow=6.7,SNR=13						
	3.0nm,0.5s						
MKAR	Makanchi Array	50.42	343	P	P	15 39 31.1	-0.4
	0.8nm,0.3s,baz=151,slow=8.8,SNR=21						
	0.8nm,0.3s						
KURBB	Kurchatov Arra	54.96	342	P	P	15 40 04.2	-0.4
	0.6nm,0.5s,baz=156,slow=7.7,SNR=5.5						
	0.6nm,0.5s						
ZALV	Zalesovo Beam	56.42	348	P	P	15 40 14.8	-0.1
	0.5nm,0.3s,baz=164,slow=5.9,SNR=5.9						
	0.5nm,0.3s						
BVAR	Borovoye Array	59.70	339	P	P	15 40 36.5	-1.2
	2.0nm,0.5s,baz=144,slow=9.0,SNR=13						
	2.0nm,0.5s						
H04N2	CROZET ISLANDS	62.48	217	T	T	16 47 16.1	
	baz=59,slow=75,SNR=31						
H04N1	CROZET ISLANDS	62.49	217	T	T	16 47 13.7	
	baz=59,slow=75,SNR=31						
H04N3	CROZET ISLANDS	62.49	217	T	T	16 47 12.4	
	baz=59,slow=75,SNR=35						
H04S1	CROZET ISLANDS	62.76	216	T	T	16 47 23.5	
	baz=56,slow=74						
H04S3	CROZET ISLANDS	62.77	216	T	T	16 47 25.1	
	baz=56,slow=74						
H04S2	CROZET ISLANDS	62.78	216	T	T	16 47 26.2	
	baz=56						
BRTR	Keskin Array B	73.67	312	P	P	15 42 06.4	-0.1
	1.2nm,0.6s,baz=147,slow=6.6,SNR=7.7						
	1.2nm,0.6s						
FINES	FINESS Array B	83.84	332	P	P	15 43 02.2	+1.0
	1.1nm,0.6s,baz=111,slow=4.7,SNR=6.3						
	1.1nm,0.6s						
ARCES	ARCESS Array B	85.97	340	P	P	15 43 13.0	+1.3
	1.8nm,0.8s,baz=116,slow=2.8,SNR=5.8						
	1.8nm,0.8s						
QSPA	South Pole Qui	89.01	180	P	P	15 43 29.0	+2.7
	0.6nm,0.6s,baz=334,slow=1.8,SNR=10						
	0.6nm,0.6s						
TXAR	Lajitas Array	143.01	38	PKP	PKPdf	15 50 04.4	-0.7
	0.2nm,0.6s,baz=323,slow=2.4,SNR=2.8						

NOU 26 15:31:10.0, 17°.38S×167°.79E, h34^{km}**, MLv3.7**/17**, Vanuatu Islands, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DVP	Devils Point	0.51	132	P	Pn	15 31 22.5	+1.6
DVP	Devils Point	0.51	132	S	Sn	15 31 32.3	+3.8
RTV	Rentapao	0.73	124	P	Pb	15 31 24.9	+0.5
RTV	Rentapao	0.73	124	S	Sb	15 31 36.0	+1.8
YATNC	Mamie plateau,	4.73	190	P	Pn	15 32 18.8	-0.2
NOUC	Port Laguerre	4.90	196	P	Pn	15 32 22.1	+0.8
NOUC	Port Laguerre	4.90	196	S	Sn	15 33 17.1	+0.2
ONTNC	Ouen Toro	5.06	194	P	Pn	15 32 24.5	+1.0
ONTNC	Ouen Toro	5.06	194	S	Sn	15 33 21.0	+0.2
OUENC	Ouen Island, N	5.09	190	P	Pn	15 32 25.9	+2.0
OUENC	Ouen Island, N	5.09	190	S	Sn	15 33 22.3	+0.7

BJI ***26*** *15:36:26.9, 40°.28N×141°.99E, h70^{km}, mb4.5/19, mB4.2/1*

IDC ***26*** *15:36:35.5±1.6, 40°.37N×141°.31E, h97^{km}±14^{km}, mb3.7/20, mbtmp4.0/26, MS2.2/1, Error ellipse: s-maj=15.5km s-min=11.0km az=112.0*

NEIC ***26*** *15:36:35.0±2.3, 40°.45N±0°.07×141°.3E±0°.1, h92^{km}±5^{km}, mb4.5/37, Error ellipse: s-maj=13.1km s-min=8.8km az=120.0*

JMA ***26*** *15:36:35.2±0.1, 40°.4N±0°.3×141°.4E±0°.6, h88^{km}, MV3.5/40, EASTERN AOMORI PREF*

JMA Felt II J1 at EASTERN AOMORI PREF .

NIED ***26*** *15:36:35.2, 40°.39N×141°.38E, h88^{km}, MW3.9, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M$_{rr}$-1.07; M$_{\theta\theta}$7.41; M$_{\phi\phi}$-6.34; M$_{r\theta}$2.37; M$_{\theta\phi}$-3.42; M$_{\phi r}$-3.71; Fault plane solution: M$_0$8.88000×10^{14} NP1:ϕ_s59.00000°, δ60.00000°, λ-175.00000°. NP2:ϕ_s327.00000°, δ86.00000°, λ-30.00000°.*

ISC 26 15:36:34.5±0.6**, 40°.38N**±0°.03×**141°.37E**±0°.05**, h93**^{km}±5^{km}**, n108,** σ**1^{s}29**/119**, mb4.3**/38**, 4D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JANG	Nango	0.11	94	⇓iP	Pn	15 36 47.5	0.0
JANG				⇓S	Sn	15 36 56.7	-0.6
JTM	Tenmabayashi	0.47	330		Pn	15 36 49.3	0.0
JTM				Sn	Sn	15 36 59.5	-0.7
JTM	Tenmabayashi	0.47	330	P	Pn	15 36 49.3	0.0
JTM				S	Sn	15 36 59.3	-0.9
JAH	Hinai	0.59	251	i P	Pn	15 36 50.6	+0.3
JAH				S	Sn	15 37 01.9	-0.2
JOM	Ohasama	0.91	184	i P	Pn	15 36 54.1	+0.7
JOM				eS	Sn	15 37 08.0	+0.5
JOT	Ohata	1.03	346	i P	Pn	15 36 55.0	+0.3
JOT				S	Sn	15 37 10.2	+0.4
JIW	Iwasaki	1.06	282	⇓iP	Pn	15 36 55.6	+0.5
JIW				⇓eS	Sn	15 37 10.7	+0.2
JRG	Rokugo	1.14	210	i P	Pn	15 36 57.0	+1.1
JRG				S	Sn	15 37 13.8	+1.8
JSR	Shiriuchi	1.36	328	P	Pn	15 36 59.0	+0.5
JSR				S	Sn	15 37 17.0	+0.3
JMK	Ichinoseki	1.43	185	i P	Pn	15 37 00.4	+0.9
JMK				S	Sn	15 37 19.4	+1.0
JKB	Kayabe	1.53	350	i P	Pn	15 37 01.5	+0.8
JKB				eS	Sn	15 37 21.2	+0.8
JOMM	Oshimamatsumae	1.54	318	P	Pn	15 37 01.3	+0.4
JOMM				eS	Sn	15 37 20.1	-0.7
JYK	Kaneyama	1.66	208	i P	Pn	15 37 03.3	+0.9
JYK				eS	Sn	15 37 24.8	+1.3
ERM	Erimo	2.12	39		Pn	15 37 08.8	+0.6
ASAJ	Asahikawa	3.84	13	P	Pn	15 37 32.0	+0.7
	16nm,0.4s,baz=192,slow=16,SNR=75						
ASAJ				S	Sn	15 38 17.3	+1.9
	18nm,0.3s,baz=54,slow=33,SNR=1.6						
JKA	Kamikawa-asahi	3.84	13		Pn	15 37 31.7	+0.3
MJB9	Matsu-Tunnel	4.56	214		Pn	15 37 43.8	+2.6
MAJO	Matsushiro	4.57	214	Pn	Pn	15 37 43.0	+1.7
MJAR	Matsushiro Arr	4.57	214	P	Pn	15 37 43.1	+1.9
	11nm,0.4s,baz=38,slow=11,SNR=75						
MJAR				S	Sn	15 38 28.4	-4.7
	3.0nm,0.4s,baz=92,slow=26,SNR=4.3						
MJAR				LR	LR	15 39 10.4	
	comp=Z,24nm,18.2s,baz=30,slow=34						
JGF	Kuroka	5.73	215		Pn	15 37 59.5	+2.5
INU	Inuyama	6.09	216		Pn	15 38 04.4	+2.5
YSS	Yuzhno-Sakhali	6.65	8	Pn	Pn	15 38 09.8	+0.4
USA0B	Ussuriysk Arra	7.93	302	Pn	Pn	15 38 28.9	+2.0
USRK	Ussuriysk Ar.	7.93	302	P	Pn	15 38 28.9	+1.9
	17nm,0.8s,baz=107,slow=13,SNR=13						
USRK	Ussuriysk Ar.	7.93	302		Pn	15 38 29.2	+2.3
JMN	Monobe	8.94	224	Pn	Pn	15 38 41.5	+0.7
MDJ	Mudanjiang	9.67	300	P	Pn	15 38 53.0	+2.3
MDJ				pmax	pmax		
	comp=Z,20nm,0.9s						
KSRS	Korea Array	10.88	259	P	Pn	15 39 08.6	+1.5
	0.8nm,0.7s,baz=81,slow=11,SNR=1.1						
CN2	Changchun	12.31	291	eP	Pn	15 39 27.5	+1.1
CN2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
PEA0B	Petropavlovsk-	16.89	36	Pn	Pn	15 40 23.9	-1.1
PETK	Petropavlovsk-	16.89	36	P	P	15 40 26.2	+0.6
	1.2nm,0.7s,baz=233,slow=9.1,SNR=6.4						
PETK	Petropavlovsk-	16.89	36	Pn	Pn	15 40 23.9	-1.1
PET	Petropavlovsk	17.27	37		Pn	15 40 27.9	-1.6
PET				IAmb	IAmb	15 40 35.2	
	comp=Z,26nm,1.0s						
JOW	Kunigami	17.34	223	P	Pn	15 40 28.9	-1.7
JOW				IAmb	IAmb	15 40 54.1	
	comp=Z,40nm,1.2s						
HILR	Hailar Array B	17.79	308	P	P	15 40 34.1	-1.3
	comp=Z,4.3nm,0.5s,baz=106,slow=11,SNR=5.3						
NJ2	Nanjing	19.94	252	eP	Pn	15 41 01.5	0.0
NJ2				pmax	pmax		
	comp=Z,8.0nm,0.7s						
MA2	Magadan	20.10	14	P	P	15 40 60.0	-0.5
	comp=Z,6.5nm,0.8s,baz=202,slow=13,SNR=4.5						
	comp=Z,6.5nm,0.8s						
MA2	Magadan	20.10	14	P	P	15 40 57.6	-3.0
HHC	Hu-ho-hao-te	22.59	281	eP	P	15 41 26.3	-1.0
HHC				pmax	pmax		
	comp=Z,11nm,0.6s						
HHC				pmax	pmax		
	comp=Z,52nm,4.3s						
NACB	Ninganchiao	23.17	232	P	P	15 41 32.6	-0.5
NACB				IAmb	IAmb	15 42 03.3	
	comp=Z,26nm,1.1s						
TPUB	Ta-pu	24.41	232	P	P	15 41 44.5	+0.2
TWG	Pinlang	24.51	231	P	P	15 41 45.4	+0.2
TWG				IAmb	IAmb	15 42 04.8	
	comp=Z,36nm,1.3s						
SHEM	Shemya Is, Ala	25.43	50	P	P	15 41 52.6	-0.7
SONM	Songino Array	26.03	298	P	P	15 41 58.8	-0.1
	comp=Z,1.3nm,0.5s,baz=90,slow=9.4,SNR=6.1						
	comp=Z,1.3nm,0.5s						
SONM	Songino Array	26.03	298	P	P	15 41 57.3	-1.6
TLY	Talaya	28.22	306	P	P	15 42 16.9	-1.4
H11N2	WAKE ISLAND Hy	30.01	126	T	T	16 13 33.0	
	baz=318,slow=75,SNR=143						
H11N1	WAKE ISLAND Hy	30.02	126	T	T	16 13 38.3	
	baz=318,slow=75,SNR=99						
H11N3	WAKE ISLAND Hy	30.03	126	T	T	16 13 31.5	
	baz=318,slow=75,SNR=98						
H11S1	WAKE ISLAND Hy	30.82	128	T	T	16 14 39.2	
	baz=318,slow=76,SNR=18						
H11S3	WAKE ISLAND Hy	30.82	128	T	T	16 14 30.9	
	baz=318,slow=76,SNR=20						
H11S2	WAKE ISLAND Hy	30.83	128	T	T	16 14 32.6	
	baz=318,slow=76,SNR=16						
GSTR	Great Sitkin T	31.24	54	P	P	15 42 43.3	-1.8
PZH	PanZhiHua	35.55	259	P	P	15 43 24.5	+1.7
PATS	Pohnpei	36.69	151	P	P	15 43 32.3	-0.2
WMQ	Urumqi	39.40	293	eP	P	15 43 55.8	+0.7
WMQ				PP	PnPn	15 45 32.8	+2.0
WMQ				pmax	pmax		
	comp=Z,23nm,0.7s						
ZAA0	Zalesovo Array	39.70	309		P	15 43 57.6	+0.3
ZALV	Zalesovo Beam	39.70	309	P	P	15 43 57.8	+0.4
	comp=Z,2.3nm,0.5s,baz=88,slow=8.6,SNR=11						
ZALV				PcP	PcP	15 46 02.8	+0.6
	comp=Z,0.5nm,0.4s,baz=86,slow=2.3,SNR=2.6						

	comp=Z,2.3nm,0.5s						
O15K	Ungalikthiuk R	40.80	42	P	P	15 44 06.0	-0.4
K17K	Iditarod	41.67	37	P	P	15 44 13.3	-0.1
K17K				IAmb	IAmb	15 44 33.4	
	comp=Z,17nm,1.4s						
G18K	Tagagawik	41.81	32	P	P	15 44 13.9	-0.7
G18K				IAmb	IAmb	15 44 47.7	
	comp=Z,6.0nm,1.2s						
H18K	Honhosa River	41.84	33	P	P	15 44 14.4	-0.4
H18K				IAmb	IAmb	15 44 40.2	
	comp=Z,14nm,1.3s						
MKAR	Makanchi Array	42.39	299	P	P	15 44 19.1	-0.5
	comp=Z,2.8nm,0.7s,baz=83,slow=9.5,SNR=22						
	comp=Z,2.8nm,0.7s						
MKAR	Makanchi Array	42.39	299		P	15 44 18.7	-0.9
CMAR	Chiang Mai Arr	42.41	252	P	P	15 44 19.9	-0.1
	comp=Z,0.3nm,0.4s,baz=48,slow=7.8,SNR=1.3						
	comp=Z,0.3nm,0.4s						
CMAR	Chiang Mai Arr	42.41	252	P	P	15 44 19.3	-0.8
MAKZ	Makanchi	42.60	299		P	15 44 21.5	+0.3
MAKZ				IAmb	IAmb	15 44 23.7	
	comp=Z,3.9nm,0.8s						
N18K	Kilae Creek	42.78	40	P	P	15 44 22.4	-0.1
N18K				IAmb	IAmb	15 44 55.2	
	comp=Z,6.9nm,1.1s						
IMAR	Indian Mountai	43.82	32	P	P	15 44 31.2	+0.5
KURK	Kurchatov	43.91	305		P	15 44 31.4	-0.3
KURK				IAmb	IAmb	15 44 33.4	
	comp=Z,8.1nm,0.7s						
KURBB	Kurchatov Arra	43.98	305	P	P	15 44 32.5	+0.3
	comp=Z,8.2nm,0.8s,baz=81,slow=8.6,SNR=64						
	comp=Z,8.2nm,0.8s						
Q19K	Cape Douglas,	44.00	43	P	P	15 44 33.4	+1.0
H22K	Ishtalitna Cre	44.79	33	P	P	15 44 41.0	+2.4
H23K	Yukon River	45.54	33	P	P	15 44 47.3	+2.8
H23K				IAmb	IAmb	15 44 48.2	
	comp=Z,4.5nm,0.7s						
F24K	Squaw Lake	46.16	30	P	P	15 44 51.2	+1.8
ILAR	Eielson Array	46.71	34	P	P	15 44 55.4	+1.7
	comp=Z,1.0nm,0.6s,baz=269,slow=6.0,SNR=16						
	comp=Z,1.0nm,0.6s						
ILAR	Eielson Array	46.71	34	P	P	15 44 54.2	+0.6
FYU	Fort Yukon	47.25	31	P	P	15 44 59.6	+1.8
FYU				IAmb	IAmb	15 45 01.7	
	comp=Z,7.2nm,0.6s						
BMAR	Burnt Mountain	47.44	30	P	P	15 45 02.5	+3.1
F26K	Sheenjek River	47.59	30	P	P	15 45 03.3	+2.8
F26K				IAmb	IAmb	15 45 04.4	
	comp=Z,6.6nm,0.6s						
BOOM	Boomskoye usch	47.99	295	P	P	15 45 02.7	-1.4
BVAR	Borovoye Array	48.34	310	P	P	15 45 07.0	+0.5
	comp=Z,1.9nm,0.4s,baz=76,slow=8.0,SNR=14						
	comp=Z,1.9nm,0.4s						
BORK	Borovoye	48.38	310	P	P	15 45 06.5	-0.2
BORK				IAmb	IAmb	15 45 10.3	
	comp=Z,2.4nm,0.4s						
AAK	Ala-Archa	48.94	296	P	P	15 45 12.1	+0.8
	comp=Z,1.1nm,0.3s,baz=89,slow=10,SNR=2.5						
	comp=Z,1.1nm,0.3s						
BCAR	Beaver Creek A	49.18	36	P	P	15 45 13.0	+0.3
G29M	Pine Creek	50.04	31	P	P	15 45 20.3	+1.1
G29M				IAmb	IAmb	15 45 50.1	
	comp=Z,8.2nm,1.4s						
KKAR	Karatay Array	51.48	298	P	P	15 45 29.9	-0.4
H31M	Peel River	51.73	31	P	P	15 45 31.3	-0.6
H31M				IAmb	IAmb	15 45 35.5	
	comp=Z,4.9nm,0.9s						
ARTI	Arti	53.97	317		P	15 45 47.0	-1.5
C36M	Paulatuk	54.42	26	P	P	15 45 52.8	+1.3
AB31	Akbulak array	55.80	308		P	15 46 00.1	-1.7
AB31				IAmb	IAmb	15 46 02.4	
	comp=Z,1.7nm,0.6s						
WB0	Warramunga Arr	60.19	188	P	P	15 46 31.9	-0.8
WB0				IAmb	IAmb	15 46 42.3	
	comp=Z,6.3nm,1.4s						
WR8	Warramunga Arr	60.36	187	P	P	15 46 32.8	-1.1
WR8				IAmb	IAmb	15 46 41.5	
	comp=Z,8.3nm,1.4s						
WRA	Warramunga Arr	60.37	188	P	P	15 46 33.5	-0.3
	comp=Z,0.9nm,0.4s,baz=2.6,slow=7.1,SNR=25						
	comp=Z,0.9nm,0.4s						
WRA	Warramunga Arr	60.37	188	P	P	15 46 33.0	-0.9
ARCES	ARCESS Array B	60.86	339	P	P	15 46 36.8	+0.2
	comp=Z,3.4nm,0.9s,baz=58,slow=6.4,SNR=2.1						
	comp=Z,3.4nm,0.9s						
YKA	Yellowknife Ar	60.95	31	P	P	15 46 38.4	+1.0
	comp=Z,0.9nm,0.7s,baz=298,slow=7.5,SNR=2.8						
	comp=Z,0.9nm,0.7s						
AS31	Alice Springs	64.09	188	P	P	15 46 58.2	-0.5
ASAR	Alice Springs	64.09	188	P	P	15 46 59.1	+0.4
	comp=Z,0.6nm,0.4s,baz=0.4,slow=7.3,SNR=46						
	comp=Z,0.6nm,0.4s						
ASAR	Alice Springs	64.09	188	P	P	15 46 57.9	-0.8
FINES	FINESS Array B	65.85	332	P	P	15 47 11.0	+1.3
	comp=Z,0.9nm,0.6s,baz=32,slow=10,SNR=9.1						
	comp=Z,0.9nm,0.6s						
FINES	FINESS Array B	65.85	332	P	P	15 47 09.7	+0.1
KBZ	Khabaz	68.72	310	P	P	15 47 29.6	+1.5
	comp=Z,0.7nm,0.4s,baz=180,slow=5.1,SNR=1.5						
	comp=Z,0.7nm,0.4s						
HFS	Hagfors	71.03	335	P	P	15 47 41.7	-0.3
	comp=Z,2.0nm,0.9s,baz=32,slow=5.8,SNR=6.4						
	comp=Z,2.0nm,0.9s						
NOA	NORSAR Array B	71.10	337	P	P	15 47 42.4	0.0
	comp=Z,0.3nm,0.6s,baz=26,slow=8.0,SNR=1.9						
	comp=Z,0.3nm,0.6s						
AKASG	Malin Array Be	71.64	322	P	P	15 47 46.3	+0.5
	comp=Z,0.4nm,0.3s,baz=46,slow=6.9,SNR=4.5						
	comp=Z,0.4nm,0.3s						
PDAR	Pinedale Array	75.36	46	P	P	15 48 09.2	+1.2
	comp=Z,0.2nm,0.4s,baz=306,slow=4.0,SNR=2.5						
	comp=Z,0.2nm,0.4s						
BRTR	Keskin Array B	76.62	311	P	P	15 48 15.8	+0.6
	comp=Z,0.4nm,0.5s,baz=83,slow=4.4,SNR=1.6						
	comp=Z,0.4nm,0.5s						

IDC ***26*** *15:41:45.9±1.7,33°.85N×134°.85E,h45km±20km,mb3.0/4, mbtmp3.2/7,ML2.9/3,Error ellipse: s-maj=24.1km s-min=9.5km az=153.0*

NIED ***26*** *15:41:46.0,33°.82N×134°.97E,h42km,MW3.7,Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}2.25; $M_{\theta\theta}$-3.69; $M_{\phi\phi}$1.44; $M_{r\theta}$-1.08; $M_{\theta\phi}$1.50; $M_{\phi r}$-1.68; Fault plane solution: $M_0$4.07000×10^{14} NP1: ϕ_s139.00000°,δ53.00000°,λ145.00000°. NP2: ϕ_s252.00000°,δ63.00000°,λ42.00000°.*

JMA ***26*** *15:41:46.0±0.1,33°.8N±0°.2×135°.0E±0°.1,h42km,MV3.5/40, S PART OF KII CHANNEL*

JMA Felt I J1 at S PART OF KII CHANNEL .

ISC 26 15:41:45.6±0.9,33°.81N±0°.06×134°.95E±0°.03,h43km±9km, n18,σ0s.73/28,mb3.4/4,9D,Shikoku

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JWM	Minabe	0.34	82	⇓iP	Pn	15 41 54.5	-0.1
JWM				⇓S	Sn	15 42 00.4	-0.5
JAI	Aioi	0.41	268	iP	Pn	15 41 55.8	+0.4
JAI				S	Sn	15 42 02.6	+0.3
JTNC	Tanabenakahech	0.55	88	P	Pn	15 41 57.3	+0.1
JTNC				S	Sn	15 42 05.4	0.0
JWY	Kouya	0.68	52	⇓iP	Pn	15 41 58.9	0.0
JWY				⇓S	Sn	15 42 07.8	-0.6
JAWN	Awajishima-nag	0.68	357	⇓iP	Pn	15 41 59.0	+0.2
JAWN				⇓S	Sn	15 42 08.5	+0.1
JMN	Monobe	0.89	265	iP	Pn	15 42 02.2	+0.4
JJS	Sakaide	1.02	304	P	Pn	15 42 03.7	+0.3
JJS				eS	Sn	15 42 16.3	-0.2
JHE	Heguri	1.04	36	⇓iP	Pn	15 42 03.8	-0.1
JHE				⇓S	Sn	15 42 16.8	-0.4
JKS	Kasai	1.18	356	⇓iP	Pn	15 42 05.8	+0.1
JKN2	Miekihoku	1.18	68	iP	Pn	15 42 05.4	-0.3
JAD	Aida	1.30	331	iP	Pn	15 42 07.4	0.0
JNU	Nakatsue	3.47	260	P	Pn	15 42 38.2	+1.0
	2.0nm,0.3s,baz=48,slow=6.1,SNR=46						
JNU				S	Sn	15 43 15.2	-1.7
	16nm,0.4s,baz=185,slow=12,SNR=8.5						
	4.0nm,0.3s						
JNU				AML	AML		
MJAR	Matsushiro Arr	3.82	43	P	Pn	15 42 43.4	+1.4
	0.8nm,0.3s,baz=231,slow=14,SNR=47						
MJAR				S	Sn	15 43 26.9	+1.3
	6.0nm,0.4s,baz=222,slow=16,SNR=5.8						
	4.1nm,0.3s						
MJAR				AML	AML		
KSRS	Korea Array	6.78	304	P	Pn	15 43 23.2	+0.7
	0.2nm,0.3s,baz=119,slow=14,SNR=1.8						
KSRS				S	Sn	15 44 37.0	-1.4
	1.0nm,0.7s,baz=115,slow=28,SNR=2.3						
	0.7nm,0.5s						
KSRS				AML	AML		
MKAR	Makanchi Array	41.46	304	P	P	15 49 28.3	+0.1
	0.1nm,0.3s,baz=89,slow=12,SNR=1.4						
	0.1nm,0.3s						
WRA	Warramunga Arr	53.45	181	P	P	15 51 01.9	+0.5
	0.4nm,0.7s,baz=349,slow=7.6,SNR=2.8						
	0.4nm,0.7s						
ILAR	Eielson Array	55.00	31	P	P	15 51 11.4	-0.8
	0.3nm,0.6s,baz=280,slow=7.2,SNR=2.2						
	0.3nm,0.6s						
ASAR	Alice Springs	57.16	181	P	P	15 51 28.1	0.0
	0.3nm,0.9s,baz=8.6,slow=8.5,SNR=2.3						
	0.3nm,0.9s						

IDC ***26*** *15:52:43.0±5.4,36°.15N×71°.32E,h150km±45km,mb3.4/7, mbtmp3.8/11,Error ellipse: s-maj=41.4km s-min=28.6km az=168.0*

NNC ***26*** *15:52:52.6±7.0,36°.99N×70°.61E,h186km±80km,mb3.0, mpv4.2,Error ellipse: s-maj=62.2km s-min=43.5km az=31.0*

ISC 26 15:52:49.4±1.4,36°.7N±0°.1×71°.1E±0°.1,h188km,n15, σ2s.33/19,mb3.5/5,5C-3D,Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KK31	Karatay Array	6.37	356	⇑P	Pn	15 54 21.5	+0.2
	36nm,0.3s,baz=179,slow=13,SNR=619						
KK31				⇑S	Sn	15 55 32.5	-1.4
	6.3nm,0.4s,baz=185,slow=29,SNR=6.8						
AAK	Ala-Archa	6.45	23	P	Pn	15 54 23.7	+1.2
	8.2nm,0.3s,baz=195,slow=4.9,SNR=26						
AAK				S	Sn	15 55 37.0	+1.0
	3.4nm,0.3s,baz=355,slow=21,SNR=7.6						
AAK	Ala-Archa	6.45	23	⇑P	Pn	15 54 23.0	+0.5
	2.0nm,0.4s						
AAK				⇓S	Sn	15 55 37.0	+1.0
	16nm,1.1s						
MKAR	Makanchi Array	13.06	36	P	P	15 55 49.5	-2.0
	0.4nm,0.6s,baz=220,slow=12,SNR=5.4						
KURBB	Kurchatov Arra	14.88	19	P	P	15 56 11.7	+0.2
	0.5nm,0.5s,baz=207,slow=10,SNR=6.8						
AB31	Akbulak array	14.90	331	⇑P	Pn	15 56 11.6	+0.9
	0.7nm,0.5s,baz=149,slow=12,SNR=24						
AB31				⇓S	Sn	15 58 48.0	-9.2
	1.6nm,0.7s,baz=146,slow=24,SNR=5.0						
BVAR	Borovoye Array	16.29	359	P	Pn	15 56 30.8	+3.3
	1.1nm,0.4s,baz=168,slow=9.7,SNR=8.9						
AKTO	Aktyubinsk	16.60	330	⇑P	P	15 56 31.4	+0.8
	1.9nm,0.8s						
AKTO				⇓S	S	15 59 27.9	-6.2
	1.7nm,1.1s						
ZALV	Zalesovo Beam	19.67	25	P	Pn	15 57 06.8	-0.8
	2.5nm,0.5s,baz=219,slow=11,SNR=18						
	2.5nm,0.5s						
SONM	Songino Array	28.15	56	P	P	15 58 21.3	-2.8
	0.4nm,0.4s,baz=245,slow=9.0,SNR=2.3						
	0.4nm,0.4s						
FINES	FINESS Array B	37.32	326	P	P	15 59 45.2	+2.1
	2.0nm,0.8s,baz=132,slow=8.2,SNR=8.0						
	2.0nm,0.8s						
ARCES	ARCESS Array B	40.95	337	P	P	16 00 16.1	+3.0
	3.3nm,0.9s,baz=126,slow=8.2,SNR=4.8						
	3.3nm,0.9s						
HFS	Hagfors	42.91	322	P	P	16 00 30.3	+1.2
	1.3nm,0.8s,baz=96,slow=13,SNR=1.4						
	1.3nm,0.8s						
NOA	NORSAR Array B	44.22	323	P	P	16 00 41.0	+1.4
	0.2nm,0.4s,baz=97,slow=7.9,SNR=1.4						
	0.2nm,0.4s						
TORD	Torodi Ar. Bea	65.78	269	P	P	16 03 13.3	-1.3
	0.6nm,0.4s,baz=54,slow=6.1,SNR=8.5						
	0.6nm,0.4s						

SOME ***26*** *16:04:16.6,39°.38N×72°.68E,h5km*

NNC ***26*** *16:04:18.4±5.7,39°.35N×72°.78E,h0km,mb3.5,mpv3.5, Error ellipse: s-maj=40.1km s-min=22.7km az=169.0*

ISC 26 16:04:14.8±4.0,39°.3N±0°.2×72°.80E±0°.09,h10km,n8, σ1s.94/11,3C-1D,Kyrgyzstan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MRKS	Merke	3.46	5	Pg	Pg	16 05 22.2	+1.1
	4.3nm,0.2s						
MRKS				Lg	Lg	16 06 09.0	
	36nm,0.3s						
MRKS	Merke	3.46	5	eP	Pg	16 05 20.1	-1.0
	4.3nm,0.2s						
MRKS				eS	Sg	16 06 05.7	-0.2
	36nm,0.3s						
IUG	Iuzhnay	3.54	324	Pg	Pg	16 05 24.3	+1.6
	9.5nm,0.2s						
IUG				Lg	Lg	16 06 12.7	
	16nm,0.4s						
IUG	Iuzhnay	3.54	324	eP	Pg	16 05 20.7	-2.0
	3.5nm,0.2s						
IUG				eS	Sg	16 06 06.6	-2.0
	32nm,0.5s						
AAK	Ala-Archa	3.58	20	⇑Pg	Pg	16 05 22.0	-1.3
	1.5nm,0.6s						
AAK				⇑Lg	Lg	16 06 09.1	
	3.8nm,0.7s						
KK31	Karatay Array	4.18	336	⇑Pg	Pg	16 05 32.0	-2.8
	1.5nm,0.4s,baz=153,slow=14,SNR=19						
KK31				⇓Lg	Lg	16 06 26.9	
	4.3nm,0.3s,baz=156,slow=24,SNR=14						
BRLS	Borolday	4.35	330	Pg	Pb	16 05 32.1	+0.8
	10.0nm,0.2s						
BRLS				Lg	Lg	16 06 26.5	
	3.1nm,0.1s						
BRLS	Borolday	4.35	330	eP	Pb	16 05 32.1	+0.8
	10.0nm,0.2s						
BRLS				eS	Sb	16 06 26.5	+2.6
	3.1nm,0.1s						

SNET ***26*** *16:21:24.7±1.9,14°.39N×90°.70W,h176km,ML3.6,ML3.2, Presumed earthquake*

GCG ***26*** *16:21:25.5±1.5,14°.48N×90°.70W,h164km±12km,MD4.4, Presumed earthquake*

CATAC ***26*** *16:21:26.9±0.4,14°N±8°×9°1W±°,h154km,M3.3/9, MLv3.3/9,Error ellipse: s-maj=17.7km s-min=6.3km az=10.5,confirmed*

ISC 26 16:21:27.4±3.0,14°.4N±0°.1×90°.73W±0°.07,h156km±19km, n27,σ0s.59/38,Guatemala

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ESSG	Sabana Grande	0.11	253	iP	Pn	16 21 47.6	-0.7
FG8	Yepocapa, Chim	0.22	134	iP	Pn	16 21 48.0	-0.6
FG16	Alotenango, Sa	0.25	124	iP	Pn	16 21 48.0	-0.8
GCG4	OSOP	0.25	47	iP	Pn	16 21 48.9	+0.1
PCG5	San Vicente Pa	0.39	120	iP	Pn	16 21 48.1	-1.0
STG8	El Palmar, Qui	0.61	273	iP	Pn	16 21 51.5	+1.2
APG	El Apazote	0.64	23	iP	Pn	16 21 50.3	-0.1
APG				iS	Sn	16 22 07.6	-0.5
FAME	Alcaldia de Sa	0.89	129	P	Pn	16 21 51.5	-0.4
FAME				S	Sn	16 22 11.2	+0.5
RTAL	Retalhuleu	0.95	277	P	Pn	16 21 51.6	-0.7
RTAL				S	Sn	16 22 11.6	+0.3
SLOZ	Alcaldia de Sa	0.99	113	P	Pn	16 21 52.6	-0.1
LOAL	Lomas de Alarc	1.00	114	P	Pn	16 21 52.9	0.0
NUBE	Las Nubes	1.05	119	iP	Pn	16 21 53.0	-0.3
NUBE	Las Nubes	1.05	119	P	Pn	16 21 52.9	-0.4
NUBE				S	Sn	16 22 13.8	+0.7
CEVE	Cerro Verde	1.22	119	eP	Pn	16 21 54.9	-0.1
CEVE				eS	Sn	16 22 16.5	+0.6
CEVE				IAML		16 22 22.7	
	comp=Z,478nm,0.2s						
CEVE	Cerro Verde	1.22	119	P	Pn	16 21 54.7	-0.2
CEVE				S	Sn	16 22 16.6	+0.7
UNIC	Universidad Ca	1.22	111	P	Pn	16 21 54.3	-0.4
MTO3	Montecristo	1.32	91	iP	Pn	16 21 55.5	-0.3
MTO3	Montecristo	1.32	91	P	Pn	16 21 55.4	-0.5
MTO3				S	Sn	16 22 18.4	+0.7
ESQI	Esquipulas	1.35	84	S	Sn	16 22 18.5	+0.6
JAYA	Jayaque - finc	1.45	121	iP	Pn	16 21 56.7	-0.4
JAYA				iS	Sn	16 22 18.5	-1.3
JAYA	Jayaque - finc	1.45	121	eP	Pn	16 21 56.7	-0.4
JAYA				eS	Sn	16 22 20.2	+0.3
JAYA	Jayaque - finc	1.45	121	P	Pn	16 21 56.6	-0.5
JAYA				S	Sn	16 22 20.1	+0.3
PMON	Piamonte	1.54	117	P	Pn	16 21 57.7	-0.2
PMON				S	Sn	16 22 21.8	+0.5
BOQS	Boqueron	1.56	116	eP	Pn	16 21 58.1	-0.2
LFRS	El Faro	1.80	116	eS	Sn	16 22 27.0	+0.7
COEG	Centro de Oper	1.96	114	eP	Pn	16 22 02.2	-0.3
INTP	Intipuca	2.86	115	eS	Sn	16 22 49.2	+0.4

IDC ***26*** *16:48:29.3±5.0,22°.96S×179°.34E,h614km±44km,mb2.9/6, mbtmp3.9/8,Error ellipse: s-maj=118.1km s-min=19.2km az=153.0*

ISC 26 16:48:27.9±1.5,23°.1S±0°.3×179°.5E±0°.2,h600km,n8, σ1s.10/8,mb3.3/6,South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	5.52	346	P	P	16 50 05.5	+0.3
	3.5nm,0.4s,baz=171,slow=22,SNR=10						
DZM	Mont Dzumac	12.07	272	P	P	16 51 07.7	+0.1
	5.8nm,0.8s,baz=87,slow=17,SNR=4.1						
CTA	Charters Tower	30.99	269	P	P	16 53 59.3	+1.0
	2.7nm,0.4s,baz=92,slow=10,SNR=19						
	2.7nm,0.4s						
ASAR	Alice Springs	41.68	260	P	P	16 55 24.9	-0.9
	0.5nm,0.5s,baz=96,slow=7.6,SNR=17						
	0.5nm,0.5s						
WRA	Warramunga Arr	41.97	265	P	P	16 55 27.4	-0.8
	1.2nm,0.4s,baz=103,slow=7.8,SNR=25						
	1.2nm,0.4s						
TXAR	Lajitas Array	90.44	58	P	P	17 00 28.4	+1.4
	0.3nm,0.8s,baz=255,slow=2.3,SNR=2.4						
	0.3nm,0.8s						
ILAR	Eielson Array	91.39	14	P	P	17 00 29.4	-1.0
	0.2nm,0.6s,baz=205,slow=4.0,SNR=1.5						
	0.2nm,0.6s						
PDAR	Pinedale Array	92.47	44	P	P	17 00 35.5	-0.7
	0.1nm,0.5s,baz=243,slow=4.2,SNR=1.7						
	0.1nm,0.5s						

UCR ***26*** *16:51:52.6±0.7,10°.60N×86°.79W,h16km±11km,MW4.1, Presumed earthquake*

CATAC ***26*** *16:51:55.7±0.4,11°N±2°×8°7W±°,h22km,M3.4/18, MLv3.4/18,Error ellipse: s-maj=6.8km s-min=3.6km az=48.5,confirmed*

ISC 26 16:51:52.5±2.1,10°.57N±0°.06×86°.65W±0°.09,h5km±12km, n43,σ1s.06/49,Off coast of Costa Rica

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ALIBA	Liberia Airpor	1.08	88	eP	Pn	16 52 15.7	+1.3
LCRUZ	La Cruz	1.12	63	eP	Pn	16 52 15.1	+0.2
JUD3	Juan Diaz 3	1.16	110	eP	Pn	16 52 15.8	+0.3
LAPC	Finca la Perla	1.21	80	eP	Pn	16 52 16.5	+0.4
CARN	Rivas	1.26	61	P	Pn	16 52 17.5	+0.6
CARN				S	Sn	16 52 33.8	-0.5
GPS3	Bodega del ICE	1.27	81	eP	Pn	16 52 19.0	+1.9
VRLE	La Escondida,	1.28	80	eP	Pn	16 52 17.7	+0.5
GPS2	Hotel Rincn d	1.28	82	eP	Pn	16 52 17.8	+0.5
CMARA	Lajas Hojancha	1.32	114	P	Pn	16 52 18.4	+0.7
CMARA				S	Sg	16 52 34.3	-0.7
NADN	Granada	1.32	27	P	Pg	16 52 18.0	+0.2
INDI	Punta indio, G	1.32	122	S	Sg	16 52 34.5	-0.6
BUAI	Buenos Aires	1.33	76	eP	Pn	16 52 18.6	+0.8
JAPN	Al SSO del Vol	1.35	45	P	Pb	16 52 19.0	+0.7
JAPN	Al SSO del Vol	1.35	45	eP	Pb	16 52 19.1	+0.8
PEJA	Penjamo Buenos	1.35	76	eP	Pn	16 52 19.5	+1.4
BAGA	Bagaces	1.36	91	eP	Pb	16 52 19.4	+0.9
MORN	Al O del Volca	1.38	45	P	Pb	16 52 19.3	+0.4
MESS	Mesas	1.44	83	eP	Pg	16 52 20.0	-0.1
NANN	Nandasmo	1.46	21	P	Pb	16 52 20.6	+0.4
CUI	Cuipilapa	1.46	86	eP	Pg	16 52 20.6	+0.1
VMAR	Armenia, Volca	1.52	81	eP	Pg	16 52 21.8	0.0
COPN	Copaltepe	1.60	2	eP	Pn	16 52 19.6	-2.0
MGAN	Managua	1.62	14	P	Pn	16 52 22.4	+0.7
MGAN				S	Sn	16 52 43.2	+0.2
UPAL	Upala	1.64	78	S	Sn	16 52 42.9	-0.6
JTS	Las Juntas de	1.69	99	P	Pb	16 52 23.7	-0.4
JTS	Las Juntas de	1.69	99	eP	Pn	16 52 23.6	+0.9
QUEB	Quebradon, Cot	1.72	88	eP	Pb	16 52 24.6	-0.1
MOM2	El Cardon	1.87	5	P	Pn	16 52 25.5	+0.4
LAFE	Finca La Fe, P	1.87	114	eP	Pn	16 52 25.4	+0.2
ARE1	Arenal 1	1.90	93	eP	Pb	16 52 27.3	-0.3
CNGA	Al SSO del Vol	1.92	358	P	Pn	16 52 27.2	+1.2
CNGN	Cerro Negro	1.92	358	P	Pn	16 52 27.0	+1.0
MOM3	MOM3	1.94	4	P	Pn	16 52 27.0	+0.8
MOM3				S	Sn	16 52 50.7	-0.2
ACON	Acoyapa	2.01	46	P	Pn	16 52 27.7	+0.6
ACON				S	Sn	16 52 51.1	-1.5
ACON	Acoyapa	2.01	46	eP	Pn	16 52 27.3	+0.2
PLRN	Geotermica Pol	2.01	357	S	Sn	16 52 51.7	-1.1
BOAB	BOACO BROADBAN	2.10	27	P	Pn	16 52 28.6	+0.2
MATN	Matagalpa	2.45	17	P	Pn	16 52 35.6	+2.2
LIMN	Finca el Limon	2.50	6	P	Pn	16 52 34.4	+0.5
LIMN				S	Sb	16 53 08.2	-0.9
LCR2	La Lucha 2	2.73	107	P	Pn	16 52 39.8	+2.6
LCR2	La Lucha 2	2.73	107	eP	Pb	16 52 40.3	-1.6
RCPN	Sur Rio San Ju	2.99	10	P	Pn	16 52 42.2	+1.4
BUS1	Rivas	3.03	109	eP	Pn	16 52 44.1	+2.6

BGR ***26*** *17:10:17.1,48°.20S×37°.02E,h10km,Ms6.2*

MOS ***26*** *17:10:21.8±1.1,48°.20S×31°.83E,h10km,mb6.0/45, MS5.9/35,Error ellipse: s-maj=13.2km s-min=6.2km az=82.3*

BJI ***26*** *17:10:21.9,47°.90S×31°.75E,h10km,mB6.3/43,mb5.8/25, Ms6.2/64,Ms7 5.9/62*

IDC ***26*** *17:10:21.6±0.3,47°.99S×31°.84E,h0km,mb5.4/32, mbtmp5.4/33,ML5.1/1,MS5.8/60,Error ellipse: s-maj=11.7km s-min=7.7km az=78.0*

NEIC ***26*** *17:10:22.4,48°.03S×31°.77E,h10km*

NEIC ***26*** *17:10:22.5±1.4,48°.03S±0°.08×31°.7E±0°.1,h10km±1km, mb6.2/219,Ms_20 6.0/548,Mwb6.1/54,Mww6.1/36,Error ellipse: s-maj=14.4km s-min=13.0km az=57.0,Moment Tensor Solution. Moment tensor: Scale 10^{18}Nm; M_{rr}-0.43; $M_{\theta\theta}$1.43; $M_{\phi\phi}$-1.00; $M_{r\theta}$0.09; $M_{\theta\phi}$1.67; $M_{\phi r}$0.05; Fault plane solution: $M_0$2.10000×10^{18} NP1: ϕ_s108.03000°,δ88.23000°,λ1.34000°. NP2:ϕ_s17.99000°, δ88.66000°,λ178.23000°. Principal axes: T 2.2871, Plg2.0000°, Azm333.0000°; N -0.4381, Plg88.0000°, Azm161.0000°; P -1.8490, Plg0.0000°, Azm63.0000°;*

ISC-PP ***26*** *17:10:22,48°.03S×31°.74E,h15km,Mwppsm6.4,Moment Tensor Solution. s32 Moment tensor: Scale 10^{18}Nm; M_{rr}0.39±.13; $M_{\theta\theta}$0.17±.16; $M_{\phi\phi}$-0.58±.13; $M_{r\theta}$0.29±.15; $M_{\theta\phi}$-0.20±.20; $M_{\phi r}$0.34±.12; Fault plane solution: $M_0$4.79000×10^{18} NP1:ϕ_s131.80000°,δ66.30000°, λ55.00000°. NP2:ϕ_s12.10000°,δ41.40000°,λ142.70000°.*

IPGP ***26*** *17:10:22.0,48°.06S×31°.67E,h6km,Mw6.2,Fault plane solution: NP1:ϕ_s100.00000°,δ62.00000°,λ-26.00000°. NP2:ϕ_s203.00000°,δ67.00000°,λ-149.00000°.*

GFZ ***26*** *17:10:24.8±0.1,48°S±2°×3°2E±°,h10km,M6.0/43, mb5.9/43*

GFZ ***26*** *17:10:24.9,48°.07S×31°.95E,h16km,Mw6.2/56,Moment Tensor Solution. Moment tensor: Scale 10^{18}Nm; M_{rr}-1.42; $M_{\theta\theta}$1.91; $M_{\phi\phi}$-0.49; $M_{r\theta}$-0.66; $M_{\theta\phi}$1.51; $M_{\phi r}$0.53; Fault plane solution: $M_0$2.43486×10^{18} NP1:ϕ_s96.61644°, δ61.93576°,λ-42.87283°. NP2:ϕ_s210.21041°,δ53.10320°, λ-143.96468°. Principal axes: T 2.6672, Plg5.2708°, Azm155.2564°; N -0.5635, Plg40.2929°, Azm249.7424°; P -2.1037, Plg49.2176°, Azm59.1172°;*

PTWC ***26*** *17:10:24,48°.00S×31°.70E,h10km,Mwp6.2/13*

GCMT ***26*** *17:10:25.5±0.0,48°.07S×31°.69E,h12km,MW6.1/179, Moment Tensor Solution. s171,c359; s179,c641; Duration: 2s.8 Moment tensor: Scale 10^{18}Nm; M_{rr}-0.98±.01; $M_{\theta\theta}$1.64±.01; $M_{\phi\phi}$-0.65±.01; $M_{r\theta}$0.53±.02; $M_{\theta\phi}$1.47±.01; $M_{\phi r}$0.50±.02; Best double couple: $M_0$1.99600×10^{18} NP1:ϕ_s108.00000°,δ61.00000°, λ-14.00000°. NP2:ϕ_s205.00000°,δ78.00000°, λ-150.00000°. Principal axes: T 2.4970, Plg11.0000°, Azm333.0000°; N -0.9970, Plg58.0000°, Azm225.0000°; P -1.4950, Plg30.0000°, Azm70.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle* *waves, cutoff=50s. Triangular moment-rate function*

ISC 26 17:10:24.1±0.2,**48.°08S**±0.°03×**31.°89E**±0.°04,**h15**km,**n1587**,σ**2.s09**/1392,**mb5.9**/311,**MS6.0**/387,**85C-75D,South of Africa**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
H04S2	CROZET ISLANDS	13.59	92	Pn	Pn	17 13 30.7	-5.3
	baz=254,slow=13						
H04S2				Sn	Sn	17 15 52.1	-14
	baz=177,slow=76						
H04S3	CROZET ISLANDS	13.59	92	Pn	Pn	17 13 31.8	-4.2
	baz=254,slow=13						
H04S3				Sn	Sn	17 15 52.6	-14
	baz=177,slow=76						
H04S3				T	T	17 27 17.5	
	baz=5.9,slow=74,SNR=179						
H04S1	CROZET ISLANDS	13.60	92	Pn	Pn	17 13 31.6	-4.6
	baz=254,slow=13						
H04S1				Sn	Sn	17 15 52.3	-15
	baz=177,slow=76						
H04S1				T	T	17 27 08.1	
	baz=260,slow=74,SNR=10						
CRZF	Crozet Islands	13.66	91		Pn	17 13 31.4	-5.8
CRZF	Crozet Islands	13.66	91	P	Pn	17 13 36.3	-0.9
	comp=Z,201nm,1.1s						
H04N3	CROZET ISLANDS	13.67	89	Pn	Pn	17 13 33.4	-3.7
	baz=254,slow=12						
H04N3				Sn	Sn	17 15 54.9	-14
	baz=253,slow=10						
H04N1	CROZET ISLANDS	13.68	89	Pn	Pn	17 13 32.5	-4.7
	baz=254,slow=12						
H04N1				Sn	Sn	17 15 54.5	-14
	baz=253,slow=10						
H04N2	CROZET ISLANDS	13.69	89	Pn	Pn	17 13 33.1	-4.3
	baz=254,slow=12						
H04N2				Sn	Sn	17 15 54.5	-14
	baz=253,slow=10						
GRHM	Grahamstown, E	15.36	342		Pn	17 13 54.8	-5.6
GRHM	Grahamstown, E	15.36	342	⇓P	Pn	17 13 53.9	-6.4
ELIM	Elim	16.24	322	*e*P	Pn	17 14 01.3	-10
ELIM				*e*S	S	17 17 52.0	+28
GRAF	Camdeboo Natio	16.75	338	*e*P	Pn	17 14 07.2	-11
GRAF				*e*S	S	17 17 57.0	+22
MATJ	Matjiesfontein	17.08	326	*e*P	Pn	17 14 12.3	-10
MATJ				*e*S	S	17 17 58.0	+16
BFON	Badsfontein, M	17.42	336	*e*P	Pn	17 14 17.4	-9.2
BFON				*e*S	Sn	17 17 43.9	+3.7
CER	Ceres	17.50	323	*e*P	Pn	17 14 18.4	-9.1
CER				*e*S	S	17 18 05.0	+15
CER	Ceres	17.50	323	P	Pn	17 14 25.4	-2.1
	comp=Z,530nm,1.4s						
BRAK	Brakfontein	17.66	334	*e*P	Pn	17 14 20.4	-9.2
BRAK				*e*S	S	17 18 07.0	+14
SUR	Sutherland	17.79	328	P	Pn	17 14 29.0	-2.3
	comp=Z,6.8nm,0.3s,baz=150,slow=11,SNR=68						
SUR				S	Sn	17 17 31.6	-18
	comp=Z,46nm,0.8s,baz=64,slow=19,SNR=1.6						
SUR				LR	LR	17 20 03.1	
	comp=Z,72µm,21.1s,baz=178,slow=33						
	comp=Z,124nm,0.7s						
SUR				AML	AML		
SUR	Sutherland	17.79	328	P	Pn	17 14 28.6	-2.7
SUR				S	Sn	17 17 41.9	-7.4
SUR	Sutherland	17.79	328		Pn	17 14 28.1	-3.2
SUR	Sutherland	17.79	328	P	Pn	17 14 29.1	-2.1
SUR	Sutherland	17.79	328	⇓P	Pn	17 14 28.3	-3.0
SUR	Sutherland	17.79	328	*e*P	Pn	17 14 23.5	-7.8
SUR				*e*S	S	17 18 10.0	+14
SUR	Sutherland	17.79	328	P	Pn	17 14 29.2	-2.1
	comp=Z,752nm,1.9s						
SUR	Sutherland	17.79	328	P	Pn	17 14 28.9	-2.3
FRAZ	Fraserburg	17.99	330	*e*P	Pn	17 14 25.4	-8.3
FRAZ				*e*S	Sn	17 17 45.9	-8.1
CVNA	Calvinia	18.98	326	*e*P	P	17 14 39.5	-5.5
CVNA				*e*S	S	17 18 33.3	+13
CVNA	Calvinia	18.98	326	P	P	17 14 44.9	-0.1
	comp=Z,1µm,1.2s						
ALKP	Alkanpan, Nort	19.57	334	⇑P	P	17 14 48.7	-2.8
ALKP	Alkanpan, Nort	19.57	334	*e*P	P	17 14 45.5	-6.0
ALKP				*e*S	Sn	17 19 28.7	+56
BOSA	Boshof	20.10	343	P	P	17 14 55.5	-1.8
	comp=Z,97nm,0.8s,baz=176,slow=11,SNR=64						
BOSA				S	S	17 18 25.5	-17
	comp=Z,26nm,0.6s,baz=112,slow=19,SNR=3.9						
BOSA				LR	LR	17 21 14.4	
	comp=Z,51µm,20.8s,baz=160,slow=33						
	comp=Z,97nm,0.8s						
BOSA	Boshof	20.10	343		P	17 14 55.1	-2.2
BOSA	Boshof	20.10	343	P	P	17 14 56.4	-1.0
BOSA	Boshof	20.10	343	⇑P	P	17 14 55.2	-2.1
BOSA	Boshof	20.10	343	*e*P	P	17 14 52.6	-4.7
BOSA				*e*S	Sn	17 18 45.3	+0.2
BOSA	Boshof	20.10	343	P	P	17 14 56.1	-1.3
	comp=Z,507nm,1.3s						
BOSA	Boshof	20.10	343	P	P	17 14 55.4	-2.0
POGA	Pongola	20.70	360		P	17 15 01.6	-2.1
POGA	Pongola	20.70	360	P	P	17 15 04.0	+0.4
	comp=Z,634nm,0.7s						
POGA	Pongola	20.70	360	P	Pn	17 15 04.5	-1.6
SYO	Syowa Base	21.34	172	⇑*i*P	P	17 15 10.4	+0.2
AUGR	Augrabies	21.41	331	*e*P	P	17 15 11.7	+0.2
AUGR				*e*S	Sn	17 19 18.6	+2.1
CRLN	Carolina, Mapu	22.09	356	*e*P	P	17 15 13.7	-5.2
CRLN				*e*S	S	17 19 21.6	-0.4
ARMS	Ukamas	22.12	330	*e*P	P	17 15 21.8	+2.7
ARMS				*e*S	Sn	17 20 30.2	+57
HRAO	HartRAO	22.39	350	*e*P	P	17 15 20.8	-1.3
HRAO				*e*S	Sn	17 19 33.8	-6.4
TSWA	Tswaing Meteor	22.81	351	*e*P	P	17 15 26.9	+0.4
TSWA				*e*S	Sn	17 19 42.9	-7.3
MAKGR	Makgori	22.92	343	P	P	17 15 24.8	-2.8
MAKGR				IAmb	IAmb	17 15 37.7	
	comp=Z,1µm,1.3s						
MAKGR	Makgori	22.92	343	P	P	17 15 26.6	-1.0
NYAT	Nyati, Northwe	22.92	350	*e*P	P	17 15 27.9	+0.2
NYAT				*e*S	Sn	17 19 45.9	-6.8
RUST	Rust De Winter	22.95	352	*e*P	P	17 15 26.8	-1.1
RUST				*e*S	S	17 19 44.8	+7.2
NHAM	Northam, North	23.40	349	*e*P	P	17 15 33.9	+1.4
NHAM				*e*S	Sn	17 19 55.0	-9.1
LBTB	Lobatse	23.55	346	P	P	17 15 31.7	-2.3
	comp=Z,94nm,0.8s,baz=171,slow=12,SNR=43						
LBTB				S	S	17 19 45.5	-2.1
	comp=Z,28nm,0.6s,baz=262,slow=7.8,SNR=5.6						
LBTB				LR	LR	17 23 28.8	
	comp=Z,30µm,19.5s,baz=175,slow=34						
	comp=Z,94nm,0.8s						
LBTB	Lobatse	23.55	346		P	17 15 30.7	-3.3
LBTB				IAmb	IAmb	17 15 45.5	
	comp=Z,2µm,2.0s						
LBTB	Lobatse	23.55	346	P	P	17 15 32.2	-1.8
LBTB	Lobatse	23.55	346	⇑P	P	17 15 31.1	-2.9
LBTB	Lobatse	23.55	346	*e*P	P	17 15 37.9	+3.9
LBTB				*e*S	S	17 19 41.8	-5.7
LBTB	Lobatse	23.55	346	P	P	17 15 31.9	-2.1
	comp=Z,362nm,1.4s						
LBTB	Lobatse	23.55	346	P	P	17 15 31.3	-2.7
HOED	Hoedspruit, Li	23.63	358	*e*P	P	17 15 32.9	-1.8
HOED				*e*S	S	17 19 33.8	-15
PHPEN	Phepeng	23.66	339	P	P	17 15 32.3	-2.7
PHPEN	Phepeng	23.66	339	P	P	17 15 32.9	-2.1
ELIB	Princess Elisa	24.27	186	*d*P	P	17 15 40.4	-0.1
	comp=Z,594nm,1.2s						
SKOMA	Sekoma	24.35	342	P	P	17 15 39.3	-2.2
MTLB	Matlabas, Limp	24.52	349	*e*P	P	17 15 49.0	+6.0
MTLB				*e*S	S	17 20 14.1	+11
NVL	N'lazarevskaya	24.68	196	*e*P	P	17 15 41.6	-2.4
NVL				*e*S	S	17 20 05.6	+0.8
NVL				*e*SS	SnSn	17 20 50.5	-0.2
NVL				pmax	pmax		
	comp=Z,278nm,1.0s						
NVL				MLR	MLR		
	comp=Z,7µm,17.0s						
MAW	Mawson	25.11	152	P	P	17 15 49.4	+1.5
	comp=Z,149nm,1.4s,comp=Z,0.0nm						
MAW	Mawson	25.11	152	P	P	17 15 48.9	+1.1
	comp=Z,595nm,1.0s,baz=302,slow=9.9,SNR=102						
MAW				S	S	17 20 17.5	+5.9
	comp=Z,14nm,0.5s,baz=248,slow=24,SNR=6.2						
MAW				LR	LR	17 23 11.0	
	comp=Z,31µm,21.9s,baz=313,slow=30						
	comp=Z,595nm,1.0s						
MAW	Mawson	25.11	152	P	P	17 15 48.8	+0.9
MAW				S	S	17 20 17.5	+5.9
MAW				pmax	pmax		
	comp=Z,252nm,1.4s						
MAW	Mawson	25.11	152		P	17 15 48.8	+0.9
MAW	Mawson	25.11	152	P	P	17 15 49.9	+2.1
MAW	Mawson	25.11	152	⇓P	P	17 15 49.3	+1.5
MAW	Mawson	25.11	152	P	P	17 15 50.0	+2.1
	comp=Z,149nm,1.4s						
LPHEP	Lephephe	25.13	347	P	P	17 15 46.0	-2.5
LPHEP				IAmb	IAmb	17 15 59.3	
	comp=Z,759nm,1.6s						
LPHEP	Lephephe	25.13	347	P	P	17 15 46.7	-1.9
PAF	Port-aux-Franc	25.14	107	P	P	17 15 47.6	-0.7
PAF				pmax	pmax		
	comp=Z,2µm,1.7s						
PAF				MLR	MLR		
	comp=Z,23µm,20.0s						
PAF	Port-aux-Franc	25.14	107	P	P	17 15 47.6	-0.7
PAF	Port-aux-Franc	25.14	107	P	P	17 15 52.0	+3.7
	comp=Z,550nm,1.7s						
MPHEP	Siloam, Limpop	25.15	356	*e*P	P	17 15 56.1	+7.3
MPHEP				*e*S	S	17 20 24.3	+11
KDWAN	Kaudwane	25.31	344	P	P	17 15 47.7	-2.5
KDWAN				IAmb	IAmb	17 16 01.9	
	comp=Z,339nm,0.8s						
KDWAN	Kaudwane	25.31	344	P	P	17 15 48.2	-2.0
LKGWB	Lokgwabe	25.37	337		P	17 15 46.9	-3.9
LKGWB	Lokgwabe	25.37	337	P	P	17 15 48.5	-2.3
FOMA	Nahampoana Res	25.95	33		P	17 15 55.1	-0.9
FOMA				IAmb	IAmb	17 15 59.2	
	comp=Z,1µm,1.4s						
FOMA				IAMs_20	IAMs_20	17 24 23.9	
	comp=Z,30µm,18.0s						
FOMA	Nahampoana Res	25.95	33	P	P	17 15 56.2	+0.3
FOMA	Nahampoana Res	25.95	33	⇓P	P	17 15 56.1	+0.3
FOMA	Nahampoana Res	25.95	33	P	P	17 15 56.5	+0.5
	comp=Z,554nm,1.4s						
FOMA	Nahampoana Res	25.95	33	P	P	17 15 56.8	+0.9
KHWEE	KHWEE	26.58	347	P	P	17 15 59.3	-2.5
KHWEE				IAmb	IAmb	17 16 13.4	
	comp=Z,1µm,1.4s						
KOOLE	Kule	26.72	335		P	17 16 01.3	-1.7
KOOLE	Kule	26.72	335	P	P	17 16 01.1	-1.9
BROLN	Tlhalogang	27.16	351	P	P	17 16 04.7	-2.4
TROLL	Troll, Antarti	27.54	199	⇑P	P	17 16 09.7	-0.2
	comp=Z,22µm,1.0s						
TROLL				⇓S	S	17 20 55.6	+5.3
	comp=N,290µm,5.8s						
MATP	Matopo	27.72	353	P	P	17 16 12.9	+0.8
	comp=N,32nm,1.0s,baz=179,slow=9.3,SNR=40						
MATP				S	S	17 20 54.1	+0.2
	comp=N,5.8nm,0.9s,baz=289,slow=11,SNR=1.0						
MATP				LR	LR	17 25 38.0	
	comp=N,48µm,21.3s,baz=172,slow=33						
	comp=N,32nm,1.0s						
SOOWA	Sowa	27.83	349	P	P	17 16 11.1	-1.8
GRTLG	Ghanzi	28.01	338		P	17 16 12.5	-2.0
GRTLG	Ghanzi	28.01	338	P	P	17 16 13.3	-1.3
WIN	Windhoek	28.07	330	P	P	17 16 13.1	-2.1
WIN				pmax	pmax		
	comp=Z,316nm,1.4s						
WIN				MLR	MLR		
	comp=Z,97µm,22.0s						
WIN	Windhoek	28.07	330		P	17 16 13.1	-2.1
WIN	Windhoek	28.07	330	P	P	17 16 15.2	0.0
	comp=Z,162nm,1.7s						
WIN	Windhoek	28.07	330	P	P	17 16 13.9	-1.4
SNAA	Sanae	28.59	202	⇑P	P	17 16 19.6	+0.3
	comp=Z,4µm,1.1s						
SNAA				⇓S	S	17 21 12.4	+5.7
	comp=N,145µm,8.0s						
SNAA	Sanae	28.59	202	P	P	17 16 19.2	-0.1
	comp=N,49nm,0.9s,baz=57,slow=7.0,SNR=30						
SNAA				S	S	17 21 11.1	+4.4
	comp=N,9.7nm,1.1s,baz=173,slow=16,SNR=1.3						
SNAA				LR	LR	17 24 49.8	
	comp=N,11µm,21.0s,baz=43,slow=30						
	comp=N,49nm,0.9s						
SNAA	Sanae	28.59	202	*ce*P	P	17 16 19.5	+0.2
SNAA				pmax	pmax		
	comp=Z,442nm,1.5s						
SNAA				MLR	MLR		
	comp=Z,12µm,11.0s						
SNAA	Sanae	28.59	202		P	17 16 18.4	-0.8
SNAA	Sanae	28.59	202	P	P	17 16 19.5	+0.2
SNAA	Sanae	28.59	202	⇑P	P	17 16 19.4	+0.1
SNAA	Sanae	28.59	202	P	P	17 16 19.8	+0.5
	comp=Z,269nm,1.2s						
VOI	Vohitsoka	28.72	30	P	P	17 16 22.1	+1.1
	SNR=27						
VOI	Vohitsoka	28.72	30		P	17 16 21.3	+0.4
VOI				IAmb	IAmb	17 16 23.9	
	comp=Z,777nm,1.6s						
VOI				IAMs_20	IAMs_20	17 26 10.0	
	comp=Z,28µm,20.0s						
VOI	Vohitsoka	28.72	30	⇓P	P	17 16 21.5	+0.6
VOI	Vohitsoka	28.72	30	P	P	17 16 21.9	+1.0
	comp=Z,272nm,1.8s						
VOI	Vohitsoka	28.72	30	P	P	17 16 22.5	+1.6
VNA2	Neumayer--Watz	29.40	205	⇑P	P	17 16 26.8	+0.4
	comp=Z,145nm,0.8s,baz=56,slow=10.0						
VNA2				⇓S	S	17 21 24.9	+5.6
	comp=N,6µm,7.9s						
VNA2	Neumayer--Watz	29.40	205	P	P	17 16 27.1	+0.7
	comp=Z,226nm,0.8s						
VNA1	Neumayer--Stat	29.51	206	⇑P	P	17 16 28.6	+1.2
	comp=Z,447nm,1.0s						
VNA3	Neumayer Olymp	30.20	205	⇑P	P	17 16 33.4	-0.1
	comp=Z,71nm,0.8s						
VNA3				⇓S	S	17 21 37.4	+5.4
	comp=N,5µm,6.9s						
VNA3	Neumayer Olymp	30.20	205	P	P	17 16 33.7	+0.2
	comp=Z,213nm,1.4s						
KSANE	Kasane	30.70	347	P	P	17 16 36.1	-2.3
KSANE	Kasane	30.70	347	P	P	17 16 36.6	-1.8
TSUM	Tsumeb	31.06	333	P	P	17 16 39.8	-1.9
	comp=Z,107nm,1.1s,baz=152,slow=10.0,SNR=40						
TSUM				S	S	17 21 43.9	-2.5
	comp=Z,15nm,1.2s,baz=210,slow=23,SNR=1.5						
TSUM				LR	LR	17 28 40.3	
	comp=Z,56µm,18.6s,baz=159,slow=36						
	comp=Z,107nm,1.1s						
TSUM	Tsumeb	31.06	333	P	P	17 16 39.6	-2.0
TSUM				IAmb	IAmb	17 16 53.6	
	comp=Z,577nm,1.6s						
TSUM	Tsumeb	31.06	333	⇓P	P	17 16 40.3	-1.3
TSUM	Tsumeb	31.06	333	P	P	17 16 41.1	-0.6
	comp=Z,203nm,1.3s						
TSUM	Tsumeb	31.06	333	P	P	17 16 40.4	-1.3
ABPO	Ambohimpanom	31.55	29	*i* P	P	17 16 48.4	+2.3
ABPO	Ambohimpanom	31.55	29	P	P	17 16 45.3	-0.8
ABPO				IAmb	IAmb	17 16 50.2	
	comp=Z,572nm,1.6s						
ABPO	Ambohimpanom	31.55	29	IAMs_20	IAMs_20	17 27 56.0	
	comp=Z,26µm,18.0s						
ABPO	Ambohimpanom	31.55	29	P	P	17 16 47.6	+1.5
ABPO	Ambohimpanom	31.55	29	⇓P	P	17 16 47.9	+1.9
ABPO	Ambohimpanom	31.55	29	P	P	17 16 48.2	+2.1
	comp=Z,177nm,1.6s						
ABPO	Ambohimpanom	31.55	29	P	P	17 16 46.6	+0.5
OPO	Ambohidratompo	31.96	28	LR	LR	17 28 06.9	
	comp=Z,18µm,18.6s,baz=359,slow=33						
LSZ	Lusaka	32.85	353	P	P	17 16 55.3	-2.0
	comp=Z,32nm,0.9s,baz=183,slow=8.8,SNR=33						
LSZ				S	S	17 22 12.5	-1.8
	comp=Z,6.8nm,0.9s,baz=278,slow=17,SNR=2.4						
LSZ				LR	LR	17 29 00.1	
	comp=Z,28µm,19.2s,baz=184,slow=34						
	comp=Z,32nm,0.9s						
LSZ	Lusaka	32.85	353	P	P	17 16 56.7	-0.7
LSZ				S	S	17 22 05.3	-9.0
LSZ	Lusaka	32.85	353	P	P	17 16 55.4	-2.0
LSZ	Lusaka	32.85	353	IAMs_20	IAMs_20	17 28 38.7	
	comp=Z,33µm,19.0s						
LSZ	Lusaka	32.85	353	P	P	17 16 57.4	0.0
LSZ	Lusaka	32.85	353	⇑P	P	17 16 56.6	-0.7
LSZ	Lusaka	32.85	353	P	P	17 16 57.4	0.0
	comp=Z,104nm,1.9s						
LSZ	Lusaka	32.85	353	P	P	17 16 54.9	-2.5
TRIS	Tristan da Cun	33.93	272	P	P	17 17 04.0	-2.5
TRIS				IAmb	IAmb	17 17 10.8	
	comp=Z,748nm,1.7s						
TRIS	Tristan da Cun	33.93	272	P	P	17 17 07.1	+0.6
AIS	Amsterdam Isla	34.52	90	P	P	17 17 11.2	-0.4
AIS				IAMs_20	IAMs_20	17 27 44.3	
	comp=Z,25µm,18.0s						
AIS	Amsterdam Isla	34.52	90	P	P	17 17 13.9	+2.3
	comp=Z,514nm,1.7s						
SBV	Sambava	37.63	30	P	P	17 17 40.1	+1.7
	SNR=17						
SBV	Sambava	37.63	30	P	P	17 17 40.4	+2.0
	comp=Z,260nm,1.9s						
BELA	Belgrano 2	38.60	198	P	P	17 17 45.6	-0.4
HOPE	Hope Point	41.77	235	P	P	17 18 10.0	-2.5
HOPE				pmax	pmax		
	comp=Z,702nm,1.1s						
HOPE				MLR	MLR		
	comp=Z,18µm,21.0s						
HOPE	Hope Point	41.77	235	P	P	17 18 10.0	-2.5
HOPE				IAmb	IAmb	17 18 24.7	
	comp=Z,702nm,1.1s						
HOPE	Hope Point	41.77	235	IAMs_20	IAMs_20	17 31 17.9	
	comp=Z,18µm,21.0s						
HOPE	Hope Point	41.77	235	P	P	17 18 14.0	+1.5
HOPE	Hope Point	41.77	235	⇓P	P	17 18 14.7	+2.2
HOPE	Hope Point	41.77	235	P	P	17 18 15.4	+2.9
	comp=Z,711nm,1.1s						
QSPA	South Pole Qui	42.14	180	P	P	17 18 15.3	-0.3
	comp=Z,328nm,0.8s,baz=252,slow=3.0,SNR=472						
QSPA				S	S	17 24 32.9	-1.7
	comp=Z,12nm,1.0s,baz=140,slow=16,SNR=1.9						
QSPA				LR	LR	17 34 33.1	
	comp=Z,9µm,19.5s,baz=246,slow=34						
	comp=Z,328nm,0.8s						
QSPA	South Pole Qui	42.14	180	P	P	17 18 15.0	-0.7
QSPA	South Pole Qui	42.14	180	P	P	17 18 14.6	-1.0
QSPA	South Pole Qui	42.14	180	⇓P	P	17 18 15.3	-0.3
QSPA	South Pole Qui	42.14	180	P	P	17 18 15.9	+0.3
	comp=Z,2µm,1.1s						
CASY	Casey	42.96	144	P	P	17 18 22.3	+0.3
CASY				IAmb	IAmb	17 18 35.2	
	comp=Z,578nm,1.4s						
CASY	Casey	42.96	144	IAMs_20	IAMs_20	17 33 18.7	
	comp=Z,15µm,19.0s						
CASY	Casey	42.96	144	P	P	17 18 23.5	+1.5
CASY	Casey	42.96	144	⇑P	P	17 18 23.4	+1.3
CASY	Casey	42.96	144	P	P	17 18 23.7	+1.6
	comp=Z,289nm,1.5s						
ORCD	Orcadas	43.76	224	P	P	17 18 25.7	-2.8
SHEL	Horse Pasture	44.48	303	P	P	17 18 32.6	-2.2
SHEL				pmax	pmax		
	comp=Z,648nm,1.6s						
SHEL				MLR	MLR		
	comp=Z,11µm,19.0s						
SHEL	Horse Pasture	44.48	303	P	P	17 18 32.6	-2.2
SHEL				IAmb	IAmb	17 18 59.9	
	comp=Z,648nm,1.6s						
SHEL	Horse Pasture	44.48	303	P	P	17 18 38.6	+3.8
	comp=Z,254nm,0.9s						
CCD	Concordia, Ant	44.58	158	P	P	17 18 36.8	+1.4
KIBK	Kibwezi	45.87	9	P	P	17 18 46.3	+0.4
KIBK	Kibwezi	45.87	9	P	P	17 18 47.6	+1.7
	SNR=44						
KIBK	Kibwezi	45.87	9	P	P	17 18 45.2	-0.7
KIBK	Kibwezi	45.87	9	P	P	17 18 46.5	+0.6
KIBK	Kibwezi	45.87	9	P	P	17 18 48.0	+2.1
	comp=Z,134nm,1.4s						
KMBO	Kilima Mbogo	47.00	7	P	P	17 18 55.9	+0.9
	baz=188,slow=11						
KMBO				S	S	17 25 49.7	+3.6
	baz=208,slow=18						
KMBO				LR	LR	17 37 15.7	
	comp=Z,20µm,18.1s,baz=176,slow=34						
KMBO	Kilima Mbogo	47.00	7	*d i*P	P	17 18 56.3	+1.3
MBAR	Mbarara	47.30	358	LR	LR	17 37 12.0	
	comp=Z,25µm,20.4s,baz=163,slow=34						
MBAR	Mbarara	47.30	358	P	P	17 18 59.5	+2.3
MBAR				S	S	17 25 44.5	-5.8
MBAR	Mbarara	47.30	358	*d i*P	P	17 18 58.4	+1.2
MBAR				pmax	pmax		
	comp=Z,51nm,1.5s						
MBAR	Mbarara	47.30	358	P	P	17 18 56.0	-1.3
MBAR				IAmb	IAmb	17 19 35.2	
	comp=Z,294nm,1.6s						
MBAR	Mbarara	47.30	358	P	P	17 19 00.1	+2.9
MBAR	Mbarara	47.30	358	P	P	17 19 00.1	+2.9
	comp=Z,96nm,1.4s						
MBAR	Mbarara	47.30	358	P	P	17 18 59.5	+2.3
MSEY	Mahe Island	47.73	33	P	P	17 19 00.1	-0.3
MSEY				S	S	17 25 54.3	-1.9
MSEY	Mahe Island	47.73	33	*ce*P	P	17 19 03.6	+3.1
MSEY	Mahe Island	47.73	33	P	P	17 19 01.4	+1.0
MSEY	Mahe Island	47.73	33	*i* P	P	17 19 01.5	+1.0
	SNR=13						
MSEY	Mahe Island	47.73	33	P	P	17 19 03.3	+2.8
	comp=Z,278nm,1.4s						
ESPZ	Base Esperanza	48.07	217	P	P	17 19 02.3	-0.2
ESPZ				IAmb	IAmb	17 19 14.3	
	comp=Z,281nm,1.0s						
PMSA	Palmer Station	50.17	214	LR	LR	17 36 40.4	
	comp=Z,10µm,19.9s,baz=120,slow=31						
PMSA	Palmer Station	50.17	214	P	P	17 19 17.7	-0.9
PMSA	Palmer Station	50.17	214	IAMs_20	IAMs_20	17 36 30.1	
	comp=Z,12µm,20.0s						
PMSA	Palmer Station	50.17	214	⇑P	P	17 19 22.6	+4.1
PMSA	Palmer Station	50.17	214	*e*P	P	17 19 21.9	+3.4
PMSA	Palmer Station	50.17	214	P	P	17 19 22.9	+4.4
	comp=Z,138nm,1.0s						
VNDA	Vanda	50.92	168	P	P	17 19 24.5	+0.4
	comp=Z,41nm,0.7s,baz=243,slow=7.3,SNR=72						
VNDA				S	S	17 26 40.1	+0.5
	comp=Z,1.7nm,1.1s,baz=244,slow=13,SNR=1.0						
VNDA				LR	LR	17 39 41.2	
	comp=Z,37µm,21.2s,baz=214,slow=34						
	comp=Z,41nm,0.7s						
VNDA	Vanda	50.92	168	P	P	17 19 24.1	0.0
VNDA				IAmb	IAmb	17 19 43.1	
	comp=Z,293nm,1.3s						
VNDA	Vanda	50.92	168	P	P	17 19 25.1	+1.1
	comp=Z,192nm,1.0s						
SBA	Scott Base	51.33	169	P	P	17 19 28.4	+1.2
SBA				pmax	pmax		
	comp=Z,728nm,1.4s						
SBA				MLR	MLR		
	comp=Z,20µm,20.0s						
SBA	Scott Base	51.33	169	P	P	17 19 28.4	+1.2
SBA	Scott Base	51.33	169	P	P	17 19 29.5	+2.3
	comp=Z,453nm,1.9s						
LODK	Lodwar	51.38	4	P	P	17 19 30.9	+2.7
	SNR=36						
LODK	Lodwar	51.38	4	P	P	17 19 26.7	-1.5
LODK				IAMs_20	IAMs_20	17 39 51.6	
	comp=Z,15µm,18.0s						
LODK	Lodwar	51.38	4	P	P	17 19 31.5	+3.3
	comp=Z,78nm,1.2s						
DGAR	Diego Garcia	53.10	54	P	P	17 19 42.8	+1.7
DGAR	Diego Garcia	53.10	54	*ce*P	P	17 19 42.5	+1.4
DGAR				pmax	pmax		
	comp=Z,169nm,1.2s						
DGAR	Diego Garcia	53.10	54	P	P	17 19 40.5	-0.5
DGAR	Diego Garcia	53.10	54	P	P	17 19 43.2	+2.1
	comp=Z,319nm,1.6s						
EFI	East Falkland	54.50	230	P	P	17 19 49.3	-1.5
EFI				pmax	pmax		
	comp=Z,323nm,1.7s						
EFI				MLR	MLR		
	comp=Z,11µm,22.0s						
EFI	East Falkland	54.50	230	P	P	17 19 49.3	-1.5
EFI				IAmb	IAmb	17 20 01.3	
	comp=Z,323nm,1.7s						
EDA	Edea	55.04	333	P	P	17 19 53.0	-2.1
H10S2	ASCENSION HYDR	55.22	299	T	T	18 19 54.1	
	baz=141,slow=74,SNR=788						
H10S3	ASCENSION HYDR	55.23	299	T	T	18 19 55.3	
	baz=79,slow=74,SNR=968						
ASCN	Ascension	55.87	300	P	P	17 19 58.4	-2.8
ASCN				IAmb	IAmb	17 20 06.5	
	comp=Z,356nm,1.3s						
ASCN	Ascension	55.87	300	P	P	17 20 03.0	+1.8
	comp=Z,146nm,2.1s						
FURI	Furi	57.04	8	P	P	17 20 08.2	-1.6
FURI				IAmb	IAmb	17 20 24.7	
	comp=Z,212nm,1.3s						
USHA	Ushuaia	57.62	222	LR	LR	17 39 00.6	
	comp=Z,16µm,21.9s,baz=120,slow=30						
DSPA	Despedida	58.10	223	P	P	17 20 14.6	-1.9
MG03	Isla Dawson	59.17	222	P	P	17 20 22.2	-1.7
MG03				IAmb	IAmb	17 20 36.8	
	comp=Z,174nm,1.3s						
MG02	Cerro Sombrero	59.29	224	P	P	17 20 24.3	-0.5
GO10	Punta Arenas	59.88	223	P	P	17 20 27.7	-1.3
GO10				IAmb	IAmb	17 21 26.8	

	comp=Z,251nm,1.1s						
KAAM	Kaadhehdhoo	60.07	49	P	P	17 20 29.8	-0.8
	SNR=9.0						
KAAM	Kaadhehdhoo	60.07	49	P	P	17 20 30.0	-0.6
KAAM	Kaadhehdhoo	60.07	49	⇑P	P	17 20 32.9	+2.3
KAAM	Kaadhehdhoo	60.07	49	P	P	17 20 29.8	-0.8
	comp=Z,335nm,1.6s						
KAAM	Kaadhehdhoo	60.07	49	P	P	17 20 32.6	+2.0
	comp=Z,330nm,1.6s						
ATD	Arta Tunnel	60.13	12	LR	LR	17 44 52.8	
	comp=Z,365nm,20.9s,baz=180,slow=34						
ATD	Arta Tunnel	60.13	12	P	P	17 20 33.9	+2.8
	SNR=23						
ATD				S	S	17 28 43.9	0.0
ATD	Arta Tunnel	60.13	12	P	P	17 20 29.7	-1.3
ATD				IAmb	IAmb	17 20 45.9	
	comp=Z,265nm,1.1s						
ATD	Arta Tunnel	60.13	12	⇓P	P	17 20 32.8	+1.8
ATD	Arta Tunnel	60.13	12	P	P	17 20 33.7	+2.7
	comp=Z,267nm,1.2s						
H01W2	Cape Leeuwin H	60.20	110	P	P	17 20 31.1	0.0
	baz=204,slow=3.6,SNR=3.8						
H01W2				T	T	18 26 34.2	
	baz=229,slow=75,SNR=36						
H01W3	Cape Leeuwin H	60.22	110	P	P	17 20 30.7	-0.4
	baz=204,slow=3.6,SNR=4.0						
H01W3				T	T	18 26 32.9	
	baz=229,slow=75,SNR=35						
H01W1	Cape Leeuwin H	60.22	110	P	P	17 20 30.8	-0.4
	baz=204,slow=3.6,SNR=4.5						
H01W1				T	T	18 26 32.2	
	baz=229,slow=75,SNR=36						
ACRG	Accra	60.47	323	P	P	17 20 31.6	-1.7
ACRG				IAmb	IAmb	17 20 39.3	
	comp=Z,212nm,1.5s						
ACRG	Accra	60.47	323	P	P	17 20 34.5	+1.3
RKGY	Rocky Gully	62.17	112	P	P	17 20 44.6	-0.1
	comp=Z,109nm,1.8s,comp=Z,0.0nm						
AUHAR	St Anne's Scho	62.49	110	P	P	17 20 49.0	+2.2
AUALB	St Joseph's Co	62.49	113	P	P	17 20 48.9	+2.1
CAM01	Campos-RJ	63.22	267	eP	P	17 20 53.3	+1.5
DBIC	Dimbokro	63.38	318	P	P	17 20 51.5	-1.3
	comp=Z,122nm,1.0s,baz=157,slow=7.8,SNR=38						
DBIC				S	S	17 29 22.6	-2.3
	comp=Z,3.6nm,0.7s,baz=307,slow=6.4,SNR=2.0						
DBIC				LR	LR	17 43 37.9	
	comp=Z,8µm,21.5s,baz=158,slow=32						
DBIC				PKPPKP	P'P'df	17 49 45.6	+0.4
	comp=Z,3.9nm,0.8s,baz=336,slow=10,SNR=3.7						
	comp=Z,122nm,1.0s						
DBIC	Dimbokro	63.38	318	P	P	17 20 50.8	-2.0
MUN	Mundaring	63.42	109	P	P	17 20 53.2	+0.1
	comp=Z,243nm,1.4s,comp=Z,0.0nm						
MUN	Mundaring	63.42	109	P	P	17 20 53.1	0.0
NWAO	Narrogin (SRO)	63.44	110	P	P	17 20 53.9	+0.7
	comp=Z,186nm,1.5s,comp=Z,0.0nmcomp=Z,0.0nm						
NWAO	Narrogin (SRO)	63.44	110	P	P	17 20 54.7	+1.5
	comp=Z,308nm,1.5s						
NWAO	Narrogin (SRO)	63.44	110	P	P	17 20 54.5	+1.3
	comp=Z,0.0nmcomp=Z,108nm,1.5s						
NWAO	Narrogin (SRO)	63.44	110	P	P	17 20 53.9	+0.7
NWAO	Narrogin (SRO)	63.44	110	P	P	17 20 52.7	-0.5
	comp=Z,308nm,1.5s						
NWAO	Narrogin (SRO)	63.44	110	P	P	17 20 52.9	-0.3
	comp=Z,187nm,1.5s,comp=Z,0.0nm						
NWAO	Narrogin (SRO)	63.44	110	P	P	17 20 52.5	-0.7
	comp=Z,96nm,1.0s,baz=223,slow=6.4,SNR=15						
NWAO				LR	LR	17 41 50.4	
	comp=Z,16µm,20.9s,baz=226,slow=30						
	comp=Z,96nm,1.0s						
NWAO	Narrogin (SRO)	63.44	110	P	P	17 20 53.2	0.0
NWAO	Narrogin (SRO)	63.44	110	P	P	17 20 53.3	0.0
NWAO	Narrogin (SRO)	63.44	110	P	P	17 20 52.1	-1.1
NWAO	Narrogin (SRO)	63.44	110	P	P	17 20 52.2	-1.0
NWAO				IAmb	IAmb	17 20 55.4	
	comp=Z,343nm,1.4s						
NWAO	Narrogin (SRO)	63.44	110	P	P	17 20 54.4	+1.1
	comp=Z,180nm,1.5s						
GO08	Villa O'Higgin	63.75	226	P	P	17 20 53.4	-1.6
GO08				IAmb	IAmb	17 21 07.6	
	comp=Z,202nm,1.4s						
GO08				IAMs_20	IAMs_20	17 43 34.5	
	comp=Z,12µm,21.0s						
GO08	Villa O'Higgin	63.75	226	P	P	17 20 59.1	+4.1
	comp=Z,113nm,1.4s						
RIB01	Linhares ES	64.11	270	eP	P	17 20 58.2	+0.4
AUKUL	Kulin High Sch	64.19	111	P	P	17 21 00.2	+2.1
CNLB	Canela	64.20	254	eP	P	17 21 00.5	+2.2
CNLB	Canela	64.20	254	P	P	17 21 02.0	+3.7
	comp=Z,151nm,1.6s						
PLTB	Pedras Altas	64.31	250	eP	P	17 21 00.5	+1.5
PLTB	Pedras Altas	64.31	250	P	P	17 21 00.3	+1.3
	comp=Z,146nm,1.4s						
COCO	West Island	64.32	79	P	P	17 20 58.5	-0.6
COCO				pmax	pmax		
	comp=Z,418nm,1.6s						
COCO				MLR	MLR		
	comp=Z,8µm,20.0s						
COCO	West Island	64.32	79	P	P	17 20 58.5	-0.6
COCO				IAmb	IAmb	17 21 21.6	
	comp=Z,418nm,1.6s						
COCO				IAMs_20	IAMs_20	17 42 05.4	
	comp=Z,8µm,20.0s						
COCO	West Island	64.32	79	P	P	17 20 58.5	-0.6
	comp=Z,83nm,1.9s						
BLDU	Ballidu	64.65	108	P	P	17 21 00.8	-0.5
	comp=Z,130nm,1.6s						
BLDU	Ballidu	64.65	108	P	P	17 21 01.0	-0.2
	comp=Z,130nm,1.6s						
BLDU	Ballidu	64.65	108	P	P	17 21 00.7	-0.5
BLDU	Ballidu	64.65	108	P	P	17 21 02.1	+0.9
	comp=Z,130nm,1.6s						
KLBR	Kellerberrin	64.66	110	P	P	17 21 00.4	-0.8
	comp=Z,227nm,1.7s						
KLBR	Kellerberrin	64.66	110	P	P	17 21 00.6	-0.6
KLBR	Kellerberrin	64.66	110	P	P	17 21 01.1	-0.2
	comp=Z,227nm,1.7s						
BSFB	Barra de Sao F	64.76	270	eP	P	17 21 02.4	+0.4
BSFB	Barra de Sao F	64.76	270	P	P	17 21 02.6	+0.6
	comp=Z,162nm,1.2s						
SJMB	Sao Joao De Ma	65.07	269	eP	P	17 21 04.2	+0.1
CPSB	Cacapava Do Su	65.12	252	P	P	17 21 03.1	-1.2
CPSB	Cacapava Do Su	65.12	252	eP	P	17 21 05.0	+0.7
CPSB	Cacapava Do Su	65.12	252	P	P	17 21 05.5	+1.2
	comp=Z,218nm,1.5s						
MORW	Morawa	65.26	106	P	P	17 21 05.1	-0.1
	comp=Z,227nm,1.4s,comp=Z,0.0nm						
MORW	Morawa	65.26	106	P	P	17 21 04.3	-0.9
MORW	Morawa	65.26	106	P	P	17 21 05.5	+0.2
MORW	Morawa	65.26	106	⇑P	P	17 21 05.4	+0.2
MORW	Morawa	65.26	106	P	P	17 21 05.7	+0.5
	comp=Z,227nm,1.4s						
PET01	Itanhaem-SP	65.26	261	eP	P	17 21 06.2	+0.9
ANCO	Parque Anchore	65.34	246	eP	P	17 21 06.8	+1.1
COYC	Coyhaique	65.53	228	P	P	17 21 05.7	-1.0
COYC				IAmb	IAmb	17 21 19.0	
	comp=Z,300nm,1.3s						
COYC	Coyhaique	65.53	228	⇓P	P	17 21 09.1	+2.4
COYC	Coyhaique	65.53	228	P	P	17 21 08.9	+2.2
	comp=Z,185nm,1.5s						
HMDM	Hanimaadhoo	65.57	46	P	P	17 21 07.6	+0.4
	SNR=11						
HMDM	Hanimaadhoo	65.57	46	P	P	17 21 06.4	-0.8
HMDM				IAMs_20	IAMs_20	17 45 34.1	
	comp=Z,8µm,18.0s						
HMDM	Hanimaadhoo	65.57	46	P	P	17 21 06.9	-0.3
HMDM	Hanimaadhoo	65.57	46	P	P	17 21 09.4	+2.2
	comp=Z,473nm,1.6s						
GUA01	Guaratinga, BA	65.65	272	eP	P	17 21 08.9	+1.1
SPB	Sao Paulo	65.85	261	P	P	17 21 06.8	-2.2
SPB				IAMs_20	IAMs_20	17 44 03.1	
	comp=Z,8µm,19.0s						
SPB	Sao Paulo	65.85	261	eP	P	17 21 11.3	+2.3
BSCB	Bom Sucesso	65.87	265	eP	P	17 21 11.9	+2.5
VAO	Valinhos	65.94	262	P	P	17 21 07.1	-2.7
VAO	Valinhos	65.94	262	eP	P	17 21 11.9	+2.1
CMC01	Camacan, BA	66.33	273	eP	P	17 21 13.4	+1.2
TORD	Torodi Ar. Bea	66.61	328	P	P	17 21 13.3	-0.6
	comp=Z,31nm,0.9s,baz=161,slow=5.3,SNR=75						
TORD				S	S	17 30 03.3	-1.3
	comp=Z,1.4nm,1.2s,baz=112,slow=5.3,SNR=1.5						
TORD				LR	LR	17 48 44.3	
	comp=Z,4µm,21.9s,baz=142,slow=35						
TORD				PKP2bc	P'P'ab	17 49 48.0	+3.5
	comp=Z,3.0nm,1.0s,baz=0.5,slow=1.8,SNR=10						
	comp=Z,31nm,0.9s						
TORD	Torodi Ar. Bea	66.61	328	P	P	17 21 12.4	-1.5
DIAM	Diamantina, MG	67.03	268	eP	P	17 21 16.1	-0.8
LL02	Futaleuf	67.08	230	P	P	17 21 15.4	-1.3
LL02				IAmb	IAmb	17 21 27.7	
	comp=Z,232nm,1.4s						
LL02	Futaleuf	67.08	230	⇓P	P	17 21 19.1	+2.4
LL02	Futaleuf	67.08	230	P	P	17 21 16.9	+0.2
	comp=Z,134nm,1.4s						
PSAL	Palomas, Salto	67.29	248	eP	P	17 21 18.5	+0.4
KMBL	Kambalda	67.40	112	P	P	17 21 18.5	-0.3
	comp=Z,82nm,1.2s						
KMBL	Kambalda	67.40	112	P	P	17 21 18.2	-0.6
	comp=Z,82nm,1.2s						
FRTB	Fartura	67.43	260	eP	P	17 21 21.4	+2.2
CANS	Sao Roque de M	67.45	264	eP	P	17 21 20.5	+1.1
ITQB	Itaqui	67.64	250	eP	P	17 21 21.4	+1.0
ABTO	Aybut	67.89	22	P	P	17 21 22.2	+0.3
	SNR=19						
GO07	Milladeo Hill,	68.07	230	P	P	17 21 21.1	-1.8
PTGB	Pitanga	68.12	257	eP	P	17 21 25.0	+1.4
PLCA	Paso Flores	68.14	233	P	P	17 21 24.2	+0.7
	comp=Z,48nm,1.1s,baz=131,slow=5.4,SNR=33						
PLCA				S	S	17 30 23.3	+0.5
	comp=Z,0.7nm,0.7s,baz=120,slow=6.3,SNR=1.3						
PLCA				LR	LR	17 45 42.1	
	comp=Z,5µm,21.7s,baz=133,slow=31						
PLCA				PKP2ab	P'P'ab	17 49 42.9	-7.1
	comp=Z,15nm,1.4s,baz=328,slow=6.7,SNR=5.0						
	comp=Z,48nm,1.1s						
PLCA	Paso Flores	68.14	233	P	P	17 21 22.1	-1.4
PLCA				IAmb	IAmb	17 21 34.4	
	comp=Z,213nm,1.4s						
PLCA	Paso Flores	68.14	233	⇑P	P	17 21 24.7	+1.2
PLCA	Paso Flores	68.14	233	eP	P	17 21 24.1	+0.6
LL07	Hotel Espejo d	68.18	230	P	P	17 21 21.9	-1.7
RBK	Rabkut	68.27	23	P	P	17 21 25.9	+1.6
	SNR=7.3						
BB19B	Bebedouro	68.33	262	eP	P	17 21 25.9	+1.0
LDASE	Londrina, Braz	68.42	259	eP	P	17 21 25.9	+0.5
MCQ	Macquarie Isla	68.48	150	P	P	17 21 24.3	-1.0
MCQ				pmax	pmax		
	comp=Z,192nm,1.4s						
MCQ	Macquarie Isla	68.48	150	P	P	17 21 24.2	-1.0
MCQ				IAmb	IAmb	17 21 45.4	
	comp=Z,192nm,1.4s						
GIRL	Giralia	68.50	100	P	P	17 21 27.5	+1.6
	comp=Z,129nm,1.9s,comp=Z,0.0nm						
GIRL	Giralia	68.50	100	P	P	17 21 24.2	-1.6
GIRL				IAmb	IAmb	17 21 39.5	
	comp=Z,418nm,1.7s						
WHFO	Wadi Hawf	68.55	22	P	P	17 21 26.1	0.0
	SNR=17						
MEEK	Meekatharra	68.58	106	P	P	17 21 25.4	-1.1
	comp=Z,144nm,1.5s,comp=Z,0.0nm						
MEEK	Meekatharra	68.58	106	P	P	17 21 25.3	-1.1
MEEK	Meekatharra	68.58	106	P	P	17 21 26.9	+0.5
	comp=Z,144nm,1.5s						
DMTO	DMTO	68.67	24	P	P	17 21 26.9	+0.2
LL06	Loncomilla	68.70	230	IAMs_20	IAMs_20	17 51 08.1	
	comp=Z,8µm,22.0s						
PMNB	Patos De Minas	68.71	266	⇑P	P	17 21 28.9	+1.6
PMNB	Patos De Minas	68.71	266	eP	P	17 21 28.9	+1.6
PMNB	Patos De Minas	68.71	266	P	P	17 21 29.0	+1.7
	comp=Z,83nm,1.9s						
HALK	Hakmana	68.83	53	⇑P	P	17 21 28.2	+0.3
HALK	Hakmana	68.83	53	P	P	17 21 28.5	+0.6
	comp=Z,198nm,1.6s						
LL03	Petrohue	68.83	232	P	P	17 21 25.5	-2.2
LL03	Petrohue	68.83	232	P	P	17 21 29.7	+2.0
	comp=Z,268nm,1.4s						
SHAO	Shalim	69.14	24	P	P	17 21 30.6	+0.9
LL05	Los Muermos	69.20	231	P	P	17 21 28.4	-1.6
DOK	Doka	69.31	23	P	P	17 21 30.5	-0.3
	SNR=18						
GO06	Curarrehue	69.45	233	P	P	17 21 30.9	-0.9
GO06				IAmb	IAmb	17 21 43.1	
	comp=Z,272nm,1.1s						
GO06	Curarrehue	69.45	233	⇑P	P	17 21 32.8	+1.1
GO06	Curarrehue	69.45	233	P	P	17 21 33.0	+1.3
	comp=Z,246nm,1.3s						
JANB	Januaria	69.76	270	eP	P	17 21 34.4	+0.6
PALK	Pallekele	69.83	53	LR	LR	17 44 37.9	
	comp=Z,9µm,20.3s,baz=210,slow=30						
PALK	Pallekele	69.83	53	P	P	17 21 34.7	+0.6
PALK	Pallekele	69.83	53	d iP	P	17 21 35.0	+0.8
PALK				pmax	pmax		
	comp=Z,331nm,1.5s						
PALK	Pallekele	69.83	53	P	P	17 21 33.9	-0.3
PALK				IAmb	IAmb	17 21 37.6	
	comp=Z,342nm,1.4s						
PALK	Pallekele	69.83	53	IAMs_20	IAMs_20	17 44 26.0	
	comp=Z,9µm,20.0s						
PALK	Pallekele	69.83	53	P	P	17 21 33.6	-0.6
	comp=Z,82nm,1.7s						
PALK	Pallekele	69.83	53	i P	P	17 21 35.4	+1.3
	SNR=20						
TRCB	Terra Rica	69.83	258	P	P	17 21 32.7	-1.5
TRCB				IAmb	IAmb	17 21 47.0	
	comp=Z,186nm,1.2s						
TRCB	Terra Rica	69.83	258	eP	P	17 21 36.0	+1.8
TRCB	Terra Rica	69.83	258	P	P	17 21 35.5	+1.3
	comp=Z,166nm,1.5s						
LR03	Panguipulli	69.89	233	P	P	17 21 32.9	-1.3
LR03				IAmb	IAmb	17 21 45.5	
	comp=Z,345nm,1.3s						
NBTA	Tacaratu-PE	69.89	279	eP	P	17 21 34.7	+0.1
NBPV	Pedro Velho	70.08	283	eP	P	17 21 35.5	-0.2
LR04	Corral	70.28	232	P	P	17 21 34.9	-1.7
LR04				IAmb	IAmb	17 21 45.3	
	comp=Z,318nm,1.2s						
IPMB	Ipameri, GO	70.29	265	eP	P	17 21 38.1	+1.1
CPUP	Villa Florida	70.40	252	P	P	17 21 37.5	-0.1
	comp=Z,50nm,0.9s,baz=133,slow=6.9,SNR=47						
CPUP				S	S	17 30 49.6	-0.1
	comp=Z,0.8nm,0.7s,baz=258,slow=18,SNR=1.6						
CPUP				LR	LR	17 47 11.7	
	comp=Z,2µm,21.0s,baz=142,slow=31						
	comp=Z,50nm,0.9s						
CPUP	Villa Florida	70.40	252	IAmb	IAmb	17 21 48.8	
	comp=Z,222nm,1.1s						
CPUP	Villa Florida	70.40	252	⇑P	P	17 21 38.0	+0.5
CPUP	Villa Florida	70.40	252	eP	P	17 21 38.3	+0.7
SJPY	San Joaquin	70.55	254	eP	P	17 21 39.4	+0.8
KOD	Kodaikanal	70.66	48	eP	P	17 21 38.4	-1.2
KOD				IAmb	IAmb	17 21 42.2	
	comp=Z,206nm,0.3s						
MALK	Mahakanadarawa	70.69	52	P	P	17 21 40.2	+0.9
MALK	Mahakanadarawa	70.69	52	⇑P	P	17 21 39.9	+0.5
MALK	Mahakanadarawa	70.69	52	P	P	17 21 40.3	+0.9
	comp=Z,216nm,1.4s						
RCBR	Riachuelo	70.92	283	LR	LR	17 47 29.0	
	comp=Z,2µm,18.1s,baz=134,slow=31						
RCBR	Riachuelo	70.92	283	P	P	17 21 39.3	-1.6
RCBR				pmax	pmax		
	comp=Z,172nm,1.3s						
RCBR				MLR	MLR		
	comp=Z,5µm,18.0s						
RCBR	Riachuelo	70.92	283	P	P	17 21 39.3	-1.6
RCBR				IAmb	IAmb	17 21 53.2	
	comp=Z,172nm,1.3s						
RCBR	Riachuelo	70.92	283	⇓P	P	17 21 41.9	+1.0
RCBR	Riachuelo	70.92	283	eP	P	17 21 40.4	-0.5
BI02	San Fabin de	71.45	236	IAMs_20	IAMs_20	17 50 23.2	
	comp=Z,6µm,18.0s						
FORT	Forrest	71.59	116	P	P	17 21 43.0	-1.8
	comp=Z,79nm,1.3s,comp=Z,0.0nm						
FORT	Forrest	71.59	116	P	P	17 21 45.3	+0.5
	comp=Z,79nm,1.3s						
FORT	Forrest	71.59	116	P	P	17 21 43.8	-0.9
	comp=Z,79nm,1.3s						
FORT	Forrest	71.59	116	P	P	17 21 44.0	-0.7
FORT				IAmb	IAmb	17 21 55.9	
	comp=Z,281nm,1.9s						
NBMA	Muriti-CE	71.65	280	eP	P	17 21 45.5	+0.1
BDFB	Brasilia	71.82	267	P	P	17 21 47.0	+0.5
	comp=Z,15nm,0.8s,baz=109,slow=5.5,SNR=17						
BDFB				S	S	17 31 06.5	-0.2
	comp=Z,1.1nm,0.5s,baz=51,slow=21,SNR=1.2						
BDFB				LR	LR	17 46 22.8	
	comp=Z,12µm,20.5s,baz=130,slow=30						
	comp=Z,15nm,0.8s						
BDFB	Brasilia	71.82	267	P	P	17 21 44.6	-1.9
BDFB				IAmb	IAmb	17 21 59.6	
	comp=Z,201nm,1.3s						
SDBA	SAO DESIDERIO	72.06	271	eP	P	17 21 48.1	+0.3
ML02	Panimavida	72.18	236	P	P	17 21 46.4	-1.8
ML02				IAmb	IAmb	17 21 59.5	
	comp=Z,384nm,1.3s						
SALM	Salem	72.23	48	eP	P	17 21 47.4	-1.2
RAYN	Ar Rayn	72.31	13	P	P	17 21 49.6	+0.6
RAYN	Ar Rayn	72.31	13	P	P	17 21 49.1	+0.1
RAYN				pmax	pmax		
	comp=Z,64nm,1.1s						
RAYN				MLR	MLR		
	comp=Z,11µm,20.0s						
RAYN	Ar Rayn	72.31	13	P	P	17 21 49.1	+0.1
RAYN	Ar Rayn	72.31	13	⇑P	P	17 21 49.9	+0.9
RAYN	Ar Rayn	72.31	13	i P	P	17 21 50.1	+1.1
	SNR=25						
BI05	Punta Hualpn	72.44	234	P	P	17 21 48.2	-1.6
BO02	Sierra Bellavi	72.53	237	P	P	17 21 48.5	-2.0
BO02				IAmb	IAmb	17 22 01.0	
	comp=Z,163nm,1.1s						
BO02				IAMs_20	IAMs_20	17 49 45.7	
	comp=Z,7µm,20.0s						
BO02	Sierra Bellavi	72.53	237	⇓P	P	17 21 51.8	+1.4
MHTO	MHTO	72.62	25	P	P	17 21 50.9	+0.1
	SNR=70						
C2SB	Chapadao do Su	72.81	261	eP	P	17 21 52.7	+0.5
BO01	Tunca	72.99	237	IAMs_20	IAMs_20	17 50 01.0	
	comp=Z,7µm,20.0s						
MT13	San Alfonso	73.01	238	P	P	17 21 52.4	-0.9
MT13				IAmb	IAmb	17 22 06.3	
	comp=Z,188nm,1.1s						
BO04	La Punta	73.01	238	P	P	17 21 52.2	-1.0
BO04				IAmb	IAmb	17 22 07.8	
	comp=Z,238nm,1.1s						
GO05	Hualane	73.01	236	IAmb	IAmb	17 22 03.8	
	comp=Z,195nm,1.1s						
GO05	Hualane	73.01	236	⇑P	P	17 21 54.2	+1.0
MT08	Bocatoma Ro	73.07	239	IAmb	IAmb	17 22 05.9	
	comp=Z,312nm,1.0s						
MBWA	Marble Bar	73.15	103	P	P	17 21 53.4	-0.8
	comp=Z,135nm,1.5s,comp=Z,0.0nm						
MBWA	Marble Bar	73.15	103	P	P	17 21 53.5	-0.8
MBWA	Marble Bar	73.15	103	P	P	17 21 53.4	-0.8
MBWA	Marble Bar	73.15	103	P	P	17 21 52.5	-1.7
MBWA				IAmb	IAmb	17 21 56.4	
	comp=Z,207nm,1.3s						
MBWA	Marble Bar	73.15	103	IAMs_20	IAMs_20	17 47 07.1	
	comp=Z,10µm,20.0s						
MBWA	Marble Bar	73.15	103	⇓P	P	17 21 54.2	0.0
MT03	Universidad Ad	73.32	238	IAmb	IAmb	17 22 06.7	
	comp=Z,316nm,1.1s						
MOO	Moorlands	73.34	136	P	P	17 21 56.5	+1.5
	comp=Z,150nm,1.4s						
MOO	Moorlands	73.34	136	P	P	17 21 57.2	+2.2
MZR	Muzera	73.36	21	i P	P	17 21 57.1	+1.9
	SNR=40						
CFA	Coronel Fontan	73.37	241	LR	LR	17 48 17.2	
	comp=Z,3µm,21.6s,baz=136,slow=31						
MT16	CCHEN	73.37	238	P	P	17 21 52.9	-2.6
MT09	Talagante	73.38	238	IAmb	IAmb	17 22 06.0	
	comp=Z,168nm,1.1s						
PPSI	Pulau Pagai	73.43	75	P	P	17 21 54.5	-1.4
MT01	Popeta	73.47	238	IAMs_20	IAMs_20	17 49 25.7	
	comp=Z,7µm,19.0s						
AQDB	Aquidauana	73.48	258	IAmb	IAmb	17 22 08.6	
	comp=Z,520nm,1.5s						
AQDB	Aquidauana	73.48	258	eP	P	17 21 57.4	+1.3
UMZA	Um Al Zommool	73.50	22	P	P	17 21 56.0	+0.1
MT05	Renca	73.52	238	IAmb	IAmb	17 22 07.1	
	comp=Z,229nm,1.1s						
AUCAS	Cummins Area S	73.56	123	P	P	17 21 57.1	+0.7
ZON	Zonda	73.67	241	P	P	17 21 56.3	-0.9
ZON				pmax	pmax		
	comp=Z,154nm,1.2s						
ZON	Zonda	73.67	241	P	P	17 21 56.3	-0.9
ZON	Zonda	73.67	241	⇓P	P	17 21 58.0	+0.8
PEL	Peldehue	73.67	239	P	P	17 21 56.3	-0.9
PEL				pmax	pmax		
	comp=Z,603nm,1.0s						
PEL	Peldehue	73.67	239	P	P	17 21 56.3	-0.9
PEL	Peldehue	73.67	239	⇑P	P	17 21 58.5	+1.4
AUBRN	Burnie High Sc	73.79	134	P	P	17 22 00.0	+2.3
VA05	Santo Domingo	73.83	238	IAMs_20	IAMs_20	17 49 47.1	
	comp=Z,6µm,19.0s						
MT02	Curacav	73.85	238	IAmb	IAmb	17 22 08.7	
	comp=Z,291nm,0.9s						
VA03	San Esteban	73.87	239	IAmb	IAmb	17 22 10.0	
	comp=Z,260nm,1.1s						
VA03				IAMs_20	IAMs_20	17 50 54.4	
	comp=Z,7µm,20.0s						
JMDO	Jabal Madar	73.97	25	P	P	17 21 58.8	0.0
	SNR=20						
SLWR	Sila	73.98	19	P	P	17 21 59.6	+0.8
BSY	Bisya	74.07	24	P	P	17 21 59.3	0.0
	SNR=67						
JLN	Jalan Bani Buh	74.14	26	P	P	17 21 59.1	-0.6
	SNR=36						
GHWR	Ruwais	74.14	20	P	P	17 21 59.6	-0.1
MNAI	Manna	74.15	79	P	P	17 21 59.9	-0.2
	comp=Z,313nm,1.5s						
MZWR	Madinat Zayed	74.19	21	P	P	17 22 01.4	+1.4
CGJI	Cibinong	74.29	82	P	P	17 22 00.9	0.0
	comp=Z,6µmcomp=Z,270nm,1.7s						
VA01	Torpederas	74.31	238	P	P	17 21 59.7	-1.1
VA01				IAmb	IAmb	17 22 11.4	
	comp=Z,171nm,1.0s						
VA01				IAMs_20	IAMs_20	17 50 09.8	
	comp=Z,7µm,20.0s						
ARAG	Araguaiana, MT	74.31	264	eP	P	17 22 03.0	+1.9
PBSI	Pulau Batu	74.38	72	P	P	17 22 01.9	+0.5
	comp=Z,239nm,1.8s						
TAM	Tamanrasset	74.41	335	⇑P	P	17 22 03.9	+2.4
WBK	Wadi Bani Khal	74.44	26	P	P	17 22 02.3	+0.8
	SNR=34						
KSI	Kapahiang	74.45	78	P	P	17 22 01.6	-0.3
	comp=Z,6µmcomp=Z,156nm,1.6s						
ARQ	Araqi	74.45	23	P	P	17 22 01.2	-0.4
	SNR=29						
MDRS	Chennai	74.48	49	eP	P	17 22 00.7	-1.1
MDRS				IAmb	IAmb	17 22 08.6	
	comp=Z,239nm,1.0s						
SKJI	Sukabumi	74.58	83	P	P	17 22 02.4	-0.2
	comp=Z,5µmcomp=Z,4µmcomp=Z,276nm,1.4s						
MASI	Maura Aman, Be	74.60	77	P	P	17 22 02.3	-0.5
SMDO	Samad	74.60	25	P	P	17 22 02.3	-0.3
	SNR=61						
CO04	Los Peladeros	74.64	239	IAmb	IAmb	17 22 13.8	
	comp=Z,241nm,1.0s						
CO04				IAMs_20	IAMs_20	17 50 09.8	
	comp=Z,8µm,20.0s						
CNJI	Cibinong	74.73	84	P	P	17 22 03.5	0.0
	comp=Z,3µmcomp=Z,237nm,1.3s						
BBOO	Buckleboo	74.82	122	P	P	17 22 03.1	-0.7
	comp=Z,173nm,1.6s,comp=Z,0.0nm						
BBOO	Buckleboo	74.82	122	P	P	17 22 03.6	-0.2
BBOO	Buckleboo	74.82	122	P	P	17 22 02.9	-0.9
BBOO				IAmb	IAmb	17 22 15.1	
	comp=Z,669nm,1.9s						
MDSI	Maura Dua	74.87	80	P	P	17 22 04.0	-0.3
	comp=Z,3µmcomp=Z,80nm,2.0s						
KRJI	Kerinci	74.88	76	P	P	17 22 04.1	-0.4
	comp=Z,8µmcomp=Z,301nm,1.6s						
AUMBR	Murray Bridge	74.89	126	P	P	17 22 04.6	+0.5
HOQ	Hoqain	74.89	24	P	P	17 22 04.3	+0.2
	SNR=88						
ALNE	Al Ain	74.93	23	P	P	17 22 04.7	+0.3
	SNR=58						
ALNE	Al Ain	74.93	23	i P	P	17 22 04.6	+0.3
	SNR=30						
WSAR	Wadi Sarin	74.94	25	LR	LR	17 50 15.7	
	comp=Z,18nm,20.4s,baz=212,slow=32						
WSAR	Wadi Sarin	74.94	25	P	P	17 22 05.4	+1.1
	SNR=36						
SBJI	Serang	74.95	82	P	P	17 22 04.3	-0.4
	comp=Z,5µmcomp=Z,124nm,1.6s						
BBJI	Bungbulang	74.97	84	P	P	17 22 07.3	+2.3
BBJI	Bungbulang	74.97	84	P	P	17 22 04.8	-0.2
BBJI	Bungbulang	74.97	84	P	P	17 22 05.0	0.0
GSI	Gunungsitoli	74.97	71	P	P	17 22 07.6	+2.7
GSI	Gunungsitoli	74.97	71	P	P	17 22 04.1	-0.7
GSI				IAmb	IAmb	17 22 09.5	
	comp=Z,730nm,2.0s						
GSI				IAMs_20	IAMs_20	17 46 30.7	
	comp=Z,9µm,21.0s						
GSI	Gunungsitoli	74.97	71	P	P	17 22 04.4	-0.5
	comp=Z,5µmcomp=Z,173nm,1.8s						
PP1B	Ponte de Pedra	74.99	260	eP	P	17 22 06.2	+1.2
ARPS	Mount Arapiles	75.02	129	P	P	17 22 04.9	0.0

	comp=Z,57nm,2.1s						
ARPS	Mount Arapiles	75.02	129	P	P	17 22 04.5	-0.4
	comp=Z,57nm,2.1s						
SNSI	Sinabang, Aceh	75.04	69	P	P	17 22 04.9	-0.3
	comp=Z,5µmcomp=Z,193nm,1.5s						
JRN	Qarnain Island	75.08	20	P	P	17 22 05.8	+0.7
	SNR=17						
CBJI	Citeko	75.20	83	P	P	17 22 05.3	-0.9
SOHO	SOHO	75.21	23	P	P	17 22 05.3	-0.5
SOHO	SOHO	75.21	23	*i* P	P	17 22 05.7	-0.2
	SNR=44						
AJN	Ajban	75.22	22	P	P	17 22 06.6	+0.7
	SNR=18						
AJN	Ajban	75.22	22	*i* P	P	17 22 07.7	+1.8
	SNR=22						
COIM	Forte Coimbra	75.25	257	*e*P	P	17 22 07.7	+1.2
TNG	Tangerang	75.25	83	P	P	17 22 06.9	+0.4
KAD	Karad	75.25	42	*e*P	P	17 22 05.0	-1.3
KAD				IAmb	IAmb	17 22 18.2	
	comp=Z,104nm,1.6s						
CMJI	Cimerak	75.27	85	P	P	17 22 06.6	0.0
	comp=Z,144nm,1.7s						
CO02	Combarbal	75.27	240	IAmb	IAmb	17 22 30.2	
	comp=Z,185nm,1.1s						
CO02	Combarbal	75.27	240	⇓P	P	17 22 08.2	+1.6
CO03	El Pedregal	75.36	240	IAmb	IAmb	17 22 18.5	
	comp=Z,329nm,1.1s						
ASUD	Al Ashush, Dub	75.37	22	P	P	17 22 07.9	+1.1
	SNR=20						
ASUD	Al Ashush, Dub	75.37	22	*i* P	P	17 22 08.6	+1.8
	SNR=22						
PPI	Padang Panjang	75.43	74	P	P	17 22 07.4	-0.1
	comp=Z,4µmcomp=Z,3µmcomp=Z,126nm,1.8s						
AUMTC	Mt Clear Colle	75.44	130	P	P	17 22 08.9	+1.6
BRAT	Ballarat	75.51	130	P	P	17 22 10.3	+2.6
NBMO	Morrinhos-CE	75.51	281	*e*P	P	17 22 09.5	+1.5
FAQ	Al Faqa, Dubai	75.55	22	P	P	17 22 07.5	-0.3
	SNR=29						
FAQ	Al Faqa, Dubai	75.55	22	*i* P	P	17 22 08.8	+1.0
	SNR=26						
SAKB	Bahrain	75.59	17	P	P	17 22 09.5	+1.5
ASHO	Ashiyiah	75.61	23	P	P	17 22 08.1	-0.1
	SNR=74						
ASHO	Ashiyiah	75.61	23	*i* P	P	17 22 08.4	+0.1
	SNR=96						
NBPS	Pedro II - PI	75.63	280	*e*P	P	17 22 09.6	+0.8
CO01	Juntas del Tor	75.64	241	IAMs_20	IAMs_20	17 49 03.3	
	comp=Z,10µm,22.0s						
SDSI	Sungai Dareh	75.73	75	P	P	17 22 09.4	+0.2
	comp=Z,3µmcomp=Z,88nm,1.8s						
HATD	Hatta, Dubai	75.77	23	P	P	17 22 08.7	-0.4
	SNR=79						
HATD	Hatta, Dubai	75.77	23	*i* P	P	17 22 09.1	0.0
	SNR=85						
MLBS	Spotswood, Mel	75.78	131	P	P	17 22 12.3	+3.1
NAZ	Nazwa, Dubai	75.80	22	P	P	17 22 09.5	+0.2
	SNR=49						
NAZ	Nazwa, Dubai	75.80	22	*i* P	P	17 22 10.0	+0.7
	SNR=54						
SCJI	Gunung Srandil	75.82	86	P	P	17 22 10.1	+0.3
	comp=Z,3µmcomp=Z,3µmcomp=Z,225nm,1.5s						
WRKA	Warakurna	75.86	112	P	P	17 22 09.9	0.0
	comp=Z,0.0nmcomp=Z,66nm,1.4s						
WRKA	Warakurna	75.86	112	P	P	17 22 08.9	-1.0
	comp=Z,66nm,1.4s,comp=Z,0.0nm						
MNSI	Mandailing Nat	75.86	73	P	P	17 22 10.1	+0.2
	comp=Z,111nm,1.7s						
UOSS	Minazif	75.90	23	IAMs_20	IAMs_20	17 54 43.7	
	comp=Z,6µm,19.0s						
GO04	Tololo Observa	75.92	241	IAMs_20	IAMs_20	17 49 00.5	
	comp=Z,9µm,22.0s						
KPJI	Karang Pucung	75.92	85	P	P	17 22 10.8	+0.5
	comp=Z,3µmcomp=Z,131nm,2.0s						
HTT	Hallett	75.96	124	P	P	17 22 10.9	+0.5
	comp=Z,42nm,1.6s						
HTT	Hallett	75.96	124	P	P	17 22 11.6	+1.1
HTT	Hallett	75.96	124	P	P	17 22 10.4	0.0
	comp=Z,42nm,1.6s						
HTT	Hallett	75.96	124	P	P	17 22 10.5	0.0
HTT	Hallett	75.96	124	⇑P	P	17 22 10.5	0.0
CO06	Fray Jorge	76.03	240	IAmb	IAmb	17 22 21.2	
	comp=Z,156nm,1.1s						
BOM	Bombay	76.06	40	*e*P	P	17 22 09.9	-1.0
POO	Poona	76.18	41	*e*P	P	17 22 10.2	-1.4
POO				IAmb	IAmb	17 22 14.1	
	comp=Z,150nm,0.7s						
TPTI		76.23	69	P	P	17 22 11.5	-0.5
	comp=Z,2µmcomp=Z,93nm,1.5s						
MDH	Madha	76.26	23	P	P	17 22 11.7	-0.1
	SNR=32						
MDH	Madha	76.26	23	*i* P	P	17 22 12.2	+0.3
	SNR=17						
MSFE	Esma-Masafi	76.28	23	*i* P	P	17 22 12.3	+0.2
	SNR=29						
TOO	Toolangi	76.28	131	P	P	17 22 14.8	+2.6
	comp=Z,0.0nmcomp=Z,46nm,1.8s						
TOO	Toolangi	76.28	131	P	P	17 22 13.5	+1.4
	comp=Z,46nm,1.8s,comp=Z,0.0nm						
TOO	Toolangi	76.28	131	⇑P	P	17 22 13.3	+1.1
MASF	Masafi	76.29	22	P	P	17 22 12.3	+0.1
	SNR=37						
UMQ	Umm Al-Quwin	76.31	22	P	P	17 22 12.8	+0.6
	SNR=10						
UMQ	Umm Al-Quwin	76.31	22	*i* P	P	17 22 14.0	+1.9
	SNR=15						
CTJI	Waduk Cacaban	76.33	85	P	P	17 22 12.2	-0.5
	comp=Z,4µmcomp=Z,181nm,1.6s						
TRSI	Tarutung	76.40	71	P	P	17 22 12.4	-0.8
PMBI	Palembang	76.42	79	P	P	17 22 12.5	-0.7
BKNI	Bangkinang	76.44	74	P	P	17 22 14.4	+1.2
BKNI	Bangkinang	76.44	74	P	P	17 22 15.9	+2.7
BKNI	Bangkinang	76.44	74	P	P	17 22 12.4	-0.8
BKNI				IAmb	IAmb	17 22 16.9	
	comp=Z,418nm,1.3s						
BKNI	Bangkinang	76.44	74	P	P	17 22 13.0	-0.2
	comp=Z,4µmcomp=Z,4µmcomp=Z,244nm,1.4s						
SMTB	Santa Maria do	76.44	272	*e*P	P	17 22 13.8	+0.4
YOGI	Yogyakarta	76.48	87	P	P	17 22 13.0	-0.5
	comp=Z,3µmcomp=Z,235nm,1.6s						
MLSI	Meulaboh, Aceh	76.53	68	P	P	17 22 13.4	-0.3
	comp=Z,4µmcomp=Z,194nm,1.3s						
UGM	Wanagama	76.56	87	P	P	17 22 13.8	-0.2
	comp=Z,184nm,1.7s						
AC05	El Transito	76.59	242	P	P	17 22 12.9	-1.3
AC05				IAmb	IAmb	17 22 25.3	
	comp=Z,247nm,0.9s						
AC05				IAMs_20	IAMs_20	17 49 57.4	
	comp=Z,8µm,22.0s						
JMBI	JAMBI	76.65	77	P	P	17 22 13.9	-0.5
SNDB	Serra Nova Dou	76.66	267	*e*P	P	17 22 16.2	+1.7
LCO	Las Campanas	76.71	241	P	P	17 22 13.9	-1.2
LCO				pmax	pmax		
	comp=Z,419nm,1.0s						
LCO				MLR	MLR		
	comp=Z,8µm,22.0s						
LCO	Las Campanas	76.71	241	P	P	17 22 13.8	-1.2
LCO	Las Campanas	76.71	241	IAMs_20	IAMs_20	17 50 00.6	
	comp=Z,7µm,22.0s						
LCO	Las Campanas	76.71	241	⇑P	P	17 22 15.7	+0.7
SALV	Santo Antonio	76.75	261	*e*P	P	17 22 16.7	+1.6
RGRI	Rengat	76.76	75	P	P	17 22 15.0	-0.1
PCJI	Pacitan	76.79	88	P	P	17 22 15.3	0.0
BSI	Banda Aceh	76.80	66	P	P	17 22 15.1	-0.2
	comp=Z,3µmcomp=Z,107nm,1.8s						
KCSI	Kotacane, Aceh	76.80	69	P	P	17 22 15.2	-0.1
	comp=Z,3µmcomp=Z,3µmcomp=Z,190nm,1.5s						
BANOM	Banah	76.86	22	P	P	17 22 15.4	+0.1
BANOM	Banah	76.86	22	*i* P	P	17 22 15.3	0.0
	SNR=11						
WOJI	Wonogiri, Jawa	76.88	87	P	P	17 22 15.8	0.0
	comp=Z,193nm,1.8s						
RPSI	Rantau Prapat	76.89	71	P	P	17 22 14.8	-1.1
RPSI				IAMs_20	IAMs_20	17 47 55.7	
	comp=Z,8µm,20.0s						
SHME	Shamm	76.94	22	P	P	17 22 14.9	-0.8
	SNR=25						
SHME	Shamm	76.94	22	*i* P	P	17 22 15.6	-0.1
	SNR=30						
PSI	Prapat	76.97	71	P	P	17 22 17.8	+1.4
PSI	Prapat	76.97	71	P	P	17 22 14.8	-1.6
PSI				pmax	pmax		
	comp=Z,141nm,1.1s						
PSI				MLR	MLR		
	comp=Z,8µm,20.0s						
PSI	Prapat	76.97	71	P	P	17 22 15.7	-0.7
	comp=Z,4µmcomp=Z,3µmcomp=Z,138nm,1.4s						
AUMAG	Moama Anglican	77.04	130	P	P	17 22 19.2	+2.8
SMRI	Semarang	77.14	86	P	P	17 22 20.3	+3.0
SMRI	Semarang	77.14	86	P	P	17 22 16.6	-0.7
SMRI	Semarang	77.14	86	P	P	17 22 17.2	-0.1
	comp=Z,8µmcomp=Z,244nm,1.3s						
JASK	Jask - Hormozg	77.22	24	P	P	17 22 18.7	+1.5
LATR	Latur	77.28	43	*e*P	P	17 22 16.3	-1.5
LATR				IAmb	IAmb	17 22 23.5	
	comp=Z,124nm,0.8s						
TSI	Tuntungan	77.29	70	P	P	17 22 17.9	-0.1
	comp=Z,4µmcomp=Z,87nm,1.6s						
HYB	Hyderabad	77.36	45	*e*P	P	17 22 17.0	-1.3
HYB				IAmb	IAmb	17 22 21.9	
HYB	Hyderabad	77.36	45	*e*P	P	17 22 17.6	-0.8
HYB				*e*PcP	pwP	17 22 27.9	-0.6
HYB				*e*PP	PP	17 25 11.5	-1.5
HYB				*e*S	S	17 32 08.8	+0.7
HYB				*e*ScS	ScS	17 32 35.5	-0.2
HYB				IAMs_20	IAMs_20	17 57 23.4	
	comp=Z,4µm,14.5s						
AC02	Maricunga	77.38	244	IAmb	IAmb	17 22 31.1	
	comp=Z,197nm,1.1s						
AC02				IAMs_20	IAMs_20	17 49 55.3	
	comp=Z,10µm,22.0s						
EIL	Elat	77.44	3	P	P	17 22 18.9	+0.5
	comp=Z,30nm,1.1s,baz=158,slow=2.5,SNR=14						
EIL				S	S	17 32 13.2	+4.8
	comp=Z,2.8nm,0.8s,baz=1.2,slow=12,SNR=1.4						
EIL				LR	LR	17 55 19.3	
	comp=Z,8µm,18.8s,baz=198,slow=35						
	comp=Z,30nm,1.1s						
EIL	Elat	77.44	3	⇓P	P	17 22 20.4	+1.9
GO03	Copiapo	77.48	243	IAmb	IAmb	17 22 29.8	
	comp=Z,180nm,1.1s						
GO03	Copiapo	77.48	243	⇑P	P	17 22 20.9	+1.8
SNJI	Sawahan-Nganju	77.48	88	P	P	17 22 19.2	-0.2
	comp=Z,5µmcomp=Z,3µmcomp=Z,198nm,1.9s						
SJI	Sawahan	77.52	88	P	P	17 22 19.4	-0.1
	comp=Z,6µmcomp=Z,257nm,1.5s						
AC04	Llanos de Chal	77.53	242	IAMs_20	IAMs_20	17 50 15.2	
	comp=Z,10µm,22.0s						
LHMI	Lhok Sumawe	77.61	68	P	P	17 22 22.8	+3.0
LHMI	Lhok Sumawe	77.61	68	P	P	17 22 18.3	-1.5
LHMI	Lhok Sumawe	77.61	68	P	P	17 22 19.7	-0.1
	comp=Z,6µmcomp=Z,268nm,1.6s						
VJD	Vijayawada	77.61	48	*e*P	P	17 22 19.0	-0.6
NGCH	Negor - Chabah	77.68	27	P	P	17 22 21.7	+1.9
DSRI	Dabo	78.13	77	P	P	17 22 22.6	-0.1
	comp=Z,3µmcomp=Z,2µmcomp=Z,65nm,1.7s						
PYZ	Puysegur Point	78.17	150	IAMs_20	IAMs_20	17 55 14.2	
	comp=Z,7µm,18.0s						
BHV	Bhavnagar	78.32	38	*e*P	P	17 22 22.2	-1.3
BHV				IAmb	IAmb	17 22 29.0	
	comp=Z,120nm,0.9s						
TPI	Tanjungpandan	78.45	81	P	P	17 22 24.5	0.0
MILA	Mila	78.50	133	P	P	17 22 27.4	+2.8
	comp=Z,60nm,2.0s						
MILA	Mila	78.50	133	P	P	17 22 26.9	+2.3
	comp=Z,60nm,2.0s						
JAGI	Jajag, Banyuwa	78.58	90	IAMs_20	IAMs_20	17 49 39.4	
	comp=Z,7µm,21.0s						
JAGI	Jajag, Banyuwa	78.58	90	P	P	17 22 25.3	0.0
	comp=Z,3µmcomp=Z,2µmcomp=Z,89nm,1.3s						
STKA	Stephens Creek	78.61	125	P	P	17 22 25.1	-0.1
STKA	Stephens Creek	78.61	125	P	P	17 22 24.9	-0.3
STKA	Stephens Creek	78.61	125	P	P	17 22 25.1	-0.1
	comp=Z,93nm,1.0s,baz=211,slow=5.4,SNR=56						
STKA				S	S	17 32 21.2	-0.3
	comp=Z,1.0nm,0.3s,baz=7.2,slow=20,SNR=0.9						
STKA				PKPPKP	P'P'df	17 49 25.0	-3.8
	comp=Z,3.0nm,1.0s,baz=330,slow=7.5,SNR=2.2						
STKA				LR	LR	17 49 37.1	
	comp=Z,12µm,21.4s,baz=211,slow=30						
	comp=Z,93nm,1.0s						
STKA	Stephens Creek	78.61	125	P	P	17 22 24.9	-0.3
STKA	Stephens Creek	78.61	125	*i* P	P	17 22 25.4	+0.2
KZIT	Kziot	78.66	2	⇓P	P	17 22 27.0	+1.9
BLJI	Banyuglugur	78.74	89	P	P	17 22 26.1	0.0
	comp=Z,3µmcomp=Z,127nm,1.7s						
AC01	Pan de Azucar	78.77	243	IAMs_20	IAMs_20	17 51 22.1	
	comp=Z,6µm,20.0s						
WHZ	Wether Hill Ro	78.83	150	IAMs_20	IAMs_20	17 52 47.8	
	comp=Z,6µm,20.0s						
DCZ	Deep Cove	78.94	150	IAMs_20	IAMs_20	17 51 09.7	
	comp=Z,8µm,20.0s						
BTDF	Bukit Timah Da	78.99	75	P	P	17 22 28.9	+1.4
BTDF	Bukit Timah Da	78.99	75	P	P	17 22 27.4	-0.1
IGBI	Denpasar	79.00	91	P	P	17 22 27.6	+0.1
	comp=Z,4µmcomp=Z,4µmcomp=Z,258nm,1.5s						
GHAJ	Ghor Haditha	79.09	3	IAMs_20	IAMs_20	17 56 01.3	
	comp=Z,8µm,18.0s						
MSBI	Mazada	79.09	3	⇓P	P	17 22 29.4	+1.9
RTBI	Rangdo, Negare	79.12	91	P	P	17 22 28.2	-0.1
	comp=Z,4µmcomp=Z,188nm,1.8s						
ABJI	Asem Bagus	79.13	90	P	P	17 22 28.3	0.0
	comp=Z,5µmcomp=Z,5µmcomp=Z,156nm,2.2s						
DNP	Denpasar	79.14	91	P	P	17 22 28.4	+0.1
TPRI	Tanjung Pinang	79.14	76	P	P	17 22 28.2	-0.1
	comp=Z,4µmcomp=Z,3µmcomp=Z,120nm,1.7s						
FITZ	Fitzroy Crossi	79.20	105	P	P	17 22 29.1	+0.4
	comp=Z,30nm,1.4s						
FITZ	Fitzroy Crossi	79.20	105	P	P	17 22 28.4	-0.3
	comp=Z,30nm,1.4s						
FITZ	Fitzroy Crossi	79.20	105	LR	LR	17 51 59.8	
	comp=Z,11µm,20.2s,baz=232,slow=32						
FITZ	Fitzroy Crossi	79.20	105	P	P	17 22 28.8	+0.2
FITZ	Fitzroy Crossi	79.20	105	P	P	17 22 28.0	-0.6
FITZ	Fitzroy Crossi	79.20	105	⇓P	P	17 22 28.3	-0.3
MLZ	Mavora Lakes	79.35	150	IAMs_20	IAMs_20	17 53 05.5	
	comp=Z,9µm,20.0s						
PTLB	Pontes e Lacer	79.35	259	P	P	17 22 28.3	-1.2
PTLB				IAmb	IAmb	17 22 43.5	
	comp=Z,279nm,1.4s						
PTLB	Pontes e Lacer	79.35	259	*e*P	P	17 22 29.2	-0.2
AKL	Akola	79.50	42	*e*P	P	17 22 28.9	-1.1
KMMI	Kalianget	79.50	89	P	P	17 22 30.1	-0.2
	comp=Z,141nm,1.7s						
BWJI	Bawean	79.50	87	P	P	17 22 30.3	0.0
SRBI	Singaraja	79.58	90	P	P	17 22 30.7	0.0
	comp=Z,3µmcomp=Z,123nm,1.7s						
IPM	Ipoh	79.59	71	P	P	17 22 32.8	+2.0
IPM	Ipoh	79.59	71	⇑P	P	17 22 32.0	+1.2
IPM	Ipoh	79.59	71	P	P	17 22 30.6	-0.2
	comp=Z,4µmcomp=Z,2µmcomp=Z,61nm,1.6s						
KHKI	Kahang-Kahang	79.64	91	P	P	17 22 31.1	+0.1
	comp=Z,2µmcomp=Z,84nm,1.6s						
AF01	San Pedro de A	79.66	247	IAMs_20	IAMs_20	17 53 41.8	
	comp=Z,6µm,20.0s						
PB14	IPOC Station P	79.78	245	P	P	17 22 34.4	+2.3
CAN	Canberra	79.80	132	P	P	17 22 34.6	+2.8
	comp=Z,0.0nmcomp=Z,129nm,1.9s						
CAN	Canberra	79.80	132	P	P	17 22 33.7	+1.9
CAN	Canberra	79.80	132	IAmb	IAmb	17 22 45.3	
	comp=Z,346nm,1.6s						
CAN				IAMs_20	IAMs_20	17 53 57.6	
	comp=Z,5µm,18.0s						
CAN	Canberra	79.80	132	⇑P	P	17 22 34.2	+2.5
AUMTS	Mt Stromlo	79.80	132	P	P	17 22 33.7	+1.9
AUMHS	Melrose High S	79.81	132	P	P	17 22 33.8	+2.0
AUDAR	Daramalan Coll	79.92	132	P	P	17 22 34.2	+1.8
VIS	Vishakhapatnam	79.98	49	*e*P	P	17 22 31.4	-1.3
CNB	Canberra Magne	79.98	133	P	P	17 22 35.3	+2.5
	comp=Z,129nm,1.7s						
ASF	Jabal al Asfar	80.01	4	P	P	17 22 33.9	+1.2
	comp=Z,32nm,1.2s,baz=116,slow=24,SNR=17						
ASF				S	S	17 32 38.8	+2.8
	comp=Z,0.7nm,0.3s,baz=115,slow=24,SNR=1.4						
ASF				LR	LR	17 57 02.4	
	comp=Z,3µm,18.5s,baz=192,slow=35						
	comp=Z,32nm,1.2s						
WKZ	Wanaka	80.13	151	IAmb	IAmb	17 22 37.2	
	comp=Z,443nm,1.5s						
PBA	Port Blair	80.15	60	P	P	17 22 35.8	+2.1
PBA	Port Blair	80.15	60	IAmb	IAmb	17 22 36.8	
	comp=Z,496nm,1.5s						
PBA	Port Blair	80.15	60	*e*P	P	17 22 32.4	-1.3
PBA				IAmb	IAmb	17 22 41.6	
	comp=Z,63nm,1.0s						
TWSI	Taliwang, Sumb	80.22	92	P	P	17 22 34.2	0.0
	comp=Z,4µmcomp=Z,3µmcomp=Z,79nm,1.3s						
SIV	San Ignacio	80.23	257	LR	LR	17 52 41.5	
	comp=Z,15µm,20.0s,baz=142,slow=32						
AUALC	St Philip's Co	80.29	115	P	P	17 22 33.2	-1.4
AS09	Alice Springs	80.32	115	P	P	17 22 33.8	-0.9
	comp=Z,148nm,1.0s						
ASAR	Alice Springs	80.32	115	P	P	17 22 33.9	-0.9
	comp=Z,86nm,0.9s,baz=213,slow=4.1,SNR=280						
ASAR				PP	PP	17 25 35.9	-1.2
	comp=Z,17nm,1.3s,baz=236,slow=6.9,SNR=2.4						
ASAR				S	S	17 32 36.9	-3.1
	comp=Z,1.1nm,1.1s,baz=207,slow=13,SNR=1.9						
ASAR				PKKPbc	PKKPbc	17 41 17.1	+2.6
	comp=Z,2.2nm,1.0s,baz=40,slow=2.6,SNR=8.9						
ASAR				PKPPKP	P'P'df	17 49 18.6	-6.3
	comp=Z,1.1nm,1.1s,baz=20,slow=2.0,SNR=4.9						
ASAR				LR	LR	17 51 44.1	
	comp=Z,6µm,21.7s,baz=213,slow=31						
	comp=Z,86nm,0.9s						
ASAR	Alice Springs	80.32	115	P	P	17 22 33.3	-1.4
AS31	Alice Springs	80.32	115	P	P	17 22 33.9	-0.8
	comp=Z,0.0nmcomp=Z,45nm,1.1s						
AS31	Alice Springs	80.32	115	P	P	17 22 33.3	-1.4
AS01	Alice Springs	80.35	115	P	P	17 22 33.4	-1.5
ODZ	Otahua Downs	80.46	152	IAMs_20	IAMs_20	17 54 40.8	
	comp=Z,8µm,19.0s						
CLDB	Colider	80.47	264	*e*P	P	17 22 36.6	+1.0
AUUHS	Ulladulla High	80.49	133	P	P	17 22 38.8	+3.4
PB06	IPOC Station P	80.70	246	IAMs_20	IAMs_20	17 55 24.3	
	comp=Z,5µm,18.0s						
PLAI	Plampang	80.75	93	P	P	17 22 38.0	+0.9
PLAI	Plampang	80.75	93	P	P	17 22 37.1	0.0
	comp=Z,3µmcomp=Z,176nm,1.0s						
MMAI	Mount Meron Ar	80.79	3	P	P	17 22 37.1	+0.3
	comp=Z,2.3nm,0.5s,baz=148,slow=3.9,SNR=9.9						
MMAI				PKKPbc	PKKPbc	17 41 16.6	+0.7
	comp=Z,1.1nm,0.4s,baz=345,slow=9.5,SNR=7.1						
MMAI				LR	LR	17 57 07.5	
	comp=Z,6µm,18.5s,baz=178,slow=35						
	comp=Z,2.3nm,0.5s						
NGP	Nagpur	80.84	44	*e*P	P	17 22 36.0	-1.2
NGP				IAmb	IAmb	17 22 42.1	
	comp=Z,128nm,0.6s						
LBZ	Lake Benmore	80.90	151	IAmb	IAmb	17 22 58.2	
	comp=Z,453nm,1.7s						
LBZ				IAMs_20	IAMs_20	17 54 32.4	
	comp=Z,8µm,19.0s						
PB05	IPOC Station P	80.98	246	IAMs_20	IAMs_20	17 59 28.7	
	comp=Z,6µm,18.0s						
GEM	Giv'at Ha'Em	80.99	3	⇓P	P	17 22 39.7	+2.0
CMSA	Cobar Meteorol	81.08	128	P	P	17 22 40.3	+1.6
	comp=Z,170nm,1.7s						
CMSA	Cobar Meteorol	81.08	128	P	P	17 22 38.9	+0.3
	comp=Z,169nm,1.7s						
CMSA	Cobar Meteorol	81.08	128	P	P	17 22 39.3	+0.7
PBKI	Pangkalan Bun	81.16	84	P	P	17 22 39.2	0.0
PB09	IPOC Station P	81.17	247	IAMs_20	IAMs_20	17 53 43.8	
	comp=Z,5µm,21.0s						
INKA	Innaminka	81.29	122	P	P	17 22 39.0	-0.8
PB03	IPOC Station P	81.30	247	IAmb	IAmb	17 22 51.7	
	comp=Z,306nm,0.9s						
RAGD	RAYAGADA	81.33	48	*e*P	P	17 22 38.8	-1.1
UDPR	Udaipur	81.48	38	*e*P	P	17 22 39.5	-1.1
PB07	IPOC Station P	81.62	247	IAmb	IAmb	17 22 53.5	
	comp=Z,313nm,0.9s						
RPZ	Rata Peaks	81.78	151	LR	LR	17 57 04.4	
	comp=Z,1µm,20.3s,baz=180,slow=34						
WSI	Waingapu	81.83	95	P	P	17 22 42.8	0.0
VILB	Vilhena	81.88	260	IAmb	IAmb	17 22 56.7	
	comp=Z,586nm,1.8s						
VILB	Vilhena	81.88	260	*e*P	P	17 22 43.7	+0.7
BHPL	Bhopal	81.89	42	*e*P	P	17 22 41.6	-1.2
BHPL				IAmb	IAmb	17 22 47.2	
	comp=Z,71nm,0.2s						
SYDH	Sydney Hard Ro	81.91	133	P	P	17 22 46.7	+3.8
PB02	IPOC Station P	81.93	247	IAmb	IAmb	17 22 55.2	
	comp=Z,275nm,0.9s						
AUDCS	Dubbo College	82.07	130	P	P	17 22 45.7	+1.9
CY604	RAF Akrotiri,	82.08	2	P	P	17 22 42.6	-0.5
MQZ	McQueen's Vall	82.29	152	IAMs_20	IAMs_20	17 56 52.2	
	comp=Z,7µm,20.0s						
PB08	IPOC Station P	82.35	249	P	P	17 22 45.4	-0.6
LBFI	Labuhan Bajo,	82.42	94	P	P	17 22 45.9	0.0
OXZ	Oxford	82.44	152	IAMs_20	IAMs_20	17 56 52.2	
	comp=Z,6µm,20.0s						
MGCD	Mangrove Creek	82.53	132	P	P	17 22 49.3	+3.0
TA01	Diego Aracena	82.67	247	IAMs_20	IAMs_20	17 58 45.5	
	comp=Z,5µm,18.0s						
BBKI	Banjar Baru	82.72	87	P	P	17 22 47.4	-0.1
KNRA	Kununurra	83.00	106	P	P	17 22 49.1	+0.3
	comp=Z,0.0nmcomp=Z,57nm,1.5s						
KNRA	Kununurra	83.00	106	P	P	17 22 48.5	-0.3
	comp=Z,57nm,1.5s,comp=Z,0.0nm						
LTZ	Lake Taylor	83.01	152	P	P	17 22 47.8	-0.9
PKKI	Palangkaraya	83.04	86	P	P	17 22 49.0	-0.1
	comp=Z,5µmcomp=Z,165nm,1.1s						
GVZ	Greta Valley S	83.08	152	P	P	17 22 48.0	-1.0
STKI	Sintang	83.08	82	P	P	17 22 49.2	-0.1
	comp=Z,4µmcomp=Z,4µmcomp=Z,84nm,1.6s						
IDI	Anoyia	83.23	354	P	P	17 22 51.6	+2.1
IDI	Anoyia	83.23	354	P	P	17 22 49.1	-0.4
	comp=Z,10nm,0.9s,baz=72,slow=1.9,SNR=3.6						
IDI				S	S	17 33 08.6	-0.5
	comp=Z,11nm,0.9s,baz=355,slow=14,SNR=2.2						
IDI				LR	LR	17 58 48.2	
	comp=Z,4µm,20.9s,baz=176,slow=35						
	comp=Z,10nm,0.9s						
IDI	Anoyia	83.23	354	IAmb	IAmb	17 23 14.4	
	comp=Z,379nm,2.0s						
PSGCX	Pisagua	83.36	248	P	P	17 22 49.7	-1.2
KSM	Kuching	83.36	80	P	P	17 22 50.6	-0.1
KARP	Karpathos	83.36	356	⇑P	P	17 22 52.0	+1.8
KARP	Karpathos	83.36	356	P	P	17 22 53.0	+2.8
	comp=Z,4µmcomp=Z,459nm,1.0s						
WRA	Warramunga Arr	83.36	112	P	P	17 22 49.4	-1.4
	comp=Z,83nm,1.0s,baz=215,slow=4.3,SNR=170						
WRA				PP	PP	17 26 00.7	-1.6
	comp=Z,9.5nm,1.2s,baz=221,slow=6.7,SNR=3.1						
WRA				S	S	17 33 09.4	-2.0
	comp=Z,0.1nm,0.6s,baz=251,slow=10,SNR=1.7						
WRA				PKKPbc	PKKPbc	17 41 09.5	+1.8
	comp=Z,0.9nm,0.8s,baz=48,slow=2.5,SNR=4.9						
WRA				PKPPKP	P'P'df	17 49 16.8	-2.2
	comp=Z,3.9nm,1.0s,baz=20,slow=2.2,SNR=8.5						
WRA				LR	LR	17 54 17.9	
	comp=Z,6µm,20.4s,baz=269,slow=32						
	comp=Z,83nm,1.0s						
WRA	Warramunga Arr	83.36	112	P	P	17 22 49.1	-1.7
WRA						17 26 00.7	
WRA				S	S	17 33 09.4	-2.0
WRA				pmax	pmax		
	comp=Z,29nm,1.2s						
WRA	Warramunga Arr	83.36	112	P	P	17 22 49.1	-1.7
BWNR	Bhubaneshwar	83.37	50	*e*P	P	17 22 49.5	-1.0
WRAB	Tennant Creek	83.38	112	P	P	17 22 50.1	-0.7
WRAB	Tennant Creek	83.38	112	*de*P	P	17 22 50.6	-0.2
WRAB				pmax	pmax		
	comp=Z,144nm,1.0s						
WRAB				MLR	MLR		
	comp=Z,6µm,16.0s						
WRAB	Tennant Creek	83.38	112	P	P	17 22 49.5	-1.4
WRAB				IAmb	IAmb	17 22 52.5	
	comp=Z,185nm,1.1s						
WRAB	Tennant Creek	83.38	112	IAMs_20	IAMs_20	17 53 15.8	
	comp=Z,7µm,21.0s						
EDFI	Ende, Flores	83.43	96	P	P	17 22 51.1	-0.2
	comp=Z,3µmcomp=Z,3µmcomp=Z,114nm,1.9s						
WR8	Warramunga Arr	83.45	112	IAmb	IAmb	17 22 52.8	
	comp=Z,154nm,1.1s						
AJM	Ajmer	83.49	38	*e*P	P	17 22 49.9	-1.2
AJM				IAmb	IAmb	17 22 53.7	
	comp=Z,608nm,0.1s						
WB0	Warramunga Arr	83.53	112	IAmb	IAmb	17 22 53.1	
	comp=Z,205nm,1.2s						
BATI	Baumata	83.67	98	P	P	17 22 49.5	-2.9
	comp=Z,70nm,1.1s,baz=173,slow=4.1,SNR=16						
BATI				LR	LR	17 53 31.1	
	comp=Z,6µm,21.8s,baz=210,slow=31						
KHZ	Kahutara	83.74	152	P	P	17 22 55.6	+3.3
KHZ	Kahutara	83.74	152	P	P	17 22 51.2	-1.1
KHZ				IAmb	IAmb	17 22 56.6	
	comp=Z,187nm,1.4s						
DSZ	Denniston Nort	83.79	151	IAMs_20	IAMs_20	17 57 53.0	
	comp=Z,6µm,19.0s						
MMRI	Maumere	83.88	96	P	P	17 22 54.7	+1.3
MMRI	Maumere	83.88	96	⇑P	P	17 22 53.4	0.0
MMRI	Maumere	83.88	96	P	P	17 22 53.4	0.0
	comp=Z,3µmcomp=Z,4µmcomp=Z,166nm,1.9s						
PB16	IPOC Station P	83.91	249	P	P	17 22 51.2	-3.1
AULRC	Lightning Ridg	83.95	128	P	P	17 22 54.3	+0.7
AKAS	Kas	83.96	358	P	P	17 22 50.6	-2.7
AKAS				IAmb	IAmb	17 23 07.8	
	comp=Z,192nm,1.2s						

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AUPHS Peel High Scho   84.12 131  P        P        17 22 55.9 +1.4
THZ   Tophouse         84.13 152  P        P        17 22 53.3 -1.1
THZ                               IAMs_20  IAMs_20  17 58 02.9
      comp=Z,8µm,21.0s
QLP   Quilpie          84.15 124  P        P        17 22 55.1 +0.4
      comp=Z,271nm,1.7s
QLP   Quilpie          84.15 124  P        P        17 22 54.3 -0.4
      comp=Z,271nm,1.7s
QLP   Quilpie          84.15 124  P        P        17 22 54.3 -0.4
QLP   Quilpie          84.15 124 ⇑P        P        17 22 54.8 +0.1
PB12  IPOC Station P   84.22 249  IAmb     IAmb     17 23 06.6
      comp=Z,252nm,1.2s
JHNI  Jhansi           84.34  41 eP        P        17 22 53.9 -1.6
JHNI                             ex        x        17 23 07.0
JHNI                              IAmb     IAmb     17 23 07.1
      comp=Z,195nm,1.4s
SOEI  Soe              84.41  98  P        P        17 22 57.3 +1.0
SOEI  Soe              84.41  98  P        P        17 22 58.6 +2.3
SOEI  Soe              84.41  98  IAMs_20  IAMs_20  17 56 24.4
      comp=Z,7µm,21.0s
SOEI  Soe              84.41  98 ⇓P        P        17 22 58.3 +2.0
SOEI  Soe              84.41  98  P        P        17 22 56.1 -0.2
      comp=Z,4µmcomp=Z,4µmcomp=Z,205nm,1.4s
PB18  Visviri          84.45 250  IAMs_20  IAMs_20  17 59 31.8
      comp=Z,7µm,18.0s
ELL   Elmali           84.47 358  IAmb     IAmb     17 23 11.2
      comp=Z,230nm,1.2s
ELL   Elmali           84.47 358 ⇓P        P        17 22 58.1 +2.2
BSWZ  Blackbirch Sta   84.48 152  P        P        17 22 55.4 -0.7
MKS   Makassar         84.53  92  P        P        17 22 56.7 -0.1
      comp=Z,3µmcomp=Z,179nm,1.3s
BSSI  Bau Bau, Buton   84.54  93  P        P        17 22 56.7 -0.1
LPAZ  La Paz           84.57 252  P        P        17 22 58.1 +0.4
      comp=Z,18nm,0.9s,baz=130,slow=3.5,SNR=38
LPAZ                              S        SKSac    17 33 20.5 -1.4
      comp=Z,0.9nm,0.8s,baz=136,slow=13,SNR=1.7
LPAZ                              LR       LR       17 57 57.6
      comp=Z,9µm,18.0s,baz=119,slow=34
      comp=Z,18nm,0.9s
LPAZ  La Paz           84.57 252  IAmb     IAmb     17 23 09.4
      comp=Z,127nm,1.1s
LPAZ  La Paz           84.57 252 ⇑P        P        17 22 58.9 +1.2
LPAZ  La Paz           84.57 252 eP        P        17 22 57.8 +0.1
KEPZ  Antalya-Kepez    84.60 360 ⇑P        P        17 22 57.5 +1.0
TUWZ  Tuamarina        84.76 152  P        P        17 22 57.6 +0.1
QRZ   Quartz Range     84.86 151  IAMs_20  IAMs_20  17 57 34.1
      comp=Z,6µm,20.0s
BDRM  Kayabasi         84.86 356 ⇑P        P        17 22 59.5 +1.8
KAPI  Kappang          84.87  92  LR       LR       17 56 50.4
      comp=Z,3µm,18.6s,baz=216,slow=33
KAPI  Kappang          84.87  92  P        P        17 22 59.5 +1.1
KAPI  Kappang          84.87  92d iP       P        17 22 58.8 +0.3
KAPI                              pmax     pmax
      comp=Z,28nm,1.0s
KAPI  Kappang          84.87  92  P        P        17 22 58.4 -0.1
BKSI  Bulukumba        84.89  92  P        P        17 22 58.5 -0.1
      comp=Z,2µmcomp=Z,2µmcomp=Z,135nm,1.5s
GAZ   Gaziantep        85.01   4  IAmb     IAmb     17 23 19.8
      comp=Z,202nm,1.6s
PLWZ  Palliser         85.03 153  P        P        17 22 58.2 -0.8
ARMA  Armidale         85.04 131  P        P        17 23 00.9 +1.6
      comp=Z,92nm,1.4s
ARMA  Armidale         85.04 131  P        P        17 22 59.8 +0.5
      comp=Z,91nm,1.4s
ARMA  Armidale         85.04 131  P        P        17 23 00.7 +1.4
ARMA  Armidale         85.04 131  IAmb     IAmb     17 23 12.3
      comp=Z,481nm,2.0s
ARMA  Armidale         85.04 131 ⇑P        P        17 23 01.2 +1.9
TCW   Tory Channel     85.06 152  P        P        17 22 57.8 -1.3
SNZO  South Karori     85.10 153  P        P        17 23 00.7 +1.5
SNZO  South Karori     85.10 153  P        P        17 22 59.1 -0.1
BNDA  BANDA            85.14  43 eP        P        17 22 58.4 -1.0
MSWZ  Moikau Station   85.17 153  P        P        17 22 58.5 -1.1
ITTB  Itaituba         85.19 269 eP        P        17 23 00.6 +0.5
TAVA  DENIZLI_Tavas    85.21 358 ⇓P        P        17 23 01.3 +1.7
SBUM  Sibu             85.35  81  P        P        17 23 01.8 +1.0
SBUM  Sibu             85.35  81 ⇓P        P        17 23 01.5 +0.6
SBUM  Sibu             85.35  81  P        P        17 23 00.7 -0.1
PMSI  Majene           85.42  90  P        P        17 23 01.1 -0.2
ISP   Isparta          85.53 359ceP        P        17 23 03.6 +2.4
ISP                               pmax     pmax
      comp=Z,87nm,1.3s
ISP   Isparta          85.53 359  IAMs_20  IAMs_20  18 07 56.3
      comp=Z,6µm,19.0s
AGRA  Agra             85.60  40 eP        P        17 23 00.2 -1.5
ALBI  Allahabad        85.67  44 eP        P        17 23 00.9 -1.1
BKB   Balikpapan       85.72  87  P        P        17 23 03.2 +0.5
      comp=Z,3µmcomp=Z,131nm,1.3s
KUDL  Kundal           85.78  38 eP        P        17 23 01.1 -1.4
KEST  Kesra            85.84 342  P        P        17 23 04.1 +1.3
      comp=Z,15nm,1.0s,baz=31,slow=1.6,SNR=6.7
KEST                              PP       PP       17 26 23.7 +0.8
      comp=Z,23nm,1.1s,baz=173,slow=9.2,SNR=4.7
KEST                              S        SKSac    17 33 29.9 +2.4
      comp=Z,3.7nm,0.9s,baz=355,slow=23,SNR=1.2
KEST                              LR       LR       18 02 22.5
      comp=Z,7µm,21.2s,baz=164,slow=36
      comp=Z,15nm,1.0s
KEST  Kesra            85.84 342  P        P        17 23 05.9 +3.2
KEST  Kesra            85.84 342  IAmb     IAmb     17 23 18.3
      comp=Z,155nm,1.1s
MRZ   Mangatainoka R   85.96 153  P        P        17 23 02.9 -0.6
MMSI  Mamuju           86.02  90  P        P        17 23 04.1 -0.1
      comp=Z,2µmcomp=Z,79nm,1.5s
QIS   Mount Isa        86.11 117  P        P        17 23 04.3 -0.3
      comp=Z,199nm,1.4s
QIS   Mount Isa        86.11 117  P        P        17 23 03.7 -0.9
      comp=Z,199nm,1.4s
QIS   Mount Isa        86.11 117  P        P        17 23 03.5 -1.2
TIO   Tiouine          86.13 327  P        P        17 23 06.2 +1.8
BFZ   Birch Farm       86.14 154  P        P        17 23 05.8 +1.3
BFZ   Birch Farm       86.14 154  P        P        17 23 03.5 -1.0
VAR   Varanasi         86.19  45 eP        P        17 23 03.8 -0.8
SRGN  SRI GANGA NAGA86.30  36 eP        P        17 23 03.2 -1.9
BOK   Bokaro           86.36  48 eP        P        17 23 04.6 -0.9
BBSI  Bau Bau          86.41  94  P        P        17 23 06.1  0.0
      comp=Z,3µmcomp=Z,2µmcomp=Z,81nm,2.4s
FRKB  FARRUKHABAD      86.45  41 eP        P        17 23 04.8 -1.1
JMIU  JAMIA UNIVERSI   86.49  39 eP        P        17 23 04.7 -1.4
LKN   LUCKNOW          86.49  43 eP        P        17 23 04.9 -1.2
LKN                               IAmb     IAmb     17 23 10.5
      comp=Z,517nm,1.3s
NPLP  NPLP New Delhi   86.50  39 eP        P        17 23 04.8 -1.2
NPLP                              IAmb     IAmb     17 23 08.3
      comp=Z,23nm,0.9s
SMKI  Samarinda        86.53  87  P        P        17 23 06.6 -0.1
      comp=Z,5µmcomp=Z,177nm,1.5s
NDI   New Delhi        86.56  39 eP        P        17 23 05.2 -1.2
NDI                               IAmb     IAmb     17 23 10.9
      comp=Z,341nm,0.8s
GEVA  Gevas            86.58   9  IAmb     IAmb     17 23 27.6
      comp=Z,251nm,1.4s
VAE   Valguarnera      86.59 346  LR       LR       18 03 26.1
      comp=Z,46µm,18.2s,baz=205,slow=37
BNN   Bunyan           86.62   3  IAmb     IAmb     17 23 26.7
      comp=Z,289nm,1.8s
BNN   Bunyan           86.62   3 ⇓P        P        17 23 08.4 +1.8
MTN   Manton Dam       86.63 105  P        P        17 23 06.8 -0.4
      comp=Z,0.0nmcomp=Z,31nm,2.0s
MTN   Manton Dam       86.63 105  P        P        17 23 07.2  0.0
      comp=Z,31nm,2.0s,comp=Z,0.0nm
RMQ   Roma             86.71 127  P        P        17 23 08.6 +1.2
      comp=Z,64nm,1.7s
KKSI  Kolaka, Sulawe   86.77  93  P        P        17 23 07.8 -0.1
KIRS  Kirsehir-Merke   86.85   2 ⇑P        P        17 23 09.6 +1.9
GNR   GANAUR           86.87  38 eP        P        17 23 06.5 -1.4
GNR                               IAmb     IAmb     17 23 08.2
      comp=Z,66nm,0.6s
GAYA  Gaya             86.88  47 eP        P        17 23 07.1 -0.9
MDT   Midelt           86.91 330  LR       LR       18 03 14.6
      comp=Z,9µm,19.0s,baz=150,slow=36
EOSO  Osorio           86.93 319  P        P        17 23 09.3 +1.0
ARPR  Arapgir-MALATY   86.98   5  IAMs_20  IAMs_20  18 01 37.4
      comp=Z,5µm,20.0s
OZAP  Van, Ozalp-Mer   87.03   9 ⇓P        P        17 23 12.0 +3.2
BR104 Keskin Array S   87.42   1  P        P        17 23 11.3 +0.8
      comp=Z,229nmcomp=Z,18nm,1.0s
BR105 Keskin Array S   87.43   1  P        P        17 23 12.3 +1.8
      comp=Z,291nmcomp=Z,20nm,1.0s
BR131 Keskin Array S   87.44   1  P        P        17 23 11.3 +0.7
      SNR=17
BR131 Keskin Array S   87.44   1d iP       P        17 23 11.5 +0.9
BR131 Keskin Array S   87.44   1  IAmb     IAmb     17 23 29.9
      comp=Z,209nm,2.0s
BRTR  Keskin Array B   87.44   1  P        P        17 23 09.5 -1.0
      comp=Z,10nm,1.1s,baz=171,slow=8.5,SNR=41
BRTR                              PP       PP       17 26 36.7 +0.8
      comp=Z,0.2nm,0.3s,baz=314,slow=17,SNR=1.9
BRTR                              S        SKSac    17 33 35.0 -2.4
      comp=Z,0.1nm,0.3s,baz=93,slow=18,SNR=1.6
      comp=Z,10nm,1.1s
BRTR  Keskin Array B   87.44   1 i P       P        17 23 10.3 -0.3
BRTR                              pmax     pmax
      comp=Z,11nm,1.1s
BRTR  Keskin Array B   87.44   1  P        P        17 23 10.0 -0.6
BR106 Keskin Array S   87.44   1  P        P        17 23 11.4 +0.8
      comp=Z,262nmcomp=Z,21nm,1.4s
JMUI  Jamui            87.47  48 eP        P        17 23 09.8 -1.1
BRCI  Bahraich         87.51  43 eP        P        17 23 09.8 -1.2
AUTOO Toowoomba Stat   87.54 130  P        P        17 23 12.8 +1.2
TW1H  Toowoomba 1 Ha   87.55 130  P        P        17 23 13.0 +1.4
KDI   Kendari          87.57  93  P        P        17 23 11.7 -0.1
      comp=Z,3µmcomp=Z,2µmcomp=Z,53nm,1.8s
BORA  Eskisehir        87.59 359  P        P        17 23 10.1 -1.1
BORA                              IAmb     IAmb     17 23 31.8
      comp=Z,289nm,1.8s
KDU   Kakadu           87.61 106  P        P        17 23 12.4 +0.5
      comp=Z,28nm,2.0s
KDU   Kakadu           87.61 106  P        P        17 23 10.9 -1.1
      comp=Z,28nm,2.0s
BKZ   Black Stump Fm   87.61 153  P        P        17 23 13.0 +1.3
TKRD  Thakurdwara      87.66  40 eP        P        17 23 11.3 -0.4
HIZ   Hauiti           87.70 152  IAMs_20  IAMs_20  18 00 30.5
      comp=Z,5µm,20.0s
IFR   Ifrane           87.73 330  P        P        17 23 13.2 +1.0
TIP   Timpagrande      87.91 348 ⇑P        P        17 23 22.1 +9.4
PCI   Palu             87.95  89  P        P        17 23 13.5 -0.1
      comp=Z,2µmcomp=Z,51nm,1.4s
MDUB  Mudurnu          88.17 359  IAmb     IAmb     17 23 28.4
      comp=Z,115nm,1.2s
CGRH  CHANDIGARH       88.17  37 eP        P        17 23 12.8 -1.4
HOMI  Horasan          88.19   8 ⇓P        P        17 23 16.5 +2.2
RTZ   Ruatahuna        88.27 153  P        P        17 23 14.6 -0.3
YLV   Yalova           88.29 358  P        P        17 23 16.5 +2.0
      comp=Z,2µmcomp=Z,48nm,1.8s
AVE   Averroes         88.33 328  P        P        17 23 16.7 +1.9
BRDH  Bariadhala       88.41  53  LR       LR       17 59 36.6
      comp=Z,4µm,18.8s,baz=208,slow=33
GNI   Garni            88.58  10  LR       LR       18 03 49.0
      comp=Z,4µm,18.5s,baz=194,slow=36
GNI   Garni            88.58  10  P        P        17 23 16.9 +0.9
GNI   Garni            88.58  10deP        P        17 23 17.5 +1.5
GNI                               pmax     pmax
      comp=Z,135nm,1.7s
GNI                               MLR      MLR
      comp=Z,4µm,17.0s
GNI   Garni            88.58  10  P        P        17 23 15.6 -0.4
GNI   Garni            88.58  10  P        P        17 23 17.7 +1.7
GNI   Garni            88.58  10  P        P        17 23 18.4 +2.4
      comp=Z,3µmcomp=Z,117nm,1.9s
BHK   Bhakra           88.59  37 eP        P        17 23 15.6 -0.5
AUBSH Beerwah State    88.61 130  P        P        17 23 17.9 +1.4
PTH   Pithoragarh      88.62  41 eP        P        17 23 15.1 -1.4
PTH                               IAmb     IAmb     17 23 21.8
      comp=Z,221nm,2.2s
URZ   Urewera          88.63 153  P        P        17 23 15.9 -0.5
      comp=Z,35nm,1.0s,baz=218,slow=4.4,SNR=11
URZ                               LR       LR       18 02 07.2
      comp=Z,8µm,18.1s,baz=192,slow=35
      comp=Z,35nm,1.0s
URZ   Urewera          88.63 153  P        P        17 23 18.5 +2.0
URZ   Urewera          88.63 153 ⇑P        P        17 23 16.9 +0.4
SMLA  Simla            88.68  38 eP        P        17 23 15.1 -1.3
KBL   Kabul            88.71  30  P        P        17 23 17.8 +1.0
      SNR=14
KBL   Kabul            88.71  30  P        P        17 23 16.1 -0.7
KBL                               pmax     pmax
      comp=Z,31nm,1.2s
KBL   Kabul            88.71  30  P        P        17 23 16.1 -0.7
ILGA  Ilgaz            88.76   1  IAmb     IAmb     17 23 36.7
      comp=Z,329nm,2.0s
EIDS  Eidsvold         88.84 128  P        P        17 23 18.2 +0.6
      comp=Z,95nm,1.8s
EIDS  Eidsvold         88.84 128  P        P        17 23 17.5 -0.2
      comp=Z,95nm,1.8s
EIDS  Eidsvold         88.84 128  P        P        17 23 18.5 +0.8
EIDS  Eidsvold         88.84 128  IAmb     IAmb     17 23 29.9
      comp=Z,321nm,1.8s
EIDS  Eidsvold         88.84 128 ⇓P        P        17 23 17.9 +0.2
UTK   UTTARKASHI       88.86  39 eP        P        17 23 16.1 -1.4
KTUT  Trabzon          88.96   6 ⇑P        P        17 23 19.0 +1.5
SAIH  SAIHA            88.99  54 eP        P        17 23 17.1 -1.3
CM31  Chiang Mai Arr   89.15  61  P        P        17 23 20.0 +0.9
      SNR=73
CM31  Chiang Mai Arr   89.15  61  IAmb     IAmb     17 23 21.7
      comp=Z,218nm,1.3s
CMAR  Chiang Mai Arr   89.15  61  P        P        17 23 18.7 -0.4
      comp=Z,80nm,1.2s,baz=221,slow=3.8,SNR=126
CMAR                              S        SKSac    17 33 43.5 -4.8
      comp=Z,0.2nm,0.4s,baz=120,slow=4.0,SNR=1.4
CMAR                              LR       LR       17 58 11.0
      comp=Z,3µm,18.0s,baz=225,slow=32
      comp=Z,80nm,1.2s
CMAR  Chiang Mai Arr   89.15  61  P        P        17 23 18.1 -0.9
APSI  Ampana           89.16  90  P        P        17 23 19.2 -0.1
      comp=Z,2µmcomp=Z,58nm,1.5s
JOSI  Joshimath        89.18  40 eP        P        17 23 17.6 -1.5
AGT   Agartala         89.19  52 eP        P        17 23 18.7 -0.4
JMU   Jammu            89.21  35 eP        P        17 23 17.4 -1.6
CTYL  Yalikoy Yolu     89.23 357  P        P        17 23 20.8 +2.0
      comp=Z,2µmcomp=Z,48nm,1.2s
NIL   Nilore           89.39  33  P        P        17 23 19.6 -0.2
NIL   Nilore           89.39  33  P        P        17 23 19.3 -0.5
NIL                               pmax     pmax
      comp=Z,88nm,1.0s
NIL   Nilore           89.39  33  P        P        17 23 19.2 -0.5
NIL   Nilore           89.39  33 ⇑P        P        17 23 19.9 +0.1
CHTO  Chiang Mai       89.43  61  P        P        17 23 19.6 -0.8
CHTO  Chiang Mai       89.43  61  P        P        17 23 20.1 -0.2
CHTO  Chiang Mai       89.43  61  P        P        17 23 19.3 -1.0
CHTO                              pmax     pmax
      comp=Z,187nm,1.2s
CHTO                              MLR      MLR
      comp=Z,4µm,19.0s
CHTO  Chiang Mai       89.43  61  P        P        17 23 19.3 -1.0
CHTO                              IAmb     IAmb     17 23 22.9
      comp=Z,187nm,1.1s
CHTO                              IAMs_20  IAMs_20  17 57 04.8
      comp=Z,4µm,19.0s
CHTO  Chiang Mai       89.43  61 ⇑P        P        17 23 19.0 -1.4
CHTO  Chiang Mai       89.43  61  P        P        17 23 20.2 -0.2
      comp=Z,3µmcomp=Z,3µmcomp=Z,151nm,1.2s
TSSA  Tissa            89.77  36 eP        P        17 23 20.0 -1.8
LUWI  Luwuk            89.82  91  P        P        17 23 23.4 +1.0
LUWI  Luwuk            89.82  91  P        P        17 23 25.0 +2.6
LUWI  Luwuk            89.82  91  IAmb     IAmb     17 23 40.2
      comp=Z,181nm,1.3s
LUWI  Luwuk            89.82  91  P        P        17 23 22.2 -0.2
      comp=Z,2µmcomp=Z,2µmcomp=Z,127nm,1.6s
AZL   Aizawl           89.83  53 eP        P        17 23 21.3 -1.0
ENIJ  Nijar            89.97 333  P        P        17 23 24.4 +1.9
ECEU  Ceuta            89.99 331  P        P        17 23 24.5 +2.0
DLV    Lat             90.02  72  P        P        17 23 25.5 +2.1
DLV    Lat             90.02  72  P        P        17 23 21.9 -1.5
DLV                               IAMs_20  IAMs_20  17 57 09.7
      comp=Z,5µm,20.0s
JPG   JALPAIGURI       90.06  49 eP        P        17 23 21.8 -1.3
TOLI2 Tolitoli         90.07  88  P        P        17 23 23.9 +0.3
TOLI2 Tolitoli         90.07  88  P        P        17 23 21.6 -1.9
MDP   Montagnes des    90.11 277  LR       LR       17 59 05.4
      comp=Z,4µm,18.0s,baz=131,slow=32
EBER  Berja            90.11 333  P        P        17 23 24.2 +0.9
MPGF  Montagnes des    90.12 277 ⇓P        P        17 23 25.9 +2.2
AUNRC North Rockhamp   90.17 126  P        P        17 23 25.2 +1.3
CART  Cartagena        90.19 334  P        P        17 23 23.3 -0.1
CART  Cartagena        90.19 334  IAMs_20  IAMs_20  18 08 58.2
      comp=Z,7µm,20.0s
COBR  COOCHBEHAR       90.23  49 eP        P        17 23 22.5 -1.3
EVN   Everest          90.29  46  P        P        17 23 22.9 -2.0
ELGU  Los Guajares,    90.31 332  P        P        17 23 26.4 +2.3
SRNI  Srinagar         90.32  34 eP        P        17 23 22.8 -1.6
CTA   Charters Tower   90.38 121  P        P        17 23 25.2 +0.2
      comp=Z,14nm,1.3s
CTA   Charters Tower   90.38 121  S        SKSac    17 33 52.9 -3.1
      comp=Z,1.2nm,0.8s,baz=13,slow=10,SNR=1.4
CTA                               LR       LR       18 00 21.4
      comp=Z,4µm,18.2s,baz=208,slow=33
CTA   Charters Tower   90.38 121  P        P        17 23 24.8 -0.2
CTAO  Charters Tower   90.38 121  P        P        17 23 25.1 +0.1
CTAO  Charters Tower   90.38 121  P        P        17 23 23.1 -1.9
CTAO                              pmax     pmax
      comp=Z,47nm,1.3s
CTAO                              MLR      MLR
      comp=Z,7µm,22.0s
CTAO  Charters Tower   90.38 121  P        P        17 23 23.1 -1.9
CTAO  Charters Tower   90.38 121  IAMs_20  IAMs_20  17 56 32.6
      comp=Z,7µm,22.0s
CTAO  Charters Tower   90.38 121 ⇓P        P        17 23 24.3 -0.7
EMIJ  Mijas            90.40 331  P        P        17 23 26.0 +1.5
EMAL  Malaga-Limoner   90.47 332  P        P        17 23 26.1 +1.4
EMUR  La Murta         90.49 334  P        P        17 23 27.2 +2.4
EQTA  Presa de Quent   90.57 332  P        P        17 23 27.9 +2.6
KKM   Kota Kinabalu    90.66  82  P        P        17 23 26.1 -0.3
      comp=Z,977nmcomp=Z,52nm,1.2s
EGOR  Sierra Gorda,    90.69 332  P        P        17 23 27.9 +2.0
SFS   San Fernando     90.78 330  P        P        17 23 26.9 +0.8
MTSU  Mount Surprise   90.79 118  P        P        17 23 27.2 +0.2
      comp=Z,19nm,1.1s
MTSU  Mount Surprise   90.79 118  P        P        17 23 27.4 +0.5
PDG   Podgorica        90.81 351  IAMs_20  IAMs_20  18 02 42.3
      comp=Z,7µm,22.0s
SHL   Shillong         90.89  51 eP        P        17 23 25.9 -1.3
NLAI  Namlea           91.09  96  P        P        17 23 28.2 -0.1
      comp=Z,24nm,1.1s
MORE  Moreh            91.10  54  P        P        17 23 27.0 -1.0
MORE                              IAmb     IAmb     17 23 31.1
      comp=Z,153nm,1.2s
GTOI  Gorontalo        91.22  90  P        P        17 23 28.7 -0.2
      comp=Z,932nmcomp=Z,33nm,1.6s
SANI  Sanana           91.23  94  P        P        17 23 30.2 +1.2
SANI  Sanana           91.23  94  P        P        17 23 29.6 +0.6
SANI  Sanana           91.23  94 ⇓P        P        17 23 28.8 -0.2
SANI  Sanana           91.23  94  P        P        17 23 28.8 -0.2
      comp=Z,2µmcomp=Z,2µmcomp=Z,117nm,1.9s
PLVB  Pleven           91.31 355 ⇓P        P        17 23 30.0 +1.6
TV1H  Townsville Har   91.35 121  P        P        17 23 31.0 +1.6
RAZG  Razgrad          91.38 356 ⇓P        P        17 23 31.1 +2.3
ALCI  Alchi Leh        91.39  36 eP        P        17 23 27.9 -1.6
VSLR  Vesyoloye        91.44   6 i P       P        17 23 29.4 +0.3
VSLR                              pmax     pmax
      comp=Z,66nm,1.2s
VSLR                              MLR      MLR
      comp=Z,1µm,12.0s
AUAYR Ayr State High   91.45 122  P        P        17 23 30.7 +0.8
SOC   Sochi            91.54   6d iP       P        17 23 30.3 +0.8
SOC                              e                  17 27 11.4
SOC                              eS        SKSac    17 34 02.6 +1.7
SOC                              eSS       SS       17 40 43.3 +7.4
SOC                              eSSS      SSS      17 44 18.2
SOC                               pmax     pmax
      comp=Z,29nm,1.0s
SOC                               MLR      MLR
      comp=Z,1µm,14.0s
MYLDM Lahad Datu       91.55  84  P        P        17 23 33.5 +3.1
MYLDM Lahad Datu       91.55  84  P        P        17 23 29.2 -1.1
MYLDM                             IAmb     IAmb     17 23 42.9
      comp=Z,186nm,1.6s
MYLDM                             IAMs_20  IAMs_20  18 03 20.0
      comp=Z,6µm,18.0s
MYLDM Lahad Datu       91.55  84  P        P        17 23 30.2 -0.2
      comp=Z,2µmcomp=Z,69nm,1.5s
MAK   Makhachkala      91.70  11c iP       P        17 23 25.2 -5.0
MAK                              e                  17 27 08.1
MAK                               pmax     pmax
      comp=Z,477nm,1.4s
PMOZ  Porto Moniz, M   91.74 320 eS        S        17 34 51.9  +21
PMOZ                             eLR       LR       17 53 10.1
PMOZ                             eLQ       LQ       17 53 53.7
PMOZ                             i IAMs_20 IAMs_20  18 05 11.9
      comp=Z,6µm,18.0s
BOVS  Bovan            91.77 353 ⇑P        P        17 23 32.6 +2.1
NCK   Nalchik          91.77   8 i P       P        17 23 31.4 +0.8
NCK                               pmax     pmax
      comp=Z,16nm,1.0s
SHA1  Shidzhatmaz      91.92   8deP        P        17 23 33.5 +1.9
VLAD  Vladila          91.93 355 ⇓P        P        17 23 33.4 +2.1
KBZ   Khabaz           91.94   8  P        P        17 23 31.1 -0.2
      comp=Z,22nm,1.1s,baz=244,slow=4.3,SNR=24
KBZ                               S        SKSac    17 34 00.5 -2.6
      comp=Z,1.8nm,1.0s,baz=98,slow=23,SNR=1.6
      comp=Z,22nm,1.1s
KBZ   Khabaz           91.94   8deP        P        17 23 32.7 +1.4
KBZ                               pmax     pmax
      comp=Z,25nm,1.1s
KBZ                               MLR      MLR
      comp=Z,4µm,16.0s
BNDI  Bandanaira       92.01  99  P        P        17 23 34.8 +2.2
BNDI  Bandanaira       92.01  99  P        P        17 23 32.4 -0.2
NRCA  Norcia           92.03 346  IAmb     IAmb     17 23 47.9
      comp=Z,141nm,1.5s
PBDV  Barranco-do-Ve   92.06 329 eP        P        17 23 37.5 +5.3
PBDV                             i IAmb    IAmb     17 23 47.7
      comp=Z,155nm,1.6s
PVAQ  Vaqueiros        92.14 329 eP        P        17 23 32.0 -0.5
PVAQ                             i IAmb    IAmb     17 23 47.2
      comp=Z,114nm,1.4s
PVAQ                             ePP       PP       17 27 12.6 -0.5
PVAQ                             eS        S        17 34 44.4  +10
PVAQ                             eLR       LR       17 53 39.7
PVAQ                             eLQ       LQ       17 53 52.6
PVAQ                             i IAMs_20 IAMs_20  18 07 46.0
      comp=Z,5µm,20.0s
KIV   Kislovodsk       92.14   8 eP        P        17 23 33.8 +1.4
KIV                              e                  17 27 14.1
KIV                              e                  17 34 06.6
KIV                              eSS       SS       17 40 46.8 +2.0
KIV                              eSSS      SSS      17 44 26.0
KIV                               pmax     pmax
      comp=Z,37nm,1.1s
KIV                               pmax     pmax
      comp=Z,113nm,3.2s
KIV                               MLR      MLR
      comp=Z,2µm,20.0s
KIV   Kislovodsk       92.14   8  P        P        17 23 31.0 -1.4
KIV                               IAmb     IAmb     17 23 53.0
      comp=Z,156nm,1.5s
KIV   Kislovodsk       92.14   8 ⇓P        P        17 23 32.9 +0.5
KIV   Kislovodsk       92.14   8 i P       P        17 23 33.9 +1.4
      SNR=11
KIV   Kislovodsk       92.14   8 ⇑P        P        17 23 34.7 +2.3
KIV   Kislovodsk       92.14   8  P        P        17 23 34.2 +1.8
      comp=Z,1µmcomp=Z,50nm,2.0s
KVAR  Kislovodsk Arr   92.14   8  LR       LR       18 05 09.2
      comp=Z,3µm,19.0s,baz=98,slow=36
KOHI  KOHIMA           92.19  53 eP        P        17 23 32.4 -0.8
TEZP  TEZPUR           92.22  52 eP        P        17 23 32.4 -0.6
PFVI  Vila Bisbo       92.28 329 eP        P        17 23 30.5 -2.6
HUMR  Humele           92.42 355 ⇑P        P        17 23 33.2 -0.4
PCVE  Castro Verde     92.45 329 eP        P        17 23 41.3 +7.4
PCVE                             i IAmb    IAmb     17 23 48.8
      comp=Z,117nm,1.5s
PBAR  Barrancos        92.61 330 eP        P        17 23 40.6 +6.0
PBAR                             i IAmb    IAmb     17 23 49.8
      comp=Z,104nm,1.5s
PBAR                             ePP       PP       17 27 16.6 -0.2
PTEO  Sao Teotonio     92.61 329 ePP       PP       17 27 18.8 +2.0
ANN   Anapa            92.62   4 eP        P        17 23 35.1 +0.6
ANN                              e                  17 27 16.8
ANN                              eS        SKSac    17 34 08.3 +1.4
ANN                              eSS       SS       17 40 54.9 +3.5
ANN                               pmax     pmax
      comp=Z,56nm,1.6s
ANN                               MLR      MLR
      comp=Z,2µm,16.0s
LABN  Labinsk          92.66   6 eP        P        17 23 35.6 +0.9
LABN                             e                  17 27 19.5
LABN                             eS        SKSac    17 34 08.8 +1.6
LABN                             eSS       SS       17 40 55.1 +3.1
LABN                              pmax     pmax
      comp=Z,74nm,1.1s
LABN                              MLR      MLR
      comp=Z,2µm,16.0s
SIM   Simferopol'      92.66   2 eP        P        17 23 35.9 +1.2
SIM                              eS        S        17 34 37.0 -1.4
SIM                               pmax     pmax
      comp=Z,52nm,1.7s
SIM                               MLR      MLR
      comp=Z,3µm,23.0s
SRE   Strehaia         92.67 354 ⇑P        P        17 23 36.3 +1.5
SRE   Strehaia         92.67 354 ⇑P        P        17 23 36.3 +1.5
MESJ  Messejana        92.70 329 eP        P        17 23 41.8 +6.8
MESJ                             i IAmb    IAmb     17 23 49.4
      comp=Z,78nm,1.8s
MESJ                             ePP       PP       17 27 16.3 -1.3
```

MDVR	**Moldovita**	**92.91**	**353**	⇑P	**P**	**17 23 38.2**	**+2.3**
PLOUS	**Minas do Lousa**	**92.94**	**329**	*e*P	P	17 23 43.9	+7.8
PLOUS				*i* IAmb	IAmb	17 24 12.6	
	comp=Z,130nm,1.7s						
PLOUS				*e*PP	**PP**	**17 27 19.5**	**+0.1**
ESDC	**Sonseca Array**	**92.99**	**333**	P	**P**	**17 23 37.2**	**+0.7**
	comp=Z,3.6nm,1.3s,baz=163,slow=4.1,SNR=8.7						
ESDC				PP	**PP**	**17 27 18.6**	**-1.3**
	comp=Z,2.7nm,1.0s,baz=148,slow=6.1,SNR=3.3						
ESDC				S	**SKSac**	**17 34 14.1**	**+4.6**
	comp=Z,0.3nm,0.7s,baz=161,slow=7.2,SNR=0.8						
ESDC				LR	LR	18 07 00.4	
	comp=Z,9µm,18.7s,baz=151,slow=37						
	comp=Z,3.6nm,1.3s						
MNI	**Manado**	**93.04**	**91**	P	**P**	**17 23 37.1**	**-0.2**
	comp=Z,2µmcomp=Z,129nm,1.5s						
EVO	**Evora**	**93.25**	**330**	*e*PP	**PP**	**17 27 20.3**	**-1.6**
GOF	**Gofitskoye**	**93.27**	**8**	*ce*P	**P**	**17 23 38.0**	**+0.5**
ARR	**Arges**	**93.28**	**355**	⇑P	**P**	**17 23 39.2**	**+1.5**
NNA	**Nana**	**93.31**	**248**	LR	LR	18 03 20.6	
	comp=Z,3µm,19.5s,baz=138,slow=34						
NNA	**Nana**	**93.31**	**248**	*i* P	**P**	**17 23 37.4**	**-1.2**
NNA				pmax	pmax		
	comp=Z,85nm,1.0s						
VOIR		**93.32**	**355**	⇑P	**P**	**17 23 37.8**	**0.0**
VOIR		**93.32**	**355**	⇑P	**P**	**17 23 37.8**	**0.0**
VOIR		**93.32**	**355**	P	**P**	**17 23 39.0**	**+1.2**
	comp=Z,682nmcomp=Z,52nm,1.2s						
MLR	**Muntele Rosu**	**93.33**	**356**	LR	LR	18 06 55.6	
	comp=Z,4µm,20.0s,baz=190,slow=36						
MLR	**Muntele Rosu**	**93.33**	**356**	⇓P	**P**	**17 23 40.1**	**+2.2**
MLR	**Muntele Rosu**	**93.33**	**356**	IAmb	IAmb	17 23 58.0	
	comp=Z,131nm,1.4s						
MLR	**Muntele Rosu**	**93.33**	**356**	⇓P	**P**	**17 23 40.1**	**+2.2**
MLR	**Muntele Rosu**	**93.33**	**356**	P	**P**	**17 23 38.9**	**+1.0**
	comp=Z,2µmcomp=Z,77nm,1.6s						
BISRR	**Bisoca**	**93.35**	**356**	⇑P	P	17 23 44.8	+6.8
MOE	**Montemor**	**93.36**	**329**	*e*P	**P**	**17 23 37.1**	**-1.0**
MOE				*e*PP	**PP**	**17 27 21.4**	**-1.4**
BOAV	**Boa Vista**	**93.39**	**270**	IAmb	IAmb	17 23 50.6	
	comp=Z,98nm,1.2s						
BOAV	**Boa Vista**	**93.39**	**270**	*e*P	**P**	**17 23 40.0**	**+1.1**
LOT	**Lotru**	**93.41**	**354**	⇑P	**P**	**17 23 40.8**	**+2.5**
PESTR	**Estremoz**	**93.41**	**330**	*e*PP	**PP**	**17 27 22.5**	**-0.7**
GZR	**Gura Zlata**	**93.43**	**354**	⇑P	**P**	**17 23 40.6**	**+2.3**
GZR	**Gura Zlata**	**93.43**	**354**	⇑P	**P**	**17 23 40.6**	**+2.3**
ZIRO	**ZIRO**	**93.50**	**52**	*e*P	**P**	**17 23 37.9**	**-1.4**
PARRA	**Arraiolos**	**93.52**	**330**	*e*PP	**PP**	**17 27 22.9**	**-1.1**
PLOR	**Plostina**	**93.66**	**356**	⇑P	**P**	**17 23 37.2**	**-2.1**
PLOR	**Plostina**	**93.66**	**356**	⇑P	**P**	**17 23 37.2**	**-2.1**
VRI	**Vrincioaia**	**93.67**	**356**	⇓P	**P**	**17 23 40.8**	**+1.5**
VRI	**Vrincioaia**	**93.67**	**356**	⇓P	**P**	**17 23 40.8**	**+1.5**
ERBR	**Yeremizino-Bor**	**93.71**	**6**	*e*P	**P**	**17 23 40.3**	**+0.8**
ERBR				*e*		17 27 26.7	
ERBR				*e*S	**SKSac**	**17 34 14.5**	**+1.6**
ERBR				pmax	pmax		
	comp=Z,52nm,1.6s						
BZS	**Buzias**	**93.74**	**353**	⇑P	**P**	**17 23 41.0**	**+1.3**
BZS	**Buzias**	**93.74**	**353**	⇑P	**P**	**17 23 41.6**	**+1.9**
BZS	**Buzias**	**93.74**	**353**	⇑P	**P**	**17 23 41.0**	**+1.3**
PMTG	**Montargil**	**93.81**	**330**	*e*P	**P**	**17 23 43.7**	**+3.6**
PMTG				*e*PP	**PP**	**17 27 28.3**	**+2.1**
LIS	**Lisbon**	**93.81**	**329**	*e*PP	**PP**	**17 27 28.0**	**+1.7**
SURR	**Surduc**	**93.84**	**353**	⇓P	**P**	**17 23 40.1**	**0.0**
PMRV	**Marv??o**	**93.86**	**331**	*e*P	P	17 23 46.2	+5.9
PMRV				*i* IAmb	IAmb	17 23 55.3	
	comp=Z,67nm,1.4s						
PMRV				*e*PP	**PP**	**17 27 29.4**	**+2.8**
PMRV				*e*S	S	17 34 59.6	+10
PMRV				*e*SS	**SS**	**17 41 17.6**	**+8.3**
PMRV				*e*LQ	LQ	17 54 17.8	
PMRV				*e*LR	LR	17 55 23.5	
PMRV				*i* IAMs_20	IAMs_20	18 08 11.2	
	comp=Z,6µm,18.0s						
LSA	**Lhasa**	**93.86**	**49**	*e*P	**P**	**17 23 43.0**	**+1.8**
LSA				pmax	pmax		
	comp=Z,110nm,1.1s						
LSA				L	L		
	comp=Z,3µm,19.9s						
LSA				L	L		
	comp=Z,1µm,21.3s						
LSA				L	L		
	comp=Z,5µm,22.0s						
LSA	**Lhasa**	**93.86**	**49**	IAMs_20	IAMs_20	18 00 04.5	
	comp=Z,5µm,21.0s						
LSA	**Lhasa**	**93.86**	**49**	P	**P**	**17 23 42.4**	**+1.2**
DEV	**Deva**	**93.91**	**354**	⇑P	**P**	**17 23 42.2**	**+1.8**
DEV	**Deva**	**93.91**	**354**	⇑P	**P**	**17 23 42.2**	**+1.8**
CZSB	**Cruzeiro do Su**	**93.92**	**254**	*e*P	**P**	**17 23 42.1**	**+0.7**
OZUR		**93.94**	**356**	⇑P	**P**	**17 23 41.8**	**+1.2**
TNCH	**TengChong**	**94.06**	**57**	P	**P**	**17 23 42.3**	**+0.4**
TNCH				PP	**PP**	**17 27 28.3**	**-0.3**
TNCH				SKS	**SKSac**	**17 34 17.0**	**+0.7**
TNCH				S	**S**	**17 34 51.0**	**-1.0**
TNCH				SS	**SS**	**17 41 14.8**	**+1.9**
TNCH				pmax	pmax		
	comp=Z,160nm,1.3s						
TNCH				pmax	pmax		
	comp=Z,1µm,4.6s						
TNCH				L	L		
	comp=Z,2µm,17.8s						
TNCH				L	L		
	comp=Z,4µm,18.6s						
TNCH				L	L		
	comp=Z,8µm,18.6s						
MDB	**Medias**	**94.07**	**355**	⇑P	**P**	**17 23 43.3**	**+2.2**
MDB	**Medias**	**94.07**	**355**	⇑P	**P**	**17 23 43.3**	**+2.2**
PMAFR	**Mafra**	**94.07**	**329**	*e*PP	**PP**	**17 27 26.9**	**-1.4**
ONER	**Baraj Valea Uz**	**94.15**	**356**	⇑P	**P**	**17 23 43.1**	**+1.5**
TNTI	**Ternate**	**94.24**	**94**	P	**P**	**17 23 42.6**	**-0.2**
PSARD	**Sardoal**	**94.27**	**330**	*e*PP	**PP**	**17 27 33.1**	**+3.3**
BTK	**Batken**	**94.31**	**29**	P	**P**	**17 23 41.0**	**-1.6**
BTK				pmax	pmax		
	comp=Z,85nm,1.8s						
BTK	**Batken**	**94.31**	**29**	P	**P**	**17 23 41.0**	**-1.6**
SLVN	**Son La**	**94.31**	**63**	P	**P**	**17 23 44.2**	**+1.2**
SLVN	**Son La**	**94.31**	**63**	P	**P**	**17 23 41.3**	**-1.7**
SLVN				IAMs_20	IAMs_20	18 02 14.0	
	comp=Z,5µm,19.0s						
SIRR	**Siria**	**94.39**	**353**	⇑P	**P**	**17 23 43.7**	**+1.1**
PSBE	**So Bento**	**94.40**	**330**	*e*PP	**PP**	**17 27 34.9**	**+4.0**
KOVH	**Kovagotottos**	**94.56**	**350**	⇑P	**P**	**17 23 45.7**	**+2.3**
MORH	**Mrgy, Hungar**	**94.62**	**351**	⇑P	**P**	**17 23 45.9**	**+2.3**
MORH	**Mrgy, Hungar**	**94.62**	**351**	P	**P**	**17 23 45.8**	**+2.1**
MARR	**Marisel-Cluj**	**94.68**	**354**	⇑P	**P**	**17 23 42.5**	**-1.6**
TRI	**Trieste**	**94.74**	**347**	IAmb	IAmb	17 23 56.8	
	comp=Z,87nm,1.3s						
FAKI	**Fak Fak**	**94.75**	**100**	P	**P**	**17 23 45.1**	**-0.1**
	comp=Z,850nmcomp=Z,27nm,1.4s						
BIZ	**Bicaz**	**94.77**	**356**	⇓P	**P**	**17 23 45.9**	**+1.6**
MTE	**Manteigas**	**94.78**	**331**	*e*PP	**PP**	**17 27 32.4**	**-1.5**
MTE				*e*S	S	17 35 08.8	+11
MTE				*e*SS	**SS**	**17 41 30.7**	**+8.0**
MTE				*e*LQ	LQ	17 54 57.8	
MTE				*e*LR	LR	17 55 23.5	
MTE				*i* IAMs_20	IAMs_20	18 09 40.3	
	comp=Z,5µm,16.0s						
MTE	**Manteigas**	**94.78**	**331**	IAMs_20	IAMs_20	18 13 11.8	
	comp=Z,4µm,19.0s						
PCAS	**Casmilo, Conde**	**94.79**	**330**	*e*PP	**PP**	**17 27 33.1**	**-0.8**
VOJS	**Vojsko**	**95.04**	**348**	*e*P	**P**	**17 23 48.7**	**+3.0**
VOJS				*i*		17 23 57.7	
VOJS				*e*S	S	17 35 11.4	+12
VOJS				*i* SP	**SP**	**17 36 25.5**	**+9.1**
VOJS				*e*SS	**SS**	**17 41 20.7**	**-5.5**
KSH2	**Kashi**	**95.12**	**33**	P	**P**	**17 23 46.8**	**+0.4**
KSH2				S	**S**	**17 35 03.5**	**+2.9**
KSH2				SS	**SS**	**17 41 30.5**	**+2.8**
KSH2				pmax	pmax		
	comp=Z,27nm,1.4s						
KSH2				pmax	pmax		
	comp=Z,480nm,8.8s						
KSH2				L	L		
	comp=Z,2µm,20.4s						
KSH2				L	L		
	comp=Z,2µm,18.2s						
KSH2				L	L		
	comp=Z,3µm,20.4s						
PVIS	**Viseu**	**95.18**	**331**	*e*PP	**PP**	**17 27 39.3**	**+2.3**
GROS	**Grobnik**	**95.24**	**349**	*e*P	**P**	**17 23 49.5**	**+2.9**
OBKA	**Obir**	**95.41**	**348**	*e*PcP	**PcP**	**17 23 50.4**	**+2.7**
	comp=Z,10nm,1.1s						
PERS	**Pernice**	**95.46**	**348**	*e*P	**P**	**17 23 50.6**	**+3.1**
BURAR	**Bucovina Array**	**95.49**	**355**	⇓P	**P**	**17 23 50.0**	**+2.3**
BURAR	**Bucovina Array**	**95.49**	**355**	P	**P**	**17 23 46.8**	**-0.9**
BURAR	**Bucovina Array**	**95.49**	**355**	⇓P	**P**	**17 23 50.0**	**+2.3**
SOKA	**Soboth**	**95.51**	**348**	*e*PcP	**PcP**	**17 23 50.6**	**+2.5**
	comp=Z,20nm,1.5s,SNR=8.0						
BUR08	**Bucovina Ar. S**	**95.52**	**355**	IAmb	IAmb	17 24 08.0	
	comp=Z,140nm,1.6s						
SIJI	**Sorong**	**95.62**	**98**	LR	LR	18 01 52.4	
	comp=Z,980nm,20.2s,baz=241,slow=32						
SWI	**Sorong**	**95.62**	**98**	P	**P**	**17 23 49.0**	**-0.2**
	comp=Z,1µmcomp=Z,51nm,1.3s						
MYKA	**Terra Mystica**	**95.66**	**347**	*e*pP	**P**	**17 23 52.8**	**+4.3**
	comp=Z,22nm,1.5s						
POLO	**Lamas de Olo**	**95.74**	**331**	*e*PP	**PP**	**17 27 40.0**	**-1.4**
PBRG	**Braganca**	**95.80**	**332**	*e*PP	**PP**	**17 27 40.1**	**-1.7**
SGC2	**Sao Gabriel da**	**95.82**	**263**	*e*P	**P**	**17 23 50.5**	**+0.4**
MMPI	**Merauke**	**95.85**	**109**	P	**P**	**17 23 50.0**	**-0.2**
ABTA	**Abfaltersbach**	**95.94**	**347**	*e*P	**P**	**17 23 50.7**	**+0.9**
	comp=Z,5.8nm,1.1s						
IUG	**Iuzhnay**	**95.95**	**27**	*d* *i*P	**P**	**17 23 50.9**	**+0.9**
IUG				*e*S	**SKSac**	**17 34 27.2**	**+1.8**
IUG				pmax	pmax		
	comp=Z,78nm,1.7s						
IUG	**Iuzhnay**	**95.95**	**27**	⇓*i*P	**P**	**17 23 50.9**	**+0.9**
	comp=Z,78nm,1.7s						
IUG				*e*S	**SKSac**	**17 34 27.2**	**+1.8**
CHM	**Chimkent**	**95.98**	**27**	*e*P	**P**	**17 23 50.7**	**+0.7**
CHM				pmax	pmax		
	comp=Z,48nm,2.0s						
CHM	**Chimkent**	**95.98**	**27**	*e*P	**P**	**17 23 50.8**	**+0.7**
	comp=Z,48nm,2.0s						
CHM				LR	LR	18 09 45.7	
	comp=Z,972nm,18.9s						
SESA	**Seetaler Alpe,**	**96.00**	**348**	*e*PcP	**PcP**	**17 23 52.5**	**+2.1**
	comp=Z,21nm,1.4s						
ARSA	**Arzberg**	**96.01**	**349**	⇑P	**P**	**17 23 52.5**	**+2.4**
ARSA	**Arzberg**	**96.01**	**349**	*e*pP	**P**	**17 23 53.5**	**+3.4**
	comp=Z,9.6nm,1.1s,SNR=7.0						
ARSA				*e*PP	**PP**	**17 27 44.1**	**+0.8**
	comp=Z,7.0nm,1.8s						
KBA	**Koelnbreinsper**	**96.14**	**347**	*e*pP	**P**	**17 23 55.0**	**+4.1**
	comp=Z,3.6nm,0.6s						
ARSB	**Arslanbob**	**96.16**	**30**	P	**P**	**17 23 49.6**	**-1.4**
ARSB				pmax	pmax		
	comp=Z,145nm,1.7s						
ARSB	**Arslanbob**	**96.16**	**30**	P	**P**	**17 23 49.6**	**-1.4**
ARSB				IAmb	IAmb	17 23 53.7	
	comp=Z,145nm,1.7s						
PSZ	**Piszkesteto**	**96.18**	**352**	⇓P	**P**	**17 23 49.9**	**-1.0**
PSZ	**Piszkesteto**	**96.18**	**352**	⇓P	**P**	**17 23 49.9**	**-1.0**
QIZ	**Qiongzhong**	**96.20**	**69**	P	**P**	**17 23 54.5**	**+2.9**
QIZ				SKS	**SKSac**	**17 34 29.5**	**+1.9**
QIZ				S	**S**	**17 35 08.5**	**-2.0**
QIZ				pmax	pmax		
	comp=Z,21nm,1.6s						
QIZ				pmax	pmax		
	comp=Z,500nm,7.2s						
QIZ				L	L		
	comp=Z,3µm,15.1s						
QIZ				L	L		
	comp=Z,2µm,13.7s						
QIZ				L	L		
	comp=Z,5µm,16.5s						
QIZ	**Qiongzhong**	**96.20**	**69**	IAMs_20	IAMs_20	18 01 26.3	
	comp=Z,5µm,20.0s						
RONA	**Rosalia, Austr**	**96.36**	**349**	*e*pP	**P**	**17 23 54.6**	**+3.0**
	comp=Z,10nm,1.6s						
RONA				*e*PP	**PP**	**17 27 49.2**	**+3.2**
	comp=Z,4.2nm,0.7s						
DAVOX	**Davos/Dischmat**	**96.41**	**345**	LR	LR	18 09 41.5	
	comp=Z,7µm,19.6s,baz=164,slow=37						
PGAV	**Gavieira, Arco**	**96.43**	**331**	*e*PP	**PP**	**17 27 46.3**	**-0.5**
PGAV				*e*S	S	17 35 25.0	+13
PGAV				*e*SS	**SS**	**17 41 51.4**	**+5.3**
PGAV				*e*LQ	LQ	17 55 56.1	
PGAV				*e*LR	LR	17 56 03.0	
PGAV				*i* IAMs_20	IAMs_20	18 12 22.7	
	comp=Z,6µm,16.0s						
SENIN	**Lac Senin/Sane**	**96.48**	**343**	IAMs_20	IAMs_20	18 08 19.0	
	comp=Z,5µm,20.0s						
FETA	**Feichten**	**96.50**	**346**	*e*PcP	**PcP**	**17 23 54.3**	**+1.7**
	comp=Z,5.0nm,1.1s						
FETA				*e*PP	**PP**	**17 27 49.4**	**+2.2**
	comp=Z,16nm,1.9s						
KMI2	**Kunming**	**96.56**	**60**	⇓P	**P**	**17 23 54.5**	**+1.1**
KMI2				sP	pwP	17 24 03.3	-0.3
KMI2				PP	**PP**	**17 27 46.0**	**-2.0**
KMI2				SKS	**SKSac**	**17 34 33.3**	**+3.6**
KMI2				pmax	pmax		
	comp=Z,30nm,1.5s						
KMI2				pmax	pmax		
	comp=Z,520nm,7.2s						
KMI2				L	L		
	comp=Z,3µm,18.3s						
KMI2				L	L		
	comp=Z,2µm,18.0s						
KMI2				L	L		
	comp=Z,4µm,18.5s						
LESA	**Schwarzleotal**	**96.58**	**347**	*e*P	**P**	**17 23 53.1**	**+0.4**
	comp=Z,4.0nm,1.1s						
LESA				*e*PP	**PP**	**17 27 49.6**	**+1.8**
	comp=Z,8.3nm,1.5s						
WTTA	**Wattenberg**	**96.58**	**346**	*e*P	**P**	**17 23 53.9**	**+1.0**
	comp=Z,7.4nm,1.6s						
WTTA				*e*PP	**PP**	**17 27 47.8**	**-0.1**
	comp=Z,7.9nm,1.7s						
SQTA	**Sankt Quirin**	**96.61**	**346**	*e*PcP	**PcP**	**17 23 54.6**	**+1.6**
	comp=Z,8.1nm,1.3s						
CONA	**Conrad Observa**	**96.63**	**349**	*e*PcP	**PcP**	**17 23 55.7**	**+2.6**
	comp=Z,11nm,1.5s						
CONA				*e*PP	**PP**	**17 27 49.3**	**+1.2**
	comp=Z,2.0nm,0.9s						
WATA	**Walderalm**	**96.67**	**346**	*e*P	**P**	**17 23 53.5**	**+0.3**
	comp=Z,7.7nm,1.2s						
WATA				*e*PP	**PP**	**17 27 49.0**	**+0.5**
	comp=Z,9.7nm,1.7s						
BRLS	**Borolday**	**96.69**	**27**	*e*P	**P**	**17 23 52.6**	**-0.7**
BRLS	**Borolday**	**96.69**	**27**	*e*P	**P**	**17 23 52.6**	**-0.7**
BIOA	**Bad Ischl, Aus**	**96.70**	**348**	*e*PcP	**PcP**	**17 23 54.8**	**+1.5**
	comp=Z,12nm,1.6s						
MOTA	**Moosalm**	**96.75**	**346**	*e*P	**P**	**17 23 54.2**	**+0.6**
	comp=Z,6.7nm,1.7s						
MOTA				*e*PP	**PP**	**17 27 49.8**	**+0.6**
	comp=Z,7.3nm,1.3s						
MOA	**Molln**	**96.77**	**348**	*e*PcP	**PcP**	**17 23 56.1**	**+2.5**
	comp=Z,15nm,1.3s,SNR=8.3						
MOA				*e*PP	**PP**	**17 27 46.5**	**-2.7**
	comp=Z,8.4nm,1.5s						
VYHS	**Vyhne**	**96.85**	**351**	*e*P	**P**	**17 23 56.1**	**+2.3**
VYHS				*e*		17 27 49.4	
VYHS	**Vyhne**	**96.85**	**351**	*e*PDIFF	**P**	**17 23 56.1**	**+2.3**
VYHS				*e*PP	**PP**	**17 27 49.4**	**-0.4**
DAVA	**Damuels**	**96.90**	**345**	*e*pP	P	17 23 59.9	+5.6
	comp=Z,3.1nm,0.8s						
DAVA				*e*PP	**PP**	**17 27 50.4**	**0.0**
	comp=Z,18nm,1.6s						
MODS	**Modra-Piesok**	**96.90**	**350**	*e*P	**P**	**17 23 56.2**	**+2.1**
MODS				*e*		17 27 50.1	
MODS	**Modra-Piesok**	**96.90**	**350**	*e*PDIFF	**P**	**17 23 56.2**	**+2.1**
MODS				*e*PP	**PP**	**17 27 50.1**	**-0.1**
RETA	**Reutte**	**96.94**	**346**	*e*PcP	**PcP**	**17 23 56.0**	**+1.6**
	comp=Z,5.6nm,1.3s						
RETA				*e*PP	**PP**	**17 27 49.1**	**-1.5**
	comp=Z,10nm,1.6s						
KK31	**Karatay Array**	**96.97**	**27**	P	**P**	**17 23 53.0**	**-1.5**
KK31				pmax	pmax		
	comp=Z,157nm,1.9s						
KK31	**Karatay Array**	**96.97**	**27**	P	**P**	**17 23 53.0**	**-1.5**
KK31				IAmb	IAmb	17 23 57.3	
	comp=Z,157nm,1.9s						
KKAR	**Karatay Array**	**96.97**	**27**	P	**P**	**17 23 53.7**	**-0.8**
KKAR	**Karatay Array**	**96.97**	**27**	P	**P**	**17 23 53.7**	**-0.8**
KOLS	**Kolonicke sedl**	**96.99**	**354**	*e*PP	**PP**	**17 27 55.5**	**+4.7**
PZH	**PanZhiHua**	**97.02**	**58**	P	Pdif	17 23 55.3	-0.1
PZH				SKS	**SKSac**	**17 34 32.0**	**+0.2**
PZH				S	**S**	**17 35 16.0**	**-1.5**
PZH				pmax	pmax		
	comp=Z,30nm,1.3s						
PZH				pmax	pmax		
	comp=Z,470nm,7.1s						
PZH				L	L		
	comp=Z,4µm,18.8s						
PZH				L	L		
	comp=Z,2µm,20.6s						
PZH				L	L		
	comp=Z,3µm,18.3s						
DZA	**Taraz**	**97.03**	**28**	*e*P	Pdif	17 23 55.6	+0.7
DZA				pmax	pmax		
	comp=Z,18nm,1.0s						
DZA	**Taraz**	**97.03**	**28**	*e*P	Pdif	17 23 55.7	+0.7
	comp=Z,18nm,1.0s						
UBR	**Ueberruh**	**97.24**	**345**	*e*PP	**PP**	**17 27 51.9**	**-0.9**
	baz=165,slow=8.1						
UBR				*e*PS	PS	17 36 57.7	+15
	baz=169,slow=9.7						
UBR				*e*SS	SS	17 42 02.8	+5.5
	baz=165,slow=14						
JAVC	**Velka Javorina**	**97.34**	**351**	*e*P	Pdif	17 23 58.0	+1.9
JAVC				*e*PS	**PS**	**17 36 47.9**	**+4.4**
MWPI	**Manokwari, Pap**	**97.42**	**100**	P	Pdif	17 23 57.1	-0.3
	comp=Z,28nm,1.4s						
LANS	**Liptovska Anna**	**97.44**	**352**	*e*PP	**PP**	**17 27 58.7**	**+4.4**
RPN	**Rapa Nui**	**97.44**	**214**	LR	LR	17 59 14.0	
	comp=Z,3µm,21.2s,baz=148,slow=30						
FUR	**Furstenfeldbru**	**97.52**	**346**	*e*PP	**PP**	**17 27 54.8**	**-0.1**
	baz=165,slow=8.1						
FUR				*e*PS	PS	17 37 00.1	+15
	baz=169,slow=9.7						
NIE	**Niedzica**	**97.63**	**352**	*e*Pdif	Pdif	17 24 01.5	+4.1
NIE				*e*PP	**PP**	**17 27 57.1**	**+1.3**
NIE				*e*SP	SP	17 36 52.3	+7.7
NIE				*e*L	L	18 05 23.7	
	comp=Z,3µm,25.6s						
DAV	**Davao City (W)**	**97.67**	**88**	LR	LR	18 02 46.9	
	comp=Z,2µm,21.6s,baz=224,slow=32						
DAV	**Davao City (W)**	**97.67**	**88**	P	Pdif	17 23 58.1	-0.4
KRUC	**Moravsky**	**97.68**	**350**	*e*P	Pdif	17 23 59.0	+1.4
KRUC				*e*PP	**PP**	**17 27 59.0**	**+2.9**
KRUC				*e*PS	PS	17 36 47.7	+0.6
CKRC	**Cesky Krumlov**	**97.71**	**348**	*e*P	Pdif	17 24 06.8	+9.0
CKRC				*e*		17 34 36.3	
CKRC				MLR	MLR		
	comp=Z,7µm,16.5s						
CKRC	**Cesky Krumlov**	**97.71**	**348**	*e*P	Pdif	17 24 06.8	+9.0
CKRC				*e*SKS	**SKSac**	**17 34 36.3**	**+2.3**
CKRC				AMS	AMS	18 12 30.0	
	comp=Z,7µm,16.5s						
GEC2	**GERESS Array S**	**97.82**	**348**	*e*Pdiff	Pdif	17 24 00.1	+1.8
	baz=166,slow=4.8						
GEC2				*e*PP	**PP**	**17 27 59.4**	**+2.1**
	baz=165,slow=8.1						
GEC2				*e*PS	PS	17 37 04.2	+15
	baz=169,slow=9.7						
GEC2				*e*SS	SS	17 42 11.1	+5.7
	baz=165,slow=14						
GERES	**GERESS Array B**	**97.82**	**348**	P	Pdif	17 23 58.5	+0.1
	comp=Z,0.5nm,0.3s,baz=180,slow=17,SNR=6.3						
GERES				PP	**PP**	**17 27 56.7**	**-0.6**
	comp=Z,0.8nm,0.3s,baz=163,slow=5.0,SNR=3.6						
GERES				LR	LR	18 13 14.0	
	comp=Z,7µm,18.2s,baz=156,slow=39						
	comp=Z,0.5nm,0.3s						
GERES	**GERESS Array B**	**97.82**	**348**	P	Pdif	17 23 59.7	+1.4
AAK	**Ala-Archa**	**97.84**	**30**	LR	LR	18 06 37.8	
	comp=Z,585nm,19.0s,baz=230,slow=34						
AAK	**Ala-Archa**	**97.84**	**30**	*de*P	Pdif	17 23 59.9	+1.2
AAK				pmax	pmax		
	comp=Z,14nm,1.2s						
AAK	**Ala-Archa**	**97.84**	**30**	P	**P**	**17 23 57.4**	**-1.3**
AAK	**Ala-Archa**	**97.84**	**30**	*i* P	Pdif	17 23 60.0	+1.3
	SNR=7.1						
VRAC	**Vranov**	**97.90**	**350**	LR	LR	18 12 38.0	
	comp=Z,6µm,19.1s,baz=191,slow=38						
VRAC	**Vranov**	**97.90**	**350**	*e*P	Pdif	17 23 59.7	+1.1
VRAC				*e*PP	**PP**	**17 28 00.4**	**+2.6**
VRAC				*e*PS	PS	17 36 49.3	-0.2
ATAH	**Atahualpa**	**98.00**	**250**	LR	LR	18 06 10.6	
	comp=Z,3µm,18.6s,baz=131,slow=34						
TREC	**Trest**	**98.02**	**349**	*e*SP	SP	17 36 50.9	+2.1
TREC				AMS	AMS	18 09 30.0	
	comp=Z,8µm,19.4s						
KHC	**Kasperske Hory**	**98.12**	**348**	*i* P	Pdif	17 23 59.6	0.0
KHC				pmax	pmax		
	comp=Z,11nm,1.1s						
KHC				MLR	MLR		
	comp=Z,7µm,16.0s						
KHC	**Kasperske Hory**	**98.12**	**348**	*e*P	Pdif	17 23 59.9	+0.3
KHC				*e*PP	**PP**	**17 28 01.0**	**+1.5**
KHC				*e*SKS	**SKSac**	**17 34 36.3**	**+0.2**
KHC				*e*SP	SP	17 36 54.9	+5.1
KHC				AMS	AMS	18 13 30.0	
	comp=Z,8µm,16.1s						
BFO	**Black Forest**	**98.18**	**344**	IAMs_20	IAMs_20	18 11 02.0	
	comp=Z,5µm,18.0s						
BFO	**Black Forest**	**98.18**	**344**	*e*Pdiff	Pdif	17 24 01.2	+1.4
	baz=166,slow=4.8						
BFO				*e*PP	**PP**	**17 27 58.9**	**-1.0**
	baz=165,slow=8.1						
BFO				*e*PS	**PS**	**17 37 06.5**	**+14**
	baz=169,slow=9.7						
BFO				*e*SS	SS	17 42 15.3	+4.9
	baz=165,slow=14						
WET	**Wettzell**	**98.23**	**348**	*e*Pdiff	Pdif	17 24 02.0	+1.9
	baz=166,slow=4.8						
WET				*e*PP	**PP**	**17 28 00.7**	**+0.4**
	baz=165,slow=8.1						
WET				*e*PS	PS	17 37 09.3	+16
	baz=169,slow=9.7						
WET				*e*SS	SS	17 42 19.5	+8.4
	baz=165,slow=14						
OKC	**Ostrava-Krasne**	**98.25**	**351**	AMS	AMS	18 16 20.0	
	comp=Z,4µm,15.9s						
MORC	**Moravsky Berou**	**98.26**	**351**	*e*P	Pdif	17 24 01.7	+1.5
MORC				*e*PP	**PP**	**17 28 03.7**	**+3.1**
MORC				*e*PS	PS	17 36 53.1	-0.3
WAMI	**Wamena**	**98.26**	**105**	P	Pdif	17 24 00.8	-0.3
KIEV	**Kiev**	**98.42**	**358**	IAMs_20	IAMs_20	18 12 06.9	
	comp=Z,4µm,19.0s						
AKASG	**Malin Array Be**	**98.43**	**358**	P	Pdif	17 24 01.3	+0.5
	comp=Z,0.8nm,0.3s,baz=189,slow=5.4,SNR=4.4						
AKASG				PKPPKP		17 48 45.7	
	comp=Z,0.2nm,0.3s,baz=290,slow=2.1,SNR=5.4						
	comp=Z,0.8nm,0.3s						
AKBB	**Malin Array Si**	**98.43**	**358**	*i* P	Pdif	17 24 01.1	+0.3
AKBB				pmax	pmax		
	comp=Z,9.0nm,1.3s						
STU	**Stuttgart**	**98.45**	**345**	*e*PP	**PP**	**17 28 02.2**	**+0.1**
	baz=165,slow=8.1						
STU				*e*PS	PS	17 37 10.7	+15
	baz=169,slow=9.7						
STU				*e*SS	SS	17 42 19.9	+5.8
	baz=165,slow=14						
OJC	**Ojcow**	**98.47**	**352**	*e*Pdif	Pdif	17 24 02.9	+1.9
OJC				*e*PP	**PP**	**17 27 57.7**	**-4.4**
OJC				*e*SP	SP	17 36 58.6	+5.0
OJC				*e*L	L	18 01 18.2	
	comp=Z,4µm,33.2s						
RAO	**Raoul Island**	**98.50**	**154**	LR	LR	18 07 00.9	
	comp=Z,5µm,18.9s,baz=180,slow=34						
RAO	**Raoul Island**	**98.50**	**154**	IAMs_20	IAMs_20	18 06 59.3	
	comp=Z,5µm,18.0s						
BAKI	**Biak**	**98.59**	**101**	P	Pdif	17 24 02.3	-0.3
	comp=Z,29nm,1.5s						
SGDS	**Sogindy**	**98.61**	**30**	*e*P	Pdif	17 24 02.7	+0.7
	comp=Z,25nm,1.8s						
SGDS				*e*S	**SKSac**	**17 34 40.7**	**+1.7**
PRU	**Pruhonice**	**98.83**	**349**	*e*SP	SP	17 36 52.2	-5.2
PRU				AMS	AMS	18 12 40.0	
	comp=Z,4µm,17.6s						
DPC	**Dobruska-Polom**	**98.96**	**350**	*e*P	Pdif	17 24 11.2	+7.9
DPC				MLR	MLR		
	comp=Z,4µm,18.4s						
DPC	**Dobruska-Polom**	**98.96**	**350**	*e*P	Pdif	17 24 11.2	+7.9
DPC				AMS	AMS	18 09 50.0	
	comp=Z,4µm,18.4s						
ONTNC	**Ouen Toro**	**98.96**	**138**	P	Pdif	17 24 06.0	+1.8
ONTNC	**Ouen Toro**	**98.96**	**138**	P	**P**	**17 24 02.7**	**-1.5**
GRF	**Grafenberg Arr**	**99.01**	**347**	*e*Pdiff	**Pdif**	**17 24 05.4**	**+1.9**
	baz=166,slow=4.8						
GRF				*e*PP	**PP**	**17 28 07.9**	**+1.6**
	baz=165,slow=8.1						
GRF				*e*PS	PS	17 37 16.7	+15
	baz=169,slow=9.7						
GRF				*e*SS	SS	17 42 27.8	+5.8
	baz=165,slow=14						
GRF				*e*L	L	18 09 24.4	
	comp=Z,8µm,22.0s						
OUENC	**Ouen Island, N**	**99.04**	**138**	P	**Pdif**	**17 24 06.7**	**+2.2**
OUENC	**Ouen Island, N**	**99.04**	**138**	P	**Pdif**	**17 24 00.8**	**-3.7**
OUENC				IAmb	IAmb	17 24 16.3	
	comp=Z,78nm,1.4s						
TNSS	**Tian-Shan**	**99.04**	**32**	*e*P	**Pdif**	**17 24 04.6**	**+0.3**

TNSS	**Tian-Shan**	**99.04**	**32**	*e*P	**Pdif**	**17 24 04.7**	**+0.3**
NOUC	**Port Laguerre**	**99.07**	**138**	P	**Pdif**	**17 24 07.7**	**+3.0**
UPC	**Upice**	**99.15**	**350**	AMS	AMS	18 10 10.0	
	comp=Z,5µm,19.6s						
DZM	**Mont Dzumac**	**99.16**	**138**	LR	LR	17 59 51.3	
	comp=Z,3µm,21.0s,baz=184,slow=30						
OSTC	**Ostas**	**99.18**	**350**	AMS	AMS	18 10 10.0	
	comp=Z,5µm,20.6s						
AAA	**Alma-Ata**	**99.18**	**32**	*e*P	**Pdif**	**17 24 05.0**	**+0.5**
AAA				pmax	pmax		
	comp=Z,25nm,1.1s						
AAA	**Alma-Ata**	**99.18**	**32**	*e*P	**Pdif**	**17 24 05.1**	**+0.5**
	comp=Z,24nm,1.1s						
AAA				LR	LR	18 11 31.9	
	comp=Z,14µm,20.6s						
MDOK	**Medeo**	**99.19**	**32**	*e*P	**Pdif**	**17 24 05.3**	**+0.7**
MDOK				*e*S	**SKSac**	**17 34 43.7**	**+1.7**
MDOK	**Medeo**	**99.19**	**32**	*e*P	**Pdif**	**17 24 05.3**	**+0.7**
MDOK				*e*S	**SKSac**	**17 34 43.7**	**+1.7**
MDOK				LR	LR	18 11 42.1	
CHVC	**Chvalec**	**99.23**	**350**	AMS	AMS	18 10 10.0	
	comp=Z,5µm,18.8s						
PMG	**Port Moresby**	**99.32**	**115**	P	**Pdif**	**17 24 06.4**	**+0.6**
	comp=Z,12nm,0.9s,baz=215,slow=16,SNR=3.1						
PMG				LR	LR	18 05 11.0	
	comp=Z,7µm,18.0s,baz=218,slow=33						
	comp=Z,12nm,0.9s						
PMG	**Port Moresby**	**99.32**	**115**	*i* P	**Pdif**	**17 24 05.6**	**-0.3**
PMG				pmax	pmax		
	comp=Z,28nm,1.2s						
PMG				MLR	MLR		
	comp=Z,3µm,16.0s						
PMG	**Port Moresby**	**99.32**	**115**	P	**Pdif**	**17 24 04.9**	**-1.0**
PMG	**Port Moresby**	**99.32**	**115**	P	**Pdif**	**17 24 05.6**	**-0.3**
	comp=Z,669nmcomp=Z,41nm,1.5s						
PVCC	**Panska Ves**	**99.35**	**349**	*e*SP	SP	17 37 05.9	+2.8
PVCC				AMS	AMS	18 14 10.0	
	comp=Z,5µm,16.8s						
NKC	**Novy Kostel**	**99.35**	**347**	AMS	AMS	18 12 50.0	
	comp=Z,6µm,16.6s						
YATNC	**Mamie plateau,**	**99.37**	**138**	P	**Pdif**	**17 24 07.3**	**+1.3**
RICC	**Richard**	**99.43**	**349**	AMS	AMS	18 14 30.0	
	comp=Z,5µm,16.8s						
KSP	**Ksiaz**	**99.45**	**350**	*e*PP	**PP**	**17 28 12.3**	**+2.7**
KSP				*e*SP	SP	17 37 15.1	+11
KSP				*e*L	L	18 10 39.5	
	comp=Z,6µm,21.9s						
TANN	**Tannenbergstha**	**99.53**	**348**	*e*Pdiff	**Pdif**	**17 24 05.4**	**-0.4**
	baz=166,slow=4.8						
TANN				*e*PS	PS	17 37 22.7	+16
	baz=169,slow=9.7						
TANN				*e*SS	SS	17 42 36.6	+7.3
	baz=165,slow=14						
KUU	**Kurty**	**99.58**	**31**	*e*P	**Pdif**	**17 24 07.0**	**+0.8**
KUU	**Kurty**	**99.58**	**31**	*e*P	**Pdif**	**17 24 07.1**	**+0.8**
KUU				LR	LR	18 12 00.2	
	comp=Z,916nm,18.8s						
SATY	**Saty**	**99.58**	**33**	*d* *i*P	**Pdif**	**17 24 06.9**	**+0.5**
SATY				*e*S	**SKSac**	**17 34 45.5**	**+1.6**
SATY				pmax	pmax		
	comp=Z,35nm,1.5s						
SATY	**Saty**	**99.58**	**33**	⇓*i*P	**Pdif**	**17 24 06.9**	**+0.5**
	comp=Z,35nm,1.5s						
SATY				*e*S	**SKSac**	**17 34 45.5**	**+1.6**
HSKC	**Hora Svate Kat**	**99.58**	**348**	AMS	AMS	18 11 20.0	
	comp=Z,9µm,20.6s						
PLN	**Plauen**	**99.64**	**347**	*e*Pdiff	**Pdif**	**17 24 08.7**	**+2.4**
	baz=166,slow=4.8						
PLN				*e*PS	**PS**	**17 37 22.7**	**+14**
	baz=169,slow=9.7						
PLN				*e*SS	SS	17 42 38.9	+8.1
	baz=165,slow=14						
BRG	**Berggiesshubel**	**99.77**	**349**	*e*Pdiff	**Pdif**	**17 24 08.5**	**+1.7**
	baz=166,slow=4.8						
BRG				*e*PS	PS	17 37 26.0	+16
	baz=169,slow=9.7						
BRG				*e*SS	SS	17 42 33.4	+0.8
	baz=165,slow=14						
BRG	**Berggiesshubel**	**99.77**	**349**	⇓*e*Pif	**Pdif**	**17 24 13.5**	**+6.7**
BRG				Amp		17 24 14.7	
	comp=Z,2.5nm,0.9s						
BRG	**Berggiesshubel**	**99.77**	**349**	PP	**PP**	**17 28 16.0**	**+4.0**
BRG				Amp		17 28 34.8	
	comp=Z,10nm,1.3s						
BRG	**Berggiesshubel**	**99.77**	**349**	PS	PS	17 37 13.0	+3.4
BRG				PKKP	PKKPdf	17 41 02.4	+29
BRG				Amp		17 41 04.6	
	comp=Z,12nm,1.5s						
BRG	**Berggiesshubel**	**99.77**	**349**	SS	SS	17 42 33.0	+0.5
BTLS	**Baital**	**99.83**	**29**	*e*P	**Pdif**	**17 24 08.1**	**+0.9**
BTLS	**Baital**	**99.83**	**29**	*e*P	**Pdif**	**17 24 08.1**	**+0.9**
GYA	**Guiyang**	**99.83**	**61**	⇓P	**Pdif**	**17 24 09.0**	**+1.1**
GYA				S	**S**	**17 35 40.8**	**-0.7**
GYA				pmax	pmax		
	comp=Z,24nm,1.3s						
WLF	**Walferdange**	**99.87**	**343**	PP	**PP**	**17 28 13.0**	**+0.2**
WLF	**Walferdange**	**99.87**	**343**	*e*PP	**PP**	**17 28 15.8**	**+3.0**
	baz=165,slow=8.1						
WLF				*e*PS	**PS**	**17 37 23.2**	**+13**
	baz=169,slow=9.7						
WLF				*e*SS	SS	17 42 40.8	+6.8
	baz=165,slow=14						
MOX	**Moxa**	**99.88**	**347**	*e*Pdiff	**Pdif**	**17 24 09.5**	**+2.2**
	baz=166,slow=4.8						
MOX				*e*PS	PS	17 37 26.0	+15
	baz=169,slow=9.7						
MOX				*e*SS	SS	17 42 39.8	+5.8
	baz=165,slow=14						
MOX				*e*L	L	18 11 34.2	
	comp=Z,7µm,20.0s						
UZB	**Uzynbulak**	**99.88**	**33**	*d* *i*P	**Pdif**	**17 24 08.1**	**+0.4**
UZB				*e*S	**SKSac**	**17 34 46.9**	**+1.4**
UZB				pmax	pmax		
	comp=Z,35nm,1.6s						
UZB	**Uzynbulak**	**99.88**	**33**	⇓*i*P	**Pdif**	**17 24 08.1**	**+0.4**
	comp=Z,35nm,1.6s						
UZB				*e*S	**SKSac**	**17 34 46.9**	**+1.4**
TNS	**Taunus Mts**	**99.98**	**345**	*e*Pdiff	**Pdif**	**17 24 10.6**	**+2.7**
	baz=166,slow=4.8						
TNS				*e*PS	**PS**	**17 37 24.1**	**+12**
	baz=169,slow=9.7						
TNS				*e*SS	SS	17 42 44.9	+9.3
	baz=165,slow=14						
KPKS	**Kokpek**	**100.03**	**33**	*e*P	**Pdif**	**17 24 09.0**	**+0.7**
KPKS	**Kokpek**	**100.03**	**33**	*e*P	**Pdif**	**17 24 09.0**	**+0.7**
SHLS	**Shalkode**	**100.05**	**33**	*e*P	**Pdif**	**17 24 09.7**	**+1.3**
SHLS	**Shalkode**	**100.05**	**33**	*e*P	**Pdif**	**17 24 09.7**	**+1.3**
GENI	**Genyem**	**100.18**	**105**	P	**Pdif**	**17 24 09.4**	**-0.3**
	comp=Z,1µmcomp=Z,14nm,1.1s						
UBBA	**Unterbreizbach**	**100.30**	**346**	*e*PS	PS	17 37 21.4	+6.3
	baz=169,slow=9.7						
UBBA				*e*SS	SS	17 42 45.4	+5.7
	baz=165,slow=14						
CLL	**Collm**	**100.32**	**348**	*e*P	**Pdif**	**17 24 09.0**	**-0.3**
CLL				*e*S	**Sdif**	**17 35 48.0**	**+4.0**
CLL				MLR	MLR		
	comp=Z,8µm,20.3s						
CLL	**Collm**	**100.32**	**348**	*e*Pdiff	**Pdif**	**17 24 13.2**	**+4.0**
	baz=166,slow=4.8						
CLL				*e*PP	**PP**	**17 28 15.3**	**-0.9**
	baz=165,slow=8.1						
CLL				*e*PS	PS	17 37 32.5	+17
	baz=169,slow=9.7						
CLL				*e*SS	SS	17 42 44.5	+4.2
	baz=165,slow=14						
CLL	**Collm**	**100.32**	**348**	*e*Pdif	**Pdif**	**17 24 09.0**	**-0.3**
CLL				*i* x	x	17 24 20.5	
	comp=Z,44nm,1.6s						
CLL				*e*PP	**PP**	**17 28 14.0**	**-2.2**
CLL				*e*x	x	17 28 28.0	
CLL				*e*PPP	PPP	17 30 25.0	
CLL				*e*PPPP		17 32 06.0	
CLL				*e*SKSac	**SKSac**	**17 34 54.0**	**+7.1**
CLL				*e*SKKSac	**SKKSac**	**17 35 24.0**	**+3.1**
CLL				*e*Sdif	Sdif	17 35 48.0	+4.0
CLL				*e*PS	PS	17 37 15.0	-0.5
CLL				*e*SS	**SS**	**17 42 42.0**	**+1.8**
CLL				*e*SSS	SSS	17 46 12.0	
CLL				*e*x	x	17 47 18.0	
CLL				*e*SSSS		17 49 54.0	
CLL				L	L	17 57 00.0	
CLL				L	L	18 04 00.0	
CLL				AMS	AMS	18 09 00.0	
	comp=N,6µm,21.8s						
CLL				AMS	AMS	18 09 00.0	
	comp=E,2µm,20.8s						
CLL				AMS	AMS	18 09 00.0	
	comp=Z,7µm,21.7s						
CLL				AMS	AMS	18 11 00.0	
	comp=Z,0.0nm,18.3s						
CLL				AMS	AMS	18 11 00.0	
	comp=Z,8µm,20.3s						
NEUB	**Neuenburg**	**100.40**	**347**	*e*Pdiff	**Pdif**	**17 24 12.2**	**+2.6**
	baz=166,slow=4.8						
NEUB				*e*PP	**PP**	**17 28 16.2**	**-0.6**
	baz=165,slow=8.1						
NEUB				*e*PS	PS	17 37 31.5	+15
	baz=169,slow=9.7						
NEUB				*e*SS	SS	17 42 45.9	+4.5
	baz=165,slow=14						
GOMU	**GeErMu**	**100.91**	**47**	P	**Pdif**	**17 24 14.3**	**+1.5**
GOMU				L	L		
	comp=Z,2µm,16.7s						
GOMU				L	L		
	comp=Z,3µm,16.9s						
KASTN	**Kahler Asten**	**100.93**	**345**	*e*PS	PS	17 37 38.0	+16
	baz=169,slow=9.7						
KASTN				*e*SS	SS	17 42 55.2	+6.4
	baz=165,slow=14						
BELG	**Belogornoye**	**100.99**	**10**	*i* P	**Pdif**	**17 24 12.6**	**+0.4**
BELG				pmax	pmax		
	comp=Z,3.0nm,1.1s						
GTTG	**Gottingen**	**101.01**	**346**	*e*Pdiff	**Pdif**	**17 24 16.4**	**+4.1**
	baz=166,slow=4.8						
GTTG				*e*PS	PS	17 37 36.6	+14
	baz=169,slow=9.7						
GTTG				*e*SS	SS	17 42 56.3	+6.6
	baz=165,slow=14						
CLZ	**Clausthal**	**101.23**	**347**	*e*PS	PS	17 37 39.4	+14
	baz=169,slow=9.7						
CLZ				*e*SS	SS	17 42 59.4	+6.5
	baz=165,slow=14						
TDK	**Taldyqorghan**	**101.27**	**32**	*e*P	**Pdif**	**17 24 14.3**	**+0.6**
TDK	**Taldyqorghan**	**101.27**	**32**	*e*P	**Pdif**	**17 24 14.3**	**+0.6**
TDK				LR	LR	18 13 00.7	
	comp=Z,2µm,16.1s						
BUG	**Bochum--Univer**	**101.36**	**345**	*e*PS	PS	17 37 42.6	+16
	baz=169,slow=9.7						
BUG				*e*SS	SS	17 43 01.1	+6.5
	baz=165,slow=14						
RUE	**Ruedersdorf**	**101.37**	**349**	*e*PS	PS	17 37 44.0	+17
	baz=169,slow=9.7						
RUE				*e*SS	SS	17 43 01.3	+6.7
	baz=165,slow=14						
ASSE	**Asse, Remlinge**	**101.46**	**347**	*e*Pdiff	**Pdif**	**17 24 16.3**	**+2.1**
	baz=166,slow=4.8						
ASSE				*e*PS	PS	17 37 40.8	+13
	baz=169,slow=9.7						
ASSE				*e*SS	SS	17 43 02.6	+6.7
	baz=165,slow=14						
CD2	**Chengdu**	**101.52**	**56**	P	**Pdif**	**17 24 16.3**	**+1.1**
CD2				PP	**PP**	**17 28 24.0**	**-1.7**
CD2				SKS	**SKSac**	**17 34 54.3**	**+0.4**
CD2				S	**Sdif**	**17 35 57.5**	**+2.4**
CD2				pmax	pmax		
	comp=Z,30nm,1.3s						
CD2				pmax	pmax		
	comp=Z,590nm,8.8s						
CD2				L	L		
	comp=Z,7µm,19.7s						
CD2				L	L		
	comp=Z,4µm,20.9s						
CD2				L	L		
	comp=Z,7µm,20.3s						
FLTG	**Flechtingen**	**101.57**	**347**	*e*PP	**PP**	**17 28 26.9**	**+1.3**
	baz=165,slow=8.1						
FLTG				*e*PS	**PS**	**17 37 41.7**	**+13**
	baz=169,slow=9.7						
FLTG				*e*SS	SS	17 43 04.2	+6.7
	baz=165,slow=14						
GKP	**Gorka Klasztor**	**101.74**	**351**	*e*PP	**PP**	**17 28 28.6**	**+1.8**
GKP				*e*SP	SP	17 37 37.1	+8.6
GKP				*e*L	L	18 05 10.7	
	comp=Z,4µm,29.1s						
SZP	**Santa**	**101.91**	**77**	IAMs_20	IAMs_20	18 03 04.6	
	comp=Z,4µm,20.0s						
IBBN	**Ibbenburen**	**102.11**	**345**	*e*PP	**PP**	**17 28 32.0**	**+2.3**
	baz=165,slow=8.1						
IBBN				*e*PS	**PS**	**17 37 46.8**	**+12**
	baz=169,slow=9.7						
IBBN				*e*SS	SS	17 43 14.1	+9.1
	baz=165,slow=14						
GORT1	**Trebel**	**102.20**	**347**	*e*PS	PS	17 37 40.3	+4.9
	baz=169,slow=9.7						
GORT1				*e*SS	SS	17 43 08.1	+1.9
	baz=165,slow=14						
RETH	**Rethem/Aller,**	**102.26**	**346**	*e*Pdiff	**Pdif**	**17 24 20.6**	**+2.8**
	baz=166,slow=4.8						
RETH				*e*PP	**PP**	**17 28 33.3**	**+2.6**
	baz=165,slow=8.1						
RETH				*e*PS	PS	17 37 46.4	+10
	baz=169,slow=9.7						
RETH				*e*SS	SS	17 43 13.6	+6.7
	baz=165,slow=14						
MNK	**Minsk**	**102.26**	**358**	*i* P	**Pdif**	**17 24 18.5**	**+0.8**
MNK				*i*		17 28 30.5	
MNK				*i* PPP	PPP	17 30 39.9	
MNK				*i* S	**SKSac**	**17 34 58.2**	**+2.2**
MNK				*i* PS	PS	17 37 37.1	+1.0
MNK				*i* SS	**SS**	**17 43 08.6**	**+1.6**
MNK				*i* SSS	SSS	17 47 01.7	
MNK				pmax	pmax		
	comp=E,10.0nm,0.7s						
MNK				pmax	pmax		
	comp=N,10.0nm,0.8s						
MNK				pmax	pmax		
	comp=Z,8.0nm,0.7s						
MNK				MLR	MLR		
	comp=Z,6µm,23.0s						
MNK				MLR	MLR		
	comp=E,4µm,22.0s						
MNK				MLR	MLR		
	comp=N,3µm,21.0s						
MNK	**Minsk**	**102.26**	**358**	*i* P	**Pdif**	**17 24 18.6**	**+0.8**
	comp=E,10.0nm,0.7s						
MNK				*i* P	**Pdif**	**17 24 18.6**	**+0.8**
	comp=N,10.0nm,0.8s						
MNK				*i* P	**Pdif**	**17 24 18.6**	**+0.8**
	comp=Z,8.0nm,0.7s,baz=177						
MNK				*i* PP	**PP**	**17 28 30.6**	**-0.2**
MNK				*i* PPP	PPP	17 30 40.0	
MNK				*i* S	**SKSac**	**17 34 58.2**	**+2.2**
MNK				*i* PS	PS	17 37 37.2	+1.1
MNK				*i* SS	**SS**	**17 43 08.6**	**+1.6**
MNK				*i* SSS	SSS	17 47 01.7	
MNK				*i* LQ	LQ	18 04 30.4	
MNK				*i* LRM	MLR	18 11 19.6	
	comp=Z,6µm,23.0s						
MNK				*i* LRM	MLR	18 11 22.1	
	comp=E,4µm,22.1s						
MNK				*i* LRM	MLR	18 11 39.8	
	comp=N,3µm,20.8s						
BIM	**Bigot**	**102.61**	**278**	*e*P	**PP**	**17 28 28.0**	**-5.9**
ILAM	**Ilet Lapin Mar**	**102.67**	**278**	*e*P	**PP**	**17 28 29.8**	**-4.5**
NACGM	**Naroch**	**102.70**	**357**	*e*P	**Pdif**	**17 24 21.9**	**+2.2**
	comp=Z,6.0nm,0.8s,baz=177						
OBN	**Obninsk**	**102.89**	**3**	⇑*e*P	**Pdif**	**17 24 21.0**	**+0.4**
OBN				*e*		17 28 39.8	
OBN				*e*PPP	PPP	17 30 53.4	
OBN				*i* S	**SKSac**	**17 35 06.4**	**+7.5**
OBN				*i* SS	**SS**	**17 43 20.5**	**+4.8**
OBN				pmax	pmax		
	comp=Z,21nm,1.6s						
OBN				MLR	MLR		
	comp=Z,3µm,19.0s						
SVN	**Savane Anatole**	**102.91**	**278**	*e*P	**PP**	**17 28 30.4**	**-5.8**
BSEG	**Bad Segeberg**	**103.27**	**347**	*e*PP	**PKiKP**	**17 28 41.9**	**+0.6**
	baz=165,slow=8.1						
BSEG				*e*PS	PS	17 37 51.5	+4.8
	baz=169,slow=9.7						
BSEG				*e*SS	SS	17 43 32.1	+11
	baz=165,slow=14						
PABE	**Paberze**	**103.43**	**355**	IAMs_20	IAMs_20	18 15 18.1	
	comp=Z,5µm,21.0s						
RGN	**Rugen**	**103.45**	**349**	*e*PS	PS	17 38 03.0	+14
	baz=169,slow=9.7						
RGN				*e*SS	SS	17 43 33.5	+10
	baz=165,slow=14						
DSLB	**Salisbury**	**103.51**	**278**	*e*P	**PP**	**17 28 37.1**	**-3.5**
DWS	**Wesley**	**103.53**	**278**	*e*P	PKiKP	17 28 53.2	+10
OTAV	**Otavalo**	**103.66**	**255**	IAMs_20	IAMs_20	18 10 17.1	
	comp=Z,5µm,19.0s						
OTAV	**Otavalo**	**103.66**	**255**	*e*P	**Pdif**	**17 24 24.5**	**-1.2**
MAGL	**Barre de l’ile**	**103.79**	**279**	*e*P	**PP**	**17 28 39.7**	**-3.0**
HLG	**Helgoland**	**103.89**	**346**	*e*PS	PS	17 38 04.4	+11
	baz=169,slow=9.7						
HLG				*e*SS	SS	17 43 36.1	+6.6
	baz=165,slow=14						
MAKZ	**Makanchi**	**104.10**	**33**	⇑P	**Pdif**	**17 24 24.5**	**-1.7**
MKAR	**Makanchi Array**	**104.20**	**33**	Pdiff	**Pdif**	**17 24 26.6**	**-0.1**
	comp=Z,6.6nm,1.1s,baz=223,slow=4.8,SNR=25						
MKAR				PP	**PKiKP**	**17 28 43.1**	**-0.3**
	comp=Z,12nm,1.1s,baz=208,slow=6.3,SNR=16						
MKAR				PKKPbc	**PKKPbc**	**17 40 14.4**	**-0.2**
	comp=Z,0.9nm,1.0s,baz=52,slow=2.0,SNR=4.4						
MKAR				PKPPKP		17 48 35.0	
	comp=Z,0.4nm,0.8s,baz=24,slow=1.7,SNR=3.6						
MKAR	**Makanchi Array**	**104.20**	**33**	*i* P	**Pdif**	**17 24 26.0**	**-0.7**
MKAR	**Makanchi Array**	**104.20**	**33**		**Pdif**	**17 24 26.0**	**-0.7**
MKAR					**PKKPbc**	**17 40 10.9**	**-3.7**
ENH	**Enshi**	**104.33**	**61**	IAMs_20	IAMs_20	18 04 47.5	
	comp=Z,5µm,22.0s						
DHSZ	**Broadband at M**	**104.34**	**278**	*e*P	**PKiKP**	**17 28 38.3**	**-6.2**
ANWB	**Willy Bob**	**105.36**	**279**	*e*P	**PKiKP**	**17 28 51.2**	**+4.9**
KNMB	**Chin-men Tao**	**105.55**	**71**	IAMs_20	IAMs_20	18 09 04.1	
	comp=Z,4µm,18.0s						
ZSN	**Zaisan**	**105.71**	**34**	*i* P	**Pdif**	**17 24 34.5**	**+1.1**
ZSN	**Zaisan**	**105.71**	**34**	*e*Pdif	**Pdif**	**17 24 34.5**	**+1.1**
BVAR	**Borovoye Array**	**105.91**	**23**	Pdiff	**Pdif**	**17 24 35.6**	**+1.5**
BVAR				PKiKP	**PKiKP**	**17 28 47.1**	**+0.8**
GTA2	**Gaotai**	**105.92**	**48**	Pdif	**Pdif**	**17 24 35.8**	**+1.1**
GTA2				PP	**PP**	**17 28 57.0**	**-1.5**
GTA2				PPMZ			
	comp=Z,440nm,5.7s						
GTA2				L	L		
	comp=Z,1µm,20.9s						
GTA2				L	L		
	comp=Z,2µm,21.6s						
GTA2				L	L		
	comp=Z,3µm,19.7s						
TWG	**Pinlang**	**106.09**	**74**	IAMs_20	IAMs_20	18 04 03.6	
	comp=Z,4µm,22.0s						
KURBB	**Kurchatov Arra**	**106.17**	**29**	Pdiff	**Pdif**	**17 24 36.3**	**+1.0**
	comp=Z,0.9nm,0.2s,baz=216,slow=5.3,SNR=27						
KURBB				PKiKP	**PKiKP**	**17 28 47.2**	**+0.3**
	comp=Z,1.9nm,0.8s,baz=230,slow=3.0,SNR=5.6						
KURBB				PKKPbc	**PKKPbc**	**17 40 05.4**	**-3.2**
	comp=Z,0.4nm,0.3s,baz=13,slow=3.2,SNR=4.2						
KURK	**Kurchatov**	**106.28**	**29**	*i* P	**Pdif**	**17 24 34.5**	**-1.3**
KURK				MLR	MLR		
	comp=Z,3µm,19.0s						
KURK	**Kurchatov**	**106.28**	**29**		**Pdif**	**17 24 34.5**	**-1.3**
SABA	**Saba**	**106.29**	**278**	*e*P	PKiKP	17 28 34.9	-13
ARTI	**Arti**	**106.42**	**15**	IAMs_20	IAMs_20	18 15 00.2	
	comp=Z,5µm,21.0s						
SMRT	**St. Maarten**	**106.48**	**279**	*e*P	**PKiKP**	**17 28 53.7**	**+5.2**
YULB	**Yu-li**	**106.64**	**74**	IAMs_20	IAMs_20	18 07 03.1	
	comp=Z,4µm,20.0s						
HNR	**Honiara**	**106.68**	**126**	IAMs_20	IAMs_20	18 06 28.1	
	comp=Z,5µm,20.0s						
XAN	**Xi'an**	**106.76**	**58**	Pdif	**Pdif**	**17 24 39.8**	**+1.4**
XAN				PP	**PP**	**17 29 02.3**	**-2.4**
XAN				S	**Sdif**	**17 36 39.0**	**+0.4**
XAN				SS	**SS**	**17 44 10.5**	**+1.0**
XAN				PPMZ			
	comp=Z,690nm,6.9s						
XAN				L	L		
	comp=Z,2µm,17.9s						
XAN				L	L		
	comp=Z,3µm,15.8s						
XAN				L	L		
	comp=Z,3µm,18.6s						
EKA	**Eskdalemuir Ar**	**107.17**	**340**	PP	**PP**	**17 29 03.7**	**-3.5**
	comp=Z,9.4nm,0.9s,baz=149,slow=6.8,SNR=6.5						
NACB	**Ninganchiao**	**107.39**	**73**	IAMs_20	IAMs_20	18 04 44.9	
	comp=Z,4µm,22.0s						
WHN	**Wuhan**	**107.41**	**64**	Pdif	**Pdif**	**17 24 41.8**	**+0.5**
WHN				L	L		
	comp=Z,16µm,21.0s						
WHN				L	L		
	comp=Z,8µm,17.9s						
WHN				L	L		
	comp=Z,17µm,18.6s						
YHNB	**Yeheng**	**107.60**	**73**	IAMs_20	IAMs_20	18 06 57.4	
	comp=Z,4µm,21.0s						
MSVF	**Nonsavu**	**107.83**	**146**	IAMs_20	IAMs_20	18 09 00.8	
	comp=Z,5µm,20.0s						
KLMR	**Klimovskoe**	**108.75**	**4**	*e*P	**Pdif**	**17 24 47.8**	**+1.3**
KLMR				*e*		17 29 18.2	
KLMR				SP	SP	17 38 41.5	+0.4
KLMR				SS	**SS**	**17 44 33.5**	**-1.9**
KLMR				pmax	pmax		
	comp=Z,12nm,1.4s						
KLMR				MLR	MLR		
	comp=Z,4µm,17.0s						
LYN	**LuoYang**	**109.16**	**60**	PKP	**PKiKP**	**17 28 53.5**	**+0.6**
LYN				L	L		
	comp=Z,4µm,17.5s						
LYN				L	L		
	comp=Z,4µm,17.1s						
LYN				L	L		
	comp=Z,5µm,17.0s						
FINES	**FINESS Array B**	**109.27**	**357**	PKiKP	**PKiKP**	**17 28 51.8**	**-0.5**
	comp=Z,1.9nm,0.5s,baz=154,slow=2.5,SNR=12						
NOA	**NORSAR Array B**	**110.04**	**349**	PKiKP	**PKiKP**	**17 28 54.6**	**+0.8**
	comp=Z,5.6nm,1.2s,baz=123,slow=2.7,SNR=4.1						
NOA				PP	**PP**	**17 29 29.7**	**+1.6**
	comp=Z,3.5nm,1.0s,baz=180,slow=6.7,SNR=3.9						
PAYG	**Puerto Ayora**	**110.39**	**245**	IAMs_20	IAMs_20	18 08 52.1	
	comp=Z,4µm,21.0s						
ZALV	**Zalesovo Beam**	**111.06**	**30**	Pdiff	**Pdif**	**17 24 55.5**	**-1.5**
	comp=Z,1.6nm,0.8s,baz=251,slow=4.5,SNR=12						
ZALV				PKiKP	**PKiKP**	**17 28 54.4**	**-1.4**
	comp=Z,3.3nm,0.8s,baz=253,slow=1.5,SNR=9.2						
ZALV				PP	**PP**	**17 29 33.0**	**-2.6**
	comp=Z,5.2nm,0.9s,baz=232,slow=7.3,SNR=5.7						
ZALV				PKKPbc	**PKKPbc**	**17 39 51.9**	**-1.1**
	comp=Z,1.0nm,0.6s,baz=46,slow=3.7,SNR=4.9						
ZALV	**Zalesovo Beam**	**111.06**	**30**		**Pdif**	**17 24 55.8**	**-1.2**
ZALV					**PKKPbc**	**17 39 48.6**	**-4.3**
NJ2	**Nanjing**	**111.20**	**65**	*e*Pdif	**Pdif**	**17 24 58.5**	**+0.4**
NJ2				PP	**PP**	**17 29 35.3**	**-1.6**
NJ2				SKKS		17 36 37.0	
NJ2				SS	**SS**	**17 45 11.5**	**+2.3**
NJ2				PPMZ			
	comp=Z,310nm,7.1s						
NJ2				L	L		
	comp=Z,2µm,15.7s						
NJ2				L	L		
	comp=Z,2µm,18.1s						
NJ2				L	L		
	comp=Z,3µm,16.6s						
ADZR	**Andozero**	**111.78**	**3**	*i* PKIKP	**PKiKP**	**17 28 56.5**	**-0.4**
ADZR						17 29 40.9	
ADZR				SP	SP	17 39 14.7	+4.7
ADZR				pmax	pmax		
	comp=Z,39nm,1.2s						
SSE	**Sheshan**	**111.97**	**68**	PKP	**PKiKP**	**17 28 56.0**	**-2.4**
SSE				PP	**PP**	**17 29 44.3**	**+1.8**
SSE				SS	SS	17 45 22.0	+2.5
SSE				PPMZ			
	comp=Z,180nm,4.3s						
SSE				L	L		
	comp=Z,1µm,20.0s						
SSE				L	L		
	comp=Z,680nm,20.3s						
BTO2	**Baotou**	**112.10**	**53**	*e*PKP	**PKiKP**	**17 28 55.8**	**-2.7**
BTO2				SKS	**SKSdf**	**17 36 06.8**	**-3.1**
BTO2				L	L		
	comp=Z,6µm,17.1s						
BTO2				L	L		
	comp=Z,3µm,16.9s						
BTO2				L	L		
	comp=Z,4µm,16.9s						
HNS	**HongShan**	**112.45**	**59**	⇑PKP	**PKiKP**	**17 28 59.8**	**+0.7**
HNS				PP	**PP**	**17 29 44.5**	**-1.3**
HNS				SKKS		17 36 39.0	
HNS				PPMZ			
	comp=Z,840nm,5.9s						
HNS				L	L		
	comp=Z,2µm,19.1s						
HNS				L	L		
	comp=Z,1µm,20.5s						
HNS				L	L		
	comp=Z,3µm,22.3s						
TIA	**Tai'an**	**113.03**	**61**	PKP	**PKiKP**	**17 29 00.5**	**+0.2**
TIA				PPMZ			
	comp=Z,680nm,5.7s						

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TIA                                 L       L
     comp=Z,2µm,17.4s
TIA                                 L       L
     comp=Z,1µm,14.4s
TIA                                 L       L
     comp=Z,3µm,16.9s
HHC  Hu-ho-hao-te    113.09  54  ePKP     PKiKP   17 28 55.5 -4.8
HHC                                 PP      PP      17 29 49.8 -0.7
HHC                                 SKKS            17 36 47.8
HHC                                 SS      SS      17 45 31.0 -3.4
HHC                                 L       L
     comp=Z,2µm,16.0s
HHC                                 L       L
     comp=Z,1µm,17.6s
HHC                                 L       L
     comp=Z,2µm,16.8s
PPT2 Papeete2        114.62 178  eP       Pdif    17 25 09.4 -4.6
     comp=Z,70nm,28.0s
PPT2                             ePP      PP      17 29 56.8 -3.2
     comp=Z,319nm,26.8s
PPT2                             eS               17 36 39.2
     comp=Z,728nm,26.5s
PPT2                             eSS      SS      17 45 50.5 -1.7
     comp=Z,2µm,27.8s
PPT2                             eLQ      LQ      17 57 44.3
     comp=Z,6µm,32.0s
PPT2                             eLR      LR      18 03 26.7
     comp=Z,14µm,25.5s
PPT2                             eLR      LR      18 03 26.7
     comp=Z,20µm,25.2s
HDC  Heredia         114.69 257  IAMs_20  IAMs_20 18 15 35.3
     comp=Z,3µm,18.0s
BJT  Baijiatuau      115.07  58  IAMs_20  IAMs_20 18 20 36.7
     comp=Z,3µm,18.0s
BJI2 Beijing         115.07  58 ⇓PKP      PKiKP   17 29 04.5 +0.5
BJI2                                PP      PP      17 30 03.5 -0.9
BJI2                                PPMZ
     comp=Z,300nm,4.4s
BJI2                                L       L
     comp=Z,1µm,16.9s
BJI2                                L       L
     comp=Z,1µm,16.1s
BJI2                                L       L
     comp=Z,2µm,17.0s
SONM Songino Array   115.31  46  PKP      PKPdf   17 29 02.9 -1.5
     comp=Z,5.1nm,0.9s,baz=214,slow=2.2,SNR=12
SONM                                PP      PP      17 30 05.5 -0.6
     comp=Z,16nm,1.3s,baz=219,slow=7.3,SNR=10
SONM                                PKKPbc  PKKPbc  17 39 38.4 -0.2
     comp=Z,4.4nm,1.1s,baz=354,slow=1.5,SNR=3.5
SONM Songino Array   115.31  46             PKPdf   17 29 03.8 -0.6
SONM                                        PP      17 30 02.6 -3.4
SONM                                        PKKPbc  17 39 35.5 -3.1
APA  Apatity         115.33   1 i PKIKP   PKPdf   17 29 03.0 -0.6
APA                              e                 17 30 08.5
APA                              ePS      PKKPab  17 39 47.1 +6.9
APA                              eSS      SS      17 45 58.7 -4.0
APA                                 pmax    pmax
     comp=Z,16nm,1.0s
APA                                 MLR     MLR
     comp=Z,4µm,26.1s
JTS  Las Juntas de   115.45 257  IAMs_20  IAMs_20 18 15 51.5
     comp=Z,5µm,20.0s
ULN  Ulaanbaatar     115.64  46 i PKIKP   PKiKP   17 29 05.4 +0.3
ZAK  Zakamensk       115.65  42 ePKIKP   PKPdf   17 29 01.3 -3.6
ZAK                              e                 17 30 08.7
ZAK                                 pmax    pmax
     comp=Z,13nm,1.2s
ZAK                                 pmax    pmax
     comp=Z,10.0nm,1.9s
LVZ  Lovozero        115.67   1  IAMs_20  IAMs_20 18 22 33.9
     comp=Z,4µm,20.0s
GTBY Guantanamo Bay 115.84 271  IAMs_20  IAMs_20 18 16 10.1
     comp=Z,3µm,19.0s
TLY  Talaya          116.73  41c iPIKP    PKiKP   17 29 07.2 +0.3
TLY                                 pmax    pmax
     comp=Z,20nm,1.7s
ARCES ARCESS Array B 117.39 357  PKP      PKiKP   17 29 07.4 -0.2
     comp=Z,14nm,1.0s,baz=260,slow=0.7,SNR=12
ARCES ARCESS Array B 117.39 357  PKIKP    PKPdf   17 29 07.0 -0.6
ARCES ARCESS Array B 117.39 357           PKPdf   17 29 07.0 -0.6
IRK  Irkutsk         117.40  41 ePKIKP   PKPdf   17 29 07.4 -0.7
IRK                              e                 17 30 20.7
IRK                                 pmax    pmax
     comp=Z,44nm,1.5s
DL2  Dalian          117.49  62  PKP      PKPdf   17 29 07.5 -1.2
DL2                                 SS      SS      17 46 31.5 -0.5
DL2                                 PPMZ
     comp=Z,530nm,6.5s
DL2                                 L       L
     comp=Z,2µm,17.3s
DL2                                 L       L
     comp=Z,2µm,15.5s
DL2                                 L       L
     comp=Z,2µm,20.6s
KEV  Kevo            117.57 358  IAMs_20  IAMs_20 18 23 54.1
     comp=Z,3µm,20.0s
XLT  XiLinHaoTe      117.61  54 ePKP     PKiKP   17 29 09.8 +0.9
XLT                                 L       L
     comp=Z,220nm,18.1s
XLT                                 L       L
     comp=Z,2µm,16.2s
XLT                                 L       L
     comp=Z,2µm,19.6s
INCN Inchon          119.58  66  IAMs_20  IAMs_20 18 14 37.1
     comp=Z,3µm,22.0s
TGUH Tegucigalpa,Un  119.75 257  IAMs_20  IAMs_20 18 18 23.5
     comp=Z,4µm,19.0s
KSRS Korea Array     120.35  67  PKP      PKPdf   17 29 13.5 -0.8
     comp=Z,7.6nm,1.0s,baz=251,slow=2.5,SNR=14
SNY  Shenyang        120.50  60  PKP      PKiKP   17 29 15.3 +0.8
SNY                                 PP      PP      17 30 41.0 -1.1
SNY                                 SS      SS      17 47 08.5 -2.4
SNY                                 L       L
     comp=Z,2µm,18.9s
SNY                                 L       L
     comp=Z,1µm,18.0s
SNY                                 L       L
     comp=Z,2µm,18.2s
CIT  Chita           121.54  46 ePKIKP   PKiKP   17 29 16.6 +0.3
CIT                              e                 17 29 22.6
CIT                                 pmax    pmax
     comp=Z,118nm,1.5s
TARA Tarawa          122.59 132  IAMs_20  IAMs_20 18 25 00.3
     comp=Z,2µm,18.0s
HIA  Hailar          122.96  51  IAMs_20  IAMs_20 18 17 56.0
     comp=Z,3µm,22.0s
HILR Hailar Array B  123.14  51  PKP      PKPdf   17 29 18.5 -0.8
     comp=Z,18nm,1.0s,baz=134,slow=6.4,SNR=8.2
NRIK Noril'sk        124.00  21  PKP      PKPdf   17 29 19.2 -1.0
     comp=Z,18nm,1.0s,baz=133,slow=0.5,SNR=9.2
NRIK Noril'sk        124.00  21 i PKIKP   PKiKP   17 29 21.0 +0.4
NRIK                                MLR     MLR
     comp=Z,2µm,18.0s
060A Indiantown      124.19 274  IAMs_20  IAMs_20 18 21 23.4
     comp=Z,3µm,19.0s
SCO  Scoresbysund    124.45 341 i P       PKiKP   17 29 23.8 +2.4
INU  Inuyama         124.77  74  P        PKiKP   17 29 25.0 +1.9
INU  Inuyama         124.77  74  P        PKiKP   17 29 24.0 +0.9
BNX  BinXian         125.07  58 ⇑PKP      PKPdf   17 29 22.0 -1.0
BNX                                 sPKP    sPKPdf  17 29 27.0 -0.4
BNX                                 PP      PP      17 31 13.5 +0.5
BNX                                 SS      SS      17 48 13.3 +4.4
BNX                                 PPMZ
     comp=Z,570nm,5.4s
BNX                                 L       L
     comp=Z,2µm,18.4s
BNX                                 L       L
     comp=Z,2µm,19.0s
BNX                                 L       L
     comp=Z,3µm,17.4s
JGF  Kuroka          125.14  74  P        PKiKP   17 29 25.1 +1.2
JGF  Kuroka          125.14  74  P        PKiKP   17 29 24.7 +0.8
NRS  Narsarsuaq      125.27 325 i P       PKiKP   17 29 23.6 +0.3
DWPF Disney Wildern  125.61 274  IAMs_20  IAMs_20 18 19 54.0
     comp=Z,3µm,19.0s
MDJ  Mudanjiang      125.69  61  PKP      PKPdf   17 29 24.0 -0.3
MDJ                                 PP      PP      17 31 15.8 -1.3
MDJ                                 PPMZ
     comp=Z,1µm,7.2s
MDJ                                 L       L
     comp=Z,2µm,19.2s
MDJ                                 L       L
     comp=Z,1µm,21.3s
MDJ                                 L       L
     comp=Z,2µm,24.5s
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MDJ  Mudanjiang      125.69  61  P        PKiKP   17 29 25.9 +1.2
MDJ  Mudanjiang      125.69  61  P        PKiKP   17 29 25.5 +0.8
MAJO Matsushiro      126.26  73  P        PKiKP   17 29 26.9 +0.8
MAJO Matsushiro      126.26  73  P        PKiKP   17 29 26.3 +0.2
MJAR Matsushiro Arr  126.26  73  PKP      PKPdf   17 29 24.5 -1.2
     comp=Z,13nm,1.1s,baz=215,slow=1.8,SNR=21
MJAR Matsushiro Arr  126.26  73           PKiKP   17 29 26.1  0.0
SPITS Spitsbergen Ar 126.34 356  PKP      PKPdf   17 29 23.3 -1.3
     comp=Z,43nm,1.1s,baz=136,slow=7.5,SNR=5.9
EMMW East Machias    126.71 299  IAMs_20  IAMs_20 18 11 17.8
     comp=Z,4µm,21.0s
M65A Busby, Falmout  126.84 294  IAMs_20  IAMs_20 18 13 43.3
     comp=Z,3µm,20.0s
USRK Ussuriysk Ar.   126.86  62  PKP      PKiKP   17 29 26.3 -0.7
     comp=Z,9.1nm,0.9s,baz=269,slow=3.3,SNR=9.7
USRK Ussuriysk Ar.   126.86  62           PKiKP   17 29 26.9 -0.1
DBG  Daneborg        126.99 344 i P       PKiKP   17 29 26.2 -0.2
L64A Middleborough   127.17 294  IAMs_20  IAMs_20 18 13 52.1
     comp=Z,3µm,20.0s
Y60A Bolivia         127.19 282  IAMs_20  IAMs_20 18 26 38.8
     comp=Z,2µm,18.0s
BCX  Boston College  127.60 294  IAMs_20  IAMs_20 18 14 24.5
     comp=Z,3µm,20.0s
HEH  HeiHe           127.60  54  PKP      PKiKP   17 29 28.0 -0.3
HEH                                 sPKP    sPKPdf  17 29 33.5 +1.4
HEH                                 PP      PP      17 31 28.5 -1.2
HEH                                 PPMZ
     comp=Z,780nm,6.1s
HEH                                 L       L
     comp=Z,3µm,17.9s
HEH                                 L       L
     comp=Z,1µm,17.3s
HEH                                 L       L
     comp=Z,4µm,18.2s
M63A Gales Ferry     127.61 293  IAMs_20  IAMs_20 18 21 05.8
     comp=Z,2µm,19.0s
456A Hilliard        127.68 276  IAMs_20  IAMs_20 18 19 50.8
     comp=Z,3µm,20.0s
WES  Weston          127.72 294  IAMs_20  IAMs_20 18 14 46.7
     comp=Z,3µm,20.0s
S61A Accomac         127.74 287  IAMs_20  IAMs_20 18 19 17.4
     comp=Z,3µm,20.0s
257A Skidaway Islan  127.80 278  IAMs_20  IAMs_20 18 23 09.9
     comp=Z,3µm,20.0s
F64A Sherman         127.88 299  IAMs_20  IAMs_20 18 12 27.7
     comp=Z,4µm,22.0s
R61A Willards        127.91 288  IAMs_20  IAMs_20 18 23 35.8
     comp=Z,3µm,20.0s
HRV  Adam Dziewonsk  127.93 294  IAMs_20  IAMs_20 18 14 54.3
     comp=Z,4µm,21.0s
WVL  Waterville      127.93 297  IAMs_20  IAMs_20 18 11 26.3
     comp=Z,3µm,22.0s
NHSC New Hope        127.94 280  IAMs_20  IAMs_20 18 25 37.5
     comp=Z,3µm,21.0s
W59A Clinton         128.05 283  IAMs_20  IAMs_20 18 17 08.4
     comp=Z,2µm,20.0s
Y58A Scranton        128.09 281  IAMs_20  IAMs_20 18 28 22.5
     comp=Z,2µm,19.0s
PKME Peaks-Kenny Pk  128.10 298  IAMs_20  IAMs_20 18 12 08.7
     comp=Z,4µm,22.0s
I63A Otisfield       128.20 296  IAMs_20  IAMs_20 18 11 23.3
     comp=Z,3µm,22.0s
X58A Rowland         128.26 282  IAMs_20  IAMs_20 18 25 08.2
     comp=Z,3µm,21.0s
WSPT Westport, CT    128.27 292  IAMs_20  IAMs_20 18 34 03.3
     comp=Z,2µm,20.0s
K62A Royalston       128.44 294  IAMs_20  IAMs_20 18 14 39.6
     comp=Z,3µm,21.0s
I62A Tamworth        128.56 296  IAMs_20  IAMs_20 18 16 11.8
     comp=Z,3µm,20.0s
DAG  Danmarks Havn   128.59 347 i P       PKPdf   17 29 27.7 -1.1
L61B Northampton     128.59 294  IAMs_20  IAMs_20 18 14 23.7
     comp=Z,3µm,22.0s
G62A West of Eustis  128.81 298  IAMs_20  IAMs_20 18 12 18.5
     comp=Z,3µm,21.0s
H62A Milan           128.84 297  IAMs_20  IAMs_20 18 28 49.1
     comp=Z,4µm,19.0s
J61A Chester         129.01 295  IAMs_20  IAMs_20 18 15 46.7
     comp=Z,3µm,21.0s
HNH  Hanover         129.04 295  IAMs_20  IAMs_20 18 15 38.6
     comp=Z,3µm,21.0s
LBNH Lisbon          129.12 296  IAMs_20  IAMs_20 18 16 48.5
     comp=Z,3µm,20.0s
CBN  Corbin Frederi  129.14 286  IAMs_20  IAMs_20 18 20 10.3
     comp=Z,2µm,20.0s
TIGA Tifton          129.17 276  IAMs_20  IAMs_20 18 20 36.3
     comp=Z,3µm,20.0s
R58B Mineral         129.33 286  IAMs_20  IAMs_20 18 31 47.3
     comp=Z,2µm,19.0s
ZEA  Zeya            129.34  50 ePKIKP   PKiKP   17 29 31.0 -0.7
ZEA                                 pmax    pmax
     comp=Z,10.0nm,0.9s
TRY  Troy            129.35 293  IAMs_20  IAMs_20 18 13 00.8
     comp=Z,3µm,22.0s
KLR  Kul'dur         129.45  57 i PKIKP   PKPdf   17 29 29.7 -1.6
KLR                                 pmax    pmax
     comp=Z,8.0nm,1.4s
SUMG Summit          129.75 338 i P       PKPdf   17 29 29.4 -2.3
U56A King            130.01 283  IAMs_20  IAMs_20 18 19 02.5
     comp=Z,3µm,19.0s
352A Blakely         130.09 275  IAMs_20  IAMs_20 18 31 29.6
     comp=Z,3µm,18.0s
451A Vernon          130.10 273  IAMs_20  IAMs_20 18 22 53.9
     comp=Z,3µm,20.0s
N58A Sunbury         130.21 290  IAMs_20  IAMs_20 18 13 31.6
     comp=Z,3µm,22.0s
J59A Piesco          130.27 294  IAMs_20  IAMs_20 18 37 54.0
     comp=Z,2µm,19.0s
V55A Taylorsville    130.27 282  IAMs_20  IAMs_20 18 18 48.3
     comp=Z,3µm,20.0s
SFJD Kangerlussuaq   130.38 329 i P       PKPdf   17 29 29.5 -2.9
152A Waverly Hall    130.68 276  IAMs_20  IAMs_20 18 25 31.3
     comp=Z,3µm,21.0s
M57A Sunshine Farm,  130.75 290  IAMs_20  IAMs_20 18 13 46.8
     comp=Z,3µm,22.0s
LONY Lake Ozonia     130.93 295  IAMs_20  IAMs_20 18 35 34.5
     comp=Z,3µm,19.0s
R55A Marlinton       130.96 285  IAMs_20  IAMs_20 18 29 06.5
     comp=Z,2µm,20.0s
K57A Scipio Center   131.12 292  IAMs_20  IAMs_20 18 38 31.6
     comp=Z,2µm,20.0s
J57A Williamstown    131.16 293  IAMs_20  IAMs_20 18 14 16.6
     comp=Z,3µm,22.0s
V53A Saluda          131.21 280  IAMs_20  IAMs_20 18 27 59.3
     comp=Z,3µm,20.0s
250A Grady           131.29 274  IAMs_20  IAMs_20 18 25 56.5
     comp=Z,3µm,20.0s
UNM  Universidad Na  131.31 251  IAMs_20  IAMs_20 18 21 51.7
     comp=Z,3µm,22.0s
BRAL Brewton         131.32 273  IAMs_20  IAMs_20 18 24 32.1
     comp=Z,3µm,20.0s
L56A Greenwood       131.45 291  IAMs_20  IAMs_20 18 36 12.4
     comp=Z,2µm,19.0s
MCWV Mont Chateau    131.55 287  IAMs_20  IAMs_20 18 29 36.2
     comp=Z,3µm,20.0s
SCHQ Schefferville   131.60 310  PKP      PKiKP   17 29 35.3 -0.9
     comp=Z,13nm,0.8s,baz=176,slow=1.3,SNR=10
SCHQ Schefferville   131.60 310           PKPdf   17 29 33.9 -1.3
W52A Murphy          131.61 279  IAMs_20  IAMs_20 18 27 47.9
     comp=Z,2µm,19.0s
NOR  Nord            131.95 351 i P       PKPdf   17 29 28.8 -6.4
O54A Avella          132.18 287  IAMs_20  IAMs_20 18 30 03.8
     comp=Z,3µm,20.0s
TZTN Tazewell        132.21 281  IAMs_20  IAMs_20 18 19 23.6
     comp=Z,3µm,20.0s
Y49A Blount Mountai  132.53 276  IAMs_20  IAMs_20 18 25 33.2
     comp=Z,3µm,20.0s
W50A Signal Mountai  132.59 278  IAMs_20  IAMs_20 18 26 09.8
     comp=Z,2µm,21.0s
N53A Lisbon          132.81 287  IAMs_20  IAMs_20 18 28 43.6
     comp=Z,3µm,19.0s
GRNR Gornyy          132.84  57⇑iPKIKP   PKiKP   17 29 38.4 -0.4
GRNR                                pmax    pmax
     comp=Z,10.0nm,1.1s
GRNR                                MLR     MLR
     comp=E,580nm,18.0s
S51A Beattyville     132.86 282  IAMs_20  IAMs_20 18 28 59.8
     comp=Z,3µm,20.0s
545A Edgard          132.92 269  IAMs_20  IAMs_20 18 27 34.5
     comp=Z,3µm,20.0s
O52A Adamsville      133.08 286  IAMs_20  IAMs_20 18 39 49.7
     comp=Z,2µm,20.0s
NUUG Nuugaatsiaq     133.23 334 eP       PKPdf   17 29 33.8 -4.0
Z47A Carrollton      133.24 274  IAMs_20  IAMs_20 18 25 04.1
     comp=Z,3µm,20.0s
X48A Hartselle       133.31 276  IAMs_20  IAMs_20 18 26 05.7
     comp=Z,3µm,21.0s
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146A Union           133.56 273  IAMs_20  IAMs_20 18 26 03.6
     comp=Z,2µm,20.0s
U49A Red Boiling Sp  133.66 280  IAMs_20  IAMs_20 18 24 19.1
     comp=Z,3µm,22.0s
R50A Paris           133.70 282  IAMs_20  IAMs_20 18 29 37.1
     comp=Z,3µm,19.0s
N51A Ashland         133.86 287  IAMs_20  IAMs_20 18 30 00.3
     comp=Z,3µm,21.0s
ACSO Alum Creek Sta  133.88 285  IAMs_20  IAMs_20 18 20 45.0
     comp=Z,3µm,22.0s
V48A Smith Brothers  133.91 278  IAMs_20  IAMs_20 18 28 29.7
     comp=Z,3µm,19.0s
YAK  Yakutsk         134.19  41 i PKIKP   PKPdf   17 29 39.2 -0.6
YAK  Yakutsk         134.19  41  IAMs_20  IAMs_20 18 24 13.1
     comp=Z,3µm,22.0s
VBMS Vicksburg       134.29 272  IAMs_20  IAMs_20 18 23 36.8
     comp=Z,3µm,21.0s
M50A Fremont         134.54 287  IAMs_20  IAMs_20 18 23 28.4
     comp=Z,2µm,19.0s
Y45A Yeager Farm, C  134.63 274  IAMs_20  IAMs_20 18 25 45.7
     comp=Z,3µm,19.0s
O49A Covington       134.74 285  IAMs_20  IAMs_20 18 40 52.5
     comp=Z,3µm,20.0s
YSS  Yuzhno-Sakhali  134.75  64  P        PKiKP   17 29 44.9 +2.1
YSS  Yuzhno-Sakhali  134.75  64  P        PKiKP   17 29 44.0 +1.2
YSS  Yuzhno-Sakhali  134.75  64 i PKIKP   PKiKP   17 29 42.6 -0.2
YSS                              e                 17 32 22.2
YSS                                 pmax    pmax
     comp=Z,50nm,1.4s
YSS                                 MLR     MLR
     comp=Z,1µm,20.0s
YSS                                 MLR     MLR
     comp=N,1µm,17.0s
YSS                                 MLR     MLR
     comp=E,1µm,19.0s
WVT  Waverly         134.80 278  IAMs_20  IAMs_20 18 28 02.3
     comp=Z,3µm,20.0s
NEEM North Greenlan  134.90 342 eP       PKPdf   17 29 34.8 -6.4
OXF  Oxford          134.92 275  IAMs_20  IAMs_20 18 27 59.5
     comp=Z,3µm,19.0s
N49A Columbus Grove  135.03 286  IAMs_20  IAMs_20 18 21 29.1
     comp=Z,3µm,20.0s
P48A Milroy          135.06 283  IAMs_20  IAMs_20 18 32 01.1
     comp=Z,2µm,20.0s
O48B Farmland        135.31 284  IAMs_20  IAMs_20 18 35 57.6
     comp=Z,2µm,19.0s
AAM  Ann Arbor       135.40 288  IAMs_20  IAMs_20 18 37 24.0
     comp=Z,2µm,20.0s
I49A Point Hope      135.69 290  IAMs_20  IAMs_20 18 24 39.5
     comp=Z,3µm,21.0s
T45A Paducah         135.84 278  IAMs_20  IAMs_20 18 28 03.9
     comp=Z,3µm,20.0s
NKL  Nikolayevsk     136.24  56 i PKIKP   PKiKP   17 29 44.3 -1.3
NKL                              e                 17 32 24.6
NKL                              eSS      SS      17 50 29.9 +4.4
NKL                                 MLR     MLR
     comp=N,4µm,16.0s
NKL                                 MLR     MLR
     comp=E,21µm,18.0s
NKL                                 MLR     MLR
     comp=Z,7µm,18.0s
P46A Rosedale        136.31 282  IAMs_20  IAMs_20 18 31 24.1
     comp=Z,3µm,19.0s
TYV  Tymovskoe       136.43  59 ePKIKP   PKiKP   17 29 45.8 -0.3
TYV                                 pmax    pmax
     comp=Z,24nm,1.3s
TYV                                 pmax    pmax
     comp=Z,600nm,5.4s
HKT  Hockley         136.44 265  IAMs_20  IAMs_20 18 25 44.0
     comp=Z,3µm,22.0s
J47A Sunmer          136.61 288  IAMs_20  IAMs_20 18 40 06.0
     comp=Z,2µm,20.0s
S44A Carbondale      136.62 279  IAMs_20  IAMs_20 18 23 24.5
     comp=Z,2µm,20.0s
SFIN Lafayette       136.63 283  IAMs_20  IAMs_20 18 37 11.8
     comp=Z,3µm,22.0s
NATX Nacogdoches     136.79 268  IAMs_20  IAMs_20 18 30 07.9
     comp=Z,2µm,21.0s
TIXI Tiksi           136.84  27 i PKIKP   PKPdf   17 29 44.7 +0.2
TIXI Tiksi           136.84  27  IAMs_20  IAMs_20 18 40 46.9
     comp=Z,3µm,20.0s
GLMI Grayling        137.24 290  IAMs_20  IAMs_20 18 38 22.6
     comp=Z,3µm,20.0s
T42A Van Buren       137.48 277  IAMs_20  IAMs_20 18 29 43.2
     comp=Z,3µm,20.0s
MIAR Mount Ida       137.73 272  IAMs_20  IAMs_20 18 28 43.8
     comp=Z,3µm,19.0s
E46A Sault Ste Mari  137.75 292  IAMs_20  IAMs_20 18 33 43.1
     comp=Z,2µm,20.0s
M44A Midewin, Midew  137.77 284  IAMs_20  IAMs_20 18 37 18.7
     comp=Z,3µm,20.0s
P43A Skaggs, Pawnee  137.84 281  IAMs_20  IAMs_20 18 24 00.7
     comp=Z,3µm,19.0s
I45A Fountain        137.89 288  IAMs_20  IAMs_20 18 23 43.9
     comp=Z,3µm,20.0s
Z38A Mt. Pleasant    137.91 269  IAMs_20  IAMs_20 18 26 57.8
     comp=Z,2µm,18.0s
L44A Lake County Fo  138.07 285  IAMs_20  IAMs_20 18 30 44.8
     comp=Z,3µm,21.0s
CCM  Cathedral Cave  138.14 278  IAMs_20  IAMs_20 18 44 26.7
     comp=Z,3µm,20.0s
HDIL Hopedale        138.16 282  IAMs_20  IAMs_20 18 31 39.2
     comp=Z,2µm,19.0s
K43A Burlington      138.60 286  IAMs_20  IAMs_20 18 37 42.8
     comp=Z,3µm,19.0s
R40A Maddies Statio  138.95 278  IAMs_20  IAMs_20 18 31 32.0
     comp=Z,3µm,20.0s
H43A Windswept, Lux  139.07 288  IAMs_20  IAMs_20 18 24 28.1
     comp=Z,2µm,22.0s
L42A Oliver, Polo    139.13 284  IAMs_20  IAMs_20 18 33 22.8
     comp=Z,3µm,20.0s
N41A Harden Midland  139.26 282  IAMs_20  IAMs_20 18 30 07.4
     comp=Z,3µm,20.0s
S39A Bolivar         139.32 276  IAMs_20  IAMs_20 18 30 46.1
     comp=Z,2µm,20.0s
U38A Gravette        139.35 274  IAMs_20  IAMs_20 18 34 08.8
     comp=Z,2µm,18.0s
P40A Paris           139.45 279  IAMs_20  IAMs_20 18 35 19.4
     comp=Z,2µm,19.0s
Z35A Perchaven, San  139.48 268  IAMs_20  IAMs_20 18 29 55.2
     comp=Z,2µm,19.0s
I42A Draeger Farm,   139.53 287  IAMs_20  IAMs_20 18 31 48.5
     comp=Z,3µm,20.0s
F42A Maple Grove Fa  139.88 290  IAMs_20  IAMs_20 18 34 31.4
     comp=Z,3µm,21.0s
JFWS Jewell Farm     139.94 285  IAMs_20  IAMs_20 18 32 19.3
     comp=Z,3µm,20.0s
TUL3 Leonard         139.99 272  IAMs_20  IAMs_20 18 36 53.9
     comp=Z,3µm,20.0s
L40A Anamosa         140.17 283  IAMs_20  IAMs_20 18 39 01.4
     comp=Z,3µm,19.0s
P38A Dawn            140.48 278  IAMs_20  IAMs_20 18 31 23.7
     comp=Z,3µm,21.0s
I40A Norwalk         140.63 286  IAMs_20  IAMs_20 18 33 42.5
     comp=Z,3µm,19.0s
OK052 Battle Ridge R 140.72 271  IAMs_20  IAMs_20 18 27 28.0
     comp=Z,3µm,22.0s
G40A Rib Lake        140.97 288  IAMs_20  IAMs_20 18 32 59.5
     comp=Z,2µm,20.0s
T35A Sooner Cattle   141.04 273  IAMs_20  IAMs_20 18 30 17.4
     comp=Z,2µm,21.0s
OK029 Liberty Lake   141.04 271  IAMs_20  IAMs_20 18 30 34.7
     comp=Z,2µm,20.0s
TXAR Lajitas Array   141.23 257  PKhKP    PKPpre  17 29 48.5
     comp=Z,6.1nm,0.8s,baz=139,slow=4.6,SNR=18
TXAR                                PKP     PKPdf   17 29 51.9 -2.2
     comp=Z,16nm,0.8s,baz=120,slow=2.6,SNR=22
TXAR Lajitas Array   141.23 257           PKPdf   17 29 50.9 -3.1
SCIA State Center    141.40 282  IAMs_20  IAMs_20 18 38 12.0
     comp=Z,2µm,19.0s
KSU1 Kansas State U  142.26 276  IAMs_20  IAMs_20 18 38 31.8
     comp=Z,2µm,19.0s
OK038 West end E0370 142.29 271  IAMs_20  IAMs_20 18 30 52.6
     comp=Z,3µm,21.0s
E38A The Farm, Brul  142.39 290  IAMs_20  IAMs_20 18 33 02.9
     comp=Z,3µm,22.0s
SPMN Marine on St.   142.62 287  IAMs_20  IAMs_20 18 44 21.1
     comp=Z,3µm,18.0s
EYMN Ely             142.87 292  IAMs_20  IAMs_20 18 23 36.5
     comp=Z,3µm,21.0s
R32A Long Quarter,   143.31 273  IAMs_20  IAMs_20 18 33 11.7
     comp=Z,2µm,20.0s
AMTX Amarillo        143.36 266  IAMs_20  IAMs_20 18 30 00.9
     comp=Z,3µm,20.0s
MA2  Magadan         143.45  48  P        PKPbc   17 29 55.0 +0.8
MA2  Magadan         143.45  48  P        PKPdf   17 29 55.5 -1.4
MA2  Magadan         143.45  48d i PKIKP  PKPbc   17 29 53.8 -0.4
L34A Svendsen Farm,  143.51 280  IAMs_20  IAMs_20 18 34 30.8
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	comp=Z,3µm,20.0s						
MSTX	Muleshoe	143.55	264	IAMs_20	IAMs_20	18 30 26.0	
	comp=Z,2µm,20.0s						
SKR	Severo-Kuril's	144.32	64	*i* PKIKP	PKPbc	17 29 56.6	-0.4
SKR				pmax	pmax		
	comp=Z,2µm,5.8s						
BGNE	Belgrade	144.42	278	IAMs_20	IAMs_20	18 27 45.0	
	comp=Z,3µm,22.0s						
ECSD	EROS Data Cent	144.46	283	IAMs_20	IAMs_20	18 49 11.8	
	comp=Z,3µm,20.0s						
SEY	Seymchan	144.62	43	*i* PKIKP	PKPdf	17 29 58.1	-0.7
F33A	5 Mile Ranch,	145.11	286	IAMs_20	IAMs_20	18 38 07.0	
	comp=Z,3µm,19.0s						
RES	Resolute Bay	145.27	338	PKPbc	PKPbc	17 29 58.4	-1.0
	comp=Z,76nm,1.0s,baz=87,slow=3.0,SNR=16						
AGMN	Agassiz Nation	145.73	290	IAMs_20	IAMs_20	18 39 26.2	
	comp=Z,3µm,20.0s						
PEA0B	Petropavlovsk-	145.93	61	*d i* PKP2	PKPdf	17 30 00.7	-0.7
PETK	Petropavlovsk-	145.93	61	PKPbc	PKPdf	17 30 00.6	-0.8
	comp=Z,35nm,0.9s,baz=160,slow=1.4,SNR=26						
PETK	Petropavlovsk-	145.93	61	PKIKP	PKPdf	17 30 00.0	-1.4
PETK	Petropavlovsk-	145.93	61		PKPdf	17 30 00.0	-1.4
KSCO	Kaye Shedlock'	146.24	272	IAMs_20	IAMs_20	18 36 44.2	
	comp=Z,3µm,20.0s						
SUSD	Miller	146.29	283	IAMs_20	IAMs_20	18 36 09.2	
	comp=Z,3µm,20.0s						
ULM	Lac du Bonnet	146.35	294	PKPbc	PKPbc	17 30 02.9	-0.5
	comp=Z,54nm,0.9s,baz=83,slow=3.3,SNR=32						
ULM	Lac du Bonnet	146.35	294	PKIKP	PKPdf	17 30 00.4	-1.8
ULM	Lac du Bonnet	146.35	294		PKPdf	17 30 00.4	-1.8
T25A	Trinidad	146.45	267	IAMs_20	IAMs_20	18 33 23.8	
	comp=Z,3µm,22.0s						
PET	Petropavlovsk	146.47	61	P	PKPab	17 30 04.4	-0.3
PET	Petropavlovsk	146.47	61	*i* PKIKP	PKPdf	17 30 01.7	-0.5
PET				pmax	pmax		
	comp=Z,315nm,1.2s						
ABQ	Albuquerque	146.58	262	IAMs_20	IAMs_20	18 47 52.2	
	comp=Z,3µm,20.0s						
ALQ	Albuquerque	146.58	262	IAMs_20	IAMs_20	18 47 51.2	
	comp=Z,3µm,20.0s						
ALQ	Albuquerque	146.58	262	IAMs_20	IAMs_20	18 47 52.2	
	comp=Z,3µm,20.0s						
ANMO	Albuquerque	146.58	262	PKPbc	PKPab	17 30 05.2	-0.8
	comp=Z,24nm,1.0s,baz=137,slow=6.0,SNR=29						
ANMO	Albuquerque	146.58	262	PKIKP	PKPdf	17 30 01.8	-1.5
ANMO				MLR	MLR		
	comp=Z,3µm,20.0s						
ANMO	Albuquerque	146.58	262		PKPdf	17 30 01.8	-1.5
ANMO	Albuquerque	146.58	262	IAMs_20	IAMs_20	18 47 52.2	
	comp=Z,3µm,20.0s						
TASM	ASL Pad, Albuq	146.58	262	IAMs_20	IAMs_20	18 47 52.3	
	comp=Z,3µm,20.0s						
TASM	ASL Pad, Albuq	146.58	262	IAMs_20	IAMs_20	18 47 52.3	
	comp=Z,3µm,20.0s						
TASM	ASL Pad, Albuq	146.58	262	IAMs_20	IAMs_20	18 47 52.3	
	comp=Z,3µm,20.0s						
TASM	ASL Pad, Albuq	146.58	262	IAMs_20	IAMs_20	18 47 52.3	
	comp=Z,3µm,20.0s						
OGNE	Ogallala	146.79	275	IAMs_20	IAMs_20	18 43 28.8	
	comp=Z,3µm,20.0s						
SDCO	Great Sand Dun	147.51	267	IAMs_20	IAMs_20	18 33 37.8	
	comp=Z,3µm,20.0s						
TUC	Tucson	147.80	254	IAMs_20	IAMs_20	18 49 02.5	
	comp=Z,2µm,21.0s						
Q24A	Divide	147.91	270	IAMs_20	IAMs_20	18 31 00.4	
	comp=Z,2µm,22.0s						
MDND	Maddock	147.95	288	IAMs_20	IAMs_20	18 37 40.1	
	comp=Z,3µm,22.0s						
E28A	Huff	148.22	285	IAMs_20	IAMs_20	18 41 46.4	
	comp=Z,2µm,21.0s						
ISCO	Idaho Springs	148.64	271	IAMs_20	IAMs_20	18 47 12.7	
	comp=Z,3µm,20.0s						
MVCO	Mesa Verde	149.22	264	IAMs_20	IAMs_20	18 47 38.0	
	comp=Z,3µm,21.0s						
RSSD	Black Hills	149.50	279	IAMs_20	IAMs_20	18 30 24.4	
	comp=Z,3µm,22.0s						
BILL	Bilibino	149.74	32	*i* PKHKP	PKPpre	17 30 07.8	
BILL				pmax	pmax		
	comp=Z,276nm,1.1s						
BILL	Bilibino	149.74	32	IAMs_20	IAMs_20	18 39 17.9	
	comp=Z,3µm,20.0s						
MIDW	Midway	149.90	121	P	PKPdf	17 30 10.1	+1.4
WUAZ	Wupatki	150.17	259	IAMs_20	IAMs_20	18 32 55.2	
	comp=Z,3µm,20.0s						
K22A	Casper	150.56	275	IAMs_20	IAMs_20	18 51 04.4	
	comp=Z,3µm,21.0s						
FFC	Flin Flon	150.91	301	*i* PKIKP	PKiKP	17 30 15.2	-0.5
POHA	Pohakuloa	151.11	165	P	PKPbc	17 30 13.9	-3.1
BC3	Big Chuckawall	151.66	251	IAMs_20	IAMs_20	18 48 30.7	
	comp=Z,2µm,22.0s						
BELC	Belle Mtn. Jos	152.23	251	IAMs_20	IAMs_20	18 34 19.7	
	comp=Z,3µm,20.0s						
KIP	Kipapa	152.24	160	P	PKPbc	17 30 16.4	-2.8
PDAR	Pinedale Array	152.63	273	PKP	PKPdf	17 30 11.6	-1.2
	comp=Z,4.3nm,1.0s,baz=0.0,slow=0.4,SNR=16						
PDAR				PKPbc	PKiKP	17 30 19.7	-0.3
	comp=Z,9.0nm,0.9s,baz=127,slow=1.9,SNR=21						
PDAR				PKPab	PKPab	17 30 29.5	-1.0
	comp=Z,57nm,1.0s,baz=133,slow=2.0,SNR=34						
PDAR				PP	PP	17 34 06.0	+2.2
	comp=Z,11nm,1.2s,baz=134,slow=6.4,SNR=4.1						
HWUT	Hardware Ranch	153.48	270	IAMs_20	IAMs_20	18 34 54.8	
	comp=Z,3µm,21.0s						
SHOC	Shoshone, Teco	153.59	254	IAMs_20	IAMs_20	18 52 32.8	
	comp=Z,3µm,20.0s						
DUG	Dugway, Tooele	153.66	266	IAMs_20	IAMs_20	18 38 30.6	
	comp=Z,3µm,20.0s						
MWC	Mount Wilson	153.67	249	IAMs_20	IAMs_20	18 38 14.0	
	comp=Z,2µm,19.0s						
FXWY	Fox Creek	153.97	274	IAMs_20	IAMs_20	18 44 50.7	
	comp=Z,3µm,20.0s						
TPNV	Topopah Spring	154.20	256	IAMs_20	IAMs_20	18 50 09.9	
	comp=Z,3µm,20.0s						
LRMC	Laurel Mtn Rad	154.24	252	IAMs_20	IAMs_20	18 35 51.9	
	comp=Z,3µm,20.0s						
VES	Vestal, Richgr	155.35	251	IAMs_20	IAMs_20	18 53 12.5	
	comp=Z,3µm,20.0s						
ELK	Elko	155.54	265	PKP	PKPdf	17 30 16.5	-0.4
	comp=Z,2.4nm,0.3s,baz=97,slow=1.7,SNR=19						
NVAR	Mina Array Bea	156.38	257	PKP	PKPdf	17 30 18.1	+0.1
	comp=Z,6.2nm,0.9s,baz=151,slow=1.9,SNR=36						
NVAR				PKPab	PKPab	17 30 46.3	-0.3
	comp=Z,29nm,1.1s,baz=147,slow=3.9,SNR=8.0						
NVAR	Mina Array Bea	156.38	257		PKPdf	17 30 15.2	-2.9
YKA	Yellowknife Ar	156.44	320	PKP	PKPdf	17 30 13.8	-3.3
	comp=Z,8.7nm,0.9s,baz=65,slow=1.6,SNR=11						
YKA				PKPab	PKPab	17 30 43.4	-2.3
	comp=Z,20nm,1.0s,baz=64,slow=1.7,SNR=6.4						
YKA				PP	PP	17 34 25.2	+1.0
	comp=Z,1.3nm,0.9s,baz=307,slow=18,SNR=2.0						
YKA	Yellowknife Ar	156.44	320		PKPdf	17 30 12.9	-4.1
INK	Inuvik	158.42	345	PKP	PKPdf	17 30 17.3	-2.1
	comp=Z,22nm,1.2s,baz=65,slow=0.8,SNR=12						
INK				PKPab	PKPab	17 30 53.8	-0.3
	comp=Z,15nm,1.1s,baz=32,slow=4.4,SNR=3.9						
RDOG	Red Dog Mine	158.61	15	IAMs_20	IAMs_20	18 44 17.3	
	comp=Z,3µm,21.0s						
D19K	Kuna River	158.92	10	IAMs_20	IAMs_20	18 54 50.1	
	comp=Z,2µm,20.0s						
SUTB	Sutter Butte	159.09	255	IAMs_20	IAMs_20	18 45 19.3	
	comp=Z,2µm,20.0s						
NEW	Newport	159.40	282	PKP	PKPdf	17 30 20.5	-0.8
	comp=Z,3.0nm,0.8s,baz=204,slow=2.4,SNR=4.8						
NEW				PKPab	PKPab	17 30 59.0	-0.1
	comp=Z,9.7nm,0.9s,baz=135,slow=7.4,SNR=6.2						
TNA	Tin City	159.56	24	IAMs_20	IAMs_20	18 48 22.1	
	comp=Z,2µm,20.0s						
GAMB	Gambell	159.65	31	IAMs_20	IAMs_20	18 42 30.2	
	comp=Z,2µm,22.0s						
YBH	Yreka Blue Hor	160.97	260	PKP	PKPdf	17 30 23.0	-0.2
	comp=Z,2.7nm,0.9s,baz=130,slow=4.2,SNR=5.1						
YBH				PKPab	PKPab	17 31 06.4	+0.1
	comp=Z,14nm,1.2s,baz=119,slow=6.4,SNR=3.5						
YBH	Yreka Blue Hor	160.97	260		PKPab	17 31 06.9	+0.6
ADK	Adak	161.29	68	P	PKPdf	17 30 23.9	+0.8
ADK	Adak	161.29	68	P	PKPdf	17 30 23.7	+0.6
ATKA	Atka Island	162.81	66	P	PKPdf	17 30 25.5	+0.9
ATKA	Atka Island	162.81	66	P	PKPdf	17 30 25.1	+0.5
COLA	College	163.16	360	P	PKPdf	17 30 27.5	+2.9
ILAR	Eielson Array	163.25	358	PKP	PKPdf	17 30 22.2	-2.5
	comp=Z,9.0nm,1.1s,baz=311,slow=1.8,SNR=33						
ILAR				PKPab	PKPab	17 31 16.5	+1.1
	comp=Z,2.6nm,0.9s,baz=344,slow=2.9,SNR=4.1						
ILAR				PP	PP	17 35 02.0	+1.4
	comp=Z,0.8nm,0.8s,baz=323,slow=3.7,SNR=5.2						
ILAR	Eielson Array	163.25	358		PKPdf	17 30 20.9	-3.8
MENT	Mentasta	164.91	352	P	PKPdf	17 30 25.6	-0.7
MENT	Mentasta	164.91	352	P	PKPdf	17 30 25.3	-1.0
DLBC	Dease Lake	165.07	321	PKP	PKPdf	17 30 25.2	-1.5
	comp=Z,13nm,1.2s,baz=286,slow=4.7,SNR=7.6						
DLBC				PKPab	PKPab	17 31 24.8	+1.1
	comp=Z,13nm,1.1s,baz=344,slow=2.8,SNR=4.6						
SKAG	Skagway	166.35	331	P	PKPdf	17 30 27.9	+0.4
SKAG	Skagway	166.35	331	P	PKPdf	17 30 26.7	-0.8
PMR	Palmer	166.44	2	P	PKPdf	17 30 27.2	-0.3
PMR	Palmer	166.44	2	P	PKPdf	17 30 26.7	-0.8
JIS	Juneau Island	166.91	326	P	PKPdf	17 30 27.6	-0.3
EYAK	Cordova Ski Ar	167.43	355	P	PKPdf	17 30 29.3	+1.0
EYAK	Cordova Ski Ar	167.43	355	P	PKPdf	17 30 27.9	-0.4
SDPT	Sand Point	169.43	42	P	PKPdf	17 30 29.5	-0.3
KDAK	Kodiak Island	169.91	14	PKP	PKPdf	17 30 30.2	+0.3
	comp=Z,12nm,1.0s,baz=8.9,slow=3.6,SNR=3.7						
KDAK				PKPab	PKPab	17 31 45.5	+0.7
	comp=Z,51nm,1.2s,baz=36,slow=3.0,SNR=7.0						
KDAK	Kodiak Island	169.91	14	PKIKP	PKPdf	17 30 28.1	-1.9
KDAK	Kodiak Island	169.91	14		PKPdf	17 30 28.1	-1.9
KDAK					pPKPab	17 31 47.4	-0.7

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*TEH **26** 17:15:21.4, 38°.04N×55°.95E, h6^{km}, ML3.8, Presumed earthquake*

ISC 26 17:15:21.5±0.8**, 38°.08N**±0°.04×**55°.97E**±0°.04**, h10^{km}, n28, σ2^{s}49**/34**, 2C-2D, Iran-Turkmenistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MRVT	Maraveh tapeh	0.43	167	Pg	Pg	17 15 29.8	-0.1
MRVT				Sg	Sb	17 15 36.6	-1.2
IMND	Minoodasht	0.93	209	Pg	Pn	17 15 40.1	-0.6
IMND				Sg	Sn	17 15 53.4	-0.7
ISFR	Sfrayin	1.91	122	Pn	Pb	17 15 56.7	+0.1
SHRO	Shahrood	2.09	179	Pn	Pb	17 15 58.6	-0.9
SBZV	Sabzevar	2.14	142	Pn	Pb	17 15 59.6	-0.8
IEMG	Emamgholi	2.23	106	Pn	Pb	17 16 01.1	-0.9
IGLO	Ghaloghah	2.32	228	Pn	Pb	17 16 02.6	-1.0
IAKL	Akhelmad	2.67	123	Pn	Pb	17 16 07.3	-2.2
IPAY	Payeh	2.91	123	Pn	Pb	17 16 10.8	-2.8
ISHM	Shahmirzad	3.12	224	Pn	Pb	17 16 13.8	-3.4
IALA	Alasht	3.22	233	Pn	Pb	17 16 15.5	-3.4
TAPT	Tabas- Tapeh t	3.33	163	Pn	Pn	17 16 16.3	+2.5
IMOG	Moghan	3.34	125	Pn	Pn	17 16 16.4	+2.4
IPRN	Peran	3.43	239	Pn	Pn	17 16 17.5	+2.3
ILAS	Lasjerd	3.62	223	Pn	Pn	17 16 20.2	+2.4
TSHB	Tabas_ShorAb	4.40	175	Pn	Pn	17 16 31.2	+2.8
TKDS	Koohdasht(Taba	4.55	168	Pn	Pn	17 16 33.2	+2.6
IGZV	Ghazvin	4.89	252	Pn	Pn	17 16 38.2	+2.9
ANAR	Anarak	5.21	201	Pn	Pn	17 16 41.9	+2.3
AFRZ	Afriz	5.26	151	Pn	Pn	17 16 43.2	+2.9
ZNJK	Zanjan	5.97	259	Pn	Pn	17 16 52.9	+2.7
ISRB	Sarab	6.57	270	Pn	Pn	17 17 00.7	+2.4
IHRS	Heris	7.04	275	Pn	Pn	17 17 06.8	+2.1
VSHL	Vashlovani	8.02	296	P	Pn	17 17 21.3	+3.1
VSHL				S	Sn	17 18 48.5	-0.4
DDFL	Dedoflistskaro	8.30	297	P	Pn	17 17 26.1	+4.2
DDFL				S	Sn	17 18 59.0	+3.3
CHRG	Chargali	9.45	300	P	Pn	17 17 39.1	+1.3
AB31	Akbulak array	11.53	13	⇑P	Pn	17 18 06.6	+0.5
	0.5nm,0.3s,baz=208,slow=14,SNR=27						
AB31				⇑S	Sn	17 20 13.5	-1.5
	1.4nm,0.5s,baz=201,slow=28,SNR=6.7						
AKTO	Aktyubinsk	12.44	6	⇓P	Pn	17 18 18.5	0.0
	3.3nm,0.8s						
AKTO				⇓S	Sn	17 20 31.6	-5.5
	1.9nm,0.8s						

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*MDD **26** 17:38:48.1±0.4, 42°.12N×7°.24W, h0^{km}±4^{km}, mb_Lg2.9/10, Error ellipse: s-maj=2.7km s-min=2.4km az=39.0*

*SFS **26** 17:38:48.9, 42°.17N×7°.18W, h25^{km}, ML2.8/8, ML3.2/8, MLv3.5/5*

*INMG **26** 17:38:49.2±1.4, 42°.13N×7°.25W, h19^{km}±2^{km}, ML2.3, Error ellipse: s-maj=2.3km s-min=1.9km az=78.0, #DIST_RANGE: LOCAL #IPMA_REGION: NW Vinhais*

ISC 26 17:38:48.2±1.0**, 42°.15N**±0°.03×**7°.23W**±0°.02**, h25^{km}**±11^{km}**, n35, σ1^{s}61**/63**, 1C-1D, Spain**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ECAL	Calabor	0.42	119	Pg	Pb	17 38 57.1	0.0
ECAL				Sg	Sb	17 39 02.9	-0.2
ECAL	Calabor	0.42	119	Pg	Pb	17 38 57.1	0.0
ECAL				Sg	Sb	17 39 01.7	-1.5
ECAL				IVmb_Lg		17 39 03.9	
PBRG	Braganca	0.50	133	*e*Pg	Pb	17 38 58.2	-0.2
PBRG				*e*Sg	Sb	17 39 05.2	-0.1
PBRG				*i* IAML		17 39 05.5	
PBRG				*i* IAML		17 39 05.7	
PBRG				*i* IAML		17 39 05.8	
ELOB	Lobios	0.68	246	Pg	Pb	17 39 01.3	-0.2
ELOB				Sg	Sb	17 39 10.3	-0.2
ELOB				IVmb_Lg		17 39 12.1	
PCAB	Cabril	0.74	234	*e*P	Pb	17 39 02.3	-0.1
PCAB				*e*S	Sb	17 39 12.1	0.0
PCAB				*i* IAML		17 39 13.8	
PCAB				*i* IAML		17 39 14.1	
PCAB				*i* IAML		17 39 14.5	
PGAV	Gavieira, Arco	0.80	257	⇑*i*P	Pb	17 39 03.4	-0.1
PGAV				*e*S	Sb	17 39 13.8	-0.1
PGAV				*i* IAML		17 39 14.1	
PGAV				*i* IAML		17 39 14.7	
PGAV				*i* IAML		17 39 15.8	
POLO	Lamas de Olo	0.88	209	*e*P	Pb	17 39 04.5	-0.4
POLO				*e*S	Sb	17 39 16.2	-0.1
POLO				*i* IAML		17 39 16.7	
POLO				*i* IAML		17 39 16.8	
POLO				*i* IAML		17 39 17.2	
EAGO	Agolada(Pontev	0.91	316	Pg	Pb	17 39 05.7	+0.3
EAGO				Sg	Sb	17 39 17.2	+0.1
EAGO				IVmb_Lg		17 39 18.8	
PVRL	Vila Real	0.94	203	⇓*e*P	Pn	17 39 06.2	+0.3
PVRL				*e*S	Sb	17 39 18.3	+0.3
PVRL				*i* IAML		17 39 18.6	
PVRL				*i* IAML		17 39 18.8	
PVRL				*i* IAML		17 39 19.1	
EZAM	Zamans	1.09	271	Pg	Pb	17 39 08.7	+0.3
EZAM				Sg	Sb	17 39 21.9	-0.3
EZAM				IVmb_Lg		17 39 24.2	
EPON	Pontenova	1.18	3	Pg	Pb	17 39 10.3	+0.4
EPON				Sg	Sb	17 39 25.4	+0.7
EPON				IVmb_Lg		17 39 27.3	
EJUZ	Juzbado, Salam	1.46	136	Pg	Pb	17 39 15.4	+0.8
EJUZ				Sg	Sb	17 39 34.5	+1.7
PVIS	Viseu	1.52	200	*e*Pn	Pn	17 39 13.9	+0.1
PVIS				*e*Pg		17 39 16.0	
PVIS				*e*Sg	Sb	17 39 35.7	+1.3
EMAZ	Mazaricos	1.52	302	Pg	Pb	17 39 15.6	0.0
EMAZ				Sg	Sb	17 39 35.7	+1.2
EMAZ				IVmb_Lg		17 39 37.7	
MTE	Manteigas	1.76	188	*e*Pn	Pn	17 39 16.9	-0.3
MTE				*e*Sg	Sb	17 39 43.3	+1.8
MTE				*i* IAML		17 39 45.5	
MTE				*i* IAML		17 39 47.2	
MTE				*i* IAML		17 39 47.3	
EARI	Arriondas	1.88	52	Pn	Pn	17 39 20.2	+1.4
EARI				Pg		17 39 23.1	
EARI				Sn	Sb	17 39 45.2	+0.2
EARI				IVmb_Lg		17 39 47.2	
EARI				Sg		17 39 49.2	
PCAS	Casmilo, Conde	2.30	205	*e*Sg	Sb	17 40 00.2	+3.2
PCAS				*i* IAML		17 40 03.5	
PCAS				*i* IAML		17 40 04.5	
PCAS				*i* IAML		17 40 04.6	
PCBR	Castelo Branco	2.31	185	*e*Pn	Pn	17 39 24.4	-0.3
PCBR				*e*Sn	Sn	17 39 51.8	-0.5
PCBR				*e*Sg		17 40 01.3	
PCBR				*i* IAML		17 40 02.6	
PCBR				*i* IAML		17 40 04.3	
PCBR				*i* IAML		17 40 06.8	
PSARD	Sardoal	2.64	196	*e*Pn	Pn	17 39 30.0	+0.8
PSARD				*e*Pg		17 39 38.2	
PSARD				*e*Sn	Sn	17 39 57.7	-2.8
PSARD				*e*Sg		17 40 10.1	
PSARD				*i* IAML		17 40 14.1	
PSARD				*i* IAML		17 40 16.6	
PSARD				*i* IAML		17 40 19.4	
PMRV	Marv??o	2.72	183	*e*Pn	Pn	17 39 30.1	-0.2
PMRV				*e*Sn	Sn	17 40 01.4	-0.9
PMRV				*e*Sg		17 40 12.9	
PMRV				*i* IAML		17 40 15.1	
PMRV				*i* IAML		17 40 15.7	
PMRV				*i* IAML		17 40 16.1	
GUD	Guadarrama	2.76	122	Pn	Pn	17 39 31.5	+0.6
GUD				Pg		17 39 37.6	
GUD				Sn	Sn	17 40 03.6	+0.1
GUD				Sg		17 40 14.4	
GUD				IVmb_Lg		17 40 20.6	
CIBOR	Castaar de Ib	2.86	151	Pn	Pn	17 39 33.3	+1.1
CIBOR				Sn	Sn	17 40 07.9	+2.1
CIBOR				Sg		17 40 18.4	
PSBE	So Bento	2.89	205	*e*Sg	Sb	17 40 20.7	+6.8
PSBE				*i* IAML		17 40 29.5	
PMTG	Montargil	3.17	194	*e*Pn	Pn	17 39 36.8	+0.4
PMTG				*e*Sn	Sn	17 40 12.1	-1.3
PMTG				*e*Sg		17 40 27.1	
PMTG				*i* IAML		17 40 31.1	
PMTG				*i* IAML		17 40 31.2	
PMTG				*i* IAML		17 40 32.0	
PESTR	Estremoz	3.29	185	Pn	Pn	17 39 37.9	-0.2
PESTR	Estremoz	3.29	185	*e*Pn	Pn	17 39 38.8	+0.7
PESTR				*e*Sn	Sn	17 40 15.0	-1.4
PESTR				*e*Sg		17 40 30.6	
PESTR				*i* IAML		17 40 33.7	
PESTR				*i* IAML		17 40 35.5	
PESTR				*i* IAML		17 40 37.0	
PARRA	Arraiolos	3.39	191	*e*Pn	Pn	17 39 39.9	+0.5
PARRA				*e*Sn	Sn	17 40 17.5	-1.3
PARRA				*e*Sg		17 40 33.1	
PARRA				*i* IAML		17 40 39.4	
PARRA				*i* IAML		17 40 39.6	
PARRA				*i* IAML		17 40 40.0	
EBAD	Badajoz	3.39	177	Pn	Pn	17 39 39.9	+0.4
EBAD				Sn	Sn	17 40 17.6	-1.3
UCM	Universidad Co	3.52	120	Sn	Sn	17 40 18.9	-3.4
EVO	Evora	3.66	190	Sn	Sn	17 40 23.0	-2.6
PBAR	Barrancos	3.97	178	Pn	Pn	17 39 47.7	+0.3
PBAR				Sn	Sn	17 40 30.9	-2.4
PBAR	Barrancos	3.97	178	*e*Pn	Pn	17 39 48.4	+1.0
PBAR				*e*Sn	Sn	17 40 32.1	-1.1
PBAR				*e*Sg		17 40 52.3	
PBAR				*i* IAML		17 41 00.2	
PBAR				*i* IAML		17 41 02.7	
PBAR				*i* IAML		17 41 03.0	
ECAB	El Cabril	4.30	161	Pn	Pn	17 39 52.2	+0.3
ECAB				Sn	Sn	17 40 37.8	-3.5
EADA	Adamuz	4.46	152	Sn	Sn	17 40 42.3	-3.1
PVAQ	Vaqueiros	4.75	185	*e*Sn	Sn	17 40 49.6	-2.9

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*NOU **26** 17:47:04.6, 17°.34S×168°.92E, h1^{km}, mb4.8/37, Vanuatu Islands*

*IDC **26** 17:47:06.3±0.6, 17°.59S×168°.87E, h0^{km}, mb4.4/17, mbtmp4.4/19, ML4.5/2, MS4.7/3, Error ellipse: s-maj=17.3km s-min=13.2km az=131.0*

*NEIC **26** 17:47:07.8±1.7, 17°.75S±0°.07×168°.91E±0°.06, h10^{km}±1^{km}, mb4.7/37, Error ellipse: s-maj=13.4km s-min=8.2km az=27.0*

ISC 26 17:47:08.2±0.4**, 17°.73S**±0°.06×**168°.89E**±0°.05**, h10^{km}, n164, σ1^{s}98**/155**, mb4.9**/69**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTV	Rentapao	0.45	262	P	Pb	17 47 18.2	+0.1
RTV	Rentapao	0.45	262	S	Sb	17 47 26.2	+1.4
DVP	Devils Point	0.67	270	P	Pg	17 47 20.5	-0.6
DVP	Devils Point	0.67	270	S	Sb	17 47 31.1	-0.2
MARNC	Mare, Loyalty	3.82	192	P	Pn	17 48 08.9	+1.9
MARNC	Mare, Loyalty	3.82	192		Pn	17 48 04.8	-2.2
YATNC	Mamie plateau,	4.70	203	P	Pn	17 48 21.0	+1.8
	103nm,0.7s						
YATNC				AML	AML		
DZM	Mont Dzumac	4.89	208	Pn	Pn	17 48 23.7	+1.8
	15nm,0.3s,baz=216,slow=19,SNR=222						
DZM				Sn	Sn	17 49 18.7	+0.1
	baz=315,slow=20						
DZM				LR	LR	17 49 45.3	
	comp=Z,2µm,20.9s,baz=56,slow=32						
	72nm,0.4s						
DZM				AML	AML		
NOUC	Port Laguerre	4.98	209	P	Pn	17 48 25.3	+2.3
	75nm,0.5s						
NOUC				AML	AML		
OUENC	Ouen Island, N	5.04	202	P	Pn	17 48 26.8	+2.9
	57nm,0.9s						
OUENC				AML	AML		
OUENC	Ouen Island, N	5.04	202		Pn	17 48 23.8	-0.1
ONTNC	Ouen Toro	5.10	206	P	Pn	17 48 27.3	+2.7
ONTNC	Ouen Toro	5.10	206		Pn	17 48 25.3	+0.7
KOUNC	Koumac, New Ca	5.18	236	P	Pn	17 48 27.2	+1.5
	149nm,1.0s						
KOUNC				AML	AML		
KOUNC	Koumac, New Ca	5.18	236	Pn	Pn	17 48 26.2	+0.5
MSVF	Nonsavu	8.73	91	Pn	Pn	17 49 17.3	+2.7
	0.2nm,0.3s,baz=207,slow=10,SNR=3.9						
	8.3nm,0.9s						
MSVF				AML	AML		
MSVF	Nonsavu	8.73	91		Pn	17 49 15.7	+1.1
NGOA	Tingoa Renbel	10.52	305	P	Pn	17 49 35.6	-3.5
HNR	Honiara	11.98	312	Pn	Pn	17 49 59.8	+0.7
EIDS	Eidsvold	18.21	242	P	Pn	17 51 19.8	-1.5
ARMA	Armidale	20.16	228	P	Pn	17 51 43.7	-1.1
ARMA	Armidale	20.16	228	P	P	17 51 41.5	-1.4
ARMA				IAmb	IAmb	17 52 02.5	
	comp=Z,31nm,1.2s						
CTA	Charters Tower	21.54	260	P	P	17 51 57.7	-0.1
	comp=Z,8.6nm,0.7s,baz=99,slow=10,SNR=14						
	comp=Z,8.6nm,0.7s						
CTAO	Charters Tower	21.54	260	P	P	17 51 57.7	-0.1
	comp=Z,7.1nm,0.8s						
CTAO	Charters Tower	21.54	260	P	P	17 51 56.6	-1.2
BKZ	Black Stump Fm	22.36	164	P	P	17 52 09.5	+3.0
	comp=Z,14nm,2.4s						
PMG	Port Moresby	22.67	289	P	P	17 52 11.3	+1.4
MTSU	Mount Surprise	23.38	265	P	P	17 52 16.7	-0.6
	comp=Z,16nm,0.8s						
THZ	Tophouse	24.20	173	P	P	17 52 23.3	-1.6
PLWZ	Palliser	24.38	168	P	P	17 52 24.8	-1.7
QLP	Quilpie	24.44	245	P	P	17 52 27.7	+0.4
	comp=Z,55nm,0.8s						
CAN	Canberra	24.89	221	P	P	17 52 30.1	-1.2
CAN				IAmb	IAmb	17 52 38.2	
	comp=Z,31nm,1.2s						
CMSA	Cobar Meteorol	25.10	232	P	P	17 52 34.1	+0.9
	comp=Z,25nm,0.7s						
LTZ	Lake Taylor	25.14	174	P	P	17 52 32.2	-1.2
PATS	Pohnpei	26.55	336	P	P	17 52 46.4	0.0
ODZ	Otahua Downs	27.27	177	P	P	17 52 54.9	+2.2
	comp=Z,33nm,1.7s						
INKA	Innaminka	27.74	244	P	P	17 52 56.1	-1.0
QIS	Mount Isa	27.79	259	P	P	17 52 55.0	-2.6
	comp=Z,7.8nm,0.8s						
STKA	Stephens Creek	28.40	235	P	P	17 53 03.5	+0.6
	comp=Z,8.1nm,0.9s,baz=78,slow=11,SNR=9.5						
	comp=Z,8.1nm,0.9s						
HTT	Hallett	31.08	234	P	P	17 53 26.7	0.0
WR8	Warramunga Arr	32.59	261	P	P	17 53 37.2	-2.9
WR8				IAmb	IAmb	17 53 43.1	
	comp=Z,19nm,1.4s						
WB0	Warramunga Arr	32.70	261	P	P	17 53 38.7	-2.3
WB0				IAmb	IAmb	17 53 47.1	
	comp=Z,6.0nm,0.9s						
WRAB	Tennant Creek	32.73	261	P	P	17 53 39.7	-1.6
	comp=Z,2.8nm,2.4s						
WRA	Warramunga Arr	32.74	261	P	P	17 53 39.7	-1.7
	comp=Z,1.9nm,0.7s,baz=91,slow=8.2,SNR=7.1						
	comp=Z,1.9nm,0.7s						
WRA	Warramunga Arr	32.74	261	P	P	17 53 38.2	-3.2
BBOO	Buckleboo	33.11	237	P	P	17 53 44.6	+0.1
	comp=Z,15nm,1.5s						
BBOO	Buckleboo	33.11	237	P	P	17 53 42.7	-1.8
BBOO				IAmb	IAmb	17 53 50.1	
	comp=Z,12nm,0.9s						
AS01	Alice Springs	33.15	254	P	P	17 53 43.4	-1.7
	comp=Z,18nm,0.6s						
AS31	Alice Springs	33.20	254	P	P	17 53 43.9	-1.6
AS31				IAmb	IAmb	17 53 50.9	
	comp=Z,6.8nm,0.6s						
ASAR	Alice Springs	33.20	254	P	P	17 53 44.2	-1.2
	comp=Z,13nm,0.6s,baz=81,slow=8.7,SNR=207						
	comp=Z,13nm,0.6s						
ASAR	Alice Springs	33.20	254	P	P	17 53 44.0	-1.5

H11S2	WAKE ISLAND Hy	36.06	356	T	T	18 31 50.9	
	baz=181,slow=76,SNR=7.5						
H11S3	WAKE ISLAND Hy	36.06	356	T	T	18 31 51.2	
	baz=181,slow=76,SNR=26						
H11S1	WAKE ISLAND Hy	36.08	356	T	T	18 31 54.0	
	baz=181,slow=76,SNR=22						
MTN	Manton Dam	36.70	272	P	P	17 54 14.5	-1.1
H11N1	WAKE ISLAND Hy	37.26	357	T	T	18 33 21.4	
	baz=175,slow=76,SNR=26						
H11N3	WAKE ISLAND Hy	37.27	357	T	T	18 33 22.8	
	baz=175,slow=76,SNR=20						
H11N2	WAKE ISLAND Hy	37.28	357	T	T	18 33 22.0	
	baz=175,slow=76,SNR=15						
SAUI	Saumlaki	37.84	280	P	P	17 54 28.2	+2.9
MWPI	Manokwari, Pap	38.10	292	P	P	17 54 30.5	+2.9
KNRA	Kununurra	38.44	267	P	P	17 54 28.3	-2.1
KNRA				IAmb	IAmb	17 54 34.0	
	comp=Z,12nm,1.1s						
FAKI	Fak Fak	38.82	288	P	P	17 54 30.1	-3.6
FAKI	Fak Fak	38.82	288	P	P	17 54 32.1	-1.5
FAKI	Fak Fak	38.82	288	P	P	17 54 35.4	+1.7
	comp=Z,27nm,1.6s						
GUMO	Guam	39.12	321	P	P	17 54 35.0	-1.0
GUMO				IAmb	IAmb	17 54 51.5	
	comp=Z,31nm,1.0s						
FORT	Forrest	39.21	243	P	P	17 54 35.6	-1.2
FORT				IAmb	IAmb	17 54 37.4	
	comp=Z,32nm,1.2s						
BNDI	Bandanaira	40.33	284	P	P	17 54 49.9	+3.6
	comp=Z,76nm,1.6s						
SWI	Sorong	40.60	290	P	P	17 54 50.6	+2.1
	comp=Z,14nm,1.1s						
FITZ	Fitzroy Crossi	41.08	263	P	P	17 54 51.2	-1.2
	comp=Z,19nm,0.7s,baz=108,slow=7.1,SNR=40						
FITZ				LR	LR	18 10 08.0	
	comp=Z,1µm,18.9s,baz=314,slow=34						
	comp=Z,19nm,0.7s						
FITZ	Fitzroy Crossi	41.08	263	P	P	17 54 51.2	-1.2
SOEI	Soe	43.98	274	P	P	17 55 19.3	+3.2
	comp=Z,39nm,0.5s						
LBMI	Labuha	44.08	288	P	P	17 55 19.8	+2.9
BATI	Baumata	44.43	273	P	P	17 55 17.9	-1.8
	comp=Z,43nm,0.9s,baz=96,slow=5.3,SNR=7.9						
	comp=Z,43nm,0.9s						
SANI	Sanana	44.89	285	P	P	17 55 25.1	+1.8
	comp=Z,12nm,1.6s						
MBWA	Marble Bar	46.34	257	P	P	17 55 33.7	-1.0
MBWA				IAmb	IAmb	17 56 01.2	
	comp=Z,21nm,1.2s						
EDFI	Ende, Flores	46.69	275	P	P	17 55 40.7	+3.0
	comp=Z,15nm,0.8s						
BBSI	Bau Bau	46.84	279	P	P	17 55 40.8	+2.1
	comp=Z,28nm,1.1s						
MEEK	Meekatharra	47.14	250	P	P	17 55 40.4	-0.6
	comp=Z,35nm,0.8s						
WSI	Waingapu	47.77	273	P	P	17 55 48.5	+2.5
	comp=Z,55nm,0.9s						
KLBR	Kellerberrin	48.07	243	P	P	17 55 46.5	-1.7
	comp=Z,33nm,0.7s						
LUWI	Luwuk	48.24	285	P	P	17 55 52.5	+2.9
LBFI	Labuhan Bajo,	48.48	274	P	P	17 55 54.3	+2.8
BSSI	Bau Bau, Buton	48.59	278	P	P	17 55 49.9	-2.5
	comp=Z,28nm,1.4s						
NWAO	Narrogin (SRO)	48.62	242	P	P	17 55 51.5	-0.8
	comp=Z,28nm,0.8s						
NWAO	Narrogin (SRO)	48.62	242	P	P	17 55 51.3	-1.0
APSI	Ampana	49.32	285	P	P	17 56 01.4	+3.4
	comp=Z,2µmcomp=Z,21nm,0.8s						
MORW	Morawa	49.44	247	P	P	17 55 56.5	-2.2
MORW	Morawa	49.44	247	P	P	17 55 57.2	-1.5
MORW				IAmb	IAmb	17 56 20.4	
	comp=Z,24nm,1.4s						
KAPI	Kappang	49.65	279	P	P	17 56 00.8	+0.4
	comp=Z,8.0nm,0.3s,baz=158,slow=9.6,SNR=6.2						
	comp=Z,8.0nm,0.3s						
KAPI	Kappang	49.65	279	P	P	17 56 03.4	+3.0
	comp=Z,21nm,1.5s						
PLAI	Plampang	50.39	273	P	P	17 56 09.3	+3.2
	comp=Z,32nm,1.1s						
PMSI	Majene	50.94	280	P	P	17 56 11.6	+1.4
	comp=Z,30nm,1.3s						
PCI	Palu	51.00	284	P	P	17 56 13.9	+3.2
	comp=Z,25nm,1.6s						
MMSI	Mamuju	51.22	281	P	P	17 56 14.6	+2.2
	comp=Z,15nm,1.1s						
TWSI	Taliwang, Sumb	51.27	273	P	P	17 56 16.0	+3.3
	comp=Z,50nm,1.1s						
KHKI	Kahang-Kahang	52.58	273	P	P	17 56 25.6	+3.1
	comp=Z,21nm,1.4s						
DNP	Denpasar	52.88	272	P	P	17 56 27.0	+2.3
IGBI	Denpasar	52.90	272	P	P	17 56 28.1	+3.2
SRBI	Singaraja	53.04	273	P	P	17 56 29.2	+3.3
	comp=Z,43nm,0.8s						
RTBI	Rangdo, Negare	53.19	273	P	P	17 56 29.5	+2.4
	comp=Z,65nm,1.1s						
BKB	Balikpapan	53.60	282	P	P	17 56 33.7	+3.7
SMKI	Samarinda	53.61	283	P	P	17 56 33.5	+3.4
	comp=Z,38nm,0.6s						
JAGI	Jajag, Banyuwa	53.94	272	P	P	17 56 35.7	+3.2
	comp=Z,24nm,1.6s						
BLJI	Banyuglugur	54.67	273	P	P	17 56 41.0	+3.2
	comp=Z,26nm,0.9s						
MYLDM	Lahad Datu	54.69	290	P	P	17 56 41.3	+3.4
	comp=Z,16nm,1.2s						
TARAI	Tarakan	54.74	287	P	P	17 56 41.7	+3.3
BWJI	Bawean	56.10	275	P	P	17 56 51.6	+3.4
SNJI	Sawahan-Nganju	56.41	272	P	P	17 56 53.8	+3.3
	comp=Z,18nm,1.7s						
SJI	Sawahan	56.41	272	P	P	17 56 53.5	+3.0
PCJI	Pacitan	56.85	272	P	P	17 56 56.7	+3.2
	comp=Z,108nm,2.1s						
KKM	Kota Kinabalu	57.11	290	P	P	17 56 58.7	+3.3
	comp=Z,44nm,1.5s						
WOJI	Wonogiri, Jawa	57.19	272	P	P	17 56 59.1	+3.2
	comp=Z,55nm,1.8s						
VNDA	Vanda	59.92	182	P	P	17 57 15.3	+1.3
SBA	Scott Base	60.16	181	P	P	17 57 17.4	+1.8
SBA				IAmb	IAmb	17 57 23.0	
	comp=Z,4.7nm,1.1s						
MJAR	Matsushiro Arr	61.27	332	P	P	17 57 24.2	+0.5
	comp=Z,3.3nm,1.1s,baz=161,slow=6.3,SNR=5.1						
	comp=Z,3.3nm,1.1s						
MJAR	Matsushiro Arr	61.27	332	IAmb	IAmb	17 57 25.5	
	comp=Z,4.2nm,1.2s						
MAJO	Matsushiro	61.27	332	P	P	17 57 23.9	+0.1
MAJO				IAmb	IAmb	17 57 26.1	
	comp=Z,6.0nm,1.1s						
CASY	Casey	61.37	203	P	P	17 57 23.9	-0.1
CASY				IAmb	IAmb	17 57 46.6	
	comp=Z,3.2nm,0.9s						
ASAJ	Asahikawa	66.08	340	LR	LR	18 25 24.7	
	comp=Z,1µm,18.2s,baz=256,slow=35						
PETK	Petropavlovsk-	71.20	353	P	P	17 58 27.8	+0.7
	comp=Z,1.4nm,0.8s,baz=150,slow=5.8,SNR=2.1						
	comp=Z,1.4nm,0.8s						
PETK	Petropavlovsk-	71.20	353	P	P	17 58 26.9	-0.2
QSPA	South Pole Qui	72.31	180	P	P	17 58 34.3	+0.4
	comp=Z,1.7nm,1.1s,baz=32,slow=1.7,SNR=14						
	comp=Z,1.7nm,1.1s						
QSPA	South Pole Qui	72.31	180	P	P	17 58 31.5	-2.4
QSPA				IAmb	IAmb	17 58 48.6	
	comp=Z,4.2nm,0.9s						
CMAR	Chiang Mai Arr	77.59	294	P	P	17 59 05.5	+0.4
	comp=Z,0.9nm,0.8s,baz=114,slow=7.1,SNR=11						
	comp=Z,0.9nm,0.8s						
CMAR	Chiang Mai Arr	77.59	294	P	P	17 59 03.8	-1.2
MAW	Mawson	79.70	202	P	P	17 59 14.7	-1.1
	comp=Z,1.2nm,0.7s,baz=122,slow=19,SNR=1.9						
	comp=Z,1.2nm,0.7s						
ACHA	Angle Creek He	81.23	18	P	P	17 59 23.7	-0.4
ACHA				IAmb	IAmb	17 59 35.3	
	comp=Z,4.2nm,1.0s						
BELA	Belgrano 2	83.62	175	P	P	17 59 35.5	-0.9
BELA				IAmb	IAmb	17 59 53.7	
	comp=Z,7.2nm,1.1s						
L19K	White Mountain	84.65	16	P	P	17 59 42.1	+0.4
L20K	Farewell, AK	85.16	16	P	P	17 59 45.0	+0.8
YAK	Yakutsk	85.34	343	P	P	17 59 44.8	-0.3
ULN	Ulaanbaatar	85.46	323	P	P	17 59 45.4	-0.9
ULN	Ulaanbaatar	85.46	323	P	P	17 59 49.4	+3.1
SONM	Songino Array	85.82	323	P	P	17 59 46.4	-1.7
	comp=Z,6.0nm,1.1s,baz=142,slow=3.7,SNR=25						
	comp=Z,6.0nm,1.1s						
SONM	Songino Array	85.82	323	P	P	17 59 47.1	-0.9
CAST	Castle Rocks	86.40	16	P	P	17 59 48.3	-2.1
NVAR	Mina Array Bea	88.06	49	P	P	17 59 59.0	-0.2
	comp=Z,1.2nm,0.8s,baz=244,slow=9.0,SNR=5.7						
	comp=Z,1.2nm,0.8s						
NVAR	Mina Array Bea	88.06	49	P	P	17 59 58.6	-0.6
ILAR	Eielson Array	88.90	17	P	P	17 59 59.9	-2.5
	comp=Z,0.5nm,0.8s,baz=231,slow=5.7,SNR=4.7						
	comp=Z,0.5nm,0.8s						
ILAR	Eielson Array	88.90	17	P	P	18 00 01.3	-1.0
SNAA	Sanae	90.64	183	P	P	18 00 09.7	-1.0
	comp=Z,0.8nm,0.6s,baz=186,slow=5.1,SNR=4.3						
	comp=Z,0.8nm,0.6s						
SNAA	Sanae	90.64	183	IAmb	IAmb	18 00 23.3	
	comp=Z,11nm,1.4s						
TXAR	Lajitas Array	96.34	61	P	P	18 00 37.7	0.0
	comp=Z,0.2nm,0.5s,baz=326,slow=2.6,SNR=2.8						
	comp=Z,0.2nm,0.5s						
TXAR	Lajitas Array	96.34	61	P	P	18 00 36.5	-1.2
MKAR	Makanchi Array	100.43	316	P	Pdif	18 00 54.5	-1.1
	comp=Z,0.5nm,0.9s,baz=105,slow=5.7,SNR=2.1						
MKAR	Makanchi Array	100.43	316		Pdif	18 00 52.9	-2.6
ZALV	Zalesovo Beam	100.72	323	P	Pdif	18 00 55.9	-0.7
	comp=Z,0.6nm,0.6s,baz=100,slow=6.0,SNR=4.8						
ZALV	Zalesovo Beam	100.72	323		Pdif	18 00 54.6	-2.0
BRTR	Keskin Array B	135.62	309	PKP	PKPdf	18 06 27.1	-2.1
	comp=Z,0.6nm,0.8s,baz=48,slow=1.8,SNR=4.2						
GERES	GERESS Array B	143.01	333	PKP	PKPdf	18 06 40.7	-1.7
	comp=Z,0.1nm,0.3s,baz=48,slow=1.5,SNR=1.5						
ARSA	Arzberg	143.32	329	*e*PKP	PKPdf	18 06 43.0	+0.1
	comp=Z,3.7nm,1.3s						
SESA	Seetaler Alpe,	143.88	330	*e*PKP	PKPdf	18 06 44.5	+0.4
	comp=Z,22nm,1.5s						
SOKA	Soboth	143.96	329	*e*PKP	PKPdf	18 06 44.8	+0.8
	comp=Z,7.4nm,1.4s						
LESA	Schwarzleotal	144.53	332	*e*PKP	PKPdf	18 06 46.5	+1.5
	comp=Z,5.0nm,1.1s						
MYKA	Terra Mystica	144.67	330	*e*PKP	PKPdf	18 06 45.3	0.0
	comp=Z,0.3nm,0.4s						
WATA	Walderalm	145.08	333	*e*PKP	PKPab	18 06 45.3	-0.2
	comp=Z,5.1nm,1.3s						
ABTA	Abfaltersbach	145.11	331	*e*PKP	PKPdf	18 06 46.8	+0.7
	comp=Z,0.8nm,0.6s						
WTTA	Wattenberg	145.11	333	*e*PKP	PKPdf	18 06 46.8	+0.6
	comp=Z,6.9nm,1.5s						
MOTA	Moosalm	145.28	333	*e*PKP	PKPdf	18 06 47.1	+0.7
	comp=Z,6.4nm,1.3s						
RETA	Reutte	145.32	334	*e*PKP	PKiKP	18 06 49.3	-1.1
	comp=Z,7.5nm,1.2s						
SQTA	Sankt Quirin	145.33	333	*e*PKP	PKiKP	18 06 48.3	-2.1
	comp=Z,5.0nm,1.0s						
FETA	Feichten	145.69	333	*e*PKP	PKPab	18 06 49.1	+1.3
	comp=Z,2.6nm,0.9s						
DAVA	Damuels	145.84	334	*e*PKP	PKiKP	18 06 50.2	-1.3
	comp=Z,7.7nm,1.2s						
TORD	Torodi Ar. Bea	166.84	252	PKPab	PKPab	18 08 18.6	+0.3
	comp=Z,2.5nm,0.9s,baz=102,slow=3.5,SNR=6.0						

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*NEIC **26** 17:48:06.1±1.6, 35°.06N±0°.05×30°.69E±0°.06, h10^{km}±1^{km}, mb4.0/16, Error ellipse: s-maj=9.2km s-min=7.6km az=216.0*

*NIC **26** 17:48:08.9, 34°.94N×30°.70E, h58^{km}±6^{km}, Ml3.6/15*

*ISK **26** 17:48:08.4, 34°.93N×30°.76E, h73^{km}, ML3.7/40*

*AFAD **26** 17:48:08.7, 35°.01N×30°.73E, h7^{km}±4^{km}, ML3.4*

*IDC **26** 17:48:09.0±3.0, 35°.05N×30°.74E, h29^{km}±24^{km}, mb3.9/13, mbtmp3.9/20, ML3.6/8, MS2.4/1, Error ellipse: s-maj=11.5km s-min=8.6km az=34.0*

*GII **26** 17:48:13.5±0.0, 33°.95N×30°.66E, h0^{km}, Mws3.6, confirmed*

ISC 26 17:48:06.7±0.5**, 34°.92N**±0°.03×**30°.69E**±0°.02**, h21**^{km}±3^{km}**, n231, σ2^{s}.22**/310**, mb4.0**/15**, 4C, Eastern Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AKMS	Akamas	1.35	85 ⇑	*i*P	Pb	17 48 31.5	+0.1
AKMS				S	Sb	17 48 48.3	+0.2
AKMS				AML	AML	17 48 49.6	
	4.4nm,0.2s						
AKMS				AML	AML	17 48 49.6	
	8.8nm,0.4s						
POL7C	Prodromi	1.41	85	P	Pb	17 48 32.8	+0.5
POL7C				S	Sb	17 48 51.2	+1.3
OSC1	CSNet OBS 1	1.50	161	P	Pb	17 48 34.0	+0.3
OSC1				S	Sb	17 48 53.9	+1.7
OSC1				AML	AML	17 49 08.4	
	0.3nm,0.3s						
OSC1				AML	AML	17 49 14.4	
	0.4nm,0.7s						
NATA	Nata	1.55	95 ⇑	*i*P	Pb	17 48 34.7	0.0
NATA				S	Sb	17 48 54.5	+0.6
NATA				AML	AML	17 49 06.0	
	5.2nm,0.5s						
NATA				AML	AML	17 49 07.9	
	5.7nm,0.5s						
ALFC	Alefka	1.58	81 ⇑	*i*P	Pn	17 48 34.6	+1.0
ALFC				S	Sb	17 48 54.6	-0.3
ALFC				AML	AML	17 48 56.0	
	4.6nm,0.2s						
ALFC				AML	AML	17 49 02.7	
	4.5nm,0.5s						
AKAS	Kas	1.58	326	Pn	Pb	17 48 35.8	+0.5
AKAS	Kas	1.58	326		Pn	17 48 33.3	-0.4
AKAS				Sn	Sn	17 48 50.2	-3.4
APOL	The Sanctuary	1.80	97	P	Pn	17 48 37.9	+1.3
APOL				S	Sn	17 49 00.3	+1.5
APOL				AML	AML	17 49 03.3	
	1.5nm,0.3s						
APOL				AML	AML	17 49 03.7	
	1.6nm,0.4s						
GAZI	Gazipasa	1.86	45	Pn	Pn	17 48 38.0	+0.6
GAZI				AML	AML		
GAZI	Gazipasa	1.86	45	P	Pn	17 48 38.0	+0.6
GAZI				S	Sn	17 49 00.0	-0.3
GAZI				IAML		17 49 03.0	
	comp=E,385nm,0.3s						
GAZI				IAML		17 49 07.0	
	comp=N,442nm,0.5s						
AKDN	Akdeniz- Kıbrı	1.90	78	Pn	Pn	17 48 39.1	+1.2
ELL	Elmali	1.93	341	Pn	Pb	17 48 40.7	-0.6
ELL	Elmali	1.93	341	P	Pn	17 48 40.1	+1.6
ELL				S	Sn	17 49 02.8	+0.5
ELL				AML	AML	17 49 14.0	
	0.8nm,0.5s						
ELL				AML	AML	17 49 22.6	
	1.2nm,0.6s						
ELL	Elmali	1.93	341		Pn	17 48 37.7	-0.8
ELL				Sn	Sn	17 48 58.9	-3.4
XYLS	Xyliatos	1.94	86	P	Pn	17 48 39.3	+0.8
XYLS				S	Sn	17 49 03.4	+1.2
XYLS				AML	AML	17 49 07.9	
	1.7nm,0.3s						
XYLS				AML	AML	17 49 09.0	
	1.7nm,0.3s						
ALAN	Alanya-ANTALYA	1.96	33	Pn	Pn	17 48 39.8	+1.0
ALAN				Sn	Sn	17 49 02.9	+0.1
ALAN				AML	AML		
KORT	Korkueli	2.10	352	Pn	Pn	17 48 42.9	+2.2
KORT				AML	AML		
ASGA	Asgata	2.10	93 ⇑	*i*P	Pn	17 48 41.9	+1.2
ASGA				S	Sn	17 49 07.8	+1.5
ASGA				AML	AML	17 49 13.8	
	1.3nm,0.4s						
ASGA				AML	AML	17 49 14.2	
	1.4nm,0.4s						
KEPZ	Antalya-Kepez	2.11	20	P	Pn	17 48 42.1	+1.3
KEPZ				S	Sn	17 49 07.1	+0.5
KEPZ				IAML		17 49 13.0	
	comp=N,232nm,1.0s						
KEPZ				IAML		17 49 14.0	
	comp=E,296nm,0.7s						
KNIK	Mula-Seydike	2.13	335	P	Pn	17 48 43.3	+2.1
KNIK				S	Sn	17 49 08.8	+1.8
FETY	Fethiye	2.16	323	Pn	Pb	17 48 44.0	-1.0
FETY				AML	AML		
BOZY	Bozyazi-Mersin	2.21	57	Pn	Pn	17 48 43.1	+1.0
BOZY				AML	AML		
ATHAL	Athalassa	2.23	84	P	Pn	17 48 43.7	+1.3
ATHAL				S	Sb	17 49 12.2	-1.2
ATHAL				AML	AML	17 49 14.7	
	1.7nm,0.7s						
ATHAL				AML	AML	17 49 17.6	
	2.3nm,0.6s						
OSC2	CSNet OBS 4	2.26	144	P	Pn	17 48 44.8	+2.1
OSC2				S	Sn	17 49 11.8	+1.8
OSC2				AML	AML	17 49 16.9	
	0.3nm,0.7s						
OSC2				AML	AML	17 49 26.4	
	0.4nm,0.4s						
CAME	Cameli-Denizli	2.31	331	Pn	Pn	17 48 46.1	+2.3
CAME				AML	AML		
TEKE	Tekeli-Mersin	2.32	58	Pn	Pn	17 48 44.6	+0.9
TEKE				Sn	Sn	17 49 12.3	+0.7
TEKE				AML	AML		
LFK	Lefkose	2.36	80	Pn	Pn	17 48 45.6	+1.4
LFK				AML	AML		
MVOU	Mavrovouni	2.42	87	P	Pn	17 48 45.8	+0.8
MVOU				S	Sn	17 49 16.7	+2.8
MVOU				AML	AML	17 49 19.1	
	0.7nm,0.4s						
MVOU				AML	AML	17 49 21.0	
	0.8nm,0.5s						
ARG	Arkhangelos	2.46	302	Pn	Pn	17 48 47.8	+2.2
ARG	Arkhangelos	2.46	302	P	Pn	17 48 46.8	+1.2
ARG				S	Sn	17 49 17.4	+2.3
ARG				AML	AML	17 49 18.2	
	0.4nm,0.4s						
ARG				AML	AML	17 49 20.9	
	0.2nm,0.2s						
ARG	Arkhangelos	2.46	302	Pn	Pn	17 48 45.4	-0.2
ARG				Sn	Sn	17 49 15.7	+0.6
ERMK	Ermenek	2.49	46	P	Pb	17 48 51.3	+0.4
ERMK				IAML		17 49 26.0	
	comp=E,411nm,0.5s						
ERMK				IAML		17 49 28.0	
	comp=N,399nm,0.6s						
BERE	Bereket-Mersin	2.51	55	Pn	Pn	17 48 47.8	+1.4
DALY	Dalyan (Mula)	2.52	319	Pn	Pn	17 48 49.2	+2.8
DALY				AML	AML		
YORU	Yoruktepe-Mers	2.53	60	Pn	Pn	17 48 47.9	+1.3
YORU				AML	AML		
BCK	Bucak	2.54	358	Pn	Pn	17 48 49.1	+2.3
BCK				AML	AML		
OREN	Orenkoy-Mersin	2.60	59	Pn	Pn	17 48 49.2	+1.7
AKK1	Akkuyu-Mersin	2.62	61	Pn	Pn	17 48 49.7	+1.9
AKK1				AML	AML		
AKK2	Akkuyu-Mersin	2.63	62	Pn	Pn	17 48 49.9	+2.0
AKK2				AML	AML		
BECE	Buyukeceli-Mer	2.64	61	Pn	Pn	17 48 49.7	+1.6
BECE				AML	AML		
SEYD	Seydisehir-KON	2.65	20	Pn	Pn	17 48 50.3	+2.0
SEYD				AML	AML		
TEPK	Tepekoy-MERSIN	2.67	60	Pn	Pn	17 48 50.5	+2.0
SEDI	Konya, Seydise	2.67	18	P	Pn	17 48 51.1	+2.5
SEDI				S	Sn	17 49 22.9	+2.5
SEDI				IAML		17 49 35.0	
	comp=N,176nm,0.5s						
SEDI				IAML		17 49 39.0	
	comp=E,200nm,0.5s						
TEVE	Tevekalti-Mers	2.70	55	Pn	Pn	17 48 50.5	+1.5
TEVE				AML	AML		
TURN	Turunc	2.72	314	Pn	Pn	17 48 51.9	+2.8
TURN				AML	AML		
YESI	Yesilovacik-Me	2.72	61	Pn	Pn	17 48 50.9	+1.7
YESI				AML	AML		
TISA	Tisan-Mersin	2.73	62	Pn	Pn	17 48 51.2	+1.9
TISA				AML	AML		
PARAL	Paralimni	2.75	87	P	Pn	17 48 51.8	+2.3
PARAL				S	Sn	17 49 24.5	+2.3
PARAL				AML	AML	17 49 36.4	
	0.5nm,0.7s						
PARAL				AML	AML	17 49 37.5	
	0.8nm,0.7s						
IKL	Isikli	2.77	61	Pn	Pn	17 48 51.9	+2.0
IKL				AML	AML		
KARG	Kargicak-Mersi	2.77	62	Pn	Pn	17 48 51.9	+2.0
KARG				AML	AML		
APMY	Acipayam-Deniz	2.79	337	Pn	Pn	17 48 52.8	+2.6
APMY				AML	AML		
BRDR	BURDUR-Merkez	2.82	350	P	Pn	17 48 54.0	+3.3
BRDR				S	Sn	17 49 26.8	+2.7
BRDR				IAML		17 49 28.0	
	comp=N,164nm,0.4s						
BRDR				IAML		17 49 31.0	
	comp=E,177nm,0.5s						
KEBE	Keben-Mersin	2.89	57	Pn	Pn	17 48 53.3	+1.7
KEBE				AML	AML		
ISP	Isparta	2.90	357	Pn	Pn	17 48 54.1	+2.3
ISP	Isparta	2.90	357	Pn	Pn	17 48 51.2	-0.6
EREN	Erenkoy	2.91	77	Pn	Pn	17 48 53.7	+1.9
EREN				AML	AML		
KKBE	Karaman, Kazim	2.93	38	P	Pn	17 48 54.9	+2.7
KKBE				S	Sn	17 49 29.4	+2.6
KKBE				IAML		17 49 32.0	
	comp=N,180nm,0.4s						
YER	Yerkesik	2.95	319	P	Pn	17 48 54.8	+2.4
YER	Yerkesik	2.95	319	Pn	Pn	17 48 55.2	+2.8
YER				AML	AML		
KARP	Karpathos	2.96	283	P	Pn	17 48 54.5	+1.9
KARP				S	Sn	17 49 28.7	+1.3
KARP				AML	AML	17 49 28.8	
	0.5nm,0.2s						
KARP				AML	AML	17 49 35.6	
	0.6nm,0.3s						
KARP	Karpathos	2.96	283		Pn	17 48 54.4	+1.9
KARP	Karpathos	2.96	283	P	Pn	17 48 55.4	+2.9
KARP				AML	AML		
KARP				AML	AML		
SILI	Silifke-Mersin	3.00	60	Pn	Pn	17 48 54.9	+1.8
SILI				AML	AML		
SLFK	Silifke-Mersin	3.03	60	Pn	Pn	17 48 55.6	+2.2
SLFK				AML	AML		
BASM	Basmaki-Afyon	3.04	350	Pn	Pn	17 48 56.4	+2.7
BASM				AML	AML		
BAGO	Egridir - ISPA	3.07	1	P	Pn	17 48 56.7	+2.6
KRMN	Karaman	3.07	42	Pn	Pn	17 48 56.4	+2.3
KRMN				AML	AML		
DAT	Datca	3.11	306	P	Pn	17 48 56.8	+2.2
DAT				S	Sn	17 49 30.6	-0.6
KMER	Konya-Meram	3.15	25	P	Pn	17 48 57.8	+2.6
KMER				S	Sn	17 49 33.8	+1.6
KMER				IAML		17 49 35.0	
	comp=N,95nm,0.9s						
KMER				IAML		17 49 43.0	
	comp=E,138nm,0.4s						
CY604	RAF Akrotiri,	3.20	99	Pn	Pn	17 48 57.2	+1.6
KIZK	Mersin	3.21	60	Pn	Pn	17 48 58.1	+2.2
KIZK				AML	AML		
DOGA	KONYA_Doganhis	3.28	14	P	Pn	17 49 00.1	+3.1
DOGA				S	Sn	17 49 38.4	+3.0
DOGA				IAML		17 49 39.0	
	comp=N,145nm,0.7s						
DOGA				IAML		17 49 42.0	
	comp=E,196nm,0.7s						
KONT	Konya--Tatoy	3.31	24	Pn	Pn	17 48 59.4	+2.1
KONT				AML	AML		
KONT	Konya--Tatoy	3.31	24	P	Pn	17 48 59.8	+2.5
AFYN	Afyon-Dinar-K	3.35	357	P	Pn	17 49 01.0	+3.0
AFYN				S	Sn	17 49 39.6	+2.4
AFYN				IAML		17 49 41.0	
	comp=E,108nm,0.7s						
AFYN				IAML		17 49 50.0	
	comp=N,111nm,0.7s						
YVAC	Isparta, Yalva	3.38	7	P	Pn	17 49 00.9	+2.6
YVAC				S	Sn	17 49 39.1	+1.3
YVAC				IAML		17 49 44.0	
	comp=E,91nm,0.4s						
BODT	Bodrum	3.48	309	P	Pn	17 49 00.7	+1.1
BODT				S	Sn	17 49 38.1	-2.1
SDAG	Sultandagi-AFY	3.52	3	Pn	Pn	17 49 02.9	+2.6
SDAG				AML	AML		
LADK	Ladik-KONYA	3.54	22	Pn	Pn	17 49 03.2	+2.6
LADK				AML	AML		
SHUT	Suhut-Afyon	3.63	358	Pn	Pn	17 49 04.4	+2.6
SHUT				AML	AML		
ZKR	Zakros	3.68	274	P	Pn	17 49 03.9	+1.5
ZKR				AML	AML	17 49 46.2	
	0.6nm,0.4s						
ZKR				S	Sn	17 49 46.9	+1.8
ZKR				AML	AML	17 49 48.2	
	0.3nm,0.5s						
YESY	Yesilyurt	3.77	40	Pn	Pn	17 49 05.9	+2.1
YESY				AML	AML		
MANT	Manisa	3.96	335		Pn	17 49 06.6	+0.2
KIZT	Kizilcal	4.07	13	Pn	Pn	17 49 09.9	+2.1
KIZT				AML	AML		
NPS	Neapolis	4.18	276	P	Pn	17 49 11.6	+2.4
DQRL	Deir Qamar	4.21	105	*e*P	Pn	17 49 11.2	+1.4
BHL	Bhannes	4.22	102	*e*P	Pn	17 49 10.6	+0.6

YGR	Yagur	4.25	120	P	Pn	17 49 12.0	+1.8
YGR				S	Sn	17 49 56.5	-2.6
MMA0B	Mount Meron ar	4.35	115	P	Pn	17 49 13.5	+1.8
MMA0B				S	Sn	17 50 01.5	-0.3
MMAI	Mount Meron Ar	4.35	115	Pn	Pn	17 49 13.0	+1.3
	30nm,0.3s,baz=332,slow=15,SNR=110						
MMAI				Sn	Sn	17 50 00.1	-1.6
	56nm,0.3s,baz=9.2,slow=17,SNR=17						
	10nm,0.3s						
MMAI				AML	AML		
QRWL	Qaraoun	4.35	107	eP	Pn	17 49 13.1	+1.4
MSAM	Misgav Am	4.36	111	P	Pn	17 49 13.3	+1.5
MSAM				S	Sn	17 50 02.8	+0.8
MTLA	Metula	4.37	111	P	Pn	17 49 14.6	+2.6
MTLA				S	Sn	17 50 02.4	+0.1
HWQ	Hawqa	4.38	97	eP	Pn	17 49 13.3	+1.2
KIRY	Kiryat Shemona	4.39	111	P	Pn	17 49 14.4	+2.3
KIRY				S	Sn	17 50 03.8	+1.1
YFTH	Yftach	4.41	113	P	Pn	17 49 15.2	+2.7
YFTH				S	Sn	17 50 03.5	+0.2
CMRD	Camardi-Nigde	4.42	50	Pn	Pn	17 49 14.7	+2.0
CMRD				AML	AML		
ZAHL	Zahle	4.42	102	eP	Pn	17 49 14.0	+1.3
GOSH	HaGoshrim	4.43	111	P	Pn	17 49 15.4	+2.8
GOSH				S	Sn	17 50 04.1	+0.5
ZEFT	Zefat	4.44	115	P	Pn	17 49 15.4	+2.6
ZEFT				S	Sn	17 50 03.3	-0.7
GEM	Giv'at Ha'Em	4.46	111	P	Pn	17 49 15.2	+2.0
GEM				AML	AML		
GEM				AML	AML		
GEM	Giv'at Ha'Em	4.46	111	P	Pn	17 49 15.4	+2.3
GEM				S	Sn	17 50 03.5	-1.0
SHBL	Chebaa	4.47	109	eP	Pn	17 49 14.7	+1.3
RSPN	Rosh Pina	4.48	114	P	Pn	17 49 15.4	+2.1
RSPN				S	Sn	17 50 03.7	-1.1
LVBS	Lehavot Habash	4.48	112	P	Pn	17 49 15.1	+1.7
LVBS				S	Sn	17 50 04.8	-0.1
THERA	Ancient Thera,	4.49	290	P	Pn	17 49 14.8	+1.3
THERA				S	Sn	17 50 01.9	-3.2
RCY	Rachaya	4.49	107	eP	Pn	17 49 14.8	+1.1
AMID	Amiad	4.49	115	P	Pn	17 49 15.7	+2.1
AMID				S	Sn	17 50 04.4	-0.8
THR8	Santorini-Mono	4.50	291	P	Pn	17 49 14.6	+1.0
MGDL	Migdal	4.51	116	P	Pn	17 49 16.3	+2.6
MGDL				S	Sn	17 50 04.1	-1.4
KULU	Kulu	4.51	24	Pn	Pn	17 49 15.7	+1.8
IZRL	Izrael	4.52	120	P	Pn	17 49 15.2	+1.3
IZRL				S	Sn	17 50 02.5	-3.3
SPIR	Sapir Facility	4.52	116	P	Pn	17 49 16.5	+2.6
SPIR				S	Sn	17 50 03.9	-1.9
BLCB	Balcova	4.54	321	P	Pn	17 49 14.9	+0.8
BEIL	Beino	4.54	93	eP	Pn	17 49 14.7	+0.5
KNHM	Kefar Nahum	4.54	115	P	Pn	17 49 16.4	+2.2
KNHM				S	Sn	17 50 05.0	-1.4
THR2	Thira island,	4.54	291	P	Pn	17 49 16.1	+1.8
GNNR	Gan-Ner	4.54	120	P	Pn	17 49 15.9	+1.6
GNNR				S	Sn	17 50 03.3	-3.2
THR6	Thira Island,	4.54	290	P	Pn	17 49 16.0	+1.7
THR3	Thira Island,	4.56	291	P	Pn	17 49 16.1	+1.7
SNT5	Nea Kammeni, S	4.56	290	P	Pn	17 49 15.7	+1.2
TVER	Teveria	4.56	116	P	Pn	17 49 16.5	+2.1
TVER				S	Sn	17 50 04.6	-2.3
HDNS	Had-Ness	4.57	114	P	Pn	17 49 16.7	+2.2
HDNS				S	Sn	17 50 05.9	-1.1
SVRH	Sivrihisar-ESK	4.57	8	Pn	Pn	17 49 17.4	+2.7
CMBO	Columbo, Santo	4.57	291	P	Pn	17 49 15.8	+1.2
CMBO				S	Sn	17 50 04.3	-2.8
RMOT	Ramot	4.62	115	P	Pn	17 49 17.4	+2.1
RMOT				S	Sn	17 50 07.1	-1.2
MNHA	Menahamia	4.63	118	P	Pn	17 49 17.0	+1.6
MNHA				S	Sn	17 50 06.1	-2.4
ENGV	Ein-Gev	4.63	116	P	Pn	17 49 17.0	+1.5
ENGV				S	Sn	17 50 06.5	-2.2
CVYN	Cohav Hayarden	4.64	119	P	Pn	17 49 17.2	+1.6
CVYN				S	Sn	17 50 05.7	-3.2
MMLI	Mount Malkishu	4.65	121	P	Pn	17 49 16.7	+0.9
MMLI				S	Sn	17 50 05.2	-4.0
SHGL	Shaar Hagolan	4.66	117	P	Pn	17 49 17.4	+1.6
SHGL				S	Sn	17 50 07.0	-2.2
KSHT	Keshet	4.67	113	P	Pn	17 49 18.1	+2.0
KSHT				S	Sn	17 50 09.1	-0.6
SALP	Salfit	4.71	126	P	Pn	17 49 19.4	+2.8
SALP				AML	AML		
SALP				AML	AML		
MEHL	Mehola	4.76	121	P	Pn	17 49 18.0	+0.8
MEHL				S	Sn	17 50 07.5	-4.3
IDI	Anoyia	4.77	276	Pn	Pn	17 49 19.7	+2.3
	28nm,0.3s,baz=32,slow=4.6,SNR=143						
IDI				Sn	Sn	17 50 10.4	-1.8
	18nm,0.3s,baz=310,slow=18,SNR=7.9						
IDI				AML	AML		
IDI	Anoyia	4.77	276		Pn	17 49 19.7	+2.3
IDI					Sn	17 50 11.2	-1.0
HMRA	Hamra	4.80	123	P	Pn	17 49 18.7	+1.0
HMRA				S	Sn	17 50 07.6	-5.1
ROII	Roi	4.81	122	P	Pn	17 49 18.5	+0.6
ROII				S	Sn	17 50 08.5	-4.5
QRNJ	Al-Qirein	4.82	121	P	Pn	17 49 21.2	+3.2
QRNJ				AML	AML		
QRNJ				AML	AML		
MEFR	Maale Efrayim	4.85	124	P	Pn	17 49 18.5	0.0
MEFR				S	Sn	17 50 08.5	-5.6
KOZT	Kozan	4.88	57	Pn	Pn	17 49 20.0	+1.2
KOZT				AML	AML		
AMAZ	Amatzia	4.89	132	P	Pn	17 49 17.5	-1.6
AMAZ				S	Sn	17 50 06.7	-8.3
AFSR	Afar-Bala (An	4.90	22	Pn	Pn	17 49 20.5	+1.2
AFSR				AML	AML		
JER	Jerusalem	4.90	129	P	Pn	17 49 18.4	-0.9
JER				S	Sn	17 50 08.7	-6.8
POLA	Polatl-ANKAR	4.92	13	Pn	Pn	17 49 21.2	+1.7
POLA				AML	AML		
YITV	Yitav	4.94	126	P	Pn	17 49 19.1	-0.6
YITV				S	Sn	17 50 10.5	-5.7
BORA	Eskisehir	4.96	358		Pn	17 49 20.9	+0.9
UJAP	Al Uja	4.97	125	P	Pn	17 49 24.0	+4.0
UJAP				AML	AML		
UJAP				AML	AML		
NAAM	Naama	5.00	126	P	Pn	17 49 20.2	-0.2
NAAM				S	Sn	17 50 11.3	-6.2
VJRH	Vered Jericho	5.02	127	P	Pn	17 49 20.4	-0.4
VJRH				S	Sn	17 50 11.7	-6.5
KAMT	Kaman	5.05	28	Pn	Pn	17 49 23.0	+1.6
ALMO	Almog	5.06	127	P	Pn	17 49 20.7	-0.7
ALMO				S	Sn	17 50 12.5	-6.8
KZIT	Kziot	5.07	141	P	Pn	17 49 24.1	+2.6
	0.4nm0.3nm62nm,0.6s						
KZIT				AML	AML		
KZIT				AML	AML		
CHOS	Chios island	5.09	314	P	Pn	17 49 23.5	+1.7
CHOS				S	Sn	17 50 17.1	-2.8
MZS	Mizpe Shalem	5.17	129	P	Pn	17 49 22.1	-0.7
MZS				S	Sn	17 50 14.8	-7.0
BALB	Balikesir	5.22	335	Pn	Pn	17 49 23.5	0.0
MSBI	Mazada	5.31	131	P	Pn	17 49 28.6	+3.8
	0.0nm0.0nm286nm6.4nm,1.0s						
MSBI				AML	AML		
MSBI				AML	AML		
BRTR	Keskin Array B	5.34	25	Pn	Pn	17 49 25.1	-0.3
	1.0nm,0.3s,baz=204,slow=14,SNR=44						
BRTR				Sn	Sn	17 50 23.4	-2.9
	0.8nm,0.3s,baz=198,slow=30,SNR=5.4						
	1.5nm,0.3s						
BRTR				AML	AML		
BRTR	Keskin Array B	5.34	25		Pn	17 49 26.3	+0.9
BR131	Keskin Array S	5.34	25		Pn	17 49 25.9	+0.6
HSUJ	Al Zarqa	5.38	120	P	Pn	17 49 28.8	+3.0
	0.1nm0.2nm30nm,0.7s						
HSUJ				AML	AML		
HSUJ				AML	AML		
MHLO	Agia Marina, M	5.41	291	P	Pn	17 49 28.9	+2.8
LISJ	El Lisan	5.44	131	P	Pn	17 49 30.3	+3.8
	0.1nm0.1nm3µm13nm,0.6s						
LISJ				AML	AML		
LISJ				AML	AML		
GHAJ	Ghor Haditha	5.45	130		Pn	17 49 28.4	+1.7
GHAJ	Ghor Haditha	5.45	130	P	Pn	17 49 30.1	+3.4
	0.6nm0.3nm1µm23nm,0.5s						
GHAJ				AML	AML		
GHAJ				AML	AML		
GHAJ	Ghor Haditha	5.45	130	P	Pn	17 49 25.3	-1.4
GHAJ				S	Sn	17 50 20.7	-8.1
IMMV	Iera Moni Meta	5.52	278	P	Pn	17 49 30.2	+2.5
PRK	Paraskevi	5.58	322	P	Pn	17 49 29.9	+1.5
PRK				S	Sn	17 50 31.5	-0.5
BNN	Bunyan	5.70	45		Pn	17 49 31.2	+1.0
GAZ	Gaziantep	5.74	65		Pn	17 49 29.6	-1.1
SWQJ	Swaqa	5.81	128	P	Pn	17 49 33.7	+2.0
	7.1nm0.0nm3.2nm,1.0s						
SWQJ				AML	AML		
SWQJ				AML	AML		
PRNI	Paran	5.83	140	P	Pn	17 49 34.4	+2.5
	0.4nm0.5nm45nm,0.6s						
PRNI				AML	AML		
PRNI				AML	AML		
ASF	Jabal al Asfar	5.86	116	Pn	Pn	17 49 33.8	+1.4
	1.4nm,0.3s,baz=296,slow=23,SNR=11						
ASF				Sn	Sn	17 50 39.6	+0.6
	2.1nm,0.3s,baz=116,slow=22,SNR=4.2						
	2.7nm,0.3s						
ASF				AML	AML		
ASF	Jabal al Asfar	5.86	116	P	Pn	17 49 34.5	+2.1
	0.6nm86nm,0.9s						
ASF				AML	AML		
KARY	Karystos	5.92	303	P	Pn	17 49 35.3	+2.1
HRFI	Mount Harif	6.10	142	P	Pn	17 49 38.6	+3.0
	0.1nm0.1nm22nm,0.9s						
HRFI				AML	AML		
HRFI				AML	AML		
VLY	Voula,Athens	6.29	300	P	Pn	17 49 40.6	+2.3
DION	Dionisos Attik	6.29	302	P	Pn	17 49 40.8	+2.5
PTL	Penteli	6.33	302	P	Pn	17 49 41.5	+2.7
ATHU	Athens Univers	6.34	301	P	Pn	17 49 41.4	+2.4
AQBJ	Aqaba	6.35	143	P	Pn	17 49 42.3	+3.2
	0.3nm0.4nm64nm,0.6s						
AQBJ				AML	AML		
AQBJ				AML	AML		
EIL	Elat	6.35	144	Pn	Pn	17 49 40.7	+1.6
	2.0nm,0.3s,baz=359,slow=5.2,SNR=29						
EIL				Sn	Sn	17 50 48.8	-2.3
	3.5nm,0.3s,baz=39,slow=16,SNR=5.7						
	4.6nm,0.3s						
EIL				AML	AML		
EIL	Elat	6.35	144	P	Pn	17 49 41.8	+2.7
	0.1nm0.1nm18nm,0.8s						
EIL				AML	AML		
EIL				AML	AML		
GADA	Gvkgeada	6.50	326	P	Pn	17 49 42.5	+1.5
VLI	Veliai	6.55	288	P	Pn	17 49 42.5	+0.7
LIA	Limnos Island	6.63	320	P	Pn	17 49 44.9	+2.0
VILL	Villia	6.77	301	P	Pn	17 49 48.0	+3.2
SMTH	Samothraki Isl	6.89	325	P	Pn	17 49 48.1	+1.6
ALN	Alexandroupoli	7.01	330	Pn	Pn	17 49 46.2	-1.9
ITM	Ithomi	7.45	290	Pn	Pn	17 49 54.4	+0.2
KLV	Kalavryta, Ach	7.55	297	P	Pn	17 49 58.6	+3.0
TIP	Timpagrande	11.92	295	Pn	Pn	17 50 51.5	-3.9
CEL	Celeste	12.35	290	Pn	Pn	17 50 59.4	-2.0
RAFF	Raffo Rosso	13.41	285	Pn	Pn	17 51 12.9	-2.9
AKASG	Malin Array Be	15.81	357	Pn	Pn	17 51 47.2	-0.8
	1.0nm,0.3s,baz=177,slow=11,SNR=11						
	0.6nm,0.5s						
AKASG				AML	AML		
GEC2	GERESS Array S	18.75	323	P	P	17 52 23.9	-0.3
GEC2				IAmb	IAmb	17 52 27.6	
	comp=Z,6.3nm,1.0s						
GERES	GERESS Array B	18.75	323	P	Pn	17 52 25.4	+0.6
	comp=Z,0.1nm,0.3s,baz=116,slow=9.1,SNR=11						
	comp=Z,5.8nm,0.9s						
GERES				AML	AML		
GERES	GERESS Array B	18.75	323	P	P	17 52 23.1	-1.1
DAVOX	Davos/Dischmat	19.64	313	P	Pn	17 52 35.2	-0.3
	comp=Z,0.2nm,0.3s,baz=345,slow=21,SNR=2.6						
	comp=Z,1.5nm,0.7s						
DAVOX				AML	AML		
BRG	Berggiesshubel	20.05	328	eP	Pn	17 52 40.2	+0.1
BRG				Amp		17 52 41.3	
	comp=Z,3.9nm,0.7s						
BNI	Bardonecchia	20.93	306	P	P	17 52 48.0	-0.1
BNI				IAmb	IAmb	17 52 59.3	
	comp=Z,15nm,1.2s						
SENIN	Lac Senin/Sane	21.03	310	P	P	17 52 49.0	-0.3
SENIN				IAmb	IAmb	17 53 06.0	
	comp=Z,18nm,1.4s						
BELG	Belogornoye	21.24	30	P	P	17 52 50.5	-0.7
	comp=Z,4.7nm,0.5s,baz=118,slow=1.3,SNR=12						
	comp=Z,4.7nm,0.5s						
AB31	Akbulak array	25.81	47	P	P	17 53 35.9	-0.4
ABKAR	Akbulak array	25.81	47	P	P	17 53 35.6	-0.7
FINES	FINESS Array B	26.71	355	P	P	17 53 42.8	-1.4
	comp=Z,1.1nm,0.4s,baz=161,slow=11,SNR=12						
FINES				PcP	PcP	17 57 07.1	-0.1
	comp=Z,1.6nm,0.8s,baz=173,slow=2.4,SNR=3.5						
	comp=Z,1.1nm,0.4s						
FINES	FINESS Array B	26.71	355	P	P	17 53 42.2	-2.0
FIA1	FINESS Array S	26.71	355	P	P	17 53 42.1	-2.1
WSAR	Wadi Sarin	26.96	108	LR	LR	18 07 02.3	
	comp=Z,8.7nm,19.6s,baz=264,slow=42						
HFS	Hagfors	27.55	342	P	P	17 53 52.3	+0.5
	comp=Z,1.8nm,0.8s,baz=140,slow=9.1,SNR=1.7						
	comp=Z,1.8nm,0.8s						
ESDC	Sonseca Array	27.87	290	P	P	17 53 56.4	+1.4
	comp=Z,2.6nm,0.8s,baz=83,slow=9.8,SNR=11						
	comp=Z,2.6nm,0.8s						
ARTI	Arti	28.57	33	P	P	17 54 00.1	-0.9
KK31	Karatay Array	31.76	63	P	P	17 54 28.7	-0.7
KK31				IAmb	IAmb	17 55 01.0	
	comp=Z,1.9nm,1.1s						
KKAR	Karatay Array	31.76	63	P	P	17 54 28.5	-0.9
TORD	Torodi Ar. Bea	34.01	238	P	P	17 54 51.4	+2.2
	comp=Z,1.8nm,0.9s,baz=38,slow=5.9,SNR=5.4						
	comp=Z,1.8nm,0.9s						
ARCES	ARCESS Array B	34.79	357	P	P	17 54 54.5	-1.0
	comp=Z,1.4nm,0.6s,baz=176,slow=8.5,SNR=9.9						
	comp=Z,1.4nm,0.6s						
KURBB	Kurchatov Arra	37.76	50	P	P	17 55 21.6	+0.6
	comp=Z,0.5nm,0.4s,baz=264,slow=8.4,SNR=9.4						
	comp=Z,0.5nm,0.4s						
KURK	Kurchatov	37.82	50	P	P	17 55 20.9	-0.7
KURK				IAmb	IAmb	17 55 24.0	
	comp=Z,3.1nm,1.2s						
MAKZ	Makanchi	39.90	57	P	P	17 55 38.9	-0.2
MKAR	Makanchi Array	40.12	57	P	P	17 55 41.7	+0.9
	comp=Z,1.2nm,0.6s,baz=272,slow=7.4,SNR=13						
	comp=Z,1.2nm,0.6s						
MKAR	Makanchi Array	40.12	57	P	P	17 55 40.3	-0.6
ZALV	Zalesovo Beam	41.90	46	P	P	17 55 55.8	+0.4
	comp=Z,0.4nm,0.3s,baz=253,slow=10,SNR=2.5						
	comp=Z,0.4nm,0.3s						
DBIC	Dimbokro	43.12	238	P	P	17 56 06.3	+0.5
SPITS	Spitsbergen Ar	43.80	356	P	P	17 56 10.2	-0.3
	comp=Z,12nm,1.1s,baz=142,slow=11,SNR=5.5						
	comp=Z,12nm,1.1s						
SONM	Songino Array	56.09	52	P	P	17 57 45.3	+0.8
	comp=Z,0.2nm,0.4s,baz=325,slow=2.3,SNR=1.4						
	comp=Z,0.2nm,0.4s						
SONM	Songino Array	56.09	52	IAmb	IAmb	17 58 23.5	
	comp=Z,1.2nm,1.4s						
LPHEP	Lephephe	58.14	185	P	P	17 58 01.1	+2.1
LBTB	Lobatse	59.80	185	P	P	17 58 10.5	0.0
BOSA	Boshof	63.40	185	P	P	17 58 36.9	+2.2
	comp=Z,3.4nm,0.8s,baz=206,slow=12,SNR=2.3						
	comp=Z,3.4nm,0.8s						
BOSA	Boshof	63.40	185	P	P	17 58 36.1	+1.3
KSRS	Korea Array	74.77	55	P	P	17 59 44.8	-0.4
	comp=Z,1.0nm,0.7s,baz=301,slow=4.3,SNR=2.2						
	comp=Z,1.0nm,0.7s						

DJA 26 17:48:51.2±0.2,**5˚N**±2˚×**9˚6E**±˚,**h10**km,**M3.7**/13,**mb4.9**/4,
MLv3.0/13,**Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MLSI	Meulaboh, Aceh	0.24	181	P	Pg	17 48 56.7	+0.5
MLSI				AML	AML		
LHMI	Lhok Sumawe	0.89	37	P	Pn	17 49 09.6	-0.2
LHMI				AML	AML		
TPTI		1.46	148	P	Pn	17 49 17.2	-0.4
BSI	Banda Aceh	1.48	311	P	Pn	17 49 17.8	-0.1
BSI				AML	AML		
KCSI	Kotacane, Aceh	1.68	126	P	Pg	17 49 22.8	-0.6
KCSI				AML	AML		
PPSI	Pulau Pagai	8.07	153	P	Pn	17 50 48.6	0.0
	419nm,0.8s						
NLAI	Namlea	31.62	104	P	P	17 55 14.3	-0.4
	32nm,1.6s						

DJA 26 17:55:47.4±0.9,**2˚S**±3˚×**12˚3E**±˚,**h24**km±10km,**M3.7**/19,
mb4.1/6,**mB5.9**/3,**MLv3.3**/19,**Mw(mB)5.5**/3,**Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LUWI	Luwuk	1.04	15	P	Pn	17 56 06.1	-0.5
LUWI				AML	AML		
APSI	Ampana	1.43	323	P	Pn	17 56 12.1	+0.2
APSI				AML	AML		
KDI	Kendari	1.89	177	P	Pn	17 56 16.7	-1.5
BBSI	Bau Bau	3.41	179	P	Pn	17 56 39.4	+0.3
BBSI				AML	AML		
PMSI	Majene	3.87	248	P	Pn	17 56 45.4	0.0
PMSI				AML	AML		
BKSI	Bulukumba	4.02	216	P	Pn	17 56 47.7	+0.2
BKSI				AML	AML		
NLAI	Namlea	4.73	104	P	Pn	17 56 57.6	+0.3
NLAI				AML	AML		
BNDI	Bandanaira	7.78	109	P	Pn	17 57 39.5	+0.3
WSI	Waingapu	7.87	196	P	Pn	17 57 40.7	+0.2

DJA 26 18:17:54.9±0.6,**2˚S**±3˚×**12˚2E**±˚,**h12**km±5km,**M3.6**/19,
mB5.2/1,**mb4.6**/3,**MLv3.1**/19,**Mw(mB)4.6**/1,**Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LUWI	Luwuk	1.12	17	P	Pb	18 18 16.0	-0.2
LUWI				AML	AML		
APSI	Ampana	1.44	327	P	Pn	18 18 20.3	-0.5
APSI				AML	AML		
KDI	Kendari	1.83	174	P	Pn	18 18 26.7	+0.4
PCI	Palu	2.87	295	P	Pn	18 18 40.4	-0.1
PCI				AML	AML		
NLAI	Namlea	4.79	104	P	Pn	18 19 06.8	-0.1
NLAI				AML	AML		
MMRI	Maumere	6.48	182	P	Pn	18 19 30.1	0.0
	24nm,1.1s						

DJA 26 18:32:12.5±0.2,**2˚S**±2˚×**12˚2E**±˚,**h10**km,**M3.5**/24,
mb4.1/16,**MLv3.2**/24,**Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LUWI	Luwuk	1.11	17	P	Pb	18 32 33.5	-0.3
LUWI				AML	AML		
APSI	Ampana	1.43	326	P	Pn	18 32 37.9	-0.6
APSI				AML	AML		
KDI	Kendari	1.84	174	P	Pn	18 32 44.2	0.0
KKSI	Kolaka, Sulawe	2.19	201	P	Pn	18 32 49.1	0.0
KKSI				AML	AML		
BBSI	Bau Bau	3.36	178	P	Pn	18 33 05.1	0.0
BBSI				AML	AML		
MNI	Manado	4.27	34	P	Pn	18 33 17.7	+0.1
MKS	Makassar	4.28	224	P	Pn	18 33 17.7	-0.1
BSSI	Bau Bau, Buton	4.45	206	P	Pn	18 33 20.1	0.0
BSSI				AML	AML		
LBMI	Labuha	5.27	74	P	Pn	18 33 31.4	+0.1
BKB	Balikpapan	5.61	279	P	Pn	18 33 36.2	+0.2
	99nm,1.6s						
PLAI	Plampang	8.13	215	P	Pn	18 34 10.6	-0.1
	41nm,1.4s						
MYLDM	Lahad Datu	8.24	331	P	Pn	18 34 12.2	0.0
	18nm,1.7s						
PKKI	Palangkaraya	8.46	269	P	Pn	18 34 15.2	-0.1
TWSI	Taliwang, Sumb	8.60	220	P	Pn	18 34 17.0	-0.1
	16nm,1.0s						
SWI	Sorong	8.90	82	P	Pn	18 34 21.3	0.0
	12nm,1.1s						
KHKI	Kahang-Kahang	9.21	227	P	Pn	18 34 25.4	-0.1
	26nm,1.8s						
SRBI	Singaraja	9.33	230	P	Pn	18 34 27.0	-0.1

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*PDG **26** 18:39:16.7±0.4, 39.˚97N×24.˚89E, h25km±16km, ML4.5/12, Error ellipse: s-maj=14.5km s-min=19.5km az=0.0*
*MOS **26** 18:39:17.7±1.2, 39.˚97N×24.˚31E, h12km, mb4.5/14, Error ellipse: s-maj=6.4km s-min=3.5km az=83.8*
*IDC **26** 18:39:18.2±0.5, 39.˚95N×24.˚36E, h0km, mb3.8/16, mbtmp3.9/31, ML3.7/11, MS4.0/3, Error ellipse: s-maj=8.4km s-min=7.9km az=28.0*
*SOF **26** 18:39:18.9, 39.˚97N±0.˚01×24.˚36E±0.˚01, h17km±2km, MD4.6/16*
*NEIC **26** 18:39:18.5±1.9, 40.˚00N±0.˚05×24.˚35E±0.˚05, h10km±1km, mb4.5/32, Error ellipse: s-maj=9.3km s-min=5.1km az=208.0*
*AFAD **26** 18:39:19.5, 39.˚96N×24.˚41E, h27km±2km, MW4.3*
*ATH **26** 18:39:19.7, 39.˚95N×24.˚31E, h18km±1km, ML4.4/30, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
*MED_RC **26** 18:39:19.0, 39.˚95N×24.˚31E, h26km, Mw4.8, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}0.16±.31; $M_{\theta\theta}$1.10±.22; $M_{\phi\phi}$0.00±.25; $M_{r\theta}$1.09±.28; $M_{\theta\phi}$-0.89±.13; $M_{\phi r}$-0.05±.25; Fault plane solution: $M_0$1.81000×10^{16} NP1:ϕ_s158.00000°, δ60.00000°, λ14.00000°. NP2:ϕ_s61.00000°, δ78.00000°, λ149.00000°. Principal axes: T 2.0000, Plg30.0000°, Azm16.0000°; N -0.3800, Plg57.0000°, Azm222.0000°; P -1.6200, Plg12.0000°, Azm113.0000°;*
*ISK **26** 18:39:20.8, 39.˚94N×24.˚25E, h68km, ML4.6/71*
*THE **26** 18:39:20.1, 40.˚0N±0.˚9×24.˚3E±1.˚0, h15km±2km, M4.2/68, MLh4.2/68*
*GFZ **26** 18:39:20.6±0.2, 40˚N±2˚×2˚4E±˚, h10km, M4.3/17, mb4.3/17, Error ellipse: s-maj=4.1km s-min=3.6km az=60.2, confirmed*
*MCSM **26** 18:39:22.0±0.8, 40˚N±6˚×2˚5E±˚, h11km±5km, mb4.9, mB5.1, MLv4.9, Mw(mB)4.4*
*NAO **26** 18:39:26.5, 40.˚62N×24.˚45E, h10km, MB4.0*
*CFUSG **26** 18:39:26.7, 40.˚50N×24.˚75E, h5km, MD3.7/7, MSH3.2/6*

ISC 26 18:39:20.1±0.8,**39.˚95N**±0.˚02×**24.˚32E**±0.˚02,**h18**km±3km,
n654,**σ1^{s}53**/728,**mb4.3**/38,**56C-28D**,**Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OUR	Ouranopolis	0.46	326	P	Pg	18 39 29.3	-0.3
OUR				S	Sg	18 39 35.3	-0.6
OUR				AML	AML		
OUR	Ouranopolis	0.46	326	Pg	Pg	18 39 29.2	-0.3
OUR				AML	AML		
OUR	Ouranopolis	0.46	326	P	Pg	18 39 29.0	-0.5
OUR				S	Sg	18 39 35.4	-0.6
PAIG	Paliouri	0.50	267	P	Pg	18 39 29.7	-0.5
PAIG				S	Sg	18 39 36.4	-0.5
PAIG				AML	AML		
PAIG	Paliouri	0.50	267	P	Pg	18 39 29.6	-0.5
LMN1	MIRINA LIMNOU	0.57	97	P	Pg	18 39 31.5	0.0
LMN1				S	Sg	18 39 39.6	+0.5
EFSA	Agios Efstrati	0.66	129	P	Pg	18 39 32.8	-0.2
EFSA				S	Sg	18 39 41.6	-0.2
LIA	Limnos Island	0.66	94	P	Pg	18 39 33.0	-0.2
LIA				S	Sb	18 39 43.5	+1.6
LIA				AML	AML		
LIA	Limnos Island	0.66	94	P	Pg	18 39 32.7	-0.5
LIA				S	Sg	18 39 42.3	+0.2
THAS	Thassos island	0.72	25	P	Pg	18 39 33.5	-0.8
THAS				S	Sg	18 39 43.8	-0.1
THAS				AML	AML		
THAS	Thassos island	0.72	25	P	Pg	18 39 33.0	-1.3
THAS				S	Sg	18 39 43.5	-0.4
PLG	Polygyros	0.79	302	P	Pg	18 39 34.7	-1.0
PLG				S	Sg	18 39 45.9	-0.4
PLG				AML	AML		
PLG	Polygyros	0.79	302	P	Pg	18 39 34.5	-1.2
PLG				AML	AML		
THS1	Thassos, Thass	0.81	14	P	Pg	18 39 34.8	-1.2
THS1				S	Sg	18 39 46.1	-0.6
AOS	Alonnisos	0.85	204	P	Pg	18 39 36.3	-0.5
AOS				S	Sb	18 39 48.9	+1.6
AOS				AML	AML		
AOS2	Alonissos-2	0.88	205	P	Pg	18 39 35.9	-1.4
AOS2				S	Sg	18 39 47.8	-1.2
AOS2				AML	AML		
XOR	Xorichti	1.05	237	P	Pg	18 39 39.2	-1.3
XOR				AML	AML		
XOR	Xorichti	1.05	237	P	Pg	18 39 38.7	-1.8
XOR				S	Sg	18 39 52.9	-1.4
XOR				AML	AML		

XOR	Xorichti	1.05	237	P	Pg	18 39 39.1	-1.4
KAVA	Kavala	1.05	8	P	Pg	18 39 39.0	-1.6
KAVA				S	Sb	18 39 54.2	+1.0
KAVA				AML	AML		
KAVA	Kavala	1.05	8	Pn	Sn	18 40 19.5	+25
KAVA				AML	AML		
KAVA	Kavala	1.05	8	P	Pg	18 39 38.7	-1.9
KAVA				S	Sg	18 39 53.2	-1.2
SMTH	Samothraki Isl	1.06	60	P	Pg	18 39 38.8	-1.9
SMTH				S	Sg	18 39 54.4	-0.2
SMTH				AML	AML		
SMTH	Samothraki Isl	1.06	60	P	Pg	18 39 38.8	-1.9
SMTH				S	Sg	18 39 53.2	-1.4
NEO	Neokhori	1.07	233	P	Pg	18 39 38.7	-2.1
NEO				S	Sg	18 39 53.2	-1.6
SOH	Sokhos	1.14	320	P	Pb	18 39 41.0	-0.3
SOH				AML	AML		
SOH	Sokhos	1.14	320	P	Pb	18 39 40.7	-0.7
SOH				S	Sg	18 39 55.5	-1.7
SOH	Sokhos	1.14	320	P	Pb	18 39 41.2	-0.2
VOL2	Volos	1.21	242	P	Pn	18 39 41.0	-1.0
VOL2				S	Sb	18 39 57.6	-0.1
GADA	Gvkgeada	1.23	78	P	Pn	18 39 42.0	-0.4
GADA				S	Sb	18 39 58.5	+0.2
GADA				AML	AML		
GADA	Gvkgeada	1.23	78	Pn	Pn	18 39 43.4	+1.0
GADA				Sn	Sn	18 40 00.3	+1.8
GADA				AML	AML		
GOAD	anakkale-G¶	1.23	80	P	Pn	18 39 42.1	-0.4
GOAD				S	Sb	18 39 58.1	-0.3
THE	Thessaloniki	1.24	304	P	Pn	18 39 42.3	-0.2
THE				S	Sb	18 39 58.3	-0.3
THE				AML	AML		
THE	Thessaloniki	1.24	304	P	Pn	18 39 41.7	-0.8
THE	Thessaloniki	1.24	304	P	Pn	18 39 42.5	0.0
GOKC	Gokceada-Canak	1.25	78	Pn	Pn	18 39 43.6	+1.0
GOKC				Sn	Sn	18 40 01.6	+2.7
GOKC				AML	AML		
KYMI	Kymi, Euboea I	1.33	188	P	Pn	18 39 42.8	-0.9
KYMI				AML	AML		
BOZC	Bozcaada	1.33	94	Pn	Pn	18 39 44.7	+0.9
BOZC				AML	AML		
BOZC	Bozcaada	1.33	94	P	Pn	18 39 43.5	-0.2
BOZC				S	Sb	18 40 00.5	-0.8
ECEA	Canakkale, Ece	1.42	86	P	Pn	18 39 45.2	+0.2
ECEA				S	Sn	18 40 04.2	+0.9
NVR	Nevrokopi	1.44	346	P	Pn	18 39 44.8	-0.5
NVR				S	Sn	18 40 03.3	-0.5
NVR				AML	AML		
NVR	Nevrokopi	1.44	346	P	Pn	18 39 44.7	-0.6
KOCA	Canakkale, Ayv	1.47	107	P	Pn	18 39 46.0	+0.3
GPNR	Gulpinar-Canak	1.48	109	Pn	Pn	18 39 46.8	+1.0
GPNR				AML	AML		
GINA	Giannouli	1.52	260	P	Pn	18 39 46.2	-0.1
ENZZ	Sultanice-Enez	1.54	64	Pn	Pn	18 39 47.7	+1.2
ENZZ				AML	AML		
EZN	Ezine	1.54	94	P	Pn	18 39 46.7	0.0
EZN				S	Sn	18 40 06.1	-0.1
EZN				AML	AML		
EZN	Ezine	1.54	94	Pn	Pn	18 39 47.2	+0.5
EZN				AML	AML		
CNKL	anakkale-Mer	1.59	85	P	Pn	18 39 47.0	-0.2
CNKL				S	Sn	18 40 08.2	+0.9
CAVK	Edirne/Enez-Ca	1.59	62	P	Pn	18 39 46.8	-0.4
CAVK	Edirne/Enez-Ca	1.59	62	⇑P	Pn	18 39 46.9	-0.4
CAVK				⇑S	Sb	18 40 10.5	+1.8
ENEZ	Enez	1.60	60	P	Pn	18 39 47.0	-0.5
ENEZ				AML	AML		
ENEZ	Enez	1.60	60	Pn	Pn	18 39 48.1	+0.6
ATAL	Atalanti	1.61	219	P	Pn	18 39 47.0	-0.6
ATAL	Atalanti	1.61	219	P	Pn	18 39 46.9	-0.7
ALN	Alexandroupoli	1.62	54	P	Pn	18 39 46.9	-0.8
ALN				AML	AML		
ALN	Alexandroupoli	1.62	54	Pn	Pn	18 39 48.7	+1.0
ALN				AML	AML		
ALN	Alexandroupoli	1.62	54	P	Pn	18 39 46.7	-1.0
ALN	Alexandroupoli	1.62	54		Pn	18 39 46.7	-1.0
ALN	Alexandroupoli	1.62	54	P	Pn	18 39 46.4	-1.3
ALN	Alexandroupoli	1.62	54	P	Pn	18 39 47.9	+0.3
TYRN	Tyrnavos	1.63	262	P	Pn	18 39 48.2	+0.4
TYRN				S	Sn	18 40 08.5	+0.2
TYRN				AML	AML		
TYRN	Tyrnavos	1.63	262	P	Pn	18 39 47.5	-0.4
MMB	Musomishta	1.65	345	P	Pn	18 39 48.3	+0.1
MMB				S	Sn	18 40 09.5	+0.5
MMB				AML	AML		
MMB	Musomishta	1.65	345	P	Pn	18 39 48.2	0.0
MMB				S	Sn	18 40 09.9	+0.9
LKR	Lokris	1.66	219	P	Pn	18 39 47.7	-0.5
LKR				AML	AML		
LKR	Lokris	1.66	219	P	Pn	18 39 47.7	-0.5
COMU	Canakkale	1.66	84	Pn	Pn	18 39 49.2	+0.9
COMU				AML	AML		
PRK	Paraskevi	1.66	114	P	Pn	18 39 48.7	+0.4
PRK				AML	AML		
PRK	Paraskevi	1.66	114	P	Pn	18 39 48.5	+0.3
GELI	Tayfur-Gelibol	1.71	74	Pn	Pn	18 39 49.5	+0.6
GELI				AML	AML		
BAYC	CANAKKALE_Bayr	1.72	96	P	Pn	18 39 49.2	0.0
BAYC				S	Sn	18 40 10.2	-0.5
AXAR	Agios Charalam	1.75	228	P	Pn	18 39 49.6	0.0
AXAR	Agios Charalam	1.75	228	P	Pn	18 39 48.9	-0.6
AXAR				AML	AML		
RZN	Rozhen	1.77	10	P	Pn	18 39 50.0	+0.1
RZN				AML	AML		
RZN	Rozhen	1.77	10	P	Pn	18 39 50.0	+0.1
RZN				S	Sb	18 40 15.8	+1.8
GRG	Griva	1.78	305	P	Pn	18 39 50.4	+0.5
GRG				AML	AML		
GRG	Griva	1.78	305	P	Pn	18 39 49.3	-0.7
GRG	Griva	1.78	305	P	Pn	18 39 50.5	+0.5
AGG	Agios Georgios	1.80	240	P	Pn	18 39 49.8	-0.4
AGG				AML	AML		
AGG	Agios Georgios	1.80	240	P	Pn	18 39 49.4	-0.9
AGG				AML	AML		
AGG	Agios Georgios	1.80	240	P	Pn	18 39 49.9	-0.4
THL	Klokotos Trika	1.82	258	P	Pn	18 39 50.6	+0.1
THL				S	Sn	18 40 12.8	-0.3
THL				AML	AML		
THL	Klokotos Trika	1.82	258	P	Pn	18 39 50.2	-0.3
THL				AML	AML		
KDZ	Kurdzhali	1.85	24	P	Pn	18 39 50.5	-0.4
KDZ				AML	AML		
KDZ	Kurdzhali	1.85	24	Pn	Pn	18 39 50.7	-0.1
KDZ				AML	AML		
KDZ	Kurdzhali	1.85	24	P	Pn	18 39 50.4	-0.4
KDZ				S	Sg	18 40 18.8	-0.8
STFN	Stefani	1.87	199	P	Pn	18 39 50.8	-0.5
STFN				AML	AML		
STFN	Stefani	1.87	199	P	Pn	18 39 51.0	-0.2
STFN				AML	AML		
DION	Dionisos Attik	1.90	189	P	Pn	18 39 51.0	-0.5
DION				AML	AML		
DION	Dionisos Attik	1.90	189	P	Pn	18 39 51.4	-0.1
DION				AML	AML		
VAY	Valandovo	1.91	316	*i* Pn	Pn	18 39 51.9	+0.2
LPK	Lapseki	1.91	77	Pn	Pn	18 39 52.8	+1.0
LPK				AML	AML		
KARY	Karystos	1.92	177	P	Pn	18 39 51.3	-0.5
KARY				AML	AML		
KARY	Karystos	1.92	177	P	Pn	18 39 51.0	-0.8
VIL2	Platees	1.92	206	P	Pn	18 39 51.2	-0.7
PTL	Penteli	1.93	191	P	Pn	18 39 51.7	-0.4
PTL				AML	AML		
PTL	Penteli	1.93	191	P	Pn	18 39 51.2	-0.9
PTL				AML	AML		
AYVA	Ayvalik	1.94	109	P	Pn	18 39 52.7	+0.6
VILL	Villia	1.95	204	P	Pn	18 39 52.0	-0.3
VILL				AML	AML		
LAPS	Lapseki, ANA	1.95	80	P	Pn	18 39 52.3	0.0
LAPS				S	Sn	18 40 16.4	+0.1
EAG2	Marmaro, Chios	1.97	135	P	Pn	18 39 52.4	-0.1
KZN	Kozani	1.99	281	P	Pn	18 39 53.2	+0.3
KZN				AML	AML		
KZN	Kozani	1.99	281	P	Pn	18 39 52.8	-0.1
ATHP	Athens-Neo Psi	2.00	193	P	Pn	18 39 52.5	-0.4
ATHP				AML	AML		
ELFA	Athens-Elefsin	2.00	198	P	Pn	18 39 53.1	+0.2
ELFA				AML	AML		
ATH5	Athens Parliam	2.03	193	P	Pn	18 39 52.3	-0.9
ATH5				AML	AML		
ATHU	Athens Univers	2.03	192	P	Pn	18 39 52.6	-0.7
ATHU				AML	AML		
ATHU	Athens Univers	2.03	192	P	Pn	18 39 52.8	-0.5
NOAC	Athens-Thissio	2.03	194	P	Pn	18 39 53.0	-0.4
NOAC				AML	AML		
ATH	Athens Observa	2.03	194	P	Pn	18 39 53.0	-0.3
ATH				AML	AML		
ATH	Athens Observa	2.03	194	P	Pn	18 39 53.2	-0.2
ATH				AML	AML		
DLFA	Delphi	2.04	225	P	Pn	18 39 53.0	-0.6
CHOS	Chios island	2.06	139	P	Pn	18 39 54.3	+0.5
CHOS				AML	AML		
CHOS	Chios island	2.06	139	Pn	Pn	18 39 54.4	+0.5
CHOS				AML	AML		
CHOS	Chios island	2.06	139	P	Pn	18 39 54.1	+0.2
CHOS				AML	AML		
KARB	zmir-Karabur	2.07	128	P	Pn	18 39 54.2	+0.3
KKB	Krupnik	2.09	335	P	Pn	18 39 54.8	+0.5
KKB				AML	AML		
KKB	Krupnik	2.09	335	P	Pn	18 39 54.7	+0.4
CANM	Can-anakkale	2.10	87	Pn	Pn	18 39 55.5	+1.2
CANM				AML	AML		
UKOP	Uzunkopru-Edir	2.12	55	Pn	Pn	18 39 56.3	+1.8
PEHC	Pehcevo	2.12	330	*e*Pn	Pn	18 39 55.1	+0.4
VLY	Voula,Athens	2.14	191	P	Pn	18 39 54.4	-0.4
VLY				AML	AML		
VLY	Voula,Athens	2.14	191	P	Pn	18 39 54.4	-0.4
YAYO	Edremit-Balk	2.15	98	Pn	Pn	18 39 55.7	+0.8
YAYO				AML	AML		
BUHA	Balikesir, Bur	2.17	101	P	Pn	18 39 56.0	+0.7
DKL	Dikili	2.18	113	Pn	Pn	18 39 56.5	+1.1
DKL				AML	AML		
DKL	Dikili	2.18	113	P	Pn	18 39 55.8	+0.4
BIGA	Biga-Canakkale	2.19	80	Pn	Pn	18 39 56.1	+0.5
LTK	Loutraki	2.20	209	P	Pn	18 39 55.4	-0.3
LTK				AML	AML		
LTK	Loutraki	2.20	209	P	Pn	18 39 54.7	-1.0
LTK				AML	AML		
KRBN	Karaburun	2.20	127	Pn	Pn	18 39 57.0	+1.3
KRBN				AML	AML		
EVR	Evrytania	2.21	243	P	Pn	18 39 56.1	+0.2
EVR				AML	AML		
EVR	Evrytania	2.21	243	P	Pn	18 39 55.5	-0.4
EVR				AML	AML		
PLD	Plovdiv	2.22	8	P	Pn	18 39 56.1	+0.1
PLD				AML	AML		
PLD	Plovdiv	2.22	8	Pn	Pn	18 39 56.3	+0.3
PLD				AML	AML		
PLD	Plovdiv	2.22	8	P	Pn	18 39 56.2	+0.3
LOUT	Loutraki	2.23	209	P	Pn	18 39 55.6	-0.5
LOUT				AML	AML		
FOCM	Foa	2.24	123	Pn	Pn	18 39 57.8	+1.6
FOCM				AML	AML		
YENI	Yenice-Canakka	2.24	89	Pn	Pn	18 39 57.4	+1.1
LVRA	Laurium	2.25	185	P	Pn	18 39 55.9	-0.4
LVRA				AML	AML		
KPRO	Kipourio	2.28	271	P	Pn	18 39 57.4	+0.6
KPRO				AML	AML		
KPRO	Kipourio	2.28	271	P	Pn	18 39 57.5	+0.6
DIM	Dimitrovgrad	2.30	24	P	Pn	18 39 57.0	0.0
DIM				AML	AML		
DIM	Dimitrovgrad	2.30	24	P	Pn	18 39 57.1	+0.1
RKY	Sarkoy-Tekirda	2.30	70	Pn	Pn	18 39 58.7	+1.5
RKY				AML	AML		
KALE	Kalithea	2.30	228	P	Pn	18 39 56.1	-1.1
ANX	Ano Chora	2.31	235	P	Pn	18 39 57.3	0.0
ANX				S	Sn	18 40 25.1	-0.1
ANX				AML	AML		
ANX	Ano Chora	2.31	235	P	Pn	18 39 56.9	-0.3
ANX				AML	AML		
THAL	Thalero	2.31	215	P	Pn	18 39 56.9	-0.3
THAL				AML	AML		
THAL	Thalero	2.31	215	P	Pn	18 39 57.2	0.0
THAL				AML	AML		
KRBG	Karabiga-Canak	2.32	78	Pn	Pn	18 39 58.9	+1.6
KRBG				AML	AML		
SERG	Sergoula	2.34	230	P	Pn	18 39 57.4	-0.2
SERG				AML	AML		
SERG	Sergoula	2.34	230	P	Pn	18 39 57.5	-0.2
SERG				AML	AML		
ZEDA	zmir-Bergama	2.35	114	P	Pn	18 39 58.7	+0.9
BAGT	Foa	2.35	123	P	Pn	18 39 58.6	+0.9
MG00	Magoula, Dorid	2.40	231	P	Pn	18 39 58.2	-0.3
MG00				AML	AML		
EFP	Efpalio	2.42	232	P	Pn	18 39 58.9	+0.2
EFP				AML	AML		
EFP	Efpalio	2.42	232	P	Pn	18 39 58.5	-0.1
EFP				AML	AML		
GAZK	Gazikoy-TEKIRD	2.43	70	Pn	Pn	18 40 00.6	+1.8
TETR	Tetrakomo, Epi	2.43	257	P	Pn	18 39 59.1	+0.1
TETR				AML	AML		
TETR	Tetrakomo, Epi	2.43	257	P	Pn	18 39 58.9	-0.1
MET4	Agioi Theodoro	2.44	198	P	Pn	18 39 58.4	-0.5
MET4				AML	AML		
PENT	Pentalofos	2.46	277	P	Pn	18 39 59.6	+0.3
VVK	Vomvokou	2.48	233	P	Pn	18 40 00.1	+0.5
VVK				AML	AML		
LAKA	Lakka	2.50	228	P	Pn	18 40 00.1	+0.3
LAKA				AML	AML		
LAKA	Lakka	2.50	228	P	Pn	18 40 00.1	+0.3
PRMD	Pramanda	2.52	261	P	Pn	18 40 01.0	+0.8
PRMD				AML	AML		
PRMD	Pramanda	2.52	261	P	Pn	18 40 01.0	+0.8
GUR	Goura	2.54	218	P	Pn	18 39 59.9	-0.5
GUR				AML	AML		
GUR	Goura	2.54	218	P	Pn	18 39 59.9	-0.5
GUR				AML	AML		
BALY	Balya	2.55	94	P	Pn	18 40 01.3	+0.8
BALY	Balya	2.55	94	P	Pn	18 40 01.2	+0.8
PVO	Paravola	2.55	239	P	Pn	18 40 01.1	+0.7
PVO				AML	AML		
PVO	Paravola	2.55	239	P	Pn	18 40 00.7	+0.3
KLV	Kalavryta, Ach	2.55	222	P	Pn	18 40 00.1	-0.4
KLV				AML	AML		
KLV	Kalavryta, Ach	2.55	222	P	Pn	18 40 00.5	0.0
MADA	Marmara adas	2.55	75	P	Pn	18 40 00.4	-0.1
PGB	Panagyurishte	2.56	358	P	Pn	18 40 01.0	+0.3
GONE	Gonen-Balikesi	2.58	87	Pn	Pn	18 40 02.6	+1.6
GONE				AML	AML		
SOMA	Soma-Manisa	2.61	107	Pn	Pn	18 40 03.1	+1.8
SOMA				AML	AML		
CAMT	Merkez	2.61	116	P	Pn	18 40 02.7	+1.3
PLNA	Plana	2.61	345	P	Pg	18 40 08.8	-1.4
AMPL	Ampelaki	2.62	248	P	Pn	18 40 02.5	+1.0
AMPL				AML	AML		
AMPL	Ampelaki	2.62	248	P	Pn	18 40 02.4	+1.0
BLCB	Balcova	2.63	126	P	Pn	18 40 02.2	+0.6
BLCB	Balcova	2.63	126	Pn	Pn	18 40 03.3	+1.7
EDRB	Edirne	2.64	43	Pn	Pn	18 40 03.3	+1.6
EDRB				AML	AML		
TKR	Tekirdag	2.66	66	Pn	Pn	18 40 03.7	+1.7
TKR				AML	AML		
STEP	BALIKESIR_Sava	2.68	101	P	Pn	18 40 03.4	+1.1
PLEV	Plevrona-Mesol	2.74	237	P	Pn	18 40 03.5	+0.4
PLEV				AML	AML		
PLEV	Plevrona-Mesol	2.74	237	P	Pn	18 40 03.1	0.0
EDC	Edincik	2.74	81	Pn	Pn	18 40 04.8	+1.7
EDC				AML	AML		
BALB	Balikesir	2.76	95	Pn	Pn	18 40 05.0	+1.7
BALB				AML	AML		
BALB	Balikesir	2.76	95		Pn	18 40 03.3	-0.1
BKES	Balkesir-Mer	2.78	93	P	Pn	18 40 04.6	+0.9
KBN	Korca	2.79	285	P	Pn	18 40 05.3	+1.4
PDO	Prodromos	2.79	242	P	Pn	18 40 05.2	+1.4
PDO				AML	AML		
VTS	Vitosha	2.79	343	P	Pn	18 40 04.5	+0.6
VTS				AML	AML		
VTS	Vitosha	2.79	343	P	Pn	18 40 04.5	+0.6
SOF	Sofia	2.81	346	*e*P	Pg	18 40 12.7	-1.4
DRO	Drossia	2.85	226	P	Pn	18 40 05.2	+0.5
DRO				AML	AML		
DRO	Drossia	2.85	226	P	Pn	18 40 04.7	0.0
CRLT	Corlu	2.85	65	Pn	Pn	18 40 06.7	+2.0
CRLT				AML	AML		
AXS	Araxos	2.89	234	P	Pn	18 40 07.1	+2.0
AXS				AML	AML		
AXS	Araxos	2.89	234	P	Pn	18 40 05.2	0.0
SUSR	Susurluk-Balik	2.89	89	Pn	Pn	18 40 07.1	+1.9
SUSR				AML	AML		
AKS	Akhisar	2.91	111	Pn	Pn	18 40 07.3	+1.9
AKS				AML	AML		
BAND	Balkesir-Ban	2.92	81	⇓P	Pn	18 40 05.7	0.0
RLS	Riolos of Patr	2.92	231	P	Pn	18 40 06.6	+1.0
RLS				AML	AML		
RLS	Riolos of Patr	2.92	231	P	Pn	18 40 05.8	+0.2
OHR	Ohrid	2.93	294	*i* Pn	Pn	18 40 07.3	+1.6
PHSR	Pinarhisar	2.95	54	Pn	Pn	18 40 08.1	+2.1
PHSR				AML	AML		
BOTS	Marmara Eregli	2.98	68	Pn	Pn	18 40 08.3	+2.0
BOTS				AML	AML		
VLX	Vlachokerasia	2.99	211	P	Pn	18 40 07.0	+0.3
VLX				AML	AML		
BLSH	Balsha	3.01	345	P	Pg	18 40 16.5	-1.3
JMB	Yambol	3.03	33	P	Pn	18 40 06.6	-0.6
JMB	Yambol	3.03	33	Pn	Pn	18 40 08.6	+1.4
GOMA	Golmarmara-Man	3.05	113	Pn	Pn	18 40 09.2	+1.8
NYDR	Nydri-Lefkada	3.07	247	P	Pn	18 40 10.0	+2.3
NYDR				AML	AML		
KCTX	Karacabey (Bur	3.11	83	Pn	Pn	18 40 09.9	+1.7
KCTX				AML	AML		
EVGI	Lefkada island	3.14	246	P	Pn	18 40 10.5	+1.8
EVGI				AML	AML		
GORD	Gordes-Manisa	3.16	108	Pn	Pn	18 40 10.7	+1.7
GORD				AML	AML		
AMT	Artemida-Makis	3.17	221	P	Pn	18 40 09.2	+0.2
AMT				AML	AML		
GCAM	G?zelcaml?	3.20	134	Pn	Pn	18 40 11.2	+1.8
GCAM				AML	AML		
SLVT	Silivri	3.22	65	Pn	Pn	18 40 11.7	+2.0
SLVT				AML	AML		
PVL	Pavlikeni	3.23	11	P	Pn	18 40 10.4	+0.5
MHLO	Agia Marina, M	3.26	179	P	Pn	18 40 10.1	-0.1
SRN	Sarande	3.33	270	P	Pn	18 40 13.4	+2.3
SRN				AML	AML		
DST	Dursunbey	3.33	95	Pn	Pn	18 40 13.2	+1.9
DST				AML	AML		
RTZL	Ratzakli, Kefa	3.34	237	P	Pn	18 40 13.7	+2.3
RTZL				AML	AML		
ITM	Ithomi	3.34	215	P	Pn	18 40 12.6	+1.1
ITM	Ithomi	3.34	215	Pn	Pn	18 40 11.9	+0.4
ITM				AML	AML		
ITM	Ithomi	3.34	215		Pn	18 40 12.7	+1.2
ITM	Ithomi	3.34	215	P	Pn	18 40 13.3	+1.9
ODEM	Odemis-Izmir	3.36	119	Pn	Pn	18 40 13.8	+2.0
ODEM				AML	AML		
CTYL	Yalikoy Yolu	3.38	62	Pn	Pn	18 40 13.9	+2.1
CTYL				AML	AML		
CTYL	Yalikoy Yolu	3.38	62	P	Pn	18 40 11.3	-0.5
CTYL				AML	AML		
SINB	Sinanoba-Istan	3.38	71	Pn	Pn	18 40 13.9	+2.0
SINB				AML	AML		
VLI	Veliai	3.41	199	P	Pn	18 40 11.9	-0.4
VLI				AML	AML		
VLI	Veliai	3.41	199	P	Pn	18 40 12.0	-0.4
VLI				AML	AML		
PHP	Peshkopia	3.42	302	P	Pn	18 40 13.2	+0.7
AYDB	Zeytinkoy-Aydi	3.43	125	Pn	Pn	18 40 14.3	+1.6
AYDB				AML	AML		
MPEP	Malo Peshtene	3.43	353	*e*P	Pn	18 40 13.6	+1.0
CTKS	Kestanelik-??a	3.43	67	Pn	Pn	18 40 14.7	+2.1
CTKS				AML	AML		
PLVB	Pleven	3.44	4	⇑P	Pn	18 40 13.2	+0.5
KEK	Kerkira	3.49	268	P	Pn	18 40 14.3	+0.9
KEK				AML	AML		
KEK	Kerkira	3.49	268	Pn	Pn	18 40 14.2	+0.7
KEK				AML	AML		
KEK	Kerkira	3.49	268		Pn	18 40 14.6	+1.1
KEK	Kerkira	3.49	268	P	Pn	18 40 13.2	-0.3
ORLT	Orhaneli	3.51	87	Pn	Pn	18 40 15.9	+2.1
ORLT				AML	AML		
MDNY	Mudanya-Bursa	3.52	82	Pn	Pn	18 40 15.9	+2.1
MDNY				AML	AML		
ARMT	Armutlu	3.53	79	Pn	Pn	18 40 16.3	+2.4
ARMT				AML	AML		
SZH	Strazhitsa	3.54	20	P	Pn	18 40 14.2	+0.1
SZH	Strazhitsa	3.54	20	P	Pn	18 40 14.3	+0.2
MANT	Manisa	3.60	113		Pn	18 40 15.3	+0.2
BGKT	Bogazkoy	3.60	69	Pn	Pn	18 40 17.2	+2.2
BGKT				AML	AML		
KULA	Kula-Manisa	3.66	112	Pn	Pn	18 40 18.2	+2.3
KULA				AML	AML		
NAZL	Nazilli-Aydin	3.67	121	Pn	Pn	18 40 17.9	+1.9
SIMA	Simav-Kutahya	3.71	102	Pn	Pn	18 40 18.7	+2.2
SIMA				AML	AML		
BODT	Bodrum	3.72	140	Pn	Pn	18 40 17.9	+1.3
BODT				AML	AML		
BRGA	Burgazada-Ista	3.74	74	Pn	Pn	18 40 19.1	+2.3
BRGA				AML	AML		
HYBA	Heybeliada-Ist	3.75	74	Pn	Pn	18 40 19.1	+2.1
HYBA				AML	AML		
ISK	Istanbul-Kandi	3.78	71	Pn	Pn	18 40 19.5	+2.1
ISK				AML	AML		
GEML	Gemlik-BURSA	3.78	81	Pn	Pn	18 40 19.7	+2.3
GEML				AML	AML		
KAVV	Kandilli-Istan	3.78	71	Pn	Pn	18 40 19.7	+2.3
KAVV				AML	AML		
BDRM	Kayabasi	3.78	139	⇑P	Pn	18 40 18.6	+1.1
ZIMR		3.78	12	P	Pn	18 40 17.9	+0.5
ZIMR		3.78	12	⇑P	Pn	18 40 17.9	+0.5
MLSB	Milas	3.79	133	Pn	Pn	18 40 19.3	+1.7
MLSB				AML	AML		
VALD	Valchedram	3.79	350	*e*P	Pn	18 40 18.2	+0.6
LOZB	Loznitsa	3.81	26	⇓P	Pn	18 40 17.8	-0.1
KLYT	Kilyos	3.82	69	Pn	Pn	18 40 20.2	+2.3
KLYT				AML	AML		
KLYT	Kilyos	3.82	69	P	Pn	18 40 17.6	-0.3
KLYT				AML	AML		
KTHA	Kythira Island	3.82	195	Pn	Pn	18 40 18.7	+0.7
KTHA				AML	AML		
KTHA	Kythira Island	3.82	195	P	Pn	18 40 20.5	+2.5
TUZL	Tuzla-Istanbul	3.87	76	Pn	Pn	18 40 21.0	+2.4
TUZL				AML	AML		
SHAP	Saphane-Kutahy	3.90	102	Pn	Pn	18 40 21.2	+2.0
SHAP				AML	AML		
YLV	Yalova	3.91	79	Pn	Pn	18 40 21.6	+2.3
YLV				AML	AML		
YLV	Yalova	3.91	79	P	Pn	18 40 19.2	-0.1
YLV				AML	AML		
YLVH	Yalova	3.93	77	Pn	Pn	18 40 21.8	+2.4
YLVH				AML	AML		
RAZG	Razgrad	3.96	24	⇑P	Pn	18 40 19.9	0.0
IZI	Iznik	3.96	83	Pn	Pn	18 40 22.2	+2.2
IZI				AML	AML		
NEF	NEVSHA	3.98	33	P	Pn	18 40 21.2	+1.0
TVSB	Tavsanli	4.00	96	Pn	Pn	18 40 22.9	+2.4
TVSB				AML	AML		
GEDZ	Gediz	4.04	101	Pn	Pn	18 40 23.3	+2.3
GEDZ				AML	AML		
VLAD	Vladila	4.04	1	⇓P	Pn	18 40 21.3	+0.2
BOVS	Bovan	4.17	333	⇓P	Pn	18 40 23.1	+0.3
HRT	Hereke	4.17	76	Pn	Pn	18 40 25.4	+2.5
HRT				AML	AML		
ADVT	Abdulvahap	4.17	82	Pn	Pn	18 40 24.9	+2.1
ADVT				AML	AML		
PVY	Plav	4.22	310	⇓*i*Pn	Pn	18 40 25.0	+1.4
PVY				*i* Sn	Sn	18 41 17.2	+4.8
PVY				AML	AML		
SILT	Sile	4.23	72	Pn	Pn	18 40 25.7	+2.2
SILT				AML	AML		
SILT	Sile	4.23	72	⇓P	Pn	18 40 23.3	-0.2
CAVI	Cavuskoy	4.24	85	Pn	Pn	18 40 24.7	+0.9
CAVI				AML	AML		
ULC	Ulcinj	4.34	299	⇑*i*Pn	Pn	18 40 28.0	+2.9
ULC				*i* Sn	Sn	18 41 20.5	+5.3
ULC				AML	AML		
TAVA	DENIZLI_Tavas	4.36	123	⇓P	Pn	18 40 27.0	+1.4
IVA	Berane	4.43	313	⇓*i*Pn	Pn	18 40 28.0	+1.6
IVA				*i* Sn	Sn	18 41 22.3	+4.8
IVA				AML	AML		
DRME	Dracevica, Mon	4.48	302	*e*Pn	Pn	18 40 29.6	+2.5
DRME	Dracevica, Mon	4.48	302	⇑*i*Pn	Pn	18 40 29.8	+2.8
DRME				*i* Sn	Sn	18 41 23.6	+4.9
DRME				AML	AML		
IMMV	Iera Moni Meta	4.49	184	P	Pn	18 40 29.8	+2.6
PDG	Podgorica	4.56	305		Pn	18 40 29.2	+1.2
PDG	Podgorica	4.56	305	⇑P	Pn	18 40 30.2	+2.1

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PDG   Podgorica         4.56 305 ePn    Pn    18 40 29.8 +1.7
PDG   Podgorica         4.56 305  P     Pn    18 40 30.4 +2.3
PDG   Podgorica         4.56 305⇓iPn    Pn    18 40 30.5 +2.4
PDG                             i Sn    Sn    18 41 25.5 +5.0
PDG                               AML   AML
HUMR  Humele            4.60   6  P     Pn    18 40 28.8 +0.1
KOME  Kolasin           4.63 310⇑iPn    Pn    18 40 31.3 +2.1
KOME                            i Sn    Sn    18 41 26.9 +4.3
KOME                              AML   AML
SJES  Sjenica           4.64 317 ePn    Pn    18 40 30.2 +0.8
PSN   Preselentsi       4.66  36  P     Pn    18 40 29.8 +0.4
IDI   Anoyia            4.68 174  Pn    Pn    18 40 30.0 +0.1
      31nm,0.3s,baz=340,slow=12,SNR=49
IDI                               Sn    Sn    18 41 21.5 -2.2
      3.5nm,0.3s,baz=294,slow=20,SNR=1.3
IDI   Anoyia            4.68 174        Pn    18 40 29.2 -0.6
BORA  Eskisehir         4.71  89        Pn    18 40 30.8 +0.4
BUM   Brajici-Budva     4.72 302⇓iPn    Pn    18 40 33.4 +2.9
BUM                             i Sn    Sn    18 41 30.1 +5.3
BUM                               AML   AML
ARG   Arkhangelos       4.79 140  P     Pn    18 40 31.7 +0.5
ARG   Arkhangelos       4.79 140  Pn    Pn    18 40 31.7 +0.5
CEME  Cevo              4.83 304⇑iPn    Pn    18 40 35.0 +3.1
CEME                            i Sn    Sn    18 41 32.0 +4.6
CEME                              AML   AML
NKME  Niksic            4.92 307⇑iPn    Pn    18 40 35.8 +2.6
NKME                            i Sn    Sn    18 41 34.3 +4.6
NKME                              AML   AML
STFAR Stefanesti-Arg    4.93   5 ⇓P     Pn    18 40 34.4 +1.1
SULR                    4.94  16 ⇑P     Pn    18 40 33.7 +0.4
SULR                    4.94  16  P     Pn    18 40 34.1 +0.8
KARP  Karpathos         4.94 152  Pn    Pn    18 40 32.9 -0.4
MANR  Mangalia          5.00  38 ⇑P     Pn    18 40 34.4 +0.2
PLE   Pljevlja          5.01 314⇑iPn    Pn    18 40 35.8 +1.4
PLE                             i Sn    Sn    18 41 35.9 +4.1
PLE                               AML   AML
HCY   Herceg Novi       5.05 301 ePn    Pn    18 40 38.4 +3.5
HCY   Herceg Novi       5.05 301⇓iPn    Pn    18 40 37.1 +2.2
HCY                             i Sn    Sn    18 41 37.7 +4.9
HCY                               AML   AML
SAHE  Sakarya_HENDEK    5.07  78 ⇑P     Pn    18 40 35.3 +0.2
GVD   Gavdhos           5.11 182  P     Pn    18 40 39.0 +3.4
      comp=Z,188nm,0.9s
HERR  Herculane         5.12 345 ⇑P     Pn    18 40 35.5 -0.4
CVDA  Cernavoda         5.18  31 ⇑P     Pn    18 40 37.3 +0.7
MDVR  Moldovita         5.20 339 ⇑P     Pn    18 40 37.0  0.0
MFTR  Murfatlar         5.21  34 ⇑P     Pn    18 40 37.3 +0.3
EFOR  EFORIE            5.23  36 ⇑P     Pn    18 40 37.7 +0.5
BRY   Bratogost         5.25 306 ePn    Pn    18 40 39.9 +2.1
BRY   Bratogost         5.25 306⇑iPn    Pn    18 40 39.0 +1.2
BRY                             i Sn    Sn    18 41 42.1 +4.2
BRY                               AML   AML
TREB  Trebinje          5.28 303 ePn    Pn    18 40 39.9 +1.9
ISP   Isparta           5.28 112 i P    Pn    18 40 39.6 +1.4
ISP   Isparta           5.28 112  Pn    Pn    18 40 37.7 -0.5
ISP   Isparta           5.28 112 eP     Pn    18 40 39.3 +1.1
MDUB  Mudurnu           5.29  82        Pn    18 40 37.5 -0.8
MTUR  Matau             5.30   6  P     Pn    18 40 38.8 +0.4
MTUR  Matau             5.30   6 ⇑P     Pn    18 40 38.8 +0.4
TLBR  Topalu            5.36  30 ⇓P     Pn    18 40 39.5 +0.5
BBLS  Lazi&#263i        5.36 318 ePn    Pn    18 40 40.1 +0.9
ARR   Arges             5.42   2 ⇑P     Pn    18 40 40.3 +0.3
ARR   Arges             5.42   2  P     Pn    18 40 40.1 +0.1
      comp=Z,103nm,0.4s
ISR   Istrita           5.42  17  P     Pn    18 40 40.7 +0.8
ISR   Istrita           5.42  17 ⇑P     Pn    18 40 40.8 +0.8
ISR   Istrita           5.42  17  P     Pn    18 40 40.8 +0.8
      comp=Z,2.4nmcomp=Z,3µmcomp=Z,222nm,0.7s
ISR                               AML   AML
ELL   Elmali            5.43 124  P     Pn    18 40 41.1 +0.8
ELL   Elmali            5.43 124        Pn    18 40 41.0 +0.8
TIRR  Tirgusor          5.43  33  P     Pn    18 40 40.0  0.0
TIRR  Tirgusor          5.43  33        Pn    18 40 39.0 -1.1
TIRR  Tirgusor          5.43  33 ⇑P     Pn    18 40 40.0  0.0
TIRR  Tirgusor          5.43  33  P     Pn    18 40 40.0  0.0
      comp=Z,0.7nmcomp=Z,131nm,1.1s
TIRR                              AML   AML
HARR  Harsova           5.44  28  P     Pn    18 40 40.3 +0.1
HARR  Harsova           5.44  28 ⇑P     Pn    18 40 40.3 +0.1
VOIR                    5.51   5  P     Pn    18 40 42.3 +1.1
VOIR                    5.51   5 ⇓P     Pn    18 40 42.4 +1.1
VOIR                    5.51   5  P     Pn    18 40 41.1 -0.1
      comp=Z,0.5nmcomp=Z,1µmcomp=Z,86nm,0.9s
VOIR                              AML   AML
VOIR                    5.51   5  P     Pn    18 40 41.9 +0.7
      comp=Z,85nm,0.9s
LOT   Lotru             5.51 356 ⇓P     Pn    18 40 41.3  0.0
LOT   Lotru             5.51 356  P     Pn    18 40 41.3  0.0
      comp=Z,116nm,0.5s
GZR   Gura Zlata        5.56 349  P     Pn    18 40 41.6 -0.3
GZR   Gura Zlata        5.56 349 ⇓P     Pn    18 40 41.7 -0.3
AKAS  Kas               5.58 130        Pn    18 40 42.0 -0.2
AKAS  Kas               5.58 130  P     Pn    18 40 45.9 +3.6
      comp=Z,402nm,0.7s
NEHR  Nehoiu            5.66  14 ⇑P     Pn    18 40 45.0 +1.7
MLR   Muntele Rosu      5.66  12  Pn    Pn    18 40 44.5 +1.1
      comp=Z,8.0nm,0.3s,baz=172,slow=15,SNR=114
MLR                               Sn    Sn    18 41 47.6 -0.4
      comp=Z,7.5nm,0.3s,baz=285,slow=23,SNR=3.1
MLR                               Lg    Lg    18 42 19.8
      comp=Z,14nm,0.3s,baz=258,slow=11,SNR=5.4
MLR                               LR    LR    18 43 12.4
      comp=Z,577nm,18.1s,baz=106,slow=41
MLR                               AML   AML
MLR   Muntele Rosu      5.66  12  P     Pn    18 40 44.6 +1.2
MLR   Muntele Rosu      5.66  12        Pn    18 40 44.0 +0.6
MLR   Muntele Rosu      5.66  12 ⇑P     Pn    18 40 44.7 +1.2
MLR   Muntele Rosu      5.66  12  P     Pn    18 40 44.1 +0.7
      comp=Z,1.1nmcomp=Z,2µmcomp=Z,194nm,0.7s
MLR                               AML   AML
MLR   Muntele Rosu      5.66  12  P     Pn    18 40 44.7 +1.3
      comp=Z,206nm,0.7s
TNR   Turnu Rosu        5.70 360  P     Pn    18 40 44.2 +0.4
TNR   Turnu Rosu        5.70 360 ⇓P     Pn    18 40 44.2 +0.4
TPGR  Topolog           5.76  30 ⇑P     Pn    18 40 44.8 +0.2
GRER                    5.77  19 ⇑P     Pn    18 40 47.6 +2.9
TEKS  Tekeris           5.81 324 ePn    Pn    18 40 45.1 -0.2
BISRR Bisoca            5.86  17 ⇑P     Pn    18 40 47.6 +1.6
BISRR Bisoca            5.86  17  P     Pn    18 40 47.3 +1.2
      comp=Z,2.3nmcomp=Z,5µmcomp=Z,379nm,0.6s
BISRR                             AML   AML
MATE  Matera            5.87 279 eP     Pn    18 40 46.5 +0.4
MATE  Matera            5.87 279 ⇑P     Pn    18 40 46.1  0.0
MATE  Matera            5.87 279  P     Pn    18 40 47.0 +0.9
      comp=Z,45nm,1.3s
TIP   Timpagrande       5.90 265        Pn    18 40 46.5 -0.1
TIP   Timpagrande       5.90 265 ⇑P     Pn    18 40 47.9 +1.3
CFR   Carcaliu          5.93  27  P     Pn    18 40 46.7 -0.2
CFR   Carcaliu          5.93  27 ⇑P     Pn    18 40 46.8 -0.2
BZS   Buzias            6.00 342  P     Pn    18 40 47.5 -0.4
BZS   Buzias            6.00 342 ⇑P     Pn    18 40 47.6 -0.4
BZS   Buzias            6.00 342  P     Pn    18 40 48.8 +0.9
      comp=Z,52nm,0.9s
DEV   Deva              6.02 350  P     Pn    18 40 48.8 +0.7
DEV   Deva              6.02 350 ⇑P     Pn    18 40 48.8 +0.7
DEV   Deva              6.02 350  P     Pn    18 40 49.3 +1.1
      comp=Z,95nm,0.7s
SAHR  Sahastru          6.03  16 ⇑P     Pn    18 40 49.8 +1.4
COVR  Voineasa-Covas    6.05  13 ⇑P     Pn    18 40 50.1 +1.5
DOPR  Dopca             6.06   7 ⇑P     Pn    18 40 49.9 +1.1
ODBI  Odobesti          6.14  18 ⇓P     Pn    18 40 52.4 +2.6
NEGRR Negrea            6.16  24 ⇓P     Pn    18 40 51.2 +1.0
VRI   Vrincioaia        6.17  16  P     Pn    18 40 52.0 +1.8
VRI   Vrincioaia        6.17  16 ⇓P     Pn    18 40 52.0 +1.8
VRI   Vrincioaia        6.17  16  P     Pn    18 40 51.5 +1.3
      comp=Z,0.7nmcomp=Z,1µmcomp=Z,148nm,0.6s
VRI                               AML   AML
VRI   Vrincioaia        6.17  16  P     Pn    18 40 52.0 +1.8
      comp=Z,148nm,0.6s
FRGS  Fruska Gora       6.18 329 ePn    Pn    18 40 50.0 -0.4
FRGS  Fruska Gora       6.18 329  P     Pn    18 40 50.0 -0.4
      comp=Z,62nm,0.8s
MDB   Medias            6.19   0  P     Pn    18 40 52.0 +1.6
MDB   Medias            6.19   0 ⇓P     Pn    18 40 52.1 +1.6
TLCR                    6.19  31  P     Pn    18 40 50.7 +0.2
TLCR                    6.19  31 ⇑P     Pn    18 40 50.8 +0.2
BOSR  Bodos             6.20   9 ⇑P     Pn    18 40 52.2 +1.5
GIUM  Giurgiulesti      6.22  26 ⇑P     Pn    18 40 51.7 +0.7
TURR  Turia             6.22  11 ⇓P     Pn    18 40 52.8 +1.7
OZUR                    6.23   9 ⇓P     Pn    18 40 52.3 +1.2
SCTR  Scanteiesti       6.32  24 ⇓P     Pn    18 40 52.8 +0.4
KEPZ  Antalya-Kepez     6.47 116 ⇑P     Pn    18 40 55.2 +0.7
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VARL  Varlezi           6.48  22 ⇓P     Pn    18 40 56.4 +1.9
VLDR  Vladesti          6.50  24 ⇑P     Pn    18 40 56.3 +1.5
GHRR                    6.51  19 ⇑P     Pn    18 40 55.2 +0.4
GHRR                    6.51  19  P     Pn    18 40 55.3 +0.4
GHRR                    6.51  19  P     Pn    18 40 55.6 +0.7
      comp=Z,181nm,0.5s
CUC   Castrocucco       6.54 273        Pn    18 40 55.5 +0.2
MARCO Tramutola         6.54 276  P     Pn    18 40 57.3 +2.0
      comp=Z,111nm,0.8s
ONER  Baraj Valea Uz    6.56  13 ⇓P     Pn    18 40 57.0 +1.5
KKUL  Konya-Kulu        6.69  94  P     Pn    18 40 59.3 +1.8
      comp=Z,48nm,0.8s
SGRT  San Giovanni R    6.75 288  Pn    Pn    18 40 57.1 -1.2
BIR   Birlad            6.76  20  P     Pn    18 40 59.0 +0.7
BIR   Birlad            6.76  20 ⇑P     Pn    18 40 59.1 +0.7
CEL   Celeste           6.77 258        Pn    18 40 59.9 +1.3
TESR  Tescani           6.77  14 ⇓P     Pn    18 40 59.7 +1.2
TESR  Tescani           6.77  14  P     Pn    18 40 59.1 +0.6
      comp=Z,0.6nmcomp=Z,2µmcomp=Z,135nm,0.5s
TESR                              AML   AML
TESR  Tescani           6.77  14  P     Pn    18 40 59.9 +1.3
      comp=Z,133nm,0.5s
CJR   Cluj-Napoca       6.78 356  P     Pn    18 40 59.4 +0.8
CJR   Cluj-Napoca       6.78 356 ⇑P     Pn    18 40 59.5 +0.8
BIZ   Bicaz             7.10  10 ⇓P     Pn    18 41 04.2 +1.1
BLY   Banja Luka        7.14 315        Pn    18 41 03.3 -0.2
BLY   Banja Luka        7.14 315 ⇑P     Pn    18 41 04.6 +1.1
BLY   Banja Luka        7.14 315 ePn    Pn    18 41 05.3 +1.8
BLY   Banja Luka        7.14 315  P     Pn    18 41 05.5 +2.0
      comp=Z,42nm,0.9s
BR106 Keskin Array S    7.16  89  P     Pn    18 41 04.2 +0.3
      comp=Z,0.1nmcomp=Z,150nmcomp=Z,15nm,0.8s
BR106                             AML   AML
BR105 Keskin Array S    7.16  89  P     Pn    18 41 04.5 +0.6
      comp=Z,0.1nmcomp=Z,230nmcomp=Z,23nm,0.7s
BR105                             AML   AML
BR131 Keskin Array S    7.17  89c iP    Pn    18 41 05.0 +0.8
BR131 Keskin Array S    7.17  89        Pn    18 41 04.0 -0.2
BRTR  Keskin Array B    7.17  89  Pn    Pn    18 41 05.0 +0.8
      comp=Z,2.9nm,0.3s,baz=268,slow=12,SNR=122
BRTR                              Sn    Sn    18 42 22.8 -2.4
      comp=Z,1.5nm,0.3s,baz=172,slow=21,SNR=7.6
BRTR                              Lg    Lg    18 43 06.8
      baz=269,slow=27
      comp=Z,10nm,0.5s
BRTR                              AML   AML
BRTR  Keskin Array B    7.17  89        Pn    18 41 04.5 +0.3
BR104 Keskin Array S    7.18  89  P     Pn    18 41 04.8 +0.6
      comp=Z,0.1nmcomp=Z,255nmcomp=Z,17nm,0.5s
BR104                             AML   AML
GIRR  Girov             7.18  12 ⇑P     Pn    18 41 05.7 +1.7
ILGA  Ilgaz             7.24  78  Pn    Pn    18 41 03.2 -2.0
KIRS  Kirsehir-Merke    7.46  93 ⇑P     Pn    18 41 09.2 +1.2
MORH  Mrgy, Hungar      7.51 328 ⇑P     Pn    18 41 08.6 -0.1
MORH  Mrgy, Hungar      7.51 328 ePn    Pn    18 41 08.3 -0.3
MORH  Mrgy, Hungar      7.51 328  P     Pn    18 41 08.6 -0.1
      comp=Z,20nm,0.5s
PAOL  Paolisi           7.51 281        Pn    18 41 09.9 +1.1
BZK   Bozkurt           7.60  72  Pn    Pn    18 41 08.1 -1.7
BURAR Bucovina Array    7.69   5  P     Pn    18 41 12.2 +1.0
BURAR Bucovina Array    7.69   5        Pn    18 41 11.4 +0.2
BURAR Bucovina Array    7.69   5 ⇑P     Pn    18 41 12.2 +1.0
BUR08 Bucovina Ar. S    7.72   4  Pn    Pn    18 41 11.1 -0.5
PURM  Purcari           7.72  30  P     Pn    18 41 11.5  0.0
      comp=Z,0.6nmcomp=Z,3µmcomp=Z,99nm,0.5s
PURM                              AML   AML
TARU  Tarkhankut        8.12  45 ex     Pn    18 41 14.1 -2.9
TARU                              x     x     18 41 22.5
      comp=Z,1.0nm,0.2s
TARU                             eS     Sn    18 42 42.7 -5.5
TARU                              smax  smax  18 42 45.1
      comp=E,11nm,0.5s
VAE   Valguarnera       8.13 255  Pn    Pn    18 41 19.8 +2.6
      comp=E,12nm,0.6s,baz=12,slow=21,SNR=5.0
VAE                               Sn    Sn    18 42 48.6 -0.1
      comp=E,0.6nm,0.3s,baz=342,slow=20,SNR=1.4
INTR  Introdacqua       8.15 288        Pn    18 41 17.1 -0.3
RAFF  Raffo Rosso       8.26 254        Pn    18 41 18.6 -0.4
TRPA  Tarpa             8.28 352  P     Pn    18 41 18.7 -0.5
      comp=Z,14nm,0.6s
SEV   Sevastopol'       8.31  53 eP     Pn    18 41 19.2 -0.4
SEV                               pmax  pmax  18 41 24.4
      comp=Z,2.0nm,0.4s
SEV                              eS     Sn    18 42 48.5 -4.4
SEV                               smax  smax  18 42 52.1
      comp=N,4.0nm,0.3s
SEV                               smax  smax  18 42 52.1
      comp=E,6.0nm,0.3s
DNZ2  Donuzlav2         8.50  47 ex     x     18 41 21.3
DNZ2                              pmax  pmax  18 41 22.6
      comp=Z,5.0nm,0.5s
DNZ2                             eS     Sn    18 42 51.4 -6.1
DNZ2                              smax  smax  18 43 02.8
      comp=N,8.0nm,0.4s
DNZ2                              smax  smax  18 43 02.8
      comp=E,4.0nm,0.3s
BEHE  Becsehely         8.53 322        Pn    18 41 21.4 -1.2
BEHE  Becsehely         8.53 322 ePn    Pn    18 41 23.1 +0.5
BEHE  Becsehely         8.53 322  P     Pn    18 41 24.2 +1.6
      comp=Z,18nm,0.7s
PSZ   Piszkesteto       8.58 340  P     Pn    18 41 22.1 -1.3
PSZ   Piszkesteto       8.58 340  Pn    Pn    18 41 22.1 -1.3
PSZ   Piszkesteto       8.58 340 eP     Pn    18 41 27.1 +3.7
YAL   Yalta             8.59  55 eP     Pn    18 41 22.8 -0.6
YAL                              eS     Sn    18 42 54.1 -5.6
YAL   Yalta             8.59  55 eP     Pn    18 41 22.8 -0.6
YAL                               pmax  pmax  18 41 26.7
      comp=Z,6.0nm,0.4s
YAL                              ex     x     18 42 54.1
YAL                               smax  smax  18 42 58.1
      comp=N,4.0nm,0.2s
YAL                               smax  smax  18 42 58.1
      comp=E,4.0nm,0.4s
ABAH  Abaujker          8.63 346  P     Pn    18 41 24.0 +0.1
      comp=Z,19nm,1.0s
SORM  Soroca            8.68  18  P     Pn    18 41 23.9 -0.7
MPLH  Magyarpolny       8.73 328  P     Pn    18 41 26.0 +0.6
      comp=Z,26nm,0.8s
KMPD  K-Podol'skiy      8.74   9  P     Pn    18 41 25.7 +0.2
GOLS  Golise            8.79 316 i Pn   Pn    18 41 27.7 +1.4
GUMA  Gualdo di Mace    8.81 294  Pn    Pn    18 41 25.5 -1.0
ALU   Alushta           8.84  54 eP     Pn    18 41 27.0 +0.2
ALU                              eS     Sn    18 43 01.1 -4.7
ALU   Alushta           8.84  54 ex     Pn    18 41 27.0 +0.2
ALU                               pmax  pmax  18 41 33.0
      comp=Z,4.0nm,0.2s
ALU                              ex     x     18 43 01.1
ALU                               smax  smax  18 43 05.5
      comp=N,41nm,0.3s
ALU                               smax  smax  18 43 05.5
      comp=E,9.0nm,0.3s
NRCA  Norcia            8.90 292        Pn    18 41 27.3 -0.5
KECS  Kecovo            8.96 343 eP     Pn    18 41 30.6 +2.1
KECS  Kecovo            8.96 343 ePN    Pn    18 41 30.6 +2.1
FDMO  Fiordimonte       8.98 294  Pn    Pn    18 41 27.7 -1.1
KOLS  Kolonicke sedl    9.10 351 eP     Pn    18 41 31.6 +1.1
KOLS  Kolonicke sedl    9.10 351 ePN    Pn    18 41 31.5 +1.1
KOLS  Kolonicke sedl    9.10 351  P     Pn    18 41 31.4 +1.0
      comp=Z,13nm,0.8s
GROS  Grobnik           9.15 318 i Pn   Pn    18 41 32.2 +1.0
SUDU  Sudak             9.31  55 eP     Pn    18 41 32.8 -0.5
SUDU                             eS     Sn    18 43 12.0 -5.4
SUDU  Sudak             9.31  55 eP     Pn    18 41 32.8 -0.5
SUDU                              pmax  pmax  18 41 34.7
      comp=Z,10.0nm,0.3s
SUDU                             ex     x     18 43 12.0
SUDU                              smax  smax  18 43 20.2
      comp=N,9.0nm,0.4s
SUDU                              smax  smax  18 43 20.2
      comp=E,4.0nm,0.4s
TOKA  Tokat             9.32  84        Pn    18 41 32.9 -0.6
VYHS  Vyhne             9.40 337 eP     Pn    18 41 36.4 +1.8
VYHS  Vyhne             9.40 337 ePN    Pn    18 41 36.3 +1.7
VYHS  Vyhne             9.40 337  P     Pn    18 41 36.2 +1.7
      comp=Z,3.2nm,1.0s
MURB  Monte Urbino      9.44 294  Pn    Pn    18 41 35.0 -0.1
PERS  Pernice           9.47 318 i Pn   Pn    18 41 36.9 +1.4
SOKA  Soboth            9.54 318 ePn    Pn    18 41 37.5 +1.0
      comp=Z,0.4nm,0.2s,SNR=7.0
SOKA                             eSn    Sn    18 43 22.2 -1.0
      comp=Z,1.2nm,0.4s
TRI   Trieste           9.65 310  P     Pn    18 41 36.7 -1.3
TRI   Trieste           9.65 310  Pn    Pn    18 41 36.7 -1.3
RONA  Rosalia, Austr    9.67 326 ePn    Pn    18 41 39.0 +0.7
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      comp=Z,0.2nm,0.2s
RONA                             eSn    Sn    18 43 26.9 +0.5
      comp=Z,0.9nm,0.3s
OBKA  Obir              9.68 316 i Pn   Pn    18 41 40.0 +1.5
      comp=Z,0.4nm,0.3s,SNR=7.8
OBKA  Obir              9.68 316  P     Pn    18 41 40.3 +1.8
      comp=Z,22nm,1.0s
ARSA  Arzberg           9.69 322        Pn    18 41 37.2 -1.3
ARSA  Arzberg           9.69 322 ePn    Pn    18 41 37.9 -0.6
      comp=Z,2.5nm,0.3s,SNR=9.2
ARSA                             eSn    Sn    18 43 27.7 +0.9
      comp=Z,0.9nm,0.4s
ARSA  Arzberg           9.69 322  P     Pn    18 41 38.4 -0.2
      comp=Z,20nm,0.8s
MODS  Modra-Piesok      9.82 331 eP     Pn    18 41 43.4 +3.1
MODS  Modra-Piesok      9.82 331 ePN    Pn    18 41 43.4 +3.1
SABO  M.te Sabotino     9.90 311        Pn    18 41 39.7 -1.7
DRE   Drenchia          9.98 312  P     Pn    18 41 44.4 +1.8
      comp=Z,21nm,0.8s
CONA  Conrad Observa   10.04 325 ePn    Pn    18 41 44.4 +1.0
      comp=Z,2.7nm,0.5s
CONA                             eSn    Sn    18 43 37.1 +1.7
      comp=Z,4.5nm,0.7s
SESA  Seetaler Alpe,   10.06 319 i Pn   Pn    18 41 45.0 +1.1
      comp=Z,0.1nm,0.1s,SNR=6.5
SESA                             eSn    Sn    18 43 36.0 -0.4
      comp=Z,0.1nm,0.1s
MYKA  Terra Mystica    10.25 314 eP     Pn    18 41 49.1 +2.8
MYKA  Terra Mystica    10.25 314 ePn    Pn    18 41 48.1 +1.9
      comp=Z,0.4nm,0.3s
LUBAR Lubar, Ukraine   10.26  13  P     Pn    18 41 46.1 -0.2
ACOM  Acomizza, Ital   10.27 313  P     Pn    18 41 48.0 +1.4
      comp=Z,16nm,1.3s
FUSE  Fusea            10.49 312  P     Pn    18 41 50.6 +1.2
KBA   Koelnbreinsper   10.68 315 ePn    Pn    18 41 51.7 -0.6
      comp=Z,2.5nm,0.3s
KBA   Koelnbreinsper   10.68 315  P     Pn    18 41 52.3  0.0
      comp=Z,22nm,1.1s
MOA   Molln            10.72 321 ePn    Pn    18 41 54.8 +2.2
      comp=Z,1.1nm,0.5s
MOA                              eSn    Sn    18 43 52.4 +0.4
      comp=Z,3.3nm,0.6s
TEOL  Teolo            10.77 304  Pn    Pn    18 41 51.5 -1.8
ANN   Anapa            10.84  59 eP     Pn    18 41 51.9 -2.3
ANN                               pmax  pmax
      comp=Z,26nm,1.2s
VRAC  Vranov           10.85 332  Pn    Pn    18 41 56.3 +1.9
      comp=Z,0.1nm,0.3s,baz=159,slow=13,SNR=1.5
VRAC                              Sn    Sn    18 43 54.6 -0.6
      comp=Z,0.3nm,0.3s,baz=126,slow=18,SNR=1.8
      comp=Z,0.7nm,0.4s
VRAC                              AML   AML
BIOA  Bad Ischl, Aus   10.92 319 ePn    Pn    18 41 57.1 +1.7
      comp=Z,1.2nm,0.2s
BIOA                             eSn    Sn    18 43 56.3 -0.7
      comp=Z,1.7nm,0.3s
CGRP  Cima Grappa      10.92 307  P     Pn    18 41 54.8 -0.8
      comp=Z,10.0nm,0.7s
ABTA  Abfaltersbach    10.95 312 ePn    Pn    18 41 56.7 +0.8
      comp=Z,1.5nm,0.5s
CTI   Castel Tesino    11.10 307  P     Pn    18 41 55.5 -2.4
CTI   Castel Tesino    11.10 307        Pn    18 41 55.5 -2.4
LESA  Schwarzleotal    11.26 315 ePn    Pn    18 42 01.9 +1.8
      comp=Z,2.7nm,0.4s
LESA                             eSn    Sn    18 44 05.6 +0.3
      comp=Z,0.1nm,0.2s
KIEV  Kiev             11.28  16  P     Pn    18 41 56.4 -3.8
KIEV  Kiev             11.28  16        Pn    18 41 56.4 -3.8
KIEV  Kiev             11.28  16  P     Pn    18 41 59.4 -0.8
      comp=Z,7.4nm,0.6s
MMAI  Mount Meron Ar   11.28 124  Pn    Pn    18 42 00.1 -0.4
      comp=Z,3.5nm,0.3s,baz=310,slow=9.7,SNR=11
MMAI                              Sn    Sn    18 44 00.2 -5.9
      comp=Z,1.0nm,0.3s,baz=325,slow=29,SNR=1.9
      comp=Z,0.8nm,0.4s
MMAI                              AML   AML
AKASG Malin Array Be   11.29  16  Pn    Pn    18 41 59.4 -1.0
      comp=Z,2.9nm,0.4s,baz=208,slow=12,SNR=22
AKASG                             LR    LR    18 46 34.2
      comp=Z,457nm,20.6s,baz=248,slow=39
AKASG Malin Array Be   11.29  16        Pn    18 41 57.1 -3.2
AKBB  Malin Array Si   11.29  16 i P    Pn    18 41 59.1 -1.2
AKBB  Malin Array Si   11.29  16        Pn    18 41 56.6 -3.7
RJOB  Jochberg         11.39 317  P     Pn    18 42 04.1 +2.3
      comp=Z,10nm,0.8s
CKRC  Cesky Krumlov    11.39 324 eP     Pn    18 42 10.8 +9.0
CKRC  Cesky Krumlov    11.39 324 eP     Pn    18 42 10.8 +9.0
GERES GERESS Array B   11.68 323  Pn    Pn    18 42 07.6 +1.7
      comp=Z,0.1nm,0.3s,baz=155,slow=13,SNR=6.6
      comp=Z,1.1nm,0.5s
GERES                             AML   AML
GERES GERESS Array B   11.68 323  Pn    Pn    18 42 01.9 -4.0
WTTA  Wattenberg       11.74 313 ePn    Pn    18 42 08.1 +1.4
      comp=Z,1.5nm,0.3s
WTTA                             eSn    Sn    18 44 17.3  0.0
      comp=Z,0.7nm,0.3s
WTTA  Wattenberg       11.74 313  P     Pn    18 42 07.8 +1.1
      comp=Z,15nm,1.5s
WATA  Walderalm        11.81 313 ePn    Pn    18 42 09.8 +2.1
      comp=Z,0.5nm,0.2s
WATA                             eSn    Sn    18 44 18.2 -0.9
      comp=Z,0.3nm,0.2s
KHC   Kasperske Hory   11.95 324 eP     Pn    18 42 13.7 +4.3
KHC   Kasperske Hory   11.95 324 eP     Pn    18 42 13.7 +4.3
SQTA  Sankt Quirin     11.96 312 ePn    Pn    18 42 10.6 +1.0
      comp=Z,2.6nm,0.5s
SQTA                             eSn    Sn    18 44 20.3 -2.2
      comp=Z,4.7nm,0.6s
SOC   Sochi            12.05  67 eP     Pn    18 42 11.7 +0.9
SOC                              e            18 44 27.3
SOC                               MLR   MLR
      comp=Z,272nm,15.0s
MOTA  Moosalm          12.09 312 ePn    Pn    18 42 13.1 +1.7
      comp=Z,0.1nm,0.2s
MOTA                             eSn    Sn    18 44 27.8 +2.1
      comp=Z,1.7nm,0.5s
FETA  Feichten         12.13 310 i Pn   Pn    18 42 12.3 +0.2
      comp=Z,4.4nm,1.0s,SNR=6.9
KZIT  Kziot            12.20 135  P     Pn    18 42 12.8  0.0
      comp=Z,24nm,1.0s
DAVOX Davos/Dischmat   12.52 308  Pn    Pn    18 42 17.6 +0.2
      comp=Z,0.4nm,0.3s,baz=96,slow=20,SNR=9.0
DAVOX                             Sn    Sn    18 44 36.3 -0.1
      comp=Z,0.1nm,0.3s,baz=131,slow=23,SNR=1.3
      comp=Z,3.6nm,0.6s
DAVOX                             AML   AML
KEST  Kesra            12.56 255  Pn    Pn    18 42 18.9 +0.9
      comp=Z,0.2nm,0.3s,baz=83,slow=8.1,SNR=4.0
      comp=Z,5.4nm,0.9s
KEST                              AML   AML
KEST  Kesra            12.56 255  Pn    Pn    18 42 17.8 -0.2
TUE   Stuetta          12.71 306        Pn    18 42 18.5 -1.5
DAVA  Damuels          12.77 310 ePn    Pn    18 42 21.2 +0.5
      comp=Z,1.4nm,0.4s
ASF   Jabal al Asfar   12.79 123  Pn    Pn    18 42 22.7 +1.7
      comp=Z,0.2nm,0.3s,baz=294,slow=20,SNR=1.6
      comp=Z,1.1nm,0.5s
ASF                               AML   AML
EIL   Elat             13.46 136  Pn    Pn    18 42 30.2 +0.1
      comp=Z,0.3nm,0.3s,baz=338,slow=11,SNR=1.7
      comp=Z,1.4nm,0.5s
EIL                               AML   AML
CLL   Collm            13.82 329 eP     P     18 42 46.0 +2.7
CLL   Collm            13.82 329 ePx    Px    18 42 35.0
CLL                              esPP         18 42 46.0
SENIN Lac Senin/Sane   13.97 303  Pn    Pn    18 42 32.3 -4.9
BFO   Black Forest     14.19 311  P     Pn    18 42 36.7 -3.4
BFO   Black Forest     14.19 311  Pn    Pn    18 42 36.7 -3.4
KIV   Kislovodsk       14.23  68 eP     Pn    18 42 41.6 +0.9
KIV                               pmax  pmax
      comp=Z,7.0nm,1.1s
KVAR  Kislovodsk Arr   14.24  68  Pn    Pn    18 42 41.1 +0.3
      baz=266,slow=15
      comp=Z,2.1nm,0.6s
KBZ   Khabaz           14.35  69  Pn    Pn    18 42 41.5 -0.7
      comp=Z,0.1nm,0.3s,baz=275,slow=11,SNR=1.9
      comp=Z,1.3nm,0.9s
KBZ                               AML   AML
MNK   Minsk            14.75   8 i P    Pn    18 42 48.2 +0.6
MNK                              i S    Sn    18 45 31.6 +1.1
MNK                               pmax  pmax
      comp=N,13nm,0.9s
MNK                               pmax  pmax
      comp=E,15nm,0.9s
MNK                               pmax  pmax
      comp=Z,9.0nm,0.8s
MNK                               MLR   MLR
```

	comp=E,313nm,17.0s						
MNK				MLR	MLR		
	comp=Z,429nm,17.0s						
MNK				MLR	MLR		
	comp=N,356nm,17.0s						
MNK	Minsk	14.75	8	iP	Pn	18 42 48.3	+0.6
	comp=E,15nm,0.9s						
MNK				iP	Pn	18 42 48.3	+0.6
	comp=N,13nm,0.9s						
MNK				iP	Pn	18 42 48.3	+0.6
	comp=Z,9.0nm,0.8s,baz=190						
MNK				iPP	PnPn	18 42 56.2	+0.6
MNK				iPPP	PPP	18 43 03.9	
MNK				iS	Sn	18 45 31.6	+1.1
MNK				iSS	SnSn	18 45 45.4	+2.3
MNK				iSSS	SSS	18 45 58.0	
MNK				iLQ	LQ	18 46 49.6	
MNK				iLR	LR	18 48 17.0	
MNK				iLRM	MLR	18 49 04.9	
	comp=E,313nm,16.6s						
MNK				iLRM	MLR	18 49 04.9	
	comp=Z,429nm,16.5s						
MNK				iLRM	MLR	18 49 34.3	
	comp=N,356nm,17.2s						
NACGM	Naroch	15.05	5	eP	Pn	18 42 53.7	+2.1
	comp=Z,8.0nm,0.7s,baz=187						
VSR	Storozhevoye	15.29	38	eP	Pn	18 42 53.6	-1.2
VSR				pmax	pmax		
	comp=Z,10.0nm,1.0s						
GNI	Garni	15.64	83	Pn	Pn	18 43 00.5	+0.8
	comp=Z,1.6nm,0.4s,baz=341,slow=21,SNR=1.6						
GNI	Garni	15.64	83	iP	Pn	18 43 01.4	+1.8
LPSR	Galich'ya Gora	16.14	34	eP	Pn	18 43 07.3	+1.4
LPSR				pmax	pmax		
	comp=Z,10.0nm,0.9s						
VRH	Novokhopyorsk	16.53	41	eP	Pn	18 43 10.6	-0.2
VRH				pmax	pmax		
	comp=Z,9.0nm,0.9s						
OBN	Obninsk	17.23	24	P	Pn	18 43 19.7	+0.2
	comp=Z,12nm,0.4s,baz=45,slow=22,SNR=4.0						
OBN	Obninsk	17.23	24	⇑eP	Pn	18 43 20.3	+0.7
OBN				pmax	pmax		
	comp=Z,6.0nm,0.3s						
OBN				MLR	MLR		
	comp=Z,336nm,15.0s						
MOS	Moscow	18.09	25	eP	P	18 43 36.3	+5.8
MOS				pmax	pmax		
	comp=Z,34nm,1.0s						
BELG	Belogornoye	20.27	44	P	P	18 43 55.0	+0.6
	comp=Z,2.8nm,0.6s,baz=215,slow=17,SNR=1.9						
	comp=Z,2.8nm,0.6s						
BELG	Belogornoye	20.27	44	iP	P	18 43 56.3	+2.0
HFS	Hagfors	21.27	345	P	P	18 44 06.4	+1.2
	comp=Z,0.7nm,0.5s,baz=153,slow=9.7,SNR=1.4						
	comp=Z,0.7nm,0.5s						
FIA1	FINESS Array S	21.55	2	P	P	18 44 06.9	-1.2
FIA1				IAmb	IAmb	18 44 37.9	
	comp=Z,30nm,1.1s						
FINES	FINESS Array B	21.55	2	P	P	18 44 08.2	+0.2
	comp=Z,1.3nm,0.6s,baz=181,slow=9.2,SNR=7.3						
	comp=Z,1.3nm,0.6s						
FINES	FINESS Array B	21.55	2	P	P	18 44 07.2	-0.8
ESBB	Sonseca Array	21.70	278	P	P	18 44 08.1	-1.9
ESDC	Sonseca Array	21.70	278	P	P	18 44 09.2	-0.8
	comp=Z,2.4nm,1.0s,baz=77,slow=10.0,SNR=7.5						
	comp=Z,2.4nm,1.0s						
KONO	Kongsberg	21.79	340	P	P	18 44 09.1	-1.6
KONO				pmax	pmax		
	comp=Z,15nm,1.1s						
KONO	Kongsberg	21.79	340	P	P	18 44 09.1	-1.6
KONO				IAmb	IAmb	18 44 38.3	
	comp=Z,15nm,1.1s						
PAB	San Pablo	22.01	278	P	P	18 44 11.8	-1.6
PAB				pmax	pmax		
	comp=Z,25nm,1.5s						
PAB	San Pablo	22.01	278	P	P	18 44 11.8	-1.6
PAB				IAmb	IAmb	18 44 38.8	
	comp=Z,25nm,1.5s						
NC602	NORSAR Array S	22.27	343	P	P	18 44 14.4	-1.4
NC602				IAmb	IAmb	18 44 22.0	
	comp=Z,21nm,1.1s						
NAO01	NORSAR Array S	22.51	343	P	P	18 44 16.3	-2.2
NAO01				IAmb	IAmb	18 44 22.4	
	comp=Z,19nm,1.1s						
NC405	NORSAR Array S	22.57	344	P	P	18 44 16.8	-2.3
NC405				IAmb	IAmb	18 44 55.6	
	comp=Z,25nm,1.4s						
NB2	NORSAR Subarra	22.61	343	P	P	18 44 20.1	+0.5
	comp=Z,6.6nm,0.9s,baz=152,slow=11						
NOA	NORSAR Array B	22.61	343	P	P	18 44 19.8	+0.2
	comp=Z,3.3nm,1.0s,baz=153,slow=10,SNR=7.9						
	comp=Z,3.3nm,1.0s						
NC303	NORSAR Array S	22.75	344	P	P	18 44 18.0	-2.9
NC303				IAmb	IAmb	18 45 01.6	
	comp=Z,24nm,1.4s						
KLMR	Klimovskoe	22.95	19	eP	P	18 44 23.9	+0.9
KLMR				pmax	pmax		
	comp=Z,38nm,1.5s						
TAM	Tamanrasset	23.38	229	P	P	18 44 30.8	+2.9
	comp=Z,4.0nm,0.9s						
EKA	Eskdalemuir Ar	23.86	319	P	P	18 44 31.9	-0.2
	comp=Z,1.8nm,0.7s,baz=120,slow=8.5,SNR=2.4						
	comp=Z,1.8nm,0.7s						
RAYN	Ar Rayn	24.25	126	P	P	18 44 34.5	-1.6
RAYN				pmax	pmax		
	comp=Z,4.0nm,1.0s						
RAYN	Ar Rayn	24.25	126		P	18 44 34.5	-1.6
RAYN	Ar Rayn	24.25	126	P	P	18 44 39.1	+3.0
	comp=Z,4.6nm,1.0s						
KIRV	Kirov	24.57	32	ceP	P	18 44 42.0	+3.4
AVE	Averroes	26.23	265	P	P	18 44 52.0	-1.9
AB31	Akbulak array	26.80	58	P	P	18 44 56.2	-2.7
ABKAR	Akbulak array	26.80	58	P	P	18 44 56.4	-2.5
ARTI	Arti	27.66	42	iP	P	18 45 08.8	+2.2
ARTI				pmax	pmax		
	comp=Z,5.0nm,1.2s						
TORD	Torodi Ar. Bea	33.31	223	P	P	18 45 57.6	+0.8
	comp=Z,2.2nm,0.6s,baz=34,slow=9.0,SNR=17						
	comp=Z,2.2nm,0.6s						
KK31	Karatay Array	34.39	69	P	P	18 46 03.8	-2.2
KK31				pmax	pmax		
	comp=Z,6.0nm,1.5s						
KK31	Karatay Array	34.39	69	P	P	18 46 03.8	-2.2
KKAR	Karatay Array	34.39	69	P	P	18 46 04.0	-2.0
KKAR	Karatay Array	34.39	69	P	P	18 46 04.0	-2.0
KURBB	Kurchatov Arra	38.79	56	P	P	18 46 44.8	+1.4
	comp=Z,0.4nm,0.7s,baz=282,slow=8.5,SNR=2.0						
	comp=Z,0.4nm,0.7s						
KURK	Kurchatov	38.84	55	iP	P	18 46 46.8	+3.0
KURK				pmax	pmax		
	comp=Z,2.0nm,1.1s						
KURK	Kurchatov	38.84	55	P	P	18 46 44.2	+0.4
MK31	Makanchi Array	41.85	61	iP	P	18 47 10.2	+1.3
MKAR	Makanchi Array	41.85	61	P	P	18 47 10.4	+1.5
	comp=Z,1.3nm,0.6s,baz=277,slow=7.0,SNR=15						
	comp=Z,1.3nm,0.6s						
MKAR	Makanchi Array	41.85	61	iP	P	18 47 10.5	+1.6
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
DBIC	Dimbokro	42.23	226	P	P	18 47 13.1	+1.0
	comp=Z,3.7nm,0.9s,baz=40,slow=11,SNR=4.5						
	comp=Z,3.7nm,0.9s						
DBIC	Dimbokro	42.23	226	P	P	18 47 12.3	+0.1
DBIC				IAmb	IAmb	18 47 41.1	
	comp=Z,21nm,1.4s						
ZAA0	Zalesovo Array	42.30	50	P	P	18 47 11.4	-0.9
ZALV	Zalesovo Beam	42.30	50	P	P	18 47 13.4	+1.0
	comp=Z,1.1nm,0.5s,baz=266,slow=10.0,SNR=6.0						
	comp=Z,1.1nm,0.5s						
ZALV	Zalesovo Beam	42.30	50	iP	P	18 47 11.8	-0.5
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.5s						
ZALV	Zalesovo Beam	42.30	50	P	P	18 47 10.7	-1.7
NRIK	Noril'sk	43.88	27	LR	LR	19 09 27.2	
	comp=Z,685nm,20.8s,baz=46,slow=41						
DGZ	Jazzator, Alta	44.59	56	iP	P	18 47 32.1	+1.0
IVI	Ivigtut	47.81	321	P	P	18 47 55.0	-1.0
SONM	Songino Array	57.04	53	P	P	18 49 06.7	+1.8
	comp=Z,0.6nm,0.7s,baz=290,slow=9.3,SNR=3.5						
	comp=Z,0.6nm,0.7s						
SONM	Songino Array	57.04	53	P	P	18 49 03.5	-1.3
SONM				IAmb	IAmb	18 49 26.8	
	comp=Z,4.6nm,1.5s						
RES	Resolute Bay	58.88	344	P	P	18 49 16.2	-1.0
RES				pmax	pmax		
	comp=Z,23nm,1.2s						
RES	Resolute Bay	58.88	344	P	P	18 49 16.2	-1.0
YAK	Yakutsk	62.09	31	iP	P	18 49 40.8	+1.5
YAK				pmax	pmax		
	comp=Z,2.0nm,0.9s						
LPHEP	Lephephe	63.00	178	P	P	18 49 45.5	-0.4
HHC	Hu-ho-hao-te	63.59	58	eP	P	18 49 49.0	-0.8
HHC				pmax	pmax		
	comp=Z,15nm,0.5s						
D62A	Allapoint, All	64.15	311	P	P	18 49 52.5	-0.7
PZH	PanZhiHua	64.28	76	P	P	18 49 54.5	-0.1
LBTB	Lobatse	64.64	179	P	P	18 49 56.5	-0.1
LBTB				pmax	pmax		
	comp=Z,5.0nm,1.1s						
LBTB	Lobatse	64.64	179	P	P	18 49 56.5	-0.1
LBTB				IAmb	IAmb	18 50 22.7	
	comp=Z,5.2nm,1.1s						
CHTO	Chiang Mai	66.54	85	P	P	18 50 09.6	+0.5
	comp=Z,2.5nm,0.9s						
CMAR	Chiang Mai Arr	66.75	85	P	P	18 50 11.1	+0.7
	comp=Z,1.1nm,0.8s,baz=303,slow=7.2,SNR=8.5						
	comp=Z,1.1nm,0.8s						
CMAR	Chiang Mai Arr	66.75	85	iP	P	18 50 11.3	+0.9
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BOSA	Boshof	68.22	179	P	P	18 50 20.8	+1.3
	comp=Z,1.5nm,0.5s,baz=352,slow=6.6,SNR=3.9						
	comp=Z,1.5nm,0.5s						
BOSA	Boshof	68.22	179	P	P	18 50 18.3	-1.2
BILL	Bilibino	68.60	14	iP	P	18 50 23.0	+1.7
BILL				pmax	pmax		
	comp=Z,4.0nm,1.0s						
E29M	Blow River	71.16	353	P	P	18 50 36.7	-0.4
D23K	Nanushuk River	71.34	358	P	P	18 50 37.3	-0.9
BMAR	Burnt Mountain	72.61	356		P	18 50 45.2	-0.7
F24K	Squaw Lake	72.69	357	P	P	18 50 46.0	-0.3
F24K				IAmb	IAmb	18 51 18.7	
	comp=Z,5.0nm,1.2s						
YKA	Yellowknife Ar	72.70	341	P	P	18 50 49.2	+2.9
	comp=Z,0.5nm,0.7s,baz=38,slow=5.6,SNR=2.4						
	comp=Z,0.5nm,0.7s						
H29M	Whitestone	73.32	353	P	P	18 50 48.4	-1.7
H29M				IAmb	IAmb	18 51 07.0	
	comp=Z,5.6nm,1.2s						
NJ2	Nanjing	73.37	62	eP	P	18 50 49.8	-1.1
NJ2				pmax	pmax		
	comp=Z,13nm,0.6s						
I30M	Mount Dempster	74.08	352	P	P	18 50 53.0	-1.7
I30M				IAmb	IAmb	18 51 06.6	
	comp=Z,3.1nm,1.1s						
J30M	Hart River	74.70	351	P	P	18 50 56.3	-2.0
J30M				IAmb	IAmb	18 51 07.8	
	comp=Z,5.5nm,1.3s						
KSRS	Korea Array	75.91	53	P	P	18 51 04.8	-0.7
	comp=Z,1.8nm,1.0s,baz=311,slow=5.0,SNR=2.4						
	comp=Z,1.8nm,1.0s						
ASAR	Alice Springs	119.44	97	PKP	PKPdf	18 58 08.1	-0.6
	comp=Z,0.3nm,0.6s,baz=307,slow=1.9,SNR=4.5						

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*IDC **26** 19:05:25.1±0.7, 22°.34N×121°.57E, h0^{km}, mb3.9/14, mbtmp4.0/16, ML3.8/2, Error ellipse: s-maj=16.7km s-min=14.3km az=81.0*

*NEIC **26** 19:05:26.9±1.4, 22°.39N±0°.04×121°.50E±0°.04, h8^{km}±4^{km}, mb4.1/23, Error ellipse: s-maj=6.3km s-min=4.6km az=47.0*

*TAP **26** 19:05:28.6, 22°.39N×121°.39E, h19^{km}, ML4.4, C*

*JMA **26** 19:05:29.7±0.2, 23°N±1°×121°.5E±0°.5, h27^{km}, MV4.2/15, TAIWAN REGION*

ISC 26 19:05:25.9±1.1**, 22°.39N**±0°.02×**121°.53E**±0°.02**, h6**^{km}±7^{km}**,**
n238, σ1^{s}.16/317**, mb4.0**/25**, 23C-4D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LDUT	Ludao	0.29	349	⇓iP	Pn	19 05 35.5	-1.1
LDUT				eS	Sb	19 05 40.9	+2.3
LAY	Lan-yu	0.35	176	⇓P	Pn	19 05 36.7	-0.8
LAY				eS	Sb	19 05 41.9	+1.5
LYUB	Lan-yu	0.39	172	⇓iP	Pb	19 05 36.3	+1.1
LYUB				S	Sb	19 05 41.3	-0.1
TTN	Taitung	0.51	316	⇓iP	Pn	19 05 38.4	-1.3
TTN				eS	Sb	19 05 45.8	+1.0
ECL	Taimali	0.57	291	⇑iP	Pb	19 05 37.6	-0.7
ECL				S	Sg	19 05 44.4	+0.1
TAW	Tawu	0.58	267	⇑eP	Pg	19 05 37.7	+0.5
TAW				S	Sg	19 05 44.2	-0.6
TWGBT	Beinan	0.59	316	P	Pb	19 05 39.1	+0.4
TWGBT	Beinan	0.59	316	S	Sb	19 05 46.0	-1.4
TWGBT	Beinan	0.59	316	⇑eP	Pb	19 05 39.1	+0.4
TWG	Pinlang	0.60	316		Pb	19 05 39.0	+0.2
TWG				Sg	Sg	19 05 44.8	-0.6
TWG	Pinlang	0.60	316	⇑eP	Pb	19 05 39.0	+0.2
EDH	Donghe	0.62	341	⇑iP	Pn	19 05 40.3	-0.9
EDH				S	Sn	19 05 49.6	-1.8
EAST	Anshuo	0.63	270	⇑iP	Pg	19 05 38.4	+0.4
EAST				iS	Sg	19 05 45.4	-0.8
LONT	Longtian	0.63	325	⇑eP	Pn	19 05 40.2	-1.2
SLIU	Shizi	0.70	256	⇑iP	Pg	19 05 39.5	+0.2
SLIU				eS	Sg	19 05 47.3	-1.0
CHKT	Chengkung	0.72	348	⇑P	Pn	19 05 41.9	-0.8
CHKT				eS	Sb	19 05 51.4	+0.3
SMST	Manzhou Townsh	0.74	240	⇑iP	Pb	19 05 40.7	-0.4
SMST				iS	Sg	19 05 49.5	-0.2
ECS	Chishang	0.76	338	eP	Pn	19 05 42.7	-0.4
ECS				eS	Sn	19 05 55.6	+0.7
TSEB	Hengchuen, Pin	0.76	230	⇑iP	Pb	19 05 42.0	+0.5
TSEB				iS	Sb	19 05 52.2	+0.1
TWKBT	Hengchun	0.80	236	⇑iP	Pg	19 05 41.7	+0.5
TWKBT				S	Sg	19 05 51.9	+0.2
TWK1	Hengchun	0.80	237	⇑P	Pg	19 05 41.8	+0.4
TWK1				S	Sg	19 05 51.3	-0.5
CHKH	Chenggong	0.81	351	eP	Pn	19 05 43.5	-0.3
CHKH				S	Sb	19 05 53.9	+0.4
EHD	Haiduan	0.81	339	eP	Pb	19 05 42.8	+0.3
HEN	Hengchun	0.82	243	⇑eP	Pg	19 05 42.1	+0.4
HEN				iS	Sg	19 05 52.1	-0.4
FULB	Fuli	0.83	345	P	Pn	19 05 43.8	-0.4
FULB				eS	Sn	19 05 55.6	-1.2
SCZT	Fangliau	0.84	269	⇑iP	Pg	19 05 41.8	-0.3
SCZT				S	Sg	19 05 50.9	-2.1
MASBT	Mashibuluo	0.86	285	⇑eP	Pg	19 05 42.1	-0.3
TSMG	Majia	0.87	291	⇑eP	Pg	19 05 42.5	-0.2
TSMG				eS	Sg	19 05 51.7	-2.4
SSPT	Xinbi	0.89	276	eP	Pg	19 05 43.4	+0.3
SSD	Sandimen	0.90	293	⇑eP	Pg	19 05 42.9	-0.4
ECBN	Changbin	0.93	356	eP	Pn	19 05 45.7	+0.3
ECBN				eS	Sn	19 05 57.8	-1.3
ELDTW	Lidau	0.93	330	⇑eP	Pg	19 05 44.0	+0.3
EYUL	Yuli	0.97	349	eP	Pn	19 05 46.3	+0.2
EYUL				eS	Sn	19 06 01.6	+1.3
TWF1	Yuli	0.98	348	eP	Pb	19 05 45.3	-0.1
SLGT	Liugui	1.01	307	eP	Pg	19 05 45.4	+0.1
SGLT	Jiouru	1.01	289	eP	Pb	19 05 45.8	0.0
YULB	Yu-li	1.02	348	P	Pb	19 05 46.1	+0.1
YULB	Yu-li	1.02	348	S	Sn	19 06 02.0	+0.6
YULB	Yu-li	1.02	348		Pg	19 05 45.7	+0.1
YULB				Sg	Sb	19 05 59.8	+0.1
YULB	Yu-li	1.02	348	eP	Pb	19 05 45.9	-0.2
YULB				eS	Sn	19 06 01.0	-0.5
STYH	Taoyuan	1.04	318	eP	Pb	19 05 46.0	-0.4
WLCH	Liuqiu	1.06	268	eP	Pn	19 05 48.6	+1.3
SCST	Cishan	1.07	298	P	Pn	19 05 47.0	-0.5
TWP	Hsiaoliuchiu	1.08	268	eP	Pn	19 05 48.7	+1.1
TWP				eS	Sn	19 06 04.4	+1.6
HGSD	Ruisui	1.10	355	eP	Pn	19 05 48.2	+0.3
TWM1	Shoushan	1.11	293	P	Pn	19 05 48.0	0.0
SGST	Jiashian	1.11	309	iP	Pb	19 05 47.1	-0.4
SGST				eS	Sg	19 06 01.9	+0.2
EHYH	Wanrong	1.11	351	eP	Pn	19 05 48.4	+0.3
EHYH				eS	Sn	19 06 02.8	-0.8
EHY	Hungye	1.13	350	eP	Pn	19 05 48.8	+0.5
KAU	Kaohsiung	1.14	279	eP	Pn	19 05 49.9	+1.5
SNJT	Kaohsiung City	1.16	288	eP	Pg	19 05 50.5	+2.3
WSSB	Gushan	1.20	282	eP	Pg	19 05 50.4	+1.5
WSSB				eS	Sn	19 06 07.4	+1.6
WTP	Ta-pu	1.20	316	⇑iP	Pg	19 05 49.2	+0.2
WTP				eS	Sn	19 06 07.8	+1.9
CHN1	Nanshi	1.22	311	⇑P	Pg	19 05 49.9	+0.7
CHN1				eS	Sn	19 06 07.5	+1.2
YUS	Yu-Shan	1.22	334	eP	Pg	19 05 50.7	+1.3
TPUB	Ta-pu	1.23	318	P	Pg	19 05 50.2	+0.7
TPUB	Ta-pu	1.23	318	S	Sn	19 06 06.8	+0.2
TPUB	Ta-pu	1.23	318		Pg	19 05 49.9	+0.4
TPUB					Sn	19 06 06.6	+0.1
TPUB	Ta-pu	1.23	318	⇑iP	Pg	19 05 50.0	+0.5
CHN3	Shinhua	1.27	303	eP	Pg	19 05 52.3	+1.9
CHN3				eS	Sg	19 06 09.7	+2.8
CHN4	Tsaushan	1.29	318	P	Pg	19 05 51.0	+0.4
CHN4				S	Sg	19 06 10.1	+2.7
TWK	Hsinying	1.30	313	⇑iP	Pg	19 05 51.2	+0.4
TWK				S	Sg	19 06 11.0	+3.3
ALS	Alishan	1.30	329	P	Pg	19 05 51.1	+0.3
ALS				eS	Sn	19 06 11.0	+2.3
TEGC	Jichi Village	1.31	1	eS	Sg	19 06 09.2	+1.0
WARBT	Fenglin Townsh	1.33	354	eP	Pg	19 05 51.5	0.0
WCKO	Fanlu	1.35	321	P	Pg	19 05 52.5	+0.7
WCKO				eS	Sg	19 06 10.9	+1.6
SSHA	Shanhua	1.36	303	eP	Pb	19 05 51.6	-0.2
SSHA				eS	Sg	19 06 11.1	+1.3
SHUL	Shoufeng	1.39	1	iP	Pg	19 05 53.1	+0.5
SHUL				eS	Sg	19 06 11.4	+0.7
VWDT	VWDT	1.40	345	P	Pb	19 05 52.5	0.0
VWDT				eS	Sn	19 06 09.9	-0.9
ESL	Shilin	1.42	357	eP	Pn	19 05 51.5	-0.8
ESL				eS	Sg	19 06 12.1	+0.5
CHN5	Tsauling	1.43	327	P	Pg	19 05 53.3	-0.2
CHN5				eS	Sg	19 06 13.3	+1.2
WHYT	Xinyi Township	1.44	335	eP	Pg	19 05 53.7	+0.1
TEYL	Yanliau Villag	1.47	3	eP	Pg	19 05 54.6	+0.4
TEYL				S	Sg	19 06 15.0	+1.7
SSLB	Suanglung	1.49	339	P	Pg	19 05 54.4	-0.1
SSLB	Suanglung	1.49	339	S	Sg	19 06 16.9	+3.1
SSLB	Suanglung	1.49	339		Pb	19 05 53.7	-0.3
SSLB	Suanglung	1.49	339	eP	Pb	19 05 54.1	+0.1
CHY	Chiayi	1.50	318	eP	Pg	19 05 54.4	-0.3
CHY				eS	Sg	19 06 14.5	+0.3
ICHU	Yijhu	1.50	310	P	Pb	19 05 53.8	-0.4
ICHU				eS	Sn	19 06 12.1	-1.2
TSCK	Chigu Township	1.53	300	eP	Pb	19 05 54.6	0.0
CHN8	Yiju	1.54	308	eP	Pb	19 05 54.7	-0.2
CHN8				eS	Sb	19 06 13.9	-0.8
ETM	Tongmen	1.57	359	eP	Pb	19 05 55.0	-0.4
HWA	Hwalien	1.58	3	eP	Pb	19 05 55.2	-0.4
HWA				eS	Sg	19 06 16.7	-0.1
WDLH	Douliu	1.58	325	eP	Pg	19 05 56.3	0.0
WDLH				eS	Sg	19 06 18.1	+1.3
OWD	Renai	1.59	348	eP	Pb	19 05 56.1	+0.3
OWD				eS	Sb	19 06 15.5	-0.8
SMLT	Sun Moon Lake	1.59	339	P	Pg	19 05 56.7	+0.1
SMLT				eS	Sg	19 06 17.6	+0.4
WDL	Douliou City	1.60	326	eP	Pg	19 05 56.8	+0.1
LXIB	Xiulin Townshi	1.63	356	eP	Pn	19 05 55.4	+0.1
TYC	Yuchr	1.63	338	P	Pg	19 05 57.1	0.0
TYC				eS	Sg	19 06 20.2	+1.9
WUSB	Renai	1.64	347	P	Pb	19 05 56.6	0.0
WSL	Shuilin Townsh	1.65	314	P	Pb	19 05 55.9	-0.8
WSL				eS	Sb	19 06 16.9	-0.8
WTK	Tuku	1.66	321	P	Pb	19 05 56.9	0.0
WTK				S	Sg	19 06 19.4	0.0
WNT	Mingjian	1.67	333	eP	Pg	19 05 58.3	+0.3
TWD	Chiawan	1.68	2	eP	Pb	19 05 56.5	-0.8
WSF	Szhu	1.73	316	iP	Pb	19 05 57.5	-0.5
WSF				S	Sb	19 06 19.6	-0.5
WCS	Beigang Elemen	1.75	341	iP	Pg	19 05 59.0	-0.5
WCS				eS	Sg	19 06 22.4	0.0
WHF	Hehuan Shan	1.76	352	eP	Pg	19 05 59.9	+0.1
NACB	Ninganchiao	1.78	2	P	Pb	19 05 58.1	-0.8
NACB	Ninganchiao	1.78	2	S	Sg	19 06 23.9	+0.8
NACB	Ninganchiao	1.78	2		Pn	19 05 57.0	-0.2
NACB				Sn	Sn	19 06 19.7	-0.4
NACB	Ninganchiao	1.78	2	eP	Pb	19 05 58.1	-0.8
NACB				eS	Sb	19 06 20.2	-1.2
ETLH	Xiulin Townshi	1.81	359	eP	Pn	19 05 58.0	+0.3
WRL	Guolierlin Hig	1.84	325	iP	Pb	19 05 59.5	-0.5
WRL				S	Sb	19 06 23.6	+0.4
RLNB	Erlin	1.84	325	eP	Pb	19 05 59.7	-0.3
WTCT	Ta-ch'eng	1.86	322	eP	Pb	19 06 00.1	-0.3
FUSS	Fushou	1.87	352	eP	Pb	19 05 59.7	-0.9
EOS4	EOS4	1.87	23	eP	Pb	19 06 00.2	-0.1
EOS4				S	Sn	19 06 22.2	+0.3
TWT	Tachien	1.88	350	eP	Pb	19 06 00.9	+0.1
TDCB	Techi	1.89	350	eP	Pg	19 06 02.0	-0.2
WCH1	Changhua City	1.90	332	eS	Sg	19 06 26.6	-0.5
WCHH	Zhanghua	1.90	332	eP	Pb	19 06 01.3	+0.2
TCU	Taichung	1.92	336	eP	Pb	19 06 01.1	-0.2
WDGT	Dungji	1.93	297	eP	Pn	19 05 58.3	-1.0
EAHA	Aohua	1.94	6	eP	Pb	19 06 00.7	-1.0
WHP	Taichung City	1.95	344	eP	Pg	19 06 02.9	-0.6
WHP				iS	Sg	19 06 29.2	+0.4
EOS3	EOS3	2.02	21	eP	Pn	19 06 01.5	+1.1
EOS3				eS	Sn	19 06 26.7	+0.8
NNSB	Datong	2.03	356	eP	Pb	19 06 03.0	-0.3
ENA	Nanau	2.04	5	eP	Pn	19 05 59.2	-1.6
NNS	Nan Shan	2.05	356	eP	Pb	19 06 03.9	+0.3
EWUT	Wuta	2.06	6	eP	Pn	19 06 01.8	+0.8
EWUT				eS	Sn	19 06 27.6	+0.5
TWQ1	Liyutan	2.07	341	P	Pb	19 06 03.8	-0.1
TWQ1				eS	Sb	19 06 30.8	+0.9
VCHM	Qimei	2.10	293	eP	Pn	19 05 59.2	-2.4
WDJ	Dajia District	2.11	337	eP	Pb	19 06 03.5	-1.1
WDJ				eS	Sg	19 06 33.4	-0.5
PHUB	P'eng-hu	2.12	302	P	Pn	19 06 00.6	-1.3
PHUB				eS	Sn	19 06 25.2	-3.3
EOS2	EOS2	2.12	18	eP	Pb	19 06 05.0	+0.3
LATG	Datong	2.14	360	eP	Pb	19 06 03.8	-1.3
PNG	Penghu	2.16	303	eP	Pn	19 06 01.6	-0.9
PNG				eS	Sn	19 06 26.4	-3.2
NDT	Datong Townshi	2.20	360	eP	Pb	19 06 06.7	+0.6
TWC	Suao	2.23	8	eP	Pn	19 06 04.8	+1.4
NDS	Dongshan	2.24	4	eP	Pb	19 06 05.0	-1.8
NMLH	Miaoli	2.24	343	eP	Pb	19 06 07.5	+0.7
NMLH				eS	Sg	19 06 36.5	-1.6
NFF	Wufeng Townshi	2.26	351	P	Pb	19 06 06.4	-0.8
NFF				eS	Sb	19 06 35.2	-0.3
YHNB	Yeheng	2.27	357	P	Pb	19 06 06.7	-0.7
YHNB	Yeheng	2.27	357	S	Sb	19 06 35.9	0.0
YHNB	Yeheng	2.27	357		Pn	19 06 05.2	+1.1
YHNB	Yeheng	2.27	357	eP	Pb	19 06 06.5	-1.0
NSK	Sanguang	2.28	356	P	Pb	19 06 05.8	-1.7
NSTT	Nanjuang	2.28	348	eP	Pb	19 06 06.4	-1.1
NSTT				eS	Sb	19 06 33.9	-2.1
LIOB	Emei	2.29	348	eP	Pb	19 06 06.8	-1.0
LIOB				eS	Sb	19 06 37.0	+0.7
TWE	Neicheng	2.33	3	eP	Pb	19 06 08.2	0.0
FUSB	Fushanzhiwuyua	2.36	1	eP	Pb	19 06 07.5	-1.4
NWLT	Wulai	2.38	359	eP	Pb	19 06 07.3	-1.8
KSHI	Guanxi Townshi	2.40	352	eP	Pb	19 06 08.9	-0.6
KSHI				eS	Sb	19 06 38.7	-0.6
JYNG	Yonagunijimaku	2.43	32	eP	Pb	19 06 08.7	-1.4
YOJ	Yonaguni jima	2.47	33	P	Pb	19 06 09.8	-1.0
YOJ	Yonaguni jima	2.47	33		Pn	19 06 07.5	+0.7
YOJ	Yonaguni jima	2.47	33	eP	Pn	19 06 07.9	+1.2
YOJ				eS	Sn	19 06 38.8	+1.5
TATO	Taipei	2.58	359	P	Pb	19 06 11.8	-0.7
TATO	Taipei	2.58	359	S	Sb	19 06 43.4	-1.0
TATO	Taipei	2.58	359		Pn	19 06 08.8	+0.7
TWA	Mucha	2.58	1	eP	Pb	19 06 11.3	-1.3
TWA				eS	Sn	19 06 40.7	+0.8
TIPB	Shuangxi	2.59	6	eP	Pb	19 06 11.8	-0.9
TIPB				eS	Sn	19 06 41.7	+1.7
TWB1	Santiao Chiao	2.64	9	eP	Pb	19 06 12.2	-1.4
TWB1				eS	Sn	19 06 42.5	+1.2
HATJ	Hateruma jima	2.67	51	eP	Pb	19 06 12.1	-2.1
HATJ				eS	Sn	19 06 42.7	+0.5
WFSB	Wu-fen Shan	2.68	5	eP	Pn	19 06 11.4	+1.8
SXI1	Grass Mountain	2.71	7	eP	Pb	19 06 12.5	-2.4
SXI1				eS	Sb	19 06 45.9	-2.6
YM01	YM01	2.75	1	eP	Pb	19 06 13.9	-1.5
ZUZH	Zhuzihu	2.76	0	eP	Pb	19 06 13.2	-2.5
YM08	YM08	2.79	1	eP	Pn	19 06 13.3	+2.2
IRIF	Iriomote-Funau	2.80	46	P	Pb	19 06 13.9	-2.4
JKRS	Kuro-shima	2.93	51	eP	Pb	19 06 16.0	-2.6
JIJ	Ishigaki jima	3.10	50	eP	Pn	19 06 17.8	+2.3
VWUC	VWUC	3.21	324	P	Pn	19 06 17.2	+0.3
JISG	Ishigakijimahi	3.36	49	eP	Pn	19 06 21.1	+2.1
JISG				eS	Sn	19 06 59.9	+0.6
PTMZ	Houxiangcun	3.44	321	P	Pn	19 06 20.1	+0.1
PTMZ				eS	Sn	19 06 59.6	-1.4
KNM	Kinmen	3.48	306	eP	Pn	19 06 21.4	+0.7
KNMB	Chin-men Tao	3.55	306	Pn	Pn	19 06 21.5	0.0
KNMB	Chin-men Tao	3.55	306	eP	Pn	19 06 20.8	-0.7

JTJ	Tarama	3.68	52	eP	Pn	19 06 25.8	+2.5
ZPLA	Ao Xicun	3.80	295	eP	Pn	19 06 24.3	-0.7
DSXP	Dongshan	4.00	290	P	Pn	19 06 26.8	-0.9
MATB	Ma-tsu	4.01	339	eP	Pn	19 06 28.1	+0.2
AXDP	Jialang	4.11	308	P	Pn	19 06 29.1	-0.2
JIRJ	Irabujima	4.15	53	eP	Pn	19 06 32.6	+2.8
JMJ2	Miyako jima3	4.20	55	eP	Pn	19 06 33.1	+2.6
JMJ2				eS	Sn	19 07 20.4	+0.6
JMJ	Miyako jima 2	4.21	54	P	Pn	19 06 33.1	+2.4
MHZQ	Yeshan	4.34	329	P	Pn	19 06 32.7	+0.3
MHZQ				eS	Sn	19 07 20.6	-2.7
LYJJ	Jianjiangzhen	4.44	339	eP	Pn	19 06 34.0	+0.2
XPSS	Dashiqiu	4.68	345	eP	Pn	19 06 38.7	+1.6
SXFK	Yanhouchang	5.33	319	eP	Pn	19 06 46.0	-0.1
HKPS	Hong Kong Po S	6.84	270	P	Pn	19 07 07.2	+0.4
	45nm,1.2s						
HKPS				AML	AML		
HKPS	Hong Kong Po S	6.84	270	Pn	Pn	19 07 06.5	-0.3
JOW	Kunigami	7.57	53	Pn	Pn	19 07 16.5	-0.2
	4.6nm,0.3s,baz=130,slow=14,SNR=12						
JOW				Sn	Sn	19 08 36.4	-6.5
	0.5nm,0.3s,baz=274,slow=28,SNR=1.1						
	13nm,0.3s						
JOW				AML	AML		
JOW	Kunigami	7.57	53	P	Pn	19 07 20.6	+3.8
	23nm,1.6s						
JOW				AML	AML		
JOW	Kunigami	7.57	53		Pn	19 07 15.7	-1.1
KSRS	Korea Array	16.00	19	Pn	Pn	19 09 11.0	-0.5
	0.2nm,0.3s,baz=199,slow=9.8,SNR=6.5						
	1.0nm,0.8s						
KSRS				AML	AML		
INU	Inuyama	18.70	43		Pn	19 09 45.9	+0.6
INU				IAmb	IAmb	19 09 53.5	
	comp=Z,10nm,0.8s						
JGF	Kuroka	19.07	43	P	Pn	19 09 50.1	+0.2
MJAR	Matsushiro Arr	20.20	42	P	Pn	19 10 06.2	+2.9
	comp=Z,3.8nm,0.7s,baz=228,slow=9.3,SNR=18						
MJAR	Matsushiro Arr	20.20	42	P	P	19 10 01.8	+0.4
TOLI2	Tolitoli	21.16	182	P	P	19 10 12.8	+0.8
TOLI2				IAmb	IAmb	19 10 20.8	
	comp=Z,6.2nm,1.0s						
CMAR	Chiang Mai Arr	21.52	264	P	P	19 10 17.3	+1.5
	comp=Z,1.8nm,0.9s,baz=70,slow=9.0,SNR=16						
CMAR				PcP	PcP	19 14 19.8	+1.1
	comp=Z,0.3nm,0.5s,baz=83,slow=2.2,SNR=4.7						
	comp=Z,1.8nm,0.9s						
CMAR	Chiang Mai Arr	21.52	264	P	P	19 10 14.5	-1.3
SBUM	Sibu	21.78	206	P	P	19 10 17.8	-0.8
SBUM				IAmb	IAmb	19 10 47.6	
	comp=Z,7.8nm,1.2s						
TNTI	Ternate	22.23	164	P	P	19 10 22.5	-0.9
TNTI				IAmb	IAmb	19 10 27.3	
	comp=Z,5.8nm,0.6s						
USRK	Ussuriysk Ar.	23.41	19	P	P	19 10 35.2	-0.3
	comp=Z,1.6nm,0.6s,baz=206,slow=7.4,SNR=2.4						
	comp=Z,1.6nm,0.6s						
USRK	Ussuriysk Ar.	23.41	19	P	P	19 10 35.7	+0.2
SONM	Songino Array	28.14	338	P	P	19 11 19.4	+0.5
	comp=Z,1.7nm,0.6s,baz=155,slow=9.7,SNR=10						
	comp=Z,1.7nm,0.6s						
SONM	Songino Array	28.14	338	P	P	19 11 18.1	-0.7
KNRA	Kununurra	38.49	169	P	P	19 12 47.2	-1.7
KNRA				IAmb	IAmb	19 13 23.7	
	comp=Z,7.8nm,1.4s						
MKAR	Makanchi Array	39.85	317	P	P	19 13 01.1	+0.9
	comp=Z,2.1nm,0.6s,baz=113,slow=10,SNR=16						
MKAR				PcP	PcP	19 15 05.5	-0.6
	comp=Z,0.2nm,0.6s,baz=132,slow=2.1,SNR=1.7						
	comp=Z,2.1nm,0.6s						
MKAR	Makanchi Array	39.85	317	P	P	19 13 00.1	-0.1
MAKZ	Makanchi	40.05	317	P	P	19 13 01.8	-0.1
MAKZ				IAmb	IAmb	19 13 07.3	
	comp=Z,2.6nm,0.7s						
FITZ	Fitzroy Crossi	40.44	174	P	P	19 13 04.0	-1.3
ZAA0	Zalesovo Array	41.92	328		P	19 13 16.9	-0.3
ZAA0				IAmb	IAmb	19 13 23.0	
	comp=Z,4.0nm,0.8s						
ZALV	Zalesovo Beam	41.92	328	P	P	19 13 17.7	+0.6
	comp=Z,3.3nm,0.7s,baz=120,slow=8.8,SNR=15						
	comp=Z,3.3nm,0.7s						
ZALV	Zalesovo Beam	41.92	328		P	19 13 16.4	-0.8
H11N1	WAKE ISLAND Hy	42.30	85	T	T	19 58 53.0	
	baz=282,slow=74,SNR=108						
H11N2	WAKE ISLAND Hy	42.30	85	T	T	19 58 52.8	
	baz=282,slow=74,SNR=190						
H11N3	WAKE ISLAND Hy	42.32	85	T	T	19 58 53.0	
	baz=282,slow=74,SNR=206						
H11S3	WAKE ISLAND Hy	42.38	87	T	T	19 58 57.8	
	baz=284,slow=75,SNR=376						
H11S1	WAKE ISLAND Hy	42.39	87	T	T	19 58 58.4	
	baz=284,slow=75,SNR=178						
H11S2	WAKE ISLAND Hy	42.40	87	T	T	19 59 01.5	
	baz=284,slow=75,SNR=148						
KURK	Kurchatov	43.67	321	P	P	19 13 31.6	+0.2
KURK				IAmb	IAmb	19 13 37.7	
	comp=Z,4.0nm,1.2s						
KURBB	Kurchatov Arra	43.69	321	P	P	19 13 32.2	+0.7
	comp=Z,1.0nm,0.2s,baz=118,slow=7.3,SNR=9.3						
	comp=Z,1.0nm,0.2s						
WB0	Warramunga Arr	43.74	162	P	P	19 13 31.2	-1.0
WB0				IAmb	IAmb	19 13 41.4	
	comp=Z,6.8nm,1.4s						
WRA	Warramunga Arr	43.90	162	P	P	19 13 32.2	-1.3
	comp=Z,1.4nm,0.8s,baz=344,slow=8.9,SNR=8.9						
	comp=Z,1.4nm,0.8s						
WRA	Warramunga Arr	43.90	162	P	P	19 13 31.9	-1.6
KKAR	Karatay Array	46.82	309	P	P	19 13 56.4	-0.2
AS31	Alice Springs	47.34	164	P	P	19 14 00.7	0.0
ASAR	Alice Springs	47.34	164	P	P	19 14 00.5	-0.3
	comp=Z,0.5nm,0.3s,baz=343,slow=7.3,SNR=44						
ASAR				PcP	PcP	19 15 31.5	-0.1
	comp=Z,0.3nm,0.7s,baz=332,slow=3.3,SNR=2.0						
	comp=Z,0.5nm,0.3s						
ASAR	Alice Springs	47.34	164	P	P	19 14 00.0	-0.7
BVAR	Borovoye Array	49.26	322	P	P	19 14 16.2	+0.9
	comp=Z,0.7nm,0.5s,baz=115,slow=6.8,SNR=5.9						
BVAR				PcP	PcP	19 15 37.8	-0.4
	comp=Z,0.4nm,0.5s,baz=107,slow=3.9,SNR=2.0						
	comp=Z,0.7nm,0.5s						
BORK	Borovoye	49.31	322	P	P	19 14 16.5	+0.9
AB31	Akbulak array	54.92	315	P	P	19 14 57.9	+0.4
AB31				IAmb	IAmb	19 15 16.6	
	comp=Z,1.7nm,1.1s						
ABKAR	Akbulak array	54.92	315	P	P	19 14 57.8	+0.4
BBOO	Buckleboo	56.62	165	P	P	19 15 09.7	0.0
STKA	Stephens Creek	57.28	160	P	P	19 15 14.1	-0.3
	comp=Z,0.6nm,0.5s,baz=324,slow=8.7,SNR=1.3						
	comp=Z,0.6nm,0.5s						
H21K	Melozitna Rive	68.06	26	P	P	19 16 26.0	-0.1
F24K	Squaw Lake	69.76	24	P	P	19 16 37.5	+0.8
F25K	Christian Rive	70.59	24	P	P	19 16 42.3	+0.5
F25K				IAmb	IAmb	19 16 57.8	
	comp=Z,1.2nm,0.8s						
BMAR	Burnt Mountain	71.03	24	P	P	19 16 46.0	+1.6
SCRK	Sand Creek	72.06	28	P	P	19 16 51.4	+0.6
SCRK				IAmb	IAmb	19 17 03.1	
	comp=Z,1.8nm,1.0s						
FINES	FINESS Array B	73.15	330	P	P	19 16 57.3	+0.2
	comp=Z,1.7nm,0.9s,baz=70,slow=9.0,SNR=5.8						
	comp=Z,1.7nm,0.9s						
BRTR	Keskin Array B	74.49	307	P	P	19 17 05.8	+0.2
	comp=Z,0.3nm,0.6s,baz=65,slow=5.0,SNR=2.3						
	comp=Z,0.3nm,0.6s						
BRTR	Keskin Array B	74.49	307	P	P	19 17 06.0	+0.3
NOA	NORSAR Array B	79.95	332	P	P	19 17 35.7	0.0
	comp=Z,1.6nm,1.1s,baz=60,slow=5.5,SNR=1.9						
	comp=Z,1.6nm,1.1s						
GERES	GERESS Array B	84.42	321	P	P	19 18 00.7	+1.2
	comp=Z,0.9nm,0.6s,baz=66,slow=5.3,SNR=4.2						
	comp=Z,0.9nm,0.6s						

SDD ***26*** *19:09:22.7±2.2, 20°.14N×70°.81W, h23*^{km}*±7*^{km}*, MD3.5, ML2.7, MW2.8, Presumed earthquake*

OSPL ***26*** *19:09:27.4±2.2, 20°.28N×70°.86W, h20*^{km}*±8*^{km}*, ML2.4, Presumed earthquake*

ISC 26 19:09:24.6±1.9**, 20°.23N**±0°.06×**70°.86W**±0°.05**, h20**^{km}±5^{km}**, n15,** σ**1ˢ00**/26**, 13C, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LUDR	Luperon	0.35	195	⇑iS	Sg	19 09 36.3	-1.0
LOPP1	Punta Rusia, P	0.50	221	i P	Pn	19 09 37.8	+1.1
LOPP1				eS	Sn	19 09 45.0	+0.3
LOPP1				IAML		19 09 46.9	
	comp=Z,113nm,1.0s						
SODR	Sosua Marina B	0.55	151	i S	Sg	19 09 43.3	+0.3
SODR				IAML		19 09 46.1	
	comp=N,464nm,0.8s						
SC01	Santiago de lo	0.81	171	i P	Pn	19 09 42.9	+1.9
SC01				eS	Sn	19 09 53.2	+0.8
SC01				IAML		19 09 56.5	
	comp=Z,67nm,0.5s						
SC01	Santiago de lo	0.81	171	⇑iP	Pb	19 09 39.1	-1.0
SC01				⇑iS	Sb	19 09 49.4	-1.2
SC01				IAML		19 09 54.8	
	comp=N,148nm,0.5s						
GRTK	Grand Turk	1.30	349	⇑iP	Pn	19 09 47.9	+0.2
GRTK				IAML		19 10 42.4	
	comp=N,252nm,0.1s						
SDDR	Presa de Saban	1.31	198	i P	Pn	19 09 47.9	0.0
SDDR				eS	Sn	19 10 05.6	+0.8
SDDR				IAML		19 10 10.3	
	comp=Z,54nm,0.5s						
SDDR	Presa de Saban	1.31	198	⇑iP	Pn	19 09 47.3	-0.6
SDDR				⇑iS	Sn	19 10 05.2	+0.3
SDDR				IAML		19 10 07.9	
	comp=N,76nm,0.6s						
ABDR	Alto Bandera	1.43	171	⇑iP	Pn	19 09 49.5	-0.4
ABDR				⇑iS	Sn	19 10 07.8	-0.4
ABDR				IAML		19 10 08.6	
	comp=N,97nm,0.6s						
DR08	Loma La Naviza	1.49	148	⇑iS	Sn	19 10 08.7	-0.6
DR08				IAML		19 10 13.3	
	comp=N,982nm,0.1s						
LONE3	El Aguacate, B	1.72	199	i P	Pn	19 09 54.8	+1.2
LONE3				eS	Sb	19 10 16.8	0.0
LONE3				IAML		19 10 22.4	
	comp=Z,24nm,0.5s						
SMDR	Samana, DR	1.83	121	⇑iP	Pn	19 09 55.3	+0.3
SMDR				⇑iS	Sn	19 10 18.2	+0.6
SMDR				IAML		19 10 55.2	
	comp=N,40nm,1.0s						
HATOM	Hato Mayor del	2.00	136	i P	Pn	19 09 57.6	+0.2
HATOM				i S	Sn	19 10 22.8	+0.9
PODR	Polo	2.09	191	i P	Pb	19 10 01.1	-1.0
PODR				eS	Sn	19 10 26.5	+2.1
PODR				IAML		19 10 34.5	
	comp=Z,199nm,0.3s						
MIDR	Miches	2.11	126	⇑iP	Pn	19 09 58.8	0.0
MIDR				⇑iS	Sn	19 10 26.3	+1.8
MIDR				IAML		19 10 36.1	
	comp=N,16nm,0.1s						

DJA ***26*** *19:34:43.9±0.5, 1°S±3°×13°4E±°, h16*^{km}*±5*^{km}*, M4.5/46, mB5.4/6, mb4.4/46, MLv4.4/22, Mw(mB)4.8/6*

IDC ***26*** *19:34:44.5±1.9, 1°.24S×134°.19E, h39*^{km}*±19*^{km}*, mb3.6/9, mbtmp3.8/13, ML3.8/4, Error ellipse: s-maj=19.7km s-min=12.5km az=30.0*

ISC 26 19:34:43.5±0.6**, 1°.13S**±0°.09×**134°.22E**±0°.06**, h27**^{km}**, n40,** σ**1ˢ34**/41**, mb3.9**/9**, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MWPI	Manokwari, Pap	0.27	319	P	Pb	19 34 50.6	+0.4
BAKI	Biak	1.89	92	P	Pn	19 35 14.6	+0.6
BAKI				AML	AML		
FAKI	Fak Fak	2.65	228	P	Pn	19 35 23.6	-0.9
SIJI	Sorong	2.96	275	Pn	Pn	19 35 28.9	+0.2
	26nm,0.3s,baz=217,slow=21,SNR=101						
SIJI				Sn	Sn	19 36 03.3	-0.2
	20nm,0.3s,baz=233,slow=23,SNR=1.9						
	63nm,0.3s						
SIJI				AML	AML		
SWI	Sorong	2.97	275	P	Pn	19 35 28.9	0.0
SWI				AML	AML		
BNDI	Bandanaira	5.47	232	P	Pn	19 36 05.3	+2.1
BNDI				AML	AML		
GENI	Genyem	6.12	104	P	Pn	19 36 15.0	+2.8
	0.1nm21nm,0.9s						
GENI				AML	AML		
JAY	Jayapura	6.63	102	Pn	Pn	19 36 19.6	+0.4
	0.4nm,0.3s,baz=184,slow=12,SNR=4.7						
JAY				Sn	Sn	19 37 31.7	-2.3
	baz=143,slow=22						
	4.3nm,0.7s						
JAY				AML	AML		
SAUI	Saumlaki	7.40	203	P	Pn	19 36 31.1	+1.3
NLAI	Namlea	7.41	253	P	Pn	19 36 31.2	+1.2
	0.2nm18nm,0.5s						
NLAI				AML	AML		
SANI	Sanana	8.28	264	P	Pn	19 36 40.5	-1.3
	8.7nm,0.8s						
MMPI	Merauke	9.53	140	P	Pn	19 37 02.2	+3.2
MNI	Manado	9.72	285	P	Pn	19 37 02.4	+0.7
	24nm,0.4s						
GTOI	Gorontalo	11.34	279	P	Pn	19 37 26.8	+2.9
	12nm,0.7s						
LUWI	Luwuk	11.44	270	P	Pn	19 37 26.0	+0.7
	822nm16nm,1.5s						
BBSI	Bau Bau	12.40	249	P	Pn	19 37 39.1	+0.7
	17nm,1.3s						
APSI	Ampana	12.57	271	P	Pn	19 37 41.4	+0.7
	24nm,0.6s						
SOEI	Soe	13.09	229	P	Pn	19 37 48.7	+0.8
	11nm,1.2s						
BATI	Baumata	13.83	229	Pn	Pn	19 37 53.8	-4.2
	1.0nm,0.3s,baz=53,slow=13,SNR=3.7						
PCI	Palu	14.38	271	P	Pn	19 38 06.1	+0.7
	17nm,0.8s						
EDFI	Ende, Flores	14.59	238	P	Pn	19 38 09.0	+0.6
	4.3nm,0.9s						
BKSI	Bulukumba	14.67	253	P	Pn	19 38 10.1	+0.7
	12nm,1.0s						
KAPI	Kappang	14.95	255	P	Pn	19 38 13.8	+0.7
PMG	Port Moresby	15.28	123	P	Pn	19 38 19.9	+2.4
	22nm,1.1s						
PMSI	Majene	15.47	261	P	Pn	19 38 20.7	+0.7
	29nm,1.2s						
LBFI	Labuhan Bajo,	16.03	242	P	Pn	19 38 28.0	+0.8
TARAI	Tarakan	17.22	285	P	Pn	19 38 43.2	+0.9
BKB	Balikpapan	17.32	269	P	Pn	19 38 44.2	+0.7
	122nm,1.2s						
WRA	Warramunga Arr	18.70	180	P	P	19 38 58.2	-1.7
	0.5nm,0.3s,baz=0.1,slow=12,SNR=28						
	2.0nm,0.6s						
WRA				AML	AML		
TWSI	Taliwang, Sumb	18.84	246	P	P	19 39 02.5	+1.0
FITZ	Fitzroy Crossi	18.85	206	P	P	19 39 00.4	-1.1
	0.2nm,0.3s,baz=39,slow=13,SNR=7.9						
FITZ				S	Sn	19 42 16.6	-16
	1.5nm,0.7s,baz=280,slow=18,SNR=2.3						
	2.0nm,0.8s						
FITZ				AML	AML		
ASAR	Alice Springs	22.40	181	P	P	19 39 38.5	-1.5
	2.6nm,0.7s,baz=3.7,slow=12,SNR=30						
	2.6nm,0.7s						
STKA	Stephens Creek	31.36	168	P	P	19 41 00.2	-1.8
	1.8nm,0.9s,baz=338,slow=11,SNR=2.0						
	1.8nm,0.9s						
CMAR	Chiang Mai Arr	39.77	301	P	P	19 42 14.6	+0.2
	1.2nm,0.8s,baz=119,slow=6.7,SNR=10						
	1.2nm,0.8s						
SONM	Songino Array	54.46	337	P	P	19 44 07.8	-1.0
	0.3nm,0.6s,baz=141,slow=7.3,SNR=2.3						
	0.3nm,0.6s						
MKAR	Makanchi Array	65.84	324	P	P	19 45 26.6	0.0
	1.0nm,0.7s,baz=113,slow=7.9,SNR=7.5						
	1.0nm,0.7s						
ZALV	Zalesovo Beam	68.36	331	P	P	19 45 42.0	-0.5
	0.4nm,0.4s,baz=132,slow=6.0,SNR=2.7						
	0.4nm,0.4s						
KURBB	Kurchatov Arra	69.89	326	P	P	19 45 51.8	-0.1
	0.8nm,0.5s,baz=120,slow=5.6,SNR=6.0						
	0.8nm,0.5s						
BVAR	Borovoye Array	75.48	326	P	P	19 46 25.4	+0.1
	0.6nm,0.7s,baz=100,slow=7.9,SNR=4.2						
	0.6nm,0.7s						
QSPA	South Pole Qui	88.80	180	P	P	19 47 34.0	-0.9
	0.9nm,0.9s,baz=337,slow=7.7,SNR=1.9						
	0.9nm,0.9s						

IDC ***26*** *19:47:19.2±1.6, 44°.11N×84°.69E, h0*^{km}*, mb3.8/3, mbtmp3.5/9, ML2.8/6, Error ellipse: s-maj=16.0km s-min=14.2km az=101.0*

SOME ***26*** *19:47:20.8, 44°.08N×84°.60E, h20*^{km}

NNC ***26*** *19:47:21.1±2.0, 44°.13N×84°.61E, h0*^{km}*, mb3.9, mpv3.6, Error ellipse: s-maj=17.8km s-min=7.4km az=131.0*

ISC 26 19:47:21.4±1.2**, 44°.13N**±0°.06×**84°.79E**±0°.06**, h10**^{km}**, n40,** σ**2ˢ52**/61**, mb3.7**/3**, 11C-3D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MK31	Makanchi Array	3.19	327	⇓Pn	Pn	19 48 12.0	+0.4
	0.4nm,0.3s,baz=144,slow=15,SNR=266						
MK31				⇑Pg	Pb	19 48 18.9	+0.7
	4.6nm,0.4s,baz=145,slow=19						
MK31				⇑Lg	Lg	19 49 01.6	
	7.5nm,0.4s,baz=145,slow=29,SNR=5.1						
MKAR	Makanchi Array	3.19	327	Pn	Pn	19 48 11.7	0.0
	1.1nm,0.3s,baz=145,slow=15,SNR=51						
MKAR				Pg	Pb	19 48 18.3	0.0
	5.0nm,0.3s,baz=146,slow=17,SNR=45						
MKAR				Sn	Sn	19 48 50.9	+1.0
	5.5nm,0.3s,baz=146,slow=21,SNR=5.5						
MKAR				Lg	Lg	19 49 00.2	
	12nm,0.3s,baz=143,slow=28,SNR=8.7						
	1.7nm,0.3s						
MKAR				AML	AML		
ZSN	Zaisan	3.32	1	Pg	Pb	19 48 21.7	+1.3
	6.1nm,0.3s						
ZSN				Lg	Lg	19 49 05.7	
	58nm,0.4s						
ZSN	Zaisan	3.32	1	eP	Pb	19 48 21.7	+1.3
	6.1nm,0.3s						
ZSN				eS	Sb	19 49 05.7	+4.8
	58nm,0.4s						
MAKZ	Makanchi	3.33	325	⇑Pn	Pn	19 48 13.1	-0.5
	0.7nm,0.3s						
MAKZ				⇑Pg	Pb	19 48 21.2	+0.6
	8.0nm,0.4s						
MAKZ				⇑Lg	Lg	19 49 05.9	
	22nm,0.6s						
DJR	Jarkent	3.60	275	Pg	Pb	19 48 23.6	-1.6
	17nm,0.3s						
DJR				Lg	Lg	19 49 08.8	
	60nm,0.4s						
DJR	Jarkent	3.60	275	eP	Pb	19 48 23.6	-1.6
	17nm,0.3s						
DJR				eS	Sb	19 49 08.8	-0.1
	60nm,0.4s						
PDGK	Podgornoye	3.93	260	⇑Pn	Pn	19 48 22.9	+1.1
	5.5nm,0.5s						
PDGK				⇑Pg	Pb	19 48 31.5	+0.8
	20nm,0.6s						
PDGK				⇑Sn	Sn	19 49 11.2	+3.2
	26nm,0.7s						
PDGK				⇑Lg	Lg	19 49 23.9	
	74nm,0.7s						
SHLS	Shalkode	3.99	258	Pg	Pn	19 48 24.3	+1.6
	21nm,0.2s						
SHLS				Lg	Lg	19 49 10.0	
	147nm,0.5s						
SHLS	Shalkode	3.99	258	eP	Pn	19 48 24.2	+1.6
	21nm,0.2s						
SHLS				eS	Sn	19 49 09.9	+0.4
	147nm,0.5s						
KNOS	Konyrlen	4.04	275	Pg	Pb	19 48 32.9	+0.2
	8.8nm,0.4s						
KNOS				Lg	Lg	19 49 24.7	
	40nm,0.2s						
KAPS	Kapalarasan	4.04	289	Pg	Pb	19 48 34.1	+1.4
	2.7nm,0.1s						
KAPS				Lg	Lg	19 49 26.9	
	62nm,0.2s						
KAPS	Kapalarasan	4.04	289	eP	Pb	19 48 31.5	-1.2
	3.5nm,0.2s						
KAPS				eS	Sb	19 49 22.1	+0.4
	46nm,0.4s						
UZB	Uzynbulak	4.30	259	Pg	Pb	19 48 35.1	-2.1
	5.5nm,0.2s						
UZB				Lg	Lg	19 49 28.5	
	39nm,0.6s						
UZB	Uzynbulak	4.30	259	eP	Pb	19 48 35.1	-2.1
	5.5nm,0.2s						
UZB				eS	Sb	19 49 28.5	-0.7
	39nm,0.6s						
KPKS	Kokpek	4.47	264	Pg	Pb	19 48 38.2	-1.9
	0.3nm,0.1s						
KPKS				Lg	Lg	19 49 33.5	
	76nm,0.3s						
KPKS	Kokpek	4.47	264	eP	Pb	19 48 38.2	-1.9
	0.3nm,0.1s						
KPKS				eS	Sb	19 49 33.5	-0.5
	76nm,0.3s						
BLB	Baldybastay	4.55	272	Pg	Pb	19 48 42.1	+0.8
	8.8nm,0.1s						
BLB				Lg	Lg	19 49 40.7	
	64nm,0.5s						
SATY	Saty	4.76	259	Pg	Pb	19 48 43.7	-1.2
	4.2nm,0.3s						
SATY				Lg	Lg	19 49 43.3	
	39nm,0.3s						
SATY	Saty	4.76	259	eP	Pb	19 48 43.7	-1.2
	4.2nm,0.3s						
SATY				eS	Sb	19 49 43.3	+0.9
	39nm,0.3s						
KURS	Kuram	4.84	265	Pg	Pb	19 48 44.9	-1.3
	23nm,0.7s						
KURS				Lg	Lg	19 49 46.2	
	35nm,0.8s						
KURS	Kuram	4.84	265	eP	Pb	19 48 44.9	-1.3
	23nm,0.7s						
KURS				eS	Sb	19 49 46.2	+1.8
	35nm,0.8s						
ARXS	Arharly	5.01	273	Pg	Pb	19 48 49.8	+0.6
	19nm,0.3s						
ARXS				Lg	Lg	19 49 54.0	
	60nm,0.4s						
ARXS	Arharly	5.01	273	eP	Pb	19 48 49.9	+0.6
	19nm,0.3s						
ARXS				eS	Sb	19 49 54.0	+4.5
	60nm,0.4s						
KOTS	Kotyrbulak	5.64	264	Pg	Pb	19 49 02.0	+2.0
	4.5nm,0.4s						
KOTS				Lg	Lg	19 50 15.0	
	54nm,0.5s						
KOTS	Kotyrbulak	5.64	264	eP	Pb	19 49 02.0	+2.0
	4.5nm,0.4s						
KOTS				eS	Sb	19 50 15.0	+7.3
	54nm,0.5s						
KTBS	Karatobe	5.87	269	Pg	Pb	19 49 06.4	+2.5
	0.1nm,0.1s						
KTBS				Lg	Lg	19 50 21.8	
	31nm,0.4s						
KTBS	Karatobe	5.87	269	eP	Pb	19 49 06.4	+2.5
	0.1nm,0.1s						
KTBS				eS	Sb	19 50 21.8	+7.5
	31nm,0.4s						
KRBS	Karabastau	6.60	269	Pg	Pb	19 49 20.2	+4.0
	2.9nm,0.5s						
KRBS				Lg	Lg	19 50 46.0	
	3.1nm,0.4s						
KRBS	Karabastau	6.60	269	eP	Pb	19 49 20.2	+4.0
	2.9nm,0.5s						
KRBS				eS	Sb	19 50 46.0	+11
	3.1nm,0.4s						
AAK	Ala-Archa	7.65	262	Pn	Pn	19 49 13.2	+0.2
	0.2nm,0.3s,baz=237,slow=18,SNR=1.6						
AAK				Pg	Pb	19 49 39.3	+5.1
	0.5nm,0.3s,baz=120,slow=9.2,SNR=4.4						
AAK				Lg	Lg	19 51 14.3	
	0.3nm,0.3s,baz=47,slow=23,SNR=5.6						
	0.7nm,0.3s						
AAK				AML	AML		
KURBB	Kurchatov Arra	7.76	329	Pn	Pn	19 49 12.7	-1.6
	0.3nm,0.3s,baz=140,slow=13,SNR=9.9						
KURBB				Pg	Pb	19 49 39.0	+3.1
	0.1nm,0.3s,baz=145,slow=17,SNR=5.3						
KURBB				Sn	Sn	19 50 39.7	-2.5
	0.1nm,0.3s,baz=143,slow=25,SNR=1.6						
KURBB				Lg	Lg	19 51 20.5	
	0.2nm,0.3s,baz=142,slow=32,SNR=8.5						
	1.0nm,0.4s						
KURBB				AML	AML		
KURBB	Kurchatov Arra	7.76	329	⇓Pn	Pn	19 49 13.0	-1.3
	2.0nm,0.5s						
KURBB				⇑Lg	Lg	19 51 27.2	
	36nm,0.8s						
KURK	Kurchatov	7.80	330	⇑Pn	Pn	19 49 13.9	-1.0
	0.6nm,0.6s						
KURK				⇓Lg	Lg	19 51 27.9	
	12nm,1.1s						
ZALV	Zalesovo Beam	9.83	0	Pn	Pn	19 49 40.6	-2.1
	0.3nm,0.3s,baz=178,slow=18,SNR=4.2						
ZALV				Sn	Sn	19 51 28.8	-4.2
	0.5nm,0.3s,baz=181,slow=20,SNR=6.9						

ZALV				Lg	Lg	19 52 27.6	
	baz=180,slow=31						
	0.5nm,0.3s						
ZALV				AML	AML		
BVAR	**Borovoye Array**	13.03	318	Pn	Pn	19 50 24.1	-2.2
	baz=129,slow=14,SNR=7.4						
BVAR				Sn	Sn	19 52 44.2	-7.0
	baz=124,slow=23,SNR=1.5						
BVAR				Lg	Lg	19 54 03.0	
	baz=124,slow=25,SNR=1.8						
	0.9nm,0.5s						
SONM	**Songino Array**	15.46	69	Pn	Pn	19 51 01.3	+1.8
	baz=268,slow=12,SNR=3.1						
	0.2nm,0.6s						
FINES	**FINESS Array B**	37.98	318	P	P	19 54 38.1	-0.9
	3.8nm,1.1s,baz=86,slow=8.7,SNR=3.7						
	3.8nm,1.1s						
ARCES	**ARCESS Array B**	38.84	331	P	P	19 54 45.2	-1.0
	1.0nm,0.6s,baz=88,slow=8.2,SNR=3.9						
	1.0nm,0.6s						
NOA	**NORSAR Array B**	45.15	319	P	P	19 55 36.2	-1.7
	0.3nm,0.5s,baz=77,slow=8.0,SNR=2.3						
	0.3nm,0.5s						

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*NEIC **26** 19:56:48.6±2.6, 10°.91S±0°.10×164°.5E±0°.1, h10^{km}±1^{km}, mb4.3/10, Error ellipse: s-maj=20.6km s-min=12.7km az=50.0*

*NOU **26** 19:56:50.9, 10°.55S×164°.53E, h47^{km}, mb4.3/24, Santa Cruz Islands Region*

*IDC **26** 19:56:53.9±3.3, 10°.85S×164°.32E, h49^{km}±28^{km}, mb3.5/7, mbtmp4.0/10, ML4.4/3, MS3.5/3, Error ellipse: s-maj=28.9km s-min=20.6km az=57.0*

ISC 26 19:56:50.9±0.7, **10°.84S**±0°.07×**164°.41E**±0°.08, **h29**^{km}, **n47**, σ**1.^{s}56**/47, **mb4.0**/13, **Santa Cruz Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HURO	**Huro Makira**	2.50	278	P	Pn	19 57 29.3	-0.3
HURO	**Huro Makira**	2.50	278	S	Sn	19 57 59.1	0.0
NGOA	**Tingoa Renbel**	4.33	260	P	Pn	19 57 54.6	-0.2
HNR	**Honiara**	4.62	287	P	Pn	19 57 59.7	+0.9
	43nm,0.3s,baz=37,slow=4.3,SNR=14						
HNR				S	Sn	19 58 52.0	+0.6
	151nm,0.5s,baz=182,slow=12,SNR=5.1						
HNR				LR	LR	19 59 52.5	
	comp=Z,449nm,19.2s,baz=172,slow=39						
	177nm,0.5s						
HNR				AML	AML		
HNR	**Honiara**	4.62	287	P	Pn	19 58 00.2	+1.5
HNR	**Honiara**	4.62	287	S	Sn	19 58 52.6	+1.2
SAVO	**Savo Central**	4.83	290	P	Pn	19 58 02.8	+1.1
SAVO	**Savo Central**	4.83	290	S	Sn	19 58 57.6	+0.8
TATA	**Tatamba Isabel**	5.16	298	P	Pn	19 58 05.5	-0.7
TATA	**Tatamba Isabel**	5.16	298	S	Sn	19 59 03.0	-1.8
KOUNC	**Koumac, New Ca**	9.65	181	Pn	Pn	19 59 06.6	-1.3
MARNC	**Mare, Loyalty**	11.13	162	P	Pn	19 59 30.8	+2.6
	67nm,1.5s						
MARNC	**Mare, Loyalty**	11.13	162	Pn	Pn	19 59 27.5	-0.7
DZM	**Mont Dzumac**	11.34	170	P	Pn	19 59 33.6	+2.5
	1.5nm,0.3s,baz=21,slow=9.0,SNR=51						
DZM				S	Sn	20 01 35.0	-1.9
	3.6nm,0.9s,baz=188,slow=15,SNR=2.0						
	3.1nm,0.3s						
DZM				AML	AML		
NOUC	**Port Laguerre**	11.34	171	P	Pn	19 59 34.9	+3.9
	8.8nm,1.9s						
YATNC	**Mamie plateau,**	11.40	168	P	Pn	19 59 34.6	+2.7
	12nm,1.0s						
OUENC	**Ouen Island, N**	11.74	169	P	Pn	19 59 40.6	+4.0
	17nm,1.9s						
OUENC	**Ouen Island, N**	11.74	169	Pn	Pn	19 59 35.6	-0.9
KRVT	**Keravat (AS076**	13.88	297	LR	LR	20 05 43.8	
	comp=Z,156nm,19.6s,baz=234,slow=38						
LKBA	**Tubou, Lakemba**	17.81	116	P	Pn	20 00 54.5	-2.2
	0.9nm,1.0s						
PATS	**Pohnpei**	18.58	341		P	20 01 04.7	-1.1
PATS				IAmb	IAmb	20 01 27.2	
	comp=Z,58nm,1.2s						
EIDS	**Eidsvold**	19.19	219	P	Pn	20 01 13.3	-0.3
EIDS				IAmb	IAmb	20 01 17.6	
	comp=Z,9.0nm,0.8s						
CTA	**Charters Tower**	19.75	240	P	Pn	20 01 20.7	+0.4
	comp=Z,0.6nm,0.3s,baz=58,slow=10,SNR=12						
	comp=Z,9.8nm,0.8s						
CTA				AML	AML		
CTAO	**Charters Tower**	19.75	240	P	Pn	20 01 19.9	-0.4
	comp=Z,5.1nm,0.9s						
CTAO	**Charters Tower**	19.75	240	P	Pn	20 01 19.6	-0.7
CTAO				IAmb	IAmb	20 01 22.2	
	comp=Z,11nm,0.9s						
MTSU	**Mount Surprise**	20.75	247	P	P	20 01 30.7	+1.1
	comp=Z,4.1nm,0.8s						
AFI	**Afiamalu**	23.45	100	LR	LR	20 09 06.2	
	comp=Z,136nm,20.3s,baz=118,slow=31						
STKA	**Stephens Creek**	29.71	222	P	P	20 02 56.6	+2.1
	comp=Z,2.1nm,0.7s,baz=33,slow=10,SNR=4.7						
	comp=Z,2.1nm,0.7s						
WB0	**Warramunga Arr**	30.24	249	P	P	20 02 57.9	-1.6
WB0				IAmb	IAmb	20 02 59.5	
	comp=Z,5.2nm,1.1s						
WRAB	**Tennant Creek**	30.32	249	P	P	20 03 00.2	+0.1
	comp=Z,3.9nm,2.2s						
WRA	**Warramunga Arr**	30.33	249	P	P	20 02 59.0	-1.2
	comp=Z,1.6nm,1.0s,baz=75,slow=9.1,SNR=9.2						
	comp=Z,1.6nm,1.0s						
WRA	**Warramunga Arr**	30.33	249	P	P	20 02 58.1	-2.1
ASAR	**Alice Springs**	31.72	242	P	P	20 03 11.1	-1.4
	comp=Z,0.3nm,0.5s,baz=63,slow=10,SNR=8.0						
	comp=Z,0.3nm,0.5s						
HTT	**Hallett**	32.43	222	P	P	20 03 19.5	+0.8
	comp=Z,15nm,1.6s						
BBOO	**Buckleboo**	34.02	226	P	P	20 03 33.2	+0.7
	comp=Z,13nm,1.1s						
BBOO	**Buckleboo**	34.02	226	P	P	20 03 32.3	-0.2
KNRA	**Kununurra**	35.00	258	P	P	20 03 39.9	-1.2
KNRA				IAmb	IAmb	20 03 42.1	
	comp=Z,4.7nm,1.1s						
FITZ	**Fitzroy Crossi**	38.17	255	P	P	20 04 07.1	-1.1
FITZ	**Fitzroy Crossi**	38.17	255	P	P	20 04 07.0	-1.1
BKB	**Balikpapan**	48.13	278	P	P	20 05 26.5	-2.3
	comp=Z,143nm,1.3s						
CMAR	**Chiang Mai Arr**	70.83	294	P	P	20 08 06.8	+1.4
	comp=Z,0.5nm,0.9s,baz=121,slow=5.5,SNR=2.4						
	comp=Z,0.5nm,0.9s						
QSPA	**South Pole Qui**	79.16	180	P	P	20 08 52.8	0.0
	comp=Z,0.8nm,1.0s,baz=19,slow=5.7,SNR=2.0						
	comp=Z,0.8nm,1.0s						
QSPA	**South Pole Qui**	79.16	180	P	P	20 08 52.9	+0.1
QSPA				IAmb	IAmb	20 09 12.9	
	comp=Z,3.4nm,1.2s						
F19K	**Shaleruckik Mo**	82.22	14	P	P	20 09 10.1	+1.3
IMAR	**Indian Mountai**	82.58	16	P	P	20 09 11.6	+0.7
ILAR	**Eielson Array**	83.74	19	P	P	20 09 17.5	+0.7
	comp=Z,0.7nm,0.8s,baz=222,slow=4.6,SNR=5.6						
	comp=Z,0.7nm,0.8s						
MKAR	**Makanchi Array**	92.48	317	P	P	20 09 59.7	+0.4
	comp=Z,0.2nm,0.6s,baz=103,slow=6.5,SNR=1.9						
	comp=Z,0.2nm,0.6s						

NOU 26 20:20:11.4, 17°.31S×168°.57E, h6^{km}, **MLv3.9**/12, **Vanuatu Islands, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTV	**Rentapao**	0.50	196	P	Pg	20 20 21.4	+0.3
RTV	**Rentapao**	0.50	196	S	Sg	20 20 28.3	+0.7
DVP	**Devils Point**	0.55	221	P	Pb	20 20 23.7	+0.2
DVP	**Devils Point**	0.55	221	S	Sg	20 20 30.2	+1.0
YATNC	**Mamie plateau,**	4.98	198	P	Pn	20 21 28.0	+1.2
NOUC	**Port Laguerre**	5.22	204	P	Pn	20 21 30.0	-0.1
	7.2nm,1.1s						
NOUC				AML	AML		
OUENC	**Ouen Island, N**	5.34	197	P	Pn	20 21 31.6	0.0
	9.7nm,1.3s						
OUENC				AML	AML		

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*IDC **26** 20:28:36.2±2.2, 32°.00N×140°.94E, h0^{km}, mb3.7/4, mbtmp3.7/5, ML2.5/1, Error ellipse: s-maj=84.3km s-min=19.2km az=74.0*

*JMA **26** 20:28:44.2±0.2, 32°.5N±0°.9×141°.0E±0°.8, h30^{km}, MV3.5/38, E OFF HACHIJOJIMA ISLAND*

ISC 26 20:28:39.7±1.4, **32°.30N**±0°.08×**141°.4E**±0°.1, **h31**^{km}, **n14**, σ**1.^{s}95**/16, **mb3.8**/4, **Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAOM	**Aogashimamukai**	1.35	278	eP	Pb	20 29 03.0	-1.4
JHCJ	**Hachijojimakas**	1.52	301	eP	Pn	20 29 05.0	+0.3
JHJ2	**Mitsune**	1.52	303	eP	Pn	20 29 05.3	+0.5
JMKN	**Mikurajimanish**	2.17	318	eP	Pn	20 29 14.8	+1.1
BSO1	**Boso 1**	2.37	353	eS	Sb	20 29 47.9	-2.1
JIZS	**Izushimoda**	3.18	320	eP	Pn	20 29 29.5	+2.0
JYN	**Shimob**	3.95	325	eP	Pn	20 29 42.1	+3.8
JHO	**Hitachi**	4.35	352	eP	Pn	20 29 44.6	+0.9
JHO				eS	Sn	20 30 30.8	-2.6
JAG	**Ashikaga**	4.41	340	eP	Pn	20 29 46.0	+1.5
MJAR	**Matsushiro Arr**	4.97	329	Pn	Pn	20 29 55.6	+3.4
	0.2nm,0.3s,baz=152,slow=12,SNR=12						
MJAR				Sn	Sn	20 30 49.4	+0.9
	baz=156,slow=24						
	4.4nm,0.6s						
MJAR				AML	AML		
MKAR	**Makanchi Array**	46.72	306	P	P	20 37 05.9	+0.1
	0.5nm,0.4s,baz=87,slow=9.1,SNR=12						
	0.5nm,0.4s						
WRA	**Warramunga Arr**	52.37	188	P	P	20 37 48.2	-0.8
	0.4nm,0.5s,baz=5.6,slow=7.6,SNR=8.5						
	0.4nm,0.5s						
BVAR	**Borovoye Array**	53.80	315	P	P	20 37 60.0	+0.8
	0.2nm,0.5s,baz=95,slow=6.1,SNR=2.3						
	0.2nm,0.5s						
FINES	**FINESS Array B**	72.99	333	P	P	20 40 06.3	+0.3
	2.2nm,1.1s,baz=93,slow=8.4,SNR=1.7						
	2.2nm,1.1s						

DJA 26 20:28:49.3±0.2, **1°N**±3°×**9°9E**±°, **h10**^{km}, **M3.6**/21, **mb4.3**/3, **MLv3.3**/21, **Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MNSI	**Mandailing Nat**	0.92	82	P	Pg	20 29 07.0	0.0
MNSI				AML	AML		
GSI	**Gunungsitoli**	1.27	300	P	Pn	20 29 10.7	-2.4
GSI				AML	AML		
PSI	**Prapat**	2.14	7	P	Pn	20 29 23.7	-1.5
SNSI	**Sinabang, Aceh**	2.92	307	P	Pn	20 29 35.1	-0.7
SNSI				AML	AML		
LHMI	**Lhok Sumawe**	4.85	339	P	Pn	20 30 02.6	+0.2
LHMI				AML	AML		
MASI	**Maura Aman, Be**	5.20	137	P	Pn	20 30 06.8	-0.4
	146nm,1.9s						
BSI	**Banda Aceh**	5.87	325	P	Pn	20 30 15.9	-0.5
	0.1nm17nm,1.1s						
BSI				AML	AML		

DJA 26 20:37:26.8±0.3, **1°N**±3°×**12°7E**±°, **h10**^{km}, **M3.3**/12, **mb4.1**/4, **MLv2.9**/12, **Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TNTI	**Ternate**	0.70	116	P	Pb	20 37 40.8	-0.3
TNTI				S	Sg	20 37 50.1	+0.6
TNTI				AML	AML		
LBMI	**Labuha**	1.87	156	P	Pn	20 37 58.8	-0.1
MNI	**Manado**	1.93	281	P	Pn	20 37 59.2	-0.6
MNI				AML	AML		
MWPI	**Manokwari, Pap**	7.57	105	P	Pn	20 39 17.3	0.0
	28nm,0.9s						

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*KRNET **26** 20:56:26.6±0.1, 40°.55N×72°.29E, h9^{km}, mb2.7*

*ISU **26** 20:56:26, 40°.59N×72°.32E, h24^{km}*

ISC 26 20:56:26.4±1.1, **40°.55N**±0°.03×**72°.27E**±0°.02, **h13**^{km}±9^{km}, **n15**, σ**1.^{s}05**/26, **16C-4D**, **Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TSTA	**Tashata**	0.16	81	P	Pb	20 56 31.8	+0.5
TSTA				S	Sb	20 56 34.9	+0.4
OHH	**Osh**	0.39	94	⇑iP	Pg	20 56 33.7	-0.6
OHH				⇑iS	Sg	20 56 39.5	-0.2
FRG	**Fergana**	0.41	244	P	Pb	20 56 36.0	+0.4
FRG				S	Sb	20 56 42.6	+0.9
ARSB	**Arslanbob**	0.94	35	⇑iP	Pn	20 56 44.6	-0.9
ARSB				⇑iS	Sn	20 56 57.5	-1.4
SFK	**Sufi-Kurgan**	1.09	119	⇑iP	Pg	20 56 47.0	-0.4
SFK				⇑iS	Sn	20 57 01.7	-0.9
DRK	**Karamyk**	1.13	199	⇑iP	Pn	20 56 48.1	-0.1
DRK				⇑iS	Sn	20 57 03.5	-0.2
BTK	**Batken**	1.22	246	⇑iP	Pb	20 56 49.7	+0.4
BTK				⇑iS	Sg	20 57 06.4	+0.8
SALK	**Salom-Alik**	1.22	74	⇑eP	Pg	20 56 49.3	-0.7
SALK				⇑eS	Sg	20 57 06.4	+0.4
ARK	**Arkit**	1.27	350	⇓iP	Pg	20 56 50.6	-0.2
ARK				⇓iS	Sg	20 57 07.9	+0.6
TRKS	**Terek-Say**	1.30	319	⇑iP	Pn	20 56 50.1	-0.3
TRKS				⇑iS	Sn	20 57 07.1	-0.6
CHMG	**Chimgan**	1.98	301	P	Pb	20 57 02.0	-0.4
CHMG				S	Sg	20 57 29.2	-0.8
PSK	**Pskem**	1.98	314	S	Sg	20 57 28.8	-1.4
TVKS	**Tavaksay**	2.23	298	S	Sb	20 57 35.7	+1.7
AAK	**Ala-Archa**	2.67	38	⇓Pg	Pg	20 57 20.8	+3.3
	0.6nm,0.7s						
AAK				⇑Lg	Lg	20 57 51.2	
	0.7nm,0.6s						
KK31	**Karatay Array**	2.87	333	⇓Pg	Pg	20 57 20.7	-0.7
	0.1nm,0.2s,baz=147,slow=14,SNR=4.2						
KK31				⇑Lg	Lg	20 57 55.7	
	1.0nm,0.5s,baz=145,slow=29,SNR=3.1						

NOU 26 21:08:28.3, 15°.89S×166°.75E, h0^{km}, **MLv4.3**/9, **Vanuatu Islands, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DVP	**Devils Point**	2.29	143	P	Pn	21 09 08.0	+0.7
RTV	**Rentapao**	2.48	140	P	Pn	21 09 11.3	+1.3
MARNC	**Mare, Loyalty**	5.69	168	P	Pn	21 09 53.4	-0.8
YATNC	**Mamie plateau,**	6.14	179	P	Pn	21 09 58.8	-1.5
NOUC	**Port Laguerre**	6.19	184	P	Pn	21 10 02.4	+1.4

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*NEIC **26** 21:21:01.2±0.8, 43°.66N±0°.06×105°.24W±0°.05, h0^{km}±1^{km}, ML3.3/53, Error ellipse: s-maj=10.8km s-min=5.9km az=16.0*

*IDC **26** 21:21:05.3±1.1, 44°.00N×105°.69W, h0^{km}, mb4.1/1, mbtmp3.4/5, ML3.2/4, MS3.2/10, Error ellipse: s-maj=23.7km s-min=10.6km az=142.0*

ISC 26 21:21:03.2±0.8, **43°.64N**±0°.05×**105°.27W**±0°.05, **h0**^{km}, **n47**, σ**0.^{s}88**/39, **MS3.6**/4, **Wyoming**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RSSD	**Black Hills**	1.01	61	Pg	Pg	21 21 20.8	-1.8
K22A	**Casper**	1.35	223	Pg	Pg	21 21 26.8	-2.3
RLMT	**Red Lodge**	3.23	299		Pn	21 21 54.5	-0.8
RLMT				IAML		21 22 58.6	
	51nm,1.0s						
RLMT				IAML		21 22 58.9	
	55nm,0.5s						
PD31	**Pinedale Array**	3.26	256	Pn	Pn	21 21 55.7	0.0
PDAR	**Pinedale Array**	3.26	256	Pn	Pn	21 21 56.0	+0.3
	2.3nm,0.3s,baz=70,slow=16,SNR=37						
PDAR				Pg	Pb	21 22 02.3	+0.3
	7.1nm,0.3s,baz=68,slow=18,SNR=30						
PDAR				LR	LR	21 22 41.5	
	comp=Z,22nm,21.5s,baz=72,slow=31						
PDAR				Lg	Lg	21 22 42.7	
	9.3nm,0.3s,baz=68,slow=28,SNR=3.7						
	2.9nm,0.3s						
PDAR				AML	AML		
PDAR	**Pinedale Array**	3.26	256	Pn	Pn	21 21 55.5	-0.2
BW06	**Boulder Array**	3.26	256		Pn	21 21 56.5	+0.7
BW06				IAML		21 22 50.1	
	50nm,0.7s						
HAYD	**Hayden**	3.45	206		Pn	21 21 58.4	0.0
HAYD				IAML		21 23 06.6	
	comp=E,61nm,1.3s						
OGNE	**Ogallala**	3.61	137		Pn	21 22 00.4	0.0
YMP	**Mirror Lake Pl**	3.68	289		Pn	21 22 01.2	-0.4
ISCO	**Idaho Springs**	3.85	184	Pn	Pn	21 22 03.8	-0.1
ISCO				IAML		21 23 15.5	
	comp=E,36nm,0.9s						
ISCO				IAML		21 24 10.7	
	comp=E,30nm,4.4s						
LOHW	**Long Hollow**	3.88	271		Pn	21 22 04.3	+0.1
LOHW				IAML		21 23 27.5	
	comp=E,27nm,1.4s						
SNOW	**Snow King Moun**	3.99	269		Pn	21 22 06.3	+0.5
SNOW				IAML		21 23 34.2	
	comp=E,54nm,1.4s						
YPP	**Pitchstone Pla**	4.05	281		Pn	21 22 05.8	-0.8
YPP				IAML		21 22 33.6	
	comp=E,25nm,0.5s						
YPP				IAML		21 23 24.1	
	comp=N,31nm,1.3s						
YHH	**Holmes Hill**	4.17	288		Pn	21 22 07.7	-0.7
FXWY	**Fox Creek**	4.18	272		Pn	21 22 08.7	+0.3
AHID	**Auburn Hatcher**	4.35	260		Pn	21 22 11.3	+0.6
AHID				IAML		21 23 36.5	
	comp=N,32nm,1.5s						
AHID				IAML		21 23 41.3	
	comp=N,35nm,0.7s						
E28A	**Huff**	4.37	46		Pn	21 22 10.0	-0.8
YHL	**Hebgen Lake**	4.42	288		Pn	21 22 12.2	+0.5
YHL				IAML		21 23 43.1	
	comp=N,28nm,1.0s						
YHL				IAML		21 23 45.2	
	comp=E,41nm,1.2s						
Q24A	**Divide**	4.67	179		Pn	21 22 14.3	-0.9
Q24A				IAML		21 23 37.4	
	comp=E,33nm,0.7s						
Q24A				IAML		21 23 38.8	
	comp=N,18nm,0.9s						
DGMT	**Dagmar**	4.89	8		Pn	21 22 18.2	+0.3
BOZ	**Bozeman (W)**	4.94	295		Pn	21 22 18.0	-0.9
BOZ				IAML		21 23 51.5	
	comp=N,17nm,1.8s						
BOZ				IAML		21 24 47.7	
	comp=N,22nm,4.8s						
KSCO	**Kaye Shedlock'**	5.04	156		Pn	21 22 19.0	-1.1
HWUT	**Hardware Ranch**	5.07	249		Pn	21 22 20.4	-0.3
HWUT				IAML		21 23 50.3	
	comp=N,24nm,1.1s						
BSUT	**Blindstream Ca**	5.13	235		Pn	21 22 20.9	-0.7
BSUT				IAML		21 24 02.5	
	comp=N,14nm,2.0s						
BSUT				IAML		21 24 04.9	
	comp=E,19nm,2.0s						
TCUT	**Toone Canyon**	5.20	243		Pn	21 22 21.7	-0.8
EGMT	**Eagleton**	5.39	326		Pn	21 22 24.2	-0.6
DLMT	**Dillon**	5.52	291		Pn	21 22 27.0	+0.3
PV22	**Blue Mesa, Par**	5.75	209		Pn	21 22 29.3	-0.7
PV07	**Paradox Valley**	5.79	207		Pn	21 22 30.5	0.0
P17A	**Butcher Ranch,**	5.85	226		Pn	21 22 30.9	-0.3
SDCO	**Great Sand Dun**	5.89	182		Pn	21 22 31.6	-0.4
T25A	**Trinidad**	6.53	174	Pn	Pn	21 22 40.1	-0.6
DUG	**Dugway, Tooele**	6.60	241		Pn	21 22 41.5	0.0
ELK	**Elko**	7.95	252	LR	LR	21 26 22.3	
	comp=E,166nm,20.5s,baz=71,slow=41						
I10CA	**LAC DU BONNET**	9.11	41	I	I	22 11 30.0	
	baz=220,slow=272,SNR=0.2						
ULM	**Lac du Bonnet**	9.21	41	Pn	Pn	21 23 16.1	-1.1
	comp=E,0.8nm,0.3s,baz=221,slow=11,SNR=7.0						
ULM				Pg		21 23 52.6	
	comp=E,0.8nm,0.3s,baz=229,slow=17,SNR=4.1						
ULM				Lg	Lg	21 25 52.2	
	comp=E,0.3nm,0.3s,baz=308,slow=19,SNR=2.3						
	comp=E,2.2nm,0.4s						
ULM				AML	AML		
NVAR	**Mina Array Bea**	11.13	247	Pn	Pn	21 23 44.4	+0.6
	comp=E,0.2nm,0.3s,baz=66,slow=13,SNR=1.8						
NVAR				LR	LR	21 28 23.3	
	comp=E,96nm,21.3s,baz=84,slow=40						
	comp=E,0.2nm,0.4s						
NVAR				AML	AML		
YBH	**Yreka Blue Hor**	12.98	268	LR	LR	21 29 43.8	
	comp=E,58nm,20.7s,baz=72,slow=41						
TXAR	**Lajitas Array**	14.34	174	Pn	P	21 24 36.3	+1.5
	baz=356,slow=15,SNR=1.5						
TXAR				Pg		21 25 33.1	
	comp=E,0.1nm,0.3s,baz=354,slow=13,SNR=3.8						
TXAR				Lg	Lg	21 28 41.2	
	baz=352,slow=24,SNR=3.7						
TXAR				LR	LR	21 29 54.9	
	comp=E,34nm,19.9s,baz=354,slow=36						
	comp=E,0.3nm,0.7s						
YKA	**Yellowknife Ar**	19.66	347	LR	LR	21 33 55.4	
	comp=E,50nm,19.1s,baz=94,slow=40						
LPIG	**La Paz**	19.93	194	LR	LR	21 33 42.5	
	comp=E,96nm,21.7s,baz=283,slow=38						
SCHQ	**Schefferville**	27.13	52	LR	LR	21 37 53.5	
	comp=E,77nm,19.5s,baz=120,slow=37						
NNA	**Nana**	61.13	148	LR	LR	22 00 07.5	
	comp=E,69nm,19.9s,baz=161,slow=38						
FINES	**FINESS Array B**	68.12	23	P	P	21 32 06.9	+2.4
	comp=E,1.8nm,0.9s,baz=318,slow=5.6,SNR=3.6						
	comp=E,1.8nm,0.9s						
PPT	**Papeete**	73.19	224	LR	LR	22 00 29.8	
	comp=E,23nm,19.1s,baz=2.5,slow=32						
ARTI	**Arti**	79.39	9	LR	LR	22 13 47.1	
	comp=E,32nm,18.5s,baz=292,slow=40						

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*TEH **26** 21:42:47.7, 38°.10N×55°.98E, h6^{km}±66^{km}, ML3.5, Presumed earthquake*

*TIF **26** 21:42:48.4, 38°.08N×55°.89E, h13^{km}±1^{km}*

ISC 26 21:42:48.1±0.8, **38°.14N**±0°.05×**55°.96E**±0°.05, **h10**^{km}, **n19**, σ**2.^{s}44**/23, **3C-1D**, **Iran-Turkmenistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MRVT	**Maraveh tapeh**	0.49	167	Pg	Pb	21 42 57.7	-1.1
MRVT				Sg	Sb	21 43 04.9	-1.2
IMND	**Minoodasht**	0.98	207	Pg	Pn	21 43 07.7	-0.2
IMND				Sg	Sn	21 43 21.1	-0.8
ISFR	**Sfrayin**	1.95	123	Pn	Pg	21 43 24.2	-1.4
SHRO	**Shahrood**	2.14	179	Pn	Pb	21 43 26.2	-1.0
SBZV	**Sabzevar**	2.19	142	Pn	Pb	21 43 27.7	-0.3
IEMG	**Emamgholi**	2.25	108	Pn	Pb	21 43 28.8	-0.3
IGLO	**Ghaloghah**	2.35	227	Pn	Pb	21 43 29.9	-0.8
IAKL	**Akhelmad**	2.71	124	Pn	Pb	21 43 35.2	-1.6
ISHM	**Shahmirzad**	3.16	223	Pn	Pb	21 43 42.0	-2.5
IALA	**Alasht**	3.24	232	Pn	Pn	21 43 42.1	+2.7
TAPT	**Tabas- Tapeh t**	3.39	163	Pn	Pn	21 43 43.6	+2.4
TNSJ	**Nastanj**	4.20	173	Pn	Pn	21 43 55.1	+2.8
TKDS	**Koohdasht(Taba**	4.61	168	Pn	Pn	21 44 00.2	+2.2
ANAR	**Anarak**	5.26	201	Pn	Pn	21 44 09.6	+2.7
AFRZ	**Afriz**	5.32	151	Pn	Pn	21 44 10.6	+2.8
ZNJK	**Zanjan**	5.97	258	Pn	Pn	21 44 19.6	+2.8
ISRB	**Sarab**	6.55	270	Pn	Pn	21 44 28.0	+3.2
AB31	**Akbulak array**	11.48	13	⇑P	Pn	21 45 35.4	+3.3
	0.6nm,0.6s,baz=204,slow=15,SNR=8.7						
AB31				⇑S	Sn	21 47 35.6	-4.6
	0.9nm,0.5s,baz=200,slow=24,SNR=8.2						
AKTO	**Aktyubinsk**	12.38	6	⇓P	Pn	21 45 45.8	+1.4
	1.3nm,0.6s						
AKTO				⇑S	Sn	21 47 59.4	-3.0
	1.4nm,0.8s						

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*IDC **26** 21:47:28.1±2.4, 6°.79S×129°.47E, h91^{km}±32^{km}, mb3.2/1, mbtmp3.9/6, Error ellipse: s-maj=34.0km s-min=17.5km az=86.0*

ISC 26 21:47:27.5±0.9, **6°.71S**±0°.06×**129°.3E**±0°.1, **h100**^{km}, **n6**, σ**2.^{s}10**/11, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SIJI	**Sorong**	6.11	18	P	Pn	21 48 56.3	+0.9
	3.7nm,0.2s,baz=221,slow=19,SNR=4.6						
SIJI				S	Sn	21 50 00.0	-3.9
	10nm,0.3s,baz=256,slow=23,SNR=13						
BATI	**Baumata**	6.61	238	P	Pn	21 49 01.7	-0.4
	13nm,0.4s,baz=98,slow=19,SNR=1.9						
BATI				S	Sn	21 50 14.6	-1.4
	33nm,0.5s,baz=49,slow=22,SNR=9.4						
FITZ	**Fitzroy Crossi**	11.88	197	P	Pn	21 50 15.6	+1.9
	1.6nm,0.3s,baz=28,slow=13,SNR=24						
FITZ				S	Sn	21 52 22.4	-2.0
	1.3nm,0.3s,baz=57,slow=18,SNR=5.9						
WRA	**Warramunga Arr**	14.02	160	P	Pn	21 50 41.9	+0.1
	0.6nm,0.4s,baz=341,slow=12,SNR=14						
WRA				S	Sn	21 53 16.7	+0.3
	0.8nm,0.4s,baz=346,slow=25,SNR=5.6						
ASAR	**Alice Springs**	17.42	166	P	Pn	21 51 23.9	-0.5
	3.2nm,0.8s,baz=347,slow=11,SNR=39						
ASAR				S	Sn	21 54 37.0	-1.4
	0.4nm,0.6s,baz=348,slow=25,SNR=4.5						

MKAR	Makanchi Array	67.62	327	P	P	21 58 16.4	+2.7
	0.3nm,0.5s,baz=111,slow=7.9,SNR=2.7						
	0.3nm,0.5s						

*IDC **26** 21:54:47.0±1.0, 9°.96N×126°.91E, h0^{km}, mb3.7/9, mbtmp3.8/10, ML4.1/1, MS2.7/3, Error ellipse: s-maj=36.7km s-min=14.7km az=86.0*

*MAN **26** 21:54:52.0, 9°.78N×126°.51E, h10^{km}, MS3.5*

ISC 26 21:54:48.8±0.8, **9°.78N**±0°.05×**126°.68E**±0°.07, **h10**^{km}, **n29**, σ**2**^{s}**12**/32, **mb3.8**/9, **MS2.6**/3, **Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CDOP	Cateel, Davao	2.00	187	*e*P	Pn	21 55 24.1	+1.4
CDOP				*e*S	Sn	21 55 42.2	-5.6
PLP	Palo	2.17	310	*e*P	Pn	21 55 26.6	+1.6
PLP				*e*S	Sb	21 55 55.3	+0.2
CGP	Cagayan de Oro	2.37	236	*e*P	Pn	21 55 28.5	+0.8
CGP				*e*S	Sn	21 55 57.4	+0.6
BUKP	Musuan	2.48	220	*e*P	Pn	21 55 31.7	+2.4
BUKP				*e*S	Sb	21 56 04.5	+0.4
LLP	Lapu-Lapu	2.73	281	*e*P	Pn	21 55 35.1	+2.4
LLP				*i* S	Sn	21 56 06.7	+0.9
TBP	Tagbilaran	2.78	268	*e*P	Pn	21 55 34.8	+1.4
DAV	Davao City (W)	2.91	202	Pn	Pb	21 55 41.0	+0.3
	23nm,0.3s,baz=39,slow=6.5,SNR=1.4						
DAV				Sn	Sn	21 56 12.1	+1.9
	68nm,0.3s,baz=288,slow=20,SNR=4.5						
	84nm,0.3s						
DAV				AML	AML		
LSIP	Lazi, Siquijor	3.08	258	*i* P	Pn	21 55 39.1	+1.5
LSIP				*e*S	Sn	21 56 09.4	-5.1
KCP	Kidapawan	3.17	210	*i* P	Pn	21 55 44.0	+5.1
KCP				*e*S	Sn	21 56 17.0	+0.1
SNPH	Sibulan	3.43	263	*e*P	Pn	21 55 44.4	+2.0
SNPH				*e*S	Sb	21 56 30.9	-0.6
DCPH	Dipolog City	3.50	250	*i* P	Pn	21 55 45.0	+1.7
DCPH				*i* S	Sn	21 56 19.1	-5.7
PAGZ	Pagadian	3.79	240	*e*P	Pn	21 55 49.6	+2.3
PAGZ				*i* S	Sn	21 56 32.8	+0.9
KSRS	Korea Array	27.57	2	LR	LR	22 10 25.7	
	comp=Z,10nm,21.6s,baz=310,slow=34						
PMG	Port Moresby	27.91	132	LR	LR	22 13 40.6	
	comp=Z,34nm,18.4s,baz=26,slow=41						
CMAR	Chiang Mai Arr	28.22	291	P	P	22 00 42.1	0.0
	1.0nm,0.3s,baz=102,slow=8.1,SNR=2.8						
CMAR				LR	LR	22 11 51.1	
	comp=Z,14nm,18.8s,baz=210,slow=36						
	1.0nm,0.3s						
WRA	Warramunga Arr	30.48	166	P	P	22 01 02.0	-0.1
	0.2nm,0.8s,baz=349,slow=9.4,SNR=1.7						
	0.2nm,0.8s						
ASAR	Alice Springs	33.98	168	P	P	22 01 33.2	+0.3
	0.2nm,0.4s,baz=352,slow=7.5,SNR=6.3						
ASAR				PcP	PcP	22 04 11.4	+0.4
	0.3nm,0.8s,baz=339,slow=3.1,SNR=2.1						
	0.2nm,0.4s						
H11S3	WAKE ISLAND Hy	39.67	73	T	T	22 45 29.7	
	baz=261						
H11S1	WAKE ISLAND Hy	39.69	73	T	T	22 45 26.7	
	baz=261						
H11S2	WAKE ISLAND Hy	39.69	73	T	T	22 45 23.1	
	baz=261						
H11N1	WAKE ISLAND Hy	40.02	71	T	T	22 45 42.0	
	baz=265,slow=74,SNR=7.7						
H11N2	WAKE ISLAND Hy	40.03	71	T	T	22 45 51.4	
	baz=265,slow=74,SNR=6.0						
H11N3	WAKE ISLAND Hy	40.04	71	T	T	22 45 46.6	
	baz=265,slow=74,SNR=8.3						
SONM	Songino Array	41.62	339	P	P	22 02 36.7	-0.5
	0.4nm,0.4s,baz=142,slow=7.2,SNR=3.0						
	0.4nm,0.4s						
MKAR	Makanchi Array	52.66	323	P	P	22 04 03.0	-0.3
	0.7nm,0.6s,baz=118,slow=9.1,SNR=7.5						
	0.7nm,0.6s						
ZALV	Zalesovo Beam	55.25	331	P	P	22 04 21.2	-0.8
	0.4nm,0.3s,baz=124,slow=7.2,SNR=2.9						
	0.4nm,0.3s						
KURBB	Kurchatov Arra	56.70	325	P	P	22 04 31.8	-0.7
	0.5nm,0.6s,baz=125,slow=7.2,SNR=6.6						
	0.5nm,0.6s						
ARCES	ARCESS Array B	84.79	340	P	P	22 07 23.2	+0.1
	0.8nm,0.5s,baz=77,slow=6.7,SNR=5.3						
	0.8nm,0.5s						
FINES	FINESS Array B	86.51	332	P	P	22 07 31.5	-0.3
	0.6nm,0.5s,baz=68,slow=4.9,SNR=15						
	0.6nm,0.5s						

NOU 26 22:43:01.9, **17°.37S**×**168°.47E**, **h15**^{km}, **MLv3.9**/18, **Vanuatu Islands, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTV	Rentapao	0.42	186	P	Pb	22 43 11.5	+0.4
RTV	Rentapao	0.42	186	S	Sb	22 43 17.3	0.0
YATNC	Mamie plateau,	4.90	197	P	Pn	22 44 15.8	+0.8
YATNC	Mamie plateau,	4.90	197	S	Sn	22 45 12.6	+1.1
NOUC	Port Laguerre	5.13	203	P	Pn	22 44 19.2	+1.0
NOUC	Port Laguerre	5.13	203	S	Sn	22 45 18.3	+1.1
OUENC	Ouen Island, N	5.25	197	P	Pn	22 44 21.2	+1.3
OUENC	Ouen Island, N	5.25	197	S	Sn	22 45 21.4	+1.2

*BJI **26** 22:50:18.3, 39°.65N×23°.51E, h14^{km}, mB5.2/39, mb5.1/79, Ms5.2/60, Ms7 4.9/60*

*AFAD **26** 22:50:18.8, 39°.98N×24°.03E, h12^{km}±1^{km}, MW5.3*

*IDC **26** 22:50:23.1±0.3, 39°.94N×24°.34E, h0^{km}, mb4.8/38, mbtmp4.8/53, ML4.3/13, MS4.7/81, Error ellipse: s-maj=6.9km s-min=6.5km az=1.0*

*ISK **26** 22:50:23.8, 39°.95N×24°.35E, h15^{km}, ML5.5/24*

*MOS **26** 22:50:23.0±0.9, 40°.03N×24°.35E, h9^{km}, mb5.4/71, MS4.9/20, Error ellipse: s-maj=3.9km s-min=2.6km az=86.7*

*SOF **26** 22:50:23.8, 39°.96N±0°.01×24°.38E±0°.01, h16^{km}±2^{km}, MD5.3/14*

*PDG **26** 22:50:23.1±0.7, 39°.37N×24°.12E, h25^{km}±29^{km}, MD5.4/9, ML5.3/12, Error ellipse: s-maj=17.1km s-min=41.6km az=0.0*

*ATH **26** 22:50:24.9, 39°.95N×24°.31E, h18^{km}±1^{km}, ML5.2/37, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*

*MED_RC **26** 22:50:24.0, 39°.97N×24°.31E, h16^{km}, Mw5.4, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.63±.04; M$_{\theta\theta}$1.55±.04; M$_{\phi\phi}$0.00±.02; M$_{r\theta}$-0.21±.06; M$_{\theta\phi}$-0.61±.02; M$_{\phi r}$0.62±.06; Fault plane solution: M$_0$1.60000×10^{17} NP1:ϕ_s243.00000°, δ59.00000°, λ-159.00000°. NP2:ϕ_s142.00000°, δ72.00000°, λ-33.00000°. Principal axes: T 1.7400, Plg9.0000°, Azm195.0000°; N -0.3000, Plg53.0000°, Azm297.0000°; P -1.4500, Plg35.0000°, Azm99.0000°;*

*SKO **26** 22:50:24.8, 39°.94N×24°.30E, h5^{km}, ML5.4*

*GII **26** 22:50:25.1±0.0, 39°.97N×24°.31E, h0^{km}, confirmed*

*NEIC **26** 22:50:25.1, 39°.99N×24°.34E, h10^{km}*

*NEIC **26** 22:50:25.1±1.2, 39°.99N±0°.06×24°.34E±0°.06, h10^{km}±3^{km}, mb5.3/182, Mww5.4/45, Error ellipse: s-maj=8.6km s-min=6.6km az=165.0*

*THE **26** 22:50:25.2, 40°.0N±1°.0×24°.3E±0°.9, h14^{km}±2^{km}, M5.1/6, MLh5.1/6*

*MCSM **26** 22:50:25.6±0.2, 40°N±2°×2°4E±°, h15^{km}, mb5.4, mB5.6, MLv5.7, Mw(mB)5.0*

*GFZ **26** 22:50:26.5±0.1, 40°N±1°×2°4E±°, h10^{km}, M5.0/108, mB5.5/72, mb5.2/108, Mw(mB)5.0/72*

*GFZ **26** 22:50:26.3, 39°.99N×24°.40E, h17^{km}, Mw5.2/136, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M$_{rr}$-2.34; M$_{\theta\theta}$8.18; M$_{\phi\phi}$-5.84; M$_{r\theta}$-0.22; M$_{\theta\phi}$-2.95; M$_{\phi r}$1.74; Fault plane solution: M$_0$8.06413×10^{16} NP1: ϕ_s144.55321°, δ78.34808°, λ-16.22257°. NP2: ϕ_s237.91620°, δ74.12067°, λ-167.87892°. Principal axes: T 8.8034, Plg2.9040°, Azm191.7232°; N -1.7738, Plg70.1183°, Azm289.7868°; P -7.0295, Plg19.6507°, Azm100.6853°;*

*GCMT **26** 22:50:27.1±0.1, 39°.93N±0°.01×24°.27E±0°.01, h15^{km}, MW5.3/160, Moment Tensor Solution. s104, c166; s160, c309; Duration: 1^{s}1 Moment tensor: Scale 10^{17} Nm; M$_{rr}$-0.36±.02; M$_{\theta\theta}$1.31±.01; M$_{\phi\phi}$-0.95±.01; M$_{r\theta}$-0.11±.04; M$_{\theta\phi}$-0.49±.01; M$_{\phi r}$0.41±.05; Best double couple: M$_0$1.32700×10^{17} NP1:ϕ_s239.00000°, δ69.00000°, λ-167.00000°. NP2:ϕ_s144.00000°, δ78.00000°, λ-22.00000°. Principal axes: T 1.4320, Plg6.0000°, Azm193.0000°; N -0.2080, Plg65.0000°, Azm296.0000°; P -1.2220, Plg24.0000°, Azm100.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*CFUSG **26** 22:50:30.3, 40°.27N×24°.87E, h10^{km}, MD4.2/8, MSH3.8/8*

*NAO **26** 22:50:30.9, 40°.88N×25°.23E, h10^{km}, MB5.1*

*NEIC **26** 22:50:32.3, 39°.99N×24°.34E, h12^{km}, Moment Tensor Solution. Duration: 2^{s}5 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.36; M$_{\theta\theta}$1.18; M$_{\phi\phi}$-0.82; M$_{r\theta}$-0.24; M$_{\theta\phi}$-0.47; M$_{\phi r}$0.64; Fault plane solution: M$_0$1.33000×10^{17} NP1: ϕ_s241.56000°, δ57.13000°, λ-164.71000°. NP2: ϕ_s143.13000°, δ77.21000°, λ-33.82000°. Principal axes: T 1.3703, Plg13.0000°, Azm196.0000°; N -0.0762, Plg54.0000°, Azm305.0000°; P -1.2940, Plg33.0000°, Azm97.0000°;*

*PRU **26** 22:50:40.4, 40°.76N×23°.62E, h15^{km}, M5.3*

ISC 26 22:50:24.6±0.6, **39°.96N**±0°.02×**24°.35E**±0°.01, **h8**^{km}±3^{km}, **n1529**, σ**1**^{s}**44**/1639, **mb5.2**/247, **MS4.9**/110, **112C-88D**, **Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OUR	Ouranopolis	0.47	323	P	Pg	22 50 34.2	+0.5
OUR				S	Sg	22 50 40.1	+0.3
OUR	Ouranopolis	0.47	323	Pg	Pg	22 50 34.1	+0.5
OUR				Sg	Sg	22 50 40.4	+0.6
OUR				AML	AML		
OUR	Ouranopolis	0.47	323	P	Pg	22 50 33.8	+0.1
OUR				S	Sg	22 50 40.4	+0.6
OUR				AML	AML		
PAIG	Paliouri	0.52	266	P	Pg	22 50 34.6	+0.1
PAIG				S	Sg	22 50 42.0	+0.7
PAIG	Paliouri	0.52	266	P	Pg	22 50 34.6	+0.1
LMN1	MIRINA LIMNOU	0.55	99	P	Pb	22 50 36.5	+0.1
LMN1				S	Sb	22 50 44.5	0.0
LMN1				AML	AML		
LIA	Limnos Island	0.65	95	P	Pb	22 50 38.1	0.0
LIA				S	Sb	22 50 47.7	+0.5
LIA	Limnos Island	0.65	95	P	Pb	22 50 38.0	0.0
LIA				S	Sb	22 50 47.7	+0.5
LIA				AML	AML		
EFSA	Agios Efstrati	0.65	130	P	Pb	22 50 38.1	+0.1
EFSA				S	Sb	22 50 47.4	+0.2
THAS	Thassos island	0.70	24	P	Pb	22 50 38.8	-0.2
THAS				S	Sb	22 50 48.7	-0.1
THAS	Thassos island	0.70	24	P	Pb	22 50 38.8	-0.2
THAS				S	Sb	22 50 49.3	+0.4
THS1	Thassos, Thass	0.80	13	P	Pb	22 50 40.5	-0.1
THS1				S	Sb	22 50 51.5	0.0
PLG	Polygyros	0.81	301	P	Pg	22 50 39.7	-0.3
PLG				S	Sg	22 50 50.3	-0.2
PLG	Polygyros	0.81	301	P	Pg	22 50 39.5	-0.5
PLG				S	Sg	22 50 50.8	+0.3
AOS	Alonnisos	0.87	205	P	Pg	22 50 41.2	0.0
AOS				S	Sb	22 50 54.4	+0.8
AOS2	Alonissos-2	0.90	206	P	Pg	22 50 41.6	-0.3
AOS2				S	Sg	22 50 53.8	+0.2
AOS2				AML	AML		
SMTH	Samothraki Isl	1.04	60	P	Pg	22 50 44.0	-0.5
SMTH				S	Sb	22 50 58.7	+0.2
SMTH				AML	AML		
KAVA	Kavala	1.04	7	P	Pg	22 50 44.1	-0.4
KAVA				S	Sg	22 50 58.3	+0.2
KAVA	Kavala	1.04	7	P	Pg	22 50 44.0	-0.6
KAVA				S	Sg	22 50 58.3	+0.2
KAVA				AML	AML		
XOR	Xorichti	1.07	237	P	Pg	22 50 44.5	-0.6
XOR				S	Sg	22 50 59.0	-0.1
XOR	Xorichti	1.07	237	P	Pg	22 50 44.7	-0.5
XOR				S	Sg	22 50 58.1	-1.0
NEO	Neokhori	1.09	233	P	Pg	22 50 44.5	-0.9
NEO				S	Sg	22 50 59.0	-0.5
NEO	Neokhori	1.09	233	P	Pg	22 50 44.2	-1.3
NEO				S	Sg	22 50 58.3	-1.3
NEO				AML	AML		
SOH	Sokhos	1.15	319	P	Pg	22 50 46.0	-0.6
SOH				S	Sg	22 51 01.2	-0.3
SOH	Sokhos	1.15	319	P	Pg	22 50 45.8	-0.8
SOH				S	Sg	22 51 01.0	-0.5
SOH				AML	AML		
SOH	Sokhos	1.15	319	P	Pg	22 50 46.3	-0.3
GADA	Gvkgeada	1.21	79	P	Pb	22 50 47.0	-0.8
GADA				S	Sg	22 51 03.7	+0.2
GADA	Gvkgeada	1.21	79	Pn	Pb	22 50 46.9	-0.8
GADA				Sn	Sg	22 51 03.6	0.0
GADA				AML	AML		
GOAD	anakkale-G¶	1.22	80	P	Pb	22 50 47.1	-0.7
GOKC	Gokceada-Canak	1.23	78	Pn	Pn	22 50 47.1	-0.9
GOKC				Sn	Sg	22 51 04.2	+0.1
GOKC				AML	AML		
VOL2	Volos	1.23	242	P	Pn	22 50 47.3	-0.7
VOL2				S	Sb	22 51 02.9	-1.2
THE	Thessaloniki	1.25	303	P	Pn	22 50 47.2	-1.1
THE				S	Sb	22 51 03.0	-1.6
THE	Thessaloniki	1.25	303	P	Pn	22 50 47.6	-0.7
THE				S	Sb	22 51 03.6	-1.1
THE	Thessaloniki	1.25	303	P	Pn	22 50 47.2	-1.1
BOZC	Bozcaada	1.32	95	Pn	Pn	22 50 48.3	-0.9
BOZC				AML	AML		
BOZC	Bozcaada	1.32	95	P	Pn	22 50 48.5	-0.7
KYMI	Kymi, Euboea I	1.34	188	P	Pn	22 50 48.1	-1.4
KYMI	Kymi, Euboea I	1.34	188	P	Pn	22 50 48.2	-1.4
KYMI				S	Sb	22 51 06.1	-1.1
KYMI				AML	AML		
ECEA	Canakkale, Ece	1.41	86	P	Pn	22 50 49.8	-0.5
ECEA				S	Sg	22 51 12.2	+2.5
NVR	Nevrokopi	1.44	345	P	Pn	22 50 49.8	-1.0
NVR				S	Sn	22 51 07.5	-2.5
NVR	Nevrokopi	1.44	345	P	Pn	22 50 49.9	-1.0
NVR				S	Sn	22 51 08.6	-1.3
NVR				AML	AML		
KOCA	Canakkale, Ayv	1.46	108	P	Pn	22 50 51.2	+0.1
KOCA				S	Sg	22 51 14.2	+2.8
GPNR	Gulpinar-Canak	1.47	110	Pn	Pn	22 50 50.5	-0.7
GPNR				AML	AML		
ALEX	Alexandroupoli	1.48	53	P	Pn	22 50 51.1	-0.4
ENZZ	Sultanice-Enez	1.52	64	Pn	Pn	22 50 51.3	-0.6
ENZZ				AML	AML		
EZN	Ezine	1.53	94	P	Pn	22 50 51.9	-0.1
EZN	Ezine	1.53	94	Pn	Pn	22 50 51.3	-0.8
EZN				AML	AML		
EZN	Ezine	1.53	94	P	Pn	22 50 51.7	-0.4
EZN				AML	AML		
GINA	Giannouli	1.54	260	P	Pn	22 50 51.0	-1.2
EZNE	Ezine-Canakkal	1.57	97	Pn	Pn	22 50 52.3	-0.3
CNKL	anakkale-Mer	1.57	86	P	Pn	22 50 52.2	-0.5
CAVK	Edirne/Enez-Ca	1.57	62	P	Pn	22 50 51.9	-0.8
CAVK				S	Sg	22 51 17.3	+2.2
CAVK	Edirne/Enez-Ca	1.57	62	⇓P	Pn	22 50 51.8	-0.8
CAVK				⇓S	Sg	22 51 15.1	0.0
ENEZ	Enez	1.58	60	P	Pn	22 50 52.0	-0.8
ENEZ	Enez	1.58	60	Pn	Pn	22 50 52.2	-0.6
ENEZ				AML	AML		
ALN	Alexandroupoli	1.60	54	P	Pn	22 50 51.8	-1.2
ALN	Alexandroupoli	1.60	54	Pn	Pn	22 50 52.7	-0.4
ALN				AML	AML		
ALN	Alexandroupoli	1.60	54		Pn	22 50 52.0	-1.1
ALN				Sn	Sn	22 51 12.0	-1.8
ALN	Alexandroupoli	1.60	54	⇓P	Pn	22 50 51.9	-1.2
ALN	Alexandroupoli	1.60	54	P	Pn	22 50 52.6	-0.5
ALN	Alexandroupoli	1.60	54	P	Pn	22 50 52.1	-1.0
ATAL	Atalanti	1.63	219	P	Pn	22 50 52.2	-1.3
COMU	Canakkale	1.64	85	Pn	Pn	22 50 52.9	-0.7
COMU				AML	AML		
MMB	Musomishta	1.65	344	P	Pn	22 50 53.2	-0.6
MMB	Musomishta	1.65	344	P	Pn	22 50 53.3	-0.5
MMB				S	Sn	22 51 14.8	-0.4
TYRN	Tyrnavos	1.65	262	P	Pn	22 50 53.1	-0.7
TYRN	Tyrnavos	1.65	262	P	Pn	22 50 52.4	-1.3
TYRN				AML	AML		
PRK	Paraskevi	1.65	115	P	Pn	22 50 53.7	0.0
PRK	Paraskevi	1.65	115	P	Pn	22 50 53.3	-0.5
LKR	Lokris	1.68	219	P	Pn	22 50 52.9	-1.3
LKR	Lokris	1.68	219	P	Pn	22 50 52.8	-1.3
GELI	Tayfur-Gelibol	1.69	74	Pn	Pn	22 50 53.6	-0.7
GELI				AML	AML		
BAYC	CANAKKALE_Bayr	1.71	97	P	Pn	22 50 54.4	-0.2
BAYC				S	Sg	22 51 21.1	+1.7
RZN	Rozhen	1.76	10	P	Pn	22 50 54.9	-0.5
RZN	Rozhen	1.76	10	P	Pn	22 50 55.0	-0.5
RZN				S	Sg	22 51 22.7	+1.7
AXAR	Agios Charalam	1.77	228	P	Pn	22 50 54.6	-0.8
AXAR	Agios Charalam	1.77	228	P	Pn	22 50 54.7	-0.8
AXAR				AML	AML		
GRG	Griva	1.79	304	P	Pn	22 50 55.1	-0.6
GRG	Griva	1.79	304	P	Pn	22 50 54.6	-1.1
GRG	Griva	1.79	304	P	Pn	22 50 55.2	-0.6
ERIK	Erikli-Kesan	1.80	66	Pn	Pn	22 50 55.0	-0.8
ERIK				AML	AML		
AGG	Agios Georgios	1.82	240	P	Pn	22 50 54.9	-1.3
AGG	Agios Georgios	1.82	240	⇑P	Pn	22 50 54.8	-1.3
AGG	Agios Georgios	1.82	240	P	Pn	22 50 54.7	-1.5
AGG				AML	AML		
AGG	Agios Georgios	1.82	240	P	Pn	22 50 55.1	-1.1
LAM2	Lamia	1.82	235	P	Pn	22 50 55.2	-1.0
LAM2				AML	AML		
KDZ	Kurdzhali	1.83	24	P	Pn	22 50 55.5	-0.8
KDZ	Kurdzhali	1.83	24	Pn	Pn	22 50 55.8	-0.5
KDZ	Kurdzhali	1.83	24	P	Pn	22 50 55.5	-0.8
KDZ				S	Sg	22 51 23.8	+0.4
THL	Klokotos Trika	1.84	258	P	Pn	22 50 55.5	-0.9
THL				AML	AML		
SOFA	Sofades	1.85	251	P	Pn	22 50 56.1	-0.4
NASA	Naoussa	1.87	292	P	Pn	22 50 56.0	-0.8
NASA				AML	AML		
GOKT	Kean, EDRN	1.88	67	P	Pn	22 50 56.1	-0.8
GOKT				S	Sg	22 51 25.6	+0.7
STFN	Stefani	1.89	200	P	Pn	22 50 56.4	-0.8
STFN	Stefani	1.89	200	P	Pn	22 50 56.1	-1.1
LPK	Lapseki	1.89	77	Pn	Pn	22 50 56.7	-0.4
LPK				AML	AML		
DION	Dionisos Attik	1.91	190	P	Pn	22 50 56.5	-0.9
DION	Dionisos Attik	1.91	190	P	Pn	22 50 56.3	-1.0
VAY	Valandovo	1.92	316	*i* Pn	Pb	22 51 00.3	+0.6
VAY				*i* Sg	Sg	22 51 27.9	+1.7
VAY				*e*Lg	Lg	22 51 31.0	
	comp=N,0.0nm,1.1s						
VAY				*e*Lg	Lg	22 51 32.7	
	comp=E,16μm,0.5s						
AYVA	Ayvalik	1.92	109	P	Pn	22 50 57.7	+0.2
KARY	Karystos	1.93	178	P	Pn	22 50 56.8	-0.8
KARY	Karystos	1.93	178	P	Pn	22 50 56.4	-1.2
KARY				AML	AML		
SFL1	Soufli	1.93	50	P	Pn	22 50 57.3	-0.3
LAPS	Lapseki, ANA	1.93	81	P	Pn	22 50 57.5	-0.2
VIL2	Platees	1.94	206	P	Pn	22 50 56.9	-0.9
PTL	Penteli	1.95	191	P	Pn	22 50 57.0	-0.9
PTL	Penteli	1.95	191	P	Pn	22 50 56.9	-1.0
PTL				AML	AML		
EAG2	Marmaro, Chios	1.97	135	P	Pn	22 50 57.9	-0.2
VILL	Villia	1.97	205	P	Pn	22 50 57.1	-1.1
KESN	Edirne-Kesan	1.98	63	P	Pn	22 50 57.5	-1.2
KZN	Kozani	2.01	281	P	Pn	22 50 57.9	-0.9
KZN	Kozani	2.01	281	P	Pn	22 50 57.6	-1.1
ATHP	Athens-Neo Psi	2.01	193	P	Pn	22 50 57.6	-1.1
ELFA	Athens-Elefsin	2.02	198	P	Pn	22 50 58.0	-0.8
ATH5	Athens Parliam	2.04	194	P	Pn	22 50 57.4	-1.8
ATHU	Athens Univers	2.04	193	P	Pn	22 50 58.3	-0.9
ATHU	Athens Univers	2.04	193	P	Pn	22 50 57.8	-1.3
ATHU				AML	AML		
NOAC	Athens-Thissio	2.04	194	P	Pn	22 50 57.6	-1.6
ATH	Athens Observa	2.05	194	P	Pn	22 50 58.5	-0.8
ATH	Athens Observa	2.05	194	P	Pn	22 50 58.1	-1.1
ATH				AML	AML		
CHOS	Chios island	2.06	139	P	Pn	22 50 59.6	+0.1
CHOS	Chios island	2.06	139	Pn	Pn	22 50 58.6	-0.9
CHOS				AML	AML		
CHOS	Chios island	2.06	139	P	Pn	22 50 59.3	-0.1
CHOS	Chios island	2.06	139	P	Pn	22 50 59.8	+0.3
DLFA	Delphi	2.06	225	P	Pn	22 50 58.4	-1.1
CANM	Can-anakkale	2.08	88	Pn	Pn	22 50 59.2	-0.5
CANM				AML	AML		
KKB	Krupnik	2.09	334	P	Pn	22 50 59.8	-0.1
KKB	Krupnik	2.09	334	P	Pn	22 51 00.0	+0.1
KKB				S	Sg	22 51 31.0	-0.8
UKOP	Uzunkopru-Edir	2.10	55	Pn	Pn	22 50 59.7	-0.2
UKOP				AML	AML		
YAYO	Edremit-Balk	2.13	99	Pn	Pn	22 50 59.9	-0.4
YAYO				AML	AML		
VLY	Voula,Athens	2.15	192	P	Pn	22 50 59.7	-0.9
VLY	Voula,Athens	2.15	192	P	Pn	22 50 59.6	-1.1
BUHA	Balikesir, Bur	2.15	101	P	Pn	22 51 01.1	+0.4
DKL	Dikili	2.17	113	Pn	Pn	22 51 00.7	-0.2
DKL				AML	AML		
DKL	Dikili	2.17	113	⇓P	Pn	22 51 01.3	+0.4
BIGA	Biga-Canakkale	2.17	81	Pn	Pn	22 51 00.6	-0.3
KRBN	Karaburun	2.19	128	Pn	Pn	22 51 00.7	-0.5
KRBN				AML	AML		
PLD	Plovdiv	2.20	8	Pn	Pn	22 51 00.9	-0.5
PLD	Plovdiv	2.20	8	P	Pn	22 51 01.3	-0.1
LTK	Loutraki	2.21	210	P	Pn	22 51 00.4	-1.1
YENI	Yenice-Canakka	2.23	90	Pn	Pn	22 51 01.3	-0.4
CESE	eme	2.23	136	Pn	Pn	22 51 01.2	-0.5
CESE				AML	AML		
EVR	Evrytania	2.23	243	P	Pn	22 51 01.5	-0.3
EVR	Evrytania	2.23	243	P	Pn	22 51 01.5	-0.3
EVR				AML	AML		
FOCM	Foa	2.23	123	Pn	Pn	22 51 01.5	-0.2
FOCM				AML	AML		
LOUT	Loutraki	2.24	209	P	Pn	22 51 00.9	-1.1
LVRA	Laurium	2.26	186	P	Pn	22 51 01.4	-0.7
DIM	Dimitrovgrad	2.28	24	P	Pn	22 51 02.0	-0.4
DIM	Dimitrovgrad	2.28	24	P	Pn	22 51 02.1	-0.4
RKY	Sarkoy-Tekirda	2.28	71	Pn	Pn	22 51 01.8	-0.7
RKY				AML	AML		
TRGA	Dikaia	2.28	40	P	Pn	22 51 02.2	-0.3
KPRO	Kipourio	2.29	271	P	Pn	22 51 02.6	-0.1
KPRO				AML	AML		
KPRO	Kipourio	2.29	271	P	Pn	22 51 02.1	-0.6
KPRO				AML	AML		
KRBG	Karabiga-Canak	2.30	78	Pn	Pn	22 51 02.4	-0.3
KRBG				AML	AML		
KALE	Kalithea	2.33	228	P	Pn	22 51 02.5	-0.7
KALE	Kalithea	2.33	228	P	Pn	22 51 02.2	-0.9
KALE				AML	AML		
ANX	Ano Chora	2.33	235	P	Pn	22 51 02.9	-0.3
ANX	Ano Chora	2.33	235	P	Pn	22 51 02.4	-0.8
ANX				AML	AML		
THAL	Thalero	2.33	215	P	Pn	22 51 02.2	-0.9
THAL	Thalero	2.33	215	P	Pn	22 51 02.1	-1.0
THAL				AML	AML		
SERG	Sergoula	2.36	230	P	Pn	22 51 02.9	-0.6
SERG	Sergoula	2.36	230	P	Pn	22 51 02.7	-0.8
SERG				AML	AML		
PYRG	Pyrgos, Dorida	2.38	230	P	Pn	22 51 02.9	-1.1
PYRG				AML	AML		
GAZK	Gazikoy-TEKIRD	2.41	70	Pn	Pn	22 51 03.9	-0.3
MG00	Magoula, Dorid	2.42	231	P	Pn	22 51 03.6	-0.8
MG00				AML	AML		
EFP	Efpalio	2.44	232	P	Pn	22 51 04.3	-0.3
EFP	Efpalio	2.44	232	P	Pn	22 51 03.6	-1.1
EFP				AML	AML		
MET4	Agioi Theodoro	2.45	198	P	Pn	22 51 03.7	-1.1
TETR	Tetrakomo, Epi	2.45	256	P	Pn	22 51 04.2	-0.7
TETR	Tetrakomo, Epi	2.45	256	P	Pn	22 51 03.8	-1.0
TETR				AML	AML		
ATIT	Gnen	2.47	86	P	Pn	22 51 05.3	+0.2
VVK	Vomvokou	2.50	233	P	Pn	22 51 05.2	-0.3
LAKA	Lakka	2.52	228	P	Pn	22 51 05.2	-0.6
LAKA	Lakka	2.52	228	P	Pn	22 51 04.8	-1.0
LAKA				AML	AML		
BALY	Balya	2.53	94	P	Pn	22 51 06.3	+0.4
PRMD	Pramanda	2.54	261	P	Pn	22 51 06.0	-0.1
PRMD				AML	AML		
PGB	Panagyurishte	2.55	357	P	Pn	22 51 06.2	0.0
GUR	Goura	2.56	218	P	Pn	22 51 05.2	-1.1
GUR	Goura	2.56	218	P	Pn	22 51 05.1	-1.2
GUR				AML	AML		
GONE	Gonen-Balikesi	2.56	87	Pn	Pn	22 51 06.1	-0.3
MRMT	Marmara Adasi	2.57	74	Pn	Pn	22 51 06.0	-0.4
KLV	Kalavryta, Ach	2.57	222	P	Pn	22 51 05.5	-0.9
KLV	Kalavryta, Ach	2.57	222	P	Pn	22 51 05.1	-1.3
PVO	Paravola	2.57	239	P	Pn	22 51 06.3	-0.1
PVO				AML	AML		

PVO	Paravola	2.57	239	P	Pn	22 51 05.7	-0.7
PVO				AML	AML		
SOMA	Soma-Manisa	2.59	107	Pn	Pn	22 51 06.7	0.0
PLNA	Plana	2.61	345	P	Pn	22 51 07.4	+0.3
EDRB	Edirne	2.62	43	Pn	Pn	22 51 07.1	0.0
BLCB	Balcova	2.62	126	P	Pn	22 51 07.3	+0.2
BLCB				AML	AML		
BLCB	Balcova	2.62	126	Pn	Pn	22 51 06.8	-0.3
AMPL	Ampelaki	2.64	248	P	Pn	22 51 07.5	+0.1
AMPL				AML	AML		
TKR	Tekirdag	2.64	66	Pn	Pn	22 51 07.2	-0.2
EDC	Edincik	2.72	81	Pn	Pn	22 51 08.3	-0.2
BALB	Balikesir	2.74	96	Pn	Pn	22 51 08.5	-0.3
BALB	Balikesir	2.74	96		Pn	22 51 09.1	+0.3
BALB	Balikesir	2.74	96	⇓P	Pn	22 51 09.1	+0.3
GMLD	Gumuldur	2.75	132	Pn	Pn	22 51 08.4	-0.4
GMLD				AML	AML		
PLEV	Plevrona-Mesol	2.76	237	P	Pn	22 51 09.2	+0.2
PLEV	Plevrona-Mesol	2.76	237	P	Pn	22 51 09.1	0.0
VTS	Vitosha	2.78	343	P	Pn	22 51 09.4	-0.1
VTS	Vitosha	2.78	343	P	Pn	22 51 09.7	+0.2
VTS				S	Sg	22 51 52.7	-1.3
KBN	Korca	2.80	285	P	Pn	22 51 09.8	+0.1
KBN	Korca	2.80	285	P	Pn	22 51 10.1	+0.4
PDO	Prodromos	2.81	242	P	Pn	22 51 10.3	+0.6
CRLT	Corlu	2.83	65	Pn	Pn	22 51 10.1	+0.1
SUSR	Susurluk-Balik	2.87	89	Pn	Pn	22 51 10.5	-0.1
DRO	Drossia	2.87	227	P	Pn	22 51 10.2	-0.4
DRO	Drossia	2.87	227	P	Pn	22 51 09.5	-1.1
DRO				AML	AML		
AKS	Akhisar	2.89	111	Pn	Pn	22 51 10.9	0.0
BAND	Balkesir-Ban	2.90	81	⇑P	Pn	22 51 11.0	0.0
BAND				⇑S	Sn	22 51 46.5	+0.4
PHSR	Pinarhisar	2.93	54	Pn	Pn	22 51 11.4	0.0
OHR	Ohrid	2.94	294	*i* Pn	Pn	22 51 12.4	+0.9
BOTS	Marmara Eregli	2.96	68	Pn	Pn	22 51 11.9	+0.2
BLSH	Balsha	3.00	345	P	Pn	22 51 13.2	+0.8
JMB	Yambol	3.02	32	Pn	Pn	22 51 13.1	+0.5
GOMA	Golmarmara-Man	3.04	113	Pn	Pn	22 51 12.7	-0.2
KCTX	Karacabey (Bur	3.09	83	Pn	Pn	22 51 13.3	-0.3
TRAN	Tran	3.14	337	P	Pn	22 51 14.6	+0.3
GORD	Gordes-Manisa	3.15	108	Pn	Pn	22 51 15.1	+0.7
SLVT	Silivri	3.20	65	Pn	Pn	22 51 14.8	-0.3
PVL	Pavlikeni	3.22	11	P	Pn	22 51 15.6	+0.3
SRN	Sarande	3.34	270	P	Pn	22 51 19.2	+2.2
CTYL	Yalikoy Yolu	3.35	62	Pn	Pn	22 51 17.3	+0.1
CTYL	Yalikoy Yolu	3.35	62	P	Pn	22 51 16.3	-0.9
CTYL				AML	AML		
SINB	Sinanoba-Istan	3.36	71	Pn	Pn	22 51 17.3	0.0
ITM	Ithomi	3.36	215	Pn	Pn	22 51 17.2	-0.2
ITM	Ithomi	3.36	215		Pn	22 51 17.8	+0.4
ITM	Ithomi	3.36	215	⇑P	Pn	22 51 17.2	-0.2
ITM	Ithomi	3.36	215	P	Pn	22 51 18.0	+0.6
CTKS	Kestanelik-??a	3.41	67	Pn	Pn	22 51 18.1	+0.1
MPEP	Malo Peshtene	3.42	353	P	Pn	22 51 18.5	+0.3
VLI	Veliai	3.42	199	P	Pn	22 51 17.1	-1.1
VLI				AML	AML		
PHP	Peshkopia	3.43	301	P	Pn	22 51 18.6	+0.4
PLVB	Pleven	3.43	3	⇑P	Pn	22 51 18.2	-0.1
KEK	Kerkira	3.51	267	Pn	Pn	22 51 18.9	-0.5
KEK	Kerkira	3.51	267		Pn	22 51 18.9	-0.5
KEK	Kerkira	3.51	267	⇑P	Pn	22 51 19.9	+0.5
KEK	Kerkira	3.51	267	P	Pn	22 51 20.2	+0.8
SZH	Strazhitsa	3.52	20	P	Pn	22 51 19.3	-0.2
MANT	Manisa	3.58	113		Pn	22 51 21.2	+0.6
THERA	Ancient Thera,	3.70	166	P	Pn	22 51 21.3	-0.7
THERA				AML	AML		
VLO	Vlora	3.75	279	P	Pn	22 51 26.3	+3.7
VALD	Valchedram	3.79	350	P	Pn	22 51 23.2	+0.1
KLYT	Kilyos	3.80	69	P	Pn	22 51 23.2	-0.1
KLYT				AML	AML		
KTHA	Kythira Island	3.83	196	P	Pn	22 51 23.3	-0.6
ROIA	ROIAK	3.87	35	P	Pn	22 51 24.6	+0.3
RAZG	Razgrad	3.95	23	⇓P	Pn	22 51 25.2	-0.2
NEF	NEVSHA	3.96	33	P	Pn	22 51 25.4	-0.2
AVR	AVREN	4.02	37	P	Pn	22 51 26.3	-0.1
BOVS	Bovan	4.17	333	⇑P	Pn	22 51 27.7	-0.7
SILT	Sile	4.21	72	⇓P	Pn	22 51 28.3	-0.6
PVY	Plav	4.22	310	⇓*i*Pn	Pn	22 51 29.7	+0.4
PVY				*i* Sn	Sn	22 52 21.5	+2.6
PVY				AML	AML		
ULC	Ulcinj	4.35	299	⇑*i*Pn	Pn	22 51 32.4	+1.5
ULC				*i* Sn	Sn	22 52 22.0	+0.2
ULC				AML	AML		
TAVA	DENIZLI_Tavas	4.35	123	⇓P	Pn	22 51 31.7	+0.6
IVA	Berane	4.43	312	⇓*i*Pn	Pn	22 51 33.1	+0.9
IVA				*i* Sn	Sn	22 52 28.6	+4.6
IVA				AML	AML		
DRME	Dracevica, Mon	4.49	301	*e*Pn	Pn	22 51 34.8	+2.0
DRME	Dracevica, Mon	4.49	301	⇑*i*Pn	Pn	22 51 35.2	+2.4
DRME				*i* Sn	Sn	22 52 26.8	+1.6
DRME				AML	AML		
IMMV	Iera Moni Meta	4.50	184	P	Pn	22 51 32.0	-1.0
BUC1	Bucharest	4.56	15	P	Pn	22 51 33.6	-0.1
BUC1	Bucharest	4.56	15	⇓P	Pn	22 51 33.6	-0.1
PDG	Podgorica	4.56	304		Pn	22 51 34.8	+1.0
PDG	Podgorica	4.56	304	⇑P	Pn	22 51 35.7	+1.8
PDG	Podgorica	4.56	304	*e*Pn	Pn	22 51 34.9	+1.1
PDG	Podgorica	4.56	304	P	Pn	22 51 37.0	+3.1
PDG	Podgorica	4.56	304	⇑*i*Pn	Pn	22 51 35.6	+1.8
PDG				*i* Sn	Sn	22 52 29.6	+2.6
PDG				AML	AML		
HUMR	Humele	4.59	6	P	Pn	22 51 33.7	-0.4
KALB	Balgarevo	4.60	40	⇑P	Pn	22 51 35.2	+1.0
PSN	Preselentsi	4.64	36	P	Pn	22 51 34.6	-0.2
KOME	Kolasin	4.64	310	⇑*i*Pn	Pn	22 51 35.6	+0.6
KOME				*i* Sn	Sn	22 52 32.4	+3.4
KOME				AML	AML		
SJES	Sjenica	4.65	317	*e*Pn	Pn	22 51 35.8	+0.7
INCR	INCERC-Sediu C	4.67	16	⇑P	Pn	22 51 35.7	+0.4
IDI	Anoyia	4.69	175	Pn	Pn	22 51 35.0	-0.6
	comp=E,352nm,0.6s,baz=348,slow=13,SNR=279						
IDI				Sn	Sn	22 52 26.0	-4.1
	comp=E,23nm,0.3s,baz=289,slow=21,SNR=4.5						
IDI				LR	LR	22 53 52.9	
	comp=E,6µm,19.7s,baz=314,slow=45						
BORA	Eskisehir	4.70	89		Pn	22 51 35.9	+0.2
BUM	Brajici-Budva	4.74	301	⇑*i*Pn	Pn	22 51 38.0	+1.7
BUM				*i* Sn	Sn	22 52 32.6	+1.3
BUM				AML	AML		
ARG	Arkhangelos	4.78	140	P	Pn	22 51 36.9	0.0
ARG	Arkhangelos	4.78	140		Pn	22 51 36.9	0.0
ARG	Arkhangelos	4.78	140	⇑P	Pn	22 51 37.7	+0.9
ARG	Arkhangelos	4.78	140	P	Pn	22 51 37.9	+1.1
CEME	Cevo	4.84	304	⇑*i*Pn	Pn	22 51 39.5	+1.8
CEME				*i* Sn	Sn	22 52 34.9	+1.0
CEME				AML	AML		
SULR		4.92	16	P	Pn	22 51 39.1	+0.3
NKME	Niksic	4.93	306	⇑*i*Pn	Pn	22 51 41.0	+2.0
NKME				*i* Sn	Sn	22 52 38.5	+2.3
NKME				AML	AML		
KARP	Karpathos	4.94	152		Pn	22 51 38.6	-0.5
KARP	Karpathos	4.94	152	*e*P	Pn	22 51 42.2	+3.2
KARP	Karpathos	4.94	152	⇑P	Pn	22 51 39.0	-0.1
KARP	Karpathos	4.94	152	P	Pn	22 51 38.9	-0.1
KARP				AML	AML		
KARP	Karpathos	4.94	152	P	Pn	22 51 39.0	-0.1
KARP				AML	AML		
KARP	Karpathos	4.94	152	P	Pn	22 51 39.5	+0.5
MANR	Mangalia	4.99	38	⇑P	Pn	22 51 39.0	-0.6
PLE	Pljevlja	5.01	314	⇓*i*Pn	Pn	22 51 40.8	+0.7
PLE				*i* Sn	Sn	22 52 42.0	+3.8
PLE				AML	AML		
SAHE	Sakarya_HENDEK	5.05	78	⇓P	Pn	22 51 40.2	-0.3
ZKR	Zakros	5.06	162	P	Pn	22 51 45.6	+4.9
	comp=Z,859nm,0.8s,comp=Z,9µm						
HCY	Herceg Novi	5.07	301	*e*Pn	Pn	22 51 41.4	+0.7
HCY	Herceg Novi	5.07	301	⇑*i*Pn	Pn	22 51 41.7	+1.0
HCY				*i* Sn	Sn	22 52 42.0	+2.6
HCY				AML	AML		
RMVG	GOVORA	5.07	359	⇓P	Pn	22 51 40.4	-0.4
GVD	Gavdhos	5.12	182	P	Pn	22 51 43.2	+1.8
	comp=Z,1µm,0.9s,comp=Z,10µm						
HERR	Herculane	5.12	344	⇑P	Pn	22 51 40.4	-1.0
CVDA	Cernavoda	5.16	31	⇓P	Pn	22 51 42.5	+0.5
MDVR	Moldovita	5.20	339	⇑P	Pn	22 51 42.0	-0.6
BRY	Bratogost	5.26	306	*e*Pn	Pn	22 51 45.0	+1.4
BRY	Bratogost	5.26	306	⇑*i*Pn	Pn	22 51 44.8	+1.2
BRY				*i* Sn	Sn	22 52 45.9	+1.5
BRY				AML	AML		
MDUB	Mudurnu	5.27	82		Pn	22 51 43.7	0.0
MDUB	Mudurnu	5.27	82	⇓P	Pn	22 51 43.9	+0.3
ISP	Isparta	5.27	112	*i* P	Pn	22 51 43.6	0.0
ISP	Isparta	5.27	112		Pn	22 51 44.2	+0.6
ISP	Isparta	5.27	112	*e*P	Pn	22 51 45.0	+1.3
ISP	Isparta	5.27	112	⇓P	Pn	22 51 44.7	+1.1
TSCT	Constanta Port	5.28	36	⇑P	Pn	22 51 43.7	0.0
TREB	Trebinje	5.29	303	*e*Pn	Pn	22 51 44.5	+0.7
MTUR	Matau	5.29	5	P	Pn	22 51 44.0	+0.2
MTUR	Matau	5.29	5	⇓P	Pn	22 51 44.0	+0.2
TLBR	Topalu	5.34	30	⇓P	Pn	22 51 44.0	-0.4
BBLS	Lazi&#263i	5.37	318	*e*Pn	Pn	22 51 45.0	+0.1
ISR	Istrita	5.40	17	P	Pn	22 51 46.4	+1.0
	comp=Z,26nmcomp=Z,23µmcomp=Z,2µm,0.8s						
ISR				AML	AML		
ARR	Arges	5.41	2	⇓P	Pn	22 51 45.4	-0.1
ARR	Arges	5.41	2	P	Pn	22 51 45.1	-0.4
	comp=Z,696nm,0.7s,comp=Z,12µm						
TIRR	Tirgusor	5.41	33	P	Pn	22 51 44.7	-0.7
TIRR	Tirgusor	5.41	33		Pn	22 51 44.7	-0.7
TIRR	Tirgusor	5.41	33	⇓P	Pn	22 51 45.2	-0.2
TIRR	Tirgusor	5.41	33	⇓P	Pn	22 51 44.8	-0.7
TIRR	Tirgusor	5.41	33	P	Pn	22 51 45.0	-0.5
	comp=Z,12nmcomp=Z,8µmcomp=Z,833nm,1.2s						
TIRR				AML	AML		
TIRR	Tirgusor	5.41	33	P	Pn	22 51 45.5	0.0
	comp=Z,832nm,1.2s,comp=Z,8µm						
HARR	Harsova	5.42	28	P	Pn	22 51 45.5	0.0
HARR	Harsova	5.42	28	⇑P	Pn	22 51 45.6	0.0
ELL	Elmali	5.42	125	P	Pn	22 51 47.2	+1.5
ELL	Elmali	5.42	125		Pn	22 51 47.2	+1.5
ELL	Elmali	5.42	125	⇓P	Pn	22 51 48.5	+2.7
VOIR		5.50	5	P	Pn	22 51 46.5	-0.2
VOIR		5.50	5	⇑P	Pn	22 51 46.6	-0.2
VOIR		5.50	5	P	Pn	22 51 46.5	-0.2
	comp=Z,5.0nmcomp=Z,8µmcomp=Z,913nm,1.0s						
VOIR				AML	AML		
VOIR		5.50	5	P	Pn	22 51 46.6	-0.2
	comp=Z,922nm,1.0s,comp=Z,8µm						
LOT	Lotru	5.50	356	P	Pn	22 51 46.3	-0.5
	comp=Z,758nm,0.6s,comp=Z,11µm						
GZR	Gura Zlata	5.55	348	P	Pn	22 51 46.9	-0.5
GZR	Gura Zlata	5.55	348	⇑P	Pn	22 51 46.9	-0.5
NEHR	Nehoiu	5.65	14	⇑P	Pn	22 51 49.8	+1.1
MLR	Muntele Rosu	5.65	11	Pn	Pn	22 51 49.5	+0.6
	comp=Z,34nm,0.3s,baz=178,slow=12,SNR=230						
MLR				Sn	Sn	22 52 54.1	+0.2
	comp=Z,27nm,0.3s,baz=18,slow=22,SNR=1.2						
MLR				Lg	Lg	22 53 24.5	
	comp=Z,36nm,0.3s,baz=281,slow=19,SNR=4.2						
MLR				LR	LR	22 54 20.8	
	comp=Z,15µm,21.5s,baz=180,slow=42						
MLR				AML	AML		
MLR	Muntele Rosu	5.65	11	P	Pn	22 51 49.7	+0.8
MLR	Muntele Rosu	5.65	11		Pn	22 51 49.1	+0.2
MLR	Muntele Rosu	5.65	11	⇑P	Pn	22 51 49.8	+0.8
MLR	Muntele Rosu	5.65	11	P	Pn	22 51 49.3	+0.4
	comp=Z,13nmcomp=Z,19µmcomp=Z,2µm,0.7s						
MLR				AML	AML		
MLR	Muntele Rosu	5.65	11	P	Pn	22 51 49.7	+0.8
	comp=Z,2µm,0.8s,comp=Z,19µm						
TPGR	Topolog	5.75	30	⇓P	Pn	22 51 49.8	-0.2
GRER		5.75	19	⇑P	Pn	22 51 50.9	+0.8
TEKS	Tekeris	5.81	324	*e*Pn	Pn	22 51 50.1	-0.9
BISRR	Bisoca	5.85	17	⇑P	Pn	22 51 52.5	+1.0
JURR	Jurilovca	5.86	33	⇑P	Pn	22 51 51.5	-0.1
MATE	Matera	5.88	279	*e*P	Pn	22 51 52.0	+0.1
MATE	Matera	5.88	279	⇓P	Pn	22 51 51.1	-0.8
MATE	Matera	5.88	279	P	Pn	22 51 52.1	+0.2
	comp=Z,357nm,0.7s,comp=Z,5µm						
CFR	Carcaliu	5.92	27	P	Pn	22 51 51.7	-0.6
CFR	Carcaliu	5.92	27	⇑P	Pn	22 51 51.8	-0.6
TIP	Timpagrande	5.92	265		Pn	22 51 52.1	-0.4
TIP	Timpagrande	5.92	265	⇑P	Pn	22 51 52.5	0.0
TIP	Timpagrande	5.92	265	P	Pn	22 51 52.4	-0.1
	comp=Z,1.7nmcomp=Z,3µmcomp=Z,301nm,1.0s						
TIP				AML	AML		
TIP	Timpagrande	5.92	265	P	Pn	22 51 53.0	+0.5
	comp=Z,371nm,1.0s,comp=Z,4µm						
BZS	Buzias	6.00	341	P	Pn	22 51 52.4	-1.1
BZS	Buzias	6.00	341	⇑P	Pn	22 51 52.1	-1.5
BZS	Buzias	6.00	341	⇓P	Pn	22 51 52.5	-1.1
BZS	Buzias	6.00	341	P	Pn	22 51 52.3	-1.1
	comp=Z,566nm,1.1s,comp=Z,8µm						
SAHR	Sahastru	6.01	16	⇓P	Pn	22 51 54.9	+1.1
DEV	Deva	6.01	350	P	Pn	22 51 54.1	+0.4
DEV	Deva	6.01	350	⇑P	Pn	22 51 54.1	+0.4
DEV	Deva	6.01	350	P	Pn	22 51 53.7	0.0
	comp=Z,1µm,1.0s,comp=Z,10µm						
SURR	Surduc	6.01	345	⇓P	Pn	22 51 52.3	-1.5
DOPR	Dopca	6.05	7	⇓P	Pn	22 51 54.1	-0.2
SCHLR	Schela	6.07	24	⇓P	Pn	22 51 54.1	-0.4
SCHL	Schela	6.10	24	⇑P	Pn	22 51 54.9	0.0
PLOR	Plostina	6.12	15	P	Pn	22 51 56.5	+1.2
PLOR	Plostina	6.12	15	⇓P	Pn	22 51 56.6	+1.2
TUDR		6.14	22	⇑P	Pn	22 51 55.6	+0.3
NEGRR	Negrea	6.15	24	⇓P	Pn	22 51 55.6	+0.1
VRI	Vrincioaia	6.15	16	P	Pn	22 51 56.8	+1.1
VRI	Vrincioaia	6.15	16	⇓P	Pn	22 51 56.8	+1.1
VRI	Vrincioaia	6.15	16	P	Pn	22 51 56.2	+0.5
	comp=Z,7.6nmcomp=Z,11µmcomp=Z,1µm,0.8s						
VRI				AML	AML		
VRI	Vrincioaia	6.15	16	P	Pn	22 51 56.7	+1.0
	comp=Z,1µm,0.8s,comp=Z,11µm						
FRGS	Fruska Gora	6.18	329	*e*Pn	Pn	22 51 54.8	-1.2
BOSR	Bodos	6.18	9	⇓P	Pn	22 51 57.0	+0.9
GIUM	Giurgiulesti	6.21	26	⇑P	Pn	22 51 57.5	+1.1
TIM	Timisoara	6.21	339	P	Pn	22 51 56.0	-0.4
TIM	Timisoara	6.21	339	⇓P	Pn	22 51 56.0	-0.4
TURR	Turia	6.21	11	⇑P	Pn	22 51 56.9	+0.4
PANC	Panciu	6.25	18	⇓P	Pn	22 51 57.1	+0.1
TATR	Tatarca	6.26	25	⇓P	Pn	22 51 58.2	+1.1
COSR	Cosmesti PH	6.28	19	⇑P	Pn	22 51 57.6	+0.2
SCTR	Scanteiesti	6.31	24	⇑P	Pn	22 51 58.4	+0.6
MRVN	Minervino Murg	6.31	283	⇓P	Pn	22 51 57.1	-0.7
VARL	Varlezi	6.47	22	⇑P	Pn	22 52 00.4	+0.5
VLDR	Vladesti	6.49	24	⇑P	Pn	22 52 00.8	+0.6
GHRR		6.50	19	⇑P	Pn	22 52 00.4	+0.1
GHRR		6.50	19	P	Pn	22 52 00.1	-0.2
GHRR		6.50	19	P	Pn	22 52 00.8	+0.4
	comp=Z,1µm,0.8s,comp=Z,13µm						
CUC	Castrocucco	6.55	273		Pn	22 52 01.6	+0.4
CUC	Castrocucco	6.55	273	⇑P	Pn	22 52 02.3	+1.0
CUC	Castrocucco	6.55	273	P	Pn	22 52 02.8	+1.5
	comp=Z,622nm,0.9s,comp=Z,6µm						
MARCO	Tramutola	6.55	276	P	Pn	22 52 01.9	+0.6
	comp=Z,476nm,0.9s,comp=Z,9µm						
TGMR	Targu Mures	6.56	1	⇑P	Pn	22 52 01.3	0.0
SIRR	Siria	6.60	344	⇑P	Pn	22 52 00.6	-1.2
KKUL	Konya-Kulu	6.67	94	P	Pn	22 52 04.3	+1.4
	comp=Z,673nm,1.1s,comp=Z,15µm						
TESR	Tescani	6.76	14	⇑P	Pn	22 52 04.3	+0.3
TESR	Tescani	6.76	14	P	Pn	22 52 04.2	+0.3
	comp=Z,5.1nmcomp=Z,15µmcomp=Z,1µm,0.7s						
TESR				AML	AML		
TESR	Tescani	6.76	14	P	Pn	22 52 04.7	+0.7
	comp=Z,1µm,0.7s,comp=Z,14µm						
SGRT	San Giovanni R	6.76	288		Pn	22 52 03.1	-1.1
CEL	Celeste	6.79	258		Pn	22 52 03.9	-0.6
CEL	Celeste	6.79	258	⇑P	Pn	22 52 04.4	0.0
CEL	Celeste	6.79	258	P	Pn	22 52 04.5	0.0
	comp=Z,1.9nmcomp=Z,5µmcomp=Z,488nm,0.8s						
CEL				AML	AML		
CEL	Celeste	6.79	258	P	Pn	22 52 04.7	+0.2
	comp=Z,491nm,0.8s,comp=Z,5µm						
DRGR		6.93	351	P	Pn	22 52 05.7	-0.7
DRGR		6.93	351	⇑P	Pn	22 52 05.8	-0.7
DRGR		6.93	351	P	Pn	22 52 05.7	-0.7
	comp=Z,185nm,0.9s,comp=Z,5µm						
BR106	Keskin Array S	7.14	89	P	Pn	22 52 09.6	+0.3
	comp=Z,1.4nmcomp=Z,1µmcomp=Z,121nm,0.8s						
BR106				AML	AML		
BR105	Keskin Array S	7.14	89	P	Pn	22 52 09.9	+0.6
	comp=Z,1.0nmcomp=Z,2µmcomp=Z,191nm,0.8s						
BR105				AML	AML		
BLY	Banja Luka	7.14	314		Pn	22 52 09.8	+0.6
BLY	Banja Luka	7.14	314	⇑P	Pn	22 52 10.3	+1.0
BLY	Banja Luka	7.14	314	*e*Pn	Pn	22 52 10.0	+0.8
BLY	Banja Luka	7.14	314	P	Pn	22 52 10.8	+1.6
	comp=Z,421nm,0.7s,comp=Z,4µm						
BR131	Keskin Array S	7.15	89	P	Pn	22 52 10.3	+0.7
	SNR=50						
BR131				S	Sn	22 53 28.2	-2.8
BR131	Keskin Array S	7.15	89	*i* P	Pn	22 52 09.6	0.0
BR131	Keskin Array S	7.15	89		Pn	22 52 09.8	+0.3
BRTR	Keskin Array B	7.15	89	Pn	Pn	22 52 10.1	+0.5
	comp=Z,14nm,0.3s,baz=267,slow=12,SNR=447						
BRTR				Sn	Sn	22 53 28.2	-2.8
	comp=Z,4.9nm,0.3s,baz=277,slow=21,SNR=0.8						
BRTR				Lg	Lg	22 54 13.3	
	comp=Z,1.7nm,0.3s,baz=264,slow=30,SNR=3.5						
	comp=Z,48nm,0.5s						
BRTR				AML	AML		
BRTR	Keskin Array B	7.15	89		Pn	22 52 09.6	0.0
BR104	Keskin Array S	7.16	89	P	Pn	22 52 10.3	+0.7
	comp=Z,0.7nmcomp=Z,2µmcomp=Z,167nm,0.7s						
BR104				AML	AML		
GIRR	Girov	7.16	12	⇑P	Pn	22 52 10.2	+0.6
ILGA	Ilgaz	7.22	78		Pn	22 52 11.1	+0.5
BORR	Bors	7.36	346	⇑P	Pn	22 52 13.1	+0.8
KIRS	Kirsehir-Merke	7.44	93	⇓P	Pn	22 52 14.5	+1.1
MORH	Mrgy, Hungar	7.51	328	⇓P	Pn	22 52 13.6	-0.7
MORH	Mrgy, Hungar	7.51	328	*e*Pn	Pn	22 52 12.9	-1.4
MORH	Mrgy, Hungar	7.51	328	P	Pn	22 52 13.3	-1.0
	comp=Z,1.2nmcomp=Z,2µmcomp=Z,115nm,0.8s						
MORH				AML	AML		
MORH	Mrgy, Hungar	7.51	328	P	Pn	22 52 13.2	-1.0
	comp=Z,2µmcomp=Z,132nm,0.8s						
PRAR	RASCA	7.52	10	⇓P	Pn	22 52 14.9	+0.4
PAOL	Paolisi	7.53	281		Pn	22 52 14.8	+0.1
BZK	Bozkurt	7.58	72	Pn	Pn	22 52 15.2	+0.1
LTVH	Ltavrtes, Hu	7.63	347	⇑P	Pn	22 52 15.6	-0.3
LTVH	Ltavrtes, Hu	7.63	347	P	Pn	22 52 15.5	-0.4
	comp=Z,5µmcomp=Z,260nm,0.9s						
KOVH	Kovagotottos	7.64	325	⇑P	Pn	22 52 15.1	-1.0
BURAR	Bucovina Array	7.68	4	P	Pn	22 52 17.0	+0.4
BURAR	Bucovina Array	7.68	4		Pn	22 52 16.2	-0.5
BURAR	Bucovina Array	7.68	4	⇓P	Pn	22 52 17.1	+0.4
PURM	Purcari	7.70	30	P	Pn	22 52 16.7	-0.2
	comp=Z,4.8nmcomp=Z,7µmcomp=Z,616nm,0.7s						
PURM				AML	AML		
BUR08	Bucovina Ar. S	7.71	4		Pn	22 52 16.8	-0.3
BMR	Baia Mare	7.73	356	P	Pn	22 52 16.9	-0.4
	comp=Z,7µmcomp=Z,854nm,0.7s						
KIS	Kishinev	7.75	23	P	Pn	22 52 17.7	+0.2
KIS	Kishinev	7.75	23	⇑P	Pn	22 52 17.8	+0.2
KIS	Kishinev	7.75	23	P	Pn	22 52 17.3	-0.2
	comp=Z,1.4nmcomp=Z,4µmcomp=Z,441nm,0.7s						
KIS				AML	AML		
BSZH	Besenyszg	7.91	339	P	Pn	22 52 19.5	-0.2
	comp=Z,5µmcomp=Z,154nm,0.7s						
TARU	Tarkhankut	8.10	45	*e*P	Pn	22 52 21.8	-0.5
TARU				*e*S	Sn	22 53 50.8	-3.2
TARU				smax	smax	22 53 52.1	
	comp=E,42nm,0.4s						
VAE	Valguarnera	8.15	255	Pn	Pn	22 52 24.3	+1.1
	comp=E,25nm,0.4s,baz=54,slow=19,SNR=18						
VAE				Sn	Sn	22 53 55.4	-0.1
	comp=E,2.1nm,0.3s,baz=36,slow=18,SNR=0.8						
INTR	Introdacqua	8.16	288		Pn	22 52 22.7	-0.6
NE56	Odesa	8.23	33	P	Pn	22 52 24.4	+0.2
TRPA	Tarpa	8.27	352	P	Pn	22 52 23.2	-1.5
	comp=Z,3µmcomp=Z,140nm,1.7s						
RAFF	Raffo Rosso	8.28	254		Pn	22 52 24.4	-0.5
SEV	Sevastopol'	8.29	53	⇓*e*P	Pn	22 52 24.4	-0.6
SEV				pmax	pmax	22 52 32.7	
	comp=Z,15nm,0.4s						
SEV				*i* S	Sn	22 53 54.2	-4.5
SEV				smax	smax	22 53 59.1	
	comp=N,32nm,0.5s						
SEV				smax	smax	22 53 59.1	
	comp=E,18nm,0.5s						
BUD	Budapest	8.45	335	P	Pn	22 52 26.2	-0.9
	comp=Z,1µmcomp=Z,112nm,0.9s						
DNZ2	Donuzlav2	8.48	47	*e*P	Pn	22 52 26.6	-0.9
DNZ2				pmax	pmax	22 52 32.4	
	comp=Z,11nm,0.3s						
DNZ2				*e*x	x	22 53 58.1	
DNZ2				smax	smax	22 54 00.4	
	comp=N,16nm,0.3s						
DNZ2				smax	smax	22 54 00.4	
	comp=E,22nm,0.4s						
ZAG	Zagreb	8.48	316	P	Pn	22 52 28.7	+1.1
	comp=Z,10µmcomp=Z,410nm,0.9s						
BEHE	Becsehely	8.53	322		Pn	22 52 28.2	-0.1
BEHE	Becsehely	8.53	322	*e*Pn	Pn	22 52 29.1	+0.8
BEHE	Becsehely	8.53	322	P	Pn	22 52 29.4	+1.1
	comp=Z,3µmcomp=Z,160nm,1.1s						
YAL	Yalta	8.56	55	*e*P	Pn	22 52 27.0	-1.7
YAL				*e*S	Sn	22 53 59.3	-6.2
YAL	Yalta	8.56	55	*e*P	Pn	22 52 27.0	-1.7
YAL				pmax	pmax	22 52 29.3	
	comp=Z,26nm,0.4s						
YAL				*e*x	x	22 53 59.3	
YAL				smax	smax	22 54 04.5	
	comp=N,34nm,0.5s						
YAL				smax	smax	22 54 04.5	
	comp=E,24nm,0.5s						
PSZ	Piszkesteto	8.58	339	P	Pn	22 52 27.0	-2.0
PSZ	Piszkesteto	8.58	339		Pn	22 52 27.0	-2.0
PSZ	Piszkesteto	8.58	339	*e*P	Pn	22 52 32.7	+3.7
PSZ	Piszkesteto	8.58	339	⇓P	Pn	22 52 27.4	-1.6
PSZ	Piszkesteto	8.58	339	P	Pn	22 52 27.6	-1.4
	comp=Z,3µmcomp=Z,102nm,0.9s						
AQU	L'Aquila	8.60	290		Pn	22 52 28.6	-0.7
AQU	L'Aquila	8.60	290	⇑P	Pn	22 52 29.7	+0.5
AQU	L'Aquila	8.60	290	*e*Pn	Pn	22 52 28.4	-0.9
AQU	L'Aquila	8.60	290	P	Pn	22 52 29.8	+0.5
	comp=Z,2µmcomp=Z,189nm,1.1s						
AQU	L'Aquila	8.60	290	P	Pn	22 52 29.6	+0.4
	comp=Z,2µmcomp=Z,234nm,1.1s						
ABAH	Abaujker	8.63	346	P	Pn	22 52 28.6	-1.0
	comp=Z,2µmcomp=Z,103nm,1.1s						
SORM	Soroca	8.66	18	P	Pn	22 52 29.0	-1.1
SORM	Soroca	8.66	18	⇓P	Pn	22 52 29.0	-1.1
SORM	Soroca	8.66	18	P	Pn	22 52 28.9	-1.1
	comp=Z,6µmcomp=Z,277nm,0.4s						
KMPD	K-Podol'skiy	8.73	9	P	Pn	22 52 29.8	-1.2
MPLH	Magyarpolny	8.73	328	P	Pn	22 52 31.1	0.0
	comp=Z,5µmcomp=Z,511nm,0.9s						
MPLH	Magyarpolny	8.73	328	P	Pn	22 52 31.3	+0.3
	comp=Z,2µmcomp=Z,193nm,0.9s						
CRES	Cresnjevec Ost	8.77	315	*e*Pn	Pn	22 52 32.7	+1.1
KOGS	Kog	8.77	320	*i* Pn	Pn	22 52 31.8	+0.3
SIM	Simferopol'	8.77	52	*e*P	Pn	22 52 31.2	-0.4
SIM				*e*S	Sn	22 54 06.1	-4.5
SIM	Simferopol'	8.77	52	*e*P	Pn	22 52 31.2	-0.4
SIM				pmax	pmax	22 52 37.8	
	comp=Z,43nm,0.4s						
SIM				*e*x	x	22 54 06.1	
SIM				smax	smax	22 54 09.4	
	comp=N,41nm,0.5s						
SIM				smax	smax	22 54 09.4	
	comp=E,15nm,0.6s						
WDD	Wied Dalam	8.79	245		Pn	22 52 31.2	-0.6
WDD	Wied Dalam	8.79	245	⇑P	Pn	22 52 30.9	-0.9
WDD	Wied Dalam	8.79	245	P	Pn	22 52 32.3	+0.4
	comp=Z,14µmcomp=Z,2µm,0.9s						
ALU	Alushta	8.81	54	⇑*i*P	Pn	22 52 30.1	-2.0
ALU				*e*S	Sn	22 54 04.2	-7.4
ALU	Alushta	8.81	54	⇑*i*P	Pn	22 52 30.1	-2.0
ALU				pmax	pmax	22 52 32.7	
	comp=Z,34nm,0.2s						
ALU				*e*x	x	22 54 04.2	
ALU				smax	smax	22 54 10.7	
	comp=N,132nm,0.4s						
ALU				smax	smax	22 54 10.7	
	comp=E,85nm,0.4s						
BAL3X	Bal3x, Balta	8.82	24	P	Pn	22 52 30.9	-1.4
GUMA	Gualdo di Mace	8.82	294		Pn	22 52 32.7	+0.4
KECS	Kecovo	8.96	343	*e*P	Pn	22 52 34.5	+0.4
KECS	Kecovo	8.96	343	*e*PN	Pn	22 52 34.5	+0.4
KECS	Kecovo	8.96	343	P	Pn	22 52 35.2	+1.0
	comp=Z,1µmcomp=Z,122nm,0.9s						
BNN	Bunyan	8.97	93		Pn	22 52 33.8	-0.6
BNN	Bunyan	8.97	93	⇑P	Pn	22 52 36.4	+1.9
SRO	Srobarova	8.97	333	*e*P	Pn	22 52 37.3	+2.9
SRO	Srobarova	8.97	333	*e*PN	Pn	22 52 37.2	+2.9
CLTB	Caltabellotta	9.02	258	⇑P	Pn	22 52 38.8	+3.7
CLTB	Caltabellotta	9.02	258	P	Pn	22 52 39.5	+4.5
	comp=Z,274nm,1.1s						
KOLS	Kolonicke sedl	9.09	351	*e*P	Pn	22 52 36.0	0.0
KOLS	Kolonicke sedl	9.09	351	*e*PN	Pn	22 52 36.0	0.0
KOLS	Kolonicke sedl	9.09	351	P	Pn	22 52 36.0	0.0
	comp=Z,1µmcomp=Z,145nm,0.6s						
GROS	Grobnik	9.16	318	*i* Pn	Pn	22 52 37.2	+0.2
CESX	Cesi	9.25	290		Pn	22 52 38.7	+0.6

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SUDU  Sudak            9.29  55⇑iP    Pn     22 52 37.3 -1.3
SUDU                           eS     Sn     22 54 17.0 -6.2
SUDU  Sudak            9.29  55⇑iP    Pn     22 52 37.3 -1.3
SUDU                            pmax  pmax   22 52 39.9
      comp=Z,38nm,0.2s
SUDU                           eS     Sn     22 54 17.0 -6.2
SUDU                            smax  smax   22 54 29.8
      comp=N,74nm,0.5s
SUDU                            smax  smax   22 54 29.8
      comp=E,61nm,0.7s
TOKA  Tokat            9.30  84               Pn     22 52 39.4 +0.5
VYHS  Vyhne            9.40 337 eP     Pn     22 52 40.7 +0.5
VYHS  Vyhne            9.40 337 ePN    Pn     22 52 40.7 +0.5
VYHS  Vyhne            9.40 337  P     Pn     22 52 40.3 +0.1
      comp=Z,19nm,1.1s
PERS  Pernice          9.47 318 i Pn   Pn     22 52 42.2 +0.9
SOKA  Soboth           9.54 318  Pn    Pn     22 52 43.1 +0.9
      comp=Z,5.4nm,0.3s,SNR=28
SOKA                            eSn    Sn     22 54 26.9 -2.7
      comp=Z,4.2nm,0.5s
SOP   Sopron           9.55 326  P     Pn     22 52 42.1 -0.1
      comp=Z,933nmcomp=Z,96nm,1.1s
FEO   Feodosiya        9.59  55 eP     Pn     22 52 41.2 -1.6
FEO                             eS     Sn     22 54 24.7 -6.0
FEO   Feodosiya        9.59  55 eP     Pn     22 52 41.2 -1.6
FEO                             pmax   pmax   22 52 46.7
      comp=Z,27nm,0.4s
FEO                             eS     Sn     22 54 24.7 -6.0
FEO                             smax   smax   22 54 37.3
      comp=N,29nm,0.4s
FEO                             smax   smax   22 54 37.3
      comp=E,6.0nm,0.4s
MGAB  Montegabbione    9.65 292 ⇓P     Pn     22 52 44.1 +0.5
TRI   Trieste          9.66 310  P     Pn     22 52 43.0 -0.8
TRI   Trieste          9.66 310        Pn     22 52 43.0 -0.8
ANDN  Andirin          9.67 100  P     Pn     22 52 48.5 +4.5
      comp=Z,5µmcomp=Z,404nm,0.9s
RONA  Rosalia, Austr   9.67 326  Pn    Pn     22 52 43.1 -0.9
      comp=Z,4.3nm,0.3s,SNR=9.0
RONA                            eSn    Sn     22 54 29.7 -3.1
      comp=Z,2.1nm,0.4s
OBKA  Obir             9.69 316  Pn    Pn     22 52 45.5 +1.3
      comp=Z,20nm,0.5s,SNR=19
OBKA  Obir             9.69 316  P     Pn     22 52 46.2 +2.0
      comp=Z,2µmcomp=Z,139nm,1.0s
ARSA  Arzberg          9.69 322        Pn     22 52 43.9 -0.3
ARSA  Arzberg          9.69 322 ⇑P     Pn     22 52 44.2 -0.1
ARSA  Arzberg          9.69 322  Pn    Pn     22 52 44.1 -0.1
      comp=Z,5.1nm,0.2s,SNR=66
ARSA                            eSn    Sn     22 54 32.1 -1.2
      comp=Z,9.6nm,0.4s
ARSA  Arzberg          9.69 322  P     Pn     22 52 44.9 +0.7
      comp=Z,2µmcomp=Z,174nm,0.9s
STHS  Stebnicka Huta   9.71 348 eP     Pn     22 52 44.7 +0.3
STHS  Stebnicka Huta   9.71 348 ePN    Pn     22 52 44.7 +0.3
KWP   Kalwaria Pacla   9.74 354 eP     Pn     22 52 46.1 +1.2
KWP   Kalwaria Pacla   9.74 354 ⇑P     Pn     22 52 45.8 +0.9
KWP   Kalwaria Pacla   9.74 354  P     Pn     22 52 45.9 +1.1
      comp=Z,2µmcomp=Z,117nm,1.5s
ZST   Bratislava       9.74 330 eP     Pn     22 52 45.2 +0.4
ZST   Bratislava       9.74 330 ePN    Pn     22 52 45.2 +0.4
MODS  Modra-Piesok     9.82 331 eP     Pn     22 52 47.1 +1.1
MODS  Modra-Piesok     9.82 331 ePN    Pn     22 52 47.1 +1.1
LANS  Liptovska Anna   9.82 341 eP     Pn     22 52 46.8 +0.8
LANS  Liptovska Anna   9.82 341 ePN    Pn     22 52 46.8 +0.8
SMOL  Smolenice        9.88 332 eP     Pn     22 52 48.5 +1.7
NIE   Niedzica         9.88 344 eP     Pn     22 52 46.6 -0.2
NIE   Niedzica         9.88 344  P     Pn     22 52 47.5 +0.7
      comp=Z,647nmcomp=Z,32nm,1.0s
SABO  M.te Sabotino    9.91 311        Pn     22 52 47.3 +0.1
DRE   Drenchia         9.99 312  P     Pn     22 52 48.7 +0.3
      comp=Z,2µmcomp=Z,188nm,0.8s
CONA  Conrad Observa  10.04 325 i Pn   Pn     22 52 47.8 -1.2
      comp=Z,0.5nm,0.2s,SNR=12
CONA                            eSn    Sn     22 54 42.4 +0.6
      comp=Z,3.3nm,0.5s
SESA  Seetaler Alpe,  10.07 318 i Pn   Pn     22 52 51.0 +1.4
      comp=Z,18nm,0.5s,SNR=18
SESA                            eSn    Sn     22 54 42.7 -0.1
      comp=Z,38nm,0.7s
JAVC  Velka Javorina  10.09 334 ePN    Pn     22 52 50.8 +1.1
PRED  Cave del Predi  10.19 313  P     Pn     22 52 52.9 +1.8
      comp=Z,758nmcomp=Z,69nm,0.8s
LUBAR Lubar, Ukraine  10.25  12  P     Pn     22 52 51.1 -0.7
MYKA  Terra Mystica   10.26 314 i Pn   Pn     22 52 52.3 +0.3
      comp=Z,0.2nm,0.2s,SNR=7.7
ACOM  Acomizza, Ital  10.28 313  P     Pn     22 52 53.4 +1.0
      comp=Z,2µmcomp=Z,160nm,1.2s
GAZ   Gaziantep       10.45 101 ⇑P     Pn     22 52 58.7 +4.0
FUSE  Fusea           10.49 312  P     Pn     22 52 56.4 +1.2
      comp=Z,2µmcomp=Z,197nm,1.1s
KBA   Koelnbreinsper  10.69 315 ⇑P     Pn     22 52 59.4 +1.4
KBA   Koelnbreinsper  10.69 315 i Pn   Pn     22 52 59.8 +1.7
      comp=Z,15nm,0.6s,SNR=19
KBA   Koelnbreinsper  10.69 315  P     Pn     22 52 59.4 +1.4
      comp=Z,2µmcomp=Z,137nm,1.2s
KRUC  Moravsky        10.72 331 ePN    Pn     22 52 57.8 -0.4
KRUC  Moravsky        10.72 331  P     Pn     22 52 58.7 +0.5
      comp=Z,36nm,1.8s
MOA   Molln           10.72 321 ePn    Pn     22 53 00.2 +1.9
      comp=Z,0.1nm,0.1s
MOA                             eSn    Sn     22 54 59.2 +0.8
      comp=Z,12nm,0.6s
MOA   Molln           10.72 321  P     Pn     22 53 01.3 +3.0
      comp=Z,1µmcomp=Z,125nm,1.1s
OJC   Ojcow           10.75 344 eP     Pn     22 52 57.6 -1.0
OJC   Ojcow           10.75 344  P     Pn     22 52 58.0 -0.6
OJC   Ojcow           10.75 344        Pn     22 52 58.0 -0.6
OJC   Ojcow           10.75 344 ⇓P     Pn     22 52 58.7 +0.1
OJC   Ojcow           10.75 344  P     Pn     22 52 58.4 -0.2
      comp=Z,793nmcomp=Z,42nm,1.0s
OJC   Ojcow           10.75 344  P     Pn     22 52 58.8 +0.2
      comp=Z,789nmcomp=Z,42nm,1.0s
OKC   Ostrava-Krasne  10.80 338  AMS   AMS    22 57 50.0
      comp=Z,17µm,9.8s
OKC   Ostrava-Krasne  10.80 338  P     Pn     22 53 01.3 +1.9
      comp=Z,797nmcomp=Z,42nm,1.6s
ANN   Anapa           10.82  59 eP     Pn     22 53 02.6 +3.0
ANN                             eS     Sn     22 55 07.7 +7.0
ANN                              pmax  pmax
      comp=Z,57nm,1.0s
ANN                              MLR   MLR
      comp=Z,2µm,13.0s
ARPR  Arapgir-MALATY  10.84  90        Pn     22 53 01.0 +0.8
VRAC  Vranov          10.85 332  Pn    Pn     22 52 59.9 -0.2
      comp=Z,0.6nm,0.3s,baz=164,slow=9.7,SNR=8.8
VRAC                             LR    LR     22 57 22.4
      comp=Z,4µm,18.8s,baz=148,slow=39
      comp=Z,1.3nm,0.3s
VRAC                             AML   AML
VRAC  Vranov          10.85 332 ePN    Pn     22 52 59.7 -0.3
BIOA  Bad Ischl, Aus  10.93 319 ePn    Pn     22 53 01.8 +0.6
      comp=Z,3.3nm,0.3s
BIOA                            eSn    Sn     22 55 00.7 -2.7
      comp=Z,4.9nm,0.4s
MORC  Moravsky Berou  10.93 336  P     Pn     22 53 01.2  0.0
MORC  Moravsky Berou  10.93 336        Pn     22 53 01.2  0.0
MORC  Moravsky Berou  10.93 336 ePN    Pn     22 53 01.3  0.0
MORC  Moravsky Berou  10.93 336  P     Pn     22 53 03.3 +2.1
      comp=Z,28nm,1.1s
CGRP  Cima Grappa     10.93 307  P     Pn     22 53 04.9 +3.5
      comp=Z,84nm,1.5s
ABTA  Abfaltersbach   10.96 312 i Pn   Pn     22 53 02.0 +0.3
      comp=Z,4.5nm,0.6s,SNR=15
STEB  Steborice       11.00 337 eP     Pn     22 53 02.5 +0.4
AK07  Malin Array Si  11.12  16  P     Pn     22 53 02.6 -1.2
YGR   Yagur           11.25 126  P     Pn     22 53 05.9 +0.3
TREC  Trest           11.26 329 eP     Pn     22 53 06.3 +0.7
TREC                             MLR   MLR
      comp=Z,10µm,9.4s
TREC  Trest           11.26 329 eP     Pn     22 53 06.3 +0.7
TREC                             AMS   AMS    22 57 40.0
      comp=Z,10µm,9.4s
TREC  Trest           11.26 329  P     Pn     22 53 06.8 +1.1
      comp=Z,555nmcomp=Z,35nm,1.4s
KIEV  Kiev            11.26  16  P     Pn     22 53 04.9 -0.7
KIEV  Kiev            11.26  16 ⇑P     Pn     22 53 04.4 -1.2
KIEV  Kiev            11.26  16  P     Pn     22 53 04.3 -1.3
KIEV  Kiev            11.26  16 ⇓P     Pn     22 53 04.9 -0.7
KIEV  Kiev            11.26  16  P     Pn     22 53 04.6 -1.0
      comp=Z,5µmcomp=Z,397nm,0.8s
KIEV  Kiev            11.26  16  P     Pn     22 53 04.7 -1.0
      comp=Z,1µmcomp=Z,101nm,0.8s
LESA  Schwarzleotal   11.26 315 i Pn   Pn     22 53 07.0 +1.2
      comp=Z,2.1nm,0.6s,SNR=47
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LESA                            eSn    Sn     22 55 12.1 +0.3
      comp=Z,2.3nm,0.5s
AKASG Malin Array Be  11.27  16  Pn    Pn     22 53 04.1 -1.7
      comp=Z,13nm,0.3s,baz=200,slow=13,SNR=45
AKASG                            LR    LR     22 57 34.8
      comp=Z,5µm,19.0s,baz=191,slow=38
      comp=Z,17nm,0.5s
AKASG                            AML   AML
AKASG Malin Array Be  11.27  16 eP     Pn     22 53 04.0 -1.7
AKASG                            pmax  pmax
      comp=Z,21nm,0.5s
AKBB  Malin Array Si  11.27  16ceP     Pn     22 53 04.2 -1.6
AKBB  Malin Array Si  11.27  16        Pn     22 53 04.3 -1.4
AKBB  Malin Array Si  11.27  16  P     Pn     22 53 04.2 -1.6
MMA0B Mount Meron ar  11.27 124  P     Pn     22 53 05.8 -0.1
MMAI  Mount Meron Ar  11.27 124  Pn    Pn     22 53 05.3 -0.7
      comp=Z,5.9nm,0.3s,baz=316,slow=11,SNR=37
MMAI                             Sn    Sn     22 55 05.0 -7.1
      comp=Z,6.2nm,0.3s,baz=329,slow=30,SNR=9.2
MMAI                             LR    LR     22 58 60.0
      comp=Z,3µm,20.3s,baz=315,slow=46
      comp=Z,20nm,0.7s
MMAI                             AML   AML
GOSH  HaGoshrim       11.28 123  P     Pn     22 53 06.0  0.0
GEM   Giv'at Ha'Em    11.31 123 ⇑P     Pn     22 53 06.3 -0.1
GEM   Giv'at Ha'Em    11.31 123  P     Pn     22 53 07.1 +0.7
GEM   Giv'at Ha'Em    11.31 123  P     Pn     22 53 06.8 +0.4
RNPP5 Staryi Chortor  11.32   5  P     Pn     22 53 05.8 -0.6
LVBS  Lehavot Habash  11.35 123  P     Pn     22 53 07.3 +0.4
RJOB  Jochberg        11.39 317  P     Pn     22 53 09.7 +2.1
      comp=Z,786nmcomp=Z,58nm,0.7s
CKRC  Cesky Krumlov   11.39 324 eP     Pn     22 53 07.8 +0.3
CKRC                             MLR   MLR
      comp=Z,18µm,12.0s
CKRC  Cesky Krumlov   11.39 324 eP     Pn     22 53 07.8 +0.3
CKRC                             AMS   AMS    22 57 20.0
      comp=Z,18µm,12.0s
RSPN  Rosh Pina       11.39 124  P     Pn     22 53 07.7 +0.1
AMID  Amiad           11.42 124  P     Pn     22 53 08.5 +0.6
KELT  Kelkit          11.43  84  P     Pn     22 53 13.6 +5.4
      comp=Z,2µmcomp=Z,95nm,2.0s
KRLC  Kraliky         11.44 335 eP     Pn     22 53 09.8 +1.7
KRLC                             MLR   MLR
      comp=Z,8µm,14.8s
KRLC  Kraliky         11.44 335 eP     Pn     22 53 09.8 +1.7
KRLC                             AMS   AMS    22 57 20.0
      comp=Z,8µm,14.8s
KRLC  Kraliky         11.44 335  P     Pn     22 53 12.5 +4.4
      comp=Z,534nmcomp=Z,24nm,1.2s
PRMA  PARMA           11.44 299        Pn     22 53 07.4 -0.6
MGDL  Migdal          11.45 125  P     Pn     22 53 08.7 +0.4
KNHM  Kefar Nahum     11.47 125  P     Pn     22 53 08.8 +0.2
HDNS  Had-Ness        11.48 124  P     Pn     22 53 09.1 +0.4
TVER  Teveria         11.51 125  P     Pn     22 53 09.5 +0.4
IZRL  Izrael          11.53 126  P     Pn     22 53 10.0 +0.6
VSL   Villasalto      11.54 272 ⇑P     Pn     22 53 12.2 +2.6
VSL   Villasalto      11.54 272  P     Pn     22 53 11.8 +2.3
      comp=Z,78nm,1.1s
RMOT  Ramot           11.55 124  P     Pn     22 53 10.0 +0.3
KSHT  Keshet          11.55 123  P     Pn     22 53 10.4 +0.6
GNNR  Gan-Ner         11.56 127  P     Pn     22 53 10.0 +0.2
ENGV  Ein-Gev         11.58 125  P     Pn     22 53 10.2 +0.2
SALO  Salr            11.62 304 ⇑P     Pn     22 53 13.2 +2.6
MMLI  Mount Malkishu  11.67 127  P     Pn     22 53 16.6 +5.2
      comp=Z,1µmcomp=Z,89nm,0.8s
MMLI  Mount Malkishu  11.67 127  P     Pn     22 53 11.6 +0.3
GEC2  GERESS Array S  11.69 323        Pn     22 53 11.6  0.0
GEC2  GERESS Array S  11.69 323  P     Pn     22 53 15.6 +4.0
      comp=Z,42nm,1.1s
GERES GERESS Array B  11.69 323  Pn    Pn     22 53 12.8 +1.2
      comp=Z,0.3nm,0.3s,baz=150,slow=14,SNR=34
GERES                            Sn    Sn     22 55 20.6 -1.6
      baz=131,slow=30
      comp=Z,6.1nm,0.5s
GERES                            AML   AML
GERES GERESS Array B  11.69 323        Pn     22 53 12.4 +0.8
WTTA  Wattenberg      11.74 313 i Pn   Pn     22 53 13.6 +1.1
      comp=Z,8.1nm,0.5s,SNR=18
WTTA  Wattenberg      11.74 313  P     Pn     22 53 15.1 +2.7
      comp=Z,1µmcomp=Z,70nm,0.5s
MEHL  Mehola          11.78 127  P     Pn     22 53 13.3 +0.5
SALP  Salfit          11.79 129 ⇑P     Pn     22 53 13.7 +0.7
SALP  Salfit          11.79 129  P     Pn     22 53 13.7 +0.7
      comp=Z,999nmcomp=Z,85nm,0.8s
WATA  Walderalm       11.82 313 i Pn   Pn     22 53 15.0 +1.5
      comp=Z,11nm,0.5s,SNR=11
DPC   Dobruska-Polom  11.82 334 eP     Pn     22 53 15.1 +1.7
DPC                              MLR   MLR
      comp=Z,12µm,10.8s
DPC   Dobruska-Polom  11.82 334 eP     Pn     22 53 15.1 +1.7
DPC                              AMS   AMS    22 58 10.0
      comp=Z,12µm,10.8s
QRNJ  Al-Qirein       11.84 127  P     Pn     22 53 14.3 +0.7
      comp=Z,200µmcomp=Z,31µm,0.9s
ROII  Roi             11.84 127  P     Pn     22 53 14.3 +0.6
HMRA  Hamra           11.84 127  P     Pn     22 53 14.0 +0.3
KHC   Kasperske Hory  11.95 324 eP     Pn     22 53 15.5 +0.4
KHC                             ex     x      22 53 23.5
KHC                              AMS   AMS    22 57 40.0
      comp=Z,15µm,12.6s
KHC   Kasperske Hory  11.95 324 ⇑P     Pn     22 53 16.1 +1.0
KHC   Kasperske Hory  11.95 324  P     Pn     22 53 15.8 +0.7
      comp=Z,41nm,1.2s
SQTA  Sankt Quirin    11.96 312 i Pn   Pn     22 53 15.7 +0.2
      comp=Z,11nm,0.5s,SNR=16
YITV  Yitav           12.01 128  P     Pn     22 53 16.6 +0.7
BOB   Bobbio (Coli)   12.02 298 ⇑P     Pn     22 53 17.7 +1.6
SOC   Sochi           12.03  68 eP     Pn     22 53 16.1 -0.1
SOC                             e             22 55 30.7
SOC                              pmax  pmax
      comp=Z,37nm,1.5s
SOC                              MLR   MLR
      comp=Z,2µm,11.0s
UJAP  Al Uja          12.03 128  P     Pn     22 53 17.3 +1.1
      comp=Z,1µmcomp=Z,80nm,0.8s
UJAP  Al Uja          12.03 128  P     Pn     22 53 18.0 +1.8
      comp=Z,1µmcomp=Z,80nm,0.8s
OSTC  Ostas           12.04 334  AMS   AMS    22 58 20.0
      comp=Z,11µm,11.2s
UPC   Upice           12.06 334  AMS   AMS    22 58 20.0
      comp=Z,10µm,11.2s
MOTA  Moosalm         12.09 312 i Pn   Pn     22 53 17.5 +0.3
      comp=Z,2.9nm,0.5s,SNR=16
MOTA                            eSn    Sn     22 55 34.0 +1.8
      comp=Z,0.1nm,0.1s
CHVC  Chvalec         12.12 334  AMS   AMS    22 58 20.0
      comp=Z,10µm,11.5s
BEL   Belsk           12.13 349 eP     Pn     22 53 19.6 +2.1
BEL   Belsk           12.13 349  P     Pn     22 53 19.6 +2.1
      comp=Z,176µmcomp=Z,6µm,1.8s
FETA  Feichten        12.14 310 i Pn   Pn     22 53 17.5 -0.3
      comp=Z,0.1nm,0.1s,SNR=21
ALMO  Almog           12.15 129  P     Pn     22 53 18.1 +0.3
PRU   Pruhonice       12.18 329 eP     Pn     22 53 21.0 +2.7
PRU                              MLR   MLR
      comp=Z,12µm,10.9s
PRU   Pruhonice       12.18 329 eP     Pn     22 53 21.0 +2.7
PRU                              AMS   AMS    22 57 50.0
      comp=Z,12µm,10.9s
KZIT  Kziot           12.19 135  P     Pn     22 53 18.7 +0.3
      comp=Z,2µmcomp=Z,195nm,1.1s
KZIT  Kziot           12.19 135  P     Pn     22 53 18.3 -0.1
      comp=Z,2µmcomp=Z,195nm,1.1s
FUORN Ofenpass-Fuorn  12.22 308        Pn     22 53 19.3 +0.2
FUORN Ofenpass-Fuorn  12.22 308  P     Pn     22 53 20.3 +1.2
      comp=Z,76nm,1.1s
KSP   Ksiaz           12.26 335 eP     Pn     22 53 20.1 +0.9
MZS   Mizpe Shalem    12.27 130  P     Pn     22 53 20.0 +0.5
WET   Wettzell        12.28 322  P     Pn     22 53 20.8 +1.1
      comp=Z,77nm,0.9s
RETA  Reutte          12.36 312 ePn    Pn     22 53 22.2 +1.4
      comp=Z,4.3nm,0.4s
HSUJ  Al Zarqa        12.38 126  P     Pn     22 53 22.6 +1.6
      comp=Z,2µmcomp=Z,87nm,0.9s
KOPT  Kop Dagi        12.39  85        Pn     22 53 21.8 +0.4
MSBI  Mazada          12.43 131 ⇑P     Pn     22 53 25.4 +3.7
MSBI  Mazada          12.43 131  P     Pn     22 53 23.9 +2.3
      comp=Z,355nmcomp=Z,17nm,1.0s
MSBI  Mazada          12.43 131  P     Pn     22 53 23.8 +2.2
      comp=Z,1µmcomp=Z,66nm,1.0s
R9F13 Warsaw-Wawer    12.46 351 eP     Pn     22 53 23.3 +1.3
R9F13                           eS     Sn     22 55 40.4 -0.5
FUR   Furstenfeldbru  12.46 315  P     Pn     22 53 26.7 +4.6
      comp=Z,95nm,0.8s
DAVOX Davos/Dischmat  12.53 308  Pn    Pn     22 53 23.2  0.0
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      comp=Z,1.9nm,0.3s,baz=109,slow=10,SNR=36
DAVOX                            Sn    Sn     22 55 39.1 -3.8
      comp=Z,0.3nm,0.3s,baz=131,slow=17,SNR=1.0
DAVOX                            LR    LR     22 59 10.5
      comp=Z,2µm,19.2s,baz=110,slow=42
      comp=Z,16nm,0.7s
DAVOX                            AML   AML
LISJ  El Lisan        12.55 130  P     Pn     22 53 25.2 +1.9
      comp=Z,2µmcomp=Z,55nm,0.8s
GHAJ  Ghor Haditha    12.56 130        Pn     22 53 23.9 +0.5
GHAJ  Ghor Haditha    12.56 130  P     Pn     22 53 24.8 +1.4
      comp=Z,1µmcomp=Z,91nm,1.2s
GHAJ  Ghor Haditha    12.56 130  P     Pn     22 53 28.3 +4.9
      comp=Z,1µmcomp=Z,91nm,1.2s
GHAJ  Ghor Haditha    12.56 130  P     Pn     22 53 23.7 +0.3
KEST  Kesra           12.59 255  Pn    Pn     22 53 24.0 +0.1
      comp=Z,1.7nm,0.3s,baz=74,slow=8.7,SNR=14
KEST                             Sn    Sn     22 55 40.2 -4.1
      comp=Z,0.1nm,0.3s,baz=207,slow=19,SNR=1.0
KEST                             LR    LR     23 00 13.6
      comp=Z,2µm,18.8s,baz=63,slow=47
      comp=Z,32nm,0.9s
KEST                             AML   AML
KEST  Kesra           12.59 255  P     Pn     22 53 25.3 +1.4
      SNR=13
KEST  Kesra           12.59 255        Pn     22 53 23.9  0.0
PVCC  Panska Ves      12.60 330  AMS   AMS    22 58 10.0
      comp=Z,12µm,10.8s
TUE   Stuetta         12.72 306        Pn     22 53 25.5 -0.3
TUE   Stuetta         12.72 306 ⇑P     Pn     22 53 26.6 +0.8
TUE   Stuetta         12.72 306  P     Pn     22 53 26.7 +0.9
      comp=Z,5µmcomp=Z,362nm,1.5s
TUE   Stuetta         12.72 306  P     Pn     22 53 27.0 +1.2
      comp=Z,1µmcomp=Z,91nm,1.5s
GRC3  Grafenberg Arr  12.75 319  P     Pn     22 53 28.1 +2.1
      comp=Z,71nm,0.8s
DAVA  Damuels         12.77 310 ⇓P     Pn     22 53 27.6 +1.1
DAVA  Damuels         12.77 310 ePn    Pn     22 53 25.1 -1.4
      comp=Z,0.8nm,0.2s
DAVA  Damuels         12.77 310  P     Pn     22 53 31.0 +4.5
      comp=Z,2µmcomp=Z,127nm,1.0s
ASF   Jabal al Asfar  12.78 124  Pn    Pn     22 53 24.9 -1.6
      comp=Z,0.5nm,0.3s,baz=294,slow=20,SNR=23
ASF                              Sn    Sn     22 55 44.7 -4.3
      comp=Z,0.5nm,0.3s,baz=116,slow=24,SNR=1.1
      comp=Z,4.1nm,0.6s
ASF                              AML   AML
ASF   Jabal al Asfar  12.78 124  P     Pn     22 53 27.2 +0.7
      comp=Z,5µmcomp=Z,550nm,1.0s
RICC  Richard         12.80 329  AMS   AMS    22 58 10.0
      comp=Z,12µm,10.9s
GRC2  Grafenberg Arr  12.84 318  P     Pn     22 53 29.6 +2.3
      comp=Z,688nmcomp=Z,69nm,0.9s
UBR   Ueberruh        12.84 312  P     Pn     22 53 28.4 +1.0
GRB5  Grafenberg Arr  12.84 320  P     Pn     22 53 29.0 +1.7
      comp=Z,55nm,0.8s
GRC1  Grafenberg Arr  12.85 319  P     Pn     22 53 29.4 +2.1
      comp=Z,96nm,0.9s
GRC4  Grafenberg Arr  12.90 319  P     Pn     22 53 31.2 +3.1
      comp=Z,1µmcomp=Z,98nm,1.3s,comp=Z,1µm
PRNI  Paran           12.95 134  P     Pn     22 53 30.5 +1.7
      comp=Z,3µmcomp=Z,275nm,1.0s
KRMI  Paran Flat      12.98 136  P     Pn     22 53 29.9 +0.6
LABN  Labinsk         12.99  64 eP     Pn     22 53 31.3 +2.0
LABN                            eS     Sn     22 55 58.4 +4.5
LABN                             pmax  pmax
      comp=Z,76nm,0.9s
HSKC  Hora Svate Kat  13.11 328  AMS   AMS    22 58 30.0
      comp=Z,14µm,10.9s
HSKC  Hora Svate Kat  13.11 328  P     Pn     22 53 32.4 +1.4
      comp=Z,27nm,1.1s
BRG   Berggiesshubel  13.12 330 eP     P      22 53 36.9 -4.4
BRG                              Amp          22 53 38.4
      comp=Z,8.2nm,1.1s
BRG                              PP    PnPn   22 53 42.6 +3.8
BRG                              Amp          22 53 47.6
      comp=Z,14nm,0.9s
BRG   Berggiesshubel  13.12 330  S     Sn     22 55 59.0 +2.0
ERBR  Yeremizino-Bor  13.16  59 eP     Pn     22 53 31.6  0.0
ERBR                            eS     Sn     22 55 58.7 +0.7
ERBR                             pmax  pmax
      comp=Z,55nm,0.8s
HRFI  Mount Harif     13.21 135  P     Pn     22 53 33.2 +0.8
      comp=Z,1µmcomp=Z,103nm,1.2s
HRFI  Mount Harif     13.21 135  P     Pn     22 53 33.3 +0.8
      comp=Z,1µmcomp=Z,103nm,1.2s
NKC   Novy Kostel     13.25 325 eP     Pn     22 53 36.1 +3.2
NKC                              MLR   MLR
      comp=Z,12µm,11.8s
NKC   Novy Kostel     13.25 325 eP     Pn     22 53 36.1 +3.2
NKC                              AMS   AMS    22 58 30.0
      comp=Z,12µm,11.8s
NKC   Novy Kostel     13.25 325  P     Pn     22 53 37.0 +4.1
      comp=Z,756nmcomp=Z,61nm,1.2s
TANN  Tannenbergstha  13.38 325  P     Pn     22 53 38.4 +3.8
      comp=Z,2µmcomp=Z,134nm,1.9s
HSNJ  Maan            13.40 133  P     Pn     22 53 36.7 +1.6
      comp=Z,2µmcomp=Z,264nm,1.0s
GRFO  Grafenberg      13.45 321  P     Pn     22 53 35.8 +0.2
GRFO  Grafenberg      13.45 321        Pn     22 53 35.8 +0.2
EIL   Elat            13.45 136  Pn    Pn     22 53 35.0 -0.6
      comp=Z,1.8nm,0.3s,baz=338,slow=7.4,SNR=10.0
EIL                              Sn    Sn     22 55 56.4 -9.0
      comp=Z,1.0nm,0.3s,baz=297,slow=11,SNR=1.1
      comp=Z,13nm,0.6s
EIL                              AML   AML
EIL   Elat            13.45 136 ⇑P     Pn     22 53 35.6 -0.1
EIL   Elat            13.45 136  P     Pn     22 53 35.9 +0.2
      comp=Z,910nmcomp=Z,54nm,1.0s
EIL   Elat            13.45 136  P     Pn     22 53 36.1 +0.4
      comp=Z,909nmcomp=Z,54nm,1.0s
AQBJ  Aqaba           13.46 136  P     Pn     22 53 35.9 +0.1
      comp=Z,4µmcomp=Z,311nm,1.1s
BNALP Bannalp         13.46 306  P     Pn     22 53 38.7 +2.8
      comp=Z,96nm,1.5s
CALF  Calern          13.53 292  P     Pn     22 53 40.1 +3.4
      comp=Z,65nm,1.6s
GURO  Guroymak-BITLI  13.78  90        Pn     22 53 40.7 +0.4
GURO  Guroymak-BITLI  13.78  90 ⇓P     Pn     22 53 44.2 +3.9
CLL   Collm           13.83 329 eP     Pn     22 53 43.0 +2.3
CLL   Collm           13.83 329  P     P      22 53 45.8 -3.3
      comp=Z,632nmcomp=Z,31nm,1.3s,comp=Z,632nm
CLL   Collm           13.83 329 eP     Pn     22 53 39.0 -1.7
CLL                             esP    P      22 53 43.0 -6.2
CLL                             i sPP         22 53 53.5
      comp=Z,50nm,1.3s
CLL                             i x    x      22 54 23.0
CLL                              L     L      22 56 00.0
CLL                              AMS   AMS    22 58 00.0
      comp=N,8µm,20.5s
CLL                              AMS   AMS    22 58 00.0
      comp=E,10µm,20.9s
CLL                              AMS   AMS    22 58 00.0
      comp=N,10µm,13.3s
CLL                              AMS   AMS    22 58 00.0
      comp=E,7µm,15.0s
CLL                              AMS   AMS    22 58 00.0
      comp=Z,12µm,13.3s
CLL                              AMS   AMS    22 59 00.0
      comp=Z,0.0nm,12.5s
SLE   Schleitheim     13.83 310  P     Pn     22 53 40.0 -0.8
      comp=Z,46nm,0.9s
MOX   Moxa            13.92 324  P     P      22 53 46.9 -3.3
      comp=Z,1µmcomp=Z,73nm,0.9s
STU   Stuttgart       13.95 314  P     Pn     22 53 42.6 +0.3
STU   Stuttgart       13.95 314        Pn     22 53 42.6 +0.3
STU   Stuttgart       13.95 314  P     Pn     22 53 43.6 +1.3
      comp=Z,881nmcomp=Z,74nm,1.0s
SENIN Lac Senin/Sane  13.98 303        Pn     22 53 42.2 -0.8
BNI   Bardonecchia    13.98 297        Pn     22 53 41.5 -1.5
BNI   Bardonecchia    13.98 297 ⇑P     Pn     22 53 46.5 +3.5
EPOS  Posof           14.03  78  P     Pn     22 53 47.4 +3.8
      comp=Z,2µmcomp=Z,127nm,1.4s
SUW   Suwalki         14.08 357 eP     Pn     22 53 43.0 -1.1
SUW   Suwalki         14.08 357  P     Pn     22 53 42.4 -1.7
SUW   Suwalki         14.08 357        Pn     22 53 42.4 -1.7
SUW   Suwalki         14.08 357 eP     Pn     22 53 44.2 +0.1
SUW   Suwalki         14.08 357 ⇑P     Pn     22 53 43.2 -0.9
SHA1  Shidzhatmaz     14.16  69 i P    Pn     22 53 45.5  0.0
GKP   Gorka Klasztor  14.17 342 eP     P      22 53 52.3 -0.7
BFO   Black Forest    14.20 311        Pn     22 53 45.2 -0.6
BFO   Black Forest    14.20 311 ⇑P     Pn     22 53 46.7 +0.9
KIV   Kislovodsk      14.21  68  P     Pn     22 53 47.9 +1.7
KIV                              S     Sn     22 56 27.2 +3.2
KIV   Kislovodsk      14.21  68 eP     Pn     22 53 46.4 +0.3
KIV                             eS     Sn     22 56 24.2 +0.2
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KIV                                pmax     pmax
      comp=Z,28nm,1.0s
KIV                                MLR      MLR
      comp=Z,1µm,14.0s
KIV   Kislovodsk        14.21  68           Pn       22 53 46.1  0.0
KIV   Kislovodsk        14.21  68 ⇑P        Pn       22 53 47.2 +1.1
KIV   Kislovodsk        14.21  68  P        Pn       22 53 47.3 +1.1
KIV   Kislovodsk        14.21  68  P        Pn       22 53 47.4 +1.3
      comp=Z,604nmcomp=Z,65nm,1.2s
KVAR  Kislovodsk Arr    14.22  68  Pn       Pn       22 53 45.7 -0.5
      baz=257,slow=18
      comp=Z,2.6nm,0.8s
KBZ   Khabaz            14.33  69  Pn       Pn       22 53 48.1 +0.5
      comp=Z,7.4nm,1.1s,baz=255,slow=13,SNR=11
KBZ                                Sn       Sn       22 56 23.3 -3.2
      comp=Z,0.2nm,0.3s,baz=103,slow=11,SNR=1.7
KBZ   Khabaz            14.33  69 i P       Pn       22 53 47.9 +0.3
BOURR Bourrignon        14.43 307  P        Pn       22 53 50.8 +1.8
      comp=Z,48nm,1.0s
ORIF  Oris-en-Rattie    14.50 296  P        P        22 53 55.4 -1.4
      comp=Z,47nm,1.3s
RUSF  Rustrel           14.59 292  P        P        22 53 55.0 -2.7
      comp=Z,97nm,1.6s
GEVA  Gevas             14.62  90           Pn       22 53 52.7 +1.0
ARBF  Arbois            14.63 290  P        Pn       22 53 53.1 +1.4
      comp=Z,119nm,1.4s
GOF   Gofitskoye        14.69  64d iP       P        22 53 59.5 +0.7
GOF                               eS        Sn       22 56 43.7 +8.3
GIMEL St. Georges /     14.71 302  P        P        22 53 57.9 -1.3
      comp=Z,64nm,1.2s
MNK   Minsk             14.74   8 i P       Pn       22 53 50.0 -3.1
MNK                               i S       Sn       22 56 31.6 -4.9
MNK                                pmax     pmax
      comp=E,48nm,1.0s
MNK                                pmax     pmax
      comp=Z,47nm,0.8s
MNK                                pmax     pmax
      comp=N,14nm,0.8s
MNK                                MLR      MLR
      comp=N,4µm,13.0s
MNK                                MLR      MLR
      comp=E,4µm,16.0s
MNK                                MLR      MLR
      comp=Z,5µm,16.0s
MNK   Minsk             14.74   8 i P       Pn       22 53 50.1 -3.1
      comp=E,48nm,1.0s
MNK                               i P       Pn       22 53 50.1 -3.1
      comp=N,14nm,0.8s
MNK                               i P       Pn       22 53 50.1 -3.1
      comp=Z,47nm,0.8s,baz=190
MNK                               i PP      P        22 53 58.0 -1.3
MNK                               i PPP     PPP      22 54 05.7
MNK                               i S       Sn       22 56 31.6 -4.9
MNK                               i SS      SnSn     22 56 45.3 -3.7
MNK                               i SSS     SSS      22 56 57.9
MNK                               i LQ      LQ       22 58 04.8
MNK                               i LR      LR       22 59 10.9
MNK                               i LRM     MLR      23 00 01.5
      comp=E,4µm,16.4s
MNK                               i LRM     MLR      23 00 01.5
      comp=N,4µm,12.8s
MNK                               i LRM     MLR      23 00 01.5
      comp=Z,5µm,16.4s
UBBA  Unterbreizbach    14.78 322  P        Pn       22 53 53.3 -0.4
      comp=Z,36nm,2.4s
NCK   Nalchik           14.80  70 i P       Pn       22 53 54.3 +0.3
ECH   Echery            14.83 309  P        Pn       22 53 53.6 -0.8
ECH   Echery            14.83 309           Pn       22 53 53.6 -0.8
ECH   Echery            14.83 309 ⇓P        Pn       22 53 56.5 +2.0
NACGM Naroch            15.04   5⇑iP        Pn       22 53 53.6 -3.6
      comp=Z,75nm,1.0s,baz=187
VORD  Divnogorie        15.17  39 eP        Pn       22 53 56.8 -2.1
VORD                               pmax     pmax
      comp=Z,70nm,1.0s
VORD                               MLR      MLR
      comp=Z,480nm,6.0s
TNS   Taunus Mts        15.18 318  P        P        22 54 02.1 -2.1
      comp=Z,2µmcomp=Z,172nm,1.1s
VSR   Storozhevoye      15.27  38 eP        Pn       22 53 58.2 -2.1
VSR                                pmax     pmax
      comp=Z,102nm,1.2s
VSR                                MLR      MLR
      comp=Z,3µm,18.0s
GTTG  Gottingen         15.29 324  P        P        22 54 06.8 +1.3
      comp=Z,4µmcomp=Z,286nm,1.2s
HAKT  HAKKARI           15.29  93  P        P        22 54 04.9 -0.9
      comp=Z,9µmcomp=Z,858nm,1.2s
FLTG  Flechtingen       15.32 328 ⇑P        P        22 54 05.6 -0.1
FLTG  Flechtingen       15.32 328  P        P        22 54 05.8 +0.2
      comp=Z,46nm,0.9s
CLZ   Clausthal         15.32 325  P        P        22 54 06.7 +0.8
      comp=Z,54nm,0.9s
SSB   Saint Sauveur     15.51 297  P        Pn       22 54 02.8 -0.7
SSB                                pmax     pmax
      comp=Z,80nm,2.0s
SSB   Saint Sauveur     15.51 297  Pn       Pn       22 54 02.8 -0.7
PABE  Paberze           15.55 359           Pn       22 54 02.0 -1.9
PABE                               IAmb     IAmb     22 54 08.3
      comp=Z,264nm,1.1s
PABE  Paberze           15.55 359 eP        Pn       22 54 02.3 -1.7
PABE  Paberze           15.55 359  P        Pn       22 54 02.3 -1.7
      comp=Z,4µmcomp=Z,256nm,1.6s,comp=Z,4µm
VORR  Voronezh          15.60  36 eP        Pn       22 54 02.9 -1.6
VORR                               pmax     pmax
      comp=Z,59nm,1.2s
VORR                               MLR      MLR
      comp=Z,2µm,13.0s
GNI   Garni             15.62  83  Pn       Pn       22 54 06.8 +1.7
      comp=Z,0.2nm,0.3s,baz=286,slow=7.7,SNR=31
GNI                                LR       LR       23 00 22.1
      comp=Z,5µm,18.1s,baz=290,slow=38
      comp=Z,30nm,1.1s
GNI                                AML      AML
GNI   Garni             15.62  83  P        P        22 54 07.9 -1.4
GNI                                S        Sn       22 57 02.5 +4.2
GNI   Garni             15.62  83 i P       Pn       22 54 05.1  0.0
GNI   Garni             15.62  83           Pn       22 54 05.4 +0.3
GNI   Garni             15.62  83 ⇓P        P        22 54 07.9 -1.4
GNI   Garni             15.62  83  P        P        22 54 08.1 -1.2
GNI   Garni             15.62  83  P        P        22 54 08.2 -1.2
      comp=Z,3µmcomp=Z,148nm,1.4s,comp=Z,3µm
WLF   Walferdange       16.11 313  P        Pn       22 54 12.1 +0.9
WLF                                pmax     pmax
      comp=Z,21nm,1.0s
WLF   Walferdange       16.11 313           Pn       22 54 12.1 +0.9
WLF   Walferdange       16.11 313 dP        P        22 54 17.0 +2.4
      comp=Z,37nm,1.2s
WLF   Walferdange       16.11 313  P        P        22 54 16.9 +2.4
      comp=Z,74nm,1.6s
LPSR  Galich'ya Gora    16.13  34 eP        Pn       22 54 09.8 -1.6
LPSR                               pmax     pmax
      comp=Z,177nm,1.0s
LPSR                               MLR      MLR
      comp=Z,2µm,16.0s
PBUR  Paburge           16.15 355 eP        Pn       22 54 10.3 -1.4
PBUR  Paburge           16.15 355  P        P        22 54 15.0 +0.1
      comp=Z,242nm,0.9s
RETH  Rethem/Aller,     16.40 326  P        P        22 54 19.4 +1.8
      comp=Z,85nm,1.5s
BUG   Bochum--Univer    16.51 320  P        P        22 54 21.4 +2.5
      comp=Z,2µmcomp=Z,168nm,1.4s
LOR   Lormes            16.51 303  P        P        22 54 20.4 +1.4
      comp=Z,52nm,1.7s
VRH   Novokhopyorsk     16.51  41 eP        Pn       22 54 15.5 -0.8
VRH                                pmax     pmax
      comp=Z,149nm,1.2s
VRH                                MLR      MLR
      comp=Z,3µm,20.0s
MEM   Membach           16.68 316 dP        P        22 54 22.9 +2.0
      comp=Z,66nm,0.9s
MEM   Membach           16.68 316  P        P        22 54 23.9 +3.1
      comp=Z,138nm,1.1s
HGN   Heimansgroeve     16.81 316  P        P        22 54 25.5 +3.2
      comp=Z,89nm,1.5s
IBBN  Ibbenburen        16.82 323  P        P        22 54 24.4 +2.1
      comp=Z,86nm,1.1s
MTLF  Montolieu         16.87 289 ⇑P        P        22 54 24.4 +1.4
MTLF  Montolieu         16.87 289  P        P        22 54 24.5 +1.4
      comp=Z,53nm,1.6s
RCHB  Rochefort         16.88 313 dP        P        22 54 25.5 +2.5
      comp=Z,23nm,1.1s
RCHB  Rochefort         16.88 313  P        P        22 54 26.1 +3.1
      comp=Z,34nm,0.7s
BSEG  Bad Segeberg      16.90 330  P        P        22 54 25.3 +2.1
      comp=Z,55nm,0.8s
CORI  Orista            16.96 284  Pn       Pn       22 54 22.0  0.0
BCLA  Clavier           16.97 314 dP        P        22 54 26.7 +2.7
      comp=Z,29nm,0.9s
WTSB  Winterswijk       17.06 321  P        P        22 54 28.5 +3.5
      comp=Z,62nm,1.1s
BOPT  Opiter            17.16 317 dP        P        22 54 28.4 +2.4
DOU   Dourbes           17.20 313 dP        P        22 54 29.2 +2.6
      comp=Z,24nm,1.1s
BMRD  Maredsous         17.20 313 dP        P        22 54 30.4 +3.8
OBN   Obninsk           17.22  24  P        Pn       22 54 25.7 +0.6
      comp=Z,2.7nm,0.3s,baz=210,slow=14,SNR=7.8
OBN                                S        Sn       22 57 38.5 +1.9
      comp=Z,19nm,0.7s,baz=99,slow=19,SNR=1.4
OBN                                LR       LR       23 00 59.4
      comp=Z,2µm,19.7s,baz=210,slow=37
      comp=Z,89nm,0.6s
OBN                                AML      AML
OBN   Obninsk           17.22  24ceP        Pn       22 54 21.3 -3.8
OBN                                pmax     pmax
      comp=Z,228nm,2.5s
OBN                                MLR      MLR
      comp=Z,2µm,16.0s
OBN   Obninsk           17.22  24           Pn       22 54 22.0 -3.2
OBN                                IAmb     IAmb     22 54 30.8
      comp=Z,144nm,0.6s
OBN   Obninsk           17.22  24 ⇑P        Pn       22 54 23.5 -1.6
OBN   Obninsk           17.22  24  P        Pn       22 54 22.3 -2.8
      comp=Z,3µmcomp=Z,189nm,1.1s,comp=Z,3µm
LUNU  Lund              17.27 339 i P       P        22 54 29.1 +1.8
BLEU  Blekinge          17.29 344 i P       Pn       22 54 22.2 -3.9
BMOL  Mol               17.50 316 dP        P        22 54 33.2 +3.3
      comp=Z,78nm,1.4s
CEST  Esterri de Car    17.55 286  P        P        22 54 30.3 -0.4
MAK   Makhachkala       17.60  73c iP       Pn       22 54 26.6 -3.5
MAK                               eS        Sn       22 57 42.0 -4.1
MAK                                pmax     pmax
      comp=Z,497nm,1.4s
MAK                                MLR      MLR
      comp=Z,2µm,10.0s
UCC   Uccle             17.68 314  P        P        22 54 31.7 -0.1
UCC                                pmax     pmax
      comp=Z,47nm,0.9s
UCC   Uccle             17.68 314  P        P        22 54 31.7 -0.1
UCC   Uccle             17.68 314 dP        P        22 54 33.4 +1.6
      comp=Z,38nm,0.9s
UCC   Uccle             17.68 314  P        P        22 54 35.9 +4.1
      comp=Z,12nm,0.9s
DEL   Delary            17.90 341 i P       P        22 54 34.3 +0.1
MOS   Moscow            18.07  25 eP        Pn       22 54 33.7 -2.1
MOS                               eS        Sn       22 57 56.4 -0.9
MOS                                pmax     pmax
      comp=Z,160nm,1.1s
MOS                                MLR      MLR
      comp=Z,3µm,10.0s
MOS                                MLR      MLR
      comp=N,2µm,9.0s
MOS                                MLR      MLR
      comp=E,2µm,9.0s
EBR   Ebro Roquetas     18.18 280  P        Pn       22 54 35.7 -1.5
EBR   Ebro Roquetas     18.18 280           Pn       22 54 35.7 -1.5
VSU   Vasula            18.58   4ceP        P        22 54 37.8 -3.9
VSU                                pmax     pmax
      comp=Z,93nm,0.8s
VSU   Vasula            18.58   4 eP        P        22 54 39.0 -2.7
VSU   Vasula            18.58   4  P        P        22 54 38.4 -3.3
      comp=Z,3µmcomp=Z,257nm,0.8s
FABU  Falkenberg        18.67 340 i P       P        22 54 42.4 -0.2
BOST  Ostende           18.68 314 dP        Pn       22 54 53.1  +10
      comp=Z,70nm,1.2s
MTSE  Matsula           18.77 359 eP        P        22 54 42.5 -1.4
MTSE  Matsula           18.77 359  P        P        22 54 43.4 -0.4
      comp=Z,5µmcomp=Z,467nm,0.9s,comp=Z,5µm
ATE   Arette            18.99 288  P        P        22 54 45.8 -0.7
      comp=Z,53nm,1.1s
ONAU  Onsala            19.23 339 i P       Pn       22 54 50.3 +0.6
MUD   Monsted U'grnd    19.28 334 i P       Pn       22 54 54.0 +3.6
MUD                                IAmb     IAmb     22 55 01.0
      comp=Z,92nm,1.5s
ARBE  Arbavere          19.52   3 eP        Pn       22 54 53.4 +0.1
ARBE  Arbavere          19.52   3  P        Pn       22 54 52.9 -0.3
      comp=Z,6µmcomp=Z,288nm,1.1s
TJOU  Tjoern            19.86 340 i P       Pn       22 54 57.5 +0.2
EMUR  La Murta          20.01 272  P        Pn       22 54 59.5 +0.2
      comp=Z,2µmcomp=Z,114nm,1.7s
ELMS  Elmsett, Ipswi    20.15 315 eP        Pn       22 55 00.2 -0.6
ELMS                               IAmb     IAmb     22 55 06.7
      comp=Z,217nm,0.8s
BELG  Belogornoye       20.25  44  P        P        22 55 00.5 +0.4
      comp=Z,85nm,1.1s,baz=54,slow=4.6,SNR=24
BELG                               S        S        22 58 44.5 -2.5
      comp=Z,14nm,0.8s,baz=115,slow=21,SNR=1.4
BELG                               LR       LR       23 03 40.3
      comp=Z,2µm,20.7s,baz=242,slow=39
      comp=Z,85nm,1.1s
BELG  Belogornoye       20.25  44 i P       P        22 55 00.4 +0.4
BELG                               pmax     pmax
      comp=Z,24nm,0.9s
MEF   Metsahovi         20.28   0 eP        P        22 54 59.2 -1.1
UPP   Uppsala           20.36 350 eP        P        22 55 00.9 -0.3
STRU  Stroemstad        20.84 341 i P       P        22 55 07.6 +1.2
HOMB  Homborsund        20.96 336 i P       Pn       22 55 11.1 +0.9
UCM   Universidad Co    21.07 280  P        P        22 55 10.4 +1.3
      comp=Z,4µmcomp=Z,298nm,1.4s
RAF   Rauma             21.15 357 eP        P        22 55 07.7 -1.9
HFS   Hagfors           21.27 345  P        P        22 55 11.3 +0.3
      comp=Z,9.4nm,0.7s,baz=162,slow=11,SNR=8.5
HFS                                S        S        22 59 05.0 -2.3
      comp=Z,2.5nm,0.9s,baz=115,slow=25,SNR=1.5
HFS                                LR       LR       23 03 37.0
      comp=Z,2µm,20.6s,baz=161,slow=37
      comp=Z,9.4nm,0.7s
SNART Snartemo          21.42 335 eP        P        22 55 13.6 +1.0
SNART Snartemo          21.42 335 i P       P        22 55 17.0 +4.3
ROSF  Rostrenen         21.43 302 ⇓P        P        22 55 14.5 +1.7
ROSF  Rostrenen         21.43 302  P        P        22 55 15.0 +2.2
      comp=Z,86nm,1.3s
SWN1  Swindon           21.47 311 eP        P        22 55 13.7 +0.4
SWN1                               IAmb     IAmb     22 55 22.4
      comp=Z,111nm,0.7s
FINES FINESS Array B    21.54   2  P        P        22 55 12.0 -1.8
      comp=Z,21nm,0.9s,baz=169,slow=10,SNR=25
FINES                              S        S        22 59 10.9 -1.5
      comp=Z,3.0nm,0.7s,baz=145,slow=20,SNR=1.4
FINES                              LR       LR       23 04 18.2
      comp=Z,6µm,18.9s,baz=186,slow=39
      comp=Z,21nm,0.9s
FINES FINESS Array B    21.54   2 i P       P        22 55 12.3 -1.5
FINES                              pmax     pmax
      comp=Z,21nm,0.9s
FINES FINESS Array B    21.54   2  P        P        22 55 11.6 -2.2
FIA1  FINESS Array S    21.54   2  P        P        22 55 11.7 -2.2
FIA1                               IAmb     IAmb     22 55 17.0
      comp=Z,121nm,1.1s
CWF   Charnwood Fore    21.70 315 eP        P        22 55 15.8 +0.1
CWF                                IAmb     IAmb     22 55 22.9
      comp=Z,38nm,0.8s
ESBB  Sonseca Array     21.71 278  P        P        22 55 14.7 -1.4
ESBB                               IAmb     IAmb     22 55 25.4
      comp=Z,145nm,1.1s
ESDC  Sonseca Array     21.71 278  P        P        22 55 14.5 -1.5
      comp=Z,30nm,1.1s,baz=73,slow=10,SNR=36
ESDC                               LR       LR       23 04 20.3
      comp=Z,1µm,18.9s,baz=74,slow=39
      comp=Z,30nm,1.1s
ESDC  Sonseca Array     21.71 278  P        P        22 55 14.4 -1.7
OSL   Oslo              21.75 341 eP        P        22 55 14.8 -1.4
STRD  Stroud            21.78 312 eP        P        22 55 17.7 +1.1
STRD                               IAmb     IAmb     22 55 27.5
      comp=Z,100nm,0.8s
KONO  Kongsberg         21.79 340  P        P        22 55 15.6 -1.0
KONO                               pmax     pmax
      comp=Z,64nm,0.8s
KONO  Kongsberg         21.79 340 eP        P        22 55 17.2 +0.6
KONO                               IAmb     IAmb     22 55 27.0
      comp=Z,301nm,1.7s
KONO                              eS        S        22 59 18.4 +1.0
KONO                               IAMs_20  IAMs_20  23 04 47.7
      comp=Z,5µm,12.1s
KONO  Kongsberg         21.79 340  P        P        22 55 15.6 -1.0
KONO  Kongsberg         21.79 340 ⇑P        P        22 55 18.5 +1.9
KONO  Kongsberg         21.79 340  P        P        22 55 18.9 +2.3
      comp=Z,91nm,1.2s
OLDB  Oldbury-Upon-S    21.96 311 eP        P        22 55 19.1 +0.6
OLDB                               IAmb     IAmb     22 55 26.3
      comp=Z,69nm,0.8s
PAB   San Pablo         22.03 278  P        P        22 55 18.3 -1.2
PAB                                IAmb     IAmb     22 55 27.7
      comp=Z,403nm,1.9s
PAB   San Pablo         22.03 278 ⇑P        P        22 55 20.7 +1.2
PAB   San Pablo         22.03 278  P        P        22 55 20.9 +1.4
      comp=Z,2µmcomp=Z,97nm,1.8s
MONM  Monmouth          22.18 311 eP        P        22 55 21.7 +0.9
MONM                               IAmb     IAmb     22 55 27.8
      comp=Z,136nm,0.8s
KEF   Keuruu            22.24   1 eP        P        22 55 19.4 -2.0
NC602 NORSAR Array S    22.27 343 eP        P        22 55 20.0 -1.7
NC602                              IAmb     IAmb     22 55 26.8
      comp=Z,242nm,1.0s
NC602                             eS        S        22 59 24.6 -2.0
NC602                             eScP      ScP      23 02 56.7 +1.8
NC602                              IAMs_20  IAMs_20  23 05 00.7
      comp=Z,5µm,14.2s
MCH1  Michaelchurch     22.35 312 ⇓P        P        22 55 24.0 +1.4
MCH1  Michaelchurch     22.35 312 eP        P        22 55 23.7 +1.0
MCH1                               IAmb     IAmb     22 55 29.9
      comp=Z,71nm,0.8s
HLM1  Long Mynd         22.48 313 eP        P        22 55 24.3 +0.2
HLM1                               IAmb     IAmb     22 55 32.6
      comp=Z,62nm,0.9s
BLS5  Blasjo            22.52 336 eP        P        22 55 24.5  0.0
BLS5                               IAmb     IAmb     22 55 31.9
      comp=Z,116nm,0.9s
BLS5                              eS        S        22 59 33.7 +2.2
BLS5                               IAMs_20  IAMs_20  23 05 15.2
      comp=Z,5µm,11.4s
NC405 NORSAR Array S    22.57 344  P        P        22 55 23.3 -1.6
NC405                              IAmb     IAmb     22 55 35.4
      comp=Z,324nm,1.9s
NB2   NORSAR Subarra    22.61 343  P        P        22 55 23.8 -1.6
      comp=Z,73nm,0.8s,baz=151,slow=11
NB2   NORSAR Subarra    22.61 343  P        P        22 55 23.8 -1.6
NOA   NORSAR Array B    22.61 343  P        P        22 55 24.1 -1.4
      comp=Z,35nm,1.0s,baz=54,slow=19,SNR=37
NOA                                S        S        22 59 30.7 -2.4
      comp=Z,0.5nm,0.7s,baz=235,slow=23,SNR=1.9
NOA                                LR       LR       23 04 31.4
      comp=Z,2µm,19.1s,baz=160,slow=38
      comp=Z,35nm,1.0s
EMAL  Malaga-Limoner    22.75 271  P        P        22 55 28.4 +1.4
      comp=Z,458nmcomp=Z,31nm,1.1s
KMY   Karmoy            22.75 334 eS        S        22 59 38.6 +3.1
FOEL  Foel Wylfa        22.80 314 eP        P        22 55 27.8 +0.3
FOEL                               IAmb     IAmb     22 55 34.5
      comp=Z,66nm,0.8s
SUF   Sumiainen         22.82   2 eP        P        22 55 26.4 -1.1
ODD1  Odda              22.86 337 eP        P        22 55 27.1 -0.9
ODD1                               IAmb     IAmb     22 55 30.4
      comp=Z,45nm,1.0s
ODD1                              eS        S        22 59 40.0 +2.5
ODD1                               IAMs_20  IAMs_20  23 05 57.2
      comp=Z,8µm,10.2s
KLMR  Klimovskoe        22.93  19 eP        P        22 55 27.4 -1.3
KLMR                               S        S        22 59 37.5 -1.2
KLMR                               pmax     pmax
      comp=Z,363nm,1.4s
KLMR                               MLR      MLR
      comp=Z,4µm,10.0s
SKAR  Skarslia          23.01 340 eP        P        22 55 30.3 +0.7
SKAR                               IAmb     IAmb     22 55 40.1
      comp=Z,96nm,1.0s
SKAR                              eS        S        22 59 41.5 +1.3
SKAR                               IAMs_20  IAMs_20  23 06 00.5
      comp=Z,5µm,11.2s
CCA1  Carnmenellis      23.11 306  P        P        22 55 33.7 +3.0
      comp=Z,106nm,1.5s
VAF   Ylistaro          23.14 358 eP        P        22 55 29.5 -1.3
JOF   Joensuu           23.37   8 eP        P        22 55 31.8 -1.4
TAM   Tamanrasset       23.40 229  P        P        22 55 33.8 -0.2
TAM                                pmax     pmax
      comp=Z,70nm,0.9s
TAM   Tamanrasset       23.40 229  P        P        22 55 33.8 -0.2
TAM                                IAmb     IAmb     22 55 42.2
      comp=Z,70nm,0.9s
TAM   Tamanrasset       23.40 229 ⇑P        P        22 55 34.6 +0.6
TAM   Tamanrasset       23.40 229  P        P        22 55 34.9 +0.8
      comp=Z,920nmcomp=Z,70nm,1.8s
ECAL  Calabor           23.50 285  P        P        22 55 37.7 +2.9
      comp=Z,140nm,1.1s
PBRG  Braganca          23.52 285 eP        P        22 55 35.8 +0.9
PBRG                              i IAmb    IAmb     22 55 43.0
      comp=Z,192nm,1.5s
BER   Bergen            23.63 336 eP        P        22 55 36.8 +1.1
BER                                IAmb     IAmb     22 55 42.6
      comp=Z,44nm,0.7s
BER                               eS        S        22 59 52.7 +2.5
EKA   Eskdalemuir Ar    23.86 319  P        P        22 55 36.5 -1.6
      comp=Z,7.3nm,0.5s,baz=114,slow=9.6,SNR=25
EKA                                LR       LR       23 05 57.2
      comp=Z,2µm,18.4s,baz=122,slow=39
      comp=Z,7.3nm,0.5s
ESK   Eskdalemuir       23.88 319  P        P        22 55 36.5 -1.7
ESK                                pmax     pmax
      comp=Z,58nm,0.9s
ESK   Eskdalemuir       23.88 319  P        P        22 55 36.5 -1.7
ESK                                IAmb     IAmb     22 55 45.5
      comp=Z,57nm,0.8s
ESK   Eskdalemuir       23.88 319 ⇑P        P        22 55 41.3 +3.1
ESK   Eskdalemuir       23.88 319 eP        P        22 55 38.0 -0.2
ESK                                IAmb     IAmb     22 55 45.8
      comp=Z,35nm,0.7s
DOMB  Dombas            23.98 342 eP        P        22 55 39.5 +0.2
DOMB                               IAmb     IAmb     22 55 45.4
      comp=Z,40nm,1.0s
DOMB                              eS        S        22 59 58.0 +2.0
HYA   Hoyanger          24.00 338 eP        P        22 55 39.8 +0.5
HYA                               eS        S        22 59 55.9 -0.2
EDI   Edinburgh         24.16 321 eP        P        22 55 41.0 +0.1
EDI                                IAmb     IAmb     22 55 48.5
      comp=Z,48nm,0.9s
RAYN  Ar Rayn           24.24 126  P        P        22 55 44.2 +2.2
RAYN                               S        S        22 59 57.8 -2.9
RAYN  Ar Rayn           24.24 126  P        P        22 55 42.6 +0.6
RAYN                               pmax     pmax
      comp=Z,98nm,1.1s
RAYN  Ar Rayn           24.24 126  P        P        22 55 42.6 +0.6
RAYN                               IAmb     IAmb     22 55 45.3
      comp=Z,98nm,1.1s
RAYN  Ar Rayn           24.24 126 ⇓P        P        22 55 43.8 +1.8
RAYN  Ar Rayn           24.24 126 i P       P        22 55 43.8 +1.8
      SNR=101
RAYN  Ar Rayn           24.24 126  P        P        22 55 44.1 +2.1
      comp=Z,2µmcomp=Z,130nm,1.4s
MTE   Manteigas         24.30 281 eP        P        22 55 42.1 -0.4
MTE                               i IAmb    IAmb     22 55 50.4
      comp=Z,225nm,1.8s
MTE                               eS        S        23 00 02.2 +0.6
MTE                               i IAMs_20 IAMs_20  23 07 23.7
      comp=Z,1µm,16.0s
MTE   Manteigas         24.30 281  P        P        22 55 42.7 +0.2
MTE                                IAmb     IAmb     22 56 01.2
      comp=Z,147nm,1.2s
MTE   Manteigas         24.30 281 eP        P        22 55 41.1 -1.4
MTE   Manteigas         24.30 281 ⇓P        P        22 55 44.9 +2.4
MTE   Manteigas         24.30 281  P        P        22 55 45.1 +2.6
      comp=Z,106nm,1.4s
PVRL  Vila Real         24.30 284 eP        P        22 55 44.4 +2.0
PVRL                              i IAmb    IAmb     22 55 50.2
      comp=Z,128nm,1.6s
MDT   Midelt            24.31 262  LR       LR       23 05 55.1
      comp=Z,1µm,20.0s,baz=62,slow=38
POLO  Lamas de Olo      24.35 284 eP        P        22 55 44.5 +1.5
POLO                              i IAmb    IAmb     22 55 49.8
      comp=Z,102nm,2.0s
PCBR  Castelo Branco    24.35 280 eP        P        22 55 43.8 +1.0
PCBR                              i IAmb    IAmb     22 55 50.8
      comp=Z,200nm,1.8s
PMRV  Marv??o           24.37 279 eP        P        22 55 43.7 +0.7
PMRV                              i IAmb    IAmb     22 55 50.9
      comp=Z,177nm,1.4s
PMRV                              eS        S        23 00 04.1 +1.6
PMRV                              i IAMs_20 IAMs_20  23 07 24.0
      comp=Z,1µm,20.0s
PBAR  Barrancos         24.37 276 eP        P        22 55 43.4 +0.4
PBAR                              i IAmb    IAmb     22 55 53.4
      comp=Z,159nm,1.7s
MD01  Midelt array s    24.40 262  P        P        22 55 43.8 +0.2
MD31  MD31              24.40 262  P        P        22 55 43.1 -0.3
IFR   Ifrane            24.41 264  P        P        22 55 47.0 +3.3
      comp=Z,474nmcomp=Z,23nm,2.2s
PCAB  Cabril            24.48 285 eP        P        22 55 46.5 +2.4
PVIS  Viseu             24.52 282 eP        P        22 55 45.4 +0.9
KIRV  Kirov             24.55  32  P        P        22 55 42.6 -1.8
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             comp=Z,48nm,1.0s,baz=209,slow=1.9,SNR=15
KIRV                                   S        S          23 00 07.0 +2.1
             comp=Z,9.0nm,0.5s,baz=167,slow=16,SNR=1.5
KIRV                                   LR       LR         23 05 49.5
             comp=Z,2µm,18.2s,baz=232,slow=38
             comp=Z,48nm,1.0s
KIRV   Kirov               24.55  32deP        P          22 55 44.6 +0.2
AKN    Aaknes              24.61 340 eP        P          22 55 45.2 +0.2
AKN                                    IAmb     IAmb       22 55 53.6
             comp=Z,62nm,0.8s
AKN                                  eS        S          23 00 06.9 +0.9
AKN                                    IAMs_20  IAMs_20    23 06 54.4
             comp=Z,6µm,9.8s
PESTR  Estremoz            24.63 278 eP        P          22 55 45.0 -0.5
PESTR                                i IAmb     IAmb       22 55 53.0
             comp=Z,90nm,1.4s
PESTR  Estremoz            24.63 278   P        P          22 55 44.9 -0.5
PESTR  Estremoz            24.63 278 ⇑P        P          22 55 47.5 +2.1
PESTR  Estremoz            24.63 278   P        P          22 55 47.7 +2.2
             comp=Z,45nm,1.2s
PGAV   Gavieira, Arco      24.63 285 eP        P          22 55 48.4 +2.9
PGAV                                 i IAmb     IAmb       22 55 54.0
             comp=Z,388nm,1.8s
PGAV                                 eS        S          23 00 15.4 +8.5
PGAV                                 i IAMs_20  IAMs_20    23 06 32.6
             comp=Z,1µm,18.0s
IWEX   Carrickbyrne,       24.66 311   P        P          22 55 43.4 -2.2
             comp=Z,54nm,1.2s
IWEX   Carrickbyrne,       24.66 311   P        P          22 55 49.6 +4.1
FOO    Floro               24.67 338 eP        P          22 55 44.6 -0.8
DSB    Dublin              24.72 313   P        P          22 55 47.9 +1.9
MOL    Molde               24.80 341 eP        P          22 55 47.4 +0.7
MOL                                    IAmb     IAmb       22 55 48.8
             comp=Z,28nm,0.9s
MOL                                  eS        S          23 00 14.2 +5.2
MOL                                    IAMs_20  IAMs_20    23 07 00.5
             comp=Z,7µm,11.9s
INVG   Invergeldie, C      24.83 321 eP        P          22 55 46.7 -0.3
INVG                                   IAmb     IAmb       22 55 53.6
             comp=Z,38nm,0.8s
EAB    Aberfoyle           24.86 320 eP        P          22 55 47.3 +0.1
EAB                                    IAmb     IAmb       22 55 55.2
             comp=Z,43nm,0.7s
PSARD  Sardoal             24.92 280 eP        P          22 55 47.9 -0.1
PSARD                                i IAmb     IAmb       22 55 56.0
             comp=Z,180nm,2.3s
ILTH   Belurgan, Co L      24.97 315   P        P          22 55 52.5 +4.2
PTO    Porto               24.99 283 eP        P          22 55 51.6 +3.0
PTO                                  i IAmb     IAmb       22 55 57.0
             comp=Z,207nm,1.6s
PARRA  Arraiolos           24.99 278 eP        P          22 55 48.0 -0.6
PARRA                                i IAmb     IAmb       22 55 55.0
             comp=Z,57nm,1.4s
EVO    Evora               25.03 277 eP        P          22 55 49.4 +0.4
EVO                                  i IAmb     IAmb       22 55 57.5
             comp=Z,44nm,1.6s
PBEJ   Beja                25.04 276 eP        P          22 55 51.7 +2.6
PBEJ                                 i IAmb     IAmb       22 55 56.8
             comp=Z,99nm,1.8s
MCD    Coleburn Disti      25.06 324 eP        P          22 55 49.3 +0.3
MCD                                    IAmb     IAmb       22 55 56.0
             comp=Z,126nm,0.8s
PMTG   Montargil           25.07 279 eP        P          22 55 49.3  0.0
PMTG                                 i IAmb     IAmb       22 55 57.7
             comp=Z,109nm,1.6s
PCAS   Casmilo, Conde      25.09 281 eP        P          22 55 50.1 +0.6
PCAS                                 i IAmb     IAmb       22 55 58.9
             comp=Z,149nm,1.7s
PVAQ   Vaqueiros           25.09 274 eP        P          22 55 50.3 +0.8
PVAQ                                 i IAmb     IAmb       22 55 56.9
             comp=Z,179nm,1.9s
PVAQ                                 eS        S          23 00 16.4 +2.2
PVAQ                                 i IAMs_20  IAMs_20    23 08 10.2
             comp=Z,1µm,18.0s
PVAQ   Vaqueiros           25.09 274 ⇓P        P          22 55 50.9 +1.3
PVAQ   Vaqueiros           25.09 274   P        P          22 55 51.3 +1.7
             comp=Z,2µmcomp=Z,73nm,1.7s
OUL    Oulu                25.18   2   P        P          22 55 49.7 -0.3
             comp=Z,66nm,1.0s
PCVE   Castro Verde        25.28 275 eP        P          22 55 52.7 +1.5
PCVE                                 i IAmb     IAmb       22 55 58.9
             comp=Z,116nm,1.9s
PBDV   Barranco-do-Ve      25.30 274 eP        P          22 55 52.8 +1.3
PBDV                                 i IAmb     IAmb       22 55 59.3
             comp=Z,359nm,1.5s
MESJ   Messejana           25.36 276 eP        P          22 55 51.3 -0.7
MESJ                                 eS        S          23 00 18.0 -0.4
MESJ                                   IAMs_20  IAMs_20    23 07 53.3
             comp=Z,3µm,8.7s
MESJ   Messejana           25.36 276 eP        P          22 55 51.7 -0.2
MESJ                                 i IAmb     IAmb       22 55 59.8
             comp=Z,121nm,1.7s
MESJ   Messejana           25.36 276 eP        P          22 55 51.3 -0.7
MESJ                                 eS        S          23 00 18.0 -0.4
MESJ   Messejana           25.36 276   P        P          22 55 51.1 -0.9
MESJ                                   IAmb     IAmb       22 55 59.0
             comp=Z,51nm,1.0s
MESJ   Messejana           25.36 276 ⇑P        P          22 55 54.3 +2.4
LAWE   Loch Awe, Argy      25.41 320 eP        P          22 55 52.0 -0.2
LAWE                                   IAmb     IAmb       22 55 59.6
             comp=Z,51nm,0.8s
PSBE   So Bento            25.41 280 eP        P          22 55 53.3 +0.8
PSBE                                 i IAmb     IAmb       22 56 01.9
             comp=Z,162nm,1.7s
PLOUS  Minas do Lousa      25.46 276 eP        P          22 55 52.3 -0.6
PLOUS                                i IAmb     IAmb       22 56 00.8
             comp=Z,135nm,1.8s
SJUU   Sjulsmark           25.64 357 eP        P          22 55 52.0 -2.2
NSS    Namsos              25.65 348 eP        P          22 55 54.1 -0.2
NSS                                  eS        S          23 00 25.6 +3.1
AKTO   Aktyubinsk          25.72  55   LR       LR         23 08 22.3
             comp=Z,2µm,19.5s,baz=261,slow=42
PTEO   Sao Teotonio        25.82 275 eP        P          22 55 57.6 +1.5
PTEO                                 i IAmb     IAmb       22 56 04.2
             comp=Z,210nm,1.8s
MORF   Marmelete           25.84 275 eS        S          23 00 25.7 -0.3
MORF                                   IAMs_20  IAMs_20    23 08 25.9
             comp=E,4µm,19.6s
BIGH   Upper Bighouse      25.85 325 eP        P          22 55 57.3 +1.1
BIGH                                   IAmb     IAmb       22 56 02.8
             comp=Z,52nm,1.1s
LIS    Lisbon              25.86 278 eS        S          23 00 25.7 -0.6
LIS                                    IAMs_20  IAMs_20    23 07 07.2
             comp=E,4µm,11.7s
SAKB   Bahrain             25.91 115   P        P          22 55 59.0 +2.0
IDGL   Inch Island, C      26.00 316   P        P          22 56 00.8 +3.2
PFVI   Vila Bisbo          26.02 274 eP        P          22 56 00.1 +2.1
PFVI                                 i IAmb     IAmb       22 56 05.1
             comp=E,157nm,1.9s
PFVI   Vila Bisbo          26.02 274   P        P          22 55 57.5 -0.4
PFVI                                   IAmb     IAmb       22 56 10.2
             comp=Z,109nm,1.1s
KPL    Plockton            26.05 322 eP        P          22 55 57.1 -0.8
KPL                                    IAmb     IAmb       22 56 05.4
             comp=Z,29nm,0.8s
MSF    Maaselka            26.13   4   P        P          22 56 00.4 +1.7
             comp=Z,71nm,0.9s
AVE    Averroes            26.25 265   P        P          22 56 00.2 +0.1
IGLA   Glengowla, Co       26.48 312   P        P          22 56 05.5 +3.6
VAL    Valentia            26.61 308   P        P          22 56 06.9 +3.8
AB31   Akbulak array       26.77  58   P        P          22 56 04.2 -0.5
ABKAR  Akbulak array       26.77  58   P        P          22 56 04.5 -0.2
MOR8   Moi Rana            26.85 351 eP        P          22 56 05.4 +0.2
MOR8                                 eS        S          23 00 45.0 +3.5
MOR8                                   IAMs_20  IAMs_20    23 07 29.8
             comp=Z,11µm,11.6s
LEIR   Leirfjorden         26.96 350 eP        P          22 56 07.0 +0.9
LEIR                                 eS        S          23 00 45.0 +1.8
RAUS   Rausandaksla        27.16 351 eP        P          22 56 08.8 +0.9
RAUS                                 eS        S          23 00 47.6 +1.3
RAUS                                   IAMs_20  IAMs_20    23 07 43.5
             comp=Z,9µm,11.9s
VAGH   Vaagaholmen         27.53 350 eP        P          22 56 11.4 +0.2
ARTI   Arti                27.64  42   LR       LR         23 07 32.4
             comp=Z,2µm,19.6s,baz=247,slow=37
ARTI   Arti                27.64  42d iP        P          22 56 12.0 -0.4
ARTI                                                       22 56 58.3
ARTI                                                       22 59 27.4
ARTI                                   S        S          23 00 54.1  0.0
ARTI                                   SS       SnSn       23 02 08.4 +3.4
ARTI                                   pmax     pmax
             comp=Z,32nm,0.9s
ARTI                                   MLR      MLR
             comp=Z,2µm,17.0s
ARTI   Arti                27.64  42   P        P          22 56 11.6 -0.7
ARTI                                   IAmb     IAmb       22 56 33.3
             comp=Z,68nm,1.1s
ARTI   Arti                27.64  42 ⇓P        P          22 56 12.1 -0.2
FAUS   Fauske              27.93 353 eP        P          22 56 14.6 -0.2
SLWR   Sila                27.93 116   P        P          22 56 16.7 +1.5
APA    Apatity             28.11   7 eP        P          22 56 18.6 +2.2
APA                                  e                     22 57 02.4
APA                                  e                     22 59 29.5
APA                                  eS        S          23 01 02.0 +0.7
APA                                  eSS       SnSn       23 02 16.2 -0.1
APA                                    pmax     pmax
             comp=Z,28nm,1.1s
APA                                    MLR      MLR
             comp=Z,5µm,22.1s
LANU   Lannavaara          28.17 358 eP        P          22 56 16.9 -0.1
JRN    Qarnain Island      28.18 113   P        P          22 56 18.4 +0.9
             SNR=9.5
STEI   Steigen             28.47 353 eP        P          22 56 17.2 -2.4
LVZ    Lovozero            28.56   8 i P        P          22 56 21.0 +0.5
LVZ                                    pmax     pmax
             comp=Z,82nm,2.2s
LVZ    Lovozero            28.56   8   P        P          22 56 20.6 +0.1
LVZ                                    IAmb     IAmb       22 57 11.2
             comp=Z,46nm,0.9s
GHWR   Ruwais              28.82 115   P        P          22 56 24.1 +1.0
SVE    Sverdlovsk          28.96  42⇓iP        P          22 56 25.4 +1.3
SVE                                  eS        S          23 01 18.6 +3.8
SVE                                    pmax     pmax
             comp=Z,42nm,1.1s
SVE                                    MLR      MLR
             comp=Z,2µm,9.0s
KTK1   Kautokeino          29.12 359 eP        P          22 56 24.1 -1.3
ARCES  ARCESS Array B      29.64   1   P        P          22 56 29.0 -1.1
             comp=Z,6.8nm,0.9s,baz=242,slow=2.6,SNR=6.4
ARCES                                  LR       LR         23 09 40.2
             comp=Z,4µm,18.2s,baz=183,slow=39
             comp=Z,6.8nm,0.9s
ARCES  ARCESS Array B      29.64   1   P        P          22 56 29.4 -0.7
ARCES                                  pmax     pmax
             comp=Z,83nm,1.8s
ARCES  ARCESS Array B      29.64   1   P        P          22 56 29.4 -0.7
ARCES                                  IAmb     IAmb       22 57 18.9
             comp=Z,83nm,1.8s
MZWR   Madinat Zayed       29.65 114   P        P          22 56 31.4 +0.8
UMQ    Umm Al-Quwin        29.84 109   P        P          22 56 33.4 +1.2
             SNR=5.5
MZR    Muzera              29.87 116   P        P          22 56 33.2 +0.7
             SNR=10
MZR    Muzera              29.87 116 i P        P          22 56 33.6 +1.1
             SNR=7.5
SHME   Shamm               29.88 108   P        P          22 56 31.7 -0.9
             SNR=8.6
SHME   Shamm               29.88 108 i P        P          22 56 32.5  0.0
             SNR=8.1
AJN    Ajban               29.93 112   P        P          22 56 34.7 +1.7
BANOM  Banah               30.07 108   P        P          22 56 34.4 +0.1
BANOM  Banah               30.07 108 i P        P          22 56 34.4 +0.1
             SNR=6.0
ASUD   Al Ashush, Dub      30.14 111   P        P          22 56 35.0 +0.1
             SNR=7.1
ASUD   Al Ashush, Dub      30.14 111 i P        P          22 56 36.0 +1.1
             SNR=7.1
NAZ    Nazwa, Dubai        30.16 110   P        P          22 56 35.8 +0.8
             SNR=13
NAZ    Nazwa, Dubai        30.16 110 i P        P          22 56 36.1 +1.1
             SNR=21
FAQ    Al Faqa, Dubai      30.26 111   P        P          22 56 36.2 +0.3
             SNR=6.8
FAQ    Al Faqa, Dubai      30.26 111   P        P          22 56 36.6 +0.6
MASF   Masafi              30.29 109   P        P          22 56 37.2 +1.0
             SNR=9.0
MSFE   Esma-Masafi         30.30 109 i P        P          22 56 37.3 +1.0
             SNR=7.5
MDH    Madha               30.43 109   P        P          22 56 38.3 +0.8
             SNR=6.6
MDH    Madha               30.43 109 i P        P          22 56 37.9 +0.4
             SNR=7.0
HRA    Herat               30.54  88   P        P          22 56 38.1 -0.6
UOSS   Minazif             30.58 110   P        P          22 56 37.9 -0.9
HATD   Hatta, Dubai        30.60 110   P        P          22 56 39.6 +0.7
             SNR=18
HATD   Hatta, Dubai        30.60 110 i P        P          22 56 39.4 +0.4
             SNR=19
ASHO   Ashiyiah            30.63 110   P        P          22 56 40.0 +0.7
             SNR=20
ASHO   Ashiyiah            30.63 110 i P        P          22 56 39.7 +0.4
             SNR=22
ALNE   Al Ain              30.79 111   P        P          22 56 41.8 +1.1
             SNR=15
ALNE   Al Ain              30.79 111 i P        P          22 56 41.4 +0.7
             SNR=31
UMZA   Um Al Zommool       31.23 114   P        P          22 56 45.0 +0.5
JASK   Jask - Hormozg      31.25 106   P        P          22 56 45.7 +1.0
             SNR=6.5
SOHO   SOHO                31.31 111   P        P          22 56 45.9 +0.7
SOHO   SOHO                31.31 111 i P        P          22 56 45.9 +0.7
             SNR=11
ARQ    Araqi               31.79 112   P        P          22 56 50.4 +0.9
             SNR=10
HOQ    Hoqain              32.21 111   P        P          22 56 53.4 +0.3
             SNR=9.6
BSY    Bisya               32.65 112   P        P          22 56 57.2 +0.2
SMDO   Samad               33.06 110   P        P          22 57 00.2 -0.6
             SNR=9.6
DOK    Doka                33.32 121   P        P          22 57 03.8 +0.9
             SNR=5.2
TORD   Torodi Ar. Bea      33.33 223   P        P          22 57 02.9  0.0
             comp=Z,10nm,0.6s,baz=32,slow=8.7,SNR=86
TORD                                   PcP      PcP        22 59 44.4 -0.6
             comp=Z,4.3nm,0.8s,baz=39,slow=1.5,SNR=4.0
TORD                                   LR       LR         23 12 42.7
             comp=Z,588nm,20.7s,baz=36,slow=40
             comp=Z,10nm,0.6s
WSAR   Wadi Sarin          33.37 110   LR       LR         23 13 41.9
             comp=Z,5.4nm,19.8s,baz=318,slow=42
WSAR   Wadi Sarin          33.37 110   P        P          22 57 03.7 +0.4
FURI   Furi                33.48 154   P        P          22 57 03.8 -0.8
FURI                                   IAmb     IAmb       22 57 14.7
             comp=Z,43nm,1.1s
JMDO   Jabal Madar         33.53 111   P        P          22 57 04.8  0.0
             SNR=6.4
WHFO   Wadi Hawf           33.59 122   P        P          22 57 05.6 +0.3
BORK   Borovoye            33.64  52 i P        P          22 57 05.7 +0.3
BORK                                   pmax     pmax
             comp=Z,15nm,1.0s
BORK   Borovoye            33.64  52   P        P          22 57 05.6 +0.2
BVAR   Borovoye Array      33.68  52   P        P          22 57 06.7 +0.9
             comp=Z,7.7nm,0.9s,baz=264,slow=6.0,SNR=34
             comp=Z,7.7nm,0.9s
ABTO   Aybut               33.70 124   P        P          22 57 07.2 +0.9
CHM    Chimkent            33.86  71 eP        P          22 57 08.4 +1.0
CHM    Chimkent            33.86  71 eP        P          22 57 08.5 +1.0
BRLS   Borolday            33.89  70 eP        P          22 57 08.2 +0.5
BRLS   Borolday            33.89  70 eP        P          22 57 08.2 +0.5
WBK    Wadi Bani Khal      34.00 110   P        P          22 57 09.9 +1.0
RBK    Rabkut              34.17 122   P        P          22 57 11.2 +0.9
IUG    Iuzhnay             34.21  71d iP        P          22 57 11.3 +0.8
IUG                                    pmax     pmax
             comp=Z,24nm,1.1s
IUG    Iuzhnay             34.21  71⇓iP        P          22 57 11.3 +0.8
             comp=Z,24nm,1.1s
MHTO   MHTO                34.32 113   P        P          22 57 12.9 +1.3
KK31   Karatay Array       34.37  69   P        P          22 57 11.6 -0.2
KK31                                   pmax     pmax
             comp=Z,26nm,1.3s
KK31   Karatay Array       34.37  69   P        P          22 57 11.6 -0.2
KKAR   Karatay Array       34.37  69   P        P          22 57 11.2 -0.6
KKAR   Karatay Array       34.37  69   P        P          22 57 11.2 -0.6
DMTO   DMTO                34.51 121   P        P          22 57 13.6 +0.4
JLN    Jalan Bani Buh      34.61 110   P        P          22 57 14.6 +0.6
SHAO   Shalim              34.74 120   P        P          22 57 16.3 +1.1
DZA    Taraz               35.00  70 eP        P          22 57 18.3 +1.0
DZA    Taraz               35.00  70 eP        P          22 57 18.4 +1.0
BTK    Batken              35.28  74   P        P          22 57 19.8  0.0
BTK                                    pmax     pmax
             comp=Z,51nm,1.4s
BTK    Batken              35.28  74   P        P          22 57 19.8  0.0
BTK                                    IAmb     IAmb       22 57 22.0
             comp=Z,51nm,1.4s
JMIC   Jan Mayen           35.31 342   LR       LR         23 13 26.3
             comp=Z,619nm,20.8s,baz=89,slow=39
KBL    Kabul               35.70  84   P        P          22 57 25.1 +1.4
             SNR=9.1
KBL    Kabul               35.70  84   P        P          22 57 23.0 -0.6
KBL                                    pmax     pmax
             comp=Z,15nm,1.1s
KBL    Kabul               35.70  84   P        P          22 57 23.0 -0.6
BORG   Borgarnes           36.07 329   LR       LR         23 12 26.3
             comp=Z,1µm,18.4s,baz=115,slow=37
DRK    Karamyk             36.16  75   P        P          22 57 28.1 +0.4
DRK                                    pmax     pmax
             comp=Z,24nm,1.0s
DRK    Karamyk             36.16  75   P        P          22 57 28.1 +0.4
BTLS   Baital              36.52  65d iP        P          22 57 31.3 +1.0
BTLS   Baital              36.52  65⇓iP        P          22 57 31.4 +1.0
ARSB   Arslanbob           36.54  72   P        P          22 57 31.2 +0.5
ARSB                                   pmax     pmax
             comp=Z,47nm,1.3s
ARSB   Arslanbob           36.54  72   P        P          22 57 31.2 +0.5
ARSB                                   IAmb     IAmb       22 57 51.0
             comp=Z,47nm,1.3s
SGDS   Sogindy             37.24  68 eP        P          22 57 37.2 +0.7
AAK    Ala-Archa           37.33  69   LR       LR         23 17 47.9
             comp=Z,2µm,19.7s,baz=288,slow=44
AAK    Ala-Archa           37.33  69   P        P          22 57 38.5 +1.1
AAK    Ala-Archa           37.33  69deP        P          22 57 38.8 +1.4
AAK                                    pmax     pmax
             comp=Z,46nm,1.7s
AAK    Ala-Archa           37.33  69   P        P          22 57 36.8 -0.5
AAK    Ala-Archa           37.33  69 i P        P          22 57 38.8 +1.4
             SNR=7.7
FRU1   Bishkek             37.38  69   P        P          22 57 37.8  0.0
FRU1                                   pmax     pmax
             comp=Z,68nm,1.1s
FRU1   Bishkek             37.38  69   P        P          22 57 37.8  0.0
FRU1                                   IAmb     IAmb       22 57 40.8
             comp=Z,68nm,1.1s
LODK   Lodwar              37.72 162   P        P          22 57 41.8 +1.0
LODK   Lodwar              37.72 162   P        P          22 57 40.6 -0.1
EDA    Edea                38.24 203   P        P          22 57 44.8 -0.3
KUU    Kurty               38.36  67 eP        P          22 57 46.9 +1.0
KUU                                    pmax     pmax
             comp=Z,52nm,1.1s
KUU    Kurty               38.36  67 eP        P          22 57 47.0 +1.0
             comp=Z,52nm,1.1s
BOOM   Boomskoye usch      38.40  69   P        P          22 57 46.5  0.0
BOOM                                   pmax     pmax
             comp=Z,98nm,1.5s
BOOM   Boomskoye usch      38.40  69   P        P          22 57 46.5  0.0
BOOM                                   IAmb     IAmb       22 58 13.5
             comp=Z,98nm,1.5s
SPITS  Spitsbergen Ar      38.47 357   P        P          22 57 47.3 +0.9
             comp=Z,14nm,1.0s,baz=153,slow=8.2,SNR=5.3
SPITS                                  LR       LR         23 14 52.9
             comp=Z,4µm,20.1s,baz=174,slow=38
             comp=Z,14nm,1.0s
SCO    Scoresbysund        38.65 337 ⇑P        P          22 57 49.8 +1.9
SCO    Scoresbysund        38.65 337 i P        P          22 57 49.5 +1.5
SCO                                    IAmb     IAmb       22 57 56.1
             comp=Z,54nm,0.8s
NRN    Naryn               38.71  71   P        P          22 57 48.7 -0.6
NRN                                    pmax     pmax
             comp=Z,42nm,1.4s
NRN    Naryn               38.71  71   P        P          22 57 48.7 -0.6
KURBB  Kurchatov Arra      38.77  56   P        P          22 57 49.8 +0.6
             comp=Z,8.9nm,0.9s,baz=280,slow=9.0,SNR=62
KURBB                                  PP       PP         22 59 18.8 +1.0
             comp=Z,10nm,1.2s,baz=281,slow=11,SNR=4.8
KURBB                                  PcP      PcP        23 00 01.0 +0.4
             comp=Z,9.3nm,0.8s,baz=273,slow=3.7,SNR=11
KURBB                                  LR       LR         23 17 24.6
             comp=Z,1µm,20.9s,baz=301,slow=42
             comp=Z,8.9nm,0.9s
KURK   Kurchatov           38.82  55   P        P          22 57 50.0 +0.4
KURK   Kurchatov           38.82  55ceP        P          22 57 50.1 +0.5
KURK                                   pmax     pmax
             comp=Z,42nm,1.7s
KURK   Kurchatov           38.82  55   P        P          22 57 49.2 -0.4
AAA    Alma-Ata            38.92  68 eP        P          22 57 51.8 +1.1
AAA    Alma-Ata            38.92  68 eP        P          22 57 51.8 +1.1
TNSS   Tian-Shan           38.98  68 eP        P          22 57 52.4 +0.8
TNSS   Tian-Shan           38.98  68 eP        P          22 57 52.4 +0.8
MDOK   Medeo               39.03  68 eP        P          22 57 52.5 +0.8
MDOK   Medeo               39.03  68 eP        P          22 57 52.6 +0.8
KSH2   Kashi               39.05  74   P        P          22 57 53.3 +1.3
KSH2                                   pmax     pmax
             comp=Z,12nm,1.5s
KSH2                                   pmax     pmax
             comp=Z,230nm,7.0s
KSH2                                   L        L
             comp=Z,1µm,22.2s
KSH2                                   L        L
             comp=Z,610nm,15.1s
KSH2                                   L        L
             comp=Z,1µm,22.9s
NIL    Nilore              39.26  83   P        P          22 57 55.3 +1.7
NIL    Nilore              39.26  83   P        P          22 57 54.0 +0.4
NIL                                    pmax     pmax
             comp=Z,53nm,1.0s
NIL    Nilore              39.26  83   P        P          22 57 54.0 +0.4
NIL                                    IAmb     IAmb       22 57 56.4
             comp=Z,53nm,0.9s
TDK    Taldyqorghan        39.56  64d iP        P          22 57 56.9 +0.9
TDK                                    pmax     pmax
             comp=Z,50nm,1.8s
TDK    Taldyqorghan        39.56  64⇓iP        P          22 57 56.9 +0.9
             comp=Z,50nm,1.8s
TARG   Taragay, Kyrgy      39.94  70   P        P          22 57 59.2 -0.4
TARG                                   pmax     pmax
             comp=Z,34nm,1.3s
TARG   Taragay, Kyrgy      39.94  70   P        P          22 57 59.2 -0.4
SATY   Saty                40.02  67d iP        P          22 58 00.9 +1.0
SATY   Saty                40.02  67⇓iP        P          22 58 01.0 +1.0
KPKS   Kokpek              40.11  67 eP        P          22 58 01.5 +0.9
KPKS   Kokpek              40.11  67 eP        P          22 58 01.6 +0.9
DBG    Daneborg            40.13 343 i P        P          22 58 03.4 +3.2
DBG                                    IAmb     IAmb       22 58 07.9
             comp=Z,21nm,1.3s
UZB    Uzynbulak           40.43  67d iP        P          22 58 04.1 +0.8
UZB    Uzynbulak           40.43  67⇓iP        P          22 58 04.2 +0.8
ACRG   Accra               40.69 219   P        P          22 58 04.7 -0.9
ACRG                                   IAmb     IAmb       22 58 11.8
             comp=Z,36nm,0.6s
PDGK   Podgornoye          40.71  67   P        P          22 58 05.8 +0.1
PDGK   Podgornoye          40.71  67   P        P          22 58 05.8 +0.1
SHLS   Shalkode            40.74  67 eP        P          22 58 09.3 +3.4
SHLS   Shalkode            40.74  67 eP        P          22 58 09.3 +3.4
MBAR   Mbarara             40.79 170   LR       LR         23 17 59.3
             comp=Z,825nm,19.1s,baz=357,slow=41
MBAR   Mbarara             40.79 170   P        P          22 58 06.9 +0.4
MBAR   Mbarara             40.79 170 i P        P          22 58 06.1 -0.4
MBAR   Mbarara             40.79 170   P        P          22 58 06.2 -0.3
WUS    Wushi               41.10  70   P        P          22 58 08.5 -0.5
DAG    Danmarks Havn       41.24 346 ⇓P        P          22 58 10.8 +1.4
DAG    Danmarks Havn       41.24 346 i P        P          22 58 10.8 +1.4
DAG                                    IAmb     IAmb       22 58 18.2
             comp=Z,15nm,1.2s
MAKZ   Makanchi            41.62  61   P        P          22 58 12.7 -0.2
MAKZ                                   pmax     pmax
             comp=Z,14nm,1.0s
MAKZ   Makanchi            41.62  61   P        P          22 58 12.7 -0.2
MK31   Makanchi Array      41.83  61 i P        P          22 58 15.5 +0.8
MK31                                   pmax     pmax
             comp=Z,10.0nm,0.6s
MKAR   Makanchi Array      41.83  61   P        P          22 58 15.1 +0.4
             comp=Z,15nm,0.6s,baz=281,slow=6.8,SNR=114
MKAR                                   PcP      PcP        23 00 10.5  0.0
             comp=Z,6.1nm,0.8s,baz=289,slow=3.7,SNR=3.8
MKAR                                   LR       LR         23 18 08.7
             comp=Z,829nm,20.0s,baz=269,slow=40
             comp=Z,15nm,0.6s
MKAR   Makanchi Array      41.83  61 i P        P          22 58 15.3 +0.6
MKAR                                   pmax     pmax
             comp=Z,15nm,0.6s
MKAR   Makanchi Array      41.83  61   P        P          22 58 14.7  0.0
DBIC   Dimbokro            42.25 226   P        P          22 58 18.1 -0.3
             comp=Z,20nm,0.7s,baz=35,slow=9.6,SNR=23
             comp=Z,20nm,0.7s
DBIC   Dimbokro            42.25 226   P        P          22 58 17.9 -0.4
DBIC                                   pmax     pmax
             comp=Z,75nm,0.9s
DBIC   Dimbokro            42.25 226   P        P          22 58 17.9 -0.4
DBIC                                   IAmb     IAmb       22 58 25.4
             comp=Z,75nm,0.8s
DBIC   Dimbokro            42.25 226 ⇑P        P          22 58 18.4  0.0
ZAA0   Zalesovo Array      42.27  50   P        P          22 58 18.1 -0.1
ZAA0                                   IAmb     IAmb       22 58 20.1
             comp=Z,42nm,0.9s
ZALV   Zalesovo Beam       42.27  50   P        P          22 58 18.8 +0.6
             comp=Z,22nm,0.6s,baz=276,slow=8.7,SNR=140
ZALV                                   LR       LR         23 17 45.5
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	comp=Z,1µm,20.6s,baz=270,slow=39						
	comp=Z,22nm,0.6s						
ZALV	**Zalesovo Beam**	**42.27**	**50**	P	**P**	**22 58 18.4**	**+0.2**
KMBO	**Kilima Mbogo**	**42.56**	**161**	LR	LR	23 18 52.6	
	comp=Z,535nm,18.8s,baz=342,slow=40						
ZSN	**Zaisan**	**43.40**	**59**	*e*P	**P**	**22 58 28.4**	**+1.0**
ZSN	**Zaisan**	**43.40**	**59**	*e*P	**P**	**22 58 28.4**	**+1.0**
NRIK	**Noril'sk**	**43.86**	**27**	P	**P**	**22 58 32.2**	**+1.5**
	comp=Z,7.6nm,0.8s,baz=274,slow=6.5,SNR=5.7						
NRIK				LR	LR	23 18 14.7	
	comp=Z,2µm,20.9s,baz=260,slow=38						
	comp=Z,7.6nm,0.8s						
NRIK	**Noril'sk**	**43.86**	**27**	*i* P	**P**	**22 58 31.3**	**+0.5**
NRIK				pmax	pmax		
	comp=Z,14nm,0.9s						
NRIK	**Noril'sk**	**43.86**	**27**	P	**P**	**22 58 31.0**	**+0.2**
KIBK	**Kibwezi**	**43.93**	**160**	P	**P**	**22 58 33.1**	**+1.0**
KIBK	**Kibwezi**	**43.93**	**160**	P	**P**	**22 58 31.5**	**-0.5**
NOR	**Nord**	**44.11**	**352**	*i* P	**P**	**22 58 32.7**	**0.0**
NOR				IAmb	IAmb	22 58 40.5	
	comp=Z,5.1nm,0.7s						
SUMG	**Summit**	**44.29**	**337**	P	**P**	**22 58 34.4**	**-0.3**
SUMG				pmax	pmax		
	comp=Z,45nm,0.8s						
SUMG	**Summit**	**44.29**	**337**	P	**P**	**22 58 34.4**	**-0.3**
SUMG				IAmb	IAmb	22 58 42.8	
	comp=Z,45nm,0.8s						
SUMG	**Summit**	**44.29**	**337**	⇑P	**P**	**22 58 35.0**	**+0.3**
SUMG	**Summit**	**44.29**	**337**	*i* P	**P**	**22 58 35.9**	**+1.2**
SUMG				IAmb	IAmb	22 58 43.1	
	comp=Z,48nm,0.8s						
DGZ	**Jazzator, Alta**	**44.56**	**56**	*i* P	**P**	**22 58 36.9**	**0.0**
DGZ				pmax	pmax		
	comp=Z,27nm,1.0s						
WMQ	**Urumqi**	**46.29**	**63**	⇑P	**P**	**22 58 52.5**	**+1.9**
WMQ				S	**S**	**23 05 37.8**	**+0.2**
WMQ				pmax	pmax		
	comp=Z,43nm,1.3s						
WMQ				pmax	pmax		
	comp=Z,260nm,3.7s						
WMQ				L	L		
	comp=Z,1µm,14.1s						
WMQ				L	L		
	comp=Z,1µm,13.7s						
WMQ				L	L		
	comp=Z,590nm,24.1s						
SFJD	**Kangerlussuaq**	**48.20**	**329**	LR	LR	23 20 37.8	
	comp=Z,1µm,18.1s,baz=90,slow=38						
NEEM	**North Greenlan**	**48.20**	**343**	*i* P	**P**	**22 59 05.3**	**0.0**
NEEM				IAmb	IAmb	22 59 12.4	
	comp=Z,18nm,0.8s						
UPNV	**Upernavik**	**49.57**	**337**	*i* P	**P**	**22 59 19.8**	**+4.4**
UPNV				IAmb	IAmb	22 59 23.6	
	comp=Z,85nm,1.4s						
KNGR	**Kungurtug, Tuv**	**50.59**	**52**	*i* P	**P**	**22 59 23.8**	**+0.1**
KNGR				pmax	pmax		
	comp=Z,47nm,1.6s						
HYB	**Hyderabad**	**51.72**	**99**	*e*P	**P**	**22 59 32.0**	**-0.5**
HYB				*e*PcP	**PcP**	**23 00 45.4**	**-0.4**
HYB				*e*PP	**PP**	**23 01 30.0**	**0.0**
HYB				*e*S	**S**	**23 06 54.7**	**+0.3**
HYB				*e*pS	**sS**	**23 06 58.7**	**+0.3**
HYB				*e*ScS	**ScS**	**23 09 22.5**	**-0.8**
EVN	**Everest**	**52.22**	**83**	P	**P**	**22 59 36.3**	**-0.5**
EVN				IAmb	IAmb	22 59 38.7	
	comp=Z,44nm,1.2s						
MOY	**Mondy**	**52.33**	**50**	*e*P	**P**	**22 59 38.3**	**+1.6**
MOY				pmax	pmax		
	comp=Z,52nm,2.1s						
TLY	**Talaya**	**53.88**	**49**	LR	LR	23 24 29.2	
	comp=Z,1µm,20.0s,baz=294,slow=38						
TLY	**Talaya**	**53.88**	**49**	*de*P	**P**	**22 59 49.8**	**+1.8**
TLY				pmax	pmax		
	comp=Z,41nm,1.3s						
TLY	**Talaya**	**53.88**	**49**	P	**P**	**22 59 48.2**	**+0.2**
TLY				IAmb	IAmb	22 59 51.1	
	comp=Z,25nm,1.0s						
IRK	**Irkutsk**	**54.04**	**48**	*e*P	**P**	**22 59 48.1**	**-1.0**
IRK				pmax	pmax		
	comp=Z,65nm,1.8s						
ZAK	**Zakamensk**	**54.13**	**51**	*e*P	**P**	**22 59 50.9**	**+0.9**
ZAK				pmax	pmax		
	comp=Z,26nm,1.2s						
GOMU	**GeErMu**	**54.27**	**70**	P	**P**	**22 59 52.5**	**+1.0**
GOMU				S	**S**	**23 07 28.0**	**-1.4**
GOMU				pmax	pmax		
	comp=Z,7.0nm,0.7s						
GOMU				L	L		
	comp=Z,600nm,15.5s						
GOMU				L	L		
	comp=Z,330nm,16.0s						
GOMU				L	L		
	comp=Z,670nm,15.8s						
LSA	**Lhasa**	**54.64**	**79**	*e*P	**P**	**22 59 57.0**	**+2.6**
LSA				pmax	pmax		
	comp=Z,20nm,0.9s						
LSA				L	L		
	comp=Z,690nm,18.6s						
LSA				L	L		
	comp=Z,260nm,16.5s						
LSA				L	L		
	comp=Z,540nm,24.7s						
LSA	**Lhasa**	**54.64**	**79**	P	**P**	**22 59 54.4**	**0.0**
LSA				pmax	pmax		
	comp=Z,21nm,1.0s						
LSA	**Lhasa**	**54.64**	**79**	P	**P**	**22 59 54.4**	**0.0**
LSA				IAmb	IAmb	22 59 56.5	
	comp=Z,21nm,1.0s						
LSZ	**Lusaka**	**55.07**	**175**	LR	LR	23 25 07.2	
	comp=Z,736nm,20.4s,baz=2.5,slow=38						
LSZ	**Lusaka**	**55.07**	**175**	P	**P**	**22 59 57.4**	**+0.4**
LSZ				pmax	pmax		
	comp=Z,25nm,1.3s						
LSZ	**Lusaka**	**55.07**	**175**	P	**P**	**22 59 57.4**	**+0.4**
FRB	**Frobisher Bay**	**56.24**	**328**	LR	LR	23 25 43.3	
	comp=Z,1µm,18.4s,baz=70,slow=38						
GTA2	**Gaotai**	**56.29**	**64**	*e*P	**P**	**23 00 06.8**	**+1.1**
GTA2				pmax	pmax		
	comp=Z,28nm,1.1s						
GTA2				L	L		
	comp=Z,520nm,22.2s						
GTA2				L	L		
	comp=Z,900nm,22.2s						
GTA2				L	L		
	comp=Z,770nm,22.5s						
DRLN	**Deer Lake**	**56.31**	**309**	P	**P**	**23 00 05.8**	**+0.3**
DRLN				IAmb	IAmb	23 00 10.5	
	comp=Z,50nm,1.0s						
TIXI	**Tiksi**	**56.92**	**21**	LR	LR	23 27 36.1	
	comp=Z,1µm,18.2s,baz=334,slow=39						
TIXI	**Tiksi**	**56.92**	**21**	*ce*P	**P**	**23 00 10.4**	**+0.9**
TIXI				pmax	pmax		
	comp=Z,28nm,1.3s						
TIXI	**Tiksi**	**56.92**	**21**	P	**P**	**23 00 09.4**	**-0.1**
TIXI				IAmb	IAmb	23 00 16.1	
	comp=Z,27nm,1.1s						
SONM	**Songino Array**	**57.02**	**53**	P	**P**	**23 00 11.7**	**+0.9**
	comp=Z,15nm,0.9s,baz=286,slow=9.1,SNR=68						
	comp=Z,15nm,0.9s						
SONM	**Songino Array**	**57.02**	**53**	P	**P**	**23 00 11.0**	**+0.2**
SONM				IAmb	IAmb	23 00 12.9	
	comp=Z,26nm,1.0s						
SHL	**Shillong**	**57.33**	**83**	P	**P**	**23 00 12.9**	**-0.5**
	SNR=12						
SHL	**Shillong**	**57.33**	**83**	P	**P**	**23 00 12.0**	**-1.3**
SHL				pmax	pmax		
	comp=Z,97nm,1.3s						
SHL	**Shillong**	**57.33**	**83**	P	**P**	**23 00 12.0**	**-1.3**
ULN	**Ulaanbaatar**	**57.41**	**52**	P	**P**	**23 00 14.3**	**+0.7**
ULN	**Ulaanbaatar**	**57.41**	**52**	*ce*P	**P**	**23 00 14.2**	**+0.7**
ULN				pmax	pmax		
	comp=Z,24nm,1.0s						
ULN	**Ulaanbaatar**	**57.41**	**52**	P	**P**	**23 00 13.8**	**+0.2**
ULN	**Ulaanbaatar**	**57.41**	**52**	P	**P**	**23 00 14.5**	**+0.9**
	comp=Z,1µmcomp=Z,104nm,1.0s						
RES	**Resolute Bay**	**58.87**	**344**	P	**P**	**23 00 23.7**	**+0.5**
RES				pmax	pmax		
	comp=Z,26nm,1.1s						
RES	**Resolute Bay**	**58.87**	**344**	P	**P**	**23 00 23.7**	**+0.5**
RES				IAmb	IAmb	23 02 00.3	
	comp=Z,25nm,1.1s						
KAAM	**Kaadhehdhoo**	**59.12**	**119**	P	**P**	**23 00 26.6**	**+0.9**
SCHQ	**Schefferville**	**59.16**	**318**	P	**P**	**23 00 25.4**	**-0.1**
	comp=Z,9.1nm,0.7s,baz=80,slow=6.4,SNR=12						
SCHQ				LR	LR	23 23 49.2	
	comp=Z,386nm,21.1s,baz=61,slow=34						
	comp=Z,9.1nm,0.7s						
SCHQ	**Schefferville**	**59.16**	**318**	P	**P**	**23 00 25.1**	**-0.5**
SCHQ				IAmb	IAmb	23 00 59.1	
	comp=Z,29nm,1.1s						
TSUM	**Tsumeb**	**59.19**	**187**	LR	LR	23 26 42.4	
	comp=Z,1µm,21.5s,baz=352,slow=37						
TSUM	**Tsumeb**	**59.19**	**187**	P	**P**	**23 00 25.4**	**-0.8**
CIT	**Chita**	**59.36**	**46**	*e*P	**P**	**23 00 27.5**	**+0.5**
CIT				*e*		23 00 32.1	
CIT				*e*		23 01 11.1	
CIT				*e*		23 02 44.5	
PALK	**Pallekele**	**59.81**	**107**	LR	LR	23 29 21.2	
	comp=Z,725nm,18.8s,baz=315,slow=39						
PALK	**Pallekele**	**59.81**	**107**	P	**P**	**23 00 31.1**	**+0.6**
MATP	**Matopo**	**60.20**	**176**	LR	LR	23 28 19.2	
	comp=Z,706nm,19.9s,baz=354,slow=38						
GBN	**Guysborough**	**60.45**	**306**	P	**P**	**23 00 34.2**	**-0.3**
GBN				IAmb	IAmb	23 00 38.5	
	comp=Z,56nm,1.4s						
LZDM	**Lanzhou Array**	**60.71**	**66**	P	**P**	**23 00 37.0**	**+0.1**
	comp=Z,5.3nm,0.6s,baz=301,slow=6.6,SNR=6.5						
	comp=Z,5.3nm,0.6s						
LZH	**Lanzhou**	**60.75**	**66**	*e*P	**P**	**23 00 37.5**	**+0.6**
LZH				S	**S**	**23 08 56.0**	**+1.8**
LZH				pmax	pmax		
	comp=Z,34nm,1.5s						
LZH				pmax	pmax		
	comp=Z,100nm,4.5s						
LZH				L	L		
	comp=Z,1µm,15.2s						
LZH				L	L		
	comp=Z,690nm,17.1s						
LZH				L	L		
	comp=Z,1µm,16.2s						
ICQ	**Pointe Anglais**	**61.90**	**312**	P	**P**	**23 00 44.8**	**+0.6**
OPO	**Ambohidratompo**	**62.01**	**155**	LR	LR	23 30 01.9	
	comp=Z,291nm,19.0s,baz=336,slow=38						
YAK	**Yakutsk**	**62.07**	**31**	P	**P**	**23 00 44.9**	**-0.3**
	comp=Z,11nm,0.7s,baz=307,slow=14,SNR=6.3						
	comp=Z,11nm,0.7s						
YAK	**Yakutsk**	**62.07**	**31**	*e*P	**P**	**23 00 44.8**	**-0.4**
YAK				*e*		23 01 24.1	
YAK				*e*		23 03 00.7	
YAK				*e*S	**S**	**23 09 10.5**	**+0.7**
YAK				*e*		23 10 36.1	
YAK				*e*SS	**SS**	**23 13 15.8**	**+4.2**
YAK				pmax	pmax		
	comp=Z,17nm,0.9s						
YAK				pmax	pmax		
	comp=N,4.0nm,1.3s						
YAK				pmax	pmax		
	comp=E,6.0nm,1.5s						
YAK				pmax	pmax		
	comp=Z,58nm,2.6s						
YAK				pmax	pmax		
	comp=E,40nm,3.1s						
YAK				pmax	pmax		
	comp=N,47nm,3.3s						
YAK				smax	smax		
	comp=E,96nm,3.6s						
YAK				smax	smax		
	comp=N,51nm,3.3s						
YAK				MLR	MLR		
	comp=Z,1µm,21.0s						
YAK				MLR	MLR		
	comp=N,1µm,19.0s						
YAK				MLR	MLR		
	comp=E,920nm,16.0s						
YAK	**Yakutsk**	**62.07**	**31**	P	**P**	**23 00 44.8**	**-0.4**
YAK				IAmb	IAmb	23 01 08.8	
	comp=Z,18nm,0.8s						
BATG	**Bathurst New B**	**62.30**	**310**	P	**P**	**23 00 47.3**	**+0.2**
BATG				IAmb	IAmb	23 00 52.6	
	comp=Z,31nm,0.9s						
BTO2	**Baotou**	**62.52**	**59**	*e*P	**P**	**23 00 49.3**	**+0.5**
BTO2				S	**S**	**23 09 18.5**	**+2.0**
BTO2				pmax	pmax		
	comp=Z,71nm,0.9s						
BTO2				pmax	pmax		
	comp=Z,500nm,6.5s						
BTO2				L	L		
	comp=Z,2µm,16.2s						
BTO2				L	L		
	comp=Z,1µm,13.8s						
BTO2				L	L		
	comp=Z,2µm,21.8s						
WIN	**Windhoek**	**62.57**	**188**	P	**P**	**23 00 49.4**	**+0.2**
WIN				pmax	pmax		
	comp=Z,32nm,0.9s						
WIN	**Windhoek**	**62.57**	**188**	P	**P**	**23 00 49.4**	**+0.2**
WIN				IAmb	IAmb	23 00 58.4	
	comp=Z,32nm,0.9s						
TNCH	**TengChong**	**62.66**	**79**	P	**P**	**23 00 50.5**	**+0.6**
TNCH				S	**S**	**23 09 16.8**	**-1.9**
TNCH				pmax	pmax		
	comp=Z,53nm,1.2s						
TNCH				pmax	pmax		
	comp=Z,260nm,4.7s						
TNCH				L	L		
	comp=Z,570nm,20.6s						
CD2	**Chengdu**	**63.36**	**71**	P	**P**	**23 00 55.0**	**+0.6**
CD2				S	**S**	**23 09 25.0**	**-2.1**
CD2				pmax	pmax		
	comp=Z,50nm,0.9s						
CD2				pmax	pmax		
	comp=Z,250nm,3.9s						
CD2				L	L		
	comp=Z,770nm,15.9s						
CD2				L	L		
	comp=Z,840nm,17.8s						
CD2				L	L		
	comp=Z,660nm,17.1s						
HHC	**Hu-ho-hao-te**	**63.57**	**58**	*e*P	**P**	**23 00 55.0**	**-0.7**
HHC				S	**S**	**23 09 29.8**	**+0.3**
HHC				pmax	pmax		
	comp=Z,35nm,0.8s						
HHC				pmax	pmax		
	comp=Z,160nm,4.1s						
HHC				L	L		
	comp=Z,920nm,17.6s						
HHC				L	L		
	comp=Z,500nm,16.8s						
HHC				L	L		
	comp=Z,850nm,16.8s						
HILR	**Hailar Array B**	**64.00**	**46**	P	**P**	**23 00 59.0**	**+0.7**
	comp=Z,1.2nm,0.4s,baz=304,slow=6.1,SNR=3.9						
	comp=Z,1.2nm,0.4s						
HIA	**Hailar**	**64.15**	**46**	P	**P**	**23 01 01.1**	**+1.8**
HIA	**Hailar**	**64.15**	**46**	P	**P**	**23 00 59.3**	**0.0**
HIA				pmax	pmax		
	comp=Z,23nm,1.0s						
HIA	**Hailar**	**64.15**	**46**	P	**P**	**23 00 59.3**	**0.0**
HIA				IAmb	IAmb	23 01 01.5	
	comp=Z,23nm,1.0s						
D62A	**Allapoint, All**	**64.16**	**311**	P	**P**	**23 00 59.8**	**+0.5**
D62A				IAmb	IAmb	23 01 05.5	
	comp=Z,27nm,0.8s						
PZH	**PanZhiHua**	**64.26**	**76**	P	**P**	**23 01 01.8**	**+1.3**
EMMW	**East Machias**	**64.45**	**308**	P	**P**	**23 01 01.2**	**-0.1**
EMMW				IAmb	IAmb	23 01 06.8	
	comp=Z,24nm,1.0s						
LBTB	**Lobatse**	**64.65**	**179**	P	**P**	**23 01 03.1**	**+0.4**
LBTB				pmax	pmax		
	comp=Z,76nm,0.9s						
LBTB	**Lobatse**	**64.65**	**179**	P	**P**	**23 01 03.1**	**+0.4**
XLT	**XiLinHaoTe**	**64.83**	**53**	*e*P	**P**	**23 01 04.5**	**+0.6**
XLT				PcP	**PcP**	**23 01 36.0**	**-1.3**
XLT				pmax	pmax		
	comp=Z,22nm,1.1s						
XLT				L	L		
	comp=Z,720nm,16.0s						
XLT				L	L		
	comp=Z,620nm,21.4s						
LDAQ	**Lac Daran**	**64.95**	**312**	P	**P**	**23 01 04.8**	**+0.2**
XAN	**Xi'an**	**65.37**	**65**	P	**P**	**23 01 07.8**	**+0.3**
XAN				pmax	pmax		
	comp=Z,42nm,1.3s						
XAN				L	L		
	comp=Z,300nm,9.6s						
XAN				L	L		
	comp=Z,920nm,17.9s						
XAN				L	L		
	comp=Z,1µm,15.8s						
KMI2	**Kunming**	**65.77**	**77**	P	**P**	**23 01 10.0**	**-0.4**
KMI2				S	**S**	**23 09 55.3**	**-2.0**
KMI2				pmax	pmax		
	comp=Z,20nm,1.3s						
KMI2				pmax	pmax		
	comp=Z,170nm,5.3s						
KMI2				L	L		
	comp=Z,270nm,21.9s						
KMI2				L	L		
	comp=Z,360nm,25.7s						
KMI2				L	L		
	comp=Z,610nm,25.9s						
CHTO	**Chiang Mai**	**66.52**	**85**	P	**P**	**23 01 14.7**	**-0.4**
CHTO	**Chiang Mai**	**66.52**	**85**	P	**P**	**23 01 14.3**	**-0.7**
CHTO				pmax	pmax		
	comp=Z,41nm,1.0s						
CHTO	**Chiang Mai**	**66.52**	**85**	P	**P**	**23 01 14.3**	**-0.7**
CHTO	**Chiang Mai**	**66.52**	**85**	P	**P**	**23 01 15.3**	**+0.2**
	comp=Z,511nmcomp=Z,44nm,1.2s						
CM31	**Chiang Mai Arr**	**66.73**	**85**	P	**P**	**23 01 16.6**	**+0.2**
	SNR=17						
CMAR	**Chiang Mai Arr**	**66.73**	**85**	P	**P**	**23 01 16.2**	**-0.1**
	comp=Z,19nm,0.9s,baz=303,slow=7.7,SNR=121						
CMAR				LR	LR	23 35 50.9	
	comp=Z,183nm,20.8s,baz=305,slow=41						
	comp=Z,19nm,0.9s						
CMAR	**Chiang Mai Arr**	**66.73**	**85**	P	**P**	**23 01 15.9**	**-0.5**
BJT	**Baijiatuau**	**66.98**	**57**	P	**P**	**23 01 18.5**	**+0.8**
BJT	**Baijiatuau**	**66.98**	**57**	P	**P**	**23 01 17.4**	**-0.3**
BJT				pmax	pmax		
	comp=Z,17nm,0.8s						
BJT	**Baijiatuau**	**66.98**	**57**	P	**P**	**23 01 17.4**	**-0.3**
BJT				IAmb	IAmb	23 01 19.2	
	comp=Z,17nm,0.8s						
BJI2	**Beijing**	**66.98**	**57**	P	**P**	**23 01 18.5**	**+0.8**
BJI2				S	**S**	**23 10 10.3**	**-0.9**
BJI2				pmax	pmax		
	comp=Z,15nm,1.0s						
BJI2				pmax	pmax		
	comp=Z,140nm,4.3s						
BJI2				L	L		
	comp=Z,480nm,22.6s						
BJI2				L	L		
	comp=Z,390nm,24.3s						
BJI2				L	L		
	comp=Z,430nm,19.8s						
POGA	**Pongola**	**67.31**	**173**	P	**P**	**23 01 20.7**	**+1.0**
POGA				IAmb	IAmb	23 01 33.8	
	comp=Z,26nm,1.0s						
LBNH	**Lisbon**	**67.39**	**309**	P	**P**	**23 01 20.9**	**+0.7**
LBNH				pmax	pmax		
	comp=Z,116nm,1.8s						
LBNH	**Lisbon**	**67.39**	**309**	P	**P**	**23 01 20.9**	**+0.7**
HNS	**HongShan**	**67.48**	**60**	⇓P	**P**	**23 01 21.5**	**+0.6**
HNS				S	**S**	**23 10 19.5**	**+2.3**
HNS				pmax	pmax		
	comp=Z,29nm,1.3s						
HNS				L	L		
	comp=Z,790nm,18.6s						
HNS				L	L		
	comp=Z,690nm,16.7s						
HNS				L	L		
	comp=Z,570nm,19.1s						
LYN	**LuoYang**	**67.54**	**63**	P	**P**	**23 01 22.0**	**+0.6**
LYN				pmax	pmax		
	comp=Z,26nm,1.0s						
LYN				pmax	pmax		
	comp=Z,180nm,4.4s						
LYN				L	L		
	comp=Z,690nm,16.8s						
LYN				L	L		
	comp=Z,750nm,21.1s						
LYN				L	L		
	comp=Z,1µm,21.5s						
MNTQ	**Montreal, Queb**	**67.68**	**311**	P	**P**	**23 01 21.6**	**-0.3**
FLET	**Fletcher**	**67.73**	**310**	P	**P**	**23 01 21.8**	**-0.5**
FLET				IAmb	IAmb	23 01 28.8	
	comp=Z,21nm,1.0s						
HEH	**HeiHe**	**67.73**	**43**	*e*P	**P**	**23 01 23.0**	**+0.8**
HEH				pmax	pmax		
	comp=Z,47nm,1.0s						
HEH				L	L		
	comp=Z,3µm,20.8s						
HEH				L	L		
	comp=Z,2µm,19.0s						
HEH				L	L		
	comp=Z,2µm,20.6s						
ENH	**Enshi**	**67.84**	**69**	P	**P**	**23 01 23.0**	**-0.3**
ENH				IAmb	IAmb	23 01 24.6	
	comp=Z,38nm,1.1s						
GYA	**Guiyang**	**67.94**	**73**	⇑P	**P**	**23 01 24.3**	**+0.2**
GYA				S	**S**	**23 10 20.8**	**-2.5**
GYA				pmax	pmax		
	comp=Z,20nm,1.3s						
BOSA	**Boshof**	**68.23**	**179**	P	**P**	**23 01 25.9**	**+0.4**
	comp=Z,16nm,0.7s,baz=354,slow=6.8,SNR=42						
BOSA				LR	LR	23 33 55.0	
	comp=Z,399nm,20.3s,baz=357,slow=38						
	comp=Z,16nm,0.7s						
BOSA	**Boshof**	**68.23**	**179**	P	**P**	**23 01 26.0**	**+0.4**
BOSA	**Boshof**	**68.23**	**179**	P	**P**	**23 01 26.0**	**+0.4**
BILL	**Bilibino**	**68.58**	**14**	*i* P	**P**	**23 01 28.1**	**+0.8**
BILL				pmax	pmax		
	comp=Z,14nm,1.1s						
BILL	**Bilibino**	**68.58**	**14**	P	**P**	**23 01 27.5**	**+0.2**
BILL				IAmb	IAmb	23 01 33.5	
	comp=Z,46nm,1.4s						
SLVN	**Son La**	**68.82**	**80**	P	**P**	**23 01 30.2**	**+0.6**
SLVN	**Son La**	**68.82**	**80**	P	**P**	**23 01 29.0**	**-0.6**
SLVN				IAmb	IAmb	23 01 31.2	
	comp=Z,19nm,1.0s						
J59A	**Piesco**	**69.36**	**310**	P	**P**	**23 01 33.3**	**+0.7**
J59A				IAmb	IAmb	23 01 39.6	
	comp=Z,23nm,1.0s						
SEY	**Seymchan**	**69.38**	**23**	P	**P**	**23 01 33.1**	**+0.8**
	comp=Z,5.2nm,0.8s,baz=303,slow=3.7,SNR=12						
SEY				LR	LR	23 37 00.2	
	comp=Z,835nm,19.1s,baz=322,slow=40						
	comp=Z,5.2nm,0.8s						
SEY	**Seymchan**	**69.38**	**23**	*ce*P	**P**	**23 01 32.7**	**+0.4**
SEY				pmax	pmax		
	comp=Z,17nm,1.3s						
TIA	**Tai'an**	**69.75**	**59**	P	**P**	**23 01 35.5**	**+0.4**
TIA				pmax	pmax		
	comp=Z,45nm,0.5s						
BNX	**BinXian**	**70.42**	**46**	⇓P	**P**	**23 01 39.0**	**-0.1**
BNX				pmax	pmax		
	comp=Z,24nm,0.8s						
CN2	**Changchun**	**70.48**	**49**	⇓P	**P**	**23 01 39.3**	**-0.2**
CN2				*e*S	**S**	**23 10 49.5**	**-3.1**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.7s						
CN2				pmax	pmax		
	comp=Z,100nm,5.0s						
CN2				L	L		
	comp=Z,200nm,12.0s						
CN2				L	L		
	comp=Z,200nm,12.0s						
CN2				L	L		
	comp=Z,200nm,12.0s						
PECO	**Prince Edward**	**70.54**	**311**	P	**P**	**23 01 40.1**	**+0.3**
KLR	**Kul'dur**	**70.58**	**42**	P	**P**	**23 01 40.4**	**+0.4**
	comp=Z,11nm,0.8s,baz=313,slow=7.4,SNR=25						
KLR				LR	LR	23 34 11.1	
	comp=Z,1µm,21.2s,baz=312,slow=37						
	comp=Z,11nm,0.8s						
KLR	**Kul'dur**	**70.58**	**42**	*ce*P	**P**	**23 01 39.3**	**-0.7**
KLR				pmax	pmax		
	comp=Z,28nm,1.3s						
BINY	**Binghamton**	**70.99**	**309**	P	**P**	**23 01 42.8**	**+0.1**
DL2	**Dalian**	**71.08**	**55**	P	**P**	**23 01 40.3**	**-2.9**
DL2				S	**S**	**23 10 57.3**	**-2.5**
DL2				pmax	pmax		
	comp=Z,27nm,0.8s						
DL2				pmax	pmax		
	comp=Z,180nm,6.3s						
DL2				L	L		
	comp=Z,800nm,16.9s						
DL2				L	L		
	comp=Z,1µm,16.8s						
DL2				L	L		
	comp=Z,930nm,19.4s						
WHN	**Wuhan**	**71.13**	**66**	P	**P**	**23 01 43.5**	**-0.1**
WHN				pmax	pmax		
	comp=Z,40nm,0.6s						
SADO	**Sadowa**	**71.26**	**313**	LR	LR	23 32 43.5	
	comp=Z,1µm,18.1s,baz=75,slow=36						
SADO	**Sadowa**	**71.26**	**313**	P	**P**	**23 01 44.6**	**+0.4**
SADO				IAmb	IAmb	23 01 51.5	

	comp=Z,26nm,0.7s						
MA2	Magadan	71.43	26	P	P	23 01 45.9	+1.0
	comp=Z,18nm,0.9s,baz=317,slow=2.7,SNR=5.2						
MA2				LR	LR	23 36 36.5	
	comp=Z,729nm,18.7s,baz=315,slow=39						
	comp=Z,18nm,0.9s						
MA2	Magadan	71.43	26	P	P	23 01 47.0	+2.1
MA2	Magadan	71.43	26	i P	P	23 01 45.0	+0.1
MA2				pmax	pmax		
	comp=Z,25nm,1.0s						
MA2	Magadan	71.43	26	P	P	23 01 45.2	+0.3
MA2				IAmb	IAmb	23 01 51.2	
	comp=Z,34nm,1.1s						
CNSH	ChangSha	71.50	69	⇑P	P	23 01 46.5	+0.6
CNSH				S	S	23 11 02.5	-2.4
CNSH				pmax	pmax		
	comp=Z,40nm,1.2s						
CNSH				L	L		
	comp=Z,500nm,15.8s						
CNSH				L	L		
	comp=Z,350nm,15.1s						
CNSH				L	L		
	comp=Z,360nm,19.0s						
NBPV	Pedro Velho	71.64	245	eP	P	23 01 48.0	+1.2
RCBR	Riachuelo	71.64	246	LR	LR	23 33 41.5	
	comp=Z,254nm,18.9s,baz=36,slow=36						
RCBR	Riachuelo	71.64	246	P	P	23 01 47.4	+0.5
RCBR				pmax	pmax		
	comp=Z,20nm,0.8s						
RCBR	Riachuelo	71.64	246	P	P	23 01 47.4	+0.5
RCBR				IAmb	IAmb	23 01 55.0	
	comp=Z,20nm,0.8s						
GRNR	Gornyy	71.89	38	⇑iP	P	23 01 48.4	+0.5
GRNR				pmax	pmax		
	comp=Z,20nm,1.0s						
GRNR				MLR	MLR		
	comp=E,560nm,22.0s						
GRNR				MLR	MLR		
	comp=N,600nm,14.0s						
GRNR				MLR	MLR		
	comp=Z,710nm,12.0s						
BSI	Banda Aceh	71.90	98	P	P	23 01 47.4	-1.1
	comp=Z,26nm,1.6s						
PSUB	Penn St. - Bra	72.04	307	P	P	23 01 48.9	0.0
SUR	Sutherland	72.05	183	LR	LR	23 36 54.0	
	comp=Z,754nm,18.3s,baz=1.5,slow=39						
SUR	Sutherland	72.05	183	P	P	23 01 49.8	+0.7
G31M	Satah River	72.19	351	P	P	23 01 49.6	+0.2
G31M				IAmb	IAmb	23 01 54.6	
	comp=Z,25nm,1.1s						
BMAR	Burnt Mountain	72.60	356	P	P	23 01 52.7	+0.8
YKA	Yellowknife Ar	72.69	341	P	P	23 01 52.3	-0.1
	comp=Z,4.5nm,1.0s,baz=40,slow=5.8,SNR=8.4						
YKA				LR	LR	23 34 31.9	
	comp=Z,711nm,18.9s,baz=32,slow=36						
	comp=Z,4.5nm,1.0s						
YKA	Yellowknife Ar	72.69	341	i P	P	23 01 54.7	+2.3
YKA				pmax	pmax		
	comp=Z,3.0nm,0.6s						
YKA	Yellowknife Ar	72.69	341	P	P	23 01 51.8	-0.6
GRHM	Grahamstown, E	72.90	178	P	P	23 01 55.0	+1.1
EPYK	Eagle Plains	73.00	352	P	P	23 01 54.2	-0.1
EPYK				IAmb	IAmb	23 01 59.6	
	comp=Z,21nm,1.1s						
SSPA	Standing Stone	73.08	309	P	P	23 01 55.6	+0.5
SDMD	Soldier's Deli	73.20	307	P	P	23 01 56.1	+0.2
NJ2	Nanjing	73.35	62	eP	P	23 01 57.0	+0.2
NJ2				pmax	pmax		
	comp=Z,29nm,0.9s						
ERPA	Erie	73.39	311	P	P	23 01 56.7	-0.2
ERPA				IAmb	IAmb	23 02 04.2	
	comp=Z,33nm,0.7s						
MLSI	Meulaboh, Aceh	73.53	98	P	P	23 01 58.2	0.0
	comp=Z,106nm,1.1s						
USA0B	Ussuriysk Arra	73.92	46	P	P	23 01 59.2	-0.8
USA0B				pmax	pmax		
	comp=Z,42nm,1.5s						
USA0B	Ussuriysk Arra	73.92	46	P	P	23 01 59.2	-0.8
USA0B				IAmb	IAmb	23 02 05.0	
	comp=Z,42nm,1.5s						
USRK	Ussuriysk Ar.	73.92	46	P	P	23 01 59.5	-0.5
	comp=Z,12nm,0.8s,baz=302,slow=4.7,SNR=15						
USRK				LR	LR	23 35 42.4	
	comp=Z,586nm,18.8s,baz=314,slow=37						
	comp=Z,12nm,0.8s						
TBO	Thunder Bay	74.13	321	P	P	23 02 01.6	+0.4
IMAR	Indian Mountai	74.38	359	P	P	23 02 03.1	+0.8
PRP	Porcupine Dome	74.56	356	P	P	23 02 03.6	0.0
PRP				IAmb	IAmb	23 02 10.5	
	comp=Z,28nm,1.3s						
NBPS	Pedro II - PI	74.60	251	eP	P	23 02 06.6	+2.1
QIZ	Qiongzhong	74.67	78	P	P	23 02 05.3	+0.5
QIZ				S	S	23 11 41.0	-0.1
QIZ				SS	SS	23 16 32.5	+4.5
QIZ				pmax	pmax		
	comp=Z,35nm,1.4s						
QIZ				pmax	pmax		
	comp=Z,310nm,4.2s						
QIZ				L	L		
	comp=Z,280nm,16.5s						
QIZ				L	L		
	comp=Z,420nm,20.6s						
QIZ				L	L		
	comp=Z,310nm,15.8s						
QIZ	Qiongzhong	74.67	78	P	P	23 02 04.2	-0.6
QIZ				IAmb	IAmb	23 02 06.4	
	comp=Z,40nm,1.1s						
TYV	Tymovskoe	74.70	35	eP	P	23 02 04.9	+0.5
TYV				pmax	pmax		
	comp=Z,10.0nm,1.2s						
TYV				pmax	pmax		
	comp=Z,100nm,3.2s						
TPTI		74.77	99	P	P	23 02 05.4	0.0
	comp=Z,34nm,1.1s						
MCWV	Mont Chateau	74.86	309	P	P	23 02 05.9	+0.3
KCSI	Kotacane, Aceh	75.05	98	P	P	23 02 04.9	-2.2
	comp=Z,30nm,0.8s						
MLY	Manley	75.27	358	P	P	23 02 08.0	+0.4
MLY				IAmb	IAmb	23 02 10.2	
	comp=Z,21nm,1.0s						
COLA	College	75.32	357	P	P	23 02 09.4	+1.7
AAM	Ann Arbor	75.36	313	P	P	23 02 08.2	-0.2
AAM				pmax	pmax		
	comp=Z,99nm,1.6s						
AAM	Ann Arbor	75.36	313	P	P	23 02 08.2	-0.2
ILAR	Eielson Array	75.38	356	P	P	23 02 08.5	+0.4
	comp=Z,4.0nm,1.0s,baz=2.8,slow=4.3,SNR=20						
ILAR				LR	LR	23 34 37.0	
	comp=Z,354nm,21.7s,baz=1.0,slow=35						
	comp=Z,4.0nm,1.0s						
ILAR	Eielson Array	75.38	356	P	P	23 02 08.2	+0.1
SSE	Sheshan	75.51	62	P	P	23 02 07.8	-1.6
SSE				pmax	pmax		
	comp=Z,5.0nm,0.4s						
SSE				pmax	pmax		
	comp=Z,93nm,4.1s						
SSE				L	L		
	comp=Z,260nm,19.3s						
SSE				L	L		
	comp=Z,200nm,18.9s						
DAWY	Dawson	75.52	353	P	P	23 02 09.1	+0.1
DAWY				IAmb	IAmb	23 02 15.7	
	comp=Z,35nm,1.2s						
HDA	Harding Lake	75.74	356	P	P	23 02 10.2	-0.1
HDA				IAmb	IAmb	23 02 16.3	
	comp=Z,54nm,1.3s						
KS19	Wonju Array Si	75.82	53	P	P	23 02 10.3	-0.8
KS19				IAmb	IAmb	23 02 12.9	
	comp=Z,41nm,1.1s						
KSAR	Wonju Array Be	75.87	53	P	P	23 02 11.1	-0.3
KSAR	Wonju Array Be	75.87	53	P	P	23 02 11.1	-0.3
KSRS	Korea Array	75.89	53	P	P	23 02 11.6	+0.1
	comp=Z,19nm,1.0s,baz=316,slow=5.6,SNR=31						
KSRS				LR	LR	23 38 01.5	
	comp=Z,520nm,21.9s,baz=325,slow=38						
	comp=Z,19nm,1.0s						
ULM	Lac du Bonnet	75.99	325	P	P	23 02 12.2	+0.3
	comp=Z,13nm,1.1s,baz=71,slow=3.6,SNR=6.3						
	comp=Z,13nm,1.1s						
TJN	Taejon	76.23	54	P	P	23 02 14.4	+0.9
L29M	L29M	76.32	352	P	P	23 02 13.6	0.0
L29M				IAmb	IAmb	23 02 36.2	
	comp=Z,26nm,1.5s						
ACSO	Alum Creek Sta	76.33	311	P	P	23 02 14.0	-0.1
GSI	Gunungsitoli	76.34	100	P	P	23 02 13.7	-0.7
GSI	Gunungsitoli	76.34	100	P	P	23 02 14.4	0.0
	comp=Z,69nm,1.2s						
PSI	Prapat	76.39	98	P	P	23 02 14.4	-0.5
PSI	Prapat	76.39	98	P	P	23 02 14.0	-0.9
PSI				pmax	pmax		
	comp=Z,56nm,1.1s						
PSI	Prapat	76.39	98	P	P	23 02 14.0	-0.9
	comp=Z,754nmcomp=Z,54nm,1.4s						
RPSI	Rantau Prapat	76.46	98	P	P	23 02 14.0	-1.1
RPSI				IAmb	IAmb	23 02 15.6	
	comp=Z,56nm,1.1s						
BCAR	Beaver Creek A	76.72	354	P	P	23 02 16.7	+0.9
MDP	Montagnes des	76.77	266	LR	LR	23 32 15.8	
	comp=Z,203nm,21.9s,baz=47,slow=33						
GDHS	Morne Mazeau,	76.81	280	P	P	23 02 16.1	-1.0
IPM	Ipoh	76.93	95	P	P	23 02 16.5	-1.2
IPM				IAmb	IAmb	23 02 18.1	
	comp=Z,51nm,1.4s						
IPM	Ipoh	76.93	95	P	P	23 02 17.8	+0.1
	comp=Z,32nm,1.9s						
MENT	Mentasta	77.00	354	P	P	23 02 19.7	+2.3
O49A	Covington	77.14	312	P	P	23 02 17.9	-0.7
O49A				IAmb	IAmb	23 02 24.0	
	comp=Z,39nm,0.8s						
FDFM	Morne la Roset	77.29	279	P	P	23 02 19.8	0.0
BIM	Bigot	77.36	278	P	P	23 02 20.2	+0.1
YSS	Yuzhno-Sakhali	77.55	38	P	P	23 02 22.0	+1.2
YSS	Yuzhno-Sakhali	77.55	38	ceP	P	23 02 21.9	+1.2
YSS				pmax	pmax		
	comp=Z,84nm,1.0s						
YSS	Yuzhno-Sakhali	77.55	38	P	P	23 02 20.9	+0.2
PBSI	Pulau Batu	77.75	100	P	P	23 02 22.4	+0.1
	comp=Z,124nm,1.5s						
CUT	Chulitna	77.89	357	P	P	23 02 22.2	-0.2
U54A	Nelsons Funny	78.07	308	P	P	23 02 23.7	-0.2
SPMN	Marine on St.	78.19	320	P	P	23 02 23.5	-0.8
SPMN				IAmb	IAmb	23 02 30.0	
	comp=Z,41nm,1.4s						
MNSI	Mandailing Nat	78.19	99	P	P	23 02 23.6	-1.1
	comp=Z,41nm,0.8s						
SKT	Skwentna	78.35	358	P	P	23 02 24.4	-0.6
SKT				IAmb	IAmb	23 02 31.0	
	comp=Z,25nm,1.0s						
HYT	Haines Junctio	78.47	351	P	P	23 02 25.9	+0.1
HYT				IAmb	IAmb	23 02 57.0	
	comp=Z,22nm,1.2s						
PMR	Palmer	78.66	357	P	P	23 02 27.4	+0.8
HUMP	Col San Antoni	78.73	284	P	P	23 02 27.6	-0.1
PETK	Petropavlovsk-	78.91	27	LR	LR	23 39 44.6	
	comp=Z,667nm,21.1s,baz=311,slow=38						
SJG	San Juan	78.97	284	LR	LR	23 35 44.8	
	comp=Z,112nm,19.7s,baz=63,slow=34						
SJG	San Juan	78.97	284	P	P	23 02 28.1	-0.9
SJG				pmax	pmax		
	comp=Z,89nm,1.6s						
SJG	San Juan	78.97	284	P	P	23 02 28.1	-0.9
SJG				IAmb	IAmb	23 02 37.7	
	comp=Z,89nm,1.6s						
BLO	Bloomington	79.07	312	P	P	23 02 28.9	-0.4
BLO				pmax	pmax		
	comp=Z,53nm,0.9s						
BLO	Bloomington	79.07	312	P	P	23 02 28.9	-0.4
PET	Petropavlovsk	79.31	26	eP	P	23 02 30.4	+0.1
PET				eS	S	23 12 31.2	+0.6
PET				pmax	pmax		
	comp=Z,100nm,8.2s						
PET				MLR	MLR		
	comp=Z,700nm,18.0s						
PET				MLR	MLR		
	comp=Z,700nm,20.0s						
ASAJ	Asahikawa	79.53	40	P	P	23 02 31.6	-0.1
	comp=Z,24nm,1.0s,baz=318,slow=5.3,SNR=3.2						
ASAJ				LR	LR	23 41 54.7	
	comp=Z,935nm,18.1s,baz=298,slow=39						
	comp=Z,24nm,1.0s						
JKA	Kamikawa-asahi	79.53	40	P	P	23 02 31.4	-0.3
WCI	Wyandotte Cave	79.58	311	P	P	23 02 31.4	-0.7
WCI				pmax	pmax		
	comp=Z,29nm,0.9s						
WCI	Wyandotte Cave	79.58	311	P	P	23 02 31.4	-0.7
WCI				IAmb	IAmb	23 02 38.0	
	comp=Z,29nm,0.9s						
PPI	Padang Panjang	79.62	99	P	P	23 02 35.4	+2.8
DLBC	Dease Lake	79.65	347	LR	LR	23 41 18.0	
	comp=Z,830nm,18.0s,baz=354,slow=38						
HDIL	Hopedale	79.66	315	P	P	23 02 31.7	-0.8
HDIL				IAmb	IAmb	23 02 38.1	
	comp=Z,33nm,0.9s						
N18K	Kilae Creek	79.71	0	P	P	23 02 32.8	+0.4
N18K				IAmb	IAmb	23 02 39.0	
	comp=Z,29nm,1.1s						
BG3	Lake Jocassee	79.76	307	P	P	23 02 32.8	-0.3
TKL	Tuckaleechee C	79.83	308	LR	LR	23 37 57.4	
	comp=Z,509nm,19.0s,baz=64,slow=36						
TKL	Tuckaleechee C	79.83	308	P	P	23 02 32.5	-1.0
TKL				pmax	pmax		
	comp=Z,18nm,0.9s						
TKL	Tuckaleechee C	79.83	308	P	P	23 02 32.5	-1.0
N41A	Harden Midland	80.40	316	P	P	23 02 35.5	-1.0
N41A				IAmb	IAmb	23 02 41.7	
	comp=Z,38nm,1.0s						
JNU	Nakatsue	80.54	55	LR	LR	23 42 40.3	
	comp=Z,608nm,18.1s,baz=350,slow=39						
USIN	University of	80.55	312	P	P	23 02 36.5	-0.8
SDSI	Sungai Dareh	80.71	99	P	P	23 02 36.8	-1.7
	comp=Z,31nm,1.4s						
CMC01	Camacan, BA	80.90	241	eP	P	23 02 41.3	+1.9
DR12	Loma Pena Alta	80.94	287	P	P	23 02 39.7	-0.1
ECSD	EROS Data Cent	81.14	321	P	P	23 02 39.6	-0.8
KRJI	Kerinci	81.48	100	P	P	23 02 42.7	0.0
WVT	Waverly	81.91	311	P	P	23 02 43.4	-1.2
WVT				pmax	pmax		
	comp=Z,11nm,0.8s						
WVT	Waverly	81.91	311	P	P	23 02 43.4	-1.2
GUA01	Guaratinga, BA	81.96	241	eP	P	23 02 45.8	+0.8
SMTB	Santa Maria do	82.09	252	eP	P	23 02 47.7	+1.9
SDDR	Presa de Saban	82.22	288	P	P	23 02 46.6	0.0
CCM	Cathedral Cave	82.50	314	P	P	23 02 47.0	-0.6
CCM				pmax	pmax		
	comp=Z,16nm,0.8s						
CCM	Cathedral Cave	82.50	314	P	P	23 02 47.0	-0.6
CCM				IAmb	IAmb	23 02 53.1	
	comp=Z,16nm,0.8s						
SDBA	SAO DESIDERIO	82.56	247	eP	P	23 02 49.6	+1.3
KDAK	Kodiak Island	82.58	358	LR	LR	23 39 28.7	
	comp=Z,325nm,21.7s,baz=7.3,slow=36						
KDAK	Kodiak Island	82.58	358	P	P	23 02 47.4	-0.3
KDAK				pmax	pmax		
	comp=Z,51nm,1.1s						
KDAK	Kodiak Island	82.58	358	P	P	23 02 47.4	-0.3
KDAK				IAmb	IAmb	23 02 54.4	
	comp=Z,51nm,1.1s						
MJAR	Matsushiro Arr	82.60	48	P	P	23 02 48.2	0.0
	comp=Z,3.5nm,0.8s,baz=333,slow=5.3,SNR=9.1						
MJAR				LR	LR	23 41 52.6	
	comp=Z,525nm,18.8s,baz=324,slow=37						
	comp=Z,3.5nm,0.8s						
MJAR	Matsushiro Arr	82.60	48	P	P	23 02 47.3	-1.0
MJAR				IAmb	IAmb	23 02 49.6	
	comp=Z,42nm,1.9s						
MASI	Maura Aman, Be	82.75	100	P	P	23 02 49.3	0.0
DSRI	Dabo	82.81	97	P	P	23 02 49.6	0.0
	comp=Z,926nmcomp=Z,49nm,1.4s						
JOW	Kunigami	83.00	61	P	P	23 02 49.4	-1.0
	comp=Z,49nm,1.1s,baz=290,slow=7.9,SNR=5.4						
JOW				LR	LR	23 44 34.4	
	comp=Z,408nm,20.2s,baz=340,slow=39						
	comp=Z,49nm,1.1s						
JOW	Kunigami	83.00	61	P	P	23 02 50.4	0.0
JOW	Kunigami	83.00	61	P	P	23 02 49.4	-1.0
OHAK	Old Harbor	83.16	359	P	P	23 02 51.6	+0.9
LRAL	Lakeview Retre	83.56	308	P	P	23 02 53.1	-0.1
ARCA	Ara§uai, MG	83.60	242	eP	P	23 02 54.7	+1.1
NMDO	Nuevo Mundo	83.88	292	P	P	23 02 54.5	-0.5
NMDO				IAmb	IAmb	23 03 02.7	
	comp=Z,26nm,1.0s						
OXF	Oxford	83.97	311	P	P	23 02 54.5	-0.8
OXF				pmax	pmax		
	comp=Z,103nm,1.6s						
OXF	Oxford	83.97	311	P	P	23 02 54.5	-0.8
JANB	Januaria	83.97	245	eP	P	23 02 56.4	+0.9
SHEM	Shemya Is, Ala	84.03	18	LR	LR	23 44 41.2	
	comp=Z,421nm,18.9s,baz=346,slow=39						
RSSD	Black Hills	84.25	325	P	P	23 02 55.8	-1.1
RSSD				pmax	pmax		
	comp=Z,10.0nm,1.1s						
RSSD	Black Hills	84.25	325	P	P	23 02 55.8	-1.1
SJMB	Sao Joao De Ma	84.39	240	eP	P	23 03 00.6	+3.1
BOAV	Boa Vista	84.54	269	P	P	23 02 58.4	-0.1
BOAV				IAmb	IAmb	23 03 05.6	
	comp=Z,38nm,1.5s						
BOAV	Boa Vista	84.54	269	eP	P	23 03 00.6	+2.1
FCAR	Ozark Folk Cen	84.54	313	P	P	23 02 57.6	-0.6
FCAR				IAmb	IAmb	23 03 04.0	
	comp=Z,38nm,1.1s						
KSU1	Kansas State U	84.59	318	P	P	23 02 58.0	-0.4
BRAL	Brewton	84.89	307	P	P	23 02 59.6	-0.4
WHAR	Wooly Hollow	85.06	313	P	P	23 03 00.6	-0.2
MDSI	Maura Dua	85.09	100	P	P	23 02 59.8	-1.4
BBB	Bella Bella	85.15	343	LR	LR	23 44 53.6	
	comp=Z,535nm,19.3s,baz=34,slow=38						
ITTB	Itaituba	85.20	260	eP	P	23 03 03.1	+1.3
CHIV	Chivirico	85.28	292	P	P	23 03 01.5	-0.6
NEW	Newport	85.74	335	LR	LR	23 43 53.8	
	comp=Z,553nm,19.8s,baz=29,slow=37						
DIAM	Diamantina, MG	85.77	242	eP	P	23 03 05.6	+1.0
CAIB	Caibarien	85.78	296	P	P	23 03 04.5	-0.1
CAIB				IAmb	IAmb	23 03 12.2	
	comp=Z,50nm,1.2s						
JHJ	Hachijo jima 2	85.94	49	LR	LR	23 45 06.2	
	comp=Z,356nm,18.4s,baz=341,slow=38						
BOZ	Bozeman (W)	86.13	331	P	P	23 03 06.2	0.0
BOZ				pmax	pmax		
	comp=Z,10.0nm,1.1s						
BOZ	Bozeman (W)	86.13	331	P	P	23 03 06.2	0.0
VBMS	Vicksburg	86.25	310	P	P	23 03 06.8	+0.1
YHH	Holmes Hill	86.51	330	P	P	23 03 08.1	-0.2
TPI	Tanjungpandan	86.62	96	P	P	23 03 09.5	+0.7
SNDB	Serra Nova Dou	86.87	252	eP	P	23 03 12.2	+2.2
BDFB	Brasilia	86.96	247	P	P	23 03 11.8	+1.3
	comp=Z,12nm,0.9s,baz=54,slow=6.9,SNR=14						
BDFB				LR	LR	23 44 36.9	
	comp=Z,471nm,18.5s,baz=60,slow=37						
	comp=Z,12nm,0.9s						
BDFB	Brasilia	86.96	247	P	P	23 03 10.6	+0.1
BDFB				pmax	pmax		
	comp=Z,35nm,0.9s						
BDFB	Brasilia	86.96	247	P	P	23 03 10.6	+0.1
PDAR	Pinedale Array	87.69	328	P	P	23 03 13.1	-0.8
	comp=Z,1.4nm,0.9s,baz=56,slow=3.7,SNR=8.4						
PDAR				LR	LR	23 44 54.1	
	comp=Z,557nm,18.0s,baz=20,slow=37						
	comp=Z,1.4nm,0.9s						
PDAR	Pinedale Array	87.69	328	P	P	23 03 12.7	-1.2
STKI	Sintang	87.75	92	P	P	23 03 15.9	+1.6
PMNB	Patos De Minas	87.83	244	eP	P	23 03 15.3	+0.6
SDV	Santo Domingo	88.15	280	LR	LR	23 40 10.8	
	comp=Z,117nm,19.7s,baz=68,slow=34						
SDV	Santo Domingo	88.15	280	P	P	23 03 16.1	-0.4
MACA	Manacapuru-AM	88.20	264	P	P	23 03 16.1	-0.4
MACA	Manacapuru-AM	88.20	264	eP	P	23 03 17.8	+1.4
BSCB	Bom Sucesso	88.39	241	eP	P	23 03 18.6	+1.3
ISCO	Idaho Springs	88.42	324	P	P	23 03 16.5	-1.1
ISCO				pmax	pmax		
	comp=Z,14nm,1.4s						
ISCO	Idaho Springs	88.42	324	P	P	23 03 16.5	-1.1
ISCO				IAmb	IAmb	23 03 23.0	
	comp=Z,14nm,1.4s						
IPMB	Ipameri, GO	88.69	245	eP	P	23 03 18.1	-0.5
WMOK	Wichita Mounta	89.03	316	P	P	23 03 19.7	-0.4
WMOK				pmax	pmax		
	comp=Z,13nm,1.2s						
WMOK	Wichita Mounta	89.03	316	P	P	23 03 19.7	-0.4
CLDB	Colider	89.47	255	eP	P	23 03 24.1	+1.7
BBJI	Bungbulang	89.64	100	P	P	23 03 22.3	-0.9
BBJI				IAmb	IAmb	23 03 37.5	
	comp=Z,29nm,0.9s						
ARAG	Araguaiana, MT	89.72	249	eP	P	23 03 24.5	+1.0
SDCO	Great Sand Dun	90.03	323	P	P	23 03 24.3	-0.8
BB19B	Bebedouro	90.99	243	eP	P	23 03 31.9	+2.6
HKT	Hockley	91.01	311	P	P	23 03 28.5	-0.8
HKT				pmax	pmax		
	comp=Z,17nm,1.1s						
HKT	Hockley	91.01	311	P	P	23 03 28.5	-0.8
HKT				IAmb	IAmb	23 03 36.5	
	comp=Z,17nm,1.1s						
SGC2	Sao Gabriel da	91.11	271	eP	P	23 03 31.5	+1.3
VAO	Valinhos	91.24	241	P	P	23 03 30.6	+0.1
VAO				IAmb	IAmb	23 03 37.6	
	comp=Z,24nm,1.0s						
VAO	Valinhos	91.24	241	eP	P	23 03 32.5	+2.0
ELK	Elko	91.64	330	LR	LR	23 47 03.8	
	comp=Z,463nm,18.1s,baz=38,slow=37						
BRDY	Brady	91.78	314	P	P	23 03 32.5	-0.6
BRDY				IAmb	IAmb	23 03 39.7	
	comp=Z,26nm,1.3s						
SPB	Sao Paulo	91.96	241	P	P	23 03 33.3	-0.3
SPB				IAmb	IAmb	23 03 41.0	
	comp=Z,16nm,0.8s						
SPB	Sao Paulo	91.96	241	eP	P	23 03 35.6	+1.9
SALV	Santo Antonio	92.65	252	eP	P	23 03 39.0	+1.9
ANMO	Albuquerque	92.74	321	LR	LR	23 46 43.2	
	comp=Z,606nm,18.3s,baz=42,slow=36						
ANMO	Albuquerque	92.74	321	ceP	P	23 03 37.4	-0.2
ANMO				pmax	pmax		
	comp=Z,5.0nm,1.3s						
PP1B	Ponte de Pedra	93.17	250	eP	P	23 03 40.8	+1.3
YBH	Yreka Blue Hor	93.36	336	LR	LR	23 47 13.7	
	comp=Z,412nm,18.8s,baz=18,slow=36						
ROSC	El Rosal	93.54	279	LR	LR	23 43 52.2	
	comp=Z,285nm,18.3s,baz=47,slow=34						
ROSC	El Rosal	93.54	279	P	P	23 03 40.6	-1.3
ROSC				pmax	pmax		
	comp=Z,21nm,1.1s						
ROSC	El Rosal	93.54	279	P	P	23 03 40.6	-1.3
ROSC				IAmb	IAmb	23 03 48.2	
	comp=Z,21nm,1.1s						
DAV	Davao City (W)	94.03	77	LR	LR	23 50 16.4	
	comp=Z,149nm,21.1s,baz=332,slow=38						
TOLI2	Tolitoli	94.23	85	P	P	23 03 42.1	-2.4
TOLI2				IAmb	IAmb	23 03 44.2	
	comp=Z,12nm,1.2s						
NVAR	Mina Array Bea	94.81	331	P	P	23 03 47.0	-0.2
	comp=Z,1.9nm,0.8s,baz=42,slow=2.7,SNR=7.8						
NVAR				LR	LR	23 47 59.9	
	comp=Z,581nm,18.6s,baz=35,slow=36						
	comp=Z,1.9nm,0.8s						
NVAR	Mina Array Bea	94.81	331	P	P	23 03 46.2	-0.9
PTLB	Pontes e Lacer	94.89	254	P	P	23 03 46.5	-0.9
PTLB	Pontes e Lacer	94.89	254	eP	P	23 03 48.8	+1.4
TX31	Lajitas Ar. Si	95.83	316	P	P	23 03 50.7	-1.0
TXAR	Lajitas Array	95.83	316	P	P	23 03 51.6	-0.2
	comp=Z,3.3nm,1.0s,baz=72,slow=4.1,SNR=12						
TXAR				LR	LR	23 47 47.6	
	comp=Z,791nm,18.2s,baz=40,slow=36						
	comp=Z,3.3nm,1.0s						
TXAR	Lajitas Array	95.83	316	P	P	23 03 50.7	-1.0
SIV	San Ignacio	96.67	255	LR	LR	23 46 26.4	
	comp=Z,295nm,21.9s,baz=100,slow=35						
KAPI	Kappang	97.33	90	LR	LR	23 53 43.7	
	comp=Z,141nm,19.9s,baz=299,slow=39						
JTS	Las Juntas de	97.84	290	LR	LR	23 42 27.0	
	comp=Z,209nm,20.3s,baz=39,slow=32						
PFO	Pinyon Flats O	98.31	328	LR	LR	23 50 28.7	
	comp=Z,418nm,18.1s,baz=24,slow=37						
OTAV	Otavalo	99.65	278	eP	Pdif	23 04 10.3	+0.7
WRA	Warramunga Arr	117.65	94	PKP	PKPdf	23 09 09.7	-1.7
	comp=Z,2.0nm,0.9s,baz=298,slow=2.3,SNR=12						
FORT	Forrest	118.85	107	PKPdf	PKiKP	23 09 13.6	+0.1
AS31	Alice Springs	119.42	97		PKPdf	23 09 13.4	-1.4
ASAR	Alice Springs	119.42	97	PKP	PKPdf	23 09 13.2	-1.6
	comp=Z,7.4nm,0.8s,baz=333,slow=1.9,SNR=61						
ASAR				PKKPbc	PKKPbc	23 19 26.1	+0.7
	comp=Z,1.1nm,0.8s,baz=122,slow=4.3,SNR=7.2						
ASAR	Alice Springs	119.42	97	PKIKP	PKPdf	23 09 13.5	-1.3
ASAR	Alice Springs	119.42	97		PKPdf	23 09 13.5	-1.3
QIS	Mount Isa	122.05	91	P	PKPdf	23 09 19.4	-0.5
QIS	Mount Isa	122.05	91	P	PKPdf	23 09 18.9	-1.0
CTA	Charters Tower	126.89	86	PKP	PKPdf	23 09 28.1	-1.0
	comp=Z,8.7nm,0.8s,baz=313,slow=2.7,SNR=12						
CTAO	Charters Tower	126.89	86	PKIKP	PKPdf	23 09 27.8	-1.4
CTAO	Charters Tower	126.89	86		PKPdf	23 09 27.8	-1.4
HTT	Hallett	128.18	105	P	PKPdf	23 09 30.9	-0.4
QLP	Quilpie	128.88	94	P	PKiKP	23 09 33.4	0.0
STKA	Stephens Creek	129.46	102	P	PKPdf	23 09 34.0	+0.3
STKA	Stephens Creek	129.46	102	PKP	PKPdf	23 09 32.7	-1.1
	comp=Z,3.6nm,0.8s,baz=288,slow=3.2,SNR=5.4						
QSPA	South Pole Qui	129.81	180	PKP	PKPdf	23 09 31.6	-1.7
	comp=Z,1.0nm,0.7s,baz=236,slow=1.5,SNR=3.5						
MGCD	Mangrove Creek	137.25	98	P	PKiKP	23 09 50.9	+0.8
MGCD	Mangrove Creek	137.25	98	P	PKiKP	23 09 50.7	+0.5

VNDA	**Vanda**	**138.39**	**167**	PKP	**PKPdf**	**23 09 47.5**	**-1.7**
	comp=Z,0.7nm,0.8s,baz=255,slow=4.6,SNR=5.1						
YATNC	**Mamie plateau,**	**143.60**	**72**	P	PKPbc	23 09 58.8	+1.3
PPT2	**Papeete2**	**157.09**	**345**	*e*LR	LR	00 03 02.9	
	comp=Z,876nm,25.8s						
PPT2				*e*LR	LR	00 03 09.0	
	comp=Z,707nm,28.2s						

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*IDC **26** 22:58:39.9±0.8, 54°.48N×164°.24E, h0^{km}, mb3.9/14, mbtmp3.9/15, ML2.6/1, Error ellipse: s-maj=25.0km s-min=13.7km az=151.0*

*KRSC **26** 22:58:40.3±1.4, 54°.40N×164°.22E, h67^{km}±28^{km}, Ml4.0*

*NEIC **26** 22:58:41.3±1.5, 54°.4N±0°.2×164°.1E±0°.1, h10^{km}±1^{km}, mb4.5/11, Error ellipse: s-maj=27.9km s-min=12.0km az=176.0*

*MOS **26** 22:58:42.5±0.8, 54°.42N×164°.21E, h34^{km}, mb4.6/4, Error ellipse: s-maj=7.4km s-min=5.9km az=50.9*

ISC 26 22:58:40.8±0.5**, 54°.45N**±0°.04×**164°.19E**±0°.04**, h10^{km}, n111,** σ**1^{s}.42**/156**, mb4.2**/23**, Komandorsky Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BKI	**Bering**	**1.28**	**53**	PN	**Pb**	**22 59 03.7**	**-1.3**
BKI				S	**Sb**	**22 59 18.9**	**-2.6**
BKI	**Bering**	**1.28**	**53**	*e*P	**Pb**	**22 59 03.7**	**-1.3**
BKI				*e*S	**Sb**	**22 59 18.9**	**-2.6**
MKZ	**Mys Kozlova**	**1.44**	**275**	PN	**Pb**	**22 59 06.8**	**-0.8**
MKZ				S	**Sn**	**22 59 24.1**	**-1.7**
MKZ	**Mys Kozlova**	**1.44**	**275**	*e*P	**Pb**	**22 59 06.9**	**-0.8**
MKZ				*e*S	**Sn**	**22 59 24.2**	**-1.7**
KBTR	**Krutoberegovo**	**1.93**	**337**	PN	**Pn**	**22 59 12.4**	**-1.3**
KBTR				S	**Sn**	**22 59 35.4**	**-2.6**
KBTR	**Krutoberegovo**	**1.93**	**337**	*e*P	**Pn**	**22 59 12.4**	**-1.3**
KBTR				*e*S	**Sn**	**22 59 35.5**	**-2.6**
TUMD	**Tumrok D**	**2.32**	**291**	PN	**Pb**	**22 59 20.0**	**-2.7**
TUMD				S	**Sn**	**22 59 47.1**	**-0.5**
TUMD	**Tumrok D**	**2.32**	**291**	*e*P	**Pb**	**22 59 20.0**	**-2.7**
TUMD				*e*S	**Sn**	**22 59 47.1**	**-0.5**
ZLN	**Zelenaya**	**2.50**	**310**	PN	**Pb**	**22 59 23.0**	**-2.8**
ZLN				S	**Sn**	**22 59 52.2**	**+0.1**
ZLN	**Zelenaya**	**2.50**	**310**	*e*P	**Pb**	**22 59 23.1**	**-2.8**
ZLN				*e*S	**Sn**	**22 59 52.3**	**+0.1**
BZGR	**Bezymyannyi-Gr**	**2.50**	**308**	PN	**Pb**	**22 59 23.0**	**-2.8**
BZGR				S	**Sn**	**22 59 52.5**	**+0.3**
BZGR	**Bezymyannyi-Gr**	**2.50**	**308**	*e*P	**Pb**	**22 59 23.0**	**-2.8**
BZGR				*e*S	**Sn**	**22 59 52.6**	**+0.3**
CIRR	**Tsirk**	**2.58**	**312**	PN	**Pn**	**22 59 23.7**	**+1.0**
CIRR				S	**Sn**	**22 59 53.6**	**-0.7**
CIRR	**Tsirk**	**2.58**	**312**	*e*P	**Pn**	**22 59 23.8**	**+1.0**
CIRR				*e*S	**Sn**	**22 59 53.7**	**-0.7**
LGNR	**Loginova**	**2.59**	**311**	PN	**Pb**	**22 59 24.6**	**-2.8**
LGNR				S	**Sn**	**22 59 54.6**	**0.0**
LGNR	**Loginova**	**2.59**	**311**	*e*P	**Pb**	**22 59 24.6**	**-2.8**
LGNR				*e*S	**Sn**	**22 59 54.6**	**0.0**
BDR	**Baidarnaya**	**2.72**	**323**	*e*S	**Sn**	**22 59 58.3**	**+0.7**
KLY	**Klyuchi**	**2.75**	**314**	PN	**Pn**	**22 59 24.6**	**-0.3**
KLY				S	**Sn**	**22 59 56.5**	**-1.7**
KLY	**Klyuchi**	**2.75**	**314**	*e*P	**Pn**	**22 59 24.7**	**-0.3**
KLY				*e*S	**Sn**	**22 59 56.5**	**-1.7**
KII	**Karymskiy**	**2.81**	**264**	PN	**Pn**	**22 59 26.5**	**+0.7**
KII				S	**Sn**	**22 59 58.3**	**-1.5**
KII	**Karymskiy**	**2.81**	**264**	*e*P	**Pn**	**22 59 26.5**	**+0.7**
KII				*e*S	**Sn**	**22 59 58.3**	**-1.5**
SPN	**Mys Shipunski**	**2.82**	**243**	PN	**Pn**	**22 59 25.8**	**0.0**
SPN				S	**Sn**	**22 59 57.3**	**-2.5**
SPN	**Mys Shipunski**	**2.82**	**243**	*e*P	**Pn**	**22 59 25.8**	**0.0**
SPN				*e*S	**Sn**	**22 59 57.4**	**-2.5**
NLC	**Nalytchevo**	**3.14**	**248**	PN	**Pn**	**22 59 30.5**	**+0.2**
NLC	**Nalytchevo**	**3.14**	**248**	*e*P	**Pn**	**22 59 30.5**	**+0.2**
NLC				*e*S	**Sn**	**23 00 05.4**	**-2.5**
SDLR	**Sedlovina**	**3.35**	**252**	PN	**Pn**	**22 59 33.9**	**+0.6**
SDLR				S	**Sn**	**23 00 11.6**	**-1.6**
SDLR	**Sedlovina**	**3.35**	**252**	*e*P	**Pn**	**22 59 34.0**	**+0.6**
SDLR				*e*S	**Sn**	**23 00 11.6**	**-1.6**
SMAR	**Somma**	**3.40**	**252**	PN	**Pn**	**22 59 34.5**	**+0.4**
SMAR				S	**Sn**	**23 00 13.4**	**-1.2**
SMAR	**Somma**	**3.40**	**252**	*e*P	**Pn**	**22 59 34.6**	**+0.4**
SMAR				*e*S	**Sn**	**23 00 13.5**	**-1.2**
UGLR	**Uglovaya**	**3.41**	**251**	PN	**Pn**	**22 59 34.7**	**+0.6**
UGLR				S	**Sn**	**23 00 13.6**	**-1.1**
UGLR	**Uglovaya**	**3.41**	**251**	*e*P	**Pn**	**22 59 34.7**	**+0.6**
UGLR				*e*S	**Sn**	**23 00 13.6**	**-1.1**
KRER	**Koryakskii**	**3.42**	**253**	PN	**Pn**	**22 59 35.1**	**+0.8**
KRER				S	**Sn**	**23 00 14.0**	**-0.9**
KRER	**Koryakskii**	**3.42**	**253**	*e*P	**Pn**	**22 59 35.1**	**+0.8**
KRER				*e*S	**Sn**	**23 00 14.1**	**-0.9**
AVH	**Avacha**	**3.44**	**252**	PN	**Pn**	**22 59 35.2**	**+0.7**
AVH				S	**Sn**	**23 00 15.0**	**-0.2**
AVH	**Avacha**	**3.44**	**252**	*e*P	**Pn**	**22 59 35.2**	**+0.7**
AVH				*e*S	**Sn**	**23 00 15.0**	**-0.2**
KRX	**Arik**	**3.45**	**254**	PN	**Pn**	**22 59 35.3**	**+0.6**
KRX				S	**Sn**	**23 00 15.0**	**-0.7**
KRX	**Arik**	**3.45**	**254**	*e*P	**Pn**	**22 59 35.3**	**+0.6**
KRX				*e*S	**Sn**	**23 00 15.1**	**-0.7**
ESO	**Esso**	**3.48**	**297**	PN	**Pn**	**22 59 35.6**	**+0.6**
ESO	**Esso**	**3.48**	**297**	*e*P	**Pn**	**22 59 35.6**	**+0.6**
ESO				*e*S	**Sn**	**23 00 14.3**	**-1.9**
KOK	**Koryaka**	**3.48**	**253**	PN	**Pn**	**22 59 35.6**	**+0.5**
KOK	**Koryaka**	**3.48**	**253**	*e*P	**Pn**	**22 59 35.6**	**+0.5**
KOK				*e*S	**Sn**	**23 00 14.3**	**-2.1**
DALK	**Dalny**	**3.52**	**249**	PN	**Pn**	**22 59 35.3**	**-0.2**
DALK	**Dalny**	**3.52**	**249**	*e*P	**Pn**	**22 59 35.4**	**-0.2**
DALK				*e*S	**Sn**	**23 00 14.7**	**-2.6**
PET	**Petropavlovsk**	**3.58**	**249**	*e*PN	**Pn**	**22 59 35.7**	**-0.6**
PET	**Petropavlovsk**	**3.58**	**249**	Pn	**Pn**	**22 59 36.0**	**-0.3**
PET				Sn	**Sn**	**23 00 16.1**	**-2.6**
PET	**Petropavlovsk**	**3.58**	**249**	*e*S	**Sn**	**23 00 16.4**	**-2.3**
GNL	**Ganaly**	**3.76**	**261**	PN	**Pn**	**22 59 39.6**	**+0.8**
GNL	**Ganaly**	**3.76**	**261**	*e*P	**Pn**	**22 59 39.6**	**+0.8**
RUS	**Russkaya**	**3.95**	**242**	PN	**Pn**	**22 59 41.4**	**+0.1**
RUS	**Russkaya**	**3.95**	**242**	*e*P	**Pn**	**22 59 41.5**	**+0.1**
RUS				*e*S	**Sn**	**23 00 24.3**	**-3.4**
KRMR	**Karymshinskiy**	**3.95**	**248**	PN	**Pn**	**22 59 42.3**	**+0.9**
KRMR	**Karymshinskiy**	**3.95**	**248**	*e*P	**Pn**	**22 59 42.4**	**+0.9**
KRMR				*e*S	**Sn**	**23 00 25.5**	**-2.3**
PEA0B	**Petropavlovsk-**	**4.08**	**253**	PN	**Pn**	**22 59 43.7**	**+0.5**
PEA0B						23 00 30.6	
PEA0B	**Petropavlovsk-**	**4.08**	**253**		**Pn**	**22 59 43.7**	**+0.5**
PEA0B				Sn	**Sn**	**23 00 30.6**	**-0.3**
PETK	**Petropavlovsk-**	**4.08**	**253**	Pn	**Pn**	**22 59 44.2**	**+1.0**
	1.8nm,0.3s,baz=69,slow=18,SNR=65						
PETK				Sn	**Sn**	**23 00 29.9**	**-1.0**
	2.5nm,0.3s,baz=65,slow=15,SNR=6.7						
	4.2nm,0.4s						
PETK				AML	AML		
PETK	**Petropavlovsk-**	**4.08**	**253**	PN	**Pn**	**22 59 43.7**	**+0.5**
PETK	**Petropavlovsk-**	**4.08**	**253**		**Pn**	**22 59 43.7**	**+0.5**
MTVR	**Mutnovka**	**4.09**	**244**	PN	**Pn**	**22 59 43.8**	**+0.3**
MTVR	**Mutnovka**	**4.09**	**244**	*e*P	**Pn**	**22 59 43.9**	**+0.3**
MTVR				*e*S	**Sn**	**23 00 28.7**	**-2.8**
GRL	**Gorelyy**	**4.12**	**245**	PN	**Pn**	**22 59 44.8**	**+1.0**
GRL	**Gorelyy**	**4.12**	**245**	*e*P	**Pn**	**22 59 44.8**	**+1.0**
GRL				*e*S	**Sn**	**23 00 29.6**	**-2.4**
ASAK	**Asacha**	**4.29**	**244**	PN	**Pn**	**22 59 46.9**	**+0.7**
ASAK	**Asacha**	**4.29**	**244**	*e*P	**Pn**	**22 59 47.0**	**+0.7**
ASAK				*e*S	**Sn**	**23 00 34.3**	**-2.0**
APC	**Apacha**	**4.45**	**253**	PN	**Pn**	**22 59 50.2**	**+2.0**
APC	**Apacha**	**4.45**	**253**	*e*P	**Pn**	**22 59 50.3**	**+2.0**
KDTR	**Khodutka, Kamc**	**4.53**	**237**	PN	**Pn**	**22 59 48.9**	**-0.4**
KDTR	**Khodutka, Kamc**	**4.53**	**237**	*e*P	**Pn**	**22 59 48.9**	**-0.4**
KDTR				*e*S	**Sn**	**23 00 36.9**	**-5.1**
OSSR	**Ossora**	**4.86**	**353**	PN	**Pn**	**22 59 54.4**	**+0.6**
OSSR	**Ossora**	**4.86**	**353**	*e*P	**Pn**	**22 59 54.5**	**+0.6**
OSSR				*e*S	**Sn**	**23 00 46.6**	**-3.4**
TILK	**Tilichiki**	**6.11**	**9**	PN	**Pn**	**23 00 13.0**	**+2.0**
TILK	**Tilichiki**	**6.11**	**9**	*e*P	**Pn**	**23 00 13.0**	**+2.0**
TIXI	**Tiksi**	**22.95**	**332**	P	**P**	**23 03 45.0**	**+0.2**
TIXI				pmax	pmax		
	comp=Z,5.0nm,0.9s						
TIXI	**Tiksi**	**22.95**	**332**	P	**P**	**23 03 45.0**	**+0.2**
KDAK	**Kodiak Island**	**24.02**	**64**	P	**P**	**23 03 55.1**	**-0.4**
KDAK				pmax	pmax		
	comp=Z,29nm,1.4s						
KDAK	**Kodiak Island**	**24.02**	**64**	P	**P**	**23 03 55.1**	**-0.4**
KDAK				IAmb	IAmb	23 04 11.6	
	comp=Z,29nm,1.4s						
CNPM	**China Poot**	**24.44**	**60**		**P**	**23 03 59.7**	**+0.3**
H23K	**Yukon River**	**25.05**	**45**	P	**P**	**23 04 05.0**	**+0.2**
H23K				IAmb	IAmb	23 04 07.9	
	comp=Z,9.9nm,1.2s						
D23K	**Nanushuk River**	**25.08**	**37**	P	**P**	**23 04 05.6**	**+0.6**
D23K				IAmb	IAmb	23 04 09.2	
	comp=Z,21nm,1.4s						
MJAR	**Matsushiro Arr**	**25.31**	**236**	P	**P**	**23 04 08.9**	**+1.5**
	comp=Z,2.7nm,0.9s,baz=31,slow=8.0,SNR=2.4						
	comp=Z,2.7nm,0.9s						
D24K	**Happy Valley**	**25.77**	**37**	P	**P**	**23 04 12.8**	**+1.5**
D24K				IAmb	IAmb	23 04 31.7	
	comp=Z,16nm,1.5s						
ILAR	**Eielson Array**	**26.12**	**47**	P	**P**	**23 04 14.7**	**+0.1**
	comp=Z,0.7nm,0.7s,baz=259,slow=9.4,SNR=6.9						
	comp=Z,0.7nm,0.7s						
L29M	**L29M**	**30.13**	**50**	P	**P**	**23 04 51.5**	**+1.1**
L29M				IAmb	IAmb	23 05 05.2	
	comp=Z,11nm,1.4s						
H11N2	**WAKE ISLAND Hy**	**34.72**	**176**	T	T	23 43 23.1	
	baz=359,slow=76,SNR=5.9						
H11N3	**WAKE ISLAND Hy**	**34.73**	**175**	T	T	23 43 23.1	
	baz=359,slow=76,SNR=5.8						
H11N1	**WAKE ISLAND Hy**	**34.73**	**176**	T	T	23 43 23.1	
	baz=359,slow=76,SNR=5.9						
YKA	**Yellowknife Ar**	**40.50**	**45**	P	**P**	**23 06 20.2**	**+0.9**
	comp=Z,0.5nm,0.6s,baz=310,slow=8.2,SNR=2.0						
	comp=Z,0.5nm,0.6s						
KURK	**Kurchatov**	**49.06**	**303**	P	**P**	**23 07 27.5**	**-0.2**
KURK				pmax	pmax		
	comp=Z,5.0nm,0.5s						
KURK	**Kurchatov**	**49.06**	**303**	P	**P**	**23 07 27.5**	**-0.2**
KURBB	**Kurchatov Arra**	**49.16**	**303**	P	**P**	**23 07 29.3**	**+0.9**
	comp=Z,2.5nm,0.4s,baz=57,slow=8.0,SNR=18						
	comp=Z,2.5nm,0.4s						
MKAR	**Makanchi Array**	**49.73**	**297**	P	**P**	**23 07 33.0**	**+0.1**
	comp=Z,0.9nm,0.5s,baz=56,slow=6.0,SNR=13						
	comp=Z,0.9nm,0.5s						
MKAR	**Makanchi Array**	**49.73**	**297**	P	**P**	**23 07 32.9**	**0.0**
MKAR	**Makanchi Array**	**49.73**	**297**	P	**P**	**23 07 32.9**	**0.0**
BVAR	**Borovoye Array**	**51.43**	**310**	P	**P**	**23 07 46.0**	**+0.4**
	comp=Z,1.8nm,0.5s,baz=61,slow=6.8,SNR=6.3						
	comp=Z,1.8nm,0.5s						
AB31	**Akbulak array**	**58.73**	**312**	P	**P**	**23 08 39.1**	**+0.8**
AB31				IAmb	IAmb	23 08 43.3	
	comp=Z,7.3nm,1.4s						
ABKAR	**Akbulak array**	**58.73**	**312**	P	**P**	**23 08 39.2**	**+0.8**
FINES	**FINESS Array B**	**59.81**	**338**	P	**P**	**23 08 46.0**	**+0.4**
	comp=Z,2.6nm,0.9s,baz=9.7,slow=7.3,SNR=4.4						
	comp=Z,2.6nm,0.9s						
FINES	**FINESS Array B**	**59.81**	**338**	P	**P**	**23 08 45.1**	**-0.5**
FINES	**FINESS Array B**	**59.81**	**338**	P	**P**	**23 08 45.1**	**-0.5**
BTK	**Batken**	**60.40**	**298**	P	**P**	**23 08 51.2**	**+1.1**
BTK				pmax	pmax		
	comp=Z,3.0nm,0.8s						
BTK	**Batken**	**60.40**	**298**	P	**P**	**23 08 51.2**	**+1.1**
BTK				IAmb	IAmb	23 08 55.3	
	comp=Z,3.1nm,0.8s						
CMAR	**Chiang Mai Arr**	**60.82**	**261**	P	**P**	**23 08 55.2**	**+2.0**
	comp=Z,0.6nm,0.3s,baz=25,slow=7.4,SNR=5.5						
	comp=Z,0.6nm,0.3s						
NOA	**NORSAR Array B**	**62.88**	**346**	P	**P**	**23 09 06.8**	**+0.4**
	comp=Z,0.5nm,0.6s,baz=18,slow=6.7,SNR=1.8						
	comp=Z,0.5nm,0.6s						
HFS	**Hagfors**	**63.36**	**344**	P	**P**	**23 09 10.0**	**+0.4**
	comp=Z,0.8nm,0.5s,baz=28,slow=6.7,SNR=1.2						
	comp=Z,0.8nm,0.5s						
TX31	**Lajitas Ar. Si**	**67.88**	**70**	P	**P**	**23 09 40.7**	**+1.3**
TXAR	**Lajitas Array**	**67.88**	**70**	P	**P**	**23 09 40.9**	**+1.5**
	comp=Z,0.4nm,0.5s,baz=300,slow=5.2,SNR=6.6						
	comp=Z,0.4nm,0.5s						
TXAR	**Lajitas Array**	**67.88**	**70**	P	**P**	**23 09 40.1**	**+0.7**
TXAR	**Lajitas Array**	**67.88**	**70**	P	**P**	**23 09 40.1**	**+0.7**
AKASG	**Malin Array Be**	**68.66**	**331**	P	**P**	**23 09 43.5**	**-0.3**
	comp=Z,0.7nm,0.6s,baz=47,slow=0.3,SNR=1.5						
	comp=Z,0.7nm,0.6s						
WRA	**Warramunga Arr**	**78.38**	**209**	P	**P**	**23 10 41.4**	**+0.1**
	comp=Z,0.7nm,0.8s,baz=20,slow=5.8,SNR=2.8						
	comp=Z,0.7nm,0.8s						
ASAR	**Alice Springs**	**82.04**	**208**	P	**P**	**23 11 01.0**	**+0.1**
	comp=Z,0.5nm,0.8s,baz=15,slow=3.8,SNR=1.6						
	comp=Z,0.5nm,0.8s						
QSPA	**South Pole Qui**	**144.19**	**180**	PKP	**PKPdf**	**23 18 13.3**	**-2.0**
	comp=Z,0.8nm,0.7s,baz=15,slow=1.5,SNR=5.1						

IDC 26 23:02:28.7±87.0**, 49°.88S**×**121°.62E, h0^{km}, mb3.5**/4**, mbtmp3.6**/4**, Error ellipse: s-maj=1451.0km s-min=91.6km az=17.0, Western Indian-Antarctic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H01W1	**Cape Leeuwin H**	**15.94**	**337**	T	T	23 23 58.8	
	baz=160,slow=74,SNR=78						
H01W2	**Cape Leeuwin H**	**15.94**	**337**	T	T	23 24 02.4	
	baz=160,slow=74,SNR=46						
H01W3	**Cape Leeuwin H**	**15.96**	**337**	T	T	23 24 01.3	
	baz=160,slow=74,SNR=58						
STKA	**Stephens Creek**	**23.36**	**47**	P	P	23 07 39.0	+0.4
	1.1nm,0.8s,baz=204,slow=18,SNR=1.1						
	1.1nm,0.8s						
ASAR	**Alice Springs**	**27.87**	**25**	P	P	23 08 19.9	-0.2
	0.6nm,0.8s,baz=194,slow=9.1,SNR=8.3						
	0.6nm,0.8s						
WRA	**Warramunga Arr**	**31.54**	**23**	P	P	23 08 52.2	-0.4
	0.3nm,0.7s,baz=193,slow=8.6,SNR=1.8						
	0.3nm,0.7s						
FITZ	**Fitzroy Crossi**	**31.87**	**7**	P	P	23 08 55.8	+0.4
	1.1nm,0.6s,baz=175,slow=11,SNR=2.0						
	1.1nm,0.6s						
CTA	**Charters Tower**	**35.60**	**42**	P	P	23 09 29.3	+1.4

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*IDC **26** 23:07:56.2±1.0, 2°.61S×140°.75E, h49^{km}±13^{km}, mb3.3/3, mbtmp3.6/4, ML3.9/1, Error ellipse: s-maj=26.6km s-min=2.9km az=152.0*

ISC 26 23:07:53.2±2.1**, 2°.6S**±0°.2×**141°.2E**±0°.2**, h31^{km}, n5,** σ**1^{s}.08**/6**, mb3.6**/3**, Near north coast of New Guinea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAY	**Jayapura**	**0.47**	**279**	P	**Pn**	**23 08 04.2**	**+0.4**
	419nm,0.3s,baz=164,slow=23,SNR=616						
JAY				S	**Sn**	**23 08 11.1**	**0.0**
	889nm,0.3s,baz=138,slow=18,SNR=25						
WRA	**Warramunga Arr**	**18.50**	**201**	P	**Pn**	**23 12 06.9**	**-0.3**
	0.4nm,0.3s,baz=20,slow=12,SNR=10						
	0.7nm,0.4s						
WRA				AML	AML		
FITZ	**Fitzroy Crossi**	**21.67**	**224**	P	**P**	**23 12 40.2**	**-1.2**
	2.0nm,0.7s,baz=47,slow=8.2,SNR=7.5						
	2.0nm,0.7s						
ASAR	**Alice Springs**	**22.10**	**198**	P	**P**	**23 12 47.4**	**+1.3**
	1.3nm,0.7s,baz=29,slow=10,SNR=15						
	1.3nm,0.7s						
MKAR	**Makanchi Array**	**71.21**	**322**	P	**P**	**23 19 09.1**	**-0.2**
	0.4nm,0.7s,baz=97,slow=4.8,SNR=2.8						
	0.4nm,0.7s						

IDC 26 23:08:15.7±10.0**, 20°.30S**×**178°.40W, h506^{km}**±62^{km}**, mb2.6**/2**, mbtmp3.5**/3**, Error ellipse: s-maj=227.0km s-min=51.2km az=142.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**4.22**	**307**	P	P	23 09 36.5	0.0
	3.9nm,0.4s,baz=108,slow=20,SNR=7.9						
ASAR	**Alice Springs**	**44.20**	**257**	P	P	23 15 39.5	-0.1
	0.6nm,0.8s,baz=97,slow=8.3,SNR=5.1						
ASAR				PcP	PcP	23 17 13.4	-0.1
	0.3nm,0.5s,baz=89,slow=3.1,SNR=2.4						
	0.6nm,0.8s						
WRA	**Warramunga Arr**	**44.26**	**262**	P	P	23 15 39.8	-0.2
	0.4nm,0.5s,baz=96,slow=8.3,SNR=4.7						
	0.4nm,0.5s						
BRTR	**Keskin Array B**	**146.43**	**312**	PKPbc	PKPbc	23 26 59.3	-0.8
	0.4nm,0.6s,baz=84,slow=3.0,SNR=2.2						

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*AFAD **26** 23:09:19.0, 39°.98N×24°.16E, h15^{km}±2^{km}, MW4.2*

*MED_RC **26** 23:09:21.0, 39°.96N×24°.33E, h15^{km}, Mw4.2, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}-0.55±.37; $M_{\theta\theta}$2.20±.64; $M_{\phi\phi}$0.00±.43; $M_{r\theta}$-0.44±.33; $M_{\theta\phi}$-1.68±.31; $M_{\phi r}$-0.59±.41; Fault plane solution: $M_0$2.69000×10^{15} NP1:ϕ_s334.00000°, δ74.00000°, λ-12.00000°. NP2:ϕ_s67.00000°, δ79.00000°, λ-163.00000°. Principal axes: T 2.8400, Plg4.0000°, Azm200.0000°; N -0.3100, Plg70.0000°, Azm100.0000°; P -2.5300, Plg20.0000°, Azm291.0000°;*

*SOF **26** 23:09:21.4, 39°.89N±0°.03×24°.41E±0°.01, h18^{km}±2^{km}, MD4.2/15*

*THE **26** 23:09:22.1, 40°.0N±1°.0×24°.3E±0°.9, h14^{km}±2^{km}, M3.9/32, MLh3.9/32*

*ISK **26** 23:09:22.8, 39°.95N×24°.27E, h24^{km}, ML4.3/14*

*IDC **26** 23:09:22.5±0.6, 39°.92N×24°.38E, h0^{km}, mb3.7/13, mbtmp3.7/21, ML3.4/7, Error ellipse: s-maj=11.5km s-min=10.0km az=157.0*

*ATH **26** 23:09:22.4, 39°.95N×24°.26E, h14^{km}±1^{km}, ML3.9/25, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*

*CFUSG **26** 23:09:22.0, 40°.17N×24°.16E, h7^{km}, MD3.6/4, MSH2.8/4*

*GFZ **26** 23:09:23.5±0.2, 40°N±2°×2°4E±°, h10^{km}, M4.4/9, mb4.4/9*

*NEIC **26** 23:09:23.2±1.2, 40°.01N±0°.03×24°.37E±0°.07, h10^{km}±1^{km}, mb4.3/7, Error ellipse: s-maj=8.9km s-min=6.1km az=84.0*

*MCSM **26** 23:09:27.0±1.0, 40°N±8°×2°4E±°, h10^{km}, mb4.5, mB3.9, MLv4.5, Mw(mB)2.9*

*NAO **26** 23:09:29.9, 40°.88N×25°.23E, h10^{km}, MB3.8*

*PRU **26** 23:09:44.8, 40°.53N×22°.58E, h15^{km}, M4.3*

ISC 26 23:09:22.6±1.0**, 39°.96N**±0°.02×**24°.31E**±0°.01**, h7^{km}**±7^{km}**, n341,** σ**1^{s}.21**/383**, mb3.9**/19**, 41C-13D, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OUR	**Ouranopolis**	**0.45**	**326**	P	**Pg**	**23 09 30.8**	**-0.5**
OUR				S	**Sb**	**23 09 38.5**	**-1.3**
OUR				AML	AML		
OUR	**Ouranopolis**	**0.45**	**326**	Pg	**Pb**	**23 09 32.2**	**-0.7**
OUR				Sg	**Sb**	**23 09 38.8**	**-1.0**
OUR				AML	AML		
OUR	**Ouranopolis**	**0.45**	**326**	P	**Pg**	**23 09 31.2**	**-0.1**
OUR				S	**Sg**	**23 09 38.0**	**+0.7**
OUR				AML	AML		
PAIG	**Paliouri**	**0.49**	**266**	P	**Pg**	**23 09 31.4**	**-0.6**
PAIG				S	**Sb**	**23 09 40.1**	**-0.8**
PAIG				AML	AML		
PAIG	**Paliouri**	**0.49**	**266**	P	**Pb**	**23 09 33.3**	**-0.2**
LMN1	**MIRINA LIMNOU**	**0.58**	**98**	P	**Pb**	**23 09 34.3**	**-0.7**
LMN1				S	**Sb**	**23 09 42.6**	**-0.9**
EFSA	**Agios Efstrati**	**0.67**	**129**	P	**Pb**	**23 09 36.1**	**-0.4**
EFSA				S	**Sb**	**23 09 45.7**	**-0.3**
EFSA				AML	AML		
LIA	**Limnos Island**	**0.67**	**95**	P	**Pg**	**23 09 34.6**	**-0.9**
LIA				S	**Sb**	**23 09 44.7**	**-1.5**
LIA				AML	AML		
LIA	**Limnos Island**	**0.67**	**95**	P	**Pb**	**23 09 35.6**	**-1.0**
LIA				S	**Sb**	**23 09 45.6**	**-0.5**
LIA				AML	AML		
THAS	**Thassos island**	**0.72**	**26**	P	**Pg**	**23 09 35.9**	**-0.4**
THAS				S	**Sb**	**23 09 46.9**	**-0.6**
THAS				AML	AML		
THAS	**Thassos island**	**0.72**	**26**	P	**Pb**	**23 09 37.0**	**-0.4**
THAS				S	**Sb**	**23 09 47.4**	**-0.1**
PLG	**Polygyros**	**0.78**	**302**	P	**Pg**	**23 09 36.5**	**-1.2**
PLG				S	**Sg**	**23 09 48.1**	**+0.3**
PLG				AML	AML		
PLG	**Polygyros**	**0.78**	**302**	P	**Pg**	**23 09 37.2**	**-0.5**
THS1	**Thassos, Thass**	**0.80**	**14**	P	**Pb**	**23 09 38.5**	**-0.3**
THS1				S	**Sb**	**23 09 49.4**	**-0.6**
AOS	**Alonnisos**	**0.86**	**203**	P	**Pb**	**23 09 38.5**	**-1.2**
AOS				S	**Sn**	**23 09 51.8**	**-2.0**
AOS				AML	AML		
AOS2	**Alonissos-2**	**0.89**	**204**	P	**Pb**	**23 09 38.6**	**-1.7**
AOS2				S	**Sb**	**23 09 51.0**	**-1.3**
AOS2				AML	AML		
KAVA	**Kavala**	**1.05**	**8**	P	**Pb**	**23 09 40.8**	**-2.3**
KAVA				S	**Sb**	**23 09 55.6**	**-1.4**
KAVA				AML	AML		
KAVA	**Kavala**	**1.05**	**8**	P	**Pn**	**23 09 42.6**	**-1.1**
KAVA				S	**Sn**	**23 09 57.6**	**-1.0**
KAVA				AML	AML		
XOR	**Xorichti**	**1.05**	**236**	P	**Pb**	**23 09 41.7**	**-1.3**
XOR				S	**Sg**	**23 09 56.7**	**+0.4**
XOR				AML	AML		
XOR	**Xorichti**	**1.05**	**236**	P	**Pb**	**23 09 41.8**	**-1.3**
XOR				AML	AML		
XOR	**Xorichti**	**1.05**	**236**	P	**Pn**	**23 09 42.8**	**-0.9**
SMTH	**Samothraki Isl**	**1.06**	**61**	P	**Pb**	**23 09 41.3**	**-2.0**
SMTH				S	**Sb**	**23 09 56.0**	**-1.4**
SMTH				AML	AML		
SMTH	**Samothraki Isl**	**1.06**	**61**	P	**Pb**	**23 09 42.4**	**-0.9**
SMTH				S	**Sn**	**23 09 57.2**	**-1.7**
SMTH				AML	AML		
NEO	**Neokhori**	**1.06**	**233**	P	**Pb**	**23 09 41.6**	**-1.8**
NEO				S	**Sb**	**23 09 56.8**	**-0.6**
NEO				AML	AML		
NEO	**Neokhori**	**1.06**	**233**	P	**Pb**	**23 09 41.5**	**-1.8**
NEO				AML	AML		
SOH	**Sokhos**	**1.13**	**320**	P	**Pb**	**23 09 43.0**	**-1.5**
SOH				S	**Sn**	**23 09 59.6**	**-1.1**
SOH				AML	AML		
SOH	**Sokhos**	**1.13**	**320**	P	**Pb**	**23 09 43.5**	**-1.0**
SOH	**Sokhos**	**1.13**	**320**	P	**Pg**	**23 09 44.9**	**+0.6**
THE	**Thessaloniki**	**1.23**	**304**	P	**Pn**	**23 09 44.8**	**-1.4**
THE	**Thessaloniki**	**1.23**	**304**	P	**Pn**	**23 09 44.9**	**-1.4**
THE	**Thessaloniki**	**1.23**	**304**	P	**Pg**	**23 09 46.1**	**0.0**
GADA	**Gvkgeada**	**1.24**	**79**	P	**Pn**	**23 09 44.0**	**-2.3**
GADA				S	**Sb**	**23 10 00.8**	**-1.6**
GADA				AML	AML		
GADA	**Gvkgeada**	**1.24**	**79**	Pn	**Pb**	**23 09 45.5**	**-0.8**
GADA				Sn	**Sg**	**23 10 02.7**	**+0.3**
GADA				AML	AML		
GOAD	**anakkale-G¶**	**1.24**	**80**	P	**Pb**	**23 09 45.8**	**-0.6**
GOAD				S	**Sg**	**23 10 03.9**	**+1.4**
GOKC	**Gokceada-Canak**	**1.25**	**78**	Pn	**Pb**	**23 09 45.8**	**-0.8**
GOKC				Sn	**Sg**	**23 10 02.9**	**0.0**
GOKC				AML	AML		
SRS	**Serrai**	**1.28**	**335**	P	**Pb**	**23 09 46.5**	**-0.5**
KYMI	**Kymi, Euboea I**	**1.33**	**187**	P	**Pn**	**23 09 45.3**	**-2.3**
KYMI				AML	AML		
KYMI	**Kymi, Euboea I**	**1.33**	**187**	P	**Pn**	**23 09 46.1**	**-1.5**
KYMI				AML	AML		
BOZC	**Bozcaada**	**1.34**	**94**	Pn	**Pb**	**23 09 47.0**	**-1.1**
BOZC				Sn	**Sg**	**23 10 05.2**	**-0.6**
BOZC				AML	AML		
BOZC	**Bozcaada**	**1.34**	**94**	P	**Pn**	**23 09 46.8**	**-1.0**
BOZC				S	**Sb**	**23 10 04.2**	**-1.3**
NVR	**Nevrokopi**	**1.43**	**346**	P	**Pn**	**23 09 46.9**	**-2.1**
NVR				AML	AML		
NVR	**Nevrokopi**	**1.43**	**346**	P	**Pn**	**23 09 48.0**	**-1.0**
NVR				AML	AML		
ECEA	**Canakkale, Ece**	**1.43**	**86**	P	**Pg**	**23 09 50.5**	**+0.5**
ECEA				S	**Sg**	**23 10 07.7**	**-0.9**
KOCA	**Canakkale, Ayv**	**1.48**	**107**	P	**Pn**	**23 09 48.6**	**-1.0**
KOCA				S	**Sg**	**23 10 10.9**	**+0.8**
GPNR	**Gulpinar-Canak**	**1.49**	**109**	Pn	**Pn**	**23 09 49.1**	**-0.7**
ALEX	**Alexandroupoli**	**1.51**	**53**	P	**Pn**	**23 09 48.9**	**-1.1**
ENZZ	**Sultanice-Enez**	**1.54**	**65**	Pn	**Pn**	**23 09 49.9**	**-0.5**
ENZZ				Sn	**Sb**	**23 10 10.3**	**-0.8**
ENZZ				AML	AML		
EZN	**Ezine**	**1.55**	**94**	P	**Pn**	**23 09 49.6**	**-1.0**
EZN				AML	AML		
EZN	**Ezine**	**1.55**	**94**	Pn	**Pn**	**23 09 50.1**	**-0.5**
EZN				AML	AML		
EZNE	**Ezine-Canakkal**	**1.59**	**97**	Pn	**Pn**	**23 09 50.6**	**-0.6**
CAVK	**Edirne/Enez-Ca**	**1.60**	**62**	P	**Pn**	**23 09 50.7**	**-0.5**
CAVK				S	**Sg**	**23 10 15.8**	**+2.0**
CAVK	**Edirne/Enez-Ca**	**1.60**	**62**	⇑P	**Pb**	**23 09 51.4**	**-1.0**
CNKL	**anakkale-Mer**	**1.60**	**86**	P	**Pn**	**23 09 50.3**	**-0.9**
CNKL				S	**Sg**	**23 10 14.5**	**+0.7**
ENEZ	**Enez**	**1.61**	**61**	P	**Pn**	**23 09 50.3**	**-1.0**
ENEZ	**Enez**	**1.61**	**61**	Pn	**Pn**	**23 09 50.8**	**-0.6**
ENEZ				AML	AML		
ATAL	**Atalanti**	**1.61**	**219**	P	**Pn**	**23 09 50.1**	**-1.4**
ALN	**Alexandroupoli**	**1.62**	**54**	P	**Pn**	**23 09 50.0**	**-1.6**
ALN				AML	AML		
ALN	**Alexandroupoli**	**1.62**	**54**	Pn	**Pn**	**23 09 51.1**	**-0.5**
ALN				AML	AML		
ALN	**Alexandroupoli**	**1.62**	**54**		**Pn**	**23 09 50.2**	**-1.3**
ALN	**Alexandroupoli**	**1.62**	**54**	P	**Pn**	**23 09 50.2**	**-1.3**
ALN				AML	AML		
ALN	**Alexandroupoli**	**1.62**	**54**	P	**Pg**	**23 09 53.0**	**-0.6**
TYRN	**Tyrnavos**	**1.62**	**262**	P	**Pn**	**23 09 50.4**	**-1.2**
TYRN				AML	AML		
TYRN	**Tyrnavos**	**1.62**	**262**	P	**Pn**	**23 09 50.1**	**-1.4**
TYRN				AML	AML		
MMB	**Musomishta**	**1.64**	**345**	P	**Pn**	**23 09 50.1**	**-1.8**
MMB				AML	AML		

MMB	Musomishta	1.64	345	i P	Pb	23 09 51.8	-1.4
LKR	Lokris	1.66	218	P	Pn	23 09 49.7	-2.4
LKR	Lokris	1.66	218	P	Pn	23 09 49.6	-2.4
COMU	Canakkale	1.67	84	Pn	Pn	23 09 51.7	-0.5
COMU				AML	AML		
PRK	Paraskevi	1.67	115	P	Pn	23 09 50.8	-1.5
PRK				AML	AML		
PRK	Paraskevi	1.67	115	P	Pb	23 09 52.1	-1.6
GELI	Tayfur-Gelibol	1.71	74	Pn	Pn	23 09 52.4	-0.4
GELI				AML	AML		
BAYC	CANAKKALE_Bayr	1.73	96	P	Pb	23 09 53.6	-1.1
BAYC				S	Sn	23 10 13.8	-1.7
AXAR	Agios Charalam	1.75	228	P	Pn	23 09 52.0	-1.3
AXAR				AML	AML		
AXAR	Agios Charalam	1.75	228	P	Pn	23 09 52.1	-1.2
AXAR				AML	AML		
RZN	Rozhen	1.76	10	P	Pn	23 09 51.8	-1.9
RZN				AML	AML		
RZN	Rozhen	1.76	10	i P	Pn	23 09 53.4	-0.3
GRG	Griva	1.77	305	P	Pn	23 09 52.6	-1.0
GRG				AML	AML		
GRG	Griva	1.77	305	P	Pn	23 09 52.9	-0.7
GRG	Griva	1.77	305	P	Pb	23 09 54.2	-1.1
AGG	Agios Georgios	1.80	239	P	Pn	23 09 52.2	-1.8
AGG				AML	AML		
AGG	Agios Georgios	1.80	239	P	Pn	23 09 52.8	-1.2
AGG				AML	AML		
AGG	Agios Georgios	1.80	239	P	Pn	23 09 53.5	-0.5
THL	Klokotos Trika	1.81	258	P	Pn	23 09 53.5	-0.7
THL				AML	AML		
ERIK	Erikli-Kesan	1.83	66	Pn	Pn	23 09 53.8	-0.6
ERIK				AML	AML		
KDZ	Kurdzhali	1.84	25	P	Pn	23 09 52.3	-2.4
KDZ				AML	AML		
KDZ	Kurdzhali	1.84	25	Pn	Pn	23 09 53.9	-0.7
KDZ				AML	AML		
KDZ	Kurdzhali	1.84	25	i P	Pn	23 09 53.9	-0.7
STFN	Stefani	1.88	199	P	Pn	23 09 53.3	-1.8
STFN				AML	AML		
STFN	Stefani	1.88	199	P	Pn	23 09 53.7	-1.4
STFN				AML	AML		
VAY	Valandovo	1.90	316	i Pn	Pb	23 09 56.0	-1.6
DION	Dionisos Attik	1.90	189	P	Pn	23 09 53.3	-2.1
DION				AML	AML		
DION	Dionisos Attik	1.90	189	P	Pn	23 09 54.3	-1.1
DION				AML	AML		
GOKT	Kean, EDRN	1.90	68	P	Pn	23 09 54.6	-0.9
LPK	Lapseki	1.92	77	Pn	Pn	23 09 55.2	-0.5
LPK				AML	AML		
VIL2	Platees	1.93	205	P	Pn	23 09 55.2	-0.5
VIL2				AML	AML		
KARY	Karystos	1.93	177	P	Pn	23 09 53.6	-2.2
KARY	Karystos	1.93	177	P	Pn	23 09 54.1	-1.6
PTL	Penteli	1.94	191	P	Pn	23 09 54.5	-1.5
PTL				AML	AML		
PTL	Penteli	1.94	191	P	Pn	23 09 55.0	-1.0
PTL				AML	AML		
AYVA	Ayvalik	1.95	109	P	Pn	23 09 56.0	-0.1
SFL1	Soufli	1.95	50	P	Pn	23 09 55.9	-0.2
LAPS	Lapseki, ANA	1.96	81	P	Pn	23 09 55.6	-0.6
LAPS				S	Sn	23 10 19.8	-1.3
KZN	Kozani	1.98	281	P	Pn	23 09 55.1	-1.5
KZN				AML	AML		
KZN	Kozani	1.98	281	P	Pn	23 09 55.7	-0.8
KZN				AML	AML		
EAG2	Marmaro, Chios	1.98	135	P	Pn	23 09 56.5	-0.1
KESN	Edirne-Kesan	2.00	64	P	Pn	23 09 56.2	-1.0
KESN				S	Sg	23 10 27.9	+0.9
ATHU	Athens Univers	2.03	192	P	Pn	23 09 56.2	-1.1
ATHU				AML	AML		
ATH	Athens Observa	2.04	193	P	Pn	23 09 56.5	-0.7
ATH				AML	AML		
CHOS	Chios island	2.07	139	P	Pn	23 09 57.5	-0.3
CHOS				AML	AML		
CHOS	Chios island	2.07	139	P	Pn	23 09 57.6	-0.3
KKB	Krupnik	2.08	335	P	Pn	23 09 57.2	-0.8
KKB				AML	AML		
KKB	Krupnik	2.08	335	i P	Pb	23 09 58.7	-2.0
UKOP	Uzunkopru-Edir	2.12	56	Pn	Pn	23 09 58.1	-0.3
UKOP				AML	AML		
VLY	Voula,Athens	2.14	191	P	Pn	23 09 57.4	-1.3
VLY				AML	AML		
BUHA	Balikesir, Bur	2.18	101	P	Pb	23 09 60.0	-2.4
BUHA				S	Sg	23 10 33.2	+0.6
DKL	Dikili	2.19	113	P	Pn	23 09 59.5	+0.1
PLD	Plovdiv	2.21	8	Pn	Pn	23 09 58.9	-0.8
PLD	Plovdiv	2.21	8	i P	Pn	23 09 59.7	0.0
DIM	Dimitrovgrad	2.29	24	P	Pn	23 09 59.0	-1.8
DIM				AML	AML		
DIM	Dimitrovgrad	2.29	24	i P	Pn	23 10 00.6	-0.2
ANX	Ano Chora	2.30	234	P	Pn	23 10 00.0	-1.0
ZEDA	zmir-Bergama	2.36	114	P	Pn	23 10 01.9	+0.3
ZEDA				S	Sg	23 10 39.4	+1.1
PGB	Panagyurishte	2.55	358	eP	Pn	23 10 04.5	+0.1
BALY	Balya	2.56	94	P	Pn	23 10 04.5	0.0
PLNA	Plana	2.60	345	i P	Pn	23 10 06.3	+1.1
BALB	Balikesir	2.77	95		Pn	23 10 07.3	0.0
KBN	Korca	2.78	285	P	Pn	23 10 08.3	+0.8
VTS	Vitosha	2.78	343	i P	Pn	23 10 08.2	+0.6
BKES	Balkesir-Mer	2.79	93	P	Pn	23 10 08.3	+0.6
BKES				S	Sg	23 10 51.6	-0.7
OHR	Ohrid	2.92	294	i Pn	Pn	23 10 10.9	+1.5
BAND	Balkesir-Ban	2.93	81	⇑P	Pn	23 10 09.0	-0.6
JMB	Yambol	3.03	33	eP	Pn	23 10 10.7	-0.3
TRAN	Tran	3.13	337	i P	Pn	23 10 13.4	+1.0
PVL	Pavlikeni	3.23	11	i P	Pn	23 10 13.9	+0.3
SRN	Sarande	3.32	270	P	Pn	23 10 14.9	0.0
ITM	Ithomi	3.35	215		Pn	23 10 16.0	+0.7
ITM	Ithomi	3.35	215	P	Pn	23 10 15.6	+0.3
CTYL	Yalikoy Yolu	3.38	62	P	Pn	23 10 17.0	+1.3
CTYL				AML	AML		
PHP	Peshkopia	3.41	302	P	Pn	23 10 17.1	+0.9
MPEP	Malo Peshtene	3.42	353	eP	Pn	23 10 17.2	+0.9
PLVB	Pleven	3.43	4	⇑P	Pn	23 10 16.8	+0.3
KEK	Kerkira	3.48	267		Pn	23 10 18.0	+0.8
SZH	Strazhitsa	3.53	20	i P	Pn	23 10 17.8	0.0
MANT	Manisa	3.61	113		Pn	23 10 18.8	-0.3
VLO	Vlora	3.72	279	P	Pn	23 10 21.2	+0.7
ZIMR		3.78	12	⇓P	Pn	23 10 21.4	+0.3
VALD	Valchedram	3.79	350	i P	Pn	23 10 22.2	+0.9
BDRM	Kayabasi	3.79	139	⇑P	Pn	23 10 21.1	-0.3
LOZB	Loznitsa	3.81	26	⇑P	Pn	23 10 21.1	-0.6
ROIA	ROIAK	3.89	35	eP	Pn	23 10 23.2	+0.5
PRD	Provadia	3.95	35	eP	Pn	23 10 23.4	-0.2
RAZG	Razgrad	3.96	24	⇓P	Pn	23 10 23.6	-0.1
NEF	NEVSHA	3.98	33	eP	Pn	23 10 23.7	-0.3
AVR	AVREN	4.04	37	eP	Pn	23 10 24.7	-0.1
BOVS	Bovan	4.16	333	⇓P	Pn	23 10 26.6	+0.1
TAVA	DENIZLI_Tavas	4.38	123	⇑P	Pn	23 10 30.3	+0.7
SGRR	Singureni	4.44	16	⇑P	Pn	23 10 30.0	-0.2
DRME	Dracevica, Mon	4.47	302	ePn	Pn	23 10 33.5	+2.8
PDG	Podgorica	4.54	305		Pn	23 10 33.3	+1.5
PDG	Podgorica	4.54	305	ePn	Pn	23 10 34.2	+2.5
HUMR	Humele	4.59	6	⇑P	Pn	23 10 31.8	-0.6
HUMR	Humele	4.59	6	P	Pn	23 10 32.2	-0.2
IDI	Anoyia	4.69	174	Pn	Pn	23 10 33.0	-0.8
	10nm,0.4s,baz=276,slow=14,SNR=13						
BORA	Eskisehir	4.72	89		Pn	23 10 34.1	-0.1
ARG	Arkhangelos	4.80	140	Pn	Pn	23 10 35.5	+0.2
ICOR	Ion Corvin	4.90	31	⇑P	Pn	23 10 36.9	+0.3
SULR		4.93	16	⇑P	Pn	23 10 37.5	+0.5
SULR		4.93	16	P	Pn	23 10 37.0	-0.1
KARP	Karpathos	4.95	152	Pn	Pn	23 10 38.1	+0.7
HERR	Herculane	5.12	345	⇓P	Pn	23 10 38.9	-0.7
MFTR	Murfatlar	5.21	35	⇑P	Pn	23 10 40.5	-0.3
BRY	Bratogost	5.24	306	ePn	Pn	23 10 42.6	+1.1
TREB	Trebinje	5.27	303	ePn	Pn	23 10 43.7	+2.0
ISP	Isparta	5.29	112	Pn	Pn	23 10 42.3	+0.1
MTUR	Matau	5.29	6	⇑P	Pn	23 10 41.6	-0.6
MDUB	Mudurnu	5.30	82		Pn	23 10 41.1	-1.0
BBLS	Lazi&#263i	5.35	318	ePn	Pn	23 10 43.2	+0.3
TLBR	Topalu	5.35	30	⇓P	Pn	23 10 42.3	-0.6
ARR	Arges	5.41	2	⇑P	Pn	23 10 44.0	+0.2
ARR	Arges	5.41	2	P	Pn	23 10 44.1	+0.4
ISR	Istrita	5.41	17	⇑P	Pn	23 10 44.1	+0.3
ISR	Istrita	5.41	17	P	Pn	23 10 43.7	0.0
	0.8nm89nm,0.7s						
ISR				AML	AML		
TIRR	Tirgusor	5.43	33	Pn	Pn	23 10 43.0	-0.9
HARR	Harsova	5.43	28	⇑P	Pn	23 10 43.7	-0.2
ELL	Elmali	5.44	124		Pn	23 10 45.1	+0.9
LOT	Lotru	5.50	356	⇑P	Pn	23 10 44.7	-0.3
LOT	Lotru	5.50	356	P	Pn	23 10 45.1	+0.1
	comp=Z,63nm,0.6s						
VOIR		5.50	5	⇑P	Pn	23 10 45.2	+0.2
VOIR		5.50	5	P	Pn	23 10 44.8	-0.2
	comp=Z,0.2nmcomp=Z,34nm,0.7s						
VOIR				AML	AML		
VOIR		5.50	5	P	Pn	23 10 45.6	+0.6
	comp=Z,40nm,0.7s						
GZR	Gura Zlata	5.55	349	⇑P	Pn	23 10 45.0	-0.6
NEHR	Nehoiu	5.66	14	⇑P	Pn	23 10 47.6	+0.6
MLR	Muntele Rosu	5.66	12	Pn	Pn	23 10 47.4	+0.3
	comp=Z,3.5nm,0.3s,baz=270,slow=23,SNR=82						
MLR				AML	AML		
MLR	Muntele Rosu	5.66	12		Pn	23 10 48.0	+0.9
MLR	Muntele Rosu	5.66	12	⇑P	Pn	23 10 47.4	+0.3
MLR	Muntele Rosu	5.66	12	P	Pn	23 10 47.7	+0.5
	comp=Z,0.3nmcomp=Z,76nm,0.7s						
MLR				AML	AML		
MLR	Muntele Rosu	5.66	12	P	Pn	23 10 48.5	+1.4
	comp=Z,76nm,0.7s						
TNR	Turnu Rosu	5.69	360	⇑P	Pn	23 10 47.6	+0.1
TEKS	Tekeris	5.80	324	ePn	Pn	23 10 49.1	+0.1
MATE	Matera	5.86	279	⇑P	Pn	23 10 49.1	-0.7
TIP	Timpagrande	5.89	265	Pn	Pn	23 10 50.6	+0.3
CFR	Carcaliu	5.93	27	⇑P	Pn	23 10 50.6	-0.1
BZS	Buzias	5.99	342	⇑P	Pn	23 10 51.1	-0.5
BZS	Buzias	5.99	342	P	Pn	23 10 52.3	+0.7
	comp=Z,21nm,0.6s						
DEV	Deva	6.01	351	P	Pn	23 10 52.5	+0.6
	comp=Z,41nm,1.0s						
SAHR	Sahastru	6.02	16	⇓P	Pn	23 10 53.2	+1.1
COVR	Voineasa-Covas	6.04	13	⇓P	Pn	23 10 53.2	+0.8
DOPR	Dopca	6.06	7	⇑P	Pn	23 10 53.6	+1.1
PLOR	Plostina	6.13	15	⇑P	Pn	23 10 54.8	+1.2
ODBI	Odobesti	6.14	18	⇑P	Pn	23 10 54.2	+0.5
VRI	Vrincioaia	6.16	16	⇓P	Pn	23 10 55.5	+1.5
VRI	Vrincioaia	6.16	16	P	Pn	23 10 54.7	+0.7
	comp=Z,0.3nmcomp=Z,74nm,0.5s						
VRI				AML	AML		
VRI	Vrincioaia	6.16	16	P	Pn	23 10 55.5	+1.5
	comp=Z,74nm,0.5s						
FRGS	Fruska Gora	6.17	329	ePn	Pn	23 10 52.9	-1.2
MDB	Medias	6.18	0	⇑P	Pn	23 10 55.5	+1.2
TLCR		6.19	31	⇑P	Pn	23 10 54.3	0.0
TURR	Turia	6.22	11	⇑P	Pn	23 10 56.0	+1.2
GIUM	Giurgiulesti	6.22	26	⇓P	Pn	23 10 55.3	+0.5
OZUR		6.23	9	⇓P	Pn	23 10 55.9	+1.0
TATR	Tatarca	6.27	25	⇑P	Pn	23 10 56.0	+0.6
SCTR	Scanteiesti	6.32	24	⇓P	Pn	23 10 56.2	+0.1
VARL	Varlezi	6.48	22	⇑P	Pn	23 10 59.4	+1.1
VLDR	Vladesti	6.50	24	⇓P	Pn	23 10 59.4	+0.8
GHRR		6.51	19	⇑P	Pn	23 10 59.2	+0.5
GHRR		6.51	19	P	Pn	23 10 58.4	-0.2
	comp=Z,98nm,0.5s						
CUC	Castrocucco	6.53	273	Pn	Pn	23 11 00.8	+1.8
ONER	Baraj Valea Uz	6.55	13	⇑P	Pn	23 11 00.1	+0.8
SGRT	San Giovanni R	6.74	288	Pn	Pn	23 11 01.2	-0.8
CEL	Celeste	6.76	258		Pn	23 11 02.8	+0.5
TESR	Tescani	6.77	14	⇑P	Pn	23 11 03.0	+0.8
TESR	Tescani	6.77	14	P	Pn	23 11 02.9	+0.6
	comp=Z,0.3nmcomp=Z,65nm,0.5s						
TESR				AML	AML		
TESR	Tescani	6.77	14	P	Pn	23 11 03.4	+1.1
	comp=Z,60nm,0.5s						
DRGR		6.93	351	P	Pn	23 11 05.9	+1.3
	comp=Z,14nm,0.6s						
BIZ	Bicaz	7.10	10	⇑P	Pn	23 11 07.4	+0.6
BLY	Banja Luka	7.12	315		Pn	23 11 08.2	+1.0
BLY	Banja Luka	7.12	315	⇑P	Pn	23 11 07.4	+0.3
BLY	Banja Luka	7.12	315	ePn	Pn	23 11 08.5	+1.3
BLY	Banja Luka	7.12	315	P	Pn	23 11 08.0	+0.9
	comp=Z,36nm,0.7s						
BR106	Keskin Array S	7.16	89	P	Pn	23 11 11.4	+3.5
	comp=Z,0.0nmcomp=Z,65nmcomp=Z,5.4nm,0.8s						
BR106				AML	AML		
BR105	Keskin Array S	7.17	89	P	Pn	23 11 10.8	+2.9
	comp=Z,0.0nmcomp=Z,92nmcomp=Z,5.2nm,0.7s						
BR105				AML	AML		
GIRR	Girov	7.17	12	⇑P	Pn	23 11 09.0	+1.2
BR131	Keskin Array S	7.18	89		Pn	23 11 08.5	+0.5
BRTR	Keskin Array B	7.18	89	Pn	Pn	23 11 08.2	+0.1
	comp=Z,1.4nm,0.3s,baz=269,slow=11,SNR=20						
BRTR				Sn	Sn	23 12 25.3	-4.7
	comp=Z,0.3nm,0.3s,baz=219,slow=40,SNR=1.4						
	comp=Z,2.2nm,0.4s						
BRTR				AML	AML		
BRTR	Keskin Array B	7.18	89		Pn	23 11 08.6	+0.5
MORH	Mrgy, Hungar	7.50	328	⇓P	Pn	23 11 11.7	-0.6
MORH	Mrgy, Hungar	7.50	328	ePn	Pn	23 11 11.9	-0.4
MORH	Mrgy, Hungar	7.50	328	P	Pn	23 11 12.8	+0.5
	comp=Z,0.1nmcomp=Z,9.4nm,0.8s						
MORH				AML	AML		
MORH	Mrgy, Hungar	7.50	328	P	Pn	23 11 11.5	-0.8
	comp=Z,10nm,1.0s						
PAOL	Paolisi	7.50	281	Pn	Pn	23 11 13.0	+0.5
PRAR	RASCA	7.53	10	⇑P	Pn	23 11 13.9	+1.2
BURAR	Bucovina Array	7.68	5		Pn	23 11 15.4	+0.5
BURAR	Bucovina Array	7.68	5	⇑P	Pn	23 11 15.7	+0.8
BUR08	Bucovina Ar. S	7.71	4		Pn	23 11 15.3	+0.1
PURM	Purcari	7.72	30	P	Pn	23 11 15.1	-0.2
	comp=Z,0.6nmcomp=Z,86nm,0.7s						
PURM				AML	AML		
BMR	Baia Mare	7.74	356	P	Pn	23 11 15.8	+0.3
	comp=Z,38nm,0.7s						
KIS	Kishinev	7.76	23	P	Pn	23 11 15.6	-0.3
	comp=Z,0.2nmcomp=Z,41nm,0.6s						
KIS				AML	AML		
VAE	Valguarnera	8.13	255	Pn	Pn	23 11 24.4	+3.4
	comp=Z,2.6nm,0.3s,baz=281,slow=12,SNR=6.7						
VAE				Sn	Sn	23 12 54.2	+1.1
	comp=Z,0.6nm,0.3s,baz=323,slow=5.8,SNR=3.2						
	comp=Z,7.0nm,0.6s						
VAE				AML	AML		
INTR	Introdacqua	8.14	288	Pn	Pn	23 11 21.2	0.0
TRPA	Tarpa	8.27	352	P	Pn	23 11 22.3	-0.5
	comp=Z,12nm,0.8s						
SEV	Sevastopol'	8.31	54	eP	Pn	23 11 22.8	-0.7
SEV				pmax	pmax	23 11 30.8	
	comp=Z,2.0nm,0.4s						
SEV				ex	x	23 12 57.2	
SEV				smax	smax	23 13 01.0	
	comp=N,1.0nm,0.4s						
SEV				smax	smax	23 13 01.0	
	comp=E,3.0nm,0.5s						
DNZ2	Donuzlav2	8.50	48	eP	Pn	23 11 26.3	+0.3
DNZ2				pmax	pmax	23 11 28.3	
	comp=Z,2.0nm,0.5s						
DNZ2				ex	x	23 13 04.3	
DNZ2				smax	smax	23 13 13.4	
	comp=N,4.0nm,0.6s						
DNZ2				smax	smax	23 13 13.4	
	comp=E,2.0nm,0.6s						
BEHE	Becsehely	8.52	322		Pn	23 11 27.2	+0.9
BEHE	Becsehely	8.52	322	ePn	Pn	23 11 28.0	+1.7
YAL	Yalta	8.59	55	eP	Pn	23 11 28.6	+1.4
YAL				pmax	pmax	23 11 31.6	
	comp=Z,2.0nm,0.3s						
YAL				ex	x	23 13 08.1	
YAL				smax	smax	23 13 09.5	
	comp=N,1.0nm,0.3s						
YAL				smax	smax	23 13 09.5	
	comp=E,3.0nm,0.3s						
SORM	Soroca	8.67	18	⇑P	Pn	23 11 27.4	-1.0
SORM	Soroca	8.67	18	P	Pn	23 11 27.2	-1.2
MPLH	Magyarpolny	8.72	328	P	Pn	23 11 30.4	+1.3
MPLH	Magyarpolny	8.72	328	P	Pn	23 11 29.5	+0.4
	comp=Z,17nm,0.7s						
GUMA	Gualdo di Mace	8.80	294	Pn	Pn	23 11 31.5	+1.3
ALU	Alushta	8.84	54	eP	Pn	23 11 32.5	+1.9
ALU				pmax	pmax	23 11 35.6	
	comp=Z,2.0nm,0.3s						
NRCA	Norcia	8.89	292	Pn	Pn	23 11 31.8	+0.2
FDMO	Fiordimonte	8.97	294	Pn	Pn	23 11 31.9	-0.6
KOLS	Kolonicke sedl	9.09	351	ePN	Pn	23 11 35.6	+1.5
KOLS	Kolonicke sedl	9.09	351	P	Pn	23 11 34.9	+0.8
	comp=Z,7.7nm,0.7s						
SUDU	Sudak	9.31	55	eP	Pn	23 11 39.8	+2.7
SUDU				pmax	pmax	23 11 44.2	
	comp=Z,6.0nm,0.5s						
SUDU				ex	x	23 13 21.8	
SUDU				smax	smax	23 13 25.3	
	comp=N,9.0nm,0.6s						
SUDU				smax	smax	23 13 25.3	
	comp=E,3.0nm,0.6s						
SOKA	Soboth	9.53	318	ePn	Pn	23 11 40.5	+0.3
	comp=E,1.3nm,0.3s						
RONA	Rosalia, Austr	9.66	326	ePn	Pn	23 11 40.3	-1.7
	comp=E,0.1nm,0.2s						
OBKA	Obir	9.67	316	ePn	Pn	23 11 43.7	+1.6
	comp=E,1.3nm,0.3s						
ARSA	Arzberg	9.68	322		Pn	23 11 42.3	+0.1
ARSA	Arzberg	9.68	322	ePn	Pn	23 11 41.8	-0.4
	comp=E,0.4nm,0.2s						
ARSA				eSn	Sn	23 13 24.5	-6.6
	comp=E,1.6nm,0.5s						
ARSA	Arzberg	9.68	322	P	Pn	23 11 42.7	+0.5
	comp=Z,12nm,0.7s						
ANDN	Andirin	9.69	100	P	Pn	23 11 43.8	+1.3
	comp=Z,24nm,0.8s						
CONA	Conrad Observa	10.02	325	ePn	Pn	23 11 48.7	+1.7
	comp=Z,0.1nm,0.2s						
CONA				eSn	Sn	23 13 39.3	-0.4
	comp=Z,1.0nm,0.4s						
SESA	Seetaler Alpe,	10.05	319	ePn	Pn	23 11 47.4	-0.1
	comp=Z,0.1nm,0.1s						
LUBAR	Lubar, Ukraine	10.25	13	P	Pn	23 11 49.6	-0.4
KBA	Koelnbreinsper	10.67	315	ePn	Pn	23 11 57.5	+1.6
	comp=Z,0.5nm,0.3s						
MOA	Molln	10.70	321	ePn	Pn	23 11 57.1	+0.9
	comp=Z,0.1nm,0.1s						
MOA				eSn	Sn	23 13 51.4	-5.0
	comp=Z,1.8nm,0.5s						
BIOA	Bad Ischl, Aus	10.91	319	ePn	Pn	23 12 00.4	+1.3
	comp=Z,0.5nm,0.3s						
ABTA	Abfaltersbach	10.94	312	ePn	Pn	23 12 00.2	+0.7
	comp=Z,0.2nm,0.2s						
CTI	Castel Tesino	11.09	307	Pn	Pn	23 12 00.2	-1.4
AK07	Malin Array Si	11.13	16	P	Pn	23 12 01.4	-0.7
LESA	Schwarzleotal	11.24	315	ePn	Pn	23 12 03.1	-0.6
	comp=Z,3.2nm,0.4s						
AKASG	Malin Array Be	11.28	16	Pn	Pn	23 12 02.8	-1.3
	comp=Z,1.8nm,0.4s,baz=208,slow=12,SNR=7.9						
AKASG	Malin Array Be	11.28	16	Pn	Pn	23 12 01.3	-2.7
AKBB	Malin Array Si	11.28	16	P	Pn	23 12 02.8	-1.3
MMAI	Mount Meron Ar	11.29	124	Pn	Pn	23 12 03.4	-1.1
	comp=Z,1.0nm,0.3s,baz=339,slow=16,SNR=6.0						
	comp=Z,0.4nm,0.4s						
MMAI				AML	AML		
GERES	GERESS Array B	11.67	323	Pn	Pn	23 12 12.2	+2.6
	baz=153,slow=12,SNR=1.9						
	comp=Z,0.5nm,0.3s						
WTTA	Wattenberg	11.73	313	ePn	Pn	23 12 09.0	-1.4
	comp=Z,2.2nm,0.6s						
WATA	Walderalm	11.80	313	ePn	Pn	23 12 13.2	+1.9
	comp=Z,0.2nm,0.2s						
KHC	Kasperske Hory	11.94	324	eP	Pn	23 12 19.3	+6.2
KHC				ex	x	23 15 05.0	
SQTA	Sankt Quirin	11.95	312	ePn	Pn	23 12 13.6	+0.3
	comp=Z,0.4nm,0.2s						
MOTA	Moosalm	12.07	312	ePn	Pn	23 12 14.4	-0.7
	comp=Z,0.1nm,0.1s						
FETA	Feichten	12.12	310	ePn	Pn	23 12 15.2	-0.6
	comp=Z,0.1nm,0.2s						
FUORN	Ofenpass-Fuorn	12.20	308	Pn	Pn	23 12 16.6	-0.4
RETA	Reutte	12.35	312	ePn	Pn	23 12 18.9	+0.1
	comp=Z,0.1nm,0.1s						
DAVOX	Davos/Dischmat	12.51	308	Pn	Pn	23 12 22.0	+0.8
	comp=Z,0.2nm,0.3s,baz=149,slow=11,SNR=5.7						
	comp=Z,1.9nm,0.6s						
DAVOX				AML	AML		
KEST	Kesra	12.56	255	Pn	Pn	23 12 22.6	+0.9
	comp=Z,0.1nm,0.3s,baz=63,slow=9.0,SNR=1.5						
	comp=Z,3.0nm,0.8s						
KEST				AML	AML		
KEST	Kesra	12.56	255	Pn	Pn	23 12 22.0	+0.3
DAVA	Damuels	12.75	310	ePn	Pn	23 12 22.8	-1.6
	comp=Z,0.9nm,0.3s						
CLL	Collm	13.81	329	ePP	P	23 12 49.0	+1.8
SENIN	Lac Senin/Sane	13.96	303	Pn	Pn	23 12 39.1	-1.8
HAKT	HAKKARI	15.32	93	P	Pn	23 13 00.5	+1.0
	comp=Z,23nm,1.8s						
HFS	Hagfors	21.26	345	P	P	23 14 10.0	+0.8
	comp=Z,2.8nm,0.8s,baz=155,slow=8.2,SNR=6.0						
	comp=Z,2.8nm,0.8s						
FINES	FINESS Array B	21.54	2	P	P	23 14 12.9	+0.8
	comp=Z,3.0nm,1.0s,baz=157,slow=10,SNR=6.1						
	comp=Z,3.0nm,1.0s						
FINES	FINESS Array B	21.54	2	P	P	23 14 11.5	-0.6
FIA1	FINESS Array S	21.54	2	P	P	23 14 12.3	+0.2
FIA1				IAmb	IAmb	23 14 17.3	
	comp=Z,15nm,1.1s						
ESDC	Sonseca Array	21.69	278	P	P	23 14 13.9	-0.1
	comp=Z,1.1nm,0.9s,baz=72,slow=11,SNR=9.3						
	comp=Z,1.1nm,0.9s						
NC602	NORSAR Array S	22.26	343	P	P	23 14 19.2	-0.6
NC602				IAmb	IAmb	23 14 28.1	
	comp=Z,11nm,1.1s						
NAO01	NORSAR Array S	22.50	343	P	P	23 14 21.1	-1.4
NAO01				IAmb	IAmb	23 14 39.9	
	comp=Z,8.6nm,0.8s						
NB2	NORSAR Subarra	22.60	343	P	P	23 14 22.8	-0.8
	comp=Z,3.8nm,0.8s,baz=151,slow=11						
NOA	NORSAR Array B	22.60	343	P	P	23 14 23.7	+0.1
	comp=Z,1.9nm,0.8s,baz=160,slow=11,SNR=5.9						
	comp=Z,1.9nm,0.8s						
EKA	Eskdalemuir Ar	23.84	319	P	P	23 14 37.0	+0.8
	comp=Z,1.9nm,0.6s,baz=113,slow=9.1,SNR=5.2						
	comp=Z,1.9nm,0.6s						
RAYN	Ar Rayn	24.26	126	P	P	23 14 40.0	-0.4
RAYN	Ar Rayn	24.26	126	P	P	23 14 41.8	+1.4
	comp=Z,4.1nm,0.9s						
MD01	Midelt array s	24.37	262	P	P	23 14 42.2	+0.7
TORD	Torodi Ar. Bea	33.31	223	P	P	23 16 01.1	0.0
	comp=Z,0.7nm,0.5s,baz=32,slow=8.2,SNR=15						
	comp=Z,0.7nm,0.5s						
BVAR	Borovoye Array	33.71	52	P	P	23 16 03.8	-0.4
	comp=Z,0.5nm,0.6s,baz=265,slow=13,SNR=0.8						
	comp=Z,0.5nm,0.6s						
KURBB	Kurchatov Arra	38.79	56	P	P	23 16 49.4	+1.7
	comp=Z,0.2nm,0.3s,baz=283,slow=8.7,SNR=2.1						
	comp=Z,0.2nm,0.3s						
MKAR	Makanchi Array	41.86	61	P	P	23 17 14.2	+1.1
	comp=Z,1.2nm,0.7s,baz=268,slow=6.6,SNR=9.6						
	comp=Z,1.2nm,0.7s						
MKAR	Makanchi Array	41.86	61	P	P	23 17 11.9	-1.3
DBIC	Dimbokro	42.23	226	P	P	23 17 18.9	+2.5
	comp=Z,3.4nm,0.9s,baz=38,slow=6.6,SNR=3.7						
	comp=Z,3.4nm,0.9s						
DBIC	Dimbokro	42.23	226	P	P	23 17 16.7	+0.3
DBIC				IAmb	IAmb	23 17 30.8	
	comp=Z,5.5nm,1.1s						
ZALV	Zalesovo Beam	42.30	50	P	P	23 17 18.5	+1.9
	comp=Z,1.0nm,0.6s,baz=280,slow=8.9,SNR=5.0						
	comp=Z,1.0nm,0.6s						
WMQ	Urumqi	46.32	63	eP	P	23 17 47.5	-1.5
WMQ				pP	sP	23 17 53.5	+1.9
WMQ				pmax	pmax		
	comp=Z,21nm,0.7s						
SONM	Songino Array	57.04	53	P	P	23 19 11.7	+2.5
	comp=Z,0.2nm,0.3s,baz=302,slow=8.3,SNR=2.4						
	comp=Z,0.2nm,0.3s						
HHC	Hu-ho-hao-te	63.59	58	eP	P	23 19 54.5	+0.4
HHC				pmax	pmax		
	comp=Z,120nm,0.5s						
HHC				pmax	pmax		
	comp=Z,120nm,4.6s						
PZH	PanZhiHua	64.29	76	P	P	23 19 59.5	+0.6
LBTB	Lobatse	64.65	179	P	P	23 20 00.0	-1.0
CMAR	Chiang Mai Arr	66.75	85	P	P	23 20 16.8	+2.0
	comp=Z,0.5nm,0.4s,baz=295,slow=7.1,SNR=4.9						
	comp=Z,0.5nm,0.4s						
E29M	Blow River	71.15	353	P	P	23 20 41.1	-0.3
E29M				IAmb	IAmb	23 20 56.7	
	comp=Z,4.8nm,1.1s						
ASAR	Alice Springs	119.45	97	PKP	PKiKP	23 28 15.1	+1.9
	comp=Z,0.8nm,0.9s,baz=322,slow=1.9,SNR=7.0						

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*IDC **26** 23:17:23.0±2.0, 1°.52N×125°.31E, h0^{km}, mb3.4/3,*
mbtmp3.4/4, ML3.7/1, Error ellipse: s-maj=137.1km
s-min=25.4km az=67.0
*DJA **26** 23:17:39.9±0.4, 1°N±4°×12°5E±°, h86^{km}±8^{km}, M4.0/19,*
mb4.1/7, mB5.2/4, MLv3.8/19, Mw(mB)4.5/4
ISC 26 23:17:39.3±1.2, **1°.02N**±0°.08×**125°.20E**±0°.06, **h92**^{km}, **n14**,
σ**1**^{s}**89**/14, **mb3.1**/3, **Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC

MNI	Manado	0.56	320	P	Pn	23 17 55.2	+0.5
MNI				S	Sn	23 18 07.2	+1.0
TNTI	Ternate	2.18	96	P	Pn	23 18 15.4	+1.4
TNTI				AML	AML		
GTOI	Gorontalo	2.22	260	P	Pn	23 18 15.3	+0.9
GTOI				AML	AML		
SANI	Sanana	3.15	165	P	Pn	23 18 26.4	-0.5
SANI				AML	AML		
LUWI	Luwuk	3.17	230	P	Pn	23 18 29.5	+2.3
LUWI				AML	AML		
APSI	Ampana	4.03	242	P	Pn	23 18 40.4	+1.6
APSI				AML	AML		
NLAI	Namlea	4.63	156	P	Pn	23 18 48.7	+1.7
NLAI				AML	AML		
AAI	Ambon	5.55	147	P	Pn	23 19 01.4	+1.9
	45nm,0.6s						
KDI	Kendari	5.57	208	P	Pn	23 19 01.0	+1.2
	0.2nm3µm9.6nm,0.7s						
KDI				AML	AML		
MSAI	Masohi	5.72	139	P	Pn	23 19 04.1	+2.4
FITZ	Fitzroy Crossi	19.00	179	P	P	23 21 52.1	-1.7
	0.2nm,0.3s,baz=4.4,slow=11,SNR=1.8 1.2nm,0.7s						
FITZ				AML	AML		
WRA	Warramunga Arr	22.68	157	P	P	23 22 30.8	-2.5
	0.6nm,0.6s,baz=336,slow=10,SNR=5.1 0.6nm,0.6s						
ASAR	Alice Springs	25.95	162	P	P	23 23 01.2	-2.2
	0.2nm,0.4s,baz=346,slow=9.6,SNR=5.0 0.2nm,0.4s						
MKAR	Makanchi Array	58.94	327	P	P	23 27 21.7	-7.3
	0.2nm,0.3s,baz=134,slow=6.2,SNR=4.9 0.2nm,0.3s						

*JMA **26** 23:24:56.4±0.1, 23°.6N±0°.3×121°.6E±0°.8, h51^{km}±1^{km}, MV2.8/14, TAIWAN REGION*
*TAP **26** 23:24:57.1, 23°.69N×121°.58E, h48^{km}, ML3.5, C*
ISC 26 23:24:57.3±1.2, **23°.67N**±0°.02×**121°.62E**±0°.02, **h44**^{km}±4^{km}, **n152**, σ1^{s}.**15**/267, **Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TEGC	Jichi Village	0.08	297	P	Pn	23 25 04.8	+0.4
TEGC				S	Sn	23 25 11.1	+1.8
SHUL	Shoufeng	0.13	335	P	Pn	23 25 04.9	+0.3
SHUL				S	Sn	23 25 11.3	+1.6
EGFH	Guangfu	0.18	269	P	Pn	23 25 04.7	-0.2
EGFH				S	Sn	23 25 10.6	+0.3
TEYL	Yanliau Villag	0.20	354	P	Pn	23 25 05.6	+0.5
TEYL				S	Sn	23 25 12.4	+1.9
WARBT	Fenglin Townsh	0.22	282	iP	Pn	23 25 04.6	-0.6
WARBT				S	Sn	23 25 10.0	-0.8
ESL	Shilin	0.22	310	iP	Pn	23 25 04.7	-0.6
ESL				S	Sn	23 25 10.0	-0.8
HGSD	Ruisui	0.25	225	iP	Pn	23 25 06.1	+0.6
HGSD				S	Sn	23 25 13.4	+2.1
HWA	Hwalien	0.30	357	P	Pn	23 25 06.3	+0.4
HWA				S	Sn	23 25 13.8	+1.7
EHYH	Wanrong	0.31	235	eP	Pn	23 25 05.7	-0.4
EHYH				iS	Sn	23 25 11.8	-0.4
ETM	Tongmen	0.32	338	P	Pn	23 25 05.5	-0.6
ETM				S	Sn	23 25 10.9	-1.4
EHY	Hungye	0.32	239	iP	Pn	23 25 05.6	-0.6
EHY				S	Sn	23 25 11.5	-0.8
ECBN	Changbin	0.39	204	P	Pn	23 25 07.2	+0.3
ECBN				S	Sn	23 25 15.1	+1.5
LXIB	Xiulin Townshi	0.40	331	P	Pn	23 25 06.3	-0.8
LXIB				S	Sn	23 25 13.1	-1.0
YULB	Yu-li	0.41	227	P	Pn	23 25 06.3	-0.8
YULB	Yu-li	0.41	227	S	Sn	23 25 13.1	-0.9
YULB	Yu-li	0.41	227	iP	Pn	23 25 06.5	-0.6
YULB				S	Sn	23 25 13.3	-0.7
TWD	Chiawan	0.41	357	P	Pn	23 25 06.9	-0.3
TWD				S	Sn	23 25 14.1	0.0
EYUL	Yuli	0.42	221	P	Pn	23 25 07.0	-0.3
EYUL				S	Sn	23 25 14.2	-0.2
TWF1	Yuli	0.43	223	P	Pn	23 25 06.9	-0.5
TWF1				S	Sn	23 25 14.1	-0.5
VWDT	VWDT	0.45	281	iP	Pn	23 25 07.7	+0.2
VWDT				S	Sn	23 25 14.3	-0.6
ETL	Fush Village	0.49	0	P	Pn	23 25 07.8	-0.3
ETL				S	Sn	23 25 16.3	+0.6
OWD	Renai	0.50	305	iP	Pn	23 25 08.1	-0.2
OWD				iS	Sn	23 25 15.3	-0.8
NACB	Ninganchiao	0.50	357	P	Pn	23 25 07.3	-1.0
NACB	Ninganchiao	0.50	357	S	Sn	23 25 16.1	+0.1
NACB	Ninganchiao	0.50	357	P	Pn	23 25 08.0	-0.2
NACB				S	Sn	23 25 16.5	+0.4
CHKH	Chenggong	0.52	203	P	Pn	23 25 08.5	0.0
CHKH				S	Sn	23 25 17.2	+0.8
ETLH	Xiulin Townshi	0.55	347	P	Pn	23 25 08.0	-0.9
ETLH				S	Sn	23 25 15.8	-1.4
FULB	Fuli	0.56	213	P	Pn	23 25 09.1	+0.1
FULB				S	Sn	23 25 18.4	+1.1
WUSB	Renai	0.56	305	P	Pn	23 25 09.1	0.0
WUSB				S	Sn	23 25 17.1	-0.5
WHF	Hehuan Shan	0.57	325	eP	Pn	23 25 09.0	-0.6
WHF				eS	Sn	23 25 17.5	-0.8
CHKT	Chengkung	0.62	202	P	Pn	23 25 09.6	-0.1
CHKT				S	Sn	23 25 19.2	+0.6
SSLB	Suanglung	0.62	281	P	Pn	23 25 09.5	-0.3
SSLB	Suanglung	0.62	281	S	Sn	23 25 19.2	+0.4
SSLB	Suanglung	0.62	281	P	Pn	23 25 09.6	-0.3
SSLB				S	Sn	23 25 18.7	-0.1
YUS	Yu-Shan	0.64	254	P	Pn	23 25 10.7	+0.2
YUS				S	Sn	23 25 20.0	+0.1
EHD	Haiduan	0.65	216	eP	Pn	23 25 09.2	-0.9
EHD				S	Sn	23 25 18.2	-1.1
EAHA	Aohua	0.66	9	P	Pn	23 25 10.1	-0.3
EAHA				eS	Sn	23 25 20.5	+0.7
FUSS	Fushou	0.67	329	P	Pn	23 25 10.5	-0.1
FUSS				S	Sn	23 25 19.8	-0.5
ECS	Chishang	0.68	213	P	Pn	23 25 11.5	+0.9
ECS				S	Sn	23 25 20.5	+0.3
SMLT	Sun Moon Lake	0.69	288	P	Pn	23 25 11.0	+0.1
SMLT				S	Sn	23 25 20.9	+0.3
WHYT	Xinyi Township	0.70	272	P	Pn	23 25 11.2	+0.3
WHYT				S	Sn	23 25 21.2	+0.5
TWT	Tachien	0.71	325	P	Pn	23 25 11.4	+0.2
TWT				S	Sn	23 25 20.7	-0.3
TDCB	Techi	0.72	324	iP	Pn	23 25 11.4	+0.1
TDCB				S	Sn	23 25 20.6	-0.6
ELDTW	Lidau	0.73	229	P	Pn	23 25 10.7	-0.7
ELDTW				eS	Sn	23 25 20.7	-0.9
TYC	Yuchr	0.74	288	P	Pn	23 25 11.5	+0.1
TYC				S	Sn	23 25 22.1	+0.6
EDH	Donghe	0.75	203	P	Pn	23 25 10.9	-0.6
EDH				S	Sn	23 25 21.7	-0.1
WCS	Beigang Elemen	0.75	301	P	Pn	23 25 11.7	+0.2
WCS				S	Sn	23 25 21.6	-0.3
ENA	Nanau	0.76	8	P	Pn	23 25 08.5	-3.2
ENA				S	Sn	23 25 19.3	-2.8
ALS	Alishan	0.77	258	iP	Pn	23 25 12.4	+0.4
ALS				S	Sn	23 25 23.1	+0.4
EOS4	EOS4	0.78	55	P	Pn	23 25 11.7	+0.2
EOS4				S	Sn	23 25 22.4	+0.4
EWUT	Wuta	0.78	11	P	Pn	23 25 11.7	-0.3
EWUT				S	Sn	23 25 22.3	-0.3
NNSB	Datong	0.79	344	P	Pn	23 25 11.6	-0.5
NNSB				S	Sn	23 25 21.9	-0.9
NNS	Nan Shan	0.80	344	P	Pn	23 25 11.9	-0.4
NNS				eS	Sn	23 25 22.6	-0.6
WJS	Zhushan	0.83	281	P	Pn	23 25 13.2	+0.6
WJS				S	Sn	23 25 25.5	+1.7
LATG	Datong	0.86	354	P	Pn	23 25 12.5	-0.7
LATG				eS	Sn	23 25 23.2	-1.5
CHN5	Tsauling	0.87	265	P	Pn	23 25 13.8	+0.6
CHN5				S	Sn	23 25 26.0	+1.2
WNT	Mingjian	0.88	284	P	Pn	23 25 14.2	+0.9
WNT				S	Sn	23 25 26.8	+1.8
EOS3	EOS3	0.88	46	P	Pn	23 25 13.7	+0.5
EOS3				S	Sn	23 25 24.9	+0.1
LONT	Longtian	0.89	211	P	Pn	23 25 12.1	-1.2
LONT				eS	Sn	23 25 23.5	-1.6
STYH	Taoyuan	0.92	237	iP	Pn	23 25 14.1	+0.3
STYH				S	Sn	23 25 26.5	+0.5
ESAO	Su ao	0.92	13	P	Pn	23 25 14.0	+0.2
ESAO				eS	Sn	23 25 26.9	+1.0
EOS2	EOS2	0.93	37	P	Pn	23 25 14.6	+0.8
EOS2				eS	Sn	23 25 28.3	+2.3
NDT	Datong Townshi	0.93	354	P	Pn	23 25 13.6	-0.5
TWC	Suao	0.96	13	iP	Pn	23 25 14.4	+0.1
TWC				eS	Sn	23 25 27.5	+0.7
WCKO	Fanlu	0.96	256	P	Pn	23 25 15.5	+1.1
WCKO				S	Sn	23 25 28.9	+2.0
NDS	Dongshan	0.96	5	P	Pn	23 25 13.7	-0.7
NDS				S	Sn	23 25 27.1	+0.2
TPUB	Ta-pu	0.98	248	P	Pn	23 25 15.6	+0.9
TPUB	Ta-pu	0.98	248	S	Sn	23 25 28.9	+1.4
TPUB	Ta-pu	0.98	248	P	Pn	23 25 15.6	+0.9
TPUB				S	Sn	23 25 28.4	+1.0
TWGBT	Beinan	0.98	210	P	Pn	23 25 13.2	-1.5
TWGBT	Beinan	0.98	210	S	Sn	23 25 26.0	-1.5
TWGBT	Beinan	0.98	210	P	Pn	23 25 13.3	-1.5
TWGBT				eS	Sn	23 25 25.9	-1.5
TCU	Taichung	0.99	299	eP	Pn	23 25 15.3	+0.6
TCU				S	Sn	23 25 29.2	+1.7
TWG	Pinlang	0.99	211	P	Pn	23 25 13.3	-1.4
TWG				S	Sn	23 25 25.7	-1.8
WDL	Douliou City	0.99	273	eS	Sn	23 25 30.5	+2.9
WDLH	Douliu	0.99	271	P	Pn	23 25 16.0	+1.2
CHN4	Tsaushan	1.00	252	P	Pn	23 25 15.8	+1.0
CHN4				S	Sn	23 25 30.2	+2.4
LDUT	Ludao	1.00	188	eP	Pn	23 25 14.1	-0.9
LDUT				eS	Sn	23 25 27.7	-0.2
TTN	Taitung	1.01	206	P	Pn	23 25 13.5	-1.6
TTN				eS	Sn	23 25 27.3	-0.8
WTP	Ta-pu	1.02	246	P	Pn	23 25 16.1	+0.9
WTP				S	Sn	23 25 30.2	+1.8
YHNB	Yeheng	1.02	347	P	Pn	23 25 15.1	-0.1
YHNB	Yeheng	1.02	347	S	Sn	23 25 28.6	+0.1
YHNB	Yeheng	1.02	347	P	Pn	23 25 15.1	-0.1
YHNB				S	Sn	23 25 27.5	-0.9
NSK	Sanguang	1.03	347	eP	Pn	23 25 15.0	-0.4
NSK				S	Sn	23 25 28.2	-0.4
TWE	Neicheng	1.05	2	P	Pn	23 25 15.0	-0.5
TWE				eS	Sn	23 25 28.5	-0.5
WCHH	Zhanghua	1.05	293	P	Pn	23 25 16.8	+1.1
WCHH				S	Sn	23 25 31.0	+1.9
NFF	Wufeng Townshi	1.06	334	P	Pn	23 25 16.4	+0.6
NFF				S	Sn	23 25 30.0	+0.5
WCH1	Changhua City	1.06	292	S	Sn	23 25 31.2	+1.9
FUSB	Fushanzhiwuyua	1.08	358	P	Pn	23 25 15.6	-0.6
FUSB				S	Sn	23 25 29.6	-0.5
NWLT	Wulai	1.11	354	eP	Pn	23 25 16.1	-0.4
NWLT				eS	Sn	23 25 29.7	-0.8
CHY	Chiayi	1.11	261	S	Sn	23 25 31.8	+1.3
NSTT	Nanjuang	1.11	329	P	Pn	23 25 17.0	+0.5
NSTT				S	Sn	23 25 31.5	+1.0
CHN1	Nanshi	1.11	244	P	Pn	23 25 17.4	+0.9
CHN1				eS	Sn	23 25 32.1	+1.4
TWK	Hsinying	1.11	249	iP	Pn	23 25 17.2	+0.7
TWK				S	Sn	23 25 32.5	+1.7
LIOB	Emei	1.12	330	P	Pn	23 25 17.4	+0.9
LIOB				S	Sn	23 25 32.1	+1.4
SGST	Jiashian	1.12	239	P	Pn	23 25 16.9	+0.3
SGST				S	Sn	23 25 32.4	+1.6
WTK	Tuku	1.13	271	P	Pn	23 25 17.8	+1.2
WTK				S	Sn	23 25 32.6	+1.6
NMLH	Miaoli	1.15	319	S	Sn	23 25 32.6	+1.1
WRL	Guolierlin Hig	1.16	282	P	Pn	23 25 18.0	+0.9
WRL				S	Sn	23 25 33.4	+1.6
KSHI	Guanxi Townshi	1.17	340	iP	Pn	23 25 18.6	+1.4
KSHI				S	Sn	23 25 33.8	+1.7
RLNB	Erlin	1.18	281	eP	Pn	23 25 17.8	+0.5
RLNB				S	Sn	23 25 34.5	+2.4
ECL	Taimali	1.23	210	eP	Pn	23 25 16.7	-1.4
SBCB	Hsinchu	1.26	333	eS	Sn	23 25 37.3	+3.2
ICHU	Yijhu	1.27	256	S	Sn	23 25 35.3	+0.8
WSF	Szhu	1.28	269	eS	Sn	23 25 36.2	+1.5
WSL	Shuilin Townsh	1.29	264	eP	Pn	23 25 19.7	+0.9
WSL				S	Sn	23 25 35.7	+0.8
NHDH	Xindian Distri	1.29	356	eP	Pn	23 25 18.9	+0.1
NHDH				eS	Sn	23 25 35.4	+0.4
SCST	Cishan	1.30	233	P	Pn	23 25 20.8	+1.9
SCST				S	Sn	23 25 39.1	+4.0
TATO	Taipei	1.30	355	P	Pn	23 25 19.6	+0.5
TATO	Taipei	1.30	355	S	Sn	23 25 35.7	+0.4
TWA	Mucha	1.30	359	eS	Sn	23 25 36.3	+1.0
TIPB	Shuangxi	1.31	8	P	Pn	23 25 19.6	+0.4
TIPB				eS	Sn	23 25 34.8	-0.7
TSMG	Majia	1.31	223	P	Pn	23 25 20.5	+1.3
TSMG				S	Sn	23 25 37.9	+2.3
CHN8	Yiju	1.33	256	S	Sn	23 25 37.3	+1.3
NCUH	Zhongli	1.35	343	P	Pn	23 25 22.3	+2.6
NCUH				S	Sn	23 25 38.6	+2.1
TWB1	Santiao Chiao	1.37	14	P	Pn	23 25 20.7	+0.7
TWB1				eS	Sn	23 25 36.8	-0.2
MASBT	Mashibuluo	1.39	221	eP	Pn	23 25 20.6	+0.3
MASBT				eS	Sn	23 25 39.5	+2.0
WFSB	Wu-fen Shan	1.40	6	eP	Pn	23 25 20.7	+0.3
WFSB				eS	Sn	23 25 38.0	+0.3
TWS1	Kuangyinshan	1.44	353	eS	Sn	23 25 39.5	+1.0
SXI1	Grass Mountain	1.44	9	P	Pn	23 25 22.1	+1.1
SXI1				S	Sn	23 25 40.3	+1.6
JYNG	Yonagunijimaku	1.44	57	eP	Pn	23 25 21.3	+0.4
JYNG				eS	Sn	23 25 38.9	+0.3
EAST	Anshuo	1.47	209	eP	Pn	23 25 20.6	-0.7
EAST				eS	Sn	23 25 41.0	+1.7
YM01	YM01	1.47	358	eP	Pn	23 25 21.0	-0.3
YM01				eS	Sn	23 25 40.0	+0.6
TNOU	National Taiwa	1.48	5	eP	Pn	23 25 22.0	+0.6
ZUZH	Zhuzihu	1.49	357	P	Pn	23 25 21.3	-0.3
ZUZH				S	Sn	23 25 38.8	-1.1
NTST	Danshui	1.50	354	eP	Pn	23 25 19.4	-2.3
NTST				eS	Sn	23 25 42.0	+2.0
YOJ	Yonaguni jima	1.50	58	P	Pn	23 25 22.4	+0.8
YOJ				S	Sn	23 25 41.1	+1.2
YOJ	Yonaguni jima	1.50	58	P	Pn	23 25 22.3	+0.6
TSCK	Chigu Township	1.50	250	P	Pn	23 25 22.4	+0.6
TSCK				S	Sn	23 25 41.0	+0.9
YM08	YM08	1.51	359	P	Pn	23 25 21.3	-0.6
YM08				S	Sn	23 25 40.2	-0.2
SCZT	Fangliau	1.59	216	P	Pn	23 25 23.6	+0.7
SCZT				S	Sn	23 25 44.0	+1.7
LAY	Lan-yu	1.63	182	P	Pn	23 25 22.7	-0.8
LAY				eS	Sn	23 25 41.4	-1.9
SLIU	Shizi	1.63	208	P	Pn	23 25 23.9	+0.3
SLIU				eS	Sn	23 25 41.7	-1.8
LYUB	Lan-yu	1.66	181	P	Pn	23 25 22.5	-1.5
LYUB				eS	Sn	23 25 43.1	-1.0
SMST	Manzhou Townsh	1.79	204	eP	Pn	23 25 26.0	+0.2
TWK1	Hengchun	1.88	204	eP	Pn	23 25 27.1	+0.2
TWKBT	Hengchun	1.88	204	P	Pn	23 25 27.5	+0.6
TWKBT				S	Sn	23 25 48.8	-0.6
PHUB	P'eng-hu	1.89	266	P	Pn	23 25 26.9	-0.2
PHUB				eS	Sn	23 25 48.9	-0.7
PNG	Penghu	1.90	267	eP	Pn	23 25 26.0	-1.2
PNG				eS	Sn	23 25 49.4	-0.5
IRIF	Iriomote-Funau	2.04	71	S	Sn	23 25 54.2	+0.8
VCHM	Qimei	2.06	258	eS	Sn	23 25 52.6	-1.4
JKRS	Kuro-shima	2.26	75	eS	Sn	23 25 59.9	+1.2
VWUC	VWUC	2.38	304	P	Pn	23 25 32.7	-1.1
VWUC				S	Sn	23 25 59.3	-2.4
JIJ	Ishigaki jima	2.41	73	P	Pn	23 25 34.4	+0.2
JISG	Ishigakijimahi	2.62	69	P	Pn	23 25 37.3	+0.2
JISG				S	Sn	23 26 06.8	-0.9
PTMZ	Houxiangcun	2.66	301	P	Pn	23 25 36.9	-0.7
PTMZ				S	Sn	23 26 06.1	-2.5
MATB	Ma-tsu	2.90	329	S	Sn	23 26 11.9	-2.7
JTJ	Tarama	2.98	70	eP	Pn	23 25 43.0	+1.0
JTJ				S	Sn	23 26 17.2	+0.8
KNMB	Chin-men Tao	3.06	286	eP	Pn	23 25 44.1	+1.0
KNMB				S	Sn	23 26 15.8	-2.7
LYJJ	Jianjiangzhen	3.33	330	eS	Sn	23 26 22.6	-2.4
MHZQ	Yeshan	3.37	316	eP	Pn	23 25 47.5	+0.1
MHZQ				eS	Sn	23 26 23.4	-2.9
AXDP	Jialang	3.55	291	eP	Pn	23 25 49.6	-0.2
AXDP				eS	Sn	23 26 28.6	-1.9

*MOS **26** 23:30:07.9, 43°.18N×46°.17E, h11^{km}, MPVA4.1*
*NORS **26** 23:30:08.5, 43°.19N×46°.17E, h15^{km}, MPVA4.1*
*TIF **26** 23:30:09.5, 43°.15N×46°.14E, h13^{km}±1^{km}*
*DRS **26** 23:30:09.3, 43°.20N×46°.11E, h60^{km}*
ISC 26 23:30:09.7±0.9, **43°.18N**±0°.02×**46°.17E**±0°.01, **h15**^{km}±7^{km}, **n90**, σ1^{s}.**10**/166, **4C-4D, Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DVE	Vedeno	0.23	187	iPg	Pg	23 30 14.7	-0.1
DVE				eSg	Sb	23 30 19.6	+0.1
DVE	Vedeno	0.23	187	⇓iPG	Pg	23 30 14.7	-0.1
GROC	Groznyy	0.27	274	ePg	Pg	23 30 15.1	-0.4
GROC				eSg	Sb	23 30 20.5	-0.2
GROC	Groznyy	0.27	274	ePG	Pg	23 30 15.2	-0.3
GROC				eS	Sb	23 30 20.6	-0.2
DLMR	Dylym	0.36	108	ePg	Pg	23 30 16.3	-0.7
DLMR				eSg	Sb	23 30 23.2	-0.1
DLMR	Dylym	0.36	108	ePG	Pg	23 30 16.3	-0.7
DLMR				eS	Sb	23 30 23.2	-0.1
BTLR	Botlikh	0.52	175	iPg	Pg	23 30 19.7	-0.3
BTLR				eSg	Sb	23 30 28.2	+0.3
BTLR	Botlikh	0.52	175	ePG	Pg	23 30 19.9	-0.1
BTLR				eS	Sb	23 30 28.3	+0.3
KRNR	Karanay	0.65	123	ePg	Pg	23 30 21.9	-0.6
KRNR				eSg	Sb	23 30 31.5	-0.3
KRNR	Karanay	0.65	123	ePG	Pg	23 30 21.9	-0.6
KRNR				eS	Sb	23 30 31.5	-0.3
UNCR	Uncukul	0.66	135	ePg	Pg	23 30 22.1	-0.5
UNCR				eSg	Sb	23 30 31.9	-0.1
UNCR	Uncukul	0.66	135	ePG	Pg	23 30 22.1	-0.5
UNCR				eS	Sb	23 30 31.9	-0.1
HNZR	Khunzah	0.74	147	ePG	Pb	23 30 24.2	-0.3
HNZR				eS	Sn	23 30 35.7	-1.3
XNZR	Khunzakh	0.75	148	ePg	Pb	23 30 24.2	-0.5
XNZR				eSg	Sn	23 30 35.7	-1.6
BUJR	Buynaksk	0.78	117	ePg	Pn	23 30 25.2	-1.0
BUJR				eSg	Sn	23 30 37.8	+0.1
BUJR	Buynaksk	0.78	117	ePG	Pn	23 30 25.2	-1.0
BUJR				eS	Sn	23 30 37.8	+0.1
ARKR	Arakani	0.84	133	ePg	Pg	23 30 25.5	-0.5
ARKR				eSg	Sn	23 30 37.9	-1.3
ARKR	Arakani	0.84	133	⇑ePG	Pg	23 30 25.5	-0.5
ARKR				eS	Sn	23 30 37.9	-1.3
SHTL	Shatili	0.91	235	P	Pb	23 30 26.6	-0.7
SHTL				S	Sb	23 30 38.7	-0.6
SHTL	Shatili	0.91	235	PG	Pb	23 30 26.6	-0.7
SHTL				S	Sb	23 30 38.7	-0.6
KMGR	Komgaron	0.96	263	ePg	Pn	23 30 28.6	-0.2
KMGR				eSg	Sn	23 30 43.5	+1.3
KMGR	Komgaron	0.96	263	ePG	Pn	23 30 28.6	-0.2
KMGR				eS	Sn	23 30 43.5	+1.3
GNBR	Gunib	0.99	143	ePg	Pn	23 30 28.9	-0.2
GNBR				eSg	Sn	23 30 43.5	+0.6
GNBR	Gunib	0.99	143	ePG	Pn	23 30 28.8	-0.3
MAK	Makhachkala	1.01	102	ePg	Pn	23 30 29.7	+0.4
MAK				eSg	Sn	23 30 45.0	+1.7
MAK	Makhachkala	1.01	102	⇑iPG	Pn	23 30 29.5	+0.2
MAK				eS	Sn	23 30 43.9	+0.7
MAK				pmax	pmax		
	comp=Z,119nm,0.4s						
MAK				smax	smax		
	comp=N,578nm,0.4s						
MAK				smax	smax		
	comp=N,563nm,0.4s						
TLTR	Tlyarata	1.08	173	ePg	Pg	23 30 30.4	-0.3
TLTR				eSg	Sn	23 30 45.9	+0.5
TLTR	Tlyarata	1.08	173	ePG	Pg	23 30 30.4	-0.3
TLTR				eS	Sn	23 30 45.9	+0.5
VLKR	Vladikavkaz	1.10	263	iPg	Pg	23 30 31.0	+0.1
VLKR				eSg	Sn	23 30 47.8	+2.2
VLKR	Vladikavkaz	1.10	263	iPG	Pg	23 30 31.0	+0.1
VLKR				eS	Sn	23 30 47.8	+2.2
TRKR	Terskaya	1.18	298	ePg	Pn	23 30 30.7	-0.9
TRKR				eSg	Sg	23 30 48.0	+0.3
TRKR	Terskaya	1.18	298	⇓ePG	Pn	23 30 30.7	-0.9
TRKR				eS	Sg	23 30 48.0	+0.3
BTKR	Batakoyurt	1.20	280	ePg	Pb	23 30 32.0	-0.2
BTKR				eSg	Sg	23 30 50.1	+1.6
BTKR	Batakoyurt	1.20	280	⇑iPG	Pg	23 30 32.4	-0.5
BTKR				eS	Sg	23 30 51.3	+2.8
CHRG	Chargali	1.25	227	P	Pb	23 30 32.9	-0.2
CHRG				S	Sg	23 30 49.4	-0.6
KMKR	Kumukh	1.26	146	ePg	Pg	23 30 33.8	-0.1
KMKR				eSg	Sg	23 30 52.0	+1.7
KMKR	Kumukh	1.26	146	ePG	Pg	23 30 33.8	-0.1
KMKR				eS	Sg	23 30 52.0	+1.7
SGKR	Sergokala	1.31	123	ePg	Pg	23 30 34.5	-0.6
SGKR				eSg	Sg	23 30 53.6	+1.5
SGKR	Sergokala	1.31	123	ePG	Pg	23 30 34.5	-0.6
SGKR				eS	Sg	23 30 53.6	+1.5
LGD	Lagodekhi	1.35	178	P	Pg	23 30 36.8	+1.1
LGD				S	Sg	23 30 54.1	+0.9
LGD	Lagodekhi	1.35	178	PG	Pg	23 30 36.8	+1.1
LGD				S	Sg	23 30 54.1	+0.9
ARNR	Ardon	1.38	271	ePg	Pb	23 30 34.6	-0.6
ARNR				eSg	Sg	23 30 55.1	+1.0
ARNR	Ardon	1.38	271	ePG	Pb	23 30 35.0	-0.2
ARNR				eS	Sg	23 30 55.6	+1.5
LACR	Lac	1.42	256	ePg	Pn	23 30 34.4	-0.7
LACR				eSg	Sb	23 30 54.0	+0.1
LACR	Lac	1.42	256	ePG	Pn	23 30 34.4	-0.7
LACR				eS	Sb	23 30 54.0	+0.1
PRTR	Priterechnaya	1.48	293	ePg	Pb	23 30 36.3	-0.7
PRTR				eSg	Sg	23 30 57.6	+0.1
PRTR	Priterechnaya	1.48	293	ePG	Pb	23 30 36.3	-0.7
PRTR				eS	Sg	23 30 57.6	+0.1
URKR	Urkarakh	1.48	133	ePg	Pg	23 30 37.7	-0.6
URKR				eSg	Sg	23 30 58.7	+1.1
URKR	Urkarakh	1.48	133	ePG	Pg	23 30 37.7	-0.6
URKR				eS	Sg	23 30 58.7	+1.1
KORR	Kora	1.54	267	ePg	Pb	23 30 37.2	-0.8
KORR				eSg	Sg	23 30 59.2	-0.1
KORR	Kora	1.54	267	ePG	Pb	23 30 37.2	-0.8
KORR				eS	Sg	23 30 59.2	-0.1
STDR	Stavd-Durt	1.55	278	ePg	Pb	23 30 37.8	-0.3
STDR				eSg	Sg	23 30 59.8	+0.2
STDR	Stavd-Durt	1.55	278	ePG	Pb	23 30 37.8	-0.3
STDR				eS	Sg	23 30 59.8	+0.2
LSNR	Lesken	1.71	274	ePg	Pb	23 30 40.4	-0.5
LSNR				eSg	Sg	23 31 04.5	-0.4
LSNR	Lesken	1.71	274	ePN	Pb	23 30 40.4	-0.5
LSNR				eS	Sg	23 31 04.5	-0.4
DDFL	Dedoflistskaro	1.73	181	P	Pg	23 30 43.1	+0.1
DDFL	Dedoflistskaro	1.73	181	PN	Pg	23 30 43.1	+0.1
SEAG	Tbilisi Sea	1.74	216	P	Pg	23 30 42.5	-0.6
SEAG				S	Sg	23 31 06.4	+0.7
SEAG	Tbilisi Sea	1.74	216	PN	Pg	23 30 42.5	-0.6
SEAG				S	Sg	23 31 06.4	+0.7
TBLG	Delisi	1.79	217	P	Pb	23 30 42.4	+0.1
TBLG				S	Sg	23 31 07.9	+0.4
TBLG	Delisi	1.79	217	PN	Pb	23 30 42.4	+0.1
TBLG				S	Sg	23 31 07.9	+0.4
NCK	Nalchik	1.90	280	ePg	Pb	23 30 43.7	-0.4
NCK				eSg	Sb	23 31 08.9	+1.2
NCK	Nalchik	1.90	280	ePN	Pb	23 30 43.7	-0.4
NCK				eS	Sb	23 31 08.9	+1.2
DIGR	Digorskoe uzhe	1.92	262	ePg	Pn	23 30 42.1	0.0
DIGR				eSg	Sb	23 31 08.1	-0.2
DIGR	Digorskoe uzhe	1.92	262	ePN	Pb	23 30 42.9	-1.6
VSHL	Vashlovani	1.96	175	P	Pb	23 30 45.7	+0.6
VSHL				S	Sg	23 31 14.8	+2.1
DRN	Derbent	1.97	125	ePg	Pb	23 30 43.6	-1.7
DRN				eSg	Sg	23 31 11.7	-1.4
DRN	Derbent	1.97	125	ePN	Pb	23 30 45.5	+0.2
DRN				eS	Sg	23 31 12.3	-0.8
AKT	Akhty	2.06	145	ePN	Pb	23 30 45.5	-1.4
AKT				eS	Sb	23 31 12.9	+0.6
KBTC	Kuba-Taba	2.10	288	ePg	Pb	23 30 46.5	-1.1
KBTC				eSg	Sb	23 31 14.0	+0.4
KBTC	Kuba-Taba	2.10	288	ePN	Pb	23 30 46.5	-1.1
KBTC				eS	Sb	23 31 14.0	+0.4
SEKA	Sheki	2.12	158	PN	Pb	23 30 47.0	-0.8
KSMR	Kasumkent	2.15	137	ePN	Pb	23 30 48.6	+0.3
KSMR				eS	Sg	23 31 17.0	-1.7
PYA1	Pyatigorsk	2.40	293	ePN	Pn	23 30 47.1	-1.4
KBZ	Khabaz	2.44	284	⇓ePN	Pn	23 30 47.3	-1.7
KBZ				eS	Sb	23 31 21.9	-1.3
GANJ	Ganja	2.54	177	PN	Pn	23 30 51.9	+1.5
BEYR	Belyy Ugol+	2.57	290	ePN	Pn	23 30 49.4	-1.5
BEYR				eS	Sn	23 31 19.5	-2.4
SHA1	Shidzhatmaz	2.61	283	iPN	Pn	23 30 49.9	-1.8
KIV	Kislovodsk	2.64	288	ePN	Pn	23 30 50.4	-1.6
KIV				eS	Sn	23 31 22.5	-1.3
AKH	Akhalkalaki	2.66	229	P	Pb	23 30 55.2	-2.0
AKH				S	Sg	23 31 32.2	-3.0

AKH	Akhalkalaki	2.66	229	PN	Pb	23 30 55.2	-2.0
AKH				S	Sg	23 31 32.2	-3.0
BGD	Bogdanovka	2.70	226	P	Pb	23 30 56.7	-1.2
BGD				S	Sg	23 31 33.8	-2.8
BGD	Bogdanovka	2.70	226	PN	Pb	23 30 56.7	-1.2
BGD				S	Sg	23 31 33.8	-2.8
GOF	Gofitskoye	2.93	311	cePN	Pn	23 30 55.8	0.0
GOF				eS	Sb	23 31 40.0	+2.8
GUZR	Guzeripl'	4.47	283	ePN	Pn	23 31 19.1	+2.1
GUZR				eS	Sn	23 32 12.4	+3.7
LKRN	Lenkeran, Azer	4.89	155	PN	Pn	23 31 24.1	+1.4
OBN	Obninsk	13.47	336	⇓eP	Pn	23 33 20.7	+0.5
OBN				pmax	pmax		
	comp=Z,4.0nm,0.9s						
OBN				MLR	MLR		
	comp=Z,115nm,17.0s						
ARTI	Arti	15.36	26	i P	Pn	23 33 46.1	+0.3
VSU	Vasula	19.50	328	i P	P	23 34 35.2	-0.8
VSU				pmax	pmax		
	comp=Z,7.0nm,1.0s						
FINES	FINESS Array B	21.86	334	i P	P	23 35 02.2	+0.6

*NEIC **26** 23:45:01.6±1.7, 57°.5S±0°.2×147°.3W±0°.1, h10^{km}±1^{km}, mb4.3/8, Error ellipse: s-maj=38.8km s-min=10.2km az=353.0*

*IDC **26** 23:45:02.6±0.7, 57°.29S×147°.82W, h0^{km}, mb3.9/9, mbtmp3.9/9, MS4.2/15, Error ellipse: s-maj=32.0km s-min=20.2km az=179.0*

*GCMT **26** 23:45:07.5±0.2, 57°.63S±0°.02×147°.92W±0°.03, h16^{km}±1^{km}, MW5.0/92, Moment Tensor Solution. s27,c30; s92,c124; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.20±.14; $M_{\theta\theta}$2.79±.15; $M_{\phi\phi}$-2.59±.12; $M_{r\theta}$1.11±.40; $M_{\theta\phi}$2.61±.12; $M_{\phi r}$-0.63±.36; Best double couple: $M_0$3.96200×10^{16} NP1:ϕ_s23.00000°,δ71.00000°,λ-177.00000°. NP2: ϕ_s292.00000°,δ87.00000°,λ-19.00000°. Principal axes: T 4.0020, Plg11.0000°, Azm339.0000°; N -0.0780, Plg71.0000°, Azm104.0000°; P -3.9230, Plg15.0000°, Azm246.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 26 23:45:03.3±0.6**, 57°.4S**±0°.2×**148°.0W**±0°.1**, h10^{km}, n56, σ1^{s}55**/30**, mb4.2**/12**, MS4.3**/15**, Pacific-Antarctic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SBA	Scott Base	25.50	200	P	P	23 50 30.1	-1.2
SBA				IAmb	IAmb	23 50 50.8	
	comp=Z,6.9nm,1.4s						
VNDA	Vanda	26.33	202	P	P	23 50 41.7	+2.9
	comp=Z,0.5nm,0.9s,baz=81,slow=10,SNR=4.3						
	comp=Z,0.5nm,0.9s						
VNDA	Vanda	26.33	202	P	P	23 50 38.0	-0.7
RPZ	Rata Peaks	28.93	280	LR	LR	00 00 55.1	
	comp=Z,100nm,18.3s,baz=98,slow=33						
QSPA	South Pole Qui	32.72	180	P	P	23 51 37.7	+2.0
	comp=Z,1.4nm,0.8s,baz=8.7,slow=7.2,SNR=3.5						
QSPA				LR	LR	00 03 50.0	
	comp=Z,519nm,18.6s,baz=262,slow=34						
	comp=Z,1.4nm,0.8s						
QSPA	South Pole Qui	32.72	180	P	P	23 51 34.4	-1.4
QSPA				IAmb	IAmb	23 51 43.0	
	comp=Z,4.8nm,1.2s						
RAO	Raoul Island	35.08	311	LR	LR	00 02 32.7	
	comp=Z,366nm,21.8s,baz=342,slow=30						
PMSA	Palmer Station	38.32	137	LR	LR	00 04 53.4	
	comp=Z,529nm,19.4s,baz=210,slow=31						
RPN	Rapa Nui	40.70	59	LR	LR	00 05 41.3	
	comp=Z,223nm,20.6s,baz=82,slow=30						
MSVF	Nonsavu	47.00	313	LR	LR	00 08 45.6	
	comp=Z,247nm,21.6s,baz=332,slow=30						
AFI	Afiamalu	47.05	328	LR	LR	00 08 06.0	
	comp=Z,516nm,21.9s,baz=226,slow=30						
SNAA	Sanae	48.89	166	LR	LR	00 11 51.7	
	comp=Z,176nm,21.1s,baz=242,slow=33						
H03S2	Juan Fernandez	51.15	94	T	T	00 49 19.9	
	baz=218,slow=74,SNR=50						
H03S1	Juan Fernandez	51.15	94	T	T	00 49 17.2	
	baz=218,slow=74,SNR=34						
H03S3	Juan Fernandez	51.16	94	T	T	00 49 22.4	
	baz=218,slow=74,SNR=40						
MAW	Mawson	53.21	194	LR	LR	00 14 23.4	
	comp=Z,223nm,20.0s,baz=159,slow=33						
STKA	Stephens Creek	53.42	267	LR	LR	00 14 14.3	
	comp=Z,379nm,18.4s,baz=349,slow=33						
ZON	Zonda	58.41	100	P	P	23 54 54.2	-4.8
ZON				IAmb	IAmb	23 55 09.6	
	comp=Z,6.7nm,1.1s						
AS31	Alice Springs	64.05	266	P	P	23 55 35.5	-1.7
AS31				IAmb	IAmb	23 55 53.3	
	comp=Z,2.1nm,1.2s						
ASAR	Alice Springs	64.05	266	P	P	23 55 38.1	+0.9
	comp=Z,1.5nm,0.9s,baz=148,slow=5.3,SNR=6.8						
	comp=Z,1.5nm,0.9s						
ASAR	Alice Springs	64.05	266	P	P	23 55 36.2	-1.0
H01W1	Cape Leeuwin H	65.30	244	T	T	01 07 25.0	
	baz=143,slow=76,SNR=56						
H01W2	Cape Leeuwin H	65.31	244	T	T	01 07 20.8	
	baz=143,slow=76,SNR=42						
H01W3	Cape Leeuwin H	65.32	244	T	T	01 07 26.3	
	baz=143,slow=76,SNR=52						
WRA	Warramunga Arr	66.83	269	P	P	23 55 56.5	+1.3
	comp=Z,1.6nm,1.0s,baz=143,slow=6.3,SNR=5.4						
	comp=Z,1.6nm,1.0s						
CPUP	Villa Florida	68.55	105	P	P	23 56 06.3	+0.4
	comp=Z,1.8nm,0.8s,baz=194,slow=17,SNR=4.7						
	comp=Z,1.8nm,0.8s						
CPUP	Villa Florida	68.55	105	P	P	23 56 02.5	-3.4
LPAZ	La Paz	70.96	90	P	P	23 56 22.3	+0.7
	comp=Z,0.6nm,0.8s,baz=228,slow=4.6,SNR=3.8						
LPAZ				LR	LR	00 20 22.7	
	comp=Z,57nm,20.5s,baz=142,slow=30						
	comp=Z,0.6nm,0.8s						
LPAZ	La Paz	70.96	90	P	P	23 56 16.8	-4.9
FITZ	Fitzroy Crossi	73.03	263	LR	LR	00 25 26.1	
	comp=Z,301nm,19.7s,baz=154,slow=33						
FITZ	Fitzroy Crossi	73.03	263	P	P	23 56 32.5	-0.7
SIV	San Ignacio	75.01	96	P	P	23 56 46.2	+1.2
	comp=Z,0.6nm,0.9s,baz=234,slow=11,SNR=4.7						
	comp=Z,0.6nm,0.9s						
BATI	Baumata	80.61	266	LR	LR	00 31 11.7	
	comp=Z,252nm,18.3s,baz=192,slow=34						
BDFB	Brasilia	82.22	107	P	P	23 57 25.0	+0.3
	comp=Z,1.7nm,0.6s,baz=208,slow=5.6,SNR=3.2						
	comp=Z,1.7nm,0.6s						
KAPI	Kappang	87.05	265	LR	LR	00 34 06.3	
	comp=Z,182nm,20.2s,baz=145,slow=34						
TXAR	Lajitas Array	94.12	38	P	P	23 58 22.6	+0.9
	comp=Z,0.5nm,1.0s,baz=197,slow=4.2,SNR=2.5						
	comp=Z,0.5nm,1.0s						
MDP	Montagnes des	97.13	92	LR	LR	00 37 49.6	
	comp=Z,230nm,20.7s,baz=350,slow=33						
H10S3	ASCENSION HYDR	103.67	132	T	T	01 55 31.2	
	baz=15,slow=74,SNR=28						
H10S2	ASCENSION HYDR	103.68	132	T	T	01 55 25.0	
	baz=205,slow=74,SNR=30						
H10N3	ASCENSION HYDR	104.75	132	T	T	01 56 57.6	
	baz=204,slow=74,SNR=18						
H10N1	ASCENSION HYDR	104.75	132	T	T	01 56 55.1	
	baz=204,slow=74,SNR=28						
H10N2	ASCENSION HYDR	104.77	132	T	T	01 56 47.1	
	baz=204,slow=74,SNR=20						
ILAR	Eielson Array	121.88	1	PKP	PKiKP	00 03 56.5	+0.3
	comp=Z,0.4nm,0.6s,baz=210,slow=2.2,SNR=4.8						
ILAR	Eielson Array	121.88	1		PKPdf	00 03 55.1	-1.0
MKAR	Makanchi Array	148.08	273	PKPbc	PKPbc	00 04 48.0	-0.2
	comp=Z,5.2nm,0.7s,baz=114,slow=0.7,SNR=22						
MKAR	Makanchi Array	148.08	273		PKPbc	00 04 47.7	-0.5
MAKZ	Makanchi	148.26	272		PKPbc	00 04 47.3	-1.3
ARSB	Arslanbob	149.44	256	PKPbc	PKPdf	00 04 48.9	+1.4
BTK	Batken	149.64	252	PKPbc	PKPbc	00 04 50.1	-2.3
ZALV	Zalesovo Beam	150.68	286	PKPbc	PKiKP	00 04 56.1	+1.1
	comp=Z,0.2nm,0.4s,baz=112,slow=3.9,SNR=1.4						
ZALV	Zalesovo Beam	150.68	286		PKPbc	00 04 53.0	-1.3
ESDC	Sonseca Array	150.75	112	PKPbc	PKPbc	00 04 55.2	+0.2
	comp=Z,1.6nm,0.9s,baz=229,slow=2.3,SNR=7.7						
KKAR	Karatay Array	151.99	256	PKPbc	PKPbc	00 04 55.5	-2.3
KURBB	Kurchatov Arra	152.33	276	PKPbc	PKiKP	00 04 59.0	+0.5
	comp=Z,2.0nm,0.8s,baz=118,slow=2.0,SNR=11						
KURK	Kurchatov	152.33	276		PKPbc	00 04 55.9	-2.3
BVAR	Borovoye Array	157.91	275	PKPab	PKPab	00 05 34.0	+1.8
	comp=Z,0.7nm,0.6s,baz=134,slow=4.3,SNR=3.9						

*GFZ **26** 23:53:54.4±0.6, 10°S±6°×16°1E±°, h10^{km}, M4.8/18, mb4.8/18, Error ellipse: s-maj=18.7km s-min=8.4km az=49.4, confirmed*

*IDC **26** 23:53:54.8±0.5, 9°.91S×160°.88E, h0^{km}, mb4.2/22, mbtmp4.2/24, ML4.0/2, MS4.0/11, Error ellipse: s-maj=16.4km s-min=12.3km az=78.0*

*NEIC **26** 23:53:56.7±1.1, 9°.89S±0°.09×160°.80E±0°.07, h10^{km}±1^{km}, mb4.8/38, Error ellipse: s-maj=16.4km s-min=9.6km az=30.0*

*NOU **26** 23:53:57.9, 10°.03S×160°.71E, h4^{km}, mb4.7/22, Solomon Islands*

ISC 26 23:53:56.5±0.3**, 9°.95S**±0°.04×**160°.79E**±0°.04**, h10^{km}, n145, σ1^{s}36**/139**, mb4.7**/66**, MS4.2**/11**, 1C-1D, Bougainville-Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	0.98	302	Pn	Pn	23 54 15.9	-0.5
	431nm,0.3s,baz=19,slow=5.3,SNR=103						
HNR				Sn	Sn	23 54 30.7	+0.3
	778nm,0.3s,baz=172,slow=23,SNR=30						
HNR	Honiara	0.98	302	P	Pn	23 54 16.0	-0.5
HNR	Honiara	0.98	302	S	Sn	23 54 30.2	-0.1
HNR	Honiara	0.98	302		Pn	23 54 15.8	-0.5
HNR				Sn	Sn	23 54 29.9	-0.5
HNR	Honiara	0.98	302	P	Pg	23 54 14.3	-1.1
HURO	Huro Makira	1.21	115	P	Pn	23 54 18.8	-0.7
HURO	Huro Makira	1.21	115	P	Sn	23 54 39.3	+3.4
SAVO	Savo Central	1.25	309	P	Pg	23 54 20.6	0.0
SAVO	Savo Central	1.25	309	S	Sn	23 54 38.6	+1.5
NGOA	Tingoa Renbel	1.75	204	P	Pn	23 54 27.4	+0.5
NGOA	Tingoa Renbel	1.75	204	S	Sn	23 54 47.7	-1.6
TATA	Tatamba Isabel	1.84	328	P	Pb	23 54 30.3	+0.1
TATA	Tatamba Isabel	1.84	328	P	Sn	23 54 55.4	+3.9
NOUC	Port Laguerre	13.19	157	P	Pn	23 57 06.8	+2.8
NOUC	Port Laguerre	13.19	157	P	Sn	23 59 33.4	+2.6
DZM	Mont Dzumac	13.21	156	Pn	Pn	23 57 07.0	+2.6
	0.3nm,0.3s,baz=337,slow=13,SNR=19						
DZM				Sn	Sn	23 59 24.6	-7.0
	baz=314,slow=23						
	4.6nm,0.9s						
DZM				AML	AML		
YATNC	Mamie plateau,	13.38	155	P	Pn	23 57 09.2	+2.5
MARNC	Mare, Loyalty	13.41	150	P	Pn	23 57 09.9	+2.9
MARNC	Mare, Loyalty	13.41	150	Pn	Pn	23 57 07.3	+0.3
PMG	Port Moresby	13.45	271	LR	LR	00 02 04.7	
	comp=Z,1µm,19.5s,baz=84,slow=36						
PMG	Port Moresby	13.45	271	P	Pn	23 57 11.1	+3.5
OUENC	Ouen Island, N	13.69	156	Pn	Pn	23 57 10.7	0.0
TARA	Tarawa	16.49	48	P	P	23 57 50.4	-0.4
CTA	Charters Tower	17.27	233	P	P	23 57 59.9	+0.4
	0.6nm,0.3s,baz=55,slow=12,SNR=18						
	23nm,0.9s						
CTA				AML	AML		
CTAO	Charters Tower	17.27	233		Pn	23 57 58.0	0.0
CTAO				IAmb	IAmb	23 58 05.1	
	comp=Z,54nm,1.2s						
CTAO	Charters Tower	17.27	233	P	P	23 57 59.6	+0.1
	comp=Z,47nm,1.4s						
EIDS	Eidsvold	17.89	210	P	Pn	23 58 06.3	+0.7
EIDS	Eidsvold	17.89	210	P	P	23 58 08.1	+1.8
	comp=Z,13nm,1.4s						
MTSU	Mount Surprise	17.92	241	P	P	23 58 08.2	+1.5
	comp=Z,15nm,0.9s						
NFK	Norfolk Island	20.14	162	P	P	23 58 31.9	+0.9
	comp=Z,67nm,1.1s						
MMPI	Merauke	20.20	273	P	Pn	23 58 34.3	+0.7
JAY	Jayapura	21.28	289	P	P	23 58 45.1	+1.7
	comp=Z,13nm,1.0s,baz=109,slow=9.5,SNR=6.4						
	comp=Z,13nm,1.0s						
GENI	Genyem	21.75	288	P	P	23 58 50.3	+1.8
	comp=Z,3µmcomp=Z,30nm,0.8s						
ARMA	Armidale	22.08	201	P	P	23 58 51.6	-0.4
ARMA	Armidale	22.08	201	P	P	23 58 52.5	+0.5
	comp=Z,18nm,1.4s						
QLP	Quilpie	22.78	221	P	P	23 59 00.1	+0.7
	comp=Z,37nm,1.2s						
QIS	Mount Isa	22.97	240	P	P	23 59 02.7	+1.2
QIS	Mount Isa	22.97	240	P	P	23 59 02.4	+0.9
	comp=Z,23nm,0.9s						
INKA	Innaminka	25.87	224	P	P	23 59 28.5	-0.1
INKA				IAmb	IAmb	23 59 31.1	
	comp=Z,16nm,0.5s						
BAKI	Biak	26.04	288	P	P	23 59 31.8	+1.5
	comp=Z,21nm,1.0s						
WB0	Warramunga Arr	27.28	246		P	23 59 40.9	-0.5
WB0				IAmb	IAmb	23 59 48.4	
	comp=Z,19nm,1.1s						
WRAB	Tennant Creek	27.37	246	P	P	23 59 43.1	+0.9
WRAB	Tennant Creek	27.37	246	P	P	23 59 40.6	-1.6
	comp=Z,14nm,0.8s						
WRA	Warramunga Arr	27.38	246	P	P	23 59 42.4	0.0
	comp=Z,3.8nm,1.0s,baz=78,slow=9.5,SNR=12						
	comp=Z,3.8nm,1.0s						
WRA	Warramunga Arr	27.38	246		P	23 59 42.5	+0.1
MWPI	Manokwari, Pap	28.07	287	P	P	23 59 47.0	-1.6
	comp=Z,247nm,0.4s						
STKA	Stephens Creek	28.14	216	P	P	23 59 49.3	+0.3
	comp=Z,1.3nm,0.8s,baz=53,slow=16,SNR=4.6						
	comp=Z,1.3nm,0.8s						
STKA	Stephens Creek	28.14	216	P	P	23 59 50.4	+1.4
	comp=Z,42nm,1.5s						
GUMO	Guam	28.23	326	LR	LR	00 10 20.5	
	comp=Z,267nm,20.5s,baz=120,slow=35						
ASAR	Alice Springs	29.06	239	P	P	23 59 57.0	-0.3
	comp=Z,0.3nm,0.4s,baz=63,slow=9.8,SNR=9.5						
ASAR				LR	LR	00 11 38.2	
	comp=Z,458nm,18.0s,baz=78,slow=36						
	comp=Z,0.3nm,0.4s						
ASAR	Alice Springs	29.06	239	P	P	23 59 57.2	-0.1
FAKI	Fak Fak	29.19	282	P	P	00 00 00.6	+2.0
	comp=Z,12nm,1.2s						
SWI	Sorong	30.73	285	P	P	00 00 13.7	+1.6
	comp=Z,2µmcomp=Z,11nm,0.8s						
KNRA	Kununurra	31.72	256		P	00 00 20.4	-0.5
BBOO	Buckleboo	32.21	221	P	P	00 00 26.8	+1.8
BBOO	Buckleboo	32.21	221	P	P	00 00 25.1	+0.1
BBOO				IAmb	IAmb	00 00 36.4	
	comp=Z,31nm,1.4s						
BBOO	Buckleboo	32.21	221	P	P	00 00 25.1	+0.1
	comp=Z,19nm,2.5s						
MSAI	Masohi	32.30	280	P	P	00 00 27.7	+1.7
	comp=Z,37nm,0.7s						
QRZ	Quartz Range	32.46	163	P	P	00 00 27.2	+0.1
AAI	Ambon	32.94	279	P	P	00 00 34.1	+2.5
BFZ	Birch Farm	33.53	158	P	P	00 00 36.3	-0.1
	comp=Z,98nm,0.5s						
RPZ	Rata Peaks	34.80	167	LR	LR	00 13 15.3	
	comp=Z,40nm,21.1s,baz=61,slow=33						
TAU	Tasmania Unive	34.88	197	P	P	00 00 47.1	-0.9
	comp=Z,85nm,2.0s						
FITZ	Fitzroy Crossi	35.00	253		P	00 00 48.6	-0.8
FITZ	Fitzroy Crossi	35.00	253	P	P	00 00 49.2	-0.3
	comp=Z,3.9nm,1.2s						
SANI	Sanana	35.46	281	P	P	00 00 51.2	-2.3
	comp=Z,8.7nm,1.0s						
MMRI	Maumere	38.06	269	P	P	00 01 14.6	-1.0
	comp=Z,30nm,1.0s						
EDFI	Ende, Flores	38.59	268	P	P	00 01 19.6	-0.6
	comp=Z,9.9nm,1.1s						
LUWI	Luwuk	38.83	281	P	P	00 01 25.5	+3.4
	comp=Z,2µmcomp=Z,45nm,0.9s						
LUWI	Luwuk	38.83	281	P	P	00 01 20.4	-1.7
	comp=Z,45nm,0.9s						
DAV	Davao City (W)	38.94	294	LR	LR	00 18 37.2	
	comp=Z,79nm,18.0s,baz=78,slow=38						
BKSI	Bulukumba	40.55	273	P	P	00 01 34.6	-1.9
	comp=Z,9.2nm,1.2s						
KAPI	Kappang	40.96	274	P	P	00 01 40.9	+1.0
MBWA	Marble Bar	40.98	249	P	P	00 01 39.5	-0.5
	comp=Z,20nm,1.3s						
TOLI2	Tolitoli	41.31	283	P	P	00 01 41.4	-1.4
	comp=Z,6.1nm,0.9s						
MPSI	Mapaga	41.95	282	P	P	00 01 47.6	-0.4
PLAI	Plampang	42.43	268	P	P	00 01 50.0	-2.0
	comp=Z,28nm,1.2s						
MORW	Morawa	45.94	239	P	P	00 02 18.9	-1.0
	comp=Z,18nm,1.5s						
JSU	Suzuyama	50.44	326	P	P	00 02 56.3	+1.7
KSRS	Korea Array	56.32	329	P	P	00 03 37.8	+0.1
	comp=Z,3.1nm,1.0s,baz=149,slow=8.3,SNR=6.9						
KSRS				LR	LR	00 25 30.1	
	comp=Z,51nm,21.4s,baz=350,slow=34						
	comp=Z,3.1nm,1.0s						
NJ2	Nanjing	57.89	318	eP	P	00 03 50.0	+1.1
NJ2				pmax	pmax		
	comp=Z,7.0nm,0.5s						
USRK	Ussuriysk Ar.	59.89	336	P	P	00 04 02.8	+0.2
	comp=Z,3.9nm,0.7s,baz=145,slow=7.0,SNR=6.4						
	comp=Z,3.9nm,0.7s						
USRK	Ussuriysk Ar.	59.89	336	P	P	00 04 02.0	-0.6
PEA0B	Petropavlovsk-	62.87	358	P	P	00 04 21.9	-0.7
PETK	Petropavlovsk-	62.87	358	P	P	00 04 22.4	-0.1
	comp=Z,3.3nm,0.9s,baz=120,slow=8.8,SNR=5.6						
	comp=Z,3.3nm,0.9s						
PETK	Petropavlovsk-	62.87	358	P	P	00 04 21.8	-0.8
BNX	BinXian	63.03	334	⇑P	P	00 04 24.0	+0.2
BNX				pmax	pmax		
	comp=Z,11nm,0.8s						
HNS	HongShan	63.88	320	⇓P	P	00 04 29.5	0.0
KLR	Kul'dur	64.22	339	P	P	00 04 31.8	+0.2
	comp=Z,4.9nm,0.9s,baz=136,slow=3.8,SNR=5.8						
	comp=Z,4.9nm,0.9s						
KIWB	Kanaga Island	64.43	15	P	P	00 04 32.2	-0.7
HEH	HeiHe	66.65	337	eP	P	00 04 47.3	0.0
HEH				pmax	pmax		
	comp=Z,11nm,0.9s						
CMAR	Chiang Mai Arr	67.22	295	P	P	00 04 51.6	0.0
	comp=Z,0.6nm,0.3s,baz=122,slow=5.5,SNR=4.2						
	comp=Z,0.6nm,0.3s						
CMAR	Chiang Mai Arr	67.22	295	P	P	00 04 49.7	-1.9
VNDA	Vanda	67.55	180	P	P	00 04 52.9	+0.3
	comp=Z,1.4nm,0.8s,baz=341,slow=6.2,SNR=13						
	comp=Z,1.4nm,0.8s						
VNDA	Vanda	67.55	180	P	P	00 04 53.0	+0.3
PZH	PanZhiHua	67.80	304	P	P	00 04 56.5	+1.2
SBA	Scott Base	67.95	179	P	P	00 04 55.5	+0.3
HIA	Hailar	69.09	333	P	P	00 05 02.4	-0.3
HIA				IAmb	IAmb	00 05 03.9	
	comp=Z,7.5nm,0.8s						
HILR	Hailar Array B	69.29	333	P	P	00 05 04.3	+0.3
	comp=Z,0.8nm,0.4s,baz=127,slow=9.2,SNR=1.9						
	comp=Z,0.8nm,0.4s						
SEY	Seymchan	72.95	356	P	P	00 05 25.8	-0.1
	comp=Z,0.9nm,0.4s,baz=156,slow=7.7,SNR=5.3						
	comp=Z,0.9nm,0.4s						
ULN	Ulaanbaatar	74.61	326	P	P	00 05 35.3	-0.8
ULN				IAmb	IAmb	00 05 43.5	
	comp=Z,7.6nm,1.1s						
ULN	Ulaanbaatar	74.61	326	P	P	00 05 37.5	+1.4
SONM	Songino Array	74.96	325	P	P	00 05 38.3	+0.2
	comp=Z,1.7nm,0.7s,baz=140,slow=6.0,SNR=7.4						
	comp=Z,1.7nm,0.7s						
SONM	Songino Array	74.96	325	P	P	00 05 37.4	-0.7
YAK	Yakutsk	75.75	345	P	P	00 05 41.8	-0.3
	comp=Z,25nm,0.7s,baz=145,slow=5.4,SNR=8.8						
YAK				LR	LR	00 36 02.2	
	comp=Z,144nm,21.8s,baz=10,slow=33						
YAK	Yakutsk	75.75	345	P	P	00 05 41.2	-0.9
KDAK	Kodiak Island	77.44	24	P	P	00 05 51.4	-0.4
O18K	Koktuh Hills	77.91	21	P	P	00 05 53.7	-0.8
O18K				IAmb	IAmb	00 06 05.3	
	comp=Z,9.7nm,1.4s						
N18K	Kilae Creek	78.27	20	P	P	00 05 56.0	-0.4
N18K				IAmb	IAmb	00 05 58.5	
	comp=Z,15nm,1.4s						
L18K	Granite Mounta	79.13	19	P	P	00 06 01.4	+0.3
M19K	Big River Lodg	79.65	20		P	00 06 04.4	+0.4
M19K				IAmb	IAmb	00 06 06.1	
	comp=Z,8.7nm,1.0s						
QSPA	South Pole Qui	80.04	180	P	P	00 06 06.1	-0.2
	comp=Z,2.6nm,0.7s,baz=16,slow=5.6,SNR=13						
	comp=Z,2.6nm,0.7s						
QSPA	South Pole Qui	80.04	180		P	00 06 06.1	-0.2
QSPA				IAmb	IAmb	00 06 13.8	
	comp=Z,6.0nm,0.9s						
CAST	Castle Rocks	81.48	19		P	00 06 13.0	-0.8
CAST				IAmb	IAmb	00 06 13.8	
	comp=Z,11nm,1.4s						
TRF	Thorofare Moun	82.09	20	P	P	00 06 15.8	-1.4
TRF				IAmb	IAmb	00 06 37.4	
	comp=Z,15nm,1.6s						
MCK	McKinley	82.74	20	P	P	00 06 19.5	-0.9
IMAR	Indian Mountai	82.75	17	P	P	00 06 19.8	-0.5
MLY	Manley	83.00	19		P	00 06 21.1	-0.7
MLY				IAmb	IAmb	00 06 22.9	
	comp=Z,12nm,1.2s						
MAW	Mawson	83.88	202	P	P	00 06 26.0	-0.3
	comp=Z,4.4nm,0.8s,baz=98,slow=5.9,SNR=7.7						
	comp=Z,4.4nm,0.8s						
MAW	Mawson	83.88	202		P	00 06 26.5	+0.2
ILAR	Eielson Array	84.09	20	P	P	00 06 26.1	-1.2
	comp=Z,1.1nm,0.6s,baz=255,slow=4.8,SNR=10						
	comp=Z,1.1nm,0.6s						
ILAR	Eielson Array	84.09	20		P	00 06 26.5	-0.8
TIXI	Tiksi	84.15	350	P	P	00 06 27.2	-0.2
	comp=Z,1.1nm,0.3s,baz=148,slow=5.5,SNR=4.1						
	comp=Z,1.1nm,0.3s						
TIXI	Tiksi	84.15	350	P	P	00 06 26.3	-1.1
M27K	Edge Creek, AK	84.48	23	P	P	00 06 30.1	+0.6
M27K				IAmb	IAmb	00 06 31.7	
	comp=Z,8.3nm,1.0s						
WMQ	Urumqi	84.90	316	eP	P	00 06 33.5	+1.5
WMQ				pmax	pmax		
	comp=Z,11nm,0.7s						
WMQ				LR	LR		
	comp=N,430nm,18.7s						
WMQ				LR	LR		
	comp=E,400nm,21.1s						
WMQ				LR	LR		
	comp=Z,230nm,17.9s						
BCAR	Beaver Creek A	84.91	23		P	00 06 31.7	+0.1
DAWY	Dawson	86.35	22	P	P	00 06 38.8	+0.1
BMAR	Burnt Mountain	86.46	18		P	00 06 39.4	+0.3
BBB	Bella Bella	86.49	36	LR	LR	00 40 08.3	
	comp=Z,126nm,19.0s,baz=296,slow=32						
YBH	Yreka Blue Hor	86.66	47	LR	LR	00 40 12.5	
	comp=Z,167nm,18.9s,baz=20,slow=32						
M03C	McCloud	86.95	47	P	P	00 06 41.4	-0.9
NVAR	Mina Array Bea	89.08	51	P	P	00 06 52.1	-0.4
	comp=Z,2.4nm,1.0s,baz=234,slow=6.8,SNR=9.1						
NVAR				LR	LR	00 42 20.0	
	comp=Z,194nm,18.8s,baz=15,slow=33						
	comp=Z,2.4nm,1.0s						
MKAR	Makanchi Array	89.42	318	P	P	00 06 53.3	-0.5
	comp=Z,0.6nm,0.8s,baz=113,slow=3.7,SNR=2.3						
	comp=Z,0.6nm,0.8s						
MKAR	Makanchi Array	89.42	318	P	P	00 06 51.3	-2.5
QSM	Queen of Sheba	89.65	54		P	00 06 54.8	-0.3
QSM				IAmb	IAmb	00 06 57.3	
	comp=Z,11nm,1.4s						
WVOR	Wild Horse Val	89.77	47	P	P	00 06 55.0	-0.6
WVOR				IAmb	IAmb	00 06 58.8	
	comp=Z,15nm,1.4s						
TPNV	Topopah Spring	90.34	53		P	00 06 58.1	-0.4
TPNV				IAmb	IAmb	00 07 00.4	
	comp=Z,13nm,1.4s						
ELK	Elko	91.89	49		P	00 07 05.1	-0.6
ELK				IAmb	IAmb	00 07 07.8	
	comp=Z,4.4nm,1.1s						
KURBB	Kurchatov Arra	92.75	321	P	P	00 07 07.5	-1.6
	comp=Z,0.4nm,0.7s,baz=108,slow=4.8,SNR=2.7						
	comp=Z,0.4nm,0.7s						
HLID	Hailey	93.03	46		P	00 07 10.5	-0.3
HLID				IAmb	IAmb	00 07 13.1	
	comp=Z,4.0nm,1.0s						
YKA	Yellowknife Ar	96.26	28	P	P	00 07 23.9	-1.0
	comp=Z,1.4nm,0.7s,baz=246,slow=4.6,SNR=4.3						
	comp=Z,1.4nm,0.7s						
PDAR	Pinedale Array	96.42	48	P	P	00 07 25.8	-0.6
	comp=Z,0.8nm,0.9s,baz=211,slow=1.7,SNR=5.0						
	comp=Z,0.8nm,0.9s						
TXAR	Lajitas Array	99.60	62	LR	LR	00 45 25.8	
	comp=Z,149nm,19.8s,baz=307,slow=31						
CLL	Collm	131.06	334	LV		01 09 00.0	

*CNRM **27** 00:04:05.1, 35°.64N×3°.74W, h10^{km}, ML2.9*

*IGIL **27** 00:04:07.4, 35°.24N×3°.77W, h10^{km}, ML2.3*

*INMG **27** 00:04:07.4±2.0, 35°.51N×3°.80W, h1^{km}, ML2.2, Error ellipse: s-maj=4.5km s-min=3.7km az=16.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Alboran*

*MDD **27** 00:04:07.7±0.4, 35°.53N×3°.78W, h0^{km}, mb_Lg2.6/20, Error ellipse: s-maj=3.3km s-min=2.3km az=15.0*

*SFS **27** 00:04:09.2, 35°.46N×3°.67W, h18^{km}, ML2.7/18, ML2.9/18, MLv3.0/13*

ISC 27 00:04:07.3±0.9**, 35°.50N**±0°.02×**3°.77W**±0°.02**, h15^{km}**±8^{km}**, n69, σ1^{s}21**/136**, 1C, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC

PALE	**Palemas**	**0.31**	**207**	P	**Pg**	**00 04 14.0**	**+0.2**
PALE				P	**Pg**	**00 04 14.1**	**+0.2**
PALE				S	**Sg**	**00 04 18.6**	**+0.3**
WMELI	**Melilla**	**0.69**	**105**	Pg	**Pg**	**00 04 20.8**	**0.0**
WMELI				Sg	**Sg**	**00 04 29.5**	**-0.4**
EMEL	**Melilla**	**0.69**	**106**	Pg	**Pg**	**00 04 20.8**	**0.0**
EMEL				Sg	**Sg**	**00 04 29.8**	**-0.1**
EMLI	**Melilla**	**0.70**	**106**	Pg	**Pg**	**00 04 20.8**	**-0.1**
EMLI				Sg	**Sg**	**00 04 29.2**	**-0.9**
EALB	**Alboran**	**0.74**	**53**	Pg	**Pb**	**00 04 22.6**	**+0.6**
EALB				Sg	**Sg**	**00 04 31.0**	**-0.7**
EALB	**Alboran**	**0.74**	**53**	⇑Pg	**Pb**	**00 04 22.6**	**+0.6**
EALB				Sg	**Sg**	**00 04 31.6**	**-0.1**
EALB				IVmb_Lg		00 04 35.6	
AKLM	**AKL**	**0.99**	**185**	P	**Pg**	**00 04 26.3**	**-0.1**
AKLM				P	**Pg**	**00 04 26.4**	**-0.1**
AKLM				S	**Sb**	**00 04 40.8**	**+1.7**
TAF	**Taforalt**	**1.30**	**121**	P	**Pn**	**00 04 29.8**	**-1.3**
TAF				S	**Sb**	**00 04 49.1**	**+0.9**
SMIR	**Smir Dam**	**1.33**	**279**	P	**Pn**	**00 04 29.8**	**-1.6**
SMIR				S	**Sb**	**00 04 48.5**	**-0.3**
EMIJ	**Mijas**	**1.34**	**323**	Pn	**Pn**	**00 04 31.4**	**-0.2**
EMIJ				Sn	**Sb**	**00 04 49.5**	**+0.2**
EMIJ	**Mijas**	**1.34**	**323**	Pg	**Pn**	**00 04 31.4**	**-0.2**
EMIJ				Sg	**Sb**	**00 04 48.9**	**-0.4**
EMIJ				IVmb_Lg		00 04 53.6	
CHEFC	**Chefchaouen**	**1.34**	**254**	P	**Pn**	**00 04 31.4**	**-0.3**
CHEFC				S	**Sn**	**00 04 50.4**	**+1.0**
ECEU	**Ceuta**	**1.37**	**287**	Pg	**Pn**	**00 04 31.3**	**-0.7**
ECEU				Sg	**Sb**	**00 04 47.0**	**-3.1**
ECEU				IVmb_Lg		00 04 48.7	
EMAL	**Malaga-Limoner**	**1.37**	**337**	Pn	**Pn**	**00 04 32.5**	**+0.5**
EMAL				Sn	**Sn**	**00 04 50.5**	**+0.6**
ELGU	**Los Guajares,**	**1.37**	**5**	Pn	**Pn**	**00 04 32.1**	**-0.1**
ELGU				Sn	**Sb**	**00 04 49.0**	**-1.2**
ELGU	**Los Guajares,**	**1.37**	**5**	Pg	**Pn**	**00 04 32.0**	**-0.1**
ELGU				Sg	**Sb**	**00 04 49.6**	**-0.7**
ELGU				IVmb_Lg		00 04 54.9	
JBK	**JBK**	**1.52**	**139**	P	**Pn**	**00 04 33.1**	**-1.1**
JBK				P	**Pn**	**00 04 33.2**	**-1.1**
JBK				S	**Sb**	**00 04 55.6**	**+1.0**
EBER	**Berja**	**1.57**	**27**	Pn	**Pn**	**00 04 34.8**	**-0.1**
EBER				Sn	**Sn**	**00 04 54.7**	**-0.4**
EBER	**Berja**	**1.57**	**27**	Pn	**Pn**	**00 04 34.9**	**0.0**
EBER				Sn	**Sn**	**00 04 54.5**	**-0.6**
EBER				Sg	**Sb**	**00 04 56.4**	**+0.4**
EBER				IVmb_Lg		00 05 00.3	
EGOR	**Sierra Gorda,**	**1.64**	**350**	Pg	**Pb**	**00 04 37.4**	**+0.1**
EGOR				Sg	**Sb**	**00 04 58.1**	**+0.2**
EGOR				IVmb_Lg		00 05 09.1	
EJIF	**Jimena Fronter**	**1.68**	**305**	Pg	**Pn**	**00 04 37.4**	**+1.1**
EJIF				Sg	**Sn**	**00 04 58.0**	**+0.5**
EQUE	**Quentar**	**1.73**	**9**	Pn	**Pn**	**00 04 37.4**	**+0.4**
EQUE				Pg	**Pb**	**00 04 38.6**	**-0.2**
EQUE				Sg	**Sn**	**00 04 60.0**	**+1.1**
EQUE				IVmb_Lg		00 05 02.9	
RSA	**Sarsar**	**1.79**	**251**	P	**Pn**	**00 04 37.7**	**-0.1**
RSA				S	**Sn**	**00 05 01.6**	**+1.2**
SICH	**Sidi Chahed**	**1.89**	**223**	P	**Pn**	**00 04 39.8**	**+0.7**
ENIJ	**Nijar**	**1.94**	**40**	Pn	**Pn**	**00 04 40.0**	**+0.2**
ENIJ				Sn	**Sn**	**00 05 01.2**	**-2.8**
ENIJ	**Nijar**	**1.94**	**40**	Pn	**Pn**	**00 04 40.2**	**+0.3**
ENIJ				Sn	**Sn**	**00 05 01.8**	**-2.2**
ENIJ				IVmb_Lg		00 05 07.3	
LCRM	**LCR**	**2.02**	**207**	P	**Pb**	**00 04 43.4**	**-0.5**
ESPR	**Espera**	**2.17**	**310**	Pn	**Pn**	**00 04 43.1**	**0.0**
ESPR				Pg	**Pb**	**00 04 45.5**	**-0.9**
ESPR				Sg	**Sb**	**00 05 13.0**	**-0.3**
ESPR				IVmb_Lg		00 05 17.9	
IFR	**Ifrane**	**2.27**	**210**	Pn	**Pn**	**00 04 44.9**	**+0.3**
IFR				Sn	**Sn**	**00 05 11.2**	**-1.2**
EQES	**Quesada**	**2.37**	**13**	Pg	**Pb**	**00 04 48.7**	**-1.1**
EQES				Sn	**Sb**	**00 05 18.1**	**-0.9**
EQES				IVmb_Lg		00 05 20.4	
E0802	**Ubeda,Jaen**	**2.54**	**7**	Pn	**Pn**	**00 04 48.5**	**+0.3**
E0802				Sn	**Sn**	**00 05 20.4**	**+1.4**
EADA	**Adamuz**	**2.74**	**347**	Pn	**Pn**	**00 04 52.8**	**+1.9**
EADA				Sn	**Sn**	**00 05 24.9**	**+1.0**
EADA	**Adamuz**	**2.74**	**347**	Pn	**Pn**	**00 04 53.1**	**+2.2**
EADA				Sn	**Sn**	**00 05 25.1**	**+1.2**
EADA				IVmb_Lg		00 05 31.9	
MD31	**MD31**	**2.75**	**198**	P	**Pn**	**00 04 51.8**	**+0.7**
MD31				S	**Sn**	**00 05 27.2**	**+3.1**
MDT	**Midelt**	**2.76**	**195**	P	**Pn**	**00 04 51.9**	**+0.6**
MDT				S	**Sb**	**00 05 28.9**	**-1.4**
ECAB	**El Cabril**	**2.90**	**333**	Pn	**Pn**	**00 04 55.0**	**+2.0**
ECAB				Sn	**Sn**	**00 05 28.9**	**+1.3**
ECAB	**El Cabril**	**2.90**	**333**	Pn	**Pn**	**00 04 53.7**	**+0.7**
ECAB				Sn	**Sn**	**00 05 29.0**	**+1.4**
ECAB				IVmb_Lg		00 05 45.6	
EMUR	**La Murta**	**3.10**	**40**	Pn	**Pn**	**00 04 57.8**	**+2.0**
EMUR				Sn	**Sn**	**00 05 31.1**	**-1.6**
EMUR				IVmb_Lg		00 05 34.7	
EMIN	**Mina Concepcio**	**3.26**	**315**	Pn	**Pn**	**00 04 58.6**	**+0.7**
EMIN	**Mina Concepcio**	**3.26**	**315**	Pn	**Pn**	**00 04 58.5**	**+0.6**
EMIN				Sn	**Sn**	**00 05 36.4**	**-0.1**
ETOB	**Tobarra**	**3.61**	**29**	Pn	**Pn**	**00 05 03.3**	**+0.4**
ETOB				Sn	**Sn**	**00 05 45.9**	**+0.7**
EGRO	**El Granado**	**3.62**	**305**	Pn	**Pn**	**00 05 03.8**	**+0.9**
EGRO				Sn	**Sn**	**00 05 43.9**	**-1.5**
EGRO	**El Granado**	**3.62**	**305**	Pn	**Pn**	**00 05 03.6**	**+0.7**
EGRO				Sn	**Sn**	**00 05 42.8**	**-2.6**
PVAQ	**Vaqueiros**	**3.71**	**302**	*e*P	**Pn**	**00 05 05.0**	**+0.8**
PVAQ				*e*S	**Sn**	**00 05 46.9**	**-0.8**
PVAQ				*i* IAML		00 05 48.3	
PVAQ				*i* IAML		00 05 49.3	
PVAQ				*i* IAML		00 05 49.4	
PVAQ	**Vaqueiros**	**3.71**	**302**	P	**Pn**	**00 05 02.5**	**-1.7**
PVAQ				S	**Sn**	**00 05 45.1**	**-2.6**
PBAR	**Barrancos**	**3.75**	**316**	Pn	**Pn**	**00 05 05.6**	**+0.9**
PBAR				Sn	**Sn**	**00 05 49.8**	**+1.3**
PBAR	**Barrancos**	**3.75**	**316**	*e*P	**Pn**	**00 05 05.7**	**+0.9**
PBAR				*e*S	**Sn**	**00 05 49.0**	**+0.5**
PBAR				*i* IAML		00 05 52.4	
PBAR				*i* IAML		00 05 54.9	
PBAR				*i* IAML		00 05 55.0	
PBDV	**Barranco-do-Ve**	**3.79**	**299**	*e*P	**Pn**	**00 05 05.8**	**+0.6**
PBDV				*e*S	**Sn**	**00 05 48.5**	**-1.0**
PBDV				*i* IAML		00 05 50.2	
PBDV				*i* IAML		00 05 52.5	
PCVE	**Castro Verde**	**4.05**	**303**	Pn	**Pn**	**00 05 09.4**	**+0.6**
PCVE				Sn	**Sn**	**00 05 56.3**	**+0.4**
PCVE	**Castro Verde**	**4.05**	**303**	*e*P	**Pn**	**00 05 09.7**	**+0.9**
PCVE				*e*S	**Sn**	**00 05 56.6**	**+0.7**
PCVE				*i* IAML		00 05 58.1	
PCVE				*i* IAML		00 06 00.9	
PAB	**San Pablo**	**4.07**	**354**	Pn	**Pn**	**00 05 11.4**	**+2.2**
PAB				Sn	**Sn**	**00 05 55.7**	**-0.9**
PAB				IVmb_Lg		00 08 00.7	
PBEJ	**Beja**	**4.15**	**309**	*e*P	**Pn**	**00 05 12.1**	**+1.9**
EBAD	**Badajoz**	**4.16**	**322**	Pn	**Pn**	**00 05 11.9**	**+1.5**
EBAD				Sn	**Sn**	**00 05 58.9**	**+0.2**
EBAD	**Badajoz**	**4.16**	**322**	Pn	**Pn**	**00 05 10.6**	**+0.2**
EBAD				Sn	**Sn**	**00 05 59.4**	**+0.7**
EBAD				IVmb_Lg		00 06 09.2	
MESJ	**Messejana**	**4.28**	**304**	*e*P	**Pn**	**00 05 12.8**	**+0.8**
MESJ				*e*S	**Sn**	**00 06 00.4**	**-1.2**
MESJ				IAML		00 06 06.8	
	comp=N,5.1nm,0.4s						
MESJ	**Messejana**	**4.28**	**304**	*e*P	**Pn**	**00 05 12.9**	**+0.9**
CIBOR	**Castaar de Ib**	**4.34**	**343**	Pn	**Pn**	**00 05 14.5**	**+1.7**
CIBOR				Sn	**Sn**	**00 06 02.0**	**-1.2**
PTEO	**Sao Teotonio**	**4.49**	**299**	*e*P	**Pn**	**00 05 16.0**	**+1.2**
PTEO				*e*S	**Sn**	**00 06 05.2**	**-1.6**
PTEO				*i* IAML		00 06 09.5	
PTEO				*i* IAML		00 06 14.4	
PLOUS	**Minas do Lousa**	**4.51**	**305**	*e*P	**Pn**	**00 05 16.2**	**+1.1**
PLOUS				*e*S	**Sn**	**00 06 05.8**	**-1.5**
PLOUS				*i* IAML		00 06 10.8	
PLOUS				*i* IAML		00 06 11.0	
PLOUS				*i* IAML		00 06 12.5	
PESTR	**Estremoz**	**4.54**	**319**	Pn	**Pn**	**00 05 17.2**	**+1.6**
PESTR				Sn	**Sn**	**00 06 08.3**	**+0.1**
PESTR	**Estremoz**	**4.54**	**319**	*e*P	**Pn**	**00 05 17.5**	**+1.8**
PESTR				*e*S	**Sn**	**00 06 09.8**	**+1.6**
PESTR	**Estremoz**	**4.54**	**319**	P	**Pn**	**00 05 13.1**	**-2.5**
MOE	**Montemor**	**4.75**	**311**	*e*P	**Pn**	**00 05 20.1**	**+1.6**
MOE				*e*S	**Sn**	**00 06 13.9**	**+0.6**
PARRA	**Arraiolos**	**4.76**	**315**	*e*P	**Pn**	**00 05 19.9**	**+1.3**
PARRA				*e*S	**Sn**	**00 06 11.9**	**-1.5**
PMRV	**Marv??o**	**4.87**	**325**	*e*P	**Pn**	**00 05 22.0**	**+1.9**
PMRV				*e*S	**Sn**	**00 06 15.3**	**-1.0**
PMTG	**Montargil**	**5.04**	**316**	*e*P	**Pn**	**00 05 24.0**	**+1.6**
PMTG				*e*S	**Sn**	**00 06 20.8**	**+0.5**
PCBR	**Castelo Branco**	**5.24**	**327**	*e*P	**Pn**	**00 05 27.6**	**+2.4**
PSARD	**Sardoal**	**5.38**	**321**	*e*P	**Pn**	**00 05 29.0**	**+1.8**
PSARD				*e*S	**Sn**	**00 06 28.5**	**-0.4**
PVIS	**Viseu**	**6.14**	**329**	*e*P	**Pn**	**00 05 39.9**	**+2.3**

NEIC ***27*** *00:06:09.7±1.1, 64°.51N±0°.07×17°.6W±0°.1, h7^{km}±4^{km}, mb4.8/84, Error ellipse: s-maj=10.1km s-min=7.8km az=183.0*

REY ***27*** *00:06:10.7, 64°.62N×17°.36W, h5^{km}*

MOS ***27*** *00:06:11.1±2.3, 64°.48N×17°.85W, h10^{km}, mb4.9/55, MS4.1/14, Error ellipse: s-maj=8.7km s-min=6.3km az=105.6*

IDC ***27*** *00:06:11.2±0.4, 64°.54N×17°.43W, h0^{km}, mb4.2/24, mbtmp4.2/30, ML3.1/5, MS4.2/70, Error ellipse: s-maj=14.0km s-min=8.3km az=15.0*

BGS ***27*** *00:06:11.8±2.2, 64°.51N×17°.57W, h10^{km}, ML4.7, Presumed earthquake*

GFZ ***27*** *00:06:14.8±0.3, 65°N±4°×1°8W±°, h10^{km}, M4.6/37, mb4.5/37*

GCMT ***27*** *00:06:15.7±0.2, 64°.53N±0°.01×17°.15W±0°.03, h12^{km}, MW5.0/135, Moment Tensor Solution. s47,c54; s135,c213; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}3.68±.06; $M_{\theta\theta}$-2.72±.06; $M_{\phi\phi}$-0.96±.05; $M_{r\theta}$1.34±.20; $M_{\theta\phi}$0.51±.05; $M_{\phi r}$1.85±.23; Best double couple: $M_0$3.80500×10^{16} NP1:ϕ_s298.00000°,δ39.00000°, λ122.00000°. NP2:ϕ_s79.00000°,δ58.00000°,λ67.00000°. Principal axes: T 4.6070, Plg68.0000°, Azm301.0000°; N -1.6110, Plg20.0000°, Azm92.0000°; P -3.0020, Plg10.0000°, Azm185.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

DNK ***27*** *00:07:32.3±0.9, 70°.31N×23°.83W, h0^{km}, Presumed Glacial event*

ISC 27 00:06:11.6±0.3,**64°.65N**±0°.02×**17°.58W**±0°.02,**h10**^{km}**,n476,** σ**2^{s}.72**/419,**mb4.6**/154,**MS4.2**/82,**15C-1D,Iceland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IDJK	**Dyngjujokull**	**0.21**	**134**	P	**Pg**	**00 06 13.5**	**-2.6**
ISKR	**Skrokkalda**	**0.36**	**256**	P	**Pb**	**00 06 18.9**	**-1.2**
IBJK	**Bruarjokull**	**0.40**	**117**	P	**Pg**	**00 06 16.7**	**-2.9**
IBJK				S	**Sg**	**00 06 21.2**	**-3.6**
IVOT	**Vottur**	**0.42**	**155**	P	**Pg**	**00 06 17.7**	**-2.2**
IJOK	**Jokulheimar**	**0.44**	**220**	P	**Pb**	**00 06 19.6**	**-1.9**
THOR	**Thorvaldshraun**	**0.48**	**53**	P	**Pg**	**00 06 18.7**	**-2.3**
THOR				S	**Sg**	**00 06 25.4**	**-1.9**
IKRE	**Kreppuhraun**	**0.53**	**75**	P	**Pg**	**00 06 18.8**	**-3.1**
IKRE				S	**Sg**	**00 06 25.6**	**-3.3**
IASK	**Askja**	**0.57**	**44**	P	**Pg**	**00 06 20.2**	**-2.4**
IIEY	**Innrieyrar**	**0.60**	**203**	P	**Pg**	**00 06 21.9**	**-1.4**
IMKO	**Mokollar**	**0.62**	**58**	P	**Pg**	**00 06 20.9**	**-2.8**
IKSK	**Karasker**	**0.69**	**135**	P	**Pg**	**00 06 21.1**	**-3.7**
ISVA	**Svartarkot**	**0.70**	**11**	P	**Pg**	**00 06 23.3**	**-1.9**
ISVA				S	**Sg**	**00 06 33.5**	**-0.8**
IKAL	**Kalfafell**	**0.71**	**184**	P	**Pg**	**00 06 23.1**	**-2.1**
IVAT	**Vatnsfell**	**0.74**	**232**	P	**Pb**	**00 06 25.2**	**-1.5**
IFAL	**Falljokull**	**0.77**	**154**	P	**Pg**	**00 06 23.2**	**-3.3**
IVSH	**V-Sauoahnukur**	**0.81**	**78**	P	**Pg**	**00 06 23.6**	**-3.6**
IKVI	**Kvisker**	**0.84**	**143**	P	**Pg**	**00 06 23.8**	**-3.9**
IFAG	**Fagurholsmyri**	**0.88**	**152**	P	**Pg**	**00 06 25.0**	**-3.5**
ISTE	**Stelbrattur**	**0.90**	**284**	P	**Pn**	**00 06 27.9**	**-2.5**
IADA	**Aoalbol**	**0.93**	**66**	P	**Pg**	**00 06 25.6**	**-4.0**
IADA				S	**Sg**	**00 06 38.1**	**-3.6**
IMEL	**Melhnausar**	**1.00**	**23**	P	**Pg**	**00 06 28.1**	**-2.8**
IREN	**Reynihlio**	**1.04**	**16**	P	**Pg**	**00 06 28.8**	**-2.8**
IHES	**Hestalda**	**1.05**	**236**	P	**Pn**	**00 06 30.3**	**-2.1**
ISLY	**Slysaalda**	**1.07**	**220**	P	**Pg**	**00 06 30.2**	**-1.9**
IKVO	**Krokottuvotn**	**1.11**	**15**	P	**Pb**	**00 06 29.8**	**-3.0**
IFED	**Fedgar**	**1.11**	**237**	P	**Pn**	**00 06 31.4**	**-1.8**
IRJU	**Rjupnafell**	**1.14**	**205**	P	**Pb**	**00 06 31.2**	**-2.2**
IMJO	**Mjoaskard**	**1.16**	**233**	P	**Pn**	**00 06 32.2**	**-1.7**
IGRS	**Grimsstaoir**	**1.17**	**31**	P	**Pb**	**00 06 30.4**	**-3.5**
IGYG	**Gygjarholskot**	**1.20**	**253**	P	**Pn**	**00 06 32.8**	**-1.6**
IHAU	**Haukadalur**	**1.24**	**238**	P	**Pg**	**00 06 33.3**	**-2.1**
IGHA	**Grjothals**	**1.26**	**17**	P	**Pn**	**00 06 32.0**	**-3.2**
IHVO	**Lagu-Hvolar**	**1.26**	**207**	P	**Pn**	**00 06 33.1**	**-2.1**
IGRA	**Granastaoir**	**1.27**	**0**	P	**Pn**	**00 06 32.8**	**-2.6**
IHLA	**Hella**	**1.34**	**346**	P	**Pn**	**00 06 34.5**	**-1.9**
IDIM	**Dimmadalss**	**1.34**	**11**	P	**Pn**	**00 06 33.8**	**-2.7**
IESK	**Eystri-Skogar**	**1.40**	**217**	P	**Pn**	**00 06 35.5**	**-1.6**
ISAU	**Saurbar**	**1.40**	**243**	P	**Pb**	**00 06 35.7**	**-2.1**
IBRE	**Brettingsstaoi**	**1.48**	**355**	P	**Pn**	**00 06 36.4**	**-2.0**
IGIL	**Gilhagi**	**1.52**	**19**	P	**Pn**	**00 06 36.6**	**-2.3**
IASM	**Asmuli**	**1.56**	**240**	P	**Pb**	**00 06 38.6**	**-1.9**
ISIG	**Siglufjorour**	**1.59**	**340**	P	**Pn**	**00 06 38.3**	**-1.5**
BORG	**Borgarnes**	**1.61**	**275**	Pn	**Pb**	**00 06 39.2**	**-2.3**
	77nm,0.3s,baz=91,slow=10,SNR=101						
BORG				Sn	**Sg**	**00 07 04.3**	**+0.9**
	99nm,0.3s,baz=29,slow=19,SNR=12						
BORG	**Borgarnes**	**1.61**	**275**	*i* P	**Pg**	**00 06 39.6**	**-2.9**
BORG	**Borgarnes**	**1.61**	**275**	Pn	**Pb**	**00 06 38.9**	**-2.5**
BORG				Sn	**Sg**	**00 06 59.7**	**-3.7**
BORG	**Borgarnes**	**1.61**	**275**	P	**Pg**	**00 06 39.6**	**-2.9**
IASB	**sbjarnarstai**	**1.61**	**275**	P	**Pb**	**00 06 39.5**	**-2.0**
IKRO	**Krokur**	**1.64**	**252**	P	**Pb**	**00 06 39.6**	**-2.2**
IHEI	**Heioarbar**	**1.65**	**256**	P	**Pb**	**00 06 39.8**	**-2.2**
IHRN	**Hraun**	**1.81**	**325**	P	**Pn**	**00 06 41.7**	**-1.1**
IMOR	**Morastadir**	**1.84**	**261**	P	**Pb**	**00 06 42.7**	**-2.6**
IGRI	**Grimsey**	**1.91**	**355**	P	**Pn**	**00 06 42.4**	**-1.7**
SCO	**Scoresbysund**	**6.09**	**346**	P	**Pn**	**00 07 41.8**	**+0.3**
SCO	**Scoresbysund**	**6.09**	**346**		**Pn**	**00 07 41.8**	**+0.3**
SCO	**Scoresbysund**	**6.09**	**346**	*i* P	**Pn**	**00 07 44.1**	**+2.6**
SCO	**Scoresbysund**	**6.09**	**346**	P	**Pn**	**00 07 44.6**	**+3.1**
	comp=Z,480nm,0.8s						
JMIC	**Jan Mayen**	**7.22**	**24**	LR	LR	00 10 08.1	
	comp=Z,3µm,20.8s,baz=244,slow=32						
LINV	**Loch Inver, As**	**8.81**	**132**	*e*P	**Pn**	**00 08 17.2**	**-1.6**
LINV				IAML		00 08 22.6	
	comp=Z,17nm,0.5s						
KPL	**Plockton**	**9.33**	**136**	*e*P	**Pn**	**00 08 24.5**	**-1.4**
KPL				IAML		00 08 29.6	
	comp=Z,33nm,0.4s						
DBG	**Daneborg**	**9.75**	**356**	*i* P	Pn	00 08 36.9	+5.3
MCD	**Coleburn Disti**	**9.89**	**129**	*e*P	**Pn**	**00 08 33.5**	**-0.2**
MCD				IAML		00 08 40.1	
	comp=Z,16nm,0.5s						
LAWE	**Loch Awe, Argy**	**10.32**	**139**	*e*P	**Pn**	**00 08 38.9**	**-0.6**
LAWE				IAML		00 08 56.4	
	comp=Z,5.3nm,0.6s						
INVG	**Invergeldie, C**	**10.58**	**135**	*e*P	**Pn**	**00 08 42.4**	**-0.7**
INVG				IAML		00 08 47.6	
	comp=Z,11nm,1.0s						
EAB	**Aberfoyle**	**10.69**	**136**	*e*P	**Pn**	**00 08 44.0**	**-0.6**
EAB				IAML		00 08 51.0	
	comp=Z,14nm,0.6s						
IDGL	**Inch Island, C**	**10.84**	**148**	Pn	**Pn**	**00 08 48.8**	**+2.2**
IDGL				S	**Sn**	**00 10 51.6**	**+3.8**
SUMG	**Summit**	**10.94**	**326**	P	**Pn**	**00 08 48.6**	**+0.3**
SUMG	**Summit**	**10.94**	**326**		**Pn**	**00 08 48.6**	**+0.3**
SUMG	**Summit**	**10.94**	**326**	*i* P	**Pn**	**00 08 50.7**	**+2.5**
PGBU	**Glenifferbraes**	**10.97**	**138**	*e*P	**Pn**	**00 08 47.1**	**-1.3**
PGBU				IAML		00 08 53.7	
	comp=Z,52nm,0.7s						
CLGH	**Cloghs, Cushen**	**11.17**	**144**	P	**Pn**	**00 08 54.1**	**+3.0**
	comp=Z,49nm,1.2s						
NEWG	**New Galloway**	**11.65**	**139**	*e*P	**Pn**	**00 08 56.1**	**-1.5**
NEWG				IAML		00 09 07.8	
	comp=Z,12nm,0.7s						
GAL1	**Galloway**	**11.73**	**141**	*e*P	**Pn**	**00 08 58.4**	**-0.4**
GAL1				IAML		00 09 05.8	
	comp=Z,9.2nm,0.7s						
EKB	**Eskdalemuir**	**11.76**	**136**	Pn	**Pn**	**00 08 56.0**	**-3.2**
EKA	**Eskdalemuir Ar**	**11.77**	**136**	Pn	**Pn**	**00 08 57.4**	**-1.9**
	comp=Z,5.3nm,0.5s,baz=329,slow=13,SNR=27						
EKA				Sn	**Sn**	**00 11 06.9**	**-3.7**
	baz=323,slow=30						
EKA				LR	LR	00 13 07.7	
	comp=Z,1µm,20.1s,baz=336,slow=36						
EKA	**Eskdalemuir Ar**	**11.77**	**136**	P	**Pn**	**00 08 57.6**	**-1.8**
ESK	**Eskdalemuir**	**11.77**	**136**	*i* P	**Pn**	**00 09 01.1**	**+1.7**
ESK	**Eskdalemuir**	**11.77**	**136**		**Pn**	**00 08 56.3**	**-3.1**
ESK	**Eskdalemuir**	**11.77**	**136**	*e*P	**Pn**	**00 08 57.8**	**-1.6**
ESK				IAML		00 09 12.1	
	comp=Z,11nm,0.6s						
IGLA	**Glengowla, Co**	**12.02**	**156**	Pn	**Pn**	**00 09 03.8**	**+1.1**
IGLA				S	**Sn**	**00 11 20.4**	**+3.8**
ILTH	**Belurgan, Co L**	**12.07**	**147**	Pn	Pn	00 09 07.9	+4.4
DAG	**Danmarks Havn**	**12.19**	**359**	*i* P	Pn	00 09 09.3	+4.4
DAG	**Danmarks Havn**	**12.19**	**359**	P	Pn	00 09 10.0	+5.1
	comp=Z,27nm,2.2s						
DSB	**Dublin**	**12.79**	**148**	Pn	**Pn**	**00 09 16.0**	**+2.8**
DSB				S	**Sn**	**00 11 39.0**	**+3.5**
DSB	**Dublin**	**12.79**	**148**	Pn	**Pn**	**00 09 09.8**	**-3.4**
NC204	**NORSAR Array S**	**13.26**	**92**	Pn	**Pn**	**00 09 16.9**	**-2.9**
VAL	**Valentia**	**13.30**	**160**	Pn	**Pn**	**00 09 21.7**	**+1.4**
VAL	**Valentia**	**13.30**	**160**	P	**Pn**	**00 09 23.5**	**+3.2**
	comp=Z,68nm,1.7s						
NBO00	**NORSAR Array S**	**13.38**	**93**	Pn	**Pn**	**00 09 17.4**	**-4.0**
IWEX	**Carrickbyrne,**	**13.51**	**151**	Pn	**P**	**00 09 28.1**	**-4.3**
NOA	**NORSAR Array B**	**13.57**	**92**	Pn	**Pn**	**00 09 21.5**	**-2.4**
	baz=299,slow=13,SNR=5.3						
NOA				LR	LR	00 14 32.7	
	comp=Z,604nm,20.8s,baz=295,slow=37						
	comp=Z,0.4nm,0.5s						
SAATT	**Saattut**	**14.12**	**311**	*i* P	P	00 09 43.6	+4.5
CWF	**Charnwood Fore**	**14.57**	**137**	P	**P**	**00 09 43.0**	**-1.1**
	comp=Z,52nm,1.6s						
HFS	**Hagfors**	**15.08**	**93**	Pn	**Pn**	**00 09 43.4**	**-1.0**
	comp=Z,0.1nm,0.3s,baz=306,slow=12,SNR=2.1						
HFS				LR	LR	00 15 19.1	
	comp=Z,727nm,21.3s,baz=312,slow=36						
	comp=Z,3.5nm,1.0s						
HFS				AML	AML		
SPITS	**Spitsbergen Ar**	**16.90**	**23**	Pn	**P**	**00 10 09.7**	**-0.1**
	baz=231,slow=9.1						
SPITS				LR	LR	00 14 56.1	
	comp=Z,1µm,21.0s,baz=234,slow=31						
	comp=Z,11nm,1.0s						
NOR	**Nord**	**17.05**	**0**	P	**P**	**00 10 15.1**	**+3.7**
	comp=Z,53nm,2.1s						
ARCES	**ARCESS Array B**	**17.16**	**55**	P	**P**	**00 10 11.6**	**-1.1**
	comp=Z,0.1nm,0.3s,baz=282,slow=9.1,SNR=5.0						
ARCES				LR	LR	00 15 33.5	
	comp=Z,1µm,20.4s,baz=273,slow=33						
	comp=Z,3.3nm,0.9s						
ARCES				AML	AML		
ARCES	**ARCESS Array B**	**17.16**	**55**	Pn	**Pn**	**00 10 10.5**	**-0.5**
RETH	**Rethem/Aller,**	**18.21**	**118**	P	**P**	**00 10 25.2**	**+0.9**
BUG	**Bochum--Univer**	**18.48**	**124**	P	**Pn**	**00 10 32.4**	**+5.0**
	comp=Z,32nm,2.6s						
HGN	**Heimansgroeve**	**18.57**	**127**	P	**Pn**	**00 10 30.4**	**+1.8**
	comp=Z,38nm,1.2s						
MEM	**Membach**	**18.73**	**127**	P	**Pn**	**00 10 31.7**	**+1.1**
	comp=Z,32nm,2.6s						
MSF	**Maaselka**	**19.19**	**65**	P	**Pn**	**00 10 38.1**	**+2.1**
FLTG	**Flechtingen**	**19.25**	**116**	P	**Pn**	**00 10 39.0**	**+2.3**
	comp=Z,24nm,2.1s						
CLZ	**Clausthal**	**19.30**	**118**	P	**Pn**	**00 10 40.0**	**+2.6**
	comp=Z,36nm,1.5s						
GTTG	**Gottingen**	**19.38**	**120**	P	**Pn**	**00 10 39.2**	**+0.9**
	comp=Z,41nm,1.2s						
FINES	**FINESS Array B**	**19.74**	**79**	P	**Pn**	**00 10 42.2**	**-0.4**
	comp=Z,0.2nm,0.3s,baz=300,slow=11,SNR=8.2						
FINES				LR	LR	00 18 14.2	
	comp=Z,514nm,20.8s,baz=296,slow=37						
	comp=Z,5.1nm,1.0s						
FINES				AML	AML		
FINES	**FINESS Array B**	**19.74**	**79**	P	**P**	**00 10 39.2**	**-1.9**
FIA1	**FINESS Array S**	**19.74**	**79**	P	**P**	**00 10 39.5**	**-1.6**
TNS	**Taunus Mts**	**19.91**	**124**	P	**Pn**	**00 10 49.2**	**+4.5**
	comp=Z,28nm,1.4s						
WIMM	**Wimmelburg**	**19.98**	**117**	P	Pn	00 10 47.0	+1.5
	comp=Z,48nm,1.1s						
NEUB	**Neuenburg**	**20.34**	**117**	P	Pn	00 10 50.2	+0.6
	comp=Z,46nm,1.3s						
MOX	**Moxa**	**20.73**	**119**	P	Pn	00 10 54.9	+0.6
	comp=Z,44nm,1.9s						
CLL	**Collm**	**20.73**	**116**	*i* P	**P**	**00 10 52.0**	**+0.1**
CLL				*i*		00 10 55.5	
CLL				*e*S	Sn	00 14 47.0	-0.9
CLL				pmax	pmax		
	comp=Z,9.0nm,1.3s						
CLL				MLR	MLR		
	comp=Z,600nm,21.4s						
CLL	**Collm**	**20.73**	**116**		**P**	**00 10 48.8**	**-3.1**
CLL	**Collm**	**20.73**	**116**	P	Pn	00 10 52.7	-1.5
	comp=Z,27nm,1.4s						
CLL	**Collm**	**20.73**	**116**	*i* P	**P**	**00 10 52.0**	**+0.1**
	comp=Z,9.0nm,1.3s						
CLL				*i* (sP)	**sP**	**00 10 55.5**	**-1.3**
	comp=Z,64nm,1.5s						
CLL				*i* x	x	00 11 05.8	
	comp=Z,49nm,1.4s						
CLL				*i* PP	**PnPn**	**00 11 10.0**	**+0.3**
CLL				*e*PPP	PPP	00 11 20.0	
CLL				*e*S	Sn	00 14 47.0	-0.9
CLL				L	L	00 16 00.0	
CLL				AMS	AMS	00 18 00.0	
	comp=N,400nm,19.1s						
CLL				AMS	AMS	00 18 00.0	
	comp=E,600nm,22.6s						
CLL				AMS	AMS	00 18 00.0	
	comp=Z,600nm,21.4s						
ARBE	**Arbavere**	**20.73**	**84**	P	Pn	00 10 56.3	+2.1
	comp=Z,67nm,0.9s						
LVZ	**Lovozero**	**20.73**	**58**	*i* P	Pn	00 10 56.6	+2.4
LVZ				pmax	pmax		
	comp=Z,17nm,1.1s						
LOR	**Lormes**	**20.96**	**136**	P	**P**	**00 10 56.7**	**+2.3**
	comp=Z,42nm,1.1s						
ECH	**Echery**	**21.17**	**129**	P	**P**	**00 10 53.1**	**-3.7**
ECH				pmax	pmax		
	comp=Z,38nm,1.5s						
ECH	**Echery**	**21.17**	**129**		**P**	**00 10 53.1**	**-3.7**
ECH	**Echery**	**21.17**	**129**	P	**P**	**00 11 00.0**	**+3.3**
	comp=Z,30nm,2.4s						
TANN	**Tannenbergstha**	**21.23**	**118**	P	**P**	**00 10 59.5**	**+2.1**
	comp=Z,71nm,3.0s						
GRA3	**Grafenberg Arr**	**21.33**	**121**	P	P	00 11 05.2	+6.8
	comp=Z,59nm,2.3s						
GRA1	**Grafenberg Arr**	**21.36**	**121**	P	**P**	**00 10 55.5**	**-3.2**
GRA1				IAmb	IAmb	00 11 14.7	
	comp=Z,57nm,1.1s						
GRA1	**Grafenberg Arr**	**21.36**	**121**	P	**P**	**00 11 02.4**	**+3.7**
	comp=Z,54nm,1.3s						
GRF	**Grafenberg Arr**	**21.36**	**121**	P	**P**	**00 10 55.5**	**-3.2**
GRF				pmax	pmax		
	comp=Z,57nm,1.1s						
NKC	**Novy Kostel**	**21.37**	**118**	*e*P	**P**	**00 11 01.3**	**+2.4**
NKC	**Novy Kostel**	**21.37**	**118**	*e*P	**P**	**00 11 01.3**	**+2.4**
NKC	**Novy Kostel**	**21.37**	**118**	P	**P**	**00 11 03.5**	**+4.6**
	comp=Z,31nm,1.4s						
STU	**Stuttgart**	**21.39**	**125**	P	**P**	**00 10 57.1**	**-2.0**
STU				pmax	pmax		
	comp=Z,30nm,1.0s						
STU	**Stuttgart**	**21.39**	**125**		**P**	**00 10 57.1**	**-2.0**
STU	**Stuttgart**	**21.39**	**125**	P	**P**	**00 11 00.7**	**+1.6**
	comp=Z,36nm,1.1s						
GRA2	**Grafenberg Arr**	**21.44**	**121**	P	**P**	**00 11 03.7**	**+4.1**
	comp=Z,45nm,2.0s						
BRG	**Berggiesshubel**	**21.44**	**115**	P	**P**	**00 11 00.2**	**+0.7**
	comp=Z,29nm,1.6s						
BRG	**Berggiesshubel**	**21.44**	**115**	*e*P	**P**	**00 10 59.8**	**+0.2**
BRG				Amp		00 11 06.4	
	comp=Z,40nm,1.2s						
HSKC	**Hora Svate Kat**	**21.45**	**116**	P	**P**	**00 11 03.1**	**+3.4**
	comp=Z,29nm,1.4s						
BFO	**Black Forest**	**21.47**	**127**	*i* P	**P**	**00 11 03.0**	**+3.1**
BFO	**Black Forest**	**21.47**	**127**		**P**	**00 10 58.2**	**-1.7**
BFO				IAmb	IAmb	00 11 16.0	
	comp=Z,55nm,1.4s						
VSU	**Vasula**	**21.60**	**86**	*i* P	**P**	**00 11 04.0**	**+2.8**
VSU				pmax	pmax		
	comp=Z,28nm,0.9s						
VSU	**Vasula**	**21.60**	**86**	P	**P**	**00 11 03.3**	**+2.1**
	comp=Z,57nm,1.8s						
GRB4	**Grafenberg Arr**	**21.66**	**121**	P	**P**	**00 11 05.0**	**+2.9**
	comp=Z,54nm,1.4s						
FRB	**Frobisher Bay**	**21.72**	**291**	P	**P**	**00 11 05.0**	**+2.5**
	comp=Z,12nm,0.9s,baz=72,slow=6.4,SNR=3.4						
FRB				LR	LR	00 19 09.4	
	comp=Z,584nm,18.8s,baz=72,slow=36						
	comp=Z,12nm,0.9s						
FRB	**Frobisher Bay**	**21.72**	**291**	P	**P**	**00 11 05.0**	**+2.5**
GRB1	**Grafenberg Arr**	**21.76**	**121**	P	**P**	**00 11 07.2**	**+4.2**
	comp=Z,53nm,1.1s						
GRB2	**Grafenberg Arr**	**21.87**	**121**	P	**P**	**00 11 07.3**	**+3.1**
	comp=Z,51nm,2.0s						

BOURR	Bourrignon	21.91	130	P	P	00 11 12.3	+7.6
	comp=Z,46nm,2.2s						
PVCC	Panska Ves	21.95	115	eP	P	00 10 57.6	-7.5
PVCC				MLR	MLR		
	comp=Z,700nm,18.8s						
PVCC	Panska Ves	21.95	115	eP	P	00 10 57.6	-7.5
PVCC				eS	Sn	00 15 19.6	+2.3
PVCC				AMS	AMS	00 20 20.0	
	comp=Z,700nm,18.8s						
PVCC	Panska Ves	21.95	115	P	P	00 11 10.6	+5.5
	comp=Z,26nm,1.2s						
GRC1	Grafenberg Arr	22.04	121	P	P	00 11 11.3	+5.2
	comp=Z,42nm,1.8s						
PABE	Paberze	22.24	95	P	P	00 11 06.6	-1.5
PABE				IAmb	IAmb	00 11 16.0	
	comp=Z,67nm,1.2s						
PABE	Paberze	22.24	95	P	P	00 11 12.7	+4.6
	comp=Z,55nm,1.4s						
PRU	Pruhonice	22.37	116	eP	P	00 11 14.5	+4.9
PRU				eS	S	00 15 19.6	+4.4
PRU				MLR	MLR		
	comp=Z,500nm,15.7s						
PRU	Pruhonice	22.37	116	eP	P	00 11 14.5	+4.9
PRU				eS	S	00 15 19.6	+4.4
PRU				AMS	AMS	00 19 50.0	
	comp=Z,500nm,15.7s						
PRU	Pruhonice	22.37	116	P	P	00 11 15.1	+5.5
	comp=Z,34nm,2.2s						
KSP	Ksiaz	22.39	112	eP	P	00 11 14.8	+5.0
KSP	Ksiaz	22.39	112	P	P	00 11 11.7	+1.9
	comp=Z,995nmcomp=Z,33nm,1.2s						
KSP				S	S	00 15 17.4	+1.9
	comp=Z,995nmcomp=Z,33nm,1.2s						
PUL	Pulkovo	22.40	80	ceP	P	00 11 14.4	+4.7
PUL				pmax	pmax		
	comp=Z,66nm,0.9s						
CHVC	Chvalec	22.49	113	eP	P	00 11 13.4	+2.5
CHVC	Chvalec	22.49	113	eP	P	00 11 13.4	+2.5
UPC	Upice	22.54	113	AMS	AMS	00 19 30.0	
	comp=Z,800nm,21.4s						
UPC	Upice	22.54	113	P	P	00 11 15.2	+3.8
	comp=Z,27nm,2.0s						
UBR	Ueberruh	22.64	125	P	P	00 11 16.2	+3.6
	comp=Z,30nm,1.5s						
KHC	Kasperske Hory	22.70	118	ceP	P	00 11 17.0	+3.9
KHC				pmax	pmax		
	comp=Z,10.0nm,0.9s						
KHC	Kasperske Hory	22.70	118	eP	P	00 11 13.5	+0.4
KHC				eS	Sn	00 15 29.2	-6.0
KHC				AMS	AMS	00 19 30.0	
	comp=Z,800nm,20.6s						
KHC	Kasperske Hory	22.70	118		P	00 11 11.0	-2.1
KHC	Kasperske Hory	22.70	118	P	P	00 11 17.7	+4.6
	comp=Z,18nm,1.1s						
BNALP	Bannalp	22.77	129	P	P	00 11 20.0	+6.0
	comp=Z,27nm,2.1s						
DPC	Dobruska-Polom	22.79	113	eP	P	00 11 16.7	+2.7
DPC				MLR	MLR		
	comp=Z,600nm,20.1s						
DPC	Dobruska-Polom	22.79	113	eP	P	00 11 16.7	+2.7
DPC				eS	Sn	00 15 31.8	-5.5
DPC				AMS	AMS	00 19 50.0	
	comp=Z,600nm,20.1s						
DPC	Dobruska-Polom	22.79	113	P	P	00 11 16.1	+2.1
	comp=Z,29nm,1.4s						
DAVA	Damuels	22.90	126	eP	P	00 11 17.1	+1.7
	comp=Z,11nm,1.1s						
SUW	Suwalki	22.92	98	eP	P	00 11 19.3	+4.0
SUW	Suwalki	22.92	98	P	P	00 11 13.0	-2.3
SUW	Suwalki	22.92	98	P	P	00 11 13.0	-2.3
SSB	Saint Sauveur	22.96	137	P	P	00 11 13.1	-2.8
SSB				pmax	pmax		
	comp=Z,27nm,1.2s						
SSB	Saint Sauveur	22.96	137	P	P	00 11 13.1	-2.8
SSB				IAmb	IAmb	00 11 33.3	
	comp=Z,27nm,1.2s						
GEC2	GERESS Array S	22.98	119	P	P	00 11 13.7	-2.4
GERES	GERESS Array B	22.98	119	P	P	00 11 16.3	+0.1
	comp=Z,5.0nm,0.9s,baz=306,slow=8.4,SNR=12						
GERES				LR	LR	00 20 34.4	
	comp=Z,683nm,21.7s,baz=330,slow=38						
	comp=Z,5.0nm,0.9s						
GERES	GERESS Array B	22.98	119	P	P	00 11 13.1	-3.0
RETA	Reutte	23.04	125	eP	P	00 11 17.5	+0.8
	comp=Z,5.0nm,0.9s						
KRLC	Kraliky	23.18	113	eP	P	00 11 25.1	+6.9
KRLC				MLR	MLR		
	comp=Z,700nm,19.3s						
KRLC	Kraliky	23.18	113	eP	P	00 11 25.1	+6.9
KRLC				AMS	AMS	00 20 10.0	
	comp=Z,700nm,19.3s						
CKRC	Cesky Krumlov	23.23	118	eS	Sn	00 15 42.4	-5.5
MOTA	Moosalm	23.28	124	eP	P	00 11 20.2	+0.9
	comp=Z,10nm,1.1s						
TREC	Trest	23.30	115	eP	P	00 11 20.1	+0.8
TREC	Trest	23.30	115	eP	P	00 11 20.1	+0.8
TREC	Trest	23.30	115	P	P	00 11 20.8	+1.5
	comp=Z,27nm,1.5s						
R9F13	Warsaw-Wawer	23.34	104	eP	P	00 11 25.6	+6.0
R9F13				e		00 14 18.1	
DAVOX	Davos/Dischmat	23.34	127	LR	LR	00 21 32.2	
	comp=Z,421nm,18.5s,baz=328,slow=40						
TUE	Stuetta	23.42	128	P	P	00 11 18.1	-2.7
TUE	Stuetta	23.42	128	P	P	00 11 21.5	+0.7
	comp=Z,64nm,2.1s						
SQTA	Sankt Quirin	23.42	124	eP	P	00 11 21.8	+1.2
	comp=Z,8.1nm,1.1s						
WATA	Walderalm	23.46	124	eP	P	00 11 22.5	+1.5
	comp=Z,11nm,1.0s						
BEL	Belsk	23.47	105	eP	P	00 11 24.9	+3.9
WTTA	Wattenberg	23.54	124	eP	P	00 11 22.9	+1.0
	comp=Z,8.2nm,1.1s						
RJOB	Jochberg	23.56	121	P	P	00 11 28.4	+6.5
	comp=Z,16nm,2.4s						
FUORN	Ofenpass-Fuorn	23.61	126	P	P	00 11 21.2	-1.5
FUORN				IAmb	IAmb	00 11 39.9	
	comp=Z,36nm,1.6s						
FUORN	Ofenpass-Fuorn	23.61	126	P	P	00 11 27.1	+4.4
	comp=Z,18nm,1.2s						
STEB	Steborice	23.69	111	eP	P	00 11 23.7	+0.6
VRAC	Vranov	23.72	114	LR	LR	00 21 56.8	
	comp=Z,605nm,18.0s,baz=334,slow=40						
VRAC	Vranov	23.72	114	eP	P	00 11 24.3	+0.9
VRAC	Vranov	23.72	114	P	P	00 11 26.9	+3.4
	comp=Z,9.2nm,2.8s						
MORC	Moravsky Berou	23.72	112	P	P	00 11 21.9	-1.6
MORC				pmax	pmax		
	comp=Z,124nm,1.9s						
MORC	Moravsky Berou	23.72	112		P	00 11 21.9	-1.6
MORC	Moravsky Berou	23.72	112	eP	P	00 11 24.4	+0.9
LESA	Schwarzleotal	23.78	122	eP	P	00 11 25.3	+1.2
	comp=Z,5.1nm,1.0s						
ABNA	Allensteig Bun	23.78	116	eP	P	00 11 25.2	+1.1
	comp=Z,8.8nm,1.4s						
KRUC	Moravsky	23.84	115	eP	P	00 11 25.7	+1.1
KRUC	Moravsky	23.84	115	P	P	00 11 27.1	+2.5
	comp=Z,14nm,2.3s						
NACGM	Naroch	23.85	93	eP	P	00 11 27.1	+2.5
	comp=Z,34nm,1.1s,baz=312						
OKC	Ostrava-Krasne	23.92	111	P	P	00 11 29.5	+4.2
	comp=Z,31nm,2.5s						
MOA	Molln	24.01	119	eP	P	00 11 27.1	+0.8
	comp=Z,9.5nm,1.5s						
OJC	Ojcow	24.29	109	eP	P	00 11 32.0	+3.3
OJC	Ojcow	24.29	109	P	P	00 11 26.4	-2.4
OJC	Ojcow	24.29	109	P	P	00 11 26.4	-2.4
OJC	Ojcow	24.29	109	P	P	00 11 31.3	+2.5
	comp=Z,778nmcomp=Z,26nm,2.7s						
KBA	Koelnbreinsper	24.32	121	eP	P	00 11 30.3	+1.0
	comp=Z,8.5nm,1.4s						
WINA	Alland / Wiene	24.49	116	eP	P	00 11 31.5	+0.9
	comp=Z,6.5nm,0.9s						
JAVC	Velka Javorina	24.50	113	eP	P	00 11 32.1	+1.3
CONA	Conrad Observa	24.55	117	eP	P	00 11 32.3	+1.0
	comp=Z,6.4nm,1.0s						
CTI	Castel Tesino	24.59	125	P	P	00 11 28.6	-3.0
CTI				pmax	pmax		
	comp=Z,17nm,0.9s						
CTI	Castel Tesino	24.59	125	P	P	00 11 28.6	-3.0
CTI				IAmb	IAmb	00 11 43.0	
	comp=Z,17nm,0.9s						
MNK	Minsk	24.60	93	i P	P	00 11 33.8	+2.3
MNK				i		00 12 05.4	
MNK				i PPP	PPP	00 12 20.6	
MNK				i		00 15 10.5	
MNK				i S	S	00 15 56.5	+4.4
MNK				i SS	SnSn	00 16 49.5	+13
MNK				pmax	pmax		
	comp=N,7.0nm,0.7s						
MNK				pmax	pmax		
	comp=Z,8.0nm,0.7s						
MNK				pmax	pmax		
	comp=E,2.0nm,0.8s						
MNK				MLR	MLR		
	comp=E,251nm,16.0s						
MNK				MLR	MLR		
	comp=Z,264nm,14.0s						
MNK				MLR	MLR		
	comp=N,296nm,16.0s						
MNK	Minsk	24.60	93	i P	P	00 11 33.8	+2.3
	comp=E,2.0nm,0.8s						
MNK				i P	P	00 11 33.8	+2.3
	comp=N,7.0nm,0.7s						
MNK				i P	P	00 11 33.8	+2.3
	comp=Z,8.0nm,0.7s,baz=313						
MNK				i PP	PnPn	00 12 05.5	+3.0
MNK				i PPP	PPP	00 12 20.6	
MNK				i S	S	00 15 56.5	+4.4
MNK				i SS	SnSn	00 16 49.5	+13
MNK				i LQ	LQ	00 19 31.7	
MNK				i LR	LR	00 20 06.5	
MNK				i LRM	MLR	00 22 20.7	
	comp=E,251nm,15.7s						
MNK				i LRM	MLR	00 22 27.3	
	comp=Z,264nm,14.3s						
MNK				i LRM	MLR	00 22 33.7	
	comp=N,296nm,15.7s						
SMOL	Smolenice	24.69	114	eP	P	00 11 34.8	+2.4
SMOL				pmax	pmax		
	comp=Z,7.0nm,1.3s						
SESA	Seetaler Alpe,	24.74	120	eP	P	00 11 35.4	+2.2
	comp=Z,16nm,1.4s						
MODS	Modra-Piesok	24.74	114	eP	P	00 11 36.6	+3.7
MODS	Modra-Piesok	24.74	114	eP	P	00 11 36.6	+3.7
MYKA	Terra Mystica	24.80	122	eP	P	00 11 35.5	+1.9
	comp=Z,9.3nm,1.0s						
RONA	Rosalia, Austr	24.91	117	eP	P	00 11 36.8	+2.4
	comp=Z,6.5nm,1.0s						
ARSA	Arzberg	24.99	118		P	00 11 32.7	-2.4
ARSA	Arzberg	24.99	118	eP	P	00 11 35.4	+0.3
	comp=Z,4.9nm,1.1s						
LANS	Liptovska Anna	24.99	111	eP	P	00 11 37.7	+2.5
LANS				pmax	pmax		
	comp=Z,6.0nm,1.0s						
LANS	Liptovska Anna	24.99	111	eP	P	00 11 37.7	+2.5
NIE	Niedzica	25.12	109	eP	P	00 11 41.5	+5.2
NIE	Niedzica	25.12	109	P	P	00 11 38.6	+2.3
	comp=Z,9.7nm,1.4s						
OBKA	Obir	25.24	121	eP	P	00 11 38.2	+0.7
	comp=Z,13nm,2.0s						
VYHS	Vyhne	25.26	112	eP	P	00 11 41.0	+3.4
VYHS				pmax	pmax		
	comp=Z,27nm,1.4s						
VYHS	Vyhne	25.26	112	eP	P	00 11 41.0	+3.4
SOKA	Soboth	25.28	120	P	P	00 11 38.8	+0.9
	comp=Z,7.9nm,1.7s						
STHS	Stebnicka Huta	25.50	108	eP	P	00 11 43.9	+4.1
STHS	Stebnicka Huta	25.50	108	eP	P	00 11 43.9	+4.1
SRO	Srobarova	25.60	114	eP	P	00 11 45.4	+4.8
SRO				pmax	pmax		
	comp=Z,9.0nm,1.1s						
SRO	Srobarova	25.60	114	eP	P	00 11 45.3	+4.7
KLMR	Klimovskoe	25.64	72	eP	P	00 11 43.3	+2.5
KLMR	Klimovskoe	25.64	72	eP	P	00 11 43.0	+2.1
KLMR				S	S	00 16 13.1	+4.4
KLMR				pmax	pmax		
	comp=Z,34nm,1.3s						
MPLH	Magyarpolny	25.83	116	P	P	00 11 43.8	+1.1
	comp=Z,28nm,2.5s						
KECS	Kecovo	25.93	110	eP	P	00 11 48.6	+5.0
KECS	Kecovo	25.93	110	eP	P	00 11 48.6	+5.0
KWP	Kalwaria Pacla	25.94	106	P	P	00 11 46.1	+2.4
	comp=Z,2µmcomp=Z,55nm,1.4s						
RNPP8	Varash	25.97	100	P	P	00 11 45.7	+1.7
SCHQ	Schefferville	26.00	271	P	P	00 11 45.5	+1.2
	comp=Z,16nm,0.8s,baz=48,slow=11,SNR=9.9						
SCHQ				LR	LR	00 21 04.6	
	comp=Z,341nm,19.7s,baz=67,slow=34						
	comp=Z,16nm,0.8s						
SCHQ	Schefferville	26.00	271	P	P	00 11 42.6	-1.7
SCHQ				IAmb	IAmb	00 11 51.2	
	comp=Z,14nm,0.8s						
LSH	Leshukonskoye	26.00	60	eP	P	00 11 47.6	+3.5
PSZ	Piszkesteto	26.14	112	P	P	00 11 43.4	-2.3
PSZ				pmax	pmax		
	comp=Z,34nm,1.2s						
PSZ	Piszkesteto	26.14	112		P	00 11 43.4	-2.3
PSZ				IAmb	IAmb	00 11 54.9	
	comp=Z,34nm,1.2s						
ESDC	Sonseca Array	26.25	156	P	P	00 11 46.8	+0.1
	comp=Z,4.3nm,1.0s,baz=347,slow=7.8,SNR=11						
ESDC				LR	LR	00 22 16.2	
	comp=Z,642nm,18.4s,baz=336,slow=37						
	comp=Z,4.3nm,1.0s						
ESDC	Sonseca Array	26.25	156		P	00 11 44.3	-2.4
KOLS	Kolonicke sedl	26.30	108	eP	P	00 11 51.2	+4.2
KOLS				pmax	pmax		
	comp=Z,12nm,1.0s						
KOLS	Kolonicke sedl	26.30	108	eP	P	00 11 51.2	+4.2
RES	Resolute Bay	26.46	324	LR	LR	00 22 12.5	
	comp=Z,381nm,18.6s,baz=46,slow=36						
UZHM	Uzhgorod	26.55	108	P	P	00 11 51.7	+2.5
MI30	MI30,Zelenitsa	27.40	98	P	P	00 11 59.6	+2.7
	comp=Z,17nm,1.9s						
LUBAR	Lubar, Ukraine	27.84	100	P	P	00 12 03.2	+2.4
AKASG	Malin Array Be	27.88	97	P	P	00 12 01.8	+0.8
	comp=Z,0.2nm,0.3s,baz=325,slow=9.8,SNR=12						
AKASG				LR	LR	00 23 27.1	
	comp=Z,365nm,19.0s,baz=349,slow=37						
	comp=Z,0.2nm,0.3s						
AKASG	Malin Array Be	27.88	97	ceP	P	00 12 06.0	+4.9
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.7s						
AKASG	Malin Array Be	27.88	97	P	P	00 11 58.6	-2.5
AKBB	Malin Array Si	27.88	97	ceP	P	00 12 06.1	+5.0
AKBB				pmax	pmax		
	comp=Z,10.0nm,1.2s						
AKBB	Malin Array Si	27.88	97	P	P	00 11 58.5	-2.6
AKBB				IAmb	IAmb	00 12 10.4	
	comp=Z,22nm,1.4s						
OBN	Obninsk	27.92	84	LR	LR	00 24 21.4	
	comp=Z,246nm,19.2s,baz=354,slow=39						
OBN	Obninsk	27.92	84	c iP	P	00 12 06.2	+4.8
OBN				i		00 12 50.3	
OBN				i PPP	PPP	00 12 59.7	
OBN				i S	S	00 16 38.9	-5.8
OBN				pmax	pmax		
	comp=Z,33nm,1.3s						
OBN				MLR	MLR		
	comp=Z,297nm,16.0s						
OBN	Obninsk	27.92	84	P	P	00 11 59.9	-1.5
MOS	Moscow	27.96	82	eP	P	00 12 07.3	+5.5
MOS				e		00 12 53.0	
MOS				eS	S	00 16 55.0	+10
KMPD	K-Podol'skiy	28.33	103	P	P	00 12 07.9	+2.7
BUR08	Bucovina Ar. S	28.52	106	P	P	00 12 04.9	-2.1
BUR08				IAmb	IAmb	00 12 51.0	
	comp=Z,33nm,1.6s						
BURAR	Bucovina Array	28.55	106	P	P	00 12 03.8	-3.5
MLR	Muntele Rosu	30.56	108	LR	LR	00 26 22.8	
	comp=Z,344nm,18.0s,baz=304,slow=40						
LPSR	Galich'ya Gora	30.67	86	eP	P	00 12 29.9	+4.1
LPSR				pmax	pmax		
	comp=Z,17nm,0.7s						
KIRV	Kirov	31.02	69	LR	LR	00 24 34.0	
	comp=Z,893nm,19.9s,baz=312,slow=36						
KIRV	Kirov	31.02	69	i P	P	00 12 33.1	+4.2
VORR	Voronezh	31.45	87	eP	P	00 12 38.1	+5.3
VORR				pmax	pmax		
	comp=Z,38nm,0.4s						
VSR	Storozhevoye	31.77	87	eP	P	00 12 32.9	-2.6
VSR				pmax	pmax		
	comp=Z,24nm,1.8s						
MD01	Midelt array s	32.78	160	P	P	00 12 41.1	-3.6
MD31	MD31	32.78	160	P	P	00 12 41.6	-3.0
LMQ	La Malbaie	32.81	264	P	P	00 12 43.0	-1.8
MDT	Midelt	32.85	160	LR	LR	00 26 21.9	
	comp=Z,293nm,19.9s,baz=354,slow=37						
VRH	Novokhopyorsk	32.88	85	eP	P	00 12 49.3	+4.1
VRH				pmax	pmax		
	comp=Z,34nm,1.4s						
VAE	Valguarnera	33.14	130	LR	LR	00 25 36.7	
	comp=Z,241nm,20.0s,baz=324,slow=35						
KEST	Kesra	33.17	138	LR	LR	00 26 46.1	
	comp=Z,434nm,18.0s,baz=254,slow=37						
BELG	Belogornoye	34.52	79	LR	LR	00 27 05.3	
	comp=Z,400nm,20.3s,baz=302,slow=36						
BELG	Belogornoye	34.52	79	i P	P	00 13 03.4	+3.9
BELG				pmax	pmax		
	comp=Z,5.0nm,1.0s						
H62A	Milan	35.51	262	P	P	00 13 05.8	-2.4
TRQ	Mont Tremblant	35.66	267	P	P	00 13 07.8	-1.7
TRQ				IAmb	IAmb	00 13 25.3	
	comp=Z,18nm,1.4s						
ANN	Anapa	35.95	96	eP	P	00 13 12.9	+1.0
ANN				eS	S	00 18 52.3	+2.5
ANN				pmax	pmax		
	comp=Z,26nm,1.2s						
ANN				MLR	MLR		
	comp=Z,417nm,17.0s						
ARTI	Arti	36.08	66	LR	LR	00 27 32.0	
	comp=Z,812nm,19.6s,baz=319,slow=36						
ARTI	Arti	36.08	66	P	P	00 13 17.4	+4.5
ARTI						00 15 44.2	
ARTI				S	S	00 18 57.5	+5.8
ARTI				SS	SnSn	00 21 18.6	+2.5
ARTI				MLR	MLR		
	comp=Z,717nm,18.0s						
ARTI	Arti	36.08	66	P	P	00 13 11.6	-1.3
NRIK	Noril'sk	36.49	35	P	P	00 13 18.8	+2.5
	comp=Z,6.1nm,1.0s,baz=307,slow=4.3,SNR=3.8						
NRIK				LR	LR	00 30 02.7	
	comp=Z,481nm,18.1s,baz=334,slow=39						
	comp=Z,6.1nm,1.0s						
NRIK	Noril'sk	36.49	35	i P	P	00 13 21.2	+4.9
NRIK				pmax	pmax		
	comp=Z,8.0nm,1.1s						
NRIK	Noril'sk	36.49	35	P	P	00 13 15.9	-0.4
ERBR	Yeremizino-Bor	36.53	93	eP	P	00 13 20.1	+3.2
ERBR				pmax	pmax		
	comp=Z,30nm,0.8s						
ERBR				MLR	MLR		
	comp=Z,551nm,22.0s						
SVE	Sverdlovsk	36.65	64	eP	P	00 13 21.9	+4.1
SVE				eS	S	00 19 05.4	+5.0
SVE				pmax	pmax		
	comp=Z,11nm,1.6s						
SVE				MLR	MLR		
	comp=Z,729nm,20.0s						
LONY	Lake Ozonia	36.94	265	P	P	00 13 19.2	-1.2
LABN	Labinsk	37.48	93	eP	P	00 13 28.1	+3.1
LABN				pmax	pmax		
	comp=Z,37nm,1.0s						
SOC	Sochi	37.90	95	eP	P	00 13 32.5	+4.0
SOC				e		00 14 56.6	
SOC				eS	S	00 19 25.5	+5.8
SOC				eSS	SS	00 22 03.0	-2.7
SOC				eSSS	SSS	00 22 28.5	
SOC				MLR	MLR		
	comp=Z,182nm,17.0s						
GOF	Gofitskoye	38.15	91	ceP	P	00 13 31.9	+1.3
BR131	Keskin Array S	38.51	105	P	P	00 13 31.8	-2.1
BR131				pmax	pmax		
	comp=Z,8.0nm,1.0s						
BR131	Keskin Array S	38.51	105	P	P	00 13 31.8	-2.1
BRTR	Keskin Array B	38.51	105	P	P	00 13 34.8	+0.9
	comp=Z,2.1nm,0.9s,baz=327,slow=7.3,SNR=8.3						
BRTR				LR	LR	00 31 32.1	
	comp=Z,102nm,18.6s,baz=258,slow=40						
	comp=Z,2.1nm,0.9s						
BRTR	Keskin Array B	38.51	105	i P	P	00 13 37.7	+3.8
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
BRTR	Keskin Array B	38.51	105	P	P	00 13 31.8	-2.1
SADO	Sadowa	38.78	270	LR	LR	00 28 33.4	
	comp=Z,218nm,20.3s,baz=19,slow=34						
IDI	Anoyia	38.84	118	LR	LR	00 30 37.6	
	comp=Z,220nm,21.8s,baz=315,slow=38						
KIV	Kislovodsk	38.88	92	eP	P	00 13 42.7	+5.8
KIV				eS	S	00 19 42.0	+7.4
KIV				pmax	pmax		
	comp=Z,9.0nm,1.0s						
KIV				MLR	MLR		
	comp=Z,238nm,16.0s						
KIV	Kislovodsk	38.88	92	P	P	00 13 36.0	-0.9
KVAR	Kislovodsk Arr	38.88	92	LR	LR	00 29 40.8	
	comp=Z,213nm,20.1s,baz=263,slow=36						
SHA1	Shidzhatmaz	39.04	93	ceP	P	00 13 43.6	+5.2
KBZ	Khabaz	39.15	92	P	P	00 13 40.3	+1.3
	comp=Z,2.9nm,0.9s,baz=326,slow=13,SNR=9.6						
KBZ				LR	LR	00 30 06.9	
	comp=Z,435nm,21.1s,baz=316,slow=37						
	comp=Z,2.9nm,0.9s						
KBZ	Khabaz	39.15	92	ceP	P	00 13 43.4	+4.4
KBZ				pmax	pmax		
	comp=Z,12nm,1.0s						
YKA	Yellowknife Ar	39.20	313	P	P	00 13 41.4	+2.2
	comp=Z,3.2nm,0.8s,baz=47,slow=8.6,SNR=8.9						
YKA				LR	LR	00 29 37.3	
	comp=Z,364nm,19.4s,baz=34,slow=36						
	comp=Z,3.2nm,0.8s						
YKA	Yellowknife Ar	39.20	313	i P	P	00 13 43.0	+3.8
YKA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
NCK	Nalchik	39.64	92	i P	P	00 13 46.5	+3.4
NCK				pmax	pmax		
	comp=Z,12nm,1.1s						
E46A	Sault Ste Mari	39.74	276	P	P	00 13 42.1	-1.8
E46A				IAmb	IAmb	00 13 55.4	
	comp=Z,22nm,1.1s						
INK	Inuvik	39.84	329	LR	LR	00 31 21.7	
	comp=Z,346nm,20.6s,baz=12,slow=38						
BNN	Bunyan	40.16	104	P	P	00 13 46.1	-1.6
BNN				IAmb	IAmb	00 14 08.7	
	comp=Z,27nm,1.6s						
L56A	Greenwood	40.23	266	P	P	00 13 45.4	-2.6
L56A				IAmb	IAmb	00 13 57.9	
	comp=Z,31nm,1.3s						
AKTO	Aktyubinsk	40.33	73	LR	LR	00 30 33.0	
	comp=Z,974nm,19.1s,baz=296,slow=36						
F31M	Tsiigehtchic	40.58	328	P	P	00 13 49.6	-1.0
F31M				IAmb	IAmb	00 13 55.5	
	comp=Z,18nm,1.1s						
F30M	Barrier River	40.91	329		P	00 13 52.5	-0.8
F30M				IAmb	IAmb	00 13 58.5	
	comp=Z,21nm,1.1s						
GLMI	Grayling	41.09	275	P	P	00 13 53.4	-1.8
KOPT	Kop Dagi	41.16	98	P	P	00 13 54.0	-2.1
ULM	Lac du Bonnet	41.57	289	P	P	00 14 01.5	+2.5
	comp=Z,1.8nm,0.7s,baz=39,slow=11,SNR=2.3						
ULM				LR	LR	00 30 23.8	
	comp=Z,198nm,18.5s,baz=38,slow=35						
	comp=Z,1.8nm,0.7s						
MAK	Makhachkala	41.75	89	d iP	P	00 14 00.1	-0.4
MAK				eSS	SS	00 23 25.3	+2.7
MAK				pmax	pmax		
	comp=Z,336nm,1.1s						
MAK				MLR	MLR		
	comp=Z,469nm,13.0s						
F28M	Old Crow	41.78	331	P	P	00 13 59.0	-1.5
G29M	Pine Creek	41.98	329		P	00 14 01.6	-0.6
G29M				IAmb	IAmb	00 14 12.6	
	comp=Z,28nm,1.2s						
AB31	Akbulak array	42.03	73		P	00 14 00.3	-2.4
AB31				IAmb	IAmb	00 14 09.8	
	comp=Z,27nm,1.6s						
ABKAR	Akbulak array	42.03	73		P	00 14 01.2	-1.5
H31M	Peel River	42.06	327	P	P	00 14 02.5	-0.3
H31M				IAmb	IAmb	00 14 09.8	
	comp=Z,48nm,1.8s						
TIXI	Tiksi	42.06	15	LR	LR	00 30 54.0	
	comp=Z,61nm,21.0s,baz=18,slow=35						
TIXI	Tiksi	42.06	15	ceP	P	00 14 06.5	+3.8
TIXI				pmax	pmax		
	comp=Z,24nm,1.3s						
TIXI	Tiksi	42.06	15		P	00 14 03.0	+0.3
TIXI				IAmb	IAmb	00 14 10.4	
	comp=Z,25nm,1.2s						
GAZ	Gaziantep	42.16	103	P	P	00 14 02.9	-1.1
GAZ				IAmb	IAmb	00 14 24.9	
	comp=Z,19nm,1.3s						
AAM	Ann Arbor	42.71	271	P	P	00 14 07.1	-1.3
AAM				pmax	pmax		
	comp=Z,17nm,1.1s						
AAM	Ann Arbor	42.71	271	P	P	00 14 07.1	-1.3
AAM				IAmb	IAmb	00 14 19.8	

	comp=Z,17nm,1.1s						
GNI	**Garni**	**42.87**	**94**	LR	LR	00 32 34.7	
	comp=Z,346nm,21.0s,baz=340,slow=37						
GNI	**Garni**	**42.87**	**94**	*ce*P	P	00 14 14.1	+4.3
GNI				pmax	pmax		
	comp=Z,45nm,1.7s						
BMAR	**Burnt Mountain**	**42.89**	**333**		**P**	**00 14 08.6**	**-1.0**
GURO	**Guroymak-BITLI**	**43.03**	**98**	P	**P**	**00 14 09.2**	**-2.0**
BORK	**Borovoye**	**43.19**	**62**	*i* P	P	00 14 16.4	+4.3
BORK				pmax	pmax		
	comp=Z,8.0nm,1.2s						
BORK	**Borovoye**	**43.19**	**62**		**P**	**00 14 11.2**	**-0.9**
BORK				IAmb	IAmb	00 14 19.3	
	comp=Z,36nm,1.8s						
BVAR	**Borovoye Array**	**43.24**	**62**	P	**P**	**00 14 13.5**	**+1.0**
	comp=Z,2.4nm,0.7s,baz=330,slow=8.3,SNR=12						
	comp=Z,2.4nm,0.7s						
E23K	**Chandalar**	**43.27**	**336**	P	**P**	**00 14 12.6**	**-0.2**
F24K	**Squaw Lake**	**43.44**	**335**	P	**P**	**00 14 13.4**	**-0.6**
F24K				IAmb	IAmb	00 14 24.9	
	comp=Z,39nm,1.9s						
I28M	**Miner Creek**	**43.63**	**329**	P	**P**	**00 14 14.2**	**-1.5**
I28M				IAmb	IAmb	00 14 22.2	
	comp=Z,20nm,1.5s						
TAM	**Tamanrasset**	**44.52**	**149**	P	**P**	**00 14 21.6**	**-1.7**
TAM				pmax	pmax		
	comp=Z,8.0nm,1.1s						
TAM	**Tamanrasset**	**44.52**	**149**	P	**P**	**00 14 21.6**	**-1.7**
MMAI	**Mount Meron Ar**	**44.99**	**108**	P	**P**	**00 14 26.7**	**-0.2**
	comp=Z,3.7nm,1.0s,baz=325,slow=15,SNR=2.3						
MMAI				LR	LR	00 36 10.5	
	comp=Z,82nm,18.8s,baz=301,slow=40						
	comp=Z,3.7nm,1.0s						
ILAR	**Eielson Array**	**45.68**	**332**	P	**P**	**00 14 33.9**	**+2.0**
	comp=Z,4.1nm,1.0s,baz=29,slow=7.2,SNR=23						
ILAR				PcP	**PcP**	**00 16 11.1**	**+1.4**
	comp=Z,1.9nm,0.9s,baz=6.1,slow=1.3,SNR=7.0						
ILAR				LR	LR	00 36 21.2	
	comp=Z,303nm,20.2s,baz=48,slow=40						
	comp=Z,4.1nm,1.0s						
ILAR	**Eielson Array**	**45.68**	**332**		**P**	**00 14 31.3**	**-0.6**
COLA	**College**	**45.78**	**333**	P	P	00 14 38.0	+5.4
COLA	**College**	**45.78**	**333**	*i* P	P	00 14 37.7	+5.1
COLA				pmax	pmax		
	comp=Z,10.0nm,1.0s						
IMAR	**Indian Mountai**	**45.86**	**337**	P	**P**	**00 14 32.6**	**-0.6**
BCAR	**Beaver Creek A**	**46.10**	**328**		**P**	**00 14 34.4**	**-0.9**
ASF	**Jabal al Asfar**	**46.34**	**107**	LR	LR	00 36 35.5	
	comp=Z,82nm,18.6s,baz=24,slow=40						
MENT	**Mentasta**	**46.64**	**329**	P	P	00 14 45.2	+5.7
BILL	**Bilibino**	**47.56**	**358**	*i* P	P	00 14 50.6	+4.0
BILL				pmax	pmax		
	comp=Z,5.0nm,1.1s						
ZAA0	**Zalesovo Array**	**47.67**	**51**	P	**P**	**00 14 46.3**	**-1.2**
ZAA0				IAmb	IAmb	00 14 54.7	
	comp=Z,13nm,1.4s						
ZALV	**Zalesovo Beam**	**47.67**	**51**	P	**P**	**00 14 48.8**	**+1.3**
	comp=Z,1.3nm,0.6s,baz=331,slow=8.3,SNR=8.8						
ZALV				PcP	**PcP**	**00 16 20.1**	**+3.3**
	comp=Z,1.5nm,0.9s,baz=347,slow=5.9,SNR=3.9						
ZALV				LR	LR	00 37 39.6	
	comp=Z,195nm,18.7s,baz=318,slow=40						
	comp=Z,1.3nm,0.6s						
ZALV	**Zalesovo Beam**	**47.67**	**51**	*i* P	P	00 14 52.2	+4.6
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ZALV	**Zalesovo Beam**	**47.67**	**51**		**P**	**00 14 45.9**	**-1.7**
EIL	**Elat**	**47.74**	**111**	LR	LR	00 37 46.6	
	comp=Z,83nm,18.3s,baz=275,slow=40						
KURK	**Kurchatov**	**48.15**	**58**	*i* P	**P**	**00 14 53.1**	**+1.8**
KURK				pmax	pmax		
	comp=Z,6.0nm,1.0s						
KURK	**Kurchatov**	**48.15**	**58**		**P**	**00 14 50.2**	**-1.1**
KURK				IAmb	IAmb	00 15 00.1	
	comp=Z,10.0nm,1.1s						
KURBB	**Kurchatov Arra**	**48.19**	**58**	P	**P**	**00 14 51.6**	**-0.1**
	comp=Z,5.3nm,1.0s,baz=325,slow=7.5,SNR=4.7						
KURBB				LR	LR	00 35 24.1	
	comp=Z,358nm,19.8s,baz=246,slow=36						
	comp=Z,5.3nm,1.0s						
TKL	**Tuckaleechee C**	**48.29**	**266**	LR	LR	00 34 12.0	
	comp=Z,231nm,19.8s,baz=38,slow=35						
CLTN	**Cedars of Leba**	**49.02**	**269**	P	**P**	**00 14 56.0**	**-2.3**
CLTN				IAmb	IAmb	00 15 07.6	
	comp=Z,20nm,1.7s						
KKAR	**Karatay Array**	**51.31**	**70**	P	**P**	**00 15 14.5**	**-1.1**
KKAR	**Karatay Array**	**51.31**	**70**	P	**P**	**00 15 14.4**	**-1.1**
NEW	**Newport**	**51.40**	**303**	LR	LR	00 37 12.5	
	comp=Z,364nm,19.6s,baz=18,slow=36						
BOZ	**Bozeman (W)**	**51.58**	**297**	P	**P**	**00 15 16.9**	**-0.8**
BOZ				pmax	pmax		
	comp=Z,36nm,1.6s						
BOZ	**Bozeman (W)**	**51.58**	**297**	P	**P**	**00 15 16.9**	**-0.8**
DGZ	**Jazzator, Alta**	**52.12**	**53**	*i* P	P	00 15 25.8	+4.2
DGZ				pmax	pmax		
	comp=Z,15nm,1.5s						
SEY	**Seymchan**	**52.51**	**6**	*ce*P	P	00 15 29.8	+5.7
SEY				pmax	pmax		
	comp=Z,5.0nm,1.1s						
MK31	**Makanchi Array**	**52.76**	**58**	*i* P	P	00 15 30.5	+4.2
MK31	**Makanchi Array**	**52.76**	**58**	P	**P**	**00 15 25.4**	**-0.9**
MK31				IAmb	IAmb	00 15 43.6	
	comp=Z,14nm,1.6s						
MKAR	**Makanchi Array**	**52.76**	**58**	P	**P**	**00 15 25.8**	**-0.5**
	comp=Z,1.2nm,0.8s,baz=309,slow=6.9,SNR=7.6						
MKAR				LR	LR	00 38 08.9	
	comp=Z,231nm,20.4s,baz=322,slow=36						
	comp=Z,1.2nm,0.8s						
MKAR	**Makanchi Array**	**52.76**	**58**	*i* P	**P**	**00 15 27.1**	**+0.8**
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
MKAR	**Makanchi Array**	**52.76**	**58**		**P**	**00 15 25.4**	**-0.9**
TORD	**Torodi Ar. Bea**	**53.14**	**156**	P	**P**	**00 15 27.9**	**-1.4**
	comp=Z,4.5nm,1.1s,baz=351,slow=9.4,SNR=10						
TORD				LR	LR	00 38 21.7	
	comp=Z,120nm,18.5s,baz=348,slow=36						
	comp=Z,4.5nm,1.1s						
PD31	**Pinedale Array**	**53.15**	**293**	P	**P**	**00 15 29.3**	**-0.2**
PD31				IAmb	IAmb	00 15 33.9	
	comp=Z,11nm,0.8s						
PDAR	**Pinedale Array**	**53.15**	**293**	P	**P**	**00 15 29.8**	**+0.3**
	comp=Z,6.2nm,0.8s,baz=23,slow=5.5,SNR=38						
PDAR				LR	LR	00 38 06.6	
	comp=Z,220nm,18.5s,baz=20,slow=36						
	comp=Z,6.2nm,0.8s						
PDAR	**Pinedale Array**	**53.15**	**293**		**P**	**00 15 28.7**	**-0.8**
KDAK	**Kodiak Island**	**53.20**	**332**	LR	LR	00 39 36.7	
	comp=Z,302nm,21.8s,baz=47,slow=38						
AAK	**Ala-Archa**	**53.30**	**67**	LR	LR	00 37 57.6	
	comp=Z,499nm,20.1s,baz=338,slow=36						
AAK	**Ala-Archa**	**53.30**	**67**	*ce*P	P	00 15 36.1	+5.6
AAK				pmax	pmax		
	comp=Z,12nm,1.3s						
AAK	**Ala-Archa**	**53.30**	**67**	P	**P**	**00 15 29.3**	**-1.1**
ARSB	**Arslanbob**	**53.80**	**69**	P	**P**	**00 15 33.7**	**-0.5**
ARSB				pmax	pmax		
	comp=Z,18nm,1.3s						
ARSB	**Arslanbob**	**53.80**	**69**	P	**P**	**00 15 33.7**	**-0.5**
ARSB				IAmb	IAmb	00 15 43.4	
	comp=Z,18nm,1.3s						
BTK	**Batken**	**54.00**	**72**	P	**P**	**00 15 34.8**	**-0.8**
BTK				pmax	pmax		
	comp=Z,23nm,1.1s						
BTK	**Batken**	**54.00**	**72**		**P**	**00 15 34.8**	**-0.8**
MOY	**Mondy**	**54.69**	**42**	*e*P	**P**	**00 15 43.9**	**+3.4**
MOY				pmax	pmax		
	comp=Z,50nm,3.1s						
DRK	**Karamyk**	**54.89**	**71**	P	**P**	**00 15 41.2**	**-1.1**
DRK				pmax	pmax		
	comp=Z,36nm,1.4s						
DRK	**Karamyk**	**54.89**	**71**	P	**P**	**00 15 41.2**	**-1.1**
HRA	**Herat**	**55.23**	**82**	P	**P**	**00 15 42.5**	**-2.1**
HRA				IAmb	IAmb	00 15 52.3	
	comp=Z,23nm,1.6s						
TLY	**Talaya**	**55.43**	**40**	LR	LR	00 42 14.6	
	comp=Z,391nm,18.2s,baz=350,slow=39						
ZAK	**Zakamensk**	**56.50**	**41**	*e*P	**P**	**00 15 55.8**	**+2.4**
ZAK				pmax	pmax		
	comp=Z,8.0nm,1.6s						
SJG	**San Juan**	**56.65**	**239**	LR	LR	00 34 38.3	
	comp=Z,76nm,21.0s,baz=36,slow=30						
KSH2	**Kashi**	**56.69**	**68**	P	P	00 15 59.3	+4.2
KSH2				pmax	pmax		
	comp=Z,14nm,1.3s						
KSH2				LR	LR		
	comp=N,460nm,14.6s						
KSH2				LR	LR		
	comp=E,280nm,16.2s						
KSH2				LR	LR		
	comp=Z,700nm,19.6s						
WMQ	**Urumqi**	**57.27**	**56**	*e*P	**P**	**00 15 56.0**	**-3.0**
WMQ				pP	sP	00 16 05.0	+1.2
WMQ				pmax	pmax		
	comp=Z,14nm,1.1s						
WMQ				LR	LR		
	comp=N,430nm,19.3s						
WMQ				LR	LR		
	comp=E,400nm,21.5s						
WMQ				LR	LR		
	comp=Z,240nm,23.7s						
RAYN	**Ar Rayn**	**57.52**	**104**	P	**P**	**00 15 59.5**	**-1.4**
RAYN				pmax	pmax		
	comp=Z,10.0nm,1.6s						
RAYN	**Ar Rayn**	**57.52**	**104**	P	**P**	**00 15 59.5**	**-1.4**
CAIB	**Caibarien**	**57.93**	**254**	P	**P**	**00 16 01.8**	**-1.9**
CAIB				IAmb	IAmb	00 16 12.5	
	comp=Z,19nm,1.3s						
KBL	**Kabul**	**57.97**	**76**	P	**P**	**00 16 03.2**	**-1.0**
KBL				pmax	pmax		
	comp=Z,7.0nm,1.2s						
KBL	**Kabul**	**57.97**	**76**	P	**P**	**00 16 03.2**	**-1.0**
ANMO	**Albuquerque**	**58.56**	**286**	LR	LR	00 41 08.3	
	comp=Z,252nm,18.8s,baz=334,slow=36						
ANMO	**Albuquerque**	**58.56**	**286**	P	**P**	**00 16 07.7**	**-0.6**
ANMO				pmax	pmax		
	comp=Z,20nm,1.8s						
ANMO	**Albuquerque**	**58.56**	**286**	P	**P**	**00 16 07.7**	**-0.6**
ANMO				IAmb	IAmb	00 16 18.1	
	comp=Z,20nm,1.8s						
DBIC	**Dimbokro**	**58.58**	**165**	P	**P**	**00 16 08.7**	**+0.4**
	comp=Z,9.6nm,1.1s,baz=6.8,slow=8.4,SNR=4.0						
DBIC				LR	LR	00 41 57.9	
	comp=Z,219nm,18.8s,baz=351,slow=37						
	comp=Z,9.6nm,1.1s						
SONM	**Songino Array**	**59.68**	**40**	P	**P**	**00 16 17.2**	**+1.4**
	comp=Z,1.0nm,0.7s,baz=333,slow=5.0,SNR=5.1						
SONM				LR	LR	00 44 25.0	
	comp=Z,400nm,19.6s,baz=340,slow=38						
	comp=Z,1.0nm,0.7s						
SONM	**Songino Array**	**59.68**	**40**		**P**	**00 16 15.1**	**-0.6**
SONM				IAmb	IAmb	00 16 23.2	
	comp=Z,17nm,2.0s						
ULN	**Ulaanbaatar**	**59.83**	**40**	*ce*P	**P**	**00 16 20.4**	**+3.5**
ULN				pmax	pmax		
	comp=Z,16nm,2.5s						
ULN	**Ulaanbaatar**	**59.83**	**40**	P	**P**	**00 16 16.6**	**-0.2**
ULN				IAmb	IAmb	00 16 23.6	
	comp=Z,14nm,1.5s						
WUAZ	**Wupatki**	**60.08**	**290**	P	**P**	**00 16 18.0**	**-0.7**
NVAR	**Mina Array Bea**	**60.28**	**297**	P	**P**	**00 16 21.5**	**+1.3**
	comp=Z,1.5nm,0.9s,baz=26,slow=6.0,SNR=5.1						
	comp=Z,1.5nm,0.9s						
NVAR	**Mina Array Bea**	**60.28**	**297**	P	**P**	**00 16 19.4**	**-0.7**
NIL	**Nilore**	**60.49**	**73**	P	**P**	**00 16 20.7**	**-0.7**
NIL				pmax	pmax		
	comp=Z,25nm,1.2s						
NIL	**Nilore**	**60.49**	**73**	P	**P**	**00 16 20.7**	**-0.7**
TPNV	**Topopah Spring**	**60.77**	**295**	P	**P**	**00 16 23.1**	**-0.4**
TPNV				pmax	pmax		
	comp=Z,9.0nm,1.3s						
TPNV	**Topopah Spring**	**60.77**	**295**	P	**P**	**00 16 23.1**	**-0.4**
TPNV				IAmb	IAmb	00 16 32.9	
	comp=Z,9.1nm,1.2s						
TXAR	**Lajitas Array**	**62.25**	**280**	P	**P**	**00 16 35.5**	**+2.0**
	comp=Z,2.5nm,0.9s,baz=27,slow=5.4,SNR=22						
	comp=Z,2.5nm,0.9s						
PETK	**Petropavlovsk-**	**62.52**	**3**	LR	LR	00 42 44.5	
	comp=Z,151nm,20.5s,baz=11,slow=35						
SHEM	**Shemya Is, Ala**	**62.61**	**352**	LR	LR	00 43 57.1	
	comp=Z,106nm,19.9s,baz=278,slow=36						
KLR	**Kul'dur**	**63.97**	**22**	LR	LR	00 45 19.2	
	comp=Z,167nm,19.6s,baz=3.5,slow=37						
GTA2	**Gaotai**	**65.25**	**49**	*e*P	**P**	**00 16 55.5**	**+2.4**
GTA2				pmax	pmax		
	comp=Z,4.0nm,1.1s						
GTA2				LR	LR		
	comp=N,200nm,18.4s						
GTA2				LR	LR		
	comp=E,220nm,17.8s						
GTA2				LR	LR		
	comp=Z,390nm,16.8s						
HSIG		**65.58**	**286**	P	**P**	**00 16 55.0**	**-0.3**
SDV	**Santo Domingo**	**66.78**	**239**	P	**P**	**00 17 01.5**	**-1.8**
HHC	**Hu-ho-hao-te**	**67.55**	**40**	*e*P	**P**	**00 17 06.0**	**-1.8**
HHC				sP	sP	00 17 15.5	+2.8
HHC				pmax	pmax		
	comp=Z,7.0nm,0.8s						
USRK	**Ussuriysk Ar.**	**68.89**	**23**	LR	LR	00 48 40.5	
	comp=Z,100nm,18.3s,baz=11,slow=37						
CMIG	**Matias Romero**	**69.26**	**266**	LR	LR	00 47 58.8	
	comp=Z,72nm,20.8s,baz=32,slow=36						
BOAV	**Boa Vista**	**69.37**	**227**	P	**P**	**00 17 17.5**	**-1.8**
BOAV				IAmb	IAmb	00 17 27.1	
	comp=Z,4.8nm,1.0s						
BJT	**Baijiatuau**	**69.54**	**36**	P	**P**	**00 17 20.1**	**0.0**
BJT				pmax	pmax		
	comp=Z,5.0nm,0.4s						
BJT	**Baijiatuau**	**69.54**	**36**	P	**P**	**00 17 20.1**	**0.0**
LPIG	**La Paz**	**69.65**	**283**	LR	LR	00 49 23.1	
	comp=Z,128nm,19.2s,baz=340,slow=37						
LZH	**Lanzhou**	**69.67**	**47**	*e*P	**P**	**00 17 23.5**	**+2.3**
LZH				sP	sP	00 17 29.0	+2.9
LZH				pmax	pmax		
	comp=Z,21nm,1.3s						
LZH				LR	LR		
	comp=N,260nm,15.2s						
LZH				LR	LR		
	comp=E,230nm,14.6s						
LZH				LR	LR		
	comp=Z,210nm,13.6s						
LZDM	**Lanzhou Array**	**69.74**	**48**	LR	LR	00 51 14.3	
	comp=Z,134nm,19.0s,baz=15,slow=39						
ASAJ	**Asahikawa**	**70.46**	**15**	LR	LR	00 51 41.6	
	comp=Z,101nm,18.1s,baz=90,slow=39						
EVN	**Everest**	**70.96**	**65**	P	**P**	**00 17 28.4**	**-1.4**
EVN				IAmb	IAmb	00 17 44.6	
	comp=Z,11nm,1.1s						
HNS	**HongShan**	**71.63**	**38**	⇑P	**P**	**00 17 33.0**	**+0.2**
HNS				S	**SKiKP**	**00 27 03.5**	**-7.6**
HNS				LR	LR		
	comp=N,410nm,20.7s						
HNS				LR	LR		
	comp=Z,540nm,20.7s						
ROSC	**El Rosal**	**71.89**	**241**	P	**P**	**00 17 37.6**	**+2.5**
	comp=Z,3.9nm,0.4s,baz=94,slow=14,SNR=8.2						
ROSC				LR	LR	00 48 04.6	
	comp=Z,57nm,19.6s,baz=64,slow=35						
	comp=Z,3.9nm,0.4s						
MBAR	**Mbarara**	**73.93**	**129**	LR	LR	00 54 27.8	
	comp=Z,242nm,18.4s,baz=176,slow=39						
KSRS	**Korea Array**	**74.68**	**28**	LR	LR	00 54 23.6	
	comp=Z,150nm,18.0s,baz=345,slow=39						
KMBO	**Kilima Mbogo**	**76.69**	**123**	LR	LR	00 55 21.1	
	comp=Z,151nm,19.3s,baz=210,slow=38						
ENH	**Enshi**	**76.81**	**45**	P	P	00 18 10.6	+7.4
ENH	**Enshi**	**76.81**	**45**	P	**P**	**00 18 01.8**	**-1.4**
MORE	**Moreh**	**77.17**	**60**	P	**P**	**00 18 04.4**	**-0.9**
BRDH	**Bariadhala**	**77.58**	**63**	LR	LR	00 55 23.1	
	comp=Z,214nm,20.1s,baz=107,slow=38						
OTAV	**Otavalo**	**77.69**	**243**	P	**P**	**00 18 06.4**	**-2.4**
OTAV				pmax	pmax		
	comp=Z,10.0nm,1.5s						
OTAV	**Otavalo**	**77.69**	**243**	P	**P**	**00 18 06.4**	**-2.4**
OTAV				IAmb	IAmb	00 18 18.3	
	comp=Z,10nm,1.4s						
NJ2	**Nanjing**	**77.77**	**37**	*e*P	**P**	**00 18 08.5**	**0.0**
NJ2				pmax	pmax		
	comp=Z,14nm,0.6s						
PZH	**PanZhiHua**	**77.78**	**53**	P	**P**	**00 18 07.5**	**-1.3**
JNU	**Nakatsue**	**79.46**	**27**	LR	LR	00 58 53.7	
	comp=Z,93nm,19.3s,baz=14,slow=40						
JHJ	**Hachijo jima 2**	**80.94**	**19**	LR	LR	00 56 13.2	
	comp=Z,80nm,18.1s,baz=344,slow=37						
CHTO	**Chiang Mai**	**83.84**	**58**	P	P	00 18 45.1	+3.9
CHTO	**Chiang Mai**	**83.84**	**58**	P	**P**	**00 18 40.5**	**-0.7**
CHTO				pmax	pmax		
	comp=Z,14nm,1.6s						
CHTO	**Chiang Mai**	**83.84**	**58**	P	**P**	**00 18 40.5**	**-0.7**
CHTO				IAmb	IAmb	00 19 01.6	
	comp=Z,14nm,1.6s						
CMAR	**Chiang Mai Arr**	**84.17**	**59**	P	**P**	**00 18 45.4**	**+2.5**
	comp=Z,0.5nm,0.3s,baz=329,slow=4.0,SNR=6.2						
CMAR				LR	LR	00 58 55.2	
	comp=Z,105nm,20.2s,baz=320,slow=38						
	comp=Z,0.5nm,0.3s						
CMAR	**Chiang Mai Arr**	**84.17**	**59**	*ce*P	P	00 18 47.2	+4.3
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
CMAR	**Chiang Mai Arr**	**84.17**	**59**		**P**	**00 18 41.9**	**-1.0**
JOW	**Kunigami**	**85.02**	**30**	LR	LR	01 01 06.0	
	comp=Z,149nm,19.5s,baz=10,slow=39						
WRA	**Warramunga Arr**	**131.56**	**36**	PKP	**PKiKP**	**00 25 24.8**	**-0.3**
	comp=Z,1.4nm,1.2s,baz=3.1,slow=1.5,SNR=4.2						
ASAR	**Alice Springs**	**135.00**	**38**	PKP	**PKiKP**	**00 25 33.7**	**+1.7**
	comp=Z,1.8nm,1.1s,baz=339,slow=2.3,SNR=5.6						
STKA	**Stephens Creek**	**144.75**	**32**	PKP	**PKiKP**	**00 25 48.8**	**-2.8**
	comp=Z,2.5nm,0.8s,baz=343,slow=11,SNR=3.7						
QSPA	**South Pole Qui**	**154.57**	**180**	PKPbc	**PKiKP**	**00 26 12.8**	**+2.0**
	comp=Z,4.1nm,1.1s,baz=198,slow=3.7,SNR=4.9						
QSPA	**South Pole Qui**	**154.57**	**180**		**PKiKP**	**00 26 10.6**	**-0.2**

NOU 27 00:07:47.4, 16°.04S×168°.46E, h150^{km}, MLv4.1/12,
Vanuatu Islands, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
RTV	**Rentapao**	**1.74**	**181**	P	Pn	00 08 20.9	+1.3
MARNC	**Mare, Loyalty**	**5.43**	**184**	P	Pn	00 09 06.8	+0.3
YATNC	**Mamie plateau,**	**6.17**	**194**	P	Pn	00 09 15.7	-0.7
NOUC	**Port Laguerre**	**6.37**	**198**	P	Pn	00 09 19.6	+0.6
OUENC	**Ouen Island, N**	**6.53**	**193**	P	Pn	00 09 22.2	+1.1

*DJA **27** 00:15:59.2±1.0, 3°S±2°×12°8E±°, h25^{km}±11^{km}, M4.5/26, mb4.4/14, mB5.3/11, MLv4.1/26, Mw(mB)4.8/11*
*IDC **27** 00:16:09.0±2.9, 2°.70S×129°.03E, h174^{km}±36^{km}, mb3.3/2, mbtmp3.9/5, MS3.2/2, Error ellipse: s-maj=55.8km s-min=17.7km az=75.0*
ISC 27 00:15:58.9±0.9**, 2°.81S**±0°.06×**128°.04E**±0°.05**, h38^{km}, n23,**
σ**2^{s}.35**/25**, Ceram Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
AAI	**Ambon**	**0.89**	**170**	P	**Pn**	**00 16 15.0**	**+0.1**
NLAI	**Namlea**	**1.03**	**245**	P	**Pn**	**00 16 19.2**	**+2.5**
NLAI				AML	AML		
MSAI	**Masohi**	**1.04**	**121**	P	**Pn**	**00 16 18.2**	**+1.3**
MSAI				S	**Sn**	**00 16 35.4**	**+5.1**
MSAI				AML	AML		
SANI	**Sanana**	**2.18**	**290**	P	**Pn**	**00 16 33.7**	**+1.1**
SANI				S	**Sn**	**00 16 59.5**	**+1.2**
BNDI	**Bandanaira**	**2.53**	**132**	P	**Pn**	**00 16 38.7**	**+1.3**
BNDI				AML	AML		
TNTI	**Ternate**	**3.62**	**349**	P	**Pn**	**00 16 53.8**	**+1.4**
TNTI				AML	AML		
SWI	**Sorong**	**3.76**	**59**	P	**Pn**	**00 16 55.1**	**+0.8**
SWI				AML	AML		
SIJI	**Sorong**	**3.76**	**59**	P	**Pn**	**00 16 55.2**	**+0.9**
	34nm,0.2s,baz=241,slow=13,SNR=144						
SIJI				S	**Sn**	**00 17 36.5**	**-0.9**
	27nm,0.4s,baz=197,slow=19,SNR=11						
FAKI	**Fak Fak**	**4.21**	**92**	P	**Pn**	**00 17 00.6**	**+0.1**
FAKI				AML	AML		
KDI	**Kendari**	**5.53**	**258**	P	**Pn**	**00 17 19.7**	**+1.1**
KDI				AML	AML		
LUWI	**Luwuk**	**5.54**	**288**	P	**Pn**	**00 17 19.9**	**+1.0**
	0.2nm2µm51nm,0.6s						
LUWI				AML	AML		
MWPI	**Manokwari, Pap**	**6.28**	**73**	P	**Pn**	**00 17 30.5**	**+1.4**
	0.2nm55nm,0.9s						
MWPI				AML	AML		
APSI	**Ampana**	**6.66**	**286**	P	**Pn**	**00 17 35.2**	**+1.1**
APSI				AML	AML		
BSSI	**Bau Bau, Buton**	**8.22**	**246**	P	**Pn**	**00 17 56.5**	**+0.9**
	27nm,1.1s						
BAKI	**Biak**	**8.22**	**79**	P	**Pn**	**00 17 57.3**	**+1.6**
	29nm,0.7s						
BKSI	**Bulukumba**	**8.28**	**252**	P	**Pn**	**00 17 57.4**	**+1.0**
	9.3nm,0.9s						
PCI	**Palu**	**8.41**	**283**	P	**Pn**	**00 17 59.3**	**+1.0**
	2µm41nm,0.6s						
FITZ	**Fitzroy Crossi**	**15.38**	**189**	P	**P**	**00 19 39.3**	**+1.9**
	3.5nm,0.8s,baz=29,slow=13,SNR=9.9						
WRA	**Warramunga Arr**	**18.11**	**161**	P	**Pn**	**00 20 06.4**	**-1.2**
	1.0nm,0.4s,baz=339,slow=11,SNR=12						
WRA				S	**Sn**	**00 23 21.1**	**-7.7**
	0.6nm,1.0s,baz=343,slow=22,SNR=3.0						
LEM	**Lembang**	**20.73**	**258**	LR	LR	00 30 31.1	
	comp=Z,109nm,22.0s,baz=134,slow=40						
ASAR	**Alice Springs**	**21.50**	**165**	P	**P**	**00 20 44.7**	**+0.1**
	6.5nm,0.7s,baz=346,slow=12,SNR=47						
	6.5nm,0.7s						
GUMO	**Guam**	**23.33**	**45**	LR	LR	00 30 50.8	
	comp=Z,33nm,18.8s,baz=173,slow=39						
MKAR	**Makanchi Array**	**63.67**	**327**	P	**P**	**00 26 24.5**	**-1.9**
	0.3nm,0.8s,baz=127,slow=8.4,SNR=1.8						
	0.3nm,0.8s						

*DJA **27** 00:23:09.2±0.5, 3°S±2°×12°8E±°, h11^{km}±5^{km}, M4.0/21, mb4.0/10, mB5.4/4, MLv3.6/21, Mw(mB)4.8/4*
*IDC **27** 00:23:11.1±6.0, 2°.61S×128°.04E, h84^{km}±65^{km}, mb3.3/2, mbtmp3.5/5, ML3.2/3, MS3.6/1, Error ellipse: s-maj=58.1km s-min=19.6km az=100.0*
ISC 27 00:23:10.5±1.0**, 2°.81S**±0°.07×**128°.05E**±0°.07**, h38^{km}, n20,**
σ**1^{s}.65**/19**, Ceram Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
AAI	**Ambon**	**0.88**	**170**	P	**Pn**	**00 23 25.4**	**-1.0**
MSAI	**Masohi**	**1.03**	**121**	P	**Pn**	**00 23 30.7**	**+2.4**
MSAI				AML	AML		
NLAI	**Namlea**	**1.04**	**246**	P	**Pn**	**00 23 30.5**	**+2.0**
NLAI				AML	AML		
SANI	**Sanana**	**2.19**	**290**	P	**Pn**	**00 23 45.1**	**+0.7**
SANI				AML	AML		
BNDI	**Bandanaira**	**2.51**	**133**	P	**Pn**	**00 23 50.7**	**+1.9**
BNDI				AML	AML		
SWI	**Sorong**	**3.75**	**59**	P	**Pn**	**00 24 07.4**	**+1.6**
SWI				AML	AML		
SIJI	**Sorong**	**3.75**	**59**	P	**Pn**	**00 24 04.8**	**-1.0**
	3.1nm,0.3s,baz=242,slow=17,SNR=16						
SIJI				S	**Sn**	**00 24 48.5**	**-0.3**
	11nm,0.5s,baz=229,slow=19,SNR=3.1						
	7.0nm,0.3s						
SIJI				AML	AML		
FAKI	**Fak Fak**	**4.20**	**92**	P	**Pn**	**00 24 13.9**	**+1.9**
FAKI				AML	AML		
LUWI	**Luwuk**	**5.56**	**288**	P	**Pn**	**00 24 31.1**	**+0.4**
	0.3nm25nm,0.8s						
LUWI				AML	AML		
GTOI	**Gorontalo**	**6.09**	**304**	P	**Pn**	**00 24 41.4**	**+3.4**
	0.1nm7.1nm,1.1s						
GTOI				AML	AML		
KKSI	**Kolaka, Sulawe**	**6.53**	**258**	P	**Pn**	**00 24 44.7**	**+0.7**
MMRI	**Maumere**	**8.18**	**225**	P	**Pn**	**00 25 07.8**	**+1.1**
	3µm25nm,1.2s						
BAKI	**Biak**	**8.21**	**79**	P	**Pn**	**00 25 08.9**	**+1.7**
	22nm,1.1s						
BSSI	**Bau Bau, Buton**	**8.23**	**246**	P	**Pn**	**00 25 08.3**	**+0.9**
	32nm,1.2s						
KAPI	**Kappang**	**8.56**	**255**	P	**Pn**	**00 25 12.9**	**+1.0**
FITZ	**Fitzroy Crossi**	**15.37**	**189**	P	**P**	**00 26 47.5**	**-1.4**
	baz=7.1,slow=8.1,SNR=1.8						
	2.2nm,1.1s						
WRA	**Warramunga Arr**	**18.10**	**161**	P	**Pn**	**00 27 18.5**	**-0.6**
	0.1nm,0.3s,baz=339,slow=11,SNR=6.0						
	0.2nm,0.3s						
WRA				AML	AML		
ASAR	**Alice Springs**	**21.49**	**165**	P	**P**	**00 27 55.1**	**-1.0**
	0.9nm,0.8s,baz=348,slow=12,SNR=8.8						
	0.9nm,0.8s						
KSRS	**Korea Array**	**40.06**	**360**	P	P	00 30 36.5	-5.7
	0.8nm,0.4s,baz=191,slow=5.9,SNR=4.6						
	0.8nm,0.4s						
TLY	**Talaya**	**58.12**	**342**	LR	LR	00 58 25.1	
	comp=Z,51nm,21.8s,baz=121,slow=36						

*IDC **27** 00:35:22.9±0.6, 57°.31S×147°.95W, h0^{km}, mb4.1/12, mbtmp4.1/12, MS4.7/49, Error ellipse: s-maj=25.1km s-min=17.0km az=5.0*
*NEIC **27** 00:35:24.8±2.2, 57°.2S±0°.2×147°.7W±0°.2, h10^{km}±1^{km}, mb4.9/33, Ms_20 5.3/257, Mwb5.4/19, Mww5.5/13, Error*

ellipse: s-maj=27.0km s-min=20.0km az=356.0, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}-0.59; $M_{\theta\theta}$1.78; $M_{\phi\phi}$-1.19; $M_{r\theta}$-0.13; $M_{\theta\phi}$0.78; $M_{\phi r}$-0.07; Fault plane solution: $M_0$1.76000×10^{17} NP1: ϕ_s301.19000°, δ85.92000°, λ0.51000°. NP2: ϕ_s211.16000°, δ89.49000°, λ175.92000°. Principal axes: T 1.9820, Plg3.0000°, Azm166.0000°; N -0.6018, Plg86.0000°, Azm24.0000°; P -1.3802, Plg3.0000°, Azm256.0000°;

*NEIC **27** 00:35:24.8, 57°.20S×147°.72W, h10km*

*GFZ **27** 00:35:26.9±0.3, 57°S±7°×14°8W±°, h10km, M4.7/15, mb4.7/15, confirmed*

*GCMT **27** 00:35:27.8±0.1, 57°.63S±0°.01×147°.83W±0°.01, h14km, MW5.4/135, Moment Tensor Solution. s96,c150; s135,c255; Duration: $1^{s}.2$ Moment tensor: Scale 10^{17} Nm; M_{rr}-0.15±.02; $M_{\theta\theta}$1.11±.02; $M_{\phi\phi}$-0.95±.02; $M_{r\theta}$0.09±.04; $M_{\theta\phi}$0.87±.02; $M_{\phi r}$-0.25±.04; Best double couple: $M_0$1.38300×10^{17} NP1: ϕ_s294.00000°, δ81.00000°, λ-9.00000°. NP2: ϕ_s26.00000°, δ81.00000°, λ-171.00000°. Principal axes: T 1.4300, Plg0.0000°, Azm160.0000°; N -0.0910, Plg77.0000°, Azm70.0000°; P -1.3350, Plg13.0000°, Azm250.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 27 00:35:24.8±0.4**, 57°.3S**±0°.1×**147°.65W**±0°.08**, h10km, n277,** σ1^{s}**51**/98**, mb4.8**/38**, MS5.2**/176**, 2D, Pacific-Antarctic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SBA	Scott Base	25.73	200	P	P	00 40 55.4	+0.7
SBA				IAmb	IAmb	00 41 15.9	
	comp=Z,46nm,1.6s						
SBA	Scott Base	25.73	200	P	P	00 40 58.0	+3.3
	comp=Z,15nm,1.6s						
VNDA	Vanda	26.56	202	P	P	00 41 01.6	-0.7
	comp=Z,0.9nm,0.8s,baz=68,slow=8.2,SNR=5.6						
VNDA				LR	LR	00 49 09.7	
	comp=Z,1µm,18.3s,baz=72,slow=31						
	comp=Z,0.9nm,0.8s						
VNDA	Vanda	26.56	202	P	P	00 41 03.1	+0.8
VNDA	Vanda	26.56	202	P	P	00 41 08.0	+5.7
	comp=Z,8.6nm,1.9s						
RPZ	Rata Peaks	29.05	280	LR	LR	00 51 07.1	
	comp=Z,524nm,18.2s,baz=116,slow=33						
FOZ	Fox Glacier	29.84	279	IAMs_20	IAMs_20	00 51 14.4	
	comp=Z,4µm,18.0s						
URZ	Urewera	29.87	294	LR	LR	00 51 24.5	
	comp=Z,2µm,19.1s,baz=126,slow=32						
QSPA	South Pole Qui	32.90	180	P	P	00 41 58.7	-0.1
	comp=Z,1.1nm,0.9s,baz=62,slow=4.5,SNR=7.3						
QSPA				LR	LR	00 53 29.1	
	comp=Z,3µm,18.6s,baz=60,slow=33						
	comp=Z,1.1nm,0.9s						
QSPA	South Pole Qui	32.90	180		P	00 41 57.8	-1.0
RAO	Raoul Island	35.08	310	LR	LR	00 53 16.0	
	comp=Z,1µm,21.6s,baz=138,slow=31						
RAR	Rarotonga	37.08	341	LR	LR	00 54 30.8	
	comp=Z,2µm,18.3s,baz=152,slow=31						
RAR	Rarotonga	37.08	341	IAMs_20	IAMs_20	00 53 21.5	
	comp=Z,3µm,19.0s						
PMSA	Palmer Station	38.34	137	LR	LR	00 54 13.4	
	comp=Z,2µm,20.9s,baz=236,slow=29						
PPT2	Papeete2	39.62	357	*e*LR	LR	00 53 05.0	
	comp=Z,5µm,25.5s						
PPT2				*e*LR	LR	00 53 07.6	
	comp=Z,4µm,27.5s						
PPT	Papeete	39.64	357	LR	LR	00 54 56.6	
	comp=Z,1µm,20.1s,baz=186,slow=30						
RPN	Rapa Nui	40.47	58	LR	LR	00 56 10.7	
	comp=Z,1µm,18.4s,baz=218,slow=31						
AFI	Afiamalu	46.98	327	LR	LR	00 59 44.7	
	comp=Z,1µm,19.6s,baz=175,slow=31						
MSVF	Nonsavu	46.99	313	LR	LR	00 59 17.7	
	comp=Z,1µm,21.5s,baz=156,slow=31						
LL02	Futaleuf	47.94	107	P	P	00 44 02.4	-0.6
LL02				IAmb	IAmb	00 44 22.3	
	comp=Z,11nm,1.2s						
DZM	Mont Dzumac	48.36	297	LR	LR	01 02 41.4	
	comp=Z,746nm,18.0s,baz=148,slow=34						
VNA3	Neumayer Olymp	48.43	163	P	P	00 44 06.2	-0.3
	comp=Z,5.2nm,0.8s						
VNA3	Neumayer Olymp	48.43	163	P	P	00 44 07.7	+1.2
	comp=Z,9.5nm,1.3s						
SNAA	Sanae	49.03	166	P	P	00 44 10.7	-0.5
	comp=Z,52nm,0.6s						
SNAA	Sanae	49.03	166	P	P	00 44 09.0	-2.2
	comp=Z,2.0nm,1.0s,baz=210,slow=16,SNR=3.4						
SNAA				LR	LR	01 03 09.6	
	comp=Z,557nm,18.0s,baz=235,slow=34						
	comp=Z,2.0nm,1.0s						
SNAA	Sanae	49.03	166	P	P	00 44 10.0	-1.2
SNAA				IAmb	IAmb	00 44 52.1	
	comp=Z,22nm,1.6s						
VNA2	Neumayer--Watz	49.06	164	P	P	00 44 08.3	-3.0
	comp=Z,8.7nm,1.3s						
VNA1	Neumayer--Stat	49.17	163	P	P	00 44 11.6	-0.5
	comp=Z,14nm,0.9s						
TROLL	Troll, Antarti	49.37	168	P	P	00 44 12.8	-1.0
	comp=Z,157nm,0.8s						
PLCA	Paso Flores	50.37	106	P	P	00 44 22.3	+0.4
	comp=Z,1.6nm,0.9s,baz=251,slow=9.0,SNR=2.9						
PLCA				LR	LR	01 00 36.2	
	comp=Z,686nm,19.1s,baz=222,slow=30						
	comp=Z,1.6nm,0.9s						
PLCA	Paso Flores	50.37	106	P	P	00 44 23.0	+1.2
PLCA				IAmb	IAmb	00 44 45.6	
	comp=Z,28nm,1.6s						
PLCA	Paso Flores	50.37	106	P	P	00 44 25.4	+3.5
H03S2	Juan Fernandez	51.00	94	T	T	01 39 41.0	
	baz=218,slow=74,SNR=23						
H03S1	Juan Fernandez	51.00	94	T	T	01 39 48.8	
	baz=218,slow=74,SNR=23						
H03S3	Juan Fernandez	51.01	94	T	T	01 39 38.2	
	baz=218,slow=74,SNR=22						
H03N2	Juan Fernandez	51.29	93	T	T	01 40 08.1	
	baz=219,slow=78,SNR=180						
H03N1	Juan Fernandez	51.30	93	T	T	01 39 57.4	
	baz=219,slow=78,SNR=86						
MAW	Mawson	53.43	194	P	P	00 44 42.9	-1.2
	comp=Z,2.3nm,1.0s,baz=167,slow=14,SNR=3.9						
MAW				LR	LR	01 05 22.6	
	comp=Z,1µm,18.7s,baz=157,slow=34						
	comp=Z,2.3nm,1.0s						
STKA	Stephens Creek	53.59	266	P	P	00 44 44.3	-1.5
	comp=Z,4.2nm,0.7s,baz=130,slow=7.9,SNR=6.5						
STKA				LR	LR	01 04 17.5	
	comp=Z,1µm,18.9s,baz=134,slow=32						
	comp=Z,4.2nm,0.7s						
STKA	Stephens Creek	53.59	266	P	P	00 44 47.6	+1.8
	comp=Z,45nm,1.4s						
SYO	Syowa Base	53.94	183	⇓*e*P	P	00 44 50.3	+2.5
SYO	Syowa Base	53.94	183	⇓*e*P	P	00 44 56.0	+8.2
BO02	Sierra Bellavi	54.66	101	P	P	00 44 54.1	+0.5
VA03	San Esteban	56.34	99	P	P	00 45 06.1	+0.3
VA03	San Esteban	56.34	99	P	P	00 45 08.0	+2.2
	comp=Z,28nm,1.1s						
INKA	Innaminka	57.27	269	P	P	00 45 11.5	-0.7
INKA				IAmb	IAmb	00 45 22.9	
	comp=Z,18nm,1.4s						
ZON	Zonda	58.28	100	P	P	00 45 18.6	-0.9
ZON				IAmb	IAmb	00 45 34.2	
	comp=Z,12nm,1.1s						
CFA	Coronel Fontan	58.47	100	LR	LR	01 05 18.2	
	comp=Z,425nm,18.3s,baz=177,slow=31						
CTA	Charters Tower	60.42	279	LR	LR	01 08 07.1	
	comp=Z,611nm,19.5s,baz=138,slow=33						
HNR	Honiara	62.36	298	LR	LR	01 08 18.7	
	comp=Z,324nm,22.0s,baz=240,slow=32						
MTSU	Mount Surprise	63.06	278	P	P	00 45 54.3	+2.2
	comp=Z,5.7nm,1.1s						
QIS	Mount Isa	63.63	273	P	P	00 45 56.0	+0.1
	comp=Z,12nm,1.8s						
AS31	Alice Springs	64.22	266	P	P	00 45 58.2	-1.5
ASAR	Alice Springs	64.22	266	P	P	00 45 56.9	-2.9
	comp=Z,3.9nm,0.9s,baz=146,slow=6.4,SNR=18						
ASAR				LR	LR	01 11 35.3	
	comp=Z,370nm,18.2s,baz=146,slow=34						
	comp=Z,3.9nm,0.9s						
ASAR	Alice Springs	64.22	266		P	00 45 58.0	-1.8
SALTA		65.33	97	P	P	00 46 10.0	+2.5
	comp=Z,7.6nm,1.1s						
H01W1	Cape Leeuwin H	65.53	243	T	T	01 57 44.8	
	baz=143,slow=76,SNR=78						
H01W2	Cape Leeuwin H	65.53	243	T	T	01 57 54.0	
	baz=143,slow=76,SNR=89						
H01W3	Cape Leeuwin H	65.54	243	T	T	01 57 43.2	
	baz=143,slow=76,SNR=83						
NWAO	Narrogin (SRO)	65.58	247	LR	LR	01 07 19.8	
	comp=Z,1µm,21.9s,baz=120,slow=29						
TARA	Tarawa	66.42	316	IAMs_20	IAMs_20	01 07 59.7	
	comp=Z,1µm,22.0s						
WR8	Warramunga Arr	66.89	269		P	00 46 16.5	-0.5
WR8				IAmb	IAmb	00 46 26.3	
	comp=Z,16nm,1.1s						
WRA	Warramunga Arr	66.99	269	P	P	00 46 15.9	-1.8
	comp=Z,4.3nm,1.1s,baz=143,slow=6.3,SNR=12						
WRA				LR	LR	01 12 18.2	
	comp=Z,1µm,20.1s,baz=90,slow=33						
	comp=Z,4.3nm,1.1s						
WRA	Warramunga Arr	66.99	269		P	00 46 16.1	-1.6
WB0	Warramunga Arr	67.11	269	P	P	00 46 17.9	-0.5
WB0				IAmb	IAmb	00 46 27.6	
	comp=Z,17nm,1.2s						
GO01	Chusmiza	67.46	91	P	P	00 46 19.9	-1.3
GO01				IAmb	IAmb	00 46 41.3	
	comp=Z,29nm,1.9s						
PB16	IPOC Station P	68.38	90	P	P	00 46 26.9	-0.2
PB16				IAmb	IAmb	00 46 33.5	
	comp=Z,15nm,1.4s						
CPUP	Villa Florida	68.44	105	P	P	00 46 27.4	+0.7
	comp=Z,1.9nm,0.9s,baz=207,slow=6.8,SNR=4.1						
CPUP				LR	LR	01 12 07.6	
	comp=Z,258nm,19.2s,baz=225,slow=32						
	comp=Z,1.9nm,0.9s						
CPUP	Villa Florida	68.44	105		P	00 46 25.8	-0.9
CPUP				IAmb	IAmb	00 46 37.4	
	comp=Z,14nm,1.4s						
CPUP	Villa Florida	68.44	105	P	P	00 46 28.2	+1.6
	comp=Z,6.4nm,1.1s						
PMG	Port Moresby	68.81	286	LR	LR	01 11 51.9	
	comp=Z,741nm,21.0s,baz=158,slow=32						
PMG	Port Moresby	68.81	286	P	P	00 46 32.7	+3.5
	comp=Z,18nm,1.1s						
NNA	Nana	69.63	80	LR	LR	01 11 16.4	
	comp=Z,174nm,19.4s,baz=214,slow=31						
LPAZ	La Paz	70.80	90	P	P	00 46 43.1	+1.0
	comp=Z,1.4nm,1.0s,baz=211,slow=6.9,SNR=4.8						
LPAZ				LR	LR	01 10 44.8	
	comp=Z,266nm,20.8s,baz=212,slow=30						
	comp=Z,1.4nm,1.0s						
LPAZ	La Paz	70.80	90		P	00 46 41.9	-0.3
LPAZ	La Paz	70.80	90	P	P	00 46 45.2	+3.1
	comp=Z,6.9nm,1.9s						
ATAH	Atahualpa	72.87	76	LR	LR	01 11 31.3	
	comp=Z,627nm,18.9s,baz=215,slow=30						
FITZ	Fitzroy Crossi	73.21	263	LR	LR	01 15 47.2	
	comp=Z,1µm,19.4s,baz=144,slow=33						
FITZ	Fitzroy Crossi	73.21	263	P	P	00 46 55.3	-0.5
FITZ	Fitzroy Crossi	73.21	263	P	P	00 46 56.4	+0.6
	comp=Z,1.7nm,1.1s						
KNRA	Kununurra	73.51	267	P	P	00 46 55.9	-1.6
MTN	Manton Dam	74.55	270	P	P	00 47 02.6	-1.1
SIV	San Ignacio	74.87	96	LR	LR	01 14 32.4	
	comp=Z,266nm,21.9s,baz=257,slow=31						
CZSB	Cruzeiro do Su	75.40	81	P	P	00 47 07.9	-0.7
CZSB				IAmb	IAmb	00 47 20.2	
	comp=Z,8.9nm,0.9s						
VILB	Vilhena	77.85	95	P	P	00 47 22.3	-0.2
JAY	Jayapura	78.02	284	LR	LR	01 20 27.9	
	comp=Z,379nm,18.8s,baz=206,slow=35						
SLOR	San Lorenzo -	78.23	73	P	P	00 47 23.8	-1.4
SLOR				IAmb	IAmb	00 47 42.6	
	comp=Z,19nm,1.9s						
SAUI	Saumlaki	78.49	273	IAMs_20	IAMs_20	01 19 17.7	
	comp=Z,1µm,20.0s						
OTAV	Otavalo	79.07	72	P	P	00 47 28.4	-1.3
OTAV				IAmb	IAmb	00 47 47.2	
	comp=Z,18nm,1.6s						
OTAV	Otavalo	79.07	72	P	P	00 47 33.8	+4.1
	comp=Z,4.2nm,1.9s						
BATI	Baumata	80.79	266	LR	LR	01 21 14.8	
	comp=Z,1µm,19.4s,baz=178,slow=34						
SOEI	Soe	80.84	266	P	P	00 47 38.2	-0.7
CLDB	Colider	81.95	97	P	P	00 47 46.6	+1.9
	comp=Z,8.6nm,1.2s						
BDFB	Brasilia	82.11	106	P	P	00 47 44.4	-1.2
	comp=Z,2.3nm,0.7s,baz=175,slow=11,SNR=4.0						
BDFB				LR	LR	01 20 42.3	
	comp=Z,694nm,18.1s,baz=180,slow=33						
	comp=Z,2.3nm,0.7s						
BDFB	Brasilia	82.11	106	P	P	00 47 45.3	-0.3
MMRI	Maumere	82.87	265	IAMs_20	IAMs_20	01 22 14.5	
	comp=Z,781nm,18.0s						
SIJI	Sorong	84.44	277	LR	LR	01 22 04.3	
	comp=Z,433nm,21.9s,baz=76,slow=33						
JTS	Las Juntas de	84.47	61	LR	LR	01 17 18.4	
	comp=Z,483nm,19.3s,baz=208,slow=30						
NLAI	Namlea	84.72	272	P	P	00 47 58.6	-0.3
	comp=Z,13nm,1.6s						
TLIG	Tlapa	84.96	46	P	P	00 48 00.2	+0.2
TLIG				IAmb	IAmb	00 48 18.8	
	comp=Z,11nm,1.3s						
ROSC	El Rosal	85.12	73	P	P	00 48 00.5	-0.9
	comp=Z,1.8nm,0.4s,baz=180,slow=9.1,SNR=3.5						
ROSC				LR	LR	01 18 50.9	
	comp=Z,826nm,21.1s,baz=202,slow=31						
	comp=Z,1.8nm,0.4s						
ROSC	El Rosal	85.12	73	P	P	00 48 00.3	-1.0
BCIP	Isla Barro Col	86.00	66	IAMs_20	IAMs_20	01 17 21.2	
	comp=Z,870nm,21.0s						
BOAB	BOACO BROADBAN	86.01	60	IAMs_20	IAMs_20	01 18 40.6	
	comp=Z,1µm,18.0s						
CMIG	Matias Romero	86.02	50	LR	LR	01 19 51.5	
	comp=Z,140nm,18.2s,baz=212,slow=31						
SANI	Sanana	86.31	272	P	P	00 48 08.6	+1.8
	comp=Z,27nm,1.8s						
KAPI	Kappang	87.23	265	LR	LR	01 24 27.7	
	comp=Z,1µm,20.2s,baz=150,slow=34						
KAPI	Kappang	87.23	265	IAMs_20	IAMs_20	01 23 45.1	
	comp=Z,1µm,20.0s						
TNTI	Ternate	87.92	275	P	P	00 48 14.7	+0.1
ZAIG	Zacatecas	88.21	41	P	P	00 48 16.1	0.0
ZAIG				IAmb	IAmb	00 48 22.7	
	comp=Z,16nm,1.9s						
GUMO	Guam	89.63	296	LR	LR	01 27 18.7	
	comp=Z,103nm,18.1s,baz=142,slow=35						
SUR	Sutherland	90.19	170	LR	LR	01 24 37.9	
	comp=Z,892nm,20.2s,baz=184,slow=33						
BOAV	Boa Vista	90.44	86	P	P	00 48 25.1	-1.4
BOAV				IAmb	IAmb	00 48 46.1	
	comp=Z,10nm,1.3s						
SDV	Santo Domingo	90.47	74	LR	LR	01 24 04.8	
	comp=Z,437nm,19.1s,baz=222,slow=32						
TOLI2	Tolitoli	91.78	269	P	P	00 48 31.7	-1.0
BKB	Balikpapan	91.91	265	IAMs_20	IAMs_20	01 26 39.4	
	comp=Z,824nm,21.0s						
LEM	Lembang	92.19	254	LR	LR	01 22 20.4	
	comp=Z,236nm,21.6s,baz=185,slow=31						
TXAR	Lajitas Array	93.87	37	LR	LR	01 22 39.8	
	comp=Z,114nm,20.1s,baz=218,slow=30						
DAV	Davao City (W)	94.14	277	LR	LR	01 31 18.2	
	comp=Z,129nm,18.0s,baz=138,slow=36						
BOSA	Boshof	94.27	174	LR	LR	01 26 49.3	
	comp=Z,1µm,20.6s,baz=180,slow=33						
PFO	Pinyon Flats O	94.27	26	LR	LR	01 22 51.4	
	comp=Z,426nm,18.9s,baz=209,slow=30						
RCBR	Riachuelo	96.65	112	LR	LR	01 29 54.8	
	comp=Z,129nm,18.4s,baz=198,slow=34						
LBTB	Lobatse	97.86	174	LR	LR	01 28 57.5	
	comp=Z,1µm,20.7s,baz=177,slow=33						
ANMO	Albuquerque	98.20	33	LR	LR	01 26 58.8	
	comp=Z,138nm,18.1s,baz=202,slow=32						
NVAR	Mina Array Bea	98.48	23	LR	LR	01 24 06.9	
	comp=Z,260nm,21.0s,baz=240,slow=30						
VOI	Vohitsoka	100.22	194	IAMs_20	IAMs_20	01 33 40.9	
	comp=Z,954nm,19.0s						
BIM	Bigot	100.23	79	IAMs_20	IAMs_20	01 30 02.4	
	comp=Z,765nm,19.0s						
MPOM	Morne Pois Mar	100.29	79	IAMs_20	IAMs_20	01 30 13.8	
	comp=Z,738nm,19.0s						
SVN	Savane Anatole	100.45	79	IAMs_20	IAMs_20	01 28 58.1	
	comp=Z,707nm,21.0s						
TSUM	Tsumeb	102.85	166	IAMs_20	IAMs_20	01 32 12.7	
	comp=Z,881nm,18.0s						
H10S3	ASCENSION HYDR	103.68	132	T	T	02 45 50.6	
	baz=16,slow=74,SNR=45						
H10S2	ASCENSION HYDR	103.68	132	T	T	02 45 49.3	
	baz=204,slow=74,SNR=41						
HLID	Hailey	104.23	24	IAMs_20	IAMs_20	01 28 00.1	
	comp=Z,815nm,18.0s						
H10N3	ASCENSION HYDR	104.75	132	T	T	02 47 13.4	
	baz=204,slow=75,SNR=32						
H10N1	ASCENSION HYDR	104.75	132	T	T	02 47 26.3	
	baz=204,slow=75,SNR=35						
H10N2	ASCENSION HYDR	104.77	132	T	T	02 47 29.5	
	baz=204,slow=75,SNR=32						
LOHW	Long Hollow	105.18	27	IAMs_20	IAMs_20	01 41 44.0	
	comp=Z,663nm,22.0s						
LSZ	Lusaka	107.67	176	IAMs_20	IAMs_20	01 32 39.1	
	comp=Z,921nm,21.0s						
NEW	Newport	108.16	21	IAMs_20	IAMs_20	01 27 49.8	
	comp=Z,561nm,18.0s						
ATKA	Atka Island	111.24	343	IAMs_20	IAMs_20	01 29 20.0	
	comp=Z,899nm,21.0s						
SII	Sitkinak Islan	113.57	356	IAMs_20	IAMs_20	01 43 22.8	
	comp=Z,815nm,18.0s						
T35M	Bob Quinn	114.73	10	IAMs_20	IAMs_20	01 32 28.5	
	comp=Z,749nm,20.0s						
KDAK	Kodiak Island	114.75	357	IAMs_20	IAMs_20	01 34 12.8	
	comp=Z,637nm,20.0s						
S31K	Pelican	115.22	7	IAMs_20	IAMs_20	01 36 34.4	
	comp=Z,723nm,18.0s						
R32K	Eaglecrest	115.65	8	IAMs_20	IAMs_20	01 35 29.8	
	comp=Z,996nm,22.0s						
Q19K	Cape Douglas,	115.93	357	IAMs_20	IAMs_20	01 36 57.0	
	comp=Z,677nm,19.0s						
BESE	Bessie Mountai	115.93	7	IAMs_20	IAMs_20	01 35 45.1	
	comp=Z,730nm,19.0s						
P16K	Nushagak River	116.22	354	IAMs_20	IAMs_20	01 33 15.8	
	comp=Z,646nm,20.0s						
P17K	Kvichak River	116.31	355	IAMs_20	IAMs_20	01 32 25.0	
	comp=Z,588nm,20.0s						
CNPM	China Poot	116.46	358	IAMs_20	IAMs_20	01 35 10.1	
	comp=Z,665nm,19.0s						
O15K	Ungalikthiuk R	116.48	353	IAMs_20	IAMs_20	01 34 50.6	
	comp=Z,821nm,20.0s						
HOM	Homer	116.60	358	IAMs_20	IAMs_20	01 35 14.9	
	comp=Z,710nm,20.0s						
BRLK	Bradley Lake	116.69	358	IAMs_20	IAMs_20	01 34 46.0	
	comp=Z,632nm,21.0s						
O16K	Kokwok River B	116.79	354	IAMs_20	IAMs_20	01 33 53.8	
	comp=Z,738nm,20.0s						
P29M	Windy Craggy	116.80	6	IAMs_20	IAMs_20	01 36 11.1	
	comp=Z,690nm,19.0s						
O18K	Koktuh Hills	116.91	356	IAMs_20	IAMs_20	01 39 42.0	
	comp=Z,555nm,19.0s						
P32M	Atlin	117.01	8	IAMs_20	IAMs_20	01 35 44.9	
	comp=Z,632nm,20.0s						
R33M	Jennings River	117.05	9	IAMs_20	IAMs_20	01 33 08.7	
	comp=Z,616nm,20.0s						
O19K	Port Alsworth	117.22	356	IAMs_20	IAMs_20	01 37 09.1	
	comp=Z,537nm,19.0s						
N14K	Kuskokwak Cree	117.35	352	IAMs_20	IAMs_20	01 34 37.7	
	comp=Z,728nm,20.0s						
O22K	Cooper Landing	117.40	359	IAMs_20	IAMs_20	01 34 18.9	
	comp=Z,771nm,20.0s						
O29M	Mount Kennedy	117.42	5	IAMs_20	IAMs_20	01 33 57.7	
	comp=Z,711nm,20.0s						
SLKM	Skilak Lake	117.43	359	IAMs_20	IAMs_20	01 41 05.9	
	comp=Z,681nm,19.0s						
N17K	Nushagak Hills	117.67	355	IAMs_20	IAMs_20	01 33 29.1	
	comp=Z,604nm,21.0s						
P33M	Teslin, Yukon	117.70	8	IAMs_20	IAMs_20	01 35 49.0	
	comp=Z,758nm,20.0s						
N18K	Kilae Creek	117.76	355	IAMs_20	IAMs_20	01 41 36.6	
	comp=Z,492nm,18.0s						
PWL	Port Wells	117.77	360	IAMs_20	IAMs_20	01 33 36.6	
	comp=Z,826nm,20.0s						
O28M	Mount Upton	117.82	4	IAMs_20	IAMs_20	01 35 07.2	
	comp=Z,897nm,20.0s						
N19K	Bonanza Creek	117.84	356	IAMs_20	IAMs_20	01 37 16.6	
	comp=Z,578nm,20.0s						
BCX	Boston College	117.97	55	IAMs_20	IAMs_20	01 43 24.0	
	comp=Z,900nm,22.0s						
RC01	Rabbit Creek A	118.01	359	IAMs_20	IAMs_20	01 34 28.0	
	comp=Z,731nm,21.0s						
M14K	Bethel	118.19	352	IAMs_20	IAMs_20	01 34 43.9	
	comp=Z,884nm,22.0s						
M11K	Mekoryuk	118.20	350	IAMs_20	IAMs_20	01 33 51.0	
	comp=Z,801nm,22.0s						
KNK	Knik Glacier	118.32	360	IAMs_20	IAMs_20	01 39 11.4	
	comp=Z,685nm,19.0s						
PET	Petropavlovsk	118.33	326	IAMs_20	IAMs_20	01 38 21.5	
	comp=Z,485nm,20.0s						
GLB	Gilahina Butte	118.39	2	IAMs_20	IAMs_20	01 35 02.1	
	comp=Z,934nm,21.0s						
SUA	Susitna One	118.40	358	IAMs_20	IAMs_20	01 36 05.3	
	comp=Z,674nm,20.0s						
M17K	Holitna River	118.56	355	IAMs_20	IAMs_20	01 35 20.5	
	comp=Z,712nm,20.0s						
N32M	Quiet Lake	118.61	8	IAMs_20	IAMs_20	01 37 13.1	
	comp=Z,678nm,19.0s						
M22K	Willow	118.68	359	IAMs_20	IAMs_20	01 34 50.7	
	comp=Z,569nm,20.0s						
SML	Sawmill	118.72	360	IAMs_20	IAMs_20	01 40 07.8	
	comp=Z,726nm,18.0s						
N31M	Braeburn, Yuko	118.76	6	IAMs_20	IAMs_20	01 34 45.0	
	comp=Z,621nm,20.0s						
M20K	Styx River	118.87	357	IAMs_20	IAMs_20	01 37 34.8	
	comp=Z,611nm,20.0s						
SKT	Skwentna	118.93	358	IAMs_20	IAMs_20	01 44 59.4	
	comp=Z,570nm,18.0s						
M19K	Big River Lodg	118.93	356	IAMs_20	IAMs_20	01 41 14.4	
	comp=Z,456nm,20.0s						
L16K	Owhat River	118.98	354	IAMs_20	IAMs_20	01 34 38.7	
	comp=Z,687nm,21.0s						
CUT	Chulitna	119.33	359	IAMs_20	IAMs_20	01 35 32.1	
	comp=Z,858nm,21.0s						
L18K	Granite Mounta	119.34	355	IAMs_20	IAMs_20	01 35 47.2	
	comp=Z,543nm,20.0s						
L20K	Farewell, AK	119.49	357	IAMs_20	IAMs_20	01 41 32.2	
	comp=Z,507nm,19.0s						
M31M	Drury Creek, Y	119.56	7	IAMs_20	IAMs_20	01 34 06.2	
	comp=Z,626nm,20.0s						
M29M	Somme Creek	119.57	5	IAMs_20	IAMs_20	01 35 57.4	
	comp=Z,720nm,20.0s						
PPLA	Purkeypile	119.86	358	IAMs_20	IAMs_20	01 38 19.0	
	comp=Z,632nm,20.0s						
K17K	Iditarod	119.91	354	IAMs_20	IAMs_20	01 36 02.4	
	comp=Z,670nm,20.0s						
DHY	Denali Highway	119.99	0	IAMs_20	IAMs_20	01 39 20.4	
	comp=Z,618nm,18.0s						
L27K	Beaver Creek,	120.06	3	IAMs_20	IAMs_20	01 36 10.3	
	comp=Z,761nm,20.0s						
L29M	L29M	120.25	5	IAMs_20	IAMs_20	01 36 38.3	
	comp=Z,859nm,20.0s						
J14K	Nanvaranak Lak	120.30	352	IAMs_20	IAMs_20	01 37 01.5	
	comp=Z,832nm,20.0s						
K20K	Telida	120.38	357	IAMs_20	IAMs_20	01 40 11.6	
	comp=Z,507nm,19.0s						
CAST	Castle Rocks	120.38	358	IAMs_20	IAMs_20	01 47 34.8	
	comp=Z,749nm,18.0s						
TRF	Thorofare Moun	120.38	359	IAMs_20	IAMs_20	01 36 16.8	
	comp=Z,584nm,21.0s						
KIBK	Kibwezi	120.43	187	IAMs_20	IAMs_20	01 43 19.7	
	comp=Z,800nm,19.0s						
KTH	Kantishna Hill	120.50	358	IAMs_20	IAMs_20	01 41 54.8	
	comp=Z,718nm,18.0s						
J18K	Innoko River	120.58	355	IAMs_20	IAMs_20	01 34 13.1	
	comp=Z,601nm,22.0s						
J16K	Anvik River	120.61	353	IAMs_20	IAMs_20	01 35 37.9	
	comp=Z,751nm,21.0s						
J17K	VABM Dome	120.64	354	IAMs_20	IAMs_20	01 37 44.4	
	comp=Z,682nm,20.0s						
K29M	Barlow Dome	121.01	5	IAMs_20	IAMs_20	01 36 51.5	
	comp=Z,712nm,20.0s						
J20K	Nowinta River	121.20	357	IAMs_20	IAMs_20	01 44 36.3	
	comp=Z,472nm,18.0s						
I17K	Unalakleet	121.22	353	IAMs_20	IAMs_20	01 35 56.9	
	comp=Z,833nm,21.0s						
HDA	Harding Lake	121.33	0	IAMs_20	IAMs_20	01 35 42.9	
	comp=Z,858nm,21.0s						
WRH	Wood River Hil	121.39	360	IAMs_20	IAMs_20	01 39 54.5	
	comp=Z,736nm,20.0s						
NEA2	Nenana	121.52	359	IAMs_20	IAMs_20	01 43 14.8	
	comp=Z,672nm,18.0s						
CCB	Clear Creek Bu	121.57	360	IAMs_20	IAMs_20	01 40 19.1	
	comp=Z,689nm,19.0s						
ILAR	Eielson Array	121.69	0	PKP	PKiKP	00 54 18.2	+0.9
	comp=Z,0.9nm,0.7s,baz=159,slow=1.0,SNR=6.4						
COLA	College	121.80	360	IAMs_20	IAMs_20	01 40 44.2	
	comp=Z,595nm,18.0s						
J30M	Hart River	121.80	6	IAMs_20	IAMs_20	01 37 30.4	
	comp=Z,777nm,21.0s						
I20K	Naaghedeneel	121.83	357	IAMs_20	IAMs_20	01 40 31.0	
	comp=Z,570nm,21.0s						
MLY	Manley	121.98	358	IAMs_20	IAMs_20	01 37 46.9	
	comp=Z,756nm,20.0s						
I23K	Minto, Yukon-K	122.08	359	IAMs_20	IAMs_20	01 43 58.6	
	comp=Z,582nm,18.0s						

I21K	**Tanana**	**122.15**	**358**	IAMs_20	IAMs_20	01 39 48.4	
	comp=Z,697nm,20.0s						
ANM	**Nome**	**122.24**	**351**	IAMs_20	IAMs_20	01 38 31.8	
	comp=Z,837nm,20.0s						
H18K	**Honhosa River**	**122.35**	**355**	IAMs_20	IAMs_20	01 38 07.7	
	comp=Z,664nm,20.0s						
I30M	**Mount Dempster**	**122.45**	**6**	IAMs_20	IAMs_20	01 37 40.4	
	comp=Z,809nm,20.0s						
PRP	**Porcupine Dome**	**122.45**	**1**	IAMs_20	IAMs_20	01 40 13.5	
	comp=Z,795nm,20.0s						
H21K	**Melozitna Rive**	**122.64**	**357**	IAMs_20	IAMs_20	01 45 07.6	
	comp=Z,662nm,19.0s						
H23K	**Yukon River**	**122.76**	**359**	IAMs_20	IAMs_20	01 41 43.6	
	comp=Z,612nm,19.0s						
H24K	**Noodor Dome**	**122.76**	**360**	IAMs_20	IAMs_20	01 42 00.7	
	comp=Z,703nm,19.0s						
G16K	**Koyuk River**	**122.82**	**353**	IAMs_20	IAMs_20	01 37 49.3	
	comp=Z,654nm,20.0s						
H22K	**Ishtalitna Cre**	**122.85**	**358**	IAMs_20	IAMs_20	01 40 01.1	
	comp=Z,742nm,20.0s						
G18K	**Tagagawik**	**123.10**	**355**	IAMs_20	IAMs_20	01 36 47.6	
	comp=Z,683nm,22.0s						
H31M	**Peel River**	**123.14**	**7**	IAMs_20	IAMs_20	01 40 18.8	
	comp=Z,564nm,19.0s						
G21K	**Allakaket**	**123.52**	**357**	IAMs_20	IAMs_20	01 42 31.8	
	comp=Z,519nm,19.0s						
F17K	**Baldwin Pennin**	**123.79**	**353**	IAMs_20	IAMs_20	01 37 49.9	
	comp=Z,605nm,22.0s						
F19K	**Shaleruckik Mo**	**124.00**	**355**	IAMs_20	IAMs_20	01 39 21.3	
	comp=Z,531nm,20.0s						
COLD	**Coldfoot**	**124.17**	**359**	IAMs_20	IAMs_20	01 43 30.0	
	comp=Z,398nm,19.0s						
F24K	**Squaw Lake**	**124.45**	**360**	IAMs_20	IAMs_20	01 41 25.4	
	comp=Z,594nm,19.0s						
F31M	**Tsiigehtchic**	**124.80**	**6**	IAMs_20	IAMs_20	01 38 52.7	
	comp=Z,477nm,20.0s						
E23K	**Chandalar**	**125.00**	**359**	IAMs_20	IAMs_20	01 39 52.9	
	comp=Z,501nm,21.0s						
RDOG	**Red Dog Mine**	**125.50**	**353**	IAMs_20	IAMs_20	01 39 02.9	
	comp=Z,554nm,20.0s						
E29M	**Blow River**	**125.53**	**4**	IAMs_20	IAMs_20	01 43 35.0	
	comp=Z,756nm,19.0s						
D23K	**Nanushuk River**	**125.93**	**359**	IAMs_20	IAMs_20	01 40 05.3	
	comp=Z,646nm,20.0s						
D24K	**Happy Valley**	**126.10**	**359**	IAMs_20	IAMs_20	01 44 53.9	
	comp=Z,660nm,19.0s						
MA2	**Magadan**	**126.22**	**326**	IAMs_20	IAMs_20	01 38 53.1	
	comp=Z,404nm,21.0s						
LODK	**Lodwar**	**126.28**	**184**	IAMs_20	IAMs_20	01 46 25.2	
	comp=Z,711nm,20.0s						
C36M	**Paulatuk**	**127.44**	**10**	IAMs_20	IAMs_20	01 41 41.6	
	comp=Z,546nm,20.0s						
HYB	**Hyderabad**	**127.51**	**240**	*e*PKiKP	**PKiKP**	**00 54 30.4**	**0.0**
HYB				*e*SKSac	**SKSac**	**01 01 35.9**	**-0.6**
HYB				*e*SKKSac	**SKKSac**	**01 03 26.6**	**-1.4**
TORD	**Torodi Ar. Bea**	**130.19**	**139**	PKP	**PKiKP**	**00 54 35.5**	**-0.3**
	comp=Z,0.4nm,0.8s,baz=195,slow=3.6,SNR=1.9						
HIA	**Hailar**	**130.57**	**301**	IAMs_20	IAMs_20	01 42 53.7	
	comp=Z,413nm,21.0s						
FURI	**Furi**	**131.52**	**188**	IAMs_20	IAMs_20	01 49 42.1	
	comp=Z,620nm,21.0s						
MD01	**Midelt array s**	**144.91**	**118**		**PKPab**	**00 55 00.6**	**-0.2**
RAYN	**Ar Rayn**	**144.98**	**201**		**PKPab**	**00 55 00.2**	**-1.0**
RAYN	**Ar Rayn**	**144.98**	**201**	IAMs_20	IAMs_20	01 54 14.1	
	comp=Z,397nm,22.0s						
WUS	**Wushi**	**146.22**	**262**	PKPdf	**PKPdf**	**00 55 03.3**	**-0.3**
KBL	**Kabul**	**146.46**	**243**		**PKPbc**	**00 55 04.8**	**-0.9**
KSH2	**Kashi**	**146.70**	**256**	PKPbc	**PKPab**	**00 55 07.5**	**+0.1**
KSH2				LR	LR		
	comp=N,140nm,18.0s						
KSH2				LR	LR		
	comp=E,140nm,16.1s						
KSH2				LR	LR		
	comp=Z,180nm,16.9s						
NRN	**Naryn**	**148.11**	**259**		**PKPbc**	**00 55 10.6**	**+0.3**
MKAR	**Makanchi Array**	**148.24**	**273**	PKPbc	**PKPbc**	**00 55 09.5**	**-0.5**
	comp=Z,8.6nm,0.7s,baz=110,slow=3.7,SNR=51						
MKAR	**Makanchi Array**	**148.24**	**273**		**PKPbc**	**00 55 09.9**	**-0.1**
MAKZ	**Makanchi**	**148.41**	**272**		**PKPbc**	**00 55 10.7**	**+0.2**
HRA	**Herat**	**149.50**	**234**		**PKPdf**	**00 55 09.7**	**+0.3**
ARSB	**Arslanbob**	**149.64**	**256**		**PKPdf**	**00 55 10.2**	**+1.0**
AAK	**Ala-Archa**	**149.75**	**259**		**PKPbc**	**00 55 12.8**	**-1.3**
BTK	**Batken**	**149.85**	**252**		**PKPdf**	**00 55 08.6**	**-0.9**
CART	**Cartagena**	**150.52**	**117**	IAMs_20	IAMs_20	02 15 27.1	
	comp=Z,294nm,19.0s						
ESDC	**Sonseca Array**	**150.67**	**111**	PKPbc	**PKiKP**	**00 55 17.3**	**+0.4**
	comp=Z,2.8nm,1.1s,baz=203,slow=1.1,SNR=7.8						
ESDC	**Sonseca Array**	**150.67**	**111**		**PKPbc**	**00 55 16.0**	**-0.3**
ZAA0	**Zalesovo Array**	**150.78**	**286**		**PKPdf**	**00 55 09.8**	**-0.5**
ZALV	**Zalesovo Beam**	**150.78**	**286**	PKPbc	**PKPbc**	**00 55 15.9**	**-0.1**
	comp=Z,1.5nm,0.6s,baz=112,slow=3.4,SNR=8.4						
ZALV	**Zalesovo Beam**	**150.78**	**286**		**PKPbc**	**00 55 15.3**	**-0.7**
KK31	**Karatay Array**	**152.19**	**256**		**PKPbc**	**00 55 19.4**	**-0.3**
KKAR	**Karatay Array**	**152.19**	**256**		**PKPbc**	**00 55 17.7**	**-2.0**
KURBB	**Kurchatov Arra**	**152.47**	**276**	PKPbc	**PKPbc**	**00 55 19.7**	**-0.3**
	comp=Z,2.7nm,0.5s,baz=123,slow=1.9,SNR=19						
KURK	**Kurchatov**	**152.47**	**276**		**PKPbc**	**00 55 18.5**	**-1.4**
GHAJ	**Ghor Haditha**	**153.97**	**186**	IAMs_20	IAMs_20	02 02 20.9	
	comp=Z,392nm,20.0s						
BVAR	**Borovoye Array**	**158.05**	**275**	PKPab	**PKPab**	**00 55 53.3**	**-1.0**
	comp=Z,1.6nm,0.8s,baz=122,slow=1.9,SNR=6.0						
BORK	**Borovoye**	**158.10**	**275**	IAMs_20	IAMs_20	02 12 43.1	
	comp=Z,324nm,21.0s						
BRTR	**Keskin Array B**	**162.44**	**183**	PKPab	**PKPab**	**00 56 13.3**	**-0.5**
	comp=Z,0.4nm,0.8s,baz=166,slow=6.7,SNR=1.5						
CLL	**Collm**	**167.25**	**110**	LH		01 45 00.0	
CLL				LV		01 52 00.0	
CLL				AMS	AMS	02 18 00.0	
	comp=Z,200nm,21.1s						
CLL				AMS	AMS	02 18 00.0	
	comp=N,100nm,22.9s						
CLL				AMS	AMS	02 18 00.0	
	comp=E,200nm,18.7s						

*CATAC **27** 00:40:26.8±0.5, 7°N±2°×7°3W±°, h153km±5km, M4.0/9, mb4.2/1, MLv3.8/9, Error ellipse: s-maj=7.1km s-min=4.2km az=116.3, confirmed*

*RSNC **27** 00:40:27.5±0.0, 7°N±2°×7°3W±°, h142km±5km, mb4.1, ML3.0*

*IDC **27** 00:40:28.8±4.5, 6°.87N×73°.27W, h158km±117km, mb3.4/5, mbtmp3.9/6, Error ellipse: s-maj=170.3km s-min=56.8km az=153.0*

*FUNV **27** 00:40:29.5, 7°.14N×73°.22W, h2km, MW3.1, Presumed earthquake*

ISC 27 00:40:27.1±0.8**, 6°.84N**±0°.03×**73°.12W**±0°.04**, h150**km±6km**, n47, σ1s.51**/88**, mb3.9**/5**, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BARC	**Barichara**	**0.26**	**194**	P	**Pn**	**00 40 48.2**	**+0.4**
BARC				S	**Sn**	**00 41 02.7**	**-0.9**
BRJC	**Barrancabermej**	**0.63**	**282**	P	**Pn**	**00 40 50.0**	**+0.8**
BRJC				S	**Sn**	**00 41 06.6**	**+0.7**
PAMC	**Pamplona, Colo**	**0.65**	**40**	P	**Pn**	**00 40 51.1**	**+1.2**
PAMC				S	**Sn**	**00 41 07.9**	**+0.8**
RUSC	**La Rusia**	**0.94**	**178**	P	**Pn**	**00 40 52.0**	**0.0**
RUSC				S	**Sn**	**00 41 10.0**	**-0.9**
RUSC	**La Rusia**	**0.94**	**178**	*e*P	**Pn**	**00 40 52.2**	**+0.2**
RUSC				*e*S	**Sn**	**00 41 10.1**	**-0.9**
RUSC	**La Rusia**	**0.94**	**178**	P	**Pn**	**00 40 52.0**	**0.0**
RUSC				S	**Sn**	**00 41 10.4**	**-0.5**
PTBC	**PUERTO BERRIO,**	**1.36**	**257**	P	**Pn**	**00 40 54.7**	**-0.5**
PTBC				S	**Sn**	**00 41 15.5**	**-1.2**
TAMC	**Tame, Arauca**	**1.38**	**107**	P	**Pn**	**00 40 56.6**	**+1.1**
TAMC				S	**Sn**	**00 41 18.0**	**+0.8**
OCAC	**Ocana**	**1.40**	**352**	P	**Pn**	**00 40 56.6**	**+0.8**
OCAC				S	**Sn**	**00 41 18.2**	**+0.4**
SPBC	**San Pablo de B**	**1.51**	**219**	P	**Pn**	**00 40 57.1**	**+0.2**
SPBC				S	**Sn**	**00 41 19.0**	**-0.7**
NORC	**Norcasia**	**2.15**	**234**	P	**Pn**	**00 41 04.0**	**-0.1**
NORC				S	**Sn**	**00 41 32.6**	**+0.1**
CHIC	**Chingaza**	**2.28**	**195**	P	**Pn**	**00 41 06.1**	**+0.1**
CHIC				S	**Sn**	**00 41 35.5**	**-0.4**
ROSC	**El Rosal**	**2.32**	**211**	P	**Pn**	**00 41 08.1**	**+1.6**
	106nm,0.3s,baz=29,slow=19,SNR=84						
ROSC				S	**Sn**	**00 41 38.7**	**+2.0**
	160nm,0.4s,baz=350,slow=22,SNR=15						
ROSC	**El Rosal**	**2.32**	**211**	P	**Pn**	**00 41 08.0**	**+1.6**
ROSC				S	**Sn**	**00 41 39.0**	**+2.3**
HELC	**Santa Helena**	**2.48**	**255**	P	**Pn**	**00 41 09.4**	**+1.1**
HELC				S	**Sn**	**00 41 39.2**	**-0.8**
HELC	**Santa Helena**	**2.48**	**255**	*e*P	**Pn**	**00 41 10.3**	**+2.1**
HELC				*e*S	**Sn**	**00 41 40.2**	**+0.2**
HELC	**Santa Helena**	**2.48**	**255**	P	**Pn**	**00 41 10.4**	**+2.1**
HELC				S	**Sn**	**00 41 40.3**	**+0.2**
CVER	**Cruz Verde, Cu**	**2.49**	**202**	P	**Pn**	**00 41 09.8**	**+1.1**
CVER				S	**Sn**	**00 41 42.4**	**+1.8**
UREC	**San Jos de Ur**	**2.56**	**291**	P	**Pn**	**00 41 08.6**	**-0.4**
UREC				S	**Sn**	**00 41 40.7**	**-0.5**
GUY2C	**Guyana, Caldas**	**2.75**	**234**	P	**Pn**	**00 41 12.9**	**+1.1**
GUY2C				S	**Sn**	**00 41 46.7**	**+0.5**
VILC	**Villavicencio,**	**2.77**	**192**	P	**Pn**	**00 41 11.6**	**-0.2**
VILC				S	**Sn**	**00 41 45.5**	**-0.8**
CBOC	**Ciudad Bolivar**	**3.03**	**251**	P	**Pn**	**00 41 16.5**	**+1.4**
CBOC				S	**Sn**	**00 41 52.5**	**+0.4**
SDV	**Santo Domingo**	**3.19**	**50**	P	**Pn**	**00 41 18.1**	**+1.0**
SDV				S	**Sn**	**00 41 55.4**	**-0.4**
SDV	**Santo Domingo**	**3.19**	**50**	*e*P	**Pn**	**00 41 18.1**	**+1.0**
SDV				*e*S	**Sn**	**00 41 54.8**	**-1.0**
ARGC	**Ariguani, Magd**	**3.20**	**340**	P	**Pn**	**00 41 19.1**	**+2.1**
ARGC				S	**Sn**	**00 41 57.1**	**+1.4**
PRAC	**Prado**	**3.57**	**210**	P	**Pn**	**00 41 21.2**	**-0.7**
PRAC				S	**Sn**	**00 42 03.7**	**-0.6**
PRAC	**Prado**	**3.57**	**210**	P	**Pn**	**00 41 21.5**	**-0.4**
PRAC				S	**Sn**	**00 42 03.9**	**-0.5**
APAC	**Apartado, Choc**	**3.59**	**287**	P	**Pn**	**00 41 22.8**	**+0.8**
APAC				S	**Sn**	**00 42 05.6**	**+1.0**
ORTC	**Ortega, Tolima**	**3.60**	**216**	P	**Pn**	**00 41 22.6**	**+0.3**
ORTC				S	**Sn**	**00 42 05.4**	**+0.4**
SJCC	**San Jacinto, C**	**3.65**	**326**	P	**Pn**	**00 41 22.7**	**-0.3**
SJCC				S	**Sn**	**00 42 04.3**	**-2.0**
SJCC	**San Jacinto, C**	**3.65**	**326**	*e*P	**Pn**	**00 41 22.9**	**-0.1**
SJCC				*e*S	**Sn**	**00 42 01.4**	**-4.9**
SJCC	**San Jacinto, C**	**3.65**	**326**	P	**Pn**	**00 41 22.4**	**-0.6**
SJCC				S	**Sn**	**00 42 04.2**	**-2.0**
LCBC	**Los crdobas,**	**3.79**	**302**	P	**Pn**	**00 41 25.7**	**+1.1**
LCBC				S	**Sn**	**00 42 10.4**	**+1.1**
SMRC	**Santa Marta, M**	**4.43**	**346**	P	**Pn**	**00 41 33.7**	**+0.7**
SMRC				S	**Sn**	**00 42 22.4**	**-2.0**
MACC	**Macarena, Meta**	**4.72**	**189**	P	**Pn**	**00 41 35.3**	**-1.6**
MACC				S	**Sn**	**00 42 27.3**	**-4.1**
BETC	**Betania**	**4.74**	**209**	P	**Pn**	**00 41 36.3**	**-0.9**
BETC				S	**Sn**	**00 42 26.7**	**-5.0**
URI	**Uribia**	**4.95**	**13**	P	**Pn**	**00 41 39.4**	**-0.5**
URI				S	**Sn**	**00 42 34.2**	**-2.6**
URIC	**Uribia, Colomb**	**4.96**	**13**	P	**Pn**	**00 41 39.1**	**-0.9**
	15nm,0.5s						
URIC				S	**Sn**	**00 42 33.0**	**-3.8**
	15nm,0.5s						
URIC				AML	AML		
URIC	**Uribia, Colomb**	**4.96**	**13**	*e*P	**Pn**	**00 41 39.2**	**-0.8**
GARC	**Garzon, Huila**	**5.19**	**207**	P	**Pn**	**00 41 42.4**	**-1.0**
GARC				S	**Sn**	**00 42 39.0**	**-3.9**
POPC	**Popayan, Colom**	**5.55**	**220**	P	**Pn**	**00 41 48.7**	**+0.6**
POPC				S	**Sn**	**00 42 51.8**	**+0.4**
BBAC	**Balboa, Cauca**	**6.31**	**221**	P	**Pn**	**00 41 59.4**	**+1.1**
BBAC				S	**Sn**	**00 43 07.0**	**-2.5**
ULM	**Lac du Bonnet**	**47.27**	**340**	P	**P**	**00 48 45.0**	**-0.2**
	1.3nm,0.4s,baz=155,slow=8.7,SNR=6.3						
	1.3nm,0.4s						
PDAR	**Pinedale Array**	**48.06**	**324**	P	**P**	**00 48 52.1**	**+0.3**
	0.2nm,0.4s,baz=138,slow=6.3,SNR=1.1						
	0.2nm,0.4s						
SCHQ	**Schefferville**	**48.12**	**5**	P	**P**	**00 48 52.3**	**+0.6**
	6.2nm,1.0s,baz=194,slow=4.2,SNR=4.3						
	6.2nm,1.0s						
NVAR	**Mina Array Bea**	**51.47**	**315**	P	**P**	**00 49 17.0**	**-0.5**
	0.1nm,0.3s,baz=120,slow=8.3,SNR=1.7						
	0.1nm,0.3s						
YKA	**Yellowknife Ar**	**63.24**	**340**	P	**P**	**00 50 39.5**	**+0.2**
	0.8nm,0.5s,baz=134,slow=6.2,SNR=7.6						
	0.8nm,0.5s						

DJA 27 01:03:57.8±0.9**, 0°S**±3°×**12°4E**±°**, h22**km±9km**, M3.8**/25**, mB4.8**/2**, mb3.9**/7**, MLv3.8**/25**, Mw(mB)4.1**/2**, Southern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LUWI	**Luwuk**	**1.57**	**239**	P	Pn	01 04 23.7	-0.6
LUWI				AML	AML		
MNI	**Manado**	**1.82**	**23**	P	Pn	01 04 28.9	+1.1
MNI				AML	AML		
APSI	**Ampana**	**2.56**	**255**	P	Pn	01 04 38.1	+0.1
APSI				AML	AML		
SANI	**Sanana**	**2.59**	**134**	P	Pn	01 04 38.8	+0.4
NLAI	**Namlea**	**4.21**	**135**	P	Pn	01 05 00.9	+0.2
NLAI				AML	AML		
AAI	**Ambon**	**5.32**	**130**	P	Pn	01 05 16.5	+0.5
SPSI	**Sidrap Palu**	**5.71**	**230**	P	Pn	01 05 20.8	-0.5
SPSI				AML	AML		
MMSI	**Mamuju**	**5.75**	**245**	P	Pn	01 05 22.2	+0.3
	0.1nm9.2nm,0.6s						
MMSI				AML	AML		
BKSI	**Bulukumba**	**6.44**	**218**	P	Pn	01 05 31.5	+0.2
BKSI				AML	AML		

*IDC **27** 02:06:38.8±1.0, 33°.86N×79°.73E, h0km, mb3.6/9, mbtmp3.6/12, ML3.3/3, Error ellipse: s-maj=28.6km s-min=15.5km az=68.0*

ISC 27 02:06:44.2±1.0**, 33°.99N**±0°.10×**79°.8E**±0°.1**, h35**km**, n12, σ0s.86**/14**, mb3.5**/6**, Kashmir-Xizang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AAK	**Ala-Archa**	**9.59**	**336**	Pn	**Pn**	**02 09 00.8**	**+1.0**
	0.3nm,0.3s,baz=157,slow=7.7,SNR=4.4						
AAK				Sn	**Sn**	**02 10 45.7**	**-0.7**
	0.1nm,0.3s,baz=128,slow=15,SNR=1.0						
	1.3nm,0.5s						
AAK				AML	AML		
MKAR	**Makanchi Array**	**12.92**	**8**	Pn	**Pn**	**02 09 45.8**	**+0.5**
	0.2nm,0.3s,baz=191,slow=14,SNR=6.4						
MKAR				Sn	**Sn**	**02 12 06.4**	**-1.4**
	0.1nm,0.3s,baz=182,slow=27,SNR=2.8						
	1.0nm,0.6s						
MKAR				AML	AML		
KURBB	**Kurchatov Arra**	**16.65**	**357**	Pn	**Pn**	**02 10 35.3**	**+0.7**
	0.1nm,0.3s,baz=184,slow=11,SNR=15						
	0.7nm,0.6s						
KURBB				AML	AML		
BVAR	**Borovoye Array**	**20.18**	**343**	P	**P**	**02 11 14.9**	**-0.7**
	1.0nm,0.4s,baz=149,slow=10.0,SNR=4.0						
	1.0nm,0.4s						
ZALV	**Zalesovo Beam**	**20.26**	**9**	P	**P**	**02 11 15.8**	**-0.6**
	0.4nm,0.4s,baz=191,slow=12,SNR=3.8						
	0.4nm,0.4s						
CMAR	**Chiang Mai Arr**	**23.04**	**127**	P	**P**	**02 11 46.0**	**-0.4**
	0.7nm,0.3s,baz=314,slow=9.2,SNR=4.6						
	0.7nm,0.3s						
SONM	**Songino Array**	**24.23**	**47**	P	**P**	**02 11 59.1**	**+1.3**
	0.6nm,0.8s,baz=257,slow=10,SNR=2.6						
	0.6nm,0.8s						
FINES	**FINESS Array B**	**43.60**	**326**	P	**P**	**02 14 45.1**	**+0.5**
	0.8nm,0.6s,baz=103,slow=8.1,SNR=6.3						
	0.8nm,0.6s						
ARCES	**ARCESS Array B**	**46.26**	**337**	P	**P**	**02 15 06.5**	**+0.8**
	3.5nm,0.8s,baz=116,slow=8.6,SNR=6.3						
	3.5nm,0.8s						
TORD	**Torodi Ar. Bea**	**73.01**	**275**	P	**P**	**02 18 10.0**	**-0.8**
	0.3nm,0.4s,baz=57,slow=5.2,SNR=2.6						
	0.3nm,0.4s						
WRA	**Warramunga Arr**	**74.63**	**127**	P	**P**	**02 18 19.8**	**-0.2**
	0.3nm,0.7s,baz=317,slow=6.1,SNR=2.5						
	0.3nm,0.7s						
ASAR	**Alice Springs**	**77.01**	**130**	P	**P**	**02 18 33.4**	**-0.2**
	0.2nm,0.5s,baz=316,slow=6.0,SNR=4.1						
	0.2nm,0.5s						

*IDC **27** 02:22:57.9±1.1, 10°.47S×152°.43E, h0km, mb3.6/7, mbtmp3.7/8, ML3.6/1, MS3.0/2, Error ellipse: s-maj=42.4km s-min=24.6km az=107.0*

ISC 27 02:23:03.4±1.0**, 10°.5S**±0°.2×**152°.3E**±0°.2**, h35**km**, n10, σ0s.75**/9**, mb3.7**/7**, D'Entrecasteaux Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	**Charters Tower**	**11.17**	**211**	LR	LR	02 30 29.4	
	comp=Z,48nm,18.1s,baz=65,slow=40						
WRA	**Warramunga Arr**	**19.68**	**239**	P	**Pn**	**02 27 30.6**	**-0.6**
	0.2nm,0.3s,baz=65,slow=10,SNR=12						
	2.8nm,0.8s						
WRA				AML	AML		
ASAR	**Alice Springs**	**21.87**	**231**	P	**P**	**02 27 54.3**	**+0.9**
	0.6nm,0.7s,baz=65,slow=8.8,SNR=9.6						
	0.6nm,0.7s						
STKA	**Stephens Creek**	**23.46**	**203**	P	**P**	**02 28 09.1**	**-0.7**
	2.0nm,0.7s,baz=30,slow=16,SNR=3.9						
STKA				LR	LR	02 35 59.9	
	comp=Z,48nm,20.1s,baz=29,slow=33						
	2.0nm,0.7s						
VNDA	**Vanda**	**67.20**	**178**	P	**P**	**02 33 54.2**	**+0.6**
	0.3nm,0.7s,baz=347,slow=6.3,SNR=4.0						
	0.3nm,0.7s						
QSPA	**South Pole Qui**	**79.50**	**180**	P	**P**	**02 35 06.0**	**-0.4**
	1.1nm,0.7s,baz=32,slow=4.8,SNR=3.1						
	1.1nm,0.7s						
MKAR	**Makanchi Array**	**84.27**	**320**	P	**P**	**02 35 32.3**	**+0.7**
	0.6nm,0.8s,baz=116,slow=3.4,SNR=3.5						
	0.6nm,0.8s						
ZALV	**Zalesovo Beam**	**85.59**	**327**	P	**P**	**02 35 37.3**	**-0.7**
	0.4nm,0.4s,baz=129,slow=3.9,SNR=2.3						
	0.4nm,0.4s						
ILAR	**Eielson Array**	**87.60**	**22**	P	**P**	**02 35 47.5**	**-0.1**
	0.4nm,0.8s,baz=240,slow=7.2,SNR=4.4						
	0.4nm,0.8s						
TORD	**Torodi Ar. Bea**	**151.09**	**278**	PKPbc	**PKiKP**	**02 42 54.8**	**+0.3**
	0.6nm,0.6s,baz=64,slow=3.3,SNR=7.4						

NOU 27 02:26:45.5, 37°.55S×114°.96E, h0km**, mb4.0**/6**, Off South Coast of Australia, Off south coast of Australia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NWAO	**Narrogin (SRO)**	**4.97**	**23**	P	Pn	02 28 01.0	-0.4
NWAO	**Narrogin (SRO)**	**4.97**	**23**	P	Pn	02 28 01.1	-0.3
MUN	**Mundaring**	**5.65**	**11**	P	Pn	02 28 09.4	-1.4
KLBR	**Kellerberrin**	**6.38**	**22**	P	Pn	02 28 21.1	+0.4
BLDU	**Ballidu**	**7.07**	**12**	P	Pn	02 28 31.3	+1.1
MORW	**Morawa**	**8.51**	**6**	P	Pn	02 28 50.0	0.0

DJA 27 02:40:11.2±0.3**, 9°S**±4°×**11°8E**±°**, h120**km±7km**, M4.0**/18**, mb4.1**/4**, MLv3.9**/18**, Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DBNI	**Kabupaten Domp**	**0.15**	**337**	P	Pn	02 40 28.2	+0.4
PLAI	**Plampang**	**0.62**	**252**	P	Pn	02 40 30.6	+0.7
PLAI				AML	AML		
TWSI	**Taliwang, Sumb**	**1.47**	**266**	P	Pn	02 40 38.4	+0.1
TWSI				S	Sn	02 41 00.6	+1.7
TWSI				AML	AML		
LBFI	**Labuhan Bajo,**	**1.51**	**84**	P	Pn	02 40 38.7	-0.1
WSI	**Waingapu**	**2.16**	**118**	P	Pn	02 40 46.5	-0.2
WSI				AML	AML		
KHKI	**Kahang-Kahang**	**2.75**	**276**	P	Pn	02 40 54.7	+0.5
KHKI				S	Sn	02 41 27.1	-0.1
KHKI				AML	AML		
SRBI	**Singaraja**	**3.17**	**280**	P	Pn	02 40 59.8	0.0
SRBI				AML	AML		
IGBI	**Denpasar**	**3.19**	**267**	P	Pn	02 41 00.6	+0.6
IGBI				S	Sn	02 41 38.2	+0.5
BSSI	**Bau Bau, Buton**	**3.25**	**40**	P	Pn	02 41 00.4	-0.4
BSSI				AML	AML		
EDFI	**Ende, Flores**	**3.28**	**92**	P	Pn	02 41 01.7	+0.4
EDFI				AML	AML		
RTBI	**Rangdo, Negare**	**3.40**	**273**	P	Pn	02 41 02.8	+0.1
RTBI				AML	AML		
MKS	**Makassar**	**3.57**	**18**	P	Pn	02 41 05.3	+0.2
MKS				AML	AML		
BKSI	**Bulukumba**	**3.73**	**28**	P	Pn	02 41 07.1	0.0
BKSI				AML	AML		
MMRI	**Maumere**	**3.82**	**90**	P	Pn	02 41 08.7	+0.3
MMRI				AML	AML		
KAPI	**Kappang**	**3.85**	**21**	P	Pn	02 41 08.8	0.0
JAGI	**Jajag, Banyuwa**	**4.17**	**272**	P	Pn	02 41 11.8	-1.3
JAGI				AML	AML		
SOEI	**Soe**	**5.93**	**101**	P	Pn	02 41 36.2	-0.6
	36nm,0.7s						

IDC 27 02:47:23.7±2.0**, 30°.37S×178°.35W, h0**km**, mb3.6**/3**, mbtmp3.6**/3**, Error ellipse: s-maj=58.6km s-min=35.7km az=47.0, Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	**Alice Springs**	**42.81**	**267**	P	P	02 55 23.2	-0.3
	0.5nm,0.8s,baz=110,slow=8.2,SNR=7.4						
	0.5nm,0.8s						
WRA	**Warramunga Arr**	**43.79**	**272**	P	P	02 55 31.6	+0.1
	0.6nm,0.7s,baz=113,slow=8.0,SNR=4.9						
	0.6nm,0.7s						
QSPA	**South Pole Qui**	**59.74**	**180**	P	P	02 57 30.0	0.0
	0.7nm,0.6s,baz=9.5,slow=6.1,SNR=12						
	0.7nm,0.6s						
FINES	**FINESS Array B**	**145.02**	**340**	PKPbc	PKPbc	03 07 00.7	-0.9
	2.3nm,0.8s,baz=48,slow=2.1,SNR=8.6						

*VAO **27** 02:50:39.3±0.5, 11°.63S×75°.38W, h10km, mb4.0, Presumed earthquake*

*IDC **27** 02:50:52.6±1.7, 10°.81S×74°.63W, h37km±16km, mb3.6/11, mbtmp3.9/17, ML3.4/6, MS3.2/7, Error ellipse: s-maj=15.7km s-min=11.3km az=53.0*

*NEIC **27** 02:50:54.4±1.8, 10°.90S±0°.06×74°.61W±0°.07, h46km±6km, mb4.6/36, Error ellipse: s-maj=10.2km s-min=9.1km az=96.0*

ISC 27 02:50:53.0±0.4**, 10°.91S**±0°.05×**74°.65W**±0°.04**, h38**km**, n75, σ2s.56**/74**, mb4.4**/25**, MS3.3**/5**, Central Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNA	**Nana**	**2.40**	**243**	Pn	**Pn**	**02 51 31.8**	**+2.0**
	79nm,0.3s,baz=52,slow=13,SNR=124						
NNA				Sn	**Sn**	**02 52 02.0**	**+3.9**
	152nm,0.3s,baz=115,slow=19,SNR=13						
	229nm,0.3s						
NNA				AML	AML		
CZSB	**Cruzeiro do Su**	**3.70**	**31**		**Pn**	**02 51 49.4**	**+1.8**
CZSB	**Cruzeiro do Su**	**3.70**	**31**	*e*P	**Pn**	**02 51 49.4**	**+1.8**
CZSB				*e*S	Sn	02 52 46.3	+16
ATAH	**Atahualpa**	**5.27**	**315**	Pn	**Pn**	**02 52 10.4**	**+0.9**
	3.4nm,0.3s,baz=141,slow=13,SNR=51						
ATAH				Sn	**Sn**	**02 53 13.1**	**+3.8**
	4.1nm,0.3s,baz=58,slow=13,SNR=4.5						
	63nm,0.9s						
ATAH				AML	AML		
LPAZ	**La Paz**	**8.29**	**131**	Pn	**Pn**	**02 52 53.5**	**+2.3**
	0.2nm,0.3s,baz=309,slow=19,SNR=4.7						
LPAZ				Lg	Lg	02 55 11.8	
	1.0nm,0.3s,baz=249,slow=8.6,SNR=7.6						
LPAZ				LR	LR	02 56 55.5	
	comp=Z,105nm,18.7s,baz=318,slow=44						
	0.5nm,0.4s						
LPAZ				AML	AML		
LPAZ	**La Paz**	**8.29**	**131**		**Pn**	**02 52 51.9**	**+0.7**
SLOR	**San Lorenzo -**	**10.81**	**339**		**Pn**	**02 53 25.5**	**-0.2**
OTAV	**Otavalo**	**11.71**	**341**		**Pn**	**02 53 37.9**	**0.0**
SIV	**San Ignacio**	**14.13**	**112**	Pn	**Pn**	**02 54 11.8**	**+1.1**
	baz=289,slow=13,SNR=5.8						
SIV				Lg	Lg	02 58 09.1	
	0.1nm,0.3s,baz=287,slow=17,SNR=4.4						
	1.0nm,0.7s						
VILB	**Vilhena**	**14.28**	**100**	*e*P	**Pn**	**02 54 10.2**	**-2.5**
VILB				*e*S	**Sn**	**02 56 56.7**	**+6.8**
ROSC	**El Rosal**	**15.65**	**1**	Pn	**Pn**	**02 54 30.9**	**-0.4**
	0.7nm,0.3s,baz=180,slow=20,SNR=1.6						
ROSC				Lg	Lg	02 58 50.5	
	0.9nm,0.3s,baz=180,slow=19,SNR=2.7						
ROSC				LR	LR	03 01 00.3	
	comp=Z,75nm,18.9s,baz=218,slow=39						
	3.6nm,0.5s						
ROSC				AML	AML		
PTLB	**Pontes e Lacer**	**15.76**	**108**	*e*P	**Pn**	**02 54 27.8**	**-4.4**
PTLB				*e*S	**Sn**	**02 57 29.4**	**+3.6**
MACA	**Manacapuru-AM**	**15.84**	**62**		**Pn**	**02 54 30.7**	**-2.6**
MACA				IAmb	IAmb	02 55 07.0	
	comp=Z,18nm,0.6s						
CLDB	**Colider**	**18.51**	**92**	*e*P	**P**	**02 55 03.8**	**-2.4**
CLDB				*e*S	**S**	**02 58 41.2**	**+5.6**
COIM	**Forte Coimbra**	**18.54**	**121**	*e*P	P	02 54 59.2	-7.2
COIM				*e*S	**Sn**	**02 58 31.6**	**-1.6**
SALV	**Santo Antonio**	**19.09**	**107**	*e*P	**P**	**02 55 07.7**	**-4.8**
SALV				*e*S	**S**	**02 58 49.4**	**+2.2**
BOAV	**Boa Vista**	**19.29**	**48**	P	**P**	**02 55 14.7**	**-0.1**
ITTB	**Itaituba**	**19.83**	**72**	*e*P	**P**	**02 55 19.9**	**-0.8**
ITTB				*e*S	**Sn**	**02 59 10.6**	**+6.1**

SDV	Santo Domingo	20.07	12	P	P	02 55 23.8	+0.4
	comp=Z,0.5nm,0.3s,baz=216,slow=19,SNR=9.6						
SDV				Lg	Lg	03 01 18.1	
	comp=Z,0.7nm,0.3s,baz=187,slow=18,SNR=1.4						
SDV				LR	LR	03 04 02.0	
	comp=Z,59nm,21.8s,baz=250,slow=40						
	comp=Z,4.7nm,0.5s						
SDV				AML	AML		
SDV	Santo Domingo	20.07	12	P	P	02 55 21.7	-1.8
PP1B	Ponte de Pedra	20.27	111	*e*P	P	02 55 19.8	-5.6
PP1B				*e*S	S	02 59 12.2	+1.4
AQDB	Aquidauana	20.55	120	*e*P	P	02 55 21.3	-7.1
AQDB				*e*S	S	02 59 15.0	-1.3
CFA	Coronel Fontan	21.43	165	P	P	02 55 38.2	+0.4
	comp=Z,1.0nm,0.9s,baz=333,slow=4.5,SNR=1.7						
	comp=Z,1.0nm,0.9s						
CPUP	Villa Florida	22.42	136	*e*P	P	02 55 37.9	-11
CPUP				*e*S	S	02 59 45.9	-6.5
C2SB	Chapadao do Su	22.46	113	*e*S	S	02 59 53.9	+0.6
SJPY	San Joaquin	22.48	131	*e*P	P	02 55 40.1	-9.1
SJPY				*e*S	S	02 59 48.7	-5.0
ARAG	Araguaiana, MT	22.72	105	*e*P	P	02 55 47.0	-4.7
ARAG				*e*S	S	03 00 00.5	+2.6
SNDB	Serra Nova Dou	22.91	95	*e*P	P	02 55 50.3	-3.5
SNDB				*e*S	S	03 00 05.8	+4.5
MDP	Montagnes des	27.07	55	LR	LR	03 07 42.2	
	comp=Z,94nm,20.9s,baz=222,slow=37						
SJG	San Juan	30.03	16	LR	LR	03 09 41.5	
	comp=Z,46nm,19.8s,baz=86,slow=38						
CAMR	Camarioca	34.40	349	P	P	02 57 38.7	+2.0
RPN	Rapa Nui	36.38	239	LR	LR	03 08 50.1	
	comp=Z,68nm,20.0s,baz=71,slow=30						
HODGE	Hodges	45.47	351	P	P	02 59 08.2	-0.3
HODGE				IAmb	IAmb	02 59 33.0	
	comp=Z,14nm,1.4s						
Y49A	Blount Mountai	45.91	346	P	P	02 59 10.2	-1.7
Y49A				IAmb	IAmb	02 59 10.9	
	comp=Z,4.0nm,0.9s						
FPAL	Fort Paine	46.38	347	P	P	02 59 13.7	-2.1
HNDO	Hondo	46.70	330		P	02 59 19.0	+0.7
WVT	Waverly	48.41	346	P	P	02 59 28.4	-3.0
WVT				IAmb	IAmb	02 59 29.8	
	comp=Z,10nm,1.5s						
TXAR	Lajitas Array	48.83	326	P	P	02 59 34.8	-0.1
	comp=Z,1.1nm,0.8s,baz=135,slow=5.8,SNR=12						
	comp=Z,1.1nm,0.8s						
TXAR	Lajitas Array	48.83	326	P	P	02 59 34.9	0.0
TX31	Lajitas Ar. Si	48.84	326	P	P	02 59 34.5	-0.4
Q56A	Snyder Ridge,	49.87	355	P	P	02 59 43.2	+0.7
APMT	Aspermont	50.24	332		P	02 59 45.5	-0.1
VHRN	Van Horn	50.68	326		P	02 59 48.9	-0.1
VHRN				IAmb	IAmb	02 59 50.7	
	comp=Z,4.5nm,1.2s						
FVM	French Village	50.84	344		P	02 59 49.1	-0.8
FVM				IAmb	IAmb	02 59 49.3	
	comp=Z,5.5nm,0.8s						
OK029	Liberty Lake	51.21	336	P	P	02 59 51.7	-1.0
SMWD	Samnorwood	51.79	333	P	P	02 59 56.8	-0.3
T25A	Trinidad	55.37	331	IAmb	IAmb	03 00 24.8	
	comp=Z,5.2nm,0.9s						
SDCO	Great Sand Dun	56.38	331	IAmb	IAmb	03 00 31.5	
	comp=Z,3.2nm,0.7s						
PV01	Paradox Valley	58.20	329		P	03 00 43.6	0.0
PV01				IAmb	IAmb	03 00 44.1	
	comp=Z,2.6nm,0.8s						
PV02	Paradox Valley	58.34	329	IAmb	IAmb	03 00 45.6	
	comp=Z,7.3nm,1.0s						
PV13	Radium Mtn., P	58.34	329	IAmb	IAmb	03 00 45.3	
	comp=Z,6.2nm,0.9s						
PDAR	Pinedale Array	62.23	332	P	P	03 01 09.7	-1.5
	comp=Z,0.4nm,0.6s,baz=141,slow=8.6,SNR=5.6						
	comp=Z,0.4nm,0.6s						
HWUT	Hardware Ranch	62.33	329	P	P	03 01 11.2	-0.6
HWUT				IAmb	IAmb	03 01 12.0	
	comp=Z,2.9nm,0.8s						
ULM	Lac du Bonnet	63.67	345	P	P	03 01 18.8	-1.5
	comp=Z,4.8nm,0.8s,baz=151,slow=10,SNR=5.3						
	comp=Z,4.8nm,0.8s						
ULM	Lac du Bonnet	63.67	345	IAmb	IAmb	03 01 19.6	
	comp=Z,5.2nm,0.8s						
NVAR	Mina Array Bea	63.79	323	P	P	03 01 21.6	0.0
	comp=Z,0.3nm,0.6s,baz=104,slow=4.8,SNR=2.7						
	comp=Z,0.3nm,0.6s						
YHL	Hebgen Lake	64.59	332		P	03 01 27.1	+0.3
YHL				IAmb	IAmb	03 01 28.4	
	comp=Z,5.5nm,0.8s						
VNA3	Neumayer Olymp	71.80	162	P	P	03 02 20.8	+9.5
	comp=Z,0.5nm,0.2s						
VNA1	Neumayer--Stat	72.03	161	P	P	03 02 16.5	+3.9
	comp=Z,0.5nm,0.2s						
SNAA	Sanae	74.01	162	P	P	03 02 24.6	+0.1
	comp=Z,1.4nm,0.6s,baz=281,slow=10,SNR=4.0						
	comp=Z,1.4nm,0.6s						
SNAA	Sanae	74.01	162	IAmb	IAmb	03 02 25.7	
	comp=Z,5.9nm,1.4s						
QSPA	South Pole Qui	79.22	180	P	P	03 02 55.3	+1.3
	comp=Z,1.2nm,1.1s,baz=135,slow=2.7,SNR=2.4						
	comp=Z,1.2nm,1.1s						
TORD	Torodi Ar. Bea	79.43	74	P	P	03 02 54.5	-1.5
	comp=Z,1.2nm,1.0s,baz=232,slow=7.1,SNR=3.6						
	comp=Z,1.2nm,1.0s						
YKA	Yellowknife Ar	79.46	342	P	P	03 02 53.5	-1.5
	comp=Z,1.2nm,0.8s,baz=145,slow=6.1,SNR=4.4						
	comp=Z,1.2nm,0.8s						
ESDC	Sonseca Array	82.46	47	P	P	03 03 12.0	+0.3
	comp=Z,1.0nm,0.9s,baz=244,slow=5.3,SNR=4.6						
	comp=Z,1.0nm,0.9s						
VNDA	Vanda	86.24	190	P	P	03 03 30.5	+0.4
	comp=Z,0.1nm,0.3s,baz=196,slow=16,SNR=7.0						
	comp=Z,0.1nm,0.3s						
L29M	L29M	88.17	336	P	P	03 03 40.1	+0.4
L29M				IAmb	IAmb	03 03 40.7	
	comp=Z,6.4nm,0.9s						
NOA	NORSAR Array B	97.46	29	LR	LR	03 45 39.2	
	comp=Z,12nm,20.2s,baz=280,slow=34						
ZALV	Zalesovo Beam	134.06	17	PKP	PKPdf	03 10 05.6	-0.6
	comp=Z,0.5nm,0.4s,baz=310,slow=5.8,SNR=3.0						
ASAR	Alice Springs	135.72	219	PKP	PKPdf	03 10 09.7	-0.6
	comp=Z,0.6nm,0.8s,baz=160,slow=3.0,SNR=5.3						
WRA	Warramunga Arr	138.11	223	PKP	PKPdf	03 10 14.5	-0.3
	comp=Z,0.6nm,0.8s,baz=120,slow=1.9,SNR=4.6						
MTN	Manton Dam	145.19	228		PKPbc	03 10 25.8	-1.3
HHC	Hu-ho-hao-te	149.68	351	*e*P	PKPdf	03 10 34.5	+0.1
NJ2	Nanjing	155.55	331	*e*P	PKPdf	03 10 43.5	+0.4
NJ2				pmax	pmax		
	comp=Z,7.0nm,0.6s						
PZH	PanZhiHua	164.12	12	PKP	PKPdf	03 10 51.8	-1.4

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*KRNET **27** 03:04:06.0±0.1, 41°.59N×72°.40E, h20^{km}, mb2.2*
*ISU **27** 03:04:07, 41°.58N×72°.38E, h19^{km}*
*NNC **27** 03:04:08.9±1.5, 41°.75N×72°.41E, h0^{km}, mb2.8, mpv2.5, Error ellipse: s-maj=16.1km s-min=5.3km az=164.0*
ISC 27 03:04:06.5±1.0**, 41°.60N**±0°.03×**72°.41E**±0°.02**, h11**^{km}±10^{km}**, n17, σ1^{s}30**/31**, 14C-6D, Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ARK	Arkit	0.39	301	⇑*e*P	Pg	03 04 13.8	-0.4
ARK				⇑*e*S	Sg	03 04 19.5	+0.1
ARSB	Arslanbob	0.51	122	⇑*e*P	Pg	03 04 15.9	-0.7
ARSB				⇑*e*S	Sg	03 04 23.2	-0.2
TRKS	Terek-Say	0.95	266	⇑*e*P	Pb	03 04 23.3	-1.8
TRKS				⇑*e*S	Sb	03 04 36.0	-1.8
SALK	Salom-Alik	1.29	123	⇑*e*P	Pn	03 04 30.0	-0.6
SALK				⇑*e*S	Sn	03 04 47.4	-0.4
MRKS	Merke	1.30	28	P	Pn	03 04 30.3	-0.3
	0.7nm,0.2s						
MRKS				S	Sn	03 04 47.4	-0.6
	12nm,0.3s						
FRG	Fergana	1.31	201	S	Sg	03 04 53.6	+4.8
EKS2	Erkin-Say	1.47	43	⇑*e*P	Pn	03 04 33.2	+0.1
EKS2				⇑*e*S	Sb	03 04 53.0	+0.3
PSK	Pskem	1.56	283	S	Sg	03 04 58.2	+1.6
SFK	Sufi-Kurgan	1.79	152	⇓*e*P	Pb	03 04 38.3	-1.2
SFK				⇓*e*S	Sb	03 05 01.8	-0.2
CHMG	Chimgan	1.80	269	P	Pg	03 04 40.7	-0.3
CHMG				S	Sg	03 05 05.0	+0.7
IUG	Iuzhnay	1.86	288	P	Pb	03 04 41.1	+0.6
	10nm,0.3s						
IUG				S	Sg	03 05 06.0	-0.1
	28nm,0.3s						
AAK	Ala-Archa	1.87	56	⇑Pn	Pb	03 04 41.2	+0.5
	0.8nm,0.4s						
AAK				⇓Sn	Sg	03 05 06.9	+0.3
	0.9nm,0.5s						
AAK	Ala-Archa	1.87	56	⇓*e*P	Pb	03 04 39.7	-1.0
AAK				⇓*e*S	Sb	03 05 04.2	+0.1
KK31	Karatay Array	2.06	318	⇑Pn	Pb	03 04 43.0	-0.8
	0.2nm,0.2s,baz=131,slow=15,SNR=11						
KK31				⇓Sn	Sb	03 05 10.6	+1.2
	1.3nm,0.3s,baz=130,slow=28,SNR=13						
TVKS	Tavaksay	2.06	270	P	Pb	03 04 44.8	+0.8
TVKS				S	Sg	03 05 11.9	-1.0
SGDS	Sogindy	2.48	41	Pg	Pb	03 04 50.9	-0.2
	0.8nm,0.1s						
SGDS				Lg	Lg	03 05 22.9	
	7.7nm,0.4s						
TKM2	Tokmak 2	2.71	60	⇑*e*P	Pn	03 04 51.4	+1.2
TKM2				⇑*e*S	Sn	03 05 24.6	+1.5

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*IDC **27** 03:47:20.1±0.7, 39°.17S×174°.93E, h0^{km}, mb4.3/7, mbtmp4.2/9, ML3.6/2, MS3.8/12, Error ellipse: s-maj=18.3km s-min=12.3km az=136.0*
*WEL **27** 03:47:23.9, 39°.19S×174°.91E, ML5.2, Mw4.8, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}-0.33; $M_{\theta\theta}$1.18; $M_{\phi\phi}$-1.77; $M_{r\theta}$-0.72; $M_{\theta\phi}$1.22; $M_{\phi r}$0.40; Fault plane solution: $M_0$2.11000×10^{16} NP1: ϕ_s115.00000°, δ89.00000°, λ-23.00000°. NP2: ϕ_s206.00000°, δ67.00000°, λ-179.00000°. Principal axes: T 2.0698, Plg15.0000°, Azm163.0000°; N 0.0225, Plg67.0000°, Azm292.0000°; P -2.0923, Plg17.0000°, Azm68.0000°; Stations used: BFZ BKZ GRZ HAZ KHEZ KNZ MKAZ MRZ MWZ MXZ NNZ OTVZ STRIKE-SLIP FAULTING*
*WEL **27** 03:47:23.9±0.5, 39°S±4°×17°5E±°, h23^{km}±6^{km}, M5.2/123, ML5.4/13, MLv5.2/123 Error ellipse: s-maj=5.8km s-min=2.6km az=7.5, confirmed*
*NOU **27** 03:47:24.2, 39°.08S×174°.76E, h54^{km}, MLv5.4/17, North Island, New Zealand*
*NEIC **27** 03:47:25.3±1.8, 39°.14S±0°.03×174°.87E±0°.07, h29^{km}±4^{km}, mb4.6/15, Mwr4.7/36, Error ellipse: s-maj=7.9km s-min=3.7km az=86.0, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}0.02; $M_{\theta\theta}$0.68; $M_{\phi\phi}$-0.70; $M_{r\theta}$-0.48; $M_{\theta\phi}$0.89; $M_{\phi r}$0.30; Fault plane solution: $M_0$1.26000×10^{16} NP1:ϕ_s108.48000°, δ86.65000°, λ-25.61000°. NP2:ϕ_s200.09000°, δ64.44000°, λ-176.28000°. Principal axes: T 1.2009, Plg15.0000°, Azm157.0000°; N 0.1179, Plg64.0000°, Azm282.0000°; P -1.3188, Plg20.0000°, Azm61.0000°;*
*GFZ **27** 03:47:25.6±0.2, 39°S±3°×17°5E±°, h40^{km}±2^{km}, M4.5/7, mb4.5/7 Error ellipse: s-maj=8.4km s-min=6.1km az=106.5, confirmed*
*NEIC **27** 03:47:26.1, 39°.17S×174°.91E, h36^{km}*
ISC 27 03:47:24.2±0.5**, 39°.21S**±0°.02×**174°.84E**±0°.02**, h26**^{km}±3^{km}**, n295, σ1^{s}07**/301**, mb4.8**/28**, MS3.7**/10**, 3C, North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VRZ	Vera Road	0.10	322	P	Pn	03 47 30.0	-0.2
VRZ				S	Sb	03 47 34.3	+2.1
VRZ				AML	AML		
VRZ				AML	AML		
HUKS	Huiakama Schoo	0.22	255	P	Pn	03 47 31.5	-0.4
PKVZ	Pokaka	0.40	102	P	Pb	03 47 32.9	-0.1
PKVZ				S	Sb	03 47 39.1	+0.2
PKVZ				AML	AML		
PKVZ				AML	AML		
MHEZ	Mangahewa	0.42	288	P	Pn	03 47 34.5	-0.1
MHEZ				S	Sn	03 47 42.7	+1.1
MHEZ				AML	AML		
MHEZ				AML	AML		
LREZ	Lake Rotokare	0.42	233	P	Pn	03 47 34.5	-0.2
LREZ				AML	AML		
LREZ				AML	AML		
TUHS	Taumarunui Hig	0.47	43	P	Pb	03 47 33.8	-0.1
TWVZ	Taurewa	0.48	74	P	Pb	03 47 33.7	-0.6
TWVZ				AML	AML		
TWVZ				AML	AML		
DREZ	Durham Road	0.50	272	P	Pn	03 47 35.6	-0.1
DREZ				S	Sn	03 47 44.5	+1.0
DREZ				AML	AML		
DREZ				AML	AML		
MTVZ	Mangateitei	0.52	110	P	Pb	03 47 34.8	-0.1
MTVZ				AML	AML		
MTVZ				AML	AML		
PREZ	Palmer Road	0.55	255	P	Pn	03 47 36.7	+0.3
PREZ				AML	AML		
PREZ				AML	AML		
COVZ	Chateau Observ	0.55	90	P	Pb	03 47 34.9	-0.5
COVZ				S	Sb	03 47 42.8	-0.1
COVZ				AML	AML		
COVZ				AML	AML		
FWVZ	Far West T-bar	0.56	95	P	Pb	03 47 35.2	-0.4
FWVZ				AML	AML		
TRVZ	Turoa	0.56	100	P	Pb	03 47 35.3	-0.3
TRVZ				AML	AML		
TRVZ				AML	AML		
WAZ	Wanganui	0.56	168	P	Pn	03 47 36.3	-0.3
WAZ				AML	AML		
WAZ				AML	AML		
MAVZ	Matarangi	0.56	97	P	Pb	03 47 35.4	-0.4
MAVZ				AML	AML		
NEZ	North Egmont	0.58	263	P	Pn	03 47 37.1	+0.2
NEZ				AML	AML		
NEZ				AML	AML		
WHVZ	Whangaehu Hut	0.59	98	P	Pb	03 47 35.7	-0.4
WHVZ				AML	AML		
WTVZ	West Tongariro	0.59	81	P	Pb	03 47 35.5	-0.6
WTVZ				S	Sb	03 47 44.2	0.0
WTVZ				AML	AML		
WTVZ				AML	AML		
NGZ	Ngauruhoe	0.59	87	P	Pb	03 47 35.7	-0.5
NGZ				AML	AML		
WNVZ	Wahianoa	0.60	102	P	Pb	03 47 36.0	-0.3
WNVZ				AML	AML		
NPCS	New Plymouth C	0.61	283	P	Pn	03 47 37.3	+0.1
NPCS				S	Sn	03 47 47.2	+0.9
SNVZ	South Ngauruho	0.62	88	P	Pb	03 47 36.5	-0.2
SNVZ				AML	AML		
KRVZ	Karewarewa	0.63	80	P	Pb	03 47 36.2	-0.6
KRVZ				AML	AML		
TUVZ	Tukino	0.64	96	P	Pb	03 47 36.8	-0.1
TUVZ				AML	AML		
OTVZ	Oturere	0.64	86	P	Pb	03 47 36.7	-0.3
OTVZ				AML	AML		
KHEZ	Kahui Hut	0.65	262	P	Pn	03 47 38.5	+0.7
KHEZ	Kahui Hut	0.65	262	S	Sn	03 47 49.5	+2.2
KHEZ	Kahui Hut	0.65	262	P	Pn	03 47 37.9	0.0
KHEZ				AML	AML		
NTVZ	North Tongarir	0.66	81	P	Pb	03 47 36.7	-0.5
NTVZ				AML	AML		
PKE	Pukeiti	0.66	271	P	Pn	03 47 38.4	+0.4
PKE				AML	AML		
TMVZ	Te Maari	0.68	83	P	Pb	03 47 37.1	-0.4
TMVZ				AML	AML		
ETVZ	East Tongariro	0.68	84	P	Pb	03 47 37.2	-0.4
ETVZ				AML	AML		
HIZ	Hauiti	0.69	1	P	Pb	03 47 37.9	+0.2
HIZ	Hauiti	0.69	1	S	Sn	03 47 47.7	-0.5
HIZ	Hauiti	0.69	1		Pb	03 47 37.5	-0.2
HIZ				Sn	Sn	03 47 47.8	-0.5
HIZ	Hauiti	0.69	1	P	Pb	03 47 37.5	-0.2
HIZ				S	Sn	03 47 47.8	-0.5
HIZ				AML	AML		
HIZ				AML	AML		
HIZ	Hauiti	0.69	1	P	Pb	03 47 37.6	-0.2
KATZ	Kakaramea	0.70	71	P	Pb	03 47 37.5	-0.5
KATZ				AML	AML		
KATZ				AML	AML		
MOVZ	Moawhango	0.74	106	P	Pb	03 47 38.1	-0.4
MOVZ				AML	AML		
NBEZ	Newall Road No	0.76	265	P	Pn	03 47 40.0	+0.7
NBEZ				AML	AML		
NMEZ	Namu Road	0.77	254	P	Pn	03 47 40.2	+0.7
NMEZ				AML	AML		
RATZ	Rangitukua	0.80	65	P	Pb	03 47 39.0	-0.6
RATZ				AML	AML		
RITZ	Rihia Road	0.83	74	P	Pb	03 47 39.6	-0.3
RITZ				AML	AML		
WATZ	Wairara	0.86	55	P	Pb	03 47 39.8	-0.7
WATZ				AML	AML		
BHHZ	Black Hill Sta	0.99	107	P	Pn	03 47 41.8	-0.7
BHHZ				AML	AML		
WHTZ	Whakaora	1.02	59	P	Pn	03 47 42.8	-0.2
WHTZ				AML	AML		
TLZ	Tolley Road	1.03	32	P	Pn	03 47 41.9	-1.2
TLZ				AML	AML		
KUTZ	Kaahu Road	1.05	47	P	Pn	03 47 42.5	-0.8
KUTZ				AML	AML		
OHWZ	Ohakea	1.06	160	P	Pb	03 47 44.2	+0.2
OHWZ				AML	AML		
POIZ	Poihipi	1.09	59	P	Pb	03 47 44.2	-0.4
POIZ				AML	AML		
ARAZ	Aratiatia Land	1.15	60	P	Pn	03 47 44.5	-0.2
ARAZ				AML	AML		
TSZ	Takapari Road	1.22	135	P	Pn	03 47 45.7	+0.1
TSZ				AML	AML		
WPRZ	Whakapapatarin	1.24	57	P	Pn	03 47 45.0	-0.9
WPRZ				AML	AML		
KWHZ	Kaweka Forest	1.25	101	P	Pn	03 47 46.0	0.0
KWHZ				AML	AML		
KRHZ	Kereru	1.26	111	P	Pn	03 47 46.7	+0.4
KRHZ				AML	AML		
PNHZ	Pukenui	1.27	124	P	Pn	03 47 46.6	+0.3
PNHZ				AML	AML		
MRHZ	Matea Rd	1.28	74	P	Pn	03 47 45.9	-0.7
MRHZ				AML	AML		
BKZ	Black Stump Fm	1.29	89	P	Pn	03 47 46.7	+0.1
BKZ	Black Stump Fm	1.29	89	S	Sb	03 48 03.4	-0.5
BKZ	Black Stump Fm	1.29	89	P	Pn	03 47 46.2	-0.4
BKZ				AML	AML		
GRRZ	Galatos Road	1.31	50	P	Pn	03 47 46.1	-0.8
GRRZ				AML	AML		
ALRZ	Allen Road	1.34	62	P	Pn	03 47 46.6	-0.7
ALRZ				AML	AML		
POWZ	Post Office Ro	1.38	149	P	Pb	03 47 49.0	-0.5
POWZ				AML	AML		
HRRZ	Handcock Road	1.39	55	P	Pn	03 47 47.7	-0.3
HRRZ				AML	AML		
PRRZ	Plateau Road	1.40	60	P	Pn	03 47 47.7	-0.5
PRRZ				AML	AML		
MCHZ	McNeill Hill	1.46	100	P	Pb	03 47 50.7	0.0
MCHZ				AML	AML		
UTU	Utuhina	1.48	46	P	Pn	03 47 48.7	-0.5
UTU				AML	AML		
DVHZ	Dannevirke	1.50	137	P	Pb	03 47 50.9	-0.5
DVHZ				AML	AML		
WPHZ	Waipukurau	1.50	125	P	Pb	03 47 51.2	-0.3
WPHZ				AML	AML		
HLRZ	Highlands Stat	1.52	52	P	Pn	03 47 49.7	-0.1
HLRZ				AML	AML		
NGRZ	Ngongotaha	1.53	44	P	Pn	03 47 49.4	-0.5
NGRZ				AML	AML		
NMHZ	Naumai	1.53	87	P	Pb	03 47 50.9	-1.1
NMHZ				AML	AML		
MRZ	Mangatainoka R	1.56	159		Pn	03 47 51.5	+1.1
MRZ				Sn	Sb	03 48 11.9	+0.2
MRZ	Mangatainoka R	1.56	159	P	Pn	03 47 51.5	+1.1
MRZ				AML	AML		
TOZ	Tahuroa Road	1.56	20		Pn	03 47 49.6	-0.8
TOZ				Sn	Sn	03 48 07.0	-2.8
TOZ	Tahuroa Road	1.56	20	P	Pn	03 47 49.5	-0.8
TOZ				AML	AML		
RRRZ	Republican Roa	1.57	57	P	Pn	03 47 50.0	-0.5
RRRZ				AML	AML		
MTHZ	Maungataniwha	1.60	78	P	Pn	03 47 50.5	-0.4
MTHZ				AML	AML		
PRWZ	Pori Road	1.60	147	P	Pb	03 47 52.9	-0.3
PRWZ				AML	AML		
KMRZ	Kaimai	1.61	33	P	Pn	03 47 50.7	-0.3
KMRZ				AML	AML		
KARZ	Kaharoa	1.62	43	P	Pn	03 47 50.6	-0.5
KARZ				AML	AML		
TARZ	Mount Tarawera	1.62	54	P	Pn	03 47 51.3	0.0
TARZ				AML	AML		
OGWZ	Otaki Gorge	1.63	171	P	Pn	03 47 52.5	+1.2
OGWZ				AML	AML		
KIW	Kapiti Island	1.65	178	P	Pn	03 47 52.5	+0.8
KIW				AML	AML		
MKRZ	Makatiti	1.66	51	P	Pb	03 47 55.2	+0.9
MKRZ				AML	AML		
MUGZ	Murupara	1.68	65	P	Pn	03 47 52.1	+0.2
MUGZ				AML	AML		
ARHZ	Aropaoanui	1.68	93	P	Pb	03 47 53.5	-0.9
ARHZ				AML	AML		
KAHZ	Kahuranaki	1.68	111	P	Pb	03 47 54.4	-0.1
KAHZ				AML	AML		
LIRZ	Lichensteins R	1.71	46	P	Pn	03 47 52.1	-0.3
LIRZ				AML	AML		
DUWZ	D’Urville Isla	1.74	204	P	Pn	03 47 54.3	+1.5
DUWZ				AML	AML		
PRHZ	Porangahau	1.74	128	P	Pb	03 47 54.8	-0.8
PRHZ				AML	AML		
TIWZ	Tintock	1.76	153	P	Pb	03 47 55.4	-0.5
TIWZ				AML	AML		
PXZ	Pawanui	1.77	118	P	Pb	03 47 55.0	-1.0
PXZ				AML	AML		
HOWZ	Holdsworth Sta	1.77	163	P	Pb	03 47 55.3	-0.7
HOWZ				AML	AML		
RTZ	Ruatahuna	1.77	71		Pn	03 47 53.0	-0.3
RTZ	Ruatahuna	1.77	71	P	Pn	03 47 53.2	-0.1
RTZ				AML	AML		
RAHZ	Arahi	1.77	81	P	Pn	03 47 53.5	+0.2
RAHZ				AML	AML		
ANWZ	Angora Road	1.78	135	P	Pb	03 47 55.0	-1.1
ANWZ				AML	AML		
CKHZ	Cape Kidnapper	1.79	105	P	Pb	03 47 55.5	-0.9
CKHZ				AML	AML		
BFZ	Birch Farm	1.83	144	P	Pn	03 47 55.4	+1.3
BFZ	Birch Farm	1.83	144	S	Sb	03 48 18.9	-0.6
BFZ	Birch Farm	1.83	144		Pn	03 47 55.1	+1.2
BFZ	Birch Farm	1.83	144	P	Pn	03 47 55.2	+1.2
BFZ				AML	AML		
BFZ	Birch Farm	1.83	144	P	Pn	03 47 55.3	+1.3
EDRZ	Edgecumbe	1.85	54	P	Pb	03 47 57.2	-0.2
EDRZ				AML	AML		
TGRZ	Tauranga	1.85	38	P	Pn	03 47 53.7	-0.6
TGRZ				AML	AML		
WHHZ	Waihua	1.87	87	P	Pn	03 47 55.9	+1.4
WHHZ				AML	AML		
MARZ	Manawahe	1.89	50	P	Pb	03 47 58.1	+0.2
MARZ				AML	AML		
CAW	Cannon Point	1.91	175	P	Pn	03 47 56.6	+1.5
CAW				AML	AML		
OPRZ	Ohinepanea	1.91	45	P	Pn	03 47 54.4	-0.7
OPRZ				AML	AML		
CPWZ	Castlepoint	2.00	149	P	Pb	03 47 59.0	-0.9
CPWZ				AML	AML		
URZ	Urewera	2.01	63	Pn	Pn	03 47 55.5	-1.0
	458nm,0.3s,baz=242,slow=7.3,SNR=257						
URZ				Lg	Lg	03 48 25.5	
	190nm,0.3s,baz=88,slow=17,SNR=5.9						
URZ				LR	LR	03 48 50.3	
	comp=Z,2µm,18.2s,baz=188,slow=47						
URZ	Urewera	2.01	63	P	Pn	03 47 56.7	+0.1
URZ	Urewera	2.01	63	P	Pn	03 47 56.4	-0.1
URZ				AML	AML		
URZ	Urewera	2.01	63	P	Pn	03 47 56.6	+0.1
MTW	Mount Morrison	2.02	166	P	Pn	03 47 58.5	+1.9
MTW				AML	AML		
TCW	Tory Channel	2.05	192		Pn	03 47 57.8	+0.8
TCW	Tory Channel	2.05	192	P	Pn	03 47 58.0	+1.0
TCW				AML	AML		
TMWZ	Te Maipa	2.06	157	P	Pn	03 47 58.9	+1.6
TMWZ				AML	AML		
WEL	Wellington	2.08	181	P	Pn	03 47 59.5	+2.1
WEL				AML	AML		
SNZO	South Karori	2.10	183	P	Pn	03 47 59.6	+1.8
SNZO	South Karori	2.10	183	S	Sb	03 48 25.7	-1.7
SNZO	South Karori	2.10	183		Pn	03 47 59.5	+1.7
KBAZ	Karaka Road Bo	2.11	1	P	Pn	03 47 58.5	+0.7
KBAZ				AML	AML		
MKAZ	Moumakai	2.11	7	P	Pn	03 47 57.6	-0.3
MKAZ				AML	AML		
RAGZ	Rawiri	2.13	71	P	Pn	03 47 58.6	+0.3
RAGZ				AML	AML		
AWAZ	Awhitu Peninsu	2.14	356	P	Pn	03 47 58.4	+0.1
AWAZ				AML	AML		
WHRZ	Whale Island	2.15	52	P	Pb	03 48 02.8	+0.3

WHRZ				AML	AML		
BHW	Baring Head	2.20	179		Pn	03 48 00.3	+1.2
BHW	Baring Head	2.20	179	P	Pn	03 48 00.8	+1.7
BHW				AML	AML		
KNZ	Kokohu	2.21	86	P	Pn	03 48 00.0	+0.8
KNZ				AML	AML		
MYRZ	Mayor Island	2.22	30	P	Pn	03 47 59.5	+0.1
MYRZ				AML	AML		
PAWZ	Paruwai Farm	2.22	168	P	Pn	03 48 01.0	+1.5
PAWZ				AML	AML		
MSWZ	Moikau Station	2.23	172		Pn	03 48 00.3	+0.7
MSWZ	Moikau Station	2.23	172	P	Pn	03 48 00.9	+1.3
MSWZ				AML	AML		
ETAZ	East Tamaki Re	2.25	2	P	Pn	03 47 59.9	+0.1
ETAZ				AML	AML		
MWZ	Matawai	2.27	68	P	Pn	03 47 60.0	-0.2
MWZ				AML	AML		
WTAZ	Waiatarua	2.28	355	P	Pn	03 48 00.7	+0.5
WTAZ				AML	AML		
TRWZ	Traveller	2.28	164	P	Pn	03 48 01.8	+1.5
TRWZ				AML	AML		
NNZ	Nelson	2.30	209		Pn	03 48 02.2	+1.7
NNZ	Nelson	2.30	209	P	Pn	03 48 02.1	+1.7
NNZ				AML	AML		
TUWZ	Tuamarina	2.33	197	P	Pb	03 48 03.5	-2.0
TKNZ	Takaka Hill	2.33	218		Pn	03 48 01.9	+1.0
TKNZ	Takaka Hill	2.33	218	P	Pn	03 48 02.0	+1.2
TKNZ				AML	AML		
EPAZ	Eden Park BICE	2.33	358	P	Pn	03 48 01.4	+0.5
EPAZ				AML	AML		
RIGZ	Rimuhau	2.33	79	P	Pn	03 48 02.5	+1.5
RIGZ				AML	AML		
HBAZ	Herne Bay Bore	2.35	358	P	Pn	03 48 01.8	+0.6
HBAZ				AML	AML		
PLWZ	Palliser	2.38	172		Pn	03 48 02.6	+1.0
PLWZ	Palliser	2.38	172	P	Pn	03 48 02.9	+1.2
PLWZ				AML	AML		
MHGZ	Mahia Peninsul	2.38	90	P	Pn	03 48 03.0	+1.3
MHGZ				AML	AML		
PRGZ	Paritu Road	2.39	84	P	Pn	03 48 02.5	+0.8
PRGZ				AML	AML		
QRZ	Quartz Range	2.40	227	P	Pn	03 48 02.5	+0.6
QRZ	Quartz Range	2.40	227	S	Sn	03 48 30.3	-0.2
QRZ	Quartz Range	2.40	227		Pn	03 48 02.3	+0.4
QRZ	Quartz Range	2.40	227	P	Pn	03 48 02.2	+0.4
QRZ				AML	AML		
QRZ	Quartz Range	2.40	227	P	Pn	03 48 01.8	-0.1
WIAZ	Waiheke Island	2.42	6	P	Pn	03 48 02.5	+0.3
WIAZ				AML	AML		
MBAZ	Motutapu North	2.43	1	P	Pn	03 48 02.3	0.0
MBAZ				AML	AML		
RVAZ	Riverhead Bore	2.44	355	P	Pn	03 48 02.3	-0.1
RVAZ				AML	AML		
TKGZ	Te Karaka	2.47	73	P	Pn	03 48 04.8	+2.0
TKGZ				AML	AML		
WIZ	White Island	2.50	49	P	Pb	03 48 07.4	-1.0
WIZ				AML	AML		
RUGZ	Raukumara Rang	2.55	62	P	Pn	03 48 04.6	+0.6
RUGZ				AML	AML		
CMWZ	Cape Campbell	2.58	190		Pn	03 48 07.3	+2.8
CMWZ	Cape Campbell	2.58	190	P	Pb	03 48 07.4	-2.5
CMWZ				AML	AML		
ABAZ	Army Bay	2.60	360	P	Pn	03 48 05.1	+0.5
ABAZ				AML	AML		
BSWZ	Blackbirch Sta	2.61	196		Pn	03 48 06.9	+2.1
BSWZ	Blackbirch Sta	2.61	196	P	Pn	03 48 06.8	+2.1
BSWZ				AML	AML		
TWGZ	Tauwhareparae	2.66	68	P	Pn	03 48 07.6	+2.1
TWGZ				AML	AML		
MRNZ	Matariki Terra	2.71	215		Pn	03 48 07.8	+1.7
MRNZ	Matariki Terra	2.71	215	P	Pn	03 48 07.5	+1.4
MRNZ				AML	AML		
HAZ	Te Kaha	2.73	59	P	Pn	03 48 06.9	+0.5
HAZ				AML	AML		
CNGZ	Carnagh Statio	2.73	76	P	Pn	03 48 08.0	+1.7
CNGZ				AML	AML		
PKGZ	Pakihiroa	2.87	63	P	Pn	03 48 09.6	+1.2
PKGZ				AML	AML		
PUZ	Puketiti	2.91	68	P	Pn	03 48 10.5	+1.6
PUZ				AML	AML		
THZ	Tophouse	2.95	209		Pn	03 48 11.5	+2.1
THZ	Tophouse	2.95	209	P	Pn	03 48 11.4	+1.9
THZ				AML	AML		
GRZ	Great Barrier	2.99	10	P	Pn	03 48 09.3	-0.7
GRZ				AML	AML		
WMGZ	Waiomatatini S	3.13	65	P	Pn	03 48 13.3	+1.5
WMGZ				AML	AML		
MXZ	Matakaoa Point	3.18	60		Pn	03 48 14.5	+1.9
MXZ	Matakaoa Point	3.18	60	P	Pn	03 48 14.5	+1.9
MXZ				AML	AML		
WCZ	Waipu Caves	3.29	353	P	Pn	03 48 14.0	-0.1
WCZ				AML	AML		
KHZ	Kahutara	3.35	197		Pn	03 48 16.5	+1.5
KHZ	Kahutara	3.35	197	P	Pn	03 48 16.5	+1.5
KHZ				AML	AML		
KHZ	Kahutara	3.35	197	P	Pn	03 48 16.5	+1.5
DSZ	Denniston Nort	3.43	221	P	Pn	03 48 16.8	+0.7
DSZ				AML	AML		
GVZ	Greta Valley S	4.00	199	P	Pn	03 48 24.7	+0.9
GVZ				AML	AML		
LTZ	Lake Taylor	4.07	208	P	Pn	03 48 25.9	+1.1
LTZ				AML	AML		
OUZ	Omahuta	4.10	346	P	Pn	03 48 25.4	+0.2
OUZ				AML	AML		
OUZ	Omahuta	4.10	346	P	Pn	03 48 25.8	+0.5
AMCZ	Amberley	4.30	202	P	Pn	03 48 28.4	+0.5
AMCZ				AML	AML		
INZ	Inchbonnie	4.35	215	P	Pn	03 48 30.0	+1.3
INZ				AML	AML		
OXZ	Oxford	4.63	206	P	Pn	03 48 31.9	-0.6
OXZ				AML	AML		
OKCZ	Okains Bay	4.71	196	P	Pn	03 48 33.2	-0.4
OKCZ				AML	AML		
AKCZ	Akaroa Harbour	4.88	197	P	Pn	03 48 35.3	-0.7
AKCZ				AML	AML		
RACZ	Rakaia	4.95	203	P	Pn	03 48 36.6	-0.3
RACZ				AML	AML		
WVZ	Waitaha Valley	4.95	217	P	Pn	03 48 37.9	+1.0
WVZ				AML	AML		
MHCZ	Mount Hutt	4.97	209	P	Pn	03 48 38.4	+1.1
MHCZ				AML	AML		
WACZ	Wakanui South	5.24	204	P	Pn	03 48 40.8	-0.1
WACZ				AML	AML		
RPZ	Rata Peaks	5.33	211	Pn	Pn	03 48 42.7	+0.6
	5.2nm,0.3s,baz=6.8,slow=2.1,SNR=50						
RPZ				Sn	Sn	03 49 41.1	-1.5
	33nm,0.3s,baz=132,slow=21,SNR=15						
RPZ				LR	LR	03 51 04.7	
	comp=Z,635nm,19.1s,baz=87,slow=42						
	33nm,0.6s						
RPZ				AML	AML		
RPZ	Rata Peaks	5.33	211	P	Pn	03 48 42.5	+0.4
RPZ				AML	AML		
RPZ	Rata Peaks	5.33	211	P	Pn	03 48 43.0	+0.9
ARCZ	Arundel	5.47	209	P	Pn	03 48 44.1	-0.1
ARCZ				AML	AML		
FOZ	Fox Glacier	5.74	220	P	Pn	03 48 48.1	+0.4
FOZ				AML	AML		
TMZ	Timaru	5.91	208	P	Pn	03 48 49.4	-0.8
TMZ				AML	AML		
LBZ	Lake Benmore	6.24	212	P	Pn	03 48 54.4	-0.2
ODZ	Otahua Downs	6.61	207	P	Pn	03 48 59.4	-0.4
ODZ	Otahua Downs	6.61	207	P	Pn	03 48 59.8	+0.1
ODZ				AML	AML		
ODZ	Otahua Downs	6.61	207	P	Pn	03 49 00.8	+1.0
	comp=Z,109nm,0.7s						
JCZ	Jackson Bay	6.65	221	P	Pn	03 49 00.0	-0.3
JCZ	Jackson Bay	6.65	221	P	Pn	03 49 00.3	0.0
JCZ				AML	AML		
WKZ	Wanaka	7.09	216	P	Pn	03 49 06.2	-0.2
WKZ				AML	AML		
HHSZ	Highcliff Hill	7.37	204	P	Pn	03 49 09.7	-0.5
MSZ	Milford Sound	7.51	221	P	Pn	03 49 11.9	-0.1
MSZ				AML	AML		
TUZ	Tuapeka	7.76	208	P	Pn	03 49 15.5	0.0
CTZ	Chatham Island	7.85	128		Pn	03 49 15.6	-1.0
CTZ	Chatham Island	7.85	128	P	Pn	03 49 15.8	-0.9
WHZ	Wether Hill Ro	8.39	215	P	Pn	03 49 24.5	+0.3
SYZ	Scrubby Hill	8.44	208	P	Pn	03 49 24.8	+0.1
SYZ	Scrubby Hill	8.44	208	P	Pn	03 49 24.4	-0.3
DCZ	Deep Cove	8.45	220	P	Pn	03 49 25.8	+0.9
APZ	The Paps	9.12	211	P	Pn	03 49 33.4	-0.8
PYZ	Puysegur Point	9.19	218	P	Pn	03 49 33.6	-1.4
PYZ	Puysegur Point	9.19	218	P	Pn	03 49 35.6	+0.6
RAO	Raoul Island	11.59	33	LR	LR	03 54 16.4	
	comp=Z,900nm,19.4s,baz=120,slow=36						
RAO	Raoul Island	11.59	33	Pn	Pn	03 50 08.3	+0.2
RAO	Raoul Island	11.59	33	P	Pn	03 50 09.0	+1.0
	comp=Z,578nm,1.3s						
DZM	Mont Dzumac	18.53	335	P	Pn	03 51 39.9	+0.8
	comp=Z,0.1nm,0.3s,baz=253,slow=23,SNR=2.0						
DZM				LR	LR	03 58 23.2	
	comp=Z,426nm,18.0s,baz=172,slow=36						
	comp=Z,3.3nm,1.0s						
DZM				AML	AML		
MSVF	Nonsavu	21.58	8	LR	LR	03 59 29.1	
	comp=Z,395nm,18.1s,baz=173,slow=34						
MSVF	Nonsavu	21.58	8	P	P	03 52 14.2	+2.2
MSVF				IAmb	IAmb	03 52 15.1	
	comp=Z,40nm,1.1s						
STKA	Stephens Creek	27.91	275	LR	LR	04 04 22.0	
	comp=Z,215nm,18.2s,baz=97,slow=36						
RAR	Rarotonga	28.19	58	LR	LR	04 03 01.1	
	comp=Z,113nm,19.6s,baz=234,slow=34						
QLP	Quilpie	28.47	287	P	P	03 53 17.7	+0.4
	comp=Z,13nm,1.7s						
CTA	Charters Tower	31.11	299	LR	LR	04 05 17.7	
	comp=Z,100nm,20.5s,baz=170,slow=35						
HNR	Honiara	32.51	332	LR	LR	04 06 49.2	
	comp=Z,100nm,18.7s,baz=221,slow=36						
PPT2	Papeete2	37.65	65	*e*LR	LR	04 04 49.9	
	comp=Z,220nm,23.5s						
PPT2				*e*LR	LR	04 04 51.8	
	comp=Z,328nm,24.8s						
PPT	Papeete	37.66	65	LR	LR	04 07 34.7	
	comp=Z,92nm,21.4s,baz=211,slow=32						
AS31	Alice Springs	37.87	282	P	P	03 54 40.4	+1.2
ASAR	Alice Springs	37.87	282	P	P	03 54 40.3	+1.2
	comp=Z,1.9nm,0.8s,baz=132,slow=9.0,SNR=19						
ASAR				LR	LR	04 11 16.4	
	comp=Z,128nm,18.0s,baz=118,slow=38						
	comp=Z,1.9nm,0.8s						
ASAR	Alice Springs	37.87	282	P	P	03 54 40.2	+1.0
VNDA	Vanda	38.81	184	P	P	03 54 47.6	+1.2
	comp=Z,2.4nm,0.5s,baz=4.2,slow=8.7,SNR=51						
	comp=Z,2.4nm,0.5s						
VNDA	Vanda	38.81	184	P	P	03 54 47.8	+1.4
VNDA				IAmb	IAmb	03 54 48.1	
	comp=Z,3.1nm,0.6s						
VNDA	Vanda	38.81	184	P	P	03 54 47.8	+1.4
	comp=Z,5.6nm,1.1s						
SBA	Scott Base	38.90	183	P	P	03 54 48.2	+1.1
SBA				IAmb	IAmb	03 54 50.8	
	comp=Z,28nm,1.4s						
SBA	Scott Base	38.90	183	P	P	03 54 49.4	+2.3
	comp=Z,15nm,1.3s						
WR8	Warramunga Arr	39.59	287	P	P	03 54 55.2	+1.7
WR8				IAmb	IAmb	03 55 00.8	
	comp=Z,13nm,1.2s						
WR4	Warramunga Arr	39.66	287	P	P	03 54 50.1	-4.0
WRA	Warramunga Arr	39.71	287	P	P	03 54 55.2	+0.6
	comp=Z,1.9nm,0.8s,baz=126,slow=8.0,SNR=20						
	comp=Z,1.9nm,0.8s						
WRA	Warramunga Arr	39.71	287	P	P	03 54 55.7	+1.1
WRKA	Warakurna	41.43	276	P	P	03 55 08.0	-0.8
WRKA	Warakurna	41.43	276	P	P	03 55 09.1	+0.2
	comp=Z,10nm,0.9s						
CASY	Casey	44.60	211	P	P	03 55 32.9	-1.0
CASY				IAmb	IAmb	03 55 53.2	
	comp=Z,17nm,1.2s						
CASY	Casey	44.60	211	P	P	03 55 32.3	-1.6
	comp=Z,14nm,2.0s						
KLBR	Kellerberrin	46.49	261	P	P	03 55 48.7	-0.6
	comp=Z,35nm,1.1s						
KLBR				pP	sP	03 55 59.2	-1.2
FITZ	Fitzroy Crossi	47.37	282	P	P	03 55 56.9	+0.6
FITZ				IAmb	IAmb	03 56 08.1	
	comp=Z,3.3nm,1.1s						
FITZ	Fitzroy Crossi	47.37	282	P	P	03 55 57.2	+0.9
	comp=Z,2.9nm,1.3s						
FITZ				P	sP	03 56 07.4	+0.1
MEEK	Meekatharra	48.14	267	P	P	03 55 59.2	-3.0
	comp=Z,23nm,0.9s						
MBWA	Marble Bar	50.15	274	P	P	03 56 17.0	-0.7
MBWA				pP	sP	03 56 28.1	-0.6
QSPA	South Pole Qui	50.92	180	P	P	03 56 24.3	+1.3
	comp=Z,26nm,0.8s,baz=25,slow=1.4,SNR=74						
QSPA				LR	LR	04 17 25.4	
	comp=Z,59nm,18.0s,baz=40,slow=35						
	comp=Z,26nm,0.8s						
QSPA	South Pole Qui	50.92	180	P	P	03 56 24.4	+1.3
BELA	Belgrano 2	61.81	173	P	P	03 57 38.6	-1.7
MAW	Mawson	61.96	204	P	P	03 57 40.6	-0.8
	comp=Z,2.4nm,0.8s,baz=134,slow=8.7,SNR=8.6						
MAW				LR	LR	04 23 58.8	
	comp=Z,125nm,19.2s,baz=122,slow=36						
	comp=Z,2.4nm,0.8s						
MAW	Mawson	61.96	204	P	P	03 57 41.1	-0.3
MAW	Mawson	61.96	204	P	P	03 57 40.8	-0.6
	comp=Z,1.4nm,2.6s						
SMAI	San Martin Ant	63.46	158	P	P	03 57 52.4	+1.0
SMAI				IAmb	IAmb	03 57 53.0	
	comp=Z,6.3nm,1.3s						
SJI	Sawahan	64.35	281	P	P	03 57 55.6	-2.5
	comp=Z,60nm,1.2s						
TROLL	Troll, Antarti	68.95	183	⇑P	P	03 58 26.3	-0.4
	comp=Z,310nm,0.5s						
SNAA	Sanae	69.42	181	⇑P	P	03 58 28.9	-0.6
	comp=Z,29nm,0.3s						
SNAA	Sanae	69.42	181	P	P	03 58 28.7	-0.8
	comp=Z,1.5nm,0.4s,baz=180,slow=6.6,SNR=5.9						
	comp=Z,1.5nm,0.4s						
SNAA	Sanae	69.42	181	P	P	03 58 28.9	-0.6
SNAA				IAmb	IAmb	03 58 40.0	
	comp=Z,14nm,1.3s						
SNAA	Sanae	69.42	181	P	P	03 58 29.5	-0.1
	comp=Z,8.1nm,1.3s						
PAF	Port-aux-Franc	69.64	222	P	P	03 58 31.3	+0.2
	comp=Z,163nm,2.3s						
VNA3	Neumayer Olymp	69.81	178	⇑P	P	03 58 31.3	-0.6
	comp=Z,14nm,0.7s						
VNA3	Neumayer Olymp	69.81	178	P	P	03 58 31.3	-0.6
	comp=Z,20nm,0.7s						
VNA2	Neumayer--Watz	70.17	179	P	P	03 58 33.8	-0.3
	comp=Z,10nm,0.5s,baz=166,slow=5.7						
VNA2	Neumayer--Watz	70.17	179	P	P	03 58 34.0	-0.1
	comp=Z,19nm,0.6s						
VNA1	Neumayer--Stat	70.43	179	P	P	03 58 35.4	-0.2
	comp=Z,8.4nm,0.6s						
COYC	Coyhaique	76.46	138	P	P	03 59 11.9	+0.4
LL02	Futaleuf	78.20	137	P	P	03 59 21.7	+0.3
JMJ	Miyako jima 2	78.73	315	P	P	03 59 22.3	-2.0
	comp=Z,1μm,1.0s						
PLCA	Paso Flores	80.60	136	P	P	03 59 34.9	+0.2
	comp=Z,1.0nm,0.9s,baz=232,slow=7.3,SNR=4.7						
	comp=Z,1.0nm,0.9s						
KNMB	Chin-men Tao	82.41	310	P	P	03 59 42.9	-1.2
	comp=Z,34nm,0.8s						
BO02	Sierra Bellavi	84.63	131	P	P	03 59 56.2	+0.5
BO02				IAmb	IAmb	03 59 59.3	
	comp=Z,7.5nm,1.0s						
BO02	Sierra Bellavi	84.63	131	P	P	03 59 55.9	+0.1
	comp=Z,8.6nm,1.6s						
MT01	Popeta	85.00	130	P	P	03 59 57.0	-0.5
NJ2	Nanjing	87.90	315	*e*P	P	04 00 14.8	+3.4
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.7s						
PET	Petropavlovsk	92.92	350	P	P	04 00 31.0	-3.3
	comp=Z,30nm,1.1s						
PZH	PanZhiHua	94.42	301	P	P	04 00 44.5	+2.4
HHC	Hu-ho-hao-te	98.34	317	*e*P	Pdif	04 01 02.8	+3.2
HHC				pmax	pmax		
	comp=Z,18nm,0.7s						
WMQ	Urumqi	113.98	308	*e*PKP	PKiKP	04 06 01.3	+0.7
WMQ				LR	LR		
	comp=N,4μm,21.7s						
WMQ				LR	LR		
	comp=E,5μm,20.1s						
WMQ				LR	LR		
	comp=Z,5μm,20.9s						
KSH2	Kashi	119.55	298	PKP	PKiKP	04 06 14.8	+3.2
DBIC	Dimbokro	147.61	181	PKPbc	PKPdf	04 07 05.3	+1.3
	comp=Z,2.5nm,0.5s,baz=171,slow=7.6,SNR=4.0						
DBIC	Dimbokro	147.61	181		PKPdf	04 07 05.0	+0.9
BRTR	Keskin Array B	150.20	284	PKPbc	PKPbc	04 07 11.1	-1.8
	comp=Z,1.3nm,0.9s,baz=142,slow=4.7,SNR=5.0						
FINES	FINESS Array B	150.61	329	PKPbc	PKPbc	04 07 11.0	-1.9
	comp=Z,0.8nm,0.6s,baz=50,slow=3.0,SNR=6.6						
TORD	Torodi Ar. Bea	153.35	195	PKPbc	PKPbc	04 07 18.7	-1.8
	comp=Z,0.6nm,0.6s,baz=182,slow=5.1,SNR=8.8						

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*AEIC **27** 04:08:20.8±2.3, 54°.57N±0°.05×160°.99W±0°.07, h26^{km}±5^{km}, Error ellipse: s-maj=6.8km s-min=5.7km az=176.0*

*IDC **27** 04:08:21.2±4.4, 54°.69N×161°.03W, h37^{km}±33^{km}, mb3.7/10, mbtmp3.8/12, ML3.0/2, Error ellipse: s-maj=32.4km s-min=17.8km az=14.0*

*NEIC **27** 04:08:21.5±1.9, 54°.64N±0°.03×160°.98W±0°.05, h31^{km}±5^{km}, mb4.0/16, ML3.6/32, ML3.5(AEIC), Error ellipse: s-maj=4.8km s-min=4.3km az=138.0*

ISC 27 04:08:20.4±1.4**, 54°.58N**±0°.05×**160°.90W**±0°.03**, h28**^{km}±10^{km}**, n146, σ1.s52**/160**, mb4.0**/13**, Alaska Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CNBA	Chernabura Isl	0.80	72		Pn	04 08 35.0	-0.7
CNBA	Chernabura Isl	0.80	72		Sn	04 08 44.4	-2.3
DOL	Dolgoi Island	0.80	316		Pn	04 08 34.9	-0.9
DOL					Sb	04 08 45.1	-1.0
DOL					Sn	04 08 45.5	-1.3
CHNA	Chernabura Isl	0.80	71	P	Pn	04 08 34.8	-1.0
SDPT	Sand Point	0.81	17	P	Pn	04 08 35.5	-0.4
SDPT	Sand Point	0.81	17		Pn	04 08 35.7	-0.2
SDPT					Sn	04 08 46.2	-0.8
SDPT				IAML		04 08 48.5	
	comp=E,4μm,0.3s						
SDPT				IAML		04 08 52.4	
	comp=N,2μm,0.4s						
HAG	Hague Volcano	0.94	322		Pn	04 08 37.6	-0.2
PS4A	Pavlof South-4	0.94	324		Pn	04 08 37.5	-0.3
PS4A					Sn	04 08 49.7	-0.7
PVV	Pavlof Volcano	0.94	327		Pn	04 08 37.6	-0.3
DT1	Dutton Round H	0.96	304		Pn	04 08 36.9	-1.1
DT1					Sn	04 08 49.1	-1.6
DTNA	Dutton South F	0.97	306		Pn	04 08 37.4	-0.8
DTNA					Sn	04 08 49.8	-1.2
PS1A	Pavlof South-1	0.97	330		Pn	04 08 38.0	-0.2
PS1A					Sn	04 08 51.0	-0.1
PN7A	Pavlof North-7	1.06	324		Pn	04 08 39.6	+0.1
PN7A					Sb	04 08 54.4	+0.7
S12K	Black Hills	1.31	330		Pn	04 08 43.4	+0.6
S12K	Black Hills	1.31	330		Sn	04 08 58.1	-1.3
S12K					Sb	04 09 00.3	-0.3
ISNN	Isanotski Nort	1.69	280		Pn	04 08 48.8	+0.7
ISNN					Sn	04 09 10.0	+1.1
VNKR	Veniaminof 5	1.69	30		Pn	04 08 49.4	+1.3
VNKR					Pb	04 08 49.6	-1.3
VNKR					Sb	04 09 13.3	+1.5
VNWF	Veniaminof 8	1.75	25		Pn	04 08 51.0	+2.0
SSLS	Shishaldin Sou	1.81	275		Pn	04 08 50.2	+0.5
SSLS					Pb	04 08 51.4	-1.4
VNSS	Veniaminof 8	1.84	26		Pn	04 08 52.4	+2.1
VNSG	Veniaminof 6	1.86	33		Pn	04 08 52.5	+2.0
S14K	Fog Glacier	1.87	24		Pn	04 08 53.0	+2.4
S14K					Sb	04 09 17.9	+1.0
VNFG	Fog Glacier, M	1.87	24		Pn	04 08 53.5	+2.9
VNFG	Fog Glacier, M	1.87	24		Pn	04 08 53.0	+2.3
VNFG	Fog Glacier, M	1.87	24		Sb	04 09 18.9	+2.0
VNHG	Veniaminof 1	1.92	30		Pn	04 08 53.5	+2.3
CHGN	Chignik	2.23	38		Pn	04 08 57.6	+2.2
CHGN				IAML		04 09 31.0	
	comp=E,431nm,0.7s						
CHGN				IAML		04 09 33.5	
	comp=N,258nm,0.9s						
CHGN	Chignik	2.23	38		Sb	04 09 26.5	-0.5
BPBCA	Veniaminof	2.44	34		Pn	04 09 00.7	+2.2
ANPK	Aniakchak Peak	2.75	34		Pn	04 09 05.1	+2.4
AZAC	Aniakchak	2.76	32		Pn	04 09 05.2	+2.3
AKUT	Akutan	2.89	263	Pn	Pn	04 09 07.0	+2.5
AKUT				IAML		04 09 52.1	
	comp=E,163nm,0.5s						
AKUT				IAML		04 09 58.7	
	comp=N,167nm,0.6s						
AKUT	Akutan	2.89	263		Sn	04 09 40.3	+2.0
AKBBA	Akutan Broad B	2.99	263		Pn	04 09 06.7	+0.8
AKBBA					Pb	04 09 07.9	-4.9
AKGG	Akutan Green G	3.00	265		Pn	04 09 06.4	+0.3
CHIR	Chirikof Islan	3.27	66	P	Pn	04 09 10.7	+1.0
CHIR	Chirikof Islan	3.27	66	Pn	Pn	04 09 10.8	+1.0
CHIR				IAML		04 10 18.8	
	comp=E,135nm,1.2s						
UNV	Unalaska Valle	3.38	260	P	Pn	04 09 12.5	+1.3
UNV	Unalaska Valle	3.38	260		Pn	04 09 11.8	+0.6
UNV				IAML		04 10 00.7	
	comp=E,98nm,0.6s						
UNV				IAML		04 10 08.5	
	comp=N,84nm,0.8s						
MNAT	Makushin Natee	3.47	261		Pn	04 09 12.6	+0.1
MNAT					Pb	04 09 13.1	-8.0
MSW	Makushin Switc	3.52	261		Pn	04 09 13.6	+0.4
MSW					Pb	04 09 13.9	-8.0
MSW					Sn	04 09 56.0	+2.1
MGOD	Makushin Gods	3.60	260		Pn	04 09 14.7	+0.4
MGOD					Pb	04 09 15.3	-8.0
MAPS	Pakushin South	3.63	260		Pn	04 09 15.1	+0.3
MAPS					Sn	04 09 59.1	+2.3
PLBL	Peulik Blue Cr	3.87	34		Pn	04 09 20.2	+2.2
R17L	Mt. Peulik Vol	3.97	38		Pn	04 09 21.5	+2.1
R17L					Pb	04 09 21.9	-7.7
PLK1	Peulik 1	4.02	35		Pn	04 09 22.2	+2.2
PLK1					Pb	04 09 22.4	-8.0
PLK5	Peulik 5	4.09	32		Pn	04 09 23.2	+2.2
PLK5					Pb	04 09 23.3	-8.3
SII	Sitkinak Islan	4.29	60	P	Pn	04 09 24.8	+0.9
SII	Sitkinak Islan	4.29	60	Pn	Pn	04 09 24.7	+0.8
SII				IAML		04 10 46.1	
	comp=N,110nm,0.8s						
KJL	Kejulik	4.57	38		Pn	04 09 29.6	+1.9
Q17K	Contact Creek	4.62	35		Pn	04 09 30.2	+1.8
O15K	Ungalikthiuk R	4.64	7		Pn	04 09 30.4	+1.7
O15K	Ungalikthiuk R	4.64	7	IAML		04 10 52.1	
	comp=E,37nm,1.0s						
O15K				IAML		04 11 01.9	
	comp=N,39nm,0.9s						
CAHL	Cahill	4.67	40		Pn	04 09 30.8	+1.8
O14K	Tigyukauivet M	4.69	358		Pn	04 09 30.5	+1.3
O14K					Pb	04 09 31.1	-11
O14K					Sn	04 10 26.1	+3.5
ANCK	Angle Creek	4.71	37		Pn	04 09 31.3	+1.8
P16K	Nushagak River	4.74	19		Pn	04 09 32.2	+2.3
P16K	Nushagak River	4.74	19	IAML		04 11 01.5	
	comp=N,76nm,0.7s						
ACHA	Angle Creek He	4.77	38		Pn	04 09 32.4	+1.9
MGLS	Mageik Landsli	4.78	40		Pn	04 09 32.2	+1.7
KABU	Katmai Buttres	4.83	38		Pn	04 09 33.3	+2.0
OHAK	Old Harbor	5.03	55	P	Pn	04 09 33.9	0.0
OHAK	Old Harbor	5.03	55		Pn	04 09 34.3	+0.4
OHAK				IAML		04 10 59.3	
	comp=N,35nm,1.2s						
KAWH	Katmai	5.09	39		Pn	04 09 36.4	+1.6
KARR	Katmai Rainbow	5.21	39		Pn	04 09 38.2	+1.8
P17K	Kvichak River	5.23	26		Pn	04 09 38.7	+2.1
O16K	Kokwok River B	5.25	16		Pn	04 09 39.4	+2.5
N14K	Kuskokwak Cree	5.37	356		Pn	04 09 39.7	+1.1
N14K				IAML		04 10 42.5	
	comp=E,57nm,0.7s						
N14K				IAML		04 11 09.5	
	comp=N,46nm,1.1s						
CLCO	Concord Point,	5.55	255		Pn	04 09 40.9	-0.1
CLCO					Pb	04 09 43.6	-13
O17K	Koliganek Bris	5.60	20		Pn	04 09 43.5	+1.8
N15K	Kwethluk River	5.62	4		Pn	04 09 43.8	+1.8
KDAK	Kodiak Island	5.64	52	Pn	Pn	04 09 41.8	-0.5
	comp=N,0.4nm,0.3s,baz=214,slow=5.7,SNR=12						
KDAK				Sn	Sn	04 10 45.2	-0.9
	baz=227,slow=7.2						
	comp=N,6.2nm,0.7s						
KDAK				AML	AML		
KDAK	Kodiak Island	5.64	52		Pn	04 09 43.0	+0.7
P18K	Big Mountain,	5.73	30		Pn	04 09 45.7	+2.1
SPIA	Saint Paul Isl	5.87	300		Pn	04 09 46.5	+1.1
Q19K	Cape Douglas,	5.90	40		Pn	04 09 47.4	+1.4
M13K	Dall Lake	5.99	348		Pn	04 09 49.4	+2.3
N16K	Nishlik Lake	6.02	10		Pn	04 09 49.2	+1.7
N16K					Pb	04 09 49.9	-15
O18K	Koktuh Hills	6.12	28		Pn	04 09 51.6	+2.7
M15K	Kasigluk River	6.13	1		Pn	04 09 50.2	+1.2

M15K					Pb	04 09 50.5	-16
M14K	**Bethel**	**6.21**	**355**		**Pn**	**04 09 51.3**	**+1.2**
N17K	**Nushagak Hills**	**6.28**	**17**		**Pn**	**04 09 53.5**	**+2.3**
M16K	**Timber Creek**	**6.54**	**8**		**Pn**	**04 09 56.1**	**+1.4**
L14K	**Kuka Creek**	**6.84**	**353**		**Pn**	**04 09 59.8**	**+1.0**
M17K	**Holitna River**	**7.08**	**14**		**Pn**	**04 10 04.1**	**+2.1**
L15K	**Ungalak Mounta**	**7.12**	**358**		**Pn**	**04 10 03.1**	**+0.5**
N19K	**Bonanza Creek**	**7.13**	**26**		**Pn**	**04 10 05.3**	**+2.5**
L16K	**Owhat River**	**7.19**	**5**		**Pn**	**04 10 05.2**	**+1.7**
CNPM	**China Poot**	**7.23**	**43**		**Pn**	**04 10 05.5**	**+1.4**
REF	**Redoubt East F**	**7.38**	**33**		**Pn**	**04 10 08.2**	**+1.9**
M18K	**Stony River**	**7.43**	**19**		**Pn**	**04 10 08.4**	**+1.6**
BRSE	**Bradley Lake S**	**7.56**	**43**		**Pn**	**04 10 10.3**	**+1.7**
K13K	**Kusilvak Mount**	**7.63**	**346**		**Pn**	**04 10 11.2**	**+1.6**
L17K	**Donlin**	**7.70**	**9**		**Pn**	**04 10 11.4**	**+0.9**
K15K	**Wolf Creek Mou**	**7.74**	**358**		**Pn**	**04 10 12.5**	**+1.4**
L18K	**Granite Mounta**	**7.97**	**14**		**Pn**	**04 10 15.1**	**+0.9**
M19K	**Big River Lodg**	**8.10**	**22**		**Pn**	**04 10 18.6**	**+2.5**
L19K	**White Mountain**	**8.25**	**20**		**Pn**	**04 10 19.4**	**+1.3**
SLKM	**Skilak Lake**	**8.25**	**40**		**Pn**	**04 10 19.5**	**+1.3**
SEW	**Seward**	**8.29**	**44**		**Pn**	**04 10 20.0**	**+1.3**
ATKA	**Atka Island**	**8.30**	**259**	P	**Pn**	**04 10 21.5**	**+2.7**
ATKA	**Atka Island**	**8.30**	**259**		**Pn**	**04 10 19.7**	**+0.9**
J14K	**Nanvaranak Lak**	**8.31**	**352**		**Pn**	**04 10 19.7**	**+0.9**
M20K	**Styx River**	**8.38**	**26**		**Pn**	**04 10 21.5**	**+1.5**
J16K	**Anvik River**	**8.73**	**1**		**Pn**	**04 10 25.6**	**+0.9**
SUA	**Susitna One**	**8.74**	**34**		**Pn**	**04 10 25.7**	**+0.8**
J17K	**VABM Dome**	**8.89**	**5**		**Pn**	**04 10 27.8**	**+0.9**
J18K	**Innoko River**	**9.16**	**12**		**Pn**	**04 10 31.4**	**+0.8**
PWL	**Port Wells**	**9.19**	**42**		**Pn**	**04 10 31.9**	**+0.8**
GSIG	**Igitkin Island**	**9.37**	**260**		**Pn**	**04 10 34.8**	**+1.4**
HIN	**Hinchinbrook I**	**9.68**	**47**		**Pn**	**04 10 38.3**	**+0.5**
ETKA	**Kagalaska Isla**	**9.69**	**260**		**Pn**	**04 10 37.4**	**-0.5**
J19K	**Poorman**	**9.81**	**14**		**Pn**	**04 10 40.2**	**+0.7**
ADK	**Adak**	**9.85**	**261**	P	**Pn**	**04 10 42.0**	**+2.1**
FID	**Port Fidalgo**	**9.88**	**45**		**Pn**	**04 10 40.0**	**-0.4**
ILAR	**Eielson Array**	**12.39**	**29**	Pn	**Pn**	**04 11 11.8**	**-2.9**
	comp=N,0.1nm,0.3s,baz=220,slow=13,SNR=5.0						
	comp=N,0.3nm,0.6s						
ILAR				AML	AML		
M29M	**Somme Creek**	**14.06**	**47**		**Pn**	**04 11 38.2**	**+0.7**
S31K	**Pelican**	**14.08**	**66**	Pn	**Pn**	**04 11 38.4**	**+0.7**
I28M	**Miner Creek**	**15.01**	**35**	Pn	**Pn**	**04 11 49.4**	**-1.1**
J30M	**Hart River**	**15.85**	**41**		**P**	**04 12 06.9**	**+1.9**
H29M	**Whitestone**	**15.99**	**34**		**Pn**	**04 12 05.3**	**+2.2**
I30M	**Mount Dempster**	**16.14**	**39**		**P**	**04 12 08.8**	**+0.6**
I30M				IAmb	IAmb	04 12 18.8	
	comp=Z,5.7nm,0.8s						
G29M	**Pine Creek**	**16.52**	**33**		**Pn**	**04 12 11.9**	**+2.0**
G29M				IAmb	IAmb	04 12 27.9	
	comp=Z,13nm,1.5s						
G30M	**tAoh Zraii Nji**	**17.13**	**34**	Pn	**Pn**	**04 12 17.9**	**+0.3**
G30M				IAmb	IAmb	04 12 57.8	
	comp=Z,11nm,1.4s						
H31M	**Peel River**	**17.17**	**39**		**Pn**	**04 12 19.3**	**+1.4**
G31M	**Satah River**	**17.75**	**35**	Pn	**Pn**	**04 12 24.3**	**-0.8**
G31M				IAmb	IAmb	04 12 35.2	
	comp=Z,20nm,1.4s						
PEA0B	**Petropavlovsk-**	**24.22**	**284**	P	**P**	**04 13 33.8**	**-0.7**
PETK	**Petropavlovsk-**	**24.22**	**284**	P	**P**	**04 13 33.4**	**-1.2**
	comp=Z,2.3nm,0.5s,baz=75,slow=12,SNR=14						
	comp=Z,2.3nm,0.5s						
PETK	**Petropavlovsk-**	**24.22**	**284**	P	**P**	**04 13 34.2**	**-0.3**
YKA	**Yellowknife Ar**	**24.92**	**53**	P	**P**	**04 13 40.7**	**0.0**
	comp=Z,0.5nm,0.8s,baz=269,slow=8.1,SNR=1.6						
	comp=Z,0.5nm,0.8s						
MXC	**Moxie City**	**26.68**	**91**	P	**P**	**04 13 58.4**	**+1.6**
MXC				IAmb	IAmb	04 13 58.9	
	comp=Z,2.3nm,0.7s						
NVAR	**Mina Array Bea**	**32.87**	**102**	P	**P**	**04 14 52.4**	**+0.4**
	comp=Z,0.7nm,0.7s,baz=304,slow=8.9,SNR=6.1						
	comp=Z,0.7nm,0.7s						
TPNV	**Topopah Spring**	**35.07**	**102**	P	**P**	**04 15 12.8**	**+1.7**
TPNV				IAmb	IAmb	04 15 13.8	
	comp=Z,1.7nm,0.8s						
SRU	**San Rafael Swe**	**36.90**	**94**	P	**P**	**04 15 28.4**	**+1.8**
HMU	**Henry Mountain**	**37.56**	**95**	P	**P**	**04 15 34.3**	**+1.9**
ULM	**Lac du Bonnet**	**38.63**	**69**	P	**P**	**04 15 39.6**	**-1.2**
	comp=Z,2.2nm,0.8s,baz=276,slow=3.1,SNR=3.0						
	comp=Z,2.2nm,0.8s						
TXAR	**Lajitas Array**	**47.82**	**98**	P	**P**	**04 16 56.4**	**+0.9**
	comp=Z,0.4nm,0.7s,baz=300,slow=5.0,SNR=5.7						
	comp=Z,0.4nm,0.7s						
KURK	**Kurchatov**	**63.90**	**322**	P	**P**	**04 18 50.4**	**+0.2**
KURK	**Kurchatov**	**63.90**	**322**	IAmb	IAmb	04 19 19.5	
	comp=Z,2.6nm,1.2s						
KURBB	**Kurchatov Arra**	**64.01**	**322**	P	**P**	**04 18 50.4**	**-0.6**
	comp=Z,1.1nm,0.2s,baz=48,slow=4.1,SNR=1.3						
	comp=Z,1.1nm,0.2s						
FINES	**FINESS Array B**	**64.19**	**356**	P	**P**	**04 18 50.1**	**-1.8**
	comp=Z,1.6nm,0.9s,baz=20,slow=9.1,SNR=7.6						
	comp=Z,1.6nm,0.9s						
HFS	**Hagfors**	**65.55**	**3**	P	**P**	**04 18 59.4**	**-1.4**
	comp=Z,1.8nm,0.7s,baz=54,slow=6.0,SNR=4.2						
	comp=Z,1.8nm,0.7s						
MKAR	**Makanchi Array**	**65.77**	**318**	P	**P**	**04 19 01.7**	**-0.8**
	comp=Z,0.9nm,0.2s,baz=46,slow=6.2,SNR=14						
	comp=Z,0.9nm,0.2s						
AKASG	**Malin Array Be**	**74.74**	**353**	P	**P**	**04 19 55.8**	**-1.5**
	comp=Z,0.3nm,0.3s,baz=11,slow=6.1,SNR=3.5						
	comp=Z,0.3nm,0.3s						
AKASG	**Malin Array Be**	**74.74**	**353**	IAmb	IAmb	04 20 08.8	
	comp=Z,2.8nm,1.1s						
QSPA	**South Pole Qui**	**144.36**	**180**	PKP	**PKPab**	**04 27 49.9**	**-0.7**
	comp=Z,0.8nm,0.6s,baz=146,slow=0.5,SNR=8.0						

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*IDC **27** 04:12:14.8±0.4,52°.00N×169°.85W,h0^{km},mb5.3/45, mbtmp5.3/49,ML5.1/4,MS5.3/73,Error ellipse: s-maj=14.5km s-min=8.1km az=170.0*

*MOS **27** 04:12:15.8±1.0,52°.01N×169°.86W,h17^{km},mb5.8/89, MS5.4/37,Error ellipse: s-maj=7.7km s-min=4.7km az=107.2*

*IPGP **27** 04:12:17.0,51°.93N×169°.77W,h15^{km},Mw5.8,Fault plane solution: NP1:ϕ_s267.00000°,δ13.00000°,λ161.00000°. NP2:ϕ_s15.00000°,δ86.00000°,λ78.00000°.*

*NEIC **27** 04:12:17.7±2.3,51°.89N±0°.04×169°.68W±0°.07,h17^{km}±1^{km}, mb5.6/928,ML5.6/18,Ms_20 5.5/472,Mwb5.6/183, Mww5.5/64,Error ellipse: s-maj=8.2km s-min=7.0km az=129.0,Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}0.20; $M_{\theta\theta}$-0.52; $M_{\phi\phi}$0.32; $M_{r\theta}$0.57; $M_{\theta\phi}$-2.17; $M_{\phi r}$2.69; Fault plane solution: $M_0$3.53000×10^{17} NP1:ϕ_s8.54000°,δ88.20000°,λ51.54000°. NP2: ϕ_s276.27000°,δ38.49000°,λ177.11000°. Principal axes: T 3.3625, Plg35.0000°, Azm246.0000°; N 0.3202, Plg38.0000°, Azm10.0000°; P -3.6827, Plg32.0000°, Azm130.0000°;*

*NEIC **27** 04:12:17.7,51°.89N×169°.68W,h17^{km}*

*ISC-PP **27** 04:12:17,51°.89N×169°.68W,h19^{km},Mwppsm6.0, Moment Tensor Solution. s61 Moment tensor: Scale 10^{18}Nm; M_{rr}0.18±.11; $M_{\theta\theta}$0.20±.19; $M_{\phi\phi}$-0.37±.14; $M_{r\theta}$-0.13±.14; $M_{\theta\phi}$0.32±.16; $M_{\phi r}$-0.53±.14; Fault plane solution: $M_0$1.38000×10^{18} NP1:ϕ_s349.80000°,δ79.00000°, λ32.60000°. NP2:ϕ_s252.80000°,δ58.10000°,λ167.00000°.*

*AEIC **27** 04:12:17.6±2.7,51°.83N±0°.03×169°.70W±0°.07,h25^{km}±3^{km} Error ellipse: s-maj=6.6km s-min=4.0km az=90.0*

*NEIC **27** 04:12:17.5,51°.93N×169°.72W,h14^{km}*

*GFZ **27** 04:12:18.1±0.1,52°N±3°×17°0W±°,h19^{km},M5.7/167, mB6.1/96,mb5.6/167,Mw(mB)5.7/96,confirmed*

*GFZ **27** 04:12:18.1,51°.92N×169°.85W,h18^{km},Mw5.7/115, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}1.76; $M_{\theta\theta}$-1.06; $M_{\phi\phi}$-0.70; $M_{r\theta}$-0.30; $M_{\theta\phi}$-1.73; $M_{\phi r}$3.16; Fault plane solution: $M_0$3.92606×10^{17} NP1:ϕ_s10.24255°, δ75.66581°,λ61.62369°. NP2:ϕ_s255.61879°,δ31.52041°, λ151.73449°. Principal axes: T 4.2161, Plg51.0632°, Azm247.9167°; N -0.6650, Plg27.4171°, Azm17.8596°; P -3.5511, Plg25.3225°, Azm122.0681°;*

*BJI **27** 04:12:19.3,52°.37N×170°.55W,h23^{km},mB5.8/67, mb5.8/94,Ms5.9/97,Ms7 5.7/94*

*GCMT **27** 04:12:19.7±0.1,51°.90N±0°.01×169°.77W±0°.01,h15^{km}, MW5.8/150,Moment Tensor Solution. s142,c279; s150,c331; Duration: 2^{s}0 Moment tensor: Scale 10^{17} Nm; M_{rr}2.01±.03; $M_{\theta\theta}$-0.59±.03; $M_{\phi\phi}$-1.42±.02; $M_{r\theta}$0.23±.09; $M_{\theta\phi}$-2.06±.02; $M_{\phi r}$5.39±.09; Best double couple: $M_0$6.04400×10^{17} NP1:ϕ_s250.00000°,δ21.00000°, λ151.00000°. NP2:ϕ_s7.00000°,δ80.00000°,λ71.00000°. Principal axes: T 6.1170, Plg51.0000°, Azm255.0000°; N -0.1470, Plg19.0000°, Azm10.0000°; P -5.9720, Plg32.0000°, Azm112.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*RSNC **27** 04:12:22.5±4.9,52°N±57°×16°8W±11°6,h10^{km},M5.5, mB5.9,mb5.5,Mw(mB)5.5,MwMwp5.3,Mwp5.5*

*NEIC **27** 04:12:27.2,51°.99N×169°.68W,h16^{km},Moment Tensor Solution. Duration: 3^{s}2 Moment tensor: Scale 10^{17}Nm; M_{rr}1.75; $M_{\theta\theta}$-0.36; $M_{\phi\phi}$-1.39; $M_{r\theta}$-0.81; $M_{\theta\phi}$-1.66; $M_{\phi r}$0.59; Fault plane solution: $M_0$2.52000×10^{17} NP1:ϕ_s7.81000°, δ53.61000°,λ47.39000°. NP2:ϕ_s244.99000°,δ53.66000°, λ132.57000°. Principal axes: T 2.4063, Plg57.0000°, Azm216.0000°; N 0.2123, Plg33.0000°, Azm36.0000°; P -2.6186, Plg0.0000°, Azm306.0000°;*

ISC 27 04:12:17.9±0.3,**51°.98N**±0°.03×**169°.79W**±0°.02,**h19**^{km}±1^{km}, **h19**^{km}**:pP-P,n1791,**σ**1**^{s}**44**/1415,**mb5.6**/744,**MS5.5**/375, **92C-91D,Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CLCO	**Concord Point,**	**0.81**	**3**		**Pn**	**04 12 34.5**	**+0.1**
CLCO					**Pg**	**04 12 34.6**	**+0.8**
CLCO					**Sn**	**04 12 47.4**	**+1.5**
CLCO					**Sg**	**04 12 48.6**	**+3.9**
CLES	**Cleveland East**	**0.85**	**356**		**Pn**	**04 12 34.8**	**-0.1**
CLES	**Cleveland East**	**0.85**	**356**		**Sn**	**04 12 48.6**	**+1.8**
CLES					**Sg**	**04 12 49.5**	**+3.7**
OKSP	**Okmok Steeple**	**1.57**	**35**		**Pn**	**04 12 44.5**	**-0.3**
OKCE	**Okmok Cone E**	**1.76**	**34**		**Pn**	**04 12 47.4**	**+0.1**
OKCE					**Pb**	**04 12 47.9**	**-1.7**
OKTU	**Okmok Mt. Tuli**	**1.77**	**36**		**Pn**	**04 12 47.4**	**-0.1**
OKFG	**Magazine Ridge**	**1.84**	**38**		**Pn**	**04 12 48.6**	**+0.2**
MAPS	**Pakushin South**	**2.52**	**42**		**Pn**	**04 12 58.0**	**+0.2**
MAPS					**Sn**	**04 13 28.9**	**+0.9**
MAPS					**Sb**	**04 13 29.1**	**-4.0**
MGOD	**Makushin Gods**	**2.54**	**43**		**Pn**	**04 12 58.1**	**0.0**
MGOD					**Sn**	**04 13 28.1**	**-0.4**
MGOD					**Sb**	**04 13 29.4**	**-4.2**
KOSE	**Korovin Southe**	**2.65**	**280**		**Pn**	**04 13 01.2**	**+1.5**
MSW	**Makushin Switc**	**2.66**	**42**		**Pn**	**04 12 60.0**	**+0.2**
MNAT	**Makushin Natee**	**2.68**	**43**		**Pn**	**04 13 00.3**	**+0.2**
MNAT					**Sn**	**04 13 33.1**	**+1.1**
MNAT					**Sb**	**04 13 35.6**	**-2.1**
KONE	**Korovin Northe**	**2.70**	**281**		**Pn**	**04 13 01.2**	**+1.0**
KOKV	**Korovin Volcan**	**2.72**	**280**		**Pn**	**04 13 02.0**	**+1.4**
ATKA	**Atka Island**	**2.73**	**276**	P	**Pn**	**04 13 01.4**	**+0.8**
ATKA	**Atka Island**	**2.73**	**276**		**Sn**	**04 13 34.9**	**+1.9**
ATKA					**Sb**	**04 13 36.4**	**-2.6**
ATKA	**Atka Island**	**2.73**	**276**		**Pn**	**04 13 01.2**	**+0.6**
UNV	**Unalaska Valle**	**2.73**	**45**	P	**Pn**	**04 13 01.0**	**+0.3**
UNV	**Unalaska Valle**	**2.73**	**45**		**Sn**	**04 13 33.7**	**+0.6**
UNV					**Sb**	**04 13 34.2**	**-4.9**
UNV	**Unalaska Valle**	**2.73**	**45**		**Pn**	**04 13 00.7**	**0.0**
UNV	**Unalaska Valle**	**2.73**	**45**	IAML		04 13 47.9	
	comp=N,22µm,0.8s						
KOKL	**Mount Kliuchef**	**2.74**	**279**		**Pn**	**04 13 01.7**	**+0.8**
KOWE	**Korovin West**	**2.77**	**280**		**Pn**	**04 13 02.1**	**+0.8**
LVA	**Lava Point**	**3.15**	**45**		**Pn**	**04 13 07.5**	**+1.0**
LVA				IAML		04 14 11.8	
	comp=E,21µm,0.8s						
AKV	**Akutan Volcano**	**3.16**	**46**		**Pn**	**04 13 08.1**	**+1.5**
AKLV	**Akutan Long Va**	**3.19**	**45**		**Pn**	**04 13 08.7**	**+1.7**
AKGG	**Akutan Green G**	**3.19**	**44**		**Pn**	**04 13 08.4**	**+1.3**
AKUT	**Akutan**	**3.25**	**47**	P	**Pn**	**04 13 09.5**	**+1.7**
AKUT	**Akutan**	**3.25**	**47**		**Pn**	**04 13 08.4**	**+0.6**
AKUT				IAML		04 14 04.6	
	comp=E,12µm,1.3s						
GSIG	**Igitkin Island**	**3.79**	**273**		**Pn**	**04 13 16.3**	**+1.0**
GSMY	**Great Sitkin M**	**3.87**	**273**		**Pn**	**04 13 17.7**	**+1.3**
GSTR	**Great Sitkin T**	**3.87**	**274**		**Pn**	**04 13 17.8**	**+1.4**
GSTR				IAML		04 14 27.4	
	comp=E,13µm,1.0s						
GSTD	**Great Sitkin T**	**3.93**	**274**		**Sn**	**04 14 05.9**	**+3.2**
GSCK	**Great Sitkin C**	**3.94**	**273**		**Pn**	**04 13 18.5**	**+1.2**
ETKA	**Kagalaska Isla**	**4.10**	**271**		**Pn**	**04 13 19.9**	**+0.5**
ADAG	**Mount Adagdak**	**4.21**	**273**		**Pn**	**04 13 22.2**	**+1.2**
ADK	**Adak**	**4.27**	**271**	P	**Pn**	**04 13 22.8**	**+1.0**
ADK	**Adak**	**4.27**	**271**	P	**Pn**	**04 13 22.4**	**+0.6**
ADK	**Adak**	**4.27**	**271**		**Pn**	**04 13 22.4**	**+0.6**
ADK				IAML		04 14 39.3	
	comp=E,5µm,1.3s						
ADK				IAML		04 14 46.8	
	comp=E,4µm,1.4s						
ADK	**Adak**	**4.27**	**271**	P	**Pn**	**04 13 22.6**	**+0.8**
KIRH	**Kanaga Island**	**4.52**	**272**		**Pn**	**04 13 26.6**	**+1.3**
KINC	**Kanaga Island**	**4.54**	**272**		**Pn**	**04 13 27.0**	**+1.4**
KIWB	**Kanaga Island**	**4.56**	**271**		**Pn**	**04 13 27.0**	**+1.1**
KIWB				IAML		04 14 44.1	
	comp=E,6µm,1.6s						
KIWB				IAML		04 14 45.3	
	comp=N,4µm,1.7s						
KIWB	**Kanaga Island**	**4.56**	**271**		**Sn**	**04 14 19.1**	**+0.9**
KICM	**Kanaga Island**	**4.58**	**272**		**Pn**	**04 13 27.7**	**+1.6**
ISNN	**Isanotski Nort**	**4.60**	**49**		**Pn**	**04 13 27.9**	**+1.6**
TAFP	**Tanaga Falls P**	**5.07**	**272**		**Pn**	**04 13 33.9**	**+1.0**
SPIA	**Saint Paul Isl**	**5.22**	**357**	P	**Pn**	**04 13 34.9**	**+0.1**
SPIA	**Saint Paul Isl**	**5.22**	**357**		**Pn**	**04 13 38.0**	**+3.2**
SPIA				IAML		04 14 47.2	
	comp=E,3µm,0.7s						
SPIA				IAML		04 14 51.5	
	comp=N,4µm,0.9s						
DT1	**Dutton Round H**	**5.47**	**52**		**Pn**	**04 13 39.5**	**+1.2**
DTNA	**Dutton South F**	**5.50**	**52**		**Pn**	**04 13 39.6**	**+0.8**
GAEA	**Gareloi East**	**5.55**	**272**		**Pn**	**04 13 40.6**	**+1.2**
GASW	**Gareloi Southw**	**5.62**	**272**		**Pn**	**04 13 41.5**	**+1.2**
DOL	**Dolgoi Island**	**5.69**	**53**		**Pn**	**04 13 42.1**	**+0.7**
PN7A	**Pavlof North-7**	**5.78**	**50**		**Pn**	**04 13 43.8**	**+1.2**
PS4A	**Pavlof South-4**	**5.80**	**51**		**Pn**	**04 13 44.3**	**+1.4**
PS1A	**Pavlof South-1**	**5.89**	**51**		**Pn**	**04 13 45.7**	**+1.5**
S12K	**Black Hills**	**5.90**	**48**		**Pn**	**04 13 47.2**	**+2.9**
SDPT	**Sand Point**	**6.48**	**55**	P	**Pn**	**04 13 53.5**	**+1.3**
SDPT	**Sand Point**	**6.48**	**55**		**Pn**	**04 13 53.0**	**+0.8**
CERB	**Semis’ Cerberu**	**6.54**	**274**		**Pn**	**04 13 54.7**	**+1.7**
CESW	**Semis’ Southwe**	**6.58**	**274**		**Pn**	**04 13 54.5**	**+0.9**
CNBA	**Chernabura Isl**	**6.73**	**61**		**Pn**	**04 13 55.4**	**-0.2**
CHNA	**Chernabura Isl**	**6.74**	**61**	P	**Pn**	**04 13 56.0**	**+0.3**
AMKA	**Amchitka**	**6.81**	**269**		**Pn**	**04 13 57.4**	**+0.7**
LSPA	**Little Sitkin**	**7.19**	**274**		**Pn**	**04 14 05.0**	**+3.0**
LSSE	**Little Sitkin**	**7.20**	**274**		**Pn**	**04 14 04.4**	**+2.4**
VNFG	**Fog Glacier, M**	**7.40**	**50**		**Pn**	**04 14 06.6**	**+1.7**
VNFG	**Fog Glacier, M**	**7.40**	**50**		**Pn**	**04 14 06.9**	**+2.0**
CHGN	**Chignik**	**7.96**	**53**		**Pn**	**04 14 13.0**	**+0.6**
ANPB	**Aniakchak Plen**	**8.27**	**50**		**Pn**	**04 14 17.6**	**+0.8**
ANPK	**Aniakchak Peak**	**8.37**	**50**		**Pn**	**04 14 19.3**	**+1.2**
ANNW	**Aniakchak Nort**	**8.39**	**49**		**Pn**	**04 14 20.6**	**+2.2**
M11K	**Mekoryuk**	**8.66**	**12**		**Pn**	**04 14 25.0**	**+3.0**
O14K	**Tigyukauivet M**	**8.74**	**30**		**Pn**	**04 14 25.7**	**+2.6**
O15K	**Ungalikthiuk R**	**9.15**	**34**		**Pn**	**04 14 31.0**	**+2.2**
N14K	**Kuskokwak Cree**	**9.16**	**26**		**Pn**	**04 14 31.7**	**+2.7**
M13K	**Dall Lake**	**9.18**	**20**		**Pn**	**04 14 32.2**	**+3.0**
CHIR	**Chirikof Islan**	**9.21**	**60**	P	**Pn**	**04 14 29.4**	**-0.1**
CHIR	**Chirikof Islan**	**9.21**	**60**		**Pn**	**04 14 29.4**	**-0.1**
PLBL	**Peulik Blue Cr**	**9.42**	**47**		**Pn**	**04 14 33.0**	**+0.5**
PLK5	**Peulik 5**	**9.55**	**46**		**Pn**	**04 14 36.2**	**+1.9**
PLK1	**Peulik 1**	**9.57**	**47**		**Pn**	**04 14 35.7**	**+1.2**
R17L	**Mt. Peulik Vol**	**9.60**	**49**		**Pn**	**04 14 35.9**	**+1.0**
P16K	**Nushagak River**	**9.72**	**39**		**Pn**	**04 14 36.8**	**+0.2**
SHEM	**Shemya Is, Ala**	**9.89**	**281**	Pn	**Pn**	**04 14 39.4**	**+0.5**
	comp=N,26nm,0.3s,baz=121,slow=4.3,SNR=9.4						
	comp=N,94nm,0.5s						
SHEM				AML	AML		
SMY	**Shemya**	**9.89**	**281**	P	**Pn**	**04 14 40.7**	**+1.8**
SMY	**Shemya**	**9.89**	**281**	P	**Pn**	**04 14 39.8**	**+0.9**
SMY	**Shemya**	**9.89**	**281**		**Pn**	**04 14 39.8**	**+0.9**
SII	**Sitkinak Islan**	**10.21**	**57**	P	**Pn**	**04 14 43.8**	**+0.5**
SII	**Sitkinak Islan**	**10.21**	**57**		**Pn**	**04 14 43.4**	**+0.1**
ACHA	**Angle Creek He**	**10.37**	**47**		**Pn**	**04 14 45.6**	**+0.1**
P17K	**Kvichak River**	**10.44**	**41**		**Pn**	**04 14 48.5**	**+2.1**
OHAK	**Old Harbor**	**10.91**	**55**	P	**Pn**	**04 14 53.8**	**+1.0**
OHAK	**Old Harbor**	**10.91**	**55**		**Pn**	**04 14 51.6**	**-1.2**
O18K	**Koktuh Hills**	**11.35**	**40**		**Pn**	**04 14 59.8**	**+1.0**
KDAK	**Kodiak Island**	**11.47**	**53**	Pn	**Pn**	**04 14 58.3**	**-2.2**
	comp=N,14nm,0.3s,baz=235,slow=6.3,SNR=56						
	comp=N,76nm,0.5s						
KDAK				AML	AML		
KDAK	**Kodiak Island**	**11.47**	**53**	*i* P	**Pn**	**04 14 59.0**	**-1.5**
KDAK	**Kodiak Island**	**11.47**	**53**		**Pn**	**04 14 58.5**	**-2.1**
KDAK	**Kodiak Island**	**11.47**	**53**	P	**Pn**	**04 14 59.4**	**-1.1**
	comp=Z,2µmcomp=Z,219nm,0.9s						
GAMB	**Gambell**	**11.88**	**356**		**Pn**	**04 15 08.3**	**+2.3**
N19K	**Bonanza Creek**	**12.23**	**38**		**Pn**	**04 15 11.9**	**+1.0**
PMR	**Palmer**	**14.79**	**41**	P	**Pn**	**04 15 46.5**	**+0.7**
P23K	**Montague Islan**	**14.82**	**48**		**Pn**	**04 15 44.3**	**-1.9**
I20K	**Naaghedeneel**	**15.09**	**26**	IAmb	IAmb	04 15 58.0	
	comp=Z,342nm,1.4s						
MID	**Middleton Isla**	**15.12**	**51**	IAmb	IAmb	04 15 58.3	
	comp=Z,155nm,0.8s						
KTH	**Kantishna Hill**	**15.28**	**33**	IAmb	IAmb	04 16 01.4	
	comp=Z,255nm,1.3s						
HIN	**Hinchinbrook I**	**15.39**	**48**	IAmb	IAmb	04 15 54.1	
	comp=Z,417nm,1.1s						
BPAW	**Bear Paw Mtn.**	**15.62**	**32**	IAmb	IAmb	04 16 04.4	
	comp=Z,821nm,1.7s						
SCM	**Sheep Creek Mo**	**15.66**	**42**	IAmb	IAmb	04 16 01.7	
	comp=Z,416nm,1.0s						
EYAK	**Cordova Ski Ar**	**15.79**	**48**	P	**Pn**	**04 15 59.3**	**+0.3**
KLU	**Klutina**	**16.10**	**44**	IAmb	IAmb	04 16 06.4	
	comp=Z,190nm,0.5s						
BWN	**Browne**	**16.17**	**33**	IAmb	IAmb	04 16 13.8	
	comp=Z,589nm,1.7s						
IMAR	**Indian Mountai**	**16.21**	**24**	P	**P**	**04 16 08.0**	**+0.6**
RAGM	**Ragged Mountai**	**16.23**	**49**	IAmb	IAmb	04 16 13.6	
	comp=Z,280nm,0.8s						
MLY	**Manley**	**16.34**	**30**	IAmb	IAmb	04 16 13.5	
	comp=Z,536nm,1.6s						
BERG	**Berg Lake**	**16.69**	**50**	IAmb	IAmb	04 16 15.8	
	comp=Z,219nm,0.7s						
CRQM	**Cirque**	**17.07**	**49**	IAmb	IAmb	04 16 25.4	
	comp=Z,185nm,0.6s						
COLA	**College**	**17.16**	**33**	P	**Pn**	**04 16 16.1**	**-0.2**
COLA	**College**	**17.16**	**33**	*i* P	**Pn**	**04 16 15.7**	**-0.6**
COLA				pmax	pmax		
	comp=Z,30nm,0.9s						
COLA	**College**	**17.16**	**33**	P	**Pn**	**04 16 14.9**	**-1.4**
COLA	**College**	**17.16**	**33**	P	**Pn**	**04 16 15.1**	**-1.1**
	comp=Z,3µmcomp=Z,167nm,1.2s						
TGL	**Tana Glacier**	**17.21**	**49**	IAmb	IAmb	04 16 23.3	
	comp=Z,285nm,1.0s						
MCARA	**McCarthy VSAT**	**17.34**	**47**	IAmb	IAmb	04 16 19.9	
	comp=Z,270nm,0.9s						
ILAR	**Eielson Array**	**17.42**	**34**	P	**Pn**	**04 16 18.0**	**-1.6**
	comp=Z,1.6nm,0.3s,baz=227,slow=11,SNR=64						
ILAR				P3KPbc		04 51 12.6	
	comp=Z,2.2nm,1.0s,baz=36,slow=3.5,SNR=11						
	comp=Z,6.8nm,0.5s						
ILAR				AML	AML		
ILAR	**Eielson Array**	**17.42**	**34**		**Pn**	**04 16 17.4**	**-2.2**
MESA	**MESA**	**17.46**	**51**	IAmb	IAmb	04 16 28.1	
	comp=Z,463nm,0.9s						
YAH	**Yahtse**	**17.61**	**51**	IAmb	IAmb	04 16 27.3	
	comp=Z,361nm,0.9s						
GRNC	**Granite Creek**	**17.71**	**49**	IAmb	IAmb	04 16 29.2	
	comp=Z,280nm,0.9s						
J25K	**Salcha River,**	**17.87**	**36**	IAmb	IAmb	04 16 35.6	
	comp=Z,558nm,1.9s						
PCA	**Pinnacle**	**18.26**	**52**	IAmb	IAmb	04 16 41.2	
	comp=Z,287nm,0.8s						
O28M	**Mount Upton**	**18.46**	**50**	IAmb	IAmb	04 16 42.0	
	comp=Z,154nm,0.6s						
BCAR	**Beaver Creek A**	**18.52**	**42**		**P**	**04 16 29.8**	**-3.1**
PNL	**Peninsula**	**18.59**	**54**	P	**Pn**	**04 16 35.0**	**+1.0**
O29M	**Mount Kennedy**	**19.12**	**52**	IAmb	IAmb	04 16 46.8	
	comp=Z,260nm,0.6s						
PET	**Petropavlovsk**	**19.16**	**286**	P	**Pn**	**04 16 40.8**	**-0.1**
PET	**Petropavlovsk**	**19.16**	**286**	*ce*P	**P**	**04 16 40.0**	**0.0**
PET				*e*S	**Sn**	**04 20 15.1**	**+0.2**
PET				pmax	pmax		
	comp=Z,2µm,12.3s						
PET				pmax	pmax		
	comp=Z,200nm,1.0s						
PET				pmax	pmax		
	comp=Z,3µm,15.8s						
PET				MLR	MLR		
	comp=Z,9µm,19.0s						
PET				MLR	MLR		
	comp=Z,8µm,22.0s						
PET	**Petropavlovsk**	**19.16**	**286**	P	**P**	**04 16 38.7**	**-1.3**
PET				IAmb	IAmb	04 16 50.6	
	comp=Z,281nm,1.2s						
PET	**Petropavlovsk**	**19.16**	**286**	P	**P**	**04 16 39.7**	**-0.3**
	comp=Z,4µmcomp=Z,214nm,1.3s						
PET	**Petropavlovsk**	**19.16**	**286**	P	**P**	**04 16 39.1**	**-0.8**
	comp=Z,4µmcomp=Z,226nm,1.3s						
PEA0B	**Petropavlovsk-**	**19.72**	**286**	*ce*P	**P**	**04 16 45.8**	**-0.2**
PEA0B	**Petropavlovsk-**	**19.72**	**286**		**P**	**04 16 45.8**	**-0.2**
PETK	**Petropavlovsk-**	**19.72**	**286**	P	**P**	**04 16 45.8**	**-0.3**
	comp=Z,90nm,0.3s,baz=82,slow=13,SNR=1848						
PETK				LR	LR	04 23 59.7	
	comp=Z,8µm,21.6s,baz=89,slow=36						
PETK				ScP	**ScP**	**04 24 38.4**	**-0.4**
	comp=Z,10nm,0.9s,baz=106,slow=3.1,SNR=9.4						
PETK				P3KP		04 51 52.9	
	comp=Z,1.7nm,1.0s,baz=342,slow=1.9,SNR=3.6						
	comp=Z,334nm,0.5s						
PETK				AML	AML		
PETK	**Petropavlovsk-**	**19.72**	**286**		**P**	**04 16 45.7**	**-0.4**
BILI	**Bilibino, Chuk**	**19.80**	**333**	P	**Pn**	**04 16 47.8**	**-0.5**
	comp=Z,3µmcomp=Z,218nm,1.1s						
BMAR	**Burnt Mountain**	**19.80**	**29**		**P**	**04 16 46.3**	**-0.6**
BILL	**Bilibino**	**19.83**	**333**	*ce*P	**Pn**	**04 16 48.1**	**-0.7**
BILL				pmax	pmax		
	comp=Z,40nm,0.9s						
BILL	**Bilibino**	**19.83**	**333**	P	**Pn**	**04 16 48.1**	**-0.7**
BILL				IAmb	IAmb	04 17 01.9	
	comp=Z,847nm,1.8s						
E25K	**Arctic Village**	**19.97**	**27**	IAmb	IAmb	04 17 01.8	
	comp=Z,333nm,1.4s						
S31K	**Pelican**	**20.02**	**59**	IAmb	IAmb	04 16 53.3	
	comp=Z,286nm,1.0s						
SIT	**Sitka**	**20.49**	**62**	P	Pn	04 16 55.6	-1.0
SIT	**Sitka**	**20.49**	**62**	IAmb	IAmb	04 17 08.8	
	comp=Z,177nm,1.0s						
SKAG	**Skagway**	**20.61**	**55**	P	Pn	04 16 57.2	-0.8
SKAG	**Skagway**	**20.61**	**55**		Pn	04 16 57.5	-0.5
N31M	**Braeburn, Yuko**	**20.71**	**49**	IAmb	IAmb	04 17 14.9	
	comp=Z,280nm,0.8s						
BESE	**Bessie Mountai**	**20.78**	**58**	IAmb	IAmb	04 17 04.5	
	comp=Z,349nm,1.2s						
S32K	**Killisnoo**	**20.90**	**61**	IAmb	IAmb	04 17 16.7	
	comp=Z,361nm,1.2s						
R32K	**Eaglecrest**	**20.94**	**59**	IAmb	IAmb	04 17 05.8	
	comp=Z,167nm,1.0s						
WHY	**Whitehorse**	**20.99**	**52**		**P**	**04 17 01.1**	**+1.2**
JIS	**Juneau Island**	**21.02**	**59**	P	**P**	**04 17 02.1**	**+2.1**
H29M	**Whitestone**	**21.21**	**36**		**P**	**04 17 01.2**	**-0.9**
SKR	**Severo-Kuril’s**	**21.23**	**280**	⇑*i*P	**P**	**04 17 01.3**	**-1.1**
SKR				*e*S	Sn	04 21 02.7	-2.0
SKR				pmax	pmax		
	comp=Z,488nm,0.8s						
SKR				pmax	pmax		
	comp=Z,2µm,9.9s						
SKR				MLR	MLR		
	comp=Z,10µm,18.0s						
J30M	**Hart River**	**21.33**	**41**		**P**	**04 17 02.4**	**-1.1**
P32M	**Atlin**	**21.44**	**55**	IAmb	IAmb	04 17 12.1	
	comp=Z,228nm,1.1s						
M31M	**Drury Creek, Y**	**21.50**	**48**	IAmb	IAmb	04 17 14.6	
	comp=Z,145nm,0.9s						
M31M				IAMs_20	IAMs_20	04 26 47.4	
	comp=Z,15µm,19.0s						
I30M	**Mount Dempster**	**21.54**	**39**		**P**	**04 17 03.2**	**-2.6**
G29M	**Pine Creek**	**21.65**	**34**	IAmb	IAmb	04 17 22.5	
	comp=Z,324nm,0.8s						
U33K	**Whale Pass**	**21.75**	**65**	IAmb	IAmb	04 17 16.1	
	comp=Z,170nm,1.0s						
CRAG	**Craig**	**21.81**	**66**	P	**P**	**04 17 09.5**	**+0.9**
EPYK	**Eagle Plains**	**21.87**	**36**	IAmb	IAmb	04 17 24.2	
	comp=Z,276nm,0.9s						
Q32M	**Nakina River**	**22.14**	**57**	IAmb	IAmb	04 17 32.1	
	comp=Z,166nm,0.9s						
WRAK	**Wrangell Islan**	**22.16**	**64**	IAmb	IAmb	04 17 31.4	
	comp=Z,558nm,1.9s						
E29M	**Blow River**	**22.42**	**31**		**P**	**04 17 14.6**	**-0.5**
H02S1	**DAWSON INLET T**	**22.54**	**72**	T	T	04 40 49.5	
	SNR=8.3						
H02S2	**DAWSON INLET T**	**22.54**	**72**	T	T	04 40 51.0	
	SNR=8.4						
H31M	**Peel River**	**22.54**	**39**	IAmb	IAmb	04 17 31.1	
	comp=Z,165nm,0.8s						
S34M	**Telegraph Cree**	**22.74**	**60**	IAmb	IAmb	04 17 29.2	
	comp=Z,262nm,1.4s						
F30M	**Barrier River**	**22.74**	**34**	IAmb	IAmb	04 17 31.8	
	comp=Z,130nm,0.9s						
SEY	**Seymchan**	**22.75**	**313**	LR	LR	04 26 27.6	
	comp=Z,13µm,19.2s,baz=104,slow=38						
SEY	**Seymchan**	**22.75**	**313**	*ce*P	**P**	**04 17 18.0**	**-0.6**

SEY				pmax	pmax		
	comp=Z,135nm,1.0s						
R33M	**Jennings River**	**22.83**	**56**	IAmb	IAmb	04 17 37.2	
	comp=Z,389nm,1.3s						
MMPY	**Sheldon Lake,**	**23.01**	**47**	IAmb	IAmb	04 17 26.4	
	comp=Z,263nm,1.3s						
MA2	**Magadan**	**23.15**	**305**	P	**P**	**04 17 23.5**	**+0.7**
MA2	**Magadan**	**23.15**	**305**	ceP	**P**	**04 17 23.3**	**+0.5**
MA2				pmax	pmax		
	comp=Z,299nm,1.0s						
MA2	**Magadan**	**23.15**	**305**		**P**	**04 17 22.5**	**-0.3**
MA2				IAmb	IAmb	04 17 26.2	
	comp=Z,269nm,0.9s						
MA2	**Magadan**	**23.15**	**305**	P	**P**	**04 17 22.2**	**-0.6**
	comp=Z,5µmcomp=Z,398nm,0.9s						
MA2	**Magadan**	**23.15**	**305**	P	**P**	**04 17 22.8**	**+0.1**
	comp=Z,5µmcomp=Z,361nm,0.9s						
T35M	**Bob Quinn**	**23.27**	**62**	IAmb	IAmb	04 17 34.6	
	comp=Z,176nm,1.1s						
DLBC	**Dease Lake**	**23.31**	**58**	P	**P**	**04 17 25.6**	**+1.0**
	comp=Z,73nm,1.1s,baz=248,slow=13,SNR=30						
DLBC				LR	LR	04 26 26.9	
	comp=Z,8µm,20.7s,baz=256,slow=36						
	comp=Z,73nm,1.1s						
HG4B	**Hotspring**	**23.51**	**74**	IAmb	IAmb	04 17 35.8	
	comp=Z,288nm,1.6s						
RUBB	**Prince Rupert**	**23.61**	**69**	IAmb	IAmb	04 17 53.1	
	comp=Z,204nm,1.2s						
INK	**Inuvik**	**23.82**	**33**	P	**P**	**04 17 28.4**	**-0.8**
	comp=Z,28nm,0.4s,baz=262,slow=8.4,SNR=75						
	comp=Z,28nm,0.4s						
INK	**Inuvik**	**23.82**	**33**	P	**P**	**04 17 28.9**	**-0.3**
	comp=Z,2µmcomp=Z,67nm,0.9s						
BBB	**Bella Bella**	**25.36**	**73**	P	**P**	**04 17 44.1**	**+0.7**
	comp=Z,62nm,1.0s,baz=265,slow=11,SNR=8.9						
	comp=Z,62nm,1.0s						
BBB	**Bella Bella**	**25.36**	**73**	IAmb	IAmb	04 17 53.9	
	comp=Z,219nm,1.4s						
BBB	**Bella Bella**	**25.36**	**73**	P	**P**	**04 17 44.5**	**+1.1**
	comp=Z,3µmcomp=Z,117nm,1.4s						
BBB				pP	**pwP**	**04 17 51.9**	**-0.6**
HOLB	**Holberg**	**25.82**	**76**	IAmb	IAmb	04 18 06.4	
	comp=Z,176nm,0.9s						
KUR	**Kuril'sk**	**28.47**	**273**	eP	**P**	**04 18 13.8**	**+2.3**
KUR				eSS	SS	04 24 17.9	-40
KUR				e		04 28 55.1	
KUR				MLR	MLR		
	comp=Z,6µm,14.0s						
KUR				MLR	MLR		
	comp=N,5µm,19.0s						
CLRS	**Cowichan Lake**	**28.91**	**78**	IAmb	IAmb	04 18 25.1	
	comp=Z,143nm,1.4s						
PGC	**Sidney**	**29.39**	**78**	IAmb	IAmb	04 18 29.3	
	comp=Z,144nm,1.7s						
B04A	**Port Angeles**	**29.61**	**79**	IAmb	IAmb	04 18 32.6	
	comp=Z,76nm,1.2s						
NKL	**Nikolayevsk**	**29.65**	**292**	eP	**P**	**04 18 21.2**	**-0.7**
NKL				eS	**S**	**04 23 17.1**	**+0.9**
NKL				pmax	pmax		
	comp=N,159nm,0.7s						
NKL				pmax	pmax		
	comp=E,150nm,1.0s						
NKL				pmax	pmax		
	comp=Z,459nm,1.0s						
NKL				smax	smax		
	comp=E,365nm,4.1s						
NKL				smax	smax		
	comp=N,343nm,2.4s						
NKL				MLR	MLR		
	comp=E,38µm,20.0s						
NKL				MLR	MLR		
	comp=N,25µm,18.0s						
NKL				MLR	MLR		
	comp=Z,44µm,18.0s						
NLWA	**Neilton Lookou**	**29.67**	**80**	P	**P**	**04 18 24.4**	**+2.2**
NLWA				IAmb	IAmb	04 18 46.2	
	comp=Z,73nm,1.1s						
NLWA				IAMs_20	IAMs_20	04 28 17.3	
	comp=Z,10µm,18.0s						
A05A	**Maple Falls**	**30.07**	**76**	IAmb	IAmb	04 18 35.1	
	comp=Z,142nm,1.3s						
GNW	**Green Mountain**	**30.23**	**79**	IAmb	IAmb	04 18 37.2	
	comp=Z,94nm,1.3s						
E03A	**Lebam**	**30.24**	**82**		**P**	**04 18 28.8**	**+1.6**
E03A				IAmb	IAmb	04 18 48.2	
	comp=Z,91nm,1.0s						
UGL	**Uglegorsk**	**30.30**	**284**	eP	**P**	**04 18 27.4**	**-0.3**
UGL				eS	**S**	**04 23 19.1**	**-7.4**
UGL				pmax	pmax		
	comp=Z,200nm,1.0s						
UGL				MLR	MLR		
	comp=E,2µm,13.0s						
UGL				MLR	MLR		
	comp=N,9µm,17.0s						
UGL				MLR	MLR		
	comp=Z,6µm,15.0s						
YUK	**Yuzh-Kuril'sk**	**30.31**	**273**	c iP	**P**	**04 18 27.8**	**0.0**
YUK				PPP	PPP	04 19 30.0	
YUK				i S	**S**	**04 23 28.5**	**+1.8**
YUK				eSS	**SnSn**	**04 24 57.8**	**-3.6**
YUK				pmax	pmax		
	comp=Z,1µm,1.0s						
YKA	**Yellowknife Ar**	**30.70**	**48**	P	**P**	**04 18 31.5**	**+0.4**
	comp=Z,20nm,0.5s,baz=275,slow=8.1,SNR=87						
YKA				PcP	**PcP**	**04 21 29.4**	**+1.0**
	comp=Z,2.8nm,0.8s,baz=275,slow=2.5,SNR=2.4						
YKA				LR	LR	04 33 08.9	
	comp=Z,13µm,18.9s,baz=275,slow=41						
YKA				P3KPbc		04 50 17.7	
	comp=Z,2.7nm,0.9s,baz=99,slow=5.1,SNR=6.4						
	comp=Z,20nm,0.5s						
YKA	**Yellowknife Ar**	**30.70**	**48**		**P**	**04 18 31.7**	**+0.6**
YSS	**Yuzhno-Sakhali**	**30.80**	**280**	eP	**P**	**04 18 29.8**	**-2.3**
YSS				e*SP	**pP**	**04 18 34.1**	**-2.8**
YSS				e		04 19 29.3	
YSS				eS	**S**	**04 23 27.9**	**-6.5**
YSS				eSSS	SSS	04 25 39.9	
YSS				pmax	pmax		
	comp=Z,2µm,3.9s						
YSS				smax	smax		
	comp=N,1µm,5.1s						
YSS				MLR	MLR		
	comp=N,3µm,16.0s						
YSS				MLR	MLR		
	comp=Z,4µm,16.0s						
YSS				MLR	MLR		
	comp=E,4µm,15.0s						
D05A	**Enumclaw**	**30.91**	**80**	P	**P**	**04 18 33.5**	**+0.4**
JRO	**Jston Ridge Ob**	**31.19**	**81**	IAmb	IAmb	04 18 55.8	
	comp=Z,172nm,1.4s						
STD	**Studebaker Rid**	**31.20**	**81**	IAmb	IAmb	04 18 57.2	
	comp=Z,69nm,1.0s						
LON	**Longmire**	**31.22**	**80**	IAmb	IAmb	04 19 04.5	
	comp=Z,72nm,1.4s						
COR	**Corvallis**	**31.35**	**85**	P	**P**	**04 18 41.0**	**+4.0**
COR				pmax	pmax		
	comp=Z,132nm,1.2s						
COR	**Corvallis**	**31.35**	**85**	P	**P**	**04 18 41.0**	**+4.0**
COR				IAmb	IAmb	04 18 48.7	
	comp=Z,132nm,1.1s						
COR	**Corvallis**	**31.35**	**85**	IAMs_20	IAMs_20	04 28 35.6	
	comp=Z,9µm,20.0s						
COR	**Corvallis**	**31.35**	**85**	P	**P**	**04 18 39.6**	**+2.6**
	comp=Z,104nm,1.0s						
LTY	**Liberty**	**31.68**	**79**	IAmb	IAmb	04 19 11.5	
	comp=Z,100nm,1.4s						
H04D	**Lebanon**	**31.73**	**85**	IAmb	IAmb	04 19 02.2	
	comp=Z,65nm,1.0s						
KIP	**Kipapa**	**31.84**	**159**	i P	**P**	**04 18 43.0**	**+1.6**
B08A	**Colville Reser**	**31.99**	**76**	IAmb	IAmb	04 18 58.6	
	comp=Z,87nm,0.9s						
HOOD	**Mount Hood Mea**	**32.00**	**83**	IAmb	IAmb	04 19 02.6	
	comp=Z,123nm,1.2s						
K02D	**Willamette Mer**	**32.12**	**88**	IAmb	IAmb	04 19 04.7	
	comp=Z,56nm,1.1s						
MXC	**Moxie City**	**32.22**	**80**	IAmb	IAmb	04 18 54.2	
	comp=Z,75nm,1.4s						
G05A	**Wamic**	**32.24**	**82**		**P**	**04 18 46.4**	**+1.5**
JKA	**Kamikawa-asahi**	**32.28**	**275**		**P**	**04 18 46.0**	**+0.9**
JKA	**Kamikawa-asahi**	**32.28**	**275**	P	**P**	**04 18 45.9**	**+0.7**
	comp=Z,5µmcomp=Z,307nm,1.0s						
ASAJ	**Asahikawa**	**32.28**	**275**	P	**P**	**04 18 45.2**	**0.0**
	comp=Z,274nm,0.9s,baz=36,slow=4.1,SNR=26						
ASAJ				LR	LR	04 30 27.3	
	comp=Z,6µm,21.7s,baz=78,slow=34						
	comp=Z,274nm,0.9s						
ASAJ	**Asahikawa**	**32.28**	**275**	P	**P**	**04 18 46.0**	**+0.8**
ASAJ				pmax	pmax		
	comp=Z,306nm,1.0s						
EPH	**Ephrata**	**32.28**	**78**		**P**	**04 18 45.9**	**+0.6**
EPH				IAmb	IAmb	04 18 54.2	
	comp=Z,130nm,1.3s						
I04A	**Tendick Farm,**	**32.31**	**86**	IAmb	IAmb	04 19 15.8	
	comp=Z,109nm,1.1s						
KSXB	**Camp Six Broad**	**32.47**	**90**	IAmb	IAmb	04 18 58.3	
	comp=Z,60nm,1.1s						
KSXB				IAMs_20	IAMs_20	04 30 25.0	
	comp=Z,10µm,18.0s						
L02F	**Cave Junction**	**32.49**	**89**	IAmb	IAmb	04 19 23.2	
	comp=Z,53nm,1.1s						
E07A	**Sunnyside**	**32.50**	**79**	IAmb	IAmb	04 18 56.7	
	comp=Z,92nm,1.3s						
WIFE	**Three Sisters-**	**32.53**	**85**	IAmb	IAmb	04 18 58.9	
	comp=Z,58nm,1.1s						
WAH2	**Wahluke Slope**	**32.58**	**79**	IAmb	IAmb	04 18 57.0	
	comp=Z,124nm,1.2s						
KRMB	**Red Mountain**	**32.62**	**90**	IAMs_20	IAMs_20	04 30 46.1	
	comp=Z,9µm,18.0s						
BBOR	**Butler Butte**	**32.62**	**87**		**P**	**04 18 49.7**	**+1.2**
I05D	**Terrebonne, OR**	**32.69**	**84**	IAmb	IAmb	04 19 08.6	
	comp=Z,94nm,1.1s						
F07A	**Phinny Hill Vi**	**32.77**	**81**	IAmb	IAmb	04 19 12.5	
	comp=Z,113nm,1.1s						
HAWA	**Hanford**	**32.77**	**79**		**P**	**04 18 48.1**	**-1.3**
HAWA				IAmb	IAmb	04 18 59.0	
	comp=Z,115nm,1.2s						
HAWA				IAMs_20	IAMs_20	04 31 56.4	
	comp=Z,8µm,18.0s						
J04A	**Umpqua Nationa**	**32.79**	**86**	IAmb	IAmb	04 19 11.9	
	comp=Z,57nm,0.9s						
D08A	**Wollman Farm,**	**32.83**	**78**		**P**	**04 18 50.5**	**+0.6**
D08A				IAmb	IAmb	04 19 12.7	
	comp=Z,74nm,1.1s						
C09A	**Chrisman Ranch**	**32.88**	**76**	IAmb	IAmb	04 18 59.4	
	comp=Z,149nm,1.4s						
TIXI	**Tiksi**	**32.94**	**329**	LR	LR	04 32 33.0	
	comp=Z,5µm,21.4s,baz=110,slow=37						
TIXI	**Tiksi**	**32.94**	**329**	ceP	**P**	**04 18 49.8**	**-0.8**
TIXI				pmax	pmax		
	comp=Z,38nm,0.8s						
TIXI	**Tiksi**	**32.94**	**329**		**P**	**04 18 49.6**	**-1.0**
TIXI				IAmb	IAmb	04 18 51.9	
	comp=Z,34nm,0.7s						
E08A	**Dider Farm, El**	**33.01**	**79**	IAmb	IAmb	04 19 00.9	
	comp=Z,123nm,1.3s						
ERM	**Erimo**	**33.07**	**271**	P	**P**	**04 18 52.6**	**+0.5**
ERM	**Erimo**	**33.07**	**271**	ceP	**P**	**04 18 52.6**	**+0.5**
ERM				pmax	pmax		
	comp=Z,146nm,0.9s						
ERM	**Erimo**	**33.07**	**271**		**P**	**04 18 52.9**	**+0.8**
JEM	**Erimo**	**33.07**	**271**	P	**P**	**04 18 52.6**	**+0.5**
KHMM	**Horse Mountain**	**33.10**	**91**	IAmb	IAmb	04 19 13.7	
	comp=Z,80nm,1.1s						
KHMM				IAMs_20	IAMs_20	04 31 16.8	
	comp=Z,9µm,18.0s						
KMPM	**Mount Pierce**	**33.13**	**92**	IAmb	IAmb	04 19 13.8	
	comp=Z,108nm,1.1s						
PINE	**Pine Mountain**	**33.22**	**85**	P	**P**	**04 18 55.3**	**+1.7**
PINE				IAmb	IAmb	04 19 13.9	
	comp=Z,52nm,1.0s						
L04D	**Klamath Falls**	**33.22**	**88**	IAmb	IAmb	04 19 28.4	
	comp=Z,52nm,1.1s						
YAK	**Yakutsk**	**33.24**	**312**	LR	LR	04 32 29.8	
	comp=Z,9µm,19.3s,baz=92,slow=37						
YAK	**Yakutsk**	**33.24**	**312**	eP	**P**	**04 18 51.5**	**-1.8**
YAK				e*PP	**pP**	**04 18 56.2**	**-2.0**
YAK				e		04 20 10.1	
YAK				ePPP	PPP	04 20 18.7	
YAK				e		04 21 33.0	
YAK				eS	**S**	**04 24 06.5**	**-5.5**
YAK				eSS	**SnSn**	**04 26 10.2**	**-1.8**
YAK				eSSS	SSS	04 26 35.4	
YAK				e		04 29 20.8	
YAK				pmax	pmax		
	comp=Z,110nm,0.9s						
YAK				pmax	pmax		
	comp=E,27nm,1.1s						
YAK				pmax	pmax		
	comp=N,8.0nm,0.9s						
YAK				pmax	pmax		
	comp=Z,358nm,3.5s						
YAK				pmax	pmax		
	comp=N,160nm,3.7s						
YAK				pmax	pmax		
	comp=E,376nm,3.3s						
YAK				smax	smax		
	comp=E,157nm,1.9s						
YAK				smax	smax		
	comp=N,136nm,2.0s						
YAK				MLR	MLR		
	comp=Z,10µm,17.0s						
YAK				MLR	MLR		
	comp=E,5µm,14.0s						
YAK				MLR	MLR		
	comp=N,3µm,20.0s						
YAK	**Yakutsk**	**33.24**	**312**		**P**	**04 18 51.3**	**-2.0**
YAK	**Yakutsk**	**33.24**	**312**	IAMs_20	IAMs_20	04 32 11.8	
	comp=Z,9µm,20.0s						
YAK	**Yakutsk**	**33.24**	**312**	P	**P**	**04 18 51.7**	**-1.6**
	comp=Z,2µmcomp=Z,165nm,0.8s						
YBH	**Yreka Blue Hor**	**33.24**	**89**	LR	LR	04 30 56.0	
	comp=Z,8µm,18.2s,baz=308,slow=34						
M02C	**Callahan**	**33.35**	**90**	IAMs_20	IAMs_20	04 30 19.3	
	comp=Z,7µm,19.0s						
NEW	**Newport**	**33.36**	**75**	LR	LR	04 30 59.0	
	comp=Z,5µm,20.5s,baz=307,slow=34						
NEW	**Newport**	**33.36**	**75**	P	**P**	**04 18 55.2**	**+0.5**
NEW				pmax	pmax		
	comp=Z,98nm,1.2s						
NEW				MLR	MLR		
	comp=Z,6µm,18.0s						
NEW	**Newport**	**33.36**	**75**		**P**	**04 18 55.2**	**+0.5**
NEW				IAmb	IAmb	04 19 03.5	
	comp=Z,98nm,1.1s						
NEW	**Newport**	**33.36**	**75**	IAMs_20	IAMs_20	04 32 50.1	
	comp=Z,6µm,18.0s						
NEW	**Newport**	**33.36**	**75**	P	**P**	**04 18 55.5**	**+0.8**
	comp=Z,78nm,0.9s						
KMRM	**Mail Ridge**	**33.50**	**92**	IAmb	IAmb	04 19 17.1	
	comp=Z,129nm,1.3s						
KHBM	**Hayfork Bally**	**33.54**	**91**	IAMs_20	IAMs_20	04 30 21.5	
	comp=Z,7µm,19.0s						
EDM	**Edmonton**	**33.55**	**65**	P	**P**	**04 18 57.0**	**+0.8**
EDM				pmax	pmax		
	comp=Z,291nm,1.2s						
EDM	**Edmonton**	**33.55**	**65**		**P**	**04 18 57.0**	**+0.8**
E09A	**Wood Farm, Sta**	**33.56**	**78**	IAmb	IAmb	04 19 05.3	
	comp=Z,117nm,1.2s						
LNOR	**Lincton Mounta**	**33.78**	**80**	IAmb	IAmb	04 19 36.8	
	comp=Z,70nm,1.2s						
K05A	**Summer Lake**	**33.82**	**86**	IAmb	IAmb	04 19 21.0	
	comp=Z,69nm,1.0s						
M03C	**McCloud**	**33.87**	**89**	IAmb	IAmb	04 19 34.0	
	comp=Z,49nm,1.0s						
KCPM	**Cahto Peak**	**33.89**	**93**	IAMs_20	IAMs_20	04 30 43.7	
	comp=Z,8µm,18.0s						
O02D	**Mt. Diablo Mer**	**34.09**	**91**	IAmb	IAmb	04 19 22.1	
	comp=Z,84nm,1.1s						
F10A	**Beach Ranch, E**	**34.38**	**79**	IAmb	IAmb	04 19 29.1	
	comp=Z,66nm,1.0s						
HATC	**Hat Creek Radi**	**34.54**	**89**	IAmb	IAmb	04 19 49.4	
	comp=Z,108nm,1.1s						
HATC				IAMs_20	IAMs_20	04 31 26.9	
	comp=Z,7µm,18.0s						
O03E	**Paynes Creek**	**34.63**	**90**	IAmb	IAmb	04 19 25.9	
	comp=Z,81nm,1.0s						
MOD	**Modoc Plateau**	**34.64**	**87**	IAmb	IAmb	04 19 39.4	
	comp=Z,144nm,1.8s						
MOD				IAMs_20	IAMs_20	04 31 52.5	
	comp=Z,10µm,18.0s						
BMO	**Blue Mountains**	**34.89**	**80**	IAmb	IAmb	04 19 26.4	
	comp=Z,105nm,1.6s						
BMO				IAMs_20	IAMs_20	04 31 25.5	
	comp=Z,7µm,20.0s						
GDXM	**Geysers**	**34.91**	**93**	IAmb	IAmb	04 19 29.0	
	comp=Z,62nm,1.1s						
J08A	**Circle Bar Ran**	**34.96**	**83**	IAmb	IAmb	04 19 28.8	
	comp=Z,60nm,0.9s						
JTM	**Tenmabayashi**	**35.06**	**271**	P	**P**	**04 19 09.6**	**+0.2**
MCCM	**Marconi Confer**	**35.27**	**94**	IAMs_20	IAMs_20	04 32 30.0	
	comp=Z,10µm,18.0s						
WVOR	**Wild Horse Val**	**35.37**	**85**	IAmb	IAmb	04 19 58.2	
	comp=Z,69nm,1.1s						
WVOR				IAMs_20	IAMs_20	04 32 55.9	
	comp=Z,8µm,18.0s						
WVOR	**Wild Horse Val**	**35.37**	**85**	P	**P**	**04 19 13.4**	**+1.2**
	comp=Z,1µmcomp=Z,54nm,1.0s						
CVS	**Carmenet Viney**	**35.40**	**94**	IAMs_20	IAMs_20	04 32 10.6	
	comp=Z,10µm,18.0s						
FARB	**Farallon Islan**	**35.47**	**95**	IAMs_20	IAMs_20	04 32 25.4	
	comp=Z,10µm,18.0s						
PLID	**Pearl Lake**	**35.57**	**79**	IAMs_20	IAMs_20	04 33 33.4	
	comp=Z,10µm,18.0s						
MSO	**Missoula**	**35.94**	**76**	IAmb	IAmb	04 19 47.4	
	comp=Z,121nm,1.4s						
JRSC	**Jasper Ridge**	**36.13**	**95**	IAMs_20	IAMs_20	04 32 19.8	
	comp=Z,8µm,19.0s						
MPK	**Martis Peak**	**36.32**	**90**	IAmb	IAmb	04 19 36.6	
	comp=Z,84nm,1.1s						
KLR	**Kul'dur**	**36.34**	**289**	P	**P**	**04 19 19.2**	**-1.1**
	comp=Z,55nm,0.5s,baz=67,slow=6.2,SNR=92						
KLR				LR	LR	04 35 34.5	
	comp=Z,7µm,19.1s,baz=70,slow=39						
	comp=Z,55nm,0.5s						
KLR	**Kul'dur**	**36.34**	**289**	ceP	**P**	**04 19 19.4**	**-0.9**
KLR				pmax	pmax		
	comp=Z,112nm,1.0s						
WELL	**Weller Preserv**	**36.42**	**92**	IAMs_20	IAMs_20	04 32 33.5	
	comp=Z,7µm,18.0s						
PAHR	**Pah Rah Range**	**36.48**	**89**	IAmb	IAmb	04 19 42.1	
	comp=Z,67nm,1.1s						
MHC	**Mount Hamilton**	**36.53**	**94**	IAmb	IAmb	04 19 54.9	
	comp=Z,67nm,1.2s						
MHC				IAMs_20	IAMs_20	04 32 43.6	
	comp=Z,10µm,18.0s						
MFID	**Camas Ranch**	**36.56**	**82**	IAmb	IAmb	04 19 41.2	
	comp=Z,69nm,1.1s						
PNTR	**Pine Nut**	**36.72**	**90**	IAmb	IAmb	04 20 03.6	
	comp=Z,55nm,0.8s						
RES	**Resolute Bay**	**36.84**	**25**	LR	LR	04 38 49.7	
	comp=Z,7µm,18.0s,baz=272,slow=43						
FORD	**Fort Ord Natur**	**36.87**	**95**	IAMs_20	IAMs_20	04 33 14.3	
	comp=Z,8µm,18.0s						
CMB	**Columbia Colle**	**36.88**	**92**	IAMs_20	IAMs_20	04 32 55.6	
	comp=Z,6µm,18.0s						
ZEA	**Zeya**	**36.95**	**298**	eP	**P**	**04 19 23.9**	**-1.5**
ZEA				pmax	pmax		
	comp=E,60nm,0.8s						
ZEA				pmax	pmax		
	comp=Z,80nm,0.8s						
H11N2	**WAKE ISLAND Hy**	**36.98**	**218**	T	T	04 59 19.7	
	baz=22,slow=75,SNR=31						
H11N3	**WAKE ISLAND Hy**	**36.99**	**218**	T	T	04 59 31.7	
	baz=22,slow=75,SNR=34						
H11N1	**WAKE ISLAND Hy**	**37.00**	**218**	T	T	04 59 19.7	
	baz=22,slow=75,SNR=28						
SAO	**San Andreas Ge**	**37.02**	**95**	IAMs_20	IAMs_20	04 33 03.5	
	comp=Z,8µm,18.0s						
WAKR	**Walker**	**37.17**	**91**	IAmb	IAmb	04 19 39.0	
	comp=Z,96nm,1.4s						
HLID	**Hailey**	**37.34**	**80**	P	**P**	**04 19 29.9**	**+0.8**
	comp=Z,1µmcomp=Z,47nm,1.4s						
BBGB	**Big Mountain B**	**37.39**	**95**	IAmb	IAmb	04 19 51.9	
	comp=Z,155nm,1.1s						
DLMT	**Dillon**	**37.48**	**77**	IAmb	IAmb	04 20 19.4	
	comp=Z,83nm,1.2s						
NVAR	**Mina Array Bea**	**37.92**	**90**	P	**P**	**04 19 34.3**	**+0.2**
	comp=Z,19nm,0.9s,baz=294,slow=6.7,SNR=77						
NVAR				LR	LR	04 33 49.6	
	comp=Z,3µm,18.8s,baz=294,slow=34						
	comp=Z,19nm,0.9s						
NVAR	**Mina Array Bea**	**37.92**	**90**	P	**P**	**04 19 34.9**	**+0.8**
BOZ	**Bozeman (W)**	**37.94**	**76**	IAmb	IAmb	04 19 47.9	
	comp=Z,158nm,1.6s						
BOZ				IAMs_20	IAMs_20	04 35 34.3	
	comp=Z,5µm,18.0s						
PKD	**Bear Valley Ra**	**38.11**	**95**	IAMs_20	IAMs_20	04 32 32.5	
	comp=Z,6µm,18.0s						
H11S1	**WAKE ISLAND Hy**	**38.17**	**218**	T	T	05 00 59.3	
	baz=22,slow=76,SNR=1327						
H11S2	**WAKE ISLAND Hy**	**38.19**	**218**	T	T	05 00 55.4	
	baz=22,slow=76,SNR=356						
H11S3	**WAKE ISLAND Hy**	**38.19**	**218**	T	T	05 00 51.3	
	baz=22,slow=76,SNR=610						
Q09A	**Carvers**	**38.37**	**89**	IAmb	IAmb	04 19 59.1	
	comp=Z,78nm,0.9s						
HEH	**HeiHe**	**38.37**	**293**	eP	**P**	**04 19 35.5**	**-2.0**
HEH				pP	**pP**	**04 19 40.5**	**-1.9**
HEH				PP	**PnPn**	**04 21 10.3**	**+3.4**
HEH				S	**S**	**04 25 28.5**	**-2.4**
HEH				pmax	pmax		
	comp=Z,460nm,0.9s						
HEH				L	L		
	comp=Z,4µm,17.4s						
HEH				L	L		
	comp=Z,9µm,18.5s						
HEH				L	L		
	comp=Z,12µm,18.5s						
ELK	**Elko**	**38.42**	**85**	LR	LR	04 33 36.0	
	comp=Z,7µm,19.6s,baz=320,slow=33						
ELK	**Elko**	**38.42**	**85**	IAMs_20	IAMs_20	04 34 45.9	
	comp=Z,9µm,19.0s						
YHL	**Hebgen Lake**	**38.60**	**77**	IAmb	IAmb	04 20 09.6	
	comp=Z,73nm,1.0s						
USA0B	**Ussuriysk Arra**	**38.72**	**282**	i P	**P**	**04 19 40.1**	**-0.4**
USA0B	**Ussuriysk Arra**	**38.72**	**282**		**P**	**04 19 39.0**	**-1.4**
USRK	**Ussuriysk Ar.**	**38.72**	**282**	P	**P**	**04 19 39.0**	**-1.4**
	comp=Z,26nm,0.8s,baz=60,slow=7.7,SNR=21						
USRK				PcP	**PcP**	**04 21 52.8**	**+0.9**
	comp=Z,15nm,0.8s,baz=81,slow=1.1,SNR=6.3						
	comp=Z,26nm,0.8s						
TIN	**Tinemaha, Big**	**38.82**	**92**	IAmb	IAmb	04 20 11.2	
	comp=Z,82nm,1.0s						
TIN				IAMs_20	IAMs_20	04 33 31.5	
	comp=Z,7µm,18.0s						
YHH	**Holmes Hill**	**38.84**	**77**	IAmb	IAmb	04 19 57.0	
	comp=Z,85nm,1.1s						
YNR	**Norris Junctio**	**38.98**	**77**	IAmb	IAmb	04 20 08.5	
	comp=Z,124nm,1.1s						
VES	**Vestal, Richgr**	**39.07**	**94**	IAmb	IAmb	04 20 00.9	
	comp=Z,185nm,1.6s						
VES				IAMs_20	IAMs_20	04 34 29.1	
	comp=Z,6µm,18.0s						
FFC	**Flin Flon**	**39.15**	**58**	i P	**P**	**04 19 45.0**	**+1.1**
FFC	**Flin Flon**	**39.15**	**58**	P	**P**	**04 19 44.7**	**+0.8**
FFC	**Flin Flon**	**39.15**	**58**	IAMs_20	IAMs_20	04 35 23.3	
	comp=Z,7µm,20.0s						
FFC	**Flin Flon**	**39.15**	**58**	P	**P**	**04 19 44.8**	**+0.9**
	comp=Z,49nm,0.8s						
H17A	**Grant Village**	**39.22**	**77**	IAmb	IAmb	04 19 55.0	
	comp=Z,110nm,1.2s						
LKWY	**Lake**	**39.23**	**77**	IAmb	IAmb	04 20 01.5	
	comp=Z,80nm,0.9s						
CWC	**Cottonwood Cre**	**39.31**	**92**	IAMs_20	IAMs_20	04 34 26.3	
	comp=Z,8µm,18.0s						
VLA	**Vladivostok**	**39.38**	**281**	d iP	**P**	**04 19 46.1**	**+0.1**
VLA				pmax	pmax		
	comp=Z,76nm,0.9s						
GRAC	**Grapevine Rang**	**39.40**	**91**	IAmb	IAmb	04 20 02.6	
	comp=Z,84nm,1.1s						
MAJO	**Matsushiro**	**39.42**	**268**	P	**P**	**04 19 47.1**	**+0.6**
MAJO	**Matsushiro**	**39.42**	**268**	P	**P**	**04 19 46.3**	**-0.1**
MAJO				pmax	pmax		
	comp=Z,195nm,1.2s						
MAJO				MLR	MLR		
	comp=Z,6µm,20.0s						
MAJO	**Matsushiro**	**39.42**	**268**	P	**P**	**04 19 46.3**	**-0.1**
MAJO				IAmb	IAmb	04 20 10.4	
	comp=Z,195nm,1.2s						
MAJO				IAMs_20	IAMs_20	04 35 25.5	
	comp=Z,6µm,20.0s						
ISA	**Isabella, Lake**	**39.57**	**94**	IAMs_20	IAMs_20	04 35 02.1	
	comp=Z,8µm,18.0s						
RLMT	**Red Lodge**	**39.61**	**75**	IAmb	IAmb	04 20 03.7	
	comp=Z,86nm,0.9s						
AHID	**Auburn Hatcher**	**39.80**	**79**	IAMs_20	IAMs_20	04 36 30.4	
	comp=Z,8µm,18.0s						
AHID	**Auburn Hatcher**	**39.80**	**79**	P	**P**	**04 19 50.5**	**+0.8**
	comp=Z,1µmcomp=Z,50nm,1.6s						
MPMC	**Manual Prospec**	**39.92**	**92**	IAMs_20	IAMs_20	04 35 12.5	
	comp=Z,8µm,18.0s						
MDJ	**Mudanjiang**	**39.94**	**284**	P	**P**	**04 19 48.5**	**-2.1**
MDJ				S	**S**	**04 25 55.8**	**+1.2**
MDJ				sS	sS	04 26 04.0	+2.0
MDJ				pmax	pmax		
	comp=Z,28nm,1.0s						
MDJ				pmax	pmax		
	comp=Z,900nm,10.7s						
MDJ				L	L		
	comp=Z,5µm,19.1s						
MDJ				L	L		
	comp=Z,3µm,20.6s						

MDJ				L	L		
	comp=Z,7µm,23.2s						
MDJ	**Mudanjiang**	**39.94**	**284**	P	**P**	**04 19 49.2**	**-1.4**
	comp=Z,1µmcomp=Z,42nm,1.0s						
S11A	**Rachel**	**39.99**	**89**	IAmb	IAmb	04 20 33.9	
	comp=Z,134nm,1.5s						
FURC	**Furnace Creek,**	**40.04**	**91**	IAMs_20	IAMs_20	04 34 47.7	
	comp=Z,5µm,18.0s						
OSI	**Osito Audit: C**	**40.10**	**95**	IAMs_20	IAMs_20	04 33 24.3	
	comp=Z,5µm,19.0s						
TPNV	**Topopah Spring**	**40.12**	**90**	IAMs_20	IAMs_20	04 34 32.7	
	comp=Z,8µm,19.0s						
LRMC	**Laurel Mtn Rad**	**40.17**	**93**	IAMs_20	IAMs_20	04 35 23.2	
	comp=Z,7µm,18.0s						
HWUT	**Hardware Ranch**	**40.18**	**81**	P	**P**	**04 19 53.4**	**+0.4**
	comp=Z,1µmcomp=Z,31nm,1.0s						
DUG	**Dugway, Tooele**	**40.24**	**84**	IAMs_20	IAMs_20	04 36 29.0	
	comp=Z,7µm,18.0s						
DUG	**Dugway, Tooele**	**40.24**	**84**	P	**P**	**04 19 54.2**	**+0.8**
	comp=Z,898nmcomp=Z,66nm,1.1s						
TCUT	**Toone Canyon**	**40.56**	**82**	IAmb	IAmb	04 20 15.0	
	comp=Z,115nm,1.1s						
PRN	**Pahroc Range**	**40.57**	**89**	IAmb	IAmb	04 20 26.1	
	comp=Z,79nm,0.9s						
LAO	**LASA Array**	**40.58**	**71**	IAmb	IAmb	04 20 11.4	
	comp=Z,104nm,1.1s						
LAO				IAMs_20	IAMs_20	04 37 45.1	
	comp=Z,6µm,18.0s						
BNX	**BinXian**	**40.64**	**287**	⇑P	**P**	**04 19 54.8**	**-1.6**
BNX				pP	**pP**	**04 20 01.0**	**-0.3**
BNX				sP	**sP**	**04 20 03.5**	**+0.4**
BNX				S	**S**	**04 26 03.0**	**-2.0**
BNX				sS	**sS**	**04 26 12.8**	**+0.4**
BNX				pmax	pmax		
	comp=Z,140nm,0.9s						
BNX				pmax	pmax		
	comp=Z,570nm,3.5s						
BNX				L	L		
	comp=Z,5µm,17.9s						
BNX				L	L		
	comp=Z,3µm,19.5s						
BNX				L	L		
	comp=Z,6µm,18.6s						
JHJ	**Hachijo jima 2**	**40.71**	**263**	LR	LR	04 40 18.1	
	comp=Z,1µm,18.2s,baz=56,slow=41						
PASC	**Pasadena Art C**	**40.73**	**95**	IAMs_20	IAMs_20	04 33 43.9	
	comp=Z,6µm,20.0s						
BW06	**Boulder Array**	**40.73**	**78**	IAmb	IAmb	04 20 12.8	
	comp=Z,102nm,1.1s						
BW06				IAMs_20	IAMs_20	04 37 11.1	
	comp=Z,6µm,18.0s						
PD31	**Pinedale Array**	**40.73**	**78**	IAmb	IAmb	04 20 12.8	
	comp=Z,101nm,1.1s						
PDAR	**Pinedale Array**	**40.73**	**78**	P	**P**	**04 19 57.8**	**+0.2**
	comp=Z,63nm,0.9s,baz=305,slow=4.6,SNR=293						
PDAR				LR	LR	04 36 12.8	
	comp=Z,2µm,18.3s,baz=315,slow=35						
	comp=Z,63nm,0.9s						
MWC	**Mount Wilson**	**40.77**	**95**	IAMs_20	IAMs_20	04 33 36.0	
	comp=Z,5µm,19.0s						
SHOC	**Shoshone, Teco**	**40.77**	**92**	IAMs_20	IAMs_20	04 35 18.0	
	comp=Z,6µm,19.0s						
BFSC	**Mount Baldy Ra**	**41.01**	**95**	IAMs_20	IAMs_20	04 33 46.3	
	comp=Z,5µm,19.0s						
BSUT	**Blindstream Ca**	**41.30**	**82**		**P**	**04 20 03.8**	**+1.4**
FCC	**Fort Churchill**	**41.39**	**50**	IAmb	IAmb	04 20 16.2	
	comp=Z,126nm,1.0s						
TMUT	**Trail Mountain**	**41.77**	**84**	IAmb	IAmb	04 20 38.5	
	comp=Z,62nm,0.8s						
RDMU	**Red Mountain**	**42.01**	**81**	IAmb	IAmb	04 20 27.4	
	comp=Z,113nm,0.9s						
Q16A	**Castle Valley**	**42.02**	**84**	IAmb	IAmb	04 20 32.0	
	comp=Z,84nm,1.0s						
ILON	**Igloolik, Nuna**	**42.05**	**32**	P	**P**	**04 20 07.9**	**+0.2**
DNR	**Dunn Ranch,Anz**	**42.09**	**95**	IAmb	IAmb	04 20 28.0	
	comp=Z,69nm,0.9s						
P18A	**Preston Nutter**	**42.16**	**83**	IAmb	IAmb	04 20 28.5	
	comp=Z,123nm,1.1s						
PFO	**Pinyon Flats O**	**42.17**	**94**	*i* P	**P**	**04 20 10.0**	**+0.7**
PFO	**Pinyon Flats O**	**42.17**	**94**	P	**P**	**04 20 09.0**	**-0.3**
PFO	**Pinyon Flats O**	**42.17**	**94**	IAMs_20	IAMs_20	04 34 42.0	
	comp=Z,5µm,20.0s						
PFO	**Pinyon Flats O**	**42.17**	**94**	P	**P**	**04 20 09.8**	**+0.6**
	comp=Z,37nm,1.1s						
PKCU	**Pink Cliffs**	**42.24**	**87**	IAmb	IAmb	04 20 24.6	
	comp=Z,107nm,1.5s						
SRU	**San Rafael Swe**	**42.30**	**83**	IAmb	IAmb	04 20 31.1	
	comp=Z,92nm,0.8s						
TULEG	**Thule**	**42.58**	**20**	IAMs_20	IAMs_20	04 40 44.7	
	comp=Z,6µm,19.0s						
K22A	**Casper**	**42.63**	**77**	IAmb	IAmb	04 20 38.8	
	comp=Z,96nm,1.1s						
CN2	**Changchun**	**42.87**	**286**	*e*P	**P**	**04 20 13.5**	**-1.2**
CN2				*e*sP	pwP	04 20 25.5	+1.4
CN2				*e*S	**S**	**04 26 36.0**	**-2.1**
CN2				pmax	pmax		
	comp=Z,20nm,1.0s						
CN2				pmax	pmax		
	comp=Z,400nm,5.0s						
CN2				L	L		
	comp=Z,2µm,18.0s						
CN2				L	L		
	comp=Z,3µm,18.0s						
CN2				L	L		
	comp=Z,4µm,18.6s						
HMU	**Henry Mountain**	**42.90**	**85**	IAmb	IAmb	04 20 34.4	
	comp=Z,114nm,0.9s						
CBX	**Cerro Bola**	**42.92**	**96**	IAmb	IAmb	04 20 40.1	
	comp=Z,187nm,1.8s						
HILR	**Hailar Array B**	**43.03**	**296**	P	**P**	**04 20 15.3**	**-0.7**
	comp=Z,79nm,0.8s,baz=74,slow=11,SNR=38						
HILR				LR	LR	04 39 32.0	
	comp=Z,7µm,19.1s,baz=70,slow=38						
	comp=Z,79nm,0.8s						
O20A	**White River Ci**	**43.08**	**81**	IAmb	IAmb	04 20 37.5	
	comp=Z,145nm,0.9s						
O20A				IAMs_20	IAMs_20	04 36 49.2	
	comp=Z,4µm,18.0s						
HIA	**Hailar**	**43.18**	**296**	IAmb	IAmb	04 20 17.6	
	comp=Z,163nm,0.9s						
HIA	**Hailar**	**43.18**	**296**	P	**P**	**04 20 16.7**	**-0.5**
	comp=Z,2µmcomp=Z,202nm,0.9s						
BLYC	**Blythe**	**43.27**	**93**		**P**	**04 20 18.0**	**0.0**
RSSD	**Black Hills**	**43.28**	**73**	P	**P**	**04 20 18.7**	**+0.4**
RSSD				pmax	pmax		
	comp=Z,107nm,1.4s						
RSSD				MLR	MLR		
	comp=Z,4µm,18.0s						
RSSD	**Black Hills**	**43.28**	**73**		**P**	**04 20 18.7**	**+0.4**
RSSD				IAmb	IAmb	04 20 37.0	
	comp=Z,107nm,1.4s						
RSSD	**Black Hills**	**43.28**	**73**	IAMs_20	IAMs_20	04 38 49.4	
	comp=Z,4µm,18.0s						
RSSD	**Black Hills**	**43.28**	**73**	P	**P**	**04 20 18.1**	**-0.2**
	comp=Z,1µmcomp=Z,57nm,0.9s						
JCJ	**Chichijima**	**43.55**	**254**	LR	LR	04 42 29.8	
	comp=Z,1µm,18.1s,baz=135,slow=42						
PV10	**Paradox Valley**	**43.67**	**83**	IAmb	IAmb	04 20 24.0	
	comp=Z,128nm,0.9s						
PV14	**Lion Creek, Pa**	**43.68**	**83**	IAmb	IAmb	04 20 46.7	
	comp=Z,89nm,0.9s						
PV20	**West Nyswonger**	**43.74**	**83**	IAmb	IAmb	04 20 43.7	
	comp=Z,135nm,0.9s						
PV19	**Morning Glory**	**43.75**	**83**	IAmb	IAmb	04 20 40.5	
	comp=Z,161nm,1.0s						
PV16	**Nyswonger Mesa**	**43.79**	**83**	IAmb	IAmb	04 20 43.7	
	comp=Z,86nm,0.9s						
PV05	**Paradox Valley**	**43.82**	**84**	IAmb	IAmb	04 20 41.4	
	comp=Z,149nm,0.9s						
PV18	**Skein Mesa, Pa**	**43.83**	**83**		**P**	**04 20 22.9**	**+0.1**
E28A	**Huff**	**43.86**	**68**	IAMs_20	IAMs_20	04 40 05.8	
	comp=Z,5µm,18.0s						
PV07	**Paradox Valley**	**43.87**	**83**	IAmb	IAmb	04 20 45.4	
	comp=Z,77nm,0.9s						
HHU	**Hamhung**	**43.90**	**280**	P	**P**	**04 20 22.6**	**-0.4**
HHU				S	**S**	**04 26 56.0**	**+2.8**
HHU				AmB			
	comp=Z,7.2nm,0.5s						
WUAZ	**Wupatki**	**44.05**	**88**	IAmb	IAmb	04 20 44.8	
	comp=Z,79nm,0.9s						
PV01	**Paradox Valley**	**44.11**	**83**	IAmb	IAmb	04 20 46.3	
	comp=Z,87nm,0.8s						
ULM	**Lac du Bonnet**	**44.56**	**62**	P	**P**	**04 20 27.9**	**-0.3**
	comp=Z,34nm,0.8s,baz=303,slow=8.7,SNR=35						
ULM				LR	LR	04 38 37.1	
	comp=Z,5µm,21.5s,baz=311,slow=36						
	comp=Z,34nm,0.8s						
ULM	**Lac du Bonnet**	**44.56**	**62**	*i* P	**P**	**04 20 29.3**	**+1.1**
ULM	**Lac du Bonnet**	**44.56**	**62**		**P**	**04 20 27.8**	**-0.5**
ULM				IAmb	IAmb	04 20 37.0	
	comp=Z,198nm,1.6s						
X16A	**Lo Mia Camp, P**	**44.73**	**89**	IAmb	IAmb	04 20 33.2	
	comp=Z,43nm,0.9s						
MVCO	**Mesa Verde**	**44.74**	**84**	IAmb	IAmb	04 21 05.4	
	comp=Z,64nm,1.2s						
MVCO				IAMs_20	IAMs_20	04 39 15.3	
	comp=Z,4µm,18.0s						
MVCO	**Mesa Verde**	**44.74**	**84**	P	**P**	**04 20 30.1**	**+0.1**
	comp=Z,1µmcomp=Z,46nm,1.1s						
ISCO	**Idaho Springs**	**44.88**	**79**	P	**P**	**04 20 31.0**	**-0.3**
ISCO				pmax	pmax		
	comp=Z,39nm,1.2s						
ISCO				MLR	MLR		
	comp=Z,8µm,18.0s						
ISCO	**Idaho Springs**	**44.88**	**79**		**P**	**04 20 31.0**	**-0.3**
ISCO	**Idaho Springs**	**44.88**	**79**	P	**P**	**04 20 31.6**	**+0.3**
	comp=Z,31nm,1.3s						
CIT	**Chita**	**45.09**	**302**	*e*P	**P**	**04 20 31.8**	**-0.7**
CIT				*e*		04 20 39.2	
CIT				pmax	pmax		
	comp=Z,151nm,1.1s						
SNY	**Shenyang**	**45.14**	**285**	P	**P**	**04 20 33.0**	**+0.1**
SNY				S	**S**	**04 27 08.5**	**-2.6**
SNY				pmax	pmax		
	comp=Z,97nm,1.7s						
SNY				pmax	pmax		
	comp=Z,1µm,2.9s						
SNY				L	L		
	comp=Z,4µm,16.7s						
SNY				L	L		
	comp=Z,5µm,16.5s						
SNY				L	L		
	comp=Z,7µm,16.6s						
KSRS	**Korea Array**	**45.19**	**277**	P	**P**	**04 20 34.1**	**+0.7**
	comp=Z,141nm,0.9s,baz=53,slow=8.0,SNR=98						
KSRS				LR	LR	04 38 14.8	
	comp=Z,2µm,21.7s,baz=55,slow=34						
	comp=Z,141nm,0.9s						
KSAR	**Wonju Array Be**	**45.22**	**277**	P	**P**	**04 20 34.0**	**+0.4**
KSAR	**Wonju Array Be**	**45.22**	**277**	P	**P**	**04 20 34.0**	**+0.4**
W18A	**Petrified Fore**	**45.32**	**87**	IAmb	IAmb	04 20 48.7	
	comp=Z,127nm,1.4s						
PIX	**Pinacate**	**45.41**	**94**	IAmb	IAmb	04 20 48.0	
	comp=Z,118nm,1.7s						
NEEM	**North Greenlan**	**45.44**	**16**	*i* P	**P**	**04 20 35.2**	**0.0**
NEEM				IAmb	IAmb	04 20 37.5	
	comp=Z,71nm,0.5s						
PYAG	**Pyongyang**	**45.51**	**280**	P	**P**	**04 20 36.3**	**+0.4**
PYAG				S	**S**	**04 27 16.6**	**0.0**
PYAG				AmB			
	comp=Z,1µm,2.7s						
X18A	**Snowflake**	**45.58**	**88**	IAmb	IAmb	04 20 51.0	
	comp=Z,141nm,1.7s						
SUJ	**Sinuiju**	**45.63**	**282**	P	**P**	**04 20 37.0**	**+0.2**
SUJ				AmB			
	comp=Z,813nm,1.6s						
AGMN	**Agassiz Nation**	**45.63**	**64**	IAmb	IAmb	04 20 44.1	
	comp=Z,106nm,1.1s						
AGMN				IAMs_20	IAMs_20	04 41 10.8	
	comp=Z,6µm,19.0s						
AGMN	**Agassiz Nation**	**45.63**	**64**	P	**P**	**04 20 36.2**	**-0.6**
	comp=Z,2µmcomp=Z,93nm,0.9s						
Q24A	**Divide**	**45.68**	**80**	IAmb	IAmb	04 20 59.0	
	comp=Z,95nm,1.6s						
Q24A				IAMs_20	IAMs_20	04 40 06.1	
	comp=Z,6µm,18.0s						
NOR	**Nord**	**45.89**	**5**	*i* P	**P**	**04 20 38.0**	**-0.3**
NOR				IAmb	IAmb	04 20 39.4	
	comp=Z,20nm,1.1s						
NOR	**Nord**	**45.89**	**5**	P	**P**	**04 20 38.1**	**-0.3**
	comp=Z,1µmcomp=Z,43nm,1.5s,comp=Z,1µm						
INCN	**Inchon**	**45.97**	**278**	P	**P**	**04 20 39.8**	**+0.3**
INCN	**Inchon**	**45.97**	**278**	P	**P**	**04 20 39.9**	**+0.3**
INCN				pmax	pmax		
	comp=Z,300nm,0.9s						
INCN	**Inchon**	**45.97**	**278**	P	**P**	**04 20 39.9**	**+0.3**
INCN	**Inchon**	**45.97**	**278**	P	**P**	**04 20 40.1**	**+0.6**
	comp=Z,4µmcomp=Z,407nm,0.9s,comp=Z,4µm						
EPLO	**Experimental L**	**46.04**	**61**	IAmb	IAmb	04 20 43.6	
	comp=Z,60nm,0.7s						
SUSD	**Miller**	**46.07**	**70**	IAMs_20	IAMs_20	04 40 53.4	
	comp=Z,5µm,19.0s						
HJU	**Haeju**	**46.17**	**279**	P	**P**	**04 20 41.2**	**+0.2**
HJU				AmB			
	comp=Z,573nm,0.9s						
JTU	**Tsushima**	**46.18**	**273**	P	**P**	**04 20 43.1**	**+1.9**
JNU	**Nakatsue**	**46.20**	**270**	P	**P**	**04 20 41.8**	**+0.3**
	comp=Z,98nm,0.8s,baz=44,slow=7.3,SNR=8.4						
JNU				LR	LR	04 42 31.2	
	comp=Z,3µm,19.2s,baz=56,slow=39						
	comp=Z,98nm,0.8s						
TJN	**Taejon**	**46.23**	**276**	P	**P**	**04 20 41.5**	**-0.1**
TJN	**Taejon**	**46.23**	**276**	*i* P	**P**	**04 20 42.0**	**+0.4**
TJN				pmax	pmax		
	comp=Z,8.0nm,0.8s						
TJN	**Taejon**	**46.23**	**276**	P	**P**	**04 20 42.2**	**+0.6**
	comp=Z,19µmcomp=Z,2µm,0.8s						
TUC	**Tucson**	**46.55**	**91**	P	**P**	**04 20 45.4**	**+1.1**
TUC				pmax	pmax		
	comp=Z,40nm,0.9s						
TUC	**Tucson**	**46.55**	**91**	P	**P**	**04 20 45.4**	**+1.1**
TUC				IAmb	IAmb	04 20 46.2	
	comp=Z,40nm,0.9s						
TUC	**Tucson**	**46.55**	**91**	IAMs_20	IAMs_20	04 39 11.1	
	comp=Z,5µm,18.0s						
TUC	**Tucson**	**46.55**	**91**	P	**P**	**04 20 45.0**	**+0.7**
	comp=Z,52nm,1.0s						
NRIK	**Noril'sk**	**46.65**	**332**	P	**P**	**04 20 44.1**	**-0.3**
	comp=Z,21nm,0.5s,baz=70,slow=7.2,SNR=19						
	comp=Z,21nm,0.5s						
NRIK	**Noril'sk**	**46.65**	**332**	*c i*P	**P**	**04 20 43.7**	**-0.7**
NRIK				pmax	pmax		
	comp=Z,41nm,1.0s						
NRIK	**Noril'sk**	**46.65**	**332**	P	**P**	**04 20 43.6**	**-0.9**
NRIK				IAmb	IAmb	04 20 45.4	
	comp=Z,65nm,1.2s						
F33A	**5 Mile Ranch,**	**46.79**	**67**	IAmb	IAmb	04 20 52.3	
	comp=Z,88nm,1.2s						
UPNV	**Upernavik**	**47.45**	**22**	*i* P	**P**	**04 20 52.9**	**+2.2**
UPNV				IAmb	IAmb	04 20 55.1	
	comp=Z,76nm,1.2s						
UPNV	**Upernavik**	**47.45**	**22**	P	**P**	**04 20 52.6**	**+1.9**
	comp=Z,117nm,1.0s						
TASM	**ASL Pad, Albuq**	**47.46**	**85**	IAMs_20	IAMs_20	04 40 37.1	
	comp=Z,7µm,18.0s						
TASM	**ASL Pad, Albuq**	**47.46**	**85**	IAMs_20	IAMs_20	04 40 37.1	
	comp=Z,7µm,18.0s						
TASM	**ASL Pad, Albuq**	**47.46**	**85**	IAMs_20	IAMs_20	04 40 37.1	
	comp=Z,7µm,18.0s						
ANMO	**Albuquerque**	**47.46**	**85**	LR	LR	04 39 36.8	
	comp=Z,4µm,18.3s,baz=318,slow=35						
ANMO	**Albuquerque**	**47.46**	**85**	*i* P	**P**	**04 20 52.9**	**+1.4**
ANMO				pmax	pmax		
	comp=Z,31nm,1.3s						
ANMO	**Albuquerque**	**47.46**	**85**	P	**P**	**04 20 51.4**	**-0.1**
ANMO	**Albuquerque**	**47.46**	**85**	P	**P**	**04 20 51.9**	**+0.4**
	comp=Z,25nm,1.1s						
ALQ	**Albuquerque**	**47.46**	**85**	IAmb	IAmb	04 21 02.2	
	comp=Z,32nm,1.1s						
ALQ				IAMs_20	IAMs_20	04 40 37.2	
	comp=Z,7µm,18.0s						
JSU	**Suzuyama**	**47.57**	**269**	P	**P**	**04 20 52.0**	**-0.2**
Y22A	**Socorro**	**47.82**	**86**	IAmb	IAmb	04 20 56.9	
	comp=Z,73nm,0.8s						
ECSD	**EROS Data Cent**	**47.85**	**69**	IAmb	IAmb	04 21 01.2	
	comp=Z,81nm,1.1s						
ECSD	**EROS Data Cent**	**47.85**	**69**	IAMs_20	IAMs_20	04 43 21.5	
	comp=Z,5µm,18.0s						
ECSD	**EROS Data Cent**	**47.85**	**69**	P	**P**	**04 20 53.0**	**-1.2**
	comp=Z,66nm,0.9s						
ECSD				pP	**pP**	**04 20 59.6**	**+0.4**
DL2	**Dalian**	**48.11**	**283**	P	**P**	**04 20 55.8**	**-0.4**
DL2				S	**S**	**04 27 54.5**	**+0.8**
DL2				pmax	pmax		
	comp=Z,110nm,1.1s						
DL2				pmax	pmax		
	comp=Z,920nm,4.9s						
DL2				L	L		
	comp=Z,3µm,16.6s						
DL2				L	L		
	comp=Z,3µm,17.8s						
DL2				L	L		
	comp=Z,6µm,17.6s						
319A	**Douglas**	**48.12**	**91**	IAmb	IAmb	04 21 21.6	
	comp=Z,83nm,1.4s						
EYMN	**Ely**	**48.24**	**62**	IAmb	IAmb	04 21 03.8	
	comp=Z,70nm,0.9s						
EYMN	**Ely**	**48.24**	**62**	P	**P**	**04 20 56.8**	**-0.3**
	comp=Z,2µmcomp=Z,91nm,1.7s,comp=Z,2µm						
121A	**Cookes Peak, D**	**48.26**	**89**	IAmb	IAmb	04 21 27.1	
	comp=Z,62nm,0.9s						
XLT	**XiLinHaoTe**	**48.30**	**291**	*e*P	**P**	**04 20 58.0**	**+0.2**
XLT				pP	sP	04 21 05.5	+0.9
XLT				sP	pwP	04 21 07.8	+0.7
XLT				S	**S**	**04 27 53.5**	**-3.1**
XLT				pmax	pmax		
	comp=Z,57nm,1.0s						
XLT				L	L		
	comp=Z,5µm,17.4s						
XLT				L	L		
	comp=Z,7µm,17.5s						
BGNE	**Belgrade**	**48.37**	**73**	IAMs_20	IAMs_20	04 42 10.3	
	comp=Z,4µm,19.0s						
RTBA	**Rita Blanca**	**48.77**	**81**	IAmb	IAmb	04 21 09.6	
	comp=Z,124nm,1.3s						
NUUG	**Nuugaatsiaq**	**48.96**	**22**	*i* P	**P**	**04 21 03.3**	**+1.0**
NUUG				IAmb	IAmb	04 21 04.8	
	comp=Z,24nm,0.9s						
E38A	**The Farm, Brul**	**49.00**	**63**	IAMs_20	IAMs_20	04 40 39.9	
	comp=Z,5µm,22.0s						
L34A	**Svendsen Farm,**	**49.07**	**71**	IAMs_20	IAMs_20	04 43 14.7	
	comp=Z,4µm,19.0s						
SPMN	**Marine on St.**	**49.13**	**66**	IAmb	IAmb	04 21 10.7	
	comp=Z,70nm,1.1s						
SRIG	**Santa Rosalia**	**49.16**	**97**	P	**P**	**04 21 04.6**	**+0.2**
	comp=Z,54nm,0.9s						
NIAQ	**Niaqornat**	**49.36**	**23**	*i* P	**P**	**04 21 07.8**	**+2.4**
NIAQ				IAmb	IAmb	04 21 09.6	
	comp=Z,26nm,0.7s						
FRB	**Frobisher Bay**	**49.45**	**35**	P	**P**	**04 21 06.8**	**+0.7**
	comp=Z,30nm,0.6s,baz=308,slow=8.6,SNR=23						
FRB				LR	LR	04 44 56.5	
	comp=Z,7µm,19.4s,baz=303,slow=40						
	comp=Z,30nm,0.6s						
FRB	**Frobisher Bay**	**49.45**	**35**	P	**P**	**04 21 07.9**	**+1.8**
	comp=Z,81nm,1.2s						
EPT	**El Paso**	**49.57**	**88**	IAmb	IAmb	04 21 09.6	
	comp=Z,74nm,0.8s						
IRK	**Irkutsk**	**49.72**	**306**	*e*P	**P**	**04 21 07.0**	**-1.4**
IRK				*e*		04 22 36.8	
IRK				pmax	pmax		
	comp=Z,174nm,2.1s						
PH02	**Texas Public H**	**49.94**	**81**	IAmb	IAmb	04 21 31.1	
	comp=Z,94nm,0.9s						
SPA0	**Spitsbergen Ar**	**50.05**	**358**	*e*P	**P**	**04 21 10.3**	**-0.3**
SPA0				IAmb	IAmb	04 21 17.0	
	comp=Z,114nm,1.2s						
SPA0				*e*S	**S**	**04 28 22.0**	**+1.8**
SPITS	**Spitsbergen Ar**	**50.05**	**358**	P	**P**	**04 21 10.4**	**-0.3**
	comp=Z,12nm,0.5s,baz=45,slow=5.0,SNR=39						
SPITS				LR	LR	04 43 38.7	
	comp=Z,3µm,18.5s,baz=7.0,slow=38						
	comp=Z,12nm,0.5s						
SPITS	**Spitsbergen Ar**	**50.05**	**358**	P	**P**	**04 21 10.6**	**-0.1**
SPITS				pmax	pmax		
	comp=Z,199nm,1.6s						
SPB2	**Spitsbergen Ar**	**50.06**	**358**	P	**P**	**04 21 10.4**	**-0.3**
SPB2				IAmb	IAmb	04 21 20.7	
	comp=Z,45nm,0.8s						
DAG	**Danmarks Havn**	**50.22**	**8**	*i* P	**P**	**04 21 11.4**	**-0.5**
DAG				IAmb	IAmb	04 21 12.2	
	comp=Z,34nm,0.6s						
DAG	**Danmarks Havn**	**50.22**	**8**	P	**P**	**04 21 11.2**	**-0.6**
	comp=Z,1µmcomp=Z,110nm,1.1s						
MNTX	**Cornudas Mount**	**50.31**	**87**	IAmb	IAmb	04 21 15.8	
	comp=Z,56nm,0.8s						
MNTX	**Cornudas Mount**	**50.31**	**87**	P	**P**	**04 21 13.7**	**+0.5**
	comp=Z,2µmcomp=Z,75nm,0.9s						
MNTX				pP	**sP**	**04 21 21.1**	**+1.0**
SAQQ	**Saqqaq**	**50.32**	**23**	*i* P	**P**	**04 21 15.3**	**+2.6**
SAQQ				IAmb	IAmb	04 21 17.3	
	comp=Z,25nm,0.6s						
TLY	**Talaya**	**50.36**	**306**	LR	LR	04 44 57.0	
	comp=Z,5µm,18.9s,baz=42,slow=39						
TLY	**Talaya**	**50.36**	**306**	P	**P**	**04 21 13.4**	**0.0**
TLY				S	**S**	**04 28 18.6**	**-6.6**
TLY	**Talaya**	**50.36**	**306**	*ce*P	**P**	**04 21 12.9**	**-0.4**
TLY				pmax	pmax		
	comp=Z,109nm,1.0s						
TLY	**Talaya**	**50.36**	**306**	P	**P**	**04 21 13.3**	**0.0**
TLY				IAmb	IAmb	04 21 14.4	
	comp=Z,67nm,0.8s						
TLY	**Talaya**	**50.36**	**306**	P	**P**	**04 21 13.1**	**-0.2**
	comp=Z,1µmcomp=Z,109nm,1.0s						
MSTX	**Muleshoe**	**50.38**	**83**	IAMs_20	IAMs_20	04 43 41.4	
	comp=Z,5µm,18.0s						
AMTX	**Amarillo**	**50.44**	**82**	IAmb	IAmb	04 21 34.9	
	comp=Z,51nm,0.8s						
AMTX				IAMs_20	IAMs_20	04 42 27.9	
	comp=Z,3µm,19.0s						
G40A	**Rib Lake**	**50.56**	**64**	IAmb	IAmb	04 21 21.3	
	comp=Z,104nm,1.3s						
G40A				IAMs_20	IAMs_20	04 44 12.2	
	comp=Z,6µm,18.0s						
BJI2	**Beijing**	**50.66**	**287**	P	**P**	**04 21 15.8**	**+0.1**
BJI2				S	**S**	**04 28 32.5**	**+3.0**
BJI2				pmax	pmax		
	comp=Z,37nm,0.8s						
BJI2				pmax	pmax		
	comp=Z,710nm,5.8s						
BJI2				L	L		
	comp=Z,3µm,16.3s						
BJI2				L	L		
	comp=Z,3µm,18.4s						
BJI2				L	L		
	comp=Z,4µm,16.8s						
BJT	**Baijiatuau**	**50.66**	**287**	IAmb	IAmb	04 21 18.1	
	comp=Z,50nm,0.9s						
BJT	**Baijiatuau**	**50.66**	**287**	IAMs_20	IAMs_20	04 45 02.1	
	comp=Z,5µm,18.0s						
BJT	**Baijiatuau**	**50.66**	**287**	P	**P**	**04 21 16.0**	**+0.3**
	comp=Z,2µmcomp=Z,62nm,0.8s						
KSU1	**Kansas State U**	**50.74**	**74**	IAmb	IAmb	04 21 30.1	
	comp=Z,66nm,0.8s						
XMAS	**Kiritimati**	**50.82**	**164**	IAMs_20	IAMs_20	04 42 51.8	
	comp=Z,4µm,21.0s						
TPB28		**50.88**	**87**	IAmb	IAmb	04 21 19.8	
	comp=Z,62nm,0.9s						
ULN	**Ulaanbaatar**	**50.91**	**301**	P	**P**	**04 21 17.5**	**-0.2**
ULN				S	**S**	**04 28 33.6**	**+0.5**
ULN	**Ulaanbaatar**	**50.91**	**301**	*ce*P	**P**	**04 21 16.9**	**-0.8**
ULN				pmax	pmax		
	comp=Z,78nm,1.0s						
ULN	**Ulaanbaatar**	**50.91**	**301**	P	**P**	**04 21 17.3**	**-0.4**
	comp=Z,11µmcomp=Z,4µmcomp=Z,283nm,0.9s						
ULN	**Ulaanbaatar**	**50.91**	**301**	P	**P**	**04 21 17.5**	**-0.2**
	comp=Z,1µmcomp=Z,72nm,0.9s						
SCIA	**State Center**	**50.95**	**69**	IAmb	IAmb	04 21 32.4	
	comp=Z,103nm,0.9s						
SCIA				IAMs_20	IAMs_20	04 42 20.4	
	comp=Z,4µm,20.0s						
TPB11	**China Draw**	**50.98**	**86**	IAmb	IAmb	04 21 26.9	
	comp=Z,70nm,1.1s						
ELIS	**Ellis County**	**51.03**	**79**	IAmb	IAmb	04 21 33.3	
	comp=Z,120nm,1.1s						
ILULI	**Ilulissat**	**51.10**	**24**	IAMs_20	IAMs_20	04 46 49.6	
	comp=Z,4µm,19.0s						
JMZ	**Minamidaito 2**	**51.12**	**263**	P	**P**	**04 21 20.0**	**+0.7**
SMWD	**Samnorwood**	**51.17**	**80**	IAmb	IAmb	04 21 38.3	
	comp=Z,54nm,0.7s						
OK038	**West end E0370**	**51.17**	**78**	IAmb	IAmb	04 21 34.0	
	comp=Z,96nm,1.0s						
OK038				IAMs_20	IAMs_20	04 42 03.3	
	comp=Z,4µm,20.0s						
I40A	**Norwalk**	**51.18**	**66**	IAmb	IAmb	04 21 26.0	
	comp=Z,114nm,1.2s						
VHRN	**Van Horn**	**51.19**	**88**	IAmb	IAmb	04 21 33.9	
	comp=Z,164nm,1.4s						
SUMG	**Summit**	**51.23**	**17**	IAMs_20	IAMs_20	04 47 09.3	
	comp=Z,4µm,18.0s						
SUMG	**Summit**	**51.23**	**17**	*i* P	**P**	**04 21 20.5**	**+0.4**
SUMG				IAmb	IAmb	04 21 21.7	
	comp=Z,21nm,0.7s						
SUMG	**Summit**	**51.23**	**17**	P	**P**	**04 21 21.4**	**+1.3**
	comp=Z,133nm,1.0s						
SONM	**Songino Array**	**51.28**	**301**	P	**P**	**04 21 20.4**	**0.0**
	comp=Z,41nm,0.9s,baz=53,slow=8.1,SNR=31						
SONM				PcP	**PcP**	**04 22 35.6**	**+0.3**
	comp=Z,21nm,0.9s,baz=50,slow=2.7,SNR=4.7						
SONM				ScP	**ScP**	**04 26 33.7**	**+3.3**
	comp=Z,5.7nm,0.7s,baz=38,slow=3.7,SNR=8.2						
SONM				LR	LR	04 45 14.5	

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      comp=Z,9µm,18.5s,baz=52,slow=39
SONM                                  P4KPbc              04 58 50.9
      comp=Z,2.8nm,0.9s,baz=47,slow=3.3,SNR=7.3
      comp=Z,41nm,0.9s
SONM  Songino Array    51.28 301      P         P         04 21 20.5  0.0
SONM                                  pmax      pmax
      comp=Z,86nm,1.2s
SONM  Songino Array    51.28 301      P         P         04 21 20.4  0.0
SONM                                  IAmb      IAmb      04 21 21.7
      comp=Z,86nm,1.2s
ZAK   Zakamensk        51.33 305     eP         P         04 21 20.5 -0.2
ZAK                                   pmax      pmax
      comp=Z,58nm,1.7s
F42A  Maple Grove Fa   51.40  62      IAmb      IAmb      04 21 38.4
      comp=Z,80nm,0.7s
HOPEN Hopen            51.44 356     eP         P         04 21 21.2 +0.2
HOPEN                                 IAmb      IAmb      04 21 23.4
      comp=Z,104nm,1.0s
HOPEN                                eS         S         04 28 42.0 +2.7
HOPEN                                 IAMs_20   IAMs_20   04 41 50.9
      comp=Z,5µm,22.2s
128A  Castleberry Fa   51.47  84      IAmb      IAmb      04 21 30.0
      comp=Z,120nm,1.3s
PECS  Pecos            51.47  87      IAmb      IAmb      04 21 37.4
      comp=Z,74nm,1.3s
CROK  Carrier          51.61  78      IAmb      IAmb      04 21 38.7
      comp=Z,110nm,1.2s
N38A  Joes South For   51.64  70      IAMs_20   IAMs_20   04 42 30.8
      comp=Z,4µm,19.0s
MOY   Mondy            51.68 307     eP         P         04 21 23.6 +0.2
MOY                                   pmax      pmax
      comp=Z,102nm,1.8s
DKNS  Dickens          51.72  82      IAmb      IAmb      04 21 38.4
      comp=Z,54nm,0.8s
POST  Post             51.77  83      IAmb      IAmb      04 21 38.8
      comp=Z,75nm,0.9s
ODSA  Odessa           51.77  85      IAmb      IAmb      04 21 32.0
      comp=Z,52nm,1.0s
TPB01 Permian Basin    51.82  87      IAmb      IAmb      04 21 43.5
      comp=Z,39nm,0.8s
BLOK  Blackwell        51.91  77      IAmb      IAmb      04 21 32.6
      comp=Z,118nm,1.5s
L40A  Anamosa          51.99  68      IAmb      IAmb      04 21 42.1
      comp=Z,94nm,0.9s
JFWS  Jewell Farm      52.01  66      IAmb      IAmb      04 21 31.6
      comp=Z,94nm,1.1s
PATS  Pohnpei          52.09 222      P         P         04 21 28.0 +1.4
      comp=Z,82nm,1.4s
PATS  Pohnpei          52.09 222      P         P         04 21 27.6 +0.9
      comp=Z,83nm,1.4s
SN07  Snyder 07        52.13  83      IAmb      IAmb      04 21 34.0
      comp=Z,138nm,1.6s
I42A  Draeger Farm,    52.14  65      IAmb      IAmb      04 21 29.9
      comp=Z,61nm,0.7s
MNHN  Monahans         52.18  86      IAmb      IAmb      04 21 28.5
      comp=Z,42nm,0.8s
JOW   Kunigami         52.21 266      P         P         04 21 27.5  0.0
      comp=Z,38nm,1.0s,baz=34,slow=6.5,SNR=7.2
      comp=Z,38nm,1.0s
JOW   Kunigami         52.21 266      P         P         04 21 27.9 +0.5
JOW   Kunigami         52.21 266      IAmb      IAmb      04 21 45.4
      comp=Z,97nm,1.3s
JOW   Kunigami         52.21 266      P         P         04 21 27.6 +0.2
      comp=Z,2µmcomp=Z,57nm,0.9s,comp=Z,2µm
P38A  Dawn             52.22  72      IAMs_20   IAMs_20   04 46 18.2
      comp=Z,4µm,19.0s
T35A  Sooner Cattle    52.23  76      IAmb      IAmb      04 21 41.2
      comp=Z,59nm,0.9s
OK048 Pawnee Station   52.30  77      IAmb      IAmb      04 21 42.0
      comp=Z,95nm,1.0s
WMOK  Wichita Mounta   52.30  80      IAmb      IAmb      04 21 42.8
      comp=Z,49nm,0.9s
WMOK  Wichita Mounta   52.30  80      P         P         04 21 28.1  0.0
      comp=Z,1µmcomp=Z,68nm,0.9s,comp=Z,1µm
ALPN  Alpine           52.30  87      IAmb      IAmb      04 21 41.3
      comp=Z,93nm,1.5s
DBG   Daneborg         52.34  10   i  P         P         04 21 26.9 -0.9
DBG                                   IAmb      IAmb      04 21 28.0
      comp=Z,37nm,0.5s
DBG   Daneborg         52.34  10      P         P         04 21 27.4 -0.4
      comp=Z,84nm,1.0s
OK029 Liberty Lake     52.40  78      IAmb      IAmb      04 21 43.0
      comp=Z,102nm,1.0s
OK029                                 IAMs_20   IAMs_20   04 45 19.9
      comp=Z,4µm,19.0s
APMT  Aspermont        52.44  82      IAmb      IAmb      04 21 36.9
      comp=Z,147nm,1.4s
TIA   Tai'an           52.58 283      P         P         04 21 30.0 -0.1
TIA                                   S         S         04 28 56.5 +0.5
TIA                                   pmax      pmax
      comp=Z,170nm,1.0s
TIA                                   pmax      pmax
      comp=Z,1µm,3.6s
TIA                                   L         L
      comp=Z,5µm,16.6s
TIA                                   L         L
      comp=Z,4µm,15.7s
TIA                                   L         L
      comp=Z,7µm,17.4s
QUOK  Quay             52.60  77      IAmb      IAmb      04 21 44.2
      comp=Z,112nm,1.0s
OK052 Battle Ridge R   52.66  77      IAmb      IAmb      04 21 48.5
      comp=Z,107nm,1.0s
OK052                                 IAMs_20   IAMs_20   04 47 25.8
      comp=Z,3µm,18.0s
OKCSW OKLAHOMA CITY    52.67  78      IAmb      IAmb      04 21 43.9
      comp=Z,103nm,0.9s
GUMO  Guam             52.68 240      LR        LR        04 43 19.8
      comp=Z,912nm,19.2s,baz=51,slow=35
GUMO  Guam             52.68 240      P         P         04 21 30.2 -0.8
GUMO  Guam             52.68 240      P         P         04 21 29.3 -1.7
GUMO                                  pmax      pmax
      comp=Z,269nm,1.0s
GUMO  Guam             52.68 240      P         P         04 21 29.3 -1.7
GUMO  Guam             52.68 240      P         P         04 21 29.0 -2.0
      comp=Z,276nm,1.1s
LPIG  La Paz           52.69  98      LR        LR        04 38 37.1
      comp=Z,2µm,21.4s,baz=303,slow=30
SGCY  Sterling City    52.79  84      IAmb      IAmb      04 21 54.1
      comp=Z,80nm,0.9s
FNO   Franklin         52.79  78      IAmb      IAmb      04 21 46.2
      comp=Z,97nm,1.1s
HHC   Hu-ho-hao-te     52.82 291⇑ i  P         P         04 21 32.5 +0.6
HHC                                   sP        pwP       04 21 44.5 +3.2
HHC                                   S         S         04 29 00.0 +0.6
HHC                                   pmax      pmax
      comp=Z,54nm,1.2s
HHC                                   pmax      pmax
      comp=Z,750nm,6.7s
HHC                                   L         L
      comp=Z,3µm,18.0s
HHC                                   L         L
      comp=Z,4µm,18.1s
HHC                                   L         L
      comp=Z,6µm,19.3s
SFJD  Kangerlussuaq    52.84  26      P         P         04 21 31.6 +0.1
      comp=Z,24nm,0.8s,baz=325,slow=7.7,SNR=11
SFJD                                  LR        LR        04 47 38.4
      comp=Z,3µm,18.1s,baz=316,slow=40
      comp=Z,24nm,0.8s
SFJD  Kangerlussuaq    52.84  26      P         P         04 21 32.1 +0.5
SFJD                                  pmax      pmax
      comp=Z,98nm,1.3s
SFJD  Kangerlussuaq    52.84  26      P         P         04 21 32.1 +0.5
SFJD                                  IAmb      IAmb      04 21 44.9
      comp=Z,98nm,1.2s
SFJD  Kangerlussuaq    52.84  26   i  P         P         04 21 32.5 +0.9
SFJD                                  IAmb      IAmb      04 21 34.3
      comp=Z,22nm,0.8s
SFJD  Kangerlussuaq    52.84  26      P         P         04 21 33.1 +1.6
      comp=Z,65nm,1.0s
L42A  Oliver, Polo     52.92  67      IAmb      IAmb      04 21 38.2
      comp=Z,63nm,0.9s
DEOK  Depew            52.95  77      IAmb      IAmb      04 21 49.3
      comp=Z,138nm,1.3s
X34A  Smith Ranch, M   52.97  79      IAmb      IAmb      04 21 41.6
      comp=Z,71nm,1.2s
TX31  Lajitas Ar. Si   53.02  88      IAmb      IAmb      04 21 35.0
      comp=Z,59nm,0.9s
TXAR  Lajitas Array    53.02  88      P         P         04 21 33.5 -0.1
      comp=Z,46nm,0.8s,baz=297,slow=5.1,SNR=371
TXAR                                  LR        LR        04 43 16.0
      comp=Z,5µm,18.6s,baz=324,slow=35
TXAR                                  PKPPKP    P'P'df    04 52 03.2 +2.1
      comp=Z,0.9nm,1.0s,baz=94,slow=3.2,SNR=3.6
      comp=Z,46nm,0.8s
TXAR  Lajitas Array    53.02  88      P         P         04 21 33.3 -0.2
N41A  Harden Midland   53.08  69      IAmb      IAmb      04 21 47.7
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      comp=Z,98nm,0.8s
N41A                                  IAMs_20   IAMs_20   04 45 03.8
      comp=Z,4µm,19.0s
E46A  Sault Ste Mari   53.09  60      IAmb      IAmb      04 21 47.8
      comp=Z,67nm,0.8s
E46A                                  IAMs_20   IAMs_20   04 43 29.0
      comp=Z,6µm,21.0s
P40A  Paris            53.15  71      IAMs_20   IAMs_20   04 45 09.8
      comp=Z,5µm,18.0s
WTFS  Witchita Falls   53.15  80      IAmb      IAmb      04 21 41.6
      comp=Z,48nm,0.9s
ABTX  Abilene, Hawle   53.21  82      IAmb      IAmb      04 21 42.8
      comp=Z,69nm,1.0s
ABTX                                  IAMs_20   IAMs_20   04 42 18.4
      comp=Z,4µm,20.0s
K43A  Burlington       53.22  66      IAmb      IAmb      04 21 40.7
      comp=Z,142nm,1.3s
HNS   HongShan         53.23 286 ⇑    P         P         04 21 35.8 +0.9
HNS                                   S         S         04 29 04.0 -0.9
HNS                                   pmax      pmax
      comp=Z,240nm,1.1s
HNS                                   L         L
      comp=Z,3µm,17.5s
HNS                                   L         L
      comp=Z,7µm,19.1s
HNS                                   L         L
      comp=Z,6µm,20.7s
TUL3  Leonard          53.33  77      IAmb      IAmb      04 21 49.6
      comp=Z,49nm,0.9s
OZNA  Ozona            53.47  85      IAmb      IAmb      04 21 44.5
      comp=Z,46nm,0.9s
HPIG                   53.49  92      P         P         04 21 37.0 -0.1
      comp=Z,38nm,1.1s
I45A  Fountain         53.53  63      IAMs_20   IAMs_20   04 48 26.9
      comp=Z,4µm,18.0s
SAND  Sanderson        53.53  87      IAmb      IAmb      04 21 50.3
      comp=Z,80nm,1.6s
SSE   Sheshan          53.58 275      P         P         04 21 38.0 +0.5
SSE                                   S         S         04 29 09.0 -0.6
SSE                                   pmax      pmax
      comp=Z,77nm,1.2s
SSE                                   pmax      pmax
      comp=Z,1µm,4.8s
SSE                                   L         L
      comp=Z,830nm,17.7s
SSE                                   L         L
      comp=Z,750nm,17.9s
S39A  Bolivar          53.62  73      IAmb      IAmb      04 21 49.9
      comp=Z,49nm,1.1s
S39A                                  IAMs_20   IAMs_20   04 46 04.1
      comp=Z,3µm,20.0s
BJO1  Bjornoya         53.67 357     eP         P         04 21 39.6 +2.1
BJO1                                  IAmb      IAmb      04 21 40.9
      comp=Z,104nm,1.0s
BJO1                                 eS         S         04 29 11.9 +2.0
BJO1                                  IAMs_20   IAMs_20   04 42 53.7
      comp=Z,3µm,19.9s
U38A  Gravette         53.82  75      IAmb      IAmb      04 21 52.6
      comp=Z,56nm,0.9s
R40A  Maddies Statio   53.84  72      IAmb      IAmb      04 21 51.7
      comp=Z,49nm,1.0s
R40A                                  IAMs_20   IAMs_20   04 46 05.0
      comp=Z,5µm,19.0s
BTO2  Baotou           53.86 292     eP         P         04 21 40.0 +0.4
BTO2                                  sP        pwP       04 21 49.8 +0.8
BTO2                                  PP        PP        04 23 43.8 +3.3
BTO2                                  S         S         04 29 16.0 +2.4
BTO2                                  pmax      pmax
      comp=Z,300nm,1.1s
BTO2                                  pmax      pmax
      comp=Z,3µm,6.0s
BTO2                                  L         L
      comp=Z,10µm,19.5s
BTO2                                  L         L
      comp=Z,12µm,19.3s
BTO2                                  L         L
      comp=Z,12µm,20.8s
PLPT  Palo Pinto       53.90  81      IAmb      IAmb      04 21 47.7
      comp=Z,85nm,1.0s
KNGR  Kungurtug, Tuv   54.05 308   i  P         P         04 21 41.3 +0.4
KNGR                                  pmax      pmax
      comp=Z,113nm,1.0s
HHAR  Hobbs            54.19  75      IAmb      IAmb      04 21 55.0
      comp=Z,40nm,1.0s
Z35A  Perchaven, San   54.19  80      IAmb      IAmb      04 22 02.6
      comp=Z,50nm,0.8s
FW06  Azle             54.25  81      IAmb      IAmb      04 22 15.9
      comp=Z,50nm,0.9s
NJ2   Nanjing          54.35 278⇑ i  P         P         04 21 42.8 -0.3
NJ2                                   sP        pwP       04 21 55.0 +2.2
NJ2                                   S         S         04 29 21.0 +1.0
NJ2                                   pmax      pmax
      comp=Z,120nm,0.8s
NJ2                                   pmax      pmax
      comp=Z,1µm,3.8s
NJ2                                   L         L
      comp=Z,1µm,21.0s
NJ2                                   L         L
      comp=Z,2µm,21.7s
NJ2                                   L         L
      comp=Z,4µm,21.6s
TIY   Taiyuan          54.37 288     eP         P         04 21 44.8 +1.5
TIY                                   S         S         04 29 23.0 +2.5
TIY                                   pmax      pmax
      comp=Z,78nm,0.9s
TIY                                   L         L
      comp=Z,3µm,17.2s
TIY                                   L         L
      comp=Z,2µm,17.9s
TIY                                   L         L
      comp=Z,4µm,17.2s
BRDY  Brady            54.53  83      IAmb      IAmb      04 22 07.2
      comp=Z,49nm,0.8s
P43A  Skaggs, Pawnee   54.55  69      IAMs_20   IAMs_20   04 44 30.7
      comp=Z,4µm,20.0s
CCM   Cathedral Cave   54.60  72      P         P         04 21 43.5 -1.4
CCM                                   pmax      pmax
      comp=Z,57nm,1.0s
CCM                                   MLR       MLR
      comp=Z,5µm,18.0s
CCM   Cathedral Cave   54.60  72      P         P         04 21 43.5 -1.4
CCM                                   IAmb      IAmb      04 21 57.5
      comp=Z,57nm,0.9s
CCM   Cathedral Cave   54.60  72      P         P         04 21 43.0 -1.9
      comp=Z,67nm,1.0s
JCT   Junction City    54.60  84      IAmb      IAmb      04 21 52.3
      comp=Z,122nm,1.3s
NUUK  Nuuk             54.62  28   i  P         P         04 21 46.3 +1.7
NUUK                                  IAmb      IAmb      04 21 47.6
      comp=Z,41nm,1.1s
FW13  Cleburne         54.75  81      IAmb      IAmb      04 22 00.8
      comp=Z,73nm,1.0s
J47A  Sunmer           54.83  63      IAmb      IAmb      04 21 50.4
      comp=Z,48nm,0.7s
J47A                                  IAMs_20   IAMs_20   04 48 07.2
      comp=Z,3µm,19.0s
WHTX  Lake Whitney,    54.99  81      IAMs_20   IAMs_20   04 43 58.4
      comp=Z,5µm,20.0s
FVM   French Village   55.13  71      IAmb      IAmb      04 22 01.9
      comp=Z,111nm,1.1s
TREL  Terrell          55.31  80      IAmb      IAmb      04 22 06.5
      comp=Z,128nm,1.3s
Q44A  Meyer Farm, Va   55.33  69      IAmb      IAmb      04 22 03.5
      comp=Z,75nm,1.0s
Q44A                                  IAMs_20   IAMs_20   04 43 33.5
      comp=Z,4µm,18.0s
T42A  Van Buren        55.38  72      IAMs_20   IAMs_20   04 46 10.7
      comp=Z,3µm,18.0s
SFIN  Lafayette        55.45  67      IAmb      IAmb      04 22 07.8
      comp=Z,89nm,1.0s
I49A  Point Hope       55.46  61      IAMs_20   IAMs_20   04 47 14.8
      comp=Z,5µm,19.0s
VLDQ  Val d'Or         55.51  54      IAmb      IAmb      04 22 08.8
      comp=Z,57nm,0.9s
JMJ   Miyako jima 2    55.51 267      P         P         04 21 52.6 +1.0
FCAR  Ozark Folk Cen   55.54  74      IAmb      IAmb      04 22 04.4
      comp=Z,91nm,0.9s
MIAR  Mount Ida        55.58  76      IAMs_20   IAMs_20   04 48 49.2
      comp=Z,3µm,18.0s
MIAR  Mount Ida        55.58  76      P         P         04 21 51.5 -0.5
      comp=Z,98nm,1.7s
Z38A  Mt. Pleasant     55.62  78      IAmb      IAmb      04 22 08.4
      comp=Z,71nm,1.2s
Z38A                                  IAMs_20   IAMs_20   04 49 14.0
      comp=Z,4µm,18.0s
SCO   Scoresbysund     55.66  13      P         P         04 21 52.7 +0.6
SCO                                   pmax      pmax
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      comp=Z,72nm,1.2s
SCO                                   MLR       MLR
      comp=Z,5µm,21.0s
SCO   Scoresbysund     55.66  13      P         P         04 21 52.7 +0.6
SCO                                   IAmb      IAmb      04 21 56.1
      comp=Z,72nm,1.2s
SCO                                   IAMs_20   IAMs_20   04 50 11.4
      comp=Z,5µm,21.0s
SCO   Scoresbysund     55.66  13   i  P         P         04 21 52.6 +0.5
SCO                                   IAmb      IAmb      04 21 53.2
      comp=Z,24nm,0.7s
SCO   Scoresbysund     55.66  13      P         P         04 21 53.0 +0.9
      comp=Z,54nm,0.9s
435B  Jarrell          55.75  82      IAmb      IAmb      04 22 14.5
      comp=Z,60nm,0.9s
WHAR  Wooly Hollow     55.85  75      IAmb      IAmb      04 22 07.2
      comp=Z,156nm,1.6s
P46A  Rosedale         55.90  68      IAmb      IAmb      04 22 10.4
      comp=Z,48nm,0.8s
SCHQ  Schefferville    55.90  43      P         P         04 21 54.2 +0.2
      comp=Z,38nm,0.8s,baz=315,slow=7.6,SNR=26
SCHQ                                  LR        LR        04 46 16.9
      comp=Z,6µm,21.2s,baz=317,slow=36
      comp=Z,38nm,0.8s
SCHQ  Schefferville    55.90  43      IAmb      IAmb      04 22 10.0
      comp=Z,71nm,0.9s
PBMO  Poplar Bluff     55.94  72      IAmb      IAmb      04 22 07.3
      comp=Z,61nm,1.1s
LCAR  Lake Charles     55.99  73      IAmb      IAmb      04 22 08.2
      comp=Z,81nm,1.5s
S44A  Carbondale       56.01  71      IAmb      IAmb      04 22 08.1
      comp=Z,58nm,0.9s
S44A                                  IAMs_20   IAMs_20   04 45 08.3
      comp=Z,4µm,20.0s
X40A  Basin Creek Fa   56.07  76      IAmb      IAmb      04 22 09.3
      comp=Z,44nm,1.1s
AAM   Ann Arbor        56.09  63      IAmb      IAmb      04 21 58.8
      comp=Z,35nm,0.7s
AAM                                   IAMs_20   IAMs_20   04 45 31.6
      comp=Z,4µm,20.0s
UALR  University of    56.17  75      IAmb      IAmb      04 22 09.8
      comp=Z,68nm,1.4s
BUKO  Buck Lake        56.29  58      IAmb      IAmb      04 22 14.3
      comp=Z,108nm,1.1s
K50A  Casco            56.34  62      IAmb      IAmb      04 22 04.4
      comp=Z,68nm,1.1s
K50A                                  IAMs_20   IAMs_20   04 48 19.3
      comp=Z,3µm,19.0s
833A  Chaparral WMA,   56.37  86      IAmb      IAmb      04 22 20.5
      comp=Z,57nm,1.0s
LYN   LuoYang          56.50 285 ⇑    P         P         04 21 59.0 +0.5
LYN                                   sP        pwP       04 22 09.5 +1.2
LYN                                   S         S         04 29 48.5 -0.2
LYN                                   pmax      pmax
      comp=Z,290nm,0.9s
LYN                                   pmax      pmax
      comp=Z,1µm,3.6s
LYN                                   L         L
      comp=Z,6µm,17.6s
LYN                                   L         L
      comp=Z,4µm,16.1s
LYN                                   L         L
      comp=Z,7µm,20.8s
BLO   Bloomington      56.59  68      IAmb      IAmb      04 22 15.7
      comp=Z,65nm,0.9s
JMIC  Jan Mayen        56.61   7      LR        LR        04 47 11.3
      comp=Z,2µm,19.4s,baz=325,slow=37
N49A  Columbus Grove   56.73  65      IAmb      IAmb      04 22 06.2
      comp=Z,130nm,1.6s
N49A                                  IAMs_20   IAMs_20   04 45 41.4
      comp=Z,4µm,20.0s
MLDN  Muldoon          56.77  83      IAmb      IAmb      04 22 15.4
      comp=Z,90nm,0.9s
T45A  Paducah          56.82  71      IAMs_20   IAMs_20   04 47 31.9
      comp=Z,4µm,18.0s
SADO  Sadowa           56.87  58      P         P         04 22 00.1 -1.0
      comp=Z,18nm,0.7s,baz=341,slow=8.1,SNR=14
SADO                                  LR        LR        04 47 12.1
      comp=Z,3µm,19.2s,baz=352,slow=37
      comp=Z,18nm,0.7s
SADO  Sadowa           56.87  58      IAmb      IAmb      04 22 09.6
      comp=Z,105nm,1.5s
ISOG  Isortoq, Green   56.90  22   i  P         P         04 22 00.4 -0.5
ISOG                                  IAmb      IAmb      04 22 03.0
      comp=Z,68nm,0.8s
Z41A  Richland Creek   56.94  77      IAmb      IAmb      04 22 17.7
      comp=Z,61nm,1.1s
735A  Kenedy           56.97  84      IAmb      IAmb      04 22 17.4
      comp=Z,56nm,0.9s
M50A  Fremont          57.04  64      IAmb      IAmb      04 22 04.8
      comp=Z,29nm,0.6s
M50A                                  IAMs_20   IAMs_20   04 45 59.6
      comp=Z,4µm,20.0s
O49A  Covington        57.14  65      IAmb      IAmb      04 22 16.2
      comp=Z,45nm,0.9s
O49A                                  IAMs_20   IAMs_20   04 45 45.3
      comp=Z,5µm,21.0s
ANGG  Ammassalik, Gr   57.15  21   i  P         P         04 22 01.4 -1.2
ANGG                                  IAmb      IAmb      04 22 02.4
      comp=Z,19nm,0.8s
YOJ   Yonaguni jima    57.18 268      P         P         04 22 03.9 +0.4
HAMF  Hammerfest       57.30 355     eP         P         04 22 05.4 +1.7
HAMF                                  IAmb      IAmb      04 22 06.3
      comp=Z,95nm,1.6s
HAMF                                 eS         S         04 29 56.5 -1.9
HAMF                                  IAMs_20   IAMs_20   04 45 09.2
      comp=Z,4µm,21.2s
WCI   Wyandotte Cave   57.36  68      P         P         04 22 03.4 -1.2
WCI                                   pmax      pmax
      comp=Z,88nm,0.9s
WCI                                   MLR       MLR
      comp=Z,5µm,20.0s
WCI   Wyandotte Cave   57.36  68      P         P         04 22 03.4 -1.2
WCI                                   IAmb      IAmb      04 22 18.6
      comp=Z,88nm,0.9s
WCI   Wyandotte Cave   57.36  68      IAMs_20   IAMs_20   04 48 06.1
      comp=Z,5µm,20.0s
WCI   Wyandotte Cave   57.36  68      P         P         04 22 03.5 -1.2
      comp=Z,114nm,0.9s
WCI                                   pP        pP        04 22 09.7  0.0
HKT   Hockley          57.41  82d i  P         P         04 22 05.1 +0.2
HKT                                   pmax      pmax
      comp=Z,21nm,1.1s
HKT   Hockley          57.41  82      P         P         04 22 04.8 -0.2
HKT                                   IAmb      IAmb      04 22 13.4
      comp=Z,89nm,1.4s
HKT   Hockley          57.41  82      P         P         04 22 05.2 +0.2
      comp=Z,2µmcomp=Z,46nm,2.1s,comp=Z,2µm
VADS  Vadso            57.42 352     eP         P         04 22 03.8 -0.7
VADS                                  IAmb      IAmb      04 22 10.8
      comp=Z,66nm,0.7s
VADS                                 eS         S         04 30 02.8 +2.8
VADS                                  IAMs_20   IAMs_20   04 48 57.1
      comp=Z,3µm,18.0s
ZAA0  Zalesovo Array   57.54 318      IAmb      IAmb      04 23 01.4
      comp=Z,53nm,0.9s
ZALV  Zalesovo Beam    57.54 318      P         P         04 22 04.1 -1.5
      comp=Z,5.2nm,0.5s,baz=43,slow=7.1,SNR=14
ZALV                                  PcP       PcP       04 22 59.8 +0.9
      comp=Z,65nm,0.9s,baz=45,slow=4.4,SNR=16
ZALV                                  LR        LR        04 47 43.4
      comp=Z,4µm,20.3s,baz=44,slow=37
      comp=Z,5.2nm,0.5s
ZALV  Zalesovo Beam    57.54 318      P         P         04 22 03.7 -1.9
HBVL  Hebbronville     57.72  86      IAmb      IAmb      04 22 16.2
      comp=Z,76nm,1.2s
N51A  Ashland          57.74  64      IAmb      IAmb      04 22 09.1
      comp=Z,52nm,0.6s
N51A                                  IAMs_20   IAMs_20   04 45 59.1
      comp=Z,5µm,21.0s
TATO  Taipei           57.75 270      P         P         04 22 09.3 +1.8
TATO  Taipei           57.75 270      IAMs_20   IAMs_20   04 44 54.6
      comp=Z,3µm,20.0s
KVTX  Kingsville       57.85  85      IAMs_20   IAMs_20   04 46 18.3
      comp=Z,4µm,18.0s
ACSO  Alum Creek Sta   57.87  65      IAmb      IAmb      04 22 11.2
      comp=Z,33nm,0.7s
M52A  Chesterland      57.87  62      IAmb      IAmb      04 22 10.7
      comp=Z,62nm,0.7s
M52A                                  IAMs_20   IAMs_20   04 49 49.7
      comp=Z,3µm,18.0s
WVT   Waverly          57.91  71      P         P         04 22 07.7 -0.8
WVT                                   pmax      pmax
      comp=Z,120nm,1.4s
WVT                                   MLR       MLR
      comp=Z,3µm,18.0s
WVT   Waverly          57.91  71      P         P         04 22 07.7 -0.8
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WVT				IAmb	IAmb	04 22 23.8	
	comp=Z,120nm,1.4s						
WVT	Waverly	57.91	71	IAMs_20	IAMs_20	04 48 13.7	
	comp=Z,3µm,18.0s						
WVT	Waverly	57.91	71	P	P	04 22 07.7	-0.8
	comp=Z,2µmcomp=Z,49nm,1.6s						
WVT				pP	sP	04 22 14.9	-0.6
KEV	Kevo	57.96	353	P	P	04 22 07.3	-1.1
KEV				pmax	pmax		
	comp=Z,43nm,0.8s						
KEV	Kevo	57.96	353	P	P	04 22 07.2	-1.1
KEV				IAmb	IAmb	04 22 14.8	
	comp=Z,43nm,0.8s						
KEV				IAMs_20	IAMs_20	04 46 14.9	
	comp=Z,3µm,21.0s						
KEV	Kevo	57.96	353	P	P	04 22 08.0	-0.4
	comp=Z,67nm,0.9s						
YHNB	Yeheng	58.04	270	P	P	04 22 10.7	+1.0
OXF	Oxford	58.10	74	IAMs_20	IAMs_20	04 48 27.7	
	comp=Z,4µm,19.0s						
WHN	Wuhan	58.15	280	⇑P	P	04 22 10.3	0.0
WHN				sP	pwP	04 22 22.0	+2.0
WHN				S	S	04 30 10.3	-0.3
WHN				pmax	pmax		
	comp=Z,680nm,1.0s						
WHN				L	L		
	comp=Z,6µm,19.3s						
WHN				L	L		
	comp=Z,10µm,18.0s						
WHN				L	L		
	comp=Z,8µm,18.2s						
143A	Socs Landing,	58.16	76	IAMs_20	IAMs_20	04 50 36.5	
	comp=Z,4µm,18.0s						
ERPA	Erie	58.22	61	IAmb	IAmb	04 22 17.4	
	comp=Z,40nm,1.0s						
ERPA				IAMs_20	IAMs_20	04 48 58.0	
	comp=Z,3µm,18.0s						
TRQ	Mont Tremblant	58.24	54	IAmb	IAmb	04 22 29.6	
	comp=Z,67nm,1.0s						
NACB	Ninganchiao	58.27	269	P	P	04 22 12.1	+0.9
NACB	Ninganchiao	58.27	269	IAmb	IAmb	04 22 30.2	
	comp=Z,62nm,0.9s						
NACB	Ninganchiao	58.27	269	P	P	04 22 10.2	-0.9
	comp=Z,75nm,0.9s						
ARA0	ARCESS Array S	58.28	354	eP	P	04 22 11.3	+0.6
ARA0				IAmb	IAmb	04 22 14.0	
	comp=Z,28nm,0.9s						
ARA0				eS	S	04 30 09.5	-1.9
ARA0				IAMs_20	IAMs_20	04 49 14.9	
	comp=Z,3µm,17.7s						
ARCES	ARCESS Array B	58.28	354	P	P	04 22 10.2	-0.5
	comp=Z,12nm,0.5s,baz=22,slow=6.0,SNR=19						
ARCES				LR	LR	04 49 40.2	
	comp=Z,3µm,18.4s,baz=2.5,slow=38						
	comp=Z,12nm,0.5s						
ARCES	ARCESS Array B	58.28	354	eP	P	04 22 10.0	-0.7
ARCES	ARCESS Array B	58.28	354	P	P	04 22 10.2	-0.5
ARCES				IAmb	IAmb	04 22 14.8	
	comp=Z,73nm,1.3s						
MEDO	Medina	58.33	59	IAmb	IAmb	04 22 32.7	
	comp=Z,57nm,0.9s						
P51A	Williamsport	58.34	65	IAmb	IAmb	04 23 20.7	
	comp=Z,35nm,0.8s						
ZAIG	Zacatecas	58.44	93	P	P	04 22 12.5	-0.2
	comp=Z,26nm,1.3s						
ZAIG				pP	sP	04 22 19.7	+0.1
441A	DeRidder	58.46	79	IAmb	IAmb	04 22 31.4	
	comp=Z,36nm,0.7s						
Y45A	Yeager Farm, C	58.47	74	IAMs_20	IAMs_20	04 48 21.5	
	comp=Z,3µm,18.0s						
TRO	Tromso	58.54	356	eP	P	04 22 12.5	+0.1
TRO				IAmb	IAmb	04 22 15.5	
	comp=Z,90nm,1.4s						
TRO				eS	S	04 30 15.0	+0.5
TRO				IAMs_20	IAMs_20	04 43 55.7	
	comp=Z,2µm,26.5s						
JETT	Jettan, Norway	58.55	356	eP	P	04 22 14.5	+1.9
PECO	Prince Edward	58.57	58	IAmb	IAmb	04 22 30.6	
	comp=Z,69nm,0.9s						
O52A	Adamsville	58.59	64	IAMs_20	IAMs_20	04 50 34.6	
	comp=Z,4µm,18.0s						
J55A	Hilton	58.60	59	IAMs_20	IAMs_20	04 50 41.1	
	comp=Z,4µm,19.0s						
N53A	Lisbon	58.66	63	IAmb	IAmb	04 22 14.1	
	comp=Z,42nm,0.9s						
N53A				IAMs_20	IAMs_20	04 49 42.6	
	comp=Z,4µm,18.0s						
V48A	Smith Brothers	58.77	71	IAmb	IAmb	04 22 27.9	
	comp=Z,47nm,1.1s						
V48A				IAMs_20	IAMs_20	04 46 42.4	
	comp=Z,3µm,20.0s						
PAOC	Oil Creek Stat	58.80	61	IAmb	IAmb	04 22 28.7	
	comp=Z,51nm,0.9s						
CLTN	Cedars of Leba	58.81	70	IAmb	IAmb	04 22 29.4	
	comp=Z,50nm,1.1s						
NRS	Narsarsuaq	58.81	28	i P	P	04 22 14.5	+0.1
NRS				IAmb	IAmb	04 22 15.7	
	comp=Z,14nm,0.6s						
U49A	Red Boiling Sp	58.84	69	IAmb	IAmb	04 22 28.6	
	comp=Z,40nm,1.0s						
U49A				IAMs_20	IAMs_20	04 47 07.2	
	comp=Z,3µm,20.0s						
MMNY	Mt. Morris Dam	58.92	59	IAmb	IAmb	04 22 24.2	
	comp=Z,84nm,1.2s						
KTK1	Kautokeino	58.95	355	eP	P	04 22 14.8	-0.5
KTK1				IAmb	IAmb	04 22 18.6	
	comp=Z,50nm,1.0s						
KTK1				eS	S	04 30 19.5	-0.4
KTK1				IAMs_20	IAMs_20	04 45 58.7	
	comp=Z,3µm,20.7s						
SSLB	Suanglung	58.95	270	P	P	04 22 16.4	+0.5
SSLB	Suanglung	58.95	270	IAMs_20	IAMs_20	04 45 59.5	
	comp=Z,3µm,20.0s						
SSLB	Suanglung	58.95	270	P	P	04 22 15.8	-0.2
	comp=Z,3µmcomp=Z,285nm,0.9s,comp=Z,3µm						
XAN	Xi'an	58.96	287	⇑P	P	04 22 15.8	-0.2
XAN				pP	sP	04 22 22.5	-0.3
XAN				sP	pwP	04 22 25.5	-0.2
XAN				S	S	04 30 21.0	-0.2
XAN				ScS	ScS	04 32 02.0	-2.8
XAN				pmax	pmax		
	comp=Z,150nm,1.0s						
XAN				pmax	pmax		
	comp=Z,1µm,5.2s						
XAN				L	L		
	comp=Z,2µm,19.2s						
XAN				L	L		
	comp=Z,7µm,16.5s						
XAN				L	L		
	comp=Z,6µm,15.8s						
YULB	Yu-li	59.02	269	P	P	04 22 17.6	+1.1
YULB	Yu-li	59.02	269	P	P	04 22 15.2	-1.3
	comp=Z,2µmcomp=Z,130nm,2.2s						
VBMS	Vicksburg	59.04	76	IAMs_20	IAMs_20	04 48 38.6	
	comp=Z,3µm,20.0s						
LVZ	Lovozero	59.06	349	ceP	P	04 22 15.5	-0.6
LVZ				pmax	pmax		
	comp=Z,91nm,1.0s						
LVZ	Lovozero	59.06	349	P	P	04 22 15.2	-0.9
LVZ	Lovozero	59.06	349	P	P	04 22 15.9	-0.2
	comp=Z,95nm,0.8s						
MNTQ	Montreal, Queb	59.21	54	IAmb	IAmb	04 22 35.8	
	comp=Z,60nm,1.0s						
P53A	Whipple	59.27	64	IAmb	IAmb	04 22 21.1	
	comp=Z,47nm,0.7s						
S51A	Beattyville	59.31	67	IAmb	IAmb	04 22 32.4	
	comp=Z,58nm,0.9s						
LONY	Lake Ozonia	59.34	56	IAmb	IAmb	04 22 37.2	
	comp=Z,39nm,0.9s						
LONY				IAMs_20	IAMs_20	04 47 07.5	
	comp=Z,4µm,21.0s						
LMQ	La Malbaie	59.40	51	IAmb	IAmb	04 22 53.0	
	comp=Z,28nm,0.9s						
DGZ	Jazzator, Alta	59.42	313	i P	P	04 22 19.4	+0.4
DGZ				pmax	pmax		
	comp=Z,44nm,0.9s						
J57A	Williamstown	59.45	58	IAMs_20	IAMs_20	04 48 04.5	
	comp=Z,3µm,20.0s						
TPUB	Ta-pu	59.51	269	P	P	04 22 20.0	+0.2
TPUB	Ta-pu	59.51	269	IAMs_20	IAMs_20	04 46 07.3	
	comp=Z,4µm,21.0s						
TPUB	Ta-pu	59.51	269	P	P	04 22 19.4	-0.4
	comp=Z,2µmcomp=Z,95nm,1.8s,comp=Z,2µm						
APA	Apatity	59.51	350	⇓eP	P	04 22 16.0	-3.2
APA				e		04 23 06.8	
APA				e		04 24 27.8	
APA				eS	S	04 30 19.5	-7.7
APA				e		04 32 06.5	
APA				eSS	SS	04 34 19.0	-2.5
APA				pmax	pmax		
	comp=Z,22nm,1.1s						
L56A	Greenwood	59.52	60	IAMs_20	IAMs_20	04 47 37.2	
	comp=Z,5µm,21.0s						
X48A	Hartselle	59.53	72	IAmb	IAmb	04 22 27.3	
	comp=Z,35nm,0.7s						
X48A				IAMs_20	IAMs_20	04 50 46.7	
	comp=Z,3µm,19.0s						
QZH2	Quanzhou	59.55	272	⇑iP	P	04 22 20.3	+0.2
QZH2				S	S	04 30 31.0	+2.1
QZH2				pmax	pmax		
	comp=Z,160nm,0.9s						
QZH2				pmax	pmax		
	comp=Z,1µm,3.9s						
QZH2				L	L		
	comp=Z,2µm,17.9s						
QZH2				L	L		
	comp=Z,1µm,15.8s						
QZH2				L	L		
	comp=Z,2µm,19.6s						
146A	Union	59.62	75	IAMs_20	IAMs_20	04 50 03.0	
	comp=Z,4µm,19.0s						
SWET	Sewanee	59.65	71	IAmb	IAmb	04 22 33.6	
	comp=Z,36nm,1.0s						
K57A	Scipio Center	59.66	58	IAmb	IAmb	04 22 30.1	
	comp=Z,99nm,1.3s						
K57A				IAMs_20	IAMs_20	04 47 16.8	
	comp=Z,3µm,20.0s						
Z47A	Carrollton	59.81	74	IAMs_20	IAMs_20	04 51 07.0	
	comp=Z,3µm,19.0s						
Q54A	Coxs Mills	59.93	64	IAmb	IAmb	04 22 25.9	
	comp=Z,38nm,0.6s						
Q54A				IAMs_20	IAMs_20	04 47 40.1	
	comp=Z,4µm,20.0s						
NCB	Newcomb	59.98	56	IAmb	IAmb	04 22 45.2	
	comp=Z,41nm,0.8s						
MCWV	Mont Chateau	60.01	63	IAmb	IAmb	04 22 25.5	
	comp=Z,50nm,0.8s						
W50A	Signal Mountai	60.02	70	P	P	04 22 22.3	-1.0
W50A				IAMs_20	IAMs_20	04 47 41.7	
	comp=Z,4µm,19.0s						
FLET	Fletcher	60.10	55	IAmb	IAmb	04 23 24.5	
	comp=Z,41nm,1.3s						
TZTN	Tazewell	60.10	68	P	P	04 22 22.9	-0.8
TZTN				IAmb	IAmb	04 22 37.6	
	comp=Z,63nm,0.9s						
TZTN	Tazewell	60.10	68	P	P	04 22 23.1	-0.7
	comp=Z,2µmcomp=Z,86nm,1.6s,comp=Z,2µm						
LOF	Lofoten	60.19	359	eP	P	04 22 22.9	-0.9
LOF				IAmb	IAmb	04 22 29.4	
	comp=Z,65nm,1.1s						
LOF				eS	S	04 30 34.9	-1.0
LOF				IAMs_20	IAMs_20	04 44 01.8	
	comp=Z,2µm,20.9s						
J59A	Piesco	60.19	57	P	P	04 22 24.4	+0.1
J59A				IAmb	IAmb	04 22 30.2	
	comp=Z,35nm,0.7s						
J59A				IAMs_20	IAMs_20	04 50 11.0	
	comp=Z,4µm,19.0s						
346A	Big Creek Wild	60.26	76	IAMs_20	IAMs_20	04 49 25.9	
	comp=Z,3µm,20.0s						
SGF	Sodankyl	60.27	353	P	P	04 22 24.3	-0.1
	comp=Z,48nm,0.6s						
M57A	Sunshine Farm,	60.31	60	IAmb	IAmb	04 22 45.5	
	comp=Z,40nm,0.8s						
BINY	Binghamton	60.31	59	IAMs_20	IAMs_20	04 47 16.1	
	comp=Z,4µm,21.0s						
BINY	Binghamton	60.31	59	P	P	04 22 24.4	-0.7
	comp=Z,2µmcomp=Z,134nm,1.1s						
CPCT	Cooper Cave	60.31	69	IAmb	IAmb	04 22 38.4	
	comp=Z,42nm,1.2s						
FPAL	Fort Paine	60.31	71	IAmb	IAmb	04 22 38.5	
	comp=Z,67nm,1.0s						
Y49A	Blount Mountai	60.33	72	IAmb	IAmb	04 22 42.0	
	comp=Z,44nm,0.8s						
Y49A				IAMs_20	IAMs_20	04 49 29.7	
	comp=Z,3µm,19.0s						
D62A	Allapoint, All	60.34	51	IAmb	IAmb	04 22 54.2	
	comp=Z,29nm,0.8s						
STEI	Steigen	60.36	358	eP	P	04 22 24.9	-0.1
STEI				eS	S	04 30 38.2	+0.2
SSPA	Standing Stone	60.39	61	P	P	04 22 25.1	-0.5
GTA2	Gaotai	60.40	297	P	P	04 22 25.0	-0.9
GTA2				S	S	04 30 38.3	-1.5
GTA2				pmax	pmax		
	comp=Z,78nm,0.8s						
GTA2				pmax	pmax		
	comp=Z,670nm,5.7s						
GTA2				L	L		
	comp=Z,5µm,22.8s						
GTA2				L	L		
	comp=Z,4µm,22.5s						
GTA2				L	L		
	comp=Z,8µm,21.3s						
LZH	Lanzhou	60.49	292	P	P	04 22 27.3	+0.7
LZH				sP	sP	04 22 34.0	+0.5
LZH				S	S	04 30 32.0	-9.1
LZH				pmax	pmax		
	comp=Z,170nm,1.8s						
LZH				pmax	pmax		
	comp=Z,1µm,4.5s						
LZH				L	L		
	comp=Z,5µm,16.2s						
LZH				L	L		
	comp=Z,6µm,16.2s						
LZH				L	L		
	comp=Z,9µm,15.5s						
LRAL	Lakeview Retre	60.56	73	IAmb	IAmb	04 22 40.0	
	comp=Z,40nm,0.9s						
LRAL				IAMs_20	IAMs_20	04 49 54.8	
	comp=Z,3µm,18.0s						
TKL	Tuckaleechee C	60.59	69	IAmb	IAmb	04 22 41.2	
	comp=Z,39nm,1.0s						
545A	Edgard	60.59	78	IAMs_20	IAMs_20	04 51 46.9	
	comp=Z,3µm,19.0s						
LZDM	Lanzhou Array	60.67	292	P	P	04 22 28.2	+0.2
	comp=Z,33nm,0.6s,baz=26,slow=4.1,SNR=21						
LZDM				LR	LR	04 50 45.9	
	comp=Z,5µm,18.8s,baz=60,slow=38						
	comp=Z,33nm,0.6s						
CNSH	ChangSha	60.70	279	P	P	04 22 27.8	-0.1
CNSH				S	S	04 30 43.3	-0.3
CNSH				pmax	pmax		
	comp=Z,75nm,1.0s						
CNSH				L	L		
	comp=Z,1µm,19.0s						
CNSH				L	L		
	comp=Z,3µm,21.2s						
CNSH				L	L		
	comp=Z,2µm,20.7s						
CNSH	ChangSha	60.70	279	S	P	04 22 28.0	+0.1
X51A	Calhoun	60.73	70	IAmb	IAmb	04 22 42.2	
	comp=Z,90nm,1.2s						
X51A				IAMs_20	IAMs_20	04 47 42.5	
	comp=Z,4µm,21.0s						
Q56A	Snyder Ridge,	60.80	63	IAmb	IAmb	04 22 46.0	
	comp=Z,66nm,1.2s						
L59A	Walton	60.81	58	IAMs_20	IAMs_20	04 47 20.4	
	comp=Z,3µm,22.0s						
R55A	Marlinton	60.82	64	IAmb	IAmb	04 22 51.9	
	comp=Z,62nm,0.9s						
R55A				IAMs_20	IAMs_20	04 51 37.7	
	comp=Z,4µm,18.0s						
KSPA	Keystone Colle	60.88	59	IAmb	IAmb	04 22 38.0	
	comp=Z,50nm,1.0s						
N58A	Sunbury	60.88	60	IAmb	IAmb	04 22 37.8	
	comp=Z,73nm,1.2s						
W52A	Murphy	60.90	69	IAmb	IAmb	04 22 42.6	
	comp=Z,48nm,1.1s						
W52A				IAMs_20	IAMs_20	04 48 29.9	
	comp=Z,4µm,20.0s						
FAUS	Fauske	60.90	358	eP	P	04 22 28.3	-0.4
FAUS				IAmb	IAmb	04 22 31.9	
	comp=Z,30nm,0.7s						
FAUS				eS	S	04 30 44.9	-0.2
FAUS				IAMs_20	IAMs_20	04 45 02.2	
	comp=Z,3µm,22.1s						
G62A	West of Eustis	60.95	53	IAmb	IAmb	04 22 48.6	
	comp=Z,61nm,1.0s						
BORG	Borgarnes	61.08	15	LR	LR	04 51 07.7	
	comp=Z,3µm,19.3s,baz=337,slow=38						
U54A	Nelsons Funny	61.10	67	IAmb	IAmb	04 22 44.9	
	comp=Z,65nm,0.9s						
H62A	Milan	61.10	54	IAmb	IAmb	04 22 49.6	
	comp=Z,61nm,0.9s						
P57A	Homestead Farm	61.13	62	IAmb	IAmb	04 22 45.0	
	comp=Z,62nm,1.0s						
V53A	Saluda	61.14	68	IAmb	IAmb	04 22 45.4	
	comp=Z,80nm,1.2s						
TRY	Troy	61.14	57	IAmb	IAmb	04 22 37.5	
	comp=Z,31nm,0.7s						
TRY				IAMs_20	IAMs_20	04 50 50.2	
	comp=Z,4µm,19.0s						
J61A	Chester	61.28	56	IAmb	IAmb	04 22 51.3	
	comp=Z,45nm,1.0s						
ENH	Enshi	61.29	283	IAMs_20	IAMs_20	04 51 52.3	
	comp=Z,3µm,19.0s						
ENH	Enshi	61.29	283	P	P	04 22 31.8	-0.2
	comp=Z,3µmcomp=Z,171nm,0.9s						
PAGS	Pennsylvania G	61.31	61	IAmb	IAmb	04 22 34.2	
	comp=Z,52nm,0.7s						
BLA	Blacksburg	61.41	65	IAMs_20	IAMs_20	04 48 18.3	
	comp=Z,4µm,21.0s						
PKME	Peaks-Kenny Pk	61.53	52	IAmb	IAmb	04 22 52.4	
	comp=Z,31nm,0.9s						
BG3	Lake Jocassee	61.55	69	IAmb	IAmb	04 22 47.3	
	comp=Z,50nm,1.0s						
F64A	Sherman	61.55	51	IAmb	IAmb	04 22 51.8	
	comp=Z,39nm,1.0s						
MSF	Maaselka	61.56	351	P	P	04 22 33.0	-0.2
	comp=Z,57nm,1.3s						
VAGH	Vaagaholmen	61.60	359	eP	P	04 22 34.5	+1.1
VAGH				eS	S	04 30 54.9	+1.0
BATG	Bathurst New B	61.61	49	IAmb	IAmb	04 22 49.1	
	comp=Z,60nm,0.9s						
MVL	Millersville	61.67	61	IAmb	IAmb	04 22 43.1	
	comp=Z,35nm,0.9s						
Y52A	Lilburn	61.70	70	IAmb	IAmb	04 22 48.0	
	comp=Z,53nm,1.0s						
Y52A				IAMs_20	IAMs_20	04 48 23.0	
	comp=Z,4µm,21.0s						
250A	Grady	61.74	73	IAMs_20	IAMs_20	04 49 58.3	
	comp=Z,3µm,20.0s						
I63A	Otisfield	61.77	54	IAmb	IAmb	04 22 52.4	
	comp=Z,74nm,1.2s						
KONS	Konsvik	61.83	359	eP	P	04 22 35.2	+0.3
KONS				IAmb	IAmb	04 22 37.5	
	comp=Z,24nm,0.8s						
KONS				eS	S	04 30 58.2	+1.3
KONS				IAMs_20	IAMs_20	04 49 01.7	
	comp=Z,2µm,18.6s						
S57A	Dark Hollow, R	61.84	64	IAmb	IAmb	04 22 44.4	
	comp=Z,64nm,1.0s						
L61B	Northampton	61.85	56	IAmb	IAmb	04 22 55.0	
	comp=Z,37nm,1.1s						
L61B				IAMs_20	IAMs_20	04 51 19.0	
	comp=Z,3µm,20.0s						
WVL	Waterville	61.86	53	IAmb	IAmb	04 22 54.4	
	comp=Z,24nm,0.9s						
BRAL	Brewton	61.86	75	IAMs_20	IAMs_20	04 50 48.3	
	comp=Z,4µm,19.0s						
RAUS	Rausandaksla	61.88	358	eP	P	04 22 35.2	-0.1
RAUS				IAmb	IAmb	04 22 40.1	
	comp=Z,39nm,0.8s						
RAUS				eS	S	04 31 01.5	+4.0
RAUS				IAMs_20	IAMs_20	04 45 04.1	
	comp=Z,2µm,24.4s						
V55A	Taylorsville	61.92	67	IAmb	IAmb	04 22 50.7	
	comp=Z,72nm,1.0s						
K62A	Royalston	61.93	56	IAmb	IAmb	04 22 45.6	
	comp=Z,44nm,0.9s						
K62A				IAMs_20	IAMs_20	04 51 46.0	
	comp=Z,4µm,19.0s						
STOK	Stokkvaagen	62.00	359	eP	P	04 22 37.5	+1.4
STOK				IAmb	IAmb	04 22 39.1	
	comp=Z,48nm,0.9s						
STOK				eS	S	04 31 01.5	+2.5
STOK				IAMs_20	IAMs_20	04 49 05.2	
	comp=Z,2µm,22.2s						
152A	Waverly Hall	62.16	72	IAmb	IAmb	04 22 50.4	
	comp=Z,75nm,1.3s						
152A				IAMs_20	IAMs_20	04 50 46.4	
	comp=Z,3µm,18.0s						
LEIR	Leirfjorden	62.22	359	eP	P	04 22 37.5	-0.1
LEIR				IAmb	IAmb	04 22 40.7	
	comp=Z,41nm,0.8s						
LEIR				eS	S	04 31 04.8	+3.0
LEIR				IAMs_20	IAMs_20	04 49 21.8	
	comp=Z,2µm,20.9s						
ZSN	Zaisan	62.23	312	c iP	P	04 22 37.9	-0.1
ZSN				eS	S	04 31 03.9	+1.4
ZSN				pmax	pmax		
	comp=Z,28nm,0.9s						
ZSN	Zaisan	62.23	312	⇑iP	P	04 22 37.9	-0.1
	comp=Z,28nm,0.9s						
ZSN				eS	S	04 31 04.0	+1.4
PAL	Palisades	62.25	58	IAMs_20	IAMs_20	04 48 14.5	
	comp=Z,3µm,21.0s						
PAULI	Pauline	62.31	68	IAmb	IAmb	04 22 52.4	
	comp=Z,54nm,0.9s						
UNH	University of	62.32	55	IAmb	IAmb	04 22 57.9	
	comp=Z,44nm,1.1s						
GOGA	Godfrey	62.37	70	IAmb	IAmb	04 22 52.1	
	comp=Z,48nm,1.0s						
GOGA	Godfrey	62.37	70	IAMs_20	IAMs_20	04 50 10.7	
	comp=Z,3µm,18.0s						
GOGA	Godfrey	62.37	70	P	P	04 22 38.0	-1.1
	comp=Z,884nmcomp=Z,52nm,1.0s						
ADZR	Andozero	62.37	346	eP	P	04 22 37.5	-1.1
ADZR				eS	S	04 30 59.0	-4.8
ADZR				pmax	pmax		
	comp=Z,103nm,1.0s						
HRV	Adam Dziewonsk	62.39	56	⇑P	P	04 22 38.0	-1.1
HRV	Adam Dziewonsk	62.39	56	P	P	04 22 39.2	+0.1
HRV				IAmb	IAmb	04 22 58.7	
	comp=Z,35nm,1.0s						
HRV	Adam Dziewonsk	62.39	56	P	P	04 22 39.1	0.0
	comp=Z,41nm,1.0s						
CBN	Corbin Frederi	62.39	63	IAMs_20	IAMs_20	04 51 04.4	
	comp=Z,4µm,20.0s						
WSPT	Westport, CT	62.44	58	IAmb	IAmb	04 22 56.8	
	comp=Z,48nm,1.0s						
WSPT				IAMs_20	IAMs_20	04 51 30.4	
	comp=Z,3µm,18.0s						
HODGE	Hodges	62.48	69	IAmb	IAmb	04 22 53.4	
	comp=Z,45nm,0.9s						
KURK	Kurchatov	62.49	318	P	P	04 22 38.9	-0.7
KURK	Kurchatov	62.49	318	ceP	P	04 22 39.2	-0.5
KURK				pmax	pmax		
	comp=Z,65nm,1.3s						
KURK	Kurchatov	62.49	318		PcP	04 23 19.7	+0.9
KURK	Kurchatov	62.49	318	P	P	04 22 39.8	+0.1
N62A	Caumsett State	62.54	58	IAmb	IAmb	04 22 49.6	
	comp=Z,49nm,0.9s						
N62A				IAMs_20	IAMs_20	04 48 13.1	
	comp=Z,3µm,20.0s						
WES	Weston	62.60	56	IAmb	IAmb	04 22 47.2	
	comp=Z,53nm,0.9s						
KURBB	Kurchatov Arra	62.60	318	P	P	04 22 39.8	-0.6
	comp=Z,28nm,0.7s,baz=43,slow=6.9,SNR=38						
KURBB				PcP	PcP	04 23 19.7	+0.5
	comp=Z,22nm,0.8s,baz=40,slow=4.7,SNR=5.6						
KURBB				LR	LR	04 50 47.1	
	comp=Z,6µm,21.1s,baz=22,slow=37						
KURBB				PKPPKP	P'P'df	04 51 51.2	+0.8
	comp=Z,3.1nm,0.2s,baz=223,slow=2.8,SNR=4.3						
	comp=Z,28nm,0.7s						
OUL	Oulu	62.65	353	P	P	04 22 40.1	-0.3
	comp=Z,63nm,1.1s						
GGN	Saint George	62.82	51	IAmb	IAmb	04 22 58.9	
	comp=Z,32nm,0.9s						
EMMW	East Machias	62.83	52	IAmb	IAmb	04 23 01.1	
	comp=Z,37nm,0.8s						
352A	Blakely	62.90	73	IAMs_20	IAMs_20	04 51 00.7	
	comp=Z,3µm,19.0s						
M63A	Gales Ferry	62.94	57	IAMs_20	IAMs_20	04 51 52.6	
	comp=Z,4µm,19.0s						
451A	Vernon	63.03	74	IAMs_20	IAMs_20	04 53 17.4	
	comp=Z,3µm,19.0s						
UNM	Universidad Na	63.10	93	IAMs_20	IAMs_20	04 47 56.5	
	comp=Z,4µm,18.0s						
V58A	Windy Hill, Pi	63.15	66	IAMs_20	IAMs_20	04 50 39.5	
	comp=Z,4µm,18.0s						
L64A	Middleborough	63.17	56	IAmb	IAmb	04 22 50.8	
	comp=Z,28nm,1.1s						
L64A				IAMs_20	IAMs_20	04 49 12.8	
	comp=Z,4µm,20.0s						
BIRD	Birdtown, Kers	63.22	67	IAmb	IAmb	04 22 59.2	
	comp=Z,72nm,1.1s						
M65A	Busby, Falmout	63.54	56	IAMs_20	IAMs_20	04 49 23.7	
	comp=Z,4µm,20.0s						
GZH2	Guangzhou	63.56	275	P	P	04 22 47.5	+0.4

GZH2				S	**S**	**04 31 21.5**	**+1.8**
GZH2				pmax	pmax		
	comp=Z,160nm,0.9s						
GZH2				L	L		
	comp=Z,2µm,17.6s						
GZH2				L	L		
	comp=Z,2µm,17.5s						
GZH2				L	L		
	comp=Z,3µm,17.8s						
WMQ	**Urumqi**	**63.57**	**308**	*e*P	**P**	**04 22 47.3**	**+0.3**
WMQ				sP	pwP	04 22 56.5	-0.1
WMQ				S	**S**	**04 31 18.8**	**-0.7**
WMQ				pmax	pmax		
	comp=Z,63nm,1.1s						
WMQ				pmax	pmax		
	comp=Z,600nm,6.3s						
WMQ				L	L		
	comp=Z,7µm,22.9s						
WMQ				L	L		
	comp=Z,5µm,20.3s						
WMQ				L	L		
	comp=Z,5µm,24.2s						
TIGA	**Tifton**	**63.71**	**72**	IAMs_20	IAMs_20	04 51 35.4	
	comp=Z,3µm,20.0s						
NSS	**Namsos**	**63.82**	**359**	*e*P	**P**	**04 22 48.2**	**-0.1**
BVAR	**Borovoye Array**	**63.87**	**324**	P	**P**	**04 22 48.4**	**-0.4**
	comp=Z,95nm,0.5s,baz=48,slow=6.7,SNR=81						
BVAR				S	**S**	**04 31 24.0**	**+1.1**
	comp=Z,1.9nm,0.7s,baz=34,slow=14,SNR=4.5						
	comp=Z,95nm,0.5s						
BORK	**Borovoye**	**63.88**	**324**	*c i*P	**P**	**04 22 48.6**	**-0.2**
BORK				pmax	pmax		
	comp=Z,111nm,0.9s						
MK31	**Makanchi Array**	**63.89**	**313**	*ce*P	**P**	**04 22 48.2**	**-0.8**
MKAR	**Makanchi Array**	**63.89**	**313**	P	**P**	**04 22 47.9**	**-1.2**
	comp=Z,22nm,0.9s,baz=48,slow=5.8,SNR=21						
MKAR				PKPPKP	**P'P'df**	**04 51 41.2**	**-6.9**
	comp=Z,0.7nm,0.8s,baz=232,slow=6.0,SNR=4.3						
	comp=Z,22nm,0.9s						
MKAR	**Makanchi Array**	**63.89**	**313**	P	**P**	**04 22 48.1**	**-0.9**
MKAR	**Makanchi Array**	**63.89**	**313**	P	**P**	**04 22 48.1**	**-0.9**
DRLN	**Deer Lake**	**63.90**	**42**	IAmb	IAmb	04 23 02.9	
	comp=Z,62nm,0.9s						
SVE	**Sverdlovsk**	**63.91**	**332**	*de*P	**P**	**04 22 49.2**	**+0.2**
SVE				*e*S	**S**	**04 31 26.9**	**+3.6**
SVE				pmax	pmax		
	comp=Z,80nm,1.0s						
SZP	**Santa**	**63.91**	**265**	P	**P**	**04 22 49.9**	**+0.4**
	comp=Z,4µmcomp=Z,237nm,1.0s						
W59A	**Clinton**	**63.98**	**66**	IAmb	IAmb	04 23 04.8	
	comp=Z,83nm,1.2s						
MAKZ	**Makanchi**	**64.02**	**313**	⇑P	**P**	**04 22 48.4**	**-1.4**
MAKZ	**Makanchi**	**64.02**	**313**	P	**P**	**04 22 48.6**	**-1.3**
MAKZ				IAmb	IAmb	04 23 40.5	
	comp=Z,133nm,1.9s						
MAKZ				IAMs_20	IAMs_20	04 51 20.0	
	comp=Z,4µm,20.0s						
MAKZ	**Makanchi**	**64.02**	**313**	P	**P**	**04 22 48.5**	**-1.4**
	comp=Z,634nmcomp=Z,26nm,1.0s						
553A	**Crawfordville**	**64.12**	**74**	IAMs_20	IAMs_20	04 53 39.2	
	comp=Z,2µm,20.0s						
CD2	**Chengdu**	**64.24**	**288**	⇑P	**P**	**04 22 52.5**	**+0.9**
CD2				S	**S**	**04 31 27.8**	**-0.4**
CD2				pmax	pmax		
	comp=Z,230nm,0.9s						
CD2				pmax	pmax		
	comp=Z,2µm,3.5s						
CD2				L	L		
	comp=Z,4µm,15.9s						
CD2				L	L		
	comp=Z,2µm,15.9s						
CD2				L	L		
	comp=Z,5µm,17.1s						
HKPS	**Hong Kong Po S**	**64.27**	**274**	P	**P**	**04 22 52.8**	**+0.9**
GULI	**GuiLin**	**64.37**	**279**	⇑*i*P	**P**	**04 22 54.5**	**+2.0**
GULI				S	**S**	**04 31 31.5**	**+1.7**
GULI				pmax	pmax		
	comp=Z,83nm,1.0s						
GULI				pmax	pmax		
	comp=Z,1µm,4.2s						
GULI				L	L		
	comp=Z,2µm,17.7s						
GULI				L	L		
	comp=Z,2µm,17.4s						
GULI				L	L		
	comp=Z,2µm,17.7s						
HAL	**Halifax**	**64.72**	**49**	IAmb	IAmb	04 23 22.4	
	comp=Z,44nm,0.9s						
KRVT	**Keravat (AS076**	**64.77**	**223**	LR	LR	04 47 25.7	
	comp=Z,2µm,19.3s,baz=338,slow=33						
ARTI	**Arti**	**64.94**	**333**	LR	LR	04 56 03.0	
	comp=Z,4µm,18.1s,baz=36,slow=40						
ARTI	**Arti**	**64.94**	**333**	*c i*P	**P**	**04 22 55.3**	**-0.4**
ARTI						04 23 27.9	
ARTI						04 25 14.4	
ARTI				S	**S**	**04 31 33.9**	**-2.0**
ARTI						04 32 41.5	
ARTI				SS	**SS**	**04 35 51.7**	**+5.1**
ARTI				SSS	SSS	04 38 41.1	
ARTI				pmax	pmax		
	comp=Z,121nm,0.9s						
ARTI				MLR	MLR		
	comp=Z,4µm,17.0s						
ARTI	**Arti**	**64.94**	**333**	P	**P**	**04 22 55.8**	**+0.1**
KLMR	**Klimovskoe**	**65.09**	**345**	*e*P	**P**	**04 22 54.2**	**-2.4**
KLMR				S	**S**	**04 31 39.1**	**+1.4**
KLMR				SS	**SS**	**04 35 48.4**	**-0.4**
KLMR				pmax	pmax		
	comp=Z,71nm,1.0s						
456A	**Hilliard**	**65.15**	**71**	IAMs_20	IAMs_20	04 52 27.5	
	comp=Z,4µm,19.0s						
KIRV	**Kirov**	**65.27**	**339**	*ce*P	**P**	**04 22 57.4**	**-0.4**
GOMU	**GeErMu**	**65.48**	**298**	P	**P**	**04 22 59.5**	**-0.5**
GOMU				sP	sP	04 23 07.5	+0.6
GOMU				S	**S**	**04 31 40.8**	**-3.2**
GOMU				pmax	pmax		
	comp=Z,25nm,0.8s						
GOMU				L	L		
	comp=Z,6µm,17.5s						
GOMU				L	L		
	comp=Z,3µm,17.6s						
GOMU				L	L		
	comp=Z,8µm,18.2s						
GYA	**Guiyang**	**65.76**	**282**	P	**P**	**04 23 02.0**	**+0.3**
GYA				S	**S**	**04 31 46.3**	**-0.8**
GYA				pmax	pmax		
	comp=Z,170nm,1.1s						
GYA				L	L		
	comp=Z,2µm,8.4s						
GYA				L	L		
	comp=Z,1µm,8.0s						
MOL	**Molde**	**65.78**	**1**	*e*P	**P**	**04 23 00.6**	**-0.5**
MOL				IAmb	IAmb	04 23 03.8	
	comp=Z,46nm,0.8s						
MOL				*e*S	**S**	**04 31 49.0**	**+3.0**
MOL				IAMs_20	IAMs_20	04 51 34.8	
	comp=Z,2µm,18.2s						
656A	**Willston**	**65.84**	**73**	IAMs_20	IAMs_20	04 53 56.8	
	comp=Z,3µm,19.0s						
AKN	**Aaknes**	**66.16**	**2**	*e*P	**P**	**04 23 03.7**	**+0.2**
AKN				IAmb	IAmb	04 23 10.7	
	comp=Z,59nm,0.8s						
AKN				*e*S	**S**	**04 31 53.2**	**+2.4**
AKN				IAMs_20	IAMs_20	04 52 15.7	
	comp=Z,2µm,18.5s						
FINES	**FINESS Array B**	**66.22**	**352**	P	**P**	**04 23 03.2**	**-0.7**
	comp=Z,45nm,0.8s,baz=19,slow=5.5,SNR=79						
FINES				PKPPKP	P'P'df	04 51 35.7	-10
	comp=Z,2.7nm,0.8s,baz=134,slow=5.5,SNR=4.4						
FINES				LR	LR	04 54 32.0	
	comp=Z,2µm,19.2s,baz=10,slow=38						
	comp=Z,45nm,0.8s						
FINES	**FINESS Array B**	**66.22**	**352**	P	**P**	**04 23 03.4**	**-0.5**
FINES	**FINESS Array B**	**66.22**	**352**	P	**P**	**04 23 03.4**	**-0.5**
DOMB	**Dombas**	**66.32**	**1**	*e*P	**P**	**04 23 04.6**	**0.0**
DOMB				*e*S	**S**	**04 31 54.6**	**+1.8**
FOO	**Floro**	**66.70**	**3**	*e*P	**P**	**04 23 07.5**	**+0.6**
TDK	**Taldyqorghan**	**67.00**	**314**	*c i*P	**P**	**04 23 09.1**	**-0.1**
TDK				pmax	pmax		
	comp=Z,26nm,0.7s						
TDK				MLR	MLR		
	comp=Z,4µm,16.0s						
TDK	**Taldyqorghan**	**67.00**	**314**	⇑*i*P	**P**	**04 23 09.1**	**-0.1**
	comp=Z,26nm,0.7s						
TDK				LR	LR	04 53 03.9	
	comp=Z,4µm,15.9s						
NC204	**NORSAR Array S**	**67.10**	**360**	IAmb	IAmb	04 25 17.3	
	comp=Z,50nm,0.9s						
NC303	**NORSAR Array S**	**67.14**	**359**	IAmb	IAmb	04 23 13.3	
	comp=Z,54nm,0.8s						
HYA	**Hoyanger**	**67.16**	**2**	*e*P	**P**	**04 23 11.2**	**+1.3**
HYA				IAmb	IAmb	04 23 14.8	
	comp=Z,64nm,1.3s						
HYA				*e*S	**S**	**04 32 05.5**	**+2.7**
HYA				IAMs_20	IAMs_20	04 51 38.8	
	comp=Z,2µm,20.0s						
SUE	**Sulen**	**67.23**	**3**	*e*P	**P**	**04 23 15.0**	**+4.6**
SUE				IAmb	IAmb	04 23 17.8	
	comp=Z,41nm,1.2s						
SUE				*e*S	**S**	**04 32 07.9**	**+4.3**
SUE				IAMs_20	IAMs_20	04 49 49.1	
	comp=Z,2µm,29.0s						
NB2	**NORSAR Subarra**	**67.33**	**359**	P	**P**	**04 23 10.6**	**-0.5**
	comp=Z,25nm,0.7s,baz=0.9,slow=6.5						
NB2	**NORSAR Subarra**	**67.33**	**359**	P	**P**	**04 23 10.6**	**-0.5**
NOA	**NORSAR Array B**	**67.33**	**359**	P	**P**	**04 23 10.6**	**-0.5**
	comp=Z,25nm,0.8s,baz=0.3,slow=6.3,SNR=56						
NOA				PKP2bc	P'P'bc	04 51 33.2	-13
	comp=Z,3.2nm,1.1s,baz=158,slow=3.6,SNR=4.7						
NOA				LR	LR	04 54 06.7	
	comp=Z,882nm,18.4s,baz=0.0,slow=37						
	comp=Z,25nm,0.8s						
NBO00	**NORSAR Array S**	**67.34**	**360**	IAmb	IAmb	04 25 18.1	
	comp=Z,34nm,0.9s						
DWPF	**Disney Wildern**	**67.42**	**73**	P	**P**	**04 23 11.6**	**-0.5**
DWPF	**Disney Wildern**	**67.42**	**73**	IAMs_20	IAMs_20	04 53 33.6	
	comp=Z,2µm,19.0s						
DWPF	**Disney Wildern**	**67.42**	**73**	P	**P**	**04 23 12.2**	**+0.2**
	comp=Z,1µmcomp=Z,87nm,1.0s,comp=Z,1µm						
PUL	**Pulkovo**	**67.43**	**349**	*ce*P	**P**	**04 23 11.2**	**-0.4**
PUL				pmax	pmax		
	comp=Z,53nm,0.6s						
CMIG	**Matias Romero**	**67.45**	**91**	LR	LR	04 50 08.8	
	comp=Z,3µm,18.9s,baz=302,slow=34						
NC602	**NORSAR Array S**	**67.64**	**359**	*e*P	**P**	**04 23 13.2**	**+0.3**
NC602				IAmb	IAmb	04 23 16.4	
	comp=Z,23nm,1.0s						
NC602				*e*S	**S**	**04 32 11.3**	**+2.7**
NC602				IAMs_20	IAMs_20	04 54 15.8	
	comp=Z,2µm,19.4s						
NC602	**NORSAR Array S**	**67.64**	**359**	IAmb	IAmb	04 23 19.3	
	comp=Z,23nm,0.8s						
NORES	**NORESS Array B**	**67.64**	**359**	*e*P	**P**	**04 23 14.8**	**+1.9**
SKAR	**Skarslia**	**67.68**	**1**	*e*P	**P**	**04 23 14.7**	**+1.4**
SKAR				IAmb	IAmb	04 23 16.6	
	comp=Z,41nm,0.8s						
SKAR				*e*S	**S**	**04 32 07.9**	**-1.3**
SKAR				IAMs_20	IAMs_20	04 52 52.8	
	comp=Z,2µm,22.5s						
ASK	**Askoy**	**67.82**	**3**	*e*P	**P**	**04 23 15.0**	**+0.9**
ASK				*e*S	**S**	**04 32 11.2**	**+0.5**
BER	**Bergen**	**67.92**	**3**	*e*P	**P**	**04 23 15.2**	**+0.6**
BER				*e*S	**S**	**04 32 17.9**	**+6.0**
BER				IAMs_20	IAMs_20	04 49 58.6	
	comp=Z,1µm,21.7s						
SHLS	**Shalkode**	**67.97**	**312**	*c i*P	**P**	**04 23 14.1**	**-1.3**
SHLS				pmax	pmax		
	comp=Z,37nm,1.0s						
SHLS	**Shalkode**	**67.97**	**312**	⇑*i*P	**P**	**04 23 14.2**	**-1.3**
	comp=Z,37nm,1.0s						
KPKS	**Kokpek**	**68.08**	**313**	*e*P	**P**	**04 23 16.2**	**+0.1**
KPKS	**Kokpek**	**68.08**	**313**	*e*P	**P**	**04 23 16.2**	**+0.1**
UZB	**Uzynbulak**	**68.17**	**313**	*c i*P	**P**	**04 23 16.5**	**-0.3**
UZB				pmax	pmax		
	comp=Z,18nm,0.8s						
UZB	**Uzynbulak**	**68.17**	**313**	⇑*i*P	**P**	**04 23 16.6**	**-0.3**
	comp=Z,18nm,0.8s						
HFS	**Hagfors**	**68.21**	**358**	P	**P**	**04 23 16.1**	**-0.4**
	comp=Z,17nm,0.4s,baz=5.7,slow=3.0,SNR=25						
HFS				LR	LR	04 55 15.6	
	comp=Z,1µm,18.1s,baz=358,slow=38						
	comp=Z,17nm,0.4s						
ARBE	**Arbavere**	**68.21**	**351**	P	**P**	**04 23 16.5**	**0.0**
	comp=Z,375nm,0.9s						
ODD1	**Odda**	**68.43**	**2**	*e*P	**P**	**04 23 19.5**	**+1.6**
JAY	**Jayapura**	**68.47**	**235**	LR	LR	04 51 30.5	
	comp=Z,2µm,18.9s,baz=24,slow=34						
SATY	**Saty**	**68.52**	**313**	*c i*P	**P**	**04 23 18.8**	**-0.1**
SATY				*e*S	**S**	**04 32 21.4**	**+1.4**
SATY				pmax	pmax		
	comp=Z,16nm,0.9s						
SATY	**Saty**	**68.52**	**313**	⇑*i*P	**P**	**04 23 18.9**	**-0.1**
	comp=Z,16nm,0.9s						
SATY				*e*S	**S**	**04 32 21.4**	**+1.4**
PZH	**PanZhiHua**	**68.68**	**286**	P	**P**	**04 23 20.8**	**+0.6**
PZH				S	**S**	**04 32 23.0**	**+0.7**
PZH				pmax	pmax		
	comp=Z,350nm,0.9s						
PZH				pmax	pmax		
	comp=Z,2µm,3.5s						
PZH				L	L		
	comp=Z,2µm,19.2s						
PZH				L	L		
	comp=Z,1µm,18.8s						
PZH				L	L		
	comp=Z,2µm,19.0s						
KONO	**Kongsberg**	**68.73**	**0**	*ce*P	**P**	**04 23 20.7**	**+0.9**
KONO				pmax	pmax		
	comp=Z,82nm,1.3s						
KONO	**Kongsberg**	**68.73**	**0**	*e*P	**P**	**04 23 20.4**	**+0.7**
KONO				*e*S	**S**	**04 32 24.6**	**+3.0**
KONO				IAMs_20	IAMs_20	04 54 19.0	
	comp=Z,2µm,20.5s						
KONO	**Kongsberg**	**68.73**	**0**	P	**P**	**04 23 19.9**	**+0.1**
KONO	**Kongsberg**	**68.73**	**0**	P	**P**	**04 23 20.5**	**+0.7**
	comp=Z,66nm,1.1s						
KUU	**Kurty**	**68.78**	**315**	*e*P	**P**	**04 23 20.5**	**+0.1**
KUU				MLR	MLR		
	comp=Z,2µm,17.0s						
KUU	**Kurty**	**68.78**	**315**	*e*P	**P**	**04 23 20.5**	**+0.1**
KUU				LR	LR	04 54 13.0	
	comp=Z,2µm,16.8s						
GENI	**Genyem**	**68.81**	**235**	P	**P**	**04 23 20.8**	**-0.1**
	comp=Z,2µmcomp=Z,133nm,1.0s						
060A	**Indiantown**	**68.85**	**73**	IAMs_20	IAMs_20	04 55 59.5	
	comp=Z,3µm,19.0s						
BLS5	**Blasjo**	**68.92**	**2**	*e*P	**P**	**04 23 20.7**	**-0.3**
BLS5				*e*S	**S**	**04 32 27.9**	**+4.0**
DAV	**Davao City (W)**	**68.95**	**254**	LR	LR	04 49 00.3	
	comp=Z,2µm,21.9s,baz=47,slow=32						
DAV	**Davao City (W)**	**68.95**	**254**	IAMs_20	IAMs_20	04 48 15.8	
	comp=Z,3µm,22.0s						
MDOK	**Medeo**	**69.05**	**314**	*e*P	**P**	**04 23 22.0**	**-0.2**
MDOK				*e*S	**S**	**04 32 27.5**	**+1.2**
MDOK	**Medeo**	**69.05**	**314**	*e*P	**P**	**04 23 22.1**	**-0.2**
MDOK				*e*S	**S**	**04 32 27.5**	**+1.2**
MDOK				LR	LR	04 54 21.4	
AAA	**Alma-Ata**	**69.07**	**314**	*e*P	**P**	**04 23 22.3**	**0.0**
AAA				pmax	pmax		
	comp=Z,38nm,1.0s						
AAA				MLR	MLR		
	comp=Z,4µm,17.0s						
AAA	**Alma-Ata**	**69.07**	**314**	*e*P	**P**	**04 23 22.3**	**0.0**
	comp=Z,38nm,1.0s						
AAA				LR	LR	04 54 19.5	
	comp=Z,4µm,17.1s						
KMI2	**Kunming**	**69.09**	**284**	⇑P	**P**	**04 23 23.5**	**+0.6**
KMI2				sP	pwP	04 23 33.5	+0.9
KMI2				S	**S**	**04 32 29.0**	**+1.6**
KMI2				pmax	pmax		
	comp=Z,140nm,0.9s						
KMI2				pmax	pmax		
	comp=Z,1µm,3.7s						
KMI2				L	L		
	comp=Z,2µm,18.1s						
KMI2				L	L		
	comp=Z,2µm,18.1s						
KMI2				L	L		
	comp=Z,2µm,19.5s						
VSU	**Vasula**	**69.10**	**351**	*ce*P	**P**	**04 23 20.8**	**-1.3**
VSU				pmax	pmax		
	comp=Z,88nm,0.7s						
VSU	**Vasula**	**69.10**	**351**	P	**P**	**04 23 21.0**	**-1.0**
	comp=Z,1µmcomp=Z,136nm,0.8s,comp=Z,1µm						
MTSE	**Matsula**	**69.11**	**352**	P	**P**	**04 23 21.6**	**-0.6**
	comp=Z,322nm,0.9s						
TEIG	**Tepich**	**69.16**	**84**	P	**P**	**04 23 22.2**	**-0.8**
TEIG	**Tepich**	**69.16**	**84**	P	**P**	**04 23 22.3**	**-0.8**
	comp=Z,694nmcomp=Z,29nm,1.6s						
TNSS	**Tian-Shan**	**69.19**	**314**	*e*P	**P**	**04 23 23.0**	**-0.5**
TNSS	**Tian-Shan**	**69.19**	**314**	*e*P	**P**	**04 23 23.1**	**-0.5**
STRU	**Stroemstad**	**69.34**	**359**	*i* P	**P**	**04 23 24.5**	**+0.9**
QIZ	**Qiongzhong**	**69.35**	**275**	P	**P**	**04 23 25.5**	**+1.2**
QIZ				S	**S**	**04 32 33.0**	**+2.9**
QIZ				pmax	pmax		
	comp=Z,28nm,1.0s						
QIZ				pmax	pmax		
	comp=Z,830nm,11.6s						
QIZ				L	L		
	comp=Z,800nm,17.0s						
QIZ				L	L		
	comp=Z,1µm,16.0s						
QIZ				L	L		
	comp=Z,2µm,17.3s						
QIZ	**Qiongzhong**	**69.35**	**275**	P	**P**	**04 23 21.3**	**-3.0**
	comp=Z,1µmcomp=Z,65nm,1.8s						
WUS	**Wushi**	**69.61**	**311**	IAmb	IAmb	04 23 27.9	
	comp=Z,124nm,0.9s						
KDJ	**Kajisay**	**69.81**	**313**	IAmb	IAmb	04 23 28.2	
	comp=Z,73nm,1.0s						
KDJ	**Kajisay**	**69.81**	**313**	P	**P**	**04 23 26.5**	**-0.5**
	comp=Z,1µmcomp=Z,84nm,1.1s						
TARG	**Taragay, Kyrgy**	**69.84**	**313**	P	**P**	**04 23 28.0**	**+0.5**
	comp=Z,877nmcomp=Z,52nm,0.8s,comp=Z,877nm						
SGDS	**Sogindy**	**69.88**	**316**	⇑*i*P	**P**	**04 23 27.3**	**0.0**
	comp=Z,17nm,1.0s						
SGDS				*e*S	**S**	**04 32 37.4**	**+1.5**
TKM2	**Tokmak 2**	**69.89**	**315**	P	**P**	**04 23 27.7**	**+0.2**
	SNR=7.8						
SNART	**Snartemo**	**70.02**	**2**	*e*P	**P**	**04 23 27.6**	**-0.1**
SNART				*e*S	**S**	**04 32 41.2**	**+4.4**
SNART	**Snartemo**	**70.02**	**2**	*i* P	**P**	**04 23 28.5**	**+0.8**
BOOM	**Boomskoye usch**	**70.08**	**314**	IAmb	IAmb	04 23 30.9	
	comp=Z,58nm,0.8s						
USP	**Ospenovka**	**70.09**	**316**	P	**P**	**04 23 29.0**	**+0.5**
	SNR=22						
HOMB	**Homborsund**	**70.10**	**1**	*e*P	**P**	**04 23 31.7**	**+3.4**
HOMB				*e*S	**S**	**04 32 40.9**	**+3.1**
HOMB				IAMs_20	IAMs_20	04 54 35.1	
	comp=Z,2µm,23.9s						
HOMB	**Homborsund**	**70.10**	**1**	*i* P	**P**	**04 23 30.0**	**+1.7**
ULHL	**Ulahol**	**70.14**	**314**	P	**P**	**04 23 29.6**	**+0.6**
	SNR=8.2						
CHMS	**Chumysh**	**70.19**	**315**	P	**P**	**04 23 29.5**	**+0.4**
	SNR=10						
MSVF	**Nonsavu**	**70.22**	**192**	P	**P**	**04 23 29.8**	**+0.3**
MSVF				pmax	pmax		
	comp=Z,87nm,1.3s						
MSVF				MLR	MLR		
	comp=Z,1µm,18.0s						
MSVF	**Nonsavu**	**70.22**	**192**	P	**P**	**04 23 29.8**	**+0.3**
MSVF				IAmb	IAmb	04 23 43.9	
	comp=Z,87nm,1.3s						
MSVF	**Nonsavu**	**70.22**	**192**	P	**P**	**04 23 30.4**	**+0.9**
	comp=Z,52nm,1.1s						
AKTO	**Aktyubinsk**	**70.22**	**330**	LR	LR	04 58 56.7	
	comp=Z,4µm,18.2s,baz=34,slow=40						
MOS	**Moscow**	**70.28**	**344**	*e*P	**P**	**04 23 27.7**	**-1.7**
MOS				*e*S	**S**	**04 32 36.0**	**-3.9**
MOS				pmax	pmax		
	comp=Z,100nm,0.9s						
MOS				pmax	pmax		
	comp=Z,88nm,0.8s						
MOS				MLR	MLR		
	comp=N,3µm,19.0s						
MOS				MLR	MLR		
	comp=Z,3µm,19.0s						
TJOU	**Tjoern**	**70.35**	**359**	*i* P	**P**	**04 23 29.9**	**+0.2**
KBK	**Karagaybulak**	**70.38**	**315**	P	**P**	**04 23 30.7**	**+0.2**
	SNR=13						
AAK	**Ala-Archa**	**70.59**	**315**	P	**P**	**04 23 32.2**	**+0.4**
	SNR=9.3						
AAK	**Ala-Archa**	**70.59**	**315**	LR	LR	04 57 13.1	
	comp=Z,3µm,18.1s,baz=30,slow=38						
AAK	**Ala-Archa**	**70.59**	**315**	P	**P**	**04 23 32.0**	**+0.2**
AAK				S	**S**	**04 32 40.2**	**-4.2**
AAK	**Ala-Archa**	**70.59**	**315**	*ce*P	**P**	**04 23 31.9**	**+0.1**
AAK				pmax	pmax		
	comp=Z,69nm,0.8s						
AAK	**Ala-Archa**	**70.59**	**315**	P	**P**	**04 23 31.8**	**+0.1**
AAK	**Ala-Archa**	**70.59**	**315**	*i* P	**P**	**04 23 31.9**	**+0.1**
	SNR=9.5						
AAK	**Ala-Archa**	**70.59**	**315**	P	**P**	**04 23 31.6**	**-0.2**
	comp=Z,1µmcomp=Z,103nm,0.8s						
EKS2	**Erkin-Say**	**70.89**	**316**	P	**P**	**04 23 33.9**	**+0.4**
	SNR=12						
DRUM	**Mains of Drumt**	**70.97**	**7**	*e*P	**P**	**04 23 33.2**	**-0.4**
DRUM				IAmb	IAmb	04 23 37.5	
	comp=Z,29nm,0.8s						
ONAU	**Onsala**	**70.98**	**359**	*i* P	**P**	**04 23 33.0**	**-0.7**
OBN	**Obninsk**	**71.05**	**344**	*c i*P	**P**	**04 23 33.0**	**-1.1**
OBN				*i*		04 23 44.1	
OBN				*i* S	**S**	**04 32 56.1**	**+7.2**
OBN				pmax	pmax		
	comp=Z,103nm,1.3s						
OBN	**Obninsk**	**71.05**	**344**	P	**P**	**04 23 32.5**	**-1.6**
OBN				IAMs_20	IAMs_20	05 00 17.2	
	comp=Z,3µm,19.0s						
OBN	**Obninsk**	**71.05**	**344**	⇓P	**P**	**04 23 32.4**	**-1.6**
OBN	**Obninsk**	**71.05**	**344**	P	**P**	**04 23 33.5**	**-0.6**
	comp=Z,1µmcomp=Z,84nm,0.8s,comp=Z,1µm						
ASAI	**AK-SAY(Kyrgyzs**	**71.07**	**313**	P	**P**	**04 23 35.2**	**+0.2**
	comp=Z,1µmcomp=Z,107nm,0.9s						
SLVN	**Son La**	**71.25**	**281**	P	**P**	**04 23 37.2**	**+1.2**
SLVN	**Son La**	**71.25**	**281**	IAMs_20	IAMs_20	04 54 54.6	
	comp=Z,2µm,20.0s						
SLVN	**Son La**	**71.25**	**281**	P	**P**	**04 23 36.7**	**+0.7**
	comp=Z,2µmcomp=Z,109nm,1.6s						
BELG	**Belogornoye**	**71.35**	**337**	LR	LR	04 58 59.8	
	comp=Z,3µm,19.0s,baz=27,slow=39						
BELG	**Belogornoye**	**71.35**	**337**	*c i*P	**P**	**04 23 35.9**	**0.0**
BELG				pmax	pmax		
	comp=Z,56nm,0.9s						
LAWE	**Loch Awe, Argy**	**71.36**	**9**	*e*P	**P**	**04 23 36.2**	**+0.2**
LAWE				IAmb	IAmb	04 23 43.2	
	comp=Z,12nm,0.6s						
FABU	**Falkenberg**	**71.37**	**359**	*i* P	**P**	**04 23 35.6**	**-0.3**
PMG	**Port Moresby**	**71.43**	**225**	LR	LR	04 52 14.2	
	comp=Z,1µm,19.6s,baz=24,slow=34						
PMG	**Port Moresby**	**71.43**	**225**	*ce*P	**P**	**04 23 36.7**	**-0.2**
PMG				pmax	pmax		
	comp=Z,59nm,0.8s						
PMG	**Port Moresby**	**71.43**	**225**	P	**P**	**04 23 36.7**	**-0.2**
PMG				IAmb	IAmb	04 23 38.8	
	comp=Z,83nm,1.1s						
PMG	**Port Moresby**	**71.43**	**225**	P	**P**	**04 23 37.2**	**+0.3**
	comp=Z,1µmcomp=Z,72nm,1.1s						
PMG	**Port Moresby**	**71.43**	**225**	P	**P**	**04 23 35.9**	**-1.0**
	comp=Z,1µmcomp=Z,73nm,1.1s						
PPT	**Papeete**	**71.46**	**160**	LR	LR	04 53 53.2	
	comp=Z,790nm,18.2s,baz=344,slow=35						
PPT2	**Papeete2**	**71.48**	**160**	*e*P	**P**	**04 23 36.2**	**-0.9**
	comp=Z,126nm,23.5s						
PPT2				*e*PP	**PP**	**04 26 09.5**	**-6.6**
	comp=Z,83nm,24.0s						
PPT2				*e*S	**S**	**04 32 58.4**	**+3.7**
	comp=Z,2µm,26.0s						
PPT2				*e*SS	**SS**	**04 37 32.8**	**+2.5**
	comp=Z,510nm,24.2s						
PPT2				*e*LQ	LQ	04 41 50.4	
	comp=Z,4µm,24.0s						
PPT2				*e*LR	LR	04 44 47.8	
	comp=Z,2µm,33.2s						
PPT2				*e*LR	LR	04 44 56.2	
	comp=Z,3µm,31.0s						
EAB	**Aberfoyle**	**71.53**	**9**	*e*P	**P**	**04 23 37.0**	**0.0**
EAB				IAmb	IAmb	04 23 41.8	
	comp=Z,25nm,0.9s						
TNCH	**TengChong**	**71.70**	**287**	⇑P	**P**	**04 23 39.8**	**+1.1**
TNCH				S	**S**	**04 33 01.5**	**+3.8**
TNCH				pmax	pmax		
	comp=Z,250nm,0.9s						
TNCH				pmax	pmax		
	comp=Z,1µm,3.3s						
TNCH				L	L		
	comp=Z,1µm,17.8s						
TNCH				L	L		
	comp=Z,1µm,16.8s						
TNCH				L	L		
	comp=Z,4µm,18.0s						
DZA	**Taraz**	**71.74**	**317**	*e*P	**P**	**04 23 38.5**	**-0.1**
DZA	**Taraz**	**71.74**	**317**	*e*P	**P**	**04 23 38.5**	**-0.1**
APG	**El Apazote**	**71.77**	**89**	LR	LR	04 53 07.8	
	comp=Z,132nm,19.3s,baz=250,slow=34						
DEL	**Delary**	**71.88**	**358**	*i* P	**P**	**04 23 38.7**	**-0.4**
PGBU	**Glenifferbraes**	**71.89**	**9**	*e*P	**P**	**04 23 39.4**	**+0.2**
PGBU				IAmb	IAmb	04 23 43.9	
	comp=Z,32nm,0.9s						

MUD	Monsted U'grnd	71.93	1	*i* P	P	04 23 39.0	-0.4
MUD				IAmb	IAmb	04 23 47.2	
	comp=Z,34nm,0.8s						
PBUR	Paburge	71.93	353	P	P	04 23 39.4	+0.1
	comp=Z,122nm,0.7s						
BLEU	Blekinge	71.98	357	*i* P	P	04 23 39.6	-0.1
SWI	Sorong	72.11	244	P	P	04 23 40.6	-0.4
BRLS	Borolday	72.25	318	*e*P	P	04 23 42.8	+1.2
BRLS	Borolday	72.25	318	*e*P	P	04 23 42.8	+1.2
PABE	Paberze	72.28	352	IAMs_20	IAMs_20	05 00 35.4	
	comp=Z,2µm,19.0s						
PABE	Paberze	72.28	352	P	P	04 23 41.6	+0.1
	comp=Z,2µmcomp=Z,207nm,0.9s,comp=Z,2µm						
IDGL	Inch Island, C	72.31	11	P	P	04 23 42.6	+0.9
IDGL	Inch Island, C	72.31	11	P	P	04 23 43.9	+2.2
ARSB	Arslanbob	72.32	315	IAmb	IAmb	04 23 46.0	
	comp=Z,109nm,1.2s						
LSA	Lhasa	72.39	296	*e*P	P	04 23 45.8	+2.6
LSA				S	S	04 33 08.5	+2.4
LSA				pmax	pmax		
	comp=Z,160nm,1.0s						
LSA				L	L		
	comp=Z,1µm,22.7s						
LSA				L	L		
	comp=Z,2µm,21.3s						
LSA				L	L		
	comp=Z,2µm,21.3s						
LSA	Lhasa	72.39	296	P	P	04 23 43.0	-0.1
LSA	Lhasa	72.39	296	IAMs_20	IAMs_20	04 56 04.3	
	comp=Z,3µm,22.0s						
LSA	Lhasa	72.39	296	P	P	04 23 44.6	+1.4
LSA	Lhasa	72.39	296	P	P	04 23 44.7	+1.5
	comp=Z,2µmcomp=Z,178nm,1.1s						
EKA	Eskdalemuir Ar	72.48	8	P	P	04 23 43.1	+0.4
	comp=Z,5.1nm,0.5s,baz=346,slow=4.4,SNR=30						
	comp=Z,5.1nm,0.5s						
ESK	Eskdalemuir	72.50	8	P	P	04 23 43.5	+0.7
ESK				pmax	pmax		
	comp=Z,80nm,1.3s						
ESK	Eskdalemuir	72.50	8	P	P	04 23 43.5	+0.7
ESK				IAmb	IAmb	04 23 48.0	
	comp=Z,80nm,1.3s						
ESK	Eskdalemuir	72.50	8	*e*P	P	04 23 43.4	+0.6
ESK				IAmb	IAmb	04 23 48.1	
	comp=Z,29nm,1.2s						
ZIRO	ZIRO	72.52	292	*e*P	P	04 23 41.6	-2.0
ZIRO				IAmb	IAmb	04 23 45.3	
	comp=Z,133nm,1.2s						
LUNU	Lund	72.72	358	*i* P	P	04 23 44.2	+0.1
GAL1	Galloway	72.80	9	*e*P	P	04 23 44.5	-0.1
GAL1				IAmb	IAmb	04 23 52.9	
	comp=Z,16nm,0.9s						
MNK	Minsk	72.87	349	*i* P	P	04 23 44.8	-0.2
MNK				*i*		04 24 01.9	
MNK				*i*		04 26 26.2	
MNK				*i* PPP	PPP	04 28 10.7	
MNK				*i* S	S	04 33 10.9	+1.0
MNK				pmax	pmax		
	comp=N,10.0nm,0.8s						
MNK				pmax	pmax		
	comp=Z,79nm,0.8s						
MNK				pmax	pmax		
	comp=E,37nm,0.9s						
MNK				MLR	MLR		
	comp=Z,1µm,17.0s						
MNK				MLR	MLR		
	comp=E,1µm,19.0s						
MNK				MLR	MLR		
	comp=N,1µm,17.0s						
MNK	Minsk	72.87	349	*i* P	P	04 23 44.9	-0.2
	comp=E,37nm,0.9s						
MNK				*i* P	P	04 23 44.9	-0.2
	comp=N,10.0nm,0.8s						
MNK				*i* P	P	04 23 44.9	-0.2
	comp=Z,79nm,0.8s,baz=213						
MNK				*i* PcP	PcP	04 24 02.0	-0.1
MNK				*i* PP	PP	04 26 26.3	-0.2
MNK				*i* PPP	PPP	04 28 10.7	
MNK				*i* S	S	04 33 11.0	+1.0
MNK				*i* PS	PnS	04 33 31.9	-10
MNK				*i* SS	SS	04 37 30.0	-19
MNK				*i* SSS	SSS	04 41 26.3	
MNK				*i* LRM	MLR	04 59 29.4	
	comp=N,1µm,16.5s						
IUG	Iuzhnay	72.90	318	*e*P	P	04 23 45.7	+0.1
IUG				*e*S	S	04 33 12.2	+1.4
IUG				pmax	pmax		
	comp=Z,61nm,1.0s						
IUG	Iuzhnay	72.90	318	*e*P	P	04 23 45.7	+0.1
	comp=Z,61nm,1.0s						
IUG				*e*S	S	04 33 12.3	+1.4
CHM	Chimkent	72.93	318	*e*P	P	04 23 45.6	0.0
CHM				pmax	pmax		
	comp=Z,31nm,0.6s						
CHM				MLR	MLR		
	comp=Z,1µm,16.0s						
CHM	Chimkent	72.93	318	*e*P	P	04 23 45.7	0.0
	comp=Z,31nm,0.6s						
CHM				LR	LR	04 56 40.5	
	comp=Z,1µm,16.5s						
KSH2	Kashi	72.93	312	P	P	04 23 46.3	+0.4
KSH2				sP	pwP	04 23 57.3	+1.8
KSH2				S	S	04 33 09.5	-2.0
KSH2				pmax	pmax		
	comp=Z,96nm,0.9s						
KSH2				pmax	pmax		
	comp=Z,550nm,5.0s						
KSH2				L	L		
	comp=Z,3µm,18.6s						
KSH2				L	L		
	comp=Z,5µm,17.7s						
KSH2				L	L		
	comp=Z,6µm,18.0s						
TNTI	Ternate	72.97	249	IAmb	IAmb	04 23 55.7	
	comp=Z,60nm,1.0s						
TNTI	Ternate	72.97	249	P	P	04 23 45.4	-0.8
	comp=Z,1µmcomp=Z,53nm,0.8s						
LPSR	Galich'ya Gora	73.03	342	*e*P	P	04 23 44.8	-1.2
LPSR				*e*S	S	04 33 07.9	-3.9
LPSR				pmax	pmax		
	comp=Z,68nm,0.8s						
LPSR				pmax	pmax		
	comp=Z,89nm,1.0s						
LPSR				smax	smax		
	comp=N,173nm,2.1s						
MOKO	MOKOCHONG	73.06	291	*e*P	P	04 23 44.8	-2.0
MOKO				IAmb	IAmb	04 23 48.7	
	comp=Z,146nm,0.8s						
KMPI	Kaimana, Papua	73.09	240	P	P	04 23 46.9	0.0
FAKI	Fak Fak	73.26	242	P	P	04 23 48.5	+0.6
FAKI	Fak Fak	73.26	242	P	P	04 23 47.7	-0.2
	comp=Z,2µmcomp=Z,2µmcomp=Z,152nm,1.0s						
FAKI	Fak Fak	73.26	242	P	P	04 23 47.4	-0.5
	comp=Z,2µmcomp=Z,154nm,1.0s						
RAR	Rarotonga	73.40	170	LR	LR	04 48 09.6	
	comp=Z,874nm,21.9s,baz=348,slow=29						
ILTH	Belurgan, Co L	73.47	10	P	P	04 23 48.7	+0.2
IGLA	Glengowla, Co	73.70	12	P	P	04 23 50.0	+0.1
VRH	Novokhopyorsk	73.80	340	*e*P	P	04 23 48.8	-1.8
VRH				*e*S	SKiKP	04 33 15.9	-2.3
VRH				pmax	pmax		
	comp=Z,90nm,0.6s						
VRH				pmax	pmax		
	comp=Z,94nm,0.7s						
VRH				smax	smax		
	comp=E,275nm,2.2s						
RGN	Rugen	73.81	358	IAMs_20	IAMs_20	04 58 34.4	
	comp=Z,2µm,20.0s						
TEZP	TEZPUR	73.82	292	*e*P	P	04 23 49.1	-1.9
TEZP				IAmb	IAmb	04 23 51.6	
	comp=Z,71nm,0.3s						
SUW	Suwalki	73.83	352	*e*P	P	04 23 50.0	-0.7
SUW				*e*L	L	04 55 14.6	
	comp=Z,2µm,23.6s						
SUW	Suwalki	73.83	352	IAMs_20	IAMs_20	05 01 32.3	
	comp=Z,2µm,19.0s						
VORR	Voronezh	73.86	342	*e*P	P	04 23 49.9	-1.0
VORR				pmax	pmax		
	comp=Z,62nm,0.5s						
DSB	Dublin	74.23	10	P	P	04 23 53.6	+0.5
DSB	Dublin	74.23	10	IAMs_20	IAMs_20	04 56 59.3	
	comp=Z,3µm,22.0s						
VSR	Storozhevoye	74.31	342	*e*P	P	04 23 52.4	-1.1
VSR				*e*S	SKiKP	04 33 21.0	+2.0
VSR				pmax	pmax		
	comp=Z,68nm,0.5s						
VSR				pmax	pmax		
	comp=Z,74nm,0.5s						
VSR				smax	smax		
	comp=E,188nm,2.3s						
DRK	Karamyk	74.35	315	IAmb	IAmb	04 23 56.8	
	comp=Z,75nm,0.8s						
BSEG	Bad Segeberg	74.46	360	P	P	04 23 56.0	+1.6
	comp=Z,52nm,1.1s						
TGUH	Tegucigalpa,Un	74.47	87	IAmb	IAmb	04 24 28.1	
	comp=Z,42nm,0.9s						
TGUH				IAMs_20	IAMs_20	04 53 53.5	
	comp=Z,2µm,20.0s						
TGUH	Tegucigalpa,Un	74.47	87	P	P	04 23 55.1	-0.1
	comp=Z,1µmcomp=Z,61nm,1.6s						
VORD	Divnogorie	74.52	341	*e*P	P	04 23 53.1	-1.7
VORD				pmax	pmax		
	comp=Z,80nm,0.9s						
MYLDM	Lahad Datu	74.70	259	IAmb	IAmb	04 24 46.8	
	comp=Z,117nm,1.2s						
MYLDM	Lahad Datu	74.70	259	P	P	04 23 57.8	+1.5
	comp=Z,2µmcomp=Z,77nm,1.1s						
MORE	Moreh	74.77	290	IAmb	IAmb	04 23 59.3	
	comp=Z,57nm,0.8s						
STNC	Stoke	74.79	8	*e*P	P	04 23 57.0	+0.7
STNC				IAmb	IAmb	04 24 01.3	
	comp=Z,46nm,1.0s						
LNIZ	Loecknitz	74.85	358	P	P	04 23 57.1	+0.5
	comp=Z,72nm,0.8s						
FOEL	Foel Wylfa	74.90	8	*e*P	P	04 23 56.9	-0.1
FOEL				IAmb	IAmb	04 24 04.4	
	comp=Z,26nm,0.5s						
FOEL	Foel Wylfa	74.90	8	P	P	04 23 58.0	+1.0
	comp=Z,43nm,1.7s						
GKP	Gorka Klasztor	74.96	356	*e*P	P	04 23 57.2	0.0
GKP				*e*S	S	04 33 32.6	-0.8
GKP				*e*L	L	04 53 38.4	
	comp=Z,2µm,25.2s						
VAL	Valentia	75.03	13	P	P	04 23 54.8	-2.9
IWEX	Carrickbyrne,	75.04	11	P	P	04 23 58.4	+0.6
SHL	Shillong	75.15	292	P	P	04 23 58.9	-0.2
	SNR=18						
SHL	Shillong	75.15	292	*e*P	P	04 23 56.9	-2.2
SHL				IAmb	IAmb	04 23 59.5	
	comp=Z,102nm,1.4s						
CWF	Charnwood Fore	75.21	7	*e*P	P	04 23 59.8	+1.0
CWF				IAmb	IAmb	04 24 03.5	
	comp=Z,24nm,1.4s						
SILR	SILCHAR	75.22	291	*e*P	P	04 23 57.3	-1.9
SILR				IAmb	IAmb	04 24 01.4	
	comp=Z,86nm,0.7s						
HLM1	Long Mynd	75.30	8	*e*P	P	04 23 59.0	-0.3
HLM1				IAmb	IAmb	04 24 03.7	
	comp=Z,6.6nm,0.7s						
KKM	Kota Kinabalu	75.42	261	IAmb	IAmb	04 24 02.1	
	comp=Z,41nm,0.9s						
KKM	Kota Kinabalu	75.42	261	P	P	04 24 00.1	-0.5
	comp=Z,1µmcomp=Z,53nm,1.1s						
KKM	Kota Kinabalu	75.42	261	P	P	04 24 00.0	-0.5
	comp=Z,1µmcomp=Z,53nm,1.1s						
DLV	Lat	75.60	271	IAmb	IAmb	04 24 16.9	
	comp=Z,76nm,1.4s						
GTOI	Gorontalo	75.62	252	P	P	04 24 00.9	-0.7
RETH	Rethem/Aller,	75.66	1	P	P	04 24 01.6	+0.3
	comp=Z,58nm,1.3s						
R9F13	Warsaw-Wawer	75.77	353	*e*P	P	04 24 02.0	+0.1
MCH1	Michaelchurch	75.80	8	*e*P	P	04 24 02.2	0.0
MCH1				IAmb	IAmb	04 24 08.3	
	comp=Z,9.7nm,0.7s						
RUE	Ruedersdorf	75.87	358	P	P	04 24 03.6	+1.1
	comp=Z,63nm,1.1s						
COBR	COOCHBEHAR	75.96	295	*e*P	P	04 24 01.7	-1.8
SANI	Sanana	76.06	248	P	P	04 24 03.4	-0.7
	comp=Z,2µmcomp=Z,119nm,1.0s						
SANI	Sanana	76.06	248	P	P	04 24 03.3	-0.7
	comp=Z,2µmcomp=Z,119nm,1.0s,comp=Z,2µm						
FLTG	Flechtingen	76.06	359	P	P	04 24 03.8	+0.2
	comp=Z,28nm,0.8s						
IBBN	Ibbenburen	76.07	2	P	P	04 24 04.5	+0.9
	comp=Z,63nm,1.0s						
AZL	Aizawl	76.09	291	*e*P	P	04 24 02.7	-1.7
AZL				IAmb	IAmb	04 24 05.7	
	comp=Z,78nm,1.1s						
STRD	Stroud	76.09	8	*e*P	P	04 24 04.0	+0.1
STRD				IAmb	IAmb	04 24 09.0	
	comp=Z,28nm,1.0s						
EVN	Everest	76.13	298	IAmb	IAmb	04 24 07.0	
	comp=Z,99nm,1.2s						
EVN	Everest	76.13	298	P	P	04 24 05.7	+0.5
	comp=Z,1µmcomp=Z,63nm,1.0s						
ALCI	Alchi Leh	76.16	308	*e*P	P	04 24 02.6	-2.3
CHTO	Chiang Mai	76.18	283	P	P	04 24 04.4	-0.4
CHTO	Chiang Mai	76.18	283	P	P	04 24 04.9	+0.2
CHTO	Chiang Mai	76.18	283	P	P	04 24 05.1	+0.3
CHTO				pmax	pmax		
	comp=Z,255nm,1.6s						
CHTO	Chiang Mai	76.18	283	P	P	04 24 05.0	+0.3
CHTO				IAMs_20	IAMs_20	05 02 59.7	
	comp=Z,3µm,18.0s						
CHTO	Chiang Mai	76.18	283	P	P	04 24 04.7	-0.1
	comp=Z,2µmcomp=Z,96nm,1.6s						
CHTO	Chiang Mai	76.18	283	P	P	04 24 05.0	+0.2
	comp=Z,2µmcomp=Z,96nm,1.6s						
BEL	Belsk	76.18	353	*e*P	P	04 24 04.6	+0.3
BEL				*e*S	S	04 33 46.1	-0.9
BEL				*e*L	L	04 56 00.2	
	comp=Z,3µm,23.1s						
BEL	Belsk	76.18	353	P	P	04 24 05.0	+0.8
	comp=Z,157µmcomp=Z,16µm,0.9s						
JPG	JALPAIGURI	76.18	295	*e*P	P	04 24 03.8	-0.9
RNPP8	Varash	76.22	350	P	P	04 24 03.8	-0.7
ASSE	Asse, Remlinge	76.27	360	P	P	04 24 05.3	+0.6
	comp=Z,28nm,1.7s						
RNPP5	Staryi Chortor	76.32	350	P	P	04 24 04.6	-0.5
AK21	Malin Array Si	76.39	348	P	P	04 24 04.4	-1.1
AK23	Malin Array Si	76.39	348	P	P	04 24 04.4	-1.1
NLAI	Namlea	76.39	246	P	P	04 24 07.3	+1.3
	comp=Z,2µmcomp=Z,94nm,1.1s						
AK22	Malin Array Si	76.40	348	P	P	04 24 04.4	-1.2
AK03	Malin Array Si	76.41	348	P	P	04 24 04.5	-1.1
AK04	Malin Array Si	76.42	348	P	P	04 24 04.6	-1.1
AK20	Malin Array Si	76.42	348	P	P	04 24 04.6	-1.1
HNLY	HANLEY	76.43	306	*e*P	P	04 24 04.6	-2.1
AK18	Malin Array Si	76.44	348	P	P	04 24 04.7	-1.1
AKASG	Malin Array Be	76.44	348	P	P	04 24 04.7	-1.0
	comp=Z,55nm,0.9s,baz=15,slow=5.6,SNR=61						
	comp=Z,55nm,0.9s						
AKASG	Malin Array Be	76.44	348	*i* P	P	04 24 04.6	-1.2
AKASG				pmax	pmax		
	comp=Z,45nm,0.8s						
AKASG	Malin Array Be	76.44	348	P	P	04 24 04.6	-1.2
AKASG				IAmb	IAmb	04 24 08.5	
	comp=Z,57nm,0.9s						
AKBB	Malin Array Si	76.44	348	*ce*P	P	04 24 05.1	-0.7
AKBB				pmax	pmax		
	comp=Z,63nm,1.0s						
AKBB	Malin Array Si	76.44	348	IAmb	IAmb	04 24 08.1	
	comp=Z,48nm,0.8s						
AKBB	Malin Array Si	76.44	348	P	P	04 24 04.7	-1.1
AK19	Malin Array Si	76.44	348	P	P	04 24 04.7	-1.1
KIEV	Kiev	76.44	348	P	P	04 24 04.6	-1.2
KIEV				pmax	pmax		
	comp=Z,45nm,0.8s						
KIEV				MLR	MLR		
	comp=Z,2µm,19.0s						
KIEV	Kiev	76.44	348	P	P	04 24 04.6	-1.2
KIEV				IAmb	IAmb	04 24 08.1	
	comp=Z,45nm,0.8s						
KIEV	Kiev	76.44	348	IAMs_20	IAMs_20	05 02 25.5	
	comp=Z,2µm,19.0s						
KIEV	Kiev	76.44	348	P	P	04 24 04.8	-1.1
KIEV	Kiev	76.44	348	P	P	04 24 05.0	-0.9
	comp=Z,63nm,0.9s						
AK01	Malin Array Si	76.45	348	P	P	04 24 04.7	-1.1
CM31	Chiang Mai Arr	76.45	283	P	P	04 24 06.7	+0.3
	SNR=32						
CMAR	Chiang Mai Arr	76.45	283	P	P	04 24 05.9	-0.5
	comp=Z,43nm,0.9s,baz=26,slow=5.0,SNR=6.1						
CMAR				LR	LR	05 02 09.7	
	comp=Z,2µm,18.1s,baz=55,slow=39						
	comp=Z,43nm,0.9s						
CMAR	Chiang Mai Arr	76.45	283	*i* P	P	04 24 04.5	-1.9
CMAR				pmax	pmax		
	comp=Z,43nm,0.9s						
CMAR	Chiang Mai Arr	76.45	283	P	P	04 24 06.6	+0.3
AK15	Malin Array Si	76.45	348	P	P	04 24 04.8	-1.1
AK11	Malin Array Si	76.47	348	P	P	04 24 04.8	-1.1
AK17	Malin Array Si	76.47	348	P	P	04 24 04.9	-1.1
AK02	Malin Array Si	76.48	348	P	P	04 24 04.9	-1.1
AK16	Malin Array Si	76.48	348	P	P	04 24 04.9	-1.1
YATNC	Mamie plateau,	76.49	202	P	P	04 24 07.4	+1.1
AK08	Malin Array Si	76.50	348	P	P	04 24 05.0	-1.1
AK12	Malin Array Si	76.50	348	P	P	04 24 05.0	-1.1
CLZ	Clausthal	76.56	360	P	P	04 24 07.5	+1.0
	comp=Z,68nm,1.1s						
TOLI2	Tolitoli	76.56	254	P	P	04 24 06.1	-0.9
	comp=Z,957nmcomp=Z,43nm,1.1s,comp=Z,957nm						
DZM	Mont Dzumac	76.61	203	LR	LR	04 55 36.7	
	comp=Z,2µm,18.9s,baz=22,slow=34						
BOAB	BOACO BROADBAN	76.69	87	IAMs_20	IAMs_20	05 01 33.5	
	comp=Z,3µm,21.0s						
BOAB	BOACO BROADBAN	76.69	87	P	P	04 24 09.7	+1.9
	comp=Z,47nm,1.1s						
ONTNC	Ouen Toro	76.84	203	IAMs_20	IAMs_20	04 54 52.9	
	comp=Z,2µm,20.0s						
GTTG	Gottingen	76.85	0	P	P	04 24 09.1	+1.0
	comp=Z,105nm,1.1s						
WIMM	Wimmelburg	76.87	359	P	P	04 24 08.8	+0.6
	comp=Z,3µmcomp=Z,101nm,1.0s						
SAIH	SAIHA	76.88	290	*e*P	P	04 24 07.0	-1.9
SAIH				IAmb	IAmb	04 24 09.9	
	comp=Z,70nm,1.2s						
BUG	Bochum--Univer	76.93	2	P	P	04 24 09.3	+0.8
	comp=Z,46nm,1.4s						
CLL	Collm	77.06	358	*e*P	P	04 24 09.0	-0.3
CLL				*i* *PP	sP	04 24 15.8	-0.6
CLL				*e*S	S	04 33 56.0	-0.7
CLL				pmax	pmax		
	comp=Z,34nm,1.3s						
CLL				MLR	MLR		
	comp=Z,2µm,21.7s						
CLL	Collm	77.06	358	IAMs_20	IAMs_20	04 59 27.4	
	comp=Z,2µm,21.0s						
CLL	Collm	77.06	358	P	P	04 24 09.4	+0.1
	comp=Z,42nm,0.9s						
CLL	Collm	77.06	358	*e*P	P	04 24 09.0	-0.3
	comp=Z,34nm,1.3s						
CLL				*i* pP	sP	04 24 15.8	-0.6
	comp=Z,34nm,1.0s						
CLL				*e*(sP)	pwP	04 24 19.0	+0.1
CLL				*e*S	S	04 33 56.0	-0.7
CLL				*e*PS	PnS	04 34 38.0	+2.1
CLL				*e*SS	SS	04 38 54.0	+1.6
CLL				*e*SSS	SSS	04 42 06.0	
CLL				LH		04 44 00.0	
CLL				LV		04 50 00.0	
CLL				AMS	AMS	04 59 00.0	
	comp=N,2µm,21.7s						
CLL				AMS	AMS	04 59 00.0	
	comp=E,1µm,20.8s						
CLL				AMS	AMS	04 59 00.0	
	comp=Z,2µm,21.7s						
LUWI	Luwuk	77.11	251	P	P	04 24 09.5	-0.5
	comp=Z,2µmcomp=Z,201nm,1.3s						
NPW	Naypyitaw	77.12	286	P	P	04 24 10.4	+0.3
	comp=Z,6µmcomp=Z,290nm,1.0s						
NEUB	Neuenburg	77.18	359	P	P	04 24 10.7	+0.8
	comp=Z,1µmcomp=Z,67nm,1.1s						
LUBAR	Lubar, Ukraine	77.39	348	P	P	04 24 09.5	-1.7
KSP	Ksiaz	77.43	356	*e*P	P	04 24 11.6	+0.2
KSP				*e*L	L	04 57 36.3	
	comp=Z,2µm,24.3s						
KSP	Ksiaz	77.43	356	P	P	04 24 11.6	+0.2
	comp=Z,34nm,0.9s						
SRNI	Srinagar	77.43	310	*e*P	P	04 24 08.6	-3.3
BRG	Berggiesshubel	77.48	358	P	P	04 24 12.1	+0.5
	comp=Z,714nmcomp=Z,43nm,1.0s						
BRG	Berggiesshubel	77.48	358	*e*P	P	04 24 11.9	+0.3
BRG				Amp		04 24 13.4	
	comp=Z,21nm,0.8s						
BRG	Berggiesshubel	77.48	358	S	S	04 34 00.0	-1.2
BRG	Berggiesshubel	77.48	358	SS	SS	04 39 05.0	+6.3
BRDH	Bariadhala	77.52	291	LR	LR	05 02 33.2	
	comp=Z,3µm,18.3s,baz=22,slow=39						
CHVC	Chvalec	77.69	356⇓	*e*P	P	04 24 13.5	+0.6
CHVC	Chvalec	77.69	356⇓	*e*P	P	04 24 13.5	+0.6
OSTC	Ostas	77.72	356⇓	*e*P	P	04 24 13.6	+0.6
OSTC				MLR	MLR		
	comp=Z,2µm,16.5s						
OSTC	Ostas	77.72	356⇓	*e*P	P	04 24 13.6	+0.6
OSTC				AMS	AMS	05 09 00.0	
	comp=Z,2µm,16.5s						
MEM	Membach	77.73	3	*d*P	P	04 24 13.0	0.0
	comp=Z,37nm,1.0s						
MEM				*d*pP	pP	04 24 16.9	-1.4
MEM	Membach	77.73	3	P	P	04 24 13.9	+0.8
	comp=Z,62nm,1.2s						
MOX	Moxa	77.75	359	P	P	04 24 13.8	+0.6
	comp=Z,44nm,1.2s						
UPC	Upice	77.77	356⇓	*e*P	P	04 24 13.9	+0.6
UPC				*e*S	S	04 34 02.8	-1.6
UPC				MLR	MLR		
	comp=Z,2µm,22.0s						
UPC	Upice	77.77	356⇓	*e*P	P	04 24 13.9	+0.6
UPC				*e*S	S	04 34 02.8	-1.6
UPC				AMS	AMS	05 02 30.0	
	comp=Z,2µm,22.0s						
TSSA	Tissa	77.78	308	*e*P	P	04 24 11.6	-2.3
KLP	Kalpa	77.79	306	*e*P	P	04 24 11.8	-2.3
PVCC	Panska Ves	77.80	357⇓	*e*P	P	04 24 14.1	+0.6
PVCC				MLR	MLR		
	comp=Z,2µm,17.5s						
PVCC	Panska Ves	77.80	357⇓	*e*P	P	04 24 14.1	+0.6
PVCC				AMS	AMS	05 05 40.0	
	comp=Z,2µm,17.5s						
OJC	Ojcow	77.86	354	*e*P	P	04 24 13.7	-0.1
OJC				*e*S	S	04 34 03.2	-2.1
OJC				*e*L	L	04 57 14.7	
	comp=Z,2µm,23.7s						
BCLA	Clavier	77.89	3	*d*P	P	04 24 13.6	-0.4
BCLA				*d*pP	pP	04 24 17.4	-1.8
BCLA				*d*sP	sP	04 24 19.4	-1.6
DPC	Dobruska-Polom	77.92	356⇓	*e*P	P	04 24 15.1	+0.9
DPC				*e*S	S	04 34 02.8	-3.3
DPC				MLR	MLR		
	comp=Z,1µm,15.6s						
DPC	Dobruska-Polom	77.92	356⇓	*e*P	P	04 24 15.1	+0.9
DPC				*e*S	S	04 34 02.8	-3.3
DPC				AMS	AMS	05 04 10.0	
	comp=Z,1µm,15.6s						
DPC	Dobruska-Polom	77.92	356	P	P	04 24 15.2	+0.9
	comp=Z,1µmcomp=Z,58nm,0.9s,comp=Z,1µm						
JOSI	Joshimath	77.92	304	*e*P	P	04 24 12.4	-2.3
TANN	Tannenbergstha	77.97	359	P	P	04 24 15.0	+0.5
BMRD	Maredsous	77.99	4	*d*P	P	04 24 14.5	0.0
BMRD				*d*pP	pP	04 24 18.2	-1.6
SAUI	Saumlaki	78.00	240	P	P	04 24 16.2	+1.2
	comp=Z,6µmcomp=Z,603nm,1.0s						
NKC	Novy Kostel	78.15	359⇓	*e*P	P	04 24 16.2	+0.8
NKC				MLR	MLR		
	comp=Z,2µm,21.7s						
NKC	Novy Kostel	78.15	359⇓	*e*P	P	04 24 16.2	+0.8
NKC				AMS	AMS	05 07 20.0	
	comp=Z,2µm,21.7s						
RCHB	Rochefort	78.16	3	*d*P	P	04 24 15.2	-0.2
	comp=Z,28nm,1.0s						
TNS	Taunus Mts	78.17	1	P	P	04 24 14.4	-1.2
	comp=Z,39nm,1.5s						
KRLC	Kraliky	78.17	356⇓	*e*P	P	04 24 16.3	+0.7
KRLC	Kraliky	78.17	356⇓	*e*P	P	04 24 16.3	+0.7
DHRM	DHARAMSHALA	78.18	308	*e*P	P	04 24 13.3	-2.8
DOU	Dourbes	78.19	4	*d*P	P	04 24 15.6	0.0
	comp=Z,24nm,1.0s						
DOU				*d*pP	pP	04 24 19.1	-1.7
DOU				*d*sP	sP	04 24 20.9	-1.8
KWP	Kalwaria Pacla	78.21	352	*e*P	P	04 24 16.0	+0.3
KWP				*e*S	S	04 34 07.5	-1.7
KWP				*e*L	L	04 58 42.1	
	comp=Z,2µm,23.8s						
STEB	Steborice	78.26	355⇓	*e*P	P	04 24 16.7	+0.7
THN	Thein Dam	78.29	308	*e*P	P	04 24 14.5	-2.1
OKC	Ostrava-Krasne	78.34	355⇓	*e*P	P	04 24 17.2	+0.7
OKC	Ostrava-Krasne	78.34	355⇓	*e*P	P	04 24 17.2	+0.7
UTK	UTTARKASHI	78.34	305	*e*P	P	04 24 15.1	-1.9
PRU	Pruhonice	78.34	357⇓	*e*P	P	04 24 17.0	+0.5
PRU				*e*S	S	04 34 15.0	+4.4
PRU				MLR	MLR		
	comp=Z,2µm,16.9s						
PRU	Pruhonice	78.34	357⇓	*e*P	P	04 24 17.0	+0.5
PRU				*e*S	S	04 34 15.0	+4.4
PRU				AMS	AMS	05 06 00.0	
	comp=Z,2µm,16.9s						

PTH	Pithoragarh	78.37	303	*e*P	P	04 24 15.2	-2.0
MORC	Moravsky Berou	78.43	355	⇓P	P	04 24 17.3	+0.3
MORC	Moravsky Berou	78.43	355	*e*P	P	04 24 17.3	+0.3
MORC	Moravsky Berou	78.43	355	⇓P	P	04 24 17.3	+0.3
MORC	Moravsky Berou	78.43	355	P	P	04 24 17.6	+0.6
	comp=Z,38nm,1.6s						
JMU	Jammu	78.46	309	*e*P	P	04 24 15.8	-1.7
GRTK	Grand Turk	78.48	70	IAMs_20	IAMs_20	05 04 44.4	
	comp=Z,3µm,18.0s						
NIL	Nilore	78.49	311	P	P	04 24 18.0	+0.3
NIL				pmax	pmax		
	comp=Z,108nm,0.9s						
NIL	Nilore	78.49	311	P	P	04 24 18.0	+0.3
STHS	Stebnicka Huta	78.55	353	*e*P	P	04 24 17.9	+0.2
STHS				pmax	pmax		
	comp=Z,24nm,1.0s						
STHS	Stebnicka Huta	78.55	353	*e*P	P	04 24 17.9	+0.2
NIE	Niedzica	78.62	353	*e*P	P	04 24 18.7	+0.7
NIE				*e*L	L	04 57 42.2	
	comp=Z,1µm,23.8s						
GRA3	Grafenberg Arr	78.63	359	P	P	04 24 19.3	+1.2
	comp=Z,48nm,1.1s						
WLF	Walferdange	78.68	3	IAmb	IAmb	04 24 38.2	
	comp=Z,96nm,1.6s						
WLF				IAMs_20	IAMs_20	05 04 26.0	
	comp=Z,2µm,20.0s						
WLF	Walferdange	78.68	3	*d*P	P	04 24 18.6	+0.2
WLF				*d*pP	pP	04 24 21.8	-1.8
GRA1	Grafenberg Arr	78.70	359	P	P	04 24 19.5	+1.0
	comp=Z,62nm,1.3s						
GRF	Grafenberg Arr	78.70	359	*e*P	P	04 24 19.3	+0.7
	comp=Z,33nm,1.1s,baz=0.7,slow=4.9						
GRFO	Grafenberg	78.71	359	P	P	04 24 18.2	-0.3
GRFO				pmax	pmax		
	comp=Z,93nm,1.2s						
GRFO	Grafenberg	78.71	359	P	P	04 24 18.1	-0.3
GRFO				IAmb	IAmb	04 24 55.5	
	comp=Z,93nm,1.2s						
GRA2	Grafenberg Arr	78.74	359	P	P	04 24 19.8	+1.1
	comp=Z,89nm,1.3s						
JMUI	Jamui	78.83	296	*e*P	P	04 24 17.7	-1.9
BHK	Bhakra	78.84	307	*e*P	P	04 24 16.3	-3.2
KMPD	K-Podol'skiy	78.88	349	P	P	04 24 18.1	-1.3
GRB4	Grafenberg Arr	78.92	359	P	P	04 24 20.7	+1.0
	comp=Z,82nm,1.1s						
LANS	Liptovska Anna	78.94	354	*e*P	P	04 24 21.2	+1.3
LANS				pmax	pmax		
	comp=Z,23nm,0.8s						
LANS	Liptovska Anna	78.94	354	*e*P	P	04 24 21.2	+1.3
KOLS	Kolonicke sedl	78.94	352	*e*P	P	04 24 20.3	+0.4
KOLS				pmax	pmax		
	comp=Z,21nm,1.1s						
KOLS	Kolonicke sedl	78.94	352	*e*P	P	04 24 20.2	+0.4
VRAC	Vranov	78.95	356	LR	LR	05 02 06.1	
	comp=Z,662nm,18.1s,baz=4.5,slow=38						
VRAC	Vranov	78.95	356	⇓P	P	04 24 20.5	+0.6
VRAC	Vranov	78.95	356	*e*P	P	04 24 20.4	+0.6
VRAC	Vranov	78.95	356	⇓P	P	04 24 20.5	+0.6
GRB1	Grafenberg Arr	79.00	359	P	P	04 24 21.3	+1.1
	comp=Z,1µmcomp=Z,85nm,1.1s						
GRB3	Grafenberg Arr	79.05	359	P	P	04 24 21.4	+1.0
	comp=Z,77nm,1.3s						
SORM	Soroca	79.07	348	⇑P	P	04 24 19.3	-1.1
SORM	Soroca	79.07	348	⇑P	P	04 24 19.3	-1.1
GRB2	Grafenberg Arr	79.12	359	P	P	04 24 21.7	+0.9
	comp=Z,59nm,1.0s						
CGRH	CHANDIGARH	79.18	306	*e*P	P	04 24 19.5	-1.9
KRUC	Moravsky	79.20	356	*e*P	P	04 24 21.7	+0.5
KHC	Kasperske Hory	79.23	358	⇓*e*P	P	04 24 22.3	+0.9
KHC				*e*S	S	04 34 20.5	+0.3
KHC				MLR	MLR		
	comp=Z,2µm,21.4s						
KHC	Kasperske Hory	79.23	358	⇓*e*P	P	04 24 22.3	+0.9
KHC				*e*S	S	04 34 20.5	+0.3
KHC				AMS	AMS	05 01 50.0	
	comp=Z,2µm,21.4s						
KHC	Kasperske Hory	79.23	358	IAMs_20	IAMs_20	05 01 59.7	
	comp=Z,2µm,20.0s						
WET	Wettzell	79.23	358	P	P	04 24 22.1	+0.7
	comp=Z,22nm,1.2s						
UZHM	Uzhgorod	79.24	352	P	P	04 24 19.8	-1.6
BRCI	Bahraich	79.25	301	*e*P	P	04 24 20.2	-1.7
ERBR	Yeremizino-Bor	79.26	339	*e*P	P	04 24 22.2	+0.6
ERBR				*e*S	S	04 34 21.4	+0.9
ERBR				pmax	pmax		
	comp=Z,212nm,1.1s						
ERBR				MLR	MLR		
	comp=Z,4µm,20.0s						
GRB5	Grafenberg Arr	79.28	359	P	P	04 24 22.4	+0.7
	comp=Z,49nm,1.9s						
GOF	Gofitskoye	79.28	337	*c i*P	P	04 24 21.2	-0.5
GRC4	Grafenberg Arr	79.31	359	P	P	04 24 22.5	+0.7
	comp=Z,42nm,0.9s						
JAVC	Velka Javorina	79.34	355	*e*P	P	04 24 23.6	+1.5
GRC1	Grafenberg Arr	79.40	359	P	P	04 24 23.1	+0.7
	comp=Z,46nm,1.1s						
GAYA	Gaya	79.48	297	*e*P	P	04 24 21.4	-1.8
GRC3	Grafenberg Arr	79.50	359	P	P	04 24 23.6	+0.8
	comp=Z,836nmcomp=Z,55nm,1.2s,comp=Z,836nm						
GEC2	GERESS Array S	79.51	358	IAmb	IAmb	04 24 40.4	
	comp=Z,42nm,1.1s						
GEC2	GERESS Array S	79.51	358	P	P	04 24 23.7	+0.7
	comp=Z,38nm,1.7s						
GERES	GERESS Array B	79.51	358	P	P	04 24 23.4	+0.4
	comp=Z,16nm,0.8s,baz=3.8,slow=4.0,SNR=37						
GERES				PKKPbc	PKKPbc	04 43 11.0	+1.7
	comp=Z,0.5nm,0.3s,baz=146,slow=0.5,SNR=4.0						
	comp=Z,16nm,0.8s						
GERES	GERESS Array B	79.51	358	P	P	04 24 23.3	+0.2
GERES	GERESS Array B	79.51	358	P	P	04 24 23.3	+0.2
CKRC	Cesky Krumlov	79.52	357	⇓*e*P	P	04 24 23.4	+0.4
CKRC				*e*S	S	04 34 23.2	0.0
CKRC				MLR	MLR		
	comp=Z,2µm,17.6s						
CKRC	Cesky Krumlov	79.52	357	⇓*e*P	P	04 24 23.4	+0.4
CKRC				*e*S	S	04 34 23.2	0.0
CKRC				AMS	AMS	05 06 40.0	
	comp=Z,2µm,17.6s						
GRC2	Grafenberg Arr	79.53	359	P	P	04 24 23.9	+0.9
	comp=Z,62nm,1.0s						
KECS	Kecovo	79.53	353	*e*P	P	04 24 23.7	+0.7
KECS				pmax	pmax		
	comp=Z,42nm,1.3s						
KECS	Kecovo	79.53	353	*e*P	P	04 24 23.7	+0.7
HDC	Heredia	79.54	87	*e*P	P	04 24 25.4	+1.7
STU	Stuttgart	79.63	1	P	P	04 24 24.3	+0.8
	comp=Z,789nmcomp=Z,37nm,0.9s,comp=Z,789nm						
ABNA	Allensteig Bun	79.63	356	*e*P	P	04 24 23.8	+0.2
	comp=Z,38nm,1.2s						
VYHS	Vyhne	79.64	354	*e*P	P	04 24 24.3	+0.7
VYHS				pmax	pmax		
	comp=Z,32nm,1.1s						
VYHS	Vyhne	79.64	354	*e*P	P	04 24 24.3	+0.7
ABAH	Abaujker	79.66	353	P	P	04 24 24.3	+0.6
	comp=Z,27nm,1.4s						
KBL	Kabul	79.67	314	P	P	04 24 23.9	-0.5
	SNR=10						
KBL				S	S	04 34 19.4	-6.3
KBL	Kabul	79.67	314	P	P	04 24 24.1	-0.3
KBL				pmax	pmax		
	comp=Z,60nm,0.9s						
KBL	Kabul	79.67	314	P	P	04 24 24.1	-0.3
KBL				IAmb	IAmb	04 24 24.7	
	comp=Z,60nm,0.9s						
KBL	Kabul	79.67	314	P	P	04 24 23.6	-0.7
	comp=Z,1µmcomp=Z,67nm,1.2s						
SMOL	Smolenice	79.70	355	*e*P	P	04 24 25.2	+1.3
SMOL				pmax	pmax		
	comp=Z,12nm,0.8s						
TRPA	Tarpa	79.72	352	P	P	04 24 24.4	+0.4
	comp=Z,1µmcomp=Z,61nm,0.9s,comp=Z,1µm						
MODS	Modra-Piesok	79.85	355	*e*P	P	04 24 25.8	+1.0
MODS				pmax	pmax		
	comp=Z,99nm,1.0s						
MODS	Modra-Piesok	79.85	355	*e*P	P	04 24 25.8	+1.0
BOK	Bokaro	79.92	296	*e*P	P	04 24 24.1	-1.4
BUR08	Bucovina Ar. S	79.93	350	P	P	04 24 25.6	+0.2
BURAR	Bucovina Array	79.96	350	⇑P	P	04 24 25.2	-0.3
BURAR	Bucovina Array	79.96	350	P	P	04 24 25.6	+0.1
BURAR	Bucovina Array	79.96	350	⇑P	P	04 24 25.2	-0.3
ZST	Bratislava	80.03	355	*e*P	P	04 24 28.2	+2.5
ZST	Bratislava	80.03	355	*e*P	P	04 24 28.2	+2.5
BFO	Black Forest	80.06	1	*i* P	P	04 24 26.8	+0.9
BFO	Black Forest	80.06	1	P	P	04 24 26.8	+0.9
BFO				IAmb	IAmb	04 24 40.2	
	comp=Z,63nm,1.4s						
MAK	Makhachkala	80.08	333	*c i*P	P	04 24 20.7	-5.3
MAK				*e*		04 27 27.3	
MAK				*e*S	S	04 34 19.4	-10
MAK				*e*SSS	SSS	04 43 05.9	
MAK				pmax	pmax		
	comp=Z,389nm,1.3s						
BMR	Baia Mare	80.08	351	⇓P	P	04 24 26.1	+0.1
BMR	Baia Mare	80.08	351	⇓P	P	04 24 26.1	+0.1
MERT	Meerut	80.13	305	*e*P	P	04 24 24.6	-1.9
PSZ	Piszkesteto	80.14	353	⇓P	P	04 24 26.8	+0.4
PSZ	Piszkesteto	80.14	353	IAmb	IAmb	04 24 44.2	
	comp=Z,141nm,1.6s						
PSZ	Piszkesteto	80.14	353	⇓P	P	04 24 26.8	+0.4
PSZ	Piszkesteto	80.14	353	P	P	04 24 27.4	+1.0
	comp=Z,3µmcomp=Z,55nm,1.6s						
ECH	Echery	80.15	2	IAmb	IAmb	04 24 41.4	
	comp=Z,41nm,0.9s						
ECH	Echery	80.15	2	P	P	04 24 27.1	+0.7
	comp=Z,48nm,1.1s						
WINA	Alland / Wiene	80.17	356	*e*P	P	04 24 26.7	+0.2
	comp=Z,33nm,1.0s,SNR=7.5						
LABN	Labinsk	80.22	338	*e*P	P	04 24 27.3	+0.5
LABN				*e*S	S	04 34 32.2	+1.5
LABN				pmax	pmax		
	comp=Z,77nm,0.9s						
LABN				MLR	MLR		
	comp=Z,3µm,18.0s						
LKN	LUCKNOW	80.27	301	*e*P	P	04 24 26.4	-1.0
ASOR	Ausora	80.28	305	*e*P	P	04 24 25.8	-1.6
VAR	Varanasi	80.34	299	*e*P	P	04 24 26.2	-1.6
SRO	Srobarova	80.35	354	*e*P	P	04 24 30.8	+3.4
SRO				pmax	pmax		
	comp=Z,36nm,1.0s						
SRO	Srobarova	80.35	354	*e*P	P	04 24 30.8	+3.4
CONA	Conrad Observa	80.36	356	*e*P	P	04 24 28.0	+0.4
	comp=Z,43nm,1.1s,SNR=18						
SDDR	Presa de Saban	80.36	72	IAmb	IAmb	04 24 46.1	
	comp=Z,40nm,0.8s						
SDDR				IAMs_20	IAMs_20	05 01 43.3	
	comp=Z,2µm,19.0s						
SDDR	Presa de Saban	80.36	72	P	P	04 24 28.5	+0.5
	comp=Z,1µmcomp=Z,56nm,1.0s						
GNR	GANAUR	80.36	305	*e*P	P	04 24 25.8	-2.0
KVAR	Kislovodsk Arr	80.41	337	LR	LR	05 03 55.0	
	comp=Z,2µm,20.2s,baz=278,slow=39						
KIV	Kislovodsk	80.41	337	P	P	04 24 28.6	+0.6
KIV				S	S	04 34 27.8	-5.1
KIV	Kislovodsk	80.41	337	*e*P	P	04 24 28.4	+0.4
KIV				*e*		04 27 31.4	
KIV				*e*S	S	04 34 34.0	+1.1
KIV				*e*SS	SS	04 39 46.6	+3.4
KIV				pmax	pmax		
	comp=Z,93nm,1.1s						
KIV	Kislovodsk	80.41	337	P	P	04 24 28.5	+0.6
KIV				IAMs_20	IAMs_20	05 06 38.0	
	comp=Z,3µm,19.0s						
KIV	Kislovodsk	80.41	337	*i* P	P	04 24 28.0	0.0
	SNR=13						
KIV	Kislovodsk	80.41	337	⇓P	P	04 24 28.6	+0.6
KIV	Kislovodsk	80.41	337	P	P	04 24 28.6	+0.6
	comp=Z,1µmcomp=Z,117nm,1.0s						
MTSU	Mount Surprise	80.43	224	P	P	04 24 28.6	+0.4
	comp=Z,19nm,1.1s						
MTSU	Mount Surprise	80.43	224	P	P	04 24 28.5	+0.4
	comp=Z,19nm,1.1s						
FRKB	FARRUKHABAD	80.45	302	*e*P	P	04 24 26.8	-1.6
GIRR	Girov	80.46	349	⇑P	P	04 24 27.9	-0.2
MOA	Molln	80.49	357	*e*P	P	04 24 28.7	+0.4
	comp=Z,16nm,1.2s						
MOA	Molln	80.49	357	P	P	04 24 29.0	+0.7
	comp=Z,31nm,0.9s						
LTVH	Ltavrtes, Hu	80.51	352	⇓P	P	04 24 27.6	-0.7
LTVH	Ltavrtes, Hu	80.51	352	P	P	04 24 29.5	+1.1
	comp=Z,2µmcomp=Z,63nm,1.0s						
BIZ	Bicaz	80.52	349	⇓P	P	04 24 28.9	+0.4
RONA	Rosalia, Austr	80.57	356	*i* P	P	04 24 29.4	+0.7
	comp=Z,25nm,1.2s						
KBZ	Khabaz	80.57	337	P	P	04 24 29.5	+0.8
	comp=Z,37nm,0.8s,baz=41,slow=1.7,SNR=55						
KBZ				LR	LR	05 03 26.0	
	comp=Z,2µm,20.7s,baz=11,slow=38						
	comp=Z,37nm,0.8s						
KBZ	Khabaz	80.57	337	*ce*P	P	04 24 29.0	+0.3
KBZ				pmax	pmax		
	comp=Z,37nm,0.9s						
SOP	Sopron	80.57	356	P	P	04 24 29.9	+1.3
	comp=Z,831nmcomp=Z,57nm,1.4s						
ARCR	ARCALIA	80.57	350	⇑P	P	04 24 29.6	+0.9
UGON	Onchagaon	80.58	304	*e*P	P	04 24 27.0	-2.0
BISR	Bishrakh	80.60	305	*e*P	P	04 24 26.6	-2.5
SHA1	Shidzhatmaz	80.62	337	*ce*P	P	04 24 29.3	0.0
NDI	New Delhi	80.62	305	*e*P	P	04 24 27.4	-1.8
BUD	Budapest	80.63	354	P	P	04 24 29.2	+0.2
	comp=Z,37nm,1.2s						
RJOB	Jochberg	80.64	358	P	P	04 24 30.0	+0.9
	comp=Z,22nm,0.9s						
MESR	Meseseni	80.65	351	⇓P	P	04 24 29.6	+0.5
BIOA	Bad Ischl, Aus	80.67	358	*e*P	P	04 24 29.2	0.0
	comp=Z,30nm,1.2s,SNR=11						
SBUM	Sibu	80.68	262	P	P	04 24 31.3	+1.6
SBUM	Sibu	80.68	262	P	P	04 24 29.5	-0.2
SBUM	Sibu	80.68	262	P	P	04 24 30.6	+0.9
	comp=Z,630nmcomp=Z,21nm,2.8s						
JMIU	JAMIA UNIVERSI	80.68	305	*e*P	P	04 24 27.7	-1.8
NPLP	NPLP New Delhi	80.69	305	*e*P	P	04 24 27.7	-1.9
LDR	Lodi Road	80.71	305	*e*P	P	04 24 27.7	-2.0
UBR	Ueberruh	80.72	0	P	P	04 24 30.3	+0.7
	comp=Z,32nm,1.2s						
BSZH	Besenyszg	80.73	353	⇑P	P	04 24 31.4	+1.9
BSZH	Besenyszg	80.73	353	P	P	04 24 31.2	+1.8
	comp=Z,86nm,1.1s						
RTK	Rohtak	80.75	306	*e*P	P	04 24 27.9	-1.9
BHGR	Bahadurgarh	80.76	305	*e*P	P	04 24 28.0	-2.0
ANN	Anapa	80.78	341	*e*P	P	04 24 29.4	-0.4
ANN				*e*S	S	04 34 34.6	-1.9
ANN				pmax	pmax		
	comp=Z,65nm,0.8s						
ANN				MLR	MLR		
	comp=N,4µm,20.0s						
ANN				MLR	MLR		
	comp=Z,2µm,21.0s						
ANN				MLR	MLR		
	comp=E,3µm,19.0s						
AYAN	Aya Nagar	80.83	305	*e*P	P	04 24 28.8	-1.6
TESR	Tescani	80.88	349	⇑P	P	04 24 28.0	-2.4
RETA	Reutte	80.91	360	*e*P	P	04 24 31.0	+0.4
	comp=E,17nm,1.0s						
ALBI	Allahabad	80.95	300	*e*P	P	04 24 29.3	-1.7
LESA	Schwarzleotal	80.95	358	*e*P	P	04 24 31.0	+0.2
	comp=E,17nm,1.0s						
JHJR	Jhajjar	80.98	305	*e*P	P	04 24 28.8	-2.3
LOR	Lormes	80.98	4	P	P	04 24 32.0	+1.1
	comp=Z,38nm,1.0s						
CJR	Cluj-Napoca	81.02	351	⇓P	P	04 24 31.8	+0.7
CJR	Cluj-Napoca	81.02	351	⇓P	P	04 24 31.8	+0.7
DRGR		81.03	351	⇑P	P	04 24 31.1	-0.1
DRGR		81.03	351	⇑P	P	04 24 31.1	-0.1
MPLH	Magyarpolny	81.03	355	P	P	04 24 32.4	+1.3
	comp=Z,1µmcomp=Z,83nm,1.2s						
ARSA	Arzberg	81.05	356	IAmb	IAmb	04 24 48.4	
	comp=Z,54nm,1.1s						
ARSA	Arzberg	81.05	356	*i* P	P	04 24 31.7	+0.4
	comp=Z,29nm,1.1s,SNR=9.6						
ARSA	Arzberg	81.05	356	P	P	04 24 32.4	+1.2
	comp=Z,1µmcomp=Z,59nm,1.2s						
MOTA	Moosalm	81.06	359	*i* P	P	04 24 32.0	+0.5
	comp=Z,32nm,1.1s,SNR=12						
WATA	Walderalm	81.06	359	*i* P	P	04 24 32.1	+0.6
	comp=Z,41nm,1.2s,SNR=15						
MARR	Marisel-Cluj	81.10	351	⇓P	P	04 24 29.3	-2.4
DAVA	Damuels	81.11	0	*e*P	P	04 24 32.4	+0.6
	comp=Z,14nm,0.8s						
DAVA	Damuels	81.11	0	P	P	04 24 33.1	+1.3
	comp=Z,47nm,0.9s						
WTTA	Wattenberg	81.13	359	P	P	04 24 32.4	+0.5
	comp=Z,20nm,0.8s,SNR=10						
WTTA	Wattenberg	81.13	359	P	P	04 24 33.0	+1.1
	comp=Z,1µmcomp=Z,50nm,1.4s,comp=Z,1µm						
SQTA	Sankt Quirin	81.18	359	*e*P	P	04 24 32.6	+0.5
	comp=Z,35nm,0.9s,SNR=12						
SESA	Seetaler Alpe,	81.22	357	*e*P	P	04 24 32.9	+0.5
	comp=Z,87nm,1.2s,SNR=14						
GHRR		81.23	348	⇓P	P	04 24 31.5	-0.7
SRGN	SRI GANGA NAGA	81.27	308	*e*P	P	04 24 30.6	-2.1
SIM	Simferopol'	81.28	343	*e*P	P	04 24 33.5	+1.0
SIM				S	SKSac	04 34 50.4	-0.1
SIM				pmax	pmax		
	comp=Z,138nm,0.8s						
KBA	Koelnbreinsper	81.29	358	*e*P	P	04 24 32.8	+0.1
	comp=Z,169nm,0.9s,SNR=33						
KBA	Koelnbreinsper	81.29	358	P	P	04 24 34.2	+1.5
	comp=Z,2µmcomp=Z,210nm,1.0s						
KDU	Kakadu	81.33	237	P	P	04 24 32.6	-0.3
	comp=Z,21nm,1.1s						
KDU	Kakadu	81.33	237	P	P	04 24 32.9	-0.1
	comp=Z,21nm,1.1s						
CTA	Charters Tower	81.36	221	P	P	04 24 33.0	0.0
	comp=Z,25nm,1.0s						
CTA	Charters Tower	81.36	221	P	P	04 24 33.2	+0.1
	comp=Z,25nm,1.0s						
CTA	Charters Tower	81.36	221	LR	LR	04 57 36.9	
	comp=Z,1µm,19.6s,baz=14,slow=34						
CTAO	Charters Tower	81.36	221	P	P	04 24 33.4	+0.3
CTAO	Charters Tower	81.36	221	P	P	04 24 33.0	0.0
CTAO				pmax	pmax		
	comp=Z,59nm,1.0s						
CTAO	Charters Tower	81.36	221	P	P	04 24 33.0	0.0
CTAO				IAmb	IAmb	04 24 34.0	
	comp=Z,59nm,1.0s						
CTAO	Charters Tower	81.36	221	P	P	04 24 33.0	0.0
	comp=Z,845nmcomp=Z,63nm,1.0s						
FETA	Feichten	81.38	360	*i* P	P	04 24 33.6	+0.4
	comp=Z,42nm,1.0s,SNR=14						
OZUR		81.39	349	⇓P	P	04 24 34.0	+0.8
MFF	Saint Martin d	81.40	7	P	P	04 24 34.0	+0.9
	comp=Z,23nm,1.3s						
TURR	Turia	81.41	349	⇓P	P	04 24 33.3	+0.1
BOSR	Bodos	81.43	349	⇓P	P	04 24 34.2	+0.9
KUDL	Kundal	81.43	305	*e*P	P	04 24 31.9	-1.6
SOC	Sochi	81.45	339	*e*P	P	04 24 32.5	-0.9
SOC				*e*		04 27 35.6	
SOC				*e*PPP	PPP	04 29 28.9	
SOC				*e*S	S	04 34 43.3	-0.3
SOC				*e*SSS	SSS	04 43 27.5	
SOC				pmax	pmax		
	comp=Z,55nm,0.8s						
SOC				MLR	MLR		
	comp=Z,2µm,18.0s						
VRI	Vrincioaia	81.50	348	⇓P	P	04 24 34.1	+0.4
VRI	Vrincioaia	81.50	348	⇓P	P	04 24 34.1	+0.4
VRI	Vrincioaia	81.50	348	P	P	04 24 33.8	+0.1
	comp=Z,24nm,1.5s						
PLOR	Plostina	81.53	348	⇓P	P	04 24 31.9	-1.9
PLOR	Plostina	81.53	348	⇓P	P	04 24 31.9	-1.9
DOPR	Dopca	81.56	349	⇓P	P	04 24 34.5	+0.5
ODBI	Odobesti	81.56	348	⇓P	P	04 24 34.8	+0.8
COVR	Voineasa-Covas	81.59	349	⇑P	P	04 24 34.3	+0.1
BNDA	BANDA	81.60	301	*e*P	P	04 24 31.8	-2.6
DAVOX	Davos/Dischmat	81.62	0	LR	LR	05 00 53.1	
	comp=Z,1µm,21.4s,baz=8.5,slow=36						
ABTA	Abfaltersbach	81.64	358	*e*P	P	04 24 34.4	0.0
	comp=Z,61nm,1.0s,SNR=11						
AMBH	Ambrzfalva	81.64	353	P	P	04 24 35.6	+1.3
	comp=Z,2µmcomp=Z,71nm,2.1s						
SOKA	Soboth	81.64	357	*e*P	P	04 24 34.4	0.0
	comp=Z,47nm,1.0s,SNR=20						
SIRR	Siria	81.64	352	⇓P	P	04 24 35.0	+0.6
SAHR	Sahastru	81.65	348	⇑P	P	04 24 33.6	-0.9
MYKA	Terra Mystica	81.73	358	*i* P	P	04 24 35.0	0.0
	comp=Z,25nm,1.4s						
BEHE	Becsehely	81.77	355	*e*P	P	04 24 35.5	+0.4
BEHE	Becsehely	81.77	355	P	P	04 24 36.0	+1.0
	comp=Z,18nm,1.2s						
FUORN	Ofenpass-Fuorn	81.78	360	IAmb	IAmb	04 24 41.2	
	comp=Z,72nm,1.1s						
ACOM	Acomizza, Ital	81.81	358	P	P	04 24 35.8	+0.2
	comp=Z,918nmcomp=Z,49nm,0.9s						
OBKA	Obir	81.82	357	*e*P	P	04 24 35.5	0.0
	comp=Z,40nm,0.8s						
OBKA	Obir	81.82	357	P	P	04 24 36.7	+1.2
	comp=Z,86nm,0.9s						
TLCR		81.90	347	⇑P	P	04 24 35.7	0.0
TLCR		81.90	347	⇑P	P	04 24 35.7	0.0
DEV	Deva	81.91	351	⇓P	P	04 24 35.9	+0.1
PRED	Cave del Predi	81.92	358	IAmb	IAmb	04 24 39.4	
	comp=Z,31nm,0.9s						
PRED	Cave del Predi	81.92	358	P	P	04 24 36.2	+0.2
	comp=Z,44nm,1.0s						
MORH	Mrgy, Hungar	81.92	354	⇑P	P	04 24 35.2	-0.6
MORH	Mrgy, Hungar	81.92	354	*e*P	P	04 24 35.2	-0.6
MORH	Mrgy, Hungar	81.92	354	P	P	04 24 36.3	+0.5
	comp=Z,14nm,1.7s						
TUE	Stuetta	81.93	1	P	P	04 24 37.5	+1.3
	comp=Z,60nm,1.2s						
MLR	Muntele Rosu	81.97	349	IAmb	IAmb	04 24 48.0	
	comp=Z,83nm,1.6s						
MLR	Muntele Rosu	81.97	349	⇑P	P	04 24 36.6	+0.3
NEHR	Nehoiu	81.99	349	⇑P	P	04 24 35.9	-0.4
CFR	Carcaliu	82.00	347	⇓P	P	04 24 35.4	-0.8
CFR	Carcaliu	82.00	347	⇓P	P	04 24 35.4	-0.8
TNR	Turnu Rosu	82.00	350	⇓P	P	04 24 36.6	+0.3
TNR	Turnu Rosu	82.00	350	⇓P	P	04 24 36.6	+0.3
SENIN	Lac Senin/Sane	82.01	2	IAMs_20	IAMs_20	05 05 48.1	
	comp=Z,2µm,19.0s						
KAPI	Kappang	82.07	251	P	P	04 24 36.6	-0.4
KAPI				S	S	04 34 52.4	+1.8
KAPI	Kappang	82.07	251	P	P	04 24 36.9	-0.1
KAPI				pmax	pmax		
	comp=Z,108nm,1.4s						
KAPI	Kappang	82.07	251	P	P	04 24 36.9	-0.1
KAPI				IAmb	IAmb	04 24 57.1	
	comp=Z,108nm,1.4s						
KAPI	Kappang	82.07	251	P	P	04 24 36.8	-0.2
SURR	Surduc	82.11	352	⇑P	P	04 24 36.6	-0.3
STAL	STALIGIAL	82.12	358	IAmb	IAmb	04 24 53.7	
	comp=Z,129nm,1.9s						
VOIR		82.13	350	⇓P	P	04 24 36.8	-0.3
VOIR		82.13	350	⇓P	P	04 24 36.8	-0.3
CADS	Cadrg	82.13	358	*i* P	P	04 24 37.5	+0.5
MTN	Manton Dam	82.16	238	P	P	04 24 37.1	-0.2
	comp=Z,38nm,1.0s						
MTN	Manton Dam	82.16	238	IAmb	IAmb	04 24 38.0	
	comp=Z,45nm,1.1s						
ARR	Arges	82.24	350	⇓P	P	04 24 38.4	+0.7
TPGR	Topolog	82.27	347	⇑P	P	04 24 37.7	0.0
BZS	Buzias	82.29	352	⇓P	P	04 24 37.9	+0.1
BZS	Buzias	82.29	352	⇓P	P	04 24 37.9	+0.1
GZR	Gura Zlata	82.41	351	⇑P	P	04 24 38.4	-0.1
GZR	Gura Zlata	82.41	351	⇑P	P	04 24 38.4	-0.1
HARR	Harsova	82.50	347	⇑P	P	04 24 38.8	-0.1
HARR	Harsova	82.50	347	⇑P	P	04 24 38.8	-0.1
CGRP	Cima Grappa	82.51	359	P	P	04 24 39.7	+0.5
	comp=Z,827nmcomp=Z,59nm,1.2s						
JHNI	Jhansi	82.53	302	*e*P	P	04 24 36.9	-2.5
TIRR	Tirgusor	82.67	347	⇑P	P	04 24 39.8	0.0
TIRR	Tirgusor	82.67	347	IAmb	IAmb	04 24 41.1	
	comp=Z,90nm,1.2s						
TIRR				IAMs_20	IAMs_20	05 07 31.3	
	comp=Z,2µm,18.0s						
TIRR	Tirgusor	82.67	347	⇑P	P	04 24 39.8	0.0
HRA	Herat	82.70	319	IAmb	IAmb	04 24 41.1	
	comp=Z,35nm,1.0s						
BWNR	Bhubaneshwar	82.76	294	*e*P	P	04 24 38.8	-1.8
BOJS	Bojanci	82.80	356	*i* P	P	04 24 40.8	+0.3
FRGS	Fruska Gora	82.89	353	*e*P	P	04 24 40.0	-1.0
MFTR	Murfatlar	82.94	347	⇓P	P	04 24 29.1	-12
HERR	Herculane	82.95	351	⇑P	P	04 24 40.4	-0.8
SSB	Saint Sauveur	83.00	4	IAMs_20	IAMs_20	05 07 51.3	
	comp=Z,2µm,20.0s						
HUMR	Humele	83.03	349	⇓P	P	04 24 40.7	-1.0
PNME	Penonome	83.06	85	P	P	04 24 47.3	+5.1
ICOR	Ion Corvin	83.08	347	⇓P	P	04 24 42.9	+1.0
MDVR	Moldovita	83.11	352	⇓P	P	04 24 41.6	-0.6
BKNR	BIKANER	83.14	307	*e*P	P	04 24 40.3	-2.2
BNI	Bardonecchia	83.30	3	IAmb	IAmb	04 24 48.2	
	comp=Z,64nm,0.9s						
BNI				IAMs_20	IAMs_20	05 09 16.4	
	comp=Z,2µm,18.0s						
BNI	Bardonecchia	83.30	3	P	P	04 24 45.4	+2.1
	comp=Z,1µmcomp=Z,67nm,1.0s						
SOEI	Soe	83.32	245	P	P	04 24 43.1	-0.6
	comp=Z,2µmcomp=Z,123nm,0.9s						
ORIF	Oris-en-Rattie	83.41	3	P	P	04 24 45.7	+1.9
	comp=Z,1µmcomp=Z,38nm,0.8s						
GNI	Garni	83.45	334	LR	LR	05 08 08.5	
	comp=Z,1µm,18.3s,baz=25,slow=40						
GNI	Garni	83.45	334	P	P	04 24 45.6	+1.4
GNI				S	S	04 34 59.7	-4.8

GNI	Garni	83.45	334	ceP	P	04 24 45.8	+1.7
GNI				pmax	pmax		
	comp=Z,29nm,0.7s						
GNI	Garni	83.45	334	P	P	04 24 46.2	+2.1
GNI	Garni	83.45	334	P	P	04 24 45.5	+1.4
	comp=Z,2µmcomp=Z,107nm,1.1s,comp=Z,2µm						
BLY	Banja Luka	83.47	355	IAMs_20	IAMs_20	05 08 54.2	
	comp=Z,2µm,20.0s						
TEKS	Tekeris	83.52	353	eP	P	04 24 43.1	-1.1
AZU	Azuero	83.63	86	P	P	04 24 45.6	+0.4
	comp=Z,522nmcomp=Z,20nm,0.8s						
AJM	Ajmer	83.78	306	eP	P	04 24 43.8	-2.1
GUNA	GUNA	83.85	303	eP	P	04 24 44.1	-2.1
KTUT	Trabzon	83.91	338	⇑P	P	04 24 46.6	+0.3
SJG	San Juan	84.03	68	P	P	04 24 47.5	+0.3
	comp=Z,10nm,0.7s,baz=68,slow=8.6,SNR=8.5						
SJG				LR	LR	05 04 58.5	
	comp=Z,1µm,18.0s,baz=340,slow=38						
	comp=Z,10nm,0.7s						
SJG	San Juan	84.03	68	P	P	04 24 47.5	+0.3
SJG	San Juan	84.03	68	IAMs_20	IAMs_20	05 05 23.5	
	comp=Z,2µm,18.0s						
SJG	San Juan	84.03	68	P	P	04 24 49.3	+2.1
	comp=Z,58nm,1.5s						
SJG	San Juan	84.03	68	P	P	04 24 49.3	+2.1
	comp=Z,58nm,1.5s						
PAYG	Puerto Ayora	84.06	99	IAMs_20	IAMs_20	04 54 49.6	
	comp=Z,2µm,19.0s						
ISO	Isola	84.18	2	P	P	04 24 48.7	+1.0
	comp=Z,68nm,1.4s						
PLVB	Pleven	84.20	349	⇓P	P	04 24 48.1	+0.5
BBLS	Lazi&#263i	84.21	353	eP	P	04 24 47.3	-0.5
BOVS	Bovan	84.25	352	⇓P	P	04 24 47.9	0.0
HOMI	Horasan	84.29	336	⇓P	P	04 24 48.8	+0.3
EIDS	Eidsvold	84.30	215	P	P	04 24 48.9	+0.7
	comp=Z,34nm,1.2s						
EIDS	Eidsvold	84.30	215	IAmb	IAmb	04 24 50.5	
	comp=Z,33nm,1.1s						
ESCA	l'Escarene	84.54	2	P	P	04 24 50.9	+1.4
	comp=Z,63nm,0.9s						
QIS	Mount Isa	84.63	227	P	P	04 24 49.3	-0.7
	comp=Z,45nm,1.1s						
QIS	Mount Isa	84.63	227	P	P	04 24 49.6	-0.4
	comp=Z,45nm,1.1s						
MTLF	Montolieu	84.81	6	P	P	04 24 52.4	+1.6
	comp=Z,2µmcomp=Z,103nm,1.4s						
ARBF	Arbois	84.82	4	P	P	04 24 51.5	+0.8
	comp=Z,124nm,1.3s						
RAGD	RAYAGADA	84.89	295	eP	P	04 24 49.8	-1.7
BHPL	Bhopal	84.95	302	eP	P	04 24 49.7	-2.2
OZAP	Van, Ozalp-Mer	85.05	334	⇑P	P	04 24 53.8	+1.5
PGAV	Gavieira, Arco	85.07	14	eS	S	04 35 22.1	+1.6
PGAV				eLR	LR	04 56 10.3	
PGAV				i IAMs_20	IAMs_20	05 03 56.9	
	comp=Z,2µm,20.0s						
FDMO	Fiordimonte	85.33	358	IAmb	IAmb	04 25 13.1	
	comp=Z,55nm,0.9s						
PBRG	Braganca	85.44	13	eP	P	04 24 53.2	-0.9
PBRG				i IAmb	IAmb	04 25 19.5	
	comp=Z,66nm,1.7s						
KULM	Kulim	85.60	273	P	P	04 24 56.6	+1.5
KULM	Kulim	85.60	273	IAmb	IAmb	04 24 57.5	
	comp=Z,50nm,1.0s						
KULM	Kulim	85.60	273	P	P	04 24 55.6	+0.5
	comp=Z,1µmcomp=Z,54nm,1.1s						
PDG	Podgorica	85.64	353	IAMs_20	IAMs_20	05 03 33.9	
	comp=Z,2µm,20.0s						
PDG	Podgorica	85.64	353	⇑P	P	04 24 54.3	-0.7
PDG	Podgorica	85.64	353	eP	P	04 24 53.9	-1.0
PDG	Podgorica	85.64	353	P	P	04 24 54.8	-0.2
	comp=Z,59nm,1.8s						
POLO	Lamas de Olo	85.72	13	eP	P	04 24 58.1	+2.6
POLO				i IAmb	IAmb	04 25 19.9	
	comp=Z,31nm,1.5s						
KNRA	Kununurra	85.77	238	P	P	04 24 55.5	-0.2
	comp=Z,29nm,1.0s						
KNRA	Kununurra	85.77	238	P	P	04 24 55.6	-0.1
	comp=Z,29nm,1.0s						
KNRA	Kununurra	85.77	238	IAmb	IAmb	04 24 57.4	
	comp=Z,28nm,1.0s						
CESX	Cesi	85.77	358	IAmb	IAmb	04 25 03.8	
	comp=Z,52nm,1.0s						
APAC	Apartado, Choc	85.82	83	P	P	04 25 02.7	+6.5
SAHE	Sakarya_HENDEK	85.82	344	⇓P	P	04 24 57.1	+1.2
PVRL	Vila Real	85.83	13	eP	P	04 24 57.5	+1.5
PVRL				i IAmb	IAmb	04 25 05.5	
	comp=Z,57nm,1.5s						
PTO	Porto	85.83	14	eP	P	04 24 58.6	+2.8
PTO				i IAmb	IAmb	04 25 04.4	
	comp=Z,82nm,1.5s						
DRME	Dracevica, Mon	85.89	353	eP	P	04 24 53.4	-2.8
PEHC	Pehcevo	85.97	351	i P	P	04 25 00.6	+3.9
IPM	Ipoh	86.00	272	IAmb	IAmb	04 24 59.1	
	comp=Z,60nm,0.9s						
IPM	Ipoh	86.00	272	P	P	04 24 57.1	0.0
	comp=Z,1µmcomp=Z,73nm,1.0s						
IPM	Ipoh	86.00	272	P	P	04 24 57.2	0.0
	comp=Z,1µmcomp=Z,73nm,1.0s,comp=Z,1µm						
AQU	L'Aquila	86.01	358	eP	P	04 24 57.0	+0.2
AQU	L'Aquila	86.01	358	P	P	04 24 58.2	+1.3
	comp=Z,1µmcomp=Z,131nm,1.2s						
SABA	Saba	86.08	66	IAMs_20	IAMs_20	05 01 35.8	
	comp=Z,2µm,22.0s						
RMQ	Roma	86.16	216	P	P	04 24 58.9	+1.4
	comp=Z,38nm,1.1s						
PLAI	Plampang	86.29	251	P	P	04 24 55.3	-3.1
	comp=Z,1µmcomp=Z,71nm,1.9s						
PHP	Peshkopia	86.29	352	P	P	04 24 58.7	+0.4
	comp=Z,1µmcomp=Z,58nm,1.1s						
SEUS	St. Eustatius	86.33	66	IAMs_20	IAMs_20	05 08 14.4	
	comp=Z,2µm,19.0s						
INTR	Introdacqua	86.33	357	IAmb	IAmb	04 25 03.9	
	comp=Z,57nm,0.9s						
PVIS	Viseu	86.35	14	eP	P	04 24 57.4	-1.1
BR131	Keskin Array S	86.42	342	P	P	04 24 60.0	+1.0
	SNR=16						
BR131				S	SKSac	04 35 23.7	-0.8
BR131	Keskin Array S	86.42	342	IAmb	IAmb	04 25 13.7	
	comp=Z,77nm,1.4s						
BRTR	Keskin Array B	86.42	342	P	P	04 24 59.3	+0.2
	comp=Z,11nm,0.7s,baz=33,slow=1.8,SNR=34						
BRTR				PKKPbc	PKKPbc	04 42 54.2	+0.6
	comp=Z,0.6nm,0.8s,baz=151,slow=2.8,SNR=3.9						
BRTR				PKPPKP	P'P'df	04 50 56.7	-12
	comp=Z,0.9nm,0.8s,baz=169,slow=2.5,SNR=3.6						
BRTR				LR	LR	05 09 27.7	
	comp=Z,751nm,18.3s,baz=358,slow=40						
	comp=Z,11nm,0.7s						
BRTR	Keskin Array B	86.42	342	i P	P	04 24 59.2	+0.2
BRTR				pmax	pmax		
	comp=Z,13nm,0.8s						
BRTR	Keskin Array B	86.42	342	P	P	04 25 00.0	+0.9
WB8	Warramunga Arr	86.43	231	P	P	04 24 59.2	+0.2
VAY	Valandovo	86.46	351	i P	P	04 24 59.8	+0.8
WR9	Warramunga Arr	86.48	231	P	P	04 24 59.1	-0.2
WR8	Warramunga Arr	86.49	231	IAmb	IAmb	04 24 59.5	
	comp=Z,40nm,0.9s						
WRAB	Tennant Creek	86.54	231	P	P	04 24 59.7	+0.2
WRAB	Tennant Creek	86.54	231	P	P	04 24 58.7	-0.8
	comp=Z,1µmcomp=Z,55nm,1.1s						
WRA	Warramunga Arr	86.56	231	P	P	04 24 58.7	-0.9
	comp=Z,31nm,1.0s,baz=40,slow=5.9,SNR=51						
	comp=Z,31nm,1.0s						
MTE	Manteigas	86.71	13	eP	P	04 25 02.1	+1.7
MTE				i IAmb	IAmb	04 25 15.9	
	comp=Z,51nm,1.2s						
MTE				eS	S	04 35 38.4	+1.9
MTE				eLR	LR	04 56 48.1	
MTE				i IAMs_20	IAMs_20	05 05 33.8	
	comp=Z,2µm,20.0s						
MTE	Manteigas	86.71	13	IAMs_20	IAMs_20	05 05 12.4	
	comp=Z,2µm,20.0s						
BAND	Balkesir-Ban	86.73	346	⇑P	P	04 25 01.1	+0.7
BTDF	Bukit Timah Da	86.73	268	P	P	04 25 03.3	+2.6
OHR	Ohrid	86.83	352	i P	P	04 25 01.6	+0.7
ANWB	Willy Bob	86.86	65	IAMs_20	IAMs_20	05 03 08.5	
	comp=Z,2µm,20.0s						
PCAS	Casmilo, Conde	86.91	14	eP	P	04 25 04.2	+2.9
PCAS				i IAmb	IAmb	04 25 16.2	
	comp=Z,84nm,1.9s						
KIRS	Kirsehir-Merke	86.94	342	⇑P	P	04 25 02.0	+0.5
AKL	Akola	87.25	301	eP	P	04 25 01.4	-1.8
PCBR	Castelo Branco	87.27	14	eP	P	04 25 05.5	+2.5
PCBR				i IAmb	IAmb	04 25 17.6	
	comp=Z,56nm,1.8s						
PSBE	So Bento	87.39	15	eP	P	04 25 05.0	+1.4
PSARD	Sardoal	87.40	14	eP	P	04 25 02.1	-1.6
PSARD				i IAmb	IAmb	04 25 18.3	
	comp=Z,52nm,1.0s						
OCAC	Ocana	87.54	80	P	P	04 25 04.7	-0.2
PMRV	Marv??o	87.69	14	eP	P	04 25 06.3	+1.2
PMRV				i IAmb	IAmb	04 25 22.7	
	comp=Z,54nm,1.5s						
PMRV				eS	SKSac	04 35 28.7	-3.3
PMRV				eLR	LR	04 56 47.6	
PMRV				i IAMs_20	IAMs_20	05 06 21.8	
	comp=Z,2µm,18.0s						
PMAFR	Mafra	87.86	15	eP	P	04 25 06.9	+1.1
PMAFR				i IAmb	IAmb	04 25 22.0	
	comp=Z,229nm,1.6s						
ESBB	Sonseca Array	87.89	11	IAmb	IAmb	04 25 20.8	
	comp=Z,29nm,0.8s						
ESDC	Sonseca Array	87.89	11	P	P	04 25 06.0	-0.1
	comp=Z,16nm,1.0s,baz=350,slow=4.4,SNR=44						
ESDC				PKKPbc	PKKPbc	04 42 51.2	+1.2
	comp=Z,1.4nm,1.1s,baz=144,slow=1.7,SNR=4.5						
ESDC				PKPPKP	P'P'df	04 50 58.6	-7.4
	comp=Z,1.2nm,0.9s,baz=188,slow=1.2,SNR=5.2						
ESDC				LR	LR	05 08 48.1	
	comp=Z,1µm,18.2s,baz=340,slow=39						
	comp=Z,16nm,1.0s						
ESDC	Sonseca Array	87.89	11	P	P	04 25 06.0	-0.1
PMTG	Montargil	87.91	14	eP	P	04 25 07.0	+0.9
PMTG				i IAmb	IAmb	04 25 20.5	
	comp=Z,45nm,1.4s						
PAB	San Pablo	87.97	11	⇓P	P	04 25 06.3	-0.2
PAB	San Pablo	87.97	11	P	P	04 25 07.3	+0.8
PAB				IAmb	IAmb	04 25 20.5	
	comp=Z,42nm,1.2s						
PAB	San Pablo	87.97	11	IAMs_20	IAMs_20	05 03 59.9	
	comp=Z,2µm,20.0s						
PAB	San Pablo	87.97	11	P	P	04 25 06.5	0.0
	comp=Z,29nm,1.7s						
PAB				pP	sP	04 25 13.7	+0.1
QLP	Quilpie	87.98	220	P	P	04 25 07.2	+0.9
	comp=Z,299nm,1.1s						
QLP	Quilpie	87.98	220	P	P	04 25 07.4	+1.1
QLP	Quilpie	87.98	220	P	P	04 25 07.0	+0.6
	comp=Z,3µmcomp=Z,299nm,1.1s						
ABD	La Joyeuse, An	87.99	66	IAMs_20	IAMs_20	05 03 56.4	
	comp=Z,3µm,22.0s						
PARRA	Arraiolos	88.19	14	eP	P	04 25 06.8	-0.6
PARRA				i IAmb	IAmb	04 25 21.9	
	comp=Z,36nm,1.1s						
PESTR	Estremoz	88.21	14	eP	P	04 25 07.6	0.0
PESTR				i IAmb	IAmb	04 25 30.6	
	comp=Z,36nm,1.3s						
CBE	Ff, Capester	88.25	66	P	P	04 25 09.5	+1.5
	comp=Z,2µmcomp=Z,151nm,1.2s						
TSI	Tuntungan	88.28	273	P	P	04 25 07.9	-0.3
	comp=Z,111nm,1.0s						
XOR	Xorichti	88.33	350	P	P	04 25 06.6	-1.6
	comp=Z,2µmcomp=Z,132nm,0.8s						
TDBA	Terre de Bas,	88.41	66	P	P	04 25 10.2	+1.4
	comp=Z,2µmcomp=Z,182nm,1.6s						
MOE	Montemor	88.43	14	eP	P	04 25 09.4	+0.8
MOE				i IAmb	IAmb	04 25 25.0	
	comp=Z,53nm,1.4s						
MAGL	Barre de l'ile	88.53	66	IAMs_20	IAMs_20	05 09 46.7	
	comp=Z,2µm,19.0s						
PSI	Prapat	88.61	273	P	P	04 25 11.0	+1.1
PSI	Prapat	88.61	273	P	P	04 25 09.8	-0.1
SDV	Santo Domingo	88.67	77	LR	LR	05 06 16.7	
	comp=Z,1µm,19.4s,baz=330,slow=37						
SDV	Santo Domingo	88.67	77	P	P	04 25 10.8	+0.5
SDV				IAmb	IAmb	04 25 48.8	
	comp=Z,25nm,1.1s						
SDV				IAMs_20	IAMs_20	05 07 42.7	
	comp=Z,2µm,20.0s						
SDV	Santo Domingo	88.67	77	P	P	04 25 10.4	+0.2
	comp=Z,5µmcomp=Z,276nm,2.0s						
SDV	Santo Domingo	88.67	77	P	P	04 25 09.9	-0.3
	comp=Z,5µmcomp=Z,276nm,2.0s						
RPSI	Rantau Prapat	88.69	273	P	P	04 25 10.1	0.0
	comp=Z,2µmcomp=Z,201nm,0.9s						
ARMA	Armidale	88.75	213	P	P	04 25 11.6	+1.7
	comp=Z,54nm,1.0s						
ARMA	Armidale	88.75	213	P	P	04 25 11.3	+1.3
ARMA	Armidale	88.75	213	IAmb	IAmb	04 25 13.7	
	comp=Z,39nm,0.9s						
PBAR	Barrancos	88.97	14	eP	P	04 25 11.4	+0.4
PBAR				i IAmb	IAmb	04 25 28.8	
	comp=Z,72nm,1.3s						
PBEJ	Beja	88.99	14	eP	P	04 25 10.9	-0.3
PBEJ				i IAmb	IAmb	04 25 25.4	
	comp=Z,51nm,1.2s						
TIP	Timpagrande	89.04	355	IAMs_20	IAMs_20	05 08 50.7	
	comp=Z,2µm,21.0s						
HYB	Hyderabad	89.09	297	eP	P	04 25 10.0	-2.0
HYB	Hyderabad	89.09	297	eP	P	04 25 11.8	-0.2
HYB				ePcP	PcP	04 25 13.7	+0.2
HYB				ePP	PP	04 28 42.5	+0.9
HYB				eS	S	04 36 01.2	+1.4
HYB				eScS	ScS	04 36 05.5	+0.6
BKNI	Bangkinang	89.23	270	P	P	04 25 13.3	+0.7
BKNI	Bangkinang	89.23	270	P	P	04 25 13.5	+0.8
	comp=Z,198nm,1.0s						
PTEO	Sao Teotonio	89.33	15	eP	P	04 25 12.6	-0.2
PCVE	Castro Verde	89.35	14	eP	P	04 25 13.2	+0.3
PCVE				i IAmb	IAmb	04 25 35.2	
	comp=Z,80nm,1.6s						
FITZ	Fitzroy Crossi	89.42	239	LR	LR	05 05 03.6	
	comp=Z,832nm,19.0s,baz=36,slow=35						
SVN	Savane Anatole	89.48	66	IAMs_20	IAMs_20	05 05 18.1	
	comp=Z,3µm,21.0s						
ROSC	El Rosal	89.59	83	P	P	04 25 15.5	+0.6
	comp=Z,3.9nm,0.4s,baz=192,slow=8.7,SNR=5.6						
	comp=Z,3.9nm,0.4s						
ROSC	El Rosal	89.59	83	IAmb	IAmb	04 25 53.6	
	comp=Z,92nm,1.8s						
PVAQ	Vaqueiros	89.62	14	eP	P	04 25 15.7	+1.5
PVAQ				i IAmb	IAmb	04 25 29.9	
	comp=Z,81nm,1.8s						
PVAQ				eS	S	04 36 05.6	+1.4
PVAQ				eLR	LR	04 57 03.3	
PVAQ				i IAMs_20	IAMs_20	05 07 07.8	
	comp=Z,2µm,20.0s						
ILAM	Ilet Lapin Mar	89.71	66	IAMs_20	IAMs_20	05 04 07.9	
	comp=Z,2µm,21.0s						
ORTC	Ortega, Tolima	89.75	84	P	P	04 25 15.1	0.0
	comp=Z,753nmcomp=Z,41nm,1.3s						
MNSI	Mandailing Nat	89.77	271	P	P	04 25 14.0	-1.1
	comp=Z,32nm,0.7s						
BIM	Bigot	89.80	67	IAMs_20	IAMs_20	05 05 48.5	
	comp=Z,3µm,21.0s						
TAMC	Tame, Arauca	89.89	80	P	P	04 25 19.9	+4.1
AS31	Alice Springs	89.94	230	P	P	04 25 15.7	0.0
AS31				IAmb	IAmb	04 25 16.5	
	comp=Z,22nm,0.7s						
POPC	Popayan, Colom	89.94	86	P	P	04 25 16.7	+0.4
	comp=Z,500nmcomp=Z,26nm,1.5s						
ASAR	Alice Springs	89.94	230	P	P	04 25 15.6	-0.1
	comp=Z,97nm,0.9s,baz=35,slow=4.5,SNR=113						
ASAR				LR	LR	05 04 59.3	
	comp=Z,1µm,18.9s,baz=32,slow=35						
	comp=Z,97nm,0.9s						
SDSI	Sungai Dareh	89.97	268	P	P	04 25 15.6	-0.5
	comp=Z,52nm,1.6s						
MPOM	Morne Pois Mar	89.98	66	IAMs_20	IAMs_20	05 06 13.1	
	comp=Z,2µm,20.0s						
ELL	Elmali	89.98	344	IAmb	IAmb	04 25 43.8	
	comp=Z,23nm,1.0s						
CART	Cartagena	90.27	9	IAMs_20	IAMs_20	05 05 55.7	
	comp=Z,2µm,20.0s						
CMBC	Cumbal	90.48	88	P	P	04 25 20.5	+1.5
GSI	Gunungsitoli	90.61	273	P	P	04 25 19.9	+0.8
	comp=Z,87nm,2.1s						
OTAV	Otavalo	90.64	89	P	P	04 25 20.6	+0.8
OTAV				pmax	pmax		
	comp=Z,23nm,1.1s						
OTAV				MLR	MLR		
	comp=Z,1µm,18.0s						
OTAV	Otavalo	90.64	89	P	P	04 25 20.6	+0.8
OTAV				IAmb	IAmb	04 25 54.9	
	comp=Z,22nm,1.1s						
OTAV	Otavalo	90.64	89	P	P	04 25 20.5	+0.8
	comp=Z,20nm,1.8s						
OTAV	Otavalo	90.64	89	eP	P	04 25 21.3	+1.5
OTAV	Otavalo	90.64	89	P	P	04 25 20.1	+0.3
	comp=Z,20nm,1.7s						
TULM	Tulcn-Chalpat	90.68	88	P	P	04 25 21.0	+1.0
	comp=Z,586nmcomp=Z,47nm,1.0s						
POO	Poona	90.71	302	eP	P	04 25 17.7	-1.9
LEM	Lembang	90.78	260	LR	LR	05 03 31.4	
	comp=Z,330nm,21.9s,baz=354,slow=34						
ARG	Arkhangelos	90.79	346	P	P	04 25 18.4	-1.2
	comp=Z,73nm,0.9s						
GARC	Garzon, Huila	90.95	85	P	P	04 25 21.4	+0.4
NGCH	Negor - Chabah	91.03	315	P	P	04 25 21.5	+0.6
GRGR	Grenville	91.39	68	IAMs_20	IAMs_20	05 10 11.5	
	comp=Z,2µm,21.0s						
MGCD	Mangrove Creek	91.48	212	P	P	04 25 24.0	+1.5
	comp=Z,88nm,1.1s						
KAD	Karad	91.54	301	eP	P	04 25 21.3	-2.2
CMSA	Cobar Meteorol	91.86	217	P	P	04 25 25.1	+0.8
	comp=Z,35nm,0.9s						
CMSA	Cobar Meteorol	91.86	217	P	P	04 25 26.4	+2.1
JASK	Jask - Hormozg	91.97	318	P	P	04 25 25.9	+0.6
ZKR	Zakros	92.15	347	P	P	04 25 25.9	-0.1
	comp=Z,101nm,0.9s						
PMOZ	Porto Moniz, M	92.20	23	eS	S	04 36 43.1	+15
PMOZ				eLR	LR	04 59 36.1	
PMOZ				i IAMs_20	IAMs_20	05 05 57.2	
	comp=Z,2µm,20.0s						
SHME	Shamm	92.51	320	P	P	04 25 27.5	-0.3
	SNR=5.8						
SHME	Shamm	92.51	320	i P	P	04 25 26.8	-1.0
	SNR=7.0						
MMAI	Mount Meron Ar	92.53	339	P	P	04 25 28.0	+0.2
	comp=Z,7.0nm,0.7s,baz=22,slow=9.2,SNR=8.4						
MMAI				LR	LR	05 10 56.9	
	comp=Z,814nm,20.3s,baz=24,slow=38						
	comp=Z,7.0nm,0.7s						
BANOM	Banah	92.56	320	P	P	04 25 28.7	+0.6
BANOM	Banah	92.56	320	i P	P	04 25 27.2	-0.8
	SNR=5.7						
KEST	Kesra	92.66	1	P	P	04 25 28.7	+0.3
	comp=Z,6.9nm,1.0s,baz=324,slow=6.7,SNR=6.7						
	comp=Z,6.9nm,1.0s						
KEST	Kesra	92.66	1	P	P	04 25 30.5	+2.1
MASF	Masafi	93.11	319	P	P	04 25 30.5	-0.1
	SNR=6.2						
MDH	Madha	93.12	319	P	P	04 25 30.7	+0.1
	SNR=7.3						
MDH	Madha	93.12	319	i P	P	04 25 28.9	-1.7
	SNR=9.5						
MSFE	Esma-Masafi	93.12	319	i P	P	04 25 29.4	-1.2
	SNR=5.1						
UOSS	Minazif	93.47	319	P	P	04 25 30.8	-1.5
UOSS				IAmb	IAmb	04 25 44.5	
	comp=Z,31nm,0.8s						
UOSS	Minazif	93.47	319	IAMs_20	IAMs_20	05 11 07.7	
	comp=Z,2µm,22.0s						
UJAP	Al Uja	93.54	339	P	P	04 25 32.8	+0.4
	comp=Z,943nmcomp=Z,65nm,0.9s,comp=Z,943nm						
HATD	Hatta, Dubai	93.61	319	P	P	04 25 32.3	-0.6
	SNR=10						
HATD	Hatta, Dubai	93.61	319	i P	P	04 25 31.7	-1.1
	SNR=8.4						
NAZ	Nazwa, Dubai	93.65	320	P	P	04 25 32.4	-0.7
	SNR=12						
NAZ	Nazwa, Dubai	93.65	320	i P	P	04 25 32.0	-1.0
	SNR=14						
AVE	Averroes	93.69	15	IAMs_20	IAMs_20	05 12 31.3	
	comp=Z,2µm,19.0s						
STKA	Stephens Creek	93.73	220	P	P	04 25 33.4	+0.4
	comp=Z,196nm,1.1s						
STKA	Stephens Creek	93.73	220	P	P	04 25 33.1	+0.1
	comp=Z,33nm,1.0s,baz=9.8,slow=4.8,SNR=14						
STKA				LR	LR	05 02 30.0	
	comp=Z,1µm,21.6s,baz=22,slow=32						
	comp=Z,33nm,1.0s						
STKA	Stephens Creek	93.73	220	P	P	04 25 34.0	+1.0
ASHO	Ashiyiah	93.76	319	P	P	04 25 33.1	-0.5
	SNR=7.5						
ASHO	Ashiyiah	93.76	319	i P	P	04 25 32.5	-1.1
	SNR=6.9						
WRKA	Warakurna	93.81	233	P	P	04 25 33.7	+0.1
	comp=Z,7.2nm,0.8s						
FAQ	Al Faqa, Dubai	93.90	320	P	P	04 25 34.0	-0.2
	SNR=6.1						
WSAR	Wadi Sarin	93.97	316	LR	LR	05 13 53.9	
	comp=Z,11nm,18.5s,baz=76,slow=39						
WSAR	Wadi Sarin	93.97	316	P	P	04 25 34.7	+0.1
	SNR=8.6						
CNB	Canberra Magne	93.99	212	P	P	04 25 36.0	+1.9
	comp=Z,33nm,1.9s						
SOHO	SOHO	94.06	319	P	P	04 25 34.2	-0.7
SOHO	SOHO	94.06	319	i P	P	04 25 33.2	-1.7
	SNR=9.9						
ASUD	Al Ashush, Dub	94.11	320	P	P	04 25 35.0	-0.1
	SNR=9.9						
ASUD	Al Ashush, Dub	94.11	320	i P	P	04 25 34.2	-0.9
	SNR=9.2						
GHAJ	Ghor Haditha	94.14	338	IAMs_20	IAMs_20	05 16 21.5	
	comp=Z,2µm,18.0s						
GHAJ	Ghor Haditha	94.14	338	P	P	04 25 37.0	+1.8
	comp=Z,27nm,1.2s						
MSBI	Mazada	94.18	339	P	P	04 25 36.1	+0.8
	comp=Z,775nmcomp=Z,44nm,1.2s,comp=Z,775nm						
HOQ	Hoqain	94.23	318	P	P	04 25 35.7	0.0
AJN	Ajban	94.30	320	P	P	04 25 36.5	+0.5
	SNR=8.3						
AJN	Ajban	94.30	320	i P	P	04 25 34.8	-1.2
	SNR=7.7						
SMDO	Samad	94.38	317	P	P	04 25 36.4	-0.2
	SNR=9.1						
WBK	Wadi Bani Khal	94.38	316	P	P	04 25 36.7	+0.2
	SNR=6.3						
ALNE	Al Ain	94.45	319	P	P	04 25 37.0	+0.2
	SNR=10						
ALNE	Al Ain	94.45	319	i P	P	04 25 35.7	-1.1
	SNR=8.0						
MD01	Midelt array s	94.50	13	P	P	04 25 37.5	+0.5
MD31	MD31	94.50	13	IAmb	IAmb	04 25 51.8	
	comp=Z,18nm,0.8s						
MDT	Midelt	94.58	12	LR	LR	05 11 15.3	
	comp=Z,732nm,19.4s,baz=356,slow=37						
JLN	Jalan Bani Buh	94.60	315	P	P	04 25 37.6	+0.2
	SNR=7.2						
ARQ	Araqi	94.77	318	P	P	04 25 38.2	-0.1
	SNR=12						
JRN	Qarnain Island	94.79	322	P	P	04 25 38.4	+0.2
	SNR=7.0						
RPN	Rapa Nui	94.85	129	LR	LR	05 00 55.0	
	comp=Z,610nm,18.8s,baz=333,slow=31						
JMDO	Jabal Madar	94.97	316	P	P	04 25 38.8	-0.3
	SNR=6.9						
BSY	Bisya	95.02	317	P	P	04 25 39.3	-0.1
MBWA	Marble Bar	95.11	242	P	P	04 25 47.7	+8.2
MBWA	Marble Bar	95.11	242	P	P	04 25 41.3	+1.7
MALK	Mahakanadarawa	95.28	291	P	P	04 25 41.0	+0.3
	comp=Z,1µmcomp=Z,79nm,1.2s						
HRFI	Mount Harif	95.48	339	P	P	04 25 40.9	-0.5
	comp=Z,535nmcomp=Z,22nm,1.4s						
EIL	Elat	95.85	339	LR	LR	05 13 29.2	
	comp=Z,922nm,19.3s,baz=41,slow=38						
EIL	Elat	95.85	339	P	P	04 25 43.0	0.0
	comp=Z,465nmcomp=Z,20nm,1.2s						
PALK	Pallekele	96.09	290	LR	LR	05 11 47.2	
	comp=Z,1µm,21.5s,baz=23,slow=37						
PALK	Pallekele	96.09	290	P	P	04 25 45.2	+0.8
PALK	Pallekele	96.09	290	i P	P	04 25 45.6	+1.2
PALK	Pallekele	96.09	290	P	P	04 25 44.9	+0.5
PALK	Pallekele	96.09	290	IAMs_20	IAMs_20	05 11 02.3	
	comp=Z,1µm,21.0s						
PALK	Pallekele	96.09	290	P	P	04 25 44.0	-0.4
PALK	Pallekele	96.09	290	P	P	04 25 42.1	-2.3
	comp=Z,59nm,1.0s						
HTT	Hallett	96.16	221	P	P	04 25 44.3	+0.2
	comp=Z,9.7nm,1.1s						
HTT	Hallett	96.16	221	P	P	04 25 45.1	+1.0
MHTO	MHTO	96.25	316	P	P	04 25 44.7	-0.3
	SNR=8.2						
MZR	Muzera	96.30	321	P	P	04 25 45.5	+0.3
	SNR=10						
MZR	Muzera	96.30	321	i P	P	04 25 44.1	-1.1
	SNR=9.9						
RAYN	Ar Rayn	98.72	328	Pdiff	P	04 25 55.2	-1.0
RAYN	Ar Rayn	98.72	328	P	P	04 25 55.1	-1.1
	comp=Z,483nmcomp=Z,44nm,1.5s						
BOAV	Boa Vista	99.86	73	eP	Pdif	04 26 01.9	+0.7
MEEK	Meekatharra	100.11	240	P	Pdif	04 26 02.5	+0.5
CZSB	Cruzeiro do Su	100.41	89	eP	Pdif	04 26 05.2	+1.6
WHFO	Wadi Hawf	100.75	318	P	Pdif	04 26 05.2	0.0
NNA	Nana	101.14	95	IAMs_20	IAMs_20	05 03 04.8	
	comp=Z,1µm,21.0s						
MACA	Manacapuru-AM	104.19	77	eP	Pdif	04 26 22.8	+2.2
NWAO	Narrogin (SRO)	105.83	237	IAMs_20	IAMs_20	05 16 24.8	

	comp=Z,2μm,20.0s						
SACV	Santiago Islan	107.16	34	IAMs_20	IAMs_20	05 16 16.2	
	comp=Z,2μm,20.0s						
FURI	Furi	114.62	329	IAMs_20	IAMs_20	05 28 00.3	
	comp=Z,1μm,19.0s						
TORD	Torodi Ar. Bea	114.73	9	PKP	PKiKP	04 30 56.3	-0.9
	comp=Z,0.7nm,0.5s,baz=351,slow=2.6,SNR=8.8						
TORD				PP	PP	04 31 54.8	+0.9
	comp=Z,2.4nm,0.9s,baz=358,slow=6.7,SNR=5.0						
TORD				PKKPbc	PKKPbc	04 41 32.9	+0.4
	comp=Z,4.6nm,0.9s,baz=183,slow=2.1,SNR=20						
H03N2	Juan Fernandez	116.02	112	T	T	06 38 09.9	
	baz=309,slow=76,SNR=23						
H03N1	Juan Fernandez	116.03	111	T	T	06 38 05.0	
	baz=313,slow=76,SNR=27						
COIM	Forte Coimbra	118.95	86	eP	PKiKP	04 31 06.5	+1.5
MSEY	Mahe Island	119.83	305	IAMs_20	IAMs_20	05 24 38.1	
	comp=Z,1μm,20.0s						
DBIC	Dimbokro	120.17	17	PKKPbc	PKKPbc	04 41 14.2	+1.0
	comp=Z,4.2nm,0.8s,baz=167,slow=5.7,SNR=3.3						
CFA	Coronel Fontan	121.03	103	PKKPbc	PKKPbc	04 41 12.2	+2.1
	comp=Z,1.4nm,0.9s,baz=83,slow=6.2,SNR=4.3						
BO01	Tunca	121.28	107	IAMs_20	IAMs_20	05 16 39.7	
	comp=Z,1μm,18.0s						
CPUP	Villa Florida	123.97	90	PKP	PKPdf	04 31 14.1	-0.5
	comp=Z,1.9nm,0.8s,baz=184,slow=4.3,SNR=4.6						
CPUP	Villa Florida	123.97	90	eP	PKiKP	04 31 14.8	0.0
KIBK	Kibwezi	125.34	325	IAMs_20	IAMs_20	05 35 33.3	
	comp=Z,1μm,20.0s						
PLCA	Paso Flores	125.89	112	PKP	PKPdf	04 31 17.3	-0.6
	comp=Z,2.6nm,0.7s,baz=252,slow=2.2,SNR=13						
PLCA	Paso Flores	125.89	112	eP	PKiKP	04 31 21.0	+2.7
MBAR	Mbarara	125.98	334	IAMs_20	IAMs_20	05 33 21.2	
	comp=Z,1μm,20.0s						
FRTB	Fartura	126.57	81	eP	PKiKP	04 31 21.1	+1.0
SPB	Sao Paulo	128.06	80	IAMs_20	IAMs_20	05 34 32.6	
	comp=Z,1μm,19.0s						
CPSB	Cacapava Do Su	129.26	91	eP	PKiKP	04 31 25.8	+0.5
SBA	Scott Base	130.37	186	IAMs_20	IAMs_20	05 30 52.3	
	comp=Z,667nm,18.0s						
VNDA	Vanda	130.43	188	PKP	PKPdf	04 31 24.2	-1.1
	comp=Z,2.0nm,1.1s,baz=322,slow=5.7,SNR=7.2						
VNDA				SKPab	SKPbc	04 34 47.8	+0.4
	comp=Z,3.2nm,0.9s,baz=329,slow=4.7,SNR=6.0						
CASY	Casey	132.35	213	IAMs_20	IAMs_20	05 35 09.5	
	comp=Z,826nm,18.0s						
QSPA	South Pole Qui	141.74	180	PKhKP	PKPpre	04 31 40.3	
	comp=Z,27nm,0.8s,baz=288,slow=0.8,SNR=87						
QSPA	South Pole Qui	141.74	180	IAMs_20	IAMs_20	05 29 02.8	
	comp=Z,662nm,20.0s						
SOOWA	Sowa	146.25	332	P	PKPab	04 31 58.4	+0.5
BROLN	Tlhalogang	146.43	330	P	PKPab	04 31 58.2	-0.4
TSUM	Tsumeb	146.78	347		PKPab	04 31 59.5	-0.5
TSUM	Tsumeb	146.78	347	P	PKPab	04 31 59.4	-0.5
GRTLG	Ghanzi	148.27	340	P	PKiKP	04 32 03.7	-0.7
LPHEP	Lephephe	149.00	331	P	PKiKP	04 32 05.5	-0.4
BELA	Belgrano 2	149.40	163		PKPbc	04 32 03.1	-0.7
KOOLE	Kule	150.06	341	P	PKiKP	04 32 08.2	+0.1
WIN	Windhoek	150.16	347	P	PKiKP	04 32 08.4	0.0
MAW	Mawson	150.40	218	P	PKiKP	04 32 06.8	-0.4
MAW	Mawson	150.40	218	PKPbc	PKPbc	04 32 06.4	0.0
	comp=Z,40nm,0.9s,baz=103,slow=2.1,SNR=61						
MAW	Mawson	150.40	218		PKPbc	04 32 06.5	+0.1
POGA	Pongola	150.57	318		PKiKP	04 32 08.7	-0.2
POGA	Pongola	150.57	318	P	PKPbc	04 32 08.5	+0.3
LBTB	Lobatse	150.63	331	P	PKiKP	04 32 09.3	+0.1
SKOMA	Sekoma	150.64	334	P	PKiKP	04 32 09.4	+0.1
LKGWB	Lokgwabe	150.93	339	P	PKiKP	04 32 09.8	-0.1
MAKGR	Makgori	151.62	331	P	PKiKP	04 32 11.4	+0.2
PHPEN	Phepeng	151.84	335	P	PKiKP	04 32 12.3	+0.6
BOSA	Boshof	154.10	328	PKPbc	PKPbc	04 32 14.9	-1.3
	comp=Z,40nm,1.2s,baz=20,slow=1.6,SNR=14						
BOSA	Boshof	154.10	328	P	PKPbc	04 32 15.8	-0.5
SYO	Syowa Base	158.00	208	⇑eP	PKPdf	04 32 21.8	+10
SYO	Syowa Base	158.00	208	⇓iP	PKPab	04 32 44.6	-0.7
VNA3	Neumayer Olymp	158.70	162	⇓PKPdf	PKPdf	04 32 11.0	-1.6
	comp=Z,14nm,0.8s						
ELIB	Princess Elisa	159.13	191	dPKPdf	PKPdf	04 32 23.6	+10
ELIB				dPKP	PKPab	04 32 49.0	-1.4
VNA2	Neumayer--Watz	159.38	164	PKPdf	PKPdf	04 32 13.5	+0.1
	comp=Z,14nm,0.6s,baz=292,slow=7.1						
VNA2				⇑PKPab	PKPab	04 32 50.7	-0.5
	comp=Z,14nm,0.6s,baz=251,slow=2.0						
SNAA	Sanae	159.40	168	⇑PKPab	PKPab	04 32 50.7	-0.7
	comp=Z,253nm,0.9s						
VNA1	Neumayer--Stat	159.45	162	PKPdf	PKPdf	04 32 12.0	-1.4
	comp=Z,18nm,0.9s						
VNA1				⇓PKPab	PKPab	04 32 51.2	-0.3
	comp=Z,18nm,0.9s						
TROLL	Troll, Antarti	159.61	173	PKPdf	PKPdf	04 32 11.8	-2.0
	comp=Z,1μm,1.1s						
TROLL				⇑PKPab	PKPab	04 32 52.3	-0.2
	comp=Z,1μm,1.1s						
NVL	N'lazarevskaya	161.13	182	ePKIKP	PKPdf	04 32 26.1	+11

IDC **27** *04:13:35.0±0.5, 35°.15N×137°.84E, h0^{km}, mb4.7/26, mbtmp4.7/34, ML4.1/8, MS4.0/3, Error ellipse: s-maj=11.4km s-min=10.7km az=142.0*

MOS **27** *04:13:39.6±0.9, 35°.11N×137°.76E, h47^{km}, mb5.1/26, Error ellipse: s-maj=7.7km s-min=4.9km az=113.6*

NEIC **27** *04:13:42.0±2.2, 35°.11N±0°.04×137°.77E±0°.04, h45^{km}±6^{km}, mb5.1/127, Mww4.9/10, Error ellipse: s-maj=7.2km s-min=1.1km az=225.0*

NIED **27** *04:13:41.3, 35°.08N×137°.79E, h45^{km}, MW4.9, Moment Tensor Solution. s3 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.80; $M_{\theta\theta}$-1.78; $M_{\phi\phi}$2.58; $M_{r\theta}$-0.48; $M_{\theta\phi}$-0.75; $M_{\phi r}$-0.54; Fault plane solution: $M_0$2.46000×10^{16} NP1: ϕ_s127.00000°, δ68.00000°, λ-168.00000°. NP2: ϕ_s33.00000°, δ79.00000°, λ-22.00000°.*

GFZ **27** *04:13:41.9±0.2, 35°N±3°×13°8E±°, h44^{km}, M5.1/21, mb5.0/21, Mw4.8/27, confirmed*

JMA **27** *04:13:41.3±0.1, 35°.1N±0°.1×137°.8E±0°.2, h45^{km}, MD5.1/40, MW4.9/40, NE AICHI PREF*

JMA Felt IV J1 at NE AICHI PREF .

GCMT **27** *04:13:43.0±0.4, 34°.95N±0°.02×137°.76E±0°.03, h44^{km}±2^{km}, MW5.1/76, Moment Tensor Solution. s17,c20; s76,c100; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-2.41±.49; $M_{\theta\theta}$-3.56±.30; $M_{\phi\phi}$5.96±.30; $M_{r\theta}$-1.24±.27; $M_{\theta\phi}$-1.32±.21; $M_{\phi r}$-0.68±.31; Best double couple: $M_0$5.36500×10^{16} NP1: ϕ_s131.00000°, δ65.00000°, λ-159.00000°. NP2: ϕ_s32.00000°, δ71.00000°, λ-26.00000°. Principal axes: T 6.1700, Plg3.0000°, Azm83.0000°; N -1.6200, Plg58.0000°, Azm178.0000°; P -4.5600, Plg32.0000°, Azm351.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 27 04:13:41.7±0.4**, 35°.09N**±0°.03×**137°.76E**±0°.03**, h46^{km}**±3^{km}**, h46^{km}:pP-P, n418,** σ1^{s}.**53**/329**, mb5.0**/146**, MS4.4**/9**, 7C-13D, Eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HMMJ	Hamamatsu 2	0.23	188	⇓P	Pn	04 13 49.3	-0.6
HMMJ				A	A	04 13 49.3	
	comp=N,631nm,0.9s,comp=E,483nm,1.9s						
HMMJ				⇓S	Sn	04 13 55.0	-0.7
JSSY	Shinshiroyabe	0.27	230	A	A	04 13 49.7	
	comp=N,449nm,0.6s,comp=E,514nm,1.1s						
JHMK	Hamakita	0.27	180	iP	Pn	04 13 49.4	-0.7
JHMK				eS	Sn	04 13 55.1	-0.9
JNY	Yasuok	0.28	17	⇓P	Pn	04 13 50.0	-0.4
JNY				A	A	04 13 50.0	
	comp=N,43nm,0.4s,comp=E,699nm,0.8s						
JNY				⇓S	Sn	04 13 56.4	-0.2
SHZ3	Shizuoka 3	0.37	93	P	Pn	04 13 50.4	-0.9
SHZ3				A	A	04 13 50.4	
	comp=N,1μm,0.4s,comp=E,920nm,0.4s						
SHZ3				S	Sn	04 13 57.1	-1.0
JAO	Obara	0.45	294	A	A	04 13 52.0	
	comp=N,296nm,0.9s,comp=E,300nm,0.7s						
JSG	Sagara	0.54	140	P	Pn	04 13 51.8	-1.5
JSG	Sagara	0.54	140	S	Sn	04 14 02.2	+0.7
JSG	Sagara	0.54	140		Pn	04 13 53.0	-0.3
JSG					Sn	04 14 02.0	+0.4
JSG	Sagara	0.54	140	P	Pn	04 13 53.1	-0.1
JSG	Sagara	0.54	140	A	A	04 13 52.4	
	comp=N,720nm,0.5s,comp=E,562nm,1.4s						
JGF	Kuroka	0.61	327	P	Pn	04 13 54.0	-0.2
JGF	Kuroka	0.61	327	S	Sn	04 14 03.2	+0.1
JGF	Kuroka	0.61	327		Pn	04 13 54.3	+0.1
JGF					Sn	04 14 03.0	-0.2
JGF	Kuroka	0.61	327	P	Pn	04 13 54.2	+0.1
JGF	Kuroka	0.61	327	A	A	04 13 54.0	
	comp=N,285nm,1.1s,comp=E,333nm,1.2s						
JAA	Atsumi	0.68	228	A	A	04 13 54.8	
	comp=N,257nm,2.0s,comp=E,194nm,1.8s						
JYN	Shimob	0.76	57	P	Pn	04 13 55.5	-0.8
JYN				A	A	04 13 55.5	
	comp=N,191nm,1.9s,comp=E,189nm,1.0s						
JFNN	Fujinakano	0.77	82	A	A	04 13 55.6	
	comp=N,113nm,1.8s,comp=E,215nm,0.7s						
JICN	Ichinomiyachia	0.78	286	A	A	04 13 56.3	
	comp=N,1μm,1.0s,comp=E,584nm,0.8s						
TTO5	TONANKAI O.B.S	0.83	182	A	A	04 13 56.7	
	comp=N,363nm,2.1s,comp=E,275nm,1.0s						
JNT	Takato	0.84	21	⇓P	Pn	04 13 57.1	-0.3
JNT				A	A	04 13 57.1	
	comp=N,92nm,0.9s,comp=E,171nm,0.8s						
JNT				⇓S	Sn	04 14 08.5	-0.3
JYTA	Yamagatataniai	0.98	301	⇓P	Pn	04 13 59.3	+0.3
JYTA				A	A	04 13 59.3	
	comp=N,136nm,2.0s,comp=E,127nm,0.9s						
JIZS	Izushimoda	0.99	112	P	Pn	04 13 57.8	-1.4
JIZS				A	A	04 13 57.8	
	comp=N,70nm,1.4s,comp=E,80nm,2.4s						
JHTM	Izuhatsuma	1.03	97	A	A	04 13 59.4	
	comp=N,222nm,1.4s,comp=E,234nm,0.8s						
TTO4	TONANKAI O.B.S	1.09	190	A	A	04 14 00.2	
	comp=N,153nm,1.7s,comp=E,265nm,1.3s						
JOD2	Odawara 2	1.10	81	P	Pn	04 14 00.3	-0.5
JOD2				A	A	04 14 00.3	
	comp=N,66nm,1.0s,comp=E,56nm,1.9s						
JIE	Ise	1.11	232	P	Pn	04 14 00.2	-0.7
JIE				A	A	04 14 00.2	
	comp=N,68nm,0.9s,comp=E,59nm,0.7s						
JEG	Eigenji	1.12	273	A	A	04 14 01.4	
	comp=N,73nm,0.9s,comp=E,65nm,0.8s						
TSUJ	Tsu 2	1.16	251	P	Pn	04 14 01.1	-0.5
TSUJ				A	A	04 14 01.1	
	comp=N,44nm,2.0s,comp=E,42nm,0.7s						
JGN	Niukaw	1.19	342	A	A	04 14 02.3	
	comp=N,28nm,1.3s,comp=E,26nm,2.0s						
TTO3	TONANKAI O.B.S	1.26	194	A	A	04 14 02.9	
	comp=N,232nm,4.9s,comp=E,215nm,2.0s						
JSGW	Sagamiharawaka	1.29	66	A	A	04 14 03.2	
	comp=N,50nm,0.7s,comp=E,45nm,1.4s						
JRY	Ryogami san	1.31	45	P	Pn	04 14 03.5	-0.1
JRY				A	A	04 14 03.5	
	comp=N,52nm,1.3s,comp=E,57nm,2.3s						
JNG	Nsakai	1.34	12	A	A	04 14 04.4	
	comp=N,88nm,1.0s,comp=E,81nm,2.1s						
JTHY	Toshimahigashi	1.38	114	A	A	04 14 04.3	
	comp=N,173nm,1.8s,comp=E,87nm,5.1s						
JSKK	Shikinejimakit	1.41	122	A	A	04 14 04.8	
	comp=N,141nm,1.8s,comp=E,130nm,1.7s						
JIM2	Oshima 3	1.42	105	A	A	04 14 05.0	
	comp=N,84nm,1.5s,comp=E,67nm,1.7s						
JNIO	Niijimaoohara	1.45	120	A	A	04 14 05.3	
	comp=N,98nm,2.2s,comp=E,123nm,2.0s						
JHU2	Hanno	1.45	58	A	A	04 14 05.5	
	comp=N,48nm,0.6s,comp=E,26nm,1.6s						
JKO	Kozu shima	1.45	128	A	A	04 14 05.3	
	comp=N,104nm,1.5s,comp=E,114nm,1.7s						
JKN2	Miekihoku	1.49	236	A	A	04 14 06.4	
	comp=N,39nm,2.4s,comp=E,32nm,1.9s						
MAJO	Matsushiro	1.50	14	P	Pn	04 14 06.7	+0.5
MAJO	Matsushiro	1.50	14	S	Sn	04 14 27.6	+3.1
MAJO	Matsushiro	1.50	14	d iP	Pn	04 14 06.6	+0.5
MAJO	Matsushiro	1.50	14		Pn	04 14 06.7	+0.5
MAJO				Sn	Sn	04 14 25.6	+1.1
MAJO	Matsushiro	1.50	14	P	Pn	04 14 06.9	+0.7
JFM	Mihama	1.52	287	A	A	04 14 07.0	
	comp=N,88nm,2.4s,comp=E,54nm,1.8s						
JTT	Ttatey	1.55	347	A	A	04 14 07.4	
	comp=N,43nm,1.8s,comp=E,67nm,2.3s						
JYO	Yokosk	1.57	85	A	A	04 14 07.1	
	comp=N,62nm,1.1s,comp=E,80nm,2.0s						
JGK	Kuni	1.64	26	A	A	04 14 08.4	
	comp=N,60nm,2.4s,comp=E,48nm,4.8s						
JKG	Kaga	1.66	316	A	A	04 14 09.1	
	comp=N,69nm,2.0s,comp=E,50nm,2.0s						
TOK	Tokyo	1.74	69	A	A	04 14 09.6	
	comp=N,123nm,1.1s,comp=E,84nm,2.2s						
JNTK	Naratenkawa	1.75	243	A	A	04 14 10.3	
	comp=N,54nm,2.0s,comp=E,30nm,0.6s						
TATJ	Tateyama 2	1.75	91	A	A	04 14 09.6	
	comp=N,50nm,2.1s,comp=E,66nm,3.3s						
JHE	Heguri	1.76	256	A	A	04 14 10.5	
	comp=N,30nm,2.4s,comp=E,20nm,1.6s						
JMYK	Miyake Tsubota	1.80	124	A	A	04 14 10.3	
	comp=N,36nm,3.9s,comp=E,37nm,2.7s						
JMMH	Miemihama	1.91	229	A	A	04 14 12.5	
	comp=N,28nm,2.0s,comp=E,34nm,2.1s						
JAG	Ashikaga	1.92	45	A	A	04 14 12.3	
	comp=N,34nm,2.0s,comp=E,27nm,1.1s						
JMKN	Mikurajimanish	1.93	128	A	A	04 14 12.2	
	comp=N,17nm,6.9s,comp=E,23nm,2.4s						
JWT	Wachi	1.94	276	A	A	04 14 13.1	
	comp=N,36nm,2.8s,comp=E,28nm,1.6s						
JWY	Kouya	1.98	245	A	A	04 14 13.7	
	comp=N,30nm,1.2s,comp=E,14nm,2.4s						
JJH	Hakui	2.00	337	A	A	04 14 13.8	
	comp=N,41nm,2.2s,comp=E,50nm,1.5s						
JKUC	kamogawauchiur	2.00	87	A	A	04 14 13.3	
	comp=N,18nm,2.2s,comp=E,21nm,3.1s						
JJN	Nakama	2.04	9	A	A	04 14 14.2	
	comp=N,29nm,2.6s,comp=E,37nm,1.5s						
JCCN	Chibachonan	2.05	81	A	A	04 14 14.0	
	comp=N,79nm,4.9s,comp=E,47nm,4.3s						
JKT	Katashina	2.07	35	A	A	04 14 14.6	
	comp=N,26nm,2.8s,comp=E,37nm,0.7s						
I30JP	ISUMI INFRASON	2.10	83	Pn	Pn	04 14 11.2	-3.2
	baz=263,slow=12						
I30JP				I	I	04 21 50.0	
	baz=256,slow=322,SNR=1.7						
JTNC	Tanabenakahech	2.18	235	A	A	04 14 16.4	
	comp=N,43nm,0.9s,comp=E,33nm,1.6s						
JKY	Yasaka	2.24	285	A	A	04 14 17.4	
	comp=N,84nm,3.1s,comp=E,48nm,1.2s						
JMIK	Miki	2.24	264	A	A	04 14 17.4	
	comp=N,50nm,1.1s,comp=E,29nm,0.8s						
JYT	Yasato	2.29	59	A	A	04 14 17.4	
	comp=N,22nm,1.9s,comp=E,19nm,1.6s						
JWKM	Wakayamakushim	2.33	226	A	A	04 14 18.4	
	comp=N,15nm,1.5s,comp=E,36nm,1.4s						
JUON	Uonuma	2.36	26	A	A	04 14 18.8	
	comp=N,9.0nm,1.8s,comp=E,15nm,1.6s						
JIHU	Itakohorinouch	2.42	68	A	A	04 14 19.4	
	comp=N,57nm,5.0s,comp=E,64nm,4.0s						
JIZZ	Izumozaki	2.56	17	A	A	04 14 21.6	
	comp=N,56nm,3.4s,comp=E,54nm,5.9s						
JSB	Shiboa	2.57	42	A	A	04 14 21.6	
	comp=N,73nm,1.5s,comp=E,104nm,1.6s						
JKSM	Kasumi	2.58	282	A	A	04 14 22.2	
	comp=N,27nm,2.9s,comp=E,24nm,1.2s						
JHJ	Hachijo jima 2	2.58	139	Pn	Pn	04 14 19.5	-1.6
	comp=E,166nm,0.3s,baz=89,slow=23,SNR=16						
JHJ				Sn	Sn	04 14 55.0	+3.8
	comp=E,168nm,0.3s,baz=284,slow=15,SNR=5.6						
	comp=E,363nm,0.3s						
JHJ				AML	AML		
JHJ2	Mitsune	2.61	139	P	Pn	04 14 21.0	-0.4
JHJ2	Mitsune	2.61	139		Pn	04 14 20.7	-0.7
JHJ2	Mitsune	2.61	139	P	Pn	04 14 21.4	0.0
JCAJ	Choshiashikaji	2.61	75	A	A	04 14 22.0	
	comp=N,14nm,1.9s,comp=E,20nm,2.1s						
JHYU	Hitachinakayam	2.62	61	A	A	04 14 22.2	
	comp=N,11nm,1.9s,comp=E,13nm,1.5s						
JAI	Aioi	3.02	246	A	A	04 14 28.4	
	comp=N,17nm,4.0s,comp=E,12nm,1.9s						
JFFD	Fukushimafurud	3.02	48	A	A	04 14 28.1	
	comp=N,10.0nm,1.5s,comp=E,14nm,1.1s						
JOTO	OTAMA OYAMA	3.23	39	A	A	04 14 31.0	
	comp=N,25nm,2.0s,comp=E,20nm,2.9s						
JJS	Sakaide	3.23	258	A	A	04 14 31.4	
	comp=N,7.0nm,2.5s,comp=E,7.0nm,1.1s						
JFK	Kawauchi	3.39	47	A	A	04 14 33.3	
	comp=N,9.0nm,3.2s,comp=E,14nm,3.6s						
JYAR	Yonezawaarcadi	3.41	34	A	A	04 14 33.6	
	comp=N,15nm,2.6s,comp=E,13nm,4.2s						
MRT2	Murotomisaki 2	3.44	241	A	A	04 14 34.3	
	comp=N,15nm,3.5s,comp=E,14nm,3.3s						
JMN	Monobe	3.48	248	P	Pn	04 14 33.0	-0.4
JMN	Monobe	3.48	248	S	Sn	04 15 15.4	+2.0
JMN	Monobe	3.48	248		Pn	04 14 33.2	-0.3
JMN	Monobe	3.48	248	P	Pn	04 14 33.4	0.0
JMN	Monobe	3.48	248	A	A	04 14 35.0	
	comp=N,16nm,2.7s,comp=E,12nm,2.7s						
JYA	Atsumi	3.83	24	A	A	04 14 39.6	
	comp=N,6.0nm,5.4s,comp=E,11nm,0.9s						
JOU	Okura	4.02	35	A	A	04 14 42.1	
	comp=N,9.0nm,1.5s,comp=E,9.0nm,1.9s						
JISK	Izumosakaura	4.04	277	A	A	04 14 42.8	
	comp=N,14nm,3.4s,comp=E,12nm,2.6s						
JYYZ	Yamagatayuza	4.29	23	A	A	04 14 45.9	
	comp=N,20nm,2.4s,comp=E,20nm,3.7s						
JOFO	Osakifurukawao	4.32	35	A	A	04 14 46.4	
	comp=N,34nm,2.6s,comp=E,52nm,2.7s						
JNU	Nakatsue	6.04	253	Pn	Pn	04 15 08.7	+0.2
	comp=E,9.3nm,0.3s,baz=65,slow=5.8,SNR=74						
JNU				LR	LR	04 17 57.4	
	comp=E,2μm,19.4s,baz=96,slow=43						
	comp=E,198nm,0.8s						
JNU				AML	AML		
JTM	Tenmabayashi	6.26	24	P	Pn	04 15 14.0	+2.5
JTM	Tenmabayashi	6.26	24	S	Sn	04 16 25.7	+4.0
JTM	Tenmabayashi	6.26	24		Pn	04 15 12.4	+0.9
JTM	Tenmabayashi	6.26	24	P	Pn	04 15 16.2	+4.8
	comp=Z,416nm,1.0s						
JTU	Tsushima	6.90	268	Pn	Pn	04 15 20.4	+0.1
JSU	Suzuyama	7.08	242	P	Pn	04 15 23.1	+0.3
JSU	Suzuyama	7.08	242		Pn	04 15 23.0	+0.2
JSU	Suzuyama	7.08	242	P	Pn	04 15 23.7	+0.9
	comp=Z,182nm,1.1s						
ERM	Erimo	8.10	30	P	Pn	04 15 37.9	+1.2
ERM	Erimo	8.10	30	iP	Pn	04 15 37.2	+0.5
ERM	Erimo	8.10	30		Pn	04 15 37.3	+0.6
JEM	Erimo	8.11	30	P	Pn	04 15 38.0	+1.3
KSRS	Korea Array	8.29	289	Pn	Pn	04 15 40.4	+1.1
	comp=Z,0.9nm,0.3s,baz=106,slow=14,SNR=43						
KSRS				Sn	Sn	04 17 12.2	+0.7
	comp=Z,1.4nm,0.3s,baz=101,slow=24,SNR=4.6						
KSRS				LR	LR	04 19 03.6	
	comp=Z,757nm,19.1s,baz=90,slow=39						
	comp=Z,23nm,0.8s						
KSRS				AML	AML		
KSRS	Korea Array	8.29	289	eP	Pn	04 15 41.5	+2.2
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.3s						
KSAR	Wonju Array Be	8.31	289	P	Pn	04 15 39.5	-0.1
KSAR	Wonju Array Be	8.31	289		Pn	04 15 39.5	-0.1
KS19	Wonju Array Si	8.34	290		Pn	04 15 40.8	+0.7
TJN	Taejon	8.55	282	P	Pn	04 15 44.8	+1.9
TJN	Taejon	8.55	282	iP	Pn	04 15 43.4	+0.5
TJN	Taejon	8.55	282		Pn	04 15 42.7	-0.2
TJN	Taejon	8.55	282	P	Pn	04 15 44.3	+1.4
	comp=Z,262nm,1.8s						
VLA	Vladivostok	9.22	332	iP	Pn	04 15 51.6	-0.5
INCN	Inchon	9.29	288	P	Pn	04 15 55.8	+2.7
INCN	Inchon	9.29	288	P	Pn	04 15 54.2	+1.1
INCN	Inchon	9.29	288		Pn	04 15 54.2	+1.1
INCN	Inchon	9.29	288	P	Pn	04 15 55.2	+2.1
	comp=Z,107nm,1.4s						
ASAJ	Asahikawa	9.76	21	Pn	Pn	04 15 59.0	-0.3
	comp=Z,1.8nm,0.3s,baz=154,slow=30,SNR=11						
	comp=Z,22nm,0.8s						
ASAJ				AML	AML		
JKA	Kamikawa-asahi	9.76	21	Pn	Pn	04 16 00.1	+0.8
USA0B	Ussuriysk Arra	10.12	336	d iP	Pn	04 16 07.0	+2.6
USA0B	Ussuriysk Arra	10.12	336		Pn	04 16 05.4	+1.0
USRK	Ussuriysk Ar.	10.12	336	Pn	Pn	04 16 04.1	-0.3
	comp=Z,1.2nm,0.3s,baz=159,slow=13,SNR=38						
USRK				LR	LR	04 19 50.9	
	comp=Z,730nm,21.0s,baz=162,slow=37						
	comp=Z,46nm,0.9s						
USRK				AML	AML		
USRK	Ussuriysk Ar.	10.12	336		Pn	04 16 06.1	+1.7
MDJ	Mudanjiang	11.39	329	P	Pn	04 16 26.0	+4.3
MDJ				pmax	pmax		
	comp=Z,40nm,2.3s						
MDJ				pmax	pmax		
	comp=Z,730nm,4.3s						
MDJ	Mudanjiang	11.39	329	P	Pn	04 16 24.7	+3.0
MDJ	Mudanjiang	11.39	329		Pn	04 16 22.5	+0.7
MDJ	Mudanjiang	11.39	329	P	Pn	04 16 26.3	+4.5
	comp=Z,45nm,0.9s						
JOW	Kunigami	11.57	227	Pn	Pn	04 16 24.4	+0.2
	comp=Z,2.3nm,0.3s,baz=106,slow=18,SNR=9.6						
	comp=Z,20nm,0.9s						
JOW				AML	AML		
JOW	Kunigami	11.57	227		Pn	04 16 22.8	-1.4
YSS	Yuzhno-Sakhali	12.44	16	eP	Pn	04 16 34.1	-1.9
YSS				pmax	pmax		
	comp=Z,30nm,1.0s						
YSS	Yuzhno-Sakhali	12.44	16	Pn	Pn	04 16 34.1	-1.9
CN2	Changchun	12.88	316	eP	Pn	04 16 43.3	+1.2
CN2				eS	Sn	04 19 09.5	+5.6
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
CN2				pmax	pmax		
	comp=Z,200nm,6.0s						
CN2				L	L		
	comp=Z,700nm,17.0s						
CN2				L	L		
	comp=Z,400nm,17.0s						
CN2				L	L		
	comp=Z,400nm,21.3s						
SNY	Shenyang	12.98	305	⇑P	P	04 16 55.3	+2.5
SNY				S	S	04 19 29.3	-0.7
SNY				pmax	pmax		
	comp=Z,750nm,1.5s						
SNY				pmax	pmax		
	comp=Z,250nm,3.0s						
SNY				LR	LR		
	comp=N,110nm,3.6s						
SNY				LR	LR		
	comp=E,310nm,5.5s						
SNY				LR	LR		
	comp=Z,370nm,9.3s						
BNX	BinXian	13.23	327	⇑P	Pn	04 16 49.5	+2.7
BNX				S	Sn	04 19 17.8	+5.4
BNX				pmax	pmax		
	comp=Z,31nm,1.2s						
BNX				pmax	pmax		
	comp=Z,340nm,5.0s						
BNX				L	L		
	comp=Z,660nm,13.8s						
BNX				L	L		
	comp=Z,650nm,12.7s						
BNX				L	L		
	comp=Z,970nm,14.1s						
DL2	Dalian	13.44	291	P	P	04 17 00.5	+2.5
DL2				sP	Pn	04 17 14.8	+25
DL2				S	S	04 19 33.0	-6.5
DL2				sS	Sn	04 19 43.3	+26
DL2				pmax	pmax		
	comp=Z,41nm,0.9s						
DL2				pmax	pmax		
	comp=Z,390nm,8.5s						
DL2				LR	LR		
	comp=N,2μm,17.3s						
DL2				LR	LR		
	comp=E,950nm,16.3s						
DL2				LR	LR		
	comp=Z,890nm,14.9s						
KLR	Kul'dur	14.81	344	Pn	Pn	04 17 09.6	+1.5
	comp=Z,1.9nm,0.3s,baz=148,slow=10.0,SNR=143						
	comp=Z,62nm,0.8s						
KLR				AML	AML		
KLR	Kul'dur	14.81	344	eP	Pn	04 17 07.3	-0.8
KLR				pmax	pmax		
	comp=Z,29nm,1.3s						
GRNR	Gornyy	15.70	357	⇑iP	Pn	04 17 18.7	-1.0
GRNR				pmax	pmax		
	comp=Z,6.0nm,0.6s						
NJ2	Nanjing	16.05	264	eP	P	04 17 26.0	-0.9
NJ2				pP	pP	04 17 38.0	+0.2
NJ2				sP	sP	04 17 44.8	+1.1
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
TYV	Tymovskoe	16.16	11	eP	Pn	04 17 26.3	+0.8
TYV				pmax	pmax		
	comp=Z,28nm,1.0s						
TYV				pmax	pmax		
	comp=Z,200nm,3.9s						
TYV				MLR	MLR		
	comp=Z,3μm,16.0s						
TYV				MLR	MLR		
	comp=E,6μm,17.0s						
TIA	Tai'an	16.81	280	P	P	04 17 37.5	+2.1
TIA				sP	sP	04 17 53.3	+1.1
TIA				pmax	pmax		

	comp=E,44nm,1.2s						
TIA				pmax	pmax		
	comp=E,230nm,5.4s						
TIA				L	L		
	comp=E,910nm,13.3s						
TIA				L	L		
	comp=E,620nm,14.3s						
TIA				L	L		
	comp=E,900nm,18.8s						
HEH	HeiHe	16.93	337	eP	Pn	04 17 34.5	-0.7
HEH				pmax	pmax		
	comp=E,46nm,1.3s						
YHNB	Yeheng	17.57	238		Pn	04 17 43.4	0.0
NACB	Ninganchiao	17.75	237		Pn	04 17 44.2	-1.2
BJI2	Beijing	17.80	292	P	P	04 17 48.5	+2.2
BJI2				pP	pP	04 17 59.5	+2.4
BJI2				sP	sP	04 18 05.5	+2.5
BJI2				pmax	pmax		
	comp=E,7.0nm,1.5s						
BJT	Baijiatuau	17.80	292	P	P	04 17 49.2	+2.9
BJT	Baijiatuau	17.80	292	P	Pn	04 17 45.7	-0.3
BJT				pmax	pmax		
	comp=Z,9.0nm,0.5s						
BJT	Baijiatuau	17.80	292	P	Pn	04 17 45.7	-0.3
BJT	Baijiatuau	17.80	292	P	P	04 17 48.5	+2.2
	comp=Z,54nm,1.1s						
HNS	HongShan	18.73	284	⇑P	Pn	04 17 58.5	+1.2
HNS				pP	pP	04 18 09.0	+1.5
HNS				S	S	04 21 27.8	+0.5
HNS				pmax	pmax		
	comp=Z,55nm,0.8s						
HNS				L	L		
	comp=Z,480nm,15.1s						
HNS				L	L		
	comp=Z,570nm,15.9s						
HNS				L	L		
	comp=Z,600nm,16.7s						
XLT	XiLinHaoTe	18.86	304	eP	Pn	04 17 59.0	0.0
XLT				S	Sn	04 21 26.0	-3.1
XLT				pmax	pmax		
	comp=Z,42nm,1.6s						
XLT				pmax	pmax		
	comp=Z,99nm,4.1s						
XLT				L	L		
	comp=Z,1µm,23.3s						
TWGBT	Beinan	19.01	234	P	Pn	04 18 02.9	+2.2
HIA	Hailar	19.40	322	P	Pn	04 18 07.1	+1.9
HIA	Hailar	19.40	322	P	P	04 18 03.1	-0.7
	comp=Z,24nm,0.9s						
HILR	Hailar Array B	19.58	323	P	P	04 18 05.0	-0.8
	baz=120,slow=18						
	comp=Z,3.1nm,0.5s						
KNMB	Chin-men Tao	19.84	243		P	04 18 09.4	+0.7
KNMB				IAmb	IAmb	04 18 11.3	
	comp=Z,172nm,1.2s						
KNMB	Chin-men Tao	19.84	243	P	Pn	04 18 10.2	-0.4
	comp=Z,129nm,1.2s						
ZEA	Zeya	20.06	342	eP	P	04 18 08.5	-2.4
ZEA				pmax	pmax		
	comp=E,30nm,0.7s						
ZEA				pmax	pmax		
	comp=N,20nm,0.8s						
ZEA				pmax	pmax		
	comp=Z,70nm,0.7s						
WHN	Wuhan	20.18	264	⇑P	Pn	04 18 14.5	0.0
WHN				pP	pP	04 18 25.5	+2.2
WHN				L	L		
	comp=Z,1µm,13.1s						
LYN	LuoYang	20.76	276	⇑P	Pn	04 18 20.5	-1.0
LYN				pmax	pmax		
	comp=Z,40nm,1.0s						
LYN				pmax	pmax		
	comp=Z,330nm,4.9s						
LYN				L	L		
	comp=Z,2µm,21.6s						
LYN				L	L		
	comp=Z,610nm,16.3s						
LYN				L	L		
	comp=Z,2µm,18.6s						
HHC	Hu-ho-hao-te	21.40	293	eP	P	04 18 27.8	+2.2
HHC				pP	pP	04 18 39.0	+2.2
HHC				S	S	04 22 20.5	-0.1
HHC				pmax	pmax		
	comp=Z,21nm,0.6s						
HHC				L	L		
	comp=Z,1µm,18.5s						
HHC				L	L		
	comp=Z,1µm,20.2s						
HHC				L	L		
	comp=Z,720nm,18.5s						
CNSH	ChangSha	22.20	259	P	P	04 18 34.0	-0.1
CNSH				pmax	pmax		
	comp=Z,59nm,1.0s						
CNSH				L	L		
	comp=Z,980nm,19.2s						
CNSH				L	L		
	comp=Z,2µm,19.9s						
CNSH				L	L		
	comp=Z,2µm,20.3s						
BTO2	Baotou	22.66	293	eP	P	04 18 40.0	+0.9
BTO2				pP	pP	04 18 49.0	-1.3
BTO2				PP	PnPn	04 19 08.5	+4.4
BTO2				pmax	pmax		
	comp=Z,17nm,0.8s						
BTO2				pmax	pmax		
	comp=Z,180nm,4.2s						
BTO2				L	L		
	comp=Z,2µm,15.9s						
BTO2				L	L		
	comp=Z,1µm,16.6s						
BTO2				L	L		
	comp=Z,1µm,16.9s						
PET	Petropavlovsk	23.24	33	iP	P	04 18 45.2	+0.5
PET				pmax	pmax		
	comp=Z,57nm,1.1s						
SZP	Santa	23.30	226	P	P	04 18 48.1	+2.6
XAN	Xi'an	23.74	276	P	P	04 18 50.8	+1.0
XAN				pmax	pmax		
	comp=Z,11nm,1.3s						
XAN				L	L		
	comp=Z,1µm,21.3s						
XAN				L	L		
	comp=Z,570nm,17.2s						
XAN				L	L		
	comp=Z,440nm,22.0s						
ENH	Enshi	24.24	267	P	P	04 18 54.4	0.0
ENH	Enshi	24.24	267	P	P	04 18 54.6	+0.3
	comp=Z,219nm,0.9s						
ENH				pP	pP	04 19 06.0	-0.6
MA2	Magadan	25.94	15	iP	P	04 19 08.7	-0.8
MA2				pmax	pmax		
	comp=Z,33nm,0.9s						
ULN	Ulaanbaatar	26.12	309	iP	P	04 19 10.9	-0.5
ULN				pmax	pmax		
	comp=Z,18nm,1.1s						
ULN	Ulaanbaatar	26.12	309	P	P	04 19 10.7	-0.7
	comp=Z,19nm,1.0s						
SONM	Songino Array	26.54	308	P	P	04 19 14.5	-0.7
	comp=Z,9.5nm,0.9s,baz=110,slow=8.8,SNR=21						
	comp=Z,9.5nm,0.9s						
SONM	Songino Array	26.54	308	P	P	04 19 14.4	-0.7
SONM				pmax	pmax		
	comp=Z,29nm,1.4s						
SONM	Songino Array	26.54	308	P	P	04 19 14.3	-0.8
YAK	Yakutsk	27.45	352	eP	P	04 19 21.3	-1.6
YAK				e*PP	pP	04 19 35.4	0.0
YAK				eS	S	04 23 58.9	-1.1
YAK				e*SS	sS	04 24 21.2	+0.5
YAK				eSS	SnSn	04 25 11.1	-1.8
YAK				pmax	pmax		
	comp=Z,93nm,0.9s						
YAK				pmax	pmax		
	comp=E,15nm,0.9s						
YAK				pmax	pmax		
	comp=N,55nm,1.1s						
YAK				smax	smax		
	comp=N,70nm,2.1s						
YAK				smax	smax		
	comp=E,65nm,2.7s						
LZH	Lanzhou	27.52	282	eP	P	04 19 34.5	+10
LZH				pP	sP	04 19 43.5	+1.4
LZH				pmax	pmax		
	comp=Z,54nm,1.9s						
LZDM	Lanzhou Array	27.66	282	P	P	04 19 25.8	+0.3
	comp=Z,1.5nm,0.4s,baz=72,slow=6.4,SNR=3.6						
	comp=Z,1.5nm,0.4s						
CD2	Chengdu	28.74	271	P	P	04 19 35.0	+0.1
CD2				pmax	pmax		
	comp=Z,10.0nm,0.4s						
ZAK	Zakamensk	29.26	312	eP	P	04 19 36.8	-2.6
ZAK				pmax	pmax		
	comp=Z,5.0nm,1.6s						
SEY	Seymchan	29.32	14	iP	P	04 19 39.7	0.0
TLY	Talaya	29.48	315	iP	P	04 19 40.9	-0.3
TLY				pmax	pmax		
	comp=Z,3.0nm,0.9s						
H11N2	WAKE ISLAND Hy	29.91	113	T	T	04 50 06.2	
	baz=308,slow=75,SNR=36						
H11N1	WAKE ISLAND Hy	29.92	113	T	T	04 50 06.5	
	baz=308,slow=75,SNR=25						
H11N3	WAKE ISLAND Hy	29.93	113	T	T	04 50 07.9	
	baz=308,slow=75,SNR=46						
GTA2	Gaotai	30.40	290	eP	P	04 19 49.3	-0.3
GTA2				pmax	pmax		
	comp=Z,4.0nm,1.4s						
GTA2				L	L		
	comp=Z,790nm,24.4s						
GTA2				L	L		
	comp=Z,810nm,23.8s						
GTA2				L	L		
	comp=Z,690nm,23.8s						
H11S3	WAKE ISLAND Hy	30.51	115	T	T	04 50 55.6	
	baz=310,slow=76,SNR=12						
H11S1	WAKE ISLAND Hy	30.51	115	T	T	04 50 52.9	
	baz=310,slow=76,SNR=12						
H11S2	WAKE ISLAND Hy	30.52	115	T	T	04 50 51.9	
	baz=310,slow=76,SNR=8.4						
PZH	PanZhiHua	31.96	264	P	P	04 20 05.0	+1.5
KNGR	Kungurtug, Tuv	32.87	311	iP	P	04 20 10.7	-0.5
KNGR				pmax	pmax		
	comp=Z,2.0nm,1.0s						
PATS	Pohnpei	33.88	141	P	P	04 20 21.6	+1.4
	comp=Z,47nm,1.8s						
BILL	Bilibino	36.75	17	iP	P	04 20 44.8	+0.5
BILL				pmax	pmax		
	comp=Z,13nm,1.1s						
TIXI	Tiksi	36.92	355	iP	P	04 20 44.9	-0.8
TIXI				pmax	pmax		
	comp=Z,24nm,1.0s						
TIXI	Tiksi	36.92	355	P	P	04 20 44.0	-1.7
TOLI2	Tolitoli	37.32	209	P	P	04 20 53.7	+4.0
TOLI2	Tolitoli	37.32	209	P	P	04 20 49.3	-0.4
	comp=Z,18nm,0.8s						
CHTO	Chiang Mai	37.94	255	P	P	04 20 57.9	+3.0
CHTO	Chiang Mai	37.94	255	P	P	04 20 53.9	-1.0
CHTO				pmax	pmax		
	comp=Z,7.0nm,0.8s						
CHTO	Chiang Mai	37.94	255	P	P	04 20 53.9	-1.0
CHTO	Chiang Mai	37.94	255	P	P	04 20 54.7	-0.3
	comp=Z,10nm,0.7s						
CMAR	Chiang Mai Arr	38.13	254	P	P	04 20 56.0	-0.5
	comp=Z,0.9nm,0.4s,baz=47,slow=7.7,SNR=6.1						
	comp=Z,0.9nm,0.4s						
SANI	Sanana	38.56	199	P	P	04 21 03.7	+3.6
WMQ	Urumqi	39.11	298	eP	P	04 21 06.5	+1.9
WMQ				pP	pP	04 21 17.0	-0.2
WMQ				pmax	pmax		
	comp=Z,27nm,0.9s						
WMQ				L	L		
	comp=Z,990nm,22.5s						
WMQ				L	L		
	comp=Z,530nm,24.3s						
WMQ				L	L		
	comp=Z,250nm,23.5s						
DGZ	Jazzator, Alta	39.18	308	iP	P	04 21 04.6	-0.6
DGZ				pmax	pmax		
	comp=Z,17nm,1.0s						
SHL	Shillong	40.42	269	P	P	04 21 16.2	+0.4
SHL	Shillong	40.42	269	P	P	04 21 16.1	+0.4
ZSN	Zaisan	40.88	304	eP	P	04 21 19.2	+0.1
ZSN	Zaisan	40.88	304	eP	P	04 21 19.3	+0.1
ZAA0	Zalesovo Array	41.09	314	P	P	04 21 19.3	-1.4
ZALV	Zalesovo Beam	41.09	314	P	P	04 21 19.3	-1.4
	comp=Z,1.4nm,0.6s,baz=98,slow=6.1,SNR=7.0						
	comp=Z,1.4nm,0.6s						
ZALV	Zalesovo Beam	41.09	314	P	P	04 21 18.7	-2.0
ZALV	Zalesovo Beam	41.09	314		P	04 21 18.7	-2.0
MK31	Makanchi Array	42.68	303	iP	P	04 21 33.4	-0.5
MKAR	Makanchi Array	42.68	303	P	P	04 21 33.5	-0.4
	comp=Z,6.8nm,0.8s,baz=88,slow=10,SNR=28						
	comp=Z,6.8nm,0.8s						
MKAR	Makanchi Array	42.68	303	P	P	04 21 33.1	-0.8
MKAR	Makanchi Array	42.68	303		P	04 21 33.1	-0.8
MAKZ	Makanchi	42.89	303	P	P	04 21 35.1	-0.5
MAKZ				pmax	pmax		
	comp=Z,29nm,1.2s						
MAKZ	Makanchi	42.89	303		P	04 21 35.1	-0.5
MAKZ				IAmb	IAmb	04 23 02.7	
	comp=Z,29nm,1.1s						
MAKZ	Makanchi	42.89	303	P	P	04 21 35.4	-0.2
	comp=Z,13nm,1.1s						
NRIK	Noril'sk	43.84	337	iP	P	04 21 42.1	-0.8
NRIK				pmax	pmax		
	comp=Z,25nm,1.1s						
KURK	Kurchatov	44.83	309	P	P	04 21 50.8	-0.3
KURK	Kurchatov	44.83	309		P	04 21 49.8	-1.2
KURK	Kurchatov	44.83	309	P	P	04 21 50.2	-0.9
	comp=Z,34nm,1.1s						
KURBB	Kurchatov Arra	44.90	309	P	P	04 21 50.8	-0.8
	comp=Z,15nm,0.8s,baz=87,slow=8.3,SNR=52						
	comp=Z,15nm,0.8s						
PMG	Port Moresby	45.14	167	iP	P	04 21 54.3	+0.5
PMG				pmax	pmax		
	comp=Z,15nm,1.0s						
SHLS	Shalkode	45.14	299	eP	P	04 21 51.2	-2.6
SHLS				pmax	pmax		
	comp=Z,7.0nm,0.7s						
SHLS	Shalkode	45.14	299	eP	P	04 21 51.2	-2.6
	comp=Z,6.5nm,0.7s						
UZB	Uzynbulak	45.46	299	eP	P	04 21 56.1	-0.2
UZB				pmax	pmax		
	comp=Z,13nm,1.1s						
UZB	Uzynbulak	45.46	299	eP	P	04 21 56.2	-0.1
	comp=Z,14nm,1.1s						
TDK	Taldyqorghan	45.58	301	eP	P	04 21 57.3	+0.1
TDK				pmax	pmax		
	comp=Z,10.0nm,0.7s						
TDK	Taldyqorghan	45.58	301	eP	P	04 21 57.3	+0.1
	comp=Z,10nm,0.7s						
KPKS	Kokpek	45.64	299	eP	P	04 21 57.9	+0.2
KPKS	Kokpek	45.64	299	eP	P	04 21 57.9	+0.2
SATY	Saty	45.92	299	eP	P	04 22 00.0	+0.1
SATY				pmax	pmax		
	comp=Z,11nm,1.4s						
SATY	Saty	45.92	299	eP	P	04 22 00.1	+0.1
	comp=Z,11nm,1.4s						
SOEI	Soe	46.39	199	P	P	04 22 02.8	-1.1
	comp=Z,38nm,0.8s						
TARG	Taragay, Kyrgy	46.62	297	P	P	04 22 07.1	+1.2
	comp=Z,19nm,0.8s						
MDOK	Medeo	46.87	299	eP	P	04 22 07.5	+0.1
MDOK	Medeo	46.87	299	eP	P	04 22 07.6	+0.1
AAA	Alma-Ata	46.96	299	eP	P	04 22 08.3	+0.3
AAA				pmax	pmax		
	comp=Z,22nm,1.0s						
AAA	Alma-Ata	46.96	299	eP	P	04 22 08.3	+0.3
	comp=Z,22nm,1.0s						
TNSS	Tian-Shan	46.97	299	eP	P	04 22 08.2	-0.3
TNSS	Tian-Shan	46.97	299	eP	P	04 22 08.2	-0.3
KUU	Kurty	47.23	300	eP	P	04 22 10.3	+0.2
KUU				pmax	pmax		
	comp=Z,9.0nm,1.0s						
KUU	Kurty	47.23	300	eP	P	04 22 10.4	+0.2
	comp=Z,9.0nm,1.0s						
ASAI	AK-SAY(Kyrgyzs	47.75	296	P	P	04 22 11.6	-2.9
	comp=Z,9.0nm,0.8s						
MTN	Manton Dam	48.08	189	P	P	04 22 24.6	+7.8
SGDS	Sogindy	48.54	300	eP	P	04 22 20.4	+0.1
AAK	Ala-Archa	48.82	299	P	P	04 22 20.5	-2.0
AAK				pmax	pmax		
	comp=Z,68nm,0.8s						
AAK	Ala-Archa	48.82	299	P	P	04 22 20.5	-2.0
AAK	Ala-Archa	48.82	299	P	P	04 22 20.6	-2.0
	comp=Z,6.8nm,0.7s						
BVAR	Borovoye Array	49.71	313	P	P	04 22 28.3	-0.7
	comp=Z,16nm,0.9s,baz=97,slow=8.1,SNR=45						
	comp=Z,16nm,0.9s						
BORK	Borovoye	49.75	313	iP	P	04 22 28.6	-0.6
BORK				pmax	pmax		
	comp=Z,22nm,1.0s						
BORK	Borovoye	49.75	313		P	04 22 28.7	-0.6
KDAK	Kodiak Island	50.51	41	P	P	04 22 33.2	-1.8
	comp=Z,13nm,0.8s,baz=254,slow=3.7,SNR=4.0						
	comp=Z,13nm,0.8s						
KDAK	Kodiak Island	50.51	41	iP	P	04 22 35.1	+0.2
KDAK				pmax	pmax		
	comp=Z,20nm,1.1s						
ARK	Arkit	50.85	298	P	P	04 22 39.1	+1.2
	comp=Z,50nm,0.6s						
DZA	Taraz	51.02	300	eP	P	04 22 39.0	0.0
DZA				pmax	pmax		
	comp=Z,5.0nm,0.7s						
DZA	Taraz	51.02	300	eP	P	04 22 39.1	0.0
	comp=Z,5.3nm,0.7s						
D24K	Happy Valley	51.82	26	P	P	04 22 45.8	+1.1
C24K	Franklin Bluff	51.88	25	P	P	04 22 45.0	0.0
BRLS	Borolday	52.04	300	eP	P	04 22 47.9	+1.2
BRLS				pmax	pmax		
	comp=Z,7.0nm,0.9s						
BRLS	Borolday	52.04	300	eP	P	04 22 48.0	+1.2
	comp=Z,7.2nm,0.9s						
IUG	Iuzhnay	52.14	299	eP	P	04 22 47.7	+0.1
IUG				pmax	pmax		
	comp=Z,15nm,0.9s						
IUG	Iuzhnay	52.14	299	eP	P	04 22 47.7	+0.1
	comp=Z,15nm,0.9s						
COLA	College	52.29	31	iP	P	04 22 49.2	+1.1
COLA				pmax	pmax		
	comp=Z,21nm,0.8s						
CHM	Chimkent	52.40	300	eP	P	04 22 49.5	+0.2
CHM	Chimkent	52.40	300	eP	P	04 22 49.5	+0.2
ILAR	Eielson Array	52.71	31	P	P	04 22 51.1	-0.2
	comp=Z,11nm,0.7s,baz=271,slow=5.1,SNR=19						
	comp=Z,11nm,0.7s						
FITZ	Fitzroy Crossi	54.13	194	P	P	04 23 02.9	+0.8
	comp=Z,1.9nm,1.0s						
FITZ				pP	pP	04 23 13.9	-1.2
WB0	Warramunga Arr	54.65	184	IAmb	IAmb	04 24 59.0	
	comp=Z,37nm,1.1s						
WRAB	Tennant Creek	54.81	184	P	P	04 23 07.3	+0.2
WRAB				pmax	pmax		
	comp=Z,46nm,1.0s						
WRAB	Tennant Creek	54.81	184	P	P	04 23 07.3	+0.2
WRAB	Tennant Creek	54.81	184	P	P	04 23 08.3	+1.2
	comp=Z,11nm,0.6s						
WRA	Warramunga Arr	54.82	184	P	P	04 23 06.4	-0.8
	comp=Z,2.0nm,0.7s,baz=1.6,slow=7.5,SNR=26						
	comp=Z,2.0nm,0.7s						
WRA	Warramunga Arr	54.82	184		P	04 23 06.7	-0.5
E28M	Babbage River	55.21	26		P	04 23 10.8	+1.2
E28M				IAmb	IAmb	04 23 11.8	
	comp=Z,20nm,0.9s						
KBL	Kabul	55.34	291	P	P	04 23 10.7	-0.5
	comp=Z,16nm,0.8s						
QIS	Mount Isa	55.37	178	P	P	04 23 10.2	-0.9
	comp=Z,26nm,0.9s						
ARTI	Arti	55.97	319c	iP	P	04 23 14.0	-1.1
ARTI						04 25 15.7	
ARTI				S	S	04 30 55.7	-3.9
ARTI				SS	SS	04 34 38.9	-6.6
ARTI				pmax	pmax		
	comp=Z,56nm,0.7s						
AB31	Akbulak array	56.93	310		P	04 23 21.2	-0.8
ABKAR	Akbulak array	56.93	310		P	04 23 21.1	-0.9
INK	Inuvik	57.45	26	P	P	04 23 24.5	-0.9
	comp=Z,24nm,0.9s,baz=287,slow=6.8,SNR=6.6						
	comp=Z,24nm,0.9s						
INK	Inuvik	57.45	26	IAmb	IAmb	04 23 26.7	
	comp=Z,22nm,0.8s						
ASAR	Alice Springs	58.55	184	P	P	04 23 33.9	+0.3
	comp=Z,1.3nm,0.6s,baz=12,slow=12,SNR=19						
	comp=Z,1.3nm,0.6s						
KIRV	Kirov	60.01	323d	iP	P	04 23 42.9	-0.4
WRKA	Warakurna	60.47	190	P	P	04 23 48.4	+1.5
	comp=Z,12nm,1.1s						
EIDS	Eidsvold	61.44	166	P	P	04 24 01.5	+8.2
DLBC	Dease Lake	61.96	37	P	P	04 23 56.8	+0.1
	comp=Z,5.8nm,0.8s,baz=278,slow=8.8,SNR=3.5						
	comp=Z,5.8nm,0.8s						
LVZ	Lovozero	62.66	335	iP	P	04 24 01.1	0.0
LVZ				pmax	pmax		
	comp=Z,14nm,1.1s						
BELG	Belogornoye	63.19	317	iP	P	04 24 05.4	+0.6
BELG				pmax	pmax		
	comp=Z,39nm,1.1s						
APA	Apatity	63.23	335	eP	P	04 24 02.9	-2.0
APA				pmax	pmax		
	comp=Z,17nm,0.9s						
APA				MLR	MLR		
	comp=Z,3µm,16.5s						
RES	Resolute Bay	65.20	13	P	P	04 24 16.4	-1.2
	comp=Z,13nm,0.8s,baz=293,slow=5.6,SNR=5.2						
	comp=Z,13nm,0.8s						
RES	Resolute Bay	65.20	13	IAmb	IAmb	04 24 54.3	
	comp=Z,36nm,1.2s						
CMSA	Cobar Meteorol	66.69	173	pP	pP	04 24 40.1	-0.9
	comp=Z,25nm,1.4s						
YKA	Yellowknife Ar	66.95	29	P	P	04 24 28.1	-1.0
	comp=Z,4.7nm,0.9s,baz=298,slow=6.7,SNR=5.6						
	comp=Z,4.7nm,0.9s						
YKA	Yellowknife Ar	66.95	29	eP	P	04 24 29.0	-0.1
YKA				pmax	pmax		
	comp=Z,5.0nm,0.9s						
MOS	Moscow	67.02	323	eP	P	04 24 28.8	-0.9
MOS				eS	S	04 33 26.5	+6.8
MOS				pmax	pmax		
	comp=Z,100nm,1.1s						
MOS				pmax	pmax		
	comp=Z,68nm,1.0s						
TULEG	Thule	67.39	7	iP	P	04 24 30.8	-0.8
TULEG				IAmb	IAmb	04 24 31.9	
	comp=Z,127nm,1.5s						
DAG	Danmarks Havn	67.43	354	iP	P	04 24 31.1	-0.8
DAG				IAmb	IAmb	04 24 32.6	
	comp=Z,22nm,1.0s						
NEEM	North Greenlan	67.60	2	iP	P	04 24 32.8	-0.5
NEEM				IAmb	IAmb	04 24 33.2	
	comp=Z,22nm,0.7s						
OBN	Obninsk	67.86	323	iP	P	04 24 33.4	-1.5
OBN				pmax	pmax		
	comp=Z,24nm,1.1s						
HTT	Hallett	68.17	179	P	P	04 24 37.2	+0.2
PUL	Pulkovo	68.33	329	iP	P	04 24 37.8	0.0
PUL				pmax	pmax		
	comp=Z,81nm,0.8s						
FINES	FINESS Array B	69.13	331	P	P	04 24 42.4	-0.4
	comp=Z,42nm,0.7s,baz=74,slow=6.8,SNR=10						
	comp=Z,42nm,0.7s						
KBZ	Khabaz	69.89	310	iP	P	04 24 47.6	-0.2
KBZ				pmax	pmax		
	comp=Z,50nm,1.0s						
KIV	Kislovodsk	69.91	310	eP	P	04 24 47.7	-0.4
KIV				eS	S	04 33 53.5	-1.1
KIV				pmax	pmax		
	comp=Z,60nm,1.1s						
KIV				pmax	pmax		
	comp=Z,51nm,4.0s						
SHA1	Shidzhatmaz	70.04	310	iP	P	04 24 49.3	+0.3
VSU	Vasula	70.60	329d	iP	P	04 24 50.4	-1.4
VSU				pmax	pmax		
	comp=Z,61nm,0.9s						
JRO	Jston Ridge Ob	71.75	46	IAmb	IAmb	04 25 01.3	
	comp=Z,25nm,0.7s						
STD	Studebaker Rid	71.76	46	IAmb	IAmb	04 25 01.5	
	comp=Z,16nm,0.8s						
VSLR	Vesyoloye	71.82	311	iP	P	04 24 59.3	-0.3
VSLR				pmax	pmax		
	comp=Z,95nm,1.1s						
LTY	Liberty	72.13	45	P	P	04 25 01.4	0.0
LTY				IAmb	IAmb	04 25 02.9	
	comp=Z,43nm,1.8s						
BUCK	Buck Mountain	72.38	48	P	P	04 25 03.9	+0.9
SUMG	Summit	72.59	359	P	P	04 25 04.5	+0.4
SUMG				pmax	pmax		
	comp=Z,37nm,0.9s						
SUMG	Summit	72.59	359	P	P	04 25 04.5	+0.4
SUMG				IAmb	IAmb	04 25 05.4	
	comp=Z,36nm,0.9s						
SUMG	Summit	72.59	359	iP	P	04 25 05.2	+1.1
SUMG				IAmb	IAmb	04 25 05.8	
	comp=Z,32nm,0.8s						
EDM	Edmonton	72.69	37	P	P	04 25 05.2	+0.6
EDM				pmax	pmax		
	comp=Z,45nm,1.4s						
EDM	Edmonton	72.69	37		P	04 25 05.2	+0.6
EDM				IAmb	IAmb	04 25 06.4	
	comp=Z,45nm,1.4s						
MXC	Moxie City	72.71	45	P	P	04 25 05.7	+0.9

MXC				IAmb	IAmb	04 25 07.5	
	comp=Z,54nm,1.9s						
I04A	Tendick Farm,	72.95	48	P	P	04 25 07.6	+1.3
I04A				IAmb	IAmb	04 25 08.1	
	comp=Z,47nm,1.6s						
J04A	Umpqua Nationa	73.43	49	IAmb	IAmb	04 25 12.8	
	comp=Z,18nm,0.8s						
NEW	Newport	73.57	42	P	P	04 25 10.4	+0.5
NEW				pmax	pmax		
	comp=Z,36nm,1.8s						
NEW	Newport	73.57	42	P	P	04 25 10.4	+0.5
NEW				IAmb	IAmb	04 25 28.4	
	comp=Z,36nm,1.8s						
PINE	Pine Mountain	73.84	48	IAmb	IAmb	04 25 14.1	
	comp=Z,18nm,0.8s						
E09A	Wood Farm, Sta	73.98	44	IAmb	IAmb	04 25 14.1	
	comp=Z,27nm,1.4s						
AKASG	Malin Array Be	73.99	321	P	P	04 25 11.4	-0.8
	comp=Z,13nm,0.8s,baz=51,slow=6.1,SNR=7.3						
	comp=Z,13nm,0.8s						
AKASG	Malin Array Be	73.99	321	*i* P	P	04 25 11.3	-0.9
AKASG				pmax	pmax		
	comp=Z,11nm,0.7s						
AKBB	Malin Array Si	73.99	321	*i* P	P	04 25 11.6	-0.6
AKBB				pmax	pmax		
	comp=Z,29nm,1.0s						
SAATT	Saattut	74.19	3	*i* P	P	04 25 12.9	-0.1
SAATT				IAmb	IAmb	04 25 13.7	
	comp=Z,25nm,1.0s						
K05A	Summer Lake	74.46	49	IAmb	IAmb	04 25 17.7	
	comp=Z,17nm,1.0s						
M03C	McCloud	74.49	50	IAmb	IAmb	04 25 17.5	
	comp=Z,15nm,0.8s						
NC405	NORSAR Array S	74.58	336	P	P	04 25 15.2	-0.3
NC405				IAmb	IAmb	04 25 16.1	
	comp=Z,56nm,0.9s						
HFS	Hagfors	74.60	335	P	P	04 25 15.0	-0.6
	comp=Z,13nm,0.8s,baz=83,slow=4.9,SNR=3.8						
	comp=Z,13nm,0.8s						
HFS	Hagfors	74.60	335	P	P	04 25 15.0	-0.6
NB2	NORSAR Subarra	74.80	336	P	P	04 25 15.9	-0.9
	comp=Z,34nm,0.9s,baz=43,slow=5.9						
NB2	NORSAR Subarra	74.80	336	P	P	04 25 15.9	-0.9
NOA	NORSAR Array B	74.80	336	P	P	04 25 16.2	-0.6
	comp=Z,17nm,0.8s,baz=42,slow=5.8,SNR=14						
	comp=Z,17nm,0.8s						
SUW	Suwalki	74.89	326	*e*P	P	04 25 16.9	-0.5
O03E	Paynes Creek	75.23	51	IAmb	IAmb	04 25 43.2	
	comp=Z,12nm,0.9s						
BMO	Blue Mountains	75.41	45	IAmb	IAmb	04 25 22.5	
	comp=Z,17nm,1.3s						
J08A	Circle Bar Ran	75.57	47	IAmb	IAmb	04 25 24.6	
	comp=Z,24nm,1.3s						
BEKR	Beckworth	76.38	51	IAmb	IAmb	04 25 28.0	
	comp=Z,15nm,1.0s						
FFC	Flin Flon	76.92	31	*i* P	P	04 25 29.4	+0.5
FFC	Flin Flon	76.92	31	P	P	04 25 28.4	-0.6
FFC				IAmb	IAmb	04 25 29.7	
	comp=Z,12nm,0.8s						
MFID	Camas Ranch	77.11	46	IAmb	IAmb	04 25 50.3	
	comp=Z,44nm,1.9s						
BEL	Belsk	77.41	325	*e*P	P	04 25 31.8	0.0
YERR	Yerington	77.60	51	IAmb	IAmb	04 25 34.7	
	comp=Z,11nm,1.0s						
EGMT	Eagleton	77.67	39	P	P	04 25 34.2	+0.8
DLMT	Dillon	77.79	43	IAmb	IAmb	04 25 36.4	
	comp=Z,35nm,1.0s						
BRTR	Keskin Array B	77.88	310	P	P	04 25 35.4	+0.5
	comp=Z,19nm,0.9s,baz=72,slow=4.0,SNR=9.3						
	comp=Z,19nm,0.9s						
BOZ	Bozeman (W)	78.18	42	IAmb	IAmb	04 25 38.0	
	comp=Z,16nm,1.0s						
RYN	Ryan	78.26	51	IAmb	IAmb	04 26 18.3	
	comp=Z,15nm,0.8s						
LHV	Little Huntoon	78.49	51	IAmb	IAmb	04 25 40.6	
	comp=Z,12nm,0.9s						
NVAR	Mina Array Bea	78.52	51	P	P	04 25 38.9	+0.5
	comp=Z,4.3nm,0.8s,baz=283,slow=5.3,SNR=8.7						
	comp=Z,4.3nm,0.8s						
NVAR	Mina Array Bea	78.52	51	P	P	04 25 34.3	-4.2
RAYN	Ar Rayn	78.61	291	P	P	04 25 39.0	0.0
RAYN				pmax	pmax		
	comp=Z,29nm,1.0s						
RAYN	Ar Rayn	78.61	291		P	04 25 39.0	0.0
RAYN				IAmb	IAmb	04 26 10.2	
	comp=Z,28nm,0.9s						
RAYN	Ar Rayn	78.61	291	P	P	04 25 39.1	+0.1
	comp=Z,32nm,1.0s						
OJC	Ojcow	78.96	325	*e*P	P	04 25 40.4	0.0
FRB	Frobisher Bay	79.30	12	P	P	04 25 42.3	+0.3
	comp=Z,9.7nm,0.7s,baz=352,slow=8.0,SNR=3.6						
	comp=Z,9.7nm,0.7s						
H17A	Grant Village	79.52	43	IAmb	IAmb	04 25 47.4	
	comp=Z,25nm,0.8s						
VES	Vestal, Richgr	79.52	54	IAmb	IAmb	04 26 02.2	
	comp=Z,20nm,1.1s						
RLMT	Red Lodge	79.77	41	IAmb	IAmb	04 25 47.0	
	comp=Z,24nm,1.3s						
GRAC	Grapevine Rang	79.96	52	IAmb	IAmb	04 26 05.8	
	comp=Z,14nm,0.9s						
FURC	Furnace Creek,	80.60	52	IAmb	IAmb	04 25 51.4	
	comp=Z,16nm,1.0s						
TPNV	Topopah Spring	80.70	51	IAmb	IAmb	04 26 09.7	
	comp=Z,13nm,1.0s						
HWUT	Hardware Ranch	80.71	45	IAmb	IAmb	04 25 52.3	
	comp=Z,17nm,1.1s						
HWUT	Hardware Ranch	80.71	45	P	P	04 25 51.1	+0.8
	comp=Z,21nm,1.1s						
DUG	Dugway, Tooele	80.86	47	IAmb	IAmb	04 26 11.8	
	comp=Z,15nm,1.1s						
GWY	Greenwater Val	80.89	52	IAmb	IAmb	04 26 18.7	
	comp=Z,25nm,1.3s						
QSM	Queen of Sheba	80.90	52	IAmb	IAmb	04 25 53.2	
	comp=Z,15nm,0.9s						
TCUT	Toone Canyon	81.11	46	IAmb	IAmb	04 26 16.4	
	comp=Z,21nm,1.2s						
PDAR	Pinedale Array	81.12	43	P	P	04 25 52.2	-0.3
	comp=Z,5.9nm,0.8s,baz=294,slow=1.9,SNR=12						
	comp=Z,5.9nm,0.8s						
PDAR	Pinedale Array	81.12	43	P	P	04 25 52.6	+0.1
SMOL	Smolenice	81.25	325	*e*P	P	04 25 53.9	+1.1
CLL	Collm	81.26	329	*i* P	P	04 25 52.4	-0.3
CLL				*e**PP	pP	04 26 05.0	-1.6
CLL				pmax	pmax		
	comp=Z,33nm,1.0s						
CLL	Collm	81.26	329	*i* P	P	04 25 52.4	-0.3
	comp=Z,33nm,1.0s						
CLL				*e*pP	pP	04 26 05.0	-1.6
CLL				*e*(sP)	sP	04 26 09.0	-2.9
MODS	Modra-Piesok	81.42	324	*e*P	P	04 25 54.6	+0.9
MODS	Modra-Piesok	81.42	324	*e*P	P	04 25 54.6	+0.9
MPU	Maple Canyon	81.67	47	IAmb	IAmb	04 25 57.2	
	comp=Z,13nm,1.1s						
RDMU	Red Mountain	82.53	45	IAmb	IAmb	04 26 01.6	
	comp=Z,18nm,0.8s						
P17A	Butcher Ranch,	82.55	47	IAmb	IAmb	04 26 01.8	
	comp=Z,16nm,0.9s						
PFO	Pinyon Flats O	82.58	54	*i* P	P	04 26 01.8	+1.6
PMD	Palm Desert	82.61	54	IAmb	IAmb	04 26 19.1	
	comp=Z,19nm,1.4s						
ULM	Lac du Bonnet	82.73	31	P	P	04 25 59.1	-1.3
	comp=Z,13nm,0.9s,baz=291,slow=6.1,SNR=4.8						
	comp=Z,13nm,0.9s						
ULM	Lac du Bonnet	82.73	31	*e*P	P	04 26 00.1	-0.4
ULM				pmax	pmax		
	comp=Z,13nm,0.9s						
ULM	Lac du Bonnet	82.73	31	IAmb	IAmb	04 26 00.8	
	comp=Z,20nm,1.0s						
P18A	Preston Nutter	82.74	46	IAmb	IAmb	04 26 03.7	
	comp=Z,14nm,0.7s						
SRU	San Rafael Swe	82.91	47	IAmb	IAmb	04 26 03.4	
	comp=Z,16nm,1.0s						
HMU	Henry Mountain	83.53	48	IAmb	IAmb	04 26 06.8	
	comp=Z,16nm,1.0s						
U15A	North Rim	83.53	50	IAmb	IAmb	04 26 27.3	
	comp=Z,46nm,2.0s						
O20A	White River Ci	83.59	45	IAmb	IAmb	04 26 06.6	
	comp=Z,14nm,0.9s						
EKA	Eskdalemuir Ar	83.92	339	P	P	04 26 06.1	-0.4
	comp=Z,4.2nm,0.6s,baz=37,slow=4.5,SNR=9.4						
	comp=Z,4.2nm,0.6s						
EPLO	Experimental L	84.07	31	IAmb	IAmb	04 26 07.6	
	comp=Z,18nm,0.9s						
PV22	Blue Mesa, Par	84.31	46	IAmb	IAmb	04 26 10.9	
	comp=Z,26nm,1.0s						
PV16	Nyswonger Mesa	84.39	47	IAmb	IAmb	04 26 35.9	
	comp=Z,15nm,1.0s						
PV12	Saucer Basin,	84.45	46	IAmb	IAmb	04 26 12.5	
	comp=Z,18nm,0.9s						
PV02	Paradox Valley	84.56	47	IAmb	IAmb	04 26 12.3	
	comp=Z,28nm,1.1s						
PV15	Paradox Valley	84.62	46	IAmb	IAmb	04 26 12.5	
	comp=Z,17nm,1.0s						
PV01	Paradox Valley	84.71	46	IAmb	IAmb	04 26 12.9	
	comp=Z,13nm,1.0s						
BMRD	Maredsous	85.38	332	*d*P	P	04 26 13.3	-0.6
	comp=Z,11nm,1.0s						
BMRD				*d*PcP	PcP	04 26 16.2	-0.7
BFO	Black Forest	85.49	329	*i* P	P	04 26 14.9	+0.3
F33A	5 Mile Ranch,	85.83	35	IAmb	IAmb	04 26 17.1	
	comp=Z,18nm,0.9s						
TXAR	Lajitas Array	93.64	50	P	P	04 26 53.6	0.0
	comp=Z,2.4nm,0.8s,baz=296,slow=2.6,SNR=5.2						
	comp=Z,2.4nm,0.8s						
LPAZ	La Paz	150.23	58	PKPbc	PKPbc	04 33 28.1	-0.8
	comp=Z,3.1nm,0.9s,baz=22,slow=8.4,SNR=4.9						
SIV	San Ignacio	154.58	46	PKPab	PKPab	04 33 52.3	-0.4
	comp=Z,5.3nm,0.9s,baz=290,slow=2.8,SNR=6.7						

NNC ***27*** *04:21:11.4±5.8, 39°.16N×72°.47E, h0^{km}, mb4.3, mpv4.2, Error ellipse: s-maj=41.4km s-min=26.3km az=178.0*

SOME ***27*** *04:21:15.6, 39°.38N×72°.45E, h15^{km}*

ISC 27 04:21:09.7±3.9**, 39°.1N**±0°.2×**72°.45E**±0°.08**, h10**^{km}**, n8, σ1s.49**/11**, 1C-2D, Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IUG	Iuzhnay	3.56	330	Pg	Pg	04 22 17.5	-0.3
	59nm,0.2s						
IUG				Lg	Lg	04 23 05.7	
	49nm,0.5s						
IUG	Iuzhnay	3.56	330	*e*P	Pg	04 22 17.5	-0.3
	59nm,0.2s						
IUG				*e*S	Sg	04 23 05.1	+1.2
	49nm,0.5s						
MRKS	Merke	3.69	9	Pg	Pg	04 22 18.8	-1.6
	15nm,0.4s						
MRKS				Lg	Lg	04 23 07.7	
	22nm,0.4s						
MRKS	Merke	3.69	9	*e*P	Pg	04 22 18.8	-1.6
	15nm,0.4s						
MRKS				*e*S	Sg	04 23 07.7	-0.4
	22nm,0.4s						
AAK	Ala-Archa	3.86	23	⇑Pg	Pb	04 22 19.7	+1.8
	11nm,1.1s						
AAK				⇓Lg	Lg	04 23 11.6	
	17nm,1.0s						
KK31	Karatay Array	4.26	341	⇓Pg	Pb	04 22 27.0	+2.3
	4.1nm,0.2s,baz=143,slow=11,SNR=154						
KK31				Lg	Lg	04 23 24.2	
	8.5nm,0.3s,baz=182,slow=26,SNR=11						
BRLS	Borolday	4.39	334	Pg	Pb	04 22 25.8	-1.2
	48nm,0.2s						
BRLS				Lg	Lg	04 23 20.4	
	6.0nm,0.2s						
BRLS	Borolday	4.39	334	*e*P	Pb	04 22 25.8	-1.2
	48nm,0.2s						
BRLS				*e*S	Sb	04 23 20.4	+0.3
	6.0nm,0.2s						

ISK ***27*** *04:25:19.8, 38°.05N×34°.09E, h17^{km}, ML2.5/12*

AFAD ***27*** *04:25:19.8, 38°.03N×34°.03E, h7^{km}±2^{km}, ML2.1*

ISC 27 04:25:19.9±1.2**, 38°.05N**±0°.03×**34°.05E**±0°.03**, h12**^{km}±10^{km}**, n20, σ0s.58**/31**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BSIR	Belisirma, Guz	0.29	40	P	Pg	04 25 26.3	+0.3
BSIR				IAML		04 25 35.0	
	comp=E,128nm,0.3s						
BSIR				IAML		04 25 37.0	
	comp=N,265nm,0.4s						
GULA	Gulagac	0.33	26	Pg	Pg	04 25 26.9	+0.2
GULA				Sg	Sb	04 25 32.5	-0.8
GULA				AML	AML		
YESY	Yesilyurt	0.36	223	Pg	Pb	04 25 27.8	-0.5
YESY				Sg	Sb	04 25 34.7	+0.8
YESY				AML	AML		
NIDE	Nigde/Merkez-G	0.58	94	P	Pg	04 25 31.3	+0.1
NIDE				S	Sb	04 25 39.8	-0.5
NIDE				IAML		04 25 43.0	
	comp=N,203nm,0.2s						
NIDE				IAML		04 25 44.0	
	comp=E,303nm,0.2s						
KERG	Konya-Eregli	0.63	174	P	Pb	04 25 32.6	-0.4
KERG				S	Sb	04 25 42.8	+0.9
KERG				IAML		04 25 45.0	
	comp=E,99nm,0.5s						
KERG				IAML		04 25 52.0	
	comp=N,68nm,0.4s						
AKSY	AKSARAY - Alti	0.65	340	P	Pg	04 25 32.1	-0.5
AKSY				S	Sg	04 25 41.6	+0.6
AKSY				IAML		04 25 46.0	
	comp=N,88nm,0.4s						
AKSY				IAML		04 25 47.0	
	comp=E,72nm,0.6s						
CMRD	Camardi-Nigde	0.84	117	Pg	Pg	04 25 35.8	-0.3
CMRD				Sg	Sb	04 25 47.7	-0.1
CMRD				AML	AML		
SERE	Sereflikochisa	0.98	337	Pg	Pg	04 25 38.7	-0.1
SERE				Sg	Sn	04 25 53.3	-0.2
SERE				AML	AML		
AVNS	Nevsehir-Avano	0.99	39	P	Pn	04 25 39.3	-0.4
AVNS				S	Sn	04 25 55.0	+1.3
AVNS				IAML		04 25 58.0	
	comp=N,89nm,0.7s						
AVNS				IAML		04 25 59.0	
	comp=E,84nm,0.8s						
YAHY	KAYSERI_Yahyal	1.04	87	P	Pg	04 25 39.7	-0.2
YAHY				S	Sn	04 25 55.2	+0.2
YAHY				IAML		04 25 59.0	
	comp=E,52nm,0.5s						
YAHY				IAML		04 26 00.0	
	comp=N,50nm,0.4s						
KRMN	Karaman	1.07	216	Pn	Pb	04 25 39.3	-1.2
KIRS	Kirsehir-Merke	1.09	355	P	Pb	04 25 40.6	-0.2
KIRS				S	Sn	04 25 56.5	+0.2
KIRS				IAML		04 25 59.0	
	comp=N,40nm,0.4s						
KIRS				IAML		04 25 59.0	
	comp=E,72nm,0.7s						
MCUR	KIREHR	1.18	18	P	Pb	04 25 42.1	-0.2
MCUR				S	Sn	04 25 59.5	+1.0
MCUR				IAML		04 26 01.0	
	comp=E,38nm,0.3s						
MCUR				IAML		04 26 03.0	
	comp=N,25nm,0.6s						
KULU	Kulu	1.29	321	Pn	Pb	04 25 44.4	+0.1
LADK	Ladik-KONYA	1.34	277	Pn	Pn	04 25 44.4	-0.2
LADK				AML	AML		
KONT	Konya--Tatoy	1.34	266	Pn	Pn	04 25 44.1	-0.4
KONT				AML	AML		
KAMT	Kaman	1.35	349	Pn	Pn	04 25 44.5	-0.2
KAMT				AML	AML		
KEBE	Keben-Mersin	1.62	190	Pn	Pn	04 25 48.2	-0.2
KEBE				AML	AML		
TEVE	Tevekalti-Mers	1.68	197	Pn	Pn	04 25 49.7	+0.5
TEVE				AML	AML		
TEKE	Tekeli-Mersin	2.04	202	Pn	Pn	04 25 54.7	+0.6
TEKE				AML	AML		

NEIC ***27*** *04:26:40.2±1.6, 17°.85N±0°.03×67°.08W±0°.02, h10^{km}±1^{km}, ML3.8/38, Md3.4/15(RSPR), Error ellipse: s-maj=5.1km s-min=3.0km az=24.0*

RSPR ***27*** *04:26:41.3, 17°.93N×67°.06W, h12^{km}, MD3.4/15*

OSPL ***27*** *04:26:41.6±0.9, 17°.91N×67°.07W, h12^{km}±3^{km}, ML3.7, Presumed earthquake*

ISC 27 04:26:40.0±1.2**, 17°.89N**±0°.06×**67°.07W**±0°.03**, h19**^{km}±3^{km}**, n40, σ0s.72**/48**, 10D, Mona Passage**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MLPR	Magueyes Islan	0.08	20		Pg	04 26 43.6	0.0
MLPR				Sg	Sg	04 26 45.4	-0.8
MLPR	Magueyes Islan	0.08	20	⇓*i*P	Pg	04 26 43.6	0.0
CRPR	Cabo Rojo, PR	0.12	343		Pg	04 26 44.0	0.0
CRPR				Sg	Sg	04 26 46.4	-0.3
CRPR				IAML		04 26 46.5	
	24µm,0.4s						
CRPR				IAML		04 26 46.5	
	18µm,0.5s						
CRPR	Cabo Rojo, PR	0.12	343	⇑*i*P	Pg	04 26 44.0	0.0
CRPR	Cabo Rojo, PR	0.12	343	*i* P	Pg	04 26 44.0	0.0
CRPR				*e*S	Sg	04 26 46.4	-0.3
PRSN	Puerto Rico Se	0.33	348		Pg	04 26 47.2	+0.1
PRSN				IAML		04 26 53.3	
	17µm,0.3s						
PRSN	Puerto Rico Se	0.33	348	⇑*i*P	Pg	04 26 47.2	+0.1
CELP	Cerrillos	0.51	69		Pg	04 26 50.3	+0.1
CELP				Sg	Sg	04 26 57.8	+0.7
CELP				IAML		04 26 58.0	
	4µm,0.2s						
CELP				IAML		04 26 58.1	
	2µm,0.3s						
CELP	Cerrillos	0.51	69	⇓*i*P	Pg	04 26 50.4	+0.2
AOPR	Arecibo Observ	0.54	34		Pg	04 26 50.7	-0.3
AOPR				Sg	Sg	04 26 57.9	-0.5
AOPR	Arecibo Observ	0.54	34	⇓*i*P	Pg	04 26 50.8	-0.2
AGPR	Aguadilla, PR	0.57	356		Pg	04 26 51.3	-0.2
AGPR				Sg	Sg	04 26 59.1	-0.1
AGPR				IAML		04 26 59.2	
	9µm,0.5s						
AGPR				IAML		04 27 03.2	
	4µm,0.4s						
AGPR	Aguadilla, PR	0.57	356	⇑*i*P	Pg	04 26 51.4	-0.1
AGPR	Aguadilla, PR	0.57	356	*i* P	Pg	04 26 51.3	-0.2
AGPR				*e*S	Sg	04 26 59.0	-0.3
IDE	Isla Desecheo	0.62	322		Pg	04 26 52.2	-0.2
IDE					Sg	04 27 01.0	+0.3
IDE	Isla Desecheo	0.62	322	⇓*i*P	Pg	04 26 52.2	-0.2
IDE				*e*S	Sg	04 27 01.0	+0.3
EMPR	Esperanza - Ma	0.78	42		Pg	04 26 55.4	+0.2
EMPR	Esperanza - Ma	0.78	42	⇓*i*P	Pg	04 26 55.4	+0.2
ECPR	Experimental S	0.80	58		Pg	04 26 55.0	-0.6
ECPR				Sg	Sg	04 27 06.0	-0.3
ECPR				IAML		04 27 11.9	
	4µm,0.2s						
ECPR	Experimental S	0.80	58	⇓*i*P	Pg	04 26 55.1	-0.6
SJG	San Juan	0.91	76		Pg	04 26 56.9	-0.8
SJG	San Juan	0.91	76	*e*P	Pn	04 27 03.7	+6.1
SJG	San Juan	0.91	76	⇓*i*P	Pg	04 26 57.3	-0.4
SJG	San Juan	0.91	76	*i* P	Pg	04 26 56.9	-0.8
SJG				*e*S	Sg	04 27 09.7	+0.1
SJG				IAML		04 27 13.4	
	comp=Z,14µm,0.3s						
IGPR	InterUniversit	0.92	85		Pg	04 26 57.8	-0.2
IGPR	InterUniversit	0.92	85	⇓*i*P	Pg	04 26 57.8	-0.2
PDPR	Patillas Dam,	1.01	83		Pb	04 26 58.9	+0.1
PDPR				IAML		04 27 15.5	
	comp=Z,3µm,0.4s						
PDPR	Patillas Dam,	1.01	83	⇓*i*P	Pb	04 26 59.0	+0.1
HUMP	Col San Antoni	1.19	78		Pn	04 27 01.5	-0.1
HUMP				IAML		04 27 20.3	
	comp=Z,2µm,0.4s						
HUMP				IAML		04 27 21.0	
	comp=Z,2µm,0.2s						
HUMP	Col San Antoni	1.19	78	⇓*i*P	Pn	04 27 01.4	-0.1
PCDR	Punta Cana, DR	1.39	297		Pn	04 27 05.0	+0.7
PCDR	Punta Cana, DR	1.39	297	*i* P	Pn	04 27 05.2	+0.9
PCDR				IAML		04 27 38.0	
	comp=Z,181nm,0.9s						
DR12	Loma Pena Alta	2.37	292		Pn	04 27 21.1	+3.3
SABA	Saba	3.66	94	Pn	Pn	04 27 36.8	+1.2
SC01	Santiago de lo	3.79	294		Pb	04 27 44.2	-2.0
SMRT	St. Maarten	3.81	87	*e*P	Pn	04 27 25.0	-13
SKI	Saint Kitts	4.17	97	*e*P	Pn	04 27 43.4	+0.7
ANWB	Willy Bob	5.04	92	*e*P	Pn	04 27 44.7	-10
DSLB	Salisbury	5.94	113	*e*P	Pn	04 28 07.5	+0.5
BIM	Bigot	6.67	119	*e*P	Pn	04 28 17.0	0.0

IDC ***27*** *04:28:06.3±0.8, 17°.79N×66°.96W, h0^{km}, mb3.7/10, mbtmp3.7/12, ML3.2/2, Error ellipse: s-maj=20.3km s-min=12.7km az=162.0*

PTWC ***27*** *04:28:07, 17°.90N×67°.10W, h14^{km}, Ml4.3/20*

RSPR ***27*** *04:28:08.5, 17°.93N×67°.07W, h12^{km}*

OSPL ***27*** *04:28:08.7±0.9, 17°.91N×67°.04W, h8^{km}±4^{km}, ML4.3, Presumed earthquake*

NEIC ***27*** *04:28:08.6, 17°.95N×67°.02W, h16^{km}*

NEIC ***27*** *04:28:08.1±2.8, 17°.88N±0°.03×67°.06W±0°.03, h12^{km}±4^{km}, mb4.2/12, ML4.3/40, Mwr4.1/25, ML4.1(RSPR), Error ellipse: s-maj=4.9km s-min=2.8km az=220.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}-0.15; $M_{\theta\theta}$0.49; $M_{\phi\phi}$-0.34; $M_{r\theta}$-0.29; $M_{\theta\phi}$1.45; $M_{\phi r}$0.10; Fault plane solution: $M_0$1.55000×10^{15} NP1:ϕ_s97.53000°, δ86.37000°, λ-11.81000°. NP2:ϕ_s188.29000°, δ78.21000°, λ-176.30000°. Principal axes: T 1.6064, Plg6.0000°, Azm143.0000°; N -0.1204, Plg78.0000°, Azm261.0000°; P -1.4860, Plg11.0000°, Azm52.0000°;*

ISC 27 04:28:07.9±0.8**, 17°.89N**±0°.04×**67°.03W**±0°.03**, h13**^{km}±5^{km}**, n95, σ0s.97**/100**, mb4.0**/13**, 12D, Mona Passage**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MLPR	Magueyes Islan	0.08	352	Pg	Pg	04 28 10.8	0.0
MLPR				IAML		04 28 13.0	
	134µm,0.7s						
MLPR	Magueyes Islan	0.08	352	P	Pg	04 28 10.8	0.0
MLPR	Magueyes Islan	0.08	352	⇓*i*P	Pg	04 28 10.9	+0.1
CRPR	Cabo Rojo, PR	0.14	328		Pg	04 28 11.2	-0.3
CRPR	Cabo Rojo, PR	0.14	328	P	Pg	04 28 11.2	-0.3
CRPR	Cabo Rojo, PR	0.14	328	⇑*i*P	Pg	04 28 11.2	-0.3
CRPR	Cabo Rojo, PR	0.14	328	*i* P	Pg	04 28 11.2	-0.3
CRPR				*e*S	Sg	04 28 13.5	-0.5
GBPR	Guanica, Bosqu	0.17	59		Pb	04 28 12.7	-0.2
GBPR	Guanica, Bosqu	0.17	59	⇑*i*P	Pb	04 28 12.7	-0.2
LSP	Las Mesas	0.29	350		Pg	04 28 13.7	-0.3
LSP	Las Mesas	0.29	350	⇓*i*P	Pg	04 28 13.7	-0.3
PRSN	Puerto Rico Se	0.34	342		Pg	04 28 14.4	-0.6
PRSN	Puerto Rico Se	0.34	342	P	Pg	04 28 14.4	-0.6
PRSN	Puerto Rico Se	0.34	342	⇑*i*P	Pg	04 28 14.4	-0.6
CELP	Cerrillos	0.47	67		Pb	04 28 17.5	-0.5
CELP	Cerrillos	0.47	67		Sb	04 28 24.9	0.0
CELP	Cerrillos	0.47	67	P	Pb	04 28 17.5	-0.5
CELP	Cerrillos	0.47	67	⇓*i*P	Pb	04 28 17.6	-0.5
AOPR	Arecibo Observ	0.53	30		Pg	04 28 17.9	-0.4
AOPR					Sg	04 28 25.0	-0.4
AOPR	Arecibo Observ	0.53	30	IAML		04 28 25.2	
	31µm,0.3s						
AOPR				IAML		04 28 25.6	
	49µm,0.7s						
AOPR	Arecibo Observ	0.53	30	P	Pg	04 28 17.9	-0.4
AOPR	Arecibo Observ	0.53	30	⇓*i*P	Pg	04 28 17.9	-0.4
AGPR	Aguadilla, PR	0.58	353		Pg	04 28 18.4	-0.9
AGPR				IAML		04 28 30.2	
	16µm,0.4s						
AGPR	Aguadilla, PR	0.58	353		Sg	04 28 26.2	-0.9
AGPR	Aguadilla, PR	0.58	353	P	Pg	04 28 18.5	-0.9
AGPR	Aguadilla, PR	0.58	353	⇑*i*P	Pg	04 28 18.5	-0.9
AGPR	Aguadilla, PR	0.58	353	*i* P	Pg	04 28 18.5	-0.9
AGPR				*e*S	Sg	04 28 26.1	-0.9
QBPR	Quebradillas	0.59	9	P	Pg	04 28 19.0	-0.6
IDE	Isla Desecheo	0.65	320		Pg	04 28 19.2	-1.4
IDE	Isla Desecheo	0.65	320	⇓*i*P	Pg	04 28 19.2	-1.4
EMPR	Esperanza - Ma	0.76	39		Pb	04 28 22.6	-0.3
EMPR					Sb	04 28 33.2	+0.1
EMPR	Esperanza - Ma	0.76	39	P	Pb	04 28 22.4	-0.5
EMPR	Esperanza - Ma	0.76	39	⇓*i*P	Pb	04 28 22.6	-0.3
EMPR				*e*S	Sb	04 28 33.2	+0.1
ECPR	Experimental S	0.77	56		Pg	04 28 22.2	-0.6
ECPR				IAML		04 28 38.1	
	13µm,0.2s						
ECPR	Experimental S	0.77	56		Sb	04 28 33.1	-0.4
ECPR	Experimental S	0.77	56	P	Pg	04 28 22.2	-0.6
ECPR	Experimental S	0.77	56	⇓*i*P	Pg	04 28 22.2	-0.6
SJG	San Juan	0.87	75	Pg	Pg	04 28 24.1	-0.7
	313nm,0.3s,baz=286,slow=17,SNR=20						
SJG				Lg	Lg	04 28 37.0	
	297nm,0.3s,baz=235,slow=6.7,SNR=10						
SJG	San Juan	0.87	75		Pb	04 28 24.3	-0.5
SJG	San Juan	0.87	75	P	Pg	04 28 24.1	-0.7
SJG	San Juan	0.87	75	*e*P	Pb	04 28 24.3	-0.5
SJG	San Juan	0.87	75	⇓*i*P	Pb	04 28 24.3	-0.5
SJG	San Juan	0.87	75	*i* P	Pg	04 28 24.1	-0.7
SJG				*e*S	Sb	04 28 36.1	-0.2
SJG				IAML		04 28 40.9	
	comp=Z,38µm,0.1s						
IGPR	InterUniversit	0.89	85		Pb	04 28 24.9	-0.2

IGPR	InterUniversit	0.89	85	P	Pb	04 28 24.9	-0.2
IGPR	InterUniversit	0.89	85	⇓iP	Pb	04 28 24.9	-0.2
PDPR	Patillas Dam,	0.97	82		Pb	04 28 26.1	-0.5
PDPR	Patillas Dam,	0.97	82	IAML		04 28 43.0	
	comp=Z,7µm,0.9s						
PDPR	Patillas Dam,	0.97	82	P	Pb	04 28 26.1	-0.5
PDPR	Patillas Dam,	0.97	82	⇓iP	Pb	04 28 26.1	-0.5
HUMP	Col San Antoni	1.15	77		Pb	04 28 28.8	-0.8
HUMP				IAML		04 28 47.5	
	comp=Z,7µm,0.6s						
HUMP	Col San Antoni	1.15	77	P	Pb	04 28 28.5	-1.2
HUMP	Col San Antoni	1.15	77	⇓eP	Pb	04 28 28.9	-0.8
PCDR	Punta Cana, DR	1.43	296		Pn	04 28 32.4	-1.1
PCDR				IAML		04 29 01.1	
	comp=N,4µm,0.8s						
PCDR	Punta Cana, DR	1.43	296	P	Pn	04 28 32.0	-1.5
PCDR	Punta Cana, DR	1.43	296	⇓eP	Pn	04 28 32.2	-1.3
PCDR	Punta Cana, DR	1.43	296	i P	Pn	04 28 32.4	-1.1
PCDR				eS	Sn	04 28 51.2	-0.9
PCDR				IAML		04 29 06.2	
	comp=Z,1µm,0.6s						
SDD	Santo Domingo	2.80	282		Pn	04 28 52.0	-0.4
SDD				IAML		04 29 45.6	
	comp=E,1µm,1.1s						
SDD				IAML		04 29 46.4	
	comp=N,938nm,1.2s						
SABA	Saba	3.62	94		Pn	04 29 04.8	+1.0
SABA				IAML		04 29 54.5	
	comp=N,441nm,0.8s						
SABA				IAML		04 29 55.2	
	comp=E,861nm,0.9s						
SABA	Saba	3.62	94	eP	Pn	04 29 04.6	+0.9
SMRT	St. Maarten	3.77	87		Pn	04 29 05.8	0.0
SMRT				IAML		04 29 51.1	
	comp=N,384nm,0.3s						
SMRT				IAML		04 29 52.2	
	comp=E,440nm,0.2s						
SMRT	St. Maarten	3.77	87	eP	Pn	04 29 05.9	0.0
SMRT				eS	Sn	04 29 46.8	-3.2
SEUS	St. Eustatius	3.88	95	eP	Pn	04 29 07.5	+0.2
SKI	Saint Kitts	4.13	97	eP	Pn	04 29 11.2	+0.4
MLYT	Lee's Yard	4.77	103	eP	Pn	04 29 20.2	+0.7
ANWB	Willy Bob	5.00	92	eP	Pn	04 29 22.9	+0.2
ANWB				eS	Sn	04 30 16.8	-3.6
GRTK	Grand Turk	5.28	314		Pn	04 29 26.8	+0.2
GRTK				IAML		04 30 32.6	
	comp=E,122nm,0.8s						
GRTK				IAML		04 30 42.7	
	comp=E,120nm,1.0s						
DHSZ	Broadband at M	5.29	107	eP	Pn	04 29 27.0	+0.4
CBE	Ff, Capester	5.50	108		Pn	04 29 30.6	+1.0
MAGL	Barre de l'ile	5.83	108		Pn	04 29 32.9	-1.2
DSLB	Salisbury	5.90	114	eP	Pn	04 29 35.0	-0.2
BIM	Bigot	6.63	119	eP	Pn	04 29 45.2	0.0
SLBI	Saint Lucia, B	6.98	123	eP	Pn	04 29 48.6	-1.2
SDV	Santo Domingo	9.61	202	Pn	Pn	04 30 25.5	-0.7
	comp=E,0.3nm,0.3s,baz=20,slow=12,SNR=1.7						
	comp=E,1.7nm,0.3s						
SDV				AML	AML		
BOAV	Boa Vista	16.67	157	Pn	Pn	04 32 00.7	-0.7
JTS	Las Juntas de	18.94	249	P	Pn	04 32 30.9	+1.4
	comp=E,0.5nm,0.3s,baz=11,slow=12,SNR=4.1						
	comp=E,3.5nm,0.7s						
JTS				AML	AML		
JTS	Las Juntas de	18.94	249	IAmb	IAmb	04 32 42.1	
	comp=Z,12nm,1.1s						
GOGA	Godfrey	21.36	319	P	P	04 32 55.8	+0.8
GOGA				IAmb	IAmb	04 33 01.8	
	comp=Z,13nm,1.1s						
TXAR	Lajitas Array	35.31	296	P	P	04 35 02.5	-0.5
	comp=Z,0.8nm,0.6s,baz=107,slow=9.7,SNR=9.5						
	comp=Z,0.8nm,0.6s						
TXAR	Lajitas Array	35.31	296	P	P	04 35 01.1	-1.9
TX31	Lajitas Ar. Si	35.31	296	P	P	04 35 01.4	-1.6
VHRN	Van Horn	36.71	298	P	P	04 35 15.7	+0.6
VHRN				IAmb	IAmb	04 35 49.6	
	comp=Z,5.8nm,1.4s						
SCHQ	Schefferville	36.88	0	P	P	04 35 16.9	+1.0
	comp=Z,2.8nm,0.8s,baz=206,slow=16,SNR=2.0						
	comp=Z,2.8nm,0.8s						
PV13	Radium Mtn., P	41.62	308	P	P	04 35 56.4	+0.3
PDAR	Pinedale Array	43.67	314	P	P	04 36 13.2	+0.5
	comp=Z,0.3nm,0.7s,baz=100,slow=7.2,SNR=3.7						
	comp=Z,0.3nm,0.7s						
CPUP	Villa Florida	44.95	168	P	P	04 36 21.4	-1.4
	comp=Z,1.7nm,0.9s,baz=350,slow=8.4,SNR=3.3						
	comp=Z,1.7nm,0.9s						
CPUP	Villa Florida	44.95	168	IAmb	IAmb	04 36 34.4	
	comp=Z,7.0nm,1.4s						
TPNV	Topopah Spring	47.08	304	P	P	04 36 41.0	+1.2
TPNV				IAmb	IAmb	04 37 05.3	
	comp=Z,2.5nm,0.9s						
PLID	Pearl Lake	48.83	315	P	P	04 36 53.7	+0.4
PLID				IAmb	IAmb	04 37 17.0	
	comp=Z,4.2nm,1.3s						
NVAR	Mina Array Bea	48.94	306	P	P	04 36 56.4	+2.2
	comp=Z,0.2nm,0.4s,baz=94,slow=9.1,SNR=4.7						
	comp=Z,0.2nm,0.4s						
YKA	Yellowknife Ar	55.34	335	P	P	04 37 42.7	+1.6
	comp=Z,0.7nm,0.6s,baz=120,slow=6.0,SNR=2.2						
	comp=Z,0.7nm,0.6s						
ESDC	Sonseca Array	58.20	54	P	P	04 38 02.1	+0.1
	comp=Z,1.2nm,1.0s,baz=268,slow=6.1,SNR=4.7						
	comp=Z,1.2nm,1.0s						
TORD	Torodi Ar. Bea	66.07	83	P	P	04 38 54.9	-0.3
	comp=Z,0.6nm,0.9s,baz=289,slow=9.0,SNR=2.2						
	comp=Z,0.6nm,0.9s						
ILAR	Eielson Array	69.65	333	P	P	04 39 18.1	+1.3
	comp=Z,0.3nm,0.8s,baz=102,slow=5.8,SNR=4.4						
	comp=Z,0.3nm,0.8s						
FINES	FINESS Array B	75.94	30	P	P	04 39 57.1	+2.9
	comp=Z,1.1nm,0.8s,baz=252,slow=5.4,SNR=5.0						
	comp=Z,1.1nm,0.8s						

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*IDC **27** 04:28:24.5±1.6, 5°.86S×153°.65E, h0km, mb3.7/6, mbtmp3.7/6, Error ellipse: s-maj=59.6km s-min=30.2km az=100.0*

ISC 27 04:28:29.3±1.7**, 5°.9S**±0°.2×**153°.7E**±0°.4**, h32**km**, n7,** σ**0s.31**/7**, mb3.8**/6**, New Ireland region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	23.42	232	P	P	04 33 35.9	0.0
	0.3nm,0.6s,baz=55,slow=10,SNR=2.0						
	0.3nm,0.6s						
ASAR	Alice Springs	25.97	225	P	P	04 33 59.2	-0.1
	0.4nm,0.7s,baz=56,slow=9.9,SNR=4.2						
	0.4nm,0.7s						
MKAR	Makanchi Array	81.73	319	P	P	04 40 45.4	+0.5
	0.3nm,0.4s,baz=91,slow=5.8,SNR=3.2						
	0.3nm,0.4s						
ZALV	Zalesovo Beam	82.56	326	P	P	04 40 48.8	-0.2
	0.7nm,0.5s,baz=116,slow=5.1,SNR=4.1						
	0.7nm,0.5s						
QSPA	South Pole Qui	84.07	180	P	P	04 40 56.9	+0.1
	0.8nm,0.6s,baz=192,slow=0.2,SNR=6.8						
	0.8nm,0.6s						
BVAR	Borovoye Array	90.65	323	P	P	04 41 28.6	-0.1
	0.6nm,0.4s,baz=108,slow=4.8,SNR=3.9						
	0.6nm,0.4s						
TORD	Torodi Ar. Bea	151.48	287	PKPbc	PKPbc	04 48 20.9	-0.2
	0.5nm,0.6s,baz=67,slow=4.6,SNR=4.2						

NEIC 27 04:29:04.1±0.7**, 17°.95N**±0°.04×**67°.04W**±0°.02**, h10**km±1km**, ML3.5**/24**, Error ellipse: s-maj=7.3km s-min=2.0km az=194.0, Mona Passage**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MLPR	Magueyes Islan	0.02	356		Pg	04 29 05.8	-0.1
MLPR				Sg	Sg	04 29 07.8	+0.7
MLPR				IAML		04 29 08.0	
	24µm,0.1s						
CRPR	Cabo Rojo, PR	0.08	311		Pg	04 29 06.5	0.0
CRPR				Sg	Sg	04 29 08.7	+0.4
CRPR				IAML		04 29 08.8	
	37µm,0.2s						
PRSN	Puerto Rico Se	0.28	340	Pg	Pg	04 29 09.5	-0.3
CELP	Cerrillos	0.46	74	Pg	Pg	04 29 13.0	-0.1
AOPR	Arecibo Observ	0.48	35	Pg	Pg	04 29 12.9	-0.6
AOPR				IAML		04 29 20.4	
	6µm,0.2s						
AGPR	Aguadilla, PR	0.52	353	Pg	Pg	04 29 13.5	-0.7
AGPR				IAML		04 29 21.5	
	6µm,0.4s						
AGPR				IAML		04 29 22.4	
	3µm,0.3s						
ECPR	Experimental S	0.74	60	Pg	Pg	04 29 17.5	-1.0
ECPR				IAML		04 29 29.4	
	2µm,0.2s						
ECPR				IAML		04 29 32.0	
	2µm,0.2s						

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*IDC **27** 04:32:10.3±2.0, 52°.23N×169°.73W, h0km, mb3.4/2, mbtmp3.5/5, ML3.0/3, Error ellipse: s-maj=58.2km s-min=28.3km az=175.0*

*NEIC **27** 04:32:10.3±1.1, 51°.87N±0°.03×169°.71W±0°.08, h10km±1km, ML3.2/10, ML2.9(AEIC), Error ellipse: s-maj=8.6km s-min=5.7km az=87.0*

*AEIC **27** 04:32:10.3±1.5, 51°.78N±0°.07×169°.7W±0°.1, h29km±7km, Error ellipse: s-maj=12.1km s-min=7.1km az=143.0*

ISC 27 04:32:13.0±1.0**, 51°.91N**±0°.08×**169°.76W**±0°.05**, h29**km**, n33,** σ**1s.08**/39**, Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CLCO	Concord Point,	0.88	2		Pn	04 32 28.1	-1.3
CLCO					Sn	04 32 42.4	+1.2
CLES	Cleveland East	0.92	355		Pn	04 32 29.0	-1.0
CLES	Cleveland East	0.92	355		Sb	04 32 43.1	+0.8
OKSP	Okmok Steeple	1.62	33		Pn	04 32 38.6	-1.0
OKWR	Okmok West Rim	1.80	31		Pn	04 32 41.2	-1.0
OKNC	Okmok New Cone	1.84	32		Pn	04 32 42.2	-0.5
MGOD	Makushin Gods	2.58	42		Pn	04 32 51.5	-1.3
MGOD					Sn	04 33 24.6	+1.5
KOSE	Korovin Southe	2.68	281		Pn	04 32 53.7	-0.4
KOFP	Korovin Flat P	2.70	280		Pn	04 32 54.2	-0.2
MNAT	Makushin Natee	2.72	42		Pn	04 32 53.5	-1.2
KOKV	Korovin Volcan	2.75	281		Sn	04 33 28.9	+1.4
ATKA	Atka Island	2.75	278	Pn	Pn	04 32 55.0	-0.2
UNV	Unalaska Valle	2.77	44		Pn	04 32 55.2	-0.1
UNV				IAML		04 33 42.3	
	comp=E,51nm,1.1s						
UNV				IAML		04 33 43.3	
	comp=N,42nm,1.1s						
KOWE	Korovin West	2.80	281		Pn	04 32 55.4	-0.5
GSIG	Igitkin Island	3.81	274		Pn	04 33 09.0	-0.8
GSIG					Sn	04 33 53.9	+0.3
GSMY	Great Sitkin M	3.89	274		Pn	04 33 10.1	-0.8
GSMY					Sn	04 33 56.0	+0.5
GSTD	Great Sitkin T	3.95	275		Sn	04 33 57.6	+0.6
GSCK	Great Sitkin C	3.96	274		Pn	04 33 11.8	+0.1
GSCK					Sn	04 33 57.9	+0.7
ETKA	Kagalaska Isla	4.12	272		Pn	04 33 12.9	-1.0
ETKA					Sn	04 34 01.3	+0.3
ADK	Adak	4.29	272	Pn	Pn	04 33 16.9	+0.7
ADK				IAML		04 34 05.8	
	comp=N,26nm,0.6s						
ADK				IAML		04 34 20.8	
	comp=N,25nm,1.1s						
ADK	Adak	4.29	272		Sn	04 34 05.4	+0.2
KIWB	Kanaga Island	4.58	272	Pn	Pn	04 33 20.1	-0.1
KIWB				IAML		04 34 17.8	
	comp=N,31nm,0.7s						
KIWB				IAML		04 34 42.8	
	comp=E,29nm,0.7s						
KIKV	Kanaga Island	4.59	273		Pn	04 33 19.9	-0.4
KIMD	Kanaga Island	4.64	271		Pn	04 33 21.5	+0.5
GAKI	Gareloi-Kavalg	5.63	270		Pn	04 33 34.9	+0.2
M11K	Mekoryuk	8.73	12	Pn	Pn	04 34 17.4	+0.4
OHAK	Old Harbor	10.93	54	Pn	Pn	04 34 45.5	-1.7
KDAK	Kodiak Island	11.50	53	Pn	Pn	04 34 51.7	-3.3
	comp=E,0.3nm,0.3s,baz=138,slow=6.8,SNR=1.4						
	comp=E,2.0nm,0.5s						
KDAK				AML	AML		
ILAR	Eielson Array	17.47	34	P	Pn	04 36 11.9	-2.3
	baz=246,slow=11,SNR=1.3						
	comp=E,0.2nm,0.6s						
PETK	Petropavlovsk-	19.75	286	P	P	04 36 41.0	+0.7
	comp=E,0.3nm,0.3s,baz=84,slow=12,SNR=7.4						
	comp=E,0.9nm,0.4s						
PETK				AML	AML		
PETK	Petropavlovsk-	19.75	286	P	P	04 36 39.5	-0.8
PDAR	Pinedale Array	40.73	78	P	P	04 39 52.0	+0.8
	comp=E,0.5nm,0.8s,baz=322,slow=4.6,SNR=4.9						
	comp=E,0.5nm,0.8s						
TXAR	Lajitas Array	53.00	88	P	P	04 41 28.3	+1.2
	comp=E,0.4nm,0.9s,baz=302,slow=7.1,SNR=5.4						
	comp=E,0.4nm,0.9s						

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*SNET **27** 04:58:11.8±1.0, 13°.38N×90°.84W, h10km, ML3.1, Presumed earthquake*

*CATAC **27** 04:58:11.0±0.6, 13°N±5°×9°1W±°, h6km±4km, M3.0/15, MLv3.0/15, Error ellipse: s-maj=11.7km s-min=6.8km az=151.8, confirmed*

*GCG **27** 04:58:12.3±1.6, 13°.47N×90°.93W, h35km±11km, MD3.8, Presumed earthquake*

ISC 27 04:58:13.3±2.3**, 13°.40N**±0°.10×**90°.78W**±0°.07**, h24**km±15km**, n30,** σ**0s.80**/48**, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FAME	Alcaldia de Sa	0.86	59	P	Pb	04 58 29.0	-0.7
FAME				S	Sn	04 58 41.5	-0.5
FG8	Yepocapa, Chim	0.88	14	i P	Pn	04 58 29.6	-0.8
FG16	Alotenango, Sa	0.91	17	i P	Pn	04 58 30.2	-0.6
NUBE	Las Nubes	1.09	63	i P	Pn	04 58 32.4	-0.9
NUBE	Las Nubes	1.09	63	i P	Pn	04 58 32.5	-0.8
NUBE				eS	Sb	04 58 48.1	+0.6
NUBE	Las Nubes	1.09	63	P	Pn	04 58 32.1	-1.2
NUBE				S	Sn	04 58 47.6	-0.2
LOAL	Lomas de Alarc	1.14	58	P	Pn	04 58 32.9	-1.0
LOAL				S	Sb	04 58 49.4	+0.6
SLOZ	Alcaldia de Sa	1.15	57	P	Pn	04 58 33.1	-0.9
STG8	El Palmar, Qui	1.19	332	i P	Pb	04 58 35.5	+0.1
CEVE	Cerro Verde	1.20	69	P	Pb	04 58 35.1	-0.5
CEVE				S	Sb	04 58 52.3	+1.6
RBDL	Robledal	1.28	56	i P	Pn	04 58 35.8	-0.1
RBDL				eS	Sb	04 58 54.0	+1.2
JAYA	Jayaque - finc	1.32	79	i P	Pn	04 58 36.1	-0.3
JAYA				i S	Sn	04 58 53.6	+0.3
JAYA	Jayaque - finc	1.32	79	i P	Pn	04 58 36.1	-0.3
JAYA				eS	Sb	04 58 54.8	+0.7
JAYA	Jayaque - finc	1.32	79	P	Pn	04 58 35.7	-0.7
JAYA				S	Sb	04 58 54.6	+0.5
UNIC	Universidad Ca	1.33	64	P	Pn	04 58 36.1	-0.4
UNIC				S	Sb	04 58 54.7	+0.4
CEDA	San Andres	1.40	73	P	Pn	04 58 36.6	-0.9
PMON	Piamonte	1.46	77	P	Pn	04 58 38.0	-0.3
PMON				S	Sb	04 58 59.2	+1.2
UEES	Universidad Ev	1.53	78	P	Pb	04 58 40.6	-0.5
UEES				S	Sb	04 59 00.2	+0.1
LOMA	Loma Larga	1.58	81	i P	Pb	04 58 41.0	-1.0
LOMA				eS	Sb	04 59 03.1	+1.5
LOMA	Loma Larga	1.58	81	P	Pn	04 58 40.6	+0.6
LOMA				S	Sb	04 59 01.9	+0.3
APG	El Apazote	1.62	11	i P	Pn	04 58 40.2	-0.5
MTO3	Montecristo	1.70	54	i P	Pn	04 58 41.9	+0.2
MTO3	Montecristo	1.70	54	P	Pn	04 58 41.5	-0.2
MTO3				S	Sb	04 59 05.9	+0.8
SJTE	Alcalda de S	1.73	83	i P	Pb	04 58 43.6	-1.0
SJTE				eS	Sb	04 59 06.8	+0.8
ESQI	Esquipulas	1.81	50	P	Pn	04 58 44.0	+0.8
PAVA	Las Pavas	1.82	80	P	Pn	04 58 44.3	+1.0
PAVA				S	Sb	04 59 08.1	-0.3
COEG	Centro de Oper	1.86	83	S	Sb	04 59 08.5	-1.1
LLGN	La Laguna	1.94	67	P	Pn	04 58 44.7	-0.2
TECO	Alcaldia de Te	1.95	86	P	Pn	04 58 44.9	0.0
TECO				S	Sn	04 59 10.6	+1.9
P5NO	Presa 5 de nov	2.05	73	P	Pn	04 58 46.1	-0.3

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*IDC **27** 05:21:51.2±1.3, 34°.54N×25°.61E, h0km, mb3.8/7, mbtmp3.7/8, ML4.2/1, Error ellipse: s-maj=37.3km s-min=21.1km az=146.0*

*ISK **27** 05:21:51.9, 34°.13N×25°.71E, h12km, ML2.8/8*

*THE **27** 05:21:57.6, 34°N±8°×2°6E±°, h70km±11km, M3.0/8, MLh3.0/8*

*ATH **27** 05:21:58.4, 34°.51N×25°.75E, h30km±6km, ML2.9/5, Latitude uncertainty: 3 km; Longitude uncertainty: 1 km*

ISC 27 05:21:58.4±1.3**, 34°.48N**±0°.09×**25°.70E**±0°.04**, h59**km±10km**, n44,** σ**1s.01**/52**, mb3.7**/6**, Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZKR	Zakros	0.77	34	P	Pn	05 22 13.1	-0.2
ZKR				S	Sn	05 22 24.8	+0.4
ZKR	Zakros	0.77	34	Pg	Pn	05 22 12.9	-0.4
ZKR				Sg	Sn	05 22 27.9	+3.6
ZKR	Zakros	0.77	34	P	Pn	05 22 12.7	-0.7
ZKR				S	Sn	05 22 22.1	-2.2
ZKR				AML	AML		
NPS	Neapolis	0.78	355	P	Pn	05 22 13.7	+0.1
NPS				S	Sn	05 22 26.0	+1.2
NPS				AML	AML		
NPS	Neapolis	0.78	355	P	Pn	05 22 13.2	-0.4
NPS				S	Sn	05 22 23.0	-1.8
SIVA	Sivas	0.91	307	P	Pn	05 22 15.2	+0.1
SIVA				S	Sn	05 22 29.8	+2.4
SIVA				AML	AML		
SIVA	Sivas	0.91	307	P	Pn	05 22 15.1	0.0
SIVA				S	Sn	05 22 27.8	+0.3
IDI	Anoyia	1.04	321	P	Pn	05 22 17.5	+0.5
IDI				AML	AML		
IDI	Anoyia	1.04	321	Pn	Pn	05 22 17.0	0.0
IDI				AML	AML		
IDI	Anoyia	1.04	321	P	Pn	05 22 17.4	+0.4
IDI				S	Sn	05 22 31.2	+0.4
IDI				AML	AML		
GVD	Gavdhos	1.37	286	P	Pn	05 22 21.2	-0.1
GVD				AML	AML		
GVD	Gavdhos	1.37	286	Pn	Pn	05 22 19.5	-1.8
GVD				AML	AML		
GVD	Gavdhos	1.37	286	P	Pn	05 22 21.4	+0.2
GVD				S	Sn	05 22 39.6	+1.1
GVDS	Gavdos	1.40	285	P	Pn	05 22 21.4	-0.2
GVDS				AML	AML		
GVDS	Gavdos	1.40	285	P	Pn	05 22 21.9	+0.3
VAM	Vamos	1.54	307	P	Pn	05 22 24.5	+1.0
VAM				AML	AML		
IMMV	Iera Moni Meta	1.71	305	P	Pn	05 22 26.7	+0.8
IMMV				AML	AML		
IMMV	Iera Moni Meta	1.71	305	Pn	Pn	05 22 25.7	-0.2
IMMV				AML	AML		
IMMV	Iera Moni Meta	1.71	305	P	Pn	05 22 26.9	+1.0
THR6	Thira Island,	1.89	353	P	Pn	05 22 28.8	+0.5
THERA	Ancient Thera,	1.89	355	P	Pn	05 22 28.0	-0.3
THERA				S	Sn	05 22 51.5	+0.5
THERA				AML	AML		
THERA	Ancient Thera,	1.89	355	P	Pn	05 22 28.4	0.0
THR8	Santorini-Mono	1.93	355	P	Pn	05 22 28.1	-0.7
THR8	Santorini-Mono	1.93	355	P	Pn	05 22 28.6	-0.2
SNT5	Nea Kammeni, S	1.94	353	P	Pn	05 22 28.9	0.0
SNT5	Nea Kammeni, S	1.94	353	P	Pn	05 22 29.0	0.0
THR3	Thira Island,	1.94	353	P	Pn	05 22 29.1	+0.2
THR3	Thira Island,	1.94	353	P	Pn	05 22 29.0	0.0
THR2	Thira island,	1.97	354	P	Pn	05 22 29.5	+0.1
MHLO	Agia Marina, M	2.44	335	P	Pn	05 22 36.5	+0.7
DAT	Datca	2.72	34	Pn	Pn	05 22 40.9	+1.2
DAT				AML	AML		
KTHA	Kythira Island	2.79	310	Pn	Pn	05 22 41.2	+0.6
KTHA				AML	AML		
TURN	Turunc	3.09	41	Pn	Pn	05 22 45.9	+1.2
VLI	Veliai	3.17	316	P	Pn	05 22 45.7	0.0
DALY	Dalyan (Mula)	3.35	45	Pn	Pn	05 22 49.1	+0.9
YER	Yerkesik	3.38	38	Pn	Pn	05 22 50.2	+1.5
AKASG	Malin Array Be	16.41	8	Pn	Pn	05 25 44.1	-0.6
	0.8nm,0.3s,baz=200,slow=11,SNR=4.7						
	0.2nm,0.3s						
AKASG				AML	AML		
ESDC	Sonseca Array	24.16	291	P	P	05 27 09.2	+0.1
	0.7nm,0.9s,baz=72,slow=8.5,SNR=4.6						
	0.7nm,0.9s						
FINES	FINESS Array B	26.98	0	P	P	05 27 32.9	-1.3
	2.9nm,1.0s,baz=170,slow=8.8,SNR=2.0						
	2.9nm,1.0s						
TORD	Torodi Ar. Bea	30.40	232	P	P	05 28 04.8	-0.3
	1.0nm,0.8s,baz=36,slow=9.2,SNR=7.8						
	1.0nm,0.8s						
ARCES	ARCESS Array B	35.11	360	P	P	05 28 44.6	-1.0
	0.4nm,0.5s,baz=172,slow=9.8,SNR=4.4						
	0.4nm,0.5s						
KURBB	Kurchatov Arra	41.21	50	P	P	05 29 38.5	+1.3
	0.5nm,0.4s,baz=276,slow=8.6,SNR=6.3						
	0.5nm,0.4s						
MKAR	Makanchi Array	43.78	56	P	P	05 29 59.3	+1.1
	1.3nm,0.5s,baz=276,slow=6.6,SNR=15						
	1.3nm,0.5s						
ZALV	Zalesovo Beam	45.16	46	P	P	05 30 07.8	-1.2
	0.7nm,0.3s,baz=273,slow=9.3,SNR=4.2						
	0.7nm,0.3s						

UCR 27 05:25:31.8±0.3**, 10°.65N**×**86°.81W, h4**km±56km**, MW3.5, Presumed earthquake, Off coast of Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LCRUZ	La Cruz	1.23	69	eP	Pb	05 25 55.7	0.0
LCRUZ	La Cruz	1.23	69	eP	Pg	05 25 55.5	+0.1
ALIBA	Liberia Airpor	1.24	92	eP	Pn	05 25 55.9	0.0
ALIBA	Liberia Airpor	1.24	92	eP	Pb	05 25 55.8	0.0
JUD3	Juan Diaz 3	1.33	111	eP	Pn	05 25 56.4	-1.0
JUD3	Juan Diaz 3	1.33	111	eP	Pn	05 25 56.2	-1.1
JAPN	Al SSO del Vol	1.41	52	eP	Pg	05 25 59.7	+0.8
COLC	Colonia	1.57	89	eP	Pn	05 25 59.8	-0.8
CUI	Cuipilapa	1.61	89	eP	Pn	05 26 01.1	-0.1
CUI	Cuipilapa	1.61	89	eP	Pn	05 26 01.0	-0.1
VMAR	Armenia, Volca	1.67	84	eP	Pn	05 26 02.1	+0.2
VMAR	Armenia, Volca	1.67	84	eP	Pn	05 26 01.7	-0.2
TIMP	Tierras Morena	1.76	92	eP	Pn	05 26 02.8	-0.4
JTS	Las Juntas de	1.86	101	eP	Pn	05 26 04.0	-0.5
ARE1	Arenal 1	2.06	95	eP	Pn	05 26 07.7	+0.4

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*IDC **27** 05:28:20.1±13.0, 5°.97N×123°.72E, h140km±157km, mb3.7/4, mbtmp4.2/5, ML4.5/1, Error ellipse: s-maj=259.8km s-min=16.7km az=68.0*

*MAN **27** 05:28:35.0, 5°.96N×126°.28E, h24km, MS3.6*

*DJA **27** 05:28:40.0±1.3, 6°N±3°×12°6E±°, h38km±29km, M4.5/9, mB5.3/3, mb4.6/4, MLv4.5/9, Mw(mB)4.7/3*

ISC 27 05:28:35.1±1.6**, 5°.88N**±0°.08×**126°.25E**±0°.09**, h35**km**, n19,** σ**2s.34**/24**, mb4.3**/5**, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GSPH	General Santos	1.31	279	i P	Pn	05 28 56.2	-0.8
GSPH				i S	Sn	05 29 11.3	-2.0
DAV	Davao City (W)	1.35	331	P	Pn	05 28 56.5	-1.0
	133nm,0.3s,baz=86,slow=2.2,SNR=11						
DAV				S	Sn	05 29 13.2	-1.1
	404nm,0.5s,baz=266,slow=22,SNR=24						
	253nm,0.3s						
DAV				AML	AML		
DAV	Davao City (W)	1.35	331	P	Pn	05 28 57.5	0.0
DAV				S	Sn	05 29 12.6	-1.7
DMPH	Davao City--Mi	1.40	328	eP	Pn	05 28 58.3	+0.2
DMPH				i S	Sn	05 29 11.9	-3.5
KCP	Kidapawan	1.60	314	eP	Pn	05 29 01.5	+0.5
KCP				i S	Sn	05 29 18.7	-1.9
CDOP	Cateel, Davao	1.90	6	eP	Pn	05 29 04.3	-0.7
CDOP				i S	Sn	05 29 24.7	-3.0
BIPH	Bislig	2.29	3	eP	Pn	05 29 10.6	+0.2
BIPH				eS	Sn	05 29 37.2	-0.1
BUKP	Musuan	2.31	329	eP	Pn	05 29 10.5	-0.2
BUKP				i S	Sn	05 29 37.9	0.0
CTBH	Cotabato--PC H	2.39	304	i P	Pn	05 29 11.8	0.0
CGP	Cagayan de Oro	2.98	329	eP	Pn	05 29 20.6	+0.6
CGP				eS	Sn	05 30 01.1	+6.5
TNTI	Ternate	5.20	168	P	Pn	05 29 58.7	+8.3
	0.3nm2µm30nm,0.6s						
TNTI				AML	AML		
PLP	Palo	5.40	347	eP	Pn	05 29 57.1	+4.0
GTOI	Gorontalo	6.13	212	P	Pn	05 30 07.6	+4.3
GTOI				AML	AML		
KKM	Kota Kinabalu	9.98	271	P	Pn	05 30 47.0	-9.2
WRA	Warramunga Arr	26.87	163	P	P	05 33 55.8	-17
	0.6nm,0.3s,baz=336,slow=9.6,SNR=17						
	0.6nm,0.3s						
ASAR	Alice Springs	30.31	166	P	P	05 34 25.4	-18
	1.5nm,0.3s,baz=341,slow=7.4,SNR=58						
	1.5nm,0.3s						
MKAR	Makanchi Array	55.53	325	pP	P	05 38 06.0	-0.8
	1.1nm,0.5s,baz=126,slow=8.0,SNR=9.0						

	1.0nm,0.5s						
KURBB	Kurchatov Arra	59.68	327	pP	P	05 38 36.0	+0.1
	1.4nm,0.5s,baz=125,slow=6.3,SNR=9.6						
	0.8nm,0.3s						
BVAR	Borovoye Array	65.27	327	pP	P	05 39 14.0	+0.7
	2.3nm,0.7s,baz=139,slow=12,SNR=5.8						

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*WEL **27** 06:16:44.4±1.0, 37°S±6°×17°8E±°, h5^{km}, M3.3/13, ML3.2/14, MLv3.3/13, Error ellipse: s-maj=10.0km s-min=5.5km az=51.4, confirmed*

*IDC **27** 06:16:47.0±2.7, 36°.78S×177°.30E, h0^{km}, mb3.5/2, mbtmp3.5/2, Error ellipse: s-maj=62.6km s-min=21.7km az=78.0*

ISC 27 06:16:43.2±1.4**, 36°.82S**±0°.07×**178°.16E**±0°.08**, h10^{km}, n38, σ1^{s}24**/42**, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	Matakaoa Point	0.75	171	P	Pg	06 16 57.8	0.0
MXZ				S	Sg	06 17 07.5	-0.1
MXZ				AML	AML		
MXZ				AML	AML		
HAZ	Te Kaha	0.98	198	P	Pg	06 17 01.6	-0.6
HAZ				AML	AML		
HAZ				AML	AML		
WMGZ	Waiomatatini S	1.02	168	P	Pg	06 17 02.9	0.0
WMGZ				AML	AML		
WMGZ				AML	AML		
WIZ	White Island	1.05	227	P	Pb	06 17 04.0	+0.5
WIZ				S	Sn	06 17 18.4	-0.3
WIZ				AML	AML		
WIZ				AML	AML		
PKGZ	Pakihiroa	1.05	183	P	Pg	06 17 03.3	-0.1
PKGZ				AML	AML		
PKGZ				AML	AML		
RUGZ	Raukumara Rang	1.21	198	P	Pn	06 17 06.8	+0.5
RUGZ				AML	AML		
RUGZ				AML	AML		
PUZ	Puketiti	1.26	176	P	Pb	06 17 07.3	+0.3
PUZ				AML	AML		
PUZ				AML	AML		
TWGZ	Tauwhareparae	1.37	186	P	Pg	06 17 10.3	+0.9
TWGZ				AML	AML		
TWGZ				AML	AML		
MWZ	Matawai	1.60	198	P	Pn	06 17 12.3	+0.7
MWZ				AML	AML		
MWZ				AML	AML		
URZ	Urewera	1.66	210	Pn	Pn	06 17 12.7	+0.3
	8.5nm,0.3s,baz=264,slow=4.2,SNR=93						
URZ				Sn	Sn	06 17 33.5	-0.3
	18nm,0.3s,baz=165,slow=10,SNR=21						
URZ	Urewera	1.66	210	P	Pn	06 17 12.7	+0.3
URZ				S	Sn	06 17 33.6	-0.2
URZ				AML	AML		
URZ				AML	AML		
TGRZ	Tauranga	1.77	238	P	Pn	06 17 14.9	+1.1
TGRZ				AML	AML		
TGRZ				AML	AML		
RAGZ	Rawiri	1.78	199	P	Pg	06 17 17.6	+0.3
RIGZ	Rimuhau	1.91	189	P	Pn	06 17 17.4	+1.5
RIGZ				AML	AML		
RIGZ				AML	AML		
MUGZ	Murupara	1.99	213	P	Pn	06 17 17.6	+0.7
MUGZ				AML	AML		
MUGZ				AML	AML		
PRGZ	Paritu Road	2.11	186	P	Pn	06 17 19.7	+1.1
PRGZ				AML	AML		
PRGZ				AML	AML		
GRZ	Great Barrier	2.25	284	P	Pn	06 17 22.0	+1.6
GRZ				AML	AML		
RAHZ	Arahi	2.26	202	P	Pg	06 17 28.9	+2.3
MTHZ	Maungataniwha	2.28	207	P	Pb	06 17 23.2	-1.4
TOZ	Tahuroa Road	2.31	246	P	Pn	06 17 22.4	+1.2
TOZ				AML	AML		
TOZ				AML	AML		
MKAZ	Moumakai	2.42	262	P	Pn	06 17 23.7	+1.0
MKAZ				AML	AML		
NMHZ	Naumai	2.52	205	P	Pb	06 17 27.6	-0.9
ARHZ	Aropaoanui	2.61	200	P	Pb	06 17 28.4	-1.6
BKZ	Black Stump Fm	2.69	209	P	Pb	06 17 29.8	-1.6
RITZ	Rihia Road	2.82	219	P	Pb	06 17 33.6	-0.1
MCHZ	McNeill Hill	2.87	203	P	Pn	06 17 31.6	+2.7
CKHZ	Cape Kidnapper	2.96	196	P	Pn	06 17 31.4	+1.1
ETVZ	East Tongariro	3.02	219	P	Pb	06 17 35.4	-1.7
TWVZ	Taurewa	3.11	223	P	Pb	06 17 36.9	-1.8
HIZ	Hauiti	3.12	236	P	Pb	06 17 36.8	-1.9
BHHZ	Black Hill Sta	3.14	211	P	Pn	06 17 34.2	+1.4
KAHZ	Kahuranaki	3.14	198	P	Pn	06 17 34.0	+1.3
WCZ	Waipu Caves	3.20	285	P	Pn	06 17 34.8	+1.3
WCZ				AML	AML		
MOVZ	Moawhango	3.21	216	P	Pn	06 17 34.7	+1.0
WNVZ	Wahianoa	3.22	218	P	Pn	06 17 36.9	+2.9
ASAR	Alice Springs	40.08	276	P	P	06 24 18.8	-0.2
	0.5nm,0.5s,baz=115,slow=7.9,SNR=6.6						
	0.5nm,0.5s						
WRA	Warramunga Arr	41.67	282	P	P	06 24 31.2	-0.8
	0.3nm,0.5s,baz=120,slow=7.9,SNR=4.9						
	0.3nm,0.5s						
FINES	FINESS Array B	149.77	333	PKPbc	PKPab	06 36 37.0	-0.8
	3.1nm,1.0s,baz=2.9,slow=5.6,SNR=3.6						

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*SJA **27** 06:17:02.5±0.7, 33°.15S×72°.15W, h6^{km}±3^{km}, ML3.7, MW3.3*

*GUC **27** 06:17:05.6±0.8, 33°.02S×72°.02W, h34^{km}±5^{km}, ML3.7*

ISC 27 06:17:02.9±1.7**, 32°.99S**±0°.03×**72°.10W**±0°.06**, h12^{km}**±10^{km}**, n33, σ1^{s}04**/64**, Off coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VA01	Torpederas	0.38	96	*e*P	Pb	06 17 12.3	+0.6
VA05	Santo Domingo	0.78	149	*e*P	Pn	06 17 19.0	-0.8
VA05				*i* S	Sb	06 17 28.8	-0.4
VA05				IAML		06 17 31.0	
	comp=N,7µm,0.2s						
MT02	Curacav	0.85	109	*e*P	Pb	06 17 19.5	-0.2
MT02				*e*S	Sg	06 17 30.2	-0.4
MT02	Curacav	0.85	109	*e*P	Pb	06 17 19.7	0.0
MT02				*i* S	Sb	06 17 30.8	-0.4
ROCH	El Roble	0.92	89	*e*P	Pg	06 17 21.0	+0.3
ROCH				*e*P	Pg	06 17 20.9	+0.3
ROCH				*i* S	Sg	06 17 32.7	+0.1
ROCH				*i* S	Sg	06 17 32.8	+0.1
ROCH				IAML		06 17 35.0	
	comp=N,3µm,0.3s						
ROCH				IAML		06 17 35.0	
	comp=N,1µm,0.3s						
MT01	Popeta	1.13	141	*e*P	Pg	06 17 24.2	-0.4
MT01				*e*S	Sg	06 17 38.2	-1.1
MT01				IAML		06 17 39.0	
	comp=Z,2µm,0.3s						
MT01	Popeta	1.13	141	*e*P	Pg	06 17 24.2	-0.4
MT01				*i* S	Sb	06 17 38.0	-1.0
MT01				IAML		06 17 39.5	
	comp=E,4µm,0.3s						
MT05	Renca	1.21	110	*e*P	Pn	06 17 25.9	+0.1
MT05				*e*S	Sn	06 17 43.4	+1.2
MT09	Talagante	1.22	131	*e*P	Pn	06 17 25.9	-0.1
MT09				*i* S	Sb	06 17 41.0	-0.9
MT09				IAML		06 17 41.8	
	comp=N,4µm,0.2s						
CO04	Los Peladeros	1.34	46	*e*P	Pn	06 17 28.4	+0.7
CO04				*i* S	Sb	06 17 45.9	+0.5
CO04				IAML		06 17 56.7	
	comp=E,1µm,0.6s						
MT10	Hacienda Santa	1.34	103	*e*P	Pn	06 17 27.8	+0.1
MT10				*i* S	Sb	06 17 44.7	-0.7
MT10				IAML		06 17 52.4	
	comp=N,4µm,0.6s						
MT14	Cerro Cal¡n	1.38	108	*e*P	Pb	06 17 28.4	-0.3
MT14				*i* S	Sb	06 17 45.6	-0.6
MT14				IAML		06 17 51.5	
	comp=N,3µm,0.4s						
MT03	Universidad Ad	1.43	111	*e*P	Pb	06 17 29.5	0.0
MT03				*e*S	Sn	06 17 46.5	-1.1
MT03				*e*S	Sg	06 17 51.1	+2.2
MT03				IAML		06 17 53.0	
	comp=Z,2µm,0.2s						
MT03	Universidad Ad	1.43	111	*e*P	Pb	06 17 29.2	-0.4
MT03				*i* S	Sb	06 17 47.3	-0.5
MT03				IAML		06 17 52.4	
	comp=N,4µm,0.3s						
MT15	Las Vizcachas	1.47	115	*e*P	Pb	06 17 29.9	-0.3
MT15				*i* S	Sb	06 17 48.2	-0.7
MT15				IAML		06 17 54.0	
	comp=N,3µm,0.2s						
BO01	Tunca	1.64	149	*e*P	Pn	06 17 31.6	0.0
BO01				*e*S	Sb	06 17 52.7	-1.0
BO01				IAML		06 17 54.6	
	comp=Z,455nm,0.2s						
MT13	San Alfonso	1.70	117	*e*P	Pb	06 17 33.9	-0.3
MT13				*e*S	Sg	06 17 58.0	+0.5
MT13				IAML		06 17 59.1	
	comp=Z,1µm,0.4s						
MT04	Ro Olivares	1.70	105	*e*P	Pb	06 17 33.9	-0.3
MT04				*e*S	Sg	06 17 57.0	-0.7
MT04				IAML		06 18 00.4	
	comp=Z,798nm,0.3s						
MT04	Ro Olivares	1.70	105	*e*P	Pb	06 17 34.0	-0.3
MT04				*i* S	Sn	06 17 54.6	+0.1
MT04				IAML		06 17 59.1	
	comp=E,1µm,0.4s						
LMEL	Las Melosas	1.81	119	*e*P	Pb	06 17 35.7	-0.4
LMEL				*i* S	Sb	06 17 58.0	-0.8
LMEL				IAML		06 18 02.8	
	comp=N,2µm,0.3s						
MT08	Bocatoma Ro	1.81	105	*e*P	Pb	06 17 36.0	-0.1
MT08				*e*S	Sg	06 18 02.3	+1.2
MT08				IAML		06 18 02.9	
	comp=Z,402nm,0.6s						
GO05	Hualane	2.02	176	*e*P	Pn	06 17 37.3	+0.4
GO05				*e*S	Sg	06 18 09.9	+1.9
BO02	Sierra Bellavi	2.11	149	*e*P	Pn	06 17 39.3	+1.1
BO02				*e*S	Sb	06 18 06.0	-1.4
BO02				IAML		06 18 12.6	
	comp=Z,486nm,0.2s						
RTLS	Leoncito	2.65	64	*e*P	Pb	06 17 49.6	-0.9
RTLS				*e*S	Sg	06 18 29.5	+1.3
RTLS				IAML		06 18 39.4	
	comp=Z,260nm,0.6s						
ARCO	CERRO ARCO	2.67	88	*e*P	Pb	06 17 50.6	-0.2
ARCO				*e*S	Sb	06 18 24.0	+0.4
ARCO				IAML		06 18 32.0	
	comp=Z,142nm,0.9s						
AAGR	Agrelo	2.75	93	*e*P	Pb	06 17 51.5	-0.6
ML02	Panimavida	2.83	169	*e*P	Pn	06 17 48.9	+1.0
ML02				*e*P	Pn	06 17 49.0	+1.0
ML02				IAML		06 18 39.2	
	comp=Z,258nm,0.7s						
ZON	Zonda	3.24	65	*e*P	Pb	06 17 58.2	-2.2
ZON				*e*S	Sb	06 18 39.5	-0.3
ZON				IAML		06 18 51.1	
	comp=Z,80nm,0.8s						
RTLL	Cerro Villicun	3.49	63	*e*P	Pn	06 17 57.0	-0.1
RTLL				*e*P	Pb	06 18 02.0	-2.7
RTLL				*e*S	Sb	06 18 46.5	-0.6
RTLL				IAML		06 18 56.2	
	comp=Z,168nm,0.4s						
CFA	Coronel Fontan	3.55	68	*e*P	Pb	06 18 02.9	-2.8
CFA				*e*S	Sb	06 18 49.0	+0.2
BI02	San Fabin de	3.73	170	*e*P	Pn	06 18 02.2	+1.8
BI02				IAML		06 19 10.1	
	comp=Z,211nm,0.8s						
ACAN	Cantantal	4.21	82	*e*P	Pn	06 18 10.1	+3.1
ACAN				IAML		06 19 10.9	
	comp=Z,242nm,0.5s						
MRA	San Martin	5.41	86	*e*P	Pn	06 18 28.8	+5.3
MRA				IAML		06 19 38.1	
	comp=Z,32nm,0.6s						

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*IDC **27** 06:19:33.3±1.1, 51°.97N×169°.88W, h0^{km}, mb3.9/5, mbtmp3.9/8, ML3.4/3, Error ellipse: s-maj=36.8km s-min=19.7km az=167.0*

*NEIC **27** 06:19:35.1±1.4, 51°.88N±0°.04×169°.72W±0°.08, h10^{km}±1^{km}, mb3.7/14, ML3.5/16, ML3.1(AEIC), Error ellipse: s-maj=8.8km s-min=6.1km az=308.0*

*AEIC **27** 06:19:37.1±1.2, 51°.96N±0°.04×169°.77W±0°.04, h6^{km}±5^{km}, Error ellipse: s-maj=6.4km s-min=3.0km az=160.0*

ISC 27 06:19:35.3±4.4**, 51°.98N**±0°.08×**169°.73W**±0°.05**, h12^{km}**±29^{km}**, n73, σ0^{s}96**/82**, mb3.7**/7**, Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CLCO	Concord Point,	0.80	0		Pn	06 19 52.5	+0.1
CLCO					Sn	06 20 05.1	+0.8
CLES	Cleveland East	0.85	353		Pn	06 19 53.2	+0.2
CLES					Sn	06 20 05.6	+0.2
CLES				IAML		06 20 10.6	
	comp=N,2µm,0.7s						
OKSP	Okmok Steeple	1.54	34		Pn	06 20 03.5	+0.9
OKSP					Sn	06 20 23.4	+0.7
OKCE	Okmok Cone E	1.73	33		Pn	06 20 06.6	+1.4
OKTU	Okmok Mt. Tuli	1.74	36		Pn	06 20 06.5	+1.2
OKWE	Okmok W'ng Wal	1.74	31		Pn	06 20 07.0	+1.6
OKNC	Okmok New Cone	1.77	33		Pn	06 20 07.1	+1.4
MAPS	Pakushin South	2.49	42		Pn	06 20 16.6	+1.0
MGOD	Makushin Gods	2.51	43		Pn	06 20 17.1	+1.2
MGOD					Sn	06 20 47.5	+1.2
MSW	Makushin Switc	2.63	41		Pn	06 20 19.1	+1.6
MSW					Sb	06 20 53.3	-1.2
MNAT	Makushin Natee	2.65	43		Pn	06 20 19.2	+1.4
KOSE	Korovin Southe	2.69	279		Pn	06 20 19.0	+0.6
KOSE					Sn	06 20 52.3	+1.5
UNV	Unalaska Valle	2.70	45		Pn	06 20 19.6	+1.1
UNV				IAML		06 21 02.8	
	comp=N,112nm,0.9s						
UNV				IAML		06 21 07.4	
	comp=E,118nm,0.9s						
KOFP	Korovin Flat P	2.71	278		Pn	06 20 19.3	+0.7
KOFP					Sn	06 20 52.6	+1.2
ATKA	Atka Island	2.77	276		Pn	06 20 19.8	+0.5
KONW	Korovin Northw	2.79	280		Pn	06 20 19.8	0.0
KOWE	Korovin West	2.81	280		Pn	06 20 20.4	+0.4
LVA	Lava Point	3.12	44	Pn	Pn	06 20 24.9	+0.7
LVA				IAML		06 21 26.4	
	comp=E,195nm,0.7s						
AKBBA	Akutan Broad B	3.12	46		Pn	06 20 25.4	+1.1
AKUT	Akutan	3.21	46	Pn	Pn	06 20 24.7	-0.8
GSIG	Igitkin Island	3.83	272		Pn	06 20 34.7	+0.6
GSMY	Great Sitkin M	3.91	273		Pn	06 20 35.9	+0.7
GSMY					Sn	06 21 23.1	+2.1
GSTR	Great Sitkin T	3.91	274		Pn	06 20 34.0	-1.1
GSTD	Great Sitkin T	3.97	274		Pn	06 20 36.6	+0.7
GSTD					Sn	06 21 22.6	+0.2
ETKA	Kagalaska Isla	4.14	271		Pn	06 20 38.7	+0.5
ADAG	Mount Adagdak	4.25	273		Pn	06 20 40.5	+0.7
ADK	Adak	4.31	271		Pn	06 20 41.1	+0.6
ADK	Adak	4.31	271	Sn	Sn	06 21 30.0	-0.6
ADK				IAML		06 21 32.8	
	comp=E,54nm,0.8s						
ADK				IAML		06 21 40.6	
	comp=E,51nm,0.9s						
KIWB	Kanaga Island	4.60	271		Pn	06 20 44.5	-0.1
KIWB				IAML		06 22 02.9	
	comp=N,45nm,0.6s						
KIWB				IAML		06 22 11.2	
	comp=E,65nm,0.8s						
KIMD	Kanaga Island	4.66	270		Pn	06 20 46.0	+0.6
TAFP	Tanaga Falls P	5.11	272		Pn	06 20 52.2	+0.6
TASE	Tanaga Southea	5.15	272		Pn	06 20 52.7	+0.6
GAKI	Gareloi-Kavalg	5.66	269		Pn	06 20 59.9	+0.8
CNBA	Chernabura Isl	6.69	61	Pn	Pn	06 21 14.1	+0.8
AMKA	Amchitka	6.85	269	Pn	Pn	06 21 14.7	-0.8
VNFG	Fog Glacier, M	7.37	50	Pn	Pn	06 21 23.2	+0.6
CHGN	Chignik	7.92	52	Pn	Pn	06 21 30.9	+0.7
M11K	Mekoryuk	8.65	12	Pn	Pn	06 21 41.2	+1.2
O16K	Kokwok River B	10.04	36	Pn	Pn	06 22 00.1	+1.0
O18K	Koktuh Hills	11.31	40	Pn	Pn	06 22 17.2	+0.6
KDAK	Kodiak Island	11.44	53	Pn	Pn	06 22 16.7	-1.6
	comp=E,0.3nm,0.3s,baz=115,slow=16,SNR=1.5						
	comp=E,5.9nm,1.1s						
KDAK				AML	AML		
KDAK	Kodiak Island	11.44	53		Pn	06 22 17.8	-0.4
N18K	Kilae Creek	11.59	36	Pn	Pn	06 22 20.6	+0.3
M19K	Big River Lodg	12.96	34	Pn	Pn	06 22 40.2	+1.2
RC01	Rabbit Creek A	14.25	42	Pn	Pn	06 22 56.6	0.0
ILAR	Eielson Array	17.39	34	P	Pn	06 23 36.5	-1.1
	baz=216,slow=11,SNR=4.0						
	comp=E,0.3nm,0.6s						
RIDG	Independent Ri	17.57	38	Pn	Pn	06 23 40.1	+0.4
RIDG				IAmb	IAmb	06 23 55.8	
	comp=Z,7.9nm,1.0s						
GRNC	Granite Creek	17.67	49		Pn	06 23 41.5	+0.3
GRNC				IAmb	IAmb	06 23 43.8	
	comp=Z,8.9nm,1.1s						
H24K	Noodor Dome	17.74	30	Pn	Pn	06 23 41.7	-0.1
J25K	Salcha River,	17.84	35	Pn	Pn	06 23 41.9	-1.2
M27K	Edge Creek, AK	18.17	44	P	Pn	06 23 47.5	+0.3
M27K				IAmb	IAmb	06 24 04.1	
	comp=Z,4.9nm,1.0s						
I26K	Coal Creek Min	19.01	35	P	P	06 23 54.2	-2.3
I26K				IAmb	IAmb	06 24 12.8	
	comp=Z,3.6nm,1.1s						
O29M	Mount Kennedy	19.09	52	P	P	06 23 57.4	-0.3
HYT	Haines Junctio	19.71	51	P	Pn	06 24 06.3	+0.4
HYT				IAmb	IAmb	06 24 27.1	
	comp=Z,3.5nm,0.6s						
PEA0B	Petropavlovsk-	19.75	286	P	P	06 24 04.8	0.0
PETK	Petropavlovsk-	19.75	286	P	P	06 24 04.2	-0.6
	comp=Z,1.3nm,0.3s,baz=83,slow=14,SNR=27						
	comp=Z,3.1nm,0.4s						
PETK				AML	AML		
PETK	Petropavlovsk-	19.75	286	P	P	06 24 05.0	+0.2
BMAR	Burnt Mountain	19.77	29	P	P	06 24 04.9	-0.1
E25K	Arctic Village	19.94	27	P	P	06 24 07.2	+0.4
E25K				IAmb	IAmb	06 24 14.8	
	comp=Z,1.9nm,0.9s						
H27K	Steamboat Moun	20.07	34	P	P	06 24 07.5	-0.7
I28M	Miner Creek	20.25	37	P	P	06 24 08.9	-1.3
N31M	Braeburn, Yuko	20.67	49	P	P	06 24 15.8	+1.1
H29M	Whitestone	21.18	36	P	P	06 24 19.6	-0.6
H29M				IAmb	IAmb	06 24 34.1	
	comp=Z,3.5nm,0.9s						
G29M	Pine Creek	21.62	34	P	P	06 24 23.4	-1.5
G29M				IAmb	IAmb	06 24 31.2	
	comp=Z,4.4nm,1.1s						
YKA	Yellowknife Ar	30.66	48	P	P	06 25 50.3	+1.1
	comp=Z,0.7nm,0.7s,baz=276,slow=8.9,SNR=6.8						
	comp=Z,0.7nm,0.7s						
YKA	Yellowknife Ar	30.66	48	P	P	06 25 47.5	-1.7
PDAR	Pinedale Array	40.69	78	P	P	06 27 16.6	+1.0
	comp=Z,0.7nm,0.7s,baz=312,slow=3.6,SNR=6.8						
	comp=Z,0.7nm,0.7s						
PDAR	Pinedale Array	40.69	78	P	P	06 27 16.3	+0.6
TXAR	Lajitas Array	52.98	88	P	P	06 28 52.2	+0.5
	comp=Z,0.9nm,0.8s,baz=298,slow=5.3,SNR=11						
	comp=Z,0.9nm,0.8s						
TXAR	Lajitas Array	52.98	88	P	P	06 28 51.9	+0.2
BVAR	Borovoye Array	63.89	324	P	P	06 30 07.0	-0.5
	comp=Z,1.1nm,0.4s,baz=52,slow=6.5,SNR=5.4						
	comp=Z,1.1nm,0.4s						
ASAR	Alice Springs	89.98	230	P	P	06 32 33.5	-0.9
	comp=Z,1.1nm,0.6s,baz=27,slow=5.0,SNR=19						
	comp=Z,1.1nm,0.6s						
ASAR	Alice Springs	89.98	230	P	P	06 32 33.1	-1.3

IDC 27 06:26:34.3±1.6**, 4°.22N**×**126°.65E, h0^{km}, mb3.7**/5**, mbtmp3.7**/5**, Error ellipse: s-maj=115.8km s-min=21.6km az=68.0, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BIPH	Bislig	3.95	356	*e*P	Pg	06 27 50.2	+0.1
BIPH				*e*S	Sb	06 28 35.4	+2.2
FITZ	Fitzroy Crossi	22.20	183	P	P	06 31 32.5	+0.1
	0.7nm,0.3s,baz=4.2,slow=11,SNR=2.2						
	0.7nm,0.3s						
WRA	Warramunga Arr	25.17	163	P	P	06 32 00.9	-0.7
	0.7nm,0.6s,baz=342,slow=10,SNR=12						
	0.7nm,0.6s						
STKA	Stephens Creek	38.61	159	P	P	06 34 00.0	+0.7
	0.9nm,0.5s,baz=328,slow=9.5,SNR=1.5						
	0.9nm,0.5s						
MKAR	Makanchi Array	57.11	325	P	P	06 36 22.7	0.0
	0.2nm,0.4s,baz=127,slow=7.7,SNR=2.2						
	0.2nm,0.4s						
KURBB	Kurchatov Arra	61.29	327	P	P	06 36 51.4	-0.1
	0.5nm,0.3s,baz=120,slow=5.5,SNR=4.7						
	0.5nm,0.3s						

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*IDC **27** 06:36:04.3±0.7, 51°.94N×169°.84W, h0^{km}, mb4.2/19, mbtmp4.2/22, ML4.0/3, MS3.7/16, Error ellipse: s-maj=21.6km s-min=13.3km az=171.0*

*NEIC **27** 06:36:06.9±2.0, 51°.93N±0°.04×169°.72W±0°.08, h10^{km}±1^{km}, mb4.4/145, ML4.2/16, ML3.9(AEIC), Error ellipse: s-maj=8.2km s-min=5.7km az=112.0*

*AEIC **27** 06:36:09.1±2.1, 51°.93N±0°.05×169°.70W±0°.08, h16^{km}±2^{km}, Error ellipse: s-maj=8.9km s-min=5.5km az=138.0*

ISC 27 06:36:06.8±2.0**, 51°.90N**±0°.07×**169°.71W**±0°.05**, h15^{km}**±11^{km}**, n281, σ1^{s}33**/270**, mb4.4**/71**, MS3.7**/14**, Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CLCO	Concord Point,	0.89	360		Pb	06 36 23.7	-0.2
CLCO					Sn	06 36 36.5	-0.8
CLES	Cleveland East	0.93	353	Pg	Pg	06 36 24.4	-0.4
CLES					Sg	06 36 36.1	-0.9
OKSP	Okmok Steeple	1.61	32		Pn	06 36 34.6	-0.1
OKSP					Sn	06 36 54.0	-1.1
OKCE	Okmok Cone E	1.79	31		Pn	06 36 37.4	+0.2
OKTU	Okmok Mt. Tuli	1.80	34		Pn	06 36 37.5	+0.1
OKNC	Okmok New Cone	1.83	31		Pn	06 36 38.1	+0.4
MAPS	Pakushin South	2.54	40		Pn	06 36 47.8	+0.3
MGOD	Makushin Gods	2.56	41		Pn	06 36 48.0	+0.2
MGOD					Sn	06 37 18.3	-0.4
MSW	Makushin Switc	2.69	40		Pn	06 36 50.0	+0.6
MNAT	Makushin Natee	2.70	42		Pn	06 36 50.2	+0.5
MNAT					Sn	06 37 21.6	-0.5
KOFP	Korovin Flat P	2.73	280		Pn	06 36 51.4	+1.3
UNV	Unalaska Valle	2.75	44		Pn	06 36 50.6	+0.3
UNV					Sn	06 37 23.2	0.0
UNV				IAML		06 37 33.5	
	comp=E,616nm,1.1s						
UNV				IAML		06 37 34.2	
	comp=N,566nm,1.0s						
ATKA	Atka Island	2.78	278		Pn	06 36 51.2	+0.4
KOKL	Mount Kliuchef	2.80	280		Pn	06 36 51.5	+0.4
KOWE	Korovin West	2.83	281		Pn	06 36 52.6	+1.1
AKRB	Akutan Reef Bi	3.13	43		Pn	06 36 56.6	+1.0
LVA	Lava Point	3.17	43	Pn	Pn	06 36 57.5	+1.3
LVA				IAML		06 37 50.4	
	comp=E,876nm,1.1s						
AKBBA	Akutan Broad B	3.17	45		Pn	06 36 57.0	+0.8
AKV	Akutan Volcano	3.18	44		Pn	06 36 56.6	+0.3
AKUT	Akutan	3.27	45	Pn	Pn	06 36 58.6	+1.2
GSIG	Igitkin Island	3.84	274		Pn	06 37 06.1	+0.7
GSMY	Great Sitkin M	3.92	275		Pn	06 37 07.3	+0.8
GSTR	Great Sitkin T	3.93	275	Pn	Pn	06 37 06.4	-0.2
GSTD	Great Sitkin T	3.98	275		Pn	06 37 07.9	+0.6
GSCK	Great Sitkin C	3.99	274		Pn	06 37 08.2	+0.8
ETKA	Kagalaska Isla	4.15	272		Pn	06 37 10.1	+0.6
ADAG	Mount Adagdak	4.26	274		Pn	06 37 12.4	+1.3
ADK	Adak	4.32	272		Pn	06 37 12.7	+0.9
ADK	Adak	4.32	272	Sn	Sn	06 38 01.4	-0.5
ADK				IAML		06 38 16.0	
	comp=E,180nm,1.1s						
ADK				IAML		06 38 25.4	
	comp=E,195nm,1.1s						
KIRH	Kanaga Island	4.57	273		Pn	06 37 16.4	+1.1
KIWB	Kanaga Island	4.61	272		Pn	06 37 16.7	+0.8
KIWB				IAML		06 38 40.1	
	comp=N,192nm,0.9s						
KIWB				IAML		06 38 43.1	
	comp=E,261nm,0.8s						
KIMD	Kanaga Island	4.67	271		Pn	06 37 17.4	+0.7
TAFL	Tanaga Flats	5.08	272		Pn	06 37 23.6	+1.3
TASE	Tanaga Southea	5.16	273		Pn	06 37 24.6	+1.2
SPIA	Saint Paul Isl	5.29	357	Pn	Pn	06 37 27.9	+2.7
SPIA				IAML		06 38 38.1	
	comp=E,192nm,1.1s						
GAEA	Gareloi East	5.60	272		Pn	06 37 31.5	+2.0
GANE	Gareloi Northe	5.62	273		Pn	06 37 31.0	+1.3
GALAA	Gareloi Lava P	5.62	272		Pn	06 37 31.3	+1.5
DOL	Dolgoi Island	5.70	52		Pn	06 37 31.6	+0.8
S12K	Black Hills	5.92	47	Pn	Pn	06 37 36.5	+2.6
SDPT	Sand Point	6.49	54	P	Pn	06 37 42.1	+0.5
SDPT	Sand Point	6.49	54	Pn	Pn	06 37 43.3	+1.7
CEPE	Semis' Perret	6.58	275		Pn	06 37 44.7	+1.7
CESW	Semis' Southwe	6.64	274		Pn	06 37 45.2	+1.5
CNBA	Chernabura Isl	6.73	60	Pn	Pn	06 37 45.4	+0.4
CHNA	Chernabura Isl	6.73	60	P	Pn	06 37 44.9	-0.1
	comp=E,41nm,1.2s						

CHNA				AML	AML		
AMKA	Amchitka	6.86	270	Pn	Pn	06 37 47.7	+0.9
VNFG	Fog Glacier, M	7.41	50	Pn	Pn	06 37 57.5	+3.1
CHGN	Chignik	7.97	52	Pn	Pn	06 38 03.6	+1.7
ANPB	Aniakchak Plen	8.28	49		Pn	06 38 08.5	+2.2
O15K	Ungalikthiuk R	9.19	34	Pn	Pn	06 38 22.0	+3.4
N14K	Kuskokwak Cree	9.21	26	Pn	Pn	06 38 23.1	+4.2
R17L	Mt. Peulik Vol	9.61	48		Pn	06 38 26.4	+2.0
M14K	Bethel	9.85	23	Pn	Pn	06 38 32.4	+4.7
O16K	Kokwok River B	10.10	36	Pn	Pn	06 38 33.6	+2.5
SII	Sitkinak Islan	10.21	57	Pn	Pn	06 38 31.8	-0.9
P17K	Kvichak River	10.47	41	Pn	Pn	06 38 39.4	+3.3
OHAK	Old Harbor	10.91	54	P	Pn	06 38 41.0	-1.2
OHAK	Old Harbor	10.91	54	Pn	Pn	06 38 41.0	-1.2
N17K	Nushagak Hills	11.09	34	Pn	Pn	06 38 48.0	+3.4
O18K	Koktuh Hills	11.37	40	Pn	Pn	06 38 49.0	+0.5
KDAK	Kodiak Island	11.48	52	Pn	Pn	06 38 48.0	-2.0
	comp=E,1.6nm,0.3s,baz=153,slow=1.6,SNR=20						
	comp=E,6.7nm,0.4s						
KDAK				AML	AML		
KDAK	Kodiak Island	11.48	52	Pn	Pn	06 38 48.4	-1.6
Q19K	Cape Douglas,	11.51	46	Pn	Pn	06 38 50.4	0.0
N19K	Bonanza Creek	12.26	37	Pn	Pn	06 39 04.4	+3.7
J16K	Anvik River	12.39	19	Pn	Pn	06 39 06.8	+4.3
CNPM	China Poot	12.88	46	Pn	Pn	06 39 09.0	-0.1
L19K	White Mountain	13.06	32	Pn	Pn	06 39 11.3	-0.2
BRLK	Bradley Lake	13.15	46	Pn	Pn	06 39 12.2	-0.7
M20K	Styx River	13.45	36	Pn	Pn	06 39 21.3	+4.4
SLKM	Skilak Lake	13.80	44		Pn	06 39 21.9	+0.1
SEW	Seward	13.95	46		Pn	06 39 22.8	-0.8
O22K	Cooper Landing	14.01	44	Pn	Pn	06 39 24.5	+0.1
SUA	Susitna One	14.10	40	Pn	Pn	06 39 26.4	+0.6
RC01	Rabbit Creek A	14.30	42	Pn	Pn	06 39 28.0	-0.6
PPLA	Purkeypile	14.45	34	Pn	Pn	06 39 33.1	+2.5
J20K	Nowinta River	14.75	27		P	06 39 38.5	-2.0
PWL	Port Wells	14.79	44	Pn	Pn	06 39 34.2	-1.0
PMR	Palmer	14.82	41	P	Pn	06 39 36.1	+0.6
CAST	Castle Rocks	14.84	32	Pn	Pn	06 39 37.5	+1.7
GHO	Glory Hole Cre	15.00	41	Pn	Pn	06 39 36.9	-1.1
KNK	Knik Glacier	15.00	42	Pn	Pn	06 39 36.6	-1.5
HIN	Hinchinbrook I	15.40	47	Pn	Pn	06 39 41.5	-1.9
FID	Port Fidalgo	15.56	46	Pn	Pn	06 39 42.5	-2.8
FID				IAmb	IAmb	06 39 56.2	
	comp=Z,33nm,1.0s						
SCM	Sheep Creek Mo	15.68	42		Pn	06 39 45.0	-2.0
SCM				IAmb	IAmb	06 40 11.6	
	comp=Z,22nm,0.8s						
EYAK	Cordova Ski Ar	15.81	47	P	Pn	06 39 49.0	+0.5
KLU	Klutina	16.12	44		Pn	06 39 50.6	-2.1
KLU				IAmb	IAmb	06 39 53.6	
	comp=Z,19nm,0.4s						
H21K	Melozitna Rive	16.25	26	Pn	Pn	06 39 54.5	+0.2
BMRM	Bremner River	16.49	47	Pn	Pn	06 39 55.6	-1.7
BMRM				IAmb	IAmb	06 40 08.1	
	comp=Z,16nm,0.9s						
BERG	Berg Lake	16.70	49	Pn	Pn	06 40 00.2	+0.2
BERG				IAmb	IAmb	06 40 12.1	
	comp=Z,36nm,0.8s						
HARP	HAARP	16.85	42	Pn	Pn	06 40 00.8	-1.0
HARP				IAmb	IAmb	06 40 16.5	
	comp=Z,16nm,0.7s						
I23K	Minto, Yukon-K	16.88	30		Pn	06 40 02.5	+0.3
PAX	Paxson	16.99	40	P	Pn	06 40 03.7	-0.1
GLB	Gilahina Butte	17.02	46	P	Pn	06 40 02.0	-2.1
CCB	Clear Creek Bu	17.07	33	P	Pn	06 40 04.1	-0.4
VRDI	Verde Repeater	17.10	47		Pn	06 40 03.2	-2.0
VRDI				IAmb	IAmb	06 40 32.0	
	comp=Z,21nm,1.2s						
WAX	Waxell Ridge	17.12	50	P	Pn	06 40 05.0	-0.3
WAX				IAmb	IAmb	06 40 31.8	
	comp=Z,34nm,0.9s						
HDA	Harding Lake	17.22	35	P	Pn	06 40 06.3	-0.2
TGL	Tana Glacier	17.23	49	P	Pn	06 40 06.5	-0.1
TGL				IAmb	IAmb	06 40 16.5	
	comp=Z,17nm,0.8s						
MCARA	McCarthy VSAT	17.35	46	P	Pn	06 40 08.0	-0.1
MCARA				IAmb	IAmb	06 40 29.4	
	comp=Z,17nm,0.8s						
ILAR	Eielson Array	17.46	34	P	Pn	06 40 07.8	-1.7
	comp=Z,0.2nm,0.3s,baz=220,slow=11,SNR=12						
ILAR				LR	LR	06 47 28.2	
	comp=Z,227nm,18.2s,baz=214,slow=39						
	comp=Z,0.3nm,0.4s						
ILAR				AML	AML		
ILAR	Eielson Array	17.46	34		Pn	06 40 09.2	-0.2
GRNC	Granite Creek	17.72	49	P	Pn	06 40 12.9	0.0
GRNC				IAmb	IAmb	06 40 28.4	
	comp=Z,29nm,1.0s						
M26K	Nabesna, AK	17.76	43		Pn	06 40 13.1	-0.1
H24K	Noodor Dome	17.81	30		Pn	06 40 13.7	-0.1
BARN	Barnard Glacie	17.86	48	P	Pn	06 40 14.9	+0.2
BARN				IAmb	IAmb	06 40 39.1	
	comp=Z,11nm,0.7s						
J25K	Salcha River,	17.90	35		Pn	06 40 13.6	-1.4
SCRK	Sand Creek	18.07	38		Pn	06 40 15.7	-1.5
M27K	Edge Creek, AK	18.22	44	P	Pn	06 40 19.2	+0.2
PCA	Pinnacle	18.27	52	P	Pn	06 40 19.6	+0.1
PCA				IAmb	IAmb	06 40 42.3	
	comp=Z,35nm,0.8s						
O28M	Mount Upton	18.47	50	P	Pn	06 40 23.2	+1.1
O28M				IAmb	IAmb	06 40 46.6	
	comp=Z,17nm,0.9s						
L27K	Beaver Creek,	18.52	42	P	P	06 40 22.8	+0.5
PNL	Peninsula	18.60	53	P	Pn	06 40 26.9	+3.4
D23K	Nanushuk River	19.36	21	P	P	06 40 31.8	+0.3
F25K	Christian Rive	19.64	28	P	P	06 40 34.3	-0.3
I27K	Kandik River	19.77	35		P	06 40 36.4	+0.3
I27K				IAmb	IAmb	06 40 50.0	
	comp=Z,11nm,0.8s						
PEA0B	Petropavlovsk-	19.78	286		P	06 40 36.6	+0.3
PEA0B				IAmb	IAmb	06 40 55.8	
	comp=Z,24nm,0.8s						
PETK	Petropavlovsk-	19.78	286	P	P	06 40 35.6	-0.6
	comp=Z,3.3nm,0.3s,baz=84,slow=14,SNR=21						
PETK				LR	LR	06 47 38.8	
	comp=Z,137nm,21.6s,baz=102,slow=35						
	comp=Z,9.2nm,0.5s						
PETK				AML	AML		
PETK	Petropavlovsk-	19.78	286		P	06 40 36.4	+0.1
G26K	Porcupine Rive	19.79	31		P	06 40 35.9	-0.3
BMAR	Burnt Mountain	19.84	29	P	P	06 40 36.7	-0.1
DAWY	Dawson	19.92	41	P	P	06 40 37.0	-0.7
H27K	Steamboat Moun	20.13	34	P	P	06 40 39.2	-0.7
H27K				IAmb	IAmb	06 41 01.7	
	comp=Z,15nm,1.2s						
F26K	Sheenjek River	20.14	29	P	P	06 40 40.0	0.0
I28M	Miner Creek	20.31	37		P	06 40 41.5	-0.5
I28M				IAmb	IAmb	06 41 05.3	
	comp=Z,7.6nm,0.7s						
K29M	Barlow Dome	20.61	42	P	P	06 40 45.7	+0.5
SKAG	Skagway	20.61	55	P	Pn	06 40 50.3	+2.9
SKAG	Skagway	20.61	55	P	P	06 40 45.7	+0.5
I29M	Ogilvie Camp,	20.88	38	P	P	06 40 47.7	-0.4
I29M				IAmb	IAmb	06 41 15.5	
	comp=Z,12nm,1.1s						
H29M	Whitestone	21.24	36	P	P	06 40 51.2	-0.7
H29M				IAmb	IAmb	06 41 14.6	
	comp=Z,18nm,0.8s						
J30M	Hart River	21.35	41	P	P	06 40 53.3	+0.1
I30M	Mount Dempster	21.57	39		P	06 40 53.9	-1.6
G29M	Pine Creek	21.68	34		P	06 40 56.1	-0.6
P33M	Teslin, Yukon	21.95	53		P	06 40 59.9	+0.2
D27M	Malcolm River	22.02	27	P	P	06 41 01.4	+1.0
G30M	tAoh Zraii Nji	22.35	35		P	06 41 02.6	-1.2
G30M				IAmb	IAmb	06 41 28.5	
	comp=Z,20nm,1.1s						
H31M	Peel River	22.57	38		P	06 41 05.1	-1.1
H31M				IAmb	IAmb	06 41 16.9	
	comp=Z,9.2nm,0.8s						
F30M	Barrier River	22.78	34	P	P	06 41 08.3	0.0
F30M				IAmb	IAmb	06 41 15.0	
	comp=Z,8.9nm,0.8s						
MMPY	Sheldon Lake,	23.02	47		P	06 41 11.4	+0.5
INK	Inuvik	23.85	33		P	06 41 18.5	-0.5
C36M	Paulatuk	27.43	33	P	P	06 41 51.1	-0.4
C03A	Quillayute Air	28.97	80	P	P	06 42 05.9	+0.5
YKAW3	Yellowknife Wh	30.70	48	P	P	06 42 21.4	+0.8
YKA	Yellowknife Ar	30.71	48	P	P	06 42 20.5	-0.2
	comp=Z,0.9nm,0.4s,baz=277,slow=7.1,SNR=16						
	comp=Z,0.9nm,0.4s						
YKA	Yellowknife Ar	30.71	48	P	P	06 42 21.6	+0.9
TIXI	Tiksi	33.03	329	LR	LR	06 56 21.7	
	comp=Z,52nm,20.5s,baz=184,slow=37						
KMPM	Mount Pierce	33.08	92	P	P	06 42 41.9	+0.1
YBH	Yreka Blue Hor	33.20	89	LR	LR	06 52 25.9	
	comp=Z,109nm,21.2s,baz=260,slow=30						
YAK	Yakutsk	33.32	312	LR	LR	06 57 21.0	
	comp=Z,153nm,18.0s,baz=104,slow=38						
EDM	Edmonton	33.53	65		P	06 42 46.8	+1.2
KLR	Kul'dur	36.41	290	LR	LR	06 59 43.6	
	comp=Z,98nm,18.1s,baz=58,slow=39						
EGMT	Eagleton	37.81	71	P	P	06 43 23.9	+1.4
NVAR	Mina Array Bea	37.87	90	P	P	06 43 24.8	+1.6
	comp=Z,1.4nm,0.9s,baz=292,slow=9.4,SNR=9.1						
	comp=Z,1.4nm,0.9s						
NVAR	Mina Array Bea	37.87	90	P	P	06 43 23.9	+0.7
BOZ	Bozeman (W)	37.91	76	P	P	06 43 24.1	+0.7
H11S1	WAKE ISLAND Hy	38.14	218	T	T	07 25 10.9	
	baz=23,slow=76,SNR=38						
H11S2	WAKE ISLAND Hy	38.16	218	T	T	07 25 10.8	
	baz=23,slow=76,SNR=24						
H11S3	WAKE ISLAND Hy	38.16	218	T	T	07 25 12.1	
	baz=23,slow=76,SNR=30						
YMR	Madison River	38.80	77	P	P	06 43 32.8	+1.8
YHH	Holmes Hill	38.81	77		P	06 43 32.2	+1.1
YHH				IAmb	IAmb	06 43 33.3	
	comp=Z,5.4nm,1.0s						
TPNV	Topopah Spring	40.07	90		P	06 43 43.3	+1.8
PRN	Pahroc Range	40.52	89		P	06 43 47.1	+1.9
PRN				IAmb	IAmb	06 43 47.7	
	comp=Z,9.8nm,1.1s						
PSUT	Pine Spring	40.56	87		P	06 43 46.9	+1.2
BW06	Boulder Array	40.70	78	P	P	06 43 47.8	+1.0
BW06				IAmb	IAmb	06 43 48.5	
	comp=Z,7.2nm,1.0s						
PD31	Pinedale Array	40.70	78	P	P	06 43 47.5	+0.7
PD31				IAmb	IAmb	06 43 48.4	
	comp=Z,7.8nm,1.1s						
PDAR	Pinedale Array	40.70	78	P	P	06 43 47.5	+0.7
	comp=Z,5.1nm,0.9s,baz=306,slow=5.1,SNR=27						
	comp=Z,5.1nm,0.9s						
PDAR	Pinedale Array	40.70	78	P	P	06 43 45.8	-1.0
SHOC	Shoshone, Teco	40.72	92	P	P	06 43 49.4	+2.7
GSC	Goldstone, Bar	40.78	93	P	P	06 43 48.4	+1.0
MTPC	Mountain Pass	41.44	91	P	P	06 43 54.8	+2.0
CCUT	Cedar City	41.48	87	P	P	06 43 54.8	+1.6
LCMT	Little Creek M	41.89	88	P	P	06 43 58.3	+1.8
RDMU	Red Mountain	41.97	81	P	P	06 43 58.6	+1.4
RDMU				IAmb	IAmb	06 43 59.2	
	comp=Z,8.2nm,0.9s						
Q16A	Castle Valley	41.98	84	P	P	06 43 59.0	+1.6
Q16A				IAmb	IAmb	06 43 59.6	
	comp=Z,5.0nm,1.0s						
P18A	Preston Nutter	42.12	83	P	P	06 44 00.5	+1.9
P18A				IAmb	IAmb	06 44 00.7	
	comp=Z,5.7nm,0.9s						
SRU	San Rafael Swe	42.26	83	P	P	06 44 01.8	+2.2
SRU				IAmb	IAmb	06 44 03.4	
	comp=Z,5.5nm,0.9s						
U15A	North Rim	42.85	88	P	P	06 44 06.2	+1.8
U15A				IAmb	IAmb	06 44 06.9	
	comp=Z,6.4nm,1.0s						
HMU	Henry Mountain	42.85	85	P	P	06 44 05.9	+1.4
HMU				IAmb	IAmb	06 44 06.5	
	comp=Z,7.7nm,0.9s						
O20A	White River Ci	43.04	81		P	06 44 06.8	+0.8
O20A				IAmb	IAmb	06 44 07.3	
	comp=Z,10nm,1.0s						
HILR	Hailar Array B	43.10	296	P	P	06 44 05.3	-0.8
	comp=Z,1.4nm,0.4s,baz=30,slow=12,SNR=2.2						
	comp=Z,1.4nm,0.4s						
BLYC	Blythe	43.22	93		P	06 44 08.9	+1.8
BLYC				IAmb	IAmb	06 44 33.7	
	comp=Z,3.8nm,0.8s						
HAYD	Hayden	43.41	80	P	P	06 44 09.9	+0.9
HAYD				IAmb	IAmb	06 44 27.3	
	comp=Z,4.7nm,1.0s						
PV10	Paradox Valley	43.63	83	P	P	06 44 11.9	+1.1
PV22	Blue Mesa, Par	43.69	83	P	P	06 44 11.8	+0.6
PV22				IAmb	IAmb	06 44 13.4	
	comp=Z,9.1nm,0.9s						
PV20	West Nyswonger	43.70	83	P	P	06 44 12.0	+0.8
PV20				IAmb	IAmb	06 44 12.5	
	comp=Z,7.3nm,1.0s						
PV04	Paradox Valley	43.70	83	P	P	06 44 12.0	+0.8
PV19	Morning Glory	43.71	83	P	P	06 44 12.0	+0.7
PV19				IAmb	IAmb	06 44 29.6	
	comp=Z,9.4nm,1.0s						
PV17	East Wray Mesa	43.74	83	P	P	06 44 12.0	+0.4
PV16	Nyswonger Mesa	43.75	83	P	P	06 44 12.3	+0.7
PV16				IAmb	IAmb	06 44 12.9	
	comp=Z,7.8nm,1.1s						
PV05	Paradox Valley	43.78	84	P	P	06 44 13.2	+1.3
PV05				IAmb	IAmb	06 44 38.6	
	comp=Z,6.0nm,1.0s						
PV11	David Mesa, Pa	43.78	83	P	P	06 44 12.7	+0.8
PV18	Skein Mesa, Pa	43.79	83		P	06 44 12.7	+0.7
PV12	Saucer Basin,	43.81	83	P	P	06 44 12.9	+0.7
PV12				IAmb	IAmb	06 44 13.5	
	comp=Z,7.5nm,0.8s						
PV03	Paradox Valley	43.82	83	P	P	06 44 12.9	+0.7
PV03				IAmb	IAmb	06 44 13.1	
	comp=Z,7.5nm,0.8s						
PV13	Radium Mtn., P	43.90	83	P	P	06 44 13.7	+0.8
PV02	Paradox Valley	43.92	83	P	P	06 44 13.6	+0.6
PV15	Paradox Valley	43.99	83	P	P	06 44 14.2	+0.5
PV15				IAmb	IAmb	06 44 33.5	
	comp=Z,8.6nm,0.9s						
WUAZ	Wupatki	44.01	88	P	P	06 44 15.3	+1.7
WUAZ				IAmb	IAmb	06 44 15.9	
	comp=Z,5.7nm,0.8s						
Y14A	Wickenburg	44.03	91	P	P	06 44 15.4	+1.7
Y14A				IAmb	IAmb	06 44 15.7	
	comp=Z,4.8nm,1.1s						
PV01	Paradox Valley	44.07	83		P	06 44 15.0	+0.7
PV01				IAmb	IAmb	06 44 15.5	
	comp=Z,6.0nm,0.8s						
ULM	Lac du Bonnet	44.56	62	P	P	06 44 17.7	0.0
	comp=Z,3.9nm,1.0s,baz=230,slow=4.7,SNR=3.3						
	comp=Z,3.9nm,1.0s						
ULM	Lac du Bonnet	44.56	62	IAmb	IAmb	06 44 32.8	
	comp=Z,7.2nm,1.1s						
X16A	Lo Mia Camp, P	44.68	89	P	P	06 44 20.9	+1.8
X16A				IAmb	IAmb	06 44 22.1	
	comp=Z,4.0nm,0.9s						
KSRS	Korea Array	45.25	277	P	P	06 44 23.7	+0.4
	comp=Z,2.4nm,0.9s,baz=59,slow=8.3,SNR=5.6						
	comp=Z,2.4nm,0.9s						
W18A	Petrified Fore	45.28	87	P	P	06 44 25.4	+1.5
W18A				IAmb	IAmb	06 44 25.9	
	comp=Z,6.8nm,1.1s						
AGMN	Agassiz Nation	45.62	64		P	06 44 26.1	-0.1
EPLO	Experimental L	46.04	61		P	06 44 29.6	+0.2
SDCO	Great Sand Dun	46.20	81	P	P	06 44 32.4	+1.1
SDCO				IAmb	IAmb	06 44 50.1	
	comp=Z,3.9nm,1.1s						
TUC	Tucson	46.50	91		P	06 44 34.1	+0.7
TUC				IAmb	IAmb	06 44 35.5	
	comp=Z,4.8nm,0.9s						
TASM	ASL Pad, Albuq	47.42	85	P	P	06 44 42.1	+1.4
TASM				IAmb	IAmb	06 44 54.2	
	comp=Z,1.5nm,0.8s						
TASM	ASL Pad, Albuq	47.42	85	P	P	06 44 41.7	+1.0
TASM				IAmb	IAmb	06 44 54.2	
	comp=Z,2.1nm,1.1s						
ANMO	Albuquerque	47.42	85	LR	LR	07 04 06.6	
	comp=Z,72nm,18.0s,baz=145,slow=35						
ALQ	Albuquerque	47.42	85	P	P	06 44 42.1	+1.4
ALQ				IAmb	IAmb	06 44 43.1	
	comp=Z,2.4nm,1.0s						
ECSD	EROS Data Cent	47.83	69	P	P	06 44 43.1	-0.5
ECSD				IAmb	IAmb	06 44 55.1	
	comp=Z,6.2nm,1.1s						
CRNM	Carthage	47.91	86		P	06 44 44.9	+0.4
121A	Cookes Peak, D	48.21	88	P	P	06 44 48.2	+1.4
EYMN	Ely	48.23	62		P	06 44 46.6	0.0
RTBA	Rita Blanca	48.73	81	P	P	06 44 51.7	+1.0
RTBA				IAmb	IAmb	06 44 51.9	
	comp=Z,6.6nm,1.1s						
PH02	Texas Public H	49.90	81	P	P	06 45 00.7	+1.1
MNTX	Cornudas Mount	50.27	87		P	06 45 03.5	+1.1
MNTX				IAmb	IAmb	06 45 04.3	
	comp=Z,4.5nm,0.8s						
GDL2	Guadalupe Moun	50.55	86	P	P	06 45 05.6	+1.0
TPB28		50.83	87	P	P	06 45 08.5	+1.7
TPB28				IAmb	IAmb	06 45 09.1	
	comp=Z,6.4nm,0.9s						
TPB11	China Draw	50.94	86	P	P	06 45 08.7	+1.2
VHRN	Van Horn	51.14	88		P	06 45 10.5	+1.4
VHRN				IAmb	IAmb	06 45 11.1	
	comp=Z,7.5nm,1.0s						
SUMG	Summit	51.29	17	P	P	06 45 11.2	+1.2
SUMG				IAmb	IAmb	06 45 35.5	
	comp=Z,8.0nm,1.0s						
SONM	Songino Array	51.36	301	LR	LR	07 07 36.1	
	comp=Z,122nm,20.0s,baz=82,slow=37						
N38A	Joes South For	51.62	70	P	P	06 45 08.7	-3.7
TPB01	Permian Basin	51.78	87	P	P	06 45 14.4	+0.6
TPB01				IAmb	IAmb	06 45 15.1	
	comp=Z,4.2nm,0.8s						
MNHN	Monahans	52.13	86		P	06 45 16.9	+0.4
MNHN				IAmb	IAmb	06 45 17.3	
	comp=Z,4.5nm,0.9s						
ALPN	Alpine	52.26	87		P	06 45 18.1	+0.6
ALPN				IAmb	IAmb	06 45 18.7	
	comp=Z,2.7nm,0.9s						
DBG	Daneborg	52.41	10	*i* P	P	06 45 17.0	-0.8
TX31	Lajitas Ar. Si	52.97	88	P	P	06 45 23.0	+0.3
TXAR	Lajitas Array	52.97	88	P	P	06 45 23.0	+0.3
	comp=Z,4.3nm,0.9s,baz=299,slow=5.2,SNR=47						
	comp=Z,4.3nm,0.9s						
TXAR	Lajitas Array	52.97	88		P	06 45 22.9	+0.3
P40A	Paris	53.13	71		P	06 45 23.0	-0.7
SAND	Sanderson	53.49	87	P	P	06 45 27.1	+0.7
SAND				IAmb	IAmb	06 45 46.1	
	comp=Z,2.0nm,0.9s						
PLPT	Palo Pinto	53.86	81		P	06 45 29.6	+0.5
BRDY	Brady	54.49	83		P	06 45 34.2	+0.5
BRDY				IAmb	IAmb	06 45 34.4	
	comp=Z,3.5nm,0.9s						
MIAR	Mount Ida	55.55	76	P	P	06 45 40.2	-1.1
MIAR				IAmb	IAmb	06 46 00.9	
	comp=Z,4.8nm,1.1s						
SCHQ	Schefferville	55.92	43	LR	LR	07 09 17.1	
	comp=Z,84nm,18.5s,baz=314,slow=36						
WLAR	White Oak Lake	56.42	77	P	P	06 45 48.2	+0.6
SADO	Sadowa	56.87	58	LR	LR	07 09 56.1	
	comp=Z,76nm,18.6s,baz=173,slow=36						
OXF	Oxford	58.07	74	P	P	06 45 59.1	0.0
TRQ	Mont Tremblant	58.25	54	P	P	06 46 00.9	+0.6
ARCES	ARCESS Array B	58.36	354	P	P	06 46 00.8	0.0
	comp=Z,3.0nm,0.9s,baz=20,slow=7.9,SNR=6.3						
ARCES				LR	LR	07 12 41.0	
	comp=Z,77nm,19.8s,baz=337,slow=38						
	comp=Z,3.0nm,0.9s						
ARCES	ARCESS Array B	58.36	354	P	P	06 45 58.9	-1.9
ARCES				IAmb	IAmb	06 46 20.4	
	comp=Z,5.2nm,1.1s						
Q51A	Peebles	58.48	66	P	P	06 46 01.9	-0.2
L56A	Greenwood	59.51	60	P	P	06 46 09.5	+0.3
BLA	Blacksburg	61.39	65	P	P	06 46 22.1	0.0
KMSC	Kings Mountain	62.34	68	P	P	06 46 27.4	-1.0
BVAR	Borovoye Array	63.96	324	P	P	06 46 37.9	-1.0
	comp=Z,2.2nm,0.3s,baz=50,slow=7.7,SNR=10						
	comp=Z,2.2nm,0.3s						
ARTI	Arti	65.02	333	LR	LR	07 19 42.1	
	comp=Z,80nm,18.5s,baz=50,slow=40						
FINES	FINESS Array B	66.30	352	P	P	06 46 53.3	-0.6
	comp=Z,1.5nm,0.5s,baz=17,slow=7.3,SNR=11						
FINES				LR	LR	07 18 01.3	
	comp=Z,76nm,18.8s,baz=32,slow=38						
	comp=Z,1.5nm,0.5s						
FINES	FINESS Array B	66.30	352	P	P	06 46 52.6	-1.4
NB2	NORSAR Subarra	67.41	360	P	P	06 46 59.9	-1.2
	comp=Z,1.8nm,0.8s,baz=1.5,slow=6.9						
NOA	NORSAR Array B	67.41	360	P	P	06 47 00.9	-0.2
	comp=Z,1.1nm,0.7s,baz=0.3,slow=6.3,SNR=5.4						
NOA				LR	LR	07 20 15.4	
	comp=Z,20nm,18.1s,baz=340,slow=39						
	comp=Z,1.1nm,0.7s						
HFS	Hagfors	68.28	358	P	P	06 47 06.9	+0.3
	comp=Z,1.5nm,0.4s,baz=318,slow=2.0,SNR=9.5						
	comp=Z,1.5nm,0.4s						
AB31	Akbulak array	70.72	328		P	06 47 21.0	-0.7
AB31				IAmb	IAmb	06 47 34.3	
	comp=Z,2.6nm,0.8s						
ABKAR	Akbulak array	70.72	328		P	06 47 21.0	-0.7
EKA	Eskdalemuir Ar	72.55	8	P	P	06 47 32.5	-0.1
	comp=Z,0.7nm,0.5s,baz=355,slow=4.9,SNR=3.9						
	comp=Z,0.7nm,0.5s						
CMAR	Chiang Mai Arr	76.51	283	P	P	06 47 56.3	0.0
	comp=Z,1.1nm,0.3s,baz=24,slow=6.5,SNR=7.3						
	comp=Z,1.1nm,0.3s						
CMAR	Chiang Mai Arr	76.51	283	P	P	06 47 55.9	-0.4
AKASG	Malin Array Be	76.52	348	P	P	06 47 54.7	-1.0
	comp=Z,0.8nm,0.6s,baz=17,slow=5.9,SNR=3.5						
	comp=Z,0.8nm,0.6s						
VRAC	Vranov	79.02	356	LR	LR	07 23 37.6	
	comp=Z,33nm,18.0s,baz=345,slow=36						
GERES	GERESS Array B	79.59	358	P	P	06 48 12.6	-0.4
	comp=Z,0.5nm,0.4s,baz=354,slow=6.1,SNR=3.7						
	comp=Z,0.5nm,0.4s						
GERES	GERESS Array B	79.59	358	P	P	06 48 11.9	-1.1
MOTA	Moosalm	81.13	359	*e*P	P	06 48 23.2	+1.8
	comp=Z,1.1nm,0.5s						
WTTA	Wattenberg	81.20	359	*i* P	P	06 48 22.5	+0.6
	comp=Z,0.5nm,0.3s						
SESA	Seetaler Alpe,	81.29	357	*e*P	P	06 48 23.2	+0.9
	comp=Z,0.6nm,0.2s						
KBA	Koelnbreinsper	81.36	358	*e*P	P	06 48 23.3	+0.6
	comp=Z,2.6nm,0.6s						
ABTA	Abfaltersbach	81.71	358	*e*P	P	06 48 24.9	+0.5
	comp=Z,6.4nm,1.1s						
SOKA	Soboth	81.71	357	*e*P	P	06 48 25.0	+0.6
	comp=Z,1.2nm,0.6s						
GNI	Garni	83.54	334	LR	LR	07 33 47.9	
	comp=Z,28nm,18.2s,baz=94,slow=42						
WRA	Warramunga Arr	86.55	231	P	P	06 48 47.9	-1.2
	comp=Z,0.4nm,0.7s,baz=31,slow=5.0,SNR=2.9						
	comp=Z,0.4nm,0.7s						
ESDC	Sonseca Array	87.96	11	P	P	06 48 55.9	0.0
	comp=Z,1.0nm,1.0s,baz=341,slow=4.3,SNR=3.3						
	comp=Z,1.0nm,1.0s						
ASAR	Alice Springs	89.93	230	P	P	06 49 05.3	+0.1
	comp=Z,2.5nm,0.7s,baz=34,slow=4.7,SNR=15						
	comp=Z,2.5nm,0.7s						
ASAR	Alice Springs	89.93	230		P	06 49 04.4	-0.7
QSPA	South Pole Qui	141.66	180	PKhKP	PKPpre	06 55 30.3	
	comp=Z,1.8nm,0.7s,baz=195,slow=0.5,SNR=12						
MAW	Mawson	150.38	218	PKPbc	PKPdf	06 55 54.0	+3.3
	comp=Z,2.3nm,1.0s,baz=60,slow=2.0,SNR=6.0						
MAW	Mawson	150.38	218		PKPbc	06 55 55.8	-0.1
LBTB	Lobatse	150.72	331	PKPdf	PKPdf	06 55 49.7	-3.1

IDC ***27*** *06:38:17.5±0.6,24°.57N×125°.06E,h0^{km},mb4.2/20, mbtmp4.2/23,ML3.7/3,MS3.5/7,Error ellipse: s-maj=15.6km s-min=12.5km az=89.0*

BJI ***27*** *06:38:19.9,24°.61N×125°.02E,h17^{km},mB4.4/4,mb4.4/11, ML4.1/1,Ms4.1/7,Ms7 3.9/7*

NEIC ***27*** *06:38:21.1±1.2,24°.69N±0°.10×125°.15E±0°.07,h22^{km}±5^{km}, mb4.7/45,Error ellipse: s-maj=14.7km s-min=8.2km az=159.0*

JMA ***27*** *06:38:21.1±0.2,24°.6N±0°.7×125°.2E±0°.5,h28^{km}±1^{km}, MD4.7/10,MV4.5/10,NEAR MIYAKOJIMA ISLAND*

JMA Felt III J1 at NEAR MIYAKOJIMA ISLAND .

NIED ***27*** *06:38:21.1,24°.61N×125°.20E,h28^{km},MW4.2,Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M$_{rr}$-2.12; M$_{\theta\theta}$0.36; M$_{\phi\phi}$1.76; M$_{r\theta}$-0.25; M$_{\theta\phi}$-1.41; M$_{\phi r}$-0.10; Fault plane solution: M$_{0}$2.40000×10^{15} NP1: ϕ_s337.00000°,δ45.00000°,λ-77.00000°. NP2: ϕ_s139.00000°,δ46.00000°,λ-103.00000°.*

GFZ ***27*** *06:38:22.4±0.2,25°N±4°×12°5E±°,h28^{km},M4.6/19, mb4.6/19,confirmed*

ISC 27 06:38:20.8±0.4**,24°.57N**±0°.04×**125°.19E**±0°.04**,h21**^{km}±1^{km}**, n160,**σ**1**^{s}**23**/150**,mb4.6**/66**,MS3.7**/4**,Southwestern Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
JMJ2	Miyako jima3	0.21	37	*i* P	Pb	06 38 26.4	-0.2
JMJ2				A	A	06 38 26.4	
	comp=N,320nm,1.0s,comp=E,649nm,0.8s						
JMJ2				*e*S	Sb	06 38 30.5	-0.1
JMJ	Miyako jima 2	0.26	22	P	Pb	06 38 26.3	-0.7
JIRJ	Irabujima	0.26	1	*i* P	Pb	06 38 27.0	0.0
JIRJ				A	A	06 38 27.0	
	comp=N,228nm,0.7s,comp=E,221nm,0.8s						
JIRJ				*e*S	Sb	06 38 31.2	-0.1
JOGS	Gusukube	0.27	47	*i* P	Pb	06 38 27.4	+0.3
JOGS				A	A	06 38 27.4	
	comp=N,270nm,0.5s,comp=E,464nm,1.0s						

JOGS				S	**Sb**	**06 38 32.2**	**+0.8**
JIKM	**Ikemajima**	**0.35**	**9**	*i* P	**Pb**	**06 38 28.3**	**0.0**
JIKM				A	A	06 38 28.3	
	comp=N,112nm,2.5s,comp=E,182nm,0.7s						
JIKM				*e*S	**Sb**	**06 38 33.7**	**+0.4**
JTJ	**Tarama**	**0.45**	**279**	*i* P	**Pb**	**06 38 30.5**	**+0.6**
JTJ				A	A	06 38 30.5	
	comp=N,68nm,0.6s,comp=E,60nm,0.6s						
JTJ				*e*S	**Sb**	**06 38 37.3**	**+1.2**
JISG	**Ishigakijimahi**	**0.80**	**271**	*i* P	**Pb**	**06 38 35.8**	**-0.2**
JISG				A	A	06 38 35.8	
	comp=N,48nm,0.7s,comp=E,72nm,0.5s						
JISG				*e*S	**Sb**	**06 38 46.3**	**-0.1**
JIJ	**Ishigaki jima**	**0.98**	**258**	*i* P	**Pb**	**06 38 38.6**	**-0.4**
JIJ				A	A	06 38 38.6	
	comp=N,26nm,0.7s,comp=E,18nm,1.8s						
JKRS	**Kuro-shima**	**1.13**	**253**	*i* P	**Pb**	**06 38 42.0**	**+0.4**
JKRS				A	A	06 38 42.0	
	comp=N,26nm,0.7s,comp=E,35nm,1.5s						
IRIF	**Iriomote-Funau**	**1.35**	**260**	*i* P	**Pn**	**06 38 44.8**	**+0.4**
IRIF				A	A	06 38 44.8	
	comp=N,18nm,1.7s,comp=E,15nm,0.6s						
IRIF				*e*S	**Sb**	**06 39 03.8**	**+1.5**
HATJ	**Hateruma jima**	**1.36**	**248**	A	A	06 38 45.1	
	comp=N,17nm,0.9s,comp=E,20nm,1.2s						
YOJ	**Yonaguni jima**	**1.99**	**267**	P	**Pn**	**06 38 54.1**	**+0.9**
YOJ	**Yonaguni jima**	**1.99**	**267**		**Pn**	**06 38 52.4**	**-0.8**
YOJ	**Yonaguni jima**	**1.99**	**267**	P	**Pn**	**06 38 54.3**	**+1.1**
JKE	**Kume jima 2**	**2.27**	**39**	A	A	06 38 57.4	
	comp=N,3.0nm,3.2s,comp=E,3.0nm,5.0s						
JAGN	**Aguni-jima**	**2.73**	**42**	A	A	06 39 04.1	
	comp=N,4.0nm,2.5s,comp=E,3.0nm,3.6s						
JJT3	**Tamagusuku3**	**2.82**	**56**	A	A	06 39 05.4	
	comp=N,14nm,1.8s,comp=E,9.0nm,3.3s						
NACB	**Ninganchiao**	**3.30**	**264**	P	**Pn**	**06 39 12.2**	**+0.9**
NACB	**Ninganchiao**	**3.30**	**264**		**Pn**	**06 39 11.0**	**-0.3**
NACB	**Ninganchiao**	**3.30**	**264**	P	**Pn**	**06 39 12.6**	**+1.3**
TATO	**Taipei**	**3.39**	**278**	P	**Pn**	**06 39 14.4**	**+1.9**
TATO	**Taipei**	**3.39**	**278**	Pn	**Pn**	**06 39 11.4**	**-1.1**
TATO	**Taipei**	**3.39**	**278**	P	**Pn**	**06 39 15.1**	**+2.6**
YHNB	**Yeheng**	**3.47**	**272**	P	**Pn**	**06 39 15.9**	**+2.2**
YHNB	**Yeheng**	**3.47**	**272**		**Pn**	**06 39 13.5**	**-0.2**
YHNB	**Yeheng**	**3.47**	**272**	P	**Pn**	**06 39 17.0**	**+3.2**
JOW	**Kunigami**	**3.58**	**50**	Pn	**Pn**	**06 39 15.1**	**-0.1**
	comp=E,16nm,0.3s,baz=158,slow=12,SNR=37						
	comp=E,72nm,0.5s						
JOW				AML	AML		
JOW	**Kunigami**	**3.58**	**50**		**Pn**	**06 39 14.1**	**-1.0**
JOW	**Kunigami**	**3.58**	**50**	P	**Pn**	**06 39 15.2**	**+0.1**
YULB	**Yu-li**	**3.75**	**253**	P	**Pn**	**06 39 17.2**	**-0.3**
YULB	**Yu-li**	**3.75**	**253**		**Pn**	**06 39 17.1**	**-0.4**
YULB	**Yu-li**	**3.75**	**253**	P	**Pn**	**06 39 17.7**	**+0.2**
SSLB	**Suanglung**	**3.95**	**259**	P	**Pn**	**06 39 21.7**	**+1.5**
SSLB	**Suanglung**	**3.95**	**259**		**Pn**	**06 39 20.1**	**-0.1**
SSLB	**Suanglung**	**3.95**	**259**	P	**Pn**	**06 39 22.2**	**+2.0**
TWGBT	**Beinan**	**4.15**	**246**	P	**Pn**	**06 39 22.4**	**-0.6**
TWG	**Pinlang**	**4.16**	**246**		**Pn**	**06 39 22.9**	**-0.3**
TWG	**Pinlang**	**4.16**	**246**	P	**Pn**	**06 39 22.8**	**-0.3**
TPUB	**Ta-pu**	**4.36**	**254**	P	**Pn**	**06 39 27.5**	**+1.6**
TPUB	**Ta-pu**	**4.36**	**254**		**Pn**	**06 39 25.2**	**-0.7**
TPUB	**Ta-pu**	**4.36**	**254**	P	**Pn**	**06 39 28.2**	**+2.3**
JMZ	**Minamidaito 2**	**5.61**	**76**	Pn	**Pn**	**06 39 43.4**	**+0.4**
KNMB	**Chin-men Tao**	**6.19**	**270**	Pn	**Pn**	**06 39 51.6**	**+0.6**
CVP	**Callao Caves**	**7.52**	**205**	*e*P	**Pn**	**06 40 09.7**	**+0.3**
CVP				*e*S	**Sn**	**06 41 27.6**	**-6.4**
PALP	**Palanan**	**7.91**	**200**	*i* P	**Pn**	**06 40 15.8**	**+1.1**
PALP				*e*S	**Sn**	**06 41 42.4**	**-1.1**
NJ2	**Nanjing**	**9.31**	**325**	*e*P	**Pn**	**06 40 34.0**	**+0.2**
NJ2				pmax	pmax		
	comp=E,9.0nm,0.8s						
JNU	**Nakatsue**	**9.87**	**29**	Pn	**Pn**	**06 40 43.2**	**+1.7**
	comp=E,0.4nm,0.3s,baz=342,slow=4.1,SNR=4.1						
JNU				LR	LR	06 44 35.1	
	comp=E,200nm,20.9s,baz=208,slow=38						
	comp=E,3.7nm,0.9s						
JNU				AML	AML		
LQP	**Lukban**	**10.96**	**199**	*e*P	**Pn**	**06 40 58.2**	**+1.5**
KSRS	**Korea Array**	**13.05**	**10**	Pn	**Pn**	**06 41 27.1**	**+2.1**
	comp=E,0.3nm,0.3s,baz=188,slow=12,SNR=6.4						
KSRS				LR	LR	06 46 47.7	
	comp=E,144nm,18.5s,baz=215,slow=39						
	comp=E,2.6nm,0.8s						
KSRS				AML	AML		
QIZ	**Qiongzhong**	**15.28**	**252**	P	**Pn**	**06 41 55.0**	**-0.4**
QIZ				S	**Sn**	**06 44 44.0**	**-0.1**
QIZ				L	L		
	comp=E,340nm,16.3s						
JHJ	**Hachijo jima 2**	**15.35**	**53**	LR	LR	06 47 03.3	
	comp=E,103nm,21.5s,baz=253,slow=34						
HHC	**Hu-ho-hao-te**	**19.83**	**328**	*e*P	**Pn**	**06 42 52.0**	**+0.1**
HHC				S	**S**	**06 46 30.8**	**-2.0**
HHC				pmax	pmax		
	comp=E,16nm,0.7s						
HHC				pmax	pmax		
	comp=E,100nm,6.7s						
HHC				L	L		
	comp=E,180nm,13.5s						
HHC				L	L		
	comp=E,170nm,14.3s						
LZH	**Lanzhou**	**21.66**	**307**	*e*P	**P**	**06 43 13.5**	**+3.3**
LZH				pP	sP	06 43 17.5	-1.1
LZH				pmax	pmax		
	comp=E,29nm,1.3s						
LZDM	**Lanzhou Array**	**21.71**	**307**	P	**P**	**06 43 10.3**	**-0.5**
	comp=E,2.7nm,0.3s,baz=142,slow=7.5,SNR=4.6						
	comp=E,2.7nm,0.3s						
CMAR	**Chiang Mai Arr**	**25.14**	**261**	P	**P**	**06 43 45.4**	**+0.7**
	comp=E,1.2nm,0.4s,baz=62,slow=7.8,SNR=6.5						
CMAR				LR	LR	06 53 18.1	
	comp=E,44nm,20.9s,baz=200,slow=36						
	comp=E,1.2nm,0.4s						
CMAR	**Chiang Mai Arr**	**25.14**	**261**	P	**P**	**06 43 44.7**	**0.0**
SBUM	**Sibu**	**25.31**	**212**	P	**P**	**06 43 47.1**	**+0.9**
SBUM	**Sibu**	**25.31**	**212**	P	**P**	**06 43 47.2**	**+1.0**
	comp=Z,7.0nm,1.7s						
SMKI	**Samarinda**	**26.05**	**198**	P	**P**	**06 43 56.6**	**+3.7**
	comp=Z,9µmcomp=Z,166nm,0.5s						
SONM	**Songino Array**	**27.58**	**332**	P	**P**	**06 44 06.0**	**-0.7**
	comp=Z,0.8nm,0.4s,baz=150,slow=11,SNR=4.9						
	comp=Z,0.8nm,0.4s						
SONM	**Songino Array**	**27.58**	**332**	P	**P**	**06 44 05.7**	**-0.9**
WMQ	**Urumqi**	**36.08**	**312**	*e*P	**P**	**06 45 22.5**	**+1.4**
PEA0B	**Petropavlovsk-**	**37.55**	**32**	P	**P**	**06 45 32.2**	**-1.2**
PEA0B				IAmb	IAmb	06 45 39.2	
	comp=Z,11nm,1.1s						
PETK	**Petropavlovsk-**	**37.55**	**32**	P	**P**	**06 45 32.6**	**-0.9**
	comp=Z,1.2nm,0.5s,baz=251,slow=4.4,SNR=4.6						
	comp=Z,1.2nm,0.5s						
PETK	**Petropavlovsk-**	**37.55**	**32**	P	**P**	**06 45 32.4**	**-1.0**
H11N1	**WAKE ISLAND Hy**	**38.82**	**89**	T	T	07 26 48.7	
	baz=284,slow=75,SNR=6.2						
H11N2	**WAKE ISLAND Hy**	**38.82**	**89**	T	T	07 27 02.0	
	baz=284,slow=75,SNR=7.1						
H11N3	**WAKE ISLAND Hy**	**38.84**	**89**	T	T	07 26 50.3	
	baz=284,slow=75,SNR=8.8						
MKAR	**Makanchi Array**	**40.65**	**314**	P	**P**	**06 45 58.6**	**-0.9**
	comp=Z,1.8nm,0.6s,baz=96,slow=11,SNR=18						
	comp=Z,1.8nm,0.6s						
MKAR	**Makanchi Array**	**40.65**	**314**		**P**	**06 45 58.4**	**-1.1**
MAKZ	**Makanchi**	**40.85**	**314**		**P**	**06 46 00.2**	**-1.0**
MAKZ	**Makanchi**	**40.85**	**314**	P	**P**	**06 46 00.4**	**-0.8**
	comp=Z,5.8nm,1.1s						
PDGK	**Podgornoye**	**41.69**	**308**		**P**	**06 46 06.0**	**-2.1**
ZAA0	**Zalesovo Array**	**41.96**	**325**	P	**P**	**06 46 08.3**	**-1.8**
ZALV	**Zalesovo Beam**	**41.96**	**325**	P	**P**	**06 46 07.5**	**-2.6**
	comp=Z,1.7nm,0.5s,baz=112,slow=7.9,SNR=8.5						
	comp=Z,1.7nm,0.5s						
ZALV	**Zalesovo Beam**	**41.96**	**325**	P	**P**	**06 46 08.3**	**-1.8**
FITZ	**Fitzroy Crossi**	**42.42**	**179**	P	**P**	**06 46 12.5**	**-1.6**
	comp=Z,1.0nm,0.3s,baz=136,slow=13,SNR=3.8						
	comp=Z,1.0nm,0.3s						
ASAI	**AK-SAY(Kyrgyzs**	**43.49**	**304**	P	**P**	**06 46 24.0**	**+0.9**
	comp=Z,4.1nm,0.9s						
NRN	**Naryn**	**43.94**	**305**	P	**P**	**06 46 25.6**	**-1.2**
KSH2	**Kashi**	**44.05**	**302**	P	**P**	**06 46 28.0**	**+0.5**
KSH2				pP	sP	06 46 35.5	-0.9
KSH2				pmax	pmax		
	comp=Z,5.0nm,1.0s						
KURK	**Kurchatov**	**44.18**	**319**	P	**P**	**06 46 26.4**	**-1.7**
KURK	**Kurchatov**	**44.18**	**319**	P	**P**	**06 46 27.2**	**-0.9**
	comp=Z,4.1nm,0.6s						
KURBB	**Kurchatov Arra**	**44.20**	**318**	P	**P**	**06 46 27.4**	**-0.9**
	comp=Z,1.3nm,0.5s,baz=110,slow=8.2,SNR=7.0						
	comp=Z,1.3nm,0.5s						
WB0	**Warramunga Arr**	**44.98**	**168**	P	**P**	**06 46 35.0**	**+0.2**
WB0				IAmb	IAmb	06 46 43.4	
	comp=Z,7.0nm,0.8s						
WRAB	**Tennant Creek**	**45.13**	**168**	P	**P**	**06 46 36.2**	**+0.3**
	comp=Z,12nm,0.8s						
WRA	**Warramunga Arr**	**45.14**	**168**	P	**P**	**06 46 36.3**	**+0.3**
	comp=Z,3.0nm,0.5s,baz=349,slow=8.8,SNR=27						
	comp=Z,3.0nm,0.5s						
WRA	**Warramunga Arr**	**45.14**	**168**	P	**P**	**06 46 34.1**	**-1.9**
WR8	**Warramunga Arr**	**45.18**	**168**		**P**	**06 46 36.2**	**-0.2**
WR8				IAmb	IAmb	06 46 45.2	
	comp=Z,7.0nm,0.7s						
MTSU	**Mount Surprise**	**46.36**	**154**	P	**P**	**06 46 47.6**	**+1.8**
	comp=Z,7.6nm,0.7s						
MTSU				pP	**sP**	**06 46 55.1**	**+1.0**
QIS	**Mount Isa**	**47.00**	**161**	P	**P**	**06 46 51.5**	**+0.8**
	comp=Z,7.0nm,0.9s						
QIS				pP	**sP**	**06 46 59.2**	**+0.2**
HNR	**Honiara**	**47.88**	**131**	LR	LR	07 06 08.3	
	comp=Z,78nm,19.3s,baz=3.5,slow=35						
KK31	**Karatay Array**	**48.15**	**307**	P	**P**	**06 46 58.5**	**-1.0**
KKAR	**Karatay Array**	**48.15**	**307**	P	**P**	**06 46 59.4**	**-0.2**
AS31	**Alice Springs**	**48.69**	**169**	P	**P**	**06 47 04.4**	**+0.5**
ASAR	**Alice Springs**	**48.69**	**169**	P	**P**	**06 47 04.6**	**+0.8**
	comp=Z,1.3nm,0.4s,baz=359,slow=7.6,SNR=44						
	comp=Z,1.3nm,0.4s						
ASAR	**Alice Springs**	**48.69**	**169**	P	**P**	**06 47 03.4**	**-0.4**
KBL	**Kabul**	**49.30**	**295**	P	**P**	**06 47 06.9**	**-1.8**
KBL				IAmb	IAmb	06 47 10.7	
	comp=Z,5.1nm,0.6s						
KIWB	**Kanaga Island**	**51.21**	**42**	P	**P**	**06 47 21.4**	**-1.2**
KIWB				IAmb	IAmb	06 47 22.8	
	comp=Z,11nm,0.9s						
AB31	**Akbulak array**	**55.79**	**314**	P	**P**	**06 47 55.4**	**-0.9**
ABKAR	**Akbulak array**	**55.79**	**314**	P	**P**	**06 47 55.2**	**-1.1**
STKA	**Stephens Creek**	**58.28**	**164**	P	**P**	**06 48 13.4**	**-0.7**
	comp=Z,2.0nm,0.6s,baz=336,slow=5.2,SNR=6.1						
	comp=Z,2.0nm,0.6s						
STKA	**Stephens Creek**	**58.28**	**164**	P	**P**	**06 48 14.7**	**+0.6**
DZM	**Mont Dzumac**	**61.29**	**136**	LR	LR	07 09 49.8	
	comp=Z,146nm,21.6s,baz=276,slow=31						
H21K	**Melozitna Rive**	**64.61**	**27**	P	**P**	**06 48 55.5**	**-0.9**
H21K				IAmb	IAmb	06 49 15.7	
	comp=Z,5.3nm,0.9s						
CAST	**Castle Rocks**	**65.09**	**29**	IAmb	IAmb	06 49 07.2	
	comp=Z,9.8nm,1.4s						
H22K	**Ishtalitna Cre**	**65.18**	**27**	IAmb	IAmb	06 49 04.2	
	comp=Z,10nm,1.2s						
E23K	**Chandalar**	**65.68**	**24**	IAmb	IAmb	06 49 12.5	
	comp=Z,7.8nm,0.9s						
H23K	**Yukon River**	**65.93**	**27**	IAmb	IAmb	06 49 08.6	
	comp=Z,9.3nm,1.1s						
RND	**Reindeer**	**66.53**	**29**	P	**P**	**06 49 08.3**	**-0.7**
ILAR	**Eielson Array**	**67.18**	**28**	P	**P**	**06 49 12.2**	**-0.9**
	comp=Z,0.5nm,0.7s,baz=259,slow=5.5,SNR=7.3						
	comp=Z,0.5nm,0.7s						
ILAR	**Eielson Array**	**67.18**	**28**	P	**P**	**06 49 10.8**	**-2.2**
F25K	**Christian Rive**	**67.23**	**25**	IAmb	IAmb	06 49 16.7	
	comp=Z,5.8nm,0.9s						
BMAR	**Burnt Mountain**	**67.66**	**25**	P	**P**	**06 49 16.9**	**+0.8**
G26K	**Porcupine Rive**	**68.06**	**25**	IAmb	IAmb	06 49 34.0	
	comp=Z,5.1nm,0.9s						
KBZ	**Khabaz**	**68.07**	**309**	P	**P**	**06 49 18.9**	**-0.1**
	comp=Z,5.9nm,1.0s,baz=104,slow=7.7,SNR=5.2						
	comp=Z,5.9nm,1.0s						
EPOS	**Posof**	**68.73**	**307**	P	**P**	**06 49 24.6**	**+1.2**
	comp=Z,7.6nm,1.0s						
H27K	**Steamboat Moun**	**69.09**	**26**	IAmb	IAmb	06 49 28.3	
	comp=Z,7.3nm,1.4s						
I27K	**Kandik River**	**69.20**	**26**	IAmb	IAmb	06 49 28.3	
	comp=Z,9.6nm,1.1s						
E28M	**Babbage River**	**69.27**	**23**	IAmb	IAmb	06 49 28.8	
	comp=Z,4.6nm,0.8s						
F28M	**Old Crow**	**69.39**	**24**	IAmb	IAmb	06 49 29.8	
	comp=Z,5.7nm,0.9s						
I28M	**Miner Creek**	**69.92**	**26**	IAmb	IAmb	06 49 32.2	
	comp=Z,4.6nm,0.9s						
SGF	**Sodankyl**	**70.81**	**336**	P	**P**	**06 49 35.6**	**+0.1**
	comp=Z,14nm,2.1s						
RNF	**Rovaniemi**	**71.26**	**335**	P	**P**	**06 49 37.9**	**-0.3**
	comp=Z,12nm,1.5s						
I30M	**Mount Dempster**	**71.41**	**26**	IAmb	IAmb	06 50 19.4	
	comp=Z,6.7nm,1.4s						
OUL	**Oulu**	**71.80**	**334**	P	**P**	**06 49 41.2**	**-0.3**
	comp=Z,11nm,2.0s						
FINES	**FINESS Array B**	**72.94**	**330**	P	**P**	**06 49 48.1**	**-0.2**
	comp=Z,3.0nm,0.6s,baz=57,slow=7.0,SNR=13						
	comp=Z,3.0nm,0.6s						
FINES	**FINESS Array B**	**72.94**	**330**	P	**P**	**06 49 48.0**	**-0.4**
MTSE	**Matsula**	**74.98**	**328**	P	**P**	**06 50 00.4**	**0.0**
	comp=Z,88nm,1.2s						
AKASG	**Malin Array Be**	**74.99**	**319**	P	**P**	**06 49 59.7**	**-0.9**
	comp=Z,1.6nm,0.4s,baz=60,slow=6.2,SNR=8.6						
	comp=Z,1.6nm,0.4s						
AKBB	**Malin Array Si**	**74.99**	**319**	P	**P**	**06 49 59.5**	**-1.1**
AKBB				IAmb	IAmb	06 49 60.0	
	comp=Z,6.0nm,1.0s						
KIEV	**Kiev**	**75.00**	**319**	P	**P**	**06 49 59.6**	**-1.0**
KIEV	**Kiev**	**75.00**	**319**	P	**P**	**06 49 59.7**	**-0.9**
	comp=Z,6.5nm,0.7s						
BR131	**Keskin Array S**	**75.86**	**307**	P	**P**	**06 50 05.9**	**-0.1**
BR131				IAmb	IAmb	06 50 06.9	
	comp=Z,6.2nm,0.8s						
BRTR	**Keskin Array B**	**75.86**	**307**	P	**P**	**06 50 06.2**	**+0.2**
	comp=Z,3.7nm,0.7s,baz=83,slow=5.0,SNR=14						
BRTR				LR	LR	07 26 00.9	
	comp=Z,32nm,18.8s,baz=313,slow=38						
	comp=Z,3.7nm,0.7s						
BRTR	**Keskin Array B**	**75.86**	**307**	P	**P**	**06 50 05.5**	**-0.5**
PABE	**Paberze**	**76.15**	**325**	P	**P**	**06 50 06.3**	**-0.8**
AIS	**Amsterdam Isla**	**76.48**	**217**	P	**P**	**06 50 09.7**	**+0.6**
	comp=Z,198nm,1.1s						
DAG	**Danmarks Havn**	**76.52**	**352**	P	**P**	**06 50 09.8**	**+0.9**
	comp=Z,4.8nm,2.5s						
KKUL	**Konya-Kulu**	**76.58**	**307**	P	**P**	**06 50 10.5**	**+0.5**
	comp=Z,22nm,1.4s						
TESR	**Tescani**	**78.13**	**316**	P	**P**	**06 50 18.1**	**-0.4**
	comp=Z,10.0nm,1.6s						
HFS	**Hagfors**	**78.98**	**332**	P	**P**	**06 50 22.7**	**-0.2**
	comp=Z,2.1nm,0.6s,baz=86,slow=7.6,SNR=8.6						
	comp=Z,2.1nm,0.6s						
NB2	**NORSAR Subarra**	**79.56**	**333**	P	**P**	**06 50 25.2**	**-0.9**
	comp=Z,0.9nm,0.5s,baz=56,slow=5.6						
NOA	**NORSAR Array B**	**79.56**	**333**	P	**P**	**06 50 25.5**	**-0.6**
	comp=Z,0.9nm,0.5s,baz=53,slow=5.6,SNR=9.6						
	comp=Z,0.9nm,0.5s						
ELL	**Elmali**	**79.69**	**306**	P	**P**	**06 50 26.4**	**-0.9**
KOLS	**Kolonicke sedl**	**79.82**	**319**	*e*P	**P**	**06 50 27.0**	**-0.7**
DRGR		**80.48**	**317**	P	**P**	**06 50 31.5**	**+0.1**
	comp=Z,3.1nm,1.3s						
OJC	**Ojcow**	**80.69**	**321**	P	**P**	**06 50 32.6**	**+0.2**
	comp=Z,7.6nm,0.6s						
YKA	**Yellowknife Ar**	**81.17**	**24**	P	**P**	**06 50 34.9**	**+0.3**
	comp=Z,1.8nm,0.6s,baz=303,slow=5.1,SNR=6.7						
	comp=Z,1.8nm,0.6s						
PSZ	**Piszkesteto**	**81.69**	**319**	P	**P**	**06 50 37.3**	**-0.5**
	comp=Z,4.8nm,1.1s						
VYHS	**Vyhne**	**82.05**	**320**	*e*P	**P**	**06 50 38.6**	**-1.0**
VYHS				*e*PP	**PP**	**06 53 46.5**	**-0.6**
SUMG	**Summit**	**82.46**	**355**	P	**P**	**06 50 42.3**	**+0.5**
CLL	**Collm**	**83.91**	**324**	*e*P	**P**	**06 50 49.0**	**-0.1**
GERES	**GERESS Array B**	**84.83**	**322**	P	**P**	**06 50 54.2**	**+0.2**
	comp=Z,0.6nm,0.5s,baz=121,slow=6.4,SNR=4.7						
	comp=Z,0.6nm,0.5s						
GERES	**GERESS Array B**	**84.83**	**322**	P	**P**	**06 50 53.9**	**-0.1**
GRA3	**Grafenberg Arr**	**85.65**	**324**	P	**P**	**06 50 57.4**	**-0.6**
	comp=Z,12nm,0.7s						
NEW	**Newport**	**88.57**	**36**	P	**P**	**06 51 13.3**	**+1.1**
	comp=Z,4.0nm,2.7s						
SMPL	**Sampolo**	**91.14**	**318**	P	**P**	**06 51 25.1**	**+0.8**
MFID	**Camas Ranch**	**92.19**	**40**	IAmb	IAmb	06 51 32.2	
	comp=Z,4.8nm,1.2s						
HLID	**Hailey**	**92.92**	**39**	IAmb	IAmb	06 51 35.3	
	comp=Z,2.6nm,0.9s						
HLID	**Hailey**	**92.92**	**39**	P	**P**	**06 51 34.5**	**+1.8**
	comp=Z,3.3nm,2.0s						

ISK ***27*** *06:38:33.3, 39°.40N×26°.32E, h13km, ML2.6/17*
AFAD ***27*** *06:38:33.5, 39°.41N×26°.33E, h12km±3km, ML2.3*
ATH ***27*** *06:38:33.7, 39°.39N×26°.28E, h15km±1km, ML2.3/5,*
Latitude uncertainty: 0 km; Longitude uncertainty: 0 km
ISC 27 06:38:33.6±0.8**, 39°.40N**±0°.02×**26°.31E**±0°.02**, h16**km±5km**,**
n53, σ**0**s**.39**/85**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GPNR	**Gulpinar-Canak**	**0.15**	**292**	Pg	**Pg**	**06 38 37.6**	**0.0**
GPNR				Sg	**Sg**	**06 38 40.4**	**+0.1**
GPNR				AML	AML		
PRK	**Paraskevi**	**0.16**	**192**	P	**Pg**	**06 38 37.5**	**-0.2**
PRK				S	**Sg**	**06 38 40.3**	**-0.1**
KOCA	**Canakkale, Ayv**	**0.17**	**307**	P	**Pg**	**06 38 38.0**	**+0.1**
KOCA				S	**Sg**	**06 38 40.7**	**-0.2**
KOCA				IAML		06 38 42.0	
	comp=N,414nm,0.3s						
KOCA				IAML		06 38 42.0	
	comp=E,1µm,0.2s						
AYVA	**Ayvalik**	**0.31**	**107**	P	**Pg**	**06 38 40.2**	**+0.1**
AYVA				S	**Sb**	**06 38 44.6**	**-0.8**
AYVA				IAML		06 38 45.0	
	comp=N,439nm,0.5s						
AYVA				IAML		06 38 45.0	
	comp=E,134nm,0.3s						
EZNE	**Ezine-Canakkal**	**0.36**	**7**	Pg	**Pg**	**06 38 41.2**	**+0.2**
EZNE				Sg	**Sb**	**06 38 46.6**	**-0.4**
BAYC	**CANAKKALE_Bayr**	**0.39**	**28**	P	**Pg**	**06 38 41.6**	**+0.1**
BAYC				S	**Sg**	**06 38 46.3**	**-0.6**
BAYC				IAML		06 38 48.0	
	comp=E,113nm,0.5s						
BAYC				IAML		06 38 52.0	
	comp=N,186nm,0.2s						
EZN	**Ezine**	**0.43**	**1**	Pg	**Pg**	**06 38 42.2**	**0.0**
EZN				Sg	**Sg**	**06 38 48.3**	**+0.2**
EZN				AML	AML		
BOZC	**Bozcaada**	**0.48**	**336**	Pg	**Pg**	**06 38 43.4**	**+0.1**
BOZC				AML	AML		
BOZC	**Bozcaada**	**0.48**	**336**	P	**Pb**	**06 38 43.7**	**-0.1**
BOZC				S	**Sg**	**06 38 48.8**	**-1.0**
BOZC				IAML		06 38 50.0	
	comp=E,130nm,0.6s						
BOZC				IAML		06 38 51.0	
	comp=N,135nm,0.2s						
DKL	**Dikili**	**0.56**	**125**	Pg	**Pg**	**06 38 44.8**	**0.0**
DKL				AML	AML		
DKL	**Dikili**	**0.56**	**125**	P	**Pg**	**06 38 44.7**	**0.0**
DKL				S	**Sb**	**06 38 53.3**	**+0.4**
BUHA	**Balikesir, Bur**	**0.60**	**80**	P	**Pb**	**06 38 45.5**	**-0.2**
BUHA				S	**Sg**	**06 38 52.7**	**-0.7**
BUHA				IAML		06 38 57.0	
	comp=E,128nm,0.4s						
BUHA				IAML		06 38 59.0	
	comp=N,85nm,0.2s						
YAYO	**Edremit-Balk**	**0.62**	**70**	Pg	**Pb**	**06 38 46.1**	**0.0**
YAYO				Sg	**Sb**	**06 38 54.9**	**+0.3**
YAYO				AML	AML		
CNKL	**anakkale-Mer**	**0.67**	**5**	P	**Pb**	**06 38 47.1**	**+0.2**
CNKL				S	**Sg**	**06 38 53.9**	**-1.7**
CNKL				IAML		06 39 01.0	
	comp=E,57nm,0.3s						
CNKL				IAML		06 39 01.0	
	comp=N,68nm,0.5s						
COMU	**Canakkale**	**0.71**	**10**	Pg	**Pg**	**06 38 47.3**	**-0.2**
COMU				AML	AML		
ZEDA	**zmir-Bergama**	**0.73**	**126**	P	**Pn**	**06 38 48.9**	**-0.4**
ZEDA				S	**Sg**	**06 38 57.5**	**-0.1**
ZEDA				IAML		06 39 01.0	
	comp=N,126nm,0.2s						
ZEDA				IAML		06 39 01.0	
	comp=E,88nm,0.3s						
KARB	**zmir-Karabur**	**0.74**	**174**	P	**Pb**	**06 38 48.2**	**+0.1**
KARB				S	**Sg**	**06 38 57.5**	**-0.3**
KARB				IAML		06 39 00.0	
	comp=N,112nm,0.2s						
KARB				IAML		06 39 00.0	
	comp=E,205nm,0.4s						
FOCM	**Foa**	**0.76**	**154**	Pg	**Pb**	**06 38 48.4**	**0.0**
FOCM				AML	AML		
GOAD	**anakkale-G¶**	**0.82**	**338**	P	**Pg**	**06 38 49.2**	**-0.4**
GOAD				S	**Sg**	**06 38 59.8**	**-0.6**
GOAD				IAML		06 39 02.0	
	comp=N,92nm,0.2s						
GOAD				IAML		06 39 03.0	
	comp=E,145nm,0.3s						
KRBN	**Karaburun**	**0.83**	**167**	Pg	**Pg**	**06 38 49.3**	**-0.4**
CANM	**Can-anakkale**	**0.84**	**43**	Pg	**Pb**	**06 38 49.7**	**0.0**
CANM				AML	AML		
GADA	**Gvkgeada**	**0.85**	**338**	Pg	**Pb**	**06 38 50.3**	**+0.3**
GADA				AML	AML		
BAGT	**Foa**	**0.85**	**150**	P	**Pb**	**06 38 50.0**	**0.0**
BAGT				IAML		06 39 01.0	
	comp=N,130nm,1.3s						
BAGT				S	**Sb**	**06 39 01.9**	**+0.7**
BAGT				IAML		06 39 04.0	
	comp=E,124nm,0.9s						
EAG2	**Marmaro, Chios**	**0.87**	**191**	P	**Pb**	**06 38 50.6**	**+0.4**
EAG2				S	**Sg**	**06 39 01.8**	**-0.2**
YENI	**Yenice-Canakka**	**0.90**	**53**	Pg	**Pb**	**06 38 50.8**	**+0.1**
LAPS	**Lapseki, ANA**	**0.94**	**25**	P	**Pb**	**06 38 51.9**	**+0.3**
LAPS				S	**Sn**	**06 39 05.4**	**+0.1**
LAPS				IAML		06 39 06.0	
	comp=E,113nm,0.3s						
LAPS				IAML		06 39 06.0	
	comp=N,67nm,0.4s						
SOMA	**Soma-Manisa**	**0.98**	**104**	Pg	**Pg**	**06 38 52.3**	**-0.2**
SOMA				AML	AML		
LIA	**Limnos Island**	**1.00**	**300**	P	**Pb**	**06 38 52.7**	**+0.1**
LIA				S	**Sb**	**06 39 05.6**	**+0.1**
GELI	**Tayfur-Gelibol**	**1.00**	**7**	Pg	**Pg**	**06 38 52.9**	**-0.2**
GELI				AML	AML		
CAMT	**Merkez**	**1.01**	**130**	P	**Pn**	**06 38 53.4**	**+0.3**
CAMT				S	**Sn**	**06 39 06.8**	**-0.3**
CAMT				IAML		06 39 09.0	
	comp=E,76nm,0.6s						
CAMT				IAML		06 39 10.0	
	comp=N,74nm,0.5s						
CHOS	**Chios island**	**1.03**	**191**	Pg	**Pb**	**06 38 53.3**	**+0.2**
CHOS				AML	AML		
CHOS	**Chios island**	**1.03**	**191**	P	**Pb**	**06 38 53.0**	**-0.1**
CHOS				S	**Sb**	**06 39 06.5**	**+0.2**
CHOS				AML	AML		
LPK	**Lapseki**	**1.03**	**19**	Pg	**Pn**	**06 38 53.6**	**+0.2**
LPK				AML	AML		
BALY	**Balya**	**1.07**	**71**	P	**Pn**	**06 38 54.2**	**+0.3**
BALY				S	**Sb**	**06 39 07.3**	**-0.1**
BALY				IAML		06 39 09.0	
	comp=N,96nm,0.7s						
BALY				IAML		06 39 10.0	
	comp=E,70nm,0.3s						
BIGA	**Biga-Canakkale**	**1.09**	**36**	Pn	**Pb**	**06 38 53.7**	**-0.4**
BLCB	**Balcova**	**1.16**	**150**	Pn	**Pn**	**06 38 55.5**	**+0.4**
ZEYE	**Izmir, Urla-Ze**	**1.17**	**173**	P	**Pb**	**06 38 54.7**	**-0.7**
ZEYE				S	**Sb**	**06 39 10.3**	**+0.1**
ZEYE				IAML		06 39 15.0	
	comp=E,87nm,0.4s						
ZEYE				IAML		06 39 15.0	
	comp=N,81nm,0.3s						
ATIT	**Gnen**	**1.18**	**54**	P	**Pn**	**06 38 55.6**	**+0.2**
ATIT				IAML		06 39 09.0	
	comp=E,115nm,1.6s						
ATIT				S	**Sb**	**06 39 10.4**	**-0.2**
ATIT				IAML		06 39 14.0	
	comp=N,87nm,0.6s						
SMTH	**Samothraki Isl**	**1.23**	**331**	P	**Pn**	**06 38 56.4**	**+0.3**
SMTH				S	**Sb**	**06 39 12.4**	**+0.4**
SMTH				AML	AML		
BALB	**Balikesir**	**1.24**	**78**	Pn	**Pn**	**06 38 56.4**	**+0.2**
BALB				AML	AML		
BALB	**Balikesir**	**1.24**	**78**	P	**Pb**	**06 38 56.6**	**0.0**
BALB				S	**Sg**	**06 39 13.6**	**0.0**
GONE	**Gonen-Balikesi**	**1.24**	**58**	Pn	**Pb**	**06 38 56.7**	**+0.1**
KRBG	**Karabiga-Canak**	**1.25**	**37**	Pn	**Pn**	**06 38 56.7**	**+0.4**
KRBG				AML	AML		
ERIK	**Erikli-Kesan**	**1.28**	**7**	Pn	**Pb**	**06 38 57.4**	**+0.1**
ERIK				AML	AML		
GOKT	**Kean, EDRN**	**1.28**	**11**	P	**Pb**	**06 38 57.6**	**+0.2**
GOKT				S	**Sg**	**06 39 14.8**	**-0.2**
GOKT				IAML		06 39 16.0	
	comp=N,133nm,0.8s						
GOKT				IAML		06 39 16.0	
	comp=E,244nm,0.8s						
BKES	**Balkesir-Mer**	**1.29**	**75**	P	**Pg**	**06 38 58.3**	**-0.2**
BKES				S	**Sg**	**06 39 15.4**	**0.0**
BKES				IAML		06 39 18.0	
	comp=E,70nm,0.2s						
BKES				IAML		06 39 20.0	
	comp=N,38nm,0.7s						
ENEZ	**Enez**	**1.34**	**355**	Pn	**Pn**	**06 38 57.9**	**+0.3**
ENEZ				AML	AML		
CMHT	**Manyas**	**1.42**	**64**	P	**Pn**	**06 38 58.9**	**+0.2**
CMHT				IAML		06 39 17.0	

	comp=N,181nm,2.0s						
CMHT				S	Sn	06 39 17.3	+0.3
CMHT				IAML		06 39 21.0	
	comp=E,81nm,0.4s						
KESN	Edirne-Kesan	1.45	11	P	Pb	06 39 00.3	-0.2
KESN				S	Sn	06 39 18.1	-0.3
KESN				IAML		06 39 23.0	
	comp=E,60nm,0.2s						
KESN				IAML		06 39 23.0	
	comp=N,59nm,0.5s						
ALN	Alexandroupoli	1.51	352	P	Pn	06 39 00.5	+0.5
BAND	Balkesir-Ban	1.67	55	P	Pn	06 39 02.6	+0.4
BAND				S	Sn	06 39 24.2	+0.9
BAND				IAML		06 39 25.0	
	comp=E,44nm,0.2s						
BAND				IAML		06 39 25.0	
	comp=N,35nm,0.2s						
DURS	Dursunbey	1.68	82	P	Pn	06 39 02.6	+0.2
DURS				S	Sb	06 39 26.0	+0.8
DURS				IAML		06 39 28.0	
	comp=N,34nm,0.4s						
DURS				IAML		06 39 30.0	
	comp=E,50nm,0.2s						
KYMI	Kymi, Euboea I	1.89	247	P	Pn	06 39 04.9	-0.2

**TEH 27 07:08:59.1,36°.04N×53°.44E,h13^{km}±11^{km},ML3.7,
Presumed earthquake,Northern and central Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ISHM	Shahmirzad	0.26	207	Pg	Pg	07 09 04.7	0.0
ISHM				Sg	Sb	07 09 09.8	-0.6
IALA	Alasht	0.51	275	Pg	Pg	07 09 09.2	0.0
IALA				Sg	Sb	07 09 17.4	-0.1
IGLO	Ghaloghah	0.56	35	Pg	Pg	07 09 09.9	-0.3
IGLO				Sg	Sb	07 09 19.2	+0.2
IFIR	Firoozkooh	0.68	234	Pg	Pg	07 09 12.4	-0.1
IPRN	Peran	0.91	283	Pg	Pg	07 09 16.4	-0.3
IDMV	Damavand	1.23	248	Pg	Pn	07 09 22.0	-0.3
MZPU	Pul - Mazandar	1.56	285	Pg	Pb	07 09 27.8	-0.2
TEH	Tehran	1.70	260	Pg	Pb	07 09 30.2	-0.1
IVRN	Varamin	1.74	234	Pg	Pb	07 09 30.7	-0.2
IHSB	Hasanabad	1.86	252	Pn	Pb	07 09 33.4	+0.4
ISFB	Sefidab	1.95	210	Pn	Pb	07 09 34.0	-0.5
IMND	Minoodasht	2.00	52	Pn	Pn	07 09 33.7	+1.2
SHRO	Shahrood	2.09	91	Pn	Pb	07 09 35.9	-1.0
KRSH	Karshahi	2.33	208	Pn	Pb	07 09 39.6	-1.4
IGZV	Ghazvin	2.62	278	Pn	Pb	07 09 44.1	-2.0
MRVT	Maraveh tapeh	2.67	52	Pn	Pn	07 09 43.3	+1.4
ANAR	Anarak	2.85	175	Pn	Pn	07 09 46.3	+1.8
TAPT	Tabas- Tapeh t	3.25	110	Pn	Pn	07 09 51.8	+1.8
IZEF	Zefreh	3.27	197	Pn	Pn	07 09 52.2	+1.9
TNSJ	Nastanj	3.33	128	Pn	Pn	07 09 52.9	+2.0
SBZV	Sabzevar	3.39	83	Pn	Pn	07 09 54.2	+2.3
TSHB	Tabas_ShorAb	3.42	132	Pn	Pn	07 09 54.3	+2.1
ISFR	Sfrayin	3.81	73	Pn	Pn	07 10 00.2	+2.4
ICHK	Chekchek	3.87	168	Pn	Pn	07 10 00.6	+2.0
TKDS	Koohdasht(Taba	3.88	128	Pn	Pn	07 10 00.8	+2.2
DOBD	Dorbid, Yazd	4.14	167	Pn	Pn	07 10 04.6	+2.4
IRAM	Ramesheh	4.31	192	Pn	Pn	07 10 07.5	+2.9
IAKL	Akhelmad	4.33	81	Pn	Pn	07 10 06.7	+1.8
TAFT	Taft - Yazd	4.35	172	Pn	Pn	07 10 07.1	+2.0
IEMG	Emamgholi	4.41	70	Pn	Pn	07 10 08.3	+2.3
IBAF	Bafgh	4.78	158	Pn	Pn	07 10 13.1	+2.2
AFRZ	Afriz	5.28	118	Pn	Pn	07 10 20.5	+2.6
SHRT	Shahrakht	6.12	111	Pn	Pn	07 10 31.5	+2.1
BSRN	Basiran	6.23	129	Pn	Pn	07 10 33.2	+2.2

IDC ***27*** *07:15:49.5±1.8,51°.95N×169°.75W,h0^{km},mb3.7/6,
mbtmp3.7/9,ML3.3/3,MS3.6/1,Error ellipse: s-maj=48.8km
s-min=20.2km az=1.0*

NEIC ***27*** *07:15:51.8±1.2,51°.90N±0°.04×169°.65W±0°.07,h10^{km}±2^{km},
ML3.3/14,ML3.1(AEIC),Error ellipse: s-maj=8.4km
s-min=6.2km az=122.0*

AEIC ***27*** *07:15:55.0±1.1,51°.97N±0°.06×169°.72W±0°.08,h22^{km}±7^{km},
Error ellipse: s-maj=9.3km s-min=5.7km az=144.0*

ISC 27 07:15:52.8±1.4**,51°.9N**±0°.1×**169°.67W**±0°.07**,h22**^{km}±9^{km}**,
n57,**$\sigma 0^{s}.$**92**/66**,mb3.5**/6**,Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CLCO	Concord Point,	0.87	358		Pb	07 16 09.1	-0.1
CLCO					Sb	07 16 20.4	-0.1
CLES	Cleveland East	0.92	351		Pb	07 16 09.9	-0.1
OKSP	Okmok Steeple	1.58	32		Pn	07 16 19.2	-0.3
OKSP					Sn	07 16 39.5	+0.2
OKCE	Okmok Cone E	1.77	31		Pn	07 16 22.6	+0.5
OKTU	Okmok Mt. Tuli	1.77	33		Pn	07 16 22.6	+0.5
OKNC	Okmok New Cone	1.81	31		Pn	07 16 23.0	+0.4
MAPS	Pakushin South	2.52	40		Pn	07 16 32.9	+0.5
MAPS					Sn	07 17 03.0	+0.7
MGOD	Makushin Gods	2.53	41		Pn	07 16 33.0	+0.3
MREP	Makushin Rep’t	2.60	42		Pn	07 16 34.2	+0.7
MSW	Makushin Switc	2.66	40		Pn	07 16 35.0	+0.7
MNAT	Makushin Natee	2.67	41		Pn	07 16 35.1	+0.5
MNAT					Sn	07 17 07.9	+1.6
UNV	Unalaska Valle	2.72	44		Pn	07 16 35.7	+0.6
UNV				IAML		07 17 22.0	
	comp=E,63nm,0.8s						
KOSE	Korovin Southe	2.73	281		Pn	07 16 36.4	+1.0
KOSE					Sn	07 17 09.2	+1.4
KOFP	Korovin Flat P	2.75	279		Pn	07 16 36.9	+1.2
KOKV	Korovin Volcan	2.81	281		Pn	07 16 37.3	+1.0
ATKA	Atka Island	2.81	278		Pn	07 16 36.5	+0.2
ATKA					Sn	07 17 08.7	-0.7
KONW	Korovin Northw	2.84	282		Pn	07 16 37.0	+0.3
KOWE	Korovin West	2.86	281		Pn	07 16 37.8	+0.7
AKBBA	Akutan Broad B	3.14	44		Pn	07 16 43.0	+2.1
AKV	Akutan Volcano	3.15	44		Pn	07 16 43.7	+2.6
AKUT	Akutan	3.24	45	Pn	Pn	07 16 42.7	+0.5
AKUT				IAML		07 17 06.5	
	comp=N,38nm,1.1s						
AKUT				IAML		07 17 59.5	
	comp=E,39nm,1.2s						
GSIG	Igitkin Island	3.87	273		Pn	07 16 51.1	+0.1
GSMY	Great Sitkin M	3.95	274		Pn	07 16 52.6	+0.5
GSMY					Sn	07 17 37.6	-0.1
GSTR	Great Sitkin T	3.95	275	Pn	Pn	07 16 52.2	+0.1
GSTR				IAML		07 17 46.7	
	comp=E,109nm,0.9s						
GSTD	Great Sitkin T	4.01	275		Pn	07 16 53.8	+0.9
GSTD					Sn	07 17 39.6	+0.4
GSCK	Great Sitkin C	4.02	274		Pn	07 16 54.0	+1.0
GSCK					Sn	07 17 39.7	+0.4
ETKA	Kagalaska Isla	4.17	272		Pn	07 16 55.5	+0.4
ETKA					Sn	07 17 42.8	-0.4
ADAG	Mount Adagdak	4.29	274		Pn	07 16 57.7	+1.0
ADK	Adak	4.34	272		Pn	07 16 58.2	+0.7
ADK	Adak	4.34	272	Sn	Sn	07 17 46.8	-0.6
ADK				IAML		07 17 52.4	
	comp=E,38nm,0.3s						
ADK				IAML		07 17 52.4	
	comp=E,57nm,0.3s						
KIWB	Kanaga Island	4.64	272		Pn	07 17 02.3	+0.9
KIWB				IAML		07 17 59.2	
	comp=N,37nm,0.7s						
KIWB				IAML		07 18 00.0	
	comp=E,39nm,0.9s						
KIMD	Kanaga Island	4.70	271		Pn	07 17 03.0	+0.7
TAFP	Tanaga Falls P	5.15	273		Pn	07 17 09.6	+1.1
TASE	Tanaga Southea	5.18	272		Pn	07 17 10.5	+1.5
GANE	Gareloi Northe	5.64	273		Pn	07 17 16.4	+1.1
GAKI	Gareloi-Kavalg	5.69	270		Pn	07 17 16.8	+0.8
CNBA	Chernabura Isl	6.70	60		Pn	07 17 29.9	+0.2
AMKA	Amchitka	6.89	270		Pn	07 17 33.3	+1.0
OHAK	Old Harbor	10.88	54	Pn	Pn	07 18 25.7	-1.3
KDAK	Kodiak Island	11.45	52	Pn	Pn	07 18 33.3	-1.5
	comp=E,0.4nm,0.3s,baz=184,slow=1.6,SNR=6.2						
	comp=E,6.5nm,0.9s						
KDAK				AML	AML		
KDAK	Kodiak Island	11.45	52		Pn	07 18 33.0	-1.8
Q19K	Cape Douglas,	11.48	46	Pn	Pn	07 18 35.1	-0.2
CNPM	China Poot	12.85	46	Pn	Pn	07 18 53.6	-0.4
SLKM	Skilak Lake	13.78	44	Pn	Pn	07 19 06.3	-0.3
SEW	Seward	13.92	46	Pn	Pn	07 19 06.9	-1.5
ILAR	Eielson Array	17.43	34	P	Pn	07 19 52.4	-1.8
	baz=228,slow=9.1,SNR=4.4						
	comp=E,0.3nm,0.9s						
PETK	Petropavlovsk-	19.81	286	P	P	07 20 21.9	+0.4
	comp=E,0.6nm,0.3s,baz=83,slow=15,SNR=14						
	comp=E,1.2nm,0.3s						
PETK				AML	AML		
PETK	Petropavlovsk-	19.81	286	P	P	07 20 21.4	-0.2
BMAR	Burnt Mountain	19.82	29	P	P	07 20 22.3	+0.7
INK	Inuvik	23.83	33	LR	LR	07 31 28.2	
	comp=E,133nm,19.3s,baz=314,slow=39						
YKA	Yellowknife Ar	30.68	48	P	P	07 22 06.2	+0.8
	comp=E,0.3nm,0.4s,baz=278,slow=9.1,SNR=8.1						
	comp=E,0.3nm,0.4s						
PDAR	Pinedale Array	40.67	78	P	P	07 23 32.4	+0.8
	comp=E,0.4nm,0.7s,baz=331,slow=5.4,SNR=4.3						
	comp=E,0.4nm,0.7s						
PDAR	Pinedale Array	40.67	78	P	P	07 23 31.3	-0.2
TXAR	Lajitas Array	52.94	88	P	P	07 25 07.1	-0.4
	comp=E,0.6nm,0.9s,baz=290,slow=5.3,SNR=5.7						
	comp=E,0.6nm,0.9s						
KURBB	Kurchatov Arra	62.70	318	P	P	07 26 15.3	-0.2
	comp=E,0.1nm,0.4s,baz=58,slow=9.0,SNR=1.7						
	comp=E,0.1nm,0.4s						
BVAR	Borovoye Array	63.96	324	P	P	07 26 23.1	-0.7
	comp=E,0.8nm,0.4s,baz=56,slow=8.8,SNR=3.1						
	comp=E,0.8nm,0.4s						
FINES	FINESS Array B	66.29	352	P	P	07 26 38.1	-0.7
	comp=E,4.0nm,1.1s,baz=5.0,slow=6.7,SNR=2.1						
	comp=E,4.0nm,1.1s						

IDC ***27*** *07:23:12.8±0.9,13°.81N×93°.24W,h0^{km},mb4.2/12,
mbtmp4.2/16,ML3.7/4,MS3.5/18,Error ellipse:
s-maj=26.6km s-min=11.6km az=43.0*

GCG ***27*** *07:23:15.8±1.7,13°.79N×93°.07W,h24^{km}±66^{km},MD4.9,
Presumed earthquake*

NEIC ***27*** *07:23:16.1±1.9,13°.95N±0°.06×93°.11W±0°.05,h10^{km}±1^{km},
mb4.5/216,Md4.2/58(MEX),Error ellipse: s-maj=10.5km
s-min=9.0km az=179.0*

MEX ***27*** *07:23:16.1±0.8,13°.92N×93°.40W,h10^{km},MD4.2,
Presumed earthquake*

CATAC ***27*** *07:23:18.5±0.4,14°N±6°×9°3W±°,h57^{km}±31^{km},M4.6/36,
MLv4.7/36,Mw(mB)4.4/6,Error ellipse: s-maj=12.5km
s-min=4.3km az=13.7,confirmed*

GFZ ***27*** *07:23:18.8±0.4,14°N±5°×9°3W±°,h33^{km},M4.4/22,
mb4.4/22,confirmed*

UCR ***27*** *07:23:32.2±1.7,14°.54N×91°.39W,h237^{km}±321^{km},
MB4.5(NEIC),Presumed earthquake*

ISC 27 07:23:17.7±2.7**,13°.92N**±0°.06×**93°.17W**±0°.04**,h31**^{km}±19^{km}**,
n326,**$\sigma 2^{s}.$**31**/299**,mb4.5**/89**,MS3.5**/18**,7C-6D,Off coast of
Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THIG		1.32	42	*e*P	Pn	07 23 38.9	-1.0
THIG				*e*S	Sn	07 23 56.6	+0.2
THIG		1.32	42		Pn	07 23 38.9	-1.0
THIG					Sn	07 23 56.6	+0.2
THIG		1.32	42	*i* P	Pn	07 23 38.7	-1.2
PATR	El Naranjo	1.50	37	*e*P	Pn	07 23 41.0	-1.6
PATR				*e*S	Sn	07 24 01.0	-0.2
PATR	El Naranjo	1.50	37		Pn	07 23 41.0	-1.6
PATR					Sn	07 24 01.0	-0.2
CHUJ	Union Juarez	1.56	41	*e*P	Pn	07 23 42.0	-1.4
CHUJ				*e*S	Sn	07 24 01.2	-1.5
PAVE	Pavencul	1.59	37	*e*P	Pn	07 23 42.6	-1.3
PAVE				*e*S	Sn	07 24 03.8	+0.3
PAVE	Pavencul	1.59	37		Pn	07 23 42.6	-1.3
PAVE					Sn	07 24 03.8	+0.3
STG8	El Palmar, Qui	1.84	73	*i* P	Pn	07 23 44.2	-3.2
HUEH	Huehuetenango	2.13	49	*e*P	Pn	07 23 51.4	0.0
HUEH				*e*S	Sn	07 24 18.1	+1.2
HUEH	Huehuetenango	2.13	49		Pn	07 23 51.6	+0.3
HUEH	Huehuetenango	2.13	49	*i* P	Pn	07 23 51.6	+0.3
HUEH	Huehuetenango	2.13	49	⇑P	Pn	07 23 51.6	+0.3
FG8	Yepocapa, Chim	2.56	82	*i* P	Pn	07 23 50.6	-6.5
FG16	Alotenango, Sa	2.60	82	*i* P	Pn	07 23 52.4	-5.5
APG	El Apazote	2.83	67	Pn	Pn	07 24 00.5	-0.5
	2.5nm,0.3s,baz=188,slow=12,SNR=160						
APG				Sn	Sn	07 24 38.1	+3.9
	7.0nm,0.3s,baz=103,slow=13,SNR=12						
APG				LR	LR	07 24 44.0	
	comp=Z,24nm,19.9s,baz=268,slow=31						
	28nm,0.6s						
APG				AML	AML		
APG	El Apazote	2.83	67	⇑*i*P	Pn	07 24 00.8	-0.3
APG				*i* S	Sn	07 24 36.3	+2.0
TGIG		2.84	1	*e*P	Pn	07 24 01.9	+0.9
TGIG				*e*S	Sn	07 24 34.6	+0.4
TGIG		2.84	1		Pn	07 24 01.9	+0.9
TGIG					Sn	07 24 34.6	+0.4
TGIG		2.84	1	*i* P	Pn	07 24 01.7	+0.7
FAME	Alcaldia de Sa	3.07	91	P	Pn	07 24 00.7	-3.3
FAME				S	Sn	07 24 36.1	-3.6
SLOZ	Alcaldia de Sa	3.29	88	P	Pn	07 24 05.7	-1.4
LOAL	Lomas de Alarc	3.29	88	P	Pn	07 24 06.2	-0.9
LOAL				S	Sn	07 24 43.9	-1.4
NUBE	Las Nubes	3.29	90	*i* P	Pn	07 24 05.1	-2.2
NUBE	Las Nubes	3.29	90	P	Pn	07 24 05.1	-2.2
NUBE				S	Sn	07 24 42.5	-3.0
HUIG	Huatulco	3.38	303	*e*P	Pn	07 24 05.2	-3.2
HUIG				*e*S	Sn	07 24 39.2	-8.2
HUIG	Huatulco	3.38	303		Pn	07 24 05.2	-3.2
HUIG					Sn	07 24 39.2	-8.2
JUAM	Asuncion Mita	3.39	83	*i* P	Pn	07 24 07.2	-1.3
CEVE	Cerro Verde	3.45	91	P	Pn	07 24 08.0	-1.4
CEVE				S	Sn	07 24 47.8	-1.6
UXUV	UXUV	3.50	345	*e*P	Pn	07 24 10.9	+0.9
UXUV				*e*S	Sn	07 24 49.1	-1.4
UXUV	UXUV	3.50	345		Pn	07 24 10.9	+0.9
UXUV					Sn	07 24 49.1	-1.4
UNIC	Universidad Ca	3.52	89	⇓P	Pn	07 24 08.9	-1.3
UNIC				S	Sn	07 24 49.1	-1.8
CMIG	Matias Romero	3.56	333	Pn	Pn	07 24 09.7	-1.1
	7.6nm,0.3s,baz=176,slow=11,SNR=123						
CMIG				Sn	Sn	07 24 52.5	+0.7
	6.1nm,0.3s,baz=138,slow=19,SNR=6.5						
CMIG				LR	LR	07 25 42.3	
	comp=Z,293nm,18.7s,baz=144,slow=41						
	21nm,0.3s						
CMIG				AML	AML		
CMIG	Matias Romero	3.56	333	*e*P	Pn	07 24 09.9	-0.9
CMIG				*e*S	Sn	07 24 45.3	-6.5
CMIG	Matias Romero	3.56	333		Pn	07 24 09.9	-0.9
CMIG					Sn	07 24 45.3	-6.5
JAYA	Jayaque - finc	3.63	94	*i* P	Pn	07 24 10.1	-1.7
JAYA	Jayaque - finc	3.63	94	P	Pn	07 24 10.4	-1.5
JAYA				S	Sn	07 24 50.0	-3.8
CEDA	San Andres	3.67	91	P	Pn	07 24 10.5	-1.8
CEDA				S	Sn	07 24 52.0	-2.6
MTO3	Montecristo	3.73	82		Pn	07 24 11.7	-1.7
MTO3	Montecristo	3.73	82	*i* P	Pn	07 24 11.6	-1.7
MTO3	Montecristo	3.73	82	⇑P	Pn	07 24 11.5	-1.8
MTO3				S	Sn	07 24 58.0	+1.7
PMON	Piamonte	3.75	93	⇓P	Pn	07 24 12.2	-1.3
PMON				S	Sn	07 24 53.7	-3.1
LALI	Alcalda de L	3.77	96	P	Pn	07 24 12.2	-1.4
LALI				S	Sn	07 24 52.8	-4.2
ESQI	Esquipulas	3.77	80		Pn	07 24 12.6	-1.1
ESQI	Esquipulas	3.77	80	⇑P	Pn	07 24 12.7	-1.1
UEES	Universidad Ev	3.83	93	P	Pn	07 24 13.3	-1.3
UEES				S	Sn	07 24 55.8	-2.8
SEMO	Seminario San	3.84	93	P	Pn	07 24 13.9	-0.8
SEMO				S	Sn	07 24 56.8	-2.1
UTEC	Universidad Te	3.86	93	P	Pn	07 24 13.4	-1.6
UTEC				S	Sn	07 24 57.4	-2.0
PANCS	Alcalda de	3.89	94	P	Pn	07 24 14.8	-0.7
PANCS				S	Sn	07 24 55.9	-4.2
LOMA	Loma Larga	3.90	94	P	Pn	07 24 14.1	-1.4
LOMA				S	Sn	07 24 57.4	-2.9
LLGN	La Laguna	4.11	86	P	Pn	07 24 16.3	-2.1
LLGN				S	Sn	07 25 06.2	+0.6
PAVA	Las Pavas	4.12	92	P	Pn	07 24 16.7	-1.9
PAVA				S	Sn	07 25 03.8	-2.0
COEG	Centro de Oper	4.18	94	⇑P	Pn	07 24 17.8	-1.7
COEG				S	Sn	07 25 04.8	-2.4
TECO	Alcaldia de Te	4.28	95	⇓P	Pn	07 24 19.4	-1.4
TECO				S	Sn	07 25 06.5	-3.3
P5NO	Presa 5 de nov	4.29	89	P	Pn	07 24 18.8	-2.0
P5NO				S	Sn	07 25 08.0	-1.8
SCLA	Alcaldia de Sa	4.32	92	P	Pn	07 24 19.7	-1.6
SCLA				S	Sn	07 25 09.0	-1.7
PEIG	Puerto Escondi	4.36	299	*e*P	Pn	07 24 17.9	-4.0
PEIG				*e*S	Sn	07 25 02.4	-9.2
PEIG	Puerto Escondi	4.36	299		Pn	07 24 17.9	-4.0
PEIG					Sn	07 25 02.4	-9.2
ALJI	Alcalda de J	4.51	97	P	Pn	07 24 22.4	-1.5
ALJI				S	Sn	07 25 11.4	-4.0
NEUV	Arroyo Zacate	4.54	326	*e*P	Pn	07 24 22.5	-1.7
NEUV				*e*S	Sn	07 25 10.5	-5.5
NEUV	Arroyo Zacate	4.54	326		Pn	07 24 22.5	-1.7
NEUV					Sn	07 25 10.5	-5.5
OXIG	Oaxaca	4.65	313		Pn	07 24 25.8	-0.1
OXIG					Sn	07 25 13.8	-5.1
VHO	Vista Hermosa	4.65	313	*e*P	Pn	07 24 25.8	-0.1
VHO				*e*S	Sn	07 25 13.8	-5.1
PACA	Pacayal	4.73	95	P	Pn	07 24 16.6	-11
PACA				S	Sn	07 25 18.7	-2.3
RANC	El Ranchito	4.77	95	S	Sn	07 25 18.7	-3.3
YOIG	Yosondua	5.13	305	*e*P	Pn	07 24 32.1	-0.6
YOIG				*e*S	Sn	07 25 23.3	-7.7
YOIG	Yosondua	5.13	305		Pn	07 24 32.1	-0.6
YOIG					Sn	07 25 23.3	-7.7
LCND	La Caada	5.17	96	⇓P	Pn	07 24 31.6	-1.4
CNCH	Conchagua	5.23	96	P	Pn	07 24 32.7	-1.2
CNCH				S	Sn	07 25 28.8	-4.4
SCIG	Sabancuy	5.37	21	*e*P	Pn	07 24 35.5	-0.1
SCIG				*e*S	Sn	07 25 32.6	-3.8
SCIG	Sabancuy	5.37	21		Pn	07 24 35.5	-0.1
SCIG					Sn	07 25 32.6	-3.8
SCIG	Sabancuy	5.37	21	P	Pn	07 24 37.5	+1.8
SCIG				S	Sn	07 25 36.7	+0.3
TXIG	Tlaxiaco	5.53	307	*e*P	Pn	07 24 38.2	+0.1
TXIG				*e*S	Sn	07 25 33.7	-7.2
TXIG	Tlaxiaco	5.53	307		Pn	07 24 38.2	+0.1
TXIG					Sn	07 25 33.7	-7.2
CSGN	Cosiguina Volc	5.54	99	⇓P	Pn	07 24 36.7	-1.5
CSGN				S	Sn	07 25 35.9	-4.9
POTN	Potosi Cosigui	5.59	99	P	Pn	07 24 36.9	-1.8
TOIG	Toxpalan	5.59	318	*e*P	Pn	07 24 40.2	+1.4
TOIG				*e*S	Sn	07 25 39.3	-2.7
TOIG	Toxpalan	5.59	318		Pn	07 24 40.2	+1.4
TOIG					Sn	07 25 39.3	-2.7
TGUH	Tegucigalpa,Un	5.73	88		Pn	07 24 38.9	-1.9
TGUH	Tegucigalpa,Un	5.73	88	⇑P	Pn	07 24 38.8	-1.9
TGUH	Tegucigalpa,Un	5.73	88	P	Pn	07 24 38.5	-2.2
	comp=Z,46nm,0.8s						
HLIG	Huajuapan de L	5.91	312	*e*P	Pn	07 24 43.9	+0.6
HLIG				*e*S	Sn	07 25 44.3	-5.9
HLIG	Huajuapan de L	5.91	312		Pn	07 24 43.9	+0.6
HLIG					Sn	07 25 44.3	-5.9
TPIG	Tehuac#an	6.02	319	*e*P	Pn	07 24 46.4	+1.7
TPIG				*e*S	Sn	07 25 45.8	-6.9
TPIG	Tehuac#an	6.02	319		Pn	07 24 46.4	+1.7
TPIG					Sn	07 25 45.8	-6.9
CRIN	San Cristobal	6.08	101	Pn	Pn	07 24 46.0	+0.5
FTIG	Fresnillo de T	6.20	310	*e*P	Pn	07 24 48.1	+0.8
FTIG				*e*S	Sn	07 25 52.6	-4.7
FTIG	Fresnillo de T	6.20	310		Pn	07 24 48.1	+0.8
FTIG					Sn	07 25 52.6	-4.7
MGIG	Malinaltepec	6.21	303	*e*P	Pn	07 24 47.4	0.0
MGIG				*e*S	Sn	07 25 51.2	-6.2
MGIG	Malinaltepec	6.21	303		Pn	07 24 47.4	0.0
MGIG					Sn	07 25 51.2	-6.2
TEL3	Telica 3	6.30	102	⇓P	Pn	07 24 47.1	-1.4
TLIG	Tlapa	6.33	306	*e*P	Pn	07 24 49.4	+0.4
TLIG				*e*S	Sn	07 25 51.7	-8.7
TLIG	Tlapa	6.33	306		Sn	07 25 51.7	-8.7
TLIG	Tlapa	6.33	306	Pn	Pn	07 24 50.4	+1.4
TLIG	Tlapa	6.33	306	P	Pn	07 24 49.4	+0.4
TLIG				S	Sn	07 25 54.8	-5.6
PLRN	Geotermica Pol	6.38	101	P	Pn	07 24 47.0	-2.5
PLRN				S	Sn	07 25 53.2	-8.1
CRIG	Cruz Grande	6.39	297	*e*P	Pn	07 24 48.0	-1.8
CRIG				*e*S	Sn	07 25 51.1	-11
CRIG	Cruz Grande	6.39	297		Pn	07 24 48.0	-1.8
CRIG					Sn	07 25 51.1	-11
JAUV	Jalcomulco	6.44	328	*e*P	Pn	07 24 48.5	-1.9
JAUV				*e*S	Sn	07 25 58.4	-4.5
JAUV	Jalcomulco	6.44	328		Pn	07 24 48.5	-1.9
JAUV					Sn	07 25 58.4	-4.5
CNGN	Cerro Negro	6.46	102	P	Pn	07 24 48.4	-2.3
CNGN				S	Sn	07 25 55.5	-7.9
CNGN	Cerro Negro	6.46	102	P	Pn	07 24 48.6	-2.1
	comp=Z,596nm,0.9s						
MOM3	MOM3	6.63	101	P	Pn	07 24 48.5	-4.5
MOM3				S	Sn	07 26 00.3	-7.3
RCVN	Varillal2	6.79	92	⇑P	Pn	07 24 54.1	-1.3
RCVN				S	Sn	07 26 08.2	-3.5
UNAN	Cigeo UNAN	6.96	104	S	Sn	07 26 07.0	-8.8
DAIG	Los Arroyos	6.96	297	*e*P	Pn	07 24 56.6	-1.0
DAIG				*e*S	Sn	07 26 03.2	-13
DAIG	Los Arroyos	6.96	297		Pn	07 24 56.6	-1.0
DAIG					Sn	07 26 03.2	-13
MGAN	Managua	6.97	104	Pn	Pn	07 24 55.9	-1.8
MGAN	Managua	6.97	104	S	Sn	07 26 06.3	-10
SABN	Sabanita	7.11	105	P	Pn	07 25 03.4	+3.7
MATN	Matagalpa	7.12	97	P	Pn	07 24 57.8	-2.0
MATN				S	Sn	07 26 12.5	-7.3
MEIG	Mezcala	7.37	304	*e*P	Pn	07 25 04.4	+1.1
MEIG				*e*S	Sn	07 26 16.5	-9.4
MEIG	Mezcala	7.37	304		Pn	07 25 04.4	+1.1
MEIG					Sn	07 26 16.5	-9.4
BOAB	BOACO BROADBAN	7.46	100		Pn	07 25 02.1	-2.2
BOAB	BOACO BROADBAN	7.46	100	P	Pn	07 25 02.0	-2.3
	comp=Z,54nm,0.7s						
YAIG	Yautepec	7.49	312	*e*P	Pn	07 25 06.4	+1.4
YAIG	Yautepec	7.49	312		Pn	07 25 06.4	+1.4
CAIG	El Cayaco	7.51	295	*e*P	Pn	07 25 04.0	-1.2
CAIG				*e*S	Sn	07 26 17.0	-12
CAIG	El Cayaco	7.51	295		Pn	07 25 04.0	-1.2
CAIG					Sn	07 26 17.0	-12
PLIG	Platanillo	7.53	307	*e*P	Pn	07 25 06.8	+1.3
PLIG				*e*S	Sn	07 26 22.0	-7.9
PLIG	Platanillo	7.53	307		Pn	07 25 06.8	+1.3
PLIG					Sn	07 26 22.0	-7.9
TEIG	Tepich	7.82	36		Pn	07 25 08.6	-0.8
TEIG	Tepich	7.82	36	P	Pn	07 25 08.3	-1.1
	comp=Z,54nm,0.8s						
LCRUZ	La Cruz	7.89	110	*e*P	Pn	07 25 08.9	-1.5
LCRUZ				*e*S	Sn	07 26 26.9	-12
ALIBA	Liberia Airpor	8.15	113	*e*P	Pn	07 25 14.5	+0.5
SIUN	Universidad Ur	8.16	90		Pn	07 25 12.8	-1.3
VRLE	La Escondida,	8.24	111	*e*P	Pn	07 25 14.5	-0.7
JUD3	Juan Diaz 3	8.35	116	Pn	Pn	07 25 16.6	-0.1
JUD3	Juan Diaz 3	8.35	116	*e*P	Pn	07 25 17.7	+1.0
CLARA	Aguas Claras	8.41	111	*e*P	Pn	07 25 17.0	-0.6
BAGA	Bagaces	8.44	113	*e*P	Pn	07 25 18.4	+0.5
VMAR	Armenia, Volca	8.46	111	*e*P	Pn	07 25 17.5	-0.7
VMAR				*e*S	Sn	07 26 43.1	-10
CUI	Cuipilapa	8.47	112	*e*P	Pn	07 25 18.6	+0.2
TIMP	Tierras Morena	8.63	112	*e*P	Pn	07 25 22.4	+1.8
QUEB	Quebradon, Cot	8.73	111	*e*P	Pn	07 25 21.4	-0.5
JTS	Las Juntas de	8.81	113	Pn	Pn	07 25 23.2	+0.2
	comp=Z,1.8nm,0.3s,baz=326,slow=19,SNR=7.8						
	comp=Z,3.4nm,0.3s						
JTS				AML	AML		
JTS	Las Juntas de	8.81	113		Pn	07 25 23.9	+0.9
JTS	Las Juntas de	8.81	113	*e*P	Pn	07 25 23.0	0.0
JTS	Las Juntas de	8.81	113	P	Pn	07 25 23.4	+0.4
	comp=Z,12nm,0.7s						
ARE1	Arenal 1	8.95	112	*e*P	Pn	07 25 25.6	+0.7
VARE2	V. Arenal	8.95	112	*e*P	Pn	07 25 22.8	-2.2
MOIG	Morelia	9.57	308		Pn	07 25 36.6	+3.0
PICV	PH. Pirrs	9.77	115	*e*P	Pn	07 25 37.6	+1.4
LCR2	La Lucha 2	9.89	114		Pn	07 25 38.9	+1.0
PIEC	Cerro El Cedra	9.98	114	*e*P	Pn	07 25 40.9	+1.6
EDPE	Pejibaye, P	10.53	116	*e*P	Pn	07 25 47.3	+0.7
PIRO	Carate, Puerto	11.10	119	Pn	Pn	07 25 55.8	+1.4
BRU2	Volcan	11.47	115		Pn	07 26 00.3	+0.8
BRU2	Volcan	11.47	115	P	Pn	07 26 00.4	+0.8
	comp=Z,28nm,1.1s						
ZAIG	Zacatecas	12.52	316		Pn	07 26 16.5	+2.4
ZAIG	Zacatecas	12.52	316	P	Pn	07 26 14.5	+0.4
	comp=Z,11nm,1.1s						
BCIP	Isla Barro Col	13.89	108	P	Pn	07 26 32.4	-0.2
	comp=Z,26nm,1.6s						
833A	Chaparral WMA,	15.46	339	Pn	Pn	07 26 54.8	+1.3
833A				IAmb	IAmb	07 27 00.5	
	comp=Z,20nm,1.0s						
MLDN	Muldoon	16.19	348	Pn	Pn	07 27 03.9	+1.0
MLDN				IAmb	IAmb	07 27 10.0	
	comp=Z,28nm,1.0s						
435B	Jarrell	17.27	347	P	Pn	07 27 16.6	+0.1

JCT	Junction City	17.58	341	P	Pn	07 27 20.1	-0.3
JCT				IAmb	IAmb	07 27 24.6	
	comp=Z,22nm,0.9s						
NATX	Nacogdoches	17.81	356	P	Pn	07 27 24.0	+0.9
DWPF	Disney Wildern	17.85	36	P	Pn	07 27 23.5	-0.2
	comp=Z,22nm,1.9s						
SAND	Sanderson	17.97	334		Pn	07 27 26.1	+0.8
BRDY	Brady	18.09	344		Pn	07 27 27.6	+0.9
TXAR	Lajitas Array	18.16	329	P	Pn	07 27 29.1	+1.4
	comp=Z,0.1nm,0.3s,baz=150,slow=13,SNR=22						
	comp=Z,3.7nm,0.9s						
TXAR				AML	AML		
TXAR	Lajitas Array	18.16	329	P	Pn	07 27 28.5	+0.9
TX31	Lajitas Ar. Si	18.16	329	P	Pn	07 27 29.1	+1.4
OZNA	Ozona	18.44	338	P	P	07 27 31.0	+0.3
OZNA				IAmb	IAmb	07 27 35.1	
	comp=Z,22nm,0.9s						
143A	Socs Landing,	18.77	5	P	P	07 27 34.5	+0.3
143A				IAmb	IAmb	07 27 36.9	
	comp=Z,24nm,1.0s						
352A	Blakely	19.04	22	P	P	07 27 36.8	-0.5
SGCY	Sterling City	19.34	339	IAmb	IAmb	07 27 43.4	
	comp=Z,23nm,0.7s						
PLPT	Palo Pinto	19.38	347	IAmb	IAmb	07 27 43.2	
	comp=Z,21nm,0.7s						
TIGA	Tifton	19.53	25	P	P	07 27 43.0	+0.4
TIGA				IAmb	IAmb	07 27 54.8	
	comp=Z,15nm,0.8s						
ABTX	Abilene, Hawle	19.53	343	IAmb	IAmb	07 27 45.0	
	comp=Z,18nm,0.8s						
Z35A	Perchaven, San	19.68	350	IAmb	IAmb	07 27 51.9	
	comp=Z,36nm,1.0s						
WLAR	White Oak Lake	19.68	0	IAmb	IAmb	07 27 51.4	
	comp=Z,16nm,0.7s						
TPB06	Permian Basin	19.90	334	IAmb	IAmb	07 27 52.4	
	comp=Z,19nm,0.9s						
CCAR	Cane Creek	19.95	3	IAmb	IAmb	07 27 50.1	
	comp=Z,11nm,0.7s						
VHRN	Van Horn	20.00	329	P	P	07 27 49.0	+1.1
VHRN				IAmb	IAmb	07 27 53.9	
	comp=Z,23nm,1.2s						
ODSA	Odessa	20.05	336	IAmb	IAmb	07 27 52.4	
	comp=Z,20nm,0.7s						
152A	Waverly Hall	20.19	21	P	P	07 27 49.6	-0.3
129A	Stewart Farms,	20.25	338	IAmb	IAmb	07 27 53.5	
	comp=Z,35nm,1.1s						
LOOK	Love County	20.31	350	IAmb	IAmb	07 27 57.8	
	comp=Z,17nm,0.9s						
APMT	Aspermont	20.33	343	P	P	07 27 52.0	+0.7
APMT				IAmb	IAmb	07 27 53.4	
	comp=Z,19nm,0.8s						
SN07	Snyder 07	20.34	341	IAmb	IAmb	07 27 54.0	
	comp=Z,24nm,0.8s						
POST	Post	20.51	340	P	P	07 27 52.9	-0.6
POST				IAmb	IAmb	07 27 56.1	
	comp=Z,47nm,1.1s						
MIAR	Mount Ida	20.54	359		P	07 27 54.0	+0.4
MIAR				IAmb	IAmb	07 27 59.1	
	comp=Z,13nm,0.8s						
MIAR	Mount Ida	20.54	359	P	P	07 27 54.4	+0.8
	comp=Z,18nm,0.8s						
SLOR	San Lorenzo -	20.57	134	P	P	07 27 53.9	-0.7
ROSC	El Rosal	20.66	114	P	P	07 27 56.0	+0.6
	comp=Z,10nm,1.0s,baz=128,slow=5.0,SNR=19						
	comp=Z,10nm,1.0s						
Y49A	Blount Mountai	20.77	16	P	P	07 27 56.0	-0.2
UALR	University of	20.78	2	P	P	07 27 56.1	0.0
UALR				IAmb	IAmb	07 27 57.8	
	comp=Z,14nm,0.8s						
DKNS	Dickens	20.88	342	IAmb	IAmb	07 27 59.7	
	comp=Z,27nm,0.8s						
MNTX	Cornudas Mount	20.94	330	P	P	07 27 59.4	+1.4
	comp=Z,17nm,0.9s						
GOGA	Godfrey	21.32	23	P	P	07 28 02.0	0.0
GOGA	Godfrey	21.32	23	P	P	07 28 01.5	-0.5
	comp=Z,10nm,0.9s						
MSTX	Muleshoe	21.78	338	IAmb	IAmb	07 28 13.8	
	comp=Z,17nm,0.8s						
TUL3	Leonard	22.02	354	IAmb	IAmb	07 28 12.3	
	comp=Z,21nm,0.9s						
DEOK	Depew	22.03	353	IAmb	IAmb	07 28 12.3	
	comp=Z,33nm,1.0s						
OK029	Liberty Lake	22.12	351	IAmb	IAmb	07 28 13.4	
	comp=Z,27nm,0.9s						
HHAR	Hobbs	22.28	358		P	07 28 12.2	-0.1
HHAR				IAmb	IAmb	07 28 14.1	
	comp=Z,14nm,0.7s						
U38A	Gravette	22.45	357	IAmb	IAmb	07 28 16.8	
	comp=Z,19nm,0.8s						
HODGE	Hodges	22.51	24	IAmb	IAmb	07 28 15.9	
	comp=Z,13nm,1.0s						
WVT	Waverly	22.63	11	P	P	07 28 14.6	-1.4
	comp=Z,3.4nm,2.6s						
SDV	Santo Domingo	22.64	100	LR	LR	07 39 00.7	
	comp=Z,74nm,18.4s,baz=271,slow=42						
SDV	Santo Domingo	22.64	100		P	07 28 16.5	-0.1
SDV				IAmb	IAmb	07 28 29.0	
	comp=Z,16nm,0.8s						
SDV	Santo Domingo	22.64	100	P	P	07 28 16.6	0.0
	comp=Z,135nm,1.0s						
319A	Douglas	22.81	322	IAmb	IAmb	07 28 36.0	
	comp=Z,9.4nm,0.9s						
121A	Cookes Peak, D	22.83	327	IAmb	IAmb	07 28 23.1	
	comp=Z,16nm,0.9s						
T35A	Sooner Cattle	23.09	353	IAmb	IAmb	07 28 21.6	
	comp=Z,20nm,0.8s						
TKL	Tuckaleechee C	23.24	20	LR	LR	07 38 36.0	
	comp=Z,79nm,18.5s,baz=208,slow=40						
Y22A	Socorro	23.53	330	IAmb	IAmb	07 28 35.9	
	comp=Z,18nm,1.1s						
KMSC	Kings Mountain	23.67	25	IAmb	IAmb	07 28 28.1	
	comp=Z,25nm,1.1s						
CCM	Cathedral Cave	24.10	4	P	P	07 28 29.8	-0.7
CCM				IAmb	IAmb	07 28 31.2	
	comp=Z,10nm,0.8s						
CCM	Cathedral Cave	24.10	4	P	P	07 28 29.7	-0.8
	comp=Z,13nm,0.6s						
TZTN	Tazewell	24.12	19	P	P	07 28 29.6	-1.1
	comp=Z,9.6nm,1.4s						
ALQ	Albuquerque	24.12	332	IAmb	IAmb	07 28 37.6	
	comp=Z,2.8nm,0.9s						
ANMO	Albuquerque	24.13	332	P	P	07 28 31.9	+0.8
ANMO	Albuquerque	24.13	332	P	P	07 28 32.6	+1.5
	comp=Z,3.8nm,1.0s						
TASM	ASL Pad, Albuq	24.13	332	IAmb	IAmb	07 28 37.7	
	comp=Z,2.6nm,0.9s						
R40A	Maddies Statio	24.29	2	IAmb	IAmb	07 28 36.5	
	comp=Z,8.4nm,0.7s						
V55A	Taylorsville	24.34	24	IAmb	IAmb	07 28 33.6	
	comp=Z,8.1nm,0.8s						
TUC	Tucson	24.38	322	P	P	07 28 34.1	+0.9
TUC	Tucson	24.38	322	P	P	07 28 35.0	+1.7
	comp=Z,8.2nm,2.4s						
U54A	Nelsons Funny	24.70	22	IAmb	IAmb	07 28 37.7	
	comp=Z,15nm,1.0s						
WCI	Wyandotte Cave	24.97	13	P	P	07 28 37.6	-0.8
WCI				IAmb	IAmb	07 28 41.1	
	comp=Z,7.7nm,0.7s						
WCI	Wyandotte Cave	24.97	13	P	P	07 28 38.1	-0.3
U56A	King	25.10	25	IAmb	IAmb	07 28 42.4	
	comp=Z,13nm,0.9s						
V58A	Windy Hill, Pi	25.18	28	IAmb	IAmb	07 28 41.4	
	comp=Z,13nm,0.9s						
T25A	Trinidad	25.20	339	IAmb	IAmb	07 28 45.6	
	comp=Z,16nm,1.1s						
P40A	Paris	25.53	2	IAmb	IAmb	07 28 45.5	
	comp=Z,7.7nm,0.7s						
P38A	Dawn	25.61	359	IAmb	IAmb	07 28 46.5	
	comp=Z,7.3nm,0.7s						
SDCO	Great Sand Dun	26.14	337	IAmb	IAmb	07 28 52.6	
	comp=Z,8.6nm,1.2s						
SJG	San Juan	26.29	77	LR	LR	07 40 19.7	
	comp=Z,122nm,18.7s,baz=265,slow=39						
MVCO	Mesa Verde	26.92	332	P	P	07 28 58.4	+1.9
PV13	Radium Mtn., P	27.85	333	IAmb	IAmb	07 29 07.9	
	comp=Z,17nm,1.2s						
PV15	Paradox Valley	27.85	334	IAmb	IAmb	07 29 08.5	
	comp=Z,14nm,1.1s						
PV05	Paradox Valley	27.91	332	IAmb	IAmb	07 29 08.1	
	comp=Z,9.8nm,1.1s						
PV03	Paradox Valley	27.94	333	IAmb	IAmb	07 29 08.6	
	comp=Z,12nm,1.1s						
PV18	Skein Mesa, Pa	27.96	333	IAmb	IAmb	07 29 24.9	
	comp=Z,11nm,1.1s						
PV12	Saucer Basin,	27.97	333	IAmb	IAmb	07 29 09.2	
	comp=Z,15nm,1.0s						
PV11	David Mesa, Pa	27.99	333	IAmb	IAmb	07 29 21.5	
	comp=Z,6.0nm,1.0s						
ISCO	Idaho Springs	28.00	339	P	P	07 29 06.3	+0.1
PV17	East Wray Mesa	28.01	333	IAmb	IAmb	07 29 08.5	
	comp=Z,7.2nm,1.0s						
PV16	Nyswonger Mesa	28.02	333	IAmb	IAmb	07 29 09.2	
	comp=Z,9.5nm,1.3s						
PV04	Paradox Valley	28.08	333	IAmb	IAmb	07 29 09.9	
	comp=Z,9.6nm,1.0s						
PV22	Blue Mesa, Par	28.15	333	IAmb	IAmb	07 29 21.0	
	comp=Z,9.3nm,1.2s						
PV23	Carpenter Ridg	28.18	333	IAmb	IAmb	07 29 10.6	
	comp=Z,10nm,0.9s						
BC3	Big Chuckawall	28.20	318	P	P	07 29 09.9	+2.1
BC3				IAmb	IAmb	07 29 10.6	
	comp=Z,8.3nm,1.0s						
IRM	Iron Mountain	28.32	319	P	P	07 29 10.7	+2.0
HMU	Henry Mountain	28.56	330	IAmb	IAmb	07 29 14.3	
	comp=Z,14nm,1.4s						
KNB	Kanab	28.93	326	IAmb	IAmb	07 29 17.6	
	comp=Z,7.1nm,1.1s						
SZCU	Shurtz Canyon	29.50	327	IAmb	IAmb	07 29 22.8	
	comp=Z,5.8nm,1.0s						
Q16A	Castle Valley	29.54	331	IAmb	IAmb	07 29 22.9	
	comp=Z,5.8nm,1.0s						
P17A	Butcher Ranch,	29.79	332	IAmb	IAmb	07 29 24.7	
	comp=Z,6.2nm,0.9s						
ECSD	EROS Data Cent	29.86	355	P	P	07 29 22.1	-0.1
	comp=Z,5.4nm,0.6s						
PSUT	Pine Spring	30.60	327	IAmb	IAmb	07 29 32.4	
	comp=Z,4.6nm,0.9s						
K22A	Casper	30.86	341	IAmb	IAmb	07 29 33.8	
	comp=Z,3.9nm,0.9s						
S11A	Rachel	31.00	324	IAmb	IAmb	07 29 35.8	
	comp=Z,8.4nm,1.2s						
SPMN	Marine on St.	31.20	1	IAmb	IAmb	07 29 43.0	
	comp=Z,8.4nm,0.9s						
PDAR	Pinedale Array	32.03	337	P	P	07 29 42.5	+0.8
	comp=Z,1.5nm,1.0s,baz=141,slow=9.6,SNR=7.9						
	comp=Z,1.5nm,1.0s						
TPH	Tonopah	32.15	323	IAmb	IAmb	07 29 46.0	
	comp=Z,7.1nm,1.3s						
HVU	Hansel Valley	32.56	332	IAmb	IAmb	07 29 49.3	
	comp=Z,7.1nm,0.9s						
ELK	Elko	32.95	328	IAmb	IAmb	07 29 53.0	
	comp=Z,5.1nm,1.1s						
SADO	Sadowa	32.98	18	LR	LR	07 43 22.8	
	comp=Z,92nm,21.6s,baz=335,slow=36						
NVAR	Mina Array Bea	33.03	322	P	P	07 29 52.2	+1.7
	comp=Z,5.4nm,0.8s,baz=141,slow=8.3,SNR=35						
NVAR				PcP	PcP	07 32 34.9	+1.1
	comp=Z,0.6nm,0.7s,baz=145,slow=4.7,SNR=4.7						
	comp=Z,5.4nm,0.8s						
SNOW	Snow King Moun	33.09	336	P	P	07 29 52.3	+1.3
KVN	Kaiserville	33.32	323	IAmb	IAmb	07 29 56.1	
	comp=Z,6.2nm,1.3s						
BMN	Battle Mountai	33.77	326	IAmb	IAmb	07 29 59.9	
	comp=Z,5.2nm,1.0s						
YNE	Yellowstone No	34.13	339	IAmb	IAmb	07 30 06.3	
	comp=Z,5.4nm,1.0s						
BOAV	Boa Vista	34.23	107	P	P	07 30 00.1	-0.8
BOAV				IAmb	IAmb	07 30 11.9	
	comp=Z,5.6nm,0.9s						
AGMN	Agassiz Nation	34.35	357	IAmb	IAmb	07 30 04.2	
	comp=Z,5.9nm,0.8s						
AGMN	Agassiz Nation	34.35	357	P	P	07 30 01.0	-0.5
	comp=Z,7.6nm,0.8s						
YHL	Hebgen Lake	34.42	337	IAmb	IAmb	07 30 07.0	
	comp=Z,13nm,1.5s						
HLID	Hailey	34.71	332	P	P	07 30 06.5	+1.5
	comp=Z,4.6nm,1.0s						
DLMT	Dillon	35.40	336	IAmb	IAmb	07 30 14.1	
	comp=Z,11nm,1.1s						
WVOR	Wild Horse Val	35.93	327	IAmb	IAmb	07 30 18.2	
	comp=Z,5.8nm,1.1s						
WVOR	Wild Horse Val	35.93	327	P	P	07 30 16.7	+1.2
	comp=Z,7.1nm,2.9s						
ULM	Lac du Bonnet	36.30	357	P	P	07 30 17.5	-0.8
	comp=Z,5.7nm,0.7s,baz=175,slow=12,SNR=7.6						
ULM				LR	LR	07 48 40.8	
	comp=Z,55nm,18.0s,baz=208,slow=42						
	comp=Z,5.7nm,0.7s						
ULM	Lac du Bonnet	36.30	357	IAmb	IAmb	07 30 18.2	
	comp=Z,8.9nm,0.9s						
PLID	Pearl Lake	36.61	333	IAmb	IAmb	07 30 23.6	
	comp=Z,7.7nm,1.0s						
MSO	Missoula	37.14	336	IAmb	IAmb	07 30 27.9	
	comp=Z,6.0nm,1.0s						
MDP	Montagnes des	40.87	98	LR	LR	07 48 18.1	
	comp=Z,44nm,20.3s,baz=326,slow=37						
FFC	Flin Flon	41.29	352	P	P	07 31 01.1	+1.0
	comp=Z,6.9nm,1.3s						
EDM	Edmonton	42.35	342	P	P	07 31 09.0	+0.1
SIV	San Ignacio	43.48	132	P	P	07 31 16.9	-1.5
	comp=Z,1.9nm,0.9s,baz=314,slow=6.6,SNR=4.7						
	comp=Z,1.9nm,0.9s						
RPN	Rapa Nui	43.72	201	LR	LR	07 45 12.3	
	comp=Z,36nm,18.6s,baz=58,slow=30						
SCHQ	Schefferville	45.70	21	LR	LR	07 51 39.4	
	comp=Z,86nm,19.3s,baz=241,slow=37						
YKA	Yellowknife Ar	50.85	347	P	P	07 32 14.6	-0.5
	comp=Z,3.9nm,0.9s,baz=152,slow=7.8,SNR=14						
	comp=Z,3.9nm,0.9s						
CPUP	Villa Florida	53.06	139	P	P	07 32 31.4	-0.8
	comp=Z,3.0nm,1.3s						
BDFB	Brasilia	53.44	122	P	P	07 32 36.5	+1.1
	comp=Z,1.3nm,0.6s,baz=308,slow=7.9,SNR=3.6						
	comp=Z,1.3nm,0.6s						
Q32M	Nakina River	53.49	336	P	P	07 32 36.3	+1.1
Q32M				IAmb	IAmb	07 32 57.3	
	comp=Z,15nm,1.5s						
MMPY	Sheldon Lake,	55.58	340	IAmb	IAmb	07 32 53.0	
	comp=Z,5.9nm,1.0s						
M29M	Somme Creek	58.04	337		P	07 33 09.4	+1.8
SFJD	Kangerlussuaq	59.94	18	LR	LR	08 00 05.6	
	comp=Z,75nm,18.2s,baz=272,slow=37						
INK	Inuvik	60.20	344	P	P	07 33 22.3	+0.1
INK				IAmb	IAmb	07 33 24.0	
	comp=Z,6.2nm,0.9s						
INK	Inuvik	60.20	344	P	P	07 33 23.1	+0.8
	comp=Z,8.1nm,0.9s						
H27K	Steamboat Moun	61.31	340		P	07 33 31.2	+1.3
H27K				IAmb	IAmb	07 33 33.1	
	comp=Z,6.5nm,1.3s						
I26K	Coal Creek Min	61.36	338	P	P	07 33 31.0	+0.7
I26K				IAmb	IAmb	07 34 14.5	
	comp=Z,7.5nm,1.4s						
PRP	Porcupine Dome	62.32	338	IAmb	IAmb	07 33 43.1	
	comp=Z,4.5nm,0.9s						
ILAR	Eielson Array	62.47	337	P	P	07 33 37.5	-0.2
	comp=Z,2.6nm,0.9s,baz=142,slow=3.8,SNR=18						
	comp=Z,2.6nm,0.9s						
ILAR	Eielson Array	62.47	337		P	07 33 38.4	+0.7
M20K	Styx River	63.84	333	IAmb	IAmb	07 33 48.5	
	comp=Z,4.7nm,0.8s						
PPT	Papeete	63.84	242	LR	LR	07 54 01.8	
	comp=Z,49nm,21.0s,baz=53,slow=29						
PPT2	Papeete2	63.85	242	*e*LR	LR	07 52 25.8	
	comp=Z,95nm,25.8s						
CAST	Castle Rocks	63.95	335	IAmb	IAmb	07 33 48.7	
	comp=Z,5.5nm,0.9s						
BORG	Borgarnes	69.77	26	LR	LR	08 04 19.8	
	comp=Z,23nm,18.9s,baz=299,slow=35						
DAG	Danmarks Havn	73.00	13	P	P	07 34 44.2	+0.3
	comp=Z,12nm,1.0s						
ADK	Adak	75.19	320	P	P	07 34 57.0	-0.1
	comp=Z,22nm,1.3s						
EKA	Eskdalemuir Ar	78.69	36	P	P	07 35 17.8	+1.0
	comp=Z,1.5nm,0.7s,baz=279,slow=4.7,SNR=5.5						
	comp=Z,1.5nm,0.7s						
SPITS	Spitsbergen Ar	80.39	11	LR	LR	08 15 02.6	
	comp=Z,52nm,18.2s,baz=295,slow=39						
ESDC	Sonseca Array	80.66	51	P	P	07 35 27.5	-0.4
	comp=Z,0.7nm,0.8s,baz=277,slow=5.3,SNR=2.6						
	comp=Z,0.7nm,0.8s						
MDT	Midelt	81.41	58	LR	LR	08 11 44.4	
	comp=Z,20nm,18.4s,baz=302,slow=36						
NB2	NORSAR Subarra	84.75	28	P	P	07 35 49.9	+1.2
	comp=Z,1.1nm,0.7s,baz=289,slow=5.1						
NOA	NORSAR Array B	84.75	28	P	P	07 35 50.3	+1.6
	comp=Z,1.7nm,0.7s,baz=291,slow=4.8,SNR=6.1						
NOA				LR	LR	08 11 53.9	
	comp=Z,15nm,20.4s,baz=335,slow=34						
	comp=Z,1.7nm,0.7s						
HFS	Hagfors	86.22	29	LR	LR	08 12 36.9	
	comp=Z,46nm,20.9s,baz=329,slow=34						
ARCES	ARCESS Array B	86.56	18	P	P	07 35 58.0	+0.4
	comp=Z,2.4nm,0.8s,baz=347,slow=5.0,SNR=4.9						
ARCES				LR	LR	08 15 45.0	
	comp=Z,45nm,18.4s,baz=304,slow=36						
	comp=Z,2.4nm,0.8s						
ARCES	ARCESS Array B	86.56	18	P	P	07 35 58.4	+0.9
FINES	FINESS Array B	91.05	25	LR	LR	08 17 12.7	
	comp=Z,22nm,18.6s,baz=354,slow=36						
KURBB	Kurchatov Arra	115.32	6	PKP	PKiKP	07 41 55.7	-0.5
	comp=Z,0.2nm,0.5s,baz=352,slow=1.9,SNR=5.7						
MKAR	Makanchi Array	119.43	4	PKP	PKPdf	07 42 03.3	-1.0
	comp=Z,0.2nm,0.5s,baz=35,slow=5.3,SNR=2.0						
MKAR	Makanchi Array	119.43	4		PKPdf	07 42 03.8	-0.5
HHC	Hu-ho-hao-te	120.88	338	*e*P	PKPdf	07 42 08.5	+1.1
WMQ	Urumqi	122.53	359	*e*PKP	PKPdf	07 42 08.8	-1.6
WMQ				LR	LR		
	comp=Z,45nm,16.9s						
NJ2	Nanjing	124.94	327	*e*P	PKPdf	07 42 16.3	+1.0
NJ2				pmax	pmax		
	comp=Z,13nm,0.6s						
WRA	Warramunga Arr	134.27	256	PKP	PKPdf	07 42 32.5	-0.8
	comp=Z,0.3nm,0.6s,baz=89,slow=2.0,SNR=7.5						
WRA	Warramunga Arr	134.27	256		PKPdf	07 42 33.2	-0.1
ASAR	Alice Springs	134.57	250	PKP	PKPdf	07 42 32.7	-1.1
	comp=Z,0.3nm,0.7s,baz=108,slow=1.9,SNR=2.9						
PZH	PanZhiHua	137.28	340	PKP	PKPdf	07 42 38.3	-0.6
CMAR	Chiang Mai Arr	145.68	339	PKPbc	PKPdf	07 42 54.7	+0.7
	comp=Z,4.4nm,0.8s,baz=346,slow=4.2,SNR=14						

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*IDC **27** 07:24:50.2±1.6, 52°.33N×170°.68W, h0^{km}, mb3.8/6, mbtmp3.8/9, ML3.0/3, MS3.4/2, Error ellipse: s-maj=46.1km s-min=20.4km az=178.0*

*AEIC **27** 07:24:56.4±1.2, 52°.17N±0°.08×170°.43W±0°.10, h32^{km}±6^{km}, Error ellipse: s-maj=13.6km s-min=4.4km az=144.0*

*NEIC **27** 07:24:57.5±1.0, 52°.4N±0°.2×170°.6W±0°.1, h49^{km}±9^{km}, ML3.5/12, ML3.2(AEIC), Error ellipse: s-maj=24.4km s-min=5.9km az=158.0*

ISC 27 07:24:57.2±1.5**, 52°.4N**±0°.2×**170°.54W**±0°.07**, h53**^{km}±11^{km}**, n54,** σ**0^s.65**/54**, mb3.9**/6**, Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CLES	Cleveland East	0.61	40		Pn	07 25 09.3	-0.6
CLES					Sn	07 25 19.9	+0.8
CLCO	Concord Point,	0.65	49		Pn	07 25 09.4	-1.1
CLCO					Sn	07 25 20.4	+0.2
OKSP	Okmok Steeple	1.63	56		Pn	07 25 22.6	-1.0
OKSP					Sn	07 25 43.1	-0.3
OKCE	Okmok Cone E	1.79	53		Pn	07 25 25.2	-0.5
OKNC	Okmok New Cone	1.83	52		Pn	07 25 26.1	-0.1
KOSE	Korovin Southe	2.15	271		Pn	07 25 30.4	-0.3
KOFP	Korovin Flat P	2.18	269		Pn	07 25 30.7	-0.4
KOFP					Sn	07 25 59.1	+2.1
KOKL	Mount Kliuchef	2.25	270		Pn	07 25 31.6	-0.4
ATKA	Atka Island	2.25	267		Pn	07 25 30.9	-1.0
KOWE	Korovin West	2.27	271		Pn	07 25 32.4	0.0
MAPS	Pakushin South	2.61	55		Sn	07 26 07.7	+0.3
MSW	Makushin Switc	2.75	54		Pn	07 25 39.0	+0.2
MNAT	Makushin Natee	2.78	55		Pn	07 25 39.4	+0.2
MNAT					Sn	07 26 12.3	+0.8
UNV	Unalaska Valle	2.85	57		Pn	07 25 39.8	-0.3
UNV				IAML		07 26 23.6	
	comp=N,93nm,0.6s						
AKBBA	Akutan Broad B	3.27	56		Pn	07 25 46.7	+0.7
GSIG	Igitkin Island	3.34	266		Pn	07 25 45.8	-1.0
GSIG					Sn	07 26 26.1	+0.8
GSTR	Great Sitkin T	3.40	268	Pn	Pn	07 25 47.5	-0.4
GSTR				IAML		07 26 41.5	
	comp=E,208nm,1.1s						
GSMY	Great Sitkin M	3.41	267		Pn	07 25 47.8	0.0
GSTD	Great Sitkin T	3.46	267		Pn	07 25 48.3	-0.3
GSTD					Sn	07 26 27.9	-0.5
GSCK	Great Sitkin C	3.48	266		Pn	07 25 48.8	0.0
ETKA	Kagalaska Isla	3.65	264		Pn	07 25 50.5	-0.7
ADAG	Mount Adagdak	3.75	266		Pn	07 25 52.4	-0.1
ADK	Adak	3.82	265	Pn	Pn	07 25 53.1	-0.3
ADK				IAML		07 26 55.8	
	comp=E,73nm,0.4s						
ADK				IAML		07 26 57.9	
	comp=E,81nm,0.4s						
ADK	Adak	3.82	265	Sn	Sn	07 26 35.9	-1.1
KIWB	Kanaga Island	4.11	265		Pn	07 25 56.9	-0.5
KIWB				IAML		07 27 01.3	
	comp=N,66nm,0.6s						
KIWB				IAML		07 27 06.2	
	comp=E,66nm,0.6s						
KIMD	Kanaga Island	4.17	264		Pn	07 25 58.6	+0.2
TAFL	Tanaga Flats	4.58	265		Pn	07 26 04.0	+0.1
TAFP	Tanaga Falls P	4.61	267		Pn	07 26 04.5	+0.2
TASE	Tanaga Southea	4.65	266		Pn	07 26 05.0	+0.1
GAEA	Gareloi East	5.09	267		Pn	07 26 11.5	+0.5
GANE	Gareloi Northe	5.11	267		Pn	07 26 11.7	+0.6
GAKI	Gareloi-Kavalg	5.18	264		Pn	07 26 11.7	-0.4
DT1	Dutton Round H	5.62	57		Pn	07 26 19.4	+1.3
DOL	Dolgoi Island	5.85	58		Pn	07 26 22.5	+1.1
CNBA	Chernabura Isl	6.97	65	Pn	Pn	07 26 36.7	+0.1
KDAK	Kodiak Island	11.62	55	Pn	Pn	07 27 39.7	-0.5
	comp=E,0.1nm,0.3s,baz=342,slow=13,SNR=1.6						
	comp=E,4.7nm,0.8s						
KDAK				AML	AML		
ILAR	Eielson Array	17.36	35	P	P	07 28 55.6	-0.7
	baz=231,slow=11,SNR=2.1						
	comp=E,0.4nm,0.9s						
PETK	Petropavlovsk-	19.17	285	P	P	07 29 15.5	-0.6
	comp=E,0.5nm,0.3s,baz=79,slow=12,SNR=7.7						
	comp=E,1.5nm,0.4s						
PETK				AML	AML		
PETK	Petropavlovsk-	19.17	285	P	Pn	07 29 17.0	-0.4
BBB	Bella Bella	25.69	73	LR	LR	07 38 29.8	
	comp=E,85nm,19.8s,baz=245,slow=32						
H11N2	WAKE ISLAND Hy	37.01	217	T	T	08 11 14.3	
	baz=19,slow=76,SNR=8.5						
H11N3	WAKE ISLAND Hy	37.02	217	T	T	08 11 17.0	
	baz=19,slow=76,SNR=10.0						
H11N1	WAKE ISLAND Hy	37.03	217	T	T	08 11 19.1	
	baz=19,slow=76,SNR=7.4						
H11S1	WAKE ISLAND Hy	38.20	216	T	T	08 12 50.5	
	baz=22,slow=76,SNR=35						
H11S2	WAKE ISLAND Hy	38.22	216	T	T	08 12 46.5	
	baz=22,slow=76,SNR=40						
H11S3	WAKE ISLAND Hy	38.22	216	T	T	08 12 45.4	
	baz=22,slow=76,SNR=29						
PDAR	Pinedale Array	41.11	78	P	P	07 32 36.0	0.0
	comp=E,0.3nm,0.5s,baz=316,slow=2.7,SNR=3.7						
PDAR				LR	LR	07 47 19.0	
	comp=E,50nm,18.6s,baz=276,slow=33						
	comp=E,0.3nm,0.5s						
TXAR	Lajitas Array	53.47	88	P	P	07 34 12.4	+0.3
	comp=E,0.2nm,0.7s,baz=316,slow=5.2,SNR=4.0						
	comp=E,0.2nm,0.7s						
TXAR	Lajitas Array	53.47	88	P	P	07 34 12.6	+0.6
KURBB	Kurchatov Arra	62.00	318	P	P	07 35 11.1	-0.4
	comp=E,0.3nm,0.7s,baz=48,slow=7.2,SNR=4.9						
	comp=E,0.3nm,0.7s						
FINES	FINESS Array B	65.77	351	P	P	07 35 36.0	-0.1
	comp=E,3.2nm,1.0s,baz=298,slow=4.1,SNR=3.6						
	comp=E,3.2nm,1.0s						
FINES	FINESS Array B	65.77	351	P	P	07 35 35.7	-0.3
HFS	Hagfors	67.80	358	P	P	07 35 48.8	-0.2
	comp=E,0.9nm,0.3s,baz=44,slow=7.0,SNR=9.2						
	comp=E,0.9nm,0.3s						
CMAR	Chiang Mai Arr	75.92	282	P	P	07 36 39.0	+0.7
	comp=E,1.1nm,0.3s,baz=28,slow=7.9,SNR=4.0						
	comp=E,1.1nm,0.3s						

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*IDC **27** 07:26:12.9±3.3, 23°.30S×68°.12W, h108^{km}±30^{km}, mb3.5/3, mbtmp3.8/6, Error ellipse: s-maj=37.1km s-min=27.3km az=102.0*

*GUC **27** 07:26:13.3±0.7, 23°.24S×68°.58W, h124^{km}±6^{km}, ML3.4*

ISC 27 07:26:11.5±1.1**, 23°.26S**±0°.08×**68°.33W**±0°.09**, h105**^{km}±13^{km}**, n17,** σ**1^s.55**/25**, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PB09	IPOC Station P	1.68	330	*e*P	Pn	07 26 42.2	+1.6
PB09				*i* S	Sn	07 27 03.9	+1.3
PB09				IAML		07 27 10.1	
	comp=N,660nm,0.7s						
PB05	IPOC Station P	1.77	283	*e*P	Pn	07 26 41.5	-0.1
PB05				*i* S	Sn	07 27 02.7	-1.6
PB05				IAML		07 27 09.1	
	comp=N,375nm,0.2s						
PB03	IPOC Station P	1.78	312	*e*P	Pn	07 26 42.4	+0.6
PB03				*i* S	Sn	07 27 04.2	-0.5
PB03				IAML		07 27 10.3	

	comp=E,703nm,0.3s						
PB07	IPOC Station P	2.10	316	*e*P	Pn	07 26 46.4	+0.6
PB07				*i* S	Sn	07 27 12.0	+0.1
PB07				IAML		07 27 16.7	
	comp=E,569nm,0.5s						
PB14	IPOC Station P	2.33	234	IAML		07 27 16.9	
	comp=E,118nm,0.3s						
PB02	IPOC Station P	2.42	323	*e*P	Pn	07 26 50.4	+0.5
PB02				*i* S	Sn	07 27 18.5	-0.6
PB08	IPOC Station P	3.20	346	*e*P	Pn	07 27 01.4	+1.0
PB08				*i* S	Sn	07 27 33.0	-5.0
GO01	Chusmiza	3.66	347	*e*P	Pn	07 27 07.2	+0.4
GO01				*i* S	Sn	07 27 50.6	+1.2
PB11	IPOC Station P	3.69	340	*e*P	Pn	07 27 06.0	-0.9
PB11				*i* S	Sn	07 27 49.7	0.0
PSGCX	Pisagua	4.01	335	*e*P	Pn	07 27 08.9	-2.2
PSGCX				*i* S	Sn	07 27 58.1	+0.9
LPAZ	La Paz	6.94	2	P	Pn	07 27 53.4	+2.2
	comp=E,5.1nm,0.4s,baz=186,slow=4.4,SNR=64						
SIV	San Ignacio	9.95	45	P	Pn	07 28 30.5	-1.1
	comp=E,2.1nm,0.5s,baz=217,slow=12,SNR=21						
CPUP	Villa Florida	10.45	109	P	Pn	07 28 37.5	-0.8
	comp=E,1.1nm,0.7s,baz=285,slow=13,SNR=3.2						
BDFB	Brasilia	20.59	72	P	P	07 30 42.3	-0.2
	comp=E,1.4nm,0.4s,baz=232,slow=10,SNR=4.0						
	comp=E,1.4nm,0.4s						
QSPA	South Pole Qui	66.94	180	P	P	07 36 53.4	+0.8
	comp=E,1.0nm,0.5s,baz=175,slow=4.9,SNR=20						
	comp=E,1.0nm,0.5s						
TORD	Torodi Ar. Bea	77.45	70	P	P	07 37 55.7	-0.2
	comp=E,0.4nm,0.4s,baz=255,slow=4.7,SNR=4.9						
	comp=E,0.4nm,0.4s						
MKAR	Makanchi Array	146.71	38	PKPbc	PKPbc	07 45 41.6	+0.4
	comp=E,0.3nm,0.5s,baz=289,slow=4.4,SNR=3.1						

*IDC **27** 08:17:27.4±2.1, 16°.68S×173°.49W, h0^{km}, mb3.7/5, mbtmp3.8/6, ML4.0/1, MS3.8/43, Error ellipse: s-maj=102.9km s-min=19.1km az=141.0*

ISC 27 08:17:33.7±2.8**, 15°.9S**±1°.0×**173°.8W**±0°.6**, h35^{km}, n48, σ1^{s}37**/8**, mb3.6**/5**, MS3.9**/40**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	2.78	46	Pn	Pn	08 18 14.5	-1.4
	17nm,0.3s,baz=48,slow=5.1,SNR=18						
AFI				LR	LR	08 19 19.3	
	comp=Z,2µm,18.8s,baz=216,slow=35						
	209nm,0.8s						
AFI				AML	AML		
MSVF	Nonsavu	7.99	255	LR	LR	08 21 57.2	
	comp=Z,2µm,18.9s,baz=13,slow=33						
DZM	Mont Dzumac	19.64	249	LR	LR	08 28 12.3	
	comp=Z,455nm,20.4s,baz=96,slow=33						
PPT	Papeete	23.29	98	LR	LR	08 29 01.4	
	comp=Z,51nm,21.6s,baz=274,slow=30						
PPT2	Papeete2	23.29	98	*e*S	Sn	08 27 00.9	-7.7
	1µm,25.8s						
PPT2				*e*LR	LR	08 28 22.2	
	112nm,25.8s						
HNR	Honiara	26.35	281	LR	LR	08 31 28.1	
	comp=Z,380nm,20.8s,baz=204,slow=31						
CTA	Charters Tower	38.13	258	LR	LR	08 37 52.5	
	comp=Z,86nm,19.9s,baz=58,slow=32						
STKA	Stephens Creek	43.44	240	LR	LR	08 42 37.9	
	comp=Z,133nm,18.7s,baz=30,slow=35						
JAY	Jayapura	46.67	282	LR	LR	08 42 53.2	
	comp=Z,70nm,21.3s,baz=251,slow=32						
WRA	Warramunga Arr	49.33	257	P	P	08 26 19.5	-0.4
	1.1nm,0.9s,baz=91,slow=8.3,SNR=6.7						
	1.1nm,0.9s						
ASAR	Alice Springs	49.57	252	P	P	08 26 20.8	-1.0
	3.8nm,0.9s,baz=84,slow=8.5,SNR=22						
ASAR				LR	LR	08 45 26.5	
	comp=Z,158nm,21.8s,baz=104,slow=34						
	3.8nm,0.9s						
SIJI	Sorong	56.12	280	LR	LR	08 49 50.6	
	comp=Z,47nm,20.6s,baz=194,slow=34						
FITZ	Fitzroy Crossi	57.70	258	LR	LR	08 50 34.1	
	comp=Z,92nm,19.9s,baz=144,slow=34						
DAV	Davao City (W)	64.16	286	LR	LR	08 53 53.2	
	comp=Z,61nm,18.7s,baz=132,slow=34						
JHJ	Hachijo jima 2	65.83	318	LR	LR	08 51 08.3	
	comp=Z,53nm,21.7s,baz=351,slow=30						
SHEM	Shemya Is, Ala	69.10	352	LR	LR	08 53 51.7	
	comp=Z,68nm,19.1s,baz=66,slow=31						
JOW	Kunigami	70.42	307	LR	LR	08 53 10.1	
	comp=Z,97nm,21.7s,baz=39,slow=30						
ASAJ	Asahikawa	71.71	328	LR	LR	08 55 14.3	
	comp=Z,75nm,20.9s,baz=94,slow=31						
JNU	Nakatsue	71.81	313	LR	LR	08 53 18.4	
	comp=Z,84nm,21.3s,baz=144,slow=30						
PETK	Petropavlovsk-	72.94	343	LR	LR	08 54 13.8	
	comp=Z,30nm,21.4s,baz=150,slow=30						
PFO	Pinyon Flats O	73.54	47	LR	LR	08 53 29.3	
	comp=Z,120nm,20.4s,baz=240,slow=29						
LPIG	La Paz	73.64	58	LR	LR	08 52 59.1	
	comp=Z,91nm,19.8s,baz=211,slow=29						
QSPA	South Pole Qui	74.18	180	LR	LR	08 56 48.9	
	comp=Z,95nm,20.6s,baz=67,slow=32						
YBH	Yreka Blue Hor	74.22	37	LR	LR	08 53 15.6	
	comp=Z,86nm,20.3s,baz=238,slow=29						
NVAR	Mina Array Bea	74.95	42	P	P	08 29 11.8	+0.1
	0.2nm,0.6s,baz=230,slow=8.6,SNR=4.5						
NVAR				LR	LR	08 55 30.9	
	comp=Z,63nm,20.5s,baz=270,slow=30						
	0.2nm,0.6s						
KSRS	Korea Array	76.20	316	LR	LR	08 59 57.5	
	comp=Z,48nm,19.3s,baz=120,slow=33						
USRK	Ussuriysk Ar.	77.50	323	LR	LR	08 56 16.7	
	comp=Z,123nm,20.9s,baz=142,slow=30						
BBB	Bella Bella	78.49	27	LR	LR	09 01 09.7	
	comp=Z,16nm,18.8s,baz=232,slow=33						
MA2	Magadan	80.48	343	LR	LR	08 58 16.0	
	comp=Z,38nm,21.9s,baz=160,slow=30						
KLR	Kul'dur	80.68	327	LR	LR	09 00 01.9	
	comp=Z,42nm,21.9s,baz=132,slow=31						
TXAR	Lajitas Array	81.22	56	LR	LR	08 57 38.9	
	comp=Z,72nm,20.4s,baz=226,slow=30						
NEW	Newport	81.33	34	LR	LR	08 59 04.5	
	comp=Z,36nm,18.2s,baz=239,slow=30						
ANMO	Albuquerque	81.42	50	LR	LR	08 58 40.3	
	comp=Z,91nm,20.7s,baz=234,slow=30						
DLBC	Dease Lake	82.29	22	LR	LR	08 58 09.0	
	comp=Z,42nm,20.5s,baz=190,slow=29						
PDAR	Pinedale Array	82.89	42	P	P	08 29 57.3	+2.2
	0.3nm,0.8s,baz=220,slow=3.9,SNR=3.9						
PDAR				LR	LR	09 00 50.6	
	comp=Z,28nm,20.3s,baz=207,slow=31						
	0.3nm,0.8s						
ILAR	Eielson Array	82.98	11	P	P	08 29 56.0	+1.2
	0.6nm,1.0s,baz=210,slow=8.3,SNR=2.2						
	0.6nm,1.0s						
PMSA	Palmer Station	83.92	156	LR	LR	08 59 41.4	
	comp=Z,79nm,19.1s,baz=251,slow=30						
CMIG	Matias Romero	84.43	71	LR	LR	09 01 14.2	
	comp=Z,38nm,18.6s,baz=184,slow=31						
MAW	Mawson	87.22	199	LR	LR	09 05 45.1	
	comp=Z,72nm,20.7s,baz=130,slow=34						
PLCA	Paso Flores	89.51	132	LR	LR	09 02 12.9	
	comp=Z,82nm,18.8s,baz=238,slow=30						
YKA	Yellowknife Ar	90.69	24	LR	LR	09 04 19.3	
	comp=Z,24nm,20.0s,baz=176,slow=31						
CMAR	Chiang Mai Arr	92.36	288	LR	LR	09 06 49.9	
	comp=Z,23nm,21.8s,baz=115,slow=32						
ULM	Lac du Bonnet	94.56	39	LR	LR	09 07 38.3	
	comp=Z,50nm,20.2s,baz=246,slow=32						
SONM	Songino Array	94.91	318	LR	LR	09 06 20.6	
	comp=Z,40nm,21.6s,baz=66,slow=31						
TIXI	Tiksi	95.34	344	LR	LR	09 10 31.6	
	comp=Z,34nm,19.4s,baz=172,slow=33						
TLY	Talaya	97.74	321	LR	LR	09 10 46.9	
	comp=Z,49nm,20.5s,baz=102,slow=32						
BRTR	Keskin Array B	146.25	320	PKPbc	PKiKP	08 37 14.1	-0.1
	1.1nm,0.8s,baz=48,slow=2.1,SNR=3.7						
GERES	GERESS Array B	146.53	351	PKPbc	PKiKP	08 37 13.8	-0.6
	0.3nm,0.3s,baz=349,slow=0.5,SNR=5.5						

*IDC **27** 08:17:44.8±0.7, 52°.04N×169°.87W, h0^{km}, mb4.0/21, mbtmp4.0/24, ML4.0/3, MS3.4/14, Error ellipse: s-maj=21.1km s-min=13.2km az=175.0*

*NEIC **27** 08:17:49.7±1.2, 52°.03N±0°.07×169°.76W±0°.08, h26^{km}±6^{km}, mb4.1/51, ML4.2/18, ML3.7(AEIC), Error ellipse: s-maj=10.8km s-min=7.1km az=162.0*

*AEIC **27** 08:17:49.5±1.2, 52°.02N±0°.07×169°.75W±0°.09, h35^{km}±7^{km}, Error ellipse: s-maj=11.6km s-min=6.7km az=155.0*

ISC 27 08:17:49.3±1.9**, 52°.01N**±0°.08×**169°.73W**±0°.05**, h28^{km}**±12^{km}**, n166, σ1^{s}18**/158**, mb4.1**/37**, MS3.4**/13**, Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CLCO	Concord Point,	0.78	0		Pb	08 18 04.1	-0.2
CLCO					Sn	08 18 16.5	+1.3
CLES	Cleveland East	0.82	353		Pb	08 18 04.6	-0.5
CLES				IAML		08 18 22.0	
	comp=N,13µm,0.8s						
CLES				IAML		08 18 23.8	
	comp=E,10µm,0.5s						
OKSP	Okmok Steeple	1.52	34		Pn	08 18 14.5	-0.1
OKSP					Sn	08 18 32.4	-1.2
OKCE	Okmok Cone E	1.71	33		Pn	08 18 18.2	+1.0
OKTU	Okmok Mt. Tuli	1.72	36		Pn	08 18 17.8	+0.5
OKNC	Okmok New Cone	1.75	33		Pn	08 18 18.4	+0.7
MAPS	Pakushin South	2.47	42		Pn	08 18 27.8	+0.2
MGOD	Makushin Gods	2.49	43		Pn	08 18 28.4	+0.5
MGOD					Sn	08 18 57.9	+0.6
MSW	Makushin Switc	2.61	42		Pn	08 18 30.4	+0.8
MNAT	Makushin Natee	2.63	43		Pn	08 18 30.3	+0.5
MNAT					Sn	08 19 00.5	-0.3
KOSE	Korovin Southe	2.68	279		Pn	08 18 31.4	+0.8
UNV	Unalaska Valle	2.68	45	P	Pn	08 18 30.8	+0.3
UNV	Unalaska Valle	2.68	45	Pn	Pn	08 18 31.1	+0.6
UNV				IAML		08 19 14.3	
	comp=N,395nm,1.1s						
KOFP	Korovin Flat P	2.71	277		Pn	08 18 31.8	+0.9
KOFP					Sn	08 19 05.0	+2.3
KONE	Korovin Northe	2.73	280		Pn	08 18 31.2	+0.1
ATKA	Atka Island	2.76	276	Pn	Pn	08 18 31.3	-0.3
KOKL	Mount Kliuchef	2.77	278		Pn	08 18 32.2	+0.4
KONW	Korovin Northw	2.79	280		Pn	08 18 32.8	+0.8
KOWE	Korovin West	2.81	279		Pn	08 18 32.7	+0.5
AKMO	Akutan Morgan	3.06	46		Pn	08 18 37.0	+1.3
LVA	Lava Point	3.10	44	Pn	Pn	08 18 36.8	+0.5
LVA				IAML		08 19 32.2	
	comp=N,975nm,0.8s						
LVA				IAML		08 19 40.8	
	comp=E,512nm,0.7s						
AKBBA	Akutan Broad B	3.10	46		Pn	08 18 38.2	+1.9
AKV	Akutan Volcano	3.11	45		Pn	08 18 38.6	+2.1
AKUT	Akutan	3.20	47	Pn	Pn	08 18 39.1	+1.5
AKUT				IAML		08 19 40.8	
	comp=E,291nm,1.0s						
GSMY	Great Sitkin M	3.91	273		Pn	08 18 47.9	+0.5
GSTR	Great Sitkin T	3.91	274	Pn	Pn	08 18 47.4	0.0
GSTD	Great Sitkin T	3.96	273		Pn	08 18 48.2	+0.1
GSCK	Great Sitkin C	3.98	273		Pn	08 18 48.6	+0.3
GSSP	Great Sitkin S	3.98	274		Pn	08 18 48.8	+0.4
ETKA	Kagalaska Isla	4.14	271		Pn	08 18 50.4	-0.1
ADAG	Mount Adagdak	4.25	272		Pn	08 18 52.7	+0.7
ADK	Adak	4.31	271	Pn	Pn	08 18 52.7	-0.1
ADK				IAML		08 19 42.6	
	comp=E,196nm,0.3s						
ADK				IAML		08 19 46.4	
	comp=E,290nm,0.6s						
KIRH	Kanaga Island	4.56	272		Pn	08 18 56.9	+0.6
KIWB	Kanaga Island	4.60	271		Pn	08 18 57.0	+0.2
KIWB				IAML		08 19 53.8	
	comp=N,231nm,0.6s						
KIWB				IAML		08 19 55.9	
	comp=E,231nm,0.5s						
KIKV	Kanaga Island	4.61	271		Pn	08 18 57.4	+0.4
KIMD	Kanaga Island	4.66	270		Pn	08 18 57.6	0.0
KIMD					Sn	08 19 53.7	+3.0
TAFL	Tanaga Flats	5.07	270		Pn	08 19 03.5	+0.2
TASE	Tanaga Southea	5.15	271		Pn	08 19 05.1	+0.7
SPIA	Saint Paul Isl	5.19	357	P	Pn	08 19 08.5	+3.6
SPIA	Saint Paul Isl	5.19	357	Pn	Pn	08 19 05.2	+0.3
DT1	Dutton Round H	5.42	52		Pn	08 19 09.3	+1.2
GAEA	Gareloi East	5.59	271		Pn	08 19 11.3	+0.8
GANE	Gareloi Northe	5.61	272		Pn	08 19 11.4	+0.7
GALAA	Gareloi Lava P	5.61	271		Pn	08 19 11.5	+0.8
DOL	Dolgoi Island	5.64	53		Pn	08 19 12.5	+1.3
GAKI	Gareloi-Kavalg	5.66	269		Pn	08 19 11.6	+0.2
SDPT	Sand Point	6.43	55	P	Pn	08 19 22.3	+0.3
SDPT	Sand Point	6.43	55	Pn	Pn	08 19 22.6	+0.5
CESW	Semis' Southwe	6.62	273		Pn	08 19 25.4	+0.8
CNBA	Chernabura Isl	6.68	61	Pn	Pn	08 19 25.1	-0.3
CHNA	Chernabura Isl	6.69	61	P	Pn	08 19 26.0	+0.5
AMKA	Amchitka	6.85	269	Pn	Pn	08 19 28.1	+0.3
LSNW	Little Sitkin	7.26	274		Pn	08 19 34.1	+0.7
CHGN	Chignik	7.91	53	Pn	Pn	08 19 43.4	+1.1
ACHA	Angle Creek He	10.32	47	Pn	Pn	08 20 15.0	-0.3
N17K	Nushagak Hills	11.00	34	Pn	Pn	08 20 25.1	+0.5
O18K	Koktuh Hills	11.30	40	Pn	Pn	08 20 28.5	-0.1
KDAK	Kodiak Island	11.43	53	Pn	Pn	08 20 28.3	-2.0
	comp=E,1.6nm,0.3s,baz=228,slow=6.8,SNR=16						
	comp=E,3.0nm,0.3s						
KDAK				AML	AML		
KDAK	Kodiak Island	11.43	53	Pn	Pn	08 20 29.0	-1.3
Q19K	Cape Douglas,	11.44	46	Pn	Pn	08 20 30.6	0.0
CNPM	China Poot	12.81	47	Pn	Pn	08 20 48.8	-0.6
L19K	White Mountain	12.97	32	Pn	P	08 20 57.2	-4.5
BRLK	Bradley Lake	13.08	46	Pn	Pn	08 20 52.8	-0.2
SEW	Seward	13.88	46	Pn	Pn	08 21 03.1	-0.7
O22K	Cooper Landing	13.94	45	Pn	Pn	08 21 04.7	+0.1
J20K	Nowinta River	14.66	28	Pn	Pn	08 21 14.2	-0.3
BPAW	Bear Paw Mtn.	15.57	32		Pn	08 21 28.0	+1.4
BPAW				IAmb	IAmb	08 21 43.3	
	comp=Z,17nm,1.2s						
SCM	Sheep Creek Mo	15.61	42	Pn	Pn	08 21 25.9	-1.2
EYAK	Cordova Ski Ar	15.74	48	P	Pn	08 21 28.9	+0.2
EYAK	Cordova Ski Ar	15.74	48	Pn	Pn	08 21 26.1	-2.6
KLU	Klutina	16.05	44	Pn	Pn	08 21 30.7	-2.0
KLU				IAmb	IAmb	08 21 49.3	
	comp=Z,8.2nm,0.6s						
HARP	HAARP	16.78	42	Pn	Pn	08 21 41.0	-0.9
PAX	Paxson	16.92	40	Pn	Pn	08 21 43.6	-0.2
CCB	Clear Creek Bu	16.99	33	P	Pn	08 21 42.9	-1.6
HDA	Harding Lake	17.14	35	P	Pn	08 21 45.8	-0.6
MCARA	McCarthy VSAT	17.29	47	P	Pn	08 21 48.4	+0.1
MCARA				IAmb	IAmb	08 22 10.8	
	comp=Z,10nm,0.8s						
IL31		17.38	34	P	Pn	08 21 47.6	-1.7
ILAR	Eielson Array	17.38	34	P	Pn	08 21 46.8	-2.6
	comp=Z,0.1nm,0.3s,baz=227,slow=10,SNR=15						
ILAR				LR	LR	08 29 08.5	
	comp=Z,119nm,20.5s,baz=259,slow=39						
	comp=Z,0.6nm,0.6s						
ILAR				AML	AML		
ILAR	Eielson Array	17.38	34	P	Pn	08 21 48.0	-1.4
M26K	Nabesna, AK	17.69	44		Pn	08 21 53.5	+0.2
M26K				IAmb	IAmb	08 22 06.7	
	comp=Z,6.2nm,0.8s						
H24K	Noodor Dome	17.72	30	P	Pn	08 21 52.7	-0.9
L26K	Log Cabin Wild	17.80	42	P	P	08 21 55.4	+0.1
J25K	Salcha River,	17.82	36	P	Pn	08 21 53.3	-1.6
J25K				IAmb	IAmb	08 22 06.5	
	comp=Z,9.5nm,1.0s						
SCRK	Sand Creek	18.00	38	P	Pn	08 21 55.8	-1.4
O28M	Mount Upton	18.41	50	P	Pn	08 22 05.0	+2.6
O28M				IAmb	IAmb	08 22 12.5	
	comp=Z,14nm,1.1s						
F24K	Squaw Lake	18.87	26	P	Pn	08 22 12.5	+4.9
O29M	Mount Kennedy	19.07	52	P	Pn	08 22 12.8	+2.5
O29M				IAmb	IAmb	08 22 25.2	
	comp=Z,9.3nm,0.9s						
F25K	Christian Rive	19.55	28	P	Pn	08 22 18.8	+2.9
F25K				IAmb	IAmb	08 22 30.6	
	comp=Z,5.4nm,0.9s						
M29M	Somme Creek	19.68	46		P	08 22 16.5	+0.7
M29M				IAmb	IAmb	08 22 40.6	
	comp=Z,6.4nm,0.7s						
I27K	Kandik River	19.69	36	P	P	08 22 16.1	+0.1
I27K				IAmb	IAmb	08 22 29.9	
	comp=Z,6.1nm,0.9s						
PEA0B	Petropavlovsk-	19.75	286		P	08 22 16.8	+0.2
PETK	Petropavlovsk-	19.75	286	P	P	08 22 16.4	-0.2
	comp=Z,6.0nm,0.3s,baz=80,slow=13,SNR=68						
	comp=Z,12nm,0.4s						
PETK				AML	AML		
BMAR	Burnt Mountain	19.76	29	P	P	08 22 16.6	0.0
E25K	Arctic Village	19.92	27		Pn	08 22 21.8	+1.6
H27K	Steamboat Moun	20.05	34		P	08 22 20.5	+0.7
I28M	Miner Creek	20.23	37	P	P	08 22 21.6	-0.3
I28M				IAmb	IAmb	08 22 45.1	
	comp=Z,17nm,1.4s						
N31M	Braeburn, Yuko	20.66	49		Pn	08 22 29.4	+0.6
N31M				IAmb	IAmb	08 22 32.0	
	comp=Z,11nm,0.8s						
I29M	Ogilvie Camp,	20.80	38	P	Pn	08 22 30.0	-0.5
I29M				IAmb	IAmb	08 22 36.6	
	comp=Z,6.0nm,1.1s						
H29M	Whitestone	21.16	36		P	08 22 31.2	-0.5
J30M	Hart River	21.28	41	P	P	08 22 32.9	-0.3
J30M				IAmb	IAmb	08 22 59.3	
	comp=Z,5.2nm,1.1s						
M31M	Drury Creek, Y	21.45	48	P	P	08 22 38.5	+3.5
M31M				IAmb	IAmb	08 22 49.9	
	comp=Z,5.5nm,0.9s						
I30M	Mount Dempster	21.49	39	P	P	08 22 34.5	-1.0
G29M	Pine Creek	21.60	34		P	08 22 35.0	-1.5
G29M				IAmb	IAmb	08 22 52.4	
	comp=Z,11nm,0.9s						
EPYK	Eagle Plains	21.82	36	P	P	08 22 39.6	+0.6
P33M	Teslin, Yukon	21.90	54	P	P	08 22 40.9	+1.1
SEY	Seymchan	22.76	313	P	P	08 22 47.5	-1.3
	comp=Z,1.5nm,0.5s,baz=0.0,slow=4.3,SNR=4.3						
	comp=Z,1.5nm,0.5s						
MMPY	Sheldon Lake,	22.96	47		P	08 22 53.6	+2.5
MMPY				IAmb	IAmb	08 23 00.3	
	comp=Z,7.3nm,0.9s						
MA2	Magadan	23.16	305	LR	LR	08 32 52.4	
	comp=Z,69nm,19.1s,baz=90,slow=39						
DLBC	Dease Lake	23.26	58	LR	LR	08 31 20.4	
	comp=Z,43nm,20.6s,baz=216,slow=35						
INK	Inuvik	23.77	33	LR	LR	08 33 20.3	
	comp=Z,79nm,19.0s,baz=249,slow=39						
WTLY	Watson Lake, Y	23.90	54	P	P	08 23 02.9	+2.6
YKAW3	Yellowknife Wh	30.64	48	P	P	08 24 01.3	+0.7
YKAW3				IAmb	IAmb	08 24 29.6	
	comp=Z,5.0nm,1.2s						
YKA	Yellowknife Ar	30.65	48	P	P	08 24 01.3	+0.6
	comp=Z,0.7nm,0.4s,baz=279,slow=7.0,SNR=18						
	comp=Z,0.7nm,0.4s						
YKA	Yellowknife Ar	30.65	48	P	P	08 24 01.1	+0.4
TIXI	Tiksi	32.93	329	LR	LR	08 37 39.9	
	comp=Z,32nm,20.8s,baz=92,slow=36						
YAK	Yakutsk	33.25	311	LR	LR	08 39 01.2	
	comp=Z,100nm,18.2s,baz=98,slow=38						
EDM	Edmonton	33.50	65		P	08 24 27.3	+1.4
NVAR	Mina Array Bea	37.88	90	P	P	08 25 05.4	+1.6
	comp=Z,0.6nm,0.8s,baz=284,slow=8.9,SNR=4.9						
	comp=Z,0.6nm,0.8s						
YHH	Holmes Hill	38.79	77	P	P	08 25 12.6	+1.0
YHH				IAmb	IAmb	08 25 13.2	
	comp=Z,3.3nm,1.0s						
RLMT	Red Lodge	39.56	75	P	P	08 25 19.5	+1.6
RLMT				IAmb	IAmb	08 25 27.5	
	comp=Z,3.2nm,0.9s						
BW06	Boulder Array	40.69	78	P	P	08 25 27.0	-0.2
BW06				IAmb	IAmb	08 25 28.8	
	comp=Z,5.0nm,1.1s						
PD31	Pinedale Array	40.69	78	P	P	08 25 27.4	+0.1
PD31				IAmb	IAmb	08 25 28.8	
	comp=Z,5.0nm,1.1s						
PDAR	Pinedale Array	40.69	78	P	P	08 25 27.8	+0.5
	comp=Z,2.2nm,0.8s,baz=306,slow=3.3,SNR=20						
	comp=Z,2.2nm,0.8s						
LCMT	Little Creek M	41.89	88	P	P	08 25 39.1	+2.0
SRU	San Rafael Swe	42.26	84	P	P	08 25 40.7	+0.6
SRU				IAmb	IAmb	08 25 42.2	
	comp=Z,3.8nm,0.8s						
U15A	North Rim	42.85	88	P	P	08 25 46.6	+1.5
U15A				IAmb	IAmb	08 25 47.2	
	comp=Z,2.9nm,0.9s						
O20A	White River Ci	43.04	81		P	08 25 47.0	+0.5
O20A				IAmb	IAmb	08 26 01.2	
	comp=Z,6.0nm,0.9s						
PV18	Skein Mesa, Pa	43.79	83		P	08 25 52.8	+0.3
KSRS	Korea Array	45.23	277	P	P	08 26 03.8	+0.1
	comp=Z,2.0nm,0.9s,baz=57,slow=9.1,SNR=4.2						
	comp=Z,2.0nm,0.9s						
NEEM	North Greenlan	45.40	16	*i* P	P	08 26 05.1	+0.1
NEEM				IAmb	IAmb	08 26 05.6	
	comp=Z,3.4nm,0.6s						
DAG	Danmarks Havn	50.18	8	*i* P	P	08 26 41.0	-0.6
DAG				IAmb	IAmb	08 26 41.8	
	comp=Z,4.2nm,0.5s						
SUMG	Summit	51.19	17	*i* P	P	08 26 50.3	+0.5
SUMG				IAmb	IAmb	08 26 51.2	
	comp=Z,5.9nm,0.8s						
SONM	Songino Array	51.30	301	P	P	08 26 49.9	-0.8
	comp=Z,0.7nm,0.3s,baz=75,slow=7.6,SNR=2.9						
	comp=Z,0.7nm,0.3s						
SONM	Songino Array	51.30	301	P	P	08 26 49.8	-0.8
SONM				IAmb	IAmb	08 27 03.2	
	comp=Z,2.1nm,1.1s						
DBG	Daneborg	52.31	10	*i* P	P	08 26 57.0	-0.6
DBG				IAmb	IAmb	08 26 58.0	
	comp=Z,5.0nm,0.9s						
SFJD	Kangerlussuaq	52.80	26	LR	LR	08 51 47.3	
	comp=Z,21nm,18.2s,baz=323,slow=39						
TXAR	Lajitas Array	52.98	88	P	P	08 27 03.5	+0.2
	comp=Z,2.0nm,0.8s,baz=296,slow=5.3,SNR=29						
	comp=Z,2.0nm,0.8s						
ZALV	Zalesovo Beam	57.54	318	PcP	PcP	08 28 28.3	-0.6
	comp=Z,1.0nm,0.5s,baz=52,slow=5.8,SNR=4.9						
ARCES	ARCESS Array B	58.26	354	P	P	08 27 39.5	-1.0
	comp=Z,1.8nm,0.8s,baz=21,slow=8.3,SNR=5.7						
ARCES				LR	LR	08 55 20.1	
	comp=Z,37nm,18.4s,baz=9.5,slow=39						
	comp=Z,1.8nm,0.8s						
ARCES	ARCESS Array B	58.26	354	P	P	08 27 40.8	+0.3
BORG	Borgarnes	61.04	15	LR	LR	08 57 59.8	
	comp=Z,22nm,18.0s,baz=316,slow=40						
KURK	Kurchatov	62.50	318	P	P	08 28 09.6	-0.2
KURBB	Kurchatov Arra	62.60	318	P	P	08 28 09.8	-0.7
	comp=Z,0.8nm,0.7s,baz=43,slow=8.0,SNR=6.5						
	comp=Z,0.8nm,0.7s						
BVAR	Borovoye Array	63.87	324	P	P	08 28 18.5	-0.3
	comp=Z,3.8nm,0.4s,baz=45,slow=6.7,SNR=16						
	comp=Z,3.8nm,0.4s						
MKAR	Makanchi Array	63.89	313	P	P	08 28 17.6	-1.5
	comp=Z,0.7nm,0.8s,baz=45,slow=5.3,SNR=4.0						
	comp=Z,0.7nm,0.8s						
MKAR	Makanchi Array	63.89	313	P	P	08 28 18.4	-0.7
FINES	FINESS Array B	66.20	352	P	P	08 28 33.1	-0.7
	comp=Z,4.2nm,1.0s,baz=8.6,slow=6.8,SNR=6.6						
	comp=Z,4.2nm,1.0s						
FINES	FINESS Array B	66.20	352	P	P	08 28 33.2	-0.5
NOA	NORSAR Array B	67.30	360	P	P	08 28 40.2	-0.6
	comp=Z,0.7nm,0.7s,baz=360,slow=6.0,SNR=2.1						
NOA				LR	LR	08 58 25.7	
	comp=Z,11nm,18.9s,baz=345,slow=36						
	comp=Z,0.7nm,0.7s						
HFS	Hagfors	68.18	358	P	P	08 28 45.6	-0.8
	comp=Z,1.0nm,0.4s,baz=48,slow=2.2,SNR=6.7						
HFS				LR	LR	09 00 16.9	
	comp=Z,25nm,18.0s,baz=212,slow=38						
	comp=Z,1.0nm,0.4s						
AB31	Akbulak array	70.63	328	P	P	08 29 01.3	-0.3
AB31				IAmb	IAmb	08 29 02.7	
	comp=Z,2.5nm,0.9s						
ABKAR	Akbulak array	70.63	328	P	P	08 29 01.0	-0.7
EKA	Eskdalemuir Ar	72.45	8	P	P	08 29 11.9	-0.6
	comp=Z,1.0nm,0.6s,baz=345,slow=4.4,SNR=4.6						
	comp=Z,1.0nm,0.6s						
AKASG	Malin Array Be	76.42	348	P	P	08 29 35.0	-0.6
	comp=Z,0.3nm,0.3s,baz=15,slow=5.8,SNR=2.4						
	comp=Z,0.3nm,0.3s						
CMAR	Chiang Mai Arr	76.48	283	P	P	08 29 36.9	+0.4
	comp=Z,0.6nm,0.3s,baz=29,slow=5.9,SNR=5.1						
	comp=Z,0.6nm,0.3s						
CMAR	Chiang Mai Arr	76.48	283	P	P	08 29 36.3	-0.2
JTS	Las Juntas de	78.76	88	LR	LR	09 02 54.5	
	comp=Z,53nm,20.2s,baz=252,slow=34						
GERES	GERESS Array B	79.48	358	P	P	08 29 53.5	+0.7
	comp=Z,0.6nm,0.6s,baz=352,slow=6.9,SNR=3.6						
	comp=Z,0.6nm,0.6s						
WRA	Warramunga Arr	86.61	231	P	P	08 30 28.4	-1.5
	comp=Z,0.4nm,0.7s,baz=42,slow=6.0,SNR=5.1						
	comp=Z,0.4nm,0.7s						
ESDC	Sonseca Array	87.86	11	P	P	08 30 36.8	+0.9
	comp=Z,0.7nm,0.9s,baz=355,slow=5.5,SNR=2.5						
	comp=Z,0.7nm,0.9s						
ROSC	El Rosal	89.55	83	LR	LR	09 13 36.6	
	comp=Z,55nm,19.0s,baz=224,slow=37						
ASAR	Alice Springs	89.99	230	P	P	08 30 45.4	-0.5
	comp=Z,3.9nm,0.8s,baz=28,slow=4.8,SNR=26						
	comp=Z,3.9nm,0.8s						
ASAR	Alice Springs	89.99	230	P	P	08 30 45.5	-0.4
PALK	Pallekele	96.12	290	LR	LR	09 22 55.1	
	comp=Z,28nm,18.0s,baz=214,slow=41						
QSPA	South Pole Qui	141.77	180	PKhKP	PKPpre	08 37 10.4	
	comp=Z,1.1nm,0.5s,baz=221,slow=1.3,SNR=10						

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
MAW	Mawson	150.45	218	PKPbc	PKPbc	08 37 35.2	-1.3
	comp=Z,1.5nm,0.6s,baz=109,slow=7.9,SNR=4.4						

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*IDC **27** 08:25:05.0±1.7, 54°.98N×159°.83W, h0km, mb3.4/4, mbtmp3.4/7, ML3.3/3, Error ellipse: s-maj=39.5km s-min=17.5km az=160.0*

*NEIC **27** 08:25:08.7±1.3, 54°.79N±0°.04×159°.79W±0°.04, h22km±7km, mb3.6/15, ML3.5/40, ML3.3(AEIC), Error ellipse: s-maj=6.6km s-min=3.5km az=187.0*

*AEIC **27** 08:25:09.1±1.4, 54°.83N±0°.06×159°.81W±0°.07, h19km±5km, Error ellipse: s-maj=8.9km s-min=4.5km az=157.0*

ISC 27 08:25:08.9±0.8**, 54°.81N**±0°.05×**159°.69W**±0°.03**, h31**km±5km**, n145, σ1ˢ.12**/153**, mb3.6**/4**, South of Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CNBA	Chernabura Isl	0.06	78		Pb	08 25 13.7	-0.5
CNBA					Sb	08 25 17.5	-0.2
CNBA				IAML		08 25 17.7	
	comp=E,14µm,0.3s						
CHNA	Chernabura Isl	0.06	68	P	Pb	08 25 13.4	-0.7
CHNA	Chernabura Isl	0.06	68	S	Sb	08 25 17.3	-0.4
SDPT	Sand Point	0.71	320	P	Pb	08 25 21.9	-0.8
SDPT	Sand Point	0.71	320	S	Sb	08 25 32.3	+0.1
SDPT	Sand Point	0.71	320		Pb	08 25 22.0	-0.7
SDPT					Sb	08 25 31.1	-1.0
SDPT				IAML		08 25 34.0	
	comp=E,1µm,0.6s						
VNKR	Veniaminof 5	1.24	8		Pn	08 25 31.0	+0.9
VNSW	Veniaminof 7	1.27	3		Pn	08 25 31.4	+0.9
DOL	Dolgoi Island	1.30	286		Pn	08 25 30.4	-0.5
DOL					Sn	08 25 47.1	-0.1
PS1A	Pavlof South-1	1.33	298		Pn	08 25 31.5	+0.2
PS1A					Sb	08 25 49.3	-0.5
PVV	Pavlof Volcano	1.33	296		Pn	08 25 31.4	0.0
PS4A	Pavlof South-4	1.36	294		Pn	08 25 31.8	+0.1
PS4A					Sn	08 25 49.3	+0.7
VNSG	Veniaminof 6	1.36	14		Pn	08 25 33.1	+1.3
VNSG					Pb	08 25 33.4	-0.4
HAG	Hague Volcano	1.37	293		Pn	08 25 32.1	+0.2
HAG					Sb	08 25 50.1	-1.0
VNSS	Veniaminof 8	1.43	5		Pn	08 25 34.1	+1.3
PN7A	Pavlof North-7	1.47	296		Pn	08 25 34.0	+0.7
S14K	Fog Glacier	1.48	3		Pb	08 25 34.9	-0.9
VNFG	Fog Glacier, M	1.48	3		Pb	08 25 35.1	-0.7
VNFG					Pn	08 25 35.3	+1.8
VNFG	Fog Glacier, M	1.48	3		Pb	08 25 35.1	-0.7
VNFG				IAML		08 25 59.7	
	comp=N,1µm,0.6s						
VNFG				IAML		08 26 14.6	
	comp=E,951nm,0.6s						
DTNA	Dutton South F	1.52	284		Pn	08 25 34.0	+0.1
DTNA					Sn	08 25 53.4	+0.9
DT1	Dutton Round H	1.52	282		Pn	08 25 33.6	-0.3
DT1					Sn	08 25 52.9	+0.1
S12K	Black Hills	1.63	304		Pn	08 25 36.2	+0.8
S12K				IAML		08 26 00.8	
	comp=N,687nm,0.5s						
CHGN	Chignik	1.66	25		Pn	08 25 36.6	+0.8
CHGN				IAML		08 26 00.5	
	comp=E,797nm,0.5s						
CHGN				IAML		08 26 04.4	
	comp=N,522nm,0.7s						
BPBCA	Veniaminof	1.92	21		Pn	08 25 40.5	+1.0
BPBCA					Sb	08 26 05.8	-1.0
ANPB	Aniakchak Plen	2.15	21		Pn	08 25 44.0	+1.3
ANPK	Aniakchak Peak	2.22	23		Pn	08 25 45.2	+1.6
ANPK					Pb	08 25 45.6	-2.8
SSLN	Shishaldin Nor	2.49	272		Pn	08 25 48.8	+1.5
SSLN					Pb	08 25 49.2	-3.8
SSLS	Shishaldin Sou	2.50	270		Pn	08 25 48.4	+1.0
CHIR	Chirikof Islan	2.54	65	P	Pb	08 25 52.9	-0.8
CHIR	Chirikof Islan	2.54	65		Pn	08 25 49.1	+1.3
CHIR				IAML		08 26 33.9	
	comp=E,192nm,0.9s						
CHIR				IAML		08 26 36.9	
	comp=N,244nm,1.0s						
R16K	Pilot Point	3.01	22		Pn	08 25 55.2	+0.9
R16K				IAML		08 26 37.8	
	comp=N,176nm,1.2s						
R16K				IAML		08 26 38.6	
	comp=E,157nm,1.0s						
R17L	Mt. Peulik Vol	3.39	32		Pn	08 26 01.4	+1.8
PLK1	Peulik 1	3.46	29		Pn	08 26 02.0	+1.5
PLK5	Peulik 5	3.56	25		Pn	08 26 03.4	+1.5
SII	Sitkinak Islan	3.58	58	Pn	Pn	08 26 02.7	+0.5
SII				IAML		08 27 21.2	
	comp=E,121nm,1.1s						
SII				IAML		08 27 32.0	
	comp=N,120nm,1.1s						
AKUT	Akutan	3.61	262	Pn	Pn	08 26 03.2	+0.6
AKUT				IAML		08 27 04.0	
	comp=N,80nm,1.2s						
AKUT				IAML		08 27 08.1	
	comp=E,61nm,0.7s						
LVA	Lava Point	3.76	263	Pn	Pn	08 26 05.2	+0.6
KJL	Kejulik	3.98	33		Pn	08 26 09.1	+1.4
Q17K	Contact Creek	4.05	30		Pn	08 26 09.8	+1.0
CAHL	Cahill	4.06	35		Pn	08 26 09.9	+1.0
UNV	Unalaska Valle	4.11	259	P	Pn	08 26 09.8	+0.4
UNV	Unalaska Valle	4.11	259	S	Sn	08 26 58.2	+1.9
UNV	Unalaska Valle	4.11	259		Pn	08 26 08.9	-0.5
ANCK	Angle Creek	4.12	33		Pn	08 26 10.9	+1.3
MGLS	Mageik Landsli	4.17	35		Pn	08 26 11.7	+1.3
ACHA	Angle Creek He	4.18	34		Pn	08 26 11.9	+1.4
KABU	Katmai Buttres	4.24	33		Pn	08 26 12.8	+1.5
KABU					Pb	08 26 13.0	-10
MSW	Makushin Switc	4.25	261		Pn	08 26 11.4	0.0
MSW					Pb	08 26 11.6	-11
MGOD	Makushin Gods	4.33	259		Pn	08 26 12.9	+0.4
OHAK	Old Harbor	4.33	53		Pn	08 26 12.5	0.0
OHAK				IAML		08 27 34.5	
	comp=N,26nm,1.1s						
KAKN	Katmai Knife C	4.33	34		Pn	08 26 14.1	+1.5
P16K	Nushagak River	4.34	12		Pn	08 26 13.8	+1.3
P16K				IAML		08 27 37.3	
	comp=N,55nm,0.9s						
O15K	Ungalikthiuk R	4.38	359		Pn	08 26 14.3	+1.1
KAWH	Katmai	4.49	35		Pn	08 26 15.3	+0.6
O14K	Tigyukauivet M	4.54	350		Pn	08 26 16.6	+1.2
Q18K	Katmai Hardscr	4.63	32		Pn	08 26 17.3	+0.5
P17K	Kvichak River	4.74	21		Pn	08 26 19.0	+0.9
O16K	Kokwok River B	4.88	10		Pn	08 26 20.2	+0.2
KDAK	Kodiak Island	4.96	50	Pn	Pn	08 26 19.6	-1.4
	comp=N,0.6nm,0.3s,baz=175,slow=2.7,SNR=11						
KDAK				Sn	Sn	08 27 13.8	-3.4
	comp=N,0.4nm,0.3s,baz=307,slow=20,SNR=1.1						
	comp=N,5.9nm,0.7s						
KDAK				AML	AML		
KDAK	Kodiak Island	4.96	50		Pn	08 26 20.6	-0.4
KDAK	Kodiak Island	4.96	50	Pn	Pn	08 26 20.5	-0.5
KDAK				IAML		08 27 46.2	
	comp=N,26nm,0.8s						
KDAK				IAML		08 27 49.5	
	comp=N,18nm,1.0s						
O17K	Koliganek Bris	5.17	15		Pn	08 26 25.1	+1.1
N14K	Kuskokwak Cree	5.24	349		Pn	08 26 26.2	+1.3
N14K				IAML		08 27 54.8	
	comp=E,30nm,1.0s						
N14K				IAML		08 29 09.0	
	comp=N,24nm,1.2s						
Q19K	Cape Douglas,	5.30	36		Pn	08 26 26.8	+1.0
N15K	Kwethluk River	5.38	358		Pn	08 26 28.5	+1.6
O18K	Koktuh Hills	5.61	24		Pn	08 26 31.5	+1.4
N16K	Nishlik Lake	5.70	5		Pn	08 26 32.9	+1.6
N17K	Nushagak Hills	5.89	12		Pn	08 26 34.9	+1.0
M15K	Kasigluk River	5.93	355		Pn	08 26 35.4	+1.0
M13K	Dall Lake	5.96	342		Pn	08 26 36.2	+1.4
M14K	Bethel	6.08	349		Pn	08 26 37.0	+0.5
N18K	Kilae Creek	6.23	17		Pn	08 26 39.6	+1.1
M16K	Timber Creek	6.25	3		Pn	08 26 40.3	+1.5
CNPM	China Poot	6.59	41		Pn	08 26 43.5	-0.1
M11K	Mekoryuk	6.59	331		Pn	08 26 44.8	+1.2
N19K	Bonanza Creek	6.63	23		Pn	08 26 45.4	+1.2
M17K	Holitna River	6.72	9		Pn	08 26 46.5	+1.2
L14K	Kuka Creek	6.74	348		Pn	08 26 46.4	+0.8
BRLK	Bradley Lake	6.88	40	Pn	Pn	08 26 46.5	-1.1
L16K	Owhat River	6.92	1		Pn	08 26 49.1	+1.0
M18K	Stony River	7.01	15		Pn	08 26 49.9	+0.7
L17K	Donlin	7.38	5		Pn	08 26 55.0	+0.6
L18K	Granite Mounta	7.60	11		Pn	08 26 58.0	+0.7
K13K	Kusilvak Mount	7.61	342		Pn	08 26 58.6	+1.2
SLKM	Skilak Lake	7.64	38		Pn	08 26 59.1	+1.2
M19K	Big River Lodg	7.64	19		Pn	08 26 59.4	+1.5
SEW	Seward	7.65	42	Pn	Pn	08 26 57.8	-0.3
L19K	White Mountain	7.81	17		Pn	08 27 01.4	+1.1
M20K	Styx River	7.88	23	Pn	Pn	08 27 03.7	+2.4
STLK	Strandline Lak	7.89	29	Pn	Pn	08 27 02.3	+1.0
K17K	Iditarod	7.96	5	Pn	Pn	08 27 03.4	+1.1
SUA	Susitna One	8.17	32	Pn	Pn	08 27 06.5	+1.2
J14K	Nanvaranak Lak	8.21	347	Pn	Pn	08 27 06.7	+1.0
RC01	Rabbit Creek A	8.22	36	Pn	Pn	08 27 05.9	+0.1
L20K	Farewell, AK	8.27	19	Pn	Pn	08 27 07.8	+1.3
SKT	Skwentna	8.37	27	Pn	Pn	08 27 09.0	+1.1
J16K	Anvik River	8.52	357	Pn	Pn	08 27 10.4	+0.5
J17K	VABM Dome	8.62	2	Pn	Pn	08 27 11.7	+0.4
J18K	Innoko River	8.82	9	Pn	Pn	08 27 15.2	+1.2
PPLA	Purkeypile	8.99	22	Pn	Pn	08 27 18.1	+1.6
HIN	Hinchinbrook I	9.02	46	Pn	Pn	08 27 17.3	+0.5
ATKA	Atka Island	9.03	259	P	Pn	08 27 18.4	+1.4
FID	Port Fidalgo	9.22	44	Pn	Pn	08 27 18.6	-1.0
ADK	Adak	10.57	261	P	Pn	08 27 39.2	+1.1
ADK	Adak	10.57	261	Pn	Pn	08 27 38.2	+0.1
WAX	Waxell Ridge	10.63	51	Pn	Pn	08 27 39.1	+0.1
ILAR	Eielson Array	11.86	28	Pn	Pn	08 27 53.1	-2.5
	comp=N,0.1nm,0.3s,baz=214,slow=13,SNR=5.2						
	comp=N,0.3nm,0.6s						
ILAR				AML	AML		
M27K	Edge Creek, AK	11.95	44	Pn	Pn	08 27 58.1	+1.1
F19K	Shaleruckik Mo	12.10	4	Pn	Pn	08 27 58.9	0.0
G21K	Allakaket	12.12	12	Pn	Pn	08 27 59.5	+0.3
L27K	Beaver Creek,	12.35	41	Pn	Pn	08 28 02.4	0.0
BCAR	Beaver Creek A	12.37	41	Pn	Pn	08 28 03.1	+0.5
H24K	Noodor Dome	12.48	23	Pn	Pn	08 28 05.3	+1.1
O29M	Mount Kennedy	12.57	55	Pn	Pn	08 28 06.6	+1.2
DAWY	Dawson	13.81	40	Pn	Pn	08 28 24.3	+2.0
L29M	L29M	13.82	44	Pn	Pn	08 28 23.6	+1.1
I28M	Miner Creek	14.43	35	Pn	Pn	08 28 31.8	+1.1
J30M	Hart River	15.22	41	Pn	Pn	08 28 42.5	+1.1
J30M				IAmb	IAmb	08 28 57.1	
	comp=Z,2.2nm,0.7s						
H29M	Whitestone	15.41	34	Pn	Pn	08 28 43.8	0.0
H29M				IAmb	IAmb	08 28 57.7	
	comp=Z,2.1nm,0.7s						
I30M	Mount Dempster	15.53	39	Pn	Pn	08 28 46.7	+1.3
I30M				IAmb	IAmb	08 28 52.5	
	comp=Z,4.7nm,0.8s						
F28M	Old Crow	15.88	28	Pn	Pn	08 28 50.3	+0.5
G29M	Pine Creek	15.95	32	Pn	Pn	08 28 50.7	-0.1
G29M				IAmb	IAmb	08 28 59.8	
	comp=Z,3.8nm,1.0s						
H31M	Peel River	16.56	38	Pn	Pn	08 28 59.3	+0.9
H31M				IAmb	IAmb	08 29 03.2	
	comp=Z,10.0nm,1.1s						
G30M	tAoh Zraii Nji	16.56	33	Pn	Pn	08 28 59.3	+0.9
G30M				IAmb	IAmb	08 29 02.6	
	comp=Z,7.1nm,1.1s						
MMPY	Sheldon Lake,	16.59	50	Pn	Pn	08 28 58.5	-0.4
MMPY				IAmb	IAmb	08 29 04.5	
	comp=Z,3.5nm,0.9s						
E29M	Blow River	16.96	28	P	Pn	08 29 04.0	+0.5
F30M	Barrier River	17.07	32	P	Pn	08 29 04.0	-0.9
F30M				IAmb	IAmb	08 29 28.6	
	comp=Z,4.4nm,0.9s						
G31M	Satah River	17.16	35	P	Pn	08 29 05.2	-0.7
INK	Inuvik	18.17	32	P	Pn	08 29 18.8	+0.4
	comp=Z,0.2nm,0.3s,baz=242,slow=15,SNR=8.1						
	comp=Z,1.0nm,0.3s						
INK				AML	AML		
INK	Inuvik	18.17	32	P	Pn	08 29 19.1	+0.7
INK				IAmb	IAmb	08 29 19.7	
	comp=Z,3.9nm,0.9s						
C36M	Paulatuk	21.67	34	P	P	08 29 56.1	-0.4
PGC	Sidney	23.08	90	P	P	08 30 12.3	+0.7
YKA	Yellowknife Ar	24.22	53	P	P	08 30 22.1	-0.3
	comp=Z,0.1nm,0.3s,baz=275,slow=9.6,SNR=4.1						
	comp=Z,0.1nm,0.3s						
PEA0B	Petropavlovsk-	24.85	284	P	P	08 30 27.3	-1.0
PETK	Petropavlovsk-	24.85	284	P	P	08 30 27.4	-0.9
	comp=Z,1.3nm,0.5s,baz=74,slow=13,SNR=7.1						
	comp=Z,1.3nm,0.5s						
PETK	Petropavlovsk-	24.85	284	P	P	08 30 27.8	-0.4
H11N2	WAKE ISLAND Hy	43.21	229	T	T	09 19 14.0	
	baz=28,slow=76,SNR=11						
H11N3	WAKE ISLAND Hy	43.22	229	T	T	09 19 17.7	
	baz=28,slow=76,SNR=10						
H11N1	WAKE ISLAND Hy	43.23	229	T	T	09 19 15.9	
	baz=28,slow=76,SNR=7.1						
H11S1	WAKE ISLAND Hy	44.38	229	T	T	09 20 42.4	
	baz=28,slow=76,SNR=13						
H11S2	WAKE ISLAND Hy	44.39	229	T	T	09 20 42.7	
	baz=28,slow=76,SNR=13						
H11S3	WAKE ISLAND Hy	44.39	229	T	T	09 20 47.7	
	baz=28,slow=76,SNR=5.4						
TXAR	Lajitas Array	47.16	99	P	P	08 33 39.6	+1.3
	comp=Z,0.3nm,0.8s,baz=320,slow=6.8,SNR=2.7						
	comp=Z,0.3nm,0.8s						
TXAR	Lajitas Array	47.16	99	P	P	08 33 40.0	+1.6
SONM	Songino Array	54.84	305	P	P	08 34 35.2	-0.6
	comp=Z,0.6nm,0.6s,baz=43,slow=6.5,SNR=2.4						
	comp=Z,0.6nm,0.6s						

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*KRNET **27** 08:49:27.9±0.1, 40°.91N×71°.80E, h13km, mb3.0*

*SOME **27** 08:49:27.8, 40°.92N×71°.80E, h15km*

*NNC **27** 08:49:30.6±1.1, 41°.04N×71°.81E, h0km, mb3.6, mpv3.1, Error ellipse: s-maj=9.7km s-min=3.4km az=0.0*

ISC 27 08:49:28.2±0.9**, 40°.88N**±0°.03×**71°.69E**±0°.03**, h10**km**, n30, σ1ˢ.66**/53**, 18C-17D, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TRKS	Terek-Say	0.77	328	⇑iP	Pg	08 49 41.9	-1.2
TRKS				⇑iS	Sg	08 49 51.6	-1.6
OHH	Osh	0.91	113	⇑iP	Pg	08 49 43.8	-1.8
OHH				⇑iS	Sg	08 49 55.3	-2.1
ARK	Arkit	0.94	13	⇑iP	Pg	08 49 45.0	-1.3
ARK				⇑iS	Sg	08 49 57.1	-1.5
ARSB	Arslanbob	1.07	65	⇑iP	Pg	08 49 46.5	-2.3
ARSB				⇑iS	Sg	08 50 00.3	-2.5
DRK	Karamyk	1.40	176	⇓iP	Pg	08 49 54.7	-0.3
DRK				⇓iS	Sg	08 50 14.1	+0.9
SALK	Salom-Alik	1.62	89	⇓eP	Pn	08 49 56.5	-0.4
SALK				⇓eS	Sn	08 50 16.9	-1.0
SFK	Sufi-Kurgan	1.63	121	⇓iP	Pb	08 49 57.2	-1.3
SFK				⇓iS	Sb	08 50 18.6	-0.6
IUG	Iuzhnay	1.78	316	P	Pg	08 50 01.6	-0.7
	120nm,0.3s						
IUG				S	Sg	08 50 25.6	+0.2
	572nm,0.3s						
IUG	Iuzhnay	1.78	316	eP	Pg	08 50 01.6	-0.7
	120nm,0.3s						
IUG				eS	Sg	08 50 25.6	+0.2
	572nm,0.3s						
MRKS	Merke	2.19	31	Pg	Pb	08 50 07.7	-0.2
	33nm,0.6s						
MRKS				Lg	Lg	08 50 35.9	
	129nm,0.5s						
MRKS	Merke	2.19	31	eP	Pb	08 50 07.8	-0.2
	33nm,0.6s						
MRKS				eS	Sb	08 50 35.9	+0.7
	129nm,0.5s						
EKS2	Erkin-Say	2.37	41	⇑iP	Pn	08 50 08.3	+1.1
EKS2				⇑iS	Sn	08 50 38.0	+1.6
KK31	Karatay Array	2.39	339	⇑Pn	Pb	08 50 09.1	-2.3
	0.4nm,0.1s,baz=122,slow=13,SNR=51						
KK31				⇓Pg	Pg	08 50 11.5	-2.5
	2.4nm,0.2s,baz=146,slow=16,SNR=6.4						
KK31				⇑Lg	Lg	08 50 42.4	
	25nm,0.3s,baz=150,slow=27,SNR=15						
UCH	Uchtor	2.51	57	⇓iP	Pn	08 50 10.6	+1.1
UCH				⇓iS	Sn	08 50 41.5	+1.1
BRLS	Borolday	2.56	328	Pg	Pb	08 50 13.4	-0.7
	14nm,0.3s						
BRLS				Lg	Lg	08 50 44.9	
	61nm,0.3s						
BRLS	Borolday	2.56	328	eP	Pb	08 50 13.4	-0.7
	14nm,0.3s						
BRLS				eS	Sb	08 50 44.9	-0.8
	61nm,0.3s						
AAK	Ala-Archa	2.74	49	⇑Pn	Pn	08 50 14.2	+1.9
	0.8nm,0.4s						
AAK				⇑Lg	Lg	08 50 52.0	
	3.3nm,0.5s						
AAK	Ala-Archa	2.74	49	⇓iP	Pn	08 50 13.5	+1.2
AAK				⇓iS	Sn	08 50 46.6	+1.0
KBK	Karagaybulak	3.02	53	⇓iP	Pn	08 50 17.5	+1.3
KBK				⇓iS	Sn	08 50 53.5	+1.0
CHMS	Chumysh	3.12	46	⇓iP	Pn	08 50 18.7	+1.3
CHMS				⇓iS	Sn	08 50 55.7	+1.0
USP	Ospenovka	3.17	40	⇑iP	Pn	08 50 19.6	+1.4
USP				⇑iS	Sn	08 50 57.1	+0.9
NRN	Naryn	3.30	79	⇑iP	Pn	08 50 20.9	+0.7
NRN				⇑iS	Sn	08 50 59.6	-0.1
SGDS	Sogindy	3.38	39	Pg	Pb	08 50 28.3	+0.2
	1.8nm,0.3s						
SGDS				Lg	Lg	08 51 11.2	
	19nm,0.5s						
TKM2	Tokmak 2	3.56	54	⇓iP	Pn	08 50 24.8	+1.1
TKM2				⇓iS	Sn	08 51 06.5	+0.6
KST	Kastek	3.85	54	Pg	Pb	08 50 37.7	+1.4
	0.7nm,0.3s						
KST				Lg	Lg	08 51 26.9	
	11nm,1.0s						
KST	Kastek	3.85	54	eP	Pb	08 50 37.7	+1.4
	0.7nm,0.3s						
KST				eS	Sb	08 51 26.9	+3.9
	11nm,1.0s						
KRBS	Karabastau	4.08	45	Pg	Pb	08 50 42.0	+1.8
	1.2nm,0.3s						
KRBS				Lg	Lg	08 51 34.5	
	2.2nm,0.4s						
KRBS	Karabastau	4.08	45	eP	Pb	08 50 42.0	+1.8
	1.2nm,0.3s						
KRBS				eS	Sg	08 51 34.5	-4.7
	2.2nm,0.4s						
KTBS	Karatobe	4.66	51	Pg	Pb	08 50 51.3	+1.3
	0.2nm,0.1s						
KTBS				Lg	Lg	08 51 50.4	
	9.0nm,0.4s						
KTBS	Karatobe	4.66	51	eP	Pb	08 50 51.3	+1.3
	0.2nm,0.1s						
KTBS				eS	Sb	08 51 50.4	+4.2
	9.0nm,0.4s						

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*TRN **27** 08:54:00.0, 10°.84N×62°.51W, h61km, MD3.3, North of the Paria peninsula.*

*FUNV **27** 08:54:19.1, 10°.90N×62°.34W, h26km, MW3.1, Presumed earthquake*

ISC 27 08:54:16.1±2.3**, 10°.91N**±0°.05×**62°.46W**±0°.04**, h10**km±17km**, n14, σ0ˢ.96**/26**, Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DMDM	Guralp CMG5TDE	0.92	103	eP	Pn	08 54 35.8	+0.8
DMDM				eS	Sn	08 54 48.1	-0.1
PSMG	Mucurapo Girls	0.94	104	eP	Pn	08 54 35.2	-0.1
PSMG				eS	Sn	08 54 48.7	-0.2
PSKH	Kent House, Po	0.95	104	eP	Pn	08 54 36.1	+0.7
PSKH				eS	Sn	08 54 48.7	-0.3
PSGH	Port of Spain	0.97	105	eP	Pn	08 54 36.3	+0.6
TRN	Trinidad (W)	1.07	104	eP	Pb	08 54 36.8	+0.1
TRN				eS	Sg	08 54 49.6	-1.1
TRN	Trinidad (W)	1.07	104	eP	Pn	08 54 37.4	+0.3
TRN				eS	Sb	08 54 51.0	+0.2
GRGR	Grenville	1.45	33	eP	Pn	08 54 42.3	-0.1
GRGR				eS	Sn	08 55 00.3	-1.2
GRGR	Grenville	1.45	33	eP	Pn	08 54 42.5	+0.2
GRGR				eS	Sn	08 55 01.4	0.0
GRW	Mount Saint Ca	1.47	32	eP	Pn	08 54 43.3	+0.7
GRW				eS	Sb	08 55 03.1	+0.8
GRSS	Sisters	1.61	31	eP	Pn	08 54 45.0	+0.5
GRSS				eS	Sn	08 55 05.0	-0.4
SLBI	Saint Lucia, B	3.42	25	eP	Pn	08 55 09.7	+0.3
SLBI				eS	Sn	08 55 49.3	-0.7
BIM	Bigot	3.83	21	eP	Pn	08 55 15.9	+0.7
TACV	Tcata	4.55	261	eP	Pn	08 55 26.8	+1.8
TACV				eS	Sn	08 56 16.1	-2.0
BENV	Beln	5.14	260	eP	Pn	08 55 34.4	+1.3
BENV				eS	Sn	08 56 30.5	-2.1
BENV				eS		08 56 30.8	

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*IDC **27** 09:40:48.7±2.0, 21°.60N×143°.20E, h285km±18km, mb3.3/11, mbtmp3.9/12, Error ellipse: s-maj=26.2km s-min=13.9km az=84.0*

ISC 27 09:40:51.4±0.9**, 21°.7N**±0°.1×**143°.1E**±0°.2**, h311**km**, n13, σ1ˢ.20**/14**, mb3.5**/10**, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JCJ	Chichijima	5.43	351	P	Pn	09 42 13.4	-0.9
	26nm,0.4s						
JCJ				S	S	09 43 18.8	-2.3
KSRS	Korea Array	20.47	323	P	P	09 45 07.0	+0.7
	1.1nm,0.6s,baz=146,slow=9.1,SNR=8.5						
	1.1nm,0.6s						
WRA	Warramunga Arr	42.28	192	P	P	09 48 13.9	-1.3
	0.3nm,0.3s,baz=13,slow=9.4,SNR=13						
	0.3nm,0.3s						
ASAR	Alice Springs	45.98	192	P	P	09 48 43.3	-1.2
	0.3nm,0.8s,baz=9.4,slow=7.1,SNR=2.1						
	0.3nm,0.8s						
ZALV	Zalesovo Beam	54.16	322	P	P	09 49 45.7	+0.7
	0.7nm,0.5s,baz=118,slow=9.6,SNR=2.8						
	0.7nm,0.5s						
MKAR	Makanchi Array	54.64	313	P	P	09 49 49.7	+1.0
	0.4nm,0.6s,baz=94,slow=10.0,SNR=3.1						
	0.4nm,0.6s						
KURBB	Kurchatov Arra	57.47	317	P	P	09 50 09.1	+0.7
	1.5nm,0.5s,baz=94,slow=7.4,SNR=13						
	1.5nm,0.5s						
ILAR	Eielson Array	62.06	27	P	P	09 50 39.2	0.0
	0.5nm,0.6s,baz=259,slow=5.3,SNR=5.2						
	0.5nm,0.6s						
BVAR	Borovoye Array	62.62	319	P	P	09 50 44.0	+0.9
	2.6nm,0.4s,baz=101,slow=8.3,SNR=10						
	2.6nm,0.4s						
YKA	Yellowknife Ar	76.47	28	P	P	09 52 08.2	+1.1
	0.7nm,0.5s,baz=295,slow=5.8,SNR=2.7						
	0.7nm,0.5s						
ARCES	ARCESS Array B	78.89	341	P	P	09 52 21.7	+1.5
	7.7nm,1.1s,baz=62,slow=7.1,SNR=7.5						
	7.7nm,1.1s						
FINES	FINESS Array B	83.14	334	P	P	09 52 42.4	-0.2
	1.1nm,0.5s,baz=67,slow=6.1,SNR=11						
	1.1nm,0.5s						
LPAZ	La Paz	150.00	85	PKPbc	PKPbc	10 00 06.5	-0.3
	0.7nm,0.7s,baz=27,slow=2.3,SNR=2.0						

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*CATAC **27** 09:40:53.7±0.4, 14°N±3°×9°1W±°, h22km±4km, M5.7/46, mB6.0/8, mb6.0/9, MLv5.6/46, Mw(mB)5.6/8, MwMwp4.6/1, Mwp5.0/1, Error ellipse: s-maj=6.3km s-min=3.2km az=32.2, confirmed*

*GCMT **27** 09:40:54.8±0.1, 14°.18N±0°.01×90°.91W±0°.01, h88km±1km, MW5.3/147, Moment Tensor Solution. s132,c221; s147,c264; Duration: 1ˢ.1 Moment tensor: Scale 10^{17} Nm; M_{rr}-0.29±.02; $M_{\theta\theta}$0.46±.02; $M_{\phi\phi}$-0.15±.02; $M_{r\theta}$0.90±.01; $M_{\theta\phi}$-0.36±.02; $M_{\phi r}$-0.67±.01; Best double couple: $M_0$1.21800×10^{17} NP1:ϕ_s84.00000°, δ14.00000°, λ-133.00000°. NP2:ϕ_s309.00000°, δ80.00000°, λ-80.00000°. Principal axes: T 1.3610, Plg34.0000°, Azm30.0000°; N -0.2840, Plg10.0000°, Azm127.0000°; P -1.0750, Plg54.0000°, Azm231.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*NEIC **27** 09:40:55.8, 14°.18N×90°.81W, h100km*

*GCG **27** 09:40:55.0±1.3, 14°.08N×90°.92W, h85km±4km, MD5.7, ML5.6, Fault plane solution: NP1:ϕ_s30.00000°, δ14.00000°, λ-163.00000°., Presumed earthquake*

*GFZ **27** 09:40:55.4, 14°.25N×90°.75W, h109km, Mw5.3/74, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}-0.03; $M_{\theta\theta}$0.31; $M_{\phi\phi}$-0.28; $M_{r\theta}$0.79; $M_{\theta\phi}$-0.03; $M_{\phi r}$-0.63; Fault plane solution: $M_0$1.05814×10^{17} NP1:ϕ_s45.72793°, δ15.58468°, λ-173.92523°. NP2:ϕ_s309.87492°, δ88.37077°, λ-74.49862°. Principal axes: T 1.0961, Plg41.3766°, Azm25.2880°; N -0.0805, Plg15.4950°, Azm129.4231°; P -1.0156, Plg44.5245°, Azm235.2461°;*

*IDC **27** 09:40:56.0±0.5, 14°.41N×90°.44W, h107km±3km, mb4.5/23, mbtmp4.9/26, MS4.0/55 Error ellipse: s-maj=15.4km s-min=8.0km az=54.0*

*NEIC **27** 09:40:56.2, 14°.28N×91°.01W, h90km, Moment Tensor Solution. Duration: 2ˢ.2 Moment tensor: Scale 10^{17}Nm;*

M_{rr}-0.31; $M_{\theta\theta}$0.48; $M_{\phi\phi}$-0.17; $M_{r\theta}$0.76; $M_{\theta\phi}$-0.27; $M_{\phi r}$-0.59; Fault plane solution: $M_0$1.09000×10^{17} NP1:ϕ_s77.80000°, δ17.15000°, λ-139.56000°. NP2:ϕ_s308.64000°, δ78.97000°, λ-76.79000°. Principal axes: T 1.1697, Plg33.0000°, Azm28.0000°; N -0.1928, Plg13.0000°, Azm126.0000°; P -0.9769, Plg54.0000°, Azm235.0000°;

*MOS **27** 09:40:56.1±1.1, 14°.34N×90°.54W, h118^{km}, mb5.3/19 Error ellipse: s-maj=11.8km s-min=6.5km az=110.1*

*NEIC **27** 09:40:56.5±1.6, 14°.20N±0°.07×90°.79W±0°.06, h110^{km}±6^{km}, mb5.4/88, Mwr5.3/10, Mww5.3/82, Error ellipse: s-maj=11.9km s-min=7.1km az=210.0, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}-0.67; $M_{\theta\theta}$0.66; $M_{\phi\phi}$0.00; $M_{r\theta}$0.82; $M_{\theta\phi}$-0.29; $M_{\phi r}$-0.57; Fault plane solution: $M_0$1.24000×10^{17} NP1:ϕ_s302.58000°, δ72.56000°, λ-81.52000°. NP2:ϕ_s96.12000°, δ19.33000°, λ-115.16000°. Principal axes: T 1.2731, Plg27.0000°, Azm26.0000°; N -0.0701, Plg8.0000°, Azm120.0000°; P -1.2030, Plg62.0000°, Azm225.0000°;*

*GFZ **27** 09:40:56.4±0.2, 14°N±2°×9°1W±°, h107^{km}±1^{km}, M5.2/64, mb5.3/64, confirmed*

*NEIC **27** 09:40:56.3, 14°.18N×90°.82W, h103^{km}*

*SNET **27** 09:40:56.8±2.2, 14°.15N×90°.80W, h85^{km}, ML5.4, Presumed earthquake*

*RSNC **27** 09:41:02.6±3.2, 15°N±15°×9°0W±2°2, h133^{km}±12^{km}, M4.8, mB5.2, mb5.0, Mw(mB)4.6, MwMwp4.7, Mwp5.1*

ISC 27 09:40:54.5±0.3, **14°.18N**±0°.03×**90°.83W**±0°.03, **h102**^{km}±2^{km}, **h102**^{km}**:pP-P, n739, σ1.58**/849, **mb5.2**/162, **20C-42D, Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FG8	Yepocapa, Chim	0.27	73	*i*P	Pn	09 41 08.8	-0.6
FG8				*i*S	Sn	09 41 18.9	-1.5
FG16	Alotenango, Sa	0.32	73	⇓*i*P	Pn	09 41 09.0	-0.7
FG16				*i*S	Sn	09 41 20.8	-0.2
PCG5	San Vicente Pa	0.44	85	*i*P	Pn	09 41 09.2	-1.1
PCG5				*i*S	Sn	09 41 20.2	-1.8
GCG4	OSOP	0.49	35	*i*P	Pn	09 41 11.5	+0.9
STG8	El Palmar, Qui	0.57	298	*i*P	Pn	09 41 13.9	+2.6
STG8				*i*S	Sn	09 41 28.1	+4.2
STG8				IAML		09 41 31.2	
	comp=N,110µm,0.5s						
FAME	Alcaldia de Sa	0.86	113	⇓P	Pn	09 41 13.3	-0.3
FAME				S	Sn	09 41 27.9	0.0
APG	El Apazote	0.89	23	P	Pn	09 41 15.9	+1.7
	comp=N,993nm,0.3s,baz=184,slow=11						
APG				S	Sn	09 41 31.1	+2.2
	comp=N,490nm,0.4s,baz=62,slow=23,SNR=13						
APG	El Apazote	0.89	23	*i*P	Pn	09 41 15.9	+1.7
APG				*i*S	Sn	09 41 31.4	+2.4
SLOZ	Alcaldia de Sa	1.02	98	*i*P	Pn	09 41 15.9	+0.5
SLOZ				*e*S	Sn	09 41 33.6	+2.5
SLOZ	Alcaldia de Sa	1.02	98	⇓P	Pn	09 41 15.7	+0.3
LOAL	Lomas de Alarc	1.03	100	*i*P	Pn	09 41 16.6	+1.1
LOAL				*e*S	Sn	09 41 33.8	+2.5
LOAL	Lomas de Alarc	1.03	100	⇓P	Pn	09 41 16.1	+0.6
LOAL				S	Sn	09 41 33.3	+2.1
NUBE	Las Nubes	1.05	105	⇓*i*P	Pn	09 41 16.1	+0.3
NUBE				*i*S	Sn	09 41 32.1	+0.2
NUBE				IAML		09 41 35.7	
	comp=N,45µm,0.4s						
NUBE	Las Nubes	1.05	105	⇓P	Pn	09 41 16.1	+0.3
NUBE				S	Sn	09 41 32.5	+0.7
JUAM	Asuncion Mita	1.10	82	*i*P	Pn	09 41 17.1	+0.9
JUAM				*i*S	Sn	09 41 33.6	+1.1
JUAM				IAML		09 41 42.8	
	comp=N,77µm,0.5s						
RBDL	Robledal	1.11	93	*i*P	Pn	09 41 17.2	+0.8
RBDL				*e*S	Sn	09 41 34.9	+1.9
SBLS	San Blas	1.22	106	*i*P	Pn	09 41 18.1	+0.4
SBLS				*e*S	Sn	09 41 38.1	+2.8
CEVE	Cerro Verde	1.22	107	*i*P	Pn	09 41 18.9	+1.1
CEVE				*e*S	Sn	09 41 38.3	+3.0
CEVE	Cerro Verde	1.22	107	⇓P	Pn	09 41 18.2	+0.4
CEVE				S	Sn	09 41 38.8	+3.5
UNIC	Universidad Ca	1.26	99	⇓P	Pn	09 41 18.5	+0.5
UNIC				S	Sn	09 41 37.7	+1.9
HUEH	Huehuetenango	1.31	330		Pn	09 41 20.0	+1.2
HUEH				Sn	Sn	09 41 39.8	+2.7
HUEH	Huehuetenango	1.31	330	*i*P	Pn	09 41 20.3	+1.5
HUEH				*i*S	Sn	09 41 38.7	+1.6
HUEH				IAML		09 41 44.7	
	comp=N,46µm,0.6s						
HUEH	Huehuetenango	1.31	330	⇓P	Pn	09 41 20.2	+1.5
HUEH				S	Sn	09 41 40.1	+3.0
JAYA	Jayaque - finc	1.44	111	*i*P	Pn	09 41 20.6	+0.3
JAYA				IAML		09 41 44.2	
	comp=N,155µm,0.5s						
JAYA	Jayaque - finc	1.44	111	*i*P	Pn	09 41 20.9	+0.6
JAYA				*e*S	Sn	09 41 40.0	+0.2
JAYA	Jayaque - finc	1.44	111	⇓P	Pn	09 41 20.4	+0.2
JAYA				S	Sn	09 41 40.5	+0.8
MTO3	Montecristo	1.44	81		Pn	09 41 21.3	+1.0
MTO3				Sn	Sn	09 41 41.3	+1.5
MTO3	Montecristo	1.44	81	*i*P	Pn	09 41 21.4	+1.1
MTO3	Montecristo	1.44	81	*i*P	Pn	09 41 21.8	+1.5
MTO3	Montecristo	1.44	81	⇓P	Pn	09 41 21.3	+1.0
MTO3				S	Sn	09 41 42.9	+3.0
CEDA	San Andres	1.44	105	*i*P	Pn	09 41 21.0	+0.9
CEDA				*e*S	Sn	09 41 42.6	+3.0
CEDA	San Andres	1.44	105	⇓P	Pn	09 41 20.7	+0.5
CEDA				S	Sn	09 41 42.8	+3.2
ZAFR2	Estanzuela, Za	1.48	74	*i*P	Pn	09 41 22.4	+1.7
ESQI	Esquipulas	1.49	75		Pn	09 41 22.0	+1.2
ESQI				Sn	Sn	09 41 43.1	+2.4
PMON	Piamonte	1.54	107	*i*P	Pn	09 41 21.9	+0.4
PMON				*e*S	Sn	09 41 43.7	+1.8
PMON	Piamonte	1.54	107	⇓P	Pn	09 41 22.1	+0.7
PMON				S	Sn	09 41 43.9	+1.9
BOQS	Boqueron	1.57	106	*i*P	Pn	09 41 23.0	+1.1
THIG		1.57	298	*i*P	Pn	09 41 22.2	+0.5
UEES	Universidad Ev	1.61	106	⇓P	Pn	09 41 22.8	+0.5
UEES				S	Sn	09 41 47.3	+3.9
LALI	Alcalda de L	1.62	115	*i*P	Pn	09 41 22.9	+0.6
SEMO	Seminario San	1.63	107	P	Pn	09 41 23.2	+0.7
SEMO				S	Sn	09 41 47.6	+3.8
UTEC	Universidad Te	1.65	107	⇓P	Pn	09 41 23.3	+0.5
UTEC				S	Sn	09 41 47.2	+2.9
LOMA	Loma Larga	1.69	108	⇓P	Pn	09 41 23.7	+0.3
LOMA				S	Sn	09 41 48.5	+3.1
PANCS	Alcalda de	1.70	109	⇓P	Pn	09 41 23.7	+0.3
PANCS				S	Sn	09 41 48.0	+2.7
PAVA	Las Pavas	1.89	104	*i*P	Pn	09 41 26.6	+0.7
PAVA	Las Pavas	1.89	104	⇓P	Pn	09 41 26.9	+1.0
COEG	Centro de Oper	1.97	106	⇓P	Pn	09 41 27.7	+0.9
COEG				S	Sn	09 41 56.0	+4.5
SNVI	San Vicente	2.01	106	*i*P	Pn	09 41 28.9	+1.4
P5NO	Presa 5 de nov	2.02	95	⇓P	Pn	09 41 28.1	+0.7
P5NO				S	Sn	09 41 54.3	+1.8
TECO	Alcaldia de Te	2.09	108	⇓P	Pn	09 41 29.0	+0.7
TECO				S	Sn	09 41 56.2	+2.1
ALJI	Alcalda de J	2.35	111	*i*P	Pn	09 41 33.4	+1.7
ALJI				*e*S	Sn	09 42 01.8	+1.6
ALJI	Alcalda de J	2.35	111	P	Pn	09 41 32.6	+0.9
ALJI				S	Sn	09 42 01.5	+1.3
PACA	Pacayal	2.53	106	⇓P	Pn	09 41 35.4	+1.2
BLLM	Bellamira	2.62	106	*i*P	Pn	09 41 36.9	+1.6
IZABA	Izabal, Puerto	2.66	54	*i*P	Pn	09 41 39.4	+3.6
IZABA	Izabal, Puerto	2.66	54	P	Pn	09 41 39.0	+3.2
LCND	La Caada	2.98	107	*i*P	Pn	09 41 41.6	+1.6
LCND	La Caada	2.98	107	P	Pn	09 41 41.3	+1.2
CNCH	Conchagua	3.04	107	*i*P	Pn	09 41 42.6	+1.6
TGIG		3.40	320	*i*P	Pn	09 41 46.2	+0.5
POTN	Potosi Cosigui	3.44	110	P	Pn	09 41 48.4	+2.3
POTN				S	Sn	09 42 30.0	+3.9
TGUH	Tegucigalpa,Un	3.45	92		Pn	09 41 47.8	+1.3
TGUH				Sn	Sn	09 42 29.5	+2.9
TGUH	Tegucigalpa,Un	3.45	92	P	Pn	09 41 48.1	+1.7
TGUH	Tegucigalpa,Un	3.45	92	P	Pn	09 41 48.1	+1.7
CRIN	San Cristobal	3.96	111		Pn	09 41 55.2	+2.0
CRIN	San Cristobal	3.96	111	P	Pn	09 41 55.5	+2.3
CRIN	San Cristobal	3.96	111	P	Pn	09 41 55.8	+2.5
CRIN				S	Sn	09 42 42.0	+3.2
CRIN	San Cristobal	3.96	111	P	Pn	09 41 55.5	+2.3
TEL3	Telica 3	4.19	112	P	Pn	09 41 58.4	+2.0
PLRN	Geotermica Pol	4.26	111	P	Pn	09 41 58.8	+1.6
PLRN				S	Sn	09 42 48.3	+2.4
OCON	Estacion meteo	4.26	97	P	Pn	09 41 59.0	+1.7
CNGN	Cerro Negro	4.35	112	P	Pn	09 41 59.8	+1.3
CNGN				S	Sn	09 42 51.7	+3.4
CNGN	Cerro Negro	4.35	112	P	Pn	09 41 59.9	+1.3
MOM3	MOM3	4.51	111	P	Pn	09 42 02.1	+1.5
MOM3				S	Sn	09 42 57.0	+5.0
RCFN	Al S de San Ju	4.53	98	P	Pn	09 42 02.8	+1.8
RCVN	Varillal2	4.54	97	P	Pn	09 42 02.9	+1.8
RCPN	Sur Rio San Ju	4.64	97	P	Pn	09 42 04.7	+2.2
AMTN	Mateare	4.70	114	P	Pn	09 42 05.0	+1.8
AMTN				S	Sn	09 43 00.0	+3.5
SCIG	Sabancuy	4.77	356	⇑*i*P	Pn	09 42 05.5	+1.4
APQ2	Apoyeque	4.81	114	P	Pn	09 42 06.4	+1.8
CMIG	Matias Romero	4.86	307	P	Pn	09 42 06.3	+0.9
	comp=N,93nm,0.5s,baz=102,slow=9.2,SNR=322						
CMIG				S	Sn	09 43 01.9	+1.4
	comp=N,148nm,0.4s,baz=96,slow=20,SNR=9.0						
CMIG				LR	LR	09 44 14.5	
	comp=N,1µm,21.5s,baz=136,slow=39						
UNAN	Cigeo UNAN	4.89	114	P	Pn	09 42 07.2	+1.4
MGAN	Managua	4.90	114		Pn	09 42 06.6	+0.7
MGAN	Managua	4.90	114	P	Pn	09 42 07.0	+1.1
MGAN	Managua	4.90	114	P	Pn	09 42 07.1	+1.2
MGAN	Managua	4.90	114	P	Pn	09 42 07.0	+1.2
MATN	Matagalpa	4.93	104	P	Pn	09 42 08.0	+1.6
MAS3	Al N del Volca	5.01	115	P	Pn	09 42 08.7	+1.2
MASN	Masaya	5.05	115	P	Pn	09 42 09.3	+1.4
MASN				S	Sn	09 43 05.6	+0.4
SABN	Sabanita	5.05	115	P	Pn	09 42 07.4	-0.7
BOAB	BOACO BROADBAN	5.31	108		Pn	09 42 12.2	+0.8
BOAB	BOACO BROADBAN	5.31	108	P	Pn	09 42 12.0	+0.5
BOAB	BOACO BROADBAN	5.31	108	P	Pn	09 42 12.7	+1.2
	comp=Z,872nm,0.8s						
SIUN	Universidad Ur	5.90	94		Pn	09 42 21.1	+1.7
SIUN	Universidad Ur	5.90	94	P	Pn	09 42 21.2	+1.8
ACON	Acoyapa	5.93	111	P	Pn	09 42 20.6	+0.7
LCRUZ	La Cruz	5.94	121	*e*P	Pn	09 42 20.5	+0.6
CARN	Rivas	5.97	119		Pn	09 42 21.7	+1.3
CARN	Rivas	5.97	119	P	Pn	09 42 22.0	+1.5
CARN	Rivas	5.97	119	*e*P	Pn	09 42 21.3	+0.9
ALIBA	Liberia Airpor	6.27	124	*e*P	Pn	09 42 26.7	+2.1
VRLE	La Escondida,	6.31	122	*e*P	Pn	09 42 26.3	+1.2
ERIA	Liberia	6.33	123	*e*P	Pn	09 42 27.8	+2.5
CLARA	Aguas Claras	6.47	121	*e*P	Pn	09 42 28.3	+1.1
MESS	Mesas	6.48	121	*e*P	Pn	09 42 28.8	+1.4
TEIG	Tepich	6.49	22		Pn	09 42 28.8	+1.4
TEIG	Tepich	6.49	22	P	Pn	09 42 30.3	+2.9
	comp=Z,10µmcomp=Z,34µmcomp=Z,5µm,0.8s						
TEIG	Tepich	6.49	22	P	Pn	09 42 29.6	+2.2
	comp=Z,5µm,0.8s						
VMAR	Armenia, Volca	6.51	120	*e*P	Pn	09 42 28.7	+0.9
JUD3	Juan Diaz 3	6.53	127	*e*P	Pn	09 42 29.8	+1.7
CUI	Cuipilapa	6.55	122	*e*P	Pn	09 42 29.8	+1.5
CMARA	Lajas Hojancha	6.71	127	*e*P	Pn	09 42 32.2	+1.6
JTS	Las Juntas de	6.92	123	P	Pn	09 42 34.0	+0.6
	comp=Z,121nm,0.5s,baz=299,slow=9.2,SNR=74						
JTS				S	Sn	09 43 50.3	-0.4
	comp=Z,50nm,0.3s,baz=8.1,slow=16,SNR=1.4						
JTS				LR	LR	09 45 14.3	
	comp=Z,463nm,20.1s,baz=302,slow=38						
JTS	Las Juntas de	6.92	123	*d i*P	Pn	09 42 34.6	+1.2
JTS				pmax	pmax		
	comp=Z,110nm,0.4s						
JTS	Las Juntas de	6.92	123	P	Pn	09 42 35.1	+1.7
	comp=Z,249nm,0.5s						
JUNT	Juntas	6.92	123	*e*P	Pn	09 42 33.3	-0.1
MTEVE	Monteverde	7.01	123	*e*P	Pn	09 42 36.2	+1.5
CASO	Castillo	7.02	121	*e*P	Pn	09 42 36.8	+2.0
BLUN	Bluefields	7.20	107	P	Pn	09 42 39.3	+2.1
	comp=Z,75nm,0.8s						
BILN	Bilwi Airport	7.23	90		Pn	09 42 37.9	+0.4
PALD	Palmares	7.48	123	*e*P	Pn	09 42 42.4	+1.4
HDC	Heredia	7.77	122		Pn	09 42 46.8	+1.8
LCR2	La Lucha 2	8.00	123		Pn	09 42 49.7	+1.5
RAFA	San Farael, Vo	8.04	121		Pn	09 42 50.9	+2.0
TLIG	Tlapa	8.17	295		Pn	09 42 52.6	+2.1
PRVC	Isla de Provid	9.23	94	P	Pn	09 43 05.6	+0.9
	comp=Z,2µmcomp=Z,4µmcomp=Z,276nm,1.5s						
PRVC	Isla de Provid	9.23	94	P	Pn	09 43 04.2	-0.5
	comp=Z,2µmcomp=Z,4µmcomp=Z,276nm,1.5s						
RGM0	Gandoca	9.25	119	Pn	Pn	09 43 08.4	+3.4
PIRO	Carate, Puerto	9.32	127		Pn	09 43 08.6	+2.6
FITO	Golfito	9.33	125	*e*P	Pn	09 43 08.7	+2.5
NELY	Ciudad Neily	9.48	125	*e*P	Pn	09 43 11.1	+2.9
UNM	Universidad Na	9.49	304	P	Pn	09 43 10.4	+1.8
UNM	Universidad Na	9.49	304		Pn	09 43 10.4	+1.8
SCLRA	Santa Clara, W	9.51	123	*e*P	Pn	09 43 11.6	+3.0
BRU2	Volcan	9.60	123		Pn	09 43 11.8	+1.8
BRU2	Volcan	9.60	123	P	Pn	09 43 12.2	+2.3
	comp=Z,267nm,1.2s						
BRU2	Volcan	9.60	123	*e*P	Pn	09 43 12.1	+2.1
CLLRA	Cordillera,	9.69	123	*e*P	Pn	09 43 13.9	+2.7
PTPM	Petroterminale	9.80	126	*e*P	Pn	09 43 16.4	+3.9
BQTLY	Boquete Panama	9.81	122	*e*P	Pn	09 43 15.4	+2.6
LMNES	Limones	9.88	127	*e*P	Pn	09 43 16.4	+2.8
PBNVO	Pueblo Nuevo,	9.96	121	*e*P	Pn	09 43 16.2	+1.6
RBALA	Bur	10.00	121	*e*P	Pn	09 43 16.8	+1.6
DVD	David	10.00	124	*e*P	Pn	09 43 17.9	+2.7
KKNTU	Kakintº	10.31	120	*e*P	Pn	09 43 20.8	+1.3
FSCY	Frank Sound, G	10.55	60	*e*P	Pn	09 43 22.6	-0.1
FSCY				*e*S	Sn	09 44 46.6	-32
MOIG	Morelia	11.32	300		Pn	09 43 35.1	+1.8
SOR	Soroa	11.33	40	P	Pn	09 43 35.7	+2.5
SOR	Soroa	11.33	40		Pn	09 43 35.7	+2.5
SOR	Soroa	11.33	40	*e*P	Pn	09 43 35.8	+2.5
SOR				*e*S	Sn	09 45 12.5	-25
SOR	Soroa	11.33	40	P	Pn	09 43 35.6	+2.4
	comp=Z,1µm,1.1s						
GMAL	Guarumal, Vera	11.37	123	P	Pn	09 43 37.1	+3.2
	comp=Z,1µmcomp=Z,125nm,1.0s						
GMAL	Guarumal, Vera	11.37	123	P	Pn	09 43 36.4	+2.5
	comp=Z,1µmcomp=Z,125nm,1.0s						
LCCY	Blossom Villag	11.64	61		Pn	09 43 39.7	+2.4
PNME	Penonome	11.75	118	P	Pn	09 43 40.3	+1.5
	comp=Z,102nm,0.9s						
BCIP	Isla Barro Col	11.86	114	P	Pn	09 43 40.4	+0.1
	comp=Z,1µmcomp=Z,98nm,1.2s						
BCIP	Isla Barro Col	11.86	114	P	Pn	09 43 41.1	+0.8
	comp=Z,60nm,1.2s						
CACAO	El Cacao, Vera	11.91	124	P	Pn	09 43 44.2	+3.2
	comp=Z,853nmcomp=Z,79nm,1.0s						
CACAO	El Cacao, Vera	11.91	124	P	Pn	09 43 44.3	+3.2
	comp=Z,853nmcomp=Z,79nm,1.0s						
CACAO	El Cacao, Vera	11.91	124	*e*P	Pn	09 43 44.1	+3.0
CBCY	The Bluff, Cay	11.94	61	*e*P	Pn	09 43 42.4	+1.0
AZU	Azuero	12.15	120	P	Pn	09 43 46.3	+2.1
	comp=Z,860nmcomp=Z,65nm,1.6s						
AZU	Azuero	12.15	120	P	Pn	09 43 45.9	+1.7
	comp=Z,863nmcomp=Z,65nm,1.6s						
AZU	Azuero	12.15	120	*e*P	Pn	09 43 46.0	+1.8
UPA	Univ. de Panam	12.21	114	P	Pn	09 43 45.2	+0.2
	comp=Z,461nmcomp=Z,19nm,1.1s						
CAMR	Camarioca	12.58	44		Pn	09 43 51.5	+1.8
CAMR	Camarioca	12.58	44	*e*P	Pn	09 43 51.3	+1.5
MGV	Manicaragua	12.97	51	*e*P	Pn	09 43 55.3	+0.3
MCJ	Malvern	13.17	72	⇑*i*P	Pn	09 43 58.9	+1.2
CVJ	Coleyville	13.38	71	⇑*i*P	Pn	09 44 01.5	+1.0
MTDJ	Mount Denham	13.38	71		Pn	09 44 01.5	+1.0
CAIB	Caibarien	13.58	51		Pn	09 44 04.3	+1.4
CAIB	Caibarien	13.58	51	*e*P	Pn	09 44 03.9	+1.0
PCJ	Portland Cotta	13.61	73	⇓*i*P	Pn	09 44 05.8	+2.3
STH	Stony Hill	14.01	72	⇓*i*P	P	09 44 11.0	-2.2
STH				⇓*i*P	P	09 44 11.0	-2.2
ZAIG	Zacatecas	14.03	309	P	P	09 44 11.4	-2.2
	comp=Z,50nm,1.1s						
PILO	Pilon	14.04	64	*e*P	Pn	09 44 10.4	+1.4
HOJ	Hope	14.05	72	⇓*i*P	P	09 44 11.8	-1.9
GWJ	Greenwich	14.09	72	⇓*i*P	P	09 44 12.1	-2.1
GWJ				⇓*i*P	Pn	09 44 12.7	+3.0
CCCC	Cccc	14.26	59	*e*P	P	09 44 15.6	-0.4
LMGC	Las Mercedes	14.45	64	*e*P	Pn	09 44 15.8	+1.7
HBVL	Hebbronville	14.76	331	Pn	P	09 44 20.1	-1.3
PAYG	Puerto Ayora	14.77	178	P	P	09 44 24.9	+3.3
	comp=Z,267nm,1.1s						
PAYG	Puerto Ayora	14.77	178	P	P	09 44 20.6	-1.1
	comp=Z,274nm,1.1s						
CHIV	Chivirico	14.93	65	Pn	Pn	09 44 20.9	+0.6
CHIV	Chivirico	14.93	65	*e*P	Pn	09 44 20.1	-0.2
YAR	Yar	15.12	64	*e*P	Pn	09 44 23.1	+0.4
APAC	Apartado, Choc	15.31	113	P	P	09 44 27.9	+0.3
	comp=Z,1µmcomp=Z,55nm,0.7s						
APAC	Apartado, Choc	15.31	113	P	P	09 44 27.0	-0.6
	comp=Z,1µmcomp=Z,55nm,0.7s						
RCC	Rio Carpintero	15.57	66	*e*P	Pn	09 44 28.9	+0.5
HLGC	Holguin	15.58	63	*e*P	Pn	09 44 26.3	-2.2
PINC	Pinares de May	15.66	64	*e*P	P	09 44 30.7	-0.8
SJCC	San Jacinto, C	15.88	104	P	P	09 44 33.3	-0.8
	comp=Z,1µmcomp=Z,138nm,0.9s						
SJCC	San Jacinto, C	15.88	104	P	Pn	09 44 32.0	-0.4
	comp=Z,1µmcomp=Z,138nm,0.9s						
735A	Kenedy	15.97	337		P	09 44 35.7	+0.8
735A				IAmb	IAmb	09 44 59.1	
	comp=Z,439nm,1.4s						
GTBY	Guantanamo Bay	16.07	67	*e*P	P	09 44 35.4	-0.7
GTBY	Guantanamo Bay	16.07	67	P	P	09 44 36.6	+0.5
	comp=Z,145nm,2.1s						
060A	Indiantown	16.10	36	P	P	09 44 36.4	+0.1
060A	Indiantown	16.10	36	*e*P	P	09 44 36.6	+0.3
833A	Chaparral WMA,	16.17	332	P	P	09 44 37.6	+0.6
EF02	Christine	16.19	335	P	P	09 44 37.6	+0.4
EF02				IAmb	IAmb	09 44 41.3	
	comp=Z,426nm,1.7s						
EF04	Eagle Ford 04	16.29	338	P	P	09 44 38.9	+0.6
EF04				IAmb	IAmb	09 45 02.6	
	comp=Z,203nm,1.2s						
UREC	San Jos de Ur	16.31	111	P	Pn	09 44 37.2	-0.5
	comp=Z,480nmcomp=Z,29nm,0.9s						
UREC	San Jos de Ur	16.31	111	P	Pn	09 44 36.8	-0.9
	comp=Z,480nmcomp=Z,28nm,0.9s						
HKT	Hockley	16.36	344	*c i*P	P	09 44 40.0	+0.9
HKT				pmax	pmax		
	comp=Z,79nm,1.1s						
HKT	Hockley	16.36	344		P	09 44 40.1	+1.0
HKT				IAmb	IAmb	09 44 43.2	
	comp=Z,219nm,1.4s						
HKT	Hockley	16.36	344	Pn	P	09 44 39.5	+0.4
HKT				IAmb	IAmb	09 44 43.4	
	comp=Z,536nm,1.8s						
HKT	Hockley	16.36	344	P	P	09 44 40.4	+1.3
	comp=Z,163nm,2.1s						
DWPF	Disney Wildern	16.39	31	P	P	09 44 40.0	+0.6
DWPF	Disney Wildern	16.39	31	*e*P	P	09 44 42.0	+2.6
DWPF	Disney Wildern	16.39	31	P	P	09 44 40.4	+1.0
	comp=Z,900nm,1.2s						
NMDO	Nuevo Mundo	16.39	65	*e*P	P	09 44 39.5	-0.1
QMBU	Quimbuelo	16.43	66	*e*P	Pn	09 44 39.2	+0.2
MOAC	Moa	16.45	65	*e*P	Pn	09 44 39.5	+0.2
SMRC	Santa Marta, M	16.47	99	P	Pn	09 44 38.9	-0.8
	comp=Z,39nm,1.6s						
441A	DeRidder	16.63	353	P	P	09 44 43.1	+1.0
CBOC	Ciudad Bolivar	16.76	118	P	P	09 44 45.0	+1.1
	comp=Z,957nmcomp=Z,94nm,1.2s						
CBOC	Ciudad Bolivar	16.76	118	P	Pn	09 44 42.3	-1.0
ARGC	Ariguani, Magd	16.77	103	P	P	09 44 44.1	+0.2
	comp=Z,2µmcomp=Z,1µmcomp=Z,109nm,1.3s						
ARGC	Ariguani, Magd	16.77	103	P	Pn	09 44 42.7	-0.7
	comp=Z,2µmcomp=Z,1µmcomp=Z,109nm,1.3s						
656A	Willston	16.95	26	P	P	09 44 46.9	+1.2
451A	Vernon	17.01	15	P	P	09 44 48.2	+1.9
346A	Big Creek Wild	17.17	4	P	P	09 44 50.4	+2.3
GUY2C	Guyana, Caldas	17.64	119	P	Pn	09 44 55.8	+1.5
	comp=Z,2µmcomp=Z,187nm,0.7s						
GUY2C	Guyana, Caldas	17.64	119	P	Pn	09 44 54.6	+0.3
	comp=Z,2µmcomp=Z,187nm,0.7s						
PTBC	PUERTO BERRIO,	17.79	114	P	P	09 44 55.0	-0.1
	comp=Z,493nmcomp=Z,47nm,1.0s						
NATX	Nacogdoches	17.85	349	P	Pn	09 44 56.9	+0.6
NATX				IAmb	IAmb	09 45 00.2	
	comp=Z,212nm,0.9s						
NORC	Norcasia	17.89	117	P	P	09 44 56.0	-0.2
	comp=Z,644nmcomp=Z,76nm,0.8s						
VBMS	Vicksburg	17.96	1	P	Pn	09 44 59.2	+1.7
352A	Blakely	18.05	16	P	Pn	09 44 59.8	+1.2
BBAC	Balboa, Cauca	18.06	131	P	Pn	09 45 01.7	+2.6
	comp=Z,1µmcomp=Z,67nm,0.6s						
BBAC	Balboa, Cauca	18.06	131	P	Pn	09 45 00.0	+0.9
	comp=Z,1µmcomp=Z,67nm,0.6s						
FLF1	Flavio Alfaro-	18.08	142	P	Pn	09 45 01.7	+2.5
POPC	Popayan, Colom	18.14	128	P	Pn	09 45 02.7	+2.5
	comp=Z,3µmcomp=Z,204nm,1.5s						
POPC	Popayan, Colom	18.14	128	P	Pn	09 45 01.9	+1.7
	comp=Z,3µmcomp=Z,204nm,1.5s						
250A	Grady	18.20	12	P	Pn	09 45 02.4	+1.9
250A				IAmb	IAmb	09 45 21.8	
	comp=Z,247nm,1.0s						
JCT	Junction City	18.21	334	P	Pn	09 45 01.8	+1.2
JCT				pmax	pmax		
	comp=Z,114nm,1.3s						
JCT	Junction City	18.21	334	P	Pn	09 45 01.8	+1.2
BRJC	Barrancabermej	18.25	111	P	P	09 45 00.5	+0.4
	comp=Z,731nmcomp=Z,67nm,1.3s						
CMBC	Cumbal	18.40	135	P	Pn	09 45 05.8	+2.4
CMBC	Cumbal	18.40	135	P	Pn	09 45 05.9	+2.5
ORTC	Ortega, Tolima	18.45	122	P	Pn	09 45 04.9	+1.3
	comp=Z,5µmcomp=Z,621nm,0.8s						
ORTC	Ortega, Tolima	18.45	122	P	Pn	09 45 03.2	-0.4
	comp=Z,5µmcomp=Z,621nm,0.8s						
CUSE	Cuicocha Este	18.48	137	P	Pn	09 45 05.8	+1.4
	comp=Z,2µmcomp=Z,58nm,0.9s						
OTAV	Otavalo	18.49	137	P	Pn	09 45 05.8	+1.2
	comp=Z,568nmcomp=Z,22nm,0.9s						
OTAV	Otavalo	18.49	137	P	Pn	09 45 05.3	+0.7
	comp=Z,568nmcomp=Z,22nm,0.9s						
OTAV	Otavalo	18.49	137	*e*P	P	09 45 00.8	-2.4
OTAV	Otavalo	18.49	137	P	Pn	09 45 05.9	+1.3
	comp=Z,22nm,1.0s						
TULM	Tulcn-Chalpat	18.59	135	P	Pn	09 45 08.4	+2.7
	comp=Z,2µmcomp=Z,132nm,1.3s						
TULM	Tulcn-Chalpat	18.59	135	P	Pn	09 45 07.9	+2.2
	comp=Z,2µmcomp=Z,132nm,1.3s						
ROSC	El Rosal	18.73	118	P	P	09 45 06.0	+0.2
	comp=Z,80nm,0.7s,baz=50,slow=2.4,SNR=51						
ROSC	El Rosal	18.73	118	P	P	09 45 06.0	+0.2
ROSC	El Rosal	18.73	118	P	Pn	09 45 10.5	+3.2
	comp=Z,1µmcomp=Z,165nm,1.0s						
ROSC	El Rosal	18.73	118	P	Pn	09 45 07.7	+0.4
	comp=Z,1µmcomp=Z,165nm,1.0s						
PRAC	Prado	18.85	122	P	Pn	09 45 09.9	+1.4
	comp=Z,2µmcomp=Z,268nm,0.8s						
PRAC	Prado	18.85	122	P	P	09 45 07.3	+0.5
	comp=Z,2µmcomp=Z,268nm,0.8s						
BARC	Barichara	18.91	112	P	P	09 45 07.8	+0.2
	comp=Z,2µmcomp=Z,117nm,1.1s						
BETC	Betania	19.01	126	P	Pn	09 45 11.3	+1.0
PAMC	Pamplona, Colo	19.05	109	P	P	09 45 09.3	-0.1
PAMC	Pamplona, Colo	19.05	109	P	P	09 45 08.7	-0.7
CVER	Cruz Verde, Cu	19.10	119	P	Pn	09 45 14.4	+2.6
	comp=Z,2µmcomp=Z,149nm,0.9s						
CVER	Cruz Verde, Cu	19.10	119	P	Pn	09 45 12.7	+0.9
TXAR	Lajitas Array	19.20	324	P	Pn	09 45 13.3	+0.8
	comp=Z,25nm,0.7s,baz=152,slow=12,SNR=243						
TXAR				PcP	PcP	09 49 31.6	+1.6
	comp=Z,17nm,0.8s,baz=162,slow=3.5,SNR=19						
TXAR				ScP	ScP	09 52 57.1	+0.3
	comp=Z,13nm,0.9s,baz=124,slow=2.7,SNR=27						
TXAR				PKiKP	PKiKP	09 57 20.0	-0.2
	comp=Z,0.9nm,0.9s,baz=185,slow=1.4,SNR=3.8						
GARC	Garzon, Huila	19.28	127	P	Pn	09 45 14.1	+0.5
	comp=Z,1µmcomp=Z,114nm,0.8s						
GARC	Garzon, Huila	19.28	127	P	Pn	09 45 13.5	-0.1
	comp=Z,1µmcomp=Z,114nm,0.8s						
RUSC	La Rusia	19.30	113	P	P	09 45 10.9	-1.2
	comp=Z,864nmcomp=Z,115nm,0.9s						
CASC	Dorado de Casc	19.31	135	P	Pn	09 45 15.2	+1.3
	comp=Z,2µmcomp=Z,131nm,1.1s						
SDDR	Presa de Saban	19.32	73	P	Pn	09 45 14.0	0.0
	comp=Z,3µmcomp=Z,1µmcomp=Z,80nm,0.9s						
SDDR	Presa de Saban	19.32	73	*i*P	Pn	09 45 13.7	-0.2
SDDR	Presa de Saban	19.32	73	*e*P	Pn	09 45 13.7	-0.2
SDDR	Presa de Saban	19.32	73	P	Pn	09 45 14.0	0.0
	comp=Z,81nm,1.0s						
CHIC	Chingaza	19.34	118	P	P	09 45 13.3	+0.9
	comp=Z,2µmcomp=Z,142nm,1.0s						
VILC	Villavicencio,	19.63	119	P	Pn	09 45 18.2	+0.5
VILC	Villavicencio,	19.63	119	P	P	09 45 16.3	+0.9
ABTX	Abilene, Hawle	20.04	338	P	P	09 45 20.1	+0.6
ABTX				IAmb	IAmb	09 45 23.0	
	comp=Z,305nm,1.4s						
GRTK	Grand Turk	20.10	66	P	Pn	09 45 22.9	-0.1
	comp=Z,7µmcomp=Z,338nm,1.1s						
GRTK	Grand Turk	20.10	66	P	Pn	09 45 22.8	-0.1
	comp=Z,341nm,1.1s						
TAMC	Tame, Arauca	20.24	110	P	P	09 45 21.4	-0.4
	comp=Z,2µmcomp=Z,251nm,0.7s						
TAMC	Tame, Arauca	20.24	110	P	P	09 45 20.5	-1.3
GOGA	Godfrey	20.28	18	P	Pn	09 45 24.6	-0.3
	comp=Z,267nm,0.8s						
OXF	Oxford	20.28	3	P	P	09 45 22.9	+0.9
OXF				pmax	pmax		
	comp=Z,925nm,1.2s						

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OXF   Oxford           20.28   3  P      P      09 45 22.9 +0.9
MIAR  Mount Ida        20.43 353  P      Pn     09 45 25.1 -1.5
      comp=Z,212nm,1.2s
SDV   Santo Domingo    20.47 103  P      P      09 45 23.2 -1.2
      comp=Z,41nm,0.4s,baz=283,slow=4.9,SNR=92
SDV                               PcP    PcP    09 49 33.2 +0.5
      comp=Z,19nm,0.7s,baz=360,slow=1.7,SNR=5.9
SDV                               ScP    ScP    09 53 00.5 +0.4
      comp=Z,18nm,0.8s,baz=261,slow=2.7,SNR=15
SDV                               LR     LR     09 55 13.1
      comp=Z,372nm,18.8s,baz=266,slow=42
      comp=Z,41nm,0.4s
SDV   Santo Domingo    20.47 103  P      P      09 45 22.6 -1.8
SDV   Santo Domingo    20.47 103 eP      P      09 45 19.1 -5.3
SDV   Santo Domingo    20.47 103  P      P      09 45 23.2 -1.2
      comp=Z,483nm,0.8s
SDD   Santo Domingo    20.51  75  P      Pn     09 45 26.4 -1.4
SDD                               IAmb   IAmb   09 45 28.3
      comp=Z,362nm,1.1s
Y52A  Lilburn          20.54  16  P      Pn     09 45 26.4 -1.5
MACC  Macarena, Meta   20.60 124  P      Pn     09 45 27.8 -1.1
      comp=Z,6µmcomp=Z,650nm,0.8s
WTFS  Witchita Falls   20.69 342  P      P      09 45 27.7 +1.2
WTFS                              IAmb   IAmb   09 45 44.7
      comp=Z,145nm,1.0s
LPIG  La Paz           20.86 301  P      Pn     09 45 31.3 -0.4
      comp=Z,64nm,1.0s,baz=222,slow=1.7,SNR=8.5
LPIG                              PcP    PcP    09 49 35.3 +2.3
      comp=Z,20nm,0.8s,baz=263,slow=3.6,SNR=3.5
LPIG                              ScP    ScP    09 53 02.3 +1.6
      comp=Z,35nm,1.0s,baz=66,slow=2.1,SNR=5.2
      comp=Z,64nm,1.0s
MET   Memphis--Engin   20.87   2  P      Pn     09 45 30.8 -1.0
PECS  Pecos            20.88 327  P      P      09 45 30.0 +1.4
PTLC  Puerto Leguiza   21.11 130  P      P      09 45 37.6 +6.5
      comp=Z,2µmcomp=Z,197nm,0.9s
SWET  Sewanee          21.41  11  P      P      09 45 35.5 +1.4
SWET                              IAmb   IAmb   09 45 38.6
      comp=Z,224nm,0.8s
TPB11 China Draw       21.41 328  P      P      09 45 35.7 +1.4
HODGE Hodges           21.42  20  P      P      09 45 35.3 +1.1
HODGE                             IAmb   IAmb   09 45 38.6
      comp=Z,213nm,0.8s
WMOK  Wichita Mounta   21.69 342  P      P      09 45 36.5 -0.7
      comp=Z,82nm,1.1s
MNTX  Cornudas Mount   21.95 325  P      P      09 45 40.5 +0.5
      comp=Z,281nm,1.0s
WVT   Waverly          22.02   6  P      P      09 45 41.9 +1.3
WVT                               pmax   pmax
      comp=Z,181nm,1.0s
WVT   Waverly          22.02   6  P      P      09 45 41.9 +1.3
WVT                               IAmb   IAmb   09 46 04.1
      comp=Z,180nm,1.0s
WVT   Waverly          22.02   6  P      P      09 45 41.2 +0.6
      comp=Z,195nm,1.0s
HHAR  Hobbs            22.18 353  P      P      09 45 41.9 -0.5
HHAR                              IAmb   IAmb   09 45 43.8
      comp=Z,172nm,0.8s
TKL   Tuckaleechee C   22.31  15  LR     LR     09 55 21.7
      comp=Z,539nm,19.3s,baz=202,slow=39
BIRD  Birdtown, Kers   22.43  23  P      P      09 45 45.6 +0.7
BIRD                              IAmb   IAmb   09 45 47.7
      comp=Z,136nm,0.9s
PBMO  Poplar Bluff     22.51   1  P      P      09 45 45.3 -0.4
PBMO                              IAmb   IAmb   09 46 11.4
      comp=Z,185nm,1.1s
TZTN  Tazewell         23.20  15  P      P      09 45 54.2 +1.7
      comp=Z,549nm,0.8s
S39A  Bolivar          23.52 355  P      P      09 45 55.5 +0.1
HSIG                   23.78 312  P      P      09 45 58.8 +0.9
HSIG                              IAmb   IAmb   09 46 02.0
      comp=Z,97nm,1.0s
CCM   Cathedral Cave   23.78 359  P      P      09 45 58.0 +0.2
      comp=Z,147nm,0.9s
SRIG  Santa Rosalia    23.86 307  P      P      09 46 01.6 +3.0
      comp=Z,117nm,1.0s
SJG   San Juan         24.02  77  LR     LR     09 56 06.4
      comp=Z,547nm,20.7s,baz=263,slow=39
SJG   San Juan         24.02  77  P      P      09 45 57.7 -2.4
      comp=Z,42nm,0.8s
WCI   Wyandotte Cave   24.29   9  P      P      09 46 03.4 +1.1
      comp=Z,411nm,0.7s
HUMP  Col San Antoni   24.30  77  P      P      09 46 00.8 -1.8
ATAH  Atahualpa        24.51 149  LR     LR     09 54 30.6
      comp=Z,179nm,19.5s,baz=320,slow=33
Q44A  Meyer Farm, Va   24.68   3  P      P      09 46 06.7 +0.9
Q44A                              IAmb   IAmb   09 46 41.8
      comp=Z,106nm,1.0s
ANMO  Albuquerque      25.02 328⇑eP      P      09 46 10.5 +1.2
ANMO                              pmax   pmax
      comp=Z,30nm,1.3s
ANMO  Albuquerque      25.02 328  P      P      09 46 12.0 +2.7
      comp=Z,25nm,1.1s
P38A  Dawn             25.46 355  P      P      09 46 12.7 -0.3
P38A                              IAmb   IAmb   09 46 50.2
      comp=Z,96nm,1.0s
TUC   Tucson           25.65 318  P      P      09 46 17.3 +2.5
      comp=Z,80nm,1.0s
R58B  Mineral          26.33  24  P      P      09 46 21.7 +0.9
R58B                              IAmb   IAmb   09 46 23.1
      comp=Z,67nm,0.9s
N51A  Ashland          27.64  14  P      P      09 46 33.0 +0.5
N51A                              IAmb   IAmb   09 46 35.9
      comp=Z,87nm,0.7s
MVCO  Mesa Verde       27.82 329  P      P      09 46 36.5 +2.0
      comp=Z,53nm,1.2s
CZSB  Cruzeiro do Su   28.24 139  P      P      09 46 40.2 +2.1
CZSB                              IAmb   IAmb   09 46 41.7
      comp=Z,68nm,0.9s
CZSB  Cruzeiro do Su   28.24 139  P      P      09 46 40.8 +2.7
CZSB  Cruzeiro do Su   28.24 139 eP      P      09 46 37.5 -0.6
CZSB                             epP     P      09 46 40.2 +2.1
ISCO  Idaho Springs    28.64 336  P      P      09 46 43.0 +1.2
      comp=Z,8.0nm,1.2s
SSPA  Standing Stone   28.68  21  P      P      09 46 42.4 +0.6
NNA   Nana             29.46 151  LR     LR     09 57 46.9
      comp=Z,106nm,19.2s,baz=320,slow=34
NNA   Nana             29.46 151⇑eP      P      09 46 48.3 -0.7
NNA                               pmax   pmax
      comp=Z,69nm,1.5s
ECSD  EROS Data Cent   29.87 352  P      P      09 46 51.8 -0.5
      comp=Z,39nm,0.7s
BBSR  BB Station       29.94  48  P      P      09 46 54.0 +1.0
      comp=Z,131nm,0.9s
L56A  Greenwood        30.13  20  P      P      09 46 55.1 +0.4
XPFO  Pinon Flat       30.24 314  P      P      09 46 58.9 +3.0
XPFO                              PcP    PcP    09 49 56.1 +1.7
XPFO                              ScP    ScP    09 53 30.3 +2.7
PFO   Pinyon Flats O   30.24 314  LR     LR     09 59 40.0
      comp=Z,192nm,21.0s,baz=126,slow=37
PFO   Pinyon Flats O   30.24 314ceP      P      09 46 58.6 +2.7
PFO                               pmax   pmax
      comp=Z,56nm,1.0s
PFO   Pinyon Flats O   30.24 314  P      P      09 46 58.8 +2.9
      comp=Z,41nm,1.5s
PFO   Pinyon Flats O   30.24 314  P      P      09 46 58.9 +3.0
PFO                               PcP    PcP    09 49 56.0 +1.6
PFO                               ScP    ScP    09 53 30.1 +2.5
I49A  Point Hope       30.44  11  P      P      09 46 57.7 +0.4
I49A                              IAmb   IAmb   09 46 59.5
      comp=Z,108nm,0.8s
BINY  Binghamton       30.73  22  P      P      09 47 01.1 +1.1
      comp=Z,154nm,1.0s
RSSD  Black Hills      31.90 342  P      P      09 47 11.5 +1.0
      comp=Z,11nm,0.7s
SADO  Sadowa           32.07  16  LR     LR     10 00 54.3
      comp=Z,596nm,20.6s,baz=184,slow=38
SADO  Sadowa           32.07  16  P      P      09 47 11.7 +0.1
SADO                              IAmb   IAmb   09 47 12.5
      comp=Z,89nm,0.7s
BOAV  Boa Vista        32.14 109 eP      P      09 47 09.4 -3.2
BOAV                             epP     P      09 47 12.8 +0.2
DUG   Dugway, Tooele   32.28 328  P      P      09 47 14.9 +1.2
      comp=Z,17nm,1.0s
J59A  Piesco           32.37  22  P      P      09 47 14.6 +0.3
J59A                              IAmb   IAmb   09 47 15.7
      comp=Z,54nm,0.7s
HWUT  Hardware Ranch   32.72 331  P      P      09 47 18.7 +1.1
      comp=Z,26nm,0.8s
PDAR  Pinedale Array   32.74 334  P      P      09 47 18.6 +0.7
      comp=Z,4.5nm,0.8s,baz=129,slow=10.0,SNR=22
PDAR                              PcP    PcP    09 50 00.7 -0.4
      comp=Z,3.5nm,0.5s,baz=190,slow=2.9,SNR=16
PDAR                              ScP    ScP    09 53 36.5 +0.5
      comp=Z,4.5nm,0.6s,baz=134,slow=3.0,SNR=18
PDAR                              PKiKP  PKiKP  09 57 27.0 -0.7
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      comp=Z,1.4nm,0.7s,baz=97,slow=0.4,SNR=10
PDAR                              LR     LR     10 03 46.2
      comp=Z,116nm,21.3s,baz=132,slow=42
      comp=Z,4.5nm,0.8s
HRV   Adam Dziewonsk   32.76  27  P      P      09 47 18.2 +0.5
HRV                               pmax   pmax
      comp=Z,52nm,0.8s
HRV   Adam Dziewonsk   32.76  27  P      P      09 47 18.2 +0.5
HRV                               IAmb   IAmb   09 47 19.4
      comp=Z,52nm,0.8s
HRV   Adam Dziewonsk   32.76  27  P      P      09 47 18.5 +0.7
      comp=Z,90nm,0.9s
HRV   Adam Dziewonsk   32.76  27  P      P      09 47 18.4 +0.7
AHID  Auburn Hatcher   33.41 332  P      P      09 47 24.5 +0.8
      comp=Z,20nm,1.0s
WBO   Williamsburg     33.44  20  P      P      09 47 23.6 +0.1
EYMN  Ely              33.67 359  P      P      09 47 24.6 -1.0
      comp=Z,66nm,0.9s
ELK   Elko             33.97 326  LR     LR     10 04 02.8
      comp=Z,109nm,19.6s,baz=142,slow=41
NVAR  Mina Array Bea   34.26 320  P      P      09 47 34.1 +3.1
      comp=Z,100nm,0.8s,baz=132,slow=8.6,SNR=627
NVAR                              PcP    PcP    09 50 06.7 +1.3
      comp=Z,38nm,0.7s,baz=133,slow=3.6,SNR=43
NVAR                              ScP    ScP    09 53 43.0 +1.7
      comp=Z,13nm,0.8s,baz=105,slow=3.7,SNR=24
NVAR                              LR     LR     10 03 59.1
      comp=Z,164nm,19.1s,baz=135,slow=40
AGMN  Agassiz Nation   34.27 354  P      P      09 47 30.6 -0.1
      comp=Z,71nm,0.9s
MACA  Manacapuru-AM    34.50 118 eP      P      09 47 31.0 -2.1
MACA                             epP     P      09 47 33.1  0.0
YHB   Horse Butte      35.05 334  P      P      09 47 38.9 +1.1
HLID  Hailey           35.58 330  P      P      09 47 43.6 +1.3
      comp=Z,19nm,1.7s
ULM   Lac du Bonnet    36.21 355  P      P      09 47 46.5 -0.8
      comp=Z,85nm,0.8s,baz=170,slow=9.2,SNR=96
ULM                               ScP    ScP    09 53 48.2 +0.4
      comp=Z,14nm,1.0s,baz=163,slow=5.6,SNR=6.3
ULM                               LR     LR     10 05 36.3
      comp=Z,184nm,19.7s,baz=164,slow=41
      comp=Z,85nm,0.8s
WVOR  Wild Horse Val   36.99 325  P      P      09 47 56.0 +1.8
      comp=Z,82nm,1.0s
LPAZ  La Paz           37.67 143  P      P      09 48 01.6 +0.8
      comp=Z,8.9nm,0.7s,baz=334,slow=6.9,SNR=48
LPAZ                              PcP    PcP    09 50 16.9 +0.6
      comp=Z,3.3nm,0.6s,baz=299,slow=3.0,SNR=4.7
LPAZ                              ScP    ScP    09 53 56.4 +1.8
      comp=Z,5.5nm,0.9s,baz=352,slow=5.2,SNR=7.7
LPAZ                              LR     LR     10 02 19.0
      comp=Z,313nm,22.0s,baz=310,slow=34
      comp=Z,8.9nm,0.7s
LPAZ  La Paz           37.67 143 eP      P      09 47 59.5 -1.3
LPAZ                             epP     P      09 48 01.6 +0.8
LPAZ  La Paz           37.67 143  P      P      09 48 01.8 +0.9
      comp=Z,17nm,1.6s
LPAZ  La Paz           37.67 143  P      P      09 48 01.7 +0.9
LPAZ                              ScP    ScP    09 53 57.4 +2.8
PB18  Visviri          37.95 146  P      P      09 48 05.8 +2.8
      comp=Z,104nm,1.6s
PB12  IPOC Station P   38.34 148  P      P      09 48 07.0 +1.2
      comp=Z,43nm,1.6s
PB12                              pP     pP     09 48 29.7 +0.6
PB16  IPOC Station P   38.55 146  P      P      09 48 10.2 +2.1
      comp=Z,49nm,1.6s
PB16                              pP     pP     09 48 32.8 +1.4
MDP   Montagnes des    38.66 100  LR     LR     10 06 03.1
      comp=Z,137nm,18.6s,baz=298,slow=39
YBH   Yreka Blue Hor   38.93 321  LR     LR     10 05 43.3
      comp=Z,140nm,21.7s,baz=140,slow=38
KHMM  Horse Mountain   39.09 319  P      P      09 48 13.9 +2.0
PSGCX Pisagua          39.27 148  P      P      09 48 14.1 +0.6
      comp=Z,54nm,1.4s
PSGCX                             pP     pP     09 48 37.8 +0.9
ITTB  Itaituba         39.38 115 eP      P      09 48 11.6 -3.0
PB11  IPOC Station P   39.64 148  P      P      09 48 18.1 +1.4
      comp=Z,85nm,1.0s
PB11                              pP     pP     09 48 41.2 +1.0
L02F  Cave Junction    39.68 321  P      P      09 48 17.6 +1.0
GO01  Chusmiza         39.81 147  P      P      09 48 20.6 +2.1
      comp=Z,50nm,1.2s
GO01                              pP     pP     09 48 43.6 +1.7
PB08  IPOC Station P   40.22 147  P      P      09 48 23.2 +1.4
      comp=Z,34nm,1.3s
NEW   Newport          40.35 333  LR     LR     10 08 33.7
      comp=Z,154nm,18.1s,baz=134,slow=41
NEW   Newport          40.35 333  P      P      09 48 22.4 +0.2
      comp=Z,13nm,0.7s
VILB  Vilhena          40.59 130 eP      P      09 48 22.8 -1.6
PB02  IPOC Station P   40.83 149  P      P      09 48 28.2 +1.8
      comp=Z,86nm,1.2s
COR   Corvallis        40.98 324  P      P      09 48 28.8 +1.5
      comp=Z,132nm,1.1s
PB07  IPOC Station P   41.18 150  P      P      09 48 31.0 +1.6
      comp=Z,68nm,0.9s
FFC   Flin Flon        41.38 350 i P     P      09 48 31.2 +0.7
FFC   Flin Flon        41.38 350  P      P      09 48 31.2 +0.7
      comp=Z,77nm,1.3s
FFC   Flin Flon        41.38 350  P      P      09 48 30.9 +0.5
PB03  IPOC Station P   41.52 150  P      P      09 48 33.2 +1.1
      comp=Z,63nm,1.1s
PB09  IPOC Station P   41.55 149  P      P      09 48 34.6 +2.2
      comp=Z,86nm,1.1s
PB05  IPOC Station P   41.98 151  P      P      09 48 37.4 +1.5
      comp=Z,41nm,1.3s
CLDB  Colider          42.73 124 eP      P      09 48 39.6 -2.4
CLDB  Colider          42.73 124  P      P      09 48 40.4 -1.6
      comp=Z,291nm,1.0s
PTLB  Pontes e Lacer   42.99 132 eP      P      09 48 43.8 -0.2
DRLN  Deer Lake        44.36  31  P      P      09 48 54.2 -0.4
DRLN                              IAmb   IAmb   09 48 54.9
      comp=Z,60nm,0.7s
SCHQ  Schefferville    44.66  20  P      P      09 48 57.0  0.0
      comp=Z,271nm,0.8s,baz=211,slow=6.7,SNR=185
SCHQ                              PcP    PcP    09 50 37.0 -0.8
      comp=Z,9.8nm,0.6s,baz=180,slow=2.0,SNR=1.5
SCHQ                              ScP    ScP    09 54 18.3 -2.6
      comp=Z,4.3nm,0.7s,baz=157,slow=4.0,SNR=4.7
RPN   Rapa Nui         44.82 204  LR     LR     10 04 00.6
      comp=Z,236nm,18.1s,baz=358,slow=31
SALTA                  45.05 148  P      P      09 49 02.8 +1.9
      comp=Z,12nm,1.9s
SALV  Santo Antonio    45.82 129 eP      P      09 49 04.7 -1.8
AC02  Maricunga        45.90 153  P      P      09 49 08.7 +1.1
AC02                              IAmb   IAmb   09 49 10.7
      comp=Z,67nm,1.1s
AC02  Maricunga        45.90 153  P      P      09 49 09.7 +2.1
      comp=Z,62nm,1.5s
GO03  Copiapo          46.08 154  P      P      09 49 08.8 +0.3
AC04  Llanos de Chal   46.27 156  P      P      09 49 10.3 +0.4
AC04                              IAmb   IAmb   09 50 47.2
      comp=Z,157nm,2.0s
COIM  Forte Coimbra    46.95 135 eP      P      09 49 14.8 -0.4
SNDB  Serra Nova Dou   47.02 122 eP      P      09 49 14.2 -1.7
LCO   Las Campanas     47.14 156 eP      P      09 49 18.1 +1.1
LCO   Las Campanas     47.14 156  P      P      09 49 17.6 +0.6
LCO                               IAmb   IAmb   09 49 19.1
      comp=Z,72nm,0.9s
AC05  El Transito      47.16 155  P      P      09 49 17.7 +0.7
AC05                              IAmb   IAmb   09 49 19.3
      comp=Z,50nm,0.8s
AC05  El Transito      47.16 155  P      P      09 49 18.4 +1.5
      comp=Z,74nm,0.9s
PP1B  Ponte de Pedra   47.49 131 eP      P      09 49 18.5 -1.1
GO04  Tololo Observa   48.13 157  P      P      09 49 25.1 +0.5
GO04                              IAmb   IAmb   09 49 26.7
      comp=Z,42nm,0.9s
CO01  Juntas del Tor   48.24 156  P      P      09 49 24.5 -0.9
CO01                              IAmb   IAmb   09 50 03.6
      comp=Z,74nm,1.9s
CO01  Juntas del Tor   48.24 156  P      P      09 49 26.1 +0.7
      comp=Z,33nm,1.7s
SMTB  Santa Maria do   48.62 116 eP      P      09 49 26.3 -2.1
ARAG  Araguaiana, MT   48.67 126 eP      P      09 49 27.4 -1.3
AQDB  Aquidauana       48.77 134 eP      P      09 49 28.6 -0.8
AQDB  Aquidauana       48.77 134  P      P      09 49 29.2 -0.1
      comp=Z,57nm,1.6s
AQDB                              P      pP     09 49 52.8 -0.8
CO02  Combarbal        48.98 157  P      P      09 49 32.2 +1.3
      comp=Z,178nm,0.9s
C2SB  Chapadao do Su   49.73 130 eP      P      09 49 35.7 -1.0
C2SB  Chapadao do Su   49.73 130  P      P      09 49 37.0 +0.4
      comp=Z,109nm,1.3s
CO04  Los Peladeros    49.74 158  P      P      09 49 37.0  0.0
CO04  Los Peladeros    49.74 158  P      P      09 49 38.0 +1.0
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      comp=Z,160nm,0.9s
VA01  Torpederas       50.39 159  P      P      09 49 42.1 +0.7
VA03  San Esteban      50.55 158  P      P      09 49 44.1 +1.4
      comp=Z,207nm,0.9s
PEL   Peldehue         50.84 158  P      P      09 49 45.5 +0.6
PEL                               pmax   pmax
      comp=Z,44nm,0.8s
PEL   Peldehue         50.84 158  P      P      09 49 45.5 +0.6
PEL                               IAmb   IAmb   09 49 46.2
      comp=Z,44nm,0.8s
PEL   Peldehue         50.84 158  P      P      09 49 45.9 +0.9
      comp=Z,80nm,1.6s
YKAW1 Yellowknife Wh   51.08 346  P      P      09 49 46.1 -0.1
YKA   Yellowknife Ar   51.12 346  P      P      09 49 46.2 -0.3
      comp=Z,13nm,0.8s,baz=152,slow=7.8,SNR=39
YKA                               pP     pP     09 50 12.2 +0.6
      comp=Z,10.0nm,0.9s,baz=145,slow=7.8,SNR=4.9
YKA                               PcP    PcP    09 51 00.0 -0.7
      comp=Z,6.6nm,0.6s,baz=153,slow=3.8,SNR=13
YKA                               ScP    ScP    09 54 46.4 -1.6
      comp=Z,5.6nm,1.0s,baz=152,slow=3.9,SNR=8.8
YKA                               LR     LR     10 16 27.3
      comp=Z,104nm,19.2s,baz=129,slow=42
      comp=Z,13nm,0.8s
MT16  CCHEN            51.15 158  P      P      09 49 48.2 +0.9
MT16                              IAmb   IAmb   09 49 48.9
      comp=Z,50nm,0.7s
SJPY  San Joaquin      51.61 139 eP      P      09 49 50.2 -0.5
BO03  Pichilemu        51.62 160  P      P      09 49 51.8 +1.1
      comp=Z,122nm,0.9s
BDFB  Brasilia         51.66 123  P      P      09 49 51.1 -0.4
      comp=Z,22nm,0.9s,baz=293,slow=8.6,SNR=31
BDFB                              pP     pP     09 50 17.3 +1.4
      comp=Z,11nm,0.8s,baz=255,slow=11,SNR=3.7
BDFB                              PcP    PcP    09 51 04.8 +1.0
      comp=Z,27nm,0.9s,baz=314,slow=2.4,SNR=9.7
BDFB                              LR     LR     10 12 45.2
      comp=Z,124nm,19.2s,baz=305,slow=37
      comp=Z,22nm,0.9s
CPUP  Villa Florida    51.80 141  P      P      09 49 52.0 -0.1
      comp=Z,7.5nm,0.9s,baz=329,slow=10,SNR=13
CPUP                              PcP    PcP    09 51 04.5 +0.6
      comp=Z,3.5nm,0.8s,baz=346,slow=4.2,SNR=4.1
CPUP                              PP     PP     09 51 51.4 +0.4
      comp=Z,2.7nm,1.1s,baz=333,slow=9.8,SNR=1.5
CPUP                              ScP    ScP    09 54 53.0 +1.4
      comp=Z,7.3nm,1.0s,baz=320,slow=4.0,SNR=6.3
CPUP                              LR     LR     10 10 31.5
      comp=Z,91nm,20.8s,baz=275,slow=34
      comp=Z,7.5nm,0.9s
CPUP  Villa Florida    51.80 141 eP      P      09 49 51.4 -0.7
CPUP  Villa Florida    51.80 141  P      P      09 49 52.1  0.0
BO01  Tunca            51.83 159  P      P      09 49 52.6 +0.4
BO01  Tunca            51.83 159  P      P      09 49 53.3 +1.1
      comp=Z,134nm,1.0s
FRB   Frobisher Bay    51.89  12  LR     LR     10 13 38.4
      comp=Z,389nm,18.4s,baz=214,slow=38
GO05  Hualane          52.10 160  P      P      09 49 55.1 +0.8
      comp=Z,172nm,0.9s
BO02  Sierra Bellavi   52.29 159  P      P      09 49 56.8 +1.1
      comp=Z,74nm,1.0s
NBPS  Pedro II - PI    52.33 107 eP      P      09 49 53.5 -3.0
TRCB  Terra Rica       52.43 134 eP      P      09 49 56.4 -0.6
TRCB  Terra Rica       52.43 134  P      P      09 49 56.4 -0.6
      comp=Z,24nm,0.9s
SDBA  SAO DESIDERIO    52.62 118 eP      P      09 49 56.4 -2.1
IPMB  Ipameri, GO      52.80 126 eP      P      09 49 58.6 -1.1
ML02  Panimavida       52.96 160  P      P      09 50 01.6 +1.0
      comp=Z,272nm,0.9s
NBMO  Morrinhos-CE     53.26 105 eP      P      09 49 59.7 -3.5
BI02  San Fabin de     53.83 161  P      P      09 50 08.0 +1.1
BI02  San Fabin de     53.83 161  P      P      09 50 08.1 +1.1
      comp=Z,103nm,1.7s
LDASE Londrina, Braz   53.88 133 eP      P      09 50 06.9 -0.7
R33M  Jennings River   53.95 336  P      P      09 50 09.1 +1.5
PTGB  Pitanga          54.09 135 eP      P      09 50 07.7 -1.4
BB19B Bebedouro        54.34 129 eP      P      09 50 10.5 -0.4
JANB  Januaria         54.41 120 eP      P      09 50 10.1 -1.5
PMNB  Patos De Minas   54.50 125 eP      P      09 50 11.6 -0.6
PMNB  Patos De Minas   54.50 125  P      P      09 50 11.8 -0.4
      comp=Z,105nm,1.1s
ITQB  Itaqui           54.67 143 eP      P      09 50 12.6 -0.6
FRTB  Fartura          54.96 132 eP      P      09 50 14.8 -0.6
FRTB  Fartura          54.96 132  P      P      09 50 15.3 -0.1
      comp=Z,90nm,1.1s
PSAL  Palomas, Salto   55.17 145 eP      P      09 50 16.9 +0.2
CANS  Sao Roque de M   55.52 127 eP      P      09 50 17.9 -1.6
NBMA  Muriti-CE        55.91 109 eP      P      09 50 20.1 -2.3
NBPN  Ponto Novo - B   56.02 114 eP      P      09 50 21.1 -2.0
IVI   Ivigtut          56.06  23 i P     P      09 50 22.2 -0.3
IVI                               IAmb   IAmb   09 50 23.7
      comp=Z,18nm,0.5s
GO06  Curarrehue       56.45 162  P      P      09 50 26.7 +0.9
      comp=Z,65nm,1.9s
DIAM  Diamantina, MG   56.59 123 eP      P      09 50 26.3 -0.9
VAO   Valinhos         56.65 130 eP      P      09 50 26.9 -0.6
SPB   Sao Paulo        56.66 131 eP      P      09 50 27.0 -0.4
SPB   Sao Paulo        56.66 131  P      P      09 50 27.4  0.0
      comp=Z,49nm,1.1s
NUUK  Nuuk             56.74  19 i P     P      09 50 27.3 -0.1
NUUK                              IAmb   IAmb   09 50 30.2
      comp=Z,40nm,0.7s
CPSB  Cacapava Do Su   57.10 141 eP      P      09 50 30.1 -0.3
NRS   Narsarsuaq       57.11  24 i P     P      09 50 28.6 -1.4
NRS                               IAmb   IAmb   09 50 29.9
      comp=Z,28nm,0.9s
BSCB  Bom Sucesso      57.16 127 eP      P      09 50 30.8 -0.4
BSCB  Bom Sucesso      57.16 127  P      P      09 50 31.3 +0.1
      comp=Z,232nm,0.9s
PET01 Itanhaem-SP      57.19 132 eP      P      09 50 31.0 -0.2
NBTA  Tacaratu-PE      57.23 111 eP      P      09 50 29.5 -2.3
ARCA  Ara§uai, MG      57.26 121 eP      P      09 50 30.2 -1.6
ANCO  Parque Anchore   57.44 148 eP      P      09 50 33.1 +0.4
PLCA  Paso Flores      57.78 162  P      P      09 50 36.0 +0.8
      comp=Z,43nm,0.9s,baz=332,slow=8.5,SNR=78
PLCA                              LR     LR     10 09 33.7
      comp=Z,169nm,21.2s,baz=328,slow=30
      comp=Z,43nm,0.9s
PLCA  Paso Flores      57.78 162  P      P      09 50 36.0 +0.8
PLCA  Paso Flores      57.78 162 eP      P      09 50 36.3 +1.1
PLCA  Paso Flores      57.78 162  P      P      09 50 35.9 +0.8
PLCA                              pP     pP     09 51 01.4 +1.4
PLTB  Pedras Altas     57.97 143 eP      P      09 50 37.4 +0.8
PLTB  Pedras Altas     57.97 143  P      P      09 50 36.8 +0.3
      comp=Z,30nm,1.2s
CMC01 Camacan, BA      58.61 118 eP      P      09 50 40.3 -1.0
NBPV  Pedro Velho      58.77 107 eP      P      09 50 40.6 -1.9
SJMB  Sao Joao De Ma   58.82 122 eP      P      09 50 41.2 -1.4
GUA01 Guaratinga, BA   58.94 120 eP      P      09 50 42.9 -0.6
SFJD  Kangerlussuaq    59.00  17  LR     LR     10 16 54.2
      comp=Z,387nm,20.1s,baz=227,slow=37
SFJD  Kangerlussuaq    59.00  17 i P     P      09 50 43.3 +0.1
SFJD                              IAmb   IAmb   09 50 44.3
      comp=Z,24nm,0.8s
BSFB  Barra de Sao F   59.16 122 eP      P      09 50 43.6 -1.5
BSFB  Barra de Sao F   59.16 122  P      P      09 50 45.1  0.0
      comp=Z,263nm,1.3s
RIB01 Linhares ES      59.77 123 eP      P      09 50 48.8 -0.4
GDH   Godhavn          59.84  14 i P     P      09 50 49.5 +0.6
CAM01 Campos-RJ        60.05 126 eP      P      09 50 51.1 +0.1
ILULI Ilulissat        60.41  15 i P     P      09 50 52.1 -0.7
ILULI                             IAmb   IAmb   09 50 53.4
      comp=Z,30nm,1.1s
RES   Resolute Bay     60.54 359  LR     LR     10 21 00.3
      comp=Z,311nm,19.3s,baz=200,slow=40
INK   Inuvik           60.59 343  LR     LR     10 19 12.3
      comp=Z,121nm,21.8s,baz=176,slow=38
SAQQ  Saqqaq           60.77  14 i P     P      09 50 54.5 -0.8
SAQQ                              IAmb   IAmb   09 50 56.1
      comp=Z,21nm,0.9s
MENT  Mentasta         61.05 335  P      P      09 50 57.8 +0.5
SAATT Saattut          61.43  14 i P     P      09 50 59.0 -0.7
SAATT                             IAmb   IAmb   09 51 00.8
      comp=Z,53nm,0.9s
NUUG  Nuugaatsiaq      61.61  13 i P     P      09 51 01.1 +0.2
NUUG                              IAmb   IAmb   09 51 02.0
      comp=Z,48nm,0.9s
COYC  Coyhaique        61.84 165  P      P      09 51 04.0 +1.2
COYC                              pP     pP     09 51 29.5 +1.6
ANGG  Ammassalik, Gr   62.44  22 i P     P      09 51 04.0 -2.4
ANGG                              IAmb   IAmb   09 51 06.2
      comp=Z,32nm,0.8s
PMR   Palmer           62.77 333  P      P      09 51 09.3 +0.5
ILAR  Eielson Array    63.12 337  P      P      09 51 10.7 -0.4
      comp=Z,11nm,0.9s,baz=172,slow=5.0,SNR=74
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ILAR                                 PP       PP       09 53 30.4  -0.6
       comp=Z,2.8nm,0.8s,baz=118,slow=8.5,SNR=4.3
ILAR                                 LR       LR       10 23 18.6
       comp=Z,102nm,18.5s,baz=88,slow=40
       comp=Z,11nm,0.9s
KDAK   Kodiak Island     63.16 328   LR       LR       10 20 28.0
       comp=Z,64nm,18.8s,baz=105,slow=38
KDAK   Kodiak Island     63.16 328deP         P        09 51 12.6  +1.2
KDAK                                 pmax     pmax
       comp=Z,28nm,0.9s
TULEG  Thule             63.43   6 i P        P        09 51 12.0  -0.9
TULEG                                IAmb     IAmb     09 51 13.4
       comp=Z,30nm,0.8s
COLA   College           63.54 336   P        P        09 51 13.3  -0.5
COLA   College           63.54 336ceP         P        09 51 13.3  -0.5
COLA                                 pmax     pmax
       comp=Z,17nm,1.3s
COLA   College           63.54 336   P        P        09 51 13.2  -0.5
KIP    Kipapa            63.97 287⇑eP         P        09 51 17.8  +0.4
KIP                                  pmax     pmax
       comp=Z,24nm,1.5s
GO08   Villa O'Higgin    64.45 167   P        P        09 51 21.7  +1.8
GO08                                 IAmb     IAmb     09 51 22.8
       comp=Z,38nm,1.0s
SUMG   Summit            65.76  15 i P        P        09 51 28.0  -0.6
SUMG                                 IAmb     IAmb     09 51 31.3
       comp=Z,30nm,0.7s
PPT    Papeete           65.98 243   LR       LR       10 11 15.4
       comp=Z,60nm,20.9s,baz=76,slow=27
PPT2   Papeete2          65.99 243 eS         S        10 00 03.9  -6.9
       comp=Z,110nm,24.5s
PPT2                               eSS        SS       10 04 20.7  -7.5
       comp=Z,117nm,32.0s
PPT2                               eLQ        LQ       10 08 33.1
       comp=Z,333nm,30.8s
PPT2                               eLR        LR       10 11 05.2
       comp=Z,582nm,32.5s
PPT2                               eLR        LR       10 11 12.9
       comp=Z,943nm,30.5s
NEEM   North Greenlan    66.38   9 i P        P        09 51 31.6  -0.8
NEEM                                 IAmb     IAmb     09 51 33.8
       comp=Z,54nm,0.8s
K17K   Iditarod          67.21 333   P        P        09 51 37.4  -0.2
BORG   Borgarnes         68.56  26   LR       LR       10 21 30.4
       comp=Z,129nm,18.3s,baz=273,slow=36
ALE    Alert             69.31   4   P        P        09 51 49.1  -1.2
ALE                                  sP       sP       09 52 25.1  -2.9
UNV    Unalaska Valle    70.23 322   P        P        09 51 57.8  +1.4
USHA   Ushuaia           71.32 167   LR       LR       10 16 19.6
       comp=Z,2µm,21.1s,baz=263,slow=30
DAG    Danmarks Havn     72.22  13 i P        P        09 52 06.3  -1.8
DAG                                  IAmb     IAmb     09 52 07.5
       comp=Z,27nm,0.5s
NOR    Nord              73.75   8 i P        P        09 52 16.1  -1.0
NOR                                  IAmb     IAmb     09 52 17.6
       comp=Z,9.8nm,0.8s
JMIC   Jan Mayen         74.19  20   LR       LR       10 27 25.2
       comp=Z,142nm,18.2s,baz=276,slow=38
IDGL   Inch Island, C    74.69  36   P        P        09 52 22.3  -0.6
ATKA   Atka Island       74.88 321   P        P        09 52 25.1  +1.1
PSBE   So Bento          75.03  52 eP         P        09 52 23.9  -1.4
PSBE                               i IAmb     IAmb     09 52 27.8
       comp=Z,96nm,2.0s
PCAS   Casmilo, Conde    75.20  52 eP         P        09 52 24.8  -1.4
IWEX   Carrickbyrne,     75.29  39   P        P        09 52 25.4  -1.0
MORF   Marmelete         75.39  55 eP         P        09 52 25.9  -1.4
MOE    Montemor          75.49  53 eP         P        09 52 26.2  -1.6
PSARD  Sardoal           75.51  52 eP         P        09 52 25.7  -2.2
PMTG   Montargil         75.52  53 eP         P        09 52 25.3  -2.7
MESJ   Messejana         75.67  54 eP         P        09 52 27.5  -1.4
PARRA  Arraiolos         75.69  53 eP         P        09 52 27.7  -1.3
MTE    Manteigas         75.89  51 eP         P        09 52 28.1  -2.1
PCBR   Castelo Branco    76.01  52 eP         P        09 52 30.4  -0.3
PMRV   Marv??o           76.12  52 eP         P        09 52 28.9  -2.6
ADK    Adak              76.44 321   P        P        09 52 33.6  +0.6
ADK    Adak              76.44 321   P        P        09 52 33.5  +0.6
PBAR   Barrancos         76.55  54 eP         P        09 52 31.6  -2.3
KIWB   Kanaga Island     76.73 321   P        P        09 52 34.8  +0.2
KIWB                                 IAmb     IAmb     09 52 36.5
       comp=Z,67nm,1.0s
EKA    Eskdalemuir Ar    77.15  36   P        P        09 52 35.1  -1.8
       comp=Z,17nm,0.8s,baz=274,slow=5.5,SNR=29
EKA                                  pP       pP       09 53 03.5   0.0
       comp=Z,6.3nm,0.7s,baz=280,slow=6.7,SNR=3.6
EKA                                  LR       LR       10 25 27.1
       comp=Z,114nm,18.6s,baz=302,slow=35
       comp=Z,17nm,0.8s
ESDC   Sonseca Array     78.71  52   P        P        09 52 44.1  -1.8
       comp=Z,5.1nm,0.7s,baz=289,slow=4.6,SNR=29
ESDC                                 pP       pP       09 53 11.8  -0.8
       comp=Z,6.0nm,1.0s,baz=274,slow=4.7,SNR=4.5
ESDC                                 LR       LR       10 20 28.5
       comp=Z,71nm,19.8s,baz=290,slow=30
       comp=Z,5.1nm,0.7s
AMKA   Amchitka          78.98 320   P        P        09 52 48.3  +1.2
MDT    Midelt            79.33  59   LR       LR       10 21 07.0
       comp=Z,142nm,21.7s,baz=292,slow=31
SPITS  Spitsbergen Ar    79.68  12   P        P        09 52 50.0  -0.4
       comp=Z,11nm,0.7s,baz=194,slow=0.3,SNR=10
SPITS                                LR       LR       10 29 39.6
       comp=Z,257nm,20.6s,baz=280,slow=37
       comp=Z,11nm,0.7s
PMSA   Palmer Station    81.31 169   LR       LR       10 23 11.3
       comp=Z,204nm,18.2s,baz=349,slow=31
PMSA   Palmer Station    81.31 169 eP         P        09 53 00.8  +1.7
ESPZ   Base Esperanza    81.64 165   P        P        09 53 01.7  +0.8
ESPZ                                 IAmb     IAmb     09 53 02.8
       comp=Z,42nm,0.9s
BILL   Bilibino          81.72 338⇑eP         P        09 53 01.3  -0.1
BILL                                 pmax     pmax
       comp=Z,29nm,0.6s
NB2    NORSAR Subarra    83.44  29   P        P        09 53 09.8  -0.8
       comp=Z,2.7nm,0.7s,baz=288,slow=5.3
NB2                                  pP       sP       09 54 08.7  +20
       comp=Z,3.2nm,0.7s,baz=289,slow=4.8
NOA    NORSAR Array B    83.44  29   P        P        09 53 09.8  -0.8
       comp=Z,2.7nm,0.7s,baz=289,slow=5.2,SNR=17
NOA                                  pP       pP       09 53 35.4  -2.2
       comp=Z,3.3nm,0.9s,baz=289,slow=5.0,SNR=3.7
NOA                                  LR       LR       10 29 35.3
       comp=Z,69nm,19.9s,baz=285,slow=35
       comp=Z,2.7nm,0.7s
NC602  NORSAR Array S    83.69  29   P        P        09 53 11.9  +0.1
NC602                                IAmb     IAmb     09 54 02.5
       comp=Z,76nm,1.9s
SMAI   San Martin Ant    83.86 171   P        P        09 53 13.6  +1.4
DBIC   Dimbokro          84.50  85   P        P        09 53 14.4  -2.4
       comp=Z,13nm,0.8s,baz=313,slow=4.0,SNR=11
DBIC                                 LR       LR       10 28 13.3
       comp=Z,67nm,19.8s,baz=300,slow=34
       comp=Z,13nm,0.8s
ECH    Echery            84.79  42   P        P        09 53 17.5  -0.1
ECH                                  pmax     pmax
       comp=Z,14nm,0.9s
ECH    Echery            84.79  42   P        P        09 53 17.5  -0.1
AFI    Afiamalu          84.84 254   LR       LR       10 23 29.9
       comp=Z,23nm,21.1s,baz=100,slow=30
HFS    Hagfors           84.89  29   P        P        09 53 16.9  -1.0
       comp=Z,4.7nm,0.6s,baz=51,slow=4.7,SNR=3.7
HFS                                  LR       LR       10 29 09.0
       comp=Z,81nm,21.3s,baz=291,slow=34
       comp=Z,4.7nm,0.6s
ARCES  ARCESS Array B    85.61  18   P        P        09 53 19.8  -1.5
       comp=Z,11nm,0.7s,baz=291,slow=3.5,SNR=18
ARCES                                PP       PP       09 56 39.2  -1.7
       comp=Z,5.9nm,0.8s,baz=316,slow=8.5,SNR=4.1
       comp=Z,11nm,0.7s
ARCES  ARCESS Array B    85.61  18   P        P        09 53 20.2  -1.1
ARCES                                pmax     pmax
       comp=Z,80nm,1.8s
ARCES  ARCESS Array B    85.61  18   P        P        09 53 20.1  -1.1
ARCES                                IAmb     IAmb     09 54 16.5
       comp=Z,80nm,1.8s
TUE    Stuetta           86.70  43   P        P        09 53 26.6  -0.8
DAVA   Damuels           86.81  42 eP         P        09 53 25.8  -2.0
       comp=Z,11nm,0.9s
DAVA                               epP        pP       09 53 55.7  +0.6
       comp=Z,13nm,1.0s
GRF    Grafenberg Arr    86.93  39 eP         P        09 53 26.6  -1.6
       comp=Z,6.8nm,1.0s,baz=288,slow=5.5
DAVOX  Davos/Dischmat    86.96  43   LR       LR       10 28 44.2
       comp=Z,65nm,18.5s,baz=263,slow=33
RETA   Reutte            87.32  42 eP         P        09 53 28.4  -1.8
       comp=Z,11nm,0.8s
FETA   Feichten          87.44  42 eP         P        09 53 29.2  -1.7
       comp=Z,6.4nm,0.8s
CLL    Collm             87.48  38 i P        P        09 53 29.3  -1.4
CLL                                eS         S        10 04 06.0  +2.6
CLL                                  pmax     pmax
       comp=Z,9.0nm,0.8s
CLL    Collm             87.48  38 i P        P        09 53 29.3  -1.4
       comp=Z,9.0nm,0.8s
CLL                                i pP       pP       09 53 55.2  -2.7
CLL                                esP        sP       09 54 07.0  -2.0
CLL                                ex         x        09 54 28.0
CLL                                ePP        PP       09 56 57.0  +0.6
CLL                                eS         S        10 04 06.0  +2.6
CLL                                  L        L        10 22 00.0
MOTA   Moosalm           87.59  42 eP         P        09 53 29.9  -1.7
       comp=Z,6.2nm,0.9s
MOTA                               epP        pP       09 53 57.7  -1.1
       comp=Z,11nm,1.0s
SQTA   Sankt Quirin      87.69  42 eP         P        09 53 30.3  -1.7
       comp=Z,2.8nm,0.9s
SQTA                               epP        pP       09 53 58.7  -0.6
       comp=Z,14nm,1.5s
WTTA   Wattenberg        87.95  42 eP         P        09 53 31.7  -1.6
       comp=Z,2.6nm,0.7s
KHC    Kasperske Hory    88.56  40⇓eP         P        09 53 35.0  -1.1
KHC                                  pmax     pmax
       comp=Z,40nm,4.8s
KHC    Kasperske Hory    88.56  40 eP         P        09 53 34.9  -1.1
KHC                                ex         x        09 57 50.0
KHC    Kasperske Hory    88.56  40   P        P        09 53 35.2  -0.8
LESA   Schwarzleotal     88.57  41 eP         P        09 53 35.1  -1.0
       comp=Z,5.4nm,0.9s
ABTA   Abfaltersbach     88.69  42 eP         P        09 53 35.7  -1.1
       comp=Z,9.1nm,1.1s
GEC2   GERESS Array S    88.74  40   P        P        09 53 35.9  -1.0
GERES  GERESS Array B    88.74  40   P        P        09 53 35.6  -1.3
       comp=Z,3.7nm,0.8s,baz=298,slow=2.9,SNR=19
GERES                                PP       PP       09 57 06.0  -0.7
       comp=Z,0.5nm,0.5s,baz=285,slow=7.8,SNR=3.7
GERES                                LR       LR       10 30 12.9
       comp=Z,96nm,18.6s,baz=326,slow=34
       comp=Z,3.7nm,0.8s
GERES  GERESS Array B    88.74  40   P        P        09 53 36.3  -0.6
GERES  GERESS Array B    88.74  40   P        P        09 53 36.2  -0.6
STAL   STALIGIAL         88.98  42   P        P        09 53 37.8  -0.2
SEY    Seymchan          89.06 336   LR       LR       10 37 02.3
       comp=Z,78nm,20.3s,baz=23,slow=38
SEY    Seymchan          89.06 336⇑eP         P        09 53 39.0  +1.1
SEY                                  pmax     pmax
       comp=Z,15nm,1.0s
KBA    Koelnbreinsper    89.12  42 eP         P        09 53 38.0  -0.8
       comp=Z,3.1nm,0.7s
KBA                                epP        pP       09 54 05.9   0.0
       comp=Z,12nm,1.1s
CKRC   Cesky Krumlov     89.12  40 eP         P        09 53 30.3  -8.3
CKRC   Cesky Krumlov     89.12  40 eP         P        09 53 30.3  -8.3
TORD   Torodi Ar. Bea    89.23  77   P        P        09 53 37.4  -2.4
       comp=Z,1.8nm,0.6s,baz=296,slow=4.3,SNR=12
TORD                                 LR       LR       10 30 29.0
       comp=Z,111nm,21.2s,baz=314,slow=34
       comp=Z,1.8nm,0.6s
LVZ    Lovozero          89.30  18⇑eP         P        09 53 38.6  -0.4
LVZ                                  pmax     pmax
       comp=Z,40nm,2.1s
MOA    Molln             89.44  41 eP         P        09 53 38.3  -1.8
       comp=Z,2.1nm,0.6s
MYKA   Terra Mystica     89.46  42 eP         P        09 53 38.3  -2.0
       comp=Z,5.2nm,1.0s
MYKA                               epP        pP       09 54 06.9  -0.6
       comp=Z,7.9nm,1.1s
OSTC   Ostas             89.65  38 eP         P        09 53 40.4  -0.6
OSTC   Ostas             89.65  38 eP         P        09 53 40.4  -0.6
DPC    Dobruska-Polom    89.79  38 eP         P        09 53 41.1  -0.6
DPC    Dobruska-Polom    89.79  38 eP         P        09 53 41.1  -0.6
FINES  FINESS Array B    89.85  25   P        P        09 53 40.4  -1.3
       comp=Z,2.2nm,0.7s,baz=285,slow=7.3,SNR=6.1
FINES                                PP       PP       09 57 12.9  -2.1
       comp=Z,1.7nm,0.8s,baz=333,slow=6.8,SNR=4.0
FINES                                LR       LR       10 34 45.2
       comp=Z,103nm,18.9s,baz=286,slow=36
       comp=Z,2.2nm,0.7s
ABNA   Allensteig Bun    89.87  40 eP         P        09 53 41.1  -1.1
       comp=Z,1.7nm,0.8s
ABNA                               epP        pP       09 54 08.9  -0.5
       comp=Z,4.8nm,1.3s
KEST   Kesra             89.88  53   P        P        09 53 41.6  -0.9
       comp=Z,6.8nm,0.9s,baz=2.6,slow=4.3,SNR=4.5
KEST                                 LR       LR       10 27 49.1
       comp=Z,94nm,18.5s,baz=257,slow=32
       comp=Z,6.8nm,0.9s
SESA   Seetaler Alpe,    89.89  41 eP         P        09 53 40.7  -1.8
       comp=Z,6.7nm,0.7s
OBKA   Obir              90.09  42 eP         P        09 53 42.3  -0.9
       comp=Z,5.2nm,0.8s
TIXI   Tiksi             90.31 348   LR       LR       10 38 41.4
       comp=Z,83nm,20.8s,baz=30,slow=38
TIXI   Tiksi             90.31 348⇑eP         P        09 53 42.8  -0.8
TIXI                                 pmax     pmax
       comp=Z,8.0nm,0.9s
SOKA   Soboth            90.34  41 i P        P        09 53 43.4  -1.0
       comp=Z,2.5nm,0.9s
VRAC   Vranov            90.34  39   LR       LR       10 32 24.7
       comp=Z,77nm,20.1s,baz=304,slow=34
CONA   Conrad Observa    90.41  40 eP         P        09 53 43.3  -1.4
       comp=Z,2.7nm,0.8s
ARSA   Arzberg           90.45  41 eP         P        09 53 44.0  -0.8
       comp=Z,2.9nm,0.9s
WINA   Alland / Wiene    90.48  40 eP         P        09 53 44.6  -0.3
       comp=Z,1.4nm,0.6s
PET    Petropavlovsk     90.65 326⇓eP         P        09 53 46.9  +1.3
PET                                  pmax     pmax
       comp=Z,24nm,1.4s
RONA   Rosalia, Austr    90.77  40 eP         P        09 53 45.1  -1.2
       comp=Z,2.6nm,0.7s
MODS   Modra-Piesok      91.12  39 eP         P        09 53 48.4  +0.5
MODS   Modra-Piesok      91.12  39 eP         P        09 53 48.4  +0.5
PEA0B  Petropavlovsk-    91.14 326deP         P        09 53 49.1  +1.2
PEA0B  Petropavlovsk-    91.14 326   P        P        09 53 48.9  +1.0
PEA0B                                IAmb     IAmb     09 53 50.2
       comp=Z,15nm,0.9s
PETK   Petropavlovsk-    91.14 326   P        P        09 53 48.4  +0.5
       comp=Z,8.9nm,0.7s,baz=67,slow=10,SNR=21
       comp=Z,8.9nm,0.7s
MA2    Magadan           91.45 333deP         P        09 53 49.8  +0.6
MA2                                  pmax     pmax
       comp=Z,18nm,0.9s
VYHS   Vyhne             92.03  39 eP         P        09 53 51.3  -0.8
VYHS   Vyhne             92.03  39 eP         P        09 53 51.3  -0.8
LANS   Liptovska Anna    92.14  38 eP         P        09 53 52.9  +0.3
LANS   Liptovska Anna    92.14  38 eP         P        09 53 52.9  +0.3
VAE    Valguarnera       93.17  50   LR       LR       10 31 12.8
       comp=Z,166nm,19.2s,baz=262,slow=32
RAO    Raoul Island      94.32 241   LR       LR       10 29 25.7
       comp=Z,32nm,18.4s,baz=340,slow=31
MSVF   Nonsavu           95.27 253   LR       LR       10 26 55.8
       comp=Z,32nm,18.9s,baz=65,slow=29
KLMR   Klimovskoe        95.46  22 eP         P        09 54 04.0  -3.5
KLMR                               e                   09 57 55.2
KLMR                                 pmax     pmax
       comp=Z,9.0nm,1.0s
NRIK   Noril'sk          96.69   1   LR       LR       10 42 13.4
       comp=Z,284nm,19.9s,baz=359,slow=38
NRIK   Noril'sk          96.69   1⇑eP         P        09 54 12.5  -0.5
NRIK                                 pmax     pmax
       comp=Z,10.0nm,2.0s
AKASG  Malin Array Be    96.95  34   P        P        09 54 11.6  -2.9
       comp=Z,0.6nm,0.6s,baz=299,slow=3.9,SNR=2.5
AKASG                                PP       PP       09 58 07.6  -3.1
       comp=Z,1.3nm,0.7s,baz=307,slow=6.8,SNR=4.2
AKASG                                LR       LR       10 38 14.0
       comp=Z,77nm,19.8s,baz=264,slow=36
       comp=Z,0.6nm,0.6s
AKBB   Malin Array Si    96.95  34⇑eP         P        09 54 13.8  -0.7
BELA   Belgrano 2        97.12 170   P        P        09 54 14.3  -0.3
BELA                                 IAmb     IAmb     09 54 42.4
       comp=Z,20nm,1.3s
YAK    Yakutsk           97.64 342   LR       LR       10 45 31.0
       comp=Z,58nm,20.0s,baz=71,slow=40
OBN    Obninsk           98.00  27   LR       LR       10 39 34.5
       comp=Z,85nm,18.5s,baz=158,slow=36
OBN    Obninsk           98.00  27 i P        P        09 54 17.9  -1.2
OBN                                i *PP      pP       09 54 50.2  +3.6
OBN                                i                   09 58 16.6
OBN                                  pmax     pmax
       comp=Z,6.0nm,0.7s
VNA3   Neumayer Olymp   100.49 161 ⇑Pdiff     Pdif     09 54 30.5  +0.7
       comp=Z,4.7nm,1.0s
VNA3                               ⇓pPdiff    pPdif    09 54 55.4  -1.4
       comp=Z,4.7nm,1.0s
VNA3                               ⇓PKKPbc    PKKPbc   10 10 44.0  -4.0
       comp=Z,2.3nm,0.6s
VNA2   Neumayer--Watz   101.15 161 ⇓PKKPbc    PKKPbc   10 10 41.9  -4.1
       comp=Z,4.5nm,0.7s,baz=92,slow=3.1
QSPA   South Pole Qui   104.13 180   Pdiff    Pdif     09 54 48.1  +1.8
       comp=Z,1.4nm,0.8s,baz=160,slow=1.3,SNR=10.0
TROLL  Troll, Antarti   104.42 161   Pdiff    Pdif     09 54 47.7  +0.2
       comp=Z,109nm,1.0s
TROLL                              ⇑pPdiff    pPdif    09 55 14.4  +0.1
       comp=Z,109nm,1.0s
BRTR   Keskin Array B   105.57  41   PKiKP    PKiKP    09 59 06.0  -0.3
       comp=Z,0.6nm,0.6s,baz=290,slow=2.3,SNR=2.7
BVAR   Borovoye Array   111.14  12   PKiKP    PKiKP    09 59 14.8  -1.4
       comp=Z,1.7nm,0.7s,baz=38,slow=2.6,SNR=5.9
BVAR                                 PP       PP       09 59 53.8  -1.8
       comp=Z,2.2nm,0.7s,baz=349,slow=5.9,SNR=4.7
ZALV   Zalesovo Beam    112.04   3   PKiKP    PKiKP    09 59 16.9  -0.9
       comp=Z,2.8nm,0.6s,baz=349,slow=1.9,SNR=13
ZALV                                 PP       PP       10 00 00.1  -1.8
       comp=Z,2.6nm,0.8s,baz=339,slow=6.2,SNR=3.9
ZALV                                 SKP      SKPdf    10 02 43.4  -0.8
       comp=Z,0.7nm,0.6s,baz=336,slow=3.2,SNR=3.0
ZALV   Zalesovo Beam    112.04   3 i PKIKP    PKiKP    09 59 17.0  -0.9
KURK   Kurchatov        114.72   7d iPKIKP    PKiKP    09 59 22.4  -0.7
KURK                                 pmax     pmax
       comp=Z,7.0nm,1.0s
KURBB  Kurchatov Arra   114.80   7   PKP      PKiKP    09 59 22.5  -0.7
       comp=Z,5.1nm,0.8s,baz=346,slow=2.2,SNR=37
KURBB                                PP       PP       10 00 21.5  -0.1
       comp=Z,0.6nm,0.5s,baz=352,slow=6.0,SNR=4.0
KURBB                                SKP      SKPdf    10 02 49.7  +0.1
       comp=Z,0.6nm,0.3s,baz=345,slow=2.0,SNR=7.4
ULN    Ulaanbaatar      116.20 347d iPKIKP    PKPdf    09 59 27.0  +0.8
ULN                                  pmax     pmax
       comp=Z,2.0nm,0.4s
SONM   Songino Array    116.38 347   PKP      PKPdf    09 59 25.8  -0.8
       comp=Z,3.1nm,0.8s,baz=325,slow=0.8,SNR=12
SONM                                 PKKPbc   PKKPbc   10 09 55.7  -1.2
       comp=Z,1.0nm,0.7s,baz=187,slow=3.2,SNR=4.3
SONM                                 PKKP     PKKPdf   10 10 21.7   0.0
       comp=Z,2.0nm,0.9s,baz=224,slow=1.8,SNR=5.9
DGZ    Jazzator, Alta   116.38   1c iPKIKP    PKPdf    09 59 26.4  -0.1
KSRS   Korea Array      117.04 326   PKP      PKiKP    09 59 28.3  +0.4
       comp=Z,12nm,0.7s,baz=10,slow=2.0,SNR=41
KSRS                                 PP       PP       10 00 39.0  +1.2
       comp=Z,2.6nm,1.1s,baz=60,slow=10.0,SNR=4.1
ZSN    Zaisan           118.53   3 ePKIKP     PKiKP    09 59 30.7  +0.2
ZSN    Zaisan           118.53   3 ePKP       PKiKP    09 59 30.8  +0.2
MK31   Makanchi Array   118.99   5d iPKIKP    PKPdf    09 59 29.8  -1.7
MKAR   Makanchi Array   118.99   5   PKP      PKPdf    09 59 29.9  -1.6
       comp=Z,4.7nm,0.8s,baz=334,slow=2.1,SNR=24
MKAR                                 SKP      SKPdf    10 02 57.6  -0.2
       comp=Z,0.9nm,0.6s,baz=2.5,slow=2.8,SNR=3.6
BOSA   Boshof           119.40 115   PKP      PKPdf    09 59 32.7  -0.1
       comp=Z,25nm,0.8s,baz=288,slow=2.0,SNR=29
TDK    Taldyqorghan     120.29   9 ePKIKP     PKPdf    09 59 34.0   0.0
TDK    Taldyqorghan     120.29   9 ePKP       PKPdf    09 59 34.1   0.0
BRLS   Borolday         120.37  16 ePKIKP     PKiKP    09 59 34.5  +0.2
BRLS   Borolday         120.37  16 ePKP       PKiKP    09 59 34.5  +0.2
MBAR   Mbarara          120.68  82⇑iPKIKP     PKPdf    09 59 34.9  -0.9
DZA    Taraz            120.89  15 ePKIKP     PKPdf    09 59 35.1  -0.1
DZA    Taraz            120.89  15 ePKP       PKPdf    09 59 35.2  -0.1
CHM    Chimkent         120.96  17 ePKIKP     PKPdf    09 59 35.3  -0.1
CHM    Chimkent         120.96  17 ePKP       PKPdf    09 59 35.3  -0.1
KUU    Kurty            121.03  11 ePKIKP     PKPdf    09 59 35.5   0.0
KUU    Kurty            121.03  11 ePKP       PKPdf    09 59 35.5   0.0
SGDS   Sogindy          121.12  12 ePKP       PKPdf    09 59 35.6  -0.1
IUG    Iuzhnay          121.24  17 ePKIKP     PKPdf    09 59 35.7  -0.3
IUG    Iuzhnay          121.24  17 ePKP       PKPdf    09 59 35.8  -0.3
HHC    Hu-ho-hao-te     121.45 340 i PKP      PKiKP    09 59 37.8  +1.2
AAA    Alma-Ata         121.80  11 ePKIKP     PKPdf    09 59 36.9  -0.1
AAA    Alma-Ata         121.80  11 ePKP       PKPdf    09 59 37.0  -0.1
KPKS   Kokpek           121.84   9 ePKIKP     PKPdf    09 59 37.0  -0.1
KPKS   Kokpek           121.84   9 ePKP       PKPdf    09 59 37.0  -0.1
MDOK   Medeo            121.86  10 ePKIKP     PKPdf    09 59 37.0  -0.2
MDOK   Medeo            121.86  10 ePKP       PKPdf    09 59 37.1  -0.2
AAK    Ala-Archa        121.88  13d iPKIKP    PKiKP    09 59 38.1  +0.6
AAK                                  pmax     pmax
       comp=Z,9.0nm,1.7s
TNSS   Tian-Shan        121.97  11 ePKIKP     PKPdf    09 59 37.3  -0.5
TNSS   Tian-Shan        121.97  11 ePKP       PKPdf    09 59 37.3  -0.5
BTO2   Baotou           122.08 342 ePKP       PKiKP    09 59 38.5  +0.6
BTO2                                 PPMZ
       comp=Z,130nm,4.5s
SATY   Saty             122.19   9 ePKIKP     PKPdf    09 59 37.6  -0.2
SATY   Saty             122.19   9 ePKP       PKPdf    09 59 37.7  -0.2
UZB    Uzynbulak        122.20   9 ePKIKP     PKPdf    09 59 37.7  -0.2
UZB    Uzynbulak        122.20   9 ePKP       PKPdf    09 59 37.8  -0.2
SHLS   Shalkode         122.25   8 ePKIKP     PKPdf    09 59 37.9  -0.1
SHLS   Shalkode         122.25   8 ePKP       PKPdf    09 59 37.9  -0.1
WMQ    Urumqi           122.27   1 ePKP       PKiKP    09 59 38.5  +0.4
WMQ                                  SKS      SKSdf    10 06 39.5  -1.4
WMQ                                  L        L
       comp=Z,300nm,24.0s
WMQ                                  L        L
       comp=Z,220nm,22.9s
WMQ                                  L        L
       comp=Z,280nm,24.2s
TIA    Tai'an           123.35 333   PKP      PKiKP    09 59 41.0  +0.7
HNS    HongShan         123.35 336 ⇑PKP       PKiKP    09 59 41.3  +1.0
MAW    Mawson           123.92 168   P        PKiKP    09 59 40.9  +0.5
MAW    Mawson           123.92 168   PKP      PKPdf    09 59 40.0  -0.1
       comp=Z,2.3nm,0.5s,baz=182,slow=2.3,SNR=26
TOO    Toolangi         125.11 234   P        PKiKP    09 59 46.7  +2.9
KSH2   Kashi            125.45  13   PKP      PKiKP    09 59 44.8  +0.2
CMSA   Cobar Meteorol   125.70 241   P        PKiKP    09 59 47.9  +2.8
GTA2   Gaotai           125.71 350 ePKP       PKiKP    09 59 45.0  -0.1
NJ2    Nanjing          125.94 329 ePKP       PKPdf    09 59 45.3  +0.1
MTSU   Mount Surprise   127.05 258   P        PKiKP    09 59 51.2  +3.1
QLP    Quilpie          127.28 247   P        PKiKP    09 59 51.6  +3.2
ARPS   Mount Arapiles   128.13 234   P        PKiKP    09 59 52.8  +3.0
LZDM   Lanzhou Array    128.28 345   PKP      PKiKP    09 59 51.0  +0.4
       comp=Z,1.8nm,0.3s,baz=64,slow=3.4,SNR=5.3
XAN    Xi'an            128.49 339   PKP      PKiKP    09 59 51.3  +0.6
STKA   Stephens Creek   129.13 240   P        PKiKP    09 59 53.8  +1.9
STKA   Stephens Creek   129.13 240   PKP      PKiKP    09 59 52.7  +0.8
       comp=Z,15nm,0.9s,baz=59,slow=3.6,SNR=15
STKA                                 pPKP     pPKPdf   10 00 20.3  +1.1
       comp=Z,9.6nm,0.8s,baz=73,slow=3.5,SNR=6.0
WHN    Wuhan            129.36 332   PKP      PKiKP    09 59 52.8  +0.3
QIS    Mount Isa        131.60 255   P        PKiKP    09 59 58.9  +1.7
WRAB   Tennant Creek    136.53 256d iPKIKP    PKiKP    10 00 08.2  +1.0
WRAB                                 pmax     pmax
       comp=Z,31nm,1.0s
WRA    Warramunga Arr   136.54 256   PKhKP    PKPpre   09 59 59.5
       comp=Z,1.9nm,0.9s,baz=90,slow=3.7,SNR=15
WRA                                  PKP      PKiKP    10 00 07.9  +0.7
       comp=Z,21nm,0.9s,baz=89,slow=1.6,SNR=72
WRA                                  pPKP     pPKPdf   10 00 34.5  +1.0
       comp=Z,6.8nm,0.8s,baz=91,slow=1.8,SNR=3.9
WRA                                  PP       PP       10 02 48.1  -0.3
       comp=Z,0.8nm,0.9s,baz=93,slow=6.1,SNR=6.8
WRA                                  SKPbc    SKPbc    10 03 31.1  +2.2
       comp=Z,5.8nm,0.6s,baz=88,slow=3.2,SNR=30
WRA                                  SKKPbc   SKKPbc   10 12 25.4  +1.5
       comp=Z,0.6nm,1.0s,baz=282,slow=2.2,SNR=4.6
ASAR   Alice Springs    136.80 250   PKhKP    PKPpre   09 59 55.0
       comp=Z,0.6nm,0.5s,baz=95,slow=3.3,SNR=7.3
ASAR                                 PKP      PKiKP    10 00 07.0  -0.7
       comp=Z,11nm,0.9s,baz=97,slow=1.9,SNR=21
ASAR                                 pPKP     pPKPdf   10 00 35.6  +1.7
       comp=Z,3.5nm,0.8s,baz=103,slow=1.5,SNR=2.7
ASAR                                 SKPbc    SKPbc    10 03 31.9  +2.2
       comp=Z,3.0nm,0.6s,baz=94,slow=2.5,SNR=14
ASAR                                 SKKPbc   SKKPbc   10 12 26.5  +3.3
       comp=Z,0.8nm,0.6s,baz=280,slow=4.2,SNR=18
PZH    PanZhiHua        137.75 343   PKP      PKPdf    10 00 07.3  -0.5
KDU    Kakadu           137.90 267   P        PKiKP    10 00 10.8  +0.7
KMI2   Kunming          138.73 341   PKP      PKiKP    10 00 11.0  -0.9
KMI2                                 L        L
       comp=Z,280nm,45.8s
WRKA   Warakurna        141.72 248   P        PKPdf    10 00 14.6  -0.3
LUWI   Luwuk            144.31 289   PKP      PKPdf    10 00 19.9  +0.2
LUWI                                 PKP      PKPbc    10 00 20.3  +2.1
SOEI   Soe              145.41 273   PKP      PKiKP    10 00 24.2  -1.5
SOEI                                 PKP      PKiKP    10 00 24.3  -1.5
SOEI                                 PKP      PKPbc    10 00 24.8  +3.0
KMBL   Kambalda         145.51 235   P        PKPab    10 00 22.2  +0.3
CMAR   Chiang Mai Arr   146.17 343   PKPbc    PKPdf    10 00 23.2  +0.5
       comp=Z,41nm,0.8s,baz=334,slow=3.6,SNR=140
CMAR                                 SKPbc    SKiKP    10 03 54.8  +0.6
       comp=Z,4.7nm,0.9s,baz=22,slow=2.1,SNR=7.0
KKM    Kota Kinabalu    146.48 305   PKP      PKPab    10 00 26.7  +0.6
KKM                                  PKP      PKiKP    10 00 27.2  -0.7
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HYB	Hyderabad	146.90	19	*e*PKiKP	PKiKP	10 00 28.4	-0.2
HYB				*e*SKKSac	SKKSac	10 10 31.2	-2.2
MMRI	Maumere	147.15	276	PKP	PKPbc	10 00 26.7	-0.1
MMRI				PKP	PKPab	10 00 28.4	-0.3
EDFI	Ende, Flores	147.70	276	PKP	PKPbc	10 00 28.2	-0.3
EDFI				PKP	PKPbc	10 00 28.2	-0.3
NWAO	Narrogin (SRO)	148.38	229	P	PKiKP	10 00 30.6	-0.5
NWAO	Narrogin (SRO)	148.38	229	P	PKiKP	10 00 30.6	-0.5
KAPI	Kappang	148.54	284	PKP	PKPbc	10 00 29.3	-1.2
KAPI				PKP	PKiKP	10 00 32.7	+0.7
KAPI				PKP	PKiKP	10 00 32.8	+0.7
KLBR	Kellerberrin	148.62	232	P	PKPbc	10 00 29.7	-0.6
WSI	Waingapu	149.24	275	PKP	PKPab	10 00 37.4	+0.4
MUN	Mundaring	149.60	230	P	PKPbc	10 00 31.5	-1.2
BKB	Balikpapan	149.73	293	PKP	PKPbc	10 00 31.3	-2.2
BKB				PKP	PKiKP	10 00 32.2	-2.3
BKB				PKP	PKPab	10 00 37.0	-2.1
MEEK	Meekatharra	149.84	241	P	PKPbc	10 00 31.7	-1.8
BLDU	Ballidu	149.86	233	P	PKiKP	10 00 34.7	+0.4
MBWA	Marble Bar	150.10	252	P	PKiKP	10 00 37.3	+2.3
DBNI	Kabupaten Domp	150.90	278	PKP	PKPdf	10 00 31.5	+1.0
DBNI				PKP	PKPbc	10 00 32.0	-4.3
DBNI				PKP	PKiKP	10 00 37.6	+0.7
MORW	Morawa	151.06	235	P	PKiKP	10 00 39.3	+2.5
TWSI	Taliwang, Sumb	152.32	278	PKP	PKPdf	10 00 33.4	+0.7
TWSI				PKP	PKPdf	10 00 33.4	+0.7
TWSI				PKP	PKPbc	10 00 35.3	-4.2
TPI	Tanjungpandan	158.51	300	PKP	PKPdf	10 00 41.9	+0.9
TPI				PKP	PKPdf	10 00 41.9	+0.9
TPI				PKP	PKPdf	10 00 43.1	+2.1
BSI	Banda Aceh	159.53	342	PKP	PKPdf	10 00 41.3	-1.0
BSI				PKP	PKPdf	10 00 41.4	-0.9
BSI				PKP	PKPdf	10 00 42.3	0.0
DSRI	Dabo	159.56	310	PKP	PKPdf	10 00 43.6	+1.3
DSRI				PKP	PKPdf	10 00 44.6	+2.3
KRJI	Kerinci	162.92	314	PKP	PKPdf	10 00 45.9	-0.1
KRJI				PKP	PKPdf	10 00 47.9	+1.9

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*IDC **27** 09:45:20.4±2.2, 29°.71S×175°.72W, h0^{km}, mb3.7/3, mbtmp4.0/4, ML3.2/1, MS3.0/2, Error ellipse: s-maj=38.4km s-min=31.7km az=16.0*

ISC 27 09:45:25.0±1.9**, 29°.6S**±0°.1×**175°.9W**±0°.2**, h28^{km}, n11, σ0^{s}.84**/8**, mb3.7**/3**, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	1.80	280	Pn	Pn	09 45 53.6	-0.5
	119nm,0.3s,baz=101,slow=16,SNR=6.5						
RAO				Sn	Sn	09 46 16.1	+0.1
	119nm,0.3s,baz=285,slow=23,SNR=2.3						
URZ	Urewera	10.41	212	Pn	Pn	09 47 51.4	-1.0
	0.2nm,0.3s,baz=58,slow=13,SNR=3.2						
URZ				Sn	Sn	09 49 48.9	+0.7
	1.7nm,0.3s,baz=138,slow=22,SNR=8.6 48nm,1.4s						
URZ				AML	AML		
RAR	Rarotonga	16.77	64	LR	LR	09 54 28.0	
	comp=Z,44nm,20.0s,baz=272,slow=33						
DZM	Mont Dzumac	17.56	291	LR	LR	09 55 56.8	
	comp=Z,55nm,18.3s,baz=116,slow=36						
STKA	Stephens Creek	36.44	255	P	P	09 52 28.6	+1.1
	1.5nm,0.8s,baz=98,slow=17,SNR=3.2 1.5nm,0.8s						
ASAR	Alice Springs	44.99	265	P	P	09 53 38.5	+0.4
	0.5nm,0.6s,baz=106,slow=7.9,SNR=13 0.5nm,0.6s						
WRA	Warramunga Arr	45.91	270	P	P	09 53 45.0	-0.5
	0.5nm,0.5s,baz=108,slow=8.0,SNR=9.9 0.5nm,0.5s						
H03S2	Juan Fernandez	79.38	123	T	T	11 23 02.0	
	baz=240,slow=73						
H03S1	Juan Fernandez	79.39	123	T	T	11 23 03.3	
	baz=240,slow=73,SNR=95						
H03S3	Juan Fernandez	79.39	123	T	T	11 23 03.3	
	baz=240,slow=73						
FINES	FINESS Array B	144.98	342	PKPbc	PKPab	10 04 58.4	+0.1
	1.7nm,0.9s,baz=60,slow=4.9,SNR=3.3						

TAP 27 09:55:54.6, 23°.16N×121°.45E, h26^{km}, ML2.4, 2C-2D, D, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHKH	Chenggong	0.06	301	P	Pb	09 55 59.7	+0.5
CHKH				S	Sb	09 56 03.1	+0.8
CHKT	Chengkung	0.10	234	*i* P	Pb	09 55 60.0	+0.5
CHKT				*i* S	Sb	09 56 03.6	+0.9
FULB	Fuli	0.15	285	P	Pb	09 56 00.3	+0.4
FULB				S	Sb	09 56 04.6	+1.1
ECBN	Changbin	0.16	359	⇑P	Pn	09 56 00.7	-0.6
ECBN				*i* S	Sb	09 56 04.7	+1.2
ECS	Chishang	0.23	254	P	Pn	09 56 01.7	-0.6
ECS				*e*S	Sb	09 56 07.3	+2.4
EYUL	Yuli	0.23	327	*e*P	Pb	09 56 01.1	+0.3
EYUL				S	Sb	09 56 08.0	+3.0
EHD	Haiduan	0.23	268	*i* P	Pb	09 56 01.1	+0.3
EHD				*i* S	Sb	09 56 05.3	+0.3
EDH	Donghe	0.23	217	*e*P	Pb	09 56 01.3	+0.5
EDH				S	Sb	09 56 06.2	+1.2
TWF1	Yuli	0.24	323	⇑P	Pb	09 56 01.5	+0.5
TWF1				S	Sb	09 56 06.5	+1.2
YULB	Yu-li	0.27	328	⇓P	Pb	09 56 01.6	+0.2
YULB				*e*S	Sb	09 56 06.7	+0.6
HGSD	Ruisui	0.33	355	*e*P	Pb	09 56 02.6	+0.4
HGSD				*e*S	Sb	09 56 08.3	+0.8
EHYH	Wanrong	0.35	343	*e*P	Pn	09 56 03.4	-0.6
EHYH				S	Sb	09 56 08.5	+0.7
EHY	Hungye	0.37	341	P	Pb	09 56 02.6	-0.2
EHY				S	Sb	09 56 08.5	+0.2
LONT	Longtian	0.39	230	P	Pb	09 56 03.2	0.0
LONT				S	Sb	09 56 09.5	+0.6
ELDTW	Lidau	0.40	274	⇓*i*P	Pb	09 56 03.1	-0.3
ELDTW				*i* S	Sb	09 56 08.6	-0.8
TWGBT	Beinan	0.48	225	P	Pb	09 56 04.3	-0.3
TWGBT				*e*S	Sb	09 56 11.2	-0.3
TWG	Pinlang	0.49	226	*i* P	Pb	09 56 04.3	-0.4
WARBT	Fenglin Townsh	0.56	354	*e*P	Pn	09 56 07.0	+0.1
WARBT				*e*S	Sb	09 56 14.5	+0.9
STYH	Taoyuan	0.62	271	*e*P	Pb	09 56 06.8	-0.2
STYH				*e*S	Sb	09 56 15.7	+0.4
SHUL	Shoufeng	0.63	9	*e*P	Pb	09 56 06.8	-0.3
SHUL				*e*S	Sn	09 56 17.0	-0.1
ESL	Shilin	0.65	358	*i* P	Pb	09 56 07.8	+0.3
ALS	Alishan	0.69	301	*i* P	Pn	09 56 08.6	-0.3
ALS				S	Sn	09 56 18.8	-0.2
WHYT	Xinyi Township	0.77	314	*i* P	Pn	09 56 10.0	+0.2
WHYT				S	Sn	09 56 20.3	-0.3
TPUB	Ta-pu	0.77	281	*i* P	Pn	09 56 10.2	+0.3
TPUB				*i* S	Sn	09 56 21.3	+0.7
SSLB	Suanglung	0.78	324	*e*P	Pn	09 56 09.9	0.0
SSLB				*e*S	Sb	09 56 19.2	-0.5
WTP	Ta-pu	0.78	277	*i* P	Pn	09 56 10.2	+0.2
WTP				*i* S	Sn	09 56 21.8	+1.0
SGST	Jiashian	0.81	265	*e*P	Pb	09 56 09.5	-0.6
SGST				*e*S	Sn	09 56 22.9	+1.5
CHN4	Tsaushan	0.81	284	P	Pn	09 56 10.9	+0.5
CHN4				S	Sn	09 56 23.6	+2.0
OWD	Renai	0.83	342	*e*P	Pb	09 56 09.4	-1.1
OWD				*e*S	Sb	09 56 20.6	-0.9
CHN5	Tsauling	0.84	302	P	Pn	09 56 11.6	+0.8
CHN5				S	Sn	09 56 23.8	+1.5
SSD	Sandimen	0.86	242	P	Pn	09 56 11.5	+0.4
SSD				S	Sn	09 56 23.9	+1.1
SMLT	Sun Moon Lake	0.88	325	P	Pn	09 56 11.6	+0.2
WUSB	Renai	0.89	340	*e*P	Pb	09 56 11.2	-0.3
WUSB				S	Sb	09 56 21.8	-1.2
TYC	Yuchr	0.92	324	*e*P	Pb	09 56 13.1	+1.1
MASBT	Mashibuluo	0.93	234	*e*P	Pn	09 56 11.4	-0.7
WCS	Beigang Elemen	1.02	331	*e*P	Pb	09 56 13.8	+0.1
NSK	Sanguang	1.51	357	*i* P	Pn	09 56 20.4	+0.3

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*GFZ **27** 10:02:33.3±0.3, 76°N±6°×°±°, h10^{km}, M4.7/19, mb4.4/19, Error ellipse: s-maj=14.7km s-min=4.5km az=36.2, confirmed*

*NAO **27** 10:02:34.5±0.7, 75°.84N×7°.13E, h10^{km}, ML4.0*

*MOS **27** 10:02:35.8±2.0, 75°.66N×7°.01E, h10^{km}, mb4.5/11, Error ellipse: s-maj=26.8km s-min=5.6km az=96.3*

*IDC **27** 10:02:37.0±0.5, 75°.89N×6°.83E, h0^{km}, mb3.7/16, mbtmp3.8/21, ML2.6/3, MS3.6/30, Error ellipse: s-maj=13.4km s-min=11.4km az=74.0*

*FCIAR **27** 10:02:37.0, 75°.77N×9°.75E, h10^{km}*

*BER **27** 10:02:37.5±3.9, 75°.88N×7°.13E, h10^{km}, Mw4.7, ML4.0(NAO), Confirmed Earthquake*

*NEIC **27** 10:02:38.0±1.9, 75°.81N±0°.08×7°.2E±0°.3, h10^{km}±1^{km}, mb4.6/16, Error ellipse: s-maj=13.4km s-min=12.7km az=184.0*

*DNK **27** 10:02:39.9±3.4, 75°.99N×5°.63E, h0^{km}±55^{km}, ML2.4, Presumed earthquake*

*KOLA **27** 10:02:45.2, 75°.73N×9°.80E, h0^{km}, ML2.5, Error ellipse: s-maj=63.2km s-min=26.6km az=30.0, Greenland sea*

ISC 27 10:02:36.5±0.4**, 75°.87N**±0°.04×**7°.26E**±0°.04**, h10^{km}, n210, σ2^{s}.81**/212**, mb4.3**/42**, MS3.7**/30**, 13C-3D, Greenland Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BRBA	Barentsburg A	2.71	32	Pn	Pn	10 03 19.7	-0.2
BRBA	Barentsburg A	2.71	32	*e*P	Pn	10 03 20.0	+0.1
BRBA				IAML		10 03 48.3	
	comp=Z,60nm,0.4s						
BRBA				*e*S	Sn	10 03 49.8	-2.9
BRBB	Barentsburg B	2.73	32	Pn	Pn	10 03 20.3	0.0
BRBB	Barentsburg B	2.73	32	*e*P	Pn	10 03 20.1	-0.2
BRBB				*e*S	Sn	10 03 50.4	-2.9
BRBB	Barentsburg B	2.73	32	P	Pn	10 03 20.0	-0.2
BRBB				S	Sn	10 03 48.2	-5.1
SPA0	Spitsbergen Ar	3.10	37	Pn	Pn	10 03 26.3	+1.0
	baz=216,slow=12						
SPA0				Sn	Sn	10 04 01.1	-1.2
	baz=227,slow=22						
SPA0	Spitsbergen Ar	3.10	37	*e*P	Pn	10 03 25.2	-0.1
SPA0				*e*S	Sn	10 04 01.0	-1.3
SPA0	Spitsbergen Ar	3.10	37	Pn	Pn	10 03 26.3	+1.0
SPA0				Sn	Sn	10 04 01.1	-1.2
SPA0				IAML		10 04 07.1	
	comp=Z,51nm,0.6s						
SPB2	Spitsbergen Ar	3.10	37		Pn	10 03 26.0	+0.7
SPITS	Spitsbergen Ar	3.10	37	Pn	Pn	10 03 26.4	+1.0
	comp=Z,43nm,0.4s,baz=205,slow=14,SNR=597						
SPITS				Sn	Sn	10 04 00.1	-2.2
	baz=220,slow=24						
SPITS	Spitsbergen Ar	3.10	37	P	Pn	10 03 26.0	+0.7
SPITS				S	Sn	10 04 00.1	-2.2
BJO1	Bjornoya	3.31	109	Pn	Pn	10 03 27.7	-0.6
BJO1				Sn	Sn	10 04 02.3	-5.3
BJO1	Bjornoya	3.31	109	*e*P	Pn	10 03 28.1	-0.2
BJO1				*e*S	Sn	10 04 01.9	-5.7
BJO1	Bjornoya	3.31	109	*e*P	Pn	10 03 28.0	-0.2
BJO1				*e*		10 03 30.1	
BJO1				*e*S	Sn	10 04 02.1	-5.5
BJO1				IAML		10 04 03.3	
	comp=Z,74nm,1.0s						
BEA1	Bear Island, N	3.31	109	*e*P	Pn	10 03 27.9	-0.4
BEA1				*e*		10 03 30.1	
BEA1				*e*S	Sn	10 04 02.6	-5.0
BEA1				IAML		10 04 03.9	
	comp=Z,84nm,0.4s						
BEAR	Bear Island, N	3.32	109	Pn	Pn	10 03 27.6	-0.7
	baz=305,slow=18						
BEAR				Sn	Sn	10 04 02.7	-5.0
	baz=295,slow=18						
HOPEN	Hopen	4.29	73	Pn	Pn	10 03 42.0	+0.2
HOPEN				Sn	Sn	10 04 27.2	-4.6
HOPEN	Hopen	4.29	73	*e*P	Pn	10 03 41.4	-0.3
HOPEN				*e*S	Sn	10 04 26.2	-5.6
HOPEN	Hopen	4.29	73	*e*P	Pn	10 03 41.9	+0.2
HOPEN				*e*S	Sn	10 04 27.0	-4.7
HOPEN				IAML		10 04 30.4	
	comp=Z,178nm,0.3s						
DAG	Danmarks Havn	6.18	291	*e*P	Pn	10 04 04.7	-2.9
DAG				*e*S	Sn	10 05 06.8	-11
DAG	Danmarks Havn	6.18	291	*i* P	Pn	10 04 04.5	-3.1
DAG				*i* S	Sn	10 05 06.9	-11
DAG				IAML		10 05 11.8	
	comp=Z,15nm,0.4s						
DAG	Danmarks Havn	6.18	291	P	Pn	10 04 04.2	-3.4
	comp=Z,23nm,0.6s						
JNW	Jan Mayen West	6.59	230	*e*P	Pn	10 04 09.7	-3.5
JNE	Jan Mayen East	6.59	230	*e*P	Pn	10 04 09.9	-3.4
JMIC	Jan Mayen	6.64	230	LR	LR	10 06 09.0	
	comp=Z,245nm,19.6s,baz=104,slow=32						
JMIC	Jan Mayen	6.64	230	*e*P	Pn	10 04 12.4	-1.5
JMI	Jan Mayen	6.73	231	*e*P	Pn	10 04 13.8	-1.3
HAMF	Hammerfest	7.05	130	*e*P	Pn	10 04 17.8	-1.7
HAMF				*e*S	Sn	10 05 29.6	-10
HAMF				IAML		10 05 33.0	
	comp=Z,9.0nm,0.3s						
TRO	Tromso	7.14	145	Pn	Pn	10 04 22.6	+1.8
TRO	Tromso	7.14	145	P	Pn	10 04 18.5	-2.3
TRO	Tromso	7.14	145	*e*P	Pn	10 04 20.4	-0.4
DBG	Daneborg	7.22	271	Pn	Pn	10 04 18.8	-3.0
DBG	Daneborg	7.22	271	*e*P	Pn	10 04 18.4	-3.3
DBG				*e*S	Sn	10 05 33.0	-11
DBG	Daneborg	7.22	271	*i* P	Pn	10 04 18.9	-2.9
DBG				*i* S	Sn	10 05 34.1	-9.5
DBG				IAML		10 05 35.6	
	comp=Z,9.5nm,0.5s						
DBG	Daneborg	7.22	271	P	Pn	10 04 19.5	-2.3
	comp=Z,27nm,1.1s						
NOR	Nord	7.33	332	Pn	Pn	10 04 21.6	-1.7
NOR	Nord	7.33	332	*e*P	Pn	10 04 15.7	-7.6
NOR				*e*S	Sn	10 05 42.9	-3.4
NOR	Nord	7.33	332	*e*P	Pn	10 04 21.4	-1.9
NOR				*e*S	Sn	10 05 38.2	-8.1
NOR	Nord	7.33	332	*i* P	Pn	10 04 21.0	-2.3
NOR				*i* S	Sn	10 05 40.6	-5.7
NOR				IAML		10 05 42.6	
	comp=Z,6.0nm,1.0s						
NOR	Nord	7.33	332	P	Pn	10 04 21.0	-2.3
	comp=Z,18nm,0.6s						
JETT	Jettan, Norway	7.43	142	Pn	Pn	10 04 22.1	-2.7
JETT	Jettan, Norway	7.43	142	Pn	Pn	10 04 22.1	-2.7
LOF	Lofoten	8.01	163	*e*P	Pn	10 04 33.6	+0.9
ARA0	ARCESS Array S	8.32	130	Pn	Pn	10 04 35.0	-1.9
	baz=334,slow=12						
ARA0				Sn	Sn	10 06 01.7	-9.1
	baz=329,slow=22						
ARA0	ARCESS Array S	8.32	130	Pn	Pn	10 04 35.0	-1.9
ARA0				Sn	Sn	10 06 01.7	-9.1
ARA0				IAML		10 06 03.8	
	comp=Z,8.2nm,0.3s						
ARCES	ARCESS Array B	8.32	130	Pn	Pn	10 04 35.7	-1.3
	comp=Z,8.2nm,0.5s,baz=330,slow=11,SNR=18						
ARCES				Sn	Sn	10 06 01.9	-8.9
	comp=Z,2.4nm,0.3s,baz=328,slow=20,SNR=12						
ARCES				LR	LR	10 07 53.4	
	comp=Z,294nm,20.9s,baz=334,slow=38						
ARCES	ARCESS Array B	8.32	130	P	Pn	10 04 37.3	+0.4
ARCES	ARCESS Array B	8.32	130		Pn	10 04 37.3	+0.4
ARCES	ARCESS Array B	8.32	130	P	Pn	10 04 36.8	-0.1
ARCES				S	Sn	10 05 58.8	-12
KTK1	Kautokeino	8.37	137	*e*P	Pn	10 04 37.3	-0.4
KTK1				*e*S	Sn	10 06 04.3	-7.8
KTK1				IAML		10 06 10.8	
	comp=Z,3.3nm,0.5s						
KEV	Kevo	8.42	127	Pn	Pn	10 04 38.9	+0.6
KEV				S	Sn	10 06 03.2	-10
KEV	Kevo	8.42	127	P	Pn	10 04 38.2	-0.1
KEV	Kevo	8.42	127	*e*P	Pn	10 04 38.3	0.0
KEV				*e*S	Sn	10 06 03.7	-10
KEV	Kevo	8.42	127	Pn	Pn	10 04 38.2	-0.1
KEV	Kevo	8.42	127	P	Pn	10 04 34.4	-3.9
	comp=Z,36nm,1.9s						
KEV	Kevo	8.42	127	P	Pn	10 04 34.3	-4.0
	comp=Z,36nm,1.9s						
VADS	Vadso	8.61	121	Pn	Pn	10 04 40.3	-0.6
VADS				Sn	Sn	10 06 08.8	-9.0
VADS	Vadso	8.61	121	*e*P	Pn	10 04 40.0	-0.9
VADS				*e*S	Sn	10 06 08.5	-9.3
VADS				IAML		10 06 13.3	
	comp=Z,18nm,0.3s						
VADS	Vadso	8.61	121	P	Pn	10 04 39.9	-0.9
VADS				S	Sn	10 06 05.7	-12
KOVU	Salmi	8.62	146	*e*P	Pn	10 04 43.3	+2.1
FAUS	Fauske	8.89	160	P	Pn	10 04 48.5	+3.8
HEF	Hetta	8.98	138	Pn	Pn	10 04 46.2	+0.2
HEF				Sn	Sn	10 06 19.9	-7.1
HEF	Hetta	8.98	138	*e*P	Pn	10 04 45.9	-0.2
HEF				*e*S	Sn	10 06 17.9	-9.2
LANU	Lannavaara	9.05	143	*e*P	Pn	10 04 46.4	-0.5
LANU				*e*S	Sn	10 06 22.5	-6.3
ZFI2	Zemlya Franca-	9.31	40	*e*P	Pn	10 04 46.2	-4.2
ZFI2				*e*S	Sn	10 06 28.6	-6.4
OMEGA	Omega	9.32	40	*e*P	Pn	10 04 46.2	-4.4
OMEGA				*e*S	Sn	10 06 28.6	-6.6
VAGH	Vaagaholmen	9.38	165	*e*P	Pn	10 04 52.5	+1.1
RAUS	Rausandaksla	9.72	164	*e*P	Pn	10 04 57.9	+1.8
SCO	Scoresbysund	9.93	252	P	Pn	10 04 57.4	-1.5
SCO	Scoresbysund	9.93	252	Pn	Pn	10 04 57.4	-1.5
SCO	Scoresbysund	9.93	252	*i* P	Pn	10 04 56.5	-2.4
SCO				*i* S	Sn	10 06 37.5	-13
SCO				IAML		10 06 44.6	
	comp=Z,13nm,0.7s						
SGF	Sodankyl	10.34	135	P	Pn	10 05 03.1	-1.4
SGF	Sodankyl	10.34	135	P	Pn	10 05 03.1	-1.4
	comp=Z,15nm,1.0s						
TERR	Teriberka	10.58	115	P	Pn	10 05 04.5	-3.3
TERR				S	Sn	10 06 52.9	-13
VRF	Varrio	10.63	128	P	Pn	10 05 06.1	-2.5
	comp=Z,34nm,1.0s						
RNF	Rovaniemi	11.00	138	P	Pn	10 05 12.6	-1.1
	comp=Z,14nm,0.9s						
LILU	Lilltraesk	11.39	152	*e*P	Pn	10 05 20.9	+2.0
APA0	Apatity Array	11.43	123	P	Pn	10 05 19.8	+0.3
APA0				S	Sn	10 07 13.8	-13
LVZ	Lovozero	11.54	119	*ce*P	Pn	10 05 20.9	-0.1
LVZ				pmax	pmax		
	comp=Z,16nm,0.8s						
LVZ	Lovozero	11.54	119		Pn	10 05 20.5	-0.5
LVZ	Lovozero	11.54	119	S	Sn	10 07 18.1	-11
LVZ	Lovozero	11.54	119	P	Pn	10 05 19.7	-1.2
	comp=Z,28nm,1.4s						
APA	Apatity	11.55	122	S	Sn	10 07 10.2	-20
MSF	Maaselka	12.16	134	P	Pn	10 05 28.1	-1.4
MSF	Maaselka	12.16	134	P	Pn	10 05 28.1	-1.4
	comp=Z,15nm,1.6s						
KVDA	Kovda	12.19	125	P	Pn	10 05 28.3	-1.5
KVDA				S	Sn	10 07 33.8	-12
OUL	Oulu	12.39	141	P	Pn	10 05 29.9	-2.7
OUL	Oulu	12.39	141	P	Pn	10 05 29.9	-2.7
	comp=Z,26nm,1.1s						
SUMG	Summit	12.58	278	P	Pn	10 05 35.3	-0.2
SUMG	Summit	12.58	278		Pn	10 05 35.3	-0.2
SUMG	Summit	12.58	278	*i* P	Pn	10 05 35.5	0.0
SUMG	Summit	12.58	278	P	Pn	10 05 32.8	-2.7
	comp=Z,37nm,1.1s						
NEEM	North Greenlan	13.07	305	*i* P	Pn	10 05 38.8	-3.2
NOA	NORSAR Array B	14.97	173	Pn	Pn	10 06 08.9	+1.2
	baz=349,slow=14,SNR=3.3						
NOA				LR	LR	10 11 05.7	
	comp=Z,82nm,20.4s,baz=265,slow=34 comp=Z,0.5nm,0.7s						
NOA	NORSAR Array B	14.97	173	P	Pn	10 06 09.0	+1.2
ADZR	Andozero	15.72	123	*e*P	P	10 06 20.5	-1.1
KULLO	Kullorsuaq	15.78	297	P	Pn	10 06 13.3	-5.0
	comp=Z,52nm,1.3s						
FINES	FINESS Array B	15.88	145	Pn	Pn	10 06 18.5	-1.2
	comp=Z,0.2nm,0.3s,baz=2.2,slow=9.9,SNR=8.7						
FINES				LR	LR	10 12 31.6	
	comp=Z,187nm,21.0s,baz=358,slow=37 comp=Z,2.3nm,0.7s						
FINES				AML	AML		
FINES	FINESS Array B	15.88	145	P	Pn	10 06 19.3	-0.4
FINES	FINESS Array B	15.88	145	Pn	Pn	10 06 19.3	-0.4
HFS	Hagfors	15.98	168	Pn	P	10 06 23.3	-1.2
	comp=Z,0.1nm,0.3s,baz=358,slow=10,SNR=3.0 comp=Z,2.8nm,0.9s						
HFS				AML	AML		
KONO	Kongsberg	16.32	176	⇑*e*P	Pn	10 06 24.2	-1.1
KONO				pmax	pmax		
	comp=Z,11nm,1.2s						
LSH	Leshukonskoye	16.52	111	*e*P	Pn	10 06 21.9	-6.0
LSH				*e*S	Sn	10 09 19.5	-12
UPNV	Upernavik	16.64	292	P	Pn	10 06 23.7	-5.6
	comp=Z,58nm,1.0s						
TULEG	Thule	17.02	309	P	Pn	10 06 28.3	-5.8
	comp=Z,61nm,1.6s						
KLMR	Klimovskoe	18.75	126	*e*P	P	10 06 53.8	-1.2
KLMR	Klimovskoe	18.75	126	*e*P	P	10 06 54.1	-0.9
KLMR				pmax	pmax		
	comp=Z,33nm,1.7s						
VSU	Vasula	18.85	147	⇓*e*P	P	10 06 55.2	-0.9
VSU				pmax	pmax		
	comp=Z,28nm,1.1s						
SHIP	Sredneye Shipi	19.40	116	*e*P	P	10 06 58.6	-3.6
SFJD	Kangerlussuaq	19.49	274	P	Pn	10 07 05.7	+1.3
SFJD				pmax	pmax		
	comp=Z,14nm,1.1s						
SFJD	Kangerlussuaq	19.49	274	P	Pn	10 07 05.7	+1.3
EKA	Eskdalemuir Ar	21.00	197	P	P	10 07 21.5	+1.9
	comp=Z,1.7nm,0.9s,baz=90,slow=20,SNR=1.4 comp=Z,1.7nm,0.9s						
PABE	Paberze	21.40	153		P	10 07 25.0	+1.1
NACGM	Naroch	22.32	149	*e*P	P	10 07 36.0	+2.2
KIRV	Kirov	22.91	115	LR	LR	10 16 55.8	
	comp=Z,182nm,18.9s,baz=5.9,slow=37						
KIRV	Kirov	22.91	115	⇑*e*P	P	10 07 42.2	+2.3
NRIK	Noril'sk	22.93	64	LR	LR	10 19 06.6	
	comp=Z,114nm,18.8s,baz=344,slow=43						
NRIK	Noril'sk	22.93	64	⇑*e*P	P	10 07 44.0	+3.8
NRIK				pmax	pmax		
	comp=Z,9.0nm,0.8s						
OBN	Obninsk	23.59	135	*i* P	P	10 07 50.3	+3.5
OBN				pmax	pmax		
	comp=Z,11nm,0.7s						
OBN				MLR	MLR		
	comp=Z,124nm,19.0s						
MOX	Moxa	25.39	174	P	P	10 08 02.2	-1.3
MOX	Moxa	25.39	174	P	P	10 08 02.1	-1.3
	comp=Z,9.4nm,2.7s						
NKC	Novy Kostel	25.82	172	P	P	10 08 04.8	-2.7
NKC	Novy Kostel	25.82	172	P	P	10 08 04.8	-2.7
	comp=Z,11nm,1.5s						
OJC	Ojcow	26.24	162	P	P	10 08 12.4	+1.2
OJC	Ojcow	26.24	162		P	10 08 12.4	+1.2
OJC	Ojcow	26.24	162	P	P	10 08 09.3	-2.0
	comp=Z,14nm,1.2s						
AKASG	Malin Array Be	26.75	148	P	P	10 08 19.0	+3.2
	comp=Z,2.4nm,0.7s,baz=348,slow=9.5,SNR=7.7 comp=Z,2.4nm,0.7s						
AKBB	Malin Array Si	26.75	148	⇑*e*P	P	10 08 17.2	+1.4
KIEV	Kiev	26.75	148	P	P	10 08 12.7	-3.1
KIEV	Kiev	26.75	148	P	P	10 08 12.7	-3.1
	comp=Z,11nm,1.4s						
VRAC	Vranov	26.93	166	P	P	10 08 14.7	-2.8
VRAC	Vranov	26.93	166	P	P	10 08 14.7	-2.8
	comp=Z,2.5nm,1.2s						
ARTI	Arti	26.95	107	P	P	10 08 19.7	+2.1
	comp=Z,1.0nm,0.3s,baz=355,slow=3.5,SNR=4.8						
ARTI				LR	LR	10 19 27.9	
	comp=Z,122nm,21.3s,baz=311,slow=37 comp=Z,1.0nm,0.3s						
ARTI	Arti	26.95	107	*c i*P	P	10 08 19.5	+1.9
ARTI						10 08 57.7	
ARTI						10 11 37.1	
ARTI				S	S	10 12 56.3	+2.0
ARTI				pmax	pmax		
	comp=Z,19nm,4.6s						
ARTI	Arti	26.95	107	P	P	10 08 19.0	+1.4
ARTI				IAmb	IAmb	10 08 35.1	
	comp=Z,8.5nm,0.6s						
KRUC	Moravsky	27.17	167	P	P	10 08 16.4	-3.2
KRUC	Moravsky	27.17	167	P	P	10 08 16.4	-3.2
	comp=Z,7.2nm,1.7s						
STU	Stuttgart	27.21	177	P	P	10 08 20.9	+0.9
STU				pmax	pmax		
	comp=Z,6.0nm,0.6s						
STU	Stuttgart	27.21	177	P	P	10 08 20.9	+0.9
STU				IAmb	IAmb	10 08 41.2	
	comp=Z,6.2nm,0.6s						
GERES	GERESS Array B	27.25	171	P	P	10 08 23.1	+2.6
	comp=Z,0.4nm,0.4s,baz=356,slow=5.9,SNR=6.2 comp=Z,0.4nm,0.4s						
KOLS	Kolonicke sedl	27.73	158	P	P	10 08 20.8	-3.9
	comp=Z,4.8nm,0.7s						
BELG	Belogornoye	28.27	123	LR	LR	10 19 37.8	
	comp=Z,133nm,21.5s,baz=0.4,slow=36						
GIMEL	St. Georges /	29.44	181	P	P	10 08 36.4	-3.6
	comp=Z,16nm,1.9s						
TUE	Stuetta	29.51	177	P	P	10 08 36.6	-4.1
	comp=Z,7.1nm,2.8s						
AKTO	Aktyubinsk	32.37	112	LR	LR	10 22 48.2	
	comp=Z,150nm,19.4s,baz=190,slow=37						
BVAR	Borovoye Array	32.90	97	P	P	10 09 12.9	+2.6
	comp=Z,0.6nm,0.5s,baz=343,slow=9.5,SNR=2.0 comp=Z,0.6nm,0.5s						

ABKAR	**Akbulak array**	33.91	111	P	P	10 09 19.9	+0.8
SCHQ	**Schefferville**	33.94	275	LR	LR	10 21 52.9	
	comp=Z,109nm,21.1s,baz=10,slow=34						
E29M	**Blow River**	34.34	338	P	P	10 09 24.4	+1.8
F28M	**Old Crow**	35.27	339	P	P	10 09 33.7	+3.0
KIV	**Kislovodsk**	35.41	134	*e*P	P	10 09 35.0	+2.8
KIV				pmax	pmax		
	comp=Z,5.0nm,1.0s						
KIV				MLR	MLR		
	comp=Z,59nm,16.0s						
ZALV	**Zalesovo Beam**	35.59	83	P	P	10 09 37.6	+4.1
	comp=Z,0.5nm,0.4s,baz=334,slow=9.9,SNR=5.8						
	comp=Z,0.5nm,0.4s						
SHA1	**Shidzhatmaz**	35.61	134	⇑*e*P	P	10 09 36.7	+2.6
G29M	**Pine Creek**	35.79	337	P	P	10 09 37.6	+2.4
G29M				IAmb	IAmb	10 09 46.1	
	comp=Z,11nm,1.4s						
BMAR	**Burnt Mountain**	35.84	342	P	P	10 09 39.1	+3.5
NCK	**Nalchik**	36.02	133	⇓*e*P	P	10 09 39.0	+1.7
NCK				pmax	pmax		
	comp=Z,5.0nm,0.6s						
ESDC	**Sonseca Array**	36.65	195	P	P	10 09 44.7	+1.9
	comp=Z,0.2nm,0.5s,baz=359,slow=8.7,SNR=9.9						
	comp=Z,0.2nm,0.5s						
YKA	**Yellowknife Ar**	37.03	319	P	P	10 09 47.1	+1.4
	comp=Z,0.7nm,0.8s,baz=22,slow=8.0,SNR=4.2						
	comp=Z,0.7nm,0.8s						
KURK	**Kurchatov**	37.04	91	⇑*e*P	P	10 09 49.3	+3.3
KURK				pmax	pmax		
	comp=Z,6.0nm,1.5s						
KURBB	**Kurchatov Arra**	37.11	91	P	P	10 09 49.7	+3.2
	comp=Z,0.7nm,0.2s,baz=331,slow=7.8,SNR=4.5						
KURBB				LR	LR	10 28 46.0	
	comp=Z,184nm,19.5s,baz=164,slow=42						
	comp=Z,0.7nm,0.2s						
MAK	**Makhachkala**	37.26	128	*c i*P	P	10 09 44.6	-3.3
MAK				*e*		10 11 13.2	
MAK				*e*S	S	10 15 29.7	-4.9
MAK				pmax	pmax		
	comp=Z,507nm,1.3s						
MAK				MLR	MLR		
	comp=Z,123nm,12.0s						
ILAR	**Eielson Array**	38.64	343	P	P	10 09 59.2	-0.2
	comp=Z,0.6nm,0.8s,baz=20,slow=8.7,SNR=4.4						
	comp=Z,0.6nm,0.8s						
SEY	**Seymchan**	39.66	24	⇑*e*P	P	10 10 09.8	+1.9
SEY				pmax	pmax		
	comp=Z,10.0nm,1.5s						
MK31	**Makanchi Array**	41.59	89	⇑*e*P	P	10 10 27.2	+3.2
MKAR	**Makanchi Array**	41.59	89	P	P	10 10 27.4	+3.4
	comp=Z,0.4nm,0.7s,baz=333,slow=4.5,SNR=3.9						
	comp=Z,0.4nm,0.7s						
MKAR	**Makanchi Array**	41.59	89	*i* P	P	10 10 27.2	+3.2
DLBC	**Dease Lake**	43.16	329	LR	LR	10 28 24.0	
	comp=Z,51nm,18.8s,baz=54,slow=36						
AAK	**Ala-Archa**	43.59	99	LR	LR	10 32 46.8	
	comp=Z,70nm,18.0s,baz=353,slow=41						
ULM	**Lac du Bonnet**	44.98	298	LR	LR	10 29 59.1	
	comp=Z,122nm,19.2s,baz=10.0,slow=37						
WMQ	**Urumqi**	45.70	86	*e*P	P	10 11 01.3	+4.1
WMQ				pmax	pmax		
	comp=Z,19nm,0.9s						
WMQ				LR	LR		
	comp=Z,59nm,23.3s						
SADO	**Sadowa**	46.26	280	LR	LR	10 29 07.0	
	comp=Z,68nm,21.2s,baz=330,slow=34						
ULN	**Ulaanbaatar**	46.49	66	⇓*e*P	P	10 11 05.2	+1.8
ULN				pmax	pmax		
	comp=Z,3.0nm,0.9s						
PET	**Petropavlovsk**	50.04	22	⇑*e*P	P	10 11 32.6	+2.1
PET				pmax	pmax		
	comp=Z,6.0nm,1.1s						
NEW	**Newport**	51.06	315	LR	LR	10 32 24.6	
	comp=Z,74nm,18.7s,baz=42,slow=35						
MSO	**Missoula**	51.88	312		P	10 11 46.2	+1.6
MSO				IAmb	IAmb	10 11 54.2	
	comp=Z,15nm,1.2s						
HHC	**Hu-ho-hao-te**	54.16	65	*e*P	P	10 12 03.8	+2.3
HHC				pP	pwP	10 12 08.5	+0.9
HHC				pmax	pmax		
	comp=Z,13nm,0.6s						
K22A	**Casper**	54.46	304		P	10 12 05.4	+1.7
PDAR	**Pinedale Array**	54.95	307	P	P	10 12 08.9	+1.5
	comp=Z,0.6nm,0.9s,baz=41,slow=4.7,SNR=6.7						
PDAR				LR	LR	10 36 17.4	
	comp=Z,57nm,18.1s,baz=18,slow=37						
	comp=Z,0.6nm,0.9s						
HLID	**Hailey**	55.12	311		P	10 12 10.3	+1.9
HLID				IAmb	IAmb	10 12 18.0	
	comp=Z,8.6nm,1.4s						
TKL	**Tuckaleechee C**	56.02	281	LR	LR	10 35 41.7	
	comp=Z,88nm,18.0s,baz=10,slow=36						
O20A	**White River Ci**	57.23	305		P	10 12 24.5	+0.8
ELK	**Elko**	58.00	311	LR	LR	10 37 24.3	
	comp=Z,67nm,19.0s,baz=54,slow=36						
YBH	**Yreka Blue Hor**	58.35	318	LR	LR	10 37 47.5	
	comp=Z,38nm,18.0s,baz=16,slow=36						
PV01	**Paradox Valley**	59.22	304		P	10 12 38.4	+0.8
PV01				IAmb	IAmb	10 12 47.4	
	comp=Z,6.0nm,1.0s						
NVAR	**Mina Array Bea**	60.80	313	P	P	10 12 51.0	+2.6
	comp=Z,0.3nm,0.5s,baz=12,slow=5.3,SNR=8.3						
NVAR				LR	LR	10 37 48.5	
	comp=Z,49nm,18.8s,baz=34,slow=35						
	comp=Z,0.3nm,0.5s						
ANMO	**Albuquerque**	61.86	301	LR	LR	10 40 39.2	
	comp=Z,105nm,18.8s,baz=25,slow=37						
ANMO	**Albuquerque**	61.86	301	⇑*e*P	P	10 12 59.0	+3.4
ANMO				pmax	pmax		
	comp=Z,4.0nm,1.8s						
TORD	**Torodi Ar. Bea**	62.79	186	P	P	10 13 03.4	+1.7
	comp=Z,0.8nm,0.8s,baz=348,slow=12,SNR=4.9						
	comp=Z,0.8nm,0.8s						
NJ2	**Nanjing**	64.20	61	*e*P	P	10 13 12.3	+1.4
NJ2				pmax	pmax		
	comp=Z,7.0nm,0.5s						
PFO	**Pinyon Flats O**	65.15	310	LR	LR	10 42 06.3	
	comp=Z,43nm,18.1s,baz=7.0,slow=36						
VHRN	**Van Horn**	65.56	299	P	P	10 13 21.9	+1.8
VHRN				IAmb	IAmb	10 13 29.2	
	comp=Z,5.7nm,1.3s						
PZH	**PanZhiHua**	65.60	79	P	P	10 13 23.8	+3.5
ALPN	**Alpine**	65.67	298	P	P	10 13 22.6	+1.9
TX31	**Lajitas Ar. Si**	66.68	297	P	P	10 13 28.8	+1.6
TXAR	**Lajitas Array**	66.68	297	P	P	10 13 28.2	+1.0
	comp=Z,0.5nm,0.7s,baz=32,slow=6.1,SNR=8.7						
TXAR				LR	LR	10 43 43.9	
	comp=Z,87nm,19.2s,baz=24,slow=37						
	comp=Z,0.5nm,0.7s						
CMAR	**Chiang Mai Arr**	72.65	84	P	P	10 14 06.8	+2.8
	comp=Z,0.9nm,0.3s,baz=336,slow=6.3,SNR=7.7						
	comp=Z,0.9nm,0.3s						
CMAR	**Chiang Mai Arr**	72.65	84	P	P	10 14 06.2	+2.3
LPIG	**La Paz**	73.16	302	LR	LR	10 47 19.1	
	comp=Z,51nm,18.2s,baz=20,slow=37						
CMIG	**Matias Romero**	76.48	286	LR	LR	10 49 27.2	
	comp=Z,53nm,21.9s,baz=43,slow=37						
MBAR	**Mbarara**	77.57	156	LR	LR	10 49 23.4	
	comp=Z,65nm,19.3s,baz=324,slow=36						
SDV	**Santo Domingo**	78.48	260	LR	LR	10 46 50.4	
	comp=Z,24nm,21.3s,baz=329,slow=34						
KMBO	**Kilima Mbogo**	78.83	149	LR	LR	10 53 35.0	
	comp=Z,45nm,18.4s,baz=41,slow=39						
JTS	**Las Juntas de**	80.64	275	LR	LR	10 49 09.6	
	comp=Z,32nm,20.6s,baz=317,slow=35						
WRA	**Warramunga Arr**	117.91	58	PKP	PKiKP	10 21 24.1	+1.5
	comp=Z,0.3nm,0.8s,baz=327,slow=2.6,SNR=5.5						
ASAR	**Alice Springs**	121.42	60	PKP	PKiKP	10 21 30.7	+1.3
	comp=Z,1.0nm,0.6s,baz=1.0,slow=1.6,SNR=20						
VNA1	**Neumayer--Stat**	146.62	189	PKPdf	PKiKP	10 22 19.4	+0.6
	comp=Z,6.3nm,1.0s						
VNA3	**Neumayer Olymp**	147.27	190	PKPdf	PKiKP	10 22 20.0	-0.2
	comp=Z,1.9nm,0.7s						
MAW	**Mawson**	147.37	144	PKPbc	PKPab	10 22 19.6	-0.6
	comp=Z,4.0nm,0.8s,baz=319,slow=4.9,SNR=12						
SNAA	**Sanae**	147.46	186	PKPbc	PKiKP	10 22 20.6	0.0
	comp=Z,2.8nm,0.8s,baz=328,slow=1.0,SNR=4.7						
TROLL	**Troll, Antarti**	147.70	183	PKPdf	PKPab	10 22 21.7	0.0
	comp=Z,134nm,0.6s						

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*TIR **27** 10:29:06.5, 41°.42N×19°.63E, h22km±3km, Ml2.5/4*
*BEO **27** 10:29:08.6±0.9, 41°.56N×19°.85E, h3km±4km, ML2.1/8*
ISC 27 10:29:06.2±1.0, **41°.47N**±0°.03×**19°.63E**±0°.03, **h15**km±8km,
n25, σ1s.**01**/45, **2C-1D, Albania**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TIR	**Tirane**	0.22	125	⇑Pg	Pb	10 29 11.6	-0.3
TIR				Sg	Sg	10 29 14.8	+0.4
TIR				AML	AML	10 29 15.1	
	2.8nm,0.4s						
TIR				AML	AML	10 29 15.5	
	4.2nm,0.3s						
SDA	**Shkodra**	0.59	350	Pg	Pg	10 29 17.6	-0.2
SDA				Sg	Sn	10 29 28.8	-0.6
SDA				AML	AML	10 29 31.3	
	0.2nm,0.3s						
PHP	**Peshkopia**	0.64	71	⇑Pg	Pb	10 29 18.5	-0.7
PHP				Sg	Sn	10 29 29.1	-1.9
PHP				AML	AML	10 29 32.9	
	0.3nm,0.5s						
PDG	**Podgorica**	1.00	344	⇓Pg	Pn	10 29 25.8	+0.1
PDG				Sg	Sn	10 29 41.4	+1.9
PDG	**Podgorica**	1.00	344	*e*Pg	Pb	10 29 25.3	+0.1
PDG				*e*Sg	Sn	10 29 40.7	+1.2
LSK	**Leskovik**	1.51	151	Pn	Pg	10 29 36.5	+1.2
LSK				Sn	Sg	10 29 56.4	+1.4
DBRK	**Dubrovnik**	1.63	318	*e*Pg	Pn	10 29 34.5	+0.1
DBRK				Sg	Sn	10 29 55.2	+0.1
KEK	**Kerkira**	1.76	176	Pn	Pb	10 29 38.0	-0.2
KEK				Sn	Sg	10 30 01.1	-1.8
SJES	**Sjenica**	1.81	8	*e*Pg	Pb	10 29 39.7	+0.6
SJES				*e*Sg	Sg	10 30 03.8	-0.5
STON	**Ston**	2.00	315	*e*Pn	Pn	10 29 39.3	-0.2
STON				Sn	Sn	10 30 04.1	-0.2
IGT	**Igoumenitsa**	2.01	164	Pn	Pg	10 29 43.9	-0.9
IGT				Sn	Sb	10 30 08.0	+0.6
NOCI	**Noci**	2.06	251	Pn	Pb	10 29 43.1	-0.1
NOCI				Sn	Sb	10 30 09.9	+1.2
NOCI				AML	AML	10 30 14.3	
	0.1nm,0.2s						
SELS	**Selova**	2.06	32	*e*Pn	Pb	10 29 41.9	-1.6
SELS				*e*Sg	Sb	10 30 08.6	-0.4
BARS	**Barje**	2.11	50	*e*Pn	Pb	10 29 42.8	-1.4
BARS				*e*Sg	Sb	10 30 09.2	-1.0
IVAS	**Ivanjica**	2.14	10	*e*Pn	Pn	10 29 42.0	+0.5
IVAS				*e*Sg	Sb	10 30 12.4	+1.3
LSTV	**Lastovo**	2.41	303	*e*Pn	Pn	10 29 44.5	-0.7
DIVS	**Divibare**	2.64	6	*e*Sn	Sn	10 30 22.1	+1.9
MAKA	**Makarska**	2.65	314	*i* Pn	Pn	10 29 48.3	-0.1
MAKA				Sn	Sn	10 30 19.6	-0.7
RICI	**Ricice**	2.74	318	*i* Pn	Pn	10 29 49.7	0.0
RICI				Sn	Sn	10 30 22.8	+0.3
ZAPS	**Zavoj**	2.86	50	*e*Sn	Sn	10 30 26.3	+0.7
ZAGS	**Zajecar**	3.03	39	*e*Pn	Pn	10 29 55.8	+2.2
ZAGS				*e*Sn	Sn	10 30 29.0	-0.6
KIJV	**Kijevo**	3.47	318	*e*Pn	Pn	10 30 00.3	+0.6
KIJV				Sn	Sn	10 30 40.1	-0.4
MORI	**Morici**	3.75	311	*e*Pn	Pn	10 30 04.1	+0.5
DUGI	**Dugi Otok**	4.20	308	*e*Pn	Pn	10 30 09.4	-0.4
VIRC	**Vir**	4.39	311	*e*Pn	Pn	10 30 11.4	-0.8
VIRC				Sn	Sn	10 31 01.6	-1.5

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*IDC **27** 10:30:50.6±0.8, 65°.79N×52°.42W, h0km, mb3.7/9, mbtmp3.8/11, ML3.6/2, MS3.3/8, Error ellipse: s-maj=19.5km s-min=10.6km az=150.0*
*NEIC **27** 10:30:51.6±1.7, 65°.76N±0°.03×52°.3W±0°.2, h10km±1km, mb4.3/16, Error ellipse: s-maj=10.6km s-min=4.9km az=80.0*
*DNK **27** 10:30:51.5±6.1, 65°.64N×52°.24W, h18km±19km, ML3.9, Confirmed Earthquake*
*OTT **27** 10:30:53.1±0.2, 65°.74N×52°.56W, h18km, ML4.4/8, Western Greenland. 547km east from Qikiqtarjuaq, Nu*
ISC 27 10:30:50.4±0.5, **65°.75N**±0°.04×**52°.50W**±0°.04, **h10**km, **n77,**
σ**2s.61**/90, **mb4.1**/13, **MS3.3**/7, **Western Kalaallit Nunaat**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SFJD	**Kangerlussuaq**	1.46	30	Pg	Pb	10 31 17.5	-0.1
	228nm,0.3s,baz=205,slow=15,SNR=3294						
SFJD				Lg	Lg	10 31 35.7	
	160nm,0.3s,baz=190,slow=20,SNR=7.3						
SFJD				LR	LR	10 31 56.1	
	comp=Z,391nm,19.3s,baz=268,slow=46						
SFJD	**Kangerlussuaq**	1.46	30	*i* P	Pb	10 31 17.4	-0.2
SFJD				*i* S	Sb	10 31 35.6	-0.6
SFJD				IAML		10 31 39.0	
	comp=Z,7μm,0.5s						
NUUK	**Nuuk**	1.61	168	*i* P	Pn	10 31 17.8	-1.1
NUUK				*i* S	Sn	10 31 37.0	-2.6
ILULI	**Ilulissat**	3.52	8	PN	Pn	10 31 46.0	+1.0
ILULI				SN	Sn	10 32 26.5	-0.1
ILULI				Trac		10 32 45.1	
	comp=Z,1μm,0.5s						
ILULI	**Ilulissat**	3.52	8		Pn	10 31 45.9	+0.9
ILULI				Sn	Sn	10 32 27.6	+1.0
ILULI	**Ilulissat**	3.52	8	*i* P	Pn	10 31 46.4	+1.4
ILULI				IAML		10 32 44.7	
	comp=Z,1μm,1.0s						
GDH	**Godhavn**	3.54	354	*i* P	Pn	10 31 46.8	+1.6
GDH				IAML		10 32 44.8	
	comp=Z,1μm,0.8s						
SAQQ	**Saqqaq**	4.28	3	*i* P	Pn	10 31 55.9	+0.4
SAQQ				*e*S	Sn	10 32 44.6	-0.8
SAQQ				IAML		10 33 06.4	
	comp=Z,1μm,1.3s						
IVI	**Ivigtut**	4.96	155		Pn	10 32 04.4	-0.4
IVI	**Ivigtut**	4.96	155	*i* P	Pn	10 32 03.9	-0.9
IVI				IAML		10 33 26.2	
	comp=Z,398nm,0.9s						
NIAQ	**Niaqornat**	5.08	356	*e*P	Pn	10 32 09.1	+2.6
NIAQ				*i* S	Sn	10 33 03.8	-1.2
NIAQ				IAML		10 33 34.0	
	comp=Z,727nm,1.4s						
SAATT	**Saattut**	5.09	3	*i* P	Pn	10 32 06.3	-0.4
SAATT				*i* S	Sn	10 33 04.1	-1.2
SAATT				IAML		10 33 38.6	
	comp=Z,532nm,1.0s						
NRS	**Narsarsuaq**	5.59	142		Pn	10 32 13.3	-0.2
NRS	**Narsarsuaq**	5.59	142	*e*P	Pn	10 32 13.7	+0.2
NRS				IAML		10 34 07.4	
	comp=Z,286nm,1.0s						
ISOG	**Isortoq, Green**	5.60	86	*i* P	Pn	10 32 11.9	-1.6
ISOG				*i* S	Sn	10 33 09.9	-7.9
ISOG				IAML		10 33 47.2	
	comp=Z,587nm,0.6s						
NUUG	**Nuugaatsiaq**	5.82	358	*i* P	Pn	10 32 15.9	-0.7
NUUG				*i* S	Sn	10 33 21.8	-1.5
NUUG				IAML		10 34 06.1	
	comp=Z,176nm,1.1s						
ANGG	**Ammassalik, Gr**	6.14	84		Pn	10 32 20.2	-0.8
ANGG	**Ammassalik, Gr**	6.14	84	*e*P	Pn	10 32 21.0	0.0
ANGG				*e*S	Sn	10 33 23.8	-7.3
ANGG				IAML		10 34 04.4	
	comp=Z,347nm,0.6s						
FRB	**Frobisher Bay**	7.15	261	Pn	Pn	10 32 34.0	-0.9
	comp=Z,1.7nm,0.3s,baz=68,slow=9.9,SNR=12						
FRB				Sn	Sn	10 33 50.7	-5.3
	comp=Z,7.6nm,0.3s,baz=155,slow=20,SNR=8.3						
	comp=Z,10nm,1.0s						
FRB				AML	AML		
FRB	**Frobisher Bay**	7.15	261	PN	Pn	10 32 34.7	-0.2
FRB				SN	Sn	10 33 51.4	-4.6
FRB				Trac		10 34 14.2	
	comp=Z,25nm,0.4s						
FRB	**Frobisher Bay**	7.15	261	*i* P	Pn	10 32 34.0	-0.9
FRB				*e*		10 32 36.2	
FRB				*i* S	Sn	10 33 50.7	-5.3
UPNV	**Upernavik**	7.18	351	*i* P	Pn	10 32 35.1	-0.1
UPNV				*e*S	Sn	10 33 53.0	-3.8
UPNV				IAML		10 34 59.6	
	comp=Z,66nm,0.9s						
SUMG	**Summit**	8.46	30		Pn	10 32 51.5	-1.5
SUMG	**Summit**	8.46	30	*i* P	Pn	10 32 51.6	-1.5
SUMG				*e*S	Sn	10 34 22.5	-6.2
SUMG				IAML		10 35 26.9	
	comp=Z,119nm,1.1s						
KULLO	**Kullorsuaq**	9.01	352	PN	Pn	10 32 55.8	-4.5
KULLO				SN	Sn	10 34 36.9	-4.8
KULLO				Trac		10 35 10.5	
	comp=Z,25nm,0.4s						
KULLO	**Kullorsuaq**	9.01	352	*e*S	Sn	10 34 37.3	-4.4
NINL	**Nain**	10.24	210	PN	Pn	10 33 17.8	+0.6
NINL				SN	Sn	10 35 04.8	-7.1
NINL				Trac		10 35 13.4	
	comp=Z,1.4nm,0.1s						
POIN	**Pond Inlet**	11.31	319	PN	Pn	10 33 33.1	+1.3
POIN				SN	Sn	10 35 32.6	-5.4
POIN				Trac		10 36 02.2	
	comp=Z,47nm,0.9s						
POIN	**Pond Inlet**	11.31	319	Pn	Pn	10 33 32.5	+0.7
ILON	**Igloolik, Nuna**	11.70	301	PN	Pn	10 33 37.2	+0.2
ILON				SN	Sn	10 35 39.6	-7.9
ILON				Trac		10 36 16.2	
	comp=Z,32nm,0.7s						
ILON	**Igloolik, Nuna**	11.70	301		Pn	10 33 36.9	-0.1
NEEM	**North Greenlan**	11.76	2	*i* P	Pn	10 33 35.9	-2.3
NEEM				*e*S	Sn	10 35 37.7	-12
TULEG	**Thule**	11.97	341	*e*P	Pn	10 33 28.5	-12
TULEG				*e*S	Sn	10 35 43.5	-11
SCO	**Scoresbysund**	12.23	54	Pn	Pn	10 33 44.0	-0.3
SCO	**Scoresbysund**	12.23	54	*i* P	Pn	10 33 42.5	-1.9
SCHQ	**Schefferville**	13.01	220	Pn	Pn	10 33 53.9	-1.2
	comp=Z,2.8nm,0.3s,baz=30,slow=10,SNR=41						
SCHQ				Sn	Sn	10 36 11.3	-8.4
	comp=Z,2.0nm,0.3s,baz=280,slow=18,SNR=6.8						
SCHQ				LR	LR	10 38 35.7	
	comp=Z,76nm,19.4s,baz=346,slow=36						
	comp=Z,11nm,0.5s						
SCHQ				AML	AML		
SCHQ	**Schefferville**	13.01	220	PN	Pn	10 33 55.2	+0.2
SCHQ				SN	Sn	10 36 12.6	-7.1
SCHQ				Trac		10 36 34.6	
	comp=Z,46nm,1.3s						
SCHQ	**Schefferville**	13.01	220		Pn	10 33 55.3	+0.2
SCHQ	**Schefferville**	13.01	220	*i* P	Pn	10 33 53.0	-2.1
DBG	**Daneborg**	13.74	38	*i* P	Pn	10 34 02.9	-1.9
DAG	**Danmarks Havn**	15.15	29	*i* P	Pn	10 34 23.7	-0.3
SAKN	**Sanikiluaq**	15.73	247	PN	Pn	10 34 31.2	-0.5
SAKN				SN	Sn	10 37 13.8	-12
SAKN				Trac		10 37 24.3	
	comp=Z,3.1nm,0.2s						
LG4Q	**La Grande 4**	16.20	232	PN	Pn	10 34 35.4	-2.4
LG4Q				SN	Sn	10 37 27.9	-9.4
LG4Q				Trac		10 37 44.6	
	comp=Z,5.9nm,0.5s						
BJBQ	**Baie Johan-Bee**	16.40	204	PN	Pn	10 34 40.5	+0.2
BJBQ				SN	Sn	10 37 31.2	-11
BJBQ				Trac		10 37 42.3	
	comp=Z,450nm,3.4s						
RES	**Resolute Bay**	16.46	321	PN	Pn	10 34 42.8	+1.8
RES				SN	Sn	10 37 38.5	-4.8
RES				Trac		10 37 46.0	
	comp=Z,0.1nm,0.0s						
ICQ	**Pointe Anglais**	18.01	213	Pn	Pn	10 34 59.8	-0.6
NOR	**Nord**	18.18	16	*i* P	Pn	10 35 02.0	-0.4
BATG	**Bathurst New B**	19.89	208	P	Pn	10 35 23.4	+0.2
BATG				IAmb	IAmb	10 35 44.7	
	comp=Z,26nm,1.4s						
LDAQ	**Lac Daran**	20.41	218	Pn	Pn	10 35 30.4	+1.0
LDAQ				IAmb	IAmb	10 35 33.9	
	comp=Z,7.6nm,0.5s						
F64A	**Sherman**	21.71	211	P	P	10 35 44.0	+2.8
F64A				IAmb	IAmb	10 35 58.6	
	comp=Z,18nm,1.5s						
PKME	**Peaks-Kenny Pk**	22.48	212	P	P	10 35 50.8	+1.3
TRQ	**Mont Tremblant**	22.90	222	P	P	10 35 56.0	+2.0
TRQ				IAmb	IAmb	10 36 12.8	
	comp=Z,14nm,1.2s						
SADO	**Sadowa**	25.56	228	LR	LR	10 44 53.6	
	comp=Z,43nm,20.4s,baz=164,slow=33						
YKAW3	**Yellowknife Wh**	26.29	292	P	P	10 36 27.1	+1.6
YKA	**Yellowknife Ar**	26.32	292	P	P	10 36 27.1	+1.3
	comp=Z,1.0nm,0.8s,baz=53,slow=10,SNR=3.6						
YKA				LR	LR	10 46 38.3	
	comp=Z,78nm,19.5s,baz=348,slow=36						
	comp=Z,1.0nm,0.8s						
ULM	**Lac du Bonnet**	27.00	256	LR	LR	10 46 38.9	
	comp=Z,47nm,19.6s,baz=6.0,slow=35						
I49A	**Point Hope**	27.47	232	P	P	10 36 38.2	+2.0
ARCES	**ARCESS Array B**	28.02	47	P	P	10 36 42.0	+0.9
	comp=Z,3.5nm,0.9s,baz=298,slow=10,SNR=5.3						
ARCES				LR	LR	10 46 08.5	
	comp=Z,50nm,20.4s,baz=295,slow=33						
	comp=Z,3.5nm,0.9s						
G40A	**Rib Lake**	28.89	243	P	P	10 36 51.0	+2.1
G31M	**Satah River**	30.65	310	P	P	10 37 06.2	+1.8
G30M	**tAoh Zraii Nji**	31.23	311	P	P	10 37 11.5	+2.0
G30M				IAmb	IAmb	10 37 34.7	
	comp=Z,6.5nm,1.2s						
F28M	**Old Crow**	31.95	314	P	P	10 37 17.4	+1.6
F28M				IAmb	IAmb	10 37 41.2	
	comp=Z,6.3nm,1.4s						
I30M	**Mount Dempster**	32.39	309	P	P	10 37 21.9	+2.1
I30M				IAmb	IAmb	10 37 23.0	
	comp=Z,3.8nm,1.1s						
FINES	**FINESS Array B**	33.07	60	P	P	10 37 26.0	+0.4
	comp=Z,1.5nm,0.6s,baz=312,slow=9.0,SNR=6.4						
FINES				LR	LR	10 49 17.4	
	comp=Z,73nm,18.9s,baz=360,slow=34						
	comp=Z,1.5nm,0.6s						
FINES	**FINESS Array B**	33.07	60	*i* P	P	10 37 26.0	+0.4
I28M	**Miner Creek**	33.37	311	P	P	10 37 30.7	+2.4
ILAR	**Eielson Array**	35.97	313	P	P	10 37 52.6	+1.9
	comp=Z,0.8nm,0.8s,baz=37,slow=7.9,SNR=7.5						
	comp=Z,0.8nm,0.8s						
NEW	**Newport**	37.27	274	LR	LR	10 52 51.4	
	comp=Z,48nm,19.4s,baz=27,slow=35						
ESDC	**Sonseca Array**	37.80	109	P	P	10 38 08.0	+1.5
	comp=Z,0.9nm,0.8s,baz=333,slow=8.3,SNR=4.1						
	comp=Z,0.9nm,0.8s						
ESDC	**Sonseca Array**	37.80	109	P	P	10 38 06.8	+0.3
ESDC				IAmb	IAmb	10 38 51.4	
	comp=Z,10nm,1.5s						
PDAR	**Pinedale Array**	38.60	262	P	P	10 38 15.5	+2.0
	comp=Z,0.7nm,1.0s,baz=32,slow=4.2,SNR=4.7						
	comp=Z,0.7nm,1.0s						
J08A	**Circle Bar Ran**	41.78	271	P	P	10 38 41.7	+1.9
AKASG	**Malin Array Be**	42.21	69	P	P	10 38 44.6	+1.7
	comp=Z,0.7nm,0.5s,baz=325,slow=8.6,SNR=3.2						
	comp=Z,0.7nm,0.5s						
MLR	**Muntele Rosu**	45.13	77	LR	LR	10 58 10.4	
	comp=Z,48nm,18.3s,baz=309,slow=36						
TXAR	**Lajitas Array**	47.93	246	P	P	10 39 32.4	+3.6
	comp=Z,0.2nm,0.8s,baz=26,slow=9.4,SNR=3.9						
	comp=Z,0.2nm,0.8s						
TXAR	**Lajitas Array**	47.93	246	P	P	10 39 31.0	+2.2
TORD	**Torodi Ar. Bea**	63.82	118	P	P	10 41 23.3	+0.7
	comp=Z,0.4nm,0.5s,baz=336,slow=7.1,SNR=4.6						
	comp=Z,0.4nm,0.5s						

IDC 27 10:31:11.1±21.0, **17°.89S**×**179°.27W**, **h587**km±58km,
mb3.1/4, **mbtmp4.0**/5, **Error ellipse: s-maj=446.0km s-min=106.8km az=86.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	**Nonsavu**	2.56	273	P	P	10 32 26.8	0.0
	16nm,0.6s,baz=114,slow=10,SNR=19						
STKA	**Stephens Creek**	37.92	241	P	P	10 37 39.6	0.0
	1.2nm,0.7s,baz=72,slow=7.3,SNR=4.4						
	1.2nm,0.7s						
WRA	**Warramunga Arr**	43.83	260	P	P	10 38 26.4	-0.2
	0.9nm,0.5s,baz=96,slow=7.3,SNR=12						
	0.9nm,0.5s						
ASAR	**Alice Springs**	44.01	254	P	P	10 38 28.0	0.0
	5.6nm,0.6s,baz=87,slow=8.6,SNR=123						
	5.6nm,0.6s						
FITZ	**Fitzroy Crossi**	52.22	261	P	P	10 39 28.3	-0.6
	0.7nm,0.4s,baz=104,slow=12,SNR=1.7						
	0.7nm,0.4s						

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*NOU **27** 10:35:03.7, 23°.37S×179°.86W, h540km, mb4.1/22, South of Fiji Islands*
*IDC **27** 10:35:04.3±1.5, 23°.21S×179°.97W, h550km±17km, mb3.3/9, mbtmp4.2/11, Error ellipse: s-maj=19.6km s-min=14.8km az=175.0*
ISC 27 10:35:03.0±0.6, **23°.44S**±0°.08×**179°.86W**±0°.07, **h532**km,
n35, σ1s.**29**/37, **mb3.8**/9, **South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LKBA	**Tubou, Lakemba**	5.28	11	P	P	10 36 34.7	+0.4
MSVF	**Nonsavu**	6.01	341	P	P	10 36 41.2	+0.1
	24nm,0.7s,baz=150,slow=17,SNR=17						
MSVF	**Nonsavu**	6.01	341	P	P	10 36 41.1	+0.1
TAVE	**Taveuni**	6.70	360	P	P	10 36 48.4	+0.8
NIUE	**Niue**	10.23	67	P	P	10 37 23.0	-0.2
NIUE	**Niue**	10.23	67	S	S	10 39 20.1	+1.7
MARNC	**Mare, Loyalty**	11.36	278	P	P	10 37 35.6	+0.7

MARNC	Mare, Loyalty	11.36	278	S	S	10 39 41.5	+1.6
DZM	Mont Dzumac	12.71	273	P	P	10 37 50.3	+1.3
	3.4nm,0.7s,baz=100,slow=19,SNR=6.1						
URZ	Urewera	14.99	189	P	P	10 38 11.8	-0.7
	8.6nm,0.5s,baz=283,slow=2.9,SNR=8.8						
URZ				S	S	10 40 44.1	-4.6
	25nm,1.0s,baz=202,slow=20,SNR=6.0						
URZ	Urewera	14.99	189	P	P	10 38 13.1	+0.6
BKZ	Black Stump Fm	15.98	190	P	P	10 38 24.1	+1.4
BKZ	Black Stump Fm	15.98	190	S	S	10 41 07.8	+1.5
QRZ	Quartz Range	18.48	198	P	P	10 38 47.3	+1.4
KHZ	Kahutara	19.70	195	P	P	10 38 57.6	+0.6
EIDS	Eidsvold	26.51	260	P	P	10 39 58.4	+0.3
EIDS	Eidsvold	26.51	260	S	S	10 43 55.6	+0.7
CAN	Canberra	29.48	239	P	P	10 40 24.3	+0.3
CMSA	Cobar Meteorol	31.50	248	P	P	10 40 41.8	+0.4
CTA	Charters Tower	31.60	269	P	P	10 40 42.5	+0.1
CTAO	Charters Tower	31.60	269	P	P	10 40 42.3	-0.1
QLP	Quilpie	32.62	257	P	P	10 40 51.2	+0.2
STKA	Stephens Creek	35.01	248	P	P	10 41 11.2	+0.2
	4.2nm,0.6s,baz=92,slow=10,SNR=14						
	4.2nm,0.6s						
HTT	Hallett	37.38	245	P	P	10 41 30.7	+0.1
ASAR	Alice Springs	42.23	260	P	P	10 42 09.2	-0.5
	4.2nm,0.6s,baz=95,slow=7.3,SNR=73						
ASAR				ScP	ScP	10 46 50.5	-1.0
	0.6nm,0.9s,baz=101,slow=4.2,SNR=4.6						
ASAR				S	S	10 47 49.9	-2.0
	0.3nm,0.6s,baz=101,slow=15,SNR=4.9						
	4.2nm,0.6s						
WRA	Warramunga Arr	42.56	266	P	P	10 42 11.0	-1.3
	5.3nm,0.6s,baz=89,slow=5.8,SNR=136						
	5.3nm,0.6s						
FITZ	Fitzroy Crossi	50.99	265	P	P	10 43 15.3	-0.7
	1.8nm,0.5s,baz=98,slow=6.4,SNR=9.8						
	1.8nm,0.5s						
VNDA	Vanda	54.84	185	P	P	10 43 44.1	+1.7
	0.5nm,0.5s,baz=9.0,slow=7.0,SNR=5.2						
	0.5nm,0.5s						
QSPA	South Pole Qui	66.64	180	P	P	10 45 01.5	+1.0
	4.1nm,0.6s,baz=223,slow=4.1,SNR=39						
	4.1nm,0.6s						
MAW	Mawson	78.22	200	P	P	10 46 07.7	+0.6
	0.8nm,0.6s,baz=108,slow=3.2,SNR=7.2						
	0.8nm,0.6s						
TXAR	Lajitas Array	90.08	58	P	P	10 47 05.7	-0.9
	0.5nm,0.7s,baz=206,slow=7.0,SNR=7.4						
	0.5nm,0.7s						
PDAR	Pinedale Array	92.28	44	P	P	10 47 15.4	-1.2
	0.2nm,0.7s,baz=231,slow=8.5,SNR=2.3						
	0.2nm,0.7s						
HFS	Hagfors	142.12	349	PKhKP	PKPpre	10 53 29.1	
	0.9nm,0.3s,baz=56,slow=3.8,SNR=7.9						
AKASG	Malin Array Be	144.66	328	PKP	PKPdf	10 53 37.1	-1.7
	0.7nm,0.5s,baz=45,slow=3.4,SNR=5.7						
EKA	Eskdalemuir Ar	148.06	4	PKPbc	PKPbc	10 53 46.7	-1.6
	1.9nm,0.8s,baz=356,slow=2.2,SNR=3.5						

NNC 27 10:35:54.8±9.1, 37°.15N×70°.82E, h0^{km}, mb4.0, mpv3.6, 1C-4D, Error ellipse: s-maj=87.1km s-min=50.4km az=155.0, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KK31	Karatay Array	5.95	358	⇓P	Pn	10 37 25.9	+1.7
	2.7nm,0.2s,baz=177,slow=12,SNR=110						
KK31				⇓S	Sn	10 38 36.7	+3.6
	1.5nm,0.3s,baz=180,slow=23,SNR=6.5						
AAK	Ala-Archa	6.17	26	⇓P	Pn	10 37 27.2	-0.1
	1.2nm,0.4s						
AAK				⇑S	Sn	10 38 38.3	-0.3
	2.8nm,0.6s						
AB31	Akbulak array	14.45	330	⇓P	Pn	10 39 17.9	-2.5
	1.3nm,0.6s,baz=146,slow=12,SNR=32						

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*IDC **27** 10:46:58.7±1.2, 61°.96S×57°.41W, h0^{km}, mb3.7/3, mbtmp3.8/3, MS3.2/3, Error ellipse: s-maj=68.3km s-min=25.4km az=67.0*

*NEIC **27** 10:46:59.4±0.8, 62°.34S±0°.08×58°.4W±0°.2, h3^{km}±6^{km}, mb4.3/11, Error ellipse: s-maj=15.0km s-min=1.9km az=222.0*

ISC 27 10:47:00.5±0.8, 62°.33S±0°.09×58°.3W±0°.1, h10^{km}, n22, σ1.^{s}38/21, mb4.3/7, MS3.0/3, South Shetland Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ESPZ	Base Esperanza	1.22	152		Pn	10 47 22.3	-1.4
ESPZ					Sb	10 47 38.7	-0.8
PMSA	Palmer Station	3.56	224	Pn	Pn	10 47 53.9	-1.8
GO08	Villa O'Higgin	16.03	324	P	Pn	10 50 47.4	+1.6
GO08				IAmb	IAmb	10 50 52.3	
	comp=Z,6.7nm,1.1s						
VNA3	Neumayer Olymp	20.50	136	P	Pn	10 51 41.8	+1.3
SNAA	Sanae	22.67	137	P	P	10 52 02.3	+0.7
	comp=Z,2.9nm,1.0s,baz=264,slow=7.7,SNR=5.4						
SNAA				LR	LR	10 59 28.9	
	comp=Z,48nm,19.2s,baz=293,slow=33						
	comp=Z,2.9nm,1.0s						
SNAA	Sanae	22.67	137	P	P	10 52 01.9	+0.2
SNAA				IAmb	IAmb	10 52 09.1	
	comp=Z,6.0nm,1.1s						
PLCA	Paso Flores	22.86	335	P	P	10 52 02.5	-1.3
	comp=Z,2.2nm,0.9s,baz=156,slow=12,SNR=7.8						
PLCA				LR	LR	11 00 10.8	
	comp=Z,40nm,18.0s,baz=178,slow=35						
	comp=Z,2.2nm,0.9s						
PLCA	Paso Flores	22.86	335	P	P	10 52 03.3	-0.5
GO06	Curarrehue	24.15	334	P	P	10 52 15.4	-1.2
GO06				IAmb	IAmb	10 52 18.2	
	comp=Z,7.4nm,0.9s						
TROLL	Troll, Antarti	24.31	139	P	P	10 52 20.1	+2.3
	comp=Z,88nm,1.0s						
BI05	Punta Hualpn	27.23	333	P	P	10 52 44.0	-0.4
QSPA	South Pole Qui	27.90	180	P	P	10 52 53.3	+3.0
	comp=Z,1.9nm,1.1s,baz=165,slow=2.8,SNR=7.0						
	comp=Z,1.9nm,1.1s						
QSPA	South Pole Qui	27.90	180	P	P	10 52 50.9	+0.5
QSPA				IAmb	IAmb	10 52 57.1	
	comp=Z,1.9nm,1.1s						
MT02	Curacav	30.23	338	P	P	10 53 10.6	-0.4
VA03	San Esteban	30.61	339	P	P	10 53 14.3	-0.3
VA03				IAmb	IAmb	10 53 19.3	
	comp=Z,8.6nm,0.9s						
CO03	El Pedregal	32.52	340	P	P	10 53 31.0	-0.3
CO03				IAmb	IAmb	10 53 35.5	
	comp=Z,7.8nm,1.1s						
AC05	El Transito	34.41	341	P	P	10 53 47.8	-0.1
AC05				IAmb	IAmb	10 54 06.2	
	comp=Z,12nm,1.1s						
SBA	Scott Base	37.40	194	P	P	10 54 14.4	+1.5
MAW	Mawson	43.59	152	LR	LR	11 12 55.3	
	comp=Z,64nm,19.7s,baz=247,slow=36						
ARCES	ARCESS Array B	144.10	37	PKP	PKPab	11 06 31.9	-0.2
	comp=Z,6.4nm,1.0s,baz=224,slow=2.5,SNR=3.6						
BVAR	Borovoye Array	151.76	85	PKPbc	PKPbc	11 06 52.2	-1.7
	comp=Z,1.5nm,0.5s,baz=215,slow=1.8,SNR=4.9						
MKAR	Makanchi Array	152.91	107	PKPbc	PKPbc	11 06 55.3	-1.4
	comp=Z,0.4nm,0.7s,baz=225,slow=3.9,SNR=3.9						

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*IDC **27** 10:51:06.4±0.7, 52°.05N×169°.79W, h0^{km}, mb4.3/28, mbtmp4.3/31, ML4.1/3, MS3.7/51, Error ellipse: s-maj=19.7km s-min=12.0km az=174.0*

*GFZ **27** 10:51:08.9±0.3, 52°N±7°×17°0W±°, h10^{km}, M4.7/30, mb4.7/30, confirmed*

*NEIC **27** 10:51:10.5±1.9, 51°.94N±0°.04×169°.68W±0°.07, h23^{km}±6^{km}, mb4.5/43, ML4.5/18, ML4.2(AEIC), Error ellipse: s-maj=7.1km s-min=5.4km az=121.0*

*AEIC **27** 10:51:10.6±2.0, 51°.89N±0°.02×169°.61W±0°.07, h19^{km}±5^{km}, Error ellipse: s-maj=6.5km s-min=3.6km az=89.0*

*GCMT **27** 10:51:11.5±0.4, 51°.91N±0°.02×169°.64W±0°.03, h20^{km}±2^{km}, MW4.7/82, Moment Tensor Solution. s4,c4; s82,c100; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.44±.12; $M_{\theta\theta}$1.38±.12; $M_{\phi\phi}$-0.94±.08; $M_{r\theta}$-0.14±.16; $M_{\theta\phi}$0.89±.05; $M_{\phi r}$0.46±.17; Best double couple: $M_0$1.57600×10^{16} NP1:ϕ_s113.00000°, δ72.00000°, λ-18.00000°. NP2: ϕ_s209.00000°, δ73.00000°, λ-161.00000°. Principal axes: T 1.6830, Plg0.0000°, Azm341.0000°; N -0.2150, Plg65.0000°, Azm250.0000°; P -1.4700, Plg25.0000°, Azm71.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 27 10:51:11.2±0.5, 51°.95N±0°.07×169°.71W±0°.04, h30^{km}, n296, σ1.^{s}17/257, mb4.5/100, MS3.8/54, 2C, Fox Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CLCO	Concord Point,	0.84	360		Pn	10 51 26.2	-0.7
CLCO					Sb	10 51 38.4	+0.3
CLES	Cleveland East	0.88	353		Pn	10 51 26.7	-0.8
CLES				IAML		10 51 48.0	
	comp=E,26μm,0.7s						
CLES	Cleveland East	0.88	353		Sn	10 51 38.6	-0.7
OKSP	Okmok Steeple	1.57	33		Pn	10 51 35.7	-1.2
OKSP					Sn	10 51 55.7	-0.5
OKCE	Okmok Cone E	1.75	32		Pn	10 51 38.8	-0.7
OKTU	Okmok Mt. Tuli	1.76	35		Pn	10 51 38.6	-1.0
OKNC	Okmok New Cone	1.79	32		Pn	10 51 39.6	-0.4
MAPS	Pakushin South	2.51	41		Pn	10 51 48.3	-1.5
MAPS					Sn	10 52 18.1	-1.3
MGOD	Makushin Gods	2.52	42		Pn	10 51 49.1	-1.0
MSW	Makushin Switc	2.65	41		Pn	10 51 50.9	-0.9
MNAT	Makushin Natee	2.67	42		Pn	10 51 51.1	-0.9
KOSE	Korovin Southe	2.70	280		Pn	10 51 53.0	+0.5
UNV	Unalaska Valle	2.72	44		Pn	10 51 52.3	-0.4
UNV				IAML		10 52 45.8	
	comp=N,1μm,1.0s						
KOFP	Korovin Flat P	2.72	279		Pn	10 51 52.9	+0.1
KOFP					Sn	10 52 25.5	+0.7
ATKA	Atka Island	2.78	277	P	Pn	10 51 52.7	-0.8
ATKA	Atka Island	2.78	277	S	Sn	10 52 26.0	0.0
ATKA	Atka Island	2.78	277		Pn	10 51 52.7	-0.8
ATKA				IAML		10 52 49.7	
	comp=E,958nm,1.0s						
ATKA	Atka Island	2.78	277		Sn	10 52 25.1	-1.0
KOKL	Mount Kliuchef	2.79	279		Pn	10 51 54.3	+0.6
KOWE	Korovin West	2.83	280		Pn	10 51 54.7	+0.5
AKRB	Akutan Reef Bi	3.10	44		Pn	10 51 58.1	+0.2
LVA	Lava Point	3.13	44		Pn	10 51 59.2	+0.7
LVA				IAML		10 53 02.6	
	comp=E,2μm,0.9s						
AKBBA	Akutan Broad B	3.14	45		Pn	10 51 58.4	-0.1
AKV	Akutan Volcano	3.14	45		Pn	10 51 58.9	+0.3
AKGG	Akutan Green G	3.18	43		Pn	10 51 58.5	-0.6
AKUT	Akutan	3.23	46		Pn	10 52 00.3	+0.5
GSIG	Igitkin Island	3.84	273		Pn	10 52 08.1	-0.1
GSMY	Great Sitkin M	3.92	274		Pn	10 52 09.8	+0.5
GSTR	Great Sitkin T	3.92	275		Pn	10 52 09.8	+0.5
GSTD	Great Sitkin T	3.98	274		Pn	10 52 10.2	+0.1
ETKA	Kagalaska Isla	4.15	271		Pn	10 52 12.9	+0.5
ADAG	Mount Adagdak	4.26	273		Pn	10 52 14.8	+0.8
ADK	Adak	4.32	272	P	Pn	10 52 09.4	-5.3
ADK	Adak	4.32	272	S	Sn	10 53 02.0	-2.0
ADK	Adak	4.32	272		Pn	10 52 14.9	+0.2
ADK				IAML		10 53 29.8	
	comp=E,495nm,1.3s						
ADK				IAML		10 53 37.0	
	comp=E,328nm,1.0s						
ADK	Adak	4.32	272	P	Pn	10 52 15.0	+0.3
KIRH	Kanaga Island	4.57	272		Pn	10 52 18.2	0.0
KIWB	Kanaga Island	4.61	272		Pn	10 52 19.0	+0.3
KIWB				IAML		10 53 36.2	
	comp=N,371nm,1.2s						
KIWB				IAML		10 53 40.5	
	comp=E,578nm,1.0s						
KIWB	Kanaga Island	4.61	272		Sn	10 53 11.3	+0.2
KIKV	Kanaga Island	4.62	272		Pn	10 52 18.9	0.0
KIMD	Kanaga Island	4.67	271		Pn	10 52 20.3	+0.8
TAFL	Tanaga Flats	5.08	271		Pn	10 52 26.1	+1.0
TAFL					Sn	10 53 24.7	+2.0
TASE	Tanaga Southea	5.16	272		Pn	10 52 27.0	+0.7
SPIA	Saint Paul Isl	5.25	357	P	Pn	10 52 30.6	+3.2
SPIA	Saint Paul Isl	5.25	357		Pn	10 52 28.8	+1.4
SPIA				IAML		10 53 50.3	
	comp=E,330nm,1.8s						
SPIA				IAML		10 53 52.0	
	comp=N,408nm,1.5s						
DT1	Dutton Round H	5.44	52		Pn	10 52 30.5	+0.3
DTNA	Dutton South F	5.48	51		Pn	10 52 30.4	-0.3
GAEA	Gareloi East	5.60	272		Pn	10 52 33.9	+1.5
GANE	Gareloi Northe	5.62	272		Pn	10 52 34.1	+1.5
GALAA	Gareloi Lava P	5.62	272		Pn	10 52 33.9	+1.3
GAKI	Gareloi-Kavalg	5.67	270		Pn	10 52 33.6	+0.4
DOL	Dolgoi Island	5.67	53		Pn	10 52 33.4	+0.1
PS1A	Pavlof South-1	5.87	51		Pn	10 52 37.0	+0.9
SDPT	Sand Point	6.46	55	P	Pn	10 52 45.3	+1.2
SDPT	Sand Point	6.46	55	S	Sn	10 54 00.8	+4.1
SDPT	Sand Point	6.46	55		Pn	10 52 43.8	-0.3
CEPE	Semis' Perret	6.58	274		Pn	10 52 47.3	+1.6
CESW	Semis' Southwe	6.64	274		Pn	10 52 47.6	+1.1
CNBA	Chernabura Isl	6.70	61		Pn	10 52 46.4	-1.0
CHNA	Chernabura Isl	6.71	61	P	Pn	10 52 46.6	-0.8
AMKA	Amchitka	6.86	270		Pn	10 52 49.5	0.0
VNKR	Veniaminof 5	7.34	52		Pn	10 52 56.0	-0.2
VNFG	Fog Glacier, M	7.38	50		Pn	10 52 57.7	+0.9
CHGN	Chignik	7.94	52		Pn	10 53 04.7	+0.4
ANPB	Aniakchak Plen	8.25	49		Pn	10 53 08.6	-0.1
O15K	Ungalikthiuk R	9.15	34		Pn	10 53 21.6	+0.7
N14K	Kuskokwak Cree	9.17	26		Pn	10 53 22.4	+1.3
M13K	Dall Lake	9.19	20	Pn	Pn	10 53 23.2	+1.8
M14K	Bethel	9.81	23		Pn	10 53 32.3	+2.4
O16K	Kokwok River B	10.06	36		Pn	10 53 34.5	+1.1
P17K	Kvichak River	10.43	41		Pn	10 53 39.7	+1.2
OHAK	Old Harbor	10.88	55	P	Pn	10 53 42.9	-1.8
N17K	Nushagak Hills	11.04	34		Pn	10 53 46.9	+0.1
L16K	Owhat River	11.26	26		Pn	10 53 53.1	+3.3
O18K	Koktuh Hills	11.33	40		Pn	10 53 51.8	+0.9
KDAK	Kodiak Island	11.45	53	Pn	Pn	10 53 49.2	-3.2
	comp=N,2.1nm,0.3s,baz=232,slow=6.9,SNR=17						
	comp=N,16nm,0.7s						
KDAK				AML	AML		
KDAK	Kodiak Island	11.45	53	P	Pn	10 53 51.5	-0.9
	comp=Z,36nm,2.3s						
M17K	Holitna River	11.61	31	Pn	Pn	10 53 57.3	+2.7
N18K	Kilae Creek	11.61	36		Pn	10 53 56.5	+1.9
N19K	Bonanza Creek	12.22	37		Pn	10 54 04.8	+1.8
J16K	Anvik River	12.35	20		Pn	10 54 08.0	+3.3
J17K	VABM Dome	12.78	22		Pn	10 54 08.6	-2.0
L19K	White Mountain	13.02	32		Pn	10 54 13.2	-0.6
M20K	Styx River	13.41	36		Pn	10 54 18.3	-0.9
J18K	Innoko River	13.43	26		Pn	10 54 20.0	+0.5
L20K	Farewell, AK	13.55	33		Pn	10 54 20.6	-0.5
STLK	Strandline Lak	13.65	39		Pn	10 54 22.4	-0.1
SLKM	Skilak Lake	13.77	44		Pn	10 54 22.1	-2.0
O22K	Cooper Landing	13.97	45		Pn	10 54 25.0	-1.8
J19K	Poorman	14.15	26		Pn	10 54 29.4	+0.2
PMR	Palmer	14.78	41	P	Pn	10 54 38.0	+0.2
CAST	Castle Rocks	14.79	32		Pn	10 54 38.5	+0.5
TRF	Thorofare Moun	15.42	34	Pn	Pn	10 54 47.4	+0.9
BPAW	Bear Paw Mtn.	15.62	32		Pn	10 54 49.6	+0.8
BPAW				IAmb	IAmb	10 54 54.6	
	comp=Z,27nm,0.7s						
RND	Reindeer	15.91	36	Pn	Pn	10 54 52.8	+0.2
H22K	Ishtalitna Cre	16.77	27		Pn	10 55 04.9	+1.3
H22K				IAmb	IAmb	10 55 13.3	
	comp=Z,26nm,1.2s						
COLA	College	17.15	33	P	P	10 55 09.5	-0.2
COLA	College	17.15	33	P	Pn	10 55 07.2	-1.1
	comp=Z,15nm,1.0s						
HDA	Harding Lake	17.18	35		Pn	10 55 08.1	-0.5
ILAR	Eielson Array	17.42	34	P	Pn	10 55 08.5	-3.1
	comp=Z,0.4nm,0.3s,baz=226,slow=11,SNR=22						
ILAR				LR	LR	11 02 27.8	
	comp=Z,337nm,18.6s,baz=228,slow=39						
	comp=Z,2.0nm,0.6s						
ILAR				AML	AML		
LOGN	Logan Glacier	18.07	49	P	Pn	10 55 19.8	0.0
LOGN				IAmb	IAmb	10 55 36.6	
	comp=Z,24nm,0.8s						
PCA	Pinnacle	18.24	52	P	Pn	10 55 21.2	-0.5
PCA				IAmb	IAmb	10 55 29.6	
	comp=Z,40nm,0.8s						
L27K	Beaver Creek,	18.48	42		P	10 55 22.8	-1.6
E23K	Chandalar	18.86	24		P	10 55 28.2	-0.3
F24K	Squaw Lake	18.91	26		P	10 55 29.6	+0.5
O29M	Mount Kennedy	19.10	52	P	P	10 55 31.9	+0.6
O29M				IAmb	IAmb	10 55 36.6	
	comp=Z,49nm,1.2s						
M29M	Somme Creek	19.71	46		Pn	10 55 39.2	-0.3
M29M				IAmb	IAmb	10 55 45.8	
	comp=Z,15nm,0.7s						
HYT	Haines Junctio	19.73	51		P	10 55 39.2	+1.0
HYT				IAmb	IAmb	10 55 43.3	
	comp=Z,39nm,0.8s						
PEA0B	Petropavlovsk-	19.77	286	P	P	10 55 38.0	-0.5
PEA0B				IAmb	IAmb	10 55 56.5	
	comp=Z,50nm,1.2s						
PETK	Petropavlovsk-	19.77	286	P	P	10 55 38.1	-0.4
	comp=Z,3.5nm,0.3s,baz=83,slow=14,SNR=97						
	comp=Z,11nm,0.4s						
PETK				AML	AML		
PETK	Petropavlovsk-	19.77	286	P	P	10 55 38.5	-0.1
DAWY	Dawson	19.89	41	P	P	10 55 39.0	-0.8
L29M	L29M	20.07	44		P	10 55 42.5	+0.8
L29M				IAmb	IAmb	10 56 00.1	
	comp=Z,14nm,0.8s						
F26K	Sheenjek River	20.10	29	P	P	10 55 41.5	-0.5
C24K	Franklin Bluff	20.34	21	P	P	10 55 44.4	-0.2
C24K				IAmb	IAmb	10 56 23.9	
	comp=Z,30nm,1.4s						
SKAG	Skagway	20.58	55		P	10 55 47.9	+0.6
N31M	Braeburn, Yuko	20.68	49		P	10 55 49.5	+1.1
N31M				IAmb	IAmb	10 56 18.1	
	comp=Z,35nm,0.9s						
J30M	Hart River	21.31	41		P	10 55 56.1	+0.8
D27M	Malcolm River	21.98	27		P	10 56 02.5	+0.1
D27M				IAmb	IAmb	10 56 43.4	
	comp=Z,16nm,1.2s						
H31M	Peel River	22.53	38		P	10 56 07.0	-1.2
H31M				IAmb	IAmb	10 56 43.5	
	comp=Z,17nm,1.0s						
F30M	Barrier River	22.74	34		P	10 56 08.7	-1.7
F30M				IAmb	IAmb	10 56 17.8	
	comp=Z,14nm,0.8s						
MA2	Magadan	23.20	305	LR	LR	11 06 34.2	
	comp=Z,221nm,19.2s,baz=98,slow=40						
MA2	Magadan	23.20	305	P	P	10 56 15.5	+0.3
	comp=Z,20nm,0.9s						
DLBC	Dease Lake	23.28	58	LR	LR	11 05 36.9	
	comp=Z,204nm,20.7s,baz=248,slow=37						
INK	Inuvik	23.81	33	P	P	10 56 20.1	-0.9
	comp=Z,8.5nm,0.6s						
WTLY	Watson Lake, Y	23.92	54	P	P	10 56 22.9	+0.8
WTLY				IAmb	IAmb	10 56 30.7	
	comp=Z,21nm,0.8s						
BBB	Bella Bella	25.32	73	LR	LR	11 05 08.2	
	comp=Z,56nm,19.9s,baz=271,slow=33						
YKA	Yellowknife Ar	30.68	48	P	P	10 57 22.5	-0.2
	comp=Z,2.3nm,0.5s,baz=274,slow=8.2,SNR=17						
YKA				LR	LR	11 10 04.7	
	comp=Z,232nm,20.3s,baz=284,slow=37						
	comp=Z,2.3nm,0.5s						
YKA	Yellowknife Ar	30.68	48		P	10 57 22.8	+0.2
JKA	Kamikawa-asahi	32.33	275	P	P	10 57 38.1	+0.7
	comp=Z,62nm,2.1s						
C09A	Chrisman Ranch	32.84	76		P	10 57 42.1	+0.3
C09A				IAmb	IAmb	10 58 01.2	
	comp=Z,8.9nm,1.1s						
TIXI	Tiksi	32.99	329	LR	LR	11 11 04.4	
	comp=Z,108nm,20.9s,baz=132,slow=36						
YBH	Yreka Blue Hor	33.20	89	LR	LR	11 09 46.5	
	comp=Z,164nm,18.3s,baz=303,slow=34						
YAK	Yakutsk	33.29	312	LR	LR	11 13 02.5	
	comp=Z,175nm,18.2s,baz=90,slow=40						
NEW	Newport	33.32	75	LR	LR	11 10 34.8	
	comp=Z,159nm,18.7s,baz=314,slow=35						
NEW	Newport	33.32	75	P	P	10 57 46.4	+0.4
	comp=Z,9.3nm,1.0s						
EDM	Edmonton	33.51	65		P	10 57 47.5	-0.2
WVOR	Wild Horse Val	35.32	85	P	P	10 58 06.7	+3.2
	comp=Z,6.5nm,1.5s						
KLR	Kul'dur	36.40	290	LR	LR	11 14 31.2	
	comp=Z,155nm,18.8s,baz=76,slow=39						
H11N2	WAKE ISLAND Hy	36.99	218	T	T	11 38 06.9	
	baz=23,slow=76						
H11N3	WAKE ISLAND Hy	37.00	218	T	T	11 38 07.4	
	baz=23,slow=76						
H11N1	WAKE ISLAND Hy	37.01	218	T	T	11 38 11.4	
	baz=23,slow=76						
HLID	Hailey	37.30	81	P	P	10 58 20.7	+0.3
	comp=Z,5.9nm,1.4s						
EGMT	Eagleton	37.80	71	P	P	10 58 25.4	+0.9
NVAR	Mina Array Bea	37.87	90	P	P	10 58 26.7	+1.3
	comp=Z,0.7nm,0.7s,baz=300,slow=6.7,SNR=5.5						
NVAR				LR	LR	11 11 44.1	
	comp=Z,72nm,21.6s,baz=308,slow=33						
	comp=Z,0.7nm,0.7s						
BOZ	Bozeman (W)	37.90	76	P	P	10 58 25.2	-0.4
BOZ				IAmb	IAmb	10 58 44.4	
	comp=Z,10nm,1.4s						
H11S1	WAKE ISLAND Hy	38.18	218	T	T	11 39 43.9	
	baz=23,slow=76,SNR=50						
H11S2	WAKE ISLAND Hy	38.20	218	T	T	11 39 40.0	
	baz=23,slow=76,SNR=63						
H11S3	WAKE ISLAND Hy	38.20	218	T	T	11 39 38.7	
	baz=23,slow=76,SNR=62						
HEH	HeiHe	38.43	293	*e*P	P	10 58 27.5	-2.2
HEH				pmax	pmax		
	comp=Z,16nm,0.8s						
USRK	Ussuriysk Ar.	38.77	282	LR	LR	11 13 41.4	
	comp=Z,136nm,21.5s,baz=64,slow=35						
YHH	Holmes Hill	38.80	77		P	10 58 32.8	-0.4
YHH				IAmb	IAmb	10 58 54.5	
	comp=Z,19nm,1.5s						
HVU	Hansel Valley	39.29	82	P	P	10 58 37.5	+0.2
AHID	Auburn Hatcher	39.76	79	P	P	10 58 41.2	0.0
	comp=Z,5.7nm,1.4s						
DUG	Dugway, Tooele	40.20	84	P	P	10 58 45.1	+0.3
	comp=Z,6.3nm,1.2s						
BNX	BinXian	40.69	287	⇑P	P	10 58 47.0	-1.6
BNX				pmax	pmax		
	comp=Z,9.0nm,1.1s						
BW06	Boulder Array	40.69	78	P	P	10 58 48.8	-0.2
BW06				IAmb	IAmb	10 59 01.7	
	comp=Z,6.5nm,0.9s						
PDAR	Pinedale Array	40.69	78	P	P	10 58 48.9	0.0
	comp=Z,3.0nm,0.8s,baz=308,slow=3.7,SNR=26						
PDAR				LR	LR	11 15 20.6	
	comp=Z,75nm,18.2s,baz=302,slow=36						
	comp=Z,3.0nm,0.8s						
JHJ	Hachijo jima 2	40.76	263	LR	LR	11 15 16.9	
	comp=Z,30nm,18.8s,baz=342,slow=36						
PFO	Pinyon Flats O	42.12	94	LR	LR	11 15 30.4	
	comp=Z,100nm,18.1s,baz=296,slow=35						
O20A	White River Ci	43.03	81	P	P	10 59 07.8	-0.3
O20A				IAmb	IAmb	10 59 27.1	
	comp=Z,9.8nm,0.8s						
HIA	Hailar	43.24	296	P	P	10 59 08.1	-1.3
	comp=Z,12nm,0.8s						
HAYD	Hayden	43.40	80	P	P	10 59 11.5	+0.4
HAYD				IAmb	IAmb	10 59 47.4	
	comp=Z,6.8nm,1.2s						
ULM	Lac du Bonnet	44.53	62	P	P	10 59 18.9	-0.8
	comp=Z,3.1nm,0.7s,baz=319,slow=6.5,SNR=4.6						
	comp=Z,3.1nm,0.7s						
MVCO	Mesa Verde	44.69	84	P	P	10 59 21.1	-0.3
	comp=Z,4.1nm,2.1s						
KSRS	Korea Array	45.24	277	P	P	10 59 25.6	+0.1
	comp=Z,3.7nm,0.8s,baz=56,slow=7.7,SNR=10						
	comp=Z,3.7nm,0.8s						
NEEM	North Greenlan	45.45	16	*i* P	P	10 59 26.2	-0.8
NEEM				IAmb	IAmb	10 59 28.5	
	comp=Z,16nm,0.7s						
AGMN	Agassiz Nation	45.60	64	P	P	10 59 27.7	-0.5
	comp=Z,10.0nm,1.4s						
NOR	Nord	45.91	5	*i* P	P	10 59 29.2	-1.0
NOR				IAmb	IAmb	10 59 33.3	
	comp=Z,5.8nm,0.9s						
TUC	Tucson	46.50	91	P	P	10 59 36.7	+1.0
NRIK	Noril'sk	46.69	332	LR	LR	11 22 02.4	
	comp=Z,110nm,18.3s,baz=74,slow=40						
ANMO	Albuquerque	47.41	85	LR	LR	11 18 37.3	
	comp=Z,102nm,18.3s,baz=315,slow=35						
ANMO	Albuquerque	47.41	85	P	P	10 59 42.9	0.0
	comp=Z,3.9nm,1.5s						
ECSD	EROS Data Cent	47.81	69	P	P	10 59 44.1	-1.6
	comp=Z,6.5nm,0.9s						
EYMN	Ely	48.21	62	P	P	10 59 47.4	-1.2
	comp=Z,10nm,1.7s						
FRB	Frobisher Bay	49.44	35	LR	LR	11 22 54.7	
	comp=Z,227nm,20.2s,baz=296,slow=39						
FRB	Frobisher Bay	49.44	35	P	P	10 59 58.9	+1.1
	comp=Z,22nm,1.5s						
SPITS	Spitsbergen Ar	50.08	358	P	P	11 00 01.3	-1.3
	comp=Z,9.3nm,0.9s,baz=32,slow=4.9,SNR=4.2						
SPITS				LR	LR	11 20 46.2	
	comp=Z,70nm,19.6s,baz=351,slow=36						
	comp=Z,9.3nm,0.9s						
DAG	Danmarks Havn	50.24	8	*i* P	P	11 00 02.0	-1.7
DAG				IAmb	IAmb	11 00 04.6	

	comp=Z,12nm,0.7s						
DAG	Danmarks Havn	50.24	8	P	P	11 00 03.1	-0.6
	comp=Z,18nm,0.7s						
MNTX	Cornudas Mount	50.26	87	P	P	11 00 05.1	+0.6
	comp=Z,6.6nm,0.8s						
TLY	Talaya	50.42	306	P	P	11 00 05.2	-0.3
	comp=Z,11nm,0.8s						
SUMG	Summit	51.24	17	i P	P	11 00 12.8	+0.9
SUMG				IAmb	IAmb	11 00 17.3	
	comp=Z,13nm,0.8s						
SUMG	Summit	51.24	17	P	P	11 00 13.6	+1.8
	comp=Z,23nm,2.3s						
SONM	Songino Array	51.33	301	P	P	11 00 11.7	-0.9
	comp=Z,1.3nm,0.5s,baz=75,slow=6.7,SNR=6.3						
SONM				LR	LR	11 24 08.8	
	comp=Z,314nm,18.5s,baz=61,slow=39						
	comp=Z,1.3nm,0.5s						
DBG	Daneborg	52.36	10	i P	P	11 00 18.7	-0.9
DBG				IAmb	IAmb	11 00 20.5	
	comp=Z,14nm,0.7s						
DBG	Daneborg	52.36	10	P	P	11 00 19.4	-0.2
	comp=Z,24nm,0.7s						
TIA	Tai'an	52.63	283	P	P	11 00 21.8	-0.4
TIA				pmax	pmax		
	comp=Z,8.0nm,0.8s						
LPIG	La Paz	52.64	98	LR	LR	11 18 54.5	
	comp=Z,25nm,19.1s,baz=233,slow=32						
GUMO	Guam	52.71	241	LR	LR	11 21 05.2	
	comp=Z,46nm,20.2s,baz=42,slow=34						
SFJD	Kangerlussuaq	52.84	26	LR	LR	11 27 53.2	
	comp=Z,89nm,18.4s,baz=318,slow=42						
HHC	Hu-ho-hao-te	52.87	291	eP	P	11 00 23.5	-0.5
HHC				pmax	pmax		
	comp=Z,12nm,0.5s						
TXAR	Lajitas Array	52.97	88	P	P	11 00 24.1	-0.7
	comp=Z,1.7nm,0.7s,baz=296,slow=5.4,SNR=32						
TXAR				LR	LR	11 22 15.0	
	comp=Z,117nm,18.1s,baz=315,slow=35						
	comp=Z,1.7nm,0.7s						
HNS	HongShan	53.29	286	⇑P	P	11 00 28.5	+1.5
HNS				pmax	pmax		
	comp=Z,16nm,0.9s						
HNS				LR	LR		
	comp=E,160nm,20.7s						
HNS				LR	LR		
	comp=Z,190nm,20.7s						
NJ2	Nanjing	54.40	278	eP	P	11 00 34.3	-0.8
NJ2				pmax	pmax		
	comp=Z,12nm,0.5s						
MIAR	Mount Ida	55.54	76	P	P	11 00 44.3	+0.9
	comp=Z,8.1nm,1.2s						
SCHQ	Schefferville	55.89	43	P	P	11 00 45.0	-0.7
	comp=Z,4.4nm,0.8s,baz=278,slow=8.0,SNR=6.8						
SCHQ				LR	LR	11 27 33.5	
	comp=Z,127nm,18.4s,baz=315,slow=39						
	comp=Z,4.4nm,0.8s						
SADO	Sadowa	56.84	58	LR	LR	11 26 35.0	
	comp=Z,153nm,18.2s,baz=338,slow=38						
ZALV	Zalesovo Beam	57.59	318	P	P	11 00 57.4	-0.2
	comp=Z,0.4nm,0.3s,baz=31,slow=5.9,SNR=2.5						
ZALV				PcP	PcP	11 01 51.1	+0.4
	comp=Z,1.9nm,0.7s,baz=41,slow=3.8,SNR=4.8						
ZALV				LR	LR	11 28 17.2	
	comp=Z,79nm,18.8s,baz=42,slow=39						
	comp=Z,0.4nm,0.3s						
IVI	Ivigtut	57.96	29	i P	P	11 01 02.1	+1.9
IVI				IAmb	IAmb	11 01 02.8	
	comp=Z,19nm,0.7s						
IVI	Ivigtut	57.96	29	P	P	11 01 01.8	+1.7
WHN	Wuhan	58.20	280	P	P	11 01 03.0	+0.7
ARCES	ARCESS Array B	58.31	354	P	P	11 01 01.4	-1.2
	comp=Z,6.6nm,1.0s,baz=32,slow=4.7,SNR=9.8						
ARCES				LR	LR	11 28 41.6	
	comp=Z,58nm,18.8s,baz=346,slow=39						
	comp=Z,6.6nm,1.0s						
S54A	Dingess, Beckl	60.46	66	P	P	11 01 17.1	-0.7
GTA2	Gaotai	60.46	297	eP	P	11 01 17.3	-0.7
GTA2				pmax	pmax		
	comp=Z,5.0nm,0.6s						
GTA2				LR	LR		
	comp=N,310nm,21.6s						
GTA2				LR	LR		
	comp=E,270nm,21.6s						
GTA2				LR	LR		
	comp=Z,260nm,19.7s						
TKL	Tuckaleechee C	60.56	69	LR	LR	11 27 40.6	
	comp=Z,142nm,19.7s,baz=331,slow=36						
BORG	Borgarnes	61.09	15	LR	LR	11 31 09.7	
	comp=Z,84nm,19.1s,baz=335,slow=39						
BLA	Blacksburg	61.37	65	P	P	11 01 23.4	-0.7
KURK	Kurchatov	62.55	318	P	P	11 01 31.3	-0.3
KURK	Kurchatov	62.55	318	P	P	11 01 30.8	-0.9
	comp=Z,7.7nm,0.8s						
KURBB	Kurchatov Arra	62.65	318	P	P	11 01 31.0	-1.4
	comp=Z,3.3nm,0.8s,baz=43,slow=7.1,SNR=16						
KURBB				LR	LR	11 29 59.6	
	comp=Z,87nm,21.5s,baz=170,slow=37						
	comp=Z,3.3nm,0.8s						
T59A	Double "B" Far	63.15	64	P	P	11 01 35.6	-0.3
WMQ	Urumqi	63.62	308	eP	P	11 01 41.0	+1.9
WMQ				sP	pP	11 01 47.0	-0.3
WMQ				pmax	pmax		
	comp=Z,12nm,0.7s						
WMQ				LR	LR		
	comp=N,280nm,18.1s						
WMQ				LR	LR		
	comp=E,160nm,20.5s						
WMQ				LR	LR		
	comp=Z,75nm,24.9s						
BVAR	Borovoye Array	63.92	324	P	P	11 01 40.2	-0.6
	comp=Z,7.2nm,0.5s,baz=49,slow=7.8,SNR=27						
	comp=Z,7.2nm,0.5s						
BORK	Borovoye	63.93	324		P	11 01 41.3	+0.5
MKAR	Makanchi Array	63.94	313	P	P	11 01 38.4	-2.6
	comp=Z,1.3nm,0.8s,baz=44,slow=6.7,SNR=8.7						
MKAR				LR	LR	11 30 21.3	
	comp=Z,80nm,19.9s,baz=30,slow=37						
	comp=Z,1.3nm,0.8s						
MKAR	Makanchi Array	63.94	313	P	P	11 01 39.6	-1.5
ARTI	Arti	64.98	333	LR	LR	11 33 33.8	
	comp=Z,54nm,19.6s,baz=4.0,slow=39						
ARTI	Arti	64.98	333		P	11 01 47.3	-0.4
GOMU	GeErMu	65.54	298	P	P	11 01 51.0	-1.0
GOMU				pP	pP	11 01 54.0	-6.2
GOMU				sP	sP	11 01 59.0	-4.3
GOMU				S	S	11 10 24.8	-10
GOMU				pmax	pmax		
	comp=Z,3.0nm,0.4s						
GOMU				LR	LR		
	comp=N,180nm,16.4s						
GOMU				LR	LR		
	comp=E,160nm,16.9s						
GOMU				LR	LR		
	comp=Z,260nm,16.5s						
FINES	FINESS Array B	66.25	352	P	P	11 01 54.5	-1.2
	comp=Z,4.1nm,0.7s,baz=19,slow=6.5,SNR=13						
	comp=Z,4.1nm,0.7s						
FINES	FINESS Array B	66.25	352	P	P	11 01 55.4	-0.4
HNR	Honiara	66.48	213	LR	LR	11 26 34.3	
	comp=Z,44nm,19.4s,baz=140,slow=32						
NB2	NORSAR Subarra	67.36	360	P	P	11 02 02.5	-0.4
	comp=Z,3.6nm,0.8s,baz=1.5,slow=6.9						
NOA	NORSAR Array B	67.36	360	P	P	11 02 02.5	-0.4
	comp=Z,2.0nm,0.7s,baz=360,slow=6.3,SNR=12						
	comp=Z,2.0nm,0.7s						
HFS	Hagfors	68.24	358	P	P	11 02 07.3	-1.0
	comp=Z,4.3nm,0.8s,baz=46,slow=4.7,SNR=8.8						
	comp=Z,4.3nm,0.8s						
JAY	Jayapura	68.49	235	LR	LR	11 30 05.6	
	comp=Z,45nm,18.8s,baz=330,slow=34						
PZH	PanZhiHua	68.73	286	P	P	11 02 12.8	+0.7
DAV	Davao City (W)	68.99	254	LR	LR	11 25 52.8	
	comp=Z,45nm,21.9s,baz=9.5,slow=30						
WUS	Wushi	69.67	311	P	P	11 02 17.0	-0.8
	comp=Z,11nm,0.9s						
AKTO	Aktyubinsk	70.27	330	P	P	11 02 20.4	-0.6
	comp=Z,5.3nm,0.6s,baz=31,slow=5.5,SNR=22						
	comp=Z,5.3nm,0.6s						
AAK	Ala-Archa	70.65	315	LR	LR	11 36 45.7	
	comp=Z,100nm,18.4s,baz=44,slow=39						
AAK	Ala-Archa	70.65	315		P	11 02 23.3	-0.4
AAK				IAmb	IAmb	11 02 24.5	
	comp=Z,4.0nm,0.7s						
AAK	Ala-Archa	70.65	315	P	P	11 02 23.4	-0.4
	comp=Z,5.6nm,0.8s						
AB31	Akbulak array	70.68	328		P	11 02 23.0	-0.6
AB31				IAmb	IAmb	11 02 23.7	
	comp=Z,4.4nm,0.8s						
ABKAR	Akbulak array	70.68	328		P	11 02 23.2	-0.4
ASAI	AK-SAY(Kyrgyzs	71.13	313	P	P	11 02 27.2	+0.3
	comp=Z,5.6nm,0.8s						
BELG	Belogornoye	71.39	337	P	P	11 02 27.3	-0.5
	comp=Z,16nm,0.7s,baz=332,slow=3.2,SNR=6.7						
	comp=Z,16nm,0.7s						
PPT	Papeete	71.42	160	LR	LR	11 24 29.3	
	comp=Z,86nm,21.9s,baz=23,slow=28						
PPT2	Papeete2	71.44	160	eLR	LR	11 23 56.4	
	comp=Z,148nm,33.2s						
PPT2				eLR	LR	11 24 09.4	
	comp=Z,113nm,27.5s						
KKAR	Karatay Array	71.96	318		P	11 02 31.1	-0.4
SIJI	Sorong	72.14	244	LR	LR	11 29 32.9	
	comp=Z,38nm,20.5s,baz=266,slow=32						
EKA	Eskdalemuir Ar	72.50	8	P	P	11 02 34.1	-0.4
	comp=Z,3.2nm,0.8s,baz=351,slow=4.5,SNR=6.2						
	comp=Z,3.2nm,0.8s						
KSH2	Kashi	72.99	312	P	P	11 02 37.5	-0.4
KSH2				pmax	pmax		
	comp=Z,7.0nm,0.9s						
RAR	Rarotonga	73.37	170	LR	LR	11 27 37.3	
	comp=Z,32nm,19.6s,baz=170,slow=30						
GORT1	Trebel	75.43	359	P	P	11 02 50.6	-0.9
	comp=Z,0.6nm,0.8s						
AKASG	Malin Array Be	76.47	348	P	P	11 02 56.5	-1.1
	comp=Z,1.6nm,0.6s,baz=15,slow=5.9,SNR=5.7						
	comp=Z,1.6nm,0.6s						
KIEV	Kiev	76.48	348	P	P	11 02 57.8	+0.2
	comp=Z,7.2nm,2.5s						
CMAR	Chiang Mai Arr	76.50	283	P	P	11 02 58.4	+0.1
	comp=Z,0.9nm,0.6s,baz=29,slow=6.5,SNR=8.5						
CMAR				LR	LR	11 40 49.0	
	comp=Z,32nm,18.1s,baz=25,slow=39						
	comp=Z,0.9nm,0.6s						
CLL	Collm	77.09	358	eP	P	11 03 01.0	-0.1
NPW	Naypyitaw	77.17	286	P	P	11 03 03.7	+1.7
	comp=Z,22nm,1.0s						
CHVC	Chvalec	77.72	356	eP	P	11 03 11.6	+6.9
HSKC	Hora Svate Kat	77.78	358	eP	P	11 03 08.8	+3.8
DPC	Dobruska-Polom	77.95	356	eP	P	11 03 06.2	+0.2
DPC	Dobruska-Polom	77.95	356	P	P	11 03 08.4	+2.4
	comp=Z,5.4nm,1.3s						
KRLC	Kraliky	78.20	356	eP	P	11 03 09.1	+1.7
KRLC	Kraliky	78.20	356	P	P	11 03 09.5	+2.1
	comp=Z,7.9nm,1.1s						
STEB	Steborice	78.29	355	eP	P	11 03 09.1	+1.3
VRAC	Vranov	78.97	356	P	P	11 03 13.6	+2.0
	comp=Z,2.0nm,1.1s						
KHC	Kasperske Hory	79.26	358	eP	P	11 03 14.2	+1.0
GERES	GERESS Array B	79.54	358	P	P	11 03 14.7	-0.1
	comp=Z,0.9nm,0.4s,baz=0.0,slow=4.0,SNR=7.9						
	comp=Z,0.9nm,0.4s						
MODS	Modra-Piesok	79.88	355	eP	P	11 03 19.1	+2.6
WINA	Alland / Wiene	80.20	356	i P	P	11 03 18.7	+0.5
	comp=Z,0.6nm,0.3s						
CONA	Conrad Observa	80.39	356	epP	P	11 03 20.2	+0.8
	comp=Z,0.6nm,0.3s						
RONA	Rosalia, Austr	80.59	356	i pP	P	11 03 21.7	+1.3
	comp=Z,0.3nm,0.2s						
KBZ	Khabaz	80.61	337	P	P	11 03 20.7	+0.2
	comp=Z,1.8nm,0.7s,baz=67,slow=16,SNR=2.4						
KBZ				LR	LR	11 41 57.7	
	comp=Z,54nm,20.8s,baz=24,slow=38						
	comp=Z,1.8nm,0.7s						
RETA	Reutte	80.94	360	epP	P	11 03 23.7	+1.4
	comp=Z,1.2nm,0.4s						
LESA	Schwarzleotal	80.98	358	epP	P	11 03 24.2	+1.6
	comp=Z,1.8nm,0.7s						
ARSA	Arzberg	81.08	356	i pP	P	11 03 24.4	+1.4
	comp=Z,0.1nm,0.2s						
MOTA	Moosalm	81.08	359	epP	P	11 03 24.8	+1.6
	comp=Z,0.4nm,0.3s						
WTTA	Wattenberg	81.16	359	epP	P	11 03 25.1	+1.5
	comp=Z,4.6nm,0.7s						
WTTA	Wattenberg	81.16	359	P	P	11 03 25.6	+2.0
	comp=Z,8.9nm,0.8s						
SQTA	Sankt Quirin	81.20	359	epP	P	11 03 25.3	+1.5
	comp=Z,3.8nm,0.6s						
SESA	Seetaler Alpe,	81.25	357	i P	P	11 03 24.7	+0.5
	comp=Z,0.4nm,0.2s						
KBA	Koelnbreinsper	81.31	358	epP	P	11 03 25.2	+0.7
	comp=Z,1.0nm,0.2s						
KBA	Koelnbreinsper	81.31	358	P	P	11 03 26.1	+1.6
	comp=Z,17nm,0.8s						
FETA	Feichten	81.41	360	eP	P	11 03 25.1	+0.2
	comp=Z,2.5nm,0.8s						
ABTA	Abfaltersbach	81.66	358	eP	P	11 03 26.9	+0.7
	comp=Z,0.8nm,0.5s						
SOKA	Soboth	81.67	357	eP	P	11 03 26.6	+0.4
	comp=Z,2.7nm,0.8s						
GIMEL	St. Georges /	81.83	3	P	P	11 03 29.8	+2.7
	comp=Z,27nm,2.0s						
OBKA	Obir	81.85	357	i P	P	11 03 26.9	-0.3
	comp=Z,3.2nm,0.6s						
TUE	Stuetta	81.95	1	P	P	11 03 30.1	+2.2
	comp=Z,8.6nm,1.1s						
TEOL	Teolo	83.06	359	P	P	11 03 34.3	+0.9
GNI	Garni	83.50	334	LR	LR	11 47 51.3	
	comp=Z,52nm,18.3s,baz=312,slow=41						
BRTR	Keskin Array B	86.46	342	P	P	11 03 51.2	+0.4
	comp=Z,1.1nm,0.6s,baz=49,slow=1.4,SNR=5.6						
BRTR				LR	LR	11 48 17.5	
	comp=Z,32nm,18.7s,baz=28,slow=40						
	comp=Z,1.1nm,0.6s						
WRA	Warramunga Arr	86.58	231	P	P	11 03 50.7	-0.6
	comp=Z,0.9nm,0.9s,baz=42,slow=5.6,SNR=7.2						
	comp=Z,0.9nm,0.9s						
ESDC	Sonseca Array	87.91	11	P	P	11 03 57.2	-0.5
	comp=Z,2.4nm,0.8s,baz=354,slow=4.7,SNR=13						
ESDC				LR	LR	11 45 39.3	
	comp=Z,30nm,18.3s,baz=335,slow=37						
	comp=Z,2.4nm,0.8s						
ASAR	Alice Springs	89.96	230	P	P	11 04 07.3	-0.1
	comp=Z,2.5nm,0.7s,baz=26,slow=4.5,SNR=24						
	comp=Z,2.5nm,0.7s						
ASF	Jabal al Asfar	93.04	338	LR	LR	11 50 27.1	
	comp=Z,19nm,18.3s,baz=25,slow=38						
STKA	Stephens Creek	93.74	220	LR	LR	11 39 54.6	
	comp=Z,67nm,20.5s,baz=23,slow=31						
MDT	Midelt	94.59	13	LR	LR	11 50 59.4	
	comp=Z,18nm,18.7s,baz=38,slow=38						
RPN	Rapa Nui	94.80	129	LR	LR	11 37 35.2	
	comp=Z,28nm,19.6s,baz=52,slow=29						
EIL	Elat	95.89	339	LR	LR	11 52 03.9	
	comp=Z,50nm,18.4s,baz=92,slow=38						
PALK	Pallekele	96.14	290	LR	LR	11 55 14.2	
	comp=Z,28nm,18.1s,baz=282,slow=40						
QSPA	South Pole Qui	141.71	180	PKhKP	PKPpre	11 10 31.2	
	comp=Z,1.2nm,0.8s,baz=32,slow=0.6,SNR=8.7						
MAW	Mawson	150.41	218	PKPbc	PKPbc	11 10 57.1	-0.9
	comp=Z,1.5nm,0.8s,baz=349,slow=5.9,SNR=3.7						

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*SOME **27** 11:03:56.3, 39°.62N×73°.85E, h5^{km}*
*KRNET **27** 11:03:58.9±0.1, 39°.60N×74°.56E, h17^{km}, mb3.3*
*NNC **27** 11:04:00.6±2.8, 39°.73N×74°.62E, h0^{km}, mb3.5, mpv3.3,*
Error ellipse: s-maj=19.9km s-min=12.6km az=165.0
ISC 27 11:04:02.6±1.8**, 39°.76N**±0°.09×**74°.54E**±0°.04**, h10**^{km}**, n30,**
σ**1^{s}69**/52**, 19C-11D, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SFK	Sufi-Kurgan	0.83	288	⇑eP	Pg	11 04 16.6	-2.1
SFK				⇑eS	Sg	11 04 28.8	-0.9
SALK	Salom-Alik	1.25	334	⇓eP	Pn	11 04 24.7	-1.6
SALK				⇓eS	Sn	11 04 43.8	+0.5
JNKS	Jany-Kuch	1.54	32	⇓eP	Pb	11 04 29.8	-1.6
JNKS				⇓eS	Sg	11 04 52.4	+0.3
OHH	Osh	1.55	300	⇑eP	Pn	11 04 29.4	-0.9
OHH				⇑eS	Sb	11 04 51.4	+0.4
ARSB	Arslanbob	1.96	323	⇑eP	Pn	11 04 36.6	+0.5
ARSB				⇑eS	Sb	11 05 03.5	+0.4
NRN	Naryn	2.01	33	⇑eP	Pn	11 04 36.9	0.0
NRN				⇑eS	Sb	11 05 03.8	-0.9
ULHL	Ulahol	2.80	27	⇓eP	Pn	11 04 47.1	-0.6
ULHL				⇓eS	Sn	11 05 23.6	+2.0
ARK	Arkit	2.82	317	⇑eP	Pn	11 04 47.9	0.0
ARK				⇑eS	Sn	11 05 23.9	+1.8
AAK	Ala-Archa	2.88	359	⇑Pg	Pb	11 04 52.6	-1.5
	8.0nm,0.7s						
AAK				⇑Lg	Lg	11 05 34.2	
	9.6nm,0.6s						
AAK	Ala-Archa	2.88	359	⇓eP	Pn	11 04 48.8	+0.1
AAK				⇓eS	Sn	11 05 25.8	+2.4
KBK	Karagaybulak	2.91	6	⇑eP	Pn	11 04 49.3	+0.1
KBK				⇑eS	Sn	11 05 26.7	+2.4
BOOM	Boomskoye usch	2.93	21	⇑eP	Pn	11 04 50.1	+0.7
BOOM				⇑eS	Sn	11 05 27.0	+2.3
KDJ	Kajisay	3.10	39	⇑eP	Pn	11 04 51.7	-0.1
KDJ				⇑eS	Sn	11 05 30.5	+1.5
MRKS	Merke	3.14	342	Pg	Pb	11 04 55.8	-2.9
	7.6nm,0.5s						
MRKS				Lg	Lg	11 05 38.8	
	23nm,0.6s						
MRKS	Merke	3.14	342	eP	Pb	11 04 55.8	-2.9
	7.6nm,0.5s						
MRKS				eS	Sb	11 05 38.8	+1.7
	23nm,0.6s						
TKM2	Tokmak 2	3.26	14	⇓eP	Pn	11 04 54.6	+0.6
TKM2				⇓eS	Sn	11 05 35.4	+2.5
KST	Kastek	3.45	18	Pg	Pb	11 05 02.9	-1.1
	4.0nm,0.3s						
KST				Lg	Lg	11 05 50.9	
	38nm,0.9s						
KST	Kastek	3.45	18	eP	Pb	11 05 02.9	-1.1
	4.0nm,0.3s						
KST				eS	Sg	11 05 50.9	-2.6
	38nm,0.9s						
SGDS	Sogindy	3.69	1	Pg	Pb	11 05 08.1	+0.1
	1.1nm,0.3s						
SGDS				Lg	Lg	11 05 59.7	
	12nm,0.5s						
TNSS	Tian-Shan	3.75	28	Pg	Pb	11 05 09.3	+0.2
	1.9nm,0.8s						
TNSS				Lg	Lg	11 06 01.9	
	4.4nm,0.7s						
TNSS	Tian-Shan	3.75	28	eP	Pb	11 05 09.3	+0.2
	1.9nm,0.8s						
TNSS				eS	Sg	11 06 01.9	-1.0
	4.4nm,0.7s						
MDOK	Medeo	3.89	28	Pg	Pb	11 05 11.9	+0.5
	3.0nm,0.4s						
MDOK				Lg	Lg	11 06 06.4	
	13nm,0.7s						
MDOK	Medeo	3.89	28	eP	Pb	11 05 11.9	+0.5
	3.0nm,0.4s						
MDOK				eS	Sg	11 06 06.4	-1.1
	13nm,0.7s						
KRBS	Karabastau	4.03	12	Pg	Pb	11 05 14.3	+0.7
	4.8nm,0.4s						
KRBS				Lg	Lg	11 06 10.6	
	19nm,0.8s						
KRBS	Karabastau	4.03	12	eP	Pb	11 05 14.3	+0.7
	4.8nm,0.4s						
KRBS				eS	Sg	11 06 10.6	-1.3
	19nm,0.8s						
IUG	Iuzhnay	4.16	306	eP	Pn	11 05 08.3	+2.0
	13nm,0.6s						
IUG				eS	Sn	11 05 59.9	+4.8
	15nm,1.1s						
KTBS	Karatobe	4.26	21	eP	Pb	11 05 18.5	+0.8
	1.0nm,0.5s						
KTBS				eS	Sg	11 06 17.3	-2.2
	8.6nm,0.7s						
KUU	Kurty	4.35	17	Pg	Pb	11 05 20.4	+1.3
	2.5nm,0.1s						
KUU				Lg	Lg	11 06 21.0	
	14nm,0.5s						
KUU	Kurty	4.35	17	eP	Pb	11 05 20.4	+1.3
	2.5nm,0.1s						
KUU				eS	Sg	11 06 21.0	-1.1
	14nm,0.5s						
KK31	Karatay Array	4.51	319	Pn	Pn	11 05 13.1	+2.2
	0.7nm,0.2s,baz=128,slow=12,SNR=25						
KK31				⇑Sn	Sn	11 06 07.4	+3.9
	1.9nm,0.5s						
KK31				⇓Lg	Lg	11 06 26.8	
	8.6nm,0.7s,baz=138,slow=28,SNR=5.3						

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*AFAD **27** 11:42:29.3, 38°.39N×25°.61E, h19^{km}±4^{km}, ML2.7*
*THE **27** 11:42:31.8, 38°N±2°×2°6E±°, h12^{km}±9^{km}, M2.5/11,*
MLh2.5/11
*ISK **27** 11:42:31.1, 38°.44N×25°.80E, h18^{km}, ML2.6/11*
*ATH **27** 11:42:31.0, 38°.44N×25°.73E, h12^{km}±2^{km}, ML2.7/4,*
Latitude uncertainty: 1 km; Longitude uncertainty: 1 km
ISC 27 11:42:31.5±0.9**, 38°.44N**±0°.02×**25°.77E**±0°.02**, h19**^{km}±1^{km}**,**
n57, σ**0^{s}63**/89**, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHOS	Chios island	0.23	102	P	Pb	11 42 36.6	-0.2
CHOS				S	Sb	11 42 39.9	-0.4
CHOS				AML	AML		
CHOS	Chios island	0.23	102	Pg	Pb	11 42 36.6	-0.2
CHOS				Sg	Sb	11 42 40.4	+0.2
CHOS				AML	AML		
CHOS	Chios island	0.23	102	P	Pb	11 42 36.6	-0.2
CHOS				S	Sb	11 42 40.2	0.0
CHOS				AML	AML		
EAG2	Marmaro, Chios	0.29	68	P	Pg	11 42 37.6	-0.3
EAG2				S	Sg	11 42 41.5	-0.7
CESE	eme	0.43	104	Pg	Pg	11 42 40.2	-0.2
CESE				AML	AML		
KARB	zmir-Karabur	0.55	66	P	Pg	11 42 42.8	+0.1
KARB				S	Sn	11 42 52.9	-0.2
KARB				IAML		11 42 53.0	
	comp=N,664nm,0.3s						
KARB				IAML		11 42 53.0	
	comp=E,726nm,0.1s						
ZEYE	Izmir, Urla-Ze	0.61	109	P	Pb	11 42 42.7	-0.8
ZEYE				S	Sn	11 42 54.8	+0.4
ZEYE				IAML		11 42 57.0	
	comp=E,281nm,0.4s						
KRBN	Karaburun	0.64	75	Pg	Pg	11 42 44.1	0.0
KRBN				Sg	Sg	11 42 52.6	-0.1
FOCM	Foa	0.80	70	Pg	Pb	11 42 46.9	0.0
FOCM				AML	AML		
BAGT	Foa	0.88	75	P	Pg	11 42 48.3	-0.3
BAGT				S	Sg	11 43 00.1	-0.1
BAGT				IAML		11 43 03.0	
	comp=N,168nm,0.5s						
BAGT				IAML		11 43 05.0	
	comp=E,167nm,0.6s						
PRK	Paraskevi	0.90	26	P	Pb	11 42 48.4	-0.2
PRK				S	Sn	11 43 01.8	+0.2
PRK				AML	AML		
PRK	Paraskevi	0.90	26	P	Pb	11 42 48.2	-0.4
PRK				S	Sb	11 43 00.0	-0.1
PRK				AML	AML		
DGB	zmir	0.96	113	P	Pb	11 42 49.6	+0.1
DGB				S	Sn	11 43 03.1	+0.1
DGB				IAML		11 43 06.0	
	comp=E,166nm,0.6s						
BLCB	Balcova	1.00	93	P	Pn	11 42 50.5	0.0
BLCB				S	Sg	11 43 04.4	+0.3
BLCB				AML	AML		
BLCB	Balcova	1.00	93	Pg	Pn	11 42 50.4	-0.2
BLCB				Sg	Sn	11 43 04.1	0.0
TNSA	Tinos	1.01	208	P	Pb	11 42 50.1	-0.4
TNSA				S	Sb	11 43 03.8	+0.4
GPNR	Gulpinar-Canak	1.06	15	Pg	Pn	11 42 51.1	-0.2
GPNR				AML	AML		
DKL	Dikili	1.09	54	Pg	Pn	11 42 51.8	0.0
DKL				Sg	Sg	11 43 06.5	-0.6
DKL				AML	AML		
DKL	Dikili	1.09	54	P	Pn	11 42 52.0	+0.2
DKL				S	Sg	11 43 06.7	-0.4
KOCA	Canakkale, Ayv	1.10	15	P	Pn	11 42 52.0	0.0
KOCA				S	Sg	11 43 09.1	+1.6
KOCA				IAML		11 43 12.0	
	comp=N,185nm,0.3s						
KOCA				IAML		11 43 13.0	
	comp=E,203nm,0.3s						
KARY	Karystos	1.12	249	P	Pb	11 42 52.3	-0.1
KARY				S	Sg	11 43 07.9	-0.2
KARY				AML	AML		
KARY	Karystos	1.12	249	P	Pn	11 42 52.0	-0.3
KARY				AML	AML		
AYVA	Ayvalik	1.13	39	P	Pb	11 42 52.5	0.0
AYVA				S	Sg	11 43 08.9	+0.6
AYVA				IAML		11 43 11.0	
	comp=N,241nm,0.4s						
AYVA				IAML		11 43 13.0	
	comp=E,162nm,0.5s						
ZEDA	zmir-Bergama	1.15	62	P	Pg	11 42 53.5	-0.4
ZEDA				S	Sg	11 43 10.5	+1.5
ZEDA				IAML		11 43 12.0	
	comp=N,111nm,0.5s						
ZEDA				IAML		11 43 12.0	

	comp=E,104nm,0.3s						
CAMT	Merkez	1.25	75	P	Pg	11 42 55.5	-0.2
CAMT				S	Sg	11 43 13.5	+1.4
CAMT				IAML		11 43 15.0	
	comp=N,534nm,0.5s						
CAMT				IAML		11 43 17.0	
	comp=E,217nm,0.4s						
DUVT	Torbali	1.34	99	P	Pg	11 42 56.7	-0.7
DUVT				S	Sg	11 43 15.9	+1.0
GCAM	G?zelcaml?	1.37	122	Pn	Pn	11 42 55.5	-0.1
GCAM				AML	AML		
GCAM	G?zelcaml?	1.37	122	P	Pg	11 42 57.4	-0.6
GCAM				S	Sg	11 43 16.3	+0.4
GCAM				IAML		11 43 22.0	
	comp=N,73nm,0.3s						
EZNE	Ezine-Canakkal	1.40	19	Pn	Pn	11 42 56.2	+0.2
BOZC	Bozcaada	1.42	9	Pn	Pn	11 42 56.1	-0.3
BOZC				AML	AML		
BOZC	Bozcaada	1.42	9	P	Pn	11 42 56.0	-0.3
BOZC				S	Sg	11 43 18.1	+0.6
BOZC				IAML		11 43 20.0	
	comp=N,91nm,0.3s						
BAYC	CANAKKALE_Bayr	1.44	25	P	Pn	11 42 55.9	-0.7
BAYC				S	Sg	11 43 16.6	-1.5
EZN	Ezine	1.45	17	P	Pn	11 42 56.7	-0.1
EZN				AML	AML		
EZN	Ezine	1.45	17	Pn	Pn	11 42 56.8	0.0
EZN				AML	AML		
BUHA	Balikesir, Bur	1.47	43	P	Pn	11 42 57.0	-0.1
BUHA				IAML		11 43 20.0	
	comp=N,75nm,0.5s						
BUHA				S	Sg	11 43 20.1	+0.9
BUHA				IAML		11 43 21.0	
	comp=E,109nm,0.3s						
DION	Dionisos Attik	1.49	257	P	Pb	11 42 58.3	-0.3
DION				S	Sb	11 43 17.4	+0.3
DION				AML	AML		
DION	Dionisos Attik	1.49	257	P	Pn	11 42 57.4	+0.1
LIA	Limnos Island	1.53	343	P	Pn	11 42 58.3	+0.4
LIA				S	Sn	11 43 17.4	+0.2
LIA				AML	AML		
LIA	Limnos Island	1.53	343	P	Pn	11 42 58.3	+0.4
PTL	Penteli	1.55	256	P	Pn	11 42 58.3	+0.2
YAYO	Edremit-Balk	1.55	40	Pn	Pn	11 42 58.2	+0.1
YAYO				Sn	Sb	11 43 18.3	-0.6
YAYO				AML	AML		
VLY	Voula,Athens	1.66	250	P	Pn	11 43 00.5	+0.8
VLY				AML	AML		
VLY	Voula,Athens	1.66	250	P	Pn	11 42 59.0	-0.7
AOS2	Alonissos-2	1.66	296	P	Pn	11 42 59.7	0.0
CNKL	anakkale-Mer	1.70	16	P	Pn	11 43 00.4	+0.3
CNKL				S	Sg	11 43 27.0	+0.7
CNKL				IAML		11 43 29.0	
	comp=E,51nm,0.3s						
IZMR	zmir-demi	1.74	99	P	Pb	11 43 02.6	-0.4
IZMR				S	Sg	11 43 28.2	+0.4
COMU	Canakkale	1.75	18	Pn	Pn	11 43 01.4	+0.5
COMU				AML	AML		
BODT	Bodrum	1.84	138	P	Pn	11 43 02.9	+0.8
BODT				AML	AML		
BODT	Bodrum	1.84	138	Pn	Pn	11 43 02.4	+0.3
BODT				AML	AML		
KTTT	Salihli	1.84	81	P	Pb	11 43 05.5	+0.9
KTTT				IAML		11 43 32.0	
	comp=N,54nm,0.8s						
BALY	Balya	1.94	47	P	Pb	11 43 06.3	0.0
BALY				S	Sg	11 43 34.8	+0.7
BALY				IAML		11 43 36.0	
	comp=N,72nm,0.6s						
BALY				IAML		11 43 41.0	
	comp=E,49nm,0.5s						
VILL	Villia	1.95	263	P	Pn	11 43 04.3	+0.6
VILL				AML	AML		
VIL2	Platees	1.98	264	P	Pn	11 43 03.4	-0.7
LAPS	Lapseki, ANA	1.99	24	P	Pn	11 43 01.0	-3.3
SMTH	Samothraki Isl	2.04	355	P	Pn	11 43 04.9	0.0
GOKT	Kean, EDRN	2.32	16	P	Pn	11 43 09.0	+0.3
GOKT				S	Sg	11 43 46.8	+0.7
GOKT				IAML		11 43 49.0	
	comp=N,47nm,0.4s						
GOKT				IAML		11 43 50.0	
	comp=E,50nm,0.4s						
KESN	Edirne-Kesan	2.49	16	P	Pn	11 43 00.3	-11
KESN				S	Sn	11 43 09.8	-32

NNC 27 11:43:47.6±6.3**, 36°.78N×71°.01E, h165**^{km}±126^{km}**, mb2.7, mpv3.5, 4C-1D, Error ellipse: s-maj=66.1km s-min=55.2km az=10.0, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KK31	Karatay Array	6.33	357	⇑P	Pn	11 45 18.4	-0.4
	2.6nm,0.2s,baz=173,slow=11,SNR=57						
KK31				⇑S	Sn	11 46 31.6	+1.1
	1.2nm,0.3s,baz=175,slow=11,SNR=3.2						
AAK	Ala-Archa	6.44	24	⇑P	Pn	11 45 20.8	+0.4
	1.0nm,0.5s						
AAK				⇑S	Sn	11 46 33.5	+0.3
	5.6nm,1.0s						
AB31	Akbulak array	14.85	331	⇓P	Pn	11 47 09.3	0.0
	0.8nm,0.6s,baz=153,slow=12,SNR=16						

*IDC **27** 11:45:27.7±1.3, 1°.61N×98°.30E, h0^{km}, mb4.0/7, mbtmp3.9/8, ML4.1/1, Error ellipse: s-maj=69.6km s-min=17.6km az=53.0*
*DJA **27** 11:45:44.0±0.2, 2°N±2°×9°9E±°, h104^{km}±3^{km}, M4.2/30, mB5.3/1, mb4.7/1, MLv4.0/30, Mw(mB)4.7/1*
ISC 27 11:45:41.8±0.8**, 1°.89N**±0°.05×**98°.86E**±0°.06**, h100**^{km}**, n30, σ2ˢ.07**/23**, mb3.8**/7**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	0.91	4	P	Pn	11 46 03.1	+1.7
PSI				S	Sn	11 46 17.8	+1.8
MNSI	Mandailing Nat	1.31	146	P	Pn	11 46 08.5	+2.8
MNSI				AML	AML		
GSI	Gunungsitoli	1.41	246	P	Pn	11 46 10.1	+3.2
GSI				AML	AML		
TSI	Tuntungan	1.62	350	P	Pn	11 46 12.7	+3.1
KCSI	Kotacane, Aceh	1.95	326	P	Pn	11 46 15.6	+1.9
KCSI				AML	AML		
PBSI	Pulau Batu	2.02	197	P	Pn	11 46 16.8	+2.2
PBSI				AML	AML		
TPTI		2.16	309	P	Pn	11 46 18.8	+2.4
TPTI				AML	AML		
SNSI	Sinabang, Aceh	2.58	282	P	Pn	11 46 24.4	+2.5
SNSI				AML	AML		
BKNI	Bangkinang	2.68	125	P	Pn	11 46 25.4	+2.1
BKNI				AML	AML		
PPI	Padang Panjang	2.79	147	P	Pn	11 46 27.6	+2.8
PPI				AML	AML		
IPM	Ipoh	3.36	40	P	Pn	11 46 35.2	+2.8
IPM				AML	AML		
MLSI	Meulaboh, Aceh	3.40	314	P	Pn	11 46 34.7	+1.8
SDSI	Sungai Dareh	3.81	137	P	Pn	11 46 39.7	+1.4
SDSI				AML	AML		
KULM	Kulim	3.82	28	P	Pn	11 46 40.5	+1.9
KULM				AML	AML		
LHMI	Lhok Sumawe	3.82	330	P	Pn	11 46 40.4	+1.8
LHMI				AML	AML		
BSI	Banda Aceh	5.04	315	P	Pn	11 46 56.3	+1.2
CMAR	Chiang Mai Arr	16.46	0	Pn	Pn	11 49 27.7	+0.8
	0.3nm,0.3s,baz=181,slow=12,SNR=4.5						
	0.5nm,0.4s						
CMAR				AML	AML		
H08S2	Diego Garcia H	27.95	250	T	T	12 18 31.5	
	baz=71,slow=75,SNR=4.6						
H08S3	Diego Garcia H	27.96	250	T	T	12 18 38.6	
	baz=71,slow=75,SNR=16						
H08S1	Diego Carcia H	27.97	250	T	T	12 18 35.3	
	baz=71,slow=75,SNR=2.8						
WRA	Warramunga Arr	41.02	124	P	P	11 53 14.9	-0.6
	2.7nm,0.4s,baz=302,slow=9.0,SNR=53						
	2.7nm,0.4s						
ASAR	Alice Springs	42.51	129	P	P	11 53 27.1	-0.6
	0.4nm,0.4s,baz=300,slow=7.2,SNR=20						
	0.4nm,0.4s						
MKAR	Makanchi Array	47.00	344	P	P	11 54 01.2	-1.6
	0.4nm,0.4s,baz=156,slow=8.1,SNR=7.8						
	0.4nm,0.4s						
STKA	Stephens Creek	52.61	133	P	P	11 54 46.7	+1.1
	1.2nm,0.8s,baz=307,slow=10,SNR=2.9						
	1.2nm,0.8s						
ZALV	Zalesovo Beam	53.16	350	P	P	11 54 48.4	-0.9
	1.5nm,0.4s,baz=165,slow=6.2,SNR=8.3						
	1.5nm,0.4s						
H04N2	CROZET ISLANDS	63.28	215	T	T	13 03 07.3	
	baz=54,slow=75,SNR=20						
H04N1	CROZET ISLANDS	63.29	215	T	T	13 03 06.9	
	baz=54,slow=75,SNR=24						
H04N3	CROZET ISLANDS	63.30	215	T	T	13 03 09.0	
	baz=54,slow=75,SNR=23						
BRTR	Keskin Array B	69.88	312	P	P	11 56 39.9	-2.4
	0.7nm,0.7s,baz=112,slow=8.1,SNR=3.6						
	0.7nm,0.7s						
FINES	FINESS Array B	80.16	332	P	P	11 57 39.2	-1.6
	1.3nm,0.8s,baz=101,slow=3.9,SNR=5.5						
	1.3nm,0.8s						

CATAC 27 11:55:45.6±0.4**, 13°N**±3°×**8°7W**±°**, h4**^{km}±1^{km}**, M3.5**/9**, MLv3.5**/9**, 2C, Error ellipse: s-maj=6.1km s-min=2.7km az=16.6, confirmed, Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CRIN	San Cristobal	0.13	264	⇑P	Pg	11 55 48.2	-0.2
CRIN				S	Sg	11 55 50.3	+0.1
PLRN	Geotermica Pol	0.19	132	⇑P	Pg	11 55 50.0	+0.6
PLRN				S	Sg	11 55 53.2	+1.2
CNGN	Cerro Negro	0.30	135	P	Pg	11 55 52.2	+0.7
CNGN				S	Sg	11 55 56.7	+1.3
MOM3	MOM3	0.43	117	P	Pg	11 55 54.7	+0.6
MOM3				S	Sg	11 55 60.0	+0.2
MATN	Matagalpa	0.99	77	P	Pg	11 56 04.5	-0.2
MATN				S	Sb	11 56 18.3	-0.5
CNCH	Conchagua	1.06	302	P	Pg	11 56 06.0	0.0
RCVN	Varillal2	1.11	39	P	Pg	11 56 06.5	-0.5
RCPN	Sur Rio San Ju	1.14	45	P	Pg	11 56 07.3	-0.2
RCPN				S	Sb	11 56 22.8	-0.3
BOAB	BOACO BROADBAN	1.25	102	P	Pg	11 56 08.5	-1.0
BOAB				S	Sg	11 56 25.7	0.0

*CATAC **27** 12:09:46.8±0.9, 4°S±6°×7°8W±°, h1^{km}, M5.1/7, mb4.7/3, mB5.0/2, MLv5.3/7, Mw(mB)4.4/2, Error ellipse: s-maj=20.6km s-min=10.5km az=68.9, confirmed*
*RSNC **27** 12:09:49.7±1.2, 4°S±6°×7°7W±°, h10^{km}±12^{km}, M4.5, mB5.0, mb4.6, ML3.9, MLv4.8, Mw(mB)4.3*
*IDC **27** 12:09:51.9±0.8, 3°.12S×77°.95W, h0^{km}, mb3.6/7, mbtmp3.8/13, ML3.3/6, MS3.3/7, Error ellipse: s-maj=23.1km s-min=10.0km az=93.0*
ISC 27 12:09:52.7±2.0**, 3°.10S**±0°.06×**77°.74W**±0°.06**, h5**^{km}±13^{km}**, n46, σ1ˢ.79**/52**, mb3.7**/6**, MS3.1**/5**, Peru-Ecuador border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PUYO	Puyo, Santa Ro	1.62	350	P	Pg	12 10 24.3	+0.5
PUYO				S	Sg	12 10 48.0	+3.0
CHSH	Refugio Sur-Vo	1.96	325	P	Pb	12 10 28.0	-1.2
CHSH				S	Sb	12 10 53.6	-0.6
SLOR	San Lorenzo -	2.48	342	P	Pb	12 10 38.1	+0.2
SLOR				S	Sg	12 11 12.7	+0.3
MCRA	Macar, Loja	2.55	240	P	Pn	12 10 34.6	-0.1
MCRA				S	Sn	12 11 06.5	+0.3
MCRA				AML	AML		
MCRA				AML	AML		
ANTS	Antisana-Sarah	2.62	350	P	Pb	12 10 39.6	-1.0
ANTS				S	Sg	12 11 15.3	-1.8
GGPC	Guagua Pichinc	3.03	343	P	Pb	12 10 46.7	-0.8
GGPC				S	Sg	12 11 27.6	-2.5
PULU	Pululahua	3.20	346	P	Pb	12 10 49.6	-0.6
PULU				S	Sg	12 11 35.0	-0.5
CASC	Dorado de Casc	3.24	7	P	Pg	12 10 53.1	-1.8
CASC				S	Sg	12 11 37.6	+0.7
IMBA	Imbabura, San	3.39	352	P	Pg	12 10 56.3	-1.4
IMBA				S	Sg	12 11 41.7	0.0
OTAV	Otavalo	3.39	348	P	Pb	12 10 53.1	-0.5
OTAV				S	Sg	12 11 42.1	+0.3
OTAV				AML	AML		
OTAV				AML	AML		
OTAV	Otavalo	3.39	348	P	Pb	12 10 53.5	-0.1
OTAV				S	Sg	12 11 40.9	-0.9
PPLP	Puerto Lpez	3.41	297	P	Pn	12 10 46.6	0.0
CUSE	Cuicocha Este	3.45	349	P	Pb	12 10 56.1	+1.5
CUSE				S	Sg	12 11 41.5	-2.1
CUSE				AML	AML		
CUSE				AML	AML		
PAC1	Pacto, Paraso	3.51	342	P	Pb	12 10 55.3	-0.1
PAC1				S	Sg	12 11 44.9	-0.6
PAC1				AML	AML		
PAC1				AML	AML		
TULM	Tulcn-Chalpat	3.79	359	P	Pb	12 11 01.7	+1.3
TULM				S	Sg	12 11 54.7	0.0
TULM	Tulcn-Chalpat	3.79	359	P	Pb	12 11 02.8	+2.4
TULM				S	Sg	12 11 52.5	-2.2
ATAH	Atahualpa	4.06	189	Pn	Pn	12 10 58.1	+2.3
	4.2nm,0.3s,baz=34,slow=8.1,SNR=16						
ATAH				Lg	Lg	12 12 00.8	
	2.9nm,0.3s,baz=52,slow=19,SNR=4.3						
ATAH				LR	LR	12 12 43.6	
	comp=Z,406nm,19.2s,baz=13,slow=43						
	17nm,0.5s						
ATAH				AML	AML		
PTLC	Puerto Leguiza	4.38	42	P	Pn	12 10 58.5	-1.5
PTLC				AML	AML		
PTLC				AML	AML		
BBAC	Balboa, Cauca	5.11	5	P	Pn	12 11 14.5	+4.3
	643nm31nm,1.0s						
BBAC				AML	AML		
POPC	Popayan, Colom	5.70	11	P	Pn	12 11 22.6	+4.3
	340nm20nm,0.8s						
POPC				AML	AML		
GARC	Garzon, Huila	5.71	23	P	Pn	12 11 19.9	+1.4
	3μm86nm,0.6s						
GARC				AML	AML		
BETC	Betania	6.19	22	P	Pn	12 11 31.7	+6.9
MACC	Macarena, Meta	6.50	37	P	Pn	12 11 30.1	+1.0
	1μm49nm,0.6s						
PRAC	Prado	7.34	23	P	Pn	12 11 43.2	+2.5
	894nm22nm,1.2s						
PRAC	Prado	7.34	23	P	Pn	12 11 43.0	+2.3
ORTC	Ortega, Tolima	7.40	20	P	Pn	12 11 43.7	+2.3
	764nm31nm,1.1s						
ROSC	El Rosal	8.60	23	Pn	Pn	12 12 03.6	+5.4
	1.1nm,0.3s,baz=176,slow=19,SNR=1.5						
ROSC				Lg	Lg	12 14 27.2	
	4.7nm,0.3s,baz=288,slow=20,SNR=2.3						
	4.6nm,0.4s						
ROSC				AML	AML		
NNA	Nana	8.87	174	Pn	Pn	12 12 01.7	0.0
	1.4nm,0.3s,baz=337,slow=13,SNR=2.3						
	4.9nm,0.4s						
NNA				AML	AML		
AZU	Azuero	11.11	347	P	Pn	12 12 36.9	+4.5
SDV	Santo Domingo	13.86	31	Pn	Pn	12 13 13.2	+3.2
	0.7nm,0.3s,baz=178,slow=16,SNR=3.2						
SDV				Lg	Lg	12 17 12.5	
	1.3nm,0.3s,baz=276,slow=19,SNR=3.3						
	2.1nm,0.3s						
SDV				AML	AML		
JTS	Las Juntas de	15.12	332	Pn	Pn	12 13 29.2	+2.1
	0.2nm,0.3s,baz=99,slow=19,SNR=1.4						
JTS				LR	LR	12 18 38.5	
	comp=Z,130nm,18.4s,baz=156,slow=35						
	1.8nm,0.6s						
JTS				AML	AML		
LPAZ	La Paz	16.15	145	Pn	P	12 13 43.7	-0.9
	0.1nm,0.3s,baz=341,slow=14,SNR=5.0						
	1.7nm,0.9s						
LPAZ				AML	AML		
APQ2	Apoyeque	17.43	331	P	Pn	12 13 38.1	-19
SIV	San Ignacio	20.81	129	P	P	12 14 35.1	-0.1
	1.1nm,0.8s,baz=300,slow=13,SNR=5.4						
	1.1nm,0.8s						
IZABA	Izabal, Puerto	21.57	330	P	P	12 14 28.4	-15
SJG	San Juan	23.97	28	LR	LR	12 26 23.2	
	comp=Z,58nm,18.4s,baz=246,slow=41						
CMIG	Matias Romero	26.25	320	LR	LR	12 24 13.0	
	comp=Z,69nm,18.2s,baz=150,slow=33						
MDP	Montagnes des	26.36	72	LR	LR	12 25 35.4	
	comp=Z,39nm,18.3s,baz=232,slow=36						
CPUP	Villa Florida	30.28	142	LR	LR	12 29 28.6	
	comp=Z,45nm,18.0s,baz=268,slow=39						
TXAR	Lajitas Array	40.72	324	P	P	12 17 34.2	-0.4
	0.4nm,1.0s,baz=143,slow=9.8,SNR=3.5						
	0.4nm,1.0s						
RCBR	Riachuelo	41.79	95	LR	LR	12 37 04.5	
	comp=Z,24nm,18.8s,baz=112,slow=39						
PDAR	Pinedale Array	53.95	331	P	P	12 19 16.9	-0.9
	0.4nm,0.7s,baz=146,slow=9.0,SNR=5.5						
	0.4nm,0.7s						
NVAR	Mina Array Bea	55.77	322	P	P	12 19 31.7	+0.7
	0.1nm,0.4s,baz=140,slow=4.1,SNR=2.5						
	0.1nm,0.4s						
YKA	Yellowknife Ar	71.14	343	P	P	12 21 10.3	-1.7
	0.5nm,0.7s,baz=142,slow=6.3,SNR=2.6						
	0.5nm,0.7s						
ILAR	Eielson Array	84.05	336	P	P	12 22 22.9	-1.2
	0.5nm,0.9s,baz=129,slow=3.4,SNR=4.4						
	0.5nm,0.9s						
QSPA	South Pole Qui	86.97	180	P	P	12 22 38.2	-0.7
	2.6nm,1.1s,baz=158,slow=5.0,SNR=4.7						
	2.6nm,1.1s						

*IDC **27** 12:14:54.8±1.5, 34°.58N×25°.48E, h0^{km}, mb3.7/6, mbtmp3.6/7, ML3.7/1, Error ellipse: s-maj=44.9km s-min=25.8km az=133.0*
*ATH **27** 12:14:59.3, 34°.32N×25°.80E, h65^{km}±4^{km}, ML2.9/6, Latitude uncertainty: 3 km; Longitude uncertainty: 1 km*
ISC 27 12:15:01.0±1.7**, 34°.4N**±0°.1×**25°.77E**±0°.05**, h56**^{km}±13^{km}**, n31, σ0ˢ.83**/38**, mb3.6**/5**, Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AGNA	Agios Nikolaos	0.80	357	P	Pn	12 15 15.8	-0.5
AGNA				S	Sn	12 15 28.5	+1.0
ZKR	Zakros	0.81	27	P	Pn	12 15 15.9	-0.5
ZKR				S	Sn	12 15 28.3	+0.5
ZKR				AML	AML		
STIA	Sitia Lasithi	0.85	18	P	Pn	12 15 16.6	-0.4
STIA				S	Sn	12 15 29.5	+0.8
STIA				AML	AML		
NPS	Neapolis	0.88	352	P	Pn	12 15 16.8	-0.5
NPS				S	Sn	12 15 30.4	+1.1
SIVA	Sivas	1.01	309	P	Pn	12 15 18.4	-0.5
SIVA				S	Sn	12 15 33.0	+0.7
IDI	Anoyia	1.15	321	P	Pn	12 15 20.9	0.0
IDI				S	Sn	12 15 36.5	+0.7
IDI				AML	AML		
GVD	Gavdhos	1.46	288	P	Pn	12 15 24.5	-0.5
KARP	Karpathos	1.63	44	P	Pn	12 15 26.6	-0.8
KARP				S	Sn	12 15 47.2	0.0
VAM	Vamos	1.64	309	P	Pn	12 15 27.2	-0.2
VAM				AML	AML		
IMMV	Iera Moni Meta	1.82	307	P	Pn	12 15 29.2	-0.7
IMMV				AML	AML		
THERA	Ancient Thera,	1.99	353	P	Pn	12 15 31.8	-0.4
THR3	Thira Island,	2.04	352	P	Pn	12 15 32.2	-0.7
THR5	Thira Island,	2.05	350	P	Pn	12 15 32.7	-0.4
SAP3	Santorini-Thir	2.07	351	P	Pn	12 15 33.5	+0.2
THR2	Thira island,	2.07	353	P	Pn	12 15 33.2	-0.2
KTHA	Kythira Island	2.89	311	P	Pn	12 15 43.9	-0.7
VLI	Veliai	3.27	316	P	Pn	12 15 49.2	-0.6
MET2	Kameni Chora,	3.77	329	P	Pn	12 15 56.3	-0.3
MET3	Ano Fanari,Met	3.79	328	P	Pn	12 15 56.3	-0.5
VLY	Voula,Athens	3.81	336	P	Pn	12 15 57.0	-0.1
DION	Dionisos Attik	3.97	339	P	Pn	12 15 59.2	-0.1
ITM	Ithomi	4.18	313	P	Pn	12 16 01.4	-0.8
LTK	Loutraki	4.28	329	P	Pn	12 16 02.6	-0.9
KLV	Kalavryta, Ach	4.67	322	P	Pn	12 16 09.2	+0.1
AKASG	Malin Array Be	16.50	8	Pn	Pn	12 18 46.4	-2.1
	0.3nm,0.3s,baz=200,slow=11,SNR=1.5						
	0.2nm,0.3s						
AKASG				AML	AML		
FINES	FINESS Array B	27.07	0	P	P	12 20 36.8	-1.1
	1.7nm,1.0s,baz=186,slow=8.3,SNR=1.2						
	1.7nm,1.0s						
TORD	Torodi Ar. Bea	30.39	232	P	P	12 21 08.2	+0.3
	0.2nm,0.4s,baz=24,slow=8.3,SNR=4.2						
	0.2nm,0.4s						
ARCES	ARCESS Array B	35.20	360	P	P	12 21 48.3	-1.0
	1.4nm,0.7s,baz=180,slow=8.7,SNR=4.0						
	1.4nm,0.7s						
KURBB	Kurchatov Arra	41.22	50	P	P	12 22 41.6	+1.5
	0.4nm,0.5s,baz=272,slow=8.6,SNR=5.3						
	0.4nm,0.5s						
MKAR	Makanchi Array	43.79	56	P	P	12 23 02.6	+1.5
	0.8nm,0.5s,baz=280,slow=6.2,SNR=8.7						
	0.8nm,0.5s						
ZALV	Zalesovo Beam	45.18	46	P	P	12 23 13.5	+1.5
	0.3nm,0.4s,baz=258,slow=7.4,SNR=2.6						
	0.3nm,0.4s						

*AFAD **27** 12:22:15.9, 39°.80N×24°.23E, h12^{km}±5^{km}, MW4.4*
*IDC **27** 12:22:18.7±0.5, 39°.93N×24°.40E, h0^{km}, mb4.0/22, mbtmp4.0/34, ML3.9/10, MS3.6/49, Error ellipse: s-maj=9.2km s-min=9.1km az=94.0*
*SOF **27** 12:22:18.2, 39°.94N±0°.03×24°.40E±0°.02, h16^{km}±3^{km}, MD4.6/11*
*ISK **27** 12:22:19.3, 40°.03N×24°.39E, h11^{km}, ML4.4/18*
*MOS **27** 12:22:19.2±0.9, 40°.06N×24°.42E, h13^{km}, mb4.7/14, Error ellipse: s-maj=7.1km s-min=4.2km az=83.4*
*ATH **27** 12:22:19.9, 39°.99N×24°.32E, h18^{km}±1^{km}, ML4.2/72, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
*BEO **27** 12:22:19.6±0.6, 40°.03N×24°.44E, h6^{km}±3^{km}, ML4.4/21*
*MED_RC **27** 12:22:19.0, 39°.99N×24°.32E, h16^{km}, Mw4.5, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}-0.39±.07; $M_{\theta\theta}$0.82±.07; $M_{\phi\phi}$0.00±.03; $M_{r\theta}$-0.01±.11; $M_{\theta\phi}$-0.15±.05; $M_{\phi r}$0.32±.08; Fault plane solution: $M_0$0.79000×10^{16} NP1:ϕ_s240.00000°, δ60.00000°, λ-149.00000°. NP2:ϕ_s133.00000°, δ63.00000°, λ-35.00000°. Principal axes: T 0.8400, Plg2.0000°, Azm187.0000°; N -0.1100, Plg47.0000°, Azm280.0000°; P -0.7400, Plg42.0000°, Azm95.0000°;*
*PDG **27** 12:22:19.2±0.5, 39°.97N×24°.33E, h20^{km}, ML4.3/11 Error ellipse: s-maj=0.4km s-min=0.4km az=0.0*
*GFZ **27** 12:22:20.7±0.2, 40°N±2°×2°4E±°, h10^{km}, M4.3/20, mb4.6/20*
*THE **27** 12:22:20.1, 40°.0N±0°.9×24°.3E±0°.8, h14^{km}±2^{km}, M4.1/48, MLh4.1/48*
*NEIC **27** 12:22:20.8±1.1, 40°.00N±0°.06×24°.40E±0°.07, h10^{km}±1^{km}, mb4.7/23, Error ellipse: s-maj=10.2km s-min=8.7km az=162.0*
*MCSM **27** 12:22:21.3±0.5, 40°N±3°×2°4E±°, h14^{km}±3^{km}, mb4.6, mB4.7, MLv4.7, Mw(mB)3.9*
*CFUSG **27** 12:22:22.3, 40°.20N×24°.71E, h10^{km}, MD3.7/4, MSH3.2/4*
ISC 27 12:22:19.8±0.9**, 39°.99N**±0°.02×**24°.35E**±0°.01**, h9**^{km}±6^{km}**, n596, σ1ˢ.31**/670**, mb4.5**/46**, MS3.6**/43**, 55C-13D, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OUR	Ouranopolis	0.44	321	S	Sg	12 22 34.6	+0.3
OUR				AML	AML		
OUR	Ouranopolis	0.44	321	Pg	Pg	12 22 28.5	0.0
OUR				Sg	Sg	12 22 34.7	+0.3
OUR				AML	AML		
OUR	Ouranopolis	0.44	321	P	Pg	12 22 28.6	+0.1
OUR				S	Sg	12 22 34.7	+0.3
OUR				AML	AML		
PAIG	Paliouri	0.52	263	P	Pg	12 22 29.8	-0.1
PAIG				S	Sg	12 22 36.5	-0.3
PAIG	Paliouri	0.52	263	P	Pg	12 22 29.7	-0.3
LMN1	MIRINA LIMNOU	0.56	102	P	Pn	12 22 32.3	-1.6
LMN1				AML	AML		
LIA	Limnos Island	0.65	98	P	Pb	12 22 32.8	-0.4
LIA				S	Sn	12 22 43.8	-1.6
LIA				AML	AML		
LIA	Limnos Island	0.65	98	P	Pb	12 22 33.1	-0.2
LIA				S	Sn	12 22 42.9	-2.6
LIA				AML	AML		
EFSA	Agios Efstrati	0.67	132	P	Pb	12 22 33.4	-0.2
EFSA				S	Sb	12 22 43.1	+0.1
EFSA				AML	AML		
THAS	Thassos island	0.68	25	P	Pg	12 22 32.7	-0.2
THAS				S	Sn	12 22 43.5	-2.7
THAS	Thassos island	0.68	25	P	Pb	12 22 33.0	-0.7
THAS				S	Sb	12 22 43.0	-0.2

THS1	Thassos, Thass	0.77	13	P	Pg	12 22 34.0	-0.6
THS1				S	Sb	12 22 45.1	-0.7
PLG	Polygyros	0.79	299	P	Pg	12 22 34.3	-0.8
PLG				S	Sg	12 22 45.3	-0.1
PLG				AML	AML		
PLG	Polygyros	0.79	299	P	Pg	12 22 34.2	-0.8
PLG				AML	AML		
AOS	Alonnisos	0.90	204	P	Pg	12 22 36.4	-0.7
AOS				S	Sb	12 22 50.2	+0.7
AOS				AML	AML		
AOS2	Alonissos-2	0.93	205	P	Pb	12 22 36.6	-1.4
AOS2				S	Sg	12 22 49.9	+0.1
AOS2				AML	AML		
KAVA	Kavala	1.01	7	P	Pb	12 22 38.9	-0.6
KAVA				S	Sg	12 22 52.5	+0.1
KAVA				AML	AML		
KAVA	Kavala	1.01	7	P	Pb	12 22 38.9	-0.6
KAVA				S	Sb	12 22 51.7	-1.2
KAVA				AML	AML		
SMTH	Samothraki Isl	1.02	62	P	Pg	12 22 39.0	-0.5
SMTH				S	Sn	12 22 54.0	-0.8
SMTH				AML	AML		
SMTH	Samothraki Isl	1.02	62	P	Pg	12 22 38.8	-0.7
SMTH				S	Sn	12 22 53.4	-1.4
SMTH				AML	AML		
XOR	Xorichti	1.09	235	P	Pb	12 22 39.8	-1.1
XOR				S	Sb	12 22 54.4	-0.8
XOR				AML	AML		
XOR	Xorichti	1.09	235	P	Pb	12 22 39.7	-1.1
XOR				S	Sb	12 22 53.3	-1.9
XOR				AML	AML		
XOR	Xorichti	1.09	235	P	Pb	12 22 39.6	-1.3
NEO	Neokhori	1.11	232	P	Pb	12 22 39.9	-1.2
NEO				S	Sb	12 22 54.6	-1.1
NEO				AML	AML		
NEO	Neokhori	1.11	232	P	Pb	12 22 39.6	-1.5
NEO				S	Sb	12 22 54.3	-1.4
NEO				AML	AML		
SOH	Sokhos	1.12	318	P	Pb	12 22 40.9	-0.6
SOH				S	Sb	12 22 56.0	-0.3
SOH				AML	AML		
SOH	Sokhos	1.12	318	P	Pb	12 22 40.5	-1.0
SOH				S	Sb	12 22 55.1	-1.1
SOH	Sokhos	1.12	318	P	Pb	12 22 40.8	-0.6
HORT	Hortiatis	1.13	303	P	Pb	12 22 40.8	-0.9
HORT				S	Sb	12 22 55.8	-0.7
HORT	Hortiatis	1.13	303	P	Pb	12 22 40.7	-0.9
HORT				S	Sb	12 22 55.4	-1.0
GADA	Gvkgeada	1.21	80	P	Pb	12 22 41.9	-0.8
GADA				S	Sn	12 22 59.8	+0.5
GADA				AML	AML		
GADA	Gvkgeada	1.21	80	Pn	Pb	12 22 42.0	-0.8
GADA				AML	AML		
GOKC	Gokceada-Canak	1.22	80	Pn	Pg	12 22 42.3	-1.0
GOKC				AML	AML		
THE	Thessaloniki	1.24	302	P	Pn	12 22 42.5	-0.8
THE				S	Sb	12 22 58.2	-1.1
THE				AML	AML		
THE	Thessaloniki	1.24	302	P	Pn	12 22 42.1	-1.2
THE				S	Sb	12 22 58.3	-1.0
THE				AML	AML		
THE	Thessaloniki	1.24	302	P	Pn	12 22 42.0	-1.2
VOL2	Volos	1.25	240	P	Pn	12 22 42.0	-1.4
VOL2				S	Sb	12 22 58.2	-1.5
SRS	Serrai	1.26	333	P	Pn	12 22 42.5	-1.1
SRS				S	Sb	12 22 58.9	-1.3
SRS				AML	AML		
SRS	Serrai	1.26	333	*e*Pg	Pn	12 22 42.6	-1.1
SRS				*e*Sg	Sb	12 22 59.2	-1.0
SRS	Serrai	1.26	333	P	Pn	12 22 42.4	-1.3
SRS				S	Sb	12 22 58.6	-1.6
SRS				AML	AML		
SRS	Serrai	1.26	333	P	Pn	12 22 42.5	-1.1
BOZC	Bozcaada	1.32	96	Pn	Pb	12 22 43.7	-1.0
BOZC				Sn	Sg	12 23 01.5	-0.7
BOZC	Bozcaada	1.32	96	P	Pb	12 22 43.9	-0.8
BOZC				S	Sg	12 23 00.7	-1.5
BOZC				S	Sg	12 23 00.7	-1.5
BOZC				IAML		12 23 05.0	
	comp=N,2µm,0.6s						
BOZC				IAML		12 23 07.0	
	comp=E,2µm,0.4s						
KYMI	Kymi, Euboea I	1.37	188	P	Pn	12 22 43.7	-1.3
KYMI				AML	AML		
KYMI	Kymi, Euboea I	1.37	188	P	Pn	12 22 43.6	-1.5
KYMI				S	Sn	12 23 01.4	-2.0
KYMI				AML	AML		
ECEA	Canakkale, Ece	1.40	87	P	Pg	12 22 45.7	-1.0
ECEA				S	Sg	12 23 07.0	+2.1
ECEA				IAML		12 23 10.0	
	comp=E,4µm,0.9s						
ECEA				IAML		12 23 11.0	
	comp=N,3µm,0.4s						
NVR	Nevrokopi	1.41	345	P	Pn	12 22 44.7	-0.9
NVR				S	Sn	12 23 02.4	-1.9
NVR				AML	AML		
NVR	Nevrokopi	1.41	345	P	Pn	12 22 44.7	-0.9
NVR				S	Sn	12 23 02.3	-2.0
NVR				AML	AML		
KOCA	Canakkale, Ayv	1.46	109	P	Pb	12 22 45.8	-1.4
KOCA				S	Sb	12 23 04.9	-1.0
KOCA				IAML		12 23 11.0	
	comp=E,2µm,0.5s						
KOCA				IAML		12 23 12.0	
	comp=N,1µm,0.5s						
ALEX	Alexandroupoli	1.47	53	P	Pn	12 22 45.6	-0.7
GPNR	Gulpinar-Canak	1.48	111	Pn	Pb	12 22 46.1	-1.3
ENZZ	Sultanice-Enez	1.50	65	Pn	Pn	12 22 46.1	-0.8
ENZZ				AML	AML		
EZN	Ezine	1.53	96	P	Pb	12 22 46.9	-1.4
EZN				S	Sb	12 23 06.8	-0.9
EZN				AML	AML		
EZN	Ezine	1.53	96	Pn	Pb	12 22 46.7	-1.6
EZN	Ezine	1.53	96	Pn	Pn	12 22 46.5	-0.7
EZN				Sn	Sg	12 23 08.0	-1.0
EZN				AML	AML		
GINA	Giannouli	1.54	259	P	Pn	12 22 46.4	-1.0
GINA				S	Sn	12 23 06.0	-1.6
CAVK	Edirne/Enez-Ca	1.56	63	P	Pn	12 22 47.1	-0.5
CAVK				S	Sg	12 23 12.0	+2.2
CAVK				IAML		12 23 13.0	
	comp=N,5µm,1.0s						
CAVK				IAML		12 23 14.0	
	comp=E,5µm,0.7s						
CAVK	Edirne/Enez-Ca	1.56	63	⇑P	Pn	12 22 46.9	-0.7
CNKL	anakkale-Mer	1.57	87	P	Pb	12 22 47.3	-1.6
CNKL				IAML		12 23 12.0	
	comp=N,2µm,0.5s						
CNKL				S	Sg	12 23 12.6	+2.4
ENEZ	Enez	1.57	61	P	Pn	12 22 46.8	-0.9
ENEZ				AML	AML		
ENEZ	Enez	1.57	61	Pn	Pn	12 22 46.8	-0.9
ENEZ				AML	AML		
EZNE	Ezine-Canakkal	1.57	98	Pn	Pb	12 22 47.6	-1.4
ALN	Alexandroupoli	1.58	54	P	Pn	12 22 46.8	-1.1
ALN				AML	AML		
ALN	Alexandroupoli	1.58	54	Pn	Pn	12 22 46.9	-1.1
ALN	Alexandroupoli	1.58	54	P	Pn	12 22 46.8	-1.1
ALN	Alexandroupoli	1.58	54		Pn	12 22 46.8	-1.1
ALN	Alexandroupoli	1.58	54	P	Pn	12 22 46.6	-1.3
ALN				AML	AML		
ALN	Alexandroupoli	1.58	54	P	Pn	12 22 47.0	-0.9
MMB	Musomishta	1.62	344	P	Pn	12 22 48.1	-0.5
MMB				S	Sn	12 23 08.1	-1.5
MMB				AML	AML		
MMB	Musomishta	1.62	344	P	Pn	12 22 48.1	-0.5
MMB				S	Sn	12 23 08.1	-1.5
COMU	Canakkale	1.63	86	Pn	Pb	12 22 48.7	-1.4
COMU				AML	AML		
TYRN	Tyrnavos	1.65	261	P	Pn	12 22 48.2	-0.8
TYRN				AML	AML		
TYRN	Tyrnavos	1.65	261	P	Pn	12 22 48.5	-0.5
TYRN				S	Sn	12 23 08.6	-1.7
TYRN				AML	AML		
ATAL	Atalanti	1.66	219	P	Pn	12 22 47.8	-1.3
PRK	Paraskevi	1.66	116	P	Pb	12 22 49.0	-1.6
PRK				AML	AML		
PRK	Paraskevi	1.66	116	P	Pb	12 22 48.9	-1.7
PRK				AML	AML		
GELI	Tayfur-Gelibol	1.68	75	Pn	Pn	12 22 48.6	-0.7
LKR	Lokris	1.70	218	P	Pn	12 22 48.1	-1.5
LKR	Lokris	1.70	218	P	Pn	12 22 48.3	-1.3
BAYC	CANAKKALE_Bayr	1.71	98	P	Pn	12 22 49.1	-0.7
BAYC				S	Sb	12 23 11.5	-1.5
RZN	Rozhen	1.73	10	P	Pn	12 22 49.6	-0.6
RZN				S	Sn	12 23 11.4	-1.0
RZN				AML	AML		
RZN	Rozhen	1.73	10	P	Pn	12 22 49.8	-0.4
GRG	Griva	1.77	304	P	Pn	12 22 50.0	-0.6
GRG	Griva	1.77	304	P	Pn	12 22 50.1	-0.6
GRG	Griva	1.77	304	P	Pn	12 22 50.7	0.0
ERIK	Erikli-Kesan	1.79	67	Pn	Pn	12 22 49.9	-0.9
ERIK				AML	AML		
AXAR	Agios Charalam	1.79	228	P	Pn	12 22 50.0	-0.9
AXAR				AML	AML		
AXAR	Agios Charalam	1.79	228	P	Pn	12 22 50.2	-0.7
AXAR				AML	AML		
KDZ	Kurdzhali	1.80	24	P	Pn	12 22 50.2	-0.8
KDZ				AML	AML		
KDZ	Kurdzhali	1.80	24	Pn	Pn	12 22 50.4	-0.6
KDZ	Kurdzhali	1.80	24	P	Pn	12 22 50.4	-0.6
KDZ				S	Sn	12 23 12.7	-1.3
AGG	Agios Georgios	1.84	239	P	Pn	12 22 50.0	-1.5
AGG				AML	AML		
AGG	Agios Georgios	1.84	239	P	Pn	12 22 50.5	-1.1
AGG				AML	AML		
AGG	Agios Georgios	1.84	239	P	Pn	12 22 50.4	-1.2
THL	Klokotos Trika	1.85	257	P	Pn	12 22 50.6	-1.1
THL				AML	AML		
THL	Klokotos Trika	1.85	257	P	Pn	12 22 50.6	-1.1
THL				AML	AML		
SOFA	Sofades	1.86	250	P	Pn	12 22 51.2	-0.6
SOFA				S	Sn	12 23 14.0	-1.3
NASA	Naoussa	1.86	291	P	Pn	12 22 50.6	-1.2
NASA				AML	AML		
GOKT	Kean, EDRN	1.86	68	P	Pn	12 22 51.7	-0.2
GOKT				S	Sg	12 23 22.2	+2.5
GOKT				IAML		12 23 23.0	
	comp=E,3µm,0.7s						
GOKT				IAML		12 23 25.0	
	comp=N,3µm,0.6s						
LPK	Lapseki	1.89	78	Pn	Pn	12 22 51.7	-0.5
LPK				AML	AML		
VAY	Valandovo	1.90	315	*i* Pn	Pg	12 22 55.8	-0.4
SFL1	Soufli	1.91	51	P	Pn	12 22 52.0	-0.5
SFL1				S	Sn	12 23 16.1	-0.6
STFN	Stefani	1.92	199	P	Pn	12 22 51.8	-0.8
STFN				AML	AML		
STFN	Stefani	1.92	199	P	Pn	12 22 51.9	-0.7
STFN				AML	AML		
DION	Dionisos Attik	1.94	190	P	Pn	12 22 51.4	-1.6
DION				AML	AML		
DION	Dionisos Attik	1.94	190	P	Pn	12 22 52.0	-1.0
DION				AML	AML		
KARY	Karystos	1.96	178	P	Pn	12 22 52.3	-0.9
KARY				AML	AML		
KARY	Karystos	1.96	178	P	Pn	12 22 52.1	-1.0
KESN	Edirne-Kesan	1.96	64	P	Pn	12 22 52.3	-1.3
KESN				S	Sg	12 23 23.9	+0.9
KESN				IAML		12 23 27.0	
	comp=N,3µm,0.5s						
KESN				IAML		12 23 27.0	
	comp=E,3µm,0.7s						
VIL2	Platees	1.97	206	P	Pn	12 22 52.4	-0.9
VIL2				S	Sn	12 23 17.0	-1.0
VIL2				AML	AML		
ACHAR	Athens-Acharne	1.97	194	P	Pn	12 22 52.3	-1.0
ACHAR				S	Sn	12 23 17.0	-1.2
ACHAR				AML	AML		
PTL	Penteli	1.98	191	P	Pn	12 22 52.5	-1.0
PTL				AML	AML		
PTL	Penteli	1.98	191	P	Pn	12 22 52.6	-0.8
PTL				S	Sn	12 23 16.5	-1.8
PTL				AML	AML		
EAG2	Marmaro, Chios	1.99	136	P	Pn	12 22 53.5	0.0
VILL	Villia	2.00	204	P	Pn	12 22 52.4	-1.4
VILL				AML	AML		
KZN	Kozani	2.00	280	P	Pn	12 22 53.2	-0.6
KZN				AML	AML		
KZN	Kozani	2.00	280	P	Pn	12 22 53.4	-0.5
KZN				S	Sn	12 23 17.1	-1.9
KZN				AML	AML		
ELFA	Athens-Elefsin	2.04	198	P	Pn	12 22 53.6	-0.8
ELFA				AML	AML		
KKB	Krupnik	2.07	334	P	Pn	12 22 54.4	-0.3
KKB				AML	AML		
KKB	Krupnik	2.07	334	P	Pn	12 22 54.8	+0.1
KKB				S	Sn	12 23 20.9	+0.3
ATH5	Athens Parliam	2.07	194	P	Pn	12 22 52.7	-1.9
ATH5				AML	AML		
ATHU	Athens Univers	2.07	192	P	Pn	12 22 53.5	-1.2
ATHU	Athens Univers	2.07	192	P	Pn	12 22 53.6	-1.2
NOAC	Athens-Thissio	2.08	194	P	Pn	12 22 53.4	-1.4
NOAC				AML	AML		
ATH	Athens Observa	2.08	194	P	Pn	12 22 53.5	-1.3
ATH				AML	AML		
ATH	Athens Observa	2.08	194	P	Pn	12 22 53.9	-0.9
ATH				S	Sn	12 23 18.9	-1.8
ATH				AML	AML		
CANM	Can-anakkale	2.08	89	Pn	Pn	12 22 54.8	0.0
CANM				AML	AML		
UKOP	Uzunkopru-Edir	2.08	56	Pn	Pn	12 22 54.5	-0.3
UKOP				AML	AML		
CHOS	Chios island	2.08	140	P	Pn	12 22 54.6	-0.3
CHOS				AML	AML		
CHOS	Chios island	2.08	140	Pn	Pn	12 22 54.9	0.0
CHOS				AML	AML		
CHOS	Chios island	2.08	140	P	Pn	12 22 54.5	-0.5
CHOS				AML	AML		
CHOS	Chios island	2.08	140	P	Pn	12 22 55.0	+0.1
DLFA	Delphi	2.09	224	P	Pn	12 22 53.5	-1.5
DLFA				S	Sn	12 23 19.4	-1.7
DLFA				AML	AML		
PEHC	Pehcevo	2.10	329	*e*Pn	Pn	12 22 54.8	-0.4
YAYO	Edremit-Balk	2.13	99	Pn	Pn	12 22 55.6	+0.1
YAYO				AML	AML		
BIGA	Biga-Canakkale	2.17	81	Pn	Pn	12 22 55.8	-0.2
PLD	Plovdiv	2.17	8	Pn	Pn	12 22 55.3	-0.8
PLD	Plovdiv	2.17	8	P	Pn	12 22 56.0	-0.2
PLD	Plovdiv	2.17	8	*e*Pn	Pn	12 22 55.9	-0.2
PLD				*e*Sn	Sn	12 23 22.5	-0.7
DKL	Dikili	2.18	114	Pn	Pn	12 22 56.5	+0.3
DKL				AML	AML		
DKL	Dikili	2.18	114	P	Pn	12 22 56.0	-0.2
VLY	Voula,Athens	2.18	192	P	Pn	12 22 54.9	-1.3
VLY				AML	AML		
VLY	Voula,Athens	2.18	192	P	Pn	12 22 55.2	-1.1
VLY				AML	AML		
YENI	Yenice-Canakka	2.22	90	Pn	Pn	12 22 57.0	+0.2
EVR	Evrytania	2.24	242	P	Pn	12 22 56.3	-0.9
EVR				AML	AML		
EVR	Evrytania	2.24	242	P	Pn	12 22 56.8	-0.4
EVR				AML	AML		
LTK	Loutraki	2.24	209	P	Pn	12 22 55.8	-1.2
LTK				AML	AML		
LTK	Loutraki	2.24	209	P	Pn	12 22 55.9	-1.2
LTK				AML	AML		
FOCM	Foa	2.24	124	Pn	Pn	12 22 57.3	+0.2
FOCM				AML	AML		
DIM	Dimitrovgrad	2.25	24	P	Pn	12 22 56.8	-0.4
DIM				AML	AML		
DIM	Dimitrovgrad	2.25	24	P	Pn	12 22 56.9	-0.4
TRGA	Dikaia	2.26	40	P	Pn	12 22 57.3	0.0
LOUT	Loutraki	2.27	209	P	Pn	12 22 56.6	-0.9
LOUT				AML	AML		
RKY	Sarkoy-Tekirda	2.27	71	Pn	Pn	12 22 57.1	-0.4
RKY				AML	AML		
KRBG	Karabiga-Canak	2.29	79	Pn	Pn	12 22 57.5	-0.3
KRBG				AML	AML		
KPRO	Kipourio	2.29	270	P	Pn	12 22 57.2	-0.7
KPRO				AML	AML		
KPRO	Kipourio	2.29	270	P	Pn	12 22 57.7	-0.2
KPRO				AML	AML		
ANX	Ano Chora	2.35	234	P	Pn	12 22 58.4	-0.2
ANX				AML	AML		
ANX	Ano Chora	2.35	234	P	Pn	12 22 58.1	-0.5
KALE	Kalithea	2.35	228	P	Pn	12 22 58.0	-0.5
KALE				AML	AML		
KALE	Kalithea	2.35	228	P	Pn	12 22 58.1	-0.5
KALE				AML	AML		
THAL	Thalero	2.35	214	P	Pn	12 22 57.5	-1.1
THAL				AML	AML		
THAL	Thalero	2.35	214	P	Pn	12 22 57.8	-0.8
THAL				S	Sn	12 23 26.5	-1.0
THAL				AML	AML		
PSARO	Psaromita, Dor	2.37	226	P	Pn	12 22 57.6	-1.2
PSARO				S	Sn	12 23 26.1	-1.8
PSARO				AML	AML		
SERG	Sergoula	2.38	229	P	Pn	12 22 58.2	-0.8
SERG				AML	AML		
SERG	Sergoula	2.38	229	P	Pn	12 22 58.2	-0.8
SERG				S	Sn	12 23 27.0	-1.2
SERG				AML	AML		
ACOR	Acrocorinthos	2.40	209	P	Pn	12 22 56.5	-2.7
ACOR				AML	AML		
GAZK	Gazikoy-TEKIRD	2.40	71	Pn	Pn	12 22 58.9	-0.3
GAZK				AML	AML		
MG00	Magoula, Dorid	2.44	231	P	Pn	12 22 59.3	-0.5
MG00				AML	AML		
MSVA	Metsovo	2.45	266	P	Pn	12 22 58.6	-1.4
MSVA				AML	AML		
EFP	Efpalio	2.46	231	P	Pn	12 22 59.7	-0.4
EFP				AML	AML		
EFP	Efpalio	2.46	231	P	Pn	12 22 59.7	-0.4
EFP				AML	AML		
TETR	Tetrakomo, Epi	2.46	256	P	Pn	12 22 59.6	-0.6
TETR				AML	AML		
TETR	Tetrakomo, Epi	2.46	256	P	Pn	12 22 59.5	-0.6
TETR				AML	AML		
PENT	Pentalofos	2.47	276	P	Pn	12 23 00.5	+0.1
AGEO	AgiosGiorgios,	2.48	227	P	Pn	12 23 00.0	-0.3
MET4	Agioi Theodoro	2.48	198	P	Pn	12 22 59.5	-0.8
MET4				S	Sn	12 23 28.7	-2.0
MET5	Makryloggos,Me	2.49	198	P	Pn	12 22 59.6	-0.9
MET2	Kameni Chora,	2.51	199	P	Pn	12 22 59.8	-0.9
MET2				AML	AML		
MET6	Megalochori,Me	2.52	198	P	Pn	12 23 00.1	-0.8
MET6				AML	AML		
VVK	Vomvokou	2.52	232	P	Pn	12 23 00.4	-0.5
VVK	Vomvokou	2.52	232	P	Pn	12 23 00.7	-0.3
MADA	Marmara adas	2.52	75	P	Pn	12 23 00.6	-0.3
MADA				S	Sg	12 23 42.9	+2.1
MADA				IAML		12 23 47.0	
	comp=N,897nm,0.9s						
MADA				IAML		12 23 48.0	
	comp=E,514nm,0.5s						
PGB	Panagyurishte	2.52	357	P	Pn	12 23 01.5	+0.5
MET1	Methana Town,	2.52	198	P	Pn	12 23 00.1	-0.9
MET1				AML	AML		
BALY	Balya	2.53	95	P	Pn	12 23 01.5	+0.4
AIOA	Agios Ioannis,	2.53	226	P	Pn	12 23 00.5	-0.6
TNSA	Tinos	2.53	165	P	Pn	12 22 59.6	-1.4
LAKA	Lakka	2.54	227	P	Pn	12 23 00.7	-0.5
PRMD	Pramanda	2.55	261	P	Pn	12 23 01.0	-0.4
PRMD				AML	AML		
PRMD	Pramanda	2.55	261	P	Pn	12 23 01.2	-0.1
PRMD				AML	AML		
MET3	Ano Fanari,Met	2.57	200	P	Pn	12 23 00.4	-1.2
PLNA	Plana	2.58	345	P	Pn	12 23 02.8	+1.0
GUR	Goura	2.58	218	P	Pn	12 23 00.8	-1.1
GUR	Goura	2.58	218	P	Pn	12 23 00.9	-0.9
GUR				AML	AML		
PVO	Paravola	2.59	239	P	Pn	12 23 01.4	-0.4
PVO				AML	AML		
PVO	Paravola	2.59	239	P	Pn	12 23 01.0	-0.8
PVO				AML	AML		
AGRP	Agrapidokambos	2.59	233	P	Pn	12 23 01.6	-0.3
AGRP				AML	AML		
LMS2	Laimos Florina	2.59	290	P	Pn	12 23 01.0	-1.0
LMS2				AML	AML		
KLV	Kalavryta, Ach	2.59	222	P	Pn	12 23 01.2	-0.8
KLV	Kalavryta, Ach	2.59	222	P	Pn	12 23 01.2	-0.8
EDRB	Edirne	2.59	44	Pn	Pn	12 23 01.6	-0.3
EDRB				AML	AML		
AMPL	Ampelaki	2.65	247	P	Pn	12 23 02.0	-0.7
AMPL				AML	AML		
YDRA	Hydra	2.73	195	P	Pn	12 23 02.7	-1.0
YDRA				AML	AML		
BALB	Balikesir	2.74	96		Pn	12 23 04.1	+0.2
BALB	Balikesir	2.74	96	P	Pn	12 23 03.9	-0.1
BALB				AML	AML		
KIRK	Kırklareli	2.75	48	P	Pn	12 23 03.3	-0.7
KIRK				S	Sg	12 23 48.2	+0.2
KIRK				IAML		12 23 54.0	
	comp=N,403nm,0.8s						
KIRK				IAML		12 24 03.0	
	comp=E,344nm,0.9s						
VTS	Vitosha	2.75	343	P	Pn	12 23 04.3	0.0
VTS	Vitosha	2.75	343	*e*Pn	Pn	12 23 04.6	+0.3
VTS				*e*Sn	Sn	12 23 36.8	-0.9
PLEV	Plevrona-Mesol	2.78	236	P	Pn	12 23 03.4	-1.1
KBN	Korca	2.80	284	P	Pb	12 23 07.3	-2.7
PDO	Prodromos	2.82	241	P	Pn	12 23 04.6	-0.4
PDO				AML	AML		
BOSS	Bosilegrad	2.87	331	*e*Pn	Pn	12 23 06.1	+0.3
BOSS				*e*Sn	Sn	12 23 40.4	0.0
BAND	Balkesir-Ban	2.90	82	⇑P	Pn	12 23 06.3	+0.2
BAND				⇑S	Sb	12 23 42.7	-4.4
DRO	Drossia	2.90	226	P	Pn	12 23 05.9	-0.2
DRO				AML	AML		
AXS	Araxos	2.93	233	P	Pn	12 23 06.9	+0.4
OHR	Ohrid	2.93	294	*i* Pn	Pn	12 23 07.8	+1.2
SKO	Skopje	2.96	313	*i* Pn	Pn	12 23 07.9	+0.9
RLS	Riolos of Patr	2.96	230	P	Pn	12 23 06.8	-0.1
BLSH	Balsha	2.97	345	P	Pn	12 23 08.2	+1.0
ARMN	Kirklareli, Me	2.99	50	P	Pn	12 23 07.4	+0.1
ARMN				S	Sg	12 23 56.1	+0.3
ARMN				IAML		12 24 03.0	
	comp=E,679nm,0.8s						
ARMN				IAML		12 24 10.0	
	comp=N,392nm,0.6s						
JMB	Yambol	2.99	33	P	Pn	12 23 06.7	-0.7
VIZE	Kirklareli, Vi	3.09	58	P	Pn	12 23 07.1	-1.7
VIZE				S	Sg	12 23 58.8	-0.2
VIZE				IAML		12 24 04.0	
	comp=E,248nm,0.9s						
VIZE				IAML		12 24 06.0	
	comp=N,334nm,0.5s						
TSLK	Tsoukalades, L	3.09	249	P	Pn	12 23 08.3	-0.4
TSLK				AML	AML		
TRAN	Tran	3.12	336	P	Pn	12 23 09.8	+0.7
IGT	Igoumenitsa	3.13	263	*e*Pn	Pn	12 23 11.4	+2.1
IGT				*e*Sn	Sn	12 23 47.4	+0.6
IGT	Igoumenitsa	3.13	263	P	Pn	12 23 10.0	+0.7
IGT				AML	AML		
EVGI	Lefkada island	3.18	246	P	Pn	12 23 10.1	+0.2
EVGI				AML	AML		
PVL	Pavlikeni	3.19	11	P	Pn	12 23 10.3	+0.2
DRAG	Dragano-Lefkad	3.21	247	P	Pn	12 23 10.1	-0.2
DRAG				AML	AML		
MHLO	Agia Marina, M	3.30	179	P	Pn	12 23 10.4	-1.2
FSK	Fiskardo	3.32	244	P	Pn	12 23 12.1	+0.2
FSK				AML	AML		
CATL	atalca, ST	3.33	65	P	Pb	12 23 18.0	-1.1
CATL				S	Sg	12 24 06.0	-0.8
CTYL	Yalikoy Yolu	3.34	62	Pn	Pn	12 23 11.4	-0.7
CTYL				AML	AML		
ITM	Ithomi	3.39	215		Pn	12 23 13.9	+1.0
ITM	Ithomi	3.39	215	P	Pn	12 23 12.9	+0.1
MPEP	Malo Peshtene	3.39	352	P	Pn	12 23 13.5	+0.6
PLVB	Pleven	3.40	3	⇑P	Pn	12 23 13.2	+0.3
BARS	Barje	3.41	327	*e*Pn	Pn	12 23 13.0	-0.1
BARS				*e*Sn	Sn	12 23 53.7	+0.1
PHP	Peshkopia	3.41	301	P	Pn	12 23 15.7	+2.5
VLI	Veliai	3.45	199	P	Pn	12 23 12.9	-0.8
VLI				AML	AML		
KEK	Kerkira	3.51	267		Pn	12 23 15.8	+1.2
KEK	Kerkira	3.51	267	P	Pn	12 23 14.3	-0.3
KEK				AML	AML		
ZAPS	Zavoj	3.52	339	*e*Pn	Pn	12 23 15.4	+0.7
ZAPS				*e*Sn	Sn	12 23 54.6	-1.9
MANT	Manisa	3.59	113		Pn	12 23 17.0	+1.1
VALD	Valchedram	3.76	350	*e*P	Pn	12 23 19.2	+1.3
LOZB	Loznitsa	3.77	26	⇑P	Pn	12 23 18.1	0.0
KLYT	Kilyos	3.79	69	Pn	Pn	12 23 19.0	+0.7
KLYT				AML	AML		
BLKB	Belogradchik	3.84	342	*e*Pn	Pn	12 23 19.5	+0.4
BLKB				*e*Sn	Sn	12 24 02.2	-2.1
ROIA	ROIAK	3.84	35	P	Pn	12 23 19.7	+0.6
YLV	Yalova	3.88	80	Pn	Pn	12 23 19.9	+0.2

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YLV                                AML    AML
PRD   Provadia          3.91  35   P      Pn     12 23 20.2 +0.2
RAZG  Razgrad           3.92  24 ⇓P      Pn     12 23 20.1 -0.1
NEF   NEVSHA            3.94  33   P      Pn     12 23 20.2 -0.2
VLAD  Vladila           4.00   1 ⇑P      Pn     12 23 21.8 +0.5
SELS  Selova            4.03 324  ePn     Pn     12 23 21.5 -0.2
SELS                              eSn     Sn     12 24 08.7 -0.4
ZAGS  Zajecar           4.13 338  ePn     Pn     12 23 23.0  0.0
ZAGS                              eSn     Sn     12 24 09.9 -1.5
BOVS  Bovan             4.14 332  ePn     Pn     12 23 22.9 -0.3
BOVS                              eSn     Sn     12 24 11.3 -0.4
BOVS  Bovan             4.14 332 ⇑P      Pn     12 23 23.2 +0.1
COPA  Copaceanca        4.19   9 ⇑P      Pn     12 23 23.9  0.0
SILT  Sile              4.20  72 ⇓P      Pn     12 23 23.8 -0.1
PVY   Plav              4.21 310  ePn     Pn     12 23 23.7 -0.5
PVY                               i Sn    Sn     12 24 12.9 -0.6
PVY                                AML    AML
ULC   Ulcinj            4.34 299⇑iPn     Pn     12 23 28.5 +2.6
TAVA  DENIZLI_Tavas     4.37 124 ⇑P      Pn     12 23 27.7 +1.3
GOCS  Kraljevo Serbi    4.41 325  ePn     Pn     12 23 26.8 -0.2
GOCS                              eSn     Sn     12 24 18.4 -0.2
IVA   Berane            4.42 312  ePn     Pn     12 23 27.1 +0.1
IVA                               i Sn    Sn     12 24 17.1 -1.5
IVA                                AML    AML
DRME  Dracevica, Mon    4.48 301  ePn     Pn     12 23 30.2 +2.4
DRME  Dracevica, Mon    4.48 301  ePn     Pn     12 23 27.3 -0.5
DRME                              i Sn    Sn     12 24 18.9 -1.1
DRME                               AML    AML
PDG   Podgorica         4.55 304          Pn     12 23 30.5 +1.7
PDG   Podgorica         4.55 304  ePn     Pn     12 23 30.9 +2.1
PDG   Podgorica         4.55 304  ePn     Pn     12 23 29.2 +0.4
PDG                               i Sn    Sn     12 24 20.9 -0.8
PDG                                AML    AML
HUMR  Humele            4.56   6   P      Pn     12 23 29.2 +0.3
KOME  Kolasin           4.62 310  ePn     Pn     12 23 29.4 -0.5
KOME                              i Sn    Sn     12 24 22.8 -0.9
KOME                               AML    AML
SJES  Sjenica           4.63 316  ePn     Pn     12 23 30.5 +0.5
SJES  Sjenica           4.63 316  ePn     Pn     12 23 30.5 +0.5
BORA  Eskisehir         4.69  89          Pn     12 23 30.9 +0.1
IDI   Anoyia            4.71 175   Pn     Pn     12 23 30.5 -0.6
      20nm,0.8s,baz=295,slow=10,SNR=14
IDI                                Sn     Sn     12 24 21.8 -4.1
      1.5nm,0.3s,baz=282,slow=20,SNR=3.6
IDI                                LR     LR     12 25 47.9
      comp=Z,388nm,18.3s,baz=300,slow=45
BUM   Brajici-Budva     4.72 301  ePn     Pn     12 23 30.7 -0.5
BUM                               eSn     Sn     12 24 25.3 -0.8
BUM                                AML    AML
GRUS  Gruza             4.74 326  ePn     Pn     12 23 30.9 -0.6
IVAS  Ivanjica          4.76 320  ePn     Pn     12 23 31.4 -0.4
IVAS                              eSn     Sn     12 24 27.9 +0.8
CEME  Cevo              4.82 304  ePn     Pn     12 23 32.9 +0.3
CEME                              i Sn    Sn     12 24 27.4 -1.2
CEME                               AML    AML
KUBS  Kucevo            4.84 337  ePn     Pn     12 23 30.8 -2.0
KUBS                              eSn     Sn     12 24 25.8 -3.2
ICOR  Ion Corvin        4.86  31 ⇑S      Sn     12 24 28.2 -1.1
SVIS  Svilajnac         4.87 332  eSn     Sn     12 24 27.4 -2.1
STFAR Stefanesti-Arg    4.89   5 ⇓P      Pn     12 23 34.5 +1.1
NKME  Niksic            4.92 306  ePn     Pn     12 23 36.2 +2.3
NKME                              eSn     Sn     12 24 29.1 -1.8
NKME                               AML    AML
MANR  Mangalia          4.96  38 ⇑P      Pn     12 23 34.5 +0.1
KARP  Karpathos         4.96 152  eP      Pn     12 23 34.5  0.0
PLE   Pljevlja          4.99 314⇑iPn     Pn     12 23 38.1 +3.1
SAHE  Sakarya_HENDEK    5.04  78 ⇑P      Pn     12 23 35.9 +0.4
HCY   Herceg Novi       5.05 301  ePn     Pn     12 23 41.0 +5.3
HCY   Herceg Novi       5.05 301  ePn     Pn     12 23 35.5 -0.2
HCY                               i Sn    Sn     12 24 33.0 -1.1
HCY                                AML    AML
HERR  Herculane         5.09 344 ⇑P      Pn     12 23 35.5 -0.7
TRUS  Trudelj           5.15 327  ePn     Pn     12 23 36.2 -0.8
MDVR  Moldovita         5.17 339 ⇑P      Pn     12 23 36.8 -0.5
EFOR  EFORIE            5.18  37 ⇑P      Pn     12 23 37.7 +0.3
DIVS  Divibare          5.23 323  ePn     Pn     12 23 37.6 -0.6
BRY   Bratogost         5.25 306  ePn     Pn     12 23 42.6 +4.1
BRY   Bratogost         5.25 306  ePn     Pn     12 23 38.2 -0.3
BRY                               i Sn    Sn     12 24 36.8 -2.3
BRY                                AML    AML
MDUB  Mudurnu           5.26  83          Pn     12 23 39.2 +0.5
TREB  Trebinje          5.27 303  ePn     Pn     12 23 42.0 +3.3
ISP   Isparta           5.28 112⇑eP      Pn     12 23 39.3 +0.4
ISP   Isparta           5.28 112          Pn     12 23 37.7 -1.2
ISP   Isparta           5.28 112  eP      Pn     12 23 38.4 -0.5
BBLS  Lazi&#263i        5.35 318  ePn     Pn     12 23 40.5 +0.7
BBLS                              eSn     Sn     12 24 41.0 -0.5
BBLS  Lazi&#263i        5.35 318  ePn     Pn     12 23 40.2 +0.4
ISR   Istrita           5.37  17   Pn     Pn     12 23 41.4 +1.2
      2.3nm112nm,0.9s
ISR                                AML    AML
ARR   Arges             5.38   2 ⇑P      Pn     12 23 40.2  0.0
ARR   Arges             5.38   2   P      Pn     12 23 40.3  0.0
      comp=Z,79nm,0.4s
TIRR  Tirgusor          5.39  33   P      Pn     12 23 40.4 +0.2
TIRR  Tirgusor          5.39  33          Pn     12 23 40.0 -0.2
TIRR  Tirgusor          5.39  33 ⇑P      Pn     12 23 40.4 +0.2
TIRR  Tirgusor          5.39  33   Pn     Pn     12 23 40.2 -0.1
      comp=Z,0.8nmcomp=Z,104nm,1.0s
TIRR                               AML    AML
ELL   Elmali            5.44 125   P      Pn     12 23 42.1 +1.0
ELL   Elmali            5.44 125   Pn     Pn     12 23 42.1 +1.0
VOIR                    5.47   5   P      Pn     12 23 42.0 +0.5
VOIR                    5.47   5 ⇓P      Pn     12 23 42.0 +0.5
VOIR                    5.47   5   Pn     Pn     12 23 41.8 +0.3
      comp=Z,0.5nmcomp=Z,768nmcomp=Z,83nm,0.7s
VOIR                               AML    AML
VOIR                    5.47   5   P      Pn     12 23 42.1 +0.6
      comp=Z,82nm,0.7s
LOT   Lotru             5.47 356 ⇑P      Pn     12 23 41.6 +0.1
LOT   Lotru             5.47 356   P      Pn     12 23 41.5  0.0
      comp=Z,81nm,0.6s
GZR   Gura Zlata        5.52 348   P      Pn     12 23 41.6 -0.6
GZR   Gura Zlata        5.52 348 ⇑P      Pn     12 23 41.7 -0.6
VRSS  Vrsac             5.59 337  ePn     Pn     12 23 42.2 -0.9
VRSS                              eSn     Sn     12 24 45.0 -2.5
NEHR  Nehoiu            5.62  14 ⇑P      Pn     12 23 45.1 +1.6
MLR   Muntele Rosu      5.62  12   Pn     Pn     12 23 43.9 +0.3
      comp=Z,3.6nm,0.3s,baz=90,slow=23,SNR=45
MLR                                Sn     Sn     12 24 47.8 -0.6
      comp=Z,9.1nm,0.3s,baz=105,slow=22,SNR=3.2
MLR                                Lg     Lg     12 25 23.2
      comp=Z,3.6nm,0.3s,baz=90,slow=24,SNR=13
      comp=Z,34nm,0.6s
MLR                                AML    AML
MLR   Muntele Rosu      5.62  12   P      Pn     12 23 45.2 +1.6
MLR   Muntele Rosu      5.62  12          Pn     12 23 44.2 +0.5
MLR   Muntele Rosu      5.62  12 ⇑P      Pn     12 23 45.3 +1.6
MLR   Muntele Rosu      5.62  12   Pn     Pn     12 23 44.8 +1.2
      comp=Z,1.0nmcomp=Z,1μmcomp=Z,107nm,0.7s
MLR                                AML    AML
MLR   Muntele Rosu      5.62  12   P      Pn     12 23 45.3 +1.7
      comp=Z,109nm,0.7s
TNR   Turnu Rosu        5.66 359   P      Pn     12 23 44.9 +0.9
TNR   Turnu Rosu        5.66 359 ⇑P      Pn     12 23 44.9 +0.9
TPGR  Topolog           5.72  30 ⇓P      Pn     12 23 45.1 +0.2
TEKS  Tekeris           5.79 323  ePn     Pn     12 23 45.1 -0.8
TEKS                              eSn     Sn     12 24 52.7 +0.3
TEKS  Tekeris           5.79 323  ePn     Pn     12 23 45.3 -0.6
BISRR Bisoca            5.82  17   Pn     Pn     12 23 47.8 +1.5
      comp=Z,2.9nmcomp=Z,284nm,0.7s
BISRR                              AML    AML
MATE  Matera            5.88 279  eP      Pn     12 23 48.1 +1.0
MATE  Matera            5.88 279 ⇑P      Pn     12 23 47.1  0.0
CFR   Carcaliu          5.89  27   P      Pn     12 23 47.0 -0.1
CFR   Carcaliu          5.89  27 ⇑P      Pn     12 23 47.1 -0.1
TIP   Timpagrande       5.92 265          Pn     12 23 49.1 +1.4
TIP   Timpagrande       5.92 265 ⇓P      Pn     12 23 48.4 +0.7
TIP   Timpagrande       5.92 265   Pn     Pn     12 23 49.6 +1.9
      comp=Z,0.2nmcomp=Z,22nm,1.2s
TIP                                AML    AML
BZS   Buzias            5.97 341   P      Pn     12 23 47.6 -0.7
BZS   Buzias            5.97 341 ⇑P      Pn     12 23 47.6 -0.7
BZS   Buzias            5.97 341   P      Pn     12 23 47.8 -0.5
      comp=Z,60nm,0.7s
DEV   Deva              5.98 350   P      Pn     12 23 49.3 +0.8
      comp=Z,109nm,1.1s
SURR  Surduc            5.99 345 ⇑P      Pn     12 23 48.1 -0.4
COVR  Voineasa-Covas    6.01  12 ⇑P      Pn     12 23 50.4 +1.6
PLOR  Plostina          6.09  15   P      Pn     12 23 51.5 +1.5
PLOR  Plostina          6.09  15 ⇑P      Pn     12 23 51.6 +1.5
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VRI   Vrincioaia        6.12  16   Pn     Pn     12 23 51.9 +1.5
      comp=Z,0.7nmcomp=Z,842nmcomp=Z,82nm,1.0s
VRI                                AML    AML
VRI   Vrincioaia        6.12  16   P      Pn     12 23 52.5 +2.0
      comp=Z,82nm,1.0s
MDB   Medias            6.15   0   P      Pn     12 23 52.1 +1.4
MDB   Medias            6.15   0 ⇑P      Pn     12 23 52.2 +1.4
TLCR                    6.15  31   P      Pn     12 23 51.1 +0.4
TLCR                    6.15  31 ⇑P      Pn     12 23 51.1 +0.4
FRGS  Fruska Gora       6.15 329  ePn     Pn     12 23 50.5 -0.4
FRGS  Fruska Gora       6.15 329  ePn     Pn     12 23 49.9 -1.0
TURR  Turia             6.18  11 ⇑P      Pn     12 23 52.8 +1.5
PANC  Panciu            6.23  18 ⇑P      Pn     12 23 53.1 +1.4
VLDR  Vladesti          6.46  24 ⇑P      Pn     12 23 56.2 +1.2
CUC   Castrocucco       6.55 273          Pn     12 23 58.2 +1.9
CUC   Castrocucco       6.55 273   P      Pn     12 23 58.1 +1.7
      comp=Z,41nm,0.8s
MARCO Tramutola         6.55 275   P      Pn     12 23 59.8 +3.4
      comp=Z,46nm,0.8s
SIRR  Siria             6.57 343 ⇓P      Pn     12 23 56.2 -0.4
BIR   Birlad            6.71  20 ⇑S      Sn     12 25 15.1 +0.1
TESR  Tescani           6.73  14 ⇓P      Pn     12 23 59.7 +1.0
TESR  Tescani           6.73  14   Pn     Pn     12 23 59.7 +1.0
      comp=Z,0.3nmcomp=Z,950nmcomp=Z,48nm,0.7s
TESR                               AML    AML
TESR  Tescani           6.73  14   P      Pn     12 24 00.8 +2.1
      comp=Z,57nm,0.6s
SGRT  San Giovanni R    6.76 288   Pn     Pn     12 23 58.5 -0.7
CEL   Celeste           6.80 258          Pn     12 24 00.8 +1.0
CEL   Celeste           6.80 258   Pn     Pn     12 24 00.7 +1.0
      comp=Z,0.3nmcomp=Z,76nm,1.0s
CEL                                AML    AML
CEL   Celeste           6.80 258   P      Pn     12 23 58.8 -1.0
      comp=Z,77nm,1.0s
DRGR                    6.90 351   P      Pn     12 24 01.0 -0.1
DRGR                    6.90 351 ⇑P      Pn     12 24 01.1 -0.1
DRGR                    6.90 351   P      Pn     12 24 01.5 +0.4
      comp=Z,42nm,0.8s
BLY   Banja Luka        7.12 314          Pn     12 24 06.0 +1.9
BLY   Banja Luka        7.12 314 ⇑P      Pn     12 24 05.0 +0.9
BLY   Banja Luka        7.12 314  ePn     Pn     12 24 05.4 +1.3
BLY   Banja Luka        7.12 314   P      Pn     12 24 06.1 +1.9
      comp=Z,42nm,0.7s
BR106 Keskin Array S    7.13  89   Pn     Pn     12 24 05.0 +0.6
      comp=Z,0.0nmcomp=Z,207nmcomp=Z,9.3nm,0.6s
BR106                              AML    AML
BR105 Keskin Array S    7.14  89   Pn     Pn     12 24 05.0 +0.5
      comp=Z,0.1nmcomp=Z,230nmcomp=Z,13nm,0.6s
BR105                              AML    AML
BR131 Keskin Array S    7.15  89deP      Pn     12 24 04.0 -0.7
BR131 Keskin Array S    7.15  89          Pn     12 24 04.7  0.0
BRTR  Keskin Array B    7.15  89   Pn     Pn     12 24 04.5 -0.2
      comp=Z,2.3nm,0.3s,baz=263,slow=11,SNR=44
BRTR                               Sn     Sn     12 25 23.5 -2.6
      comp=Z,0.4nm,0.3s,baz=280,slow=25,SNR=1.1
BRTR                               Lg     Lg     12 26 09.2
      baz=267,slow=27
      comp=Z,8.1nm,0.5s
BRTR                               AML    AML
BRTR  Keskin Array B    7.15  89ceP      Pn     12 24 05.6 +0.9
BRTR                               pmax   pmax
      comp=Z,10.0nm,0.5s
BRTR  Keskin Array B    7.15  89          Pn     12 24 05.3 +0.6
BR104 Keskin Array S    7.16  89   Pn     Pn     12 24 04.9 +0.2
      comp=Z,0.1nmcomp=Z,155nmcomp=Z,13nm,0.6s
BR104                              AML    AML
MORH  Mrgy, Hungar      7.49 328 ⇑P      Pn     12 24 08.5 -0.7
MORH  Mrgy, Hungar      7.49 328  ePn     Pn     12 24 08.1 -1.0
MORH  Mrgy, Hungar      7.49 328   Pn     Pn     12 24 08.4 -0.7
      comp=Z,0.1nmcomp=Z,20nm,0.8s
MORH                               AML    AML
MORH  Mrgy, Hungar      7.49 328   P      Pn     12 24 08.7 -0.4
      comp=Z,20nm,0.8s
PRAR  RASCA             7.49  10 ⇑P      Pn     12 24 10.8 +1.6
PAOL  Paolisi           7.53 281   Pn     Pn     12 24 10.0 +0.3
BURAR Bucovina Array    7.65   4   P      Pn     12 24 12.2 +0.8
BURAR Bucovina Array    7.65   4          Pn     12 24 11.0 -0.4
BURAR Bucovina Array    7.65   4 ⇑P      Pn     12 24 12.3 +0.8
BUR08 Bucovina Ar. S    7.67   4          Pn     12 24 12.1 +0.3
PURM  Purcari           7.67  30   Pn     Pn     12 24 11.7  0.0
      comp=Z,0.6nmcomp=Z,84nm,0.5s
PURM                               AML    AML
TARU  Tarkhankut        8.08  46  eP      Pn     12 24 16.1 -1.1
TARU                              ex      x      12 25 47.0
TARU                               smax   smax   12 25 50.0
      comp=E,9.0nm,0.5s
INTR  Introdacqua       8.15 288   Pn     Pn     12 24 18.6 +0.3
VAE   Valguarnera       8.16 255   Pn     Pn     12 24 20.8 +2.4
      comp=E,5.0nm,0.3s,baz=37,slow=15,SNR=1.8
NE56  Odesa             8.21  33   Pn     Pn     12 24 19.7 +0.7
TRPA  Tarpa             8.24 352   P      Pn     12 24 23.7 +4.3
      comp=Z,12nm,0.8s
SEV   Sevastopol'       8.27  54  eP      Pn     12 24 19.3 -0.5
SEV                                pmax   pmax   12 24 26.3
      comp=Z,4.0nm,0.5s
SEV                                x      x      12 25 49.0
SEV                               eS      Sn     12 25 50.7 -2.6
SEV                                smax   smax   12 25 51.5
      comp=N,3.0nm,0.4s
SEV                                smax   smax   12 25 51.5
      comp=E,1.0nm,0.3s
BEHE  Becsehely         8.51 322          Pn     12 24 25.2 +2.1
BEHE  Becsehely         8.51 322  ePn     Pn     12 24 23.7 +0.5
PSZ   Piszkesteto       8.55 339  eP      Pn     12 24 27.3 +3.6
ABAH  Abaujker          8.60 346   P      Pn     12 24 23.6 -0.7
      comp=Z,14nm,2.3s
SORM  Soroca            8.63  18   Pn     Pn     12 24 23.9 -0.9
      comp=Z,5μmcomp=Z,35nm,0.5s
KMPD  K-Podol'skiy      8.70   9   Pn     Pn     12 24 25.9 +0.2
MPLH  Magyarpolny       8.71 328   P      Pn     12 24 29.3 +3.4
      comp=Z,26nm,0.7s
ALU   Alushta           8.79  55  eP      Pn     12 24 25.6 -1.4
ALU                               eS      Sn     12 26 01.5 -4.7
ALU   Alushta           8.79  55  eP      Pn     12 24 25.6 -1.4
ALU                                pmax   pmax   12 24 28.4
      comp=Z,4.0nm,0.2s
ALU                               ex      x      12 26 01.5
ALU                                smax   smax   12 26 04.2
      comp=N,19nm,0.2s
ALU                                smax   smax   12 26 04.2
      comp=E,17nm,0.3s
BAL3X Bal3x, Balta      8.80  24   Pn     Pn     12 24 27.1 +0.1
NRCA  Norcia            8.91 292   Pn     Pn     12 24 29.9 +1.2
KECS  Kecovo            8.93 343  eP      Pn     12 24 29.2 +0.3
KECS  Kecovo            8.93 343  ePN     Pn     12 24 29.1 +0.2
KECS  Kecovo            8.93 343  eSG     Sg     12 27 05.4 -0.8
FDMO  Fiordimonte       8.98 293   Pn     Pn     12 24 31.2 +1.6
KOLS  Kolonicke sedl    9.06 351  eP      Pn     12 24 27.8 -2.9
KOLS  Kolonicke sedl    9.06 351  ePN     Pn     12 24 27.8 -2.9
KOLS  Kolonicke sedl    9.06 351   P      Pn     12 24 34.6 +3.8
      comp=Z,13nm,0.6s
SUDU  Sudak             9.27  55  eP      Pn     12 24 32.3 -1.2
SUDU                              eS      Sn     12 26 14.0 -3.8
SUDU  Sudak             9.27  55  eP      Pn     12 24 32.3 -1.2
SUDU                               pmax   pmax   12 24 34.0
      comp=Z,5.0nm,0.3s
SUDU                              eS      Sn     12 26 14.0 -3.8
SUDU                               smax   smax   12 26 18.0
      comp=N,15nm,0.6s
SUDU                               smax   smax   12 26 18.0
      comp=E,1.0nm,0.3s
VYHS  Vyhne             9.37 337  eP      Pn     12 24 33.5 -1.5
VYHS  Vyhne             9.37 337  ePN     Pn     12 24 33.5 -1.5
SOKA  Soboth            9.52 318  ePn     Pn     12 24 38.5 +1.4
      comp=E,2.3nm,0.5s
SOP   Sopron            9.52 326   P      Pn     12 24 37.9 +0.9
      comp=Z,17nm,0.8s
RONA  Rosalia, Austr    9.65 326  ePn     Pn     12 24 38.3 -0.5
      comp=Z,0.8nm,0.3s
OBKA  Obir              9.67 316  i Pn    Pn     12 24 40.8 +1.7
      comp=Z,4.0nm,0.3s
OBKA  Obir              9.67 316   P      Pn     12 24 40.3 +1.2
      comp=Z,30nm,1.0s
ARSA  Arzberg           9.67 322          Pn     12 24 40.1 +1.0
ARSA  Arzberg           9.67 322  ePn     Pn     12 24 39.4 +0.4
      comp=Z,3.9nm,0.5s
ARSA                              eSn     Sn     12 26 21.1 -6.6
      comp=Z,3.2nm,0.6s
ARSA  Arzberg           9.67 322   P      Pn     12 24 40.7 +1.6
      comp=Z,21nm,0.7s
STHS  Stebnicka Huta    9.68 348  eP      Pn     12 24 35.1 -4.1
STHS  Stebnicka Huta    9.68 348  ePN     Pn     12 24 35.1 -4.1
CONA  Conrad Observa   10.01 325  ePn     Pn     12 24 42.6 -1.2
      comp=Z,0.9nm,0.5s
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CONA                              eSn     Sn     12 26 35.9 -0.4
      comp=Z,1.5nm,0.3s
SESA  Seetaler Alpe,   10.05 318  i Pn    Pn     12 24 43.6 -0.8
      comp=Z,3.1nm,0.5s
WINA  Alland / Wiene   10.06 326  i Pn    Pn     12 24 42.4 -2.0
      comp=Z,0.4nm,0.2s
LUBAR Lubar, Ukraine   10.22  13   Pn     Pn     12 24 45.8 -0.7
MYKA  Terra Mystica    10.24 314  ePn     Pn     12 24 47.6 +0.7
      comp=Z,2.2nm,0.4s
STAL  STALIGIAL        10.56 310   Pn     Pn     12 24 53.1 +1.8
KBA   Koelnbreinsper   10.67 315  ePn     Pn     12 24 55.0 +2.1
      comp=Z,2.6nm,0.5s
KBA   Koelnbreinsper   10.67 315   P      Pn     12 24 58.3 +5.4
      comp=Z,21nm,1.3s
MOA   Molln            10.70 321  i Pn    Pn     12 24 54.4 +1.3
      comp=Z,1.8nm,0.4s
MOA                               eSn     Sn     12 26 47.8 -5.2
      comp=Z,3.0nm,0.6s
MOA   Molln            10.70 321   P      Pn     12 24 54.9 +1.8
      comp=Z,18nm,1.4s
VRAC  Vranov           10.82 332   Pn     Pn     12 24 57.9 +3.1
      comp=Z,0.2nm,0.3s,baz=139,slow=19,SNR=1.3
VRAC                               LR     LR     12 29 16.4
      comp=Z,218nm,18.1s,baz=148,slow=38
      comp=Z,0.8nm,0.3s
VRAC                               AML    AML
BIOA  Bad Ischl, Aus   10.90 318  ePn     Pn     12 24 56.0  0.0
      comp=Z,3.0nm,0.3s
ABTA  Abfaltersbach    10.94 312  ePn     Pn     12 24 58.9 +2.4
      comp=Z,2.3nm,0.6s
CTI   Castel Tesino    11.09 307   P      Pn     12 24 59.7 +1.1
CTI   Castel Tesino    11.09 307          Pn     12 24 59.7 +1.1
AK07  Malin Array Si   11.10  16   Pn     Pn     12 24 57.9 -0.6
AK06  Malin Array Si   11.13  16   Pn     Pn     12 24 58.3 -0.7
AK14  Malin Array Si   11.15  16   Pn     Pn     12 24 58.8 -0.5
AK16  Malin Array Si   11.19  16   Pn     Pn     12 24 58.5 -1.3
AK17  Malin Array Si   11.19  16   Pn     Pn     12 24 58.3 -1.5
AK18  Malin Array Si   11.23  16   Pn     Pn     12 24 58.9 -1.4
AKASG Malin Array Be   11.24  16   Pn     Pn     12 24 59.3 -1.2
      comp=Z,2.0nm,0.3s,baz=208,slow=12,SNR=5.9
AKASG                              Sn     Sn     12 26 57.7 -8.5
      comp=Z,1.0nm,0.3s,baz=200,slow=22,SNR=2.7
AKASG                              LR     LR     12 29 38.4
      comp=Z,249nm,19.4s,baz=191,slow=39
      comp=Z,1.4nm,0.4s
AKASG                              AML    AML
AKASG Malin Array Be   11.24  16ceP      Pn     12 24 59.9 -0.6
AKASG                              pmax   pmax
      comp=Z,2.0nm,0.4s
AKBB  Malin Array Si   11.24  16⇑eP      Pn     12 24 59.5 -1.0
AKBB  Malin Array Si   11.24  16   Pn     Pn     12 24 59.7 -0.8
AKBB  Malin Array Si   11.24  16   Pn     Pn     12 24 59.7 -0.8
LESA  Schwarzleotal    11.24 315  ePn     Pn     12 25 03.1 +2.4
      comp=Z,7.4nm,0.5s
MMAI  Mount Meron Ar   11.29 125   Pn     Pn     12 25 00.6 -0.7
      comp=Z,1.1nm,0.3s,baz=349,slow=12,SNR=4.7
      comp=Z,3.3nm,0.8s
MMAI                               AML    AML
RNPP5 Staryi Chortor   11.29   5   Pn     Pn     12 25 01.1 -0.1
CKRC  Cesky Krumlov    11.37 324  eP      Pn     12 25 06.9 +4.6
CKRC  Cesky Krumlov    11.37 324  ePN     Pn     12 25 06.9 +4.6
GERES GERESS Array B   11.66 323   Pn     Pn     12 25 08.6 +2.2
      comp=Z,0.1nm,0.3s,baz=154,slow=13,SNR=12
      comp=Z,0.6nm,0.3s
GERES                              AML    AML
WTTA  Wattenberg       11.73 312  ePn     Pn     12 25 09.5 +2.2
      comp=Z,2.1nm,0.3s
WATA  Walderalm        11.80 313  ePn     Pn     12 25 10.4 +2.1
      comp=Z,3.4nm,0.4s
KHC   Kasperske Hory   11.93 324⇑eP      Pn     12 25 10.3 +0.4
KHC   Kasperske Hory   11.93 324  ePN     Pn     12 25 14.8 +4.9
KHC                               eSN     Sn     12 27 35.6  +13
SQTA  Sankt Quirin     11.95 312  ePn     Pn     12 25 11.2 +0.9
      comp=Z,1.7nm,0.3s
SOC   Sochi            12.02  68  eP      Pn     12 25 08.7 -2.5
SOC                               e              12 27 21.3
SOC                                MLR    MLR
      comp=Z,108nm,14.0s
MOTA  Moosalm          12.07 312  ePn     Pn     12 25 13.1 +1.0
      comp=Z,0.4nm,0.2s
FETA  Feichten         12.12 310  ePn     Pn     12 25 13.9 +1.2
      comp=Z,2.1nm,0.7s
FUORN Ofenpass-Fuorn   12.21 307   Pn     Pn     12 25 14.7 +0.7
DAVOX Davos/Dischmat   12.51 308   Pn     Pn     12 25 18.9 +0.8
      comp=Z,0.4nm,0.3s,baz=124,slow=15,SNR=7.7
DAVOX                              LR     LR     12 31 01.9
      comp=Z,217nm,18.3s,baz=150,slow=42
      comp=Z,2.3nm,0.5s
DAVOX                              AML    AML
KEST  Kesra            12.60 255   Pn     Pn     12 25 19.9 +0.7
      comp=Z,0.8nm,0.3s,baz=79,slow=19,SNR=3.3
KEST                               LR     LR     12 31 13.0
      comp=Z,123nm,19.0s,baz=328,slow=42
      comp=Z,8.3nm,0.8s
KEST                               AML    AML
GRC2  Grafenberg Arr   12.82 318   P      Pn     12 25 20.2 -1.9
      comp=Z,17nm,0.4s
CLL   Collm            13.80 329  eP      P      12 25 47.0 +3.0
CLL   Collm            13.80 329  esPP           12 25 47.0
CLL                                LH            12 28 00.0
CLL                                LV            12 29 00.0
CLL                                AMS    AMS    12 29 00.0
      comp=N,300nm,19.6s
CLL                                AMS    AMS    12 29 00.0
      comp=E,500nm,19.7s
CLL                                AMS    AMS    12 30 00.0
      comp=Z,500nm,13.5s
CLL                                AMS    AMS    12 31 00.0
      comp=Z,0.0nm,5.6s
KIV   Kislovodsk       14.20  68  eP      Pn     12 25 40.0 -1.1
KIV                                pmax   pmax
      comp=Z,8.0nm,1.1s
KIV                                MLR    MLR
      comp=Z,39nm,14.0s
KBZ   Khabaz           14.31  69   Pn     Pn     12 25 43.6 +1.1
      comp=Z,0.2nm,0.3s,baz=292,slow=19,SNR=1.7
      comp=Z,0.6nm,0.3s
KBZ                                AML    AML
KBZ   Khabaz           14.31  69⇑eP      Pn     12 25 41.0 -1.5
KBZ                                pmax   pmax
      comp=Z,4.0nm,1.0s
GEVA  Gevas            14.62  91   Pn     Pn     12 25 48.0 +1.1
NACGM Naroch           15.01   5  eP      P      12 25 55.0 -2.3
      comp=N,23nm,0.8s
PABE  Paberze          15.53 359   Pn     Pn     12 25 59.9 +1.2
GNI   Garni            15.62  83   Pn     Pn     12 26 01.0 +0.9
      comp=N,0.9nm,0.3s,baz=240,slow=20,SNR=5.8
GNI                                LR     LR     12 32 07.9
      comp=N,194nm,19.9s,baz=294,slow=38
      comp=N,6.7nm,0.3s
GNI                                AML    AML
OBN   Obninsk          17.19  24   LR     LR     12 33 03.1
      comp=N,168nm,20.2s,baz=176,slow=37
MAK   Makhachkala      17.59  73d iP     Pn     12 26 21.7 -3.4
MAK                               eS      Sn     12 29 36.9 -4.1
MAK                                pmax   pmax
      comp=Z,485nm,1.1s
MAK                                MLR    MLR
      comp=Z,110nm,12.0s
MOS   Moscow           18.05  25  eP      P      12 26 31.5 +0.5
BELG  Belogornoye      20.23  44   P      Pn     12 26 55.2 -1.6
      comp=Z,7.2nm,0.7s,baz=199,slow=14,SNR=4.0
      comp=Z,7.2nm,0.7s
BELG  Belogornoye      20.23  44⇑eP      Pn     12 26 55.0 -1.8
BELG                               pmax   pmax
      comp=Z,4.0nm,0.9s
HFS   Hagfors          21.24 345   P      P      12 27 06.6 +0.8
      comp=Z,1.4nm,0.6s,baz=172,slow=14,SNR=5.9
      comp=Z,1.4nm,0.6s
FINES FINESS Array B   21.51   2   P      P      12 27 08.8 +0.1
      comp=Z,1.9nm,0.9s,baz=165,slow=9.1,SNR=5.2
FINES                              LR     LR     12 36 30.8
      comp=Z,371nm,18.0s,baz=190,slow=40
      comp=Z,1.9nm,0.9s
ESDC  Sonseca Array    21.71 278   P      P      12 27 10.8 -0.4
      comp=Z,1.6nm,0.7s,baz=71,slow=11,SNR=6.0
ESDC                               LR     LR     12 35 54.9
      comp=Z,88nm,18.1s,baz=78,slow=38
      comp=Z,1.6nm,0.7s
KONO  Kongsberg        21.76 340   P      P      12 27 12.1 +0.7
KONO                               pmax   pmax
      comp=Z,36nm,1.5s
KONO  Kongsberg        21.76 340   P      P      12 27 12.1 +0.7
KONO                               IAmb   IAmb   12 27 23.5
      comp=Z,36nm,1.4s
NC602 NORSAR Array S   22.24 343   P      P      12 27 16.0 -0.6
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NC602				IAmb	IAmb	12 27 22.0	
	comp=Z,16nm,0.8s						
NAO01	**NORSAR Array S**	**22.48**	**343**	P	**P**	**12 27 19.0**	**-0.1**
NAO01				IAmb	IAmb	12 27 47.6	
	comp=Z,24nm,1.1s						
NOA	**NORSAR Array B**	**22.58**	**343**	P	**P**	**12 27 19.3**	**-0.9**
	comp=Z,3.5nm,0.8s,baz=147,slow=8.6,SNR=11						
NOA				LR	LR	12 36 25.3	
	comp=Z,102nm,19.0s,baz=160,slow=37						
	comp=Z,3.5nm,0.8s						
NBO00	**NORSAR Array S**	**22.67**	**343**	P	**P**	**12 27 20.5**	**-0.7**
NBO00				IAmb	IAmb	12 27 31.5	
	comp=Z,53nm,1.4s						
NC303	**NORSAR Array S**	**22.71**	**344**	P	**P**	**12 27 21.8**	**+0.2**
KLMR	**Klimovskoe**	**22.90**	**19**	*e*P	**P**	**12 27 23.6**	**+0.1**
KLMR				pmax	pmax		
	comp=Z,33nm,1.6s						
EKA	**Eskdalemuir Ar**	**23.84**	**319**	P	**P**	**12 27 32.5**	**-0.5**
	comp=Z,3.6nm,0.7s,baz=118,slow=9.3,SNR=8.0						
	comp=Z,3.6nm,0.7s						
RAYN	**Ar Rayn**	**24.26**	**126**	P	**P**	**12 27 39.5**	**+2.2**
	comp=Z,16nm,1.3s						
MDT	**Midelt**	**24.31**	**262**	LR	LR	12 37 11.8	
	comp=Z,59nm,18.0s,baz=50,slow=37						
KIRV	**Kirov**	**24.52**	**32**	LR	LR	12 37 51.4	
	comp=Z,113nm,19.3s,baz=234,slow=38						
KIRV	**Kirov**	**24.52**	**32**	*de*P	**P**	**12 27 39.5**	**+0.2**
ARTI	**Arti**	**27.61**	**42**	LR	LR	12 39 26.7	
	comp=Z,97nm,21.2s,baz=244,slow=37						
ARTI	**Arti**	**27.61**	**42**	*c i*P	**P**	**12 28 07.1**	**-0.2**
ARTI						12 31 22.8	
ARTI				S	**S**	**12 32 48.1**	**-0.6**
ARTI				pmax	pmax		
	comp=Z,4.0nm,0.7s						
LVZ	**Lovozero**	**28.53**	**8**	⇑*i*P	**P**	**12 28 14.9**	**-0.4**
LVZ				pmax	pmax		
	comp=Z,13nm,1.0s						
ARCES	**ARCESS Array B**	**29.61**	**1**	LR	LR	12 40 53.1	
	comp=Z,266nm,19.5s,baz=199,slow=38						
TORD	**Torodi Ar. Bea**	**33.35**	**223**	P	**P**	**12 28 58.5**	**+0.3**
	comp=Z,5.2nm,1.2s,baz=31,slow=7.1,SNR=13						
	comp=Z,5.2nm,1.2s						
BORK	**Borovoye**	**33.62**	**52**	⇑*e*P	**P**	**12 29 00.9**	**+0.6**
BORK				pmax	pmax		
	comp=Z,3.0nm,1.0s						
BVAR	**Borovoye Array**	**33.66**	**52**	P	**P**	**12 29 01.6**	**+0.9**
	comp=Z,1.2nm,0.8s,baz=274,slow=6.7,SNR=5.0						
	comp=Z,1.2nm,0.8s						
JMIC	**Jan Mayen**	**35.28**	**342**	LR	LR	12 43 47.1	
	comp=Z,34nm,21.2s,baz=88,slow=36						
BORG	**Borgarnes**	**36.05**	**329**	LR	LR	12 44 55.5	
	comp=Z,66nm,19.3s,baz=113,slow=38						
AAK	**Ala-Archa**	**37.31**	**69**	LR	LR	12 49 42.3	
	comp=Z,78nm,19.7s,baz=290,slow=44						
SPITS	**Spitsbergen Ar**	**38.44**	**357**	P	**P**	**12 29 42.0**	**+0.7**
	comp=Z,15nm,1.0s,baz=222,slow=1.9,SNR=4.2						
SPITS				LR	LR	12 46 56.5	
	comp=Z,177nm,19.0s,baz=174,slow=38						
	comp=Z,15nm,1.0s						
KURBB	**Kurchatov Arra**	**38.75**	**56**	P	**P**	**12 29 45.4**	**+1.2**
	comp=Z,1.3nm,0.8s,baz=285,slow=9.0,SNR=8.5						
KURBB				PcP	**PcP**	**12 31 56.0**	**+0.4**
	comp=Z,0.9nm,0.7s,baz=271,slow=3.7,SNR=9.1						
KURBB				LR	LR	12 49 28.7	
	comp=Z,78nm,18.6s,baz=166,slow=42						
	comp=Z,1.3nm,0.8s						
KURK	**Kurchatov**	**38.80**	**55**	⇑*e*P	**P**	**12 29 45.7**	**+1.1**
KURK				pmax	pmax		
	comp=Z,7.0nm,1.7s						
KURK	**Kurchatov**	**38.80**	**55**	P	**P**	**12 29 45.1**	**+0.5**
MK31	**Makanchi Array**	**41.81**	**61**	*c i*P	**P**	**12 30 11.0**	**+1.3**
MKAR	**Makanchi Array**	**41.81**	**61**	P	**P**	**12 30 11.0**	**+1.3**
	comp=Z,3.5nm,0.6s,baz=282,slow=6.5,SNR=25						
MKAR				PcP	**PcP**	**12 32 05.8**	**+0.2**
	comp=Z,0.9nm,0.7s,baz=285,slow=4.8,SNR=3.6						
MKAR				LR	LR	12 50 04.6	
	comp=Z,44nm,20.1s,baz=276,slow=40						
	comp=Z,3.5nm,0.6s						
MKAR	**Makanchi Array**	**41.81**	**61**	P	**P**	**12 30 10.8**	**+1.1**
MKAR	**Makanchi Array**	**41.81**	**61**	P	**P**	**12 30 10.8**	**+1.1**
ZAA0	**Zalesovo Array**	**42.25**	**50**	P	**P**	**12 30 14.1**	**+1.0**
ZALV	**Zalesovo Beam**	**42.25**	**50**	P	**P**	**12 30 14.2**	**+1.1**
	comp=Z,6.2nm,0.7s,baz=274,slow=9.0,SNR=33						
ZALV				LR	LR	12 49 38.6	
	comp=Z,55nm,19.0s,baz=274,slow=39						
	comp=Z,6.2nm,0.7s						
ZALV	**Zalesovo Beam**	**42.25**	**50**	P	**P**	**12 30 14.0**	**+0.8**
DBIC	**Dimbokro**	**42.27**	**226**	P	P	12 30 23.8	+10
	comp=Z,3.7nm,0.8s,baz=63,slow=4.5,SNR=3.1						
DBIC				LR	LR	12 48 37.6	
	comp=Z,56nm,19.0s,baz=16,slow=37						
NRIK	**Noril'sk**	**43.83**	**27**	LR	LR	12 49 30.8	
	comp=Z,82nm,21.0s,baz=260,slow=37						
SUMG	**Summit**	**44.26**	**337**	P	**P**	**12 30 30.7**	**+1.1**
SUMG				pmax	pmax		
	comp=Z,11nm,1.2s						
SUMG	**Summit**	**44.26**	**337**	P	**P**	**12 30 30.7**	**+1.1**
SUMG				IAmb	IAmb	12 30 36.9	
	comp=Z,11nm,1.2s						
DGZ	**Jazzator, Alta**	**44.55**	**56**	⇑*e*P	**P**	**12 30 33.2**	**+1.3**
DGZ				pmax	pmax		
	comp=Z,5.0nm,0.9s						
WMQ	**Urumqi**	**46.28**	**64**	*e*P	**P**	**12 30 46.3**	**+0.7**
WMQ				PP	**PP**	**12 32 36.3**	**+2.3**
WMQ				pmax	pmax		
	comp=Z,11nm,0.7s						
WMQ				LR	LR		
	comp=Z,37nm,23.9s						
TLY	**Talaya**	**53.86**	**49**	LR	LR	12 56 23.3	
	comp=Z,63nm,19.7s,baz=294,slow=38						
DRLN	**Deer Lake**	**56.30**	**309**	P	**P**	**12 32 01.5**	**+1.0**
TIXI	**Tiksi**	**56.90**	**21**	LR	LR	12 59 30.2	
	comp=Z,68nm,18.3s,baz=4.5,slow=39						
SONM	**Songino Array**	**57.00**	**53**	P	**P**	**12 32 07.1**	**+1.3**
	comp=Z,1.4nm,0.7s,baz=302,slow=8.4,SNR=6.3						
SONM				LR	LR	12 57 09.7	
	comp=Z,59nm,19.8s,baz=267,slow=37						
	comp=Z,1.4nm,0.7s						
ULN	**Ulaanbaatar**	**57.39**	**52**	⇓*e*P	**P**	**12 32 09.6**	**+1.1**
ULN				pmax	pmax		
	comp=Z,4.0nm,1.7s						
SCHQ	**Schefferville**	**59.14**	**318**	LR	LR	12 56 54.2	
	comp=Z,31nm,19.5s,baz=96,slow=35						
PALK	**Pallekele**	**59.81**	**107**	LR	LR	13 00 07.3	
	comp=Z,29nm,18.3s,baz=264,slow=38						
YAK	**Yakutsk**	**62.05**	**31**	LR	LR	13 00 40.3	
	comp=Z,46nm,21.0s,baz=294,slow=37						
YAK	**Yakutsk**	**62.05**	**31**	⇑*e*P	**P**	**12 32 40.0**	**-0.1**
YAK				pmax	pmax		
	comp=Z,6.0nm,0.6s						
BATG	**Bathurst New B**	**62.28**	**310**	P	**P**	**12 32 43.0**	**+1.0**
HHC	**Hu-ho-hao-te**	**63.55**	**58**	*e*P	**P**	**12 32 51.3**	**+0.6**
HHC				pmax	pmax		
	comp=Z,17nm,0.6s						
PZH	**PanZhiHua**	**64.25**	**76**	P	**P**	**12 32 56.8**	**+1.3**
LBTB	**Lobatse**	**64.68**	**179**	LR	LR	13 02 02.7	
	comp=Z,22nm,18.5s,baz=359,slow=37						
LBTB	**Lobatse**	**64.68**	**179**	P	**P**	**12 32 59.5**	**+1.4**
LBTB				pmax	pmax		
	comp=Z,8.0nm,1.0s						
LBTB	**Lobatse**	**64.68**	**179**	P	**P**	**12 32 59.5**	**+1.4**
CHTO	**Chiang Mai**	**66.51**	**85**	P	**P**	**12 33 10.0**	**-0.1**
CHTO				pmax	pmax		
	comp=Z,7.0nm,1.0s						
CHTO	**Chiang Mai**	**66.51**	**85**	P	**P**	**12 33 10.0**	**-0.1**
CHTO				IAmb	IAmb	12 33 11.1	
	comp=Z,6.5nm,1.0s						
CMAR	**Chiang Mai Arr**	**66.72**	**85**	P	**P**	**12 33 11.8**	**+0.4**
	comp=Z,2.5nm,0.8s,baz=307,slow=7.4,SNR=15						
	comp=Z,2.5nm,0.8s						
CMAR	**Chiang Mai Arr**	**66.72**	**85**	P	**P**	**12 33 11.2**	**-0.2**
BOSA	**Boshof**	**68.26**	**179**	P	**P**	**12 33 21.9**	**+1.0**
	comp=Z,2.1nm,0.9s,baz=342,slow=9.2,SNR=4.0						
BOSA				LR	LR	13 05 18.6	
	comp=Z,34nm,18.3s,baz=24,slow=38						
	comp=Z,2.1nm,0.9s						
BOSA	**Boshof**	**68.26**	**179**	P	**P**	**12 33 21.4**	**+0.5**
BOSA				pmax	pmax		
	comp=Z,9.0nm,1.3s						
BOSA	**Boshof**	**68.26**	**179**	P	**P**	**12 33 21.4**	**+0.5**
BOSA				IAmb	IAmb	12 33 56.1	
	comp=Z,8.9nm,1.3s						
KLR	**Kul'dur**	**70.56**	**42**	LR	LR	13 06 03.3	
	comp=Z,81nm,18.6s,baz=333,slow=37						
KLR	**Kul'dur**	**70.56**	**42**	⇓*e*P	**P**	**12 33 34.7**	**-0.3**
KLR				pmax	pmax		
	comp=Z,17nm,4.5s						
INK	**Inuvik**	**70.75**	**351**	LR	LR	13 09 19.0	
	comp=Z,29nm,18.3s,baz=32,slow=40						
E29M	**Blow River**	**71.12**	**353**	P	**P**	**12 33 39.1**	**+1.1**
SADO	**Sadowa**	**71.24**	**313**	LR	LR	13 04 10.7	
	comp=Z,43nm,18.3s,baz=188,slow=35						
D23K	**Nanushuk River**	**71.30**	**358**	P	**P**	**12 33 40.4**	**+1.3**
D23K				IAmb	IAmb	12 33 46.6	
	comp=Z,5.2nm,0.9s						
MA2	**Magadan**	**71.40**	**26**	LR	LR	13 08 30.8	
	comp=Z,49nm,20.1s,baz=286,slow=39						
SUR	**Sutherland**	**72.08**	**183**	LR	LR	13 07 32.9	
	comp=Z,72nm,18.7s,baz=345,slow=38						
G31M	**Satah River**	**72.16**	**351**	P	**P**	**12 33 45.0**	**+0.7**
G31M				IAmb	IAmb	12 34 16.3	
	comp=Z,9.4nm,1.2s						
BMAR	**Burnt Mountain**	**72.57**	**356**	P	**P**	**12 33 47.8**	**+0.9**
F24K	**Squaw Lake**	**72.65**	**357**	P	**P**	**12 33 48.1**	**+0.8**
F24K				IAmb	IAmb	12 33 49.6	
	comp=Z,5.1nm,1.2s						
YKA	**Yellowknife Ar**	**72.67**	**341**	P	**P**	**12 33 48.1**	**+0.8**
	comp=Z,0.5nm,0.7s,baz=33,slow=6.1,SNR=2.2						
YKA				LR	LR	13 06 17.9	
	comp=Z,36nm,18.1s,baz=352,slow=36						
	comp=Z,0.5nm,0.7s						
H29M	**Whitestone**	**73.28**	**353**	P	**P**	**12 33 51.4**	**+0.4**
H29M				IAmb	IAmb	12 34 18.4	
	comp=Z,9.7nm,1.4s						
NJ2	**Nanjing**	**73.33**	**62**	*e*P	**P**	**12 33 51.5**	**-0.4**
NJ2				pmax	pmax		
	comp=Z,11nm,0.5s						
J30M	**Hart River**	**74.67**	**351**	P	**P**	**12 34 00.1**	**+0.8**
J30M				IAmb	IAmb	12 34 08.0	
	comp=Z,5.5nm,1.1s						
Q56A	**Snyder Ridge,**	**74.84**	**308**	P	**P**	**12 34 01.2**	**+0.6**
Q56A				IAmb	IAmb	12 34 06.9	
	comp=Z,7.5nm,0.8s						
ILAR	**Eielson Array**	**75.35**	**356**	P	**P**	**12 34 03.1**	**0.0**
	comp=Z,0.3nm,0.8s,baz=19,slow=6.3,SNR=4.1						
ILAR				LR	LR	13 12 37.6	
	comp=Z,17nm,18.3s,baz=70,slow=40						
	comp=Z,0.3nm,0.8s						
KSRS	**Korea Array**	**75.87**	**53**	P	**P**	**12 34 06.8**	**+0.3**
	comp=Z,1.4nm,0.6s,baz=319,slow=4.8,SNR=6.9						
KSRS				LR	LR	13 12 55.0	
	comp=Z,37nm,18.2s,baz=60,slow=40						
	comp=Z,1.4nm,0.6s						
ULM	**Lac du Bonnet**	**75.96**	**325**	LR	LR	13 07 17.1	
	comp=Z,56nm,18.1s,baz=25,slow=36						
PETK	**Petropavlovsk-**	**78.89**	**27**	LR	LR	13 13 45.1	
	comp=Z,40nm,19.5s,baz=307,slow=39						
ASAJ	**Asahikawa**	**79.50**	**40**	LR	LR	13 12 30.0	
	comp=Z,37nm,18.4s,baz=259,slow=38						
DLBC	**Dease Lake**	**79.63**	**347**	LR	LR	13 13 22.0	
	comp=Z,38nm,18.5s,baz=44,slow=38						
JNU	**Nakatsue**	**80.52**	**55**	LR	LR	13 14 55.0	
	comp=Z,39nm,19.4s,baz=6.0,slow=39						
SHEM	**Shemya Is, Ala**	**84.00**	**18**	LR	LR	13 14 34.5	
	comp=Z,62nm,20.9s,baz=50,slow=37						
BDFB	**Brasilia**	**86.98**	**247**	P	**P**	**12 35 06.2**	**+0.5**
	comp=Z,0.8nm,0.3s,baz=17,slow=7.5,SNR=3.5						
	comp=Z,0.8nm,0.3s						
PDAR	**Pinedale Array**	**87.67**	**328**	P	**P**	**12 35 09.4**	**+0.4**
	comp=Z,0.1nm,0.3s,baz=52,slow=6.9,SNR=3.9						
PDAR				LR	LR	13 18 24.5	
	comp=Z,19nm,18.6s,baz=19,slow=38						
	comp=Z,0.1nm,0.3s						
ANMO	**Albuquerque**	**92.72**	**322**	LR	LR	13 17 15.5	
	comp=Z,31nm,18.1s,baz=70,slow=36						
YBH	**Yreka Blue Hor**	**93.33**	**336**	LR	LR	13 24 03.8	
	comp=Z,28nm,18.3s,baz=16,slow=40						
NVAR	**Mina Array Bea**	**94.79**	**331**	P	**P**	**12 35 42.5**	**+0.4**
	comp=Z,0.3nm,0.5s,baz=48,slow=2.2,SNR=3.6						
	comp=Z,0.3nm,0.5s						
TXAR	**Lajitas Array**	**95.81**	**316**	P	**P**	**12 35 46.6**	**-0.2**
	comp=Z,0.3nm,0.8s,baz=282,slow=1.2,SNR=3.5						
	comp=Z,0.3nm,0.8s						
PFO	**Pinyon Flats O**	**98.29**	**328**	LR	LR	13 25 48.4	
	comp=Z,37nm,18.0s,baz=300,slow=39						
WRA	**Warramunga Arr**	**117.65**	**94**	PKP	**PKPdf**	**12 41 05.3**	**-1.2**
	comp=Z,0.3nm,1.0s,baz=320,slow=1.1,SNR=1.5						
ASAR	**Alice Springs**	**119.42**	**97**	PKP	**PKPdf**	**12 41 08.9**	**-1.0**
	comp=Z,0.8nm,0.6s,baz=311,slow=1.7,SNR=11						
STKA	**Stephens Creek**	**129.47**	**102**	PKP	**PKiKP**	**12 41 28.6**	**-1.0**
	comp=Z,2.5nm,1.0s,baz=270,slow=6.1,SNR=2.0						

AFAD ***27*** *12:28:08.9, 39°.96N×24°.06E, h14^{km}±2^{km}, ML3.2*

SOF ***27*** *12:28:12.9, 40°.1N±0°.1×24°.43E±0°.02, h3^{km}±12^{km}, MD3.3/9*

IDC ***27*** *12:28:13.8±0.9, 39°.89N×24°.55E, h0^{km}, mb3.4/8, mbtmp3.5/15, ML3.2/6, MS3.1/1, Error ellipse: s-maj=14.8km s-min=12.2km az=81.0*

ISK ***27*** *12:28:14.5, 40°.07N×24°.42E, h10^{km}, ML3.4/14*

ATH ***27*** *12:28:14.8, 39°.99N×24°.30E, h18^{km}±1^{km}, ML3.2/42, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*

THE ***27*** *12:28:15.0, 40°.0N±0°.9×24°.3E±0°.9, h15^{km}±2^{km}, M3.2/30, MLh3.2/30*

ISC 27 12:28:15.2±0.9**, 39°.99N**±0°.02×**24°.30E**±0°.02**, h13**^{km}±7^{km}**, n184, σ0^{s}.79**/178**, mb3.3**/8**, 17C-6D, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OUR	**Ouranopolis**	**0.43**	**325**	P	**Pg**	**12 28 23.3**	**-0.3**
OUR				S	**Sg**	**12 28 29.2**	**-0.1**
OUR				AML	AML		
OUR	**Ouranopolis**	**0.43**	**325**	Pg	**Pg**	**12 28 23.4**	**-0.3**
OUR				Sg	**Sg**	**12 28 29.8**	**+0.4**
OUR				AML	AML		
OUR	**Ouranopolis**	**0.43**	**325**	P	**Pg**	**12 28 23.4**	**-0.3**
OUR				S	**Sg**	**12 28 29.3**	**-0.1**
OUR				AML	AML		
PAIG	**Paliouri**	**0.48**	**263**	P	**Pg**	**12 28 24.3**	**-0.4**
PAIG				S	**Sg**	**12 28 31.0**	**-0.2**
PAIG				AML	AML		
LMN1	**MIRINA LIMNOU**	**0.59**	**101**	P	**Pg**	**12 28 26.7**	**-0.1**
LMN1				S	**Sg**	**12 28 35.2**	**+0.7**
LIA	**Limnos Island**	**0.68**	**97**	P	**Pg**	**12 28 28.5**	**0.0**
LIA				S	**Sg**	**12 28 38.6**	**+1.2**
LIA				AML	AML		
LIA	**Limnos Island**	**0.68**	**97**	P	**Pg**	**12 28 28.6**	**+0.2**
LIA				S	**Sg**	**12 28 37.5**	**+0.1**
LIA				AML	AML		
EFSA	**Agios Efstrati**	**0.69**	**130**	P	Pb	12 28 28.2	-0.8
EFSA				S	**Sg**	**12 28 38.2**	**+0.6**
EFSA				AML	AML		
THAS	**Thassos island**	**0.70**	**27**	P	Pb	12 28 28.6	-0.5
THAS				S	**Sg**	**12 28 38.6**	**+0.7**
THAS	**Thassos island**	**0.70**	**27**	P	Pb	12 28 28.7	-0.4
THAS				S	**Sg**	**12 28 37.8**	**-0.1**
PLG	**Polygyros**	**0.76**	**301**	P	Pb	12 28 29.3	-1.0
PLG				S	**Sb**	**12 28 40.1**	**-0.5**
PLG				AML	AML		
PLG	**Polygyros**	**0.76**	**301**	P	Pb	12 28 29.2	-1.0
THS1	**Thassos, Thass**	**0.78**	**15**	P	Pb	12 28 29.3	-1.2
THS1				S	**Sb**	**12 28 39.6**	**-1.4**
AOS	**Alonnisos**	**0.88**	**202**	P	Pb	12 28 31.5	-0.7
AOS				S	**Sb**	**12 28 44.3**	**+0.5**
AOS				AML	AML		
AOS2	**Alonissos-2**	**0.91**	**203**	P	**Pb**	**12 28 31.4**	**-1.4**
AOS2				S	**Sb**	**12 28 44.3**	**-0.4**
AOS2				AML	AML		
KAVA	**Kavala**	**1.02**	**9**	P	**Pb**	**12 28 33.7**	**-1.0**
KAVA				S	**Sb**	**12 28 47.8**	**-0.2**
KAVA	**Kavala**	**1.02**	**9**	P	**Pb**	**12 28 33.6**	**-1.0**
KAVA				S	**Sb**	**12 28 46.3**	**-1.7**
SMTH	**Samothraki Isl**	**1.06**	**62**	P	**Pb**	**12 28 33.9**	**-1.4**
SMTH				S	**Sb**	**12 28 49.1**	**+0.1**
SMTH				AML	AML		
SMTH	**Samothraki Isl**	**1.06**	**62**	P	**Pb**	**12 28 33.6**	**-1.6**
SMTH				S	**Sb**	**12 28 48.2**	**-0.8**
SMTH				AML	AML		
XOR	**Xorichti**	**1.06**	**235**	P	**Pb**	**12 28 35.0**	**-0.3**
XOR				S	**Sb**	**12 28 48.7**	**-0.4**
XOR	**Xorichti**	**1.06**	**235**	P	**Pb**	**12 28 34.7**	**-0.6**
XOR				S	**Sb**	**12 28 48.1**	**-1.0**
NEO	**Neokhori**	**1.07**	**231**	P	**Pb**	**12 28 34.8**	**-0.8**
NEO				S	**Sb**	**12 28 49.2**	**-0.3**
NEO				AML	AML		
NEO	**Neokhori**	**1.07**	**231**	P	**Pb**	**12 28 34.6**	**-1.0**
NEO				S	**Sb**	**12 28 49.3**	**-0.3**
NEO				AML	AML		
HORT	**Hortiatis**	**1.11**	**304**	P	**Pb**	**12 28 35.8**	**-0.3**
HORT	**Hortiatis**	**1.11**	**304**	P	**Pb**	**12 28 35.8**	**-0.3**
SOH	**Sokhos**	**1.11**	**319**	P	**Pb**	**12 28 35.8**	**-0.4**
SOH				AML	AML		
SOH	**Sokhos**	**1.11**	**319**	P	**Pb**	**12 28 35.7**	**-0.4**
SOH				S	**Sb**	**12 28 49.7**	**-0.7**
THE	**Thessaloniki**	**1.21**	**303**	P	Pn	12 28 36.8	-1.0
THE				AML	AML		
THE	**Thessaloniki**	**1.21**	**303**	P	Pn	12 28 36.7	-1.0
THE				S	**Sb**	**12 28 53.0**	**-0.3**
THE				AML	AML		
GADA	**Gvkgeada**	**1.24**	**80**	P	Pn	12 28 36.9	-1.3
GADA				AML	AML		
GADA	**Gvkgeada**	**1.24**	**80**	Pn	Pn	12 28 36.8	-1.3
GADA				Sn	**Sb**	**12 28 52.7**	**-1.5**
GADA				AML	AML		
SRS	**Serrai**	**1.25**	**335**	P	**Pn**	**12 28 37.5**	**-0.8**
SRS				S	**Sb**	**12 28 53.7**	**-0.9**
SRS				AML	AML		
SRS	**Serrai**	**1.25**	**335**	P	**Pn**	**12 28 37.5**	**-0.8**
SRS				S	**Sb**	**12 28 52.6**	**-2.1**
SRS				AML	AML		
BOZC	**Bozcaada**	**1.35**	**96**	Pn	Pn	12 28 38.7	-1.0
BOZC				AML	AML		
BOZC	**Bozcaada**	**1.35**	**96**	P	Pn	12 28 38.5	-1.2
BOZC				S	**Sb**	**12 28 59.1**	**+1.7**
BOZC				IAML		12 29 01.0	
	comp=E,340nm,0.5s						
BOZC				IAML		12 29 12.0	
	comp=N,219nm,0.8s						
KYMI	**Kymi, Euboea I**	**1.36**	**187**	P	Pn	12 28 38.4	-1.4
KYMI				AML	AML		
KYMI	**Kymi, Euboea I**	**1.36**	**187**	P	Pn	12 28 38.5	-1.3
KYMI				S	**Sn**	**12 28 56.2**	**-1.4**
KYMI				AML	AML		
NVR	**Nevrokopi**	**1.40**	**346**	P	**Pn**	**12 28 39.7**	**-0.8**
NVR				S	**Sn**	**12 28 57.4**	**-1.4**
NVR				AML	AML		
NVR	**Nevrokopi**	**1.40**	**346**	P	**Pn**	**12 28 39.8**	**-0.6**
NVR				S	**Sn**	**12 28 57.1**	**-1.7**
NVR				AML	AML		
ECEA	**Canakkale, Ece**	**1.44**	**87**	P	**Pn**	**12 28 40.0**	**-0.8**
ECEA				S	**Sg**	**12 29 01.8**	**+0.3**
ECEA				IAML		12 29 04.0	
	comp=E,460nm,0.4s						
ECEA				IAML		12 29 06.0	
	comp=N,585nm,0.4s						
KOCA	**Canakkale, Ayv**	**1.49**	**108**	P	**Pn**	**12 28 41.2**	**-0.5**
KOCA				IAML		12 29 11.0	
	comp=E,276nm,0.7s						
KOCA				IAML		12 29 13.0	
	comp=N,194nm,1.1s						
ALEX	**Alexandroupoli**	**1.50**	**54**	P	Pn	12 28 40.4	-1.2
ALEX				S	**Sn**	**12 29 00.2**	**-0.8**
GPNR	**Gulpinar-Canak**	**1.51**	**110**	Pn	**Pn**	**12 28 41.5**	**-0.3**
GPNR				AML	AML		
EZN	**Ezine**	**1.56**	**95**	P	Pn	12 28 41.5	-1.1
EZN				S	**Sn**	**12 29 02.4**	**-0.2**
EZN				AML	AML		
EZN	**Ezine**	**1.56**	**95**	Pn	**Pn**	**12 28 41.9**	**-0.6**
EZN				Sn	**Sn**	**12 29 01.5**	**-1.1**
EZN				AML	AML		
CAVK	**Edirne/Enez-Ca**	**1.59**	**63**	P	Pn	12 28 41.1	-1.8
CAVK				IAML		12 29 08.0	
	comp=E,706nm,0.6s						
CAVK	**Edirne/Enez-Ca**	**1.59**	**63**	⇑P	Pn	12 28 41.9	-1.0
ENEZ	**Enez**	**1.60**	**61**	P	Pn	12 28 41.8	-1.3
ENEZ	**Enez**	**1.60**	**61**	Pn	Pn	12 28 41.9	-1.2
ENEZ				AML	AML		
CNKL	**anakkale-Mer**	**1.60**	**86**	P	**Pn**	**12 28 42.2**	**-0.9**
CNKL				S	**Sg**	**12 29 07.4**	**+0.7**
CNKL				IAML		12 29 09.0	
	comp=N,272nm,0.5s						
CNKL				IAML		12 29 12.0	
	comp=E,298nm,0.6s						
EZNE	**Ezine-Canakkal**	**1.60**	**98**	Pn	**Pn**	**12 28 42.7**	**-0.4**
ALN	**Alexandroupoli**	**1.61**	**55**	P	Pn	12 28 41.8	-1.4
ALN				AML	AML		
ALN	**Alexandroupoli**	**1.61**	**55**	Pn	Pn	12 28 41.8	-1.4
ALN				Sn	**Sn**	**12 29 02.1**	**-1.7**
ALN				AML	AML		
ALN	**Alexandroupoli**	**1.61**	**55**	P	Pn	12 28 41.6	-1.6
ALN				S	**Sn**	**12 29 02.8**	**-1.0**
ALN				AML	AML		
MMB	**Musomishta**	**1.61**	**345**	P	**Pn**	**12 28 43.2**	**-0.2**
MMB				S	**Sn**	**12 29 02.7**	**-1.4**
MMB				AML	AML		
MMB	**Musomishta**	**1.61**	**345**	P	**Pn**	**12 28 43.2**	**-0.2**
TYRN	**Tyrnavos**	**1.62**	**261**	P	**Pn**	**12 28 42.9**	**-0.4**
TYRN				AML	AML		
TYRN	**Tyrnavos**	**1.62**	**261**	P	**Pn**	**12 28 43.1**	**-0.2**
TYRN				S	**Sn**	**12 29 03.2**	**-0.8**
TYRN				AML	AML		
ATAL	**Atalanti**	**1.63**	**218**	P	**Pn**	**12 28 42.6**	**-0.9**
ATAL				S	**Sn**	**12 29 03.7**	**-0.6**
COMU	**Canakkale**	**1.67**	**85**	Pn	**Pn**	**12 28 43.5**	**-0.6**
COMU				Sn	**Sn**	**12 29 04.2**	**-1.1**
COMU				AML	AML		
LKR	**Lokris**	**1.67**	**218**	P	Pn	12 28 42.9	-1.2
LKR	**Lokris**	**1.67**	**218**	P	Pn	12 28 43.0	-1.1
PRK	**Paraskevi**	**1.69**	**115**	P	**Pn**	**12 28 43.5**	**-0.8**
PRK				AML	AML		
PRK	**Paraskevi**	**1.69**	**115**	P	**Pn**	**12 28 44.1**	**-0.1**
PRK				S	**Sn**	**12 29 03.9**	**-1.9**
GELI	**Tayfur-Gelibol**	**1.71**	**75**	Pn	Pn	12 28 43.6	-1.0
GELI				AML	AML		
RZN	**Rozhen**	**1.74**	**11**	P	**Pn**	**12 28 44.7**	**-0.5**
RZN				AML	AML		
RZN	**Rozhen**	**1.74**	**11**	P	**Pn**	**12 28 44.6**	**-0.5**
BAYC	**CANAKKALE_Bayr**	**1.74**	**97**	P	**Pn**	**12 28 44.2**	**-0.9**
BAYC				IAML		12 29 13.0	
	comp=N,161nm,0.5s						
GRG	**Griva**	**1.75**	**304**	P	**Pn**	**12 28 45.0**	**-0.1**
GRG				AML	AML		
AXAR	**Agios Charalam**	**1.76**	**227**	P	**Pn**	**12 28 45.2**	**-0.2**
AXAR				AML	AML		
AXAR	**Agios Charalam**	**1.76**	**227**	P	**Pn**	**12 28 44.9**	**-0.4**
AXAR				AML	AML		
AGG	**Agios Georgios**	**1.81**	**238**	P	**Pn**	**12 28 45.1**	**-0.9**
AGG				AML	AML		
AGG	**Agios Georgios**	**1.81**	**238**	P	**Pn**	**12 28 45.0**	**-0.9**
AGG				AML	AML		
THL	**Klokotos Trika**	**1.81**	**257**	P	**Pn**	**12 28 45.3**	**-0.7**
THL	**Klokotos Trika**	**1.81**	**257**	P	**Pn**	**12 28 45.3**	**-0.7**
KDZ	**Kurdzhali**	**1.82**	**25**	P	Pn	12 28 45.0	-1.2
KDZ				AML	AML		
KDZ	**Kurdzhali**	**1.82**	**25**	Pn	Pn	12 28 45.2	-0.9
KDZ				AML	AML		
KDZ	**Kurdzhali**	**1.82**	**25**	P	Pn	12 28 45.2	-0.9
ERIK	**Erikli-Kesan**	**1.82**	**67**	Pn	Pn	12 28 44.6	-1.5
ERIK				AML	AML		
GOKT	**Kean, EDRN**	**1.90**	**68**	IAML		12 29 19.0	
	comp=N,380nm,0.8s						
GOKT				IAML		12 29 20.0	
	comp=E,235nm,0.6s						
STFN	**Stefani**	**1.90**	**198**	P	Pn	12 28 46.3	-1.0
STFN				AML	AML		
STFN	**Stefani**	**1.90**	**198**	P	**Pn**	**12 28 46.4**	**-0.8**
STFN				S	**Sn**	**12 29 09.3**	**-1.7**
STFN				AML	AML		
LPK	**Lapseki**	**1.92**	**78**	Pn	**Pn**	**12 28 46.6**	**-0.9**
LPK				AML	AML		
DION	**Dionisos Attik**	**1.93**	**189**	P	Pn	12 28 46.5	-1.1
DION				AML	AML		
DION	**Dionisos Attik**	**1.93**	**189**	P	**Pn**	**12 28 46.8**	**-0.8**
DION				AML	AML		
VIL2	**Platees**	**1.95**	**205**	P	**Pn**	**12 28 47.4**	**-0.5**
VIL2				S	**Sn**	**12 29 12.1**	**-0.1**
VIL2				AML	AML		
KARY	**Karystos**	**1.95**	**177**	P	**Pn**	**12 28 47.1**	**-0.9**
KARY	**Karystos**	**1.95**	**177**	P	**Pn**	**12 28 47.1**	**-0.9**
KARY				S	**Sn**	**12 29 10.9**	**-1.4**
LAPS	**Lapseki, ANA**	**1.96**	**81**	P	**Pn**	**12 28 47.2**	**-0.9**
LAPS				IAML		12 29 19.0	
	comp=N,116nm,0.4s						
LAPS				IAML		12 29 19.0	
	comp=E,140nm,0.7s						
PTL	**Penteli**	**1.96**	**190**	P	**Pn**	**12 28 47.2**	**-0.9**
PTL				AML	AML		
KZN	**Kozani**	**1.97**	**280**	P	**Pn**	**12 28 47.6**	**-0.6**
VILL	**Villia**	**1.98**	**203**	P	Pn	12 28 47.1	-1.2
VILL				AML	AML		
KESN	**Edirne-Kesan**	**2.00**	**64**	IAML		12 29 19.0	

	comp=N,274nm,0.9s						
ATHP	**Athens-Neo Psi**	**2.02**	**192**	P	Pn	12 28 47.8	-1.2
ATHP				AML	AML		
ATHU	**Athens Univers**	**2.06**	**192**	P	Pn	12 28 48.4	-1.0
ATHU	**Athens Univers**	**2.06**	**192**	P	Pn	12 28 48.5	-1.0
KKB	**Krupnik**	**2.06**	**335**	P	**Pn**	**12 28 49.2**	**-0.2**
KKB				AML	AML		
KKB	**Krupnik**	**2.06**	**335**	P	**Pn**	**12 28 49.8**	**+0.4**
CHOS	**Chios island**	**2.10**	**139**	P	**Pn**	**12 28 49.6**	**-0.4**
CHOS				AML	AML		
CHOS	**Chios island**	**2.10**	**139**	P	**Pn**	**12 28 49.7**	**-0.4**
CHOS				AML	AML		
UKOP	**Uzunkopru-Edir**	**2.11**	**56**	Pn	Pn	12 28 49.1	-1.0
UKOP				AML	AML		
VLY	**Voula,Athens**	**2.17**	**191**	P	Pn	12 28 49.8	-1.0
VLY				AML	AML		
VLY	**Voula,Athens**	**2.17**	**191**	P	**Pn**	**12 28 50.1**	**-0.8**
VLY				AML	AML		
PLD	**Plovdiv**	**2.19**	**9**	P	**Pn**	**12 28 50.5**	**-0.6**
PLD	**Plovdiv**	**2.19**	**9**	Pn	**Pn**	**12 28 50.2**	**-0.9**
PLD				AML	AML		
PLD	**Plovdiv**	**2.19**	**9**	P	**Pn**	**12 28 50.9**	**-0.2**
BUHA	**Balikesir, Bur**	**2.19**	**102**	P	**Pn**	**12 28 50.9**	**-0.4**
BUHA				IAML		12 29 38.0	
	comp=E,138nm,0.8s						
BUHA				IAML		12 29 39.0	
	comp=N,144nm,0.7s						
DKL	**Dikili**	**2.21**	**114**	P	**Pn**	**12 28 51.3**	**-0.1**
LTK	**Loutraki**	**2.22**	**208**	P	**Pn**	**12 28 50.7**	**-0.9**
LTK				AML	AML		
LOUT	**Loutraki**	**2.25**	**208**	P	Pn	12 28 50.7	-1.3
LOUT				AML	AML		
KPRO	**Kipourio**	**2.26**	**270**	P	**Pn**	**12 28 52.0**	**-0.3**
KPRO				AML	AML		
DIM	**Dimitrovgrad**	**2.27**	**25**	P	**Pn**	**12 28 51.8**	**-0.5**
ANX	**Ano Chora**	**2.31**	**234**	P	**Pn**	**12 28 52.9**	**-0.1**
ANX				AML	AML		
KALE	**Kalithea**	**2.32**	**227**	P	Pn	12 28 51.7	-1.3
KALE				AML	AML		
THAL	**Thalero**	**2.33**	**214**	P	Pn	12 28 52.0	-1.1
THAL				AML	AML		
PSARO	**Psaromita, Dor**	**2.34**	**226**	P	Pn	12 28 51.5	-1.7
PSARO				AML	AML		
SERG	**Sergoula**	**2.35**	**229**	P	**Pn**	**12 28 53.0**	**-0.4**
SERG				AML	AML		
ACOR	**Acrocorinthos**	**2.37**	**209**	P	**Pn**	**12 28 53.2**	**-0.5**
ACOR				AML	AML		
PYRG	**Pyrgos, Dorida**	**2.37**	**229**	P	**Pn**	**12 28 53.4**	**-0.4**
TETR	**Tetrakomo, Epi**	**2.42**	**256**	P	**Pn**	**12 28 54.1**	**-0.4**
TETR				AML	AML		
EFP	**Efpalio**	**2.43**	**231**	P	**Pn**	**12 28 54.3**	**-0.1**
EFP				AML	AML		
PENT	**Pentalofos**	**2.44**	**276**	P	**Pn**	**12 28 54.7**	**0.0**
AGEO	**AgiosGiorgios,**	**2.45**	**226**	P	**Pn**	**12 28 54.4**	**-0.3**
MET4	**Agioi Theodoro**	**2.46**	**197**	P	**Pn**	**12 28 54.4**	**-0.6**
MET5	**Makryloggos,Me**	**2.47**	**198**	P	**Pn**	**12 28 54.7**	**-0.4**
VVK	**Vomvokou**	**2.49**	**232**	P	**Pn**	**12 28 55.1**	**-0.2**
MET2	**Kameni Chora,**	**2.49**	**198**	P	Pn	12 28 54.3	-1.0
AIOA	**Agios Ioannis,**	**2.50**	**225**	P	**Pn**	**12 28 55.1**	**-0.4**
MET6	**Megalochori,Me**	**2.50**	**198**	P	**Pn**	**12 28 54.6**	**-0.9**
LAKA	**Lakka**	**2.51**	**227**	P	**Pn**	**12 28 55.4**	**-0.3**
PRMD	**Pramanda**	**2.51**	**261**	P	**Pn**	**12 28 55.4**	**-0.3**
PRMD				AML	AML		
MET3	**Ano Fanari,Met**	**2.55**	**200**	P	Pn	12 28 55.2	-1.0
PVO	**Paravola**	**2.55**	**238**	P	**Pn**	**12 28 56.1**	**-0.1**
PVO				AML	AML		
GUR	**Goura**	**2.56**	**217**	P	**Pn**	**12 28 55.4**	**-0.9**
GUR				AML	AML		
AGRP	**Agrapidokambos**	**2.56**	**232**	P	**Pn**	**12 28 56.1**	**-0.2**
AGRP				AML	AML		
MADA	**Marmara adas**	**2.56**	**75**	P	Pn	12 28 55.1	-1.2
MADA				IAML		12 29 42.0	
	comp=E,78nm,0.6s						
MADA				IAML		12 29 43.0	
	comp=N,122nm,0.7s						
BALY	**Balya**	**2.56**	**94**	P	**Pn**	**12 28 55.5**	**-0.8**
BALY				IAML		12 29 38.0	
	comp=E,95nm,0.6s						
BALY				IAML		12 29 44.0	
	comp=N,167nm,0.6s						
KLV	**Kalavryta, Ach**	**2.56**	**222**	P	**Pn**	**12 28 55.9**	**-0.5**
AMPL	**Ampelaki**	**2.62**	**247**	P	**Pn**	**12 28 56.8**	**-0.3**
AMPL				AML	AML		
VTS	**Vitosha**	**2.75**	**343**	P	**Pn**	**12 28 59.4**	**+0.4**
PDO	**Prodromos**	**2.79**	**241**	P	**Pn**	**12 28 58.7**	**-0.8**
PDO				AML	AML		
DRO	**Drossia**	**2.87**	**226**	P	**Pn**	**12 29 00.2**	**-0.3**
DRO				AML	AML		
AXS	**Araxos**	**2.90**	**233**	P	**Pn**	**12 29 00.9**	**+0.1**
BAND	**Balkesir-Ban**	**2.93**	**82**	⇑P	**Pn**	**12 29 01.2**	**-0.1**
BLSH	**Balsha**	**2.97**	**345**	P	**Pb**	**12 29 09.9**	**+2.0**
MPEP	**Malo Peshtene**	**3.39**	**353**	P	**Pn**	**12 29 08.7**	**+1.0**
PLVB	**Pleven**	**3.41**	**4**	⇓P	**Pn**	**12 29 08.0**	**+0.1**
NEF	**NEVSHA**	**3.96**	**33**	P	**Pn**	**12 29 15.0**	**-0.5**
BOVS	**Bovan**	**4.13**	**333**	⇓P	**Pn**	**12 29 17.9**	**0.0**
TAVA	**DENIZLI_Tavas**	**4.40**	**123**	⇓P	**Pn**	**12 29 22.5**	**+0.9**
IDI	**Anoyia**	**4.71**	**174**	Pn	Pn	12 29 24.9	-1.1
	3.1nm,0.4s,baz=330,slow=16,SNR=6.5						
HERR	**Herculane**	**5.09**	**345**	⇑P	**Pn**	**12 29 30.4**	**-0.6**
MDVR	**Moldovita**	**5.16**	**339**	⇑P	**Pn**	**12 29 31.6**	**-0.5**
ARR	**Arges**	**5.38**	**2**	⇑P	**Pn**	**12 29 35.2**	**0.0**
LOT	**Lotru**	**5.47**	**356**	⇑P	**Pn**	**12 29 35.9**	**-0.6**
VOIR		**5.47**	**6**	⇑P	**Pn**	**12 29 36.0**	**-0.4**
GZR	**Gura Zlata**	**5.52**	**349**	⇓P	**Pn**	**12 29 36.4**	**-0.6**
MLR	**Muntele Rosu**	**5.63**	**12**	Pn	**Pn**	**12 29 38.9**	**+0.3**
	1.8nm,0.3s,baz=272,slow=23,SNR=6.6						
MLR				Sn	**Sn**	**12 30 42.1**	**-1.1**
	0.9nm,0.3s,baz=158,slow=19,SNR=2.1						
MLR				Lg	Lg	12 31 17.6	
	1.3nm,0.3s,baz=97,slow=21,SNR=5.4						
	9.4nm,0.8s						
MLR				AML	AML		
MLR	**Muntele Rosu**	**5.63**	**12**	⇑P	**Pn**	**12 29 38.7**	**+0.1**
TNR	**Turnu Rosu**	**5.66**	**360**	⇑P	**Pn**	**12 29 38.8**	**-0.1**
BZS	**Buzias**	**5.96**	**342**	⇑P	**Pn**	**12 29 42.8**	**-0.3**
SURR	**Surduc**	**5.98**	**345**	⇑P	**Pn**	**12 29 42.5**	**-0.8**
COVR	**Voineasa-Covas**	**6.02**	**13**	⇑P	**Pn**	**12 29 43.3**	**-0.6**
DOPR	**Dopca**	**6.03**	**7**	⇑P	**Pn**	**12 29 44.3**	**+0.4**
PLOR	**Plostina**	**6.11**	**16**	⇓P	**Pn**	**12 29 45.2**	**+0.1**
VRI	**Vrincioaia**	**6.14**	**16**	⇑P	**Pn**	**12 29 45.9**	**+0.4**
MDB	**Medias**	**6.15**	**0**	⇓P	**Pn**	**12 29 46.2**	**+0.6**
TESR	**Tescani**	**6.74**	**14**	⇑P	**Pn**	**12 29 54.0**	**+0.3**
BRTR	**Keskin Array B**	**7.19**	**89**	Pn	**Pn**	**12 29 59.4**	**-0.6**
	0.4nm,0.3s,baz=265,slow=12,SNR=8.2						
	1.2nm,0.4s						
BRTR				AML	AML		
BURAR	**Bucovina Array**	**7.66**	**5**	⇑P	**Pn**	**12 30 06.4**	**0.0**
VAE	**Valguarnera**	**8.13**	**255**	Pn	Pn	12 30 17.9	+5.1
	1.7nm,0.3s,baz=26,slow=21,SNR=1.8						
	4.9nm,0.4s						
VAE				AML	AML		
SORM	**Soroca**	**8.65**	**18**	⇑P	**Pn**	**12 30 19.0**	**-0.8**
AKASG	**Malin Array Be**	**11.26**	**16**	Pn	**Pn**	**12 30 56.1**	**+0.6**
	0.7nm,0.3s,baz=210,slow=13,SNR=2.0						
	0.2nm,0.3s						
AKASG				AML	AML		
MMAI	**Mount Meron Ar**	**11.31**	**124**	Pn	Pn	12 30 54.0	-2.5
	0.8nm,0.3s,baz=269,slow=20,SNR=2.2						
	0.3nm,0.3s						
MMAI				AML	AML		
GERES	**GERESS Array B**	**11.65**	**323**	Pn	Pn	12 31 06.1	+5.1
	baz=150,slow=13,SNR=2.2						
	0.4nm,0.4s						
ASF	**Jabal al Asfar**	**12.82**	**124**	LR	LR	12 37 23.1	
	comp=Z,82nm,18.7s,baz=270,slow=44						
HFS	**Hagfors**	**21.24**	**345**	P	**P**	**12 33 01.2**	**+0.7**
	0.7nm,0.5s,baz=119,slow=8.9,SNR=1.9						
	0.7nm,0.5s						
FINES	**FINESS Array B**	**21.51**	**2**	P	**P**	**12 33 04.2**	**+0.7**
	1.4nm,0.9s,baz=117,slow=2.6,SNR=1.5						
	1.4nm,0.9s						
ESDC	**Sonseca Array**	**21.68**	**278**	P	**P**	**12 33 07.2**	**+1.6**
	0.5nm,0.8s,baz=243,slow=10,SNR=2.1						
	0.5nm,0.8s						
NOA	**NORSAR Array B**	**22.58**	**343**	P	**P**	**12 33 16.8**	**+1.8**
	0.3nm,0.6s,baz=142,slow=10,SNR=1.9						
	0.3nm,0.6s						
EKA	**Eskdalemuir Ar**	**23.82**	**319**	P	**P**	**12 33 29.6**	**+2.1**
	4.7nm,1.1s,baz=103,slow=12,SNR=2.1						
	4.7nm,1.1s						
KURBB	**Kurchatov Arra**	**38.78**	**56**	P	**P**	**12 35 38.7**	**-0.5**
	0.1nm,0.3s,baz=287,slow=9.6,SNR=4.8						
	0.1nm,0.3s						
MKAR	**Makanchi Array**	**41.85**	**61**	P	**P**	**12 36 04.6**	**0.0**
	0.3nm,0.6s,baz=265,slow=9.1,SNR=3.0						
	0.3nm,0.6s						
ZALV	**Zalesovo Beam**	**42.28**	**50**	P	**P**	**12 36 08.5**	**+0.4**
	0.9nm,0.6s,baz=281,slow=7.5,SNR=4.4						
	0.9nm,0.6s						

IDC 27 12:37:18.8±8.3,**6°.39S**×**154°.54E**,**h0**^{km},**mb3.4**/3, **mbtmp3.4**/3,**Error ellipse: s-maj=253.3km s-min=43.3km az=111.0**,**Bougainville-Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**23.79**	**234**	P	P	12 42 34.9	+1.5
	0.6nm,0.7s,baz=62,slow=10,SNR=13						
	0.6nm,0.7s						
ASAR	**Alice Springs**	**26.24**	**227**	P	P	12 42 54.5	-1.3
	0.5nm,0.9s,baz=57,slow=9.9,SNR=7.6						
	0.5nm,0.9s						
MKAR	**Makanchi Array**	**82.65**	**319**	P	P	12 49 44.2	0.0
	0.3nm,0.6s,baz=94,slow=6.4,SNR=2.4						
	0.3nm,0.6s						

DJA 27 12:53:03.8±2.0,**5°S**±4°×**13°2E**±°,**h16**^{km}±17^{km},**M4.1**/12, **mB4.7**/3,**mb4.3**/7,**MLv4.0**/12,**Mw(mB)3.9**/3,**Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FAKI	**Fak Fak**	**1.60**	**11**	P	Pn	12 53 32.0	+0.5
FAKI				AML	AML		
BNDI	**Bandanaira**	**2.02**	**269**	P	Pb	12 53 38.8	-1.4
BNDI				S	Sn	12 54 03.1	+0.9
BNDI				AML	AML		
SWI	**Sorong**	**3.67**	**349**	P	Pn	12 53 59.4	-0.6
SWI				AML	AML		
MWPI	**Manokwari, Pap**	**4.12**	**31**	P	Pn	12 54 08.1	+1.9
NLAI	**Namlea**	**4.98**	**284**	P	Pn	12 54 21.2	+3.2
BAKI	**Biak**	**5.31**	**52**	P	Pn	12 54 24.4	+1.9
SANI	**Sanana**	**6.41**	**292**	P	Pn	12 54 36.3	-1.4
SANI				S	Sn	12 55 42.6	-8.0
SANI				AML	AML		

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*SOF **27** 12:57:57.3,39°.8N±0°.1×24°.42E±0°.02,h2^{km}±12^{km}, MD4.4/11*

*AFAD **27** 12:57:59.6,39°.88N×24°.32E,h13^{km}±2^{km},MW4.2*

*MOS **27** 12:58:00.6±1.0,40°.04N×24°.36E,h9^{km},mb4.6/9,Error ellipse: s-maj=6.4km s-min=3.6km az=81.4*

*IDC **27** 12:58:00.6±0.5,39°.91N×24°.43E,h0^{km},mb4.0/21, mbtmp4.1/33,ML3.9/10,MS3.5/44,Error ellipse: s-maj=8.8km s-min=7.8km az=83.0*

*MCSM **27** 12:58:01.3±0.3,40°N±3°×2°4E±°,h10^{km},mb4.5,mB4.7, MLv4.7,Mw(mB)4.0*

*MED_RC **27** 12:58:01.0,39°.97N×24°.33E,h17^{km},Mw4.4,Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}0.04±.31; $M_{\theta\theta}$2.59±.28; $M_{\phi\phi}$0.00±.29; $M_{r\theta}$0.91±.43; $M_{\theta\phi}$-4.39±.32; $M_{\phi r}$0.59±.44; Fault plane solution: $M_0$5.22000×10^{15} NP1:ϕ_s164.00000°,δ79.00000°, λ-3.00000°. NP2:ϕ_s255.00000°,δ87.00000°, λ-169.00000°. Principal axes: T 5.1400, Plg6.0000°, Azm29.0000°; N 0.1600, Plg78.0000°, Azm271.0000°; P -5.3000, Plg10.0000°, Azm120.0000°;*

*ISK **27** 12:58:01.8,40°.03N×24°.43E,h12^{km},ML4.5/27*

*THE **27** 12:58:02.1,40°.0N±0°.8×24°.3E±0°.8,h14^{km}±2^{km},M4.2/32, MLh4.2/32*

*NEIC **27** 12:58:02.3±2.4,40°.01N±0°.06×24°.40E±0°.07,h10^{km}±1^{km}, mb4.7/13,Error ellipse: s-maj=10.5km s-min=8.4km az=166.0*

*ATH **27** 12:58:02.1,39°.97N×24°.33E,h19^{km}±1^{km},ML4.1/64, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*

*PDG **27** 12:58:03.9±0.6,39°.92N×23°.99E,h20^{km}±1^{km},ML4.3/10, Error ellipse: s-maj=16.0km s-min=43.4km az=0.0*

*GFZ **27** 12:58:03.2±0.2,40°N±2°×2°4E±°,h10^{km},M4.4/18, mb4.7/18*

*BEO **27** 12:58:03.3±0.6,39°.99N×24°.18E,h11^{km}±3^{km},ML4.3/20*

*CFUSG **27** 12:58:06.2,40°.23N×24°.49E,h20^{km},MD3.6/6,MSH3.2/6*

*PRU **27** 12:58:06.7,40°.51N×24°.87E,h20^{km},M4.7*

*NAO **27** 12:58:08.6,40°.88N×25°.23E,h10^{km},MB4.0*

ISC 27 12:58:01.8±0.9,**39°.98N**±0°.02×**24°.32E**±0°.01,**h9**^{km}±6^{km}, **n581**,σ1^{s}**31**/667,**mb4.2**/32,**MS3.5**/35,**55C-15D**,**Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OUR	**Ouranopolis**	**0.44**	**324**	P	**Pb**	**12 58 11.6**	**-0.2**
OUR				S	**Sb**	**12 58 17.7**	**-0.8**
OUR				AML	AML		
OUR	**Ouranopolis**	**0.44**	**324**	Pg	**Pb**	**12 58 11.5**	**-0.2**
OUR				Sg	**Sb**	**12 58 17.9**	**-0.6**
OUR				AML	AML		
OUR	**Ouranopolis**	**0.44**	**324**	P	**Pb**	**12 58 11.4**	**-0.3**
OUR				S	**Sb**	**12 58 17.8**	**-0.6**
OUR				AML	AML		
PAIG	**Paliouri**	**0.50**	**264**	P	**Pg**	**12 58 11.6**	**+0.2**
PAIG				S	**Sg**	**12 58 18.6**	**+0.7**
PAIG				AML	AML		
PAIG	**Paliouri**	**0.50**	**264**	P	**Pg**	**12 58 11.9**	**+0.5**
LMN1	**MIRINA LIMNOU**	**0.58**	**100**	P	**Pb**	**12 58 13.5**	**-0.6**
LMN1				S	**Sb**	**12 58 21.4**	**-0.9**
LIA	**Limnos Island**	**0.67**	**97**	P	**Pg**	**12 58 14.9**	**+0.2**
LIA				S	**Sb**	**12 58 24.6**	**-0.4**
LIA				AML	AML		
LIA	**Limnos Island**	**0.67**	**97**	P	**Pg**	**12 58 14.7**	**0.0**
LIA				S	**Sb**	**12 58 24.4**	**-0.5**
LIA				AML	AML		
EFSA	**Agios Efstrati**	**0.68**	**130**	P	**Pg**	**12 58 14.9**	**+0.1**
EFSA				S	**Sg**	**12 58 23.9**	**+0.3**
EFSA				AML	AML		
THAS	**Thassos island**	**0.70**	**26**	P	**Pg**	**12 58 15.2**	**-0.1**
THAS				S	**Sb**	**12 58 26.6**	**+0.7**
THAS				AML	AML		
THAS	**Thassos island**	**0.70**	**26**	P	**Pg**	**12 58 15.1**	**-0.1**
THAS				S	**Sb**	**12 58 25.4**	**-0.4**
THAS				AML	AML		
PLG	**Polygyros**	**0.78**	**301**	P	**Pg**	**12 58 17.0**	**+0.2**
PLG				S	**Sg**	**12 58 27.5**	**+0.6**
PLG				AML	AML		
PLG	**Polygyros**	**0.78**	**301**	P	**Pg**	**12 58 17.0**	**+0.2**
PLG				AML	AML		
THS1	**Thassos, Thass**	**0.78**	**14**	P	**Pb**	**12 58 17.5**	**-0.1**
THS1				S	**Sb**	**12 58 28.2**	**-0.2**
AOS	**Alonnisos**	**0.88**	**203**	P	**Pg**	**12 58 18.1**	**-0.5**
AOS				S	**Sb**	**12 58 31.6**	**+0.6**
AOS				AML	AML		
AOS2	**Alonissos-2**	**0.91**	**204**	P	**Pg**	**12 58 18.1**	**-1.2**
AOS2				S	**Sg**	**12 58 30.3**	**-0.7**
AOS2				AML	AML		
KAVA	**Kavala**	**1.03**	**8**	P	**Pg**	**12 58 21.4**	**-0.2**
KAVA				S	**Sn**	**12 58 36.5**	**-0.4**
KAVA				AML	AML		
KAVA	**Kavala**	**1.03**	**8**	P	**Pg**	**12 58 21.2**	**-0.3**
KAVA				S	**Sg**	**12 58 34.1**	**-0.9**
KAVA				AML	AML		
SMTH	**Samothraki Isl**	**1.05**	**62**	P	**Pg**	**12 58 21.1**	**-0.8**
SMTH				S	**Sb**	**12 58 36.0**	**0.0**
SMTH				AML	AML		
SMTH	**Samothraki Isl**	**1.05**	**62**	P	**Pg**	**12 58 21.0**	**-1.0**
SMTH				S	**Sg**	**12 58 35.6**	**+0.1**
SMTH				AML	AML		
XOR	**Xorichti**	**1.06**	**235**	P	**Pg**	**12 58 21.6**	**-0.6**
XOR				S	**Sb**	**12 58 36.4**	**0.0**
XOR				AML	AML		
XOR	**Xorichti**	**1.06**	**235**	P	**Pg**	**12 58 21.4**	**-0.8**
XOR				S	**Sg**	**12 58 35.3**	**-0.7**
XOR				AML	AML		
XOR	**Xorichti**	**1.06**	**235**	P	**Pg**	**12 58 21.8**	**-0.4**
NEO	**Neokhori**	**1.08**	**232**	P	**Pg**	**12 58 21.6**	**-0.9**
NEO				S	**Sg**	**12 58 36.1**	**-0.4**
NEO				AML	AML		
NEO	**Neokhori**	**1.08**	**232**	P	**Pg**	**12 58 21.6**	**-0.9**
NEO				S	**Sg**	**12 58 36.1**	**-0.4**
NEO				AML	AML		
HORT	**Hortiatis**	**1.12**	**304**	P	**Pb**	**12 58 22.9**	**-0.5**
HORT				S	**Sb**	**12 58 38.2**	**+0.1**
HORT	**Hortiatis**	**1.12**	**304**	P	**Pb**	**12 58 22.9**	**-0.5**
HORT				S	**Sg**	**12 58 37.7**	**-0.2**
HORT	**Hortiatis**	**1.12**	**304**	P	**Pb**	**12 58 22.8**	**-0.6**
SOH	**Sokhos**	**1.12**	**319**	P	**Pg**	**12 58 23.5**	**+0.2**
SOH				S	**Sg**	**12 58 37.9**	**+0.1**
SOH				AML	AML		
SOH	**Sokhos**	**1.12**	**319**	P	**Pg**	**12 58 23.4**	**+0.2**
SOH				S	**Sg**	**12 58 38.0**	**+0.1**
SOH				AML	AML		
SOH	**Sokhos**	**1.12**	**319**	P	**Pg**	**12 58 23.5**	**+0.2**
VOL2	**Volos**	**1.22**	**240**	P	**Pn**	**12 58 24.5**	**-0.5**
VOL2				AML	AML		
THE	**Thessaloniki**	**1.23**	**303**	P	**Pn**	**12 58 25.0**	**-0.1**
THE				S	**Sb**	**12 58 40.9**	**-0.2**
THE	**Thessaloniki**	**1.23**	**303**	P	**Pn**	**12 58 24.5**	**-0.6**
THE				S	**Sb**	**12 58 39.9**	**-1.1**
THE				AML	AML		
THE	**Thessaloniki**	**1.23**	**303**	P	**Pn**	**12 58 24.5**	**-0.6**
GADA	**Gvkgeada**	**1.23**	**80**	P	**Pn**	**12 58 24.0**	**-1.1**
GADA				S	**Sb**	**12 58 40.9**	**-0.3**
GADA				AML	AML		
GADA	**Gvkgeada**	**1.23**	**80**	Pn	**Pn**	**12 58 24.1**	**-1.1**
GADA				AML	AML		
GOAD	**anakkale-G¶**	**1.23**	**81**	P	**Pn**	**12 58 24.3**	**-0.9**
GOAD				S	**Sb**	**12 58 40.1**	**-1.2**
GOAD				IAML		12 58 46.0	
	comp=N,1µm,0.5s						
GOAD				IAML		12 58 47.0	
	comp=E,1µm,0.4s						
GOKC	**Gokceada-Canak**	**1.25**	**79**	Pn	**Pn**	**12 58 24.5**	**-0.8**
GOKC				AML	AML		
SRS	**Serrai**	**1.27**	**334**	P	**Pn**	**12 58 25.1**	**-0.6**
SRS				S	**Sb**	**12 58 41.7**	**-0.5**
SRS				AML	AML		
SRS	**Serrai**	**1.27**	**334**	*e*Pg	**Pn**	**12 58 25.2**	**-0.5**
SRS				*e*Sg	**Sb**	**12 58 40.9**	**-1.4**
SRS	**Serrai**	**1.27**	**334**	P	**Pn**	**12 58 24.9**	**-0.8**
SRS				S	**Sb**	**12 58 40.8**	**-1.4**
SRS				AML	AML		
SRS	**Serrai**	**1.27**	**334**	P	**Pn**	**12 58 25.2**	**-0.5**
BOZC	**Bozcaada**	**1.34**	**95**	Pn	**Pn**	**12 58 25.8**	**-0.8**
BOZC				Sn	**Sb**	**12 58 42.9**	**-1.4**
BOZC				AML	AML		
BOZC	**Bozcaada**	**1.34**	**95**	P	**Pn**	**12 58 25.8**	**-0.8**
BOZC				S	**Sb**	**12 58 42.8**	**-1.4**
BOZC				IAML		12 58 46.0	
	comp=N,5µm,1.0s						
BOZC				IAML		12 58 47.0	
	comp=E,5µm,1.1s						
KYMI	**Kymi, Euboea I**	**1.35**	**187**	P	**Pn**	**12 58 25.3**	**-1.6**
KYMI				AML	AML		
KYMI	**Kymi, Euboea I**	**1.35**	**187**	P	**Pn**	**12 58 25.4**	**-1.5**
KYMI				S	**Sb**	**12 58 42.8**	**-1.9**
KYMI				AML	AML		
NVR	**Nevrokopi**	**1.42**	**346**	P	**Pn**	**12 58 27.2**	**-0.5**
NVR				S	**Sn**	**12 58 45.3**	**-1.2**
NVR				AML	AML		
NVR	**Nevrokopi**	**1.42**	**346**	P	**Pn**	**12 58 27.2**	**-0.5**
NVR				S	**Sn**	**12 58 44.5**	**-2.0**
NVR				AML	AML		
ECEA	**Canakkale, Ece**	**1.43**	**87**	P	**Pn**	**12 58 27.5**	**-0.3**
ECEA				S	**Sn**	**12 58 45.5**	**-1.2**
ECEA				IAML		12 58 53.0	
	comp=N,9µm,0.4s						
ECEA				IAML		12 58 54.0	
	comp=E,8µm,0.5s						
KOCA	**Canakkale, Ayv**	**1.48**	**108**	P	**Pn**	**12 58 28.4**	**-0.2**
KOCA				S	**Sg**	**12 58 50.3**	**+0.9**
KOCA				IAML		12 58 52.0	
	comp=N,6µm,0.7s						
KOCA				IAML		12 58 53.0	
	comp=E,6µm,0.6s						
ALEX	**Alexandroupoli**	**1.49**	**53**	P	**Pn**	**12 58 27.6**	**-1.2**
GPNR	**Gulpinar-Canak**	**1.49**	**110**	Pn	**Pn**	**12 58 28.6**	**-0.1**
GPNR				AML	AML		
GINA	**Giannouli**	**1.52**	**259**	P	**Pn**	**12 58 28.7**	**-0.4**
GINA				AML	AML		
ENZZ	**Sultanice-Enez**	**1.53**	**65**	Pn	**Pn**	**12 58 28.7**	**-0.5**
ENZZ				AML	AML		
EZN	**Ezine**	**1.55**	**95**	P	**Pn**	**12 58 29.1**	**-0.4**
EZN				S	**Sn**	**12 58 48.2**	**-1.6**
EZN				AML	AML		
EZN	**Ezine**	**1.55**	**95**	Pn	**Pn**	**12 58 28.8**	**-0.7**
EZN				AML	AML		
EZN	**Ezine**	**1.55**	**95**	Pn	**Pn**	**12 58 28.4**	**-1.1**
EZN				Sn	**Sn**	**12 58 48.8**	**-0.9**
EZN				AML	AML		
CAVK	**Edirne/Enez-Ca**	**1.58**	**63**	P	**Pn**	**12 58 29.2**	**-0.8**
CAVK				S	**Sg**	**12 58 54.8**	**+2.1**
CAVK				IAML		12 58 59.0	
	comp=N,6µm,0.8s						
CAVK				IAML		12 59 03.0	
	comp=E,4µm,0.5s						
CNKL	**anakkale-Mer**	**1.59**	**86**	P	**Pn**	**12 58 29.4**	**-0.7**
CNKL				S	**Sn**	**12 58 49.1**	**-1.6**
CNKL				IAML		12 58 58.0	
	comp=N,5µm,0.6s						
CNKL				IAML		12 58 58.0	
	comp=E,4µm,0.8s						
EZNE	**Ezine-Canakkal**	**1.59**	**97**	Pn	**Pn**	**12 58 29.4**	**-0.7**
ENEZ	**Enez**	**1.59**	**61**	P	**Pn**	**12 58 29.1**	**-0.9**
ENEZ	**Enez**	**1.59**	**61**	Pn	**Pn**	**12 58 29.2**	**-0.9**
ENEZ				AML	AML		
ALN	**Alexandroupoli**	**1.60**	**55**	P	**Pn**	**12 58 29.0**	**-1.3**
ALN				AML	AML		
ALN	**Alexandroupoli**	**1.60**	**55**	Pn	**Pn**	**12 58 29.2**	**-1.1**
ALN				AML	AML		
ALN	**Alexandroupoli**	**1.60**	**55**	P	**Pn**	**12 58 28.8**	**-1.5**
ALN	**Alexandroupoli**	**1.60**	**55**		**Pn**	**12 58 28.8**	**-1.5**
ALN	**Alexandroupoli**	**1.60**	**55**	P	**Pn**	**12 58 28.8**	**-1.5**
ALN				S	**Sn**	**12 58 49.5**	**-1.7**
ALN				AML	AML		
ALN	**Alexandroupoli**	**1.60**	**55**	P	**Pn**	**12 58 29.1**	**-1.1**
MMB	**Musomishta**	**1.63**	**345**	P	**Pn**	**12 58 30.4**	**-0.3**
MMB				AML	AML		
MMB	**Musomishta**	**1.63**	**345**	P	**Pn**	**12 58 30.7**	**0.0**
TYRN	**Tyrnavos**	**1.63**	**261**	P	**Pn**	**12 58 30.1**	**-0.5**
TYRN	**Tyrnavos**	**1.63**	**261**	P	**Pn**	**12 58 30.2**	**-0.5**
TYRN				AML	AML		
ATAL	**Atalanti**	**1.63**	**219**	P	**Pn**	**12 58 29.4**	**-1.3**
COMU	**Canakkale**	**1.66**	**85**	Pn	**Pn**	**12 58 30.3**	**-0.7**
COMU				AML	AML		
LKR	**Lokris**	**1.68**	**218**	P	**Pn**	**12 58 30.1**	**-1.1**
LKR	**Lokris**	**1.68**	**218**	P	**Pn**	**12 58 30.0**	**-1.3**
PRK	**Paraskevi**	**1.68**	**115**	P	**Pn**	**12 58 30.6**	**-0.6**
PRK				AML	AML		
PRK	**Paraskevi**	**1.68**	**115**	P	**Pn**	**12 58 31.0**	**-0.3**
PRK				S	**Sn**	**12 58 51.3**	**-1.5**
GELI	**Tayfur-Gelibol**	**1.70**	**75**	Pn	**Pn**	**12 58 30.6**	**-1.0**
GELI				AML	AML		
BAYC	**CANAKKALE_Bayr**	**1.73**	**97**	P	**Pn**	**12 58 31.7**	**-0.3**
BAYC				S	**Sb**	**12 58 55.7**	**+0.2**
BAYC				IAML		12 58 59.0	
	comp=N,3µm,0.8s						
BAYC				IAML		12 58 59.0	
	comp=E,2µm,0.6s						
RZN	**Rozhen**	**1.74**	**10**	P	**Pn**	**12 58 32.1**	**-0.3**
RZN				AML	AML		
RZN	**Rozhen**	**1.74**	**10**	P	**Pn**	**12 58 32.3**	**-0.1**
GRG	**Griva**	**1.76**	**304**	P	**Pn**	**12 58 32.1**	**-0.4**
GRG				AML	AML		
GRG	**Griva**	**1.76**	**304**	P	**Pn**	**12 58 32.5**	**0.0**
GRG				S	**Sn**	**12 58 54.0**	**-1.0**
GRG	**Griva**	**1.76**	**304**	P	**Pn**	**12 58 32.8**	**+0.3**
AXAR	**Agios Charalam**	**1.77**	**227**	P	**Pn**	**12 58 31.9**	**-0.7**
AXAR				AML	AML		
AXAR	**Agios Charalam**	**1.77**	**227**	P	**Pn**	**12 58 32.1**	**-0.5**
AXAR				AML	AML		
AGG	**Agios Georgios**	**1.81**	**239**	P	**Pn**	**12 58 32.0**	**-1.2**
AGG	**Agios Georgios**	**1.81**	**239**	P	**Pn**	**12 58 32.0**	**-1.2**
AGG				AML	AML		
AGG	**Agios Georgios**	**1.81**	**239**	P	**Pn**	**12 58 32.3**	**-0.9**
ERIK	**Erikli-Kesan**	**1.81**	**67**	Pn	**Pn**	**12 58 31.9**	**-1.3**
ERIK				AML	AML		
LAM2	**Lamia**	**1.81**	**234**	P	**Pn**	**12 58 32.5**	**-0.6**
LAM2				AML	AML		
KDZ	**Kurdzhali**	**1.82**	**25**	P	**Pn**	**12 58 32.5**	**-0.8**
KDZ				AML	AML		
KDZ	**Kurdzhali**	**1.82**	**25**	Pn	**Pn**	**12 58 32.7**	**-0.6**
KDZ				AML	AML		
KDZ	**Kurdzhali**	**1.82**	**25**	P	**Pn**	**12 58 32.7**	**-0.6**
THL	**Klokotos Trika**	**1.82**	**258**	P	**Pn**	**12 58 32.6**	**-0.7**

THL	Klokotos Trika	1.82	258	P	Pn	12 58 32.6	-0.7
THL				AML	AML		
SOFA	Sofades	1.83	250	P	Pn	12 58 33.3	-0.1
SOFA				AML	AML		
NASA	Naoussa	1.84	291	P	Pn	12 58 33.4	-0.2
NASA				AML	AML		
GOKT	Kean, EDRN	1.89	68	P	Pn	12 58 33.2	-1.1
GOKT				S	Sg	12 59 01.8	-0.8
GOKT				IAML		12 59 04.0	
	comp=E,4µm,0.9s						
GOKT				IAML		12 59 05.0	
	comp=N,4µm,0.6s						
VAY	Valandovo	1.89	316	*i* Pn	Pn	12 58 34.3	+0.1
STFN	Stefani	1.90	199	P	Pn	12 58 33.4	-1.0
STFN				AML	AML		
STFN	Stefani	1.90	199	P	Pn	12 58 33.5	-0.9
STFN				AML	AML		
LPK	Lapseki	1.91	77	Pn	Pn	12 58 33.9	-0.6
LPK				AML	AML		
DION	Dionisos Attik	1.92	189	P	Pn	12 58 33.2	-1.5
DION				AML	AML		
DION	Dionisos Attik	1.92	189	P	Pn	12 58 33.4	-1.2
DION				AML	AML		
SFL1	Soufli	1.94	51	P	Pn	12 58 34.3	-0.5
VIL2	Platees	1.94	205	P	Pn	12 58 34.0	-1.0
VIL2				S	Sn	12 58 58.9	-0.6
VIL2				AML	AML		
KARY	Karystos	1.94	177	P	Pn	12 58 33.6	-1.4
KARY	Karystos	1.94	177	P	Pn	12 58 34.0	-1.0
AYVA	Ayvalik	1.95	109	P	Pn	12 58 34.9	-0.1
AYVA				S	Sb	12 59 01.0	-0.8
AYVA				IAML		12 59 13.0	
	comp=N,2µm,0.7s						
AYVA				IAML		12 59 13.0	
	comp=E,2µm,0.8s						
LAPS	Lapseki, ANA	1.95	81	P	Pn	12 58 34.5	-0.5
LAPS				S	Sn	12 58 58.7	-1.0
LAPS				IAML		12 59 06.0	
	comp=N,2µm,0.4s						
LAPS				IAML		12 59 07.0	
	comp=E,2µm,0.5s						
ACHAR	Athens-Acharne	1.95	194	P	Pn	12 58 34.2	-0.9
ACHAR				AML	AML		
PTL	Penteli	1.96	191	P	Pn	12 58 34.5	-0.7
PTL				AML	AML		
PTL	Penteli	1.96	191	P	Pn	12 58 34.3	-0.9
PTL				AML	AML		
VILL	Villia	1.97	204	P	Pn	12 58 34.0	-1.4
VILL				AML	AML		
KZN	Kozani	1.98	280	P	Pn	12 58 35.4	-0.1
KZN	Kozani	1.98	280	P	Pn	12 58 35.5	-0.1
KZN				S	Sn	12 58 59.7	-0.9
KZN				AML	AML		
KESN	Edirne-Kesan	1.99	64	P	Pn	12 58 35.2	-0.7
KESN				S	Sg	12 59 05.3	-0.5
KESN				IAML		12 59 08.0	
	comp=E,4µm,0.3s						
KESN				IAML		12 59 08.0	
	comp=N,3µm,0.4s						
EAG2	Marmaro, Chios	1.99	135	P	Pn	12 58 35.4	-0.2
ATHP	Athens-Neo Psi	2.02	192	P	Pn	12 58 34.8	-1.2
ATHP				AML	AML		
ATH5	Athens Parliam	2.05	193	P	Pn	12 58 34.5	-1.9
ATH5				AML	AML		
ATHU	Athens Univers	2.05	192	P	Pn	12 58 34.9	-1.6
ATHU	Athens Univers	2.05	192	P	Pn	12 58 35.3	-1.1
ATHU				S	Sn	12 59 01.0	-1.2
ATHU				AML	AML		
NOAC	Athens-Thissio	2.06	193	P	Pn	12 58 35.4	-1.1
NOAC				AML	AML		
ATH	Athens Observa	2.06	193	P	Pn	12 58 35.6	-0.9
ATH				AML	AML		
ATH	Athens Observa	2.06	193	P	Pn	12 58 35.4	-1.1
ATH				S	Sn	12 59 00.5	-1.8
ATH				AML	AML		
DLFA	Delphi	2.06	224	P	Pn	12 58 35.1	-1.6
DLFA				AML	AML		
KKB	Krupnik	2.07	335	P	Pn	12 58 36.8	0.0
KKB				AML	AML		
KKB	Krupnik	2.07	335	P	Pn	12 58 37.3	+0.6
CHOS	Chios island	2.08	139	P	Pn	12 58 36.1	-0.8
CHOS				AML	AML		
CHOS	Chios island	2.08	139	Pn	Pn	12 58 36.7	-0.3
CHOS				AML	AML		
CHOS	Chios island	2.08	139	P	Pn	12 58 36.4	-0.6
CHOS				AML	AML		
CHOS	Chios island	2.08	139	P	Pb	12 58 38.4	-1.4
PEHC	Pehcevo	2.10	330	*e*Pn	Pn	12 58 37.6	+0.5
CANM	Can-anakkale	2.10	88	Pn	Pn	12 58 36.7	-0.4
CANM				AML	AML		
UKOP	Uzunkopru-Edir	2.10	56	Pn	Pn	12 58 36.5	-0.6
UKOP				AML	AML		
YAYO	Edremit-Balk	2.15	99	Pn	Pn	12 58 37.8	0.0
YAYO				AML	AML		
VLY	Voula,Athens	2.16	191	P	Pn	12 58 36.6	-1.4
VLY				AML	AML		
VLY	Voula,Athens	2.16	191	P	Pn	12 58 37.0	-1.0
VLY				S	Sn	12 59 02.9	-2.0
VLY				AML	AML		
BUHA	Balikesir, Bur	2.18	102	P	Pn	12 58 38.1	0.0
BUHA				S	Sg	12 59 10.7	-1.0
BUHA				IAML		12 59 13.0	
	comp=N,2µm,1.0s						
BUHA				IAML		12 59 21.0	
	comp=E,2µm,0.5s						
BIGA	Biga-Canakkale	2.19	81	Pn	Pn	12 58 38.1	-0.2
PLD	Plovdiv	2.19	8	P	Pn	12 58 38.2	-0.1
PLD	Plovdiv	2.19	8	Pn	Pn	12 58 38.2	-0.1
PLD				AML	AML		
PLD	Plovdiv	2.19	8	P	Pn	12 58 38.5	+0.1
PLD	Plovdiv	2.19	8	*e*Pn	Pn	12 58 38.4	+0.1
PLD				*e*Sn	Sn	12 59 05.6	0.0
DKL	Dikili	2.19	114	Pn	Pn	12 58 39.0	+0.6
DKL				AML	AML		
DKL	Dikili	2.19	114	P	Pn	12 58 37.9	-0.5
EVR	Evrytania	2.21	242	P	Pn	12 58 38.5	-0.3
EVR				AML	AML		
KRBN	Karaburun	2.22	128	Pn	Pn	12 58 39.4	+0.7
KRBN				AML	AML		
LTK	Loutraki	2.22	209	P	Pn	12 58 37.8	-1.0
LTK				S	Sn	12 59 04.8	-1.5
LTK				AML	AML		
YENI	Yenice-Canakka	2.25	90	Pn	Pn	12 58 39.1	0.0
LOUT	Loutraki	2.25	208	P	Pn	12 58 38.0	-1.2
LOUT				S	Sn	12 59 05.2	-1.7
LOUT				AML	AML		
CESE	eme	2.25	136	Pn	Pn	12 58 39.5	+0.3
CESE				AML	AML		
FOCM	Foa	2.25	123	Pn	Pn	12 58 39.4	+0.2
FOCM				AML	AML		
LVRA	Laurium	2.27	185	P	Pn	12 58 37.7	-1.8
LVRA				AML	AML		
KPRO	Kipourio	2.27	270	P	Pn	12 58 39.3	-0.3
KPRO				AML	AML		
DIM	Dimitrovgrad	2.27	24	P	Pn	12 58 39.5	0.0
TRGA	Dikaia	2.29	40	P	Pn	12 58 38.9	-0.7
RKY	Sarkoy-Tekirda	2.30	71	Pn	Pn	12 58 39.2	-0.7
RKY				AML	AML		
KRBG	Karabiga-Canak	2.32	79	Pn	Pn	12 58 39.4	-0.7
KRBG				AML	AML		
ANX	Ano Chora	2.32	234	P	Pn	12 58 39.9	-0.3
ANX				AML	AML		
KALE	Kalithea	2.32	228	P	Pn	12 58 39.9	-0.3
KALE				AML	AML		
THAL	Thalero	2.33	214	P	Pn	12 58 39.5	-0.7
THAL				AML	AML		
PSARO	Psaromita, Dor	2.34	226	P	Pn	12 58 39.6	-0.8
PSARO				AML	AML		
SERG	Sergoula	2.35	229	P	Pn	12 58 40.1	-0.5
ZEDA	zmir-Bergama	2.36	114	P	Pn	12 58 41.2	+0.5
ZEDA				S	Sg	12 59 17.7	+0.1
ZEDA				IAML		12 59 25.0	
	comp=N,732nm,0.4s						
ZEDA				IAML		12 59 33.0	
	comp=E,682nm,0.8s						
ACOR	Acrocorinthos	2.37	209	P	Pn	12 58 38.5	-2.3
ACOR				AML	AML		
PYRG	Pyrgos, Dorida	2.38	230	P	Pn	12 58 40.4	-0.6
MG00	Magoula, Dorid	2.42	231	P	Pn	12 58 41.1	-0.3
MG00				AML	AML		
GAZK	Gazikoy-TEKIRD	2.42	71	Pn	Pn	12 58 40.9	-0.6
GAZK				AML	AML		
MSVA	Metsovo	2.42	266	P	Pn	12 58 41.0	-0.7
MSVA				AML	AML		
EFP	Efpalio	2.43	231	P	Pn	12 58 41.4	-0.3
EFP				AML	AML		
TETR	Tetrakomo, Epi	2.44	256	P	Pn	12 58 41.5	-0.3
TETR				AML	AML		
AGEO	AgiosGiorgios,	2.45	226	P	Pn	12 58 41.0	-0.9
PENT	Pentalofos	2.45	276	P	Pn	12 58 42.2	+0.2
MET4	Agioi Theodoro	2.46	197	P	Pn	12 58 40.8	-1.2
MET4				AML	AML		
MET5	Makryloggos,Me	2.47	198	P	Pn	12 58 41.6	-0.6
MET2	Kameni Chora,	2.48	198	P	Pn	12 58 41.4	-1.0
VVK	Vomvokou	2.49	232	P	Pn	12 58 42.7	+0.1
MET6	Megalochori,Me	2.50	198	P	Pn	12 58 42.0	-0.6
AIOA	Agios Ioannis,	2.50	225	P	Pn	12 58 42.2	-0.5
MET1	Methana Town,	2.50	197	P	Pn	12 58 41.7	-0.9
LAKA	Lakka	2.52	227	P	Pn	12 58 42.6	-0.3
TNSA	Tinos	2.52	165	P	Pn	12 58 41.6	-1.3
PRMD	Pramanda	2.53	261	P	Pn	12 58 42.9	-0.1
PRMD				AML	AML		
PGB	Panagyurishte	2.54	358	P	Pn	12 58 43.7	+0.5
MET3	Ano Fanari,Met	2.55	200	P	Pn	12 58 42.2	-1.1
MADA	Marmara adas	2.55	75	P	Pn	12 58 42.6	-0.7
MADA				S	Sb	12 59 20.8	+1.7
MADA				IAML		12 59 28.0	
	comp=N,1µm,0.5s						
MADA				IAML		12 59 28.0	
	comp=E,741nm,0.7s						
BALY	Balya	2.55	94	P	Pb	12 58 47.3	-0.4
BALY				S	Sg	12 59 22.5	-1.2
BALY	Balya	2.55	94	P	Pn	12 58 43.5	+0.1
GUR	Goura	2.56	218	P	Pn	12 58 42.7	-0.8
PVO	Paravola	2.56	239	P	Pn	12 58 42.9	-0.5
AGRP	Agrapidokambos	2.56	233	P	Pn	12 58 43.5	0.0
KLV	Kalavryta, Ach	2.57	222	P	Pn	12 58 43.0	-0.6
LMS2	Laimos Florina	2.57	290	P	Pn	12 58 42.6	-1.1
LMS2				AML	AML		
KLV1	Kalavrita	2.60	222	P	Pn	12 58 42.7	-1.3
KLV1				AML	AML		
EDRB	Edirne	2.62	44	Pn	Pn	12 58 43.7	-0.5
EDRB				AML	AML		
AMPL	Ampelaki	2.63	247	P	Pn	12 58 43.4	-1.0
AMPL				AML	AML		
PLEV	Plevrona-Mesol	2.75	236	P	Pn	12 58 45.1	-1.0
BALB	Balikesir	2.76	96		Pn	12 58 44.3	-1.9
BALB	Balikesir	2.76	96	P	Pn	12 58 44.3	-1.9
VTS	Vitosha	2.76	343	P	Pn	12 58 46.9	+0.5
VTS	Vitosha	2.76	343	*e*Pn	Pn	12 58 46.8	+0.4
VTS				*e*Sn	Sn	12 59 18.8	-1.1
KBN	Korca	2.78	285	P	Pn	12 58 47.9	+1.4
PDO	Prodromos	2.80	242	P	Pn	12 58 46.6	-0.1
PDO				AML	AML		
DRO	Drossia	2.87	226	P	Pn	12 58 47.1	-0.7
BOSS	Bosilegrad	2.87	332	*e*Pn	Pn	12 58 48.4	+0.6
BOSS				*e*Sn	Sn	12 59 23.1	+0.6
AXS	Araxos	2.90	233	P	Pn	12 58 48.2	+0.1
OHR	Ohrid	2.91	294	*i* Pn	Pn	12 58 49.8	+1.4
RLS	Riolos of Patr	2.94	230	P	Pn	12 58 48.5	-0.1
SKO	Skopje	2.95	313	*i* Pn	Pn	12 58 49.8	+0.9
JMB	Yambol	3.01	33	P	Pn	12 58 49.0	-0.7
APE	Apeiranthos	3.06	162	*i* P	Pn	12 58 50.0	-0.3
TSLK	Tsoukalades, L	3.06	249	P	Pn	12 58 50.4	0.0
TSLK				AML	AML		
NYDR	Nydri-Lefkada	3.08	247	P	Pn	12 58 50.9	+0.4
IGT	Igoumenitsa	3.11	263	*e*Pn	Pn	12 58 53.2	+2.2
IGT				*e*Sn	Sn	12 59 24.0	-4.2
IGT	Igoumenitsa	3.11	263	P	Pn	12 58 50.4	-0.6
EVGI	Lefkada island	3.15	246	P	Pn	12 58 51.6	+0.1
DRAG	Dragano-Lefkad	3.18	247	P	Pn	12 58 51.8	-0.2
DRAG				AML	AML		
AMT	Artemida-Makis	3.18	221	P	Pn	12 58 52.1	+0.1
AMT				AML	AML		
PVL	Pavlikeni	3.21	11	P	Pn	12 58 52.7	+0.4
MHLO	Agia Marina, M	3.28	179	P	Pn	12 58 52.8	-0.6
FSK	Fiskardo	3.29	244	P	Pn	12 58 53.3	-0.2
SRN	Sarande	3.32	270	P	Pb	12 58 57.7	-3.1
RTZL	Ratzakli, Kefa	3.35	237	P	Pn	12 58 54.4	+0.1
VALY	Valyra	3.35	214	P	Pn	12 58 54.2	-0.1
ITM	Ithomi	3.37	215		Pn	12 58 55.1	+0.5
ITM	Ithomi	3.37	215	P	Pn	12 58 53.8	-0.8
CTYL	Yalikoy Yolu	3.37	62	Pn	Pn	12 58 53.1	-1.4
CTYL				AML	AML		
PHP	Peshkopia	3.40	301	P	Pn	12 58 56.3	+1.2
MPEP	Malo Peshtene	3.40	353	P	Pn	12 58 55.9	+0.9
BARS	Barje	3.41	327	*e*Pn	Pn	12 58 55.5	+0.4
PLVB	Pleven	3.41	4	⇑P	Pn	12 58 55.8	+0.6
VLI	Veliai	3.43	199	P	Pn	12 58 54.9	-0.6
MNVA	Monemvasia	3.44	197	P	Pn	12 58 54.5	-1.0
PSDA	Pessada-Kefalo	3.45	239	P	Pn	12 58 55.5	-0.2
KEK	Kerkira	3.49	267		Pn	12 58 57.4	+1.1
KEK	Kerkira	3.49	267	P	Pn	12 58 56.3	+0.1
SZH	Strazhitsa	3.51	20	P	Pn	12 58 56.5	0.0
ZAPS	Zavoj	3.53	340	*e*Pn	Pn	12 58 57.6	+0.8
ZAPS				*e*Sn	Sn	12 59 38.2	-0.4
LTHK	Lithakia	3.54	231	P	Pn	12 58 56.7	-0.2
MANT	Manisa	3.61	113		Pn	12 58 57.3	-0.8
THERA	Ancient Thera,	3.72	165	P	Pn	12 58 57.9	-1.5
BDRM	Kayabasi	3.80	139	⇑P	Pn	12 59 00.8	+0.3
KLYT	Kilyos	3.81	69	Pn	Pn	12 58 59.2	-1.4
KLYT				AML	AML		
BLKB	Belogradchik	3.84	342	*e*Pn	Pn	12 59 01.6	+0.5
BLKB				*e*Sn	Sn	12 59 45.1	-1.4
YLV	Yalova	3.91	80	Pn	Pn	12 59 00.6	-1.5
YLV				AML	AML		
RAZG	Razgrad	3.94	24	⇑P	Pn	12 59 02.4	0.0
NEF	NEVSHA	3.96	33	P	Pn	12 59 02.4	-0.3
SELS	Selova	4.03	324	*e*Pn	Pn	12 59 04.1	+0.4
SELS				*e*Sn	Sn	12 59 49.2	-1.9
ZAGS	Zajecar	4.14	339	*e*Pn	Pn	12 59 05.0	-0.1
ZAGS				*e*Sn	Sn	12 59 53.5	-0.1
BOVS	Bovan	4.14	333	*e*Pn	Pn	12 59 05.6	+0.4
BOVS				*e*Sn	Sn	12 59 53.2	-0.6
BOVS	Bovan	4.14	333	⇑P	Pn	12 59 05.8	+0.6
PVY	Plav	4.20	310	*e*Pn	Pn	12 59 06.3	+0.2
PVY				*e*Sn	Sn	12 59 53.1	-2.2
PVY				AML	AML		
SILT	Sile	4.22	72	⇑P	Pn	12 59 05.7	-0.5
ULC	Ulcinj	4.33	299	⇑*i*Pn	Pn	12 59 08.0	+0.3
ULC				*i* Sn	Sn	12 59 55.5	-2.8
ULC				AML	AML		
TAVA	DENIZLI_Tavas	4.38	123	⇑P	Pn	12 59 09.6	+1.0
IVA	Berane	4.41	312	*e*Pn	Pn	12 59 10.1	+1.2
IVA				*e*Sn	Sn	12 59 57.9	-2.5
IVA				AML	AML		
GOCS	Kraljevo Serbi	4.41	325	*e*Pn	Pn	12 59 09.3	+0.3
GOCS				*e*Sn	Sn	12 59 59.1	-1.4
DRME	Dracevica, Mon	4.46	301	*e*Pn	Pn	12 59 11.8	+2.2
DRME	Dracevica, Mon	4.46	301	*e*Pn	Pn	12 59 09.7	+0.1
DRME				*e*Sn	Sn	12 59 59.8	-1.9
DRME				AML	AML		
PDG	Podgorica	4.54	304		Pn	12 59 11.5	+0.8
PDG	Podgorica	4.54	304	*e*Pn	Pn	12 59 12.3	+1.7
PDG	Podgorica	4.54	304	P	Pn	12 59 14.4	+3.7
PDG	Podgorica	4.54	304	⇑*i*Pn	Pn	12 59 12.5	+1.9
PDG				*e*Sn	Sn	13 00 01.2	-2.3
PDG				AML	AML		
HUMR	Humele	4.57	6	P	Pn	12 59 11.1	0.0
KALB	Balgarevo	4.60	40	⇑P	Pn	12 59 12.1	+0.7
KOME	Kolasin	4.61	310	*e*Pn	Pn	12 59 12.4	+0.6
KOME				*e*Sn	Sn	13 00 03.1	-2.4
KOME				AML	AML		
SJES	Sjenica	4.62	317	*e*Pn	Pn	12 59 12.9	+1.0
SJES				*e*Sn	Sn	13 00 04.1	-1.7
SJES	Sjenica	4.62	317	*e*Pn	Pn	12 59 12.7	+0.8
IDI	Anoyia	4.70	174	Pn	Pn	12 59 12.2	-0.8
	5.0nm,0.3s,baz=8.3,slow=13,SNR=13						
IDI				Sn	Sn	13 00 05.7	-2.0
	3.1nm,0.3s,baz=26,slow=18,SNR=3.6						
IDI	Anoyia	4.70	174		Pn	12 59 11.8	-1.2
BUM	Brajici-Budva	4.71	301	*e*Pn	Pn	12 59 14.7	+1.7
BUM				*e*Sn	Sn	13 00 04.6	-3.2
BUM				AML	AML		
BORA	Eskisehir	4.72	89		Pn	12 59 12.2	-1.0
GRUS	Gruza	4.74	327	*e*Pn	Pn	12 59 13.6	+0.2
IVAS	Ivanjica	4.76	320	*e*Pn	Pn	12 59 13.8	+0.1
IVAS				*e*Sn	Sn	13 00 05.9	-3.1
ARG	Arkhangelos	4.81	140	P	Pn	12 59 15.2	+0.9
ARG	Arkhangelos	4.81	140	Pn	Pn	12 59 15.2	+0.9
CEME	Cevo	4.81	304	*e*Pn	Pn	12 59 15.1	+0.6
CEME				*e*Sn	Sn	13 00 07.4	-3.0
CEME				AML	AML		
KUBS	Kucevo	4.85	337	*e*Pn	Pn	12 59 12.9	-2.0
KUBS				*e*Sn	Sn	13 00 08.6	-2.5
ICOR	Ion Corvin	4.88	31	⇑P	Pn	12 59 15.7	+0.4
SULR		4.91	16	P	Pn	12 59 16.8	+1.0
KARP	Karpathos	4.96	152	Pn	Pn	12 59 16.8	+0.3
KARP	Karpathos	4.96	152	*e*P	Pn	12 59 16.0	-0.5
MANR	Mangalia	4.99	38	⇑P	Pn	12 59 16.8	0.0
PLE	Pljevlja	4.99	314	*e*Pn	Pn	12 59 19.3	+2.4
PLE				*i* Sn	Sn	13 00 13.8	-0.9
PLE				AML	AML		
HCY	Herceg Novi	5.04	301	*e*Pn	Pn	12 59 19.5	+2.0
HERR	Herculane	5.10	345	⇑P	Pn	12 59 17.9	-0.5
TRUS	Trudelj	5.14	327	*e*Pn	Pn	12 59 18.7	-0.3
TRUS				*e*Sn	Sn	13 00 17.0	-1.5
CVDA	Cernavoda	5.16	31	⇑P	Pn	12 59 19.8	+0.8
MDVR	Moldovita	5.17	339	⇑P	Pn	12 59 19.5	+0.1
EFOR	EFORIE	5.21	37	⇑P	Pn	12 59 19.9	+0.2
DIVS	Divibare	5.23	323	*e*Pn	Pn	12 59 20.2	0.0
BRY	Bratogost	5.24	306	*e*Pn	Pn	12 59 22.3	+2.0
BRY	Bratogost	5.24	306	*e*Pn	Pn	12 59 21.1	+0.8
BRY				*e*Sn	Sn	13 00 18.2	-2.7
BRY				AML	AML		
TREB	Trebinje	5.26	303	*e*Pn	Pn	12 59 21.9	+1.3
MDUB	Mudurnu	5.29	82		Pn	12 59 20.0	-1.1
ISP	Isparta	5.29	112	*de*P	Pn	12 59 21.9	+0.8
ISP				pmax	pmax		
	comp=Z,42nm,0.8s						
ISP	Isparta	5.29	112		Pn	12 59 21.3	+0.2
ISP	Isparta	5.29	112	*e*P	Pn	12 59 20.7	-0.4
BBLS	Lazi&#263i	5.34	318	*e*Pn	Pn	12 59 21.8	+0.1
BBLS	Lazi&#263i	5.34	318	*e*Pn	Pn	12 59 20.5	-1.2
ARR	Arges	5.39	2	⇑P	Pn	12 59 22.8	+0.3
ARR	Arges	5.39	2	P	Pn	12 59 22.5	0.0
	comp=Z,99nm,0.8s						
ISR	Istrita	5.39	17	P	Pn	12 59 23.8	+1.4
ISR	Istrita	5.39	17	⇑P	Pn	12 59 23.9	+1.4
TIRR	Tirgusor	5.41	33	P	Pn	12 59 22.6	0.0
TIRR	Tirgusor	5.41	33		Pn	12 59 20.9	-1.6
TIRR	Tirgusor	5.41	33	⇑P	Pn	12 59 22.6	0.0
TIRR	Tirgusor	5.41	33	Pn	Pn	12 59 21.2	-1.4
	comp=Z,0.7nmcomp=Z,92nm,0.8s						
TIRR				AML	AML		
TIRR	Tirgusor	5.41	33	P	Pn	12 59 21.9	-0.7
	comp=Z,93nm,0.8s						
HARR	Harsova	5.42	28	P	Pn	12 59 22.9	+0.3
HARR	Harsova	5.42	28	⇑P	Pn	12 59 23.0	+0.3
LOT	Lotru	5.48	356	⇑P	Pn	12 59 23.8	+0.2
LOT	Lotru	5.48	356	P	Pn	12 59 23.9	+0.2
	comp=Z,82nm,0.5s						
VOIR		5.48	5	P	Pn	12 59 24.0	+0.3
VOIR		5.48	5	⇑P	Pn	12 59 24.0	+0.3
VOIR		5.48	5	Pn	Pn	12 59 23.2	-0.5
	comp=Z,0.3nmcomp=Z,888nmcomp=Z,87nm,0.8s						
VOIR				AML	AML		
VOIR		5.48	5	P	Pn	12 59 23.9	+0.2
	comp=Z,85nm,0.8s						
GZR	Gura Zlata	5.53	349	P	Pn	12 59 24.0	-0.3
GZR	Gura Zlata	5.53	349	⇓P	Pn	12 59 24.1	-0.3
VRSS	Vrsac	5.60	338	*e*Pn	Pn	12 59 25.0	-0.2
VRSS				*e*Sn	Sn	13 00 27.2	-2.4
NEHR	Nehoiu	5.64	14	⇑P	Pn	12 59 27.4	+1.6
MLR	Muntele Rosu	5.64	12	Pn	Pn	12 59 26.8	+0.9
	comp=Z,5.9nm,0.3s,baz=235,slow=3.9,SNR=99						
MLR				Sn	Sn	13 00 32.4	+1.6
	comp=Z,3.3nm,0.3s,baz=307,slow=20,SNR=1.4						
MLR				Lg	Lg	13 01 03.6	
	comp=Z,4.5nm,0.3s,baz=262,slow=23,SNR=3.7						
MLR				AML	AML		
MLR	Muntele Rosu	5.64	12	P	Pn	12 59 26.9	+1.1
MLR	Muntele Rosu	5.64	12		Pn	12 59 26.4	+0.5
MLR	Muntele Rosu	5.64	12	⇑P	Pn	12 59 27.0	+1.1
MLR	Muntele Rosu	5.64	12	Pn	Pn	12 59 25.9	0.0
	comp=Z,0.9nmcomp=Z,1µmcomp=Z,105nm,0.8s						
MLR				AML	AML		
MLR	Muntele Rosu	5.64	12	P	Pn	12 59 26.9	+1.1
	comp=Z,103nm,0.8s						
TNR	Turnu Rosu	5.67	360	P	Pn	12 59 27.2	+1.0
TNR	Turnu Rosu	5.67	360	⇑P	Pn	12 59 27.3	+1.0
TPGR	Topolog	5.74	31	⇓P	Pn	12 59 26.9	-0.2
TEKS	Tekeris	5.79	324	*e*Pn	Pn	12 59 27.7	-0.1
TEKS				*e*Sn	Sn	13 00 29.8	-4.5
TEKS	Tekeris	5.79	324	*e*Pn	Pn	12 59 27.6	-0.2
BISRR	Bisoca	5.84	17	⇑P	Pn	12 59 30.2	+1.7
BISRR	Bisoca	5.84	17	Pn	Pn	12 59 29.4	+0.9
	comp=Z,2.0nmcomp=Z,14µmcomp=Z,347nm,0.6s						
BISRR				AML	AML		
MATE	Matera	5.86	279	*e*P	Pn	12 59 28.6	-0.2
MATE	Matera	5.86	279	⇑P	Pn	12 59 28.6	-0.2
TIP	Timpagrande	5.90	265		Pn	12 59 29.5	+0.1
TIP	Timpagrande	5.90	265	⇓P	Pn	12 59 29.9	+0.6
TIP	Timpagrande	5.90	265	Pn	Pn	12 59 28.2	-1.2
	comp=Z,0.1nmcomp=Z,19nm,1.2s						
TIP				AML	AML		
CFR	Carcaliu	5.91	27	P	Pn	12 59 29.4	0.0
CFR	Carcaliu	5.91	27	⇑P	Pn	12 59 29.4	0.0
BZS	Buzias	5.98	341	P	Pn	12 59 29.9	-0.5
BZS	Buzias	5.98	341	⇑P	Pn	12 59 29.9	-0.5
BZS	Buzias	5.98	341	P	Pn	12 59 30.3	-0.1
	comp=Z,17nm,0.8s						
DEV	Deva	5.99	350	P	Pn	12 59 31.3	+0.7
	comp=Z,84nm,0.8s						
SURR	Surduc	5.99	345	⇑P	Pn	12 59 30.3	-0.3
SAHR	Sahastru	6.00	16	⇓P	Pn	12 59 32.5	+1.7
COVR	Voineasa-Covas	6.03	13	⇑P	Pn	12 59 32.5	+1.4
PLOR	Plostina	6.11	15	P	Pn	12 59 34.1	+1.8
PLOR	Plostina	6.11	15	⇑P	Pn	12 59 34.1	+1.8
VRI	Vrincioaia	6.14	16	P	Pn	12 59 34.4	+1.7
VRI	Vrincioaia	6.14	16	⇑P	Pn	12 59 34.4	+1.7
VRI	Vrincioaia	6.14	16	P	Pn	12 59 34.3	+1.6
	comp=Z,136nm,0.7s						
FRGS	Fruska Gora	6.15	329	*e*Pn	Pn	12 59 32.6	-0.2
FRGS				*e*Sn	Sn	13 00 39.6	-3.7
FRGS	Fruska Gora	6.15	329	*e*Pn	Pn	12 59 32.4	-0.4
MDB	Medias	6.16	0	P	Pn	12 59 34.5	+1.6
MDB	Medias	6.16	0	⇑P	Pn	12 59 34.6	+1.6
TLCR		6.17	31	P	Pn	12 59 33.3	+0.3
TLCR		6.17	31	⇑P	Pn	12 59 33.3	+0.3
OZUR		6.21	9	⇑P	Pn	12 59 35.0	+1.4
PANC	Panciu	6.25	18	⇑P	Pn	12 59 35.5	+1.4
SCTR	Scanteiesti	6.30	24	⇑P	Pn	12 59 36.3	+1.5
VARL	Varlezi	6.46	22	⇑P	Pn	12 59 38.5	+1.5
VLDR	Vladesti	6.48	24	⇑P	Pn	12 59 38.5	+1.2
GHRR		6.49	19	P	Pn	12 59 38.0	+0.6
	comp=Z,153nm,0.6s						
KEPZ	Antalya-Kepez	6.49	116	⇑P	Pn	12 59 39.0	+1.5
ONER	Baraj Valea Uz	6.53	13	⇑P	Pn	12 59 39.6	+1.6
CUC	Castrocucco	6.53	273		Pn	12 59 39.3	+1.2
MARCO	Tramutola	6.53	276	P	Pn	12 59 40.0	+1.9
	comp=Z,75nm,0.5s						
SIRR	Siria	6.58	344	⇑P	Pn	12 59 38.2	-0.5
TESR	Tescani	6.75	14	⇑P	Pn	12 59 41.9	+0.9
TESR	Tescani	6.75	14	Pn	Pn	12 59 41.1	+0.1
	comp=Z,0.6nmcomp=Z,2µmcomp=Z,141nm,0.5s						
TESR				AML	AML		
TESR	Tescani	6.75	14	P	Pn	12 59 42.0	+1.0
	comp=Z,139nm,0.8s						
CEL	Celeste	6.77	258		Pn	12 59 41.9	+0.5
CEL	Celeste	6.77	258	Pn	Pn	12 59 41.7	+0.3
	comp=Z,0.3nmcomp=Z,86nm,1.0s						
CEL				AML	AML		
CEL	Celeste	6.77	258	P	Pn	12 59 43.4	+2.0
	comp=Z,87nm,1.0s						
DRGR		6.91	351	P	Pn	12 59 43.3	0.0
DRGR		6.91	351	⇑P	Pn	12 59 43.3	0.0
DRGR		6.91	351	P	Pn	12 59 43.4	0.0
	comp=Z,23nm,0.9s						
BIZ	Bicaz	7.08	10	⇑P	Pn	12 59 46.8	+1.3
BLY	Banja Luka	7.12	314		Pn	12 59 46.9	+0.9
BLY	Banja Luka	7.12	314	*e*Pn	Pn	12 59 47.6	+1.6
BR106	Keskin Array S	7.16	89	Pn	Pn	12 59 46.5	-0.2
	comp=Z,0.1nmcomp=Z,117nmcomp=Z,6.7nm,0.8s						
BR106				AML	AML		
BR105	Keskin Array S	7.16	89	Pn	Pn	12 59 46.7	-0.1
	comp=Z,0.1nmcomp=Z,239nmcomp=Z,13nm,0.7s						
BR105				AML	AML		
BR131	Keskin Array S	7.17	89	*d i*P	Pn	12 59 47.4	+0.4
BR131	Keskin Array S	7.17	89		Pn	12 59 47.3	+0.4
BRTR	Keskin Array B	7.17	89	Pn	Pn	12 59 46.8	-0.2
	comp=Z,2.0nm,0.3s,baz=268,slow=12,SNR=38						

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BRTR                                  Sn      Sn       13 01 06.5  -2.1
       comp=Z,1.5nm,0.3s,baz=265,slow=13,SNR=6.4
BRTR                                  Lg      Lg       13 01 48.7
       baz=280,slow=26
BRTR                                  LR      LR       13 02 57.9
       comp=Z,278nm,18.1s,baz=271,slow=42
       comp=Z,5.7nm,0.4s
BRTR                                  AML     AML
BRTR  Keskin Array B     7.17  89ceP          Pn       12 59 47.4  +0.4
BRTR                                  pmax    pmax
       comp=Z,7.0nm,0.4s
BRTR  Keskin Array B     7.17  89             Pn       12 59 47.2  +0.2
BR104 Keskin Array S     7.18  89     Pn      Pn       12 59 46.7  -0.3
       comp=Z,0.1nmcomp=Z,203nmcomp=Z,9.7nm,0.5s
BR104                                 AML     AML
MORH  Mrgy, Hungar       7.49 328   ⇑P        Pn       12 59 51.1   0.0
MORH  Mrgy, Hungar       7.49 328   ePn       Pn       12 59 50.8  -0.3
MORH  Mrgy, Hungar       7.49 328     Pn      Pn       12 59 50.6  -0.5
       comp=Z,0.1nmcomp=Z,9.7nm,1.1s
MORH                                  AML     AML
MORH  Mrgy, Hungar       7.49 328     P       Pn       12 59 52.0  +0.9
       comp=Z,12nm,0.7s
PRAR  RASCA              7.51  10   ⇓P        Pn       12 59 53.2  +1.8
BURAR Bucovina Array     7.66   5     P       Pn       12 59 54.7  +1.1
BURAR Bucovina Array     7.66   5             Pn       12 59 53.7  +0.1
BURAR Bucovina Array     7.66   5   ⇑P        Pn       12 59 54.8  +1.1
BUR08 Bucovina Ar. S     7.69   4             Pn       12 59 54.3  +0.3
BMR   Baia Mare          7.72 356     P       Pn       12 59 58.8  +4.5
       comp=Z,67nm,0.8s
TARU  Tarkhankut         8.10  46   eP        Pn       12 59 59.1  -0.4
TARU                                eS        Sn       13 01 28.4  -2.8
TARU                                  smax    smax     13 01 33.9
       comp=E,9.0nm,0.4s
INTR  Introdacqua        8.14 288             Pn       13 00 00.2  +0.1
VAE   Valguarnera        8.14 255     Pn      Pn       13 00 03.2  +3.1
       comp=E,4.9nm,0.4s,baz=84,slow=10,SNR=4.1
TRPA  Tarpa              8.25 352     P       Pn       13 00 02.1  +0.5
       comp=Z,18nm,0.8s
RAFF  Raffo Rosso        8.27 254             Pn       13 00 01.3  -0.6
SEV   Sevastopol'        8.30  54   eP        Pn       13 00 01.5  -0.7
SEV                                   pmax    pmax     13 00 02.6
       comp=Z,2.0nm,0.2s
SEV                                 eS        Sn       13 01 32.8  -3.2
SEV                                   smax    smax     13 01 36.8
       comp=N,6.0nm,0.5s
SEV                                   smax    smax     13 01 36.8
       comp=E,3.0nm,0.4s
DNZ2  Donuzlav2          8.48  48   eP        Pn       13 00 03.1  -1.6
DNZ2                                  pmax    pmax     13 00 03.7
       comp=Z,10.0nm,0.4s
DNZ2                                ex        x        13 01 36.8
DNZ2                                  smax    smax     13 01 39.9
       comp=N,5.0nm,0.5s
DNZ2                                  smax    smax     13 01 39.9
       comp=E,8.0nm,0.5s
BEHE  Becsehely          8.51 322     Pn      Pn       13 00 06.3  +1.2
BEHE  Becsehely          8.51 322   ePn       Pn       13 00 04.1  -1.0
PSZ   Piszkesteto        8.55 340     P       Pn       13 00 05.7  -0.1
PSZ   Piszkesteto        8.55 340     Pn      Pn       13 00 05.7  -0.1
PSZ   Piszkesteto        8.55 340   eP        Pn       13 00 10.2  +4.3
YAL   Yalta              8.57  55   eP        Pn       13 00 07.3  +1.3
YAL                                 eS        Sn       13 01 42.0  -0.8
YAL   Yalta              8.57  55   ex        Pn       13 00 07.3  +1.3
YAL                                   pmax    pmax     13 00 14.8
       comp=Z,10.0nm,0.4s
YAL                                 ex        x        13 01 42.0
YAL                                   smax    smax     13 01 44.8
       comp=N,12nm,0.5s
YAL                                   smax    smax     13 01 44.8
       comp=E,5.0nm,0.3s
ABAH  Abaujker           8.61 346     P       Pn       13 00 06.7  +0.3
       comp=Z,10nm,0.5s
SORM  Soroca             8.65  18     Pn      Pn       13 00 05.9  -1.2
KMPD  K-Podol'skiy       8.72   9     Pn      Pn       13 00 06.9  -1.1
ALU   Alushta            8.82  55   eP        Pn       13 00 08.8  -0.6
ALU                                 eS        Sn       13 01 45.6  -3.3
ALU   Alushta            8.82  55   eP        Pn       13 00 08.8  -0.6
ALU                                   pmax    pmax     13 00 12.8
       comp=Z,5.0nm,0.3s
ALU                                 eS        Sn       13 01 45.6  -3.3
ALU                                   smax    smax     13 01 52.4
       comp=N,47nm,0.4s
ALU                                   smax    smax     13 01 52.4
       comp=E,11nm,0.3s
NRCA  Norcia             8.89 292             Pn       13 00 10.3  -0.1
FDMO  Fiordimonte        8.96 294     Pn      Pn       13 00 11.1  -0.4
KOLS  Kolonicke sedl     9.07 351   eP        Pn       13 00 13.0  +0.1
KOLS  Kolonicke sedl     9.07 351   ePN       Pn       13 00 13.0  +0.1
KOLS  Kolonicke sedl     9.07 351   ePN       Pn       13 00 14.8  +1.9
KOLS  Kolonicke sedl     9.07 351     P       Pn       13 00 16.8  +3.9
       comp=Z,12nm,0.9s
SUDU  Sudak              9.29  55   eP        Pn       13 00 15.3  -0.6
SUDU                                eS        Sn       13 01 56.3  -4.2
SUDU  Sudak              9.29  55   eP        Pn       13 00 15.3  -0.6
SUDU                                  pmax    pmax     13 00 22.4
       comp=Z,12nm,0.4s
SUDU                                ex        x        13 01 56.3
SUDU                                  smax    smax     13 02 00.1
       comp=N,12nm,0.6s
SUDU                                  smax    smax     13 02 00.1
       comp=E,3.0nm,0.4s
SOKA  Soboth             9.52 318   ePn       Pn       13 00 20.1  +1.1
       comp=E,1.3nm,0.4s
RONA  Rosalia, Austr     9.65 326   i Pn      Pn       13 00 21.2  +0.4
       comp=E,0.4nm,0.3s
OBKA  Obir               9.66 316   i Pn      Pn       13 00 22.0  +1.0
       comp=E,1.8nm,0.3s
ARSA  Arzberg            9.67 322             Pn       13 00 21.8  +0.7
ARSA  Arzberg            9.67 322   i Pn      Pn       13 00 21.5  +0.4
       comp=E,1.0nm,0.3s
ARSA                                eSn       Sn       13 02 03.3  -6.4
       comp=E,4.4nm,0.6s
ARSA  Arzberg            9.67 322     P       Pn       13 00 24.7  +3.6
       comp=Z,14nm,1.0s
MODS  Modra-Piesok       9.80 331   eP        Pn       13 00 24.1  +1.3
MODS  Modra-Piesok       9.80 331   ePN       Pn       13 00 24.1  +1.3
SABO  M.te Sabotino      9.88 311     Pn      Pn       13 00 24.9  +0.9
DRE   Drenchia           9.96 312     P       Pn       13 00 26.3  +1.2
       comp=Z,27nm,0.9s
CONA  Conrad Observa    10.01 325   i Pn      Pn       13 00 26.6  +0.8
       comp=Z,0.7nm,0.3s
SESA  Seetaler Alpe,    10.04 318   i Pn      Pn       13 00 26.5  +0.1
       comp=Z,1.6nm,0.3s
SESA                                eSn       Sn       13 02 13.4  -5.8
       comp=Z,3.6nm,0.3s
WINA  Alland / Wiene    10.06 327   i Pn      Pn       13 00 26.9  +0.5
       comp=Z,1.2nm,0.3s
LUBAR Lubar, Ukraine    10.23  13     Pn      Pn       13 00 27.9  -0.8
STAL  STALIGIAL         10.55 310     Pn      Pn       13 00 33.2  +0.1
KBA   Koelnbreinsper    10.66 315   ePn       Pn       13 00 36.6  +1.8
       comp=Z,1.1nm,0.4s
KBA                                 eSn       Sn       13 02 29.1  -5.3
       comp=Z,0.8nm,0.4s
KBA   Koelnbreinsper    10.66 315     P       Pn       13 00 35.6  +0.7
       comp=Z,22nm,1.2s
MOA   Molln             10.69 321   ePn       Pn       13 00 36.2  +1.1
       comp=Z,0.2nm,0.2s
MOA                                 eSn       Sn       13 02 29.7  -5.2
       comp=Z,4.8nm,0.6s
VRAC  Vranov            10.82 332     Pn      Pn       13 00 39.2  +2.3
       comp=Z,0.2nm,0.3s,baz=157,slow=13,SNR=1.7
VRAC                                  LR      LR       13 04 32.9
       comp=Z,71nm,20.1s,baz=144,slow=36
       comp=Z,0.8nm,0.4s
VRAC                                  AML     AML
BIOA  Bad Ischl, Aus    10.90 319   ePn       Pn       13 00 38.7  +0.8
       comp=Z,1.6nm,0.3s
ABTA  Abfaltersbach     10.93 312   ePn       Pn       13 00 38.6  +0.2
       comp=Z,1.5nm,0.3s
CTI   Castel Tesino     11.08 307     P       Pn       13 00 39.6  -0.8
CTI   Castel Tesino     11.08 307             Pn       13 00 39.6  -0.8
AK07  Malin Array Si    11.12  16     Pn      Pn       13 00 39.5  -1.3
AK13  Malin Array Si    11.14  16     Pn      Pn       13 00 39.7  -1.5
AK06  Malin Array Si    11.15  16     Pn      Pn       13 00 39.8  -1.4
AK16  Malin Array Si    11.21  16     Pn      Pn       13 00 40.6  -1.4
LESA  Schwarzleotal     11.24 315   ePn       Pn       13 00 44.9  +2.3
       comp=Z,4.5nm,0.6s
LESA                                eSn       Sn       13 02 44.8  -3.4
       comp=Z,8.1nm,0.9s
KIEV  Kiev              11.25  16     P       Pn       13 00 41.6  -1.1
KIEV  Kiev              11.25  16             Pn       13 00 41.6  -1.1
AKBB  Malin Array Si    11.26  16ceP          Pn       13 00 41.8  -1.0
AKBB  Malin Array Si    11.26  16             Pn       13 00 41.5  -1.3
AKBB  Malin Array Si    11.26  16     Pn      Pn       13 00 41.3  -1.5
AKASG Malin Array Be    11.26  16     Pn      Pn       13 00 42.1  -0.7
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       comp=Z,4.5nm,0.3s,baz=207,slow=12,SNR=22
AKASG                                 Lg      Lg       13 03 58.0
       baz=190,slow=28
AKASG                                 LR      LR       13 05 26.4
       comp=Z,155nm,18.5s,baz=206,slow=39
       comp=Z,1.5nm,0.3s
AKASG                                 AML     AML
AKASG Malin Array Be    11.26  16             Pn       13 00 40.9  -1.9
AK04  Malin Array Si    11.27  16     Pn      Pn       13 00 41.2  -1.7
MMAI  Mount Meron Ar    11.30 124     Pn      Pn       13 00 42.1  -1.3
       comp=Z,1.8nm,0.3s,baz=305,slow=8.9,SNR=5.3
MMAI                                  LR      LR       13 06 07.9
       comp=Z,122nm,18.7s,baz=299,slow=44
       comp=Z,2.9nm,0.8s
MMAI                                  AML     AML
RNPP5 Staryi Chortor    11.31   5     Pn      Pn       13 00 42.2  -1.2
CKRC  Cesky Krumlov     11.37 324     AMS     AMS      13 05 30.0
       comp=Z,600nm,11.1s
KRLC  Kraliky           11.41 335     AMS     AMS      13 06 00.0
       comp=Z,500nm,8.3s
GERES GERESS Array B    11.66 323     Pn      Pn       13 00 50.4  +2.0
       baz=154,slow=13,SNR=4.9
GERES                                 LR      LR       13 05 02.0
       comp=Z,112nm,21.0s,baz=167,slow=36
       comp=Z,1.0nm,0.6s
WTTA  Wattenberg        11.72 313   ePn       Pn       13 00 51.0  +1.8
       comp=Z,2.7nm,0.3s
DPC   Dobruska-Polom    11.80 334     AMS     AMS      13 05 40.0
       comp=Z,300nm,10.3s
KHC   Kasperske Hory    11.92 324⇑eP          Pn       13 00 53.1  +1.2
KHC                                   pmax    pmax
       comp=Z,2.0nm,1.2s
KHC   Kasperske Hory    11.92 324   ePN       Pn       13 00 51.4  -0.5
KHC                                 eSN       Sn       13 02 57.0  -8.0
KHC                                   AMS     AMS      13 06 00.0
       comp=Z,700nm,9.9s
SQTA  Sankt Quirin      11.94 312   ePn       Pn       13 00 53.6  +1.4
       comp=Z,2.0nm,0.5s
OSTC  Ostas             12.01 334     AMS     AMS      13 05 40.0
       comp=Z,400nm,8.9s
UPC   Upice             12.04 334     AMS     AMS      13 05 40.0
       comp=Z,300nm,14.8s
MOTA  Moosalm           12.07 312   ePn       Pn       13 00 55.2  +1.2
       comp=Z,0.5nm,0.2s
FETA  Feichten          12.11 310   ePn       Pn       13 00 55.3  +0.6
       comp=Z,5.4nm,0.9s
PRU   Pruhonice         12.16 329     AMS     AMS      13 05 40.0
       comp=Z,400nm,10.8s
FUORN Ofenpass-Fuorn    12.20 308     Pn      Pn       13 00 55.9  +0.1
KZIT  Kziot             12.21 135     P       Pn       13 00 58.2  +2.2
       comp=Z,27nm,0.8s
RETA  Reutte            12.34 312   ePn       Pn       13 00 58.7  +1.1
       comp=Z,0.5nm,0.3s
DAVOX Davos/Dischmat    12.50 308     Pn      Pn       13 01 00.7  +0.7
       comp=Z,0.4nm,0.3s,baz=157,slow=7.3,SNR=6.1
DAVOX                                 LR      LR       13 06 52.4
       comp=Z,376nm,19.2s,baz=93,slow=42
       comp=Z,2.2nm,0.4s
DAVOX                                 AML     AML
KEST  Kesra             12.57 255     LR      LR       13 06 36.3
       comp=Z,117nm,20.5s,baz=36,slow=41
TUE   Stuetta           12.70 306             Pn       13 01 03.1  +0.4
ASF   Jabal al Asfar    12.80 124     Pn      Pn       13 01 02.0  -2.0
       comp=Z,0.3nm,0.3s,baz=288,slow=20,SNR=1.9
ASF                                   LR      LR       13 06 56.4
       comp=Z,142nm,19.2s,baz=352,slow=42
       comp=Z,1.4nm,0.5s
ASF                                   AML     AML
LABN  Labinsk           13.00  64   eP        Pn       13 01 07.4  +0.8
LABN                                  pmax    pmax
       comp=Z,37nm,0.7s
EIL   Elat              13.48 136     Pn      Pn       13 01 10.3  -2.8
       comp=Z,0.3nm,0.3s,baz=268,slow=7.5,SNR=4.0
       comp=Z,2.3nm,0.7s
EIL                                   AML     AML
CLL   Collm             13.80 329   ex        x        13 01 43.0
CLL                                   LH               13 04 00.0
CLL                                   LV               13 05 00.0
CLL                                   AMS     AMS      13 05 00.0
       comp=N,300nm,20.6s
CLL                                   AMS     AMS      13 05 00.0
       comp=E,300nm,21.5s
CLL                                   AMS     AMS      13 06 00.0
       comp=Z,200nm,16.3s
SHA1  Shidzhatmaz       14.17  69⇓eP          Pn       13 01 24.2  +1.4
KIV   Kislovodsk        14.23  68   eP        Pn       13 01 24.2  +0.8
KIV                                   pmax    pmax
       comp=Z,8.0nm,1.1s
KIV                                   MLR     MLR
       comp=Z,30nm,14.0s
MNK   Minsk             14.73   8   i P       Pn       13 01 28.4  -1.7
MNK                                 i S       Sn       13 04 11.5  -1.8
MNK                                   pmax    pmax
       comp=Z,9.0nm,0.7s
MNK                                   pmax    pmax
       comp=N,3.0nm,0.6s
MNK                                   pmax    pmax
       comp=E,7.0nm,0.6s
MNK   Minsk             14.73   8   i P       Pn       13 01 28.5  -1.7
       comp=E,7.0nm,0.6s,baz=191
MNK                                 i P       Pn       13 01 28.5  -1.7
       comp=N,3.0nm,0.6s
MNK                                 i P       Pn       13 01 28.5  -1.7
       comp=Z,9.0nm,0.7s
MNK                                 i PP      P        13 01 34.7  -1.6
MNK                                 i PPP     PPP      13 01 45.8
MNK                                 i S       Sn       13 04 11.5  -1.8
MNK                                 i LQ      LQ       13 06 11.1
MNK                                 i LR      LR       13 06 52.6
ECH   Echery            14.80 309     P       Pn       13 01 33.6  +2.3
ECH   Echery            14.80 309     Pn      Pn       13 01 33.5  +2.3
NACGM Naroch            15.03   5   eP        Pn       13 01 33.7  -0.5
       comp=Z,17nm,0.9s,baz=187
GNI   Garni             15.64  83     Pn      Pn       13 01 42.4  -0.1
       comp=Z,1.2nm,0.3s,baz=292,slow=14,SNR=3.9
GNI                                   LR      LR       13 07 49.9
       comp=Z,194nm,18.5s,baz=239,slow=38
       comp=Z,6.2nm,0.4s
GNI                                   AML     AML
OBN   Obninsk           17.21  24     P       Pn       13 02 02.4  +0.2
       comp=Z,13nm,0.4s,baz=233,slow=23,SNR=4.9
OBN   Obninsk           17.21  24deP          P        13 02 03.7  -0.1
OBN                                   pmax    pmax
       comp=Z,32nm,1.1s
MAK   Makhachkala       17.62  73c iP         Pn       13 02 05.2  -2.2
MAK                                 eS        Sn       13 05 21.7  -1.9
MAK                                   pmax    pmax
       comp=Z,599nm,1.6s
MAK                                   MLR     MLR
       comp=Z,121nm,12.0s
MOS   Moscow            18.07  25   eP        P        13 02 13.2   0.0
MOS                                   pmax    pmax
       comp=Z,31nm,1.0s
VSU   Vasula            18.57   4⇓eP          P        13 02 16.4  -2.3
VSU                                   pmax    pmax
       comp=Z,28nm,1.2s
BELG  Belogornoye       20.25  44     P       P        13 02 36.7  -0.5
       comp=Z,17nm,0.7s,baz=175,slow=3.5,SNR=4.9
       comp=Z,17nm,0.7s
BELG  Belogornoye       20.25  44c iP         P        13 02 37.7  +0.5
HFS   Hagfors           21.25 345     P       P        13 02 48.4  +0.5
       comp=Z,1.6nm,0.7s,baz=187,slow=10,SNR=5.1
HFS                                   LR      LR       13 11 37.3
       comp=Z,102nm,18.4s,baz=164,slow=38
       comp=Z,1.6nm,0.7s
FINES FINESS Array B    21.52   2     P       P        13 02 50.4  -0.4
       comp=Z,2.1nm,0.7s,baz=190,slow=9.1,SNR=7.0
FINES                                 LR      LR       13 11 57.3
       comp=Z,294nm,19.3s,baz=184,slow=39
       comp=Z,2.1nm,0.7s
FINES FINESS Array B    21.52   2     P       P        13 02 50.0  -0.8
FIA1  FINESS Array S    21.52   2     P       P        13 02 50.1  -0.7
FIA1                                  IAmb    IAmb     13 03 01.6
       comp=Z,53nm,1.4s
ESDC  Sonseca Array     21.69 278     P       P        13 02 52.1  -0.8
       comp=Z,3.1nm,1.0s,baz=74,slow=11,SNR=8.0
       comp=Z,3.1nm,1.0s
PAB   San Pablo         22.01 278     P       P        13 02 56.1  -0.3
PAB                                   pmax    pmax
       comp=Z,12nm,1.3s
PAB   San Pablo         22.01 278     P       P        13 02 56.1  -0.3
NAO01 NORSAR Array S    22.49 343     P       P        13 03 00.7  -0.6
NB2   NORSAR Subarra    22.59 343     P       P        13 03 01.5  -0.8
       comp=Z,5.3nm,0.7s,baz=151,slow=11
NOA   NORSAR Array B    22.59 343     P       P        13 03 01.6  -0.8
       comp=Z,2.7nm,0.9s,baz=152,slow=10,SNR=8.4
NOA                                   LR      LR       13 13 43.2
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       comp=Z,25nm,19.4s,baz=155,slow=42
       comp=Z,2.7nm,0.9s
KLMR  Klimovskoe        22.92  19   eP        P        13 03 04.0  -1.8
KLMR                                  pmax    pmax
       comp=Z,27nm,1.5s
EKA   Eskdalemuir Ar    23.83 319     P       P        13 03 15.1  +0.1
       comp=Z,2.0nm,0.7s,baz=116,slow=9.4,SNR=6.1
       comp=Z,2.0nm,0.7s
EKA   Eskdalemuir Ar    23.83 319     P       P        13 03 15.3  +0.3
EKA                                   pmax    pmax
       comp=Z,23nm,1.5s
RAYN  Ar Rayn           24.27 126     P       P        13 03 24.0  +4.6
       comp=Z,7.7nm,1.0s
MTE   Manteigas         24.28 281     P       P        13 03 21.7  +2.3
MTE                                   IAmb    IAmb     13 03 59.5
       comp=Z,35nm,1.5s
MDT   Midelt            24.29 262     LR      LR       13 13 50.6
       comp=Z,53nm,18.2s,baz=55,slow=39
MD01  Midelt array s    24.38 262     P       P        13 03 21.6  +1.2
KIRV  Kirov             24.55  32     P       P        13 03 21.6  +0.1
       comp=Z,6.4nm,0.5s,baz=250,slow=15,SNR=8.0
KIRV                                  LR      LR       13 13 04.4
       comp=Z,70nm,18.9s,baz=230,slow=37
       comp=Z,6.4nm,0.5s
KIRV  Kirov             24.55  32⇑eP          P        13 03 21.2  -0.3
AKTO  Aktyubinsk        25.73  55     P       P        13 03 32.5  +0.1
       comp=Z,0.8nm,0.2s,baz=258,slow=9.2,SNR=4.5
AKTO                                  LR      LR       13 16 00.4
       comp=Z,65nm,20.2s,baz=336,slow=42
       comp=Z,0.8nm,0.2s
ARTI  Arti              27.64  42     P       P        13 03 49.1  -0.4
       comp=Z,2.0nm,0.3s,baz=261,slow=7.3,SNR=5.0
ARTI                                  LR      LR       13 15 36.1
       comp=Z,126nm,19.8s,baz=233,slow=38
       comp=Z,2.0nm,0.3s
ARTI  Arti              27.64  42c iP         P        13 03 49.4  -0.1
ARTI                                                   13 04 31.8
ARTI                                                   13 07 06.1
ARTI                                  S       S        13 08 32.1  +0.9
ARTI                                  pmax    pmax
       comp=Z,5.0nm,0.9s
ARCES ARCESS Array B    29.63   1     LR      LR       13 17 25.7
       comp=Z,129nm,18.6s,baz=186,slow=39
TORD  Torodi Ar. Bea    33.33 223     P       P        13 04 40.2  +0.2
       comp=Z,1.2nm,0.4s,baz=35,slow=9.0,SNR=11
TORD                                  PcP     PcP      13 07 23.2  +1.2
       comp=Z,0.6nm,0.7s,baz=44,slow=1.3,SNR=3.7
       comp=Z,1.2nm,0.4s
BORK  Borovoye          33.65  52⇓eP          P        13 04 43.9  +1.3
BORK                                  pmax    pmax
       comp=Z,3.0nm,1.0s
KKAR  Karatay Array     34.38  69     P       P        13 04 49.7  +0.6
KKAR  Karatay Array     34.38  69     P       P        13 04 49.7  +0.6
JMIC  Jan Mayen         35.29 342     LR      LR       13 21 22.0
       comp=Z,46nm,18.1s,baz=56,slow=40
BORG  Borgarnes         36.05 329     LR      LR       13 23 27.3
       comp=Z,74nm,18.1s,baz=112,slow=42
AAK   Ala-Archa         37.34  69     LR      LR       13 25 23.6
       comp=Z,85nm,18.1s,baz=282,slow=44
SPITS Spitsbergen Ar    38.45 357     P       P        13 05 24.5  +1.1
       comp=Z,8.7nm,0.9s,baz=196,slow=9.8,SNR=1.9
       comp=Z,8.7nm,0.9s
KURBB Kurchatov Arra    38.78  56     P       P        13 05 26.5  +0.1
       comp=Z,0.6nm,0.2s,baz=279,slow=8.6,SNR=5.3
KURBB                                 PcP     PcP      13 07 37.9  +0.2
       comp=Z,0.2nm,0.3s,baz=275,slow=3.1,SNR=4.2
KURBB                                 LR      LR       13 25 43.2
       comp=Z,52nm,18.1s,baz=184,slow=43
       comp=Z,0.6nm,0.2s
KURK  Kurchatov         38.83  55⇓eP          P        13 05 30.0  +3.2
KURK                                  pmax    pmax
       comp=Z,1.0nm,0.2s
MK31  Makanchi Array    41.84  61d iP         P        13 05 52.7  +0.8
MKAR  Makanchi Array    41.84  61     P       P        13 05 52.4  +0.4
       comp=Z,2.0nm,0.6s,baz=281,slow=6.4,SNR=18
MKAR                                  PcP     PcP      13 07 47.6  -0.1
       comp=Z,0.9nm,0.8s,baz=270,slow=5.2,SNR=3.6
MKAR                                  LR      LR       13 26 06.5
       comp=Z,40nm,18.2s,baz=298,slow=40
       comp=Z,2.0nm,0.6s
MKAR  Makanchi Array    41.84  61             P        13 05 52.8  +0.9
DBIC  Dimbokro          42.24 226     P       P        13 05 57.4  +1.9
       comp=Z,4.3nm,0.7s,baz=38,slow=6.1,SNR=4.5
DBIC                                  LR      LR       13 23 41.3
       comp=Z,57nm,19.1s,baz=82,slow=36
       comp=Z,4.3nm,0.7s
DBIC  Dimbokro          42.24 226     P       P        13 05 57.8  +2.3
DBIC                                  IAmb    IAmb     13 06 29.6
       comp=Z,15nm,1.4s
ZAA0  Zalesovo Array    42.28  50             P        13 05 55.8  +0.4
ZALV  Zalesovo Beam     42.28  50     P       P        13 05 55.4  +0.1
       comp=Z,4.5nm,0.7s,baz=278,slow=8.8,SNR=20
ZALV                                  LR      LR       13 25 21.3
       comp=Z,35nm,19.8s,baz=305,slow=39
       comp=Z,4.5nm,0.7s
NRIK  Noril'sk          43.85  27     LR      LR       13 26 11.9
       comp=Z,79nm,19.3s,baz=268,slow=38
DGZ   Jazzator, Alta    44.57  56⇑iP          P        13 06 15.1  +1.0
DGZ                                   pmax    pmax
       comp=Z,3.0nm,0.8s
SFJD  Kangerlussuaq     48.17 329     LR      LR       13 26 47.0
       comp=Z,64nm,21.0s,baz=86,slow=36
TLY   Talaya            53.88  49     LR      LR       13 32 29.8
       comp=Z,59nm,19.7s,baz=281,slow=38
TLY   Talaya            53.88  49⇓eP          P        13 07 25.7  +0.6
TLY                                   pmax    pmax
       comp=Z,3.0nm,0.7s
FRB   Frobisher Bay     56.22 328     LR      LR       13 35 00.3
       comp=Z,26nm,18.3s,baz=208,slow=39
TIXI  Tiksi             56.92  21     LR      LR       13 35 23.3
       comp=Z,99nm,18.4s,baz=17,slow=39
SONM  Songino Array     57.02  53     P       P        13 07 48.8  +0.8
       comp=Z,1.4nm,0.7s,baz=293,slow=11,SNR=6.6
SONM                                  LR      LR       13 35 09.7
       comp=Z,36nm,19.0s,baz=292,slow=39
       comp=Z,1.4nm,0.7s
ULN   Ulaanbaatar       57.41  52⇓eP          P        13 07 51.0  +0.3
ULN                                   pmax    pmax
       comp=Z,4.0nm,1.7s
SCHQ  Schefferville     59.13 318     LR      LR       13 32 38.7
       comp=Z,31nm,19.4s,baz=343,slow=35
YAK   Yakutsk           62.07  31     LR      LR       13 36 13.3
       comp=Z,39nm,20.2s,baz=282,slow=37
CMAR  Chiang Mai Arr    66.75  85     P       P        13 08 53.2  -0.4
       comp=Z,1.4nm,0.8s,baz=304,slow=7.6,SNR=8.3
CMAR                                  LR      LR       13 41 46.0
       comp=Z,14nm,18.7s,baz=290,slow=39
       comp=Z,1.4nm,0.8s
BOSA  Boshof            68.25 179     P       P        13 09 02.9   0.0
       comp=Z,2.0nm,1.0s,baz=8.3,slow=7.4,SNR=7.1
       comp=Z,2.0nm,1.0s
BOSA  Boshof            68.25 179     P       P        13 09 02.9   0.0
KLR   Kul'dur           70.59  42     LR      LR       13 41 22.2
       comp=Z,39nm,20.9s,baz=358,slow=37
E29M  Blow River        71.13 353             P        13 09 21.3  +1.2
E29M                                  IAmb    IAmb     13 09 27.3
       comp=Z,4.7nm,0.8s
SADO  Sadowa            71.23 313     LR      LR       13 41 28.0
       comp=Z,35nm,18.4s,baz=292,slow=36
D23K  Nanushuk River    71.31 358     P       P        13 09 22.8  +1.6
D23K                                  IAmb    IAmb     13 09 29.1
       comp=Z,9.2nm,1.1s
MA2   Magadan           71.42  26     LR      LR       13 43 12.8
       comp=Z,30nm,18.0s,baz=329,slow=38
F31M  Tsiigehtchic      71.62 351     P       P        13 09 23.6  +0.5
F31M                                  IAmb    IAmb     13 09 29.6
       comp=Z,7.1nm,1.1s
SUR   Sutherland        72.07 183     LR      LR       13 41 41.2
       comp=Z,60nm,19.4s,baz=340,slow=36
SUR   Sutherland        72.07 183     P       P        13 09 28.8  +2.5
YKA   Yellowknife Ar    72.67 341     LR      LR       13 40 55.5
       comp=Z,37nm,19.2s,baz=318,slow=35
FYU   Fort Yukon        73.48 356     P       P        13 09 36.3  +2.1
ILAR  Eielson Array     75.36 356     P       P        13 09 47.2  +2.0
       comp=Z,0.2nm,0.6s,baz=12,slow=6.3,SNR=2.3
ILAR                                  LR      LR       13 47 30.0
       comp=Z,22nm,18.2s,baz=281,slow=39
       comp=Z,0.2nm,0.6s
KSRS  Korea Array       75.89  53     P       P        13 09 49.0  +0.3
       comp=Z,0.9nm,0.5s,baz=318,slow=5.2,SNR=4.6
KSRS                                  LR      LR       13 48 00.6
       comp=Z,23nm,18.5s,baz=325,slow=40
       comp=Z,0.9nm,0.5s
KSRS  Korea Array       75.89  53     P       P        13 09 49.0  +0.3
PETK  Petropavlovsk-    78.91  27     LR      LR       13 46 42.8
       comp=Z,30nm,21.0s,baz=269,slow=37
ASAJ  Asahikawa         79.53  40     LR      LR       13 49 00.3
       comp=Z,34nm,18.6s,baz=263,slow=38
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TKL	Tuckaleechee C	79.80	308	LR	LR	13 46 10.8	
	comp=Z,26nm,18.8s,baz=351,slow=36						
ANMO	Albuquerque	92.72	321	LR	LR	13 55 27.5	
	comp=Z,27nm,18.2s,baz=124,slow=37						
TXAR	Lajitas Array	95.80	316	P	P	13 11 29.9	+1.2
	comp=Z,0.2nm,0.8s,baz=34,slow=4.7,SNR=2.7						
	comp=Z,0.2nm,0.8s						
WRA	Warramunga Arr	117.67	94	PKP	PKPdf	13 16 48.5	-0.1
	comp=Z,0.4nm,1.0s,baz=309,slow=2.0,SNR=1.7						
ASAR	Alice Springs	119.44	97	PKP	PKPdf	13 16 50.9	-1.1
	comp=Z,0.4nm,0.5s,baz=322,slow=1.4,SNR=5.7						

PRU **27** *13:16:42.6, 40°.49N×26°.58E, h15^{km}, M4.1*
SOF **27** *13:16:45.7, 39°.8N±0°.1×24°.37E±0°.02, h2^{km}±12^{km}, MD4.1/10*
AFAD **27** *13:16:45.0, 39°.93N×24°.07E, h10^{km}±6^{km}, ML3.9*
IDC **27** *13:16:48.7±0.8, 39°.91N×24°.24E, h0^{km}, mb3.4/8, mbtmp3.6/14, ML3.7/5, MS2.7/7, Error ellipse: s-maj=14.1km s-min=11.1km az=90.0*
ISK **27** *13:16:49.9, 40°.01N×24°.41E, h9^{km}, ML4.0/21*
BEO **27** *13:16:50.9±0.6, 39°.92N×24°.05E, h6^{km}±3^{km}, ML3.8/17*
NEIC **27** *13:16:50.5±0.6, 39°.95N±0°.05×24°.46E±0°.07, h10^{km}±2^{km}, mb4.1/1, Error ellipse: s-maj=11.1km s-min=6.9km az=131.0*
THE **27** *13:16:50.8, 40°.0N±0°.9×24°.3E±0°.9, h14^{km}±2^{km}, M3.7/41, MLh3.7/41*
GFZ **27** *13:16:50.2±0.2, 40°N±2°×2°4E±°, h10^{km}, M4.1/28, mb4.3/12, MLv4.1/28, Error ellipse: s-maj=4.6km s-min=4.4km az=116.4, confirmed*
ATH **27** *13:16:50.3, 39°.96N×24°.31E, h17^{km}±1^{km}, ML3.7/55, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
CFUSG **27** *13:16:56.6, 40°.40N×24°.75E, h10^{km}, MD3.5/1, MSH2.5/1*
NAO **27** *13:17:00.7, 41°.22N×25°.05E, h10^{km}, MB3.5*
ISC 27 13:16:50.5±0.9, **39°.96N**±0°.02×**24°.31E**±0°.01, **h14**^{km}±7^{km}, **n335**, σ0^{s}.**81**/398, **mb3.5**/8, **33C-17D, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OUR	Ouranopolis	0.45	326	P	Pg	13 16 59.9	+0.5
OUR				S	Sg	13 17 05.3	-0.1
OUR				AML	AML		
OUR	Ouranopolis	0.45	326	Pg	Pg	13 16 59.9	+0.5
OUR				Sg	Sg	13 17 05.8	+0.4
OUR				AML	AML		
OUR	Ouranopolis	0.45	326	P	Pg	13 16 59.9	+0.5
OUR				S	Sg	13 17 05.5	+0.1
OUR				AML	AML		
PAIG	Paliouri	0.49	266	P	Pg	13 17 00.2	+0.1
PAIG				S	Sg	13 17 07.1	+0.5
PAIG				AML	AML		
PAIG	Paliouri	0.49	266	P	Pg	13 17 00.3	+0.2
PAIG				AML	AML		
LMN1	MIRINA LIMNOU	0.58	99	P	Pb	13 17 02.3	-0.2
LMN1				AML	AML		
EFSA	Agios Efstrati	0.67	129	P	Pb	13 17 04.0	-0.1
EFSA				S	Sb	13 17 13.3	+0.1
LIA	Limnos Island	0.68	95	P	Pb	13 17 03.9	-0.1
LIA				S	Sb	13 17 14.0	+0.8
LIA				AML	AML		
LIA	Limnos Island	0.68	95	P	Pb	13 17 03.5	-0.5
LIA				S	Sg	13 17 12.2	-0.3
LIA				AML	AML		
THAS	Thassos island	0.71	26	P	Pg	13 17 04.0	-0.3
THAS				S	Sb	13 17 14.4	0.0
THAS	Thassos island	0.71	26	P	Pg	13 17 03.8	-0.6
THAS				S	Sg	13 17 13.8	0.0
PLG	Polygyros	0.78	302	P	Pg	13 17 05.4	-0.2
PLG				S	Sg	13 17 15.9	+0.1
PLG				AML	AML		
PLG	Polygyros	0.78	302	P	Pg	13 17 05.2	-0.4
PLG				AML	AML		
THS1	Thassos, Thass	0.80	15	P	Pg	13 17 05.9	-0.2
THS1				S	Sg	13 17 16.9	+0.3
AOS	Alonnisos	0.86	203	P	Pb	13 17 06.9	-0.3
AOS				S	Sn	13 17 19.9	-0.6
AOS				AML	AML		
AOS2	Alonissos-2	0.89	204	P	Pg	13 17 06.6	-1.1
AOS2				S	Sg	13 17 18.6	-0.8
AOS2				AML	AML		
KAVA	Kavala	1.04	9	P	Pg	13 17 09.7	-0.9
KAVA				S	Sg	13 17 24.2	-0.1
KAVA				AML	AML		
KAVA	Kavala	1.04	9	P	Pg	13 17 09.8	-0.9
KAVA				S	Sg	13 17 23.4	-0.8
KAVA				AML	AML		
XOR	Xorichti	1.05	236	P	Pg	13 17 10.2	-0.6
XOR				S	Sb	13 17 24.2	+0.2
XOR				AML	AML		
XOR	Xorichti	1.05	236	P	Pg	13 17 09.8	-0.9
XOR				S	Sg	13 17 23.7	-0.8
XOR				AML	AML		
XOR	Xorichti	1.05	236	P	Pg	13 17 10.0	-0.7
XOR				AML	AML		
SMTH	Samothraki Isl	1.06	61	P	Pg	13 17 09.9	-1.1
SMTH				S	Sb	13 17 25.2	+0.7
SMTH				AML	AML		
SMTH	Samothraki Isl	1.06	61	P	Pg	13 17 09.4	-1.6
SMTH				S	Sg	13 17 23.9	-1.0
SMTH				AML	AML		
NEO	Neokhori	1.06	232	P	Pg	13 17 10.2	-0.9
NEO				S	Sb	13 17 25.2	+0.7
NEO				AML	AML		
NEO	Neokhori	1.06	232	P	Pg	13 17 09.9	-1.1
NEO				S	Sg	13 17 23.6	-1.3
NEO				AML	AML		
HORT	Hortiatis	1.12	305	P	Pb	13 17 10.9	-0.8
HORT	Hortiatis	1.12	305	P	Pb	13 17 10.9	-0.8
SOH	Sokhos	1.12	320	P	Pb	13 17 11.6	-0.2
SOH				S	Sb	13 17 26.8	+0.5
SOH				AML	AML		
SOH	Sokhos	1.12	320	P	Pb	13 17 11.6	-0.2
SOH				S	Sb	13 17 25.7	-0.6
SOH				AML	AML		
SOH	Sokhos	1.12	320	P	Pb	13 17 11.8	+0.1
SOH				AML	AML		
VOL2	Volos	1.21	241	P	Pn	13 17 12.9	-0.1
VOL2				S	Sb	13 17 28.0	-0.6
THE	Thessaloniki	1.23	303	P	Pn	13 17 13.1	-0.1
THE				S	Sb	13 17 28.9	-0.3
THE	Thessaloniki	1.23	303	P	Pn	13 17 13.1	-0.1
THE				S	Sb	13 17 27.8	-1.4
THE				AML	AML		
THE	Thessaloniki	1.23	303	P	Pn	13 17 13.5	+0.2
THE				AML	AML		
GADA	Gvkgeada	1.24	79	P	Pn	13 17 12.9	-0.5
GADA				S	Sn	13 17 31.1	+1.2
GADA				AML	AML		
GADA	Gvkgeada	1.24	79	Pn	Pn	13 17 12.8	-0.6
GADA				Sn	Sb	13 17 28.9	-0.6
GADA				AML	AML		
GOAD	anakkale-G¶	1.24	80	P	Pn	13 17 12.6	-0.9
GOAD				S	Sn	13 17 31.7	+1.6
GOAD				IAML		13 17 34.0	
	comp=N,3µm,0.3s						
GOAD				IAML		13 17 40.0	
	comp=E,2µm,0.4s						
SRS	Serrai	1.27	335	P	Pn	13 17 13.4	-0.6
SRS				AML	AML		
SRS	Serrai	1.27	335	*e*Pg	Pn	13 17 13.3	-0.6
SRS				*e*Sg	Sb	13 17 28.4	-2.2
SRS	Serrai	1.27	335	P	Pn	13 17 13.2	-0.7
SRS				S	Sb	13 17 28.8	-1.8
SRS				AML	AML		
SRS	Serrai	1.27	335	P	Pn	13 17 13.4	-0.6
SRS				AML	AML		
KYMI	Kymi, Euboea I	1.34	187	P	Pn	13 17 14.1	-0.7
KYMI				AML	AML		
KYMI	Kymi, Euboea I	1.34	187	P	Pn	13 17 13.7	-1.1
KYMI				S	Sb	13 17 31.8	-0.6
KYMI				AML	AML		
BOZC	Bozcaada	1.35	95	Pn	Pn	13 17 14.3	-0.6
BOZC				AML	AML		
BOZC	Bozcaada	1.35	95	P	Pn	13 17 14.3	-0.6
BOZC				S	Sg	13 17 35.0	+1.1
NVR	Nevrokopi	1.43	346	P	Pn	13 17 15.5	-0.5
NVR				AML	AML		
NVR	Nevrokopi	1.43	346	P	Pn	13 17 15.5	-0.5
NVR				AML	AML		
ECEA	Canakkale, Ece	1.44	86	S	Sg	13 17 37.5	+0.8
ECEA				IAML		13 17 38.0	
	comp=N,1µm,0.8s						
ECEA				IAML		13 17 41.0	
	comp=E,2µm,0.3s						
KOCA	Canakkale, Ayv	1.48	108	S	Sg	13 17 39.0	+0.8
KOCA				IAML		13 17 41.0	
	comp=N,929nm,0.8s						
KOCA				IAML		13 17 42.0	
	comp=E,1µm,0.6s						
GPNR	Gulpinar-Canak	1.50	109	Pn	Pn	13 17 17.2	+0.3
RDO	Rodhopi	1.51	38	P	Pn	13 17 16.2	-0.9
ALEX	Alexandroupoli	1.51	53	P	Pn	13 17 16.2	-0.8
ALEX				S	Sn	13 17 36.4	-0.2
GINA	Giannouli	1.51	259	P	Pn	13 17 17.2	+0.1
GINA				S	Sn	13 17 36.0	-0.6
GINA				AML	AML		
ENZZ	Sultanice-Enez	1.54	65	Pn	Pn	13 17 17.2	-0.3
ENZZ				AML	AML		
EZN	Ezine	1.56	94	P	Pn	13 17 17.4	-0.4
EZN				AML	AML		
EZN	Ezine	1.56	94	Pn	Pn	13 17 17.4	-0.4
EZN				AML	AML		
CAVK	Edirne/Enez-Ca	1.60	62	P	Pn	13 17 17.6	-0.7
CAVK				S	Sg	13 17 43.7	+1.8
CAVK				IAML		13 17 45.0	
	comp=N,3µm,0.7s						
CAVK				IAML		13 17 47.0	
	comp=E,3µm,0.6s						
CAVK	Edirne/Enez-Ca	1.60	62	⇑P	Pn	13 17 18.4	+0.1
EZNE	Ezine-Canakkal	1.60	97	Pn	Pn	13 17 18.2	-0.1
CNKL	anakkale-Mer	1.60	86	P	Pn	13 17 16.8	-1.5
CNKL				S	Sg	13 17 41.8	-0.2
ENEZ	Enez	1.61	61	P	Pn	13 17 17.8	-0.7
ENEZ	Enez	1.61	61	Pn	Pn	13 17 17.8	-0.7
ENEZ				AML	AML		
ATAL	Atalanti	1.62	219	P	Pn	13 17 17.6	-1.0
ATAL	Atalanti	1.62	219	P	Pn	13 17 18.0	-0.6
TYRN	Tyrnavos	1.62	262	P	Pn	13 17 18.8	+0.1
TYRN				AML	AML		
TYRN	Tyrnavos	1.62	262	P	Pn	13 17 18.7	+0.1
TYRN				S	Sn	13 17 39.1	-0.2
TYRN				AML	AML		
ALN	Alexandroupoli	1.62	54	P	Pn	13 17 17.9	-0.8
ALN				AML	AML		
ALN	Alexandroupoli	1.62	54	Pn	Pn	13 17 17.8	-0.8
ALN				AML	AML		
ALN	Alexandroupoli	1.62	54		Pn	13 17 17.6	-1.0
ALN	Alexandroupoli	1.62	54	P	Pn	13 17 17.6	-1.0
ALN				S	Sn	13 17 37.4	-2.0
ALN				AML	AML		
ALN	Alexandroupoli	1.62	54	P	Pn	13 17 18.1	-0.6
ALN				AML	AML		
MMB	Musomishta	1.64	345	P	Pn	13 17 19.2	+0.2
MMB				AML	AML		
MMB	Musomishta	1.64	345	P	Pn	13 17 19.0	0.0
LKR	Lokris	1.66	218	P	Pn	13 17 18.5	-0.7
LKR	Lokris	1.66	218	P	Pn	13 17 18.6	-0.6
COMU	Canakkale	1.67	85	Pn	Pn	13 17 19.1	-0.2
COMU				AML	AML		
PRK	Paraskevi	1.68	115	P	Pn	13 17 19.5	+0.1
PRK				AML	AML		
PRK	Paraskevi	1.68	115	P	Pn	13 17 19.7	+0.3
PRK				S	Sn	13 17 40.7	-0.1
GELI	Tayfur-Gelibol	1.71	75	Pn	Pn	13 17 19.3	-0.6
GELI				AML	AML		
BAYC	CANAKKALE_Bayr	1.74	97	P	Pn	13 17 20.1	-0.2
BAYC				S	Sg	13 17 47.3	+0.9
AXAR	Agios Charalam	1.75	227	P	Pn	13 17 20.4	-0.1
AXAR				AML	AML		
AXAR	Agios Charalam	1.75	227	P	Pn	13 17 20.2	-0.2
AXAR				AML	AML		
RZN	Rozhen	1.76	11	P	Pn	13 17 20.8	0.0
RZN				AML	AML		
RZN	Rozhen	1.76	11	P	Pn	13 17 20.6	-0.2
GRG	Griva	1.76	305	P	Pn	13 17 21.0	+0.4
GRG				AML	AML		
GRG	Griva	1.76	305	P	Pn	13 17 21.4	+0.8
GRG				AML	AML		
AGG	Agios Georgios	1.80	239	P	Pn	13 17 20.4	-0.7
AGG				AML	AML		
AGG	Agios Georgios	1.80	239	P	Pn	13 17 20.2	-0.9
AGG				AML	AML		
AGG	Agios Georgios	1.80	239	P	Pn	13 17 20.4	-0.7
AGG				AML	AML		
LAM2	Lamia	1.80	234	P	Pn	13 17 21.0	-0.1
LAM2				AML	AML		
THL	Klokotos Trika	1.81	258	P	Pn	13 17 21.1	-0.2
THL	Klokotos Trika	1.81	258	P	Pn	13 17 21.1	-0.2
ERIK	Erikli-Kesan	1.83	67	Pn	Pn	13 17 20.6	-0.9
ERIK				AML	AML		
KDZ	Kurdzhali	1.84	25	P	Pn	13 17 21.0	-0.7
KDZ				AML	AML		
KDZ	Kurdzhali	1.84	25	Pn	Pn	13 17 21.3	-0.4
KDZ				AML	AML		
NASA	Naoussa	1.84	292	P	Pn	13 17 22.3	+0.6
NASA				AML	AML		
STFN	Stefani	1.88	199	P	Pn	13 17 22.0	-0.3
STFN				S	Sn	13 17 44.6	-1.3
STFN				AML	AML		
VAY	Valandovo	1.89	316	*i* Pn	Pn	13 17 22.9	+0.5
GOKT	Kean, EDRN	1.90	68	P	Pn	13 17 21.6	-1.0
DION	Dionisos Attik	1.91	189	P	Pn	13 17 22.1	-0.5
DION				AML	AML		
DION	Dionisos Attik	1.91	189	P	Pn	13 17 21.8	-0.8
DION				AML	AML		
LPK	Lapseki	1.92	77	Pn	Pn	13 17 22.5	-0.3
LPK				AML	AML		
VIL2	Platees	1.93	205	P	Pn	13 17 22.8	-0.1
VIL2				S	Sn	13 17 46.9	-0.1
VIL2				AML	AML		
KARY	Karystos	1.93	177	P	Pn	13 17 22.2	-0.7
KARY	Karystos	1.93	177	P	Pn	13 17 22.5	-0.5
KARY				S	Sn	13 17 45.7	-1.4
KARY				AML	AML		
ACHAR	Athens-Acharne	1.94	193	P	Pn	13 17 22.1	-1.0
ACHAR				AML	AML		
PTL	Penteli	1.94	190	P	Pn	13 17 22.2	-1.0
PTL				AML	AML		
SFL1	Soufli	1.95	50	P	Pn	13 17 21.7	-1.5
AYVA	Ayvalik	1.95	109	P	Pn	13 17 23.6	+0.4
VILL	Villia	1.96	204	P	Pn	13 17 22.7	-0.7
VILL				AML	AML		
LAPS	Lapseki, ANA	1.96	81	P	Pn	13 17 23.1	-0.3
LAPS				IAML		13 17 53.0	
	comp=E,666nm,0.5s						
LAPS				S	Sg	13 17 53.8	+0.2
LAPS				IAML		13 17 55.0	
	comp=N,666nm,0.4s						
KZN	Kozani	1.98	281	P	Pn	13 17 23.9	+0.3
KZN				AML	AML		
KZN	Kozani	1.98	281	P	Pn	13 17 23.9	+0.3
KZN				AML	AML		
ATHP	Athens-Neo Psi	2.00	192	P	Pn	13 17 23.4	-0.6
ATHP				AML	AML		
ATHU	Athens Univers	2.04	192	P	Pn	13 17 23.7	-0.7
ATHU	Athens Univers	2.04	192	P	Pn	13 17 23.8	-0.7
ATHU				S	Sn	13 17 49.7	+0.1
NOAC	Athens-Thissio	2.04	193	P	Pn	13 17 24.2	-0.3
NOAC				AML	AML		
ATH	Athens Observa	2.04	193	P	Pn	13 17 24.0	-0.5
ATH				AML	AML		
ATH	Athens Observa	2.04	193	P	Pn	13 17 24.1	-0.3
ATH				AML	AML		
DLFA	Delphi	2.05	224	P	Pn	13 17 23.9	-0.7
DLFA				AML	AML		
KKB	Krupnik	2.08	335	P	Pn	13 17 25.1	+0.2
KKB				AML	AML		
KKB	Krupnik	2.08	335	P	Pn	13 17 25.4	+0.4
CHOS	Chios island	2.08	139	P	Pn	13 17 25.0	0.0
CHOS				AML	AML		
CHOS	Chios island	2.08	139	Pn	Pn	13 17 25.1	0.0
CHOS				AML	AML		
CHOS	Chios island	2.08	139	P	Pn	13 17 25.1	0.0
CHOS				AML	AML		
CHOS	Chios island	2.08	139	P	Pn	13 17 25.1	0.0
CHOS				AML	AML		
PEHC	Pehcevo	2.10	330	*e*Pn	Pn	13 17 25.8	+0.3
CANM	Can-anakkale	2.11	88	Pn	Pn	13 17 25.6	+0.2
CANM				AML	AML		
UKOP	Uzunkopru-Edir	2.12	56	Pn	Pn	13 17 25.7	+0.2
UKOP				AML	AML		
VLY	Voula,Athens	2.15	191	P	Pn	13 17 25.4	-0.5
VLY				AML	AML		
VLY	Voula,Athens	2.15	191	P	Pn	13 17 25.3	-0.6
VLY				S	Sn	13 17 52.8	+0.5
VLY				AML	AML		
YAYO	Edremit-Balk	2.16	99	Pn	Pn	13 17 26.5	+0.5
YAYO				AML	AML		
BUHA	Balikesir, Bur	2.18	101	P	Pn	13 17 26.6	+0.2
BUHA				IAML		13 18 02.0	
	comp=E,450nm,0.4s						
DKL	Dikili	2.20	113	Pn	Pn	13 17 27.4	+0.8
DKL				AML	AML		
DKL	Dikili	2.20	113	P	Pn	13 17 27.1	+0.6
BIGA	Biga-Canakkale	2.20	81	Pn	Pn	13 17 26.9	+0.3
EVR	Evrytania	2.20	242	P	Pn	13 17 27.1	+0.3
EVR				AML	AML		
EVR	Evrytania	2.20	242	P	Pn	13 17 27.1	+0.3
LTK	Loutraki	2.20	209	P	Pn	13 17 25.8	-0.9
LTK				AML	AML		
LTK	Loutraki	2.20	209	P	Pn	13 17 26.1	-0.6
LTK				AML	AML		
PLD	Plovdiv	2.21	8	P	Pn	13 17 26.5	-0.2
PLD				AML	AML		
PLD	Plovdiv	2.21	8	Pn	Pn	13 17 26.9	+0.2
PLD	Plovdiv	2.21	8	P	Pn	13 17 27.0	+0.2
PLD	Plovdiv	2.21	8	*e*Pn	Pn	13 17 26.9	+0.2
PLD				*e*Sn	Sn	13 17 54.5	+0.7
LOUT	Loutraki	2.23	208	P	Pn	13 17 26.5	-0.6
LOUT				AML	AML		
YENI	Yenice-Canakka	2.25	90	Pn	Pn	13 17 27.8	+0.4
KPRO	Kipourio	2.26	271	P	Pn	13 17 27.9	+0.3
KPRO				AML	AML		
KPRO	Kipourio	2.26	271	P	Pn	13 17 27.9	+0.3
KPRO				AML	AML		
DIM	Dimitrovgrad	2.29	24	P	Pn	13 17 27.8	0.0
DIM				AML	AML		
DIM	Dimitrovgrad	2.29	24	P	Pn	13 17 27.9	0.0
TRGA	Dikaia	2.30	40	P	Pn	13 17 28.6	+0.6
ANX	Ano Chora	2.30	234	P	Pn	13 17 28.2	0.0
ANX				AML	AML		
ANX	Ano Chora	2.30	234	P	Pn	13 17 28.4	+0.2
KALE	Kalithea	2.31	228	P	Pn	13 17 28.2	0.0
KALE	Kalithea	2.31	228	P	Pn	13 17 28.2	0.0
RKY	Sarkoy-Tekirda	2.31	71	Pn	Pn	13 17 27.7	-0.5
RKY				AML	AML		
THAL	Thalero	2.31	214	P	Pn	13 17 27.9	-0.3
THAL				AML	AML		
PSARO	Psaromita, Dor	2.33	226	P	Pn	13 17 27.9	-0.5
PSARO				AML	AML		
KRBG	Karabiga-Canak	2.33	78	Pn	Pn	13 17 28.3	-0.1
KRBG				AML	AML		
SERG	Sergoula	2.34	229	P	Pn	13 17 28.2	-0.4
SERG				AML	AML		
SERG	Sergoula	2.34	229	P	Pn	13 17 28.5	0.0
SERG				AML	AML		
ACOR	Acrocorinthos	2.36	209	P	Pn	13 17 26.7	-2.1
ACOR				AML	AML		
MG00	Magoula, Dorid	2.40	231	P	Pn	13 17 29.3	-0.1
MG00				AML	AML		
EFP	Efpalio	2.42	231	P	Pn	13 17 29.4	-0.2
EFP				AML	AML		
EFP	Efpalio	2.42	231	P	Pn	13 17 29.8	+0.2
EFP				AML	AML		
TETR	Tetrakomo, Epi	2.42	256	P	Pn	13 17 29.6	-0.2
TETR	Tetrakomo, Epi	2.42	256	P	Pn	13 17 29.9	+0.1
TETR				AML	AML		
GAZK	Gazikoy-TEKIRD	2.44	70	Pn	Pn	13 17 29.9	+0.1
GAZK				AML	AML		
AGEO	AgiosGiorgios,	2.44	227	P	Pn	13 17 30.3	+0.4
MET4	Agioi Theodoro	2.44	197	P	Pn	13 17 29.3	-0.7
PENT	Pentalofos	2.44	276	P	Pn	13 17 30.8	+0.7
MET5	Makryloggos,Me	2.45	198	P	Pn	13 17 29.8	-0.4
MET2	Kameni Chora,	2.47	198	P	Pn	13 17 29.6	-0.8
VVK	Vomvokou	2.48	232	P	Pn	13 17 31.2	+0.7
AIOA	Agios Ioannis,	2.49	225	P	Pn	13 17 30.4	-0.2
LAKA	Lakka	2.50	227	P	Pn	13 17 30.9	+0.1
PRMD	Pramanda	2.52	261	P	Pn	13 17 31.6	+0.6
PRMD				AML	AML		
MET3	Ano Fanari,Met	2.53	200	P	Pn	13 17 30.6	-0.7
GUR	Goura	2.54	218	P	Pn	13 17 30.7	-0.7
GUR				AML	AML		
PVO	Paravola	2.54	239	P	Pn	13 17 31.9	+0.5
AGRP	Agrapidokambos	2.55	233	P	Pn	13 17 31.9	+0.5
AGRP				AML	AML		
PGB	Panagyurishte	2.55	358	P	Pn	13 17 31.8	+0.3
KLV	Kalavryta, Ach	2.55	222	P	Pn	13 17 31.3	-0.2
BALY	Balya	2.56	94	P	Pn	13 17 32.1	+0.5
BALY				AML	AML		
AMPL	Ampelaki	2.61	248	P	Pn	13 17 32.5	+0.2
AMPL				AML	AML		
EDRB	Edirne	2.63	44	Pn	Pn	13 17 32.9	+0.3
EDRB				AML	AML		
PLEV	Plevrona-Mesol	2.74	236	P	Pn	13 17 34.4	+0.4
BALB	Balikesir	2.77	96		Pn	13 17 33.8	-0.6
BALB	Balikesir	2.77	96	P	Pn	13 17 34.9	+0.5
VTS	Vitosha	2.77	343	P	Pn	13 17 35.3	+0.6
VTS	Vitosha	2.77	343	*e*Pn	Pn	13 17 35.2	+0.6
VTS				*e*Sn	Sn	13 18 09.4	+1.4
KBN	Korca	2.77	285	P	Pn	13 17 35.2	+0.6
KBN				AML	AML		
PDO	Prodromos	2.78	242	P	Pn	13 17 35.4	+0.7
PDO				AML	AML		
DRO	Drossia	2.85	226	P	Pn	13 17 36.2	+0.6
BOSS	Bosilegrad	2.88	332	*e*Pn	Pn	13 17 36.6	+0.6
BOSS				*e*Sn	Sn	13 18 12.8	+2.3
OHR	Ohrid	2.91	294	*i* Pn	Pn	13 17 38.2	+1.7
BAND	Balkesir-Ban	2.93	81	⇓P	Pn	13 17 37.2	+0.5
SKO	Skopje	2.96	314	*i* Pn	Pn	13 17 38.5	+1.4
JMB	Yambol	3.03	33	P	Pn	13 17 37.6	-0.4
NYDR	Nydri-Lefkada	3.07	247	P	Pn	13 17 38.5	0.0
IGT	Igoumenitsa	3.10	263	*e*Pn	Pn	13 17 42.1	+3.1
IGT				*e*Sn	Sn	13 18 07.2	-8.6
IGT	Igoumenitsa	3.10	263	P	Pn	13 17 40.2	+1.2
EVGI	Lefkada island	3.14	246	P	Pn	13 17 40.2	+0.7
EVGI				AML	AML		
DRAG	Dragano-Lefkad	3.17	247	P	Pn	13 17 40.5	+0.6
DRAG				AML	AML		
PVL	Pavlikeni	3.22	11	P	Pn	13 17 41.1	+0.4
SRN	Sarande	3.31	270	P	Pn	13 17 43.0	+1.1
SRN				AML	AML		
ITM	Ithomi	3.35	215		Pn	13 17 43.3	+0.9
ITM	Ithomi	3.35	215	P	Pn	13 17 42.9	+0.4
ITM				AML	AML		
PHP	Peshkopia	3.40	302	P	Pn	13 17 44.0	+0.7
PHP				AML	AML		
BARS	Barje	3.41	327	*e*Pn	Pn	13 17 43.7	+0.4
BARS				*e*Sn	Sn	13 18 23.0	-0.6
MPEP	Malo Peshtene	3.42	353	P	Pn	13 17 44.2	+0.8
PLVB	Pleven	3.43	4	⇓P	Pn	13 17 44.0	+0.5
KEK	Kerkira	3.48	267	Pn	Pn	13 17 46.3	+2.1
SZH	Strazhitsa	3.53	20	P	Pn	13 17 45.3	+0.4
ZAPS	Zavoj	3.54	340	*e*Pn	Pn	13 17 45.9	+0.8
ZAPS				*e*Sn	Sn	13 18 28.0	+1.3
MANT	Manisa	3.61	113		Pn	13 17 44.9	-1.3
VALD	Valchedram	3.78	350	P	Pn	13 17 48.8	+0.5
LOZB	Loznitsa	3.81	26	⇓P	Pn	13 17 48.6	-0.1
KTHA	Kythira Island	3.83	195	P	Pn	13 17 48.9	-0.2
KTHA				AML	AML		
BLKB	Belogradchik	3.85	342	*e*Pn	Pn	13 17 50.0	+0.6
BLKB				*e*Sn	Sn	13 18 35.9	+1.4
RAZG	Razgrad	3.96	24	⇑P	Pn	13 17 50.8	0.0
NEF	NEVSHA	3.98	33	P	Pn	13 17 50.9	-0.2
VLAD	Vladila	4.03	1	⇓P	Pn	13 17 52.5	+0.7
SELS	Selova	4.04	325	*e*Pn	Pn	13 17 52.2	+0.3
SELS				*e*Sn	Sn	13 18 38.1	-0.9
ZAGS	Zajecar	4.15	339	*e*Pn	Pn	13 17 53.5	+0.1
ZAGS				*e*Sn	Sn	13 18 41.7	+0.1
BOVS	Bovan	4.15	333	*e*Pn	Pn	13 17 53.4	0.0
BOVS				*e*Sn	Sn	13 18 39.5	-2.3
BOVS	Bovan	4.15	333	⇑P	Pn	13 17 53.5	0.0
SILT	Sile	4.23	72	⇓P	Pn	13 17 54.8	+0.3
TAVA	DENIZLI_Tavas	4.38	123	⇑P	Pn	13 17 58.0	+1.3
GOCS	Kraljevo Serbi	4.42	326	*e*Pn	Pn	13 17 57.4	+0.2
GOCS				*e*Sn	Sn	13 18 46.8	-1.7
PDG	Podgorica	4.54	305	P	Pn	13 17 59.1	+0.3
PDG				AML	AML		

HUMR	Humele	4.59	6	⇑P	Pn	13 17 59.6	+0.1
HUMR	Humele	4.59	6	P	Pn	13 17 59.5	+0.1
HUMR				AML	AML		
SJES	Sjenica	4.63	317	*e*Pn	Pn	13 18 01.6	+1.5
IDI	Anoyia	4.69	174	Pn	Pn	13 18 00.7	-0.2
	9.4nm,0.5s,baz=335,slow=12,SNR=12						
GRUS	Gruza	4.75	327	*e*Pn	Pn	13 18 01.8	+0.1
GRUS				*e*Sn	Sn	13 18 54.8	-1.7
IVAS	Ivanjica	4.76	321	*e*Pn	Pn	13 18 01.8	-0.1
IVAS				*e*Sn	Sn	13 18 54.9	-2.1
SRE	Strehaia	4.77	350	⇑P	Pn	13 18 02.5	+0.6
KUBS	Kucevo	4.86	337	*e*Pn	Pn	13 18 01.4	-1.8
KARP	Karpathos	4.95	152	P	Pn	13 18 04.0	-0.6
KARP				AML	AML		
HERR	Herculane	5.11	345	⇑P	Pn	13 18 06.2	-0.4
TRUS	Trudelj	5.15	327	*e*Pn	Pn	13 18 06.9	-0.3
MDVR	Moldovita	5.18	339	⇑P	Pn	13 18 07.5	-0.1
DIVS	Divibare	5.23	324	*e*Pn	Pn	13 18 08.7	+0.3
DIVS				*e*Sn	Sn	13 19 06.0	-2.6
MTUR	Matau	5.29	6	⇑P	Pn	13 18 10.3	+1.2
ISP	Isparta	5.30	112		Pn	13 18 07.8	-1.5
BBLS	Lazi&#263i	5.35	318	*e*Pn	Pn	13 18 09.9	0.0
BBLS				*e*Sn	Sn	13 19 08.7	-2.6
BBLS	Lazi&#263i	5.35	318	P	Pn	13 18 09.9	0.0
	comp=Z,22nm,0.8s,comp=Z,0.2nm						
BBLS				AML	AML		
TLBR	Topalu	5.35	30	⇑P	Pn	13 18 09.8	-0.1
ARR	Arges	5.41	2	⇑P	Pn	13 18 11.1	+0.4
ARR	Arges	5.41	2	P	Pn	13 18 11.2	+0.4
ARR				AML	AML		
TIRR	Tirgusor	5.43	33	⇑P	Pn	13 18 11.2	+0.2
HARR	Harsova	5.43	28	⇓P	Pn	13 18 11.5	+0.5
LOT	Lotru	5.50	356	⇓P	Pn	13 18 12.3	+0.3
LOT	Lotru	5.50	356	P	Pn	13 18 12.3	+0.3
	comp=Z,40nm,0.5s,comp=Z,0.2nm						
LOT				AML	AML		
VOIR		5.50	5	⇑P	Pn	13 18 12.5	+0.4
VOIR		5.50	5	P	Pn	13 18 12.7	+0.6
	comp=Z,32nm,0.8s,comp=Z,0.1nm						
VOIR				AML	AML		
GZR	Gura Zlata	5.54	349	⇓P	Pn	13 18 12.3	-0.3
VRSS	Vrsac	5.61	338	*e*Pn	Pn	13 18 13.1	-0.3
VRSS				*e*Sn	Sn	13 19 17.0	-0.7
NEHR	Nehoiu	5.65	14	⇑P	Pn	13 18 14.8	+0.7
MLR	Muntele Rosu	5.65	12	Pn	Pn	13 18 15.3	+1.1
	comp=Z,2.9nm,0.3s,baz=197,slow=7.0,SNR=31						
MLR				Lg	Lg	13 19 53.0	
	comp=Z,1.8nm,0.3s,baz=137,slow=19,SNR=5.0						
MLR				LR	LR	13 20 46.9	
	comp=Z,55nm,20.8s,baz=108,slow=42						
MLR				AML	AML		
MLR	Muntele Rosu	5.65	12		Pn	13 18 14.9	+0.7
MLR	Muntele Rosu	5.65	12	⇓P	Pn	13 18 15.3	+1.1
MLR	Muntele Rosu	5.65	12	P	Pn	13 18 15.0	+0.7
	comp=Z,44nm,0.7s,comp=Z,0.2nm						
MLR				AML	AML		
TNR	Turnu Rosu	5.69	360	⇑P	Pn	13 18 15.6	+1.0
TEKS	Tekeris	5.79	324	*e*Pn	Pn	13 18 15.8	-0.2
TEKS				*e*Sn	Sn	13 19 19.7	-2.6
BISRR	Bisoca	5.85	17	⇑P	Pn	13 18 17.7	+0.8
MATE	Matera	5.85	279	P	Pn	13 18 17.3	+0.5
	comp=Z,29nm,1.8s,comp=Z,0.2nm						
MATE				AML	AML		
TIP	Timpagrande	5.89	265	⇑P	Pn	13 18 18.2	+0.8
TIP	Timpagrande	5.89	265	P	Pn	13 18 17.9	+0.5
	comp=Z,14nm,1.9s,comp=Z,0.1nm						
TIP				AML	AML		
CFR	Carcaliu	5.93	27	⇑P	Pn	13 18 17.9	+0.1
BZS	Buzias	5.99	342	⇓P	Pn	13 18 18.2	-0.4
BZS	Buzias	5.99	342	P	Pn	13 18 18.0	-0.7
	comp=Z,14nm,0.5s,comp=Z,0.1nm						
BZS				AML	AML		
DEV	Deva	6.00	351	⇑P	Pn	13 18 20.0	+1.1
DEV	Deva	6.00	351	P	Pn	13 18 19.5	+0.6
	comp=Z,27nm,0.4s,comp=Z,0.2nm						
DEV				AML	AML		
SURR	Surduc	6.00	345	⇑P	Pn	13 18 18.9	0.0
SAHR	Sahastru	6.02	16	⇑P	Pn	13 18 20.6	+1.4
COVR	Voineasa-Covas	6.04	13	⇑P	Pn	13 18 20.5	+1.1
DOPR	Dopca	6.05	7	⇑P	Pn	13 18 20.8	+1.3
PLOR	Plostina	6.13	16	⇑P	Pn	13 18 20.9	+0.2
ODBI	Odobesti	6.14	18	⇓P	Pn	13 18 21.5	+0.8
VRI	Vrincioaia	6.16	16	⇓P	Pn	13 18 22.5	+1.5
VRI	Vrincioaia	6.16	16	P	Pn	13 18 21.6	+0.6
	comp=Z,28nm,0.5s,comp=Z,0.2nm						
VRI				AML	AML		
FRGS	Fruska Gora	6.16	329	P	Pn	13 18 21.4	+0.3
	comp=Z,10nm,0.8s,comp=Z,0.1nm						
FRGS				AML	AML		
MDB	Medias	6.17	0	⇓P	Pn	13 18 22.6	+1.3
BOSR	Bodos	6.19	9	⇑P	Pn	13 18 22.8	+1.3
TURR	Turia	6.21	11	⇑P	Pn	13 18 21.9	+0.1
OZUR		6.22	10	⇑P	Pn	13 18 23.3	+1.4
PANC	Panciu	6.26	18	⇑P	Pn	13 18 22.6	+0.2
KEPZ	Antalya-Kepez	6.49	116	⇑P	Pn	13 18 26.5	+0.9
VLDR	Vladesti	6.50	24	⇓P	Pn	13 18 26.6	+0.9
SIRR	Siria	6.59	344	⇑P	Pn	13 18 27.3	+0.3
TESR	Tescani	6.76	14	⇓P	Pn	13 18 30.2	+0.9
TESR	Tescani	6.76	14	P	Pn	13 18 29.7	+0.4
	comp=Z,42nm,0.5s,comp=Z,0.2nm						
TESR				AML	AML		
DRGR		6.92	351	⇑P	Pn	13 18 31.4	-0.2
DRGR		6.92	351	P	Pn	13 18 31.7	+0.1
	comp=Z,6.9nm,0.8s,comp=Z,0.1nm						
DRGR				AML	AML		
BIZ	Bicaz	7.09	10	⇓P	Pn	13 18 34.6	+0.8
ARCR	ARCALIA	7.12	0	⇑P	Pn	13 18 34.2	0.0
BR131	Keskin Array S	7.18	89		Pn	13 18 34.1	-1.2
BRTR	Keskin Array B	7.18	89	Pn	Pn	13 18 36.1	+0.9
	comp=Z,1.2nm,0.3s,baz=259,slow=9.9,SNR=26						
BRTR				LR	LR	13 21 40.7	
	comp=Z,59nm,21.3s,baz=276,slow=40 comp=Z,3.5nm,0.4s						
BRTR				AML	AML		
MORH	Mrgy, Hungar	7.50	328	⇑P	Pn	13 18 39.3	-0.1
MORH	Mrgy, Hungar	7.50	328	P	Pn	13 18 39.1	-0.3
	comp=Z,6.2nm,0.5s						
KOVH	Kovagotottos	7.62	325	P	Pn	13 18 41.4	+0.2
	comp=Z,5.9nm,0.6s						
BURAR	Bucovina Array	7.68	5		Pn	13 18 41.8	-0.1
BURAR	Bucovina Array	7.68	5	⇓P	Pn	13 18 42.7	+0.8
BUR08	Bucovina Ar. S	7.70	4		Pn	13 18 42.5	+0.2
BMR	Baia Mare	7.73	356	P	Pn	13 18 43.4	+0.9
	comp=Z,24nm,0.6s,comp=Z,0.1nm						
BMR				AML	AML		
VAE	Valguarnera	8.12	255	Pn	Pn	13 18 48.7	+0.6
	comp=Z,4.9nm,0.5s,baz=30,slow=18,SNR=1.4						
SEV	Sevastopol'	8.31	54	*e*P	Pn	13 18 50.2	-0.3
SEV				pmax	pmax	13 18 54.4	
	comp=Z,1.0nm,0.2s						
SEV				*e*S	Sn	13 20 19.7	-4.5
SEV				smax	smax	13 20 21.2	
	comp=N,2.0nm,0.4s						
SEV				smax	smax	13 20 21.2	
	comp=E,1.0nm,0.2s						
SUDU	Sudak	9.31	55	*e*P	Pn	13 19 04.1	-0.1
SUDU				pmax	pmax	13 19 05.9	
	comp=Z,5.0nm,0.2s						
SOKA	Soboth	9.52	318	*e*Pn	Pn	13 19 07.9	+0.7
	comp=Z,0.1nm,0.2s						
RONA	Rosalia, Austr	9.65	326	*e*Pn	Pn	13 19 09.7	+0.7
	comp=Z,0.6nm,0.3s						
OBKA	Obir	9.67	316	*e*Pn	Pn	13 19 08.8	-0.4
	comp=Z,0.5nm,0.3s						
ARSA	Arzberg	9.67	322		Pn	13 19 11.0	+1.8
ARSA	Arzberg	9.67	322	*e*Pn	Pn	13 19 10.0	+0.8
	comp=Z,1.7nm,0.3s						
SESA	Seetaler Alpe,	10.05	319	*e*Pn	Pn	13 19 15.3	+0.7
	comp=Z,1.0nm,0.4s						
AKASG	Malin Array Be	11.28	16	Pn	Pn	13 19 30.6	-0.5
	comp=Z,1.5nm,0.3s,baz=210,slow=12,SNR=6.4						
AKASG				LR	LR	13 24 31.5	
	comp=Z,17nm,19.5s,baz=198,slow=41 comp=Z,0.6nm,0.3s						
AKASG				AML	AML		
MMAI	Mount Meron Ar	11.30	124	Pn	Pn	13 19 32.6	+1.0
	comp=Z,1.1nm,0.3s,baz=300,slow=12,SNR=4.6						
MMAI				LR	LR	13 24 33.5	
	comp=Z,25nm,21.2s,baz=334,slow=41 comp=Z,0.5nm,0.3s						
MMAI				AML	AML		
GERES	GERESS Array B	11.67	323	Pn	Pn	13 19 36.9	+0.3
	baz=147,slow=16,SNR=4.1						
GERES				LR	LR	13 24 21.8	
	comp=Z,36nm,20.1s,baz=222,slow=39 comp=Z,0.3nm,0.2s						
KHC	Kasperske Hory	11.93	324	*e*PN	Pn	13 19 39.6	-0.5
KHC				*e*SN	Sn	13 21 53.5	+0.5
CLL	Collm	13.81	329	LH		13 24 00.0	
BNI	Bardonecchia	13.96	297	Pn	Pn	13 20 09.4	+1.4
SSB	Saint Sauveur	15.48	297		P	13 20 32.9	+0.1
SSB				IAmb	IAmb	13 21 13.1	
	comp=Z,15nm,1.4s						
HFS	Hagfors	21.26	345	P	P	13 21 37.2	+1.2
	comp=Z,1.3nm,0.9s,baz=144,slow=12,SNR=1.0 comp=Z,1.3nm,0.9s						
FINES	FINESS Array B	21.53	2	P	P	13 21 40.3	+1.3
	comp=Z,1.9nm,0.9s,baz=196,slow=9.8,SNR=2.4 comp=Z,1.9nm,0.9s						
ESDC	Sonseca Array	21.69	278	P	P	13 21 41.1	+0.2
	comp=Z,0.8nm,1.1s,baz=79,slow=12,SNR=4.3 comp=Z,0.8nm,1.1s						
NB2	NORSAR Subarra	22.60	343	P	P	13 21 49.8	-0.7
	comp=Z,1.5nm,0.6s,baz=151,slow=11						
NOA	NORSAR Array B	22.60	343	P	P	13 21 50.1	-0.4
	comp=Z,1.7nm,0.9s,baz=152,slow=10,SNR=3.9						
NOA				LR	LR	13 30 56.8	
	comp=Z,20nm,18.7s,baz=175,slow=38 comp=Z,1.7nm,0.9s						
EKA	Eskdalemuir Ar	23.84	319	P	P	13 22 02.6	-0.4
	comp=Z,1.6nm,0.8s,baz=120,slow=9.7,SNR=2.3 comp=Z,1.6nm,0.8s						
ARCES	ARCESS Array B	29.64	1	LR	LR	13 35 46.0	
	comp=Z,47nm,18.0s,baz=196,slow=38						
TORD	Torodi Ar. Bea	33.31	223	P	P	13 23 27.7	-0.3
	comp=Z,0.2nm,0.4s,baz=34,slow=9.2,SNR=2.2 comp=Z,0.2nm,0.4s						
MKAR	Makanchi Array	41.85	61	P	P	13 24 41.2	+1.2
	comp=Z,0.5nm,0.6s,baz=292,slow=6.4,SNR=4.9 comp=Z,0.5nm,0.6s						
ZALV	Zalesovo Beam	42.30	50	P	P	13 24 44.6	+1.1
	comp=Z,0.4nm,0.3s,baz=262,slow=9.9,SNR=3.7 comp=Z,0.4nm,0.3s						
HHC	Hu-ho-hao-te	63.59	58	*e*P	P	13 27 21.3	+0.4
HHC				pmax	pmax		
	comp=Z,8.0nm,0.7s						
ASAR	Alice Springs	119.45	97	PKP	PKPdf	13 35 39.2	-0.7
	comp=Z,0.3nm,0.7s,baz=298,slow=1.6,SNR=4.6						

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*NAO **27** 13:17:52.0±0.7, 71°.99N×0°.13E, h10^{km}, ML3.1*

*BER **27** 13:17:52.2±2.4, 71°.96N×0°.01W, h10^{km}, Mw4.0, ML3.1(NAO), Confirmed Earthquake*

ISC 27 13:17:47.7±1.0**, 71°.89N**±0°.10×**0°.05W**±0°.08**, h10**^{km}**, n30, σ3^{s}.03**/39**, Jan Mayen Island region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LOF	Lofoten	5.98	122	Pn	Pn	13 19 20.5	+4.3
LOF				Sn	Sn	13 20 22.4	-2.2
LOF	Lofoten	5.98	122	*e*P	Pn	13 19 19.9	+3.8
LOF				*e*S	Sn	13 20 22.2	-2.4
LOF				IAML		13 20 31.7	
	comp=Z,3.1nm,0.7s						
DBG	Daneborg	6.34	302	Pn	Pn	13 19 23.5	+2.4
DBG	Daneborg	6.34	302	*e*P	Pn	13 19 23.2	+2.1
DBG				*e*S	Sn	13 20 28.9	-4.5
DBG	Daneborg	6.34	302	*i* P	Pn	13 19 23.3	+2.2
STEI	Steigen	6.58	120	Pn	Pn	13 19 27.8	+3.4
STEI				Sn	Sn	13 20 36.7	-2.6
STEI	Steigen	6.58	120	*e*P	Pn	13 19 27.7	+3.4
STEI				*e*S	Sn	13 20 35.4	-3.9
STEI				IAML		13 20 38.5	
	comp=Z,1.7nm,0.6s						
TRO	Tromso	6.65	101	*e*P	Pn	13 19 27.7	+2.4
FAUS	Fauske	6.99	123	Pn	Pn	13 19 34.2	+4.3
FAUS	Fauske	6.99	123	*e*P	Pn	13 19 33.1	+3.2
FAUS				*e*S	Sn	13 20 45.6	-3.7
FAUS				IAML		13 20 50.1	
	comp=Z,2.8nm,0.6s						
VAGH	Vaagaholmen	6.99	131	Pn	Pn	13 19 33.8	+3.9
VAGH	Vaagaholmen	6.99	131	*e*P	Pn	13 19 33.6	+3.7
VAGH				*e*S	Sn	13 20 45.6	-3.7
DAG	Danmarks Havn	6.99	323	*e*P	Pn	13 19 29.8	-0.1
DAG				*e*		13 20 30.4	
DAG	Danmarks Havn	6.99	323	*i* P	Pn	13 19 30.4	+0.4
DAG				*i* S	Sn	13 20 31.4	-18
JETT	Jettan, Norway	7.14	99	Pn	Pn	13 19 34.6	+2.4
JETT	Jettan, Norway	7.14	99	Pn	Pn	13 19 34.6	+2.4
BRBA	Barentsburg A	7.19	24	Pn	Pn	13 19 35.1	+2.4
BRBA	Barentsburg A	7.19	24	*e*P	Pn	13 19 33.3	+0.6
BRBB	Barentsburg B	7.22	24	Pn	Pn	13 19 35.2	+2.2
BRBB	Barentsburg B	7.22	24	*e*P	Pn	13 19 34.9	+1.9
STOK	Stokkvaagen	7.26	134	*e*P	Pn	13 19 35.3	+1.7
STOK				*e*S	Sn	13 20 51.9	-4.0
STOK				IAML		13 21 00.7	
	comp=Z,3.3nm,0.7s						
LEIR	Leirfjorden	7.46	134	*e*P	Pn	13 19 38.2	+1.8
LEIR				*e*S	Sn	13 20 56.6	-4.4
LEIR				IAML		13 21 00.5	
	comp=Z,2.4nm,0.5s						
SPA0	Spitsbergen Ar	7.57	26	Pn	Pn	13 19 39.2	+1.3
	baz=214,slow=16						
SPA0	Spitsbergen Ar	7.57	26	Pn	Pn	13 19 39.2	+1.3
MOR8	Moi Rana	7.72	131	Pn	Pn	13 19 43.7	+3.7
MOR8	Moi Rana	7.72	131	Pn	Pn	13 19 43.7	+3.7
SALU	Saltoluokta	7.87	116	*e*P	Pn	13 19 45.1	+3.1
KTK1	Kautokeino	8.29	99	*e*P	Pn	13 19 50.1	+2.3
ARA0	ARCESS Array S	8.74	93	Pn	Pn	13 19 54.9	+1.0
	baz=303,slow=12						
ARA0	ARCESS Array S	8.74	93	Pn	Pn	13 19 54.9	+1.0

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*SDD **27** 13:18:26.6±3.7, 18°.16N×71°.29W, h25^{km}±19^{km}, MD2.9, ML1.8, MW2.6, Presumed earthquake*

*OSPL **27** 13:18:30.3±1.3, 18°.14N×71°.28W, h16^{km}±7^{km}, ML2.2, MW2.6, Presumed earthquake*

ISC 27 13:18:29.2±1.0**, 18°.17N**±0°.04×**71°.32W**±0°.04**, h19**^{km}±3^{km}**, n10, σ1^{s}.06**/20**, 10C, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PODR	Polo	0.04	95	*i* P	Pg	13 18 32.8	-0.2
PODR				*e*S	Sg	13 18 35.5	+0.1
PODR				IAML		13 18 36.2	
	comp=Z,19μm,0.1s						
PODR	Polo	0.04	95	⇑*e*Pg	Pg	13 18 32.9	0.0
PODR				⇑*e*Sg	Sg	13 18 35.1	-0.3
PODR				IAML		13 18 35.6	
	comp=N,1μm,0.1s						
LODU1	El Espartillar	0.23	321	*i* P	Pg	13 18 35.2	+0.3
LODU1				*e*S	Sg	13 18 39.9	+1.2
LODU1				IAML		13 18 40.0	
	comp=Z,511nm,0.5s						
LOVI	El Cajuil, Ovi	0.37	187	*i* P	Pg	13 18 37.0	-0.1
LOVI				*e*S	Sg	13 18 42.5	+0.1
LOVI				IAML		13 18 44.9	
	comp=Z,105nm,0.9s						
LOBH	Bahia de las A	0.43	225	*i* P	Pg	13 18 37.8	-0.4
LOBH				*e*S	Sb	13 18 44.5	0.0
LOBH				IAML		13 18 45.3	
	comp=Z,49nm,2.6s						
LONE3	El Aguacate, B	0.45	343	*i* P	Pb	13 18 39.2	+0.5
LONE3				*e*S	Sn	13 18 47.1	-1.4
LONE3				IAML		13 18 51.4	
	comp=Z,31nm,2.4s						
SDDR	Presa de Saban	0.81	2	⇑*e*Pg	Pb	13 18 42.8	-2.0
SDDR				⇑*e*Sg	Sn	13 18 57.8	+0.6
SDDR				IAML		13 19 14.6	
	comp=N,10.0nm,0.4s						
ABDR	Alto Bandera	0.92	46	⇑*e*Pg	Pn	13 18 47.6	+0.2
ABDR				⇑*e*Sg	Sn	13 19 01.6	+1.3
ABDR				IAML		13 19 15.4	
	comp=N,13nm,1.3s						
BANI	BANI	0.94	76	⇑*e*Pg	Pb	13 18 46.6	-0.4
BANI				⇑*e*Sg	Sn	13 19 02.9	+2.4
BANI				IAML		13 19 06.7	
	comp=N,29nm,0.1s						
HATOM	Hato Mayor del	1.94	71	⇑*e*Pg	Pb	13 19 03.6	-0.4
HATOM				⇑*e*Sg	Sg	13 19 30.4	-1.4
HATOM				IAML		13 19 50.0	
	comp=N,9.8nm,3.4s						

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*IDC **27** 13:34:14.8±1.6, 9°.36N×125°.76E, h0^{km}, mb3.5/5, mbtmp3.5/5, MS2.3/1, Error ellipse: s-maj=189.5km s-min=22.5km az=70.0*

*MAN **27** 13:34:15.0, 9°.79N×126°.72E, h5^{km}, MS3.1*

ISC 27 13:34:19.4±1.3**, 9°.81N**±0°.07×**126°.8E**±0°.1**, h38**^{km}±3^{km}**, n18, σ1^{s}.86**/27**, mb3.4**/5**, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BIPH	Bislig	1.66	194	*e*P	Pn	13 34 45.2	-0.8
BIPH				*e*S	Sn	13 35 07.2	+1.1
CDOP	Cateel, Davao	2.04	189	*e*P	Pn	13 34 50.5	-0.6
CDOP				*i* S	Sn	13 35 14.7	-0.6
PLP	Palo	2.23	308	*e*P	Pn	13 34 53.8	+0.1
PLP				*e*S	Sn	13 35 19.9	-0.1
CGP	Cagayan de Oro	2.46	237	*e*P	Pn	13 34 55.4	-1.5
CGP				*i* S	Sn	13 35 24.8	-0.9
BUKP	Musuan	2.56	222	*i* P	Pn	13 34 58.4	+0.1
BUKP				*i* S	Sn	13 35 33.7	+5.5
LLP	Lapu-Lapu	2.81	281	*e*P	Pn	13 35 02.6	+0.7
LLP				*i* S	Sn	13 35 35.6	+1.1
TBP	Tagbilaran	2.88	268	*e*P	Pn	13 35 02.2	-0.4
TBP				*i* S	Sn	13 35 34.7	-1.3
DAV	Davao City (W)	2.96	204	Sn	Sn	13 35 25.5	-13
	baz=71,slow=22						
DAV				LR	LR	13 36 05.7	
	comp=Z,67nm,19.0s,baz=1.0,slow=49						
LSIP	Lazi, Siquijor	3.17	258	*i* P	Pn	13 35 06.5	-0.3
LSIP				*i* S	Sn	13 35 39.4	-4.0
KCP	Kidapawan	3.24	211	*e*P	Pn	13 35 05.7	-2.1
KCP				*e*S	Sn	13 35 48.4	+3.3
SNPH	Sibulan	3.52	263	*e*P	Pn	13 35 12.4	+0.8
SNPH				*e*S	Sn	13 35 52.8	+0.7
CTBH	Cotabato--PC H	3.59	224	*i* P	Pn	13 35 13.2	+0.7
PAGZ	Pagadian	3.88	240	*e*P	Pn	13 35 17.0	+0.5
PAGZ				*e*S	Sn	13 35 33.5	-27
WRA	Warramunga Arr	30.48	166	P	P	13 40 28.3	-0.7
	0.1nm,0.6s,baz=345,slow=8.2,SNR=1.3 0.1nm,0.6s						
ASAR	Alice Springs	33.99	168	P	P	13 40 58.6	-1.0
	0.2nm,0.6s,baz=351,slow=6.8,SNR=6.9 0.2nm,0.6s						
SONM	Songino Array	41.63	339	P	P	13 42 06.0	+2.0
	0.4nm,0.5s,baz=169,slow=8.2,SNR=1.9 0.4nm,0.5s						
MKAR	Makanchi Array	52.70	323	P	P	13 43 29.1	-1.1
	0.5nm,0.6s,baz=115,slow=7.8,SNR=3.5 0.5nm,0.6s						
FINES	FINESS Array B	86.53	332	P	P	13 46 58.8	+0.6
	1.1nm,0.7s,baz=57,slow=5.1,SNR=7.2 1.1nm,0.7s						

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*IDC **27** 13:58:23.4±3.8, 17°.64N×145°.32E, h156^{km}±31^{km}, mb3.2/6, mbtmp3.6/7, MS2.0/1, Error ellipse: s-maj=80.8km s-min=18.0km az=117.0*

*NEIC **27** 13:58:23.2±1.0, 17°.67N±0°.08×145°.3E±0°.2, h147^{km}±7^{km}, mb4.4/23, Error ellipse: s-maj=21.6km s-min=11.5km az=97.0*

ISC 27 13:58:22.9±0.6**, 17°.65N**±0°.07×**145°.3E**±0°.1**, h150**^{km}**, n36, σ1^{s}.00**/38**, mb4.2**/17**, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DPSS	Saipan	2.44	169		Pn	13 59 04.0	+0.6
DPSS				Sn	Sn	13 59 31.6	-2.9
GUMO	Guam	4.06	186	P	Pn	13 59 26.4	+2.4
	7.9nm,0.3s,baz=22,slow=19,SNR=1.8						
GUMO				S	Sn	14 00 11.8	+0.4
	38nm,0.3s,baz=318,slow=15,SNR=7.3						
GUMO				LR	LR	14 00 30.8	
	comp=Z,17nm,20.1s,baz=344,slow=32						
GUMO	Guam	4.06	186		Pn	13 59 25.2	+1.2
PATS	Pohnpei	16.64	129	P	Pn	14 02 08.3	+0.8
JMN	Monobe	19.01	330	P	P	14 02 32.4	-0.8
INU	Inuyama	19.11	339	P	P	14 02 33.2	-0.9
INU				IAmb	IAmb	14 02 45.9	
	comp=Z,13nm,1.1s						
JGF	Kuroka	19.22	340	P	P	14 02 35.1	-0.3
JGF				IAmb	IAmb	14 02 38.4	
	comp=Z,38nm,1.5s						
NACB	Ninganchiao	23.06	290	P	P	14 03 14.9	-0.3
NACB				IAmb	IAmb	14 03 36.4	
	comp=Z,25nm,1.3s						
WB0	Warramunga Arr	38.70	197	P	P	14 05 31.0	-1.4
WB0				IAmb	IAmb	14 05 52.1	
	comp=Z,7.6nm,1.4s						
WR8	Warramunga Arr	38.85	196	P	P	14 05 33.2	-0.4
WR8				IAmb	IAmb	14 06 00.4	
	comp=Z,6.3nm,1.4s						
WRA	Warramunga Arr	38.88	197	P	P	14 05 33.3	-0.6
	comp=Z,0.2nm,0.3s,baz=7.1,slow=8.5,SNR=8.2 comp=Z,0.2nm,0.3s						
WRA	Warramunga Arr	38.88	197	P	P	14 05 32.1	-1.8
FITZ	Fitzroy Crossi	40.45	210	P	P	14 05 46.9	0.0
	comp=Z,1.5nm,0.9s,baz=28,slow=7.8,SNR=9.8 comp=Z,1.5nm,0.9s						
FITZ	Fitzroy Crossi	40.45	210	P	P	14 05 46.7	-0.2
ASAR	Alice Springs	42.55	196	P	P	14 06 03.7	-0.2
	comp=Z,0.1nm,0.4s,baz=17,slow=7.3,SNR=6.2 comp=Z,0.1nm,0.4s						
BBOO	Buckleboo	50.95	190	P	P	14 07 08.5	-0.6
BBOO				IAmb	IAmb	14 07 48.6	
	comp=Z,27nm,1.4s						
MORW	Morawa	54.37	212	P	P	14 07 34.6	+0.3
MORW				IAmb	IAmb	14 07 43.4	
	comp=Z,7.7nm,1.2s						
H18K	Honhosa River	60.23	24	P	P	14 08 15.3	+0.3
CAST	Castle Rocks	62.20	27	P	P	14 08 28.6	+0.4
CAST				IAmb	IAmb	14 08 32.2	
	comp=Z,6.5nm,1.3s						
H21K	Melozitna Rive	62.59	24	P	P	14 08 31.4	+0.6
H21K				IAmb	IAmb	14 08 45.4	
	comp=Z,5.7nm,1.4s						
ILAR	Eielson Array	64.75	26	P	P	14 08 44.1	-0.8
	comp=Z,0.3nm,0.4s,baz=252,slow=6.1,SNR=7.1 comp=Z,0.3nm,0.4s						
J25K	Salcha River,	65.36	26	P	P	14 08 48.7	-0.2
J25K				IAmb	IAmb	14 08 49.3	
	comp=Z,8.9nm,1.5s						
BERG	Berg Lake	65.44	31	P	P	14 08 48.6	-0.8
BMAR	Burnt Mountain	66.22	23	P	P	14 08 56.3	+1.9
I28M	Miner Creek	67.76	26	P	P	14 09 05.0	+0.8
I28M				IAmb	IAmb	14 09 06.6	
	comp=Z,6.8nm,1.4s						
H29M	Whitestone	68.48	25	P	P	14 09 09.5	+0.9
H29M				IAmb	IAmb	14 09 49.6	
	comp=Z,9.3nm,1.4s						
I30M	Mount Dempster	69.23	26	P	P	14 09 14.0	+0.6
I30M				IAmb	IAmb	14 09 48.7	
	comp=Z,6.2nm,1.4s						
C36M	Paulatuk	73.86	22	P	P	14 09 41.0	+0.1
YKA	Yellowknife Ar	79.09	28	P	P	14 10 10.6	+0.2
	comp=Z,0.8nm,0.6s,baz=272,slow=4.9,SNR=3.6 comp=Z,0.8nm,0.6s						
K05A	Summer Lake	80.96	48	P	P	14 10 21.4	+0.2
KVN	Kaiserville	84.05	51	P	P	14 10 37.2	0.0
NVAR	Mina Array Bea	84.08	52	P	P	14 10 37.5	+0.1
	comp=Z,0.5nm,0.5s,baz=262,slow=5.5,SNR=3.7 comp=Z,0.5nm,0.5s						
NVAR	Mina Array Bea	84.08	52	P	P	14 10 37.2	-0.2
BCYI	Bear Canyon	85.66	45	P	P	14 10 45.1	-0.1
LPAZ	La Paz	148.02	93	PKPbc	PKPbc	14 17 51.8	-0.6
	comp=Z,1.2nm,0.4s,baz=337,slow=0.8,SNR=5.4						
LPAZ	La Paz	148.02	93		PKPdf	14 17 50.4	+1.3

SCB 27 14:20:20.9±1.1**, 14°.97S**×**67°.88W, h10**^{km}±6^{km}**, MB4.2, ML3.1**/3**, Error ellipse: s-maj=6.8km s-min=6.0km az=1.0, Central Bolivia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BBOB	La Paz, Bander	1.19	192	Pg	Pg	14 20 43.7	-0.1
LPAZ	La Paz	1.33	191	Pg	Pn	14 20 46.0	-0.1
LPAZ				Sg	Sn	14 21 04.4	+0.2
LPAZ				IAML		14 21 08.7	
	65nm,0.2s						
BBOD	La Paz, Gloria	1.80	203	Pg	Pg	14 20 54.9	-0.5
BBOJ	La Paz, Jacaqu	2.02	189	Pg	Pb	14 20 58.3	+0.3
SOEJ	Jacaque	2.02	189	Pg	Pb	14 20 58.6	+0.6
SOEO	Opoqueri	3.57	180	Pn	Pb	14 21 21.3	-3.2
PB16	IPOC Station P	3.69	205	Pn	Pb	14 21 23.8	-2.8
SOET	ToroToro	3.70	148	Pn	Pb	14 21 23.1	-3.5
SOET				Sn	Sb	14 22 11.7	0.0
SOET				IAML		14 22 26.3	
	43nm,0.7s						

AOEA	**Aiquile**	4.08	142	Pn	Pb	14 21 28.8	-4.2
AOEA				Sn	Sb	14 22 19.5	-2.9
AOEA				IAML		14 22 35.0	
	66nm,0.5s						
SIV	**San Ignacio**	6.64	100	Pn	Pn	14 22 04.2	+5.6

IDC ***27*** *14:21:57.7±0.7, 6°.75N×72°.93W, h154^{km}±7^{km}, mb3.6/6, mbtmp4.1/9, Error ellipse: s-maj=22.1km s-min=7.5km az=131.0*

NEIC ***27*** *14:21:58.6±0.8, 6°.6N±0°.1×72°.8W±0°.1, h171^{km}±10^{km}, mb4.2/46, Error ellipse: s-maj=23.6km s-min=8.7km az=134.0*

RSNC ***27*** *14:21:59.6±0.0, 7°N±1°×7°3W±°, h151^{km}±1^{km}, M4.0, mB4.8, mb4.4, ML3.6, Mw(mB)4.1*

FUNV ***27*** *14:22:01.5, 7°.09N×73°.03W, h19^{km}, MW3.9, Presumed earthquake*

ISC 27 14:21:58.5±0.6**, 6°.86N**±0°.03×**73°.08W**±0°.04**, h155**^{km}±5^{km}**, n110,** σ1^{s}.**69**/147**, mb4.2**/26**, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BARC	**Barichara**	0.28	201	P	**Pn**	**14 22 19.8**	**-0.1**
BARC				S	**Sn**	**14 22 35.3**	**-0.9**
PAMC	**Pamplona, Colo**	0.61	38	P	**Pn**	**14 22 22.6**	**+1.1**
PAMC				S	**Sn**	**14 22 40.0**	**+0.9**
BRJC	**Barrancabermej**	0.67	280	P	**Pn**	**14 22 21.4**	**+0.1**
BRJC				S	**Sn**	**14 22 38.8**	**+0.1**
RUSC	**La Rusia**	0.96	180	P	**Pn**	**14 22 23.6**	**-0.4**
RUSC				S	**Sn**	**14 22 42.8**	**-0.7**
RUSC	**La Rusia**	0.96	180	*e*P	**Pn**	**14 22 23.4**	**-0.6**
RUSC				*e*S	**Sn**	**14 22 39.0**	**-4.5**
TAMC	**Tame, Arauca**	1.35	108	P	**Pn**	**14 22 28.2**	**+1.3**
TAMC				S	**Sn**	**14 22 49.8**	**+1.1**
OCAC	**Ocana**	1.39	350	P	**Pn**	**14 22 27.9**	**+0.4**
PTBC	**PUERTO BERRIO,**	1.40	257	P	**Pn**	**14 22 26.2**	**-1.3**
PTBC				S	**Sn**	**14 22 48.0**	**-1.6**
SPBC	**San Pablo de B**	1.55	219	P	**Pn**	**14 22 28.5**	**-0.6**
SPBC				S	**Sn**	**14 22 50.8**	**-1.8**
NORC	**Norcasia**	2.20	234	P	**Pn**	**14 22 35.5**	**-0.8**
NORC				S	**Sn**	**14 23 03.8**	**-1.6**
CHIC	**Chingaza**	2.31	196	P	**Pn**	**14 22 37.8**	**-0.2**
CHIC				S	**Sn**	**14 23 07.1**	**-1.3**
ROSC	**El Rosal**	2.36	212	P	**Pn**	**14 22 39.5**	**+1.0**
	201nm,0.3s,baz=87,slow=18,SNR=110						
ROSC				S	**Sn**	**14 23 08.2**	**-1.2**
	595nm,0.5s,baz=104,slow=16,SNR=12						
ROSC	**El Rosal**	2.36	212		**Pn**	**14 22 38.9**	**+0.3**
ROSC				Sn	**Sn**	**14 23 08.9**	**-0.5**
ROSC	**El Rosal**	2.36	212	P	**Pn**	**14 22 39.4**	**+0.9**
ROSC				S	**Sn**	**14 23 08.2**	**-1.2**
HELC	**Santa Helena**	2.52	255	P	**Pn**	**14 22 40.4**	**-0.1**
HELC				S	**Sn**	**14 23 11.1**	**-1.7**
HELC	**Santa Helena**	2.52	255	*e*P	**Pn**	**14 22 42.4**	**+1.9**
HELC				*e*S	**Sn**	**14 23 13.1**	**+0.3**
CVER	**Cruz Verde, Cu**	2.52	203	P	**Pn**	**14 22 41.2**	**+0.5**
CVER				S	**Sn**	**14 23 12.2**	**-0.9**
UREC	**San Jos de Ur**	2.59	290	P	**Pn**	**14 22 39.4**	**-1.6**
UREC				S	**Sn**	**14 23 10.8**	**-3.0**
GUY2C	**Guyana, Caldas**	2.79	235	P	**Pn**	**14 22 43.7**	**-0.3**
GUY2C				S	**Sn**	**14 23 20.5**	**+1.5**
VILC	**Villavicencio,**	2.80	193	P	**Pn**	**14 22 42.8**	**-0.9**
VILC				S	**Sn**	**14 23 17.5**	**-1.1**
CBOC	**Ciudad Bolivar**	3.08	251	P	**Pn**	**14 22 47.3**	**+0.1**
CBOC				S	**Sn**	**14 23 21.8**	**-3.1**
SDV	**Santo Domingo**	3.15	50	P	**Pn**	**14 22 48.6**	**+0.4**
	59nm,0.3s,baz=229,slow=10.0,SNR=30						
SDV				S	**Sn**	**14 23 25.0**	**-1.6**
	261nm,0.4s,baz=270,slow=19,SNR=33						
SDV	**Santo Domingo**	3.15	50		**Pn**	**14 22 47.8**	**-0.3**
SDV	**Santo Domingo**	3.15	50	P	**Pn**	**14 22 49.3**	**+1.1**
SDV				S	**Sn**	**14 23 25.8**	**-0.8**
SDV	**Santo Domingo**	3.15	50	*e*P	**Pn**	**14 22 47.2**	**-0.9**
SDV				*e*S	**Sn**	**14 23 21.3**	**-5.4**
ARGC	**Ariguani, Magd**	3.19	339	P	**Pn**	**14 22 49.8**	**+1.3**
ARGC				S	**Sn**	**14 23 28.6**	**+1.2**
ARMEC	**Armenia, Quind**	3.44	228	P	**Pn**	**14 22 50.9**	**-1.0**
ARMEC				S	**Sn**	**14 23 36.5**	**+3.3**
PRAC	**Prado**	3.61	210	P	**Pn**	**14 22 53.1**	**-0.8**
PRAC				S	**Sn**	**14 23 34.9**	**-2.0**
APAC	**Apartado, Choc**	3.62	287	P	**Pn**	**14 22 53.6**	**-0.4**
APAC				S	**Sn**	**14 23 34.5**	**-2.6**
ORTC	**Ortega, Tolima**	3.64	216	P	**Pn**	**14 22 54.0**	**-0.3**
ORTC				S	**Sn**	**14 23 36.8**	**-0.8**
SJCC	**San Jacinto, C**	3.66	326	P	**Pn**	**14 22 53.2**	**-1.4**
SJCC				S	**Sn**	**14 23 34.8**	**-3.4**
SJCC	**San Jacinto, C**	3.66	326	*e*P	**Pn**	**14 22 54.2**	**-0.4**
SJCC				*e*S	**Sn**	**14 23 33.1**	**-5.1**
LCBC	**Los crdobas,**	3.81	302	P	**Pn**	**14 22 54.5**	**-2.0**
LCBC				S	**Sn**	**14 23 38.0**	**-3.6**
GUVC	**San Jose del G**	4.31	174	P	**Pn**	**14 23 02.5**	**-0.5**
GUVC				S	**Sn**	**14 23 50.1**	**-3.1**
SMRC	**Santa Marta, M**	4.42	345	P	**Pn**	**14 23 04.4**	**0.0**
SMRC				S	**Sn**	**14 23 53.2**	**-2.7**
PIZC	**Pizarro, Choco**	4.66	246	P	**Pn**	**14 23 08.4**	**+0.9**
PIZC				S	**Sn**	**14 24 01.4**	**+0.1**
MACC	**Macarena, Meta**	4.75	189	P	**Pn**	**14 23 06.6**	**-2.1**
MACC				S	**Sn**	**14 23 58.9**	**-4.6**
BETC	**Betania**	4.77	210	P	**Pn**	**14 23 07.5**	**-1.6**
URIC	**Uribia, Colomb**	4.93	12	P	**Pn**	**14 23 09.9**	**-1.2**
URIC				S	**Sn**	**14 24 07.1**	**-0.7**
URIC	**Uribia, Colomb**	4.93	12	*e*P	**Pn**	**14 23 10.6**	**-0.5**
GARC	**Garzon, Huila**	5.23	208	P	**Pn**	**14 23 13.0**	**-2.3**
GARC				S	**Sn**	**14 24 08.8**	**-6.5**
POPC	**Popayan, Colom**	5.59	220	P	**Pn**	**14 23 19.2**	**-0.9**
	35nm,0.7s						
POPC				S	**Sn**	**14 24 22.2**	**-1.6**
	35nm,0.7s						
POPC				AML	AML		
BENV	**Beln**	6.24	60	*e*P	**Pn**	**14 23 27.7**	**-0.8**
BENV				*e*S	**Sn**	**14 24 33.1**	**-5.9**
TURV	**Turiamo**	6.29	55	*e*P	**Pn**	**14 23 29.4**	**+0.2**
BBAC	**Balboa, Cauca**	6.35	221	P	**Pn**	**14 23 29.9**	**-0.3**
	919nm35nm,0.6s						
BBAC				S	**Sn**	**14 24 40.1**	**-1.9**
	919nm35nm,0.6s						
TACV	**Tcata**	6.81	61	*e*P	**Pn**	**14 23 35.5**	**-0.7**
PTLC	**Puerto Leguiza**	6.86	195	P	**Pn**	**14 23 35.5**	**-1.3**
OTAV	**Otavalo**	8.48	219		**Pn**	**14 23 57.5**	**-1.3**
MTDJ	**Mount Denham**	12.10	339		**Pn**	**14 24 48.8**	**+2.7**
JTS	**Las Juntas de**	12.22	287	P	**Pn**	**14 24 51.0**	**+3.3**
	5.6nm,0.5s,baz=80,slow=11,SNR=6.5						
GTBY	**Guantanamo Bay**	13.14	352	*e*P	**P**	**14 25 02.9**	**-0.8**
GTBY				*e*S	S	14 27 56.5	+20
RCC	**Rio Carpintero**	13.30	349	*e*P	**P**	**14 25 04.3**	**-1.3**
QMBU	**Quimbuelo**	13.37	353	*e*P	**P**	**14 25 05.6**	**-0.8**
PINC	**Pinares de May**	13.80	349	*e*P	**P**	**14 25 11.3**	**+0.2**
HLGC	**Holguin**	14.24	349	*e*P	**P**	**14 25 20.2**	**+4.2**
TEIG	**Tepich**	19.84	314	P	**P**	**14 26 19.5**	**+2.0**
TEIG				IAmb	IAmb	14 26 22.7	
	comp=Z,11nm,0.7s						
X48A	**Hartselle**	30.33	337	P	**P**	**14 27 56.9**	**+1.3**
X48A				IAmb	IAmb	14 27 58.4	
	comp=Z,2.9nm,0.8s						
WVT	**Waverly**	32.11	337	P	**P**	**14 28 12.3**	**+1.2**
WVT				IAmb	IAmb	14 28 13.0	
	comp=Z,2.6nm,0.5s						
P61A	**Hammonton**	32.71	358	P	**P**	**14 28 16.6**	**+0.4**
WHAR	**Wooly Hollow**	33.35	331	P	**P**	**14 28 22.6**	**+0.7**
WHAR				IAmb	IAmb	14 28 23.8	
	comp=Z,3.5nm,0.9s						
FCAR	**Ozark Folk Cen**	33.76	332	P	**P**	**14 28 25.9**	**+0.5**
FCAR				IAmb	IAmb	14 28 26.6	
	comp=Z,3.2nm,0.7s						
BLO	**Bloomington**	34.38	341	P	**P**	**14 28 32.0**	**+1.3**
P46A	**Rosedale**	35.00	341	P	**P**	**14 28 37.0**	**+0.9**
P46A				IAmb	IAmb	14 28 38.2	
	comp=Z,7.0nm,0.6s						
CCM	**Cathedral Cave**	35.15	335	P	**P**	**14 28 38.0**	**+0.6**
CCM				IAmb	IAmb	14 28 38.9	
	comp=Z,7.5nm,0.6s						
S39A	**Bolivar**	35.78	332	P	**P**	**14 28 43.3**	**+0.5**
TXAR	**Lajitas Array**	36.47	312	P	**P**	**14 28 49.6**	**+0.7**
	comp=Z,1.1nm,0.6s,baz=127,slow=9.2,SNR=18						
TXAR				PcP	**PcP**	**14 31 10.9**	**+1.3**
	comp=Z,0.5nm,0.6s,baz=140,slow=4.6,SNR=7.5						
	comp=Z,1.1nm,0.6s						
TXAR	**Lajitas Array**	36.47	312	P	**P**	**14 28 49.2**	**+0.3**
TX31	**Lajitas Ar. Si**	36.47	312	P	**P**	**14 28 49.3**	**+0.4**
P40A	**Paris**	36.73	335	P	**P**	**14 28 51.2**	**+0.4**
P40A				IAmb	IAmb	14 28 51.8	
	comp=Z,4.5nm,0.7s						
JFWS	**Jewell Farm**	38.97	340	P	**P**	**14 29 10.1**	**+0.5**
MNTX	**Cornudas Mount**	38.97	314	P	**P**	**14 29 10.4**	**+0.6**
EYMN	**Ely**	43.85	342	P	**P**	**14 29 49.4**	**+0.1**
EYMN				IAmb	IAmb	14 29 55.2	
	comp=Z,12nm,1.1s						
PV15	**Paradox Valley**	44.79	320	IAmb	IAmb	14 29 59.2	
	comp=Z,6.3nm,0.6s						
PV13	**Radium Mtn., P**	44.90	319	P	**P**	**14 29 59.5**	**+1.4**
PV13				IAmb	IAmb	14 30 00.1	
	comp=Z,7.0nm,0.7s						
PV12	**Saucer Basin,**	44.98	319	IAmb	IAmb	14 30 00.8	
	comp=Z,4.6nm,0.8s						
PV23	**Carpenter Ridg**	45.19	320	IAmb	IAmb	14 30 07.7	
	comp=Z,4.5nm,0.6s						
WUAZ	**Wupatki**	45.22	315	P	**P**	**14 30 01.3**	**+0.8**
HMU	**Henry Mountain**	46.04	318	IAmb	IAmb	14 30 09.8	
	comp=Z,5.9nm,1.1s						
ULM	**Lac du Bonnet**	47.26	340	P	**P**	**14 30 15.8**	**-0.2**
	comp=Z,3.1nm,0.5s,baz=143,slow=7.7,SNR=9.6						
	comp=Z,3.1nm,0.5s						
ULM	**Lac du Bonnet**	47.26	340	P	**P**	**14 30 15.6**	**-0.4**
ULM				IAmb	IAmb	14 30 18.5	
	comp=Z,6.2nm,0.9s						
LCMT	**Little Creek M**	47.27	315	P	**P**	**14 30 17.4**	**+0.9**
PDAR	**Pinedale Array**	48.07	324	P	**P**	**14 30 23.0**	**+0.3**
	comp=Z,0.6nm,0.5s,baz=123,slow=7.8,SNR=5.0						
	comp=Z,0.6nm,0.5s						
TCUT	**Toone Canyon**	48.22	321	IAmb	IAmb	14 30 25.5	
	comp=Z,6.0nm,0.6s						
HWUT	**Hardware Ranch**	48.60	322	P	**P**	**14 30 27.6**	**+0.9**
BGU	**Big Grassy Mou**	49.14	320	P	**P**	**14 30 31.3**	**+0.5**
BGU				IAmb	IAmb	14 30 32.3	
	comp=Z,3.1nm,0.6s						
NVAR	**Mina Array Bea**	51.48	315	P	**P**	**14 30 49.1**	**+0.5**
	comp=Z,0.6nm,0.6s,baz=138,slow=6.9,SNR=3.6						
	comp=Z,0.6nm,0.6s						
MFID	**Camas Ranch**	52.22	321	P	**P**	**14 30 54.3**	**+0.5**
BEKR	**Beckworth**	53.54	315	P	**P**	**14 31 04.4**	**+0.8**
LNOR	**Lincton Mounta**	54.99	323	P	**P**	**14 31 14.5**	**+0.7**
PINE	**Pine Mountain**	55.65	319	IAmb	IAmb	14 31 20.8	
	comp=Z,5.5nm,0.9s						
EDM	**Edmonton**	56.61	332	P	**P**	**14 31 24.9**	**-0.2**
KSXB	**Camp Six Broad**	56.78	316	P	**P**	**14 31 27.2**	**+0.5**
BUCK	**Buck Mountain**	57.15	319	P	**P**	**14 31 29.4**	**+0.1**
YKA	**Yellowknife Ar**	63.24	340	P	**P**	**14 32 10.2**	**0.0**
	comp=Z,2.9nm,0.5s,baz=135,slow=6.8,SNR=20						
	comp=Z,2.9nm,0.5s						
YKA	**Yellowknife Ar**	63.24	340	P	**P**	**14 32 10.0**	**-0.2**
R33M	**Jennings River**	68.16	332	P	**P**	**14 32 41.9**	**0.0**
TULEG	**Thule**	69.67	1	P	**P**	**14 32 50.2**	**-0.6**
INK	**Inuvik**	73.01	340	P	**P**	**14 33 11.0**	**+0.1**
INK				IAmb	IAmb	14 33 47.2	
	comp=Z,7.0nm,1.4s						
F30M	**Barrier River**	73.50	339	P	**P**	**14 33 14.4**	**+0.5**
I27K	**Kandik River**	75.00	336	P	**P**	**14 33 22.9**	**+0.2**
I27K				IAmb	IAmb	14 33 24.8	
	comp=Z,5.0nm,1.3s						
BMAR	**Burnt Mountain**	76.64	338	P	**P**	**14 33 32.0**	**+0.1**
HDA	**Harding Lake**	76.90	335	P	**P**	**14 33 33.8**	**+0.4**
HDA				IAmb	IAmb	14 33 48.7	
	comp=Z,5.2nm,1.1s						
ILAR	**Eielson Array**	76.94	335	P	**P**	**14 33 33.8**	**+0.1**
	comp=Z,0.5nm,0.6s,baz=95,slow=5.9,SNR=5.0						
	comp=Z,0.5nm,0.6s						
H23K	**Yukon River**	78.24	336	P	**P**	**14 33 41.0**	**+0.1**
M20K	**Styx River**	79.30	332	P	**P**	**14 33 46.8**	**0.0**
M20K				IAmb	IAmb	14 33 56.8	
	comp=Z,10nm,1.4s						
N18K	**Kilae Creek**	80.53	330	P	**P**	**14 33 53.2**	**-0.1**
MKAR	**Makanchi Array**	122.27	20	PKP	**PKiKP**	**14 40 34.3**	**-1.3**
	comp=Z,0.2nm,0.4s,baz=274,slow=4.6,SNR=4.3						
ASAR	**Alice Springs**	149.17	234	PKP	**PKPdf**	**14 41 24.8**	**-0.4**
	comp=Z,2.0nm,0.7s,baz=105,slow=1.5,SNR=17						
ASAR				PKPbc	**PKPbc**	**14 41 28.4**	**-1.1**
	comp=Z,2.3nm,0.7s,baz=118,slow=3.1,SNR=11						
WRA	**Warramunga Arr**	150.39	241	PKP	**PKPdf**	**14 41 26.9**	**-0.3**
	comp=Z,1.6nm,0.4s,baz=107,slow=2.8,SNR=2.4						
WRA				PKPbc	**PKPbc**	**14 41 31.3**	**-1.3**
	comp=Z,1.6nm,0.4s,baz=108,slow=2.8,SNR=4.9						
CMAR	**Chiang Mai Arr**	153.64	17	PKPbc	**PKPbc**	**14 41 37.8**	**-2.2**
	comp=Z,0.7nm,0.6s,baz=334,slow=2.3,SNR=2.5						

IDC 27 14:29:21.6±1.0**, 9°.36S**×**159°.41E, h0**^{km}**, mb3.6**/4**, mbtmp3.6**/4**, MS3.2**/1**, Error ellipse: s-maj=39.0km s-min=18.2km az=174.0, Bougainville-Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	**Honiara**	0.53	98	Pn	Pn	14 29 35.4	-1.0
	2μm,0.3s,baz=314,slow=8.5,SNR=1680						
HNR				LR	LR	14 29 41.6	
	comp=Z,28nm,20.0s,baz=138,slow=38						
HNR				Sn	Sb	14 29 42.9	+0.9
	1μm,0.3s,baz=317,slow=14,SNR=8.3						
PMG	**Port Moresby**	12.09	269	LR	LR	14 36 28.5	
	comp=Z,98nm,18.4s,baz=186,slow=35						
WRA	**Warramunga Arr**	26.40	244	P	P	14 34 59.9	-0.2
	0.7nm,1.0s,baz=71,slow=10,SNR=6.7						
WRA				PcP	PcP	14 38 25.5	-0.5
	0.2nm,0.8s,baz=52,slow=1.3,SNR=2.2						
	0.7nm,1.0s						
ASAR	**Alice Springs**	28.22	237	P	P	14 35 16.6	+0.1
	0.3nm,0.6s,baz=61,slow=10,SNR=6.1						
	0.3nm,0.6s						
ILAR	**Eielson Array**	84.00	20	P	P	14 41 53.4	-0.2
	0.4nm,0.4s,baz=232,slow=4.4,SNR=15						
	0.4nm,0.4s						
MKAR	**Makanchi Array**	88.07	318	P	P	14 42 14.2	+0.1
	0.4nm,0.6s,baz=104,slow=3.6,SNR=2.7						
	0.4nm,0.6s						

TIR ***27*** *14:43:49.3, 40°.98N×19°.81E, h7^{km}±2^{km}, Ml2.7/5*

SKO ***27*** *14:43:49.3, 40°.98N×19°.73E, h2^{km}, ML2.5*

BEO ***27*** *14:43:49.5±0.8, 40°.88N×19°.60E, h20^{km}±4^{km}, ML2.7/5*

PDG ***27*** *14:43:50.0±0.4, 40°.99N×19°.67E, h13^{km}±1^{km}, ML2.9/10, Error ellipse: s-maj=0.5km s-min=1.3km az=0.0*

ISC 27 14:43:49.4±1.1**, 41°.00N**±0°.02×**19°.76E**±0°.03**, h8**^{km}±9^{km}**, n37,** σ1^{s}.**11**/71**, 3C-3D, Albania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TIR	**Tirane**	0.35	13	P	**Pg**	**14 43 55.9**	**-0.5**
TIR				S	**Sb**	**14 44 03.9**	**+0.3**
TIR				AML	AML	14 44 10.4	
	2.8nm,0.4s						
OHR	**Ohrid**	0.79	82	*i* Pg	**Pg**	**14 44 04.0**	**-0.7**
OHR				*i* Sg	**Sg**	**14 44 15.4**	**+0.4**
OHR				*e*Lg	Lg	14 44 16.9	
	comp=N,145nm,0.5s						
OHR				*e*Lg	Lg	14 44 16.9	
	comp=E,166nm,0.6s						
PHP	**Peshkopia**	0.85	37	P	**Pg**	**14 44 04.4**	**-1.4**
PHP				S	**Sg**	**14 44 17.4**	**+0.5**
PHP				AML	AML	14 44 21.5	
	comp=E,1.2nm,0.3s						
KBN	**Korca**	0.87	116	P	**Pg**	**14 44 04.9**	**-1.2**
KBN				S	**Sg**	**14 44 16.5**	**-0.9**
KBN				AML	AML	14 44 19.5	
	comp=E,0.9nm,0.6s						
ULC	**Ulcinj**	1.03	338	*e*Pg	**Pb**	**14 44 08.8**	**-0.8**
ULC				*e*Sg	**Sn**	**14 44 25.4**	**+0.5**
ULC				AML	AML		
LSK	**Leskovik**	1.07	143	P	**Pn**	**14 44 13.1**	**+2.4**
LSK				S	**Sn**	**14 44 25.4**	**-0.3**
SDA	**Shkodra**	1.07	350	P	**Pn**	**14 44 10.3**	**-0.3**
SDA				S	**Sn**	**14 44 26.7**	**+1.1**
SDA				AML	AML	14 44 28.9	
	comp=E,0.9nm,0.5s						
SDA				AML	AML	14 44 31.4	
	comp=E,0.6nm,0.4s						
SRN	**Sarande**	1.14	171	P	**Pg**	**14 44 11.4**	**+0.2**
SRN				S	**Sn**	**14 44 27.6**	**+0.3**
SRN				AML	AML	14 44 31.8	
	comp=E,1.3nm,0.5s						
DRME	**Dracevica, Mon**	1.26	340	⇓*i*Pg	**Pg**	**14 44 14.0**	**+0.4**
DRME				*e*Sg	**Sg**	**14 44 32.1**	**+2.2**
DRME				AML	AML		
KEK	**Kerkira**	1.29	179	P	**Pb**	**14 44 13.4**	**-0.4**
KEK				S	**Sg**	**14 44 31.3**	**+0.4**
BUM	**Brajici-Budva**	1.45	334	⇑*i*Pg	**Pb**	**14 44 16.3**	**-0.4**
BUM				*i* Sg	**Sg**	**14 44 38.0**	**+1.9**
BUM				AML	AML		
PDG	**Podgorica**	1.48	345	P	**Pg**	**14 44 18.0**	**+0.3**
PDG				S	**Sg**	**14 44 39.6**	**+2.7**
PDG	**Podgorica**	1.48	345	*e*Pg	**Pg**	**14 44 18.0**	**+0.3**
PDG				*e*Sg	**Sg**	**14 44 38.4**	**+1.5**
PDG	**Podgorica**	1.48	345	*e*Pg	**Pb**	**14 44 16.7**	**-0.3**
PDG				*e*Sg	**Sg**	**14 44 39.3**	**+2.4**
PDG				AML	AML		
IGT	**Igoumenitsa**	1.53	163	P	**Pg**	**14 44 18.2**	**-0.6**
IGT				S	**Sg**	**14 44 40.1**	**+1.5**
SKO	**Skopje**	1.59	52	*i* Pg	**Pn**	**14 44 18.3**	**+0.5**
SKO				*i* Sg	**Sg**	**14 44 40.8**	**+0.2**
PVY	**Plav**	1.60	5	⇑*i*Pn	**Pb**	**14 44 19.2**	**0.0**
PVY				*e*Sn	**Sg**	**14 44 42.6**	**+1.8**
PVY				AML	AML		
CEME	**Cevo**	1.67	338	⇓*i*Pn	**Pn**	**14 44 19.3**	**+0.4**
CEME				*e*Sn	**Sg**	**14 44 43.0**	**0.0**
CEME				AML	AML		
HCY	**Herceg Novi**	1.73	327	⇓*i*Pn	**Pn**	**14 44 19.6**	**-0.1**
HCY				*e*Sn	**Sg**	**14 44 44.7**	**-0.2**
HCY				AML	AML		
KOME	**Kolasin**	1.85	354	*e*Pn	**Pb**	**14 44 22.7**	**-0.9**
KOME				*e*Sn	**Sg**	**14 44 48.6**	**-0.5**
KOME				AML	AML		
IVA	**Berane**	1.87	3	*e*Pn	**Pb**	**14 44 22.9**	**-0.9**
IVA				*i* Sn	**Sb**	**14 44 48.3**	**+0.9**
IVA				AML	AML		
DBRK	**Dubrovnik**	2.06	325	*e*Pn	**Pn**	**14 44 24.0**	**-0.2**
DBRK				Sn	**Sn**	**14 44 50.5**	**+0.5**
VAY	**Valandovo**	2.15	81	*i* Pn	**Pn**	**14 44 26.6**	**+1.2**
VAY				*i* Sg	**Sg**	**14 44 58.1**	**-0.3**
VAY				*e*Lg	Lg	14 44 59.6	
	comp=N,37nm,0.9s						
VAY				*e*Lg	Lg	14 45 00.3	
	comp=E,20nm,0.7s						
SJES	**Sjenica**	2.26	4	*e*Pn	**Pb**	**14 44 29.9**	**-0.6**
SJES				*e*Sn	**Sb**	**14 44 58.3**	**-0.4**
PLE	**Pljevlja**	2.34	353	⇑*i*Pn	**Pn**	**14 44 29.5**	**+1.2**
PLE				*i* Sn	**Sb**	**14 44 59.7**	**-1.3**
PLE				AML	AML		
BARS	**Barje**	2.38	40	*e*Pn	**Pb**	**14 44 30.9**	**-1.5**
BARS				*e*Sn	**Sn**	**14 44 59.9**	**+2.0**
STON	**Ston**	2.42	321	*i* Pn	**Pn**	**14 44 28.8**	**-0.4**
STON				Sn	**Sn**	**14 44 58.2**	**-0.6**
STON	**Ston**	2.42	321	*e*Pn	**Pn**	**14 44 28.9**	**-0.3**
STON				*e*Sn	**Sn**	**14 44 56.7**	**-2.2**
SELS	**Selova**	2.44	24	*e*Pn	**Pn**	**14 44 31.0**	**+1.5**
SELS				*e*Sn	**Sb**	**14 45 02.0**	**-1.6**
BOSS	**Bosilegrad**	2.52	53	*e*Pn	**Pn**	**14 44 31.1**	**+0.4**
IVAS	**Ivanjica**	2.59	6	*e*Pn	**Pn**	**14 44 32.2**	**+0.6**
LSTV	**Lastovo**	2.77	310	*e*Pn	**Pn**	**14 44 34.5**	**+0.4**
LSTV				Sn	**Sn**	**14 45 06.6**	**-1.1**
ZAPS	**Zavoj**	3.12	42	*e*Pn	**Pn**	**14 44 40.1**	**+1.3**
ZAPS				*e*Sn	**Sn**	**14 45 17.5**	**+1.2**
ZAGS	**Zajecar**	3.35	32	*e*Pn	**Pn**	**14 44 43.1**	**+1.1**
KIJV	**Kijevo**	3.89	322	*e*Pn	**Pn**	**14 44 49.9**	**+0.4**
KIJV				Sn	**Sn**	**14 45 35.2**	**-0.1**
MORI	**Morici**	4.14	315	*e*Pn	**Pn**	**14 44 53.1**	**+0.2**
MORI				Sn	**Sn**	**14 45 39.7**	**-1.8**
VIRC	**Vir**	4.78	315	*e*Pn	**Pn**	**14 45 01.7**	**+0.1**
VIRC				Sn	**Sn**	**14 45 55.5**	**-1.6**

NEIC ***27*** *14:51:11.2±2.7, 6°.29N±0°.08×127°.14E±0°.09, h19^{km}±5^{km}, mb4.4/14, Error ellipse: s-maj=16.1km s-min=7.3km az=47.0*

IDC ***27*** *14:51:11.0±4.1, 6°.31N×127°.24E, h22^{km}±25^{km}, mb3.7/11, mbtmp3.9/12, ML3.7/1, MS2.9/3, Error ellipse: s-maj=31.2km s-min=11.1km az=56.0*

DJA ***27*** *14:51:12.0±0.5, 6°N±4°×12°6E±°, h174^{km}±6^{km}, M4.1/8, mB4.7/6, mb4.2/7, MLv4.2/8, Mw(mB)3.9/6*

MAN ***27*** *14:51:12.0, 5°.90N×126°.56E, h11^{km}, MS3.8*

ISC 27 14:51:14.0±1.0**, 6°.12N**±0°.06×**126°.96E**±0°.08**, h47**^{km}±10^{km}**, n55,** σ1^{s}.**62**/56**, mb4.1**/17**, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DAV	**Davao City (W)**	1.67	305	Pn	**Pn**	**14 51 39.9**	**-0.9**
	120nm,0.3s,baz=97,slow=0.8,SNR=29						
DAV				Sn	**Sn**	**14 52 01.9**	**+0.8**
	141nm,0.3s,baz=86,slow=19,SNR=8.3						
DAV	**Davao City (W)**	1.67	305		**Pn**	**14 51 40.0**	**-0.9**
DAV	**Davao City (W)**	1.67	305	P	**Pn**	**14 51 39.7**	**-1.2**
DAV				S	**Sn**	**14 52 03.0**	**+1.9**
DMPH	**Davao City--Mi**	1.74	304	*i* P	**Pn**	**14 51 40.5**	**-1.2**
DMPH				*i* S	**Sn**	**14 52 02.6**	**-0.1**
CDOP	**Cateel, Davao**	1.74	343	*i* P	**Pn**	**14 51 42.7**	**+0.9**
CDOP				*i* S	**Sn**	**14 52 05.3**	**+2.5**
GSPH	**General Santos**	2.00	269	*i* P	Pn	14 51 37.9	-7.7
GSPH				*i* S	Sn	14 51 55.1	-14
KCP	**Kidapawan**	2.06	296	*i* P	**Pn**	**14 51 43.4**	**-2.9**
KCP				*i* S	**Sn**	**14 52 08.4**	**-2.5**
BIPH	**Bislig**	2.14	344	*e*P	Pn	14 51 54.0	+6.7
BIPH				*i* S	**Sn**	**14 52 13.8**	**+1.1**
BUKP	**Musuan**	2.58	313	*i* P	**Pn**	**14 51 52.9**	**-0.5**
BUKP				*i* S	**Sn**	**14 52 27.2**	**+3.8**
CTBH	**Cotabato--PC H**	2.91	292	*i* P	**Pn**	**14 51 56.5**	**-1.4**
CGP	**Cagayan de Oro**	3.24	316	*i* P	**Pn**	**14 52 04.9**	**+2.6**
CGP				*i* S	**Sn**	**14 52 43.6**	**+4.0**
PAGZ	**Pagadian**	3.95	296	*i* P	**Pn**	**14 52 11.4**	**-0.7**
DCPH	**Dipolog City**	4.34	305	*i* P	**Pn**	**14 52 19.0**	**+1.5**
TBP	**Tagbilaran**	4.70	319	*e*P	**Pn**	**14 52 23.6**	**+1.2**
SNPH	**Sibulan**	4.89	311	*e*P	**Pn**	**14 52 26.2**	**+1.0**
MNI	**Manado**	5.10	205	P	Pn	14 52 23.4	-4.6
TNTI	**Ternate**	5.32	176		**Pn**	**14 52 31.6**	**+0.6**
TNTI	**Ternate**	5.32	176	P	**Pn**	**14 52 33.5**	**+2.5**
TNTI				AML	AML		
PLP	**Palo**	5.39	339	*e*P	Pn	14 52 36.5	+4.6
GTOI	**Gorontalo**	6.72	216	P	Pn	14 52 45.8	-4.4
	0.1nm442nm37nm,0.7s						
GTOI				S	Sn	14 53 55.4	-10
	0.1nm442nm37nm,0.7s						
GTOI				AML	AML		
TOLI2	**Tolitoli**	7.92	231		Pn	14 53 00.6	-6.1
SIJI	**Sorong**	8.16	148	Pn	**Pn**	**14 53 07.8**	**-2.2**
	1.1nm,0.3s,baz=330,slow=17,SNR=4.2						
SIJI				Sn	**Sn**	**14 54 40.3**	**-0.7**
	0.5nm,0.3s,baz=256,slow=23,SNR=1.6						
	2.9nm,0.4s						
SIJI				AML	AML		
LUWI	**Luwuk**	8.25	211	Pn	**Pn**	**14 53 11.6**	**+0.4**
APSI	**Ampana**	8.77	217	P	Pn	14 53 13.2	-5.1
	23nm,0.9s						
SBUM	**Sibu**	15.14	257	Pn	**Pn**	**14 54 47.0**	**+1.9**
SBUM				IAmb	IAmb	14 55 01.7	
	comp=Z,9.7nm,1.3s						
JAY	**Jayapura**	16.18	122	LR	LR	15 01 36.4	
	comp=Z,50nm,19.6s,baz=258,slow=39						
TPUB	**Ta-pu**	18.14	341	P	**Pn**	**14 55 20.8**	**-1.8**
TPUB				IAmb	IAmb	14 56 04.7	
	comp=Z,63nm,1.5s						
GUMO	**Guam**	19.13	66	LR	LR	15 03 10.9	
	comp=Z,20nm,18.1s,baz=229,slow=38						
MMPI	**Merauke**	19.72	137	P	P	14 55 32.2	-7.6
HKPS	**Hong Kong Po S**	20.29	324	P	**P**	**14 55 45.1**	**-0.8**
KNRA	**Kununurra**	21.73	175	P	**P**	**14 56 00.8**	**-0.6**
KNRA				IAmb	IAmb	14 56 12.6	
	comp=Z,4.3nm,0.8s						
FITZ	**Fitzroy Crossi**	24.09	183	P	**P**	**14 56 26.0**	**+0.6**
WB0	**Warramunga Arr**	26.74	164	P	**P**	**14 56 50.9**	**+1.5**
WB0				IAmb	IAmb	14 57 29.8	
	comp=Z,14nm,1.5s						
WRA	**Warramunga Arr**	26.89	165	P	**P**	**14 56 52.6**	**+1.8**
	comp=Z,0.4nm,0.4s,baz=342,slow=10,SNR=17						
WRA				PcP	**PcP**	**15 00 13.7**	**+1.4**
	comp=Z,0.3nm,0.8s,baz=342,slow=2.4,SNR=2.2						
	comp=Z,0.4nm,0.4s						
WR8	**Warramunga Arr**	26.95	164	P	**P**	**14 56 53.3**	**+2.0**
ASAR	**Alice Springs**	30.37	167	P	**P**	**14 57 22.2**	**+0.6**
	comp=Z,0.2nm,0.4s,baz=341,slow=6.7,SNR=22						
ASAR				PcP	**PcP**	**15 00 21.0**	**0.0**
	comp=Z,0.4nm,0.4s,baz=349,slow=2.4,SNR=7.6						
ASAR				ScP	**ScP**	**15 04 01.7**	**+1.9**
	comp=Z,0.3nm,0.9s,baz=341,slow=3.4,SNR=2.4						
	comp=Z,0.2nm,0.4s						
ASAR	**Alice Springs**	30.37	167	P	**P**	**14 57 23.5**	**+1.8**
BBOO	**Buckleboo**	39.66	168	P	**P**	**14 58 43.3**	**+1.7**
BBOO				IAmb	IAmb	14 59 20.3	
	comp=Z,31nm,1.4s						
STKA	**Stephens Creek**	40.28	161	P	**P**	**14 58 47.5**	**+0.9**
	comp=Z,0.9nm,0.5s,baz=330,slow=12,SNR=1.2						
	comp=Z,0.9nm,0.5s						

EVN	**Everest**	**43.80**	**305**	P	**P**	**14 59 16.2**	**-0.1**
EVN				IAmb	IAmb	14 59 17.8	
	comp=Z,2.8nm,0.6s						
MKAR	**Makanchi Array**	**55.75**	**324**	P	**P**	**15 00 46.3**	**+0.1**
	comp=Z,0.8nm,0.5s,baz=123,slow=7.9,SNR=13						
MKAR				PcP	**PcP**	**15 01 46.1**	**+1.2**
	comp=Z,0.5nm,0.6s,baz=125,slow=4.2,SNR=2.2						
	comp=Z,0.8nm,0.5s						
MKAR	**Makanchi Array**	**55.75**	**324**	P	**P**	**15 00 44.5**	**-1.6**
MA2	**Magadan**	**56.35**	**14**	P	**P**	**15 00 47.8**	**-2.3**
ZALV	**Zalesovo Beam**	**58.59**	**332**	P	**P**	**15 01 06.3**	**+0.3**
	comp=Z,0.9nm,0.8s,baz=129,slow=4.1,SNR=3.6						
	comp=Z,0.9nm,0.8s						
KURK	**Kurchatov**	**59.88**	**327**	P	**P**	**15 01 14.9**	**-0.1**
KURK	**Kurchatov**	**59.88**	**327**	IAmb	IAmb	15 01 20.0	
	comp=Z,1.7nm,0.6s						
KURBB	**Kurchatov Arra**	**59.88**	**327**	P	**P**	**15 01 14.9**	**-0.1**
	comp=Z,1.0nm,0.6s,baz=125,slow=6.1,SNR=8.2						
	comp=Z,1.0nm,0.6s						
BVAR	**Borovoye Array**	**65.47**	**326**	P	**P**	**15 01 50.3**	**-1.9**
	comp=Z,0.7nm,0.5s,baz=116,slow=9.9,SNR=2.1						
	comp=Z,0.7nm,0.5s						
J18K	**Innoko River**	**78.45**	**26**	P	**P**	**15 03 09.5**	**-0.3**
J18K				IAmb	IAmb	15 03 18.2	
	comp=Z,13nm,1.5s						
ILAR	**Eielson Array**	**82.86**	**26**	P	**P**	**15 03 33.0**	**-0.4**
	comp=Z,0.2nm,0.5s,baz=248,slow=5.0,SNR=7.2						
	comp=Z,0.2nm,0.5s						
BCAR	**Beaver Creek A**	**85.16**	**27**	P	**P**	**15 03 43.3**	**-1.8**
ARCES	**ARCESS Array B**	**88.30**	**340**	P	**P**	**15 04 00.6**	**+0.3**
	comp=Z,3.5nm,1.1s,baz=78,slow=4.9,SNR=3.9						
	comp=Z,3.5nm,1.1s						
BRTR	**Keskin Array B**	**88.69**	**310**	P	**P**	**15 04 01.9**	**-1.0**
	comp=Z,1.0nm,0.8s,baz=86,slow=4.5,SNR=3.6						
	comp=Z,1.0nm,0.8s						
FINES	**FINESS Array B**	**89.85**	**332**	P	**P**	**15 04 07.5**	**-0.2**
	comp=Z,0.9nm,0.6s,baz=76,slow=4.5,SNR=6.8						
	comp=Z,0.9nm,0.6s						
NOA	**NORSAR Array B**	**96.77**	**334**	LR	LR	15 51 47.7	
	comp=Z,9.0nm,18.3s,baz=220,slow=38						

IDC ***27*** *14:55:46.3±1.1, 49.°33N×156.°06E, h0^{km}, mb3.6/12, mbtmp3.7/15, ML4.4/2, MS2.8/5, Error ellipse: s-maj=27.7km s-min=15.3km az=131.0*
KRSC ***27*** *14:55:47.8±1.9, 49.°16N×157.°14E, h39^{km}±25^{km}, Ml4.3*
MOS ***27*** *14:55:50.7±1.1, 49.°33N×156.°29E, h51^{km}, mb4.7/1, Error ellipse: s-maj=15.7km s-min=3.9km az=78.2*
NEIC ***27*** *14:55:51.6±1.9, 49.°45N±0.°09×156.°2E±0.°2, h35^{km}±2^{km}, mb4.4/7, Error ellipse: s-maj=22.1km s-min=5.7km az=129.0*
ISC 27 14:55:52.5±0.7, **49.°26N**±0.°08×**156.°44E**±0.°08, **h57**^{km}, **n96**, σ**1^{s}35**/107, **mb3.7**/17, **1C**, **Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	**1.44**	**352**	⇑*i*PN	**Pn**	**14 56 14.2**	**-2.1**
SKR				*e*S	**Sn**	**14 56 32.1**	**-2.0**
SKR				pmax	pmax		
	comp=Z,321nm,0.4s						
SKR				smax	smax		
	comp=N,3μm,0.5s						
SKR				smax	smax		
	comp=E,2μm,0.4s						
SKR	**Severo-Kuril's**	**1.44**	**352**	*e*P	**Pn**	**14 56 14.7**	**-1.6**
SKR				*e*S	**Sn**	**14 56 34.4**	**+0.2**
PAU	**Pauzhetka**	**2.22**	**6**	PN	**Pn**	**14 56 25.9**	**-1.0**
PAU				S	**Sn**	**14 56 54.1**	**+0.9**
PAU	**Pauzhetka**	**2.22**	**6**	*e*P	**Pn**	**14 56 25.9**	**-1.0**
PAU				*e*S	**Sn**	**14 56 54.1**	**+0.9**
KDTR	**Khodutka, Kamc**	**2.76**	**22**	PN	**Pn**	**14 56 32.1**	**-2.1**
KDTR				S	**Sn**	**14 57 03.9**	**-2.4**
KDTR	**Khodutka, Kamc**	**2.76**	**22**	*e*P	**Pn**	**14 56 32.1**	**-2.1**
KDTR				*e*S	**Sn**	**14 57 04.0**	**-2.4**
MIPR	**Malaya Ipel'ka**	**3.03**	**4**	PN	**Pn**	**14 56 37.7**	**-0.2**
MIPR	**Malaya Ipel'ka**	**3.03**	**4**	*e*P	**Pn**	**14 56 37.8**	**-0.2**
ASAK	**Asacha**	**3.26**	**16**	PN	**Pn**	**14 56 41.9**	**+0.7**
ASAK	**Asacha**	**3.26**	**16**	*e*P	**Pn**	**14 56 42.0**	**+0.7**
MTVR	**Mutnovka**	**3.41**	**18**	PN	**Pn**	**14 56 42.1**	**-1.2**
MTVR	**Mutnovka**	**3.41**	**18**	*e*P	**Pn**	**14 56 42.1**	**-1.2**
RUS	**Russkaya**	**3.44**	**22**	PN	**Pn**	**14 56 41.3**	**-2.2**
RUS	**Russkaya**	**3.44**	**22**	*e*P	**Pn**	**14 56 41.4**	**-2.2**
GRL	**Gorelyy**	**3.46**	**17**	PN	**Pn**	**14 56 43.1**	**-0.8**
GRL				S	**Sn**	**14 57 23.8**	**+0.2**
GRL	**Gorelyy**	**3.46**	**17**	*e*P	**Pn**	**14 56 43.1**	**-0.8**
GRL				*e*S	**Sn**	**14 57 23.9**	**+0.2**
APC	**Apacha**	**3.70**	**7**	PN	**Pn**	**14 56 47.9**	**+0.9**
APC	**Apacha**	**3.70**	**7**	*e*P	**Pn**	**14 56 48.0**	**+0.9**
KRMR	**Karymshinskiy**	**3.73**	**16**	PN	**Pn**	**14 56 47.2**	**-0.3**
KRMR				S	**Sn**	**14 57 31.2**	**+1.0**
KRMR	**Karymshinskiy**	**3.73**	**16**	*e*P	**Pn**	**14 56 47.3**	**-0.3**
KRMR				*e*S	**Sn**	**14 57 31.2**	**+1.0**
PEA0B	**Petropavlovsk-**	**3.94**	**11**	PN	**Pn**	**14 56 50.3**	**0.0**
PEA0B	**Petropavlovsk-**	**3.94**	**11**		**Pn**	**14 56 47.5**	**-2.9**
PETK	**Petropavlovsk-**	**3.94**	**11**	Pn	**Pn**	**14 56 49.3**	**-1.0**
	comp=E,4.1nm,0.4s,baz=200,slow=13,SNR=94						
PETK				Sn	Sn	14 57 43.3	+8.1
	comp=E,0.1nm,0.3s,baz=215,slow=20,SNR=1.3						
PETK				LR	LR	14 58 24.7	
	comp=E,36nm,19.2s,baz=172,slow=40						
PETK	**Petropavlovsk-**	**3.94**	**11**		**Pn**	**14 56 47.9**	**-2.5**
PET	**Petropavlovsk**	**4.02**	**19**	*e*PN	**Pn**	**14 56 50.4**	**-1.1**
PET				*e*S	**Sn**	**14 57 36.7**	**-0.5**
PET				pmax	pmax		
	comp=Z,23nm,0.7s						
PET				smax	smax		
	comp=N,156nm,0.6s						
PET				smax	smax		
	comp=E,101nm,0.6s						
PET	**Petropavlovsk**	**4.02**	**19**		**Pn**	**14 56 50.1**	**-1.3**
PET					**Sn**	**14 57 41.0**	**+3.8**
DALK	**Dalny**	**4.05**	**20**	PN	**Pn**	**14 56 50.4**	**-1.4**
DALK				S	**Sn**	**14 57 38.2**	**+0.3**
DALK	**Dalny**	**4.05**	**20**	*e*P	**Pn**	**14 56 50.5**	**-1.4**
DALK				*e*S	**Sn**	**14 57 38.3**	**+0.3**
INSR	**Institute**	**4.05**	**19**	PN	**Pn**	**14 56 50.9**	**-0.9**
INSR	**Institute**	**4.05**	**19**	*e*P	**Pn**	**14 56 51.0**	**-0.9**
UGLR	**Uglovaya**	**4.23**	**20**	PN	**Pn**	**14 56 54.3**	**-0.1**
UGLR	**Uglovaya**	**4.23**	**20**	*e*P	**Pn**	**14 56 54.4**	**-0.1**
AVH	**Avacha**	**4.26**	**19**	PN	**Pn**	**14 56 54.7**	**-0.2**
AVH	**Avacha**	**4.26**	**19**	*e*P	**Pn**	**14 56 54.7**	**-0.2**
KOK	**Koryaka**	**4.27**	**18**	PN	**Pn**	**14 56 55.2**	**+0.3**
KOK	**Koryaka**	**4.27**	**18**	*e*P	**Pn**	**14 56 55.3**	**+0.3**
SMAR	**Somma**	**4.28**	**19**	PN	**Pn**	**14 56 55.5**	**+0.4**
SMAR	**Somma**	**4.28**	**19**	*e*P	**Pn**	**14 56 55.6**	**+0.4**
KRER	**Koryakskii**	**4.30**	**19**	PN	**Pn**	**14 56 55.3**	**-0.2**
KRER	**Koryakskii**	**4.30**	**19**	*e*P	**Pn**	**14 56 55.4**	**-0.2**
SDLR	**Sedlovina**	**4.31**	**20**	PN	**Pn**	**14 56 54.4**	**-1.1**
SDLR	**Sedlovina**	**4.31**	**20**	*e*P	**Pn**	**14 56 54.4**	**-1.1**
KRX	**Arik**	**4.33**	**18**	PN	**Pn**	**14 56 55.9**	**0.0**
KRX	**Arik**	**4.33**	**18**	*e*P	**Pn**	**14 56 56.0**	**0.0**
SPN	**Mys Shipunski**	**4.46**	**29**	PN	**Pn**	**14 56 56.3**	**-1.1**
SPN				S	**Sn**	**14 57 46.2**	**-1.8**
SPN	**Mys Shipunski**	**4.46**	**29**	*e*P	**Pn**	**14 56 56.3**	**-1.1**
SPN				*e*S	**Sn**	**14 57 46.2**	**-1.8**
GNL	**Ganaly**	**4.54**	**11**	PN	**Pn**	**14 56 58.9**	**+0.2**
GNL	**Ganaly**	**4.54**	**11**	*e*P	**Pn**	**14 56 58.9**	**+0.2**
KII	**Karymskiy**	**5.14**	**20**	PN	**Pn**	**14 57 07.3**	**+0.5**
KII	**Karymskiy**	**5.14**	**20**	*e*P	**Pn**	**14 57 07.4**	**+0.5**
MKZ	**Mys Kozlova**	**6.23**	**30**	PN	**Pn**	**14 57 19.0**	**-2.7**
MKZ	**Mys Kozlova**	**6.23**	**30**	*e*P	**Pn**	**14 57 19.0**	**-2.7**
KZV	**Kizimen**	**6.33**	**21**	PN	**Pn**	**14 57 21.5**	**-1.7**
KZV	**Kizimen**	**6.33**	**21**	*e*P	**Pn**	**14 57 21.5**	**-1.7**
TUMD	**Tumrok D**	**6.43**	**21**	PN	**Pn**	**14 57 24.5**	**0.0**
TUMD	**Tumrok D**	**6.43**	**21**	*e*P	**Pn**	**14 57 24.5**	**0.0**
TUMR	**Tumrok**	**6.45**	**19**	PN	**Pn**	**14 57 26.0**	**+1.2**
TUMR	**Tumrok**	**6.45**	**19**	*e*P	**Pn**	**14 57 26.1**	**+1.2**
KBTR	**Krutoberegovo**	**7.96**	**27**	PN	**Pn**	**14 57 43.3**	**-2.1**
KBTR	**Krutoberegovo**	**7.96**	**27**	*e*P	**Pn**	**14 57 43.4**	**-2.1**
JKA	**Kamikawa-asahi**	**10.80**	**247**		**Pn**	**14 58 22.7**	**-1.6**
ASAJ	**Asahikawa**	**10.80**	**247**	Pn	**Pn**	**14 58 22.9**	**-1.5**
	comp=E,2.1nm,0.3s,baz=47,slow=17,SNR=15						
	comp=E,9.6nm,0.7s						
ASAJ				AML	AML		
MA2	**Magadan**	**10.85**	**345**	Pn	**Pn**	**14 58 23.2**	**-1.6**
	comp=E,0.4nm,0.3s,baz=183,slow=18,SNR=1.6						
MA2				LR	LR	15 03 24.6	
	comp=E,41nm,18.1s,baz=220,slow=43						
	comp=E,5.1nm,0.8s						
MA2				AML	AML		
KLR	**Kul'dur**	**16.11**	**279**	Pn	**Pn**	**14 59 34.7**	**-0.2**
	comp=E,0.1nm,0.3s,baz=100,slow=12,SNR=2.3						
KLR				LR	LR	15 06 12.8	
	comp=E,53nm,20.2s,baz=76,slow=40						
KSRS	**Korea Array**	**23.70**	**251**	P	**P**	**15 00 59.4**	**+0.4**
	comp=E,1.0nm,0.7s,baz=50,slow=13,SNR=3.2						
	comp=E,1.0nm,0.7s						
H11S1	**WAKE ISLAND Hy**	**31.77**	**161**	T	T	15 36 05.1	
	baz=346,slow=76,SNR=7.5						
H11S3	**WAKE ISLAND Hy**	**31.79**	**161**	T	T	15 36 06.1	
	baz=346,slow=76,SNR=8.9						
H11S2	**WAKE ISLAND Hy**	**31.79**	**161**	T	T	15 36 04.8	
	baz=346,slow=76,SNR=7.6						
ILAR	**Eielson Array**	**33.19**	**41**	P	**P**	**15 02 26.2**	**+2.9**
	comp=E,0.3nm,0.8s,baz=276,slow=7.8,SNR=2.5						
	comp=E,0.3nm,0.8s						
ILAR	**Eielson Array**	**33.19**	**41**	P	**P**	**15 02 24.6**	**+1.3**
ILAR	**Eielson Array**	**33.19**	**41**	P	**P**	**15 02 24.6**	**+1.3**
KAIM	**Kayak Island**	**34.72**	**49**	P	**P**	**15 02 39.1**	**+2.5**
E29M	**Blow River**	**36.70**	**34**	P	**P**	**15 02 55.2**	**+1.7**
E29M				IAmb	IAmb	15 03 18.8	
	comp=Z,8.3nm,1.5s						
INK	**Inuvik**	**38.33**	**34**	P	**P**	**15 03 08.5**	**+1.4**
INK				pmax	pmax		
	comp=Z,9.0nm,1.4s						
INK	**Inuvik**	**38.33**	**34**	P	**P**	**15 03 08.5**	**+1.4**
INK				IAmb	IAmb	15 03 22.8	
	comp=Z,9.4nm,1.4s						
ZALV	**Zalesovo Beam**	**42.99**	**305**	P	**P**	**15 03 44.3**	**-1.4**
	comp=Z,0.3nm,0.4s,baz=54,slow=7.3,SNR=2.2						
	comp=Z,0.3nm,0.4s						
MKAR	**Makanchi Array**	**47.78**	**297**	P	**P**	**15 04 23.1**	**-0.7**
	comp=Z,0.5nm,0.8s,baz=64,slow=6.6,SNR=3.6						
	comp=Z,0.5nm,0.8s						
MKAR	**Makanchi Array**	**47.78**	**297**	P	**P**	**15 04 22.6**	**-1.2**
KURK	**Kurchatov**	**47.85**	**303**	P	**P**	**15 04 23.7**	**-0.5**
KURK	**Kurchatov**	**47.85**	**303**	P	**P**	**15 04 23.2**	**-1.0**
KURK				IAmb	IAmb	15 04 40.3	
	comp=Z,2.1nm,1.1s						
KURBB	**Kurchatov Arra**	**47.95**	**303**	P	**P**	**15 04 23.6**	**-1.3**
	comp=Z,1.3nm,0.8s,baz=64,slow=7.8,SNR=6.2						
	comp=Z,1.3nm,0.8s						
BVAR	**Borovoye Array**	**51.00**	**309**	P	**P**	**15 04 46.9**	**-1.3**
	comp=Z,0.7nm,0.3s,baz=53,slow=7.8,SNR=4.6						
	comp=Z,0.7nm,0.3s						
CMAR	**Chiang Mai Arr**	**55.11**	**257**	P	**P**	**15 05 19.4**	**+0.6**
	comp=Z,0.3nm,0.5s,baz=44,slow=6.6,SNR=4.4						
	comp=Z,0.3nm,0.5s						
ARCES	**ARCESS Array B**	**56.20**	**341**	LR	LR	15 32 02.7	
	comp=Z,17nm,18.1s,baz=301,slow=39						
AB31	**Akbulak array**	**58.52**	**310**	P	**P**	**15 05 41.0**	**-1.6**
ABKAR	**Akbulak array**	**58.52**	**310**	P	**P**	**15 05 41.0**	**-1.6**
BORG	**Borgarnes**	**66.32**	**359**	LR	LR	15 36 20.5	
	comp=Z,12nm,18.7s,baz=312,slow=37						
129A	**Stewart Farms,**	**72.94**	**60**	P	**P**	**15 07 16.5**	**+0.7**
129A				IAmb	IAmb	15 07 57.1	
	comp=Z,2.3nm,0.5s						
BUKO	**Buck Lake**	**73.89**	**37**	P	**P**	**15 07 21.3**	**+0.2**
BUKO				IAmb	IAmb	15 07 40.8	
	comp=Z,31nm,1.4s						
TXAR	**Lajitas Array**	**74.34**	**63**	P	**P**	**15 07 25.7**	**+1.6**
	comp=Z,0.3nm,0.8s,baz=317,slow=3.3,SNR=2.0						
	comp=Z,0.3nm,0.8s						
EKA	**Eskdalemuir Ar**	**74.39**	**348**	P	**P**	**15 07 23.5**	**-0.3**
	comp=Z,0.3nm,0.4s,baz=16,slow=5.0,SNR=5.9						
	comp=Z,0.3nm,0.4s						
ASAR	**Alice Springs**	**75.33**	**201**	P	**P**	**15 07 31.4**	**+1.9**
	comp=Z,0.3nm,0.9s,baz=14,slow=5.8,SNR=2.0						
	comp=Z,0.3nm,0.9s						
GERES	**GERESS Array B**	**77.13**	**336**	P	**P**	**15 07 40.1**	**+0.5**
	comp=Z,0.2nm,0.2s,baz=22,slow=4.8,SNR=2.4						
	comp=Z,0.2nm,0.2s						
BRTR	**Keskin Array B**	**78.04**	**318**	P	**P**	**15 07 45.3**	**+0.3**
	comp=Z,0.7nm,0.8s,baz=54,slow=4.9,SNR=2.4						
	comp=Z,0.7nm,0.8s						
BRTR	**Keskin Array B**	**78.04**	**318**	P	**P**	**15 07 44.6**	**-0.4**
BRTR	**Keskin Array B**	**78.04**	**318**	P	**P**	**15 07 44.6**	**-0.4**

SOF ***27*** *16:05:05.8, 39.°85N±0.°04×24.°43E±0.°03, h18^{km}±4^{km}, MD4.1/4*
IDC ***27*** *16:05:05.6±0.6, 39.°94N×24.°27E, h0^{km}, mb3.6/14, mbtmp3.7/21, ML3.6/5, MS3.0/12, Error ellipse: s-maj=10.7km s-min=9.5km az=81.0*
MED_RC ***27*** *16:05:07.0, 39.°96N×24.°36E, h20^{km}, Mw4.2, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}-2.28±.26; $M_{\theta\theta}$2.11±.14; $M_{\phi\phi}$0.00±.27; $M_{r\theta}$0.14±.14; $M_{\theta\phi}$-0.75±.17; $M_{\phi r}$-0.73±.22; Fault plane solution: $M_0$2.44000×10^{15} NP1:ϕ_s94.00000°, δ42.00000°, λ-112.00000°. NP2:ϕ_s304.00000°, δ51.00000°, λ-71.00000°. Principal axes: T 2.4000, Plg5.0000°, Azm20.0000°; N 0.0900, Plg15.0000°, Azm111.0000°; P -2.4800, Plg74.0000°, Azm273.0000°;*
GFZ ***27*** *16:05:08.5±0.2, 40°N±2°×2°4E±°, h10^{km}, M4.1/27, mb4.3/24, MLv4.1/27 Error ellipse: s-maj=4.4km s-min=4.1km az=120.4, confirmed*
ISK ***27*** *16:05:08.1, 40.°03N×24.°43E, h10^{km}, ML3.9/34*
THE ***27*** *16:05:08.0, 40.°0N±0.°9×24.°3E±0.°9, h12^{km}±2^{km}, M3.8/50, MLh3.8/50*
ATH ***27*** *16:05:08.0, 39.°96N×24.°36E, h20^{km}±1^{km}, ML3.9/55, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
AFAD ***27*** *16:05:08.4, 39.°99N×24.°48E, h26^{km}±4^{km}, MW3.9*
NEIC ***27*** *16:05:09.4±0.8, 40.°02N±0.°06×24.°40E±0.°07, h12^{km}±2^{km}, mb4.5/14, Error ellipse: s-maj=8.8km s-min=7.7km az=167.0*
MCSM ***27*** *16:05:09.0±2.1, 40°N±3°×2°4E±°, h13^{km}±17^{km}, mb4.3, mB4.8, MLv4.4, Mw(mB)4.1*
NAO ***27*** *16:05:12.8, 40.°65N×24.°98E, h10^{km}, MB4.0*
CFUSG ***27*** *16:05:14.2, 40.°26N×24.°69E, h7^{km}, MD3.6/1, MSH2.6/1*
ISC 27 16:05:08.2±0.7, **39.°95N**±0.°02×**24.°35E**±0.°01, **h13**^{km}±4^{km}, **n458**, σ**1^{s}03**/526, **mb4.0**/25, **MS2.9**/10, **31C-22D**, **Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OUR	**Ouranopolis**	**0.48**	**324**	P	**Pg**	**16 05 17.6**	**0.0**
OUR				S	**Sg**	**16 05 23.5**	**-0.5**
OUR				AML	AML		
OUR	**Ouranopolis**	**0.48**	**324**	Pg	**Pg**	**16 05 17.6**	**0.0**
OUR				Sg	**Sg**	**16 05 23.7**	**-0.3**
OUR				AML	AML		
OUR	**Ouranopolis**	**0.48**	**324**	P	**Pg**	**16 05 17.6**	**0.0**
OUR				S	**Sg**	**16 05 23.7**	**-0.3**
PAIG	**Paliouri**	**0.52**	**268**	P	**Pg**	**16 05 18.1**	**-0.2**
PAIG				S	**Sg**	**16 05 24.9**	**-0.3**
PAIG				AML	AML		
PAIG	**Paliouri**	**0.52**	**268**	P	**Pg**	**16 05 18.1**	**-0.2**
PAIG				AML	AML		
LMN1	**MIRINA LIMNOU**	**0.55**	**98**	P	**Pb**	**16 05 19.5**	**-0.2**
LMN1				S	**Sg**	**16 05 26.4**	**0.0**
LMN1				AML	AML		
EFSA	**Agios Efstrati**	**0.64**	**129**	P	**Pb**	**16 05 21.2**	**-0.1**
EFSA				S	**Sg**	**16 05 29.0**	**-0.1**
LIA	**Limnos Island**	**0.64**	**94**	P	**Pb**	**16 05 21.0**	**-0.2**
LIA				S	**Sb**	**16 05 30.1**	**-0.1**
LIA				AML	AML		
LIA	**Limnos Island**	**0.64**	**94**	P	**Pb**	**16 05 21.1**	**-0.2**
LIA				S	**Sg**	**16 05 29.1**	**-0.1**
LIA				AML	AML		
THAS	**Thassos island**	**0.71**	**23**	P	**Pg**	**16 05 21.5**	**-0.6**
THAS				S	**Sg**	**16 05 31.7**	**+0.2**
THAS				AML	AML		
THAS	**Thassos island**	**0.71**	**23**	P	**Pg**	**16 05 21.4**	**-0.6**
THAS				S	**Sg**	**16 05 30.6**	**-0.9**
THAS				AML	AML		
THS1	**Thassos, Thass**	**0.81**	**12**	P	**Pg**	**16 05 23.3**	**-0.6**
THS1				S	**Sg**	**16 05 33.7**	**-0.7**
PLG	**Polygyros**	**0.81**	**302**	P	**Pg**	**16 05 23.2**	**-0.8**
PLG				S	**Sg**	**16 05 34.0**	**-0.6**
PLG				AML	AML		
PLG	**Polygyros**	**0.81**	**302**	P	**Pg**	**16 05 23.1**	**-0.8**
PLG				AML	AML		
AOS	**Alonnisos**	**0.86**	**205**	P	**Pg**	**16 05 24.3**	**-0.5**
AOS				S	**Sn**	**16 05 37.6**	**-0.8**
AOS				AML	AML		
SMTH	**Samothraki Isl**	**1.04**	**60**	P	**Pb**	**16 05 27.2**	**-1.0**
SMTH				S	**Sn**	**16 05 42.4**	**-0.7**
SMTH				AML	AML		
SMTH	**Samothraki Isl**	**1.04**	**60**	P	**Pb**	**16 05 26.9**	**-1.3**
SMTH				S	**Sb**	**16 05 40.7**	**-1.1**
SMTH				AML	AML		
KAVA	**Kavala**	**1.05**	**7**	P	**Pb**	**16 05 27.4**	**-0.9**
KAVA				S	**Sb**	**16 05 41.9**	**-0.1**
KAVA				AML	AML		
KAVA	**Kavala**	**1.05**	**7**	P	**Pb**	**16 05 27.3**	**-1.0**
KAVA				S	**Sb**	**16 05 40.0**	**-2.0**
XOR	**Xorichti**	**1.07**	**237**	P	**Pb**	**16 05 27.7**	**-0.9**
XOR				S	**Sb**	**16 05 41.9**	**-0.5**
XOR				AML	AML		
XOR	**Xorichti**	**1.07**	**237**	P	**Pb**	**16 05 27.4**	**-1.1**
XOR				S	**Sb**	**16 05 41.6**	**-0.9**
XOR				AML	AML		
XOR	**Xorichti**	**1.07**	**237**	P	**Pb**	**16 05 27.7**	**-0.9**
XOR				AML	AML		
NEO	**Neokhori**	**1.08**	**234**	P	**Pb**	**16 05 27.8**	**-1.0**
NEO				S	**Sb**	**16 05 42.4**	**-0.5**
NEO				AML	AML		
NEO	**Neokhori**	**1.08**	**234**	P	**Pb**	**16 05 27.8**	**-1.0**
NEO				S	**Sb**	**16 05 41.8**	**-1.1**
NEO				AML	AML		
HORT	**Hortiatis**	**1.16**	**305**	P	**Pb**	**16 05 29.3**	**-0.8**
HORT				S	**Sb**	**16 05 44.8**	**-0.3**
HORT	**Hortiatis**	**1.16**	**305**	P	**Pb**	**16 05 29.3**	**-0.8**
SOH	**Sokhos**	**1.16**	**319**	P	**Pb**	**16 05 29.4**	**-0.7**
SOH				S	**Sb**	**16 05 45.0**	**-0.1**
SOH				AML	AML		
SOH	**Sokhos**	**1.16**	**319**	P	**Pb**	**16 05 29.4**	**-0.7**
SOH				S	**Sb**	**16 05 43.2**	**-1.8**
SOH	**Sokhos**	**1.16**	**319**	P	**Pb**	**16 05 29.6**	**-0.6**
SOH				AML	AML		
GADA	**Gvkgeada**	**1.21**	**78**	P	**Pn**	**16 05 30.0**	**-0.8**
GADA				S	**Sb**	**16 05 46.6**	**0.0**
GADA				AML	AML		
GADA	**Gvkgeada**	**1.21**	**78**	Pn	**Pn**	**16 05 30.1**	**-0.8**
GADA				Sn	**Sb**	**16 05 46.1**	**-0.5**
GADA				AML	AML		
GOAD	**anakkale-G¶**	**1.22**	**79**	P	**Pn**	**16 05 29.8**	**-1.2**
GOAD				S	**Sb**	**16 05 44.1**	**-2.6**
GOAD				IAML		16 05 52.0	
	comp=N,3μm,0.4s						
VOL2	**Volos**	**1.23**	**242**	P	**Pn**	**16 05 30.2**	**-0.8**
VOL2				S	**Sb**	**16 05 46.3**	**-0.7**
THE	**Thessaloniki**	**1.26**	**303**	P	**Pn**	**16 05 30.7**	**-0.8**
THE	**Thessaloniki**	**1.26**	**303**	P	**Pn**	**16 05 30.7**	**-0.8**
THE				S	**Sb**	**16 05 46.5**	**-1.4**
THE	**Thessaloniki**	**1.26**	**303**	P	**Pn**	**16 05 30.9**	**-0.6**
THE				AML	AML		
SRS	**Serrai**	**1.30**	**334**	P	**Pn**	**16 05 30.9**	**-1.3**
SRS				S	**Sb**	**16 05 48.3**	**-1.0**
SRS				AML	AML		
SRS	**Serrai**	**1.30**	**334**	P	**Pn**	**16 05 31.1**	**-1.0**
SRS				S	**Sb**	**16 05 47.7**	**-1.6**
SRS				AML	AML		
SRS	**Serrai**	**1.30**	**334**	P	**Pn**	**16 05 31.1**	**-1.0**
SRS				AML	AML		
BOZC	**Bozcaada**	**1.31**	**94**	Pn	**Pn**	**16 05 32.2**	**-0.1**
BOZC				Sn	**Sb**	**16 05 49.3**	**-0.3**
BOZC				AML	AML		
BOZC	**Bozcaada**	**1.31**	**94**	P	**Pn**	**16 05 31.4**	**-0.9**
BOZC				P	**Pn**	**16 05 32.2**	**-0.1**
BOZC				S	**Sb**	**16 05 48.2**	**-1.3**
BOZC				IAML		16 05 52.0	
	comp=N,896nm,0.7s						
KYMI	**Kymi, Euboea I**	**1.33**	**188**	P	**Pn**	**16 05 31.3**	**-1.2**
KYMI				AML	AML		
KYMI	**Kymi, Euboea I**	**1.33**	**188**	P	**Pn**	**16 05 31.2**	**-1.3**
KYMI				S	**Sb**	**16 05 48.6**	**-1.3**
KYMI				AML	AML		
ECEA	**Canakkale, Ece**	**1.41**	**86**	P	**Pb**	**16 05 34.5**	**+0.1**
ECEA				S	**Sn**	**16 05 51.5**	**-0.4**
ECEA				IAML		16 05 55.0	
	comp=N,2μm,0.7s						
NVR	**Nevrokopi**	**1.45**	**345**	P	**Pn**	**16 05 33.5**	**-0.7**
NVR				AML	AML		
NVR	**Nevrokopi**	**1.45**	**345**	P	**Pn**	**16 05 33.3**	**-0.9**
NVR				S	**Sn**	**16 05 50.6**	**-2.5**
NVR				AML	AML		
KOCA	**Canakkale, Ayv**	**1.45**	**107**	P	**Pn**	**16 05 34.5**	**+0.3**
GPNR	**Gulpinar-Canak**	**1.46**	**109**	Pn	**Pn**	**16 05 34.4**	**+0.1**
GPNR				Sn	**Sg**	**16 05 54.4**	**-0.9**
GPNR				AML	AML		
ALEX	**Alexandroupoli**	**1.49**	**52**	P	**Pn**	**16 05 33.8**	**-1.0**
ALEX				S	**Sn**	**16 05 52.0**	**-2.0**
ENZZ	**Sultanice-Enez**	**1.52**	**64**	Pn	**Pn**	**16 05 35.1**	**0.0**
ENZZ				Sn	**Sn**	**16 05 54.4**	**-0.4**
ENZZ				AML	AML		
EZN	**Ezine**	**1.52**	**94**	P	**Pn**	**16 05 34.9**	**-0.2**
EZN				AML	AML		
EZN	**Ezine**	**1.52**	**94**	Pn	**Pb**	**16 05 35.7**	**-0.7**
EZN				Sn	**Sn**	**16 05 54.8**	**-0.1**
EZN				AML	AML		
EZN	**Ezine**	**1.52**	**94**	Pn	**Pg**	**16 05 37.1**	**-0.4**
EZN				AML	AML		
GINA	**Giannouli**	**1.54**	**260**	P	**Pn**	**16 05 34.9**	**-0.5**
GINA				AML	AML		
EZNE	**Ezine-Canakkal**	**1.56**	**96**	Pn	**Pb**	**16 05 36.5**	**-0.5**
CNKL	**anakkale-Mer**	**1.57**	**85**	P	**Pn**	**16 05 35.0**	**-0.8**
CNKL				P	**Pb**	**16 05 35.5**	**-1.6**
CAVK	**Edirne/Enez-Ca**	**1.58**	**61**	P	**Pn**	**16 05 35.8**	**-0.1**
CAVK				S	**Sg**	**16 05 58.4**	**-0.5**
CAVK				IAML		16 06 02.0	
	comp=N,2μm,0.5s						
CAVK				IAML		16 06 02.0	
	comp=E,3μm,0.7s						
ENEZ	**Enez**	**1.59**	**60**	Pn	**Pn**	**16 05 36.1**	**+0.1**
ENEZ				AML	AML		
ALN	**Alexandroupoli**	**1.60**	**53**	P	**Pn**	**16 05 35.1**	**-1.2**
ALN				AML	AML		
ALN	**Alexandroupoli**	**1.60**	**53**	Pn	**Pn**	**16 05 36.2**	**-0.1**
ALN				AML	AML		
ALN	**Alexandroupoli**	**1.60**	**53**		**Pn**	**16 05 35.0**	**-1.2**
ALN	**Alexandroupoli**	**1.60**	**53**	P	**Pn**	**16 05 35.6**	**-0.6**
ALN				S	**Sn**	**16 05 54.6**	**-2.2**
ALN				AML	AML		
ALN	**Alexandroupoli**	**1.60**	**53**	P	**Pn**	**16 05 35.2**	**-1.2**
ALN				AML	AML		
ATAL	**Atalanti**	**1.62**	**220**	P	**Pn**	**16 05 35.4**	**-1.2**
COMU	**Canakkale**	**1.64**	**84**	Pn	**Pn**	**16 05 36.5**	**-0.3**
COMU				Sn	**Sn**	**16 05 57.7**	**0.0**
COMU				AML	AML		
PRK	**Paraskevi**	**1.64**	**115**	P	**Pn**	**16 05 36.6**	**-0.2**
PRK				AML	AML		
PRK	**Paraskevi**	**1.64**	**115**	P	**Pn**	**16 05 35.7**	**-1.1**
PRK				S	**Sn**	**16 05 56.1**	**-1.7**
PRK				AML	AML		
TYRN	**Tyrnavos**	**1.65**	**262**	P	**Pn**	**16 05 36.4**	**-0.5**
TYRN				AML	AML		
TYRN	**Tyrnavos**	**1.65**	**262**	P	**Pn**	**16 05 36.2**	**-0.7**
TYRN				S	**Sn**	**16 05 56.9**	**-1.0**
TYRN				AML	AML		
MMB	**Musomishta**	**1.66**	**344**	P	**Pn**	**16 05 36.7**	**-0.5**
MMB				AML	AML		
MMB	**Musomishta**	**1.66**	**344**	⇓*i*P	**Pn**	**16 05 36.8**	**-0.3**
LKR	**Lokris**	**1.67**	**219**	P	**Pn**	**16 05 36.1**	**-1.1**
LKR				AML	AML		
LKR	**Lokris**	**1.67**	**219**	P	**Pn**	**16 05 36.0**	**-1.1**
LKR				S	**Sn**	**16 05 57.1**	**-1.3**
GELI	**Tayfur-Gelibol**	**1.69**	**74**	Pn	**Pn**	**16 05 36.9**	**-0.5**
GELI				Sn	**Sn**	**16 05 58.0**	**-0.9**
GELI				AML	AML		
BAYC	**CANAKKALE_Bayr**	**1.70**	**96**	P	**Pb**	**16 05 38.6**	**-0.9**
BAYC				S	**Sn**	**16 05 57.0**	**-2.3**
BAYC				IAML		16 06 05.0	
	comp=N,461nm,0.5s						
AXAR	**Agios Charalam**	**1.76**	**229**	P	**Pn**	**16 05 38.0**	**-0.5**
AXAR				AML	AML		
AXAR	**Agios Charalam**	**1.76**	**229**	P	**Pn**	**16 05 38.0**	**-0.5**
RZN	**Rozhen**	**1.77**	**9**	P	**Pn**	**16 05 38.0**	**-0.8**
RZN				AML	AML		
RZN	**Rozhen**	**1.77**	**9**	*i* P	**Pn**	**16 05 38.7**	**0.0**
RZN				S	**Sb**	**16 06 03.4**	**+0.6**
GRG	**Griva**	**1.79**	**305**	P	**Pn**	**16 05 38.7**	**-0.2**
GRG				AML	AML		
GRG	**Griva**	**1.79**	**305**	P	**Pn**	**16 05 38.8**	**-0.2**
GRG	**Griva**	**1.79**	**305**	P	**Pn**	**16 05 38.9**	**-0.1**
GRG				AML	AML		
ERIK	**Erikli-Kesan**	**1.81**	**66**	Pn	**Pn**	**16 05 37.9**	**-1.1**
ERIK				Sn	**Sn**	**16 06 01.3**	**-0.5**
ERIK				AML	AML		
AGG	**Agios Georgios**	**1.82**	**240**	P	**Pn**	**16 05 38.1**	**-1.1**
AGG				AML	AML		
AGG	**Agios Georgios**	**1.82**	**240**	P	**Pn**	**16 05 38.1**	**-1.1**
AGG				S	**Sn**	**16 06 01.3**	**-0.9**

AGG				AML	AML		
AGG	Agios Georgios	1.82	240	P	Pn	16 05 38.4	-0.8
AGG				AML	AML		
LAM2	Lamia	1.82	235	P	Pn	16 05 38.6	-0.6
LAM2				AML	AML		
KDZ	Kurdzhali	1.84	24	P	Pn	16 05 38.7	-0.9
KDZ				AML	AML		
KDZ	Kurdzhali	1.84	24	Pn	Pn	16 05 38.8	-0.8
KDZ				AML	AML		
KDZ	Kurdzhali	1.84	24	*i* P	Pn	16 05 39.1	-0.5
KDZ				S	Sg	16 06 06.6	-0.8
THL	Klokotos Trika	1.84	259	P	Pn	16 05 38.7	-0.8
THL				AML	AML		
THL	Klokotos Trika	1.84	259	P	Pn	16 05 38.7	-0.8
THL				S	Sn	16 06 00.1	-2.6
SOFA	Sofades	1.84	251	P	Pn	16 05 39.0	-0.5
NASA	Naoussa	1.87	292	P	Pn	16 05 39.5	-0.5
NASA				AML	AML		
STFN	Stefani	1.88	200	P	Pn	16 05 39.5	-0.5
STFN				AML	AML		
STFN	Stefani	1.88	200	P	Pn	16 05 39.6	-0.5
STFN				S	Sn	16 06 02.7	-0.9
STFN				AML	AML		
GOKT	Kean, EDRN	1.88	67	P	Pn	16 05 40.0	-0.1
DION	Dionisos Attik	1.90	190	P	Pn	16 05 39.5	-0.8
DION				AML	AML		
DION	Dionisos Attik	1.90	190	P	Pn	16 05 39.2	-1.1
DION				S	Sn	16 06 03.0	-1.2
DION				AML	AML		
KARY	Karystos	1.92	178	P	Pn	16 05 39.9	-0.7
KARY				AML	AML		
KARY	Karystos	1.92	178	P	Pn	16 05 39.8	-0.7
KARY				S	Sn	16 06 02.5	-2.1
AYVA	Ayvalik	1.92	109	P	Pn	16 05 40.2	-0.4
VAY	Valandovo	1.93	316	*i* Pn	Pn	16 05 40.1	-0.6
VIL2	Platees	1.93	206	P	Pn	16 05 40.1	-0.6
VIL2				S	Sn	16 06 04.4	-0.5
VIL2				AML	AML		
ACHAR	Athens-Acharne	1.93	194	P	Pn	16 05 40.1	-0.7
ACHAR				S	Sn	16 06 03.1	-1.8
ACHAR				AML	AML		
LAPS	Lapseki, ANA	1.93	80	P	Pn	16 05 40.0	-0.9
LAPS				S	Sn	16 06 02.0	-3.0
LAPS				IAML		16 06 05.0	
	comp=N,576nm,0.4s						
PTL	Penteli	1.94	191	P	Pn	16 05 40.1	-0.8
PTL				AML	AML		
PTL	Penteli	1.94	191	P	Pn	16 05 39.9	-0.9
PTL				S	Sn	16 06 03.8	-1.3
SFL1	Soufli	1.94	50	P	Pn	16 05 40.2	-0.6
SFL1				S	Sn	16 06 03.8	-1.2
VILL	Villia	1.96	205	P	Pn	16 05 40.2	-1.0
VILL				AML	AML		
KESN	Edirne-Kesan	1.98	63	P	Pn	16 05 41.9	0.0
ATHP	Athens-Neo Psi	2.00	193	P	Pn	16 05 40.3	-1.4
ATHP				AML	AML		
KZN	Kozani	2.01	281	P	Pn	16 05 41.5	-0.4
KZN				AML	AML		
ATHU	Athens Univers	2.03	193	P	Pn	16 05 41.0	-1.1
ATHU	Athens Univers	2.03	193	P	Pn	16 05 41.0	-1.1
ATHU				S	Sn	16 06 05.6	-1.7
NOAC	Athens-Thissio	2.03	194	P	Pn	16 05 40.9	-1.3
NOAC				AML	AML		
ATH	Athens Observa	2.04	194	P	Pn	16 05 41.6	-0.6
ATH				AML	AML		
ATH	Athens Observa	2.04	194	P	Pn	16 05 41.4	-0.8
ATH				S	Sn	16 06 05.6	-1.9
ATH				AML	AML		
CHOS	Chios island	2.05	139	Pn	Pn	16 05 43.5	+1.0
CHOS				AML	AML		
CHOS	Chios island	2.05	139	P	Pn	16 05 42.7	+0.2
CHOS				AML	AML		
CHOS	Chios island	2.05	139	P	Pn	16 05 42.7	+0.2
CHOS				AML	AML		
KARB	zmir-Karabur	2.05	128	P	Pn	16 05 42.4	0.0
DLFA	Delphi	2.06	225	P	Pn	16 05 41.2	-1.3
CANM	Can-anakkale	2.08	87	Pn	Pn	16 05 43.9	+1.1
CANM				AML	AML		
UKOP	Uzunkopru-Edir	2.10	55	Pn	Pn	16 05 43.5	+0.4
UKOP				AML	AML		
KKB	Krupnik	2.10	334	P	Pn	16 05 43.0	-0.2
KKB				AML	AML		
YAYO	Edremit-Balk	2.12	98	Pn	Pn	16 05 43.9	+0.5
YAYO				AML	AML		
PEHC	Pehcevo	2.13	329	*i* Pn	Pn	16 05 43.6	0.0
VLY	Voula,Athens	2.14	192	P	Pn	16 05 42.6	-1.0
VLY				AML	AML		
BUHA	Balikesir, Bur	2.15	101	P	Pn	16 05 44.4	+0.6
DKL	Dikili	2.16	113	Pn	Pn	16 05 44.8	+0.8
DKL				AML	AML		
DKL	Dikili	2.16	113	P	Pn	16 05 43.6	-0.4
BIGA	Biga-Canakkale	2.17	80	Pn	Pn	16 05 44.1	0.0
KRBN	Karaburun	2.18	128	Pn	Pn	16 05 45.2	+1.0
KRBN				AML	AML		
LTK	Loutraki	2.21	210	P	Pn	16 05 43.5	-1.1
LTK				AML	AML		
LTK	Loutraki	2.21	210	P	Pn	16 05 43.8	-0.8
LTK				AML	AML		
PLD	Plovdiv	2.22	8	Pn	Pn	16 05 43.7	-1.0
PLD				AML	AML		
EVR	Evrytania	2.22	243	P	Pn	16 05 44.5	-0.3
EVR				AML	AML		
EVR	Evrytania	2.22	243	P	Pn	16 05 44.7	-0.2
EVR				AML	AML		
FOCM	Foa	2.22	123	Pn	Pn	16 05 46.1	+1.3
FOCM				AML	AML		
YENI	Yenice-Canakka	2.22	89	Pn	Pn	16 05 45.8	+1.0
LOUT	Loutraki	2.23	209	P	Pn	16 05 44.1	-0.9
LOUT				S	Sn	16 06 10.7	-1.7
LOUT				AML	AML		
LVRA	Laurium	2.25	186	P	Pn	16 05 43.8	-1.3
LVRA				AML	AML		
RKY	Sarkoy-Tekirda	2.29	70	Pn	Pn	16 05 46.5	+0.8
RKY				AML	AML		
DIM	Dimitrovgrad	2.29	24	P	Pn	16 05 45.4	-0.4
DIM				AML	AML		
DIM	Dimitrovgrad	2.29	24	P	Pn	16 05 45.6	-0.1
KPRO	Kipourio	2.29	271	P	Pn	16 05 45.9	+0.1
KPRO				AML	AML		
KPRO	Kipourio	2.29	271	P	Pn	16 05 45.7	-0.1
KPRO				AML	AML		
KRBG	Karabiga-Canak	2.30	78	Pn	Pn	16 05 46.9	+1.0
KRBG				AML	AML		
KALE	Kalithea	2.32	229	P	Pn	16 05 45.6	-0.6
KALE				AML	AML		
KALE	Kalithea	2.32	229	P	Pn	16 05 45.7	-0.4
THAL	Thalero	2.32	215	P	Pn	16 05 45.2	-0.9
THAL				AML	AML		
THAL	Thalero	2.32	215	P	Pn	16 05 45.5	-0.6
THAL				AML	AML		
ANX	Ano Chora	2.32	235	P	Pn	16 05 45.8	-0.4
ANX				AML	AML		
ANX	Ano Chora	2.32	235	P	Pn	16 05 45.9	-0.4
ZEDA	zmir-Bergama	2.33	114	P	Pn	16 05 47.7	+1.4
BAGT	Foa	2.33	123	P	Pn	16 05 46.6	+0.3
PSARO	Psaromita, Dor	2.34	227	P	Pn	16 05 45.8	-0.6
PSARO				AML	AML		
SERG	Sergoula	2.35	230	P	Pn	16 05 46.1	-0.6
SERG				AML	AML		
SERG	Sergoula	2.35	230	P	Pn	16 05 46.0	-0.6
SERG				AML	AML		
ACOR	Acrocorinthos	2.36	210	P	Pn	16 05 44.1	-2.6
ACOR				AML	AML		
PYRG	Pyrgos, Dorida	2.38	230	P	Pn	16 05 46.5	-0.5
PYRG				AML	AML		
GAZK	Gazikoy-TEKIRD	2.41	70	Pn	Pn	16 05 47.9	+0.5
GAZK				AML	AML		
MG00	Magoula, Dorid	2.42	231	P	Pn	16 05 47.2	-0.2
EFP	Efpalio	2.43	232	P	Pn	16 05 47.3	-0.3
EFP				AML	AML		
MET4	Agioi Theodoro	2.44	198	P	Pn	16 05 46.9	-0.8
AGEO	AgiosGiorgios,	2.45	227	P	Pn	16 05 48.0	+0.1
TETR	Tetrakomo, Epi	2.45	257	P	Pn	16 05 47.4	-0.6
TETR				AML	AML		
TETR	Tetrakomo, Epi	2.45	257	P	Pn	16 05 47.6	-0.4
TETR				AML	AML		
MET5	Makryloggos,Me	2.45	199	P	Pn	16 05 47.1	-0.8
MET2	Kameni Chora,	2.46	199	P	Pn	16 05 47.0	-1.1
ATIT	Gnen	2.47	86	P	Pn	16 05 47.9	-0.3
PENT	Pentalofos	2.48	277	P	Pn	16 05 48.7	+0.3
MET1	Methana Town,	2.48	198	P	Pn	16 05 47.5	-0.9
VVK	Vomvokou	2.49	233	P	Pn	16 05 48.7	+0.1
VVK				AML	AML		
VVK	Vomvokou	2.49	233	P	Pn	16 05 48.7	+0.1
AIOA	Agios Ioannis,	2.50	226	P	Pn	16 05 48.1	-0.5
LAKA	Lakka	2.51	228	P	Pn	16 05 48.5	-0.3
LAKA	Lakka	2.51	228	P	Pn	16 05 48.6	-0.3
BALY	Balya	2.53	94	P	Pg	16 05 55.1	-1.5
BALY				S	Sb	16 06 26.8	+2.3
BALY	Balya	2.53	94	P	Pn	16 05 50.6	+1.6
BALY				AML	AML		
MET3	Ano Fanari,Met	2.53	201	P	Pn	16 05 47.9	-1.1
MADA	Marmara adas	2.53	74	P	Pg	16 05 55.1	-1.7
PRMD	Pramanda	2.54	262	P	Pn	16 05 49.2	-0.1
PRMD				AML	AML		
PRMD	Pramanda	2.54	262	P	Pn	16 05 49.0	-0.2
PRMD				AML	AML		
GUR	Goura	2.55	219	P	Pn	16 05 48.4	-1.0
GUR				AML	AML		
GUR	Goura	2.55	219	P	Pn	16 05 48.6	-0.8
GUR				AML	AML		
KLV	Kalavryta, Ach	2.56	223	P	Pn	16 05 48.9	-0.6
KLV	Kalavryta, Ach	2.56	223	P	Pn	16 05 48.9	-0.6
AGRP	Agrapidokambos	2.56	234	P	Pn	16 05 49.5	0.0
AGRP				AML	AML		
PVO	Paravola	2.56	240	P	Pn	16 05 49.6	+0.2
PVO				AML	AML		
PVO	Paravola	2.56	240	P	Pn	16 05 49.2	-0.3
GONE	Gonen-Balikesi	2.56	87	Pn	Pn	16 05 50.3	+0.8
GONE				AML	AML		
MRMT	Marmara Adasi	2.57	74	Pn	Pn	16 05 50.5	+0.9
MRMT				AML	AML		
SOMA	Soma-Manisa	2.59	107	Pn	Pn	16 05 50.9	+1.1
SOMA				AML	AML		
CAMT	Merkez	2.59	117	P	Pn	16 05 51.0	+1.1
BLCB	Balcova	2.61	126	Pn	Pn	16 05 51.3	+1.2
BLCB				AML	AML		
PLNA	Plana	2.62	345	*i* P	Pn	16 05 51.1	+0.7
EDRB	Edirne	2.62	43	Pn	Pn	16 05 51.1	+0.8
EDRB				AML	AML		
AMPL	Ampelaki	2.64	248	P	Pn	16 05 50.7	+0.2
AMPL				AML	AML		
AMPL	Ampelaki	2.64	248	P	Pn	16 05 50.3	-0.2
AMPL				AML	AML		
TKR	Tekirdag	2.64	66	Pn	Pn	16 05 51.1	+0.5
TKR				AML	AML		
STEP	BALIKESIR_Sava	2.66	101	P	Pb	16 05 54.3	-1.5
MURA	Muratl, TEK	2.67	62	P	Pb	16 05 57.6	+1.6
MURA				S	Sg	16 06 32.3	-1.9
EDC	Edincik	2.72	80	Pn	Pn	16 05 52.2	+0.5
EDC				AML	AML		
BALB	Balikesir	2.74	95	Pn	Pn	16 05 53.3	+1.4
BALB				AML	AML		
BALB	Balikesir	2.74	95		Pn	16 05 52.3	+0.5
BKES	Balkesir-Mer	2.77	93	P	Pn	16 05 52.6	+0.4
BKES				S	Sg	16 06 34.2	-2.8
BKES				IAML		16 06 38.0	
	comp=N,575nm,1.2s						
KIRK	Kırklareli	2.77	48	P	Pn	16 05 51.8	-0.6
CMHT	Manyas	2.78	88	P	Pb	16 05 56.2	-1.6
VTS	Vitosha	2.79	343	P	Pn	16 05 52.8	0.0
VTS	Vitosha	2.79	343	*i* P	Pn	16 05 53.0	+0.2
PDO	Prodromos	2.80	242	P	Pn	16 05 53.0	+0.2
PDO				AML	AML		
KBN	Korca	2.81	285	P	Pn	16 05 53.7	+0.8
KBN				AML	AML		
CRLT	Corlu	2.84	64	Pn	Pn	16 05 54.3	+1.1
CRLT				AML	AML		
DRO	Drossia	2.87	227	P	Pn	16 05 53.2	-0.5
DRO				AML	AML		
AXS	Araxos	2.90	234	P	Pn	16 05 54.1	0.0
BAND	Balkesir-Ban	2.90	81	P	Pn	16 05 55.1	+1.0
BAND	Balkesir-Ban	2.90	81	⇓P	Pn	16 05 54.6	+0.5
RLS	Riolos of Patr	2.93	231	P	Pn	16 05 54.4	-0.1
PHSR	Pinarhisar	2.94	54	Pn	Pn	16 05 55.9	+1.3
PHSR				AML	AML		
OHR	Ohrid	2.94	294	*i* Pn	Pn	16 05 55.3	+0.5
BOTS	Marmara Eregli	2.96	68	Pn	Pn	16 05 56.4	+1.5
BOTS				AML	AML		
SKO	Skopje	2.99	313	*i* Pn	Pn	16 05 55.6	+0.3
JMB	Yambol	3.02	32	Pn	Pn	16 05 56.2	+0.4
TSLK	Tsoukalades, L	3.08	250	P	Pn	16 05 56.9	+0.4
TSLK				AML	AML		
NYDR	Nydri-Lefkada	3.09	248	P	Pn	16 05 56.8	+0.1
IGT	Igoumenitsa	3.12	264	P	Pn	16 05 57.9	+0.7
EVGI	Lefkada island	3.16	246	P	Pn	16 05 58.5	+0.8
DRAG	Dragano-Lefkad	3.19	248	P	Pn	16 05 57.9	-0.2
DRAG				AML	AML		
MHLO	Agia Marina, M	3.25	179	P	Pn	16 05 57.9	-1.1
FSK	Fiskardo	3.30	244	P	Pn	16 06 00.0	+0.5
FSK				AML	AML		
SRN	Sarande	3.34	270	P	Pn	16 06 02.0	+1.8
SRN				AML	AML		
ITM	Ithomi	3.35	215		Pn	16 06 01.7	+1.3
ITM	Ithomi	3.35	215	P	Pn	16 06 00.8	+0.4
ITM				AML	AML		
ITM	Ithomi	3.35	215	P	Pn	16 06 01.6	+1.2
ITM				AML	AML		
CTYL	Yalikoy Yolu	3.36	62	Pn	Pn	16 05 59.9	-0.5
CTYL				AML	AML		
VLI	Veliai	3.41	199	P	Pn	16 06 00.4	-0.7
VLI				AML	AML		
MPEP	Malo Peshtene	3.44	353	P	Pn	16 06 01.9	+0.4
PHP	Peshkopia	3.44	302	P	Pn	16 06 02.0	+0.5
PHP				AML	AML		
PLVB	Pleven	3.44	3	⇑P	Pn	16 06 02.4	+0.8
PSDA	Pessada-Kefalo	3.46	239	P	Pn	16 06 01.4	-0.3
PSDA				AML	AML		
KEK	Kerkira	3.51	268		Pn	16 06 03.1	+0.5
KEK	Kerkira	3.51	268	P	Pn	16 06 02.0	-0.5
KEK				AML	AML		
SZH	Strazhitsa	3.53	20	P	Pn	16 06 02.3	-0.5
LTHK	Lithakia	3.54	232	P	Pn	16 06 03.0	+0.1
LTHK				AML	AML		
MANT	Manisa	3.58	113		Pn	16 06 04.9	+1.2
BDRM	Kayabasi	3.77	139	⇑P	Pn	16 06 06.7	+0.7
LOZB	Loznitsa	3.81	25	⇑P	Pn	16 06 06.8	+0.2
KTHA	Kythira Island	3.82	196	P	Pn	16 06 06.6	-0.3
KTHA				AML	AML		
YLV	Yalova	3.89	79	Pn	Pn	16 06 10.9	+3.1
YLV				AML	AML		
RAZG	Razgrad	3.96	23	⇑P	Pn	16 06 08.6	-0.1
BOVS	Bovan	4.18	333	⇓P	Pn	16 06 11.6	-0.1
COPA	Copaceanca	4.23	8	⇓P	Pn	16 06 12.5	+0.1
TAVA	DENIZLI_Tavas	4.35	123	⇓P	Pn	16 06 15.4	+1.3
IMMV	Iera Moni Meta	4.49	184	P	Pn	16 06 16.3	+0.3
IMMV				AML	AML		
DRME	Dracevica, Mon	4.50	301	*e*Pn	Pn	16 06 18.5	+2.4
PDG	Podgorica	4.57	304		Pn	16 06 18.3	+1.2
PDG	Podgorica	4.57	304	⇑P	Pn	16 06 17.2	+0.2
PDG	Podgorica	4.57	304	*e*Pn	Pn	16 06 18.2	+1.1
SJES	Sjenica	4.66	317	*e*Pn	Pn	16 06 18.8	+0.4
IDI	Anoyia	4.67	175	Pn	Pn	16 06 17.6	-0.9
	12nm,0.5s,baz=1.8,slow=8.7,SNR=5.5						
BORA	Eskisehir	4.69	89		Pn	16 06 19.1	+0.2
ARG	Arkhangelos	4.77	140	Pn	Pn	16 06 21.2	+1.4
SULR		4.93	16	P	Pn	16 06 23.0	+1.0
SULR				AML	AML		
HCY	Herceg Novi	5.07	301	*e*Pn	Pn	16 06 21.9	-2.1
MDVR	Moldovita	5.21	339	⇑P	Pn	16 06 25.4	-0.5
EFOR	EFORIE	5.22	36	⇑P	Pn	16 06 26.5	+0.6
ISP	Isparta	5.26	112		Pn	16 06 27.5	+0.8
BRY	Bratogost	5.27	306	*e*Pn	Pn	16 06 27.8	+1.0
TREB	Trebinje	5.29	303	*e*Pn	Pn	16 06 27.9	+0.9
MTUR	Matau	5.30	5	⇓P	Pn	16 06 28.4	+1.3
BBLS	Lazi&#263i	5.38	318	*e*Pn	Pn	16 06 27.9	-0.3
ISR	Istrita	5.41	17	⇓P	Pn	16 06 30.2	+1.5
ISR	Istrita	5.41	17	Pn	Pn	16 06 29.8	+1.1
	0.8nm98nm,0.6s						
ISR				AML	AML		
ARR	Arges	5.42	2	⇓P	Pn	16 06 28.9	+0.1
ARR	Arges	5.42	2	P	Pn	16 06 29.1	+0.3
ARR				AML	AML		
TIRR	Tirgusor	5.42	32		Pn	16 06 28.4	-0.3
TIRR	Tirgusor	5.42	32	Pn	Pn	16 06 29.3	+0.6
	0.2nm64nm,1.1s						
TIRR				AML	AML		
HARR	Harsova	5.43	28	⇑P	Pn	16 06 29.1	+0.2
VOIR		5.51	5	⇓P	Pn	16 06 30.3	+0.2
VOIR		5.51	5	Pn	Pn	16 06 30.7	+0.7
	0.2nm456nm37nm,0.7s						
VOIR				AML	AML		
VOIR		5.51	5	P	Pn	16 06 31.2	+1.1
	comp=Z,37nm,0.7s,comp=Z,0.2nm						
VOIR				AML	AML		
LOT	Lotru	5.51	356	⇓P	Pn	16 06 29.8	-0.3
LOT	Lotru	5.51	356	P	Pn	16 06 29.9	-0.2
	comp=Z,47nm,0.5s,comp=Z,0.3nm						
LOT				AML	AML		
NEHR	Nehoiu	5.66	14	⇑P	Pn	16 06 33.4	+1.4
MLR	Muntele Rosu	5.66	11	Pn	Pn	16 06 32.1	-0.1
	comp=Z,4.2nm,0.3s,baz=270,slow=23,SNR=20						
MLR				Sn	Sn	16 07 37.1	0.0
	comp=Z,7.8nm,0.3s,baz=171,slow=13,SNR=4.1						
MLR				Lg	Lg	16 08 06.7	
	baz=120,slow=14						
MLR				AML	AML		
MLR	Muntele Rosu	5.66	11		Pn	16 06 32.2	0.0
MLR	Muntele Rosu	5.66	11	⇑P	Pn	16 06 33.3	+1.2
MLR	Muntele Rosu	5.66	11	Pn	Pn	16 06 33.4	+1.2
	comp=Z,0.5nmcomp=Z,615nmcomp=Z,60nm,0.6s						
MLR				AML	AML		
MLR	Muntele Rosu	5.66	11	P	Pn	16 06 33.7	+1.6
	comp=Z,61nm,0.5s,comp=Z,0.5nm						
MLR				AML	AML		
TNR	Turnu Rosu	5.70	359	⇓P	Pn	16 06 34.1	+1.5
TPGR	Topolog	5.75	30	⇓P	Pn	16 06 33.7	+0.4
TEKS	Tekeris	5.82	324	*e*Pn	Pn	16 06 32.9	-1.4
BISRR	Bisoca	5.86	16	⇓P	Pn	16 06 36.3	+1.5
BISRR	Bisoca	5.86	16	Pn	Pn	16 06 36.6	+1.8
	comp=Z,1.3nmcomp=Z,2μmcomp=Z,212nm,0.6s						
BISRR				AML	AML		
JURR	Jurilovca	5.87	33	⇓P	Pn	16 06 35.0	+0.2
MATE	Matera	5.89	279	⇑P	Pn	16 06 34.4	-0.7
MATE	Matera	5.89	279	P	Pn	16 06 34.5	-0.6
	comp=Z,0.2nmcomp=Z,24nm,1.1s						
MATE				AML	AML		
TIP	Timpagrande	5.92	265	⇓P	Pn	16 06 35.8	+0.2
TIP	Timpagrande	5.92	265	Pn	Pn	16 06 35.0	-0.6
	comp=Z,0.1nmcomp=Z,24nm,3.0s						
TIP				AML	AML		
TIP	Timpagrande	5.92	265	P	Pn	16 06 35.5	-0.1
	comp=Z,0.1nmcomp=Z,30nm,3.0s						
TIP				AML	AML		
CFR	Carcaliu	5.93	27	⇑P	Pn	16 06 35.5	-0.1
BZS	Buzias	6.01	341	⇑P	Pn	16 06 36.3	-0.6
BZS	Buzias	6.01	341	P	Pn	16 06 37.1	+0.2
	comp=Z,16nm,0.7s,comp=Z,0.4nm						
BZS				AML	AML		
DEV	Deva	6.03	350	⇑P	Pn	16 06 37.8	+0.8
DEV	Deva	6.03	350	P	Pn	16 06 37.8	+0.8
	comp=Z,52nm,0.5s,comp=Z,0.4nm						
DEV				AML	AML		
SURR	Surduc	6.03	345	⇑P	Pn	16 06 36.7	-0.4
COVR	Voineasa-Covas	6.05	12	⇑P	Pn	16 06 38.8	+1.4
DOPR	Dopca	6.06	7	⇑P	Pn	16 06 38.9	+1.3
PLOR	Plostina	6.14	15	⇑P	Pn	16 06 39.2	+0.6
ODBI	Odobesti	6.14	18	⇓P	Pn	16 06 39.2	+0.5
VRI	Vrincioaia	6.17	16	⇑P	Pn	16 06 40.3	+1.3
VRI	Vrincioaia	6.17	16	Pn	Pn	16 06 40.5	+1.5
VRI				AML	AML		
VRI	Vrincioaia	6.17	16	P	Pn	16 06 41.6	+2.7
VRI				AML	AML		
TLCR		6.18	31	⇓P	Pn	16 06 39.4	+0.2
FRGS	Fruska Gora	6.19	329	*e*Pn	Pn	16 06 38.2	-1.2
FRGS	Fruska Gora	6.19	329	P	Pn	16 06 38.1	-1.2
	comp=Z,0.1nmcomp=Z,13nm,1.0s						
FRGS				AML	AML		
MDB	Medias	6.19	0	⇑P	Pn	16 06 40.8	+1.5
TURR	Turia	6.22	11	⇑P	Pn	16 06 41.2	+1.4
OZUR		6.23	9	⇓P	Pn	16 06 41.2	+1.2
PANC	Panciu	6.27	18	⇑P	Pn	16 06 40.7	+0.4
SCTR	Scanteiesti	6.32	24	⇑P	Pn	16 06 41.8	+0.8
VARL	Varlezi	6.48	22	⇑P	Pn	16 06 44.7	+1.5
VLDR	Vladesti	6.50	24	⇑P	Pn	16 06 45.1	+1.6
GHRR		6.51	19	⇑P	Pn	16 06 44.7	+1.1
ONER	Baraj Valea Uz	6.55	13	⇑P	Pn	16 06 45.7	+1.4
CUC	Castrocucco	6.56	273	P	Pn	16 06 45.4	+1.0
	comp=Z,0.3nmcomp=Z,38nm,0.8s						
CUC				AML	AML		
MARCO	Tramutola	6.56	276	P	Pn	16 06 44.8	+0.3
	comp=Z,0.5nmcomp=Z,72nm,1.8s						
MARCO				AML	AML		
BIR	Birlad	6.75	20	⇓P	Pn	16 06 48.0	+0.9
TESR	Tescani	6.77	14	⇓P	Pn	16 06 48.3	+1.1
TESR	Tescani	6.77	14	Pn	Pn	16 06 48.4	+1.1
	comp=Z,0.2nmcomp=Z,723nmcomp=Z,44nm,0.5s						
TESR				AML	AML		
TESR	Tescani	6.77	14	P	Pn	16 06 49.5	+2.2
	comp=Z,44nm,0.6s,comp=Z,0.2nm						
TESR				AML	AML		
CEL	Celeste	6.79	258	Pn	Pn	16 06 47.4	-0.2
	comp=Z,0.2nmcomp=Z,42nm,1.1s						
CEL				AML	AML		
CEL	Celeste	6.79	258	P	Pn	16 06 48.0	+0.4
	comp=Z,0.2nmcomp=Z,42nm,1.1s						
CEL				AML	AML		
DRGR		6.94	351	⇑P	Pn	16 06 49.5	-0.2
DRGR		6.94	351	P	Pn	16 06 52.7	+3.0
	comp=Z,10.0nm,0.6s,comp=Z,0.2nm						
DRGR				AML	AML		
BIZ	Bicaz	7.10	10	⇑P	Pn	16 06 52.8	+1.0
BR106	Keskin Array S	7.14	89	Pn	Pn	16 06 54.3	+1.9
	comp=Z,0.0nmcomp=Z,3.3nm,0.8s						
BR106				AML	AML		
BR105	Keskin Array S	7.14	89	Pn	Pn	16 06 53.9	+1.4
	comp=Z,0.0nmcomp=Z,67nmcomp=Z,4.6nm,0.7s						
BR105				AML	AML		
BLY	Banja Luka	7.15	314		Pn	16 06 53.2	+0.7
BLY	Banja Luka	7.15	314	⇑P	Pn	16 06 52.3	-0.2
BLY	Banja Luka	7.15	314	*e*Pn	Pn	16 06 53.2	+0.7
BLY	Banja Luka	7.15	314	P	Pn	16 06 53.6	+1.1
	comp=Z,37nm,0.7s,comp=Z,0.1nm						
BLY				AML	AML		
BR131	Keskin Array S	7.15	89		Pn	16 06 53.7	+1.0
BRTR	Keskin Array B	7.15	89	Pn	Pn	16 06 52.7	0.0
	comp=Z,0.6nm,0.3s,baz=269,slow=12,SNR=15						
BRTR				Sn	Sn	16 08 11.1	-2.8
	comp=Z,0.3nm,0.3s,baz=270,slow=23,SNR=1.8						
BRTR				Lg	Lg	16 08 56.5	
	baz=274,slow=23						
BRTR				LR	LR	16 09 25.4	
	comp=Z,26nm,20.4s,baz=276,slow=36						
	comp=Z,1.6nm,0.4s						
BRTR				AML	AML		
BR104	Keskin Array S	7.16	89	Pn	Pn	16 06 53.4	+0.7
	comp=Z,0.0nmcomp=Z,67nmcomp=Z,4.7nm,0.5s						
BR104				AML	AML		
MORH	Mrgy, Hungar	7.53	328	⇑P	Pn	16 06 56.9	-0.7
MORH	Mrgy, Hungar	7.53	328	*e*Pn	Pn	16 06 56.8	-0.8
MORH	Mrgy, Hungar	7.53	328	Pn	Pn	16 06 56.8	-0.8
	comp=Z,0.1nmcomp=Z,7.9nm,0.5s						
MORH				AML	AML		
MORH	Mrgy, Hungar	7.53	328	P	Pn	16 06 56.9	-0.7
	comp=Z,8.9nm,0.4s,comp=Z,0.1nm						
MORH				AML	AML		
PRAR	RASCA	7.53	10	⇓P	Pn	16 06 58.7	+1.0
BURAR	Bucovina Array	7.69	4		Pn	16 07 00.4	+0.5
BURAR	Bucovina Array	7.69	4	⇓P	Pn	16 07 01.2	+1.3
PURM	Purcari	7.71	30	Pn	Pn	16 07 00.2	0.0
	comp=Z,0.9nmcomp=Z,7μmcomp=Z,117nm,0.6s						
PURM				AML	AML		
BUR08	Bucovina Ar. S	7.72	4		Pn	16 07 00.6	+0.2
VAE	Valguarnera	8.15	256	Pn	Pn	16 07 06.2	0.0
	comp=Z,7.5nm,0.8s,baz=58,slow=19,SNR=1.3						
SEV	Sevastopol'	8.30	53	*e*P	Pn	16 07 08.3	+0.1
SEV				pmax	pmax	16 07 15.8	
	comp=Z,1.0nm,0.3s						
SEV				*e*S	Sn	16 08 38.1	-3.6
SEV				smax	smax	16 08 39.4	
	comp=N,2.0nm,0.4s						
SEV				smax	smax	16 08 39.4	
	comp=E,2.0nm,0.3s						
BEHE	Becsehely	8.54	322	*e*Pn	Pn	16 07 12.2	+0.6
YAL	Yalta	8.57	55	*e*x	x	16 07 13.4	
YAL				pmax	pmax	16 07 18.9	
	comp=Z,7.0nm,0.5s						
SORM	Soroca	8.67	18	Pn	Pn	16 07 12.1	-1.3
KMPD	K-Podol'skiy	8.74	9	Pn	Pn	16 07 13.8	-0.5
MPLH	Magyarpolny	8.74	328	Pn	Pn	16 07 14.4	0.0
	comp=Z,26nm,0.7s						
MPLH	Magyarpolny	8.74	328	P	Pn	16 07 15.1	+0.8
	comp=Z,11nm,0.7s						

KOLS	Kolonicke sedl	9.10	351	ePN	Pn	16 07 20.2	+0.9
SUDU	Sudak	9.29	54	eP	Pn	16 07 21.8	0.0
SUDU				pmax	pmax	16 07 28.8	
	comp=Z,4.0nm,0.3s						
MURB	Monte Urbino	9.46	294	Pn	Pn	16 07 24.9	+0.8
SOKA	Soboth	9.55	318	ePn	Pn	16 07 25.3	-0.2
	comp=Z,1.8nm,0.3s,SNR=6.3						
RONA	Rosalia, Austr	9.68	326	i Pn	Pn	16 07 27.0	-0.3
	comp=Z,0.7nm,0.3s						
OBKA	Obir	9.70	316	ePn	Pn	16 07 28.3	+0.8
	comp=Z,2.8nm,0.3s,SNR=6.4						
OBKA	Obir	9.70	316	P	Pn	16 07 28.0	+0.5
	comp=Z,12nm,0.5s						
ARSA	Arzberg	9.70	322		Pn	16 07 28.1	+0.6
ARSA	Arzberg	9.70	322	i Pn	Pn	16 07 27.8	+0.3
	comp=Z,2.2nm,0.3s,SNR=9.9						
ARSA				eSn	Sn	16 09 18.6	+2.3
	comp=Z,1.5nm,0.5s						
ARSA	Arzberg	9.70	322	P	Pn	16 07 28.9	+1.4
	comp=Z,15nm,0.7s						
DRE	Drenchia	10.00	312	P	Pn	16 07 32.0	+0.4
	comp=Z,12nm,1.7s						
CONA	Conrad Observa	10.05	325	i Pn	Pn	16 07 32.4	+0.1
	comp=Z,0.5nm,0.3s						
SESA	Seetaler Alpe,	10.08	318	i Pn	Pn	16 07 33.7	+0.9
	comp=Z,5.7nm,0.5s,SNR=6.1						
WINA	Alland / Wiene	10.10	327	i Pn	Pn	16 07 33.4	+0.6
	comp=Z,1.6nm,0.2s						
LUBAR	Lubar, Ukraine	10.26	12	Pn	Pn	16 07 34.4	-0.7
MYKA	Terra Mystica	10.27	314	i Pn	Pn	16 07 36.6	+1.3
	comp=Z,1.4nm,0.4s						
ACOM	Acomizza, Ital	10.29	313	P	Pn	16 07 36.0	+0.3
	comp=Z,12nm,1.1s						
KBA	Koelnbreinsper	10.70	315	ePn	Pn	16 07 42.5	+1.2
	comp=Z,4.2nm,0.7s,SNR=5.5						
KBA	Koelnbreinsper	10.70	315	P	Pn	16 07 42.4	+1.2
	comp=Z,7.1nm,1.6s						
MOA	Molln	10.73	321	i Pn	Pn	16 07 43.1	+1.5
	comp=Z,1.2nm,0.4s						
MOA	Molln	10.73	321	P	Pn	16 07 43.5	+2.0
	comp=Z,4.9nm,0.6s						
OKC	Ostrava-Krasne	10.82	338	AMS	AMS	16 12 30.0	
	comp=Z,200nm,12.5s						
BIOA	Bad Ischl, Aus	10.94	319	ePn	Pn	16 07 45.9	+1.5
	comp=Z,3.3nm,0.3s,SNR=4.5						
ABTA	Abfaltersbach	10.97	312	ePn	Pn	16 07 45.0	+0.1
	comp=Z,0.7nm,0.2s						
AK07	Malin Array Si	11.14	16	Pn	Pn	16 07 45.8	-1.3
AK10	Malin Array Si	11.19	16	Pn	Pn	16 07 47.8	0.0
AK17	Malin Array Si	11.23	16	Pn	Pn	16 07 47.4	-1.0
MMAI	Mount Meron Ar	11.27	124	Pn	Pn	16 07 48.4	-0.6
	comp=Z,0.4nm,0.3s,baz=310,slow=11,SNR=1.6						
	comp=Z,1.4nm,0.7s						
MMAI				AML	AML		
LESA	Schwarzleotal	11.27	315	ePn	Pn	16 07 50.3	+1.3
	comp=Z,4.9nm,0.4s,SNR=9.5						
KIEV	Kiev	11.27	16	P	Pn	16 07 49.5	+0.5
	comp=Z,5.8nm,1.3s						
AK20	Malin Array Si	11.28	15	P	Pn	16 07 47.7	-1.3
AKASG	Malin Array Be	11.28	16	Pn	Pn	16 07 47.7	-1.3
	comp=Z,2.2nm,0.4s,baz=208,slow=11,SNR=8.6						
AK04	Malin Array Si	11.29	16	Pn	Pn	16 07 49.2	0.0
RNPP5	Staryi Chortor	11.33	5	Pn	Pn	16 07 50.4	+0.7
GERES	GERESS Array B	11.70	323	Pn	Pn	16 07 52.9	-1.9
	comp=Z,0.1nm,0.3s,baz=154,slow=13,SNR=9.2						
	comp=Z,0.4nm,0.2s						
GERES				AML	AML		
WTTA	Wattenberg	11.75	313	i Pn	Pn	16 07 57.2	+1.5
	comp=Z,3.7nm,0.2s						
WATA	Walderalm	11.83	313	ePn	Pn	16 07 57.5	+0.8
	comp=Z,0.7nm,0.2s						
KHC	Kasperske Hory	11.96	324	ePN	Pn	16 07 59.3	+0.9
KHC				AMS	AMS	16 12 50.0	
	comp=Z,200nm,9.9s						
SQTA	Sankt Quirin	11.97	312	ePn	Pn	16 07 59.1	+0.4
	comp=Z,1.2nm,0.4s						
MOTA	Moosalm	12.10	312	ePn	Pn	16 08 01.2	+0.7
	comp=Z,0.9nm,0.5s						
FETA	Feichten	12.15	310	ePn	Pn	16 08 00.5	-0.6
	comp=Z,1.4nm,0.6s						
FUORN	Ofenpass-Fuorn	12.23	308	Pn	Pn	16 08 02.9	+0.6
DAVOX	Davos/Dischmat	12.54	308	Pn	Pn	16 08 04.7	-1.8
	comp=Z,0.3nm,0.3s,baz=139,slow=17,SNR=5.5						
	comp=Z,2.4nm,0.6s						
DAVOX				AML	AML		
ASF	Jabal al Asfar	12.77	124	LR	LR	16 15 14.5	
	comp=Z,37nm,19.4s,baz=61,slow=48						
DAVA	Damuels	12.78	310	ePn	Pn	16 08 10.6	+0.8
	comp=Z,2.2nm,0.5s						
CLL	Collm	13.84	329	ePP	P	16 08 34.0	+1.7
CLL				LH		16 11 00.0	
CLL				AMS	AMS	16 12 00.0	
	comp=N,100nm,20.5s						
CLL				AMS	AMS	16 12 00.0	
	comp=E,100nm,21.5s						
CLL				AMS	AMS	16 13 00.0	
BFO	Black Forest	14.21	311	Pn	Pn	16 08 31.2	+2.1
MAHO	Mahon	15.41	276	P	Pn	16 08 41.8	-3.5
	comp=Z,149nm,1.2s						
UCM	Universidad Co	21.07	280	P	P	16 09 51.5	-0.7
	comp=Z,19nm,2.5s						
HFS	Hagfors	21.28	345	P	P	16 09 53.3	-0.9
	comp=Z,0.9nm,0.6s,baz=140,slow=11,SNR=1.4						
HFS				LR	LR	16 18 26.9	
	comp=Z,32nm,21.6s,baz=184,slow=38						
	comp=Z,0.9nm,0.6s						
FINES	FINESS Array B	21.55	2	P	P	16 09 56.8	-0.2
	comp=Z,1.0nm,0.7s,baz=133,slow=13,SNR=3.9						
FINES				LR	LR	16 18 35.4	
	comp=Z,55nm,20.4s,baz=205,slow=38						
	comp=Z,1.0nm,0.7s						
FINES	FINESS Array B	21.55	2	P	P	16 09 57.2	+0.2
FIA1	FINESS Array S	21.55	2	P	P	16 09 57.2	+0.2
FIA1				IAmb	IAmb	16 10 29.9	
	comp=Z,40nm,1.4s						
ESDC	Sonseca Array	21.72	278	P	P	16 09 57.4	-1.8
	comp=Z,1.6nm,0.8s,baz=74,slow=11,SNR=10						
	comp=Z,1.6nm,0.8s						
PAB	San Pablo	22.03	278	P	P	16 10 03.6	+1.1
NAO01	NORSAR Array S	22.52	343	P	P	16 10 07.2	-0.3
NAO01				IAmb	IAmb	16 10 10.5	
	comp=Z,29nm,1.4s						
NB201	NORSAR Array S	22.61	343	P	P	16 10 08.4	-0.1
NB2	NORSAR Subarra	22.62	343	P	P	16 10 07.4	-1.2
	comp=Z,7.9nm,1.1s,baz=151,slow=11						
NOA	NORSAR Array B	22.62	343	P	P	16 10 07.6	-1.0
	comp=Z,2.1nm,0.9s,baz=152,slow=10,SNR=7.9						
NOA				LR	LR	16 18 56.5	
	comp=Z,11nm,20.3s,baz=280,slow=37						
	comp=Z,2.1nm,0.9s						
EKA	Eskdalemuir Ar	23.87	319	P	P	16 10 20.1	-1.0
	comp=Z,2.6nm,0.9s,baz=113,slow=9.1,SNR=5.7						
	comp=Z,2.6nm,0.9s						
RAYN	Ar Rayn	24.23	126	P	P	16 10 27.1	+2.2
RAYN	Ar Rayn	24.23	126	P	P	16 10 27.6	+2.7
	comp=Z,5.1nm,1.6s						
MD01	Midelt array s	24.40	262	P	P	16 10 29.0	+2.5
PVAQ	Vaqueiros	25.09	275	P	P	16 10 30.8	-1.8
	comp=Z,11nm,1.8s						
AKTO	Aktyubinsk	25.73	55	LR	LR	16 22 29.6	
	comp=Z,36nm,19.8s,baz=54,slow=40						
ARTI	Arti	27.65	42	LR	LR	16 21 40.7	
	comp=Z,23nm,19.8s,baz=225,slow=36						
ARCES	ARCESS Array B	29.66	1	LR	LR	16 24 14.2	
	comp=Z,37nm,19.4s,baz=205,slow=39						
TORD	Torodi Ar. Bea	33.32	223	P	P	16 11 45.5	-0.4
	comp=Z,0.5nm,0.4s,baz=34,slow=8.4,SNR=6.4						
	comp=Z,0.5nm,0.4s						
KURBB	Kurchatov Arra	38.78	56	P	P	16 12 32.8	+0.6
	comp=Z,0.2nm,0.5s,baz=282,slow=8.1,SNR=2.8						
KURBB				PcP	PcP	16 14 43.5	0.0
	comp=Z,0.2nm,0.3s,baz=284,slow=3.0,SNR=4.8						
	comp=Z,0.2nm,0.5s						
MKAR	Makanchi Array	41.84	61	P	P	16 12 58.1	+0.4
	comp=Z,0.5nm,0.6s,baz=278,slow=7.5,SNR=6.2						
MKAR				PcP	PcP	16 14 52.3	-1.2
	comp=Z,0.2nm,0.5s,baz=270,slow=4.0,SNR=2.1						
MKAR				LR	LR	16 34 09.9	
	comp=Z,17nm,18.6s,baz=216,slow=42						
	comp=Z,0.5nm,0.6s						
ZALV	Zalesovo Beam	42.28	50	P	P	16 13 01.1	-0.1
	comp=Z,0.8nm,0.6s,baz=270,slow=8.9,SNR=4.0						
ZALV				LR	LR	16 32 41.0	
	comp=Z,18nm,20.3s,baz=124,slow=39						
	comp=Z,0.8nm,0.6s						
KMBO	Kilima Mbogo	42.55	161	P	P	16 13 03.5	-0.5
	baz=13,slow=15						
NRIK	Noril'sk	43.87	27	LR	LR	16 32 30.1	
	comp=Z,36nm,18.9s,baz=270,slow=38						
SUMG	Summit	44.30	337	P	P	16 13 18.4	+0.7
SUMG				IAmb	IAmb	16 13 29.0	
	comp=Z,4.9nm,1.1s						
WMQ	Urumqi	46.30	63	eP	P	16 13 36.0	+2.4
SFJD	Kangerlussuaq	48.21	329	P	P	16 13 45.6	-2.4
	comp=Z,25nm,2.9s						
SONM	Songino Array	57.02	53	P	P	16 14 54.6	+0.8
	comp=Z,0.4nm,0.5s,baz=288,slow=5.9,SNR=2.2						
	comp=Z,0.4nm,0.5s						
RES	Resolute Bay	58.88	344	P	P	16 15 07.4	+1.1
SCHQ	Schefferville	59.17	318	P	P	16 15 07.3	-1.2
	comp=Z,2.1nm,0.8s,baz=56,slow=7.3,SNR=4.1						
	comp=Z,2.1nm,0.8s						
HHC	Hu-ho-hao-te	63.57	58	eP	P	16 15 39.0	+0.3
HHC				pmax	pmax		
	comp=Z,14nm,0.6s						
D62A	Allapoint, All	64.17	311	P	P	16 15 43.4	+1.0
PZH	PanZhiHua	64.26	76	P	P	16 15 44.8	+1.3
CMAR	Chiang Mai Arr	66.73	85	P	P	16 15 58.1	-1.2
	comp=Z,0.7nm,0.9s,baz=301,slow=3.3,SNR=4.3						
	comp=Z,0.7nm,0.9s						
BOSA	Boshof	68.22	179	P	P	16 16 07.5	-1.0
	comp=Z,1.9nm,0.8s,baz=8.2,slow=7.6,SNR=6.7						
	comp=Z,1.9nm,0.8s						
BOSA	Boshof	68.22	179	P	P	16 16 09.6	+1.1
BOSA				pP	sP	16 16 14.8	+1.0
E29M	Blow River	71.16	353	P	P	16 16 27.2	+1.1
E29M				IAmb	IAmb	16 16 33.2	
	comp=Z,3.5nm,0.8s						
SUR	Sutherland	72.04	183	LR	LR	16 48 48.5	
	comp=Z,44nm,19.4s,baz=356,slow=36						
G29M	Pine Creek	72.61	353	P	P	16 16 35.3	+0.4
H29M	Whitestone	73.32	353	P	P	16 16 39.9	+0.8
H29M				IAmb	IAmb	16 16 53.0	
	comp=Z,9.2nm,1.4s						
NJ2	Nanjing	73.35	62	eP	P	16 16 41.0	+1.2
NJ2				pmax	pmax		
	comp=Z,8.0nm,0.6s						
USRK	Ussuriysk Ar.	73.93	46	P	P	16 16 42.9	-0.1
	comp=Z,0.3nm,0.6s,baz=354,slow=4.8,SNR=4.1						
	comp=Z,0.3nm,0.6s						
I30M	Mount Dempster	74.08	352	P	P	16 16 44.5	+0.7
I30M				IAmb	IAmb	16 16 45.7	
	comp=Z,3.3nm,1.1s						
L18K	Granite Mounta	78.18	0	P	P	16 17 08.0	+1.1
ASAR	Alice Springs	119.42	97	PKP	PKPdf	16 23 56.4	-1.4
	comp=Z,0.5nm,0.8s,baz=329,slow=1.4,SNR=4.1						

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*IDC **27** 16:10:46.7±1.5, 5.°76S×129.°95E, h179^{km}±18^{km}, mb3.3/3, mbtmp4.2/8, Error ellipse: s-maj=32.1km s-min=12.7km az=99.0*

*NEIC **27** 16:10:48.7±1.3, 5.°66S±0.°04×129.°9E±0.°1, h205^{km}±12^{km}, mb4.2/4, Error ellipse: s-maj=19.6km s-min=5.4km az=88.0*

*DJA **27** 16:11:03.1±0.4, 5°S±3°×13°0E±°, h165^{km}±5^{km}, M4.1/15, mb4.1/5, MLv4.0/15*

ISC 27 16:10:47.4±0.6, 5.°85S±0.°05×130.°10E±0.°07, h200^{km}, n34, σ2.^{s}07/37, mb3.9/5, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BNDI	Bandanaira	1.33	352	P	Pn	16 11 26.3	+6.6
SAUI	Saumlaki	2.43	151	Pn	Pn	16 11 34.9	+4.3
SAUI	Saumlaki	2.43	151	P	Sn	16 12 00.3	-4.1
FAKI	Fak Fak	3.61	37	Pn	Pn	16 11 45.6	+1.1
FAKI	Fak Fak	3.61	37	P	Pn	16 11 45.4	+0.9
FAKI				S	Sn	16 12 27.5	-1.8
FAKI				AML	AML		
NLAI	Namlea	3.96	311	P	Pn	16 11 53.2	+4.5
NLAI				S	Sn	16 12 32.2	-4.6
NLAI				AML	AML		
SIJI	Sorong	5.08	13	P	Pn	16 12 02.9	0.0
	29nm,0.3s,baz=191,slow=5.2,SNR=141						
SIJI				S	Sn	16 12 59.0	-3.6
	26nm,0.2s,baz=217,slow=20,SNR=12						
SWI	Sorong	5.08	13	P	Pn	16 12 02.9	-0.1
SWI				AML	AML		
SANI	Sanana	5.57	312	P	Pn	16 12 10.0	+0.8
SANI				AML	AML		
MWPI	Manokwari, Pap	6.27	39	P	Pn	16 12 24.1	+5.8
	36nm,0.8s						
SOEI	Soe	6.96	236	Pn	Pn	16 12 28.4	+1.1
MTN	Manton Dam	7.03	172		Pn	16 12 29.5	+1.5
BATI	Baumata	7.70	235	P	Pn	16 12 35.1	-1.7
	9.6nm,0.4s,baz=69,slow=14,SNR=1.4						
BATI				S	Sn	16 13 54.7	-9.3
	29nm,0.5s,baz=293,slow=22,SNR=5.9						
KNRA	Kununurra	9.86	188		Pn	16 13 05.4	+0.6
FITZ	Fitzroy Crossi	12.93	199	P	Pn	16 13 44.3	+0.2
	1.9nm,0.3s,baz=25,slow=11,SNR=33						
FITZ				S	S	16 15 59.1	-9.3
	5.3nm,0.3s,baz=126,slow=22,SNR=9.6						
FITZ	Fitzroy Crossi	12.93	199		Pn	16 13 44.0	-0.1
WB0	Warramunga Arr	14.45	164		Pn	16 14 03.2	+0.1
WRA	Warramunga Arr	14.61	164	P	Pn	16 14 05.6	+0.7
	2.6nm,0.3s,baz=343,slow=13,SNR=30						
WRA				S	S	16 16 42.5	-4.8
	2.1nm,0.7s,baz=340,slow=22,SNR=7.0						
WRA	Warramunga Arr	14.61	164	Pn	Pn	16 14 02.8	-2.1
WB2	Warramunga Arr	14.61	164	Pn	Pn	16 14 05.0	0.0
WR8	Warramunga Arr	14.66	163	P	Pn	16 14 05.7	+0.1
WR0	Warramunga Arr	14.68	163	P	Pn	16 14 06.0	+0.2
AS31	Alice Springs	18.09	169		Pn	16 14 47.3	+0.7
ASAR	Alice Springs	18.09	169	P	Pn	16 14 47.3	+0.7
	12nm,0.4s,baz=350,slow=11,SNR=311						
ASAR				S	S	16 18 00.7	-0.6
	1.2nm,0.6s,baz=348,slow=17,SNR=4.8						
ASAR	Alice Springs	18.09	169		Pn	16 14 47.1	+0.5
MBWA	Marble Bar	18.24	212	P	Pn	16 14 47.4	-0.9
MBWA				IAmb	IAmb	16 15 29.3	
	comp=Z,8.8nm,1.1s						
MORW	Morawa	26.65	208	P	P	16 16 08.1	+0.3
STKA	Stephens Creek	28.04	159	P	P	16 16 22.4	+2.2
	comp=Z,0.8nm,0.5s,baz=344,slow=9.7,SNR=4.3						
	comp=Z,0.8nm,0.5s						
HHC	Hu-ho-hao-te	49.49	342	eP	P	16 19 19.8	+2.1
HHC				pmax	pmax		
	comp=Z,18nm,0.6s						
PETK	Petropavlovsk-	63.21	18	P	P	16 20 55.1	+0.9
	comp=Z,1.2nm,0.6s,baz=204,slow=5.6,SNR=5.2						
	comp=Z,1.2nm,0.6s						
PETK	Petropavlovsk-	63.21	18	P	P	16 20 54.2	0.0
MKAR	Makanchi Array	67.32	327	P	P	16 21 21.8	+1.0
	comp=Z,0.2nm,0.6s,baz=115,slow=6.5,SNR=1.8						
	comp=Z,0.2nm,0.6s						
MKAR	Makanchi Array	67.32	327	P	P	16 21 19.9	-0.9
YAK	Yakutsk	67.68	360	P	P	16 21 21.5	-1.1
YAK				IAmb	IAmb	16 21 23.6	
	comp=Z,3.4nm,0.5s						

DNK 27 16:12:44.1±0.8, 68.°26N×54.°68W, h0^{km}±4^{km}, ML1.5, Presumed earthquake, Davis Strait

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GDH	Godhavn	1.08	22	i P	Pg	16 13 03.0	-1.8
GDH				i S	Sg	16 13 17.8	-0.9
GDH				IAML		16 13 19.6	
	comp=Z,10.0nm,0.2s						
ILULI	Ilulissat	1.62	52	i P	Pn	16 13 12.8	-1.0
ILULI				i S	Sn	16 13 34.4	-0.9
ILULI				IAML		16 13 37.5	
	comp=Z,5.4nm,0.1s						
SFJD	Kangerlussuaq	2.00	127	i P	Pn	16 13 19.3	+0.2
SFJD				i S	Sn	16 13 44.3	-0.6
SAQQ	Saqqaq	2.01	28	i P	Pn	16 13 18.8	-0.4
SAQQ				i S	Sn	16 13 45.1	+0.1
SAQQ				IAML		16 13 48.4	
	comp=Z,2.7nm,0.2s						

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*UCR **27** 16:37:31.8±0.8, 8.°42N×83.°12W, h11^{km}±2^{km}, MW3.6, Presumed earthquake*

*UPA **27** 16:37:32.5±1.8, 8.°46N×83.°06W, h10^{km}±5^{km}, MW3.4, Presumed earthquake*

ISC 27 16:37:31.9±0.9, 8.°45N±0.°02×83.°09W±0.°03, h14^{km}±6^{km}, n44, σ0.^{s}66/68, 2C-6D, Costa Rica

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITO	Golfito	0.18	338	eP	Pg	16 37 36.0	-0.2
FITO				eS	Sg	16 37 39.4	+0.3
FITO	Golfito	0.18	338	i P	Pg	16 37 36.1	-0.1
FITO				eS	Sg	16 37 39.5	+0.4
EDAD	Golfito	0.21	338	eP	Pg	16 37 36.5	-0.2
EDAD				eS	Sg	16 37 40.2	+0.2
NELY	Ciudad Neily	0.24	35	eP	Pb	16 37 37.9	-0.1
NELY				eS	Sb	16 37 42.8	+0.7
NELY	Ciudad Neily	0.24	35	⇓iP	Pb	16 37 37.9	-0.1
NELY				eS	Sb	16 37 43.2	+1.1
PIRO	Carate, Puerto	0.25	259	eP	Pg	16 37 36.8	-0.5
PIRO	Carate, Puerto	0.25	259	⇑iP	Pg	16 37 37.0	-0.4
PIRO				eS	Sb	16 37 43.0	+0.5
PTPM	Petroterminale	0.32	141	eP	Pb	16 37 39.4	0.0
PTPM				eS	Sb	16 37 45.8	+1.4
PTPA	Petro Terminal	0.33	140	eP	Pg	16 37 39.0	+0.4
VITO	San Vito	0.38	17	eP	Pb	16 37 40.6	+0.2
VITO	San Vito	0.38	17	i P	Pb	16 37 40.8	+0.3
VITO				eS	Sb	16 37 47.1	+0.9
LIMO3	Limones	0.41	148	eP	Pb	16 37 41.7	+0.8
LIMO3				eS	Sb	16 37 48.1	+1.0
LMNES	Limones	0.42	148	eP	Pg	16 37 40.6	+0.4
LMNES	Limones	0.42	148	eP	Pb	16 37 41.1	+0.1
MLIR3	Monte Lirio, C	0.42	37	eP	Pg	16 37 40.1	-0.3
MLIR3				eS	Sb	16 37 48.0	+0.5
SCLRA	Santa Clara, W	0.48	38	i P	Pb	16 37 42.6	+0.4
SCLRA				eS	Sb	16 37 50.8	+1.6
BRU2	Volcan	0.52	49	eP	Pb	16 37 42.9	+0.1
BRU2				eS	Sb	16 37 51.4	+1.2
BRU2	Volcan	0.52	49	⇓iP	Pb	16 37 42.9	+0.1
BRU2				eS	Sb	16 37 51.7	+1.5
CLLRA	Cordillera,	0.55	58	eP	Pb	16 37 43.4	+0.1
CLLRA	Cordillera,	0.55	58	⇓iP	Pb	16 37 43.5	+0.1
CLLRA				eS	Sb	16 37 51.5	+0.4
EDP2	Potrero Grande	0.57	351	eP	Pg	16 37 43.4	+0.3
FIMO	Fila Mora	0.60	334	eP	Pg	16 37 43.3	-0.3
DVD	David	0.63	92	eP	Pg	16 37 44.4	+0.2
DVD				eS	Sb	16 37 53.9	+0.6
PTAR3	Potrerillos Ar	0.63	68	⇑eP	Pb	16 37 44.9	+0.2
PTAR3				eS	Sb	16 37 54.1	+0.7
BQTLY	Boquete Panama	0.69	64	eP	Pg	16 37 45.4	+0.1
BQTLY	Boquete Panama	0.69	64	⇓iP	Pg	16 37 45.6	+0.2
BQTLY				eS	Sb	16 37 56.0	+0.8
LOMA3	Las Lomas, Chi	0.69	92	eP	Pg	16 37 45.5	+0.2
LOMA3				eS	Sb	16 37 55.7	+0.7
BQSF3	Alto Boquete,	0.70	66	eP	Pg	16 37 45.7	+0.1
BQSF3				eS	Sb	16 37 56.3	+0.7
BGUAL	Bijagual, Pana	0.75	86	eP	Pg	16 37 46.3	-0.1
CHIR3	Chiriqui UPA,	0.75	94	eP	Pg	16 37 46.4	-0.1
CHIR3				eS	Sn	16 37 58.3	-0.8
PBNVO	Pueblo Nuevo,	0.98	64	eP	Pb	16 37 49.9	-0.8
RBALA	Bur	1.01	65	eP	Pb	16 37 50.6	-0.5
RBALA	Bur	1.01	65	⇓iP	Pb	16 37 50.7	-0.5
RBALA				eS	Sb	16 38 04.2	-0.2
CNI2	El Empalme, Bo	1.14	32	eP	Pn	16 37 52.8	-0.6
CNI2				eS	Sn	16 38 08.6	-0.2
BUS1	Rivas	1.27	329	eP	Pn	16 37 54.6	-1.0
KKNTU	Kakintº	1.32	73	eP	Pn	16 37 54.8	-1.1
KKNTU	Kakintº	1.32	73	⇓eP	Pn	16 37 55.1	-0.7
KKNTU				eS	Sn	16 38 12.8	-0.5
PIEC	Cerro El Cedra	1.45	323	eP	Pn	16 37 57.6	-0.3
LCR2	La Lucha 2	1.57	325	eP	Pn	16 37 58.5	-1.1
LCR2	La Lucha 2	1.57	325	eP	Pn	16 37 59.5	-0.1
LCR2				eS	Sg	16 38 23.5	+1.0
VTCV	VTCV, Calle Va	1.65	337	eP	Pn	16 38 00.6	+0.1
ABRB	Las Abras (San	1.66	338	eP	Pn	16 38 01.0	+0.2
CVTR	Volcan Turrial	1.69	337	eP	Pn	16 38 01.8	+0.4
AZU	Azuero	2.86	103	eP	Pb	16 38 20.9	-1.8

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*IDC **27** 16:43:53.0±3.8, 9.°89S×79.°02W, h65^{km}±37^{km}, mb3.2/3, mbtmp3.6/7, ML3.6/4, Error ellipse: s-maj=56.9km s-min=9.0km az=72.0*

ISC 27 16:43:51.5±1.0, 9.°96S±0.°08×79.°2W±0.°1, h52^{km}, n14, σ0.^{s}72/11, mb3.6/3, Off coast of northern Peru

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ATAH	Atahualpa	2.92	16	P	Pn	16 44 36.5	+0.7
	9.9nm,0.3s,baz=181,slow=16,SNR=38						
ATAH				S	Sn	16 45 09.6	-0.3
	74nm,0.4s,baz=267,slow=13,SNR=5.7						
	24nm,0.3s						
ATAH				AML	AML		
NNA	Nana	3.07	131	P	Pn	16 44 38.1	+0.5
	42nm,0.3s,baz=324,slow=12,SNR=133						
NNA				S	Sn	16 45 13.0	-0.1
	155nm,0.3s,baz=267,slow=18,SNR=8.0						
	100nm,0.3s						
NNA				AML	AML		
LPAZ	La Paz	12.48	121	P	Pn	16 46 47.5	+0.5
	0.1nm,0.3s,baz=307,slow=10,SNR=2.3						
	0.2nm,0.3s						
LPAZ				AML	AML		
SIV	San Ignacio	18.65	111	P	P	16 48 03.9	-1.4
	baz=284,slow=12,SNR=4.5						
	0.6nm,0.6s						
H03N2	Juan Fernandez	23.37	179	T	T	17 12 46.7	
	baz=359,slow=74,SNR=56						
H03N1	Juan Fernandez	23.37	179	T	T	17 12 46.9	
	baz=263,slow=74,SNR=245						
TXAR	Lajitas Array	45.64	330	P	P	16 52 06.3	-0.8
	0.5nm,0.8s,baz=148,slow=8.4,SNR=5.5						
	0.5nm,0.8s						
PDAR	Pinedale Array	59.35	334	P	P	16 53 49.3	+0.6
	0.2nm,0.4s,baz=127,slow=5.0,SNR=2.9						
	0.2nm,0.4s						
YKA	Yellowknife Ar	77.25	344	P	P	16 55 39.7	-0.1
	0.6nm,0.7s,baz=162,slow=5.0,SNR=2.8						
	0.6nm,0.7s						
H11N3	WAKE ISLAND Hy	115.69	287	T	T	19 08 50.1	
	baz=92						
H11N2	WAKE ISLAND Hy	115.70	287	T	T	19 08 56.4	
	baz=92						
H11N1	WAKE ISLAND Hy	115.70	287	T	T	19 08 54.8	
	baz=92						
ASAR	Alice Springs	133.47	224	PKP	PKPdf	17 03 03.0	0.0
	0.2nm,0.8s,baz=123,slow=2.3,SNR=1.7						
WRA	Warramunga Arr	135.58	228	PKP	PKiKP	17 03 08.7	+0.2
	0.4nm,0.7s,baz=129,slow=2.0,SNR=6.8						

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*SJA **27** 17:02:14.2±1.1, 27.°90S×71.°63W, h11^{km}, ML3.7, MW3.7*

*GUC **27** 17:02:15.1±0.9, 27.°98S×71.°55W, h36^{km}±4^{km}, ML3.5*

ISC 27 17:02:11.6±2.1, 27.°89S±0.°05×71.°78W±0.°08, h8^{km}±12^{km}, n22, σ1.^{s}92/35, 3C-5D, Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AC04	Llanos de Chal	0.70	117	i P	Pg	17 02 25.8	+0.8
AC04				eS	Sb	17 02 34.2	-1.6
AC04				IAML		17 02 35.9	
	comp=Z,2µm,0.8s						
AC04	Llanos de Chal	0.70	117	⇓iP	Pg	17 02 25.9	+0.8
AC04				i S	Sb	17 02 33.9	-1.9
AC04				IAML		17 02 35.3	
	comp=E,5µm,0.1s						
GO03	Copiapo	1.40	78	i P	Pg	17 02 38.5	+0.1
GO03				eS	Sg	17 02 56.1	-0.6
GO03				IAML		17 03 04.4	
	comp=Z,878nm,0.6s						
GO03	Copiapo	1.40	78	⇓iP	Pb	17 02 38.2	+0.1
GO03				i S	Sg	17 02 55.3	-1.4
GO03				IAML		17 03 04.5	
	comp=E,1µm,0.6s						
LCO	Las Campanas	1.47	140	i P	Pn	17 02 39.2	+0.5
LCO				IAML		17 03 04.7	
	comp=Z,1µm,0.7s						
LCO	Las Campanas	1.47	140	⇓iP	Pn	17 02 39.0	+0.4
LCO				i S	Sb	17 02 56.4	-1.8
LCO				IAML		17 03 05.4	
	comp=Z,6µm,0.6s						
AC05	El Transito	1.63	126	i P	Pn	17 02 41.8	+1.0
AC05				eS	Sg	17 03 04.0	0.0
AC05				IAML		17 03 04.9	
	comp=Z,349nm,0.7s						
AC05	El Transito	1.63	126	⇓iP	Pn	17 02 41.5	+0.8
AC05				i S	Sn	17 03 00.3	-1.7
AC05				IAML		17 03 05.7	
	comp=E,675nm,0.6s						
AC01	Pan de Azucar	2.03	32	⇑iP	Pn	17 02 47.3	+1.1
AC01				IAML		17 03 29.9	
	comp=N,322nm,0.5s						
GO04	Tololo Observa	2.43	160	i P	Pn	17 02 53.4	+1.5

GO04				*e*S	Sb	17 03 27.0	+1.0
GO04				IAML		17 03 33.4	
	comp=Z,746nm,0.8s						
GO04	Tololo Observa	2.43	160	⇑*i*P	Pn	17 02 53.0	+1.2
GO04				*i* S	Sn	17 03 23.9	+2.0
GO04				IAML		17 03 37.3	
	comp=E,2μm,0.5s						
CO01	Juntas del Tor	2.55	145	*i* P	Pn	17 02 56.1	+2.6
CO01				*i* S	Sn	17 03 25.4	+0.4
CO01				IAML		17 03 33.5	
	comp=N,309nm,0.6s						
AC02	Maricunga	2.58	67	⇑*i*P	Pb	17 02 57.1	-1.3
AC02				*i* S	Sb	17 03 28.3	-2.2
CO06	Fray Jorge	2.78	177	*e*P	Pn	17 02 56.8	+0.4
CO06				*e*S	Sn	17 03 28.6	-1.6
AROD	Rodeo	3.04	139	*i* P	Pb	17 03 04.7	-1.5
AROD				*e*S	Sb	17 03 41.5	-2.0
CO03	El Pedregal	3.09	162	*i* P	Pn	17 03 02.5	+1.7
CO03				*e*S	Sb	17 03 42.3	-2.4
CO03				IAML		17 03 51.1	
	comp=Z,201nm,1.2s						
CO02	Combarbal	3.37	169	⇓*i*P	Pn	17 03 05.7	+1.0
TINO	Tinogasta	3.73	94	*i* P	Pn	17 03 13.3	+3.7
TINO				IAML		17 04 14.5	
	comp=Z,120nm,0.7s						
RTLS	Leoncito	4.45	152	*i* P	Pn	17 03 24.9	+5.2
RTLS				IAML		17 04 37.1	
	comp=Z,426nm,1.4s						
ACLC	CERRO LA CRUZ	4.51	111	*i* P	Pn	17 03 24.6	+4.2
ACLC				IAML		17 04 31.1	
	comp=Z,53nm,0.6s						
CFA	Coronel Fontan	4.81	141	*i* P	Pn	17 03 28.5	+4.1
CFA				IAML		17 04 43.4	
	comp=Z,49nm,0.9s						
VA03	San Esteban	4.97	168	*e*P	Pn	17 03 29.0	+2.3

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*SDD **27** 17:15:46.5±3.4, 18°.72N×70°.77W, h20^{km}±17^{km}, MD2.7, ML2.1, MW2.4, Presumed earthquake*

*OSPL **27** 17:15:47.3±1.1, 18°.80N×70°.62W, h14^{km}±379^{km}, ML2.3, Presumed earthquake*

ISC 27 17:15:48.9±1.1**, 18°.73N**±0°.04×**70°.80W**±0°.03**, h18**^{km}±3^{km}**, n11, σ0^{s}.52**/22**, 12C-2D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ABDR	Alto Bandera	0.18	64	⇑*e*Pg	Pb	17 15 53.5	-0.1
ABDR				⇑*e*Sg	Sb	17 15 56.2	-0.3
ABDR				IAML		17 15 57.2	
	comp=N,830nm,0.4s						
SDDR	Presa de Saban	0.53	298	*i* P	Pg	17 15 59.2	-0.3
SDDR				*e*S	Sb	17 16 07.7	+0.7
SDDR				IAML		17 16 13.6	
	comp=Z,47nm,0.4s						
SDDR	Presa de Saban	0.53	298	⇓*e*Pg	Pg	17 15 59.2	-0.3
SDDR				⇑*e*Sg	Sg	17 16 06.2	-0.4
SDDR				IAML		17 16 10.7	
	comp=N,65nm,0.9s						
BANI	BANI	0.54	129	⇑*e*Pg	Pg	17 15 59.9	+0.1
BANI				⇓*e*Sg	Sg	17 16 06.6	-0.4
BANI				IAML		17 16 09.5	
	comp=N,140nm,0.2s						
LONE3	El Aguacate, B	0.64	259	*i* P	Pb	17 16 01.2	-0.4
LONE3				*e*S	Sg	17 16 10.9	+0.8
LONE3				IAML		17 16 12.1	
	comp=Z,26nm,0.4s						
SC01	Santiago de lo	0.70	6	⇑*e*Pg	Pn	17 16 03.8	-0.1
SC01				⇑*e*Sg	Sn	17 16 13.8	-0.4
SC01				IAML		17 16 14.9	
	comp=N,52nm,0.2s						
PODR	Polo	0.72	219	*i* P	Pb	17 16 02.7	-0.4
PODR				*e*S	Sn	17 16 14.7	-0.5
PODR				IAML		17 16 18.9	
	comp=Z,346nm,0.2s						
PODR	Polo	0.72	219	⇑*e*Pg	Pb	17 16 02.8	-0.4
PODR				⇑*e*Sg	Sn	17 16 14.2	-0.9
PODR				IAML		17 16 21.7	
	comp=N,52nm,0.3s						
LODU1	El Espartillar	0.74	240	*i* P	Pg	17 16 03.8	+0.2
LODU1				*e*S	Sn	17 16 15.9	+0.6
LODU1				IAML		17 16 17.8	
	comp=Z,323nm,0.2s						
MADR	Mao Valverde	0.88	341	⇑*e*Pg	Pn	17 16 06.8	+0.4
MADR				⇑*e*Sg	Sn	17 16 19.2	+0.5
MADR				IAML		17 16 21.2	
	comp=N,149nm,0.6s						
HATOM	Hato Mayor del	1.34	87	⇑*e*Pg	Pn	17 16 13.1	+0.3
HATOM				⇑*e*Sg	Sb	17 16 31.3	+0.8
HATOM				IAML		17 16 33.6	
	comp=N,15nm,0.8s						

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*IDC **27** 17:25:19.7±2.5, 43°.22N×125°.99W, h0^{km}, mb3.2/2, mbtmp3.3/7, ML3.4/5, MS2.9/7, Error ellipse: s-maj=55.7km s-min=20.3km az=43.0*

*NEIC **27** 17:25:19.3±1.8, 42°.86N±0°.07×126°.1W±0°.1, h10^{km}±2^{km}, ML3.2/52, Error ellipse: s-maj=14.0km s-min=9.8km az=239.0*

ISC 27 17:25:20.4±1.8**, 42°.93N**±0°.09×**126°.1W**±0°.1**, h10**^{km}**, n51, σ1^{s}.32**/44**, Off coast of Oregon**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
J01E	Myrtle Point	1.60	81		Pn	17 25 46.4	-2.3
J01E				IAML		17 26 11.3	
	comp=E,278nm,0.3s						
J01E				IAML		17 26 12.2	
	comp=N,187nm,0.6s						
K02D	Willamette Mer	1.80	97		Pn	17 25 49.3	-2.2
KSXB	Camp Six Broad	1.97	123		Pn	17 25 51.0	-2.9
I02E	Swisshome, OR	2.01	53		Pn	17 25 52.8	-1.5
I02E				IAML		17 26 20.7	
	comp=N,150nm,0.7s						
I02E				IAML		17 26 20.8	
	comp=E,205nm,0.8s						
L02F	Cave Junction	2.03	113		Pn	17 25 52.5	-2.1
L02F				IAML		17 26 20.6	
	comp=N,125nm,0.5s						
BBOR	Butler Butte	2.50	90		Pn	17 26 00.1	-1.2
BBOR				IAML		17 26 37.9	
	comp=E,78nm,0.6s						
BUCK	Buck Mountain	2.59	60	Pn	Pn	17 26 01.3	-1.0
BUCK				IAML		17 26 35.8	
	comp=N,159nm,0.8s						
BUCK				IAML		17 26 36.5	
	comp=E,144nm,0.5s						
COR	Corvallis	2.61	50		Pn	17 26 01.8	-0.9
YBH	Yreka Blue Hor	2.77	114	Pn	Pn	17 26 04.2	-0.8
	comp=E,3.7nm,0.3s,baz=303,slow=13,SNR=40						
YBH				Sn	Sn	17 26 40.0	+1.4
	comp=E,3.0nm,0.3s,baz=100,slow=12,SNR=7.1						
YBH				LR	LR	17 27 13.6	
	comp=E,108nm,21.7s,baz=321,slow=40						
	comp=E,9.7nm,0.4s						
YBH				AML	AML		
YBH	Yreka Blue Hor	2.77	114		Pn	17 26 04.2	-0.8
YBH				IAML		17 26 28.8	
	comp=N,55nm,0.4s						
I04A	Tendick Farm,	2.82	71		Pn	17 26 04.7	-0.9
I04A				IAML		17 26 43.2	
	comp=N,51nm,0.4s						
I04A				IAML		17 26 51.2	
	comp=E,51nm,0.8s						
J04A	Umpqua Nationa	2.93	82	Pn	Pn	17 26 05.8	-1.4
WIFE	Three Sisters-	3.31	69		Pn	17 26 11.9	-0.5
WIFE				IAML		17 27 03.8	
	comp=N,51nm,0.8s						
WIFE				IAML		17 27 13.6	
	comp=E,50nm,2.3s						
G04A	Mulino	3.46	48		Pn	17 26 14.3	0.0
I05D	Terrebonne, OR	3.73	66		Pn	17 26 16.3	-1.7
I05D				IAML		17 27 18.8	
	comp=E,37nm,1.1s						
I05D				IAML		17 27 41.7	
	comp=N,32nm,3.0s						
K05A	Summer Lake	3.83	91		Pn	17 26 18.8	-0.7
K05A				IAML		17 27 34.5	
	comp=N,24nm,3.7s						
PINE	Pine Mountain	3.85	75		Pn	17 26 18.5	-1.4
PINE				IAML		17 27 27.3	
	comp=E,23nm,3.3s						
HOOD	Mount Hood Mea	3.99	52	Pn	Pn	17 26 21.5	-0.2
HOOD				IAML		17 27 14.0	
	comp=E,49nm,0.6s						
HOOD				IAML		17 27 18.1	
	comp=N,30nm,0.7s						
G05A	Wamic	4.14	54	Pn	Pn	17 26 22.8	-0.9
G05A				IAML		17 27 15.6	
	comp=N,33nm,4.5s						
STD	Studebaker Rid	4.31	38		Pn	17 26 26.0	-0.1
JRO	Jston Ridge Ob	4.34	38		Pn	17 26 26.8	+0.3
LON	Longmire	4.89	37		Pn	17 26 34.3	+0.4
LON				IAML		17 27 34.9	
	comp=E,13nm,0.9s						
LON				IAML		17 27 35.0	
	comp=N,21nm,0.9s						
WVOR	Wild Horse Val	5.51	93		Pn	17 26 41.1	-1.5
J08A	Circle Bar Ran	5.59	83		Pn	17 26 42.9	-0.8
LTY	Liberty	5.78	40	Pn	Pn	17 26 47.0	+0.7
WAH2	Wahluke Slope	6.01	48	Pn	Pn	17 26 48.8	-0.6
LNOR	Lincton Mounta	6.32	60	Pn	Pn	17 26 53.1	-0.4
BMO	Blue Mountains	6.63	70	Pn	Pn	17 26 57.5	-0.5
NVAR	Mina Array Bea	7.43	125	Pn	Pn	17 27 09.6	+0.6
	comp=N,0.1nm,0.3s,baz=306,slow=15,SNR=3.7						
NVAR				LR	LR	17 30 07.7	
	comp=N,61nm,19.4s,baz=270,slow=38						
	comp=N,0.6nm,0.6s						
NVAR				AML	AML		
PLID	Pearl Lake	7.59	70	Pn	Pn	17 27 13.0	+1.8
HOLB	Holberg	7.84	350	Pn	Pn	17 27 12.4	-2.1
NEW	Newport	8.24	47	LR	LR	17 30 23.5	
	comp=N,72nm,18.1s,baz=260,slow=38						
ELK	Elko	8.39	101	Pn	Pn	17 27 23.4	+1.3
	comp=N,0.1nm,0.3s,baz=298,slow=16,SNR=7.3						
	comp=N,1.4nm,0.7s						
ELK				AML	AML		
ELK	Elko	8.39	101	Pn	Pn	17 27 19.5	-2.7
MSO	Missoula	9.46	61	Pn	Pn	17 27 36.0	-0.8
MCMT	McKenzie Canyo	9.75	74	Pn	Pn	17 27 39.3	-1.6
DLMT	Dillon	10.00	71	Pn	Pn	17 27 43.1	-1.1
BOZ	Bozeman (W)	10.71	71	Pn	Pn	17 27 54.2	+0.3
YHB	Horse Butte	10.91	75	Pn	Pn	17 27 56.7	0.0
YHH	Holmes Hill	11.16	75	Pn	Pn	17 27 59.4	-0.8
PFO	Pinyon Flats O	11.98	138	LR	LR	17 33 00.8	
	comp=N,89nm,19.6s,baz=162,slow=38						
PDAR	Pinedale Array	12.14	85	Pn	Pn	17 28 14.3	+0.8
	comp=N,0.2nm,0.3s,baz=288,slow=14,SNR=5.1						
PDAR				LR	LR	17 33 23.6	
	comp=N,56nm,19.4s,baz=251,slow=40						
	comp=N,0.7nm,0.8s						
PDAR				AML	AML		
ANMO	Albuquerque	17.20	111	P	Pn	17 29 21.6	+0.7
	baz=308,slow=12,SNR=3.4						
ANMO				LR	LR	17 36 37.1	
	comp=N,68nm,19.4s,baz=201,slow=39						
	comp=N,0.9nm,0.8s						
TXAR	Lajitas Array	22.54	120	P	P	17 30 22.1	+1.5
	comp=N,0.8nm,0.8s,baz=308,slow=11,SNR=9.8						
TXAR				LR	LR	17 40 20.2	
	comp=N,45nm,21.6s,baz=162,slow=40						
	comp=N,0.8nm,0.8s						
ILAR	Eielson Array	24.85	339	P	P	17 30 41.6	-1.1
	comp=N,0.4nm,0.6s,baz=129,slow=7.6,SNR=1.7						
	comp=N,0.4nm,0.6s						
H11N3	WAKE ISLAND Hy	60.13	270	T	T	18 40 26.3	
	baz=51,slow=75,SNR=116						
H11N2	WAKE ISLAND Hy	60.14	270	T	T	18 40 26.4	
	baz=51,slow=75,SNR=73						
H11N1	WAKE ISLAND Hy	60.15	270	T	T	18 40 27.6	
	baz=51,slow=75,SNR=111						
H11S1	WAKE ISLAND Hy	61.05	269	T	T	18 41 40.7	
	baz=50,slow=75,SNR=175						
H11S2	WAKE ISLAND Hy	61.05	269	T	T	18 41 35.6	
	baz=50,slow=75,SNR=101						
H11S3	WAKE ISLAND Hy	61.06	269	T	T	18 41 36.0	
	baz=50,slow=75,SNR=152						

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*IDC **27** 17:27:40.9±0.5, 34°.14N×78°.27E, h0^{km}, mb4.5/29, mbtmp4.6/33, ML3.9/4, MS4.2/80, Error ellipse: s-maj=13.2km s-min=10.1km az=58.0*

*BJI **27** 17:27:42.1, 34°.28N×78°.21E, h7^{km}, mB4.9/23, mb4.5/47, ML4.9/4, Ms4.8/49, Ms7 4.6/49*

*NEIC **27** 17:27:42.2±2.7, 34°.15N±0°.07×78°.15E±0°.07, h10^{km}±1^{km}, mb4.9/82, Mww5.0/11, Error ellipse: s-maj=11.3km s-min=10.5km az=176.0*

*MOS **27** 17:27:43.2±1.7, 34°.27N×78°.26E, h23^{km}, mb5.0/39, MS4.4/9, Error ellipse: s-maj=6.3km s-min=3.3km az=109.2*

*GFZ **27** 17:27:44.4±0.2, 34°N±3°×7°8E±°, h10^{km}, M4.7/24, mb4.9/24*

*GCMT **27** 17:27:48.2±0.2, 34°.35N±0°.01×78°.03E±0°.01, h18^{km}, MW5.1/120, Moment Tensor Solution. s54,c68; s120,c201; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.74±.16; $M_{\theta\theta}$0.58±.13; $M_{\phi\phi}$1.16±.12; $M_{r\theta}$2.99±.36; $M_{\theta\phi}$4.27±.09; $M_{\phi r}$0.05±.26; Best double couple: $M_0$5.39600×10^{16} NP1:ϕ_s2.00000°, δ52.00000°, λ-164.00000°. NP2:ϕ_s262.00000°, δ77.00000°, λ-40.00000°. Principal axes: T 5.7660, Plg17.0000°, Azm317.0000°; N -0.7430, Plg49.0000°, Azm67.0000°; P -5.0250, Plg37.0000°, Azm214.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*NDI **27** 17:27:51.1±1.9, 34°.14N×78°.09E, h10^{km}, ML4.6, MW4.7, mb4.9(NEIC), Presumed earthquake*

ISC 27 17:27:42.8±0.8**, 34°.27N**±0°.03×**78°.18E**±0°.03**, h5**^{km}±4^{km}**, n567, σ2^{s}.03**/571**, mb4.8**/167**, MS4.3**/102**, 49C-19D, Kashmir-Xizang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TSSA	Tissa	2.22	231	*e*P	Pb	17 28 24.4	+0.9
TSSA				*e*S	Sb	17 28 52.6	+1.3
TSSA				IAML		17 28 56.0	
	comp=E,6μm,0.7s						
TSSA				IAML		17 28 57.5	
	comp=N,6μm,0.4s						
DHRM	DHARAMSHALA	2.56	219	*e*P	Pb	17 28 31.1	+1.8
DHRM				*e*S	Sn	17 28 59.5	+2.8
DHRM				IAML		17 29 12.5	
	comp=N,5μm,0.5s						
DHRM				IAML		17 29 14.4	
	comp=E,5μm,0.5s						
KLP	Kalpa	2.73	179	*e*P	Pb	17 28 33.4	+1.2
KLP				*e*S	Sb	17 29 04.7	-1.4
KLP				IAML		17 29 20.1	
	comp=N,4μm,2.7s						
KLP				IAML		17 29 23.9	
	comp=E,4μm,1.6s						
THN	Thein Dam	2.73	229	*e*P	Pb	17 28 33.2	+1.1
THN				*e*S	Sn	17 29 03.1	+2.4
THN				IAML		17 29 20.0	
	comp=N,4μm,1.5s						
THN				IAML		17 29 23.8	
	comp=E,5μm,2.3s						
SRNI	Srinagar	2.81	267	*e*P	Pb	17 28 35.4	+1.8
SRNI				*e*S	Sb	17 29 08.9	+0.5
SRNI				IAML		17 29 14.2	
	comp=E,4μm,0.9s						
SRNI				IAML		17 29 17.3	
	comp=N,3μm,1.0s						
JMU	Jammu	3.17	243	*e*P	Pb	17 28 38.3	-1.3
JMU				*e*S	Sn	17 29 14.6	+3.0
JMU				IAML		17 29 29.4	
	comp=N,3μm,1.7s						
JMU				IAML		17 29 33.8	
	comp=E,3μm,3.0s						
BHK	Bhakra	3.24	208	*e*P	Pb	17 28 38.5	-2.4
BHK				*e*S	Sn	17 29 12.2	-1.1
BHK				IAML		17 29 29.2	
	comp=N,4μm,0.9s						
BHK				IAML		17 29 29.8	
	comp=E,4μm,0.6s						
SMLA	Simla	3.24	196	*e*P	Pb	17 28 41.3	+0.4
SMLA				*e*S	Sn	17 29 15.2	+1.9
SMLA				IAML		17 29 29.2	
	comp=N,3μm,0.8s						
SMLA				IAML		17 29 30.6	
	comp=E,3μm,0.3s						
CGRH	CHANDIGARH	3.72	199	*e*P	Pb	17 28 46.7	-2.2
CGRH				*e*S	Sn	17 29 27.9	+2.8
CGRH				IAML		17 30 05.7	
	comp=N,2μm,2.7s						
CGRH				IAML		17 30 12.8	
	comp=E,2μm,0.8s						
NIL	Nilore	4.14	263	P	Pn	17 28 47.9	+1.0
NIL	Nilore	4.14	263	P	Pn	17 28 46.1	-0.7
NIL	Nilore	4.14	263		Pn	17 28 46.0	-0.7
NIL	Nilore	4.14	263	P	Pn	17 28 47.8	+1.0
KSH2	Kashi	5.30	337	Pn	Pn	17 29 06.3	+3.4
KSH2				Sn	Sb	17 30 13.0	-7.2
KSH2				AML	AML		
	comp=E,2μm,1.2s						
KSH2				AML	AML		
	comp=E,1μm,1.4s						
ASAI	AK-SAY(Kyrgyzs	6.77	349	P	Pn	17 29 25.4	+2.3
	comp=Z,178nm,0.9s						
WUS	Wushi	6.97	6		Pn	17 29 27.4	+1.7
DRK	Karamyk	7.30	317	P	Pn	17 29 29.8	-0.6
DRK	Karamyk	7.30	317		Pn	17 29 29.8	-0.6
DRK	Karamyk	7.30	317	P	Pn	17 29 30.4	+0.1
	comp=Z,206nm,0.8s						
NRN	Naryn	7.36	347	P	Pn	17 29 30.6	-0.7
NRN	Naryn	7.36	347		Pn	17 29 30.6	-0.7
KBL	Kabul	7.56	275	P	Pn	17 29 35.0	+1.1
	SNR=23						
KBL				S	Sn	17 31 01.2	+1.1
KBL	Kabul	7.56	275		Pn	17 29 33.2	-0.7
KBL				Sn	Sn	17 30 58.2	-1.9
KBL	Kabul	7.56	275	P	Pn	17 29 34.5	+0.6
	comp=Z,86nm,0.7s						
OHH	Osh	7.58	327	P	Pn	17 29 33.0	-1.0
	comp=Z,147nm,0.7s						
ARSB	Arslanbob	8.16	331	P	Pn	17 29 42.3	+0.3
ARSB	Arslanbob	8.16	331		Pn	17 29 42.3	+0.3
SATY	Saty	8.78	1	*e*P	Pn	17 29 51.9	+1.4
SATY				*e*S	Sn	17 31 31.5	+1.5
SATY	Saty	8.78	1	*e*P	Pn	17 29 51.9	+1.4
SATY				*e*S	Sn	17 31 31.5	+1.5
TNSS	Tian-Shan	8.81	354	*e*P	Pn	17 29 52.1	+0.9
TNSS				*e*S	Sn	17 31 31.8	+0.7
TNSS	Tian-Shan	8.81	354	*e*P	Pn	17 29 52.1	+0.9
TNSS				*e*S	Sn	17 31 31.9	+0.8
AAK	Ala-Archa	8.85	342	Pn	Pn	17 29 53.8	+2.4
	comp=Z,4.6nm,0.3s,baz=168,slow=8.0,SNR=48						
AAK				Sn	Sn	17 31 29.5	-2.1
	baz=211,slow=20						
AAK				Lg	Lg	17 32 15.2	
	comp=Z,0.9nm,0.3s,baz=41,slow=20,SNR=3.6						
AAK				LR	LR	17 33 41.6	
	comp=Z,2μm,21.8s,baz=158,slow=40						
	comp=Z,20nm,0.6s						
AAK				AML	AML		
AAK	Ala-Archa	8.85	342	P	Pn	17 29 53.5	+2.1
AAK	Ala-Archa	8.85	342	*c i*P	Pn	17 29 53.2	+1.8
AAK	Ala-Archa	8.85	342		Pn	17 29 52.9	+1.5
AAK	Ala-Archa	8.85	342	*i* P	Pn	17 29 51.9	+0.4
	SNR=23						
AAK	Ala-Archa	8.85	342	P	Pn	17 29 54.0	+2.6
	comp=Z,95nm,0.9s						
UZB	Uzynbulak	8.89	4	*e*P	Pn	17 29 53.3	+1.2
UZB	Uzynbulak	8.89	4	*e*P	Pn	17 29 53.3	+1.2
MDOK	Medeo	8.93	355	*e*P	Pn	17 29 53.4	+0.9
MDOK				*e*S	Sn	17 31 35.3	+1.7
MDOK	Medeo	8.93	355	*e*P	Pn	17 29 53.5	+0.9
MDOK				*e*S	Sn	17 31 35.4	+1.7
SHLS	Shalkode	8.94	6	*e*P	Pn	17 29 54.5	+1.9
SHLS				*e*S	Sn	17 31 36.3	+2.6
SHLS	Shalkode	8.94	6	*e*P	Pn	17 29 54.5	+1.9
SHLS				*e*S	Sn	17 31 36.4	+2.6
AAA	Alma-Ata	8.98	354	*e*P	Pn	17 29 54.5	+1.3
AAA	Alma-Ata	8.98	354	*e*P	Pn	17 29 54.6	+1.3
PDGK	Podgornoye	9.11	6	P	Pn	17 29 56.1	+1.1
PDGK	Podgornoye	9.11	6		Pn	17 29 56.0	+1.1
KPKS	Kokpek	9.20	2	*e*P	Pn	17 29 57.5	+1.3
KPKS	Kokpek	9.20	2	*e*P	Pn	17 29 57.5	+1.3
SGDS	Sogindy	9.58	344	*e*P	Pn	17 30 02.7	+1.2
SGDS				*e*S	Sn	17 31 50.7	+1.2
EVN	Everest	9.71	128		Pn	17 30 01.4	-2.4
EVN	Everest	9.71	128	P	Pn	17 30 03.4	-0.3
	comp=Z,56nm,0.7s						
KUU	Kurty	9.72	352	*e*P	Pn	17 30 04.4	+1.1
KUU				*e*S	Sn	17 31 54.2	+1.4
KUU	Kurty	9.72	352	*e*P	Pn	17 30 04.4	+1.1
KUU				*e*S	Sn	17 31 54.2	+1.4
IUG	Iuzhnay	10.15	323	*e*P	Pn	17 30 10.0	+0.8
IUG	Iuzhnay	10.15	323	*e*P	Pn	17 30 10.1	+0.8
CHM	Chimkent	10.49	323	*e*P	Pn	17 30 14.2	+0.4
CHM	Chimkent	10.49	323	*e*P	Pn	17 30 14.3	+0.4
KK31	Karatay Array	10.66	328	P	Pn	17 30 14.7	-1.5
KK31	Karatay Array	10.66	328		Pn	17 30 14.7	-1.5
KKAR	Karatay Array	10.66	328	P	Pn	17 30 14.7	-1.5
KKAR	Karatay Array	10.66	328		Pn	17 30 14.7	-1.5
TDK	Taldyqorghan	10.72	1	*e*P	Pn	17 30 18.3	+1.3
TDK	Taldyqorghan	10.72	1	*e*P	Pn	17 30 18.4	+1.3
BHPL	Bhopal	11.01	184	*e*P	Pn	17 30 25.0	+4.0
BHPL				*e*S	Sn	17 32 18.4	-6.1
BHPL				IAML		17 32 44.1	
	comp=E,1μm,0.1s						
BHPL				IAML		17 32 44.8	
	comp=N,1μm,0.5s						
LSA	Lhasa	11.91	109	*e*P	Pn	17 30 36.3	+2.6
LSA				pmax	pmax		
	comp=N,7.0nm,0.6s						
LSA				L	L		
	comp=N,4μm,17.2s						
LSA				L	L		
	comp=N,2μm,16.5s						
LSA				L	L		
	comp=N,1μm,11.7s						
LSA	Lhasa	11.91	109	P	Pn	17 30 31.4	-2.3
LSA	Lhasa	11.91	109		Pn	17 30 31.4	-2.3
WMQ	Urumqi	12.06	35	*e*P	Pn	17 30 36.8	+1.4
WMQ				pP		17 30 43.0	
WMQ				S	Sn	17 32 49.5	-0.8
WMQ				pmax	pmax		
	comp=N,14nm,1.9s						
WMQ				pmax	pmax		
	comp=N,140nm,3.7s						
WMQ				L	L		
	comp=N,2μm,19.9s						
WMQ				L	L		
	comp=N,3μm,15.1s						
WMQ				L	L		
	comp=N,2μm,21.9s						
MAKZ	Makanchi	12.86	12	P	Pn	17 30 45.0	-1.1
MAKZ	Makanchi	12.86	12		Pn	17 30 45.0	-1.1
MAKZ	Makanchi	12.86	12	P	Pn	17 30 45.5	-0.7
	comp=Z,54nm,0.9s						
MK31	Makanchi Array	12.90	13	*ce*P	Pn	17 30 45.1	-1.6
MKAR	Makanchi Array	12.90	13	Pn	Pn	17 30 45.5	-1.2
	comp=Z,0.9nm,0.3s,baz=190,slow=13,SNR=27						
MKAR				Sn	Sn	17 33 08.2	-2.4
	comp=Z,0.9nm,0.3s,baz=183,slow=19,SNR=3.8						
MKAR				LR	LR	17 36 28.7	
	comp=Z,1μm,19.0s,baz=188,slow=41						
	comp=Z,3.3nm,0.4s						
MKAR				AML	AML		
GOMU	GeErMu	13.73	77	P	P	17 31 03.5	-3.9
GOMU				pP	Pn	17 31 07.0	+8.5
GOMU				sP		17 31 11.3	
GOMU				S	Sn	17 33 41.0	+9.4
GOMU				pmax	pmax		
	comp=Z,7.0nm,0.8s						
GOMU				L	L		
	comp=Z,5μm,14.3s						
GOMU				L	L		
	comp=Z,2μm,14.5s						
GOMU				L	L		
	comp=Z,1μm,14.1s						
ZSN	Zaisan	14.10	19	*e*P	Pn	17 31 04.8	+1.7
ZSN	Zaisan	14.10	19	*e*P	Pn	17 31 04.8	+1.7
SHL	Shillong	14.69	123	P	Pn	17 31 10.4	-1.1
KURBB	Kurchatov Arra	16.35	1	Pn	Pn	17 31 30.0	-3.0
	comp=Z,0.1nm,0.3s,baz=186,slow=12,SNR=22						
KURBB				Sn	Sn	17 34 32.2	-2.4
	baz=206,slow=25						
KURBB				Lg	Lg	17 36 13.9	
	baz=206,slow=28						
KURBB				LR	LR	17 37 56.2	
	comp=Z,701nm,18.5s,baz=170,slow=37						
	comp=Z,12nm,0.9s						
KURBB				AML	AML		
KURK	Kurchatov	16.44	1	P	Pn	17 31 34.8	+0.7
KURK				S	Sn	17 34 39.0	+2.1
KURK	Kurchatov	16.44	1	*de*P	Pn	17 31 33.5	-0.7
KURK				pmax	pmax		
	comp=Z,24nm,0.9s						
KURK	Kurchatov	16.44	1		Pn	17 31 30.3	-3.8
KURK	Kurchatov	16.44	1	P	Pn	17 31 31.2	-3.0

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       comp=Z,74nm,1.0s
BRDH   Bariadhala        16.51 131 LR       LR      17 39 13.6
       comp=Z,612nm,20.2s,baz=342,slow=42
HYB    Hyderabad         16.78 179 eP       Pn      17 31 38.0 -0.7
HYB                                eS       S       17 34 52.9 -3.7
DGZ    Jazzator, Alta    16.86  21⇓eP       Pn      17 31 38.5 -1.2
DGZ                                pmax     pmax
       comp=Z,17nm,1.5s
NGCH   Negor - Chabah    17.23 244 P        P       17 31 47.7 +1.9
GTA2   Gaotai            18.02  67 eP       P       17 31 57.0 +2.4
GTA2                               sS       sS      17 35 25.3 -1.1
GTA2                               pmax     pmax
       comp=Z,8.0nm,1.8s
GTA2                               pmax     pmax
       comp=Z,290nm,5.4s
GTA2                               L        L
       comp=Z,4µm,20.0s
GTA2                               L        L
       comp=Z,730nm,16.8s
GTA2                               L        L
       comp=Z,2µm,14.0s
JASK   Jask - Hormozg    19.45 250 P        Pn      17 32 11.4 -0.1
       SNR=6.0
JASK                               S        S       17 35 53.5 +2.8
BVAR   Borovoye Array    19.56 346 P        P       17 32 10.8 -0.5
       comp=Z,0.5nm,0.3s,baz=162,slow=13,SNR=96
BVAR                               Lg       Lg      17 38 04.6
       baz=180,slow=33,SNR=5.2
       comp=Z,49nm,0.9s
BVAR                               AML      AML
BORK   Borovoye          19.59 346c iP      P       17 32 10.2 -1.5
BORK                               pmax     pmax
       comp=Z,45nm,1.0s
BORK   Borovoye          19.59 346 P        P       17 32 10.9 -0.8
BORK                               IAmb     IAmb    17 32 22.9
       comp=Z,53nm,0.8s
TNCH   TengChong         19.90 112 P        Pn      17 32 17.0  0.0
TNCH                               sP       sP      17 32 22.5 +2.7
TNCH                               S        S       17 35 59.8 -0.1
TNCH                               pmax     pmax
       comp=Z,70nm,1.0s
TNCH                               pmax     pmax
       comp=Z,410nm,4.2s
TNCH                               L        L
       comp=Z,480nm,11.4s
TNCH                               L        L
       comp=Z,840nm,12.6s
TNCH                               L        L
       comp=Z,930nm,11.8s
AB31   Akbulak array     20.16 323 P        P       17 32 16.9 -1.0
ABKAR  Akbulak array     20.16 323 P        P       17 32 16.0 -1.9
ZAA0   Zalesovo Array    20.23  11 P        P       17 32 17.6 -1.0
ZALV   Zalesovo Beam     20.23  11 P        P       17 32 16.7 -1.9
       comp=Z,6.6nm,0.6s,baz=210,slow=14,SNR=31
ZALV                               S        S       17 36 04.1 -1.6
       comp=Z,2.4nm,0.8s,baz=205,slow=16,SNR=2.2
ZALV                               LR       LR      17 40 51.4
       comp=Z,802nm,19.0s,baz=202,slow=39
       comp=Z,6.6nm,0.6s
WSAR   Wadi Sarin        20.32 242 P        P       17 32 21.0 +1.1
       SNR=6.7
WSAR                               S        S       17 36 08.6 +0.4
JLN    Jalan Bani Buh    20.44 239 P        P       17 32 22.3 +1.2
       SNR=5.1
JLN                                S        Sn      17 36 13.3 -0.6
WBK    Wadi Bani Khal    20.46 240 P        P       17 32 22.4 +1.0
       SNR=5.4
BANOM  Banah             20.65 252 P        Pn      17 32 24.9 -0.8
BANOM                              S        S       17 36 16.3 +1.6
BANOM  Banah             20.65 252 P        P       17 32 24.1 +0.7
SHME   Shamm             20.72 253 P        Pn      17 32 26.8 +0.4
       SNR=5.9
SHME                               S        S       17 36 16.0 +0.1
SHME   Shamm             20.72 253 i P      P       17 32 24.5 +0.4
       SNR=10
SMDO   Samad             20.86 243 P        Pn      17 32 27.8 -0.4
       SNR=6.9
LZDM   Lanzhou Array     20.93  78 LR       LR      17 40 31.9
       comp=Z,213nm,19.9s,baz=270,slow=37
MDH    Madha             20.96 251 P        P       17 32 27.8 +1.0
MDH    Madha             20.96 251 i P      P       17 32 25.5 -1.2
       SNR=7.4
MASF   Masafi            21.03 251 P        P       17 32 29.0 +1.4
       SNR=9.8
MASF                               S        S       17 36 23.7 +1.5
MSFE   Esma-Masafi       21.04 251 i P      P       17 32 28.6 +1.0
       SNR=8.0
LZH    Lanzhou           21.04  78 eP       P       17 32 32.5 +4.8
LZH                                pP       sP      17 32 36.0 +3.9
LZH                                S        S       17 36 18.5 -4.0
LZH                                pmax     pmax
       comp=Z,31nm,1.1s
LZH                                L        L
       comp=Z,2µm,15.2s
LZH                                L        L
       comp=Z,1µm,16.5s
LZH                                L        L
       comp=Z,2µm,15.2s
HOQ    Hoqain            21.11 245 P        P       17 32 29.8 +1.5
       SNR=11
UOSS   Minazif           21.21 250 P        P       17 32 31.9 +2.4
UOSS                               S        S       17 36 27.0 +1.3
UOSS   Minazif           21.21 250 P        P       17 32 28.5 -1.0
UOSS   Minazif           21.21 250 P        P       17 32 28.3 -1.2
       comp=Z,24nm,1.2s
JMDO   Jabal Madar       21.24 241 P        P       17 32 30.9 +1.1
       SNR=8.1
HATD   Hatta, Dubai      21.33 250 P        P       17 32 32.6 +1.9
HATD                               S        S       17 36 29.7 +1.6
HATD   Hatta, Dubai      21.33 250 i P      P       17 32 32.8 +2.1
       SNR=7.2
UMQ    Umm Al-Quwin      21.35 252 P        P       17 32 32.0 +1.2
UMQ                                S        S       17 36 30.8 +2.4
SOHO   SOHO              21.39 248 P        P       17 32 33.1 +1.8
SOHO                               S        S       17 36 30.3 +1.2
SOHO   SOHO              21.39 248 i P      P       17 32 31.0 -0.3
       SNR=7.5
ASHO   Ashiyiah          21.46 249 P        P       17 32 33.5 +1.3
       SNR=18
ASHO                               S        S       17 36 31.1 +0.3
ASHO   Ashiyiah          21.46 249 i P      P       17 32 33.3 +1.2
       SNR=18
NAZ    Nazwa, Dubai      21.61 251 P        P       17 32 34.8 +1.0
       SNR=7.2
NAZ                                S        S       17 36 35.3 +1.7
NAZ    Nazwa, Dubai      21.61 251 i P      P       17 32 34.8 +1.0
       SNR=12
BSY    Bisya             21.68 244 P        P       17 32 37.4 +2.9
       SNR=14
PZH    PanZhiHua         21.71 105 P        P       17 32 34.3 -0.7
PZH                                S        S       17 36 35.5 -0.3
PZH                                SS       SnSn    17 37 06.8 +6.9
PZH                                pmax     pmax
       comp=Z,10.0nm,1.4s
PZH                                pmax     pmax
       comp=Z,130nm,4.7s
PZH                                L        L
       comp=Z,560nm,9.9s
PZH                                L        L
       comp=Z,990nm,9.1s
PZH                                L        L
       comp=Z,9µm,8.8s
CD2    Chengdu           21.79  92 P        P       17 32 38.0 +2.3
CD2                                S        S       17 36 31.5 -5.6
CD2                                pmax     pmax
       comp=Z,20nm,0.4s
CD2                                pmax     pmax
       comp=Z,250nm,4.2s
CD2                                L        L
       comp=Z,2µm,9.2s
CD2                                L        L
       comp=Z,2µm,10.8s
CD2                                L        L
       comp=Z,2µm,11.0s
FAQ    Al Faqa, Dubai    21.79 250 P        P       17 32 38.4 +2.8
       SNR=8.4
FAQ                                S        S       17 36 39.3 +2.2
FAQ    Al Faqa, Dubai    21.79 250 i P      P       17 32 36.2 +0.5
       SNR=9.8
ARQ    Araqi             21.84 246 P        P       17 32 38.6 +2.4
       SNR=13
ARQ                                S        S       17 36 40.6 +2.5
AKTO   Aktyubinsk        21.87 324 P        P       17 32 35.1 -1.2
       comp=Z,29nm,0.7s,baz=115,slow=7.9,SNR=52
AKTO                               LR       LR      17 41 41.4
       comp=Z,2µm,19.7s,baz=124,slow=38
       comp=Z,29nm,0.7s
ALNE   Al Ain            22.03 248 P        P       17 32 39.6 +1.3
       SNR=25
ALNE                               S        S       17 36 42.9 +1.1
ALNE   Al Ain            22.03 248 i P      P       17 32 39.2 +0.9
       SNR=10
ASUD   Al Ashush, Dub    22.06 250 P        P       17 32 41.4 +2.8
ASUD                               S        S       17 36 43.1 +0.9
ASUD   Al Ashush, Dub    22.06 250 P        P       17 32 39.7 +1.2
MHTO   MHTO              22.21 239 P        P       17 32 43.0 +2.8
       SNR=15
MHTO                               S        S       17 36 47.2 +2.0
AJN    Ajban             22.36 251 P        P       17 32 43.8 +2.1
       SNR=7.1
AJN                                S        S       17 36 48.6 +0.6
AJN    Ajban             22.36 251 i P      P       17 32 42.4 +0.7
       SNR=8.7
KMI2   Kunming           23.14 107 P        P       17 32 50.3  0.0
KMI2                               sP       sP      17 32 55.0 +0.3
KMI2                               S        S       17 37 02.5  0.0
KMI2                               pmax     pmax
       comp=Z,23nm,0.8s
KMI2                               L        L
       comp=Z,510nm,10.8s
KMI2                               L        L
       comp=Z,390nm,9.3s
KMI2                               L        L
       comp=Z,520nm,9.0s
UMZA   Um Al Zommool     23.22 246 P        P       17 32 50.7 -0.2
UMZA                               S        S       17 37 03.5 +0.1
MZWR   Madinat Zayed     23.64 250 P        P       17 32 55.9 +0.9
MZWR                               S        S       17 37 09.3 -0.9
MOY    Mondy             23.94  37 eP       P       17 33 00.7 +2.8
MOY                                pmax     pmax
       comp=Z,82nm,2.6s
CHTO   Chiang Mai        24.05 125 P        P       17 32 57.8 -1.2
CHTO                               S        S       17 37 16.1 -0.7
CHTO   Chiang Mai        24.05 125 P        P       17 32 54.0 -5.0
CHTO                               pmax     pmax
       comp=Z,20nm,1.2s
CHTO   Chiang Mai        24.05 125 P        P       17 32 54.0 -5.0
CHTO   Chiang Mai        24.05 125 P        P       17 32 58.3 -0.7
CHTO   Chiang Mai        24.05 125 P        P       17 32 57.9 -1.2
       comp=Z,15nm,1.0s
CM31   Chiang Mai Arr    24.29 125 P        P       17 33 00.7 -0.6
       SNR=12
CM31   Chiang Mai Arr    24.29 125 P        P       17 32 56.1 -5.2
CMAR   Chiang Mai Arr    24.29 125 P        P       17 33 00.2 -1.0
       comp=Z,13nm,0.9s,baz=313,slow=10.0,SNR=43
CMAR                               LR       LR      17 44 24.7
       comp=Z,329nm,19.4s,baz=310,slow=42
       comp=Z,13nm,0.9s
CMAR   Chiang Mai Arr    24.29 125 P        P       17 32 57.2 -4.1
CMAR   Chiang Mai Arr    24.29 125 P        P       17 32 57.2 -4.1
MZR    Muzera            24.35 249 P        P       17 33 03.3 +1.5
       SNR=11
MZR    Muzera            24.35 249 i P      P       17 33 02.0 +0.2
       SNR=6.4
ZAK    Zakamensk         24.40  41 eP       P       17 33 03.8 +1.7
ZAK                                pmax     pmax
       comp=Z,18nm,1.4s
SONM   Songino Array     25.06  49 P        P       17 33 08.9 +0.8
       comp=Z,28nm,1.0s,baz=246,slow=9.1,SNR=49
SONM                               LR       LR      17 43 48.1
       comp=Z,584nm,21.3s,baz=280,slow=38
       comp=Z,28nm,1.0s
SONM   Songino Array     25.06  49 P        P       17 33 09.7 +1.5
SONM                               IAmb     IAmb    17 33 14.1
       comp=Z,33nm,1.0s
SONM                               PcP      PcP     17 36 44.8 +2.1
SLWR   Sila              25.20 253 P        P       17 33 09.2 -0.2
SLWR                               S        S       17 37 33.9 -1.4
SAKB   Bahrain           25.24 258 P        P       17 33 09.6 -0.2
SAKB                               S        S       17 37 35.6 -0.3
MAK    Makhachkala       25.39 299c iP      P       17 33 04.2 -6.7
MAK                                eS       S       17 37 27.5  -10
MAK                                pmax     pmax
       comp=Z,321nm,1.4s
MAK                                MLR      MLR
       comp=Z,920nm,11.0s
XAN    Xi'an             25.39  82 P        P       17 33 15.0 +3.8
XAN                                S        S       17 37 43.5 +5.2
XAN                                pmax     pmax
       comp=Z,14nm,1.0s
XAN                                L        L
       comp=Z,1µm,12.4s
XAN                                L        L
       comp=Z,2µm,10.3s
XAN                                L        L
       comp=Z,2µm,13.1s
ULN    Ulaanbaatar       25.48  49⇓eP       P       17 33 13.8 +1.8
ULN                                pmax     pmax
       comp=Z,15nm,1.2s
ULN    Ulaanbaatar       25.48  49 P        P       17 33 10.5 -1.5
ULN                                IAmb     IAmb    17 33 19.4
       comp=Z,28nm,1.1s
ULN    Ulaanbaatar       25.48  49 P        P       17 33 15.1 +3.1
       comp=Z,110nm,1.9s
ULN    Ulaanbaatar       25.48  49 P        P       17 33 14.9 +2.9
       comp=Z,28nm,1.9s
SVE    Sverdlovsk        25.54 337 eP       P       17 33 12.0 -0.2
SVE                                eS       S       17 37 44.4 +4.3
SVE                                pmax     pmax
       comp=Z,27nm,1.6s
SVE                                MLR      MLR
       comp=Z,550nm,10.0s
BTO2   Baotou            25.87  66 eP       P       17 33 17.5 +2.0
BTO2                               PP       sP      17 33 59.8  +40
BTO2                               S        S       17 37 51.5 +5.6
BTO2                               pmax     pmax
       comp=Z,11nm,0.5s
BTO2                               L        L
       comp=Z,2µm,12.6s
BTO2                               L        L
       comp=Z,2µm,13.5s
BTO2                               L        L
       comp=Z,3µm,14.2s
IRK    Irkutsk           25.93  38 eP       P       17 33 17.8 +2.0
IRK                                pmax     pmax
       comp=Z,32nm,2.2s
ARTI   Arti              25.95 335 P        P       17 33 15.4 -0.6
       comp=Z,25nm,0.9s,baz=151,slow=4.0,SNR=15
ARTI                               LR       LR      17 43 51.3
       comp=Z,463nm,20.3s,baz=138,slow=37
       comp=Z,25nm,0.9s
ARTI   Arti              25.95 335c iP      P       17 33 15.1 -0.9
ARTI                                                17 33 52.9
ARTI                                                17 36 39.9
ARTI                               S        S       17 37 47.5 +0.8
ARTI                               SS       SnSn    17 38 43.9 +0.9
ARTI                               pmax     pmax
       comp=Z,27nm,0.9s
ARTI   Arti              25.95 335 P        P       17 33 13.6 -2.4
ARTI                               IAmb     IAmb    17 33 20.2
       comp=Z,27nm,0.8s
SLVN   Son La            26.06 113 P        P       17 33 20.2 +2.9
       comp=Z,14nm,0.9s
DOK    Doka              26.49 240 P        P       17 33 20.6 -0.5
DMTO   DMTO              26.51 237 P        P       17 33 22.0 +0.7
PALK   Pallekele         26.96 174 LR       LR      17 42 39.5
       comp=Z,590nm,20.0s,baz=355,slow=34
HHC    Hu-ho-hao-te      27.15  66 eP       P       17 33 27.3 +0.2
HHC                                S        S       17 38 11.0 +4.9
HHC                                sS       sS      17 38 12.8 +1.6
HHC                                pmax     pmax
       comp=Z,23nm,0.7s
HHC                                pmax     pmax
       comp=Z,150nm,6.7s
HHC                                L        L
       comp=Z,990nm,14.8s
HHC                                L        L
       comp=Z,860nm,15.3s
HHC                                L        L
       comp=Z,1µm,15.9s
GNI    Garni             27.17 292 P        P       17 33 29.3 +2.0
GNI    Garni             27.17 292deP       P       17 33 27.2 -0.1
GNI                                pmax     pmax
       comp=Z,30nm,1.6s
GNI    Garni             27.17 292 P        P       17 33 26.8 -0.6
GNI    Garni             27.17 292 P        P       17 33 28.4 +1.0
GNI    Garni             27.17 292 P        P       17 33 29.6 +2.2
       comp=Z,879nmcomp=Z,67nm,1.3s
GNI    Garni             27.17 292 P        P       17 33 30.1 +2.7
       comp=Z,67nm,1.3s
WHFO   Wadi Hawf         27.20 239 P        P       17 33 27.2 -0.4
OZAP   Van, Ozalp-Mer    27.75 289 ⇑P       P       17 33 33.8 +1.2
ABTO   Aybut             27.91 239 P        P       17 33 33.4 -0.7
LYN    LuoYang           28.21  80 eP       P       17 33 43.0 +6.5
LYN                                S        S       17 38 24.0 +1.3
LYN                                pmax     pmax
       comp=Z,15nm,0.6s
LYN                                LR       LR
       comp=N,2µm,14.7s
LYN                                LR       LR
       comp=E,890nm,10.7s
LYN                                LR       LR
       comp=Z,1µm,11.0s
NCK    Nalchik           28.29 299⇑eP       P       17 33 38.4 +1.2
NCK                                pmax     pmax
       comp=Z,24nm,0.8s
BELG   Belogornoye       28.37 319 LR       LR      17 46 14.2
       comp=Z,1µm,19.1s,baz=107,slow=39
BELG   Belogornoye       28.37 319ceP       P       17 33 36.2 -1.5
BELG                               pmax     pmax
       comp=Z,12nm,1.0s
KBZ    Khabaz            28.82 300 P        P       17 33 41.4 -0.4
       comp=Z,2.6nm,0.8s,baz=96,slow=9.2,SNR=3.0
KBZ                                LR       LR      17 47 29.3
       comp=Z,429nm,19.2s,baz=94,slow=41
       comp=Z,2.6nm,0.8s
SHA1   Shidzhatmaz       29.00 300⇑eP       P       17 33 43.4 -0.3
KIV    Kislovodsk        29.00 300 eP       P       17 33 44.7 +1.1
KIV                                eS       S       17 38 36.3 +1.1
KIV                                pmax     pmax
       comp=Z,12nm,1.1s
KIV                                MLR      MLR
       comp=Z,276nm,15.0s
HNS    HongShan          29.66  73 ⇓P       P       17 33 51.5 +2.2
HNS                                S        S       17 38 51.8 +6.4
HNS                                L        L
       comp=Z,540nm,9.8s
HNS                                L        L
       comp=Z,1µm,12.7s
HNS                                L        L
       comp=Z,1µm,12.8s
RAYN   Ar Rayn           30.43 258 P        P       17 33 55.4 -0.9
RAYN   Ar Rayn           30.43 258 P        P       17 33 55.3 -1.1
RAYN   Ar Rayn           30.43 258 P        P       17 33 52.4 -3.9
RAYN                               IAmb     IAmb    17 34 01.8
       comp=Z,15nm,1.1s
RAYN   Ar Rayn           30.43 258 P        P       17 33 55.3 -1.1
RAYN   Ar Rayn           30.43 258 P        P       17 33 55.0 -1.3
       comp=Z,15nm,1.1s
XLT    XiLinHaoTe        30.72  60 eP       P       17 34 02.0 +3.2
XLT                                pmax     pmax
       comp=Z,7.0nm,1.4s
XLT                                pmax     pmax
       comp=Z,120nm,4.3s
XLT                                L        L
       comp=Z,47nm,15.1s
XLT                                L        L
       comp=Z,390nm,8.6s
XLT                                L        L
       comp=Z,370nm,13.0s
KIRV   Kirov             30.95 331 LR       LR      17 47 14.3
       comp=Z,702nm,19.6s,baz=134,slow=38
KIRV   Kirov             30.95 331ceP       P       17 33 59.6 -0.8
SOC    Sochi             31.11 299 eP       P       17 34 00.8 -1.3
SOC                                ePPP     PPP     17 35 18.0
SOC                                eS       S       17 39 05.7 -2.2
SOC                                eSS      ScP     17 40 44.5 +3.6
SOC                                eSSS     SSS     17 41 06.2
SOC                                MLR      MLR
       comp=Z,265nm,21.0s
VRH    Novokhopyorsk     31.28 314 eP       P       17 34 03.2 -0.3
VRH                                pmax     pmax
       comp=Z,40nm,0.8s
QIZ    Qiongzhong        31.95 110 P        P       17 34 07.8 -1.9
QIZ                                S        S       17 39 22.3 +0.8
QIZ                                L        L
       comp=Z,620nm,18.0s
QIZ                                L        L
       comp=Z,510nm,18.8s
QIZ                                L        L
       comp=Z,630nm,9.2s
VORD   Divnogorie        32.67 313 eP       P       17 34 15.4 -0.3
VORD                               pmax     pmax
       comp=Z,30nm,0.9s
VSR    Storozhevoye      32.82 313 eP       P       17 34 16.6 -0.4
VSR                                pmax     pmax
       comp=Z,30nm,0.8s
VORR   Voronezh          32.92 314 eP       P       17 34 18.4 +0.5
VORR                               pmax     pmax
       comp=Z,45nm,0.4s
LPSR   Galich'ya Gora    33.36 315 eP       P       17 34 22.0 +0.3
LPSR                               pmax     pmax
       comp=Z,60nm,0.9s
ANDN   Andirin           33.84 288 P        P       17 34 27.3 +1.0
       comp=Z,49nm,1.3s
NJ2    Nanjing           33.96  82 eP       P       17 34 26.3 -0.9
NJ2                                pmax     pmax
       comp=Z,15nm,0.5s
NJ2                                L        L
       comp=Z,410nm,11.8s
NJ2                                L        L
       comp=Z,290nm,10.9s
NJ2                                L        L
       comp=Z,490nm,14.2s
ASF    Jabal al Asfar    34.44 278 LR       LR      17 50 09.2
       comp=Z,647nm,18.6s,baz=57,slow=39
DL2    Dalian            34.94  70 P        P       17 34 32.0 -3.6
DL2                                S        S       17 40 05.5 -2.2
DL2                                pmax     pmax
       comp=Z,37nm,1.3s
DL2                                LR       LR
       comp=N,2µm,18.8s
DL2                                LR       LR
       comp=E,560nm,16.3s
DL2                                LR       LR
       comp=Z,1µm,13.1s
MOS    Moscow            35.11 320 eP       P       17 34 35.9 -0.9
MOS                                e                17 35 50.3
MOS                                eS       S       17 40 06.3 -3.5
MOS                                pmax     pmax
       comp=Z,100nm,1.1s
MOS                                pmax     pmax
       comp=Z,48nm,0.9s
MOS                                MLR      MLR
       comp=Z,1µm,15.0s
MOS                                MLR      MLR
       comp=E,800nm,16.0s
MMAI   Mount Meron Ar    35.45 280 LR       LR      17 50 20.0
       comp=E,299nm,18.5s,baz=74,slow=38
OBN    Obninsk           35.47 319 LR       LR      17 50 15.4
       comp=E,1µm,18.8s,baz=121,slow=38
OBN    Obninsk           35.47 319 i P      P       17 34 38.6 -1.3
OBN                                i                17 34 45.5
OBN                                i                17 37 09.0
OBN                                pmax     pmax
       comp=Z,29nm,0.9s
OBN                                MLR      MLR
       comp=Z,911nm,18.0s
OBN    Obninsk           35.47 319 P        P       17 34 38.5 -1.4
OBN    Obninsk           35.47 319 ⇑P       P       17 34 42.0 +2.1
OBN    Obninsk           35.47 319 P        P       17 34 42.1 +2.2
       comp=Z,49nm,0.8s
OBN                                pP       sP      17 34 45.7 +1.4
       comp=Z,49nm,0.8s
OBN    Obninsk           35.47 319 P        P       17 34 39.5 -0.4
       comp=Z,50nm,0.8s
NRIK   Noril'sk          35.52   6 P        P       17 34 39.4 -0.8
       comp=Z,24nm,1.0s,baz=193,slow=5.2,SNR=12
NRIK                               LR       LR      17 50 43.3
       comp=Z,253nm,20.2s,baz=194,slow=39
       comp=Z,24nm,1.0s
NRIK   Noril'sk          35.52   6 P        P       17 34 39.4 -0.8
TPTI                     35.56 146 P        P       17 34 43.1 +2.0
       comp=Z,18nm,1.1s
BR104  Keskin Array S    35.71 292 P        P       17 34 44.7 +2.3
       comp=Z,58nmcomp=Z,7.7nm,1.0s
BR131  Keskin Array S    35.71 292⇑eP       P       17 34 42.5 +0.1
BR131  Keskin Array S    35.71 292 P        P       17 34 41.8 -0.7
BRTR   Keskin Array B    35.71 292 P        P       17 34 42.1 -0.3
       comp=Z,1.7nm,0.6s,baz=102,slow=9.2,SNR=10.0
BRTR                               PcP      PcP     17 37 09.9 -0.7
       comp=Z,0.8nm,0.8s,baz=93,slow=3.8,SNR=3.6
BRTR                               LR       LR      17 53 25.9
       comp=Z,155nm,18.7s,baz=87,slow=43
       comp=Z,1.7nm,0.6s
BRTR   Keskin Array B    35.71 292 P        P       17 34 41.4 -1.0
BR106  Keskin Array S    35.73 292 P        P       17 34 43.7 +1.1
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      comp=Z,53nmcomp=Z,6.0nm,0.9s
BR105 Keskin Array S    35.73 292   P      P       17 34 43.9 +1.3
      comp=Z,74nmcomp=Z,6.9nm,1.1s
KKUL  Konya-Kulu        36.33 291   P      P       17 34 50.9 +3.2
      comp=Z,21nm,0.9s
KLMR  Klimovskoe        36.37 329  eP      P       17 34 44.2 -3.4
KLMR                               e               17 37 10.6
KLMR                                pmax   pmax
      comp=Z,25nm,1.0s
KLMR                                MLR    MLR
      comp=Z,379nm,11.0s
EIL   Elat              36.76 275   LR     LR      17 51 33.5
      comp=Z,671nm,21.1s,baz=88,slow=39
GSI   Gunungsitoli      37.47 147   IAmb   IAmb    17 35 05.3
      comp=Z,21nm,0.8s
GSI   Gunungsitoli      37.47 147   P      P       17 34 59.3 +1.9
GSI   Gunungsitoli      37.47 147   P      P       17 35 00.7 +3.2
      comp=Z,52nm,1.7s
PURM  Purcari           38.21 304 ⇓P       P       17 35 04.6 +1.2
PURM  Purcari           38.21 304   P      P       17 35 04.9 +1.5
      comp=Z,73nm,0.9s
BAL3X Bal3x, Balta      38.44 306   P      P       17 35 07.0 +1.6
BNX   BinXian           38.84  58 ⇓P       P       17 35 06.5 -2.2
BNX                                 pmax   pmax
      comp=Z,4.0nm,0.8s
AK08  Malin Array Si    38.87 310   P      P       17 35 10.5 +1.6
YLV   Yalova            38.87 294   P      P       17 35 10.6 +1.4
      comp=Z,19nm,1.2s
AK07  Malin Array Si    38.89 310   P      P       17 35 10.6 +1.5
AKASG Malin Array Be    38.89 310   P      P       17 35 08.8 -0.3
      comp=Z,6.9nm,0.7s,baz=81,slow=8.0,SNR=21
AKASG                               PP     PP      17 36 36.5 -1.4
      comp=Z,4.6nm,0.8s,baz=96,slow=12,SNR=6.0
AKASG                               LR     LR      17 54 11.8
      comp=Z,625nm,18.4s,baz=92,slow=41
      comp=Z,6.9nm,0.7s
AKASG Malin Array Be    38.89 310 i P      P       17 35 10.8 +1.7
AKASG                               pmax   pmax
      comp=Z,7.0nm,0.6s
AKASG Malin Array Be    38.89 310   P      P       17 35 09.6 +0.5
AKBB  Malin Array Si    38.89 310ceP       P       17 35 10.7 +1.6
AKBB  Malin Array Si    38.89 310   P      P       17 35 10.6 +1.5
KIEV  Kiev              38.90 310   P      P       17 35 08.7 -0.4
KIEV                                pmax   pmax
      comp=Z,10.0nm,0.8s
KIEV  Kiev              38.90 310   P      P       17 35 08.7 -0.4
KIEV  Kiev              38.90 310 i P      P       17 35 08.0 -1.1
      SNR=7.0
KIEV  Kiev              38.90 310   P      P       17 35 10.8 +1.6
      comp=Z,61nm,0.8s
TPGR  Topolog           39.24 301 ⇑P       P       17 35 13.1 +0.9
SORM  Soroca            39.29 306   P      P       17 35 12.6 +0.2
SORM  Soroca            39.29 306 ⇑P       P       17 35 12.7 +0.2
SORM  Soroca            39.29 306   P      P       17 35 13.6 +1.2
      comp=Z,27nm,0.9s
ATD   Arta Tunnel       39.34 243   LR     LR      17 54 11.8
      comp=Z,7.7nm,18.9s,baz=58,slow=40
ZEA   Zeya              39.36  45  eP      P       17 35 16.9 +3.9
CFR   Carcaliu          39.44 301   P      P       17 35 14.0 +0.3
CFR   Carcaliu          39.44 301 ⇑P       P       17 35 14.0 +0.3
VLDR  Vladesti          39.46 302 ⇑P       P       17 35 14.4 +0.6
MI30  MI30,Zelenitsa    39.55 310   P      P       17 35 16.3 +1.7
      comp=Z,41nm,0.8s
LUBAR Lubar, Ukraine    39.77 309   P      P       17 35 17.8 +1.4
KSRS  Korea Array       40.06  71   P      P       17 35 18.8 -0.2
      comp=Z,1.5nm,0.9s,baz=251,slow=7.8,SNR=5.2
KSRS                                LR     LR      17 54 01.7
      comp=Z,325nm,19.3s,baz=275,slow=40
      comp=Z,1.5nm,0.9s
MNK   Minsk             40.20 316 i P      P       17 35 21.9 +2.0
MNK                               i                17 37 02.5
MNK                               i PPP    PPP     17 37 15.7
MNK                               i S      S       17 41 29.7 +2.6
MNK                                 pmax   pmax
      comp=Z,37nm,0.8s
MNK                                 pmax   pmax
      comp=N,24nm,0.8s
MNK                                 pmax   pmax
      comp=E,17nm,0.8s
MNK                                 MLR    MLR
      comp=E,658nm,18.0s
MNK                                 MLR    MLR
      comp=Z,761nm,15.0s
MNK                                 MLR    MLR
      comp=N,1µm,20.0s
MNK   Minsk             40.20 316 i P      P       17 35 22.0 +2.0
      comp=E,17nm,0.8s
MNK                               i P      P       17 35 22.0 +2.0
      comp=N,24nm,0.8s
MNK                               i P      P       17 35 22.0 +2.0
      comp=Z,37nm,0.8s,baz=99
MNK                               i PP     PnPn    17 37 02.5 +6.8
MNK                               i PPP    PPP     17 37 15.7
MNK                               i PcP    PcP     17 37 37.3  +13
MNK                               i ScP    ScP     17 41 02.1  -12
MNK                               i PcS    PcS     17 41 16.3 +2.2
MNK                               i S      S       17 41 29.8 +2.6
MNK                               i SS     SnSn    17 44 33.8 +5.2
MNK                               i SSS    SSS     17 45 04.6
MNK                               i LQ     LQ      17 50 18.5
MNK                               i LR     LR      17 52 06.6
MNK                               i LRM    MLR     17 53 13.8
      comp=E,658nm,17.8s
MNK                               i LRM    MLR     17 53 23.4
      comp=Z,761nm,15.2s
MNK                               i LRM    MLR     17 53 28.1
      comp=N,1µm,19.5s
VRI   Vrincioaia        40.40 303   P      P       17 35 22.8 +1.1
VRI   Vrincioaia        40.40 303 ⇑P       P       17 35 22.9 +1.1
VRI   Vrincioaia        40.40 303   P      P       17 35 24.4 +2.6
      comp=N,22nm,1.1s
MDJ   Mudanjiang        40.43  59   P      P       17 35 24.5 +2.5
MDJ                                 pmax   pmax
      comp=N,10.0nm,1.6s
SAHR  Sahastru          40.44 302 ⇓P       P       17 35 23.7 +1.6
TESR  Tescani           40.44 304 ⇑P       P       17 35 22.2 +0.2
PLOR  Plostina          40.46 303   P      P       17 35 23.6 +1.4
PLOR  Plostina          40.46 303 ⇑P       P       17 35 23.6 +1.4
GIRR  Girov             40.53 304 ⇑P       P       17 35 23.2 +0.4
KMPD  K-Podol'skiy      40.56 307   P      P       17 35 23.8 +0.8
ONER  Baraj Valea Uz    40.62 303 ⇑P       P       17 35 24.6 +1.1
NEHR  Nehoiu            40.72 302 ⇑P       P       17 35 26.2 +1.7
COVR  Voineasa-Covas    40.77 303 ⇑P       P       17 35 25.7 +0.9
BIZ   Bicaz             40.80 304 ⇑P       P       17 35 25.3 +0.3
TURR  Turia             40.89 303 ⇑P       P       17 35 27.0 +1.1
NACGM Naroch            40.89 316⇑iP       P       17 35 27.7 +2.1
      comp=Z,53nm,0.9s
MLR   Muntele Rosu      40.97 302   LR     LR      17 55 49.9
      comp=Z,252nm,19.5s,baz=344,slow=41
MLR   Muntele Rosu      40.97 302   P      P       17 35 27.2 +0.6
MLR                                 pmax   pmax
      comp=Z,67nm,0.9s
MLR   Muntele Rosu      40.97 302   P      P       17 35 27.2 +0.6
MLR   Muntele Rosu      40.97 302 ⇑P       P       17 35 28.1 +1.5
MLR   Muntele Rosu      40.97 302   P      P       17 35 28.1 +1.5
      comp=Z,647nmcomp=Z,80nm,0.9s
RNPP8 Varash            41.07 311   P      P       17 35 29.0 +1.9
DOPR  Dopca             41.33 303 ⇑P       P       17 35 30.2 +0.8
BURAR Bucovina Array    41.40 305   P      P       17 35 30.1 +0.1
BURAR Bucovina Array    41.40 305   P      P       17 35 29.8 -0.3
BURAR Bucovina Array    41.40 305 ⇑P       P       17 35 30.2 +0.1
BUR08 Bucovina Ar. S    41.41 305   P      P       17 35 27.9 -2.2
KARP  Karpathos         41.48 287   P      P       17 35 30.9 +0.1
      comp=Z,94nm,0.9s
VSU   Vasula            41.58 322deP       P       17 35 32.4 +1.2
VSU                                 pmax   pmax
      comp=Z,29nm,1.7s
VOIR                    41.60 302   P      P       17 35 32.1 +0.4
VOIR                    41.60 302 ⇑P       P       17 35 32.2 +0.4
VOIR                    41.60 302   P      P       17 35 31.7  0.0
      comp=Z,9.1nm,0.8s
LVZ   Lovozero          41.76 337   P      P       17 35 30.7 -2.0
LVZ                                 pmax   pmax
      comp=Z,41nm,1.0s
LVZ   Lovozero          41.76 337   P      P       17 35 30.6 -2.0
KLR   Kul'dur           41.78  52   LR     LR      17 54 49.4
      comp=Z,378nm,18.3s,baz=268,slow=39
KLR   Kul'dur           41.78  52⇑eP       P       17 35 33.7 +0.6
KLR                                 pmax   pmax
      comp=Z,5.0nm,1.0s
ARR   Arges             41.90 302 ⇑P       P       17 35 34.8 +0.7
ARCR  ARCALIA           42.00 304 ⇑P       P       17 35 36.1 +1.2
USRK  Ussuriysk Ar.     42.17  60   LR     LR      17 53 58.8
      comp=Z,305nm,19.7s,baz=287,slow=37
YAK   Yakutsk           42.50  33   LR     LR      17 54 59.5
      comp=Z,996nm,18.0s,baz=250,slow=38
YAK   Yakutsk           42.50  33c iP      P       17 35 39.8 +1.1
YAK                                 pmax   pmax
      comp=Z,24nm,1.0s
YAK   Yakutsk           42.50  33   P      P       17 35 37.5 -1.2
YAK                                 IAmb   IAmb    17 35 44.1
      comp=Z,24nm,1.0s
CJR   Cluj-Napoca       42.53 304   P      P       17 35 40.5 +1.2
CJR   Cluj-Napoca       42.53 304 ⇑P       P       17 35 40.6 +1.2
BMR   Baia Mare         42.56 305   P      P       17 35 40.3 +0.9
BMR   Baia Mare         42.56 305 ⇓P       P       17 35 40.3 +0.9
FIA1  FINESS Array S    42.61 326   P      P       17 35 37.7 -2.0
FINES FINESS Array B    42.62 326   P      P       17 35 38.9 -0.8
      comp=Z,10nm,0.7s,baz=111,slow=8.5,SNR=55
FINES                               LR     LR      17 54 33.2
      comp=Z,552nm,20.3s,baz=104,slow=38
      comp=Z,10nm,0.7s
FINES FINESS Array B    42.62 326   P      P       17 35 38.3 -1.4
DEV   Deva              43.07 303   P      P       17 35 44.3 +0.8
DEV   Deva              43.07 303 ⇑P       P       17 35 44.4 +0.8
DRGR                    43.14 304   P      P       17 35 45.1 +0.9
DRGR                    43.14 304 ⇑P       P       17 35 45.2 +0.9
GZR   Gura Zlata        43.20 302   P      P       17 35 45.1 +0.4
GZR   Gura Zlata        43.20 302 ⇑P       P       17 35 45.2 +0.4
UZHM  Uzhgorod          43.33 307   P      P       17 35 47.1 +1.5
KOLS  Kolonicke sedl    43.33 307  eP      P       17 35 48.7 +3.0
KOLS                                pmax   pmax
      comp=Z,12nm,1.0s
KOLS  Kolonicke sedl    43.33 307  eP      P       17 35 48.7 +3.0
JOW   Kunigami          43.41  86   LR     LR      17 55 21.7
      comp=Z,612nm,20.6s,baz=254,slow=38
JNU   Nakatsue          43.45  76   LR     LR      17 55 16.0
      comp=Z,374nm,20.1s,baz=298,slow=38
SURR  Surduc            43.62 303 ⇑P       P       17 35 49.2 +1.1
SIRR  Siria             43.90 303 ⇑P       P       17 35 51.0 +0.7
BZS   Buzias            43.99 303   P      P       17 35 51.6 +0.6
BZS   Buzias            43.99 303 ⇑P       P       17 35 51.6 +0.6
MDVR  Moldovita         44.01 301 ⇑P       P       17 35 52.0 +0.7
BOVS  Bovan             44.16 300 ⇑P       P       17 35 52.4 +0.1
VADS  Vadso             44.51 338  eP      P       17 35 55.0 +0.2
NIE   Niedzica          44.60 308   P      P       17 35 58.6 +2.7
      comp=Z,7.2nm,1.1s
OJC   Ojcow             44.90 309  eP      P       17 36 00.2 +2.0
OJC   Ojcow             44.90 309   P      P       17 35 56.1 -2.1
OJC   Ojcow             44.90 309          P       17 35 56.1 -2.1
PSZ   Piszkesteto       44.97 306   P      P       17 36 00.0 +1.1
PSZ   Piszkesteto       44.97 306   P      P       17 35 57.5 -1.4
PSZ   Piszkesteto       44.97 306 ⇑P       P       17 36 00.0 +1.1
LANS  Liptovska Anna    45.16 308  eP      P       17 36 04.4 +4.0
LANS  Liptovska Anna    45.16 308  eP      P       17 36 04.4 +4.0
ARA0  ARCESS Array S    45.47 337  eP      P       17 36 02.2 -0.3
ARCES ARCESS Array B    45.47 337   P      P       17 36 02.0 -0.5
      comp=Z,19nm,0.9s,baz=99,slow=7.5,SNR=16
ARCES                               LR     LR      17 55 38.7
      comp=Z,285nm,18.1s,baz=108,slow=37
      comp=Z,19nm,0.9s
ARCES ARCESS Array B    45.47 337   P      P       17 36 02.0 -0.5
ARCES ARCESS Array B    45.47 337   P      P       17 36 00.9 -1.6
ARCES                               IAmb   IAmb    17 36 05.7
      comp=Z,17nm,0.9s
VYHS  Vyhne             45.63 307  eP      P       17 36 08.0 +3.9
VYHS                                pmax   pmax
      comp=Z,10.0nm,1.1s
VYHS  Vyhne             45.63 307  eP      P       17 36 08.0 +3.9
TIXI  Tiksi             45.75  20   LR     LR      17 57 17.0
      comp=Z,705nm,18.6s,baz=262,slow=39
TIXI  Tiksi             45.75  20⇓eP       P       17 36 06.2 +1.6
TIXI                                pmax   pmax
      comp=Z,8.0nm,1.0s
TIXI  Tiksi             45.75  20   P      P       17 36 04.6  0.0
TIXI                                IAmb   IAmb    17 36 14.8
      comp=Z,12nm,1.2s
MORH  Mrgy, Hungar      45.99 304 ⇓P       P       17 36 06.9  0.0
MORH  Mrgy, Hungar      45.99 304   P      P       17 36 09.1 +2.2
      comp=Z,9.0nm,0.9s
SRO   Srobarova         46.04 306  eP      P       17 36 11.5 +4.3
SRO                                 pmax   pmax
      comp=Z,18nm,1.0s
SRO   Srobarova         46.04 306  eP      P       17 36 11.5 +4.3
KTK1  Kautokeino        46.04 336  eP      P       17 36 06.7 -0.3
STEB  Steborice         46.21 309  eP      P       17 36 11.4 +2.8
JAVC  Velka Javorina    46.37 307  eP      P       17 36 13.3 +3.4
MORC  Moravsky Berou    46.37 309   P      P       17 36 10.5 +0.5
MORC  Moravsky Berou    46.37 309  eP      P       17 36 12.6 +2.6
MORC  Moravsky Berou    46.37 309 ⇑P       P       17 36 10.5 +0.5
HAMF  Hammerfest        46.47 338  eP      P       17 36 11.9 +1.5
SMOL  Smolenice         46.56 307  eP      P       17 36 14.1 +2.7
SMOL                                pmax   pmax
      comp=Z,2.0nm,0.9s
MPLH  Magyarpolny       46.63 305   P      P       17 36 14.0 +2.1
      comp=Z,19nm,1.4s
MODS  Modra-Piesok      46.67 307  eP      P       17 36 14.8 +2.5
MODS                                pmax   pmax
      comp=Z,22nm,1.4s
MODS  Modra-Piesok      46.67 307  eP      P       17 36 14.8 +2.5
KRLC  Kraliky           46.84 309  eP      P       17 36 16.3 +2.7
KRLC  Kraliky           46.84 309  eP      P       17 36 16.3 +2.7
VRAC  Vranov            47.03 308   LR     LR      17 57 44.7
      comp=Z,273nm,22.0s,baz=88,slow=38
VRAC  Vranov            47.03 308   P      P       17 36 15.7 +0.7
VRAC  Vranov            47.03 308  eP      P       17 36 18.0 +2.9
VRAC  Vranov            47.03 308 ⇑P       P       17 36 15.8 +0.7
KSP   Ksiaz             47.09 310  eP      P       17 36 18.9 +3.3
KSP   Ksiaz             47.09 310   P      P       17 36 17.8 +2.3
      comp=Z,7.3nm,1.1s
DPC   Dobruska-Polom    47.11 310  eP      P       17 36 18.7 +2.9
DPC                                 MLR    MLR
      comp=Z,400nm,14.7s
DPC   Dobruska-Polom    47.11 310  eP      P       17 36 18.7 +2.9
DPC                                 AMS    AMS     17 58 00.0
      comp=Z,400nm,14.7s
DPC   Dobruska-Polom    47.11 310   P      P       17 36 18.2 +2.4
      comp=Z,8.5nm,1.0s
KRUC  Moravsky          47.18 308  eP      P       17 36 18.7 +2.4
CHVC  Chvalec           47.27 310  eP      P       17 36 20.7 +3.8
CHVC  Chvalec           47.27 310  eP      P       17 36 20.7 +3.8
UPC   Upice             47.30 310  eP      P       17 36 20.1 +3.0
UPC                                 MLR    MLR
      comp=Z,500nm,15.3s
UPC   Upice             47.30 310  eP      P       17 36 20.1 +3.0
UPC                                 AMS    AMS     17 58 10.0
      comp=Z,500nm,15.3s
RONA  Rosalia, Austr    47.40 306 i pP     P       17 36 20.3 +2.3
      comp=Z,3.8nm,0.7s
WINA  Alland / Wiene    47.50 307 i pP     P       17 36 20.8 +2.1
      comp=Z,1.1nm,0.4s
CONA  Conrad Observa    47.66 306  epP     P       17 36 22.5 +2.4
      comp=Z,7.4nm,0.8s,SNR=7.1
TRO   Tromso            47.69 336  eP      P       17 36 20.2 +0.4
ABNA  Allensteig Bun    47.86 307  epP     P       17 36 23.7 +2.1
      comp=Z,6.1nm,0.9s
ARSA  Arzberg           47.98 305  epP     P       17 36 24.6 +2.0
      comp=Z,2.8nm,0.7s
PRU   Pruhonice         48.29 309   AMS    AMS     17 58 50.0
      comp=Z,400nm,17.4s
PERS  Pernice           48.35 305 i P      P       17 36 28.1 +2.7
SOKA  Soboth            48.40 305  epP     P       17 36 28.1 +2.3
      comp=Z,5.8nm,0.4s,SNR=6.6
HFS   Hagfors           48.42 323   P      P       17 36 24.7 -0.9
      comp=Z,5.7nm,0.6s,baz=114,slow=3.6,SNR=12
HFS                                 LR     LR      17 57 53.9
      comp=Z,843nm,20.4s,baz=92,slow=37
      comp=Z,5.7nm,0.6s
BRG   Berggiesshubel    48.58 310  eP      P       17 36 29.6 +2.6
BRG                                 Amp            17 36 30.9
      comp=Z,9.9nm,0.9s
BRG   Berggiesshubel    48.58 310   S      S       17 43 30.0 +1.0
MOR8  Moi Rana          48.63 331  eP      P       17 36 28.2 +1.0
SESA  Seetaler Alpe,    48.65 305  epP     P       17 36 30.5 +2.6
      comp=Z,3.5nm,0.5s
MOA   Molln             48.74 306  epP     P       17 36 30.6 +2.2
      comp=Z,3.7nm,0.7s
OBKA  Obir              48.75 305  epP     P       17 36 30.8 +2.2
      comp=Z,6.1nm,0.9s
RAUS  Rausandaksla      48.82 331  eP      P       17 36 29.0 +0.3
HSKC  Hora Svate Kat    48.93 310   AMS    AMS     17 59 00.0
      comp=Z,600nm,16.2s
GERES GERESS Array B    48.97 308   P      P       17 36 30.6 +0.4
      comp=Z,1.5nm,0.7s,baz=83,slow=4.2,SNR=10
GERES                               PP     PP      17 38 22.7 -0.8
      comp=Z,1.4nm,0.8s,baz=80,slow=7.3,SNR=5.3
GERES                               LR     LR      18 00 31.7
      comp=Z,225nm,18.6s,baz=86,slow=40
      comp=Z,1.5nm,0.7s
GERES GERESS Array B    48.97 308   P      P       17 36 28.7 -1.5
KHC   Kasperske Hory    49.01 308⇑eP       P       17 36 27.4 -3.1
KHC                                 pmax   pmax
      comp=Z,5.0nm,1.0s
KHC   Kasperske Hory    49.01 308  eP      P       17 36 33.0 +2.5
      comp=Z,4.4nm,0.6s
KHC                                 AMS    AMS     17 59 20.0
      comp=Z,300nm,20.7s
KHC   Kasperske Hory    49.01 308   P      P       17 36 32.7 +2.2
      comp=Z,7.6nm,0.7s
CRNS  Crni Vrh          49.02 304 i P      P       17 36 33.0 +2.4
CLL   Collm             49.12 311  eP      P       17 36 33.0 +1.8
CLL                                i               17 36 36.6
CLL                                eS      S       17 43 32.0 -4.6
CLL                                 pmax   pmax
      comp=Z,9.0nm,1.1s
CLL   Collm             49.12 311   P      P       17 36 32.6 +1.4
      comp=Z,6.8nm,1.1s
CLL   Collm             49.12 311  eP      P       17 36 33.0 +1.8
      comp=Z,9.0nm,1.1s
CLL                                i x     x       17 36 36.6
CLL                                ePP     PP      17 38 24.0 -0.6
CLL                                ePPP    PPP     17 39 18.0
CLL                                eS      S       17 43 34.0 -2.6
CLL                                eSS     SS      17 47 11.0 +3.6
CLL                                ex      x       17 49 18.0
CLL                                 L      L       17 51 00.0
CLL                                 AMS    AMS     17 56 00.0
      comp=N,600nm,19.6s
CLL                                 AMS    AMS     17 56 00.0
      comp=E,200nm,28.5s
CLL                                 AMS    AMS     18 00 00.0
      comp=Z,300nm,17.1s
VAGH  Vaagaholmen       49.17 332  eP      P       17 36 32.1 +0.8
KONS  Konsvik           49.20 331  eP      P       17 36 31.6 +0.1
LEM   Lembang           49.45 140   LR     LR      17 59 40.8
      comp=Z,216nm,19.8s,baz=222,slow=39
NSS   Namsos            49.48 329  eP      P       17 36 33.3 -0.3
NC602 NORSAR Array S    49.50 324  eP      P       17 36 33.2 -0.7
NB2   NORSAR Subarra    49.66 324   P      P       17 36 33.8 -1.4
      comp=Z,7.2nm,0.7s,baz=92,slow=7.9
NB2   NORSAR Subarra    49.66 324   P      P       17 36 33.8 -1.4
NOA   NORSAR Array B    49.66 324   P      P       17 36 34.0 -1.3
      comp=Z,6.8nm,0.9s,baz=91,slow=7.5,SNR=26
NOA                                 LR     LR      17 58 41.4
      comp=Z,647nm,19.5s,baz=90,slow=37
      comp=Z,6.8nm,0.9s
NOA   NORSAR Array B    49.66 324   P      P       17 36 34.0 -1.3
NAO01 NORSAR Array S    49.82 324   IAmb   IAmb    17 36 41.0
      comp=Z,11nm,0.8s
LESA  Schwarzleotal     49.87 306  epP     P       17 36 38.0 +0.9
      comp=Z,2.1nm,0.5s
NBO00 NORSAR Array S    49.88 324   IAmb   IAmb    17 36 55.7
      comp=Z,13nm,1.1s
NC204 NORSAR Array S    49.88 324   IAmb   IAmb    17 36 41.8
      comp=Z,16nm,0.7s
ABTA  Abfaltersbach     50.09 305  epP     P       17 36 39.6 +0.8
      comp=Z,12nm,1.4s
LODK  Lodwar            50.24 242   P      P       17 36 40.1 -0.1
      SNR=7.4
LODK  Lodwar            50.24 242   P      P       17 36 37.4 -2.8
LODK                                IAmb   IAmb    17 36 46.6
      comp=Z,24nm,1.3s
GRF   Grafenberg Arr    50.46 309  eP      P       17 36 44.8 +3.4
      comp=Z,11nm,1.0s,baz=81,slow=6.7
KONO  Kongsberg         50.48 322  eP      P       17 36 40.6 -0.7
WTTA  Wattenberg        50.59 306  epP     P       17 36 42.5 -0.2
      comp=Z,1.3nm,0.5s
WATA  Walderalm         50.62 306  epP     P       17 36 43.2 +0.4
      comp=Z,3.7nm,0.7s
DOMB  Dombas            50.70 325  eP      P       17 36 44.0 +0.9
SQTA  Sankt Quirin      50.89 306  epP     P       17 36 45.1 +0.2
      comp=Z,7.9nm,1.2s
MOTA  Moosalm           50.93 306  epP     P       17 36 45.5 +0.3
      comp=Z,6.0nm,1.0s
SPA0  Spitsbergen Ar    51.02 346  eP      P       17 36 45.5 +0.3
SPITS Spitsbergen Ar    51.02 346   LR     LR      18 01 47.6
      comp=Z,411nm,20.6s,baz=107,slow=40
RETA  Reutte            51.13 306  epP     P       17 36 47.0 +0.4
      comp=Z,2.9nm,0.6s
FETA  Feichten          51.24 306  epP     P       17 36 47.6  0.0
      comp=Z,5.5nm,1.2s
DAV   Davao City (W)    51.32 111   LR     LR      17 59 38.1
      comp=Z,209nm,20.7s,baz=320,slow=37
MOL   Molde             51.40 326  eP      P       17 36 49.4 +1.2
TOLI2 Tolitoli          51.66 120   P      P       17 36 49.8 -1.1
TOLI2                               IAmb   IAmb    17 36 57.4
      comp=Z,9.2nm,0.9s
AKN   Aaknes            51.67 326  eP      P       17 36 50.3  0.0
DAVA  Damuels           51.76 306  eP      P       17 36 50.8 -0.6
      comp=Z,7.9nm,0.5s
SNART Snartemo          51.79 321  eP      P       17 36 52.5 +1.3
DAVOX Davos/Dischmat    51.86 306   LR     LR      18 02 39.0
      comp=Z,291nm,18.1s,baz=79,slow=40
KMBO  Kilima Mbogo      52.08 236   LR     LR      18 00 44.9
      comp=Z,193nm,18.8s,baz=98,slow=38
KMBO  Kilima Mbogo      52.08 236⇓eP       P       17 36 52.3 -1.9
KIBK  Kibwezi           52.42 234   P      P       17 36 55.4 -1.2
KIBK                                IAmb   IAmb    17 37 02.2
      comp=Z,14nm,1.4s
MA2   Magadan           52.51  38   LR     LR      18 00 18.8
      comp=Z,157nm,20.2s,baz=280,slow=37
MA2   Magadan           52.51  38⇓eP       P       17 36 58.6 +2.0
MA2                                 pmax   pmax
      comp=Z,12nm,1.0s
MA2   Magadan           52.51  38   P      P       17 36 58.9 +2.3
      comp=Z,21nm,1.1s
ASK   Askoy             52.64 323  eP      P       17 36 58.2 +0.7
SEY   Seymchan          53.02  33⇓eP       P       17 37 01.5 +1.2
SEY                                 pmax   pmax
      comp=Z,16nm,1.0s
BMRD  Maredsous         54.44 311  dP      P       17 37 11.2 +0.3
DOU   Dourbes           54.59 311  dP      P       17 37 11.6 -0.4
KEST  Kesra             55.31 293   P      P       17 37 16.3 -1.3
      comp=Z,8.3nm,0.7s,baz=346,slow=2.9,SNR=7.2
KEST                                LR     LR      18 04 24.0
      comp=Z,73nm,21.0s,baz=222,slow=40
      comp=Z,8.3nm,0.7s
KEST  Kesra             55.31 293   P      P       17 37 16.8 -0.8
KAPI  Kappang           55.34 127   LR     LR      18 04 07.2
      comp=Z,86nm,18.5s,baz=292,slow=40
MBAR  Mbarara           56.34 242   LR     LR      18 04 41.0
      comp=Z,255nm,19.0s,baz=38,slow=39
MBAR  Mbarara           56.34 242   P      P       17 37 24.6 -0.7
JMIC  Jan Mayen         56.96 337   LR     LR      18 00 34.4
      comp=Z,140nm,20.2s,baz=246,slow=35
NOR   Nord              57.04 350 i P      P       17 37 28.5 -0.7
NOR                                 IAmb   IAmb    17 37 32.2
      comp=Z,11nm,0.9s
PETK  Petropavlovsk-    57.45  45   P      P       17 37 31.6 -0.8
      comp=Z,2.7nm,0.9s,baz=269,slow=1.4,SNR=5.8
PETK                                LR     LR      18 03 31.6
      comp=Z,311nm,20.7s,baz=292,slow=37
      comp=Z,2.7nm,0.9s
PETK  Petropavlovsk-    57.45  45   P      P       17 37 31.8 -0.7
PETK  Petropavlovsk-    57.45  45   P      P       17 37 31.8 -0.7
EKA   Eskdalemuir Ar    57.92 318   P      P       17 37 34.7 -1.0
      comp=Z,4.4nm,0.7s,baz=89,slow=7.7,SNR=7.0
EKA                                 LR     LR      18 04 05.6
      comp=Z,387nm,21.6s,baz=77,slow=38
      comp=Z,4.4nm,0.7s
EKA   Eskdalemuir Ar    57.92 318   P      P       17 37 37.4 +1.7
EKA                                 pmax   pmax
      comp=Z,6.0nm,1.1s
BILL  Bilibino          58.02  26⇑eP       P       17 37 35.8 -0.4
BILL                                pmax   pmax
      comp=Z,4.0nm,0.9s
DAG   Danmarks Havn     58.49 344 i P      P       17 37 38.0 -1.4
DAG                                 IAmb   IAmb    17 37 41.9
      comp=Z,14nm,1.1s
DBG   Daneborg          59.58 342 i P      P       17 37 49.7 +2.7
DBG                                 IAmb   IAmb    17 37 51.9
      comp=Z,32nm,1.4s
OPO   Ambohidratompo    60.26 214   LR     LR      18 02 18.2
      comp=Z,86nm,18.4s,baz=98,slow=34
BATI  Baumata           61.77 127   LR     LR      18 07 43.2
      comp=Z,333nm,19.4s,baz=308,slow=39
GUMO  Guam              63.28  91   LR     LR      18 05 53.3
      comp=Z,92nm,21.4s,baz=298,slow=36
ESDC  Sonseca Array     63.66 301   P      P       17 38 15.0 -0.2
      comp=Z,1.9nm,1.0s,baz=59,slow=6.4,SNR=7.0
ESDC                                LR     LR      18 10 47.5
      comp=Z,120nm,18.1s,baz=46,slow=41
      comp=Z,1.9nm,1.0s
NEEM  North Greenlan    64.39 349 i P      P       17 38 19.7  0.0
NEEM                                IAmb   IAmb    17 38 23.1
      comp=Z,38nm,1.0s
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SUMG	**Summit**	**65.00**	**343**	P	**P**	**17 38 21.1**	**-2.7**
SUMG				pmax	pmax		
	comp=Z,27nm,1.0s						
SUMG	**Summit**	**65.00**	**343**	P	**P**	**17 38 21.1**	**-2.7**
SUMG	**Summit**	**65.00**	**343**	*i* P	**P**	**17 38 26.0**	**+2.2**
SUMG				IAmb	IAmb	17 38 31.4	
	comp=Z,24nm,0.9s						
SHEM	**Shemya Is, Ala**	**66.86**	**41**	LR	LR	18 09 51.7	
	comp=Z,240nm,19.8s,baz=316,slow=38						
MDT	**Midelt**	**67.06**	**295**	LR	LR	18 11 49.8	
	comp=Z,29nm,18.9s,baz=69,slow=39						
TULEG	**Thule**	**67.54**	**352**	*i* P	**P**	**17 38 41.4**	**+1.9**
LSZ	**Lusaka**	**68.46**	**233**	LR	LR	18 10 12.3	
	comp=Z,132nm,18.3s,baz=38,slow=37						
ANGG	**Ammassalik, Gr**	**68.89**	**336**	*i* P	**P**	**17 38 51.0**	**+2.8**
FITZ	**Fitzroy Crossi**	**68.92**	**131**	LR	LR	18 12 34.0	
	comp=Z,112nm,19.9s,baz=340,slow=39						
JAY	**Jayapura**	**69.06**	**108**	LR	LR	18 10 27.3	
	comp=Z,51nm,20.3s,baz=284,slow=37						
NUUG	**Nuugaatsiaq**	**69.10**	**345**	*i* P	**P**	**17 38 50.5**	**+1.2**
NUUG				IAmb	IAmb	17 38 52.2	
	comp=Z,21nm,1.0s						
KNRA	**Kununurra**	**69.14**	**127**	P	**P**	**17 38 52.6**	**+2.3**
	comp=Z,9.1nm,1.1s,comp=Z,0.0nm,0.6s						
KNRA	**Kununurra**	**69.14**	**127**	P	**P**	**17 38 51.7**	**+1.3**
	comp=Z,9.0nm,1.1s						
KNRA	**Kununurra**	**69.14**	**127**	P	**P**	**17 38 48.4**	**-1.9**
KNRA				IAmb	IAmb	17 38 56.3	
	comp=Z,9.7nm,1.1s						
KDU	**Kakadu**	**69.55**	**122**	P	**P**	**17 38 54.7**	**+1.9**
	comp=Z,4.9nm,1.3s						
ILULI	**Ilulissat**	**70.35**	**343**	*i* P	**P**	**17 38 59.3**	**+2.2**
ILULI				IAmb	IAmb	17 38 60.0	
	comp=Z,46nm,1.2s						
RES	**Resolute Bay**	**71.23**	**358**	LR	LR	18 13 09.7	
	comp=Z,124nm,20.7s,baz=12,slow=38						
TORD	**Torodi Ar. Bea**	**71.63**	**274**	P	**P**	**17 39 03.5**	**-2.3**
	comp=Z,3.0nm,0.9s,baz=43,slow=6.1,SNR=10						
TORD				LR	LR	18 13 21.3	
	comp=Z,272nm,20.3s,baz=63,slow=38						
	comp=Z,3.0nm,0.9s						
SFJD	**Kangerlussuaq**	**71.86**	**341**	*i* P	**P**	**17 39 07.4**	**+1.1**
SFJD				IAmb	IAmb	17 39 10.1	
	comp=Z,18nm,1.0s						
E23K	**Chandalar**	**71.92**	**17**	IAmb	IAmb	17 39 10.0	
	comp=Z,11nm,1.1s						
COLD	**Coldfoot**	**72.42**	**18**	IAmb	IAmb	17 39 16.4	
	comp=Z,12nm,0.9s						
D27M	**Malcolm River**	**72.86**	**14**	IAmb	IAmb	17 39 15.9	
	comp=Z,12nm,1.2s						
F25K	**Christian Rive**	**73.23**	**16**	IAmb	IAmb	17 39 22.6	
	comp=Z,7.8nm,1.0s						
BMAR	**Burnt Mountain**	**73.60**	**16**	P	**P**	**17 39 16.3**	**-0.4**
E28M	**Babbage River**	**73.68**	**14**	IAmb	IAmb	17 39 20.6	
	comp=Z,13nm,1.1s						
MLY	**Manley**	**73.95**	**19**	IAmb	IAmb	17 39 25.6	
	comp=Z,9.2nm,0.9s						
G26K	**Porcupine Rive**	**74.17**	**16**	IAmb	IAmb	17 39 31.0	
	comp=Z,12nm,1.3s						
E29M	**Blow River**	**74.18**	**13**	IAmb	IAmb	17 39 23.5	
	comp=Z,22nm,1.2s						
NEA2	**Nenana**	**74.75**	**19**	IAmb	IAmb	17 39 30.3	
	comp=Z,17nm,0.9s						
COLA	**College**	**74.85**	**19**	*de*P	**P**	**17 39 25.7**	**+1.8**
COLA				pmax	pmax		
	comp=Z,12nm,1.0s						
INK	**Inuvik**	**75.03**	**12**	LR	LR	18 17 58.5	
	comp=Z,85nm,20.2s,baz=332,slow=40						
INK	**Inuvik**	**75.03**	**12**	IAmb	IAmb	17 39 28.0	
	comp=Z,21nm,1.2s						
IL31		**75.19**	**18**	IAmb	IAmb	17 39 31.2	
	comp=Z,11nm,1.2s						
ILAR	**Eielson Array**	**75.19**	**18**	P	**P**	**17 39 25.7**	**-0.2**
	comp=Z,3.7nm,0.7s,baz=313,slow=4.7,SNR=21						
ILAR				LR	LR	18 16 46.6	
	comp=Z,286nm,18.9s,baz=284,slow=39						
	comp=Z,3.7nm,0.7s						
ILAR	**Eielson Array**	**75.19**	**18**	P	**P**	**17 39 24.5**	**-1.4**
F30M	**Barrier River**	**75.25**	**13**	IAmb	IAmb	17 39 29.4	
	comp=Z,14nm,1.1s						
H27K	**Steamboat Moun**	**75.28**	**16**	IAmb	IAmb	17 39 30.0	
	comp=Z,9.7nm,1.2s						
G29M	**Pine Creek**	**75.44**	**14**	IAmb	IAmb	17 39 45.6	
	comp=Z,9.7nm,1.0s						
G30M	**tAoh Zraii Nji**	**75.73**	**13**	IAmb	IAmb	17 39 35.7	
	comp=Z,18nm,1.0s						
WRKA	**Warakurna**	**75.77**	**134**	P	**P**	**17 39 32.0**	**+2.3**
	comp=Z,7.1nm,1.0s,comp=Z,0.0nm,4.2s						
WRKA	**Warakurna**	**75.77**	**134**	P	**P**	**17 39 29.1**	**-0.7**
	comp=Z,7.2nm,1.0s						
F31M	**Tsiigehtchic**	**75.77**	**12**	IAmb	IAmb	17 39 31.9	
	comp=Z,18nm,1.2s						
I27K	**Kandik River**	**75.79**	**16**	IAmb	IAmb	17 39 35.6	
	comp=Z,7.9nm,1.0s						
WB0	**Warramunga Arr**	**75.80**	**126**	IAmb	IAmb	17 39 34.7	
	comp=Z,14nm,0.9s						
WRA	**Warramunga Arr**	**75.88**	**126**	P	**P**	**17 39 28.4**	**-2.1**
	comp=Z,3.8nm,0.8s,baz=325,slow=5.2,SNR=27						
	comp=Z,3.8nm,0.8s						
WRA	**Warramunga Arr**	**75.88**	**126**	*i* P	**P**	**17 39 28.3**	**-2.2**
WRA				pmax	pmax		
	comp=Z,4.0nm,0.8s						
WRA	**Warramunga Arr**	**75.88**	**126**	P	**P**	**17 39 27.9**	**-2.7**
WRAB	**Tennant Creek**	**75.88**	**126**	*d i*P	**P**	**17 39 28.2**	**-2.3**
WRAB				pmax	pmax		
	comp=Z,7.0nm,0.9s						
WRAB	**Tennant Creek**	**75.88**	**126**	P	**P**	**17 39 28.2**	**-2.3**
WR5	**Warramunga Arr**	**75.95**	**126**	P	**P**	**17 39 29.8**	**-1.1**
H29M	**Whitestone**	**75.97**	**14**	IAmb	IAmb	17 39 39.5	
	comp=Z,17nm,1.2s						
WR8	**Warramunga Arr**	**76.00**	**126**	IAmb	IAmb	17 39 36.3	
	comp=Z,11nm,1.0s						
SKT	**Skwentna**	**76.05**	**22**	IAmb	IAmb	17 39 33.6	
	comp=Z,15nm,1.0s						
G31M	**Satah River**	**76.14**	**13**	IAmb	IAmb	17 39 35.6	
	comp=Z,14nm,0.9s						
I28M	**Miner Creek**	**76.29**	**15**	IAmb	IAmb	17 39 37.7	
	comp=Z,7.2nm,0.8s						
RIDG	**Independent Ri**	**76.55**	**18**	P	**P**	**17 39 32.1**	**-1.7**
LBTB	**Lobatse**	**77.24**	**228**	LR	LR	18 13 34.7	
	comp=Z,49nm,19.5s,baz=27,slow=36						
LBTB	**Lobatse**	**77.24**	**228**	P	**P**	**17 39 36.9**	**-1.3**
LBTB				pmax	pmax		
	comp=Z,17nm,0.9s						
LBTB	**Lobatse**	**77.24**	**228**		**P**	**17 39 36.9**	**-1.3**
I30M	**Mount Dempster**	**77.24**	**14**	IAmb	IAmb	17 39 40.5	
	comp=Z,14nm,1.1s						
J30M	**Hart River**	**77.82**	**14**	IAmb	IAmb	17 39 45.9	
	comp=Z,7.2nm,0.8s						
ASAR	**Alice Springs**	**78.23**	**129**	P	**P**	**17 39 41.5**	**-2.2**
	comp=Z,3.8nm,0.8s,baz=321,slow=6.1,SNR=23						
ASAR				LR	LR	18 19 49.1	
	comp=Z,60nm,18.0s,baz=302,slow=40						
	comp=Z,3.8nm,0.8s						
ASAR	**Alice Springs**	**78.23**	**129**		**P**	**17 39 41.2**	**-2.5**
PMG	**Port Moresby**	**78.33**	**110**	LR	LR	18 16 39.9	
	comp=Z,46nm,19.8s,baz=343,slow=38						
TSUM	**Tsumeb**	**78.41**	**237**	LR	LR	18 15 20.1	
	comp=Z,110nm,20.9s,baz=35,slow=36						
FRB	**Frobisher Bay**	**78.81**	**346**	LR	LR	18 20 46.0	
	comp=Z,156nm,18.4s,baz=41,slow=40						
KDAK	**Kodiak Island**	**78.89**	**25**	P	**P**	**17 39 45.6**	**-1.2**
	comp=Z,16nm,0.9s,baz=315,slow=5.7,SNR=1.6						
KDAK				LR	LR	18 19 15.4	
	comp=Z,283nm,20.1s,baz=327,slow=39						
	comp=Z,16nm,0.9s						
KRVT	**Keravat (AS076**	**79.16**	**103**	LR	LR	18 14 11.7	
	comp=Z,48nm,19.0s,baz=78,slow=35						
QIS	**Mount Isa**	**79.89**	**123**	P	**P**	**17 39 55.8**	**+3.0**
	comp=Z,11nm,0.9s						
QIS	**Mount Isa**	**79.89**	**123**	P	**P**	**17 39 54.0**	**+1.2**
	comp=Z,10nm,0.9s						
BOSA	**Boshof**	**80.10**	**225**	P	**P**	**17 39 52.2**	**-1.7**
	comp=Z,2.8nm,0.8s,baz=13,slow=7.4,SNR=5.0						
BOSA				LR	LR	18 13 54.0	
	comp=Z,68nm,20.2s,baz=24,slow=35						
	comp=Z,2.8nm,0.8s						
DBIC	**Dimbokro**	**80.54**	**272**	P	**P**	**17 39 56.7**	**+0.2**
	comp=Z,3.7nm,1.0s,baz=67,slow=8.0,SNR=4.1						
DBIC				LR	LR	18 18 53.2	
	comp=Z,212nm,18.2s,baz=48,slow=38						
	comp=Z,3.7nm,1.0s						
DBIC	**Dimbokro**	**80.54**	**272**	P	**P**	**17 39 53.2**	**-3.4**
DBIC				IAmb	IAmb	17 40 06.2	
	comp=Z,14nm,1.2s						
YKA	**Yellowknife Ar**	**83.03**	**6**	P	**P**	**17 40 07.8**	**-1.0**
	comp=Z,7.8nm,0.7s,baz=346,slow=5.0,SNR=25						
YKA				LR	LR	18 20 39.6	
	comp=Z,150nm,18.2s,baz=356,slow=38						
	comp=Z,7.8nm,0.7s						
YKA	**Yellowknife Ar**	**83.03**	**6**	P	**P**	**17 40 08.6**	**-0.2**
CTA	**Charters Tower**	**84.30**	**119**	LR	LR	18 22 27.7	
	comp=Z,48nm,19.4s,baz=238,slow=39						
DLBC	**Dease Lake**	**84.68**	**14**	LR	LR	18 22 13.1	
	comp=Z,129nm,20.3s,baz=318,slow=39						
SUR	**Sutherland**	**85.46**	**226**	LR	LR	18 17 11.9	
	comp=Z,93nm,20.7s,baz=31,slow=35						
SCHQ	**Schefferville**	**86.30**	**341**	P	**P**	**17 40 25.9**	**+0.3**
	comp=Z,3.1nm,0.6s,baz=355,slow=3.9,SNR=4.8						
SCHQ				LR	LR	18 22 20.1	
	comp=Z,127nm,19.1s,baz=24,slow=38						
	comp=Z,3.1nm,0.6s						
QLP	**Quilpie**	**87.04**	**125**	P	**P**	**17 40 31.5**	**+2.1**
	comp=Z,26nm,2.1s						
HTT	**Hallett**	**88.21**	**133**	P	**P**	**17 40 38.0**	**+3.0**
	comp=Z,6.3nm,1.9s						
HTT	**Hallett**	**88.21**	**133**	P	**P**	**17 40 35.9**	**+0.9**
	comp=Z,6.3nm,1.9s						
HNR	**Honiara**	**88.52**	**102**	LR	LR	18 20 08.2	
	comp=Z,64nm,20.6s,baz=20,slow=36						
STKA	**Stephens Creek**	**88.81**	**130**	P	**P**	**17 40 37.8**	**0.0**
	comp=Z,3.4nm,0.8s,baz=329,slow=5.6,SNR=6.4						
STKA				LR	LR	18 28 53.4	
	comp=Z,66nm,18.1s,baz=324,slow=41						
	comp=Z,3.4nm,0.8s						
BBB	**Bella Bella**	**90.89**	**16**	LR	LR	18 26 28.1	
	comp=Z,188nm,19.2s,baz=45,slow=39						
FFC	**Flin Flon**	**91.37**	**0**	*i* P	**P**	**17 40 51.9**	**+2.3**
ULM	**Lac du Bonnet**	**95.69**	**356**	LR	LR	18 27 59.2	
	comp=Z,222nm,19.2s,baz=18,slow=38						
NEW	**Newport**	**96.71**	**10**	LR	LR	18 27 49.0	
	comp=Z,160nm,21.8s,baz=338,slow=37						
SADO	**Sadowa**	**98.68**	**344**	LR	LR	18 31 23.0	
	comp=Z,131nm,19.2s,baz=340,slow=39						
QSPA	**South Pole Qui**	**124.06**	**180**	PKP	**PKPdf**	**17 46 39.2**	**-2.2**
	comp=Z,1.5nm,0.9s,baz=294,slow=2.4,SNR=3.7						
PPT2	**Papeete2**	**134.38**	**81**	*e*LR	LR	18 29 55.4	
	comp=Z,98nm,23.5s						
PPT2				*e*LR	LR	18 30 07.9	
	comp=Z,125nm,27.2s						
LPAZ	**La Paz**	**144.89**	**292**	PKPbc	**PKPdf**	**17 47 22.3**	**0.0**
	comp=Z,1.0nm,0.5s,baz=22,slow=5.6,SNR=5.8						
PLCA	**Paso Flores**	**154.46**	**246**	PKPbc	**PKPbc**	**17 47 44.3**	**-0.1**
	comp=Z,2.5nm,1.1s,baz=143,slow=5.1,SNR=2.9						

IDC 27 17:35:07.5±3.4**, 19°.78S**×**173°.02W, h0**^{km}**, mb3.4**/3**,**
mbtmp3.4/3**, Error ellipse: s-maj=347.9km**
s-min=35.6km az=159.0, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ASAR	**Alice Springs**	**49.23**	**255**	P	P	17 43 57.2	-0.9
	0.2nm,0.5s,baz=96,slow=7.9,SNR=6.6						
	0.2nm,0.5s						
WRA	**Warramunga Arr**	**49.34**	**260**	P	P	17 43 59.5	+0.6
	0.3nm,0.3s,baz=98,slow=7.3,SNR=10						
	0.3nm,0.3s						
TXAR	**Lajitas Array**	**82.76**	**55**	P	P	17 47 33.8	0.0
	0.1nm,0.4s,baz=257,slow=4.0,SNR=1.4						
	0.1nm,0.4s						

NOU ***27*** *17:45:20.8, 25°.02S×179°.06W, h535^{km}, mb4.4/9, South of Fiji Islands*
IDC ***27*** *17:45:28.7±1.6, 24°.32S×179°.93E, h514^{km}±16^{km}, mb3.2/8, mbtmp4.1/11, Error ellipse: s-maj=18.3km s-min=15.4km az=107.0*
ISC 27 17:45:28.9±0.6**, 24°.39S**±0°.08×**179°.9E**±0°.1**, h517**^{km}**, n29,**
σ**1^{s}.86**/30**, mb3.6**/9**, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**6.84**	**345**	P	**P**	**17 47 14.6**	**+0.3**
	6.3nm,0.4s,baz=196,slow=21,SNR=16						
MSVF	**Nonsavu**	**6.84**	**345**	P	**P**	**17 47 14.6**	**+0.3**
DGTI	**Dogotuki**	**8.05**	**359**	P	**P**	**17 47 27.1**	**+0.8**
MARNC	**Mare, Loyalty**	**11.31**	**282**	P	**P**	**17 48 02.2**	**+2.0**
YATNC	**Mamie plateau,**	**12.18**	**278**	P	**P**	**17 48 13.2**	**+3.8**
RTV	**Rentapao**	**12.55**	**299**	P	**P**	**17 48 15.3**	**+2.0**
DZM	**Mont Dzumac**	**12.58**	**278**	P	**P**	**17 48 15.7**	**+2.0**
	18nm,0.7s,baz=86,slow=17,SNR=16						
NOUC	**Port Laguerre**	**12.70**	**278**	P	**P**	**17 48 18.2**	**+3.4**
MXZ	**Matakaoa Point**	**13.20**	**186**	P	P	17 48 06.3	-14
URZ	**Urewera**	**14.03**	**189**	P	**P**	**17 48 28.9**	**+0.4**
	14nm,0.8s,baz=163,slow=21,SNR=2.2						
URZ				S	**S**	**17 50 56.4**	**-0.2**
	22nm,0.8s,baz=232,slow=21,SNR=5.6						
ASAR	**Alice Springs**	**41.86**	**261**	P	**P**	**17 52 33.9**	**+0.2**
	0.9nm,0.7s,baz=95,slow=6.9,SNR=28						
ASAR				ScP	**ScP**	**17 57 20.2**	**+1.6**
	0.4nm,0.9s,baz=94,slow=3.6,SNR=4.1						
ASAR				S	**S**	**17 58 10.7**	**-3.6**
	0.4nm,0.9s,baz=97,slow=13,SNR=2.2						
	0.9nm,0.7s						
WRA	**Warramunga Arr**	**42.28**	**267**	P	**P**	**17 52 36.6**	**-0.4**
	2.4nm,0.6s,baz=98,slow=6.9,SNR=59						
WRA				ScP	**ScP**	**17 57 22.3**	**+2.0**
	1.5nm,0.9s,baz=105,slow=4.1,SNR=7.8						
WRA				S	**S**	**17 58 16.1**	**-4.2**
	0.8nm,1.0s,baz=98,slow=14,SNR=4.0						
	2.4nm,0.6s						
VNDA	**Vanda**	**53.89**	**185**	P	**P**	**17 54 03.4**	**+0.6**
	0.4nm,0.6s,baz=357,slow=6.8,SNR=2.4						
	0.4nm,0.6s						
QSPA	**South Pole Qui**	**65.70**	**180**	P	**P**	**17 55 22.7**	**+1.0**
	4.5nm,0.7s,baz=351,slow=0.8,SNR=35						
	4.5nm,0.7s						
MAW	**Mawson**	**77.26**	**200**	P	**P**	**17 56 29.6**	**+0.4**
	1.6nm,0.6s,baz=133,slow=7.8,SNR=9.6						
	1.6nm,0.6s						
TROLL	**Troll, Antarti**	**83.84**	**181**	P	**P**	**17 57 03.4**	**-0.1**
	comp=Z,325nm,0.7s						
VNA3	**Neumayer Olymp**	**84.39**	**177**	P	**P**	**17 57 05.3**	**-0.8**
	comp=Z,2.9nm,0.6s						
NVAR	**Mina Array Bea**	**85.17**	**44**	P	**P**	**17 57 09.8**	**-0.9**
	comp=Z,0.6nm,0.7s,baz=252,slow=4.9,SNR=2.6						
	comp=Z,0.6nm,0.7s						
TXAR	**Lajitas Array**	**90.77**	**58**	P	**P**	**17 57 38.0**	**+1.1**
	comp=Z,1.1nm,0.7s,baz=210,slow=6.2,SNR=14						
	comp=Z,1.1nm,0.7s						
PDAR	**Pinedale Array**	**93.11**	**44**	P	**P**	**17 57 46.4**	**-1.2**
	comp=Z,0.4nm,0.7s,baz=268,slow=4.5,SNR=4.0						
	comp=Z,0.4nm,0.7s						
BVAR	**Borovoye Array**	**120.74**	**319**	PKP	**PKPdf**	**18 03 20.9**	**-0.8**
	comp=Z,1.1nm,0.7s,baz=307,slow=3.0,SNR=3.7						
FINES	**FINESS Array B**	**138.88**	**341**	PKhKP	PKPpre	18 03 46.0	
	comp=Z,1.9nm,0.9s,baz=59,slow=3.6,SNR=3.8						
FINES				PKP	sPdif	18 03 56.0	-0.3
	comp=Z,0.7nm,0.5s,baz=270,slow=1.1,SNR=4.7						
NOA	**NORSAR Array B**	**142.55**	**351**	PKhKP	PKPpre	18 03 58.0	
	comp=Z,0.6nm,0.8s,baz=67,slow=4.5,SNR=3.2						
HFS	**Hagfors**	**143.00**	**349**	PKP	**PKPdf**	**18 04 00.0**	**-3.0**
	comp=Z,1.8nm,0.4s,baz=76,slow=2.4,SNR=15						
AKASG	**Malin Array Be**	**145.33**	**327**	PKhKP	PKPpre	18 04 01.1	
	comp=Z,0.8nm,0.5s,baz=58,slow=2.3,SNR=5.3						
BRTR	**Keskin Array B**	**147.79**	**307**	PKPbc	**PKPbc**	**18 04 15.5**	**-0.2**
	comp=Z,0.5nm,0.6s,baz=135,slow=4.4,SNR=4.2						
MMAI	**Mount Meron Ar**	**147.81**	**294**	PKPbc	**PKPbc**	**18 04 15.9**	**0.0**
	comp=Z,1.1nm,0.5s,baz=94,slow=5.3,SNR=4.8						
EKA	**Eskdalemuir Ar**	**149.01**	**3**	PKPbc	**PKPbc**	**18 04 16.9**	**-1.1**
	comp=Z,0.5nm,0.4s,baz=347,slow=2.8,SNR=10						
TORD	**Torodi Ar. Bea**	**168.69**	**189**	PKPab	**PKPab**	**18 05 49.5**	**-1.0**
	comp=Z,0.8nm,0.8s,baz=218,slow=4.2,SNR=3.8						

JMA 27 17:50:08.4±0.5**, 29°N**±2°×**13°0E**±°**, h12**^{km}±3^{km}**, MV1.7**/6**,**
NEAR AMAMI-OSHIMA ISLAND, Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JAM	**Amami Oshima**	**0.18**	**180**	P	Pg	17 50 12.4	-0.1
JAM				S	Sg	17 50 15.5	+0.2
JZK	**Kikaishima**	**0.43**	**131**	*e*S	Sg	17 50 23.1	+0.5
JAMN	**Amaminishikomi**	**0.52**	**227**	P	Pg	17 50 18.8	+0.2
JAMN				*e*S	Sg	17 50 26.0	+0.6
JTK	**Tokunoshima**	**0.99**	**216**	*e*P	Pg	17 50 25.8	-1.7
JTK				S	Sg	17 50 38.8	-1.7
JOKE	**Okinoerabujima**	**1.53**	**217**	*e*S	Sn	17 50 55.3	-0.2

TAP ***27*** *17:53:17.4, 24°.61N×121°.57E, h74^{km}, ML3.2, B*
JMA ***27*** *17:53:17.4±0.1, 24°.6N±0°.3×121°.6E±0°.6, h69^{km}±1^{km}, MV2.3/12, TAIWAN REGION*
ISC 27 17:53:17.4±1.2**, 24°.63N**±0°.02×**121°.58E**±0°.02**, h74**^{km}±4^{km}**,**
n158, σ**0^{s}.85**/286**, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NDT	**Datong Townshi**	**0.07**	**246**	*i* P	**Pn**	**17 53 28.5**	**+0.4**
NDT				*i* S	**Sn**	**17 53 36.0**	**+0.2**
LATG	**Datong**	**0.10**	**207**	*i* P	**Pn**	**17 53 28.7**	**+0.4**
LATG				*i* S	**Sn**	**17 53 36.8**	**+0.5**
TWE	**Neicheng**	**0.12**	**41**	*i* P	**Pn**	**17 53 28.6**	**+0.4**
TWE				S	**Sn**	**17 53 36.0**	**0.0**
NDS	**Dongshan**	**0.13**	**88**	*i* P	**Pn**	**17 53 28.4**	**+0.2**
NDS				S	**Sn**	**17 53 36.2**	**+0.1**
FUSB	**Fushanzhiwuyua**	**0.13**	**4**	*i* P	**Pn**	**17 53 28.4**	**0.0**
FUSB				S	**Sn**	**17 53 36.0**	**-0.3**
NWLT	**Wulai**	**0.16**	**335**	*i* P	**Pn**	**17 53 28.3**	**-0.1**
NWLT				*i* S	**Sn**	**17 53 35.6**	**-0.8**
YHNB	**Yeheng**	**0.19**	**282**	P	**Pn**	**17 53 28.3**	**-0.2**
YHNB	**Yeheng**	**0.19**	**282**	P	**Pn**	**17 53 28.4**	**-0.2**
YHNB				S	**Sn**	**17 53 35.7**	**-0.9**
ILA	**Ilan**	**0.21**	**49**	P	**Pn**	**17 53 29.1**	**+0.7**
ILA				S	**Sn**	**17 53 37.5**	**+0.9**
NSK	**Sanguang**	**0.21**	**283**	*i* P	**Pn**	**17 53 28.4**	**-0.2**
NSK				S	**Sn**	**17 53 36.1**	**-0.6**
TWC	**Suao**	**0.25**	**95**	P	**Pn**	**17 53 29.0**	**+0.3**
TWC				S	**Sn**	**17 53 36.9**	**0.0**
ESAO	**Su ao**	**0.25**	**102**	P	**Pn**	**17 53 28.8**	**+0.1**
ESAO				S	**Sn**	**17 53 37.7**	**+0.7**
ENA	**Nanau**	**0.25**	**143**	P	**Pn**	**17 53 26.1**	**-2.6**
ENA				*e*S	**Sn**	**17 53 34.1**	**-2.8**
EWUT	**Wuta**	**0.26**	**135**	P	**Pn**	**17 53 28.4**	**-0.3**
EWUT				S	**Sn**	**17 53 36.9**	**-0.2**
NNS	**Nan Shan**	**0.27**	**225**	*i* P	**Pn**	**17 53 29.3**	**+0.3**
NNS				S	**Sn**	**17 53 37.7**	**+0.3**
NNSB	**Datong**	**0.27**	**222**	*i* P	**Pn**	**17 53 29.3**	**+0.3**
NNSB				S	**Sn**	**17 53 37.5**	**+0.1**
NNSH	**Datong**	**0.27**	**222**	*i* P	**Pn**	**17 53 29.2**	**+0.2**
NNSH				*i* S	**Sn**	**17 53 37.6**	**+0.2**
EAHA	**Aohua**	**0.33**	**154**	*i* P	**Pn**	**17 53 28.8**	**-0.4**
EAHA				S	**Sn**	**17 53 37.4**	**-0.5**
NHDH	**Xindian Distri**	**0.34**	**352**	P	**Pn**	**17 53 29.3**	**+0.1**
NHDH				S	**Sn**	**17 53 37.9**	**0.0**
TWA	**Mucha**	**0.35**	**1**	P	**Pn**	**17 53 29.5**	**+0.1**
TWA				S	**Sn**	**17 53 37.9**	**-0.2**
TATO	**Taipei**	**0.35**	**347**	P	**Pn**	**17 53 32.8**	**+3.4**
TATO	**Taipei**	**0.35**	**347**	S	**Sn**	**17 53 37.8**	**-0.4**
TATO	**Taipei**	**0.35**	**347**	P	**Pn**	**17 53 29.2**	**-0.2**
TATO				*i* S	**Sn**	**17 53 37.8**	**-0.4**
BACT	**New Taipei Cit**	**0.39**	**341**	P	**Pn**	**17 53 29.9**	**+0.2**
BACT				S	**Sn**	**17 53 39.0**	**+0.4**
EGS		**0.39**	**56**	P	**Pn**	**17 53 30.4**	**+0.8**
EGS				S	**Sn**	**17 53 40.1**	**+1.5**
KSHI	**Guanxi Townshi**	**0.39**	**292**	*i* P	**Pn**	**17 53 30.0**	**+0.3**
KSHI				S	**Sn**	**17 53 38.7**	**0.0**
NHY	**Taipei**	**0.41**	**359**	P	**Pn**	**17 53 30.1**	**+0.3**
NHY				S	**Sn**	**17 53 38.5**	**-0.4**
TIPB	**Shuangxi**	**0.41**	**33**	*i* P	**Pn**	**17 53 30.1**	**+0.3**
TIPB				*i* S	**Sn**	**17 53 38.7**	**-0.3**
TAP	**Taipei**	**0.41**	**351**	P	**Pn**	**17 53 31.4**	**+1.6**
TAP				S	**Sn**	**17 53 38.6**	**-0.3**
NFF	**Wufeng Townshi**	**0.42**	**270**	*i* P	**Pn**	**17 53 30.0**	**0.0**
NFF				S	**Sn**	**17 53 38.8**	**-0.4**
ETLH	**Xiulin Townshi**	**0.43**	**192**	*i* P	**Pn**	**17 53 30.0**	**-0.1**
ETLH				S	**Sn**	**17 53 39.0**	**-0.3**
NTY	**Taoyuan**	**0.45**	**325**	*i* P	**Pn**	**17 53 30.4**	**+0.3**
NTY				S	**Sn**	**17 53 40.1**	**+0.7**
NACB	**Ninganchiao**	**0.45**	**178**	P	**Pn**	**17 53 29.3**	**-0.9**
NACB	**Ninganchiao**	**0.45**	**178**	*i* P	**Pn**	**17 53 29.4**	**-0.8**
NACB				*e*S	**Sn**	**17 53 38.4**	**-1.1**
NJD	**Zhudong**	**0.46**	**284**	P	**Pn**	**17 53 30.6**	**+0.4**
NJD				*i* S	**Sn**	**17 53 40.0**	**+0.4**
ETL	**Fush Village**	**0.47**	**175**	P	**Pn**	**17 53 29.6**	**-0.8**
ETL				S	**Sn**	**17 53 39.2**	**-0.7**
WFSB	**Wu-fen Shan**	**0.48**	**23**	P	**Pn**	**17 53 30.5**	**+0.1**
WFSB				S	**Sn**	**17 53 39.5**	**-0.4**
FUSS	**Fushou**	**0.49**	**219**	*i* P	**Pn**	**17 53 31.5**	**+0.7**
FUSS				S	**Sn**	**17 53 41.1**	**+0.6**
NCUH	**Zhongli**	**0.49**	**313**	P	**Pn**	**17 53 30.6**	**+0.1**
NCUH				*i* S	**Sn**	**17 53 40.1**	**-0.1**
TWS1	**Kuangyinshan**	**0.49**	**343**	P	**Pn**	**17 53 30.8**	**+0.3**
TWS1				S	**Sn**	**17 53 40.5**	**+0.4**
LIOB	**Emei**	**0.51**	**272**	*i* P	**Pn**	**17 53 30.9**	**+0.2**
LIOB				S	**Sn**	**17 53 39.7**	**-0.8**
YM01	**YM01**	**0.52**	**359**	*i* P	**Pn**	**17 53 30.8**	**0.0**
YM01				S	**Sn**	**17 53 40.4**	**-0.2**
TWT	**Tachien**	**0.52**	**225**	*i* P	**Pn**	**17 53 31.9**	**+0.9**
TWT				S	**Sn**	**17 53 42.0**	**+1.0**
NSTT	**Nanjuang**	**0.53**	**270**	*i* P	**Pn**	**17 53 30.9**	**+0.1**
NSTT				*i* S	**Sn**	**17 53 40.5**	**-0.1**
HSN1	**Hsinchu**	**0.53**	**286**	S	**Sn**	**17 53 41.3**	**+0.5**
TWB1	**Santiao Chiao**	**0.53**	**45**	*i* P	**Pn**	**17 53 31.2**	**+0.4**
TWB1				S	**Sn**	**17 53 40.6**	**-0.2**
ZUZH	**Zhuzihu**	**0.53**	**357**	*i* P	**Pn**	**17 53 30.9**	**0.0**
ZUZH				S	**Sn**	**17 53 40.2**	**-0.7**
TDCB	**Techi**	**0.54**	**226**	*i* P	**Pn**	**17 53 31.9**	**+0.8**
TDCB				S	**Sn**	**17 53 41.5**	**+0.4**
SXI1	**Grass Mountain**	**0.54**	**30**	*i* P	**Pn**	**17 53 31.1**	**+0.1**
SXI1				S	**Sn**	**17 53 41.3**	**+0.3**
NTST	**Danshui**	**0.55**	**348**	P	**Pn**	**17 53 31.4**	**+0.4**
NTST				S	**Sn**	**17 53 41.3**	**+0.3**
TWD	**Chiawan**	**0.55**	**178**	*i* P	**Pn**	**17 53 30.1**	**-0.9**
TWD				S	**Sn**	**17 53 39.8**	**-1.2**
TNOU	**National Taiwa**	**0.55**	**19**	*i* P	**Pn**	**17 53 31.1**	**0.0**
TNOU				S	**Sn**	**17 53 40.5**	**-0.5**
YM08	**YM08**	**0.56**	**1**	P	**Pn**	**17 53 31.1**	**-0.1**
YM08				S	**Sn**	**17 53 40.4**	**-0.9**
ANP	**Anpu**	**0.56**	**355**	*i* P	**Pn**	**17 53 31.1**	**-0.2**
ANP				S	**Sn**	**17 53 40.6**	**-0.8**
WHF	**Hehuan Shan**	**0.56**	**211**	P	**Pn**	**17 53 32.3**	**+0.7**
WHF				*i* S	**Sn**	**17 53 42.5**	**+0.5**
SBCB	**Hsinchu**	**0.56**	**287**	P	**Pn**	**17 53 31.5**	**+0.3**
SBCB				S	**Sn**	**17 53 41.2**	**-0.1**
NWRT	**Kuosheng**	**0.58**	**7**	S	**Sn**	**17 53 41.4**	**-0.2**
HSN	**Hsinchu**	**0.58**	**287**	P	**Pn**	**17 53 31.4**	**0.0**
HSN				S	**Sn**	**17 53 41.4**	**-0.2**
NHW	**Xinwu Township**	**0.61**	**308**	S	**Sn**	**17 53 43.4**	**+1.2**
LXIB	**Xiulin Townshi**	**0.62**	**194**	P	**Pn**	**17 53 31.6**	**-0.4**
LXIB				S	**Sn**	**17 53 42.8**	**+0.1**
EOS2	**EOS2**	**0.63**	**109**	P	**Pn**	**17 53 33.6**	**+1.9**
EOS2				*e*S	**Sn**	**17 53 43.3**	**+1.0**
TWY	**Chenhua**	**0.64**	**2**	P	**Pn**	**17 53 32.1**	**+0.1**
TWY				S	**Sn**	**17 53 42.9**	**+0.2**
NJN	**Zhunan**	**0.65**	**275**	S	**Sn**	**17 53 43.3**	**+0.5**
HWA	**Hwalien**	**0.65**	**178**	P	**Pn**	**17 53 31.5**	**-0.6**
HWA				S	**Sn**	**17 53 42.5**	**-0.4**
ETM	**Tongmen**	**0.67**	**187**	P	**Pn**	**17 53 31.3**	**-1.0**
ETM				S	**Sn**	**17 53 42.2**	**-0.9**
WHP	**Taichung City**	**0.67**	**239**	P	**Pn**	**17 53 33.1**	**+0.7**
WHP				S	**Sn**	**17 53 43.8**	**+0.3**
NMLH	**Miaoli**	**0.72**	**263**	*i* S	**Sn**	**17 53 44.6**	**+0.3**
EOS3	**EOS3**	**0.76**	**117**	P	**Pn**	**17 53 34.3**	**+1.2**
EOS3				*e*S	**Sn**	**17 53 46.5**	**+1.8**
TEYL	**Yanliau Villag**	**0.76**	**179**	P	**Pn**	**17 53 32.3**	**-1.0**
TEYL				S	**Sn**	**17 53 43.9**	**-1.0**
WUSB	**Renai**	**0.76**	**214**	*i* P	**Pn**	**17 53 34.4**	**+1.0**
WUSB				*e*S	**Sn**	**17 53 45.8**	**+0.6**
OWD	**Renai**	**0.77**	**209**	P	**Pn**	**17 53 34.2**	**+0.7**
OWD				S	**Sn**	**17 53 45.8**	**+0.4**
NSY	**Sanyi**	**0.77**	**254**	*i* P	**Pn**	**17 53 33.8**	**+0.3**
NSY				*i* S	**Sn**	**17 53 45.8**	**+0.4**
TWQ1	**Liyutan**	**0.79**	**249**	P	**Pn**	**17 53 33.9**	**+0.3**
TWQ1				S	**Sn**	**17 53 45.5**	**0.0**
ESL	**Shilin**	**0.82**	**189**	*i* P	**Pn**	**17 53 32.7**	**-1.3**
ESL				S	**Sn**	**17 53 44.5**	**-1.8**
WCS	**Beigang Elemen**	**0.83**	**227**	*i* P	**Pn**	**17 53 34.8**	**+0.7**
WCS				S	**Sn**	**17 53 46.9**	**+0.4**
WPL	**Puli Township**	**0.84**	**223**	P	**Pn**	**17 53 35.0**	**+0.8**
WPL				S	**Sn**	**17 53 46.9**	**+0.4**
SHUL	**Shoufeng**	**0.84**	**181**	*i* P	**Pn**	**17 53 33.5**	**-0.6**
SHUL				S	**Sn**	**17 53 46.1**	**-0.5**
DPDB	**Guoxing**	**0.84**	**225**	P	**Pn**	**17 53 34.9**	**+0.6**
DPDB				*e*S	**Sn**	**17 53 47.1**	**+0.4**
EOS4	**EOS4**	**0.84**	**127**	P	**Pn**	**17 53 34.0**	**+0.2**
EOS4				S	**Sn**	**17 53 45.6**	**-0.4**
WDJ	**Dajia District**	**0.90**	**252**	P	**Pn**	**17 53 35.5**	**+0.6**
WDJ				S	**Sn**	**17 53 48.5**	**+0.6**
TEGC	**Jichi Village**	**0.92**	**182**	*e*P	**Pn**	**17 53 35.3**	**+0.2**
TEGC				S	**Sn**	**17 53 48.6**	**+0.4**
WARBT	**Fenglin Townsh**	**0.92**	**191**	P	**Pn**	**17 53 33.7**	**-1.5**
WARBT				S	**Sn**	**17 53 46.5**	**-1.9**
TCU	**Taichung**	**0.95**	**240**	*i* P	**Pn**	**17 53 36.0**	**+0.5**

TCU				S	Sn	17 53 49.4	+0.4
EGFH	Guangfu	0.97	188	eP	Pn	17 53 35.3	-0.4
EGFH				eS	Sn	17 53 47.5	-1.9
SMLT	Sun Moon Lake	0.97	220	P	Pn	17 53 36.3	+0.5
SMLT				S	Sn	17 53 50.6	+1.1
TYC	Yuchr	0.98	223	P	Pn	17 53 36.5	+0.6
TYC				S	Sn	17 53 50.3	+0.8
WWF	Wufeng	0.99	234	i P	Pn	17 53 36.6	+0.5
WWF				S	Sn	17 53 50.6	+0.7
SSLB	Suanglung	1.01	214	P	Pn	17 53 36.8	+0.5
SSLB	Suanglung	1.01	214	S	Sn	17 53 51.0	+0.6
SSLB	Suanglung	1.01	214	i P	Pn	17 53 37.0	+0.6
SSLB				S	Sn	17 53 51.1	+0.7
WCHH	Zhanghua	1.08	240	i P	Pn	17 53 37.3	+0.2
WCHH				S	Sn	17 53 51.8	0.0
WNT1	Nantou City	1.09	229	P	Pn	17 53 37.9	+0.6
WNT1				S	Sn	17 53 53.2	+1.1
PCYT	Pengchaiyu	1.09	24	P	Pn	17 53 37.4	+0.1
PCYT				eS	Sn	17 53 52.3	+0.2
WCH1	Changhua City	1.09	240	P	Pn	17 53 37.6	+0.4
WCH1				S	Sn	17 53 52.3	+0.2
WNT	Mingjian	1.11	228	P	Pn	17 53 38.0	+0.6
WNT				S	Sn	17 53 53.2	+0.8
WJS	Zhushan	1.12	224	P	Pn	17 53 38.1	+0.5
WJS				i S	Sn	17 53 53.4	+0.7
WYL	Yuanlin Townsh	1.13	234	i P	Pn	17 53 38.2	+0.5
WYL				i S	Sn	17 53 53.6	+0.8
HGSD	Ruisui	1.14	187	P	Pn	17 53 37.2	-0.7
HGSD				eS	Sn	17 53 50.2	-2.9
WHYT	Xinyi Township	1.14	216	P	Pn	17 53 38.7	+0.8
WHYT				S	Sn	17 53 54.5	+1.3
EHY	Hungye	1.14	192	P	Pn	17 53 37.4	-0.6
EHY				S	Sn	17 53 50.6	-2.6
EHYH	Wanrong	1.15	191	P	Pn	17 53 37.5	-0.5
EHYH				S	Sn	17 53 51.4	-2.0
JYNG	Yonagunijimaku	1.26	98	eP	Pn	17 53 39.5	+0.2
JYNG				eS	Sn	17 53 56.0	+0.1
YULB	Yu-li	1.26	192	P	Pn	17 53 39.4	0.0
YULB	Yu-li	1.26	192	S	Sn	17 53 54.0	-1.9
YULB	Yu-li	1.26	192	eP	Pn	17 53 38.5	-0.9
YULB				eS	Sn	17 53 55.0	-0.9
TWF1	Yuli	1.30	191	eP	Pn	17 53 39.5	-0.4
TWF1				eS	Sn	17 53 54.6	-2.1
EYUL	Yuli	1.30	191	P	Pn	17 53 40.4	+0.5
EYUL				S	Sn	17 53 57.3	+0.5
ECBN	Changbin	1.31	185	eS	Sn	17 53 57.1	0.0
WRL	Guolierlin Hig	1.31	237	P	Pn	17 53 39.9	-0.2
WRL				S	Sn	17 53 56.6	-0.5
WDL	Douliou City	1.31	226	eP	Pn	17 53 40.8	+0.7
WDL				S	Sn	17 53 57.6	+0.5
YOJ	Yonaguni jima	1.31	97	P	Pn	17 53 40.9	+0.8
YOJ				eS	Sn	17 53 57.0	-0.2
YOJ	Yonaguni jima	1.31	97	eS	Sn	17 53 56.9	-0.2
CHN5	Tsauling	1.32	219	P	Pn	17 53 40.8	+0.6
CHN5				S	Sn	17 53 58.2	+0.9
ALS	Alishan	1.32	213	i P	Pn	17 53 41.2	+0.8
ALS				S	Sn	17 53 58.5	+0.8
RLNB	Erlin	1.33	237	P	Pn	17 53 40.5	+0.2
RLNB				eS	Sn	17 53 57.7	+0.2
WDLH	Douliu	1.33	226	P	Pn	17 53 40.8	+0.5
WDLH				S	Sn	17 53 58.5	+1.0
WTK	Tuku	1.44	229	P	Pn	17 53 41.6	0.0
WTK				i S	Sn	17 54 00.2	+0.3
CHKH	Chenggong	1.44	187	eP	Pn	17 53 41.9	+0.2
CHKH				S	Sn	17 53 59.0	-1.0
FULB	Fuli	1.45	190	eP	Pn	17 53 42.6	+0.7
FULB				S	Sn	17 54 00.1	-0.1
WCKO	Fanlu	1.48	217	i P	Pn	17 53 43.1	+0.8
WCKO				S	Sn	17 54 02.2	+1.2
EHD	Haiduan	1.51	193	eP	Pn	17 53 43.4	+0.7
ELDTW	Lidau	1.52	200	P	Pn	17 53 43.5	+0.5
CHKT	Chengkung	1.54	187	eP	Pn	17 53 43.1	+0.1
CHKT				S	Sn	17 54 01.5	-0.7
CHY	Chiayi	1.54	223	i P	Pn	17 53 43.6	+0.5
CHN4	Tsaushan	1.56	216	P	Pn	17 53 44.0	+0.7
CHN4				eS	Sn	17 54 05.0	+2.2
TPUB	Ta-pu	1.58	213	P	Pn	17 53 44.8	+1.2
TPUB	Ta-pu	1.58	213	P	Pn	17 53 44.1	+0.5
TPUB				S	Sn	17 54 04.3	+0.9
WSF	Szhu	1.58	232	eP	Pn	17 53 43.8	+0.1
WSF				S	Sn	17 54 04.0	+0.6
STYH	Taoyuan	1.63	207	eP	Pn	17 53 45.2	+1.0
STYH				S	Sn	17 54 05.5	+1.0
WTP	Ta-pu	1.64	213	eP	Pn	17 53 45.2	+0.8
STYT	Tauyuan	1.64	207	P	Pn	17 53 46.4	+1.9
WSL	Shuilin Townsh	1.65	229	P	Pn	17 53 44.6	0.0
WSL				S	Sn	17 54 05.5	+0.4
EDH	Donghe	1.67	189	P	Pn	17 53 45.5	+0.7
EDH				eS	Sn	17 54 04.3	-1.1
TWK	Hsinying	1.68	217	P	Pn	17 53 45.2	+0.2
TWK				eS	Sn	17 54 08.7	+2.8
CHN1	Nanshi	1.73	214	P	Pn	17 53 46.2	+0.6
CHN1				S	Sn	17 54 07.8	+0.9
ICHU	Yijhu	1.73	224	S	Sn	17 54 07.0	0.0
LONT	Longtian	1.76	194	P	Pn	17 53 46.5	+0.5
LONT				eS	Sn	17 54 06.2	-1.5
CHN8	Yiju	1.79	225	S	Sn	17 54 09.2	+1.0
SGST	Jiashian	1.79	211	eS	Sn	17 54 08.0	-0.4
VWUC	VWUC	1.97	281	i P	Pn	17 53 48.1	-0.6
VWUC				eS	Sn	17 54 11.6	-0.9
IRIF	Iriomote-Funau	1.98	98	eP	Pn	17 53 49.0	0.0
IRIF				eS	Sn	17 54 12.4	-0.5
TSCK	Chigu Township	2.01	223	eP	Pn	17 53 49.8	+0.5
TSCK				eS	Sn	17 54 14.3	+0.8
SSD	Sandimen	2.06	205	eP	Pn	17 53 50.9	+0.8
SSD				eS	Sn	17 54 15.8	+0.9
ECL	Taimali	2.10	196	P	Pn	17 53 52.4	+1.9
MATB	Ma-tsu	2.12	316	eP	Pn	17 53 50.8	0.0
MATB				eS	Sn	17 54 15.9	-0.3
PNG	Penghu	2.13	241	P	Pn	17 53 49.8	-1.1
PHUB	P'eng-hu	2.14	239	P	Pn	17 53 50.2	-0.9
PHUB				S	Sn	17 54 14.5	-2.3
MASBT	Mashibuluo	2.19	204	eP	Pn	17 53 52.6	+0.9
MASBT				eS	Sn	17 54 19.4	+1.6
JKRS	Kuro-shima	2.25	99	eP	Pn	17 53 53.0	+0.4
JKRS				eS	Sn	17 54 19.6	+0.3
PTMZ	Houxiangcun	2.27	281	eP	Pn	17 53 52.2	-0.5
PTMZ				eS	Sn	17 54 17.5	-2.3
EAST	Anshuo	2.33	197	eP	Pn	17 53 54.2	+0.5
JIJ	Ishigaki jima	2.35	96	eP	Pn	17 53 54.1	+0.3
JIJ				eS	Sn	17 54 20.9	-0.9
SCZT	Fangliau	2.41	202	P	Pn	17 53 55.6	+0.9
SCZT				eS	Sn	17 54 24.2	+0.9
JISG	Ishigakijimahi	2.49	90	eP	Pn	17 53 56.0	+0.2
JISG				eS	Sn	17 54 25.6	+0.5
SLIU	Shizi	2.51	197	eP	Pn	17 53 56.7	+0.6
KNMB	Chin-men Tao	2.91	267	P	Pn	17 54 00.4	-1.0
AXDP	Jialang	3.29	275	eP	Pn	17 54 06.2	-0.4
AXDP				eS	Sn	17 54 42.9	-1.7
ZPLA	Ao Xicun	3.56	260	P	Pn	17 54 09.8	-0.6

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*IDC **27** 17:57:35.5±1.2, 5°.24N×77°.28W, h0^{km}, mb4.0/4, mbtmp4.0/5, ML2.8/1, Error ellipse: s-maj=34.0km s-min=23.0km az=40.0*

*CATAC **27** 17:57:44.6±0.9, 5°N±3°×7°7W±°, h25^{km}±8^{km}, M4.1/11, MLv4.1/11, Error ellipse: s-maj=6.9km s-min=3.5km az=29.1, confirmed*

*RSNC **27** 17:57:46.2±0.0, 5°N±1°×7°7W±°, h65^{km}±3^{km}, M3.4, mb4.4, ML3.1*

ISC 27 17:57:45.7±1.0**, 5°.30N**±0°.02×**76°.76W**±0°.03**, h62**^{km}±10^{km}**, n50, σ1ˢ.30**/87**, mb4.0**/3**, Colombia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PIZC	Pizarro, Choco	0.69	241	P	Pn	17 58 00.6	+0.7
PIZC				S	Sn	17 58 13.7	+3.4
CBOC	Ciudad Bolivar	0.93	53	P	Pn	17 58 01.9	-1.2
CBOC				S	Sn	17 58 14.3	-1.5
SOLC	Bahia Solano	1.12	325	P	Pn	17 58 04.7	-0.7
SOLC				S	Sn	17 58 20.2	+0.1
CMAN1	Manizales, Cal	1.25	101	P	Pn	17 58 08.1	+0.7
CMAN1				S	Sn	17 58 23.7	+0.2
ARMEC	Armenia, Quind	1.32	124	P	Pn	17 58 07.5	-0.7
ARMEC				S	Sn	17 58 26.3	+1.2
GUY2C	Guyana, Caldas	1.39	93	P	Pn	17 58 08.6	-0.8
GUY2C				S	Sn	17 58 25.8	-1.3
HELC	Santa Helena	1.51	54	P	Pn	17 58 10.0	-0.9
HELC				S	Sn	17 58 29.3	-0.5
HELC	Santa Helena	1.51	54	P	Pn	17 58 10.1	-0.7
HELC				S	Sn	17 58 29.9	+0.2
MEDEC	Medelln, Ant	1.51	50	P	Pn	17 58 11.7	+0.9
MEDEC				S	Sn	17 58 29.0	-0.6
NORC	Norcasia	1.90	82	P	Pn	17 58 16.0	+0.1
NORC				S	Sn	17 58 39.1	+0.3
ORTC	Ortega, Tolima	2.05	133	P	Pn	17 58 17.4	-0.5
ORTC				S	Sn	17 58 43.3	+0.9
PRAC	Prado	2.44	130	P	Pn	17 58 23.1	-0.2
PRAC				S	Sn	17 58 51.3	-0.8
PRAC	Prado	2.44	130	P	Pn	17 58 23.0	-0.3
PRAC				S	Sn	17 58 52.5	+0.4
ROSC	El Rosal	2.47	101	Pn	Pn	17 58 24.9	+1.0
	25nm,0.3s,baz=106,slow=4.7,SNR=23						
ROSC				Sn	Sn	17 58 57.5	+4.3
	14nm,0.3s,baz=88,slow=22,SNR=6.1						
	35nm,0.3s						
ROSC				AML	AML		
ROSC	El Rosal	2.47	101	P	Pn	17 58 25.6	+1.6
ROSC				S	Sn	17 58 54.1	+0.9
APAC	Apartado, Choc	2.58	4	P	Pn	17 58 26.2	+1.0
APAC				S	Sn	17 58 58.0	+2.5
PTBC	PUERTO BERRIO,	2.60	62	P	Pn	17 58 25.2	-0.2
PTBC				S	Sn	17 58 54.7	-1.1
SPBC	San Pablo de B	2.69	82	P	Pn	17 58 26.9	+0.1
SPBC				S	Sn	17 58 58.1	-0.2
UREC	San Jos de Ur	2.72	26	P	Pn	17 58 27.4	+0.3
UREC				S	Sn	17 58 58.0	-0.8
POPC	Popayan, Colom	2.75	178	P	Pn	17 58 27.3	-0.3
POPC				S	Sn	17 58 59.0	-0.8
CVER	Cruz Verde, Cu	2.78	106	P	Pn	17 58 30.1	+1.8
CVER				S	Sn	17 59 03.1	+2.1
BETC	Betania	2.92	153	P	Pn	17 58 30.1	+0.3
BETC				S	Sn	17 59 04.6	+0.9
CHIC	Chingaza	3.09	102	P	Pn	17 58 34.0	+1.6
CHIC				S	Sn	17 59 10.0	+1.6
VILC	Villavicencio,	3.27	111	P	Pn	17 58 36.6	+1.9
VILC				S	Sn	17 59 15.5	+2.9
BBAC	Balboa, Cauca	3.30	189	P	Pn	17 58 34.8	-0.3
BBAC				S	Sn	17 59 11.1	-2.2
GARC	Garzon, Huila	3.34	158	P	Pn	17 58 35.6	-0.2
GARC				S	Sn	17 59 13.6	-0.8
BRJC	Barrancabermej	3.42	61	P	Pn	17 58 37.0	+0.3
BRJC				S	Sn	17 59 16.2	+0.1
UPD2	Meteti	3.46	339	P	Pn	17 58 37.8	+0.7
UPD2				S	Sn	17 59 17.6	+0.8
LCBC	Los crdobas,	3.55	6	P	Pn	17 58 39.9	+1.5
LCBC				S	Sn	17 59 20.5	+1.3
RUSC	La Rusia	3.70	81	P	Pn	17 58 41.6	+0.7
RUSC				S	Sn	17 59 24.7	+1.1
RUSC	La Rusia	3.70	81	P	Pn	17 58 41.1	+0.2
RUSC				S	Sn	17 59 26.0	+2.4
CRUC	La Cruz	3.72	183	P	Pn	17 58 42.2	+1.2
CRUC				S	Sn	17 59 25.3	+1.6
BARC	Barichara	3.78	70	P	Pn	17 58 41.7	0.0
BARC				S	Sn	17 59 24.6	-0.5
MACC	Macarena, Meta	4.27	137	P	Pn	17 58 47.4	-0.9
MACC				S	Sn	17 59 36.0	-1.0
AZU	Azuero	4.28	305	P	Pn	17 58 47.5	-0.9
AZU				S	Sn	17 59 36.0	-1.1
OCAC	Ocana	4.49	49	P	Pn	17 58 51.6	+0.2
OCAC				S	Sn	17 59 43.6	+1.2
PAMC	Pamplona, Colo	4.51	63	P	Pn	17 58 52.1	+0.1
PAMC				S	Sn	17 59 42.9	-0.5
CACAO	El Cacao, Vera	4.56	297	P	Pn	17 58 50.6	-1.6
CACAO				S	Sn	17 59 41.5	-2.4
UPA	Univ. de Panam	4.58	323	P	Pn	17 58 50.9	-1.5
UPA				S	Sn	17 59 43.5	-0.8
PNME	Penonome	4.75	312	P	Pn	17 58 54.8	0.0
PNME				S	Sn	17 59 48.7	+0.1
SJCC	San Jacinto, C	4.82	19	P	Pn	17 58 56.8	+0.9
BCIP	Isla Barro Col	4.91	322	P	Pn	17 58 55.8	-1.2
BCIP				S	Sn	17 59 52.1	-0.3
BCIP	Isla Barro Col	4.91	322	P	Pn	17 58 55.6	-1.3
BCIP				S	Sn	17 59 52.4	-0.1
GUVC	San Jose del G	4.95	123	P	Pn	17 58 56.9	-0.7
GUVC				S	Sn	17 59 50.2	-3.3
TAMC	Tame, Arauca	5.07	77	P	Pn	17 58 58.9	-0.3
PLCA	Paso Flores	46.16	173	P	P	18 06 02.1	-2.2
	1.4nm,0.6s,baz=346,slow=8.9,SNR=7.8						
	1.4nm,0.6s						
ULM	Lac du Bonnet	47.59	343	P	P	18 06 12.3	-2.9
	3.6nm,0.8s,baz=135,slow=8.6,SNR=3.2						
	3.6nm,0.8s						
YKA	Yellowknife Ar	63.49	341	P	P	18 08 06.7	-2.4
	1.1nm,0.7s,baz=139,slow=5.8,SNR=5.3						
	1.1nm,0.7s						
TORD	Torodi Ar. Bea	77.59	78	P	P	18 09 37.3	+1.3
	0.3nm,0.5s,baz=284,slow=4.9,SNR=1.6						
	0.3nm,0.5s						
ASAR	Alice Springs	145.29	235	PKP	PKPbc	18 17 14.3	-3.0
	0.2nm,0.4s,baz=117,slow=3.9,SNR=12						

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*SNET **27** 18:13:47.9±2.0, 12°.19N×86°.97W, h64^{km}, ML3.5, Presumed earthquake*

*CATAC **27** 18:13:49.0±0.3, 12°N±2°×8°7W±°, h38^{km}±2^{km}, M3.7/27, MLv3.7/27, Error ellipse: s-maj=5.6km s-min=2.5km az=34.8, confirmed*

ISC 27 18:13:49.0±1.5**, 12°.17N**±0°.07×**87°.03W**±0°.04**, h65**^{km}±10^{km}**, n35, σ0ˢ.70**/62**, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TEL3	Telica 3	0.44	24	P	Pn	18 14 01.4	+0.6
CNGN	Cerro Negro	0.46	44	P	Pn	18 14 00.9	-0.2
CNGN				S	Sn	18 14 10.2	+0.3
LEVN	Ruinas Leon Vi	0.47	60	P	Pn	18 14 01.2	+0.1
TELN	Telica	0.48	24	P	Pn	18 14 00.6	-0.7
TELN				S	Sn	18 14 10.1	-0.1
PLRN	Geotermica Pol	0.49	31	P	Pn	18 14 00.7	-0.6
PLRN				S	Sn	18 14 10.8	+0.6
PKGN	Cerro Pekin	0.50	6	P	Pn	18 14 00.6	-0.9
PKGN				S	Sn	18 14 11.3	+0.8
ILCN	San Idelfonso	0.52	38	P	Pn	18 13 59.5	-2.1
ILCN				S	Sn	18 14 09.6	-1.2
CRIN	San Cristobal	0.53	358	P	Pn	18 14 01.6	-0.2
CRIN				S	Sn	18 14 12.0	+0.9
AMTN	Mateare	0.59	83	P	Pn	18 14 01.6	-0.7
AMTN				S	Sn	18 14 12.8	+0.7
MOM2	El Cardon	0.60	63	P	Pn	18 14 02.0	-0.3
MOM2				S	Sn	18 14 13.2	+1.0
MOM3	MOM3	0.60	55	P	Pn	18 14 02.0	-0.4
MOM3				S	Sn	18 14 13.6	+1.3
APQ2	Apoyeque	0.69	87	P	Pn	18 14 02.6	-0.7
APQ2				S	Sn	18 14 14.2	+0.3
ABCN	Banco Central	0.70	93	P	Pn	18 14 04.0	+0.4
ABCN				S	Sn	18 14 15.0	+0.7
ALLN	Telcor Managua	0.74	91	S	Sn	18 14 14.5	-0.5
UNAN	Cigeo UNAN	0.74	94	P	Pn	18 14 03.7	-0.4
UNAN				S	Sn	18 14 15.3	+0.1
MGAN	Managua	0.76	91	P	Pn	18 14 03.7	-0.6
MGAN				S	Sn	18 14 15.9	+0.3
MAS3	Al N del Volca	0.84	99	P	Pn	18 14 04.7	-0.6
MAS3				S	Sn	18 14 17.4	0.0
MASN	Masaya	0.88	102	S	Sn	18 14 18.4	+0.3
NANN	Nandasmo	0.91	104	P	Pn	18 14 06.7	+0.5
NANN				S	Sn	18 14 19.8	+0.9
POTN	Potosi Cosigui	0.95	331	P	Pn	18 14 06.4	-0.3
POTN				S	Sn	18 14 20.0	+0.3
CSGN	Cosiguina Volc	0.96	327	P	Pn	18 14 07.0	+0.1
CSGN				S	Sn	18 14 19.9	-0.1
LIMN	Finca el Limon	1.10	36	P	Pn	18 14 08.1	-0.5
LIMN				S	Sn	18 14 24.3	+1.1
MATN	Matagalpa	1.32	55	P	Pn	18 14 10.8	-0.6
MATN				S	Sn	18 14 29.0	+0.6
CNCH	Conchagua	1.36	325	eP	Pn	18 14 11.3	-0.7
CNCH				eS	Sn	18 14 30.2	+0.9
CNCH	Conchagua	1.36	325	P	Pn	18 14 11.9	-0.2
CNCH				S	Sn	18 14 29.1	-0.2
BOAB	BOACO BROADBAN	1.36	78	P	Pn	18 14 11.0	-1.0
BOAB				S	Sn	18 14 28.7	-0.5
LCND	La Caada	1.42	324	eP	Pn	18 14 13.0	+0.3
LCND				eS	Sn	18 14 29.6	-0.9
INTP	Intipuca	1.44	316	eP	Pn	18 14 12.6	-0.4
INTP				eS	Sn	18 14 30.3	-0.6
OCON	Estacion meteo	1.55	20	P	Pn	18 14 15.0	+0.4
JUCU	Jucuar¡n	1.61	312	eP	Pn	18 14 14.8	-0.5
JUCU				eS	Sn	18 14 33.9	-1.4
RCVN	Varillal2	1.63	30	P	Pn	18 14 15.6	-0.1
BLLM	Bellamira	1.73	317	eP	Pn	18 14 17.4	+0.4
LCY	Lacayo	1.76	315	eP	Pn	18 14 17.7	+0.3
PACA	Pacayal	1.81	316	P	Pn	18 14 18.7	+0.6
PACA				S	Sn	18 14 41.4	+1.3
ALJI	Alcalda de J	1.90	308	eP	Pn	18 14 19.0	-0.2
ALJI				eS	Sn	18 14 42.5	+0.4

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*SDD **27** 18:17:49.9±2.1, 18°.09N×71°.51W, h30^{km}±15^{km}, MD2.8, ML1.9, MW3.3, Presumed earthquake*

*OSPL **27** 18:17:51.9±1.2, 18°.04N×71°.49W, h26^{km}±9^{km}, ML1.9, Presumed earthquake*

ISC 27 18:17:50.8±1.1**, 18°.05N**±0°.04×**71°.52W**±0°.05**, h27**^{km}±8^{km}**, n10, σ0ˢ.86**/19**, 8C-1D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LOBH	Bahia de las A	0.22	212	i P	Pb	18 17 57.1	+0.1
LOBH				eS	Sb	18 18 01.6	+0.5
LOBH				IAML		18 18 06.2	
	comp=Z,102nm,0.2s						
PODR	Polo	0.25	63	i P	Pb	18 17 57.0	-0.4
PODR				eS	Sb	18 18 01.8	-0.3
PODR				IAML		18 18 03.2	
	comp=Z,2μm,0.3s						
PODR	Polo	0.25	63	⇓ePg	Pb	18 17 57.1	-0.4
PODR				⇑eSg	Sb	18 18 02.5	+0.4
PODR				IAML		18 18 03.9	
	comp=N,169nm,0.6s						
LOVI	El Cajuil, Ovi	0.29	151	i P	Pb	18 17 58.1	+0.2
LOVI				eS	Sb	18 18 03.1	+0.5
LOVI				IAML		18 18 04.2	
	comp=Z,118nm,0.3s						
LODU1	El Espartillar	0.30	7	i P	Pb	18 17 58.5	+0.5
LODU1				eS	Sn	18 18 04.1	-0.9
LODU1				IAML		18 18 07.0	
	comp=Z,150nm,0.3s						
NEDR	Neiba UASD	0.44	12	⇑ePg	Pn	18 18 01.0	-0.4
NEDR				⇑eSg	Sb	18 18 07.1	+0.7
NEDR				IAML		18 18 13.3	
	comp=N,33nm,0.2s						
JIDR	Jimani	0.54	324	⇑ePg	Pb	18 18 01.9	+0.1
JIDR				⇑eSg	Sn	18 18 10.3	-0.6
LONE3	El Aguacate, B	0.55	6	i P	Pn	18 18 02.9	-0.2
LONE3				eS	Sb	18 18 09.7	0.0
LONE3				IAML		18 18 15.6	
	comp=Z,13nm,0.4s						
MADR	Mao Valverde	1.55	14	⇑ePg	Pb	18 18 19.7	+0.8
MADR				IAML		18 19 01.3	
	comp=N,33nm,3.5s						
HATOM	Hato Mayor del	2.15	70	⇑ePg	Pb	18 18 28.6	-0.6
HATOM				⇑eSg	Sb	18 18 58.1	+2.6
HATOM				IAML		18 19 14.1	
	comp=N,10nm,1.9s						

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*IDC **27** 18:17:54.3±0.7, 26°.23N×66°.19E, h0^{km}, mb4.3/25, mbtmp4.3/26, ML4.5/1, MS3.5/33, Error ellipse: s-maj=17.0km s-min=12.8km az=5.0*

*NEIC **27** 18:17:54.6±2.6, 26°.14N±0°.10×66°.25E±0°.09, h10^{km}±1^{km}, mb4.6/33, Error ellipse: s-maj=17.5km s-min=12.5km az=150.0*

*BJI **27** 18:17:55.6, 26°.32N×66°.19E, h20^{km}, mB4.9/10, mb4.7/45, Ms4.1/16, Ms7 3.9/14*

*MOS **27** 18:17:55.1±1.0, 26°.35N×66°.32E, h13^{km}, mb4.7/29, Error ellipse: s-maj=6.4km s-min=4.1km az=88.0*

*GFZ **27** 18:17:57.5±0.3, 26°N±5°×6°6E±°, h11^{km}, M4.4/37, mb4.7/37, confirmed*

ISC 27 18:17:54.9±0.4**, 26°.18N**±0°.05×**66°.24E**±0°.03**, h10**^{km}**, n412, σ2ˢ.30**/419**, mb4.6**/119**, MS3.6**/35**, 25C-28D, Pakistan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BHUJ	Bhuj	4.26	133	eP	Pn	18 19 01.2	+1.4
BHUJ				eS	Sn	18 19 48.5	-1.1
BHUJ				IAML		18 19 55.6	
	comp=E,330nm,0.4s						
BHUJ				IAML		18 19 57.9	
	comp=N,390nm,0.6s						
NGCH	Negor - Chabah	4.68	261	P	Pn	18 19 07.6	+2.0
	SNR=27						
JLN	Jalan Bani Buh	7.42	239	P	Pn	18 19 43.8	+0.5
JLN				S	Sn	18 21 01.1	-6.4
WSAR	Wadi Sarin	7.51	249	P	Pn	18 19 45.5	+0.9
WSAR				S	Sn	18 21 02.6	-7.3
WBK	Wadi Bani Khal	7.52	243	S	Sn	18 21 03.2	-6.9
JASK	Jask - Hormozg	7.54	269	P	Pn	18 19 47.1	+2.1
SMDO	Samad	8.08	249	P	Pn	18 19 54.0	+1.6
	SNR=18						
SMDO				S	Sn	18 21 17.5	-6.4
JMDO	Jabal Madar	8.34	245	P	Pn	18 19 58.0	+2.1
JMDO				S	Sn	18 21 24.7	-5.5
HOQ	Hoqain	8.51	254	P	Pn	18 19 59.0	+0.7
	SNR=21						
HOQ				S	Sn	18 21 27.5	-6.9
KBL	Kabul	8.67	16	P	Pn	18 20 01.6	+0.9
KBL	Kabul	8.67	16		Pn	18 20 01.6	+0.9
KBL	Kabul	8.67	16	P	Pn	18 20 00.8	+0.2
	comp=Z,28nm,0.8s						
HRA	Herat	8.88	338		Pn	18 20 04.0	+0.5
BSY	Bisya	8.92	249	P	Pn	18 20 07.0	+3.1
	SNR=23						
BSY				S	Sn	18 21 39.2	-5.3
BANOM	Banah	8.95	271	P	Pn	18 20 07.7	+3.4
BANOM				S	Sn	18 21 40.1	-5.0
BANOM	Banah	8.95	271	i P	Pn	18 20 05.4	+1.2
	SNR=7.5						
MDH	Madha	9.01	267	P	Pn	18 20 05.7	+0.6
MDH				S	Sn	18 21 39.5	-7.1
SOHO	SOHO	9.03	259	P	Pn	18 20 05.3	-0.1
SOHO				S	Sn	18 21 40.9	-6.2
SOHO	SOHO	9.03	259	i P	Pn	18 20 05.0	-0.3
	SNR=21						
SHME	Shamm	9.08	271	S	Sn	18 21 45.4	-2.9
SHME	Shamm	9.08	271	i P	Pn	18 20 06.9	+0.8
	SNR=16						
MASF	Masafi	9.12	267	P	Pn	18 20 08.9	+2.2
MSFE	Esma-Masafi	9.12	267	i P	Pn	18 20 06.6	-0.1
	SNR=12						
UOSS	Minazif	9.15	264	P	Pn	18 20 07.4	+0.4
UOSS	Minazif	9.15	264		Pn	18 20 06.6	-0.4
UOSS	Minazif	9.15	264	P	Pn	18 20 06.2	-0.8
UOSS	Minazif	9.15	264	P	Pn	18 20 07.4	+0.4
	comp=Z,35nm,0.6s						
MHTO	MHTO	9.18	237	P	Pn	18 20 07.6	+0.1
MHTO				S	Sn	18 21 44.4	-6.5
HATD	Hatta, Dubai	9.23	264	P	Pn	18 20 10.4	+2.2
HATD				S	Sn	18 21 48.3	-3.8
	SNR=6.3						
HATD	Hatta, Dubai	9.23	264	i P	Pn	18 20 08.1	-0.1
	SNR=25						
ARQ	Araqi	9.28	254	P	Pn	18 20 12.1	+3.3
ARQ				S	Sn	18 21 48.6	-4.7
ASHO	Ashiyiah	9.32	263	P	Pn	18 20 11.9	+2.5
	SNR=10						
ASHO				S	Sn	18 21 50.4	-4.1
ASHO	Ashiyiah	9.32	263	i P	Pn	18 20 10.5	+1.0
	SNR=9.7						
NIL	Nilore	9.61	38	P	Pn	18 20 13.4	+0.1
NIL	Nilore	9.61	38		Pn	18 20 13.4	+0.1
NIL	Nilore	9.61	38	P	Pn	18 20 13.7	+0.4
	comp=Z,147nm,0.7s						
NAZ	Nazwa, Dubai	9.62	265	P	Pn	18 20 17.4	+3.8
NAZ				S	Sn	18 21 58.3	-3.5
	SNR=6.4						
NAZ	Nazwa, Dubai	9.62	265	P	Pn	18 20 14.4	+0.9
FAQ	Al Faqa, Dubai	9.73	264	P	Pn	18 20 18.4	+3.4
	SNR=9.3						
FAQ				S	Sn	18 22 01.0	-3.4
	SNR=12						
FAQ	Al Faqa, Dubai	9.73	264	i P	Pn	18 20 16.3	+1.3
	SNR=9.3						
ALNE	Al Ain	9.74	260	P	Pn	18 20 17.7	+2.6
ALNE				S	Sn	18 22 00.0	-4.6
ALNE	Al Ain	9.74	260	i P	Pn	18 20 16.8	+1.7
	SNR=12						
JMU	Jammu	9.96	47	eP	Pn	18 20 18.5	+0.4
JMU				eS	Sn	18 22 03.5	-6.5
JMU				IAML		18 22 09.5	
	comp=E,340nm,0.2s						
JMU				IAML		18 22 10.9	
	comp=N,379nm,0.5s						

ASUD	Al Ashush, Dub	9.99	263	S	Sn	18 22 07.2	-3.5
ASUD	Al Ashush, Dub	9.99	263	i P	Pn	18 20 18.2	-0.4
	SNR=10						
BHK	Bhakra	10.30	57	ex	Pn	18 20 22.9	+0.1
BHK				ex	x	18 22 11.0	
AJN	Ajban	10.30	263	P	Pn	18 20 24.6	+1.7
AJN				S	Sn	18 22 13.5	-5.0
CGRH	CHANDIGARH	10.32	62	eS	Sn	18 22 12.7	-6.1
CGRH				IAML		18 23 55.8	
	comp=N,315nm,0.3s						
CGRH				IAML		18 23 55.9	
	comp=E,305nm,0.1s						
THN	Thein Dam	10.38	51	eP	Pn	18 20 24.6	+0.7
THN				eS	Sn	18 22 14.1	-6.3
THN				IAML		18 22 19.0	
	comp=N,253nm,0.9s						
THN				IAML		18 22 22.1	
	comp=E,233nm,1.1s						
BHPL	Bhopal	10.58	104	eP	Pn	18 20 27.4	+0.7
DHRM	DHARAMSHALA	10.66	53	eP	Pn	18 20 28.6	+0.7
DHRM				eS	Sn	18 22 20.1	-7.5
DHRM				IAML		18 22 29.8	
	comp=N,232nm,0.6s						
DHRM				IAML		18 22 31.8	
	comp=E,140nm,0.9s						
UMZA	Um Al Zommool	10.67	253	P	Pn	18 20 30.0	+2.2
UMZA				S	Sn	18 22 22.3	-5.1
SMLA	Simla	10.78	60	eP	Pn	18 20 30.4	+1.0
SMLA				eS	Sn	18 22 22.7	-7.5
SMLA				IAML		18 22 33.2	
	comp=N,101nm,0.7s						
SMLA				IAML		18 22 48.5	
	comp=E,65nm,0.1s						
SRNI	Srinagar	10.79	41	eP	Pn	18 20 36.1	+6.5
SRNI				eS	Sn	18 22 23.2	-7.3
SRNI				IAML		18 22 38.1	
	comp=N,104nm,0.3s						
SRNI				IAML		18 22 44.9	
	comp=E,107nm,0.6s						
TSSA	Tissa	10.88	50	eP	Pn	18 20 28.3	-2.5
TSSA				eS	Sn	18 22 24.7	-8.1
TSSA				IAML		18 22 40.2	
	comp=N,101nm,0.6s						
TSSA				IAML		18 22 50.1	
	comp=E,99nm,0.6s						
MZWR	Madinat Zayed	11.47	261	S	Sn	18 22 40.6	-6.5
KLP	Kalpa	11.79	60	eP	Pn	18 20 44.0	+0.5
KLP				eS	Sn	18 22 46.9	-8.6
KLP				IAML		18 23 06.9	
	comp=E,109nm,0.7s						
KLP				IAML		18 23 09.5	
	comp=N,118nm,0.3s						
MZR	Muzera	12.04	257	P	Pn	18 20 48.3	+1.7
MZR				S	Sn	18 22 53.7	-7.2
ALCI	Alchi Leh	12.39	47	eP	Pn	18 20 52.1	+0.5
ALCI				IAML		18 22 47.5	
	comp=N,175nm,0.1s						
ALCI				eS	Sn	18 22 59.0	-11
ALCI				IAML		18 22 59.8	
	comp=E,116nm,0.1s						
DOK	Doka	13.49	239	P	Pn	18 21 08.6	+2.1
DOK				S	Sn	18 23 28.9	-7.6
BTK	Batken	14.35	14	P	Pn	18 21 18.4	+0.1
	comp=Z,16nm,0.7s						
HYB	Hyderabad	14.37	125	eP	P	18 21 24.4	-1.3
HYB				eS	Sn	18 23 57.8	-0.4
KSH2	Kashi	15.11	29	P	Pn	18 21 28.5	-0.1
KSH2				S	Sn	18 24 06.0	-10
KSH2				pmax	pmax		
	comp=Z,67nm,0.6s						
KSH2				L	L		
	comp=Z,430nm,13.7s						
KSH2				L	L		
	comp=Z,470nm,13.4s						
KSH2				L	L		
	comp=Z,360nm,14.1s						
ARSB	Arslanbob	16.10	19	P	Pn	18 21 39.7	-1.8
ARSB				pmax	pmax		
	comp=Z,44nm,0.8s						
ARSB	Arslanbob	16.10	19	P	Pn	18 21 39.7	-1.8
ARSB				IAmb	IAmb	18 21 51.0	
	comp=Z,44nm,0.8s						
IUG	Iuzhnay	16.23	10	eP	Pn	18 21 41.9	-1.1
IUG	Iuzhnay	16.23	10	eP	Pn	18 21 42.0	-1.1
CHM	Chimkent	16.33	9	eP	Pn	18 21 43.3	-1.0
CHM	Chimkent	16.33	9	eP	Pn	18 21 43.4	-0.9
ASAI	AK-SAY(Kyrgyzs	16.99	28	P	Pn	18 21 52.2	-0.8
	comp=Z,40nm,0.8s						
BRLS	Borolday	17.06	9	eP	Pn	18 21 49.1	-4.5
BRLS	Borolday	17.06	9	eP	Pn	18 21 49.1	-4.5
DZA	Taraz	17.18	13	eP	Pn	18 21 54.0	-1.0
DZA	Taraz	17.18	13	eP	Pn	18 21 54.1	-1.0
NRN	Naryn	17.22	26	P	Pn	18 21 52.7	-3.1
NRN				pmax	pmax		
	comp=Z,18nm,0.7s						
NRN	Naryn	17.22	26	P	Pn	18 21 52.6	-3.1
KK31	Karatay Array	17.24	11	P	Pn	18 21 54.4	-1.3
KK31				pmax	pmax		
	comp=Z,16nm,0.9s						
KK31	Karatay Array	17.24	11		Pn	18 21 54.4	-1.3
KKAR	Karatay Array	17.24	11	P	Pn	18 21 53.8	-2.0
KKAR	Karatay Array	17.24	11		Pn	18 21 53.8	-2.0
AAK	Ala-Archa	17.75	20	P	Pn	18 22 01.2	-1.1
	comp=Z,1.5nm,0.3s,baz=207,slow=9.5,SNR=35						
AAK				S	Sn	18 25 12.2	-8.1
	comp=Z,6.0nm,0.9s,baz=141,slow=22,SNR=3.7						
AAK				LR	LR	18 29 59.8	
	comp=Z,146nm,19.0s,baz=210,slow=41						
	comp=Z,11nm,0.7s						
AAK				AML	AML		
AAK	Ala-Archa	17.75	20	deP	Pn	18 22 01.1	-1.2
AAK	Ala-Archa	17.75	20		Pn	18 22 00.0	-2.3
AAK	Ala-Archa	17.75	20	i P	Pn	18 22 01.4	-0.9
	SNR=9.6						
AAK	Ala-Archa	17.75	20	P	Pn	18 22 01.4	-0.9
	comp=Z,35nm,0.8s						
TARG	Taragay, Kyrgy	18.20	29	P	P	18 22 10.2	+1.8
TARG				pmax	pmax		
	comp=Z,18nm,0.9s						
TARG	Taragay, Kyrgy	18.20	29	P	P	18 22 10.2	+1.8
EVN	Everest	18.41	80	P	Pn	18 22 09.9	-1.1
EVN	Everest	18.41	80	P	Pn	18 22 10.6	-0.4
	comp=Z,24nm,0.6s						
WUS	Wushi	18.43	32		P	18 22 08.3	-2.3
SGDS	Sogindy	18.54	20	eP	P	18 22 11.0	-0.7
TNSS	Tian-Shan	18.95	25	eP	P	18 22 15.9	-0.7
TNSS	Tian-Shan	18.95	25	eP	P	18 22 15.9	-0.7
RAYN	Ar Rayn	19.00	266	P	Pn	18 22 18.0	+0.4
RAYN	Ar Rayn	19.00	266	P	Pn	18 22 17.7	+0.1
RAYN	Ar Rayn	19.00	266		P	18 22 16.3	-0.6
RAYN	Ar Rayn	19.00	266	i P	P	18 22 17.2	+0.2
	SNR=16						
RAYN	Ar Rayn	19.00	266	P	Pn	18 22 18.0	+0.4
	comp=Z,15nm,1.3s						
AAA	Alma-Ata	19.09	24	eP	P	18 22 17.4	-0.3
AAA	Alma-Ata	19.09	24	eP	P	18 22 17.5	-0.3
MDOK	Medeo	19.10	25	eP	P	18 22 17.4	-0.5
MDOK	Medeo	19.10	25	eP	P	18 22 17.5	-0.5
KUU	Kurty	19.48	22	eP	P	18 22 21.4	-0.5
KUU	Kurty	19.48	22	eP	P	18 22 21.5	-0.5
SATY	Saty	19.55	27	eP	P	18 22 22.3	-0.5
SATY	Saty	19.55	27	eP	P	18 22 22.3	-0.5
UZB	Uzynbulak	19.88	28	eP	P	18 22 26.1	-0.4
UZB	Uzynbulak	19.88	28	eP	P	18 22 26.1	-0.4
KPKS	Kokpek	20.00	27	eP	P	18 22 27.4	-0.3
KPKS	Kokpek	20.00	27	eP	P	18 22 27.4	-0.3
SHLS	Shalkode	20.08	29	eP	Pn	18 22 30.2	-0.2
SHLS	Shalkode	20.08	29	eP	Pn	18 22 30.2	-0.2
PDGK	Podgornoye	20.23	29	P	P	18 22 30.5	+0.2
PDGK	Podgornoye	20.23	29	P	P	18 22 30.4	+0.2
TDK	Taldyqorghan	21.18	24	eP	P	18 22 40.0	-0.4
TDK				pmax	pmax		
	comp=Z,16nm,0.5s						
TDK	Taldyqorghan	21.18	24	eP	P	18 22 40.1	-0.4
	comp=Z,16nm,0.5s						
LSA	Lhasa	22.27	75	eP	P	18 22 56.3	+3.5
LSA	Lhasa	22.27	75	P	P	18 22 52.0	-0.7
LSA				pmax	pmax		
	comp=Z,16nm,1.0s						
LSA	Lhasa	22.27	75	P	P	18 22 52.0	-0.7
LSA				IAmb	IAmb	18 23 05.9	
	comp=Z,16nm,1.0s						
OZAP	Van, Ozalp-Mer	22.46	309	⇓P	P	18 22 57.9	+3.4
MAK	Makhachkala	22.68	322	c iP	P	18 22 49.1	-7.3
MAK				eS	S	18 26 51.8	-13
MAK				pmax	pmax		
	comp=Z,440nm,1.5s						
MAK				MLR	MLR		
	comp=Z,109nm,13.0s						
GNI	Garni	22.68	313	LR	LR	18 33 29.2	
	comp=Z,84nm,20.2s,baz=102,slow=41						
GNI	Garni	22.68	313	⇑eP	P	18 22 57.7	+1.0
GNI				pmax	pmax		
	comp=Z,18nm,1.0s						
GNI	Garni	22.68	313	P	P	18 22 58.1	+1.4
	comp=Z,20nm,0.8s						
GEVA	Gevas	22.97	307	P	P	18 22 58.2	-1.5
GEVA				IAmb	IAmb	18 23 03.6	
	comp=Z,21nm,1.3s						
PALK	Pallekele	23.31	141	LR	LR	18 33 15.5	
	comp=Z,214nm,18.1s,baz=326,slow=39						
AB31	Akbulak array	23.55	350	P	P	18 23 03.4	-1.9
AB31				IAmb	IAmb	18 23 14.3	
	comp=Z,15nm,0.8s						
ABKAR	Akbulak array	23.55	350	P	P	18 23 05.0	-0.2
MAKZ	Makanchi	24.07	27	P	P	18 23 11.6	+1.2
MAKZ	Makanchi	24.07	27	P	P	18 23 08.7	-1.8
MK31	Makanchi Array	24.19	28	d iP	P	18 23 11.6	+0.1
MKAR	Makanchi Array	24.19	28	P	P	18 23 11.9	+0.4
	comp=Z,7.6nm,0.9s,baz=211,slow=9.2,SNR=37						
MKAR				LR	LR	18 34 31.5	
	comp=Z,181nm,19.7s,baz=182,slow=41						
	comp=Z,7.6nm,0.9s						
MKAR	Makanchi Array	24.19	28	i P	P	18 23 11.8	+0.3
MKAR				pmax	pmax		
	comp=Z,8.0nm,0.9s						
MKAR	Makanchi Array	24.19	28	P	P	18 23 09.8	-1.8
HOMI	Horasan	24.53	310	⇓P	P	18 23 16.6	+1.7
EPOS	Posof	24.69	314	P	P	18 23 19.1	+2.9
	comp=Z,20nm,1.5s						
KBZ	Khabaz	25.79	319	P	P	18 23 27.7	+1.7
	comp=Z,5.7nm,0.7s,baz=119,slow=9.4,SNR=13						
	comp=Z,5.7nm,0.7s						
KBZ	Khabaz	25.79	319	c iP	P	18 23 28.1	+2.1
KBZ				pmax	pmax		
	comp=Z,14nm,0.9s						
ZSN	Zaisan	25.81	30	eP	P	18 23 26.5	+0.3
ZSN	Zaisan	25.81	30	eP	P	18 23 26.6	+0.3
SHA1	Shidzhatmaz	25.94	318	deP	P	18 23 29.5	+1.8
KIV	Kislovodsk	26.05	319	eP	P	18 23 30.5	+2.0
KIV				pmax	pmax		
	comp=Z,14nm,1.0s						
KIV	Kislovodsk	26.05	319	P	P	18 23 30.2	+1.8
KIV				IAmb	IAmb	18 23 40.5	
	comp=Z,20nm,1.0s						
KIV	Kislovodsk	26.05	319	P	P	18 23 30.9	+2.4
KIV	Kislovodsk	26.05	319	⇑P	P	18 23 30.7	+2.2
KIV	Kislovodsk	26.05	319	P	P	18 23 30.4	+2.0
	comp=Z,14nm,1.0s						
KIV	Kislovodsk	26.05	319	P	P	18 23 31.4	+2.9
	comp=Z,18nm,1.0s						
KURBB	Kurchatov Arra	26.16	18	P	P	18 23 30.6	+1.3
	comp=Z,5.3nm,0.6s,baz=210,slow=9.2,SNR=17						
KURBB				LR	LR	18 35 31.9	
	comp=Z,196nm,18.2s,baz=214,slow=40						
	comp=Z,5.3nm,0.6s						
KURK	Kurchatov	26.27	18	ceP	P	18 23 31.0	+0.7
KURK				pmax	pmax		
	comp=Z,18nm,1.7s						
KURK	Kurchatov	26.27	18	P	P	18 23 29.4	-0.9
KURK				IAmb	IAmb	18 23 40.0	
	comp=Z,8.2nm,0.7s						
KURK	Kurchatov	26.27	18	P	P	18 23 31.3	+1.0
	comp=Z,14nm,0.8s						
GOMU	GeErMu	26.32	61	P	P	18 23 34.0	+2.7
GOMU				pP	sP	18 23 37.8	+2.1
GOMU				sP	pP	18 23 41.8	+7.4
GOMU				pmax	pmax		
	comp=Z,12nm,0.9s						
BVAR	Borovoye Array	26.99	6	P	P	18 23 37.6	+0.9
	comp=Z,8.4nm,0.8s,baz=184,slow=8.9,SNR=19						
	comp=Z,8.4nm,0.8s						
BORK	Borovoye	27.00	5	d iP	P	18 23 37.8	+0.9
BORK				pmax	pmax		
	comp=Z,13nm,0.9s						
BORK	Borovoye	27.00	5	P	P	18 23 35.9	-1.0
BORK				IAmb	IAmb	18 23 41.8	
	comp=Z,10nm,0.8s						
MMAI	Mount Meron Ar	27.60	292	LR	LR	18 37 09.0	
	comp=Z,107nm,21.3s,baz=84,slow=42						
EIL	Elat	27.82	284	LR	LR	18 37 32.1	
	comp=Z,199nm,19.8s,baz=93,slow=42						
NPW	Naypyitaw	28.21	97	P	P	18 23 50.3	+2.3
	comp=Z,12nm,1.1s						
DGZ	Jazzator, Alta	28.63	29	⇓eP	P	18 23 53.0	+1.4
DGZ				pmax	pmax		
	comp=Z,7.0nm,1.5s						
BELG	Belogornoye	29.70	337	ceP	P	18 24 00.6	-0.3
BELG				pmax	pmax		
	comp=Z,3.0nm,0.8s						
BR104	Keskin Array S	30.32	305	P	P	18 24 06.9	+0.2
	comp=Z,1.2nm,0.9s						
BRTR	Keskin Array B	30.33	305	P	P	18 24 06.7	-0.1
	comp=Z,0.7nm,0.7s,baz=108,slow=7.9,SNR=4.4						
BRTR				LR	LR	18 36 38.1	
	comp=Z,29nm,21.7s,baz=130,slow=37						
	comp=Z,0.7nm,0.7s						
BRTR	Keskin Array B	30.33	305	i P	P	18 24 07.5	+0.7
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
ARTI	Arti	30.71	351	LR	LR	18 37 46.7	
	comp=Z,126nm,18.4s,baz=154,slow=39						
GTA2	Gaotai	30.94	56	eP	P	18 24 14.3	+2.1
GTA2				pmax	pmax		
	comp=Z,14nm,1.0s						
ZAA0	Zalesovo Array	30.97	21	P	P	18 24 10.4	-1.7
ZAA0				IAmb	IAmb	18 24 14.1	
	comp=Z,7.2nm,0.7s						
ZALV	Zalesovo Beam	30.97	21	P	P	18 24 12.5	+0.4
	comp=Z,8.9nm,0.7s,baz=228,slow=9.7,SNR=45						
ZALV				LR	LR	18 38 17.0	
	comp=Z,48nm,20.0s,baz=218,slow=40						
	comp=Z,8.9nm,0.7s						
ZALV	Zalesovo Beam	30.97	21	P	P	18 24 10.2	-1.9
CHTO	Chiang Mai	31.03	97	P	P	18 24 13.7	+0.6
CHTO				pmax	pmax		
	comp=Z,19nm,1.3s						
CHTO	Chiang Mai	31.03	97	P	P	18 24 13.7	+0.6
CHTO				IAmb	IAmb	18 24 20.9	
	comp=Z,19nm,1.3s						
CHTO	Chiang Mai	31.03	97	P	P	18 24 15.1	+2.0
	comp=Z,8.7nm,0.9s						
CMAR	Chiang Mai Arr	31.15	98	P	P	18 24 16.3	+2.1
	comp=Z,3.4nm,0.6s,baz=287,slow=10,SNR=34						
CMAR				LR	LR	18 38 25.0	
	comp=Z,69nm,21.8s,baz=280,slow=39						
	comp=Z,3.4nm,0.6s						
CMAR	Chiang Mai Arr	31.15	98	i P	P	18 24 16.2	+2.1
CMAR				pmax	pmax		
	comp=Z,4.0nm,0.6s						
CMAR	Chiang Mai Arr	31.15	98	P	P	18 24 13.6	-0.5
PZH	PanZhiHua	31.75	81	P	P	18 24 21.5	+2.0
ISP	Isparta	32.25	300	⇓eP	P	18 24 25.0	+1.2
ISP				pmax	pmax		
	comp=Z,9.0nm,1.3s						
KNGR	Kungurtug, Tuv	34.15	36	⇑eP	P	18 24 42.9	+2.7
KNGR				pmax	pmax		
	comp=Z,8.0nm,0.8s						
PURM	Purcari	35.21	315	⇓P	P	18 24 51.0	+1.8
PURM	Purcari	35.21	315	P	P	18 24 50.4	+1.2
	comp=Z,47nm,0.9s						
HARR	Harsova	35.85	311	P	P	18 24 55.8	+1.0
HARR	Harsova	35.85	311	⇑P	P	18 24 55.9	+1.0
BAL3X	Bal3x, Balta	35.94	317	P	P	18 24 56.0	+0.5
KIS	Kishinev	36.06	315	P	P	18 24 57.6	+1.1
	comp=Z,28nm,0.5s						
MOS	Moscow	36.09	333	eP	P	18 24 57.0	+0.3
VASR	Vaslui	36.59	314	⇑P	P	18 25 02.9	+1.8
GHRR		36.64	313	⇑P	P	18 25 03.4	+1.9
SORM	Soroca	36.79	317	P	P	18 25 03.5	+0.8
SORM	Soroca	36.79	317	⇓P	P	18 25 03.5	+0.8
SORM	Soroca	36.79	317	P	P	18 25 03.0	+0.3
	comp=Z,57nm,0.9s						
BISRR	Bisoca	36.94	312	P	P	18 25 05.7	+1.5
	comp=Z,19nm,2.8s						
VRI	Vrincioaia	37.03	312	P	P	18 25 06.1	+1.3
VRI	Vrincioaia	37.03	312	⇓P	P	18 25 06.2	+1.3
PLOR	Plostina	37.08	312	P	P	18 25 06.4	+1.1
PLOR	Plostina	37.08	312	⇑P	P	18 25 06.5	+1.1
NEHR	Nehoiu	37.18	312	⇑P	P	18 25 08.2	+2.0
ZAK	Zakamensk	37.22	40	eP	P	18 25 06.8	+0.3
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.0s						
AK09	Malin Array Si	37.28	321	P	P	18 25 07.6	+0.7
TESR	Tescani	37.29	313	⇑P	P	18 25 08.4	+1.4
TESR	Tescani	37.29	313	P	P	18 25 08.1	+1.1
	comp=Z,16nm,0.9s						
TESR	Tescani	37.29	313	P	P	18 25 07.8	+0.8
	comp=Z,16nm,0.9s						
AK10	Malin Array Si	37.29	321	P	P	18 25 07.6	+0.6
AK08	Malin Array Si	37.30	321	P	P	18 25 07.9	+0.8
AKASG	Malin Array Be	37.35	321	P	P	18 25 08.2	+0.8
	comp=Z,3.2nm,0.6s,baz=116,slow=7.1,SNR=21						
	comp=Z,3.2nm,0.6s						
AKASG	Malin Array Be	37.35	321	i P	P	18 25 08.1	+0.6
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.5s						
AKBB	Malin Array Si	37.35	321	deP	P	18 25 08.4	+0.9
AKBB	Malin Array Si	37.35	321	P	P	18 25 08.1	+0.6
KIEV	Kiev	37.36	321	P	P	18 25 08.8	+1.3
KIEV	Kiev	37.36	321	P	P	18 25 05.7	-1.8
KIEV				IAmb	IAmb	18 25 09.1	
	comp=Z,8.1nm,0.7s						
KIEV	Kiev	37.36	321	⇓P	P	18 25 08.8	+1.3
KIEV	Kiev	37.36	321	P	P	18 25 08.1	+0.5
	comp=Z,46nm,1.1s						
KIEV	Kiev	37.36	321	P	P	18 25 08.0	+0.5
	comp=Z,12nm,1.1s						
AK03	Malin Array Si	37.36	321	P	P	18 25 08.0	+0.4
COVR	Voineasa-Covas	37.37	312	⇑P	P	18 25 09.7	+1.9
AK11	Malin Array Si	37.37	321	P	P	18 25 07.6	-0.1
ONER	Baraj Valea Uz	37.40	313	⇓P	P	18 25 09.5	+1.5
AK17	Malin Array Si	37.44	321	P	P	18 25 09.1	+0.9
MLR	Muntele Rosu	37.44	312	P	P	18 25 10.3	+1.8
MLR	Muntele Rosu	37.44	312	⇓P	P	18 25 10.3	+1.8
MLR	Muntele Rosu	37.44	312	P	P	18 25 10.8	+2.3
	comp=Z,24nm,1.3s						
MLR	Muntele Rosu	37.44	312	P	P	18 25 10.6	+2.1
	comp=Z,24nm,1.4s						
XAN	Xi'an	37.53	68	P	P	18 25 10.0	+0.7
XAN				pmax	pmax		
	comp=Z,14nm,1.0s						
XAN				L	L		
	comp=Z,120nm,10.3s						
XAN				L	L		
	comp=Z,210nm,12.4s						
XAN				L	L		
	comp=Z,150nm,15.1s						
TURR	Turia	37.56	312	⇑P	P	18 25 10.7	+1.3
BIZ	Bicaz	37.78	314	⇓P	P	18 25 12.5	+1.3
PRAR	RASCA	37.84	315	⇑P	P	18 25 12.8	+1.1
LUBAR	Lubar, Ukraine	37.86	319	P	P	18 25 12.7	+0.9
DRBR	Darabani	37.90	316	⇑P	P	18 25 12.9	+0.8
DOPR	Dopca	37.95	312	⇓P	P	18 25 13.8	+1.2
MI29	MI29, Kamyanyy	38.02	320	P	P	18 25 13.7	+0.6
	comp=Z,93nm,1.2s						
TLY	Talaya	38.02	38	LR	LR	18 44 09.8	
	comp=Z,57nm,18.8s,baz=236,slow=42						
VOIR		38.03	311	P	P	18 25 14.0	+0.7
VOIR		38.03	311	⇓P	P	18 25 14.1	+0.7
VOIR		38.03	311	P	P	18 25 14.6	+1.2
	comp=Z,6.4nm,0.6s						
VOIR		38.03	311	P	P	18 25 15.0	+1.6
	comp=Z,6.3nm,0.7s						
SONM	Songino Array	38.09	45	P	P	18 25 16.3	+2.4
	comp=Z,6.7nm,0.8s,baz=251,slow=8.6,SNR=37						
SONM				LR	LR	18 44 15.3	
	comp=Z,94nm,18.2s,baz=260,slow=42						
	comp=Z,6.7nm,0.8s						
SONM	Songino Array	38.09	45	P	P	18 25 14.1	+0.1
SONM				pmax	pmax		
	comp=Z,6.0nm,1.0s						
SONM	Songino Array	38.09	45	P	P	18 25 14.1	+0.1
KMPD	K-Podol'skiy	38.12	316	P	P	18 25 13.8	-0.2
ARR	Arges	38.29	311	P	P	18 25 17.3	+1.7
	comp=Z,17nm,0.9s						
ULN	Ulaanbaatar	38.52	45	ceP	P	18 25 19.6	+2.0
ULN				pmax	pmax		
	comp=Z,8.0nm,0.8s						
ULN	Ulaanbaatar	38.52	45	P	P	18 25 16.8	-0.8
ULN				IAmb	IAmb	18 25 20.6	
	comp=Z,7.0nm,0.8s						
ULN	Ulaanbaatar	38.52	45	P	P	18 25 20.1	+2.5
	comp=Z,9.2nm,1.0s						
BURAR	Bucovina Array	38.57	315	P	P	18 25 19.5	+1.5
BURAR	Bucovina Array	38.57	315	P	P	18 25 18.4	+0.4
BURAR	Bucovina Array	38.57	315	⇑P	P	18 25 19.5	+1.5
BUR08	Bucovina Ar. S	38.59	315		P	18 25 17.0	-1.2
BUR08				IAmb	IAmb	18 25 20.6	
	comp=Z,17nm,0.9s						
LOT	Lotru	38.90	311	⇓P	P	18 25 21.7	+1.0
LOT	Lotru	38.90	311	P	P	18 25 21.7	+1.0
	comp=Z,10.0nm,1.6s						
KLMR	Klimovskoe	39.14	340	eP	P	18 25 20.6	-1.8
KLMR				e		18 26 49.8	
KLMR				pmax	pmax		
	comp=Z,12nm,1.4s						
RNPP5	Staryi Chortor	39.48	320	P	P	18 25 26.5	+1.1
RNPP8	Varash	39.55	320	P	P	18 25 27.4	+1.5
DRGR		39.96	313	P	P	18 25 31.3	+1.7
DRGR		39.96	313	⇑P	P	18 25 31.3	+1.7
DRGR		39.96	313	P	P	18 25 31.3	+1.7
	comp=Z,9.1nm,1.3s						
HHC	Hu-ho-hao-te	40.07	57	eP	P	18 25 31.0	+0.4
HHC				pmax	pmax		
	comp=Z,17nm,0.6s						
SURR	Surduc	40.09	311	⇑P	P	18 25 31.4	+0.8
MDVR	Moldovita	40.16	309	⇓P	P	18 25 32.4	+1.2
BZS	Buzias	40.41	310	P	P	18 25 34.5	+1.3
BZS	Buzias	40.41	310	⇓P	P	18 25 34.5	+1.3
BZS	Buzias	40.41	310	P	P	18 25 34.7	+1.5
	comp=Z,14nm,1.0s						
TRPA	Tarpa	40.45	314	P	P	18 25 35.2	+1.8
	comp=Z,7.8nm,1.0s						
SIRR	Siria	40.53	311	⇓P	P	18 25 36.1	+1.9
BANR	Banloc	40.69	310	⇑P	P	18 25 36.1	+0.7
KWP	Kalwaria Pacla	40.80	317	P	P	18 25 38.0	+1.6
	comp=Z,52nm,1.3s						
KOLS	Kolonicke sedl	40.85	316	eP	P	18 25 39.6	+2.8
KOLS				pmax	pmax		
	comp=Z,25nm,1.0s						
KOLS	Kolonicke sedl	40.85	316	eP	P	18 25 39.6	+2.8
KOLS	Kolonicke sedl	40.85	316	P	P	18 25 39.7	+2.9
	comp=Z,15nm,0.8s						
NIE	Niedzica	42.23	316	eP	P	18 25 50.7	+2.5
NIE	Niedzica	42.23	316	P	P	18 25 50.4	+2.2
	comp=Z,7.1nm,1.3s						
HNS	HongShan	42.28	62	⇓P	P	18 25 51.0	+2.4
HNS				pmax	pmax		
	comp=Z,6.0nm,0.9s						
HNS				L	L		
	comp=Z,180nm,18.1s						
HNS				L	L		
	comp=Z,170nm,17.5s						
VSU	Vasula	42.46	330	deP	P	18 25 49.9	+0.1
VSU				pmax	pmax		
	comp=Z,19nm,1.3s						
MORH	Mrgy, Hungar	42.56	311	⇓P	P	18 25 52.1	+1.3
MORH	Mrgy, Hungar	42.56	311	P	P	18 25 51.7	+0.9
	comp=Z,13nm,1.0s						
MORH	Mrgy, Hungar	42.56	311	P	P	18 25 50.6	-0.2
	comp=Z,14nm,1.0s						
LANS	Liptovska Anna	42.69	315	eP	P	18 25 54.2	+2.3
LANS				pmax	pmax		
	comp=Z,2.0nm,0.7s						
LANS	Liptovska Anna	42.69	315	eP	P	18 25 54.2	+2.3
OJC	Ojcow	42.77	317	eP	P	18 25 54.0	+1.5
OJC	Ojcow	42.77	317	P	P	18 25 52.2	-0.3
OJC	Ojcow	42.77	317	P	P	18 25 52.2	-0.3
OJC	Ojcow	42.77	317	P	P	18 25 53.2	+0.7
	comp=Z,15nm,0.8s						
OJC	Ojcow	42.77	317	P	P	18 25 54.0	+1.5
	comp=Z,15nm,0.8s						
VYHS	Vyhne	42.93	314	eP	P	18 25 55.3	+1.5
VYHS				pmax	pmax		
	comp=Z,7.0nm,0.8s						
VYHS	Vyhne	42.93	314	eP	P	18 25 55.3	+1.5
SRO	Srobarova	43.11	313	eP	P	18 25 59.3	+4.0
SRO				pmax	pmax		
	comp=Z,6.0nm,0.8s						
SRO	Srobarova	43.11	313	eP	P	18 25 59.3	+4.0
MPLH	Magyarpolny	43.49	312	P	P	18 25 59.7	+1.3
	comp=Z,32nm,1.3s						
MPLH	Magyarpolny	43.49	312	P	P	18 26 00.3	+1.9
	comp=Z,12nm,1.5s						

JAVC	**Velka Javorina**	**43.76**	**314**	*e*P	**P**	**18 26 02.6**	**+2.0**
XLT	**XiLinHaoTe**	**43.77**	**53**	*e*P	**P**	**18 26 03.5**	**+2.7**
XLT				pmax	pmax		
	comp=Z,13nm,0.9s						
XLT				pmax	pmax		
	comp=Z,78nm,3.7s						
SMOL	**Smolenice**	**43.84**	**314**	*e*P	**P**	**18 26 03.3**	**+2.1**
SMOL				pmax	pmax		
	comp=Z,2.0nm,0.9s						
MODS	**Modra-Piesok**	**43.91**	**314**	*e*P	**P**	**18 26 03.5**	**+1.7**
MODS				pmax	pmax		
	comp=Z,27nm,1.3s						
MODS	**Modra-Piesok**	**43.91**	**314**	*e*P	**P**	**18 26 03.5**	**+1.7**
MODS	**Modra-Piesok**	**43.91**	**314**	P	**P**	**18 26 03.8**	**+2.0**
	comp=Z,20nm,1.1s						
STEB	**Steborice**	**43.95**	**316**	*e*P	**P**	**18 26 03.0**	**+0.9**
MORC	**Moravsky Berou**	**44.06**	**316**	P	**P**	**18 26 04.1**	**+1.1**
MORC	**Moravsky Berou**	**44.06**	**316**	IAmb	IAmb	18 26 05.2	
	comp=Z,6.0nm,0.7s						
MORC	**Moravsky Berou**	**44.06**	**316**	*e*P	**P**	**18 26 04.2**	**+1.2**
MORC	**Moravsky Berou**	**44.06**	**316**	⇓P	**P**	**18 26 04.1**	**+1.2**
MORC	**Moravsky Berou**	**44.06**	**316**	P	**P**	**18 26 04.0**	**+1.0**
	comp=Z,9.9nm,1.1s						
TIA	**Tai'an**	**44.23**	**64**	P	**P**	**18 26 06.0**	**+1.6**
TIA				pmax	pmax		
	comp=Z,14nm,0.8s						
SOP	**Sopron**	**44.25**	**312**	P	**P**	**18 26 05.5**	**+1.0**
	comp=Z,18nm,0.9s						
FINES	**FINESS Array B**	**44.37**	**334**	P	**P**	**18 26 05.3**	**+0.1**
	comp=Z,1.8nm,0.4s,baz=125,slow=7.4,SNR=40						
	comp=Z,1.8nm,0.4s						
FINES	**FINESS Array B**	**44.37**	**334**	P	**P**	**18 26 05.0**	**-0.2**
RONA	**Rosalia, Austr**	**44.42**	**312**	*i* P	**P**	**18 26 06.8**	**+0.9**
	comp=Z,2.3nm,0.4s						
VRAC	**Vranov**	**44.55**	**315**	P	**P**	**18 26 08.0**	**+1.1**
VRAC	**Vranov**	**44.55**	**315**	*e*P	**P**	**18 26 08.2**	**+1.3**
VRAC	**Vranov**	**44.55**	**315**	⇑P	**P**	**18 26 08.1**	**+1.1**
KRUC	**Moravsky**	**44.63**	**314**	*e*P	**P**	**18 26 08.8**	**+1.3**
KRUC	**Moravsky**	**44.63**	**314**	P	**P**	**18 26 09.3**	**+1.8**
	comp=Z,8.8nm,0.9s						
WINA	**Alland / Wiene**	**44.65**	**313**	*i* P	**P**	**18 26 08.5**	**+0.9**
	comp=Z,2.9nm,0.6s						
CONA	**Conrad Observa**	**44.75**	**313**	*i* pP	**P**	**18 26 09.6**	**+1.0**
	comp=Z,2.4nm,0.8s						
ARSA	**Arzberg**	**44.86**	**312**	P	**P**	**18 26 09.2**	**-0.1**
ARSA				IAmb	IAmb	18 26 11.9	
	comp=Z,8.3nm,1.0s						
ARSA	**Arzberg**	**44.86**	**312**	*i* pP	**P**	**18 26 10.8**	**+1.4**
	comp=Z,2.4nm,0.5s						
ARSA	**Arzberg**	**44.86**	**312**	P	**P**	**18 26 11.0**	**+1.6**
	comp=Z,11nm,1.0s						
DPC	**Dobruska-Polom**	**44.96**	**316**	*e*P	**P**	**18 26 11.5**	**+1.3**
DPC	**Dobruska-Polom**	**44.96**	**316**	*e*P	**P**	**18 26 11.5**	**+1.3**
DPC	**Dobruska-Polom**	**44.96**	**316**	P	**P**	**18 26 11.2**	**+1.0**
NRIK	**Noril'sk**	**44.98**	**11**	LR	LR	18 48 21.3	
	comp=Z,127nm,18.1s,baz=214,slow=41						
NRIK	**Noril'sk**	**44.98**	**11**	⇑*e*P	**P**	**18 26 10.8**	**+0.9**
NRIK				pmax	pmax		
	comp=Z,6.0nm,1.1s						
OSTC	**Ostas**	**45.07**	**316**	*e*P	**P**	**18 26 12.4**	**+1.4**
OSTC	**Ostas**	**45.07**	**316**	*e*P	**P**	**18 26 12.4**	**+1.4**
KSP	**Ksiaz**	**45.09**	**317**	*e*P	**P**	**18 26 13.3**	**+2.2**
KSP	**Ksiaz**	**45.09**	**317**	P	**P**	**18 26 13.0**	**+1.9**
	comp=Z,15nm,1.6s						
SOKA	**Soboth**	**45.10**	**311**	*e*pP	**P**	**18 26 12.5**	**+1.1**
	comp=Z,5.0nm,0.7s						
ABNA	**Allensteig Bun**	**45.17**	**314**	*i* pP	**P**	**18 26 13.3**	**+1.4**
	comp=Z,7.6nm,0.5s						
CHVC	**Chvalec**	**45.18**	**316**	*e*P	**P**	**18 26 14.6**	**+2.7**
CHVC	**Chvalec**	**45.18**	**316**	*e*P	**P**	**18 26 14.6**	**+2.7**
UPC	**Upice**	**45.19**	**316**	P	**P**	**18 26 13.5**	**+1.6**
	comp=Z,12nm,1.6s						
TREC	**Trest**	**45.26**	**314**	*e*P	**P**	**18 26 12.7**	**+0.2**
TREC	**Trest**	**45.26**	**314**	*e*P	**P**	**18 26 12.7**	**+0.2**
TREC	**Trest**	**45.26**	**314**	P	**P**	**18 26 14.1**	**+1.6**
	comp=Z,9.8nm,0.9s						
SESA	**Seetaler Alpe,**	**45.48**	**311**	*i* pP	**P**	**18 26 15.9**	**+1.4**
	comp=Z,9.8nm,0.6s						
MOA	**Molln**	**45.80**	**312**	*i* pP	**P**	**18 26 18.0**	**+1.2**
	comp=Z,2.6nm,0.5s						
CKRC	**Cesky Krumlov**	**45.93**	**314**	*e*P	**P**	**18 26 19.6**	**+1.8**
CKRC	**Cesky Krumlov**	**45.93**	**314**	*e*P	**P**	**18 26 19.6**	**+1.8**
NJ2	**Nanjing**	**45.97**	**70**	*e*P	**P**	**18 26 17.0**	**-1.3**
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
PRU	**Pruhonice**	**46.00**	**315**	*e*P	**P**	**18 26 19.2**	**+0.9**
PRU	**Pruhonice**	**46.00**	**315**	*e*P	**P**	**18 26 19.2**	**+0.9**
MYKA	**Terra Mystica**	**46.04**	**310**	*e*pP	**P**	**18 26 19.9**	**+1.1**
	comp=Z,1.5nm,0.4s						
BIOA	**Bad Ischl, Aus**	**46.19**	**312**	*i* pP	**P**	**18 26 21.1**	**+1.1**
	comp=Z,3.7nm,0.5s						
KBA	**Koelnbreinsper**	**46.30**	**311**	*i* pP	**P**	**18 26 22.1**	**+1.1**
	comp=Z,3.0nm,0.6s						
KBA	**Koelnbreinsper**	**46.30**	**311**	P	**P**	**18 26 22.2**	**+1.2**
	comp=Z,16nm,1.9s						
GEC2	**GERESS Array S**	**46.33**	**314**	IAmb	IAmb	18 26 23.3	
	comp=Z,12nm,1.2s						
GEC2	**GERESS Array S**	**46.33**	**314**	P	**P**	**18 26 22.2**	**+1.1**
	comp=Z,12nm,1.8s						
GERES	**GERESS Array B**	**46.33**	**314**	P	**P**	**18 26 22.3**	**+1.1**
	comp=Z,3.0nm,0.6s,baz=110,slow=7.3,SNR=28						
GERES				PcP	**PcP**	**18 27 56.7**	**+0.5**
	comp=Z,1.4nm,0.7s,baz=113,slow=3.5,SNR=4.6						
GERES				LR	LR	18 52 00.7	
	comp=Z,26nm,18.4s,baz=69,slow=44						
	comp=Z,3.0nm,0.6s						
GERES	**GERESS Array B**	**46.33**	**314**	P	**P**	**18 26 19.4**	**-1.7**
KHC	**Kasperske Hory**	**46.46**	**314**	*e*P	**P**	**18 26 23.2**	**+1.2**
KHC	**Kasperske Hory**	**46.46**	**314**	*e*P	**P**	**18 26 23.2**	**+1.2**
KHC	**Kasperske Hory**	**46.46**	**314**	P	**P**	**18 26 23.0**	**+1.0**
	comp=Z,3.5nm,1.3s						
BRG	**Berggiesshubel**	**46.55**	**316**	*e*P	**P**	**18 26 24.4**	**+1.7**
BRG				Amp		18 26 25.8	
	comp=Z,5.2nm,0.9s						
BRG	**Berggiesshubel**	**46.55**	**316**	P	P	18 26 31.3	+8.7
BRG				Amp		18 26 32.4	
	comp=Z,4.0nm,0.8s						
RJOB	**Jochberg**	**46.76**	**312**	P	**P**	**18 26 24.7**	**+0.2**
	comp=Z,6.5nm,0.7s						
LESA	**Schwarzleotal**	**46.80**	**311**	*e*P	**P**	**18 26 25.5**	**+0.7**
	comp=Z,15nm,0.5s						
ABTA	**Abfaltersbach**	**46.83**	**311**	*i* pP	**P**	**18 26 26.0**	**+1.0**
	comp=Z,3.2nm,0.5s						
HILR	**Hailar Array B**	**47.08**	**46**	P	**P**	**18 26 27.9**	**+1.1**
	comp=Z,3.1nm,0.5s,baz=267,slow=5.5,SNR=2.2						
	comp=Z,3.1nm,0.5s						
CLL	**Collm**	**47.22**	**317**	*e*Px	Px	18 26 28.0	
CLL				AMS	AMS	18 48 00.0	
WTTA	**Wattenberg**	**47.48**	**311**	*e*P	**P**	**18 26 30.4**	**+0.2**
	comp=Z,2.6nm,0.4s						
WTTA	**Wattenberg**	**47.48**	**311**	P	**P**	**18 26 30.9**	**+0.7**
	comp=Z,17nm,0.9s						
WATA	**Walderalm**	**47.53**	**311**	*i* P	**P**	**18 26 30.5**	**-0.1**
	comp=Z,0.8nm,0.3s						
GRB2	**Grafenberg Arr**	**47.72**	**314**	P	**P**	**18 26 33.3**	**+1.5**
	comp=Z,12nm,0.8s						
GRB2				pP	**sP**	**18 26 37.4**	**+1.1**
SQTA	**Sankt Quirin**	**47.77**	**311**	*i* P	**P**	**18 26 32.5**	**+0.1**
	comp=Z,2.4nm,0.4s						
MOTA	**Moosalm**	**47.85**	**311**	*i* P	**P**	**18 26 32.9**	**-0.2**
	comp=Z,2.3nm,0.4s						
MOX	**Moxa**	**47.96**	**316**	P	**P**	**18 26 34.7**	**+1.0**
	comp=Z,11nm,1.0s						
FETA	**Feichten**	**48.07**	**311**	*e*P	**P**	**18 26 35.4**	**+0.6**
	comp=Z,3.8nm,0.6s						
RETA	**Reutte**	**48.10**	**311**	*i* P	**P**	**18 26 35.0**	**+0.1**
	comp=Z,11nm,0.6s						
OPO	**Ambohidratompo**	**48.19**	**205**	LR	LR	18 44 19.3	
	comp=Z,27nm,18.9s,baz=93,slow=33						
FUORN	**Ofenpass-Fuorn**	**48.36**	**310**	P	**P**	**18 26 38.2**	**+1.1**
FUORN				IAmb	IAmb	18 26 38.9	
	comp=Z,5.4nm,0.7s						
DAVA	**Damuels**	**48.67**	**311**	*i* P	**P**	**18 26 39.5**	**+0.1**
	comp=Z,4.8nm,0.5s						
DAVA	**Damuels**	**48.67**	**311**	P	**P**	**18 26 39.5**	**+0.1**
	comp=Z,24nm,0.7s						
TUE	**Stuetta**	**48.98**	**310**	P	**P**	**18 26 42.0**	**+0.2**
TUE				IAmb	IAmb	18 26 44.3	
	comp=Z,7.0nm,0.7s						
TUE	**Stuetta**	**48.98**	**310**	P	**P**	**18 26 43.6**	**+1.8**
	comp=Z,40nm,0.7s						
TUE	**Stuetta**	**48.98**	**310**	P	**P**	**18 26 42.8**	**+0.9**
	comp=Z,10nm,0.7s						
KEST	**Kesra**	**49.12**	**296**	P	**P**	**18 26 44.3**	**+1.4**
	comp=Z,4.7nm,0.8s,baz=90,slow=4.0,SNR=4.3						
	comp=Z,4.7nm,0.8s						
HFS	**Hagfors**	**49.20**	**328**	P	**P**	**18 26 42.7**	**-0.3**
	comp=Z,1.8nm,0.6s,baz=108,slow=9.7,SNR=6.3						
	comp=Z,1.8nm,0.6s						
ARCES	**ARCESS Array B**	**49.44**	**342**	P	**P**	**18 26 44.6**	**-0.1**
	comp=Z,0.9nm,0.4s,baz=149,slow=7.6,SNR=23						
ARCES				LR	LR	18 50 02.6	
	comp=Z,87nm,18.3s,baz=99,slow=39						
	comp=Z,0.9nm,0.4s						
CN2	**Changchun**	**50.52**	**54**	*e*P	**P**	**18 26 54.8**	**+1.4**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.7s						
NB2	**NORSAR Subarra**	**50.65**	**329**	P	**P**	**18 26 53.2**	**-0.9**
	comp=Z,1.2nm,0.6s,baz=108,slow=7.4						
NOA	**NORSAR Array B**	**50.65**	**329**	P	**P**	**18 26 53.4**	**-0.7**
	comp=Z,0.6nm,0.5s,baz=107,slow=7.4,SNR=4.8						
	comp=Z,0.6nm,0.5s						
BNX	**BinXian**	**51.92**	**51**	⇓P	**P**	**18 27 04.0**	**+0.2**
BNX				pmax	pmax		
	comp=Z,13nm,1.0s						
HEH	**HeiHe**	**52.07**	**45**	*e*P	**P**	**18 27 06.3**	**+1.4**
HEH				pmax	pmax		
	comp=Z,11nm,0.9s						
ZEA	**Zeya**	**52.28**	**41**	*e*P	**P**	**18 27 09.2**	**+2.8**
KSRS	**Korea Array**	**52.77**	**62**	P	**P**	**18 27 11.0**	**+0.7**
	comp=Z,6.8nm,0.9s,baz=274,slow=7.5,SNR=22						
KSRS				LR	LR	18 54 53.1	
	comp=Z,26nm,18.1s,baz=55,slow=42						
	comp=Z,6.8nm,0.9s						
YAK	**Yakutsk**	**54.80**	**31**	*e*P	**P**	**18 27 24.9**	**+0.2**
YAK				*e**PP	**pP**	**18 27 28.3**	**+0.4**
YAK				*e*		18 29 23.2	
YAK				*e*S	**S**	**18 35 04.8**	**-0.5**
YAK				*e**SS	**pS**	**18 35 09.9**	**+0.7**
YAK				*e*SS	**SS**	**18 38 53.4**	**+5.3**
YAK				pmax	pmax		
	comp=Z,16nm,0.9s						
YAK				pmax	pmax		
	comp=N,2.0nm,0.9s						
YAK				pmax	pmax		
	comp=E,5.0nm,1.4s						
YAK				pmax	pmax		
	comp=Z,60nm,3.4s						
YAK				pmax	pmax		
	comp=N,51nm,3.5s						
YAK				pmax	pmax		
	comp=E,31nm,3.7s						
YAK				smax	smax		
	comp=N,8.0nm,1.6s						
YAK				smax	smax		
	comp=E,24nm,2.2s						
YAK	**Yakutsk**	**54.80**	**31**		**P**	**18 27 22.9**	**-1.8**
YAK	**Yakutsk**	**54.80**	**31**	P	**P**	**18 27 24.6**	**0.0**
	comp=Z,20nm,0.9s						
YAK				pP	**sP**	**18 27 29.9**	**+0.7**
KLR	**Kul'dur**	**54.86**	**47**	LR	LR	18 54 46.5	
	comp=Z,54nm,18.6s,baz=268,slow=40						
KLR	**Kul'dur**	**54.86**	**47**	*ce*P	**P**	**18 27 26.6**	**+1.2**
KLR				pmax	pmax		
	comp=Z,8.0nm,0.7s						
USRK	**Ussuriysk Ar.**	**55.22**	**53**	LR	LR	18 52 04.6	
	comp=Z,40nm,19.4s,baz=220,slow=37						
LSZ	**Lusaka**	**55.39**	**226**	LR	LR	18 52 07.7	
	comp=Z,49nm,18.1s,baz=34,slow=37						
JNU	**Nakatsue**	**55.83**	**66**	LR	LR	18 53 42.9	
	comp=Z,32nm,18.2s,baz=330,slow=38						
TIXI	**Tiksi**	**56.83**	**20**	LR	LR	18 55 34.4	
	comp=Z,50nm,18.4s,baz=259,slow=40						
EKA	**Eskdalemuir Ar**	**57.26**	**321**	P	**P**	**18 27 42.2**	**-0.3**
	comp=Z,1.0nm,0.6s,baz=102,slow=7.3,SNR=5.8						
	comp=Z,1.0nm,0.6s						
MATP	**Matopo**	**59.06**	**222**	LR	LR	18 53 28.8	
	comp=Z,23nm,19.0s,baz=223,slow=36						
ESDC	**Sonseca Array**	**59.07**	**302**	P	**P**	**18 27 55.4**	**-0.1**
	comp=Z,0.6nm,0.7s,baz=64,slow=6.4,SNR=4.5						
	comp=Z,0.6nm,0.7s						
KAPI	**Kappang**	**60.38**	**113**	LR	LR	18 55 57.7	
	comp=Z,20nm,19.0s,baz=299,slow=38						
TORD	**Torodi Ar. Bea**	**61.62**	**271**	P	**P**	**18 28 14.3**	**+1.1**
	comp=Z,14nm,0.8s,baz=62,slow=6.3,SNR=82						
	comp=Z,14nm,0.8s						
ASAJ	**Asahikawa**	**62.80**	**52**	LR	LR	18 57 17.7	
	comp=Z,23nm,19.3s,baz=66,slow=38						
LBTB	**Lobatse**	**64.28**	**221**	LR	LR	18 56 27.6	
	comp=Z,27nm,19.3s,baz=18,slow=36						
MA2	**Magadan**	**65.08**	**34**	LR	LR	18 59 31.7	
	comp=Z,53nm,18.0s,baz=304,slow=38						
SEY	**Seymchan**	**65.30**	**30**	⇓*e*P	**P**	**18 28 38.3**	**+1.6**
SEY				pmax	pmax		
	comp=Z,10.0nm,1.3s						
TSUM	**Tsumeb**	**65.33**	**231**	LR	LR	18 57 31.3	
	comp=Z,46nm,18.9s,baz=340,slow=36						
BOSA	**Boshof**	**67.22**	**219**	P	**P**	**18 28 51.4**	**+1.8**
	comp=Z,3.4nm,1.1s,baz=21,slow=8.6,SNR=2.2						
BOSA				LR	LR	18 57 32.2	
	comp=Z,24nm,19.1s,baz=21,slow=35						
	comp=Z,3.4nm,1.1s						
BOSA	**Boshof**	**67.22**	**219**	P	**P**	**18 28 47.1**	**-2.5**
DBIC	**Dimbokro**	**70.14**	**268**	P	**P**	**18 29 08.5**	**+0.4**
	comp=Z,5.5nm,1.1s,baz=96,slow=3.4,SNR=3.8						
	comp=Z,5.5nm,1.1s						
DBIC	**Dimbokro**	**70.14**	**268**	P	**P**	**18 29 06.9**	**-1.1**
PETK	**Petropavlovsk-**	**70.34**	**40**	P	**P**	**18 29 09.1**	**+0.4**
	comp=Z,2.5nm,0.8s,baz=256,slow=6.0,SNR=3.6						
	comp=Z,2.5nm,0.8s						
PETK	**Petropavlovsk-**	**70.34**	**40**	P	**P**	**18 29 08.1**	**-0.7**
SUR	**Sutherland**	**72.56**	**219**	LR	LR	19 00 28.7	
	comp=Z,36nm,19.4s,baz=28,slow=35						
WRA	**Warramunga Arr**	**80.41**	**118**	P	**P**	**18 30 07.4**	**+0.3**
	comp=Z,0.6nm,0.3s,baz=312,slow=4.3,SNR=8.0						
	comp=Z,0.6nm,0.3s						
WRA	**Warramunga Arr**	**80.41**	**118**	*i* P	P	18 30 12.8	+5.7
WRA				pmax	pmax		
	comp=Z,4.0nm,0.8s						
ASAR	**Alice Springs**	**82.07**	**121**	P	**P**	**18 30 16.9**	**+1.0**
	comp=Z,2.7nm,0.7s,baz=292,slow=5.2,SNR=5.4						
	comp=Z,2.7nm,0.7s						
CTA	**Charters Tower**	**90.19**	**112**	LR	LR	19 16 13.6	
	comp=Z,20nm,18.3s,baz=232,slow=39						
STKA	**Stephens Creek**	**92.14**	**125**	LR	LR	19 15 27.4	
	comp=Z,29nm,18.9s,baz=11,slow=38						

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*IDC **27** 18:21:34.9±0.8, 17°.98S×178°.52W, h583^{km}±8^{km}, mb3.7/13, mbtmp4.6/16, Error ellipse: s-maj=18.3km s-min=10.4km az=145.0*

*NEIC **27** 18:21:34.3±1.5, 18°.0S±0°.1×178°.4W±0°.1, h584^{km}±7^{km}, mb4.4/115, Error ellipse: s-maj=18.5km s-min=15.5km az=132.0*

*NOU **27** 18:21:34.6, 17°.95S×178°.44W, h588^{km}, mb4.7/74, Fiji Islands Region*

*GFZ **27** 18:21:35.5±0.2, 18°S±5°×17°8W±°, h592^{km}, M4.6/29, mb4.7/29, confirmed*

ISC 27 18:21:33.9±0.4**, 17°.99S**±0°.07×**178°.38W**±0°.05**, h579**^{km}**,**
n252, σ1^{s}.09/217**, mb4.5**/104**, 1C-1D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LKBA	**Tubou, Lakemba**	**0.48**	**239**	P	**P**	**18 22 43.8**	**+1.7**
LKBA	**Tubou, Lakemba**	**0.48**	**239**	S	**S**	**18 23 39.6**	**+1.9**
DGTI	**Dogotuki**	**2.46**	**313**	P	**P**	**18 22 50.3**	**+1.8**
DGTI	**Dogotuki**	**2.46**	**313**	S	**S**	**18 23 51.6**	**+2.6**
MSVF	**Nonsavu**	**3.41**	**274**	P	**P**	**18 22 56.1**	**+2.1**
	351nm,0.8s,baz=138,slow=3.3,SNR=185						
MSVF				S	**S**	**18 23 59.4**	**+0.3**
	22nm,0.9s,baz=25,slow=18,SNR=7.8						
MSVF	**Nonsavu**	**3.41**	**274**	P	**P**	**18 22 56.5**	**+2.6**
MSVF	**Nonsavu**	**3.41**	**274**		**P**	**18 22 56.6**	**+2.6**
MSVF	**Nonsavu**	**3.41**	**274**	P	**P**	**18 22 56.8**	**+2.8**
FUTU	**Fugatoga**	**3.67**	**4**	P	**P**	**18 22 57.8**	**+2.1**
FUTU	**Fugatoga**	**3.67**	**4**	P	**P**	**18 22 57.4**	**+1.7**
AFI	**Afiamalu**	**7.54**	**58**	P	**P**	**18 23 29.5**	**+1.3**
	40nm,0.6s,baz=123,slow=4.5,SNR=4.8						
AFI				S	**S**	**18 24 57.0**	**-4.8**
	35nm,1.0s,baz=352,slow=23,SNR=1.5						
AFI	**Afiamalu**	**7.54**	**58**	P	**P**	**18 23 28.6**	**+0.4**
AFI	**Afiamalu**	**7.54**	**58**	P	**P**	**18 23 29.3**	**+1.0**
	comp=Z,89nm,0.8s						
NIUE	**Niue**	**8.09**	**99**	P	**P**	**18 23 35.1**	**+1.7**
NIUE	**Niue**	**8.09**	**99**	P	**P**	**18 23 31.3**	**-2.1**
FUNA	**Funafuti**	**9.70**	**346**	P	**P**	**18 23 49.3**	**0.0**
FUNA	**Funafuti**	**9.70**	**346**	P	**P**	**18 23 51.5**	**+2.1**
	comp=Z,96nm,1.7s						
RTV	**Rentapao**	**12.56**	**269**	P	**P**	**18 24 19.2**	**+0.9**
DVP	**Devils Point**	**12.79**	**269**	P	**P**	**18 24 20.9**	**+0.2**
MARNC	**Mare, Loyalty**	**13.26**	**253**	P	**P**	**18 24 24.8**	**-0.7**
MARNC	**Mare, Loyalty**	**13.26**	**253**	S	**S**	**18 26 46.2**	**-0.3**
MARNC	**Mare, Loyalty**	**13.26**	**253**	P	**P**	**18 24 24.6**	**-0.9**
SANVU	**Saraoutou**	**14.04**	**278**	P	**P**	**18 24 33.7**	**+0.2**
SANVU	**Saraoutou**	**14.04**	**278**	S	**S**	**18 27 00.8**	**0.0**
SANVU	**Saraoutou**	**14.04**	**278**	P	**P**	**18 24 35.5**	**+2.1**
	comp=Z,121nm,0.6s						
YATNC	**Mamie plateau,**	**14.42**	**251**	P	**P**	**18 24 37.5**	**+0.3**
OUENC	**Ouen Island, N**	**14.55**	**250**	P	**P**	**18 24 38.6**	**+0.2**
OUENC	**Ouen Island, N**	**14.55**	**250**	P	**P**	**18 24 38.1**	**-0.3**
DZM	**Mont Dzumac**	**14.83**	**252**	P	**P**	**18 24 40.6**	**-0.6**
	comp=Z,18nm,0.5s,baz=86,slow=19,SNR=36						
ONTNC	**Ouen Toro**	**14.87**	**251**	P	**P**	**18 24 42.0**	**+0.5**
ONTNC	**Ouen Toro**	**14.87**	**251**	P	**P**	**18 24 41.4**	**-0.1**
NOUC	**Port Laguerre**	**14.96**	**252**	P	**P**	**18 24 42.9**	**+0.6**
NOUC	**Port Laguerre**	**14.96**	**252**	S	**S**	**18 27 17.4**	**+0.7**
OUZ	**Omahuta**	**18.59**	**201**	P	**P**	**18 25 16.1**	**+0.5**
URZ	**Urewera**	**20.58**	**190**	P	**P**	**18 25 34.5**	**+0.9**
TATA	**Tatamba Isabel**	**23.26**	**291**	P	**P**	**18 25 57.8**	**-0.1**
JCZ	**Jackson Bay**	**28.16**	**200**	P	**P**	**18 26 40.4**	**-0.4**
XMAS	**Kiritimati**	**28.66**	**48**	P	**P**	**18 26 45.9**	**+0.5**
TW1H	**Toowoomba 1 Ha**	**28.88**	**245**	P	**P**	**18 26 47.3**	**+0.1**
EIDS	**Eidsvold**	**29.27**	**250**	P	**P**	**18 26 50.0**	**-0.5**
EIDS	**Eidsvold**	**29.27**	**250**		**P**	**18 26 49.7**	**-0.8**
EIDS	**Eidsvold**	**29.27**	**250**	P	**P**	**18 26 50.2**	**-0.3**
	comp=Z,27nm,1.0s						
ARMA	**Armidale**	**29.92**	**240**	P	**P**	**18 26 56.9**	**+0.7**
ARMA	**Armidale**	**29.92**	**240**	P	**P**	**18 26 55.6**	**-0.6**
ARMA	**Armidale**	**29.92**	**240**	P	**P**	**18 26 57.1**	**+0.8**
	comp=Z,34nm,1.1s						
MGCD	**Mangrove Creek**	**31.27**	**235**	P	**P**	**18 27 07.8**	**+0.2**
CTA	**Charters Tower**	**33.46**	**261**	P	**P**	**18 27 25.9**	**-0.4**
CTAO	**Charters Tower**	**33.46**	**261**	P	**P**	**18 27 25.8**	**-0.5**
CTAO	**Charters Tower**	**33.46**	**261**		**P**	**18 27 25.9**	**-0.4**
CTAO	**Charters Tower**	**33.46**	**261**	P	**P**	**18 27 26.0**	**-0.4**
	comp=Z,43nm,0.9s						
CAN	**Canberra**	**33.68**	**233**	P	**P**	**18 27 28.1**	**+0.1**
CAN	**Canberra**	**33.68**	**233**	P	**P**	**18 27 27.6**	**-0.3**
CAN	**Canberra**	**33.68**	**233**	P	**P**	**18 27 28.2**	**+0.3**
	comp=Z,24nm,0.7s						
PMG	**Port Moresby**	**34.50**	**280**	P	**P**	**18 27 35.2**	**+0.2**
PMG	**Port Moresby**	**34.50**	**280**	P	**P**	**18 27 34.9**	**-0.1**
PMG	**Port Moresby**	**34.50**	**280**		**P**	**18 27 35.7**	**+0.7**
PMG	**Port Moresby**	**34.50**	**280**	P	**P**	**18 27 35.8**	**+0.7**
	comp=Z,918nmcomp=Z,104nm,0.9s						
PMG	**Port Moresby**	**34.50**	**280**	P	**P**	**18 27 36.1**	**+1.0**
	comp=Z,106nm,0.9s						
CMSA	**Cobar Meteorol**	**35.13**	**241**	P	**P**	**18 27 40.3**	**+0.2**
CMSA	**Cobar Meteorol**	**35.13**	**241**	P	**P**	**18 27 40.2**	**+0.1**
	comp=Z,46nm,0.8s						
MTSU	**Mount Surprise**	**35.43**	**264**	P	**P**	**18 27 42.6**	**-0.1**
	comp=Z,16nm,0.8s						
QLP	**Quilpie**	**35.53**	**249**	P	**P**	**18 27 43.3**	**-0.2**
QLP	**Quilpie**	**35.53**	**249**	P	**P**	**18 27 43.5**	**0.0**
	comp=Z,121nm,0.8s						
GLAD	**Gladstone**	**36.81**	**224**	P	**P**	**18 27 53.9**	**+0.1**
TOO	**Toolangi**	**37.14**	**231**	P	**P**	**18 27 55.8**	**-0.8**
TOO				IAmb	IAmb	18 27 58.0	
	comp=Z,11nm,0.8s						
MANU	**Manus Island**	**37.15**	**291**	P	**P**	**18 27 57.4**	**+0.5**
STKA	**Stephens Creek**	**38.62**	**241**	P	**P**	**18 28 09.2**	**+0.6**
	comp=Z,31nm,0.7s,baz=88,slow=9.4,SNR=86						
	comp=Z,31nm,0.7s						
STKA	**Stephens Creek**	**38.62**	**241**	P	**P**	**18 28 09.0**	**+0.4**
STKA	**Stephens Creek**	**38.62**	**241**	P	**P**	**18 28 09.4**	**+0.8**
	comp=Z,196nm,0.9s						
INKA	**Innaminka**	**38.74**	**248**		**P**	**18 28 09.1**	**-0.5**
QIS	**Mount Isa**	**39.67**	**259**	P	**P**	**18 28 16.5**	**-0.7**
QIS	**Mount Isa**	**39.67**	**259**	P	**P**	**18 28 16.5**	**-0.7**
	comp=Z,8.8nm,0.6s						
HTT	**Hallett**	**41.13**	**240**	P	**P**	**18 28 29.0**	**+0.3**
BBOO	**Buckleboo**	**43.39**	**241**	P	**P**	**18 28 46.1**	**-0.3**
BBOO	**Buckleboo**	**43.39**	**241**	P	**P**	**18 28 45.5**	**-0.8**
BBOO	**Buckleboo**	**43.39**	**241**	P	**P**	**18 28 46.2**	**-0.2**
	comp=Z,48nm,1.0s						
GENI	**Genyem**	**43.41**	**286**	P	**P**	**18 28 47.7**	**+0.9**
	comp=Z,1µmcomp=Z,98nm,0.8s						
GENI	**Genyem**	**43.41**	**286**	P	**P**	**18 28 47.9**	**+1.1**
	comp=Z,95nm,0.8s						
WR8	**Warramunga Arr**	**44.49**	**260**		**P**	**18 28 54.0**	**-1.1**
WB0	**Warramunga Arr**	**44.61**	**260**		**P**	**18 28 54.9**	**-1.0**
WRAB	**Tennant Creek**	**44.63**	**260**	P	**P**	**18 28 54.9**	**-1.2**
WRAB	**Tennant Creek**	**44.63**	**260**	P	**P**	**18 28 55.0**	**-1.1**
WRAB	**Tennant Creek**	**44.63**	**260**	P	**P**	**18 28 55.2**	**-0.9**
	comp=Z,36nm,0.8s						
WRA	**Warramunga Arr**	**44.64**	**260**	P	**P**	**18 28 55.2**	**-1.0**
	comp=Z,18nm,0.5s,baz=93,slow=7.5,SNR=441						
WRA				PcP	**PcP**	**18 30 25.5**	**-0.8**
	comp=Z,1.7nm,0.6s,baz=94,slow=3.3,SNR=2.3						
WRA				ScP	**ScP**	**18 33 24.9**	**+1.1**
	comp=Z,0.8nm,0.9s,baz=93,slow=4.2,SNR=3.6						
WRA				S	**S**	**18 34 46.3**	**-5.0**
	comp=Z,0.4nm,0.9s,baz=93,slow=13,SNR=1.6						
	comp=Z,18nm,0.5s						
WRA	**Warramunga Arr**	**44.64**	**260**	P	**P**	**18 28 54.1**	**-2.1**
WRA				PcP	**PcP**	**18 30 26.3**	**0.0**
AS31	**Alice Springs**	**44.79**	**254**		**P**	**18 28 56.1**	**-1.2**
ASAR	**Alice Springs**	**44.80**	**254**	P	**P**	**18 28 57.1**	**-0.3**
	comp=Z,128nm,0.7s,baz=88,slow=8.6,SNR=2055						
ASAR				PcP	**PcP**	**18 30 26.6**	**-0.1**
	comp=Z,3.2nm,0.7s,baz=93,slow=3.6,SNR=4.2						
ASAR				ScP	**ScP**	**18 33 25.1**	**+0.7**
	comp=Z,0.8nm,0.6s,baz=86,slow=3.8,SNR=4.8						
ASAR				S	**S**	**18 34 50.5**	**-2.8**
	comp=Z,1.2nm,0.8s,baz=85,slow=16,SNR=6.9						
ASAR	**Alice Springs**	**44.80**	**254**	P	**P**	**18 28 57.2**	**-0.2**
ASAR				PcP	**PcP**	**18 30 26.8**	**+0.1**
BAKI	**Biak**	**47.69**	**285**	P	**P**	**18 29 20.5**	**+1.2**
	comp=Z,68nm,0.7s						
MTN	**Manton Dam**	**48.82**	**268**		**P**	**18 29 26.6**	**-1.1**
MTN				IAmb	IAmb	18 29 27.5	
	comp=Z,12nm,0.6s						
DRS	**Darwin Rock St**	**49.14**	**269**	P	**P**	**18 29 29.1**	**-0.9**
KNRA	**Kununurra**	**50.51**	**264**		**P**	**18 29 39.5**	**-0.5**
FAKI	**Fak Fak**	**50.62**	**281**	P	**P**	**18 29 40.5**	**-0.4**
SWI	**Sorong**	**52.29**	**283**	P	**P**	**18 29 52.3**	**-0.6**
FITZ	**Fitzroy Crossi**	**53.04**	**261**	P	**P**	**18 29 58.0**	**-0.2**
FITZ	**Fitzroy Crossi**	**53.04**	**261**		**P**	**18 29 58.0**	**-0.2**
FITZ	**Fitzroy Crossi**	**53.04**	**261**	P	**P**	**18 29 58.4**	**+0.2**
	comp=Z,3.0nm,1.6s						
SOEI	**Soe**	**56.10**	**270**	P	**P**	**18 30 20.4**	**+0.6**
SOEI	**Soe**	**56.10**	**270**	P	**P**	**18 30 20.6**	**+0.9**
SOEI	**Soe**	**56.10**	**270**	P	**P**	**18 30 21.0**	**+1.2**
SOEI	**Soe**	**56.10**	**270**	P	**P**	**18 30 21.1**	**+1.3**
	comp=Z,97nm,1.4s						
TNTI	**Ternate**	**56.51**	**283**	P	**P**	**18 30 22.6**	**+0.1**
	comp=Z,1µmcomp=Z,32nm,0.8s						
TNTI	**Ternate**	**56.51**	**283**	P	**P**	**18 30 22.5**	**+0.1**
	comp=Z,32nm,0.9s						
SANI	**Sanana**	**56.78**	**280**	P	**P**	**18 30 23.6**	**-0.7**
	comp=Z,33nm,0.8s						
MBWA	**Marble Bar**	**58.08**	**256**	P	**P**	**18 30 32.2**	**-0.8**
MBWA	**Marble Bar**	**58.08**	**256**	P	**P**	**18 30 31.9**	**-1.1**
MBWA				IAmb	IAmb	18 30 32.7	
	comp=Z,17nm,0.5s						
MBWA	**Marble Bar**	**58.08**	**256**	P	**P**	**18 30 32.3**	**-0.7**
	comp=Z,22nm,2.0s						
MMRI	**Maumere**	**58.33**	**271**	P	**P**	**18 30 34.8**	**0.0**
MMRI	**Maumere**	**58.33**	**271**	P	**P**	**18 30 34.2**	**-0.6**
	comp=Z,56nm,1.0s						
MEEK	**Meekatharra**	**58.43**	**249**	P	**P**	**18 30 34.4**	**-1.0**
EDFI	**Ende, Flores**	**58.82**	**271**	P	**P**	**18 30 37.4**	**-0.8**
	comp=Z,36nm,1.0s						
EDFI	**Ende, Flores**	**58.82**	**271**	P	**P**	**18 30 37.6**	**-0.6**
	comp=Z,36nm,1.0s						
KLBR	**Kellerberrin**	**58.82**	**244**	P	**P**	**18 30 37.0**	**-0.8**
KLBR	**Kellerberrin**	**58.82**	**244**	P	**P**	**18 30 37.3**	**-0.5**
	comp=Z,81nm,0.7s						
NWAO	**Narrogin (SRO)**	**59.20**	**242**	P	**P**	**18 30 40.1**	**-0.3**
NWAO	**Narrogin (SRO)**	**59.20**	**242**	P	**P**	**18 30 39.5**	**-0.9**
NWAO				IAmb	IAmb	18 31 01.3	
	comp=Z,28nm,1.4s						
NWAO	**Narrogin (SRO)**	**59.20**	**242**	P	**P**	**18 30 40.0**	**-0.3**
	comp=Z,27nm,2.0s						
BLDU	**Ballidu**	**59.77**	**245**	P	**P**	**18 30 43.2**	**-1.0**
BLDU	**Ballidu**	**59.77**	**245**	P	**P**	**18 30 43.5**	**-0.7**
	comp=Z,15nm,1.0s						
MUN	**Mundaring**	**60.11**	**243**	P	**P**	**18 30 46.0**	**-0.4**
LUWI	**Luwuk**	**60.15**	**279**	P	**P**	**18 30 47.5**	**+0.6**
LUWI	**Luwuk**	**60.15**	**279**	P	**P**	**18 30 47.5**	**+0.6**
	comp=Z,43nm,1.1s						
SBA	**Scott Base**	**60.34**	**184**	P	**P**	**18 30 48.5**	**+1.5**
SBA	**Scott Base**	**60.34**	**184**	P	**P**	**18 30 49.5**	**+2.4**
VNDA	**Vanda**	**60.37**	**185**	P	**P**	**18 30 48.8**	**+1.5**
MORW	**Morawa**	**60.47**	**246**	P	**P**	**18 30 48.1**	**-0.8**
MORW	**Morawa**	**60.47**	**246**	P	**P**	**18 30 47.6**	**-1.3**

MORW				IAmb	IAmb	18 30 48.9	
	comp=Z,11nm,0.7s						
MORW	Morawa	60.47	246	P	P	18 30 48.4	-0.5
MTKN	Mount Kenneth	60.48	243	P	P	18 30 48.4	-0.5
GTOI	Gorontalo	60.51	281	P	P	18 30 50.6	+1.3
	comp=Z,25nm,0.5s						
LBFI	Labuhan Bajo,	60.60	270	P	P	18 30 49.7	-0.2
APSI	Ampana	61.24	279	P	P	18 30 55.9	+1.8
	comp=Z,32nm,0.8s						
DBNI	Kabupaten Domp	62.10	270	P	P	18 30 58.7	-1.0
PLAI	Plampang	62.52	269	P	P	18 31 02.2	-0.2
PLAI	Plampang	62.52	269	P	P	18 31 01.8	-0.7
	comp=Z,62nm,1.0s						
TOLI2	Tolitoli	62.76	281	P	P	18 31 03.7	-0.2
TOLI2	Tolitoli	62.76	281		P	18 31 03.5	-0.5
TOLI2				IAmb	IAmb	18 31 04.3	
	comp=Z,7.9nm,0.8s						
TOLI2	Tolitoli	62.76	281	P	P	18 31 03.8	-0.1
	comp=Z,9.1nm,0.7s						
PCI	Palu	62.95	278	P	P	18 31 07.0	+1.8
	comp=Z,46nm,1.0s						
TWSI	Taliwang, Sumb	63.40	269	P	P	18 31 07.6	-0.4
JAGI	Jajag, Banyuwa	66.06	269	P	P	18 31 23.2	-1.6
JAGI	Jajag, Banyuwa	66.06	269		P	18 31 22.3	-2.5
JAGI	Jajag, Banyuwa	66.06	269	P	P	18 31 23.4	-1.5
	comp=Z,45nm,0.8s						
JSG	Sagara	66.69	322	P	P	18 31 28.0	-0.2
ERM	Erimo	69.47	330	P	P	18 31 44.9	0.0
UGM	Wanagama	69.67	268	P	P	18 31 46.4	-0.4
UGM	Wanagama	69.67	268	P	P	18 31 45.8	-1.0
ATKA	Atka Island	69.99	3	P	P	18 31 47.1	-0.6
YULB	Yu-li	71.83	303	P	P	18 31 58.7	-0.5
QSPA	South Pole Qui	72.07	180	P	P	18 32 00.6	+0.7
	comp=Z,3.2nm,0.8s,baz=340,slow=0.7,SNR=21						
	comp=Z,3.2nm,0.8s						
QSPA	South Pole Qui	72.07	180	P	P	18 32 00.7	+0.7
SSLB	Suanglung	72.30	303	P	P	18 32 00.6	-1.4
SSLB	Suanglung	72.30	303	P	P	18 32 00.2	-1.7
SSLB				IAmb	IAmb	18 32 03.6	
	comp=Z,20nm,1.2s						
TPUB	Ta-pu	72.32	302	P	P	18 32 00.9	-1.2
TPUB	Ta-pu	72.32	302	P	P	18 32 00.3	-1.8
YHNB	Yeheng	72.40	304	P	P	18 32 02.1	-0.5
BBJI	Bungbulang	72.53	268	P	P	18 32 02.6	-0.9
BBJI	Bungbulang	72.53	268	P	P	18 32 01.9	-1.6
BBJI				IAmb	IAmb	18 32 03.2	
	comp=Z,15nm,0.7s						
YSS	Yuzhno-Sakhali	73.50	333	P	P	18 32 06.1	-2.1
PEA0B	Petropavlovsk-	73.76	345	P	P	18 32 09.1	-0.5
PEA0B				IAmb	IAmb	18 32 42.3	
	comp=Z,24nm,1.4s						
PETK	Petropavlovsk-	73.76	345	P	P	18 32 09.8	+0.1
	comp=Z,2.9nm,0.6s,baz=95,slow=5.8,SNR=13						
	comp=Z,2.9nm,0.6s						
PETK	Petropavlovsk-	73.76	345	P	P	18 32 09.5	-0.1
KSRS	Korea Array	74.78	318	P	P	18 32 16.2	+0.6
	comp=Z,0.3nm,0.3s,baz=122,slow=6.3,SNR=4.9						
	comp=Z,0.3nm,0.3s						
VNFG	Fog Glacier, M	75.67	11	P	P	18 32 19.9	-0.4
SAO	San Andreas Ge	76.46	44	P	P	18 32 25.8	+0.8
SAO				IAmb	IAmb	18 32 27.3	
	comp=Z,15nm,0.8s						
PMPB	Monarch Peak	76.58	45	P	P	18 32 26.6	+0.9
DPP	Dos Picos Cty	77.53	49	IAmb	IAmb	18 32 32.9	
	comp=Z,13nm,0.8s						
VES	Vestal, Richgr	77.53	46	IAmb	IAmb	18 32 32.2	
	comp=Z,14nm,0.6s						
TPO	Tropico Hills	77.60	47	IAmb	IAmb	18 32 33.2	
	comp=Z,8.6nm,0.6s						
BFSC	Mount Baldy Ra	77.66	48	IAmb	IAmb	18 32 33.3	
	comp=Z,6.4nm,0.6s						
OHAK	Old Harbor	77.80	14	P	P	18 32 31.7	0.0
ISA	Isabella, Lake	77.85	46	IAmb	IAmb	18 32 35.0	
	comp=Z,11nm,0.9s						
AFDM	Forest Hills D	78.02	42	IAmb	IAmb	18 32 35.3	
	comp=Z,10nm,1.1s						
M03C	McCloud	78.65	40	IAmb	IAmb	18 32 39.4	
	comp=Z,22nm,1.2s						
WAKR	Walker	78.76	43	IAmb	IAmb	18 32 40.1	
	comp=Z,11nm,0.8s						
BEKR	Beckworth	78.93	42	IAmb	IAmb	18 32 40.0	
	comp=Z,7.8nm,0.6s						
PNTR	Pine Nut	78.98	43	IAmb	IAmb	18 32 41.1	
	comp=Z,18nm,0.8s						
YERR	Yerington	79.16	43	IAmb	IAmb	18 32 41.7	
	comp=Z,20nm,1.1s						
LHV	Little Huntoon	79.23	44	IAmb	IAmb	18 32 42.5	
	comp=Z,12nm,1.0s						
NVAR	Mina Array Bea	79.46	44	P	P	18 32 42.6	+1.2
	comp=Z,5.8nm,0.7s,baz=225,slow=8.4,SNR=26						
	comp=Z,5.8nm,0.7s						
NVAR	Mina Array Bea	79.46	44	P	P	18 32 40.9	-0.4
PAHR	Pah Rah Range	79.46	42	IAmb	IAmb	18 32 43.3	
	comp=Z,13nm,1.3s						
I04A	Tendick Farm,	79.98	38	IAmb	IAmb	18 32 45.3	
	comp=Z,7.0nm,0.7s						
MOD	Modoc Plateau	80.13	40	IAmb	IAmb	18 32 46.7	
	comp=Z,12nm,0.7s						
K05A	Summer Lake	80.25	39	IAmb	IAmb	18 32 47.7	
	comp=Z,16nm,0.9s						
WIFE	Three Sisters-	80.48	38	IAmb	IAmb	18 32 48.6	
	comp=Z,13nm,1.0s						
PINE	Pine Mountain	80.84	38	IAmb	IAmb	18 32 50.8	
	comp=Z,17nm,0.9s						
BMN	Battle Mountai	81.25	43	IAmb	IAmb	18 32 52.6	
	comp=Z,11nm,0.9s						
HOOD	Mount Hood Mea	81.33	37	IAmb	IAmb	18 32 52.0	
	comp=Z,8.7nm,0.7s						
WVOR	Wild Horse Val	81.45	40	P	P	18 32 52.8	+1.4
	comp=Z,19nm,0.9s						
STD	Studebaker Rid	81.55	36	IAmb	IAmb	18 32 54.1	
	comp=Z,14nm,0.9s						
JRO	Jston Ridge Ob	81.58	36	IAmb	IAmb	18 32 54.4	
	comp=Z,19nm,1.2s						
TUC	Tucson	81.73	52	P	P	18 32 52.4	-0.6
	comp=Z,9.2nm,1.1s						
K17K	Iditarod	81.98	9	P	P	18 32 53.3	-0.2
K17K				IAmb	IAmb	18 33 06.8	
	comp=Z,8.9nm,1.1s						
GNW	Green Mountain	82.03	34	IAmb	IAmb	18 32 55.5	
	comp=Z,7.0nm,0.8s						
J08A	Circle Bar Ran	82.06	40	IAmb	IAmb	18 32 56.6	
	comp=Z,16nm,1.1s						
LCMT	Little Creek M	82.17	47	IAmb	IAmb	18 32 57.5	
	comp=Z,7.1nm,0.9s						
X16A	Lo Mia Camp, P	82.21	50	IAmb	IAmb	18 32 58.3	
	comp=Z,9.7nm,1.0s						
D05A	Enumclaw	82.25	35	IAmb	IAmb	18 32 57.6	
	comp=Z,24nm,1.2s						
IPM	Ipoh	82.46	277	P	P	18 32 57.3	+0.2
PSUT	Pine Spring	82.50	46	IAmb	IAmb	18 32 58.9	
	comp=Z,6.8nm,0.8s						
U15A	North Rim	82.55	48	IAmb	IAmb	18 32 60.0	
	comp=Z,15nm,0.8s						
HAWA	Hanford	83.15	37		P	18 32 59.8	0.0
HAWA				IAmb	IAmb	18 33 01.7	
	comp=Z,9.9nm,0.9s						
SCM	Sheep Creek Mo	83.30	14	P	P	18 32 60.0	-0.2
CAST	Castle Rocks	83.70	12	IAmb	IAmb	18 33 02.0	
	comp=Z,9.1nm,0.6s						
MAW	Mawson	83.79	200	P	P	18 33 01.9	-0.7
	comp=Z,0.8nm,0.4s,baz=253,slow=1.8,SNR=10						
	comp=Z,0.8nm,0.4s						
MAW	Mawson	83.79	200	P	P	18 33 02.0	-0.7
RND	Reindeer	84.34	13	IAmb	IAmb	18 33 06.0	
	comp=Z,11nm,0.6s						
HLID	Hailey	84.67	41	IAmb	IAmb	18 33 09.8	
	comp=Z,5.2nm,0.8s						
HLID	Hailey	84.67	41	P	P	18 33 08.8	+1.2
	comp=Z,7.2nm,0.8s						
GSI	Gunungsitoli	84.73	273	P	P	18 33 08.0	-0.3
GSI	Gunungsitoli	84.73	273	P	P	18 33 07.8	-0.5
	comp=Z,21nm,0.9s						
MNTX	Cornudas Mount	85.60	55	P	P	18 33 13.7	+1.6
	comp=Z,4.5nm,1.0s						
CCB	Clear Creek Bu	85.66	13	IAmb	IAmb	18 33 11.2	
	comp=Z,6.5nm,0.6s						
ILAR	Eielson Array	85.96	13	P	P	18 33 12.4	-0.6
	comp=Z,2.2nm,0.4s,baz=223,slow=5.1,SNR=29						
	comp=Z,2.2nm,0.4s						
TXAR	Lajitas Array	86.02	58	P	P	18 33 16.3	+2.0
	comp=Z,7.2nm,0.8s,baz=218,slow=6.0,SNR=55						
	comp=Z,7.2nm,0.8s						
TXAR	Lajitas Array	86.02	58	P	P	18 33 15.7	+1.5
ANMO	Albuquerque	86.12	52	P	P	18 33 15.8	+1.1
	comp=Z,4.9nm,1.4s						
MSO	Missoula	86.63	38	IAmb	IAmb	18 33 18.6	
	comp=Z,3.4nm,0.6s						
DLMT	Dillon	86.70	40	IAmb	IAmb	18 33 19.2	
	comp=Z,5.8nm,0.8s						
HHC	Hu-ho-hao-te	87.35	314	*e*P	P	18 33 20.3	+0.1
HHC				pmax	pmax		
	comp=Z,11nm,0.7s						
PD31	Pinedale Array	87.39	43	IAmb	IAmb	18 33 22.0	
	comp=Z,4.3nm,0.7s						
PDAR	Pinedale Array	87.39	43	P	P	18 33 21.3	+0.7
	comp=Z,3.8nm,0.6s,baz=220,slow=3.2,SNR=39						
	comp=Z,3.8nm,0.6s						
PDAR	Pinedale Array	87.39	43		P	18 33 20.5	-0.1
BOZ	Bozeman (W)	87.41	40	IAmb	IAmb	18 33 22.6	
	comp=Z,9.1nm,1.4s						
SAND	Sanderson	87.49	58	IAmb	IAmb	18 33 23.2	
	comp=Z,4.7nm,0.8s						
YNE	Yellowstone No	88.14	41	IAmb	IAmb	18 33 26.0	
	comp=Z,4.1nm,0.8s						
128A	Castleberry Fa	88.22	55	IAmb	IAmb	18 33 26.4	
	comp=Z,4.8nm,0.8s						
MSTX	Muleshoe	88.52	54	IAmb	IAmb	18 33 27.4	
	comp=Z,5.9nm,0.7s						
129A	Stewart Farms,	88.71	55	IAmb	IAmb	18 33 28.5	
	comp=Z,6.0nm,1.0s						
CMAR	Chiang Mai Arr	88.94	290	P	P	18 33 29.1	+1.0
	comp=Z,2.3nm,0.9s,baz=114,slow=2.8,SNR=14						
	comp=Z,2.3nm,0.9s						
ELIB	Princess Elisa	89.08	187	*d*P	P	18 33 26.4	-1.5
	comp=Z,3.4nm,0.7s						
PZH	PanZhiHua	89.22	298	P	P	18 33 29.5	+0.2
TROLL	Troll, Antarti	90.23	180	P	P	18 33 32.8	-0.4
	comp=Z,76nm,0.5s						
VNA3	Neumayer Olymp	90.66	176	⇑P	P	18 33 34.9	-0.1
	comp=Z,3.6nm,0.6s						
VNA1	Neumayer--Stat	91.33	177	P	P	18 33 38.3	+0.2
	comp=Z,2.3nm,0.6s						
RSSD	Black Hills	91.60	44	P	P	18 33 39.2	-0.9
	comp=Z,6.3nm,3.0s						
SONM	Songino Array	93.63	319	P	P	18 33 49.3	+0.2
	comp=Z,0.2nm,0.4s,baz=130,slow=6.6,SNR=4.0						
	comp=Z,0.2nm,0.4s						
YKA	Yellowknife Ar	94.39	25	P	P	18 33 51.5	-0.6
	comp=Z,0.7nm,0.5s,baz=236,slow=5.0,SNR=2.9						
	comp=Z,0.7nm,0.5s						
EKA	Eskdalemuir Ar	142.54	4	PKhKP	PKPpre	18 39 57.8	
	comp=Z,0.2nm,0.4s,baz=357,slow=2.3,SNR=3.6						
BRTR	Keskin Array B	144.86	315	PKP	PKPbc	18 40 06.4	-0.3
	comp=Z,0.9nm,0.5s,baz=126,slow=1.7,SNR=4.6						
BRTR	Keskin Array B	144.86	315	PKPdf	PKPbc	18 40 06.8	+0.1
OSTC	Ostas	145.47	344	*e*PKP	PKPab	18 40 09.1	-0.3
CLL	Collm	145.55	347	*i* PKPbc	PKPbc	18 40 08.2	+0.1
	comp=Z,5.0nm,0.7s						
STEB	Steborice	145.59	341	*e*PKP	PKPbc	18 40 08.7	+0.4
DPC	Dobruska-Polom	145.63	343	*e*PKP	PKPbc	18 40 09.2	+0.7
MMAI	Mount Meron Ar	146.21	303	PKPbc	PKPbc	18 40 11.2	+0.5
	comp=Z,1.2nm,0.5s,baz=101,slow=4.5,SNR=5.2						
KHC	Kasperske Hory	147.46	345	*e*PKP	PKPbc	18 40 13.8	+0.4
KHC				*e*x	x	18 40 18.5	
CKRC	Cesky Krumlov	147.57	344	*e*PKP	PKPbc	18 40 14.2	+0.5
GERES	GERESS Array B	147.69	345	PKPbc	PKPbc	18 40 14.4	+0.2
	comp=Z,1.2nm,0.5s,baz=10,slow=3.0,SNR=14						
GERES	GERESS Array B	147.69	345	PKPbc	PKPbc	18 40 14.5	+0.4
ESDC	Sonseca Array	157.85	11	PKPab	PKPab	18 41 01.4	-0.4
	comp=Z,0.9nm,0.9s,baz=355,slow=4.6,SNR=5.0						

NOU ***27*** *18:38:38.4, 22°.31S×179°.46W, h582^{km}, mb4.6/46, South of Fiji Islands*

GFZ ***27*** *18:38:38.9±0.5, 22°S±5°×18°0W±°, h577^{km}±5^{km}, M4.6/30, mb4.6/30, Error ellipse: s-maj=11.5km s-min=6.9km az=166.4, confirmed*

NEIC ***27*** *18:38:38.3±2.3, 22°.2S±0°.1×179°.5W±0°.1, h575^{km}±7^{km}, mb4.5/112, Error ellipse: s-maj=18.1km s-min=14.9km az=200.0*

IDC ***27*** *18:38:39.6±0.9, 22°.20S×179°.65W, h589^{km}±9^{km}, mb3.8/13, mbtmp4.7/15, Error ellipse: s-maj=11.7km s-min=9.7km az=133.0*

ISC 27 18:38:38.0±0.3, **22°.36S**±0°.05×**179°.49W**±0°.05, **h579**^{km}, **n311**, σ1^{s}**16**/289, **mb4.5**/95, **19C-9D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LKBA	Tubou, Lakemba	4.15	9	P	P	18 40 03.6	+0.4
LKBA	Tubou, Lakemba	4.15	9	S	S	18 41 12.8	+0.3
MSVF	Nonsavu	5.15	333	P	P	18 40 11.7	+0.6
	28nm,0.5s,baz=162,slow=9.6,SNR=47						
MSVF				S	S	18 41 26.9	+0.1
	34nm,0.8s,baz=305,slow=23,SNR=8.3						
MSVF	Nonsavu	5.15	333	P	P	18 40 11.5	+0.5
MSVF	Nonsavu	5.15	333	S	S	18 41 27.3	+0.5
MSVF	Nonsavu	5.15	333	P	P	18 40 12.0	+1.0
	comp=Z,64nm,0.8s						
RAO	Raoul Island	7.01	169	P	P	18 40 27.3	+0.2
	comp=Z,216nm,0.2s,baz=39,slow=14,SNR=5.9						
RAO				S	S	18 41 53.3	-3.2
	comp=Z,190nm,0.3s,baz=126,slow=24,SNR=1.7						
RAO	Raoul Island	7.01	169	P	P	18 40 27.3	+0.2
NIUE	Niue	9.53	72	P	P	18 40 50.8	-0.9
NIUE	Niue	9.53	72	P	S	18 42 42.9	+1.4
NIUE	Niue	9.53	72	P	P	18 40 48.6	-3.2
NIUE	Niue	9.53	72	P	P	18 40 50.9	-0.9
	comp=Z,351nm,1.3s						
AFI	Afiamalu	11.15	42	S	S	18 43 02.4	-9.3
	comp=Z,32nm,0.8s,baz=45,slow=18,SNR=2.1						
MARNC	Mare, Loyalty	11.61	272	P	P	18 41 13.0	+0.2
MARNC	Mare, Loyalty	11.61	272	P	P	18 41 12.9	+0.1
RTV	Rentapao	12.22	290	P	P	18 41 19.3	+0.2
DVP	Devils Point	12.46	290	P	P	18 41 21.7	+0.2
YATNC	Mamie plateau,	12.62	269	P	P	18 41 24.3	+1.3
OUENC	Ouen Island, N	12.64	267	P	P	18 41 24.3	+1.0
OUENC	Ouen Island, N	12.64	267		P	18 41 23.8	+0.5
DZM	Mont Dzumac	13.03	269	P	P	18 41 26.5	-0.9
	comp=Z,17nm,0.5s,baz=74,slow=20,SNR=20						
NOUC	Port Laguerre	13.16	268	P	P	18 41 29.0	+0.4
SANVU	Saraoutou	14.34	296	P	P	18 41 40.5	-0.1
SANVU	Saraoutou	14.34	296	P	P	18 41 38.2	-2.3
SANVU	Saraoutou	14.34	296	P	P	18 41 40.2	-0.3
	comp=Z,100nm,0.7s						
URZ	Urewera	16.11	190	P	P	18 41 56.5	-0.7
	comp=Z,6.5nm,0.4s,baz=289,slow=4.5,SNR=7.3						
URZ				S	S	18 44 31.1	-8.4
	comp=Z,11nm,0.6s,baz=345,slow=3.7,SNR=1.7						
URZ	Urewera	16.11	190	P	P	18 41 58.3	+1.1
TATA	Tatamba Isabel	24.27	302	P	P	18 43 11.0	0.0
ARMA	Armidale	27.03	247	P	P	18 43 35.9	+0.6
ARMA	Armidale	27.03	247	P	P	18 43 37.2	+2.0
	comp=Z,24nm,0.9s						
EIDS	Eidsvold	27.05	258	P	P	18 43 36.1	+0.7
EIDS	Eidsvold	27.05	258		P	18 43 34.8	-0.6
EIDS	Eidsvold	27.05	258	P	P	18 43 36.4	+1.0
	comp=Z,26nm,0.9s						
MGCD	Mangrove Creek	28.07	241	P	P	18 43 44.3	+0.1
MGCD	Mangrove Creek	28.07	241	P	P	18 43 46.3	+2.1
	comp=Z,33nm,0.7s						
RMQ	Roma	29.16	255	P	P	18 43 55.8	+2.0
	comp=Z,38nm,1.0s						
CAN	Canberra	30.33	238	P	P	18 44 04.5	+0.7
CAN	Canberra	30.33	238	P	P	18 44 05.4	+1.7
	comp=Z,20nm,1.0s						
TV1H	Townsville Har	31.62	269	P	P	18 44 15.3	+0.4
CTA	Charters Tower	31.97	268	P	P	18 44 18.1	+0.2
CTAO	Charters Tower	31.97	268	P	P	18 44 18.2	+0.3
CTAO	Charters Tower	31.97	268		P	18 44 18.5	+0.6
CTAO	Charters Tower	31.97	268	P	P	18 44 18.8	+0.9
	comp=Z,47nm,0.8s						
CMSA	Cobar Meteorol	32.24	246	P	P	18 44 20.9	+0.9
CMSA	Cobar Meteorol	32.24	246	P	P	18 44 21.2	+1.2
	comp=Z,34nm,0.7s						
QLP	Quilpie	33.21	255	P	P	18 44 28.6	+0.3
QLP	Quilpie	33.21	255	P	P	18 44 29.2	+0.9
	comp=Z,49nm,0.9s						
MTSU	Mount Surprise	34.16	270	P	P	18 44 37.2	+0.9
	comp=Z,17nm,0.8s						
PMG	Port Moresby	34.47	287	P	P	18 44 39.1	+0.2
PMG	Port Moresby	34.47	287		P	18 44 36.2	-2.7
PMG	Port Moresby	34.47	287	P	P	18 44 39.1	+0.2
PMG	Port Moresby	34.47	287	P	P	18 44 39.3	+0.3
	comp=Z,51nm,0.8s						
STKA	Stephens Creek	35.75	246	P	P	18 44 50.6	+1.3
	comp=Z,11nm,0.5s,baz=95,slow=10,SNR=26						
	comp=Z,11nm,0.5s						
STKA	Stephens Creek	35.75	246	P	P	18 44 50.2	+0.9
STKA	Stephens Creek	35.75	246	P	P	18 44 50.6	+1.3
	comp=Z,68nm,0.7s						
INKA	Innaminka	36.31	253		P	18 44 54.0	0.0
QIS	Mount Isa	38.03	265	P	P	18 45 07.7	-0.5
QIS	Mount Isa	38.03	265	P	P	18 45 08.1	-0.1
	comp=Z,8.1nm,1.3s						
HTT	Hallett	38.15	244	P	P	18 45 09.0	0.0
BBOO	Buckleboo	40.49	245	P	P	18 45 27.5	-0.3
BBOO	Buckleboo	40.49	245	P	P	18 45 28.0	+0.3
	comp=Z,19nm,1.3s						
AS31	Alice Springs	42.77	259		P	18 45 46.0	+0.2
ASAR	Alice Springs	42.77	259	P	P	18 45 46.0	+0.2
	comp=Z,24nm,0.8s,baz=90,slow=8.9,SNR=322						
ASAR				PcP	PcP	18 47 24.3	+0.5
	comp=Z,2.9nm,0.6s,baz=105,slow=4.4,SNR=6.1						
ASAR				ScP	ScP	18 50 20.2	+0.1
	comp=Z,1.1nm,0.9s,baz=97,slow=4.2,SNR=4.5						
ASAR				S	S	18 51 26.1	-2.7
	comp=Z,4.0nm,0.9s,baz=98,slow=16,SNR=15						
ASAR				PKiKP	PKiKP	18 54 24.4	-1.4
	comp=Z,0.2nm,0.6s,baz=95,slow=1.0,SNR=4.8						
	comp=Z,24nm,0.8s						
ASAR	Alice Springs	42.77	259		P	18 45 45.0	-0.8
ASAR				PcP	PcP	18 47 24.5	+0.6
WR8	Warramunga Arr	42.85	264		P	18 45 46.0	-0.5
WR8				IAmb	IAmb	18 45 47.5	
	comp=Z,24nm,1.2s						
WB0	Warramunga Arr	42.98	265		P	18 45 47.1	-0.4
WRAB	Tennant Creek	42.99	264	P	P	18 45 47.2	-0.4
WRAB	Tennant Creek	42.99	264	P	P	18 45 46.9	-0.7
WRAB				IAmb	IAmb	18 45 48.0	
	comp=Z,20nm,0.8s						
WRAB	Tennant Creek	42.99	264	P	P	18 45 47.4	-0.2
	comp=Z,31nm,1.4s						
WRA	Warramunga Arr	43.00	264	P	P	18 45 47.3	-0.4
	comp=Z,18nm,0.6s,baz=96,slow=7.8,SNR=308						
WRA				ScP	ScP	18 50 22.6	+1.4
	comp=Z,3.5nm,0.9s,baz=104,slow=4.1,SNR=11						
WRA				S	S	18 51 29.3	-2.9
	comp=Z,1.3nm,0.9s,baz=95,slow=15,SNR=5.5						
WRA				PKiKP	PKiKP	18 54 24.6	-1.5
	comp=Z,0.4nm,0.7s,baz=76,slow=0.1,SNR=5.5						
	comp=Z,18nm,0.6s						
WRA	Warramunga Arr	43.00	264		P	18 45 46.0	-1.7
GENI	Genyem	43.79	291	P	P	18 45 54.2	+0.4
	comp=Z,34nm,1.2s						
GENI	Genyem	43.79	291	P	P	18 45 53.4	-0.4
	comp=Z,33nm,1.2s						
MTN	Manton Dam	47.82	273		P	18 46 23.9	-0.5
BAKI	Biak	48.00	290	P	P	18 46 26.1	+0.3
	comp=Z,40nm,0.8s						
KNRA	Kununurra	49.18	268		P	18 46 33.6	-0.8
KNRA				IAmb	IAmb	18 46 35.3	
	comp=Z,8.8nm,0.6s						
FAKI	Fak Fak	50.60	285	P	P	18 46 45.3	+0.4
FITZ	Fitzroy Crossi	51.43	264	P	P	18 46 51.0	+0.2
FITZ	Fitzroy Crossi	51.43	264		P	18 46 51.0	+0.2
FITZ	Fitzroy Crossi	51.43	264	P	P	18 46 50.9	+0.1
	comp=Z,2.0nm,1.1s						
SWI	Sorong	52.42	287	P	P	18 46 58.1	+0.2
SOEI	Soe	55.20	274	P	P	18 47 28.3	+11
SOEI	Soe	55.20	274	P	P	18 47 16.6	-1.1
	comp=Z,45nm,0.8s						
SBA	Scott Base	55.94	183	P	P	18 47 24.0	+2.4
SBA	Scott Base	55.94	183	P	P	18 47 25.5	+4.0
	comp=Z,9.6nm,1.3s						
VNDA	Vanda	55.95	185	P	P	18 47 24.2	+2.6
	comp=Z,2.7nm,0.7s,baz=358,slow=7.4,SNR=23						
	comp=Z,2.7nm,0.7s						
VNDA	Vanda	55.95	185		P	18 47 23.6	+1.9
VNDA	Vanda	55.95	185	P	P	18 47 21.7	+0.1
	comp=Z,4.3nm,1.0s						
MBWA	Marble Bar	56.11	259	P	P	18 47 24.3	+0.6
SANI	Sanana	56.60	283	P	P	18 47 26.6	-0.6
	comp=Z,15nm,0.8s						
BLDU	Ballidu	57.04	247	P	P	18 47 30.1	+0.1
TOLI2	Tolitoli	62.66	284	P	P	18 48 07.8	+0.4
TOLI2	Tolitoli	62.66	284	P	P	18 48 07.9	+0.4
	comp=Z,11nm,0.8s						
JAGI	Jajag, Banyuwa	65.00	271	P	P	18 48 22.3	0.0
QSPA	South Pole Qui	67.72	180	P	P	18 48 40.0	+1.7
	comp=Z,18nm,0.8s,baz=314,slow=0.5,SNR=104						
	comp=Z,18nm,0.8s						
QSPA	South Pole Qui	67.72	180		P	18 48 40.1	+1.7
QSPA				IAmb	IAmb	18 48 41.0	
	comp=Z,17nm,0.9s						
KSRS	Korea Array	77.37	320	P	P	18 49 31.7	-2.3
	comp=Z,0.5nm,0.6s,baz=133,slow=6.2,SNR=2.1						
PETK	Petropavlovsk-	77.72	346	P	P	18 49 35.6	+0.1
	comp=Z,6.2nm,0.7s,baz=134,slow=3.6,SNR=24						
	comp=Z,6.2nm,0.7s						
PETK	Petropavlovsk-	77.72	346	P	P	18 49 35.3	-0.2
BELA	Belgrano 2	77.90	173	P	P	18 49 36.1	-0.2
BELA				IAmb	IAmb	18 49 37.7	
	comp=Z,16nm,1.0s						
DLV	Lat	78.35	288	P	P	18 49 40.3	+0.3
MAW	Mawson	79.35	200	P	P	18 49 45.3	+1.2
	comp=Z,4.7nm,0.7s,baz=138,slow=6.2,SNR=27						
	comp=Z,4.7nm,0.7s						
MAW	Mawson	79.35	200		P	18 49 45.3	+1.2
MAW	Mawson	79.35	200	P	P	18 49 45.5	+1.4
	comp=Z,1.3nm,1.0s						
NJ2	Nanjing	80.01	311	*e*P	P	18 49 50.3	+2.2
NJ2				pmax	pmax		
	comp=Z,11nm,0.5s						
ISA	Isabella, Lake	81.62	46	P	P	18 49 57.1	+0.6
ISA				IAmb	IAmb	18 49 58.5	
	comp=Z,9.3nm,0.8s						
CMB	Columbia Colle	81.76	43		P	18 49 57.2	+0.1
KSXB	Camp Six Broad	81.99	39	P	P	18 49 59.2	+0.9
KSXB				IAmb	IAmb	18 50 00.8	
	comp=Z,17nm,0.9s						
O03E	Paynes Creek	82.25	41	P	P	18 49 59.2	-0.4
O03E				IAmb	IAmb	18 50 02.1	
	comp=Z,29nm,1.4s						
CCCA	Chr Cany lake	82.29	47	P	P	18 50 00.5	+0.7
CCCA				IAmb	IAmb	18 50 01.9	
	comp=Z,13nm,1.1s						
CLC	China Lake	82.30	46	P	P	18 50 00.7	+0.8
CLC				IAmb	IAmb	18 50 01.7	
	comp=Z,9.7nm,0.9s						
M02C	Callahan	82.31	39		P	18 50 01.6	+1.7
M02C				IAmb	IAmb	18 50 02.6	
	comp=Z,14nm,0.8s						
MDPB	Devils Postpil	82.36	44	P	P	18 49 59.0	-1.5
MDPB				IAmb	IAmb	18 50 02.2	
	comp=Z,9.7nm,0.8s						
WAKR	Walker	82.64	43	IAmb	IAmb	18 50 03.8	
	comp=Z,11nm,0.8s						
YERR	Yerington	83.05	43	IAmb	IAmb	18 50 05.5	
	comp=Z,12nm,0.6s						
L04D	Klamath Falls	83.14	39	IAmb	IAmb	18 50 06.1	
	comp=Z,15nm,0.9s						
BNX	BinXian	83.15	326	⇓P	P	18 50 04.5	+0.7
BNX				pmax	pmax		
	comp=Z,6.0nm,0.7s						
NVAR	Mina Array Bea	83.32	44	P	P	18 50 06.0	+0.8
	comp=Z,5.8nm,0.9s,baz=226,slow=8.6,SNR=18						
	comp=Z,5.8nm,0.9s						
ESPZ	Base Esperanza	83.47	158	P	P	18 50 05.7	+0.5
ESPZ				IAmb	IAmb	18 50 07.1	
	comp=Z,11nm,0.7s						
TPH	Tonopah	83.82	45	IAmb	IAmb	18 50 09.3	
	comp=Z,14nm,1.1s						
MOD	Modoc Plateau	84.13	40	IAmb	IAmb	18 50 10.7	
	comp=Z,20nm,1.5s						
WIFE	Three Sisters-	84.56	38	IAmb	IAmb	18 50 13.2	
	comp=Z,8.1nm,0.8s						
ELIB	Princess Elisa	84.64	187	*d*P	P	18 50 11.4	+0.3
	comp=Z,12nm,1.0s						
ELIB				*d*pP	pwP	18 52 19.1	+1.6
PINE	Pine Mountain	84.90	38	IAmb	IAmb	18 50 14.6	
	comp=Z,8.9nm,0.7s						
TUC	Tucson	85.21	52		P	18 50 15.7	+1.2
TUC				IAmb	IAmb	18 50 17.1	
	comp=Z,9.1nm,0.8s						
TUC	Tucson	85.21	52	P	P	18 50 16.2	+1.8
	comp=Z,11nm,0.9s						
JRO	Jston Ridge Ob	85.72	36	IAmb	IAmb	18 50 18.9	
	comp=Z,16nm,1.0s						
COYC	Coyhaique	85.72	138		P	18 50 17.0	+0.4
COYC	Coyhaique	85.72	138	P	P	18 50 18.5	+1.9
	comp=Z,24nm,1.9s						
HNS	HongShan	85.79	313	⇑P	P	18 50 18.8	+1.9
X16A	Lo Mia Camp, P	85.80	50	IAmb	IAmb	18 50 19.6	
	comp=Z,8.2nm,1.2s						
TROLL	Troll, Antarti	85.87	181	⇑P	P	18 50 17.1	+0.1
	comp=Z,420nm,0.4s						

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TROLL                                pP      pwP      18 52 23.3 -0.2
         comp=Z,262nm,0.7s
LCMT  Little Creek M    85.89  47    P       P        18 50 17.2 -0.3
J08A  Circle Bar Ran    86.08  40    IAmb    IAmb     18 50 20.4
         comp=Z,14nm,1.3s
HEH   HeiHe             86.17 329    eP      P        18 50 18.8 +0.4
HEH                                  pmax    pmax
         comp=Z,6.0nm,0.9s
SNAA  Sanae             86.19 179    P       P        18 50 18.0 -0.4
         comp=Z,40nm,0.4s
SNAA  Sanae             86.19 179    P       P        18 50 17.5 -0.9
         comp=Z,1.4nm,0.4s,baz=140,slow=7.9,SNR=4.1
GNW   Green Mountain    86.20  35    IAmb    IAmb     18 50 20.6
         comp=Z,6.3nm,0.7s
U15A  North Rim         86.23  48    IAmb    IAmb     18 50 21.6
         comp=Z,11nm,0.8s
VNA3  Neumayer Olymp    86.38 177   ⇑P       P        18 50 18.8 -0.4
         comp=Z,7.8nm,0.6s
VNA3                                ⇑pP      pwP      18 52 25.4  0.0
         comp=Z,5.5nm,0.8s
VNA3  Neumayer Olymp    86.38 177    P       P        18 50 19.0 -0.3
         comp=Z,12nm,0.8s
VNA2  Neumayer--Watz    86.81 177    P       P        18 50 22.6 +1.4
         comp=Z,5.1nm,0.4s,baz=183,slow=4.1
MXC   Moxie City        86.95  36    IAmb    IAmb     18 50 24.1
         comp=Z,9.0nm,0.8s
VNA1  Neumayer--Stat    87.04 177    P       P        18 50 22.7 +0.4
         comp=Z,9.6nm,0.9s
LTY   Liberty           87.16  36    IAmb    IAmb     18 50 24.3
         comp=Z,7.6nm,0.7s
HAWA  Hanford           87.26  37    IAmb    IAmb     18 50 25.6
         comp=Z,14nm,0.9s
J18K  Innoko River      87.40  10    IAmb    IAmb     18 50 24.8
         comp=Z,8.7nm,0.8s
WAH2  Wahluke Slope     87.46  37    IAmb    IAmb     18 50 26.0
         comp=Z,6.5nm,0.6s
MFID  Camas Ranch       87.69  41    IAmb    IAmb     18 50 27.7
         comp=Z,9.3nm,0.9s
EPH   Ephrata           87.80  36            P        18 50 25.2 -1.0
EPH                                  IAmb    IAmb     18 50 27.9
         comp=Z,15nm,1.2s
CAST  Castle Rocks      88.17  12            P        18 50 25.9 -1.7
PLID  Pearl Lake        88.53  39    IAmb    IAmb     18 50 31.2
         comp=Z,12nm,1.4s
LLLB  Lillooet          88.60  33    IAmb    IAmb     18 50 31.4
         comp=Z,8.6nm,1.1s
HLID  Hailey            88.64  41    IAmb    IAmb     18 50 32.4
         comp=Z,6.0nm,0.8s
HLID  Hailey            88.64  41    P       P        18 50 31.7 +1.3
         comp=Z,11nm,1.4s
HVU   Hansel Valley     88.70  43    IAmb    IAmb     18 50 32.5
         comp=Z,7.6nm,0.9s
Y22A  Socorro           88.80  52    IAmb    IAmb     18 50 33.4
         comp=Z,7.4nm,0.9s
P17A  Butcher Ranch,    88.84  46    IAmb    IAmb     18 50 33.5
         comp=Z,11nm,1.3s
VHRN  Van Horn          88.85  56    IAmb    IAmb     18 50 33.8
         comp=Z,6.7nm,0.7s
MNTX  Cornudas Mount    88.95  55    P       P        18 50 33.2 +1.3
         comp=Z,14nm,0.9s
PLCA  Paso Flores       89.00 134    P       P        18 50 33.6 +1.4
         comp=Z,2.5nm,0.7s,baz=212,slow=6.1,SNR=11
         comp=Z,2.5nm,0.7s
PLCA  Paso Flores       89.00 134    P       P        18 50 33.6 +1.4
         comp=Z,6.4nm,0.8s
TXAR  Lajitas Array     89.22  58    P       P        18 50 34.9 +1.6
         comp=Z,5.0nm,0.9s,baz=207,slow=5.2,SNR=28
         comp=Z,5.0nm,0.9s
TXAR  Lajitas Array     89.22  58            P        18 50 34.5 +1.2
P18A  Preston Nutter    89.25  46    IAmb    IAmb     18 50 35.2
         comp=Z,5.3nm,0.9s
BSUT  Blindstream Ca    89.37  45            P        18 50 34.7 +0.6
HWUT  Hardware Ranch    89.39  44            P        18 50 32.0 -1.9
HWUT                                 IAmb    IAmb     18 50 35.1
         comp=Z,5.8nm,0.8s
HWUT  Hardware Ranch    89.39  44    P       P        18 50 34.7 +0.8
         comp=Z,8.4nm,0.8s
CMAR  Chiang Mai Arr    89.43 290    P       P        18 50 36.1 +1.7
         comp=Z,1.9nm,0.8s,baz=138,slow=3.4,SNR=15
CMAR                                 PKKPbc  PKKPbc   19 08 06.7 +0.9
         comp=Z,0.7nm,0.5s,baz=276,slow=2.7,SNR=4.8
         comp=Z,1.9nm,0.8s
CHTO  Chiang Mai        89.57 290    P       P        18 50 36.8 +1.8
         comp=Z,4.7nm,1.9s
TASM  ASL Pad, Albuq    89.64  52    IAmb    IAmb     18 50 36.9
         comp=Z,4.8nm,0.9s
TASM  ASL Pad, Albuq    89.64  52    IAmb    IAmb     18 50 36.9
         comp=Z,4.9nm,0.9s
ALQ   Albuquerque       89.64  52    IAmb    IAmb     18 50 36.9
         comp=Z,5.0nm,0.9s
ALQ   Albuquerque       89.64  52    IAmb    IAmb     18 50 36.9
         comp=Z,5.1nm,0.9s
ANMO  Albuquerque       89.64  52            P        18 50 35.7 +0.4
ANMO                                 IAmb    IAmb     18 50 36.9
         comp=Z,3.9nm,0.8s
ANMO  Albuquerque       89.64  52    P       P        18 50 36.1 +0.8
         comp=Z,6.3nm,0.9s
HHC   Hu-ho-hao-te      89.66 315    eP      P        18 50 34.5 -0.6
HHC                                  pmax    pmax
         comp=Z,10.0nm,0.6s
PV22  Blue Mesa, Par    89.70  48    IAmb    IAmb     18 50 36.9
         comp=Z,9.3nm,1.1s
CCB   Clear Creek Bu    90.13  13    P       P        18 50 35.1 -1.4
CCB                                  IAmb    IAmb     18 50 36.5
         comp=Z,5.4nm,0.6s
AHID  Auburn Hatcher    90.28  43    IAmb    IAmb     18 50 40.4
         comp=Z,7.3nm,0.8s
AHID  Auburn Hatcher    90.28  43    P       P        18 50 38.8 +0.7
         comp=Z,11nm,0.8s
PZH   PanZhiHua         90.36 298    P       P        18 50 38.8 +0.1
F19K  Shaleruckik Mo    90.41   8    IAmb    IAmb     18 50 38.4
         comp=Z,4.3nm,0.8s
ILAR  Eielson Array     90.43  13    P       P        18 50 37.0 -1.0
         comp=Z,1.5nm,0.7s,baz=228,slow=4.8,SNR=8.8
         comp=Z,1.5nm,0.7s
ILAR  Eielson Array     90.43  13    P       P        18 50 36.2 -1.7
SAND  Sanderson         90.70  58    IAmb    IAmb     18 50 41.5
         comp=Z,6.3nm,1.1s
LDM   Libby Dam         90.79  37    P       P        18 50 40.8 +0.8
LDM                                  IAmb    IAmb     18 50 41.6
         comp=Z,7.2nm,1.0s
PDAR  Pinedale Array    91.26  44    P       P        18 50 42.9 +0.3
         comp=Z,2.2nm,0.8s,baz=204,slow=3.3,SNR=17
         comp=Z,2.2nm,0.8s
YAK   Yakutsk           93.32 339            P        18 50 49.5 -1.7
MKAR  Makanchi Array   111.45 313    PKiKP   PKiKP    18 56 06.0 -1.0
         comp=Z,0.7nm,0.4s,baz=184,slow=1.3,SNR=6.7
MKAR                                 PKKPbc  PKKPbc   19 07 03.9 -0.4
         comp=Z,1.2nm,0.8s,baz=299,slow=2.5,SNR=5.7
KURBB Kurchatov Arra   114.45 317    PKP     PKPdf    18 56 11.2 -1.3
         comp=Z,0.6nm,0.5s,baz=106,slow=1.6,SNR=4.7
BVAR  Borovoye Array   119.59 319    PKP     PKPdf    18 56 21.8 -0.6
         comp=Z,4.7nm,0.3s,baz=116,slow=1.8,SNR=21
SPITS Spitsbergen Ar   123.62 356    PKP     PKPdf    18 56 28.7 -0.8
         comp=Z,5.8nm,0.6s,baz=101,slow=4.3,SNR=8.5
ARTI  Arti             126.02 324    PKP     PKPdf    18 56 34.2 -0.5
         comp=Z,5.1nm,0.4s,baz=196,slow=1.7,SNR=9.4
ARCES ARCESS Array B   130.48 349    PKP     PKPdf    18 56 42.4 -0.4
         comp=Z,3.4nm,0.6s,baz=61,slow=1.1,SNR=15
FINES FINESS Array B   137.13 342    PKhKP   PKPpre   18 56 43.0
         comp=Z,1.3nm,0.7s,baz=33,slow=2.4,SNR=9.0
FINES                                PKP     PKPdf    18 56 54.1 -1.3
         comp=Z,2.2nm,0.6s,baz=76,slow=3.5,SNR=8.3
FINES                                SKPbc   SKPbc    18 59 33.3 -1.4
         comp=Z,0.8nm,0.7s,baz=338,slow=3.3,SNR=4.1
NB2   NORSAR Subarra140.63 352       PKP     PKPdf    18 56 55.6 -6.3
         comp=Z,0.4nm,0.5s,baz=17,slow=2.6
NOA   NORSAR Array B140.63 352       PKhKP   PKPpre   18 56 55.1
         comp=Z,0.2nm,0.4s,baz=19,slow=3.5,SNR=8.2
NOA                                  PKP     PKiKP    18 57 03.9 -0.8
         comp=Z,0.7nm,0.5s,baz=13,slow=4.0,SNR=4.7
HFS   Hagfors          141.13 350    PKhKP   PKPpre   18 56 56.8
         comp=Z,3.7nm,0.4s,baz=72,slow=4.8,SNR=32
STRU  Stroemstad       142.57 351   i P      PKPdf    18 57 01.8 -3.5
TJOU  Tjoern           143.47 350   i P      PKPab    18 57 05.1 -0.4
HOMB  Homborsund       143.66 353   i P      PKPbc    18 57 06.1 -0.2
SNART Snartemo         143.73 354   i P      PKPbc    18 57 06.2 -0.2
ARPR  Arapgir-MALATY   143.76 306            PKPdf    18 57 08.7 +0.5
AK03  Malin Array Si   143.90 329    PKP     PKPbc    18 57 06.1 -1.1
AKASG Malin Array Be   143.92 329    PKP     PKPbc    18 57 06.3 -0.9
         comp=Z,4.9nm,0.3s,baz=45,slow=4.1,SNR=61
AKASG                                SKPbc   SKiKP    18 59 53.0 -0.3
         comp=Z,0.9nm,0.6s,baz=44,slow=1.8,SNR=4.3
AKASG Malin Array Be   143.92 329            PKPbc    18 57 06.8 -0.5
AKBB  Malin Array Si   143.92 329            PKPbc    18 57 06.6 -0.7
AKBB  Malin Array Si   143.92 329    PKP     PKPbc    18 57 06.3 -1.0
KIEV  Kiev             143.93 329            PKPbc    18 57 06.6 -0.7
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KIEV  Kiev             143.93 329    PKP     PKPbc    18 57 06.3 -1.0
AK02  Malin Array Si   143.95 329    PKP     PKPbc    18 57 06.3 -1.1
ONAU  Onsala           144.02 349   i P      PKPbc    18 57 06.4 -0.9
SUW   Suwalki          144.04 337   ePKPdf   PKPbc    18 57 07.3 -0.2
FABU  Falkenberg       144.26 349   i P      PKPbc    18 57 07.2 -0.9
BLEU  Blekinge         144.26 345   i P      PKPbc    18 57 06.4 -1.7
DEL   Delary           144.53 347   i P      PKPdf    18 57 08.5 -0.3
MCD   Coleburn Disti   144.71   4   eP       PKPdf    18 57 08.2 -0.8
KPL   Plockton         144.77   6   eP       PKPdf    18 57 09.3 +0.2
RNPP8 Varash           145.02 332    PKP     PKPdf    18 57 09.7 -0.1
RNPP5 Staryi Chortor   145.08 332    PKP     PKPdf    18 57 09.8 -0.1
LUBAR Lubar, Ukraine   145.14 329    PKP     PKPdf    18 57 09.7 -0.3
LUNU  Lund             145.40 347   i P      PKPbc    18 57 11.3 -0.3
DRUM  Mains of Drumt   145.42   3   eP       PKPdf    18 57 10.8 +0.6
BAL3X Bal3x, Balta     145.47 325    PKP     PKPbc    18 57 11.4 -0.7
BSD   Bornholm Skovb   145.56 345   i P      PKPbc    18 57 11.8 -0.2
INVG  Invergeldie, C   145.81   4   eP       PKPbc    18 57 12.3 -0.5
LAWE  Loch Awe, Argy   145.86   6   eP       PKPbc    18 57 12.5 -0.4
SORM  Soroca           146.01 326    PKP     PKPdf    18 57 12.2 +0.7
EAB   Aberfoyle        146.02   5   eP       PKPbc    18 57 13.0 -0.3
ASF   Jabal al Asfar   146.34 295    PKPbc   PKPbc    18 57 15.8 +0.6
         comp=Z,5.2nm,0.6s,baz=88,slow=2.4,SNR=11
ILGA  Ilgaz            146.43 311            PKPbc    18 57 15.9 +0.6
GKP   Gorka Klasztor   146.60 342   ePKPbc   PKPbc    18 57 15.1  0.0
BEL   Belsk            146.66 337   ePKPbc   PKPbc    18 57 15.7 +0.4
KMPD  K-Podol'skiy     146.68 328    PKP     PKPdf    18 57 13.3 +0.6
EKA   Eskdalemuir Ar   146.96   4    PKPbc   PKPbc    18 57 15.3 -0.6
         comp=Z,2.3nm,0.4s,baz=356,slow=2.5,SNR=40
BRTR  Keskin Array B   146.99 309    PKPbc   PKPbc    18 57 16.4 -0.4
         comp=Z,4.5nm,0.7s,baz=140,slow=4.9,SNR=25
BRTR  Keskin Array B   146.99 309            PKPbc    18 57 16.5 -0.2
GAL1  Galloway         147.30   6   eP       PKPbc    18 57 16.4 -0.4
MMAI  Mount Meron Ar   147.46 297    PKPbc   PKiKP    18 57 19.0 -0.6
         comp=Z,5.2nm,0.4s,baz=78,slow=7.9,SNR=40
EDMD  Edmundbyers      147.52   3   eP       PKPbc    18 57 17.1 -0.4
KWP   Kalwaria Pacla   147.63 333   ePKPbc   PKPbc    18 57 17.9  0.0
IOMK  Kirk Michael     147.91   6   eP       PKPbc    18 57 18.1 -0.4
ILTH  Belurgan, Co L   147.96   8   eP       PKPbc    18 57 18.1 -0.5
EIL   Elat             148.28 291    PKPbc   PKiKP    18 57 20.9 -0.5
         comp=Z,9.8nm,0.7s,baz=17,slow=5.7,SNR=8.0
OJC   Ojcow            148.34 336   ePKPbc   PKPbc    18 57 19.6  0.0
KOLS  Kolonicke sedl   148.35 332   ePKP     PKiKP    18 57 20.5 -0.4
STHS  Stebnicka Huta   148.41 334   ePKP     PKPbc    18 57 20.0 +0.1
NIE   Niedzica         148.79 335   ePKPbc   PKiKP    18 57 21.5 -0.3
KSP   Ksiaz            149.01 340   ePKPbc   PKiKP    18 57 21.9 -0.3
OSTC  Ostas            149.28 340⇑ePKP      PKiKP    18 57 22.6 -0.2
STEB  Steborice        149.30 338⇑ePKP      PKiKP    18 57 22.5 -0.3
CHVC  Chvalec          149.31 340⇑ePKP      PKiKP    18 57 23.5 +0.7
LANS  Liptovska Anna   149.33 335   ePKP     PKiKP    18 57 23.4 +0.5
FOEL  Foel Wylfa       149.39   4   eP       PKPbc    18 57 21.8 -0.4
UPC   Upice            149.39 340⇑ePKP      PKiKP    18 57 22.7 -0.3
DPC   Dobruska-Polom   149.43 340⇑ePKP      PKiKP    18 57 22.9 -0.2
CLL   Collm            149.51 344⇑iPKPbc    PKPbc    18 57 22.6 +0.2
         comp=Z,31nm,0.6s
CLL                               ⇓iPKPab    PKPab    18 57 29.7 -0.2
         comp=Z,9.0nm,0.6s
CLL                                 epPKPab  pPKPab   18 59 39.0 +1.8
CLL                                 ePP      PP       19 00 59.0 -1.9
MORC  Moravsky Berou   149.52 338   ePKP     PKPbc    18 57 22.7 +0.1
KRLC  Kraliky          149.52 339⇑ePKP      PKPbc    18 57 22.8 +0.2
BRG   Berggiesshubel   149.66 343⇑iPKPb     PKPbc    18 57 23.4 +0.6
BRG   Berggiesshubel   149.66 343    Amp              18 57 24.0
         comp=Z,22nm,0.7s
BRG   Berggiesshubel   149.66 343    PKPab   PKPab    18 57 30.8 +0.3
BRG   Berggiesshubel   149.66 343    Amp              18 57 31.4
         comp=Z,6.6nm,0.7s
HLM1  Long Mynd        149.78   4   eP       PKPbc    18 57 22.6 -0.4
PVCC  Panska Ves       149.80 342⇑ePKP      PKiKP    18 57 23.9 +0.1
HSKC  Hora Svate Kat   150.04 343⇑ePKP      PKPbc    18 57 24.0 +0.2
VYHS  Vyhne            150.10 335   ePKP     PKPbc    18 57 24.1 +0.1
VRAC  Vranov           150.24 339    PKPbc   PKPbc    18 57 24.4 +0.2
         comp=Z,3.0nm,0.6s,baz=122,slow=1.4,SNR=7.5
VRAC  Vranov           150.24 339   ePKP     PKPbc    18 57 24.3 +0.1
JAVC  Velka Javorina   150.24 337   ePKP     PKiKP    18 57 25.6 +0.8
MCH1  Michaelchurch    150.29   4   eP       PKPbc    18 57 23.4 -0.8
PRU   Pruhonice        150.29 342⇑ePKP      PKPbc    18 57 24.5 +0.2
MONM  Monmouth         150.46   4   eP       PKPbc    18 57 23.6 -1.0
KRUC  Moravsky         150.52 339   ePKP     PKPbc    18 57 24.8 -0.1
KRUC                                e                 18 57 34.6
TREC  Trest            150.62 340⇑ePKP      PKPbc    18 57 25.2 +0.1
NKC   Novy Kostel      150.64 344⇑ePKP      PKPbc    18 57 25.3 +0.2
MODS  Modra-Piesok     150.79 337   ePKP     PKiKP    18 57 26.2 +0.3
MODS                                e                 18 57 36.1
SRO   Srobarova        150.86 335   ePKP     PKiKP    18 57 28.1 +2.1
WOL   Wolverton        151.07   2   eP       PKPbc    18 57 25.7 -0.3
ABNA  Allensteig Bun   151.18 339   ePKP     PKiKP    18 57 26.7 -0.1
         comp=Z,2.8nm,0.5s
ABNA                                ePKP     PKPab    18 57 37.9 +0.9
         comp=Z,7.0nm,0.9s
KHC   Kasperske Hory   151.34 342⇑ePKP      PKiKP    18 57 27.0 -0.1
KHC                                 ex       x        18 57 38.0
CKRC  Cesky Krumlov    151.40 341⇑ePKP      PKiKP    18 57 27.3 +0.1
WINA  Alland / Wiene   151.45 338   ePKP     PKiKP    18 57 27.4 +0.1
MEM   Membach          151.48 353   dPKP     PKPbc    18 57 26.8 -0.1
BTNL  Ternell          151.48 352   dPKP     PKPbc    18 57 26.6 -0.5
GERES GERESS Array B   151.56 342    PKPbc   PKPbc    18 57 27.3 -0.1
         comp=Z,3.4nm,0.5s,baz=15,slow=1.5,SNR=33
GERES                                PKPab   PKPab    18 57 38.5 -0.2
         comp=Z,1.6nm,0.6s,baz=321,slow=1.7,SNR=6.0
GERES GERESS Array B   151.56 342            PKPbc    18 57 27.5 +0.1
CONA  Conrad Observa   151.67 338   ePKP     PKPbc    18 57 27.7  0.0
         comp=Z,4.2nm,0.6s
RONA  Rosalia, Austr   151.72 337   ePKP     PKPbc    18 57 27.8 +0.1
         comp=Z,5.0nm,0.6s
DYA   Yadsworthy       151.76   6   eP       PKPbc    18 57 26.3 -1.3
BMRD  Maredsous        151.91 354   dPKPdf   PKPdf    18 57 20.7 -0.2
BMRD                                dPKP     PKPbc    18 57 27.9 -0.1
MOA   Molln            152.27 340   ePKP     PKPbc    18 57 28.4 -0.4
         comp=Z,3.1nm,1.0s
WLF   Walferdange      152.39 352   dPKP     PKiKP    18 57 29.9 +0.8
BIOA  Bad Ischl, Aus   152.61 341   ePKP     PKPbc    18 57 29.0 -0.7
         comp=Z,1.3nm,0.5s
SESA  Seetaler Alpe,   152.82 339   ePKP     PKPbc    18 57 29.5 -0.8
         comp=Z,13nm,0.8s
SESA                                ePKP     PKPab    18 57 44.8 +0.5
         comp=Z,9.2nm,0.5s
SOKA  Soboth           153.04 338   ePKP     PKPbc    18 57 29.9 -0.7
         comp=Z,2.4nm,0.7s
SOKA                                ePKP     PKPab    18 57 44.9 -0.1
         comp=Z,5.8nm,1.1s
LESA  Schwarzleotal    153.14 342   ePKP     PKPbc    18 57 30.5 -0.3
         comp=Z,1.7nm,0.5s
KBA   Koelnbreinsper   153.25 340   ePKP     PKPbc    18 57 30.8 -0.5
         comp=Z,4.8nm,0.9s
OBKA  Obir             153.35 338   ePKP     PKPbc    18 57 31.4  0.0
         comp=Z,4.3nm,0.9s
WATA  Walderalm        153.53 343   ePKP     PKPbc    18 57 31.1 -0.6
         comp=Z,0.9nm,0.3s
WATA                                ePKP     PKPab    18 57 47.2  0.0
         comp=Z,1.6nm,0.4s
MYKA  Terra Mystica    153.55 339   i PKP    PKPab    18 57 46.6 -0.6
         comp=Z,2.1nm,0.5s
WTTA  Wattenberg       153.58 343   i PKiKP  PKiKP    18 57 32.7 +0.8
         comp=Z,3.2nm,0.5s
WTTA                                i PKP    PKPab    18 57 47.7 +0.2
         comp=Z,4.3nm,0.4s
MOTA  Moosalm          153.65 344   i PKP    PKPab    18 57 47.7  0.0
         comp=Z,1.5nm,0.5s
SQTA  Sankt Quirin     153.74 343   i PKiKP  PKiKP    18 57 32.8 +0.6
         comp=Z,1.7nm,0.6s
ABTA  Abfaltersbach    153.80 341   i PKP    PKiKP    18 57 32.7 +0.4
         comp=Z,2.1nm,0.6s
ABTA                                i PKP    PKPab    18 57 48.2  0.0
         comp=Z,3.2nm,0.6s
DAVA  Damuels          154.01 345   ePKP     PKiKP    18 57 33.0 +0.2
         comp=Z,0.6nm,0.3s
DAVA                                i PKP    PKPab    18 57 48.4 -0.8
         comp=Z,3.2nm,0.6s
DAVOX Davos/Dischmat   154.48 345    PKPbc   PKiKP    18 57 33.6 -0.3
         comp=Z,2.1nm,0.5s,baz=207,slow=7.1,SNR=7.3
DAVOX                                PKPab   PKPab    18 57 50.7 -0.6
         comp=Z,4.2nm,0.7s,baz=34,slow=3.6,SNR=7.4
ESDC  Sonseca Array    162.32  11    PKPab   PKPab    18 58 24.2 -1.3
         comp=Z,1.9nm,1.0s,baz=337,slow=4.5,SNR=6.8
DBIC  Dimbokro         163.57 161    PKP     PKPdf    18 57 35.5 -0.6
         comp=Z,1.4nm,0.5s,baz=173,slow=1.9,SNR=6.1
DBIC                                 PKPab   PKPab    18 58 31.3 -0.1
         comp=Z,4.7nm,0.8s,baz=179,slow=7.9,SNR=4.2
TORD  Torodi Ar. Bea   170.77 187    PKP     PKPdf    18 57 40.4 -0.8
         comp=Z,1.9nm,0.8s,baz=162,slow=0.1,SNR=9.6
TORD                                 PKPab   PKPab    18 59 02.8 -0.4
         comp=Z,1.9nm,0.6s,baz=178,slow=4.1,SNR=11
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*IDC **27** 18:51:13.3±3.9, 36.°26N×70.°86E, h163km±35km, mb3.7/13, mbtmp4.2/18, MS3.3/2, Error ellipse: s-maj=24.4km s-min=14.7km az=32.0*

*NNC **27** 18:51:22.2±10.0, 37.°06N×70.°57E, h219km±145km, mb3.1, mpv4.2, Error ellipse: s-maj=111.4km s-min=50.7km az=0.0*

ISC 27 18:51:16.3±0.6**, 36.°50N**±0.°06×**70.°97E**±0.°08**, h188km, n36, σ1.s82**/42**, mb3.8**/11**, 1C-3D, Hindu Kush region**

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Code  Station Name       Δ°  AZ°   Phase ID           Time      Res
                                   Op      ISC      h  m  s    ISC
JMU   Jammu             4.89 138   eP      Pn       18 52 31.4 +2.3
JMU                                eS      Sn       18 53 27.7 +1.5
JMU                                 IAML            18 53 29.4
         comp=E,1µm,0.8s
JMU                                 IAML            18 53 29.6
         comp=N,1µm,1.0s
DHRM  DHARAMSHALA       6.12 132   eP      Pn       18 52 46.5 +1.4
DHRM                               eS      Sn       18 53 55.1 -0.2
DHRM                                IAML            18 53 56.8
         comp=E,369nm,0.6s
DHRM                                IAML            18 53 56.9
         comp=N,327nm,0.4s
EKS2  Erkin-Say         6.52  19    P      Pn       18 52 51.2 +1.0
         SNR=132
KK31  Karatay Array     6.60 357    P      Pn       18 52 51.2  0.0
         comp=N,18nm,0.3s,baz=178,slow=12,SNR=342
KK31                              ⇓S       Sn       18 54 01.2 -5.1
         comp=N,13nm,0.3s,baz=183,slow=22,SNR=7.6
AAK   Ala-Archa         6.70  23    P      Pn       18 52 53.8 +1.2
         SNR=54
AAK   Ala-Archa         6.70  23    P      Pn       18 52 53.2 +0.6
         comp=N,30nm,0.3s,baz=175,slow=5.7,SNR=127
AAK                                 S      Sn       18 54 06.9 -1.9
         comp=N,18nm,0.5s,baz=342,slow=21,SNR=14
AAK   Ala-Archa         6.70  23  ⇑P       Pn       18 52 53.5 +0.8
         comp=N,3.2nm,0.3s
AAK                               ⇓S       Sn       18 54 07.1 -1.7
         comp=N,24nm,0.7s
KBK   Karagaybulak      6.87  25    P      Pn       18 52 56.2 +1.4
         SNR=30
ULHL  Ulahol            7.04  34    P      Pn       18 52 58.1 +1.0
         SNR=12
CHMS  Chumysh           7.11  23    P      Pn       18 52 59.4 +1.5
         SNR=14
USP   Ospenovka         7.28  21    P      Pn       18 53 01.0 +0.9
         SNR=12
TKM2  Tokmak 2          7.33  28    P      Pn       18 53 02.0 +1.1
         SNR=49
SMLA  Simla             7.44 134   eP      Pn       18 52 59.1 -3.1
SMLA                               eS      Sn       18 54 15.6  -10
SMLA                                IAML            18 54 26.9
         comp=N,190nm,0.3s
SMLA                                IAML            18 54 28.7
         comp=E,206nm,0.4s
KLP   Kalpa             7.82 127   eP      Pn       18 53 09.7 +2.2
KLP                                eS      Sn       18 54 35.2 -0.4
KLP                                 IAML            18 54 36.9
         comp=N,108nm,1.2s
KLP                                 IAML            18 54 39.4
         comp=E,164nm,0.3s
JOSI  Joshimath         9.30 127   eP      Pn       18 53 27.5 +0.6
JOSI                               eS      Sn       18 55 04.5 -6.4
JOSI                                IAML            18 55 12.1
         comp=E,72nm,1.0s
JOSI                                IAML            18 55 12.4
         comp=N,97nm,0.2s
MK31  Makanchi Array   13.30  36    P      Pn       18 54 18.4 +0.5
         comp=N,1.1nm,0.6s,baz=225,slow=12,SNR=12
MKAR  Makanchi Array   13.30  36    P      Pn       18 54 18.6 +0.7
         comp=N,1.7nm,0.7s,baz=225,slow=10,SNR=13
AB31  Akbulak array    15.07 331  ⇓P       Pn       18 54 37.6 -2.1
         comp=N,6.1nm,0.6s,baz=164,slow=11,SNR=12
KURBB Kurchatov Arra   15.13  19    P      Pn       18 54 39.8 -0.5
         comp=N,0.7nm,0.4s,baz=209,slow=12,SNR=6.2
BVAR  Borovoye Array   16.52 359    P      Pn       18 54 58.2 +0.9
         comp=N,4.7nm,0.5s,baz=163,slow=10,SNR=21
AKTO  Aktyubinsk       16.76 330    P      Pn       18 55 00.9 +0.7
         comp=N,6.1nm,0.5s,baz=138,slow=8.8,SNR=20
ZALV  Zalesovo Beam    19.92  25    P      P        18 55 34.7 +1.3
         comp=N,2.4nm,0.4s,baz=222,slow=11,SNR=16
         comp=N,2.4nm,0.4s
ARTI  Arti             21.63 341    P      P        18 55 53.4 +2.0
         comp=N,1.4nm,0.4s,baz=151,slow=13,SNR=3.9
         comp=N,1.4nm,0.4s
BELG  Belogornoye      22.87 321    P      P        18 56 02.2 -1.0
         comp=N,11nm,0.6s,baz=162,slow=9.6,SNR=2.5
BELG                                LR     LR       19 07 34.1
         comp=N,71nm,21.8s,baz=289,slow=43
         comp=N,11nm,0.6s
PALK  Pallekele        30.42 161    LR     LR       19 09 29.4
         comp=N,72nm,20.6s,baz=324,slow=36
AKASG Malin Array Be   32.92 309    P      P        18 57 33.4 +0.7
         comp=N,1.7nm,0.6s,baz=84,slow=7.1,SNR=7.8
         comp=N,1.7nm,0.6s
FINES FINESS Array B   37.47 326    P      P        18 58 12.1 +0.8
         comp=N,1.9nm,0.6s,baz=124,slow=9.5,SNR=7.8
         comp=N,1.9nm,0.6s
ARCES ARCESS Array B   41.13 338    P      P        18 58 42.5 +1.0
         comp=N,1.5nm,0.5s,baz=115,slow=8.1,SNR=12
         comp=N,1.5nm,0.5s
HFS   Hagfors          43.05 322    P      P        18 58 57.8 +0.7
         comp=N,3.3nm,0.6s,baz=91,slow=13,SNR=8.9
         comp=N,3.3nm,0.6s
NB2   NORSAR Subarra   44.36 323    P      P        18 59 07.5 -0.1
         comp=Z,1.2nm,0.5s,baz=95,slow=7.9
NOA   NORSAR Array B   44.36 323    P      P        18 59 07.8 +0.2
         comp=Z,2.5nm,0.7s,baz=96,slow=7.7,SNR=13
         comp=Z,2.5nm,0.7s
TORD  Torodi Ar. Bea   65.69 269    P      P        19 01 39.0 -1.9
         comp=Z,0.8nm,0.5s,baz=50,slow=6.1,SNR=10
         comp=Z,0.8nm,0.5s
BOSA  Boshof           77.73 220    P      P        19 02 52.2 -0.3
         comp=Z,1.4nm,0.8s,baz=46,slow=3.7,SNR=4.4
         comp=Z,1.4nm,0.8s
YKA   Yellowknife Ar   81.24   3    P      P        19 03 12.1 +1.3
         comp=Z,1.9nm,0.5s,baz=351,slow=5.3,SNR=12
         comp=Z,1.9nm,0.5s
WRA   Warramunga Arr   82.01 122    P      P        19 03 15.1 -0.4
         comp=Z,0.5nm,0.4s,baz=323,slow=4.9,SNR=22
         comp=Z,0.5nm,0.4s
ASAR  Alice Springs    84.28 125    P      P        19 03 26.6 -0.4
         comp=Z,0.9nm,0.6s,baz=310,slow=4.8,SNR=22
         comp=Z,0.9nm,0.6s
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*IDC **27** 18:53:59.5±1.0, 34.°12N×78.°05E, h0km, mb3.7/10, mbtmp3.7/13, ML3.0/3, MS3.0/7, Error ellipse: s-maj=24.9km s-min=16.3km az=66.0*

ISC 27 18:54:04.4±0.9**, 34.°23N**±0.°10×**77.°95E**±0.°10**, h35km, n17, σ1.s56**/15**, mb3.7**/8**, MS3.0**/5**, Eastern Kashmir**

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Code  Station Name       Δ°  AZ°   Phase ID           Time      Res
                                   Op      ISC      h  m  s    ISC
ALCI  Alchi Leh         0.63 268   eS      Sn       18 54 24.1 -2.3
ALCI                                IAML            18 54 30.0
         comp=N,102nm,0.2s
ALCI                                IAML            18 54 30.9
         comp=E,179nm,0.2s
MKAR  Makanchi Array   12.97  13    Pn     Pn       18 57 05.2 -1.0
         comp=E,0.1nm,0.3s,baz=193,slow=12,SNR=2.2
MKAR                                Sn     Sn       18 59 27.3 -1.9
         comp=E,0.1nm,0.3s,baz=197,slow=24,SNR=3.6
MKAR                                LR     LR       19 02 57.3
         comp=E,32nm,18.9s,baz=179,slow=41
         comp=E,0.3nm,0.5s
MKAR                                AML    AML
KURBB Kurchatov Arra   16.39   1    Pn     Pn       18 57 49.9 -1.6
         comp=E,0.1nm,0.3s,baz=189,slow=11,SNR=4.4
KURBB                               LR     LR       19 04 32.3
         comp=E,46nm,18.7s,baz=175,slow=38
         comp=E,0.3nm,0.3s
KURBB                               AML    AML
BVAR  Borovoye Array   19.55 346    P      P        18 58 30.2 +1.4
         comp=E,0.1nm,0.3s,baz=160,slow=11,SNR=6.1
         comp=E,3.8nm,0.8s
BVAR                                AML    AML
ZALV  Zalesovo Beam    20.30  12    P      P        18 58 38.4 +1.4
         comp=E,0.9nm,0.5s,baz=199,slow=13,SNR=3.1
ZALV                                LR     LR       19 06 22.6
         comp=E,20nm,19.6s,baz=36,slow=36
         comp=E,0.9nm,0.5s
AKTO  Aktyubinsk       21.78 324    P      P        18 58 54.7 +1.6
         comp=E,3.7nm,0.6s,baz=75,slow=8.4,SNR=5.5
AKTO                                LR     LR       19 08 10.7
         comp=E,44nm,19.7s,baz=72,slow=39
         comp=E,3.7nm,0.6s
CMAR  Chiang Mai Arr   24.44 125    P      P        18 59 19.7 -0.3
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Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
	comp=E,0.5nm,0.5s,baz=311,slow=10,SNR=6.0						
	comp=E,0.5nm,0.5s						
SONM	Songino Array	25.23	49	P	P	18 59 26.5	-0.5
	comp=E,0.3nm,0.4s,baz=260,slow=8.7,SNR=5.8						
	comp=E,0.3nm,0.4s						
ARTI	Arti	25.90	335	P	P	18 59 33.4	+0.6
	comp=E,1.9nm,0.6s,baz=100,slow=2.1,SNR=3.4						
	comp=E,1.9nm,0.6s						
FINES	FINESS Array B	42.53	326	P	P	19 01 58.4	+2.1
	comp=E,1.2nm,0.4s,baz=113,slow=9.6,SNR=11						
	comp=E,1.2nm,0.4s						
YAK	Yakutsk	42.63	33	LR	LR	19 19 43.1	
	comp=E,19nm,20.2s,baz=30,slow=36						
ARCES	ARCESS Array B	45.43	337	P	P	19 02 21.5	+2.1
	comp=E,2.1nm,0.8s,baz=84,slow=5.9,SNR=1.9						
	comp=E,2.1nm,0.8s						
NOA	NORSAR Array B	49.57	324	LR	LR	19 24 52.1	
	comp=E,15nm,21.6s,baz=355,slow=37						
TORD	Torodi Ar. Bea	71.44	273	P	P	19 05 21.5	-0.1
	comp=E,1.0nm,1.1s,baz=45,slow=4.3,SNR=3.9						
	comp=E,1.0nm,1.1s						
WRA	Warramunga Arr	76.02	126	P	P	19 05 47.5	-0.8
	comp=E,0.4nm,0.8s,baz=318,slow=6.1,SNR=1.8						
	comp=E,0.4nm,0.8s						
LBTB	Lobatse	77.08	227	LR	LR	19 41 05.7	
	comp=E,22nm,18.1s,baz=292,slow=37						
ASAR	Alice Springs	78.36	129	P	P	19 06 01.2	-0.2
	comp=E,0.5nm,0.9s,baz=316,slow=6.2,SNR=2.8						
	comp=E,0.5nm,0.9s						

AFAD ***27*** *18:55:45.4, 40.°01N×24.°43E, h21^{km}±2^{km}, ML3.3*

MCSM ***27*** *18:55:45.9±0.5, 40°N±4°×2°4E±°, h11^{km}±4^{km}, mb4.3, MLv4.2*

THE ***27*** *18:55:47.0, 40.°0N±0.°8×24.°3E±0.°9, h14^{km}±1^{km}, M3.4/43, MLh3.4/43*

IDC ***27*** *18:55:46.3±0.9, 39.°90N×24.°51E, h0^{km}, mb3.5/7, mbtmp3.6/11, ML3.6/2, MS2.5/2, Error ellipse: s-maj=17.9km s-min=12.3km az=99.0*

ISK ***27*** *18:55:46.7, 40.°01N×24.°47E, h7^{km}, ML3.7/33*

ATH ***27*** *18:55:47.2, 39.°97N×24.°35E, h20^{km}±1^{km}, ML3.5/48, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*

ISC 27 18:55:46.1±1.0**, 39.°92N**±0.°02×**24.°37E**±0.°01**, h6**^{km}±8^{km}**, n249,** σ**1.**^{s}**13**/300**, mb3.4**/6**, 25C-14D, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OUR	Ouranopolis	0.51	324	P	Pg	18 55 56.0	+0.1
OUR				S	Sg	18 56 02.7	+0.1
OUR				AML	AML		
OUR	Ouranopolis	0.51	324	Pg	Pg	18 55 56.8	+0.9
OUR				AML	AML		
OUR	Ouranopolis	0.51	324	P	Pg	18 55 56.2	+0.2
OUR				S	Sg	18 56 02.8	+0.2
OUR				AML	AML		
PAIG	Paliouri	0.53	271	P	Pg	18 55 56.8	+0.4
PAIG				S	Sg	18 56 04.3	+1.1
LMN1	MIRINA LIMNOU	0.53	95	P	Pb	18 55 57.7	-0.2
LMN1				S	Sb	18 56 06.1	+0.3
LMN1				AML	AML		
EFSA	Agios Efstrati	0.61	128	P	Pn	18 56 00.1	-1.3
EFSA				S	Sn	18 56 09.2	-2.2
EFSA				AML	AML		
LIA	Limnos Island	0.63	92	P	Pn	18 55 59.8	-1.8
LIA				S	Sb	18 56 08.5	0.0
LIA				AML	AML		
LIA	Limnos Island	0.63	92	P	Pn	18 55 60.0	-1.6
LIA				S	Sb	18 56 08.3	-0.3
LIA				AML	AML		
THAS	Thassos island	0.73	21	P	Pg	18 56 00.8	+0.6
THAS				S	Sg	18 56 10.8	+1.0
THAS				AML	AML		
THS1	Thassos, Thass	0.83	11	P	Pg	18 56 02.4	+0.3
THS1				S	Sg	18 56 12.2	-0.7
PLG	Polygyros	0.84	303	P	Pg	18 56 02.0	-0.3
PLG				S	Sg	18 56 13.3	+0.1
PLG				AML	AML		
PLG	Polygyros	0.84	303	P	Pg	18 56 01.9	-0.3
AOS	Alonnisos	0.84	207	P	Pn	18 56 03.7	-0.9
AOS				S	Sn	18 56 17.0	-0.2
AOS				AML	AML		
SMTH	Samothraki Isl	1.04	58	P	Pb	18 56 05.6	-1.1
SMTH				S	Sn	18 56 21.1	-1.1
SMTH				AML	AML		
SMTH	Samothraki Isl	1.04	58	P	Pb	18 56 05.4	-1.2
SMTH				S	Sg	18 56 19.5	-0.2
XOR	Xorichti	1.07	239	P	Pg	18 56 06.6	0.0
XOR				S	Sn	18 56 21.2	-1.6
XOR				AML	AML		
XOR	Xorichti	1.07	239	P	Pg	18 56 06.5	0.0
XOR				S	Sg	18 56 20.3	-0.1
XOR				AML	AML		
KAVA	Kavala	1.08	6	P	Pb	18 56 05.9	-1.3
KAVA				S	Sb	18 56 20.8	-0.8
KAVA				AML	AML		
KAVA	Kavala	1.08	6	P	Pb	18 56 06.0	-1.3
KAVA				S	Sb	18 56 19.0	-2.6
KAVA				AML	AML		
NEO	Neokhori	1.08	236	P	Pg	18 56 06.8	0.0
NEO				S	Sn	18 56 21.6	-1.5
NEO				AML	AML		
NEO	Neokhori	1.08	236	P	Pb	18 56 06.6	-0.6
NEO				S	Sg	18 56 21.3	+0.5
NEO				AML	AML		
SOH	Sokhos	1.19	319	P	Pn	18 56 08.2	-1.2
SOH				AML	AML		
SOH	Sokhos	1.19	319	P	Pn	18 56 08.0	-1.3
SOH				S	Sb	18 56 23.0	-1.7
SOH				AML	AML		
GADA	Gvkgeada	1.20	77	P	Pb	18 56 08.7	-0.6
GADA				S	Sn	18 56 25.4	-0.8
GADA				AML	AML		
GADA	Gvkgeada	1.20	77	Pn	Pn	18 56 08.6	-0.9
GADA				Sn	Sb	18 56 24.3	-0.8
GADA				AML	AML		
VOL2	Volos	1.23	244	P	Pb	18 56 09.3	-0.4
VOL2				AML	AML		
THE	Thessaloniki	1.29	304	P	Pn	18 56 09.7	-1.0
THE				S	Sb	18 56 25.9	-1.6
THE	Thessaloniki	1.29	304	P	Pn	18 56 09.7	-1.0
THE				S	Sb	18 56 26.2	-1.4
BOZC	Bozcaada	1.30	93	Pn	Pb	18 56 10.2	-0.7
BOZC				Sn	Sg	18 56 27.8	-0.1
BOZC				AML	AML		
BOZC	Bozcaada	1.30	93	P	Pn	18 56 09.1	-1.7
BOZC				P	Pb	18 56 09.7	-1.3
BOZC				S	Sb	18 56 25.9	-1.9
BOZC				IAML		18 56 31.0	
	comp=N,458nm,1.3s						
KYMI	Kymi, Euboea I	1.30	189	P	Pb	18 56 10.0	-1.1
KYMI				AML	AML		
KYMI	Kymi, Euboea I	1.30	189	P	Pb	18 56 10.2	-0.9
KYMI				S	Sg	18 56 28.0	-0.1
KYMI				AML	AML		
SRS	Serrai	1.33	334	P	Pn	18 56 09.8	-1.6
SRS				S	Sb	18 56 26.5	-2.3
SRS				AML	AML		
SRS	Serrai	1.33	334	P	Pn	18 56 09.6	-1.7
SRS				S	Sb	18 56 26.3	-2.6
SRS				AML	AML		
ECEA	Canakkale, Ece	1.39	84	P	Pn	18 56 10.8	-1.3
ECEA				S	Sb	18 56 29.5	-1.1
ECEA				IAML		18 56 39.0	
	comp=N,624nm,0.6s						
KOCA	Canakkale, Ayv	1.43	107	P	Pg	18 56 13.0	-0.5
KOCA				S	Sg	18 56 32.2	+0.2
KOCA				IAML		18 56 37.0	
	comp=E,649nm,0.5s						
GPNR	Gulpinar-Canak	1.44	108	Pn	Pg	18 56 13.6	-0.1
GPNR				AML	AML		
NVR	Nevrokopi	1.48	345	P	Pn	18 56 11.9	-1.4
NVR				AML	AML		
NVR	Nevrokopi	1.48	345	P	Pn	18 56 12.0	-1.4
NVR				S	Sn	18 56 29.8	-3.2
NVR				AML	AML		
ALEX	Alexandroupoli	1.50	51	P	Pn	18 56 12.5	-1.0
ALEX				S	Sn	18 56 31.8	-1.6
EZN	Ezine	1.51	93	P	Pb	18 56 13.4	-1.1
EZN				AML	AML		
EZN	Ezine	1.51	93	Pn	Pb	18 56 13.6	-0.9
EZN				AML	AML		
EZN	Ezine	1.51	93	Pg	Pn	18 56 12.9	-0.8
EZN				Sg	Sg	18 56 33.4	-1.2
EZN				AML	AML		
ENZZ	Sultanice-Enez	1.52	63	Pn	Pn	18 56 13.3	-0.5
ENZZ				AML	AML		
EZNE	Ezine-Canakkal	1.55	96	Pn	Pb	18 56 14.2	-1.0
CNKL	anakkale-Mer	1.56	84	P	Pn	18 56 12.4	-1.9
CNKL				P	Pb	18 56 14.1	-1.3
CNKL				S	Sb	18 56 34.5	-0.9
CNKL				S	Sb	18 56 34.5	-0.9
CNKL				IAML		18 56 40.0	
	comp=N,479nm,0.9s						
CNKL				IAML		18 56 40.0	
	comp=N,490nm,0.9s						
CAVK	Edirne/Enez-Ca	1.57	60	P	Pn	18 56 14.1	-0.5
CAVK				S	Sg	18 56 36.4	-0.4
CAVK	Edirne/Enez-Ca	1.57	60	⇑P	Pn	18 56 14.2	-0.4
CAVK				⇑S	Sg	18 56 39.5	+2.7
ENEZ	Enez	1.59	59	P	Pn	18 56 13.8	-1.0
ENEZ	Enez	1.59	59	Pn	Pn	18 56 13.8	-1.0
ENEZ				AML	AML		
ALN	Alexandroupoli	1.61	52	P	Pn	18 56 13.5	-1.6
ALN				AML	AML		
ALN	Alexandroupoli	1.61	52	Pn	Pn	18 56 14.4	-0.7
ALN				AML	AML		
ALN	Alexandroupoli	1.61	52	P	Pn	18 56 13.5	-1.6
ALN				S	Sn	18 56 34.0	-2.1
ALN				AML	AML		
ATAL	Atalanti	1.61	221	P	Pn	18 56 14.3	-0.9
PRK	Paraskevi	1.62	114	P	Pb	18 56 15.5	-0.9
PRK				AML	AML		
PRK	Paraskevi	1.62	114	P	Pb	18 56 15.5	-0.9
PRK				S	Sb	18 56 36.0	-1.0
COMU	Canakkale	1.63	83	Pn	Pb	18 56 15.2	-1.4
COMU				AML	AML		
LKR	Lokris	1.66	220	P	Pn	18 56 15.0	-0.8
LKR	Lokris	1.66	220	P	Pn	18 56 14.8	-0.9
TYRN	Tyrnavos	1.66	263	P	Pn	18 56 15.3	-0.5
TYRN				AML	AML		
TYRN	Tyrnavos	1.66	263	P	Pn	18 56 15.6	-0.1
TYRN				AML	AML		
GELI	Tayfur-Gelibol	1.68	73	Pn	Pn	18 56 15.7	-0.4
GELI				AML	AML		
BAYC	CANAKKALE_Bayr	1.69	95	P	Pn	18 56 15.7	-0.5
BAYC				S	Sn	18 56 36.6	-1.4
BAYC				IAML		18 56 42.0	
	comp=N,311nm,0.9s						
MMB	Musomishta	1.69	344	P	Pn	18 56 15.3	-1.0
MMB				AML	AML		
AXAR	Agios Charalam	1.76	229	P	Pn	18 56 16.9	-0.3
AXAR				AML	AML		
AXAR	Agios Charalam	1.76	229	P	Pn	18 56 16.8	-0.4
AXAR				AML	AML		
RZN	Rozhen	1.79	9	P	Pn	18 56 16.8	-1.0
RZN				AML	AML		
ERIK	Erikli-Kesan	1.80	65	Pn	Pn	18 56 17.4	-0.3
ERIK				AML	AML		
AGG	Agios Georgios	1.82	241	P	Pn	18 56 17.1	-0.9
AGG				AML	AML		
AGG	Agios Georgios	1.82	241	P	Pn	18 56 17.1	-0.9
AGG				AML	AML		
GRG	Griva	1.82	305	P	Pn	18 56 17.3	-0.8
GRG				AML	AML		
GRG	Griva	1.82	305	P	Pn	18 56 17.6	-0.5
THL	Klokotos Trika	1.85	260	P	Pn	18 56 18.0	-0.4
THL	Klokotos Trika	1.85	260	P	Pn	18 56 18.0	-0.4
KDZ	Kurdzhali	1.86	23	P	Pn	18 56 17.2	-1.3
KDZ				AML	AML		
KDZ	Kurdzhali	1.86	23	Pn	Pn	18 56 17.7	-0.8
KDZ				AML	AML		
STFN	Stefani	1.86	200	P	Pn	18 56 18.4	-0.1
STFN				AML	AML		
STFN	Stefani	1.86	200	P	Pn	18 56 18.5	-0.1
STFN				AML	AML		
DION	Dionisos Attik	1.87	191	P	Pn	18 56 18.6	-0.2
DION				AML	AML		
DION	Dionisos Attik	1.87	191	P	Pn	18 56 18.4	-0.3
GOKT	Kean, EDRN	1.88	66	P	Pn	18 56 17.6	-1.1
LPK	Lapseki	1.89	75	Pn	Pn	18 56 18.7	-0.2
LPK				AML	AML		
KARY	Karystos	1.89	178	P	Pn	18 56 18.8	-0.2
KARY				AML	AML		
KARY	Karystos	1.89	178	P	Pn	18 56 18.7	-0.2
KARY				S	Sn	18 56 42.0	-1.1
KARY				AML	AML		
AYVA	Ayvalik	1.90	108	P	Pb	18 56 19.3	-1.8
PTL	Penteli	1.91	192	P	Pb	18 56 19.4	-2.1
PTL				AML	AML		
PTL	Penteli	1.91	192	P	Pb	18 56 19.3	-2.1
PTL				AML	AML		
VIL2	Platees	1.91	207	P	Pn	18 56 19.1	-0.2
VIL2				S	Sb	18 56 43.9	-1.7
VIL2				AML	AML		
LAPS	Lapseki, ANA	1.92	79	P	Pn	18 56 18.8	-0.7
LAPS				S	Sn	18 56 41.3	-2.6
LAPS				IAML		18 56 50.0	
	comp=E,321nm,0.5s						
EAG2	Marmaro, Chios	1.93	135	P	Pb	18 56 19.8	-1.9
VILL	Villia	1.94	205	P	Pn	18 56 19.1	-0.6
VILL				AML	AML		
SFL1	Soufli	1.94	49	P	Pn	18 56 18.5	-1.2
VAY	Valandovo	1.96	316	i Pn	Pn	18 56 20.3	+0.4
ATHP	Athens-Neo Psi	1.98	194	P	Pn	18 56 19.9	-0.2
KESN	Edirne-Kesan	1.98	62	P	Pn	18 56 18.8	-1.8
ATHU	Athens Univers	2.01	193	P	Pn	18 56 19.7	-0.9
ATHU				AML	AML		
ATHU	Athens Univers	2.01	193	P	Pn	18 56 20.0	-0.6
ATHU				AML	AML		
NOAC	Athens-Thissio	2.01	195	P	Pb	18 56 21.0	-2.1
NOAC				AML	AML		
ATH	Athens Observa	2.01	195	P	Pb	18 56 21.1	-2.0
ATH				AML	AML		
CHOS	Chios island	2.02	139	P	Pb	18 56 21.1	-2.2
CHOS				AML	AML		
CHOS	Chios island	2.02	139	Pn	Pb	18 56 22.0	-1.3
CHOS				AML	AML		
CHOS	Chios island	2.02	139	P	Pb	18 56 20.9	-2.3
CHOS				AML	AML		
KARB	zmir-Karabur	2.02	128	P	Pn	18 56 20.4	-0.4
KZN	Kozani	2.03	282	P	Pn	18 56 20.6	-0.3
KZN				AML	AML		
KZN	Kozani	2.03	282	P	Pn	18 56 20.6	-0.3
KZN				AML	AML		
CANM	Can-anakkale	2.06	87	Pn	Pn	18 56 21.6	+0.3
CANM				AML	AML		
UKOP	Uzunkopru-Edir	2.10	54	Pn	Pn	18 56 21.6	-0.3
UKOP				AML	AML		
YAYO	Edremit-Balk	2.11	98	Pn	Pn	18 56 22.2	+0.3
YAYO				AML	AML		
VLY	Voula,Athens	2.12	192	P	Pn	18 56 21.7	-0.3
VLY				AML	AML		
VLY	Voula,Athens	2.12	192	P	Pn	18 56 21.7	-0.3
VLY				S	Sn	18 56 47.4	-1.3
BUHA	Balikesir, Bur	2.13	101	P	Pn	18 56 21.8	-0.5
KKB	Krupnik	2.13	334	P	Pn	18 56 21.8	-0.6
KKB				AML	AML		
DKL	Dikili	2.14	113	Pn	Pb	18 56 23.2	-2.1
DKL				AML	AML		
DKL	Dikili	2.14	113	P	Pb	18 56 22.8	-2.5
KRBN	Karaburun	2.15	127	Pn	Pb	18 56 23.5	-2.0
KRBN				AML	AML		
BIGA	Biga-Canakkale	2.16	80	Pn	Pn	18 56 22.8	+0.1
PEHC	Pehcevo	2.16	329	i Pn	Pn	18 56 22.6	-0.2
LTK	Loutraki	2.19	210	P	Pn	18 56 22.7	-0.4
LTK				AML	AML		
LTK	Loutraki	2.19	210	P	Pn	18 56 22.7	-0.4
LTK				AML	AML		
YENI	Yenice-Canakka	2.21	89	Pn	Pn	18 56 23.7	+0.4
LOUT	Loutraki	2.22	210	P	Pn	18 56 22.9	-0.6
EVR	Evrytania	2.22	244	P	Pn	18 56 23.5	-0.1
EVR				AML	AML		
EVR	Evrytania	2.22	244	P	Pn	18 56 23.9	+0.2
EVR				AML	AML		
PLD	Plovdiv	2.24	7	P	Pn	18 56 23.0	-0.8
PLD				AML	AML		
PLD	Plovdiv	2.24	7	Pn	Pn	18 56 23.2	-0.6
PLD				AML	AML		
RKY	Sarkoy-Tekirda	2.28	70	Pn	Pn	18 56 24.5	+0.1
RKY				AML	AML		
KRBG	Karabiga-Canak	2.29	77	Pn	Pn	18 56 24.7	+0.2
KRBG				AML	AML		
ZEDA	zmir-Bergama	2.30	114	P	Pb	18 56 25.4	-2.7
THAL	Thalero	2.31	216	P	Pn	18 56 23.7	-1.0
THAL				AML	AML		
THAL	Thalero	2.31	216	P	Pn	18 56 23.9	-0.7
THAL				AML	AML		
DIM	Dimitrovgrad	2.31	23	P	Pn	18 56 23.6	-1.1
DIM				AML	AML		
KPRO	Kipourio	2.31	272	P	Pn	18 56 24.7	-0.2
KPRO				AML	AML		
KPRO	Kipourio	2.31	272	P	Pn	18 56 24.6	-0.2
KPRO				AML	AML		
KALE	Kalithea	2.31	229	P	Pn	18 56 24.4	-0.4
KALE				AML	AML		
KALE	Kalithea	2.31	229	P	Pn	18 56 24.4	-0.4
KALE				AML	AML		
ANX	Ano Chora	2.32	236	P	Pn	18 56 24.9	0.0
ANX				AML	AML		
ANX	Ano Chora	2.32	236	P	Pn	18 56 24.9	0.0
ANX				AML	AML		
PSARO	Psaromita, Dor	2.33	228	P	Pn	18 56 24.9	-0.2
PSARO				AML	AML		
ACOR	Acrocorinthos	2.34	210	P	Pn	18 56 24.2	-1.0
ACOR				AML	AML		
SERG	Sergoula	2.35	231	P	Pn	18 56 24.8	-0.5
SERG	Sergoula	2.35	231	P	Pn	18 56 24.9	-0.3
SERG				AML	AML		
PYRG	Pyrgos, Dorida	2.37	231	P	Pn	18 56 25.6	-0.1
PYRG				AML	AML		
GAZK	Gazikoy-TEKIRD	2.41	69	Pn	Pn	18 56 26.2	+0.2
GAZK				AML	AML		
MG00	Magoula, Dorid	2.41	232	P	Pn	18 56 26.3	+0.2
MG00				AML	AML		
MET4	Agioi Theodoro	2.42	199	P	Pn	18 56 25.9	-0.3
EFP	Efpalio	2.43	233	P	Pn	18 56 26.6	+0.2
EFP				AML	AML		
MET5	Makryloggos,Me	2.43	199	P	Pn	18 56 26.4	0.0
AGEO	AgiosGiorgios,	2.44	228	P	Pn	18 56 26.7	+0.2
MET2	Kameni Chora,	2.45	200	P	Pn	18 56 25.8	-0.8
TETR	Tetrakomo, Epi	2.46	257	P	Pn	18 56 26.8	-0.1
TETR				AML	AML		
ATIT	Gnen	2.46	85	P	Pn	18 56 27.6	+0.8
ATIT				S	Sb	18 57 02.0	+0.7
MET1	Methana Town,	2.46	198	P	Pn	18 56 27.4	+0.6
VVK	Vomvokou	2.49	234	P	Pn	18 56 27.8	+0.5
AIOA	Agios Ioannis,	2.49	227	P	Pn	18 56 27.1	-0.1
LAKA	Lakka	2.51	229	P	Pn	18 56 27.4	0.0
MET3	Ano Fanari,Met	2.51	201	P	Pn	18 56 27.4	-0.1
BALY	Balya	2.51	93	P	Pb	18 56 31.7	+0.1
MADA	Marmara adas	2.53	74	P	Pb	18 56 31.4	-0.5
MADA				S	Sb	18 57 04.2	+1.0
MADA				IAML		18 57 12.0	
	comp=N,269nm,0.7s						
GUR	Goura	2.54	219	P	Pn	18 56 27.4	-0.6
GUR				AML	AML		
GONE	Gonen-Balikesi	2.55	86	Pn	Pn	18 56 28.4	+0.4
GONE				AML	AML		
KLV	Kalavryta, Ach	2.55	223	P	Pn	18 56 27.9	-0.2
PRMD	Pramanda	2.55	262	P	Pn	18 56 28.0	-0.2
AGRP	Agrapidokambos	2.56	234	P	Pn	18 56 28.5	+0.3
AGRP				AML	AML		
MRMT	Marmara Adasi	2.56	74	Pn	Pn	18 56 28.2	0.0
MRMT				AML	AML		
PVO	Paravola	2.56	240	P	Pn	18 56 28.1	-0.1
SOMA	Soma-Manisa	2.56	106	Pn	Pb	18 56 29.4	-3.1
SOMA				AML	AML		
EDRB	Edirne	2.63	42	Pn	Pn	18 56 29.0	-0.2
EDRB				AML	AML		
AMPL	Ampelaki	2.64	249	P	Pn	18 56 29.3	0.0
AMPL				AML	AML		
TKR	Tekirdag	2.64	65	Pn	Pn	18 56 29.3	0.0
TKR				AML	AML		
STEP	BALIKESIR_Sava	2.64	101	P	Pn	18 56 30.6	+1.3
EDC	Edincik	2.71	80	Pn	Pn	18 56 30.5	+0.2
EDC				AML	AML		
BALB	Balikesir	2.72	95	Pn	Pn	18 56 31.0	+0.6
BALB				AML	AML		
BALB	Balikesir	2.72	95	P	Pn	18 56 29.4	-1.0
BKES	Balkesir-Mer	2.75	93	P	Pn	18 56 29.8	-1.0
PLEV	Plevrona-Mesol	2.75	238	P	Pn	18 56 30.6	-0.2
CMHT	Manyas	2.77	87	P	Pb	18 56 36.1	+0.1
PDO	Prodromos	2.81	243	P	Pn	18 56 32.2	+0.7
PDO				AML	AML		
CRLT	Corlu	2.83	64	Pn	Pn	18 56 32.1	+0.2
CRLT				AML	AML		
DRO	Drossia	2.86	227	P	Pn	18 56 33.0	+0.7
DRO				AML	AML		
PHSR	Pinarhisar	2.94	54	Pn	Pn	18 56 33.4	0.0
PHSR				AML	AML		
BOTS	Marmara Eregli	2.96	68	Pn	Pn	18 56 33.6	0.0
BOTS				AML	AML		
IGT	Igoumenitsa	3.14	264	P	Pn	18 56 36.0	-0.1
AMT	Artemida-Makis	3.17	222	P	Pn	18 56 36.9	+0.3
AMT				AML	AML		
ITM	Ithomi	3.34	216	P	Pn	18 56 39.5	+0.5
CTYL	Yalikoy Yolu	3.36	61	Pn	Pn	18 56 37.8	-1.3
CTYL				AML	AML		
VLI	Veliai	3.39	200	P	Pn	18 56 39.2	-0.4
PLVB	Pleven	3.47	3	⇑P	Pn	18 56 39.9	-0.7
KEK	Kerkira	3.53	268	P	Pn	18 56 41.2	-0.3
KLYT	Kilyos	3.80	68	Pn	Pn	18 56 44.4	-0.8
KLYT				AML	AML		
LOZB	Loznitsa	3.83	25	⇑P	Pn	18 56 44.7	-0.9
YLV	Yalova	3.88	79	Pn	Pn	18 56 45.2	-1.2
YLV				AML	AML		
RAZG	Razgrad	3.98	23	⇓P	Pn	18 56 46.4	-1.2
BOVS	Bovan	4.21	333	⇑P	Pn	18 56 50.8	0.0
TAVA	DENIZLI_Tavas	4.32	123	⇑P	Pn	18 56 53.5	+1.0
IDI	Anoyia	4.64	175	Pn	Pn	18 56 57.2	+0.3
	4.2nm,0.4s,baz=0.0,slow=11,SNR=12						
IDI				Sn	Sn	18 57 47.7	-3.5
	0.7nm,0.3s,baz=249,slow=23,SNR=1.1						
ICOR	Ion Corvin	4.91	30	⇑P	Pn	18 56 59.8	-0.6
HERR	Herculane	5.16	344	⇓P	Pn	18 57 02.3	-1.6
MDVR	Moldovita	5.24	339	⇓P	Pn	18 57 04.4	-0.7
ISR	Istrita	5.43	16	Pn	Pn	18 57 07.1	-0.6
	0.4nm34nm,0.8s						
ISR				AML	AML		
TIRR	Tirgusor	5.44	32	⇑P	Pn	18 57 07.0	-0.6
TIRR	Tirgusor	5.44	32	Pn	Pn	18 57 06.7	-1.0
	0.1nm22nm,0.9s						
TIRR				AML	AML		
VOIR		5.53	5	⇑P	Pn	18 57 08.6	-0.5
VOIR		5.53	5	Pn	Pn	18 57 08.1	-1.0
	0.1nm15nm,0.9s						
VOIR				AML	AML		
LOT	Lotru	5.54	356	⇑P	Pn	18 57 08.7	-0.5
GZR	Gura Zlata	5.59	348	⇓P	Pn	18 57 08.7	-1.2
MLR	Muntele Rosu	5.68	11	Pn	Pn	18 57 11.4	+0.2
	7.3nm,0.5s,baz=90,slow=20						
MLR				Sn	Sn	18 58 13.6	-3.2
	baz=90,slow=20						
MLR				Lg	Lg	18 58 48.7	
	1.0nm,0.3s,baz=84,slow=22,SNR=5.3						
MLR				LR	LR	18 59 16.3	
	comp=Z,63nm,20.9s,baz=180,slow=37						
MLR	Muntele Rosu	5.68	11	⇓P	Pn	18 57 10.1	-1.1
MLR	Muntele Rosu	5.68	11	Pn	Pn	18 57 10.7	-0.5
	0.2nm19nm,0.7s						
MLR				AML	AML		
TPGR	Topolog	5.77	30	⇑P	Pn	18 57 11.3	-1.0
BISRR	Bisoca	5.88	16	Pn	Pn	18 57 13.4	-0.5
	0.5nm97nm,0.8s						
BISRR				AML	AML		
TIP	Timpagrande	5.93	265	Pn	Pn	18 57 14.1	-0.4
	0.2nm26nm,2.5s						
TIP				AML	AML		
CFR	Carcaliu	5.94	27	⇑P	Pn	18 57 14.3	-0.3
SAHR	Sahastru	6.04	16	⇑P	Pn	18 57 13.5	-2.6
DEV	Deva	6.05	350	⇑P	Pn	18 57 16.3	+0.1
SURR	Surduc	6.06	345	⇓P	Pn	18 57 16.1	-0.1
COVR	Voineasa-Covas	6.07	12	⇓P	Pn	18 57 16.9	+0.4
DOPR	Dopca	6.09	7	⇑P	Pn	18 57 16.6	-0.1
PLOR	Plostina	6.16	15	⇓P	Pn	18 57 17.9	+0.3
VRI	Vrincioaia	6.19	15	⇓P	Pn	18 57 18.7	+0.7
VRI	Vrincioaia	6.19	15	Pn	Pn	18 57 17.0	-1.0
	0.1nm20nm,0.6s						
VRI				AML	AML		
TLCR		6.20	31	⇑P	Pn	18 57 17.6	-0.6
MDB	Medias	6.22	0	⇑P	Pn	18 57 19.7	+1.3
TURR	Turia	6.25	11	⇑P	Pn	18 57 19.5	+0.6

OZUR		6.26	9	⇑P	Pn	18 57 19.4	+0.4
PANC	Panciu	6.29	18	⇑P	Pn	18 57 19.7	+0.4
KEPZ	Antalya-Kepez	6.43	116	⇑P	Pn	18 57 21.8	+0.4
VLDR	Vladesti	6.51	24	⇑P	Pn	18 57 23.4	+0.9
GHRR		6.53	19	⇑P	Pn	18 57 19.5	-3.1
GHRR		6.53	19	Pn	Pn	18 57 19.7	-2.9
SIRR	Siria	6.64	344	⇑P	Pn	18 57 25.1	+0.8
TESR	Tescani	6.79	13	⇑P	Pn	18 57 27.8	+1.5
TESR	Tescani	6.79	13	Pn	Pn	18 57 25.5	-0.8
	0.1nm20nm,0.7s						
TESR				AML	AML		
DRGR		6.97	351	⇓P	Pn	18 57 31.0	+2.1
BIZ	Bicaz	7.13	10	⇓P	Pn	18 57 32.2	+1.3
BRTR	Keskin Array B	7.14	89	Pn	Pn	18 57 31.9	+0.6
	0.8nm,0.3s,baz=266,slow=12,SNR=18						
	2.0nm,0.4s						
BRTR				AML	AML		
MORH	Mrgy, Hungar	7.56	328	⇓P	Pn	18 57 39.8	+3.0
BURAR	Bucovina Array	7.71	4	⇓P	Pn	18 57 39.4	+0.3
SORM	Soroca	8.70	18	⇓P	Pn	18 57 51.0	-1.4
SORM	Soroca	8.70	18	Pn	Pn	18 57 51.0	-1.4
	8.0nm,0.7s						
LUBAR	Lubar, Ukraine	10.28	12	Pn	Pn	18 58 13.3	-0.8
AK09	Malin Array Si	11.23	16	Pn	Pn	18 58 26.0	-1.2
AKASG	Malin Array Be	11.30	16	Pn	Pn	18 58 29.1	+1.0
	0.5nm,0.3s,baz=196,slow=14,SNR=1.9						
	1.4nm,0.7s						
AKASG				AML	AML		
ESDC	Sonseca Array	21.74	279	P	P	19 00 40.6	+2.4
	0.6nm,0.9s,baz=84,slow=11,SNR=4.4						
	0.6nm,0.9s						
NOA	NORSAR Array B	22.65	343	P	P	19 00 48.5	+0.7
	0.8nm,0.8s,baz=156,slow=9.0,SNR=4.1						
NOA				LR	LR	19 11 07.8	
	comp=Z,11nm,20.8s,baz=125,slow=41						
	0.8nm,0.8s						
EKA	Eskdalemuir Ar	23.90	319	P	P	19 01 02.7	+2.3
	0.5nm,0.6s,baz=100,slow=8.7,SNR=4.1						
	0.5nm,0.6s						
TORD	Torodi Ar. Bea	33.31	223	P	P	19 02 27.6	+2.8
	0.9nm,0.5s,baz=30,slow=8.6,SNR=6.7						
	0.9nm,0.5s						
MKAR	Makanchi Array	41.84	61	P	P	19 03 37.5	+0.7
	0.7nm,0.6s,baz=260,slow=9.3,SNR=5.3						
	0.7nm,0.6s						
ZALV	Zalesovo Beam	42.29	50	P	P	19 03 40.3	+0.1
	1.0nm,0.7s,baz=293,slow=7.6,SNR=4.7						
	1.0nm,0.7s						
CMAR	Chiang Mai Arr	66.71	85	P	P	19 06 38.3	0.0
	0.3nm,0.4s,baz=325,slow=6.4,SNR=1.7						
	0.3nm,0.4s						

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*IDC **27** 19:07:07.6±2.2, 6°.58S×129°.70E, h125km±24km, mb3.7/1, mbtmp3.8/6, Error ellipse: s-maj=29.0km s-min=19.0km az=109.0*

ISC 27 19:07:04.5±1.1**, 6°.80S**±0°.07×**129°.9E**±0°.1**, h104**km**, n6, σ2s.46**/9**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SIJI	Sorong	6.05	13	P	Pn	19 08 32.3	+0.7
	4.5nm,0.3s,baz=199,slow=18,SNR=31						
SIJI				S	Sn	19 09 32.2	-7.3
	17nm,0.2s,baz=81,slow=23,SNR=10.0						
BATI	Baumata	7.03	241	P	Pn	19 08 48.8	+3.9
	9.5nm,0.4s,baz=85,slow=11,SNR=1.7						
BATI				S	Sn	19 10 04.3	+0.9
	30nm,0.5s,baz=358,slow=6.8,SNR=3.6						
FITZ	Fitzroy Crossi	11.97	200	P	P	19 09 57.3	-2.8
	0.9nm,0.4s,baz=29,slow=13,SNR=13						
FITZ				S	Sn	19 12 04.4	+1.0
	5.5nm,0.6s,baz=228,slow=19,SNR=8.4						
WRA	Warramunga Arr	13.75	162	P	P	19 10 19.1	-1.1
	0.3nm,0.3s,baz=335,slow=13,SNR=26						
WRA				S	Sn	19 12 46.2	-0.5
	1.1nm,0.5s,baz=326,slow=24,SNR=8.0						
ASAR	Alice Springs	17.20	167	P	P	19 11 03.2	+4.8
	0.4nm,0.5s,baz=347,slow=11,SNR=17						
ASAR				S	Sn	19 14 09.2	-0.8
	0.7nm,0.5s,baz=356,slow=26,SNR=4.3						
MKAR	Makanchi Array	68.01	327	P	P	19 17 51.6	-1.1
	0.8nm,0.4s,baz=133,slow=6.3,SNR=14						
	0.8nm,0.4s						

IDC 27 19:21:42.9±2.3**, 16°.25S**×**172°.73W, h0**km**, mb3.6**/3**, mbtmp3.7**/4**, ML4.4**/1**, MS2.8**/4**, Error ellipse: s-maj=93.7km s-min=22.0km az=134.0, Samoa Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	2.50	22	Pn	Pn	19 22 20.1	-4.8
	88nm,0.3s,baz=243,slow=9.0,SNR=71						
AFI				Sn	Sn	19 22 40.1	-16
	476nm,0.3s,baz=227,slow=19,SNR=25						
AFI				LR	LR	19 23 04.8	
	comp=Z,93nm,19.5s,baz=163,slow=33						
	228nm,0.4s						
AFI				AML	AML		
MSVF	Nonsavu	8.95	259	LR	LR	19 26 32.6	
	comp=Z,50nm,21.9s,baz=65,slow=32						
PPT	Papeete	22.19	97	LR	LR	19 32 38.9	
	comp=Z,43nm,21.6s,baz=84,slow=30						
HNR	Honiara	27.47	281	LR	LR	19 36 44.4	
	comp=Z,34nm,18.6s,baz=137,slow=33						
WRA	Warramunga Arr	50.28	257	P	P	19 30 40.9	-0.7
	0.2nm,0.4s,baz=96,slow=7.7,SNR=1.8						
	0.2nm,0.4s						
ASAR	Alice Springs	50.47	253	P	P	19 30 43.0	0.0
	0.8nm,0.6s,baz=88,slow=8.0,SNR=21						
	0.8nm,0.6s						
PDAR	Pinedale Array	82.47	42	P	P	19 34 07.5	-0.1
	0.6nm,1.0s,baz=236,slow=5.0,SNR=4.6						
	0.6nm,1.0s						
BRTR	Keskin Array B	147.22	321	PKPbc	PKPbc	19 41 28.6	-0.1
	1.2nm,1.1s,baz=5.7,slow=1.4,SNR=4.0						

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*IDC **27** 19:22:12.3±0.7, 22°.23N×121°.44E, h0km, mb3.9/15, mbtmp3.9/17, ML3.7/2, MS3.1/4, Error ellipse: s-maj=17.1km s-min=14.0km az=77.0*

*NIED **27** 19:22:15.0, 22°.50N×121°.54E, h7km, MW3.8, Moment Tensor Solution. s2 Moment tensor: Scale 10^{14}Nm; M_{rr}2.85; $M_{\theta\theta}$2.10; $M_{\phi\phi}$-4.95; $M_{r\theta}$2.64; $M_{\theta\phi}$-0.17; $M_{\phi r}$2.98; Fault plane solution: $M_0$5.85000×10^{14} NP1: ϕ_s148.00000°, δ37.00000°, λ31.00000°. NP2: ϕ_s32.00000°, δ72.00000°, λ122.00000°.*

*TAP **27** 19:22:15.9, 22°.39N×121°.35E, h17km, ML4.3, C*

*JMA **27** 19:22:15.0±0.1, 22°.5N±0°.7×121°.5E±0°.5, h7km±3km, MV4.1/20, TAIWAN REGION*

ISC 27 19:22:14.7±1.0**, 22°.37N**±0°.02×**121°.44E**±0°.02**, h15**km±6km**, n200, σ1s.16**/286**, mb3.9**/15**, MS3.0**/4**, 7C-6D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LDUT	Ludao	0.30	6	eP	Pb	19 22 22.5	+0.7
LDUT				S	Sb	19 22 27.9	+1.2
LAY	Lan-yu	0.35	162	⇓iP	Pb	19 22 23.6	+1.0
LAY				S	Sn	19 22 30.3	-1.7
LYUB	Lan-yu	0.39	159	⇓iP	Pg	19 22 23.1	+0.5
LYUB				S	Sb	19 22 29.8	+0.6
TTN	Taitung	0.47	325	iP	Pb	19 22 25.5	+0.9
TTN				S	Sb	19 22 32.7	+1.4
ECL	Taimali	0.50	297	⇑iP	Pg	19 22 24.5	-0.1
ECL				eS	Sg	19 22 30.8	-0.5
TAW	Tawu	0.50	269	⇓iP	Pg	19 22 24.5	-0.1
TAW				iS	Sg	19 22 31.0	-0.3
EAST	Anshuo	0.54	271	⇓iP	Pg	19 22 25.3	-0.2
EAST				iS	Sg	19 22 31.9	-0.8
TWGBT	Beinan	0.55	324	P	Pg	19 22 25.6	0.0
TWGBT	Beinan	0.55	324	S	Sg	19 22 32.9	-0.1
TWGBT	Beinan	0.55	324	⇑iP	Pg	19 22 25.9	+0.3
TWGBT				S	Sg	19 22 32.5	-0.5
TWG	Pinlang	0.56	323	⇑iP	Pg	19 22 26.0	+0.2
TWG				S	Sg	19 22 32.6	-0.6
LONT	Longtian	0.60	332	⇑iP	Pb	19 22 27.1	+0.1
LONT				iS	Sb	19 22 35.6	+0.3
SLIU	Shizi	0.61	255	iP	Pg	19 22 26.3	-0.3
SLIU				iS	Sg	19 22 34.0	-0.7
EDH	Donghe	0.61	349	eP	Pb	19 22 27.8	+0.7
EDH				S	Sn	19 22 36.8	-1.7
SMST	Manzhou Townsh	0.66	238	iP	Pg	19 22 27.6	+0.1
SMST				S	Sg	19 22 35.9	-0.3
TSEB	Hengchuen, Pin	0.68	227	⇑iP	Pg	19 22 28.8	+0.7
TSEB				S	Sb	19 22 38.5	+1.0
TWKBT	Hengchun	0.72	234	⇑iP	Pb	19 22 28.6	-0.3
TWKBT				iS	Sb	19 22 37.9	-0.7
TWK1	Hengchun	0.72	234	iP	Pb	19 22 28.7	-0.3
TWK1				iS	Sb	19 22 38.1	-0.6
HEN	Hengchun	0.74	241	eP	Pb	19 22 29.2	-0.1
HEN				iS	Sb	19 22 38.6	-0.6
ECS	Chishang	0.75	345	eP	Pn	19 22 30.4	-0.3
ECS				S	Sn	19 22 42.2	+0.3
SCZT	Fangliau	0.75	270	⇓iP	Pb	19 22 28.7	-0.8
SCZT				S	Sb	19 22 37.7	-1.9
MASBT	Mashibuluo	0.78	288	⇓iP	Pb	19 22 29.0	-1.0
EHD	Haiduan	0.80	345	eP	Pb	19 22 30.1	-0.3
TSMG	Majia	0.80	295	iP	Pb	19 22 29.4	-1.0
TSMG				eS	Sb	19 22 38.8	-2.3
CHKH	Chenggong	0.82	357	eP	Pb	19 22 30.6	0.0
CHKH				S	Sg	19 22 41.5	+0.1
SSD	Sandimen	0.83	297	iP	Pb	19 22 29.9	-1.0
SSD				S	Sb	19 22 39.3	-2.5
FULB	Fuli	0.83	351	eP	Pb	19 22 30.8	-0.1
FULB				iS	Sn	19 22 43.2	-0.9
ELDTW	Lidau	0.90	335	eP	Pb	19 22 31.6	-0.5
ECBN	Changbin	0.94	1	P	Pb	19 22 32.3	-0.4
SGLT	Jiouru	0.94	292	eP	Pn	19 22 33.9	+0.5
SLGT	Liugui	0.96	311	eP	Pb	19 22 33.2	+0.2
EYUL	Yuli	0.98	354	eP	Pb	19 22 33.4	+0.1
WLCH	Liuqiu	0.98	269	eP	Pg	19 22 35.2	+1.6
TWF1	Yuli	0.98	353	eP	Pb	19 22 33.3	-0.2
TWP	Hsiaoliuchiu	0.99	269	eP	Pg	19 22 36.0	+2.1
STYH	Taoyuan	1.00	323	⇑P	Pb	19 22 33.1	-0.6
SCST	Cishan	1.01	301	P	Pn	19 22 34.1	-0.2
SCST				S	Sn	19 22 48.8	+0.6
YULB	Yu-li	1.02	353	P	Pb	19 22 32.7	-1.4
YULB	Yu-li	1.02	353	P	Pb	19 22 32.8	-1.4
TWM1	Shoushan	1.04	296	eP	Pg	19 22 35.2	+0.5
SGST	Jiashian	1.06	312	eP	Pb	19 22 34.1	-0.6
SGST				S	Sg	19 22 48.9	-0.1
HGSD	Ruisui	1.12	359	eP	Pg	19 22 36.2	-0.1
WSSB	Gushan	1.12	284	P	Pg	19 22 37.0	+0.8
WSSB				S	Sg	19 22 53.0	+2.2
EHYH	Wanrong	1.12	356	eP	Pb	19 22 34.5	-1.3
EHY	Hungye	1.14	355	eP	Pn	19 22 34.9	-1.2
WTP	Ta-pu	1.15	319	P	Pb	19 22 36.5	+0.1
WTP				eS	Sg	19 22 52.5	+0.5
CHN1	Nanshi	1.17	314	eP	Pg	19 22 37.6	+0.4
CHN1				S	Sg	19 22 53.9	+1.5
TPUB	Ta-pu	1.19	321	P	Pn	19 22 36.8	0.0
TPUB	Ta-pu	1.19	321	S	Sg	19 22 54.3	+1.2
TPUB	Ta-pu	1.19	321	P	Pn	19 22 36.8	0.0
TPUB				eS	Sg	19 22 54.7	+1.6
YUS	Yu-Shan	1.20	338	eP	Pb	19 22 37.7	+0.3
CHN3	Shinhua	1.21	306	P	Pg	19 22 39.3	+1.2
CHN3				S	Sg	19 22 56.4	+2.5
CHN4	Tsaushan	1.25	322	eP	Pg	19 22 38.6	-0.1
CHN4				S	Sg	19 22 55.6	+0.6
TWK	Hsinying	1.25	316	eP	Pb	19 22 38.2	+0.2
TWK				eS	Sg	19 22 55.8	+0.7
ALS	Alishan	1.27	333	eP	Pn	19 22 38.3	0.0
TAI1	Yung-k'ang	1.30	301	eS	Sg	19 22 58.3	+1.7
SSHA	Shanhua	1.30	306	eP	Pg	19 22 39.5	-0.3
SSHA				eS	Sg	19 22 57.9	+1.1
WCKO	Fanlu	1.31	324	P	Pb	19 22 39.6	+0.5
WCKO				S	Sg	19 22 58.3	+1.3
TEGC	Jichi Village	1.33	4	eP	Pb	19 22 39.3	-0.1
WARBT	Fenglin Townsh	1.34	358	eP	Pn	19 22 38.8	-0.1
SCLT	Jiali	1.40	305	eP	Pb	19 22 40.7	+0.2
SCLT				S	Sg	19 22 59.7	-0.1
CHN5	Tsauling	1.41	330	P	Pg	19 22 41.4	-0.4
CHN5				eS	Sg	19 23 01.4	+1.3
SHUL	Shoufeng	1.42	5	eP	Pb	19 22 40.5	-0.3
SHUL				eS	Sg	19 22 59.9	-0.4
WHYT	Xinyi Township	1.42	338	eP	Pb	19 22 41.2	+0.2
WHYT				eS	Sg	19 23 00.7	0.0
ESL	Shilin	1.44	360	eP	Pn	19 22 40.0	-0.3
ICHU	Yijhu	1.45	313	eP	Pb	19 22 41.5	0.0
ICHU				iS	Sg	19 23 00.7	-0.9
CHY	Chiayi	1.46	320	eP	Pb	19 22 42.1	+0.5
CHY				eS	Sg	19 23 01.4	-0.3
TSCK	Chigu Township	1.47	302	eP	Pb	19 22 41.7	+0.1
TSCK				eS	Sb	19 23 01.0	+0.8
SSLB	Suanglung	1.48	343	P	Pn	19 22 41.3	+0.5
SSLB	Suanglung	1.48	343	S	Sg	19 23 02.9	+0.5
SSLB	Suanglung	1.48	343	eP	Pb	19 22 42.3	+0.4
CHN8	Yiju	1.49	311	P	Pb	19 22 41.9	-0.2
CHN8				S	Sb	19 23 01.1	+0.3
TEYL	Yanliau Villag	1.50	6	eP	Pb	19 22 42.0	-0.2
WDLH	Douliu	1.55	328	eP	Pb	19 22 43.6	+0.5
WDLH				S	Sg	19 23 04.0	-0.7
SMLT	Sun Moon Lake	1.58	342	eP	Pb	19 22 43.8	0.0
ETM	Tongmen	1.59	2	eP	Pn	19 22 42.6	+0.3
OWD	Renai	1.59	351	eP	Pb	19 22 43.5	-0.5
WSL	Shuilin Townsh	1.60	316	iP	Pb	19 22 43.5	-0.4
WSL				iS	Sb	19 23 04.4	+0.5
HWA	Hwalien	1.61	6	eP	Pn	19 22 42.9	+0.3
TYC	Yuchr	1.62	341	P	Pb	19 22 44.2	0.0
TYC				S	Sg	19 23 06.0	-0.7
WTK	Tuku	1.63	324	iP	Pb	19 22 43.9	-0.5
WTK				iS	Sb	19 23 05.4	+0.6
WUSB	Renai	1.64	350	eP	Pb	19 22 44.7	0.0
LXIB	Xiulin Townshi	1.64	359	eP	Pn	19 22 43.4	+0.2
WNT	Mingjian	1.65	335	eP	Pb	19 22 45.3	+0.4
WNT				eS	Sg	19 23 06.9	-1.0
WSF	Szhu	1.69	319	eP	Pb	19 22 44.5	-0.9
WSF				iS	Sb	19 23 06.0	-0.5
TWD	Chiawan	1.71	5	eP	Pn	19 22 43.7	-0.2
WCS	Beigang Elemen	1.75	344	eP	Pb	19 22 47.1	+0.6
WCS				eS	Sg	19 23 10.8	-0.1
WHF	Hehuan Shan	1.77	355	eP	Pb	19 22 46.9	-0.2
WHF				eS	Sb	19 23 10.3	+0.9
ETL	Fush Village	1.79	6	eP	Pn	19 22 45.3	+0.2
NACB	Ninganchiao	1.80	5	P	Pn	19 22 45.7	+0.5
NACB	Ninganchiao	1.80	5	S	Sb	19 23 09.1	-0.7
NACB	Ninganchiao	1.80	5	eP	Pn	19 22 45.7	+0.5
RLNB	Erlin	1.81	327	eP	Pb	19 22 46.5	-1.0
RLNB				eS	Sb	19 23 09.7	-0.3
WRL	Guolierlin Hig	1.81	328	eP	Pb	19 22 46.4	-1.1
WRL				eS	Sb	19 23 09.8	-0.2
ETLH	Xiulin Townshi	1.83	1	eP	Pb	19 22 46.8	-1.1
WCH1	Changhua City	1.88	334	eP	Pb	19 22 48.3	-0.5
WCH1				eS	Sb	19 23 13.4	+1.4
WCHH	Zhanghua	1.88	335	eP	Pb	19 22 48.2	-0.6
WCHH				eS	Sb	19 23 13.3	+1.1
TWT	Tachien	1.89	353	eP	Pb	19 22 48.7	-0.3
TWT				eS	Sb	19 23 12.3	-0.2
TDCB	Techi	1.89	352	eP	Pb	19 22 49.0	-0.1
TCU	Taichung	1.90	339	P	Pb	19 22 48.2	-0.9
TCU				eS	Sb	19 23 13.2	+0.5
EOS4	EOS4	1.92	25	eP	Pn	19 22 47.0	+0.4
EOS4				eS	Sn	19 23 10.6	+0.3
WHP	Taichung City	1.95	347	eP	Pb	19 22 50.0	0.0
WHP				S	Sb	19 23 15.1	+0.9
EAHA	Aohua	1.97	8	eP	Pn	19 22 48.3	+0.8
VCHM	Qimei	2.03	295	eP	Pn	19 22 48.3	-0.1
VCHM				eS	Sn	19 23 11.3	-2.2
NNSB	Datong	2.05	359	eP	Pb	19 22 50.5	-1.2
PHUB	P'eng-hu	2.06	304	eP	Pn	19 22 48.8	0.0
PHUB				S	Sn	19 23 12.2	-2.0
NNS	Nan Shan	2.06	358	eP	Pb	19 22 52.3	+0.4
NNS				eS	Sb	19 23 15.8	-1.6
TWQ1	Liyutan	2.06	343	eP	Pb	19 22 51.2	-0.6
TWQ1				eS	Sb	19 23 17.4	+0.1
ENA	Nanau	2.07	8	eP	Pn	19 22 46.6	-2.3
EOS3	EOS3	2.07	23	P	Pn	19 22 49.7	+0.9
EOS3				eS	Sn	19 23 15.4	+1.1
EWUT	Wuta	2.09	9	eP	Pn	19 22 50.5	+1.3
WDJ	Dajia District	2.10	340	eP	Pn	19 22 49.7	+0.4
PNG	Penghu	2.10	305	P	Pn	19 22 48.5	-0.9
PNG				S	Sn	19 23 13.4	-1.9
LATG	Datong	2.16	2	eP	Pb	19 22 51.8	-1.7
EOS2	EOS2	2.17	20	eP	Pb	19 22 52.1	-1.5
EOS2				eS	Sb	19 23 19.5	-0.7
TWC	Suao	2.26	10	eP	Pb	19 22 54.1	-1.1
TWC				eS	Sn	19 23 20.7	+1.6
NDS	Dongshan	2.27	6	eP	Pn	19 22 53.4	+1.8
NFF	Wufeng Townshi	2.27	353	eP	Pn	19 22 53.4	+1.7
NFF				S	Sb	19 23 23.6	+0.2
NSTT	Nanjuang	2.29	350	eP	Pb	19 22 54.0	-1.7
NSTT				eS	Sb	19 23 22.7	-1.0
YHNB	Yeheng	2.29	359	P	Pn	19 22 53.6	+1.6
YHNB	Yeheng	2.29	359	P	PKiKP	19 23 23.6	-12
YHNB	Yeheng	2.29	359	eP	Pn	19 22 53.6	+1.6
YHNB				eS	Sb	19 23 23.6	-0.3
NSK	Sanguang	2.30	358	eP	Pb	19 22 54.1	-1.8
LIOB	Emei	2.30	350	eP	Pb	19 22 54.7	-1.2
LIOB				eS	Sb	19 23 23.9	-0.2
TWE	Neicheng	2.35	5	eP	Pb	19 22 55.1	-1.6
FUSB	Fushanzhiwuyua	2.38	3	eP	Pb	19 22 55.3	-2.0
NWLT	Wulai	2.40	1	eP	Pb	19 22 55.6	-2.0
NWLT				eS	Sn	19 23 24.2	+1.6
KSHI	Guanxi Townshi	2.41	354	eP	Pb	19 22 56.2	-1.5
KSHI				eS	Sb	19 23 26.0	-1.2
JYNG	Yonagunijimaku	2.49	34	P	Pn	19 22 54.6	-0.1
JYNG				eS	Sn	19 23 22.9	-2.0
EGS		2.50	10	eP	Pb	19 22 59.1	-0.3
YOJ	Yonaguni jima	2.54	35	eP	Pn	19 22 56.5	+1.2
YOJ				S	Sn	19 23 28.1	+2.2
YOJ	Yonaguni jima	2.54	35	eP	Pn	19 22 56.4	+1.1
NHDH	Xindian Distri	2.58	2	eP	Pb	19 22 59.2	-1.5
TATO	Taipei	2.59	1	P	Pb	19 22 59.2	-1.7
NCUH	Zhongli	2.59	355	eP	Pb	19 22 59.4	-1.6
TWA	Mucha	2.60	3	eP	Pb	19 22 58.7	-2.3
TIPB	Shuangxi	2.61	8	eP	Pb	19 22 59.1	-2.2
TWB1	Santiao Chiao	2.67	11	eP	Pb	19 23 00.8	-1.5
WFSB	Wu-fen Shan	2.71	7	eP	Pb	19 23 01.4	-1.5
TWS1	Kuangyinshan	2.72	360	eP	Pb	19 23 01.9	-1.1
SXI1	Grass Mountain	2.74	8	eP	Pb	19 23 01.2	-2.2
SXI1				eS	Sb	19 23 33.8	-3.2
HATJ	Hateruma jima	2.75	52	P	Pn	19 22 59.1	+0.8
HATJ				eS	Sn	19 23 30.7	-0.6
YM01	YM01	2.77	3	eP	Pn	19 23 00.6	+2.1
ZUZH	Zhuzihu	2.78	2	eP	Pb	19 23 01.4	-2.7
ZUZH				eS	Sb	19 23 36.0	-2.1
NTST	Danshui	2.78	0	eP	Pb	19 23 03.1	-1.0
ANP	Anpu	2.80	2	eP	Pb	19 23 02.1	-2.4
YM08	YM08	2.81	3	eP	Pn	19 23 01.4	+2.3
YM08				eS	Sb	19 23 35.5	-3.3
IRIF	Iriomote-Funau	2.88	47	P	Pn	19 23 01.0	+1.0
IRIF				eS	Sn	19 23 34.6	+0.3
JKRS	Kuro-shima	3.01	51	P	Pn	19 23 02.9	+1.1
JKRS				eS	Sn	19 23 38.5	+0.9
VWUC	VWUC	3.18	325	eP	Pn	19 23 04.4	+0.2
JIJ	Ishigaki jima	3.18	51	P	Pn	19 23 04.7	+0.5
JIJ				eS	Sn	19 23 39.8	-2.1
PTMZ	Houxiangcun	3.40	322	P	Pn	19 23 07.4	+0.1
PTMZ				eS	Sn	19 23 45.1	-2.2
KNM	Kinmen	3.43	307	eP	Pn	19 23 08.9	+1.3
JISG	Ishigakijimahi	3.44	50	P	Pn	19 23 08.2	+0.4
JISG				eS	Sn	19 23 47.9	-0.4
KNMB	Chin-men Tao	3.49	307	eP	Pn	19 23 07.9	-0.5
KNMB				eS	Sn	19 23 47.9	-1.6
ZPLA	Ao Xicun	3.73	295	eP	Pn	19 23 11.3	-0.4
JTJ	Tarama	3.75	52	P	Pn	19 23 13.1	+1.0
JTJ				eS	Sn	19 23 56.5	+0.5
PACPP	Pamplona Cagay	3.89	181	iP	Pn	19 23 14.8	+0.8
PACPP				iS	Sn	19 23 58.7	-0.7
DSXP	Dongshan	3.92	291	eP	Pn	19 23 14.0	-0.4
MATB	Ma-tsu	4.00	340	eP	Pn	19 23 15.7	+0.2
AXDP	Jialang	4.05	309	eP	Pn	19 23 16.2	0.0
JIRJ	Irabujima	4.23	54	P	Pn	19 23 19.4	+0.8
JIRJ				eS	Sn	19 24 05.7	-2.2
JMJ2	Miyako jima3	4.28	56	P	Pn	19 23 20.2	+0.9
JMJ2				eS	Sn	19 24 08.8	-0.2
JMJ	Miyako jima 2	4.29	55	P	Pn	19 23 20.2	+0.7
MHZQ	Yeshan	4.31	330	eP	Pn	19 23 20.2	+0.5
JIKM	Ikemajima	4.32	53	P	Pn	19 23 20.8	+0.9
JIKM				eS	Sn	19 24 10.5	+0.4
JOGS	Gusukube	4.35	56	eP	Pn	19 23 21.6	+1.3
JOGS				eS	Sn	19 24 11.5	+0.7
LYJJ	Jianjiangzhen	4.43	340	eP	Pn	19 23 21.7	+0.3
CVP	Callao Caves	4.66	175	eP	Pn	19 23 25.3	+0.7
CVP				eS	Sn	19 24 21.1	+2.8
XPSS	Dashiqiu	4.68	346	eP	Pn	19 23 26.6	+1.8
SXFK	Yanhouchang	5.29	320	eP	Pn	19 23 32.6	-0.7
PALP	Palanan	5.36	170	iP	Pn	19 23 39.6	+5.4
PALP				eS	Sb	19 24 48.4	-4.0
JKE	Kume jima 2	6.27	50	eP	Pn	19 23 46.1	-0.6
JKE				eS	Sn	19 24 55.9	-2.3
HKPS	Hong Kong Po S	6.75	271	P	Pn	19 23 54.3	+1.0
JOW	Kunigami	7.65	53	Pn	Pn	19 24 04.5	-1.1
	2.7nm,0.3s,baz=257,slow=18,SNR=6.4						
JOW				Sn	Sn	19 25 27.7	-4.3
	0.8nm,0.3s,baz=143,slow=12,SNR=1.3						
	8.6nm,0.4s						
JOW				AML	AML		
JOW	Kunigami	7.65	53	P	Pn	19 24 07.5	+1.9
KSRS	Korea Array	16.04	19	Pn	P	19 26 02.2	-0.9
	0.2nm,0.3s,baz=201,slow=11,SNR=8.4						
	1.6nm,0.7s						
KSRS				AML	AML		
CMAR	Chiang Mai Arr	21.43	264	P	P	19 27 03.7	+1.3
	2.2nm,1.0s,baz=68,slow=8.9,SNR=11						
CMAR				LR	LR	19 36 22.6	
	comp=Z,55nm,18.4s,baz=105,slow=40						
	2.2nm,1.0s						
USRK	Ussuriysk Ar.	23.45	19	P	P	19 27 25.9	+2.4
	1.3nm,0.6s,baz=216,slow=7.1,SNR=4.1						
	1.3nm,0.6s						
ASAJ	Asahikawa	27.84	34	LR	LR	19 40 13.8	
	comp=Z,28nm,18.3s,baz=260,slow=39						
KLR	Kul'dur	28.02	14	LR	LR	19 40 12.4	
	comp=Z,31nm,18.9s,baz=190,slow=38						
SONM	Songino Array	28.12	338	P	P	19 28 06.2	-0.1
	1.7nm,0.7s,baz=155,slow=9.9,SNR=13						
SONM				LR	LR	19 40 48.9	
	comp=Z,55nm,18.8s,baz=211,slow=40						
	1.7nm,0.7s						
MKAR	Makanchi Array	39.81	317	P	P	19 29 48.3	+1.0
	1.2nm,0.6s,baz=109,slow=9.6,SNR=15						
	1.2nm,0.6s						
ZALV	Zalesovo Beam	41.89	328	P	P	19 30 04.8	+0.5
	3.6nm,0.8s,baz=118,slow=8.5,SNR=11						
	3.6nm,0.8s						
H11N1	WAKE ISLAND Hy	42.39	85	T	T	20 15 38.2	
	baz=282,slow=75,SNR=16						
H11N2	WAKE ISLAND Hy	42.39	85	T	T	20 15 47.4	
	baz=282,slow=75,SNR=29						
H11N3	WAKE ISLAND Hy	42.41	85	T	T	20 15 39.5	
	baz=282,slow=75,SNR=21						
H11S3	WAKE ISLAND Hy	42.46	87	T	T	20 15 24.7	
	baz=284,slow=74,SNR=35						
H11S1	WAKE ISLAND Hy	42.47	87	T	T	20 15 42.1	
	baz=284,slow=74,SNR=23						
H11S2	WAKE ISLAND Hy	42.48	87	T	T	20 15 47.8	
	baz=284,slow=74,SNR=22						
KURBB	Kurchatov Arra	43.65	321	P	P	19 30 19.3	+0.7
	1.5nm,0.8s,baz=118,slow=7.4,SNR=9.2						
	1.5nm,0.8s						
WRA	Warramunga Arr	43.90	162	P	P	19 30 19.1	-1.9
	1.1nm,0.6s,baz=342,slow=8.8,SNR=20						
	1.1nm,0.6s						
ASAR	Alice Springs	47.34	164	P	P	19 30 47.4	-0.8
	1.0nm,0.4s,baz=343,slow=9.1,SNR=10						
ASAR				PcP	PcP	19 32 18.0	-1.0
	0.2nm,0.6s,baz=340,slow=3.2,SNR=1.8						
	1.0nm,0.4s						
BVAR	Borovoye Array	49.22	322	P	P	19 31 03.5	+1.1
	0.8nm,0.5s,baz=111,slow=11,SNR=5.3						
BVAR				PcP	PcP	19 32 24.8	-0.5
	0.5nm,0.4s,baz=98,slow=1.8,SNR=2.8						
	0.8nm,0.5s						
STKA	Stephens Creek	57.29	160	P	P	19 32 01.1	-0.8
	1.4nm,0.6s,baz=2.0,slow=8.1,SNR=4.9						
	1.4nm,0.6s						
ARCES	ARCESS Array B	71.30	338	P	P	19 33 35.7	+2.4
	2.6nm,0.8s,baz=61,slow=6.4,SNR=2.0						
	2.6nm,0.8s						
FINES	FINESS Array B	73.12	330	P	P	19 33 44.5	+0.3
	0.8nm,0.6s,baz=64,slow=4.4,SNR=6.2						
	0.8nm,0.6s						
BRTR	Keskin Array B	74.43	307	P	P	19 33 53.1	+0.4
	0.4nm,0.6s,baz=101,slow=4.6,SNR=2.2						
	0.4nm,0.6s						
NOA	NORSAR Array B	79.93	332	P	P	19 34 22.3	-0.6
	0.5nm,0.7s,baz=299,slow=11,SNR=1.9						
	0.5nm,0.7s						
GERES	GERESS Array B	84.39	321	P	P	19 34 47.3	+0.6
	0.4nm,0.4s,baz=58,slow=5.0,SNR=5.0						
	0.4nm,0.4s						

TRN 27 19:36:30.2, 11°.77N×60°.20W, h41^{km}, MD4.2, North-east of Tobago., Windward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GRSS	Sisters	1.48	291	eP	Pn	19 36 55.2	+0.9
GRSS				eS	Sn	19 37 14.9	+2.6
GRW	Mount Saint Ca	1.48	285	eP	Pn	19 36 55.9	+1.5
GRW				eS	Sn	19 37 15.6	+3.0
BBGH	Gun Hill	1.51	25	eP	Pn	19 36 57.0	+2.2
TRN	Trinidad (W)	1.62	227	eP	Pn	19 36 57.6	+1.4
TRN				eS	Sn	19 37 16.7	+0.7
PSKH	Kent House, Po	1.69	230	eP	Pn	19 36 59.3	+2.2
PSKH				eS	Sn	19 37 18.6	+1.1
DMDM	Guralp CMG5TDE	1.70	231	eP	Pn	19 36 59.2	+1.9
DMDM				eS	Sn	19 37 19.4	+1.6
SLAC	Saint Lucia, A	2.22	342	eP	Pn	19 37 05.4	+0.8
SLAC				eS	Sn	19 37 31.5	+0.6
SLCP	Castries, St.	2.36	341	eP	Pn	19 37 07.6	+1.2
SLCP				eS	Sn	19 37 35.4	+1.2
SLBI	Saint Lucia, B	2.37	342	eP	Pn	19 37 07.4	+0.9
SLBI				eS	Sn	19 37 35.0	+0.7
BIM	Bigot	2.86	343	eP	Pn	19 37 14.8	+1.4
BIM				eS	Sn	19 37 47.3	+0.7
ILAM	Ilet Lapin Mar	3.06	348	eP	Pn	19 37 17.7	+1.6
ILAM				eS	Sn	19 37 51.8	+0.4
SVN	Savane Anatole	3.20	343	eP	Pn	19 37 20.4	+2.3
SVN				eS	Sn	19 37 56.3	+1.4
DSLB	Salisbury	3.84	342	eP	Pn	19 37 29.2	+2.5
DSLB				eS	Sn	19 38 11.3	+0.7
DWS	Wesley	3.93	344	eP	Pn	19 37 30.5	+2.5
DWS				eS	Sn	19 38 13.2	+0.3
DHSZ	Broadband at M	4.73	341	eP	Pn	19 37 41.8	+2.8
DHSZ				eS	Sn	19 38 33.7	+1.1
ANWB	Willy Bob	6.06	346	eP	Pn	19 37 58.3	+0.9
ANWB				eS	Sn	19 39 05.4	-0.1

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*IDC **27** 19:41:35.9±1.2, 41°.34N×29°.10W, h0^{km}, mb3.6/5, mbtmp3.5/6, ML4.0/1, MS3.3/28, Error ellipse: s-maj=41.3km s-min=23.6km az=161.0*

*SVSA **27** 19:41:39.7±0.9, 41°.15N×29°.92W, h5^{km}, ML3.8(INMG), Error ellipse: s-maj=48.5km s-min=7.5km az=54.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Crista Media Atlantico N*

ISC 27 19:41:37.8±0.8**, 41°.29N**±0°.07×**29°.27W**±0°.07**, h12^{km}, n40, σ1^{s}21**/20**, mb3.6**/5**, MS3.3**/27**, 1C, Azores Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H07N1	FLORES T-PHASE	2.13	222	Pn	Pn	19 42 13.5	+0.3
H07N1				Sn	Sb	19 42 42.5	-0.3
PSBA	Serra de Santa	2.93	149	⇑eP	Pn	19 42 24.8	+0.6
PSBA				eS	Sn	19 42 58.1	-1.2
PSBA				i IAML		19 42 59.5	
PSBA				i IAML		19 42 59.9	
PSBA				i IAML		19 43 00.4	
PAGU	Agualva, Azore	2.98	147	eP	Pn	19 42 25.6	+0.7
PAGU				eS	Sn	19 42 58.4	-2.3
PAGU				i IAML		19 43 05.3	
PAGU				i IAML		19 43 05.6	
PAGU				i IAML		19 43 05.8	
ADH	Angra Heroismo	3.06	149	eP	Pn	19 42 26.6	+0.7
PSCM	Serra do Cume	3.07	147	eP	Pn	19 42 27.0	+0.9
CMLA	Cha da Macela	4.56	139	eP	Pn	19 42 48.5	+1.9
CMLA				eS	Sn	19 43 39.6	+0.1
CMLA				i IAML		19 43 42.5	
CMLA				i IAML		19 43 42.7	
CMLA				i IAML		19 43 43.3	
BART	Pico Bartolome	4.73	137	eP	Pn	19 42 50.5	+1.6
PSMN	Pico do Norte,	5.38	141	eP	Pn	19 42 59.3	+1.4
PSMN				eS	Sn	19 43 59.9	0.0
PSMN				i IAML		19 44 04.4	
PSMN				i IAML		19 44 04.7	
PSMN				i IAML		19 44 06.3	
ESDC	Sonseca Array	19.30	86	P	P	19 46 02.2	-0.4
	0.1nm,0.3s,baz=283,slow=12,SNR=7.0						
ESDC				LR	LR	19 51 55.1	
	comp=Z,93nm,21.2s,baz=272,slow=32						
	0.6nm,0.9s						
ESDC				AML	AML		
MDT	Midelt	21.37	105	LR	LR	19 53 09.8	
	comp=Z,61nm,19.0s,baz=276,slow=33						
BORG	Borgarnes	23.94	8	LR	LR	19 53 17.9	
	comp=Z,38nm,20.3s,baz=203,slow=29						
SCHQ	Schefferville	28.14	312	LR	LR	19 56 44.2	
	comp=Z,61nm,19.6s,baz=109,slow=32						
DAVOX	Davos/Dischmat	28.46	66	LR	LR	19 57 28.3	
	comp=Z,44nm,19.6s,baz=267,slow=34						
KEST	Kesra	30.54	88	LR	LR	19 59 40.6	
	comp=Z,60nm,19.2s,baz=352,slow=36						
GERES	GERESS Array B	30.93	61	LR	LR	19 59 45.6	
	comp=Z,36nm,18.5s,baz=280,slow=35						
NOA	NORSAR Array B	31.44	37	LR	LR	19 57 58.3	
	comp=Z,18nm,21.1s,baz=265,slow=31						
HFS	Hagfors	32.31	40	LR	LR	20 00 02.6	
	comp=Z,42nm,18.9s,baz=290,slow=34						
VRAC	Vranov	32.81	60	LR	LR	19 59 50.8	
	comp=Z,36nm,20.0s,baz=284,slow=34						
SADO	Sadowa	36.16	293	LR	LR	20 02 05.0	
	comp=Z,50nm,20.6s,baz=159,slow=34						
SJG	San Juan	39.07	245	LR	LR	20 01 10.6	
	comp=Z,16nm,20.9s,baz=317,slow=30						
DBIC	Dimbokro	40.76	141	LR	LR	20 05 04.5	
	comp=Z,44nm,18.6s,baz=3.5,slow=35						
TKL	Tuckaleechee C	42.45	281	LR	LR	20 04 42.9	
	comp=Z,39nm,19.1s,baz=98,slow=33						
ULM	Lac du Bonnet	45.88	305	LR	LR	20 07 18.9	
	comp=Z,51nm,21.5s,baz=120,slow=34						
KBZ	Khabaz	51.67	62	LR	LR	20 11 19.7	
	comp=Z,15nm,21.7s,baz=114,slow=35						
PDAR	Pinedale Array	57.43	301	P	P	19 51 26.6	0.0
	0.1nm,0.3s,baz=55,slow=5.9,SNR=4.2						
PDAR				LR	LR	20 15 58.2	
	comp=Z,34nm,19.2s,baz=334,slow=36						
	0.1nm,0.3s						
ANMO	Albuquerque	59.20	291	LR	LR	20 16 57.0	
	comp=Z,40nm,18.2s,baz=112,slow=36						
NEW	Newport	59.47	309	LR	LR	20 14 51.2	
	comp=Z,34nm,18.5s,baz=336,slow=34						
TXAR	Lajitas Array	60.17	284	P	P	19 51 47.9	+2.2
	0.9nm,0.9s,baz=18,slow=7.3,SNR=3.3						
TXAR				LR	LR	20 18 04.3	
	comp=Z,27nm,18.7s,baz=158,slow=36						
	0.9nm,0.9s						
NRIK	Noril'sk	60.40	21	LR	LR	20 18 16.3	
	comp=Z,15nm,18.4s,baz=8.5,slow=36						
ILAR	Eielson Array	63.63	335	P	P	19 52 08.3	+0.1
	0.3nm,0.7s,baz=50,slow=7.1,SNR=2.4						
	0.3nm,0.7s						
NVAR	Mina Array Bea	65.36	300	LR	LR	20 18 43.3	
	comp=Z,27nm,19.3s,baz=150,slow=34						
PFO	Pinyon Flats O	66.86	295	LR	LR	20 21 03.4	
	comp=Z,54nm,19.6s,baz=70,slow=35						
LPIG	La Paz	68.03	283	LR	LR	20 23 39.0	
	comp=Z,30nm,19.0s,baz=234,slow=37						
MBAR	Mbarara	68.29	111	LR	LR	20 21 17.0	
	comp=Z,41nm,18.0s,baz=291,slow=35						
MKAR	Makanchi Array	73.30	42	P	P	19 53 07.7	-1.3
	0.8nm,1.0s,baz=302,slow=6.6,SNR=4.3						
	0.8nm,1.0s						
MATP	Matopo	81.44	127	LR	LR	20 29 12.8	
	comp=Z,24nm,18.9s,baz=252,slow=35						
SONM	Songino Array	82.96	28	P	P	19 54 01.7	-0.9
	0.3nm,0.7s,baz=317,slow=5.9,SNR=1.7						
	0.3nm,0.7s						
LBTB	Lobatse	83.28	132	LR	LR	20 28 26.4	
	comp=Z,24nm,21.8s,baz=308,slow=34						
BOSA	Boshof	85.91	134	LR	LR	20 30 24.3	
	comp=Z,21nm,18.9s,baz=2.5,slow=34						
ASAR	Alice Springs	157.48	44	PKPab	PKPab	20 02 05.0	-0.7
	0.4nm,0.9s,baz=336,slow=4.2,SNR=4.6						

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*BJI **27** 19:54:47.2, 36°.33N×70°.94E, h86^{km}, mB4.5/3, mb4.6/23, Ms7 4.5/1*

*IDC **27** 19:54:48.7±1.9, 36°.23N×71°.31E, h93^{km}±17^{km}, mb4.2/29, mbtmp4.6/34, MS3.2/10, Error ellipse: s-maj=13.3km s-min=9.3km az=36.0*

*MOS **27** 19:54:50.5±1.0, 36°.37N×71°.21E, h114^{km}, mb4.8/30, Error ellipse: s-maj=5.4km s-min=3.4km az=95.5*

*NNC **27** 19:54:50.0±4.8, 36°.42N×70°.74E, h110^{km}±69^{km}, mb4.5, mpv5.3, Error ellipse: s-maj=42.8km s-min=26.5km az=28.0*

*NEIC **27** 19:54:50.8±1.6, 36°.26N±0°.06×71°.07E±0°.09, h110^{km}±8^{km}, mb4.7/32, Error ellipse: s-maj=10.6km s-min=9.0km az=106.0*

*GFZ **27** 19:54:51.5±0.2, 36°N±3°×7°1E±°, h99^{km}, M4.6/33, mb4.8/33, confirmed*

ISC 27 19:54:49.3±0.4**, 36°.23N**±0°.03×**71°.10E**±0°.03**, h94^{km}**±4^{km}**, h94^{km}:pP-P, n467, σ1^{s}54**/512**, mb4.7**/116**, 30C-25D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBL	Kabul	2.38	225	P	Pn	19 55 29.2	+2.3
KBL				S	Sn	19 55 57.3	+1.6
KBL	Kabul	2.38	225		Pn	19 55 28.2	+1.4
KBL				Sn	Sn	19 55 58.1	+2.4
KBL	Kabul	2.38	225	P	Pn	19 55 28.7	+1.9
NIL	Nilore	3.12	145	PN	Pn	19 55 40.3	+3.7
NIL	Nilore	3.12	145		Pn	19 55 40.3	+3.7
NIL	Nilore	3.12	145	P	Pn	19 55 40.6	+4.0
DRK	Karamyk	3.29	9	PN	Pn	19 55 40.9	+1.9
DRK	Karamyk	3.29	9		Pn	19 55 40.9	+1.9
DRK	Karamyk	3.29	9	P	Pn	19 55 41.1	+2.1
SRNI	Srinagar	3.73	125	eP	Pn	19 55 48.4	+3.4
SRNI				eS	Sn	19 56 29.4	+1.3
SRNI				IAML		19 56 34.3	
	comp=N,4µm,0.5s						
SRNI				IAML		19 56 36.1	
	comp=E,4µm,0.4s						
BTK	Batken	3.83	357	PN	Pn	19 55 47.8	+1.7
BTK	Batken	3.83	357		Pn	19 55 47.8	+1.7
BTK	Batken	3.83	357	P	Pn	19 55 47.9	+1.8
OHH	Osh	4.48	17	P	Pn	19 55 55.1	+0.1
KSH2	Kashi	4.58	49	Pn	Pn	19 56 01.0	+4.6
KSH2				Sn	Sn	19 56 52.3	+3.8
KSH2				smax	smax		
	comp=N,1µm,0.5s						
KSH2				smax	smax		
	comp=E,790nm,0.6s						
JMU	Jammu	4.62	137	eP	Pn	19 56 00.3	+3.6
JMU				eS	Sn	19 56 49.8	+0.6
JMU				IAML		19 56 54.7	
	comp=E,2µm,0.4s						
JMU				IAML		19 56 55.4	
	comp=N,3µm,0.5s						
ARSB	Arslanbob	5.29	16	PN	Pn	19 56 06.3	+0.3
ARSB	Arslanbob	5.29	16		Pn	19 56 06.2	+0.3
TSSA	Tissa	5.37	128	eP	Pn	19 56 10.0	+2.9
TSSA				eS	Sn	19 57 07.8	0.0
TSSA				IAML		19 57 09.9	
	comp=N,1µm,0.4s						
TSSA				IAML		19 57 10.0	
	comp=E,1µm,0.3s						
ALCI	Alchi Leh	5.37	110	eP	Pn	19 56 07.8	+0.5
ALCI				eS	Sn	19 57 06.6	-1.4
ALCI				IAML		19 57 11.1	
	comp=N,2µm,0.1s						
ALCI				IAML		19 57 12.1	
	comp=E,2µm,0.3s						
DHRM	DHARAMSHALA	5.86	131	eP	Pn	19 56 16.9	+3.1
DHRM				eS	Sn	19 57 18.6	-1.1
DHRM				IAML		19 57 23.4	
	comp=E,1µm,0.3s						
DHRM				IAML		19 57 23.9	
	comp=N,1µm,0.3s						
TLWR	Talawar	5.87	135	eP	Pn	19 56 16.9	+3.1
TLWR				eS	Sn	19 57 18.6	-1.1
TLWR				IAML		19 57 21.6	
	comp=E,1µm,0.2s						
TLWR				IAML		19 57 21.9	
	comp=N,795nm,0.2s						
IUG	Iuzhnay	5.96	352	Pg	Pn	19 56 15.9	+0.8
	comp=N,357nm,0.4s						
IUG				Lg	Lg	19 57 18.5	
	comp=N,1µm,0.5s						
IUG	Iuzhnay	5.96	352	ePN	Pn	19 56 14.8	-0.3
IUG	Iuzhnay	5.96	352	eP	Pn	19 56 14.8	-0.3
IUG				eS	Sn	19 57 20.6	-1.4
CHM	Chimkent	6.19	350	ePN	Pn	19 56 18.0	0.0
CHM	Chimkent	6.19	350	eP	Pn	19 56 18.1	0.0
CHM				eS	Sn	19 57 26.3	-1.1
ASAI	AK-SAY(Kyrgyzs	6.32	41	P	Pn	19 56 22.2	+2.1
	comp=Z,70nm,0.8s						
NRN	Naryn	6.45	35	PN	Pn	19 56 22.3	+0.4
NRN	Naryn	6.45	35		Pn	19 56 22.3	+0.4
DZA	Taraz	6.65	1	Pg	Pn	19 56 25.1	+0.7
	comp=Z,332nm,0.3s						
DZA				Lg	Lg	19 57 35.1	
	comp=Z,2µm,0.4s						
DZA	Taraz	6.65	1	ePN	Pn	19 56 24.2	-0.2
DZA	Taraz	6.65	1	eP	Pn	19 56 24.2	-0.2
DZA				eS	Sn	19 57 37.2	-1.5
MRKS	Merke	6.71	14	Pg	Pn	19 56 25.6	+0.4
	comp=Z,194nm,0.3s						
MRKS				Lg	Lg	19 57 36.1	
	comp=Z,1µm,0.4s						
EKS2	Erkin-Say	6.75	17	P	Pn	19 56 26.6	+0.8
	SNR=55						
BRLS	Borolday	6.86	352	Pg	Pn	19 56 23.1	-4.0
	comp=Z,59nm,0.2s						
BRLS				Lg	Lg	19 57 31.7	
	comp=Z,220nm,0.3s						
BRLS	Borolday	6.86	352	ePN	Pn	19 56 23.0	-4.2
BRLS	Borolday	6.86	352	eP	Pn	19 56 23.1	-4.1
KK31	Karatay Array	6.88	356	P	Pn	19 56 27.0	-0.4
	comp=Z,54nm,0.3s,baz=177,slow=12,SNR=863						
KK31				⇓S	Sn	19 57 40.1	-4.0
	comp=Z,148nm,0.6s,baz=186,slow=22,SNR=7.0						
KK31	Karatay Array	6.88	356	PN	Pn	19 56 26.8	-0.6
KK31	Karatay Array	6.88	356		Pn	19 56 26.8	-0.6
KKAR	Karatay Array	6.88	356	PN	Pn	19 56 26.6	-0.8
KKAR	Karatay Array	6.88	356		Pn	19 56 26.6	-0.8
AAK	Ala-Archa	6.91	21	P	Pn	19 56 29.1	+1.0
	SNR=171						
AAK	Ala-Archa	6.91	21	P	Pn	19 56 28.5	+0.5
	comp=Z,107nm,0.5s,baz=192,slow=7.2,SNR=314						
AAK				S	Sn	19 57 43.0	-2.3
	comp=Z,118nm,0.6s,baz=152,slow=23,SNR=16						
AAK	Ala-Archa	6.91	21	⇓P	Pn	19 56 28.9	+0.9
	comp=Z,419nm,0.5s						
AAK	Ala-Archa	6.91	21	P	Pn	19 56 29.6	+1.6
AAK				S	Sn	19 57 45.6	+0.3
AAK	Ala-Archa	6.91	21	d iPN	Pn	19 56 29.0	+1.0
AAK				pmax	pmax		
	comp=Z,123nm,0.8s						
AAK	Ala-Archa	6.91	21		Pn	19 56 28.9	+0.9
AAK	Ala-Archa	6.91	21	P	Pn	19 56 29.0	+1.0
AAK	Ala-Archa	6.91	21	P	Pn	19 56 29.2	+1.0
	comp=Z,173nm,0.6s						
KBK	Karagaybulak	7.07	24	P	Pn	19 56 31.3	+1.1
	SNR=38						
FRU1	Bishkek	7.11	21	PN	Pn	19 56 32.3	+1.6
FRU1	Bishkek	7.11	21		Pn	19 56 32.3	+1.6
SMLA	Simla	7.17	133	eP	Pn	19 56 33.8	+2.3
SMLA				eS	Sn	19 57 48.7	-2.7
SMLA				IAML		19 57 52.9	
	comp=E,735nm,0.7s						
SMLA				IAML		19 57 54.2	
	comp=N,786nm,0.3s						
ULHL	Ulahol	7.21	32	P	Pn	19 56 33.0	+0.9
	SNR=28						
CHMS	Chumysh	7.32	22	P	Pn	19 56 34.1	+0.6
	SNR=177						
HRA	Herat	7.47	258		Pn	19 56 38.0	+2.3
USP	Ospenovka	7.50	19	P	Pn	19 56 36.0	+0.1
	SNR=42						
TKM2	Tokmak 2	7.53	26	P	Pn	19 56 37.5	+1.1
	SNR=24						
KLP	Kalpa	7.57	126	eP	Pn	19 56 39.1	+2.0
KLP				eS	Sn	19 57 57.9	-3.7
KLP				IAML		19 58 04.8	
	comp=E,448nm,0.5s						
KLP				IAML		19 58 05.8	
	comp=N,588nm,0.8s						
TARG	Taragay, Kyrgy	7.57	42	PN	Pn	19 56 38.6	+1.3
TARG	Taragay, Kyrgy	7.57	42		Pn	19 56 38.6	+1.3
TARG	Taragay, Kyrgy	7.57	42	P	Pn	19 56 39.7	+2.4
	comp=Z,39nm,0.7s						
SGDS	Sogindy	7.70	20	Pg	Pn	19 56 38.8	+0.1
	comp=Z,53nm,0.3s						
SGDS				Lg	Lg	19 57 59.4	
	comp=Z,166nm,0.7s						
SGDS	Sogindy	7.70	20	eP	Pn	19 56 38.3	-0.4
SGDS				eS	Sn	19 58 02.7	-1.6
KST	Kastek	7.76	27	Pg	Pn	19 56 40.8	+1.1
	comp=Z,12nm,0.4s						
KST				Lg	Lg	19 58 02.9	
	comp=Z,113nm,0.5s						
WUS	Wushi	8.05	50		Pn	19 56 45.2	+1.7
WUS	Wushi	8.05	50	P	Pn	19 56 46.2	+2.7
	comp=Z,22nm,0.7s						
TNSS	Tian-Shan	8.15	32	ePN	Pn	19 56 44.8	-0.3
TNSS	Tian-Shan	8.15	32	eP	Pn	19 56 44.8	-0.3
KRBS	Karabastau	8.24	24	Pg	Pn	19 56 46.1	+0.1
	comp=Z,28nm,0.6s						
KRBS				Lg	Lg	19 58 12.8	
	comp=Z,6.4nm,0.5s						
AAA	Alma-Ata	8.28	31	ePN	Pn	19 56 46.8	+0.3
AAA	Alma-Ata	8.28	31	eP	Pn	19 56 46.9	+0.3
MDOK	Medeo	8.30	32	Pg	Pn	19 56 47.9	+1.0
	comp=Z,39nm,0.5s						
MDOK	Medeo	8.30	32	ePN	Pn	19 56 47.1	+0.2
MDOK	Medeo	8.30	32	eP	Pn	19 56 47.2	+0.3
KNDC	Almaty	8.31	31	⇓P	Pn	19 56 47.9	+1.0
	comp=Z,59nm,0.7s						
KNDC				⇓S	Sn	19 58 19.0	-0.1
	comp=Z,61nm,0.7s						
KOTS	Kotyrbulak	8.38	32	P	Pn	19 56 49.4	+1.4
	comp=Z,38nm,0.3s						
PRZ	Przheval'sk	8.42	40	PN	Pn	19 56 49.9	+1.3
PRZ	Przheval'sk	8.42	40		Pn	19 56 49.9	+1.3
PRZ	Przheval'sk	8.42	40	P	Pn	19 56 50.9	+2.3
	comp=Z,168nm,0.8s						
KUU	Kurty	8.64	26	ePN	Pn	19 56 51.4	0.0
KUU	Kurty	8.64	26	eP	Pn	19 56 51.4	0.0
SATY	Saty	8.84	37	P	Pn	19 56 55.2	+0.9
	comp=Z,18nm,0.6s						
SATY	Saty	8.84	37	ePN	Pn	19 56 54.3	0.0
SATY	Saty	8.84	37	eP	Pn	19 56 54.3	0.0
SATY				eS	Sn	19 58 31.1	-1.0
KURS	Kuram	9.05	35	P	Pn	19 56 58.1	+1.0
	comp=Z,23nm,0.7s						
JOSI	Joshimath	9.05	126	eP	Pn	19 56 58.8	+1.4
JOSI				eS	Sn	19 58 32.5	-5.2
JOSI				IAML		19 58 38.4	
	comp=N,315nm,0.6s						
JOSI				IAML		19 58 40.8	
	comp=E,217nm,0.4s						
NDI	New Delhi	9.13	144	eP	Pn	19 56 59.6	+1.5
NDI				eS	Sn	19 58 34.1	-4.9
NDI				IAML		19 58 39.6	
	comp=N,297nm,0.3s						
NDI				IAML		19 58 40.3	
	comp=E,295nm,0.8s						
LDR	Lodi Road	9.21	144	eS	Sn	19 58 36.4	-4.7
LDR				IAML		19 58 42.9	
	comp=E,165nm,0.4s						
LDR				IAML		19 58 43.5	
	comp=N,147nm,0.2s						
UZB	Uzynbulak	9.21	39	P	Pn	19 56 60.0	+0.6
	comp=N,31nm,0.4s						
UZB	Uzynbulak	9.21	39	eP	Pn	19 56 59.5	+0.2
UZB	Uzynbulak	9.21	39	eP	Pn	19 56 59.5	+0.2
KPKS	Kokpek	9.28	37	P	Pn	19 57 00.7	+0.5
	comp=N,0.2nm,0.1s						
KPKS	Kokpek	9.28	37	eP	Pn	19 57 00.1	-0.1
KPKS	Kokpek	9.28	37	eP	Pn	19 57 00.1	-0.1
SHLS	Shalkode	9.45	40	P	Pn	19 57 06.2	+3.7
	comp=N,23nm,0.6s						
SHLS	Shalkode	9.45	40	eP	Pn	19 57 05.6	+3.1
SHLS	Shalkode	9.45	40	eP	Pn	19 57 05.6	+3.1
PDGK	Podgornoye	9.58	40	P	Pn	19 57 04.5	+0.2
PDGK	Podgornoye	9.58	40		Pn	19 57 04.5	+0.2
BLB	Baldybastay	9.67	33	P	Pn	19 57 05.2	-0.3
	comp=N,14nm,0.5s						
KNOS	Konyrlen	10.19	35	P	Pn	19 57 12.1	-0.5
	comp=N,5.0nm,0.7s						
TDK	Taldyqorghan	10.37	30	eP	Pn	19 57 14.8	-0.1
TDK	Taldyqorghan	10.37	30	eP	Pn	19 57 14.9	-0.1
MAKZ	Makanchi	13.33	34	⇓P	Pn	19 57 52.3	-2.3
	comp=N,7.2nm,0.7s						
MAKZ	Makanchi	13.33	34	P	Pn	19 57 53.3	-1.3
MAKZ	Makanchi	13.33	34		Pn	19 57 53.1	-1.5
MAKZ	Makanchi	13.33	34	P	Pn	19 57 53.5	-1.0
	comp=Z,19nm,1.0s						
MK31	Makanchi Array	13.46	35	⇑P	Pn	19 57 55.9	-0.4
	comp=Z,2.1nm,0.6s,baz=219,slow=14,SNR=25						
MK31	Makanchi Array	13.46	35	d iP	Pn	19 57 56.1	-0.2
MKAR	Makanchi Array	13.46	35	P	Pn	19 57 56.1	-0.2
	comp=Z,3.5nm,0.6s,baz=221,slow=14,SNR=26						
MKAR	Makanchi Array	13.46	35		Pn	19 57 56.3	0.0
BHPL	Bhopal	14.06	155	eP	Pn	19 58 05.1	+0.9
BHPL				eS	Sn	20 00 28.4	-11
BHPL				IAML		20 00 35.6	
	comp=E,91nm,0.3s						
BHPL				IAML		20 00 37.0	
	comp=N,90nm,0.3s						
WMQ	Urumqi	14.79	54	eP	P	19 58 16.0	-1.0
ZSN	Zaisan	15.17	38	eP	Pn	19 58 18.4	+0.2
ZSN	Zaisan	15.17	38	eP	Pn	19 58 18.4	+0.2
JASK	Jask - Hormozg	15.33	231	P	Pn	19 58 20.0	-0.4
JASK				S	Sn	20 01 09.3	-0.3
KURBB	Kurchatov Arra	15.35	18	P	Pn	19 58 17.7	-2.8
	comp=N,2.0nm,0.2s,baz=213,slow=12,SNR=10						
AB31	Akbulak array	15.36	331	⇑P	Pn	19 58 18.0	-2.5
	comp=N,6.1nm,0.3s,baz=142,slow=12,SNR=504						
AB31	Akbulak array	15.36	331		Pn	19 58 16.5	-4.1
AB31				IAmb	IAmb	19 58 34.2	
	comp=Z,21nm,0.5s						
ABKAR	Akbulak array	15.36	331	P	Pn	19 58 17.3	-3.3
KURK	Kurchatov	15.46	18	⇑eP	Pn	19 58 19.7	-2.1
KURK				pmax	pmax		
	comp=Z,16nm,1.0s						
KURK	Kurchatov	15.46	18	P	Pn	19 58 21.6	-0.2
	comp=Z,16nm,0.9s						
EVN	Everest	15.65	117	P	Pn	19 58 22.3	-2.8
EVN				IAmb	IAmb	19 58 30.3	
	comp=Z,27nm,0.8s						
EVN	Everest	15.65	117	P	Pn	19 58 23.0	-2.1
	comp=Z,34nm,0.6s						
BANOM	Banah	16.30	235	P	Pn	19 58 32.4	-0.2
BANOM	Banah	16.30	235	P	Pn	19 58 32.6	0.0
SHME	Shamm	16.32	236	P	Pn	19 58 30.9	-1.9
SHME	Shamm	16.32	236	P	Pn	19 58 33.8	+0.9
MDH	Madha	16.73	233	P	Pn	19 58 37.3	-0.5
BVAR	Borovoye Array	16.80	359	P	Pn	19 58 37.5	-1.0
	comp=Z,6.4nm,0.7s,baz=164,slow=12,SNR=32						
BVAR				S	Sn	20 01 33.1	-12
	comp=Z,7.1nm,0.5s,baz=161,slow=24,SNR=6.4						
BVB5	Borovoye Array	16.80	358	⇓P	Pn	19 58 37.3	-1.2
	comp=Z,8.5nm,0.6s						
BORK	Borovoye	16.82	358	c iP	Pn	19 58 37.5	-1.3
WSAR	Wadi Sarin	16.86	223	P	Pn	19 58 37.2	-2.3
UOSS	Minazif	17.04	233	P	Pn	19 58 40.1	-1.6
UOSS	Minazif	17.04	233	P	Pn	19 58 40.5	-1.2
AKTO	Aktyubinsk	17.05	330	P	Pn	19 58 41.3	-0.3
	comp=Z,63nm,0.7s,baz=133,slow=8.9,SNR=45						
AKTO				S	Sn	20 01 37.5	-13
	comp=Z,23nm,0.4s,baz=348,slow=22,SNR=8.1						
AKTO				LR	LR	20 05 19.2	
	comp=Z,28nm,21.8s,baz=0.0,slow=37						
AKTO	Aktyubinsk	17.05	330	⇑P	Pn	19 58 39.6	-2.0
	comp=Z,42nm,0.8s						
HATD	Hatta, Dubai	17.17	233	P	P	19 58 43.1	-0.3
WBK	Wadi Bani Khal	17.18	221	P	Pn	19 58 45.0	+1.6
ASHO	Ashiyiah	17.32	232	P	P	19 58 44.9	-0.2
	SNR=8.6						
ASHO				S	Sn	20 01 56.6	-1.0
ASHO	Ashiyiah	17.32	232	P	Pn	19 58 45.8	+0.7
SMDO	Samad	17.33	224	P	P	19 58 45.3	0.0
JLN	Jalan Bani Buh	17.33	219	P	Pn	19 58 46.8	+1.6
HOQ	Hoqain	17.35	227	P	P	19 58 45.8	+0.3
SOHO	SOHO	17.41	230	P	P	19 58 46.1	0.0
JMDO	Jabal Madar	17.84	223	P	Pn	19 58 53.1	+1.6
DGZ	Jazzator, Alta	17.95	36	⇑eP	P	19 58 51.3	-0.7
DGZ				pmax	pmax		
	comp=Z,9.0nm,0.6s						
ALNE	Al Ain	17.96	232	P	Pn	19 58 53.3	+0.5
	SNR=16						
ARQ	Araqi	18.01	228	P	P	19 58 52.9	+0.2
LSA	Lhasa	18.03	105	eP	Pn	19 58 57.0	+2.9
LSA				pmax	pmax		
	comp=Z,7.0nm,0.7s						
LSA	Lhasa	18.03	105	P	P	19 58 54.4	+1.0
LSA				pmax	pmax		
	comp=Z,9.0nm,0.6s						
LSA	Lhasa	18.03	105	P	P	19 58 54.4	+1.0
LSA	Lhasa	18.03	105	P	Pn	19 58 55.0	+0.9
	comp=Z,12nm,0.8s						

BSY	Bisya	18.06	226	P	Pn	19 58 55.0	+0.9
MHTO	MHTO	19.04	221	P	P	19 59 05.2	+1.2
	SNR=9.3						
GOMU	GeErMu	19.13	83	P	Pn	19 59 08.0	+0.9
GOMU				pmax	pmax		
	comp=Z,9.0nm,0.8s						
JRN	Qarnain Island	19.29	239	P	P	19 59 05.7	-1.0
UMZA	Um Al Zommool	19.30	230	P	P	19 59 06.8	0.0
MAK	Makhachkala	19.35	298	c iP	P	19 59 06.1	-1.1
MAK				eS	S	20 02 39.6	-1.4
MAK				pmax	pmax		
	comp=Z,544nm,1.5s						
MZWR	Madinat Zayed	19.38	235	P	P	19 59 06.5	-1.1
HYB	Hyderabad	19.87	159	eP	P	19 59 12.9	-0.1
HYB				epP	sP	19 59 41.3	-2.5
HYB				eS	S	20 02 52.4	+0.6
GHWR	Ruwais	19.91	237	P	P	19 59 11.9	-1.5
ZALV	Zalesovo Beam	20.12	24	P	P	19 59 15.2	-0.3
	comp=Z,22nm,0.4s,baz=218,slow=10,SNR=109						
	comp=Z,22nm,0.4s						
ZALV	Zalesovo Beam	20.12	24	i P	P	19 59 15.1	-0.4
ZALV				pmax	pmax		
	comp=Z,22nm,0.4s						
ZALV	Zalesovo Beam	20.12	24	P	P	19 59 14.9	-0.6
SLWR	Sila	20.66	239	P	P	19 59 20.8	-0.6
GNI	Garni	21.05	289	P	P	19 59 27.1	+1.2
	comp=Z,87nm,0.8s,baz=24,slow=1.5,SNR=36						
	comp=Z,87nm,0.8s						
GNI	Garni	21.05	289	P	P	19 59 25.7	-0.1
GNI				S	S	20 03 10.4	-4.6
GNI	Garni	21.05	289	ceP	P	19 59 28.7	+2.9
GNI				pmax	pmax		
	comp=Z,162nm,1.3s						
GNI	Garni	21.05	289	P	P	19 59 27.8	+2.0
GNI	Garni	21.05	289	P	P	19 59 26.6	+0.8
GNI	Garni	21.05	289	P	P	19 59 28.9	+3.1
	comp=Z,1µmcomp=Z,125nm,1.0s						
GNI	Garni	21.05	289	P	P	19 59 29.3	+3.5
	comp=Z,126nm,1.0s						
OZAP	Van, Ozalp-Mer	21.63	285	⇓P	P	19 59 34.5	+2.4
SVE	Sverdlovsk	21.77	344	eP	P	19 59 33.5	+0.4
SVE				eS	S	20 03 26.4	-1.9
SVE				pmax	pmax		
	comp=Z,30nm,0.9s						
ARTI	Arti	21.92	341	P	P	19 59 35.2	+0.6
	comp=Z,69nm,0.9s,baz=157,slow=6.0,SNR=63						
ARTI				S	S	20 03 31.4	+0.4
	comp=Z,5.1nm,0.5s,baz=46,slow=21,SNR=7.8						
ARTI				LR	LR	20 08 45.2	
	comp=Z,75nm,18.2s,baz=162,slow=38						
	comp=Z,69nm,0.9s						
ARTI	Arti	21.92	341	d iP	P	19 59 35.3	+0.6
ARTI						20 00 06.3	
ARTI				S	S	20 03 27.7	-3.3
ARTI				SS	SnSn	20 04 09.0	+3.9
ARTI				pmax	pmax		
	comp=Z,80nm,0.9s						
NCK	Nalchik	22.26	297	⇑eP	P	19 59 39.4	+1.0
NCK				pmax	pmax		
	comp=Z,26nm,0.7s						
EPOS	Posof	22.66	292	P	P	19 59 45.5	+2.7
	comp=Z,27nm,1.3s						
KBZ	Khabaz	22.80	298	P	P	19 59 43.2	-0.7
	comp=Z,5.9nm,0.7s,baz=106,slow=12,SNR=13						
KBZ				S	S	20 03 51.5	+5.7
	comp=Z,8.3nm,0.8s,baz=182,slow=12,SNR=4.7						
	comp=Z,5.9nm,0.7s						
KBZ	Khabaz	22.80	298	deP	P	19 59 44.4	+0.5
KBZ				pmax	pmax		
	comp=Z,11nm,0.9s						
GTA2	Gaotai	22.82	73	eP	P	19 59 46.0	+1.6
SHA1	Shidzhatmaz	22.97	298	ceP	P	19 59 45.7	-0.3
KVAR	Kislovodsk Arr	22.98	298	P	P	19 59 46.0	+0.1
	comp=Z,5.0nm,0.7s,baz=74,slow=23,SNR=3.1						
KVAR				S	S	20 03 51.7	+2.8
	comp=Z,8.8nm,0.8s,baz=267,slow=2.5,SNR=3.5						
	comp=Z,5.0nm,0.7s						
KIV	Kislovodsk	22.98	298	eP	P	19 59 46.7	+0.8
KIV				eS	S	20 03 49.7	+0.7
KIV				pmax	pmax		
	comp=Z,20nm,1.0s						
KIV				MLR	MLR		
	comp=Z,22nm,14.0s						
KIV	Kislovodsk	22.98	298	P	P	19 59 46.2	+0.3
KIV				IAmb	IAmb	20 00 03.0	
	comp=Z,28nm,0.8s						
KIV	Kislovodsk	22.98	298	P	P	19 59 45.1	-0.8
KIV	Kislovodsk	22.98	298	⇑P	P	19 59 47.4	+1.5
KIV	Kislovodsk	22.98	298	P	P	19 59 46.9	+1.0
	comp=Z,316nmcomp=Z,26nm,0.7s						
KIV	Kislovodsk	22.98	298	P	P	19 59 47.0	+1.1
	comp=Z,34nm,0.7s						
DOK	Doka	23.06	225	P	P	19 59 46.3	-0.5
BELG	Belogornoye	23.15	322	P	P	19 59 47.3	+0.1
	comp=Z,44nm,0.7s,baz=274,slow=1.6,SNR=17						
BELG				S	S	20 03 56.7	+5.5
	comp=Z,13nm,0.7s,baz=6.8,slow=23,SNR=2.1						
BELG				LR	LR	20 11 46.9	
	comp=Z,125nm,18.5s,baz=94,slow=44						
	comp=Z,44nm,0.7s						
BELG	Belogornoye	23.15	322	c iP	P	19 59 46.8	-0.4
BELG				i *PP	pP	20 00 07.6	+0.7
BELG				pmax	pmax		
	comp=Z,8.0nm,0.9s						
MORE	Moreh	23.27	114	P	P	19 59 50.7	+2.0
DMTO	DMTO	23.34	222	P	P	19 59 51.4	+2.1
KNGR	Kungurtug, Tuv	23.80	45	⇓eP	P	19 59 53.4	0.0
KNGR				pmax	pmax		
	comp=Z,8.0nm,0.7s						
WHFO	Wadi Hawf	23.82	225	P	P	19 59 52.0	-1.8
RBK	Rabkut	23.91	223	P	P	19 59 53.8	-0.8
LABN	Labinsk	24.49	299	eP	P	20 00 01.7	+2.2
LABN				pmax	pmax		
	comp=Z,21nm,0.7s						
LABN				MLR	MLR		
	comp=Z,74nm,11.0s						
ABTO	Aybut	24.54	225	P	P	19 59 59.0	-1.3
VSLR	Vesyoloye	24.82	296	⇑eP	P	20 00 02.7	+0.1
VSLR				pmax	pmax		
	comp=Z,17nm,0.9s						
ERBR	Yeremizino-Bor	24.85	302	eP	P	20 00 02.9	+0.1
ERBR				e*PP	pP	20 00 24.0	-0.7
ERBR				eS	S	20 04 18.7	-0.1
ERBR				pmax	pmax		
	comp=Z,17nm,0.7s						
SOC	Sochi	25.06	297	eP	P	20 00 01.7	-3.0
SOC				eS	S	20 04 16.2	-5.9
SOC				MLR	MLR		
	comp=Z,115nm,14.0s						
RAYN	Ar Rayn	25.47	247	P	P	20 00 07.7	-1.0
RAYN				pmax	pmax		
	comp=Z,8.0nm,0.5s						
RAYN	Ar Rayn	25.47	247	P	P	20 00 07.7	-1.0
RAYN				IAmb	IAmb	20 00 16.3	
	comp=Z,8.1nm,0.5s						
RAYN	Ar Rayn	25.47	247	P	P	20 00 07.3	-1.3
RAYN	Ar Rayn	25.47	247	P	P	20 00 08.9	+0.3
	comp=Z,9.9nm,0.6s						
VRH	Novokhopyorsk	25.75	315	eP	P	20 00 11.0	+0.1
VRH				pmax	pmax		
	comp=Z,24nm,0.6s						
TNCH	TengChong	26.02	108	P	P	20 00 15.0	+1.2
TNCH				sP	sP	20 00 48.5	+1.3
TNCH				pmax	pmax		
	comp=Z,11nm,1.0s						
LZH	Lanzhou	26.37	81	eP	P	20 00 17.0	+0.1
LZH				pmax	pmax		
	comp=Z,13nm,1.4s						
KIRV	Kirov	26.52	334	P	P	20 00 17.8	+0.1
	comp=Z,18nm,0.6s,baz=144,slow=11,SNR=7.1						
	comp=Z,18nm,0.6s						
KIRV	Kirov	26.52	334	ceP	P	20 00 18.4	+0.8
ANN	Anapa	26.83	299	eP	P	20 00 21.0	+0.3
ANN				pmax	pmax		
	comp=Z,63nm,1.2s						
VORD	Divnogorie	27.08	313	eP	P	20 00 24.0	+1.2
VORD				pmax	pmax		
	comp=Z,10.0nm,0.9s						
VSR	Storozhevoye	27.24	313	eP	P	20 00 24.5	+0.2
VSR				pmax	pmax		
	comp=Z,12nm,0.9s						
VORR	Voronezh	27.39	314	eP	P	20 00 25.6	0.0
VORR				pmax	pmax		
	comp=Z,18nm,0.4s						
NPW	Naypyitaw	27.40	120	P	P	20 00 26.6	+0.6
	comp=Z,17nm,1.3s						
CD2	Chengdu	27.64	92	P	P	20 00 29.3	+1.1
CD2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
PZH	PanZhiHua	27.80	102	P	P	20 00 32.5	+2.8
LPSR	Galich'ya Gora	27.90	316	eP	P	20 00 30.1	0.0
LPSR				pmax	pmax		
	comp=Z,28nm,0.8s						
SONM	Songino Array	28.42	55	P	P	20 00 33.9	-1.1
	comp=Z,0.6nm,0.5s,baz=280,slow=8.6,SNR=3.7						
	comp=Z,0.6nm,0.5s						
SONM	Songino Array	28.42	55	P	P	20 00 32.3	-2.7
ASF	Jabal al Asfar	28.49	272	LR	LR	20 13 51.5	
	comp=Z,13nm,21.2s,baz=45,slow=40						
KIRS	Kirsehir-Merke	29.44	287	⇑P	P	20 00 45.5	+1.4
BR104	Keskin Array S	29.59	288	P	P	20 00 47.5	+2.0
	comp=Z,56nmcomp=Z,8.8nm,0.8s						
BR131	Keskin Array S	29.59	288	P	P	20 00 43.8	-1.7
	SNR=11						
BR131	Keskin Array S	29.59	288	d iP	P	20 00 47.1	+1.6
BR131	Keskin Array S	29.59	288	P	P	20 00 47.7	+2.2
BR131				IAmb	IAmb	20 00 48.2	
	comp=Z,8.6nm,0.7s						
BRTR	Keskin Array B	29.59	288	P	P	20 00 47.3	+1.7
	comp=Z,6.4nm,0.6s,baz=101,slow=9.0,SNR=28						
	comp=Z,6.4nm,0.6s						
BRTR	Keskin Array B	29.59	288	i P	P	20 00 47.2	+1.7
BRTR				pmax	pmax		
	comp=Z,7.0nm,0.6s						
BR106	Keskin Array S	29.61	288	P	P	20 00 47.6	+2.0
	comp=Z,79nmcomp=Z,12nm,0.7s						
BR105	Keskin Array S	29.61	288	P	P	20 00 47.7	+2.0
	comp=Z,71nmcomp=Z,11nm,0.7s						
MOS	Moscow	29.92	321	eP	P	20 00 47.1	-0.9
MOS				e		20 01 49.1	
MOS				pmax	pmax		
	comp=Z,28nm,0.8s						
PALK	Pallekele	30.13	161	P	P	20 00 51.2	+0.9
PALK	Pallekele	30.13	161	P	P	20 00 51.5	+1.1
OBN	Obninsk	30.19	320	P	P	20 00 51.0	+0.6
	comp=Z,25nm,0.5s,baz=122,slow=23,SNR=5.8						
	comp=Z,25nm,0.5s						
OBN	Obninsk	30.19	320	i P	P	20 00 50.8	+0.4
OBN				i		20 01 49.9	
OBN				pmax	pmax		
	comp=Z,38nm,1.3s						
OBN	Obninsk	30.19	320	⇑P	P	20 00 50.9	+0.4
OBN	Obninsk	30.19	320	P	P	20 00 51.0	+0.6
	comp=Z,44nm,0.8s						
CMAR	Chiang Mai Arr	30.26	118	P	P	20 00 50.0	-1.4
	comp=Z,2.1nm,0.9s,baz=298,slow=8.2,SNR=11						
	comp=Z,2.1nm,0.9s						
CMAR	Chiang Mai Arr	30.26	118	i P	P	20 00 53.2	+1.8
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
KEPZ	Antalya-Kepez	31.58	283	⇑P	P	20 01 04.6	+1.7
KLMR	Klimovskoe	31.75	331	eP	P	20 01 03.3	-0.8
KLMR				e*PP	pP	20 01 25.6	-0.8
KLMR				pmax	pmax		
	comp=Z,24nm,1.3s						
HHC	Hu-ho-hao-te	31.78	69	eP	P	20 01 07.0	+2.3
HHC				pmax	pmax		
	comp=Z,15nm,0.6s						
ISP	Isparta	32.26	285	⇓eP	P	20 01 10.3	+1.4
ISP				pmax	pmax		
	comp=Z,3.0nm,0.7s						
PURM	Purcari	32.27	302	P	P	20 01 10.7	+1.9
	comp=Z,25nm,0.9s						
YLV	Yalova	32.77	290	P	P	20 01 15.2	+1.9
	comp=Z,29nm,1.1s						
ELL	Elmali	32.94	283	P	P	20 01 15.5	+0.6
ELL				pmax	pmax		
	comp=Z,57nm,0.6s						
ELL	Elmali	32.94	283	P	P	20 01 15.4	+0.6
KIS	Kishinev	33.02	302	P	P	20 01 16.7	+1.4
	comp=Z,1µmcomp=Z,42nm,0.5s						
AK09	Malin Array Si	33.12	309	P	P	20 01 16.9	+0.7
TSMN	Mangalia Port-	33.13	296	⇓P	P	20 01 17.5	+1.3
AK08	Malin Array Si	33.15	309	P	P	20 01 16.8	+0.4
AK07	Malin Array Si	33.16	309	P	P	20 01 17.2	+0.7
AK07				pP	pP	20 01 41.2	+2.3
AKASG	Malin Array Be	33.18	309	P	P	20 01 17.2	+0.5
	comp=Z,3.9nm,0.5s,baz=83,slow=7.3,SNR=21						
	comp=Z,3.9nm,0.5s						
AKBB	Malin Array Si	33.18	309	ceP	P	20 01 16.8	+0.2
AKBB	Malin Array Si	33.18	309	P	P	20 01 17.0	+0.4
KIEV	Kiev	33.19	309	P	P	20 01 17.2	+0.5
KIEV	Kiev	33.19	309	P	P	20 01 15.6	-1.1
KIEV				IAmb	IAmb	20 01 17.7	
	comp=Z,8.8nm,0.6s						
KIEV	Kiev	33.19	309	P	P	20 01 17.0	+0.3
KIEV	Kiev	33.19	309	⇓P	P	20 01 17.3	+0.5
KIEV	Kiev	33.19	309	P	P	20 01 17.0	+0.3
	comp=Z,47nm,0.5s						
AK12	Malin Array Si	33.21	309	P	P	20 01 17.4	+0.5
AK04	Malin Array Si	33.22	309	P	P	20 01 17.4	+0.4
AK19	Malin Array Si	33.31	309	P	P	20 01 17.8	0.0
SORM	Soroca	33.42	304	P	P	20 01 19.4	+0.6
SORM	Soroca	33.42	304	⇓P	P	20 01 19.4	+0.6
SORM	Soroca	33.42	304	P	P	20 01 19.2	+0.4
	comp=Z,16nm,1.2s						
CFR	Carcaliu	33.44	299	P	P	20 01 20.1	+1.2
CFR	Carcaliu	33.44	299	⇓P	P	20 01 20.2	+1.2
VLDR	Vladesti	33.48	300	⇑P	P	20 01 20.4	+1.0
CTYL	Yalikoy Yolu	33.49	292	P	P	20 01 21.1	+1.6
	comp=Z,3µmcomp=Z,25nm,0.8s						
LUBAR	Lubar, Ukraine	33.99	307	P	P	20 01 23.6	-0.2
NRIK	Noril'sk	34.37	10	P	P	20 01 27.3	+0.5
	comp=Z,10nm,0.8s,baz=193,slow=7.7,SNR=7.5						
	comp=Z,10nm,0.8s						
NRIK	Noril'sk	34.37	10	⇓eP	P	20 01 28.2	+1.4
NRIK				pmax	pmax		
	comp=Z,12nm,0.8s						
NRIK	Noril'sk	34.37	10	P	P	20 01 27.8	+1.0
NRIK				IAmb	IAmb	20 01 29.0	
	comp=Z,10nm,0.8s						
PLOR	Plostina	34.49	300	P	P	20 01 29.7	+1.6
PLOR	Plostina	34.49	300	⇑P	P	20 01 29.8	+1.6
TESR	Tescani	34.49	301	⇑P	P	20 01 29.4	+1.3
TESR	Tescani	34.49	301	P	P	20 01 29.4	+1.3
	comp=Z,8.0nm,0.7s						
GIRR	Girov	34.61	302	⇓P	P	20 01 30.3	+1.3
KMPD	K-Podol'skiy	34.71	305	P	P	20 01 30.2	+0.3
MNK	Minsk	34.75	316	i P	P	20 01 30.0	-0.1
MNK				i *PP	pP	20 01 52.7	+0.1
MNK				i		20 02 49.6	
MNK				i		20 04 03.7	
MNK				i S	S	20 06 53.7	+0.4
MNK				i *SS	sS	20 07 33.6	+0.9
MNK				i SS	SnSn	20 09 18.6	+2.5
MNK				pmax	pmax		
	comp=N,8.0nm,0.8s						
MNK				pmax	pmax		
	comp=E,4.0nm,0.8s						
MNK				pmax	pmax		
	comp=Z,7.0nm,0.6s						
MNK	Minsk	34.75	316	i P	P	20 01 30.1	-0.1
	comp=E,4.0nm,0.8s						
MNK				i P	P	20 01 30.1	-0.1
	comp=N,8.0nm,0.8s						
MNK				i P	P	20 01 30.1	-0.1
	comp=Z,7.0nm,0.6s,baz=103						
MNK				i pP	pP	20 01 52.8	+0.1
MNK				i sP	sP	20 02 00.1	-3.8
MNK				i PP	PP	20 02 49.6	-0.9
MNK				i S	S	20 06 53.7	+0.4
MNK				i sS	sS	20 07 33.7	+0.9
MNK				i SS	SnSn	20 09 18.7	+2.5
COVR	Voineasa-Covas	34.80	300	⇑P	P	20 01 32.7	+1.9
BDRM	Kayabasi	34.81	285	⇓P	P	20 01 31.8	+0.9
MLR	Muntele Rosu	34.98	300	P	P	20 01 35.1	+2.6
	comp=Z,13nm,1.0s,baz=270,slow=23,SNR=18						
MLR				LR	LR	20 19 53.7	
	comp=Z,20nm,18.3s,baz=1.0,slow=43						
	comp=Z,13nm,1.0s						
MLR	Muntele Rosu	34.98	300	P	P	20 01 34.6	+2.1
MLR	Muntele Rosu	34.98	300	P	P	20 01 33.9	+1.3
MLR				IAmb	IAmb	20 01 36.5	
	comp=Z,14nm,0.9s						
MLR	Muntele Rosu	34.98	300	⇑P	P	20 01 34.6	+2.1
MLR	Muntele Rosu	34.98	300	P	P	20 01 34.1	+1.6
	comp=Z,17nm,1.1s						
MLR	Muntele Rosu	34.98	300	P	P	20 01 35.3	+2.8
	comp=Z,17nm,1.1s						
RNPP5	Staryi Chortor	35.34	310	P	P	20 01 36.2	+0.9
DOPR	Dopca	35.37	300	⇓P	P	20 01 37.7	+2.0
RNPP8	Varash	35.38	310	P	P	20 01 36.6	+1.0
KARP	Karpathos	35.38	282	P	P	20 01 35.0	-0.9
KARP	Karpathos	35.38	282	P	P	20 01 37.4	+1.5
	comp=Z,98nm,0.9s						
KARP	Karpathos	35.38	282	P	P	20 01 37.7	+1.8
	comp=Z,98nm,0.9s						
RNPP1	Kostyukhnivka	35.43	310	P	P	20 01 36.7	+0.6
NACGM	Naroch	35.46	316	⇑iP	P	20 01 37.0	+0.7
	comp=Z,28nm,0.8s,baz=103						
BURAR	Bucovina Array	35.50	303	P	P	20 01 38.5	+1.6
BURAR	Bucovina Array	35.50	303	P	P	20 01 37.7	+0.9
BURAR				IAmb	IAmb	20 01 39.2	
	comp=Z,5.4nm,0.5s						
BURAR	Bucovina Array	35.50	303	⇑P	P	20 01 38.5	+1.6
BUR08	Bucovina Ar. S	35.51	303		P	20 01 36.5	-0.5
VOIR		35.61	299	P	P	20 01 39.4	+1.6
VOIR		35.61	299	⇑P	P	20 01 39.4	+1.6
VOIR		35.61	299	P	P	20 01 39.4	+1.6
	comp=Z,3.4nm,0.9s						
ARR	Arges	35.91	299	⇑P	P	20 01 42.4	+2.0
ARR	Arges	35.91	299	P	P	20 01 42.7	+2.3
	comp=Z,4.7nm,1.1s						
ARCR	ARCALIA	36.08	302	⇑P	P	20 01 43.9	+2.2
VSU	Vasula	36.44	322	deP	P	20 01 44.3	-0.3
VSU				pmax	pmax		
	comp=Z,19nm,0.8s						
VSU	Vasula	36.44	322	P	P	20 01 44.3	-0.3
	comp=Z,38nm,0.9s						
LOT	Lotru	36.51	300	P	P	20 01 47.1	+1.5
	comp=Z,5.0nm,1.1s						
PABE	Paberze	37.17	316		P	20 01 50.2	-0.5
PABE	Paberze	37.17	316	P	P	20 01 51.4	+0.6
	comp=Z,33nm,0.7s						
DRGR		37.20	302	P	P	20 01 53.4	+2.0
DRGR		37.20	302	⇑P	P	20 01 53.5	+2.0
DRGR		37.20	302	P	P	20 01 53.3	+2.0
	comp=Z,5.6nm,0.8s						
TRPA	Tarpa	37.31	304	P	P	20 01 54.4	+2.2
	comp=Z,12nm,1.2s						
KOLS	Kolonicke sedl	37.50	305	eP	P	20 01 55.3	+1.6
KOLS				e		20 03 23.6	
KOLS	Kolonicke sedl	37.50	305	eP	P	20 01 55.3	+1.6
KOLS				ePP	PnPn	20 03 23.6	+0.8
KOLS	Kolonicke sedl	37.50	305	P	P	20 01 55.7	+2.0
	comp=Z,8.4nm,0.8s						
SURR	Surduc	37.65	300	⇓P	P	20 01 56.9	+1.9
FIA1	FINESS Array S	37.75	326	P	P	20 01 54.3	-1.3
FINES	FINESS Array B	37.75	326	P	P	20 01 55.3	-0.3
	comp=Z,6.3nm,0.5s,baz=119,slow=9.9,SNR=62						
FINES				LR	LR	20 18 20.5	
	comp=Z,36nm,19.0s,baz=100,slow=37						
	comp=Z,6.3nm,0.5s						
FINES	FINESS Array B	37.75	326	i P	P	20 01 55.7	+0.1
FINES				pmax	pmax		
	comp=Z,6.0nm,0.4s						
SIRR	Siria	37.95	301	⇑P	P	20 01 59.3	+1.7
MTSE	Matsula	37.98	321	P	P	20 01 58.7	+1.1
	comp=Z,294nm,0.7s						
NIE	Niedzica	38.80	306	eP	P	20 02 06.6	+2.0
NIE	Niedzica	38.80	306	P	P	20 02 06.1	+1.4
	comp=Z,7.9nm,0.8s						
OJC	Ojcow	39.13	307	eP	P	20 02 07.7	+0.4
OJC	Ojcow	39.13	307	P	P	20 02 08.0	+0.6
OJC	Ojcow	39.13	307	P	P	20 02 08.0	+0.6
OJC	Ojcow	39.13	307	P	P	20 02 08.4	+1.0
	comp=Z,9.3nm,0.8s						
OJC	Ojcow	39.13	307	P	P	20 02 08.6	+1.3
	comp=Z,9.3nm,0.8s						
LANS	Liptovska Anna	39.34	306	eP	P	20 02 11.9	+2.7
LANS	Liptovska Anna	39.34	306	eP	P	20 02 11.8	+2.6
NJ2	Nanjing	39.43	82	eP	P	20 02 10.3	+0.2
NJ2				pmax	pmax		
	comp=Z,9.0nm,0.5s						
DL2	Dalian	39.73	70	eP	P	20 02 11.3	-1.1
DL2				pmax	pmax		
	comp=Z,16nm,0.6s						
VYHS	Vyhne	39.78	305	eP	P	20 02 14.8	+2.0
VYHS	Vyhne	39.78	305	eP	P	20 02 14.8	+2.0
SRO	Srobarova	40.16	304	eP	P	20 02 20.8	+4.9
SRO	Srobarova	40.16	304	eP	P	20 02 20.8	+4.9
STEB	Steborice	40.44	307	eP	P	20 02 18.8	+0.6
MORC	Moravsky Berou	40.59	307	P	P	20 02 21.1	+1.6
MORC	Moravsky Berou	40.59	307	eP	P	20 02 21.0	+1.6
MORC	Moravsky Berou	40.59	307	⇓P	P	20 02 21.2	+1.6
VADS	Vadso	40.59	340	eP	P	20 02 19.6	+0.4
SMOL	Smolenice	40.71	305	eP	P	20 02 22.6	+2.1
GKP	Gorka Klasztor	40.81	312	eP	P	20 02 21.9	+0.7
KRLC	Kraliky	41.07	307	eP	P	20 02 24.6	+1.1
KRLC	Kraliky	41.07	307	eP	P	20 02 24.6	+1.1
VRAC	Vranov	41.22	306	P	P	20 02 26.3	+1.7
	comp=Z,5.5nm,0.7s,baz=96,slow=7.4,SNR=12						
	comp=Z,5.5nm,0.7s						
VRAC	Vranov	41.22	306	eP	P	20 02 26.4	+1.7
VRAC	Vranov	41.22	306	P	P	20 02 26.9	+2.2
	comp=Z,3.6nm,1.1s						
DPC	Dobruska-Polom	41.36	308	eP	P	20 02 27.2	+1.4
DPC	Dobruska-Polom	41.36	308	eP	P	20 02 27.2	+1.4
DPC	Dobruska-Polom	41.36	308	P	P	20 02 26.5	+0.7
	comp=Z,8.8nm,1.8s						
DPC	Dobruska-Polom	41.36	308	P	P	20 02 27.7	+1.9
	comp=Z,8.8nm,1.8s						
OSTC	Ostas	41.42	308	eP	P	20 02 27.6	+1.3
OSTC	Ostas	41.42	308	eP	P	20 02 27.6	+1.3
ARA0	ARCESS Array S	41.42	338	eP	P	20 02 26.3	+0.2
ARCES	ARCESS Array B	41.42	338	P	P	20 02 25.9	-0.2
	comp=Z,8.0nm,0.7s,baz=111,slow=7.6,SNR=30						
ARCES				LR	LR	20 20 41.9	
	comp=Z,72nm,18.7s,baz=112,slow=37						
	comp=Z,8.0nm,0.7s						
ARCES	ARCESS Array B	41.42	338	P	P	20 02 26.1	+0.1
ARCES				pmax	pmax		
	comp=Z,16nm,1.1s						
ARCES	ARCESS Array B	41.42	338	P	P	20 02 26.1	+0.1
ARCES				IAmb	IAmb	20 02 27.7	
	comp=Z,16nm,1.1s						
RONA	Rosalia, Austr	41.52	304	eP	P	20 02 27.4	+0.2
	comp=Z,1.7nm,0.7s						
CHVC	Chvalec	41.52	308	eP	P	20 02 29.2	+2.1
CHVC	Chvalec	41.52	308	eP	P	20 02 29.2	+2.1
UPC	Upice	41.55	308	eP	P	20 02 29.0	+1.6
UPC	Upice	41.55	308	eP	P	20 02 29.0	+1.6
CONA	Conrad Observa	41.80	304	eP	P	20 02 30.3	+0.8
	comp=Z,3.1nm,0.6s						
BLEU	Blekinge	41.82	317	i P	P	20 02 29.5	+0.1
KTK1	Kautokeino	41.89	336	eP	P	20 02 29.7	-0.2
KTK1				IAmb	IAmb	20 02 30.0	
	comp=Z,11nm,1.0s						
TREC	Trest	41.95	306	eP	P	20 02 32.1	+1.5
TREC	Trest	41.95	306	eP	P	20 02 32.1	+1.5
ZEA	Zeya	42.19	47	eP	P	20 02 46.5	+14
HEH	HeiHe	42.34	52	eP	P	20 02 38.5	+4.7
HEH				pmax	pmax		
	comp=Z,4.0nm,0.9s						
SOKA	Soboth	42.48	302	eP	P	20 02 35.8	+0.7
	comp=Z,2.2nm,0.6s						
HAMF	Hammerfest	42.50	339	eP	P	20 02 35.4	+0.7
PRU	Pruhonice	42.52	307	eP	P	20 02 34.1	-1.1
PRU				pmax	pmax		
	comp=Z,2.0nm,0.6s						
PRU	Pruhonice	42.52	307	eP	P	20 02 34.1	-1.1
	comp=Z,1.9nm,0.6s						
GSI	Gunungsitoli	42.54	139	P	P	20 02 36.7	+1.0
GSI	Gunungsitoli	42.54	139	P	P	20 02 37.0	+1.3
	comp=Z,45nm,0.8s						
SESA	Seetaler Alpe,	42.75	303	eP	P	20 02 38.1	+0.7
	comp=Z,2.5nm,0.4s						
CKRC	Cesky Krumlov	42.75	305	eP	P	20 02 37.3	+0.1
CKRC	Cesky Krumlov	42.75	305	eP	P	20 02 37.3	+0.1
BRG	Berggiesshubel	42.85	308	P	P	20 02 39.6	+1.7
	comp=Z,11nm,0.9s						
BRG	Berggiesshubel	42.85	308	eP	P	20 02 39.4	+1.5
BRG				Amp		20 02 40.1	
	comp=Z,8.4nm,0.9s						
MOA	Molln	42.87	304	eP	P	20 02 38.7	+0.5
	comp=Z,3.1nm,0.7s						
DEL	Delary	42.91	317	i P	P	20 02 39.0	+0.7
LUNU	Lund	43.11	315	i P	P	20 02 40.6	+0.8
GERES	GERESS Array B	43.15	306	P	P	20 02 41.6	+1.2
	comp=Z,1.3nm,0.7s,baz=90,slow=8.0,SNR=9.2						
	comp=Z,1.3nm,0.7s						
GERES	GERESS Array B	43.15	306	P	P	20 02 39.5	-1.0
KHC	Kasperske Hory	43.21	306	eP	P	20 02 41.6	+0.8
KHC				pmax	pmax		

	comp=Z,1.0nm,0.5s						
KHC	Kasperske Hory	43.21	306	eP	P	20 02 41.6	+0.8
	comp=Z,0.9nm,0.5s						
HFS	Hagfors	43.33	322	P	P	20 02 41.4	-0.2
	comp=Z,12nm,0.5s,baz=96,slow=11,SNR=38						
	comp=Z,12nm,0.5s						
CLL	Collm	43.42	309	iP	P	20 02 43.0	+0.6
CLL				pmax	pmax		
	comp=Z,6.0nm,0.8s						
CLL	Collm	43.42	309	P	P	20 02 43.1	+0.6
	comp=Z,8.0nm,0.9s						
CLL	Collm	43.42	309	iP	P	20 02 43.0	+0.6
	comp=Z,6.0nm,0.8s						
CLL				ePP	PP	20 04 25.0	0.0
CLL				ePPP	PPP	20 05 01.0	
TRO	Tromso	43.55	336	eP	P	20 02 44.0	+0.9
TRO				IAmb	IAmb	20 02 51.7	
	comp=Z,187nm,2.2s						
LESA	Schwarzleotal	43.99	304	eP	P	20 02 48.1	+0.9
	comp=Z,4.4nm,0.5s						
ONAU	Onsala	44.03	318	iP	P	20 02 47.1	-0.1
FAUS	Fauske	44.08	333	eP	P	20 02 47.8	+0.4
FAUS				IAmb	IAmb	20 02 49.4	
	comp=Z,13nm,0.8s						
MOR8	Moi Rana	44.09	331	eP	P	20 02 47.2	-0.4
STEI	Steigen	44.25	333	eP	P	20 02 49.5	+0.7
STEI				IAmb	IAmb	20 02 52.7	
	comp=Z,35nm,1.4s						
RAUS	Rausandaksla	44.31	331	eP	P	20 02 49.8	+0.5
RAUS				IAmb	IAmb	20 03 03.7	
	comp=Z,177nm,2.2s						
NC405	NORSAR Array S	44.41	323	P	P	20 02 49.6	-0.6
NC405				IAmb	IAmb	20 02 51.8	
	comp=Z,18nm,0.9s						
GRB2	Grafenberg Arr	44.44	306	P	P	20 02 52.7	+2.0
	comp=Z,15nm,0.9s						
NC602	NORSAR Array S	44.45	323	eP	P	20 02 49.9	-0.7
NC602	NORSAR Array S	44.45	323	P	P	20 02 49.7	-0.9
FLTG	Flechtingen	44.46	311	P	P	20 02 51.6	+0.9
	comp=Z,28nm,0.7s						
STRU	Stroemstad	44.50	320	iP	P	20 02 50.6	-0.3
LEIR	Leirfjorden	44.60	331	eP	P	20 02 51.7	+0.1
NB201	NORSAR Array S	44.60	323	P	P	20 02 50.8	-1.1
NB201				IAmb	IAmb	20 03 00.5	
	comp=Z,11nm,1.0s						
NB2	NORSAR Subarra	44.64	323	P	P	20 02 51.2	-0.9
	comp=Z,7.7nm,0.5s,baz=96,slow=7.9						
NB2	NORSAR Subarra	44.64	323	P	P	20 02 51.2	-0.9
NOA	NORSAR Array B	44.64	323	P	P	20 02 51.2	-0.9
	comp=Z,6.4nm,0.5s,baz=97,slow=7.8,SNR=56						
NOA				LR	LR	20 24 29.5	
	comp=Z,10nm,19.9s,baz=90,slow=40						
	comp=Z,6.4nm,0.5s						
VAGH	Vaagaholmen	44.68	331	eP	P	20 02 53.3	+1.1
KONS	Konsvik	44.68	331	eP	P	20 02 52.4	+0.1
STOK	Stokkvaagen	44.69	331	eP	P	20 02 52.0	-0.3
WTTA	Wattenberg	44.71	304	eP	P	20 02 54.0	+0.9
	comp=Z,1.5nm,0.5s						
WATA	Walderalm	44.74	304	iP	P	20 02 54.0	+0.8
	comp=Z,0.4nm,0.3s						
NSS	Namsos	44.77	328	eP	P	20 02 53.2	+0.2
NAO01	NORSAR Array S	44.78	323	P	P	20 02 52.4	-0.8
NAO01				IAmb	IAmb	20 02 54.3	
	comp=Z,8.7nm,0.8s						
OSL	Oslo	44.79	322	eP	P	20 02 53.5	+0.2
NBO00	NORSAR Array S	44.85	323	P	P	20 02 53.2	-0.6
NBO00				IAmb	IAmb	20 02 54.5	
	comp=Z,12nm,0.6s						
NC204	NORSAR Array S	44.88	323	P	P	20 02 53.5	-0.6
NC204				IAmb	IAmb	20 02 54.8	
	comp=Z,14nm,0.5s						
KSRS	Korea Array	44.89	71	P	P	20 02 53.2	-1.1
	comp=Z,0.8nm,0.6s,baz=276,slow=6.3,SNR=2.9						
	comp=Z,0.8nm,0.6s						
LOF	Lofoten	44.92	333	eP	P	20 02 54.0	-0.1
SQTA	Sankt Quirin	45.01	304	eP	P	20 02 55.7	+0.4
	comp=Z,0.6nm,0.2s						
MOTA	Moosalm	45.06	304	eP	P	20 02 56.0	+0.2
	comp=Z,0.3nm,0.2s						
GTTG	Gottingen	45.30	310	P	P	20 02 59.0	+1.5
	comp=Z,30nm,1.3s						
KONO	Kongsberg	45.34	321	eP	P	20 02 57.6	-0.1
FETA	Feichten	45.36	303	iP	P	20 02 58.9	+0.7
	comp=Z,1.2nm,0.4s						
DOMB	Dombas	45.76	324	eP	P	20 03 01.1	+0.1
DOMB				IAmb	IAmb	20 03 01.8	
	comp=Z,10nm,1.0s						
HOMB	Homborsund	45.87	319	iP	P	20 03 03.1	+1.3
DAVA	Damuels	45.89	304	iP	P	20 03 03.0	+0.7
	comp=Z,5.0nm,0.5s						
TIXI	Tiksi	45.99	22	P	P	20 03 02.5	0.0
TIXI				pmax	pmax		
	comp=Z,4.0nm,0.9s						
TIXI	Tiksi	45.99	22	P	P	20 03 02.5	0.0
SPA0	Spitsbergen Ar	47.77	347	eP	P	20 03 17.6	+1.2
SPITS	Spitsbergen Ar	47.77	347	P	P	20 03 16.5	+0.1
	comp=Z,2.4nm,0.5s,baz=108,slow=4.7,SNR=5.6						
	comp=Z,2.4nm,0.5s						
KEST	Kesra	49.20	289	P	P	20 03 28.3	+0.3
	comp=Z,3.5nm,0.6s,baz=58,slow=2.9,SNR=5.9						
	comp=Z,3.5nm,0.6s						
EKA	Eskdalemuir Ar	52.53	316	P	P	20 03 52.5	-0.2
	comp=Z,6.7nm,1.0s,baz=93,slow=7.3,SNR=15						
	comp=Z,6.7nm,1.0s						
DAG	Danmarks Havn	55.01	344	iP	P	20 04 10.0	-0.3
DAG				IAmb	IAmb	20 04 11.7	
	comp=Z,7.8nm,0.8s						
DAG	Danmarks Havn	55.01	344	P	P	20 04 11.3	+0.9
	comp=Z,12nm,0.8s						
ESDC	Sonseca Array	57.65	298	P	P	20 04 29.5	-0.3
	comp=Z,0.6nm,0.5s,baz=58,slow=7.4,SNR=8.6						
ESDC				LR	LR	20 34 53.7	
	comp=Z,18nm,18.5s,baz=318,slow=42						
	comp=Z,0.6nm,0.5s						
ABPO	Ambohimpanom	59.41	206	iP	P	20 04 42.8	+0.6
NEEM	North Greenlan	61.31	348	iP	P	20 04 56.0	+1.4
NEEM				IAmb	IAmb	20 04 57.8	
	comp=Z,8.6nm,0.9s						
SUMG	Summit	61.34	341	P	P	20 04 56.0	+1.0
SUMG				pmax	pmax		
	comp=Z,10.0nm,0.7s						
SUMG	Summit	61.34	341	P	P	20 04 56.0	+1.0
SUMG				IAmb	IAmb	20 04 57.3	
	comp=Z,9.9nm,0.7s						
SUMG	Summit	61.34	341	iP	P	20 05 00.8	+5.8
SUMG				IAmb	IAmb	20 05 01.5	
	comp=Z,9.3nm,0.7s						
TORD	Torodi Ar. Bea	65.79	269	P	P	20 05 21.9	-2.8
	comp=Z,1.9nm,0.5s,baz=44,slow=5.6,SNR=13						
INK	Inuvik	74.15	9	P	P	20 06 14.7	-0.3
INK				pmax	pmax		
	comp=Z,4.0nm,0.7s						
INK	Inuvik	74.15	9	P	P	20 06 14.7	-0.3
ILAR	Eielson Array	75.01	16	LR	LR	20 46 46.9	
	comp=Z,45nm,20.1s,baz=128,slow=42						
BOSA	Boshof	77.59	220	P	P	20 06 34.6	-0.6
	comp=Z,4.3nm,0.9s,baz=359,slow=5.7,SNR=6.1						
	comp=Z,4.3nm,0.9s						
BOSA	Boshof	77.59	220	P	P	20 06 34.3	-0.9
YKA	Yellowknife Ar	81.51	3	P	P	20 06 54.7	-1.1
	comp=Z,2.8nm,0.7s,baz=350,slow=5.3,SNR=8.3						
	comp=Z,2.8nm,0.7s						
YKA	Yellowknife Ar	81.51	3	iP	P	20 06 57.2	+1.4
YKA				pmax	pmax		
	comp=Z,3.0nm,0.7s						
WRA	Warramunga Arr	81.78	122	P	P	20 06 56.2	-1.8
	comp=Z,0.9nm,0.4s,baz=324,slow=4.9,SNR=73						
	comp=Z,0.9nm,0.4s						
WRA	Warramunga Arr	81.78	122	iP	P	20 06 56.7	-1.2
WRA				pmax	pmax		
	comp=Z,1.0nm,0.4s						
WRA	Warramunga Arr	81.78	122	P	P	20 06 56.1	-1.8
ASAR	Alice Springs	84.03	125	P	P	20 07 08.3	-1.2
	comp=Z,1.6nm,0.7s,baz=308,slow=5.1,SNR=21						
	comp=Z,1.6nm,0.7s						
ASAR	Alice Springs	84.03	125	P	P	20 07 07.4	-2.1

IDC ***27*** *20:21:41.5±1.6, 20°.88N×147°.23E, h0^{km}, mb3.7/9, mbtmp3.7/9, Error ellipse: s-maj=58.6km s-min=21.8km az=87.0*

ISC 27 20:21:46.6±1.5**, 20°.9N**±0°.2×**147°.3E**±0°.4**, h35^{km}, n9,** σ**1^{s}.19**/9**, mb3.7**/9**, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSRS	Korea Array	23.55	319	P	P	20 26 54.5	+0.7
	0.8nm,0.6s,baz=154,slow=9.2,SNR=3.3						
	0.8nm,0.6s						
PETK	Petropavlovsk-	33.18	12	P	P	20 28 20.0	+0.2
	2.0nm,0.8s,baz=210,slow=13,SNR=4.3						
	2.0nm,0.8s						
WRA	Warramunga Arr	42.48	198	P	P	20 29 38.0	-0.6
	0.6nm,0.8s,baz=18,slow=9.1,SNR=6.7						
	0.6nm,0.8s						
ASAR	Alice Springs	46.13	197	P	P	20 30 08.6	+0.8
	0.2nm,0.7s,baz=12,slow=6.7,SNR=1.8						
	0.2nm,0.7s						
ZALV	Zalesovo Beam	57.22	321	P	P	20 31 28.8	-1.5
	0.3nm,0.3s,baz=95,slow=9.1,SNR=1.9						
	0.3nm,0.3s						
MKAR	Makanchi Array	58.05	313	P	P	20 31 38.1	+1.8
	0.3nm,0.6s,baz=96,slow=5.9,SNR=2.6						
	0.3nm,0.6s						
KURBB	Kurchatov Arra	60.72	317	P	P	20 31 53.3	-1.3
	0.5nm,0.6s,baz=94,slow=8.0,SNR=6.2						
	0.5nm,0.6s						
BVAR	Borovoye Array	65.76	320	P	P	20 32 28.0	0.0
	1.1nm,0.6s,baz=93,slow=6.5,SNR=3.3						
	1.1nm,0.6s						
FINES	FINESS Array B	85.54	336	P	P	20 34 20.8	-0.1
	1.0nm,0.8s,baz=48,slow=6.6,SNR=3.7						
	1.0nm,0.8s						

AEIC ***27*** *20:29:36.7±0.8, 58°.79N±0°.05×143°.01W±0°.08, h6^{km}±7^{km}, Error ellipse: s-maj=8.9km s-min=2.1km az=142.0*

NEIC 27 20:29:32.0±1.0**, 58°.76N**±0°.04×**142°.96W**±0°.09**, h10^{km}**±2^{km}**, ML2.9**/58**, ML2.7**(AEIC)**, Error ellipse: s-maj=8.5km s-min=5.3km az=116.0, Gulf of Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CYK	Cape Yakataga	1.35	10		Pb	20 29 57.0	-0.2
CYK					Sb	20 30 12.8	-1.7
SUCK	Suckling Hills	1.38	343		Pn	20 29 57.4	+0.2
SUCK					Sb	20 30 14.9	-0.5
SUCK	Suckling Hills	1.38	343	IAML		20 30 15.3	
	comp=N,147nm,0.9s						
SUCK				IAML		20 30 15.7	
	comp=E,142nm,0.9s						
KAIM	Kayak Island	1.39	328		Pb	20 29 57.8	-0.2
KAIM	Kayak Island	1.39	328	IAML		20 30 06.1	
	comp=E,202nm,1.1s						
KAIM				IAML		20 30 20.8	
	comp=N,109nm,1.1s						
MESA	MESA	1.51	20		Pn	20 29 59.3	+0.1
MESA					Sn	20 30 18.0	-1.1
MESA	MESA	1.51	20	IAML		20 30 19.9	
	comp=N,109nm,0.3s						
MESA				IAML		20 30 21.1	
	comp=E,101nm,0.8s						
GRIN	Grindle Hills	1.53	353		Pn	20 29 59.1	-0.3
GRIN					Sn	20 30 18.5	-0.9
WAX	Waxell Ridge	1.69	2		Pn	20 30 01.5	-0.1
WAX					Sn	20 30 21.0	-2.4
WAX	Waxell Ridge	1.69	2	IAML		20 30 22.1	
	comp=E,118nm,0.3s						
WAX				IAML		20 30 26.1	
	comp=N,199nm,0.3s						
YAH	Yahtse	1.72	21		Pn	20 30 02.2	+0.1
YAH					Sn	20 30 21.8	-2.5
RKAV	Rock Avalanche	1.75	27		Pn	20 30 03.0	+0.6
RAGM	Ragged Mountai	1.85	333		Pn	20 30 03.8	+0.1
TABL	Table Mountain	1.92	28		Pn	20 30 05.3	+0.4
PCA	Pinnacle	1.92	45		Pn	20 30 05.0	+0.2
PCA	Pinnacle	1.92	45	IAML		20 30 40.7	
	comp=N,95nm,1.1s						
PCA				IAML		20 31 07.5	
	comp=E,78nm,1.1s						
TGL	Tana Glacier	2.00	2		Pn	20 30 05.8	0.0
TGL					Sn	20 30 28.1	-2.9
CRQM	Cirque	2.00	358	Pn	Pn	20 30 05.6	-0.4
CRQM				IAML		20 30 32.1	
	comp=N,63nm,0.8s						
PNL	Peninsula	2.05	62		Pn	20 30 06.7	+0.3
GRNC	Granite Creek	2.07	17		Sn	20 30 30.6	-2.3
GRNC	Granite Creek	2.07	17	IAML		20 30 32.2	
	comp=E,27nm,0.2s						
GRNC				IAML		20 30 46.5	
	comp=N,28nm,1.2s						
EYAK	Cordova Ski Ar	2.28	323		Pn	20 30 09.1	-0.5
LOGN	Logan Glacier	2.29	25		Sn	20 30 36.0	-2.3
LOGN	Logan Glacier	2.29	25	IAML		20 30 36.9	
	comp=N,43nm,0.5s						
LOGN				IAML		20 30 37.6	
	comp=E,29nm,1.1s						
BALM	Baldy	2.30	8		Sn	20 30 35.9	-2.5
BMRM	Bremner River	2.36	340		Pn	20 30 10.4	-0.4
BARN	Barnard Glacie	2.40	15		Sn	20 30 38.6	-2.3
BARN	Barnard Glacie	2.40	15	IAML		20 30 40.8	
	comp=E,26nm,0.6s						
BARN				IAML		20 30 41.1	
	comp=N,22nm,0.2s						
HIN	Hinchinbrook I	2.43	314		Pn	20 30 11.9	+0.1
P23K	Montague Islan	2.59	300		Pn	20 30 13.4	-0.4
MCARA	McCarthy VSAT	2.63	359		Pn	20 30 14.4	0.0
O29M	Mount Kennedy	2.72	54		Pn	20 30 16.6	+0.8
O29M				IAML		20 30 53.4	
	comp=N,57nm,0.3s						
O29M				IAML		20 31 04.2	
	comp=E,42nm,0.8s						
GLB	Gilahina Butte	2.72	351		Pn	20 30 15.6	-0.1
DIV	Divide	2.76	330		Pn	20 30 16.0	-0.4
P29M	Windy Craggy	2.83	70		Pn	20 30 17.6	+0.5
P29M	Windy Craggy	2.83	70	IAML		20 30 50.8	
	comp=N,73nm,0.3s						
P29M				IAML		20 30 50.9	
	comp=E,46nm,0.4s						
YUK8	Steele Glacier	3.00	31		Pn	20 30 21.0	+1.3
S31K	Pelican	3.64	100		Pn	20 30 28.0	-0.2
S31K	Pelican	3.64	100	IAML		20 31 25.4	
	comp=E,20nm,1.2s						
S31K				IAML		20 32 03.2	
	comp=N,13nm,1.2s						
M27K	Edge Creek, AK	3.65	8		Pn	20 30 29.5	+1.0
M27K	Edge Creek, AK	3.65	8	IAML		20 31 52.5	
	comp=N,34nm,1.0s						
M27K				IAML		20 31 55.7	
	comp=E,18nm,0.7s						
M29M	Somme Creek	4.31	29		Pn	20 30 39.0	+1.5
N31M	Braeburn, Yuko	4.51	50		Pn	20 30 41.4	+1.1
N31M	Braeburn, Yuko	4.51	50	IAML		20 33 21.8	
	comp=N,7.4nm,1.1s						
N31M				IAML		20 33 36.6	
	comp=E,10nm,1.1s						
L29M	L29M	4.96	26		Pn	20 30 47.6	+1.1
L29M	L29M	4.96	26	IAML		20 32 51.9	
	comp=N,15nm,0.7s						
L29M				IAML		20 32 58.3	
	comp=E,14nm,1.1s						
KDAK	Kodiak Island	5.17	263		Pn	20 30 49.2	-0.1
KDAK	Kodiak Island	5.17	263	IAML		20 32 08.1	
	comp=E,13nm,1.0s						
KDAK				IAML		20 32 30.2	
	comp=E,11nm,1.0s						
U33K	Whale Pass	5.94	112		Pn	20 30 59.8	-0.1
I27K	Kandik River	6.89	5		Pn	20 31 12.9	-0.1

AEIC ***27*** *20:29:54.4±1.0, 61°.73N±0°.03×149°.64W±0°.04, h40^{km}±7^{km}, Error ellipse: s-maj=3.8km s-min=3.0km az=180.0*

NEIC 27 20:29:53.9±1.1**, 61°.74N**±0°.03×**149°.63W**±0°.02**, h39^{km}**±10^{km}**, ML3.1**/144**, ML3.0**(AEIC)**, Error ellipse: s-maj=4.5km s-min=1.1km az=174.0, Southern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
M22K	Willow	0.23	273		Pn	20 30 01.0	-1.0
M22K					Sn	20 30 08.0	-0.7
PMR	Palmer	0.28	122		Pn	20 30 01.4	-0.7
PMR					Sn	20 30 07.9	-0.6
PMR				IAML		20 30 08.7	
	comp=E,2µm,0.4s						
PMR				IAML		20 30 08.8	
	comp=N,3µm,0.2s						
GHO	Glory Hole Cre	0.34	84		Pn	20 30 02.2	-0.3
GHO	Glory Hole Cre	0.34	84		Sn	20 30 09.5	+0.4
GHO	Glory Hole Cre	0.34	84	IAML		20 30 10.0	
	comp=E,3µm,0.5s						
GHO				IAML		20 30 10.4	
	comp=N,4µm,0.5s						
SUA	Susitna One	0.60	243		Pn	20 30 05.2	-1.0
SUA					Sn	20 30 15.1	+0.3
SUA	Susitna One	0.60	243	IAML		20 30 16.2	
	comp=E,2µm,0.4s						
SUA				IAML		20 30 18.3	
	comp=N,875nm,0.5s						
SML	Sawmill	0.62	83		Pn	20 30 05.5	-0.9
SML				IAML		20 30 16.1	
	comp=N,2µm,0.4s						
SML	Sawmill	0.62	83		Sn	20 30 15.1	0.0
KNK	Knik Glacier	0.65	120		Pn	20 30 06.2	-0.5
KNK				IAML		20 30 17.5	
	comp=E,1µm,0.4s						
KNK				IAML		20 30 18.7	
	comp=N,1µm,0.5s						
KNK	Knik Glacier	0.65	120		Sn	20 30 16.7	+0.9
RC01	Rabbit Creek A	0.66	185		Pn	20 30 06.0	-0.8
RC01					Sn	20 30 16.4	+0.5
RC01				IAML		20 30 19.1	
	comp=E,1µm,0.3s						
CUT	Chulitna	0.73	336		Pn	20 30 07.1	-0.7
CUT	Chulitna	0.73	336		Sn	20 30 18.0	+0.4
CUT	Chulitna	0.73	336	IAML		20 30 18.5	
	comp=E,8µm,0.5s						
CUT				IAML		20 30 18.6	
	comp=N,5µm,0.5s						
SKT	Skwentna	0.93	286		Pn	20 30 09.7	-0.8
SKT	Skwentna	0.93	286		Sn	20 30 22.5	-0.2
SKT	Skwentna	0.93	286	IAML		20 30 23.1	
	comp=E,835nm,0.3s						
SKT				IAML		20 30 23.8	
	comp=N,785nm,0.3s						
STLK	Strandline Lak	1.08	258		Pn	20 30 12.3	-0.3
STLK	Strandline Lak	1.08	258		Sn	20 30 26.9	+0.5
STLK	Strandline Lak	1.08	258	IAML		20 30 28.8	
	comp=N,750nm,0.2s						
STLK				IAML		20 30 28.8	
	comp=E,606nm,0.4s						
PWL	Port Wells	1.08	144		Pn	20 30 12.1	-0.4
PWL	Port Wells	1.08	144		Sn	20 30 27.1	+0.8
PWL	Port Wells	1.08	144	IAML		20 30 28.3	
	comp=N,2µm,0.4s						
PWL				IAML		20 30 28.4	
	comp=E,2µm,0.3s						
SCM	Sheep Creek Mo	1.10	84		Pn	20 30 12.5	-0.3
SCM	Sheep Creek Mo	1.10	84		Sn	20 30 27.8	+1.0
SCM	Sheep Creek Mo	1.10	84	IAML		20 30 30.7	
	comp=E,1µm,0.6s						
SCM				IAML		20 30 31.6	
	comp=N,987nm,0.5s						
WAT7	Susitna Watana	1.16	18		Pn	20 30 13.6	-0.1
WAT7					Sn	20 30 28.7	+0.4
WAT1	Susitna Watana	1.20	24		Pn	20 30 14.1	-0.1
WAT1					Sn	20 30 30.1	+0.7
WAT6	Susitna Watana	1.22	46		Pn	20 30 14.3	-0.3
WAT6					Sn	20 30 30.2	+0.2
CAPN	Captain Cook N	1.22	218		Pn	20 30 15.7	+1.2
O22K	Cooper Landing	1.27	182		Pn	20 30 14.8	-0.3
SLKM	Skilak Lake	1.27	193		Pn	20 30 14.8	-0.4
SLKM				IAML		20 30 33.6	
	comp=E,438nm,0.5s						
SLKM				IAML		20 30 33.9	
	comp=N,274nm,0.2s						
SPWE	Spurr West	1.48	253		Pn	20 30 18.5	+0.4
GLI	Glacier Island	1.50	124		Pn	20 30 18.0	-0.2
GLI	Glacier Island	1.50	124		Sn	20 30 37.5	+1.0
SEW	Seward	1.65	177	Pn	Pn	20 30 20.5	+0.3
SEW				IAML		20 30 48.0	
	comp=N,174nm,0.3s						
SEW				IAML		20 30 49.5	
	comp=E,155nm,0.3s						
PPLA	Purkeypile	1.67	315		Pn	20 30 20.6	-0.1
PPLA	Purkeypile	1.67	315	IAML		20 30 44.1	
	comp=E,380nm,0.3s						
PPLA				IAML		20 30 46.9	
	comp=N,232nm,1.0s						
M20K	Styx River	1.67	276		Pn	20 30 20.8	+0.1
DHY	Denali Highway	1.70	37		Pn	20 30 21.7	+0.6
DHY				IAML		20 30 46.1	
	comp=E,149nm,0.3s						
VMT	TAPS TI Valdez	1.70	111		Pn	20 30 21.1	+0.1
VMT					Sn	20 30 43.1	+1.6
RND	Reindeer	1.71	12		Pn	20 30 21.9	+0.7
TRF	Thorofare Moun	1.74	350		Pn	20 30 22.1	+0.4
TRF	Thorofare Moun	1.74	350	IAML		20 30 46.1	
	comp=N,285nm,0.4s						
TRF				IAML		20 30 46.8	
	comp=E,150nm,0.7s						
RDT	Redoubt	1.79	230		Pn	20 30 21.9	-0.3
KLU	Klutina	1.79	96		Pn	20 30 21.5	-0.8
KLU					Sn	20 30 44.9	+1.1
KLU	Klutina	1.79	96	IAML		20 30 47.2	
	comp=E,361nm,0.4s						
FID	Port Fidalgo	1.82	122		Pn	20 30 22.7	+0.1
FID	Port Fidalgo	1.82	122		Sn	20 30 44.7	+0.3
FID	Port Fidalgo	1.82	122	IAML		20 30 47.5	
	comp=N,437nm,0.3s						
FID				IAML		20 30 51.4	
	comp=E,416nm,0.5s						
DFR	Drift River	1.88	233		Pn	20 30 23.5	0.0
KTH	Kantishna Hill	1.92	342		Pn	20 30 24.4	+0.4
KTH	Kantishna Hill	1.92	342	IAML		20 30 49.3	
	comp=E,250nm,0.7s						
KTH				IAML		20 30 51.9	
	comp=N,193nm,0.8s						
RDJH	Redoubt Jeurge	1.92	235		Pn	20 30 23.9	-0.3
RDJH					Sn	20 30 48.4	+1.2
DIV	Divide	1.95	107		Pn	20 30 24.6	+0.1
DIV				IAML		20 30 49.4	
	comp=E,298nm,0.5s						
DIV				IAML		20 30 52.9	
	comp=N,342nm,0.4s						
NCT	North Crescent	1.99	235		Pn	20 30 25.0	-0.1
PS11	TAPS Pump St11	2.00	78		Pn	20 30 26.6	+1.5
MCK	McKinley	2.02	9		Pn	20 30 26.6	+1.1
CAST	Castle Rocks	2.03	327		Pn	20 30 25.8	+0.2
CAST					Sn	20 30 50.8	+1.1
CAST	Castle Rocks	2.03	327	IAML		20 30 52.5	
	comp=E,217nm,0.5s						
CAST				IAML		20 30 54.8	
	comp=N,165nm,0.6s						
HIN	Hinchinbrook I	2.03	130		Pn	20 30 27.6	+2.0
P23K	Montague Islan	2.06	147		Pn	20 30 25.9	0.0
P23K	Montague Islan	2.06	147	IAML		20 30 58.7	
	comp=N,387nm,0.5s						
P23K				IAML		20 30 58.9	
	comp=E,406nm,0.4s						
BRSE	Bradley Lake S	2.08	196		Pn	20 30 25.9	-0.3
L20K	Farewell, AK	2.13	292		Pn	20 30 26.8	-0.2
L20K				IAML		20 30 55.9	
	comp=N,181nm,0.6s						
L20K				IAML		20 30 56.4	
	comp=E,173nm,0.5s						
PS12	TAPS Pump St12	2.16	95		Pn	20 30 27.6	+0.3
HARP	HAARP	2.21	71		Pn	20 30 29.3	+1.3
EYAK	Cordova Ski Ar	2.23	121		Pn	20 30 30.4	+2.2
EYAK				IAML		20 31 05.3	
	comp=E,114nm,0.5s						
EYAK				IAML		20 31 06.8	
	comp=N,128nm,0.6s						
M19K	Big River Lodg	2.27	276		Pn	20 30 28.7	-0.1
M19K	Big River Lodg	2.27	276	IAML		20 31 14.5	
	comp=E,94nm,0.5s						
PAX	Paxson	2.30	56		Pn	20 30 30.8	+1.5
PAX				IAML		20 31 01.4	
	comp=N,100nm,0.8s						
PAX				IAML		20 31 04.0	
	comp=E,76nm,0.6s						
ILIM	Iliamna	2.33	226		Pn	20 30 29.8	+0.1
CNPM	China Poot	2.36	200		Pn	20 30 30.2	+0.1
CNPM	China Poot	2.36	200	IAML		20 31 02.3	
	comp=E,82nm,0.7s						
CNPM				IAML		20 31 06.3	
	comp=N,83nm,1.0s						
IVE	Iliamna Volcan	2.40	225		Pn	20 30 30.5	-0.2
N25K	Chitina, Valde	2.40	91		Pn	20 30 30.8	+0.1
BPAW	Bear Paw Mtn.	2.45	346		Pn	20 30 30.7	-0.6
BPAW				IAML		20 31 01.6	
	comp=E,96nm,0.2s						
BPAW				IAML		20 31 04.8	
	comp=N,69nm,0.3s						
ILSW	Iliamna Southw	2.46	226		Pn	20 30 31.9	+0.3
L19K	White Mountain	2.51	282		Pn	20 30 32.1	0.0

L19K				IAML		20 31 16.4	
	comp=E,76nm,0.7s						
N19K	Bonanza Creek	2.52	250		Pn	20 30 32.3	-0.1
N19K	Bonanza Creek	2.52	250	IAML		20 31 17.5	
	comp=E,63nm,1.2s						
WACK	Wrangell Chich	2.52	82		Pn	20 30 32.9	+0.3
WASW	Wrangell South	2.59	83		Pn	20 30 34.1	+0.6
K20K	Telida	2.62	310		Pn	20 30 33.4	-0.3
P19K	Oil Pt	2.74	222		Pn	20 30 36.1	+0.7
WRH	Wood River Hil	2.83	14		Pn	20 30 36.7	+0.2
NEA2	Nenana	2.87	5		Pn	20 30 37.4	+0.3
M18K	Stony River	2.97	268		Pn	20 30 38.1	-0.3
MENT	Mentasta	3.01	64		Pn	20 30 41.0	+2.0
VRDI	Verde Repeater	3.01	97		Pn	20 30 39.9	+0.7
VRDI	Verde Repeater	3.01	97	IAML		20 31 24.8	
	comp=E,40nm,0.8s						
VRDI				IAML		20 31 28.5	
	comp=N,58nm,1.2s						
CCB	Clear Creek Bu	3.03	15		Pn	20 30 39.6	+0.3
J20K	Nowinta River	3.20	322		Pn	20 30 41.5	-0.1
J20K				IAML		20 31 20.0	
	comp=N,61nm,0.5s						
J20K				IAML		20 31 35.0	
	comp=E,62nm,0.7s						
N18K	Kilae Creek	3.21	253		Pn	20 30 41.3	-0.5
N18K	Kilae Creek	3.21	253	IAML		20 31 37.7	
	comp=N,37nm,0.7s						
MDM	Murphy Dome	3.29	10		Pn	20 30 43.5	+0.7
MLY	Manley	3.34	352	IAML		20 31 23.4	
	comp=N,52nm,0.2s						
L18K	Granite Mounta	3.37	281	IAML		20 31 52.3	
	comp=N,32nm,0.9s						
I23K	Minto, Yukon-K	3.42	2	IAML		20 31 53.2	
	comp=N,35nm,0.8s						
J25K	Salcha River,	3.47	32		Pn	20 30 46.4	+1.0
J25K	Salcha River,	3.47	32	IAML		20 31 32.8	
	comp=E,40nm,0.5s						
J19K	Poorman	3.56	312	IAML		20 31 53.6	
	comp=E,36nm,0.5s						
J19K				IAML		20 31 57.0	
	comp=N,28nm,0.8s						
I21K	Tanana	3.61	344		Pn	20 30 47.5	+0.3
I21K	Tanana	3.61	344	IAML		20 31 28.2	
	comp=E,26nm,0.7s						
I21K				IAML		20 31 48.3	
	comp=N,24nm,0.7s						
J18K	Innoko River	3.71	301	IAML		20 31 45.7	
	comp=E,22nm,0.6s						
M17K	Holitna River	3.75	268	IAML		20 32 04.2	
	comp=E,60nm,1.1s						
I20K	Naaghedeneel	3.77	327		Pn	20 30 49.5	+0.2
N17K	Nushagak Hills	3.86	255	IAML		20 32 05.6	
	comp=N,36nm,0.8s						
L17K	Donlin	4.12	279		Pn	20 30 53.8	-0.4
K17K	Iditarod	4.18	287	IAML		20 32 13.9	
	comp=N,33nm,1.0s						
K17K				IAML		20 32 16.1	
	comp=E,24nm,0.7s						
H24K	Noodor Dome	4.18	10		Pn	20 30 55.6	+0.4
PRP	Porcupine Dome	4.21	24		Pn	20 30 56.0	+0.5
PRP	Porcupine Dome	4.21	24	IAML		20 32 12.0	
	comp=N,20nm,0.8s						
H22K	Ishtalitna Cre	4.24	350	IAML		20 31 45.6	
	comp=N,19nm,0.5s						
H20K	Anotleneega Mo	4.43	330		Pn	20 30 58.8	+0.2
M16K	Timber Creek	4.55	265		Pn	20 30 59.9	-0.1
I26K	Coal Creek Min	4.60	36	IAML		20 32 21.7	
	comp=E,25nm,0.9s						
I26K				IAML		20 32 26.1	
	comp=N,23nm,0.7s						
L16K	Owhat River	4.69	274		Pn	20 31 01.5	-0.5
L16K	Owhat River	4.69	274	IAML		20 32 37.8	
	comp=E,12nm,1.1s						
O16K	Kokwok River B	4.69	246		Pn	20 31 01.5	-0.5
O16K	Kokwok River B	4.69	246	IAML		20 32 19.3	
	comp=E,11nm,1.1s						
O16K				IAML		20 32 24.9	
	comp=N,15nm,1.2s						
Q17K	Contact Creek	4.69	225		Pn	20 31 01.6	-0.6
PCA	Pinnacle	4.86	106		Pn	20 31 04.5	0.0
P16K	Nushagak River	4.96	240		Pn	20 31 05.7	0.0
G21K	Allakaket	5.08	342		Pn	20 31 07.7	+0.2
G21K	Allakaket	5.08	342	IAML		20 32 07.3	
	comp=N,17nm,0.8s						
G21K				IAML		20 32 08.5	
	comp=E,15nm,0.8s						
H18K	Honhosa River	5.20	315		Pn	20 31 09.1	0.0
H18K	Honhosa River	5.20	315	IAML		20 32 09.7	
	comp=N,7.4nm,1.1s						
H18K				IAML		20 32 53.1	
	comp=E,9.2nm,0.9s						
J16K	Anvik River	5.32	292		Pn	20 31 10.3	-0.3
J16K	Anvik River	5.32	292	IAML		20 31 53.3	
	comp=E,7.1nm,1.0s						
J16K				IAML		20 32 54.9	
	comp=N,8.1nm,0.9s						
I17K	Unalakleet	5.51	298		Pn	20 31 13.2	-0.1
K15K	Wolf Creek Mou	5.63	281		Pn	20 31 14.6	-0.4
O15K	Ungalikthiuk R	5.66	248		Pn	20 31 15.2	-0.2
G18K	Tagagawik	5.77	320		Pn	20 31 17.0	+0.1
F20K	Avaraart Lake	5.95	336		Pn	20 31 20.1	+0.8
BM01	Burnt Mountain	6.14	19		Pn	20 31 22.3	+0.4
F19K	Shaleruckik Mo	6.22	329		Pn	20 31 22.6	-0.4
E19K	Redstone River	6.60	334		Pn	20 31 29.2	+0.9
G15K	Niukluk	7.25	303		Pn	20 31 37.6	+0.5

SOME ***27*** *20:32:11.9, 39°.20N×72°.47E, h15^{km}*
IDC ***27*** *20:32:19.1±1.6, 39°.12N×72°.63E, h0^{km}, mb3.6/3, mbtmp3.4/7, ML2.5/4, Error ellipse: s-maj=32.3km s-min=24.4km az=121.0*
NNC ***27*** *20:32:20.4±3.6, 39°.42N×72°.99E, h0^{km}, mb4.2, mpv3.7, Error ellipse: s-maj=29.7km s-min=18.9km az=156.0*
KRNET ***27*** *20:32:20.2±0.1, 39°.46N×72°.74E, h14^{km}, mb3.6*
ISC 27 20:32:21.0±1.4**, 39°.57N**±0°.05×**72°.67E**±0°.03**, h2**^{km}±9^{km}**, n39,** σ**1^{s}.78**/63**, 21C-16D, Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DRK	Karamyk	0.68	263	⇓*i*P	Pg	20 32 34.2	+0.2
DRK				⇓*i*S	Sg	20 32 44.2	+1.5
SFK	Sufi-Kurgan	0.78	55	⇓*i*P	Pg	20 32 35.6	-0.5
SFK				⇓*i*S	Sb	20 32 46.9	-1.9
OHH	Osh	0.96	5	⇓*i*P	Pb	20 32 40.5	0.0
OHH				⇓*i*S	Sn	20 32 55.2	-0.8
BTK	Batken	1.50	290	⇓*i*P	Pb	20 32 50.0	+0.2
BTK				⇓*i*S	Sg	20 33 11.7	+2.3
TRKS	Terek-Say	2.28	330	⇑*i*P	Pb	20 33 01.4	-1.6
TRKS				⇑*i*S	Sb	20 33 31.6	-0.1
UCH	Uchtor	3.00	27	⇑*i*P	Pn	20 33 11.9	+1.8
UCH				⇑*i*S	Sb	20 33 49.6	-3.3
NRN	Naryn	3.15	53	⇓*i*P	Pn	20 33 12.8	+0.8
NRN				⇓*i*S	Sn	20 33 51.2	+0.8
EKS2	Erkin-Say	3.20	15	⇓*i*P	Pn	20 33 14.7	+2.1
EKS2				⇓*i*S	Sn	20 33 54.5	+3.1
MRKS	Merke	3.20	7	Pg	Pb	20 33 18.4	-0.4
	8.8nm,0.2s						
MRKS				Lg	Lg	20 34 06.9	
	98nm,0.3s						
MRKS	Merke	3.20	7	*e*P	Pb	20 33 18.4	-0.4
	8.8nm,0.2s						
MRKS				*e*S	Sg	20 34 06.9	+3.0
	98nm,0.3s						
AAK	Ala-Archa	3.36	24	⇓Pg	Pb	20 33 23.4	+1.9
	3.4nm,0.5s						
AAK				⇑Lg	Lg	20 34 07.9	
	22nm,0.8s						
AAK	Ala-Archa	3.36	24	⇑*i*P	Pn	20 33 16.8	+2.0
AAK				⇑*i*S	Sn	20 33 58.1	+2.7
KBK	Karagaybulak	3.54	28	⇑*i*P	Pn	20 33 19.1	+1.9
KBK				⇑*i*S	Sn	20 34 02.1	+2.5
CHMS	Chumysh	3.77	24	⇑*i*P	Pn	20 33 22.4	+2.1
CHMS				⇑*i*S	Sn	20 34 07.9	+2.6
ULHL	Ulahol	3.81	44	⇓*i*P	Pn	20 33 22.5	+1.6
ULHL				⇓*i*S	Sn	20 34 07.9	+1.5
KK31	Karatay Array	3.89	336	Pn	Pb	20 33 26.7	-3.6
	5.0nm,0.2s,baz=150,slow=12,SNR=70						
KK31				⇑Sn	Sb	20 34 15.6	-2.3
	12nm,0.3s,baz=152,slow=25,SNR=4.5						
USP	Ospenovka	3.94	20	⇑*i*P	Pn	20 33 24.8	+2.1
USP				⇑*i*S	Sn	20 34 12.0	+2.4
TKM2	Tokmak 2	4.01	32	⇑*i*P	Pn	20 33 25.6	+1.8
TKM2				⇑*i*S	Sn	20 34 13.4	+1.9
BRLS	Borolday	4.06	329	*e*P	Pb	20 33 31.9	-1.4
	9.7nm,0.5s						
BRLS				*e*S	Sg	20 34 30.3	-1.2
	19nm,0.5s						
KST	Kastek	4.27	35	*e*P	Pb	20 33 37.5	+0.6
	2.3nm,1.1s						
KST				*e*S	Sg	20 34 40.2	+2.1
	14nm,0.9s						
KDJ	Kajisay	4.28	52	⇑*i*P	Pn	20 33 28.7	+1.4
KDJ				⇑*i*S	Sn	20 34 18.8	+0.9
KRBS	Karabastau	4.70	28	Pg	Pb	20 33 44.2	0.0
	3.6nm,0.6s						
KRBS				Lg	Lg	20 34 51.3	
	17nm,0.5s						
KRBS	Karabastau	4.70	28	*e*P	Pb	20 33 44.2	0.0
	3.6nm,0.6s						
KRBS				*e*S	Sg	20 34 51.3	-0.7
	17nm,0.5s						
KNDC	Almaty	4.87	40	⇑Pg	Pg	20 33 51.2	-3.2
	37nm,0.8s						
KNDC				⇓Lg	Lg	20 34 55.9	
	31nm,0.6s						
MDOK	Medeo	4.88	41	*e*P	Pb	20 33 48.0	+0.7
	9.4nm,0.9s						
MDOK				*e*S	Sg	20 34 58.1	+0.5
	16nm,1.3s						
ANVS	Anan'yevo	4.96	48	⇑*i*P	Pn	20 33 38.2	+1.5
ANVS				⇑*i*S	Sn	20 34 35.2	+0.5
KOTS	Kotyrbulak	4.96	41	Pg	Pb	20 33 49.5	+0.9
	15nm,0.4s						
KOTS				Lg	Lg	20 35 00.7	
	36nm,0.5s						
KOTS	Kotyrbulak	4.96	41	*e*P	Pb	20 33 49.5	+0.9
	15nm,0.4s						
KOTS				*e*S	Sg	20 35 00.7	+0.4
	36nm,0.5s						
KTBS	Karatobe	5.12	35	Pg	Pb	20 33 52.6	+1.3
	0.1nm,0.1s						
KTBS				Lg	Lg	20 35 05.5	
	15nm,0.5s						
KTBS	Karatobe	5.12	35	*e*P	Pb	20 33 52.6	+1.3
	0.1nm,0.1s						
KTBS				*e*S	Sg	20 35 05.5	0.0
	15nm,0.5s						
KUU	Kurty	5.12	31	Pg	Pb	20 33 52.5	+1.1
	1.2nm,0.1s						
KUU				Lg	Lg	20 35 05.1	
	22nm,0.5s						
KUU	Kurty	5.12	31	*e*P	Pb	20 33 52.5	+1.1
	1.2nm,0.1s						
KUU				*e*S	Sg	20 35 05.1	-0.4
	22nm,0.5s						
MKAR	Makanchi Array	10.07	41	Pn	Pn	20 34 53.4	+6.7
	baz=228,slow=13,SNR=2.1						
	0.3nm,0.7s						
KURBB	Kurchatov Arra	11.80	19	Pn	Pn	20 35 12.7	+2.4
	baz=206,slow=13,SNR=1.5						
	0.2nm,0.7s						
BVAR	Borovoye Array	13.55	354	Pn	Pn	20 35 35.0	+0.8
	baz=176,slow=8.7,SNR=4.5						
	0.5nm,0.4s						
ZALV	Zalesovo Beam	16.58	26	Pn	P	20 36 17.9	+0.8
	0.2nm,0.3s,baz=221,slow=11,SNR=5.5						
	0.7nm,0.5s						
ZALV				AML	AML		
FINES	FINESS Array B	35.74	323	P	P	20 39 22.6	+1.7
	1.1nm,0.8s,baz=102,slow=8.1,SNR=6.8						
	1.1nm,0.8s						
TORD	Torodi Ar. Bea	67.11	268	P	P	20 43 14.8	-1.7
	0.3nm,0.7s,baz=36,slow=4.6,SNR=2.2						
	0.3nm,0.7s						
WRA	Warramunga Arr	82.53	123	P	P	20 44 42.1	-3.5
	0.6nm,1.1s,baz=312,slow=5.7,SNR=2.4						
	0.6nm,1.1s						

IDC ***27*** *20:41:33.5±8.8, 13°.67N×120°.91E, h127^{km}±87^{km}, mb3.4/10, mbtmp3.8/10, Error ellipse: s-maj=47.1km s-min=13.8km az=64.0*
MAN ***27*** *20:41:35.0, 13°.72N×120°.55E, h138^{km}, MS3.4*
ISC 27 20:41:36.3±0.8**, 13°.75N**±0°.09×**120°.8E**±0°.1**, h150**^{km}**, n14,** σ**1^{s}.94**/18**, mb3.5**/10**, Mindoro**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PGP	Puerto Galera	0.31	142	*e*P	Pn	20 41 56.1	-0.8
PGP				*e*S	Sn	20 42 10.8	-1.8
TGY	Tagaytay City	0.39	26	*e*P	Pn	20 41 57.6	+0.3
TGY				*e*S	Sn	20 42 14.2	+1.0
LQP	Lukban	0.84	64	*e*P	Pn	20 42 01.0	+1.0
LQP				*e*S	Sn	20 42 16.0	-2.1
BOLP	Bolinao	2.74	343	*i* P	Pn	20 42 20.5	+0.1
BOLP				*i* S	Sn	20 42 49.2	-5.3
CMAR	Chiang Mai Arr	21.47	285	P	P	20 46 14.2	+1.1
	0.5nm,0.8s,baz=102,slow=9.5,SNR=1.9						
	0.5nm,0.8s						
HILR	Hailar Array B	35.72	359	P	P	20 48 22.2	+1.8
	1.4nm,0.5s,baz=183,slow=5.5,SNR=1.6						
	1.4nm,0.5s						
SONM	Songino Array	36.03	343	P	P	20 48 23.2	+0.1
	0.5nm,0.6s,baz=180,slow=7.2,SNR=2.3						
	0.5nm,0.6s						
WRA	Warramunga Arr	36.05	158	P	P	20 48 21.3	-2.2
	0.6nm,0.5s,baz=330,slow=10,SNR=18						
	0.6nm,0.5s						
ASAR	Alice Springs	39.34	161	P	P	20 48 49.7	-1.4
	0.4nm,0.4s,baz=337,slow=6.8,SNR=13						
	0.4nm,0.4s						
MKAR	Makanchi Array	46.03	324	P	P	20 49 45.2	+0.5
	0.4nm,0.3s,baz=115,slow=8.7,SNR=7.5						
	0.4nm,0.3s						
ZALV	Zalesovo Beam	49.04	333	P	P	20 50 07.2	-0.7
	1.1nm,0.5s,baz=125,slow=6.6,SNR=5.5						
	1.1nm,0.5s						
KURBB	Kurchatov Arra	50.18	326	P	P	20 50 16.4	-0.1
	0.9nm,0.3s,baz=132,slow=7.6,SNR=6.5						
	0.9nm,0.3s						
ARCES	ARCESS Array B	79.06	339	P	P	20 53 23.2	-0.3
	4.9nm,1.0s,baz=75,slow=5.3,SNR=4.7						
	4.9nm,1.0s						
BRTR	Keskin Array B	79.16	308	P	P	20 53 27.2	+2.4
	0.4nm,0.8s,baz=72,slow=6.2,SNR=1.9						
	0.4nm,0.8s						

IDC 27 20:50:22.7±2.3**, 16°.36S**×**175°.21W, h0**^{km}**, mb4.0**/3**, mbtmp4.0**/4**, ML3.8**/1**, Error ellipse: s-maj=180.9km s-min=20.6km az=150.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	4.11	54	Pn	Pn	20 51 22.5	-4.5
	5.9nm,0.3s,baz=31,slow=4.6,SNR=4.4						
AFI				Sn	Sn	20 52 01.0	-15
	43nm,0.3s,baz=45,slow=24,SNR=15						
	24nm,0.5s						
AFI				AML	AML		
STKA	Stephens Creek	42.05	240	P	P	20 58 16.2	-0.2
	2.1nm,0.9s,baz=90,slow=7.1,SNR=4.3						
	2.1nm,0.9s						
WRA	Warramunga Arr	47.94	258	P	P	20 59 03.2	-0.3
	0.3nm,0.4s,baz=94,slow=7.0,SNR=12						
	0.3nm,0.4s						
ASAR	Alice Springs	48.16	253	P	P	20 59 05.2	0.0
	3.0nm,0.5s,baz=88,slow=8.8,SNR=67						
	3.0nm,0.5s						

IDC ***27*** *21:03:37.0±1.3, 40°.17N×24°.24E, h0^{km}, mb3.3/4, mbtmp3.4/5, ML3.2/1, MS2.6/1, Error ellipse: s-maj=45.6km s-min=16.5km az=172.0*
SOF ***27*** *21:03:37.1, 39°.85N±0°.04×24°.40E±0°.02, h20^{km}±3^{km}, MD3.5/5*
ISK ***27*** *21:03:38.8, 39°.99N×24°.47E, h8^{km}, ML3.4/30*
ATH ***27*** *21:03:39.0, 39°.97N×24°.36E, h16^{km}±1^{km}, ML3.2/50, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
THE ***27*** *21:03:39.3, 40°.0N±1°.0×24°.3E±1°.0, h14^{km}±2^{km}, M3.1/50, MLh3.1/50*
AFAD ***27*** *21:03:40.3, 39°.96N×24°.55E, h40^{km}±1^{km}, ML3.2*
ISC 27 21:03:38.7±1.0**, 39°.96N**±0°.02×**24°.37E**±0°.01**, h14**^{km}±8^{km}**, n241,** σ**0^{s}.89**/279**, mb3.5**/3**, 24C-15D, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OUR	Ouranopolis	0.48	322	P	Pg	21 03 48.3	+0.1
OUR				S	Sg	21 03 54.6	-0.1
OUR				AML	AML		
OUR	Ouranopolis	0.48	322	Pg	Pb	21 03 49.2	+0.2
OUR				AML	AML		
OUR	Ouranopolis	0.48	322	P	Pg	21 03 48.2	+0.1
OUR				S	Sg	21 03 54.9	+0.3
OUR				AML	AML		
PAIG	Paliouri	0.53	267	P	Pg	21 03 49.0	-0.1
PAIG				S	Sg	21 03 56.2	0.0
PAIG				AML	AML		
PAIG	Paliouri	0.53	267	P	Pg	21 03 49.0	-0.1
PAIG				S	Sg	21 03 56.7	+0.5
LMN1	MIRINA LIMNOU	0.54	99	P	Pb	21 03 50.5	+0.6
LMN1				AML	AML		
LIA	Limnos Island	0.63	95	P	Pb	21 03 51.8	+0.4
LIA				S	Sn	21 04 02.5	-0.5
LIA				AML	AML		
LIA	Limnos Island	0.63	95	P	Pb	21 03 51.8	+0.4
LIA				AML	AML		
EFSA	Agios Efstrati	0.63	131	P	Pb	21 03 51.9	+0.4
EFSA				S	Sb	21 04 00.3	+0.1
EFSA				AML	AML		
THAS	Thassos island	0.70	22	P	Pg	21 03 52.1	-0.3
THAS				S	Sn	21 04 02.9	-2.0
THAS	Thassos island	0.70	22	P	Pg	21 03 52.1	-0.3
THAS				S	Sb	21 04 02.6	+0.3
THS1	Thassos, Thass	0.80	11	P	Pb	21 03 53.9	-0.5
THS1				S	Sb	21 04 05.0	0.0
PLG	Polygyros	0.82	301	P	Pb	21 03 54.2	-0.6
PLG				S	Sb	21 04 05.0	-0.8
PLG				AML	AML		
PLG	Polygyros	0.82	301	P	Pb	21 03 54.2	-0.6
AOS	Alonnisos	0.87	206	P	Pb	21 03 55.6	0.0
AOS				S	Sn	21 04 09.4	+0.3
AOS				AML	AML		
AOS2	Alonissos-2	0.91	207	P	Pb	21 03 55.6	-0.6
AOS2				S	Sb	21 04 08.4	+0.3
AOS2				AML	AML		
SMTH	Samothraki Isl	1.03	60	P	Pb	21 03 57.9	-0.4
SMTH				S	Sn	21 04 13.2	+0.3
SMTH				AML	AML		
SMTH	Samothraki Isl	1.03	60	P	Pb	21 03 58.0	-0.3
SMTH				S	Sn	21 04 12.3	-0.6
SMTH				AML	AML		
KAVA	Kavala	1.04	6	P	Pb	21 03 58.4	-0.2
KAVA				S	Sn	21 04 12.7	-0.7
KAVA				AML	AML		
KAVA	Kavala	1.04	6	P	Pb	21 03 58.4	-0.2
KAVA				S	Sb	21 04 11.8	-0.3
STCV	Stivos	1.07	311	P	Pb	21 03 58.7	-0.3
XOR	Xorichti	1.08	237	P	Pb	21 03 58.9	-0.4
XOR				S	Sb	21 04 13.6	+0.2
XOR				AML	AML		
XOR	Xorichti	1.08	237	P	Pb	21 03 58.8	-0.4
XOR				S	Sb	21 04 13.5	+0.2
XOR				AML	AML		
NEO	Neokhori	1.10	234	P	Pb	21 03 59.1	-0.4
NEO				S	Sb	21 04 14.1	+0.4
NEO				AML	AML		
NEO	Neokhori	1.10	234	P	Pb	21 03 59.0	-0.5
NEO				S	Sb	21 04 13.9	+0.2
NEO				AML	AML		
SOH	Sokhos	1.16	318	P	Pb	21 04 00.7	+0.1
SOH				S	Sb	21 04 15.5	-0.1
SOH				AML	AML		
SOH	Sokhos	1.16	318	P	Pn	21 04 00.5	-0.1
SOH				AML	AML		
GADA	Gvkgeada	1.20	78	P	Pb	21 04 01.1	0.0
GADA				S	Sg	21 04 17.6	+0.3
GADA				AML	AML		
GADA	Gvkgeada	1.20	78	Pn	Pb	21 04 00.9	-0.2
GADA				Sn	Sg	21 04 16.8	-0.5
GADA				AML	AML		
GOAD	anakkale-G¶	1.20	80	P	Pb	21 04 00.9	-0.2
GOAD				S	Sb	21 04 15.7	-0.9
GOAD				IAML		21 04 24.0	
	comp=N,908nm,0.3s						
THE	Thessaloniki	1.27	303	P	Pn	21 04 02.0	0.0
THE				S	Sb	21 04 17.8	-0.8
THE	Thessaloniki	1.27	303	P	Pn	21 04 02.0	0.0
BOZC	Bozcaada	1.30	95	Pn	Pb	21 04 02.7	-0.2
BOZC				Sn	Sg	21 04 19.9	-0.7
BOZC				AML	AML		
BOZC	Bozcaada	1.30	95	P	Pn	21 04 01.5	-1.0
BOZC				P	Pn	21 04 01.5	-1.0
BOZC				S	Sb	21 04 18.4	-1.0
BOZC				S	Sn	21 04 19.3	-0.4
BOZC				IAML		21 04 23.0	
	comp=N,244nm,0.3s						
BOZC				IAML		21 04 23.0	
	comp=N,248nm,0.3s						
SRS	Serrai	1.30	333	P	Pn	21 04 02.0	-0.5
SRS				S	Sb	21 04 18.5	-1.1
SRS				AML	AML		
SRS	Serrai	1.30	333	P	Pn	21 04 02.1	-0.4
SRS				AML	AML		
KYMI	Kymi, Euboea I	1.34	189	P	Pn	21 04 02.7	-0.3
KYMI				AML	AML		
KYMI	Kymi, Euboea I	1.34	189	P	Pn	21 04 02.7	-0.3
KYMI				AML	AML		
ECEA	Canakkale, Ece	1.39	86	P	Pb	21 04 04.2	-0.2
ECEA				S	Sg	21 04 23.1	-0.3
ECEA				IAML		21 04 27.0	
	comp=N,407nm,0.4s						
MRKA	Markates	1.39	206	P	Pn	21 04 03.4	-0.3
MRKA				AML	AML		
KOCA	Canakkale, Ayv	1.44	108	P	Pb	21 04 05.0	-0.2
NVR	Nevrokopi	1.45	345	S	Sn	21 04 22.2	-1.1
NVR				AML	AML		
NVR	Nevrokopi	1.45	345	P	Pn	21 04 04.3	-0.2
NVR				AML	AML		
GPNR	Gulpinar-Canak	1.45	110	Pn	Pb	21 04 05.3	-0.1
GPNR				AML	AML		
ALEX	Alexandroupoli	1.47	52	P	Pn	21 04 04.9	0.0
EZN	Ezine	1.51	94	P	Pb	21 04 05.9	-0.6
EZN				AML	AML		
EZN	Ezine	1.51	94	Pn	Pb	21 04 05.8	-0.6
EZN				AML	AML		
EZNE	Ezine-Canakkal	1.55	97	Pn	Pb	21 04 06.7	-0.4
CNKL	anakkale-Mer	1.55	85	P	Pn	21 04 05.3	-0.6
CAVK	Edirne/Enez-Ca	1.56	61	P	Pb	21 04 07.2	-0.1
CAVK				S	Sb	21 04 26.4	-0.5
CAVK				IAML		21 04 32.0	
	comp=N,933nm,0.7s						
CAVK				IAML		21 04 38.0	
	comp=E,834nm,0.9s						
CAVK	Edirne/Enez-Ca	1.56	61	⇑P	Pg	21 04 08.8	+0.2
ENEZ	Enez	1.57	60	P	Pn	21 04 06.2	+0.1
ENEZ	Enez	1.57	60	Pn	Pn	21 04 06.4	+0.2
ENEZ				AML	AML		
ALN	Alexandroupoli	1.59	53	P	Pn	21 04 06.0	-0.4
ALN				AML	AML		
ALN	Alexandroupoli	1.59	53	Pn	Pn	21 04 06.5	+0.1
ALN				AML	AML		
ALN	Alexandroupoli	1.59	53	P	Pn	21 04 05.9	-0.4
ALN				AML	AML		
COMU	Canakkale	1.62	84	Pn	Pb	21 04 07.7	-0.7
COMU				AML	AML		
PRK	Paraskevi	1.63	115	P	Pb	21 04 08.1	-0.4
PRK				AML	AML		
PRK	Paraskevi	1.63	115	P	Pb	21 04 07.9	-0.7
ATAL	Atalanti	1.64	220	P	Pn	21 04 06.9	-0.2
MMB	Musomishta	1.66	344	P	Pn	21 04 07.8	+0.3
MMB				AML	AML		
MMB	Musomishta	1.66	344	P	Pn	21 04 07.7	+0.3
TYRN	Tyrnavos	1.67	262	P	Pn	21 04 07.5	+0.1
TYRN				AML	AML		
TYRN	Tyrnavos	1.67	262	P	Pn	21 04 07.7	+0.2
TYRN				AML	AML		
GELI	Tayfur-Gelibol	1.67	74	Pn	Pn	21 04 07.7	+0.2
GELI				AML	AML		
LKR	Lokris	1.68	220	P	Pn	21 04 07.3	-0.4
LKR	Lokris	1.68	220	P	Pn	21 04 07.3	-0.4
BAYC	CANAKKALE_Bayr	1.69	97	P	Pn	21 04 08.1	+0.2
RZN	Rozhen	1.76	9	P	Pn	21 04 09.3	+0.3
RZN				AML	AML		
RZN	Rozhen	1.76	9	P	Pn	21 04 09.6	+0.6
RZN				S	Sg	21 04 35.2	-0.1
AXAR	Agios Charalam	1.78	229	P	Pn	21 04 09.2	+0.1
AXAR				AML	AML		
AXAR	Agios Charalam	1.78	229	P	Pn	21 04 09.4	+0.3

AXAR				AML	AML		
ERIK	Erikli-Kesan	1.79	66	Pn	Pn	21 04 09.7	+0.6
ERIK				AML	AML		
GRG	Griva	1.81	304	P	Pn	21 04 09.6	+0.2
GRG				AML	AML		
GRG	Griva	1.81	304	P	Pn	21 04 09.8	+0.4
GRG				AML	AML		
KDZ	Kurdzhali	1.83	23	P	Pn	21 04 09.5	-0.2
KDZ				AML	AML		
KDZ	Kurdzhali	1.83	23	Pn	Pn	21 04 09.9	+0.2
KDZ				AML	AML		
KDZ	Kurdzhali	1.83	23	P	Pn	21 04 10.0	+0.2
KDZ				S	Sg	21 04 36.8	-0.6
AGG	Agios Georgios	1.83	240	P	Pn	21 04 09.6	-0.2
AGG				AML	AML		
AGG	Agios Georgios	1.83	240	P	Pn	21 04 09.7	-0.2
AGG				AML	AML		
THL	Klokotos Trika	1.86	259	P	Pn	21 04 10.2	+0.1
THL				AML	AML		
THL	Klokotos Trika	1.86	259	P	Pn	21 04 10.3	+0.2
GOKT	Kean, EDRN	1.86	67	P	Pn	21 04 09.1	-1.1
GOKT				S	Sn	21 04 32.4	-1.1
GOKT				IAML		21 04 44.0	
	comp=N,424nm,0.7s						
LPK	Lapseki	1.88	76	Pn	Pn	21 04 10.8	+0.4
LPK				AML	AML		
STFN	Stefani	1.89	200	P	Pn	21 04 10.7	+0.1
STFN				AML	AML		
STFN	Stefani	1.89	200	P	Pn	21 04 10.9	+0.3
STFN				AML	AML		
AYVA	Ayvalik	1.90	109	P	Pn	21 04 10.8	0.0
DION	Dionisos Attik	1.91	190	P	Pn	21 04 10.8	-0.1
DION				AML	AML		
DION	Dionisos Attik	1.91	190	P	Pn	21 04 10.8	-0.1
DION				AML	AML		
LAPS	Lapseki, ANA	1.92	80	P	Pn	21 04 10.8	-0.2
LAPS				S	Sn	21 04 33.5	-1.4
LAPS				IAML		21 04 42.0	
	comp=E,159nm,0.4s						
KARY	Karystos	1.92	178	P	Pn	21 04 11.1	+0.1
KARY				AML	AML		
KARY	Karystos	1.92	178	P	Pn	21 04 11.1	+0.1
KARY				AML	AML		
VAY	Valandovo	1.93	315	*i* Pn	Pn	21 04 12.5	+1.4
VIL2	Platees	1.94	207	P	Pn	21 04 11.7	+0.4
VIL2				AML	AML		
PTL	Penteli	1.94	192	P	Pn	21 04 11.3	0.0
PTL				AML	AML		
PTL	Penteli	1.94	192	P	Pn	21 04 11.4	0.0
PTL				AML	AML		
KESN	Edirne-Kesan	1.97	63	P	Pn	21 04 10.8	-1.2
VILL	Villia	1.97	205	P	Pn	21 04 11.5	-0.2
VILL				AML	AML		
KZN	Kozani	2.02	281	P	Pn	21 04 12.5	0.0
KZN				AML	AML		
KZN	Kozani	2.02	281	P	Pn	21 04 13.2	+0.7
KZN				AML	AML		
ATHU	Athens Univers	2.04	193	P	Pn	21 04 12.5	-0.1
ATHU				AML	AML		
ATHU	Athens Univers	2.04	193	P	Pn	21 04 12.6	0.0
ATHU				AML	AML		
CHOS	Chios island	2.04	140	P	Pn	21 04 13.6	+0.9
CHOS				AML	AML		
CHOS	Chios island	2.04	140	Pn	Pn	21 04 13.9	+1.2
CHOS				AML	AML		
CHOS	Chios island	2.04	140	P	Pn	21 04 13.6	+0.9
CHOS				AML	AML		
KARB	zmir-Karabur	2.04	129	P	Pn	21 04 13.3	+0.6
CANM	Can-anakkale	2.06	88	Pn	Pn	21 04 13.4	+0.5
CANM				AML	AML		
UKOP	Uzunkopru-Edir	2.08	55	Pn	Pn	21 04 13.7	+0.5
UKOP				AML	AML		
KKB	Krupnik	2.11	334	P	Pn	21 04 13.8	+0.3
KKB				AML	AML		
KKB	Krupnik	2.11	334	P	Pn	21 04 13.9	+0.3
YAYO	Edremit-Balk	2.11	99	Pn	Pn	21 04 14.5	+0.9
YAYO				AML	AML		
PEHC	Pehcevo	2.13	329	*i* Pn	Pn	21 04 14.7	+0.7
BUHA	Balikesir, Bur	2.14	101	P	Pn	21 04 14.6	+0.7
VLY	Voula,Athens	2.15	192	P	Pn	21 04 14.2	0.0
VLY				AML	AML		
VLY	Voula,Athens	2.15	192	P	Pn	21 04 14.4	+0.2
VLY				AML	AML		
DKL	Dikili	2.15	113	Pn	Pn	21 04 15.1	+1.0
DKL				AML	AML		
DKL	Dikili	2.15	113	P	Pn	21 04 15.3	+1.2
BIGA	Biga-Canakkale	2.16	80	Pn	Pn	21 04 14.8	+0.6
PLD	Plovdiv	2.21	7	P	Pn	21 04 15.6	+0.6
PLD				AML	AML		
PLD	Plovdiv	2.21	7	Pn	Pn	21 04 15.6	+0.6
PLD				AML	AML		
YENI	Yenice-Canakka	2.21	90	Pn	Pn	21 04 15.8	+0.9
LTK	Loutraki	2.22	210	P	Pn	21 04 15.1	0.0
LTK				AML	AML		
LTK	Loutraki	2.22	210	P	Pn	21 04 15.2	0.0
LTK				AML	AML		
EVR	Evrytania	2.24	243	P	Pn	21 04 16.0	+0.5
EVR				AML	AML		
EVR	Evrytania	2.24	243	P	Pn	21 04 16.1	+0.6
LOUT	Loutraki	2.25	209	P	Pn	21 04 15.5	0.0
LOUT				AML	AML		
RKY	Sarkoy-Tekirda	2.27	70	Pn	Pn	21 04 16.5	+0.7
RKY				AML	AML		
DIM	Dimitrovgrad	2.28	23	P	Pn	21 04 16.2	+0.3
DIM				AML	AML		
DIM	Dimitrovgrad	2.28	23	P	Pn	21 04 16.6	+0.7
KRBG	Karabiga-Canak	2.28	78	Pn	Pn	21 04 16.5	+0.5
KRBG				AML	AML		
PANR	Panormos, Dori	2.28	227	P	Pn	21 04 16.1	+0.1
KPRO	Kipourio	2.31	271	P	Pn	21 04 16.6	+0.2
KPRO				AML	AML		
KPRO	Kipourio	2.31	271	P	Pn	21 04 16.5	0.0
KPRO				AML	AML		
ZEDA	zmir-Bergama	2.32	114	P	Pn	21 04 16.5	+0.1
THAL	Thalero	2.33	215	P	Pn	21 04 16.8	+0.2
THAL				AML	AML		
THAL	Thalero	2.33	215	P	Pn	21 04 16.8	+0.2
THAL				AML	AML		
KALE	Kalithea	2.33	229	P	Pn	21 04 16.9	+0.2
KALE				AML	AML		
KALE	Kalithea	2.33	229	P	Pn	21 04 17.1	+0.4
KALE				AML	AML		
ANX	Ano Chora	2.34	235	P	Pn	21 04 17.3	+0.4
ANX				AML	AML		
ANX	Ano Chora	2.34	235	P	Pn	21 04 17.2	+0.4
ANX				AML	AML		
PSARO	Psaromita, Dor	2.35	227	P	Pn	21 04 17.0	0.0
PSARO				AML	AML		
SERG	Sergoula	2.37	230	P	Pn	21 04 17.2	+0.1
SERG				AML	AML		
SERG	Sergoula	2.37	230	P	Pn	21 04 17.3	+0.1
SERG				AML	AML		
ACOR	Acrocorinthos	2.37	210	P	Pn	21 04 16.5	-0.7
ACOR				AML	AML		
GAZK	Gazikoy-TEKIRD	2.39	70	Pn	Pn	21 04 18.1	+0.6
GAZK				AML	AML		
PYRG	Pyrgos, Dorida	2.39	231	P	Pn	21 04 17.9	+0.3
PYRG				AML	AML		
MG00	Magoula, Dorid	2.43	232	P	Pn	21 04 18.6	+0.5
MG00				AML	AML		
EFP	Efpalio	2.45	232	P	Pn	21 04 18.8	+0.5
EFP				AML	AML		
EFP	Efpalio	2.45	232	P	Pn	21 04 19.0	+0.7
EFP				AML	AML		
ATIT	Gnen	2.46	86	P	Pn	21 04 18.2	-0.2
ATIT				S	Sg	21 04 55.4	-2.2
ATIT				IAML		21 05 01.0	
	comp=N,168nm,0.6s						
AGEO	AgiosGiorgios,	2.46	227	P	Pn	21 04 18.7	+0.2
TETR	Tetrakomo, Epi	2.47	257	P	Pn	21 04 19.0	+0.4
TETR				AML	AML		
TETR	Tetrakomo, Epi	2.47	257	P	Pn	21 04 19.0	+0.4
TETR				AML	AML		
MET2	Kameni Chora,	2.48	200	P	Pn	21 04 18.6	-0.1
MET6	Megalochori,Me	2.49	199	P	Pn	21 04 19.0	+0.1
BALY	Balya	2.51	94	P	Pn	21 04 20.9	+1.8
VVK	Vomvokou	2.51	233	P	Pn	21 04 19.8	+0.6
VVK	Vomvokou	2.51	233	P	Pn	21 04 20.1	+0.9
MADA	Marmara adas	2.52	74	P	Pn	21 04 19.5	+0.4
MADA				S	Sb	21 04 55.9	+1.5
MADA				IAML		21 05 04.0	
	comp=N,144nm,0.7s						
AIOA	Agios Ioannis,	2.52	226	P	Pn	21 04 19.4	+0.3
LAKA	Lakka	2.53	228	P	Pn	21 04 19.7	+0.3
LAKA	Lakka	2.53	228	P	Pn	21 04 19.9	+0.4
MET3	Ano Fanari,Met	2.54	201	P	Pn	21 04 19.6	0.0
GONE	Gonen-Balikesi	2.55	87	Pn	Pn	21 04 20.9	+1.3
MRMT	Marmara Adasi	2.55	74	Pn	Pn	21 04 20.4	+0.7
MRMT				AML	AML		
PRMD	Pramanda	2.56	261	P	Pn	21 04 20.2	+0.3
PRMD				AML	AML		
PRMD	Pramanda	2.56	261	P	Pn	21 04 21.2	+1.3
PRMD				AML	AML		
GUR	Goura	2.56	219	P	Pn	21 04 19.8	-0.1
GUR				AML	AML		
GUR	Goura	2.56	219	P	Pn	21 04 19.9	-0.1
GUR				AML	AML		
SOMA	Soma-Manisa	2.57	107	Pn	Pn	21 04 21.1	+1.1
SOMA				AML	AML		
KLV	Kalavryta, Ach	2.58	223	P	Pn	21 04 20.2	+0.1
KLV	Kalavryta, Ach	2.58	223	P	Pn	21 04 20.1	+0.1
AGRP	Agrapidokambos	2.58	234	P	Pn	21 04 20.8	+0.7
AGRP				AML	AML		
BLCB	Balcova	2.60	126	Pn	Pn	21 04 21.9	+1.5
BLCB				AML	AML		
EDRB	Edirne	2.61	43	Pn	Pn	21 04 21.2	+0.8
EDRB				AML	AML		
TKR	Tekirdag	2.63	66	Pn	Pn	21 04 21.4	+0.7
TKR				AML	AML		
AMPL	Ampelaki	2.65	248	P	Pn	21 04 21.7	+0.6
AMPL				AML	AML		
AMPL	Ampelaki	2.65	248	P	Pn	21 04 22.7	+1.6
AMPL				AML	AML		
MURA	Muratl, TEK	2.66	62	P	Pn	21 04 21.5	+0.4
MURA				S	Sg	21 05 02.8	-1.2
MURA				IAML		21 05 06.0	
	comp=E,225nm,0.6s						
MURA				IAML		21 05 17.0	
	comp=N,113nm,1.0s						
EDC	Edincik	2.71	81	Pn	Pn	21 04 22.8	+1.0
EDC				AML	AML		
BALB	Balikesir	2.72	96	Pn	Pn	21 04 22.9	+0.9
BALB				AML	AML		
CMHT	Manyas	2.77	88	P	Pn	21 04 23.6	+1.0
PLEV	Plevrona-Mesol	2.77	237	P	Pn	21 04 24.5	+1.8
VTS	Vitosha	2.79	343	P	Pn	21 04 23.8	+0.6
CRLT	Corlu	2.82	64	Pn	Pn	21 04 24.5	+1.2
CRLT				AML	AML		
PDO	Prodromos	2.82	242	P	Pn	21 04 23.3	-0.1
PDO				AML	AML		
DRO	Drossia	2.88	227	P	Pn	21 04 25.2	+0.9
DRO				AML	AML		
BAND	Balkesir-Ban	2.88	81	⇑P	Pn	21 04 26.4	+2.2
AXS	Araxos	2.92	234	P	Pn	21 04 25.5	+0.8
RLS	Riolos of Patr	2.95	231	P	Pn	21 04 25.9	+0.7
VLX	Vlachokerasia	3.02	212	P	Pn	21 04 26.8	+0.6
IGT	Igoumenitsa	3.14	264	P	Pn	21 04 28.0	+0.2
EVGI	Lefkada island	3.18	246	P	Pn	21 04 28.8	+0.5
AMT	Artemida-Makis	3.19	222	P	Pn	21 04 28.9	+0.4
AMT				AML	AML		
ITM	Ithomi	3.37	215	P	Pn	21 04 32.7	+1.8
VLI	Veliai	3.42	200	P	Pn	21 04 31.9	+0.3
MPEP	Malo Peshtene	3.43	352	P	Pn	21 04 34.8	+3.0
PLVB	Pleven	3.43	3	⇑P	Pn	21 04 33.1	+1.3
LOZB	Loznitsa	3.79	25	⇓P	Pn	21 04 38.2	+1.5
KTHA	Kythira Island	3.83	196	P	Pn	21 04 37.6	+0.3
BOVS	Bovan	4.18	332	⇑P	Pn	21 04 42.9	+0.8
SILT	Sile	4.19	72	⇓P	Pn	21 04 44.6	+2.5
COPA	Copaceanca	4.22	8	⇑P	Pn	21 04 44.3	+1.6
TAVA	DENIZLI_Tavas	4.34	124	⇓P	Pn	21 04 46.4	+2.1
SGRR	Singureni	4.43	15	⇑P	Pn	21 04 47.2	+1.8
TLBR	Topalu	5.33	30	⇑P	Pn	21 04 59.7	+1.8
ISR	Istrita	5.40	17	⇑P	Pn	21 05 00.8	+1.9
ARR	Arges	5.41	2	⇑P	Pn	21 05 00.2	+1.2
HARR	Harsova	5.42	28	⇓P	Pn	21 05 01.3	+2.3
VOIR		5.50	5	⇓P	Pn	21 05 01.9	+1.6
LOT	Lotru	5.51	356	⇑P	Pn	21 05 00.9	+0.5
GZR	Gura Zlata	5.56	348	⇑P	Pn	21 05 01.6	+0.5
NEHR	Nehoiu	5.65	14	⇓P	Pn	21 05 03.4	+1.1
MLR	Muntele Rosu	5.65	11	⇓P	Pn	21 05 04.4	+2.0
BZS	Buzias	6.01	341	⇑P	Pn	21 05 07.4	+0.2
SAHR	Sahastru	6.01	16	⇓P	Pn	21 05 08.7	+1.4
SURR	Surduc	6.03	345	⇓P	Pn	21 05 09.1	+1.7
COVR	Voineasa-Covas	6.04	12	⇓P	Pn	21 05 09.6	+2.0
DOPR	Dopca	6.05	7	⇓P	Pn	21 05 09.6	+1.8
PLOR	Plostina	6.12	15	⇑P	Pn	21 05 10.9	+2.1
VRI	Vrincioaia	6.15	16	⇑P	Pn	21 05 11.2	+2.0
MDB	Medias	6.18	0	⇑P	Pn	21 05 11.2	+1.6
BOSR	Bodos	6.19	8	⇓P	Pn	21 05 11.9	+2.2
OZUR		6.22	9	⇑P	Pn	21 05 11.4	+1.2
SCTR	Scanteiesti	6.30	24	⇓P	Pn	21 05 13.0	+1.8
VARL	Varlezi	6.46	22	⇓P	Pn	21 05 15.1	+1.7
VLDR	Vladesti	6.48	24	⇑P	Pn	21 05 15.3	+1.6
ONER	Baraj Valea Uz	6.54	12	⇑P	Pn	21 05 16.7	+2.2
TESR	Tescani	6.76	13	⇑P	Pn	21 05 19.3	+1.9
MARR	Marisel-Cluj	6.78	353	⇑P	Pn	21 05 19.5	+1.6
DRGR		6.94	351	⇑P	Pn	21 05 21.6	+1.6
BIZ	Bicaz	7.09	10	⇓P	Pn	21 05 24.3	+2.2
BRTR	Keskin Array B	7.14	89	Pn	Pn	21 05 24.5	+1.7
	0.4nm,0.3s,baz=271,slow=10,SNR=12						
BRTR				Lg	Lg	21 07 27.6	
	0.1nm,0.3s,baz=323,slow=32,SNR=1.1						
	1.0nm,0.4s						
BRTR				AML	AML		
GIRR	Girov	7.17	12	⇑P	Pn	21 05 24.7	+1.6
PRAR	RASCA	7.52	10	⇑P	Pn	21 05 29.4	+1.4
BURAR	Bucovina Array	7.68	4	⇑P	Pn	21 05 32.4	+2.2
ESDC	Sonseca Array	21.73	278	P	P	21 08 28.7	-0.9
	0.5nm,0.9s,baz=85,slow=12,SNR=1.6						
	0.5nm,0.9s						
AKTO	Aktyubinsk	25.71	55	LR	LR	21 19 53.0	
	comp=Z,15nm,20.4s,baz=226,slow=38						
TORD	Torodi Ar. Bea	33.34	223	P	P	21 10 17.6	+1.3
	0.5nm,0.9s,baz=31,slow=9.0,SNR=4.1						
	0.5nm,0.9s						
MKAR	Makanchi Array	41.82	61	P	P	21 11 28.2	+0.3
	0.7nm,0.8s,baz=270,slow=9.9,SNR=4.0						
	0.7nm,0.8s						
ZALV	Zalesovo Beam	42.26	50	P	P	21 11 30.6	-0.8
	0.4nm,0.5s,baz=268,slow=10,SNR=2.0						
	0.4nm,0.5s						

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*IDC **27** 21:11:37.7±2.2, 74°.55N×8°.85E, h0^{km}, mb3.7/1, mbtmp3.6/4, ML2.5/2, MS2.6/2, Error ellipse: s-maj=37.1km s-min=15.0km az=85.0*

*NAO **27** 21:11:38.0±1.9, 74°.59N×9°.74E, h10^{km}, ML2.9*

*BER **27** 21:11:39.6±1.9, 74°.61N×9°.48E, h0^{km}±32^{km}, Mw4.0, ML2.9(NAO), Confirmed Earthquake*

*KOLA **27** 21:11:46.1, 74°.59N×11°.14E, h0^{km}, ML1.8, Norwegian sea*

ISC 27 21:11:38.2±1.4, **74°.56N**±0°.06×**9°.8E**±0°.1, **h10**^{km}, **n23**, σ**1^{s}.93**/30, **Greenland Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BRBA	Barentsburg A	3.67	14	Pn	Pn	21 12 34.5	-0.3
BRBA	Barentsburg A	3.67	14	*e*P	Pn	21 12 34.4	-0.4
BRBA				*e*S	Sn	21 13 17.0	-1.0
BRBA				IAML		21 13 17.5	
	comp=Z,6.9nm,0.7s						
BRBB	Barentsburg B	3.70	14	Pn	Pn	21 12 34.9	-0.4
BRBB	Barentsburg B	3.70	14	*e*P	Pn	21 12 34.7	-0.5
BRBB				*e*S	Sn	21 13 18.6	-0.2
SPA0	Spitsbergen Ar	3.95	20	Pn	Pn	21 12 39.5	+0.8
	baz=203,slow=14						
SPA0	Spitsbergen Ar	3.95	20	Pn	Pn	21 12 39.5	+0.8
SPITS	Spitsbergen Ar	3.95	20	Pn	Pn	21 12 39.3	+0.6
	comp=Z,14nm,0.3s,baz=204,slow=14,SNR=194						
SPITS				Sn	Sn	21 13 22.3	-2.7
	baz=200,slow=24						
HOPEN	Hopen	4.27	56	Pn	Pn	21 12 44.9	+1.8
HOPEN				Sn	Sn	21 13 32.6	-0.3
HOPEN	Hopen	4.27	56	*e*P	Pn	21 12 45.0	+1.8
HOPEN				*e*S	Sn	21 13 31.9	-1.0
HOPEN				IAML		21 13 53.9	
	comp=Z,24nm,0.8s						
JETT	Jettan, Norway	5.99	142	Pn	Pn	21 13 09.2	+2.5
JETT	Jettan, Norway	5.99	142	Pn	Pn	21 13 09.2	+2.5
KIF	Kilpisjarvi	6.54	143	*e*P	Pn	21 13 16.5	+2.3
LOF	Lofoten	6.57	168	*e*P	Pn	21 13 14.2	-0.5
ARA0	ARCESS Array S	6.97	128	Pn	Pn	21 13 21.6	+1.5
	baz=321,slow=11						
ARA0				Sn	Sn	21 14 31.2	-8.1
	baz=326,slow=22						
ARA0	ARCESS Array S	6.97	128	Pn	Pn	21 13 21.6	+1.5
ARA0				Sn	Sn	21 14 31.2	-8.1
ARCES	ARCESS Array B	6.97	128	Pn	Pn	21 13 21.8	+1.6
	comp=Z,0.1nm,0.3s,baz=328,slow=12,SNR=13						
ARCES				Sn	Sn	21 14 36.8	-2.5
	comp=Z,0.1nm,0.3s,baz=325,slow=18,SNR=2.0						
ARCES				LR	LR	21 16 31.0	
	comp=Z,25nm,18.8s,baz=253,slow=41						
	comp=Z,2.8nm,0.8s						
ARCES				AML	AML		
ARCES	ARCESS Array B	6.97	128	P	Pn	21 13 24.0	+3.9
ARCES				S	Sn	21 14 37.6	-1.7
KEV	Kevo	7.12	124	*e*P	Pn	21 13 25.7	+3.6
VADS	Vadso	7.39	117	*e*P	Pn	21 13 27.1	+1.2
VADS	Vadso	7.39	117	P	Pn	21 13 28.9	+3.1
VADS				S	Sn	21 14 46.5	-3.1
FINES	FINESS Array B	14.41	147	Pn	Pn	21 15 02.5	+0.6
	baz=338,slow=21,SNR=2.2						
	comp=Z,0.6nm,0.7s						
SFJD	Kangerlussuaq	20.31	280	LR	LR	21 23 44.7	
	comp=Z,26nm,19.4s,baz=94,slow=36						
GERES	GERESS Array B	25.86	174	P	P	21 17 09.6	0.0
	comp=Z,0.4nm,0.3s,baz=350,slow=7.3,SNR=5.6						
	comp=Z,0.4nm,0.3s						

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*IDC **27** 21:30:39.9±1.2, 9°.65N×127°.56E, h0^{km}, mb3.6/7, mbtmp3.6/8, ML4.2/1, MS3.3/5, Error ellipse: s-maj=35.7km s-min=16.2km az=95.0*

*MAN **27** 21:30:40.0, 9°.39N×127°.10E, h2^{km}, MS3.7*

*NEIC **27** 21:30:42.5±1.5, 9°.73N±0°.09×127°.3E±0°.1, h10^{km}±1^{km}, mb4.3/12, Error ellipse: s-maj=23.5km s-min=13.9km az=110.0*

ISC 27 21:30:40.3±3.3, **9°.48N**±0°.04×**127°.18E**±0°.06, **h5**^{km}±21^{km}, **n43**, σ**2^{s}.19**/49, **mb3.9**/12, **MS3.6**/5, **Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BIPH	Bislig	1.52	212	*e*P	Pn	21 31 07.5	-0.8
BIPH				*e*S	Sn	21 31 21.3	-7.1
CDOP	Cateel, Davao	1.84	204	*i* P	Pn	21 31 12.3	-0.3
CDOP				*i* S	Sn	21 31 32.2	-4.0
BUKP	Musuan	2.63	233	*i* P	Pn	21 31 24.3	+0.8
BUKP				*e*S	Sn	21 31 55.7	-0.2
CGP	Cagayan de Oro	2.66	248	*e*P	Pn	21 31 25.2	+1.3
CGP				*e*S	Sn	21 31 54.9	-1.6
PLP	Palo	2.74	308	*e*P	Pn	21 31 25.4	+0.4
PLP				*e*S	Sn	21 31 59.1	+0.7
DAV	Davao City (W)	2.87	214	Pn	Pb	21 31 31.8	-0.3
	25nm,0.3s,baz=34,slow=11,SNR=4.2						
DAV				Sn	Sb	21 32 08.5	+0.9
	31nm,0.3s,baz=18,slow=20,SNR=6.5						
	66nm,0.4s						
DAV				AML	AML		
DAV	Davao City (W)	2.87	214		Pb	21 31 31.5	-0.6
DAV					Sb	21 32 07.5	-0.1
DMPH	Davao City--Mi	2.90	215	*e*P	Pb	21 31 32.7	+0.1
DMPH				*i* S	Sb	21 32 06.1	-2.3
KCP	Kidapawan	3.21	220	*e*P	Pb	21 31 35.5	-2.5
KCP				*e*S	Sn	21 32 13.2	+2.9
LLP	Lapu-Lapu	3.27	285	*e*P	Pn	21 31 33.5	+1.1
LLP				*e*S	Sb	21 32 16.5	-2.7
TBP	Tagbilaran	3.28	274	*e*S	Sn	21 32 09.4	-2.5
LSIP	Lazi, Siquijor	3.52	265	*i* P	Pn	21 31 36.1	+0.4
LSIP				*e*S	Sn	21 32 12.8	-5.0
CTBH	Cotabato--PC H	3.67	232	*i* P	Pn	21 31 40.4	+2.6
PAGZ	Pagadian	4.09	247	*i* P	Pn	21 31 45.6	+2.0
PAGZ				*i* S	Sn	21 32 30.3	-1.6
DPSS	Saipan	19.05	71	P	P	21 35 00.2	-3.4
DPSS				IAmb	IAmb	21 35 06.3	
	comp=Z,69nm,1.2s						
JAGI	Jajag, Banyuwa	22.05	216	P	P	21 35 40.2	+4.0
JAGI				IAmb	IAmb	21 35 53.5	
	comp=Z,22nm,0.9s						
JTU	Tsushima	25.01	4	P	P	21 36 03.2	-2.0
CMAR	Chiang Mai Arr	28.78	291	LR	LR	21 50 08.4	
	comp=Z,9.1nm,18.2s,baz=120,slow=40						
WB0	Warramunga Arr	29.92	166	P	P	21 36 51.8	+2.4
WB0				IAmb	IAmb	21 36 55.1	
	comp=Z,2.0nm,0.9s						
WRA	Warramunga Arr	30.08	166	P	P	21 36 51.3	+0.5
	comp=Z,0.3nm,0.8s,baz=347,slow=8.6,SNR=2.9						
	comp=Z,0.3nm,0.8s						
WRA	Warramunga Arr	30.08	166	P	P	21 36 52.4	+1.6
WB2	Warramunga Arr	30.08	166	P	P	21 36 52.0	+1.2
WB2				IAmb	IAmb	21 36 58.5	
	comp=Z,2.6nm,1.1s						
WR0	Warramunga Arr	30.14	166	P	P	21 36 54.4	+3.0
MBWA	Marble Bar	31.32	193	P	P	21 37 10.1	+8.3
MBWA				IAmb	IAmb	21 37 18.1	
	comp=Z,6.9nm,0.9s						
ASAR	Alice Springs	33.59	169	P	P	21 37 23.6	+1.9
	comp=Z,0.3nm,0.5s,baz=350,slow=7.3,SNR=4.7						
	comp=Z,0.3nm,0.5s						
ASAR	Alice Springs	33.59	169	P	P	21 37 24.0	+2.3
GIRL	Giralia	34.35	202	P	P	21 37 30.1	+1.8
ASAJ	Asahikawa	37.01	19	LR	LR	21 53 07.9	
	comp=Z,15nm,19.8s,baz=240,slow=37						
WAKE	Wake Island	39.37	71	P	P	21 38 09.8	-1.4
SONM	Songino Array	42.07	339	P	P	21 38 34.1	+0.9
	comp=Z,0.4nm,0.6s,baz=163,slow=11,SNR=2.1						
	comp=Z,0.4nm,0.6s						
SONM	Songino Array	42.07	339	P	P	21 38 33.3	0.0
MKAR	Makanchi Array	53.19	323	P	P	21 40 00.8	+1.2
	comp=Z,0.4nm,0.5s,baz=125,slow=7.8,SNR=7.6						
	comp=Z,0.4nm,0.5s						
MKAR	Makanchi Array	53.19	323	P	P	21 39 59.1	-0.5
ZALV	Zalesovo Beam	55.74	331	P	P	21 40 17.6	-0.4
	comp=Z,0.2nm,0.3s,baz=115,slow=6.8,SNR=2.4						
	comp=Z,0.2nm,0.3s						
ZALV	Zalesovo Beam	55.74	331	P	P	21 40 17.9	0.0
BVAR	Borovoye Array	62.82	325	P	P	21 41 08.0	+1.0
	comp=Z,0.4nm,0.6s,baz=112,slow=6.4,SNR=2.2						
	comp=Z,0.4nm,0.6s						
RAO	Raoul Island	65.41	128	LR	LR	22 04 45.4	
	comp=Z,88nm,18.8s,baz=326,slow=31						
URZ	Urewera	66.48	139	LR	LR	22 07 50.2	
	comp=Z,66nm,21.6s,baz=354,slow=34						
AB31	Akbulak array	68.06	319	P	P	21 41 41.3	+0.4
AB31				IAmb	IAmb	21 41 53.8	
	comp=Z,1.9nm,1.1s						
ABKAR	Akbulak array	68.06	319	P	P	21 41 41.6	+0.6
RAR	Rarotonga	77.91	114	LR	LR	22 14 41.4	
	comp=Z,28nm,18.8s,baz=275,slow=34						
FINES	FINESS Array B	87.01	332	P	P	21 43 27.0	+0.4
	comp=Z,1.3nm,0.9s,baz=56,slow=6.1,SNR=3.6						
	comp=Z,1.3nm,0.9s						
FINES	FINESS Array B	87.01	332	P	P	21 43 26.4	-0.2

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*SOF **27** 21:32:23.1, 40°.04N±0°.02×24°.41E±0°.01, h5^{km}±3^{km}, MD3.5/3*

*THE **27** 21:32:24.9, 40°.0N±0°.9×24°.3E±0°.9, h11^{km}±1^{km}, M3.1/43, MLh3.1/43*

*AFAD **27** 21:32:24.0, 40°.10N×24°.37E, h28^{km}±2^{km}, ML3.1*

*ATH **27** 21:32:24.5, 39°.96N×24°.31E, h17^{km}±2^{km}, ML3.3/17, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*

*ISK **27** 21:32:24.2, 40°.00N×24°.39E, h9^{km}, ML3.3/29*

ISC 27 21:32:24.5±1.0, **39°.95N**±0°.02×**24°.33E**±0°.02, **h14**^{km}±8^{km}, **n174**, σ**0^{s}.71**/205, **18C-14D**, **Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OUR	Ouranopolis	0.46	325	P	Pg	21 32 33.6	-0.1
OUR				S	Sg	21 32 39.5	-0.4
OUR				AML	AML		
OUR	Ouranopolis	0.46	325	Pg	Pg	21 32 33.7	-0.1
OUR				AML	AML		
OUR	Ouranopolis	0.46	325	P	Pg	21 32 33.6	-0.1
OUR				S	Sg	21 32 39.4	-0.4
OUR				AML	AML		
PAIG	Paliouri	0.50	267	P	Pg	21 32 34.2	-0.2
PAIG				S	Sg	21 32 41.4	+0.5
EFSA	Agios Efstrati	0.66	129	P	Pb	21 32 38.2	+0.4
EFSA				S	Sb	21 32 47.1	+0.4
EFSA				AML	AML		
LIA	Limnos Island	0.66	95	P	Pb	21 32 37.8	0.0

LIA				S	Sn	21 32 48.1	-1.5
LIA				AML	AML		
LIA	Limnos Island	0.66	95	P	Pg	21 32 37.7	+0.3
LIA				S	Sb	21 32 46.6	-0.3
LIA				AML	AML		
THAS	Thassos island	0.72	25	P	Pg	21 32 37.9	-0.6
THAS				S	Sb	21 32 49.2	+0.7
THAS				AML	AML		
THAS	Thassos island	0.72	25	P	Pg	21 32 38.6	+0.1
THAS				S	Sb	21 32 48.9	+0.3
PLG	Polygyros	0.79	302	P	Pg	21 32 39.5	-0.5
PLG				S	Sg	21 32 50.4	0.0
PLG				AML	AML		
AOS	Alonnisos	0.85	204	P	Pb	21 32 41.2	0.0
AOS				S	Sn	21 32 55.4	+0.9
AOS				AML	AML		
AOS2	Alonissos-2	0.89	205	P	Pb	21 32 41.1	-0.5
AOS2				AML	AML		
KAVA	Kavala	1.05	8	P	Pb	21 32 44.0	-0.5
KAVA				S	Sb	21 32 58.7	+0.6
KAVA				AML	AML		
KAVA	Kavala	1.05	8	P	Pb	21 32 43.9	-0.6
XOR	Xorichti	1.05	237	P	Pb	21 32 44.4	-0.1
XOR				S	Sb	21 32 58.8	+0.6
XOR				AML	AML		
XOR	Xorichti	1.05	237	P	Pb	21 32 44.4	-0.1
XOR				S	Sb	21 32 57.0	-1.2
XOR				AML	AML		
SMTH	Samothraki Isl	1.06	60	P	Pb	21 32 43.9	-0.7
SMTH				S	Sn	21 32 59.6	+0.1
SMTH				AML	AML		
SMTH	Samothraki Isl	1.06	60	P	Pb	21 32 44.0	-0.7
SMTH				AML	AML		
NEO	Neokhori	1.07	233	P	Pb	21 32 44.7	-0.1
NEO				S	Sb	21 32 59.5	+0.9
NEO				AML	AML		
NEO	Neokhori	1.07	233	P	Pb	21 32 44.4	-0.4
NEO				S	Sb	21 32 58.3	-0.4
NEO				AML	AML		
SOH	Sokhos	1.14	320	P	Pn	21 32 46.1	-0.1
SOH				S	Sb	21 33 01.3	+0.5
SOH				AML	AML		
SOH	Sokhos	1.14	320	P	Pn	21 32 45.8	-0.3
SOH				S	Sb	21 33 00.0	-0.7
GADA	Gvkgeada	1.23	78	P	Pn	21 32 47.0	-0.2
GADA				S	Sg	21 33 05.2	+1.0
GADA				AML	AML		
GADA	Gvkgeada	1.23	78	Pn	Pn	21 32 47.1	-0.2
GADA				Sn	Sg	21 33 03.9	-0.3
GADA				AML	AML		
GOAD	anakkale-G¶	1.23	80	P	Pn	21 32 46.8	-0.6
GOAD				S	Sb	21 33 02.1	-1.2
GOAD				IAML		21 33 09.0	
	comp=N,380nm,0.3s						
THE	Thessaloniki	1.24	304	P	Pn	21 32 47.2	-0.2
THE				S	Sb	21 33 03.6	0.0
THE				AML	AML		
THE	Thessaloniki	1.24	304	P	Pn	21 32 47.2	-0.2
SRS	Serrai	1.29	335	P	Pn	21 32 47.8	-0.4
SRS				AML	AML		
SRS	Serrai	1.29	335	P	Pn	21 32 47.9	-0.2
SRS				AML	AML		
KYMI	Kymi, Euboea I	1.33	188	P	Pn	21 32 48.1	-0.6
KYMI				AML	AML		
KYMI	Kymi, Euboea I	1.33	188	P	Pn	21 32 48.3	-0.4
KYMI				AML	AML		
BOZC	Bozcaada	1.33	94	Pn	Pn	21 32 48.7	-0.1
BOZC				AML	AML		
BOZC	Bozcaada	1.33	94	P	Pn	21 32 48.6	-0.1
BOZC				P	Pb	21 32 49.1	-0.2
MRKA	Markates	1.37	205	P	Pn	21 32 49.1	-0.2
MRKA				AML	AML		
ECEA	Canakkale, Ece	1.42	86	P	Pn	21 32 50.2	+0.2
ECEA				S	Sb	21 33 08.9	+0.1
ECEA				IAML		21 33 16.0	
	comp=N,425nm,0.5s						
NVR	Nevrokopi	1.44	346	P	Pn	21 32 49.8	-0.4
NVR				AML	AML		
NVR	Nevrokopi	1.44	346	P	Pn	21 32 49.8	-0.4
NVR				AML	AML		
KOCA	Canakkale, Ayv	1.47	107	P	Pn	21 32 50.9	+0.3
GPNR	Gulpinar-Canak	1.48	109	Pn	Pb	21 32 51.5	-0.3
GPNR				AML	AML		
ALEX	Alexandroupoli	1.50	53	P	Pn	21 32 50.7	-0.3
ENZZ	Sultanice-Enez	1.53	64	Pn	Pn	21 32 51.8	+0.3
ENZZ				Sn	Sn	21 33 11.5	+0.3
ENZZ				AML	AML		
EZN	Ezine	1.54	94	P	Pn	21 32 51.6	0.0
EZN				AML	AML		
EZN	Ezine	1.54	94	Pn	Pn	21 32 51.8	+0.2
EZN				AML	AML		
EZNE	Ezine-Canakkal	1.58	97	Pn	Pn	21 32 52.4	+0.3
CNKL	anakkale-Mer	1.59	85	P	Pn	21 32 52.2	+0.1
CNKL				P	Pb	21 32 52.5	-1.1
CNKL				S	Sn	21 33 11.2	-1.4
CAVK	Edirne/Enez-Ca	1.59	62	P	Pn	21 32 52.8	+0.6
CAVK				S	Sg	21 33 15.9	+0.2
CAVK				IAML		21 33 20.0	
	comp=N,356nm,0.5s						
CAVK				IAML		21 33 21.0	
	comp=E,374nm,0.5s						
CAVK	Edirne/Enez-Ca	1.59	62	⇓P	Pb	21 32 53.4	-0.3
ENEZ	Enez	1.60	60	P	Pn	21 32 51.9	-0.5
ENEZ	Enez	1.60	60	Pn	Pn	21 32 52.8	+0.4
ENEZ				AML	AML		
ATAL	Atalanti	1.61	219	P	Pn	21 32 52.4	-0.2
ALN	Alexandroupoli	1.62	54	P	Pn	21 32 51.9	-0.7
ALN				AML	AML		
ALN	Alexandroupoli	1.62	54	Pn	Pn	21 32 52.7	+0.1
ALN				AML	AML		
ALN	Alexandroupoli	1.62	54	P	Pn	21 32 51.6	-1.0
ALN				AML	AML		
TYRN	Tyrnavos	1.63	262	P	Pn	21 32 53.0	+0.2
TYRN				AML	AML		
TYRN	Tyrnavos	1.63	262	P	Pn	21 32 52.9	+0.1
MMB	Musomishta	1.65	345	P	Pn	21 32 53.3	+0.1
MMB				AML	AML		
MMB	Musomishta	1.65	345	*i* P	Pn	21 32 53.3	+0.1
COMU	Canakkale	1.66	84	Pn	Pn	21 32 53.6	+0.4
COMU				AML	AML		
LKR	Lokris	1.66	219	P	Pn	21 32 52.9	-0.3
PRK	Paraskevi	1.66	115	P	Pn	21 32 54.1	+0.9
PRK				AML	AML		
PRK	Paraskevi	1.66	115	P	Pn	21 32 54.1	+0.9
GELI	Tayfur-Gelibol	1.71	74	Pn	Pn	21 32 53.9	+0.1
GELI				AML	AML		
BAYC	CANAKKALE_Bayr	1.72	96	P	Pn	21 32 54.9	+0.8
BAYC				S	Sn	21 33 15.1	-0.8
BAYC				IAML		21 33 22.0	
	comp=N,129nm,0.6s						
AXAR	Agios Charalam	1.75	228	P	Pn	21 32 54.9	+0.4
AXAR				AML	AML		
AXAR	Agios Charalam	1.75	228	P	Pn	21 32 54.7	+0.2
AXAR				AML	AML		
RZN	Rozhen	1.77	10	P	Pn	21 32 54.8	-0.1
RZN				AML	AML		
RZN	Rozhen	1.77	10	*i* P	Pn	21 32 54.4	-0.5
GRG	Griva	1.78	305	P	Pn	21 32 55.3	+0.5
GRG				AML	AML		
GRG	Griva	1.78	305	P	Pn	21 32 55.0	+0.1
AGG	Agios Georgios	1.80	240	P	Pn	21 32 55.0	-0.1
AGG				AML	AML		
AGG	Agios Georgios	1.80	240	P	Pn	21 32 55.1	-0.1
ERIK	Erikli-Kesan	1.82	66	Pn	Pn	21 32 55.6	+0.2
ERIK				AML	AML		
THL	Klokotos Trika	1.82	258	P	Pn	21 32 55.4	-0.1
THL	Klokotos Trika	1.82	258	P	Pn	21 32 55.2	-0.2
KDZ	Kurdzhali	1.84	24	P	Pn	21 32 55.2	-0.6
KDZ				AML	AML		
KDZ	Kurdzhali	1.84	24	Pn	Pn	21 32 55.4	-0.3
KDZ				AML	AML		
KDZ	Kurdzhali	1.84	24	*i* P	Pn	21 32 55.2	-0.6
KDZ				S	Sb	21 33 22.7	+1.8
STFN	Stefani	1.88	199	P	Pn	21 32 56.2	0.0
STFN				AML	AML		
STFN	Stefani	1.88	199	P	Pn	21 32 56.0	-0.2
STFN				AML	AML		
GOKT	Kean, EDRN	1.90	67	P	Pn	21 32 55.9	-0.6
DION	Dionisos Attik	1.90	189	P	Pn	21 32 56.2	-0.3
DION				AML	AML		
DION	Dionisos Attik	1.90	189	P	Pn	21 32 56.1	-0.5
DION				AML	AML		
VAY	Valandovo	1.91	316	*i* Pn	Pn	21 32 57.3	+0.7
LPK	Lapseki	1.91	77	Pn	Pn	21 32 56.8	+0.1
LPK				AML	AML		
KARY	Karystos	1.92	177	P	Pn	21 32 56.7	-0.1
KARY	Karystos	1.92	177	P	Pn	21 32 56.6	-0.2
PTL	Penteli	1.94	191	P	Pn	21 32 57.1	+0.1
PTL				AML	AML		
AYVA	Ayvalik	1.94	109	P	Pn	21 32 57.4	+0.4
LAPS	Lapseki, ANA	1.95	80	P	Pn	21 32 57.0	-0.3
LAPS				S	Sn	21 33 20.2	-1.4
LAPS				IAML		21 33 22.0	
	comp=N,91nm,0.3s						
VILL	Villia	1.95	204	P	Pn	21 32 56.6	-0.7
VILL				AML	AML		
KZN	Kozani	1.99	281	P	Pn	21 32 58.1	+0.3
KZN				AML	AML		
KZN	Kozani	1.99	281	P	Pn	21 32 58.1	+0.3
KESN	Edirne-Kesan	2.00	63	P	Pn	21 32 57.2	-1.0
ATHU	Athens Univers	2.03	192	P	Pn	21 32 57.9	-0.4
CHOS	Chios island	2.06	139	P	Pn	21 32 59.3	+0.5
CHOS				AML	AML		
CHOS	Chios island	2.06	139	Pn	Pn	21 32 59.9	+1.1
CHOS				AML	AML		
KARB	zmir-Karabur	2.07	128	P	Pn	21 32 58.7	-0.1
KKB	Krupnik	2.09	335	P	Pn	21 32 59.8	+0.6
KKB				AML	AML		
KKB	Krupnik	2.09	335	P	Pn	21 33 00.2	+1.0
CANM	Can-anakkale	2.10	88	Pn	Pn	21 32 59.8	+0.6
CANM				AML	AML		
UKOP	Uzunkopru-Edir	2.11	56	Pn	Pn	21 32 59.8	+0.4
UKOP				AML	AML		
PEHC	Pehcevo	2.12	330	*i* Pn	Pn	21 33 00.4	+0.8
VLY	Voula,Athens	2.14	191	P	Pn	21 32 59.6	-0.2
VLY				AML	AML		
YAYO	Edremit-Balk	2.14	98	Pn	Pn	21 33 00.7	+0.8
YAYO				AML	AML		
BUHA	Balikesir, Bur	2.17	101	P	Pn	21 33 01.4	+1.2
DKL	Dikili	2.18	113	Pn	Pn	21 33 01.2	+0.8
DKL				AML	AML		
BIGA	Biga-Canakkale	2.19	81	Pn	Pn	21 33 00.9	+0.4
LTK	Loutraki	2.20	209	P	Pn	21 33 00.5	-0.2
LTK				AML	AML		
EVR	Evrytania	2.21	243	P	Pn	21 33 01.1	+0.3
EVR				AML	AML		
PLD	Plovdiv	2.21	8	P	Pn	21 33 01.0	+0.2
PLD				AML	AML		
PLD	Plovdiv	2.21	8	Pn	Pn	21 33 00.7	-0.1
PLD				AML	AML		
PLD	Plovdiv	2.21	8	P	Pn	21 33 01.0	+0.2
YENI	Yenice-Canakka	2.24	90	Pn	Pn	21 33 01.9	+0.7
KPRO	Kipourio	2.28	271	P	Pn	21 33 02.2	+0.5
KPRO				AML	AML		
DIM	Dimitrovgrad	2.29	24	P	Pn	21 33 01.4	-0.5
RKY	Sarkoy-Tekirda	2.30	71	Pn	Pn	21 33 02.5	+0.4
RKY				AML	AML		
SART	Tekirdag	2.30	70	P	Pn	21 33 01.5	-0.6
KALE	Kalithea	2.31	228	P	Pn	21 33 02.8	+0.6
KALE				AML	AML		
ANX	Ano Chora	2.31	235	P	Pn	21 33 02.7	+0.5
ANX				AML	AML		
THAL	Thalero	2.31	215	P	Pn	21 33 02.2	+0.1
THAL				AML	AML		
KRBG	Karabiga-Canak	2.32	78	Pn	Pn	21 33 03.1	+0.8
KRBG				AML	AML		
SERG	Sergoula	2.34	230	P	Pn	21 33 02.7	+0.1
SERG				AML	AML		
ZEDA	zmir-Bergama	2.35	114	P	Pn	21 33 03.7	+1.0
EFP	Efpalio	2.42	232	P	Pn	21 33 04.1	+0.5
GAZK	Gazikoy-TEKIRD	2.43	70	Pn	Pn	21 33 04.6	+0.9
GAZK				AML	AML		
TETR	Tetrakomo, Epi	2.43	256	P	Pn	21 33 04.3	+0.3
TETR				AML	AML		
ATIT	Gnen	2.49	86	P	Pn	21 33 05.1	+0.5
LAKA	Lakka	2.50	228	P	Pn	21 33 05.4	+0.5
BALY	Balya	2.54	94	P	Pn	21 33 05.9	+0.5
MADA	Marmara adas	2.55	75	P	Pg	21 33 12.6	-0.8
GONE	Gonen-Balikesi	2.58	87	Pn	Pn	21 33 06.4	+0.5
MRMT	Marmara Adasi	2.58	74	Pn	Pn	21 33 06.7	+0.7
MRMT				AML	AML		
SOMA	Soma-Manisa	2.60	107	Pn	Pn	21 33 07.4	+1.2
SOMA				AML	AML		
PLNA	Plana	2.61	345	P	Pn	21 33 07.2	+0.8
EDRB	Edirne	2.63	43	Pn	Pn	21 33 07.0	+0.4
EDRB				AML	AML		
TKR	Tekirdag	2.66	66	Pn	Pn	21 33 07.2	+0.3
TKR				AML	AML		
STEP	BALIKESIR_Sava	2.68	101	P	Pn	21 33 08.1	+0.8
MURA	Muratl, TEK	2.69	63	P	Pn	21 33 07.3	0.0
EDC	Edincik	2.74	81	Pn	Pn	21 33 08.7	+0.6
EDC				AML	AML		
BALB	Balikesir	2.76	95	Pn	Pn	21 33 09.6	+1.3
BALB				AML	AML		
BKES	Balkesir-Mer	2.78	93	P	Pn	21 33 09.5	+0.9
CRLT	Corlu	2.85	65	Pn	Pn	21 33 09.9	+0.3
CRLT				AML	AML		
BAND	Balkesir-Ban	2.92	81	⇑P	Pn	21 33 11.9	+1.3
MPEP	Malo Peshtene	3.43	353	P	Pn	21 33 18.5	+1.0
PLVB	Pleven	3.44	4	⇓P	Pn	21 33 18.9	+1.3
LOZB	Loznitsa	3.81	26	⇑P	Pn	21 33 23.8	+1.0
RAZG	Razgrad	3.96	24	⇑P	Pn	21 33 25.8	+0.9
BOVS	Bovan	4.17	333	⇓P	Pn	21 33 28.2	+0.5
COPA	Copaceanca	4.23	9	⇓P	Pn	21 33 29.4	+0.9
ARR	Arges	5.42	2	⇓P	Pn	21 33 45.6	+0.7
TIRR	Tirgusor	5.43	33	⇑P	Pn	21 33 45.6	+0.7
HARR	Harsova	5.43	28	⇑P	Pn	21 33 45.9	+0.8
LOT	Lotru	5.51	356	⇑P	Pn	21 33 46.5	+0.3
VOIR		5.51	5	⇑P	Pn	21 33 47.3	+1.1
GZR	Gura Zlata	5.55	349	⇓P	Pn	21 33 47.5	+0.7
NEHR	Nehoiu	5.66	14	⇑P	Pn	21 33 49.4	+1.2
MLR	Muntele Rosu	5.66	12	⇓P	Pn	21 33 49.1	+0.8
BISRR	Bisoca	5.86	17	⇑P	Pn	21 33 52.2	+1.2
CFR	Carcaliu	5.93	27	⇑P	Pn	21 33 53.2	+1.4
BZS	Buzias	6.00	341	⇑P	Pn	21 33 53.6	+0.8
DEV	Deva	6.02	350	⇑P	Pn	21 33 54.3	+1.2
COVR	Voineasa-Covas	6.05	13	⇓P	Pn	21 33 55.1	+1.6
DOPR	Dopca	6.06	7	⇑P	Pn	21 33 55.3	+1.6
PLOR	Plostina	6.14	15	⇓P	Pn	21 33 55.7	+1.0
VRI	Vrincioaia	6.17	16	⇓P	Pn	21 33 57.0	+1.8
MDB	Medias	6.18	0	⇑P	Pn	21 33 56.3	+0.9
BOSR	Bodos	6.20	9	⇑P	Pn	21 33 56.8	+1.2
TURR	Turia	6.22	11	⇓P	Pn	21 33 57.8	+1.8
VARL	Varlezi	6.48	22	⇑P	Pn	21 34 01.4	+2.0
VLDR	Vladesti	6.50	24	⇓P	Pn	21 34 01.0	+1.3
TESR	Tescani	6.77	14	⇑P	Pn	21 34 05.1	+1.7
MARR	Marisel-Cluj	6.78	353	⇑P	Pn	21 34 04.2	+0.6
BIZ	Bicaz	7.10	10	⇓P	Pn	21 34 09.0	+1.0
BURAR	Bucovina Array	7.69	5	⇓P	Pn	21 34 17.8	+1.7

UCR ***27*** *21:34:09.8±0.6, 9°.47N×84°.48W, h20km±3km, MW4.0, Presumed earthquake*

UPA ***27*** *21:34:10.1±3.7, 9°.97N×84°.33W, h10km±125km, MW3.6, Presumed earthquake*

CATAC ***27*** *21:34:10.2±0.3, 9°N±2°×8°4W±°, h8km±1km, M3.9/13, MLv3.9/13, Error ellipse: s-maj=6.0km s-min=2.5km az=47.0, confirmed*

ISC 27 21:34:10.2±1.0, **9°.51N**±0°.03×**84°.42W**±0°.03, **h23**km±7km, **n53**, σ1§**22**/79, **Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BITO	Garabito Jaco	0.22	298	*e*P	Pb	21 34 15.2	-0.8
BITO				*e*S	Sb	21 34 19.6	-0.3
QUEP	Quepos	0.27	108	P	Pb	21 34 16.4	-0.2
QUEP				S	Sb	21 34 21.8	+0.9
QUEP	Quepos	0.27	108	*e*P	Pb	21 34 16.4	-0.2
QUEP				*e*S	Sb	21 34 21.7	+0.8
ACOS	Acosta	0.38	42	*e*P	Pb	21 34 18.8	+0.3
TRB2	Turrubares	0.40	356	P	Pb	21 34 19.0	+0.3
TRB2				S	Sb	21 34 24.7	+0.2
LCR2	La Lucha 2	0.47	61	P	Pb	21 34 20.3	+0.3
LCR2				S	Sb	21 34 27.8	+1.2
LCR2	La Lucha 2	0.47	61	*e*P	Pb	21 34 19.1	-0.9
SANTA	Santa Ana	0.48	29	*e*P	Pb	21 34 20.1	0.0
SANTA				*e*S	Sb	21 34 27.7	+0.9
ARZA	Esparza	0.53	333	*e*P	Pb	21 34 20.7	-0.3
TCS1	Tacares	0.54	13	P	Pn	21 34 22.1	-0.6
SJS	Escuela Geolog	0.56	41	*e*P	Pb	21 34 22.0	+0.5
SJS				*e*S	Sn	21 34 30.9	-0.7
SRA1	San Ramn	0.57	354	*e*P	Pb	21 34 21.7	0.0
HDC	Heredia	0.57	32	P	Pn	21 34 22.8	-0.4
HDC				S	Sn	21 34 31.4	-0.6
HDC	Heredia	0.57	32	*e*P	Pb	21 34 21.9	+0.1
HDC				*e*S	Sn	21 34 31.4	-0.6
TRIO	Tres Rios	0.57	47	*e*P	Pb	21 34 21.9	+0.1
PAQE	Paquera	0.59	301	*e*P	Pb	21 34 21.1	-0.8
CORON	Coronado	0.62	42	*e*P	Pn	21 34 23.1	-0.7
REPA	Paraso	0.63	60	*e*P	Pb	21 34 22.9	+0.2
REPA				*e*S	Sn	21 34 32.7	-0.7
VPS8	V Poas	0.69	15	*e*P	Pb	21 34 24.3	+0.5
VPS8				*e*S	Sn	21 34 35.0	0.0
PCAYA	Pacayas	0.72	56	*e*P	Pb	21 34 24.5	+0.1
VICA	Volcano Irazu	0.74	50	*e*P	Pb	21 34 24.9	+0.2
RAFA	San Farael, Vo	0.75	54	*e*P	Pb	21 34 25.0	+0.2
VTR0	Volcan Turrial	0.82	52	*e*P	Pn	21 34 26.8	-0.1
OCHAL	Ojochal	0.87	118	P	Pb	21 34 26.0	-0.7
OCHAL				S	Sn	21 34 38.8	-0.3
EDPE	Pejibaye, P	0.91	113	*e*P	Pb	21 34 26.7	-0.7
SAJE	San Jernim	0.92	100	*e*P	Pb	21 34 26.8	-0.8
JTS	Las Juntas de	0.93	326	P	Pb	21 34 27.3	-0.5
JTS				S	Sb	21 34 40.1	+0.3
JTS	Las Juntas de	0.93	326	*e*P	Pb	21 34 26.9	-0.9
VARE2	V. Arenal	0.99	343	*e*P	Pb	21 34 29.0	+0.3
LCOCO	El Coco	1.02	56	*e*P	Pb	21 34 29.8	+0.5
TILA	Tilaran	1.09	330	*e*P	Pn	21 34 29.8	-0.4
CMARA	Lajas Hojancha	1.11	297	P	Pb	21 34 30.3	-0.5
CMARA				S	Sn	21 34 47.1	+2.0
CNAS	Canas	1.13	324	*e*P	Pn	21 34 30.3	-0.3
FIMO	Fila Mora	1.18	116	*e*P	Pn	21 34 31.4	-0.1
DRK0	Durika	1.19	102	P	Pn	21 34 17.3	-14
DRK0				S	Sn	21 34 35.1	-12
COVE	Coope Vega, Sa	1.20	1	P	Pb	21 34 33.0	+0.7
COVE				S	Sb	21 34 49.1	+1.7
TAAN	Batan	1.20	62	*e*P	Pn	21 34 30.7	-1.0
TRT2	Tortugero	1.24	33	*e*P	Pb	21 34 33.0	0.0
COLC	Colonia	1.38	326	*e*P	Pb	21 34 34.7	-0.7
UPAL	Upala	1.49	337	P	Pb	21 34 37.1	-0.3
UPAL				S	Sb	21 34 57.3	+1.4
PIRO	Carate, Puerto	1.54	136	P	Pb	21 34 38.3	+0.2
PIRO				S	Sb	21 34 57.8	+0.6
NELY	Ciudad Neily	1.69	120	*e*P	Pb	21 34 45.9	+5.3
NELY				*e*S	Sb	21 35 02.7	+1.2
BRU2	Volcan	1.85	113	P	Pb	21 34 42.8	-0.8
BRU2				S	Sb	21 35 05.6	-0.7
BRU2	Volcan	1.85	113	*e*P	Pn	21 34 40.7	-0.1
BRU2	Volcan	1.85	113	*e*P	Pb	21 34 44.4	+0.9
BRU2				*e*S	Sb	21 35 09.7	+3.3
CLLRA	Cordillera,	1.94	113	*e*P	Pb	21 34 45.1	+0.1
CLLRA				*e*S	Sb	21 35 09.9	+0.9
CARN	Rivas	1.98	327	P	Pb	21 34 45.0	-0.7
CARN				S	Sb	21 35 09.9	-0.2
LMNES	Limones	2.09	132	*e*P	Pb	21 34 47.9	+0.4
LMNES				*e*S	Sb	21 35 18.9	+6.0
PBNVO	Pueblo Nuevo,	2.29	105	*e*P	Pb	21 34 49.2	-1.7
PBNVO				*e*S	Sb	21 35 17.7	-1.0
BGUAL	Bijagual, Pana	2.29	116	*e*P	Pb	21 34 48.6	-2.3
BGUAL				*e*S	Sb	21 35 20.5	+1.7
RBALA	Bur	2.33	106	*e*P	Pb	21 34 49.3	-2.3
RBALA				*e*S	Sb	21 35 19.1	-0.8
ACON	Acoyapa	2.55	343	P	Pn	21 34 52.2	+2.0
ACON				S	Sb	21 35 24.5	-1.8
KKNTU	Kakintº	2.67	104	*e*P	Pb	21 34 54.4	-3.0
KKNTU				*e*S	Sb	21 35 28.5	-1.1

IDC ***27*** *21:43:40.7±1.0, 37°.13N×30°.94E, h135km±14km, mb3.3/3, mbtmp3.4/10, Error ellipse: s-maj=12.0km s-min=10.2km az=91.0*

ISK ***27*** *21:43:42.6, 37°.29N×31°.02E, h129km, ML3.0/29*

AFAD ***27*** *21:43:42.0, 37°.34N×30°.97E, h123km±6km, ML2.9*

GII ***27*** *21:43:45.8±0.0, 36°.956N±0°.003×31°.225E±0°.001, h0km, Mws3.3, confirmed*

ISC 27 21:43:41.6±0.8, **37°.23N**±0°.04×**31°.07E**±0°.03, **h139**km±6km, **n77**, σ1§**45**/112, **mb3.5**/3, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BUCA	Burdur, Bucak-	0.42	283	P	Pn	21 44 01.2	-0.2
BUCA				IAML		21 44 16.0	
	comp=N,142nm,0.3s						
BCK	Bucak	0.44	301	Pg	Pn	21 44 01.3	-0.2
BCK				Sg	Sn	21 44 14.8	-1.8
BCK				AML	AML		
ANTB	Antalya	0.47	225	Pg	Pn	21 44 01.9	+0.4
ANTB				Sg	Sn	21 44 15.4	-1.1
ANTB				AML	AML		
MNVG	Manavgat-Antal	0.52	148	Pg	Pn	21 44 02.6	+0.8
MNVG				Sg	Sn	21 44 17.2	+0.2
MNVG				AML	AML		
KEPZ	Antalya-Kepez	0.54	128	P	Pn	21 44 02.2	+0.2
KEPZ				S	Sn	21 44 16.6	-0.7
KEPZ				IAML		21 44 18.0	
	comp=N,512nm,0.4s						
KORT	Korkueli	0.62	248	Pg	Pn	21 44 02.8	+0.2
KORT				Sg	Sn	21 44 17.6	-0.8
KORT				AML	AML		
KORT	Korkueli	0.62	248	P	Pn	21 44 03.4	+0.9
KORT				S	Sn	21 44 18.6	+0.2
KORT				IAML		21 44 23.0	
	comp=N,269nm,0.4s						
SEYD	Seydisehir-KON	0.64	74	Pg	Pn	21 44 03.0	+0.4
SEYD				Sg	Sn	21 44 18.2	-0.4
SEYD				AML	AML		
ISP	Isparta	0.73	324	Pg	Pn	21 44 02.3	-1.0
ISP				Sg	Sn	21 44 17.6	-2.2
KEMT	Kemer-ANTALYA	0.75	213	Pg	Pn	21 44 04.0	+0.7
KEMT				AML	AML		
BAGO	Egridir - ISPA	0.79	344	P	Pn	21 44 03.4	-0.3
BRDR	BURDUR-Merkez	0.93	300	P	Pn	21 44 04.6	-0.1
BRDR				S	Sn	21 44 20.6	-1.8
BRDR				IAML		21 44 21.0	
	comp=N,108nm,0.5s						
ALAN	Alanya-ANTALYA	1.03	131	Pn	Pn	21 44 06.7	+1.1
ALAN				AML	AML		
ELL	Elmali	1.05	243	Pg	Pn	21 44 07.2	+1.3
ELL				AML	AML		
BASM	Basmaki-Afyon	1.06	311	Pg	Pn	21 44 05.8	-0.2
BASM				AML	AML		
AKUM	Antalya-Kumluc	1.08	213	P	Pn	21 44 07.0	+0.9
AKUM				S	Sn	21 44 29.0	+4.4
HDMB	Hadim	1.17	103	Pn	Pn	21 44 07.9	+0.8
HDMB				AML	AML		
GOLH	Golhisar	1.20	271	P	Pn	21 44 07.9	+0.6
GOLH				S	Sn	21 44 27.2	+0.2
GOLH				IAML		21 44 29.0	
	comp=N,165nm,0.4s						
SDAG	Sultandagi-AFY	1.21	354	Pn	Pn	21 44 07.4	0.0
SDAG				AML	AML		
KONT	Konya--Tatoy	1.25	55	Pn	Pn	21 44 08.3	+0.6
KONT				AML	AML		
KNIK	Mula-Seydike	1.26	253	P	Pn	21 44 09.0	+1.1
KNIK				S	Sn	21 44 28.5	+0.6
KNIK				IAML		21 44 30.0	
	comp=E,156nm,0.3s						
KZIL	AFYON_Kizioren	1.26	325	P	Pn	21 44 07.2	-0.7
INCE	Denizli-Bozkur	1.28	292	P	Pn	21 44 08.0	-0.1
DEMR	Demre-Antalya	1.36	224	Pn	Pn	21 44 10.0	+1.1
DEMR				AML	AML		
SHUT	Suhut-Afyon	1.38	343	Pn	Pn	21 44 09.2	0.0
SHUT				AML	AML		
CAEL	Denizli, Camel	1.40	266	P	Pn	21 44 10.7	+1.3
LADK	Ladik-KONYA	1.41	46	Pn	Pn	21 44 10.1	+0.6
LADK				AML	AML		
GAZI	Gazipasa	1.41	134	Pn	Pn	21 44 10.9	+1.5
GAZI				AML	AML		
APMY	Acipayam-Deniz	1.43	280	Pn	Pn	21 44 10.3	+0.7
APMY				AML	AML		
CAME	Cameli-Denizli	1.44	259	Pn	Pn	21 44 10.9	+1.0
CAME				AML	AML		
DNZT	Denizli-Tavas-	1.63	272	P	Pn	21 44 12.4	+0.5
DNZT				P		21 44 12.5	
DNIZ	Denizli-Tavas-	1.66	284	P	Pn	21 44 12.3	+0.1
DNIZ				S	Sn	21 44 35.3	-0.4
DNIZ				IAML		21 44 36.0	
	comp=E,170nm,0.5s						
IZZE	Mula-Seydike	1.68	242	P	Pn	21 44 13.2	+0.9
FETY	Fethiye	1.70	250	Pn	Pn	21 44 12.9	+0.3

FETY				AML	AML		
FETY	Fethiye	1.70	250	P	Pn	21 44 13.3	+0.7
SABU	Mula-Dalaman	1.73	257	P	Pn	21 44 13.4	+0.5
SABU				S	Sn	21 44 35.5	-1.3
SABU				IAML		21 44 39.0	
	comp=N,92nm,0.7s						
TAVA	DENIZLI_Tavas	1.73	278	P	Pn	21 44 13.5	+0.4
KRMN	Karaman	1.75	91	Pn	Pn	21 44 14.7	+1.4
KRMN				AML	AML		
KIZT	Kizilcal	1.76	21	Pn	Pn	21 44 13.5	+0.1
BOZY	Bozyazi-Mersin	1.90	126	Pn	Pn	21 44 16.6	+1.7
BOZY				AML	AML		
BERE	Bereket-Mersin	1.94	116	Pn	Pn	21 44 17.2	+1.6
BERE				AML	AML		
TEKE	Tekeli-Mersin	1.97	123	Pn	Pn	21 44 17.6	+1.9
TEKE				AML	AML		
DALY	Dalyan (Mula)	1.98	259	Pn	Pn	21 44 16.3	+0.5
DALY				AML	AML		
TEVE	Tevekalti-Mers	2.06	112	Pn	Pn	21 44 18.9	+2.0
TEVE				AML	AML		
YESY	Yesilyurt	2.20	75	Pn	Pn	21 44 20.1	+1.5
YESY				AML	AML		
YER	Yerkesik	2.23	268	Pn	Pn	21 44 19.5	+0.6
YER				AML	AML		
NAZL	Nazilli-Aydin	2.32	289	Pn	Pn	21 44 20.7	+0.7
NAZL				AML	AML		
BRTR	Keskin Array B	3.20	38	P	Pn	21 44 32.4	+1.1
	3.4nm,0.6s,baz=210,slow=14,SNR=30						
BRTR				S	Sn	21 45 12.2	+2.5
	1.1nm,0.5s,baz=216,slow=23,SNR=5.1						
HWQ	Hawqa	4.94	125	*e*P	Pn	21 44 54.8	+0.6
BEIL	Beino	4.95	121	*e*P	Pn	21 44 54.2	+0.1
IDI	Anoyia	5.36	251	P	Pn	21 44 57.2	-2.5
	3.5nm,0.4s,baz=343,slow=9.2,SNR=14						
IDI				S	Sn	21 45 57.0	-3.5
	10nm,0.9s,baz=52,slow=6.3,SNR=2.8						
MSAM	Misgav Am	5.41	136	P	Pn	21 45 00.5	+0.1
MSAM				S	Sn	21 45 58.8	-2.9
SHBL	Chebaa	5.44	134	*e*P	Pn	21 45 01.8	+0.9
GEM	Giv'at Ha'Em	5.50	136	P	Pn	21 45 01.5	-0.1
GEM				S	Sn	21 46 00.8	-3.0
MMA0B	Mount Meron ar	5.51	139	P	Pn	21 45 02.0	+0.3
MMA0B				S	Sn	21 46 01.5	-2.6
MMAI	Mount Meron Ar	5.51	139	P	Pn	21 45 00.9	-0.8
	1.6nm,0.4s,baz=330,slow=8.3,SNR=30						
MMAI				S	Sn	21 46 02.1	-2.0
	5.9nm,0.3s,baz=348,slow=32,SNR=20						
KMKB	Kefar Hamakabi	5.54	142	P	Pn	21 45 03.2	+1.1
KMKB				S	Sn	21 46 01.5	-3.2
YGR	Yagur	5.56	143	P	Pn	21 45 02.9	+0.5
YGR				S	Sn	21 46 01.8	-3.4
ZEFT	Zefat	5.59	138	P	Pn	21 45 03.3	+0.5
ZEFT				S	Sn	21 46 03.8	-2.3
MGDL	Migdal	5.70	139	P	Pn	21 45 05.1	+1.0
MGDL				S	Sn	21 46 06.2	-2.4
KSHT	Keshet	5.75	136	P	Pn	21 45 05.4	+0.4
KSHT				S	Sn	21 46 08.5	-1.5
CVYN	Cohav Hayarden	5.90	140	P	Pn	21 45 06.8	-0.1
ROII	Roi	6.16	143	P	Pn	21 45 11.5	+1.1
ROII				S	Sn	21 46 18.2	-1.5
YITV	Yitav	6.38	144	P	Pn	21 45 13.7	+0.4
YITV				S	Sn	21 46 22.5	-2.4
JER	Jerusalem	6.43	147	P	Pn	21 45 14.3	+0.3
JER				S	Sn	21 46 23.5	-2.7
AMAZ	Amatzia	6.51	150	P	Pn	21 45 15.8	+0.7
AMAZ				S	Sn	21 46 26.2	-2.1
ALMO	Almog	6.53	145	P	Pn	21 45 16.5	+1.2
ALMO				S	Sn	21 46 25.5	-3.0
MZS	Mizpe Shalem	6.69	146	P	Pn	21 45 18.2	+0.7
MZS				S	Sn	21 46 30.5	-1.9
ASF	Jabal al Asfar	6.96	135	P	Pn	21 45 20.1	-1.1
	0.4nm,0.3s,baz=311,slow=5.7,SNR=1.3						
ASF				S	Sn	21 46 40.5	+1.3
	2.6nm,0.4s,baz=301,slow=19,SNR=5.0						
GHAJ	Ghor Haditha	6.99	147	P	Pn	21 45 22.5	+1.0
GHAJ				S	Sn	21 46 38.2	-1.4
KRMI	Paran Flat	7.72	156	P	Pn	21 45 32.2	+0.8
KRMI				S	Sn	21 46 55.6	-1.9
EIL	Elat	8.21	156	P	Pn	21 45 36.9	-1.0
	2.9nm,0.8s,baz=342,slow=18,SNR=1.6						
EIL				S	Sn	21 47 06.3	-2.9
	5.2nm,0.5s,baz=336,slow=20,SNR=7.8						
AKASG	Malin Array Be	13.53	355	P	Pn	21 46 48.8	+1.0
	0.3nm,0.5s,baz=179,slow=9.7,SNR=8.6						
GERES	GERESS Array B	17.15	318	P	P	21 47 32.1	-0.2
	0.3nm,0.3s,baz=144,slow=8.5,SNR=4.5						
FINES	FINESS Array B	24.44	354	P	P	21 48 47.5	+0.5
	0.7nm,0.4s,baz=160,slow=12,SNR=9.6 0.7nm,0.4s						
ARCES	ARCESS Array B	32.50	356	P	P	21 49 57.7	-1.0
	2.8nm,0.9s,baz=171,slow=8.6,SNR=5.8 2.8nm,0.9s						
MKAR	Makanchi Array	38.63	59	P	P	21 50 52.7	+1.4
	0.4nm,0.7s,baz=280,slow=6.7,SNR=2.3 0.4nm,0.7s						

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*GCG **27** 21:58:16.6±0.9, 15°.28N×92°.58W, h70^{km}±30^{km}, MD4.0, Presumed earthquake*

*MEX **27** 21:58:17.0±0.6, 15°.03N×93°.06W, h56^{km}±44^{km}, MD4.0, Presumed earthquake*

ISC 27 21:58:15.2±1.4**, 15°.08N**±0°.08×**92°.91W**±0°.06**, h67^{km}, n14, σ2^{s}.05**/14**, Mexico-Guatemala border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RTAL	Retalhuleu	1.29	115	*e*P	Pn	21 58 37.2	-0.1
RTAL				*e*S	Sn	21 58 53.9	-0.1
HUEH	Huehuetenango	1.38	80	*e*S	Sn	21 58 53.0	-3.1
STG5	El Palmar, Qui	1.65	114	*i* P	Pn	21 58 36.6	-5.5
STG5				*i* S	Sn	21 58 53.4	-9.1
TGIG		1.70	353	*e*P	Pn	21 58 43.2	+0.3
TGIG				*e*S	Sn	21 59 04.2	+0.5
TGIG		1.70	353	*i* P	Pn	21 58 43.1	+0.3
APG	El Apazote	2.36	92	*i* P	Pn	21 58 50.2	-1.7
UXUV	UXUV	2.52	332	*e*P	Pn	21 58 55.5	+1.6
UXUV				*e*S	Sn	21 59 21.9	-1.7
CMIG	Matias Romero	2.76	317	*e*P	Pn	21 58 59.5	+2.4
CMIG				*e*S	Sn	21 59 26.9	-2.4
HUIG	Huatulco	3.16	283	*e*P	Pn	21 59 03.9	+1.3
HUIG				*e*S	Sn	21 59 37.5	-1.6
PETF	Flores	3.45	58	*e*P	Pn	21 59 03.7	-2.7
PETF				*e*S	Sn	21 59 39.5	-6.6
NEUV	Arroyo Zacate	3.82	314	*e*P	Pn	21 59 12.4	+0.9
NEUV				*e*S	Sn	21 59 45.8	-9.4
PEIG	Puerto Escondi	4.19	283	*e*P	Pn	21 59 33.6	+17
TOIG	Toxpalan	4.99	308	*e*P	Pn	21 59 40.4	+13
TXIG	Tlaxiaco	5.15	295	*e*P	Pn	21 59 32.9	+2.9
TXIG				*e*S	Sn	22 00 24.3	-3.9

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*SJA **27** 22:06:05.6±1.1, 19°.35S×69°.87W, h90^{km}, ML3.5, MW3.4*

*GUC **27** 22:06:09.3±0.8, 19°.33S×69°.85W, h56^{km}±4^{km}, ML3.4*

ISC 27 22:06:08.8±1.4**, 19°.37S**±0°.03×**69°.91W**±0°.06**, h59^{km}**±10^{km}**, n26, σ0^{s}.81**/42**, 2C-4D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSGCX	Pisagua	0.31	221	*e*P	Pn	22 06 19.4	+0.4
PSGCX				IAML		22 06 27.1	
	comp=Z,2µm,0.3s						
PSGCX	Pisagua	0.31	221	⇑*i*P	Pn	22 06 19.2	+0.2
PSGCX				*i* S	Sn	22 06 26.6	+0.3
PB11	IPOC Station P	0.46	149	*e*P	Pn	22 06 20.2	-0.2
PB11				IAML		22 06 30.6	
	comp=Z,948nm,0.1s						
PB11	IPOC Station P	0.46	149	⇓*i*P	Pn	22 06 20.0	-0.5
PB11				*i* S	Sn	22 06 28.8	-0.1
PX02	IPOC Station P	0.48	326	*i* P	Pn	22 06 19.9	-0.7
PX02				*i* S	Sn	22 06 28.9	-0.4
GO01	Chusmiza	0.74	114	*e*P	Pn	22 06 23.6	-0.3
GO01				IAML		22 06 35.2	
	comp=Z,1µm,0.1s						
GO01	Chusmiza	0.74	114	⇑*i*P	Pn	22 06 23.8	-0.1
TA02	Huaiquique	0.92	193	*e*P	Pn	22 06 25.5	-0.3
TA02				*e*S	Sn	22 06 39.8	+1.4
TA02				IAML		22 06 45.9	
	comp=Z,777nm,0.1s						
TA02	Huaiquique	0.92	193	*i* P	Pn	22 06 25.5	-0.3
PB08	IPOC Station P	1.05	137	*e*P	Pn	22 06 27.6	-0.2
PB08				*e*S	Sn	22 06 42.2	+0.3
PB08				IAML		22 06 42.5	
	comp=Z,1µm,0.2s						
PB08	IPOC Station P	1.05	137	⇓*i*P	Pn	22 06 27.8	0.0
PB08				*i* S	Sn	22 06 41.8	-0.1
PB08				IAML		22 06 42.6	
	comp=N,2µm,0.2s						
PB16	IPOC Station P	1.09	20	*e*P	Pn	22 06 28.5	-0.1
PB16				*e*S	Sn	22 06 43.7	+0.5
PB16	IPOC Station P	1.09	20	⇓*i*P	Pn	22 06 29.0	+0.4
PB16				*i* S	Sn	22 06 43.6	+0.4
TA01	Diego Aracena	1.22	192	*e*P	Pn	22 06 29.0	-0.7
TA01				*e*S	Sn	22 06 46.5	+1.2
TA01	Diego Aracena	1.22	192	*i* P	Pn	22 06 28.8	-0.9
TA01				*i* S	Sn	22 06 44.7	-0.6
PB18	Visviri	1.81	13	*i* P	Pn	22 06 41.5	+3.3
PB02	IPOC Station P	1.94	180	*e*P	Pn	22 06 39.2	-0.4
PB02				*e*S	Sn	22 07 01.2	-1.7
PB02				IAML		22 07 17.7	
	comp=Z,263nm,0.4s						
PB02	IPOC Station P	1.94	180	⇓*i*P	Pn	22 06 39.9	+0.3
PB02				*i* S	Sn	22 07 03.4	+0.4
PB02				IAML		22 07 11.3	
	comp=E,473nm,0.2s						
PB07	IPOC Station P	2.35	179	*e*S	Sn	22 07 13.2	+0.3
PB07				IAML		22 07 20.8	
	comp=Z,209nm,0.3s						
PB07	IPOC Station P	2.35	179	*i* P	Pn	22 06 46.1	+0.9
PB07				*i* S	Sn	22 07 14.1	+1.1
PB07				IAML		22 07 20.3	
	comp=N,193nm,0.4s						
PB09	IPOC Station P	2.50	166	*e*P	Pn	22 06 46.6	-0.6
PB09				*e*S	Sn	22 07 16.2	-0.4
PB09				IAML		22 07 26.3	
	comp=Z,113nm,0.3s						
PB09	IPOC Station P	2.50	166	*i* P	Pn	22 06 48.2	+1.0
PB09				*i* S	Sn	22 07 18.2	+1.6
PB09				IAML		22 07 26.6	
	comp=N,128nm,0.6s						
PB03	IPOC Station P	2.67	177	*e*P	Pn	22 06 49.4	-0.2
PB03				*e*S	Sn	22 07 20.2	-0.6
PB03				IAML		22 07 28.3	
	comp=Z,130nm,0.7s						
PB03	IPOC Station P	2.67	177	*i* P	Pn	22 06 50.6	+1.0
PB03				*i* S	Sn	22 07 22.5	+1.7
PB03				IAML		22 07 28.5	
	comp=E,122nm,0.3s						
PB05	IPOC Station P	3.48	184	*e*P	Pn	22 06 59.5	-1.0
AF01	San Pedro de A	3.92	156	*e*P	Pn	22 07 05.1	-1.6
AF01				IAML		22 08 34.6	
	comp=Z,106nm,0.5s						

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*DMN **27** 22:16:47.9±0.3, 29°.01N×87°.49E, h10^{km}, Ml4.4/7, Error ellipse: s-maj=5.1km s-min=3.6km az=24.0*

*IDC **27** 22:16:48.7±0.7, 28°.74N×87°.09E, h0^{km}, mb3.7/12, mbtmp3.7/15, ML4.0/2, MS2.8/2, Error ellipse: s-maj=28.4km s-min=14.2km az=48.0*

*NDI **27** 22:16:49.4±1.7, 29°.66N×87°.51E, h10^{km}, ML3.5, MW3.6, Presumed earthquake*

ISC 27 22:16:53.0±3.3**, 29°.03N**±0°.06×**87°.49E**±0°.04**, h16^{km}**±22^{km}**, n30, σ1^{s}.88**/36**, mb3.7**/11**, Xizang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUN	Gumba	1.80	232	Pg	Pn	22 17 21.5	-2.3
	baz=233,slow=0.0						
GUN				Sg	Sn	22 17 42.9	-3.6
	1µm,0.4s,baz=233,slow=0.0						
GUN				AML	AML		
RAMN	Ramite	2.22	201	Pg	Pn	22 17 28.8	-0.6
	baz=201,slow=0.0						
RAMN				Sg	Sn	22 17 56.7	+0.1
	398nm,0.5s,baz=201,slow=0.0						
RAMN				AML	AML		
PKI	Pulchoki	2.34	232	Pg	Pn	22 17 31.4	+0.2
	baz=233,slow=0.0						
PKI				Sg	Sn	22 18 01.6	+1.8
	389nm,0.4s,baz=233,slow=0.0						
PKI				AML	AML		
PKIN	Phulchoki	2.35	232	Pg	Pn	22 17 31.6	+0.4
	baz=233,slow=0.0						
PKIN				Sg	Sn	22 18 01.6	+1.8
	728nm,0.5s,baz=233,slow=0.0						
PKIN				AML	AML		
DMN	Daman	2.53	237	Pg	Pn	22 17 34.1	+0.3
	baz=237,slow=0.0						
DMN				Sg	Sn	22 18 08.2	+3.8
	549nm,0.6s,baz=237,slow=0.0						
DMN				AML	AML		
GKN	Gorkha	2.71	248	Pg	Pn	22 17 38.2	+2.1
	baz=249,slow=0.0						
GKN				Sg	Sn	22 18 12.5	+3.9
	477nm,0.4s,baz=249,slow=0.0						
GKN				AML	AML		
LSA	Lhasa	3.27	77	*e*Pn	Pb	22 17 51.0	+0.1
LSA				Sn	Sn	22 18 24.8	+2.1
LSA				smax	smax		
	comp=N,18nm,0.8s						
LSA				smax	smax		
	comp=E,16nm,0.8s						
DANN	Dangsing	3.34	259	Sg	Sb	22 18 32.6	-0.1
	comp=E,277nm,0.4s,baz=260,slow=0.0						
DANN				AML	AML		
SHL	Shillong	5.22	130	*e*P	Pn	22 18 12.7	+2.1
SHL				*e*x	x	22 19 28.7	
SHL				IAML		22 19 36.5	
	comp=E,62nm,0.9s						
SHL				IAML		22 19 37.3	
	comp=N,32nm,0.6s						
AGT	Agartala	6.13	146	*e*x	x	22 18 34.4	
AGT				IAML		22 18 42.8	
	comp=N,53nm,0.9s						
AGT				IAML		22 18 50.1	
	comp=E,11nm,0.3s						
KOHI	KOHIMA	6.75	118	*e*P	Pn	22 18 31.8	+0.3
KOHI				*e*S	Sn	22 19 46.4	-1.8
KOHI				IAML		22 19 50.6	
	comp=N,34nm,0.8s						
KOHI				IAML		22 19 51.0	
	comp=E,43nm,0.2s						
MOKO	MOKOCHONG	6.79	112	*e*P	Pn	22 18 33.4	+1.2
MOKO				*e*S	Sn	22 19 47.0	-2.3
MOKO				IAML		22 19 52.0	
	comp=N,59nm,0.2s						
MOKO				IAML		22 19 53.3	
	comp=E,99nm,0.8s						
SAIH	SAIHA	8.19	141	*e*P	Pn	22 18 54.2	+2.8
SAIH				*e*S	Sn	22 20 26.2	+2.6
SAIH				IAML		22 20 30.8	
	comp=N,25nm,1.2s						
SAIH				IAML		22 20 33.5	
	comp=E,37nm,1.1s						
CMAR	Chiang Mai Arr	14.85	133	Pn	Pn	22 20 21.1	-1.4
	comp=E,0.4nm,0.3s,baz=263,slow=9.0,SNR=1.1						
CMAR				Sn	Sn	22 23 06.3	-0.3
	baz=319,slow=23						
CMAR				LR	LR	22 27 35.5	
	comp=E,30nm,18.1s,baz=290,slow=43						
LZDM	Lanzhou Array	15.31	59	Pn	P	22 20 33.7	+0.2
	baz=248,slow=11 comp=E,1.4nm,0.3s						
AAK	Ala-Archa	17.16	326	LR	LR	22 28 27.0	
	comp=E,37nm,18.3s,baz=150,slow=41						
MKAR	Makanchi Array	18.19	348	P	Pn	22 21 05.5	+0.7
	comp=E,0.1nm,0.3s,baz=167,slow=13,SNR=6.6 comp=E,0.6nm,0.6s						
MKAR				AML	AML		
KURBB	Kurchatov Arra	22.60	345	P	P	22 21 52.2	-0.6
	comp=E,0.5nm,0.3s,baz=159,slow=10,SNR=6.4 comp=E,0.5nm,0.3s						
SONM	Songino Array	23.80	33	P	P	22 22 07.1	+2.0
	comp=E,0.8nm,0.6s,baz=229,slow=11,SNR=4.1 comp=E,0.8nm,0.6s						
ZALV	Zalesovo Beam	24.97	356	P	P	22 22 15.7	+0.1
	comp=E,0.8nm,0.6s,baz=180,slow=7.7,SNR=4.5 comp=E,0.8nm,0.6s						
BRTR	Keskin Array B	45.11	298	P	P	22 25 05.4	-3.4
	comp=E,0.5nm,0.7s,baz=90,slow=4.3,SNR=2.7 comp=E,0.5nm,0.7s						
FINES	FINESS Array B	51.33	327	P	P	22 25 55.4	-0.9
	comp=E,2.1nm,0.9s,baz=108,slow=8.8,SNR=8.8 comp=E,2.1nm,0.9s						
HFS	Hagfors	57.29	325	P	P	22 26 38.9	-0.9
	comp=E,1.5nm,0.6s,baz=104,slow=4.9,SNR=4.4 comp=E,1.5nm,0.6s						
GERES	GERESS Array B	58.40	312	P	P	22 26 44.8	-3.0
	comp=E,0.4nm,0.3s,baz=106,slow=4.3,SNR=4.7 comp=E,0.4nm,0.3s						
NOA	NORSAR Array B	58.47	326	P	P	22 26 47.0	-1.0
	comp=E,0.6nm,0.7s,baz=86,slow=6.8,SNR=3.5 comp=E,0.6nm,0.7s						
WRA	Warramunga Arr	66.44	132	P	P	22 27 39.5	-2.3
	comp=E,0.3nm,0.5s,baz=326,slow=6.6,SNR=10 comp=E,0.3nm,0.5s						
ASAR	Alice Springs	68.85	135	P	P	22 27 56.1	-0.8
	comp=E,0.6nm,0.7s,baz=323,slow=7.1,SNR=5.0 comp=E,0.6nm,0.7s						
ESDC	Sonseca Array	73.15	306	P	P	22 28 21.3	-1.7
	comp=E,0.3nm,0.7s,baz=48,slow=7.6,SNR=4.1 comp=E,0.3nm,0.7s						
TORD	Torodi Ar. Bea	80.11	280	P	P	22 28 59.1	-3.7
	comp=E,0.5nm,0.7s,baz=48,slow=4.2,SNR=1.3 comp=E,0.5nm,0.7s						
CPUP	Villa Florida	148.80	266	PKPbc	PKPdf	22 36 37.6	+1.3
	comp=E,1.6nm,0.8s,baz=169,slow=5.2,SNR=4.3						

IDC 27 22:58:51.6±2.4**, 28°.05S**×**63°.20E, h0^{km}, mb3.7**/3**, mbtmp3.7**/4**, Error ellipse: s-maj=73.2km s-min=37.6km az=34.0, Southwest Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OPO	Ambohidratompo	17.46	299	P	Pn	23 02 56.8	0.0
	1.4nm,0.9s,baz=108,slow=20,SNR=1.4						
OPO				S	Sn	23 05 57.0	-15
	1.7nm,0.8s,baz=237,slow=20,SNR=1.5						
H04N2	CROZET ISLANDS	20.20	203	T	T	23 24 18.7	
	baz=31,slow=74,SNR=53						
H04N1	CROZET ISLANDS	20.20	203	T	T	23 24 14.5	
	baz=31,slow=74,SNR=49						
H04N3	CROZET ISLANDS	20.21	203	T	T	23 24 07.5	
	baz=31,slow=74,SNR=46						
H01W2	Cape Leeuwin H	43.59	112	T	T	23 53 43.0	
	baz=264						
H01W3	Cape Leeuwin H	43.59	112	T	T	23 53 51.9	
	baz=264						
H01W1	Cape Leeuwin H	43.61	112	T	T	23 53 52.3	
	baz=264						
CMAR	Chiang Mai Arr	57.74	41	P	P	23 08 44.6	0.0
	0.6nm,0.3s,baz=234,slow=7.6,SNR=8.3 0.6nm,0.3s						
ASAR	Alice Springs	62.97	104	P	P	23 09 20.6	+0.1
	0.4nm,0.6s,baz=250,slow=6.6,SNR=5.8 0.4nm,0.6s						
WRA	Warramunga Arr	64.69	100	P	P	23 09 31.7	-0.2
	0.5nm,0.7s,baz=246,slow=5.4,SNR=5.2 0.5nm,0.7s						

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*VAO **27** 23:06:28.1±0.8, 20°.49S×69°.33W, h145^{km}, mb4.2, Presumed earthquake*

*SJA **27** 23:06:30.5±1.4, 20°.59S×69°.27W, h106^{km}±7^{km}, ML3.5, MW3.7*

*GUC **27** 23:06:31.2±0.8, 20°.59S×69°.16W, h112^{km}±4^{km}, ML3.7*

ISC 27 23:06:28.7±0.9**, 20°.57S**±0°.03×**69°.19W**±0°.06**, h125^{km}**±8^{km}**, n34, σ1^{s}.23**/52**, 7C-2D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PB08	IPOC Station P	0.43	5	*i* P	Pn	23 06 48.0	+0.6
PB08				*i* S	Sn	23 07 00.3	-1.0
PB08				IAML		23 07 02.0	
	comp=Z,3µm,0.1s						
PB08	IPOC Station P	0.43	5	⇓*i*P	Pn	23 06 47.9	+0.6
PB08				*i* S	Sn	23 07 00.9	-0.5
PB08				IAML		23 07 01.4	
	comp=E,7µm,0.3s						
GO01	Chusmiza	0.90	360	*i* P	Pn	23 06 52.0	+1.1
GO01				IAML		23 07 09.3	
	comp=Z,4µm,0.1s						
GO01	Chusmiza	0.90	360	⇓*i*P	Pn	23 06 51.8	+0.9
GO01				*i* S	Sn	23 07 07.8	+0.3
GO01				IAML		23 07 09.4	
	comp=N,13µm,0.1s						
PB11	IPOC Station P	0.92	332	*i* P	Pn	23 06 51.6	+0.9
PB11				*i* S	Sn	23 07 06.3	-0.9
PB11				IAML		23 07 08.1	
	comp=Z,4µm,0.3s						
PB11	IPOC Station P	0.92	332	⇑*i*P	Pn	23 06 51.5	+0.9
PB11				*i* S	Sn	23 07 07.3	+0.1
PB11				IAML		23 07 08.3	
	comp=N,10µm,0.2s						
TA01	Diego Aracena	0.93	270	*i* P	Pn	23 06 51.2	+0.7
TA01				*i* S	Sn	23 07 04.8	-2.1
TA01				IAML		23 07 07.2	
	comp=Z,352nm,0.6s						
TA01	Diego Aracena	0.93	270	⇑*i*P	Pn	23 06 51.1	+0.6
TA01				*i* S	Sn	23 07 06.7	-0.2
TA01				IAML		23 07 07.3	
	comp=E,1µm,0.3s						
TA02	Huaiquique	0.93	289	*i* P	Pn	23 06 51.0	+0.5
TA02				*i* S	Sn	23 07 06.7	-0.3
TA02				IAML		23 07 08.7	
	comp=Z,2µm,0.1s						
TA02	Huaiquique	0.93	289	*e*P	Pn	23 06 51.4	+0.9
TA02				*e*S	Sn	23 07 07.3	+0.3
TA02				IAML		23 07 09.7	
	comp=N,5µm,0.1s						
PB02	IPOC Station P	0.99	221	*i* P	Pn	23 06 52.3	+1.1
PB02				*i* S	Sn	23 07 07.8	-0.5
PB02				IAML		23 07 15.4	
	comp=Z,2µm,0.3s						
PB02	IPOC Station P	0.99	221	⇑*i*P	Pn	23 06 52.2	+1.0
PB02				*i* S	Sn	23 07 08.4	+0.1
PB02				IAML		23 07 08.9	
	comp=N,5µm,0.3s						
PB09	IPOC Station P	1.22	182	*i* P	Pn	23 06 54.9	+1.3
PB09				*i* S	Sn	23 07 13.0	+0.5
PB09				IAML		23 07 14.2	
	comp=Z,1µm,0.8s						
PB09	IPOC Station P	1.22	182	⇑*i*P	Pn	23 06 54.8	+1.2
PB09				*i* S	Sn	23 07 12.9	+0.5
PB09				IAML		23 07 15.5	
	comp=E,849nm,0.2s						
PSGCX	Pisagua	1.31	318	*i* P	Pn	23 06 55.3	+0.8
PSGCX				*i* S	Sn	23 07 13.4	-0.6
PSGCX				IAML		23 07 15.5	
	comp=Z,626nm,0.1s						
PSGCX	Pisagua	1.31	318	⇑*i*P	Pn	23 06 55.2	+0.8
PSGCX				*i* S	Sn	23 07 13.7	-0.2
PB07	IPOC Station P	1.32	209	*i* P	Pn	23 06 55.7	+1.0
PB07				IAML		23 07 18.2	
	comp=Z,660nm,0.4s						
PB07	IPOC Station P	1.32	209	⇑*i*P	Pn	23 06 55.6	+1.0
PB07				*i* S	Sn	23 07 13.8	-0.6
PB07				IAML		23 07 17.8	
	comp=N,649nm,0.3s						
PB03	IPOC Station P	1.56	199	*i* P	Pn	23 06 58.6	+1.3
PB03				IAML		23 07 27.4	
	comp=Z,370nm,0.4s						
PB03	IPOC Station P	1.56	199	⇑*i*P	Pn	23 06 58.3	+1.0
PB03				*i* S	Sn	23 07 18.4	-0.7
PB03				IAML		23 07 20.4	
	comp=E,483nm,0.7s						
PB16	IPOC Station P	2.25	352	*i* P	Pn	23 07 09.1	+3.0
PB16				*i* S	Sn	23 07 36.8	+2.1
PB16				IAML		23 07 40.3	
	comp=Z,109nm,0.2s						
PB16	IPOC Station P	2.25	352	*e*P	Pn	23 07 08.6	+2.5
PB16				*i* S	Sn	23 07 36.0	+1.4
PB16				IAML		23 07 38.7	
	comp=N,138nm,0.5s						
PB05	IPOC Station P	2.45	202	*i* P	Pn	23 07 09.3	+1.0
PB05				IAML		23 07 41.7	
	comp=Z,121nm,0.4s						
PB05	IPOC Station P	2.45	202	*e*P	Pn	23 07 09.0	+0.8
PB05				IAML		23 07 38.5	
	comp=E,383nm,0.5s						
PB14	IPOC Station P	4.18	195	*i* P	Pn	23 07 32.4	+1.2
PB14				IAML		23 08 26.0	
	comp=Z,23nm,0.6s						
LPAZ	La Paz	4.38	13	*i* P	Pn	23 07 38.1	+4.0
LPAZ				IAML		23 08 32.9	
	comp=Z,3.3nm,0.6s						
LPAZ	La Paz	4.38	13	*e*P	Pn	23 07 32.4	-1.7
HJA	Humahuaca	4.38	127	*i* P	Pn	23 07 37.4	+3.5
HJA				IAML		23 08 31.8	
	comp=Z,3.2nm,0.7s						
MURT	Porto Murtinho	10.87	98	*e*P	Pn	23 08 59.3	-1.5
ANCO	Parque Anchore	16.88	146	*e*P	P	23 10 17.2	-0.3

FRTB	Fartura	18.42	102	eP	P	23 10 34.7	+0.2
SNDB	Serra Nova Dou	19.18	66	eP	P	23 10 42.4	-0.4
ITTB	Itaituba	20.76	41	eP	P	23 10 58.5	-1.3
JANB	Januaria	24.30	81	eP	P	23 11 33.5	-1.4

IDC **27** *23:23:36.0±0.6, 28°.80N×51°.36E, h0^{km}, mb4.2/24, mbtmp4.1/31, ML3.3/8, MS3.3/19, Error ellipse: s-maj=14.0km s-min=10.3km az=1.0*

MOS **27** *23:23:35.1±1.2, 28°.78N×51°.42E, h10^{km}, mb4.6/27, Error ellipse: s-maj=6.5km s-min=4.6km az=103.8*

NEIC **27** *23:23:36.9±2.4, 28°.82N±0°.07×51°.32E±0°.07, h10^{km}±1^{km}, mb4.3/48, Error ellipse: s-maj=12.0km s-min=9.5km az=152.0*

TEH **27** *23:23:37.5, 28°.89N×51°.34E, h8^{km}±24^{km}, ML4.2, Presumed earthquake*

THR **27** *23:23:39.0±0.0, 28°.88N×51°.26E, h15^{km}±650^{km}, ML4.5, Presumed earthquake*

GFZ **27** *23:23:39.3±0.3, 29°N±5°×5°1E±°, h10^{km}, M4.5/22, mb4.5/22*

DSN **27** *23:23:42.2±2.0, 28°.56N×51°.52E, h10^{km}, ML4.8/15, Error ellipse: s-maj=26.5km s-min=8.9km az=176.0*

OMAN **27** *23:23:43.8±0.1, 28°.55N×51°.70E, h5^{km}±1^{km}, mb3.9/20, ml4.5/12, Error ellipse: s-maj=1.6km s-min=0.8km az=318.0*

ISC 27 23:23:38.3±0.3**, 28°.86N**±0°.03×**51°.34E**±0°.03**, h17^{km}, n354,** σ**1^s.72**/377**, mb4.3**/83**, MS3.3**/17**, 33C-17D, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DSBU	Dashti - Bushe	0.50	189	Pg	Pg	23 23 48.3	0.0
KAZ2	Kazeron-Fars-I	0.81	20	Pg	Pb	23 23 52.5	-1.5
SHI	Shiraz	1.29	52	Pg	Pn	23 24 02.0	+0.3
JHRM	Jahrom	1.99	100	Pn	Pb	23 24 13.9	-0.3
KHL1	Khalili_Fars	2.11	125	Pn	Pb	23 24 15.1	-1.1
LMD1	Lamerd	2.21	133	ePn	Pb	23 24 17.8	0.0
LMD1				IAML		23 25 09.0	
	comp=Z,3µm,1.0s						
LMD1	Lamerd	2.21	133	Pn	Pb	23 24 16.7	-1.0
SAKB	Bahrain	2.95	194	P	Pn	23 24 27.6	+3.2
SAKB				S	Sn	23 25 03.6	+4.1
IBRJ	Brojen	3.04	359	Pn	Pn	23 24 27.8	+1.9
IRAM	Ramesheh	3.08	17	Pn	Pn	23 24 28.4	+2.1
AMIS	Naft Sefid	3.32	328	Pn	Pn	23 24 31.7	+2.2
JHBN	Jahan bin	3.42	350	Pn	Pn	23 24 33.1	+2.0
TAFT	Taft - Yazd	3.76	40	Pn	Pn	23 24 37.8	+2.0
YZKH	Yazd	4.50	38	ePn	Pn	23 24 48.6	+2.8
YZKH				IAML		23 25 45.8	
	comp=Z,100nm,1.0s						
BNDS	Bandar-Abbas	4.50	108	ePn	Pn	23 24 50.4	+4.5
BNDS				IAML		23 26 23.9	
	comp=Z,120nm,1.0s						
IBAF	Bafgh	4.56	52	Pn	Pn	23 24 48.8	+2.1
KHGB	Koh Gabri	4.72	70	Pn	Pn	23 24 51.3	+2.4
SLWR	Sila	4.78	176	P	Pn	23 24 51.8	+2.3
SLWR				S	Sn	23 25 46.4	+1.9
KRBR	Kerman	4.86	75	ePn	Pn	23 24 55.7	+4.8
KRBR				IAML		23 25 57.2	
	comp=Z,240nm,1.0s						
KHMZ	Khomeyn	5.01	347	ePn	Pn	23 24 56.2	+3.3
KHMZ				IAML		23 26 16.3	
	comp=Z,150nm,1.0s						
GHWR	Ruwais	5.06	164	P	Pn	23 24 55.7	+2.3
GHWR				S	Sn	23 25 51.7	+0.2
UMQ	Umm Al-Quwin	5.08	130	P	Pn	23 24 56.0	+2.3
UMQ				S	Sn	23 25 49.5	-2.4
SHME	Shamm	5.10	122	P	Pn	23 24 55.9	+2.0
SHME				S	Sn	23 25 50.1	-2.3
SHME	Shamm	5.10	122	P	Pn	23 24 54.5	+0.6
BANOM	Banah	5.29	122	P	Pn	23 24 57.9	+1.4
BANOM				S	Sn	23 25 55.4	-1.7
BANOM	Banah	5.29	122	i P	Pn	23 24 57.0	+0.4
	SNR=14						
BANOM				S	Sn	23 25 54.3	-2.8
AJN	Ajban	5.37	142	P	Pn	23 24 59.6	+1.9
AJN				S	Sn	23 25 57.8	-1.4
NAZ	Nazwa, Dubai	5.45	134	P	Pn	23 25 01.1	+2.3
	SNR=27						
NAZ				S	Sn	23 26 00.8	-0.3
NAZ	Nazwa, Dubai	5.45	134	i P	Pn	23 25 00.2	+1.5
	SNR=27						
CHMN	Cheshme madani	5.50	78	Pn	Pn	23 25 02.2	+2.4
ASUD	Al Ashush, Dub	5.52	139	P	Pn	23 25 02.0	+2.3
	SNR=24						
ASUD				S	Sn	23 26 01.7	-1.1
ASUD	Al Ashush, Dub	5.52	139	i P	Pn	23 25 01.5	+1.8
	SNR=24						
MASF	Masafi	5.52	128	P	Pn	23 25 01.0	+1.2
MASF				S	Sn	23 26 01.1	-1.8
MSFE	Esma-Masafi	5.53	128	i P	Pn	23 25 00.2	+0.3
	SNR=12						
MZWR	Madinat Zayed	5.56	155	P	Pn	23 25 02.4	+2.1
MZWR				S	Sn	23 26 03.9	+0.1
FAQ	Al Faqa, Dubai	5.58	136	P	Pn	23 25 02.4	+1.8
FAQ				S	Sn	23 26 03.5	-0.9
GHVR	GHOM	5.61	360	ePn	Pn	23 25 04.0	+3.0
GHVR				IAML		23 27 04.2	
	comp=Z,150nm,1.0s						
MDH	Madha	5.66	128	P	Pn	23 25 03.4	+1.7
MDH				S	Sn	23 26 04.5	-1.8
ASAO	Ashtian	5.79	349	ePn	Pn	23 25 06.7	+3.1
ASAO				IAML		23 26 37.9	
	comp=Z,120nm,1.0s						
UOSS	Minazif	5.83	131	P	Pn	23 25 05.5	+1.5
UOSS				S	Sn	23 26 07.9	-2.6
UOSS	Minazif	5.83	131		Pn	23 25 02.0	-2.0
UOSS	Minazif	5.83	131	i P	Pn	23 25 04.4	+0.4
	SNR=23						
UOSS	Minazif	5.83	131	P	Pn	23 25 06.4	+2.3
	comp=Z,27nm,0.8s						
HATD	Hatta, Dubai	5.87	132	P	Pn	23 25 06.2	+1.7
	SNR=6.9						
HATD				S	Sn	23 26 10.7	-0.7
HATD	Hatta, Dubai	5.87	132	i P	Pn	23 25 05.7	+1.2
	SNR=12						
ASHO	Ashiyiah	5.92	134	P	Pn	23 25 07.0	+1.7
	SNR=48						
ASHO				S	Sn	23 26 10.8	-1.9
ASHO	Ashiyiah	5.92	134	i P	Pn	23 25 06.4	+1.1
	SNR=48						
MZR	Muzera	6.14	161	P	Pn	23 25 10.5	+2.2
MZR				S	Sn	23 26 17.7	-0.4
MZR	Muzera	6.14	161	i P	Pn	23 25 10.0	+1.8
	SNR=44						
ALNE	Al Ain	6.20	139	P	Pn	23 25 11.2	+2.1
	SNR=16						
ALNE				S	Sn	23 26 17.9	-1.7
ALNE	Al Ain	6.20	139	i P	Pn	23 25 10.4	+1.3
	SNR=16						
KBAM	BAM	6.23	86	Pn	Pn	23 25 11.9	+2.3
ILBA	Ilam Banvizeh	6.48	319	ePn	Pn	23 25 14.5	+1.6
ILBA				IAML		23 27 32.3	
	comp=Z,71nm,1.0s						
ILBA	Ilam Banvizeh	6.48	319	Pn	Pn	23 25 14.4	+1.4
JASK	Jask - Hormozg	6.52	116	P	Pn	23 25 14.5	+1.0
JASK				S	Sn	23 26 26.0	-1.5
SOHO	SOHO	6.61	134	P	Pn	23 25 15.4	+0.7
SOHO				S	Sn	23 26 28.7	-1.1
SOHO	SOHO	6.61	134	i P	Pn	23 25 14.9	+0.2
	SNR=23						
DAMV	Damavand	6.78	4	ePn	Pn	23 25 19.2	+2.0
DAMV				IAML		23 26 35.3	
	comp=Z,100nm,1.0s						
TABS	Tabas	6.88	45	ePn	Pn	23 25 20.6	+2.1
TABS				IAML		23 27 45.1	
	comp=Z,39nm,1.0s						
UMZA	Um Al Zommool	7.02	150	P	Pn	23 25 21.5	+1.2
UMZA				S	Sn	23 26 37.3	-2.4
CHTH	Charan	7.04	359	ePn	Pn	23 25 23.3	+2.5
CHTH				IAML		23 27 44.6	
	comp=Z,28nm,1.0s						
SNGE	Sanandaj	7.08	332	ePn	Pn	23 25 22.9	+1.5
SNGE				IAML		23 26 53.1	
	comp=Z,56nm,1.0s						
ARQ	Araqi	7.20	139	P	Pn	23 25 24.0	+1.1
	SNR=28						
ARQ				S	Sn	23 26 43.7	-0.6
BSRN	Basiran	7.40	63	ePn	Pn	23 25 29.9	+4.2
BSRN				IAML		23 27 55.1	
	comp=Z,26nm,1.0s						
RAYN	Ar Rayn	7.46	226	P	Pn	23 25 27.0	+0.5
RAYN	Ar Rayn	7.46	226		Pn	23 25 24.1	-2.4
RAYN	Ar Rayn	7.46	226	i P	Pn	23 25 27.2	+0.7
	SNR=18						
RAYN	Ar Rayn	7.46	226	P	Pn	23 25 27.3	+0.7
	comp=Z,15nm,0.6s						
HOQ	Hoqain	7.50	133	P	Pn	23 25 28.3	+1.3
	SNR=19						
HOQ				S	Sn	23 26 48.9	-2.8
BSY	Bisya	8.05	138	P	Pn	23 25 36.0	+1.4
	SNR=16						
BSY				S	Sn	23 27 02.5	-2.8
SHRO	Shahrood	8.13	28	ePn	Pn	23 25 38.6	+2.9
SHRO				IAML		23 25 44.8	
	comp=Z,18nm,1.1s						
SMDO	Samad	8.35	132	P	Pn	23 25 39.4	+0.7
SMDO				S	Sn	23 27 09.3	-3.4
WSAR	Wadi Sarin	8.61	129	P	Pn	23 25 42.2	-0.1
WSAR				S	Sn	23 27 15.9	-3.1
SRSL	SARDASHT	8.87	327	ePn	Pn	23 25 47.2	+1.3
SRSL				IAML_BB		23 25 54.8	
	comp=Z,340nm,1.0s						
JMDO	Jabal Madar	8.88	135	P	Pn	23 25 45.5	-0.4
	SNR=8.9						
JMDO				S	Sn	23 27 22.0	-3.7
SHRT	Shahrakht	9.02	56	ePn	Pn	23 25 51.6	+3.7
SHRT				IAML		23 26 13.8	
	comp=Z,7.6nm,0.9s						
SBZV	Sabzevar	9.18	34	ePn	Pn	23 25 52.9	+2.7
SBZV				IAML		23 26 09.5	
	comp=Z,14nm,0.8s						
WBK	Wadi Bani Khal	9.27	130	P	Pn	23 25 51.0	-0.3
	SNR=14						
WBK				S	Sn	23 27 32.5	-2.7
NGCH	Negor - Chabah	9.39	109	P	Pn	23 25 53.9	+1.0
NGCH				S	Sn	23 27 35.3	-2.9
MRVT	Maraveh tapeh	9.64	23	ePn	Pn	23 25 59.1	+2.8
MRVT				IAML		23 26 18.0	
	comp=Z,6.8nm,0.8s						
MHTO	MHTO	9.87	141	P	Pn	23 25 60.0	+0.5
	SNR=36						
MHTO				S	Sn	23 27 47.2	-2.8
JLN	Jalan Bani Buh	9.88	131	P	Pn	23 25 58.8	-0.8
JLN				S	Sn	23 27 46.3	-3.8
BJRD	Bojnurd	10.17	28	ePn	Pn	23 26 08.4	+4.7
BJRD				IAML		23 26 23.0	
	comp=Z,4.8nm,0.8s						
DOK	Doka	10.50	165	P	Pn	23 26 09.5	+1.3
	SNR=11						
HAKT	HAKKARI	10.78	326	P	Pn	23 26 11.5	-0.6
	comp=Z,88nm,0.9s						
HRA	Herat	10.80	57		Pn	23 26 13.2	+0.8
WHFO	Wadi Hawf	11.11	168	P	Pn	23 26 17.8	+1.3
	SNR=12						
SHAO	Shalim	11.47	159	P	Pn	23 26 22.4	+1.0
	SNR=5.7						
SHAO	Shalim	11.47	159	i P	Pn	23 26 21.6	+0.1
	SNR=5.7						
DMTO	DMTO	11.57	163	P	Pn	23 26 24.0	+1.2
	SNR=65						
ABTO	Aybut	11.59	171	P	Pn	23 26 24.9	+1.9
RBK	Rabkut	11.60	166	P	Pn	23 26 24.8	+1.6
GEVA	Gevas	11.69	326		Pn	23 26 23.7	-0.7
GURO	Guroymak-BITLI	12.39	324		Pn	23 26 32.0	-2.0
GNI	Garni	12.51	336	Pn	Pn	23 26 38.5	+2.9
	comp=Z,0.1nm,0.3s,baz=235,slow=6.5,SNR=3.9						
GNI				LR	LR	23 32 10.4	
	comp=Z,121nm,18.3s,baz=152,slow=41						
	comp=Z,1.2nm,0.5s						
GNI				AML	AML		
GNI	Garni	12.51	336	⇑eP	Pn	23 26 32.9	-2.8
ASF	Jabal al Asfar	12.89	288	Pn	Pn	23 26 40.8	0.0
	comp=Z,0.3nm,0.3s,baz=116,slow=24,SNR=2.0						
ASF				Sn	Sn	23 28 59.2	-4.7
	comp=Z,0.3nm,0.3s,baz=108,slow=20,SNR=1.4						
ASF				Lg	Lg	23 30 39.4	
	comp=Z,0.3nm,0.3s,baz=286,slow=21,SNR=1.4						
ASF				LR	LR	23 32 59.0	
	comp=Z,58nm,18.0s,baz=206,slow=44						
	comp=Z,0.6nm,0.3s						
ASF				AML	AML		
HOMI	Horasan	13.60	328	⇑P	Pn	23 26 53.6	+3.0
MMAI	Mount Meron Ar	14.29	291	Pn	Pn	23 27 00.4	+0.3
	comp=Z,0.3nm,0.3s,baz=90,slow=17,SNR=1.5						
	comp=Z,1.1nm,0.6s						
MMAI				AML	AML		
EIL	Elat	14.34	277	Pn	Pn	23 27 01.3	+0.8
	comp=Z,0.2nm,0.3s,baz=39,slow=23,SNR=2.5						
EIL				Lg	Lg	23 31 29.0	
	baz=359,slow=22						
	comp=Z,5.2nm,0.9s						
EIL				AML	AML		
MAK	Makhachkala	14.41	349	eP	Pn	23 26 55.7	-5.8
MAK				pmax	pmax		
	comp=Z,322nm,1.1s						
MAK				MLR	MLR		
	comp=Z,84nm,10.0s						
EPOS	Posof	14.44	333	P	Pn	23 27 05.3	+3.2
	comp=Z,16nm,1.1s						
GAZ	Gaziantep	14.46	309	Pn	Pn	23 27 01.5	-0.7
ARPR	Arapgir-MALATY	14.84	317	Pn	Pn	23 27 05.9	-1.6
ARPR	Arapgir-MALATY	14.84	317	P	Pn	23 27 09.0	+1.5
	comp=Z,12nm,0.9s						
KBL	Kabul	16.09	65	P	P	23 27 28.8	+1.5
	SNR=7.0						
KBL	Kabul	16.09	65	P	Pn	23 27 24.5	+0.6
KBL				pmax	pmax		
	comp=Z,10.0nm,0.9s						
KBL	Kabul	16.09	65	Pn	Pn	23 27 24.5	+0.6
KBL	Kabul	16.09	65	P	P	23 27 28.3	+1.1
	comp=Z,13nm,0.9s						
BNN	Bunyan	16.26	312	Pn	Pn	23 27 25.5	-0.6
KBZ	Khabaz	16.32	338	Pn	Pn	23 27 27.8	+1.3
	comp=Z,0.2nm,0.3s,baz=154,slow=12,SNR=6.6						
KBZ				LR	LR	23 34 37.7	
	comp=Z,79nm,19.1s,baz=178,slow=40						
	comp=Z,3.9nm,0.8s						
KBZ				AML	AML		
KBZ	Khabaz	16.32	338	⇓eP	Pn	23 27 28.6	+2.1
KBZ				pmax	pmax		
	comp=Z,10.0nm,0.9s						
SHA1	Shidzhatmaz	16.41	337	ceP	Pn	23 27 28.1	+0.2
KVAR	Kislovodsk Arr	16.58	338	Pn	Pn	23 27 30.7	+0.6
	baz=180,slow=2.0						
	comp=Z,2.4nm,0.8s						
KIV	Kislovodsk	16.59	338	eP	Pn	23 27 31.3	+1.2
KIV				pmax	pmax		
	comp=Z,13nm,1.0s						
KIV				MLR	MLR		
	comp=Z,25nm,14.0s						
KIV	Kislovodsk	16.59	338	Pn	Pn	23 27 27.8	-2.3
KIV	Kislovodsk	16.59	338	⇑P	P	23 27 33.2	+0.7
KIV	Kislovodsk	16.59	338	P	P	23 27 33.1	+0.5
	comp=Z,28nm,1.2s						
SOC	Sochi	17.41	331	eP	P	23 27 42.0	+0.5
SOC				e		23 30 58.6	
SOC				pmax	pmax		
	comp=Z,13nm,0.7s						
SOC				MLR	MLR		
	comp=Z,51nm,14.0s						
BR131	Keskin Array S	18.18	311	⇑eP	Pn	23 27 50.3	+0.3
BR131	Keskin Array S	18.18	311	P	Pn	23 27 47.6	-2.4
BRTR	Keskin Array B	18.18	311	P	Pn	23 27 50.8	+0.8
	comp=Z,0.1nm,0.3s,baz=133,slow=12,SNR=16						
	comp=Z,4.5nm,1.0s						
BRTR				AML	AML		
BRTR	Keskin Array B	18.18	311	P	Pn	23 27 48.2	-1.8
KKUL	Konya-Kulu	18.39	309	P	Pn	23 27 54.5	+2.0
	comp=Z,12nm,1.0s						
KEPZ	Antalya-Kepez	18.40	301	⇑P	Pn	23 27 53.9	+1.3
ATD	Arta Tunnel	18.98	206	P	P	23 27 59.9	+0.8
	baz=29,slow=19,SNR=2.1						
ATD				LR	LR	23 36 23.1	
	comp=Z,7.3nm,19.1s,baz=359,slow=40						
ATD	Arta Tunnel	18.98	206	P	P	23 27 57.0	-2.1
NIL	Nilore	19.32	70	P	P	23 28 01.6	-1.1
NIL				pmax	pmax		
	comp=Z,10.0nm,0.6s						
NIL	Nilore	19.32	70	P	P	23 28 01.6	-1.1
NIL				IAmb	IAmb	23 28 10.3	
	comp=Z,9.7nm,0.6s						
NIL	Nilore	19.32	70	P	Pn	23 28 05.0	+1.2
	comp=Z,14nm,1.0s						
BTK	Batken	19.52	50	P	P	23 28 04.8	-0.1
BTK				pmax	pmax		
	comp=Z,8.0nm,0.8s						
BTK	Batken	19.52	50	P	P	23 28 04.8	-0.1
ISP	Isparta	19.53	303	⇑eP	P	23 28 05.4	+0.4
ISP				pmax	pmax		
	comp=Z,6.0nm,1.0s						
ISP	Isparta	19.53	303	P	P	23 28 03.0	-2.1
ELL	Elmali	19.64	299	P	P	23 28 03.8	-2.4
ELL				pmax	pmax		
	comp=Z,14nm,0.9s						
ELL	Elmali	19.64	299	P	P	23 28 03.8	-2.4
ELL				IAmb	IAmb	23 28 09.5	
	comp=Z,14nm,0.9s						
DRK	Karamyk	19.93	53	P	P	23 28 08.9	-0.7
DRK				pmax	pmax		
	comp=Z,11nm,0.7s						
DRK	Karamyk	19.93	53	P	P	23 28 08.9	-0.7
DRK				IAmb	IAmb	23 28 18.1	
	comp=Z,11nm,0.7s						
DRK	Karamyk	19.93	53	P	Pn	23 28 12.5	+1.2
	comp=Z,9.9nm,0.4s						
MDUB	Mudurnu	20.17	310	P	P	23 28 11.0	-1.0
MDUB				IAmb	IAmb	23 28 14.9	
	comp=Z,16nm,0.8s						
BORA	Eskisehir	20.40	308	P	P	23 28 12.5	-2.0
BORA				IAmb	IAmb	23 28 17.3	
	comp=Z,14nm,0.9s						
TAVA	DENIZLI_Tavas	20.61	300	⇓P	P	23 28 17.9	+1.1
KK31	Karatay Array	20.97	42	P	P	23 28 19.9	-0.7
KK31				pmax	pmax		
	comp=Z,11nm,1.0s						
KK31	Karatay Array	20.97	42	P	P	23 28 19.9	-0.7
KK31				IAmb	IAmb	23 28 28.6	
	comp=Z,10nm,0.9s						
KKAR	Karatay Array	20.97	42	P	P	23 28 19.6	-1.0
KKAR	Karatay Array	20.97	42	P	P	23 28 19.6	-1.0
MANT	Manisa	21.21	303	P	P	23 28 21.5	-1.9
MANT				IAmb	IAmb	23 28 28.6	
	comp=Z,13nm,1.0s						
AB31	Akbulak array	21.41	16	P	P	23 28 24.6	-0.6
ABKAR	Akbulak array	21.41	16	P	P	23 28 25.4	+0.2
KARP	Karpathos	21.50	294	P	P	23 28 22.0	-4.3
ARSB	Arslanbob	21.57	49	P	P	23 28 27.1	-0.1
ARSB				pmax	pmax		
	comp=Z,22nm,0.8s						
ARSB	Arslanbob	21.57	49	P	P	23 28 27.1	-0.1
BDRM	Kayabasi	21.62	298	⇑P	P	23 28 28.9	+1.3
BALB	Balikesir	22.12	305	P	P	23 28 30.9	-2.0
BALB				IAmb	IAmb	23 28 50.8	
	comp=Z,9.4nm,0.8s						
AKTO	Aktyubinsk	22.14	11	P	P	23 28 35.4	+2.4
	comp=Z,7.5nm,0.8s,baz=194,slow=11,SNR=13						
AKTO				LR	LR	23 37 51.7	
	comp=Z,62nm,20.8s,baz=213,slow=39						
	comp=Z,7.5nm,0.8s						
KSH2	Kashi	22.49	57	P	P	23 28 38.0	+0.9
KSH2				pP	pP	23 28 42.8	+0.7
KSH2				S	S	23 32 43.5	+0.1
KSH2				pmax	pmax		
	comp=Z,7.0nm,0.8s						
AAK	Ala-Archa	23.19	47	P	P	23 28 49.6	+5.2
AAK	Ala-Archa	23.19	47	⇑eP	P	23 28 43.3	-1.1
AAK				pmax	pmax		
	comp=Z,9.0nm,1.2s						
AAK	Ala-Archa	23.19	47	P	P	23 28 45.0	+0.6
AAK	Ala-Archa	23.19	47	P	P	23 28 49.3	+4.9
	comp=Z,6.9nm,0.9s						
IDI	Anoyia	23.28	293	P	P	23 28 45.5	+0.3
IDI				IAmb	IAmb	23 28 49.0	
	comp=Z,12nm,0.9s						
VRH	Novokhopyorsk	23.47	345	eP	P	23 28 46.2	-0.6
VRH				pmax	pmax		
	comp=Z,10.0nm,0.6s						
NRN	Naryn	23.66	51	P	P	23 28 47.9	-1.3
NRN				pmax	pmax		
	comp=Z,13nm,1.1s						
NRN	Naryn	23.66	51	P	P	23 28 47.9	-1.3
NRN				IAmb	IAmb	23 28 55.0	
	comp=Z,13nm,1.1s						
BELG	Belogornoye	23.68	354	deP	P	23 28 48.3	-0.5
BELG				pmax	pmax		
	comp=Z,4.0nm,1.0s						
ASAI	AK-SAY(Kyrgyzs	23.81	53	P	P	23 28 55.6	+4.9
	comp=Z,9.6nm,1.2s						
JURR	Jurilovca	23.88	318	⇑P	P	23 28 52.0	+1.1
VORD	Divnogorie	23.88	341	eP	P	23 28 51.0	+0.2
VORD				pmax	pmax		
	comp=Z,7.0nm,0.9s						
TIRR	Tirgusor	23.99	317	P	P	23 28 52.9	+1.0
TIRR	Tirgusor	23.99	317	⇑P	P	23 28 52.9	+1.0
VSR	Storozhevoye	24.14	341	eP	P	23 28 51.5	-1.7
VSR				pmax	pmax		
	comp=Z,5.0nm,0.9s						
TLCR		24.15	319	P	P	23 28 54.9	+1.5
TLCR		24.15	319	⇑P	P	23 28 54.9	+1.5
TPGR	Topolog	24.20	317	⇑P	P	23 28 55.5	+1.6
PURM	Purcari	24.37	322	⇑P	P	23 28 56.8	+1.5
VORR	Voronezh	24.54	342	eP	P	23 28 56.3	-0.6
VORR				pmax	pmax		
	comp=Z,14nm,0.4s						
LOZB	Loznitsa	24.57	313	⇓P	P	23 28 59.0	+1.7
RAZG	Razgrad	24.72	313	⇑P	P	23 29 00.4	+1.8
SCTR	Scanteiesti	24.91	319	⇑P	P	23 29 01.8	+1.5
VLDR	Vladesti	24.95	319	⇑P	P	23 29 02.2	+1.5
LPSR	Galich'ya Gora	25.45	342	eP	P	23 29 05.7	+0.6
LPSR				pmax	pmax		
	comp=Z,14nm,0.7s						
GHRR		25.46	319	⇓P	P	23 29 07.3	+2.0
GHRR		25.46	319	P	P	23 29 07.9	+2.6
	comp=Z,47nm,0.8s						
SAHR	Sahastru	25.70	318	⇑P	P	23 29 09.3	+1.7
SRS	Serrai	25.70	306	P	P	23 29 10.1	+2.5
	comp=Z,23nm,1.5s						
NEHR	Nehoiu	25.77	317	⇓P	P	23 29 09.9	+1.7
SOH	Sokhos	25.78	305	P	P	23 29 10.7	+2.4
	comp=Z,26nm,1.2s						
PLOR	Plostina	25.79	318	P	P	23 29 10.3	+2.0
PLOR	Plostina	25.79	318	⇑P	P	23 29 10.4	+2.0
PLVB	Pleven	25.86	311	⇓P	P	23 29 10.8	+1.8
MLR	Muntele Rosu	26.02	317	P	P	23 29 12.3	+1.8
MLR	Muntele Rosu	26.02	317	P	P	23 29 10.0	-0.6
MLR				IAmb	IAmb	23 29 16.0	
	comp=Z,9.3nm,0.9s						
MLR	Muntele Rosu	26.02	317	⇑P	P	23 29 12.4	+1.8
MLR	Muntele Rosu	26.02	317	P	P	23 29 15.4	+4.9
	comp=Z,11nm,1.6s						
COVR	Voineasa-Covas	26.05	317	⇓P	P	23 29 13.0	+2.3
HUMR	Humele	26.14	314	P	P	23 29 15.5	+3.9
	comp=Z,35nm,1.2s						
TESR	Tescani	26.15	319	⇑P	P	23 29 13.3	+1.7
TESR	Tescani	26.15	319	P	P	23 29 13.5	+1.9
	comp=Z,25nm,0.8s						
SORM	Soroca	26.18	324	P	P	23 29 13.5	+1.7
SORM	Soroca	26.18	324	⇓P	P	23 29 13.5	+1.7
ONER	Baraj Valea Uz	26.20	319	⇑P	P	23 29 14.3	+2.3
TURR	Turia	26.27	318	⇑P	P	23 29 14.6	+1.9
GIRR	Girov	26.48	320	⇓P	P	23 29 16.4	+1.8
BOSR	Bodos	26.49	317	⇓P	P	23 29 16.9	+2.2
VOIR		26.54	316	P	P	23 29 17.6	+2.4
	comp=Z,9.5nm,1.0s						
BIZ	Bicaz	26.70	319	⇓P	P	23 29 18.2	+1.7
PDGK	Podgornoye	26.79	50	P	P	23 29 16.8	-0.8
PDGK	Podgornoye	26.79	50	P	P	23 29 16.8	-0.8
PRAR	RASCA	26.87	320	⇑P	P	23 29 19.2	+1.2
MDB	Medias	27.29	317	P	P	23 29 24.4	+2.5
MDB	Medias	27.29	317	⇑P	P	23 29 24.4	+2.5
AKASG	Malin Array Be	27.46	329	P	P	23 29 23.6	+0.3
	comp=Z,1.4nm,0.7s,baz=133,slow=9.7,SNR=9.7						
	comp=Z,1.4nm,0.7s						
AKASG	Malin Array Be	27.46	329	IAmb	IAmb	23 29 24.8	
	comp=Z,1.6nm,0.8s						
AKBB	Malin Array Si	27.46	329	P	P	23 29 21.8	-1.5
AKBB				IAmb	IAmb	23 29 30.1	
	comp=Z,7.0nm,1.1s						
KIEV	Kiev	27.47	329	P	P	23 29 24.2	+0.9
KIEV	Kiev	27.47	329	P	P	23 29 21.0	-2.3
KIEV				IAmb	IAmb	23 29 30.1	
	comp=Z,6.3nm,1.1s						
KIEV	Kiev	27.47	329	⇓P	P	23 29 24.3	+0.9
KIEV	Kiev	27.47	329	P	P	23 29 22.6	-0.7
	comp=Z,7.2nm,0.8s						
BURAR	Bucovina Array	27.58	320	P	P	23 29 25.8	+1.3
BURAR	Bucovina Array	27.58	320	⇓P	P	23 29 25.9	+1.3
BORK	Borovoye	27.93	25	⇑eP	P	23 29 26.0	-1.5
BORK				pmax	pmax		
	comp=Z,16nm,3.7s						
BORK	Borovoye	27.93	25	P	P	23 29 27.4	0.0

GZR	Gura Zlata	27.93	314	P	P	23 29 29.7	+2.1
GZR	Gura Zlata	27.93	314	⇑P	P	23 29 29.8	+2.1
BVAR	Borovoye Array	27.93	25	P	P	23 29 29.4	+1.8
	comp=Z,4.8nm,0.6s,baz=224,slow=6.2,SNR=13						
BVAR				PcP	PcP	23 32 42.9	+0.2
	comp=Z,1.2nm,0.6s,baz=276,slow=1.3,SNR=4.2						
	comp=Z,4.8nm,0.6s						
ARTI	Arti	27.97	8	P	P	23 29 27.4	-0.4
ARTI						23 30 10.9	
ARTI				S	S	23 34 10.5	-0.5
MARR	Marisel-Cluj	28.31	317	⇓P	P	23 29 32.1	+1.0
OBN	Obninsk	28.32	342	eP	P	23 29 29.6	-1.3
OBN				pmax	pmax		
	comp=Z,5.0nm,0.5s						
MAKZ	Makanchi	29.84	45	P	P	23 29 42.4	-2.2
MAKZ				pmax	pmax		
	comp=Z,8.0nm,1.2s						
MAKZ	Makanchi	29.84	45	P	P	23 29 42.4	-2.2
MAKZ				IAmb	IAmb	23 29 51.0	
	comp=Z,7.7nm,1.1s						
KURBB	Kurchatov Arra	29.87	36	P	P	23 29 46.9	+2.1
	comp=Z,2.9nm,0.9s,baz=236,slow=9.3,SNR=8.2						
KURBB				PcP	PcP	23 32 47.5	0.0
	comp=Z,0.6nm,0.6s,baz=236,slow=3.0,SNR=6.6						
	comp=Z,2.9nm,0.9s						
KOLS	Kolonicke sedl	29.94	320	eP	P	23 29 47.6	+2.1
KOLS				pmax	pmax		
	comp=Z,6.0nm,0.9s						
KOLS	Kolonicke sedl	29.94	320	eP	P	23 29 47.6	+2.1
KOLS	Kolonicke sedl	29.94	320	P	P	23 29 48.2	+2.7
	comp=Z,6.2nm,0.8s						
KURK	Kurchatov	29.97	36	⇑eP	P	23 29 45.6	-0.1
KURK				pmax	pmax		
	comp=Z,4.0nm,0.9s						
KURK	Kurchatov	29.97	36	P	P	23 29 45.3	-0.4
KURK				IAmb	IAmb	23 29 52.6	
	comp=Z,3.6nm,0.8s						
KURK	Kurchatov	29.97	36	P	P	23 29 48.3	+2.6
	comp=Z,5.9nm,0.9s						
MK31	Makanchi Array	30.03	45	⇑eP	P	23 29 46.5	+0.2
MKAR	Makanchi Array	30.03	45	P	P	23 29 46.9	+0.6
	comp=Z,2.4nm,0.9s,baz=230,slow=6.8,SNR=7.5						
MKAR				LR	LR	23 42 58.5	
	comp=Z,47nm,20.7s,baz=300,slow=39						
	comp=Z,2.4nm,0.9s						
MKAR	Makanchi Array	30.03	45	P	P	23 29 46.1	-0.2
MKAR	Makanchi Array	30.03	45	P	P	23 29 46.1	-0.2
BSZH	Besenyszg	30.33	316	P	P	23 29 46.7	-2.2
EVN	Everest	31.15	83	P	P	23 29 56.0	-1.1
EVN				IAmb	IAmb	23 30 03.1	
	comp=Z,6.0nm,0.7s						
EVN	Everest	31.15	83	P	P	23 29 58.1	+1.0
	comp=Z,7.5nm,0.9s						
LANS	Liptovska Anna	31.66	319	eP	P	23 30 02.6	+2.0
LANS				pmax	pmax		
	comp=Z,5.0nm,0.9s						
LANS	Liptovska Anna	31.66	319	eP	P	23 30 02.6	+2.0
OJC	Ojcow	31.99	321	P	P	23 30 02.5	-0.9
OJC	Ojcow	31.99	321	P	P	23 30 02.5	-0.9
OJC	Ojcow	31.99	321	P	P	23 30 05.1	+1.6
	comp=Z,9.8nm,1.3s						
WMQ	Urumqi	32.58	53	eP	P	23 30 10.8	+2.0
WMQ				LR	LR		
	comp=Z,62nm,24.2s						
KMBO	Kilima Mbogo	32.73	207	LR	LR	23 44 29.7	
	comp=Z,84nm,18.5s,baz=98,slow=38						
RONA	Rosalia, Austr	32.95	315	epP	P	23 30 13.5	+1.5
	comp=Z,1.5nm,0.5s						
KLMR	Klimovskoe	32.97	349	eP	P	23 30 10.2	-1.7
KLMR				e		23 31 19.3	
KLMR				pmax	pmax		
	comp=Z,12nm,1.2s						
STEB	Steborice	33.00	319	eP	P	23 30 11.1	-1.2
WINA	Alland / Wiene	33.25	315	epP	P	23 30 15.8	+1.3
	comp=Z,0.3nm,0.2s						
ARSA	Arzberg	33.28	313	i pP	P	23 30 15.8	+1.0
	comp=Z,0.6nm,0.3s						
VRAC	Vranov	33.41	317	LR	LR	23 45 49.8	
	comp=Z,25nm,19.1s,baz=252,slow=40						
DPC	Dobruska-Polom	34.02	319	eP	P	23 30 21.4	+0.1
DPC	Dobruska-Polom	34.02	319	eP	P	23 30 21.4	+0.1
OSTC	Ostas	34.17	319	eP	P	23 30 23.3	+0.8
OSTC	Ostas	34.17	319	eP	P	23 30 23.3	+0.8
CHVC	Chvalec	34.27	319	eP	P	23 30 25.3	+1.8
CHVC	Chvalec	34.27	319	eP	P	23 30 25.3	+1.8
MOA	Molln	34.28	314	epP	P	23 30 25.0	+1.4
	comp=Z,2.1nm,0.7s						
DGZ	Jazzator, Alta	34.37	43	⇑eP	P	23 30 24.9	+0.4
DGZ				pmax	pmax		
	comp=Z,3.0nm,1.3s						
CKRC	Cesky Krumlov	34.60	315	eP	P	23 30 25.3	-1.0
CKRC	Cesky Krumlov	34.60	315	eP	P	23 30 25.3	-1.0
BIOA	Bad Ischl, Aus	34.63	313	epP	P	23 30 27.9	+1.3
	comp=Z,2.6nm,0.7s						
ZAA0	Zalesovo Array	34.94	35	P	P	23 30 28.6	-0.5
ZAA0				IAmb	IAmb	23 30 34.4	
	comp=Z,5.7nm,1.1s						
ZALV	Zalesovo Beam	34.94	35	P	P	23 30 30.4	+1.3
	comp=Z,4.7nm,0.9s,baz=248,slow=7.5,SNR=13						
	comp=Z,4.7nm,0.9s						
ZALV	Zalesovo Beam	34.94	35	P	P	23 30 28.6	-0.5
GERES	GERESS Array B	34.99	315	P	P	23 30 31.5	+1.8
	comp=Z,0.6nm,0.6s,baz=101,slow=6.9,SNR=3.8						
GERES				PcP	PcP	23 33 02.1	+0.3
	comp=Z,0.9nm,0.6s,baz=96,slow=4.0,SNR=4.8						
	comp=Z,0.6nm,0.6s						
GERES	GERESS Array B	34.99	315	P	P	23 30 30.3	+0.5
LESA	Schwarzleotal	35.16	313	epP	P	23 30 31.5	+0.3
	comp=Z,2.3nm,0.6s						
KHC	Kasperske Hory	35.16	316	⇓eP	P	23 30 31.8	+0.6
KHC				pmax	pmax		
	comp=Z,16nm,2.5s						
KHC	Kasperske Hory	35.16	316	eP	P	23 30 30.1	-1.1
MBAR	Mbarara	35.31	218	LR	LR	23 44 35.6	
	comp=Z,36nm,19.7s,baz=28,slow=36						
WTTA	Wattenberg	35.79	312	epP	P	23 30 37.1	+0.3
	comp=Z,4.2nm,0.7s						
WATA	Walderalm	35.85	312	epP	P	23 30 37.5	+0.3
	comp=Z,2.1nm,0.6s						
KEST	Kesra	35.95	292	P	P	23 30 39.8	+1.7
	comp=Z,5.4nm,0.8s,baz=35,slow=4.4,SNR=5.1						
KEST				LR	LR	23 49 22.1	
	comp=Z,29nm,19.4s,baz=302,slow=43						
	comp=Z,5.4nm,0.8s						
KEST	Kesra	35.95	292	P	P	23 30 38.6	+0.5
KEST				IAmb	IAmb	23 30 42.5	
	comp=Z,6.0nm,0.9s						
VSL	Villasalto	36.02	298	P	P	23 30 38.6	-0.1
SQTA	Sankt Quirin	36.06	312	epP	P	23 30 39.4	+0.4
	comp=Z,2.0nm,0.4s						
MOTA	Moosalm	36.16	312	i P	P	23 30 39.7	-0.2
	comp=Z,1.8nm,0.7s						
FETA	Feichten	36.32	311	epP	P	23 30 42.0	+0.7
	comp=Z,0.7nm,0.4s						
CLL	Collm	36.33	319	i P	P	23 30 42.1	+1.0
CLL	Collm	36.33	319	P	P	23 30 39.5	-1.6
CLL				IAmb	IAmb	23 30 44.4	
	comp=Z,7.2nm,1.1s						
CLL	Collm	36.33	319	i P	P	23 30 42.1	+1.0
FIA1	FINESS Array S	36.66	340	P	P	23 30 42.4	-1.3
FINES	FINESS Array B	36.66	340	P	P	23 30 43.6	-0.1
	comp=Z,3.4nm,0.8s,baz=144,slow=12,SNR=9.3						
	comp=Z,3.4nm,0.8s						
FINES	FINESS Array B	36.66	340	i P	P	23 30 44.4	+0.7
FINES				pmax	pmax		
	comp=Z,3.0nm,0.8s						
FINES	FINESS Array B	36.66	340	P	P	23 30 40.8	-2.9
DAVA	Damuels	36.95	311	epP	P	23 30 46.8	+0.2
	comp=Z,4.3nm,0.5s						
DAVA	Damuels	36.95	311	P	P	23 30 43.1	-3.6
	comp=Z,16nm,2.4s						
GOMU	GeErMu	37.13	67	P	P	23 30 51.0	+2.4
GOMU				pP	pP	23 30 54.8	+0.8
GOMU				sP	sP	23 30 58.5	+2.4
GOMU				pmax	pmax		
	comp=Z,3.0nm,0.6s						
HFS	Hagfors	40.25	332	P	P	23 31 14.2	+0.3
	comp=Z,1.1nm,0.5s,baz=126,slow=7.5,SNR=8.8						
	comp=Z,1.1nm,0.5s						
KNGR	Kungurtug, Tuv	40.79	45	⇓eP	P	23 31 16.4	-2.3
KNGR				pmax	pmax		
	comp=Z,10.0nm,1.1s						
GTA2	Gaotai	41.01	62	eP	P	23 31 22.5	+1.8
GTA2				pmax	pmax		
	comp=Z,7.0nm,0.8s						
TAM	Tamanrasset	41.49	273	P	P	23 31 22.8	-2.1
TAM				pmax	pmax		
	comp=Z,36nm,0.2s						
TAM	Tamanrasset	41.49	273	P	P	23 31 22.8	-2.1
NB2	NORSAR Subarra	41.77	332	P	P	23 31 26.2	-0.3
	comp=Z,0.5nm,0.7s,baz=113,slow=7.9						
NOA	NORSAR Array B	41.77	332	P	P	23 31 26.1	-0.3
	comp=Z,0.5nm,0.5s,baz=122,slow=8.3,SNR=5.0						
NOA				LR	LR	23 51 24.1	
	comp=Z,10nm,18.2s,baz=255,slow=40						
	comp=Z,0.5nm,0.5s						
NAO01	NORSAR Array S	41.80	332	P	P	23 31 26.6	-0.2
NAO01				IAmb	IAmb	23 31 32.2	
	comp=Z,6.8nm,1.1s						
NBO00	NORSAR Array S	41.95	332	P	P	23 31 26.5	-1.4
NBO00				IAmb	IAmb	23 31 37.9	
	comp=Z,9.9nm,1.1s						
ARCES	ARCESS Array B	43.36	347	P	P	23 31 40.5	+1.2
	comp=Z,3.4nm,1.1s,baz=166,slow=8.1,SNR=5.0						
ARCES				LR	LR	23 51 17.3	
	comp=Z,38nm,19.1s,baz=288,slow=38						
	comp=Z,3.4nm,1.1s						
ARCES	ARCESS Array B	43.36	347	P	P	23 31 39.9	+0.6
ARCES				IAmb	IAmb	23 31 54.7	
	comp=Z,5.0nm,1.1s						
PZH	PanZhiHua	44.42	81	P	P	23 31 48.5	-0.1
LZH	Lanzhou	44.43	67	eP	P	23 31 42.8	-5.8
LZH				pP	pP	23 31 46.5	-7.5
LZH				pmax	pmax		
	comp=Z,21nm,1.4s						
CMAR	Chiang Mai Arr	44.56	93	P	P	23 31 50.3	+0.8
	comp=Z,0.9nm,0.3s,baz=289,slow=10.0,SNR=6.1						
	comp=Z,0.9nm,0.3s						
TLY	Talaya	44.79	44	LR	LR	23 52 40.4	
	comp=Z,67nm,19.0s,baz=280,slow=39						
SONM	Songino Array	46.10	50	P	P	23 32 02.9	+1.2
	comp=Z,1.5nm,0.7s,baz=259,slow=8.4,SNR=8.6						
	comp=Z,1.5nm,0.7s						
ESBB	Sonseca Array	46.32	299	P	P	23 32 02.7	-0.6
ESBB				IAmb	IAmb	23 32 08.3	
	comp=Z,2.9nm,1.0s						
ESDC	Sonseca Array	46.32	299	P	P	23 32 03.1	-0.2
	comp=Z,1.3nm,0.9s,baz=64,slow=7.7,SNR=11						
	comp=Z,1.3nm,0.9s						
ESDC	Sonseca Array	46.32	299	P	P	23 32 02.3	-1.1
ULN	Ulaanbaatar	46.55	50	⇑eP	P	23 32 05.3	+0.1
ULN				pmax	pmax		
	comp=Z,4.0nm,1.2s						
PAB	San Pablo	46.63	299	P	P	23 32 05.2	-0.6
PAB				pmax	pmax		
	comp=Z,5.0nm,1.1s						
PAB	San Pablo	46.63	299	P	P	23 32 05.2	-0.6
PAB				IAmb	IAmb	23 32 17.3	
	comp=Z,4.8nm,1.1s						
EKA	Eskdalemuir Ar	46.76	320	P	P	23 32 06.3	-0.2
	comp=Z,1.6nm,0.8s,baz=109,slow=8.7,SNR=4.4						
	comp=Z,1.6nm,0.8s						
TORD	Torodi Ar. Bea	48.56	262	P	P	23 32 21.6	+0.6
	comp=Z,4.5nm,0.7s,baz=56,slow=7.6,SNR=32						
	comp=Z,4.5nm,0.7s						
LSZ	Lusaka	49.26	210	LR	LR	23 53 18.1	
	comp=Z,27nm,18.0s,baz=50,slow=36						
HHC	Hu-ho-hao-te	49.96	59	eP	P	23 32 31.8	+0.2
HHC				pmax	pmax		
	comp=Z,9.0nm,0.7s						
MATP	Matopo	53.73	207	LR	LR	23 55 56.6	
	comp=Z,38nm,18.6s,baz=202,slow=36						
DBIC	Dimbokro	57.31	259	P	P	23 33 25.5	-0.1
	comp=Z,15nm,0.8s,baz=75,slow=8.6,SNR=11						
	comp=Z,15nm,0.8s						
DBIC	Dimbokro	57.31	259		P	23 33 25.1	-0.5
KDWAN	Kaudwane	57.94	209	P	P	23 33 30.3	+0.3
LBTB	Lobatse	59.00	207	LR	LR	00 00 01.7	
	comp=Z,26nm,18.1s,baz=331,slow=37						
LBTB	Lobatse	59.00	207	P	P	23 33 37.6	+0.3
LBTB				pmax	pmax		
	comp=Z,8.0nm,0.9s						
LBTB	Lobatse	59.00	207	P	P	23 33 37.6	+0.3
LKGWB	Lokgwabe	60.12	212	pP	P	23 33 44.1	-1.0
BOSA	Boshof	62.36	206	P	P	23 34 01.7	+1.5
	comp=Z,3.2nm,0.9s,baz=22,slow=10,SNR=6.4						
	comp=Z,3.2nm,0.9s						
BOSA	Boshof	62.36	206	P	P	23 34 01.1	+0.9
BOSA				pmax	pmax		
	comp=Z,6.0nm,1.0s						
BOSA	Boshof	62.36	206	P	P	23 34 01.1	+0.9
SUMG	Summit	62.70	340	P	P	23 34 03.1	+0.9
SUMG				pmax	pmax		
	comp=Z,5.0nm,0.9s						
SUMG	Summit	62.70	340	P	P	23 34 03.1	+0.9
KLR	Kul'dur	62.72	47	LR	LR	00 03 52.6	
	comp=Z,43nm,18.6s,baz=321,slow=38						
KSRS	Korea Array	63.08	60	P	P	23 34 03.7	-1.1
	comp=Z,1.0nm,0.5s,baz=295,slow=6.6,SNR=5.0						
KSRS				LR	LR	00 05 34.3	
	comp=Z,16nm,20.3s,baz=50,slow=40						
	comp=Z,1.0nm,0.5s						
SUR	Sutherland	67.45	208	LR	LR	00 05 31.8	
	comp=Z,40nm,18.4s,baz=25,slow=37						
SEY	Seymchan	69.51	29	⇑eP	P	23 34 45.1	-0.5
SEY				pmax	pmax		
	comp=Z,4.0nm,0.9s						
MA2	Magadan	70.11	32	LR	LR	00 09 54.6	
	comp=Z,21nm,18.8s,baz=308,slow=40						
ILAR	Eielson Array	85.60	8	P	P	23 36 14.9	-0.5
	comp=Z,1.3nm,0.7s,baz=326,slow=3.9,SNR=11						
	comp=Z,1.3nm,0.7s						
ILAR	Eielson Array	85.60	8	P	P	23 36 15.0	-0.5
BPAW	Bear Paw Mtn.	85.70	10	P	P	23 36 16.2	+0.2
K17K	Iditarod	85.71	13	P	P	23 36 13.6	-2.5
YKA	Yellowknife Ar	88.27	354	P	P	23 36 28.2	-0.3
	comp=Z,3.3nm,0.9s,baz=14,slow=5.4,SNR=6.0						
	comp=Z,3.3nm,0.9s						
YKA	Yellowknife Ar	88.27	354	ceP	P	23 36 29.7	+1.2
YKA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
YKA	Yellowknife Ar	88.27	354	P	P	23 36 27.7	-0.8
WRA	Warramunga Arr	93.56	111	P	P	23 36 53.0	-0.8
	comp=Z,0.7nm,0.8s,baz=318,slow=4.1,SNR=3.8						
	comp=Z,0.7nm,0.8s						
WRA	Warramunga Arr	93.56	111	P	P	23 36 53.0	-0.8
WRA	Warramunga Arr	93.56	111	P	P	23 36 52.9	-1.0
ASAR	Alice Springs	95.02	114	P	P	23 36 59.7	-0.8
	comp=Z,1.0nm,0.7s,baz=308,slow=5.0,SNR=9.1						
	comp=Z,1.0nm,0.7s						
ASAR	Alice Springs	95.02	114	P	P	23 36 59.9	-0.6
ASAR	Alice Springs	95.02	114	P	P	23 36 59.9	-0.6
QSPA	South Pole Qui	118.70	180	PKP	PKPdf	23 42 24.3	-0.4
	comp=Z,2.8nm,1.0s,baz=295,slow=3.2,SNR=3.9						
QSPA	South Pole Qui	118.70	180		PKPdf	23 42 24.6	-0.1

SDD ***27*** *23:57:23.7±2.2, 17°.37N×68°.59W, h50^{km}±999^{km}, MD3.5, ML2.8, MW3.2, Presumed earthquake*

OSPL ***27*** *23:57:24.5±1.6, 17°.09N×68°.51W, h31^{km}±63^{km}, ML2.8, Presumed earthquake*

ISC 27 23:57:20.5±2.9**, 17°.2N**±0°.1×**68°.6W**±0°.2**, h5**^{km}±17^{km}**, n16, σ1.^{s}49**/28**, 16C-2D, Mona Passage**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCDR	Punta Cana, DR	1.28	8	i P	Pg	23 57 45.1	0.0
PCDR	Punta Cana, DR	1.28	8	⇑ePg	Pg	23 57 45.2	0.0
PCDR				⇑eSg	Sg	23 58 01.7	-0.2
PCDR				IAML		23 58 05.6	
	comp=N,75nm,0.8s						
HIDR	Higuey Centro	1.35	354	⇓ePg	Pn	23 57 46.0	-0.1
HIDR				⇑eSg	Sg	23 58 02.8	-1.3
HIDR				IAML		23 58 09.1	
	comp=N,124nm,0.2s						
HATOM	Hato Mayor del	1.72	334	⇓ePg	Pn	23 57 51.7	+0.6
HATOM				⇑eSg	Sn	23 58 12.6	-1.0
HATOM				IAML		23 58 13.7	
	comp=N,41nm,0.6s						
SDD	Santo Domingo	1.76	314	i P	Pn	23 57 53.2	+1.6
SDD				eS	Sn	23 58 13.9	-0.5
SDD				IAML		23 58 18.9	
	comp=Z,69nm,1.1s						
BANI	BANI	2.05	304	⇑ePg	Pn	23 57 57.1	+1.4
BANI				⇑eSg	Sn	23 58 23.2	+1.5
BANI				IAML		23 58 24.4	
	comp=N,111nm,0.2s						
ABDR	Alto Bandera	2.50	309	⇑ePg	Pn	23 58 03.6	+1.5
ABDR				⇑eSg	Sn	23 58 32.2	-1.0
ABDR				IAML		23 58 37.9	
	comp=N,75nm,0.3s						
LOVI	El Cajuil, Ovi	2.72	282	i P	Pn	23 58 04.8	-0.1
LOVI				eS	Sn	23 58 35.1	-3.0
LOVI				IAML		23 58 42.6	
	comp=Z,33nm,0.8s						
PODR	Polo	2.74	290	i P	Pn	23 58 06.1	+0.8
PODR	Polo	2.74	290	⇑ePg	Pn	23 58 05.9	+0.6
PODR				⇑eSg	Sn	23 58 38.8	0.0
PODR				IAML		23 58 38.9	
	comp=N,73nm,0.1s						
LODU1	El Espartillar	2.97	292	i P	Pn	23 58 09.7	+1.4
LODU1				IAML		23 58 52.8	
	comp=Z,28nm,1.1s						
LOBH	Bahia de las A	2.98	282	i P	Pn	23 58 09.1	+0.6
LOBH				eS	Sn	23 58 41.8	-2.8
LOBH				IAML		23 58 48.7	
	comp=Z,29nm,1.0s						
SC01	Santiago de lo	2.98	317	i P	Pn	23 58 11.2	+2.7
SC01	Santiago de lo	2.98	317	⇑ePg	Pn	23 58 09.0	+0.5
SC01				⇑eSg	Sn	23 58 45.5	+0.8
SC01				IAML		23 58 51.6	
	comp=N,60nm,0.4s						
SDDR	Presa de Saban	3.11	304	⇑ePg	Pn	23 58 10.8	+0.6
SDDR				⇑eSg	Sn	23 58 45.6	-2.1
SDDR				IAML		23 58 49.5	
	comp=N,40nm,0.5s						
JIDR	Jimani	3.36	292	⇑ePg	Pn	23 58 16.3	+2.7
JIDR				⇑eSg	Sn	23 58 54.2	+0.4

WEL ***28*** *00:41:37.3±0.4, 44°S±2°×16°8E±°, h5^{km}, M3.9/14, ML3.7/15, MLv3.9/14, Error ellipse: s-maj=4.3km s-min=2.4km az=123.8, confirmed*

NOU ***28*** *00:41:37.8, 44°.47S×168°.34E, h1^{km}, MLv4.4/13, South Island, New Zealand*

ISC 28 00:41:36.9±1.1**, 44°.50S**±0°.02×**168°.32E**±0°.03**, h4**^{km}±11^{km}**, n53, σ1.^{s}07**/62**, South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSZ	Milford Sound	0.33	237	P	Pb	00 41 44.4	-0.9
MSZ				S	Sg	00 41 49.2	+1.7
MSZ				AML	AML		
MSZ				AML	AML		
GLNY	Glenorchy	0.38	170	P	Pg	00 41 44.7	+0.6
GLNY				S	Sg	00 41 49.1	+0.1
JCZ	Jackson Bay	0.54	39	P	Pg	00 41 47.2	0.0
JCZ	Jackson Bay	0.54	39	S	Sg	00 41 54.6	+0.4
JCZ	Jackson Bay	0.54	39	P	Pg	00 41 47.5	+0.3
JCZ				S	Sg	00 41 54.5	+0.2
JCZ				AML	AML		
JCZ				AML	AML		
NSBS	Neils Beach	0.56	27	P	Pg	00 41 47.7	+0.2
NSBS				S	Sg	00 41 55.7	+1.0
QTPS	Queenstown Pol	0.59	155	P	Pg	00 41 48.5	+0.3
WKZ	Wanaka	0.60	124	P	Pg	00 41 49.0	+0.6
WKZ				S	Sg	00 41 56.3	+0.1
WKZ				AML	AML		
WKZ				AML	AML		
MECS	Makarora Emerg	0.71	68	P	Pg	00 41 50.6	+0.1
HDWS	Haast DOC Work	0.81	41	P	Pg	00 41 52.4	+0.2
MLZ	Mavora Lakes	0.88	189	P	Pg	00 41 53.9	+0.1
MLZ				S	Sg	00 42 05.5	+0.3
MLZ				AML	AML		
MLZ				AML	AML		
EAZ	Earnscleugh	1.02	137	P	Pg	00 41 56.2	-0.2
EAZ				AML	AML		
EAZ				AML	AML		
DCZ	Deep Cove	1.27	220	P	Pg	00 42 00.4	-0.8
DCZ				S	Sg	00 42 17.4	-0.4
DCZ				AML	AML		
DCZ				AML	AML		
LBZ	Lake Benmore	1.34	86	P	Pb	00 42 02.6	0.0
LBZ				AML	AML		
LBZ				AML	AML		
WHZ	Wether Hill Ro	1.42	190	P	Pn	00 42 03.3	-0.2
WHZ				S	Sg	00 42 22.3	-0.2
WHZ				AML	AML		
WHZ				AML	AML		
FOZ	Fox Glacier	1.45	49	P	Pn	00 42 03.4	-0.4
FOZ				AML	AML		
FOZ				AML	AML		
MCNS	Mount Cook Ann	1.49	60	P	Pg	00 42 05.1	-0.3
TUZ	Tuapeka	1.73	148	P	Pb	00 42 08.7	-0.5
TUZ				S	Sb	00 42 30.9	-0.4
TUZ				AML	AML		
TUZ				AML	AML		
ODZ	Otahua Downs	1.75	109	P	Pb	00 42 09.1	-0.4
ODZ	Otahua Downs	1.75	109	S	Sb	00 42 31.3	-0.5
ODZ	Otahua Downs	1.75	109	P	Pb	00 42 08.9	-0.6
ODZ				AML	AML		
ODZ				AML	AML		
TMZ	Timaru	1.93	88	P	Pn	00 42 11.3	+0.8
TMZ				AML	AML		
TMZ				AML	AML		
PYZ	Puysegur Point	2.03	214	P	Pb	00 42 14.1	-0.2
PYZ	Puysegur Point	2.03	214	S	Sb	00 42 40.1	+0.1
PYZ	Puysegur Point	2.03	214	P	Pb	00 42 13.9	-0.5
PYZ				AML	AML		
PYZ				AML	AML		
RPZ	Rata Peaks	2.12	69	P	Pn	00 42 14.2	+1.0
RPZ	Rata Peaks	2.12	69	P	Sn	00 42 41.4	+1.4
RPZ	Rata Peaks	2.12	69	P	Pn	00 42 13.9	+0.7
RPZ				AML	AML		
RPZ				AML	AML		
SYZ	Scrubby Hill	2.12	164	P	Pn	00 42 14.4	+1.3
SYZ	Scrubby Hill	2.12	164	S	Sb	00 42 41.9	-0.7
SYZ	Scrubby Hill	2.12	164	P	Pb	00 42 14.6	-1.3
SYZ				AML	AML		
SYZ				AML	AML		
ARCZ	Arundel	2.13	76	P	Pn	00 42 13.2	0.0
ARCZ				AML	AML		
ARCZ				AML	AML		
HHSZ	Highcliff Hill	2.13	132	P	Pb	00 42 14.9	-1.2
HHSZ				AML	AML		
HHSZ				AML	AML		
WVZ	Waitaha Valley	2.26	52	P	Pn	00 42 15.3	+0.3
WVZ				AML	AML		
APZ	The Paps	2.35	185	P	Pn	00 42 17.2	+0.9
APZ				AML	AML		
APZ				AML	AML		
MHCZ	Mount Hutt	2.54	69	P	Pn	00 42 18.5	-0.4
WACZ	Wakanui South	2.59	79	P	Pn	00 42 19.4	-0.2
OXZ	Oxford	2.93	68	P	Pn	00 42 24.7	+0.4
MQZ	McQueen’s Vall	3.22	77	P	Pn	00 42 28.2	0.0
LTZ	Lake Taylor	3.34	61	P	Pn	00 42 29.6	-0.4
AKCZ	Akaroa Harbour	3.36	81	P	Pn	00 42 31.2	+1.0
DSZ	Denniston Nort	3.75	44	P	Pn	00 42 35.9	+0.3
THZ	Tophouse	4.33	52	P	Pn	00 42 44.9	+1.3
KHZ	Kahutara	4.33	63	P	Pb	00 42 49.7	-3.9
MRNZ	Matariki Terra	4.50	48	P	Pn	00 42 45.9	+0.2
QRZ	Quartz Range	4.81	42	P	Pn	00 42 50.7	+0.7
TKNZ	Takaka Hill	4.86	46	P	Pn	00 42 51.5	+0.6
NNZ	Nelson	4.96	50	P	Pn	00 42 53.2	+1.1
TUWZ	Tuamarina	5.14	55	P	Pn	00 42 59.0	+4.3
TCW	Tory Channel	5.47	55	P	Pn	00 43 02.0	+2.8
KHEZ	Kahui Hut	6.71	41	P	Pn	00 43 16.7	+0.4
	766nm,1.7s						
KHEZ				AML	AML		
HIZ	Hauiti	7.73	42	P	Pn	00 43 30.6	+0.4
	146nm,1.3s						
HIZ				AML	AML		
OUZ	Omahuta	10.11	25	P	Pn	00 44 03.2	+0.4
	48nm,1.8s						

IDC ***28*** *00:42:50.4±46.0, 24°.13S×177°.40W, h0^{km}, mb4.7/3, mbtmp4.7/3, Error ellipse: s-maj=837.2km s-min=147.9km az=88.0*

NEIC ***28*** *00:43:58.6±1.6, 25°.6S±0°.1×179°.9E±0°.1, h505^{km}±13^{km}, mb4.1/19, Error ellipse: s-maj=22.1km s-min=18.0km az=155.0*

ISC 28 00:43:57.7±0.7**, 25°.5S**±0°.1×**179°.80E**±0°.10**, h493**^{km}**, n26, σ0.^{s}87**/26**, mb4.2**/14**, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	4.22	152	P	P	00 45 18.7	+1.3
NIUE	Niue	11.47	58	P	P	00 46 30.9	+0.1
MARNC	Mare, Loyalty	11.53	288	P	P	00 46 32.3	+0.9
LTZ	Lake Taylor	18.28	198	P	P	00 47 39.8	-1.1
ARMA	Armidale	25.32	252	P	P	00 48 45.9	+1.3

ARMA				IAmb	IAmb	00 48 46.7	
	comp=Z,8.9nm,0.8s						
EIDS	Eidsvold	25.91	264	P	P	00 48 50.0	+0.3
EIDS				IAmb	IAmb	00 48 51.4	
	comp=Z,4.0nm,0.7s						
CAN	Canberra	28.20	242	P	P	00 49 10.5	+0.7
CAN				IAmb	IAmb	00 49 25.9	
	comp=Z,4.5nm,0.8s						
CTAO	Charters Tower	31.34	273	P	P	00 49 38.0	+0.8
CTAO				IAmb	IAmb	00 49 39.0	
	comp=Z,9.7nm,0.9s						
TOO	Toolangi	31.43	239	P	P	00 49 38.0	+0.2
TOO				IAmb	IAmb	00 49 58.8	
	comp=Z,3.6nm,1.1s						
STKA	Stephens Creek	33.97	250	P	P	00 50 00.0	+0.5
	comp=Z,5.6nm,0.5s,baz=95,slow=10,SNR=23						
	comp=Z,5.6nm,0.5s						
XMAS	Kiritimati	35.17	42	P	P	00 50 09.0	-0.7
BBOO	Buckleboo	38.66	249	P	P	00 50 37.5	-0.8
BBOO				IAmb	IAmb	00 51 02.0	
	comp=Z,13nm,1.1s						
AS31	Alice Springs	41.62	262	P	P	00 51 02.3	+0.1
AS31				IAmb	IAmb	00 51 03.5	
	comp=Z,3.2nm,0.5s						
ASAR	Alice Springs	41.62	262	P	P	00 51 02.4	+0.1
	comp=Z,4.2nm,0.4s,baz=91,slow=7.4,SNR=63						
	comp=Z,4.2nm,0.4s						
ASAR	Alice Springs	41.62	262	P	P	00 51 01.5	-0.7
WR8	Warramunga Arr	41.99	268	P	P	00 51 04.8	-0.4
WR8				IAmb	IAmb	00 51 05.6	
	comp=Z,6.2nm,0.9s						
WRAB	Tennant Creek	42.13	268	P	P	00 51 05.0	-1.3
WRA	Warramunga Arr	42.14	268	P	P	00 51 06.4	0.0
	comp=Z,5.2nm,0.4s,baz=104,slow=7.9,SNR=72						
	comp=Z,5.2nm,0.4s						
WRA	Warramunga Arr	42.14	268	P	P	00 51 04.7	-1.7
WB0	Warramunga Arr	42.14	268	P	P	00 51 05.8	-0.6
FORT	Forrest	45.59	251	P	P	00 51 31.9	-1.1
FORT				IAmb	IAmb	00 52 15.3	
	comp=Z,9.9nm,1.1s						
KNRA	Kununurra	48.52	271	P	P	00 51 55.7	+0.3
FITZ	Fitzroy Crossi	50.54	267	P	P	00 52 10.9	+0.6
MORW	Morawa	56.16	251	P	P	00 52 49.3	-0.9
MORW				IAmb	IAmb	00 53 06.0	
	comp=Z,6.3nm,1.1s						
CASY	Casey	58.57	206	P	P	00 53 05.1	-0.9
CASY				IAmb	IAmb	00 53 10.6	
	comp=Z,4.8nm,1.1s						
QSPA	South Pole Qui	64.55	180	P	P	00 53 46.1	+0.7

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*IDC **28** 00:53:38.1±0.7, 17°.80S×167°.32E, h0^{km}, mb4.3/13, mbtmp4.4/14, ML4.1/1, MS3.3/22, Error ellipse: s-maj=23.2km s-min=15.6km az=101.0*
*GFZ **28** 00:53:40.0±0.4, 18°S±6°×16°7E±°, h10^{km}, M4.7/13, mb4.7/13, Error ellipse: s-maj=13.4km s-min=9.9km az=150.8, confirmed*
*NOU **28** 00:53:40.4, 17°.91S×167°.43E, h22^{km}, MLv4.7/27, Vanuatu Islands*
*NEIC **28** 00:53:40.2±1.6, 17°.87S±0°.05×167°.4E±0°.1, h10^{km}±1^{km}, mb4.8/36, Error ellipse: s-maj=17.5km s-min=9.2km az=94.0*
ISC 28 00:53:39.6±0.4**, 17°.89S**±0°.04×**167°.32E**±0°.05**, h10^{km}, n137, σ1^{s}.08**/118**, mb4.8**/44**, MS3.3**/19**, 2C-5D, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RTV	Rentapao	1.05	85	P	Pg	00 53 59.1	-0.8
RTV	Rentapao	1.05	85	S	Sb	00 54 13.1	-0.7
SANVU	Saraoutou	2.43	357	P	Pn	00 54 17.6	-1.8
SANVU	Saraoutou	2.43	357		Pn	00 54 17.4	-2.0
SANVU				Sn	Sn	00 54 44.8	-4.4
SANVU	Saraoutou	2.43	357	P	Pn	00 54 17.3	-2.0
MARNC	Mare, Loyalty	3.64	170	P	Pn	00 54 34.6	-1.4
MARNC	Mare, Loyalty	3.64	170		Pn	00 54 36.0	0.0
KOUNC	Koumac, New Ca	3.91	227	P	Pn	00 54 40.2	+0.5
KOUNC	Koumac, New Ca	3.91	227		Pn	00 54 40.0	+0.3
YATNC	Mamie plateau,	4.17	186	P	Pn	00 54 42.5	-0.9
DZM	Mont Dzumac	4.24	191	Pn	Pn	00 54 44.5	0.0
	9.4nm,0.3s,baz=89,slow=7.8,SNR=78						
DZM				LR	LR	00 55 26.2	
	comp=Z,85nm,20.0s,baz=349,slow=25						
DZM				Sn	Sn	00 55 28.2	-5.9
	34nm,0.5s						
DZM				AML	AML		
NOUC	Port Laguerre	4.30	193	P	Pn	00 54 45.6	+0.5
ONTNC	Ouen Toro	4.47	190	P	Pn	00 54 47.8	+0.3
ONTNC	Ouen Toro	4.47	190	S	Sn	00 55 36.9	-2.7
ONTNC	Ouen Toro	4.47	190		Pn	00 54 48.0	+0.5
OUENC	Ouen Island, N	4.53	186	P	Pn	00 54 48.7	+0.4
OUENC	Ouen Island, N	4.53	186	S	Sn	00 55 38.2	-2.9
OUENC	Ouen Island, N	4.53	186		Pn	00 54 49.7	+1.4
NGOA	Tingoa Renbel	9.43	311	P	Pn	00 55 55.1	-0.5
MSVF	Nonsavu	10.22	91	LR	LR	00 59 24.2	
	comp=Z,476nm,20.2s,baz=211,slow=34						
MSVF	Nonsavu	10.22	91	P	Pn	00 56 08.3	+1.8
	comp=Z,34nm,2.2s						
HNR	Honiara	11.04	319	LR	LR	00 59 42.2	
	comp=Z,148nm,21.6s,baz=194,slow=33						
CTA	Charters Tower	20.04	260	P	P	00 58 14.3	+1.3
	comp=Z,3.4nm,0.5s,baz=83,slow=11,SNR=5.0						
CTA				LR	LR	01 04 44.6	
	comp=Z,136nm,20.3s,baz=38,slow=33						
	comp=Z,3.4nm,0.5s						
CTAO	Charters Tower	20.04	260	P	P	00 58 13.4	+0.4
	comp=Z,14nm,1.0s						
KRVT	Keravat (AS076	20.16	310	LR	LR	01 04 35.8	
	comp=Z,63nm,21.5s,baz=114,slow=33						
AFI	Afiamalu	20.48	82	LR	LR	01 05 17.2	
	comp=Z,62nm,18.2s,baz=54,slow=34						
MGCD	Mangrove Creek	21.09	221	P	P	00 58 24.1	-0.2
	comp=Z,24nm,0.6s						
PMG	Port Moresby	21.31	291	LR	LR	01 05 40.0	
	comp=Z,145nm,18.2s,baz=154,slow=34						
MTSU	Mount Surprise	21.88	266	P	P	00 58 33.1	+0.2
	comp=Z,12nm,0.9s						
URZ	Urewera	22.03	159	LR	LR	01 05 48.7	
	comp=Z,101nm,18.8s,baz=348,slow=33						
QLP	Quilpie	23.03	244	P	P	00 58 45.5	+0.5
QLP	Quilpie	23.03	244	P	P	00 58 45.3	+0.3
	comp=Z,61nm,0.5s						
COEN	Coen	23.54	276	P	P	00 58 48.9	-1.5
	comp=Z,260nm,1.0s						
CMSA	Cobar Meteorol	23.83	231	P	P	00 58 53.7	+0.7
CMSA	Cobar Meteorol	23.83	231	P	P	00 58 53.3	+0.3
	comp=Z,14nm,1.8s						
RPZ	Rata Peaks	25.94	174	LR	LR	01 09 28.9	
	comp=Z,27nm,18.2s,baz=123,slow=36						
QIS	Mount Isa	26.30	260	P	P	00 59 16.4	+0.8
	comp=Z,5.2nm,1.9s						
INKA	Innaminka	26.34	243		P	00 59 16.8	+0.9
STKA	Stephens Creek	27.09	234	P	P	00 59 24.1	+1.4
	comp=Z,12nm,0.8s,baz=43,slow=7.1,SNR=13						
STKA				LR	LR	01 08 41.3	
	comp=Z,64nm,18.1s,baz=187,slow=33						
	comp=Z,12nm,0.8s						
STKA	Stephens Creek	27.09	234	P	P	00 59 23.3	+0.6
	comp=Z,88nm,1.1s						
RAR	Rarotonga	31.15	102	LR	LR	01 10 16.2	
	comp=Z,49nm,21.8s,baz=266,slow=32						
WRAB	Tennant Creek	31.23	261	P	P	00 59 58.8	-0.8
WRA	Warramunga Arr	31.24	261	P	P	00 59 58.6	-1.1
	comp=Z,1.8nm,0.8s,baz=84,slow=5.9,SNR=13						
	comp=Z,1.8nm,0.8s						
WRA	Warramunga Arr	31.24	261	P	P	00 59 58.4	-1.3
AS31	Alice Springs	31.72	254		P	01 00 03.4	-0.5
ASAR	Alice Springs	31.72	254	P	P	01 00 03.5	-0.5
	comp=Z,4.2nm,0.6s,baz=80,slow=8.3,SNR=53						
ASAR				PcP	PcP	01 02 55.3	-0.3
	comp=Z,0.6nm,0.8s,baz=94,slow=2.6,SNR=4.3						
ASAR				LR	LR	01 12 07.7	
	comp=Z,109nm,19.4s,baz=89,slow=35						
	comp=Z,4.2nm,0.6s						
ASAR	Alice Springs	31.72	254	P	P	01 00 03.1	-0.8
BBOO	Buckleboo	31.78	236	P	P	01 00 04.8	+0.5
BBOO	Buckleboo	31.78	236	P	P	01 00 04.7	+0.4
BBOO				IAmb	IAmb	01 00 05.7	
	comp=Z,15nm,0.9s						
GUMO	Guam	38.33	323	LR	LR	01 14 40.1	
	comp=Z,54nm,21.0s,baz=272,slow=33						
FITZ	Fitzroy Crossi	39.58	263	LR	LR	01 16 42.8	
	comp=Z,101nm,21.2s,baz=85,slow=35						
FITZ	Fitzroy Crossi	39.58	263		P	01 01 11.7	+0.2
FITZ	Fitzroy Crossi	39.58	263	P	P	01 01 11.4	-0.1
	comp=Z,3.3nm,1.0s						
PPT2	Papeete2	40.98	96	*e*LR	LR	01 12 43.9	
	comp=Z,170nm,26.5s						
PPT2				*e*LR	LR	01 12 46.1	
	comp=Z,260nm,28.2s						
BATI	Baumata	42.95	274	LR	LR	01 18 47.3	
	comp=Z,72nm,18.4s,baz=110,slow=35						
MBWA	Marble Bar	44.85	258	P	P	01 01 54.1	-0.3
MBWA				IAmb	IAmb	01 01 55.5	
	comp=Z,12nm,1.0s						
MBWA	Marble Bar	44.85	258	P	P	01 01 54.3	-0.1
	comp=Z,15nm,1.2s						
MEEK	Meekatharra	45.69	250	P	P	01 02 01.4	+0.4
KLBR	Kellerberrin	46.67	243	P	P	01 02 08.4	-0.3
NWAO	Narrogin (SRO)	47.23	241	P	P	01 02 12.6	-0.4
NWAO	Narrogin (SRO)	47.23	241	P	P	01 02 13.1	0.0
	comp=Z,27nm,1.4s						
MORW	Morawa	48.01	247	P	P	01 02 19.2	0.0
MORW	Morawa	48.01	247	P	P	01 02 18.3	-0.8
MORW				IAmb	IAmb	01 02 20.9	
	comp=Z,9.2nm,1.1s						
MORW	Morawa	48.01	247	P	P	01 02 18.9	-0.2
	comp=Z,11nm,1.4s						
KAPI	Kappang	48.20	279	LR	LR	01 23 04.8	
	comp=Z,30nm,18.1s,baz=110,slow=37						
DBNI	Kabupaten Domp	48.50	274	P	P	01 02 21.6	-1.5
	comp=Z,9.0nm,0.7s						
TWSI	Taliwang, Sumb	49.79	274	P	P	01 02 33.5	+0.6
	comp=Z,19nm,1.3s						
GIRL	Giralia	49.82	255	P	P	01 02 33.1	0.0
VNDA	Vanda	59.72	181	P	P	01 03 43.6	-0.4
	comp=Z,1.0nm,1.0s,baz=10,slow=6.2,SNR=6.5						
	comp=Z,1.0nm,1.0s						
VNDA	Vanda	59.72	181	P	P	01 03 43.7	-0.4
JNU	Nakatsue	61.52	325	LR	LR	01 29 36.0	
	comp=Z,8.5nm,19.2s,baz=26,slow=35						
NJ2	Nanjing	67.98	317	*e*P	P	01 04 40.0	+0.9
NJ2				pmax	pmax		
	comp=Z,8.0nm,0.7s						
USRK	Ussuriysk Ar.	69.72	334	P	P	01 04 49.6	-0.1
GSTR	Great Sitkin T	71.17	11	P	P	01 04 59.6	+1.2
PEA0B	Petropavlovsk-	71.19	354	P	P	01 04 59.1	+0.7
PEA0B				IAmb	IAmb	01 05 08.5	
	comp=Z,9.4nm,1.1s						
PETK	Petropavlovsk-	71.19	354	P	P	01 04 58.5	+0.1
	comp=Z,4.3nm,0.9s,baz=154,slow=5.2,SNR=4.2						
	comp=Z,4.3nm,0.9s						
PETK	Petropavlovsk-	71.19	354	P	P	01 04 59.2	+0.8
QSPA	South Pole Qui	72.16	180	P	P	01 05 05.0	+0.6
	comp=Z,3.7nm,0.7s,baz=16,slow=0.6,SNR=14						
	comp=Z,3.7nm,0.7s						
QSPA	South Pole Qui	72.16	180	P	P	01 05 04.8	+0.4
QSPA				IAmb	IAmb	01 05 06.1	
	comp=Z,4.9nm,0.9s						
CN2	Changchun	72.37	330	*e*P	P	01 05 06.3	+0.5
CN2				pmax	pmax		
	comp=Z,10.0nm,0.8s						
BNX	BinXian	72.93	332	⇓P	P	01 05 09.5	+0.5
BNX				pmax	pmax		
	comp=Z,7.0nm,0.9s						
HNS	HongShan	73.99	319	⇓P	P	01 05 16.0	+0.5
HNS				pmax	pmax		
	comp=Z,7.0nm,0.9s						
KMI2	Kunming	76.03	302	P	P	01 05 27.5	-0.3
KMI2				pmax	pmax		
	comp=Z,17nm,1.2s						
CMAR	Chiang Mai Arr	76.29	295	P	P	01 05 29.2	0.0
	comp=Z,4.2nm,0.8s,baz=129,slow=4.5,SNR=22						
CMAR				LR	LR	01 38 06.1	
	comp=Z,9.3nm,20.8s,baz=190,slow=35						
	comp=Z,4.2nm,0.8s						
PZH	PanZhiHua	77.45	303	P	P	01 05 37.3	+1.6
HHC	Hu-ho-hao-te	78.02	320	*e*P	P	01 05 39.5	+0.9
HHC				pmax	pmax		
	comp=Z,8.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,64nm,6.7s						
MAW	Mawson	78.99	202	P	P	01 05 43.9	+0.5
	comp=Z,2.6nm,0.9s,baz=97,slow=5.2,SNR=5.1						
	comp=Z,2.6nm,0.9s						
MAW	Mawson	78.99	202	P	P	01 05 43.9	+0.5
AIS	Amsterdam Isla	79.07	234	P	P	01 05 44.6	+0.2
GTA2	Gaotai	84.96	314	*e*P	P	01 06 16.5	+1.1
GTA2				pmax	pmax		
	comp=Z,7.0nm,0.9s						
SONM	Songino Array	85.06	324	P	P	01 06 16.1	+0.4
	comp=Z,1.8nm,1.0s,baz=134,slow=4.3,SNR=6.9						
	comp=Z,1.8nm,1.0s						
SONM	Songino Array	85.06	324	P	P	01 06 15.8	+0.1
L20K	Farewell, AK	85.73	17		P	01 06 19.3	+0.7
J18K	Innoko River	85.79	15	P	P	01 06 18.9	+0.1
CAST	Castle Rocks	86.98	17	P	P	01 06 23.5	-1.2
ELIB	Princess Elisa	87.14	191	*d*P	P	01 06 25.3	-0.4
	comp=Z,2.7nm,1.3s						
AFDM	Forest Hills D	87.59	48		P	01 06 28.5	+0.2
AFDM				IAmb	IAmb	01 06 30.6	
	comp=Z,5.2nm,1.0s						
YBH	Yreka Blue Hor	87.61	45	P	P	01 06 28.6	+0.3
YBH				IAmb	IAmb	01 06 47.8	
	comp=Z,3.5nm,1.1s						
CMB	Columbia Colle	87.63	49	P	P	01 06 28.2	-0.2
CMB				IAmb	IAmb	01 06 30.2	
	comp=Z,2.9nm,0.8s						
F19K	Shaleruckik Mo	88.36	13	P	P	01 06 32.0	+0.8
TLY	Talaya	88.62	326	LR	LR	01 45 33.4	
	comp=Z,9.9nm,18.5s,baz=45,slow=35						
PALK	Pallekele	89.01	278	LR	LR	01 48 51.1	
	comp=Z,36nm,18.1s,baz=206,slow=37						
CCB	Clear Creek Bu	89.14	18	P	P	01 06 34.1	-0.7
CCB				IAmb	IAmb	01 06 34.5	
	comp=Z,4.6nm,1.0s						
NVAR	Mina Array Bea	89.28	49	P	P	01 06 37.2	+0.7
	comp=Z,0.3nm,0.3s,baz=226,slow=7.6,SNR=5.9						
	comp=Z,0.3nm,0.3s						
IL31		89.50	18	P	P	01 06 35.4	-1.1
IL31				IAmb	IAmb	01 06 36.4	
	comp=Z,4.3nm,0.7s						
ILAR	Eielson Array	89.50	18	P	P	01 06 35.6	-0.9
	comp=Z,3.6nm,0.6s,baz=237,slow=4.9,SNR=37						
	comp=Z,3.6nm,0.6s						
ILAR	Eielson Array	89.50	18	P	P	01 06 35.8	-0.8
KVN	Kaiserville	89.68	49	P	P	01 06 38.4	+0.1
PINE	Pine Mountain	89.68	43		P	01 06 39.2	+1.0
PINE				IAmb	IAmb	01 06 41.5	
	comp=Z,8.0nm,0.9s						
TROLL	Troll, Antarti	89.74	185	P	P	01 06 38.3	+0.4
	comp=Z,160nm,0.6s						
WCT	Wildcat Mounta	89.87	51	P	P	01 06 38.9	-0.3
HOOD	Mount Hood Mea	89.88	42	P	P	01 06 39.7	+0.7
STD	Studebaker Rid	89.92	41	P	P	01 06 39.4	+0.2
JRO	Jston Ridge Ob	89.94	41	P	P	01 06 38.9	-0.3
JRO				IAmb	IAmb	01 06 42.5	
	comp=Z,7.2nm,0.8s						
SNAA	Sanae	90.42	183	⇑P	P	01 06 41.4	+0.3
	comp=Z,71nm,0.7s						
SNAA	Sanae	90.42	183	P	P	01 06 41.2	+0.2
	comp=Z,2.5nm,0.6s,baz=190,slow=5.2,SNR=5.6						
	comp=Z,2.5nm,0.6s						
SNAA	Sanae	90.42	183	P	P	01 06 41.3	+0.2
SNAA				IAmb	IAmb	01 06 42.1	
	comp=Z,3.4nm,0.7s						
VNA3	Neumayer Olymp	91.08	181	⇑P	P	01 06 44.3	+0.2
	comp=Z,3.9nm,0.6s						
J08A	Circle Bar Ran	91.13	45	P	P	01 06 45.2	+0.3
J08A				IAmb	IAmb	01 06 47.6	
	comp=Z,7.1nm,1.1s						
F24K	Squaw Lake	91.25	16	P	P	01 06 45.2	+0.5
F24K				IAmb	IAmb	01 06 46.6	
	comp=Z,3.5nm,0.8s						
ANMO	Albuquerque	97.04	56	LR	LR	01 42 33.7	
	comp=Z,23nm,19.8s,baz=148,slow=30						
ZALV	Zalesovo Beam	99.95	323	LR	LR	01 54 16.0	
	comp=Z,15nm,18.1s,baz=72,slow=36						
ARCES	ARCESS Array B	123.30	345	PKP	PKPdf	01 12 36.1	-0.2
	comp=Z,3.7nm,1.0s,baz=88,slow=2.8,SNR=5.2						
ARCES	ARCESS Array B	123.30	345		PKPdf	01 12 34.8	-1.4
LESA	Schwarzleotal	143.94	330	*i* PKP	PKPbc	01 13 14.0	+0.7
	comp=Z,11nm,1.5s						
MOTA	Moosalm	144.73	332	*i* PKP	PKPbc	01 13 16.5	+0.7
	comp=Z,13nm,1.1s						
RETA	Reutte	144.77	332	*e*PKP	PKPbc	01 13 16.5	+0.6
	comp=Z,16nm,1.5s,SNR=4.6						
WLF	Walferdange	144.85	339	*d*PKPdf	PKPbc	01 13 16.9	+0.9
DOU	Dourbes	145.00	341	*d*PKPdf	PKPbc	01 13 16.9	+0.5
FETA	Feichten	145.14	332	*e*PKP	PKPab	01 13 18.1	+0.8
	comp=Z,18nm,1.0s,SNR=10						
BFO	Black Forest	145.15	335		PKPbc	01 13 16.3	-0.7
DAVA	Damuels	145.32	333	*e*PKP	PKPbc	01 13 18.4	+0.7
	comp=Z,13nm,0.7s						
FUORN	Ofenpass-Fuorn	145.65	332		PKPbc	01 13 19.8	+0.8
TUE	Stuetta	146.18	332		PKPdf	01 13 19.7	+0.2
ESDC	Sonseca Array	157.01	343	PKPab	PKPab	01 14 05.5	-0.4
	comp=Z,1.3nm,0.8s,baz=13,slow=3.7,SNR=11						
ESDC	Sonseca Array	157.01	343		PKPab	01 14 05.2	-0.8
TORD	Torodi Ar. Bea	165.37	253	PKP	PKPdf	01 13 45.5	+0.2
	comp=Z,1.3nm,0.9s,baz=335,slow=1.9,SNR=5.2						

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*SDD **28** 01:10:39.4±1.8, 18°.76N×70°.27W, h108^{km}±11^{km}, MD2.9, ML2.2, MW2.9, Presumed earthquake*
*OSPL **28** 01:10:41.7±1.4, 18°.83N×70°.33W, h114^{km}±8^{km}, ML2.2, Presumed earthquake*
ISC 28 01:10:41.2±2.1**, 18°.79N**±0°.05×**70°.29W**±0°.05**, h104^{km}**±14^{km}**, n17, σ0^{s}.90**/29**, 16C, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ABDR	Alto Bandera	0.32	274	⇑*e*Pg	Pn	01 10 56.2	-0.6
ABDR				⇑*e*Sg	Sn	01 11 08.9	+0.5
ABDR				IAML		01 11 09.4	
	comp=N,56nm,0.2s						
BANI	BANI	0.40	189	⇑*e*Pg	Pn	01 10 57.5	+0.6
BANI				⇑*e*Sg	Sn	01 11 09.2	+0.5
BANI				IAML		01 11 12.0	
	comp=N,124nm,0.5s						
SDD	Santo Domingo	0.49	133	*e*S	Sn	01 11 09.9	+0.6
SDD				IAML		01 11 11.1	
	comp=Z,54nm,0.8s						
SC01	Santiago de lo	0.76	327	*i* P	Pn	01 10 59.3	-0.2
SC01				*e*S	Sn	01 11 13.3	0.0
SC01				IAML		01 11 14.0	
	comp=Z,31nm,0.3s						
SC01	Santiago de lo	0.76	327	⇑*e*Pg	Pn	01 10 59.2	-0.2
SC01				⇑*e*Sg	Sn	01 11 13.9	+0.6
SC01				IAML		01 11 16.3	
	comp=N,47nm,0.9s						
HATOM	Hato Mayor del	0.86	90	⇑*e*Pg	Pn	01 10 58.4	-2.1
HATOM				⇑*e*Sg	Sn	01 11 15.4	+0.4
HATOM				IAML		01 11 19.0	
	comp=N,14nm,0.3s						
SDDR	Presa de Saban	0.96	281	*i* P	Pn	01 11 01.1	-0.4
SDDR				*e*S	Sn	01 11 15.3	-1.7
SDDR				IAML		01 11 21.5	
	comp=Z,16nm,0.2s						
SDDR	Presa de Saban	0.96	281	⇑*e*Pg	Pn	01 10 60.0	-1.6
SDDR				⇑*e*Sg	Sn	01 11 17.7	+0.8
SDDR				IAML		01 11 22.2	
	comp=N,20nm,0.7s						
MADR	Mao Valverde	1.09	315	⇑*e*Pg	Pn	01 11 02.4	-0.4
MADR				⇑*e*Sg	Sn	01 11 20.7	+1.5
MADR				IAML		01 11 22.2	
	comp=N,86nm,0.3s						
LONE3	El Aguacate, B	1.12	261	*i* P	Pn	01 11 02.6	-0.7
LONE3				IAML		01 11 17.6	
	comp=Z,8.2nm,1.7s						
PODR	Polo	1.13	237	*i* P	Pn	01 11 03.4	-0.1
PODR				*e*S	Sn	01 11 20.7	+0.4
PODR				IAML		01 11 22.9	
	comp=Z,218nm,0.3s						
PODR	Polo	1.13	237	⇑*e*Pg	Pn	01 11 03.5	-0.1
PODR				⇑*e*Sg	Sn	01 11 20.7	+0.4
PODR				IAML		01 11 25.0	
	comp=N,25nm,0.4s						
LODU1	El Espartillar	1.21	249	*i* P	Pn	01 11 04.2	0.0
LODU1				IAML		01 11 24.2	
	comp=Z,30nm,2.0s						
LUDR	Luperon	1.26	330	⇑*e*Pg	Pn	01 11 05.3	+0.5
LUDR				⇑*e*Sg	Sn	01 11 24.2	+1.5
LOPP1	Punta Rusia, P	1.36	321	*i* P	Pn	01 11 04.9	-1.1
LOPP1				IAML		01 11 23.0	
	comp=Z,31nm,2.0s						
LOVI	El Cajuil, Ovi	1.42	226	*i* P	Pn	01 11 07.1	+0.4
LOVI				*e*S	Sn	01 11 25.4	-0.7
LOVI				IAML		01 11 29.5	
	comp=Z,25nm,0.6s						
PCDR	Punta Cana, DR	1.83	98	*i* P	Pn	01 11 12.1	+0.4
PCDR				IAML		01 11 40.3	
	comp=Z,29nm,1.8s						

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*IDC **28** 01:17:25.0±3.1, 3°.62S×101°.03E, h0^{km}, mb4.0/7, mbtmp4.0/7, Error ellipse: s-maj=144.0km s-min=18.9km az=53.0*
*DJA **28** 01:17:34.4±0.6, 3°S±3°×10°1E±°, h23^{km}±5^{km}, M4.3/20, MLv4.3/20*
*NEIC **28** 01:17:34.7±1.7, 3°.3S±0°.2×101°.6E±0°.2, h56^{km}±5^{km}, mb4.1/8, Error ellipse: s-maj=31.4km s-min=8.0km az=46.0*
ISC 28 01:17:33.2±0.8**, 3°.42S**±0°.09×**101°.39E**±0°.07**, h50^{km}, n49, σ1^{s}.21**/39**, mb4.0**/11**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MASI	Maura Aman, Be	0.89	72	P	Pn	01 17 50.3	+0.9
MASI				AML	AML		
UBSI	University, Be	0.94	111	P	Pn	01 17 51.5	+1.4
UBSI				S	Sn	01 18 05.0	+2.5
UBSI				AML	AML		
KSI	Kapahiang	1.22	101	P	Pn	01 17 55.3	+1.4
KSI				S	Sn	01 18 10.7	+1.3
KSI				AML	AML		
KRJI	Kerinci	1.32	3	P	Pn	01 17 57.0	+1.7
KRJI				AML	AML		
PPSI	Pulau Pagai	1.53	295	P	Pn	01 18 00.1	+2.0
MNAI	Manna	1.82	121		Pn	01 18 03.1	+1.1
SDSI	Sungai Dareh	2.47	1	P	Pn	01 18 12.4	+1.4
MDSI	Maura Dua	2.97	111	P	Pn	01 18 20.5	+2.6
MDSI				AML	AML		
PPI	Padang Panjang	3.11	341	P	Pn	01 18 22.3	+2.6
BKNI	Bangkinang	3.74	355	Pn	Pn	01 18 28.7	+0.4
GSI	Gunungsitoli	6.05	321	Pn	Pn	01 19 01.5	+1.4
BBJI	Bungbulang	7.41	123	Pn	Pn	01 19 18.9	+0.1
UGM	Wanagama	10.12	117	Pn	Pn	01 19 56.8	+0.8
JAGI	Jajag, Banyuwa	13.64	112	Pn	Pn	01 20 43.0	-1.1
FITZ	Fitzroy Crossi	27.87	123	P	P	01 23 17.9	-0.6
H08S2	Diego Garcia H	29.06	260	T	T	01 53 29.0	
	baz=84,slow=75,SNR=18						
H08S3	Diego Garcia H	29.07	260	T	T	01 53 07.1	
	baz=84,slow=75,SNR=41						
H08S1	Diego Carcia H	29.08	260	T	T	01 53 12.9	
	baz=84,slow=75,SNR=16						
KNRA	Kununurra	29.56	116	P	P	01 23 31.8	-1.6
KNRA				IAmb	IAmb	01 23 42.4	
	comp=Z,4.2nm,1.2s						
H01W3	Cape Leeuwin H	33.47	161	T	T	01 58 21.7	
	baz=338						
H01W2	Cape Leeuwin H	33.48	161	T	T	01 58 47.2	
	baz=338						
H01W1	Cape Leeuwin H	33.48	161	T	T	01 58 21.7	
	baz=338						
WB0	Warramunga Arr	36.06	119	P	P	01 24 29.1	-1.1
WRA	Warramunga Arr	36.08	120	P	P	01 24 29.9	-0.6
	comp=Z,1.6nm,0.5s,baz=310,slow=8.9,SNR=27						
	comp=Z,1.6nm,0.5s						
WRA	Warramunga Arr	36.08	120	P	P	01 24 29.9	-0.6
WR8	Warramunga Arr	36.23	120	P	P	01 24 31.3	-0.3
AS31	Alice Springs	37.30	126	P	P	01 24 41.1	+0.3
AS31				IAmb	IAmb	01 24 41.6	
	comp=Z,1.1nm,0.7s						
ASAR	Alice Springs	37.30	126	P	P	01 24 41.1	+0.4
	comp=Z,2.0nm,0.3s,baz=299,slow=7.9,SNR=30						
	comp=Z,2.0nm,0.3s						
ASAR	Alice Springs	37.30	126	P	P	01 24 40.9	+0.1
SONM	Songino Array	51.23	4	P	P	01 26 32.2	+0.4
	comp=Z,0.9nm,0.6s,baz=188,slow=9.6,SNR=6.2						
	comp=Z,0.9nm,0.6s						
MKAR	Makanchi Array	52.77	344	P	P	01 26 42.9	-0.2
	comp=Z,0.6nm,0.5s,baz=160,slow=8.4,SNR=5.6						
	comp=Z,0.6nm,0.5s						
MKAR	Makanchi Array	52.77	344	P	P	01 26 42.4	-0.8
KURBB	Kurchatov Arra	57.30	343	P	P	01 27 15.1	-0.6
	comp=Z,0.3nm,0.4s,baz=158,slow=6.9,SNR=2.8						
	comp=Z,0.3nm,0.4s						
ZAA0	Zalesovo Array	58.82	349	P	P	01 27 25.6	-0.8
ZAA0				IAmb	IAmb	01 27 26.7	
	comp=Z,2.5nm,0.9s						
ZALV	Zalesovo Beam	58.82	349	P	P	01 27 25.5	-0.8
	comp=Z,1.4nm,0.4s,baz=144,slow=5.5,SNR=8.3						

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
	comp=Z,1.4nm,0.4s						
ZALV	Zalesovo Beam	58.82	349	P	P	01 27 25.7	-0.6
H04N2	CROZET ISLANDS	60.51	217	T	T	02 32 49.6	
	baz=61,slow=75,SNR=138						
H04N1	CROZET ISLANDS	60.52	217	T	T	02 32 43.5	
	baz=61,slow=75,SNR=145						
H04N3	CROZET ISLANDS	60.52	217	T	T	02 32 43.5	
	baz=61,slow=75,SNR=140						
H04S1	CROZET ISLANDS	60.77	217	T	T	02 32 59.3	
	baz=60,slow=75,SNR=48						
H04S3	CROZET ISLANDS	60.78	217	T	T	02 32 58.9	
	baz=60,slow=75,SNR=102						
H04S2	CROZET ISLANDS	60.79	217	T	T	02 33 03.5	
	baz=60,slow=75,SNR=48						
BVAR	Borovoye Array	61.99	339	P	P	01 27 46.6	-1.5
	comp=Z,0.5nm,0.4s,baz=146,slow=6.4,SNR=2.8						
	comp=Z,0.5nm,0.4s						
AB31	Akbulak array	63.55	331	P	P	01 27 57.5	-0.9
AB31				IAmb	IAmb	01 28 19.2	
	comp=Z,2.8nm,1.1s						
ABKAR	Akbulak array	63.55	331	P	P	01 27 57.7	-0.8
TX31	Lajitas Ar. Si	144.93	40	PKPdf	PKPdf	01 37 05.2	-0.5
TXAR	Lajitas Array	144.93	40	PKPbc	PKPdf	01 37 05.4	-0.3
	comp=Z,1.6nm,0.6s,baz=289,slow=1.0,SNR=26						
TXAR	Lajitas Array	144.93	40		PKPab	01 37 04.9	0.0
CO03	El Pedregal	145.11	192		PKPdf	01 37 05.5	-0.5

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*IDC **28** 01:20:06.1±9.9, 37°.14N×71°.49E, h108^{km}±66^{km}, mb3.3/4, mbtmp3.6/9, Error ellipse: s-maj=113.6km s-min=53.7km az=161.0*

*NNC **28** 01:20:10.1±4.9, 37°.86N×71°.29E, h6^{km}±37^{km}, mb4.3, mpv4.0, Error ellipse: s-maj=46.2km s-min=28.5km az=170.0*

ISC 28 01:20:08.8±1.7**, 37°.6N**±0°.1×**71°.3E**±0°.1**, h109**^{km}**, n17, σ1^{s}19**/21**, mb3.6**/4**, 2C-5D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IUG	Iuzhnay	4.68	348	Pg	Pn	01 21 18.6	+1.2
	38nm,0.2s						
IUG				Lg	Lg	01 22 11.3	
	37nm,0.4s						
MRKS	Merke	5.37	15	Pg	Pn	01 21 28.4	+1.8
	10nm,0.2s						
MRKS				Lg	Lg	01 22 29.0	
	22nm,0.5s						
KK31	Karatay Array	5.56	354	⇑Pn	Pn	01 21 30.0	+0.8
	6.8nm,0.2s,baz=181,slow=11,SNR=133						
KK31				⇓Sn	Sn	01 22 32.5	+0.7
	5.3nm,0.3s,baz=191,slow=26,SNR=4.7						
BRLS	Borolday	5.57	349	Pg	Pn	01 21 27.0	-2.4
	9.2nm,0.3s						
BRLS				Lg	Lg	01 22 26.4	
	9.2nm,0.1s						
AAK	Ala-Archa	5.61	25	P	Pn	01 21 32.1	+2.2
	2.3nm,0.3s,baz=197,slow=11,SNR=9.6						
AAK				S	Sn	01 22 31.8	-1.4
	5.8nm,0.4s,baz=353,slow=21,SNR=6.8						
AAK	Ala-Archa	5.61	25	⇓Pn	Pn	01 21 31.1	+1.2
	0.8nm,0.4s						
AAK				⇓Sn	Sn	01 22 32.9	-0.2
	3.8nm,0.6s						
AAK				⇑Lg	Lg	01 22 58.9	
	2.8nm,0.6s						
SGDS	Sogindy	6.39	22	P	Pn	01 21 41.7	+1.3
	3.7nm,0.4s						
MKAR	Makanchi Array	12.27	38	P	Pn	01 23 00.2	+0.5
	0.7nm,0.7s,baz=220,slow=14,SNR=4.7						
KURBB	Kurchatov Arra	14.02	19	P	P	01 23 25.7	-1.1
	0.5nm,0.7s,baz=207,slow=11,SNR=4.6						
AB31	Akbulak array	14.30	328	⇓Pn	Pn	01 23 26.0	0.0
	0.8nm,0.3s,baz=134,slow=14,SNR=66						
AB31				⇓Sn	Sn	01 26 03.6	+0.1
	2.0nm,0.6s,baz=162,slow=22,SNR=8.6						
BVAR	Borovoye Array	15.47	358	P	P	01 23 42.4	-0.5
	0.9nm,0.5s,baz=167,slow=13,SNR=6.5						
ZALV	Zalesovo Beam	18.83	25	P	Pn	01 24 20.9	-0.7
	2.0nm,0.4s,baz=219,slow=9.9,SNR=11						
FINES	FINESS Array B	36.76	325	P	P	01 27 06.4	+1.1
	1.5nm,0.8s,baz=101,slow=9.5,SNR=2.0						
	1.5nm,0.8s						
HFS	Hagfors	42.40	321	P	P	01 27 52.6	+0.5
	1.2nm,0.7s,baz=198,slow=9.3,SNR=4.4						
	1.2nm,0.7s						
NB2	NORSAR Subarra	43.70	322	P	P	01 28 02.9	+0.3
	comp=Z,0.3nm,0.5s,baz=98,slow=7.9						
NOA	NORSAR Array B	43.70	322	P	P	01 28 03.0	+0.3
	comp=Z,0.2nm,0.4s,baz=97,slow=7.7,SNR=3.5						
	comp=Z,0.2nm,0.4s						
ESDC	Sonseca Array	57.20	297	P	P	01 29 44.1	-0.5
	comp=Z,0.4nm,0.8s,baz=66,slow=7.0,SNR=2.1						
	comp=Z,0.4nm,0.8s						

IDC 28 02:09:15.0±3.4**, 18°.01S**×**178°.66W, h584**^{km}±22^{km}**, mb3.2**/4**, mbtmp4.1**/5**, Error ellipse: s-maj=89.4km s-min=38.3km az=24.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	Nonsavu	3.14	274	P	P	02 10 33.7	0.0
	15nm,0.6s,baz=85,slow=11,SNR=11						
STKA	Stephens Creek	38.37	241	P	P	02 15 47.3	-0.1
	1.1nm,0.3s,baz=96,slow=10,SNR=3.0						
	1.1nm,0.3s						
WRA	Warramunga Arr	44.38	260	P	P	02 16 34.4	-0.5
	1.0nm,0.4s,baz=96,slow=7.6,SNR=26						
	1.0nm,0.4s						
ASAR	Alice Springs	44.53	254	P	P	02 16 36.4	+0.2
	9.6nm,0.6s,baz=88,slow=8.4,SNR=147						
ASAR				PcP	PcP	02 18 06.2	-0.3
	0.5nm,0.7s,baz=92,slow=3.4,SNR=2.9						
	9.6nm,0.6s						
QSPA	South Pole Qui	72.05	180	P	P	02 19 40.6	0.0
	0.5nm,0.5s,baz=53,slow=5.1,SNR=1.9						
	0.5nm,0.5s						

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*SSNC **28** 02:16:10.6±0.8, 18°.88N×72°.30W, h16^{km}±7^{km}, MD3.3, ML2.6, Presumed earthquake*

*OSPL **28** 02:16:11.2±0.7, 19°.81N×72°.25W, h0^{km}±5^{km}, ML1.9, Presumed earthquake*

*SDD **28** 02:16:12.6±2.1, 19°.74N×72°.01W, h30^{km}±67^{km}, MD3.1, ML2.1, MW2.4, Presumed earthquake*

ISC 28 02:16:10.3±1.4**, 19°.81N**±0°.06×**72°.18W**±0°.03**, h16**^{km}±12^{km}**, n16, σ1^{s}92**/28**, 11C, Haiti region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MCDR	Montecristi	0.50	80	⇑*e*Pg	Pb	02 16 21.0	+0.2
MCDR				⇑*e*Sg	Sb	02 16 28.6	+0.7
MCDR				IAML		02 16 29.4	
	comp=N,134nm,0.1s						
LOPP1	Punta Rusia, P	0.93	87	*i* P	Pn	02 16 28.6	-0.1
LOPP1				*e*S	Sn	02 16 42.5	+0.7
LOPP1				IAML		02 16 49.9	
	comp=Z,38nm,0.7s						
REDR	Restauracion	0.98	130	⇑*e*Pg	Pb	02 16 24.2	-4.7
REDR				⇑*e*Sg	Sb	02 16 33.8	-7.9
REDR				IAML		02 16 36.0	
	comp=N,186nm,0.1s						
SDDR	Presa de Saban	1.18	134	*e*S	Sg	02 16 49.5	+1.0
SDDR				IAML		02 16 51.2	
	comp=Z,20nm,0.3s						
SDDR	Presa de Saban	1.18	134	*e*Pg	Pn	02 16 32.8	+0.5
SDDR				⇑*e*Sg	Sn	02 16 49.0	+1.0
SDDR				IAML		02 16 54.3	
	comp=N,28nm,0.3s						
LONE3	El Aguacate, B	1.38	150	*i* P	Pb	02 16 36.3	+0.4
LONE3				*e*S	Sb	02 16 54.8	+1.5
LONE3				IAML		02 17 00.4	
	comp=Z,12nm,0.3s						
SC01	Santiago de lo	1.42	105	⇑*e*Pg	Pg	02 16 37.7	0.0
SC01				⇑*e*Sg	Sg	02 16 55.3	-1.0
SC01				IAML		02 17 09.1	
	comp=N,24nm,0.6s						
LODU1	El Espartillar	1.59	155	*i* P	Pn	02 16 39.3	+1.4
LODU1				IAML		02 17 05.9	
	comp=Z,16nm,1.0s						
ABDR	Alto Bandera	1.77	124	⇑*e*Pg	Pb	02 16 42.8	+0.1
ABDR				⇑*e*Sg	Sb	02 17 05.1	+0.3
ABDR				IAML		02 17 08.7	
	comp=N,18nm,0.8s						
BANI	BANI	2.23	129	⇑*e*Pg	Pb	02 16 50.6	+0.3
BANI				IAML		02 17 36.6	
	comp=N,28nm,1.1s						
QMBU	Quimbuelo	2.50	279	*e*P	Pn	02 16 51.3	+0.9
QMBU				*e*S	Sn	02 17 21.7	+1.0
QMBU				IAML		02 17 26.8	
	comp=E,20nm,0.4s						
QMBU				IAML		02 17 28.5	
	comp=N,18nm,0.3s						
NMDO	Nuevo Mundo	2.73	286	*e*P	Pn	02 16 55.7	+2.1
NMDO				*e*S	Sb	02 17 29.9	-2.4
GTBY	Guantanamo Bay	2.76	273	*e*P	Pn	02 16 53.4	-0.5
GTBY				*e*S	Sn	02 17 25.5	-1.5
GTBY				IAML		02 17 29.0	
	comp=N,14nm,1.0s						
GTBY				*e*Sg	Sb	02 17 32.2	-0.7
GTBY				IAML		02 17 38.7	
	comp=N,22nm,1.5s						
HATOM	Hato Mayor del	2.83	111	⇑*e*Pg	Pb	02 17 00.7	+0.1
HATOM				IAML		02 18 03.8	
	comp=N,9.3nm,2.4s						
RCC	Rio Carpintero	3.31	274	*e*P	Pn	02 17 01.4	-0.2
RCC				*e*S	Sn	02 17 40.6	0.0
PINC	Pinares de May	3.46	282	*e*P	Pn	02 17 05.0	+1.5
PINC				*e*S	Sn	02 17 44.5	+0.3

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*SOF **28** 02:28:59.3, 39°.90N±0°.03×24°.48E±0°.02, h15^{km}±2^{km}, MD3.1/1*

*THE **28** 02:29:01.6, 40°.0N±0°.9×24°.3E±0°.8, h15^{km}±1^{km}, M3.2/15, MLh3.2/15*

*ISK **28** 02:29:01.0, 40°.00N×24°.38E, h16^{km}, ML3.5/23*

*IDC **28** 02:29:01.6±1.7, 40°.03N×24°.52E, h0^{km}, mb3.5/3, mbtmp3.5/4, ML3.2/1, MS3.4/2, Error ellipse: s-maj=51.2km s-min=20.8km az=162.0*

*ATH **28** 02:29:01.1, 39°.97N×24°.34E, h18^{km}±1^{km}, ML3.3/37, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*

*AFAD **28** 02:29:03.1, 40°.05N×24°.57E, h36^{km}, ML3.3*

ISC 28 02:29:00.4±1.1**, 39°.97N**±0°.02×**24°.36E**±0°.01**, h4**^{km}±9^{km}**, n161, σ1^{s}11**/205**, 29C-2D, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OUR	Ouranopolis	0.47	322	P	Pb	02 29 10.5	-0.6
OUR				S	Sb	02 29 17.3	-1.2
OUR				AML	AML		
OUR	Ouranopolis	0.47	322	Pg	Pb	02 29 10.6	-0.6
OUR				Sg	Sb	02 29 17.4	-1.0
OUR				AML	AML		
OUR	Ouranopolis	0.47	322	P	Pb	02 29 10.4	-0.8
OUR				AML	AML		
PAIG	Paliouri	0.52	266	P	Pb	02 29 11.5	-0.6
PAIG				S	Sb	02 29 18.5	-1.5
PAIG				AML	AML		
LMN1	MIRINA LIMNOU	0.55	99	P	Pb	02 29 12.2	-0.4
LMN1				S	Sb	02 29 20.4	-0.4
LMN1				AML	AML		
LIA	Limnos Island	0.64	96	P	Pb	02 29 14.0	-0.2
LIA				S	Sb	02 29 23.4	0.0
LIA				AML	AML		
LIA	Limnos Island	0.64	96	P	Pb	02 29 13.9	-0.2
LIA				S	Sb	02 29 22.8	-0.6
LIA				AML	AML		
EFSA	Agios Efstrati	0.65	131	P	Pb	02 29 14.2	0.0
EFSA				S	Sb	02 29 23.7	+0.1
EFSA				AML	AML		
THAS	Thassos island	0.70	23	P	Pb	02 29 14.4	-0.8
THAS				S	Sb	02 29 25.4	+0.3
THAS				AML	AML		
THAS	Thassos island	0.70	23	P	Pb	02 29 14.6	-0.5
THAS				S	Sb	02 29 24.7	-0.4
THS1	Thassos, Thass	0.79	12	P	Pb	02 29 16.7	0.0
THS1				S	Sb	02 29 27.0	-0.7
PLG	Polygyros	0.81	301	P	Pb	02 29 16.5	-0.5
PLG				S	Sb	02 29 28.0	-0.3
PLG				AML	AML		
AOS	Alonnisos	0.88	205	P	Pb	02 29 18.5	+0.3
AOS				S	Sn	02 29 32.1	-0.6
AOS				AML	AML		
AOS2	Alonissos-2	0.91	206	P	Pg	02 29 18.1	+0.4
AOS2				S	Sb	02 29 31.1	0.0
AOS2				AML	AML		
SMTH	Samothraki Isl	1.03	60	P	Pb	02 29 20.3	-0.5
SMTH				S	Sb	02 29 34.6	-0.1
SMTH				AML	AML		
SMTH	Samothraki Isl	1.03	60	P	Pb	02 29 20.4	-0.5
SMTH				S	Sb	02 29 34.2	-0.6
SMTH				AML	AML		
KAVA	Kavala	1.04	7	P	Pb	02 29 20.7	-0.2
KAVA				S	Sb	02 29 34.3	-0.5
KAVA				AML	AML		
KAVA	Kavala	1.04	7	P	Pb	02 29 20.6	-0.3
KAVA				S	Sb	02 29 33.9	-1.0
KAVA				AML	AML		
XOR	Xorichti	1.08	237	P	Pb	02 29 21.4	-0.2
XOR				S	Sb	02 29 36.2	+0.2
XOR	Xorichti	1.08	237	P	Pg	02 29 21.1	+0.1
XOR				S	Sg	02 29 35.3	+0.2
NEO	Neokhori	1.09	233	P	Pg	02 29 21.5	+0.2
NEO				S	Sb	02 29 36.5	-0.1
NEO				AML	AML		
NEO	Neokhori	1.09	233	P	Pg	02 29 21.4	0.0
NEO				S	Sg	02 29 35.8	+0.3
NEO				AML	AML		
SOH	Sokhos	1.15	319	P	Pn	02 29 23.0	-0.3
SOH				S	Sn	02 29 38.1	-1.3
SOH				AML	AML		
SOH	Sokhos	1.15	319	P	Pb	02 29 22.4	-0.4
SOH				AML	AML		
HORT	Hortiatis	1.15	304	P	Pb	02 29 22.6	-0.3
HORT				S	Sn	02 29 38.5	-1.1
HORT	Hortiatis	1.15	304	P	Pn	02 29 22.7	-0.7
GADA	Gvkgeada	1.21	79	P	Pg	02 29 23.3	-0.2
GADA				S	Sb	02 29 39.6	-0.1
GADA				AML	AML		
GADA	Gvkgeada	1.21	79	Pn	Pg	02 29 23.4	-0.1
GADA				Sn	Sb	02 29 39.7	0.0
GADA				AML	AML		
GOAD	anakkale-G¶	1.21	80	P	Pg	02 29 23.1	-0.4
GOAD				S	Sg	02 29 37.2	-2.1
GOAD				IAML		02 29 42.0	
	comp=N,786nm,0.8s						
GOAD				IAML		02 29 45.0	
	comp=E,776nm,0.3s						
THE	Thessaloniki	1.25	302	P	Pn	02 29 24.4	-0.3
THE				S	Sg	02 29 39.9	-0.8
THE				AML	AML		
THE	Thessaloniki	1.25	302	P	Pn	02 29 24.1	-0.5
SRS	Serrai	1.29	333	P	Pb	02 29 24.5	-0.7
SRS				S	Sg	02 29 40.6	-1.2
SRS				AML	AML		
SRS	Serrai	1.29	333	P	Pg	02 29 24.3	-0.8
SRS				AML	AML		
BOZC	Bozcaada	1.31	95	Pn	Pn	02 29 25.1	-0.4
BOZC				Sn	Sg	02 29 42.4	-0.1
BOZC				AML	AML		
BOZC	Bozcaada	1.31	95	P	Pn	02 29 24.1	-1.4
BOZC				P	Pg	02 29 25.3	-0.2
KYMI	Kymi, Euboea I	1.35	189	P	Pn	02 29 25.2	-0.7
KYMI				S	Sg	02 29 43.3	-0.3
KYMI				AML	AML		
KYMI	Kymi, Euboea I	1.35	189	P	Pn	02 29 24.8	-1.2
KYMI				AML	AML		
MRKA	Markates	1.39	206	P	Pn	02 29 25.4	-1.2
MRKA				AML	AML		
ECEA	Canakkale, Ece	1.40	86	P	Pn	02 29 26.5	-0.1
ECEA				S	Sb	02 29 43.2	-2.1
NVR	Nevrokopi	1.43	345	P	Pn	02 29 26.6	-0.6
NVR				S	Sb	02 29 44.3	-2.0
NVR	Nevrokopi	1.43	345	P	Pn	02 29 26.4	-0.8
NVR				AML	AML		
KOCA	Canakkale, Ayv	1.45	108	P	Pb	02 29 27.9	0.0
GPNR	Gulpinar-Canak	1.46	110	Pn	Pn	02 29 27.5	-0.1
ENZZ	Sultanice-Enez	1.51	64	Pn	Pn	02 29 28.0	-0.2
ENZZ				Sn	Sn	02 29 48.1	-0.2
ENZZ				AML	AML		
EZN	Ezine	1.52	95	Pn	Pn	02 29 28.1	-0.3
EZN				AML	AML		
EZNE	Ezine-Canakkal	1.56	97	Pn	Pn	02 29 28.8	-0.1
CAVK	Edirne/Enez-Ca	1.56	62	P	Pn	02 29 28.5	-0.4
CAVK				S	Sg	02 29 51.8	+1.2
CAVK				IAML		02 29 55.0	
	comp=N,913nm,0.8s						
CAVK				IAML		02 30 00.0	
	comp=E,812nm,0.8s						
CAVK	Edirne/Enez-Ca	1.56	62	⇑P	Pg	02 29 31.2	+0.8
CAVK				⇑S	Sg	02 29 52.6	+1.9
CNKL	anakkale-Mer	1.56	86	P	Pn	02 29 27.5	-1.4
CNKL				P	Pb	02 29 27.9	-1.9
CNKL				S	Sn	02 29 47.4	-2.3
CNKL				S	Sb	02 29 48.0	-2.0
ENEZ	Enez	1.57	60	Pn	Pn	02 29 28.8	-0.3
ENEZ				AML	AML		
ALN	Alexandroupoli	1.59	54	Pn	Pn	02 29 28.8	-0.5
ALN				AML	AML		
ALN	Alexandroupoli	1.59	54	P	Pn	02 29 28.1	-1.2
ALN				AML	AML		
COMU	Canakkale	1.63	85	Pn	Pn	02 29 29.7	-0.2
COMU				AML	AML		
ATAL	Atalanti	1.64	220	P	Pn	02 29 28.9	-1.1
MMB	Musomishta	1.65	344	P	Pb	02 29 30.2	-1.1
PRK	Paraskevi	1.65	115	P	Pn	02 29 30.2	+0.2
PRK				AML	AML		
GELI	Tayfur-Gelibol	1.68	74	Pn	Pn	02 29 30.1	-0.4
GELI				AML	AML		
LKR	Lokris	1.68	219	P	Pn	02 29 29.6	-0.9
BAYC	CANAKKALE_Bayr	1.70	97	P	Pn	02 29 30.9	+0.1
BAYC				S	Sn	02 29 51.6	-1.5
RZN	Rozhen	1.75	9	P	Pn	02 29 31.3	-0.4
AXAR	Agios Charalam	1.78	228	P	Pn	02 29 31.8	-0.2
AXAR				AML	AML		
GRG	Griva	1.79	304	P	Pn	02 29 31.4	-0.6
GRG				AML	AML		
ERIK	Erikli-Kesan	1.79	66	Pn	Pn	02 29 31.7	-0.4
ERIK				AML	AML		
KDZ	Kurdzhali	1.82	24	Pn	Pn	02 29 32.5	0.0
KDZ				AML	AML		
KDZ	Kurdzhali	1.82	24	P	Pn	02 29 32.3	-0.2
AGG	Agios Georgios	1.83	240	P	Pn	02 29 31.4	-1.2
AGG				AML	AML		
THL	Klokotos Trika	1.85	258	P	Pn	02 29 32.6	-0.3
GOKT	Kean, EDRN	1.87	67	P	Pn	02 29 32.5	-0.6
GOKT				S	Sn	02 29 55.0	-2.2
LPK	Lapseki	1.89	77	Pn	Pn	02 29 33.1	-0.3
LPK				AML	AML		
STFN	Stefani	1.90	200	P	Pn	02 29 33.0	-0.5
STFN				AML	AML		
DION	Dionisos Attik	1.91	190	P	Pn	02 29 32.8	-1.0
VAY	Valandovo	1.92	315	*i* Pn	Pg	02 29 38.0	+0.9
AYVA	Ayvalik	1.92	109	P	Pn	02 29 33.1	-0.7
LAPS	Lapseki, ANA	1.93	81	P	Pn	02 29 33.5	-0.4
LAPS				S	Sn	02 29 55.4	-3.3
KARY	Karystos	1.93	178	P	Pn	02 29 33.1	-0.9
KARY				AML	AML		
VIL2	Platees	1.94	206	P	Pn	02 29 33.8	-0.5
VIL2				AML	AML		
PTL	Penteli	1.95	191	P	Pn	02 29 32.7	-1.7
PTL				AML	AML		
KESN	Edirne-Kesan	1.97	63	P	Pn	02 29 34.0	-1.0
ATHU	Athens Univers	2.05	193	P	Pn	02 29 34.9	-0.7
ATHU				AML	AML		
CHOS	Chios island	2.06	140	Pn	Pn	02 29 36.2	+0.4
CHOS				AML	AML		
CHOS	Chios island	2.06	140	P	Pn	02 29 35.8	0.0
CHOS				AML	AML		
KARB	zmir-Karabur	2.06	129	P	Pn	02 29 35.0	-0.8
CANM	Can-anakkale	2.07	88	Pn	Pn	02 29 35.9	-0.1
CANM				AML	AML		
UKOP	Uzunkopru-Edir	2.09	55	Pn	Pn	02 29 36.0	-0.2
UKOP				AML	AML		
KKB	Krupnik	2.09	334	P	Pb	02 29 37.1	-1.8
KKB				S	Sg	02 30 07.4	-0.2
PEHC	Pehcevo	2.12	329	*i* Pn	Pg	02 29 40.8	-0.2
YAYO	Edremit-Balk	2.12	99	Pn	Pn	02 29 36.9	+0.3
YAYO				AML	AML		
BUHA	Balikesir, Bur	2.15	102	P	Pn	02 29 37.6	+0.5
VLY	Voula,Athens	2.15	192	P	Pn	02 29 36.5	-0.6
VLY				AML	AML		
BIGA	Biga-Canakkale	2.17	81	Pn	Pn	02 29 37.1	-0.1
DKL	Dikili	2.17	114	Pn	Pn	02 29 37.6	+0.4
DKL				AML	AML		
DKL	Dikili	2.17	114	P	Pn	02 29 37.4	+0.2
PLD	Plovdiv	2.20	8	Pn	Pn	02 29 37.3	-0.4
PLD				AML	AML		
PLD	Plovdiv	2.20	8	P	Pn	02 29 37.8	+0.1
YENI	Yenice-Canakka	2.22	90	Pn	Pn	02 29 38.1	+0.1
EVR	Evrytania	2.23	243	P	Pn	02 29 38.3	0.0
EVR				AML	AML		
LOUT	Loutraki	2.25	209	P	Pn	02 29 38.1	-0.2
LOUT				AML	AML		
RKY	Sarkoy-Tekirda	2.27	71	Pn	Pn	02 29 38.9	+0.1
RKY				AML	AML		
KRBG	Karabiga-Canak	2.29	78	Pn	Pn	02 29 38.9	-0.1
KRBG				AML	AML		
KPRO	Kipourio	2.30	271	P	Pn	02 29 39.2	+0.1
KPRO				AML	AML		
ZEDA	zmir-Bergama	2.33	114	P	Pn	02 29 40.2	+0.7
ANX	Ano Chora	2.33	235	P	Pn	02 29 39.7	0.0
ANX				AML	AML		
SERG	Sergoula	2.37	230	P	Pn	02 29 39.6	-0.4
SERG				AML	AML		
ACOR	Acrocorinthos	2.38	210	P	Pn	02 29 38.8	-1.4
ACOR				AML	AML		
PYRG	Pyrgos, Dorida	2.39	230	P	Pn	02 29 40.0	-0.3
PYRG				AML	AML		
GAZK	Gazikoy-TEKIRD	2.40	70	Pn	Pn	02 29 40.7	+0.2
GAZK				AML	AML		
EFP	Efpalio	2.45	232	P	Pn	02 29 41.0	0.0
EFP				AML	AML		
MET4	Agioi Theodoro	2.46	198	P	Pn	02 29 40.0	-1.2
AGEO	AgiosGiorgios,	2.46	227	P	Pn	02 29 40.9	-0.3
ATIT	Gnen	2.47	86	P	Pn	02 29 41.2	-0.2
MET2	Kameni Chora,	2.48	199	P	Pn	02 29 41.2	-0.4
MET2				AML	AML		
MET6	Megalochori,Me	2.50	199	P	Pn	02 29 41.5	-0.3
VVK	Vomvokou	2.51	233	P	Pn	02 29 41.8	-0.2
VVK				AML	AML		
AIOA	Agios Ioannis,	2.52	226	P	Pn	02 29 42.0	-0.1
BALY	Balya	2.52	94	P	Pn	02 29 42.0	-0.2
MADA	Marmara adas	2.52	75	P	Pn	02 29 41.6	-0.6
MADA				S	Sg	02 30 20.5	-1.0
MADA				IAML		02 30 27.0	
	comp=N,162nm,0.7s						
LAKA	Lakka	2.53	228	P	Pn	02 29 42.3	+0.1
PRMD	Pramanda	2.55	261	P	Pn	02 29 42.8	+0.2
PRMD				AML	AML		
EDRB	Edirne	2.61	43	Pn	Pn	02 29 43.7	+0.4
EDRB				AML	AML		
BLCB	Balcova	2.62	126	Pn	Pn	02 29 44.1	+0.7
STEP	BALIKESIR_Sava	2.66	102	P	Pn	02 29 44.4	+0.3
MURA	Muratl, TEK	2.66	63	P	Pn	02 29 44.2	+0.1
MURA				S	Sg	02 30 26.9	+1.0
MURA				IAML		02 30 29.0	
	comp=E,256nm,0.6s						
MURA				IAML		02 30 30.0	
	comp=N,120nm,0.6s						
BKES	Balkesir-Mer	2.76	94	P	Pn	02 29 45.0	-0.5
CMHT	Manyas	2.78	88	P	Pn	02 29 44.2	-1.5
BAND	Balkesir-Ban	2.90	81	⇑P	Pn	02 29 47.8	+0.5
GCAM	G?zelcaml?	3.19	134	Pn	Pn	02 29 52.1	+0.8
GCAM				AML	AML		
MPEP	Malo Peshtene	3.42	352	P	Pn	02 29 56.1	+1.6
PLVB	Pleven	3.42	3	⇑P	Pn	02 29 55.7	+1.2
BDRM	Kayabasi	3.78	139	⇑P	Pn	02 29 59.7	+0.3
BOVS	Bovan	4.17	332	⇑P	Pn	02 30 06.1	+1.4
TAVA	DENIZLI_Tavas	4.35	124	⇑P	Pn	02 30 08.5	+1.1
SAHE	Sakarya_HENDEK	5.04	78	⇑P	Pn	02 30 17.3	+0.6
ISR	Istrita	5.40	17	⇑P	Pn	02 30 24.6	+2.9
ARR	Arges	5.40	2	⇑P	Pn	02 30 22.8	+1.0
TIRR	Tirgusor	5.41	33	⇓P	Pn	02 30 23.8	+2.0
VOIR		5.49	5	⇑P	Pn	02 30 24.1	+1.1
GZR	Gura Zlata	5.55	348	⇑P	Pn	02 30 26.4	+2.6
NEHR	Nehoiu	5.64	14	⇑P	Pn	02 30 27.6	+2.6
MLR	Muntele Rosu	5.64	11	⇑P	Pn	02 30 27.4	+2.3
BISRR	Bisoca	5.84	16	⇑P	Pn	02 30 30.6	+2.8
CFR	Carcaliu	5.91	27	⇑P	Pn	02 30 29.5	+0.8
BZS	Buzias	6.00	341	⇑P	Pn	02 30 30.4	+0.5
SAHR	Sahastru	6.01	16	⇑P	Pn	02 30 33.0	+2.9
SURR	Surduc	6.01	345	⇑P	Pn	02 30 31.4	+1.3
COVR	Voineasa-Covas	6.03	12	⇑P	Pn	02 30 33.0	+2.6

PLOR	Plostina	6.12	15	⇑P	Pn	02 30 34.3	+2.7
VRI	Vrincioaia	6.15	16	⇑P	Pn	02 30 34.7	+2.7
MDB	Medias	6.17	0	⇑P	Pn	02 30 35.0	+2.7
TURR	Turia	6.21	11	⇑P	Pn	02 30 34.6	+1.8
OZUR		6.22	9	⇑P	Pn	02 30 34.6	+1.7
VLDR	Vladesti	6.48	24	⇑P	Pn	02 30 38.7	+2.2
TESR	Tescani	6.75	14	⇓P	Pn	02 30 42.4	+2.2
MARR	Marisel-Cluj	6.77	353	⇑P	Pn	02 30 42.2	+1.7
BIZ	Bicaz	7.08	10	⇑P	Pn	02 30 47.1	+2.3
BRTR	Keskin Array B	7.15	89	Pn	Pn	02 30 46.7	+0.9
	0.4nm,0.3s,baz=268,slow=12,SNR=18						
BRTR				Sn	Sn	02 32 05.2	-2.3
	0.1nm,0.3s,baz=274,slow=18,SNR=1.3						
	1.2nm,0.4s						
BRTR				AML	AML		
BURAR	Bucovina Array	7.67	4	⇑P	Pn	02 30 55.9	+2.9
FINES	FINESS Array B	21.53	2	LR	LR	02 43 01.9	
	comp=Z,31nm,19.1s,baz=283,slow=39						
TORD	Torodi Ar. Bea	33.34	223	P	P	02 35 42.4	+2.9
	0.4nm,0.5s,baz=31,slow=9.2,SNR=5.2						
	0.4nm,0.5s						
MKAR	Makanchi Array	41.82	61	P	P	02 36 50.8	-0.3
	0.3nm,0.5s,baz=284,slow=6.7,SNR=2.8						
	0.3nm,0.5s						
ZALV	Zalesovo Beam	42.27	50	P	P	02 36 55.5	+0.9
	0.5nm,0.3s,baz=282,slow=8.3,SNR=1.7						
	0.5nm,0.3s						
MATP	Matopo	60.20	176	LR	LR	03 04 44.5	
	comp=Z,102nm,19.5s,baz=136,slow=36						

*HEL **28** 02:40:52.1±0.2, 67°.80N×20°.22E, h0^{km}, ML1.4, Suspected explosion*

*IDC **28** 02:40:54.0±1.9, 67°.82N×20°.47E, h0^{km}, mbtmp2.6/3, ML1.9/3, Error ellipse: s-maj=26.6km s-min=14.2km az=105.0*

ISC 28 02:40:51.5±0.9, **67°.82N**±0°.04×**20°.13E**±0°.04, **h0^{km}, n21,** σ**1^{s}36**/33, **Sweden**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LANU	Lannavaara	0.74	71	PG	Pg	02 41 04.6	-1.1
LANU				SG	Sg	02 41 14.0	-1.2
SALU	Saltoluokta	0.76	236	*e*P	Pg	02 41 05.6	-0.4
PAJU	Pajala	1.40	123	PG	Pg	02 41 16.2	-2.0
	baz=304						
PAJU				SN	Sn	02 41 38.7	+1.3
HEF	Hetta	1.45	64	*e*P	Pn	02 41 18.0	-1.0
HEF	Hetta	1.45	64	PG	Pn	02 41 17.5	-1.4
HEF				smax	smax	02 41 35.1	
	comp=Z,2.9nm,0.2s						
HEF				SG	Sg	02 41 37.1	-0.9
ERTU	Ertsjaerv	1.50	147	PG	Pn	02 41 18.4	-1.2
	baz=330						
ERTU				SN	Sn	02 41 42.0	+2.1
KLF	Kolari	1.59	110	PG	Pn	02 41 19.8	-1.0
KLF				smax	smax	02 41 38.5	
	comp=Z,2.3nm,0.2s						
KLF				SN	Sn	02 41 42.2	+0.2
KTK1	Kautokeino	1.66	42	PG	Pn	02 41 22.4	+0.6
KTK1				SN	Sb	02 41 45.4	+1.0
TRO	Tromso	1.88	347	PB	Pn	02 41 25.3	+0.5
TRO				SG	Sn	02 41 49.9	+0.9
TOF	Tornio	2.40	135	PG	Pn	02 41 32.9	+1.0
TOF				smax	smax	02 42 02.1	
	comp=Z,1.6nm,0.2s						
TOF				SG	Sb	02 42 05.8	+0.2
RNF	Rovaniemi	2.59	115	PG	Pn	02 41 36.3	+1.7
RNF				SG	Sb	02 42 10.5	-0.6
ARA0	ARCESS Array S	2.62	46	PB	Pn	02 41 36.5	+1.6
ARA0				SG	Sb	02 42 10.9	-0.9
ARCES	ARCESS Array B	2.62	46	Pn	Pn	02 41 35.7	+0.8
	comp=Z,0.3nm,0.3s,baz=229,slow=14,SNR=23						
ARCES				Sn	Sn	02 42 08.2	+0.9
	comp=Z,1.0nm,0.3s,baz=231,slow=23,SNR=14						
	comp=Z,0.7nm,0.3s						
ARCES				AML	AML		
RAJF	Raja-Jooseppi	3.13	74	PB	Pn	02 41 43.4	+1.4
RAJF				SG	Sb	02 42 27.1	+0.5
KEV	Kevo	3.17	49	SG	Sb	02 42 28.5	+0.9
BURU	Burvik	3.29	171	PB	Pb	02 41 48.6	-1.9
VRF	Varrio	3.60	87	SG	Sb	02 42 41.0	+0.8
OLKF	Oulanka, Finla	3.93	108	PB	Pn	02 41 55.9	+3.0
KU6	Riekki	4.24	111	PG	Pb	02 42 08.2	+1.4
	baz=296						
FINES	FINESS Array B	6.89	155	Pn	Pn	02 42 33.0	-0.6
	comp=Z,0.1nm,0.3s,baz=348,slow=12,SNR=1.2						
FINES				Lg	Lg	02 44 23.2	
	comp=Z,0.1nm,0.3s,baz=349,slow=29,SNR=5.2						
	comp=Z,0.7nm,0.8s						
FINES				AML	AML		
NOA	NORSAR Array B	7.81	214	Pn	Pn	02 42 48.8	+2.5
	baz=23,slow=13,SNR=2.1						
	comp=Z,0.2nm,0.7s						

*MOS **28** 02:44:17.8±0.9, 52°.01N×169°.71W, h10^{km}, mb5.6/84, MS4.7/20, Error ellipse: s-maj=8.0km s-min=4.4km az=103.4*

*BJI **28** 02:44:18.9, 52°.25N×170°.19W, h10^{km}, mB5.4/41, mb5.3/80, Ms5.1/77, Ms7 5.0/75*

*NEIC **28** 02:44:19.5, 51°.95N×169°.60W, h10^{km}*

*NEIC **28** 02:44:19.8, 51°.55N×169°.60W, h26^{km}, Moment Tensor Solution. Duration: 1^{s}8 Moment tensor: Scale 10^{16}Nm; M_{rr}7.18; $M_{\theta\theta}$-7.26; $M_{\phi\phi}$0.08; $M_{r\theta}$1.15; $M_{\theta\phi}$-3.12; $M_{\phi r}$0.71; Fault plane solution: $M_0$7.98000×10^{16} NP1: ϕ_s252.43000°, δ40.25000°, λ93.88000°. NP2: ϕ_s67.35000°, δ49.86000°, λ86.72000°. Principal axes: T 7.3027, Plg85.0000°, Azm312.0000°; N 1.2115, Plg3.0000°, Azm69.0000°; P -8.5142, Plg5.0000°, Azm160.0000°;*

*GFZ **28** 02:44:20.3, 52°.07N×169°.77W, h17^{km}, Mw5.1/21, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}5.76; $M_{\theta\theta}$-5.28; $M_{\phi\phi}$-0.49; $M_{r\theta}$-2.11; $M_{\theta\phi}$-1.46; $M_{\phi r}$0.12; Fault plane solution: $M_0$6.10511×10^{16} NP1: ϕ_s68.21059°, δ35.68850°, λ79.91020°. NP2: ϕ_s260.56815°, δ54.94546°, λ97.17209°. Principal axes: T 6.1763, Plg78.6501°, Azm197.2212°; N -0.1449, Plg5.8660°, Azm76.4344°; P -6.0314, Plg9.6821°, Azm345.4300°;*

*GFZ **28** 02:44:20.7±0.3, 52°N±7°×17°0W±°, h10^{km}, M5.1/25, mb5.2/25*

*NEIC **28** 02:44:20.3±2.5, 51°.95N±0°.05×169°.61W±0°.08, h15^{km}±3^{km}, mb5.2/630, ML4.9/18, Mww5.2/29, Error ellipse: s-maj=7.9km s-min=6.6km az=148.0*

*IDC **28** 02:44:21.5±3.0, 52°.03N×169°.70W, h23^{km}±18^{km}, mb4.9/37, mbtmp5.0/40, ML4.6/3, MS4.6/58, Error ellipse: s-maj=14.0km s-min=8.9km az=163.0*

*GCMT **28** 02:44:22.3±0.1, 51°.83N±0°.01×169°.65W±0°.01, h14^{km}, MW5.2/146, Moment Tensor Solution. s108,c180; s146,c266; Duration: 1^{s}0 Moment tensor: Scale 10^{16} Nm; M_{rr}5.74±.12; $M_{\theta\theta}$-4.95±.10; $M_{\phi\phi}$-0.78±.08; $M_{r\theta}$4.06±.21; $M_{\theta\phi}$-2.23±.06; $M_{\phi r}$2.16±.19; Best double couple: $M_0$7.42500×10^{16} NP1: ϕ_s250.00000°, δ26.00000°, λ95.00000°. NP2: ϕ_s64.00000°, δ64.00000°, λ87.00000°. Principal axes: T 7.3430, Plg71.0000°, Azm328.0000°; N 0.1670, Plg2.0000°, Azm65.0000°; P -7.5080, Plg19.0000°, Azm156.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*AEIC **28** 02:44:22.9±2.0, 51°.97N±0°.05×169°.64W±0°.08, h20^{km}±3^{km} Error ellipse: s-maj=8.0km s-min=6.5km az=149.0*

ISC 28 02:44:20.7±0.5, **51°.99N**±0°.04×**169°.67W**±0°.03, **h20**^{km}±2^{km}, **h20^{km}:pP-P, n1120,** σ**1^{s}48**/913, **mb5.3**/483, **MS4.7**/104, **101C-25D, Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CLCO	Concord Point,	0.80	357		Pn	02 44 37.4	+0.6
CLCO					Pg	02 44 37.9	+1.6
CLCO					Pg	02 44 38.3	+2.0
CLCO					Sn	02 44 49.8	+1.8
CLES	Cleveland East	0.84	350		Pn	02 44 38.0	+0.5
CLES					Sn	02 44 49.1	-0.1
CLES				IAML		02 44 56.1	
	comp=E,42μm,0.9s						
OKSP	Okmok Steeple	1.51	33		Pn	02 44 46.9	+0.2
OKCE	Okmok Cone E	1.70	32		Pb	02 44 50.1	-1.2
OKTU	Okmok Mt. Tuli	1.71	35		Pn	02 44 50.1	+0.8
OKNC	Okmok New Cone	1.74	32		Pb	02 44 51.1	-0.8
OKNC					Sn	02 45 11.5	+0.2
OKFG	Magazine Ridge	1.78	36		Pn	02 44 51.0	+0.8
OKFG					Pb	02 44 51.3	-1.2
MAPS	Pakushin South	2.46	41		Pn	02 45 00.3	+0.7
MGOD	Makushin Gods	2.47	42		Pn	02 45 00.4	+0.5
MGOD					Sn	02 45 30.2	+0.7
MSW	Makushin Switc	2.60	41		Pn	02 45 02.4	+0.9
MNAT	Makushin Natee	2.62	42		Pn	02 45 02.6	+0.8
MNAT					Sn	02 45 33.6	+0.7
UNV	Unalaska Valle	2.67	45	P	Pn	02 45 03.4	+1.0
UNV	Unalaska Valle	2.67	45	Pn	Pn	02 45 02.6	+0.1
UNV				Sn	Sn	02 45 33.0	-1.1
UNV				IAML		02 46 03.0	
	comp=N,4μm,1.2s						
KOSE	Korovin Southe	2.72	279		Pn	02 45 04.9	+1.6
KOFP	Korovin Flat P	2.75	278		Pn	02 45 04.7	+1.1
ATKA	Atka Island	2.80	276	P	Pn	02 45 04.6	+0.3
ATKA	Atka Island	2.80	276	S	Sn	02 45 37.3	-0.2
ATKA	Atka Island	2.80	276	Pn	Pn	02 45 04.2	-0.2
KOKL	Mount Kliuchef	2.81	279		Pn	02 45 06.0	+1.4
KOWE	Korovin West	2.85	279		Pn	02 45 06.8	+1.8
LVA	Lava Point	3.08	44	Pn	Pn	02 45 09.8	+1.6
AKBBA	Akutan Broad B	3.09	45		Pn	02 45 10.1	+1.8
AKV	Akutan Volcano	3.09	45		Pn	02 45 10.6	+2.2
AKLV	Akutan Long Va	3.12	44		Pn	02 45 11.0	+2.3
AKUT	Akutan	3.18	46	P	Pn	02 45 11.1	+1.6
AKUT	Akutan	3.18	46	S	Sn	02 45 48.5	+1.7
AKUT	Akutan	3.18	46	Pn	Pn	02 45 11.6	+2.1
AKUT				IAML		02 46 06.4	
	comp=N,3μm,1.8s						
GSIG	Igitkin Island	3.87	272		Pn	02 45 20.0	+0.9
GSIG					Sn	02 46 04.6	+0.7
GSMY	Great Sitkin M	3.95	273		Pn	02 45 21.0	+0.9
GSTR	Great Sitkin T	3.95	274	Pn	Pn	02 45 20.1	0.0
GSTR				IAML		02 46 30.9	
	comp=E,3μm,1.1s						
GSTD	Great Sitkin T	4.00	273		Pn	02 45 21.9	+0.9
GSSP	Great Sitkin S	4.02	274		Pn	02 45 22.1	+1.0
ADAG	Mount Adagdak	4.29	273		Pn	02 45 26.3	+1.5
SSBA	Shishaldin	4.33	48		Pn	02 45 28.5	+3.1
ADK	Adak	4.34	271	P	Pn	02 45 26.2	+0.7
ADK	Adak	4.34	271	S	Sn	02 46 15.7	+0.2
ADK	Adak	4.34	271	P	Pn	02 45 25.1	-0.4
ADK	Adak	4.34	271	Pn	Pn	02 45 25.1	-0.4
ADK	Adak	4.34	271	IAML		02 46 22.3	
	comp=E,1μm,1.2s						
ADK				IAML		02 46 47.0	
	comp=E,2μm,1.4s						
ADK	Adak	4.34	271	P	Pn	02 45 26.6	+1.1
KIWB	Kanaga Island	4.64	271	Pn	Pn	02 45 29.3	-0.2
KIWB				IAML		02 46 48.2	
	comp=E,1μm,1.5s						
KIWB				IAML		02 46 52.7	
	comp=N,1μm,1.6s						
TAPA	Tanaga Point A	5.05	271		Pn	02 45 37.3	+2.0
TAFL	Tanaga Flats	5.11	271		Pn	02 45 37.4	+1.4
SPIA	Saint Paul Isl	5.21	356	P	Pn	02 45 40.7	+3.4
SPIA	Saint Paul Isl	5.21	356	Pn	Pn	02 45 40.5	+3.2
SPIA				IAML		02 46 22.1	
	comp=E,707nm,1.3s						
SPIA				IAML		02 47 01.0	
	comp=N,801nm,0.8s						
DT1	Dutton Round H	5.39	52		Pn	02 45 41.5	+1.6
DTNA	Dutton South F	5.43	51		Pn	02 45 42.5	+2.0
DOL	Dolgoi Island	5.62	53		Pn	02 45 45.0	+1.9
GAEA	Gareloi East	5.63	271		Pn	02 45 45.2	+2.0
GANE	Gareloi Northe	5.64	272		Pn	02 45 45.5	+2.2
GALAA	Gareloi Lava P	5.65	271		Pn	02 45 45.5	+2.1
GAKI	Gareloi-Kavalg	5.70	269		Pn	02 45 45.5	+1.4
PS1A	Pavlof South-1	5.82	51		Pn	02 45 48.8	+3.0
S12K	Black Hills	5.83	47	Pn	Pn	02 45 49.0	+3.0
SDPT	Sand Point	6.41	55	P	Pn	02 45 56.1	+2.2
SDPT	Sand Point	6.41	55	S	Sn	02 47 08.3	+1.9
SDPT	Sand Point	6.41	55	Pn	Pn	02 45 55.7	+1.9
CERB	Semis' Cerberu	6.62	274		Pn	02 45 59.6	+2.8
CNBA	Chernabura Isl	6.66	61	Pn	Pn	02 45 57.1	-0.1
CHNA	Chernabura Isl	6.66	61	P	Pn	02 45 58.0	+0.7
AMKA	Amchitka	6.89	269	Pn	Pn	02 46 01.2	+0.8
LSNW	Little Sitkin	7.30	274		Pn	02 46 08.3	+2.2
VNFG	Fog Glacier, M	7.33	50	Pn	Pn	02 46 09.0	+2.4
CHGN	Chignik	7.89	52	Pn	Pn	02 46 14.8	+0.7
O15K	Ungalikthiuk R	9.09	34	Pn	Pn	02 46 33.2	+2.5
N14K	Kuskokwak Cree	9.11	26	Pn	Pn	02 46 33.9	+3.0
CHIR	Chirikof Islan	9.13	60	Pn	Pn	02 46 31.1	-0.1
M13K	Dall Lake	9.14	20	Pn	Pn	02 46 33.7	+2.5
P16K	Nushagak River	9.66	39	Pn	Pn	02 46 40.8	+2.4
M14K	Bethel	9.76	23	Pn	Pn	02 46 44.0	+4.3
O16K	Kokwok River B	10.01	36	Pn	Pn	02 46 44.6	+1.5
ACHA	Angle Creek He	10.30	47	Pn	Pn	02 46 48.2	+1.0
P17K	Kvichak River	10.38	41	Pn	Pn	02 46 52.0	+3.7
J14K	Nanvaranak Lak	11.27	15	Pn	Pn	02 47 05.0	+4.6
O18K	Koktuh Hills	11.28	40	Pn	Pn	02 47 01.9	+1.3
KDAK	Kodiak Island	11.40	53	Pn	Pn	02 47 00.9	-1.3
	comp=N,3.4nm,0.3s,baz=246,slow=8.5,SNR=14						
KDAK				Sn	Sn	02 49 02.0	-6.8
	baz=272,slow=19						
	comp=N,12nm,0.4s						
KDAK				AML	AML		
KDAK	Kodiak Island	11.40	53	⇓*e*P	Pn	02 47 00.4	-1.8
KDAK				pmax	pmax		
	comp=Z,14nm,0.4s						
Q19K	Cape Douglas,	11.42	46	Pn	Pn	02 47 02.5	-0.1
M17K	Holitna River	11.55	31	Pn	Pn	02 47 08.4	+4.1
N18K	Kilae Creek	11.56	36	Pn	Pn	02 47 08.5	+4.1
N19K	Bonanza Creek	12.17	38	Pn	Pn	02 47 15.3	+2.5
HOM	Homer	12.68	46	Pn	Pn	02 47 20.2	+0.6
J18K	Innoko River	13.38	26	Pn	Pn	02 47 33.0	+3.7
SLKM	Skilak Lake	13.72	44	Pn	Pn	02 47 33.3	-0.5
G16K	Koyuk River	13.95	13	Pn	P	02 47 41.1	-3.8
J20K	Nowinta River	14.65	28	Pn	Pn	02 47 49.2	+2.6
PWL	Port Wells	14.70	45	Pn	Pn	02 47 43.9	-3.4
PMR	Palmer	14.73	41	P	Pn	02 47 48.3	+0.7
PMR	Palmer	14.73	41	P	Pn	02 47 46.6	-1.0
PMR	Palmer	14.73	41	Pn	Pn	02 47 46.6	-1.0
GHO	Glory Hole Cre	14.91	41	Pn	Pn	02 47 50.3	+0.2
KNK	Knik Glacier	14.91	43	Pn	Pn	02 47 47.9	-2.3
SML	Sawmill	15.17	41	Pn	Pn	02 47 51.7	-1.9
SML				IAmb	IAmb	02 47 58.1	
	comp=Z,137nm,1.2s						
KTH	Kantishna Hill	15.22	33	IAmb	IAmb	02 48 00.5	
	comp=Z,158nm,1.4s						
HIN	Hinchinbrook I	15.32	48	Pn	Pn	02 47 52.3	-3.2
FID	Port Fidalgo	15.47	46	IAmb	IAmb	02 48 00.9	
	comp=Z,130nm,1.3s						
BPAW	Bear Paw Mtn.	15.56	32	IAmb	IAmb	02 48 04.0	
	comp=Z,301nm,1.2s						
SCM	Sheep Creek Mo	15.59	42	P	Pn	02 47 55.8	-3.4
SCM				pmax	pmax		
	comp=Z,269nm,1.1s						
SCM	Sheep Creek Mo	15.59	42	Pn	Pn	02 47 55.8	-3.4
SCM				IAmb	IAmb	02 48 03.5	
	comp=Z,269nm,1.1s						
I21K	Tanana	16.02	28	IAmb	IAmb	02 48 10.6	
	comp=Z,126nm,1.0s						
BWN	Browne	16.11	33	IAmb	IAmb	02 48 09.1	
	comp=Z,211nm,1.4s						
IMAR	Indian Mountai	16.17	24	Pn	Pn	02 48 06.2	-0.2
MLY	Manley	16.28	29	IAmb	IAmb	02 48 13.0	
	comp=Z,194nm,1.1s						
BMRM	Bremner River	16.40	47	Pn	Pn	02 48 07.8	-1.7
HARP	HAARP	16.76	42	IAmb	IAmb	02 48 17.0	
	comp=Z,182nm,1.0s						
GLB	Gilahina Butte	16.94	46	Pn	Pn	02 48 14.6	-1.7
WAX	Waxell Ridge	17.04	50	IAmb	IAmb	02 48 23.1	
	comp=Z,518nm,1.6s						
COLA	College	17.10	33	P	Pn	02 48 17.6	-0.6
COLA	College	17.10	33	*d i*P	Pn	02 48 17.6	-0.6
COLA				pmax	pmax		
	comp=Z,43nm,1.0s						
COLA	College	17.10	33	P	Pn	02 48 17.8	-0.4
	comp=Z,54nm,1.0s						
ILAR	Eielson Array	17.36	34	P	Pn	02 48 20.0	-1.5
	comp=Z,0.9nm,0.3s,baz=240,slow=10,SNR=37						
ILAR				ScP	ScP	02 56 35.2	-0.8
	comp=Z,1.9nm,0.9s,baz=264,slow=3.5,SNR=7.6						
	comp=Z,5.6nm,0.6s						
ILAR				AML	AML		
MESA	MESA	17.39	51	Pn	Pn	02 48 21.5	-0.6
MESA				IAmb	IAmb	02 48 27.5	
	comp=Z,409nm,1.2s						
YAH	Yahtse	17.54	51	IAmb	IAmb	02 48 28.5	
	comp=Z,243nm,1.0s						
MENT	Mentasta	17.60	41	P	Pn	02 48 24.6	+0.1
GRNC	Granite Creek	17.64	49	IAmb	IAmb	02 48 28.8	
	comp=Z,173nm,1.2s						
M26K	Nabesna, AK	17.67	44	Pn	Pn	02 48 23.3	-2.0
TABL	Table Mountain	17.84	51	IAmb	IAmb	02 48 37.8	
	comp=Z,257nm,1.3s						
SCRK	Sand Creek	17.98	38	Pn	Pn	02 48 27.4	-1.9
LOGN	Logan Glacier	18.02	49		P	02 48 30.1	0.0
LOGN				IAmb	IAmb	02 48 40.8	
	comp=Z,160nm,1.3s						
M27K	Edge Creek, AK	18.13	44	Pn	Pn	02 48 29.8	-1.4
PCA	Pinnacle	18.19	52		Pn	02 48 31.4	-0.4
PCA				IAmb	IAmb	02 48 39.4	
	comp=Z,120nm,0.8s						
PRP	Porcupine Dome	18.27	33	Pn	Pn	02 48 30.2	-2.7
O28M	Mount Upton	18.39	50	P	Pn	02 48 34.5	0.0
L27K	Beaver Creek,	18.43	42	P	P	02 48 32.9	-1.7
BCAR	Beaver Creek A	18.45	42	P	P	02 48 33.6	-1.2
E23K	Chandalar	18.81	24	P	Pn	02 48 39.1	-0.2
F24K	Squaw Lake	18.86	26	P	Pn	02 48 39.9	0.0
FYU	Fort Yukon	19.01	31	P	P	02 48 39.9	-0.9
FYU				IAmb	IAmb	02 48 45.0	
	comp=Z,129nm,1.3s						
O29M	Mount Kennedy	19.05	52	P	Pn	02 48 42.8	+0.5
O29M				IAmb	IAmb	02 48 46.2	
	comp=Z,190nm,1.1s						
PET	Petropavlovsk	19.23	286	*e*P	Pn	02 48 45.3	+0.9
PET				*e*S	S	02 52 20.6	+0.4
PET				pmax	pmax		
	comp=Z,500nm,14.0s						
PET				pmax	pmax		
	comp=Z,600nm,13.5s						
PET				pmax	pmax		
	comp=Z,53nm,1.3s						
PET				MLR	MLR		
	comp=Z,2μm,18.0s						
PET				MLR	MLR		
	comp=Z,2μm,17.0s						
PET	Petropavlovsk	19.23	286	P	P	02 48 43.7	+0.3
	comp=Z,88nm,0.9s						
PET	Petropavlovsk	19.23	286	P	P	02 48 43.8	+0.3
	comp=Z,93nm,0.9s						
D23K	Nanushuk River	19.26	21	P	Pn	02 48 44.5	-0.1
F25K	Christian Rive	19.54	28	P	P	02 48 46.6	-0.2
BMAR	Burnt Mountain	19.75	29	P	P	02 48 48.7	-0.3
PEA0B	Petropavlovsk-	19.79	286	*d i*P	P	02 48 50.1	+0.6
PEA0B	Petropavlovsk-	19.79	286	P	P	02 48 49.8	+0.4
PEA0B				IAmb	IAmb	02 48 51.6	
	comp=Z,162nm,0.9s						
PETK	Petropavlovsk-	19.79	286	P	P	02 48 50.1	+0.7
	comp=Z,19nm,0.3s,baz=82,slow=12,SNR=149						
	comp=Z,55nm,0.5s						
PETK				AML	AML		
BILL	Bilibino	19.85	333	*ce*P	Pn	02 48 51.2	-0.5
BILL				pmax	pmax		
	comp=Z,79nm,1.0s						
E25K	Arctic Village	19.92	27	P	P	02 48 51.3	+0.5
L29M	L29M	20.01	44	P	P	02 48 52.0	+0.1
N30M	Aishikik Lake	20.02	49	IAmb	IAmb	02 48 56.0	
	comp=Z,207nm,0.9s						
H27K	Steamboat Moun	20.04	34	IAmb	IAmb	02 48 54.6	
	comp=Z,115nm,1.1s						
F26K	Sheenjek River	20.05	29	P	P	02 48 52.0	-0.2
SKAG	Skagway	20.54	55	P	Pn	02 48 59.3	-0.4
SKAG				IAmb	IAmb	02 49 13.1	
	comp=Z,89nm,0.8s						
N31M	Braeburn, Yuko	20.64	49	IAmb	IAmb	02 49 02.2	
	comp=Z,105nm,0.8s						
R32K	Eaglecrest	20.87	59	P	P	02 49 02.3	+1.2
WHY	Whitehorse	20.91	52	P	Pn	02 49 03.7	-0.6
JIS	Juneau Island	20.94	59	P	P	02 49 00.0	-1.9
H29M	Whitestone	21.15	36	IAmb	IAmb	02 49 20.6	
	comp=Z,110nm,0.8s						
P32M	Atlin	21.37	55	IAmb	IAmb	02 49 26.1	
	comp=Z,144nm,1.4s						
M31M	Drury Creek, Y	21.43	48	P	P	02 49 08.0	+0.8
M31M				IAmb	IAmb	02 49 22.7	
	comp=Z,66nm,1.0s						
G29M	Pine Creek	21.59	34	P	P	02 49 07.6	-1.2
EPYK	Eagle Plains	21.81	36	IAmb	IAmb	02 49 24.6	
	comp=Z,127nm,0.8s						
P33M	Teslin, Yukon	21.87	53	IAmb	IAmb	02 49 20.1	
	comp=Z,212nm,1.2s						
Q32M	Nakina River	22.07	57	P	P	02 49 16.0	+1.7
G30M	tAoh Zraii Nji	22.25	35	IAmb	IAmb	02 49 20.3	
	comp=Z,96nm,1.1s						
H31M	Peel River	22.48	39	IAmb	IAmb	02 49 19.1	
	comp=Z,126nm,1.1s						
F30M	Barrier River	22.69	34	P	P	02 49 19.6	-0.9
F30M				IAmb	IAmb	02 49 32.9	
	comp=Z,68nm,1.0s						
R33M	Jennings River	22.75	56	P	P	02 49 24.4	+2.9
R33M				IAmb	IAmb	02 49 38.3	
	comp=Z,158nm,1.4s						
SEY	Seymchan	22.79	313	*c i*P	P	02 49 21.4	-0.3
SEY				pmax	pmax		
	comp=Z,107nm,1.7s						
G31M	Satah River	22.93	36	P	P	02 49 21.0	-2.1
G31M				IAmb	IAmb	02 49 37.5	
	comp=Z,55nm,1.0s						
T35M	Bob Quinn	23.19	62	IAmb	IAmb	02 49 40.2	
	comp=Z,56nm,1.1s						
MA2	Magadan	23.20	305	*ce*P	P	02 49 26.1	+0.1
MA2				pmax	pmax		
	comp=Z,77nm,1.0s						
MA2	Magadan	23.20	305	P	P	02 49 26.6	+0.6
MA2				IAmb	IAmb	02 49 28.8	
	comp=Z,117nm,1.2s						
MA2	Magadan	23.20	305	P	P	02 49 26.2	+0.2
	comp=Z,1μmcomp=Z,111nm,1.1s						
MA2	Magadan	23.20	305	P	P	02 49 26.8	+0.8
	comp=Z,101nm,1.1s						
DLBC	Dease Lake	23.24	58	P	P	02 49 26.5	+0.1
	comp=Z,27nm,1.2s,baz=254,slow=14,SNR=16						
	comp=Z,27nm,1.2s						
INK	Inuvik	23.76	33	P	P	02 49 30.1	-1.2
	comp=Z,19nm,0.7s,baz=252,slow=8.0,SNR=54						
	comp=Z,19nm,0.7s						
C36M	Paulatuk	27.34	33	P	P	02 50 03.1	-0.7
TYV	Tymovskoe	29.33	287	*e*P	P	02 50 22.1	+0.3
TYV				*e*S	S	02 55 15.2	+1.3
TYV				pmax	pmax		
	comp=Z,25nm,1.1s						
TYV				pmax	pmax		
	comp=Z,500nm,4.7s						
TYV				smax	smax		
	comp=N,700nm,8.6s						
TYV				smax	smax		
	comp=E,400nm,8.6s						
TYV				MLR	MLR		
	comp=Z,2μm,16.0s						
TYV				MLR	MLR		
	comp=E,2μm,17.0s						
NLWA	Neilton Lookou	29.59	81	P	P	02 50 26.0	+1.8
NLWA				IAmb	IAmb	02 50 54.5	
	comp=Z,128nm,1.9s						
YKAW3	Yellowknife Wh	30.62	48	P	P	02 50 33.8	+0.8
YKAW3				IAmb	IAmb	02 50 35.4	
	comp=Z,27nm,1.1s						
YKA	Yellowknife Ar	30.63	48	P	P	02 50 34.3	+1.2
	comp=Z,23nm,0.9s,baz=275,slow=9.9,SNR=28						
YKA				LR	LR	03 05 07.3	
	comp=Z,2μm,19.6s,baz=273,slow=41						
	comp=Z,23nm,0.9s						
YKA	Yellowknife Ar	30.63	48	*ce*P	P	02 50 34.2	+1.2
YKA				pmax	pmax		
	comp=Z,25nm,0.9s						
YKA	Yellowknife Ar	30.63	48	P	P	02 50 33.2	+0.1
YKAW1	Yellowknife Wh	30.68	48	P	P	02 50 34.1	+0.5
YKAW1				IAmb	IAmb	02 50 36.0	
	comp=Z,58nm,1.1s						
YSS	Yuzhno-Sakhali	30.88	280	*e*P	P	02 50 36.6	+1.2
YSS				*e*		02 51 37.3	
YSS				*e*S	S	02 55 37.5	-0.6
YSS				*e*SSS	SSS	02 57 37.0	
YSS				pmax	pmax		
	comp=Z,30nm,1.4s						
YSS				smax	smax		
	comp=N,500nm,6.0s						
YSS				MLR	MLR		
	comp=Z,1μm,14.0s						
YSS				MLR	MLR		
	comp=N,600nm,15.0s						
YSS				MLR	MLR		
	comp=E,900nm,15.0s						
LTY	Liberty	31.60	79	IAmb	IAmb	02 51 22.1	
	comp=Z,61nm,1.7s						

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EPH   Ephrata          32.20  78    IAmb    IAmb    02 51 01.7
       comp=Z,52nm,1.4s
JKA   Kamikawa-asahi   32.36 275    P       P       02 50 49.6 +1.2
ASAJ  Asahikawa        32.36 275    LR      LR      03 04 24.6
       comp=Z,948nm,20.3s,baz=84,slow=37
ASAJ  Asahikawa        32.36 275    P       P       02 50 49.7 +1.2
ASAJ                                pmax    pmax
       comp=Z,110nm,1.0s
WAH2  Wahluke Slope    32.50  79    P       P       02 50 51.2 +1.5
F07A  Phinny Hill Vi   32.69  81    P       P       02 50 53.1 +1.7
F07A                                IAmb    IAmb    02 51 22.9
       comp=Z,66nm,1.5s
HAWA  Hanford          32.69  80    IAmb    IAmb    02 51 06.5
       comp=Z,32nm,1.1s
D08A  Wollman Farm,    32.75  78    IAmb    IAmb    02 51 06.6
       comp=Z,35nm,1.3s
C09A  Chrisman Ranch   32.80  77    IAmb    IAmb    02 51 06.9
       comp=Z,56nm,1.4s
E08A  Dider Farm, El   32.93  79    IAmb    IAmb    02 51 11.3
       comp=Z,46nm,1.4s
TIXI  Tiksi            32.96 329    LR      LR      03 05 29.3
       comp=Z,597nm,18.5s,baz=112,slow=38
TIXI  Tiksi            32.96 329⇑eP     P       02 50 53.2 -0.3
TIXI                                pmax    pmax
       comp=Z,45nm,1.7s
TIXI  Tiksi            32.96 329    P       P       02 50 52.2 -1.3
TIXI                                IAmb    IAmb    02 50 54.4
       comp=Z,44nm,1.4s
GRNR  Gornyy           33.03 290⇑iP     P       02 50 53.8 -0.5
GRNR                                pmax    pmax
       comp=Z,60nm,1.1s
GRNR                                MLR     MLR
       comp=E,730nm,16.0s
GRNR                                MLR     MLR
       comp=N,390nm,15.0s
GRNR                                MLR     MLR
       comp=Z,820nm,19.0s
ERM   Erimo            33.15 271    P       P       02 50 56.8 +1.4
ERM                                 pmax    pmax
       comp=Z,450nm,1.9s
ERM   Erimo            33.15 271    P       P       02 50 56.8 +1.4
YBH   Yreka Blue Hor   33.17  89    LR      LR      03 01 32.7
       comp=Z,731nm,20.7s,baz=314,slow=31
YBH   Yreka Blue Hor   33.17  89    P       P       02 50 59.3 +3.6
YBH                                 pmax    pmax
       comp=Z,12nm,1.0s
YBH   Yreka Blue Hor   33.17  89    P       P       02 50 59.3 +3.6
YPT   Yellepit         33.20  80    IAmb    IAmb    02 51 27.1
       comp=Z,31nm,1.3s
NEW   Newport          33.28  75    IAmb    IAmb    02 51 11.7
       comp=Z,28nm,1.1s
NEW   Newport          33.28  75    P       P       02 50 58.5 +1.8
       comp=Z,22nm,1.1s
YAK   Yakutsk          33.28 312    LR      LR      03 08 08.3
       comp=Z,1µm,18.0s,baz=92,slow=43
YAK   Yakutsk          33.28 312   eP       P       02 50 51.6 -4.8
YAK                                ePPP     PPP     02 52 13.4
YAK                                e                02 53 35.7
YAK                                eS       S       02 56 09.0 -6.3
YAK                                eSS      SnSn    02 58 10.6 -5.2
YAK                                 pmax    pmax
       comp=Z,44nm,1.1s
YAK                                 pmax    pmax
       comp=N,5.0nm,1.1s
YAK                                 pmax    pmax
       comp=E,10.0nm,1.0s
YAK                                 pmax    pmax
       comp=Z,198nm,3.8s
YAK                                 pmax    pmax
       comp=N,53nm,2.8s
YAK                                 pmax    pmax
       comp=E,50nm,2.5s
YAK                                 smax    smax
       comp=E,55nm,2.5s
YAK                                 smax    smax
       comp=N,21nm,2.3s
YAK                                 MLR     MLR
       comp=Z,2µm,17.0s
YAK                                 MLR     MLR
       comp=E,2µm,18.0s
YAK                                 MLR     MLR
       comp=N,848nm,17.0s
YAK   Yakutsk          33.28 312    P       P       02 50 54.1 -2.3
YAK                                 IAmb    IAmb    02 50 56.4
       comp=Z,32nm,0.8s
YAK   Yakutsk          33.28 312    P       P       02 50 53.0 -3.4
       comp=Z,37nm,0.8s
EDM   Edmonton         33.47  65    IAmb    IAmb    02 51 13.2
       comp=Z,48nm,0.9s
E09A  Wood Farm, Sta   33.48  79    P       P       02 50 60.0 +1.7
E09A                                IAmb    IAmb    02 51 12.9
       comp=Z,35nm,1.1s
LDM   Libby Dam        34.27  74    IAmb    IAmb    02 51 40.3
       comp=Z,34nm,1.3s
F10A  Beach Ranch, E   34.30  79    IAmb    IAmb    02 51 39.4
       comp=Z,29nm,1.3s
BMO   Blue Mountains   34.81  81    P       P       02 51 11.5 +1.5
BMO                                 pmax    pmax
       comp=Z,31nm,1.5s
BMO   Blue Mountains   34.81  81    P       P       02 51 11.5 +1.5
BMO                                 IAmb    IAmb    02 51 49.7
       comp=Z,31nm,1.5s
WVOR  Wild Horse Val   35.29  85    IAmb    IAmb    02 51 45.7
       comp=Z,28nm,1.1s
WVOR  Wild Horse Val   35.29  85    P       P       02 51 18.3 +4.2
       comp=Z,28nm,1.6s
MSO   Missoula         35.86  76    IAmb    IAmb    02 51 33.7
       comp=Z,58nm,1.4s
AFDM  Forest Hills D   35.88  92    P       P       02 51 23.6 +4.5
KLR   Kul'dur          36.41 290    LR      LR      03 07 38.2
       comp=Z,2µm,18.8s,baz=64,slow=38
KLR   Kul'dur          36.41 290c iP    P       02 51 22.1 -1.4
KLR                                 pmax    pmax
       comp=Z,68nm,1.3s
PNTR  Pine Nut         36.64  90    IAmb    IAmb    02 52 00.2
       comp=Z,32nm,0.9s
RES   Resolute Bay     36.79  25    LR      LR      03 10 24.6
       comp=Z,1µm,18.5s,baz=258,slow=42
ZEA   Zeya             37.01 298   eP       P       02 51 27.7 -0.9
ZEA                                 pmax    pmax
       comp=Z,20nm,1.1s
H11N2 WAKE ISLAND Hy   37.05 218    T       T       03 31 30.4
       baz=23,slow=75,SNR=5.4
H11N3 WAKE ISLAND Hy   37.05 218    T       T       03 31 33.3
       baz=23,slow=75,SNR=7.0
H11N1 WAKE ISLAND Hy   37.06 218    T       T       03 31 31.6
       baz=23,slow=75,SNR=5.0
WAKR  Walker           37.09  91    P       P       02 51 32.1 +2.4
HLID  Hailey           37.26  81    P       P       02 51 32.8 +1.8
       comp=Z,17nm,1.5s
DLMT  Dillon           37.41  77    IAmb    IAmb    02 52 14.0
       comp=Z,36nm,1.3s
BCYI  Bear Canyon      37.47  79    IAmb    IAmb    02 52 03.7
       comp=Z,66nm,1.7s
RYN   Ryan             37.58  90    IAmb    IAmb    02 52 55.7
       comp=Z,45nm,0.9s
EGMT  Eagleton         37.76  72    IAmb    IAmb    02 52 06.3
       comp=Z,56nm,0.9s
NVAR  Mina Array Bea   37.84  90    P       P       02 51 38.1 +2.0
       comp=Z,2.5nm,0.8s,baz=293,slow=8.0,SNR=14
NVAR                                ScP     ScP     02 57 37.9 -0.4
       comp=Z,3.0nm,1.0s,baz=282,slow=3.2,SNR=7.6
       comp=Z,2.5nm,0.8s
NVAR  Mina Array Bea   37.84  90    P       P       02 51 36.1 +0.1
BOZ   Bozeman (W)      37.86  76    IAmb    IAmb    02 51 50.2
       comp=Z,32nm,1.2s
H11S1 WAKE ISLAND Hy   38.23 218    T       T       03 33 22.3
       baz=23,slow=76,SNR=57
H11S2 WAKE ISLAND Hy   38.25 218    T       T       03 33 03.0
       baz=23,slow=76,SNR=43
H11S3 WAKE ISLAND Hy   38.25 218    T       T       03 33 02.6
       baz=23,slow=76,SNR=37
HEH   HeiHe            38.44 293   eP       P       02 51 39.3 -1.4
HEH                                 pP      pP      02 51 42.3 -3.5
HEH                                 S       S       02 57 31.8 -2.7
HEH                                 pmax    pmax
       comp=Z,130nm,1.0s
HEH                                 L       L
       comp=Z,900nm,17.8s
HEH                                 L       L
       comp=Z,1µm,18.3s
HEH                                 L       L
       comp=Z,2µm,18.3s
BLKN  Baker Lake       38.45  42    P       P       02 51 40.7 +0.2
BLKN                                IAmb    IAmb    02 51 42.4
       comp=Z,76nm,1.2s
YHH   Holmes Hill      38.76  77    IAmb    IAmb    02 51 58.5
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       comp=Z,40nm,1.1s
USA0B Ussuriysk Arra   38.79 282⇑eP     P       02 51 42.7 -1.0
USA0B Ussuriysk Arra   38.79 282    P       P       02 51 42.5 -1.2
USRK  Ussuriysk Ar.    38.79 282    P       P       02 51 43.8 +0.1
       comp=Z,5.4nm,0.7s,baz=61,slow=7.3,SNR=9.0
USRK                                LR      LR      03 07 06.4
       comp=Z,1µm,21.4s,baz=66,slow=35
       comp=Z,5.4nm,0.7s
USRK  Ussuriysk Ar.    38.79 282    P       P       02 51 41.9 -1.8
YNR   Norris Junctio   38.90  77    IAmb    IAmb    02 51 59.7
       comp=Z,63nm,1.3s
FFC   Flin Flon        39.07  58    P       P       02 51 46.9 +1.0
FFC                                 pmax    pmax
       comp=Z,16nm,1.1s
FFC   Flin Flon        39.07  58    P       P       02 51 46.9 +1.0
YMP   Mirror Lake Pl   39.20  76    IAmb    IAmb    02 52 07.5
       comp=Z,45nm,1.4s
VLA   Vladivostok      39.45 281⇓eP     P       02 51 49.6 +0.4
VLA                                 pmax    pmax
       comp=Z,116nm,1.8s
MAJO  Matsushiro       39.50 268c iP    P       02 51 49.8  0.0
MAJO                                pmax    pmax
       comp=Z,30nm,1.0s
MAJO  Matsushiro       39.50 268    P       P       02 51 49.5 -0.3
MAJO                                IAmb    IAmb    02 52 08.0
       comp=Z,40nm,1.0s
MAJO  Matsushiro       39.50 268    P       P       02 51 50.0 +0.2
       comp=Z,42nm,1.0s
RLMT  Red Lodge        39.53  75    IAmb    IAmb    02 52 04.8
       comp=Z,58nm,1.4s
SNOW  Snow King Moun   39.54  78    P       P       02 51 51.6 +1.3
AHID  Auburn Hatcher   39.72  79    P       P       02 51 53.6 +1.9
       comp=Z,29nm,1.2s
MDJ   Mudanjiang       40.01 284    P       P       02 51 52.5 -1.4
MDJ                                 S       S       02 58 03.0 +4.7
MDJ                                 pmax    pmax
       comp=Z,13nm,0.9s
MDJ                                 L       L
       comp=Z,820nm,16.5s
MDJ                                 L       L
       comp=Z,1µm,17.9s
MDJ                                 L       L
       comp=Z,2µm,19.2s
TPNV  Topopah Spring   40.04  90    P       P       02 51 56.2 +1.8
TPNV                                pmax    pmax
       comp=Z,15nm,0.9s
TPNV  Topopah Spring   40.04  90    P       P       02 51 56.2 +1.8
DUG   Dugway, Tooele   40.16  84    IAmb    IAmb    02 52 26.4
       comp=Z,45nm,1.3s
DUG   Dugway, Tooele   40.16  84    P       P       02 51 56.6 +1.2
       comp=Z,28nm,1.8s
TCUT  Toone Canyon     40.48  82    IAmb    IAmb    02 52 34.8
       comp=Z,33nm,1.0s
PRN   Pahroc Range     40.49  89    P       P       02 51 59.0 +0.9
PRN                                 IAmb    IAmb    02 52 26.8
       comp=Z,38nm,1.1s
LAO   LASA Array       40.50  71    IAmb    IAmb    02 52 11.8
       comp=Z,108nm,1.7s
JGF   Kuroka           40.63 268    P       P       02 51 59.4 +0.2
JGF                                 IAmb    IAmb    02 52 03.7
       comp=Z,55nm,1.3s
JGF   Kuroka           40.63 268    P       P       02 52 00.3 +1.2
       comp=Z,35nm,2.1s
PDAR  Pinedale Array   40.66  79    P       P       02 52 00.2 +0.7
       comp=Z,9.8nm,0.8s,baz=308,slow=3.6,SNR=48
PDAR                                LR      LR      03 07 16.0
       comp=Z,358nm,20.2s,baz=312,slow=34
       comp=Z,9.8nm,0.8s
PDAR  Pinedale Array   40.66  79    P       P       02 51 59.4 -0.2
BNX   BinXian          40.70 287 ⇑P     P       02 51 58.0 -1.6
BNX                                 pmax    pmax
       comp=Z,46nm,1.1s
DGMT  Dagmar           40.76  68    IAmb    IAmb    02 52 14.0
       comp=Z,59nm,1.1s
BFSC  Mount Baldy Ra   40.93  95    P       P       02 52 02.1 +0.4
CCUT  Cedar City       41.44  88    P       P       02 52 05.7 -0.4
Q16A  Castle Valley    41.95  84    IAmb    IAmb    02 52 41.3
       comp=Z,74nm,1.6s
ILON  Igloolik, Nuna   42.00  32    P       P       02 52 09.1 -0.8
ILON                                IAmb    IAmb    02 52 11.0
       comp=Z,32nm,0.9s
DNR   Dunn Ranch,Anz   42.02  95    IAmb    IAmb    02 52 30.4
       comp=Z,31nm,1.0s
P18A  Preston Nutter   42.08  83    IAmb    IAmb    02 52 43.1
       comp=Z,39nm,1.1s
PFO   Pinyon Flats O   42.09  94    LR      LR      03 07 53.1
       comp=Z,391nm,18.5s,baz=296,slow=34
PFO   Pinyon Flats O   42.09  94⇑eP     P       02 52 12.2 +0.9
PFO                                 pmax    pmax
       comp=Z,23nm,1.3s
PFO   Pinyon Flats O   42.09  94    P       P       02 52 12.3 +1.1
BELC  Belle Mtn. Jos   42.11  94    P       P       02 52 12.4 +0.9
SRU   San Rafael Swe   42.23  84    IAmb    IAmb    02 52 43.5
       comp=Z,33nm,0.9s
K22A  Casper           42.55  77    P       P       02 52 14.7 -0.4
K22A                                IAmb    IAmb    02 52 34.8
       comp=Z,47nm,1.2s
HMU   Henry Mountain   42.82  85    IAmb    IAmb    02 52 35.3
       comp=Z,36nm,1.1s
U15A  North Rim        42.82  88    IAmb    IAmb    02 52 37.2
       comp=Z,47nm,1.2s
CN2   Changchun        42.94 286   eP       P       02 52 17.0 -0.9
CN2                                eS       S       02 58 40.5 -1.2
CN2                                 pmax    pmax
       comp=Z,100nm,8.5s
CN2                                 L       L
       comp=Z,500nm,19.0s
CN2                                 L       L
       comp=Z,600nm,19.0s
CN2                                 L       L
       comp=Z,700nm,17.6s
O20A  White River Ci   43.00  81    IAmb    IAmb    02 52 35.3
       comp=Z,55nm,0.9s
HILR  Hailar Array B   43.09 296    P       P       02 52 19.1  0.0
       comp=Z,22nm,0.9s,baz=82,slow=12,SNR=15
       comp=Z,22nm,0.9s
RSSD  Black Hills      43.20  73    P       P       02 52 19.0 -1.3
RSSD                                pmax    pmax
       comp=Z,25nm,1.1s
RSSD  Black Hills      43.20  73    P       P       02 52 19.0 -1.3
RSSD  Black Hills      43.20  73    P       P       02 52 20.2 -0.1
       comp=Z,24nm,1.3s
HIA   Hailar           43.25 296    IAmb    IAmb    02 52 21.0
       comp=Z,69nm,1.0s
ESJX  Sierra Juarez    43.50  96    IAmb    IAmb    02 52 35.4
       comp=Z,61nm,1.8s
PV21  Cone Mtn., Par   43.52  83    IAmb    IAmb    02 52 38.9
       comp=Z,45nm,1.0s
PV10  Paradox Valley   43.59  83    IAmb    IAmb    02 52 53.4
       comp=Z,68nm,1.2s
PV14  Lion Creek, Pa   43.60  83    IAmb    IAmb    02 52 53.9
       comp=Z,62nm,1.3s
PV22  Blue Mesa, Par   43.65  83    IAmb    IAmb    02 52 44.9
       comp=Z,41nm,0.9s
PV20  West Nyswonger   43.66  83    IAmb    IAmb    02 52 40.6
       comp=Z,32nm,0.9s
PV04  Paradox Valley   43.66  83    IAmb    IAmb    02 52 53.6
       comp=Z,70nm,1.2s
PV19  Morning Glory    43.67  83    IAmb    IAmb    02 52 53.5
       comp=Z,65nm,1.2s
PV17  East Wray Mesa   43.70  83    P       P       02 52 24.4 +0.1
PV17                                IAmb    IAmb    02 52 53.8
       comp=Z,76nm,1.1s
PV05  Paradox Valley   43.74  84    IAmb    IAmb    02 52 55.2
       comp=Z,82nm,1.2s
PV11  David Mesa, Pa   43.74  83    IAmb    IAmb    02 52 44.7
       comp=Z,46nm,0.7s
PV18  Skein Mesa, Pa   43.75  83    IAmb    IAmb    02 52 39.1
       comp=Z,37nm,0.8s
PV12  Saucer Basin,    43.77  83    IAmb    IAmb    02 52 56.0
       comp=Z,59nm,1.0s
E28A  Huff             43.78  69    P       P       02 52 24.5 -0.2
PV03  Paradox Valley   43.78  83    IAmb    IAmb    02 52 41.8
       comp=Z,47nm,1.1s
PV02  Paradox Valley   43.88  83    IAmb    IAmb    02 52 47.0
       comp=Z,59nm,0.9s
PV15  Paradox Valley   43.95  83    IAmb    IAmb    02 53 01.3
       comp=Z,39nm,0.8s
WUAZ  Wupatki          43.97  88    IAmb    IAmb    02 52 41.6
       comp=Z,22nm,0.8s
PV01  Paradox Valley   44.03  83    IAmb    IAmb    02 52 52.2
       comp=Z,23nm,0.9s
ULM   Lac du Bonnet    44.49  62    P       P       02 52 30.5 +0.2
       comp=Z,11nm,0.9s,baz=318,slow=8.9,SNR=7.8
ULM                                 LR      LR      03 12 24.9
       comp=Z,1µm,18.9s,baz=312,slow=38
       comp=Z,11nm,0.9s
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ULM   Lac du Bonnet    44.49  62    P       P       02 52 29.9 -0.3
ULM                                 IAmb    IAmb    02 52 45.3
       comp=Z,32nm,1.2s
MVCO  Mesa Verde       44.66  84    IAmb    IAmb    02 53 05.4
       comp=Z,61nm,1.8s
MVCO  Mesa Verde       44.66  84    P       P       02 52 33.0 +0.9
       comp=Z,16nm,1.2s
ISCO  Idaho Springs    44.80  79    P       P       02 52 34.7 +1.4
       comp=Z,13nm,1.3s
CIT   Chita            45.15 302   eP       P       02 52 35.6  0.0
CIT                                 pmax    pmax
       comp=Z,76nm,1.3s
KSRS  Korea Array      45.27 277    P       P       02 52 37.5 +0.8
       comp=Z,34nm,0.9s,baz=54,slow=8.0,SNR=61
KSRS                                LR      LR      03 09 57.7
       comp=Z,518nm,21.2s,baz=45,slow=34
       comp=Z,34nm,0.9s
KS19  Wonju Array Si   45.27 277    IAmb    IAmb    02 52 38.7
       comp=Z,43nm,1.0s
KSAR  Wonju Array Be   45.30 277    P       P       02 52 36.3 -0.6
KSAR  Wonju Array Be   45.30 277    P       P       02 52 36.3 -0.6
NEEM  North Greenlan   45.40  16  i P       P       02 52 37.8 +0.2
NEEM                                IAmb    IAmb    02 52 38.7
       comp=Z,119nm,1.1s
X18A  Snowflake        45.50  88    IAmb    IAmb    02 52 58.0
       comp=Z,36nm,1.5s
AGMN  Agassiz Nation   45.56  64    IAmb    IAmb    02 52 52.5
       comp=Z,38nm,1.1s
AGMN  Agassiz Nation   45.56  64    P       P       02 52 38.9 +0.1
       comp=Z,40nm,1.1s
NOR   Nord             45.86   5  i P       P       02 52 40.7 -0.1
NOR                                 IAmb    IAmb    02 52 41.9
       comp=Z,59nm,1.2s
EPLO  Experimental L   45.97  61    IAmb    IAmb    02 52 43.2
       comp=Z,30nm,0.9s
INCN  Inchon           46.04 278    P       P       02 52 39.4 -3.4
INCN  Inchon           46.04 278    P       P       02 52 42.1 -0.7
INCN                                pmax    pmax
       comp=Z,114nm,1.0s
INCN  Inchon           46.04 278    P       P       02 52 42.1 -0.7
INCN  Inchon           46.04 278    P       P       02 52 43.5 +0.7
       comp=Z,86nm,0.9s
KULLO Kullorsuaq       46.04  20  i P       P       02 52 43.0 +0.8
JNU   Nakatsue         46.28 270    LR      LR      03 12 10.1
       comp=Z,758nm,21.3s,baz=42,slow=36
TJN   Taejon           46.30 276c iP    P       02 52 45.2 +0.4
TJN   Taejon           46.30 276    P       P       02 52 45.6 +0.8
       comp=Z,442nm,1.3s
TUC   Tucson           46.48  91    P       P       02 52 47.1 +0.8
TUC                                 pmax    pmax
       comp=Z,18nm,1.0s
TUC   Tucson           46.48  91    P       P       02 52 47.1 +0.8
TUC                                 IAmb    IAmb    02 53 01.3
       comp=Z,18nm,0.9s
TUC   Tucson           46.48  91    P       P       02 52 48.4 +2.1
       comp=Z,22nm,0.9s
NRIK  Noril'sk         46.67 332    P       P       02 52 47.3  0.0
       comp=Z,38nm,1.1s,baz=76,slow=7.6,SNR=19
NRIK                                LR      LR      03 14 53.7
       comp=Z,848nm,18.4s,baz=74,slow=39
       comp=Z,38nm,1.1s
NRIK  Noril'sk         46.67 332c iP    P       02 52 47.1 -0.2
NRIK                                pmax    pmax
       comp=Z,48nm,1.1s
F33A  5 Mile Ranch,    46.71  67    IAmb    IAmb    02 53 00.6
       comp=Z,48nm,1.3s
TASM  ASL Pad, Albuq   47.38  85    IAmb    IAmb    02 53 24.2
       comp=Z,25nm,1.5s
TASM  ASL Pad, Albuq   47.38  85    IAmb    IAmb    02 53 24.2
       comp=Z,25nm,1.5s
ANMO  Albuquerque      47.38  85    LR      LR      03 10 49.1
       comp=Z,516nm,20.2s,baz=314,slow=34
ANMO  Albuquerque      47.38  85ceP     P       02 52 55.4 +1.9
ANMO                                pmax    pmax
       comp=Z,20nm,2.5s
ANMO  Albuquerque      47.38  85    P       P       02 52 53.2 -0.3
ANMO  Albuquerque      47.38  85    P       P       02 52 55.6 +2.1
       comp=Z,14nm,1.6s
ALQ   Albuquerque      47.38  85    IAmb    IAmb    02 53 24.2
       comp=Z,25nm,1.5s
ALQ   Albuquerque      47.38  85    IAmb    IAmb    02 53 24.2
       comp=Z,24nm,1.5s
UPNV  Upernavik        47.41  22  i P       P       02 52 53.9 +0.9
UPNV                                IAmb    IAmb    02 52 55.4
       comp=Z,42nm,0.9s
Y22A  Socorro          47.74  87    IAmb    IAmb    02 53 11.5
       comp=Z,28nm,0.9s
ECSD  EROS Data Cent   47.77  69    IAmb    IAmb    02 53 09.3
       comp=Z,32nm,1.1s
ECSD  EROS Data Cent   47.77  69    P       P       02 52 55.9 -0.3
       comp=Z,32nm,1.2s
EYMN  Ely              48.16  62    IAmb    IAmb    02 53 11.5
       comp=Z,32nm,1.0s
EYMN  Ely              48.16  62    P       P       02 52 59.3 +0.1
       comp=Z,38nm,1.0s
121A  Cookes Peak, D   48.18  89    IAmb    IAmb    02 53 15.2
       comp=Z,41nm,1.1s
DL2   Dalian           48.18 283    P       P       02 53 00.0 +0.6
DL2                                eS       S       02 59 57.0 -0.3
DL2                                 pmax    pmax
       comp=Z,64nm,1.0s
DL2                                 pmax    pmax
       comp=Z,140nm,4.8s
DL2                                 L       L
       comp=Z,970nm,16.2s
DL2                                 L       L
       comp=Z,560nm,18.2s
DL2                                 L       L
       comp=Z,1µm,15.5s
BGNE  Belgrade         48.29  73    P       P       02 53 00.3  0.0
XLT   XiLinHaoTe       48.37 291   eP       P       02 53 01.3 +0.4
XLT                                 sP      sP      02 53 07.8 -0.4
XLT                                 ScS     ScS     03 02 53.3 +0.9
XLT                                 pmax    pmax
       comp=Z,25nm,1.2s
XLT                                 L       L
       comp=Z,85nm,16.6s
XLT                                 L       L
       comp=Z,640nm,19.1s
XLT                                 L       L
       comp=Z,1µm,18.7s
RTBA  Rita Blanca      48.69  81    IAmb    IAmb    02 53 19.3
       comp=Z,49nm,1.3s
TBO   Thunder Bay      48.88  60    IAmb    IAmb    02 53 30.4
       comp=Z,43nm,1.1s
NUUG  Nuugaatsiaq      48.91  22  i P       P       02 53 05.6 +1.0
NUUG                                IAmb    IAmb    02 53 05.9
       comp=Z,65nm,1.2s
E38A  The Farm, Brul   48.92  64    IAmb    IAmb    02 53 17.6
       comp=Z,50nm,1.1s
SPMN  Marine on St.    49.05  66    IAmb    IAmb    02 53 19.0
       comp=Z,40nm,1.2s
NIAQ  Niaqornat        49.32  23  i P       P       02 53 08.8 +1.1
NIAQ                                IAmb    IAmb    02 53 09.9
       comp=Z,73nm,1.1s
FRB   Frobisher Bay    49.39  35    LR      LR      03 17 18.3
       comp=Z,2µm,18.8s,baz=303,slow=40
EPT   El Paso          49.49  88    IAmb    IAmb    02 53 24.3
       comp=Z,40nm,0.9s
IRK   Irkutsk          49.77 307   eP       P       02 53 07.9 -3.5
IRK                                 pmax    pmax
       comp=Z,80nm,1.2s
R32A  Long Quarter,    49.84  76    IAmb    IAmb    02 53 30.5
       comp=Z,55nm,1.2s
SPA0  Spitsbergen Ar   50.04 358   eP       P       02 53 13.0 -0.2
SPITS Spitsbergen Ar   50.04 358    P       P       02 53 13.0 -0.2
SPITS                               pmax    pmax
       comp=Z,136nm,1.4s
SPB2  Spitsbergen Ar   50.04 358    P       P       02 53 13.2 +0.1
DAG   Danmarks Havn    50.19   8  i P       P       02 53 13.9 -0.3
DAG                                 IAmb    IAmb    02 53 14.9
       comp=Z,122nm,1.1s
DAG   Danmarks Havn    50.19   8    P       P       02 53 14.2 -0.1
       comp=Z,115nm,1.5s
MNTX  Cornudas Mount   50.23  88    IAmb    IAmb    02 53 30.1
       comp=Z,25nm,0.9s
MNTX  Cornudas Mount   50.23  88    P       P       02 53 16.9 +1.6
       comp=Z,31nm,0.9s
SAQQ  Saqqaq           50.27  23  i P       P       02 53 14.8 -0.2
SAQQ                                IAmb    IAmb    02 53 16.6
       comp=Z,30nm,0.9s
MSTX  Muleshoe         50.30  83    IAmb    IAmb    02 53 35.8
       comp=Z,48nm,1.1s
GDH   Godhavn          50.41  25  i P       P       02 53 16.5 +0.5
GDH                                 IAmb    IAmb    02 53 17.9
       comp=Z,25nm,0.7s
TLY   Talaya           50.41 306    P       P       02 53 17.8 +1.4
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TLY				S	S	03 00 43.0	+15
TLY	**Talaya**	**50.41**	**306**	*c i*P	**P**	**02 53 16.1**	**-0.3**
TLY				pmax	pmax		
	comp=Z,51nm,1.1s						
TLY	**Talaya**	**50.41**	**306**	P	**P**	**02 53 16.0**	**-0.4**
TLY	**Talaya**	**50.41**	**306**	P	**P**	**02 53 17.2**	**+0.8**
	comp=Z,46nm,1.2s						
G40A	**Rib Lake**	**50.48**	**64**	IAmb	IAmb	02 53 29.6	
	comp=Z,31nm,1.1s						
KSU1	**Kansas State U**	**50.66**	**74**	IAmb	IAmb	02 53 36.0	
	comp=Z,26nm,1.0s						
BJT	**Baijiatuau**	**50.73**	**287**	IAmb	IAmb	02 53 20.7	
	comp=Z,19nm,0.8s						
TPB28		**50.80**	**87**	IAmb	IAmb	02 53 35.4	
	comp=Z,33nm,1.1s						
TPB11	**China Draw**	**50.90**	**86**	IAmb	IAmb	02 53 35.6	
	comp=Z,28nm,1.1s						
ULN	**Ulaanbaatar**	**50.97**	**301**	P	**P**	**02 53 20.9**	**+0.2**
ULN				S	S	03 00 46.9	+10
ULN	**Ulaanbaatar**	**50.97**	**301**	*ce*P	**P**	**02 53 20.5**	**-0.3**
ULN				pmax	pmax		
	comp=Z,29nm,1.0s						
ULN	**Ulaanbaatar**	**50.97**	**301**	P	**P**	**02 53 20.2**	**-0.5**
ULN				IAmb	IAmb	02 53 21.9	
	comp=Z,36nm,1.1s						
ULN	**Ulaanbaatar**	**50.97**	**301**	P	**P**	**02 53 17.0**	**-3.8**
	comp=Z,2μmcomp=Z,120nm,1.1s						
ULN	**Ulaanbaatar**	**50.97**	**301**	P	**P**	**02 53 20.8**	**0.0**
	comp=Z,31nm,1.1s						
ILULI	**Ilulissat**	**51.05**	**24**	*i* P	**P**	**02 53 21.6**	**+0.8**
SMWD	**Samnorwood**	**51.09**	**81**	IAmb	IAmb	02 53 40.4	
	comp=Z,24nm,0.9s						
OK038	**West end E0370**	**51.09**	**78**	IAmb	IAmb	02 53 30.1	
	comp=Z,22nm,0.9s						
I40A	**Norwalk**	**51.10**	**66**	IAmb	IAmb	02 53 34.4	
	comp=Z,26nm,1.0s						
VHRN	**Van Horn**	**51.11**	**88**	IAmb	IAmb	02 53 37.0	
	comp=Z,38nm,1.0s						
SUMG	**Summit**	**51.19**	**17**	*i* Pn	P	02 53 29.8	+7.4
SUMG				IAmb4		02 53 31.8	
	comp=Z,101nm,0.8s						
F42A	**Maple Grove Fa**	**51.32**	**62**	IAmb	IAmb	02 53 37.5	
	comp=Z,39nm,0.8s						
SONM	**Songino Array**	**51.34**	**301**	P	**P**	**02 53 23.7**	**+0.2**
	comp=Z,36nm,1.2s,baz=56,slow=7.1,SNR=76						
SONM				LR	LR	03 17 26.4	
	comp=Z,2μm,18.6s,baz=56,slow=39						
	comp=Z,36nm,1.2s						
SONM	**Songino Array**	**51.34**	**301**	P	**P**	**02 53 23.1**	**-0.3**
SONM				IAmb	IAmb	02 53 25.0	
	comp=Z,50nm,1.2s						
ZAK	**Zakamensk**	**51.38**	**305**	*e*P	**P**	**02 53 23.4**	**-0.4**
ZAK				*e*		02 54 39.0	
ZAK				pmax	pmax		
	comp=Z,35nm,1.4s						
ZAK				pmax	pmax		
	comp=Z,17nm,1.3s						
DKNS	**Dickens**	**51.64**	**82**	IAmb	IAmb	02 53 44.5	
	comp=Z,20nm,0.9s						
POST	**Post**	**51.69**	**83**	IAmb	IAmb	02 53 40.2	
	comp=Z,30nm,0.9s						
MOY	**Mondy**	**51.73**	**308**	*e*P	**P**	**02 53 26.6**	**+0.2**
MOY				pmax	pmax		
	comp=Z,45nm,3.0s						
TPB01	**Permian Basin**	**51.74**	**87**	IAmb	IAmb	02 53 40.8	
	comp=Z,19nm,0.9s						
L40A	**Anamosa**	**51.92**	**68**	IAmb	IAmb	02 53 40.0	
	comp=Z,80nm,1.4s						
JFWS	**Jewell Farm**	**51.93**	**67**	IAmb	IAmb	02 53 39.9	
	comp=Z,39nm,1.0s						
I42A	**Draeger Farm,**	**52.06**	**65**	IAmb	IAmb	02 53 40.7	
	comp=Z,97nm,1.6s						
MNHN	**Monahans**	**52.10**	**86**	P	**P**	**02 53 28.7**	**-0.6**
MNHN				IAmb	IAmb	02 53 49.0	
	comp=Z,17nm,0.8s						
P38A	**Dawn**	**52.14**	**72**	IAmb	IAmb	02 53 42.3	
	comp=Z,48nm,1.2s						
T35A	**Sooner Cattle**	**52.15**	**76**	IAmb	IAmb	02 53 47.2	
	comp=Z,18nm,0.9s						
OK051	**E0350 and S346**	**52.22**	**77**	IAmb	IAmb	02 53 42.7	
	comp=Z,42nm,1.3s						
TMB01	**Midkiff**	**52.29**	**85**	IAmb	IAmb	02 53 47.9	
	comp=Z,25nm,1.3s						
DBG	**Daneborg**	**52.31**	**10**	*i* P	**P**	**02 53 29.7**	**-0.5**
DBG				IAmb	IAmb	02 53 30.7	
	comp=Z,94nm,1.0s						
OK029	**Liberty Lake**	**52.32**	**78**	IAmb	IAmb	02 53 49.0	
	comp=Z,23nm,0.9s						
H43A	**Windswept, Lux**	**52.33**	**64**	IAmb	IAmb	02 53 31.5	
	comp=Z,41nm,0.8s						
APMT	**Aspermont**	**52.36**	**82**	IAmb	IAmb	02 53 50.2	
	comp=Z,24nm,1.0s						
OK052	**Battle Ridge R**	**52.58**	**77**	IAmb	IAmb	02 53 45.6	
	comp=Z,59nm,1.3s						
LPIG	**La Paz**	**52.62**	**98**	LR	LR	03 13 25.6	
	comp=Z,203nm,18.2s,baz=330,slow=33						
TIA	**Tai'an**	**52.65**	**283**	P	**P**	**02 53 33.5**	**+0.2**
TIA				PP	**PP**	**02 55 36.5**	**+4.3**
TIA				pmax	pmax		
	comp=Z,81nm,1.1s						
TIA				pmax	pmax		
	comp=Z,350nm,3.8s						
TIA				L	L		
	comp=Z,740nm,20.0s						
TIA				L	L		
	comp=Z,660nm,23.4s						
TIA				L	L		
	comp=Z,850nm,21.3s						
SGCY	**Sterling City**	**52.71**	**84**	IAmb	IAmb	02 53 46.1	
	comp=Z,29nm,0.9s						
FNO	**Franklin**	**52.71**	**78**	P	**P**	**02 53 33.9**	**+0.1**
FNO				IAmb	IAmb	02 53 46.2	
	comp=Z,25nm,0.9s						
GUMO	**Guam**	**52.76**	**241**	LR	LR	03 13 08.3	
	comp=Z,157nm,21.4s,baz=82,slow=33						
SFJD	**Kangerlussuaq**	**52.79**	**26**	LR	LR	03 20 09.2	
	comp=Z,703nm,18.6s,baz=318,slow=41						
SFJD	**Kangerlussuaq**	**52.79**	**26**	P	**P**	**02 53 33.3**	**-0.5**
SFJD				pmax	pmax		
	comp=Z,114nm,1.4s						
SFJD	**Kangerlussuaq**	**52.79**	**26**	P	**P**	**02 53 33.3**	**-0.5**
SFJD	**Kangerlussuaq**	**52.79**	**26**	*i* P	**P**	**02 53 34.0**	**+0.2**
SFJD				IAmb	IAmb	02 53 35.5	
	comp=Z,127nm,1.4s						
SFJD	**Kangerlussuaq**	**52.79**	**26**	P	**P**	**02 53 34.7**	**+0.9**
	comp=Z,73nm,1.2s						
L42A	**Oliver, Polo**	**52.84**	**67**	IAmb	IAmb	02 53 47.1	
	comp=Z,29nm,1.0s						
HHC	**Hu-ho-hao-te**	**52.88**	**291**	⇑*i*P	**P**	**02 53 35.8**	**+0.7**
HHC				S	**S**	**03 01 01.5**	**-1.4**
HHC				sS	sS	03 01 11.5	+0.3
HHC				pmax	pmax		
	comp=Z,39nm,1.2s						
HHC				pmax	pmax		
	comp=Z,160nm,7.6s						
HHC				L	L		
	comp=Z,640nm,16.0s						
HHC				L	L		
	comp=Z,610nm,19.3s						
HHC				L	L		
	comp=Z,880nm,20.2s						
TX31	**Lajitas Ar. Si**	**52.94**	**88**	IAmb	IAmb	02 53 50.0	
	comp=Z,35nm,0.9s						
TXAR	**Lajitas Array**	**52.94**	**88**	P	**P**	**02 53 36.1**	**+0.5**
	comp=Z,8.6nm,0.9s,baz=298,slow=5.2,SNR=51						
TXAR				LR	LR	03 15 46.7	
	comp=Z,415nm,18.2s,baz=326,slow=36						
	comp=Z,8.6nm,0.9s						
TXAR	**Lajitas Array**	**52.94**	**88**	P	**P**	**02 53 35.2**	**-0.4**
E46A	**Sault Ste Mari**	**53.01**	**60**	IAmb	IAmb	02 53 49.6	
	comp=Z,40nm,0.9s						
W35A	**Tecumseh**	**53.10**	**78**	IAmb	IAmb	02 53 50.6	
	comp=Z,46nm,1.2s						
HNS	**HongShan**	**53.30**	**286**	⇑P	**P**	**02 53 39.3**	**+1.3**
HNS				PP	**PP**	**02 55 43.8**	**+5.8**
HNS				S	**S**	**03 01 08.0**	**-0.4**
HNS				pmax	pmax		
	comp=Z,150nm,1.3s						
HNS				L	L		
	comp=Z,330nm,21.8s						
HNS				L	L		
	comp=Z,1μm,18.5s						
HNS				L	L		
	comp=Z,2μm,21.2s						
OZNA	**Ozona**	**53.40**	**85**	IAmb	IAmb	02 53 51.1	
	comp=Z,31nm,1.2s						
S39A	**Bolivar**	**53.54**	**73**	IAmb	IAmb	02 53 50.2	
	comp=Z,34nm,1.5s						
LOOK	**Love County**	**53.70**	**79**	P	**P**	**02 53 40.9**	**-0.1**
U38A	**Gravette**	**53.74**	**75**	IAmb	IAmb	02 53 53.5	
	comp=Z,32nm,1.2s						
PLPT	**Palo Pinto**	**53.82**	**81**	IAmb	IAmb	02 54 00.5	
	comp=Z,35nm,0.9s						
BTO2	**Baotou**	**53.92**	**292**	*e*P	**P**	**02 53 43.5**	**+0.8**
BTO2				S	**S**	**03 01 17.5**	**+0.5**
BTO2				pmax	pmax		
	comp=Z,180nm,1.2s						
BTO2				pmax	pmax		
	comp=Z,460nm,4.3s						
BTO2				L	L		
	comp=Z,2μm,18.5s						
BTO2				L	L		
	comp=Z,2μm,16.9s						
BTO2				L	L		
	comp=Z,4μm,16.6s						
KNGR	**Kungurtug, Tuv**	**54.10**	**308**	*de*P	**P**	**02 53 45.5**	**+1.6**
KNGR				pmax	pmax		
	comp=Z,84nm,1.1s						
HHAR	**Hobbs**	**54.11**	**75**	IAmb	IAmb	02 53 56.0	
	comp=Z,18nm,1.0s						
NJ2	**Nanjing**	**54.42**	**278**	⇑P	**P**	**02 53 46.0**	**-0.3**
NJ2				sP	**pwP**	**02 53 59.0**	**+3.1**
NJ2				pmax	pmax		
	comp=Z,42nm,0.9s						
NJ2				pmax	pmax		
	comp=Z,270nm,4.0s						
TIY	**Taiyuan**	**54.44**	**288**	*e*P	**P**	**02 53 47.3**	**+0.8**
TIY				S	**S**	**03 01 29.8**	**+5.8**
TIY				pmax	pmax		
	comp=Z,330nm,3.5s						
TIY				L	L		
	comp=Z,360nm,19.9s						
TIY				L	L		
	comp=Z,540nm,20.6s						
TIY				L	L		
	comp=Z,690nm,19.2s						
BRDY	**Brady**	**54.45**	**83**	IAmb	IAmb	02 53 58.6	
	comp=Z,17nm,0.9s						
CCM	**Cathedral Cave**	**54.52**	**72**	P	**P**	**02 53 46.0**	**-1.0**
CCM				pmax	pmax		
	comp=Z,20nm,1.1s						
CCM	**Cathedral Cave**	**54.52**	**72**	P	**P**	**02 53 46.0**	**-1.0**
CCM				IAmb	IAmb	02 54 00.8	
	comp=Z,20nm,1.1s						
JCT	**Junction City**	**54.52**	**84**	IAmb	IAmb	02 54 00.4	
	comp=Z,38nm,1.2s						
NUUK	**Nuuk**	**54.57**	**28**	*i* P	**P**	**02 53 48.1**	**+1.2**
FW13	**Cleburne**	**54.67**	**81**	P	**P**	**02 53 48.0**	**-0.1**
FW13				IAmb	IAmb	02 54 20.5	
	comp=Z,52nm,1.3s						
FVM	**French Village**	**55.05**	**71**	IAmb	IAmb	02 54 02.9	
	comp=Z,28nm,1.1s						
VLDQ	**Val d'Or**	**55.44**	**54**	IAmb	IAmb	02 53 55.6	
	comp=Z,28nm,1.1s						
FCAR	**Ozark Folk Cen**	**55.46**	**74**	IAmb	IAmb	02 54 07.7	
	comp=Z,20nm,0.9s						
MIAR	**Mount Ida**	**55.50**	**76**	IAmb	IAmb	02 54 07.2	
	comp=Z,38nm,1.1s						
MIAR	**Mount Ida**	**55.50**	**76**	P	**P**	**02 53 53.9**	**-0.2**
	comp=Z,30nm,1.3s						
SCO	**Scoresbysund**	**55.63**	**13**	P	**P**	**02 53 53.5**	**-0.9**
SCO				pmax	pmax		
	comp=Z,73nm,1.1s						
SCO	**Scoresbysund**	**55.63**	**13**	P	**P**	**02 53 53.5**	**-0.9**
SCO	**Scoresbysund**	**55.63**	**13**	*i* P	**P**	**02 53 54.4**	**-0.1**
SCO				IAmb	IAmb	02 53 55.8	
	comp=Z,87nm,1.2s						
435B	**Jarrell**	**55.67**	**83**	IAmb	IAmb	02 54 11.3	
	comp=Z,45nm,1.2s						
WHAR	**Wooly Hollow**	**55.77**	**75**	P	**P**	**02 53 56.9**	**+0.9**
WHAR				IAmb	IAmb	02 54 09.7	
	comp=Z,45nm,1.5s						
P46A	**Rosedale**	**55.82**	**68**	IAmb	IAmb	02 54 09.4	
	comp=Z,47nm,1.3s						
SCHQ	**Schefferville**	**55.83**	**43**	P	**P**	**02 53 56.1**	**-0.1**
	comp=Z,23nm,1.0s,baz=318,slow=6.4,SNR=14						
SCHQ				LR	LR	03 21 27.9	
	comp=Z,976nm,18.1s,baz=316,slow=40						
	comp=Z,23nm,1.0s						
SCHQ	**Schefferville**	**55.83**	**43**	IAmb	IAmb	02 53 58.1	
	comp=Z,47nm,1.1s						
PBMO	**Poplar Bluff**	**55.86**	**72**	IAmb	IAmb	02 54 08.4	
	comp=Z,38nm,1.4s						
S44A	**Carbondale**	**55.93**	**71**	IAmb	IAmb	02 54 09.8	
	comp=Z,27nm,1.2s						
X40A	**Basin Creek Fa**	**55.99**	**76**	IAmb	IAmb	02 54 10.1	
	comp=Z,22nm,1.3s						
SOEG	**Soedalen**	**56.17**	**17**	*i* P	**P**	**02 53 58.5**	**+0.1**
SOEG				IAmb	IAmb	02 53 59.4	
	comp=Z,33nm,0.8s						
BUKO	**Buck Lake**	**56.21**	**58**	IAmb	IAmb	02 54 00.4	
	comp=Z,46nm,1.1s						
833A	**Chaparral WMA,**	**56.29**	**86**	P	**P**	**02 53 59.7**	**-0.1**
833A				IAmb	IAmb	02 54 19.8	
	comp=Z,25nm,1.0s						
BLO	**Bloomington**	**56.51**	**68**	IAmb	IAmb	02 54 13.6	
	comp=Z,62nm,1.3s						
LYN	**LuoYang**	**56.57**	**285**	⇑P	**P**	**02 54 02.5**	**+0.8**
LYN				sP	sP	02 54 10.0	+1.3
LYN				pmax	pmax		
	comp=Z,130nm,1.0s						
LYN				pmax	pmax		
	comp=Z,640nm,3.7s						
LYN				L	L		
	comp=Z,1μm,16.7s						
LYN				L	L		
	comp=Z,700nm,15.3s						
LYN				L	L		
	comp=Z,1μm,20.6s						
JMIC	**Jan Mayen**	**56.58**	**7**	LR	LR	03 18 43.3	
	comp=Z,457nm,20.4s,baz=4.5,slow=36						
EF04	**Eagle Ford 04**	**56.65**	**84**	IAmb	IAmb	02 54 15.1	
	comp=Z,44nm,0.9s						
N49A	**Columbus Grove**	**56.65**	**65**	IAmb	IAmb	02 54 15.1	
	comp=Z,31nm,1.1s						
MLDN	**Muldoon**	**56.69**	**83**	IAmb	IAmb	02 54 16.9	
	comp=Z,33nm,0.9s						
SADO	**Sadowa**	**56.80**	**58**	LR	LR	03 19 58.5	
	comp=Z,490nm,19.0s,baz=347,slow=38						
SADO	**Sadowa**	**56.80**	**58**	P	**P**	**02 54 02.6**	**-0.6**
SADO				IAmb	IAmb	02 54 10.4	
	comp=Z,20nm,1.1s						
ISOG	**Isortoq, Green**	**56.85**	**22**	*i* P	**P**	**02 54 03.0**	**-0.2**
O49A	**Covington**	**57.06**	**65**	IAmb	IAmb	02 54 17.7	
	comp=Z,33nm,1.2s						
ANGG	**Ammassalik, Gr**	**57.10**	**22**	*i* P	**P**	**02 54 04.9**	**-0.1**
ANGG				IAmb	IAmb	02 54 05.3	
	comp=Z,103nm,1.2s						
WCI	**Wyandotte Cave**	**57.28**	**68**	P	**P**	**02 54 05.4**	**-1.3**
WCI				pmax	pmax		
	comp=Z,75nm,1.5s						
WCI	**Wyandotte Cave**	**57.28**	**68**	P	**P**	**02 54 05.4**	**-1.3**
WCI	**Wyandotte Cave**	**57.28**	**68**	P	**P**	**02 54 06.1**	**-0.6**
	comp=Z,34nm,1.4s						
VADS	**Vadso**	**57.41**	**352**	*e*P	**P**	**02 54 07.4**	**+0.2**
ZAA0	**Zalesovo Array**	**57.58**	**318**	IAmb	IAmb	02 55 03.7	
	comp=Z,18nm,0.9s						
ZALV	**Zalesovo Beam**	**57.58**	**318**	P	**P**	**02 54 08.2**	**-0.3**
	comp=Z,3.6nm,0.7s,baz=46,slow=6.4,SNR=19						
ZALV				PcP	**PcP**	**02 55 01.9**	**+0.2**
	comp=Z,19nm,0.9s,baz=46,slow=4.3,SNR=12						
ZALV				LR	LR	03 21 33.7	
	comp=Z,680nm,18.0s,baz=50,slow=39						
	comp=Z,3.6nm,0.7s						
ZALV	**Zalesovo Beam**	**57.58**	**318**	*i* P	**P**	**02 54 08.1**	**-0.5**
ZALV				pmax	pmax		
	comp=Z,4.0nm,0.7s						
ZALV	**Zalesovo Beam**	**57.58**	**318**	P	**P**	**02 54 07.5**	**-1.0**
N51A	**Ashland**	**57.66**	**64**	IAmb	IAmb	02 54 22.3	
	comp=Z,51nm,1.1s						
DELO	**Deloro Mine**	**57.77**	**58**	IAmb	IAmb	02 54 23.5	
	comp=Z,59nm,1.5s						
ACSO	**Alum Creek Sta**	**57.79**	**65**	IAmb	IAmb	02 54 22.8	
	comp=Z,22nm,0.8s						
WVT	**Waverly**	**57.83**	**71**	P	**P**	**02 54 09.8**	**-0.8**
WVT				pmax	pmax		
	comp=Z,54nm,1.4s						
WVT	**Waverly**	**57.83**	**71**	P	**P**	**02 54 09.8**	**-0.8**
WVT				IAmb	IAmb	02 54 23.9	
	comp=Z,54nm,1.4s						
R49A	**Shelbyville**	**57.88**	**68**	IAmb	IAmb	02 54 23.3	
	comp=Z,23nm,1.2s						
IVI	**Ivigtut**	**57.91**	**29**	*i* P	**P**	**02 54 11.4**	**+0.6**
IVI				IAmb	IAmb	02 54 12.6	
	comp=Z,121nm,1.0s						
IVI	**Ivigtut**	**57.91**	**29**	P	**P**	**02 54 11.3**	**+0.6**
	comp=Z,134nm,1.0s						
ERPA	**Erie**	**58.15**	**61**	IAmb	IAmb	02 54 26.5	
	comp=Z,27nm,1.1s						
TRQ	**Mont Tremblant**	**58.17**	**54**	IAmb	IAmb	02 54 13.6	
	comp=Z,29nm,1.0s						
WHN	**Wuhan**	**58.22**	**280**	⇑P	**P**	**02 54 13.8**	**+0.4**
WHN				sP	**pwP**	**02 54 25.8**	**+2.7**
WHN				pmax	pmax		
	comp=Z,320nm,1.1s						
WHN				L	L		
	comp=Z,2μm,22.5s						
MEDO	**Medina**	**58.25**	**59**	IAmb	IAmb	02 54 29.4	
	comp=Z,25nm,0.9s						
P51A	**Williamsport**	**58.26**	**65**	IAmb	IAmb	02 54 25.9	
	comp=Z,18nm,0.9s						
ARA0	**ARCESS Array S**	**58.27**	**354**	*e*P	**P**	**02 54 13.5**	**+0.2**
ARCES	**ARCESS Array B**	**58.27**	**354**	P	**P**	**02 54 13.1**	**-0.2**
	comp=Z,32nm,1.0s,baz=16,slow=5.4,SNR=21						
ARCES				LR	LR	03 18 25.4	
	comp=Z,445nm,21.9s,baz=360,slow=35						
	comp=Z,32nm,1.0s						
ARCES	**ARCESS Array B**	**58.27**	**354**	P	**P**	**02 54 12.5**	**-0.7**
R50A	**Paris**	**58.37**	**67**	IAmb	IAmb	02 54 27.0	
	comp=Z,33nm,1.1s						
PECO	**Prince Edward**	**58.49**	**58**	IAmb	IAmb	02 54 16.6	
	comp=Z,24nm,0.9s						
TRO	**Tromso**	**58.52**	**356**	*e*P	**P**	**02 54 15.0**	**+0.1**
JETT	**Jettan, Norway**	**58.54**	**356**	*e*P	**P**	**02 54 15.3**	**+0.2**
N53A	**Lisbon**	**58.59**	**63**	IAmb	IAmb	02 54 29.0	
	comp=Z,39nm,1.1s						
LDAQ	**Lac Daran**	**58.59**	**51**	P	**P**	**02 54 15.3**	**-0.6**
LDAQ				IAmb	IAmb	02 54 19.3	
	comp=Z,18nm,1.1s						
WBO	**Williamsburg**	**58.65**	**56**	IAmb	IAmb	02 54 17.1	
	comp=Z,33nm,1.1s						
P52A	**Corning**	**58.67**	**65**	IAmb	IAmb	02 54 30.1	
	comp=Z,47nm,1.6s						
V48A	**Smith Brothers**	**58.69**	**71**	IAmb	IAmb	02 54 32.0	
	comp=Z,35nm,1.5s						
PAOC	**Oil Creek Stat**	**58.73**	**61**	IAmb	IAmb	02 54 28.9	
	comp=Z,28nm,1.2s						
CLTN	**Cedars of Leba**	**58.73**	**70**	IAmb	IAmb	02 54 29.7	
	comp=Z,20nm,1.3s						
U49A	**Red Boiling Sp**	**58.76**	**70**	IAmb	IAmb	02 54 29.6	
	comp=Z,14nm,1.1s						
NRS	**Narsarsuaq**	**58.76**	**28**	*i* P	**P**	**02 54 16.9**	**+0.2**
O53A	**New Philadelph**	**58.76**	**63**	IAmb	IAmb	02 54 29.6	
	comp=Z,36nm,1.1s						
MMNY	**Mt. Morris Dam**	**58.84**	**59**	IAmb	IAmb	02 54 33.2	
	comp=Z,26nm,1.0s						
PAMR	**Moraine State**	**58.90**	**62**	IAmb	IAmb	02 54 30.7	
	comp=Z,27nm,1.0s						
KTK1	**Kautokeino**	**58.94**	**355**	*e*P	**P**	**02 54 17.6**	**-0.2**
XAN	**Xi'an**	**59.03**	**287**	⇑P	**P**	**02 54 19.3**	**+0.2**
XAN				pP	pP	02 54 23.5	-0.9
XAN				pmax	pmax		
	comp=Z,92nm,1.3s						
XAN				L	L		
	comp=Z,460nm,18.6s						
XAN				L	L		
	comp=Z,1μm,18.5s						
XAN				L	L		
	comp=Z,1μm,19.2s						
LVZ	**Lovozero**	**59.05**	**350**	*ce*P	**P**	**02 54 18.2**	**-0.5**
LVZ				pmax	pmax		
	comp=Z,83nm,1.0s						
LVZ	**Lovozero**	**59.05**	**350**	P	**P**	**02 54 17.8**	**-0.9**
LVZ	**Lovozero**	**59.05**	**350**	P	**P**	**02 54 18.1**	**-0.6**
	comp=Z,93nm,1.1s						
Q52A	**Bidwell**	**59.06**	**65**	IAmb	IAmb	02 54 31.6	
	comp=Z,26nm,1.0s						
MNTQ	**Montreal, Queb**	**59.14**	**55**	IAmb	IAmb	02 54 19.8	
	comp=Z,24nm,1.1s						
S51A	**Beattyville**	**59.23**	**67**	IAmb	IAmb	02 54 33.4	
	comp=Z,27nm,1.0s						
LONY	**Lake Ozonia**	**59.27**	**56**	IAmb	IAmb	02 54 35.5	
	comp=Z,15nm,0.9s						
CFNY	**Clifton-Fine,**	**59.34**	**56**	P	**P**	**02 54 20.2**	**-0.9**
CFNY				IAmb	IAmb	02 54 22.3	
	comp=Z,31nm,1.0s						
X48A	**Hartselle**	**59.45**	**72**	IAmb	IAmb	02 54 33.8	
	comp=Z,30nm,1.3s						
DGZ	**Jazzator, Alta**	**59.47**	**313**	*ce*P	**P**	**02 54 22.0**	**0.0**
DGZ				pmax	pmax		
	comp=Z,38nm,1.2s						
APA	**Apatity**	**59.51**	**350**	⇓*e*P	**P**	**02 54 19.0**	**-2.8**
APA				*e*		02 55 08.4	
APA				pmax	pmax		
	comp=Z,17nm,1.1s						
APA				MLR	MLR		
	comp=Z,718nm,19.6s						
SWET	**Sewanee**	**59.57**	**71**	IAmb	IAmb	02 54 34.7	
	comp=Z,17nm,1.1s						
K57A	**Scipio Center**	**59.58**	**59**	IAmb	IAmb	02 55 22.3	
	comp=Z,34nm,1.3s						
Z47A	**Carrollton**	**59.73**	**74**	P	**P**	**02 54 23.8**	**0.0**
Z47A				IAmb	IAmb	02 54 36.2	
	comp=Z,41nm,1.2s						
Q54A	**Coxs Mills**	**59.85**	**64**	IAmb	IAmb	02 54 38.0	
	comp=Z,28nm,0.9s						
NCB	**Newcomb**	**59.91**	**56**	IAmb	IAmb	02 54 27.2	
	comp=Z,22nm,1.1s						
W50A	**Signal Mountai**	**59.95**	**70**	IAmb	IAmb	02 54 38.2	
	comp=Z,26nm,1.0s						
TZTN	**Tazewell**	**60.02**	**68**	P	**P**	**02 54 24.9**	**-0.9**
J59A	**Piesco**	**60.12**	**57**	P	**P**	**02 54 25.9**	**-0.5**
J59A				IAmb	IAmb	02 54 26.9	
	comp=Z,13nm,0.8s						
LOF	**Lofoten**	**60.17**	**359**	*e*P	**P**	**02 54 25.6**	**-0.8**
CPCT	**Cooper Cave**	**60.23**	**70**	IAmb	IAmb	02 54 42.3	
	comp=Z,16nm,1.3s						
M57A	**Sunshine Farm,**	**60.23**	**60**	P	**P**	**02 54 26.3**	**-0.9**
M57A				IAmb	IAmb	02 54 40.5	
	comp=Z,23nm,0.9s						
BINY	**Binghamton**	**60.23**	**59**	IAmb	IAmb	02 54 43.2	
	comp=Z,34nm,1.1s						
FPAL	**Fort Paine**	**60.23**	**71**	IAmb	IAmb	02 54 44.5	
	comp=Z,20nm,1.1s						
Y49A	**Blount Mountai**	**60.24**	**72**	IAmb	IAmb	02 54 39.3	
	comp=Z,24nm,1.0s						
SGF	**Sodankyl**	**60.27**	**353**	P	**P**	**02 54 27.4**	**+0.4**
	comp=Z,61nm,1.6s						
D62A	**Allapoint, All**	**60.27**	**51**	IAmb	IAmb	02 54 28.6	
	comp=Z,33nm,1.3s						
SSPA	**Standing Stone**	**60.31**	**61**	P	**P**	**02 54 27.0**	**-0.7**
SSPA				IAmb	IAmb	02 54 40.1	
	comp=Z,26nm,0.8s						
STEI	**Steigen**	**60.34**	**358**	*e*P	**P**	**02 54 26.9**	**-0.6**
GTA2	**Gaotai**	**60.46**	**297**	P	**P**	**02 54 29.0**	**0.0**
GTA2				sS	sS	03 02 52.5	+0.6
GTA2				pmax	pmax		
	comp=Z,35nm,1.4s						
GTA2				L	L		
	comp=Z,650nm,24.8s						
GTA2				L	L		
	comp=Z,560nm,24.4s						
GTA2				L	L		
	comp=Z,510nm,23.5s						
LZH	**Lanzhou**	**60.56**	**292**	P	**P**	**02 54 30.5**	**+0.8**
LZH				sP	pwP	02 54 39.3	-0.1
LZH				pmax	pmax		
	comp=Z,95nm,1.9s						
LZH				pmax	pmax		
	comp=Z,400nm,4.6s						
LZH				L	L		
	comp=Z,1μm,16.5s						
LZH				L	L		
	comp=Z,1μm,18.1s						
LZH				L	L		
	comp=Z,2μm,16.5s						
Q56A	**Snyder Ridge,**	**60.72**	**63**	IAmb	IAmb	02 55 06.5	
	comp=Z,20nm,1.0s						
L59A	**Walton**	**60.73**	**58**	IAmb	IAmb	02 54 53.2	
	comp=Z,28nm,0.9s						
LZDM	**Lanzhou Array**	**60.73**	**292**	P	**P**	**02 54 32.0**	**+0.8**
	comp=Z,5.1nm,0.4s,baz=44,slow=6.8,SNR=13						
LZDM				LR	LR	03 23 16.9	
	comp=Z,1μm,18.2s,baz=45,slow=38						
	comp=Z,5.1nm,0.4s						
CNSH	**ChangSha**	**60.77**	**279**	P	**P**	**02 54 30.8**	**-0.2**
CNSH				S	**S**	**03 02 48.0**	**+0.9**
CNSH				L	L		
	comp=Z,210nm,15.1s						
CNSH				L	L		
	comp=Z,630nm,20.3s						

CNSH				L	L		
	comp=Z,500nm,17.3s						
KSPA	Keystone Colle	60.80	59	IAmb	IAmb	02 54 53.4	
	comp=Z,16nm,0.9s						
N58A	Sunbury	60.80	60	IAmb	IAmb	02 54 43.6	
	comp=Z,45nm,1.3s						
FAUS	Fauske	60.89	358	*e*P	P	02 54 31.2	0.0
H62A	Milan	61.03	54	IAmb	IAmb	02 54 33.7	
	comp=Z,22nm,1.0s						
BORG	Borgarnes	61.04	15	P	P	02 54 34.1	+1.8
BORG				pmax	pmax		
	comp=Z,72nm,1.2s						
BORG	Borgarnes	61.04	15	P	P	02 54 34.1	+1.8
V53A	Saluda	61.06	68	IAmb	IAmb	02 54 45.8	
	comp=Z,35nm,1.2s						
TRY	Troy	61.07	57	IAmb	IAmb	02 54 46.3	
	comp=Z,14nm,1.0s						
BG3	Lake Jocassee	61.47	69	IAmb	IAmb	02 54 48.3	
	comp=Z,25nm,1.1s						
MVL	Millersville	61.59	61	IAmb	IAmb	02 54 48.8	
	comp=Z,52nm,1.6s						
Y52A	Lilburn	61.62	71	IAmb	IAmb	02 54 49.5	
	comp=Z,26nm,1.3s						
I63A	Otisfield	61.70	54	IAmb	IAmb	02 54 53.0	
	comp=Z,53nm,1.6s						
SDMD	Soldier's Deli	61.75	61	IAmb	IAmb	02 54 50.3	
	comp=Z,26nm,1.4s						
S57A	Dark Hollow, R	61.76	64	P	P	02 54 37.0	-0.6
V55A	Taylorsville	61.84	67	IAmb	IAmb	02 54 51.1	
	comp=Z,43nm,1.3s						
K62A	Royalston	61.85	56	IAmb	IAmb	02 54 39.2	
	comp=Z,21nm,0.9s						
RAUS	Rausandaksla	61.86	358	*e*P	P	02 54 37.7	-0.2
KSCT	Kent School, K	61.88	58	IAmb	IAmb	02 54 39.9	
	comp=Z,20nm,1.1s						
STOK	Stokkvaagen	61.98	359	*e*P	P	02 54 38.5	-0.1
MOR8	Moi Rana	62.12	358	*e*P	P	02 54 38.6	-1.0
LEIR	Leirfjorden	62.20	359	*e*P	P	02 54 39.1	-1.0
R58B	Mineral	62.21	63	IAmb	IAmb	02 54 54.2	
	comp=Z,33nm,1.2s						
PAULI	Pauline	62.24	68	IAmb	IAmb	02 54 55.6	
	comp=Z,28nm,1.2s						
ZSN	Zaisan	62.27	312	*c i*P	P	02 54 41.0	+0.1
ZSN				pmax	pmax		
	comp=Z,20nm,1.1s						
ZSN	Zaisan	62.27	312	⇑*i*P	P	02 54 41.1	+0.1
	comp=Z,20nm,1.1s						
GOGA	Godfrey	62.29	71	IAmb	IAmb	02 54 53.1	
	comp=Z,30nm,1.2s						
ADZR	Andozero	62.37	346	*c i*P	P	02 54 40.6	-0.7
ADZR				S	S	03 03 12.1	+5.8
ADZR				pmax	pmax		
	comp=Z,81nm,1.1s						
HODGE	Hodges	62.40	69	IAmb	IAmb	02 54 54.3	
	comp=Z,16nm,0.9s						
WES	Weston	62.52	56	IAmb	IAmb	02 54 44.0	
	comp=Z,33nm,1.1s						
KURK	Kurchatov	62.53	318	P	P	02 54 43.4	+0.8
KURK	Kurchatov	62.53	318	*ce*P	P	02 54 42.2	-0.4
KURK				pmax	pmax		
	comp=Z,38nm,1.1s						
KURK	Kurchatov	62.53	318	P	P	02 54 41.6	-1.0
KURBB	Kurchatov Arra	62.64	318	P	P	02 54 43.3	0.0
	comp=Z,31nm,1.0s,baz=44,slow=7.0,SNR=80						
KURBB				LR	LR	03 24 14.2	
	comp=Z,472nm,18.2s,baz=63,slow=38						
	comp=Z,31nm,1.0s						
WMQ	Urumqi	63.62	308	⇑P	P	02 54 50.8	+0.8
WMQ				pmax	pmax		
	comp=Z,37nm,0.9s						
WMQ				pmax	pmax		
	comp=Z,210nm,4.7s						
WMQ				L	L		
	comp=Z,1µm,19.9s						
WMQ				L	L		
	comp=Z,900nm,18.5s						
WMQ				L	L		
	comp=Z,610nm,22.9s						
NSS	Namsos	63.81	359	*e*P	P	02 54 50.7	0.0
DRLN	Deer Lake	63.84	43	P	P	02 54 51.4	+0.1
DRLN				IAmb	IAmb	02 55 05.7	
	comp=Z,24nm,0.9s						
BVAR	Borovoye Array	63.90	324	P	P	02 54 51.8	+0.2
	comp=Z,95nm,0.9s,baz=53,slow=7.6,SNR=180						
	comp=Z,95nm,0.9s						
BORK	Borovoye	63.91	324	*c i*P	P	02 54 51.8	+0.1
BORK				pmax	pmax		
	comp=Z,85nm,1.0s						
BORK	Borovoye	63.91	324	P	P	02 54 51.2	-0.5
MK31	Makanchi Array	63.93	313	*ce*P	P	02 54 51.1	-0.9
MKAR	Makanchi Array	63.93	313	P	P	02 54 51.4	-0.6
	comp=Z,8.7nm,0.9s,baz=52,slow=6.9,SNR=30						
MKAR				LR	LR	03 26 17.6	
	comp=Z,617nm,18.8s,baz=28,slow=39						
	comp=Z,8.7nm,0.9s						
MKAR	Makanchi Array	63.93	313	*ce*P	P	02 54 51.2	-0.8
MKAR				pmax	pmax		
	comp=Z,9.0nm,0.9s						
MKAR	Makanchi Array	63.93	313	P	P	02 54 51.0	-1.0
SVE	Sverdlovsk	63.94	332	*e*P	P	02 54 52.3	+0.5
SVE				pmax	pmax		
	comp=Z,72nm,1.2s						
MAKZ	Makanchi	64.06	314	P	P	02 54 52.6	-0.2
MAKZ	Makanchi	64.06	314	P	P	02 54 51.5	-1.3
MAKZ				IAmb	IAmb	02 55 29.6	
	comp=Z,17nm,1.1s						
CD2	Chengdu	64.31	288	P	P	02 54 55.5	+0.8
CD2				pmax	pmax		
	comp=Z,10.0nm,0.8s						
CD2				pmax	pmax		
	comp=Z,180nm,4.0s						
CD2				L	L		
	comp=Z,550nm,12.9s						
CD2				L	L		
	comp=Z,1µm,16.5s						
CD2				L	L		
	comp=Z,1µm,17.8s						
GULI	GuiLin	64.44	279	P	P	02 54 57.5	+1.9
GULI				pmax	pmax		
	comp=Z,30nm,1.6s						
GULI				L	L		
	comp=Z,440nm,17.8s						
GULI				L	L		
	comp=Z,290nm,20.6s						
GULI				L	L		
	comp=Z,550nm,18.6s						
ARTI	Arti	64.96	333	LR	LR	03 28 06.4	
	comp=Z,814nm,18.2s,baz=54,slow=40						
ARTI	Arti	64.96	333	*c i*P	P	02 54 58.5	0.0
ARTI						02 55 28.7	
ARTI				S	S	03 03 37.5	-1.2
ARTI				pmax	pmax		
	comp=Z,95nm,1.0s						
ARTI	Arti	64.96	333	P	P	02 54 58.3	-0.2
KLMR	Klimovskoe	65.10	345	*e*P	P	02 54 57.3	-2.0
KLMR				S	S	03 03 40.3	0.0
KLMR				pmax	pmax		
	comp=Z,77nm,1.2s						
KIRV	Kirov	65.29	339	LR	LR	03 27 36.7	
	comp=Z,737nm,19.4s,baz=31,slow=40						
KIRV	Kirov	65.29	339	*ce*P	P	02 55 00.4	-0.1
GOMU	GeErMu	65.54	298	P	P	02 55 00.8	-2.3
GOMU				pP	pP	02 55 05.0	-3.4
GOMU				sP	sP	02 55 10.0	-0.4
GOMU				S	S	03 03 42.0	-5.3
GOMU				pmax	pmax		
	comp=Z,14nm,1.1s						
GOMU				L	L		
	comp=Z,980nm,18.2s						
GOMU				L	L		
	comp=Z,700nm,18.3s						
GOMU				L	L		
	comp=Z,1µm,18.2s						
AFI	Afiamalu	65.65	182	LR	LR	03 22 01.1	
	comp=Z,71nm,18.6s,baz=36,slow=34						
MOL	Molde	65.76	1	*e*P	P	02 55 03.6	+0.1
GYA	Guiyang	65.83	282	⇑P	P	02 55 05.3	+0.5
GYA				pP	pP	02 55 09.3	-0.8
GYA				PcP	PcP	02 55 36.8	+1.1
GYA				S	S	03 03 49.3	-1.3
GYA				pmax	pmax		
	comp=Z,55nm,1.0s						
GYA				pmax	pmax		
	comp=Z,340nm,3.4s						
GYA				L	L		
	comp=Z,550nm,17.1s						
GYA				L	L		
	comp=Z,470nm,17.2s						
GYA				L	L		
	comp=Z,800nm,17.0s						
AKN	Aaknes	66.14	2	*e*P	P	02 55 06.3	+0.3
FINES	FINESS Array B	66.22	352	P	P	02 55 06.3	-0.1
	comp=Z,37nm,0.9s,baz=15,slow=7.9,SNR=62						
FINES				PKP2bc	P'P'bc	03 23 43.5	-8.3
	comp=Z,1.8nm,0.9s,baz=222,slow=2.6,SNR=4.1						
FINES				LR	LR	03 24 32.1	
	comp=Z,302nm,21.0s,baz=18,slow=36						
	comp=Z,37nm,0.9s						
FINES	FINESS Array B	66.22	352	*i* P	P	02 55 06.5	0.0
FINES				pmax	pmax		
	comp=Z,37nm,0.9s						
FINES	FINESS Array B	66.22	352	P	P	02 55 05.7	-0.8
DOMB	Dombas	66.31	1	*e*P	P	02 55 07.0	-0.2
FOO	Floro	66.68	3	*e*P	P	02 55 09.7	+0.3
TDK	Taldyqorghan	67.04	314	*e*P	P	02 55 12.4	+0.3
TDK				pmax	pmax		
	comp=Z,17nm,0.9s						
TDK	Taldyqorghan	67.04	314	*e*P	P	02 55 12.4	+0.3
	comp=Z,17nm,0.9s						
HYA	Hoyanger	67.14	2	*e*P	P	02 55 12.4	0.0
SUE	Sulen	67.21	3	*e*P	P	02 55 12.9	+0.1
NB2	NORSAR Subarra	67.31	360	P	P	02 55 13.4	-0.2
	comp=Z,39nm,1.0s,baz=360,slow=6.5						
NB2	NORSAR Subarra	67.31	360	P	P	02 55 13.4	-0.2
NOA	NORSAR Array B	67.31	360	P	P	02 55 13.6	0.0
	comp=Z,20nm,0.9s,baz=0.9,slow=6.3,SNR=51						
	comp=Z,20nm,0.9s						
CMIG	Matias Romero	67.37	91	LR	LR	03 20 35.4	
	comp=Z,224nm,20.6s,baz=312,slow=32						
NC602	NORSAR Array S	67.62	359	*e*P	P	02 55 15.0	-0.4
SKAR	Skarslia	67.67	1	*e*P	P	02 55 15.8	0.0
ASK	Askoy	67.80	3	*e*P	P	02 55 16.4	-0.1
BER	Bergen	67.90	3	*e*P	P	02 55 17.7	+0.5
SHLS	Shalkode	68.01	312	*c i*P	P	02 55 17.3	-1.1
SHLS				pmax	pmax		
	comp=Z,22nm,1.0s						
SHLS	Shalkode	68.01	312	⇑*i*P	P	02 55 17.4	-1.1
	comp=Z,22nm,1.0s						
KPKS	Kokpek	68.12	313	*e*P	P	02 55 19.3	+0.3
KPKS	Kokpek	68.12	313	*e*P	P	02 55 19.3	+0.3
HFS	Hagfors	68.19	358	P	P	02 55 18.9	-0.2
	comp=Z,39nm,1.0s,baz=27,slow=3.6,SNR=23						
HFS				LR	LR	03 27 17.5	
	comp=Z,337nm,18.2s,baz=5.0,slow=38						
	comp=Z,39nm,1.0s						
UZB	Uzynbulak	68.22	313	*c i*P	P	02 55 19.8	+0.1
UZB				pmax	pmax		
	comp=Z,8.0nm,0.8s						
UZB	Uzynbulak	68.22	313	⇑*i*P	P	02 55 19.8	+0.1
	comp=Z,7.6nm,0.8s						
ODD1	Odda	68.41	2	*e*P	P	02 55 20.9	+0.4
OSL	Oslo	68.42	360	*e*P	P	02 55 21.1	+0.6
JAY	Jayapura	68.54	235	LR	LR	03 24 30.8	
	comp=Z,255nm,18.5s,baz=347,slow=35						
SATY	Saty	68.57	313	*c i*P	P	02 55 22.0	+0.2
SATY				pmax	pmax		
	comp=Z,15nm,1.2s						
SATY	Saty	68.57	313	⇑*i*P	P	02 55 22.1	+0.2
	comp=Z,15nm,1.2s						
KONO	Kongsberg	68.71	0	*de*P	P	02 55 23.3	+1.0
KONO				pmax	pmax		
	comp=Z,59nm,1.3s						
KONO	Kongsberg	68.71	0	*e*P	P	02 55 23.0	+0.7
KONO	Kongsberg	68.71	0	P	P	02 55 22.1	-0.2
PZH	PanZhiHua	68.75	286	P	P	02 55 24.5	+1.3
PZH				S	S	03 04 28.3	+2.6
PZH				pmax	pmax		
	comp=Z,110nm,1.2s						
PZH				pmax	pmax		
	comp=Z,450nm,3.6s						
PZH				L	L		
	comp=Z,400nm,21.4s						
PZH				L	L		
	comp=Z,400nm,16.7s						
PZH				L	L		
	comp=Z,490nm,20.6s						
KUU	Kurty	68.83	315	*e*P	P	02 55 23.6	+0.3
KUU	Kurty	68.83	315	*e*P	P	02 55 23.7	+0.3
BLS5	Blasjo	68.89	2	*e*P	P	02 55 23.8	+0.3
DAV	Davao City (W)	69.03	254	LR	LR	03 21 17.9	
	comp=Z,473nm,21.9s,baz=64,slow=32						
KMY	Karmoy	69.07	3	*e*P	P	02 55 25.1	+0.5
MDOK	Medeo	69.09	314	*e*P	P	02 55 25.2	0.0
MDOK	Medeo	69.09	314	*e*P	P	02 55 25.3	0.0
VSU	Vasula	69.09	351	*c i*P	P	02 55 23.6	-1.1
VSU				pmax	pmax		
	comp=Z,105nm,1.0s						
AAA	Alma-Ata	69.11	314	*e*P	P	02 55 25.4	+0.2
AAA				pmax	pmax		
	comp=Z,21nm,0.8s						
AAA	Alma-Ata	69.11	314	*e*P	P	02 55 25.5	+0.2
	comp=Z,21nm,0.8s						
KMI2	Kunming	69.16	284	⇑P	P	02 55 26.8	+0.9
KMI2				S	S	03 04 34.0	+3.2
KMI2				pmax	pmax		
	comp=Z,57nm,1.1s						
KMI2				pmax	pmax		
	comp=Z,310nm,3.1s						
KMI2				L	L		
	comp=Z,400nm,23.2s						
KMI2				L	L		
	comp=Z,260nm,15.5s						
KMI2				L	L		
	comp=Z,390nm,18.7s						
TNSS	Tian-Shan	69.24	314	*e*P	P	02 55 26.2	-0.2
TNSS	Tian-Shan	69.24	314	*e*P	P	02 55 26.2	-0.2
QIZ	Qiongzhong	69.43	275	P	P	02 55 26.5	-0.9
QIZ				S	S	03 04 36.0	+2.4
QIZ				pmax	pmax		
	comp=Z,290nm,5.7s						
QIZ				L	L		
	comp=Z,320nm,21.9s						
QIZ				L	L		
	comp=Z,280nm,16.2s						
KDJ	Kajisay	69.85	313	IAmb	IAmb	02 55 31.5	
	comp=Z,36nm,1.1s						
TARG	Taragay, Kyrgy	69.89	313	IAmb	IAmb	02 55 55.2	
	comp=Z,11nm,0.8s						
SGDS	Sogindy	69.92	316	⇑*i*P	P	02 55 30.5	+0.3
	comp=Z,22nm,1.4s						
TKM2	Tokmak 2	69.93	315	P	P	02 55 30.9	+0.5
	SNR=14						
USP	Ospenovka	70.13	316	P	P	02 55 32.0	+0.6
	SNR=27						
CHMS	Chumysh	70.23	315	P	P	02 55 33.2	+1.1
	SNR=7.7						
MSVF	Nonsavu	70.25	192	LR	LR	03 21 57.8	
	comp=Z,231nm,19.0s,baz=2.9,slow=32						
MOS	Moscow	70.28	344	*e*P	P	02 55 32.0	0.0
MOS				pmax	pmax		
	comp=Z,74nm,1.1s						
MOS				pmax	pmax		
	comp=N,49nm,1.1s						
MOS				MLR	MLR		
	comp=Z,800nm,20.0s						
TJOU	Tjoern	70.33	359	*i* P	P	02 55 32.6	+0.3
KBK	Karagaybulak	70.42	315	P	P	02 55 34.2	+0.7
	SNR=14						
AAK	Ala-Archa	70.64	315	P	P	02 55 35.4	+0.6
	SNR=18						
AAK	Ala-Archa	70.64	315	LR	LR	03 29 17.3	
	comp=Z,756nm,19.6s,baz=28,slow=38						
AAK	Ala-Archa	70.64	315	P	P	02 55 35.3	+0.6
AAK	Ala-Archa	70.64	315	*c i*P	P	02 55 35.1	+0.4
AAK				pmax	pmax		
	comp=Z,38nm,1.0s						
AAK	Ala-Archa	70.64	315	P	P	02 55 33.8	-0.9
AAK	Ala-Archa	70.64	315	P	P	02 55 35.4	+0.6
ABKAR	Akbulak array	70.66	328	P	P	02 55 34.2	-0.3
EKS2	Erkin-Say	70.93	316	P	P	02 55 37.1	+0.6
	SNR=24						
NRN	Naryn	70.94	314	IAmb	IAmb	02 55 38.8	
	comp=Z,33nm,1.1s						
ONAU	Onsala	70.96	359	*i* P	P	02 55 36.8	+0.7
OBN	Obninsk	71.06	344	LR	LR	03 31 58.1	
	comp=Z,284nm,18.1s,baz=15,slow=40						
OBN	Obninsk	71.06	344	*c i*P	P	02 55 36.2	-0.6
OBN				*i* *PP	pP	02 55 40.4	-1.7
OBN				*i* *SP	sP	02 55 41.6	-2.5
OBN				*i*		02 55 54.3	
OBN				*i* PPP	PPP	03 00 05.9	
OBN				*e*S	S	03 04 46.9	-4.7
OBN				*e*		03 05 13.4	
OBN				*i*		03 05 41.8	
OBN				SS	SS	03 09 25.0	+1.4
OBN				pmax	pmax		
	comp=Z,60nm,1.2s						
OBN	Obninsk	71.06	344	P	P	02 55 36.0	-0.8
OBN	Obninsk	71.06	344	P	P	02 55 36.7	-0.1
	comp=Z,885nmcomp=Z,66nm,1.2s						
SLVN	Son La	71.33	281	IAmb	IAmb	02 56 05.3	
	comp=Z,28nm,1.1s						
FABU	Falkenberg	71.35	359	*i* P	P	02 55 38.8	+0.3
BELG	Belogornoye	71.36	337	LR	LR	03 32 21.6	
	comp=Z,455nm,18.6s,baz=47,slow=40						
BELG	Belogornoye	71.36	337	*c i*P	P	02 55 38.9	+0.3
BELG				pmax	pmax		
	comp=Z,45nm,1.0s						
PPT	Papeete	71.45	160	LR	LR	03 19 11.0	
	comp=Z,147nm,21.0s,baz=11,slow=29						
PPT2	Papeete2	71.47	160	*e*S	S	03 05 00.7	+3.5
	comp=Z,256nm,30.5s						
PPT2				*e*SS	SS	03 09 30.1	-2.6
	comp=Z,120nm,24.2s						
PPT2				*e*LQ	LQ	03 14 14.4	
	comp=Z,168nm,22.5s						
PPT2				*e*LR	LR	03 17 04.2	
	comp=Z,430nm,33.5s						
PPT2				*e*LR	LR	03 17 11.8	
	comp=Z,452nm,28.0s						
PMG	Port Moresby	71.50	225	P	P	02 55 40.6	+0.7
	comp=Z,8.0nm,0.4s,baz=15,slow=3.1,SNR=3.9						
PMG				LR	LR	03 20 55.2	
	comp=Z,197nm,21.3s,baz=43,slow=31						
	comp=Z,8.0nm,0.4s						
PMG	Port Moresby	71.50	225	P	P	02 55 40.0	+0.1
PMG				IAmb	IAmb	02 55 56.5	
	comp=Z,21nm,0.8s						
TNCH	TengChong	71.77	287	P	P	02 55 43.3	+1.5
TNCH				S	S	03 05 06.3	+5.2
TNCH				pmax	pmax		
	comp=Z,120nm,0.6s						
TNCH				pmax	pmax		
	comp=Z,490nm,2.9s						
TNCH				L	L		
	comp=Z,290nm,16.4s						
TNCH				L	L		
	comp=Z,590nm,19.5s						
TNCH				L	L		
	comp=Z,940nm,17.5s						
DZA	Taraz	71.78	317	*e*P	P	02 55 41.7	+0.3
DZA				pmax	pmax		
	comp=Z,20nm,1.4s						
DZA	Taraz	71.78	317	*e*P	P	02 55 41.7	+0.3
	comp=Z,20nm,1.4s						
DEL	Delary	71.86	358	*i* P	P	02 55 41.8	+0.2
KKAR	Karatay Array	71.95	318	P	P	02 55 42.0	-0.5
KKAR	Karatay Array	71.95	318	P	P	02 55 42.0	-0.5
BLEU	Blekinge	71.97	357	*i* P	P	02 55 42.6	+0.3
SWI	Sorong	72.18	244	P	P	02 55 40.9	-3.2
SIJI	Sorong	72.19	244	P	P	02 55 44.3	+0.1
	comp=Z,64nm,0.9s,baz=25,slow=6.3,SNR=30						
	comp=Z,64nm,0.9s						
LSA	Lhasa	72.45	296	*e*P	P	02 55 48.0	+1.8
LSA				pmax	pmax		
	comp=Z,88nm,1.0s						
LSA				L	L		
	comp=Z,310nm,19.9s						
LSA				L	L		
	comp=Z,410nm,18.6s						
LSA				L	L		
	comp=Z,500nm,19.2s						
LSA	Lhasa	72.45	296	P	P	02 55 47.4	+1.2
LSA				pmax	pmax		
	comp=Z,103nm,1.1s						
LSA	Lhasa	72.45	296	P	P	02 55 47.4	+1.2
LSA	Lhasa	72.45	296	P	P	02 55 47.8	+1.7
EKA	Eskdalemuir Ar	72.45	8	P	P	02 55 45.9	+0.7
	comp=Z,16nm,0.9s,baz=349,slow=4.5,SNR=23						
	comp=Z,16nm,0.9s						
MNK	Minsk	72.87	349	*i* P	P	02 55 48.2	+0.6
MNK				*i*		02 56 05.0	
MNK				*i*		02 58 30.1	
MNK				*i* PPP	PPP	03 00 14.6	
MNK				*i* S	S	03 05 15.3	+2.9
MNK				*i* SS	SS	03 09 56.4	+5.1
MNK				pmax	pmax		
	comp=Z,85nm,1.0s						
MNK				pmax	pmax		
	comp=E,52nm,1.1s						
MNK				pmax	pmax		
	comp=N,13nm,0.9s						
MNK				MLR	MLR		
	comp=N,134nm,18.0s						
MNK				MLR	MLR		
	comp=E,190nm,20.0s						
MNK				MLR	MLR		
	comp=Z,178nm,18.0s						
MNK	Minsk	72.87	349	*i* P	P	02 55 48.2	+0.6
	comp=E,52nm,1.1s						
MNK				*i* P	P	02 55 48.2	+0.6
	comp=N,13nm,0.9s						
MNK				*i* P	P	02 55 48.2	+0.6
	comp=Z,85nm,1.0s,baz=11						
MNK				*i* PcP	PcP	02 56 05.0	+0.3
MNK				*i* PP	PP	02 58 30.2	+1.1
MNK				*i* PPP	PPP	03 00 14.6	
MNK				*i* S	S	03 05 15.3	+2.9
MNK				*i* SS	SS	03 09 56.4	+5.1
MNK				*i* SSS	SSS	03 13 17.1	
MNK				*i* LQ	LQ	03 22 54.6	
MNK				*i* LR	LR	03 28 27.6	
MNK				*i* LRM	MLR	03 30 20.8	
	comp=E,190nm,19.7s						
MNK				*i* LRM	MLR	03 30 20.8	
	comp=N,134nm,17.6s						
MNK				*i* LRM	MLR	03 30 37.5	
	comp=Z,178nm,18.0s						
IUG	Iuzhnay	72.94	318	*e*P	P	02 55 48.7	+0.3
IUG				pmax	pmax		
	comp=Z,39nm,1.1s						
IUG	Iuzhnay	72.94	318	*e*P	P	02 55 48.8	+0.3
	comp=Z,39nm,1.1s						
CHM	Chimkent	72.97	318	*e*P	P	02 55 48.8	+0.3
CHM				pmax	pmax		
	comp=Z,17nm,0.8s						
CHM	Chimkent	72.97	318	*e*P	P	02 55 48.9	+0.3
	comp=Z,17nm,0.8s						
KSH2	Kashi	72.98	312	P	P	02 55 49.5	+0.7
KSH2				sP	sP	02 55 56.3	+0.1
KSH2				S	SKiKP	03 05 18.3	-1.8
KSH2				pmax	pmax		
	comp=Z,46nm,1.2s						
KSH2				pmax	pmax		
	comp=Z,240nm,9.3s						
KSH2				L	L		
	comp=Z,1µm,18.5s						
KSH2				L	L		
	comp=Z,950nm,18.0s						
KSH2				L	L		
	comp=Z,1µm,18.8s						
LPSR	Galich'ya Gora	73.04	342	*e*P	P	02 55 48.3	-0.4
LPSR				pmax	pmax		
	comp=Z,58nm,1.0s						
BSD	Bornholm Skovb	73.19	357	*i* P	P	02 55 50.6	+1.1
FAKI	Fak Fak	73.34	242	P	P	02 55 51.2	+0.2
FAKI	Fak Fak	73.34	242	P	P	02 55 51.2	+0.2
	comp=Z,70nm,0.9s						
VRH	Novokhopyorsk	73.81	340	*e*P	P	02 55 52.7	-0.6
VRH				pmax	pmax		
	comp=Z,54nm,1.0s						
SUW	Suwalki	73.82	352	*e*P	P	02 55 53.1	-0.2
VORR	Voronezh	73.87	342	*e*P	P	02 55 53.4	-0.2
VORR				pmax	pmax		
	comp=Z,39nm,1.0s						
VSR	Storozhevoye	74.31	342	*e*P	P	02 55 55.7	-0.5
VSR				pmax	pmax		
	comp=Z,44nm,1.0s						
BSEG	Bad Segeberg	74.44	0	*e*P	P	02 55 58.8	+1.9
	comp=Z,52nm,1.2s,baz=0.5,slow=5.6						
VORD	Divnogorie	74.53	341	*e*P	P	02 55 56.1	-1.4
VORD				pmax	pmax		
	comp=Z,50nm,1.0s						
GKP	Gorka Klasztor	74.95	356	*e*P	P	02 56 00.2	+0.4
GORT1	Trebel	75.39	359	*e*P	P	02 56 03.6	+1.3
	comp=Z,0.4nm,0.9s,baz=0.5,slow=5.6						
RETH	Rethem/Aller,	75.64	1	*e*P	P	02 56 04.9	+1.2
	comp=Z,26nm,1.1s,baz=0.5,slow=5.6						

R9F13	Warsaw-Wawer	75.76	353	eP	P	02 56 05.8	+1.3
RUE	Ruedersdorf	75.86	358	eP	P	02 56 06.0	+1.0
	comp=Z,56nm,1.1s,baz=0.5,slow=5.6						
FLTG	Flechtingen	76.05	359	eP	P	02 56 06.5	+0.4
	comp=Z,32nm,1.2s,baz=0.5,slow=5.6						
IBBN	Ibbenburen	76.05	2	eP	P	02 56 07.2	+1.0
	comp=Z,54nm,1.1s,baz=0.5,slow=5.6						
SANI	Sanana	76.14	248	P	P	02 56 04.9	-2.3
	comp=Z,661nmcomp=Z,58nm,0.9s						
BEL	Belsk	76.17	353	eP	P	02 56 07.8	+0.9
RNPP8	Varash	76.21	350	P	P	02 56 06.9	-0.2
CHTO	Chiang Mai	76.25	283	P	P	02 56 03.5	-4.4
CHTO				S	S	03 05 50.0	-1.3
CHTO	Chiang Mai	76.25	283	P	P	02 56 07.5	-0.3
CHTO				pmax	pmax		
	comp=Z,56nm,1.6s						
CHTO	Chiang Mai	76.25	283	P	P	02 56 07.5	-0.3
CHTO				IAmb	IAmb	02 56 33.3	
	comp=Z,56nm,1.6s						
CHTO	Chiang Mai	76.25	283	P	P	02 56 05.4	-2.5
	comp=Z,21nm,1.4s						
ASSE	Asse, Remlinge	76.25	360	eP	P	02 56 08.2	+1.0
	comp=Z,34nm,1.3s,baz=0.5,slow=5.6						
RNPP5	Staryi Chortor	76.31	350	P	P	02 56 07.7	0.0
AK21	Malin Array Si	76.39	348	P	P	02 56 07.5	-0.6
AKASG	Malin Array Be	76.44	348	P	P	02 56 07.8	-0.6
	comp=Z,20nm,0.9s,baz=14,slow=5.6,SNR=64						
AKASG				LR	LR	03 35 52.7	
	comp=Z,347nm,18.4s,baz=15,slow=40						
	comp=Z,20nm,0.9s						
AKBB	Malin Array Si	76.44	348c	iP	P	02 56 07.7	-0.7
AKBB	Malin Array Si	76.44	348	P	P	02 56 07.8	-0.7
AK19	Malin Array Si	76.44	348	P	P	02 56 07.9	-0.5
KIEV	Kiev	76.44	348	P	P	02 56 08.4	0.0
KIEV	Kiev	76.44	348	P	P	02 56 07.0	-1.4
KIEV	Kiev	76.44	348	P	P	02 56 07.7	-0.8
KIEV	Kiev	76.44	348	⇑P	P	02 56 08.5	0.0
KIEV	Kiev	76.44	348	P	P	02 56 07.6	-0.8
	comp=Z,155nm,1.2s						
CM31	Chiang Mai Arr	76.52	283	P	P	02 56 04.5	-4.9
	SNR=7.0						
CMAR	Chiang Mai Arr	76.52	283	P	P	02 56 10.1	+0.7
	comp=Z,11nm,0.9s,baz=27,slow=6.5,SNR=47						
CMAR				LR	LR	03 34 32.6	
	comp=Z,400nm,18.0s,baz=60,slow=39						
	comp=Z,11nm,0.9s						
CMAR	Chiang Mai Arr	76.52	283	P	P	02 56 09.2	-0.2
CLZ	Clausthal	76.54	360	eP	P	02 56 10.3	+1.2
	comp=Z,45nm,1.2s,baz=0.5,slow=5.6						
TOLI2	Tolitoli	76.64	254	IAmb	IAmb	02 56 10.6	
	comp=Z,32nm,1.3s						
GTTG	Gottingen	76.83	0	eP	P	02 56 11.9	+1.2
	comp=Z,50nm,1.1s,baz=0.5,slow=5.6						
BUG	Bochum--Univer	76.91	2	eP	P	02 56 11.7	+0.7
	comp=Z,30nm,1.1s,baz=0.5,slow=5.6						
CLL	Collm	77.05	358	i P	P	02 56 12.1	+0.2
CLL				eS	S	03 06 02.0	+2.9
CLL				pmax	pmax		
	comp=Z,30nm,1.3s						
CLL				MLR	MLR		
	comp=Z,400nm,19.1s						
CLL	Collm	77.05	358	IAmb	IAmb	02 56 13.7	
	comp=Z,31nm,1.2s						
CLL	Collm	77.05	358	eP	P	02 56 12.3	+0.5
	comp=Z,25nm,1.1s,baz=0.5,slow=5.6						
CLL	Collm	77.05	358	P	P	02 56 12.4	+0.5
	comp=Z,24nm,1.4s						
CLL	Collm	77.05	358	i P	P	02 56 12.1	+0.2
	comp=Z,30nm,1.3s						
CLL				ePPP	PPP	03 00 53.0	
CLL				eS	S	03 06 02.0	+2.9
CLL				e(sSKSac)		03 06 35.0	
CLL				ePS	PnS	03 06 41.0	+2.7
CLL				eSS	SS	03 10 48.0	-6.8
CLL				eSSS	SSS	03 14 30.0	
CLL				eSSSS		03 16 42.0	
CLL				LH		03 18 00.0	
CLL				LV		03 21 00.0	
CLL				AMS	AMS	03 33 00.0	
	comp=N,300nm,20.4s						
CLL				AMS	AMS	03 33 00.0	
	comp=E,200nm,22.5s						
CLL				AMS	AMS	03 33 00.0	
	comp=Z,400nm,19.1s						
BMOL	Mol	77.07	3	dP	P	02 56 13.0	+1.1
KASTN	Kahler Asten	77.17	1	eP	P	02 56 13.4	+0.9
	comp=Z,19nm,1.1s,baz=0.5,slow=5.6						
NEUB	Neuenburg	77.17	359	eP	P	02 56 13.5	+1.0
	comp=Z,43nm,1.1s,baz=0.5,slow=5.6						
BOPT	Opiter	77.19	3	dP	P	02 56 14.3	+1.7
LUBAR	Lubar, Ukraine	77.39	349	P	P	02 56 12.4	-1.4
KSP	Ksiaz	77.41	356	eP	P	02 56 14.6	+0.6
KSP	Ksiaz	77.41	356	P	P	02 56 14.5	+0.6
	comp=Z,34nm,1.4s						
UCC	Uccle	77.46	4	dP	P	02 56 14.7	+0.6
BRG	Berggiesshubel	77.46	358	eP	P	02 56 15.0	+0.7
	comp=Z,38nm,1.2s,baz=0.5,slow=5.6						
BRG	Berggiesshubel	77.46	358	eP	P	02 56 14.9	+0.7
BRG				Amp		02 56 16.4	
	comp=Z,38nm,1.2s						
BRG				⇑PP	PcP	02 56 25.9	+1.3
BRG				Amp		02 56 28.4	
	comp=Z,14nm,1.0s						
UBBA	Unterbreizbach	77.56	0	eP	P	02 56 38.9	+24
	baz=0.5,slow=5.6						
BRDH	Bariadhala	77.59	291	LR	LR	03 35 04.8	
	comp=Z,438nm,18.1s,baz=23,slow=39						
CHVC	Chvalec	77.68	356	eP	P	02 56 17.1	+1.6
CHVC	Chvalec	77.68	356	eP	P	02 56 17.1	+1.6
OSTC	Ostas	77.70	356	eP	P	02 56 16.4	+0.8
OSTC				MLR	MLR		
	comp=Z,400nm,18.9s						
OSTC	Ostas	77.70	356	eP	P	02 56 16.4	+0.8
OSTC				AMS	AMS	03 34 30.0	
	comp=Z,400nm,18.9s						
MEM	Membach	77.71	3	dP	P	02 56 16.3	+0.7
	comp=Z,21nm,1.2s						
MOX	Moxa	77.73	359	eP	P	02 56 16.7	+1.0
	comp=Z,27nm,1.1s,baz=0.5,slow=5.6						
MOX				eL	L	03 32 50.2	
	comp=Z,226nm,19.8s						
HSKC	Hora Svate Kat	77.74	358	eP	P	02 56 16.8	+1.0
HSKC				AMS	AMS	03 34 50.0	
	comp=Z,300nm,16.3s						
UPC	Upice	77.76	356	eP	P	02 56 16.7	+0.8
UPC				MLR	MLR		
	comp=Z,400nm,17.1s						
UPC	Upice	77.76	356	eP	P	02 56 16.7	+0.8
UPC				AMS	AMS	03 43 20.0	
	comp=Z,400nm,17.1s						
PVCC	Panska Ves	77.79	357	eP	P	02 56 16.9	+0.9
PVCC				MLR	MLR		
	comp=Z,400nm,17.0s						
PVCC	Panska Ves	77.79	357	eP	P	02 56 16.9	+0.9
PVCC				AMS	AMS	03 36 50.0	
	comp=Z,400nm,17.0s						
OJC	Ojcow	77.85	354	eP	P	02 56 16.9	+0.6
OJC	Ojcow	77.85	354	P	P	02 56 16.7	+0.3
	comp=Z,535nmcomp=Z,36nm,1.4s						
BCLA	Clavier	77.87	3	dP	P	02 56 16.5	0.0
	comp=Z,15nm,1.2s						
PLN	Plauen	77.89	359	eP	P	02 56 17.5	+0.9
	comp=Z,8.8nm,1.3s,baz=0.5,slow=5.6						
DPC	Dobruska-Polom	77.91	356	eP	P	02 56 17.4	+0.6
DPC				MLR	MLR		
	comp=Z,300nm,16.1s						
DPC	Dobruska-Polom	77.91	356	eP	P	02 56 17.4	+0.6
DPC				AMS	AMS	03 43 50.0	
	comp=Z,300nm,16.1s						
DPC	Dobruska-Polom	77.91	356	P	P	02 56 17.6	+0.8
	comp=Z,688nmcomp=Z,51nm,1.3s						
TANN	Tannenbergstha	77.95	359	eP	P	02 56 18.0	+1.0
	comp=Z,24nm,1.4s,baz=0.5,slow=5.6						
BMRD	Maredsous	77.97	4	dP	P	02 56 17.5	+0.5
	comp=Z,22nm,1.1s						
NKC	Novy Kostel	78.13	359	eP	P	02 56 19.1	+1.1
NKC	Novy Kostel	78.13	359	eP	P	02 56 19.1	+1.1
RCHB	Rochefort	78.13	3	dP	P	02 56 17.9	0.0
	comp=Z,18nm,1.1s						
TNS	Taunus Mts	78.15	1	eP	P	02 56 19.0	+0.9
	comp=Z,28nm,1.2s,baz=0.5,slow=5.6						
KRLC	Kraliky	78.16	356	eP	P	02 56 18.8	+0.6
KRLC				MLR	MLR		
	comp=Z,400nm,22.4s						
KRLC	Kraliky	78.16	356	eP	P	02 56 18.8	+0.6
KRLC				AMS	AMS	03 40 30.0	
	comp=Z,400nm,22.4s						
DOU	Dourbes	78.17	4	dP	P	02 56 16.9	-1.2
	comp=Z,18nm,1.3s						
KWP	Kalwaria Pacla	78.21	352	eP	P	02 56 19.1	+0.7
KWP	Kalwaria Pacla	78.21	352	P	P	02 56 18.8	+0.4
	comp=Z,87nm,1.1s						
STEB	Steborice	78.25	355	eP	P	02 56 19.3	+0.7
OKC	Ostrava-Krasne	78.33	355	eP	P	02 56 19.9	+0.9
OKC				MLR	MLR		
	comp=Z,300nm,20.1s						
OKC	Ostrava-Krasne	78.33	355	eP	P	02 56 19.9	+0.9
OKC				AMS	AMS	03 34 20.0	
	comp=Z,300nm,20.1s						
PRU	Pruhonice	78.33	357	eP	P	02 56 19.8	+0.7
PRU				MLR	MLR		
	comp=Z,500nm,20.5s						
PRU	Pruhonice	78.33	357	eP	P	02 56 19.8	+0.7
PRU				AMS	AMS	03 37 10.0	
	comp=Z,500nm,20.5s						
MORC	Moravsky Berou	78.42	355	P	P	02 56 20.4	+0.8
MORC	Moravsky Berou	78.42	355	IAmb	IAmb	02 56 21.8	
	comp=Z,42nm,1.2s						
MORC	Moravsky Berou	78.42	355	eP	P	02 56 20.1	+0.5
MORC	Moravsky Berou	78.42	355	⇑P	P	02 56 20.5	+0.8
STHS	Stebnicka Huta	78.54	353	eP	P	02 56 20.8	+0.5
STHS				pmax	pmax		
	comp=Z,31nm,1.1s						
STHS	Stebnicka Huta	78.54	353	eP	P	02 56 20.8	+0.5
NIL	Nilore	78.54	311	P	P	02 56 20.6	0.0
NIL	Nilore	78.54	311	P	P	02 56 20.6	0.0
NIL				pmax	pmax		
	comp=Z,105nm,1.1s						
NIL	Nilore	78.54	311	P	P	02 56 20.6	0.0
NIE	Niedzica	78.61	353	eP	P	02 56 21.6	+0.9
NIE	Niedzica	78.61	353	P	P	02 56 21.5	+0.9
	comp=Z,13nm,1.4s						
GRA1	Grafenberg Arr	78.69	359	P	P	02 56 21.9	+0.8
GRF	Grafenberg Arr	78.69	359	P	P	02 56 21.9	+0.8
GRF				pmax	pmax		
	comp=Z,69nm,1.2s						
GRF	Grafenberg Arr	78.69	359	eP	P	02 56 22.5	+1.4
	comp=Z,64nm,1.2s,baz=0.5,slow=5.6						
GRF				eL	L	03 41 38.6	
	comp=Z,222nm,19.2s						
KMPD	K-Podol'skiy	78.88	349	P	P	02 56 20.9	-1.2
VRAC	Vranov	78.93	356	LR	LR	03 33 41.6	
	comp=Z,170nm,18.9s,baz=6.5,slow=38						
VRAC	Vranov	78.93	356	P	P	02 56 23.7	+1.3
VRAC	Vranov	78.93	356	eP	P	02 56 23.5	+1.1
VRAC	Vranov	78.93	356	⇑P	P	02 56 23.8	+1.3
KOLS	Kolonicke sedl	78.94	352	eP	P	02 56 23.4	+1.0
KOLS				pmax	pmax		
	comp=Z,19nm,1.1s						
KOLS	Kolonicke sedl	78.94	352	eP	P	02 56 23.4	+1.0
TREC	Trest	78.99	357	eP	P	02 56 23.2	+0.4
TREC				MLR	MLR		
	comp=Z,300nm,16.5s						
TREC	Trest	78.99	357	eP	P	02 56 23.2	+0.4
TREC				AMS	AMS	03 33 40.0	
	comp=Z,300nm,16.5s						
SORM	Soroca	79.07	348	P	P	02 56 23.2	+0.1
SORM	Soroca	79.07	348	⇑P	P	02 56 23.2	+0.1
SORM	Soroca	79.07	348	P	P	02 56 22.5	-0.6
BAL3X	Bal3x, Balta	79.09	347	P	P	02 56 22.5	-0.8
KRUC	Moravsky	79.19	356	eP	P	02 56 24.4	+0.6
KHC	Kasperske Hory	79.22	358c	eP	P	02 56 25.1	+1.1
KHC				pmax	pmax		
	comp=Z,63nm,1.3s						
KHC	Kasperske Hory	79.22	358	eP	P	02 56 24.6	+0.6
KHC				AMS	AMS	03 35 30.0	
	comp=Z,500nm,18.5s						
KHC	Kasperske Hory	79.22	358	P	P	02 56 25.0	+1.1
	comp=Z,790nmcomp=Z,44nm,1.9s						
WET	Wettzell	79.22	358	eP	P	02 56 25.3	+1.3
	comp=Z,42nm,1.4s,baz=0.5,slow=5.6						
ERBR	Yeremizino-Bor	79.27	339	eP	P	02 56 25.2	+0.9
ERBR				eS	S	03 06 27.7	+4.5
ERBR				pmax	pmax		
	comp=Z,193nm,1.2s						
GOF	Gofitskoye	79.30	337c	iP	P	02 56 25.1	+0.6
JAVC	Velka Javorina	79.33	355	eP	P	02 56 26.4	+1.8
GEC2	GERESS Array S	79.50	358	IAmb	IAmb	02 56 27.8	
	comp=Z,46nm,1.4s						
GEC2	GERESS Array S	79.50	358	eP	P	02 56 26.5	+0.9
	comp=Z,46nm,1.4s,baz=0.5,slow=5.6						
GERES	GERESS Array B	79.50	358	P	P	02 56 26.4	+0.9
	comp=Z,18nm,1.1s,baz=350,slow=3.0,SNR=50						
	comp=Z,18nm,1.1s						
CKRC	Cesky Krumlov	79.51	357	eP	P	02 56 25.4	-0.2
CKRC				MLR	MLR		
	comp=Z,400nm,15.6s						
CKRC	Cesky Krumlov	79.51	357	eP	P	02 56 25.4	-0.2
CKRC				AMS	AMS	03 35 50.0	
	comp=Z,400nm,15.6s						
KECS	Kecovo	79.53	353	eP	P	02 56 26.9	+1.3
KECS				pmax	pmax		
	comp=Z,40nm,1.2s						
KECS	Kecovo	79.53	353	eP	P	02 56 26.9	+1.3
STU	Stuttgart	79.61	1	IAmb	IAmb	02 56 28.4	
	comp=Z,53nm,1.3s						
STU	Stuttgart	79.61	1	eP	P	02 56 27.1	+1.1
	comp=Z,125nm,1.3s,baz=0.5,slow=5.6						
VYHS	Vyhne	79.63	354	eP	P	02 56 27.3	+1.1
VYHS				pmax	pmax		
	comp=Z,51nm,1.2s						
VYHS	Vyhne	79.63	354	eP	P	02 56 27.3	+1.1
KDI	Kendari	79.63	250	P	P	02 56 26.4	-0.2
	comp=Z,11µmcomp=Z,20nm,1.0s						
SMOL	Smolenice	79.69	355	eP	P	02 56 28.2	+1.7
SMOL				pmax	pmax		
	comp=Z,17nm,1.2s						
KBL	Kabul	79.72	314	P	P	02 56 26.8	-0.4
	SNR=27						
KBL				S	SKSac	03 06 38.3	-4.8
KBL	Kabul	79.72	314	P	P	02 56 26.2	-1.0
KBL				pmax	pmax		
	comp=Z,58nm,1.1s						
KBL	Kabul	79.72	314	P	P	02 56 26.2	-1.0
MODS	Modra-Piesok	79.83	355	eP	P	02 56 28.9	+1.6
MODS				pmax	pmax		
	comp=Z,165nm,1.3s						
MODS	Modra-Piesok	79.83	355	eP	P	02 56 28.9	+1.6
BUR08	Bucovina Ar. S	79.93	350	IAmb	IAmb	02 56 29.6	
	comp=Z,28nm,1.2s						
BURAR	Bucovina Array	79.95	350	P	P	02 56 28.2	+0.1
BURAR	Bucovina Array	79.95	350	P	P	02 56 27.4	-0.8
BURAR				IAmb	IAmb	02 56 30.0	
	comp=Z,23nm,1.2s						
BURAR	Bucovina Array	79.95	350	⇑P	P	02 56 28.3	+0.1
ZST	Bratislava	80.02	355	eP	P	02 56 32.0	+3.7
ZST				pmax	pmax		
	comp=Z,8.0nm,1.0s						
ZST	Bratislava	80.02	355	eP	P	02 56 32.0	+3.7
BFO	Black Forest	80.04	1	P	P	02 56 27.9	-0.6
BFO				pmax	pmax		
	comp=Z,35nm,1.2s						
BFO	Black Forest	80.04	1	P	P	02 56 27.9	-0.6
BFO				IAmb	IAmb	02 56 30.6	
	comp=Z,35nm,1.2s						
BFO	Black Forest	80.04	1	eP	P	02 56 29.5	+1.0
	comp=Z,48nm,1.4s,baz=0.5,slow=5.6						
MAK	Makhachkala	80.10	333c	iP	P	02 56 25.2	-3.6
MAK				e		02 59 30.4	
MAK				ePPP	PPP	03 01 21.2	
MAK				eS	S	03 06 26.9	-5.0
MAK				eSSS	SSS	03 15 12.7	
MAK				pmax	pmax		
	comp=Z,291nm,1.3s						
PSZ	Piszkesteto	80.13	353	P	P	02 56 30.4	+1.4
PSZ	Piszkesteto	80.13	353	IAmb	IAmb	02 56 31.7	
	comp=Z,51nm,1.2s						
PSZ	Piszkesteto	80.13	353	⇑P	P	02 56 30.4	+1.4
ECH	Echery	80.13	2	IAmb	IAmb	02 56 31.2	
	comp=Z,42nm,1.1s						
WINA	Alland / Wiene	80.16	356	epP	P	02 56 30.5	+1.4
	comp=Z,42nm,1.2s,SNR=12						
FUR	Furstenfeldbru	80.22	359	eP	P	02 56 30.7	+1.3
	comp=Z,37nm,1.0s,baz=0.5,slow=5.6						
LABN	Labinsk	80.23	339	eP	P	02 56 29.9	+0.4
LABN				eS	S	03 06 34.8	+1.4
LABN				pmax	pmax		
	comp=Z,14nm,0.4s						
SRO	Srobarova	80.34	355	eP	P	02 56 34.0	+4.0
SRO				pmax	pmax		
	comp=Z,46nm,1.3s						
SRO	Srobarova	80.34	355	eP	P	02 56 34.0	+4.0
CONA	Conrad Observa	80.34	356	epP	P	02 56 31.7	+1.5
	comp=Z,59nm,1.2s,SNR=10						
KIV	Kislovodsk	80.42	337	P	P	02 56 32.1	+1.4
KIV				S	SKSac	03 06 47.8	+0.4
KIV	Kislovodsk	80.42	337	eP	P	02 56 31.4	+0.7
KIV				eS	S	03 06 37.8	+2.2
KIV				pmax	pmax		
	comp=Z,52nm,1.0s						
KIV				pmax	pmax		
	comp=Z,24nm,3.0s						
KIV	Kislovodsk	80.42	337	P	P	02 56 31.4	+0.7
KIV	Kislovodsk	80.42	337	P	P	02 56 31.8	+1.1
KIV	Kislovodsk	80.42	337	⇓P	P	02 56 32.1	+1.4
KIV	Kislovodsk	80.42	337	P	P	02 56 31.5	+0.7
	comp=Z,494nmcomp=Z,51nm,0.9s						
MOA	Molln	80.48	357	i pP	P	02 56 31.8	+0.9
	comp=Z,16nm,1.0s						
BIZ	Bicaz	80.52	349	⇑P	P	02 56 31.8	+0.7
RONA	Rosalia, Austr	80.55	356	epP	P	02 56 32.8	+1.5
	comp=Z,32nm,1.1s,SNR=6.1						
ARCR	ARCALIA	80.57	350	⇑P	P	02 56 31.8	+0.5
KBZ	Khabaz	80.58	337	P	P	02 56 32.6	+1.2
	comp=Z,23nm,1.0s,baz=28,slow=2.0,SNR=23						
	comp=Z,23nm,1.0s						
KBZ	Khabaz	80.58	337c	iP	P	02 56 32.5	+1.1
NCK	Nalchik	80.63	336c	eP	P	02 56 32.9	+1.2
NCK				pmax	pmax		
	comp=Z,101nm,1.1s						
SHA1	Shidzhatmaz	80.64	337c	eP	P	02 56 33.0	+1.0
BIOA	Bad Ischl, Aus	80.65	358	eP	P	02 56 32.7	+1.0
	comp=Z,53nm,1.2s,baz=0.5,slow=5.6						
BIOA	Bad Ischl, Aus	80.65	358	epP	P	02 56 32.9	+1.1
	comp=Z,51nm,1.3s,SNR=10						
UBR	Ueberruh	80.70	0	eP	P	02 56 34.7	+2.6
	comp=Z,41nm,1.2s,baz=0.5,slow=5.6						
MMSI	Mamuju	80.79	254	P	P	02 56 23.1	-10
ANN	Anapa	80.79	341	eP	P	02 56 31.6	-0.9
ANN				eS	S	03 06 38.3	-0.8
ANN				pmax	pmax		
	comp=Z,41nm,1.0s						
TESR	Tescani	80.88	349	⇑P	P	02 56 33.8	+0.8
TESR	Tescani	80.88	349	P	P	02 56 32.5	-0.5
	comp=Z,11nm,1.3s						
RETA	Reutte	80.90	360	i pP	P	02 56 34.3	+1.1
	comp=Z,30nm,1.4s,SNR=7.9						
LESA	Schwarzleotal	80.94	358	pP	P	02 56 34.8	+1.4
	comp=Z,28nm,1.0s,SNR=5.9						
DRGR		81.02	351	P	P	02 56 34.3	+0.5
DRGR		81.02	351	⇑P	P	02 56 34.3	+0.5
MPLH	Magyarpolny	81.02	355	P	P	02 56 34.6	+0.9
	comp=Z,170nm,1.3s						
ARSA	Arzberg	81.03	356	IAmb	IAmb	02 56 36.7	
	comp=Z,55nm,1.3s						
ARSA	Arzberg	81.03	356	epP	P	02 56 35.3	+1.5
	comp=Z,34nm,1.2s						
MOTA	Moosalm	81.04	359	eP	P	02 56 35.0	+0.9
	comp=Z,78nm,1.3s,baz=0.5,slow=5.6						
MOTA	Moosalm	81.04	359	i pP	P	02 56 35.2	+1.2
	comp=Z,57nm,1.2s,SNR=12						
WATA	Walderalm	81.04	359	i pP	P	02 56 35.3	+1.2
	comp=Z,50nm,1.1s,SNR=13						
ONER	Baraj Valea Uz	81.08	349	⇓P	P	02 56 35.4	+1.3
DAVA	Damuels	81.10	0	epP	P	02 56 35.2	+0.9
	comp=Z,20nm,1.0s,SNR=6.7						
WTTA	Wattenberg	81.11	359	i pP	P	02 56 35.8	+1.4
	comp=Z,32nm,0.9s,SNR=11						
SQTA	Sankt Quirin	81.16	359	epP	P	02 56 36.0	+1.4
	comp=Z,75nm,1.3s,SNR=14						
SESA	Seetaler Alpe,	81.20	357	epP	P	02 56 36.5	+1.5
	comp=Z,106nm,1.0s,SNR=9.1						
GHRR		81.23	348	⇑P	P	02 56 34.9	+0.1
GHRR		81.23	348	P	P	02 56 35.3	+0.5
KBA	Koelnbreinsper	81.27	358	epP	P	02 56 37.0	+1.8
	comp=Z,149nm,1.4s,SNR=15						
SIM	Simferopol'	81.28	343	eP	P	02 56 36.3	+1.2
SIM				eS	SKSac	03 06 50.2	-2.9
SIM				pmax	pmax		
	comp=Z,100nm,1.8s						
SIM				smax	smax		
	comp=N,140nm,12.0s						
FETA	Feichten	81.36	360	eP	P	02 56 37.2	+1.5
	comp=N,70nm,1.2s,baz=0.5,slow=5.6						
FETA	Feichten	81.36	360	i pP	P	02 56 37.3	+1.5
	comp=N,67nm,1.3s,SNR=14						
OZUR		81.39	349	⇑P	P	02 56 36.8	+1.1
AKT	Akhty	81.40	333	eP	P	02 56 36.3	+0.3
AKT				e		02 56 40.8	
AKT				eS	SKSac	03 06 52.1	-2.2
AKT				pmax	pmax		
	comp=Z,107nm,1.0s						
TURR	Turia	81.40	349	⇑P	P	02 56 37.4	+1.6
CTA	Charters Tower	81.42	221	P	P	02 56 36.1	0.0
	comp=Z,4.7nm,0.7s,baz=40,slow=9.3,SNR=4.5						
CTA				LR	LR	03 27 11.5	
	comp=Z,136nm,21.6s,baz=34,slow=32						
	comp=Z,4.7nm,0.7s						
BOSR	Bodos	81.42	349	⇑P	P	02 56 37.2	+1.3
SOC	Sochi	81.47	339	eP	P	02 56 36.6	+0.5
SOC				e		02 59 43.9	
SOC				ePPP	PPP	03 01 29.8	
SOC				eS	S	03 06 47.6	+1.3
SOC				eSSS	SSS	03 15 33.8	
SOC				pmax	pmax		
	comp=Z,38nm,1.1s						
SOC				MLR	MLR		
	comp=Z,371nm,19.0s						
VRI	Vrincioaia	81.50	348	P	P	02 56 36.2	-0.1
VRI	Vrincioaia	81.50	348	⇓P	P	02 56 36.3	-0.1
VSLR	Vesyoloye	81.51	339d	eP	P	02 56 37.6	+1.2
VSLR				pmax	pmax		
	comp=Z,61nm,1.0s						
PLOR	Plostina	81.53	349	P	P	02 56 37.7	+1.2
PLOR	Plostina	81.53	349	⇑P	P	02 56 37.8	+1.2
COVR	Voineasa-Covas	81.59	349	⇓P	P	02 56 38.0	+1.2
ABTA	Abfaltersbach	81.62	358	pP	P	02 56 38.1	+1.1
	comp=Z,52nm,1.2s,SNR=8.6						
SOKA	Soboth	81.62	357	pP	P	02 56 38.2	+1.2
	comp=Z,53nm,1.1s,SNR=8.9						
SAHR	Sahastru	81.65	349	⇑P	P	02 56 38.8	+1.7
PERS	Pernice	81.66	357	eP	P	02 56 38.3	+1.1
MYKA	Terra Mystica	81.71	358	epP	P	02 56 38.3	+0.8
	comp=Z,42nm,1.5s						
OBKA	Obir	81.81	357	i pP	P	02 56 38.9	+0.9
	comp=Z,16nm,0.8s						
BISRR	Bisoca	81.82	348	⇑P	P	02 56 38.6	+0.5
BISRR	Bisoca	81.82	348	P	P	02 56 38.7	+0.6
	comp=Z,42nm,0.9s						
GROS	Grobnik	81.82	356	eP	P	02 56 38.8	+0.7
TLCR		81.90	347	P	P	02 56 38.9	+0.6
TLCR		81.90	347	⇑P	P	02 56 38.9	+0.6
PRED	Cave del Predi	81.90	358	IAmb	IAmb	02 56 40.1	
	comp=Z,30nm,1.1s						
TUE	Stuetta	81.91	1	P	P	02 56 39.6	+0.9
	comp=Z,172nm,1.3s						
MORH	Mrgy, Hungar	81.91	354	⇑P	P	02 56 38.8	+0.4
MORH	Mrgy, Hungar	81.91	354	P	P	02 56 38.6	+0.2
	comp=Z,8.8nm,1.7s						
MLR	Muntele Rosu	81.97	349	LR	LR	03 36 20.7	
	comp=Z,366nm,20.9s,baz=14,slow=38						
MLR	Muntele Rosu	81.97	349	P	P	02 56 40.5	+1.6
MLR	Muntele Rosu	81.97	349	IAmb	IAmb	02 56 41.8	
	comp=Z,26nm,1.3s						
MLR	Muntele Rosu	81.97	349	⇑P	P	02 56 40.5	+1.6
MLR	Muntele Rosu	81.97	349	P	P	02 56 39.6	+0.7
	comp=Z,17nm,1.2s						
NEHR	Nehoiu	81.99	349	⇑P	P	02 56 40.2	+1.3
CFR	Carcaliu	82.00	347	P	P	02 56 39.2	+0.3
CFR	Carcaliu	82.00	347	⇑P	P	02 56 39.2	+0.3
SURR	Surduc	82.10	352	⇑P	P	02 56 40.2	+0.7
VOIR		82.12	350	P	P	02 56 40.4	+0.8
VOIR		82.12	350	⇑P	P	02 56 40.5	+0.8
VOIR		82.12	350	P	P	02 56 40.3	+0.6
	comp=Z,14nm,1.3s						
KAPI	Kappang	82.15	252	P	P	02 56 40.7	+0.6
	comp=Z,5.8nm,0.4s,baz=5.5,slow=2.1,SNR=4.7						
	comp=Z,5.8nm,0.4s						
KAPI	Kappang	82.15	252	P	P	02 56 28.8	-11
KAPI				S	S	03 06 41.3	-13
KAPI	Kappang	82.15	252	⇓eP	P	02 56 39.3	-0.8
KAPI				pmax	pmax		
	comp=Z,60nm,1.9s						
KAPI	Kappang	82.15	252	P	P	02 56 39.2	-0.8
KAPI				IAmb	IAmb	02 56 47.7	
	comp=Z,55nm,1.6s						

BKSI	Bulukumba	82.18	251	P	P	02 56 39.4	-0.8
	comp=Z,41nm,1.0s						
ARR	Arges	82.24	350	⇑P	P	02 56 41.8	+1.5
TPGR	Topolog	82.28	347	⇑P	P	02 56 41.0	+0.6
BZS	Buzias	82.28	352	P	P	02 56 40.9	+0.5
BZS	Buzias	82.28	352	⇑P	P	02 56 40.9	+0.5
GZR	Gura Zlata	82.40	351	P	P	02 56 41.4	+0.3
GZR	Gura Zlata	82.40	351	⇑P	P	02 56 41.4	+0.3
HARR	Harsova	82.50	347	P	P	02 56 42.2	+0.7
HARR	Harsova	82.50	347	⇑P	P	02 56 42.3	+0.7
TLBR	Topalu	82.63	347	⇑P	P	02 56 43.6	+1.4
TIRR	Tirgusor	82.67	347	P	P	02 56 42.8	+0.4
TIRR	Tirgusor	82.67	347	IAmb	IAmb	02 56 44.2	
	comp=Z,48nm,1.3s						
TIRR	Tirgusor	82.67	347	⇑P	P	02 56 42.9	+0.4
TIRR	Tirgusor	82.67	347	P	P	02 56 42.4	0.0
	comp=Z,28nm,1.1s						
HRA	Herat	82.74	319	P	P	02 56 43.1	-0.1
HERR	Herculane	82.94	351	⇑P	P	02 56 44.1	+0.2
SSB	Saint Sauveur	82.98	4	IAmb	IAmb	02 56 46.6	
	comp=Z,34nm,1.1s						
ICOR	Ion Corvin	83.08	347	⇑P	P	02 56 45.9	+1.4
GNI	Garni	83.47	334	LR	LR	03 41 37.1	
	comp=Z,235nm,18.2s,baz=24,slow=41						
GNI	Garni	83.47	334	P	P	02 56 48.3	+1.4
GNI	Garni	83.47	334	c iP	P	02 56 48.4	+1.5
GNI				pmax	pmax		
	comp=Z,58nm,1.7s						
GNI	Garni	83.47	334	P	P	02 56 47.2	+0.3
GNI	Garni	83.47	334	P	P	02 56 48.0	+1.2
GNI	Garni	83.47	334	P	P	02 56 48.1	+1.2
	comp=Z,597nmcomp=Z,46nm,1.3s						
PRMA	PARMA	83.62	0	P	P	02 56 46.8	-0.5
KTUT	Trabzon	83.92	338	⇑P	P	02 56 50.0	+1.1
LOZB	Loznitsa	83.98	348	⇓P	P	02 56 49.3	+0.1
EDFI	Ende, Flores	84.04	248	P	P	02 57 00.1	+10
PLVB	Pleven	84.20	350	⇓P	P	02 56 51.6	+1.3
BOVS	Bovan	84.24	352	⇑P	P	02 56 50.9	+0.4
HOMI	Horasan	84.30	336	⇑P	P	02 56 52.8	+1.6
QIS	Mount Isa	84.70	227	P	P	02 56 52.9	-0.1
	comp=Z,16nm,1.0s						
PGAV	Gavieira, Arco	85.03	14	eLR	LR	03 28 48.4	
PGAV				i IAMs_20	IAMs_20	03 39 40.6	
	comp=Z,529nm,18.0s						
OZAP	Van, Ozalp-Mer	85.06	334	⇓P	P	02 56 56.8	+1.7
PBRG	Braganca	85.41	13	eP	P	02 56 57.3	+0.8
PBRG				i IAmb	IAmb	02 57 15.7	
	comp=Z,46nm,1.8s						
POLO	Lamas de Olo	85.68	14	eP	P	02 56 59.8	+1.8
POLO				i IAmb	IAmb	02 57 14.3	
	comp=Z,20nm,1.5s						
KLYT	Kilyos	85.72	346	P	P	02 56 59.1	+1.2
	comp=Z,1µmcomp=Z,59nm,1.1s						
BR131	Keskin Array S	86.43	342	P	P	02 57 03.1	+1.4
	SNR=6.9						
BR131				S	SKSac	03 07 29.0	+2.0
BR131	Keskin Array S	86.43	342	c iP	P	02 57 02.3	+0.6
BR131	Keskin Array S	86.43	342	IAmb	IAmb	02 57 04.3	
	comp=Z,34nm,1.6s						
BRTR	Keskin Array B	86.43	342	P	P	02 57 02.5	+0.7
	comp=Z,3.2nm,0.8s,baz=31,slow=1.8,SNR=20						
BRTR				LR	LR	03 40 50.3	
	comp=Z,205nm,19.3s,baz=2.0,slow=39						
	comp=Z,3.2nm,0.8s						
BRTR	Keskin Array B	86.43	342	P	P	02 57 01.7	0.0
BR105	Keskin Array S	86.44	342	P	P	02 57 02.5	+0.7
	comp=Z,102nmcomp=Z,9.3nm,1.2s						
BR104	Keskin Array S	86.44	342	P	P	02 57 02.2	+0.4
	comp=Z,86nmcomp=Z,8.2nm,1.2s						
WB0	Warramunga Arr	86.45	231	IAmb	IAmb	02 57 17.6	
	comp=Z,19nm,1.1s						
WR8	Warramunga Arr	86.56	231	IAmb	IAmb	02 57 14.1	
	comp=Z,15nm,0.8s						
WRAB	Tennant Creek	86.61	231	ceP	P	02 57 01.6	-0.9
WRAB				pmax	pmax		
	comp=Z,17nm,1.7s						
WRA	Warramunga Arr	86.63	231	P	P	02 57 02.1	-0.5
	comp=Z,5.8nm,0.8s,baz=40,slow=5.9,SNR=40						
	comp=Z,5.8nm,0.8s						
WRA	Warramunga Arr	86.63	231	i P	P	02 57 01.9	-0.7
WRA				pmax	pmax		
	comp=Z,7.0nm,0.9s						
WRA	Warramunga Arr	86.63	231	P	P	02 57 00.6	-2.0
MTE	Manteigas	86.67	14	eP	P	02 57 03.5	+0.7
MTE				i IAmb	IAmb	02 57 16.6	
	comp=Z,38nm,1.4s						
MTE				eLR	LR	03 29 38.1	
MTE				i IAMs_20	IAMs_20	03 38 15.7	
	comp=Z,349nm,20.0s						
BAND	Balkesir-Ban	86.73	346	⇑P	P	02 57 03.9	+0.9
KIRS	Kirsehir-Merke	86.95	342	⇑P	P	02 57 05.6	+1.4
PCBR	Castelo Branco	87.23	14	eP	P	02 57 06.0	+0.6
PCBR				i IAmb	IAmb	02 57 28.8	
	comp=Z,26nm,1.9s						
EZN	Ezine	87.50	348	P	P	02 57 07.0	+0.3
	comp=Z,581nmcomp=Z,46nm,1.1s						
PMRV	Marv??o	87.65	14	eLR	LR	03 31 34.9	
PMRV				i IAMs_20	IAMs_20	03 38 53.3	
	comp=Z,404nm,20.0s						
ESBB	Sonseca Array	87.86	11	IAmb	IAmb	02 57 10.2	
	comp=Z,27nm,1.2s						
ESDC	Sonseca Array	87.86	11	P	P	02 57 08.6	0.0
	comp=Z,14nm,1.0s,baz=347,slow=4.7,SNR=48						
ESDC				PP	PP	03 00 32.7	-0.9
	comp=Z,1.3nm,0.9s,baz=359,slow=9.5,SNR=4.9						
ESDC				LR	LR	03 41 06.8	
	comp=Z,350nm,18.0s,baz=342,slow=39						
	comp=Z,14nm,1.0s						
PAB	San Pablo	87.94	11	P	P	02 57 09.3	+0.3
QLP	Quilpie	88.04	220	P	P	02 57 10.0	+0.7
	comp=Z,97nm,1.1s						
GAZ	Gaziantep	88.15	339	IAmb	IAmb	02 57 13.8	
	comp=Z,26nm,1.1s						
PARRA	Arraiolos	88.15	14	eP	P	02 57 10.0	+0.1
PARRA				i IAmb	IAmb	02 57 14.8	
	comp=Z,27nm,1.7s						
PESTR	Estremoz	88.17	14	eP	P	02 57 10.6	+0.6
PSI	Prapat	88.69	273	P	P	02 57 12.3	-0.6
	comp=Z,689nmcomp=Z,65nm,1.1s						
ISP	Isparta	88.83	344	ceP	P	02 57 13.3	0.0
ISP				pmax	pmax		
	comp=Z,16nm,1.3s						
ISP	Isparta	88.83	344	IAmb	IAmb	02 57 14.6	
	comp=Z,13nm,1.0s						
PBAR	Barrancos	88.93	14	eP	P	02 57 14.1	+0.5
PBAR				i IAmb	IAmb	02 57 15.1	
	comp=Z,30nm,1.2s						
HYB	Hyderabad	89.15	298	eP	P	02 57 15.0	0.0
HYB				ePcP	PcP	02 57 16.5	+0.1
HYB				epP	pP	02 57 20.4	0.0
HYB				esP	sP	02 57 22.4	0.0
HYB				ePP	PP	03 00 45.4	+0.6
HYB				eS	S	03 08 04.2	+1.2
HYB				eScS	ScS	03 08 08.6	+0.6
TAVA	DENIZLI_Tavas	89.44	345	⇑P	P	02 57 17.2	+1.1
PVAQ	Vaqueiros	89.59	14	eLR	LR	03 31 56.3	
PVAQ				i IAMs_20	IAMs_20	03 44 31.7	
	comp=Z,370nm,18.0s						
PBDV	Barranco-do-Ve	89.71	14	eP	P	02 57 16.4	-0.9
ELL	Elmali	89.98	344	IAmb	IAmb	02 58 22.8	
	comp=Z,22nm,1.3s						
AS31	Alice Springs	90.01	230	IAmb	IAmb	02 57 31.6	
	comp=Z,13nm,0.8s						
ASAR	Alice Springs	90.01	230	P	P	02 57 18.6	0.0
	comp=Z,23nm,0.9s,baz=35,slow=4.6,SNR=129						
	comp=Z,23nm,0.9s						
ASAR	Alice Springs	90.01	230	P	P	02 57 18.2	-0.5
SDSI	Sungai Dareh	90.05	269	P	P	02 57 18.4	-0.7
	comp=Z,15nm,1.1s						
BDRM	Kayabasi	90.06	346	⇑P	P	02 57 19.5	+0.6
INKA	Innaminka	90.50	222	P	P	02 57 21.4	+0.7
INKA				IAmb	IAmb	02 57 34.8	
	comp=Z,22nm,1.0s						
OTAV	Otavalo	90.56	89	eP	P	02 57 24.3	+2.2
URZ	Urewera	90.62	190	LR	LR	03 35 09.1	
	comp=Z,286nm,18.2s,baz=10,slow=34						
CY604	RAF Akrotiri,	91.46	340	P	P	02 57 26.9	+1.9
MMAI	Mount Meron Ar	92.54	339	P	P	02 57 31.3	+0.8
	comp=Z,6.5nm,1.0s,baz=33,slow=8.6,SNR=5.7						
	comp=Z,6.5nm,1.0s						
SHME	Shamm	92.55	320	P	P	02 57 29.6	-1.0
SHME	Shamm	92.55	320	P	P	02 57 29.9	-0.6
BANOM	Banah	92.60	320	P	P	02 57 31.3	+0.4
KEST	Kesra	92.64	1	P	P	02 57 32.4	+1.4
	comp=Z,6.7nm,1.0s,baz=325,slow=12,SNR=4.1						
	comp=Z,6.7nm,1.0s						
MASF	Masafi	93.15	319	P	P	02 57 32.0	-1.4
UOSS	Minazif	93.51	319	P	P	02 57 34.2	-0.9
UOSS	Minazif	93.51	319	P	P	02 57 34.3	-0.7
HATD	Hatta, Dubai	93.64	319	P	P	02 57 34.6	-1.1
STKA	Stephens Creek	93.79	220	LR	LR	03 35 23.5	
	comp=Z,202nm,20.0s,baz=22,slow=33						
ASHO	Ashiyiah	93.80	319	P	P	02 57 35.2	-1.2
ASHO	Ashiyiah	93.80	319	P	P	02 57 35.5	-1.0
FAQ	Al Faqa, Dubai	93.93	320	P	P	02 57 35.9	-1.0
WSAR	Wadi Sarin	94.02	316	P	P	02 57 37.7	+0.3
SOHO	SOHO	94.10	319	P	P	02 57 36.6	-1.2
SOHO	SOHO	94.10	319	P	P	02 57 36.7	-1.0
ASUD	Al Ashush, Dub	94.14	320	P	P	02 57 37.1	-0.8
ASUD	Al Ashush, Dub	94.14	320	P	P	02 57 37.8	-0.1
HOQ	Hoqain	94.27	318	P	P	02 57 38.0	-0.5
SMDO	Samad	94.42	317	P	P	02 57 38.6	-0.8
MD01	Midelt array s	94.47	13	P	P	02 57 39.8	+0.3
MD31	MD31	94.47	13	IAmb	IAmb	02 57 41.1	
	comp=Z,19nm,1.4s						
ALNE	Al Ain	94.48	319	P	P	02 57 39.7	+0.2
	SNR=6.5						
MDT	Midelt	94.54	13	LR	LR	03 44 32.3	
	comp=Z,162nm,18.2s,baz=356,slow=38						
JLN	Jalan Bani Buh	94.64	315	P	P	02 57 40.1	-0.1
RPN	Rapa Nui	94.80	129	LR	LR	03 37 21.1	
	comp=Z,156nm,18.2s,baz=18,slow=34						
ARQ	Araqi	94.81	318	P	P	02 57 42.0	+0.9
	SNR=8.4						
JMDO	Jabal Madar	95.01	317	P	P	02 57 42.0	0.0
BSY	Bisya	95.06	317	P	P	02 57 42.0	-0.2
PALK	Pallekele	96.16	290	LR	LR	03 45 03.4	
	comp=Z,224nm,20.8s,baz=34,slow=38						
MHTO	MHTO	96.29	316	P	P	02 57 47.9	+0.1
MZR	Muzera	96.33	321	P	P	02 57 48.6	+0.6
	SNR=5.2						
RPZ	Rata Peaks	96.78	194	LR	LR	03 35 49.2	
	comp=Z,36nm,20.1s,baz=124,slow=32						
RAYN	Ar Rayn	98.75	328	P	Pdif	02 57 59.3	+0.4
RAYN	Ar Rayn	98.75	328	P	Pdif	02 57 59.2	+0.3
RAYN	Ar Rayn	98.75	328	P	P	02 57 57.8	-1.1
RAYN	Ar Rayn	98.75	328	Pdiff	P	02 57 58.9	0.0
WHFO	Wadi Hawf	100.79	318	P	Pdif	02 58 07.7	-0.4
SIV	San Ignacio	113.88	86	PP	PP	03 03 53.3	+1.6
	comp=Z,1.3nm,1.0s,baz=17,slow=9.2,SNR=3.4						
TORD	Torodi Ar. Bea	114.70	9	PP	PP	03 03 52.1	-4.2
	comp=Z,0.8nm,0.8s,baz=350,slow=6.1,SNR=3.8						
TORD				PKKPbc	PKKPbc	03 13 35.2	-0.1
	comp=Z,1.4nm,0.9s,baz=120,slow=3.7,SNR=4.3						
PLCA	Paso Flores	125.82	112	PKP	PKPdf	03 03 18.7	-1.6
	comp=Z,0.9nm,0.8s,baz=180,slow=2.0,SNR=3.1						
ARCA	Ara§uai, MG	126.05	70	eP	PKiKP	03 03 22.6	+0.7
LSZ	Lusaka	140.70	332	PKHKP	PKPpre	03 03 42.7	
LSZ	Lusaka	140.70	332		PKPpre	03 03 42.7	
QSPA	South Pole Qui	141.76	180	PKhKP	PKPpre	03 03 42.9	
	comp=Z,5.4nm,0.8s,baz=331,slow=0.9,SNR=22						
ESPZ	Base Esperanza	144.00	135	PKPpre	PKPpre	03 03 49.1	
GMARE	Gumare	146.16	340	P	PKPab	03 04 00.4	+0.3
SOOWA	Sowa	146.27	332	P	PKPab	03 04 01.3	+0.7
BROLN	Tlhalogang	146.45	330	P	PKPab	03 04 01.2	-0.1
TSUM	Tsumeb	146.78	347		PKPbc	03 04 01.2	-0.2
TSUM	Tsumeb	146.78	347	P	PKPab	03 04 02.3	-0.3
GRTLG	Ghanzi	148.28	340	P	PKiKP	03 04 06.6	-0.5
LPHEP	Lephephe	149.02	331	P	PKiKP	03 04 08.5	0.0
KDWAN	Kaudwane	149.38	333	P	PKiKP	03 04 09.4	+0.1
BELA	Belgrano 2	149.39	163		PKPbc	03 04 05.0	-1.4
BELA					PKPab	03 04 11.8	+0.5
KOOLE	Kule	150.07	342	P	PKiKP	03 04 11.1	+0.3
WIN	Windhoek	150.16	347	P	PKiKP	03 04 11.3	+0.2
MAW	Mawson	150.47	218	P	PKPbc	03 04 09.7	+0.5
MAW	Mawson	150.47	218	PKPbc	PKPbc	03 04 09.3	+0.1
	comp=Z,15nm,0.9s,baz=98,slow=2.4,SNR=31						
MAW	Mawson	150.47	218	PKIKP	PKPbc	03 04 08.7	-0.5
MAW	Mawson	150.47	218		PKPbc	03 04 08.7	-0.5
LBTB	Lobatse	150.66	331	P	PKiKP	03 04 12.6	+0.7
SKOMA	Sekoma	150.66	334	P	PKiKP	03 04 12.2	+0.3
LKGWB	Lokgwabe	150.94	339	P	PKiKP	03 04 12.7	+0.2
MAKGR	Makgori	151.64	332	P	PKiKP	03 04 14.3	+0.4
PHPEN	Phepeng	151.86	335	P	PKiKP	03 04 14.6	+0.2
BOSA	Boshof	154.12	329	PKPbc	PKiKP	03 04 19.3	+0.3
	comp=Z,4.8nm,0.9s,baz=332,slow=3.3,SNR=6.5						
SYO	Syowa Base	158.05	208	⇓eP	PKPab	03 04 41.2	-6.9
VNA3	Neumayer Olymp	158.69	162	⇑PKPab	PKPab	03 04 55.9	+5.0
	comp=Z,4.6nm,0.8s						
SNAA	Sanae	159.40	168	PKPab	PKPab	03 04 53.7	-0.4
	comp=Z,1.7nm,0.5s,baz=14,slow=2.5,SNR=4.0						
TROLL	Troll, Antarti	159.62	173	⇑PKPab	PKPab	03 04 57.5	+2.4
	comp=Z,346nm,0.7s						

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*ISK **28** 02:47:18.9, 35°.82N×30°.00E, h5km, ML3.4/29*
*GII **28** 02:47:20.6±0.0, 35°.971N±0°.002×29°.956E±0°.001, h0km, Mws3.3, confirmed*
*NIC **28** 02:47:20.9, 35°.88N×30°.00E, h6km±2km, Ml2.9/10*
*AFAD **28** 02:47:20.3, 35°.71N×29°.90E, h30km±1km, ML3.5*
*ATH **28** 02:47:23.8, 35°.96N×30°.10E, h31km±9km, ML3.2/7, Latitude uncertainty: 1 km; Longitude uncertainty: 1 km*
ISC 28 02:47:21.4±1.2, **35°.90N**±0°.03×**30°.03E**±0°.02, **h8**km±10km, **n120,** σ1s**10**/168, **Eastern Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DEMR	Demre-Antalya	0.35	343	Pg	Pg	02 47 27.5	-0.7
DEMR				AML	AML		
AKUM	Antalya-Kumluc	0.49	31	P	Pg	02 47 29.5	-1.4
KEMT	Kemer-ANTALYA	0.82	31	Pg	Pg	02 47 37.2	+0.1
KEMT				AML	AML		
IZZE	Mula-Seydike	0.84	310	P	Pb	02 47 38.0	-0.3
ELL	Elmali	0.85	353	Pg	Pg	02 47 37.8	0.0
ELL				AML	AML		
ELL	Elmali	0.85	353	P	Pg	02 47 35.5	-2.3
ELL				S	Sn	02 47 51.1	-1.4
ELL				AML	AML	02 48 01.1	
	7.1nm,0.6s						
ELL				AML	AML	02 48 02.1	
	8.3nm,0.6s						
ELL	Elmali	0.85	353	P	Pn	02 47 38.8	-1.0
ELL				S	Sb	02 47 50.3	+0.2
KNIK	Mula-Seydike	1.01	339	P	Pn	02 47 42.0	0.0
KNIK				S	Sn	02 47 58.1	+1.6
KNIK				IAML		02 47 59.0	
	comp=N,2µm,0.6s						
KNIK				IAML		02 47 59.0	
	comp=E,2µm,1.0s						
FETY	Fethiye	1.06	314	Pn	Pg	02 47 41.1	-0.6
FETY				Sn	Sn	02 47 57.7	+0.2
FETY				AML	AML		
FETY	Fethiye	1.06	314	P	Pb	02 47 41.5	-0.5
FETY				S	Sn	02 47 57.5	0.0
ANTB	Antalya	1.11	27	Pn	Pn	02 47 43.2	-0.1
ANTB				AML	AML		
KORT	Korkueli	1.12	13	P	Pb	02 47 41.5	-1.7
CAME	Cameli-Denizli	1.19	331	Pn	Pg	02 47 44.2	-0.1
CAME				Sn	Sn	02 48 02.6	+1.6
CAME				AML	AML		
SABU	Mula-Dalaman	1.26	317	P	Pn	02 47 44.8	-0.5
SABU				S	Sn	02 48 03.0	+0.5
SABU				IAML		02 48 10.0	
	comp=N,665nm,0.9s						
CAEL	Denizli, Camel	1.34	335	P	Pg	02 47 47.7	+0.5
CAEL				S	Sg	02 48 07.8	+3.2
CAEL				IAML		02 48 22.0	
	comp=N,1µm,0.7s						
GOLH	Golhisar	1.38	344	P	Pg	02 47 48.3	+0.3
GOLH				S	Sg	02 48 10.3	+4.4
GOLH				IAML		02 48 15.0	
	comp=N,877nm,0.7s						
DALY	Dalyan (Mula)	1.44	310	Pn	Pb	02 47 47.9	-0.5
DALY				Sn	Sg	02 48 08.8	+1.2
DALY				AML	AML		
DALY	Dalyan (Mula)	1.44	310	P	Pb	02 47 47.7	-0.7
DALY				S	Sn	02 48 05.7	-1.1
DALY				IAML		02 48 11.0	
	comp=N,650nm,0.4s						
DALY				IAML		02 48 11.0	
	comp=E,513nm,0.7s						
BUCA	Burdur, Bucak-	1.48	17	P	Pg	02 47 50.5	+0.6
RDI1	Rhodes Town Ha	1.56	291	P	Pb	02 47 50.1	-0.4
RDI1				S	Sb	02 48 09.9	-0.5
RDI1				AML	AML		
ARG	Arkhangelos	1.57	282	P	Pn	02 47 43.1	-6.5
ARG	Arkhangelos	1.57	282	Pn	Pn	02 47 49.0	-0.6
ARG				Sn	Sg	02 48 11.2	-0.8
ARG				AML	AML		
ARG	Arkhangelos	1.57	282	P	Pn	02 47 49.1	-0.6
ARG				S	Sb	02 48 10.2	-0.6
ARG				AML	AML	02 48 30.9	
	1.0nm,1.0s						
ARG				AML	AML	02 48 31.1	
	0.7nm,0.8s						
ARG	Arkhangelos	1.57	282	P	Pn	02 47 49.4	-0.2
ARG				S	Sb	02 48 10.1	-0.7
ARG				AML	AML		
BCK	Bucak	1.62	16	Pn	Pb	02 47 50.9	-0.7
BCK				Sn	Sg	02 48 14.4	+1.0
BCK				AML	AML		
APMY	Acipayam-Deniz	1.67	340	Pn	Pb	02 47 52.0	-0.5
APMY				AML	AML		
TURN	Turunc	1.68	302	Pn	Pn	02 47 51.1	0.0
TURN				AML	AML		
TURN	Turunc	1.68	302	P	Pb	02 47 52.3	-0.3
ALAN	Alanya-ANTALYA	1.75	67	Pn	Pb	02 47 52.4	-1.3
BRDR	BURDUR-Merkez	1.79	1	P	Pb	02 47 54.3	-0.2
TAVA	DENIZLI_Tavas	1.80	330	P	Pb	02 47 54.3	-0.4
TAVA				S	Sb	02 48 16.3	-1.2
TAVA				IAML		02 48 22.0	
	comp=N,383nm,0.8s						
INCE	Denizli-Bozkur	1.84	349	P	Pb	02 47 54.3	-1.1
YER	Yerkesik	1.87	312	P	Pb	02 47 54.3	-1.5
YER	Yerkesik	1.87	312	Pn	Pn	02 47 54.0	+0.3
YER				AML	AML		
GAZI	Gazipasa	1.88	79	Pn	Pn	02 47 54.2	+0.3
GAZI				AML	AML		
DNIZ	Denizli-Tavas-	1.89	335	P	Pb	02 47 56.4	+0.1
DNIZ				S	Sb	02 48 19.5	-0.6
DNIZ				IAML		02 48 26.0	
	comp=N,1µm,0.4s						
MULA	Mugla, Merkez-	1.93	315	P	Pn	02 47 54.8	+0.2
MULA				S	Sb	02 48 21.2	+0.1
ISP	Isparta	1.96	11	Pn	Pb	02 47 55.8	-1.5
ISP	Isparta	1.96	11	P	Pn	02 47 54.4	-0.6
ISP				S	Sn	02 48 17.7	-2.1
BASM	Basmaki-Afyon	2.01	0	Pn	Pn	02 47 56.5	+0.8
BASM				AML	AML		
AKMS	Akamas	2.08	114	P	Pn	02 47 56.6	0.0
AKMS				S	Sb	02 48 24.6	-0.8
AKMS				AML	AML	02 48 39.7	
	0.2nm,0.7s						
AKMS				AML	AML	02 48 47.5	
	0.3nm,0.7s						
AKMS	Akamas	2.08	114	P	Pn	02 47 56.0	-0.6
SEYD	Seydisehir-KON	2.09	44	Pn	Pn	02 47 57.6	+0.8
SEYD				AML	AML		
DATC	Datca-Mugla	2.10	295	Pn	Pn	02 47 56.9	+0.1
DATC				AML	AML		
POL7C	Prodromi	2.13	114	P	Pn	02 47 57.8	+0.5
DAT	Datca	2.15	293	P	Pn	02 47 57.3	-0.3
DAT	Datca	2.15	293	Pn	Pn	02 47 57.5	-0.1
DAT				AML	AML		
YAZI	Mula-Dat§a-	2.22	291	P	Pn	02 47 57.5	-1.0
ALFC	Alefka	2.22	109	P	Pn	02 47 57.9	-0.7
ALFC				S	Sb	02 48 27.8	-1.8
ALFC				AML	AML	02 48 30.9	
	0.2nm,0.8s						
ALFC				AML	AML	02 48 31.9	
	0.2nm,0.3s						
ALFC	Alefka	2.22	109	P	Pn	02 47 58.0	-0.6
ALFC				AML	AML		
HDMB	Hadim	2.25	61	Pn	Pn	02 47 59.5	+0.4
HDMB				AML	AML		
MLSB	Milas	2.28	308	Pn	Pn	02 47 59.9	+0.5
MLSB				AML	AML		
ESEN	Aydn-Nazilli	2.32	325	P	Pn	02 48 01.0	+1.1
ESEN				S	Sb	02 48 30.4	-2.0
ESEN				IAML		02 48 38.0	
	comp=N,230nm,0.5s						
ESEN				IAML		02 48 45.0	
	comp=E,236nm,0.5s						
NATA	Nata	2.36	118	P	Pn	02 48 00.3	-0.2
NATA				S	Sn	02 48 30.4	+0.8
NATA				AML	AML	02 49 01.3	
	0.6nm,0.9s						
NATA				AML	AML	02 49 01.3	
	0.7nm,0.7s						
NATA	Nata	2.36	118	P	Pn	02 48 00.7	+0.2
NATA				AML	AML		
SULTU	Buldan	2.37	335	P	Pb	02 48 02.4	-2.0
BODA	Bodrum-Mula	2.38	299	Pn	Pn	02 48 01.0	+0.3
BDRM	Kayabasi	2.38	300	P	Pn	02 48 01.0	+0.2
BODT	Bodrum	2.48	299	P	Pn	02 47 58.2	-3.9
NAZL	Nazilli-Aydin	2.48	326	Pn	Pn	02 48 02.9	+0.7
NAZL				AML	AML		
TEKE	Tekeli-Mersin	2.51	84	Pn	Pn	02 48 03.1	+0.6
TEKE				AML	AML		
XYLS	Xyliatos	2.62	109	P	Pn	02 48 03.2	-0.9
XYLS				S	Sb	02 48 38.3	-2.7
XYLS				AML	AML	02 48 57.3	
	0.2nm,0.9s						
XYLS				AML	AML	02 49 03.3	
	0.1nm,0.4s						
BERE	Bereket-Mersin	2.62	79	Pn	Pn	02 48 04.6	+0.4
BERE				AML	AML		
APOL	The Sanctuary	2.62	117	P	Pn	02 48 04.4	+0.3
APOL				S	Sn	02 48 37.4	+1.3
APOL				AML	AML	02 49 06.8	
	0.1nm,0.3s						
APOL				AML	AML	02 49 14.0	
	0.2nm,0.8s						
SDAG	Sultandagi-AFY	2.63	15	Pn	Pn	02 48 05.6	+1.3
SDAG				AML	AML		
AYDB	Zeytinkoy-Aydi	2.66	321	Pn	Pn	02 48 05.4	+0.7
AYDB				AML	AML		
SHUT	Suhut-Afyon	2.68	9	Pn	Pn	02 48 05.9	+1.0
SHUT				AML	AML		
KONT	Konya--Tatoy	2.76	42	Pn	Pn	02 48 07.1	+1.1
KONT				AML	AML		
KULA	Kula-Manisa	2.83	338	Pn	Pn	02 48 07.8	+0.9
KULA				AML	AML		
ODEM	Odemis-Izmir	2.84	327	Pn	Pn	02 48 07.8	+0.7
ODEM				AML	AML		
ASGA	Asgata	2.86	112	P	Pn	02 48 06.9	-0.4
ASGA				S	Sb	02 48 44.2	-3.6
ASGA				AML	AML	02 49 15.5	
	0.2nm,1.4s						
ASGA				AML	AML	02 49 22.1	
	0.1nm,1.3s						
ASGA	Asgata	2.86	112	P	Pn	02 48 07.3	0.0
ASGA				AML	AML		
GCAM	G?zelcaml?	2.87	309	Pn	Pn	02 48 08.2	+0.7
GCAM				AML	AML		
MVOU	Mavrovouni	3.07	106	P	Pn	02 48 09.5	-0.7
MVOU				S	Sn	02 48 47.9	+0.8
MVOU				AML	AML	02 49 08.7	
	0.1nm,0.9s						
MVOU				AML	AML	02 49 13.9	
	0.1nm,0.8s						
ZKR	Zakros	3.21	257	P	Pn	02 48 12.4	+0.3
ZKR				S	Sn	02 48 51.0	+0.4
ZKR				AML	AML	02 48 58.4	
	0.1nm,0.7s						
ZKR				AML	AML	02 49 02.2	
	0.2nm,1.2s						
ZKR	Zakros	3.21	257	P	Pn	02 48 13.0	+0.9
ZKR				AML	AML		
NPS	Neapolis	3.66	261	P	Pn	02 48 19.1	+0.8
NPS				AML	AML		
THERA	Ancient Thera,	3.71	278	P	Pn	02 48 19.3	+0.2
THR8	Santorini-Mono	3.72	279	P	Pn	02 48 19.8	+0.7
THR2	Thira island,	3.76	280	P	Pn	02 48 21.2	+1.6
THR6	Thira Island,	3.78	278	P	Pn	02 48 20.9	+1.0
THR3	Thira Island,	3.78	279	P	Pn	02 48 20.7	+0.7
CMBO	Columbo, Santo	3.78	280	P	Pn	02 48 20.5	+0.5
SNT5	Nea Kammeni, S	3.78	279	P	Pn	02 48 20.8	+0.8
DKL	Dikili	4.02	323	P	Pn	02 48 23.5	+0.2
CHOS	Chios island	4.03	309	P	Pn	02 48 23.0	-0.5
EAG2	Marmaro, Chios	4.09	311	P	Pn	02 48 24.6	+0.4
IDI	Anoyia	4.23	263	P	Pn	02 48 26.9	+0.6
VAM	Vamos	4.77	266	P	Pn	02 48 35.9	+2.2
IMMV	Iera Moni Meta	4.94	267	P	Pn	02 48 36.5	+0.5
MMA0B	Mount Meron ar	5.29	121	P	Pn	02 48 40.7	-0.1
MMA0B				S	Sn	02 49 43.8	+1.7
YFTH	Yftach	5.33	120	P	Pn	02 48 42.4	+1.1
YFTH				S	Sn	02 49 44.1	+1.1
GEM	Giv'at Ha'Em	5.37	118	P	Pn	02 48 41.3	-0.5

GEM	**Giv'at Ha'Em**	**5.37**	**118**	P	**Pn**	**02 48 41.7**	**-0.1**
GEM				S	**Sn**	**02 49 44.5**	**+0.6**
ZEFT	**Zefat**	**5.38**	**121**	P	**Pn**	**02 48 42.1**	**0.0**
ZEFT				S	**Sn**	**02 49 45.8**	**+1.6**
AMID	**Amiad**	**5.44**	**122**	P	**Pn**	**02 48 43.0**	**+0.2**
AMID				S	**Sn**	**02 49 46.8**	**+1.3**
MGDL	**Migdal**	**5.46**	**122**	P	**Pn**	**02 48 43.4**	**+0.3**
MGDL				S	**Sn**	**02 49 46.8**	**+0.7**
KNHM	**Kefar Nahum**	**5.49**	**122**	P	**Pn**	**02 48 43.4**	**0.0**
KNHM				S	**Sn**	**02 49 48.5**	**+1.7**
HDNS	**Had-Ness**	**5.51**	**121**	P	**Pn**	**02 48 43.9**	**+0.3**
HDNS				S	**Sn**	**02 49 48.1**	**+1.0**
RMOT	**Ramot**	**5.56**	**122**	P	**Pn**	**02 48 44.7**	**+0.2**
RMOT				S	**Sn**	**02 49 49.8**	**+1.2**
KSHT	**Keshet**	**5.59**	**120**	P	**Pn**	**02 48 45.7**	**+0.8**
KSHT				S	**Sn**	**02 49 51.1**	**+1.6**
MNHA	**Menahamia**	**5.60**	**124**	P	**Pn**	**02 48 45.4**	**+0.5**
MNHA				S	**Sn**	**02 49 50.8**	**+1.4**
CVYN	**Cohav Hayarden**	**5.62**	**124**	P	**Pn**	**02 48 46.1**	**+0.8**
CVYN				S	**Sn**	**02 49 50.8**	**+0.8**
MMLI	**Mount Malkishu**	**5.65**	**126**	P	**Pn**	**02 48 46.1**	**+0.4**
MMLI				S	**Sn**	**02 49 51.5**	**+0.6**
BTSH	**Beit Shean**	**5.66**	**125**	P	**Pn**	**02 48 47.1**	**+1.3**
BTSH				S	**Sn**	**02 49 51.8**	**+0.8**
SALP	**Salfit**	**5.75**	**130**	P	**Pn**	**02 48 47.8**	**+0.8**
	16nm,0.5s						
HMRA	**Hamra**	**5.81**	**128**	P	**Pn**	**02 48 48.2**	**+0.3**
HMRA				S	**Sn**	**02 49 56.1**	**+1.4**
QRNJ	**Al-Qirein**	**5.81**	**126**	P	**Pn**	**02 48 49.1**	**+1.2**
	51µm5µm,0.8s						
JER	**Jerusalem**	**5.96**	**132**	P	**Pn**	**02 48 50.1**	**+0.1**
JER				S	**Sn**	**02 49 59.8**	**+1.4**
AMAZ	**Amatzia**	**5.96**	**136**	P	**Pn**	**02 48 50.1**	**+0.1**
AMAZ				S	**Sn**	**02 49 59.5**	**+0.9**
YITV	**Yitav**	**5.97**	**130**	P	**Pn**	**02 48 50.4**	**+0.3**
YITV				S	**Sn**	**02 49 59.8**	**+1.2**
KZIT	**Kziot**	**6.18**	**143**	P	**Pn**	**02 48 52.6**	**-0.3**
	41nm,1.0s						
GHAJ	**Ghor Haditha**	**6.51**	**133**	P	**Pn**	**02 49 00.1**	**+2.6**
	15nm,1.0s						
GHAJ	**Ghor Haditha**	**6.51**	**133**	P	**Pn**	**02 48 58.1**	**+0.6**
GHAJ				S	**Sn**	**02 50 13.5**	**+1.6**
ASF	**Jabal al Asfar**	**6.81**	**121**	P	**Pn**	**02 49 02.3**	**+0.6**
	64nm,1.1s						
PRNI	**Paran**	**6.93**	**142**	P	**Pn**	**02 49 02.5**	**-0.8**
	24nm,1.2s						
KRMI	**Paran Flat**	**6.99**	**144**	P	**Pn**	**02 49 04.1**	**0.0**
KRMI				S	**Sn**	**02 50 25.8**	**+2.0**
HRFI	**Mount Harif**	**7.21**	**143**	P	**Pn**	**02 49 06.5**	**-0.6**
	25nm,1.0s						
AQBJ	**Aqaba**	**7.47**	**144**	P	**Pn**	**02 49 11.2**	**+0.6**
EIL	**Elat**	**7.47**	**145**	P	**Pn**	**02 49 11.1**	**+0.4**
	14nm,0.9s						

IDC 28 02:51:46.1±1.7**, 6°.32S×129°.83E, h0^{km}, mb4.4**/1**, mbtmp3.9**/5**, ML3.8**/4**, 1C, Error ellipse: s-maj=44.3km s-min=16.0km az=99.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SIJI	**Sorong**	**5.60**	**15**	Pn	Pn	02 53 10.4	-0.4
	6.4nm,0.3s,baz=288,slow=23,SNR=3.9						
SIJI				Sn	Sn	02 54 07.8	-8.1
	12nm,0.3s,baz=230,slow=23,SNR=11						
	9.2nm,0.3s						
SIJI				AML	AML		
FITZ	**Fitzroy Crossi**	**12.40**	**199**	Pn	Pn	02 54 40.0	-4.0
	0.7nm,0.3s,baz=19,slow=9.5,SNR=17						
FITZ				Sn	Sn	02 56 49.8	-13
	0.9nm,0.3s,baz=178,slow=18,SNR=7.1						
	1.5nm,0.3s						
FITZ				AML	AML		
WRA	**Warramunga Arr**	**14.23**	**162**	Pn	Pn	02 55 02.5	-6.6
	0.2nm,0.3s,baz=337,slow=13,SNR=10						
WRA				Sn	Sn	02 57 29.6	-18
	0.7nm,0.3s,baz=331,slow=23,SNR=9.0						
	0.2nm,0.2s						
WRA				AML	AML		
ASAR	**Alice Springs**	**17.69**	**168**	Pn	Pn	02 55 45.8	-8.3
	0.3nm,0.3s,baz=347,slow=9.8,SNR=17						
ASAR				Sn	Sn	02 58 54.0	-18
	baz=357,slow=25						
	1.0nm,0.7s						
ASAR				AML	AML		
STKA	**Stephens Creek**	**27.70**	**158**	P	P	02 57 36.3	+0.1
	5.0nm,1.0s,baz=318,slow=9.3,SNR=4.6						
	5.0nm,1.0s						
STKA	**Stephens Creek**	**27.70**	**158**	⇑*e*P	P	02 57 36.2	+0.1

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*IDC **28** 03:02:05.6±7.9, 8°.73N×126°.92E, h0^{km}, mb3.8/5, mbtmp3.8/5, Error ellipse: s-maj=227.9km s-min=159.7km az=73.0*

*MAN **28** 03:02:12.0, 9°.44N×126°.94E, h9^{km}, MS3.6*

ISC 28 03:02:10.1±2.1**, 9°.37N**±0°.05×**126°.94E**±0°.09**, h5^{km}**±13^{km}**, n14, σ1^{s}.00**/22**, mb3.8**/5**, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BIPH	**Bislig**	**1.31**	**206**	*e*P	**Pg**	**03 02 36.3**	**+1.0**
BIPH				*e*S	**Sb**	**03 02 51.4**	**-1.0**
CDOP	**Cateel, Davao**	**1.65**	**198**	*i* P	**Pg**	**03 02 41.8**	**-0.1**
CDOP				*i* S	**Sb**	**03 03 00.9**	**-1.3**
BUKP	**Musuan**	**2.38**	**232**	*e*P	**Pb**	**03 02 52.8**	**-0.7**
BUKP				*i* S	**Sn**	**03 03 20.4**	**+0.9**
CGP	**Cagayan de Oro**	**2.40**	**248**	*i* P	**Pb**	**03 02 54.4**	**+0.5**
CGP				*i* S	**Sb**	**03 03 24.0**	**+0.1**
PLP	**Palo**	**2.63**	**313**	*e*P	**Pn**	**03 02 54.7**	**+1.4**
PLP				*e*S	**Sb**	**03 03 29.0**	**-1.5**
DMPH	**Davao City--Mi**	**2.68**	**212**	*e*P	**Pg**	**03 03 02.9**	**+1.3**
DMPH				*i* S	**Sg**	**03 03 35.7**	**-0.7**
KCP	**Kidapawan**	**2.98**	**218**	*e*P	**Pg**	**03 03 06.4**	**-0.9**
KCP				*i* S	**Sb**	**03 03 39.7**	**-0.8**
LLP	**Lapu-Lapu**	**3.08**	**288**	*e*P	**Pb**	**03 03 04.0**	**-1.5**
LLP				*e*S	**Sb**	**03 03 42.8**	**-0.6**
SNPH	**Sibulan**	**3.66**	**270**	*e*P	**Pb**	**03 03 15.5**	**+0.1**
SONM	**Songino Array**	**42.09**	**339**	P	**P**	**03 10 04.2**	**+1.0**
	0.5nm,0.5s,baz=142,slow=9.6,SNR=2.5						
	0.5nm,0.5s						
MKAR	**Makanchi Array**	**53.14**	**323**	P	**P**	**03 11 28.9**	**-0.2**
	0.5nm,0.6s,baz=108,slow=8.0,SNR=4.2						
	0.5nm,0.6s						
ZALV	**Zalesovo Beam**	**55.73**	**331**	P	**P**	**03 11 47.7**	**0.0**
	0.7nm,0.6s,baz=122,slow=7.3,SNR=2.5						
	0.7nm,0.6s						
KURBB	**Kurchatov Arra**	**57.19**	**325**	P	**P**	**03 11 57.9**	**-0.2**
	0.5nm,0.5s,baz=125,slow=6.7,SNR=6.0						
	0.5nm,0.5s						
FINES	**FINESS Array B**	**86.99**	**332**	P	**P**	**03 14 55.3**	**-1.0**
	2.3nm,1.1s,baz=66,slow=3.5,SNR=1.7						
	2.3nm,1.1s						

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*LDG **28** 03:05:54.7±0.1, 42°.89N×1°.46W, h2^{km}, Md2.1/2, Ml2.5/2, Error ellipse: s-maj=2.6km s-min=2.2km az=131.0*

*MDD **28** 03:05:54.3±0.2, 42°.88N×1°.47W, h3^{km}±4^{km}, mb_Lg2.1/24, Error ellipse: s-maj=2.1km s-min=1.4km az=1.0*

ISC 28 03:05:54.1±0.9**, 42°.83N**±0°.03×**1°.50W**±0°.03**, h8^{km}**±7^{km}**, n12, σ0^{s}.83**/25**, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EARA	**Aranguren**	**0.09**	**227**	Pg	**Pg**	**03 05 55.6**	**-0.6**
EARA				Sg	**Sg**	**03 05 59.4**	**+1.6**
SJPF	**Ste Jean**	**0.34**	**35**	*e*Pg	**Pg**	**03 06 00.5**	**-0.4**
SJPF				*e*Sg	**Sg**	**03 06 05.5**	**0.0**
	28nm,0.2s						
EALK	**Alkurruntz**	**0.39**	**359**	Pg	**Pg**	**03 06 01.2**	**-0.6**
EALK				Sg	**Sg**	**03 06 05.8**	**-1.1**
EALK				IVmb_Lg		03 06 14.4	
ETSF	**Etsaut**	**0.69**	**84**	*e*Pg	**Pg**	**03 06 06.5**	**-1.0**
ETSF	**Etsaut**	**0.69**	**84**	*e*Pg	**Pg**	**03 06 07.8**	**+0.3**
	baz=271						
ETSF				*e*Sg	**Sg**	**03 06 17.0**	**+0.5**
	9.5nm,0.2s						
ECHI	**Chisagues Biel**	**1.25**	**97**	Pg	**Pb**	**03 06 16.7**	**-1.5**
ECHI				Sg	**Sg**	**03 06 33.1**	**-1.4**
ECHI				IVmb_Lg		03 06 45.2	
ESAC	**San Caprasio**	**1.34**	**145**	Pg	**Pn**	**03 06 19.8**	**+0.5**
ESAC				Sg	**Sn**	**03 06 38.0**	**+0.7**
ESAC				IVmb_Lg		03 06 48.7	
EPF	**Esparros**	**1.36**	**81**	*e*Pg	**Pg**	**03 06 21.1**	**+0.8**
	baz=263						
EPF	**Esparros**	**1.36**	**81**	*e*Pg	**Pg**	**03 06 21.2**	**+0.9**
EPF				*e*Sg	**Sb**	**03 06 36.9**	**-0.6**
EPF				*e*Sg	**Sn**	**03 06 38.2**	**+0.4**
	16nm,0.3s						
EPF				AML	AML		
ELAN	**Lanestosa**	**1.48**	**286**	Pg	**Pn**	**03 06 21.6**	**+0.5**
ELAN				Sg	**Sn**	**03 06 40.7**	**+0.1**
ELAN				IVmb_Lg		03 07 15.4	
ETOR	**Torete**	**2.05**	**192**	Pn	**Pn**	**03 06 29.1**	**+0.1**
ETOR				Pg	**Pg**	**03 06 33.0**	**-0.5**
ETOR				Sn	**Sn**	**03 06 55.0**	**+0.1**
ETOR				Sg	**Sg**	**03 07 00.3**	**+0.2**
ETOR				IVmb_Lg		03 07 06.9	
LFF	**La Frestale**	**2.66**	**37**	*e*Pg	**Pb**	**03 06 42.8**	**+0.9**
LFF				*e*Sg	**Sb**	**03 07 14.9**	**+0.2**
	3.6nm,0.3s						
LFF				AML	AML		

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*MAN **28** 03:08:45.0, 9°.42N×127°.07E, h1^{km}, MS3.8*

*IDC **28** 03:08:48.0±0.7, 9°.54N×126°.76E, h0^{km}, mb4.0/13, mbtmp4.0/13, MS3.4/1, Error ellipse: s-maj=43.0km s-min=14.8km az=71.0*

*NEIC **28** 03:08:49.9±1.8, 9°.51N±0°.08×126°.7E±0°.2, h10^{km}±1^{km}, mb4.4/20, Error ellipse: s-maj=31.0km s-min=13.6km az=92.0*

ISC 28 03:08:49.4±0.6**, 9°.46N**±0°.03×**126°.75E**±0°.05**, h10^{km}, n59, σ1^{s}.65**/70**, mb4.2**/23**, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BIPH	**Bislig**	**1.32**	**197**	*i* P	**Pn**	**03 09 13.0**	**-1.0**
BIPH				*e*S	**Sb**	**03 09 30.6**	**-0.7**
CDOP	**Cateel, Davao**	**1.69**	**191**	*e*P	**Pn**	**03 09 18.0**	**-1.0**
CDOP				*i* S	**Sn**	**03 09 37.0**	**-3.7**
CGP	**Cagayan de Oro**	**2.27**	**244**	*i* P	**Pn**	**03 09 28.9**	**+1.9**
CGP				*i* S	**Sg**	**03 10 00.7**	**-1.6**
BUKP	**Musuan**	**2.29**	**227**	*i* P	**Pn**	**03 09 29.5**	**+2.2**
BUKP				*e*S	**Sn**	**03 09 50.0**	**-5.7**
PLP	**Palo**	**2.44**	**314**	*e*P	**Pn**	**03 09 30.6**	**+1.3**
PLP				*e*S	**Sg**	**03 10 09.7**	**+1.9**
DAV	**Davao City (W)**	**2.64**	**206**	Pn	**Pb**	**03 09 38.4**	**+1.6**
	143nm,0.3s,baz=155,slow=11,SNR=4.2						
DAV				Sn	**Sb**	**03 10 08.5**	**-0.8**
	255nm,0.3s,baz=318,slow=17,SNR=4.4						
DAV				LR	LR	03 10 53.0	
	comp=Z,683nm,18.3s,baz=48,slow=46						
DAV	**Davao City (W)**	**2.64**	**206**		**Pn**	**03 09 34.4**	**+2.3**
DMPH	**Davao City--Mi**	**2.66**	**208**	*e*P	**Pb**	**03 09 38.2**	**+1.0**
DMPH				*i* S	**Sg**	**03 10 19.2**	**+4.2**
LLP	**Lapu-Lapu**	**2.88**	**288**	*e*P	**Pb**	**03 09 39.2**	**-1.7**
LLP				*e*S	**Sg**	**03 10 19.5**	**-2.4**
KCP	**Kidapawan**	**2.94**	**214**	*e*P	**Pb**	**03 09 43.6**	**+1.7**
KCP				*i* S	**Sb**	**03 10 16.3**	**-1.7**
LSIP	**Lazi, Siquijor**	**3.10**	**264**	*e*P	**Pn**	**03 09 40.4**	**+2.0**
LSIP				*i* S	**Sn**	**03 10 15.5**	**0.0**
CTBH	**Cotabato--PC H**	**3.33**	**228**	*i* P	**Pn**	**03 09 44.5**	**+2.9**
DCPH	**Dipolog City**	**3.47**	**256**	*e*P	**Pn**	**03 09 45.8**	**+2.2**
SNPH	**Sibulan**	**3.47**	**268**	*e*P	**Pn**	**03 09 46.6**	**+3.0**
SNPH				*e*S	**Sg**	**03 10 44.1**	**+3.0**
LQP	**Lukban**	**6.89**	**313**	*e*P	**Pn**	**03 10 32.5**	**+1.8**
BKB	**Balikpapan**	**14.48**	**223**	Pn	**Pn**	**03 12 13.2**	**-1.5**
TPUB	**Ta-pu**	**14.96**	**338**	Pn	**Pn**	**03 12 21.1**	**-0.1**
MTN	**Manton Dam**	**22.58**	**169**	P	**P**	**03 13 50.4**	**+0.2**
KNRA	**Kununurra**	**25.05**	**175**	P	**P**	**03 14 13.9**	**-0.1**
KNRA				IAmb	IAmb	03 14 44.9	
	comp=Z,7.3nm,1.3s						
FITZ	**Fitzroy Crossi**	**27.40**	**182**	P	**P**	**03 14 36.4**	**+1.1**
	comp=Z,2.8nm,0.7s,baz=8.4,slow=10,SNR=14						
	comp=Z,2.8nm,0.7s						
FITZ	**Fitzroy Crossi**	**27.40**	**182**	P	**P**	**03 14 36.0**	**+0.6**
CMAR	**Chiang Mai Arr**	**28.40**	**291**	P	**P**	**03 14 45.4**	**+1.0**
	comp=Z,0.7nm,0.3s,baz=104,slow=12,SNR=1.0						
	comp=Z,0.7nm,0.3s						
WB0	**Warramunga Arr**	**30.00**	**165**	P	**P**	**03 14 58.6**	**+0.1**
WB0				IAmb	IAmb	03 15 08.4	
	comp=Z,5.0nm,1.1s						
WRAB	**Tennant Creek**	**30.15**	**166**	P	**P**	**03 14 59.6**	**-0.2**
WRAB				IAmb	IAmb	03 15 09.2	
	comp=Z,6.4nm,0.7s						
WRA	**Warramunga Arr**	**30.15**	**166**	P	**P**	**03 14 59.6**	**-0.2**
	comp=Z,0.6nm,0.8s,baz=348,slow=8.9,SNR=2.3						
	comp=Z,0.6nm,0.8s						
WRA	**Warramunga Arr**	**30.15**	**166**	P	**P**	**03 14 59.5**	**-0.3**
WR8	**Warramunga Arr**	**30.21**	**165**	P	**P**	**03 15 00.8**	**+0.5**
WR8				IAmb	IAmb	03 15 07.7	
	comp=Z,9.5nm,1.4s						
MBWA	**Marble Bar**	**31.20**	**193**	P	**P**	**03 15 10.0**	**+1.0**
ASAR	**Alice Springs**	**33.65**	**168**	P	**P**	**03 15 30.2**	**-0.4**
	comp=Z,0.3nm,0.6s,baz=345,slow=7.1,SNR=4.9						
	comp=Z,0.3nm,0.6s						
ASAR	**Alice Springs**	**33.65**	**168**	P	**P**	**03 15 31.4**	**+0.8**
MORW	**Morawa**	**39.67**	**195**	P	**P**	**03 16 20.8**	**-1.1**
MORW				IAmb	IAmb	03 16 29.8	
	comp=Z,14nm,1.3s						
FORT	**Forrest**	**40.02**	**178**	P	**P**	**03 16 25.4**	**+0.7**
FORT				IAmb	IAmb	03 16 37.8	
	comp=Z,13nm,1.1s						
SONM	**Songino Array**	**41.94**	**339**	P	**P**	**03 16 40.9**	**+0.4**
	comp=Z,0.7nm,0.5s,baz=145,slow=8.5,SNR=4.8						
	comp=Z,0.7nm,0.5s						
SONM	**Songino Array**	**41.94**	**339**	P	**P**	**03 16 41.5**	**+1.0**
BBOO	**Buckleboo**	**42.96**	**168**	P	**P**	**03 16 47.3**	**-1.5**
NWAO	**Narrogin (SRO)**	**43.11**	**192**	P	**P**	**03 16 50.2**	**+0.2**
STKA	**Stephens Creek**	**43.48**	**162**	P	**P**	**03 16 54.7**	**+1.6**
	comp=Z,1.0nm,0.3s,baz=312,slow=12,SNR=1.6						
	comp=Z,1.0nm,0.3s						
MKAR	**Makanchi Array**	**52.96**	**323**	P	**P**	**03 18 05.3**	**-0.9**
	comp=Z,1.0nm,0.6s,baz=120,slow=8.0,SNR=8.0						
	comp=Z,1.0nm,0.6s						
ZAA0	**Zalesovo Array**	**55.56**	**331**	P	**P**	**03 18 24.0**	**-1.0**
ZAA0				IAmb	IAmb	03 18 34.9	
	comp=Z,1.5nm,0.6s						
ZALV	**Zalesovo Beam**	**55.56**	**331**	P	**P**	**03 18 23.7**	**-1.3**
	comp=Z,0.7nm,0.4s,baz=132,slow=6.9,SNR=4.6						
	comp=Z,0.7nm,0.4s						
ZALV	**Zalesovo Beam**	**55.56**	**331**	P	**P**	**03 18 22.9**	**-2.0**
KURK	**Kurchatov**	**57.00**	**326**	P	**P**	**03 18 34.2**	**-1.0**
KURK				IAmb	IAmb	03 18 36.7	
	comp=Z,2.5nm,0.8s						
KURBB	**Kurchatov Arra**	**57.01**	**326**	P	**P**	**03 18 34.7**	**-0.6**
	comp=Z,1.0nm,0.5s,baz=125,slow=6.9,SNR=13						
	comp=Z,1.0nm,0.5s						
KK31	**Karatay Array**	**59.16**	**315**	P	**P**	**03 18 49.9**	**-0.7**
KK31				IAmb	IAmb	03 18 50.3	
	comp=Z,2.3nm,0.7s						
KKAR	**Karatay Array**	**59.16**	**315**	P	**P**	**03 18 49.2**	**-1.4**
BVAR	**Borovoye Array**	**62.60**	**325**	P	**P**	**03 19 13.1**	**-0.8**
	comp=Z,0.6nm,0.3s,baz=132,slow=10,SNR=3.0						
	comp=Z,0.6nm,0.3s						
BORK	**Borovoye**	**62.65**	**326**	P	**P**	**03 19 13.9**	**-0.3**
AB31	**Akbulak array**	**67.80**	**319**	P	**P**	**03 19 46.5**	**-1.2**
ABKAR	**Akbulak array**	**67.80**	**319**	P	**P**	**03 19 46.0**	**-1.6**
ILAR	**Eielson Array**	**79.96**	**26**	P	**P**	**03 20 58.6**	**0.0**
	comp=Z,0.3nm,0.6s,baz=238,slow=4.9,SNR=6.9						
	comp=Z,0.3nm,0.6s						
ILAR	**Eielson Array**	**79.96**	**26**	P	**P**	**03 20 58.0**	**-0.6**
BMAR	**Burnt Mountain**	**80.83**	**23**	P	**P**	**03 21 04.4**	**+1.1**
I28M	**Miner Creek**	**82.85**	**25**	P	**P**	**03 21 15.6**	**+1.6**
I28M				IAmb	IAmb	03 21 19.2	
	comp=Z,3.2nm,1.0s						
ARCES	**ARCESS Array B**	**85.12**	**340**	P	**P**	**03 21 25.0**	**-0.4**
	comp=Z,1.8nm,0.6s,baz=42,slow=5.6,SNR=9.3						
	comp=Z,1.8nm,0.6s						
ARCES	**ARCESS Array B**	**85.12**	**340**	P	**P**	**03 21 25.3**	**-0.1**
FINES	**FINESS Array B**	**86.83**	**332**	P	**P**	**03 21 34.3**	**+0.3**
	comp=Z,3.5nm,1.0s,baz=70,slow=6.3,SNR=7.2						
	comp=Z,3.5nm,1.0s						
FINES	**FINESS Array B**	**86.83**	**332**	P	**P**	**03 21 33.5**	**-0.5**
PLCA	**Paso Flores**	**145.28**	**157**	PKPbc	**PKPdf**	**03 28 29.0**	**+1.0**
	comp=Z,1.6nm,0.8s,baz=174,slow=4.9,SNR=3.8						
PLCA	**Paso Flores**	**145.28**	**157**		**PKPbc**	**03 28 27.9**	**+0.2**

IDC 28 03:11:40.5±1.6**, 2°.64S×138°.92E, h0^{km}, mb3.5**/2**, mbtmp3.5**/3**, ML3.5**/1**, Error ellipse: s-maj=32.4km s-min=20.8km az=164.0, Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAY	**Jayapura**	**1.79**	**86**	Pn	Pn	03 12 12.4	-0.3
	4.0nm,0.3s,baz=231,slow=12,SNR=13						
JAY				Sn	Sn	03 12 36.1	-0.1
	20nm,0.3s,baz=89,slow=18,SNR=7.3						
WRA	**Warramunga Arr**	**17.77**	**194**	P	Pn	03 15 49.5	0.0
	0.2nm,0.3s,baz=19,slow=12,SNR=5.2						
	0.4nm,0.4s						
WRA				AML	AML		
ASAR	**Alice Springs**	**21.46**	**193**	P	P	03 16 30.3	-0.4
	0.8nm,0.5s,baz=24,slow=10,SNR=8.1						
	0.8nm,0.5s						
MKAR	**Makanchi Array**	**69.86**	**322**	P	P	03 22 53.1	-0.1
	0.3nm,0.4s,baz=108,slow=8.6,SNR=2.8						
	0.3nm,0.4s						

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*TEH **28** 03:30:24.7, 27°.78N×53°.25E, h6^{km}, ML3.3, Presumed earthquake*

*IDC **28** 03:30:25.0±3.2, 27°.83N×52°.95E, h0^{km}, mb3.7/9, mbtmp3.7/10, ML3.4/1, Error ellipse: s-maj=62.7km s-min=33.7km az=147.0*

ISC 28 03:30:25.8±0.7**, 27°.75N**±0°.05×**53°.18E**±0°.06**, h14^{km}, n21, σ1^{s}.36**/22**, mb3.7**/8**, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KHL1	**Khalili_Fars**	**0.15**	**137**	Pg	**Pg**	**03 30 27.8**	**-1.8**
KHL1				Sg	**Sg**	**03 30 30.4**	**-1.8**
LMD1	**Lamerd**	**0.41**	**182**	Pg	**Pg**	**03 30 34.2**	**+0.2**
JHRM	**Jahrom**	**0.83**	**25**	Pg	**Pg**	**03 30 40.6**	**-1.3**
DSBU	**Dashti - Bushe**	**1.81**	**290**	Pn	**Pg**	**03 30 59.4**	**-1.1**
SHI	**Shiraz**	**1.97**	**343**	Pn	**Pb**	**03 31 00.4**	**-1.2**
IMEH	**Mehriz**	**3.83**	**19**	Pn	**Pn**	**03 31 26.6**	**+2.0**
TAFT	**Taft - Yazd**	**4.05**	**12**	Pn	**Pn**	**03 31 29.8**	**+2.3**
IRAM	**Ramesheh**	**4.10**	**350**	Pn	**Pn**	**03 31 30.2**	**+1.9**
IBAF	**Bafgh**	**4.35**	**28**	Pn	**Pn**	**03 31 33.0**	**+1.3**
KBAM	**BAM**	**4.84**	**72**	Pn	**Pn**	**03 31 40.3**	**+2.0**
BRTR	**Keskin Array B**	**20.12**	**311**	P	**P**	**03 34 58.9**	**-0.5**
	0.1nm,0.3s,baz=138,slow=13,SNR=4.7						
	0.4nm,0.5s						
BRTR				AML	AML		
AKASG	**Malin Array Be**	**29.25**	**328**	P	**P**	**03 36 26.4**	**-0.8**
	0.4nm,0.4s,baz=130,slow=7.4,SNR=2.5						
	0.4nm,0.4s						
ZALV	**Zalesovo Beam**	**34.95**	**33**	P	**P**	**03 37 19.0**	**+1.9**
	0.5nm,0.4s,baz=246,slow=11,SNR=1.9						
	0.5nm,0.4s						
FINES	**FINESS Array B**	**38.25**	**339**	P	**P**	**03 37 45.1**	**-0.1**
	1.9nm,0.5s,baz=142,slow=11,SNR=15						
	1.9nm,0.5s						
HFS	**Hagfors**	**41.98**	**332**	P	**P**	**03 38 16.1**	**-0.1**
	0.7nm,0.4s,baz=115,slow=11,SNR=6.6						
	0.7nm,0.4s						
NB2	**NORSAR Subarra**	**43.50**	**332**	P	**P**	**03 38 28.2**	**-0.3**
	comp=Z,0.5nm,0.7s,baz=121,slow=8.6						
NOA	**NORSAR Array B**	**43.50**	**332**	P	**P**	**03 38 28.2**	**-0.3**
	comp=Z,0.3nm,0.5s,baz=119,slow=7.9,SNR=3.5						
	comp=Z,0.3nm,0.5s						
ARCES	**ARCESS Array B**	**44.80**	**347**	P	**P**	**03 38 39.3**	**+0.6**
	comp=Z,3.8nm,1.1s,baz=142,slow=8.3,SNR=2.0						
	comp=Z,3.8nm,1.1s						
ESDC	**Sonseca Array**	**48.27**	**300**	P	**P**	**03 39 06.9**	**+0.4**
	comp=Z,0.5nm,0.8s,baz=59,slow=8.0,SNR=4.9						
	comp=Z,0.5nm,0.8s						
EKA	**Eskdalemuir Ar**	**48.64**	**321**	P	**P**	**03 39 08.9**	**-0.1**
	comp=Z,0.2nm,0.5s,baz=97,slow=7.6,SNR=1.4						
	comp=Z,0.2nm,0.5s						
TORD	**Torodi Ar. Bea**	**50.04**	**264**	P	**P**	**03 39 19.8**	**-0.5**
	comp=Z,0.5nm,0.6s,baz=56,slow=7.0,SNR=3.3						
	comp=Z,0.5nm,0.6s						

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*NEIC **28** 03:41:30.6±1.0, 63°.02N±0°.03×150°.20W±0°.08, h107^{km}±4^{km}, mb4.1/5, ML3.9/230, ML3.7(AEIC), Error ellipse: s-maj=4.9km s-min=4.7km az=68.0*

*IDC **28** 03:41:31.2±3.3, 63°.20N×150°.18W, h104^{km}±29^{km}, mb3.5/10, mbtmp3.9/13, MS3.7/3, Error ellipse: s-maj=32.4km s-min=13.8km az=34.0*

*AEIC **28** 03:41:31.1±1.2, 63°.02N±0°.04×150°.16W±0°.07, h102^{km}±3^{km}, Error ellipse: s-maj=5.2km s-min=4.4km az=207.0*

ISC 28 03:41:31.1±0.6**, 63°.02N**±0°.03×**150°.17W**±0°.03**, h108^{km}**±5^{km}**, n286, σ1^{s}.03**/257**, mb3.9**/12**, Central Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TRF	**Thorofare Moun**	**0.43**	**353**		**Pn**	**03 41 47.2**	**-0.3**
TRF					**Sn**	**03 41 58.8**	**-1.1**
CUT	**Chulitna**	**0.62**	**184**		**Pn**	**03 41 48.2**	**-0.4**
CUT					**Sn**	**03 42 01.2**	**-0.6**
KTH	**Kantishna Hill**	**0.63**	**328**		**Pn**	**03 41 48.5**	**-0.3**
KTH					**Sn**	**03 42 01.3**	**-0.8**
KTH	**Kantishna Hill**	**0.63**	**328**	IAML		03 42 02.0	
	comp=E,2µm,0.4s						
KTH				IAML		03 42 03.0	
	comp=N,2µm,0.9s						
WAT7	**Susitna Watana**	**0.63**	**107**		**Pn**	**03 41 48.3**	**-0.6**
WAT7					**Sn**	**03 42 01.4**	**-0.8**
RND	**Reindeer**	**0.71**	**57**		**Pn**	**03 41 49.1**	**-0.3**
RND					**Sn**	**03 42 02.0**	**-1.2**
RND				IAML		03 42 03.4	
	comp=N,5µm,0.5s						
WAT1	**Susitna Watana**	**0.76**	**104**		**Pn**	**03 41 49.4**	**-0.4**
WAT1					**Sn**	**03 42 03.7**	**-0.3**
MCK	**McKinley**	**0.90**	**37**		**Pn**	**03 41 50.8**	**-0.4**
MCK					**Sn**	**03 42 04.7**	**-1.7**
MCK				IAML		03 42 07.5	
	comp=E,4µm,0.5s						
PPLA	**Purkeypile**	**0.93**	**263**		**Pn**	**03 41 51.5**	**-0.1**
PPLA					**Sn**	**03 42 06.4**	**-0.7**
PPLA	**Purkeypile**	**0.93**	**263**	IAML		03 42 07.1	
	comp=N,2µm,1.0s						
PPLA				IAML		03 42 07.8	
	comp=E,2µm,1.4s						
CAST	**Castle Rocks**	**0.95**	**295**		**Sn**	**03 42 05.4**	**-1.8**
CAST	**Castle Rocks**	**0.95**	**295**		**Pn**	**03 41 50.8**	**-0.9**
CAST				IAML		03 42 06.7	
	comp=N,2µm,0.5s						
CAST				IAML		03 42 07.3	
	comp=E,2µm,0.6s						
BPAW	**Bear Paw Mtn.**	**1.14**	**342**	Pn	**Pn**	**03 41 53.1**	**-0.6**
BPAW	**Bear Paw Mtn.**	**1.14**	**342**		**Sn**	**03 42 09.7**	**-1.0**
BPAW	**Bear Paw Mtn.**	**1.14**	**342**	IAML		03 42 10.2	
	comp=N,2µm,0.4s						
BPAW				IAML		03 42 10.4	
	comp=E,2µm,0.6s						
BWN	**Browne**	**1.20**	**15**	Pn	**Pn**	**03 41 53.5**	**-0.6**
BWN				IAML		03 42 12.0	
	comp=E,1µm,0.7s						
BWN				IAML		03 42 13.5	
	comp=N,2µm,1.2s						
WAT6	**Susitna Watana**	**1.20**	**111**		**Pn**	**03 41 54.0**	**-0.5**
WAT6					**Sn**	**03 42 11.7**	**-0.5**
SKT	**Skwentna**	**1.22**	**212**		**Pn**	**03 41 53.7**	**-0.8**
SKT					**Sn**	**03 42 10.3**	**-2.0**
SKT				IAML		03 42 12.3	
	comp=E,2µm,0.3s						
SKT				IAML		03 42 12.4	
	comp=N,3µm,0.5s						
DHY	**Denali Highway**	**1.27**	**86**	Pn	**Pn**	**03 41 54.5**	**-0.8**
M22K	**Willow**	**1.27**	**179**	Pn	**Pn**	**03 41 53.9**	**-1.2**
M22K	**Willow**	**1.27**	**179**		**Sn**	**03 42 13.3**	**0.0**
M22K	**Willow**	**1.27**	**179**	IAML		03 42 14.0	
	comp=E,25µm,0.8s						
M22K				IAML		03 42 16.3	
	comp=N,19µm,0.6s						
CHUM	**Lake Minchumin**	**1.29**	**313**		**Pn**	**03 41 55.3**	**0.0**
CHUM					**Sn**	**03 42 13.2**	**-0.5**
GHO	**Glory Hole Cre**	**1.38**	**155**	Pn	**Pn**	**03 41 56.2**	**-0.2**
GHO	**Glory Hole Cre**	**1.38**	**155**		**Sn**	**03 42 15.8**	**+0.1**
SML	**Sawmill**	**1.49**	**144**		**Sn**	**03 42 17.2**	**-0.7**
SML	**Sawmill**	**1.49**	**144**	Pn	**Pn**	**03 41 57.0**	**-0.7**
SML	**Sawmill**	**1.49**	**144**	IAML		03 42 19.1	
	comp=N,4µm,0.4s						
SML				IAML		03 42 20.6	
	comp=E,2µm,0.6s						
PMR	**Palmer**	**1.52**	**161**	P	**Pn**	**03 41 57.5**	**-0.4**
PMR	**Palmer**	**1.52**	**161**	P	**Sn**	**03 42 16.9**	**-1.4**
PMR	**Palmer**	**1.52**	**161**		**Sn**	**03 42 17.6**	**-0.7**
PMR	**Palmer**	**1.52**	**161**	Pn	**Pn**	**03 41 57.1**	**-0.8**
PMR	**Palmer**	**1.52**	**161**	IAML		03 42 21.0	
	comp=N,2µm,0.5s						
PMR				IAML		03 42 22.2	
	comp=E,2µm,0.5s						
SUA	**Susitna One**	**1.59**	**190**	IAML		03 42 21.1	
	comp=E,2µm,0.8s						
SUA				IAML		03 42 21.4	
	comp=N,2µm,0.9s						

SUA	Susitna One	1.59	190		Pn	03 41 58.6	-0.3
SUA					Sn	03 42 19.8	-0.3
NEA2	Nenana	1.65	17		Sn	03 42 19.7	-1.6
NEA2	Nenana	1.65	17	Pn	Pn	03 41 58.7	-0.9
NEA2				IAML		03 42 20.2	
	comp=E,886nm,0.8s						
NEA2				IAML		03 42 20.9	
	comp=N,997nm,0.5s						
STLK	Strandline Lak	1.72	208	Pn	Pn	03 41 59.2	-1.2
STLK	Strandline Lak	1.72	208		Sn	03 42 22.2	-0.7
STLK	Strandline Lak	1.72	208	IAML		03 42 22.8	
	comp=E,2µm,0.8s						
STLK				IAML		03 42 25.9	
	comp=N,1µm,0.3s						
WRH	Wood River Hil	1.72	31		Sn	03 42 21.1	-1.7
WRH	Wood River Hil	1.72	31	Pn	Pn	03 41 59.6	-0.8
WRH	Wood River Hil	1.72	31	IAML		03 42 21.3	
	comp=E,638nm,0.7s						
WRH				IAML		03 42 22.6	
	comp=N,393nm,1.1s						
SCM	Sheep Creek Mo	1.78	131	Pn	Pn	03 42 00.6	-0.7
SCM				IAML		03 42 30.4	
	comp=N,2µm,0.6s						
SCM				IAML		03 42 31.1	
	comp=E,2µm,0.7s						
M20K	Styx River	1.79	232		Pn	03 42 00.9	-0.5
M20K	Styx River	1.79	232	IAML		03 42 24.7	
	comp=N,1µm,1.1s						
M20K				IAML		03 42 25.8	
	comp=E,762nm,0.8s						
L20K	Farewell, AK	1.79	254	Pn	Pn	03 42 00.2	-1.2
L20K				IAML		03 42 25.4	
	comp=N,658nm,0.9s						
L20K				IAML		03 42 25.7	
	comp=E,910nm,1.1s						
K20K	Telida	1.80	282		Sn	03 42 23.2	-1.4
K20K	Telida	1.80	282	Pn	Pn	03 42 00.7	-0.7
K20K	Telida	1.80	282	IAML		03 42 23.8	
	comp=N,317nm,1.5s						
K20K				IAML		03 42 24.2	
	comp=E,647nm,0.6s						
KNK	Knik Glacier	1.80	153	Pn	Pn	03 42 01.1	-0.4
KNK				IAML		03 42 31.2	
	comp=N,2µm,0.3s						
CCB	Clear Creek Bu	1.94	32	Pn	Pn	03 42 02.2	-0.9
RC01	Rabbit Creek A	1.95	174	Pn	Pn	03 42 02.2	-1.2
HDA	Harding Lake	2.00	44	Pn	Pn	03 42 03.2	-0.7
HDA				IAML		03 42 29.5	
	comp=E,758nm,0.5s						
HDA				IAML		03 42 30.8	
	comp=N,742nm,0.4s						
MLY	Manley	2.03	353		Sn	03 42 28.2	-1.6
MLY	Manley	2.03	353	Pn	Pn	03 42 04.0	-0.4
MLY	Manley	2.03	353	IAML		03 42 28.8	
	comp=N,231nm,0.5s						
MLY				IAML		03 42 29.5	
	comp=E,402nm,0.7s						
PS10	TAPS Pump St10	2.03	77		Pn	03 42 05.4	+1.0
CKL	Chakachamna La	2.10	210		Pn	03 42 04.7	-0.6
I53US	FAIRBANKS INFR	2.12	28	I	I	03 54 40.0	
	baz=216,slow=329,SNR=6.3						
COLA	College	2.12	28	P	Pn	03 42 05.0	-0.4
COLA	College	2.12	28	S	Sn	03 42 30.0	-1.7
COLA	College	2.12	28		Pn	03 42 05.0	-0.4
COLA	College	2.12	28	IAML		03 42 36.2	
	comp=E,889nm,0.5s						
COLA				IAML		03 42 48.4	
	comp=E,736nm,0.4s						
J20K	Nowinta River	2.12	305		Sn	03 42 30.8	-1.0
J20K	Nowinta River	2.12	305	Pn	Pn	03 42 05.1	-0.4
J20K	Nowinta River	2.12	305	IAML		03 42 32.1	
	comp=N,400nm,0.8s						
J20K				IAML		03 42 32.5	
	comp=E,326nm,0.8s						
I23K	Minto, Yukon-K	2.16	9		Pn	03 42 05.9	0.0
I23K				IAML		03 42 33.5	
	comp=N,416nm,1.2s						
IL31		2.28	38	Pn	Pn	03 42 06.7	-0.8
ILAR	Eielson Array	2.28	38	P	Pn	03 42 06.6	-0.9
	comp=N,81nm,0.4s,baz=220,slow=14,SNR=1217						
ILAR				S	Sn	03 42 32.3	-3.1
	comp=N,72nm,0.5s,baz=225,slow=17,SNR=13						
ILAR				LR	LR	03 42 50.3	
	comp=N,402nm,18.4s,baz=261,slow=37						
ILAR	Eielson Array	2.28	38	Pn	Pn	03 42 06.4	-1.0
CAPN	Captain Cook N	2.31	192		Pn	03 42 09.0	+1.1
L19K	White Mountain	2.33	251	Pn	Pn	03 42 06.9	-1.2
PWL	Port Wells	2.34	157		Sn	03 42 35.0	-1.9
PWL	Port Wells	2.34	157	IAML		03 42 35.7	
	comp=E,4µm,0.6s						
PWL				IAML		03 42 36.5	
	comp=N,3µm,0.4s						
HARP	HAARP	2.39	103		Pn	03 42 09.2	+0.2
RIDG	Independent Ri	2.50	71	Pn	Pn	03 42 10.3	-0.2
RIDG				IAML		03 42 46.3	
	comp=N,533nm,0.6s						
RIDG				IAML		03 42 46.3	
	comp=E,668nm,0.8s						
KLU	Klutina	2.51	126	IAML		03 42 49.2	
	comp=N,784nm,0.5s						
KLU				IAML		03 42 49.4	
	comp=E,928nm,0.4s						
SLKM	Skilak Lake	2.52	181	Pn	Pn	03 42 10.7	-0.1
SLKM				IAML		03 42 39.5	
	comp=E,970nm,1.0s						
SLKM				IAML		03 42 39.9	
	comp=N,724nm,0.2s						
O22K	Cooper Landing	2.56	175	Pn	Pn	03 42 10.8	-0.4
GLI	Glacier Island	2.59	145	Pn	Pn	03 42 10.0	-1.6
I20K	Naaghedeneel	2.61	315	IAML		03 42 53.5	
	comp=N,558nm,1.0s						
I20K				IAML		03 43 15.8	
	comp=E,502nm,1.2s						
J19K	Poorman	2.63	294	Pn	Pn	03 42 11.7	-0.4
J25K	Salcha River,	2.66	51	Pn	Pn	03 42 12.1	-0.5
J25K				IAML		03 42 45.4	
	comp=E,415nm,0.4s						
J25K				IAML		03 42 47.3	
	comp=N,275nm,0.4s						
RDT	Redoubt	2.68	204		Pn	03 42 12.0	-0.8
DIV	Divide	2.81	131	Pn	Pn	03 42 12.8	-1.7
DIV				IAML		03 42 47.8	
	comp=E,665nm,0.2s						
PS12	TAPS Pump St12	2.82	121		Pn	03 42 13.6	-0.9
H23K	Yukon River	2.83	5		Pn	03 42 14.6	0.0
FID	Port Fidalgo	2.87	141	Pn	Pn	03 42 14.1	-1.2
H21K	Melozitna Rive	2.88	338	Pn	Pn	03 42 14.8	-0.6
RED	Redoubt Volcan	2.89	207	Pn	Pn	03 42 14.6	-1.0
RED				IAML		03 43 16.4	
	comp=E,225nm,1.0s						
WACK	Wrangell Chich	2.90	108		Pn	03 42 15.5	-0.3
H22K	Ishtalitna Cre	2.93	350	Pn	Pn	03 42 15.4	-0.6
SCRK	Sand Creek	2.93	68	Pn	Pn	03 42 15.1	-1.0
SCRK				IAML		03 42 44.1	
	comp=E,295nm,1.3s						
SCRK				IAML		03 42 52.4	
	comp=N,295nm,1.6s						
MENT	Mentasta	2.94	89	P	Pn	03 42 16.1	-0.1
MENT	Mentasta	2.94	89	S	Sn	03 42 50.6	-0.5
MENT	Mentasta	2.94	89	Pn	Pn	03 42 15.8	-0.4
SEW	Seward	2.95	173	Pn	Pn	03 42 15.3	-0.9
SEW				IAML		03 42 49.1	
	comp=E,639nm,0.8s						
SEW				IAML		03 42 49.6	
	comp=N,359nm,0.7s						
H24K	Noodor Dome	2.99	18	Pn	Pn	03 42 16.1	-0.8
J18K	Innoko River	3.00	281	Pn	Pn	03 42 16.2	-0.7
J18K				IAML		03 42 51.9	
	comp=N,203nm,1.3s						
N19K	Bonanza Creek	3.02	225	Pn	Pn	03 42 16.5	-0.8
L18K	Granite Mounta	3.12	258	Pn	Pn	03 42 17.6	-1.0
L18K				IAML		03 42 55.6	
	comp=E,184nm,1.3s						
HIN	Hinchinbrook I	3.16	145	Pn	Pn	03 42 17.9	-1.3
HIN				IAML		03 43 19.7	
	comp=N,576nm,0.7s						
O20K	Slope Mountain	3.18	203		Pn	03 42 19.7	+0.3
H20K	Anotleneega Mo	3.22	322		Pn	03 42 19.7	-0.1
EYAK	Cordova Ski Ar	3.25	138	P	Pn	03 42 19.3	-1.0
EYAK	Cordova Ski Ar	3.25	138	Pn	Pn	03 42 18.4	-1.9
EYAK				IAML		03 42 59.9	
	comp=E,244nm,0.7s						
EYAK				IAML		03 43 13.2	
	comp=N,355nm,0.8s						
BRLK	Bradley Lake	3.29	186	IAML		03 42 58.1	
	comp=E,428nm,0.6s						
BRLK				IAML		03 43 10.2	
	comp=N,382nm,0.6s						
IVE	Iliamna Volcan	3.31	206		Pn	03 42 20.9	-0.4
P23K	Montague Islan	3.31	155	Pn	Pn	03 42 19.4	-1.7
BMRM	Bremner River	3.34	126	Pn	Pn	03 42 19.6	-1.9
BMRM				IAML		03 43 14.3	
	comp=E,440nm,0.6s						
BMRM				IAML		03 43 14.3	
	comp=N,530nm,0.6s						
IMAR	Indian Mountai	3.35	334	Pn	Pn	03 42 21.2	-0.4
M26K	Nabesna, AK	3.36	98	IAML		03 43 17.6	
	comp=E,298nm,0.4s						
M26K				IAML		03 43 25.9	
	comp=N,337nm,0.6s						
ILSW	Iliamna Southw	3.37	206		Pn	03 42 22.1	+0.1
ILSW	Iliamna Southw	3.37	206	IAML		03 42 55.7	
	comp=E,147nm,0.8s						
ILSW				IAML		03 43 08.6	
	comp=N,156nm,0.9s						
GLB	Gilahina Butte	3.37	115	Pn	Pn	03 42 20.8	-1.2
GLB				IAML		03 43 01.2	
	comp=N,417nm,0.8s						
GLB				IAML		03 43 02.4	
	comp=E,403nm,0.7s						
O19K	Port Alsworth	3.46	217		Pn	03 42 22.6	-0.5
O19K	Port Alsworth	3.46	217	IAML		03 43 05.0	
	comp=E,319nm,0.4s						
O19K				IAML		03 43 22.7	
	comp=N,250nm,0.5s						
N18K	Kilae Creek	3.59	232	Pn	Pn	03 42 23.3	-1.6
VRDI	Verde Repeater	3.63	117	Pn	Pn	03 42 24.1	-1.4
VRDI				IAML		03 43 08.1	
	comp=N,294nm,0.8s						
VRDI				IAML		03 43 09.0	
	comp=E,239nm,0.7s						
G23K	Bananza Creek	3.70	1		Pn	03 42 26.6	+0.2
MCARA	McCarthy VSAT	3.73	113	IAML		03 43 34.9	
	comp=E,342nm,0.8s						
K17K	Iditarod	3.74	269	Pn	Pn	03 42 26.2	-0.5
K17K				IAML		03 43 09.8	
	comp=N,214nm,1.4s						
K17K				IAML		03 43 23.1	
	comp=E,161nm,1.5s						
H25L	Birch Creek	3.75	28		Pn	03 42 27.2	+0.2
K27K	Chicken	3.76	71		Pn	03 42 26.8	-0.2
K27K	Chicken	3.76	71	IAML		03 43 12.1	
	comp=E,172nm,0.6s						
K27K				IAML		03 43 13.8	
	comp=N,166nm,0.9s						
M17K	Holitna River	3.77	248	IAML		03 43 34.0	
	comp=N,189nm,0.9s						
M17K				IAML		03 43 54.7	
	comp=E,177nm,1.1s						
L27K	Beaver Creek,	3.80	86	IAML		03 43 26.6	
	comp=N,142nm,2.3s						
L27K				IAML		03 43 35.2	
	comp=E,122nm,0.8s						
BCAR	Beaver Creek A	3.82	86	Pn	Pn	03 42 26.0	-1.9
I26K	Coal Creek Min	3.83	50		Pn	03 42 27.9	-0.1
I26K	Coal Creek Min	3.83	50	IAML		03 43 15.4	
	comp=N,159nm,0.8s						
I26K				IAML		03 43 49.9	
	comp=E,143nm,1.1s						
G24K	Hadweenzic Riv	3.87	16		Pn	03 42 28.5	0.0
M27K	Edge Creek, AK	3.88	96	IAML		03 43 32.6	
	comp=N,191nm,1.2s						
M27K				IAML		03 43 33.4	
	comp=E,133nm,0.7s						
AU22	Augustine Moun	3.98	204		Pn	03 42 30.1	+0.1
O18K	Koktuh Hills	4.00	220	Pn	Pn	03 42 29.4	-0.9
O18K				IAML		03 43 35.3	
	comp=N,103nm,2.2s						
O18K				IAML		03 43 48.8	
	comp=E,105nm,1.0s						
AGU	Augustine-Summ	4.00	205		Pn	03 42 30.6	+0.1
AUCH	Augustine Cone	4.00	205		Pn	03 42 29.8	-0.6
AUJK	Augustine Jueg	4.01	205		Pn	03 42 30.4	0.0
AUI	Augustine Isla	4.02	205		Pn	03 42 30.7	0.0
J17K	VABM Dome	4.05	279	Pn	Pn	03 42 30.3	-0.6
BERG	Berg Lake	4.05	128	Pn	Pn	03 42 30.0	-1.0
FYU	Fort Yukon	4.13	28	IAML		03 43 55.5	
	comp=E,109nm,1.7s						
FYU				IAML		03 44 11.7	
	comp=N,119nm,2.7s						
TGL	Tana Glacier	4.15	120	IAML		03 43 25.6	
	comp=N,247nm,0.7s						
TGL				IAML		03 43 40.3	
	comp=E,219nm,0.9s						
KAIM	Kayak Island	4.15	136		Pn	03 42 30.8	-1.5
N17K	Nushagak Hills	4.17	236	IAML		03 43 44.8	
	comp=N,90nm,1.5s						
H18K	Honhosa River	4.18	304	Pn	Pn	03 42 32.3	-0.5
COLD	Coldfoot	4.22	360		Pn	03 42 33.4	+0.2
GRIN	Grindle Hills	4.27	127		Pn	03 42 33.2	-0.7
G19K	Purcell Mounta	4.32	319		Pn	03 42 34.1	-0.5
WAX	Waxell Ridge	4.33	123		Pn	03 42 34.1	-0.7
P18K	Big Mountain,	4.39	216		Pn	03 42 35.1	-0.4
F21K	Alatna River	4.44	343		Pn	03 42 36.7	+0.5
Q19K	Cape Douglas,	4.44	204		Pn	03 42 36.1	-0.2
BARN	Barnard Glacie	4.46	112	Pn	Pn	03 42 36.0	-0.8
BARN				IAML		03 43 28.6	
	comp=N,100nm,0.6s						
BARN				IAML		03 43 28.9	
	comp=E,118nm,0.9s						
YUK2	White River	4.51	102		Pn	03 42 37.5	+0.2
L16K	Owhat River	4.53	257	IAML		03 43 41.8	
	comp=E,88nm,1.4s						
I27K	Kandik River	4.53	51	IAML		03 43 47.1	
	comp=E,89nm,1.1s						
I27K				IAML		03 44 07.7	
	comp=N,80nm,1.1s						
F22K	John River	4.58	350		Pn	03 42 38.4	+0.3
GRNC	Granite Creek	4.60	116	Pn	Pn	03 42 37.0	-1.5
GRNC				IAML		03 43 36.6	
	comp=N,134nm,0.7s						
GRNC				IAML		03 43 37.0	
	comp=E,67nm,0.6s						
M16K	Timber Creek	4.60	248		Pn	03 42 37.7	-0.7
F24K	Squaw Lake	4.62	11	Pn	Pn	03 42 38.3	-0.3
O17K	Koliganek Bris	4.66	229		Pn	03 42 38.7	-0.4
G18K	Tagagawik	4.67	312	Pn	Pn	03 42 38.3	-0.9
F20K	Avaraart Lake	4.68	332		Pn	03 42 39.8	+0.5
YUK3	Moose Creek	4.69	101		Pn	03 42 39.7	0.0
H17K	Granite Mounta	4.70	298		Pn	03 42 40.4	+0.7
G26K	Porcupine Rive	4.78	32		Pn	03 42 40.2	-0.5
G26K	Porcupine Rive	4.78	32	IAML		03 44 12.3	
	comp=E,71nm,1.4s						
G26K				IAML		03 44 18.2	
	comp=N,64nm,1.4s						
I17K	Unalakleet	4.80	285		Pn	03 42 41.7	+0.6
I17K	Unalakleet	4.80	285	IAML		03 43 36.6	
	comp=E,64nm,0.9s						
YAH	Yahtse	4.81	120		Pn	03 42 40.3	-1.2
YAH	Yahtse	4.81	120	IAML		03 43 59.2	
	comp=E,127nm,0.9s						
YAH				IAML		03 44 07.9	
	comp=N,130nm,1.0s						
N16K	Nishlik Lake	4.82	242		Pn	03 42 40.8	-0.6
MESA	MESA	4.85	122	Pn	Pn	03 42 40.7	-1.2
LOGN	Logan Glacier	4.86	113	Pn	Pn	03 42 41.5	-0.5
LOGN				IAML		03 43 46.1	
	comp=E,73nm,1.5s						
LOGN				IAML		03 44 07.2	
	comp=N,102nm,1.0s						
P17K	Kvichak River	4.90	221		Pn	03 42 42.5	+0.1
H27K	Steamboat Moun	4.92	45	IAML		03 44 17.6	
	comp=E,59nm,1.4s						
H27K				IAML		03 44 23.9	
	comp=N,47nm,1.0s						
DAWY	Dawson	4.93	73	IAML		03 44 07.4	
	comp=N,101nm,1.5s						
DAWY				IAML		03 44 19.5	
	comp=E,70nm,1.3s						
BMAR	Burnt Mountain	5.01	25	Pn	Pn	03 42 42.9	-1.0
F19K	Shaleruckik Mo	5.01	323	Pn	Pn	03 42 43.2	-0.5
KAHG	Katmai Hook Gl	5.03	207		Pn	03 42 44.2	0.0
E23K	Chandalar	5.06	2		Pn	03 42 45.0	+0.4
I28M	Miner Creek	5.08	57	IAML		03 44 22.7	
	comp=N,54nm,1.4s						
I28M				IAML		03 44 31.2	
	comp=E,73nm,1.6s						
E24K	Your Creek	5.12	7		Pn	03 42 45.5	+0.1
O16K	Kokwok River B	5.14	232		Pn	03 42 44.9	-0.7
O16K	Kokwok River B	5.14	232	IAML		03 44 26.1	
	comp=E,52nm,1.5s						
O16K				IAML		03 44 58.0	
	comp=N,46nm,4.2s						
O28M	Mount Upton	5.23	111	Pn	Pn	03 42 46.5	-0.6
O28M				IAML		03 44 05.8	
	comp=N,56nm,0.8s						
O28M				IAML		03 44 12.7	
	comp=E,41nm,2.6s						
G27K	Doyon Strip	5.25	40		Pn	03 42 46.4	-0.7
K15K	Wolf Creek Mou	5.29	267		Pn	03 42 47.6	-0.1
E19K	Redstone River	5.35	329		Pn	03 42 48.8	+0.3
KABU	Katmai Buttres	5.39	210		Pn	03 42 49.2	+0.1
KDAK	Kodiak Island	5.39	194	P	Pn	03 42 47.5	-1.5
	comp=E,57nm,0.2s,baz=40,slow=4.6,SNR=296						
KDAK				S	Sn	03 43 43.0	-6.8
	comp=E,63nm,0.5s,baz=239,slow=22,SNR=17						
KDAK	Kodiak Island	5.39	194	Pn	Pn	03 42 47.3	-1.8
M29M	Somme Creek	5.41	91	Pn	Pn	03 42 48.2	-1.3
L15K	Ungalak Mounta	5.44	261		Pn	03 42 49.0	-0.7
ACHA	Angle Creek He	5.46	210		Pn	03 42 49.8	-0.2
M15K	Kasigluk River	5.50	250		Pn	03 42 50.2	-0.3
P16K	Nushagak River	5.52	227	Pn	Pn	03 42 50.1	-0.6
N15K	Kwethluk River	5.54	243		Pn	03 42 50.6	-0.4
Q17K	Contact Creek	5.54	213		Pn	03 42 51.2	0.0
PCA	Pinnacle	5.57	117		Pn	03 42 50.7	-0.8
CAHL	Cahill	5.59	209		Pn	03 42 52.0	+0.2
K29M	Barlow Dome	5.74	76	Pn	Pn	03 42 52.8	-1.0
E20K	Nigu River	5.81	337		Pn	03 42 55.6	+0.9
G16K	Koyuk River	5.83	299		Pn	03 42 55.5	+0.6
F17K	Baldwin Pennin	5.85	311		Pn	03 42 55.7	+0.5
YUK6	Outpost Mounta	5.94	105		Pn	03 42 56.0	-0.7
D22K	Ayikyak River	5.97	351		Pn	03 42 57.8	+0.9
D23K	Nanushuk River	5.97	358		Pn	03 42 58.4	+1.6
M14K	Bethel	6.02	253		Pn	03 42 57.5	-0.1
OHAK	Old Harbor	6.03	196	P	Pn	03 42 55.3	-2.3
OHAK	Old Harbor	6.03	196	Pn	Pn	03 42 55.4	-2.2
O15K	Ungalikthiuk R	6.07	235		Pn	03 42 58.0	-0.1
L14K	Kuka Creek	6.10	260		Pn	03 42 58.9	+0.3
J14K	Nanvaranak Lak	6.13	273		Pn	03 42 59.3	+0.4
PLK1	Peulik 1	6.13	214		Pn	03 42 59.3	+0.2
O29M	Mount Kennedy	6.16	111	Pn	Pn	03 42 59.6	+0.1
PNL	Peninsula	6.17	118	P	Pn	03 43 00.0	+0.3
R17L	Mt. Peulik Vol	6.22	212		Pn	03 43 00.3	0.0
PLBL	Peulik Blue Cr	6.28	215		Pn	03 43 01.6	+0.5
E27K	Coleen River	6.28	31		Pn	03 43 00.4	-0.6
D20K	Etivluk River	6.29	338		Pn	03 43 01.9	+0.7
F28M	Old Crow	6.30	39	Pn	Pn	03 43 00.5	-0.9
E17K	Hotham Inlet	6.39	315		Pn	03 43 03.0	+0.5
I30M	Mount Dempster	6.43	64		Pn	03 43 02.5	-0.6
C21K	Knifeblade Rid	6.44	345		Pn	03 43 04.5	+1.3
G29M	Pine Creek	6.46	48		Pn	03 43 04.0	+0.5
D25K	Kavik River	6.51	12		Pn	03 43 05.0	+0.9
O14K	Tigyukauivet M	6.57	240		Pn	03 43 04.5	-0.4
C24K	Franklin Bluff	6.75	4		Pn	03 43 08.2	+0.9
M13K	Dall Lake	6.79	253	Pn	Pn	03 43 07.5	-0.5
SII	Sitkinak Islan	6.79	199	P	Pn	03 43 06.2	-1.9
SII	Sitkinak Islan	6.79	199		Pn	03 43 06.1	-1.9
C23K	Itkillik River	6.85	359		Pn	03 43 09.9	+1.3
P29M	Windy Craggy	6.88	114		Pn	03 43 09.3	+0.1
P30M	Million Dollar	6.94	109		Pn	03 43 09.1	-1.0
E28M	Babbage River	7.09	33		Pn	03 43 12.2	+0.1
G30M	tAoh Zraii Nji	7.11	50		Pn	03 43 12.4	+0.1
C27K	Jago River	7.12	19		Pn	03 43 12.9	+0.5
D17K	Noatak River	7.14	317		Pn	03 43 13.4	+0.7
C26K	Camden Bay	7.23	15		Pn	03 43 14.8	+1.0
D27M	Malcolm River	7.27	27		Pn	03 43 15.0	+0.6
E29M	Blow River	7.38	38		Pn	03 43 15.6	-0.3
H31M	Peel River	7.39	61	Pn	Pn	03 43 15.6	-0.5
B22K	Teshekpuk Lake	7.46	351		Pn	03 43 17.4	+0.4
B20K	Meade River	7.54	341		Pn	03 43 18.1	0.0
F30M	Barrier River	7.56	46		Pn	03 43 18.4	0.0
CHIR	Chirikof Islan	7.74	203	P	Pn	03 43 19.8	-1.0
B18K	Kokolik River	7.90	329		Pn	03 43 23.2	+0.2
CHGN	Chignik	7.92	215	Pn	Pn	03 43 21.8	-1.6
F31M	Tsiigehtchic	8.18	50		Pn	03 43 25.4	-1.3
VNFG	Fog Glacier, M	8.25	219	Pn	Pn	03 43 28.5	+0.6
INK	Inuvik	8.65	45	P	Pn	03 43 32.9	-0.2
	comp=E,23nm,1.0s,baz=229,slow=13,SNR=22						
INK	Inuvik	8.65	45	Pn	Pn	03 43 32.6	-0.6
SDPT	Sand Point	9.33	219	P	Pn	03 43 42.3	0.0
SIT	Sitka	9.52	122	P	Pn	03 43 44.4	-0.5
SIT	Sitka	9.52	122	Pn	Pn	03 43 43.8	-1.1
CHNA	Chernabura Isl	9.54	215	P	Pn	03 43 44.3	-0.9
C36M	Paulatuk	12.21	48	Pn	Pn	03 44 17.9	-3.1
YKA	Yellowknife Ar	16.16	76	P	Pn	03 45 10.9	-0.6
	comp=E,3.1nm,0.8s,baz=286,slow=10,SNR=9.4						
ATKA	Atka Island	16.70	241	P	Pn	03 45 17.6	-0.6
ADK	Adak	17.95	244	P	Pn	03 45 36.0	+2.6
EDM	Edmonton	21.47	100	P	P	03 46 10.2	-0.3
EDM				IAmb	IAmb	03 46 12.2	
	comp=Z,6.7nm,0.6s						
RES	Resolute Bay	22.03	36	P	P	03 46 16.1	0.0
RES				IAmb	IAmb	03 46 35.7	
	comp=Z,6.7nm,0.8s						
PDAR	Pinedale Array	31.01	112	P	P	03 47 40.2	+2.0
	comp=Z,0.5nm,0.7s,baz=318,slow=6.4,SNR=5.4						
PDAR				PcP	PcP	03 50 31.5	+0.1
	comp=Z,0.4nm,0.7s,baz=90,slow=1.5,SNR=3.9						
	comp=Z,0.5nm,0.7s						
PDAR	Pinedale Array	31.01	112	P	P	03 47 39.4	+1.1
NVAR	Mina Array Bea	31.23	127	P	P	03 47 41.8	+1.6
	comp=Z,0.5nm,0.6s,baz=309,slow=9.4,SNR=4.9						
	comp=Z,0.5nm,0.6s						
NVAR	Mina Array Bea	31.23	127	P	P	03 47 41.3	+1.0
TXAR	Lajitas Array	44.94	116	P	P	03 49 36.3	+1.3
	comp=Z,0.8nm,0.7s,baz=330,slow=6.0,SNR=8.2						
	comp=Z,0.8nm,0.7s						
TXAR	Lajitas Array	44.94	116	P	P	03 49 35.5	+0.5
SAND	Sanderson	45.03	114	P	P	03 49 36.6	+0.9
HILR	Hailar Array B	47.55	298	P	P	03 49 55.3	+0.2
	comp=Z,2.9nm,0.3s,baz=36,slow=8.5,SNR=5.8						
	comp=Z,2.9nm,0.3s						
KSRS	Korea Array	53.84	283	P	P	03 50 43.1	+0.8
	comp=Z,2.2nm,0.8s,baz=30,slow=6.1,SNR=7.6						
	comp=Z,2.2nm,0.8s						
SONM	Songino Array	54.11	306	P	P	03 50 45.1	+0.7
	comp=Z,2.0nm,0.8s,baz=38,slow=8.7,SNR=8.5						
	comp=Z,2.0nm,0.8s						
SONM	Songino Array	54.11	306	P	P	03 50 44.7	+0.3
SONM				IAmb	IAmb	03 50 46.2	
	comp=Z,2.0nm,0.9s						
ZALV	Zalesovo Beam	55.73	324	P	P	03 50 55.0	-0.7
	comp=Z,0.5nm,0.4s,baz=14,slow=6.4,SNR=2.1						
	comp=Z,0.5nm,0.4s						
EKA	Eskdalemuir Ar	59.22	21	P	P	03 51 21.6	+1.4
	comp=Z,0.9nm,0.7s,baz=340,slow=7.3,SNR=3.5						
	comp=Z,0.9nm,0.7s						
KURBB	Kurchatov Arra	60.38	327	P	P	03 51 26.8	-1.4
	comp=Z,0.4nm,0.7s,baz=27,slow=7.0,SNR=3.8						
	comp=Z,0.4nm,0.7s						
MKAR	Makanchi Array	62.89	322	P	P	03 51 43.9	-1.3
	comp=Z,0.4nm,0.5s,baz=41,slow=8.4,SNR=4.3						
	comp=Z,0.4nm,0.5s						
MKAR	Makanchi Array	62.89	322	P	P	03 51 43.7	-1.5
KVAR	Kislovodsk Arr	72.87	350	LR	LR	04 27 33.7	
	comp=Z,83nm,19.5s,baz=190,slow=38						
KBZ	Khabaz	73.08	350	LR	LR	04 29 40.0	
	comp=Z,135nm,18.0s,baz=265,slow=40						
VNDA	Vanda	143.34	196	PKP	PKPbc	04 00 49.0	+1.0
	comp=Z,0.5nm,0.7s,baz=340,slow=3.8,SNR=5.7						
VNDA	Vanda	143.34	196		PKPpre	04 00 48.7	
QSPA	South Pole Qui	152.84	180	PKPbc	PKPbc	04 01 13.4	-0.2
	comp=Z,3.6nm,0.8s,baz=273,slow=0.9,SNR=14						
QSPA	South Pole Qui	152.84	180		PKPbc	04 01 13.6	0.0

*IDC **28** 03:44:53.1±0.5, 11°.39S×118°.04E, h0^{km}, mb4.5/16, mbtmp4.5/21, ML4.5/5, MS3.5/13, Error ellipse: s-maj=14.7km s-min=12.7km az=50.0*

*BJI **28** 03:44:53.0, 11°.50S×117°.90E, h10^{km}, mB4.9/5, mb4.8/32*

*NEIC **28** 03:44:54.8±1.7, 11°.43S±0°.07×118°.03E±0°.07, h10^{km}±1^{km}, mb4.8/31, Error ellipse: s-maj=12.1km s-min=10.5km az=222.0*

*DJA **28** 03:44:58.6±0.3, 12°S±1°×11°8E±°, h37^{km}±3^{km}, M5.3/78, mb5.2/78, mB5.7/46, MLv5.6/40, Mw(mB)5.2/46*

ISC 28 03:44:58.2±0.3**, 11°.51S**±0°.04×**118°.02E**±0°.04**, h36**^{km}**, n227,** σ**1**^{s}**.65**/222**, mb4.7**/46**, MS3.5**/8**, 3D, South of Sumbawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLAI	Plampang	2.68	355	P	Pn	03 45 39.2	+0.4
PLAI	Plampang	2.68	355	P	Pn	03 45 38.8	0.0
PLAI				S	Sn	03 46 07.1	-2.9

BASI	**Baing, Sumba**	**2.82**	**63**	P	**Pn**	**03 45 41.8**	**+1.1**
BASI				S	**Sn**	**03 46 14.7**	**+1.3**
WSI	**Waingapu**	**2.89**	**51**	P	**Pn**	**03 45 41.9**	**+0.2**
WSI				S	**Sn**	**03 46 18.5**	**+3.3**
WSI				AML	AML		
TWSI	**Taliwang, Sumb**	**2.98**	**338**	P	**Pn**	**03 45 42.5**	**-0.4**
TWSI				S	**Sn**	**03 46 14.5**	**-2.9**
TWSI				AML	AML		
DBNI	**Kabupaten Domp**	**3.00**	**5**	P	**Pn**	**03 45 44.3**	**+1.0**
DBNI				S	**Sn**	**03 46 20.5**	**+2.4**
DBNI				AML	AML		
LBFI	**Labuhan Bajo,**	**3.53**	**32**	P	**Pn**	**03 45 52.0**	**+1.5**
IGBI	**Denpasar**	**3.90**	**313**	P	**Pn**	**03 45 54.0**	**-1.5**
IGBI				AML	AML		
KHKI	**Kahang-Kahang**	**3.93**	**323**	P	**Pn**	**03 45 56.9**	**+0.9**
KHKI				S	**Sn**	**03 46 42.1**	**+1.2**
KHKI				AML	AML		
DNP	**Denpasar**	**3.95**	**315**	P	**Pn**	**03 45 56.5**	**+0.2**
RTBI	**Rangdo, Negare**	**4.29**	**315**	P	**Pn**	**03 46 00.6**	**-0.4**
RTBI				S	**Sn**	**03 46 49.8**	**0.0**
RTBI				AML	AML		
SRBI	**Singaraja**	**4.39**	**321**	P	**Pn**	**03 46 02.9**	**+0.6**
SRBI				AML	AML		
EDFI	**Ende, Flores**	**4.54**	**53**	P	**Pn**	**03 46 04.0**	**-0.4**
JAGI	**Jajag, Banyuwa**	**4.87**	**308**	P	**Pn**	**03 46 07.2**	**-1.7**
JAGI	**Jajag, Banyuwa**	**4.87**	**308**		**Pn**	**03 46 06.9**	**-2.0**
JAGI	**Jajag, Banyuwa**	**4.87**	**308**	P	**Pn**	**03 46 07.2**	**-1.7**
JAGI				AML	AML		
BYJI	**Banyuwangi**	**4.88**	**312**	P	**Pn**	**03 46 09.4**	**+0.4**
BYJI				S	**Sn**	**03 47 04.4**	**+0.1**
BYJI				AML	AML		
MMRI	**Maumere**	**5.04**	**56**	P	**Pn**	**03 46 12.5**	**+1.2**
MMRI	**Maumere**	**5.04**	**56**	Pn	**Pn**	**03 46 11.0**	**-0.2**
MMRI	**Maumere**	**5.04**	**56**	P	**Pn**	**03 46 12.4**	**+1.2**
MMRI				AML	AML		
ABJI	**Asem Bagus**	**5.25**	**314**	P	**Pn**	**03 46 14.4**	**+0.2**
	5.1nm15µm191nm,1.1s						
ABJI				S	**Sn**	**03 47 13.8**	**+0.3**
	5.1nm15µm191nm,1.1s						
ABJI				AML	AML		
BATI	**Baumata**	**5.69**	**77**	Pn	**Pn**	**03 46 16.9**	**-3.3**
	50nm,0.3s,baz=290,slow=1.1,SNR=16						
BATI				Sn	**Sn**	**03 47 20.2**	**-4.1**
	64nm,0.3s,baz=326,slow=17,SNR=10						
BATI				LR	LR	03 49 02.7	
	comp=Z,366nm,20.6s,baz=206,slow=44						
	111nm,0.3s						
BATI				AML	AML		
BLJI	**Banyuglugur**	**5.75**	**310**	P	**Pn**	**03 46 20.4**	**-0.6**
	7.0nm10µm214nm,0.5s						
BLJI				AML	AML		
BSSI	**Bau Bau, Buton**	**5.87**	**25**	P	**Pn**	**03 46 24.5**	**+1.9**
BSSI				S	**Sn**	**03 47 30.8**	**+2.2**
BSSI				AML	AML		
KMMI	**Kalianget**	**5.97**	**318**	P	**Pn**	**03 46 25.3**	**+1.2**
	1.1nm88nm,0.8s						
KMMI				AML	AML		
SOEI	**Soe**	**6.38**	**75**	P	**Pn**	**03 46 32.3**	**+2.5**
SOEI	**Soe**	**6.38**	**75**	Pn	**Pn**	**03 46 30.7**	**+0.9**
SOEI	**Soe**	**6.38**	**75**	P	**Pn**	**03 46 31.7**	**+1.9**
	1.2nm2µm181nm,0.8s						
SOEI				S	**Sn**	**03 47 44.3**	**+2.8**
	1.2nm2µm181nm,0.8s						
SOEI				AML	AML		
MKS	**Makassar**	**6.42**	**13**	P	**Pn**	**03 46 32.7**	**+2.5**
	1.3nm3µm344nm,0.9s						
MKS				AML	AML		
BKSI	**Bulukumba**	**6.49**	**19**	P	**Pn**	**03 46 32.9**	**+1.7**
BKSI				AML	AML		
KAPI	**Kappang**	**6.68**	**15**	Pn	**Pn**	**03 46 35.5**	**+1.8**
	14nm,0.3s,baz=185,slow=6.4,SNR=31						
KAPI				Sn	**Sn**	**03 47 45.1**	**-3.6**
	40nm,0.3s,baz=319,slow=18,SNR=20						
	62nm,0.6s						
KAPI				AML	AML		
KAPI	**Kappang**	**6.68**	**15**	P	**Pn**	**03 46 35.8**	**+2.0**
KAPI	**Kappang**	**6.68**	**15**	Pn	**Pn**	**03 46 35.2**	**+1.4**
KAPI	**Kappang**	**6.68**	**15**	P	**Pn**	**03 46 36.0**	**+2.2**
	0.5nm49nm,0.8s						
KAPI				AML	AML		
SNJI	**Sawahan-Nganju**	**7.20**	**300**	P	**Pn**	**03 46 40.9**	**-0.2**
	2.5nm4µm213nm,0.5s						
SNJI				AML	AML		
SJI	**Sawahan**	**7.22**	**301**	P	**Pn**	**03 46 41.2**	**-0.1**
PCJI	**Pacitan**	**7.51**	**295**	P	**Pn**	**03 46 44.3**	**-0.9**
PCJI				AML	AML		
NGJI	**Ngawi**	**7.67**	**302**	P	**Pn**	**03 46 49.1**	**+1.7**
	2.4nm272nm,0.9s						
NGJI				AML	AML		
SPSI	**Sidrap Palu**	**7.70**	**13**	P	Pn	03 46 54.1	+6.4
	0.3nm60nm,0.6s						
SPSI				AML	AML		
WOJI	**Wonogiri, Jawa**	**7.89**	**297**	P	**Pn**	**03 46 49.9**	**-0.6**
	2.0nm172nm,0.8s						
WOJI				AML	AML		
KKSI	**Kolaka, Sulawe**	**8.13**	**27**	P	**Pn**	**03 46 54.9**	**+1.2**
UGM	**Wanagama**	**8.21**	**295**	P	**Pn**	**03 46 54.5**	**-0.4**
UGM	**Wanagama**	**8.21**	**295**	Pn	**Pn**	**03 46 54.0**	**-0.9**
UGM	**Wanagama**	**8.21**	**295**	P	**Pn**	**03 46 54.7**	**-0.2**
	252nm,0.8s						
YOGI	**Yogyakarta**	**8.46**	**295**	P	**Pn**	**03 46 57.8**	**-0.4**
	139nm,0.8s						
SMRI	**Semarang**	**8.70**	**300**	Pn	**Pn**	**03 47 00.8**	**-0.8**
SMRI	**Semarang**	**8.70**	**300**	P	**Pn**	**03 47 02.2**	**+0.7**
	4µm157nm,0.8s						
MMSI	**Mamuju**	**8.81**	**6**	P	**Pn**	**03 47 05.7**	**+2.6**
	48nm,0.4s						
MBWA	**Marble Bar**	**9.73**	**171**	P	**Pn**	**03 47 14.8**	**-0.9**
	comp=Z,172nm,0.7s						
MBWA	**Marble Bar**	**9.73**	**171**	P	**Pn**	**03 47 14.6**	**-1.1**
	comp=Z,172nm,0.7s						
MBWA	**Marble Bar**	**9.73**	**171**	P	**Pn**	**03 47 14.6**	**-1.1**
MBWA	**Marble Bar**	**9.73**	**171**	Pn	**Pn**	**03 47 14.2**	**-1.5**
CTJI	**Waduk Cacaban**	**9.80**	**296**	P	**Pn**	**03 47 17.4**	**+0.7**
	comp=Z,8µmcomp=Z,64nm,0.5s						
FITZ	**Fitzroy Crossi**	**9.85**	**133**	P	**Pn**	**03 47 17.6**	**+0.3**
	comp=Z,9.4nm,0.7s						
FITZ	**Fitzroy Crossi**	**9.85**	**133**	Pn	**Pn**	**03 47 17.4**	**+0.1**
	comp=Z,6.8nm,0.3s,baz=320,slow=7.8,SNR=176						
FITZ				Sn	**Sn**	**03 49 00.8**	**-5.9**
	comp=Z,14nm,0.3s,baz=298,slow=22,SNR=12						
FITZ				LR	LR	03 51 26.6	
	comp=Z,254nm,18.6s,baz=306,slow=40						
FITZ	**Fitzroy Crossi**	**9.85**	**133**	P	**Pn**	**03 47 17.4**	**+0.1**
FITZ	**Fitzroy Crossi**	**9.85**	**133**	Pn	**Pn**	**03 47 17.6**	**+0.3**
KPJI	**Karang Pucung**	**9.88**	**294**	P	**Pn**	**03 47 16.8**	**-1.0**
	comp=Z,89nm,0.6s						
BBJI	**Bungbulang**	**10.99**	**291**	P	**Pn**	**03 47 32.1**	**-1.0**
SMKI	**Samarinda**	**11.02**	**356**	P	**Pn**	**03 47 30.6**	**-2.8**
KNRA	**Kununurra**	**11.23**	**113**	P	**Pn**	**03 47 36.8**	**+0.6**
	comp=Z,19nm,0.7s						
KNRA	**Kununurra**	**11.23**	**113**	P	**Pn**	**03 47 36.8**	**+0.6**
	comp=Z,19nm,0.7s						
KNRA	**Kununurra**	**11.23**	**113**	Pn	**Pn**	**03 47 36.6**	**+0.4**
LEM	**Lembang**	**11.28**	**293**	LR	LR	03 51 56.6	
	comp=Z,163nm,18.2s,baz=326,slow=38						
GIRL	**Giralia**	**11.64**	**198**	P	**Pn**	**03 47 41.5**	**-0.4**
	comp=Z,219nm,0.8s						
GIRL				S	Sn	03 49 39.8	-11
GIRL	**Giralia**	**11.64**	**198**	Pn	**Pn**	**03 47 41.4**	**-0.5**
MTN	**Manton Dam**	**12.88**	**97**	P	**Pn**	**03 47 59.9**	**+1.0**
	comp=Z,16nm,0.5s						
MTN	**Manton Dam**	**12.88**	**97**	Pn	**Pn**	**03 47 59.5**	**+0.6**
CGJI	**Cibinong**	**13.11**	**291**	P	**Pn**	**03 48 00.1**	**-1.9**
BNDI	**Bandanaira**	**13.66**	**60**	P	**Pn**	**03 48 10.0**	**+0.6**
KDU	**Kakadu**	**14.18**	**96**	P	**Pn**	**03 48 16.7**	**+0.2**
	comp=Z,5.7nm,0.7s						
KDU	**Kakadu**	**14.18**	**96**	P	**Pn**	**03 48 17.3**	**+0.8**
	comp=Z,5.7nm,0.7s						
SBUM	**Sibu**	**15.02**	**337**	P	**P**	**03 48 33.2**	**+0.4**
MEEK	**Meekatharra**	**15.06**	**178**	P	**Pn**	**03 48 26.4**	**-2.0**
	comp=Z,89nm,0.5s						
MEEK	**Meekatharra**	**15.06**	**178**	P	**Pn**	**03 48 26.5**	**-1.9**
MDSI	**Maura Dua**	**15.38**	**296**	P	**P**	**03 48 37.1**	**+0.3**
FAKI	**Fak Fak**	**16.48**	**60**	P	**Pn**	**03 48 48.3**	**+1.5**
FAKI	**Fak Fak**	**16.48**	**60**	Pn	**Pn**	**03 48 43.6**	**-3.1**
MNAI	**Manna**	**16.52**	**294**	P	**Pn**	**03 48 46.0**	**-1.3**
MNAI	**Manna**	**16.52**	**294**	Pn	**Pn**	**03 48 43.6**	**-3.6**
WRKA	**Warakurna**	**16.60**	**146**	P	**Pn**	**03 48 48.4**	**+0.2**
	comp=Z,8.9nm,0.5s						
WRKA	**Warakurna**	**16.60**	**146**	P	**Pn**	**03 48 48.0**	**-0.2**
	comp=Z,8.9nm,0.5s						
SWI	**Sorong**	**16.87**	**52**	P	**Pn**	**03 48 49.1**	**-2.5**
	comp=Z,48nm,0.8s						
SIJI	**Sorong**	**16.87**	**52**	Pn	**Pn**	**03 48 49.0**	**-2.7**
	comp=Z,2.7nm,0.3s,baz=296,slow=5.7,SNR=11						
	comp=Z,16nm,0.7s						
SIJI				AML	AML		
KSI	**Kapahiang**	**17.16**	**296**	P	**P**	**03 48 57.3**	**+0.6**
	comp=Z,15µmcomp=Z,115nm,0.6s						
MORW	**Morawa**	**17.57**	**186**	P	**Pn**	**03 48 58.8**	**-1.4**
	comp=Z,64nm,1.0s						
MORW	**Morawa**	**17.57**	**186**	P	**Pn**	**03 48 58.5**	**-1.8**
	comp=Z,64nm,1.0s						
MORW	**Morawa**	**17.57**	**186**	P	**P**	**03 49 00.2**	**-0.8**
	comp=Z,64nm,1.0s						
MORW	**Morawa**	**17.57**	**186**	P	**Pn**	**03 48 58.4**	**-1.8**
MORW	**Morawa**	**17.57**	**186**	Pn	**Pn**	**03 48 58.4**	**-1.8**
MORW				IAmb	IAmb	03 49 01.4	
	comp=Z,55nm,0.8s						
WB0	**Warramunga Arr**	**17.76**	**120**		**Pn**	**03 49 01.6**	**-1.1**
WB9	**Warramunga Arr**	**17.76**	**120**	P	**Pn**	**03 49 02.8**	**+0.1**
WB7	**Warramunga Arr**	**17.78**	**120**	P	**Pn**	**03 49 03.4**	**+0.4**
WRA	**Warramunga Arr**	**17.79**	**120**	P	**Pn**	**03 49 02.8**	**-0.3**
	comp=Z,0.9nm,0.3s,baz=191,slow=9.9,SNR=36						
WRA				S	Sn	03 52 07.7	-13
	comp=Z,8.1nm,0.6s,baz=295,slow=24,SNR=8.2						
	comp=Z,4.0nm,0.6s						
WRA				AML	AML		
WRA	**Warramunga Arr**	**17.79**	**120**		**Pn**	**03 49 02.2**	**-0.9**
WRAB	**Tennant Creek**	**17.80**	**120**	P	**Pn**	**03 49 02.9**	**-0.2**
WRAB	**Tennant Creek**	**17.80**	**120**		**Pn**	**03 49 02.8**	**-0.4**
WB2	**Warramunga Arr**	**17.80**	**120**	P	**Pn**	**03 49 03.7**	**+0.5**
WR8	**Warramunga Arr**	**17.93**	**120**		**Pn**	**03 49 04.2**	**-0.6**
BLDU	**Ballidu**	**19.05**	**183**	P	**Pn**	**03 49 18.2**	**0.0**
	comp=Z,61nm,0.7s						
BLDU	**Ballidu**	**19.05**	**183**	P	**Pn**	**03 49 18.0**	**-0.2**
	comp=Z,61nm,0.7s						
BLDU	**Ballidu**	**19.05**	**183**	P	**Pn**	**03 49 18.1**	**-0.2**
MYKOM	**Kota Tinggi**	**19.32**	**312**	P	**P**	**03 49 19.8**	**-0.6**
AS31	**Alice Springs**	**19.35**	**131**	P	**P**	**03 49 20.4**	**-0.3**
ASAR	**Alice Springs**	**19.35**	**131**	P	**Pn**	**03 49 22.8**	**+0.8**
	comp=Z,0.9nm,0.3s,baz=311,slow=14,SNR=42						
ASAR				S	**S**	**03 52 48.5**	**-9.3**
	comp=Z,15nm,0.6s,baz=318,slow=26,SNR=18						
ASAR				LR	LR	03 57 01.1	
	comp=Z,91nm,18.7s,baz=300,slow=38						
	comp=Z,12nm,0.8s						
ASAR				AML	AML		
ASAR	**Alice Springs**	**19.35**	**131**	P	**P**	**03 49 21.5**	**+0.8**
SDSI	**Sungai Dareh**	**19.54**	**301**	P	**P**	**03 49 22.0**	**-0.8**
DAV	**Davao City (W)**	**19.93**	**23**	LR	LR	03 57 44.8	
	comp=Z,60nm,20.5s,baz=292,slow=39						
KLBR	**Kellerberrin**	**19.98**	**181**	P	**Pn**	**03 49 31.0**	**+1.5**
	comp=Z,174nm,0.7s						
KLBR	**Kellerberrin**	**19.98**	**181**	P	**Pn**	**03 49 29.6**	**+0.2**
	comp=Z,174nm,0.7s						
KLBR	**Kellerberrin**	**19.98**	**181**	P	**P**	**03 49 27.8**	**+0.3**
KMBL	**Kambalda**	**20.08**	**170**	P	Pn	03 49 30.6	0.0
	comp=Z,18nm,0.9s						
PDSI	**Padang**	**20.37**	**300**	P	**P**	**03 49 29.7**	**-2.2**
	comp=Z,3µmcomp=Z,30nm,0.6s						
MUN	**Mundaring**	**20.44**	**184**	P	Pn	03 49 37.2	+2.5
MUN	**Mundaring**	**20.44**	**184**	P	Pn	03 49 35.0	+0.2
	comp=Z,36nm,0.5s						
MUN	**Mundaring**	**20.44**	**184**	P	**P**	**03 49 32.9**	**+0.5**
PPI	**Padang Panjang**	**20.66**	**301**	P	Pn	03 49 36.6	-0.9
	comp=Z,47nm,1.0s						
BAKI	**Biak**	**20.67**	**62**	P	Pn	03 49 38.8	+1.2
	comp=Z,24nm,0.8s						
FORT	**Forrest**	**21.31**	**156**	P	**P**	**03 49 43.8**	**+1.9**
	comp=Z,43nm,0.8s						
FORT	**Forrest**	**21.31**	**156**	P	**P**	**03 49 43.3**	**+1.4**
FORT				IAmb	IAmb	03 49 45.0	
	comp=Z,26nm,0.7s						
NWAO	**Narrogin (SRO)**	**21.33**	**182**	P	**P**	**03 49 44.3**	**+2.2**
	comp=Z,84nm,0.7s						
NWAO	**Narrogin (SRO)**	**21.33**	**182**	P	**P**	**03 49 48.3**	**+6.3**
NWAO	**Narrogin (SRO)**	**21.33**	**182**	P	**P**	**03 49 48.3**	**+6.3**
NWAO	**Narrogin (SRO)**	**21.33**	**182**	P	**P**	**03 49 43.1**	**+1.0**
NWAO	**Narrogin (SRO)**	**21.33**	**182**	P	**P**	**03 49 43.0**	**+1.0**
QIS	**Mount Isa**	**22.58**	**116**	P	**P**	**03 49 58.8**	**+3.1**
	comp=Z,19nm,1.1s						
QIS	**Mount Isa**	**22.58**	**116**	P	**P**	**03 49 57.2**	**+1.5**
RKGY	**Rocky Gully**	**23.01**	**182**	P	**P**	**03 50 04.2**	**+4.2**
	comp=Z,20nm,1.0s						
IPM	**Ipoh**	**23.20**	**312**	P	**P**	**03 50 01.9**	**-0.2**
IPM				IAmb	IAmb	03 50 03.6	
	comp=Z,18nm,0.8s						
H01W3	**Cape Leeuwin H**	**23.53**	**188**	P	P	03 50 19.3	+14
	baz=12,slow=9.5,SNR=3.1						
H01W1	**Cape Leeuwin H**	**23.54**	**188**	P	P	03 50 18.7	+14
	baz=12,slow=9.5,SNR=5.2						
H01W2	**Cape Leeuwin H**	**23.55**	**188**	P	P	03 50 17.6	+13
	baz=12,slow=9.5,SNR=3.8						
RPSI	**Rantau Prapat**	**23.66**	**305**	P	**P**	**03 50 06.2**	**-0.3**
RPSI				IAmb	IAmb	03 50 08.1	
	comp=Z,26nm,1.1s						
GENI	**Genyem**	**23.68**	**70**	P	**P**	**03 50 09.1**	**+2.4**
PSI	**Prapat**	**23.73**	**306**	P	**P**	**03 50 08.2**	**+0.9**
PSI	**Prapat**	**23.73**	**306**	P	**P**	**03 50 06.7**	**-0.6**
TSI	**Tuntungan**	**24.44**	**307**	P	**P**	**03 50 13.1**	**-0.6**
	comp=Z,85nm,0.8s						
KCSI	**Kotacane, Aceh**	**25.08**	**305**	P	**P**	**03 50 18.3**	**-1.3**
TPTI		**25.40**	**304**	P	**P**	**03 50 22.3**	**-0.2**
	comp=Z,19nm,1.0s						
BBOO	**Buckleboo**	**26.90**	**145**	P	**P**	**03 50 37.5**	**+1.7**
	comp=Z,32nm,2.1s						
BBOO	**Buckleboo**	**26.90**	**145**	P	**P**	**03 50 37.1**	**+1.2**
	comp=Z,32nm,2.1s						
BBOO	**Buckleboo**	**26.90**	**145**	P	**P**	**03 50 37.6**	**+1.7**
BBOO	**Buckleboo**	**26.90**	**145**	P	**P**	**03 50 37.7**	**+1.8**
BBOO				IAmb	IAmb	03 50 42.9	
	comp=Z,90nm,1.7s						
PTPS	**Port Pirie**	**28.28**	**143**	P	**P**	**03 50 49.8**	**+1.6**
CTA	**Charters Tower**	**28.43**	**111**	LR	LR	04 02 32.7	
	comp=Z,67nm,19.3s,baz=220,slow=37						
PMG	**Port Moresby**	**28.72**	**89**	LR	LR	04 06 00.3	
	comp=Z,60nm,18.0s,baz=142,slow=44						
STKA	**Stephens Creek**	**29.71**	**137**	P	**P**	**03 51 02.6**	**+1.6**
	comp=Z,4.2nm,0.7s,baz=303,slow=6.1,SNR=7.0						
STKA				LR	LR	04 03 32.9	
	comp=Z,233nm,19.7s,baz=324,slow=38						
	comp=Z,4.2nm,0.7s						
ARPS	**Mount Arapiles**	**33.05**	**144**	P	**P**	**03 51 26.1**	**-4.2**
ARPS	**Mount Arapiles**	**33.05**	**144**	P	**P**	**03 51 31.7**	**+1.4**
	comp=Z,6.1nm,1.1s						
CMAR	**Chiang Mai Arr**	**35.23**	**327**	P	**P**	**03 51 48.7**	**-0.7**
	comp=Z,1.8nm,0.3s,baz=151,slow=6.9,SNR=11						
CMAR				PcP	**PcP**	**03 54 20.2**	**+0.2**
	comp=Z,1.3nm,0.3s,baz=132,slow=2.9,SNR=4.9						
CMAR				LR	LR	04 08 30.2	
	comp=Z,71nm,18.1s,baz=135,slow=40						
	comp=Z,1.8nm,0.3s						
CMAR	**Chiang Mai Arr**	**35.23**	**327**	P	**P**	**03 51 48.4**	**-1.0**
PZH	**PanZhiHua**	**40.97**	**337**	P	**P**	**03 52 39.5**	**+1.7**
PALK	**Pallekele**	**41.55**	**295**	LR	LR	04 10 31.1	
	comp=Z,93nm,19.2s,baz=6.0,slow=37						
ENH	**Enshi**	**42.35**	**349**	IAmb	IAmb	03 52 48.9	
	comp=Z,21nm,1.0s						
NJ2	**Nanjing**	**43.32**	**1**	*e*P	**P**	**03 52 58.8**	**+2.1**
NJ2				pmax	pmax		
	comp=Z,12nm,0.8s						
CD2	**Chengdu**	**44.35**	**342**	*e*P	**P**	**03 53 06.0**	**+0.9**
SHL	**Shillong**	**44.80**	**326**	P	**P**	**03 53 08.0**	**-0.9**
XAN	**Xi'an**	**46.12**	**349**	P	**P**	**03 53 17.8**	**-1.2**
XAN				pmax	pmax		
	comp=Z,33nm,0.7s						
KAAM	**Kaadhehdhoo**	**46.29**	**282**	P	**P**	**03 53 22.0**	**+1.2**
DZM	**Mont Dzumac**	**47.35**	**109**	LR	LR	04 13 12.6	
	comp=Z,74nm,19.4s,baz=312,slow=36						
LZDM	**Lanzhou Array**	**49.11**	**345**	P	**P**	**03 53 41.6**	**-1.0**
	comp=Z,3.3nm,0.3s,baz=191,slow=12,SNR=9.4						
	comp=Z,3.3nm,0.3s						
EVN	**Everest**	**49.53**	**323**	P	**P**	**03 53 45.8**	**-0.5**
EVN				IAmb	IAmb	03 53 46.9	
	comp=Z,16nm,0.7s						
KSRS	**Korea Array**	**49.59**	**10**	P	**P**	**03 53 44.8**	**-1.0**
	comp=Z,1.4nm,0.7s,baz=182,slow=9.0,SNR=6.6						
	comp=Z,1.4nm,0.7s						
HHC	**Hu-ho-hao-te**	**52.44**	**354**	*e*P	**P**	**03 54 09.5**	**+2.2**
HHC				pmax	pmax		
	comp=Z,7.0nm,0.6s						
GTA2	**Gaotai**	**53.51**	**342**	*e*P	**P**	**03 54 15.3**	**0.0**
GTA2				pmax	pmax		
	comp=Z,13nm,1.0s						
XLT	**XiLinHaoTe**	**55.17**	**358**	*e*P	P	03 54 33.8	+6.6
XLT				pmax	pmax		
	comp=Z,4.0nm,0.9s						
RPZ	**Rata Peaks**	**55.67**	**135**	LR	LR	04 17 54.4	
	comp=Z,29nm,19.6s,baz=123,slow=36						
USRK	**Ussuriysk Ar.**	**56.88**	**12**	P	**P**	**03 54 40.4**	**+1.1**
	comp=Z,1.6nm,0.6s,baz=196,slow=6.7,SNR=4.6						
	comp=Z,1.6nm,0.6s						
USRK	**Ussuriysk Ar.**	**56.88**	**12**	P	**P**	**03 54 38.7**	**-0.6**
ULN	**Ulaanbaatar**	**59.91**	**351**	P	**P**	**03 54 59.6**	**-1.1**
ULN				IAmb	IAmb	03 55 17.8	
	comp=Z,5.8nm,0.7s						
ULN	**Ulaanbaatar**	**59.91**	**351**	P	P	03 55 17.2	+17
SONM	**Songino Array**	**59.98**	**351**	P	**P**	**03 55 00.5**	**-0.6**
	comp=Z,5.0nm,0.7s,baz=170,slow=8.2,SNR=27						
	comp=Z,5.0nm,0.7s						
SONM	**Songino Array**	**59.98**	**351**	P	**P**	**03 55 00.6**	**-0.5**
SONM				IAmb	IAmb	03 55 18.7	
	comp=Z,7.9nm,0.9s						
HILR	**Hailar Array B**	**60.82**	**1**	P	**P**	**03 55 06.6**	**-0.1**
	comp=Z,3.5nm,0.6s,baz=186,slow=8.7,SNR=2.8						
	comp=Z,3.5nm,0.6s						
WMQ	**Urumqi**	**61.61**	**335**	*e*P	**P**	**03 55 12.5**	**+0.4**
WMQ				pmax	pmax		
	comp=Z,23nm,0.9s						
WUS	**Wushi**	**63.50**	**328**		**P**	**03 55 24.8**	**-0.1**
KSH2	**Kashi**	**64.05**	**324**	P	**P**	**03 55 28.3**	**-0.3**
KSH2				pP	pP	03 55 35.8	-1.8
KSH2				pmax	pmax		
	comp=Z,22nm,0.8s						
TARG	**Taragay, Kyrgy**	**64.61**	**328**	P	**P**	**03 55 31.7**	**-0.9**
TARG				IAmb	IAmb	03 55 40.8	
	comp=Z,5.5nm,0.8s						
SHLS	**Shalkode**	**64.81**	**330**	*e*P	**P**	**03 55 31.8**	**-1.6**
	comp=Z,4.3nm,0.7s						
PDGK	**Podgornoye**	**64.92**	**330**	P	**P**	**03 55 33.3**	**-0.9**
UZB	**Uzynbulak**	**65.02**	**329**	⇓*i*P	**P**	**03 55 34.6**	**-0.2**
	comp=Z,5.7nm,1.0s						
KBL	**Kabul**	**65.22**	**317**	P	**P**	**03 55 35.2**	**-1.2**
SATY	**Saty**	**65.26**	**329**	⇓*i*P	**P**	**03 55 36.3**	**-0.1**
	comp=Z,4.2nm,0.7s						
KPKS	**Kokpek**	**65.42**	**329**	*e*P	**P**	**03 55 37.1**	**-0.3**
ZSN	**Zaisan**	**65.72**	**336**	*e*P	**P**	**03 55 39.2**	**+0.1**
TNSS	**Tian-Shan**	**65.99**	**328**	*e*P	**P**	**03 55 41.0**	**-0.4**
MDOK	**Medeo**	**66.03**	**328**	*e*P	**P**	**03 55 41.1**	**-0.3**
AAA	**Alma-Ata**	**66.13**	**328**	*e*P	**P**	**03 55 41.7**	**-0.2**
BOOM	**Boomskoye usch**	**66.14**	**327**	P	**P**	**03 55 41.7**	**-0.4**
MKAR	**Makanchi Array**	**66.26**	**334**	P	**P**	**03 55 42.4**	**-0.3**
	comp=Z,11nm,0.4s,baz=147,slow=7.1,SNR=175						
	comp=Z,11nm,0.4s						
MKAR	**Makanchi Array**	**66.26**	**334**	P	**P**	**03 55 42.2**	**-0.4**
MAKZ	**Makanchi**	**66.41**	**334**	P	**P**	**03 55 43.5**	**-0.1**
MAKZ				IAmb	IAmb	03 55 43.9	
	comp=Z,5.2nm,0.6s						
TDK	**Taldyqorghan**	**66.68**	**330**	*e*P	**P**	**03 55 45.1**	**-0.2**
KUU	**Kurty**	**66.91**	**328**	*e*P	**P**	**03 55 46.6**	**-0.2**
AAK	**Ala-Archa**	**67.01**	**326**	P	**P**	**03 55 47.7**	**0.0**
AAK				IAmb	IAmb	03 55 48.7	
	comp=Z,7.8nm,0.9s						
SGDS	**Sogindy**	**67.49**	**327**	*e*P	**P**	**03 55 50.5**	**-0.1**
DZA	**Taraz**	**68.92**	**325**	*e*P	**P**	**03 55 59.5**	**0.0**
IUG	**Iuzhnay**	**69.19**	**324**	⇓*i*P	**P**	**03 56 01.3**	**0.0**
	comp=Z,4.5nm,0.6s						
KKAR	**Karatay Array**	**69.52**	**325**	P	**P**	**03 56 03.3**	**+0.1**
CHM	**Chimkent**	**69.55**	**324**	*e*P	**P**	**03 56 03.4**	**0.0**
VNDA	**Vanda**	**69.67**	**171**	P	**P**	**03 56 04.2**	**+0.5**
	comp=Z,1.1nm,0.8s,baz=319,slow=2.9,SNR=6.9						
	comp=Z,1.1nm,0.8s						
VNDA	**Vanda**	**69.67**	**171**	P	**P**	**03 56 04.1**	**+0.5**
VNDA				IAmb	IAmb	03 56 23.1	
	comp=Z,4.9nm,1.1s						
BRLS	**Borolday**	**69.86**	**324**	*e*P	**P**	**03 56 04.5**	**-0.8**
KURBB	**Kurchatov Arra**	**70.80**	**335**	P	**P**	**03 56 10.3**	**-0.5**
	comp=Z,7.1nm,0.6s,baz=147,slow=5.6,SNR=83						
	comp=Z,7.1nm,0.6s						
KURK	**Kurchatov**	**70.83**	**335**	P	**P**	**03 56 10.5**	**-0.5**
KURK				IAmb	IAmb	03 56 11.4	
	comp=Z,9.7nm,0.8s						
ZAA0	**Zalesovo Array**	**71.05**	**340**	P	**P**	**03 56 10.8**	**-1.4**
ZAA0				IAmb	IAmb	03 56 11.8	
	comp=Z,12nm,0.7s						
ZALV	**Zalesovo Beam**	**71.05**	**340**	P	**P**	**03 56 11.2**	**-1.0**
	comp=Z,13nm,0.6s,baz=145,slow=4.9,SNR=58						
	comp=Z,13nm,0.6s						
ZALV	**Zalesovo Beam**	**71.05**	**340**	P	**P**	**03 56 11.1**	**-1.2**
PETK	**Petropavlovsk-**	**72.75**	**24**	P	**P**	**03 56 21.8**	**-0.7**
	comp=Z,5.5nm,0.8s,baz=183,slow=5.9,SNR=4.2						
	comp=Z,5.5nm,0.8s						
PETK	**Petropavlovsk-**	**72.75**	**24**	P	**P**	**03 56 21.0**	**-1.5**
BVAR	**Borovoye Array**	**76.06**	**333**	P	**P**	**03 56 41.6**	**-0.1**
	comp=Z,2.0nm,0.5s,baz=132,slow=6.6,SNR=7.3						
	comp=Z,2.0nm,0.5s						
QSPA	**South Pole Qui**	**78.50**	**180**	P	**P**	**03 56 56.8**	**+1.3**
	comp=Z,1.2nm,1.0s,baz=272,slow=1.3,SNR=2.3						
	comp=Z,1.2nm,1.0s						
QSPA	**South Pole Qui**	**78.50**	**180**	P	**P**	**03 56 56.3**	**+0.8**
QSPA				IAmb	IAmb	03 57 14.1	
	comp=Z,5.7nm,1.1s						
AB31	**Akbulak array**	**79.06**	**325**	P	**P**	**03 56 58.4**	**-0.2**
AB31				IAmb	IAmb	03 56 59.5	
	comp=Z,7.2nm,1.1s						
ABKAR	**Akbulak array**	**79.06**	**325**	P	**P**	**03 56 58.3**	**-0.3**
KMBO	**Kilima Mbogo**	**80.73**	**271**	P	**P**	**03 57 10.3**	**+1.5**
	baz=101,slow=16						
BOSA	**Boshof**	**86.97**	**242**	P	**P**	**03 57 41.7**	**+1.4**
	comp=Z,1.5nm,0.8s,baz=55,slow=5.0,SNR=4.0						
	comp=Z,1.5nm,0.8s						
BOSA	**Boshof**	**86.97**	**242**	P	**P**	**03 57 40.1**	**-0.2**
PPT2	**Papeete2**	**88.83**	**108**	*e*LR	LR	04 26 06.8	
	comp=Z,48nm,23.5s						
PPT	**Papeete**	**88.83**	**108**	LR	LR	04 36 34.1	
	comp=Z,20nm,18.7s,baz=217,slow=35						
BRTR	**Keskin Array B**	**93.00**	**310**	P	**P**	**03 58 08.3**	**+0.1**
	comp=Z,1.3nm,0.8s,baz=120,slow=5.7,SNR=8.0						
	comp=Z,1.3nm,0.8s						
BRTR	**Keskin Array B**	**93.00**	**310**	P	**P**	**03 58 07.8**	**-0.5**
TORD	**Torodi Ar. Bea**	**117.92**	**279**	PKP	**PKiKP**	**04 03 42.5**	**+0.5**
	comp=Z,0.8nm,0.7s,baz=227,slow=1.0,SNR=5.6						
DBIC	**Dimbokro**	**123.47**	**270**	PKP	**PKiKP**	**04 03 53.4**	**+0.5**
	comp=Z,1.1nm,0.5s,baz=260,slow=1.9,SNR=4.6						
DBIC	**Dimbokro**	**123.47**	**270**		**PKiKP**	**04 03 53.0**	**+0.1**
LPAZ	**La Paz**	**151.72**	**167**	PKPbc	**PKiKP**	**04 04 52.2**	**+1.1**
	comp=Z,0.8nm,0.8s,baz=15,slow=7.3,SNR=3.7						
LPAZ	**La Paz**	**151.72**	**167**		**PKiKP**	**04 04 52.4**	**+1.3**

KRSC 28 03:56:17.2±2.6, 50°.43N×157°.83E, h52^{km}±24^{km}, Ml3.7, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	**1.12**	**284**	*e*P	Pn	03 56 37.4	+0.8
SKR				*e*S	Sn	03 56 50.6	-0.4
PAU	**Pauzhetka**	**1.22**	**329**	*e*P	Pn	03 56 40.0	+2.0
KDTR	**Khodutka, Kamc**	**1.39**	**6**	*e*P	Pn	03 56 41.9	+1.7
KDTR				*e*S	Sn	03 56 59.0	+1.6
RUS	**Russkaya**	**2.05**	**12**	*e*P	Pn	03 56 51.2	+2.0
MTVR	**Mutnovka**	**2.07**	**6**	*e*P	Pn	03 56 52.3	+2.7
MTVR				*e*S	Sn	03 57 16.7	+2.4
GRL	**Gorelyy**	**2.13**	**4**	*e*P	Pn	03 56 53.2	+2.7
KRMR	**Karymshinskiy**	**2.41**	**4**	*e*P	Pn	03 56 57.4	+3.3
DALK	**Dalny**	**2.67**	**12**	*e*P	Pn	03 57 00.1	+2.5
AVH	**Avacha**	**2.90**	**11**	*e*P	Pn	03 57 05.3	+4.5
KOK	**Koryaka**	**2.91**	**10**	*e*P	Pn	03 57 04.9	+3.9
KRX	**Arik**	**2.98**	**9**	*e*P	Pn	03 57 05.6	+3.6
SPN	**Mys Shipunski**	**3.00**	**26**	*e*P	Pn	03 57 06.3	+4.1
GNL	**Ganaly**	**3.27**	**1**	*e*P	Pn	03 57 10.6	+4.6
KBTR	**Krutoberegovo**	**6.51**	**25**	*e*P	Pn	03 57 51.2	+0.9

JMA ***28*** *04:02:55.4±0.3, 33˚N±1˚×13˚7E±˚, h380^{km}±2^{km}, MV3.4/65, SE OFF KII PENINSULA*

IDC ***28*** *04:02:56.6±0.6, 33°.21N×137°.30E, h375^{km}±6^{km}, mb3.4/27, mbtmp4.2/33, Error ellipse: s-maj=11.7km s-min=9.6km az=67.0*

NEIC ***28*** *04:02:57.0±1.5, 33°.24N±0°.09×137°.2E±0°.1, h374^{km}±7^{km}, mb4.1/44, Error ellipse: s-maj=14.1km s-min=11.6km az=146.0*

ISC 28 04:02:56.4±0.6, 33°.26N±0°.07×137°.32E±0°.05, h372^{km}±5^{km}, n135, σ1^{s}08/145, mb4.0/49, 1D, Near south coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TTO2	**TONANKAI O.B.S**	**0.54**	**333**	P	**Pn**	**04 03 44.0**	**+1.3**
TTO1	**TONANKAI O.B.S**	**0.58**	**309**	P	**Pn**	**04 03 43.9**	**+1.1**
TTO3	**TONANKAI O.B.S**	**0.61**	**6**	P	**Pn**	**04 03 44.3**	**+1.3**
TTO4	**TONANKAI O.B.S**	**0.77**	**14**	*e*P	**Pn**	**04 03 44.4**	**+1.1**

TTO5	**TONANKAI O.B.S**	**1.05**	**18**	P	**Pn**	**04 03 45.5**	**+1.1**
JIE	**Ise**	**1.24**	**336**	P	**Pn**	**04 03 45.9**	**+0.6**
JIE				S	**S**	**04 04 25.0**	**+0.1**
JKN2	**Miekihoku**	**1.31**	**319**	P	**Pn**	**04 03 46.0**	**+0.3**
JKN2				S	**S**	**04 04 25.1**	**-0.3**
JTNC	**Tanabenakahech**	**1.53**	**292**	P	**Pn**	**04 03 47.3**	**+0.4**
JTNC				S	**S**	**04 04 27.6**	**0.0**
JHJ	**Hachijo jima 2**	**2.07**	**93**	P	**Pn**	**04 03 51.2**	**+1.1**
	240nm,0.8s,baz=278,slow=16,SNR=6.2						
JHJ				S	**S**	**04 04 35.0**	**+1.5**
	123nm,0.2s,baz=244,slow=22,SNR=5.7						
JHJ2	**Mitsune**	**2.10**	**93**	Pn	**Pn**	**04 03 50.9**	**+0.6**
INU	**Inuyama**	**2.10**	**353**		**Pn**	**04 03 50.3**	**0.0**
JNY	**Yasuok**	**2.14**	**12**	P	**Pn**	**04 03 51.0**	**+0.3**
JGF	**Kuroka**	**2.34**	**1**	Pn	**Pn**	**04 03 51.9**	**-0.2**
JYTA	**Yamagatataniai**	**2.38**	**348**	P	**Pn**	**04 03 52.7**	**+0.4**
JAI	**Aioi**	**2.46**	**283**	P	**Pn**	**04 03 53.3**	**+0.4**
JAI				*e*S	**S**	**04 04 38.2**	**-0.3**
JWT	**Wachi**	**2.57**	**322**	P	**Pn**	**04 03 54.2**	**+0.5**
JWT				S	**S**	**04 04 39.6**	**-0.5**
JMN	**Monobe**	**2.91**	**280**	Pn	**Pn**	**04 03 57.4**	**+0.7**
JMN	**Monobe**	**2.91**	**280**	P	**Pn**	**04 03 57.4**	**+0.7**
BSO4	**Boso 4**	**3.04**	**55**	P	**Pn**	**04 03 56.7**	**-0.9**
JRY	**Ryogami san**	**3.05**	**25**	P	**Pn**	**04 03 57.7**	**0.0**
BSO3	**Boso 3**	**3.06**	**59**	P	**Pn**	**04 03 55.9**	**-1.7**
BSO3				S	**S**	**04 04 44.8**	**-2.3**
BSO1	**Boso 1**	**3.34**	**64**	P	**Pn**	**04 03 58.0**	**-1.7**
BSO1				*e*S	**S**	**04 04 48.1**	**-2.9**
MAJO	**Matsushiro**	**3.36**	**12**	Pn	**Pn**	**04 04 00.1**	**-0.4**
MAT	**Matsushiro**	**3.36**	**12**	P	**Pn**	**04 04 00.1**	**-0.5**
MAT				S	**S**	**04 04 51.1**	**-1.3**
JAG	**Ashikaga**	**3.62**	**28**	P	**Pn**	**04 04 01.7**	**-1.2**
JYT	**Yasato**	**3.79**	**38**	S	**S**	**04 04 54.0**	**-5.8**
JTO	**Tosashimizu**	**3.81**	**265**	P	**Pn**	**04 04 05.3**	**+0.4**
JHS	**Saijyo**	**3.90**	**298**	P	**Pn**	**04 04 06.4**	**+0.7**
JNA	**Nagahama**	**4.06**	**276**	*i* P	**Pn**	**04 04 08.0**	**+0.7**
JHO	**Hitachi**	**4.28**	**38**	*i* P	**Pn**	**04 04 07.5**	**-1.9**
JNU	**Nakatsue**	**5.40**	**270**	P	**Pn**	**04 04 22.2**	**+0.8**
	76nm,0.6s,baz=90,slow=13,SNR=62						
JSU	**Suzuyama**	**6.06**	**255**	Pn	**Pn**	**04 04 28.5**	**-0.3**
KSRS	**Korea Array**	**8.74**	**301**	P	**P**	**04 05 00.6**	**-0.2**
	20nm,0.7s,baz=112,slow=12,SNR=59						
TJN	**Taejon**	**8.76**	**294**		**Pn**	**04 04 59.2**	**-0.4**
KSAR	**Wonju Array Be**	**8.77**	**301**		**Pn**	**04 04 59.5**	**-0.2**
KS19	**Wonju Array Si**	**8.80**	**301**		**Pn**	**04 04 59.6**	**-0.6**
ERM	**Erimo**	**9.89**	**26**		**Pn**	**04 05 12.4**	**-0.5**
JOW	**Kunigami**	**10.12**	**233**		**Pn**	**04 05 15.4**	**-0.4**
ASAJ	**Asahikawa**	**11.60**	**19**	P	**Pn**	**04 05 33.1**	**+0.2**
	7.2nm,0.3s,baz=221,slow=9.3,SNR=6.0						
JKA	**Kamikawa-asahi**	**11.60**	**19**	P	**P**	**04 05 32.8**	**+0.4**
USRK	**Ussuriysk Ar.**	**11.69**	**341**	P	**P**	**04 05 33.9**	**+0.5**
	11nm,0.6s,baz=162,slow=12,SNR=19						
USRK	**Ussuriysk Ar.**	**11.69**	**341**	P	**P**	**04 05 33.1**	**-0.3**
YSS	**Yuzhno-Sakhali**	**14.29**	**15**	P	**Pn**	**04 06 05.2**	**+1.0**
NACB	**Ninganchiao**	**16.48**	**241**	P	**P**	**04 06 23.1**	**-3.0**
NACB				IAmb	IAmb	04 06 49.9	
	comp=Z,18nm,1.0s						
KLR	**Kul'dur**	**16.49**	**347**	P	**P**	**04 06 25.3**	**-0.5**
	comp=Z,3.4nm,0.4s,baz=175,slow=10,SNR=6.9						
BJT	**Baijiatuau**	**18.25**	**298**	P	**P**	**04 06 44.8**	**+0.1**
HEH	**HeiHe**	**18.49**	**340**	*e*P	**P**	**04 06 48.8**	**+1.6**
HEH				pmax	pmax		
	comp=Z,10.0nm,1.0s						
WHN	**Wuhan**	**19.68**	**268**	⇓P	**P**	**04 06 59.0**	**-0.7**
WHN				pmax	pmax		
	comp=Z,130nm,0.6s						
HILR	**Hailar Array B**	**20.86**	**327**	P	**P**	**04 07 10.1**	**-0.4**
	comp=Z,1.7nm,0.4s,baz=139,slow=13,SNR=1.9						
	comp=Z,1.7nm,0.4s						
ENH	**Enshi**	**23.82**	**270**	P	**P**	**04 07 36.9**	**-0.7**
SONM	**Songino Array**	**27.43**	**311**	P	**P**	**04 08 10.2**	**+0.7**
	comp=Z,1.4nm,0.6s,baz=133,slow=11,SNR=5.1						
	comp=Z,1.4nm,0.6s						
LZDM	**Lanzhou Array**	**27.73**	**285**	P	**P**	**04 08 12.8**	**+0.2**
	comp=Z,1.7nm,0.3s,baz=116,slow=6.9,SNR=4.2						
	comp=Z,1.7nm,0.3s						
AMKA	**Amchitka**	**35.34**	**46**	P	**P**	**04 09 20.3**	**+2.5**
CMAR	**Chiang Mai Arr**	**37.32**	**256**	P	**P**	**04 09 34.1**	**-0.7**
	comp=Z,0.9nm,0.3s,baz=45,slow=6.2,SNR=4.2						
	comp=Z,0.9nm,0.3s						
ZALV	**Zalesovo Beam**	**42.12**	**316**	P	**P**	**04 10 13.2**	**-0.2**
	comp=Z,1.1nm,0.4s,baz=91,slow=8.4,SNR=6.2						
ZALV				PcP	**PcP**	**04 11 59.6**	**-0.3**
	comp=Z,1.3nm,0.5s,baz=90,slow=4.4,SNR=6.4						
	comp=Z,1.1nm,0.4s						
ZALV	**Zalesovo Beam**	**42.12**	**316**	P	**P**	**04 10 13.5**	**+0.1**
MKAR	**Makanchi Array**	**43.40**	**305**	P	**P**	**04 10 24.0**	**+0.2**
	comp=Z,1.0nm,0.4s,baz=87,slow=9.6,SNR=18						
MKAR				PcP	**PcP**	**04 12 04.3**	**-0.2**
	comp=Z,0.3nm,0.4s,baz=86,slow=5.4,SNR=2.6						
	comp=Z,1.0nm,0.4s						
MKAR	**Makanchi Array**	**43.40**	**305**	P	**P**	**04 10 23.9**	**+0.1**
EVN	**Everest**	**43.45**	**277**	P	**P**	**04 10 24.4**	**-0.7**
NRIK	**Noril'sk**	**45.38**	**338**	P	**P**	**04 10 39.1**	**+0.3**
	comp=Z,5.5nm,0.4s,baz=106,slow=7.1,SNR=4.2						
	comp=Z,5.5nm,0.4s						
NRIK	**Noril'sk**	**45.38**	**338**	P	**P**	**04 10 38.9**	**+0.1**
PDGK	**Podgornoye**	**45.67**	**300**	P	**P**	**04 10 41.6**	**0.0**
KURK	**Kurchatov**	**45.73**	**311**	P	**P**	**04 10 41.1**	**-0.6**
KURBB	**Kurchatov Arra**	**45.79**	**311**	P	**P**	**04 10 42.1**	**-0.1**
	comp=Z,2.1nm,0.3s,baz=89,slow=9.0,SNR=48						
	comp=Z,2.1nm,0.3s						
F17K	**Baldwin Pennin**	**48.64**	**28**	P	**P**	**04 11 05.0**	**+1.3**
F17K				IAmb	IAmb	04 11 34.5	
	comp=Z,17nm,1.3s						
H18K	**Honhosa River**	**49.60**	**30**	P	**P**	**04 11 12.0**	**+1.0**
H18K				IAmb	IAmb	04 11 41.5	
	comp=Z,11nm,1.2s						
J19K	**Poorman**	**50.66**	**32**	P	**P**	**04 11 20.2**	**+1.4**
J19K				IAmb	IAmb	04 11 20.4	
	comp=Z,8.4nm,1.2s						
BVAR	**Borovoye Array**	**50.71**	**314**	P	**P**	**04 11 19.6**	**+0.2**
	comp=Z,2.7nm,0.5s,baz=94,slow=8.0,SNR=7.6						
	comp=Z,2.7nm,0.5s						
IMAR	**Indian Mountai**	**51.59**	**29**	P	**P**	**04 11 26.2**	**+0.6**
PPLA	**Purkeypile**	**52.17**	**33**	P	**P**	**04 11 31.8**	**+1.7**
KKAR	**Karatay Array**	**52.17**	**302**	P	**P**	**04 11 30.4**	**+0.1**
FITZ	**Fitzroy Crossi**	**52.27**	**194**	P	**P**	**04 11 30.9**	**-0.2**
	comp=Z,1.8nm,0.8s,baz=24,slow=7.5,SNR=7.3						
	comp=Z,1.8nm,0.8s						
FITZ	**Fitzroy Crossi**	**52.27**	**194**	P	**P**	**04 11 30.6**	**-0.6**
H22K	**Ishtalitna Cre**	**52.56**	**29**	P	**P**	**04 11 34.5**	**+1.8**
WB0	**Warramunga Arr**	**52.80**	**183**	P	**P**	**04 11 34.0**	**-0.9**
WB0				IAmb	IAmb	04 12 13.1	
	comp=Z,11nm,1.4s						
WRA	**Warramunga Arr**	**52.98**	**184**	P	**P**	**04 11 35.5**	**-0.8**
	comp=Z,1.1nm,0.8s,baz=359,slow=7.8,SNR=13						
	comp=Z,1.1nm,0.8s						
WRA	**Warramunga Arr**	**52.98**	**184**	P	**P**	**04 11 35.1**	**-1.2**
WR8	**Warramunga Arr**	**52.98**	**183**	P	**P**	**04 11 35.5**	**-0.8**
WR8				IAmb	IAmb	04 11 55.1	
	comp=Z,10nm,1.4s						
TRF	**Thorofare Moun**	**53.02**	**32**	P	**P**	**04 11 37.2**	**+1.0**
TRF				IAmb	IAmb	04 12 01.2	
	comp=Z,22nm,1.5s						
E23K	**Chandalar**	**53.31**	**27**	P	**P**	**04 11 39.8**	**+1.6**
E23K				IAmb	IAmb	04 11 40.9	
	comp=Z,8.2nm,0.8s						
D24K	**Happy Valley**	**53.63**	**25**	P	**P**	**04 11 41.4**	**+1.1**
C24K	**Franklin Bluff**	**53.69**	**25**	P	**P**	**04 11 42.2**	**+1.4**
H24K	**Noodor Dome**	**54.00**	**29**	P	**P**	**04 11 44.4**	**+1.3**
HDA	**Harding Lake**	**54.45**	**31**	P	**P**	**04 11 46.3**	**0.0**
HDA				IAmb	IAmb	04 11 48.0	
	comp=Z,7.2nm,1.1s						
ILAR	**Eielson Array**	**54.46**	**31**	P	**P**	**04 11 46.7**	**+0.3**
	comp=Z,1.1nm,0.6s,baz=283,slow=6.6,SNR=15						
	comp=Z,1.1nm,0.6s						
ILAR	**Eielson Array**	**54.46**	**31**	P	**P**	**04 11 46.5**	**+0.1**
SCM	**Sheep Creek Mo**	**54.48**	**34**	P	**P**	**04 11 47.5**	**+0.8**
E25K	**Arctic Village**	**54.83**	**27**	P	**P**	**04 11 50.3**	**+1.4**
F26K	**Sheenjek River**	**55.38**	**27**	P	**P**	**04 11 54.9**	**+2.0**
F26K				IAmb	IAmb	04 11 56.0	
	comp=Z,5.3nm,0.8s						
L26K	**Log Cabin Wild**	**56.19**	**33**	P	**P**	**04 11 59.8**	**+1.2**
L26K				IAmb	IAmb	04 12 00.9	
	comp=Z,6.8nm,0.8s						
K27K	**Chicken**	**56.61**	**31**	P	**P**	**04 12 02.9**	**+1.4**
ASAR	**Alice Springs**	**56.70**	**184**	P	**P**	**04 12 01.9**	**-0.7**
	comp=Z,0.3nm,0.5s,baz=16,slow=13,SNR=7.9						
	comp=Z,0.3nm,0.5s						
BCAR	**Beaver Creek A**	**56.88**	**32**	P	**P**	**04 12 05.0**	**+1.6**
I28M	**Miner Creek**	**57.31**	**30**	P	**P**	**04 12 07.6**	**+1.1**
I28M				IAmb	IAmb	04 12 08.8	
	comp=Z,7.3nm,1.1s						
AB31	**Akbulak array**	**57.84**	**311**	P	**P**	**04 12 10.0**	**-0.2**
AB31				IAmb	IAmb	04 12 10.5	
	comp=Z,5.0nm,0.4s						
ABKAR	**Akbulak array**	**57.84**	**311**	P	**P**	**04 12 10.0**	**-0.2**
M29M	**Somme Creek**	**58.50**	**33**	P	**P**	**04 12 16.9**	**+2.2**
I30M	**Mount Dempster**	**58.82**	**29**	P	**P**	**04 12 17.8**	**+1.0**
I30M				IAmb	IAmb	04 12 19.3	
	comp=Z,13nm,1.4s						
INK	**Inuvik**	**59.25**	**26**	P	**P**	**04 12 20.1**	**+0.6**
INK				IAmb	IAmb	04 12 21.5	
	comp=Z,5.7nm,1.1s						
C36M	**Paulatuk**	**62.24**	**23**	P	**P**	**04 12 40.1**	**+0.7**
C36M				IAmb	IAmb	04 12 40.6	
	comp=Z,12nm,1.0s						
ARCES	**ARCESS Array B**	**66.33**	**339**	P	**P**	**04 13 06.0**	**+0.3**
	comp=Z,3.1nm,0.5s,baz=66,slow=9.1,SNR=17						
	comp=Z,3.1nm,0.5s						
ARCES	**ARCESS Array B**	**66.33**	**339**	P	**P**	**04 13 06.0**	**+0.3**
YKA	**Yellowknife Ar**	**68.73**	**28**	P	**P**	**04 13 21.0**	**+0.3**
	comp=Z,1.6nm,0.8s,baz=299,slow=6.6,SNR=2.3						
	comp=Z,1.6nm,0.8s						
DAG	**Danmarks Havn**	**69.21**	**354**	*i* P	**P**	**04 13 23.9**	**+0.5**
DAG				IAmb	IAmb	04 13 24.4	
	comp=Z,5.5nm,0.8s						
NEEM	**North Greenlan**	**69.44**	**2**	*i* P	**P**	**04 13 26.2**	**+1.1**
NEEM				IAmb	IAmb	04 13 26.6	
	comp=Z,9.5nm,0.5s						
FIA1	**FINESS Array S**	**70.56**	**332**	P	**P**	**04 13 31.2**	**-0.5**
FINES	**FINESS Array B**	**70.56**	**332**	P	**P**	**04 13 31.6**	**-0.1**
	comp=Z,2.3nm,0.4s,baz=60,slow=6.1,SNR=32						
	comp=Z,2.3nm,0.4s						
FINES	**FINESS Array B**	**70.56**	**332**	P	**P**	**04 13 31.1**	**-0.6**
KBZ	**Khabaz**	**70.78**	**310**	P	**P**	**04 13 33.9**	**+0.5**
	comp=Z,2.5nm,0.8s,baz=96,slow=5.7,SNR=4.2						
	comp=Z,2.5nm,0.8s						
ILON	**Igloolik, Nuna**	**73.73**	**13**	P	**P**	**04 13 50.5**	**+0.3**
SUMG	**Summit**	**74.41**	**359**	P	**P**	**04 13 55.0**	**+0.5**
SUMG				IAmb	IAmb	04 13 56.8	
	comp=Z,5.2nm,0.7s						
SUMG	**Summit**	**74.41**	**359**	*i* P	P	04 14 02.9	+8.4
SUMG				IAmb	IAmb	04 14 03.5	
	comp=Z,5.9nm,0.6s						
AKASG	**Malin Array Be**	**75.18**	**321**	P	**P**	**04 13 58.5**	**-0.3**
	comp=Z,1.3nm,0.4s,baz=53,slow=5.8,SNR=7.3						
	comp=Z,1.3nm,0.4s						
AKBB	**Malin Array Si**	**75.18**	**321**	P	**P**	**04 13 58.5**	**-0.3**
AKBB				IAmb	IAmb	04 14 07.5	
	comp=Z,9.2nm,1.4s						
KIEV	**Kiev**	**75.19**	**321**	P	**P**	**04 13 58.6**	**-0.2**
KIEV				IAmb	IAmb	04 14 07.4	
	comp=Z,8.2nm,1.4s						
HFS	**Hagfors**	**76.10**	**335**	P	**P**	**04 14 03.4**	**-0.3**
	comp=Z,1.5nm,0.5s,baz=77,slow=6.7,SNR=11						
	comp=Z,1.5nm,0.5s						
NC405	**NORSAR Array S**	**76.10**	**336**	P	**P**	**04 14 03.4**	**-0.4**
NB2	**NORSAR Subarra**	**76.32**	**336**	P	**P**	**04 14 04.8**	**-0.2**
	comp=Z,0.7nm,0.5s,baz=44,slow=5.3						
NOA	**NORSAR Array B**	**76.32**	**336**	P	**P**	**04 14 04.8**	**-0.2**
	comp=Z,0.8nm,0.5s,baz=44,slow=5.5,SNR=9.7						
	comp=Z,0.8nm,0.5s						
BEKR	**Beckworth**	**77.83**	**50**	P	**P**	**04 14 14.7**	**+0.7**
BEKR				IAmb	IAmb	04 14 45.8	
	comp=Z,3.3nm,1.2s						
BRTR	**Keskin Array B**	**78.78**	**310**	P	**P**	**04 14 19.4**	**+0.3**
	comp=Z,1.2nm,0.7s,baz=128,slow=3.9,SNR=7.4						
	comp=Z,1.2nm,0.7s						
DLMT	**Dillon**	**79.38**	**42**	P	**P**	**04 14 22.8**	**+0.6**
DLMT				IAmb	IAmb	04 14 24.0	
	comp=Z,2.9nm,0.8s						
BOZ	**Bozeman (W)**	**79.78**	**42**	P	**P**	**04 14 24.9**	**+0.5**
NVAR	**Mina Array Bea**	**79.95**	**51**	P	**P**	**04 14 26.6**	**+1.2**
	comp=Z,0.5nm,0.6s,baz=297,slow=5.6,SNR=5.2						
	comp=Z,0.5nm,0.6s						
HVU	**Hansel Valley**	**81.44**	**45**	P	**P**	**04 14 33.6**	**+0.5**
HVU				IAmb	IAmb	04 14 35.2	
	comp=Z,2.1nm,0.8s						
VRAC	**Vranov**	**82.39**	**325**	P	**P**	**04 14 38.4**	**+0.7**
	comp=Z,1.9nm,0.5s,baz=60,slow=5.1,SNR=3.5						
	comp=Z,1.9nm,0.5s						
CLL	**Collm**	**82.62**	**328**	*i* P	**P**	**04 14 38.2**	**-0.6**
PDAR	**Pinedale Array**	**82.71**	**43**	P	**P**	**04 14 40.0**	**+0.3**
	comp=Z,0.3nm,0.6s,baz=300,slow=4.5,SNR=4.2						
	comp=Z,0.3nm,0.6s						
PDAR	**Pinedale Array**	**82.71**	**43**	P	**P**	**04 14 40.1**	**+0.4**
GERES	**GERESS Array B**	**84.07**	**326**	P	**P**	**04 14 46.0**	**-0.3**
	comp=Z,0.8nm,0.5s,baz=38,slow=5.0,SNR=7.9						
	comp=Z,0.8nm,0.5s						
GERES	**GERESS Array B**	**84.07**	**326**	P	**P**	**04 14 45.9**	**-0.4**
EKA	**Eskdalemuir Ar**	**85.49**	**339**	P	**P**	**04 14 52.4**	**-0.7**
	comp=Z,0.4nm,0.4s,baz=36,slow=4.9,SNR=4.8						
	comp=Z,0.4nm,0.4s						
DAVOX	**Davos/Dischmat**	**87.34**	**327**	P	**P**	**04 15 01.3**	**-1.0**
	comp=Z,1.6nm,0.6s,baz=260,slow=1.9,SNR=6.0						
	comp=Z,1.6nm,0.6s						
LPAZ	**La Paz**	**151.49**	**60**	PKPbc	**PKiKP**	**04 22 08.3**	**-0.2**
	comp=Z,0.6nm,0.7s,baz=239,slow=5.9,SNR=2.5						
LPAZ	**La Paz**	**151.49**	**60**	PKPbc	**PKPbc**	**04 22 05.1**	**-3.1**

SOF ***28*** *04:12:40.3, 39°.97N±0°.01×24°.38E±0°.01, h14^{km}±1^{km}, MD4.7/7*

IDC ***28*** *04:12:40.6±0.4, 39°.92N×24°.39E, h0^{km}, mb4.2/27, mbtmp4.3/41, ML4.1/13, MS3.9/63, Error ellipse: s-maj=8.3km s-min=7.5km az=163.0*

MOS ***28*** *04:12:40.1±1.1, 40°.02N×24°.40E, h10^{km}, mb4.7/25, MS4.0/11, Error ellipse: s-maj=4.9km s-min=2.8km az=87.3*

PDG ***28*** *04:12:41.2±0.6, 39°.95N×24°.32E, h24^{km}, ML4.8/10, Error ellipse: s-maj=0.5km s-min=0.6km az=0.0*

THE ***28*** *04:12:41.8, 40°.0N±1°.0×24°.3E±0°.9, h14^{km}±2^{km}, M4.7/27, MLh4.7/27*

ISK ***28*** *04:12:41.0, 40°.02N×24°.40E, h9^{km}, ML4.8/44*

MED_RC ***28*** *04:12:41.0, 39°.96N×24°.30E, h17^{km}, Mw4.7, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}-0.43±.05; $M_{\theta\theta}$1.49±.06; $M_{\phi\phi}$0.00±.04; $M_{r\theta}$0.50±.11; $M_{\theta\phi}$-0.61±.04; $M_{\phi r}$0.51±.09; Fault plane solution: $M_0$1.62000×10^{16} NP1:ϕ_s145.00000°,δ61.00000°, λ-14.00000°. NP2:ϕ_s242.00000°,δ77.00000°, λ-151.00000°. Principal axes: T 1.7000, Plg11.0000°, Azm11.0000°; N -0.1600, Plg58.0000°, Azm263.0000°; P -1.5400, Plg30.0000°, Azm107.0000°;*

AFAD ***28*** *04:12:41.5, 39°.97N×24°.40E, h38^{km}±1^{km}, MW4.6*

ATH ***28*** *04:12:41.5, 39°.95N×24°.28E, h18^{km}±1^{km}, ML4.7/18, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*

NEIC ***28*** *04:12:42.2±1.7, 40°.00N±0°.06×24°.38E±0°.06, h11^{km}±4^{km}, mb4.8/68, Error ellipse: s-maj=8.4km s-min=7.0km az=163.0*

GFZ ***28*** *04:12:43.1±0.2, 40°N±2°×2°4E±°, h10^{km}, M4.8/43, mb4.9/43*

GFZ ***28*** *04:12:43.3, 40°.01N×24°.37E, h10^{km}, Mw4.5/48, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}-1.43; $M_{\theta\theta}$7.43; $M_{\phi\phi}$-6.00; $M_{r\theta}$1.68; $M_{\theta\phi}$-0.08; $M_{\phi r}$0.72; Fault plane solution: $M_0$7.06799×10^{15} NP1: ϕ_s135.72156°,δ76.05549°,λ0.80632°. NP2:ϕ_s45.52724°, δ89.21744°,λ166.05416°. Principal axes: T 7.7366, Plg10.3731°, Azm359.7673°; N -1.6177, Plg76.0327°, Azm222.3791°; P -6.1189, Plg9.2500°, Azm91.4757°;*

GCMT ***28*** *04:12:44.2±0.3, 39°.89N±0°.02×24°.27E±0°.02, h17^{km}±1^{km}, MW4.8/92, Moment Tensor Solution. s9,c10; s92,c127; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.50±.08; $M_{\theta\theta}$1.60±.08; $M_{\phi\phi}$-1.10±.06; $M_{r\theta}$-0.19±.17; $M_{\theta\phi}$-0.77±.06; $M_{\phi r}$0.77±.20; Best double couple: $M_0$1.79300×10^{16} NP1:ϕ_s243.00000°,δ61.00000°,λ-164.00000°. NP2: ϕ_s146.00000°,δ76.00000°,λ-30.00000°. Principal axes: T 1.8690, Plg10.0000°, Azm197.0000°; N -0.1500, Plg58.0000°, Azm303.0000°; P -1.7160, Plg31.0000°, Azm101.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

CFUSG ***28*** *04:12:48.5, 40°.26N×24°.88E, h20^{km}, MD4.0/7, MSH3.5/7*

NAO ***28*** *04:12:49.7, 41°.00N×25°.08E, h10^{km}, MB4.3*

ISC 28 04:12:42.2±0.7**, 39°.98N**±0°.02×**24°.34E**±0°.01**, h14**^{km}±4^{km}**, n769,**σ1ş**62**/797**, mb4.7**/84**, MS4.0**/56**, 80C-26D, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OUR	**Ouranopolis**	**0.45**	**322**	P	**Pg**	**04 12 51.2**	**-0.1**
OUR				S	**Sg**	**04 12 56.8**	**-0.5**
OUR				AML	AML		
OUR	**Ouranopolis**	**0.45**	**322**	Pg	**Pg**	**04 12 51.1**	**-0.1**
OUR				Sg	**Sg**	**04 12 56.8**	**-0.5**
OUR				AML	AML		
OUR	**Ouranopolis**	**0.45**	**322**	P	**Pg**	**04 12 50.5**	**-0.7**
OUR				S	**Sg**	**04 12 56.9**	**-0.4**
PAIG	**Paliouri**	**0.51**	**265**	S	**Sg**	**04 12 58.1**	**-1.1**
PAIG	**Paliouri**	**0.51**	**265**	P	**Pg**	**04 12 51.5**	**-0.8**
LMN1	**MIRINA LIMNOU**	**0.56**	**100**	P	**Pb**	**04 12 53.6**	**-0.1**
LMN1				S	**Sb**	**04 13 01.9**	**+0.3**
LMN1				AML	AML		
LIA	**Limnos Island**	**0.65**	**97**	P	**Pb**	**04 12 55.0**	**-0.3**
LIA				S	**Sb**	**04 13 05.1**	**+0.9**
LIA				AML	AML		
LIA	**Limnos Island**	**0.65**	**97**	P	**Pb**	**04 12 55.0**	**-0.3**
LIA				S	**Sb**	**04 13 05.2**	**+1.0**
EFSA	**Agios Efstrati**	**0.66**	**131**	P	**Pg**	**04 12 54.9**	**-0.2**
EFSA				S	**Sb**	**04 13 04.4**	**-0.1**
THAS	**Thassos island**	**0.69**	**24**	S	**Sb**	**04 13 05.9**	**+0.4**
THAS				AML	AML		
THAS	**Thassos island**	**0.69**	**24**	P	**Pg**	**04 12 55.0**	**-0.7**
THAS				S	**Sb**	**04 13 06.0**	**+0.6**
THS1	**Thassos, Thass**	**0.78**	**13**	P	**Pg**	**04 12 57.0**	**-0.4**
THS1				S	**Sb**	**04 13 08.3**	**+0.3**
PLG	**Polygyros**	**0.79**	**300**	P	**Pg**	**04 12 56.7**	**-0.9**
PLG				S	**Sg**	**04 13 07.4**	**-0.7**
PLG				AML	AML		
PLG	**Polygyros**	**0.79**	**300**	P	**Pg**	**04 12 56.6**	**-1.1**
AOS	**Alonnisos**	**0.88**	**204**	P	**Pg**	**04 12 58.1**	**-1.2**
AOS				S	**Sg**	**04 13 10.6**	**-0.2**
AOS				AML	AML		
AOS2	**Alonissos-2**	**0.91**	**205**	P	**Pg**	**04 12 57.5**	**-2.4**
KAVA	**Kavala**	**1.03**	**7**	P	**Pb**	**04 13 01.1**	**-0.6**
KAVA				S	**Sn**	**04 13 16.2**	**-0.1**
KAVA				AML	AML		
KAVA	**Kavala**	**1.03**	**7**	P	**Pb**	**04 13 00.6**	**-1.1**
KAVA				S	**Sg**	**04 13 15.3**	**-0.2**
SMTH	**Samothraki Isl**	**1.03**	**61**	P	**Pb**	**04 13 00.9**	**-1.0**
SMTH				S	**Sn**	**04 13 16.9**	**+0.3**
SMTH				AML	AML		
SMTH	**Samothraki Isl**	**1.03**	**61**	P	**Pb**	**04 13 01.0**	**-0.9**
SMTH				S	**Sg**	**04 13 15.6**	**-0.2**
XOR	**Xorichti**	**1.08**	**236**	P	**Pb**	**04 13 00.9**	**-1.7**
XOR				S	**Sb**	**04 13 15.5**	**-1.0**
XOR				AML	AML		
XOR	**Xorichti**	**1.08**	**236**	P	**Pb**	**04 13 00.6**	**-2.0**
XOR				S	**Sb**	**04 13 14.8**	**-1.7**
XOR				AML	AML		
XOR	**Xorichti**	**1.08**	**236**	P	**Pb**	**04 13 00.9**	**-1.7**
SOH	**Sokhos**	**1.13**	**319**	P	**Pb**	**04 13 03.0**	**-0.6**
SOH				S	**Sb**	**04 13 17.6**	**-0.6**
SOH				AML	AML		
SOH	**Sokhos**	**1.13**	**319**	P	**Pb**	**04 13 02.9**	**-0.7**
SOH				S	**Sb**	**04 13 17.0**	**-1.2**
SOH	**Sokhos**	**1.13**	**319**	P	**Pb**	**04 13 03.1**	**-0.5**
GADA	**Gvkgeada**	**1.21**	**79**	P	**Pn**	**04 13 04.0**	**-0.8**
GADA				S	**Sg**	**04 13 21.2**	**-0.1**
GADA				AML	AML		
GADA	**Gvkgeada**	**1.21**	**79**	Pn	**Pn**	**04 13 03.9**	**-0.8**
GADA				Sn	**Sn**	**04 13 20.4**	**-0.5**
GADA				AML	AML		
GOAD	**anakkale-G¶**	**1.22**	**81**	P	**Pn**	**04 13 04.0**	**-0.8**
GOAD				S	**Sb**	**04 13 19.9**	**-0.7**
GOAD				IAML		04 13 23.0	
	comp=E,1µm,0.4s						
GOKC	**Gokceada-Canak**	**1.23**	**79**	Pn	**Pn**	**04 13 04.1**	**-0.8**
GOKC				Sn	**Sg**	**04 13 21.2**	**-0.7**
GOKC				AML	AML		
VOL2	**Volos**	**1.23**	**241**	P	**Pn**	**04 13 03.9**	**-1.1**
THE	**Thessaloniki**	**1.24**	**302**	P	**Pn**	**04 13 04.3**	**-0.8**
THE				S	**Sb**	**04 13 20.4**	**-0.8**
THE				AML	AML		
THE	**Thessaloniki**	**1.24**	**302**	P	**Pn**	**04 13 04.1**	**-1.0**
THE				S	**Sb**	**04 13 19.2**	**-2.0**
THE	**Thessaloniki**	**1.24**	**302**	P	**Pn**	**04 13 04.1**	**-1.0**
SRS	**Serrai**	**1.27**	**334**	P	**Pn**	**04 13 04.7**	**-0.9**
SRS				AML	AML		
SRS	**Serrai**	**1.27**	**334**	P	**Pn**	**04 13 04.5**	**-1.1**
SRS				AML	AML		
SRS	**Serrai**	**1.27**	**334**	P	**Pn**	**04 13 04.7**	**-0.9**
BOZC	**Bozcaada**	**1.32**	**95**	Pn	**Pn**	**04 13 05.7**	**-0.5**
BOZC				Sn	**Sn**	**04 13 23.7**	**+0.1**
BOZC				AML	AML		
BOZC	**Bozcaada**	**1.32**	**95**	P	**Pn**	**04 13 04.8**	**-1.4**
BOZC				P	**Pb**	**04 13 05.1**	**-1.7**
KYMI	**Kymi, Euboea I**	**1.35**	**188**	P	**Pn**	**04 13 05.1**	**-1.6**
KYMI				AML	AML		
KYMI	**Kymi, Euboea I**	**1.35**	**188**	P	**Pn**	**04 13 05.0**	**-1.6**
KYMI				AML	AML		
MRKA	**Markates**	**1.40**	**205**	P	**Pn**	**04 13 05.5**	**-1.8**
ECEA	**Canakkale, Ece**	**1.41**	**87**	P	**Pn**	**04 13 07.5**	**+0.2**
ECEA				S	**Sb**	**04 13 25.7**	**-0.4**
ECEA				IAML		04 13 29.0	
	comp=N,1µm,0.5s						
NVR	**Nevrokopi**	**1.42**	**345**	P	**Pn**	**04 13 06.5**	**-1.1**
NVR				AML	AML		
NVR	**Nevrokopi**	**1.42**	**345**	P	**Pn**	**04 13 06.6**	**-1.1**
NVR				AML	AML		
KOCA	**Canakkale, Ayv**	**1.46**	**108**	P	**Pn**	**04 13 07.3**	**-0.9**
GPNR	**Gulpinar-Canak**	**1.48**	**110**	Pn	**Pn**	**04 13 08.2**	**-0.1**
GPNR				AML	AML		
ENZZ	**Sultanice-Enez**	**1.51**	**65**	Pn	**Pn**	**04 13 08.3**	**-0.5**
ENZZ				AML	AML		
EZN	**Ezine**	**1.53**	**95**	P	**Pn**	**04 13 08.5**	**-0.6**
EZN				AML	AML		
EZN	**Ezine**	**1.53**	**95**	Pn	**Pn**	**04 13 08.7**	**-0.4**
EZN				AML	AML		
GINA	**Giannouli**	**1.54**	**259**	P	**Pn**	**04 13 08.1**	**-1.0**
CAVK	**Edirne/Enez-Ca**	**1.57**	**62**	P	**Pn**	**04 13 08.6**	**-0.9**
CAVK				S	**Sg**	**04 13 33.1**	**+0.4**
CAVK				IAML		04 13 36.0	
	comp=E,3µm,1.0s						
CAVK	**Edirne/Enez-Ca**	**1.57**	**62**	⇓P	**Pn**	**04 13 09.0**	**-0.6**
EZNE	**Ezine-Canakkal**	**1.57**	**97**	Pn	**Pn**	**04 13 09.4**	**-0.2**
EZNE				Sn	**Sb**	**04 13 30.3**	**-0.4**
CNKL	**anakkale-Mer**	**1.57**	**86**	P	**Pn**	**04 13 08.6**	**-1.0**
CNKL				P	**Pb**	**04 13 09.2**	**-1.8**
ENEZ	**Enez**	**1.58**	**61**	P	**Pn**	**04 13 08.6**	**-1.1**
ENEZ	**Enez**	**1.58**	**61**	Pn	**Pn**	**04 13 08.9**	**-0.8**
ENEZ				AML	AML		
ALN	**Alexandroupoli**	**1.59**	**54**	P	**Pn**	**04 13 09.0**	**-0.9**
ALN				AML	AML		
ALN	**Alexandroupoli**	**1.59**	**54**	Pn	**Pn**	**04 13 09.3**	**-0.6**
ALN				AML	AML		
ALN	**Alexandroupoli**	**1.59**	**54**	P	**Pn**	**04 13 08.4**	**-1.5**
ALN	**Alexandroupoli**	**1.59**	**54**		**Pn**	**04 13 08.4**	**-1.5**
ALN	**Alexandroupoli**	**1.59**	**54**	P	**Pn**	**04 13 08.9**	**-1.1**
ALN				AML	AML		
ALN	**Alexandroupoli**	**1.59**	**54**	P	**Pn**	**04 13 09.0**	**-0.9**
MMB	**Musomishta**	**1.63**	**344**	P	**Pn**	**04 13 10.2**	**-0.4**
MMB				AML	AML		
MMB	**Musomishta**	**1.63**	**344**	*i* P	**Pn**	**04 13 10.2**	**-0.4**
MMB				S	**Sb**	**04 13 32.5**	**-0.1**
ATAL	**Atalanti**	**1.64**	**219**	P	**Pn**	**04 13 09.0**	**-1.6**
COMU	**Canakkale**	**1.64**	**85**	Pn	**Pn**	**04 13 10.0**	**-0.6**
COMU				AML	AML		
TYRN	**Tyrnavos**	**1.65**	**261**	P	**Pn**	**04 13 09.5**	**-1.1**
TYRN				AML	AML		
TYRN	**Tyrnavos**	**1.65**	**261**	P	**Pn**	**04 13 09.7**	**-0.9**
TYRN				AML	AML		
PRK	**Paraskevi**	**1.66**	**115**	P	**Pn**	**04 13 10.7**	**-0.2**
PRK				AML	AML		
PRK	**Paraskevi**	**1.66**	**115**	P	**Pn**	**04 13 10.4**	**-0.4**
LKR	**Lokris**	**1.68**	**219**	P	**Pn**	**04 13 09.8**	**-1.4**
LKR	**Lokris**	**1.68**	**219**	P	**Pn**	**04 13 09.7**	**-1.5**
GELI	**Tayfur-Gelibol**	**1.69**	**75**	Pn	**Pn**	**04 13 10.6**	**-0.6**
GELI				Sn	**Sn**	**04 13 32.4**	**-0.2**
GELI				AML	AML		
BAYC	**CANAKKALE_Bayr**	**1.71**	**97**	P	**Pn**	**04 13 10.8**	**-0.8**
RZN	**Rozhen**	**1.74**	**10**	P	**Pn**	**04 13 11.9**	**-0.3**
RZN				AML	AML		
RZN	**Rozhen**	**1.74**	**10**	*i* P	**Pn**	**04 13 11.8**	**-0.3**
GRG	**Griva**	**1.78**	**304**	P	**Pn**	**04 13 12.2**	**-0.3**
GRG				AML	AML		
GRG	**Griva**	**1.78**	**304**	P	**Pn**	**04 13 12.6**	**+0.1**
AXAR	**Agios Charalam**	**1.78**	**228**	P	**Pn**	**04 13 11.5**	**-1.0**
AXAR				AML	AML		
AXAR	**Agios Charalam**	**1.78**	**228**	P	**Pn**	**04 13 11.0**	**-1.5**
AXAR				AML	AML		
ERIK	**Erikli-Kesan**	**1.80**	**67**	Pn	**Pn**	**04 13 11.9**	**-0.8**

ERIK				AML	AML		
KDZ	Kurdzhali	1.82	24	P	Pn	04 13 12.5	-0.5
KDZ				AML	AML		
KDZ	Kurdzhali	1.82	24	Pn	Pn	04 13 12.5	-0.5
KDZ				AML	AML		
KDZ	Kurdzhali	1.82	24	*i* P	Pn	04 13 12.1	-0.9
KDZ				S	Sg	04 13 40.8	+0.1
AGG	Agios Georgios	1.82	239	P	Pn	04 13 11.4	-1.8
AGG				AML	AML		
AGG	Agios Georgios	1.82	239	P	Pn	04 13 11.8	-1.4
LAM2	Lamia	1.83	235	P	Pn	04 13 11.2	-1.9
THL	Klokotos Trika	1.84	258	P	Pn	04 13 12.2	-1.2
THL				AML	AML		
THL	Klokotos Trika	1.84	258	P	Pn	04 13 12.1	-1.2
GOKT	Kean, EDRN	1.88	68	P	Pn	04 13 12.5	-1.3
GOKT				S	Sn	04 13 36.1	-1.2
GOKT				IAML		04 13 45.0	
	comp=E,1µm,1.0s						
LPK	Lapseki	1.89	77	Pn	Pn	04 13 13.6	-0.5
LPK				AML	AML		
STFN	Stefani	1.90	199	P	Pn	04 13 13.0	-1.2
STFN				AML	AML		
VAY	Valandovo	1.90	315	*i* Pn	Pn	04 13 13.6	-0.6
DION	Dionisos Attik	1.92	190	P	Pn	04 13 12.8	-1.7
DION	Dionisos Attik	1.92	190	P	Pn	04 13 12.5	-2.0
DION				AML	AML		
SFL1	Soufli	1.92	50	P	Pn	04 13 14.1	-0.4
AYVA	Ayvalik	1.93	109	P	Pn	04 13 14.4	-0.2
LAPS	Lapseki, ANA	1.93	81	P	Pn	04 13 14.4	-0.3
LAPS				S	Sn	04 13 36.9	-1.9
LAPS				IAML		04 13 46.0	
	comp=N,4µm,0.6s						
KARY	Karystos	1.94	178	P	Pn	04 13 13.7	-1.1
VIL2	Platees	1.95	206	P	Pn	04 13 13.5	-1.4
VIL2				AML	AML		
PTL	Penteli	1.96	191	P	Pn	04 13 13.4	-1.7
PTL	Penteli	1.96	191	P	Pn	04 13 13.3	-1.7
KESN	Edirne-Kesan	1.98	64	P	Pn	04 13 14.1	-1.4
KESN				S	Sn	04 13 37.7	-2.6
KESN				IAML		04 13 49.0	
	comp=E,5µm,0.3s						
EAG2	Marmaro, Chios	1.98	136	P	Pn	04 13 15.0	-0.2
KZN	Kozani	2.00	280	P	Pn	04 13 15.3	-0.3
KZN	Kozani	2.00	280	P	Pn	04 13 14.9	-0.7
ATHP	Athens-Neo Psi	2.02	193	P	Pn	04 13 13.9	-1.9
ATHP				AML	AML		
ELFA	Athens-Elefsin	2.03	198	P	Pn	04 13 14.8	-1.1
ELFA				AML	AML		
ATH5	Athens Parliam	2.05	193	P	Pn	04 13 14.0	-2.3
ATHU	Athens Univers	2.05	192	P	Pn	04 13 14.3	-1.9
NOAC	Athens-Thissio	2.06	194	P	Pn	04 13 15.0	-1.3
NOAC				AML	AML		
ATH	Athens Observa	2.06	194	P	Pn	04 13 14.5	-1.8
ATH				AML	AML		
KARB	zmir-Karabur	2.07	129	P	Pn	04 13 15.5	-1.0
KKB	Krupnik	2.08	334	*i* P	Pn	04 13 17.0	+0.4
CANM	Can-anakkale	2.08	88	Pn	Pn	04 13 16.8	+0.1
CANM				AML	AML		
UKOP	Uzunkopru-Edir	2.09	56	Pn	Pn	04 13 16.9	+0.1
UKOP				AML	AML		
YAYO	Edremit-Balk	2.13	99	Pn	Pn	04 13 17.6	+0.2
YAYO				AML	AML		
BUHA	Balikesir, Bur	2.16	102	P	Pn	04 13 17.7	-0.1
VLY	Voula,Athens	2.16	192	P	Pn	04 13 16.1	-1.7
VLY				AML	AML		
BIGA	Biga-Canakkale	2.17	81	Pn	Pn	04 13 18.0	+0.1
DKL	Dikili	2.18	114	Pn	Pn	04 13 18.3	+0.3
DKL				AML	AML		
DKL	Dikili	2.18	114	P	Pn	04 13 17.8	-0.2
PLD	Plovdiv	2.19	8	Pn	Pn	04 13 18.3	+0.1
PLD				AML	AML		
PLD	Plovdiv	2.19	8	P	Pn	04 13 17.9	-0.3
KRBN	Karaburun	2.20	128	Pn	Pn	04 13 18.6	+0.3
KRBN				AML	AML		
LTK	Loutraki	2.23	209	P	Pn	04 13 17.2	-1.4
EVR	Evrytania	2.23	242	P	Pn	04 13 17.6	-1.2
EVR				AML	AML		
YENI	Yenice-Canakka	2.23	90	Pn	Pn	04 13 18.9	+0.2
CESE	eme	2.24	137	Pn	Pn	04 13 18.5	-0.3
CESE				AML	AML		
FOCM	Foa	2.24	123	Pn	Pn	04 13 18.5	-0.3
FOCM				AML	AML		
LOUT	Loutraki	2.25	209	P	Pn	04 13 17.3	-1.8
LOUT				AML	AML		
DIM	Dimitrovgrad	2.27	24	P	Pn	04 13 19.5	+0.3
RKY	Sarkoy-Tekirda	2.28	71	Pn	Pn	04 13 18.8	-0.7
RKY				AML	AML		
SART	Tekirdag	2.28	71	P	Pn	04 13 18.5	-1.0
KRBG	Karabiga-Canak	2.30	79	Pn	Pn	04 13 19.8	+0.1
KRBG				AML	AML		
ANX	Ano Chora	2.33	234	P	Pn	04 13 19.4	-0.8
ZEDA	zmir-Bergama	2.34	115	P	Pn	04 13 19.6	-0.6
BAGT	Foa	2.35	123	P	Pn	04 13 19.6	-0.7
GAZK	Gazikoy-TEKIRD	2.41	70	Pn	Pn	04 13 20.8	-0.3
GAZK				AML	AML		
ZEYE	Izmir, Urla-Ze	2.42	135	P	Pn	04 13 20.7	-0.5
ATIT	Gnen	2.48	86	P	Pn	04 13 22.4	+0.3
MADA	Marmara adas	2.53	75	P	Pn	04 13 24.0	+1.2
BALY	Balya	2.53	94	P	Pn	04 13 22.9	0.0
BALY	Balya	2.53	94	P	Pn	04 13 23.1	+0.2
GONE	Gonen-Balikesi	2.57	87	Pn	Pn	04 13 23.7	+0.4
GONE				AML	AML		
SOMA	Soma-Manisa	2.60	107	Pn	Pn	04 13 24.5	+0.7
SOMA				AML	AML		
CAMT	Merkez	2.61	117	P	Pn	04 13 23.2	-0.7
EDRB	Edirne	2.61	43	Pn	Pn	04 13 23.2	-0.7
EDRB				AML	AML		
BLCB	Balcova	2.63	126	Pn	Pn	04 13 24.8	+0.6
BLCB				AML	AML		
MURA	Muratl, TEK	2.67	63	P	Pn	04 13 24.3	-0.4
MURA				S	Sg	04 14 07.1	-0.8
MURA				IAML		04 14 15.0	
	comp=N,4µm,0.9s						
EDC	Edincik	2.72	81	Pn	Pn	04 13 25.3	-0.2
EDC				AML	AML		
BALB	Balikesir	2.75	96	Pn	Pn	04 13 26.1	+0.3
BALB				AML	AML		
BALB	Balikesir	2.75	96		Pn	04 13 25.4	-0.4
GMLD	Gumuldur	2.76	133	Pn	Pn	04 13 26.4	+0.5
GMLD				AML	AML		
KIRK	Kırklareli	2.76	48	P	Pn	04 13 26.2	+0.2
VTS	Vitosha	2.77	343	*i* P	Pn	04 13 26.6	+0.3
BKES	Balkesir-Mer	2.77	94	P	Pn	04 13 25.9	-0.2
CMHT	Manyas	2.79	88	P	Pn	04 13 25.7	-0.7
CMHT				S	Sb	04 14 07.9	+2.2
CMHT				IAML		04 14 15.0	
	comp=N,4µm,0.8s						
KBN	Korca	2.79	285	P	Pn	04 13 27.5	+1.0
CRLT	Corlu	2.83	65	Pn	Pn	04 13 26.9	-0.1
CRLT				AML	AML		
SUSR	Susurluk-Balik	2.88	89	Pn	Pn	04 13 27.9	+0.3
SUSR				AML	AML		
AKS	Akhisar	2.90	111	Pn	Pn	04 13 28.1	+0.1
AKS				AML	AML		
AKHS	Akhisar	2.90	111	P	Pn	04 13 27.9	-0.1
BAND	Balkesir-Ban	2.90	81	P	Pn	04 13 28.1	+0.2
BAND	Balkesir-Ban	2.90	81	⇑P	Pn	04 13 27.8	-0.1
PHSR	Pinarhisar	2.93	55	Pn	Pn	04 13 28.1	-0.2
PHSR				AML	AML		
OHR	Ohrid	2.93	294	*i* Pn	Pn	04 13 29.6	+1.2
BOTS	Marmara Eregli	2.95	69	Pn	Pn	04 13 28.6	0.0
BOTS				AML	AML		
SKO	Skopje	2.97	313	*i* Pn	Pn	04 13 29.0	+0.2
ARMN	Kirklareli, Me	3.00	50	P	Pn	04 13 30.3	+1.0
JMB	Yambol	3.01	33	Pn	Pn	04 13 29.3	-0.1
JMB	Yambol	3.01	33	P	Pn	04 13 28.8	-0.6
GOMA	Golmarmara-Man	3.05	113	Pn	Pn	04 13 30.6	+0.7
GOMA				AML	AML		
KCTX	Karacabey (Bur	3.09	83	Pn	Pn	04 13 30.7	+0.1
KCTX				AML	AML		
VIZE	Kirklareli, Vi	3.10	58	P	Pn	04 13 28.9	-1.7
GORD	Gordes-Manisa	3.15	109	Pn	Pn	04 13 32.1	+0.6
GORD				AML	AML		
SLVT	Silivri	3.20	66	Pn	Pn	04 13 32.0	0.0
SLVT				AML	AML		
DURS	Dursunbey	3.21	95	P	Pn	04 13 31.7	-0.5
PVL	Pavlikeni	3.21	11	*i* P	Pn	04 13 32.4	+0.3
IMRA	Mudanya	3.26	78	P	Pn	04 13 33.1	+0.3
ELBA	Catalca	3.33	68	P	Pn	04 13 32.5	-1.3
SRN	Sarande	3.34	270	P	Pb	04 13 38.5	-2.7
CTYL	Yalikoy Yolu	3.35	62	Pn	Pn	04 13 34.1	0.0
CTYL				AML	AML		
ITM	Ithomi	3.37	215	Pn	Pn	04 13 34.8	+0.4
ITM				AML	AML		
ITM	Ithomi	3.37	215	Pn	Pn	04 13 34.0	-0.4
ITM	Ithomi	3.37	215	P	Pn	04 13 35.2	+0.8
MPEP	Malo Peshtene	3.41	353	P	Pn	04 13 35.8	+0.9
PLVB	Pleven	3.42	3	⇑P	Pn	04 13 35.5	+0.5
PHP	Peshkopia	3.42	301	P	Pn	04 13 37.1	+2.0
SZH	Strazhitsa	3.51	20	*i* P	Pn	04 13 36.6	+0.3
KEK	Kerkira	3.51	267	Pn	Pn	04 13 38.7	+2.4
KEK				AML	AML		
KEK	Kerkira	3.51	267	Pn	Pn	04 13 36.5	+0.3
MANT	Manisa	3.59	113	Pn	Pn	04 13 37.5	-0.2
ZIMR		3.76	11	P	Pn	04 13 39.9	+0.3
ZIMR		3.76	11	⇑P	Pn	04 13 40.0	+0.3
VALD	Valchedram	3.77	350	P	Pn	04 13 39.7	-0.2
LOZB	Loznitsa	3.79	26	⇑P	Pn	04 13 40.2	+0.1
BDRM	Kayabasi	3.79	139	⇑P	Pn	04 13 40.8	+0.6
KTHA	Kythira Island	3.85	196	P	Pn	04 13 40.2	-0.7
RAZG	Razgrad	3.94	24	⇑P	Pn	04 13 42.0	-0.1
VLAD	Vladila	4.02	1	⇑P	Pn	04 13 43.6	+0.3
BOVS	Bovan	4.15	333	⇑P	Pn	04 13 44.8	-0.3
COPA	Copaceanca	4.21	9	⇓P	Pn	04 13 45.8	-0.1
PVY	Plav	4.21	310	⇓*i*Pn	Pn	04 13 47.0	+0.9
ULC	Ulcinj	4.34	299	*e*Pn	Pn	04 13 47.7	0.0
ULC				*e*Sn	Sn	04 14 35.5	-2.6
ULC				AML	AML		
CRAR	CRAIOVA	4.37	355	P	Pn	04 13 48.2	+0.2
CRAR	CRAIOVA	4.37	355	⇑P	Pn	04 13 48.3	+0.2
TAVA	DENIZLI_Tavas	4.37	124	⇓P	Pn	04 13 49.1	+0.9
IVA	Berane	4.42	312	⇑*i*Pn	Pn	04 13 50.0	+1.1
IVA				*e*Sn	Sn	04 14 37.6	-2.6
IVA				AML	AML		
DRME	Dracevica, Mon	4.48	301	*e*Pn	Pn	04 13 50.8	+1.2
DRME				*e*Sn	Sn	04 14 38.6	-2.9
DRME				AML	AML		
IMMV	Iera Moni Meta	4.52	184	P	Pn	04 13 51.2	+1.0
PDG	Podgorica	4.55	304	Pn	Pn	04 13 52.3	+1.6
PDG	Podgorica	4.55	304	*e*Pn	Pn	04 13 51.5	+0.9
PDG	Podgorica	4.55	304	⇑*i*Pn	Pn	04 13 50.3	-0.3
PDG				*i* Sn	Sn	04 14 40.7	-2.6
PDG				AML	AML		
HUMR	Humele	4.57	6	⇑P	Pn	04 13 50.9	0.0
HUMR	Humele	4.57	6	P	Pn	04 13 50.8	-0.1
KALB	Balgarevo	4.59	40	⇑P	Pn	04 13 51.7	+0.6
KOME	Kolasin	4.63	310	*e*Pn	Pn	04 13 51.9	+0.1
KOME				*i* Sn	Sn	04 14 42.3	-3.0
KOME				AML	AML		
SJES	Sjenica	4.64	316	*e*Pn	Pn	04 13 51.7	-0.2
BORA	Eskisehir	4.70	89	Pn	Pn	04 13 52.3	-0.4
IDI	Anoyia	4.70	175	Pn	Pn	04 13 52.0	-0.7
	30nm,0.3s,baz=338,slow=13,SNR=59						
IDI	Anoyia	4.70	175	Pn	Pn	04 13 51.0	-1.7
BUM	Brajici-Budva	4.72	301	*e*Pn	Pn	04 13 52.7	-0.4
BUM				*e*Sn	Sn	04 14 45.0	-2.6
BUM				AML	AML		
ARG	Arkhangelos	4.79	140	P	Pn	04 13 53.8	-0.2
ARG	Arkhangelos	4.79	140	Pn	Pn	04 13 53.8	-0.2
ARG	Arkhangelos	4.79	140	P	Pn	04 13 54.6	+0.6
CEME	Cevo	4.83	304	*e*Pn	Pn	04 13 55.5	+1.0
CEME				*i* Sn	Sn	04 14 47.8	-2.4
CEME				AML	AML		
SULR		4.91	16	P	Pn	04 13 56.1	+0.6
MANR	Mangalia	4.98	38	⇑P	Pn	04 13 56.6	+0.2
PLE	Pljevlja	5.00	314	*e*Pn	Pn	04 13 57.0	+0.1
PLE				*i* Sn	Sn	04 14 53.2	-1.3
PLE				AML	AML		
SAHE	Sakarya_HENDEK	5.05	78	⇑P	Pn	04 13 57.6	+0.2
HCY	Herceg Novi	5.05	301	*e*Pn	Pn	04 13 59.7	+2.2
HCY	Herceg Novi	5.05	301	*e*Pn	Pn	04 13 57.9	+0.4
HCY				*e*Sn	Sn	04 14 53.5	-2.2
HCY				AML	AML		
CVDA	Cernavoda	5.15	31	⇓P	Pn	04 13 58.9	+0.1
MFTR	Murfatlar	5.18	35	⇑P	Pn	04 13 59.6	+0.4
MDVR	Moldovita	5.18	339	⇑P	Pn	04 13 58.8	-0.5
EFOR	EFORIE	5.20	37	⇑P	Pn	04 13 59.5	+0.1
BRY	Bratogost	5.25	306	*e*Pn	Pn	04 14 03.8	+3.5
BRY	Bratogost	5.25	306	⇑*i*Pn	Pn	04 14 00.3	0.0
BRY				*i* Sn	Sn	04 14 59.1	-1.6
BRY				AML	AML		
MDUB	Mudurnu	5.27	82	Pn	Pn	04 14 00.2	-0.4
MTUR	Matau	5.27	6	P	Pn	04 14 01.2	+0.6
MTUR	Matau	5.27	6	⇑P	Pn	04 14 01.2	+0.6
TREB	Trebinje	5.28	303	*e*Pn	Pn	04 14 04.3	+3.7
ISP	Isparta	5.28	112	*d i*P	Pn	04 14 01.7	+1.0
ISP	Isparta	5.28	112	Pn	Pn	04 14 00.9	+0.2
ISP	Isparta	5.28	112	*e*P	Pn	04 14 01.3	+0.6
TLBR	Topalu	5.33	30	⇓P	Pn	04 14 01.7	+0.5
BBLS	Lazi&#263i	5.35	318	*e*Pn	Pn	04 14 01.9	+0.2
ISR	Istrita	5.39	17	P	Pn	04 14 03.4	+1.2
ISR	Istrita	5.39	17	⇑P	Pn	04 14 03.5	+1.2
ARR	Arges	5.39	2	⇑P	Pn	04 14 02.5	+0.3
ARR	Arges	5.39	2	P	Pn	04 14 02.2	-0.1
	comp=Z,223nm,0.8s						
TIRR	Tirgusor	5.40	33	P	Pn	04 14 02.4	+0.2
TIRR	Tirgusor	5.40	33	Pn	Pn	04 14 01.8	-0.5
TIRR	Tirgusor	5.40	33	⇑P	Pn	04 14 02.5	+0.2
TIRR	Tirgusor	5.40	33	P	Pn	04 14 02.2	-0.1
	comp=Z,284nm,1.0s						
HARR	Harsova	5.41	28	P	Pn	04 14 02.7	+0.4
HARR	Harsova	5.41	28	⇓P	Pn	04 14 02.8	+0.4
ELL	Elmali	5.43	125	P	Pn	04 14 03.2	+0.4
ELL	Elmali	5.43	125	Pn	Pn	04 14 03.2	+0.4
VOIR		5.48	5	P	Pn	04 14 03.9	+0.4
VOIR		5.48	5	⇑P	Pn	04 14 03.9	+0.4
VOIR		5.48	5	P	Pn	04 14 03.5	0.0
	comp=Z,260nm,0.8s						
LOT	Lotru	5.49	356	⇑P	Pn	04 14 03.5	0.0
LOT	Lotru	5.49	356	P	Pn	04 14 03.3	-0.3
	comp=Z,264nm,0.8s						
GZR	Gura Zlata	5.54	348	P	Pn	04 14 03.7	-0.5
GZR	Gura Zlata	5.54	348	⇑P	Pn	04 14 03.8	-0.5
NEHR	Nehoiu	5.63	14	⇑P	Pn	04 14 07.0	+1.5
MLR	Muntele Rosu	5.64	12	Pn	Pn	04 14 06.5	+0.9
	comp=Z,18nm,0.3s,baz=175,slow=14,SNR=175						
MLR				Lg	Lg	04 15 44.8	
	comp=Z,19nm,0.3s,baz=240,slow=11,SNR=6.0						
MLR				LR	LR	04 16 37.4	
	comp=Z,1µm,20.9s,baz=188,slow=42						
MLR				AML	AML		
MLR	Muntele Rosu	5.64	12	P	Pn	04 14 06.6	+1.0
MLR	Muntele Rosu	5.64	12	Pn	Pn	04 14 06.0	+0.3
MLR	Muntele Rosu	5.64	12	⇑P	Pn	04 14 06.6	+1.0
MLR	Muntele Rosu	5.64	12	P	Pn	04 14 06.6	+1.0
	comp=Z,442nm,0.9s						
TNR	Turnu Rosu	5.67	360	P	Pn	04 14 06.7	+0.7
TNR	Turnu Rosu	5.67	360	⇑P	Pn	04 14 06.8	+0.7
TPGR	Topolog	5.74	30	⇑P	Pn	04 14 07.0	+0.2
GRER		5.74	19	⇑P	Pn	04 14 08.5	+1.6
TEKS	Tekeris	5.80	324	*e*Pn	Pn	04 14 07.1	-0.7
BISRR	Bisoca	5.83	17	⇓P	Pn	04 14 10.0	+1.7
JURR	Jurilovca	5.85	34	⇓P	Pn	04 14 08.3	0.0
MATE	Matera	5.88	279	⇑P	Pn	04 14 08.9	+0.1
CFR	Carcaliu	5.90	27	P	Pn	04 14 09.0	-0.2
CFR	Carcaliu	5.90	27	⇓P	Pn	04 14 09.0	-0.2
TIP	Timpagrande	5.91	265	Pn	Pn	04 14 09.0	-0.4
TIP	Timpagrande	5.91	265	⇑P	Pn	04 14 09.7	+0.3
TIP	Timpagrande	5.91	265	P	Pn	04 14 12.5	+3.1
	comp=Z,92nm,0.8s						
BZS	Buzias	5.98	341	P	Pn	04 14 09.3	-1.0
BZS	Buzias	5.98	341	⇑P	Pn	04 14 09.3	-1.0
BZS	Buzias	5.98	341	P	Pn	04 14 09.3	-1.0
	comp=Z,178nm,0.9s						
DEV	Deva	6.00	350	P	Pn	04 14 11.5	+1.1
DEV	Deva	6.00	350	⇑P	Pn	04 14 11.6	+1.1
DEV	Deva	6.00	350	P	Pn	04 14 10.9	+0.4
	comp=Z,247nm,0.7s						
SAHR	Sahastru	6.00	16	⇑P	Pn	04 14 12.2	+1.7
SURR	Surduc	6.00	345	⇑P	Pn	04 14 10.3	-0.2
COVR	Voineasa-Covas	6.02	12	⇓P	Pn	04 14 11.9	+1.0
DOPR	Dopca	6.04	7	⇑P	Pn	04 14 12.4	+1.4
PLOR	Plostina	6.11	15	P	Pn	04 14 13.6	+1.5
PLOR	Plostina	6.11	15	⇑P	Pn	04 14 13.6	+1.5
ODBI	Odobesti	6.12	18	⇑P	Pn	04 14 13.7	+1.6
TUDR		6.12	22	⇑P	Pn	04 14 13.9	+1.7
NEGRR	Negrea	6.14	24	⇑P	Pn	04 14 13.5	+1.1
VRI	Vrincioaia	6.14	16	P	Pn	04 14 14.1	+1.6
VRI	Vrincioaia	6.14	16	⇑P	Pn	04 14 14.1	+1.6
VRI	Vrincioaia	6.14	16	P	Pn	04 14 13.7	+1.2
	comp=Z,313nm,0.9s						
MDB	Medias	6.16	0	P	Pn	04 14 14.2	+1.5
MDB	Medias	6.16	0	⇑P	Pn	04 14 14.2	+1.5
TLCR		6.16	31	P	Pn	04 14 13.2	+0.5
TLCR		6.16	31	⇑P	Pn	04 14 13.2	+0.5
FRGS	Fruska Gora	6.17	329	*e*Pn	Pn	04 14 11.7	-1.1
BOSR	Bodos	6.17	9	⇑P	Pn	04 14 14.4	+1.5
TURR	Turia	6.20	11	⇑P	Pn	04 14 14.5	+1.3
OZUR		6.21	9	⇑P	Pn	04 14 14.8	+1.4
PANC	Panciu	6.24	18	⇑P	Pn	04 14 15.3	+1.5
SCTR	Scanteiesti	6.30	24	⇑P	Pn	04 14 15.7	+1.2
VARL	Varlezi	6.46	22	⇑P	Pn	04 14 18.4	+1.6
KEPZ	Antalya-Kepez	6.47	116	⇑P	Pn	04 14 18.9	+1.8
VLDR	Vladesti	6.47	24	⇑P	Pn	04 14 18.3	+1.3
GHRR		6.48	19	⇑P	Pn	04 14 18.0	+0.9
GHRR		6.48	19	P	Pn	04 14 17.7	+0.6
	comp=Z,416nm,0.6s						
ONER	Baraj Valea Uz	6.53	13	⇑P	Pn	04 14 19.4	+1.6
CUC	Castrocucco	6.55	273	Pn	Pn	04 14 19.1	+1.0
CUC	Castrocucco	6.55	273	P	Pn	04 14 19.7	+1.6
	comp=Z,94nm,0.8s						
MARCO	Tramutola	6.55	276	P	Pn	04 14 22.1	+3.9
	comp=Z,254nm,1.0s						
SIRR	Siria	6.59	344	⇓P	Pn	04 14 17.7	-0.9
KKUL	Konya-Kulu	6.67	94	P	Pn	04 14 21.5	+1.7
	comp=Z,218nm,1.1s						
BIR	Birlad	6.73	20	P	Pn	04 14 21.3	+0.8
BIR	Birlad	6.73	20	⇑P	Pn	04 14 21.3	+0.8
TESR	Tescani	6.75	14	⇑P	Pn	04 14 21.6	+0.8
TESR	Tescani	6.75	14	P	Pn	04 14 21.6	+0.8
	comp=Z,258nm,0.5s						
CJR	Cluj-Napoca	6.76	356	P	Pn	04 14 21.4	+0.5
CJR	Cluj-Napoca	6.76	356	⇑P	Pn	04 14 21.5	+0.5
SGRT	San Giovanni R	6.76	288	Pn	Pn	04 14 19.7	-1.3
CEL	Celeste	6.79	258	Pn	Pn	04 14 21.4	0.0
CEL	Celeste	6.79	258	P	Pn	04 14 21.5	+0.1
	comp=Z,146nm,1.1s						
DRGR		6.92	351	P	Pn	04 14 22.7	-0.4
DRGR		6.92	351	⇑P	Pn	04 14 22.8	-0.4
DRGR		6.92	351	P	Pn	04 14 22.6	-0.4
	comp=Z,74nm,0.6s						
BIZ	Bicaz	7.08	10	⇑P	Pn	04 14 26.6	+1.3
ARCR	ARCALIA	7.11	0	⇑P	Pn	04 14 26.2	+0.5
BLY	Banja Luka	7.13	314	Pn	Pn	04 14 27.1	+1.1
BLY	Banja Luka	7.13	314	⇓P	Pn	04 14 26.9	+0.9
BLY	Banja Luka	7.13	314	*e*Pn	Pn	04 14 26.7	+0.7
BLY	Banja Luka	7.13	314	P	Pn	04 14 28.1	+2.1
	comp=Z,106nm,0.7s						
GIRR	Girov	7.15	12	⇑P	Pn	04 14 27.8	+1.6
BR131	Keskin Array S	7.16	89	*d i*P	Pn	04 14 26.9	+0.3
BR131	Keskin Array S	7.16	89	Pn	Pn	04 14 26.4	-0.1
BRTR	Keskin Array B	7.16	89	Pn	Pn	04 14 26.8	+0.2
	comp=Z,5.1nm,0.3s,baz=267,slow=11,SNR=173						
BRTR				Sn	Sn	04 15 44.6	-3.1
	comp=Z,1.3nm,0.3s,baz=276,slow=14,SNR=1.0						
BRTR				Lg	Lg	04 16 29.8	
	baz=271,slow=29						
	comp=Z,18nm,0.5s						
BRTR				AML	AML		
BRTR	Keskin Array B	7.16	89	P	Pn	04 14 27.1	+0.6
BRTR	Keskin Array B	7.16	89	Pn	Pn	04 14 27.1	+0.6
ILGA	Ilgaz	7.22	78	Pn	Pn	04 14 26.5	-1.0
KIRS	Kirsehir-Merke	7.45	93	⇑P	Pn	04 14 31.4	+1.0
MORH	Mrgy, Hungar	7.50	328	⇓P	Pn	04 14 30.3	-0.7
MORH	Mrgy, Hungar	7.50	328	*e*Pn	Pn	04 14 30.1	-1.0
MORH	Mrgy, Hungar	7.50	328	P	Pn	04 14 30.5	-0.6
	comp=Z,75nm,0.8s						
PRAR	RASCA	7.51	10	⇑P	Pn	04 14 32.6	+1.4
PAOL	Paolisi	7.52	281	Pn	Pn	04 14 31.8	+0.3
IASR	Iasi	7.57	17	⇑P	Pn	04 14 32.2	+0.2
BZK	Bozkurt	7.58	72	Pn	Pn	04 14 32.9	+0.8
LTVH	Ltavrtes, Hu	7.61	347	P	Pn	04 14 33.1	+0.4
	comp=Z,94nm,0.6s						
BURAR	Bucovina Array	7.66	4	P	Pn	04 14 34.5	+1.1
BURAR	Bucovina Array	7.66	4	Pn	Pn	04 14 33.3	-0.1
BURAR	Bucovina Array	7.66	4	⇑P	Pn	04 14 34.6	+1.1
BUR08	Bucovina Ar. S	7.69	4	Pn	Pn	04 14 33.6	-0.2
PURM	Purcari	7.69	30	⇓P	Pn	04 14 34.1	+0.4
BMR	Baia Mare	7.72	356	P	Pn	04 14 34.4	+0.4
BMR	Baia Mare	7.72	356	⇑P	Pn	04 14 34.5	+0.4
BMR	Baia Mare	7.72	356	P	Pn	04 14 34.2	+0.1
	comp=Z,238nm,0.7s						
KIS	Kishinev	7.74	23	P	Pn	04 14 35.0	+0.7
KIS	Kishinev	7.74	23	⇓P	Pn	04 14 35.0	+0.7
TARU	Tarkhankut	8.09	45	*e*P	Pn	04 14 38.6	-0.6
TARU				pmax	pmax	04 14 40.8	
	comp=Z,2.0nm,0.2s						
TARU				*e*S	Sn	04 16 04.6	-5.8
TARU				smax	smax	04 16 11.6	
	comp=E,17nm,0.5s						
INTR	Introdacqua	8.15	288	Pn	Pn	04 14 41.6	+1.5
VAE	Valguarnera	8.15	255	Pn	Pn	04 14 41.6	+1.5
	comp=E,11nm,0.4s,baz=319,slow=12,SNR=9.5						
VAE				Sn	Sn	04 16 13.7	+1.6
	comp=E,1.4nm,0.3s,baz=356,slow=17,SNR=1.7						
TRPA	Tarpa	8.26	352	P	Pn	04 14 40.4	-1.0
	comp=Z,50nm,0.6s						
RAFF	Raffo Rosso	8.28	254	Pn	Pn	04 14 42.2	+0.3
SEV	Sevastopol'	8.29	54	*e*P	Pn	04 14 41.0	-0.8
SEV				pmax	pmax	04 14 54.2	
	comp=Z,7.0nm,0.4s						
SEV				*e*S	Sn	04 16 09.2	-5.9
SEV				smax	smax	04 16 13.5	
	comp=N,9.0nm,0.3s						
SEV				smax	smax	04 16 13.5	
	comp=E,4.0nm,0.3s						
BUD	Budapest	8.43	335	P	Pn	04 14 48.8	+5.0
	comp=Z,46nm,0.7s						
DNZ2	Donuzlav2	8.47	48	*e*P	Pn	04 14 42.9	-1.5
DNZ2				pmax	pmax	04 14 49.7	
	comp=Z,9.0nm,0.4s						
DNZ2				*e*x	x	04 16 13.5	
DNZ2				smax	smax	04 16 19.2	
	comp=N,8.0nm,0.4s						
DNZ2				smax	smax	04 16 19.2	
	comp=E,11nm,0.3s						
BEHE	Becsehely	8.52	322	Pn	Pn	04 14 45.5	+0.4
BEHE	Becsehely	8.52	322	*e*Pn	Pn	04 14 46.2	+1.1
BEHE	Becsehely	8.52	322	P	Pn	04 14 46.4	+1.3
	comp=Z,87nm,0.7s						
YAL	Yalta	8.56	55	*e*P	Pn	04 14 44.2	-1.4
YAL				*e*S	Sn	04 16 16.0	-5.9
YAL	Yalta	8.56	55	*e*P	Pn	04 14 44.2	-1.4
YAL				pmax	pmax	04 14 47.1	
	comp=Z,12nm,0.3s						
YAL				*e*x	x	04 16 16.0	
YAL				smax	smax	04 16 21.7	
	comp=N,5.0nm,0.3s						
YAL				smax	smax	04 16 21.7	
	comp=E,9.0nm,0.3s						
PSZ	Piszkesteto	8.56	339	P	Pn	04 14 44.2	-1.5
PSZ	Piszkesteto	8.56	339	Pn	Pn	04 14 44.2	-1.5
PSZ	Piszkesteto	8.56	339	*e*P	Pn	04 14 49.6	+3.9
PSZ	Piszkesteto	8.56	339	P	Pn	04 14 45.6	-0.1
	comp=Z,48nm,0.8s						
AQU	L'Aquila	8.59	290	*e*Pn	Pn	04 14 46.0	-0.1
ABAH	Abaujker	8.61	346	P	Pn	04 14 45.9	-0.4
	comp=Z,48nm,0.8s						
GCIS	Gornji Cirnik	8.69	316	*e*Pn	Pn	04 14 49.8	+2.4
MPLH	Magyarpolny	8.72	328	P	Pn	04 14 48.5	+0.7
	comp=Z,81nm,1.0s						
KOGS	Kog	8.76	320	*e*Pn	Pn	04 14 48.1	-0.2
SIM	Simferopol'	8.77	52	*e*P	Pn	04 14 48.0	-0.4
SIM				*e*S	Sn	04 16 24.2	-2.8
SIM	Simferopol'	8.77	52	*e*x	x	04 14 48.0	
SIM				pmax	pmax	04 14 52.7	
	comp=Z,39nm,0.5s						
SIM				*e*x	x	04 16 24.2	
SIM				smax	smax	04 16 27.1	
	comp=N,21nm,0.4s						
SIM				smax	smax	04 16 27.1	
	comp=E,12nm,0.4s						
WDD	Wied Dalam	8.79	245	Pn	Pn	04 14 48.3	-0.5
WDD	Wied Dalam	8.79	245	P	Pn	04 14 50.1	+1.3
	comp=Z,743nm,1.0s						
ALU	Alushta	8.81	54	*e*P	Pn	04 14 47.8	-1.2
ALU				*e*S	Sn	04 16 23.9	-4.1
ALU	Alushta	8.81	54	*e*P	Pn	04 14 47.8	-1.2
ALU				pmax	pmax	04 14 50.3	
	comp=Z,18nm,0.2s						
ALU				*e*x	x	04 16 23.9	
ALU				smax	smax	04 16 26.8	
	comp=N,58nm,0.3s						
ALU				smax	smax	04 16 26.8	
	comp=E,28nm,0.3s						

GUMA	Gualdo di Mace	8.81	294	Pn	Pn	04 14 49.5	+0.3
NRCA	Norcia	8.91	292	Pn	Pn	04 14 50.5	+0.1
KECS	Kecovo	8.94	343	eP	Pn	04 14 50.0	-0.9
KECS	Kecovo	8.94	343	ePN	Pn	04 14 49.9	-0.9
FDMO	Fiordimonte	8.98	294	Pn	Pn	04 14 50.3	-1.2
KOLS	Kolonicke sedl	9.08	351	eP	Pn	04 14 53.0	+0.3
KOLS	Kolonicke sedl	9.08	351	ePN	Pn	04 14 53.0	+0.3
KOLS	Kolonicke sedl	9.08	351	P	Pn	04 14 53.0	+0.3
	comp=Z,40nm,0.7s						
GROS	Grobnik	9.14	318	ePn	Pn	04 14 52.9	-0.8
SUDU	Sudak	9.28	55	eP	Pn	04 14 53.3	-2.2
SUDU				eS	Sn	04 16 33.3	-6.3
SUDU	Sudak	9.28	55	eP	Pn	04 14 53.3	-2.2
SUDU				pmax	pmax	04 14 55.9	
	comp=Z,18nm,0.2s						
SUDU				eS	Sn	04 16 33.3	-6.3
SUDU				smax	smax	04 16 43.5	
	comp=N,26nm,0.5s						
SUDU				smax	smax	04 16 43.5	
	comp=E,10.0nm,0.5s						
TOKA	Tokat	9.30	84	Pn	Pn	04 14 56.6	+0.8
VYHS	Vyhne	9.38	337	P	Pn	04 14 59.6	+2.7
	comp=Z,4.8nm,0.8s						
MURB	Monte Urbino	9.44	294	Pn	Pn	04 14 58.6	+0.9
SOKA	Soboth	9.53	318	i Pn	Pn	04 14 59.7	+0.7
	comp=Z,12nm,0.4s						
SOP	Sopron	9.53	326	P	Pn	04 14 58.8	-0.2
	comp=Z,44nm,0.6s						
TRI	Trieste	9.65	310	P	Pn	04 15 01.3	+0.7
TRI	Trieste	9.65	310	Pn	Pn	04 15 01.2	+0.7
RONA	Rosalia, Austr	9.66	326	i Pn	Pn	04 15 00.7	-0.1
	comp=Z,7.2nm,0.5s						
RONA				i Sn	Sn	04 16 47.8	-1.2
	comp=Z,8.2nm,0.5s						
ANDN	Andirin	9.67	101	P	Pn	04 15 05.3	+4.3
	comp=Z,88nm,0.8s						
OBKA	Obir	9.68	316	i Pn	Pn	04 15 02.0	+1.0
	comp=Z,23nm,0.5s						
ARSA	Arzberg	9.68	322	Pn	Pn	04 15 01.3	+0.3
ARSA	Arzberg	9.68	322	i Pn	Pn	04 15 01.7	+0.7
	comp=Z,31nm,0.8s						
ARSA				i Sn	Sn	04 16 42.6	-6.8
	comp=Z,11nm,0.5s						
ARSA	Arzberg	9.68	322	P	Pn	04 15 02.2	+1.2
	comp=Z,110nm,0.7s						
STHS	Stebnicka Huta	9.69	348	eP	Pn	04 15 03.8	+2.6
STHS	Stebnicka Huta	9.69	348	ePN	Pn	04 15 03.8	+2.6
MODS	Modra-Piesok	9.80	331	eP	Pn	04 15 04.6	+1.9
MODS	Modra-Piesok	9.80	331	ePN	Pn	04 15 04.6	+1.9
NIE	Niedzica	9.87	344	eP	Pn	04 15 06.2	+2.6
SMOL	Smolenice	9.87	332	eP	Pn	04 15 06.2	+2.7
CY604	RAF Akrotiri,	9.87	122	Pn	Pn	04 15 03.5	+0.1
SABO	M.te Sabotino	9.89	311	Pn	Pn	04 15 05.9	+1.9
CONA	Conrad Observa	10.02	325	i Pn	Pn	04 15 05.3	-0.4
	comp=Z,12nm,0.7s						
CONA				eSn	Sn	04 16 56.8	-1.2
	comp=Z,11nm,0.7s						
JAVC	Velka Javorina	10.08	334	ePN	Pn	04 15 06.3	-0.2
MYKA	Terra Mystica	10.24	314	ePn	Pn	04 15 10.3	+1.5
	comp=Z,9.9nm,0.5s						
ACOM	Acomizza, Ital	10.27	313	P	Pn	04 15 13.7	+4.5
	comp=Z,51nm,0.8s						
FUSE	Fusea	10.48	312	P	Pn	04 15 14.2	+2.2
	comp=Z,56nm,1.0s						
STAL	STALIGIAL	10.56	310	Pn	Pn	04 15 13.4	+0.3
KBA	Koelnbreinsper	10.68	315	i Pn	Pn	04 15 17.0	+2.2
	comp=Z,12nm,0.5s						
KBA	Koelnbreinsper	10.68	315	P	Pn	04 15 17.5	+2.7
	comp=Z,40nm,0.9s						
KRUC	Moravsky	10.70	331	ePN	Pn	04 15 13.9	-1.1
KRUC	Moravsky	10.70	331	P	Pn	04 15 19.1	+4.1
	comp=Z,6.8nm,1.1s						
MOA	Molln	10.71	321	i Pn	Pn	04 15 17.1	+2.1
	comp=Z,8.0nm,0.6s						
MOA				eSn	Sn	04 17 09.8	-4.8
	comp=Z,8.1nm,0.7s						
MOA	Molln	10.71	321	P	Pn	04 15 14.8	-0.2
	comp=Z,47nm,0.9s						
OJC	Ojcow	10.73	344	eP	Pn	04 15 15.9	+0.5
OJC	Ojcow	10.73	344	P	Pn	04 15 14.9	-0.5
OJC	Ojcow	10.73	344	Pn	Pn	04 15 14.9	-0.5
OJC	Ojcow	10.73	344	P	Pn	04 15 15.8	+0.5
	comp=Z,10nm,0.9s						
TEOL	Teolo	10.77	304	Pn	Pn	04 15 16.4	+0.5
OKC	Ostrava-Krasne	10.79	338	AMS	AMS	04 20 00.0	
	comp=Z,2µm,10.8s						
ANN	Anapa	10.81	59	eP	Pn	04 15 15.0	-1.5
ANN				eS	Sn	04 17 14.5	-2.7
ANN				pmax	pmax		
	comp=Z,51nm,1.4s						
ANN				MLR	MLR		
	comp=Z,341nm,14.0s						
ANN				MLR	MLR		
	comp=N,606nm,14.0s						
VRAC	Vranov	10.84	332	Pn	Pn	04 15 19.9	+3.1
	comp=N,0.2nm,0.3s,baz=125,slow=9.9,SNR=3.6						
VRAC				LR	LR	04 19 39.2	
	comp=N,385nm,18.6s,baz=146,slow=38						
	comp=N,1.9nm,0.5s						
VRAC				AML	AML		
VRAC	Vranov	10.84	332	ePN	Pn	04 15 15.4	-1.4
BIOA	Bad Ischl, Aus	10.91	318	i Pn	Pn	04 15 19.6	+1.8
	comp=N,10nm,0.4s						
MORC	Moravsky Berou	10.92	336	P	Pn	04 15 18.1	+0.1
MORC	Moravsky Berou	10.92	336	Pn	Pn	04 15 18.1	+0.1
MORC	Moravsky Berou	10.92	336	ePN	Pn	04 15 18.0	+0.1
ABTA	Abfaltersbach	10.95	312	i Pn	Pn	04 15 20.0	+1.6
	comp=N,14nm,0.5s						
ABTA				eSn	Sn	04 17 19.5	-1.1
	comp=N,14nm,0.9s						
STEB	Steborice	10.99	337	ePN	Pn	04 15 19.2	+0.4
CTI	Castel Tesino	11.09	307	P	Pn	04 15 19.8	-0.6
CTI	Castel Tesino	11.09	307	Pn	Pn	04 15 19.8	-0.6
TREC	Trest	11.24	329	eP	Pn	04 15 26.6	+4.2
TREC				MLR	MLR		
	comp=Z,1µm,9.0s						
TREC	Trest	11.24	329	ePN	Pn	04 15 26.6	+4.2
TREC				AMS	AMS	04 19 50.0	
	comp=Z,1µm,9.0s						
KIEV	Kiev	11.25	16	P	Pn	04 15 21.2	-1.2
KIEV	Kiev	11.25	16	Pn	Pn	04 15 21.2	-1.2
KIEV	Kiev	11.25	16	P	Pn	04 15 21.6	-0.8
	comp=Z,20nm,0.7s						
LESA	Schwarzleotal	11.25	315	i Pn	Pn	04 15 25.2	+2.7
	comp=Z,22nm,0.4s						
LESA				i Sn	Sn	04 17 23.7	-4.3
	comp=Z,9.7nm,0.8s						
AKASG	Malin Array Be	11.26	16	Pn	Pn	04 15 21.6	-1.0
	comp=Z,6.2nm,0.3s,baz=208,slow=12,SNR=25						
AKASG				LR	LR	04 19 51.3	
	comp=Z,491nm,18.4s,baz=190,slow=38						
	comp=Z,11nm,0.6s						
AKASG				AML	AML		
AKASG	Malin Array Be	11.26	16c	eP	Pn	04 15 21.2	-1.4
AKASG				pmax	pmax		
	comp=Z,5.0nm,0.3s						
AKASG	Malin Array Be	11.26	16	Pn	Pn	04 15 21.1	-1.4
AKBB	Malin Array Si	11.26	16c	eP	Pn	04 15 21.9	-0.6
AKBB	Malin Array Si	11.26	16	Pn	Pn	04 15 21.2	-1.3
MMAI	Mount Meron Ar	11.29	125	Pn	Pn	04 15 22.8	-0.2
	comp=Z,2.4nm,0.3s,baz=297,slow=9.3,SNR=8.7						
MMAI				Sn	Sn	04 17 21.1	-7.9
	comp=Z,1.5nm,0.3s,baz=247,slow=18,SNR=2.3						
MMAI				LR	LR	04 21 16.7	
	comp=Z,290nm,20.4s,baz=314,slow=46						
	comp=Z,1.3nm,0.4s						
MMAI				AML	AML		
CKRC	Cesky Krumlov	11.38	324	eP	Pn	04 15 29.3	+5.1
CKRC				MLR	MLR		
	comp=Z,2µm,11.9s						
CKRC	Cesky Krumlov	11.38	324	ePN	Pn	04 15 29.3	+5.1
CKRC				AMS	AMS	04 19 20.0	
	comp=Z,2µm,11.9s						
RJOB	Jochberg	11.38	317	P	Pn	04 15 27.9	+3.6
	comp=Z,27nm,0.6s						
KRLC	Kraliky	11.42	335	eP	Pn	04 15 25.3	+0.5
KRLC				MLR	MLR		
	comp=Z,800nm,15.3s						
KRLC	Kraliky	11.42	335	ePN	Pn	04 15 25.3	+0.5
KRLC				AMS	AMS	04 19 30.0	
	comp=Z,800nm,15.3s						
KRLC	Kraliky	11.42	335	P	Pn	04 15 30.4	+5.6
	comp=Z,6.8nm,1.0s						
GEC2	GERESS Array S	11.67	323	Pn	Pn	04 15 31.1	+2.8
GEC2	GERESS Array S	11.67	323	P	Pn	04 15 26.8	-1.5
	comp=Z,16nm,1.3s						
GERES	GERESS Array B	11.67	323	Pn	Pn	04 15 29.9	+1.6
	comp=Z,0.1nm,0.3s,baz=145,slow=14,SNR=16						
	comp=Z,2.9nm,0.5s						
GERES				AML	AML		
GERES	GERESS Array B	11.67	323	Pn	Pn	04 15 27.4	-0.9
WTTA	Wattenberg	11.73	313	i Pn	Pn	04 15 33.2	+3.9
	comp=Z,8.4nm,0.4s						
WATA	Walderalm	11.81	313	i Pn	Pn	04 15 31.7	+1.5
	comp=Z,12nm,0.5s						
DPC	Dobruska-Polom	11.81	334	eP	Pn	04 15 38.0	+7.9
DPC				MLR	MLR		
	comp=Z,1µm,10.1s						
DPC	Dobruska-Polom	11.81	334	ePN	Pn	04 15 38.0	+7.9
DPC				AMS	AMS	04 20 20.0	
	comp=Z,1µm,10.1s						
QRNJ	Al-Qirein	11.85	127	P	Pn	04 15 38.5	+7.8
	comp=Z,37µmcomp=Z,5µm,0.9s						
KHC	Kasperske Hory	11.94	324	eP	Pn	04 15 32.3	+0.4
KHC				MLR	MLR		
	comp=Z,2µm,13.0s						
KHC	Kasperske Hory	11.94	324	ePN	Pn	04 15 32.3	+0.4
KHC				AMS	AMS	04 19 50.0	
	comp=Z,2µm,13.0s						
SQTA	Sankt Quirin	11.95	312	ePn	Pn	04 15 34.4	+2.2
	comp=Z,9.3nm,0.5s						
SQTA				i Sn	Sn	04 17 46.1	+0.8
	comp=Z,15nm,0.9s						
OSTC	Ostas	12.02	334	eP	Pn	04 15 34.6	+1.6
OSTC				MLR	MLR		
	comp=Z,1µm,10.9s						
OSTC	Ostas	12.02	334	ePN	Pn	04 15 34.6	+1.6
OSTC				AMS	AMS	04 20 20.0	
	comp=Z,1µm,10.9s						
SOC	Sochi	12.03	68	eP	Pn	04 15 30.5	-2.6
SOC				e		04 17 42.8	
UPC	Upice	12.05	334	AMS	AMS	04 20 30.0	
	comp=Z,1µm,11.1s						
MOTA	Moosalm	12.08	312	ePn	Pn	04 15 37.0	+3.1
	comp=Z,12nm,0.6s						
MOTA				i Sn	Sn	04 17 49.6	+1.1
	comp=Z,10nm,0.8s						
CHVC	Chvalec	12.10	334	eP	Pn	04 15 40.4	+6.3
CHVC				MLR	MLR		
	comp=Z,1µm,10.3s						
CHVC	Chvalec	12.10	334	ePN	Pn	04 15 40.4	+6.3
CHVC				AMS	AMS	04 20 30.0	
	comp=Z,1µm,10.3s						
FETA	Feichten	12.13	310	i Pn	Pn	04 15 35.5	+0.9
	comp=Z,12nm,0.8s						
FETA				i Sn	Sn	04 17 50.4	+0.8
	comp=Z,7.2nm,0.8s						
PRU	Pruhonice	12.17	329	eP	Pn	04 15 40.2	+5.2
PRU				MLR	MLR		
	comp=Z,2µm,9.7s						
PRU	Pruhonice	12.17	329	ePN	Pn	04 15 40.2	+5.2
PRU				AMS	AMS	04 20 20.0	
	comp=Z,2µm,9.7s						
KZIT	Kziot	12.20	135	P	Pn	04 15 37.9	+2.3
	comp=Z,35nm,1.0s						
KZIT	Kziot	12.20	135	P	Pn	04 15 35.4	-0.1
	comp=Z,35nm,1.0s						
FUORN	Ofenpass-Fuorn	12.21	308	Pn	Pn	04 15 36.5	+0.7
RETA	Reutte	12.35	312	ePn	Pn	04 15 38.1	+0.5
	comp=Z,1.1nm,0.2s						
RETA				i Sn	Sn	04 17 54.4	-0.6
	comp=Z,2.8nm,0.6s						
DAVOX	Davos/Dischmat	12.52	308	Pn	Pn	04 15 40.4	+0.4
	comp=Z,1.3nm,0.3s,baz=120,slow=14,SNR=14						
DAVOX				LR	LR	04 21 26.4	
	comp=Z,249nm,21.0s,baz=111,slow=42						
	comp=Z,4.5nm,0.8s						
DAVOX				AML	AML		
KEST	Kesra	12.59	255	Pn	Pn	04 15 41.6	+0.8
	comp=Z,0.4nm,0.3s,baz=59,slow=6.8,SNR=13						
KEST				LR	LR	04 22 29.3	
	comp=Z,312nm,18.2s,baz=56,slow=47						
	comp=Z,5.3nm,0.5s						
KEST				AML	AML		
KEST	Kesra	12.59	255	Pn	Pn	04 15 40.8	-0.1
PVCC	Panska Ves	12.59	330	AMS	AMS	04 20 10.0	
	comp=Z,1µm,10.6s						
TUE	Stuetta	12.71	306	Pn	Pn	04 15 43.3	+0.7
DAVA	Damuels	12.76	310	i Pn	Pn	04 15 45.4	+2.2
	comp=Z,8.2nm,0.6s						
DAVA				i Sn	Sn	04 18 02.4	-2.7
	comp=Z,4.9nm,0.5s						
DAVA	Damuels	12.76	310	P	Pn	04 15 48.3	+5.0
	comp=Z,36nm,0.8s						
RICC	Richard	12.78	329	AMS	AMS	04 20 20.0	
	comp=Z,1µm,11.1s						
ASF	Jabal al Asfar	12.79	124	Pn	Pn	04 15 42.8	-0.9
	comp=Z,0.2nm,0.3s,baz=108,slow=19,SNR=1.2						
	comp=Z,1.5nm,0.4s						
ASF				AML	AML		
PRNI	Paran	12.96	135	P	Pn	04 15 49.3	+3.4
	comp=Z,939nmcomp=Z,43nm,1.3s						
HSKC	Hora Svate Kat	13.10	328	AMS	AMS	04 20 40.0	
	comp=Z,2µm,11.5s						
BRG	Berggiesshubel	13.10	330	eP	P	04 16 03.2	+5.3
BRG				Amp		04 16 06.7	
	comp=Z,4.5nm,0.8s						
BRG	Berggiesshubel	13.10	330	S	Sn	04 18 21.0	+7.8
ERBR	Yeremizino-Bor	13.15	59	eP	Pn	04 15 51.7	+3.3
ERBR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
HRFI	Mount Harif	13.22	135	P	Pn	04 15 52.1	+2.6
	comp=Z,22nm,1.2s						
GRA1	Grafenberg Arr	13.44	321	Pn	Pn	04 15 53.6	+1.4
GRF	Grafenberg Arr	13.44	321	P	Pn	04 15 53.7	+1.4
BNALP	Bannalp	13.45	306	P	P	04 15 57.8	-4.2
	comp=Z,24nm,1.6s						
EIL	Elat	13.46	137	Pn	Pn	04 15 50.8	-2.0
	comp=Z,0.6nm,0.3s,baz=16,slow=6.3,SNR=4.6						
	comp=Z,2.6nm,0.5s						
EIL				AML	AML		
GURO	Guroymak-BITLI	13.78	90	Pn	Pn	04 15 57.8	+0.6
CLL	Collm	13.81	329	eP	Pn	04 16 00.0	+2.6
CLL	Collm	13.81	329	epP	Pn	04 16 00.0	+2.6
CLL				i sPP		04 16 10.7	
CLL				i x	x	04 16 15.6	
CLL				ex	x	04 16 32.0	
CLL				LH		04 19 00.0	
CLL				LV		04 19 00.0	
CLL				AMS	AMS	04 20 00.0	
	comp=N,900nm,20.7s						
CLL				AMS	AMS	04 20 00.0	
	comp=E,1µm,21.1s						
CLL				AMS	AMS	04 21 00.0	
	comp=Z,1µm,13.2s						
CLL				AMS	AMS	04 21 00.0	
	comp=Z,0.0nm,11.3s						
SLE	Schleitheim	13.82	310	P	Pn	04 16 00.9	+3.4
	comp=Z,19nm,0.6s						
SENIN	Lac Senin/Sane	13.97	303	Pn	Pn	04 16 00.3	+0.5
BNI	Bardonecchia	13.97	297	P	Pn	04 15 59.6	-0.2
BNI	Bardonecchia	13.97	297	Pn	Pn	04 15 59.6	-0.2
EPOS	Posof	14.03	78	P	P	04 16 05.7	-2.7
	comp=Z,24nm,1.7s						
SUW	Suwalki	14.06	357	P	Pn	04 16 00.4	-0.4
SUW	Suwalki	14.06	357	Pn	Pn	04 16 00.4	-0.4
BFO	Black Forest	14.19	311	P	Pn	04 16 03.6	+1.0
BFO	Black Forest	14.19	311	Pn	Pn	04 16 03.6	+1.0
KIV	Kislovodsk	14.21	68	eP	Pn	04 16 03.4	+0.4
KIV				eS	Sn	04 18 41.3	+0.8
KIV				pmax	pmax		
	comp=Z,8.0nm,1.1s						
KIV				MLR	MLR		
	comp=Z,102nm,14.0s						
KBZ	Khabaz	14.33	69	Pn	Pn	04 16 05.6	+1.1
	comp=Z,0.1nm,0.3s,baz=284,slow=8.3,SNR=5.2						
	comp=Z,3.2nm,0.8s						
KBZ				AML	AML		
KBZ	Khabaz	14.33	69	eP	Pn	04 16 05.8	+1.3
KBZ				pmax	pmax		
	comp=Z,4.0nm,1.0s						
GOF	Gofitskoye	14.69	64c	eP	Pn	04 16 05.1	-4.3
MNK	Minsk	14.73	8	i P	Pn	04 16 06.4	-3.4
MNK				i S	Sn	04 18 50.2	-2.5
MNK				pmax	pmax		
	comp=E,14nm,0.8s						
MNK				pmax	pmax		
	comp=N,11nm,0.8s						
MNK				pmax	pmax		
	comp=Z,25nm,0.8s						
MNK				MLR	MLR		
	comp=Z,416nm,15.0s						
MNK				MLR	MLR		
	comp=E,313nm,14.0s						
MNK	Minsk	14.73	8	i P	Pn	04 16 06.5	-3.4
	comp=E,14nm,0.8s						
MNK				i P	Pn	04 16 06.5	-3.4
	comp=N,11nm,0.8s						
MNK				i P	Pn	04 16 06.5	-3.4
	comp=Z,25nm,0.8s,baz=190						
MNK				i PP	P	04 16 14.4	-1.5
MNK				i PPP	PPP	04 16 22.1	
MNK				i S	Sn	04 18 50.3	-2.5
MNK				i SS	SnSn	04 19 02.5	-2.8
MNK				i SSS	SSS	04 19 15.1	
MNK				i LR	LR	04 21 29.0	
MNK				i LRM	MLR	04 22 05.7	
	comp=Z,416nm,15.0s						
MNK				i LRM	MLR	04 22 09.5	
	comp=E,313nm,13.8s						
CTGD	Timgad	14.77	258	P	P	04 16 15.0	-1.7
UBBA	Unterbreizbach	14.77	322	P	Pn	04 16 06.2	-4.2
	comp=Z,13nm,1.8s						
ECH	Echery	14.82	309	P	Pn	04 16 11.4	+0.1
ECH	Echery	14.82	309	Pn	Pn	04 16 11.3	+0.1
NACGM	Naroch	15.03	5	eP	Pn	04 16 11.2	-2.7
	comp=Z,19nm,1.0s,baz=188						
VSR	Storozhevoye	15.26	38	eP	Pn	04 16 15.7	-1.4
VSR				pmax	pmax		
	comp=Z,22nm,1.0s						
HAKT	HAKKARI	15.30	93	P	P	04 16 22.5	-0.2
	comp=Z,163nm,1.1s						
FLTG	Flechtingen	15.30	328	P	P	04 16 23.2	+0.9
	comp=Z,11nm,1.3s						
PABE	Paberze	15.54	359	Pn	Pn	04 16 19.2	-1.5
PABE				IAmb	IAmb	04 16 25.8	
	comp=Z,49nm,1.2s						
PABE	Paberze	15.54	359	eP	Pn	04 16 19.7	-1.0
PABE	Paberze	15.54	359	P	Pn	04 16 17.9	-2.7
	comp=Z,46nm,1.4s						
GNI	Garni	15.62	83	Pn	Pn	04 16 22.5	+0.5
	comp=Z,5.4nm,0.3s,baz=139,slow=20,SNR=6.7						
GNI				LR	LR	04 22 38.9	
	comp=Z,600nm,18.1s,baz=290,slow=38						
	comp=Z,18nm,0.3s						
GNI				AML	AML		
GNI	Garni	15.62	83		Pn	04 16 21.3	-0.7
GNI				IAmb	IAmb	04 16 29.4	
	comp=Z,70nm,1.5s						
LPSR	Galich'ya Gora	16.12	34	eP	Pn	04 16 25.2	-2.9
LPSR				pmax	pmax		
	comp=Z,40nm,0.9s						
CDCN	Doucen	16.21	257	P	P	04 16 33.3	+0.7
BUG	Bochum--Univer	16.50	320	P	P	04 16 37.5	+2.0
	comp=Z,33nm,1.6s						
ABSD	Ouled Sidi Bra	16.57	260	P	P	04 16 37.2	+0.6
AFRS	Ain Fares	16.65	258	P	Pn	04 16 35.6	+0.4
MEM	Membach	16.67	316	dP	P	04 16 40.0	+2.5
	comp=Z,16nm,1.0s						
RCHB	Rochefort	16.86	313	dP	P	04 16 42.8	+3.2
	comp=Z,10.0nm,0.9s						
BCLA	Clavier	16.95	314	dP	Pn	04 16 38.1	-0.7
DOU	Dourbes	17.19	313	dP	Pn	04 16 41.3	-0.4
DOU				dPP	sP	04 16 51.6	+2.8
BMRD	Maredsous	17.19	313	dPP	P	04 16 51.6	+8.3
OBN	Obninsk	17.21	24	Pn	Pn	04 16 39.3	-2.5
	comp=Z,4.9nm,0.3s,baz=218,slow=19,SNR=3.8						
OBN				LR	LR	04 23 48.0	
	comp=Z,297nm,18.4s,baz=222,slow=39						
	comp=Z,16nm,0.4s						
OBN				AML	AML		
OBN	Obninsk	17.21	24⇑	eP	Pn	04 16 42.2	+0.3
OBN				S	Sn	04 19 55.0	+2.1
OBN				pmax	pmax		
	comp=Z,7.0nm,0.4s						
OBN				MLR	MLR		
	comp=Z,180nm,18.0s						
OBN	Obninsk	17.21	24	Pn	Pn	04 16 40.2	-1.7
OBN				IAmb	IAmb	04 16 50.6	
	comp=Z,61nm,0.4s						
MAK	Makhachkala	17.60	73c	iP	Pn	04 16 41.3	-5.6
MAK				eS	Sn	04 19 54.6	-8.1
MAK				pmax	pmax		
	comp=Z,247nm,1.4s						
MAK				MLR	MLR		
	comp=Z,213nm,17.0s						
AKT	Akhty	17.78	78	eP	Pn	04 16 48.8	-0.5
AKT				pmax	pmax		
	comp=Z,15nm,1.3s						
AKT				MLR	MLR		
	comp=Z,195nm,13.0s						
MOS	Moscow	18.06	25	eP	Pn	04 16 50.8	-1.7
MOS				eS	Sn	04 20 07.2	-6.4
MOS				pmax	pmax		
	comp=Z,30nm,0.7s						
MOS				MLR	MLR		
	comp=Z,400nm,9.0s						
VSU	Vasula	18.57	4	eP	P	04 16 57.8	-0.6
VSU	Vasula	18.57	4	P	P	04 16 55.8	-2.5
	comp=Z,52nm,0.9s						
MTSE	Matsula	18.76	359	eP	P	04 16 59.6	-0.9
BELG	Belogornoye	20.24	44	P	P	04 17 17.5	+0.7
	comp=Z,15nm,0.9s,baz=249,slow=2.2,SNR=7.7						
BELG				LR	LR	04 25 59.2	
	comp=Z,194nm,19.1s,baz=266,slow=39						
	comp=Z,15nm,0.9s						
MEF	Metsahovi	20.27	0	eP	P	04 17 16.4	-0.5
UCM	Universidad Co	21.07	280	P	P	04 17 29.0	+3.1
	comp=Z,30nm,1.1s						
RAF	Rauma	21.13	357	eP	P	04 17 25.4	-1.0
HFS	Hagfors	21.25	345	P	P	04 17 27.6	0.0
	comp=Z,3.2nm,0.5s,baz=179,slow=10,SNR=8.8						
HFS				LR	LR	04 25 53.0	
	comp=Z,190nm,20.2s,baz=162,slow=37						
	comp=Z,3.2nm,0.5s						
FINES	FINESS Array B	21.52	2	P	P	04 17 29.9	-0.6
	comp=Z,4.1nm,0.8s,baz=168,slow=7.1,SNR=10.0						
FINES				LR	LR	04 26 45.5	
	comp=Z,552nm,19.7s,baz=185,slow=39						
	comp=Z,4.1nm,0.8s						
FINES	FINESS Array B	21.52	2	P	P	04 17 29.0	-1.5
ESBB	Sonseca Array	21.71	278	P	P	04 17 33.0	+0.2
ESBB				IAmb	IAmb	04 17 42.3	
	comp=Z,35nm,1.1s						
ESDC	Sonseca Array	21.71	278	P	P	04 17 31.9	-0.9
	comp=Z,2.3nm,0.5s,baz=76,slow=10,SNR=28						
ESDC				LR	LR	04 27 30.5	
	comp=Z,190nm,19.1s,baz=74,slow=41						
	comp=Z,2.3nm,0.5s						
ESDC	Sonseca Array	21.71	278	P	P	04 17 33.4	+0.6
KONO	Kongsberg	21.77	340c	eP	P	04 17 36.0	+2.8
KONO				pmax	pmax		
	comp=Z,23nm,1.7s						
KONO	Kongsberg	21.77	340	P	P	04 17 34.1	+0.8
PAB	San Pablo	22.02	278	P	P	04 17 37.4	+1.2
PAB				pmax	pmax		
	comp=Z,38nm,1.4s						
PAB	San Pablo	22.02	278	P	P	04 17 37.4	+1.2
PAB				IAmb	IAmb	04 17 45.3	
	comp=Z,38nm,1.4s						
KEF	Keuruu	22.22	1	eP	P	04 17 37.1	-1.0
NC602	NORSAR Array S	22.25	343	P	P	04 17 36.6	-1.8
NC602				IAmb	IAmb	04 17 38.0	
	comp=Z,38nm,0.8s						
NAO01	NORSAR Array S	22.50	343	P	P	04 17 40.5	-0.5
NAO01				IAmb	IAmb	04 17 51.3	
	comp=Z,42nm,0.9s						
NC405	NORSAR Array S	22.55	344	P	P	04 17 40.1	-1.4
NC405				IAmb	IAmb	04 17 46.2	
	comp=Z,67nm,1.8s						
NB201	NORSAR Array S	22.59	343	P	P	04 17 40.6	-1.3
NB201				IAmb	IAmb	04 17 51.2	
	comp=Z,39nm,1.1s						
NB2	NORSAR Subarra	22.59	343	P	P	04 17 41.1	-1.0
	comp=Z,12nm,0.7s,baz=151,slow=11						
NOA	NORSAR Array B	22.59	343	P	P	04 17 41.2	-0.9
	comp=Z,10nm,0.8s,baz=152,slow=10,SNR=38						
NOA				LR	LR	04 26 47.7	
	comp=Z,212nm,18.4s,baz=160,slow=37						
	comp=Z,10nm,0.8s						
NBO00	NORSAR Array S	22.68	343	P	P	04 17 41.3	-1.7
NBO00				IAmb	IAmb	04 17 52.3	
	comp=Z,47nm,1.1s						
NC303	NORSAR Array S	22.73	344	P	P	04 17 41.5	-1.9
NC303				IAmb	IAmb	04 17 49.6	
	comp=Z,83nm,1.9s						
SUF	Sumiainen	22.80	2	eP	P	04 17 43.5	-0.7

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NC204  NORSAR Array S    22.91 343   P       P       04 17 44.5 -0.9
NC204                                IAmb    IAmb    04 17 55.8
       comp=Z,27nm,0.8s
KLMR   Klimovskoe        22.92  19  eP       P       04 17 44.2 -1.2
KLMR                                 S       S       04 21 55.4 +0.7
KLMR                                 pmax    pmax
       comp=Z,82nm,1.4s
VAF    Ylistaro          23.12 358  eP       P       04 17 47.1 -0.4
JOF    Joensuu           23.35   8  eP       P       04 17 49.3 -0.5
TAM    Tamanrasset       23.41 229   P       P       04 17 51.3 +0.4
TAM                                  pmax    pmax
       comp=Z,15nm,0.7s
TAM    Tamanrasset       23.41 229   P       P       04 17 51.3 +0.4
TAM                                  IAmb    IAmb    04 17 58.9
       comp=Z,15nm,0.7s
PBRG   Braganca          23.51 285  eP       P       04 17 54.9 +3.2
PBRG                                i IAmb   IAmb    04 17 58.7
       comp=Z,47nm,1.8s
EKA    Eskdalemuir Ar    23.85 319   P       P       04 17 54.1 -0.7
       comp=Z,2.4nm,0.5s,baz=114,slow=9.1,SNR=12
       comp=Z,2.4nm,0.5s
RAYN   Ar Rayn           24.25 126   P       P       04 17 59.2 +0.3
RAYN                                 pmax    pmax
       comp=Z,15nm,1.1s
RAYN   Ar Rayn           24.25 126   P       P       04 17 59.2 +0.3
MTE    Manteigas         24.30 281  eP       P       04 18 01.4 +2.2
MTE                                 i IAmb   IAmb    04 18 07.1
       comp=Z,44nm,1.7s
MTE                                 eS       S       04 22 24.0 +6.3
PVRL   Vila Real         24.30 284  eP       P       04 17 59.9 +0.8
PCBR   Castelo Branco    24.34 280  eP       P       04 18 00.0 +0.5
PCBR                                i IAmb   IAmb    04 18 07.3
       comp=Z,60nm,1.6s
PMRV   Marv??o           24.36 279  eP       P       04 18 03.3 +3.6
PBAR   Barrancos         24.37 276  eP       P       04 17 59.4 -0.4
PBAR                                i IAmb   IAmb    04 18 08.9
       comp=Z,27nm,1.8s
MD01   Midelt array s    24.40 262   P       P       04 18 00.7 +0.5
MD31   MD31              24.40 262   P       P       04 17 59.9 -0.2
PVIS   Viseu             24.51 282  eP       P       04 18 03.7 +2.6
KIRV   Kirov             24.54  32   P       P       04 18 01.6 +0.6
       comp=Z,8.8nm,0.4s,baz=210,slow=8.4,SNR=4.2
KIRV                                 LR      LR      04 27 46.6
       comp=Z,178nm,18.7s,baz=231,slow=37
       comp=Z,8.8nm,0.4s
KIRV   Kirov             24.54  32ceP        P       04 18 02.6 +1.6
PGAV   Gavieira, Arco    24.63 285  eP       P       04 18 05.1 +2.9
PGAV                                i IAmb   IAmb    04 18 10.5
       comp=Z,72nm,1.7s
PSARD  Sardoal           24.91 280  eP       P       04 18 05.4 +0.7
PSARD                               i IAmb   IAmb    04 18 12.8
       comp=Z,34nm,1.2s
PVAQ   Vaqueiros         25.09 274  eS       S       04 22 38.2 +7.9
PCVE   Castro Verde      25.27 275  eP       P       04 18 11.7 +3.8
PBDV   Barranco-do-Ve    25.29 274  eP       P       04 18 10.7 +2.5
PBDV                                i IAmb   IAmb    04 18 15.0
       comp=Z,101nm,1.7s
AKTO   Aktyubinsk        25.72  55   P       P       04 18 13.3 +1.4
       comp=Z,1.0nm,0.3s,baz=266,slow=7.5,SNR=6.0
AKTO                                 LR      LR      04 30 38.7
       comp=Z,257nm,18.1s,baz=238,slow=42
       comp=Z,1.0nm,0.3s
AB31   Akbulak array     26.77  58   P       P       04 18 21.4  0.0
ABKAR  Akbulak array     26.77  58   P       P       04 18 21.8 +0.4
ARTI   Arti              27.63  42   P       P       04 18 29.4 +0.3
       comp=Z,6.5nm,0.8s,baz=225,slow=6.6,SNR=7.8
ARTI                                 LR      LR      04 30 24.4
       comp=Z,262nm,18.5s,baz=248,slow=38
       comp=Z,6.5nm,0.8s
ARTI   Arti              27.63  42c iP       P       04 18 29.3 +0.3
ARTI                                                 04 19 11.6
ARTI                                                 04 21 44.2
ARTI                                 S       S       04 23 10.6 +0.5
ARTI                                 pmax    pmax
       comp=Z,6.0nm,0.8s
ARTI   Arti              27.63  42   P       P       04 18 28.1 -1.0
ARTI                                 IAmb    IAmb    04 18 50.1
       comp=Z,18nm,1.0s
ARCES  ARCESS Array B    29.63   1   P       P       04 18 49.0 +2.3
       comp=Z,2.8nm,0.8s,baz=181,slow=7.9,SNR=2.7
ARCES                                LR      LR      04 31 37.5
       comp=Z,477nm,19.3s,baz=189,slow=38
       comp=Z,2.8nm,0.8s
ARCES  ARCESS Array B    29.63   1   P       P       04 18 49.0 +2.3
ARCES  ARCESS Array B    29.63   1   P       P       04 18 47.5 +0.8
ARCES                                IAmb    IAmb    04 19 52.0
       comp=Z,39nm,1.6s
TORD   Torodi Ar. Bea    33.34 223   P       P       04 19 19.8  0.0
       comp=Z,3.3nm,0.6s,baz=34,slow=9.2,SNR=24
TORD                                 PcP     PcP     04 22 03.8 +2.2
       comp=Z,1.5nm,0.8s,baz=38,slow=2.5,SNR=5.3
       comp=Z,3.3nm,0.6s
BORK   Borovoye          33.64  52  i P      P       04 19 20.3 -1.8
BORK                                 pmax    pmax
       comp=Z,5.0nm,0.8s
BORK   Borovoye          33.64  52   P       P       04 19 21.7 -0.4
BVAR   Borovoye Array    33.68  52   P       P       04 19 23.1 +0.7
       comp=Z,1.4nm,0.7s,baz=266,slow=2.4,SNR=6.8
       comp=Z,1.4nm,0.7s
KK31   Karatay Array     34.36  69   P       P       04 19 28.8 +0.2
KK31                                 pmax    pmax
       comp=Z,5.0nm,1.2s
KK31   Karatay Array     34.36  69   P       P       04 19 28.8 +0.2
KKAR   Karatay Array     34.36  69   P       P       04 19 28.7 +0.1
KKAR   Karatay Array     34.36  69   P       P       04 19 28.6 +0.1
JMIC   Jan Mayen         35.30 342   LR      LR      04 33 20.7
       comp=Z,78nm,22.0s,baz=258,slow=35
BORG   Borgarnes         36.06 329   LR      LR      04 34 42.7
       comp=Z,118nm,19.1s,baz=114,slow=37
AAK    Ala-Archa         37.32  69   LR      LR      04 40 04.7
       comp=Z,218nm,19.1s,baz=286,slow=44
SPITS  Spitsbergen Ar    38.45 357   LR      LR      04 37 09.7
       comp=Z,351nm,20.3s,baz=173,slow=38
KURBB  Kurchatov Arra    38.77  56   P       P       04 20 06.7 +0.8
       comp=Z,1.3nm,0.7s,baz=284,slow=8.9,SNR=12
KURBB                                PcP     PcP     04 22 19.6 +2.4
       comp=Z,2.5nm,0.8s,baz=272,slow=3.9,SNR=8.7
KURBB                                LR      LR      04 39 30.0
       comp=Z,108nm,19.7s,baz=188,slow=42
       comp=Z,1.3nm,0.7s
KURK   Kurchatov         38.81  55ceP        P       04 20 08.0 +1.7
KURK                                 pmax    pmax
       comp=Z,6.0nm,1.3s
KURK   Kurchatov         38.81  55   P       P       04 20 06.5 +0.2
NIL    Nilore            39.26  83   P       P       04 20 10.0 -0.4
NIL                                  pmax    pmax
       comp=Z,9.0nm,0.8s
NIL    Nilore            39.26  83   P       P       04 20 10.0 -0.4
TARG   Taragay, Kyrgy    39.93  70   P       P       04 20 14.9 -1.4
TARG                                 pmax    pmax
       comp=Z,8.0nm,0.6s
TARG   Taragay, Kyrgy    39.93  70   P       P       04 20 14.9 -1.4
PDGK   Podgornoye        40.71  67   P       P       04 20 22.5 +0.1
PDGK   Podgornoye        40.71  67   P       P       04 20 22.5 +0.1
MBAR   Mbarara           40.80 170   LR      LR      04 40 24.3
       comp=Z,152nm,18.3s,baz=340,slow=41
MAKZ   Makanchi          41.61  61   P       P       04 20 28.8 -0.9
MAKZ                                 pmax    pmax
       comp=Z,3.0nm,0.9s
MAKZ   Makanchi          41.61  61   P       P       04 20 28.8 -0.9
MK31   Makanchi Array    41.83  61d iP       P       04 20 32.1 +0.7
MKAR   Makanchi Array    41.83  61   P       P       04 20 32.3 +0.9
       comp=Z,5.1nm,0.7s,baz=282,slow=6.4,SNR=42
MKAR                                 LR      LR      04 40 24.9
       comp=Z,85nm,19.0s,baz=271,slow=40
       comp=Z,5.1nm,0.7s
MKAR   Makanchi Array    41.83  61   P       P       04 20 31.7 +0.3
DBIC   Dimbokro          42.26 226   P       P       04 20 35.4 +0.3
       comp=Z,9.3nm,0.7s,baz=42,slow=9.4,SNR=11
       comp=Z,9.3nm,0.7s
DBIC   Dimbokro          42.26 226   P       P       04 20 37.0 +1.9
DBIC                                 IAmb    IAmb    04 20 41.5
       comp=Z,13nm,0.8s
ZAA0   Zalesovo Array    42.27  50   P       P       04 20 35.1 +0.2
ZAA0                                 IAmb    IAmb    04 20 41.4
       comp=Z,27nm,1.5s
ZALV   Zalesovo Beam     42.27  50   P       P       04 20 35.5 +0.6
       comp=Z,5.2nm,0.6s,baz=272,slow=8.9,SNR=24
ZALV                                 LR      LR      04 40 02.5
       comp=Z,112nm,21.4s,baz=267,slow=39
       comp=Z,5.2nm,0.6s
ZALV   Zalesovo Beam     42.27  50   P       P       04 20 35.3 +0.5
NRIK   Noril'sk          43.85  27   LR      LR      04 40 32.0
       comp=Z,187nm,19.9s,baz=261,slow=38
NRIK   Noril'sk          43.85  27  eP       P       04 20 47.9 +0.5
NRIK                                 pmax    pmax
       comp=Z,9.0nm,1.4s
SUMG   Summit            44.27 337   P       P       04 20 51.9 +0.6
SUMG                                 pmax    pmax
       comp=Z,8.0nm,0.8s
SUMG   Summit            44.27 337   P       P       04 20 51.9 +0.6
DGZ    Jazzator, Alta    44.56  56⇓iP        P       04 20 54.9 +1.3
DGZ                                  pmax    pmax
       comp=Z,7.0nm,0.7s
WMQ    Urumqi            46.29  64  eP       P       04 21 10.0 +2.7
WMQ                                  LR      LR
       comp=Z,78nm,20.7s
SFJD   Kangerlussuaq     48.18 329   LR      LR      04 41 16.9
       comp=Z,128nm,20.6s,baz=92,slow=36
EVN    Everest           52.22  83   P       P       04 21 53.0 -0.6
TLY    Talaya            53.87  49   LR      LR      04 46 45.9
       comp=Z,157nm,19.1s,baz=294,slow=38
TLY    Talaya            53.87  49ceP        P       04 22 08.8 +4.1
TLY                                  pmax    pmax
       comp=Z,10.0nm,1.3s
ZAK    Zakamensk         54.13  51  eP       P       04 22 07.0 +0.4
ZAK                                  pmax    pmax
       comp=Z,5.0nm,1.6s
LSZ    Lusaka            55.08 175   LR      LR      04 46 38.3
       comp=Z,137nm,19.4s,baz=248,slow=37
FRB    Frobisher Bay     56.23 328   LR      LR      04 48 08.7
       comp=Z,142nm,18.4s,baz=50,slow=38
GTA2   Gaotai            56.29  64  eP       P       04 22 23.3 +0.9
GTA2                                 pmax    pmax
       comp=Z,5.0nm,0.8s
DRLN   Deer Lake         56.30 309   P       P       04 22 22.5 +0.3
TIXI   Tiksi             56.91  21   LR      LR      04 48 01.6
       comp=Z,108nm,19.3s,baz=343,slow=37
SONM   Songino Array     57.01  53   P       P       04 22 28.6 +1.2
       comp=Z,1.4nm,0.7s,baz=286,slow=8.0,SNR=8.3
       comp=Z,1.4nm,0.7s
SONM   Songino Array     57.01  53   P       P       04 22 27.4  0.0
SONM                                 IAmb    IAmb    04 22 34.5
       comp=Z,9.7nm,1.3s
SHL    Shillong          57.33  83   P       P       04 22 28.0 -2.0
SHL    Shillong          57.33  83   P       P       04 22 28.0 -2.0
ULN    Ulaanbaatar       57.40  52ceP        P       04 22 31.8 +1.6
ULN                                  pmax    pmax
       comp=Z,3.0nm,1.0s
ULN    Ulaanbaatar       57.40  52   P       P       04 22 30.5 +0.3
RES    Resolute Bay      58.86 344   LR      LR      04 47 54.1
       comp=Z,66nm,18.1s,baz=36,slow=36
SCHQ   Schefferville     59.15 318   P       P       04 22 42.8 +0.7
       comp=Z,3.9nm,0.8s,baz=69,slow=8.6,SNR=5.1
       comp=Z,3.9nm,0.8s
TSUM   Tsumeb            59.21 187   LR      LR      04 48 57.4
       comp=Z,157nm,19.3s,baz=351,slow=37
PALK   Pallekele         59.81 107   LR      LR      04 53 30.7
       comp=Z,92nm,18.1s,baz=305,slow=41
MORE   Moreh             59.89  82   P       P       04 22 48.4 +0.7
MATP   Matopo            60.21 176   LR      LR      04 49 49.4
       comp=Z,89nm,19.8s,baz=221,slow=37
LZDM   Lanzhou Array     60.71  66   P       P       04 22 53.7 +0.2
       comp=Z,1.5nm,0.3s,baz=301,slow=9.9,SNR=2.3
       comp=Z,1.5nm,0.3s
LZH    Lanzhou           60.75  66  eP       P       04 22 57.3 +3.7
LZH                                  pP      sP      04 23 00.5 +1.0
LZH                                  pmax    pmax
       comp=Z,11nm,1.5s
YAK    Yakutsk           62.06  31   LR      LR      04 51 13.0
       comp=Z,88nm,19.3s,baz=293,slow=37
KOOLE  Kule              62.76 184   P       P       04 23 06.8 -0.2
LPHEP  Lephephe          63.03 178   P       P       04 23 08.9 +0.2
CD2    Chengdu           63.36  71  eP       P       04 23 10.0 -1.1
HHC    Hu-ho-hao-te      63.56  58  eP       P       04 23 12.3 -0.1
HHC                                  pmax    pmax
       comp=Z,16nm,0.6s
D62A   Allapoint, All    64.14 311   P       P       04 23 16.4 +0.5
PZH    PanZhiHua         64.26  76   P       P       04 23 17.3 +0.1
LBTB   Lobatse           64.66 179   LR      LR      04 50 57.2
       comp=Z,84nm,20.1s,baz=348,slow=36
LBTB   Lobatse           64.66 179   P       P       04 23 21.0 +1.5
LBTB                                 pmax    pmax
       comp=Z,15nm,0.8s
LBTB   Lobatse           64.66 179   P       P       04 23 21.0 +1.5
XLT    XiLinHaoTe        64.83  53  eP       P       04 23 26.5 +5.9
XLT                                  pmax    pmax
       comp=Z,5.0nm,1.0s
CM31   Chiang Mai Arr    66.73  85   P       P       04 23 32.6 -0.5
CM31                                 IAmb    IAmb    04 23 41.0
       comp=Z,8.7nm,0.9s
CMAR   Chiang Mai Arr    66.73  85   P       P       04 23 33.3 +0.2
       comp=Z,2.9nm,0.7s,baz=306,slow=7.5,SNR=15
CMAR                                 LR      LR      04 57 03.1
       comp=Z,31nm,21.6s,baz=315,slow=40
       comp=Z,2.9nm,0.7s
CMAR   Chiang Mai Arr    66.73  85   P       P       04 23 32.9 -0.2
HNS    HongShan          67.47  60 ⇑P        P       04 23 43.0 +5.5
HNS                                  pmax    pmax
       comp=Z,9.0nm,0.8s
TRQ    Mont Tremblant    67.79 312   P       P       04 23 38.2 -1.3
TRQ                                  IAmb    IAmb    04 23 46.8
       comp=Z,7.2nm,0.8s
BOSA   Boshof            68.24 179   P       P       04 23 42.9 +0.6
       comp=Z,1.2nm,0.7s,baz=351,slow=6.6,SNR=18
BOSA                                 LR      LR      04 54 57.2
       comp=Z,97nm,18.1s,baz=356,slow=37
       comp=Z,1.2nm,0.7s
BOSA   Boshof            68.24 179   P       P       04 23 43.0 +0.6
BOSA                                 pmax    pmax
       comp=Z,11nm,0.8s
BOSA   Boshof            68.24 179   P       P       04 23 43.0 +0.6
SEY    Seymchan          69.36  23  eP       P       04 23 51.1 +2.2
SEY                                  pmax    pmax
       comp=Z,4.0nm,1.4s
CN2    Changchun         70.47  49  eP       P       04 23 59.8 +3.7
CN2                                  pmax    pmax
       comp=Z,10.0nm,0.7s
KLR    Kul'dur           70.58  42  eP       P       04 23 57.6 +1.0
KLR                                  pmax    pmax
       comp=Z,2.0nm,1.4s
INK    Inuvik            70.77 351   LR      LR      04 57 42.3
       comp=Z,57nm,18.2s,baz=354,slow=38
E29M   Blow River        71.14 353   P       P       04 24 01.2 +1.5
E29M                                 IAmb    IAmb    04 24 07.5
       comp=Z,8.9nm,0.8s
SADO   Sadowa            71.25 313   LR      LR      04 54 50.7
       comp=Z,157nm,18.3s,baz=76,slow=36
SADO   Sadowa            71.25 313   P       P       04 24 01.6 +0.8
SADO                                 IAmb    IAmb    04 24 08.2
       comp=Z,9.8nm,0.8s
MA2    Magadan           71.42  26   LR      LR      04 59 23.9
       comp=Z,101nm,18.2s,baz=312,slow=39
MA2    Magadan           71.42  26  eP       P       04 24 01.8 +0.2
MA2                                  pmax    pmax
       comp=Z,5.0nm,0.3s
E25K   Arctic Village    71.96 356   P       P       04 24 05.9 +1.2
E25K                                 IAmb    IAmb    04 24 17.6
       comp=Z,25nm,1.8s
SUR    Sutherland        72.07 183   LR      LR      04 57 44.4
       comp=Z,111nm,19.2s,baz=358,slow=38
M57A   Sunshine Farm,    72.18 309   P       P       04 24 07.1 +0.6
M57A                                 IAmb    IAmb    04 24 14.0
       comp=Z,7.6nm,0.8s
G29M   Pine Creek        72.59 353   P       P       04 24 08.9 +0.4
G29M                                 IAmb    IAmb    04 24 26.6
       comp=Z,13nm,1.2s
BMAR   Burnt Mountain    72.59 356   P       P       04 24 09.4 +0.8
YKA    Yellowknife Ar    72.68 341   LR      LR      04 56 59.1
       comp=Z,77nm,19.5s,baz=38,slow=37
H29M   Whitestone        73.30 353   P       P       04 24 11.9 -0.7
NJ2    Nanjing           73.34  62  eP       P       04 24 14.5 +1.0
NJ2                                  pmax    pmax
       comp=Z,11nm,0.7s
F19K   Shaleruckik Mo    73.51   1   P       P       04 24 13.0 -0.8
USRK   Ussuriysk Ar.     73.92  46   P       P       04 24 15.8 -0.9
       comp=Z,0.8nm,0.6s,baz=299,slow=5.9,SNR=5.2
USRK                                 LR      LR      04 57 59.5
       comp=Z,58nm,18.6s,baz=299,slow=37
       comp=Z,0.8nm,0.6s
USRK   Ussuriysk Ar.     73.92  46   P       P       04 24 15.2 -1.5
I29M   Ogilvie Camp,     74.13 353   P       P       04 24 17.6  0.0
I29M                                 IAmb    IAmb    04 24 25.2
       comp=Z,8.4nm,1.1s
J30M   Hart River        74.68 351   P       P       04 24 20.3 -0.7
J30M                                 IAmb    IAmb    04 24 45.2
       comp=Z,7.5nm,0.9s
Q56A   Snyder Ridge,     74.84 308   P       P       04 24 22.1 -0.1
Q56A                                 IAmb    IAmb    04 24 29.1
       comp=Z,13nm,0.7s
ILAR   Eielson Array     75.36 356   LR      LR      05 00 27.3
       comp=Z,64nm,20.2s,baz=36,slow=38
DAWY   Dawson            75.50 353   P       P       04 24 26.3 +0.7
O52A   Adamsville        75.73 311   P       P       04 24 26.9 -0.4
O52A                                 IAmb    IAmb    04 24 33.8
       comp=Z,11nm,0.8s
P53A   Whipple           75.87 310   P       P       04 24 28.2 +0.1
KSRS   Korea Array       75.88  53   P       P       04 24 28.6 +0.4
       comp=Z,1.9nm,0.6s,baz=324,slow=6.2,SNR=4.7
KSRS                                 LR      LR      05 00 18.4
       comp=Z,51nm,21.2s,baz=305,slow=38
       comp=Z,1.9nm,0.6s
ULM    Lac du Bonnet     75.97 325   LR      LR      04 57 31.3
       comp=Z,139nm,18.6s,baz=14,slow=35
MDP    Montagnes des     76.77 266   LR      LR      04 54 18.2
       comp=Z,58nm,21.4s,baz=63,slow=32
J17K   VABM Dome         76.94   2   P       P       04 24 35.1 +1.4
PETK   Petropavlovsk-    78.90  27   LR      LR      05 02 01.4
       comp=Z,90nm,19.1s,baz=308,slow=38
ASAJ   Asahikawa         79.52  40   LR      LR      05 04 11.8
       comp=Z,107nm,18.2s,baz=90,slow=39
DLBC   Dease Lake        79.64 347   LR      LR      05 00 10.3
       comp=Z,106nm,18.1s,baz=27,slow=36
JNU    Nakatsue          80.53  55   LR      LR      05 05 15.6
       comp=Z,75nm,18.4s,baz=348,slow=39
W50A   Signal Mountai    81.05 309   P       P       04 24 57.8 +0.9
W50A                                 IAmb    IAmb    04 25 03.1
       comp=Z,6.7nm,0.7s
P40A   Paris             81.86 316   P       P       04 24 60.0 -1.0
P40A                                 IAmb    IAmb    04 25 06.2
       comp=Z,4.7nm,0.6s
KDAK   Kodiak Island     82.57 358   LR      LR      05 04 31.2
       comp=Z,78nm,18.0s,baz=42,slow=38
Y49A   Blount Mountai    82.63 308   P       P       04 25 03.8 -1.4
T42A   Van Buren         83.13 313   P       P       04 25 08.1 +0.5
T42A                                 IAmb    IAmb    04 25 13.0
       comp=Z,14nm,1.4s
LRAL   Lakeview Retre    83.55 308   P       P       04 25 09.2 -0.6
LRAL                                 IAmb    IAmb    04 25 15.8
       comp=Z,8.8nm,0.7s
SHEM   Shemya Is, Ala    84.02  18   LR      LR      05 07 48.4
       comp=Z,39nm,19.2s,baz=346,slow=39
BDFB   Brasilia          86.97 247   P       P       04 25 29.4 +2.2
       comp=Z,6.2nm,0.7s,baz=81,slow=4.0,SNR=10
       comp=Z,6.2nm,0.7s
PDAR   Pinedale Array    87.67 328   P       P       04 25 31.9 +1.4
       comp=Z,0.3nm,0.7s,baz=25,slow=9.6,SNR=3.8
PDAR                                 LR      LR      05 07 10.2
       comp=Z,58nm,18.9s,baz=14,slow=37
       comp=Z,0.3nm,0.7s
PDAR   Pinedale Array    87.67 328   P       P       04 25 30.9 +0.4
ANMO   Albuquerque       92.73 321   LR      LR      05 08 31.7
       comp=Z,66nm,18.4s,baz=60,slow=36
ANMO   Albuquerque       92.73 321ceP        P       04 26 00.3 +6.1
ANMO                                 pmax    pmax
       comp=Z,1.0nm,1.3s
YBH    Yreka Blue Hor    93.34 336   LR      LR      05 09 20.0
       comp=Z,50nm,19.6s,baz=3.0,slow=36
ROSC   El Rosal          93.54 279   LR      LR      05 06 49.3
       comp=Z,95nm,21.6s,baz=63,slow=35
NVAR   Mina Array Bea    94.80 331   P       P       04 26 05.9 +2.2
       comp=Z,0.2nm,0.4s,baz=45,slow=3.5,SNR=4.2
NVAR                                 LR      LR      05 11 23.0
       comp=Z,70nm,19.3s,baz=23,slow=37
       comp=Z,0.2nm,0.4s
TXAR   Lajitas Array     95.81 316   P       P       04 26 10.5 +2.1
       comp=Z,0.7nm,0.9s,baz=64,slow=2.9,SNR=5.5
TXAR                                 LR      LR      05 10 03.8
       comp=Z,88nm,18.9s,baz=58,slow=36
       comp=Z,0.7nm,0.9s
TXAR   Lajitas Array     95.81 316   P       P       04 26 08.9 +0.6
TXAR   Lajitas Array     95.81 316   P       P       04 26 08.9 +0.6
JTS    Las Juntas de     97.83 290   LR      LR      05 04 44.9
       comp=Z,51nm,19.5s,baz=317,slow=32
PFO    Pinyon Flats O    98.30 328   LR      LR      05 11 18.4
       comp=Z,61nm,21.1s,baz=9.5,slow=36
WRA    Warramunga Arr   117.66  94   PKP     PKPdf   04 31 26.8 -1.3
       comp=Z,0.6nm,0.9s,baz=316,slow=1.9,SNR=4.6
ASAR   Alice Springs    119.43  97   PKP     PKPdf   04 31 30.1 -1.3
       comp=Z,0.5nm,0.5s,baz=296,slow=2.1,SNR=6.3
ASAR   Alice Springs    119.43  97           PKPdf   04 31 30.0 -1.5
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*DJA **28** 04:37:38.0±0.6, 4˚N±6˚×12˚8E±˚, h78km±14km, M4.5/15, mB5.0/5, mb4.8/5, MLv4.4/15, Mw(mB)4.4/5*

*IDC **28** 04:37:40.6±3.4, 3˚.26N×128˚.05E, h126km±35km, mb3.3/8, mbtmp3.8/9, Error ellipse: s-maj=58.4km s-min=16.1km az=65.0*

ISC 28 04:37:36.4±1.0,**3˚.48N**±0˚.10×**128˚.13E**±0˚.09,**h84**km,**n17**, σ**1˚.87**/16,**mb3.6**/8,**North of Halmahera**

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Code   Station Name        Δ°   AZ°    Phase ID          Time      Res
                                     Op      ISC       h  m  s    ISC
GAMI   Galela, Maluku     1.67 192   P       Pn      04 38 05.9 +1.8
GAMI                                 S       Sn      04 38 26.8 +1.7
GAMI                                 AML     AML
TNTI   Ternate            2.80 196   P       Pn      04 38 20.8 +1.6
MNI    Manado             3.86 238   P       Pn      04 38 34.6 +1.1
MNI                                  AML     AML
SWI    Sorong             5.33 144   P       Pn      04 38 56.2 +2.6
SWI                                  AML     AML
SIJI   Sorong             5.34 144   P       Pn      04 38 56.7 +3.0
       49nm,0.3s,baz=336,slow=9.2,SNR=46
SIJI                                 S       Sn      04 39 52.7 -1.3
       16nm,0.3s,baz=186,slow=23,SNR=11
SANI   Sanana             5.90 201   P       Pn      04 39 03.1 +1.8
SANI                                 AML     AML
FITZ   Fitzroy Crossi    21.59 186   P       P       04 42 17.3 -2.2
       0.9nm,0.5s,baz=9.9,slow=8.5,SNR=7.3
       0.9nm,0.5s
WRA    Warramunga Arr    24.07 166   P       P       04 42 42.2 -1.9
       0.9nm,0.4s,baz=345,slow=11,SNR=24
       0.9nm,0.4s
ASAR   Alice Springs     27.57 168   P       P       04 43 14.5 -1.2
       0.2nm,0.4s,baz=348,slow=8.3,SNR=2.3
       0.2nm,0.4s
CMAR   Chiang Mai Arr    32.20 300   P       P       04 43 58.0 +1.2
       0.5nm,0.3s,baz=128,slow=6.9,SNR=5.1
       0.5nm,0.3s
STKA   Stephens Creek    37.42 161   P       P       04 44 40.4 -1.2
       1.3nm,0.4s,baz=343,slow=6.9,SNR=5.5
       1.3nm,0.4s
H11S3  WAKE ISLAND Hy    40.56  65   T       T       05 28 28.1
       baz=253
H11S1  WAKE ISLAND Hy    40.57  65   T       T       05 28 28.1
       baz=253
H11S2  WAKE ISLAND Hy    40.57  65   T       T       05 28 29.5
       baz=253
MKAR   Makanchi Array    58.56 325   P       P       04 47 25.0 +0.7
       0.4nm,0.4s,baz=116,slow=7.8,SNR=5.3
       0.4nm,0.4s
KURBB  Kurchatov Arra    62.70 327   P       P       04 47 52.4  0.0
       0.5nm,0.5s,baz=128,slow=6.2,SNR=6.3
       0.5nm,0.5s
VNDA   Vanda             83.01 173   P       P       04 49 50.5 -1.4
       0.3nm,0.6s,baz=313,slow=6.7,SNR=2.0
       0.3nm,0.6s
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*MOS **28** 05:12:32.9±0.9, 33˚.28N×75˚.85E, h8km, mb4.7/21, Error ellipse: s-maj=8.3km s-min=4.7km az=101.3*

*IDC **28** 05:12:32.7±0.5, 33˚.18N×75˚.78E, h0km, mb4.4/24, mbtmp4.4/26, ML4.1/2, MS3.2/6, Error ellipse: s-maj=14.8km s-min=11.2km az=55.0*

*NEIC **28** 05:12:35.0±1.4, 33˚.23N±0˚.05×75˚.86E±0˚.08, h10km±1km, mb4.6/35, Error ellipse: s-maj=12.4km s-min=7.9km az=237.0*

*GFZ **28** 05:12:35.3±0.2, 33˚N±3˚×7˚6E±˚, h10km, M4.5/30, mb4.6/30, confirmed*

*BJI **28** 05:12:36.4, 33˚.28N×75˚.84E, h35km, mB4.2/6, mb4.5/27, ML4.1/4, Ms3.8/7, Ms7 3.6/7*

*NDI **28** 05:12:37.1±2.1, 33˚.24N×75˚.84E, h10km, ML4.4, MW4.2, mb4.6(NEIC), Presumed earthquake*

*NNC **28** 05:12:47.0±3.1, 33˚.87N×75˚.40E, h55km±31km, mb4.3, mpv4.5, Error ellipse: s-maj=26.3km s-min=24.3km az=97.0*

ISC 28 05:12:38.5±0.5,**33˚.27N**±0˚.04×**75˚.80E**±0˚.04,**h36**km±1km, **n237**,σ**1˚.33**/255,**mb4.5**/71,**MS3.2**/6,**15C-9D,Eastern Kashmir**

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Code   Station Name        Δ°   AZ°    Phase ID          Time      Res
                                     Op      ISC       h  m  s    ISC
JMU    Jammu              0.95 239  eP       Pn      05 12 56.2 +0.9
JMU                                 eS       Sn      05 13 10.0 +2.4
JMU                                  IAML            05 13 18.5
       comp=N,12µm,0.4s
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JMU				IAML		05 13 19.4	
	comp=E,11µm,0.3s						
DHRM	DHARAMSHALA	1.10	157	eP	Pn	05 12 57.8	+0.2
DHRM				eS	Sn	05 13 12.6	+1.0
DHRM				IAML		05 13 18.2	
	comp=E,8µm,0.5s						
DHRM				IAML		05 13 18.3	
	comp=N,8µm,0.3s						
ALCI	Alchi Leh	1.49	50	eP	Pn	05 13 03.5	+0.4
ALCI				eS	Sn	05 13 25.0	+3.5
ALCI				IAML		05 13 30.3	
	comp=E,7µm,0.5s						
ALCI				IAML		05 13 30.6	
	comp=N,8µm,0.5s						
BHK	Bhakra	1.93	165	eP	Pn	05 13 10.6	+1.7
BHK				eS	Sn	05 13 36.8	+4.9
BHK				IAML		05 13 38.9	
	comp=N,8µm,0.3s						
BHK				IAML		05 13 39.4	
	comp=E,7µm,0.2s						
NIL	Nilore	2.17	281	P	Pn	05 13 14.4	+2.3
NIL	Nilore	2.17	281		Pn	05 13 14.4	+2.3
NIL	Nilore	2.17	281	P	Pn	05 13 14.4	+2.3
SMLA	Simla	2.43	151	eP	Pn	05 13 16.8	+1.1
SMLA				eS	Sn	05 13 47.3	+3.2
SMLA				IAML		05 13 51.5	
	comp=N,4µm,0.6s						
SMLA				IAML		05 13 52.5	
	comp=E,5µm,0.7s						
CGRH	CHANDIGARH	2.66	162	eP	Pn	05 13 20.4	+1.5
CGRH				eS	Sn	05 13 51.7	+1.8
CGRH				IAML		05 13 59.7	
	comp=E,4µm,0.4s						
CGRH				IAML		05 14 02.3	
	comp=N,3µm,0.1s						
HNLY	HANLEY	2.71	100	eP	Pn	05 13 20.7	+0.7
HNLY				eS	Sn	05 13 53.1	+1.4
HNLY				IAML		05 14 03.2	
	comp=N,2µm,0.8s						
HNLY				IAML		05 14 03.8	
	comp=E,2µm,0.9s						
KBL	Kabul	5.76	285	P	Pn	05 14 02.2	+0.5
KBL	Kabul	5.76	285		Pn	05 14 02.2	+0.5
KBL	Kabul	5.76	285	P	Pn	05 14 02.9	+1.3
	comp=Z,65nm,0.7s						
KSH2	Kashi	5.87	358	P	Pn	05 14 08.0	+4.9
KSH2				S	Sn	05 15 14.3	+5.2
KSH2				AML	AML		
	comp=Z,110nm,0.9s						
KSH2				AML	AML		
	comp=Z,140nm,0.9s						
DRK	Karamyk	6.99	334	P	Pn	05 14 19.7	+1.1
DRK	Karamyk	6.99	334	Pn	Pn	05 14 19.6	+1.1
DRK	Karamyk	6.99	334	P	Pn	05 14 20.4	+1.8
	comp=Z,56nm,0.6s						
OHH	Osh	7.63	342	P	Pn	05 14 28.7	+1.5
	comp=Z,14nm,0.7s						
ASAI	AK-SAY(Kyrgyzs	7.66	4	P	Pn	05 14 29.6	+1.8
	comp=Z,22nm,0.7s						
BTK	Batken	7.87	331	P	Pn	05 14 31.1	+0.6
BTK	Batken	7.87	331		Pn	05 14 31.1	+0.6
BTK	Batken	7.87	331	P	Pn	05 14 31.3	+0.8
	comp=Z,85nm,0.7s						
NRN	Naryn	8.15	1	P	Pn	05 14 34.2	-0.4
NRN	Naryn	8.15	1		Pn	05 14 34.2	-0.4
WUS	Wushi	8.37	18	P	Pn	05 14 38.6	+1.3
	comp=Z,58nm,0.7s						
TARG	Taragay, Kyrgy	8.59	10	P	Pn	05 14 40.0	-0.7
TARG	Taragay, Kyrgy	8.59	10		Pn	05 14 40.0	-0.7
TARG	Taragay, Kyrgy	8.59	10	P	Pn	05 14 43.9	+3.2
	comp=Z,32nm,1.2s						
KDJ	Kajisay	8.91	7	P	Pn	05 14 46.2	+1.3
KDJ	Kajisay	8.91	7		Pn	05 14 46.2	+1.3
KDJ	Kajisay	8.91	7	P	Pn	05 14 47.1	+2.2
	comp=Z,23nm,0.9s						
ARK	Arkit	9.04	341	P	Pn	05 14 46.2	-0.4
	comp=Z,17nm,0.9s						
BOOM	Boomskoye usch	9.21	1	P	Pn	05 14 48.7	-0.2
	comp=Z,30nm,1.1s						
AAK	Ala-Archa	9.41	354	Pn	Pn	05 14 52.6	+1.0
	comp=Z,1.9nm,0.3s,baz=174,slow=9.1,SNR=16						
AAK				Sn	Sn	05 16 36.5	+0.3
	comp=Z,1.0nm,0.3s,baz=227,slow=18,SNR=1.5						
AAK				LR	LR	05 18 48.0	
	comp=Z,156nm,20.1s,baz=176,slow=40						
	comp=Z,7.3nm,0.5s						
AAK				AML	AML		
AAK	Ala-Archa	9.41	354	⇑P	Pn	05 14 52.5	+0.9
	comp=Z,32nm,1.5s						
AAK				⇑S	Sn	05 16 26.5	-10
	comp=Z,13nm,1.0s						
AAK	Ala-Archa	9.41	354	ceP	Pn	05 14 52.8	+1.2
AAK				pmax	pmax		
	comp=Z,15nm,1.3s						
AAK	Ala-Archa	9.41	354	P	Pn	05 14 53.1	+1.5
	comp=Z,14nm,1.1s						
PRZ	Przheval'sk	9.43	12	P	Pn	05 14 54.1	+2.2
	comp=Z,24nm,0.7s						
ANVS	Anan'yevo	9.61	8	P	Pn	05 14 56.1	+1.7
	comp=Z,40nm,0.9s						
MRKS	Merke	9.68	349	Pg	Pn	05 14 55.8	+0.6
	comp=Z,6.5nm,0.4s						
MRKS				Lg	Lg	05 16 40.2	
	comp=Z,19nm,0.5s						
IUG	Iuzhnay	9.97	334	Pg	Pn	05 14 59.1	-0.2
	comp=Z,25nm,0.6s						
IUG				Lg	Lg	05 16 45.8	
	comp=Z,45nm,0.5s						
SATY	Saty	9.99	11	P	Pn	05 15 01.3	+1.8
	comp=Z,14nm,0.6s						
BHPL	Bhopal	10.09	171	eP	Pn	05 14 59.4	-1.6
UZB	Uzynbulak	10.18	13	P	Pn	05 15 04.2	+2.0
	comp=Z,8.1nm,0.3s						
KURS	Kuram	10.37	10	P	Pn	05 15 06.6	+1.9
	comp=Z,10nm,0.9s						
KPKS	Kokpek	10.43	12	P	Pn	05 15 07.3	+1.8
	comp=Z,0.5nm,0.3s						
PDGK	Podgornoye	10.45	15	⇓P	Pn	05 15 06.3	+0.3
	comp=Z,18nm,0.6s						
PDGK				⇑S	Sn	05 17 00.2	-1.5
	comp=Z,20nm,0.9s						
PDGK	Podgornoye	10.45	15	P	Pn	05 15 06.2	+0.3
PDGK	Podgornoye	10.45	15		Pn	05 15 06.2	+0.3
KK31	Karatay Array	10.66	339	P	Pn	05 15 07.2	-1.5
	comp=Z,9.5nm,0.6s,baz=156,slow=13,SNR=62						
KK31				⇑S	Sn	05 17 00.7	-6.0
	comp=Z,11nm,0.5s,baz=170,slow=25,SNR=6.2						
KK31	Karatay Array	10.66	339	P	Pn	05 15 07.4	-1.2
KK31	Karatay Array	10.66	339		Pn	05 15 07.4	-1.2
KKAR	Karatay Array	10.66	339	P	Pn	05 15 07.1	-1.5
KKAR	Karatay Array	10.66	339		Pn	05 15 07.1	-1.5
BRLS	Borolday	10.81	336	Pg	Pn	05 15 07.0	-3.7
	comp=Z,11nm,0.4s						
BRLS				Lg	Lg	05 17 00.2	
	comp=Z,12nm,0.3s						
EVN	Everest	10.86	116		Pn	05 15 08.8	-3.3
EVN	Everest	10.86	116	P	Pn	05 15 09.9	-2.2
	comp=Z,24nm,0.6s						
DJR	Jarkent	11.47	15	P	Pn	05 15 20.6	+0.8
	comp=Z,8.1nm,0.6s						
WMQ	Urumqi	14.04	38	eP	P	05 16 02.5	+0.3
WMQ				pmax	pmax		
	comp=Z,16nm,0.7s						
MAKZ	Makanchi	14.32	17	P	Pn	05 15 57.3	-1.3
MAKZ	Makanchi	14.32	17		Pn	05 15 57.2	-1.3
MAKZ	Makanchi	14.32	17	P	Pn	05 15 57.3	-1.3
	comp=Z,17nm,1.0s						
MK31	Makanchi Array	14.39	18	P	Pn	05 15 58.4	-1.1
	comp=Z,1.8nm,0.5s,baz=198,slow=13,SNR=24						
MK31				⇓S	Sn	05 18 36.2	-1.5
	comp=Z,1.2nm,0.5s,baz=203,slow=25,SNR=7.4						
MK31	Makanchi Array	14.39	18	deP	Pn	05 15 58.0	-1.5
MKAR	Makanchi Array	14.39	18	Pn	Pn	05 15 57.7	-1.8
	comp=Z,0.9nm,0.3s,baz=207,slow=12,SNR=25						
MKAR				Sn	Sn	05 18 31.1	-6.6
	comp=Z,0.7nm,0.3s,baz=201,slow=25,SNR=6.6						
	comp=Z,1.5nm,0.3s						
MKAR				AML	AML		
MKAR	Makanchi Array	14.39	18	i P	Pn	05 15 59.2	-0.3
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
MKAR	Makanchi Array	14.39	18		Pn	05 15 58.5	-1.1
GOMU	GeErMu	15.90	74	P	P	05 16 23.5	+0.3
GOMU				pP	Pn	05 16 27.0	+7.1
GOMU				sP	pP	05 16 31.0	-2.7
GOMU				S	Sn	05 19 17.0	+1.8
GOMU				pmax	pmax		
	comp=Z,8.0nm,0.8s						
GOMU				L	L		
	comp=Z,85nm,9.7s						
GOMU				L	L		
	comp=Z,86nm,10.0s						
GOMU				L	L		
	comp=Z,88nm,9.7s						
HYB	Hyderabad	15.98	170	eP	P	05 16 22.7	-1.1
HYB				eS	S	05 19 30.7	+1.0
KURBB	Kurchatov Arra	17.46	6	P	Pn	05 16 36.1	-2.8
	comp=Z,2.1nm,0.2s,baz=191,slow=11,SNR=18						
KURK	Kurchatov	17.56	6	ceP	Pn	05 16 37.0	-3.2
KURK				pmax	pmax		
	comp=Z,15nm,1.7s						
KURK	Kurchatov	17.56	6		Pn	05 16 37.6	-2.6
KURK	Kurchatov	17.56	6	P	Pn	05 16 37.8	-2.4
	comp=Z,8.3nm,0.7s						
DGZ	Jazzator, Alta	18.55	24	deP	P	05 16 51.9	-0.2
DGZ				pmax	pmax		
	comp=Z,8.0nm,0.6s						
AB31	Akbulak array	19.86	328	P	P	05 17 05.6	-0.7
	comp=Z,5.1nm,0.6s,baz=123,slow=5.8,SNR=80						
AB31	Akbulak array	19.86	328		P	05 17 06.3	-0.1
AB31				IAmb	IAmb	05 17 13.2	
	comp=Z,9.1nm,0.6s						
ABKAR	Akbulak array	19.86	328		P	05 17 06.1	-0.3
BVA0	Borovoye Array	20.13	350	P	P	05 17 09.7	+0.5
	comp=Z,1.1nm,0.8s,baz=162,slow=11,SNR=72						
BVAR	Borovoye Array	20.13	350	P	P	05 17 09.8	+0.7
	comp=Z,16nm,0.6s,baz=160,slow=10,SNR=57						
	comp=Z,16nm,0.6s						
BORK	Borovoye	20.16	350	d iP	P	05 17 10.0	+0.5
BORK				pmax	pmax		
	comp=Z,18nm,0.9s						
BORK	Borovoye	20.16	350	P	P	05 17 10.1	+0.5
BORK				IAmb	IAmb	05 17 11.2	
	comp=Z,18nm,0.7s						
GTA2	Gaotai	20.23	65	eP	P	05 17 10.5	-0.1
GTA2				pmax	pmax		
	comp=Z,7.0nm,1.0s						
TNCH	TengChong	21.44	107	P	P	05 17 23.8	0.0
TNCH				pP	pP	05 17 34.3	0.0
TNCH				pmax	pmax		
	comp=Z,22nm,1.1s						
TNCH				pmax	pmax		
	comp=Z,140nm,3.7s						
AKTO	Aktyubinsk	21.58	328	P	P	05 17 24.8	0.0
	comp=Z,44nm,0.8s,baz=126,slow=7.9,SNR=69						
AKTO				S	S	05 21 20.7	-1.2
	comp=Z,0.8nm,0.3s,baz=297,slow=16,SNR=1.4						
	comp=Z,44nm,0.8s						
AKTO	Aktyubinsk	21.58	328	⇑P	P	05 17 24.4	-0.5
	comp=Z,31nm,0.8s						
ZAA0	Zalesovo Array	21.64	15		P	05 17 24.1	-1.4
ZALV	Zalesovo Beam	21.64	15	P	P	05 17 24.1	-1.4
	comp=Z,5.4nm,0.5s,baz=212,slow=9.8,SNR=24						
	comp=Z,5.4nm,0.5s						
ZALV	Zalesovo Beam	21.64	15	i P	P	05 17 24.0	-1.5
ZALV				pmax	pmax		
	comp=Z,5.0nm,0.5s						
ZALV	Zalesovo Beam	21.64	15		P	05 17 23.9	-1.5
LZDM	Lanzhou Array	23.09	75	P	P	05 17 41.1	-0.3
	comp=Z,1.4nm,0.3s,baz=248,slow=6.1,SNR=2.4						
	comp=Z,1.4nm,0.3s						
PZH	PanZhiHua	23.45	100	P	P	05 17 45.0	+0.2
KNGR	Kungurtug, Tuv	23.54	36	⇑eP	P	05 17 45.0	-0.5
KNGR				pmax	pmax		
	comp=Z,17nm,1.0s						
AKT	Akhty	23.69	298	eP	P	05 17 46.8	-0.2
MAK	Makhachkala	24.18	302	eP	P	05 17 50.5	-0.8
MAK				eS	S	05 22 07.0	0.0
MAK				pmax	pmax		
	comp=Z,407nm,1.9s						
MAK				MLR	MLR		
	comp=Z,120nm,16.0s						
KMI2	Kunming	24.82	102	P	P	05 17 57.8	+0.1
KMI2				pmax	pmax		
	comp=Z,16nm,0.7s						
CHTO	Chiang Mai	25.21	119	P	P	05 18 00.2	-0.8
CHTO				pmax	pmax		
	comp=Z,10.0nm,0.7s						
CHTO	Chiang Mai	25.21	119	P	P	05 18 00.2	-0.8
CHTO				IAmb	IAmb	05 18 06.2	
	comp=Z,9.9nm,0.7s						
CHTO	Chiang Mai	25.21	119	P	P	05 18 00.7	-0.2
	comp=Z,15nm,0.7s						
CM31	Chiang Mai Arr	25.44	120	IAmb	IAmb	05 18 04.3	
	comp=Z,15nm,0.8s						
CMAR	Chiang Mai Arr	25.44	120	P	P	05 18 02.3	-0.8
	comp=Z,9.8nm,0.7s,baz=310,slow=9.7,SNR=53						
	comp=Z,9.8nm,0.7s						
CMAR	Chiang Mai Arr	25.44	120	i P	P	05 18 02.5	-0.5
CMAR				pmax	pmax		
	comp=Z,10.0nm,0.7s						
CMAR	Chiang Mai Arr	25.44	120	P	P	05 18 03.0	0.0
GNI	Garni	25.74	294	⇑eP	P	05 18 05.6	-0.2
GNI				pmax	pmax		
	comp=Z,5.0nm,0.6s						
ARTI	Arti	26.06	338	LR	LR	05 28 59.3	
	comp=Z,62nm,18.6s,baz=203,slow=38						
ARTI	Arti	26.06	338	P	P	05 18 08.9	+0.6
ARTI				pmax	pmax		
	comp=Z,19nm,1.1s						
ARTI	Arti	26.06	338	P	P	05 18 08.9	+0.6
ARTI				IAmb	IAmb	05 18 09.6	
	comp=Z,19nm,1.1s						
SONM	Songino Array	27.21	49	P	P	05 18 19.3	+0.4
	comp=Z,2.3nm,0.7s,baz=243,slow=9.7,SNR=9.0						
	comp=Z,2.3nm,0.7s						
SONM	Songino Array	27.21	49	P	P	05 18 19.5	+0.5
TLY	Talaya	27.32	39	LR	LR	05 29 49.0	
	comp=Z,38nm,18.3s,baz=12,slow=38						
ULN	Ulaanbaatar	27.63	49	⇑eP	P	05 18 23.3	+0.5
ULN				pmax	pmax		
	comp=Z,3.0nm,1.3s						
HHC	Hu-ho-hao-te	29.37	65	eP	P	05 18 40.3	+2.1
HHC				pmax	pmax		
	comp=Z,8.0nm,0.7s						
KIRV	Kirov	30.88	333	deP	P	05 18 52.2	+1.0
ANDN	Andirin	32.27	289	P	P	05 19 05.5	+1.6
	comp=Z,31nm,1.2s						
XLT	XiLinHaoTe	32.93	59	eP	P	05 19 11.0	+1.4
XLT				pP	pP	05 19 24.5	+3.6
XLT				pmax	pmax		
	comp=Z,6.0nm,0.8s						
BR104	Keskin Array S	34.26	293	P	P	05 19 21.6	+0.4
	comp=Z,56nmcomp=Z,7.2nm,1.0s						
BR104				pP	pP	05 19 31.6	-0.8
	comp=Z,56nmcomp=Z,7.2nm,1.0s						
BR131	Keskin Array S	34.26	293	ceP	P	05 19 22.9	+1.7
BR131	Keskin Array S	34.26	293		P	05 19 22.1	+0.9
BR131				IAmb	IAmb	05 19 23.6	
	comp=Z,5.8nm,0.8s						
BRTR	Keskin Array B	34.26	293	P	P	05 19 21.8	+0.6
	comp=Z,3.7nm,0.7s,baz=111,slow=9.6,SNR=21						
	comp=Z,3.7nm,0.7s						
BRTR	Keskin Array B	34.26	293	i P	P	05 19 22.2	+1.0
BRTR				pmax	pmax		
	comp=Z,4.0nm,0.7s						
BR106	Keskin Array S	34.27	293	P	P	05 19 21.6	+0.3
	comp=Z,58nmcomp=Z,6.7nm,0.9s						
BR106				pP	pP	05 19 32.8	+0.2
	comp=Z,58nmcomp=Z,6.7nm,0.9s						
BR105	Keskin Array S	34.28	293	P	P	05 19 21.6	+0.2
	comp=Z,63nmcomp=Z,6.7nm,1.0s						
BR105				pP	pP	05 19 32.7	+0.1
	comp=Z,63nmcomp=Z,6.7nm,1.0s						
KKUL	Konya-Kulu	34.85	292	P	P	05 19 27.8	+1.5
	comp=Z,14nm,0.8s						
NJ2	Nanjing	36.08	80	eP	P	05 19 35.8	-1.0
NJ2				pmax	pmax		
	comp=Z,8.0nm,0.8s						
NRIK	Noril'sk	36.72	7	⇑eP	P	05 19 41.9	+0.1
NRIK				pmax	pmax		
	comp=Z,6.0nm,0.9s						
AK09	Malin Array Si	37.99	311	P	P	05 19 52.4	-0.3
AK10	Malin Array Si	38.01	311	P	P	05 19 52.4	-0.5
AK07	Malin Array Si	38.03	311	P	P	05 19 52.5	-0.6
AK06	Malin Array Si	38.04	311	P	P	05 19 52.3	-0.9
AK05	Malin Array Si	38.04	311	P	P	05 19 52.9	-0.3
AKASG	Malin Array Be	38.04	311	P	P	05 19 52.6	-0.6
	comp=Z,0.6nm,0.4s,baz=83,slow=6.7,SNR=6.2						
	comp=Z,0.6nm,0.4s						
AKASG	Malin Array Be	38.04	311	i P	P	05 19 52.4	-0.8
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AKBB	Malin Array Si	38.04	311	⇑eP	P	05 19 52.9	-0.3
AKBB	Malin Array Si	38.04	311	P	P	05 19 52.6	-0.6
AK02	Malin Array Si	38.04	311	P	P	05 19 52.7	-0.5
AK01	Malin Array Si	38.05	311	P	P	05 19 52.4	-0.8
AK03	Malin Array Si	38.05	311	P	P	05 19 53.0	-0.2
KIEV	Kiev	38.05	311	P	P	05 19 52.3	-1.0
	comp=Z,5.2nm,0.7s						
AK11	Malin Array Si	38.07	311	P	P	05 19 53.1	-0.3
AK14	Malin Array Si	38.10	311	P	P	05 19 52.9	-0.8
AK16	Malin Array Si	38.11	311	P	P	05 19 52.9	-0.9
AK20	Malin Array Si	38.18	311	P	P	05 19 53.2	-1.2
VRI	Vrincioaia	39.28	303	P	P	05 20 04.4	+0.7
	comp=Z,4.7nm,1.8s						
MNK	Minsk	39.56	317	i P	P	05 20 05.9	+0.1
MNK				i		05 21 37.1	
MNK				i PPP	PPP	05 21 59.7	
MNK				i S	S	05 26 08.6	+2.8
MNK				i SSS	SSS	05 29 24.5	
MNK				pmax	pmax		
	comp=N,10.0nm,0.7s						
MNK				pmax	pmax		
	comp=Z,8.0nm,0.8s						
MNK				pmax	pmax		
	comp=E,18nm,1.0s						
MNK	Minsk	39.56	317	i P	P	05 20 06.0	+0.1
	comp=E,18nm,1.0s						
MNK				i P	P	05 20 06.0	+0.1
	comp=N,10.0nm,0.7s						
MNK				i P	P	05 20 06.0	+0.1
	comp=Z,8.0nm,0.8s,baz=102						
MNK				i PP	PP	05 21 37.1	+0.2
MNK				i PPP	PPP	05 21 59.7	
MNK				i S	S	05 26 08.7	+2.8
MNK				i SS	SnSn	05 29 05.0	+1.3
MNK				i SSS	SSS	05 29 24.5	
MNK				i LQ	LQ	05 33 34.2	
MNK				i LR	LR	05 36 35.1	
MLR	Muntele Rosu	39.82	303	LR	LR	05 41 21.9	
	comp=Z,33nm,18.5s,baz=346,slow=43						
MLR	Muntele Rosu	39.82	303	P	P	05 20 08.1	-0.3
MLR				pmax	pmax		
	comp=Z,6.0nm,0.7s						
MLR	Muntele Rosu	39.82	303	P	P	05 20 08.1	-0.3
MLR				IAmb	IAmb	05 20 10.6	
	comp=Z,6.0nm,0.7s						
MLR	Muntele Rosu	39.82	303	P	P	05 20 08.5	+0.1
	comp=Z,11nm,1.3s						
RNPP5	Staryi Chortor	40.20	312	P	P	05 20 10.9	-0.4
RNPP8	Varash	40.23	312	P	P	05 20 11.4	-0.1
NACGM	Naroch	40.27	318	eP	P	05 20 12.3	+0.6
	comp=Z,12nm,0.9s,baz=102						
BURAR	Bucovina Array	40.36	306	P	P	05 20 12.8	0.0
BUR08	Bucovina Ar. S	40.38	306	P	P	05 20 11.9	-1.0
VOIR		40.45	303	P	P	05 20 13.7	+0.1
	comp=Z,2.0nm,0.7s						
DRGR		42.06	305	P	P	05 20 27.4	+0.7
	comp=Z,2.6nm,2.5s						
KSAR	Wonju Array Be	42.24	69	P	P	05 20 28.4	+0.2
KSAR	Wonju Array Be	42.24	69	P	P	05 20 28.4	+0.2
FIA1	FINESS Array S	42.35	327	P	P	05 20 29.0	+0.3
FINES	FINESS Array B	42.35	327	P	P	05 20 28.8	+0.1
	comp=Z,1.5nm,0.4s,baz=120,slow=10.0,SNR=19						
	comp=Z,1.5nm,0.4s						
FINES	FINESS Array B	42.35	327	i P	P	05 20 28.7	0.0
FINES				pmax	pmax		
	comp=Z,2.0nm,0.4s						
FINES	FINESS Array B	42.35	327	P	P	05 20 29.0	+0.3
MTSE	Matsula	42.69	323	P	P	05 20 31.6	+0.1
	comp=Z,114nm,0.6s						
NIE	Niedzica	43.67	309	P	P	05 20 39.8	+0.2
	comp=Z,196nmcomp=Z,5.8nm,2.9s						
BEO	Beograd	43.72	302	P	P	05 20 38.7	-1.3
	comp=Z,408nm,0.9s						
KLR	Kul'dur	43.96	51	⇓eP	P	05 20 41.8	-0.1
KLR				pmax	pmax		
	comp=Z,6.0nm,1.7s						
OJC	Ojcow	44.00	310	P	P	05 20 42.2	0.0
	comp=Z,5.6nm,1.0s						
RNF	Rovaniemi	44.23	334	P	P	05 20 44.9	+1.1
	comp=Z,14nm,1.8s						
JAVC	Velka Javorina	45.40	308	eP	P	05 20 54.0	+0.5
MORC	Moravsky Berou	45.46	309	P	P	05 20 54.6	+0.7
MORC				pmax	pmax		
	comp=Z,3.0nm,0.9s						
MORC	Moravsky Berou	45.46	309	P	P	05 20 54.6	+0.7
MORC	Moravsky Berou	45.46	309	eP	P	05 20 54.2	+0.3
MORC	Moravsky Berou	45.46	309	P	P	05 20 54.5	+0.7
	comp=Z,11nm,2.3s						
MPLH	Magyarpolny	45.58	306	P	P	05 20 55.1	+0.2
	comp=Z,17nm,1.8s						
ARCES	ARCESS Array B	45.62	338	P	P	05 20 55.3	+0.4
	comp=Z,4.0nm,0.6s,baz=116,slow=8.7,SNR=23						
	comp=Z,4.0nm,0.6s						
ARCES	ARCESS Array B	45.62	338	P	P	05 20 55.6	+0.6
ARCES				IAmb	IAmb	05 21 31.2	
	comp=Z,15nm,1.4s						
KRLC	Kraliky	45.94	310	P	P	05 20 58.0	+0.3
	comp=Z,5.9nm,0.9s						
VRAC	Vranov	46.09	309	eP	P	05 20 59.3	+0.5
VRAC	Vranov	46.09	309	P	P	05 20 59.4	+0.5
	comp=Z,2.2nm,1.3s						
DPC	Dobruska-Polom	46.23	310	P	P	05 20 59.7	-0.3
DPC	Dobruska-Polom	46.23	310	P	P	05 21 00.4	+0.4
KRUC	Moravsky	46.23	308	eP	P	05 20 59.8	-0.2
GERES	GERESS Array B	48.02	308	P	P	05 21 13.9	-0.1
	comp=Z,1.7nm,0.7s,baz=73,slow=4.6,SNR=4.4						
	comp=Z,1.7nm,0.7s						
GERES	GERESS Array B	48.02	308	P	P	05 21 13.3	-0.8
HFS	Hagfors	48.02	323	P	P	05 21 13.5	-0.2
	comp=Z,3.0nm,0.6s,baz=90,slow=7.2,SNR=8.1						
	comp=Z,3.0nm,0.6s						
NC405	NORSAR Array S	49.07	325	P	P	05 21 22.1	+0.2
NC405				IAmb	IAmb	05 22 00.9	
	comp=Z,16nm,1.4s						
GRB3	Grafenberg Arr	49.21	309	P	P	05 21 23.6	+0.5
	comp=Z,13nm,0.9s						
NOA	NORSAR Array B	49.31	325	P	P	05 21 23.3	-0.4
	comp=Z,1.8nm,0.7s,baz=96,slow=7.5,SNR=9.6						
	comp=Z,1.8nm,0.7s						
FLTG	Flechtingen	49.31	313	P	P	05 21 23.1	-0.7
	comp=Z,7.9nm,1.6s						
YSS	Yuzhno-Sakhali	51.51	54	ceP	P	05 21 41.7	+1.3
YSS				pmax	pmax		
	comp=Z,33nm,2.5s						
SPITS	Spitsbergen Ar	51.53	347	P	P	05 21 40.6	+0.4
	comp=Z,8.8nm,0.8s,baz=122,slow=5.4,SNR=2.2						
	comp=Z,8.8nm,0.8s						
SENIN	Lac Senin/Sane	52.66	306	P	P	05 21 49.0	-0.3
SENIN				IAmb	IAmb	05 21 50.8	
	comp=Z,7.9nm,0.6s						
BNI	Bardonecchia	53.36	304	P	P	05 21 55.1	+0.7
BNI				pmax	pmax		
	comp=Z,10.0nm,1.2s						
BNI	Bardonecchia	53.36	304	P	P	05 21 55.1	+0.7
BNI				IAmb	IAmb	05 22 08.4	
	comp=Z,9.7nm,1.1s						
BMRD	Maredsous	53.59	311	dP	P	05 21 56.3	+0.4
KEST	Kesra	53.86	293	P	P	05 21 58.3	+0.2
	comp=Z,3.7nm,0.7s,baz=72,slow=4.4,SNR=4.4						
	comp=Z,3.7nm,0.7s						
KEST	Kesra	53.86	293	P	P	05 21 58.9	+0.7
SEY	Seymchan	54.94	33	⇑eP	P	05 22 06.2	+0.8
SEY				pmax	pmax		
	comp=Z,15nm,2.5s						
EKA	Eskdalemuir Ar	57.33	318	P	P	05 22 22.3	-0.4
	comp=Z,0.8nm,0.5s,baz=95,slow=6.9,SNR=6.1						
	comp=Z,0.8nm,0.5s						
ESDC	Sonseca Array	62.48	301	P	P	05 22 58.2	-0.1
	comp=Z,4.0nm,0.7s,baz=61,slow=7.1,SNR=30						
	comp=Z,4.0nm,0.7s						
ESDC	Sonseca Array	62.48	301	P	P	05 22 58.3	-0.1
ESDC				IAmb	IAmb	05 23 10.0	
	comp=Z,9.7nm,1.5s						
PAB	San Pablo	62.80	301	P	P	05 23 00.8	+0.3
PAB				pmax	pmax		
	comp=Z,10.0nm,1.1s						
PAB	San Pablo	62.80	301	P	P	05 23 00.8	+0.3
BORG	Borgarnes	63.34	332	LR	LR	05 50 36.4	
	comp=Z,20nm,20.9s,baz=327,slow=36						
NEEM	North Greenlan	64.99	349	i P	P	05 23 15.5	+1.0
SUMG	Summit	65.36	342	i P	P	05 23 26.0	+8.8
MD01	Midelt array s	65.76	294	P	P	05 23 19.9	-0.2
TORD	Torodi Ar. Bea	69.70	273	P	P	05 23 43.7	-1.3
	comp=Z,5.5nm,0.8s,baz=46,slow=6.1,SNR=41						
	comp=Z,5.5nm,0.8s						

MORW	Morawa	72.79	144	P	P	05 24 02.3	-1.0
MORW				IAmb	IAmb	05 24 03.0	
	comp=Z,6.0nm,0.9s						
IMAR	Indian Mountai	74.00	19	P	P	05 24 10.6	+0.7
E25K	Arctic Village	74.30	15	P	P	05 24 12.3	+0.6
E25K				IAmb	IAmb	05 24 38.3	
	comp=Z,4.1nm,1.2s						
K17K	Iditarod	75.04	23	P	P	05 24 17.7	+1.7
BMAR	Burnt Mountain	75.09	15	P	P	05 24 17.8	+1.5
LBTB	Lobatse	75.11	226	LR	LR	05 56 57.1	
	comp=Z,11nm,20.3s,baz=204,slow=36						
INK	Inuvik	76.39	11	P	P	05 24 23.7	+0.1
INK				pmax	pmax		
	comp=Z,7.0nm,1.2s						
INK	Inuvik	76.39	11	P	P	05 24 23.7	+0.1
INK				IAmb	IAmb	05 24 24.6	
	comp=Z,6.8nm,1.2s						
ILAR	Eielson Array	76.74	17	P	P	05 24 25.7	0.0
	comp=Z,0.8nm,0.7s,baz=323,slow=6.2,SNR=11						
	comp=Z,0.8nm,0.7s						
PPLA	Purkeypile	76.79	20	P	P	05 24 26.6	+0.3
WRA	Warramunga Arr	76.92	125	P	P	05 24 27.1	-0.2
	comp=Z,2.4nm,0.5s,baz=324,slow=5.6,SNR=96						
	comp=Z,2.4nm,0.5s						
WRA	Warramunga Arr	76.92	125	i P	P	05 24 27.2	-0.2
WRA				pmax	pmax		
	comp=Z,3.0nm,0.5s						
WRA	Warramunga Arr	76.92	125	P	P	05 24 27.3	-0.1
WRAB	Tennant Creek	76.92	125	⇓eP	P	05 24 26.5	-0.9
WRAB				pmax	pmax		
	comp=Z,5.0nm,1.3s						
WB2	Warramunga Arr	76.93	125	P	P	05 24 27.1	-0.4
H29M	Whitestone	77.41	13	P	P	05 24 29.9	+0.5
H29M				IAmb	IAmb	05 24 55.8	
	comp=Z,8.2nm,1.5s						
BOSA	Boshof	78.00	224	P	P	05 24 32.8	-0.6
	comp=Z,2.6nm,0.5s,baz=54,slow=3.5,SNR=14						
	comp=Z,2.6nm,0.5s						
BOSA	Boshof	78.00	224	P	P	05 24 32.7	-0.6
BOSA				IAmb	IAmb	05 24 58.2	
	comp=Z,7.5nm,1.4s						
ASAR	Alice Springs	79.17	128	P	P	05 24 39.5	-0.2
	comp=Z,2.6nm,0.7s,baz=315,slow=5.7,SNR=32						
	comp=Z,2.6nm,0.7s						
BCAR	Beaver Creek A	79.41	16	P	P	05 24 41.6	+1.0
FORT	Forrest	80.60	136	P	P	05 24 46.9	-0.5
FORT				IAmb	IAmb	05 25 19.1	
	comp=Z,10nm,1.1s						
KDAK	Kodiak Island	80.62	24	P	P	05 24 47.1	-0.1
KDAK				pmax	pmax		
	comp=Z,109nm,1.5s						
KDAK	Kodiak Island	80.62	24	P	P	05 24 47.0	-0.1
YKA	Yellowknife Ar	84.20	5	P	P	05 25 06.0	+0.2
	comp=Z,2.2nm,0.5s,baz=348,slow=5.7,SNR=8.3						
	comp=Z,2.2nm,0.5s						
YKA	Yellowknife Ar	84.20	5	P	P	05 25 06.0	+0.2
BBOO	Buckleboo	86.81	133	P	P	05 25 18.5	-0.7
STKA	Stephens Creek	89.70	129	P	P	05 25 32.1	-0.7
	comp=Z,2.6nm,0.5s,baz=311,slow=4.5,SNR=5.9						
	comp=Z,2.6nm,0.5s						
TXAR	Lajitas Array	117.73	359	PKP	PKiKP	05 31 21.3	-0.1
	comp=Z,0.2nm,0.5s,baz=348,slow=2.1,SNR=2.7						
QSPA	South Pole Qui	123.07	180	PKP	PKPdf	05 31 29.4	-0.9
	comp=Z,0.9nm,0.8s,baz=272,slow=3.1,SNR=2.4						
PLCA	Paso Flores	152.24	245	PKPbc	PKiKP	05 32 30.2	-0.4
	comp=Z,1.0nm,0.5s,baz=207,slow=2.3,SNR=8.8						

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*NCEDC **28** 05:16:36.6±0.9, 37°.492N±0°.006×121°.83W±0°.01, h5^{km}±1^{km}, Error ellipse: s-maj=1.7km s-min=0.5km az=64.0*

NEIC 28 05:16:36.4±0.9**, 37°.50N**±0°.01×**121°.84W**±0°.01**, h5**^{km}±1^{km}**, ML3.3**/116**, Mwr3.5**/5(NCEDC)**, Error ellipse: s-maj=2.0km s-min=1.8km az=35.0, Central California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CALM	Calaveras Res.	0.06	148		Pg	05 16 37.9	+0.1
CALM					Sg	05 16 39.2	+0.4
C039	Semillon Drive	0.07	242		Pg	05 16 38.5	+0.5
C050	Festivo Court	0.07	290		Pg	05 16 38.7	+0.6
C050					Sg	05 16 40.7	+1.4
C001	Firth Court Fr	0.08	286		Pg	05 16 38.9	+0.7
C041	El Campo Drive	0.12	176		Pg	05 16 39.5	+0.6
WENL	Wente Vineyard	0.14	27		Pg	05 16 39.9	+0.7
WENL					Sg	05 16 42.9	+1.8
C015	Bright Common	0.14	296		Pg	05 16 39.9	+0.7
C015					Sg	05 16 42.8	+1.7
C046	N 16th Street	0.15	194		Pg	05 16 40.1	+0.7
C046					Sg	05 16 43.6	+2.3
CNIC	Niles Canyon	0.15	317		Pg	05 16 40.1	+0.7
CNIC					Sg	05 16 42.9	+1.5
MHR	Mount Hamilton	0.15	155		Pg	05 16 39.6	+0.1
MHR					Sg	05 16 42.0	+0.5
C059	Quail Canyon R	0.16	162		Pg	05 16 40.1	+0.4
C062	Calle Reynoso	0.18	342		Pg	05 16 41.3	+1.4
C006	Lk Pillsbury D	0.20	298		Pg	05 16 41.1	+0.8
CSAM	Sandia	0.20	31		Pg	05 16 41.4	+1.0
CSAM					Sg	05 16 45.7	+2.6
SCCB	Santa Clara Co	0.21	186		Pg	05 16 41.0	+0.5
CBZL	Buffer Zone	0.21	26		Pg	05 16 42.0	+1.3
CYD1	Coyote D'meter	0.22	287		Pg	05 16 41.1	+0.5
MHC	Mount Hamilton	0.22	135		Pg	05 16 41.1	+0.4
MHC				Sg	Sg	05 16 44.6	+1.0
MHC				IAML		05 16 48.3	
	comp=E,5µm,0.7s						
C072	Blauer Lane Sa	0.22	163		Pg	05 16 41.7	+1.0
C073	Carlos Bee Bl	0.23	312		Pg	05 16 41.8	+0.8
JSJM	St Joseph	0.26	231		Pg	05 16 42.4	+0.9
C021	Meadowview Dri	0.27	317		Pg	05 16 42.4	+0.8
C056	Diablo Avenue	0.27	301		Pg	05 16 42.5	+0.9
C055	Cottonwood Ave	0.27	306		Pg	05 16 42.4	+0.8
C045	Hawkins Drive	0.27	338		Pb	05 16 43.1	-0.6
ARN	Arnold Ranch	0.28	122		Pg	05 16 42.2	+0.2
JSFB	Stanford Teles	0.29	251		Pg	05 16 42.6	+0.6
JSTM	Santa Teresa H	0.29	174		Pg	05 16 42.6	+0.5
C071	Via Corta San	0.30	308		Pg	05 16 43.0	+0.8
CLCB	Lake Chabot	0.30	323		Pg	05 16 43.2	+0.9
CSTL	Corral Hollow	0.30	62		Pg	05 16 43.2	+0.9
CSTL	Corral Hollow	0.30	62		Pg	05 16 43.2	+0.9
JBMM	Black Mountain	0.31	235		Pg	05 16 43.1	+0.7
C070	Dillo Street S	0.31	311		Pg	05 16 42.7	+0.2
JJOM	Saint Joseph's	0.31	201		Pg	05 16 43.0	+0.5
JFP	Foothills Park	0.31	244		Pg	05 16 43.1	+0.6
CSLM	San Leandro Hi	0.32	315		Pg	05 16 43.2	+0.6
JRSC	Jasper Ridge	0.33	254	Pg	Pg	05 16 43.1	+0.2
JRSC				Sg	Sg	05 16 48.0	+0.8
C038	Hutchings Driv	0.35	309		Pg	05 16 44.1	+0.9
JLAB	Laurel Hill	0.35	167		Pg	05 16 43.7	+0.5
CBSNC	Byron Hot Spri	0.35	26		Pb	05 16 44.8	-0.4
C047	Rutherford Dri	0.36	336		Pb	05 16 44.9	-0.4
BGC	Bolinger Road	0.36	331		Pb	05 16 44.5	-0.9
LT15	Bear Creek Roa	0.37	204		Pg	05 16 43.9	+0.3
CADM	Anderson Res.	0.37	153		Pg	05 16 44.3	+0.7
JPC	Peters Creek,	0.38	233		Pg	05 16 44.2	+0.5
CRHM	Round Hill Res	0.38	341		Pb	05 16 45.6	-0.1
CMCM	Mills College	0.39	316		Pg	05 16 44.7	+0.8
JCPM	Coyote Point	0.40	283		Pg	05 16 44.6	+0.5
MTOS	Mt Oso, Westle	0.40	89		Pg	05 16 44.7	+0.5
C026	Kell Court Ala	0.41	335		Pb	05 16 45.9	-0.2
CRPB	Russellman Par	0.42	352		Pb	05 16 45.7	-0.6
C005	Mandana Bl Oak	0.45	315		Pg	05 16 45.4	+0.4
C049	Pacific Avenue	0.45	308		Pg	05 16 45.6	+0.6
BDM	Black Diamond	0.46	357		Pb	05 16 46.7	-0.2
SAC	San Andreas	0.47	280		Pg	05 16 45.8	+0.4
JSBM	San Bruno Moun	0.48	292		Pg	05 16 45.8	+0.2
HLPM	Lions Peak	0.48	160		Pg	05 16 46.1	+0.4
BRIB	Briones	0.49	329		Pb	05 16 47.0	-0.5
BKS	Berkeley--Byer	0.49	320		Pg	05 16 46.6	+0.7
JEGM	El Granada	0.50	272		Pg	05 16 46.2	+0.3
VAK	Adit at Lawren	0.50	319		Pg	05 16 46.7	+0.6
BL67	Building 67, L	0.50	319		Pg	05 16 46.6	+0.6
BL88	Building 88, L	0.50	319		Pg	05 16 46.7	+0.6
BRK	Berkeley--Havi	0.50	318		Pg	05 16 46.6	+0.5
C031	McGee Avenue B	0.51	316		Pg	05 16 46.8	+0.6
JPSM		0.51	234		Pg	05 16 46.7	+0.6
GHS	Gilroy Hot Spr	0.51	142		Pg	05 16 46.4	+0.2
C007	Forest Lane Be	0.52	320		Pb	05 16 47.3	-0.7
CYBM	Yerba Buena Is	0.52	307		Pg	05 16 46.7	+0.3
JMGM	Milagra Ridge	0.53	285		Pg	05 16 46.8	+0.2
JUCM	University of	0.53	199		Pg	05 16 46.9	+0.5
C008	Spokane Avenue	0.54	318		Pg	05 16 47.2	+0.5
CTAM	Taylor	0.55	345		Pb	05 16 48.4	-0.1
HCAM	Canada Road	0.55	149		Pb	05 16 47.8	-0.8
C012	Glenmawr Avenu	0.57	319		Pb	05 16 48.2	-0.7
JELB	Ellicott, Sant	0.57	179		Pg	05 16 48.1	+0.7
CPIM	Pinole Ridge	0.57	329		Pb	05 16 48.6	-0.4
J061	Lakeshore Driv	0.57	294		Pg	05 16 47.8	+0.4
CSR	Chase Ranch	0.58	159		Pg	05 16 47.7	+0.2
HCBM	Chamberlain	0.58	166		Pg	05 16 48.1	+0.5
JPRM	Presidio of Sa	0.59	300		Pg	05 16 48.1	+0.4
CSPM	San Pablo Ridg	0.59	321		Pb	05 16 48.8	-0.5
TWIT	Twitchell Isla	0.61	11		Pb	05 16 50.2	+0.7
HFEM	San Felipe	0.62	146		Pg	05 16 48.6	+0.3
CPMM	Point Molate	0.64	315		Pg	05 16 48.9	+0.2
PACP	Pacheco Peak	0.66	138		Pg	05 16 49.2	+0.2
NLHM	Lake Herman	0.67	338		Pb	05 16 50.1	-0.4
HERM	Elkhorn Road	0.71	172		Pg	05 16 50.2	+0.3
HJGM	San Juan Grade	0.73	163		Pg	05 16 50.4	-0.1
HSFM	Saint Francis	0.74	158		Pb	05 16 51.4	-0.3
SVIN	Saint Vincent'	0.76	315		Pg	05 16 51.1	+0.1
FRP	Fremont Peak	0.79	159		Pg	05 16 51.8	+0.1
FRP	Fremont Peak	0.79	159		Pg	05 16 51.9	+0.3
SAO	San Andreas Ge	0.80	157	Pg	Pg	05 16 52.0	+0.3
FORD	Fort Ord Natur	0.81	177	Pg	Pg	05 16 52.1	+0.1
FORD				Sg	Sb	05 17 03.3	-0.8
SNT	Sears Point	0.84	325		Pb	05 16 53.0	-0.5
BSRM	Salinas Radio	0.87	163		Pg	05 16 52.6	-0.4
HMOM	Monterey	0.90	184		Pg	05 16 53.5	-0.2
NOLM	Olema	0.93	306		Pg	05 16 54.3	0.0
BPCNC	Pine Canyon	0.94	170		Pg	05 16 54.0	-0.4
FARB	Farallon Islan	0.95	282	Sg	Sg	05 17 07.1	+0.3
FARB				IAML		05 17 08.7	
	comp=N,1µm,0.6s						
FARB	Farallon Islan	0.95	282		Pg	05 16 54.2	-0.4
LOC	Lincoln School	0.95	314		Pg	05 16 54.6	-0.1
SCZ	Santa Cruz	0.96	159		Pg	05 16 54.1	-0.8
BJOM	Mount Johnson	0.96	154		Pg	05 16 54.6	-0.3
NADM	Allendale	0.97	354		Pg	05 16 55.2	+0.3
CVS	Carmenet Viney	0.98	330	Pg	Pg	05 16 54.7	-0.5
CVS				IAML		05 17 12.0	
	comp=N,882nm,0.6s						
CVS				IAML		05 17 12.0	
	comp=E,1µm,0.5s						
NAPC	Atlas Peak	0.99	341		Pg	05 16 55.1	-0.4
BJCM	Johnson Can.	1.01	159		Pg	05 16 55.0	-0.9
OAKV	Oakville Exper	1.03	334		Pg	05 16 55.6	-0.6
RUSS	Russell Ranch	1.04	359		Pb	05 16 56.8	-0.2
RUSS	Russell Ranch	1.04	359	IAML		05 17 22.1	
	comp=N,759nm,0.7s						
RUSS				IAML		05 17 29.2	
	comp=E,873nm,1.1s						
MCCM	Marconi Confer	1.05	308	Pg	Pg	05 16 56.1	-0.4
BVL	Bear Valley	1.06	151		Pg	05 16 56.1	-0.5
NPRM	Point Reyes	1.06	298		Pg	05 16 56.2	-0.5
BPRM	Ponciano Ridge	1.09	176		Pg	05 16 56.2	-1.2
NTYM	Taylor	1.10	324		Pg	05 16 56.6	-1.0
NIMB	Iron Mountain	1.11	342		Pg	05 16 57.0	-0.8
BBGB	Big Mountain B	1.12	145	Pg	Pg	05 16 57.5	-0.4
BBGB				Sg	Sb	05 17 13.5	+0.4
BBGB				IAML		05 17 23.0	
	comp=N,1µm,1.0s						
BSMM	Soledad Missio	1.16	164		Pg	05 16 57.4	-1.2
BMSM	Mercy Hot Spri	1.18	135		Pg	05 16 57.9	-1.2
LRV	Little Rabbit	1.26	148		Pg	05 16 59.3	-1.2
NDHM	Dunnigan Hills	1.27	357		Pg	05 16 60.0	-0.7
CMB	Columbia Colle	1.27	65	Pg	Pg	05 16 59.2	-1.5
CMB					Sg	05 17 16.9	-0.3
CMB				IAML		05 17 18.2	
	comp=N,482nm,0.8s						
BPOM	Post Ranch	1.27	177		Pg	05 16 58.5	-2.2
WELL	Weller Preserv	1.29	43		Pg	05 16 59.4	-1.7
WELL	Weller Preserv	1.29	43	IAML		05 17 17.9	
	comp=N,414nm,0.4s						
WELL				IAML		05 17 18.2	
	comp=E,707nm,0.4s						
BUCR	Buckhorn Ranch	1.35	82		Pn	05 17 00.5	-1.6
LEGD	La Grand CA	1.37	101		Pn	05 17 00.2	-2.0
LEGD	La Grand CA	1.37	101	IAML		05 17 24.1	
	comp=E,572nm,0.9s						
NMTM	Middletown	1.39	340		Pn	05 17 00.9	-1.6
GGPM	Geyser Peak	1.49	328		Pn	05 17 02.2	-1.8
PCCM	Crazy Canyon	1.51	159		Pn	05 17 01.9	-2.2
GDXM	Geysers	1.51	330		Pn	05 17 02.5	-1.7
PMPB	Monarch Peak	1.53	147		Pn	05 17 03.2	-1.2
PMPB	Monarch Peak	1.53	147		Sb	05 17 25.0	+0.1
PMPB				IAML		05 17 42.4	
	comp=E,394nm,0.8s						
PMPB				IAML		05 17 59.7	
	comp=N,332nm,1.0s						
HULI	Fort Hunter Li	1.55	162		Pn	05 17 02.9	-1.8
HULI				IAML		05 17 31.6	
	comp=N,454nm,0.8s						
HULI				IAML		05 17 38.3	
	comp=E,344nm,1.0s						
GRTM	Round Top Moun	1.58	336		Pn	05 17 03.6	-1.5
MHDM	Hidden Dam	1.59	103		Pn	05 17 03.7	-1.6
AFDM	Forest Hills D	1.60	25		Pn	05 17 03.7	-1.7
AFDM	Forest Hills D	1.60	25	IAML		05 17 27.4	
	comp=N,526nm,0.5s						
PPTM	Peach Tree Val	1.65	147		Pn	05 17 04.9	-1.1
PSAM	San Ardo	1.66	152		Pn	05 17 05.0	-1.1
MMIM	Miami Mountain	1.67	92		Pn	05 17 05.6	-0.8
GDCM	Dry Creek	1.68	319		Pn	05 17 04.7	-1.9
SUTB	Sutter Butte	1.73	1		Pn	05 17 04.6	-2.5
SUTB				IAML		05 17 43.6	
	comp=N,242nm,0.5s						
SUTB				IAML		05 17 46.1	
	comp=E,305nm,0.5s						
PSMM	Smith Mountain	1.74	145		Pn	05 17 06.3	-1.0
OSUM	Sutter Buttes	1.77	360		Pn	05 17 05.4	-2.3
GSNM	Snow Mountain	1.79	324		Pn	05 17 06.5	-1.6
GHGM	Hogback Ridge	1.80	335		Pn	05 17 06.6	-1.7
PHPM	Hope Ranch	1.81	147		Pn	05 17 06.5	-1.8
OHCM	Honcut	1.85	8		Pn	05 17 07.4	-1.4
GFC	Funks Creek	1.86	349		Pn	05 17 07.3	-1.6
PKD	Bear Valley Ra	1.87	146		Pn	05 17 07.6	-1.5
PSTM	Stockdale Moun	1.90	145		Pn	05 17 07.9	-1.6
TRC	Taylor Ranch	1.90	144		Pn	05 17 08.3	-1.2
RAMR	Ramage Ranch	2.02	157		Pn	05 17 09.8	-1.3
GHOM	Hamilton Openi	2.04	320		Pn	05 17 09.6	-1.9
GHIB	Gold Hill	2.05	144		Pn	05 17 10.4	-1.1
GHIB	Gold Hill	2.05	144		Pn	05 17 10.3	-1.2
GWRM	Wonder Ranch	2.06	326		Pn	05 17 10.2	-1.5
ORV	Oroville	2.07	7		Pn	05 17 10.2	-1.6
PCBM	Cambria	2.07	162		Pn	05 17 09.8	-2.0
WAKR	Walker	2.15	61	Pn	Pn	05 17 14.4	+1.3
WAKR				IAML		05 17 46.9	
	comp=N,187nm,0.8s						
MDPB	Devils Postpil	2.19	86		Pn	05 17 14.2	+0.4
MDPB				IAML		05 17 46.0	
	comp=E,231nm,0.6s						
MMPM	Mammoth Pass	2.23	86		Pn	05 17 15.4	+1.1
MLIM	Lincoln Peak	2.24	86		Pn	05 17 15.8	+1.3
MPK	Martis Peak	2.29	38	Pn	Pn	05 17 15.2	+0.1
PNTR	Pine Nut	2.37	47		Pn	05 17 17.0	+0.8
KCPM	Cahto Peak	2.58	328	Pn	Pn	05 17 18.7	-0.3
BEKR	Beckworth	2.63	26	Pn	Pn	05 17 19.6	-0.1
BEKR				IAML		05 17 59.5	
	comp=E,171nm,0.7s						
VES	Vestal, Richgr	2.76	126	Pn	Pn	05 17 20.1	-1.2
VES				IAML		05 18 12.3	
	comp=E,147nm,0.8s						
VES				IAML		05 18 14.7	
	comp=N,109nm,0.8s						
O03E	Paynes Creek	2.79	1	Pn	Pn	05 17 21.0	-0.8
O03E				IAML		05 18 15.1	
	comp=E,106nm,0.8s						
PAHR	Pah Rah Range	2.92	40	Pn	Pn	05 17 23.5	-0.2
PAHR				IAML		05 18 13.5	
	comp=N,83nm,1.2s						
CWC	Cottonwood Cre	3.19	108	IAML		05 18 19.2	
	comp=N,65nm,0.7s						
CWC				IAML		05 18 26.7	
	comp=E,75nm,0.9s						
ISA	Isabella, Lake	3.27	123	IAML		05 18 27.3	
	comp=E,54nm,0.9s						
KVN	Kaiserville	3.32	61	IAML		05 18 26.0	
	comp=E,81nm,1.2s						
KVN				IAML		05 18 28.0	
	comp=N,87nm,1.1s						
HATC	Hat Creek Radi	3.33	5	IAML		05 18 50.0	
	comp=E,116nm,2.0s						
HATC				IAML		05 18 51.9	
	comp=N,93nm,1.7s						
MPMC	Manual Prospec	3.77	111	IAML		05 18 47.2	
	comp=E,39nm,1.2s						
M03C	McCloud	3.78	357	IAML		05 18 52.4	
	comp=E,46nm,0.9s						
M03C				IAML		05 18 54.1	
	comp=N,67nm,0.9s						
TPO	Tropico Hills	3.92	131	IAML		05 18 59.0	
	comp=N,37nm,1.1s						
TPO				IAML		05 19 00.8	
	comp=E,56nm,0.9s						
GWY	Greenwater Val	4.35	106	IAML		05 19 08.3	
	comp=E,23nm,0.9s						
GWY				IAML		05 19 17.6	
	comp=N,29nm,1.6s						
TPNV	Topopah Spring	4.49	95	IAML		05 19 03.3	
	comp=N,41nm,1.9s						
MOD	Modoc Plateau	4.55	15	IAML		05 19 08.5	
	comp=E,28nm,1.4s						
MOD				IAML		05 19 09.8	
	comp=N,27nm,1.1s						
GSC	Goldstone, Bar	4.61	117	IAML		05 19 09.9	
	comp=N,21nm,1.8s						
GSC				IAML		05 19 10.0	
	comp=E,27nm,3.1s						

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*GII **28** 05:30:33.4±0.0, 36°.569N±0°.004×28°.156E±0°.001, h0^{km}, Mws3.4, confirmed*

*AFAD **28** 05:30:38.0, 36°.57N×28°.09E, h66^{km}±9^{km}, ML2.8*

*ISK **28** 05:30:38.3, 36°.60N×28°.09E, h76^{km}, ML2.9/19*

ISC 28 05:30:35.4±1.4**, 36°.51N**±0°.05×**28°.12E**±0°.04**, h97**^{km}±9^{km}**, n37, σ1^{s}60**/55**, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TURN	Turunc	0.29	21	Pg	Pn	05 30 50.3	+0.8
TURN				Sg	Sn	05 30 58.5	-1.6
TURN				AML	AML		
TURN	Turunc	0.29	21	P	Pn	05 30 50.4	+0.8
TURN				S	Sn	05 30 58.3	-1.8
TURN				IAML		05 30 59.0	
	comp=E,629nm,0.6s						
ARG	Arkhangelos	0.29	179	Pg	Pn	05 30 51.3	+1.7
ARG				Sg	Sn	05 31 00.6	+0.5
ARG				AML	AML		
DATC	Datca-Mugla	0.45	305	Pg	Pn	05 30 51.1	+0.6
DATC				Sg	Sn	05 31 00.5	-1.2
DATC				AML	AML		
DAT	Datca	0.49	297	Pg	Pn	05 30 51.6	+0.7
DAT				Sg	Sn	05 31 01.1	-1.4
DAT				AML	AML		
DALY	Dalyan (Mula)	0.53	54	Pg	Pn	05 30 52.2	+1.1
DALY				AML	AML		
DALY	Dalyan (Mula)	0.53	54	P	Pn	05 30 52.2	+1.1
DALY				S	Sn	05 31 01.5	-1.3
DALY				IAML		05 31 02.0	
	comp=N,600nm,0.2s						
YAZI	Mula-Dat§a-	0.56	288	P	Pn	05 30 52.5	+1.2
YAZI				S	Sn	05 31 01.3	-2.0
YAZI				IAML		05 31 02.0	
	comp=E,263nm,0.2s						
YER	Yerkesik	0.64	12	Pg	Pn	05 30 53.1	+1.0
YER				AML	AML		
SABU	Mula-Dalaman	0.75	65	P	Pn	05 30 54.6	+1.5
SABU				S	Sn	05 31 05.9	-0.4
SABU				IAML		05 31 07.0	
	comp=E,733nm,0.2s						
BODA	Bodrum-Mula	0.76	314	Pg	Pn	05 30 54.0	+0.9
MULA	Mugla, Merkez-	0.77	12	P	Pn	05 30 55.1	+1.8
MULA				S	Sn	05 31 06.5	-0.2
MULA				IAML		05 31 09.0	
	comp=N,204nm,0.4s						
BDRM	Kayabasi	0.78	316	P	Pn	05 30 54.2	+0.9
BDRM				IAML		05 31 05.0	
	comp=N,417nm,0.4s						
BDRM				S	Sn	05 31 05.2	-1.5
FETY	Fethiye	0.79	80	Pg	Pn	05 30 55.4	+2.0
FETY				AML	AML		
FETY	Fethiye	0.79	80	P	Pn	05 30 57.6	+4.2
MLSB	Milas	0.83	341	Pg	Pn	05 30 55.0	+1.1
MLSB				AML	AML		
IZZE	Mula-Seydike	0.90	94	P	Pn	05 30 56.1	+1.6
IZZE				S	Sn	05 31 09.1	+0.3
IZZE				IAML		05 31 10.0	
	comp=N,781nm,0.3s						
YKAV	Yalikavak-Bodr	0.91	313	Pg	Pn	05 30 55.6	+1.0
YKAV				AML	AML		
CAME	Cameli-Denizli	1.05	65	Pg	Pn	05 30 57.9	+1.6
CAME				AML	AML		
DIDI	Didim-Aydin	1.12	321	Pg	Pn	05 30 58.1	+1.2
DIDI				AML	AML		
CAEL	Denizli, Camel	1.15	57	P	Pn	05 30 59.3	+1.9
TAVA	DENIZLI_Tavas	1.15	33	P	Pn	05 30 59.1	+1.6
TAVA				S	Sn	05 31 12.6	-1.4
TAVA				IAML		05 31 13.0	
	comp=E,154nm,0.2s						
DDIM	Aydin, Didim	1.18	324	P	Pn	05 30 58.9	+1.2
ESEN	Aydn-Nazilli	1.30	8	P	Pn	05 31 00.8	+1.7
APMY	Acipayam-Deniz	1.35	44	Pn	Pn	05 31 01.5	+1.7
APMY				AML	AML		
GCAM	G?zelcaml?	1.39	330	Pn	Pn	05 31 01.5	+1.4
GCAM				AML	AML		
AYDB	Zeytinkoy-Aydi	1.45	353	Pn	Pn	05 31 02.6	+1.6
AYDB				AML	AML		
ELL	Elmali	1.46	80	Pn	Pn	05 31 04.0	+2.9
ELL				AML	AML		
NAZL	Nazilli-Aydin	1.46	5	Pn	Pn	05 31 01.8	+0.7
NAZL				AML	AML		
KORT	Korkueli	1.86	74	Pn	Pn	05 31 09.2	+3.0
KORT				AML	AML		
ZKR	Zakros	2.08	229	Pn	Pn	05 31 12.8	+3.9
ZKR				AML	AML		
MMA0B	Mount Meron ar	6.93	118	P	Pn	05 32 13.1	-1.3
MMA0B				S	Sn	05 33 31.4	-0.5
KNHM	Kefar Nahum	7.13	118	P	Pn	05 32 15.8	-1.2
KNHM				S	Sn	05 33 35.5	-1.0
HDNS	Had-Ness	7.15	118	P	Pn	05 32 16.1	-1.2
HDNS				S	Sn	05 33 36.1	-0.8
AMAZ	Amatzia	7.51	129	P	Pn	05 32 21.0	-1.3
AMAZ				S	Sn	05 33 45.2	-0.7
MZS	Mizpe Shalem	7.79	127	P	Pn	05 32 24.3	-1.8
MZS				S	Sn	05 33 52.4	-0.3
KRMI	Paran Flat	8.43	137	P	Pn	05 32 34.3	-0.6
KRMI				S	Sn	05 34 08.7	+0.3

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*ASRS **28** 05:59:54.0±1.5, 54°.24N×86°.48E, h0^{km}, M2.6(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

IDC 28 06:00:01.0±3.8**, 54°.17N×86°.28E, h0**^{km}**, mbtmp2.8**/2**, ML2.4**/2**, Error ellipse: s-maj=32.0km s-min=13.2km az=70.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	0.89	256	I	I	06 05 20.0	
	baz=74,slow=327,SNR=3.3						
ZALV	Zalesovo Beam	0.89	256	Pg	Pg	06 00 16.1	-1.9
	1.0nm,0.3s,baz=74,slow=16,SNR=8.0						
ZALV				Lg	Lg	06 00 30.9	
	2.3nm,0.3s,baz=76,slow=30,SNR=9.8						
KURBB	Kurchatov Arra	5.92	236	Pn	Pn	06 01 32.5	+2.6
	baz=54,slow=14,SNR=1.7						
	0.4nm,0.3s						
MKAR	Makanchi Array	7.81	201	Pn	Pn	06 01 56.5	+0.6
	0.1nm,0.3s,baz=24,slow=14,SNR=5.4						
	0.2nm,0.3s						
MKAR				AML	AML		

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*SOF **28** 06:02:19.1, 42°.50N±0°.03×29°.23E±0°.02, h10^{km}±1^{km}, MD2.7/2*

*AFAD **28** 06:02:20.7, 42°.42N×29°.48E, h40^{km}±7^{km}, ML2.8*

*ISK **28** 06:02:20.1, 42°.28N×29°.50E, h10^{km}, ML2.8/27*

*CFUSG **28** 06:02:24.7, 42°.62N×29°.61E, h48^{km}, Mb2.6/6, MD3.0/5, MSH3.1/6*

ISC 28 06:02:15.5±1.2**, 42°.51N**±0°.02×**29°.54E**±0°.02**, h11**^{km}±10^{km}**, n76, σ1^{s}25**/113**, 8C-8D, Black Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KALB	Balgarevo	1.22	318	⇓P	Sb	06 02 50.9	-3.4
KLYT	Kilyos	1.31	197	Pg	Pg	06 02 41.1	+0.5

KLYT				Sg	**Sb**	**06 02 56.7**	**-0.1**
KLYT				AML	AML		
SILT	**Sile**	**1.35**	**177**	Pn	**Pg**	**06 02 42.2**	**+0.7**
SILT				Sn	**Sn**	**06 02 58.3**	**0.0**
SILT				AML	AML		
SILT	**Sile**	**1.35**	**177**	⇓P	**Pb**	**06 02 41.0**	**+0.1**
CTYL	**Yalikoy Yolu**	**1.39**	**223**	Pn	**Pg**	**06 02 43.4**	**+1.2**
CTYL				AML	AML		
BGKT	**Bogazkoy**	**1.44**	**204**	Pn	**Pg**	**06 02 43.6**	**+0.4**
BGKT				Sn	**Sb**	**06 03 00.7**	**0.0**
BGKT				AML	AML		
CATL	**atalca, ST**	**1.46**	**218**	P	**Pg**	**06 02 44.4**	**+0.8**
CATL				S	**Sn**	**06 02 58.9**	**-2.1**
CATL				IAML		06 03 20.0	
	comp=E,17nm,0.5s						
CATL				IAML		06 03 25.0	
	comp=N,28nm,0.5s						
ISK	**Istanbul-Kandi**	**1.48**	**194**	Pn	**Pg**	**06 02 44.2**	**+0.2**
ISK				Sn	**Sb**	**06 03 01.7**	**-0.2**
ISK				AML	AML		
CTKS	**Kestanelik-??a**	**1.48**	**212**	Pn	**Pg**	**06 02 44.4**	**+0.4**
CTKS				AML	AML		
KAVV	**Kandilli-Istan**	**1.48**	**194**	Pn	**Pg**	**06 02 44.1**	**+0.1**
KAVV				Sn	**Sn**	**06 03 01.3**	**-0.2**
KAVV				AML	AML		
SATE	**Sancaktepe,**	**1.50**	**187**	P	**Pn**	**06 02 40.9**	**-1.5**
SATE				S	**Sn**	**06 03 01.7**	**-0.3**
SATE				IAML		06 03 02.0	
	comp=N,341nm,0.3s						
SATE				IAML		06 03 02.0	
	comp=E,148nm,0.4s						
AVR	**AVREN**	**1.51**	**295**	P	**Pg**	**06 02 44.3**	**-0.1**
AVR				S	**Sb**	**06 03 02.6**	**0.0**
PSN	**Preselentsi**	**1.53**	**318**	*i* P	**Pg**	**06 02 45.5**	**+0.7**
PSN				S	**Sg**	**06 03 04.5**	**-0.2**
VIZE	**Kirklareli, Vi**	**1.57**	**234**	P	**Pg**	**06 02 45.1**	**-0.5**
VIZE				S	**Sn**	**06 03 03.1**	**-0.5**
VIZE				IAML		06 03 04.0	
	comp=N,58nm,0.2s						
VIZE				IAML		06 03 04.0	
	comp=E,42nm,0.5s						
SLVT	**Silivri**	**1.62**	**218**	Pn	**Pg**	**06 02 46.5**	**0.0**
SLVT				AML	AML		
SEMS	**Kocaeli-K¶rfe**	**1.64**	**175**	P	**Pg**	**06 02 46.7**	**-0.3**
SEMS				S	**Sb**	**06 03 05.9**	**-0.6**
SEMS				IAML		06 03 06.0	
	comp=N,251nm,0.4s						
SEMS				IAML		06 03 07.0	
	comp=E,244nm,0.3s						
KAYN	**Sakarya, Kayna**	**1.65**	**158**	P	**Pg**	**06 02 47.0**	**-0.2**
KAYN				S	**Sn**	**06 03 05.6**	**-0.1**
KAYN				IAML		06 03 07.0	
	comp=E,223nm,0.6s						
KAYN				IAML		06 03 07.0	
	comp=N,144nm,0.6s						
BRGA	**Burgazada-Ista**	**1.66**	**193**	Pn	**Pb**	**06 02 46.3**	**+0.2**
BRGA				Sn	**Sn**	**06 03 05.9**	**+0.1**
BRGA				AML	AML		
HYBA	**Heybeliada-Ist**	**1.66**	**192**	Pn	**Pb**	**06 02 46.3**	**+0.1**
HYBA				Sn	**Sn**	**06 03 06.1**	**+0.2**
HYBA				AML	AML		
HRT	**Hereke**	**1.69**	**177**	Pn	**Pg**	**06 02 47.3**	**-0.5**
HRT				AML	AML		
ARMN	**Kirklareli, Me**	**1.69**	**248**	P	**Pg**	**06 02 47.4**	**-0.6**
ARMN				S	**Sn**	**06 03 05.7**	**-1.1**
ARMN				IAML		06 03 07.0	
	comp=N,59nm,0.5s						
ARMN				IAML		06 03 07.0	
	comp=E,44nm,0.4s						
ROIA	**ROIAK**	**1.69**	**291**	P	**Pb**	**06 02 47.1**	**+0.4**
ROIA				S	**Sn**	**06 03 06.8**	**0.0**
PRD	**Provadia**	**1.70**	**293**	P	**Pg**	**06 02 47.8**	**-0.2**
PRD				S	**Sn**	**06 03 06.4**	**-0.4**
TUZL	**Tuzla-Istanbul**	**1.70**	**187**	Pn	**Pb**	**06 02 47.2**	**+0.4**
TUZL				AML	AML		
EFOR	**EFORIE**	**1.71**	**337**	⇑P	Pg	06 02 54.7	+6.5
YLVH	**Yalova**	**1.81**	**184**	Pn	**Pb**	**06 02 48.9**	**+0.2**
YLVH				AML	AML		
NEF	**NEVSHA**	**1.83**	**295**	P	**Pg**	**06 02 49.7**	**-0.9**
NEF				S	**Sb**	**06 03 11.9**	**0.0**
SAUV	**Serdivan-Sakar**	**1.86**	**161**	Pn	**Pb**	**06 02 49.8**	**+0.3**
SAUV				AML	AML		
UVEZ	**Uvezbeli-DUZCE**	**1.90**	**147**	Pn	**Pg**	**06 02 51.1**	**-0.8**
UVEZ				AML	AML		
SAHE	**Sakarya_HENDEK**	**1.92**	**149**	P	**Pb**	**06 02 50.7**	**+0.1**
SAHE				S	**Sn**	**06 03 10.5**	**-1.9**
SAHE				IAML		06 03 22.0	
	comp=N,47nm,0.6s						
KIRK	**Kırklareli**	**1.95**	**249**	P	**Pb**	**06 02 50.8**	**-0.3**
KIRK				S	**Sn**	**06 03 11.7**	**-1.4**
KIRK				IAML		06 03 15.0	
	comp=N,41nm,0.4s						
KIRK				IAML		06 03 16.0	
	comp=E,18nm,0.6s						
ARMT	**Armutlu**	**2.00**	**195**	Pn	**Pb**	**06 02 51.4**	**-0.6**
ARMT				AML	AML		
ICOR	**Ion Corvin**	**2.05**	**322**	⇓P	**Pg**	**06 02 56.5**	**+1.8**
GEML	**Gemlik-BURSA**	**2.05**	**187**	Pn	**Pb**	**06 02 52.3**	**-0.5**
GEML				AML	AML		
HISA	**Bilecik-Osmane**	**2.06**	**172**	P	**Pb**	**06 02 52.8**	**-0.2**
HISA				S	**Sn**	**06 03 14.9**	**-0.9**
HISA				IAML		06 03 17.0	
	comp=E,65nm,0.4s						
HISA				IAML		06 03 21.0	
	comp=N,93nm,0.7s						
ADVT	**Abdulvahap**	**2.08**	**176**	Pn	**Pb**	**06 02 52.6**	**-0.6**
ADVT				AML	AML		
GEYV	**SAKARYA_Geyve**	**2.10**	**164**	P	**Pb**	**06 02 53.6**	**0.0**
GEYV				S	**Sn**	**06 03 17.5**	**+0.8**
GEYV				IAML		06 03 21.0	
	comp=E,51nm,0.3s						
GEYV				IAML		06 03 24.0	
	comp=N,56nm,0.5s						
YIGI	**Dzce**	**2.10**	**137**	P	**Pb**	**06 02 52.8**	**-0.8**
YIGI				S	**Sn**	**06 03 15.8**	**-1.0**
YIGI				IAML		06 03 20.0	
	comp=N,90nm,0.3s						
YIGI				IAML		06 03 21.0	
	comp=E,103nm,0.6s						
TIRR	**Tirgusor**	**2.12**	**338**	⇓P	**Pb**	**06 02 54.1**	**+0.2**
IZI	**Iznik**	**2.17**	**181**	Pn	**Pb**	**06 02 53.9**	**-0.9**
BTIN	**Bartın**	**2.20**	**112**	P	**Pb**	**06 02 54.4**	**-0.9**
BTIN				S	**Sn**	**06 03 18.8**	**-0.4**
BTIN				IAML		06 03 20.0	
	comp=E,307nm,0.7s						
BTIN				IAML		06 03 20.0	
	comp=N,377nm,0.4s						
GULT	**Gulveren**	**2.20**	**160**	Pn	**Pb**	**06 02 55.0**	**-0.3**
GULT				AML	AML		
AVDN	**Avdancik/Bursa**	**2.23**	**187**	P	**Pb**	**06 02 55.2**	**-0.6**
AVDN				S	**Sn**	**06 03 19.3**	**-0.6**
AVDN				IAML		06 03 24.0	
	comp=N,67nm,0.4s						
AVDN				IAML		06 03 24.0	
	comp=E,108nm,0.4s						
DEVR	**Zonguldak/Devr**	**2.27**	**126**	P	**Pb**	**06 02 55.2**	**-1.3**
DEVR				S	**Sn**	**06 03 20.5**	**-0.6**
DEVR				IAML		06 03 21.0	
	comp=E,310nm,0.3s						
DEVR				IAML		06 03 22.0	
	comp=N,133nm,0.3s						
CAVI	**Cavuskoy**	**2.31**	**174**	Pn	**Pb**	**06 02 56.3**	**-0.9**
CAVI				AML	AML		
BOLU	**Bolu-Merkez-Mu**	**2.35**	**136**	P	**Pb**	**06 02 56.5**	**-1.4**
BOLU				S	**Sn**	**06 03 23.2**	**0.0**
BOLU				IAML		06 03 26.0	
	comp=N,107nm,0.3s						
BOLU				IAML		06 03 26.0	
	comp=E,128nm,0.3s						
SUSU	**Bolu-G¶ynk-**	**2.38**	**155**	P	**Pb**	**06 02 57.0**	**-1.3**
SUSU				S	**Sn**	**06 03 22.5**	**-1.2**
SUSU				IAML		06 03 27.0	
	comp=E,25nm,0.3s						
SUSU				IAML		06 03 32.0	
	comp=N,21nm,0.6s						
MDUB	**Mudurnu**	**2.38**	**148**	Pn	**Pb**	**06 02 57.5**	**-1.0**
MDUB				AML	AML		
GAZK	**Gazikoy-TEKIRD**	**2.42**	**224**	Pn	**Pb**	**06 02 58.2**	**-0.8**
GAZK				AML	AML		
RUZG	**Kolk¶y-BOLU**	**2.46**	**136**	Pn	**Pb**	**06 02 59.1**	**-0.7**
RUZG				AML	AML		
RAZG	**Razgrad**	**2.46**	**297**	⇑P	Pn	06 02 46.7	-8.9
HARR	**Harsova**	**2.48**	**332**	⇑P	**Pb**	**06 03 00.2**	**+0.2**
TPGR	**Topolog**	**2.49**	**341**	⇑P	**Pb**	**06 02 59.4**	**-0.8**
TPGR				⇑S	**Sg**	**06 03 33.4**	**-2.0**
BCAM	**Yenicaga**	**2.54**	**131**	P	**Pb**	**06 03 00.0**	**-1.1**
BCAM				S	**Sn**	**06 03 27.8**	**+0.1**
BCAM				IAML		06 03 31.0	
	comp=E,102nm,0.5s						
BCAM				IAML		06 03 32.0	
	comp=N,56nm,0.3s						
KBUK	**KARABUK-Merkez**	**2.63**	**118**	P	**Pb**	**06 03 00.8**	**-1.9**
KBUK				S	**Sn**	**06 03 30.1**	**+0.2**
KBUK				IAML		06 03 32.0	
	comp=E,133nm,0.6s						
KBUK				IAML		06 03 34.0	
	comp=N,83nm,0.4s						
YUVA	**Yuva-Kibriscik**	**2.66**	**142**	Pn	**Pb**	**06 03 01.7**	**-1.5**
YUVA				AML	AML		
KIBS	**BOLU**	**2.71**	**139**	P	**Pb**	**06 03 02.7**	**-1.5**
KIBS				S	**Sn**	**06 03 32.9**	**+0.8**
KIBS				IAML		06 03 35.0	
	comp=E,34nm,0.5s						
KIBS				IAML		06 03 37.0	
	comp=N,36nm,0.4s						
DOMA	**Ktahya-Doman**	**2.72**	**177**	P	**Pg**	**06 03 08.3**	**+0.7**
DOMA				S	**Sb**	**06 03 39.5**	**+1.9**
TLCR		**2.73**	**349**	⇓P	**Pg**	**06 03 10.4**	**+2.6**
SUSR	**Susurluk-Balik**	**2.77**	**204**	Pn	**Pb**	**06 03 02.8**	**-2.2**
DERS	**Karabk-Eskip**	**2.80**	**125**	P	**Pb**	**06 03 04.4**	**-1.1**
DERS				S	**Sn**	**06 03 34.1**	**0.0**
DERS				IAML		06 03 38.0	
	comp=N,75nm,0.7s						
DERS				IAML		06 03 39.0	
	comp=E,54nm,0.5s						
CFR	**Carcaliu**	**2.86**	**340**	⇓P	**Pb**	**06 03 05.6**	**-0.9**
TVSB	**Tavsanli**	**3.05**	**181**	Pn	**Pn**	**06 03 06.5**	**+2.7**
TVSB				AML	AML		
PELI	**Kastamonı-Ara**	**3.06**	**112**	P	**Pb**	**06 03 08.1**	**-2.0**
PELI				S	**Sn**	**06 03 41.0**	**+0.4**
PELI				IAML		06 03 46.0	
	comp=N,46nm,0.3s						
PELI				IAML		06 03 47.0	
	comp=E,44nm,0.2s						
SVRH	**Sivrihisar-ESK**	**3.41**	**153**	Pn	**Pn**	**06 03 12.0**	**+3.3**
TARU	**Tarkhankut**	**3.59**	**36**	*e*P	**Pn**	**06 03 13.4**	**+2.3**
TARU				pmax	pmax	06 03 13.9	
	comp=Z,1.0nm,0.2s						
TARU				*e*S	**Sn**	**06 03 52.6**	**-0.9**
TARU				smax	smax	06 03 57.2	
	comp=E,28nm,0.3s						
SEV	**Sevastopol'**	**3.63**	**54**	⇑*i*P	**Pn**	**06 03 14.6**	**+3.0**
SEV				pmax	pmax	06 03 16.5	
	comp=Z,2.0nm,0.3s						
SEV				*e*S	**Sn**	**06 03 52.9**	**-1.5**
SEV				smax	smax	06 03 56.9	
	comp=N,8.0nm,0.3s						
SEV				smax	smax	06 03 56.9	
	comp=E,8.0nm,0.2s						
YAL	**Yalta**	**3.90**	**58**	*e*P	**Pn**	**06 03 18.0**	**+2.7**
YAL				pmax	pmax	06 03 18.9	
	comp=Z,9.0nm,0.2s						
YAL				*e*S	**Sn**	**06 03 59.2**	**-1.9**
YAL				smax	smax	06 04 07.2	
	comp=N,18nm,0.3s						
YAL				smax	smax	06 04 07.2	
	comp=E,23nm,0.3s						
DNZ2	**Donuzlav2**	**3.91**	**42**	*e*x	**Sn**	**06 04 02.4**	**+1.1**
DNZ2				smax	smax	06 04 03.2	
	comp=N,10.0nm,0.2s						
DNZ2				smax	smax	06 04 03.2	
	comp=E,7.0nm,0.2s						
VRI	**Vrincioaia**	**3.92**	**330**	⇑P	**Pn**	**06 03 16.0**	**+0.3**
PLOR	**Plostina**	**3.94**	**329**	⇑P	**Pn**	**06 03 17.9**	**+2.0**
MLR	**Muntele Rosu**	**3.95**	**320**	⇓P	Pn	06 03 10.0	-6.2
ALU	**Alushta**	**4.15**	**57**	*e*P	**Pn**	**06 03 20.0**	**+1.2**
ALU				pmax	pmax	06 03 20.4	
	comp=Z,9.0nm,0.2s						
ALU				*e*S	**Sn**	**06 04 03.7**	**-3.5**
ALU				smax	smax	06 04 05.3	
	comp=N,84nm,0.3s						
ALU				smax	smax	06 04 05.3	
	comp=E,27nm,0.4s						
MPEP	**Malo Peshtene**	**4.34**	**283**	P	**Pn**	**06 03 22.9**	**+1.5**
SUDU	**Sudak**	**4.62**	**57**	⇓*i*P	**Pn**	**06 03 27.1**	**+1.8**
SUDU				pmax	pmax	06 03 27.3	
	comp=Z,36nm,0.2s						
SUDU				*e*S	**Sn**	**06 04 16.1**	**-2.8**
SUDU				smax	smax	06 04 24.8	
	comp=N,41nm,0.4s						
SUDU				smax	smax	06 04 24.8	
	comp=E,13nm,0.3s						
FEO	**Feodosiya**	**4.93**	**57**	*e*x	**Pn**	**06 03 30.9**	**+1.5**
FEO				pmax	pmax	06 03 31.0	
	comp=Z,22nm,0.2s						

IDC ***28*** *06:02:42.2±1.7, 12°.38N×126°.02E, h0^{km}, mb4.0/9, mbtmp4.0/9, MS3.3/17, Error ellipse: s-maj=163.1km s-min=16.7km az=67.0*
NEIC ***28*** *06:02:43.6±1.1, 12°.3N±0°.1×125°.8E±0°.2, h10^{km}±2^{km}, mb4.4/11, Error ellipse: s-maj=27.2km s-min=18.2km az=100.0*
MAN ***28*** *06:02:46.0, 11°.66N×124°.30E, h6^{km}, MS3.6*
MAN INTENSITY III - KAWAYAN NAVAL ALMERIA & MARIPIPI BILIRAN; ALMAGRO SAMAR; . INTENSITY II - BILIRAN BILIRAN; LEYTE & CAPOOCAN LEYTE.
ISC 28 06:02:43.5±0.7**, 12°.34N**±0°.05×**125°.76E**±0°.10**, h10^{km}, n48, σ1§20**/33**, mb4.2**/16**, MS3.3**/14**, Samar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PLP	**Palo**	**1.39**	**214**	*e*P	Pn	06 03 02.7	-6.4
PLP				*e*S	Sn	06 03 16.4	-11
PVCP	**Virac**	**2.01**	**309**	*e*P	**Pb**	**06 03 19.8**	**-0.4**
PVCP				*e*S	**Sb**	**06 03 46.8**	**+1.5**
CGP	**Cagayan de Oro**	**4.00**	**195**	*e*P	Pn	06 03 38.4	-6.5
CGP				*e*S	**Sn**	**06 04 29.8**	**-2.1**
BIPH	**Bislig**	**4.17**	**172**	*i* P	**Pb**	**06 03 55.4**	**-1.6**
BIPH				*e*S	**Sb**	**06 04 51.8**	**+4.4**
PAGZ	**Pagadian**	**5.04**	**208**	*i* P	Pn	06 03 46.8	-12
PAGZ				*i* S	Sn	06 04 31.6	-26
DAV	**Davao City (W)**	**5.24**	**182**	LR	LR	06 06 08.5	
	comp=Z,372nm,18.7s,baz=6.0,slow=39						
MYLDM	**Lahad Datu**	**10.10**	**226**	Pn	**Pn**	**06 05 08.7**	**-0.1**
KKM	**Kota Kinabalu**	**11.31**	**237**	Pn	**Pn**	**06 05 24.9**	**-0.5**
KAPI	**Kappang**	**18.24**	**199**	LR	LR	06 15 11.3	
	comp=Z,83nm,18.8s,baz=16,slow=41						
GUMO	**Guam**	**18.66**	**84**	LR	LR	06 12 05.9	
	comp=Z,17nm,21.3s,baz=249,slow=31						
JAY	**Jayapura**	**20.93**	**134**	LR	LR	06 13 59.6	
	comp=Z,61nm,21.7s,baz=356,slow=33						
KSRS	**Korea Array**	**25.09**	**4**	LR	LR	06 18 05.1	
	comp=Z,35nm,20.8s,baz=200,slow=37						
CMAR	**Chiang Mai Arr**	**26.55**	**287**	LR	LR	06 19 01.1	
	comp=Z,20nm,18.9s,baz=265,slow=37						
KNRA	**Kununurra**	**27.99**	**174**	P	**P**	**06 08 33.8**	**-0.9**
KNRA				IAmb	IAmb	06 08 44.7	
	comp=Z,6.8nm,1.4s						
FITZ	**Fitzroy Crossi**	**30.24**	**180**	LR	LR	06 24 48.5	
	comp=Z,37nm,18.1s,baz=5.5,slow=44						
LZDM	**Lanzhou Array**	**30.81**	**323**	LR	LR	06 21 11.2	
	comp=Z,58nm,19.4s,baz=105,slow=36						
WRA	**Warramunga Arr**	**33.17**	**165**	P	**P**	**06 09 19.2**	**-1.2**
	comp=Z,0.6nm,0.9s,baz=350,slow=8.6,SNR=3.5						
	comp=Z,0.6nm,0.9s						
AS31	**Alice Springs**	**36.66**	**167**	P	**P**	**06 09 50.6**	**0.0**
ASAR	**Alice Springs**	**36.66**	**167**	P	**P**	**06 09 50.6**	**0.0**
	comp=Z,1.6nm,1.0s,baz=349,slow=8.1,SNR=8.3						
ASAR				LR	LR	06 26 03.4	
	comp=Z,32nm,21.8s,baz=42,slow=38						
	comp=Z,1.6nm,1.0s						
ASAR	**Alice Springs**	**36.66**	**167**	P	**P**	**06 09 50.8**	**+0.2**
SONM	**Songino Array**	**38.92**	**339**	P	**P**	**06 10 10.5**	**+0.9**
	comp=Z,0.9nm,0.8s,baz=161,slow=12,SNR=4.5						
	comp=Z,0.9nm,0.8s						
SONM	**Songino Array**	**38.92**	**339**	P	**P**	**06 10 09.4**	**-0.3**
TLY	**Talaya**	**43.13**	**340**	LR	LR	06 30 27.8	
	comp=Z,32nm,18.8s,baz=131,slow=39						
STKA	**Stephens Creek**	**46.51**	**161**	P	**P**	**06 11 12.4**	**+1.3**
	comp=Z,2.5nm,0.9s,baz=340,slow=9.9,SNR=3.4						
	comp=Z,2.5nm,0.9s						
PEA0B	**Petropavlovsk-**	**47.98**	**25**	P	**P**	**06 11 21.3**	**-1.2**
PETK	**Petropavlovsk-**	**47.98**	**25**	P	**P**	**06 11 21.9**	**-0.6**
YAK	**Yakutsk**	**49.70**	**2**	LR	LR	06 34 30.7	
	comp=Z,31nm,18.5s,baz=52,slow=38						
MK31	**Makanchi Array**	**50.10**	**322**	P	**P**	**06 11 39.1**	**+0.2**
MK31				IAmb	IAmb	06 11 40.8	
	comp=Z,1.8nm,0.8s						
MKAR	**Makanchi Array**	**50.10**	**322**	P	**P**	**06 11 39.9**	**+1.0**
	comp=Z,1.9nm,0.8s,baz=116,slow=8.2,SNR=14						
	comp=Z,1.9nm,0.8s						
MKAR	**Makanchi Array**	**50.10**	**322**	P	**P**	**06 11 38.9**	**0.0**
MAKZ	**Makanchi**	**50.29**	**322**	P	**P**	**06 11 41.1**	**+0.7**
MAKZ				IAmb	IAmb	06 12 13.5	
	comp=Z,2.1nm,0.6s						
ZALV	**Zalesovo Beam**	**52.59**	**331**	LR	LR	06 34 57.9	
	comp=Z,30nm,20.1s,baz=98,slow=37						
KURK	**Kurchatov**	**54.10**	**325**	P	**P**	**06 12 09.8**	**+1.3**
KURK				IAmb	IAmb	06 12 10.8	
	comp=Z,6.0nm,0.9s						
KURBB	**Kurchatov Arra**	**54.11**	**325**	P	**P**	**06 12 10.2**	**+1.6**
	comp=Z,2.4nm,0.7s,baz=124,slow=7.4,SNR=12						
	comp=Z,2.4nm,0.7s						
KK31	**Karatay Array**	**56.46**	**314**	P	**P**	**06 12 25.1**	**-0.7**
KK31				IAmb	IAmb	06 12 30.1	
	comp=Z,2.6nm,1.0s						
KKAR	**Karatay Array**	**56.46**	**314**	P	**P**	**06 12 24.9**	**-0.9**
BVAR	**Borovoye Array**	**59.70**	**325**	P	**P**	**06 12 48.8**	**+0.6**
	comp=Z,0.7nm,0.5s,baz=120,slow=8.7,SNR=3.7						
	comp=Z,0.7nm,0.5s						
BORK	**Borovoye**	**59.74**	**325**	P	**P**	**06 12 48.6**	**+0.1**
BORK				IAmb	IAmb	06 12 57.1	
	comp=Z,10nm,1.4s						
AB31	**Akbulak array**	**65.00**	**319**	P	**P**	**06 13 23.4**	**-0.4**
AB31				IAmb	IAmb	06 13 24.7	
	comp=Z,1.8nm,0.7s						
ABKAR	**Akbulak array**	**65.00**	**319**	P	**P**	**06 13 23.6**	**-0.2**
AKTO	**Aktyubinsk**	**66.43**	**320**	P	**P**	**06 13 33.4**	**+0.3**
	comp=Z,0.8nm,0.3s,baz=96,slow=5.9,SNR=3.8						
	comp=Z,0.8nm,0.3s						
ARTI	**Arti**	**67.33**	**326**	P	**P**	**06 13 39.4**	**+0.8**
	comp=Z,1.9nm,0.4s,baz=153,slow=2.3,SNR=4.0						
ARTI				LR	LR	06 43 18.6	
	comp=Z,24nm,18.1s,baz=8.0,slow=36						
	comp=Z,1.9nm,0.4s						
ARTI	**Arti**	**67.33**	**326**	P	**P**	**06 13 38.3**	**-0.3**
BMAR	**Burnt Mountain**	**78.58**	**23**	P	**P**	**06 14 45.0**	**-0.2**
ASF	**Jabal al Asfar**	**82.60**	**301**	LR	LR	06 55 28.0	
	comp=Z,24nm,18.5s,baz=206,slow=38						
MLR	**Muntele Rosu**	**88.07**	**316**	LR	LR	06 57 12.5	
	comp=Z,29nm,21.8s,baz=200,slow=37						
NOA	**NORSAR Array B**	**90.70**	**334**	LR	LR	06 59 27.3	
	comp=Z,25nm,20.2s,baz=20,slow=38						
JMIC	**Jan Mayen**	**91.32**	**346**	LR	LR	07 01 31.8	
	comp=Z,65nm,19.5s,baz=21,slow=39						

SFS ***28*** *06:06:37.9, 34°.99N×3°.87W, h0^{km}, ML2.2/10, ML2.4/10, MLv2.5/6*
CNRM ***28*** *06:06:37.8, 34°.95N×3°.80W, h19^{km}, ML2.6*
MDD ***28*** *06:06:38.1±0.9, 34°.99N×3°.82W, h1^{km}±8^{km}, mb_Lg2.2/7, Error ellipse: s-maj=7.6km s-min=4.2km az=123.0*
ISC 28 06:06:37.4±1.0**, 34°.96N**±0°.02×**3°.78W**±0°.03**, h15^{km}**±8^{km}**, n42, σ1§06**/71**, Morocco**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALE	**Palemas**	**0.28**	**333**	P	**Pb**	**06 06 44.2**	**-0.1**
PALE				S	**Sg**	**06 06 49.6**	**+2.0**
AKLM	**AKL**	**0.46**	**188**	P	**Pg**	**06 06 45.3**	**-1.3**
AKLM				S	**Sg**	**06 06 51.8**	**-1.0**
EMLI	**Melilla**	**0.76**	**64**	Pg	**Pb**	**06 06 52.6**	**+0.2**
EMLI				Sg	**Sg**	**06 07 03.9**	**+1.6**
WMELI	**Melilla**	**0.77**	**62**	Pg	**Pb**	**06 06 52.8**	**+0.3**
WMELI				Sg	**Sn**	**06 07 05.0**	**0.0**
EALB	**Alboran**	**1.15**	**32**	Pg	**Pn**	**06 06 58.6**	**-0.4**
EALB				Sg	**Sn**	**06 07 14.4**	**0.0**
EALB	**Alboran**	**1.15**	**32**	P	**Pn**	**06 06 58.7**	**-0.4**
EALB				S	**Sn**	**06 07 14.5**	**0.0**
EALB				IVmb_Lg		06 07 18.7	
JBK	**JBK**	**1.18**	**122**	P	**Pn**	**06 06 59.1**	**-0.6**
JBK				S	**Sb**	**06 07 14.3**	**-0.6**
CHEFC	**Chefchaouen**	**1.29**	**277**	P	**Pn**	**06 07 00.2**	**-0.8**
CHEFC				S	**Sn**	**06 07 17.9**	**-0.1**
SMIR	**Smir Dam**	**1.49**	**299**	P	**Pn**	**06 07 03.0**	**-0.7**
SMIR				S	**Sb**	**06 07 24.2**	**+0.7**
LCRM	**LCR**	**1.56**	**215**	P	**Pn**	**06 07 04.4**	**-0.3**
LCRM				S	**Sb**	**06 07 27.8**	**+2.2**
ECEU	**Ceuta**	**1.60**	**306**	Sn	**Sn**	**06 07 25.1**	**-0.5**
ECEU	**Ceuta**	**1.60**	**306**	P	**Pb**	**06 07 06.4**	**-0.4**
ECEU				S	**Sn**	**06 07 24.3**	**-1.3**
ECEU				IVmb_Lg		06 07 30.0	
RSA	**Sarsar**	**1.68**	**268**	P	**Pn**	**06 07 06.5**	**+0.2**
RSA				S	**Sb**	**06 07 28.8**	**-0.2**
EMIJ	**Mijas**	**1.79**	**334**	Sn	**Sn**	**06 07 30.1**	**-0.2**
EMIJ	**Mijas**	**1.79**	**334**	S	**Sn**	**06 07 29.8**	**-0.5**
EMIJ				IVmb_Lg		06 07 34.7	
IFR	**Ifrane**	**1.82**	**218**	Pn	**Pn**	**06 07 08.4**	**0.0**
IFR				Sn	**Sn**	**06 07 32.6**	**+1.3**
ELGU	**Los Guajares,**	**1.90**	**4**	Pn	**Pn**	**06 07 09.2**	**-0.2**
ELGU				Sn	**Sb**	**06 07 35.0**	**-0.5**
ELGU	**Los Guajares,**	**1.90**	**4**	P	**Pn**	**06 07 09.2**	**-0.2**
ELGU				S	**Sn**	**06 07 32.5**	**-0.7**
ELGU				IVmb_Lg		06 07 37.7	
EBER	**Berja**	**2.06**	**20**	Pn	**Pn**	**06 07 11.6**	**-0.1**
EBER				Sn	**Sn**	**06 07 38.0**	**+0.7**
EBER	**Berja**	**2.06**	**20**	P	**Pn**	**06 07 10.8**	**-0.9**
EBER				S	**Sn**	**06 07 36.8**	**-0.4**
EGOR	**Sierra Gorda,**	**2.16**	**353**	Sn	**Sn**	**06 07 40.8**	**+1.2**
EGOR	**Sierra Gorda,**	**2.16**	**353**	P	**Pn**	**06 07 14.8**	**+1.8**
EGOR				S	**Sb**	**06 07 41.1**	**-1.9**
EGOR				IVmb_Lg		06 07 43.7	
MD31	**MD31**	**2.24**	**202**	P	**Pn**	**06 07 13.7**	**-0.4**
MD31				S	**Sn**	**06 07 42.4**	**+0.8**
MDT	**Midelt**	**2.25**	**198**	P	**Pn**	**06 07 14.7**	**+0.4**
MDT				S	**Sn**	**06 07 42.4**	**+0.6**
EQTA	**Presa de Quent**	**2.26**	**7**	Sn	**Sn**	**06 07 42.5**	**+0.6**
ZHG	**ZHG**	**2.81**	**238**	P	**Pn**	**06 07 22.2**	**+0.2**
ZHG				S	**Sn**	**06 07 58.9**	**+3.2**
EADA	**Adamuz**	**3.26**	**349**	S	**Sn**	**06 08 06.7**	**0.0**
ECAB	**El Cabril**	**3.37**	**337**	P	**Pn**	**06 07 31.7**	**+2.1**
ECAB				S	**Sn**	**06 08 10.2**	**+0.8**
TISM	**Timmit**	**3.92**	**215**	P	**Pn**	**06 07 36.6**	**-0.5**
TISM				S	**Sn**	**06 08 23.1**	**+0.2**
EGRO	**El Granado**	**3.94**	**312**	P	**Pn**	**06 07 37.9**	**+0.5**
PVAQ	**Vaqueiros**	**4.01**	**309**	*e*P	**Pn**	**06 07 39.2**	**+0.9**
PVAQ				*e*S	**Sn**	**06 08 23.3**	**-1.7**
PVAQ				IAML		06 08 25.1	
PVAQ				IAML		06 08 28.7	
PVAQ				IAML		06 08 38.0	
PBDV	**Barranco-do-Ve**	**4.06**	**305**	*e*P	**Pn**	**06 07 38.7**	**-0.3**
PBDV				*e*S	**Sn**	**06 08 25.4**	**-0.9**
ETOB	**Tobarra**	**4.09**	**25**	P	**Pn**	**06 07 42.0**	**+2.6**
PBAR	**Barrancos**	**4.14**	**322**	*e*P	**Pn**	**06 07 42.3**	**+2.2**
PBAR				*e*S	**Sn**	**06 08 27.8**	**-0.4**
PBAR				IAML		06 08 32.4	
PBAR				IAML		06 08 33.1	
PBAR				IAML		06 08 44.9	
PCVE	**Castro Verde**	**4.35**	**309**	*e*P	**Pn**	**06 07 43.2**	**+0.3**
PCVE				*e*S	**Sn**	**06 08 31.6**	**-1.8**
EBAD	**Badajoz**	**4.59**	**327**	S	**Sn**	**06 08 37.5**	**-1.8**
EBAD				IVmb_Lg		06 08 41.9	
MESJ	**Messejana**	**4.59**	**310**	*e*P	**Pn**	**06 07 47.3**	**+1.0**
PESTR	**Estremoz**	**4.95**	**323**	*e*S	**Sn**	**06 08 47.8**	**-0.5**
TIO	**Tiouine**	**4.98**	**217**	P	**Pn**	**06 07 52.0**	**+0.3**
TIO				S	**Sn**	**06 08 49.6**	**+0.5**
OUK	**Oukaimeden**	**5.08**	**224**	P	**Pn**	**06 07 53.1**	**-0.2**
OUK				S	**Sn**	**06 08 51.0**	**-0.8**
PARRA	**Arraiolos**	**5.14**	**320**	*e*P	**Pn**	**06 07 54.4**	**+0.6**
PMRV	**Marv??o**	**5.31**	**328**	*e*P	**Pn**	**06 07 57.3**	**+1.1**

IDC 28 06:10:25.0±46.0**, 17°.08S**×**173°.21W, h0^{km}, mb4.0**/3**, mbtmp4.0**/3**, MS2.9**/1**, Error ellipse: s-maj=894.5km s-min=191.1km az=80.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	**Raoul Island**	**12.86**	**199**	LR	LR	06 17 29.0	
	comp=Z,60nm,21.3s,baz=298,slow=33						
STKA	**Stephens Creek**	**43.38**	**242**	P	P	06 18 29.9	+0.5
	2.2nm,0.7s,baz=63,slow=9.0,SNR=3.6						
	2.2nm,0.7s						
WRA	**Warramunga Arr**	**49.66**	**258**	P	P	06 19 18.4	-0.5
	0.2nm,0.3s,baz=97,slow=7.0,SNR=5.9						
	0.2nm,0.3s						
ASAR	**Alice Springs**	**49.78**	**253**	P	P	06 19 19.7	-0.2
	2.3nm,0.5s,baz=90,slow=8.3,SNR=52						
	2.3nm,0.5s						

*IDC **28** 06:32:10.1±1.0, 55.°61N×158.°69W, h0^{km}, mb3.8/8, mbtmp3.8/10, ML3.6/2, MS3.6/1, Error ellipse: s-maj=24.5km s-min=16.8km az=3.0*
*AEIC **28** 06:32:14.9±2.0, 55.°48N±0.°04×158.°28W±0.°06, h11^{km}±4^{km}, Error ellipse: s-maj=5.6km s-min=4.4km az=143.0*
*NEIC **28** 06:32:15.6±1.4, 55.°51N±0.°05×158.°28W±0.°07, h37^{km}±8^{km}, mb4.3/7, ML3.8/44, ML3.7(AEIC), Error ellipse: s-maj=7.8km s-min=5.0km az=145.0*
ISC 28 06:32:15.9±1.0, **55.°54N**±0.°05×**158.°24W**±0.°03, **h43**^{km}±10^{km}, **n151**, σ**1^{s}31**/155, **mb4.0**/14, **Alaska Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNSG	Veniaminof 6	0.76	321		Pn	06 32 29.4	-0.8
CHGN	Chignik	0.77	353		Pn	06 32 29.3	-1.1
CHGN					Sn	06 32 40.0	-0.8
VNKR	Veniaminof 5	0.81	308		Pn	06 32 29.9	-0.9
VNSW	Veniaminof 7	0.92	306		Pn	06 32 31.7	-0.7
VNSW					Sn	06 32 44.4	0.0
VNSS	Veniaminof 8	0.97	316		Pn	06 32 32.9	-0.4
CHNA	Chernabura Isl	1.05	228	P	Pn	06 32 31.8	-2.3
S14K	Fog Glacier	1.05	316		Pn	06 32 34.4	+0.2
S14K					Sn	06 32 48.8	+1.0
VNFG	Fog Glacier, M	1.05	316		Pn	06 32 34.4	+0.1
VNFG					Sn	06 32 48.6	+0.8
VNFG	Fog Glacier, M	1.05	316		Pn	06 32 34.5	+0.3
CNBA	Chernabura Isl	1.06	228		Pn	06 32 32.0	-2.2
BPBCA	Veniaminof	1.06	354		Pn	06 32 33.8	-0.5
BPBCA					Sn	06 32 48.1	+0.2
ANPB	Aniakchak Plen	1.27	359		Pn	06 32 37.1	-0.1
SDPT	Sand Point	1.29	262	P	Pn	06 32 35.9	-1.5
SDPT	Sand Point	1.29	262		Pn	06 32 35.9	-1.5
SDPT					Sn	06 32 51.9	-1.5
SDPT				IAML		06 32 57.1	
	comp=E,2µm,0.7s						
SDPT				IAML		06 32 59.5	
	comp=N,1µm,1.0s						
CHIR	Chirikof Islan	1.51	78	P	Pn	06 32 40.6	+0.2
CHIR	Chirikof Islan	1.51	78	S	Sn	06 33 00.3	+1.4
CHIR	Chirikof Islan	1.51	78		Pn	06 32 40.8	+0.4
CHIR	Chirikof Islan	1.51	78		Sn	06 32 59.7	+0.8
CHIR	Chirikof Islan	1.51	78	IAML		06 33 12.5	
	comp=N,1µm,0.6s						
CHIR				IAML		06 33 12.8	
	comp=E,1µm,1.3s						
PS1A	Pavlof South-1	2.00	268		Pn	06 32 46.4	-0.7
PS1A					Sn	06 33 12.1	+1.2
R16K	Pilot Point	2.07	10		Pn	06 32 49.2	+1.2
R16K	Pilot Point	2.07	10	IAML		06 33 26.0	
	comp=N,718nm,1.3s						
R16K				IAML		06 33 44.0	
	comp=E,690nm,1.2s						
PS4A	Pavlof South-4	2.07	266		Pn	06 32 47.0	-1.1
PS4A					Sn	06 33 13.7	+1.1
DOL	Dolgoi Island	2.10	261		Sn	06 33 14.4	+0.8
PN7A	Pavlof North-7	2.14	269		Pn	06 32 48.8	-0.3
PN7A					Sn	06 33 16.8	+2.3
S12K	Black Hills	2.17	276	Pn	Pn	06 32 49.4	-0.2
S12K	Black Hills	2.17	276		Sn	06 33 15.6	+0.4
S12K	Black Hills	2.17	276	IAML		06 33 21.2	
	comp=N,1µm,0.8s						
S12K				IAML		06 33 27.2	
	comp=E,1µm,0.6s						
PLBL	Peulik Blue Cr	2.31	19		Pn	06 32 53.5	+2.2
DTNA	Dutton South F	2.32	262		Pn	06 32 50.8	-0.8
R17L	Mt. Peulik Vol	2.34	26		Pn	06 32 53.6	+1.7
R17L					Sn	06 33 23.5	+4.1
DT1	Dutton Round H	2.35	261		Pn	06 32 50.9	-1.0
DT1					Sn	06 33 20.6	+1.1
PLK1	Peulik 1	2.44	21		Pn	06 32 54.9	+1.7
SII	Sitkinak Islan	2.50	64	P	Pn	06 32 54.6	+0.6
SII	Sitkinak Islan	2.50	64		Pn	06 32 54.3	+0.3
SII	Sitkinak Islan	2.50	64	IAML		06 33 47.6	
	comp=E,650nm,0.6s						
SII				IAML		06 33 55.3	
	comp=N,652nm,0.7s						
KJL	Kejulik	2.92	29		Pn	06 33 01.1	+1.3
Q17K	Contact Creek	3.02	24		Pn	06 33 01.9	+0.6
ANCK	Angle Creek	3.06	28		Pn	06 33 03.1	+1.3
MGLS	Mageik Landsli	3.10	32		Pn	06 33 03.0	+0.7
KABU	Katmai Buttres	3.18	29		Pn	06 33 05.1	+1.6
OHAK	Old Harbor	3.23	56	P	Pn	06 33 03.4	-0.6
OHAK	Old Harbor	3.23	56	Pn	Pn	06 33 04.2	+0.2
OHAK				IAML		06 34 07.7	
	comp=N,149nm,0.7s						
OHAK				IAML		06 34 09.3	
	comp=E,161nm,1.1s						
ISNN	Isanotski Nort	3.25	260		Pn	06 33 04.4	0.0
KAKN	Katmai Knife C	3.27	31		Pn	06 33 06.0	+1.3
SSLS	Shishaldin Sou	3.41	258		Pn	06 33 06.7	+0.1
KAWH	Katmai	3.42	32		Pn	06 33 07.3	+0.6
P16K	Nushagak River	3.50	2	Pn	Pn	06 33 08.5	+0.7
P16K	Nushagak River	3.50	2		Sn	06 33 50.1	+2.1
P16K	Nushagak River	3.50	2	IAML		06 34 08.5	
	comp=N,302nm,1.0s						
KARR	Katmai Rainbow	3.54	32		Pn	06 33 09.3	+0.9
Q18K	Katmai Hardscr	3.58	28		Pn	06 33 10.2	+1.2
KAHG	Katmai Hook Gl	3.59	33		Pn	06 33 09.8	+0.8
O15K	Ungalikthiuk R	3.75	347	Pn	Pn	06 33 11.5	+0.3
O15K				IAML		06 33 56.6	
	comp=N,113nm,0.3s						
O15K				IAML		06 33 56.7	
	comp=E,110nm,0.5s						
O15K	Ungalikthiuk R	3.75	347		Sn	06 33 54.2	+0.2
P17K	Kvichak River	3.79	14	Pn	Pn	06 33 12.7	+1.0
KDAK	Kodiak Island	3.85	52	Pn	Pn	06 33 12.4	0.0
	comp=E,8.0nm,0.3s,baz=209,slow=5.0,SNR=62						
KDAK				Sn	Sn	06 33 55.1	-1.3
	comp=E,6.7nm,0.3s,baz=34,slow=18,SNR=10						
	comp=E,20nm,0.3s						
KDAK				AML	AML		
KDAK	Kodiak Island	3.85	52	Pn	Pn	06 33 12.5	0.0
KDAK				IAML		06 34 24.5	
	comp=E,112nm,0.6s						
KDAK				IAML		06 34 25.1	
	comp=E,90nm,1.0s						
KDAK	Kodiak Island	3.85	52		Sn	06 33 55.6	-0.8
O14K	Tigyukauivet M	4.07	338		Pn	06 33 15.8	+0.3
O14K					Sn	06 34 03.3	+1.5
O16K	Kokwok River B	4.07	1	Pn	Pn	06 33 15.9	+0.4
Q19K	Cape Douglas,	4.22	34	Pn	Pn	06 33 18.4	+0.8
AKUT	Akutan	4.58	255	P	Pn	06 33 22.0	-0.5
O18K	Koktuh Hills	4.62	19		Pn	06 33 25.1	+1.9
O18K	Koktuh Hills	4.62	19	IAML		06 34 49.9	
	comp=N,55nm,0.9s						
AKBBA	Akutan Broad B	4.68	255		Pn	06 33 24.3	+0.4
N15K	Kwethluk River	4.75	349		Pn	06 33 26.1	+1.2
N14K	Kuskokwak Cree	4.77	339	Pn	Pn	06 33 25.5	+0.4
N14K				IAML		06 35 05.2	
	comp=N,95nm,1.0s						
N14K				IAML		06 35 08.2	
	comp=E,127nm,1.4s						
N16K	Nishlik Lake	4.96	357		Pn	06 33 28.4	+0.7
N17K	Nushagak Hills	5.03	6		Pn	06 33 29.4	+0.6
N17K	Nushagak Hills	5.03	6	IAML		06 35 02.1	
	comp=E,38nm,1.0s						
UNV	Unalaska Valle	5.08	254	P	Pn	06 33 28.4	-1.1
UNV	Unalaska Valle	5.08	254	Pn	Pn	06 33 29.2	-0.2
O19K	Port Alsworth	5.12	23	IAML		06 34 30.6	
	comp=N,81nm,0.4s						
O19K				IAML		06 35 04.6	
	comp=E,97nm,0.5s						
ILSW	Iliamna Southw	5.22	29		Pn	06 33 32.8	+1.3
ILSW	Iliamna Southw	5.22	29	IAML		06 34 41.5	
	comp=E,36nm,1.3s						
N18K	Kilae Creek	5.30	13		Pn	06 33 33.9	+1.3
M15K	Kasigluk River	5.33	347		Pn	06 33 33.5	+0.7
O20K	Slope Mountain	5.46	31		Pn	06 33 35.9	+1.2
CNPM	China Poot	5.50	40	Pn	Pn	06 33 35.5	+0.3
M16K	Timber Creek	5.51	356		Pn	06 33 36.0	+0.7
M13K	Dall Lake	5.59	333		Pn	06 33 37.5	+1.1
N19K	Bonanza Creek	5.65	19		Pn	06 33 39.0	+1.6
BRSE	Bradley Lake S	5.83	41		Pn	06 33 39.4	-0.3
L16K	Owhat River	6.22	355	Pn	Pn	06 33 45.5	+0.4
L14K	Kuka Creek	6.27	340		Pn	06 33 45.7	0.0
L15K	Ungalak Mounta	6.39	346		Pn	06 33 47.2	-0.1
SPWE	Spurr West	6.48	25		Pn	06 33 50.6	+1.9
SPBG	Spurr Blockage	6.51	26		Pn	06 33 50.6	+1.5
L17K	Donlin	6.62	360		Pn	06 33 50.7	+0.2
M19K	Big River Lodg	6.69	16		Pn	06 33 52.8	+1.3
L18K	Granite Mounta	6.75	6		Pn	06 33 53.1	+0.8
L19K	White Mountain	6.89	13		Pn	06 33 55.8	+1.5
M20K	Styx River	6.89	21		Pn	06 33 56.3	+2.0
K15K	Wolf Creek Mou	6.99	347		Pn	06 33 56.8	+1.2
SUA	Susitna One	7.12	30		Pn	06 33 58.4	+0.9
K17K	Iditarod	7.20	360		Pn	06 33 58.9	+0.4
CLCO	Concord Point,	7.28	253		Pn	06 34 00.9	+1.3
L20K	Farewell, AK	7.32	16		Pn	06 34 01.5	+1.4
PWL	Port Wells	7.47	40		Pn	06 34 01.3	-0.8
PMR	Palmer	7.71	34	Pn	Pn	06 34 05.3	-0.1
J14K	Nanvaranak Lak	7.73	342	Pn	Pn	06 34 05.7	0.0
J16K	Anvik River	7.86	352		Pn	06 34 07.9	+0.4
J17K	VABM Dome	7.89	357		Pn	06 34 07.7	-0.3
GHO	Glory Hole Cre	7.91	34		Pn	06 34 08.1	-0.2
HIN	Hinchinbrook I	7.91	47		Pn	06 34 07.5	-0.8
PPLA	Purkeypile	8.00	20		Pn	06 34 12.6	+3.0
FID	Port Fidalgo	8.12	45		Pn	06 34 09.5	-1.6
EYAK	Cordova Ski Ar	8.31	48	P	Pn	06 34 14.0	+0.4
EYAK	Cordova Ski Ar	8.31	48		Pn	06 34 12.8	-0.8
I17K	Unalakleet	8.47	353		Pn	06 34 16.3	+0.6
SCM	Sheep Creek Mo	8.48	38		Pn	06 34 16.0	-0.2
CAST	Castle Rocks	8.50	19		Pn	06 34 18.0	+1.7
J19K	Poorman	8.59	8	Pn	Pn	06 34 17.9	+0.5
KLU	Klutina	8.78	42		Pn	06 34 19.9	-0.3
BMRM	Bremner River	9.01	47	Pn	Pn	06 34 23.0	-0.3
DHY	Denali Highway	9.37	32		Pn	06 34 28.2	-0.1
GLB	Gilahina Butte	9.58	46	Pn	Pn	06 34 30.5	-0.6
HDA	Harding Lake	10.52	28		Pn	06 34 42.8	-1.2
COLA	College	10.68	25	P	Pn	06 34 49.0	+3.0
IL31		10.83	27		Pn	06 34 46.8	-1.2
ILAR	Eielson Array	10.83	27	Pn	Pn	06 34 46.2	-1.9
	comp=E,0.3nm,0.3s,baz=218,slow=14,SNR=14						
ILAR				Sn	Sn	06 36 40.4	-7.3
	comp=E,0.2nm,0.3s,baz=210,slow=19,SNR=4.9						
	comp=E,1.0nm,0.6s						
ILAR				AML	AML		
ILAR	Eielson Array	10.83	27		Pn	06 34 46.5	-1.7
PNL	Peninsula	10.91	60	P	Pn	06 34 49.5	+0.2
J25K	Salcha River,	11.12	30		Pn	06 34 51.2	-0.9
O29M	Mount Kennedy	11.47	57		Pn	06 34 58.4	+1.3
ADK	Adak	11.52	259	P	Pn	06 34 57.0	-0.6
INK	Inuvik	17.11	32	Pn	Pn	06 36 10.9	-0.6
	comp=E,0.5nm,0.3s,baz=238,slow=16,SNR=8.5						
PETK	Petropavlovsk-	25.49	283	P	P	06 37 38.1	-1.7
	comp=E,2.1nm,0.5s,baz=79,slow=11,SNR=5.6						
	comp=E,2.1nm,0.5s						
NEW	Newport	26.07	89	LR	LR	06 46 10.8	
	comp=E,130nm,18.0s,baz=304,slow=32						
YHH	Holmes Hill	31.61	90	P	P	06 38 35.1	+0.4
YHH				IAmb	IAmb	06 38 37.8	
	comp=Z,2.2nm,0.7s						
NVAR	Mina Array Bea	31.62	106	P	P	06 38 37.3	+2.5
	comp=Z,0.9nm,0.8s,baz=297,slow=8.5,SNR=6.3						
	comp=Z,0.9nm,0.8s						
NVAR	Mina Array Bea	31.62	106	P	P	06 38 36.3	+1.5
ELK	Elko	31.70	100	P	P	06 38 37.6	+2.0
	comp=Z,0.5nm,0.4s,baz=343,slow=12,SNR=4.2						
	comp=Z,0.5nm,0.4s						
GRAC	Grapevine Rang	33.17	107	P	P	06 38 49.5	+1.4
GRAC				IAmb	IAmb	06 39 18.8	
	comp=Z,3.5nm,0.6s						
PDAR	Pinedale Array	33.59	92	P	P	06 38 54.1	+2.1
	comp=Z,0.9nm,0.6s,baz=308,slow=4.8,SNR=11						
	comp=Z,0.9nm,0.6s						
PV13	Radium Mtn., P	37.09	97	P	P	06 39 24.3	+2.2
PV13				IAmb	IAmb	06 39 24.7	
	comp=Z,5.3nm,0.7s						
SONM	Songino Array	55.10	305	P	P	06 41 41.4	-2.0
	comp=Z,0.7nm,0.5s,baz=45,slow=6.5,SNR=3.6						
	comp=Z,0.7nm,0.5s						
HHC	Hu-ho-hao-te	57.68	296	*e*P	P	06 42 02.8	+0.9
HHC				pmax	pmax		
	comp=Z,7.0nm,0.5s						
FINES	FINESS Array B	63.31	358	P	P	06 42 39.4	-0.3
	comp=Z,0.9nm,0.6s,baz=354,slow=7.0,SNR=1.5						
	comp=Z,0.9nm,0.6s						
FINES	FINESS Array B	63.31	358	P	P	06 42 40.0	+0.3
MKAR	Makanchi Array	66.07	319	P	P	06 42 56.9	-1.0
	comp=Z,0.2nm,0.5s,baz=31,slow=6.7,SNR=2.1						
	comp=Z,0.2nm,0.5s						
MKAR	Makanchi Array	66.07	319	P	P	06 42 57.5	-0.5
AB31	Akbulak array	70.81	335	P	P	06 43 27.5	0.0
AB31				IAmb	IAmb	06 43 38.4	
	comp=Z,3.0nm,1.1s						
ABKAR	Akbulak array	70.81	335	P	P	06 43 27.3	-0.2
KK31	Karatay Array	73.40	325	P	P	06 43 43.2	0.0
KK31				IAmb	IAmb	06 43 54.6	
	comp=Z,2.0nm,0.8s						
KKAR	Karatay Array	73.40	325	P	P	06 43 43.4	+0.3
PZH	PanZhiHua	73.94	293	P	P	06 43 47.3	+0.6
AKASG	Malin Array Be	73.95	355	P	P	06 43 45.8	-0.3
	comp=Z,0.9nm,0.5s,baz=11,slow=6.2,SNR=5.2						
	comp=Z,0.9nm,0.5s						
QSPA	South Pole Qui	145.32	180	PKPbc	PKPbc	06 51 47.3	0.0
	comp=Z,1.0nm,0.7s,baz=237,slow=2.0,SNR=6.7						
QSPA	South Pole Qui	145.32	180		PKPbc	06 51 47.5	+0.1

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*IDC **28** 06:49:14.5±3.6, 53.°74N×87.°77E, h0^{km}, mbtmp2.8/2, ML2.5/2, Error ellipse: s-maj=27.9km s-min=21.0km az=63.0*
ASRS 28 06:49:12.0±1.2, **53.°71N**×**88.°19E**, **h0**^{km}, **M2.7**(MOS), **The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	2.01	278	I	I	07 01 10.0	
	baz=95,slow=332,SNR=1.6						
ZALV	Zalesovo Beam	2.01	278	Pg	Pn	06 49 46.2	-1.0
	1.7nm,0.3s,baz=100,slow=14,SNR=26						
ZALV				Lg	Lg	06 50 11.2	
	2.5nm,0.3s,baz=96,slow=26,SNR=12						
KURBB	Kurchatov Arra	6.70	246	Pn	Pn	06 50 52.9	+1.4
	0.1nm,0.3s,baz=61,slow=14,SNR=5.7						
KURBB				Lg	Lg	06 52 39.4	
	baz=59,slow=31,SNR=2.0						
	0.8nm,0.5s						
KURBB				AML	AML		
MKAR	Makanchi Array	7.88	211	Pn	Pn	06 51 09.6	+1.8
	0.1nm,0.3s,baz=34,slow=13,SNR=2.2						
	0.2nm,0.5s						
MKAR				AML	AML		

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*ASRS **28** 06:59:59.0±0.8, 53.°91N×86.°59E, h0^{km}, M2.5(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*
IDC 28 06:59:58.9±4.3, **54.°11N**×**86.°80E**, **h0**^{km}, **mbtmp2.7**/2, **ML2.5**/2, **Error ellipse: s-maj=37.9km s-min=18.9km az=69.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	1.18	263	I	I	07 06 00.0	
	baz=79,slow=328,SNR=1.7						
ZALV	Zalesovo Beam	1.18	263	Pg	Pg	07 00 21.2	-0.2
	0.6nm,0.3s,baz=84,slow=17,SNR=5.8						
ZALV				Lg	Lg	07 00 37.4	
	1.6nm,0.3s,baz=84,slow=26,SNR=12						
KURBB	Kurchatov Arra	6.15	239	Pn	Pn	07 01 32.1	+1.2
	0.1nm,0.3s,baz=55,slow=13,SNR=4.2						
	0.3nm,0.4s						
KURBB				AML	AML		
MKAR	Makanchi Array	7.87	203	Pn	Pn	07 01 55.3	+0.8
	0.1nm,0.3s,baz=24,slow=13,SNR=2.5						
	0.2nm,0.3s						
MKAR				AML	AML		

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*ASRS **28** 07:00:29.0±1.5, 54.°18N×86.°40E, h0^{km}, M2.6(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*
IDC 28 07:00:26.7±3.5, **54.°36N**×**86.°95E**, **h0**^{km}, **mbtmp2.9**/2, **ML2.4**/2, **Error ellipse: s-maj=29.0km s-min=19.8km az=74.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	1.32	253	I	I	07 08 50.0	
	baz=71,slow=328,SNR=1.2						
ZALV	Zalesovo Beam	1.32	253	Pg	Pn	07 00 52.4	0.0
	1.0nm,0.3s,baz=74,slow=18,SNR=6.7						
ZALV				Lg	Lg	07 01 07.8	
	2.0nm,0.3s,baz=73,slow=26,SNR=4.5						
KURBB	Kurchatov Arra	6.36	237	Pn	Pn	07 02 02.1	+0.5
	0.2nm,0.3s,baz=54,slow=13,SNR=9.7						
KURBB				Lg	Lg	07 03 49.1	
	0.1nm,0.3s,baz=55,slow=30,SNR=4.1						
	0.8nm,0.5s						
KURBB				AML	AML		
MKAR	Makanchi Array	8.13	203	Pn	Pn	07 02 26.9	+0.9
	baz=25,slow=14,SNR=1.4						
MKAR				Lg	Lg	07 04 42.5	
	0.1nm,0.3s,baz=19,slow=27,SNR=2.4						
	0.1nm,0.3s						

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*TEH **28** 07:13:02.0, 27.°94N×57.°35E, h8^{km}±99^{km}, ML2.8, Presumed earthquake*
*DSN **28** 07:13:03.6±2.5, 27.°77N×57.°33E, h15^{km}, ML2.8/7, Error ellipse: s-maj=76.2km s-min=16.5km az=126.0*
ISC 28 07:13:01.3±1.0, **27.°88N**±0.°08×**57.°36E**±0.°09, **h10**^{km}, **n12**, σ**1^{s}05**/14, **Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KHNJ	Kahnooj	0.31	77	Pg	Pb	07 13 09.2	+0.1
IBND	Bandar-abas	0.84	240	Pg	Pn	07 13 19.9	+0.7
GENO	Geno	1.16	246	Pg	Pn	07 13 24.9	+1.1
KBAM	BAM	1.58	37	Pg	Pg	07 13 32.1	+0.4
CHMN	Cheshme madani	1.98	5	Pn	Pg	07 13 38.3	-1.1
SHME	Shamm	2.12	211	P	Pn	07 13 36.3	-0.6
SHME				S	Sn	07 14 03.8	+0.5
BANOM	Banah	2.17	206	P	Pn	07 13 37.7	+0.2
BANOM				S	Sn	07 14 03.2	-1.2
MSFE	Esma-Masafi	2.73	203	P	Pn	07 13 46.4	+1.1
MDH	Madha	2.74	201	P	Pn	07 13 43.4	-1.9
UOSS	Minazif	3.10	200	P	Pn	07 13 51.1	+0.8
HATD	Hatta, Dubai	3.23	200	P	Pn	07 13 53.2	+1.0
ASHO	Ashiyiah	3.39	200	P	Pn	07 13 54.8	+0.4

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*NNC **28** 07:14:33.1±0.5, 49.°98N×78.°78E, h0^{km}, mb3.2, mpv2.6, Error ellipse: s-maj=11.3km s-min=2.1km az=73.0, Suspected Mining explosion.*
*IDC **28** 07:14:34.8±1.4, 50.°01N×78.°79E, h0^{km}, mbtmp2.4/2, ML1.9/2, Error ellipse: s-maj=14.1km s-min=9.5km az=69.0*
*SOME **28** 07:14:36.6, 49.°80N×78.°52E*
ISC 28 07:14:34.6±1.1, **50.°04N**±0.°06×**78.°7E**±0.°1, **h0**^{km}, **n17**, σ**0^{s}85**/28, **12C-11D, Eastern Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR07	Kurchatov Arra	0.55	350	⇓P	Pg	07 14 45.7	+0.5
KUR07				⇓S	Sb	07 14 54.7	-0.9
KUR06	Kurchatov Arra	0.57	351	⇑P	Pg	07 14 45.6	+0.1
KUR06				⇑S	Sb	07 14 54.7	-1.5
KUR14	Kurchatov Arra	0.58	355	⇑P	Pg	07 14 46.0	+0.3
KUR14				⇑S	Sb	07 14 55.2	-1.2
KUR15	Kurchatov Arra	0.58	353	⇑P	Pg	07 14 46.1	+0.3
KUR15				⇓S	Sb	07 14 55.7	-0.8
KURBB	Kurchatov Arra	0.59	351	Pg	Pg	07 14 46.7	+0.8
	0.6nm,0.3s,baz=166,slow=19,SNR=69						
KURBB				Lg	Lg	07 14 56.1	
	2.2nm,0.3s,baz=165,slow=31,SNR=44						
KURBB	Kurchatov Arra	0.59	351	⇑P	Pg	07 14 45.9	0.0
	16nm,0.6s						
KURBB				⇓S	Sb	07 14 55.7	-1.0
	59nm,0.6s						
KUR16	Kurchatov Arra	0.60	350	⇓P	Pg	07 14 46.7	+0.7
KUR16				⇓S	Sb	07 14 55.9	-1.0
KUR17	Kurchatov Arra	0.61	348	⇓P	Pg	07 14 46.8	+0.6
KUR17				⇓S	Sb	07 14 56.4	-0.8
KUR05	Kurchatov Arra	0.61	352	⇓P	Pg	07 14 46.5	+0.2
KUR05				⇓S	Sb	07 14 55.8	-1.5
KUR04	Kurchatov Arra	0.63	353	⇓P	Pg	07 14 46.6	0.0
KUR04				⇑S	Sg	07 14 55.8	+1.0
KURK	Kurchatov	0.68	357	⇑P	Pg	07 14 47.5	-0.1
	2.7nm,0.6s						
KURK				⇑S	Sb	07 14 58.1	-1.1
	14nm,0.7s						
MAKZ	Makanchi	3.91	144	⇑Pg	Pb	07 15 44.8	+0.4
	5.4nm,1.2s						
MAKZ				⇑Lg	Lg	07 16 33.6	
	12nm,0.8s						
MK31	Makanchi Array	4.04	142	⇑Pg	Pb	07 15 46.1	-0.6
	0.6nm,0.5s,baz=330,slow=15,SNR=13						
MK31				Lg	Lg	07 16 38.4	
	6.4nm,0.7s,baz=334,slow=24,SNR=20						
MKAR	Makanchi Array	4.04	142	Pn	Pn	07 15 38.3	+0.6
	0.1nm,0.3s,baz=321,slow=10,SNR=5.4						
MKAR				Pg	Pb	07 15 45.3	-1.4
	0.3nm,0.3s,baz=330,slow=12,SNR=14						
MKAR				Sn	Sn	07 16 25.7	-0.1
	0.2nm,0.3s,baz=316,slow=17,SNR=1.8						
MKAR				Lg	Lg	07 16 38.9	
	1.0nm,0.3s,baz=327,slow=26,SNR=25						
	0.2nm,0.5s						
MKAR				AML	AML		
I46RU	ZALESOVO INFRA	5.46	42	I	I	07 48 20.0	
	baz=224,slow=325,SNR=6.3						
ZALV	Zalesovo Beam	5.46	42	Pn	Pn	07 15 58.1	+1.0
	0.1nm,0.3s,baz=240,slow=16,SNR=4.3						
ZALV				Lg	Lg	07 17 26.7	
	0.3nm,0.3s,baz=229,slow=30,SNR=6.0						
	0.7nm,0.5s						
ZALV				AML	AML		
BVAR	Borovoye Array	5.97	303	Sn	Sn	07 17 13.2	0.0
	0.1nm,0.3s,baz=109,slow=26,SNR=3.8						
BVAR				Lg	Lg	07 17 48.0	
	0.1nm,0.3s,baz=116,slow=29,SNR=5.2						

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*KRNET **28** 07:16:24.3±0.1, 42.°30N×80.°69E, mb3.7*
*SOME **28** 07:16:26.5, 42.°22N×80.°53E, h20^{km}*
*NNC **28** 07:16:28.1±1.2, 42.°25N×80.°47E, h0^{km}, mb4.0, mpv3.7, Error ellipse: s-maj=7.4km s-min=6.3km az=151.0*
ISC 28 07:16:25.8±2.2, **42.°46N**±0.°07×**80.°91E**±0.°06, **h16**^{km}±11^{km}, **n46**, σ**1^{s}54**/77, **12C-16D, Kyrgyzstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHLS	Shalkode	1.27	304	P	Pn	07 16 47.1	-1.9
	29nm,0.1s						
SHLS				S	Sb	07 17 02.5	-3.1
	215nm,0.2s						
SHLS	Shalkode	1.27	304	*e*P	Pn	07 16 47.1	-1.9
	29nm,0.1s						
SHLS				*e*S	Sb	07 17 02.5	-3.1
	215nm,0.2s						
PDGK	Podgornoye	1.36	310	⇓P	Pb	07 16 51.7	+0.9
	18nm,0.6s						
PDGK				⇑S	Sg	07 17 10.0	+0.3
	57nm,0.5s						
UZB	Uzynbulak	1.55	297	P	Pb	07 16 53.7	-0.4
	20nm,0.1s						
UZB				S	Sb	07 17 13.8	+0.2
	84nm,0.2s						
UZB	Uzynbulak	1.55	297	*e*P	Pb	07 16 53.7	-0.4
	20nm,0.1s						
UZB				*e*S	Sb	07 17 13.8	+0.2
	84nm,0.2s						
PRZ	Przheval'sk	1.86	272	⇑*i*P	Pn	07 16 56.2	-0.9
PRZ				⇑*i*S	Sn	07 17 19.8	-0.5
KPKS	Kokpek	1.92	302	P	Pb	07 17 01.1	+0.6
	0.2nm,0.1s						
KPKS				S	Sg	07 17 26.2	-1.3
	143nm,0.3s						
KPKS	Kokpek	1.92	302	*e*P	Pb	07 17 01.1	+0.6
	0.2nm,0.1s						
KPKS				*e*S	Sg	07 17 26.2	-1.3
	143nm,0.3s						
SATY	Saty	1.94	289	P	Pb	07 17 00.3	-0.4
	39nm,0.3s						
SATY				S	Sb	07 17 25.1	+0.4
	143nm,0.1s						
SATY	Saty	1.94	289	*e*P	Pb	07 17 00.3	-0.4
	39nm,0.3s						
SATY				*e*S	Sb	07 17 25.1	+0.4
	143nm,0.1s						
DJR	Jarkent	2.04	337	*e*P	Pg	07 17 06.1	+1.1
	9.3nm,0.2s						
DJR				*e*S	Sg	07 17 34.7	+3.2
	78nm,0.3s						
KURS	Kuram	2.26	298	Pg	Pb	07 17 06.8	+0.6
	57nm,0.3s						
KURS				Lg	Lg	07 17 35.9	
	38nm,0.3s						

KURS	Kuram	2.26	298	eP	Pb	07 17 06.8	+0.6
	57nm,0.3s						
KURS				eS	Sg	07 17 35.9	-2.5
	38nm,0.3s						
ANVS	Anan'yevo	2.41	279	⇓iP	Pn	07 17 05.5	+0.8
ANVS				⇓iS	Sb	07 17 35.7	-2.8
BLB	Baldybastay	2.41	314	Pg	Pb	07 17 10.6	+1.7
	104nm,0.2s						
BLB				Lg	Lg	07 17 42.5	
	204nm,0.2s						
TARG	Taragay, Kyrgy	2.42	254	⇓iP	Pn	07 17 04.9	-0.2
TARG				⇓iS	Sn	07 17 34.2	-0.3
KDJ	Kajisay	2.79	264	⇑iP	Pn	07 17 09.9	+0.1
KDJ				⇑iS	Sn	07 17 43.1	-0.1
ARXS	Arharly	2.85	309	Pg	Pb	07 17 16.9	+0.6
	6.4nm,0.3s						
ARXS				Lg	Lg	07 17 53.2	
	88nm,0.5s						
ARXS	Arharly	2.85	309	eP	Pb	07 17 16.9	+0.6
	6.4nm,0.3s						
ARXS				eS	Sb	07 17 53.2	+2.3
	88nm,0.5s						
KOTS	Kotyrbulak	2.90	287	Pg	Pb	07 17 16.4	-0.7
	38nm,0.3s						
KOTS				Lg	Lg	07 17 52.6	
	227nm,0.5s						
KOTS	Kotyrbulak	2.90	287	eP	Pb	07 17 16.4	-0.7
	38nm,0.3s						
KOTS				eS	Sb	07 17 52.6	+0.2
	227nm,0.5s						
MDOK	Medeo	2.93	285	Pg	Pb	07 17 16.7	-0.9
	66nm,0.4s						
MDOK				Lg	Lg	07 17 52.9	
	60nm,0.4s						
MDOK	Medeo	2.93	285	eP	Pb	07 17 16.7	-0.9
	66nm,0.4s						
MDOK				eS	Sb	07 17 52.9	-0.3
	60nm,0.4s						
TNSS	Tian-Shan	2.97	283	Pg	Pb	07 17 17.2	-1.4
	12nm,0.3s						
TNSS				Lg	Lg	07 17 53.5	
	13nm,0.5s						
TNSS	Tian-Shan	2.97	283	eP	Pb	07 17 17.2	-1.4
	12nm,0.3s						
TNSS				eS	Sb	07 17 53.5	-1.4
	13nm,0.5s						
KAPS	Kapalarasan	3.04	339	eP	Pg	07 17 23.5	-0.5
	3.7nm,0.1s						
KAPS				eS	Sg	07 18 04.5	+1.1
	38nm,0.2s						
TDK	Taldyqorghan	3.12	325	eP	Pg	07 17 24.4	-1.2
	36nm,0.2s						
TDK				eS	Sg	07 18 06.0	0.0
	0.6nm,0.5s						
IZV	Izvestkoviy	3.22	282	Pg	Pb	07 17 21.0	-1.5
	26nm,0.3s						
IZV				Lg	Lg	07 18 00.4	
	119nm,0.4s						
IZV	Izvestkoviy	3.22	282	eP	Pb	07 17 21.0	-1.5
	26nm,0.3s						
IZV				eS	Sb	07 18 00.4	-1.2
	119nm,0.4s						
ULHL	Ulahol	3.46	268	⇓iP	Pn	07 17 19.7	+0.5
ULHL				⇓iS	Sn	07 18 00.0	0.0
KUU	Kurty	3.64	295	Pg	Pb	07 17 29.6	0.0
	1.0nm,0.0s						
KUU				Lg	Lg	07 18 15.0	
	30nm,0.4s						
KUU	Kurty	3.64	295	eP	Pb	07 17 29.6	0.0
	1.0nm,0.0s						
KUU				eS	Sb	07 18 15.0	+1.5
	30nm,0.4s						
BOOM	Boomskoye usch	3.67	272	⇓eP	Pn	07 17 22.5	+0.4
BOOM				⇓eS	Sn	07 18 05.4	+0.3
KST	Kastek	3.69	281	Pg	Pb	07 17 29.4	-1.3
	9.8nm,0.3s						
KST				Lg	Lg	07 18 14.3	
	26nm,0.3s						
KST	Kastek	3.69	281	eP	Pb	07 17 29.4	-1.3
	9.8nm,0.3s						
KST				eS	Sb	07 18 14.3	-0.8
	26nm,0.3s						
NRN	Naryn	3.80	256	⇑iP	Pn	07 17 24.2	+0.3
NRN				⇑iS	Sn	07 18 07.8	-0.7
TKM2	Tokmak 2	3.94	279	⇓iP	Pn	07 17 26.7	+0.9
TKM2				⇓iS	Sn	07 18 12.2	+0.4
KRBS	Karabastau	4.03	290	Pg	Pb	07 17 36.0	-0.4
	3.8nm,0.2s						
KRBS				Lg	Lg	07 18 25.9	
	8.0nm,0.4s						
KRBS	Karabastau	4.03	290	eP	Pb	07 17 36.0	-0.4
	3.8nm,0.2s						
KRBS				eS	Sb	07 18 25.9	+1.1
	8.0nm,0.4s						
MAKZ	Makanchi	4.42	10	⇑Pn	Pb	07 17 41.3	-1.6
	3.5nm,0.5s						
MAKZ				⇑Sn	Sb	07 18 37.7	+1.8
	3.7nm,0.8s						
MAKZ				⇑Lg	Lg	07 18 56.3	
	2.7nm,0.3s						
MK31	Makanchi Array	4.45	12	⇑Pn	Pb	07 17 43.3	-0.2
	0.9nm,0.4s,baz=203,slow=13,SNR=46						
MK31				⇓Sn	Sb	07 18 35.3	-1.4
	0.4nm,0.2s,baz=188,slow=24,SNR=4.8						
MK31				⇓Lg	Lg	07 18 58.0	
	5.4nm,0.7s,baz=194,slow=29,SNR=4.1						
AAK	Ala-Archa	4.74	274	⇓Pg	Pb	07 17 49.5	+0.9
	9.9nm,1.0s						
AAK				⇓Lg	Lg	07 18 48.1	
	6.8nm,0.7s						
MRKS	Merke	5.68	275	Pg	Pb	07 18 06.8	+2.3
	2.3nm,0.2s						
MRKS				Lg	Lg	07 19 18.4	
	9.9nm,0.4s						
MRKS	Merke	5.68	275	eP	Pb	07 18 06.8	+2.3
	2.3nm,0.2s						
MRKS				eS	Sb	07 19 18.4	+6.2
	9.9nm,0.4s						
ZSN	Zaisan	5.72	28	Lg	Lg	07 17 08.4	
	5.5nm,0.3s						
KK31	Karatay Array	7.68	278	⇓Pg	Pb	07 18 42.7	+4.2
	0.8nm,0.5s,baz=92,slow=17,SNR=6.9						
KK31				⇑Lg	Lg	07 20 19.8	
	3.3nm,0.8s,baz=97,slow=28,SNR=4.8						

IDC 28 07:19:46.3±1.8**, 2°.30N×124°.70E, h0^{km}, mb3.3**/4**, mbtmp3.3**/4**, Error ellipse: s-maj=226.0km s-min=23.9km az=64.0, Celebes Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	24.05	157	P	P	07 25 03.2	-0.2
	0.2nm,0.4s,baz=336,slow=10.0,SNR=7.7						
	0.2nm,0.4s						
ASAR	Alice Springs	27.32	161	P	P	07 25 33.4	+0.3
	0.3nm,0.8s,baz=331,slow=9.0,SNR=2.1						
	0.3nm,0.8s						
MKAR	Makanchi Array	57.60	327	P	P	07 29 38.6	+0.6
	0.2nm,0.3s,baz=122,slow=8.5,SNR=1.9						
	0.2nm,0.3s						
KURBB	Kurchatov Arra	61.87	329	P	P	07 30 06.6	-0.7
	0.2nm,0.5s,baz=117,slow=6.7,SNR=2.0						
	0.2nm,0.5s						

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*NNC **28** 07:23:45.3±1.5, 52°.08N×75°.74E, h0^{km}, mb3.1, mpv2.7, Error ellipse: s-maj=54.9km s-min=4.2km az=28.0, Suspected Mining explosion.*

*IDC **28** 07:23:47.8±1.3, 51°.99N×75°.84E, h0^{km}, mbtmp2.7/4, ML2.3/4, Error ellipse: s-maj=24.4km s-min=10.9km az=33.0*

ISC 28 07:23:47.1±1.0**, 51°.9N**±0°.1×**75°.83E**±0°.06**, h0^{km}, n10, σ1ˢ.85**/11**, 6C-1D, Eastern Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KURK	Kurchatov	2.14	124	⇑Pg	Pb	07 24 26.4	-0.2
	1.7nm,0.5s						
KURK				⇑Lg	Lg	07 24 57.7	
	5.9nm,0.5s						
KURBB	Kurchatov Arra	2.15	127	Pn	Pn	07 24 25.8	+1.7
	0.6nm,0.3s,baz=303,slow=18,SNR=25						
KURBB				Pg	Pg	07 24 28.4	+0.2
	0.6nm,0.3s,baz=303,slow=18,SNR=53						
KURBB				Lg	Lg	07 24 58.1	
	0.8nm,0.3s,baz=312,slow=34,SNR=14						
	2.8nm,0.5s						
KURBB				AML	AML		
KURBB	Kurchatov Arra	2.15	127	⇑Pg	Pb	07 24 26.7	-0.2
	7.1nm,0.5s						
KURBB				⇑Lg	Lg	07 24 57.7	
	47nm,0.7s						
BVA2	Borovoye Array	3.50	290	⇓Pg	Pb	07 24 47.8	-2.0
	1.2nm,0.6s						
BVA2				⇑Lg	Lg	07 25 31.9	
	8.1nm,0.6s						
BVAR	Borovoye Array	3.50	290	Pn	Pn	07 24 44.3	+1.6
	0.1nm,0.3s,baz=103,slow=14,SNR=4.6						
BVAR				Sn	Sn	07 25 26.1	+1.3
	0.2nm,0.3s,baz=107,slow=24,SNR=4.4						
	2.1nm,0.6s						
BVAR				AML	AML		
I46RU	ZALESOVO INFRA	5.79	66	I	I	08 02 50.0	
	baz=251,slow=328,SNR=4.1						
ZALV	Zalesovo Beam	5.79	66	Pn	Pn	07 25 14.8	+0.7
	0.4nm,0.3s,baz=254,slow=14,SNR=6.9						
	0.3nm,0.3s						
ZALV				AML	AML		
MK31	Makanchi Array	6.66	138	Pn	Pn	07 25 27.2	+1.1
	0.2nm,0.4s,baz=321,slow=12,SNR=5.5						
MK31				⇑Lg	Lg	07 27 20.5	
	2.2nm,0.6s,baz=320,slow=25,SNR=3.8						
MKAR	Makanchi Array	6.66	138	Pn	Pn	07 25 26.5	+0.4
	0.3nm,0.3s,baz=322,slow=12,SNR=9.3						
MKAR				Sn	Sn	07 26 38.9	-3.8
	0.2nm,0.3s,baz=348,slow=24,SNR=5.0						
MKAR				Lg	Lg	07 27 16.9	
	0.5nm,0.3s,baz=321,slow=26,SNR=5.7						
	0.6nm,0.6s						
MKAR				AML	AML		
AAK	Ala-Archa	9.36	186	Lg	Lg	07 28 38.8	
	0.2nm,0.3s,baz=78,slow=18,SNR=4.5						

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*GUC **28** 07:38:54.6±0.7, 22°.96S×67°.94W, h172^{km}±4^{km}, ML3.5*

*IDC **28** 07:38:59.3±7.6, 22°.49S×67°.19W, h174^{km}±58^{km}, mb4.0/1, mbtmp4.1/4, Error ellipse: s-maj=72.8km s-min=32.5km az=16.0*

ISC 28 07:38:53.3±1.2**, 22°.89S**±0°.08×**67°.9W**±0°.1**, h172**^{km}±12^{km}**, n14, σ1ˢ.38**/23**, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AF01	San Pedro de A	0.30	258	i S	Sn	07 39 35.5	+0.6
PB09	IPOC Station P	1.68	310	eP	Pn	07 39 27.1	+0.5
PB09				i S	Sn	07 39 52.4	+0.1
PB03	IPOC Station P	1.94	295	eP	Pn	07 39 29.4	0.0
PB03				i S	Sn	07 39 56.6	-0.6
PB03				IAML		07 40 00.2	
	comp=E,205nm,0.2s						
PB05	IPOC Station P	2.16	271	eP	Pn	07 39 31.6	-0.2
PB05				i S	Sn	07 40 00.0	-1.4
PB05				IAML		07 40 09.5	
	comp=E,145nm,0.4s						
PB07	IPOC Station P	2.20	301	eP	Pn	07 39 33.0	+0.6
PB07				i S	Sn	07 40 01.7	-0.8
PB07				IAML		07 40 03.2	
	comp=N,347nm,0.4s						
PB02	IPOC Station P	2.45	309	eP	Pn	07 39 35.5	+0.3
PB02				i S	Sn	07 40 06.5	-1.0
PB02				IAML		07 40 16.3	
	comp=E,198nm,0.3s						
PB08	IPOC Station P	2.99	336	eP	Pn	07 39 43.5	+1.6
PB08				i S	Sn	07 40 20.9	+1.2
PB08				IAML		07 40 25.9	
	comp=E,37nm,0.3s						
GO01	Chusmiza	3.44	339	eP	Pn	07 39 48.6	+1.0
GO01				i S	Sn	07 40 30.1	+0.3
PB11	IPOC Station P	3.54	331	eP	Pn	07 39 48.5	0.0
PB11				i S	Sn	07 40 30.9	-0.5
PSGCX	Pisagua	3.90	327	eP	Pn	07 39 53.1	+0.1
LPAZ	La Paz	6.58	358	P	Pn	07 40 30.1	+1.6
	comp=E,1.8nm,0.3s,baz=177,slow=11,SNR=22						
LPAZ				S	Sn	07 41 41.9	-1.3
	comp=E,0.6nm,0.6s,baz=179,slow=13,SNR=1.0						
SIV	San Ignacio	9.39	44	P	Pn	07 41 01.0	-4.1
	comp=E,7.5nm,0.4s,baz=239,slow=10.0,SNR=74						
SIV				S	Sn	07 42 38.8	-11
	comp=E,2.2nm,0.7s,baz=311,slow=20,SNR=5.1						
BDFB	Brasilia	20.07	72	P	P	07 43 12.3	-1.3
	comp=E,4.0nm,0.8s,baz=247,slow=13,SNR=5.1						
TORD	Torodi Ar. Bea	76.92	70	P	P	07 50 28.8	+1.6
	comp=E,2.5nm,0.7s,baz=253,slow=5.1,SNR=16						
	comp=E,2.5nm,0.7s						

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*IDC **28** 07:41:15.0±1.1, 9°.69N×127°.61E, h0^{km}, mb3.8/6, mbtmp3.9/7, ML4.4/1, MS2.9/2, Error ellipse: s-maj=33.2km s-min=16.5km az=91.0*

*MAN **28** 07:41:19.0, 9°.40N×126°.88E, h16^{km}, MS3.1*

ISC 28 07:41:21.6±1.3**, 9°.36N**±0°.07×**126°.9E**±0°.2**, h38**^{km}±3^{km}**, n19, σ1ˢ.53**/17**, mb3.9**/6**, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BIPH	Bislig	1.28	204	eP	Pn	07 41 42.8	-0.2
BIPH				eS	Sn	07 41 58.1	-0.8
CDOP	Cateel, Davao	1.63	196	i P	Pn	07 41 47.0	-0.7
CDOP				i S	Sn	07 42 06.8	-0.8
BUKP	Musuan	2.33	231	eP	Pn	07 41 59.1	+1.6
BUKP				i S	Sn	07 42 32.2	+7.2
CGP	Cagayan de Oro	2.35	248	eP	Pn	07 41 54.4	-3.2
CGP				i S	Sn	07 42 29.5	+4.3
PLP	Palo	2.60	314	eP	Pn	07 42 00.6	-0.5
PLP				eS	Sn	07 42 32.9	+1.5
DAV	Davao City (W)	2.62	210	Pn	Pn	07 42 08.8	+7.4
	44nm,0.3s,baz=72,slow=13,SNR=1.2						
DAV				Sn	Sn	07 42 43.8	+12
	126nm,0.3s,baz=167,slow=19,SNR=4.8						
	256nm,0.4s						
DAV				AML	AML		
KCP	Kidapawan	2.94	217	eP	Pn	07 42 18.3	+12
KCP				eS	Sn	07 42 42.6	+2.7
LLP	Lapu-Lapu	3.03	288	eP	Pn	07 42 10.2	+3.1
LLP				i S	Sn	07 42 49.7	+7.5
LSIP	Lazi, Siquijor	3.22	266	i P	Pn	07 42 10.0	+0.3
LSIP				i S	Sn	07 42 45.9	-1.0
DCPH	Dipolog City	3.58	258	i P	Pn	07 42 15.9	+1.3
SNPH	Sibulan	3.60	270	eP	Pn	07 42 19.6	+4.5
GUMO	Guam	18.11	75	LR	LR	07 52 31.8	
	comp=Z,42nm,18.6s,baz=311,slow=39						
JAY	Jayapura	18.13	130	LR	LR	07 51 56.5	
	comp=Z,39nm,19.1s,baz=331,slow=36						
FITZ	Fitzroy Crossi	27.31	183	P	P	07 47 05.1	+2.1
	1.6nm,0.6s,baz=7.0,slow=11,SNR=9.2						
	1.6nm,0.6s						
WRA	Warramunga Arr	30.03	166	P	P	07 47 26.7	-0.5
	0.5nm,0.8s,baz=348,slow=9.8,SNR=5.4						
	0.5nm,0.8s						
ASAR	Alice Springs	33.54	168	P	P	07 47 58.3	+0.3
	0.2nm,0.6s,baz=349,slow=6.7,SNR=6.5						
	0.2nm,0.6s						
MKAR	Makanchi Array	53.11	323	P	P	07 50 35.3	-0.2
	0.9nm,0.7s,baz=137,slow=7.8,SNR=6.6						
	0.9nm,0.7s						
KURBB	Kurchatov Arra	57.16	325	P	P	07 51 04.3	-0.3
	0.9nm,0.6s,baz=125,slow=7.0,SNR=8.7						
	0.9nm,0.6s						
ARCES	ARCESS Array B	85.25	340	P	P	07 53 53.8	-0.3
	1.1nm,0.6s,baz=88,slow=7.6,SNR=6.0						
	1.1nm,0.6s						

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*IDC **28** 07:50:46.6±9.4, 34°.71N×137°.70E, h0^{km}, mb3.6/4, mbtmp3.6/4, Error ellipse: s-maj=372.9km s-min=26.3km az=64.0*

*JMA **28** 07:50:47.8±0.1, 35°.7N±0°.3×140°.1E±0°.5, h68^{km}±1^{km}, MV3.1/40, CENTRAL CHIBA PREF*

ISC 28 07:50:47.7±1.0**, 35°.64N**±0°.05×**140°.11E**±0°.05**, h74**^{km}±7^{km}**, n15, σ0ˢ.61**/26**, mb3.6**/4**, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JCCN	Chibachonan	0.28	158	P	Pn	07 50 59.3	+0.2
JCCN				eS	Sn	07 51 08.0	+0.5
JSMT	Sammumatsuo	0.28	89	i P	Pn	07 50 58.9	-0.2
JSMT				eS	Sn	07 51 07.1	-0.4
BSO3	Boso 3	0.90	159	i P	Pn	07 51 04.8	-0.1
BSO3				S	Sn	07 51 18.9	+1.2
JOD2	Odawara 2	0.92	246	i P	Pn	07 51 05.4	0.0
JOD2				S	Sn	07 51 18.0	-0.6
JAG	Ashikaga	0.95	326	i P	Pn	07 51 05.5	-0.2
JAG				S	Sn	07 51 18.5	-0.7
JRY	Ryogami san	1.05	291	i P	Pn	07 51 07.8	+0.7
JRY				eS	Sn	07 51 22.6	+1.1
JIM2	Oshima 3	1.08	211	P	Pn	07 51 06.8	-0.6
JIM2				S	Sn	07 51 21.1	-1.0
BSO1	Boso 1	1.21	144	P	Pn	07 51 08.2	-0.3
BSO1				S	Sn	07 51 24.7	+0.4
JYN	Shimob	1.28	264	i P	Pn	07 51 10.4	+0.4
JYN				S	Sn	07 51 27.2	+0.4
JKT	Katashina	1.32	328	P	Pn	07 51 10.7	+0.1
JKT				eS	Sn	07 51 27.2	-0.5
JIZS	Izushimoda	1.37	228	P	Pn	07 51 11.1	+0.1
JIZS				S	Sn	07 51 27.9	-0.7
MKAR	Makanchi Array	43.98	303	P	P	07 58 46.5	-1.0
	0.7nm,0.8s,baz=94,slow=7.7,SNR=3.3						
	0.7nm,0.8s						
KURBB	Kurchatov Arra	46.04	309	P	P	07 59 04.0	+0.2
	0.4nm,0.5s,baz=83,slow=7.9,SNR=4.9						
	0.4nm,0.5s						
WRA	Warramunga Arr	55.55	187	P	P	08 00 15.7	+0.3
	0.7nm,0.5s,baz=1.8,slow=7.5,SNR=20						
	0.7nm,0.5s						
ASAR	Alice Springs	59.28	187	P	P	08 00 42.1	+0.5
	0.2nm,0.6s,baz=12,slow=8.5,SNR=4.1						
	0.2nm,0.6s						

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*IDC **28** 08:06:20.1±3.6, 54°.22N×87°.36E, h0^{km}, mbtmp2.5/2, ML2.3/2, Error ellipse: s-maj=28.4km s-min=19.3km az=75.0*

ASRS 28 08:06:19.0±1.0**, 54°.10N×87°.13E, h0^{km}, M2.7**(MOS)**, The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	1.37	265	I	I	08 14 40.0	
	baz=81,slow=327,SNR=1.1						
ZALV	Zalesovo Beam	1.37	265	Pg	Pb	08 06 47.4	+1.9
	1.5nm,0.3s,baz=77,slow=16,SNR=18						
ZALV				Lg	Lg	08 07 07.7	
	1.0nm,0.3s,baz=78,slow=29,SNR=7.8						
KURBB	Kurchatov Arra	6.31	240	Pn	Pn	08 07 59.0	+5.7
	baz=54,slow=13,SNR=4.7						
KURBB				Sn	Sn	08 09 08.5	+2.5
	baz=44,slow=22,SNR=2.1						
KURBB				Lg	Lg	08 09 47.4	
	baz=46,slow=33,SNR=4.5						
	0.3nm,0.4s						
MKAR	Makanchi Array	7.94	205	Pn	Pn	08 08 19.3	+3.7
	0.1nm,0.3s,baz=25,slow=13,SNR=1.4						
MKAR				Lg	Lg	08 10 33.1	
	0.1nm,0.3s,baz=27,slow=35,SNR=2.4						
	0.1nm,0.4s						
MKAR				AML	AML		

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*IDC **28** 08:11:45.4±1.0, 28°.73N×51°.39E, h0^{km}, mb3.9/15, mbtmp3.9/19, ML3.7/4, MS3.0/3, Error ellipse: s-maj=21.4km s-min=14.3km az=177.0*

*TEH **28** 08:11:47.6, 28°.89N×51°.29E, h8^{km}±32^{km}, ML3.7, Presumed earthquake*

*NEIC **28** 08:11:47.3±1.4, 28°.83N±0°.08×51°.42E±0°.09, h10^{km}±1^{km}, mb4.3/31, Error ellipse: s-maj=15.3km s-min=12.8km az=220.0*

*THR **28** 08:11:47.7±0.0, 28°.87N×51°.24E, h10^{km}±2^{km}, ML4.0, Presumed earthquake*

*DSN **28** 08:11:53.9±1.6, 28°.61N×51°.65E, h15^{km}, ML4.0/12, Error ellipse: s-maj=19.2km s-min=9.2km az=170.0*

ISC 28 08:11:48.3±0.5**, 28°.83N**±0°.04×**51°.31E**±0°.04**, h17^{km}, n102, σ1ˢ.28**/103**, mb4.1**/27**, MS2.8**/3**, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DSBU	Dashti - Bushe	0.47	185	Pg	Pb	08 11 58.2	-0.1
KAZ2	Kazeron-Fars-I	0.84	22	Pg	Pb	08 12 02.9	-1.6
SHI	Shiraz	1.32	52	Pg	Pn	08 12 12.2	0.0
SHI				Sg	Sb	08 12 32.2	+2.6
JHRM	Jahrom	2.02	99	Pn	Pb	08 12 24.6	0.0
KHL1	Khalili_Fars	2.12	124	Pn	Pb	08 12 26.7	+0.3
IBRJ	Brojen	3.06	359	Pn	Pn	08 12 38.1	+1.8
AMIS	Naft Sefid	3.32	329	Pn	Pn	08 12 41.4	+1.9
JHBN	Jahan bin	3.43	351	Pn	Pn	08 12 43.0	+1.7
IGAR	Gharneh	3.62	10	Pn	Pn	08 12 45.4	+1.6
IMEH	Mehriz	3.83	48	Pn	Pn	08 12 49.2	+2.5
GTMR	Gotvand	4.09	333	ePn	Pn	08 12 51.4	+1.3
DOBD	Dorbid, Yazd	4.19	41	Pn	Pn	08 12 53.8	+2.2
YZKH	Yazd	4.54	38	ePn	Pn	08 12 58.4	+2.1
YZKH				IAML		08 13 52.8	
	comp=Z,31nm,1.0s						
IBAF	Bafgh	4.60	52	Pn	Pn	08 12 59.0	+1.7
KHGB	Koh Gabri	4.75	70	Pn	Pn	08 13 01.4	+1.9
KRBR	Kerman	4.89	75	ePn	Pn	08 13 05.0	+3.6
KRBR				IAML		08 14 21.3	
	comp=Z,44nm,1.0s						
KHMZ	Khomeyn	5.03	347	ePn	Pn	08 13 05.8	+2.6
KHMZ				IAML		08 14 09.5	
	comp=Z,46nm,1.0s						
SHME	Shamm	5.11	122	P	Pn	08 13 05.0	+0.9
BANOM	Banah	5.30	122	P	Pn	08 13 07.1	+0.3
BANOM				S	Sn	08 14 05.0	-2.5
ASUD	Al Ashush, Dub	5.52	138	P	Pn	08 13 11.8	+2.0
MSFE	Esma-Masafi	5.54	128	P	Pn	08 13 10.5	+0.4
GHVR	GHOM	5.63	360	ePn	Pn	08 13 13.9	+2.6
GHVR				IAML		08 15 17.4	
	comp=Z,37nm,1.0s						
MDH	Madha	5.67	127	P	Pn	08 13 12.1	+0.3
ASAO	Ashtian	5.80	349	ePn	Pn	08 13 16.8	+2.9
ASAO				IAML		08 14 25.8	
	comp=Z,38nm,1.0s						
UOSS	Minazif	5.84	130	Pn	Pn	08 13 12.2	-2.0
UOSS	Minazif	5.84	130	P	Pn	08 13 15.3	+1.2
HATD	Hatta, Dubai	5.87	132	P	Pn	08 13 16.2	+1.5
ASHO	Ashiyiah	5.92	133	P	Pn	08 13 16.5	+1.1
MZR	Muzera	6.13	161	P	Pn	08 13 20.5	+2.4
KBAM	BAM	6.26	86	Pn	Pn	08 13 22.4	+2.3
ILBA	Ilam Banvizeh	6.47	319	ePn	Pn	08 13 24.2	+1.3
ILBA				IAML		08 15 10.4	
	comp=Z,26nm,1.0s						
ILBA	Ilam Banvizeh	6.47	319	Pn	Pn	08 13 24.7	+1.8
SOHO	SOHO	6.62	134	P	Pn	08 13 25.2	+0.3
DAMV	Damavand	6.80	5	ePn	Pn	08 13 28.7	+1.1
DAMV				IAML		08 14 46.1	
	comp=Z,29nm,1.0s						
IGHG	Ghaleghazi	6.81	325	Pn	Pn	08 13 29.5	+1.8
CHTH	Charan	7.06	359	ePn	Pn	08 13 32.4	+1.3
CHTH				IAML		08 15 30.2	
	comp=Z,8.5nm,1.0s						
SNGE	Sanandaj	7.09	333	ePn	Pn	08 13 32.7	+1.2
SNGE				IAML		08 15 02.1	
	comp=Z,30nm,1.0s						
RAYN	Ar Rayn	7.43	226		Pn	08 13 36.2	+0.2
GEVA	Gevas	11.69	326		Pn	08 14 34.6	+0.2
ASF	Jabal al Asfar	12.87	289	Pn	Pn	08 14 50.2	-0.3
	comp=Z,0.5nm,0.3s,baz=116,slow=23,SNR=2.0						
ASF				Sn	Sn	08 17 11.6	-1.9
	comp=Z,0.5nm,0.3s,baz=108,slow=19,SNR=1.4						
ASF				Lg	Lg	08 18 53.1	
	comp=Z,0.4nm,0.3s,baz=114,slow=19,SNR=1.2						
	comp=Z,1.2nm,0.3s						
ASF				AML	AML		
MMAI	Mount Meron Ar	14.27	291	Pn	Pn	08 15 09.8	0.0
	comp=Z,0.7nm,0.3s,baz=81,slow=19,SNR=1.5						
	comp=Z,0.4nm,0.3s						
MMAI				AML	AML		
EIL	Elat	14.31	277	Lg	Lg	08 19 39.2	
	comp=Z,0.2nm,0.3s,baz=9.3,slow=17,SNR=1.4						
KBZ	Khabaz	16.32	338	Pn	P	08 15 39.5	0.0
	comp=Z,0.2nm,0.3s,baz=125,slow=12,SNR=3.7						
	comp=Z,1.7nm,0.6s						
KBZ				AML	AML		
BRTR	Keskin Array B	18.17	311	P	P	08 16 00.7	+0.6
	comp=Z,0.1nm,0.3s,baz=137,slow=12,SNR=6.4						
	comp=Z,1.4nm,0.8s						
BRTR				AML	AML		
BRTR	Keskin Array B	18.17	311	P	Pn	08 15 59.6	-0.4
ARG	Arkhangelos	20.86	297	P	P	08 16 30.0	+0.6
ARG				IAmb	IAmb	08 17 14.2	
	comp=Z,15nm,1.1s						
KK31	Karatay Array	21.01	42		P	08 16 29.3	-1.7

KKAR	Karatay Array	21.01	42	P	P	08 16 29.9	-1.2
MANT	Manisa	21.20	303	P	P	08 16 33.7	+0.4
AB31	Akbulak array	21.44	16		P	08 16 35.4	-0.2
ABKAR	Akbulak array	21.44	16		P	08 16 35.2	-0.3
ARSB	Arslanbob	21.61	49	P	P	08 16 35.8	-1.8
AKTO	Aktyubinsk	22.16	11	P	P	08 16 45.0	+1.6
	comp=Z,2.9nm,0.7s,baz=195,slow=11,SNR=6.4						
	comp=Z,2.9nm,0.7s						
AAK	Ala-Archa	23.23	47	LR	LR	08 27 34.4	
	comp=Z,30nm,21.8s,baz=24,slow=41						
IDI	Anoyia	23.26	293	P	P	08 16 55.0	-0.1
IDI				IAmb	IAmb	08 17 14.1	
	comp=Z,17nm,1.2s						
KDJ	Kajisay	24.78	51	P	P	08 17 08.3	-1.2
KDJ				IAmb	IAmb	08 17 14.2	
	comp=Z,9.9nm,1.2s						
ITM	Ithomi	25.93	296	P	P	08 17 19.2	-0.6
AKASG	Malin Array Be	27.47	329	P	P	08 17 32.9	-0.5
	comp=Z,0.3nm,0.3s,baz=131,slow=12,SNR=4.9						
	comp=Z,0.3nm,0.3s						
AKBB	Malin Array Si	27.47	329	P	P	08 17 33.9	+0.5
AKBB				IAmb	IAmb	08 17 57.4	
	comp=Z,6.2nm,1.2s						
KIEV	Kiev	27.47	329	P	P	08 17 34.2	+0.8
KIEV				IAmb	IAmb	08 17 57.4	
	comp=Z,5.1nm,1.1s						
BURAR	Bucovina Array	27.57	320	P	P	08 17 35.4	+0.9
BVAR	Borovoye Array	27.97	25	P	P	08 17 38.5	+0.6
	comp=Z,1.9nm,0.5s,baz=160,slow=4.7,SNR=5.1						
	comp=Z,1.9nm,0.5s						
KEK	Kerkira	28.08	301	P	P	08 17 40.1	+1.0
KURBB	Kurchatov Arra	29.91	36	P	P	08 17 55.5	+0.3
	comp=Z,0.5nm,0.6s,baz=236,slow=8.5,SNR=1.9						
	comp=Z,0.5nm,0.6s						
KURK	Kurchatov	30.01	36	P	P	08 17 55.9	-0.2
MKAR	Makanchi Array	30.07	45	P	P	08 17 55.9	-0.8
	comp=Z,0.5nm,0.5s,baz=247,slow=8.3,SNR=3.5						
	comp=Z,0.5nm,0.5s						
ZAA0	Zalesovo Array	34.97	35	P	P	08 18 38.7	-0.8
ZALV	Zalesovo Beam	34.97	35	P	P	08 18 40.3	+0.8
	comp=Z,0.5nm,0.3s,baz=232,slow=7.1,SNR=3.3						
	comp=Z,0.5nm,0.3s						
ZALV	Zalesovo Beam	34.97	35	P	P	08 18 38.5	-0.9
FINES	FINESS Array B	36.67	340	P	P	08 18 53.7	-0.2
	comp=Z,4.3nm,1.1s,baz=156,slow=9.6,SNR=5.3						
	comp=Z,4.3nm,1.1s						
FINES	FINESS Array B	36.67	340	P	P	08 18 53.8	0.0
HFS	Hagfors	40.25	332	P	P	08 19 24.1	+0.1
	comp=Z,0.8nm,0.5s,baz=218,slow=18,SNR=5.0						
	comp=Z,0.8nm,0.5s						
NC405	NORSAR Array S	41.61	332	P	P	08 19 36.1	+0.9
NC405				IAmb	IAmb	08 19 59.3	
	comp=Z,12nm,1.4s						
NOA	NORSAR Array B	41.77	332	P	P	08 19 37.2	+0.6
	comp=Z,0.2nm,0.4s,baz=121,slow=8.2,SNR=1.9						
NOA				LR	LR	08 39 12.8	
	comp=Z,12nm,18.6s,baz=345,slow=39						
	comp=Z,0.2nm,0.4s						
NC204	NORSAR Array S	42.09	332	P	P	08 19 39.8	+0.6
NC204				IAmb	IAmb	08 20 21.2	
	comp=Z,12nm,1.4s						
ARCES	ARCESS Array B	43.37	347	P	P	08 19 50.9	+1.5
	comp=Z,4.1nm,1.1s,baz=142,slow=8.2,SNR=2.2						
ARCES				LR	LR	08 40 31.4	
	comp=Z,42nm,19.7s,baz=290,slow=40						
	comp=Z,4.1nm,1.1s						
ARCES	ARCESS Array B	43.37	347	P	P	08 19 50.1	+0.7
ARCES				IAmb	IAmb	08 20 29.1	
	comp=Z,17nm,1.4s						
ESDC	Sonseca Array	46.30	299	P	P	08 20 14.0	+0.7
	comp=Z,0.4nm,0.5s,baz=93,slow=8.5,SNR=2.1						
	comp=Z,0.4nm,0.5s						
ESDC	Sonseca Array	46.30	299	P	P	08 20 13.6	+0.3
TORD	Torodi Ar. Bea	48.53	262	P	P	08 20 31.1	+0.3
	comp=Z,1.6nm,0.7s,baz=52,slow=7.8,SNR=11						
	comp=Z,1.6nm,0.7s						
TORD	Torodi Ar. Bea	48.53	262	P	P	08 20 31.0	+0.2
DBIC	Dimbokro	57.27	259	P	P	08 21 36.1	+0.7
	comp=Z,6.7nm,0.8s,baz=60,slow=10,SNR=5.4						
	comp=Z,6.7nm,0.8s						
DBIC	Dimbokro	57.27	259	P	P	08 21 35.6	+0.2
ANGG	Ammassalik, Gr	63.69	332	P	P	08 22 18.0	-0.5
AIS	Amsterdam Isla	70.70	158	P	P	08 23 03.4	+0.3
JGF	Kuroka	70.89	59	P	P	08 23 04.2	-0.5
F26K	Sheenjek River	83.07	6	P	P	08 24 11.4	-1.3
F26K				IAmb	IAmb	08 24 36.9	
	comp=Z,1.5nm,0.9s						
G21K	Allakaket	83.08	10	P	P	08 24 12.3	-0.5
G21K				IAmb	IAmb	08 24 13.0	
	comp=Z,3.5nm,1.1s						
BMAR	Burnt Mountain	83.29	6	P	P	08 24 13.2	-0.7
IMAR	Indian Mountai	83.54	10	P	P	08 24 14.4	-0.6
H31M	Peel River	85.57	2	P	P	08 24 25.4	0.0
I28M	Miner Creek	85.62	5	P	P	08 24 25.8	0.0
I28M				IAmb	IAmb	08 24 41.4	
	comp=Z,2.3nm,1.4s						
J25K	Salcha River,	85.95	7	P	P	08 24 26.9	-0.4
J25K				IAmb	IAmb	08 24 31.8	
	comp=Z,1.2nm,0.9s						
I30M	Mount Dempster	86.06	3	P	P	08 24 28.8	+0.8
I30M				IAmb	IAmb	08 24 29.1	
	comp=Z,2.4nm,1.1s						
CAST	Castle Rocks	86.20	10	P	P	08 24 28.4	-0.2
CAST				IAmb	IAmb	08 24 34.2	
	comp=Z,2.6nm,0.9s						
K27K	Chicken	86.85	6	P	P	08 24 32.2	+0.6
K27K				IAmb	IAmb	08 24 52.4	
	comp=Z,3.1nm,1.2s						
BCAR	Beaver Creek A	87.82	6	P	P	08 24 36.2	-0.3
WRA	Warramunga Arr	93.58	111	P	P	08 25 03.4	-0.5
	comp=Z,0.6nm,1.1s,baz=302,slow=4.7,SNR=3.0						
	comp=Z,0.6nm,1.1s						
WRA	Warramunga Arr	93.58	111	P	P	08 25 02.5	-1.5
ASAR	Alice Springs	95.04	114	P	P	08 25 09.1	-1.5
	comp=Z,0.3nm,0.8s,baz=306,slow=4.1,SNR=2.9						
	comp=Z,0.3nm,0.8s						
ASAR	Alice Springs	95.04	114	P	P	08 25 08.9	-1.7
QSPA	South Pole Qui	118.67	180	PKP	PKPdf	08 30 34.4	-0.3
	comp=Z,0.4nm,0.6s,baz=289,slow=0.1,SNR=1.3						

*IDC **28** 08:12:32.3±1.4, 3°.44N×97°.77E, h0^{km}, mb3.6/6, mbtmp3.7/7, ML4.5/1, MS2.7/1, Error ellipse: s-maj=49.5km s-min=20.0km az=62.0*

*DJA **28** 08:12:34.4±0.2, 4°N±1°×9°8E±°, h10^{km}, M4.0/22, MLv4.0/22*

ISC 28 08:12:34.4±1.2**, 3°.77N**±0°.04×**97°.66E**±0°.04**, h13**^{km}±9^{km}**, n23, σ1^s.39**/25**, mb3.7**/7**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KCSI	Kotacane, Aceh	0.27	156	P	Pg	08 12 40.4	+0.3
KCSI				S	Sb	08 12 46.1	+0.5
TPTI		0.70	224	P	Pg	08 12 47.7	-0.3
TPTI				S	Sb	08 12 58.1	+0.1
TPTI				AML	AML		
TSI	Tuntungan	0.94	106	P	Pg	08 12 52.4	-0.2
TSI				S	Sn	08 13 07.5	+0.9
TSI				AML	AML		
MLSI	Meulaboh, Aceh	1.35	292	P	Pn	08 12 58.0	-1.0
MLSI				AML	AML		
PSI	Prapat	1.58	127	P	Pb	08 13 04.1	+0.5
LHMI	Lhok Sumawe	1.62	334	P	Pn	08 13 02.4	-0.2
LHMI				Sg	Sg	08 13 26.2	-0.4
LHMI				AML	AML		
SNSI	Sinabang, Aceh	1.90	225	P	Pn	08 13 07.2	+0.7
SNSI				S	Sb	08 13 31.5	-1.1
SNSI				AML	AML		
GSI	Gunungsitoli	2.45	182	P	Pn	08 13 15.0	+0.9
BSI	Banda Aceh	2.92	306	P	Pn	08 13 21.5	+0.9
BSI				AML	AML		
KULM	Kulim	3.34	63	P	Pn	08 13 25.0	-1.4
KULM				AML	AML		
IPM	Ipoh	3.43	78	P	Pn	08 13 29.0	+1.4
IPM				AML	AML		
MNSI	Mandailing Nat	3.52	147	P	Pg	08 13 41.0	-0.9
CMAR	Chiang Mai Arr	14.65	5	Pn	P	08 16 08.2	+0.4
	0.6nm,0.3s,baz=199,slow=12,SNR=10						
CMAR				LR	LR	08 22 40.4	
	comp=Z,26nm,18.7s,baz=195,slow=41						
	0.9nm,0.3s						
CMAR				AML	AML		
KSH2	Kashi	40.53	333	P	P	08 20 13.5	-0.1
KSH2				pmax	pmax		
	comp=Z,5.0nm,2.9s						
WRA	Warramunga Arr	43.05	125	P	P	08 20 32.6	-1.7
	comp=Z,1.1nm,0.8s,baz=304,slow=8.9,SNR=9.9						
	comp=Z,1.1nm,0.8s						
KSRS	Korea Array	43.49	36	P	P	08 20 37.4	-0.2
	comp=Z,0.7nm,0.6s,baz=217,slow=7.7,SNR=2.0						
	comp=Z,0.7nm,0.6s						
ASAR	Alice Springs	44.61	129	P	P	08 20 42.9	-4.0
	comp=Z,0.2nm,0.8s,baz=304,slow=7.7,SNR=4.4						
	comp=Z,0.2nm,0.8s						
MKAR	Makanchi Array	44.89	345	P	P	08 20 51.6	+2.9
	comp=Z,0.2nm,0.5s,baz=178,slow=6.5,SNR=2.4						
	comp=Z,0.2nm,0.5s						
STKA	Stephens Creek	54.75	134	P	P	08 22 02.9	-1.1
	comp=Z,2.4nm,0.8s,baz=320,slow=7.9,SNR=3.3						
	comp=Z,2.4nm,0.8s						
H04N2	CROZET ISLANDS	64.15	214	T	T	09 31 57.5	
	baz=52,slow=75,SNR=5.4						
H04N1	CROZET ISLANDS	64.16	214	T	T	09 31 55.6	
	baz=52,slow=75,SNR=5.2						
H04N3	CROZET ISLANDS	64.17	214	T	T	09 31 47.4	
	baz=52,slow=75,SNR=5.7						
BRTR	Keskin Array B	67.75	311	P	P	08 23 33.6	+1.4
	comp=Z,0.2nm,0.3s,baz=109,slow=7.8,SNR=1.6						
	comp=Z,0.2nm,0.3s						

*GCG **28** 08:15:45.0±1.5, 13°.02N×91°.33W, h16^{km}, MD4.1, Presumed earthquake*

*CATAC **28** 08:15:47.4±0.6, 13°N±4°×9°1W±°, h11^{km}±5^{km}, M2.9/12, MLv2.9/12, Error ellipse: s-maj=9.2km s-min=6.5km az=30.7, confirmed*

*SNET **28** 08:15:57.2±9.1, 13°.68N×90°.85W, h81^{km}, ML3.0, Presumed earthquake*

ISC 28 08:15:48.5±2.5**, 13°.2N**±0°.1×**91°.09W**±0°.07**, h16**^{km}±11^{km}**, n25, σ1^s.00**/42**, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FAME	Alcaldia de Sa	1.21	59	P	Pn	08 16 09.6	-1.2
FAME				S	Sb	08 16 26.8	+0.2
STG8	El Palmar, Qui	1.25	348	*i* P	Pg	08 16 14.8	+2.2
RTAL	Retalhuleu	1.42	336	S	Sn	08 16 31.1	-1.1
NUBE	Las Nubes	1.44	62	*i* P	Pn	08 16 13.6	-0.6
NUBE	Las Nubes	1.44	62	P	Pn	08 16 13.5	-0.7
NUBE				S	Sn	08 16 33.0	+0.1
LOAL	Lomas de Alarc	1.49	59	S	Sb	08 16 35.3	+0.8
SLOZ	Alcaldia de Sa	1.50	58	P	Pn	08 16 14.3	-0.5
SLOZ				S	Sb	08 16 35.0	+0.1
CEVE	Cerro Verde	1.55	67	*e*P	Pn	08 16 15.4	-0.3
CEVE				*e*S	Sg	08 16 37.7	-0.9
CEVE	Cerro Verde	1.55	67	P	Pn	08 16 14.5	-1.2
CEVE				S	Sn	08 16 36.2	+0.6
JAYA	Jayaque - finc	1.65	75	*i* P	Pb	08 16 17.8	-0.9
JAYA	Jayaque - finc	1.65	75	P	Pn	08 16 16.8	-0.3
JAYA				S	Sn	08 16 38.6	+0.5
UNIC	Universidad Ca	1.68	63	P	Pn	08 16 16.4	-0.9
UNIC				S	Sn	08 16 38.8	+0.3
JUAM	Asuncion Mita	1.74	50	*i* P	Pn	08 16 18.8	+0.6
PMON	Piamonte	1.79	74	P	Pn	08 16 18.2	-0.8
PMON				S	Sn	08 16 42.7	+1.2
UEES	Universidad Ev	1.86	75	P	Pn	08 16 19.9	-0.1
UEES				S	Sn	08 16 44.1	+0.9
APG	El Apazote	1.87	19	*i* P	Pb	08 16 21.3	-1.2
LOMA	Loma Larga	1.91	77	P	Pn	08 16 20.5	-0.2
LOMA				S	Sn	08 16 45.2	+0.7
MTO3	Montecristo	2.04	55	*i* P	Pn	08 16 23.2	+0.6
MTO3	Montecristo	2.04	55	P	Pn	08 16 22.5	0.0
MTO3				S	Sn	08 16 49.0	+1.2
PAVA	Las Pavas	2.15	77	P	Pn	08 16 23.9	+0.1
PAVA				S	Sn	08 16 52.1	+1.8
ESQI	Esquipulas	2.15	52	*e*P	Pb	08 16 25.7	-1.6
ESQI				*e*S	Sg	08 16 56.2	-1.7
ESQI	Esquipulas	2.15	52	P	Pb	08 16 25.6	-1.7
ESQI				S	Sn	08 16 51.7	+1.3
COEG	Centro de Oper	2.19	79	P	Pn	08 16 24.1	-0.2
COEG				S	Sn	08 16 52.3	+1.2
TECO	Alcaldia de Te	2.27	82	P	Pn	08 16 24.5	-0.9
TECO				S	Sn	08 16 53.9	+0.8
SARH	Santa Rosa de	2.74	55	P	Pn	08 16 31.9	0.0
SARH				S	Sn	08 17 05.8	+1.0

*IDC **28** 08:15:54.3±2.3, 9°.66N×70°.55W, h27^{km}±15^{km}, mb3.5/5, mbtmp3.8/7, ML3.1/2, MS3.5/1, Error ellipse: s-maj=24.4km s-min=13.8km az=119.0*

*FUNV **28** 08:15:56.2, 9°.57N×70°.60W, h5^{km}, MW3.7, Presumed earthquake*

*RSNC **28** 08:15:56.6±0.4, 10°N±2°×7°1W±°, h14^{km}±4^{km}, M4.0, mB4.7, mb4.4, ML3.3, Mw(mB)3.9*

ISC 28 08:15:54.6±0.9**, 9°.65N**±0°.03×**70°.64W**±0°.04**, h23**^{km}±6^{km}**, n44, σ1^s.76**/75**, mb3.6**/4**, Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SDV	Santo Domingo	0.76	180	Pg	Pb	08 16 09.8	+0.4
	77nm,0.3s,baz=17,slow=14,SNR=113						
SDV				Lg	Lg	08 16 19.9	
	170nm,0.3s,baz=303,slow=20,SNR=26						
SDV	Santo Domingo	0.76	180	P	Pb	08 16 10.0	+0.6
SDV				S	Sb	08 16 19.8	+0.4
SDV	Santo Domingo	0.76	180	*e*P	Pn	08 16 10.1	-0.1
SDV				*e*S	Sb	08 16 18.3	-1.1
URIC	Uribia, Colomb	2.43	327	P	Pn	08 16 33.2	+0.2
URIC				S	Sb	08 17 08.0	+0.8
TURV	Turiamo	2.87	74	*e*P	Pn	08 16 40.4	+1.4
TURV				*e*S	Sn	08 17 14.9	+2.0
OCAC	Ocana	3.00	242	P	Pn	08 16 41.8	+0.9
OCAC				S	Sb	08 17 21.5	-2.2
BENV	Beln	3.01	84	*e*P	Pn	08 16 43.2	+2.1
BENV				*e*S	Sn	08 17 18.5	+2.0
PAMC	Pamplona, Colo	3.07	222	P	Pn	08 16 44.0	+1.7
PAMC				S	Sn	08 17 19.9	+1.3
TAMC	Tame, Arauca	3.40	200	P	Pn	08 16 47.7	+1.4
TAMC				S	Sn	08 17 29.1	+3.2
ARGC	Ariguani, Magd	3.56	274	P	Pn	08 16 50.0	+1.5
ARGC				S	Sn	08 17 31.8	+1.8
TACV	Tcata	3.59	82	*e*P	Pn	08 16 51.1	+2.1
SMRC	Santa Marta, M	3.83	293	P	Pn	08 16 52.9	+0.6
SMRC				S	Sn	08 17 35.0	-1.7
FUNV	FUNVISIS	3.86	78	*e*P	Pn	08 16 55.6	+2.9
FUNV				*e*S	Sn	08 17 38.6	+1.2
BARC	Barichara	3.95	220	P	Pn	08 16 56.2	+2.1
BARC				S	Sn	08 17 42.9	+3.0
BRJC	Barrancabermej	4.07	229	P	Pn	08 16 57.4	+1.9
BRJC				S	Sn	08 17 43.2	+0.8
RUSC	La Rusia	4.45	213	P	Pn	08 17 02.8	+1.5
RUSC				S	Sn	08 17 52.3	-0.3
SJCC	San Jacinto, C	4.48	273	P	Pn	08 17 03.5	+2.2
SJCC				S	Sn	08 17 54.5	+1.7
PTBC	PUERTO BERRIO,	4.88	231	P	Pn	08 17 06.9	+0.1
PTBC				S	Sn	08 18 00.3	-2.4
UREC	San Jos de Ur	5.19	249	P	Pn	08 17 13.4	+2.4
	536nm19nm,0.8s						
UREC				S	Sn	08 18 11.1	+0.8
	536nm19nm,0.8s						
UREC				AML	AML		
SPBC	San Pablo de B	5.23	221	P	Pn	08 17 13.3	+1.7
	748nm20nm,0.4s						
SPBC				S	Sn	08 18 10.8	-0.6
	748nm20nm,0.4s						
SPBC				AML	AML		
LCBC	Los crdobas,	5.71	262	P	Pn	08 17 20.1	+2.0
	49nm,0.9s						
LCBC				S	Sn	08 18 24.8	+1.8
	49nm,0.9s						
LCBC				AML	AML		
NORC	Norcasia	5.84	226	P	Pn	08 17 21.0	+1.1
	329nm15nm,0.5s						
NORC				S	Sn	08 18 26.0	-0.3
	329nm15nm,0.5s						
NORC				AML	AML		
CHIC	Chingaza	5.86	212	P	Pn	08 17 21.6	+1.1
	23nm,0.5s						
CHIC				S	Sn	08 18 27.3	+0.1
	23nm,0.5s						
CHIC				AML	AML		
ROSC	El Rosal	6.02	218	Pn	Pn	08 17 25.9	+3.3
	2.7nm,0.3s,baz=12,slow=22,SNR=5.9						
ROSC				Sn	Sn	08 18 35.5	+4.4
	3.9nm,0.3s,baz=28,slow=22,SNR=2.2						
ROSC				Lg	Lg	08 19 06.5	
	1.5nm,0.3s,baz=358,slow=22,SNR=1.3						
	7.6nm,0.3s						
ROSC				AML	AML		
ROSC	El Rosal	6.02	218	P	Pn	08 17 25.1	+2.4
	28nm,0.7s						
ROSC				S	Sn	08 18 35.0	+3.9
	28nm,0.7s						
ROSC				AML	AML		
APAC	Apartado, Choc	6.12	254	P	Pn	08 17 26.1	+2.3
	15nm,0.7s						
APAC				S	Sn	08 18 33.5	+0.3
	15nm,0.7s						
APAC				AML	AML		
CVER	Cruz Verde, Cu	6.13	214	P	Pn	08 17 27.0	+2.7
CVER				AML	AML		
VILC	Villavicencio,	6.29	209	P	Pn	08 17 27.1	+1.0
	287nm,1.9s						
VILC				S	Sn	08 18 38.6	+1.2
	287nm,1.9s						
VILC				AML	AML		
GUY2C	Guyana, Caldas	6.43	227	P	Pn	08 17 30.5	+2.1
	29nm,0.7s						
GUY2C				S	Sn	08 18 42.4	+1.0
	29nm,0.7s						
GUY2C				AML	AML		
CBOC	Ciudad Bolivar	6.52	235	P	Pn	08 17 31.8	+2.4
	10nm,0.8s						
CBOC				S	Sn	08 18 44.6	+1.4
	10nm,0.8s						
PRAC	Prado	7.25	216	P	Pn	08 17 39.3	-0.1
	11nm,0.6s						
PRAC				S	Sn	08 19 00.5	-0.6
	11nm,0.6s						
ORTC	Ortega, Tolima	7.31	219	P	Pn	08 17 41.9	+1.7
	16nm,0.8s						
ORTC				S	Sn	08 19 02.8	+0.2
	16nm,0.8s						
MACC	Macarena, Meta	8.11	203	P	Pn	08 17 50.1	-1.1
	13nm,0.5s						
MACC				S	Sn	08 19 19.6	-2.6
	13nm,0.5s						
GARC	Garzon, Huila	8.85	213	P	Pn	08 18 00.7	-0.8
BCIP	Isla Barro Col	9.09	268	P	Pn	08 18 05.6	+1.1
SJG	San Juan	9.47	27	Pn	Pn	08 18 08.4	-1.3
	1.0nm,0.3s,baz=231,slow=6.4,SNR=2.1						
SJG				Sn	Sn	08 19 44.8	-11
	0.3nm,0.3s,baz=220,slow=13,SNR=1.1						
	5.4nm,0.4s						
SJG				AML	AML		
LPAZ	La Paz	25.89	174	P	P	08 21 26.7	+1.0
	0.8nm,0.9s,baz=63,slow=4.5,SNR=1.8						
	0.8nm,0.9s						
TKL	Tuckaleechee C	28.52	337	LR	LR	08 34 03.1	
	comp=Z,94nm,19.0s,baz=308,slow=38						
PDAR	Pinedale Array	47.34	321	P	P	08 24 27.9	+0.7
	0.5nm,0.6s,baz=123,slow=11,SNR=9.8						
	0.5nm,0.6s						
PLCA	Paso Flores	50.13	180	P	P	08 24 47.0	-1.3
	1.8nm,1.1s,baz=354,slow=9.2,SNR=9.2						
	1.8nm,1.1s						
TORD	Torodi Ar. Bea	70.78	79	P	P	08 27 08.9	-1.0
	0.6nm,0.4s,baz=291,slow=7.6,SNR=7.9						
	0.6nm,0.4s						
ILAR	Eielson Array	75.46	335	P	P	08 27 36.2	-0.5
	0.2nm,0.4s,baz=104,slow=6.0,SNR=4.1						
	0.2nm,0.4s						
ASAR	Alice Springs	152.73	236	PKPbc	PKPbc	08 35 49.2	-1.4
	0.5nm,0.6s,baz=111,slow=2.4,SNR=11						
ASAR				PKPab	pPKPbc	08 35 58.9	+0.5
	0.6nm,0.6s,baz=107,slow=2.8,SNR=4.8						
WRA	Warramunga Arr	153.81	244	PKPbc	PKPbc	08 35 51.5	-1.5
	0.5nm,0.7s,baz=106,slow=2.9,SNR=8.9						
WRA				PKPab	sPKPbc	08 36 02.4	-1.1
	0.2nm,0.5s,baz=107,slow=2.7,SNR=1.8						

*IDC **28** 08:16:42.7±2.2, 22°.91N×108°.14W, h0^{km}, mb3.7/2, mbtmp3.2/7, ML3.4/4, MS2.6/3, Error ellipse: s-maj=30.7km s-min=19.1km az=160.0*

*MEX **28** 08:16:43.3±0.3, 22°.18N×107°.80W, h10^{km}, MD4.0, Presumed earthquake*

ISC 28 08:16:37.5±1.0**, 22°.3N**±0°.1×**108°.1W**±0°.1**, h10**^{km}**, n13, σ3^s.21**/19**, Off coast of central Mexico**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPIG	La Paz	2.77	312	Pn	Pn	08 17 20.7	-1.2
	8.9nm,0.6s,baz=24,slow=12,SNR=2.0						
LPIG				Sn	Sn	08 17 50.1	-5.2
	2.6nm,0.3s,baz=161,slow=22,SNR=5.1						
LPIG				LR	LR	08 18 16.6	
	comp=Z,192nm,20.2s,baz=61,slow=40						
TOMAT	Tomatlan	3.49	131	*e*P	Pn	08 17 31.9	+0.1
TOMAT				*e*S	Sn	08 18 09.9	-3.3
ESTA	Talpa de Allen	3.52	121	*e*P	Pn	08 17 32.7	+0.3
ESTA				*e*S	Sn	08 18 10.0	-4.2
CJM	Chamela	3.93	134	*e*P	Pn	08 17 37.7	-0.3
CJM				*e*S	Sn	08 18 20.5	-3.7
CIHU	Emiliano Zapat	4.31	133	*e*P	Pn	08 17 42.9	-0.2
CIHU				*e*S	Sn	08 18 29.7	-3.8
CEGR	Campo Tres	4.85	125	*e*P	Pn	08 17 51.2	+0.4
CEGR				*e*S	Sn	08 18 43.3	-3.8
TXAR	Lajitas Array	8.07	28	Pn	Pn	08 18 35.3	+0.4
	0.1nm,0.3s,baz=202,slow=13,SNR=11						
TXAR				Lg	Lg	08 20 42.8	
	0.1nm,0.3s,baz=218,slow=32,SNR=3.7						
TXAR				LR	LR	08 20 55.4	
	comp=Z,38nm,19.9s,baz=264,slow=33						
	1.3nm,0.9s						
TXAR				AML	AML		
PFO	Pinyon Flats O	13.52	329	Pn	Pn	08 19 47.6	-1.9
	baz=151,slow=14,SNR=4.6						
PFO				LR	LR	08 23 34.8	
	comp=Z,29nm,20.3s,baz=110,slow=32						
	0.4nm,0.5s						
NVAR	Mina Array Bea	18.36	334	P	Pn	08 20 50.4	-2.0
	baz=156,slow=14,SNR=5.0						
	0.2nm,0.7s						
PDAR	Pinedale Array	20.48	357	P	P	08 21 14.8	-0.9
	baz=178,slow=10,SNR=4.4						
	0.2nm,0.8s						
YKA	Yellowknife Ar	40.45	355	P	P	08 24 17.9	+2.0
	2.1nm,0.8s,baz=161,slow=7.3,SNR=2.9						
	2.1nm,0.8s						
ILAR	Eielson Array	49.49	339	P	P	08 25 30.2	+2.4
	0.4nm,0.9s,baz=117,slow=7.6,SNR=2.2						
	0.4nm,0.9s						
ASAR	Alice Springs	123.35	256	PKP	PKiKP	08 35 42.6	+6.8
	0.2nm,0.7s,baz=59,slow=2.1,SNR=1.8						

*IDC **28** 08:24:39.5±3.3, 53°.46N×87°.01E, h0^{km}, mbtmp2.5/2, ML2.2/2, Error ellipse: s-maj=34.9km s-min=20.3km az=86.0*

ASRS 28 08:24:34.0±1.5**, 53°.48N×87°.22E, h0**^{km}**, M2.5**(MOS)**, The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	1.50	289	I	I	08 33 50.0	
	baz=109,slow=332,SNR=2.1						
ZALV	Zalesovo Beam	1.50	289	Pg	Pg	08 25 05.5	+2.7
	0.2nm,0.3s,baz=109,slow=13,SNR=7.3						
ZALV				Lg	Lg	08 25 24.3	
	0.4nm,0.3s,baz=114,slow=29,SNR=2.0						
KURBB	Kurchatov Arra	6.08	245	Pn	Pn	08 26 09.8	+4.8
	baz=60,slow=14,SNR=4.5						
	0.2nm,0.3s						
MKAR	Makanchi Array	7.41	207	Pn	Pn	08 26 28.8	+5.5
	0.1nm,0.3s,baz=26,slow=14,SNR=1.5						
	0.2nm,0.7s						
MKAR				AML	AML		

*CATAC **28** 08:32:23.6±0.5, 13°N±3°×9°0W±°, h24^{km}±2^{km}, M3.4/18, MLv3.4/18, Error ellipse: s-maj=6.5km s-min=3.7km az=23.7, confirmed*

*GCG **28** 08:32:24.2±1.3, 13°.31N×89°.95W, h32^{km}±6^{km}, MD4.0, MW3.0, Presumed earthquake*

*SNET **28** 08:32:24.3±2.0, 13°.29N×89°.91W, h33^{km}, ML3.3, Presumed earthquake*

ISC 28 08:32:25.1±1.7**, 13°.28N**±0°.07×**89°.87W**±0°.04**, h32**^{km}±11^{km}**, n38, σ0^s.87**/61**, El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC

JAYA	**Jayaque - finc**	**0.55**	**48**	i P	**Pn**	**08 32 36.4**	**-0.6**
JAYA	**Jayaque - finc**	**0.55**	**48**	P	**Pn**	**08 32 36.5**	**-0.5**
JAYA				S	**Sn**	**08 32 45.8**	**+0.7**
LALI	**Alcalda de L**	**0.57**	**69**	P	**Pn**	**08 32 36.7**	**-0.3**
LALI				S	**Sn**	**08 32 45.9**	**+0.5**
FAME	**Alcaldia de Sa**	**0.58**	**346**	P	**Pn**	**08 32 35.9**	**-1.2**
FAME				S	**Sn**	**08 32 44.8**	**-0.7**
CEVE	**Cerro Verde**	**0.59**	**24**	eP	**Pn**	**08 32 37.2**	**-0.3**
CEVE				eS	**Sn**	**08 32 48.2**	**+1.9**
CEVE	**Cerro Verde**	**0.59**	**24**	P	**Pn**	**08 32 37.0**	**-0.6**
CEVE				S	**Sn**	**08 32 46.9**	**+0.6**
NUBE	**Las Nubes**	**0.62**	**8**	i P	**Pn**	**08 32 37.3**	**-0.6**
NUBE				i S	**Sn**	**08 32 46.2**	**-0.7**
NUBE	**Las Nubes**	**0.62**	**8**	P	**Pn**	**08 32 37.3**	**-0.6**
NUBE				S	**Sn**	**08 32 46.8**	**-0.1**
PMON	**Piamonte**	**0.69**	**52**	P	**Pn**	**08 32 38.3**	**-0.5**
PMON				S	**Sn**	**08 32 49.4**	**+0.9**
CEDA	**San Andres**	**0.69**	**42**	eS	**Sn**	**08 32 49.9**	**+1.4**
CEDA	**San Andres**	**0.69**	**42**	S	**Sn**	**08 32 49.3**	**+0.9**
LOAL	**Lomas de Alarc**	**0.72**	**7**	P	**Pb**	**08 32 38.7**	**-0.6**
LOAL				S	**Sn**	**08 32 50.0**	**+0.9**
BOQS	**Boqueron**	**0.73**	**52**	eP	**Pb**	**08 32 39.1**	**-0.4**
SLOZ	**Alcaldia de Sa**	**0.75**	**6**	P	**Pb**	**08 32 38.9**	**-0.8**
UEES	**Universidad Ev**	**0.75**	**55**	P	**Pn**	**08 32 39.3**	**-0.3**
UEES				S	**Sb**	**08 32 50.9**	**+1.0**
SEMO	**Seminario San**	**0.76**	**56**	P	**Pn**	**08 32 39.4**	**-0.2**
SEMO				S	**Sb**	**08 32 51.0**	**+1.0**
UNIC	**Universidad Ca**	**0.76**	**24**	P	**Pn**	**08 32 39.2**	**-0.6**
UNIC				S	**Sb**	**08 32 50.8**	**+0.6**
LOMA	**Loma Larga**	**0.77**	**62**	P	**Pn**	**08 32 39.5**	**-0.4**
LOMA				S	**Sb**	**08 32 51.7**	**+1.3**
UTEC	**Universidad Te**	**0.77**	**57**	P	**Pn**	**08 32 39.6**	**-0.2**
UTEC				S	**Sb**	**08 32 51.4**	**+1.0**
PAVA	**Las Pavas**	**1.00**	**65**	P	**Pb**	**08 32 43.4**	**-0.7**
PAVA				S	**Sb**	**08 32 57.5**	**+0.5**
COEG	**Centro de Oper**	**1.02**	**71**	eP	**Pn**	**08 32 43.3**	**+0.1**
COEG	**Centro de Oper**	**1.02**	**71**	P	**Pn**	**08 32 43.0**	**-0.3**
COEG				S	**Sb**	**08 32 57.7**	**+0.3**
JUAM	**Asuncion Mita**	**1.06**	**9**	i P	**Pn**	**08 32 43.3**	**-0.6**
JUAM				i S	**Sb**	**08 32 57.6**	**-1.0**
TECO	**Alcaldia de Te**	**1.09**	**76**	P	**Pn**	**08 32 43.8**	**-0.4**
TECO				S	**Sn**	**08 32 58.8**	**+0.6**
FG16	**Alotenango, Sa**	**1.17**	**328**	i P	**Pb**	**08 32 48.6**	**+1.7**
FG8	**Yepocapa, Chim**	**1.18**	**325**	i P	**Pb**	**08 32 48.9**	**+1.8**
SCLA	**Alcaldia de Sa**	**1.19**	**69**	S	**Sb**	**08 33 02.1**	**-0.1**
MTO3	**Montecristo**	**1.22**	**24**	i P	**Pn**	**08 32 45.7**	**-0.5**
MTO3	**Montecristo**	**1.22**	**24**	P	**Pn**	**08 32 45.7**	**-0.5**
MTO3				S	**Sb**	**08 33 02.4**	**-0.8**
LLGN	**La Laguna**	**1.26**	**46**	P	**Pn**	**08 32 46.1**	**-0.5**
LLGN				S	**Sb**	**08 33 03.5**	**-0.7**
ALJI	**Alcalda de J**	**1.27**	**88**	eP	**Pn**	**08 32 44.1**	**-2.5**
ALJI				eS	**Sn**	**08 33 03.5**	**+1.0**
P5NO	**Presa 5 de nov**	**1.29**	**57**	P	**Pn**	**08 32 46.6**	**-0.3**
P5NO				S	**Sb**	**08 33 04.3**	**-0.7**
GCG4	**OSOP**	**1.45**	**334**	i P	**Pn**	**08 32 48.7**	**-0.6**
PACA	**Pacayal**	**1.52**	**83**	P	**Pn**	**08 32 50.5**	**+0.3**
PACA				S	**Sb**	**08 33 10.7**	**-0.9**
APG	**El Apazote**	**1.81**	**341**	i P	**Pn**	**08 32 53.8**	**-0.5**
SARH	**Santa Rosa de**	**1.84**	**36**	i P	**Pn**	**08 32 53.1**	**-1.4**
SARH	**Santa Rosa de**	**1.84**	**36**	P	**Pn**	**08 32 54.6**	**+0.1**
STG8	**El Palmar, Qui**	**1.85**	**309**	i P	**Pb**	**08 32 57.9**	**-0.5**

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*ASRS **28** 08:38:12.0±1.9, 53°.70N×91°.10E, h0^{km}, M3.5(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*
*IDC **28** 08:38:18.0±1.7, 53°.70N×90°.72E, h0^{km}, mbtmp3.4/5, ML3.2/5, Error ellipse: s-maj=20.8km s-min=11.7km az=11.0*
*NNC **28** 08:38:26.2±3.9, 53°.32N×90°.22E, h0^{km}, mb3.7, mpv3.4, Error ellipse: s-maj=30.8km s-min=22.5km az=90.0, Suspected Mining explosion.*
ISC 28 08:38:19.9±1.5**, 53°.8N**±0°.1×**90°.46E**±0°.08**, h0**^{km}**, n11, σ0^{s}97**/17**, 9C-4D, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAA0	**Zalesovo Array**	**3.35**	**276**	⇑Pn	**Pb**	**08 39 20.1**	**0.0**
	10nm,0.9s						
ZAA0				⇑Lg	Lg	08 40 11.9	
	123nm,1.1s						
ZALV	**Zalesovo Beam**	**3.35**	**276**	Pn	**Pn**	**08 39 15.6**	**+2.2**
	2.6nm,0.3s,baz=88,slow=16,SNR=16						
ZALV				Pg	**Pb**	**08 39 19.9**	**-0.2**
	2.6nm,0.3s,baz=89,slow=17,SNR=13						
ZALV				Lg	Lg	08 40 09.8	
	1.6nm,0.3s,baz=87,slow=32,SNR=8.5						
	2.9nm,0.3s						
ZALV				AML	AML		
KURK	**Kurchatov**	**7.88**	**252**	⇑Pn	**Pn**	**08 40 16.0**	**+0.4**
	1.2nm,0.9s						
KURK				⇑Sn	**Sn**	**08 41 43.9**	**-1.5**
	5.9nm,0.8s						
KURK				⇓Lg	Lg	08 42 31.2	
	15nm,0.8s						
KURBB	**Kurchatov Arra**	**7.97**	**252**	Pn	**Pn**	**08 40 17.1**	**+0.1**
	0.3nm,0.3s,baz=68,slow=15,SNR=8.8						
KURBB				Sn	**Sn**	**08 41 48.3**	**+0.5**
	0.1nm,0.3s,baz=68,slow=25,SNR=6.9						
KURBB				Lg	Lg	08 42 33.1	
	0.1nm,0.3s,baz=67,slow=29,SNR=9.4						
	2.1nm,0.6s						
KURBB				AML	AML		
KURBB	**Kurchatov Arra**	**7.97**	**252**	⇑Pn	**Pn**	**08 40 17.6**	**+0.6**
	2.3nm,0.4s						
KURBB				⇑Sn	**Sn**	**08 41 47.7**	**0.0**
	40nm,0.8s						
KURBB				⇓Lg	Lg	08 42 30.6	
	94nm,1.2s						
MK31	**Makanchi Array**	**8.71**	**220**	⇓Pn	**Pn**	**08 40 26.7**	**-0.4**
	1.2nm,0.7s,baz=34,slow=13,SNR=17						
MK31				⇑Sn	**Sn**	**08 42 05.5**	**-0.4**
	6.6nm,1.3s,baz=46,slow=26,SNR=5.9						
MK31				⇑Lg	Lg	08 42 49.0	
	15nm,1.1s,baz=51,slow=31,SNR=5.2						
MKAR	**Makanchi Array**	**8.71**	**220**	Pn	**Pn**	**08 40 27.4**	**+0.3**
	0.6nm,0.3s,baz=27,slow=12,SNR=12						
MKAR				Sn	**Sn**	**08 42 07.4**	**+1.5**
	0.3nm,0.3s,baz=36,slow=27,SNR=6.9						
MKAR				Lg	Lg	08 42 53.7	
	0.2nm,0.3s,baz=40,slow=27,SNR=5.6						
	1.0nm,0.3s						
MKAR				AML	AML		
MAKZ	**Makanchi**	**8.82**	**221**	⇑Sn	**Sn**	**08 42 08.4**	**-0.2**
	4.6nm,0.8s						
MAKZ				⇓Lg	Lg	08 42 51.7	
	12nm,0.9s						
SONM	**Songino Array**	**11.68**	**114**	Pn	**Pn**	**08 41 07.5**	**-0.4**
	0.3nm,0.3s,baz=309,slow=13,SNR=1.6						
SONM				Lg	Lg	08 44 14.1	
	0.4nm,0.3s,baz=309,slow=25,SNR=5.4						
	0.3nm,0.4s						
SONM				AML	AML		
BVAR	**Borovoye Array**	**12.01**	**275**	Pn	**Pn**	**08 41 11.4**	**-0.7**
	0.1nm,0.3s,baz=74,slow=12,SNR=2.6						
BVAR				Sn	**Sn**	**08 43 25.2**	**-1.4**
	baz=77,slow=25,SNR=2.0						
BVAR				Lg	Lg	08 44 45.6	
	baz=81,slow=26,SNR=1.5						
	0.6nm,0.4s						
BVAR				AML	AML		
AAK	**Ala-Archa**	**15.35**	**230**	Lg	Lg	08 46 22.0	
	0.3nm,0.3s,baz=51,slow=22,SNR=1.4						

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*SDD **28** 08:43:15.7±4.1, 18°.53N×70°.23W, h58^{km}±71^{km}, MD2.8, ML2.2, MW3.1, Presumed earthquake*
*OSPL **28** 08:43:26.1±0.9, 18°.72N×70°.78W, h9^{km}±5^{km}, ML2.0, Presumed earthquake*
ISC 28 08:43:25.4±1.1**, 18°.71N**±0°.03×**70°.77W**±0°.04**, h15**^{km}±12^{km}**, n15, σ1^{s}18**/19**, 6C-2D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ABDR	**Alto Bandera**	**0.17**	**55**	⇑ePg	**Pg**	**08 43 29.8**	**-0.1**
ABDR				IAML		08 43 43.6	
	comp=N,209nm,0.3s						
SDDR	**Presa de Saban**	**0.56**	**299**	i P	**Pg**	**08 43 35.8**	**-0.6**
SDDR				eS	**Sg**	**08 43 43.9**	**0.0**
SDDR				IAML		08 43 48.2	
	comp=Z,51nm,0.3s						
SDDR	**Presa de Saban**	**0.56**	**299**	ePg	**Pb**	**08 43 38.1**	**+1.1**
SDDR				IAML		08 43 52.3	
	comp=N,31nm,0.3s						
LONE3	**El Aguacate, B**	**0.66**	**261**	i P	**Pg**	**08 43 37.5**	**-0.9**
LONE3				eS	**Sg**	**08 43 47.0**	**-0.2**
LONE3				IAML		08 43 49.0	
	comp=Z,27nm,1.0s						
SC01	**Santiago de lo**	**0.71**	**3**	i P	**Pg**	**08 43 39.3**	**0.0**
SC01				IAML		08 43 51.7	
	comp=Z,30nm,0.5s						
SC01	**Santiago de lo**	**0.71**	**3**	⇑ePg	**Pg**	**08 43 36.2**	**-3.1**
SC01				⇑eSg	**Sg**	**08 43 49.1**	**+0.4**
SC01				IAML		08 43 54.8	
	comp=N,36nm,0.5s						
PODR	**Polo**	**0.73**	**222**	i P	**Pg**	**08 43 39.0**	**-0.7**
PODR				eS	**Sg**	**08 43 49.5**	**+0.2**
PODR				IAML		08 43 51.8	
	comp=Z,376nm,0.2s						
PODR	**Polo**	**0.73**	**222**	⇓ePg	**Pg**	**08 43 38.7**	**-0.9**
PODR				⇓eSg	**Sg**	**08 43 50.4**	**+1.1**
PODR				IAML		08 43 54.9	
	comp=N,54nm,0.7s						
LODU1	**El Espartillar**	**0.76**	**242**	i P	**Pg**	**08 43 39.8**	**-0.3**
LODU1				IAML		08 43 53.5	
	comp=Z,71nm,1.1s						
SDD	**Santo Domingo**	**0.85**	**107**	i P	**Pg**	**08 43 41.4**	**-0.5**
SDD				IAML		08 43 55.8	
	comp=Z,49nm,1.3s						
JIDR	**Jimani**	**1.05**	**258**	⇑ePg	**Pg**	**08 43 44.5**	**-1.2**
JIDR				⇑eSg	**Sb**	**08 44 00.2**	**+1.4**
JIDR				IAML		08 44 00.5	
	comp=N,46nm,0.6s						
LOVI	**El Cajuil, Ovi**	**1.07**	**212**	i P	**Pg**	**08 43 44.7**	**-1.4**
LOVI				IAML		08 44 02.4	
	comp=Z,58nm,0.8s						
LOBH	**Bahia de las A**	**1.18**	**224**	i P	**Pb**	**08 43 47.0**	**-0.6**
LOBH				IAML		08 44 09.6	
	comp=Z,26nm,4.3s						
LUDR	**Luperon**	**1.19**	**352**	ePg		08 43 41.9	
HIDR	**Higuey Centro**	**1.95**	**93**	ePg		08 43 40.8	
HIDR				⇑eSg	Sn	08 43 59.4	-23
HIDR				IAML		08 44 29.4	
	comp=N,21nm,2.0s						

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*CATAC **28** 08:43:56.1±0.6, 14°N±3°×9°1W±°, h8^{km}±2^{km}, M3.2/16, MLv3.2/16, Error ellipse: s-maj=7.7km s-min=4.4km az=22.5, confirmed*
*GCG **28** 08:43:58.0±1.1, 13°.71N×91°.03W, h35^{km}±999^{km}, MD3.8, Presumed earthquake*
*SNET **28** 08:43:58.6±2.5, 13°.56N×90°.97W, h36^{km}, ML3.2, Presumed earthquake*
ISC 28 08:43:57.7±2.0**, 13°.68N**±0°.07×**90°.85W**±0°.06**, h10**^{km}±10^{km}**, n35, σ0^{s}68**/53**, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FG8	**Yepocapa, Chim**	**0.64**	**26**	i P	**Pn**	**08 44 12.4**	**-0.6**
FG16	**Alotenango, Sa**	**0.68**	**29**	i P	**Pn**	**08 44 13.2**	**-0.4**
FG16				i S	**Sn**	**08 44 24.3**	**-0.1**
FAME	**Alcaldia de Sa**	**0.83**	**78**	P	**Pb**	**08 44 14.5**	**+0.3**
FAME				S	**Sn**	**08 44 26.9**	**-0.9**
STG8	**El Palmar, Qui**	**0.91**	**328**	i P	**Pn**	**08 44 18.0**	**+1.2**
NUBE	**Las Nubes**	**1.06**	**78**	i P	**Pn**	**08 44 18.8**	**-0.1**
NUBE	**Las Nubes**	**1.06**	**78**	P	**Pn**	**08 44 18.4**	**-0.5**
NUBE				S	**Sn**	**08 44 34.1**	**+0.2**
LOAL	**Lomas de Alarc**	**1.09**	**73**	P	**Pb**	**08 44 18.5**	**-0.2**
LOAL				S	**Sn**	**08 44 34.6**	**+0.3**
SLOZ	**Alcaldia de Sa**	**1.09**	**71**	P	**Pg**	**08 44 18.4**	**-0.4**
CEVE	**Cerro Verde**	**1.20**	**83**	eP	**Pg**	**08 44 21.1**	**+0.3**
CEVE				eS	**Sn**	**08 44 39.3**	**+1.9**
CEVE	**Cerro Verde**	**1.20**	**83**	P	**Pg**	**08 44 20.9**	**0.0**
CEVE				S	**Sn**	**08 44 38.0**	**+0.6**
JUAM	**Asuncion Mita**	**1.29**	**59**	i P	**Pb**	**08 44 21.8**	**-0.3**
JUAM				i S	**Sg**	**08 44 40.2**	**+0.9**
UNIC	**Universidad Ca**	**1.30**	**76**	P	**Pn**	**08 44 21.1**	**-0.9**
UNIC				S	**Sg**	**08 44 40.4**	**+0.8**
JAYA	**Jayaque - finc**	**1.36**	**91**	i P	**Pn**	**08 44 22.5**	**-0.6**
JAYA	**Jayaque - finc**	**1.36**	**91**	P	**Pn**	**08 44 22.8**	**-0.2**
APG	**El Apazote**	**1.37**	**16**	i P	**Pn**	**08 44 22.5**	**-0.7**
CEDA	**San Andres**	**1.42**	**85**	P	**Pn**	**08 44 23.0**	**-0.7**
CEDA				S	**Sg**	**08 44 43.8**	**+0.3**
PMON	**Piamonte**	**1.50**	**89**	P	**Pb**	**08 44 25.0**	**-0.7**
PMON				S	**Sg**	**08 44 46.0**	**+0.1**
UEES	**Universidad Ev**	**1.57**	**88**	S	**Sb**	**08 44 47.1**	**+0.3**
SEMO	**Seminario San**	**1.58**	**89**	S	**Sb**	**08 44 47.4**	**+0.1**
UTEC	**Universidad Te**	**1.60**	**89**	S	**Sg**	**08 44 48.8**	**-0.6**
MTO3	**Montecristo**	**1.61**	**63**	i P	**Pn**	**08 44 26.1**	**-0.4**
MTO3	**Montecristo**	**1.61**	**63**	P	**Pn**	**08 44 26.1**	**-0.4**
MTO3				S	**Sg**	**08 44 50.4**	**+0.6**
PANCS	**Alcalda de**	**1.63**	**92**	S	**Sn**	**08 44 47.7**	**+0.1**
LOMA	**Loma Larga**	**1.63**	**91**	P	**Pb**	**08 44 27.4**	**-0.7**
LOMA				S	**Sg**	**08 44 49.6**	**-0.7**
ESQI	**Esquipulas**	**1.71**	**59**	eS	**Sg**	**08 44 54.0**	**+1.3**
ESQI	**Esquipulas**	**1.71**	**59**	P	**Pn**	**08 44 27.1**	**-0.6**
ESQI				S	**Sg**	**08 44 52.8**	**+0.1**
HUEH	**Huehuetenango**	**1.75**	**339**	P	**Pn**	**08 44 27.5**	**-0.9**
HUEH				S	**Sn**	**08 44 50.5**	**-0.4**
PAVA	**Las Pavas**	**1.86**	**89**	P	**Pn**	**08 44 29.6**	**-0.2**
PAVA				S	**Sb**	**08 44 55.7**	**+0.4**
LLGN	**La Laguna**	**1.91**	**75**	S	**Sb**	**08 44 57.6**	**+0.8**
COEG	**Centro de Oper**	**1.92**	**91**	eP	**Pn**	**08 44 31.0**	**+0.5**
COEG				eS	**Sb**	**08 44 56.7**	**-0.2**
COEG	**Centro de Oper**	**1.92**	**91**	P	**Pn**	**08 44 30.2**	**-0.3**
COEG				S	**Sb**	**08 44 56.7**	**-0.2**
TECO	**Alcaldia de Te**	**2.02**	**94**	P	**Pn**	**08 44 32.1**	**+0.2**
TECO				S	**Sb**	**08 44 59.0**	**-0.8**
SARH	**Santa Rosa de**	**2.30**	**61**	P	**Pn**	**08 44 35.4**	**-0.4**
PACA	**Pacayal**	**2.47**	**95**	S	**Sn**	**08 45 10.4**	**+1.9**
LCND	**La Caada**	**2.90**	**97**	P	**Pn**	**08 44 43.5**	**-0.5**

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*SDD **28** 08:44:55.5±2.7, 18°.75N×70°.79W, h33^{km}±12^{km}, MD2.6, ML2.6, MW3.2, Presumed earthquake*
*OSPL **28** 08:44:58.3±0.8, 18°.72N×70°.79W, h10^{km}±4^{km}, ML2.3, Presumed earthquake*
ISC 28 08:44:57.5±1.0**, 18°.73N**±0°.04×**70°.82W**±0°.03**, h25**^{km}±10^{km}**, n17, σ0^{s}61**/26**, 14C, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ABDR	**Alto Bandera**	**0.20**	**66**	ePg	**Pn**	**08 45 05.2**	**-0.1**
ABDR				eSg	**Sb**	**08 45 08.0**	**+0.3**
ABDR				IAML		08 45 39.7	
	comp=N,3µm,0.4s						
SDDR	**Presa de Saban**	**0.51**	**299**	i P	**Pb**	**08 45 07.7**	**-0.3**
SDDR				eS	**Sb**	**08 45 15.8**	**+0.8**
SDDR				IAML		08 45 19.8	
	comp=Z,141nm,0.7s						
SDDR	**Presa de Saban**	**0.51**	**299**	⇑ePg	**Pb**	**08 45 07.7**	**-0.3**
SDDR				⇑eSg	**Sb**	**08 45 15.0**	**0.0**
SDDR				IAML		08 45 53.2	
	comp=N,253nm,1.0s						
BANI	**BANI**	**0.55**	**127**	⇑ePg	**Pb**	**08 45 08.2**	**-0.6**
BANI				⇑eSg	**Sb**	**08 45 17.0**	**+0.6**
BANI				IAML		08 45 17.9	
	comp=N,435nm,0.4s						
LONE3	**El Aguacate, B**	**0.62**	**258**	i P	**Pb**	**08 45 09.5**	**-0.3**
LONE3				eS	**Sn**	**08 45 19.1**	**-0.9**
LONE3				IAML		08 45 23.0	
	comp=Z,91nm,0.4s						
NEDR	**Neiba UASD**	**0.62**	**247**	⇑ePg	**Pn**	**08 45 11.3**	**+0.6**
NEDR				⇑eSg	**Sn**	**08 45 19.9**	**0.0**
NEDR				IAML		08 46 02.7	
	comp=N,73nm,1.1s						
SC01	**Santiago de lo**	**0.70**	**7**	i P	**Pb**	**08 45 11.1**	**0.0**
SC01				IAML		08 45 27.1	
	comp=Z,78nm,0.8s						
SC01	**Santiago de lo**	**0.70**	**7**	⇑ePg	**Pb**	**08 45 10.0**	**-1.1**
SC01				⇑eSg	**Sn**	**08 45 22.1**	**+0.3**
SC01				IAML		08 46 01.7	
	comp=N,161nm,0.8s						
PODR	**Polo**	**0.71**	**218**	i P	**Pb**	**08 45 11.1**	**-0.4**
PODR				IAML		08 45 26.0	
	comp=Z,1µm,0.1s						
LODU1	**El Espartillar**	**0.72**	**239**	i P	**Pn**	**08 45 11.9**	**-0.3**
LODU1				IAML		08 45 28.2	
	comp=Z,174nm,0.4s						
SDD	**Santo Domingo**	**0.90**	**107**	i P	**Pb**	**08 45 13.8**	**-0.8**
SDD				IAML		08 45 28.6	
	comp=Z,70nm,0.3s						
JIDR	**Jimani**	**1.00**	**256**	⇑ePg	**Pb**	**08 45 16.4**	**+0.1**
JIDR				IAML		08 46 06.8	
	comp=N,156nm,0.6s						
LOVI	**El Cajuil, Ovi**	**1.06**	**209**	i P	**Pn**	**08 45 16.7**	**-0.2**
LOVI				IAML		08 45 33.9	
	comp=Z,44nm,1.0s						
LUDR	**Luperon**	**1.16**	**354**	⇑ePg	**Pn**	**08 45 18.1**	**-0.1**
LOBH	**Bahia de las A**	**1.16**	**222**	i P	**Pb**	**08 45 18.9**	**-0.1**
LOBH				IAML		08 45 49.0	
	comp=Z,45nm,1.1s						
HATOM	**Hato Mayor del**	**1.36**	**87**	⇑ePg	**Pn**	**08 45 21.5**	**+0.4**
HATOM				⇑eSg	**Sb**	**08 45 39.6**	**+0.1**
HATOM				IAML		08 45 42.0	
	comp=N,57nm,0.6s						
HIDR	**Higuey Centro**	**2.00**	**94**	⇑ePg	**Pn**	**08 45 31.4**	**+1.7**
HIDR				⇑eSg	**Sb**	**08 45 57.4**	**-0.3**
HIDR				IAML		08 46 02.7	
	comp=N,46nm,0.2s						

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*MOS **28** 08:46:38.5±0.9, 60°.32S×28°.80W, h10^{km}, mb5.0/8, Error ellipse: s-maj=24.9km s-min=11.4km az=104.2*
*IDC **28** 08:46:38.5±0.4, 60°.30S×28°.57W, h0^{km}, mb4.7/15, mbtmp4.6/16, ML4.5/1, MS4.2/36, Error ellipse: s-maj=18.9km s-min=12.2km az=55.0*
*NEIC **28** 08:46:40.2±1.3, 60°.38S±0°.08×28°.7W±0°.1, h10^{km}±1^{km}, mb5.1/76, Error ellipse: s-maj=15.8km s-min=6.0km az=211.0*
*GFZ **28** 08:46:40.9±0.2, 60°S±4°×2°9W±°, h10^{km}, M5.2/23, mb5.2/23*
*GCMT **28** 08:46:45.2±0.2, 60°.65S±0°.01×28°.50W±0°.04, h12^{km}, MW5.0/119, Moment Tensor Solution. s44,c48; s119,c187; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}3.07±.08; $M_{\theta\theta}$-3.17±.07; $M_{\phi\phi}$0.09±.07; $M_{r\theta}$-1.07±.25; $M_{\theta\phi}$-0.90±.06; $M_{\phi r}$0.35±.33; Best double couple: $M_0$3.43400×10^{16} NP1:ϕ_s64.00000°, δ38.00000°, λ72.00000°. NP2:ϕ_s267.00000°, δ54.00000°, λ104.00000°. Principal axes: T 3.3260, Plg76.0000°, Azm221.0000°; N 0.2110, Plg11.0000°, Azm78.0000°; P -3.5410, Plg8.0000°, Azm347.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
*RSNC **28** 08:47:13.3±6.6, 56°S±92°×3°5W±8°2, h10^{km}, M5.4, mB5.9, mb5.4, Mw(mB)5.5*
ISC 28 08:46:40.3±1.1**, 60°.40S**±0°.06×**28°.65W**±0°.06**, h13**^{km}±6^{km}**, n277, σ1^{s}25**/255**, mb5.1**/72**, MS4.2**/35**, 6C-1D, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HOPE	**Hope Point**	**7.45**	**322**	P	**Pn**	**08 48 26.5**	**-2.0**
HOPE	**Hope Point**	**7.45**	**322**	Pn	**Pn**	**08 48 26.4**	**-2.0**
ORCD	**Orcadas**	**7.93**	**261**		**Pn**	**08 48 32.9**	**-2.2**
VNA1	**Neumayer--Stat**	**13.21**	**149**	⇑P	**Pn**	**08 49 44.7**	**-2.5**
	comp=Z,32nm,0.4s						
VNA3	**Neumayer Olymp**	**13.28**	**153**	⇑P	**Pn**	**08 49 44.9**	**-3.3**
	comp=Z,101nm,0.8s						
VNA3				⇑S	Sn	08 52 04.6	-11
	comp=E,8.6nm,0.4s						
VNA3	**Neumayer Olymp**	**13.28**	**153**	P	**Pn**	**08 49 45.1**	**-3.1**
	comp=Z,114nm,0.8s						
VNA2	**Neumayer--Watz**	**13.61**	**150**	⇑P	**Pn**	**08 49 50.4**	**-2.3**
	comp=Z,8.3nm,0.3s,baz=302,slow=15						
ESPZ	**Base Esperanza**	**13.63**	**245**	Pn	**Pn**	**08 49 54.2**	**+1.2**
SNAA	**Sanae**	**15.23**	**148**	⇑P	**Pn**	**08 50 13.8**	**-1.0**
	comp=Z,284nm,0.5s						
SNAA	**Sanae**	**15.23**	**148**	Pn	**Pn**	**08 50 12.0**	**-2.8**
	comp=Z,1.9nm,0.3s,baz=314,slow=12,SNR=18						
SNAA				Sn	Sn	08 52 49.6	-13
	comp=Z,0.3nm,0.3s,baz=354,slow=17,SNR=1.8						
SNAA				LR	LR	08 54 47.8	
	comp=Z,2µm,20.7s,baz=346,slow=32						
	comp=Z,7.2nm,0.4s						
SNAA				AML	AML		
SNAA	**Sanae**	**15.23**	**148**	P	**Pn**	**08 50 12.0**	**-2.8**
SNAA	**Sanae**	**15.23**	**148**		**Pn**	**08 50 13.1**	**-1.6**
SNAA	**Sanae**	**15.23**	**148**	P	**Pn**	**08 50 14.1**	**-0.7**
	comp=Z,24nm,1.3s						
PMSA	**Palmer Station**	**16.72**	**240**	Pn	**P**	**08 50 35.5**	**-0.5**
	comp=Z,2.1nm,0.3s,baz=78,slow=9.5,SNR=23						
PMSA				Sn	Sn	08 53 12.9	-26
	comp=Z,0.7nm,0.3s,baz=85,slow=17,SNR=8.7						
PMSA				LR	LR	08 56 01.0	
	comp=Z,520nm,18.1s,baz=92,slow=34						
PMSA	**Palmer Station**	**16.72**	**240**	Pn	**Pn**	**08 50 31.6**	**-2.2**
PMSA	**Palmer Station**	**16.72**	**240**	eP	**Pn**	**08 50 32.2**	**-1.6**
PMSA	**Palmer Station**	**16.72**	**240**	P	**P**	**08 50 36.3**	**+0.2**
	comp=Z,38nm,2.0s						
TROLL	**Troll, Antarti**	**16.85**	**146**	⇑P	**Pn**	**08 50 35.5**	**-0.1**
	comp=Z,1µm,1.0s						
BELA	**Belgrano 2**	**17.67**	**184**		**Pn**	**08 50 46.6**	**+0.9**
EFI	**East Falkland**	**18.46**	**285**	P	**P**	**08 50 53.0**	**-2.4**
EFI				pmax	pmax		
	comp=Z,98nm,1.1s						
EFI	**East Falkland**	**18.46**	**285**	P	**P**	**08 50 53.0**	**-2.4**
NVL	**N'lazarevskaya**	**19.24**	**139**	eP	**P**	**08 50 57.4**	**-6.4**
NVL				eS	**Sn**	**08 54 35.8**	**-4.1**
NVL				pmax	pmax		
	comp=Z,15nm,0.7s						
NVL				MLR	MLR		
	comp=Z,243nm,15.0s						
USHA	**Ushuaia**	**21.76**	**267**	P	**P**	**08 51 32.1**	**+0.9**
	comp=Z,17nm,0.7s,baz=247,slow=4.2,SNR=1.4						
	comp=Z,17nm,0.7s						
ELIB	**Princess Elisa**	**23.06**	**141**	dP	**P**	**08 51 46.4**	**+1.4**
	comp=Z,9.0nm,1.3s						
MG03	**Isla Dawson**	**23.29**	**268**	P	**P**	**08 51 47.1**	**-0.3**
MG03				IAmb	IAmb	08 51 55.9	
	comp=Z,87nm,1.2s						
GO10	**Punta Arenas**	**23.97**	**269**	P	**P**	**08 51 53.4**	**-0.6**
H09W1	**TRISTAN DA CUN**	**25.54**	**31**	T	T	09 19 12.3	
	SNR=3.5						
GO08	**Villa O'Higgin**	**27.63**	**276**	P	**P**	**08 52 27.4**	**+0.2**
GO08				IAmb	IAmb	08 52 34.6	
	comp=Z,81nm,1.9s						
QSPA	**South Pole Qui**	**29.84**	**180**	P	**P**	**08 52 48.5**	**+1.6**
	comp=Z,10nm,0.8s,baz=205,slow=2.9,SNR=37						
QSPA				PcP	**PcP**	**08 55 50.4**	**+0.9**
	comp=Z,4.8nm,0.8s,baz=98,slow=1.7,SNR=4.9						
QSPA				LR	LR	09 04 18.6	
	comp=Z,1µm,19.8s,baz=194,slow=35						
	comp=Z,10nm,0.8s						
QSPA	**South Pole Qui**	**29.84**	**180**	P	**P**	**08 52 48.0**	**+1.1**
QSPA				IAmb	IAmb	08 53 00.5	
	comp=Z,31nm,1.1s						
QSPA					**PcP**	**08 55 50.4**	**+0.9**
LL02	**Futaleuf**	**31.05**	**284**	P	**P**	**08 52 57.3**	**-0.3**
LL02				PcP	**PcP**	**08 55 55.1**	**+2.2**
ANCO	**Parque Anchore**	**32.32**	**311**	eP	**P**	**08 53 07.1**	**-1.6**
PLCA	**Paso Flores**	**32.32**	**288**	P	**P**	**08 53 08.8**	**-0.1**
	comp=Z,5.9nm,0.8s,baz=142,slow=9.3,SNR=25						
PLCA				PcP	**PcP**	**08 55 56.8**	**+0.4**
	comp=Z,1.8nm,0.8s,baz=156,slow=3.4,SNR=5.9						
PLCA				LR	LR	09 04 59.3	
	comp=Z,245nm,20.4s,baz=132,slow=34						
	comp=Z,5.9nm,0.8s						
PLCA	**Paso Flores**	**32.32**	**288**	P	**P**	**08 53 08.9**	**0.0**
PLCA				pmax	pmax		
	comp=Z,9.0nm,0.9s						
PLCA	**Paso Flores**	**32.32**	**288**	P	**P**	**08 53 08.9**	**0.0**
PLCA	**Paso Flores**	**32.32**	**288**	eP	**P**	**08 53 09.1**	**+0.2**
PLCA	**Paso Flores**	**32.32**	**288**	P	**P**	**08 53 09.1**	**+0.2**
	comp=Z,14nm,1.4s						
PLTB	**Pedras Altas**	**33.05**	**319**	eP	**P**	**08 53 16.8**	**+1.6**
GO06	**Curarrehue**	**33.66**	**289**	P	**P**	**08 53 19.7**	**-0.9**
LR03	**Panguipulli**	**34.03**	**288**	P	**P**	**08 53 23.2**	**-0.5**
LR03				IAmb	IAmb	08 53 24.9	
	comp=Z,18nm,0.9s						
CPSB	**Cacapava Do Su**	**34.26**	**320**	P	**P**	**08 53 25.1**	**-0.6**
CPSB				IAmb	IAmb	08 53 28.1	
	comp=Z,24nm,0.9s						
CPSB	**Cacapava Do Su**	**34.26**	**320**	eP	**P**	**08 53 26.5**	**+0.9**
CPSB	**Cacapava Do Su**	**34.26**	**320**	P	**P**	**08 53 22.7**	**-3.0**
CNLB	**Canela**	**34.49**	**324**	eP	**P**	**08 53 29.5**	**+1.7**
CNLB	**Canela**	**34.49**	**324**	P	**P**	**08 53 30.0**	**+2.2**
	comp=Z,79nm,0.8s						
PSAL	**Palomas, Salto**	**35.05**	**314**	eP	**P**	**08 53 30.6**	**-1.9**
ITQB	**Itaqui**	**35.99**	**316**	eP	**P**	**08 53 41.6**	**+1.0**
ML02	**Panimavida**	**36.73**	**293**	P	**P**	**08 53 46.2**	**-0.7**
ML02				IAmb	IAmb	08 53 53.4	
	comp=Z,23nm,1.1s						
BI05	**Punta Hualpn**	**36.74**	**290**	P	**P**	**08 53 46.4**	**-0.6**
MAW	**Mawson**	**37.18**	**141**	P	**P**	**08 53 51.4**	**+1.1**
	comp=Z,2.2nm,0.9s						
MAW	**Mawson**	**37.18**	**141**	P	**P**	**08 53 51.2**	**+0.9**
	comp=Z,2.2nm,0.9s						

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MAW   Mawson           37.18 141  P       P        08 53 51.3 +0.9
            comp=Z,3.3nm,0.8s,baz=246,slow=7.1,SNR=11
MAW                               PcP     PcP      08 56 11.2 +1.3
            comp=Z,5.6nm,0.8s,baz=249,slow=4.3,SNR=11
MAW                               LR      LR       09 08 03.9
            comp=Z,496nm,19.2s,baz=245,slow=34
            comp=Z,3.3nm,0.8s
MAW   Mawson           37.18 141          P        08 53 50.8 +0.4
MAW                                       PcP      08 56 11.3 +1.3
MAW   Mawson           37.18 141  P       P        08 53 51.7 +1.4
            comp=Z,2.2nm,0.9s
BO02  Sierra Bellavi   37.24 294          P        08 53 51.0 -0.3
BO01  Tunca            37.71 294  P       P        08 53 54.5 -0.8
BO01                              IAmb    IAmb     08 54 33.9
            comp=Z,79nm,1.9s
BO04  La Punta         37.84 295  P       P        08 53 55.5 -0.9
BO04                              IAmb    IAmb     08 53 58.9
            comp=Z,102nm,1.9s
MT08  Bocatoma Ro      38.03 296  P       P        08 53 58.7 +0.5
MT09  Talagante        38.18 295  P       P        08 53 59.5  0.0
MT09                              IAmb    IAmb     08 54 01.6
            comp=Z,31nm,0.9s
MT03  Universidad Ad   38.21 296  P       P        08 53 59.9 +0.3
MT03                              IAmb    IAmb     08 54 22.5
            comp=Z,37nm,1.1s
MT01  Popeta           38.23 294  P       P        08 53 59.3 -0.4
MT01                              IAmb    IAmb     08 54 01.0
            comp=Z,21nm,0.8s
MT16  CCHEN            38.27 296  P       P        08 53 59.8 -0.2
MT16                              IAmb    IAmb     08 54 03.6
            comp=Z,31nm,0.8s
VA05  Santo Domingo    38.57 294  P       P        08 54 01.8 -0.7
VA05                              IAmb    IAmb     08 54 04.2
            comp=Z,32nm,0.7s
PEL   Peldehue         38.58 296  P       P        08 54 03.0 +0.3
PEL                               pmax    pmax
            comp=Z,83nm,1.3s
PEL   Peldehue         38.58 296  P       P        08 54 03.0 +0.3
PEL   Peldehue         38.58 296  P       P        08 54 03.8 +1.1
            comp=Z,63nm,2.2s
MT02  Curacav          38.69 295          P        08 54 03.5  0.0
MT02                              IAmb    IAmb     08 54 06.0
            comp=Z,72nm,1.2s
CFA   Coronel Fontan   38.82 300  LR      LR       09 10 37.5
            comp=Z,77nm,19.1s,baz=193,slow=37
VA03  San Esteban      38.84 296  P       P        08 54 03.9 -1.0
VA03                              IAmb    IAmb     08 54 07.6
            comp=Z,44nm,0.8s
VA03  San Esteban      38.84 296  P       P        08 54 05.9 +1.0
            comp=Z,68nm,1.2s
SPB   Sao Paulo        39.04 332  P       P        08 54 06.9 +0.4
SPB                               IAmb    IAmb     08 54 11.0
            comp=Z,83nm,1.6s
SPB   Sao Paulo        39.04 332 eP       P        08 54 08.7 +2.2
ZON   Zonda            39.06 299  P       P        08 54 07.1 +0.4
ZON                               pmax    pmax
            comp=Z,78nm,1.9s
ZON   Zonda            39.06 299          P        08 54 07.1 +0.4
ZON                               IAmb    IAmb     08 54 12.7
            comp=Z,78nm,1.9s
CPUP  Villa Florida    39.30 317  P       P        08 54 09.1 +0.5
            comp=Z,11nm,0.7s,baz=156,slow=8.4,SNR=35
CPUP                              LR      LR       09 08 42.8
            comp=Z,504nm,21.6s,baz=136,slow=34
            comp=Z,11nm,0.7s
CPUP  Villa Florida    39.30 317  P       P        08 54 08.9 +0.3
CPUP                              pmax    pmax
            comp=Z,11nm,0.9s
CPUP  Villa Florida    39.30 317          P        08 54 08.9 +0.3
CPUP  Villa Florida    39.30 317 eP       P        08 54 09.3 +0.6
CPUP  Villa Florida    39.30 317  P       P        08 54 09.6 +1.0
            comp=Z,22nm,0.8s
VAO   Valinhos         39.51 333 eP       P        08 54 10.6 +0.1
CO04  Los Peladeros    39.64 296          P        08 54 11.7 -0.1
CO04                              IAmb    IAmb     08 54 17.6
            comp=Z,34nm,1.1s
SJPY  San Joaquin      40.13 320 eP       P        08 54 15.9 +0.3
LDASE Londrina, Braz   40.16 327 eP       P        08 54 16.9 +0.9
CO03  El Pedregal      40.54 298  P       P        08 54 19.5 +0.4
CO03                              IAmb    IAmb     08 55 18.2
            comp=Z,60nm,1.8s
BSCB  Bom Sucesso      40.98 337 eP       P        08 54 24.0 +1.2
CO01  Juntas del Tor   41.02 299  P       P        08 54 22.8 -0.4
CO01                              IAmb    IAmb     08 54 29.8
            comp=Z,72nm,2.0s
CO06  Fray Jorge       41.10 297  P       P        08 54 23.9 +0.3
TRCB  Terra Rica       41.15 325  P       P        08 54 23.9 -0.1
TRCB  Terra Rica       41.15 325 eP       P        08 54 24.8 +0.8
TRCB  Terra Rica       41.15 325  P       P        08 54 25.0 +1.0
            comp=Z,75nm,0.9s
SBA   Scott Base       41.67 185  P       P        08 54 28.7 +1.0
SBA                               pmax    pmax
            comp=Z,9.0nm,1.2s
SBA   Scott Base       41.67 185  P       P        08 54 28.7 +1.0
SBA   Scott Base       41.67 185  P       P        08 54 30.6 +2.9
            comp=Z,11nm,2.1s
BB19B Bebedouro        41.73 332 eP       P        08 54 30.1 +1.2
AC05  El Transito      42.09 300          P        08 54 32.3 +0.5
AC05                              IAmb    IAmb     08 54 33.7
            comp=Z,28nm,0.7s
AC05  El Transito      42.09 300  P       P        08 54 33.1 +1.2
            comp=Z,50nm,0.8s
VNDA  Vanda            42.18 183  P       P        08 54 33.8 +1.9
            comp=Z,6.5nm,0.7s,baz=186,slow=6.6,SNR=61
VNDA                              LR      LR       09 11 07.2
            comp=Z,185nm,19.4s,baz=168,slow=35
            comp=Z,6.5nm,0.7s
VNDA  Vanda            42.18 183  P       P        08 54 32.6 +0.8
VNDA                              pmax    pmax
            comp=Z,7.0nm,0.8s
VNDA  Vanda            42.18 183          P        08 54 32.6 +0.8
VNDA  Vanda            42.18 183  P       P        08 54 34.0 +2.1
            comp=Z,12nm,0.9s
SJMB  Sao Joao De Ma   42.60 342 eP       P        08 54 37.2 +1.2
SUR   Sutherland       42.64  72  LR      LR       09 08 52.2
            comp=Z,98nm,19.4s,baz=194,slow=31
GO03  Copiapo          43.15 301  P       P        08 54 40.1 -0.3
GO03                              IAmb    IAmb     08 56 16.5
            comp=Z,22nm,0.8s
AC02  Maricunga        43.35 302          P        08 54 42.9 +0.4
AC02  Maricunga        43.35 302  P       P        08 54 44.2 +1.7
            comp=Z,29nm,0.9s
DIAM  Diamantina, MG   43.41 339 eP       P        08 54 42.8 +0.2
PMNB  Patos De Minas   43.71 335 eP       P        08 54 46.5 +1.5
PMNB  Patos De Minas   43.71 335  P       P        08 54 47.2 +2.2
            comp=Z,34nm,1.1s
MURT  Porto Murtinho   43.73 319 eP       P        08 54 44.5 -0.5
AQDB  Aquidauana       44.24 322  P       P        08 54 49.1  0.0
AQDB                              IAmb    IAmb     08 54 57.1
            comp=Z,32nm,1.5s
AQDB  Aquidauana       44.24 322 eP       P        08 54 49.1  0.0
AQDB  Aquidauana       44.24 322  P       P        08 54 48.0 -1.1
            comp=Z,15nm,1.5s
GUA01 Guaratinga, BA   44.49 345 eP       P        08 54 52.2 +1.1
ARCA  Ara§uai, MG      44.55 342 eP       P        08 54 50.3 -1.3
IPMB  Ipameri, GO      44.63 333 eP       P        08 54 54.0 +1.7
C2SB  Chapadao do Su   45.03 327 eP       P        08 54 57.0 +1.6
C2SB  Chapadao do Su   45.03 327  P       P        08 54 57.1 +1.6
            comp=Z,48nm,0.9s
COIM  Forte Coimbra    45.42 320 eP       P        08 54 58.6 +0.1
AF01  San Pedro de A   46.41 306  P       P        08 55 05.6 -1.0
H04S2 CROZET ISLANDS46.58 111     T       T        09 45 57.6
            baz=222,slow=76,SNR=1833
H04S3 CROZET ISLANDS46.59 111     T       T        09 46 04.2
            baz=222,slow=76,SNR=1343
H04S1 CROZET ISLANDS46.60 111     T       T        09 45 59.4
            baz=222,slow=76,SNR=1484
PP1B  Ponte de Pedra   46.71 325 eP       P        08 55 09.3 +0.5
BDFB  Brasilia         46.86 334  P       P        08 55 11.1 +1.2
            comp=Z,18nm,0.9s,baz=138,slow=3.7,SNR=17
BDFB                              LR      LR       09 12 06.4
            comp=Z,224nm,20.6s,baz=157,slow=33
            comp=Z,18nm,0.9s
BDFB  Brasilia         46.86 334  P       P        08 55 09.5 -0.5
BDFB                              pmax    pmax
            comp=Z,42nm,1.3s
BDFB  Brasilia         46.86 334  P       P        08 55 09.5 -0.5
H04N3 CROZET ISLANDS47.03 111     T       T        09 46 35.8
            baz=221,slow=75,SNR=40
H04N1 CROZET ISLANDS47.04 111     T       T        09 46 36.7
            baz=221,slow=75,SNR=31
H04N2 CROZET ISLANDS47.05 111     T       T        09 46 43.3
            baz=221,slow=75,SNR=42
PB05  IPOC Station P   47.32 304  P       P        08 55 13.3 -0.3
PB05                              IAmb    IAmb     08 55 15.1
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            comp=Z,24nm,1.0s
ARAG  Araguaiana, MT   47.69 329 eP       P        08 55 17.4 +1.1
PB03  IPOC Station P   47.85 305  P       P        08 55 17.7  0.0
PB03                              IAmb    IAmb     08 55 19.4
            comp=Z,22nm,0.9s
BOSA  Boshof           47.88  73  P       P        08 55 18.1 +0.2
            comp=Z,7.7nm,0.9s,baz=205,slow=8.4,SNR=10
BOSA                              PcP     PcP      08 56 47.3 +1.0
            comp=Z,8.3nm,0.8s,baz=212,slow=4.6,SNR=3.5
BOSA                              LR      LR       09 10 50.7
            comp=Z,116nm,21.4s,baz=208,slow=30
            comp=Z,7.7nm,0.9s
BOSA  Boshof           47.88  73  P       P        08 55 18.7 +0.8
BOSA                              IAmb    IAmb     08 55 26.1
            comp=Z,17nm,0.8s
BOSA                                      PcP      08 56 46.7 +0.4
BOSA  Boshof           47.88  73  P       P        08 55 19.8 +1.9
            comp=Z,32nm,0.8s
PB07  IPOC Station P   48.19 305  P       P        08 55 20.0 -0.4
SALV  Santo Antonio    48.56 324 eP       P        08 55 23.3 +0.3
PB02  IPOC Station P   48.56 305  P       P        08 55 23.0 -0.2
WIN   Windhoek         49.35  61  P       P        08 55 29.4  0.0
WIN                               pmax    pmax
            comp=Z,23nm,0.4s
WIN   Windhoek         49.35  61  P       P        08 55 29.4  0.0
WIN   Windhoek         49.35  61  P       P        08 55 31.1 +1.8
            comp=Z,19nm,1.1s
SDBA  SAO DESIDERIO    49.38 339 eP       P        08 55 29.6 +0.2
GO01  Chusmiza         49.76 307  P       P        08 55 34.1 +1.3
            comp=Z,40nm,0.8s
LKGWB Lokgwabe         49.83  66  P       P        08 55 34.6 +1.7
PB11  IPOC Station P   49.86 306  P       P        08 55 33.3 +0.1
PB11                              IAmb    IAmb     08 55 35.0
            comp=Z,23nm,0.8s
MAKGR Makgori          50.03  71  P       P        08 55 34.5 +0.1
MAKGR                             IAmb    IAmb     08 55 42.9
            comp=Z,17nm,0.9s
PTLB  Pontes e Lacer   50.03 320  P       P        08 55 34.6 +0.3
PTLB                              IAmb    IAmb     08 55 35.8
            comp=Z,27nm,0.8s
PTLB  Pontes e Lacer   50.03 320 eP       P        08 55 34.9 +0.6
NBPN  Ponto Novo - B   50.20 345 eP       P        08 55 35.8 +0.1
LBTB  Lobatse          51.08  71  LR      LR       09 13 42.3
            comp=Z,134nm,18.7s,baz=214,slow=32
LBTB  Lobatse          51.08  71  P       P        08 55 42.9 +0.6
LBTB  Lobatse          51.08  71  P       P        08 55 42.9 +0.6
LBTB  Lobatse          51.08  71  P       P        08 55 43.7 +1.3
            comp=Z,29nm,1.1s
SNDB  Serra Nova Dou   51.15 331 eP       P        08 55 43.9 +1.1
AP01  Chacalluta       51.39 306  P       P        08 55 48.5 +3.9
            comp=Z,1µm,0.4s
KDWAN Kaudwane         52.04  69  P       P        08 55 49.3 -0.2
KDWAN                             IAmb    IAmb     08 55 57.3
            comp=Z,23nm,1.0s
POGA  Pongola          52.04  79          P        08 55 49.3 -0.1
POGA  Pongola          52.04  79  P       P        08 55 51.3 +1.9
            comp=Z,152nm,0.8s
GRTLG Ghanzi           52.22  64  P       P        08 55 49.5 -1.3
GRTLG                             IAmb    IAmb     08 55 58.3
            comp=Z,21nm,0.8s
H10S2 ASCENSION HYDR52.40  18     T       T        09 52 50.6
            baz=188,slow=74,SNR=1408
H10S3 ASCENSION HYDR52.40  18     T       T        09 52 50.8
            baz=32,slow=74,SNR=1490
LPAZ  La Paz           52.41 310  P       P        08 55 53.8 +0.9
            comp=Z,14nm,0.8s,baz=151,slow=4.9,SNR=55
LPAZ                              LR      LR       09 19 37.7
            comp=Z,173nm,19.9s,baz=142,slow=38
            comp=Z,14nm,0.8s
LPAZ  La Paz           52.41 310  P       P        08 55 52.7 -0.2
LPAZ  La Paz           52.41 310 eP       P        08 55 52.5 -0.5
LPAZ  La Paz           52.41 310  P       P        08 55 54.0 +1.1
            comp=Z,22nm,1.0s
TSUM  Tsumeb           52.53  59  LR      LR       09 12 50.1
            comp=Z,218nm,21.3s,baz=326,slow=30
LPHEP Lephephe         52.62  70  P       P        08 55 54.4 +0.6
LPHEP                             IAmb    IAmb     08 56 15.3
            comp=Z,44nm,1.3s
VILB  Vilhena          52.71 320          P        08 55 54.8 +0.4
VILB  Vilhena          52.71 320 eP       P        08 55 54.9 +0.4
DRV   Dumont d'Urvil   52.97 174  P       P        08 55 56.2 +0.5
SMTB  Santa Maria do   53.35 336 eP       P        08 56 00.2 +1.0
CLDB  Colider          53.37 326 eP       P        08 55 59.0 -0.3
CLDB  Colider          53.37 326  P       P        08 55 59.2 -0.1
            comp=Z,30nm,0.9s
H10N1 ASCENSION HYDR53.51  18     T       T        09 54 14.8
            baz=188,slow=75,SNR=180
H10N3 ASCENSION HYDR53.52  18     T       T        09 54 28.1
            baz=188,slow=75,SNR=490
H10N2 ASCENSION HYDR53.53  18     T       T        09 54 16.1
            baz=188,slow=75,SNR=334
KHWEE KHWEE            53.64  69  P       P        08 56 02.2 +0.8
KHWEE                             PcP     PcP      08 57 07.6  0.0
MREMI Moremi           54.04  71  P       P        08 56 04.9 +0.6
RCBR  Riachuelo        54.72 351  LR      LR       09 14 18.2
            comp=Z,87nm,21.4s,baz=202,slow=30
MATP  Matopo           56.38  71  LR      LR       09 16 56.8
            comp=Z,116nm,18.0s,baz=236,slow=32
KSANE Kasane           57.11  66  P       P        08 56 26.8 +0.4
KSANE                             IAmb    IAmb     08 56 33.8
            comp=Z,16nm,0.8s
ITTB  Itaituba         59.58 328 eP       P        08 56 43.3 -0.1
NNA   Nana             59.80 302  LR      LR       09 20 39.3
            comp=Z,103nm,21.1s,baz=135,slow=34
LSZ   Lusaka           60.70  68  LR      LR       09 19 57.6
            comp=Z,116nm,18.9s,baz=218,slow=33
LSZ   Lusaka           60.70  68  P       P        08 56 51.9 +0.6
LSZ                               pmax    pmax
            comp=Z,15nm,0.9s
LSZ   Lusaka           60.70  68          P        08 56 51.9 +0.6
LSZ                               IAmb    IAmb     08 56 58.5
            comp=Z,15nm,0.8s
LSZ   Lusaka           60.70  68  P       P        08 56 52.1 +0.8
            comp=Z,20nm,0.9s
CZSB  Cruzeiro do Su   61.99 309  P       P        08 56 59.5 -0.4
CZSB  Cruzeiro do Su   61.99 309 eP       P        08 56 59.3 -0.7
MACA  Manacapuru-AM    62.11 323  P       P        08 57 00.0 -0.7
MACA  Manacapuru-AM    62.11 323 eP       P        08 56 59.5 -1.2
BOAV  Boa Vista        67.34 325  P       P        08 57 34.4 -0.3
BOAV  Boa Vista        67.34 325  P       P        08 57 34.5 -0.3
            comp=Z,31nm,0.7s
BOAV  Boa Vista        67.34 325 eP       P        08 57 34.0 -0.8
MCRA  Macar, Loja      67.96 303  P       P        08 57 37.0 -1.8
            comp=Z,15nm,0.6s
MDP   Montagnes des    67.97 334  LR      LR       09 25 05.6
            comp=Z,288nm,21.5s,baz=144,slow=34
DBIC  Dimbokro         69.45  25  P       P        08 57 47.8 -0.1
            comp=Z,4.5nm,0.6s,baz=200,slow=10,SNR=5.5
DBIC                              LR      LR       09 20 59.3
            comp=Z,333nm,21.7s,baz=192,slow=30
            comp=Z,4.5nm,0.6s
DBIC  Dimbokro         69.45  25  P       P        08 57 47.9 -0.1
DBIC                              pmax    pmax
            comp=Z,21nm,1.4s
DBIC  Dimbokro         69.45  25  P       P        08 57 47.9 -0.1
DBIC                              IAmb    IAmb     09 00 00.5
            comp=Z,21nm,1.4s
PTLC  Puerto Leguiza   70.04 310  P       P        08 57 50.0 -1.7
            comp=Z,67nm,0.9s
SLOR  San Lorenzo -    70.67 306  P       P        08 57 56.1 +0.1
MACC  Macarena, Meta   71.50 312  P       P        08 58 00.5  0.0
            comp=Z,12nm,0.8s
OTAV  Otavalo          71.53 306  P       P        08 58 00.7 -0.6
OTAV                              pmax    pmax
            comp=Z,11nm,0.8s
OTAV  Otavalo          71.53 306  P       P        08 58 00.7 -0.6
OTAV                              IAmb    IAmb     08 58 06.6
            comp=Z,11nm,0.8s
OTAV  Otavalo          71.53 306  P       P        08 58 02.6 +1.3
            comp=Z,15nm,0.8s
OTAV  Otavalo          71.53 306 eP       P        08 58 00.8 -0.4
OTAV  Otavalo          71.53 306  P       P        08 58 02.7 +1.5
            comp=Z,15nm,0.9s
TULM  Tulcn-Chalpat    71.70 307  P       P        08 58 03.9 +1.6
            comp=Z,48nm,0.8s
CMBC  Cumbal           71.92 307  P       P        08 58 06.1 +2.5
GARC  Garzon, Huila    72.16 310  P       P        08 58 05.0 +0.2
            comp=Z,36nm,0.8s
POPC  Popayan, Colom   72.93 309  P       P        08 58 10.3 +0.9
            comp=Z,284nmcomp=Z,28nm,1.0s
ORTC  Ortega, Tolima   73.65 311  P       P        08 58 14.0 +0.7
            comp=Z,487nmcomp=Z,57nm,1.0s
ROSC  El Rosal         74.16 312  P       P        08 58 16.6 -0.2
            comp=Z,8.1nm,0.7s,baz=173,slow=8.0,SNR=5.8
ROSC                              LR      LR       09 31 26.3
            comp=Z,200nm,20.7s,baz=96,slow=36
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            comp=Z,8.1nm,0.7s
ROSC  El Rosal         74.16 312  P       P        08 58 16.3 -0.4
MBAR  Mbarara          74.82  63  LR      LR       09 27 40.8
            comp=Z,76nm,20.6s,baz=92,slow=33
RPZ   Rata Peaks       75.00 195  LR      LR       09 30 04.5
            comp=Z,48nm,18.7s,baz=269,slow=35
SDV   Santo Domingo    76.62 317  LR      LR       09 32 27.8
            comp=Z,416nm,21.4s,baz=101,slow=36
SDV   Santo Domingo    76.62 317  P       P        08 58 31.0 +0.4
SDV                               IAmb    IAmb     08 58 32.3
            comp=Z,16nm,0.8s
SDV   Santo Domingo    76.62 317  P       P        08 58 31.1 +0.5
SDV   Santo Domingo    76.62 317  P       P        08 58 31.1 +0.5
            comp=Z,177nm,1.3s
TOA0  Torodi Ar. Sit   77.22  30  P       P        08 58 32.9 -0.8
TORD  Torodi Ar. Bea   77.22  30  P       P        08 58 33.9 +0.1
            comp=Z,6.2nm,0.6s,baz=194,slow=6.5,SNR=40
            comp=Z,6.2nm,0.6s
TORD  Torodi Ar. Bea   77.22  30  P       P        08 58 33.9 +0.1
TORD                              IAmb    IAmb     08 59 59.1
            comp=Z,18nm,0.9s
URZ   Urewera          79.44 200  LR      LR       09 29 25.4
            comp=Z,207nm,21.5s,baz=165,slow=32
NWAO  Narrogin (SRO)   82.88 152  LR      LR       09 30 46.8
            comp=Z,116nm,21.6s,baz=144,slow=32
JTS   Las Juntas de    83.28 304  LR      LR       09 35 35.8
            comp=Z,95nm,21.8s,baz=129,slow=35
SJG   San Juan         83.89 324  LR      LR       09 38 13.4
            comp=Z,137nm,19.1s,baz=141,slow=37
CAN   Canberra         84.61 178  P       P        08 59 13.2 +0.1
            comp=Z,27nm,2.9s
CAN   Canberra         84.61 178  P       P        08 59 13.2 +0.1
RAO   Raoul Island     87.19 207  LR      LR       09 31 54.2
            comp=Z,87nm,20.9s,baz=118,slow=31
STKA  Stephens Creek   87.71 172  P       P        08 59 28.9 +0.5
            comp=Z,1.6nm,0.7s,baz=243,slow=6.8,SNR=2.1
STKA                              LR      LR       09 36 05.3
            comp=Z,586nm,21.6s,baz=197,slow=34
            comp=Z,1.6nm,0.7s
STKA  Stephens Creek   87.71 172  P       P        08 59 29.0 +0.5
PPT2  Papeete2         89.00 235 eLR      LR       09 27 44.5
            comp=Z,154nm,25.0s
PPT2                             eLR      LR       09 27 45.8
            comp=Z,163nm,27.5s
PPT   Papeete          89.02 235  LR      LR       09 31 23.2
            comp=Z,60nm,19.8s,baz=124,slow=30
RAR   Rarotonga        89.56 225  LR      LR       09 36 47.2
            comp=Z,90nm,18.5s,baz=136,slow=34
TAOE  Nuku Hiva Isla   92.70 247 eLR      LR       09 29 40.5
            comp=Z,79nm,22.0s
MDT   Midelt           94.96  20  LR      LR       09 39 29.8
            comp=Z,105nm,18.5s,baz=208,slow=33
ASAR  Alice Springs    95.03 164  P       P        09 00 02.4 -0.3
            comp=Z,1.4nm,0.9s,baz=186,slow=5.3,SNR=6.1
ASAR                              PP      PP       09 03 56.2 +5.2
            comp=Z,0.7nm,0.8s,baz=182,slow=8.2,SNR=4.2
ASAR                              LR      LR       09 41 21.5
            comp=Z,284nm,18.1s,baz=198,slow=34
            comp=Z,1.4nm,0.9s
ASAR  Alice Springs    95.03 164  P       P        09 00 02.6 -0.1
ASAR  Alice Springs    95.03 164  P       P        09 00 02.6 -0.1
AS31  Alice Springs    95.04 164  P       P        09 00 01.5 -1.2
WRA   Warramunga Arr   98.76 164  P       P        09 00 18.3 -1.3
            comp=Z,0.8nm,0.9s,baz=189,slow=3.9,SNR=3.6
            comp=Z,0.8nm,0.9s
FITZ  Fitzroy Crossi   99.06 155  LR      LR       09 41 02.2
            comp=Z,144nm,21.9s,baz=182,slow=33
CTA   Charters Tower   99.69 175  LR      LR       09 44 24.9
            comp=Z,347nm,19.6s,baz=206,slow=35
HYB   Hyderabad       113.48  96 ePKiKP   PKiKP    09 05 18.3 +0.5
HYB                              eSKSac   SKSac    09 12 03.2 +0.7
HYB                              eSKKSac  SKKSac   09 13 10.0 -0.8
CLL   Collm           116.29  28  L       L        09 43 00.0
CLL                               AMS     AMS      09 50 00.0
            comp=Z,100nm,20.8s
PDAR  Pinedale Array  121.97 301  PKP     PKPdf    09 05 32.4 -1.2
            comp=Z,0.8nm,0.8s,baz=146,slow=4.2,SNR=7.2
NVAR  Mina Array Bea  122.34 292  PKP     PKPdf    09 05 33.0 -1.4
            comp=Z,1.1nm,0.8s,baz=157,slow=2.0,SNR=8.2
CMAR  Chiang Mai Arr  124.10 115  PKP     PKPdf    09 05 38.1 -0.1
            comp=Z,3.5nm,0.8s,baz=232,slow=3.7,SNR=14
HFS   Hagfors         124.60  24  PKP     PKPdf    09 05 37.8 +0.1
            comp=Z,1.5nm,0.8s,baz=142,slow=7.3,SNR=1.8
NB2   NORSAR Subarra124.95  22    PKPdf   PKPdf    09 05 37.7 -0.7
            comp=Z,3.4nm,0.8s,baz=203,slow=2.0
NOA   NORSAR Array B124.95  22    PKP     PKPdf    09 05 37.5 -0.9
            comp=Z,1.1nm,0.7s,baz=202,slow=1.8,SNR=7.2
FINES FINESS Array B  128.57  30  PKP     PKPdf    09 05 44.7 -0.5
            comp=Z,1.6nm,0.7s,baz=113,slow=4.4,SNR=6.1
ARCES ARCESS Array B  135.26  24  PKP     PKPdf    09 05 58.0 +0.3
            comp=Z,3.7nm,1.0s,baz=219,slow=2.3,SNR=5.2
BVAR  Borovoye Array  137.64  62  PKhKP   PKPpre   09 05 51.4
            comp=Z,1.2nm,0.5s,baz=248,slow=1.6,SNR=4.5
BVAR                              PKP     PKPdf    09 06 02.4 -0.3
            comp=Z,1.7nm,0.4s,baz=90,slow=1.5,SNR=5.8
MKAR  Makanchi Array  138.82  77  PKhKP   PKPpre   09 05 55.8
            comp=Z,1.0nm,0.9s,baz=248,slow=6.3,SNR=5.3
MKAR                              PKP     PKPdf    09 06 05.3 +0.3
            comp=Z,1.7nm,0.8s,baz=298,slow=2.6,SNR=8.3
KURBB Kurchatov Arra  139.69  70  PKhKP   PKPpre   09 05 57.2
            comp=Z,0.9nm,0.7s,baz=234,slow=3.5,SNR=5.8
KURBB                             PKP     PKPdf    09 06 05.0 -1.4
            comp=Z,2.0nm,0.7s,baz=234,slow=2.7,SNR=9.8
KURK  Kurchatov       139.80  70  PKIKP   PKPdf    09 06 05.0 -1.6
NJ2   Nanjing         144.49 128 eP       PKPbc    09 06 15.3 +1.1
NJ2                               pmax    pmax
            comp=Z,21nm,0.6s
ZAA0  Zalesovo Array  144.79  70          PKPab    09 06 14.1 -0.3
ZALV  Zalesovo Beam   144.79  70  PKP     PKPab    09 06 14.1 -0.3
            comp=Z,13nm,0.5s,baz=244,slow=3.8,SNR=56
SKAG  Skagway         145.00 301  PKPdf   PKPab    09 06 15.2 +0.2
WHY   Whitehorse      145.47 303  PKPbc   PKPdf    09 06 16.0 -0.6
M31M  Drury Creek, Y  146.09 306  PKPdf   PKPdf    09 06 18.2 +0.8
N31M  Braeburn, Yuko  146.28 304  PKPdf   PKPdf    09 06 17.8 -0.1
H31M  Peel River      147.81 312  PKPdf   PKPdf    09 06 21.3 +1.1
BTO2  Baotou          147.89 109 eP       PKPbc    09 06 24.8 +0.5
BTO2                              pmax    pmax
            comp=Z,44nm,1.0s
BTO2                              pmax    pmax
            comp=Z,370nm,7.9s
HHC   Hu-ho-hao-te    148.76 111 eP       PKPdf    09 06 20.0 -2.7
JNU   Nakatsue        149.59 145  PKPbc   PKPbc    09 06 29.2 +0.5
            comp=Z,18nm,0.8s,baz=208,slow=12,SNR=7.0
BJI2  Beijing         150.18 117  PKP     PKiKP    09 06 31.3 +0.5
MOY   Mondy           151.21  85 ePKIKP   PKPbc    09 06 32.3 +0.1
MOY                               pmax    pmax
            comp=Z,36nm,2.3s
SONM  Songino Array   151.42  96  PKP     PKPdf    09 06 27.0 +0.3
            comp=Z,0.6nm,0.3s,baz=220,slow=3.4,SNR=3.6
SONM                              PKPbc   PKPbc    09 06 32.9 +0.1
            comp=Z,12nm,0.9s,baz=223,slow=2.0,SNR=31
SONM                              PKPab   sPKPbc   09 06 38.8 +1.4
            comp=Z,16nm,0.8s,baz=226,slow=2.5,SNR=19
ZAK   Zakamensk       151.55  89 ePKIKP   PKPbc    09 06 32.7 -0.3
ZAK                               pmax    pmax
            comp=Z,13nm,0.9s
ILAR  Eielson Array   152.25 306  PKPbc   PKPbc    09 06 33.1 -0.8
            comp=Z,13nm,1.0s,baz=175,slow=0.7,SNR=45
KSRS  Korea Array     152.65 136  PKP     PKPdf    09 06 29.1 +0.5
            comp=Z,0.5nm,0.4s,baz=163,slow=1.3,SNR=2.4
KSRS                              PKPbc   PKPbc    09 06 35.9 +0.2
            comp=Z,4.0nm,0.9s,baz=183,slow=1.9,SNR=12
HILR  Hailar Array B  159.09 107  PKPab   PKPab    09 07 14.4 +0.6
            comp=Z,1.7nm,0.4s,baz=189,slow=18,SNR=3.6
KLR   Kul'dur         164.18 126  PKP     PKPdf    09 06 40.8 -1.3
            comp=Z,1.7nm,0.8s,baz=210,slow=3.0,SNR=4.4
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*SDD **28** 08:49:30.2±3.2, 18.°73N×70.°77W, $h23^{km}\pm15^{km}$, MD3.0, ML2.5, MW2.9, Presumed earthquake*

*OSPL **28** 08:49:33.6±0.7, 18.°72N×70.°81W, $h8^{km}\pm3^{km}$, ML2.2, Presumed earthquake*

ISC 28 08:49:32.1±1.0**, 18.°71N**±0.°03×**70.°79W**±0.°03**, $h23^{km}\pm10^{km}$, n18, $\sigma 1\overset{s}{.}36$/33, 15C, Dominican Republic region**

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Code  Station Name      Δ°   AZ°    Phase ID          Time      Res
                                   Op      ISC      h  m  s     ISC
ABDR  Alto Bandera      0.18  57⇑ePg      Pn       08 49 37.2 -2.7
ABDR                           ⇑eSg       Sb       08 49 40.6 -0.9
ABDR                              IAML             08 49 40.8
            comp=N,3µm,0.4s
BANI  BANI              0.52 128⇑ePg      Pn       08 49 43.5 -0.8
BANI                           ⇑eSg       Sn       08 49 52.1 -0.3
BANI                              IAML             08 49 53.2
            comp=N,395nm,0.3s
SDDR  Presa de Saban    0.54 300 i P      Pn       08 49 43.0 -1.6
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Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
SDDR				eS	Sb	08 49 49.9	-0.6
SDDR				IAML		08 49 55.5	
	comp=Z,158nm,0.3s						
SDDR	Presa de Saban	0.54	300	⇑ePg	Pn	08 49 42.9	-1.6
SDDR				⇑eSg	Sn	08 49 50.6	-2.4
SDDR				IAML		08 49 54.2	
	comp=N,233nm,0.9s						
NEDR	Neiba UASD	0.64	249	ePg	Pn	08 49 45.5	-0.3
NEDR				⇑eSg	Sn	08 49 55.7	+0.4
NEDR				IAML		08 49 57.0	
	comp=N,76nm,0.2s						
LONE3	El Aguacate, B	0.64	260	i P	Pn	08 49 44.8	-1.2
LONE3				eS	Sn	08 49 53.6	-1.9
LONE3				IAML		08 49 55.7	
	comp=Z,71nm,0.4s						
SC01	Santiago de lo	0.71	5	i P	Pn	08 49 46.5	-0.4
SC01				eS	Sn	08 49 55.9	-1.2
SC01				IAML		08 49 59.2	
	comp=Z,109nm,0.3s						
SC01	Santiago de lo	0.71	5	⇑ePg	Pn	08 49 46.6	-0.2
SC01				⇑eSg	Sn	08 49 56.8	-0.3
SC01				IAML		08 49 58.5	
	comp=N,132nm,0.2s						
PODR	Polo	0.72	221	i P	Pn	08 49 46.3	-0.7
PODR				eS	Sn	08 49 56.0	-1.5
PODR				IAML		08 50 02.5	
	comp=Z,1µm,0.2s						
PODR	Polo	0.72	221	⇑ePg	Pn	08 49 46.4	-0.6
PODR				⇑eSg	Sn	08 49 58.1	+0.7
PODR				IAML		08 50 05.2	
	comp=N,193nm,0.3s						
LODU1	El Espartillar	0.74	241	i P	Pn	08 49 47.4	+0.1
LODU1				IAML		08 50 00.8	
	comp=Z,125nm,0.3s						
SDD	Santo Domingo	0.87	107	i P	Pn	08 49 49.6	+0.6
SDD				eS	Sn	08 50 01.3	+0.4
SDD				IAML		08 50 03.3	
	comp=Z,47nm,0.5s						
JIDR	Jimani	1.03	258	ePg	Pb	08 49 51.8	+0.5
JIDR				⇑eSg	Sn	08 50 07.5	+2.6
JIDR				IAML		08 50 07.8	
	comp=N,130nm,0.6s						
LOVI	El Cajuil, Ovi	1.06	211	i P	Pb	08 49 52.1	+0.2
LOVI				IAML		08 50 11.8	
	comp=Z,41nm,0.7s						
LOBH	Bahia de las A	1.17	224	i P	Pb	08 49 54.1	+0.4
LOBH				IAML		08 50 22.6	
	comp=Z,33nm,1.7s						
LUDR	Luperon	1.18	353	⇑ePg	Pb	08 49 56.0	+2.0
LUDR				⇑eSg	Sb	08 50 11.9	+3.1
LOPP1	Punta Rusia, P	1.20	341	i P	Pb	08 49 54.7	+0.5
LOPP1				eS	Sb	08 50 10.2	+0.9
LOPP1				IAML		08 50 14.9	
	comp=Z,48nm,0.3s						
HATOM	Hato Mayor del	1.34	87	ePg	Pb	08 49 56.7	+0.1
HATOM				⇑eSg	Sb	08 50 13.9	+0.7
HATOM				IAML		08 50 17.3	
	comp=N,52nm,0.9s						

DJA 28 08:50:10.0±0.3**, 4°N**±3°×**9°8E**±°**, h10**km**, M3.3**/10**, MLv3.3**/10**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LHMI	Lhok Sumawe	1.56	334	P	Pn	08 50 38.0	+0.2
LHMI				S	Sb	08 50 59.2	+0.4
LHMI				AML	AML		
LHMI	Lhok Sumawe	1.56	334	P	Pn	08 50 36.6	-1.2
LHMI				S	Sb	08 50 59.0	+0.2
LHMI				AML	AML		
PSI	Prapat	1.63	128	P	Pb	08 50 40.5	+0.2
PSI	Prapat	1.63	128	P	Pb	08 50 40.3	0.0

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*NOU **28** 08:50:30.6, 18°10S×176°95W, h374km, mb4.5/30, Fiji Islands Region*
*NEIC **28** 08:50:34.1±1.4, 18°12S±0°09×177°25W±0°09, h390km±6km, mb4.2/61, Error ellipse: s-maj=13.8km s-min=12.2km az=166.0*
*IDC **28** 08:50:35.3±1.1, 18°19S×177°42W, h397km±10km, mb3.6/17, mbtmp4.4/19, Error ellipse: s-maj=12.8km s-min=9.4km az=136.0*
ISC 28 08:50:34.5±0.4**, 18°14S**±0°06×**177°29W**±0°06**, h400**km**, n169, σ1s10**/165**, mb4.2**/46**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LKBA	Tubou, Lakemba	1.45	266	P	Pn	08 51 22.6	-4.8
TAVE	Taveuni	2.87	299	P	Pn	08 51 33.5	-3.2
DGTI	Dogotuki	3.38	302	P	Pn	08 51 37.6	-3.3
FUTU	Fugatoga	3.89	348	Pn	Pn	08 51 44.0	-1.6
MSVF	Nonsavu	4.45	274	P	Pn	08 51 49.5	-1.6
	21nm,0.6s,baz=45,slow=9.7,SNR=18						
MSVF				S	S	08 52 52.4	-0.7
	60nm,1.1s,baz=113,slow=16,SNR=25						
MSVF	Nonsavu	4.45	274	P	Pn	08 51 49.4	-1.6
MSVF	Nonsavu	4.45	274		Pn	08 51 49.7	-1.3
MSVF				Sn	S	08 52 53.2	0.0
AFI	Afiamalu	6.77	52	P	Pn	08 52 07.9	-7.8
	169nm,0.6s,baz=179,slow=1.4,SNR=40						
AFI				S	S	08 53 22.5	-16
	36nm,0.8s,baz=48,slow=21,SNR=0.7						
AFI	Afiamalu	6.77	52	P	Pn	08 52 07.7	-8.0
FUNA	Funafuti	10.14	340		P	08 52 52.6	-1.1
RAO	Raoul Island	11.08	183	P	P	08 53 03.3	-0.7
MARNC	Mare, Loyalty	14.21	254	P	P	08 53 38.6	+0.2
MARNC	Mare, Loyalty	14.21	254	P	P	08 53 38.4	0.0
SANVU	Saraoutou	15.09	278	P	P	08 53 47.1	-0.9
YATNC	Mamie plateau,	15.36	253	P	P	08 53 51.7	+0.8
OUENC	Ouen Island, N	15.48	251	P	P	08 53 52.9	+0.7
OUENC	Ouen Island, N	15.48	251	P	P	08 53 50.8	-1.4
DZM	Mont Dzumac	15.77	253	P	P	08 53 55.0	-0.4
	26nm,0.8s,baz=82,slow=18,SNR=9.2						
ONTNC	Ouen Toro	15.81	252	P	P	08 53 56.4	+0.7
ONTNC	Ouen Toro	15.81	252	P	P	08 53 54.3	-1.4
NOUC	Port Laguerre	15.90	253	P	P	08 53 57.4	+0.7
RAR	Rarotonga	16.78	103	P	P	08 54 05.2	-0.9
KOUNC	Koumac, New Ca	17.55	259	P	P	08 54 13.6	-0.7
OUZ	Omahuta	18.84	204	P	P	08 54 26.9	-0.9
URZ	Urewera	20.64	193	P	P	08 54 43.2	-1.3
	6.9nm,0.4s,baz=114,slow=0.9,SNR=6.1						
URZ				S	S	08 58 11.0	+2.3
	9.1nm,0.7s,baz=126,slow=18,SNR=5.7						
	6.9nm,0.4s						
URZ	Urewera	20.64	193	P	P	08 54 43.5	-1.1
QRZ	Quartz Range	24.25	199	P	P	08 55 16.5	-0.8
TATA	Tatamba Isabel	24.28	291	P	P	08 55 18.5	+0.6
KHZ	Kahutara	25.43	196	P	P	08 55 26.9	-0.8
JCZ	Jackson Bay	28.39	201	P	P	08 55 53.5	-0.5
EIDS	Eidsvold	30.19	251	P	P	08 56 10.4	+0.4
EIDS	Eidsvold	30.19	251	P	P	08 56 09.9	-0.1
EIDS				IAmb	IAmb	08 56 10.4	
	comp=Z,12nm,0.8s						
ARMA	Armidale	30.75	241	P	P	08 56 15.7	+0.8
ARMA	Armidale	30.75	241	P	P	08 56 15.4	+0.5
ARMA				IAmb	IAmb	08 56 16.5	
	comp=Z,9.8nm,0.7s						
SYDH	Sydney Hard Ro	32.52	235	P	P	08 56 30.5	+0.5
CAN	Canberra	34.41	233	P	P	08 56 46.0	-0.2
CAN				IAmb	IAmb	08 57 01.2	
	comp=Z,17nm,1.3s						
CTA	Charters Tower	34.46	261	P	P	08 56 47.4	+0.7
CTAO	Charters Tower	34.46	261	P	P	08 56 47.5	+0.7
CTAO	Charters Tower	34.46	261	P	P	08 56 46.9	+0.2
CTAO				IAmb	IAmb	08 56 48.0	
	comp=Z,17nm,0.8s						
CMSA	Cobar Meteorol	35.97	241	P	P	08 57 00.0	+0.7
QLP	Quilpie	36.45	250	P	P	08 57 04.4	+1.0
TOO	Toolangi	37.85	232		P	08 57 15.9	+1.0
TOO				IAmb	IAmb	08 57 16.6	
	comp=Z,5.8nm,0.8s						
STKA	Stephens Creek	39.45	242	P	P	08 57 28.7	+0.5
	comp=Z,7.3nm,0.5s,baz=83,slow=9.3,SNR=35						
	comp=Z,7.3nm,0.5s						
STKA	Stephens Creek	39.45	242	P	P	08 57 29.1	+1.0
INKA	Innaminka	39.65	248	P	P	08 57 30.0	+0.2
MCQ	Macquarie Isla	40.62	201	P	P	08 57 37.1	-0.1
HTT	Hallett	41.95	240	P	P	08 57 49.3	+1.0
BBOO	Buckleboo	44.23	241	P	P	08 58 06.7	+0.5
BBOO	Buckleboo	44.23	241	P	P	08 58 06.3	0.0
BBOO				IAmb	IAmb	08 58 07.2	
	comp=Z,17nm,0.6s						
PTCN	Pitcairn Islan	44.25	108	P	P	08 58 05.2	-1.3
WB0	Warramunga Arr	45.60	260	P	P	08 58 16.3	-0.8
WRAB	Tennant Creek	45.63	260	P	P	08 58 17.1	-0.2
WRA	Warramunga Arr	45.63	260	P	P	08 58 16.9	-0.5
	comp=Z,3.5nm,0.5s,baz=98,slow=6.7,SNR=98						
WRA				PcP	PcP	08 59 48.9	+1.0
	comp=Z,0.8nm,0.8s,baz=88,slow=3.0,SNR=2.9						
WRA				S	S	09 04 27.3	-2.4
	comp=Z,0.8nm,0.8s,baz=102,slow=14,SNR=5.2						
	comp=Z,3.5nm,0.5s						
WRA	Warramunga Arr	45.63	260	P	P	08 58 15.4	-2.0
AS31	Alice Springs	45.75	254		P	08 58 18.2	-0.1
AS31				IAmb	IAmb	08 58 18.8	
	comp=Z,8.6nm,0.5s						
ASAR	Alice Springs	45.75	254	P	P	08 58 18.2	-0.1
	comp=Z,21nm,0.4s,baz=90,slow=8.4,SNR=564						
ASAR				PcP	PcP	08 59 49.4	+1.1
	comp=Z,0.8nm,0.5s,baz=99,slow=3.6,SNR=2.3						
ASAR				S	S	09 04 31.0	-0.3
	comp=Z,2.7nm,0.8s,baz=90,slow=16,SNR=20						
	comp=Z,21nm,0.4s						
ASAR	Alice Springs	45.75	254		P	08 58 18.3	+0.1
GUMO	Guam	48.85	308	P	P	08 58 42.4	+0.6
FORT	Forrest	50.87	245	P	P	08 58 56.5	-0.2
FORT				IAmb	IAmb	08 58 57.4	
	comp=Z,12nm,0.7s						
KNRA	Kununurra	51.52	264		P	08 59 02.0	+0.4
KNRA				IAmb	IAmb	08 59 02.9	
	comp=Z,5.5nm,0.7s						
FITZ	Fitzroy Crossi	54.04	260	P	P	08 59 20.9	+1.1
FITZ	Fitzroy Crossi	54.04	260		P	08 59 20.9	+1.1
MBWA	Marble Bar	59.05	256	P	P	08 59 55.1	+0.4
MBWA				IAmb	IAmb	09 00 14.7	
	comp=Z,17nm,1.2s						
MEEK	Meekatharra	59.35	249	P	P	08 59 57.5	+0.9
SBA	Scott Base	60.26	184	P	P	09 00 03.0	+1.2
VNDA	Vanda	60.31	185	P	P	09 00 02.8	+0.6
	comp=Z,0.5nm,0.8s,baz=25,slow=5.9,SNR=1.9						
	comp=Z,0.5nm,0.8s						
VNDA	Vanda	60.31	185	P	P	09 00 02.1	0.0
JHJ	Hachijo jima 2	65.41	321	P	P	09 00 36.5	+0.5
	comp=Z,170nm,0.8s,baz=14,slow=18,SNR=1.0						
QSPA	South Pole Qui	71.92	180	P	P	09 01 16.2	+0.8
	comp=Z,1.3nm,0.7s,baz=335,slow=0.3,SNR=6.7						
	comp=Z,1.3nm,0.7s						
QSPA	South Pole Qui	71.92	180	P	P	09 01 16.4	+1.1
PETK	Petropavlovsk-	74.17	345	P	P	09 01 29.2	+0.9
	comp=Z,6.5nm,0.8s,baz=110,slow=7.6,SNR=8.0						
	comp=Z,6.5nm,0.8s						
PETK	Petropavlovsk-	74.17	345	P	P	09 01 28.6	+0.3
S12K	Black Hills	74.67	9	P	P	09 01 31.3	+0.2
KSRS	Korea Array	75.58	318	P	P	09 01 38.3	+1.7
	comp=Z,1.0nm,0.5s,baz=117,slow=6.7,SNR=5.4						
	comp=Z,1.0nm,0.5s						
BORC	Borrego Spring	77.36	49	P	P	09 01 45.9	-0.7
BORC				IAmb	IAmb	09 02 18.1	
	comp=Z,4.0nm,1.3s						
USRK	Ussuriysk Ar.	77.40	325	P	P	09 01 47.8	+1.3
	comp=Z,1.5nm,0.5s,baz=131,slow=8.6,SNR=2.3						
	comp=Z,1.5nm,0.5s						
USRK	Ussuriysk Ar.	77.40	325	P	P	09 01 46.3	-0.2
OHAK	Old Harbor	77.71	13	P	P	09 01 49.5	+1.6
CLC	China Lake	77.89	46	P	P	09 01 50.0	+0.5
WAKR	Walker	78.16	43	P	P	09 01 51.0	-0.1
WAKR				IAmb	IAmb	09 01 54.2	
	comp=Z,3.5nm,0.9s						
NVAR	Mina Array Bea	78.86	43	P	P	09 01 56.8	+1.9
	comp=Z,1.7nm,0.7s,baz=222,slow=9.0,SNR=18						
	comp=Z,1.7nm,0.7s						
NVAR	Mina Array Bea	78.86	43	P	P	09 01 55.8	+0.9
NV11	Mina Array Sit	78.95	43	P	P	09 01 57.2	+1.9
Y14A	Wickenburg	80.15	49	IAmb	IAmb	09 02 04.2	
	comp=Z,1.8nm,0.7s						
WVOR	Wild Horse Val	80.90	40	IAmb	IAmb	09 02 08.3	
	comp=Z,3.2nm,0.9s						
X16A	Lo Mia Camp, P	81.52	50	IAmb	IAmb	09 02 12.6	
	comp=Z,3.9nm,1.0s						
U15A	North Rim	81.89	48	IAmb	IAmb	09 02 14.4	
	comp=Z,5.2nm,1.3s						
HAWA	Hanford	82.66	36	P	P	09 02 16.3	+1.9
HAWA				IAmb	IAmb	09 02 17.2	
	comp=Z,3.9nm,0.9s						
BMO	Blue Mountains	83.06	38	P	P	09 02 17.7	+1.2
CAST	Castle Rocks	83.64	11	IAmb	IAmb	09 02 24.4	
	comp=Z,15nm,1.4s						
F10A	Beach Ranch, E	83.73	37	IAmb	IAmb	09 02 22.1	
	comp=Z,6.7nm,0.8s						
J20K	Nowinta River	83.98	10	P	P	09 02 21.9	+1.3
J20K				IAmb	IAmb	09 02 22.6	
	comp=Z,6.8nm,0.8s						
MAW	Mawson	84.00	200	P	P	09 02 21.4	+0.6
	comp=Z,1.0nm,0.7s,baz=155,slow=13,SNR=2.8						
	comp=Z,1.0nm,0.7s						
MAW	Mawson	84.00	200	P	P	09 02 21.1	+0.3
HLID	Hailey	84.11	41	IAmb	IAmb	09 02 24.6	
	comp=Z,2.4nm,0.9s						
TXAR	Lajitas Array	85.22	57	P	P	09 02 29.6	+2.0
	comp=Z,3.6nm,0.9s,baz=216,slow=7.8,SNR=8.1						
	comp=Z,3.6nm,0.9s						
TXAR	Lajitas Array	85.22	57	P	P	09 02 27.1	-0.6
PV12	Saucer Basin,	85.23	47	P	P	09 02 27.9	+0.3
PV12				IAmb	IAmb	09 02 30.9	
	comp=Z,3.0nm,0.7s						
HDA	Harding Lake	85.54	13	P	P	09 02 29.2	+0.9
CCB	Clear Creek Bu	85.58	12	P	P	09 02 29.0	+0.6
IMAR	Indian Mountai	85.73	9	P	P	09 02 30.4	+1.3
COLA	College	85.77	12	P	P	09 02 30.2	+0.9
IL31		85.88	13	P	P	09 02 30.6	+0.8
IL31				IAmb	IAmb	09 03 09.4	
	comp=Z,4.3nm,1.4s						
ILAR	Eielson Array	85.88	13	P	P	09 02 30.6	+0.7
	comp=Z,1.5nm,0.4s,baz=230,slow=5.2,SNR=51						
	comp=Z,1.5nm,0.4s						
ILAR	Eielson Array	85.88	13	P	P	09 02 30.4	+0.5
H22K	Ishtalitna Cre	86.03	10	P	P	09 02 32.0	+1.3
H22K				IAmb	IAmb	09 02 32.6	
	comp=Z,3.8nm,0.7s						
J25K	Salcha River,	86.06	13	P	P	09 02 32.0	+1.2
J25K				IAmb	IAmb	09 03 09.3	
	comp=Z,6.0nm,1.3s						
YHL	Hebgen Lake	86.76	41	IAmb	IAmb	09 02 38.5	
	comp=Z,4.7nm,0.8s						
PD31	Pinedale Array	86.79	43	P	P	09 02 35.4	+0.3
PDAR	Pinedale Array	86.79	43	P	P	09 02 36.5	+1.4
	comp=Z,0.3nm,0.5s,baz=202,slow=3.2,SNR=7.5						
	comp=Z,0.3nm,0.5s						
PDAR	Pinedale Array	86.79	43	P	P	09 02 36.0	+1.0
EPYK	Eagle Plains	89.54	15	P	P	09 02 47.5	+0.3
EPYK				IAmb	IAmb	09 03 29.3	
	comp=Z,4.7nm,1.1s						
G29M	Pine Creek	89.66	14		P	09 02 47.3	-0.4
EDM	Edmonton	89.77	33	P	P	09 02 48.2	-0.3
EDM				IAmb	IAmb	09 02 53.7	
	comp=Z,11nm,1.4s						
F28M	Old Crow	89.80	13	P	P	09 02 49.8	+1.5
F28M				IAmb	IAmb	09 02 50.9	
	comp=Z,6.0nm,1.3s						
CMAR	Chiang Mai Arr	89.96	289	P	P	09 02 51.8	+1.6
	comp=Z,0.6nm,0.3s,baz=110,slow=4.7,SNR=2.1						
	comp=Z,0.6nm,0.3s						
PLCA	Paso Flores	90.40	133	P	P	09 02 52.6	+0.7
	comp=Z,1.1nm,0.7s,baz=206,slow=5.8,SNR=6.7						
	comp=Z,1.1nm,0.7s						
SONM	Songino Array	94.42	319	P	P	09 03 11.3	+1.1
	comp=Z,0.4nm,0.4s,baz=129,slow=5.9,SNR=1.8						
	comp=Z,0.4nm,0.4s						
SONM	Songino Array	94.42	319	P	P	09 03 09.9	-0.3
MKAR	Makanchi Array	110.06	314	PKiKP	PKiKP	09 08 19.4	+0.2
	comp=Z,0.2nm,0.4s,baz=128,slow=2.7,SNR=2.2						
BVAR	Borovoye Array	117.69	321	PKP	PKiKP	09 08 33.4	-0.2
	comp=Z,0.5nm,0.3s,baz=75,slow=1.6,SNR=2.4						
ARCES	ARCESS Array B	126.72	350	PKP	PKiKP	09 08 51.5	+0.4
	comp=Z,4.4nm,1.0s,baz=8.5,slow=2.6,SNR=10						
FINES	FINESS Array B	133.69	345	PKP	PKiKP	09 09 05.6	+0.4
	comp=Z,2.1nm,0.9s,baz=14,slow=3.9,SNR=4.1						
EKA	Eskdalemuir Ar	142.60	6	PKP	PKPdf	09 09 20.1	-0.3
	comp=Z,0.5nm,0.5s,baz=344,slow=2.7,SNR=4.1						
BNN	Bunyan	144.59	313	PKPbc	PKPbc	09 09 22.0	-2.3
LODK	Lodwar	144.84	249		PKPdf	09 09 22.7	-3.0
OJC	Ojcow	145.19	341	PKPdf	PKPdf	09 09 24.4	-0.7
BUR08	Bucovina Ar. S	145.29	333	PKPdf	PKPdf	09 09 23.4	-2.1
BURAR	Bucovina Array	145.31	333	PKPdf	PKPdf	09 09 24.3	-1.1
BR131	Keskin Array S	145.69	315	PKPdf	PKPdf	09 09 24.8	-1.6
BRTR	Keskin Array B	145.69	315	PKPbc	PKPab	09 09 28.5	-0.3
	comp=Z,1.8nm,0.6s,baz=114,slow=2.9,SNR=7.5						
BRTR	Keskin Array B	145.69	315	PKPdf	PKPdf	09 09 24.6	-1.9
OSTC	Ostas	145.90	345	ePKP	PKiKP	09 09 29.4	-1.2
CLL	Collm	145.91	348	PKPdf	PKPdf	09 09 25.8	-0.5
CLL	Collm	145.91	348	i PKPbc	PKPab	09 09 29.0	0.0
	comp=Z,11nm,0.7s						
CHVC	Chvalec	145.91	345	ePKP	PKiKP	09 09 31.8	+1.2
UPC	Upice	146.00	345	ePKP	PKiKP	09 09 29.4	-1.4
OKC	Ostrava-Krasne	146.03	342	ePKP	PKPab	09 09 29.1	-0.4
STEB	Steborice	146.05	342	ePKP	PKPab	09 09 29.4	-0.2
TIRR	Tirgusor	146.05	326	PKPdf	PKPdf	09 09 25.1	-1.5
DPC	Dobruska-Polom	146.06	344	ePKP	PKiKP	09 09 29.7	-1.3
KRLC	Kraliky	146.19	344	ePKP	PKiKP	09 09 30.2	-1.1
MORC	Moravsky Berou	146.25	343	PKPdf	PKPdf	09 09 25.9	-1.1
MORC	Moravsky Berou	146.25	343	ePKP	PKiKP	09 09 30.5	-0.9
PVCC	Panska Ves	146.32	346	ePKP	PKiKP	09 09 30.6	-0.8
HSKC	Hora Svate Kat	146.49	348	ePKP	PKPab	09 09 30.5	-0.9
MLR	Muntele Rosu	146.57	330	PKPdf	PKPdf	09 09 26.1	-1.6
PRU	Pruhonice	146.83	346	ePKP	PKiKP	09 09 31.9	-0.6
PRU				ex	x	09 09 36.0	
MDUB	Mudurnu	146.89	318	PKPdf	PKPdf	09 09 27.1	-1.3
VRAC	Vranov	146.94	343	ePKP	PKPab	09 09 32.8	-0.4
VRAC				e		09 09 35.1	
JAVC	Velka Javorina	147.04	342	ePKP	PKPab	09 09 33.3	-0.4
NKC	Novy Kostel	147.04	348	ePKP	PKiKP	09 09 32.0	-1.0
MMAI	Mount Meron Ar	147.16	303	PKPbc	PKiKP	09 09 33.0	-0.8
	comp=Z,1.0nm,0.4s,baz=100,slow=3.5,SNR=2.8						
KRUC	Moravsky	147.22	343	ePKP	PKiKP	09 09 33.0	-0.3
KRUC				e		09 09 35.7	
TREC	Trest	147.25	344	ePKP	PKiKP	09 09 33.1	-0.3
KHC	Kasperske Hory	147.85	347	ePKP	PKiKP	09 09 34.6	-0.1
KHC				ex	x	09 09 38.1	
CKRC	Cesky Krumlov	147.98	345	ePKP	PKiKP	09 09 35.0	0.0
CKRC				ex	x	09 09 38.2	
GERES	GERESS Array B	148.10	346	PKPbc	PKiKP	09 09 34.7	-0.6
	comp=Z,3.6nm,0.4s,baz=5.7,slow=2.7,SNR=20						
CONA	Conrad Observa	148.40	343	i PKP	PKiKP	09 09 36.3	+0.4
	comp=Z,2.5nm,0.5s						
RONA	Rosalia, Austr	148.49	342	i PKP	PKiKP	09 09 36.4	+0.4
	comp=Z,2.1nm,0.6s						
LESA	Schwarzleotal	149.67	347	i PKP	PKiKP	09 09 39.0	+0.4
	comp=Z,2.7nm,0.4s						
WATA	Walderalm	149.98	348	i PKP	PKiKP	09 09 39.6	+0.3
	comp=Z,5.4nm,0.4s						
WTTA	Wattenberg	150.04	348	i PKP	PKiKP	09 09 40.0	+0.5
	comp=Z,12nm,0.5s						
MOTA	Moosalm	150.06	349	i PKP	PKiKP	09 09 39.8	+0.3
	comp=Z,1.5nm,0.4s						
SQTA	Sankt Quirin	150.16	348	i PKP	PKiKP	09 09 40.2	+0.5
	comp=Z,5.3nm,0.5s						
MYKA	Terra Mystica	150.19	345	i PKP	PKiKP	09 09 39.4	-0.2
	comp=Z,3.2nm,0.4s						
DAVA	Damuels	150.34	350	i PKP	PKiKP	09 09 41.1	+1.0
	comp=Z,3.5nm,0.5s						
ABTA	Abfaltersbach	150.34	346	i PKP	PKiKP	09 09 40.0	+0.1
	comp=Z,8.5nm,0.6s						
FETA	Feichten	150.45	349	i PKP	PKiKP	09 09 41.1	+0.8
	comp=Z,4.5nm,0.9s						

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*SDD **28** 08:57:24.9±4.6, 18°72N×70°74W, h27km±18km, MD3.1, ML3.2, MW3.5, Presumed earthquake*
*OSPL **28** 08:57:28.9±1.2, 18°72N×70°80W, h6km±6km, ML2.7, Presumed earthquake*
*SSNC **28** 08:57:28.6±1.6, 18°82N×70°68W, h8km±12km, MD3.6, ML3.2, Presumed earthquake*
ISC 28 08:57:27.4±0.9**, 18°71N**±0°03×**70°78W**±0°02**, h18**km±6km**, n30, σ0s89**/52**, 22C-4D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ABDR	Alto Bandera	0.17	55	⇑ePg	Pg	08 57 32.5	+0.3
ABDR				⇑eSg	Sg	08 57 36.2	+0.7
ABDR				IAML		08 57 36.3	
	comp=N,7µm,0.2s						
BANI	BANI	0.51	129	⇑ePg	Pn	08 57 38.8	-1.2
BANI				⇑eSg	Sb	08 57 44.4	-0.6
BANI				IAML		08 57 48.2	
	comp=N,1µm,1.0s						
SDDR	Presa de Saban	0.56	299	ePg	Pb	08 57 38.2	-0.5
SDDR				eSg	Sb	08 57 46.2	-0.2
SDDR				IAML		08 57 49.9	
	comp=N,1µm,0.4s						
SDDR				IAML		08 57 50.8	
	comp=N,1µm,0.7s						
SDDR	Presa de Saban	0.56	299	i P	Pb	08 57 38.2	-0.5
SDDR				eS	Sb	08 57 46.5	+0.1
SDDR				IAML		08 57 50.9	
	comp=Z,756nm,0.3s						
SDDR	Presa de Saban	0.56	299	⇑ePg	Pb	08 57 38.3	-0.4
SDDR				⇓eSg	Sg	08 57 45.6	-0.4
SDDR				IAML		08 57 49.7	
	comp=N,1µm,1.0s						
NEDR	Neiba UASD	0.65	250	⇑ePg	Pb	08 57 40.1	-0.1
NEDR				⇑ePg	Pg	08 57 40.4	+0.2
NEDR				IAML		08 57 55.4	
	comp=N,286nm,1.2s						
LONE3	El Aguacate, B	0.66	261	i P	Pb	08 57 40.1	-0.4
LONE3				eS	Sg	08 57 48.2	-1.0
LONE3				IAML		08 57 51.1	
	comp=Z,254nm,0.5s						
SC01	Santiago de lo	0.71	4	i P	Pn	08 57 41.8	-0.9
SC01				eS	Sb	08 57 51.1	+0.2
SC01				IAML		08 57 54.7	
	comp=Z,352nm,0.3s						
SC01	Santiago de lo	0.71	4	⇑ePg	Pn	08 57 42.1	-0.6
SC01				⇑eSg	Sb	08 57 51.6	+0.7
SC01				IAML		08 57 58.1	
	comp=N,575nm,1.1s						
PODR	Polo	0.72	222	i P	Pb	08 57 41.7	0.0
PODR				eS	Sb	08 57 51.4	+0.1
PODR				IAML		08 57 54.5	
	comp=Z,3µm,0.5s						
PODR	Polo	0.72	222	⇑ePg	Pb	08 57 41.8	+0.1
PODR				⇓eSg	Sb	08 57 53.3	+1.9
PODR				IAML		08 57 58.8	
	comp=N,568nm,0.7s						
LODU1	El Espartillar	0.75	242	i P	Pb	08 57 42.5	+0.4
LODU1				IAML		08 57 56.3	
	comp=Z,412nm,0.4s						
DR08	Loma La Naviza	0.76	71	⇑ePg	Pn	08 57 42.3	-1.0
DR08				⇑eSg	Sb	08 57 51.7	-0.5
DR08				IAML		08 57 53.9	
	comp=N,3µm,0.6s						
SDD	Santo Domingo	0.86	107	i P	Pn	08 57 45.0	+0.4
SDD				eS	Sn	08 57 56.4	-0.3
SDD				IAML		08 57 57.9	
	comp=Z,190nm,1.8s						
SDD	Santo Domingo	0.86	107	⇑ePg	Pn	08 57 44.4	-0.2
SDD				IAML		08 57 58.3	
	comp=N,402nm,0.9s						
MADR	Mao Valverde	0.91	340	⇑ePg	Pn	08 57 46.5	+1.2
MADR				⇑eSg	Sn	08 57 59.0	+1.1
MADR				IAML		08 58 00.3	
	comp=N,2µm,0.5s						
JIDR	Jimani	1.04	258	⇓ePg	Pn	08 57 47.4	+0.2
JIDR				IAML		08 58 03.3	
	comp=N,501nm,0.4s						
LOVI	El Cajuil, Ovi	1.07	212	i P	Pb	08 57 47.3	-0.1
LOVI				IAML		08 58 08.3	
	comp=Z,60nm,1.6s						
LOBH	Bahia de las A	1.18	224	i P	Pn	08 57 49.7	+0.6
LOBH				IAML		08 58 17.6	
	comp=Z,96nm,1.2s						
LUDR	Luperon	1.19	352	⇑ePg	Pn	08 57 50.1	+0.9
LUDR				⇑eSg	Sn	08 58 07.4	+2.4
LOPP1	Punta Rusia, P	1.21	341	i P	Pn	08 57 50.1	+0.7
LOPP1				IAML		08 58 10.4	
	comp=Z,205nm,0.4s						
CADR	Cabrera	1.24	40	ePg	Pn	08 57 50.8	+0.9
CADR				IAML		08 58 10.8	
	comp=N,567nm,0.6s						
HATOM	Hato Mayor del	1.32	86	⇑ePg	Pb	08 57 52.1	+0.3
HATOM				⇑eSg	Sn	08 58 10.3	+2.0
HATOM				IAML		08 58 12.7	
	comp=N,218nm,0.8s						
MCDR	Montecristi	1.44	325	⇓ePg	Pg	08 57 53.9	-1.3
MCDR				⇑eSg	Sg	08 58 12.7	-1.3
MCDR				IAML		08 58 16.9	
	comp=N,394nm,0.4s						
LGNH	Logne	1.75	264	i P	Pb	08 57 58.7	-0.2
LGNH				IAML		08 58 24.1	
	comp=Z,18nm,0.7s						
HIDR	Higuey Centro	1.96	93	⇑ePg	Pb	08 58 02.0	-0.5
HIDR				⇑eSg	Sb	08 58 26.7	+0.1

HIDR				IAML		08 58 32.5	
	comp=N,133nm,0.7s						
QMBU	Quimbuelo	4.09	292	*e*P	Pn	08 58 30.5	+1.4
QMBU				*e*S	Sn	08 59 15.0	-1.5
QMBU				IAML		08 59 22.3	
	comp=E,17nm,0.7s						
QMBU				IAML		08 59 23.7	
	comp=N,20nm,0.5s						
GTBY	Guantanamo Bay	4.27	287	*e*P	Pn	08 58 32.3	+0.7
GTBY				*e*S	Sn	08 59 21.0	0.0
RCC	Rio Carpintero	4.82	286	*e*P	Pn	08 58 39.0	-0.1
RCC				*e*S	Sn	08 59 33.3	-1.2
RCC				IAML		08 59 38.4	
	comp=N,7.6nm,1.0s						
RCC				IAML		08 59 39.5	
	comp=E,8.1nm,1.2s						
YAR	Yar	5.52	288	*e*P	Pn	08 58 50.0	+1.2
YAR				*e*S	Sn	08 59 51.7	-0.1

IDC 28 09:03:25.4±2.5**, 5°.09N×126°.41E, h0^{km}, mb3.3**/3**,**
mbtmp3.3/3**, Error ellipse: s-maj=205.5km**
s-min=28.7km az=65.0, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KCP	Kidapawan	2.32	326	*e*P	Pg	09 04 14.9	+5.1
PLP	Palo	6.20	347	*e*P	Pg	09 05 22.4	-2.0
PLP				*e*S	Sn	09 05 57.0	-13
WRA	Warramunga Arr	26.07	163	P	P	09 09 01.3	+0.5
	0.6nm,0.8s,baz=342,slow=10.0,SNR=7.3						
	0.6nm,0.8s						
ASAR	Alice Springs	29.50	166	P	P	09 09 30.8	-0.7
	0.3nm,0.9s,baz=348,slow=8.7,SNR=1.4						
	0.3nm,0.9s						
MKAR	Makanchi Array	56.27	325	P	P	09 13 07.6	-0.1
	0.1nm,0.5s,baz=111,slow=8.0,SNR=3.8						
	0.1nm,0.5s						

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*NEIC **28** 09:28:00.3±1.0, 60°.19N±0°.03×152°.43W±0°.06, h98^{km}±3^{km},*
ML3.5/156, ML3.3(AEIC), Error ellipse: s-maj=4.5km
s-min=4.3km az=86.0
*AEIC **28** 09:28:01.4±1.2, 60°.16N±0°.03×152°.40W±0°.06, h91^{km}±3^{km},*
Error ellipse: s-maj=4.4km s-min=4.1km az=92.0
ISC 28 09:27:59.9±1.2**, 60°.17N**±0°.03×**152°.38W**±0°.03**,**
h100^{km}±6^{km}**, n196, σ0^{s}.67**/196**, Southern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
O20K	Slope Mountain	0.15	234		Pn	09 28 14.2	+0.2
O20K					Sn	09 28 24.7	+0.1
ILIM	Iliamna	0.30	253		Pn	09 28 14.6	0.0
ILIM					Sn	09 28 25.7	+0.1
RED	Redoubt Volcan	0.32	322		Sn	09 28 24.8	-0.9
RED	Redoubt Volcan	0.32	322		Pn	09 28 14.2	-0.5
RED	Redoubt Volcan	0.32	322	IAML		09 28 25.4	
	comp=E,2µm,0.7s						
RED				IAML		09 28 25.9	
	comp=N,171nm,0.4s						
RDSO	Redoubt South	0.34	327		Pn	09 28 14.7	-0.1
RDSO					Sn	09 28 25.1	-1.0
IVE	Iliamna Volcan	0.36	244		Pn	09 28 14.7	-0.2
IVE					Sn	09 28 25.6	-0.6
REF	Redoubt East F	0.36	333		Pn	09 28 14.8	-0.2
REF					Sn	09 28 25.6	-0.8
RDT	Redoubt	0.40	358		Pn	09 28 15.0	-0.2
RDT					Sn	09 28 25.8	-0.8
ILS	Iliamna Low So	0.41	239		Pn	09 28 15.0	-0.2
ILSW	Iliamna Southw	0.43	244		Sn	09 28 25.9	-1.0
ILSW	Iliamna Southw	0.43	244		Pn	09 28 14.8	-0.6
DFR	Drift River	0.45	340		Pn	09 28 15.3	-0.1
DFR					Sn	09 28 26.5	-0.6
RDJH	Redoubt Jeurge	0.47	333		Pn	09 28 15.5	-0.2
RDJH					Sn	09 28 26.7	-0.7
NCT	North Crescent	0.48	325		Pn	09 28 15.4	-0.2
NCT					Sn	09 28 26.3	-1.1
HOM	Homer	0.63	144		Sn	09 28 30.5	+1.2
HOM	Homer	0.63	144		Pn	09 28 17.3	+0.6
P19K	Oil Pt	0.68	220		Pn	09 28 17.4	+0.3
P19K					Sn	09 28 30.1	+0.1
CAPN	Captain Cook N	0.85	45		Pn	09 28 20.4	+1.7
CAPN				IAML		09 28 38.2	
	comp=E,2µm,0.3s						
CAPN				IAML		09 28 50.7	
	comp=N,2µm,0.6s						
BRLK	Bradley Lake	0.85	118		Pn	09 28 18.5	-0.3
CNPM	China Poot	0.87	138		Pn	09 28 19.5	+0.6
CNPM	China Poot	0.87	138		Sn	09 28 33.5	+0.3
CNPM	China Poot	0.87	138	IAML		09 28 34.4	
	comp=E,3µm,0.5s						
CNPM				IAML		09 28 34.5	
	comp=N,2µm,0.4s						
BRSE	Bradley Lake S	0.93	117		Pn	09 28 19.9	+0.3
BRSE					Sn	09 28 34.5	+0.1
AU22	Augustine Moun	0.94	212		Pn	09 28 20.1	+0.4
AUF	Augustine Flow	0.96	215		Pn	09 28 19.9	+0.1
O19K	Port Alsworth	0.97	272		Pn	09 28 19.5	-0.4
O19K				IAML		09 28 36.0	
	comp=E,2µm,0.4s						
O19K	Port Alsworth	0.97	272		Sn	09 28 34.5	-0.5
AGU	Augustine-Summ	0.97	214		Pn	09 28 20.5	+0.4
AUI	Augustine Isla	0.99	213		Pn	09 28 20.4	+0.2
CKL	Chakachamna La	1.03	1		Pn	09 28 21.1	+0.4
SPBG	Spurr Blockage	1.09	0		Pn	09 28 21.9	+0.5
SPBG					Sn	09 28 37.6	0.0
SPWE	Spurr West	1.11	356		Pn	09 28 22.2	+0.6
SLKM	Skilak Lake	1.12	72		Sn	09 28 38.3	+0.1
SLKM	Skilak Lake	1.12	72		Pn	09 28 22.5	+0.8
SLKM	Skilak Lake	1.12	72	IAML		09 28 39.1	
	comp=E,5µm,0.2s						
SLKM				IAML		09 28 39.2	
	comp=N,5µm,0.2s						
SPNN	North Nagishla	1.21	353		Pn	09 28 23.1	+0.3
N19K	Bonanza Creek	1.23	303		Pn	09 28 22.7	-0.2
N19K	Bonanza Creek	1.23	303		Sn	09 28 39.4	-0.9
N19K	Bonanza Creek	1.23	303	IAML		09 28 39.9	
	comp=E,345nm,0.7s						
N19K				IAML		09 28 40.3	
	comp=N,571nm,0.6s						
O22K	Cooper Landing	1.36	76		Pn	09 28 25.0	+0.7
O22K	Cooper Landing	1.36	76		Sn	09 28 42.9	+0.1
O22K	Cooper Landing	1.36	76	IAML		09 28 43.4	
	comp=N,3µm,0.2s						
O22K				IAML		09 28 44.8	
	comp=E,4µm,0.2s						
STLK	Strandline Lak	1.36	11		Pn	09 28 24.6	+0.1
STLK				IAML		09 28 43.9	
	comp=N,235nm,0.6s						
Q19K	Cape Douglas,	1.40	208		Pn	09 28 24.9	-0.1
Q19K				IAML		09 28 45.7	
	comp=E,405nm,0.7s						
Q19K				IAML		09 28 52.7	
	comp=N,398nm,0.7s						
O18K	Koktuh Hills	1.46	259		Pn	09 28 25.1	-0.5
O18K	Koktuh Hills	1.46	259		Sn	09 28 44.4	-0.7
O18K	Koktuh Hills	1.46	259	IAML		09 28 44.9	
	comp=N,418nm,0.8s						
O18K				IAML		09 28 45.2	
	comp=E,279nm,0.7s						
SEW	Seward	1.47	91		Pn	09 28 25.5	-0.1
SEW	Seward	1.47	91		Sn	09 28 44.8	-0.4
SEW	Seward	1.47	91	IAML		09 28 48.8	
	comp=N,811nm,0.6s						
SEW				IAML		09 28 49.9	
	comp=E,859nm,0.4s						
SUA	Susitna One	1.52	31		Pn	09 28 27.1	+0.7
SUA				IAML		09 28 49.6	
	comp=E,567nm,0.5s						
SUA				IAML		09 28 50.8	
	comp=N,362nm,0.5s						
RC01	Rabbit Creek A	1.59	54		Pn	09 28 27.8	+0.5
P18K	Big Mountain,	1.64	243		Pn	09 28 27.9	0.0
P18K					Sn	09 28 47.9	-1.2
M20K	Styx River	1.76	348		Pn	09 28 30.0	+0.6
M20K	Styx River	1.76	348		Sn	09 28 51.8	0.0
M20K	Styx River	1.76	348	IAML		09 28 52.6	
	comp=E,237nm,0.7s						
M20K				IAML		09 28 56.9	
	comp=N,113nm,1.1s						
N18K	Kilae Creek	1.81	288		Pn	09 28 29.7	-0.3
SKT	Skwentna	1.86	12		Pn	09 28 30.6	0.0
SKT				IAML		09 28 57.5	
	comp=N,194nm,0.5s						
SKT				IAML		09 28 57.0	
	comp=E,225nm,0.5s						
M22K	Willow	1.93	34		Pn	09 28 32.7	+1.2
M19K	Big River Lodg	2.00	331		Pn	09 28 32.8	+0.4
M19K	Big River Lodg	2.00	331		Sn	09 28 57.0	-0.2
M19K	Big River Lodg	2.00	331	IAML		09 28 57.7	
	comp=N,113nm,0.6s						
M19K				IAML		09 28 57.7	
	comp=E,284nm,0.8s						
KAHG	Katmai Hook Gl	2.02	214		Pn	09 28 33.2	+0.5
Q18K	Katmai Hardscr	2.04	223		Pn	09 28 33.2	+0.2
KARR	Katmai Rainbow	2.06	216		Pn	09 28 33.8	+0.6
PWL	Port Wells	2.12	69		Pn	09 28 33.5	-0.4
PWL				IAML		09 29 00.3	
	comp=E,627nm,0.2s						
PMR	Palmer	2.13	47	P	Pn	09 28 33.9	-0.2
PMR	Palmer	2.13	47	S	Sn	09 28 59.4	-0.9
PMR	Palmer	2.13	47		Pn	09 28 34.0	-0.2
PMR	Palmer	2.13	47		Sn	09 28 59.3	-1.0
PMR	Palmer	2.13	47	IAML		09 29 01.5	
	comp=E,404nm,0.3s						
PMR				IAML		09 29 01.6	
	comp=N,448nm,0.3s						
M18K	Stony River	2.15	310		Pn	09 28 34.1	-0.2
KAWH	Katmai	2.18	216		Pn	09 28 35.1	+0.3
P17K	Kvichak River	2.28	246		Pn	09 28 36.3	+0.2
P17K				IAML		09 29 06.8	
	comp=E,368nm,0.8s						
P17K				IAML		09 29 20.3	
	comp=N,291nm,0.7s						
KNK	Knik Glacier	2.29	55		Pn	09 28 36.0	-0.2
GHO	Glory Hole Cre	2.33	45		Pn	09 28 36.7	0.0
GHO				IAML		09 29 06.5	
	comp=N,407nm,0.6s						
KAKN	Katmai Knife C	2.33	217		Pn	09 28 37.2	+0.4
L19K	White Mountain	2.35	330		Pn	09 28 37.1	+0.1
L19K				IAML		09 29 06.1	
	comp=N,117nm,1.0s						
L19K				IAML		09 29 06.2	
	comp=E,129nm,0.9s						
O17K	Koliganek Bris	2.41	262		Pn	09 28 37.6	0.0
N17K	Nushagak Hills	2.42	281		Pn	09 28 37.3	-0.5
N17K				IAML		09 29 06.3	
	comp=N,109nm,0.6s						
N17K				IAML		09 29 06.6	
	comp=E,121nm,0.7s						
KABU	Katmai Buttres	2.42	219		Pn	09 28 38.7	+0.7
L20K	Farewell, AK	2.43	343		Pn	09 28 38.4	+0.5
L20K				IAML		09 29 29.1	
	comp=E,89nm,1.0s						
CUT	Chulitna	2.46	24		Pn	09 28 39.0	+0.7
CUT				IAML		09 29 13.9	
	comp=N,448nm,0.4s						
ACHA	Angle Creek He	2.48	219		Pn	09 28 39.0	+0.2
MGLS	Mageik Landsli	2.50	216		Pn	09 28 39.6	+0.7
P23K	Montague Islan	2.50	92		Pn	09 28 39.2	+0.3
ANCK	Angle Creek	2.55	220		Pn	09 28 40.2	+0.6
SML	Sawmill	2.56	48		Pn	09 28 40.0	+0.2
SML				IAML		09 29 11.7	
	comp=E,420nm,0.5s						
SML				IAML		09 29 12.0	
	comp=N,452nm,0.7s						
GLI	Glacier Island	2.71	73		Pn	09 28 41.2	-0.5
GLI				IAML		09 29 13.2	
	comp=N,342nm,0.5s						
GLI				IAML		09 29 13.4	
	comp=E,370nm,0.7s						
PPLA	Purkeypile	2.74	2		Pn	09 28 43.2	+1.0
PPLA				IAML		09 29 22.4	
	comp=E,67nm,0.7s						
PPLA				IAML		09 29 23.9	
	comp=N,68nm,0.9s						
M17K	Holitna River	2.77	299		Pn	09 28 42.3	-0.2
M17K				IAML		09 29 43.5	
	comp=E,66nm,0.8s						
M17K				IAML		09 29 46.3	
	comp=N,87nm,0.8s						
M23K	Glacier View	2.79	52		Pn	09 28 43.2	+0.4
L18K	Granite Mounta	2.93	316		Pn	09 28 44.4	-0.1
HIN	Hinchinbrook I	2.94	83		Pn	09 28 43.8	-0.9
O16K	Kokwok River B	2.94	261		Pn	09 28 44.7	0.0
SCM	Sheep Creek Mo	2.97	54		Pn	09 28 45.2	-0.1
FID	Port Fidalgo	2.98	76		Pn	09 28 43.8	-1.4
OHAK	Old Harbor	3.00	190	Pn	Pn	09 28 45.0	-0.4
OHAK				IAML		09 29 24.1	
	comp=N,57nm,0.6s						
MID	Middleton Isla	3.14	101		Pn	09 28 48.4	+1.0
WAT7	Susitna Watana	3.16	31		Pn	09 28 48.5	+0.7
N16K	Nishlik Lake	3.19	278		Pn	09 28 48.4	+0.3
WAT1	Susitna Watana	3.24	33		Pn	09 28 49.2	+0.5
CAST	Castle Rocks	3.26	2		Pn	09 28 49.2	+0.2
R17L	Mt. Peulik Vol	3.28	221		Pn	09 28 50.2	+0.9
WAT6	Susitna Watana	3.29	41		Pn	09 28 49.9	+0.3
K20K	Telida	3.30	347		Pn	09 28 50.0	+0.5
K20K				IAML		09 29 28.2	
	comp=E,48nm,1.1s						
EYAK	Cordova Ski Ar	3.31	81	P	Pn	09 28 49.3	-0.4
EYAK	Cordova Ski Ar	3.31	81	S	Sn	09 29 27.0	-1.2
EYAK	Cordova Ski Ar	3.31	81		Pn	09 28 48.5	-1.2
EYAK	Cordova Ski Ar	3.31	81	IAML		09 29 28.3	
	comp=N,150nm,0.7s						
EYAK				IAML		09 29 29.1	
	comp=E,111nm,1.0s						
M16K	Timber Creek	3.36	288		Pn	09 28 50.5	+0.2
DIV	Divide	3.39	71		Pn	09 28 50.5	-0.3
DIV				IAML		09 29 31.8	
	comp=N,210nm,0.2s						
DIV				IAML		09 29 32.0	
	comp=E,175nm,0.2s						
KLU	Klutina	3.43	64		Pn	09 28 51.0	-0.4
TRF	Thorofare Moun	3.44	16		Pn	09 28 51.7	+0.2
TRF				IAML		09 29 34.7	
	comp=E,54nm,0.7s						
TRF				IAML		09 29 38.2	
	comp=N,81nm,0.5s						
KTH	Kantishna Hill	3.46	11		Pn	09 28 53.2	+1.4
KTH				IAML		09 29 37.6	
	comp=N,64nm,0.6s						
KTH				IAML		09 29 55.0	
	comp=E,47nm,0.8s						
L17K	Donlin	3.48	307		Pn	09 28 51.9	0.0
RND	Reindeer	3.65	26		Pn	09 28 55.1	+0.8
RND				IAML		09 29 38.2	
	comp=E,50nm,0.3s						
RND				IAML		09 29 42.0	
	comp=N,51nm,1.1s						
CHUM	Lake Minchumin	3.73	0		Pn	09 28 55.7	+0.5
SII	Sitkinak Islan	3.75	195	P	Pn	09 29 01.1	+5.5
DHY	Denali Highway	3.77	37		Pn	09 28 56.6	+0.7
DHY				IAML		09 29 41.9	
	comp=N,131nm,0.5s						
L16K	Owhat River	3.79	297		Pn	09 28 55.8	-0.3
GOAT	Goat Mountain	3.82	81		Pn	09 28 55.5	-1.1
K17K	Iditarod	3.82	314		Pn	09 28 56.6	+0.1
K17K				IAML		09 30 15.2	
	comp=E,37nm,1.1s						
N15K	Kwethluk River	3.85	273		Pn	09 28 57.8	+0.8
PS11	TAPS Pump St11	3.86	57		Pn	09 28 57.6	+0.6
J18K	Innoko River	3.89	330		Pn	09 28 57.8	+0.2
O15K	Ungalikthiuk R	3.91	258		Pn	09 28 58.4	+0.7
BMRM	Bremner River	3.92	75		Pn	09 28 57.0	-0.9
BMRM				IAML		09 29 44.0	
	comp=N,149nm,0.5s						
BMRM				IAML		09 29 56.1	
	comp=E,126nm,1.0s						
MCK	McKinley	3.93	23		Pn	09 28 59.2	+1.2
MCK				IAML		09 29 46.4	
	comp=E,40nm,0.6s						
MCK				IAML		09 29 48.3	
	comp=N,42nm,0.9s						
BPAW	Bear Paw Mtn.	4.00	9		Pn	09 28 59.9	+1.0
N25K	Chitina, Valde	4.06	66		Pn	09 28 59.7	-0.2
J20K	Nowinta River	4.11	349		Pn	09 29 00.6	+0.3
J20K				IAML		09 29 48.2	
	comp=N,24nm,0.8s						
J20K				IAML		09 29 49.4	
	comp=E,29nm,0.9s						
J19K	Poorman	4.13	340		Pn	09 29 01.1	+0.5
HARP	HAARP	4.14	54		Pn	09 29 01.3	+0.5
HARP				IAML		09 29 58.8	
	comp=N,126nm,0.5s						
M15K	Kasigluk River	4.15	281		Pn	09 29 01.0	0.0
WACK	Wrangell Chich	4.31	62		Pn	09 29 03.1	-0.2
PAX	Paxson	4.33	47		Pn	09 29 04.1	+0.6
PAX				IAML		09 29 54.8	
	comp=N,57nm,0.4s						
PAX				IAML		09 29 59.3	
	comp=E,48nm,0.7s						
GLB	Gilahina Butte	4.39	69	Pn	Pn	09 29 04.1	-0.1
GLB				IAML		09 29 54.5	
	comp=N,82nm,0.7s						
GLB				IAML		09 29 54.8	
	comp=E,58nm,0.4s						
J17K	VABM Dome	4.54	318		Pn	09 29 05.7	-0.4
L15K	Ungalak Mounta	4.70	293		Pn	09 29 08.2	-0.1
NEA2	Nenana	4.70	18		Pn	09 29 08.9	+0.6
NEA2				IAML		09 30 03.1	
	comp=N,16nm,1.0s						
WAX	Waxell Ridge	4.75	83		Pn	09 29 09.3	+0.2
WRH	Wood River Hil	4.75	23		Pn	09 29 09.4	+0.3
WRH				IAML		09 30 03.7	
	comp=E,17nm,0.5s						
WRH				IAML		09 30 03.8	
	comp=N,22nm,0.8s						
M14K	Bethel	4.78	281		Pn	09 29 09.9	+0.5
M14K	Bethel	4.78	281	IAML		09 30 47.9	
	comp=N,15nm,1.1s						
M14K				IAML		09 30 52.0	
	comp=E,16nm,1.1s						
K24K	Donnelly Dome	4.79	38		Pn	09 29 11.4	+1.8
BPBCA	Veniaminof	4.81	224		Pn	09 29 11.0	+1.1
K15K	Wolf Creek Mou	4.91	300		Pn	09 29 11.5	+0.3
MLY	Manley	4.94	8		Pn	09 29 13.0	+1.4
HDA	Harding Lake	4.95	28		Pn	09 29 12.0	+0.2
CCB	Clear Creek Bu	4.97	23		Pn	09 29 11.8	-0.1
CCB				IAML		09 30 09.6	
	comp=E,19nm,0.3s						
CCB				IAML		09 30 12.1	
	comp=N,15nm,0.8s						
PTPK	Patty Peak	4.98	74		Pn	09 29 12.3	-0.1
J16K	Anvik River	5.00	312		Pn	09 29 12.4	-0.1
KIAG	Kiagna River	5.00	77		Pn	09 29 13.3	+0.6
BALM	Baldy	5.02	76		Pn	09 29 13.2	+0.3
I21K	Tanana	5.03	2		Pn	09 29 14.7	+1.9
I21K				IAML		09 30 43.9	
	comp=E,13nm,1.1s						
GCSA	Galena City Sc	5.04	337		Pn	09 29 13.9	+0.9
RIDG	Independent Ri	5.04	42		Pn	09 29 14.1	+1.0
RIDG				IAML		09 30 14.3	
	comp=N,60nm,0.7s						
M26K	Nabesna, AK	5.05	60		Pn	09 29 13.6	+0.4
M26K				IAML		09 30 09.8	
	comp=N,60nm,0.6s						
M26K				IAML		09 30 11.8	
	comp=E,49nm,0.4s						
PS08	TAPS Pump Stn8	5.09	28		Pn	09 29 14.2	+0.5
COLA	College	5.16	22	P	Pn	09 29 14.9	+0.3
COLA	College	5.16	22	S	Sn	09 30 11.7	-1.1
MDM	Murphy Dome	5.17	20		Pn	09 29 15.2	+0.4
L26K	Log Cabin Wild	5.17	53		Pn	09 29 15.3	+0.4
L26K				IAML		09 30 32.3	
	comp=N,43nm,0.5s						
L26K				IAML		09 30 32.5	
	comp=E,46nm,0.7s						
I23K	Minto, Yukon-K	5.18	14		Pn	09 29 15.7	+0.7
I23K				IAML		09 30 53.8	
	comp=N,14nm,1.2s						
L14K	Kuka Creek	5.19	288		Pn	09 29 15.5	+0.5
IL31		5.27	27		Pn	09 29 16.0	-0.1
ILAR	Eielson Array	5.27	27		Pn	09 29 16.5	+0.4
POKR	Poker Plat Res	5.46	23		Pn	09 29 19.2	+0.5
J25K	Salcha River,	5.52	33		Pn	09 29 19.8	+0.3
M27K	Edge Creek, AK	5.52	62		Pn	09 29 19.7	+0.1
LOGN	Logan Glacier	5.66	78		Pn	09 29 22.4	+0.9
H18K	Honhosa River	5.71	334		Pn	09 29 22.7	+0.6
H22K	Ishtalitna Cre	5.76	4		Pn	09 29 23.5	+0.7
BC01	Beaver Creek A	5.81	56		Pn	09 29 23.6	+0.2
L27K	Beaver Creek,	5.81	56		Pn	09 29 23.6	+0.2
IM01	Indian Mountai	5.88	355		Pn	09 29 24.7	+0.3
H17K	Granite Mounta	5.91	327		Pn	09 29 25.6	+0.7
YUK3	Moose Creek	6.02	69		Pn	09 29 26.4	-0.1
H24K	Noodor Dome	6.04	18		Pn	09 29 27.4	+0.7
K27K	Chicken	6.19	47		Pn	09 29 29.2	+0.6
PRP	Porcupine Dome	6.21	27		Pn	09 29 29.4	+0.4
PNL	Peninsula	6.55	89	P	Pn	09 29 34.3	+0.8
PNL	Peninsula	6.55	89	S	Sn	09 30 45.2	-1.4
G23K	Bananza Creek	6.65	8		Pn	09 29 35.9	+1.0
I26K	Coal Creek Min	6.67	35		Pn	09 29 35.0	-0.1
H25L	Birch Creek	6.79	23		Pn	09 29 37.1	+0.4
M29M	Somme Creek	7.08	65		Pn	09 29 41.1	+0.4
DAWY	Dawson	7.23	52		Pn	09 29 43.5	+0.7
I27K	Kandik River	7.33	37		Pn	09 29 44.2	+0.1
I28M	Miner Creek	7.77	42		Pn	09 29 49.7	-0.4
BM01	Burnt Mountain	8.08	22		Pn	09 29 53.9	-0.4
J30M	Hart River	8.65	52		Pn	09 30 03.5	+1.4
JIS	Juneau Island	9.41	94	P	Pn	09 30 15.4	+3.0
JIS	Juneau Island	9.41	94	S	Sn	09 31 55.5	-0.7

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*TEH **28** 09:53:35.5, 25°.86N×60°.92E, h10^{km}, ML2.8, Presumed*
earthquake
*OMAN **28** 09:53:38.5±0.1, 25°.24N×60°.79E, h34^{km}±3^{km}, ml2.9/15,*
Error ellipse: s-maj=5.2km s-min=1.1km az=245.0
ISC 28 09:53:37.1±0.9**, 25°.23N**±0°.05×**60°.73E**±0°.06**, h10^{km}, n27,**
σ1^{s}.06/36**, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NGCH	Negor - Chabah	0.39	71	P	Pb	09 53 46.1	0.0
	SNR=51						
NGCH				S	Sb	09 53 52.8	+0.6
NGCH	Negor - Chabah	0.39	71	Pg	Pb	09 53 46.0	-0.1
CHBR	Chabahar	0.43	328	Pg	Pg	09 53 45.4	0.0
CHBR				Sg	Sg	09 53 51.9	+0.8
JASK	Jask - Hormozg	2.66	284	P	Pn	09 54 19.5	-0.6
WSAR	Wadi Sarin	2.76	224	P	Pn	09 54 21.8	+0.4
WSAR				S	Sn	09 54 52.9	-1.9
WBK	Wadi Bani Khal	3.06	212	P	Pn	09 54 25.9	+0.2
	SNR=34						
WBK				S	Sn	09 55 01.7	-0.7
SMDO	Samad	3.27	229	P	Pn	09 54 29.0	+0.5
	SNR=12						
SMDO				S	Sn	09 55 06.9	-0.6
JLN	Jalan Bani Buh	3.30	202	P	Pn	09 54 28.1	-0.6
JLN				S	Sn	09 55 07.7	-0.4
HOQ	Hoqain	3.52	243	P	Pn	09 54 31.3	-0.6
JMDO	Jabal Madar	3.73	221	P	Pn	09 54 34.7	0.0
	SNR=18						
JMDO				S	Sn	09 55 18.6	-0.1
SOHO	SOHO	3.97	255	P	Pn	09 54 36.6	-1.5
MDH	Madha	4.01	272	P	Pn	09 54 37.7	-0.9
BANOM	Banah	4.06	281	P	Pn	09 54 39.0	-0.3
BSY	Bisya	4.07	233	P	Pn	09 54 39.2	-0.2
BSY				S	Sn	09 55 26.4	-0.8
UOSS	Minazif	4.11	267	P	Pn	09 54 39.1	-0.9
MASF	Masafi	4.14	273	P	Pn	09 54 40.7	+0.3
HATD	Hatta, Dubai	4.19	265	P	Pn	09 54 40.8	-0.3
SHME	Shamm	4.22	282	P	Pn	09 54 41.6	+0.1
	SNR=8.3						
ASHO	Ashiyiah	4.27	264	P	Pn	09 54 42.0	-0.3
ARQ	Araqi	4.28	245	P	Pn	09 54 45.0	+2.7
	SNR=17						
NAZ	Nazwa, Dubai	4.60	268	P	Pn	09 54 48.6	+1.9
GENO	Geno	4.62	299	Pn	Pn	09 54 46.0	-1.2
ALNE	Al Ain	4.68	257	P	Pn	09 54 50.2	+2.4
FAQ	Al Faqa, Dubai	4.69	265	P	Pn	09 54 49.3	+1.4
	SNR=27						
MHTO	MHTO	4.93	212	P	Pn	09 54 51.1	-0.1
MHTO				S	Sn	09 55 48.0	-0.4
ASUD	Al Ashush, Dub	4.94	264	P	Pn	09 54 53.0	+1.7
	SNR=10.0						
UMZA	Um Al Zommool	5.67	245	P	Pn	09 55 02.9	+1.4

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*IDC **28** 10:02:13.2±1.3, 27°.58N×53°.12E, h0^{km}, mb3.7/8,*
mbtmp3.7/8, MS3.3/7, Error ellipse: s-maj=32.7km
s-min=25.4km az=1.0
*TEH **28** 10:02:15.6, 27°.75N×53°.22E, h11^{km}±25^{km}, ML3.6,*
Presumed earthquake
*DSN **28** 10:02:18.2±1.1, 27°.69N×53°.23E, h15^{km}, ML3.2/8, Error*
ellipse: s-maj=21.5km s-min=8.5km az=62.0
*OMAN **28** 10:02:22.2±1.4, 27°.33N×53°.42E, h10^{km}, mb3.4/6,*
ml3.8/15, Error ellipse: s-maj=15.4km s-min=9.4km
az=172.0
ISC 28 10:02:15.5±0.7**, 27°.73N**±0°.04×**53°.22E**±0°.06**, h10^{km}, n67,**

σ1^{s}72/66,mb3.8/7,MS3.3/6,Southern Iran

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KHL1	Khalili_Fars	0.12	140	Pg	Pg	10 02 18.2	-0.1
LMD1	Lamerd	0.39	187	Pg	Pb	10 02 24.5	0.0
JHRM	Jahrom	0.84	22	Pg	Pb	10 02 32.1	-0.1
DSBU	Dashti - Bushe	1.84	291	Pn	Pb	10 02 49.5	+0.2
SHI	Shiraz	2.00	342	Pn	Pn	10 02 50.4	+0.8
KAZ2	Kazeron-Fars-I	2.32	324	Pn	Pb	10 02 55.8	-1.7
GENO	Geno	2.65	96	Pn	Pn	10 03 00.7	+2.3
SHME	Shamm	3.10	122	P	Pn	10 03 06.8	+2.3
SHME				S	Sn	10 03 37.5	-4.1
SHME	Shamm	3.10	122	P	Pn	10 03 06.3	+1.8
BANOM	Banah	3.29	122	P	Pn	10 03 09.0	+1.8
BANOM	Banah	3.29	122	P	Pn	10 03 08.9	+1.8
NAZ	Nazwa, Dubai	3.50	141	P	Pn	10 03 12.9	+2.9
NAZ	Nazwa, Dubai	3.50	141	P	Pn	10 03 12.1	+2.1
MASF	Masafi	3.53	131	P	Pn	10 03 12.6	+2.2
AJN	Ajban	3.53	153	P	Pn	10 03 13.7	+3.2
MSFE	Esma-Masafi	3.54	131	P	Pn	10 03 12.6	+2.0
ASUD	Al Ashush, Dub	3.63	148	P	Pn	10 03 12.8	+1.0
FAQ	Al Faqa, Dubai	3.66	144	P	Pn	10 03 13.6	+1.4
MDH	Madha	3.67	131	P	Pn	10 03 14.3	+1.9
MDH	Madha	3.67	131	P	Pn	10 03 13.4	+1.1
UOSS	Minazif	3.86	135	P	Pn	10 03 16.7	+1.7
UOSS	Minazif	3.86	135	P	Pn	10 03 15.8	+0.9
KHGB	Koh Gabri	3.89	46	Pn	Pn	10 03 16.9	+1.3
HATD	Hatta, Dubai	3.90	137	P	Pn	10 03 18.0	+2.5
HATD				S	Sn	10 03 59.8	-1.6
ASHO	Ashiyiah	3.96	139	P	Pn	10 03 18.5	+2.1
	SNR=16						
ASHO	Ashiyiah	3.96	139	P	Pn	10 03 18.1	+1.7
ASHO				S	Sn	10 04 04.9	+1.9
TAFT	Taft - Yazd	4.07	12	Pn	Pn	10 03 20.2	+2.2
IRAM	Ramesheh	4.13	350	Pn	Pn	10 03 20.6	+1.7
ALNE	Al Ain	4.31	147	P	Pn	10 03 24.4	+3.2
ALNE				S	Sn	10 04 09.2	-2.3
CHMN	Cheshme madani	4.35	60	Pn	Pn	10 03 23.6	+1.6
IBAF	Bafgh	4.36	27	Pn	Pn	10 03 23.4	+1.4
DOBD	Dorbid, Yazd	4.39	15	Pn	Pn	10 03 23.7	+1.3
JASK	Jask - Hormozg	4.55	113	P	Pn	10 03 26.0	+1.6
JASK				S	Sn	10 04 17.5	+0.1
SOHO	SOHO	4.66	139	P	Pn	10 03 27.5	+1.5
KBAM	BAM	4.82	72	Pn	Pn	10 03 30.4	+2.2
UMZA	Um Al Zommool	5.29	160	P	Pn	10 03 36.7	+2.1
ARQ	Araqi	5.29	145	P	Pn	10 03 35.9	+1.2
	SNR=5.2						
HOQ	Hoqain	5.54	137	P	Pn	10 03 39.5	+1.4
BSY	Bisya	6.13	143	P	Pn	10 03 49.0	+2.7
	SNR=8.3						
SMDO	Samad	6.38	136	P	Pn	10 03 51.1	+1.4
SMDO				S	Sn	10 05 00.4	-2.3
WSAR	Wadi Sarin	6.63	131	P	Pn	10 03 53.9	+0.9
JMDO	Jabal Madar	6.93	139	P	Pn	10 03 58.3	+1.1
WBK	Wadi Bani Khal	7.29	133	P	Pn	10 04 01.8	-0.3
JLN	Jalan Bani Buh	7.90	133	P	Pn	10 04 09.0	-1.5
MHTO	MHTO	7.99	146	P	Pn	10 04 12.9	+1.2
	SNR=6.9						
DQM	DQM	8.71	152	P	Pn	10 04 23.2	+1.5
DOK	Doka	9.11	175	P	Pn	10 04 27.2	+0.1
	SNR=8.9						
WHFO	Wadi Hawf	9.78	177	P	Pn	10 04 36.4	+0.1
SHAO	Shalim	9.91	167	P	Pn	10 04 39.3	+1.2
DMTO	DMTO	10.09	171	P	Pn	10 04 40.2	-0.3
ABTO	Aybut	10.32	180	P	Pn	10 04 43.7	-0.2
GNI	Garni	14.24	333	LR	LR	10 11 11.9	
	comp=Z,29nm,19.7s,baz=156,slow=38						
BRTR	Keskin Array B	20.16	311	P	P	10 06 50.2	+0.1
	0.2nm,0.3s,baz=138,slow=14,SNR=2.1 0.2nm,0.3s						
AAK	Ala-Archa	22.80	44	LR	LR	10 17 36.7	
	comp=Z,62nm,18.4s,baz=308,slow=40						
AKTO	Aktyubinsk	22.97	8	LR	LR	10 18 19.4	
	comp=Z,99nm,18.4s,baz=324,slow=42						
ARTI	Arti	28.88	6	LR	LR	10 21 37.6	
	comp=Z,73nm,18.8s,baz=248,slow=40						
MKAR	Makanchi Array	29.70	42	P	P	10 08 22.3	+0.6
	0.5nm,0.6s,baz=235,slow=9.8,SNR=4.6 0.5nm,0.6s						
KURBB	Kurchatov Arra	29.86	33	LR	LR	10 21 48.2	
	comp=Z,59nm,19.2s,baz=190,slow=39						
ZALV	Zalesovo Beam	34.96	33	P	P	10 09 09.0	+1.5
	0.5nm,0.4s,baz=229,slow=7.2,SNR=1.6 0.5nm,0.4s						
FINES	FINESS Array B	38.28	339	P	P	10 09 35.5	-0.3
	2.1nm,0.6s,baz=145,slow=8.2,SNR=6.9 2.1nm,0.6s						
NOA	NORSAR Array B	43.54	332	LR	LR	10 30 00.5	
	comp=Z,24nm,20.0s,baz=340,slow=38						
ARCES	ARCESS Array B	44.83	347	P	P	10 10 28.2	-1.1
	3.8nm,1.0s,baz=147,slow=8.6,SNR=2.5						
SONM	Songino Array	45.58	49	P	P	10 10 37.2	+1.5
	0.6nm,0.5s,baz=251,slow=9.0,SNR=3.8 0.6nm,0.5s						
LSZ	Lusaka	49.16	213	LR	LR	10 34 30.3	
	comp=Z,54nm,18.2s,baz=262,slow=40						
TORD	Torodi Ar. Bea	50.07	264	P	P	10 11 10.0	-0.9
	1.0nm,0.9s,baz=61,slow=8.4,SNR=4.7 1.0nm,0.9s						
WRA	Warramunga Arr	91.62	112	P	P	10 15 22.2	-1.0
	0.3nm,0.7s,baz=303,slow=4.6,SNR=1.8 0.3nm,0.7s						
ASAR	Alice Springs	93.05	115	P	P	10 15 28.5	-1.3
	0.2nm,0.5s,baz=301,slow=4.7,SNR=2.3 0.2nm,0.5s						

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*BER **28** 10:02:31.6±2.1,79°.12N×2°.51E,h30^{km}±22^{km},Mw3.3, Confirmed Earthquake*

*DNK **28** 10:02:33.1±1.9,79°.09N×2°.11E,h36^{km}±44^{km},ML1.7, Presumed earthquake*

*KOLA **28** 10:02:35.7,78°.84N×5°.12E,h0^{km},ML1.9,Greenland sea,Knipovich ridge, north*

ISC 28 10:02:23.9±1.9**,79°.02N**±0°.06×**2°.90E**±0°.05**,h12**^{km}±14^{km}**, n14,**σ**2^{s}86**/25**,Greenland Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BRBB	Barentsburg B	2.44	107	eP	Pg	10 03 09.7	-0.9
BRBB				eS	Sb	10 03 36.2	-1.4
BRBB	Barentsburg B	2.44	107	P	Pg	10 03 09.1	-1.5
BRBB				S	Sb	10 03 36.1	-1.4
BRBA	Barentsburg A	2.46	108	eP	Pg	10 03 09.9	-1.0
BRBA				eS	Sb	10 03 36.8	-1.2
BRBA				IAML		10 03 40.9	
	comp=Z,12nm,0.2s						
SPA0	Spitsbergen Ar	2.80	101	eP	Pb	10 03 14.4	+0.6
SPA0				eS	Sb	10 03 46.0	-2.0
SPA0				IAML		10 03 49.5	
	comp=Z,8.4nm,0.6s						
SPITS	Spitsbergen Ar	2.80	101	P	Pb	10 03 14.2	+0.4
SPITS				S	Sb	10 03 46.4	-1.6
NOR	Nord	4.18	317	eP	Pn	10 03 30.0	+2.7
NOR				eS	Sn	10 04 13.5	-2.3
NOR	Nord	4.18	317	i P	Pn	10 03 30.0	+2.7
NOR				i S	Sn	10 04 13.2	-2.7
NOR				IAML		10 04 21.4	
	comp=Z,2.4nm,0.4s						
DAG	Danmarks Havn	5.04	254	eP	Pn	10 03 42.5	+3.4
DAG				eS	Sn	10 04 34.4	-2.7
DAG	Danmarks Havn	5.04	254	i P	Pn	10 03 43.2	+4.1
DAG				i S	Sn	10 04 33.9	-3.3
DAG				IAML		10 04 37.9	
	comp=Z,5.7nm,0.1s						
HOPEN	Hopen	5.30	107	eS	Sn	10 04 46.8	+3.2
DBG	Daneborg	7.08	240	eP	Pn	10 04 10.5	+3.4
DBG				eS	Sn	10 05 23.9	-3.3
DBG	Daneborg	7.08	240	i P	Pn	10 04 11.2	+4.2
DBG				i S	Sn	10 05 21.8	-5.4
DBG				IAML		10 05 30.1	
	comp=Z,2.7nm,0.4s						
NEEM	North Greenlan	10.78	289	i P	Pn	10 04 58.4	+0.4
NEEM				i S	Sn	10 06 46.9	-12
NEEM				IAML		10 06 52.9	
	comp=Z,2.0nm,0.3s						
SUMG	Summit	11.71	259	i P	Pn	10 05 23.8	+13
SUMG				i S	Sn	10 07 20.8	-0.5

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*MEX **28** 10:06:55.2±0.5,15°.27N×94°.19W,h16^{km}±13^{km},MD4.3, Presumed earthquake*

*CATAC **28** 10:06:57.1±0.8,16°N±3°×9°4W±°,h94^{km}±11^{km},M4.4/7, mb4.3/4,mB4.6/2,MLv4.5/7,Mw(mB)3.8/2,Error ellipse: s-maj=10.7km s-min=5.5km az=64.5,confirmed*

*SNET **28** 10:07:04.0±1.1,15°.19N×93°.58W,h35^{km}±999^{km},ML4.1, Presumed earthquake*

ISC 28 10:06:51.1±2.0**,15°.47N**±0°.06×**94°.17W**±0°.03**,h2**^{km}±12^{km}**, n31,**σ**2^{s}05**/54**,Near coast of Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TGIG		1.64	37	eP	Pg	10 07 22.5	-0.2
TGIG				eS	Sg	10 07 42.5	-1.6
CMIG	Matias Romero	1.76	337	i P	Pn	10 07 24.2	+1.6
CMIG				eS	Sb	10 07 46.4	-0.2
UXUV	UXUV	1.84	1	eP	Pg	10 07 26.3	-0.1
UXUV				eS	Sg	10 07 49.4	-1.0
HUIG	Huatulco	1.90	279	eP	Pn	10 07 24.4	-0.2
HUIG				eS	Sn	10 07 45.2	-3.8
HUEH	Huehuetenango	2.57	93	eP	Pn	10 07 36.3	+2.2
HUEH	Huehuetenango	2.57	93	P	Pn	10 07 35.3	+1.2
HUEH				S	Sn	10 08 05.4	-0.7
NEUV	Arroyo Zacate	2.73	325	eP	Pn	10 07 37.1	+1.1
NEUV				eS	Sn	10 08 10.9	+1.3
PEIG	Puerto Escondi	2.92	281	eP	Pn	10 07 38.7	+0.1
PEIG				eS	Sn	10 08 09.8	-4.5
VHO	Vista Hermosa	2.94	303	eP	Pn	10 07 40.1	+1.1
VHO				eS	Sn	10 08 15.2	+0.2
YOIG	Yosondua	3.53	293	eP	Pn	10 07 49.9	+2.6
YOIG				eS	Sn	10 08 29.4	-0.3
TOIG	Toxpalan	3.81	314	eP	Pn	10 07 54.2	+3.1
TOIG				eS	Sn	10 08 38.0	+1.4
TXIG	Tlaxiaco	3.89	298	eP	Pn	10 07 54.2	+2.0
TXIG				eS	Sn	10 08 38.7	+0.2
TPIG	Tehuac#an	4.24	314	eP	Pn	10 08 00.1	+3.1
TPIG				eS	Sn	10 08 49.6	+2.5
SCIG	Sabancuy	4.50	39	P	Pn	10 08 01.0	+0.7
SCIG				S	Sn	10 08 51.2	-2.0
FTIG	Fresnillo de T	4.51	303	eP	Pn	10 08 03.6	+3.0
FTIG				eS	Sn	10 08 52.0	-1.8
NUBE	Las Nubes	4.52	110	S	Sn	10 08 53.5	-0.5
JAUV	Jalcomulco	4.62	327	eP	Pn	10 08 03.3	+1.2
JAUV				eS	Sn	10 08 54.2	-2.2
MGIG	Malinaltepec	4.63	293	eP	Pn	10 08 05.7	+3.3
MGIG				eS	Sn	10 08 56.0	-0.9
CEVE	Cerro Verde	4.69	110	eP	Pn	10 08 05.1	+1.9
CEVE				eS	Sn	10 08 52.7	-5.6
CEVE				IAML		10 09 09.9	
	comp=Z,247nm,0.3s						
CEVE	Cerro Verde	4.69	110	P	Pn	10 08 04.0	+0.8
CEVE				S	Sn	10 08 57.8	-0.5
TLIG	Tlapa	4.71	297	eP	Pn	10 08 06.3	+3.0
TLIG				eS	Sn	10 08 58.3	-0.3
TLIG	Tlapa	4.71	297	P	Pn	10 08 06.6	+3.2
MTO3	Montecristo	4.76	102	P	Pn	10 08 05.1	+0.9
JAYA	Jayaque - finc	4.91	111	P	Pn	10 08 07.8	+1.7
PMON	Piamonte	5.01	110	S	Sn	10 09 05.4	-0.7
LOMA	Loma Larga	5.16	110	P	Pn	10 08 10.9	+1.3
LOMA				S	Sn	10 09 09.1	-0.8
SARH	Santa Rosa de	5.26	97	P	Pn	10 08 12.3	+1.4
SARH				S	Sn	10 09 10.7	-1.6
COEG	Centro de Oper	5.44	109	eP	Pn	10 08 15.7	+2.4
TECO	Alcaldia de Te	5.56	110	S	Sn	10 09 18.6	-0.8
CNCH	Conchagua	6.51	109	P	Pn	10 08 29.5	+1.4
CNCH				S	Sn	10 09 42.4	-0.7
TEIG	Tepich	7.34	49	P	Pn	10 08 39.2	-0.1
TEIG				S	Sn	10 10 00.2	-3.1

IDC 28 10:07:37.9±21.0**,18°.07S**×**179°.47E,h0**^{km}**,mb3.5**/3**, mbtmp3.5**/3**,Error ellipse: s-maj=523.6km s-min=44.3km az=34.0,Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	42.61	260	P	P	10 15 35.9	-0.3
	0.2nm,0.6s,baz=94,slow=8.3,SNR=1.4 0.2nm,0.6s						
ASAR	Alice Springs	42.80	254	P	P	10 15 37.8	0.0
	0.7nm,0.5s,baz=89,slow=8.2,SNR=25 0.7nm,0.5s						
VNDA	Vanda	60.12	184	P	P	10 17 46.6	0.0
	0.5nm,0.6s,baz=55,slow=12,SNR=7.6 0.5nm,0.6s						

VIE 28 10:13:14.3±0.1**,47°.14N**×**14°.99E,h0**^{km}**,ml1.4**/8**,Error ellipse: s-maj=1.2km s-min=1.1km az=160.0 10 km NW of Maria Lankowitz Suspected Mining explosion., Austria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SESA	Seetaler Alpe,	0.29	265	ePg	Pg	10 13 20.3	+0.4
SESA				i Sg	Sg	10 13 24.4	+0.8
ARSA	Arzberg	0.38	73	i Pg	Pg	10 13 21.6	-0.1
	2.6nm,0.1s						
ARSA				i Sg	Sg	10 13 27.1	+0.5
	6.1nm,0.1s						
SOKA	Soboth	0.46	176	i Pg	Pg	10 13 23.5	+0.3
	1.6nm,0.1s						
SOKA				i Sg	Sg	10 13 29.4	+0.3
	2.0nm,0.1s						
OBKA	Obir	0.70	206	i Pg	Pg	10 13 28.3	+0.6
	2.7nm,0.1s						
OBKA				i Sg	Sb	10 13 38.1	-1.5
	1.4nm,0.1s						
MOA	Molln	0.86	326	ePg	Pg	10 13 31.1	+0.2
	1.1nm,0.1s						
CONA	Conrad Observa	0.99	37	ePg	Pg	10 13 33.5	+0.2
	0.7nm,0.2s						
MYKA	Terra Mystica	1.05	242	ePg	Pg	10 13 34.4	-0.1
	0.4nm,0.1s						
MYKA				i Sg	Sg	10 13 48.2	+0.1
	0.7nm,0.1s						
RONA	Rosalia, Austr	1.05	57	ePg	Pg	10 13 34.1	-0.4
	0.4nm,0.1s						

ROM 28 10:14:06.4±0.2**,46°.15N**±0°.01×**11°.18E**±0°.02**,h0**^{km}**, ML0.8**/6**,2C,Error ellipse: s-maj=1.5km s-min=1.1km az=285.0,Northern Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PANI	Panarotta	0.14	133	⇑ePg	Pg	10 14 10.1	+0.9
PANI	Panarotta	0.14	133	P	Pg	10 14 10.1	+0.9
PANI				AML	AML		
	comp=E,41µm,0.2s						
PANI				AML	AML		
	comp=N,56µm,0.6s						
PANI				AML	AML		
	comp=N,56µm,1.4s						
GAGG	Gaggia	0.17	247	⇑ePg	Pg	10 14 10.6	+0.9
GAGG	Gaggia	0.17	247	P	Pg	10 14 10.6	+0.9
GAGG				AML	AML		
	comp=N,42µm,0.3s						
GAGG				AML	AML		
	comp=E,60µm,0.5s						
LUSI	Trento, Gardas	0.25	221	P	Pg	10 14 12.1	+0.8
LUSI				AML	AML		
	comp=E,43µm,1.2s						
LUSI				AML	AML		
	comp=N,79µm,0.8s						
LUSI				AML	AML		
	comp=E,35µm,0.3s						
LUSI				AML	AML		
	comp=N,76µm,0.2s						
DOSS	Dosso del Somm	0.27	179	ePg	Pg	10 14 12.3	+0.8
DOSS	Dosso del Somm	0.27	179	P	Pg	10 14 12.3	+0.8
DOSS				AML	AML		
	comp=E,51µm,1.6s						
DOSS				AML	AML		
	comp=N,36µm,1.5s						
OZOL	Ozolo	0.27	340	P	Pg	10 14 12.6	+1.0
APPI	Appiano	0.33	5	P	Pb	10 14 14.1	-1.2
VARA	Varagna	0.38	212	P	Pb	10 14 15.2	-0.9
MABI	Malga Bissina	0.47	259	P	Pg	10 14 16.3	+0.8
MARN	Marana (Italy)	0.51	178	P	Pg	10 14 16.9	+0.6
BRES	Bressanone	0.67	35	P	Pg	10 14 20.1	+0.9

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*IDC **28** 10:36:37.4±3.8,10°.65S×166°.78E,h0^{km},mb4.0/4, mbtmp4.2/6,ML4.1/2,MS2.8/1,Error ellipse: s-maj=69.2km s-min=21.2km az=37.0*

ISC 28 10:36:45.7±2.5**,11°.0S**±0°.2×**166°.5E**±0°.2**,h35**^{km}**,n6, **σ**1^{s}77**/8**,mb3.9**/4**,Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	6.62	283	Pn	Pn	10 38 18.1	-2.4
	7.1nm,0.3s,baz=303,slow=5.9,SNR=1.7						
HNR				Sn	Sn	10 39 36.2	+1.4
	7.9nm,0.3s,baz=281,slow=4.2,SNR=1.5						
HNR				LR	LR	10 40 56.1	
	comp=Z,90nm,21.5s,baz=153,slow=38 147nm,0.9s						
HNR				AML	AML		
DZM	Mont Dzumac	11.02	180	Pn	Pn	10 39 21.8	+0.9
	0.7nm,0.3s,baz=284,slow=23,SNR=7.6						
DZM				Sn	Sn	10 41 21.1	-1.9
	0.1nm,0.3s,baz=109,slow=23,SNR=1.8 9.1nm,0.9s						
DZM				AML	AML		
STKA	Stephens Creek	30.98	224	P	P	10 43 01.6	+1.7
	1.8nm,0.9s,baz=51,slow=13,SNR=1.8 1.8nm,0.9s						
WRA	Warramunga Arr	32.18	250	P	P	10 43 11.3	+0.7
	1.5nm,1.0s,baz=79,slow=9.2,SNR=6.6 1.5nm,1.0s						
ASAR	Alice Springs	33.46	244	P	P	10 43 21.6	-0.2
	1.5nm,0.7s,baz=68,slow=10.0,SNR=22 1.5nm,0.7s						
QSPA	South Pole Qui	79.01	180	P	P	10 48 45.7	-0.3
	2.2nm,1.1s,baz=27,slow=3.9,SNR=3.6 2.2nm,1.1s						

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*KRNET **28** 10:42:21.4±0.1,40°.52N×72°.66E,h13^{km},mb2.6*

*ISU **28** 10:42:22,40°.53N×72°.60E,h10^{km}*

ISC 28 10:42:20.5±1.0**,40°.49N**±0°.04×**72°.73E**±0°.03**,h8**^{km}±6^{km}**, n17,**σ**0^{s}99**/31**,16C-10D,Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OHH	Osh	0.05	48	⇑iP	Pg	10 42 22.6	+0.2
OHH				⇑iS	Sg	10 42 24.6	+0.9
TSTA	Tashata	0.21	295	P	Pg	10 42 23.2	-1.7
TSTA				S	Sg	10 42 25.2	-2.6
FRG	Fergana	0.73	261	P	Pg	10 42 34.1	-0.5
FRG				S	Sg	10 42 44.2	0.0
SFK	Sufi-Kurgan	0.76	129	⇑iP	Pn	10 42 37.3	-0.5
SFK				⇑iS	Sn	10 42 48.8	-0.7
ARSB	Arslanbob	0.86	13	⇓eP	Pb	10 42 37.8	0.0
ARSB				⇓eS	Sb	10 42 49.8	+0.3
SALK	Salom-Alik	0.92	64	⇓eP	Pn	10 42 40.0	+0.1
SALK				⇓eS	Sn	10 42 53.2	-0.2
DRK	Karamyk	1.23	216	⇑eP	Pn	10 42 44.7	+0.3
DRK				⇑eS	Sn	10 43 02.3	+0.9
ARK	Arkit	1.43	336	⇑iP	Pb	10 42 47.9	+0.3
ARK				⇑iS	Sb	10 43 07.1	+1.1
TRKS	Terek-Say	1.59	311	⇓iP	Pn	10 42 49.4	+0.2
TRKS				⇓iS	Sn	10 43 09.9	-0.2
MNAS	Manas	2.00	355	⇓iP	Pg	10 42 58.6	-0.4
MNAS				⇓iS	Sg	10 43 25.3	+0.3
UCH	Uchtor	2.19	37	⇑iP	Pg	10 43 02.0	-0.7
UCH				⇑iS	Sg	10 43 32.1	+1.0
PSK	Pskem	2.29	310	P	Pb	10 43 02.9	+0.7
PSK				S	Sb	10 43 32.2	+1.5
EKS2	Erkin-Say	2.31	20	⇓iP	Pb	10 43 02.7	+0.2
EKS2				⇓iS	Sg	10 43 33.4	-1.3
AAK	Ala-Archa	2.52	31	⇑Pg	Pg	10 43 08.6	-0.3
	1.6nm,0.6s						
AAK				⇑Lg	Lg	10 43 41.8	
	2.2nm,0.5s						
AAK	Ala-Archa	2.52	31	⇑iP	Pb	10 43 06.1	-0.1
AAK				⇑iS	Sg	10 43 39.4	-2.2
TVKS	Tavaksay	2.57	296	S	Sb	10 43 39.7	+1.0
KK31	Karatay Array	3.10	328	⇑Pg	Pg	10 43 20.3	+0.4
	0.4nm,0.2s,baz=27,slow=11,SNR=4.8						
KK31				⇑Lg	Lg	10 43 58.2	
	1.2nm,0.3s,baz=144,slow=29,SNR=6.1						

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*IDC **28** 10:50:23.2±2.0,23°.36S×179°.47E,h585^{km}±47^{km},mb3.2/8, mbtmp4.2/10,Error ellipse: s-maj=67.2km s-min=20.0km az=26.0*

ISC 28 10:50:22.1±1.4**,23°.7S**±0°.2×**179°.4E**±0°.2**,h548**^{km}**,n10,** σ**0^{s}90**/10**,mb3.8**/8**,South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	6.05	348	P	P	10 52 01.4	+0.1
	4.7nm,0.5s,baz=168,slow=14,SNR=13						
DZM	Mont Dzumac	12.05	275	P	P	10 53 02.7	+1.4
	6.1nm,0.9s,baz=171,slow=23,SNR=1.7						
CTA	Charters Tower	30.92	270	P	P	10 55 55.1	+0.3
	13nm,0.4s,baz=92,slow=10,SNR=25 13nm,0.4s						
STKA	Stephens Creek	34.29	248	P	P	10 56 23.4	+0.2
	1.4nm,0.6s,baz=106,slow=8.8,SNR=3.0 1.4nm,0.6s						
ASAR	Alice Springs	41.52	261	P	P	10 57 21.6	-0.6
	1.6nm,0.5s,baz=96,slow=7.2,SNR=35 1.6nm,0.5s						
WRA	Warramunga Arr	41.87	266	P	P	10 57 23.8	-1.1
	2.5nm,0.5s,baz=104,slow=8.1,SNR=160 2.5nm,0.5s						
FITZ	Fitzroy Crossi	50.29	266	P	P	10 58 27.5	-1.3
	2.1nm,0.6s,baz=100,slow=7.9,SNR=9.0 2.1nm,0.6s						
VNDA	Vanda	54.55	185	P	P	10 58 58.8	+0.4
	0.3nm,0.6s,baz=41,slow=4.0,SNR=2.6 0.3nm,0.6s						
QSPA	South Pole Qui	66.40	180	P	P	11 00 17.0	+0.1
	1.4nm,0.5s,baz=25,slow=3.5,SNR=19 1.4nm,0.5s						
MAW	Mawson	77.76	201	P	P	11 01 22.4	-0.1
	1.3nm,0.6s,baz=51,slow=7.8,SNR=3.5 1.3nm,0.6s						

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*SNET **28** 10:54:55.6±1.7,12°.91N×88°.99W,h29^{km},ML3.6, Presumed earthquake*

*CATAC **28** 10:54:55.3±0.4,13°N±2°×8°9W±°,h28^{km}±2^{km},M3.6/24, MLv3.6/24,Error ellipse: s-maj=5.7km s-min=2.4km az=27.6,confirmed*

*GCG **28** 10:54:56.7±1.1,13°.03N×88°.99W,h47^{km}±30^{km},MD4.0, Presumed earthquake*

ISC 28 10:54:55.1±1.5**,12°.92N**±0°.06×**89°.01W**±0°.04**,h27**^{km}±13^{km}**, n42,**σ**0^{s}44**/66**,Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ALJI	Alcalda de J	0.59	46	eP	Pn	10 55 08.0	+0.3
ALJI				eS	Sn	10 55 17.3	+0.9
ALJI	Alcalda de J	0.59	46	P	Pn	10 55 07.9	+0.3
ALJI				S	Sn	10 55 17.6	+1.2
LALI	Alcalda de L	0.64	332	i P	Pn	10 55 08.6	+0.1
LALI	Alcalda de L	0.64	332	P	Pn	10 55 08.6	+0.1
LALI				S	Sn	10 55 18.0	+0.3
TECO	Alcaldia de Te	0.65	20	P	Pn	10 55 08.4	-0.2
TECO				S	Sn	10 55 17.8	-0.2
COEG	Centro de Oper	0.71	10	P	Pb	10 55 09.1	+0.2
COEG				S	Sn	10 55 19.1	-0.3
LOMA	Loma Larga	0.74	347	P	Pb	10 55 09.7	+0.2
LOMA				S	Sn	10 55 20.2	-0.1
UTEC	Universidad Te	0.80	346	S	Sn	10 55 21.6	-0.1
SEMO	Seminario San	0.81	345	P	Pn	10 55 10.5	-0.3
SEMO				S	Sn	10 55 21.8	-0.1
SCLA	Alcaldia de Sa	0.82	19	S	Sn	10 55 22.3	0.0
UEES	Universidad Ev	0.82	344	P	Pn	10 55 10.9	-0.2
UEES				S	Sn	10 55 22.4	0.0
PMON	Piamonte	0.84	339	P	Pn	10 55 11.2	-0.1
PMON				S	Sn	10 55 22.8	-0.1
JAYA	Jayaque - finc	0.85	329	i P	Pn	10 55 11.2	-0.2
JAYA				i S	Sb	10 55 22.0	-0.4
JAYA	Jayaque - finc	0.85	329	P	Pn	10 55 11.4	0.0
JAYA				S	Sn	10 55 23.2	+0.1
BOQS	Boqueron	0.85	342	eP	Pn	10 55 11.6	0.0
PACA	Pacayal	0.86	51	P	Pn	10 55 11.6	0.0
PACA				S	Sn	10 55 23.3	0.0
RANC	El Ranchito	0.87	54	P	Pn	10 55 11.5	-0.2
RANC				S	Sn	10 55 23.7	+0.2
BLLM	Bellamira	0.91	55	eP	Pn	10 55 12.1	-0.2
CEDA	San Andres	0.95	337	P	Pn	10 55 12.8	0.0
CEDA				S	Sb	10 55 25.7	+0.3
CEVE	Cerro Verde	1.08	326	eP	Pb	10 55 15.6	+0.2
P5NO	Presa 5 de nov	1.09	13	P	Pn	10 55 14.5	-0.1

P5NO				S	Sn	10 55 28.2	-0.5
LCND	La Caada	1.15	70	P	Pn	10 55 15.5	0.0
UNIC	Universidad Ca	1.18	333	P	Pn	10 55 16.1	+0.2
UNIC				S	Sn	10 55 31.4	+0.3
CNCH	Conchagua	1.20	73	*e*P	Pn	10 55 16.0	-0.2
CNCH				*e*S	Sb	10 55 32.1	-0.3
CNCH	Conchagua	1.20	73	P	Pn	10 55 15.8	-0.3
CNCH				S	Sn	10 55 31.7	+0.1
NUBE	Las Nubes	1.23	322	*i* P	Pn	10 55 16.8	+0.1
NUBE				*i* S	Sn	10 55 32.0	-0.5
NUBE	Las Nubes	1.23	322	P	Pn	10 55 16.9	+0.1
NUBE				S	Sn	10 55 32.8	+0.2
LLGN	La Laguna	1.24	3	P	Pn	10 55 16.5	-0.3
LLGN				S	Sn	10 55 32.3	-0.3
FAME	Alcaldia de Sa	1.34	313	P	Pn	10 55 18.5	+0.4
FAME				S	Sn	10 55 35.2	+0.2
CSGN	Cosiguina Volc	1.41	88	P	Pn	10 55 19.3	+0.2
CSGN				S	Sn	10 55 37.3	+0.4
POTN	Potosi Cosigui	1.46	87	P	Pn	10 55 20.1	+0.4
POTN				S	Sn	10 55 38.5	+0.4
MTO3	Montecristo	1.51	347	*i* P	Pn	10 55 20.4	-0.2
MTO3	Montecristo	1.51	347	P	Pn	10 55 20.4	-0.2
MARCA	Marcala la Paz	1.55	37	*i* P	Pn	10 55 20.5	-0.5
SARH	Santa Rosa de	1.86	7	*i* P	Pn	10 55 25.7	+0.4
SARH	Santa Rosa de	1.86	7	S	Sn	10 55 47.7	-0.3
TGUH	Tegucigalpa,Un	2.03	56	P	Pn	10 55 27.6	0.0
PLRN	Geotermica Pol	2.21	98	P	Pn	10 55 30.0	0.0
ROCN	Rota Cerro Neg	2.24	100	P	Pn	10 55 29.2	-1.3
ILCN	San Idelfonso	2.28	98	P	Pn	10 55 29.1	-1.8
CNGA	Al SSO del Vol	2.29	100	P	Pn	10 55 30.7	-0.4
CNGN	Cerro Negro	2.29	100	S	Sn	10 55 59.4	+0.8

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*ISK **28** 11:05:47.5, 38°.01N×34°.10E, h7^{km}, ML2.7/18*
*AFAD **28** 11:05:47.7, 38°.03N×33°.99E, h7^{km}±1^{km}, ML2.5*
ISC 28 11:05:47.8±1.2, **38°.02N**±0°.03×**34°.07E**±0°.04, **h9**^{km}±10^{km}, **n27**, σ**0^{s}.77**/40, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BSIR	Belisirma, Guz	0.30	35	P	Pg	11 05 54.4	+0.5
BSIR				S	Sb	11 05 59.8	-0.9
BSIR				IAML		11 06 00.0	
	comp=E,352nm,0.3s						
BSIR				IAML		11 06 05.0	
	comp=N,557nm,0.4s						
YESY	Yesilyurt	0.35	228	Pg	Pb	11 05 55.5	-0.8
YESY				AML	AML		
GULA	Gulagac	0.35	22	Pg	Pg	11 05 54.8	0.0
GULA				Sg	Sg	11 06 00.4	+0.9
GULA				AML	AML		
AKSY	AKSARAY - Alti	0.68	339	P	Pg	11 06 00.2	-0.7
AKSY				S	Sg	11 06 09.2	-0.5
AKSY				IAML		11 06 14.0	
	comp=N,192nm,0.4s						
AKSY				IAML		11 06 15.0	
	comp=E,186nm,0.7s						
AVNS	Nevsehir-Avano	1.00	38	P	Pg	11 06 07.1	+0.1
AVNS				S	Sb	11 06 21.3	+0.7
AVNS				IAML		11 06 26.0	
	comp=N,202nm,0.6s						
AVNS				IAML		11 06 28.0	
	comp=E,181nm,0.5s						
SERE	Sereflikochisa	1.01	337	Pg	Pb	11 06 07.5	0.0
SERE				Sg	Sn	11 06 21.9	-0.8
SERE				AML	AML		
KRMN	Karaman	1.06	217	Pg	Pb	11 06 08.0	-0.4
KRMN				Sg	Sn	11 06 23.1	-0.8
KRMN				AML	AML		
KIRS	Kirsehir-Merke	1.12	354	P	Pg	11 06 08.2	-1.1
KIRS				S	Sb	11 06 24.0	-0.2
KIRS				IAML		11 06 27.0	
	comp=N,74nm,0.5s						
KIRS				IAML		11 06 27.0	
	comp=E,146nm,0.7s						
MCUR	KIREHR	1.20	17	P	Pg	11 06 09.8	-1.0
MCUR				S	Sg	11 06 26.4	0.0
MCUR				IAML		11 06 28.0	
	comp=E,77nm,0.5s						
MCUR				IAML		11 06 29.0	
	comp=N,54nm,0.3s						
CBEY	Konya-Cihanbey	1.21	304	P	Pg	11 06 10.5	-0.6
CBEY				S	Sb	11 06 26.5	-0.3
CBEY				IAML		11 06 33.0	
	comp=N,150nm,0.6s						
CBEY				IAML		11 06 43.0	
	comp=E,138nm,0.5s						
KULU	Kulu	1.32	321	Pn	Pg	11 06 12.9	-0.3
KULU				AML	AML		
KONT	Konya--Tatoy	1.35	267	Pn	Pg	11 06 14.1	+0.3
KONT				Sn	Sn	11 06 33.3	+2.3
KONT				AML	AML		
LADK	Ladik-KONYA	1.36	278	Pn	Pn	11 06 12.8	-0.3
LADK				AML	AML		
KAMT	Kaman	1.38	348	Pn	Pb	11 06 13.8	0.0
KAMT				AML	AML		
KKUL	Konya-Kulu	1.46	322	P	Pg	11 06 15.8	0.0
KKUL				S	Sg	11 06 34.8	-0.1
KKUL				IAML		11 06 43.0	
	comp=N,102nm,0.6s						
KKUL				IAML		11 06 49.0	
	comp=E,121nm,0.6s						
AKPI	Kirsehir/Akpin	1.48	358	P	Pn	11 06 14.5	-0.3
AKPI				S	Sg	11 06 36.5	+0.9
AKPI				IAML		11 06 37.0	
	comp=E,92nm,0.5s						
AKPI				IAML		11 06 43.0	
	comp=N,80nm,0.4s						
AFSR	Afar-Bala (An	1.63	332	Pn	Pb	11 06 17.9	-0.2
AFSR				AML	AML		
HDMB	Hadim	1.64	231	Pn	Pb	11 06 18.0	-0.4
HDMB				AML	AML		
TEVE	Tevekalti-Mers	1.66	198	Pn	Pn	11 06 17.4	+0.2
TEVE				AML	AML		
KESK	Krkkale-Ke	1.66	347	P	Pn	11 06 17.0	-0.2
KESK				S	Sg	11 06 41.4	+0.2
KESK				IAML		11 06 42.0	
	comp=E,61nm,0.6s						
KESK				IAML		11 06 45.0	
	comp=N,120nm,0.4s						
BERE	Bereket-Mersin	1.80	202	Pn	Pn	11 06 19.5	+0.3
BERE				AML	AML		
SEYD	Seydisehir-KON	1.87	252	Pn	Pb	11 06 21.1	-1.2
SEYD				AML	AML		
KIZT	Kizilcal	1.92	297	Pn	Pb	11 06 22.7	-0.4
KIZT				AML	AML		
POLA	Polatl-ANKAR	2.24	319	Pn	Pn	11 06 26.4	+1.2
POLA				AML	AML		
GAZI	Gazipasa	2.27	219	Pn	Pn	11 06 26.2	+0.7
GAZI				AML	AML		
SVRH	Sivrihisar-ESK	2.45	306	Pn	Pn	11 06 29.4	+1.3
SVRH				AML	AML		
SDAG	Sultandagi-AFY	2.52	281	Pn	Pn	11 06 30.3	+1.3
SDAG				AML	AML		

IDC 28 11:15:48.1±377.0, **63°.48N×42°.33E, h0**^{km}**, Error ellipse: s-maj=180.4km s-min=119.1km az=9.0, Baltic States-Belarus-Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I43RU	DUBNA INFRASON	7.24	203	I	I	12 03 20.0	
	baz=15,slow=329,SNR=0.7						
I37NO	I37NO	11.02	311	I	I	12 31 15.0	
	0.1nm,1.1s,baz=112,slow=321,SNR=2.2						
I46RU	ZALESOVO INFRA	23.59	94	I	I	13 36 57.1	
	baz=312,slow=316,SNR=3.1						

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*AEIC **28** 11:36:26.0±1.5, 63°.00N±0°.02×151°.55W±0°.04, h4^{km}±4^{km}, Error ellipse: s-maj=2.3km s-min=2.1km az=92.0*
*NEIC **28** 11:36:26.5±0.9, 63°.02N±0°.02×151°.58W±0°.04, h13^{km}±1^{km}, mb3.9/9, ML3.7/188, ML3.5(AEIC), Error ellipse: s-maj=2.7km s-min=2.2km az=62.0*
ISC 28 11:36:25.8±1.0, **63°.02N**±0°.02×**151°.57W**±0°.02, **h10**^{km}±7^{km}, **n198**, σ**1^{s}.28**/208, **mb4.1**/3, **Central Alaska**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PPLA	Purkeypile	0.31	247	Pg	Pg	11 36 32.7	+0.7
PPLA				IAML		11 36 38.1	
	comp=E,9µm,0.4s						
CAST	Castle Rocks	0.47	330	Pg	Pg	11 36 35.8	+0.9
CAST				Sg	Sg	11 36 41.7	+0.7
KTH	Kantishna Hill	0.61	28		Pg	11 36 38.4	+0.8
KTH				Sg	Sg	11 36 46.2	+0.5
TRF	Thorofare Moun	0.72	52	Pg	Pg	11 36 40.6	+0.8
TRF				Sg	Sg	11 36 49.2	0.0
CUT	Chulitna	0.86	135	Sg	Sb	11 36 54.4	+0.2
CHUM	Lake Minchumin	0.93	339		Pg	11 36 44.5	+0.8
CHUM					Sg	11 36 56.4	+0.5
SKT	Skwentna	1.04	179		Pg	11 36 46.0	+0.3
SKT					Sg	11 36 59.3	+0.1
SKT				IAML		11 36 59.7	
	comp=E,2µm,0.4s						
BPAW	Bear Paw Mtn.	1.12	13		Pg	11 36 47.5	+0.3
BPAW					Sg	11 37 02.2	+0.5
BPAW				IAML		11 37 04.2	
	comp=E,2µm,0.6s						
BPAW				IAML		11 37 05.3	
	comp=N,2µm,0.7s						
K20K	Telida	1.19	288		Pg	11 36 48.7	+0.2
K20K					Sb	11 37 04.9	+1.2
K20K				IAML		11 37 05.9	
	comp=N,1µm,0.6s						
L20K	Farewell, AK	1.19	244		Pg	11 36 48.2	-0.4
L20K				Sn	Sg	11 37 04.2	+0.1
L20K				IAML		11 37 06.1	
	comp=E,2µm,0.3s						
L20K				IAML		11 37 08.9	
	comp=N,2µm,0.4s						
WAT7	Susitna Watana	1.26	97		Pg	11 36 49.9	+0.1
WAT7					Sg	11 37 06.0	-0.2
RND	Reindeer	1.29	71		Pn	11 36 50.5	+0.6
RND					Sb	11 37 07.6	+0.8
M20K	Styx River	1.35	213		Pn	11 36 50.7	0.0
M20K				Sn	Sb	11 37 08.6	0.0
M20K				IAML		11 37 09.4	
	comp=N,906nm,0.5s						
M20K				IAML		11 37 09.9	
	comp=E,912nm,0.5s						
MCK	McKinley	1.39	58		Pn	11 36 52.1	+0.9
MCK				IAML		11 37 15.4	
	comp=N,1µm,0.8s						
MCK				IAML		11 37 18.6	
	comp=E,993nm,0.8s						
WAT1	Susitna Watana	1.39	96		Pn	11 36 52.1	+0.8
WAT1					Sb	11 37 09.8	+0.1
M22K	Willow	1.44	151		Pn	11 36 52.4	+0.6
BWN	Browne	1.49	38		Pn	11 36 53.6	+1.0
BWN				IAML		11 37 21.8	
	comp=N,1µm,0.5s						
BWN				IAML		11 37 23.7	
	comp=E,1µm,0.7s						
STLK	Strandline Lak	1.53	185		Pn	11 36 53.9	+0.7
STLK					Sn	11 37 13.8	+0.7
SUA	Susitna One	1.60	166		Pn	11 36 55.1	+0.9
SUA				Sn	Sg	11 37 17.4	+0.1
J20K	Nowinta River	1.64	316		Pn	11 36 55.6	+1.0
M19K	Big River Lodg	1.72	231		Pn	11 36 57.0	+1.2
M19K				IAML		11 37 22.5	
	comp=N,956nm,0.3s						
M19K				IAML		11 37 22.0	
	comp=E,942nm,0.6s						
L19K	White Mountain	1.74	243		Pn	11 36 56.4	+0.4
L19K				IAML		11 37 28.3	
	comp=E,646nm,0.8s						
GHO	Glory Hole Cre	1.75	134	Pn	Pn	11 36 57.1	+0.8
GHO				Sn	Sb	11 37 20.4	+0.4
GHO				IAML		11 37 21.7	
	comp=N,776nm,0.6s						
GHO				IAML		11 37 22.8	
	comp=E,916nm,0.5s						
WAT6	Susitna Watana	1.81	102		Pn	11 36 57.1	0.0
PMR	Palmer	1.83	140	P	Pn	11 36 58.4	+1.2
PMR	Palmer	1.83	140	S	Sb	11 37 22.6	+0.5
PMR	Palmer	1.83	140		Pn	11 36 58.2	+1.1
PMR				IAML		11 37 26.2	
	comp=E,496nm,0.9s						
CKL	Chakachamna La	1.86	192		Pn	11 36 59.1	+1.3
DHY	Denali Highway	1.91	86	Pn	Pn	11 36 58.5	0.0
DHY				IAML		11 37 28.4	
	comp=E,669nm,0.5s						
NEA2	Nenana	1.93	34	Pn	Pn	11 36 58.1	-0.6
SML	Sawmill	1.93	127	Pn	Pn	11 36 59.0	+0.3
SML				Sn	Sb	11 37 25.1	-0.2
SML				IAML		11 37 29.0	
	comp=N,514nm,0.5s						
MLY	Manley	2.06	10		Pn	11 37 00.8	+0.4
MLY				IAML		11 37 32.1	
	comp=E,495nm,0.8s						
MLY				IAML		11 37 35.3	
	comp=N,516nm,0.6s						
J19K	Poorman	2.07	300		Pn	11 37 01.1	+0.6
J19K				IAML		11 37 36.5	
	comp=N,439nm,0.5s						
RC01	Rabbit Creek A	2.12	155	Pn	Pn	11 37 02.1	+1.0
RC01					Sb	11 37 31.2	+0.7
RC01				IAML		11 37 31.4	
	comp=E,427nm,0.4s						
RC01				IAML		11 37 31.4	
	comp=N,332nm,0.5s						
WRH	Wood River Hil	2.13	45		Pn	11 37 01.2	-0.1
M23K	Glacier View	2.17	123		Pn	11 37 02.8	+0.9
M23K					Sb	11 37 32.4	+0.4
KNK	Knik Glacier	2.17	136	Pn	Pn	11 37 02.1	+0.1
KNK				IAML		11 37 35.4	
	comp=E,479nm,0.5s						
I21K	Tanana	2.18	355	Pn	Pn	11 37 02.5	+0.5
I21K				IAML		11 37 37.1	
	comp=E,489nm,0.6s						
I21K				IAML		11 37 43.4	
	comp=N,517nm,0.7s						
I20K	Naaghedeneel	2.20	326		Pn	11 37 02.4	+0.1
CAPN	Captain Cook N	2.26	175	Pn	Pn	11 37 03.0	-0.1
SCM	Sheep Creek Mo	2.30	119	Pn	Pn	11 37 04.5	+0.7
SCM				IAML		11 37 41.2	
	comp=N,405nm,0.5s						
SCM				IAML		11 37 45.2	
	comp=E,494nm,0.8s						
CCB	Clear Creek Bu	2.34	44	Pn	Pn	11 37 04.0	-0.2
CCB				IAML		11 37 40.9	
	comp=E,289nm,0.3s						
CCB				IAML		11 37 41.0	
	comp=N,371nm,0.4s						
I23K	Minto, Yukon-K	2.35	23	Pn	Pn	11 37 04.5	+0.1
I23K				IAML		11 37 42.1	
	comp=E,448nm,0.4s						
I23K				IAML		11 37 44.3	
	comp=N,434nm,0.5s						
J18K	Innoko River	2.37	283		Pn	11 37 05.5	+0.8
J18K				IAML		11 37 42.4	
	comp=N,261nm,0.6s						
RDT	Redoubt	2.48	190		Pn	11 37 07.9	+1.6
COLA	College	2.48	40	P	Pn	11 37 06.2	0.0
COLA	College	2.48	40	S	Sb	11 37 41.2	+0.2
COLA	College	2.48	40		Pn	11 37 06.3	+0.1
HDA	Harding Lake	2.49	54	Pn	Pn	11 37 06.5	+0.3
HDA				IAML		11 37 50.7	
	comp=E,295nm,0.6s						
DFR	Drift River	2.49	193		Pn	11 37 08.3	+1.9
L18K	Granite Mounta	2.50	254		Pn	11 37 06.8	+0.4
L18K				IAML		11 37 51.8	
	comp=N,230nm,0.6s						
RDJH	Redoubt Jeurge	2.50	194		Pn	11 37 08.8	+2.2
M18K	Stony River	2.51	234		Pn	11 37 06.8	+0.2
SLKM	Skilak Lake	2.60	165	Pn	Pn	11 37 08.3	+0.5
N19K	Bonanza Creek	2.61	213	Pn	Pn	11 37 08.5	+0.6
N19K				IAML		11 37 50.8	
	comp=N,278nm,1.0s						
PS08	TAPS Pump Stn8	2.61	52		Pn	11 37 08.1	+0.2
RDSO	Redoubt South	2.63	193		Pn	11 37 10.0	+1.6
PWL	Port Wells	2.65	143	Pn	Pn	11 37 08.6	+0.1
PWL				IAML		11 37 52.9	
	comp=E,254nm,0.7s						
PWL				IAML		11 37 55.4	
	comp=N,245nm,0.9s						
RED	Redoubt Volcan	2.67	193		Pn	11 37 10.0	+1.1
O22K	Cooper Landing	2.69	160	Pn	Pn	11 37 09.6	+0.5
H21K	Melozitna Rive	2.71	349	Pn	Pn	11 37 10.0	+0.7
H21K				IAML		11 37 51.7	
	comp=N,243nm,0.4s						
H21K				IAML		11 37 52.5	
	comp=E,294nm,0.4s						
PS07	TAPS Pump Stn7	2.72	31		Pn	11 37 09.6	+0.2
IL31		2.72	48		Pn	11 37 09.6	+0.2
ILAR	Eielson Array	2.72	48		Pn	11 37 09.8	+0.4
K24K	Donnelly Dome	2.72	71	Pn	Pn	11 37 09.8	+0.3
PAX	Paxson	2.78	88	Pn	Pn	11 37 10.7	+0.3
PAX				IAML		11 37 53.0	
	comp=E,198nm,0.5s						
H20K	Anotleneega Mo	2.88	331		Pn	11 37 12.3	+0.7
H22K	Ishtalitna Cre	2.89	2		Pn	11 37 12.5	+0.7
H22K				IAML		11 37 56.9	
	comp=E,279nm,0.4s						
GCSA	Galena City Sc	2.92	309		Pn	11 37 13.7	+1.5
GCSA					Pb	11 37 14.1	-3.8
H23K	Yukon River	2.95	16	Pn	Pn	11 37 13.1	+0.4
H23K				IAML		11 38 01.7	
	comp=E,177nm,0.6s						
H23K				IAML		11 38 05.6	
	comp=N,196nm,0.6s						
PS11	TAPS Pump St11	2.98	106		Pn	11 37 14.3	+1.3
GLI	Glacier Island	3.01	133	Pn	Pn	11 37 13.8	+0.4
GLI				IAML		11 37 59.5	
	comp=N,233nm,0.7s						
GLI				IAML		11 37 59.7	
	comp=E,231nm,0.5s						
HARP	HAARP	3.02	99	Pn	Pn	11 37 14.6	+1.1
HARP				IAML		11 38 02.8	
	comp=E,267nm,1.0s						
KLU	Klutina	3.05	118		Pn	11 37 14.7	+0.6
KLU				IAML		11 38 08.4	
	comp=N,178nm,0.9s						
SEW	Seward	3.09	160	Pn	Pn	11 37 16.0	+1.5
K17K	Iditarod	3.10	267		Pn	11 37 15.1	+0.5
K17K				IAML		11 38 10.1	
	comp=N,193nm,1.1s						
K17K				IAML		11 38 13.2	
	comp=E,204nm,0.7s						
RIDG	Independent Ri	3.11	74	Pn	Pn	11 37 15.2	+0.3
RIDG				IAML		11 38 10.4	
	comp=N,257nm,0.9s						
RIDG				IAML		11 38 12.6	
	comp=E,255nm,0.8s						
N18K	Kilae Creek	3.11	223		Pn	11 37 15.7	+0.8
N18K				IAML		11 38 05.5	
	comp=E,199nm,0.5s						
IMAR	Indian Mountai	3.13	343		Pn	11 37 16.1	+1.1
ILSW	Iliamna Southw	3.14	195	Pn	Pn	11 37 15.4	+0.1
ILS	Iliamna Low So	3.15	194		Pn	11 37 16.3	+0.8
J25K	Salcha River,	3.18	57		Pn	11 37 16.1	+0.2
J25K				IAML		11 38 10.7	
	comp=N,144nm,0.6s						
M17K	Holitna River	3.19	242	Pn	Pn	11 37 17.0	+1.1
L17K	Donlin	3.24	257		Pn	11 37 16.5	-0.1
H24K	Noodor Dome	3.25	28		Pn	11 37 16.9	+0.1
FID	Port Fidalgo	3.31	131	Pn	Pn	11 37 17.5	-0.1
FID				IAML		11 38 15.5	
	comp=E,194nm,0.7s						
FID				IAML		11 38 19.8	
	comp=N,158nm,0.6s						
DIV	Divide	3.32	122		Pn	11 37 18.4	+0.6
DIV				IAML		11 38 17.9	
	comp=N,125nm,0.6s						
J17K	VABM Dome	3.42	280		Pn	11 37 19.4	+0.3
J17K				IAML		11 38 18.9	
	comp=N,104nm,0.8s						
J17K				IAML		11 38 19.8	
	comp=E,104nm,0.5s						
CNPM	China Poot	3.51	177		Pn	11 37 22.1	+1.8
WACK	Wrangell Chich	3.51	104		Pn	11 37 22.0	+1.4
SCRK	Sand Creek	3.53	71	IAML		11 38 20.7	
	comp=E,117nm,0.5s						
SCRK				IAML		11 38 24.4	
	comp=N,102nm,0.7s						
N25K	Chitina, Valde	3.55	110		Pn	11 37 22.4	+1.5
N25K					Pb	11 37 23.2	-5.4
HIN	Hinchinbrook I	3.57	135		Pn	11 37 23.2	+2.1
HIN	Hinchinbrook I	3.57	135	IAML		11 38 18.1	
	comp=N,168nm,1.2s						
HIN				IAML		11 38 21.1	
	comp=E,179nm,1.2s						
MENT	Mentasta	3.58	88	P	Pn	11 37 24.8	+3.5
MENT	Mentasta	3.58	88	S	Sb	11 38 09.0	-3.7
MENT	Mentasta	3.58	88		Pn	11 37 24.2	+2.8
G21K	Allakaket	3.61	348		Pn	11 37 22.7	+1.0
O18K	Koktuh Hills	3.62	210		Pn	11 37 23.0	+1.1
O18K	Koktuh Hills	3.62	210	IAML		11 38 20.3	
	comp=E,106nm,1.0s						
O18K				IAML		11 38 27.6	
	comp=N,106nm,0.6s						
PRP	Porcupine Dome	3.64	44	IAML		11 38 25.4	
	comp=E,90nm,0.7s						
PRP				IAML		11 38 35.5	
	comp=N,87nm,0.6s						
N17K	Nushagak Hills	3.66	229		Pn	11 37 26.3	+4.0
N17K				IAML		11 38 22.3	
	comp=N,160nm,0.7s						
H18K	Honhosa River	3.67	309		Pn	11 37 24.4	+1.9
EYAK	Cordova Ski Ar	3.71	129	S	Sn	11 38 10.6	+3.9
EYAK	Cordova Ski Ar	3.71	129	P	Pn	11 37 26.0	+3.0
L26K	Log Cabin Wild	3.75	86		Pn	11 37 26.4	+2.9
G23K	Bananza Creek	3.77	9		Pn	11 37 24.8	+0.9
BMRM	Bremner River	3.87	119		Pn	11 37 26.7	+1.3
BMRM	Bremner River	3.87	119	IAML		11 38 29.5	
	comp=E,92nm,1.1s						
BMRM				IAML		11 38 34.8	
	comp=N,91nm,1.3s						
L16K	Owhat River	3.91	254		Pn	11 37 27.3	+1.5
L16K				IAML		11 38 37.0	
	comp=E,92nm,1.1s						
L16K				IAML		11 38 41.5	
	comp=N,79nm,0.7s						
G19K	Purcell Mounta	3.94	325		Pn	11 37 27.3	+1.1
GLB	Gilahina Butte	3.96	110		Pn	11 37 27.0	+0.5
GLB	Gilahina Butte	3.96	110	IAML		11 38 32.8	
	comp=N,79nm,0.6s						
M26K	Nabesna, AK	4.00	95		Pn	11 37 27.6	+0.5
M26K	Nabesna, AK	4.00	95	IAML		11 38 35.4	
	comp=E,108nm,0.5s						
M16K	Timber Creek	4.02	243		Pn	11 37 27.4	+0.1
GOAT	Goat Mountain	4.06	124		Pn	11 37 28.7	+0.8
G24K	Hadweenzic Riv	4.09	23		Pn	11 37 28.5	+0.2
H25L	Birch Creek	4.09	35		Pn	11 37 28.7	+0.5
J16K	Anvik River	4.11	278		Pn	11 37 29.3	+0.8
J16K				IAML		11 38 38.1	
	comp=N,76nm,0.7s						
J16K				IAML		11 38 39.4	
	comp=E,73nm,0.5s						
H17K	Granite Mounta	4.15	301		Pn	11 37 30.4	+1.3
I17K	Unalakleet	4.19	286		Pn	11 37 30.7	+1.1
O17K	Koliganek Bris	4.20	222		Pn	11 37 30.6	+0.8
VRDI	Verde Repeater	4.21	112	Pn	Pn	11 37 32.9	+2.8
VRDI				IAML		11 38 43.8	
	comp=N,62nm,1.5s						
G18K	Tagagawik	4.21	316		Pn	11 37 30.6	+0.7
N16K	Nishlik Lake	4.27	237		Pn	11 37 31.5	+0.7
F21K	Alatna River	4.30	350		Pn	11 37 32.7	+1.5
I26K	Coal Creek Min	4.34	54		Pn	11 37 32.6	+0.9
K27K	Chicken	4.37	72		Pn	11 37 33.3	+1.2
K27K	Chicken	4.37	72	IAML		11 38 47.8	
	comp=N,70nm,0.7s						
F20K	Avaraart Lake	4.42	338		Pn	11 37 34.1	+1.4
G25K	Bearman Lake	4.42	29		Pn	11 37 33.0	+0.2
L27K	Beaver Creek,	4.43	85		Pn	11 37 33.8	+0.8
BCAR	Beaver Creek A	4.45	85		Pn	11 37 33.8	+0.5
P17K	Kvichak River	4.50	214		Pn	11 37 35.7	+1.8
M27K	Edge Creek, AK	4.51	94		Pn	11 37 35.1	+0.9
M27K	Edge Creek, AK	4.51	94	IAML		11 38 57.2	
	comp=N,77nm,0.7s						
F19K	Shaleruckik Mo	4.65	328		Pn	11 37 37.7	+1.8
F19K				IAML		11 38 32.8	
	comp=N,48nm,0.5s						
F19K				IAML		11 38 34.5	
	comp=E,66nm,0.4s						
K15K	Wolf Creek Mou	4.65	265		Pn	11 37 36.6	+0.6
O16K	Kokwok River B	4.66	225	Pn	Pn	11 37 39.2	+3.2
O16K				IAML		11 39 02.8	
	comp=E,76nm,1.0s						
G17K	Kiwalik Mounta	4.68	306		Pn	11 37 37.9	+1.5
F24K	Squaw Lake	4.78	17		Pn	11 37 38.8	+1.1
F24K				IAML		11 38 55.6	
	comp=N,54nm,0.7s						
F24K				IAML		11 39 01.8	
	comp=E,41nm,0.7s						
M15K	Kasigluk River	4.91	246		Pn	11 37 39.9	+0.4
I27K	Kandik River	5.05	55		Pn	11 37 42.6	+1.1
E19K	Redstone River	5.05	334		Pn	11 37 43.2	+1.7

P16K	Nushagak River	5.07	221		Pn	11 37 43.2	+1.5
E23K	Chandalar	5.13	8		Pn	11 37 44.3	+1.7
E23K				IAML		11 39 08.4	
	comp=E,57nm,0.8s						
E23K				IAML		11 39 08.4	
	comp=N,40nm,0.7s						
G26K	Porcupine Rive	5.15	36		Pn	11 37 41.3	-1.4
G26K				IAML		11 39 11.9	
	comp=E,45nm,1.1s						
G26K				IAML		11 39 13.2	
	comp=N,54nm,1.1s						
F25K	Christian Rive	5.22	26		Pn	11 37 43.4	-0.5
E24K	Your Creek	5.24	13		Pn	11 37 45.2	+1.1
BMAR	Burnt Mountain	5.31	30	Pn	Pn	11 37 45.5	+0.4
YUK3	Moose Creek	5.31	99		Pn	11 37 48.3	+3.0
BM01	Burnt Mountain	5.34	30		Pn	11 37 45.4	0.0
F17K	Baldwin Pennin	5.39	314	Pn	Pn	11 37 47.9	+1.9
F17K				IAML		11 39 33.7	
	comp=E,26nm,1.2s						
F17K				IAML		11 39 37.1	
	comp=N,34nm,1.4s						
H27K	Steamboat Moun	5.39	49		Pn	11 37 46.8	+0.7
H27K				IAML		11 39 48.3	
	comp=N,25nm,1.1s						
M14K	Bethel	5.42	250	Pn	Pn	11 37 49.5	+3.0
J14K	Nanvaranak Lak	5.49	273	Pn	Pn	11 37 49.1	+1.6
DAWY	Dawson	5.55	74		Pn	11 37 48.7	+0.4
E20K	Nigu River	5.60	342		Pn	11 37 51.5	+2.4
F26K	Sheenjek River	5.63	30	Pn	Pn	11 37 49.4	0.0
I28M	Miner Creek	5.63	59		Pn	11 37 50.2	+0.8
G27K	Doyon Strip	5.68	44		Pn	11 37 50.2	+0.1
TOLK	Toolik Lake Re	5.71	7		Pn	11 37 52.9	+2.4
D22K	Ayikyak River	5.91	356		Pn	11 37 55.2	+2.0
E17K	Hotham Inlet	5.96	318		Pn	11 37 55.7	+1.9
D23K	Nanushuk River	5.99	3		Pn	11 37 56.4	+2.1
M29M	Somme Creek	6.05	90		Pn	11 37 57.7	+2.4
D20K	Etivluk River	6.08	342		Pn	11 37 57.2	+1.6
L29M	L29M	6.11	83		Pn	11 37 57.7	+1.6
F15K	North Star Dit	6.29	301		Pn	11 38 00.2	+1.9
C21K	Knifeblade Rid	6.30	349		Pn	11 38 01.0	+2.3
ANM	Nome	6.31	290		Pn	11 38 00.8	+2.1
H29M	Whitestone	6.52	55		Pn	11 38 02.6	+1.0
E27K	Coleen River	6.63	34		Pn	11 38 03.3	+0.2
D25K	Kavik River	6.67	16		Pn	11 38 05.4	+1.7
F28M	Old Crow	6.72	42		Pn	11 38 04.4	0.0
C24K	Franklin Bluff	6.83	8		Pn	11 38 07.6	+1.7
C23K	Itkillik River	6.86	3		Pn	11 38 08.1	+1.8
F14K	Arctic Creek	6.89	297		Pn	11 38 08.2	+1.6
J30M	Hart River	6.92	70		Pn	11 38 09.2	+1.9
G29M	Pine Creek	6.94	50		Pn	11 38 08.3	+0.8
EPYK	Eagle Plains	7.19	56		Pn	11 38 11.6	+0.8
C27K	Jago River	7.35	22		Pn	11 38 14.4	+1.5
B22K	Teshekpuk Lake	7.39	355		Pn	11 38 14.8	+1.3
H31M	Peel River	7.96	62		Pn	11 38 21.8	+0.5
YKAW3	Yellowknife Wh	16.76	75	Pn	Pn	11 40 19.8	-0.4
YKAW3				IAmb	IAmb	11 40 21.7	
	comp=Z,6.7nm,1.0s						
YKAW1	Yellowknife Wh	16.84	75	Pn	Pn	11 40 21.2	-0.1
YKAW1				IAmb	IAmb	11 40 29.8	
	comp=Z,11nm,0.8s						
PGC	Sidney	21.11	120	P	P	11 41 10.9	+0.8
RES	Resolute Bay	22.41	36	P	P	11 41 23.8	0.0
BLKN	Baker Lake	24.02	62	P	P	11 41 40.5	+0.2
BLKN				IAmb	IAmb	11 41 52.2	
	comp=Z,7.0nm,1.2s						
BMO	Blue Mountains	26.66	117	P	P	11 42 03.5	-1.0
PEA0B	Petropavlovsk-	27.87	273	P	P	11 42 15.2	0.0
PETK	Petropavlovsk-	27.87	273	P	P	11 42 14.0	-1.2
TX31	Lajitas Ar. Si	45.51	115	P	P	11 44 44.5	-0.8
TX31				IAmb	IAmb	11 44 44.9	
	comp=Z,0.7nm,0.9s						
TXAR	Lajitas Array	45.51	115	P	P	11 44 46.3	+1.1
MKAR	Makanchi Array	62.50	321	P	P	11 46 47.6	-1.4
AB31	Akbulak array	65.33	338	P	P	11 47 07.6	+0.2
AB31				IAmb	IAmb	11 47 09.8	
	comp=Z,1.4nm,1.1s						
ABKAR	Akbulak array	65.33	338	P	P	11 47 07.9	+0.4

HEL 28 11:37:26.0±0.3**,67.°75N**×**20.°16E,h0**^{km}**,ML1.1, Explosion,Sweden**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SALU	Saltoluokta	0.73	240	*e*P	Pg	11 37 40.6	+0.6
LANU	Lannavaara	0.76	66	PG	Pg	11 37 39.6	-0.9
LANU				SG	Sg	11 37 49.3	-1.0
PAJU	Pajala	1.36	121	PN	Pg	11 37 51.6	-0.3
PAJU				SN	Sn	11 38 10.7	-0.1
ERTU	Ertsjaerv	1.44	146	PG	Pn	11 37 52.0	-1.3
HEF	Hetta	1.47	62	*e*P	Pn	11 37 52.1	-1.7
HEF	Hetta	1.47	62	PG	Pn	11 37 50.9	-2.8
HEF				smax	smax	11 38 10.3	
	comp=Z,1.0nm,0.2s						
HEF				SG	Sg	11 38 11.2	-2.1
KLF	Kolari	1.56	108	PN	Pn	11 37 55.0	+0.1
KLF				smax	smax	11 38 12.7	
	comp=Z,1.1nm,0.2s						
KLF				SN	Sg	11 38 16.0	+0.1
KTK1	Kautokeino	1.71	41	PG	Pn	11 37 56.9	-0.1
KTK1				SN	Sn	11 38 18.8	-0.7
TRO	Tromso	1.94	347	SG	Sn	11 38 25.4	+0.2
TOF	Tornio	2.35	134	PG	Pb	11 38 08.5	-0.6
TOF				smax	smax	11 38 35.5	
	comp=Z,0.7nm,0.2s						
RNF	Rovaniemi	2.56	114	PG	Pb	11 38 11.7	-0.9
RNF				SG	Sb	11 38 45.5	+1.0
ARA0	ARCESS Array S	2.66	45	PG	Pb	11 38 12.3	-2.0
	baz=229						
ARA0				SB	Sb	11 38 45.1	-2.3
KEV	Kevo	3.21	48	SG	Sb	11 39 02.6	-0.6

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*KOLA **28** 11:37:39.7,68.°13N×33.°17E,h0^{km},ML1.8,Error ellipse: s-maj=2.7km s-min=1.9km az=90.0,Olenegorsk City, Mines*

HEL 28 11:37:39.7±0.2**,68.°10N**×**33.°03E,h0**^{km}**,ML1.5, Suspected explosion,Baltic States-Belarus-Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
APA0	Apatity Array	0.50	182	P	Pg	11 37 48.5	-0.7
APA	Apatity	0.55	165	S	Sg	11 37 57.9	+0.5
LVZ	Lovozero	0.64	108	P	Pg	11 37 50.3	-1.7
LVZ				S	Sg	11 37 58.3	-2.1
LVZ	Lovozero	0.64	108	PG	Pg	11 37 51.4	-0.6
LVZ				SG	Sg	11 37 58.2	-2.1
TERR	Teriberka	1.34	34	P	Pg	11 38 02.3	-3.1
TERR				S	Sg	11 38 19.9	-2.9
VRF	Varrio	1.34	256	PN	Sg	11 38 22.2	-0.5
VRF	Varrio	1.34	256	PG	Pg	11 38 03.8	-1.5
VRF				smax	smax	11 38 20.1	
	comp=Z,4.9nm,0.2s						
VRF				SB	Sg	11 38 22.2	-0.5
KVDA	Kovda	1.42	183	P	Pn	11 38 05.0	-1.7
KVDA				S	Sg	11 38 25.0	-0.2
RAJF	Raja-Jooseppi	1.79	284	PG	Pn	11 38 11.6	-0.3
RAJF				SN	Sn	11 38 34.9	-0.4
OLKF	Oulanka, Finla	2.28	220	PB	Pn	11 38 19.2	+0.6
OLKF				smax	smax	11 38 47.1	
	comp=Z,2.2nm,0.2s						
OLKF				SG	Sb	11 38 49.4	-1.0
VADS	Vadso	2.42	329	P	Pn	11 38 19.9	-0.5
VADS				S	Sn	11 38 50.3	-0.3
KU6	Riekki	2.42	212	PB	Pn	11 38 21.3	+0.8
	baz=30						
KU6				smax	smax	11 38 51.2	
	comp=Z,1.1nm,0.2s						
KU6				SG	Sb	11 38 54.4	-0.1
MSF	Maaselka	2.70	217	PN	Pn	11 38 26.2	+1.9
MSF	Maaselka	2.70	217	PB	Pn	11 38 26.2	+1.9
MSF				SB	Sb	11 39 00.7	-1.7
KEV	Kevo	2.74	310	PN	Pn	11 38 24.8	0.0
KEV				SN	Sn	11 38 58.4	-0.1
KEV	Kevo	2.74	310	PG	Pn	11 38 24.8	0.0
KU1	Kurvinen	2.90	210	PB	Pn	11 38 29.2	+2.2
ARA0	ARCESS Array S	3.09	301	PN	Pn	11 38 29.8	+0.1
	baz=110						
ARCES	ARCESS Array B	3.09	301	P	Pn	11 38 29.3	-0.3
ARCES				S	Sn	11 39 06.5	-0.8
RNF	Rovaniemi	3.10	244	PN	Pn	11 38 29.8	0.0
RANF	Ranua	3.22	232	SB	Sb	11 39 17.0	-0.4
KLF	Kolari	3.57	260	PN	Pn	11 38 37.1	+0.9
PAJU	Pajala	3.95	259	SG	Sg	11 39 43.5	-3.0
TOF	Tornio	3.96	243	PN	Pn	11 38 41.5	-0.1
LANU	Lannavaara	4.14	274	PN	Pn	11 38 44.1	0.0

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*IDC **28** 12:09:08.8±1.9,45.°27N×147.°75E,h0^{km},mb3.6/7, mbtmp3.6/9,ML3.4/2,Error ellipse: s-maj=56.2km s-min=18.4km az=152.0*

*MOS **28** 12:09:12.6±0.8,44.°10N×147.°96E,h99^{km},mb4.5/1,Error ellipse: s-maj=19.6km s-min=16.2km az=35.5*

*SKHL **28** 12:09:14.7±0.2,44.°20N×147.°90E,h98^{km}±3^{km},mb4.7/3, msh5.5/4*

*JMA **28** 12:09:14.8±0.3,44˚N±1˚×14˚8E±˚,h71^{km},MV3.5/24,SE OFF ETOROFU*

ISC 28 12:09:12.9±1.3**,44.°06N**±0.°07×**148.°03E**±0.°08**,h79**^{km}±10^{km}**, n42,**σ**1.**^{s}**21**/53**,mb3.5**/7**,1D,Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUR	Kuril'sk	1.18	355	*e*PN	Pn	12 09 34.5	+0.5
KUR				*i* S	Sn	12 09 49.5	-0.3
KUR				pmax	pmax		
	comp=Z,114nm,0.3s						
KUR				smax	smax		
	comp=N,1µm,0.3s						
KUR				smax	smax		
	comp=E,2µm,0.3s						
KUR	Kuril'sk	1.18	355	*e*P	Pn	12 09 34.5	+0.5
KUR				AMB	AMB	12 09 35.6	
	comp=E,110nm,0.2s						
KUR				*i* S	Sn	12 09 49.5	-0.3
KUR				A	A	12 09 49.9	
	comp=E,1µm,0.3s						
KUR				A	A	12 09 49.9	
	comp=E,2µm,0.3s						
REI	Reidovoe	1.20	360	*e*P	Pn	12 09 35.2	+0.9
REI				*e*S	Sn	12 09 50.4	0.0
REI				A	A	12 09 51.0	
	comp=E,780nm,0.3s						
REI				A	A	12 09 51.0	
	comp=E,800nm,0.3s						
YUK	Yuzh-Kuril'sk	1.56	270	*e*PN	Pn	12 09 38.0	-0.9
YUK				*e*S	Sn	12 09 56.4	-2.2
YUK				pmax	pmax		
	comp=Z,186nm,0.2s						
YUK				pmax	pmax		
	comp=N,27nm,0.1s						
YUK				pmax	pmax		
	comp=E,56nm,0.2s						
YUK				smax	smax		
	comp=E,262nm,0.3s						
YUK				smax	smax		
	comp=N,413nm,0.2s						
YUK	Yuzh-Kuril'sk	1.56	270	*e*P	Pn	12 09 38.5	-0.4
YUK				AMB	AMB	12 09 40.5	
	comp=N,100nm,0.2s						
YUK				*e*S	Sn	12 09 57.5	-1.1
YUK				A	A	12 10 00.1	
	comp=N,340nm,0.4s						
YUK				A	A	12 10 00.1	
	comp=N,380nm,0.4s						
NEM2	Nemuro 2	1.80	248	*e*P	Pn	12 09 42.4	+0.4
NEM2				*e*S	Sn	12 10 02.6	-1.5
NMR	Nemuro--Hokkai	1.81	248	⇓*i*PN	Pn	12 09 42.4	+0.3
NMR				*e*S	Sn	12 10 03.0	-1.3
NMR	Nemuro--Hokkai	1.81	248	*e*P	Pn	12 09 42.4	+0.3
NMR				*e*S	Sn	12 10 03.0	-1.3
RUSJ	Misakicho	2.00	272	*e*PN	Pn	12 09 46.5	+1.8
RUSJ				*e*S	Sn	12 10 10.0	+1.0
JRA	Rausu	2.10	268	*e*P	Pn	12 09 47.4	+1.4
JRA				*e*S	Sn	12 10 11.8	+0.5
JNSB	Nemuroshibetsu	2.20	264	*e*P	Pn	12 09 49.0	+1.6
JNSB				*e*S	Sn	12 10 14.7	+0.9
JKHN	Kushirohamanak	2.30	246	P	Pn	12 09 49.6	+0.8
JKHN				*e*S	Sn	12 10 15.1	-1.1
JNK	Nakash	2.44	260	*e*P	Pn	12 09 51.4	+0.8
JNK				*e*S	Sn	12 10 19.7	+0.1
AKK	Akkeshi	2.54	247	*e*P	Pn	12 09 52.6	+0.7
JAK	Akkeshi	2.65	247	P	Pn	12 09 53.9	+0.5
JAK				*e*S	Sn	12 10 22.6	-1.8
JTKR	Abashiri--Toko	2.97	270	P	Pn	12 09 59.0	+1.2
JAR	Ashorobuto	3.18	258	*e*P	Pn	12 10 02.4	+1.7
JAR				*e*S	Sn	12 10 37.8	+0.3
JOB	Onbets	3.26	251	*e*P	Pn	12 10 03.0	+1.3
JCH	Churui	3.70	249	P	Pn	12 10 09.0	+1.4
JCH				*e*S	Sn	12 10 49.1	-0.9
JKA	Kamikawa-asahi	3.91	273	*e*P	Pn	12 10 12.4	+1.9
ASAJ	Asahikawa	3.91	273	Pn	Pn	12 10 12.3	+1.8
	comp=N,1.4nm,0.3s,baz=62,slow=15,SNR=15						
ASAJ				Sn	Sn	12 10 40.7	-15
	comp=N,1.1nm,0.3s,baz=165,slow=18,SNR=5.4						
	comp=N,21nm,1.1s						
ASAJ				AML	AML		
JNBK	Urakawa-nobuka	4.25	247	*e*P	Pn	12 10 15.5	+0.3
YSS	Yuzhno-Sakhali	4.70	310	*e*PN	Pn	12 10 22.1	+0.9
YSS				*e*S	Sn	12 11 12.8	-1.6
YSS				pmax	pmax		
	comp=Z,20nm,0.4s						
YSS	Yuzhno-Sakhali	4.70	310	*e*P	Pn	12 10 22.1	+0.9
YSS				*e*S	Sn	12 11 12.8	-1.6
KSRS	Korea Array	16.58	253	Pn	P	12 13 04.3	+2.8
	comp=Z,0.3nm,0.3s,baz=53,slow=10,SNR=2.4						
	comp=Z,0.3nm,0.3s						
KSRS				AML	AML		
H11N2	WAKE ISLAND Hy	28.93	141	T	T	12 46 04.0	
	baz=332,slow=76,SNR=30						
H11N1	WAKE ISLAND Hy	28.95	141	T	T	12 46 00.5	
	baz=332,slow=76,SNR=38						
H11N3	WAKE ISLAND Hy	28.95	141	T	T	12 46 00.9	
	baz=332,slow=76,SNR=30						
H11S1	WAKE ISLAND Hy	29.92	142	T	T	12 47 13.1	
	baz=333,slow=76,SNR=40						
H11S3	WAKE ISLAND Hy	29.92	143	T	T	12 47 16.0	
	baz=333,slow=76,SNR=34						
H11S2	WAKE ISLAND Hy	29.94	142	T	T	12 47 21.1	
	baz=333,slow=76,SNR=29						
ILAR	Eielson Array	40.86	36	P	P	12 16 46.9	+0.3
	comp=Z,0.2nm,0.5s,baz=275,slow=7.7,SNR=5.3						
	comp=Z,0.2nm,0.5s						
MKAR	Makanchi Array	45.00	298	P	P	12 17 20.0	-0.3
	comp=Z,0.5nm,0.6s,baz=74,slow=9.0,SNR=4.9						
	comp=Z,0.5nm,0.6s						
MKAR	Makanchi Array	45.00	298	P	P	12 17 20.0	-0.3
MKAR	Makanchi Array	45.00	298	*e*P	P	12 17 20.0	-0.3
KURK	Kurchatov	45.88	304	P	P	12 17 26.1	-1.0
KURK	Kurchatov	45.88	304	*e*P	P	12 17 26.1	-1.0
KURBB	Kurchatov Arra	45.97	304	P	P	12 17 26.1	-1.7
	comp=Z,0.3nm,0.4s,baz=76,slow=8.7,SNR=4.4						
	comp=Z,0.3nm,0.4s						
CMAR	Chiang Mai Arr	48.22	254	P	P	12 17 53.2	+7.5
	comp=Z,0.2nm,0.4s,baz=44,slow=11,SNR=1.9						
	comp=Z,0.2nm,0.4s						
FINES	FINESS Array B	64.88	333	P	P	12 19 41.5	-1.7
	comp=Z,0.6nm,0.4s,baz=27,slow=6.9,SNR=2.0						
	comp=Z,0.6nm,0.4s						
PDAR	Pinedale Array	69.22	50	P	P	12 20 12.2	+0.7
	comp=Z,0.2nm,0.7s,baz=269,slow=5.9,SNR=3.6						
	comp=Z,0.2nm,0.7s						
HFS	Hagfors	69.64	338	P	P	12 20 12.0	-1.4
	comp=Z,0.8nm,0.4s,baz=69,slow=17,SNR=2.3						
	comp=Z,0.8nm,0.4s						

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*UCR **28** 12:11:28.5±0.7,10.°46N×84.°58W,h104^{km}±5^{km},MW4.0, Presumed earthquake*

*CATAC **28** 12:11:29.3±0.4,10˚N±2˚×8˚5W±˚,h89^{km}±4^{km},M3.6/13, MLv3.6/13,Error ellipse: s-maj=6.3km s-min=3.0km az=52.9,confirmed*

ISC 28 12:11:28.4±1.4**,10.°43N**±0.°04×**84.°58W**±0.°04**,h109**^{km}±8^{km}**, n116,**σ**0.**^{s}**55**/126**,Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VACR	Volcan Arenal	0.11	293	*e*P	Pn	12 11 43.7	+0.2
CEDE	Laguna Cedeo	0.14	294	*e*P	Pn	12 11 43.9	+0.3
ARE1	Arenal 1	0.14	282	*e*P	Pn	12 11 43.9	+0.3
REZ	Monterrey de S	0.15	309	*e*P	Pn	12 11 44.0	+0.3
CASO	Castillo	0.15	271	*e*P	Pn	12 11 43.8	+0.1
TABAC	Tabacon	0.20	290	*e*P	Pn	12 11 44.1	+0.3
VPL2	V. Platanar	0.23	123	*e*P	Pn	12 11 44.2	+0.2
MTEVE	Monteverde	0.27	246	*e*P	Pn	12 11 44.2	0.0
VPL1	V. Platanar	0.27	130	*e*P	Pn	12 11 44.1	-0.1
VPL3	V. Platanar	0.28	108	*e*P	Pn	12 11 44.1	+0.1
ZARE	Zarcero	0.31	143	*e*P	Pn	12 11 44.4	+0.1
CHIK	Chiripa	0.33	272	*e*P	Pn	12 11 44.7	+0.4
SRA1	San Ramn	0.36	164	*e*P	Pn	12 11 44.3	-0.3
RAMO	San Ramon	0.36	162	*e*P	Pn	12 11 44.2	-0.3
COTE	Lago Cote	0.36	293	*e*P	Pn	12 11 44.7	+0.3
ARTO	Ro Cuarto	0.37	104	*e*P	Pn	12 11 44.5	+0.1
QUEB	Quebradon, Cot	0.37	301	*e*P	Pn	12 11 44.5	+0.1
TILA	Tilaran	0.39	276	*e*P	Pn	12 11 44.7	+0.1
JTS	Las Juntas de	0.40	249	P	Pn	12 11 44.0	-0.6
JTS				S	Sn	12 11 56.4	-0.2
JTS	Las Juntas de	0.40	249	*e*P	Pn	12 11 44.3	-0.3
PALD	Palmares	0.40	160	*e*P	Pn	12 11 44.4	-0.3
JUNT	Juntas	0.40	248	*e*P	Pn	12 11 44.4	-0.2
SARCI	Sarchi	0.41	146	*e*P	Pn	12 11 45.0	+0.2
VPS8	V Poas	0.41	127	*e*P	Pn	12 11 45.2	+0.2
VPS5	V. Poas	0.42	125	*e*P	Pn	12 11 45.0	0.0
ARZA	Esparza	0.45	192	*e*P	Pn	12 11 44.6	-0.2
TIMP	Tierras Morena	0.46	289	*e*P	Pn	12 11 45.2	+0.2
TCS1	Tacares	0.47	145	P	Pn	12 11 45.1	0.0
TENO	El Achiote	0.48	305	*e*P	Pn	12 11 45.6	+0.5
ATEO	Atenas	0.49	157	*e*P	Pn	12 11 45.0	-0.3
CNAS	Canas	0.51	270	*e*P	Pn	12 11 45.5	+0.3
ENAS	Puntarenas	0.52	209	*e*P	Pn	12 11 45.1	-0.1
TRB2	Turrubares	0.53	166	P	Pn	12 11 45.3	-0.1
TRB2				S	Sn	12 11 58.4	+0.3
TRB2	Turrubares	0.53	166	*e*P	Pn	12 11 45.2	-0.2
VBV1	V. Barva	0.57	124	*e*P	Pn	12 11 45.9	-0.1
BELE	Belen	0.59	140	*e*P	Pn	12 11 45.9	0.0
HEME	Heredia, Merce	0.61	135	*e*P	Pn	12 11 47.2	+1.1
LCHIL	Los Chiles	0.62	347	*e*P	Pn	12 11 47.1	+1.1
CUI	Cuipilapa	0.62	291	*e*P	Pn	12 11 46.4	+0.3
SANTA	Santa Ana	0.63	142	*e*P	Pn	12 11 46.1	-0.2
UPAL	Upala	0.63	317	P	Pn	12 11 46.3	+0.2
UPAL				S	Sn	12 11 59.6	+0.3
HORNC	Hornillas	0.65	295	*e*P	Pn	12 11 46.5	+0.1
DOMI	Santo Domingo	0.66	133	*e*P	Pn	12 11 46.7	+0.2
COLC	Colonia	0.66	291	*e*P	Pn	12 11 46.6	+0.2
PAVB	Pavas, San Jos	0.67	137	*e*P	Pn	12 11 46.6	0.0
MESS	Mesas	0.68	297	*e*P	Pn	12 11 46.9	+0.3
CLARA	Aguas Claras	0.69	301	*e*P	Pn	12 11 47.0	+0.4
CENT	San Jose	0.70	135	*e*P	Pn	12 11 46.9	+0.1
LAFE	Finca La Fe, P	0.70	208	*e*P	Pn	12 11 46.4	-0.3
PAQE	Paquera	0.70	210	*e*P	Pn	12 11 46.2	-0.5
LUPE	Guadalupe	0.70	133	*e*P	Pn	12 11 46.9	0.0
LUJA	Lujan	0.71	135	*e*P	Pn	12 11 47.0	+0.1
SJS	Escuela Geolog	0.71	133	*e*P	Pn	12 11 47.0	+0.1
ECI	Escuela Centro	0.71	133	*e*P	Pn	12 11 47.1	+0.1
SJS3	Mercedes San J	0.71	133	*e*P	Pn	12 11 47.2	+0.2
CORON	Coronado	0.73	129	*e*P	Pn	12 11 47.4	+0.3
AMPA	Desamparados	0.73	136	*e*P	Pn	12 11 47.1	-0.1
CVIMO	Finca Echandi	0.74	123	*e*P	Pn	12 11 51.5	+4.2
ACOS	Acosta	0.75	147	*e*P	Pn	12 11 47.3	0.0
TRIO	Tres Rios	0.78	132	*e*P	Pn	12 11 47.5	0.0
PILE	Guapiles	0.81	105	*e*P	Pn	12 11 47.9	+0.2
BITO	Garabito Jaco	0.81	183	*e*P	Pn	12 11 47.8	+0.1
GPS2	Hotel Rincn d	0.83	293	*e*P	Pn	12 11 48.2	+0.3
CARI	Cariari	0.83	95	*e*P	Pn	12 11 48.0	+0.2
TRT2	Tortugero	0.84	81	P	Pn	12 11 47.2	-0.7
TRT2				S	Sn	12 12 01.6	-0.9
TRT2	Tortugero	0.84	81	*e*P	Pn	12 11 47.8	-0.1
VICA	Volcano Irazu	0.85	122	*e*P	Pn	12 11 48.4	-0.1
VRLE	La Escondida,	0.85	295	*e*P	Pn	12 11 48.2	0.0
PEJA	Penjamo Buenos	0.86	303	*e*P	Pn	12 11 48.5	+0.3
BUAI	Buenos Aires	0.86	301	*e*P	Pn	12 11 48.4	+0.2
PICV	PH. Pirrs	0.88	155	*e*P	Pn	12 11 48.6	+0.1
ABE2	San Pablo	0.89	144	*e*P	Pn	12 11 48.7	+0.1
LCR2	La Lucha 2	0.89	141	P	Pn	12 11 48.5	-0.2
LCR2	La Lucha 2	0.89	141	*e*P	Pn	12 11 48.7	0.0
CVTQ	Turrialba Volc	0.90	118	*e*P	Pn	12 11 49.1	+0.2
CVTR	Volcan Turrial	0.90	117	*e*P	Pn	12 11 49.0	0.0
VTR0	Volcan Turrial	0.90	117	*e*P	Pn	12 11 49.0	0.0
LAPC	Finca la Perla	0.91	292	*e*P	Pn	12 11 48.6	0.0
PCAYA	Pacayas	0.91	124	*e*P	Pn	12 11 49.1	+0.3
REPA	Paraso	0.92	131	*e*P	Pn	12 11 49.1	+0.1
CMARA	Lajas Hojancha	0.93	244	P	Pn	12 11 48.2	-0.7
CMARA				S	Sn	12 12 04.1	-0.2
CMARA	Lajas Hojancha	0.93	244	*e*P	Pn	12 11 48.6	-0.2
PITB	Pirrs, San	0.94	144	*e*P	Pn	12 11 49.3	+0.2
RAZU	San Marcos de	0.94	145	*e*P	Pn	12 11 49.4	+0.2
ABRB	Las Abras (San	0.95	116	*e*P	Pn	12 11 49.5	+0.2
VTCV	VTCV, Calle Va	0.95	118	*e*P	Pn	12 11 49.4	+0.2
ALIBA	Liberia Airpor	0.97	280	*e*P	Pn	12 11 49.6	+0.5
VINA	Juan Vinas	0.98	123	*e*P	Pn	12 11 49.6	+0.1
JUD3	Juan Diaz 3	0.98	254	*e*P	Pn	12 11 49.2	-0.2
RESJ	San Isidro (Tu	1.00	113	*e*P	Pn	12 11 49.9	+0.3
SACU	Santa Cruz	1.00	260	*e*P	Pn	12 11 49.5	-0.1
PIEC	Cerro El Cedra	1.01	143	*e*P	Pn	12 11 49.9	0.0
TURIB	Turrialba	1.02	121	*e*P	Pn	12 11 49.9	+0.1
LCOCO	El Coco	1.06	109	*e*P	Pn	12 11 50.4	+0.2
INDI	Punta indio, G	1.07	238	P	Pn	12 11 49.9	-0.4
INDI				S	Sn	12 12 06.1	-0.7
QUEP	Quepos	1.07	158	P	Pn	12 11 50.2	-0.1
QUEP				S	Sn	12 12 06.7	-0.1
QUEP	Quepos	1.07	158	*e*P	Pn	12 11 50.6	+0.3
BUS1	Rivas	1.20	137	*e*P	Pn	12 11 51.9	-0.2
OMEN	Al SSO del Vol	1.49	316	P	Pn	12 11 54.9	-0.1
SAJE	San Jernim	1.51	136	*e*P	Pn	12 11 55.2	-0.3
MORN	Al O del Volca	1.53	317	P	Pn	12 11 55.7	+0.1
EDPE	Pejibaye, P	1.61	142	*e*P	Pn	12 11 57.0	+0.5
ACON	Acoyapa	1.64	339	P	Pn	12 11 56.4	-0.4
ACON				S	Sn	12 12 17.9	-0.5
ACON	Acoyapa	1.64	339	*e*P	Pn	12 11 56.8	0.0
BLUN	Bluefields	1.75	27	P	Pn	12 11 57.7	-0.6
EDP2	Potrero Grande	1.97	135	*e*P	Pn	12 12 01.5	+0.5
NANN	Nandasmo	2.13	315	S	Sn	12 12 30.3	+0.7
MASN	Masaya	2.19	315	S	Sn	12 12 32.0	+1.2
BOAB	BOACO BROADBAN	2.27	332	P	Pn	12 12 04.1	-0.8
PIRO	Carate, Puerto	2.36	149	P	Pn	12 12 07.6	+1.6
PIRO				S	Sn	12 12 35.4	+0.7
PIRO	Carate, Puerto	2.36	149	*e*P	Pn	12 12 07.1	+1.1
BRU2	Volcan	2.47	131	P	Pn	12 12 07.6	0.0
BRU2				S	Sn	12 12 36.4	-1.2
BRU2	Volcan	2.47	131	*e*P	Pn	12 12 07.8	+0.2
CDITO	Canoas	2.50	138	P	Pn	12 12 07.3	-0.5
CLLRA	Cordillera,	2.56	131	*e*P	Pn	12 12 09.1	+0.3
PBNVO	Pueblo Nuevo,	2.81	123	*e*P	Pn	12 12 12.3	+0.4

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*IDC **28** 12:20:45.5±0.7,28.°66N×128.°22E,h170^{km}±10^{km}, mb3.4/10,mbtmp3.8/14,Error ellipse: s-maj=20.5km s-min=12.8km az=97.0*

*JMA **28** 12:20:46.4±0.2,28.°8N±0.°8×12˚8E±˚,h160^{km}±2^{km}, MV3.8/31,NW OFF AMAMI-OSHIMA IS*

ISC 28 12:20:45.6±0.7**,28.°73N**±0.°06×**128.°29E**±0.°08**,h167**^{km}±8^{km}**, n37,**σ**1.**^{s}**10**/52**,mb3.5**/10**,Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JTAJ	Takarajima	0.91	62	*i* P	Pn	12 21 11.7	+0.4
JTAJ				*e*S	Sn	12 21 30.4	-0.7
JAMN	Amaminishikomi	0.92	122	*i* P	Pn	12 21 11.6	+0.2
JAMN				S	Sn	12 21 32.0	+0.8
JTK	Tokunoshima	1.11	148	*i* P	Pn	12 21 13.6	+0.6
JTK				S	Sn	12 21 33.7	-0.3
JAM	Amami Oshima	1.20	105	*i* P	Pn	12 21 13.8	+0.1
JOKE	Okinoerabujima	1.39	170	*i* P	Pn	12 21 16.2	+0.7
JZK	Kikaishima	1.54	105	*i* P	Pn	12 21 18.4	+1.5
JZK				S	Sn	12 21 41.8	+0.8
JYRO	Yoronjima	1.70	175	*i* P	Pn	12 21 19.3	+0.6
JYRO				S	Sn	12 21 43.2	-0.9
JIH	Iheya	1.71	190	*i* P	Pn	12 21 19.6	+0.9
JIH				*e*S	Sn	12 21 44.4	+0.1
JOW	Kunigami	1.89	180	P	Pn	12 21 21.1	+0.5
	155nm,0.3s,baz=350,slow=8.2,SNR=334						
JOW				S	Sn	12 21 46.2	-1.5
	178nm,0.3s,baz=91,slow=21,SNR=10.0						
JOW	Kunigami	1.89	180	*i* P	Pn	12 21 21.2	+0.5
JOW				S	Sn	12 21 46.8	-1.0
JNTH	Nagotoyohara	2.21	186	*i* P	Pn	12 21 25.0	+0.7
JNTH				*e*S	Sn	12 21 53.5	-0.8
JAGN	Aguni-jima	2.33	204	*i* P	Pn	12 21 26.5	+0.9
JAGN				*e*S	Sn	12 21 56.3	-0.2
JYAK	Yakushimahirau	2.45	52	P	Pn	12 21 27.8	+0.7
JYAK				S	Sn	12 21 56.2	-3.0
JJT3	Tamagusuku3	2.61	190	*i* P	Pn	12 21 30.3	+1.3
JJT3				S	Sn	12 22 03.0	+0.4
JKE	Kume jima 2	2.74	209	*i* P	Pn	12 21 31.3	+0.8

JMTN	**Minamitane**	**2.82**	**53**	P	**Pn**	**12 21 31.8**	**+0.4**
JTN	**Tanegashima 3**	**3.03**	**50**	P	**Pn**	**12 21 34.2**	**+0.2**
JTSR	**Tashiro 2**	**3.33**	**43**	P	**Pn**	**12 21 38.2**	**+0.3**
JSU	**Suzuyama**	**3.34**	**34**	*e*P	**Pn**	**12 21 38.9**	**+0.9**
JNU	**Nakatsue**	**4.91**	**26**	P	**Pn**	**12 21 59.7**	**+1.5**
	31nm,0.5s,baz=262,slow=4.1,SNR=58						
YHNB	**Yeheng**	**7.39**	**238**	P	**Pn**	**12 22 31.1**	**+0.2**
NACB	**Ninganchiao**	**7.52**	**234**	P	**Pn**	**12 22 30.4**	**-2.2**
SSLB	**Suanglung**	**8.22**	**235**	P	**Pn**	**12 22 40.5**	**-1.4**
YULB	**Yu-li**	**8.23**	**231**	P	**Pn**	**12 22 39.5**	**-2.6**
KSRS	**Korea Array**	**8.71**	**358**	P	**Pn**	**12 22 50.0**	**+1.7**
	4.3nm,0.7s,baz=178,slow=13,SNR=17						
MJAR	**Matsushiro Arr**	**11.42**	**44**	P	**Pn**	**12 23 25.7**	**+1.8**
	0.5nm,0.4s,baz=245,slow=14,SNR=8.9						
USRK	**Ussuriysk Ar.**	**15.72**	**10**	P	**P**	**12 24 19.2**	**+0.8**
	1.3nm,0.5s,baz=191,slow=12,SNR=2.5						
SONM	**Songino Array**	**25.52**	**324**	P	**P**	**12 25 59.6**	**+0.9**
	2.1nm,0.5s,baz=134,slow=10,SNR=10						
	2.1nm,0.5s						
MKAR	**Makanchi Array**	**39.95**	**310**	P	**P**	**12 28 02.8**	**-0.7**
	0.3nm,0.3s,baz=88,slow=9.9,SNR=5.8						
MKAR				PcP	**PcP**	**12 30 05.7**	**+0.2**
	0.6nm,0.5s,baz=77,slow=3.1,SNR=7.4						
	0.3nm,0.3s						
ZALV	**Zalesovo Beam**	**40.32**	**321**	P	**P**	**12 28 04.5**	**-1.9**
	0.5nm,0.4s,baz=105,slow=9.4,SNR=2.2						
ZALV				PcP	**PcP**	**12 30 05.9**	**-0.6**
	0.8nm,0.4s,baz=132,slow=3.2,SNR=3.5						
	0.5nm,0.4s						
KURBB	**Kurchatov Arra**	**43.11**	**315**	P	**P**	**12 28 28.2**	**-0.9**
	0.8nm,0.4s,baz=101,slow=9.2,SNR=11						
KURBB				PcP	**PP**	**12 30 14.2**	**+1.6**
	0.6nm,0.8s,baz=110,slow=3.7,SNR=5.3						
	0.8nm,0.4s						
BVAR	**Borovoye Array**	**48.47**	**317**	P	**P**	**12 29 11.4**	**+0.4**
	1.1nm,0.3s,baz=98,slow=9.5,SNR=3.6						
	1.1nm,0.3s						
WRA	**Warramunga Arr**	**48.74**	**172**	P	**P**	**12 29 14.0**	**+0.6**
	0.5nm,0.4s,baz=354,slow=7.9,SNR=2.6						
	0.5nm,0.4s						
ILAR	**Eielson Array**	**62.23**	**29**	P	**P**	**12 30 48.2**	**-0.9**
	0.3nm,0.5s,baz=290,slow=9.2,SNR=5.5						
	0.3nm,0.5s						
BRTR	**Keskin Array B**	**75.55**	**307**	P	**P**	**12 32 12.0**	**0.0**
	0.4nm,0.5s,baz=108,slow=3.2,SNR=2.8						
	0.4nm,0.5s						
YKA	**Yellowknife Ar**	**76.25**	**25**	P	**P**	**12 32 15.3**	**0.0**
	1.0nm,0.6s,baz=306,slow=6.1,SNR=1.1						
	1.0nm,0.6s						
PDAR	**Pinedale Array**	**91.19**	**39**	P	**P**	**12 33 32.0**	**0.0**
	0.3nm,0.9s,baz=326,slow=4.0,SNR=2.2						
	0.3nm,0.9s						

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*IDC **28** 12:22:32.8±2.2, 7°.47S×128°.92E, h143^{km}±24^{km}, mb3.1/3, mbtmp3.6/7, Error ellipse: s-maj=25.3km s-min=20.0km az=110.0*

ISC 28 12:22:31.9±0.9**, 7°.35S**±0°.06×**128°.98E**±0°.10**, h131**^{km}**, n8, σ2^{s}.63**/13**, mb3.4**/3**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BATI	**Baumata**	**5.97**	**241**	P	**Pn**	**12 23 59.4**	**+1.3**
	23nm,0.3s,baz=126,slow=17,SNR=2.5						
BATI				S	**Sn**	**12 25 03.9**	**-1.5**
	19nm,0.3s,baz=197,slow=19,SNR=1.5						
SIJI	**Sorong**	**6.83**	**20**	P	**Pn**	**12 24 11.9**	**+2.1**
	1.4nm,0.2s,baz=191,slow=16,SNR=1.6						
SIJI				S	**Sn**	**12 25 21.4**	**-4.8**
	2.3nm,0.3s,baz=227,slow=22,SNR=6.3						
FITZ	**Fitzroy Crossi**	**11.16**	**197**	P	**Pn**	**12 25 04.9**	**-2.9**
	0.3nm,0.3s,baz=4.1,slow=14,SNR=1.0						
FITZ				S	**Sn**	**12 27 09.2**	**-1.8**
	1.6nm,0.3s,baz=87,slow=18,SNR=5.6						
WRA	**Warramunga Arr**	**13.55**	**158**	P	**Pn**	**12 25 38.7**	**-0.3**
	0.3nm,0.6s,baz=338,slow=13,SNR=9.4						
WRA				S	**Sn**	**12 28 09.8**	**+1.2**
	0.8nm,0.3s,baz=333,slow=23,SNR=10						
ASAR	**Alice Springs**	**16.89**	**164**	P	**Pn**	**12 26 25.0**	**+4.3**
	0.8nm,0.7s,baz=342,slow=11,SNR=9.9						
ASAR				S	**Sn**	**12 29 26.9**	**-2.3**
	0.3nm,0.4s,baz=314,slow=16,SNR=5.9						
MKAR	**Makanchi Array**	**67.97**	**327**	P	**P**	**12 33 17.0**	**+0.1**
	0.3nm,0.5s,baz=111,slow=6.7,SNR=2.7						
	0.3nm,0.5s						
ZALV	**Zalesovo Beam**	**71.46**	**334**	P	**P**	**12 33 38.4**	**+0.4**
	0.3nm,0.4s,baz=133,slow=10,SNR=2.1						
	0.3nm,0.4s						
KURBB	**Kurchatov Arra**	**72.29**	**329**	P	**P**	**12 33 42.6**	**-0.4**
	0.2nm,0.6s,baz=122,slow=4.7,SNR=4.1						
	0.2nm,0.6s						

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*MOS **28** 12:26:48.8±1.1, 41°.60N×29°.31W, h10^{km}, mb4.7/29, Error ellipse: s-maj=11.5km s-min=6.9km az=49.6*

*IDC **28** 12:26:49.0±0.5, 41°.60N×29°.40W, h0^{km}, mb4.1/25, mbtmp4.1/26, ML4.1/1, Error ellipse: s-maj=14.9km s-min=11.4km az=148.0*

*NEIC **28** 12:26:50.3±1.3, 41°.51N±0°.08×29°.3W±0°.1, h10^{km}±1^{km}, mb4.9/206, Error ellipse: s-maj=13.9km s-min=12.1km az=138.0*

*GFZ **28** 12:26:52.6±0.3, 42°N±7°×2°9W±°, h10^{km}, M4.5/25, mb4.5/25, Error ellipse: s-maj=15.2km s-min=6.0km az=1.8, confirmed*

*GCMT **28** 12:27:02.3±0.5, 41°.83N±0°.07×29°.16W±0°.05, h23^{km}±1^{km}, MW4.8/75, Moment Tensor Solution. s17,c21; s75,c96; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-2.25±.21; $M_{\theta\theta}$0.51±.13; $M_{\phi\phi}$1.73±.13; $M_{r\theta}$0.25±.26; $M_{\theta\phi}$0.25±.07; $M_{\phi r}$-0.01±.19; Best double couple: $M_0$2.02700×10^{16} NP1:ϕ_s6.00000°,δ45.00000°,λ-97.00000°. NP2: ϕ_s196.00000°,δ46.00000°,λ-83.00000°. Principal axes: T 1.7810, Plg1.0000°, Azm281.0000°; N 0.4850, Plg5.0000°, Azm11.0000°; P -2.2720, Plg85.0000°, Azm185.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*SVSA **28** 12:27:11.3±1.1, 40°.29N×28°.53W, h15^{km}, ML3.3(INMG) Error ellipse: s-maj=9.0km s-min=8.6km az=45.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Crista Mdia Atlntico N*

ISC 28 12:26:51.0±1.2**, 41°.55N**±0°.06×**29°.29W**±0°.05**, h15**^{km}±7^{km}**, n358, σ1^{s}.39**/293**, mb4.8**/155**, MS4.1**/17**, 9C-6D, Azores Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
H07N1	**FLORES T-PHASE**	**2.32**	**217**	Pn	**Pn**	**12 27 27.1**	**-1.6**
H07N1				T	T	12 30 04.0	
	SNR=2.5						
H07S1	**FLORES T-PHASE**	**2.62**	**215**	Pn	**Pn**	**12 27 30.7**	**-2.1**
SRBC	**Serra Branca**	**2.69**	**159**	*e*P	**Pn**	**12 27 30.9**	**-2.8**
PGRA	**Graciosa**	**2.71**	**158**	*e*P	**Pn**	**12 27 30.9**	**-3.1**
ROSA	**Rosais**	**2.94**	**164**	*e*P	**Pn**	**12 27 34.6**	**-2.5**
PCED	**Cedros**	**2.95**	**171**	*e*P	**Pn**	**12 27 35.4**	**-1.9**
CALA	**Caldeira**	**3.00**	**171**	*e*P	**Pn**	**12 27 36.9**	**-1.2**
PSBA	**Serra de Santa**	**3.16**	**151**	*e*P	**Pn**	**12 27 37.0**	**-3.3**
PSBA				*i* IAML		12 28 03.3	
PSBA				*i* IAML		12 28 03.8	
PSBA				*i* IAML		12 28 04.1	
PAGU	**Agualva, Azore**	**3.21**	**149**	*e*P	**Pn**	**12 27 37.7**	**-3.2**
PAGU				*e*S	Sn	12 27 58.9	-20
PAGU				*i* IAML		12 28 03.6	
PAGU				*i* IAML		12 28 03.8	
PAGU				*i* IAML		12 28 04.8	
ADH	**Angra Heroismo**	**3.29**	**151**	*e*P	**Pn**	**12 27 39.1**	**-2.9**
ADH				*e*S	Sn	12 27 59.5	-21
ADH				*i* IAML		12 28 07.3	
ADH				*i* IAML		12 28 08.0	
ADH				*i* IAML		12 28 09.7	
PSCM	**Serra do Cume**	**3.30**	**149**	*e*P	**Pn**	**12 27 39.1**	**-3.0**
PSCM				*i* IAML		12 28 05.1	
PSCM				*i* IAML		12 28 08.0	
PSET	**Sete Cidades**	**4.63**	**142**	*e*P	**Pn**	**12 27 58.5**	**-1.9**
PDA	**Ponta Delgada**	**4.72**	**142**	*e*P	**Pn**	**12 27 60.0**	**-1.6**
CMLA	**Cha da Macela**	**4.77**	**141**	*e*P	**Pn**	**12 27 59.8**	**-2.5**
PGRON	**Lagoa das Cont**	**4.83**	**140**	*e*P	**Pn**	**12 28 00.9**	**-2.3**
BART	**Pico Bartolome**	**4.93**	**139**	*e*P	**Pn**	**12 28 03.0**	**-1.7**
PSMN	**Pico do Norte,**	**5.60**	**143**	*e*P	**Pn**	**12 28 12.0**	**-1.7**
PMOZ	**Porto Moniz, M**	**12.98**	**128**	Pn	**Pn**	**12 29 54.7**	**-0.3**
PGAV	**Gavieira, Arco**	**15.69**	**81**	*e*P	**P**	**12 30 41.0**	**+5.4**
PGAV				IAmb	IAmb	12 31 09.5	
	comp=Z,67nm,1.6s						
PGAV				*e*LR	LR	12 34 08.1	
PGAV				IAMs_20	IAMs_20	12 35 30.7	
	comp=Z,721nm,20.0s						
PCAS	**Casmilo, Conde**	**15.81**	**89**	*e*P	**P**	**12 30 43.5**	**+6.7**
PCAS				IAmb	IAmb	12 31 08.5	
	comp=Z,59nm,1.7s						
POLO	**Lamas de Olo**	**16.11**	**83**	*e*P	**P**	**12 30 46.7**	**+6.4**
POLO				IAmb	IAmb	12 30 54.2	
	comp=Z,22nm,1.4s						
PSARD	**Sardoal**	**16.17**	**90**	*e*P	P	12 30 48.7	+7.9
PSARD				IAmb	IAmb	12 31 08.6	
	comp=Z,52nm,1.7s						
MTE	**Manteigas**	**16.46**	**87**	*e*P	P	12 30 54.2	+10
MTE				IAmb	IAmb	12 31 18.0	
	comp=Z,40nm,2.2s						
MTE				*e*LR	LR	12 34 42.3	
MTE				IAMs_20	IAMs_20	12 36 04.8	
	comp=Z,693nm,20.0s						
PARRA	**Arraiolos**	**16.46**	**93**	*e*P	P	12 30 53.1	+9.1
PARRA				IAmb	IAmb	12 31 11.2	
	comp=Z,28nm,1.4s						
EVO	**Evora**	**16.57**	**93**	P	P	12 30 55.1	+10
EVO	**Evora**	**16.57**	**93**	P	**Pn**	**12 30 42.1**	**-0.5**
	comp=Z,9.0nm,1.5s						
PCBR	**Castelo Branco**	**16.63**	**89**	*e*P	P	12 30 53.3	+7.5
PCBR				IAmb	IAmb	12 31 29.4	
	comp=Z,46nm,1.7s						
MESJ	**Messejana**	**16.63**	**96**	P	**Pn**	**12 30 42.5**	**-1.0**
MESJ				pmax	pmax		
	comp=Z,39nm,1.5s						
MESJ	**Messejana**	**16.63**	**96**		**Pn**	**12 30 42.5**	**-1.0**
PBRG	**Braganca**	**16.84**	**82**	P	P	12 30 57.0	+8.7
PBAR	**Barrancos**	**17.40**	**94**	*e*P	P	12 31 02.2	+7.8
PBAR				IAmb	IAmb	12 31 26.1	
	comp=Z,44nm,1.7s						
PAB	**San Pablo**	**19.04**	**88**	P	**P**	**12 31 11.6**	**-1.0**
PAB				pmax	pmax		
	comp=Z,43nm,1.7s						
PAB	**San Pablo**	**19.04**	**88**	P	**P**	**12 31 11.6**	**-1.0**
PAB	**San Pablo**	**19.04**	**88**	P	**Pn**	**12 31 16.0**	**+2.6**
	comp=Z,23nm,1.4s						
ESDC	**Sonseca Array**	**19.30**	**87**	P	**Pn**	**12 31 17.0**	**+0.5**
	comp=Z,0.1nm,0.3s,baz=289,slow=9.4,SNR=12						
	comp=Z,3.2nm,1.0s						
ESDC				AML	AML		
ESDC	**Sonseca Array**	**19.30**	**87**	P	**P**	**12 31 14.3**	**-1.1**
ESBB	**Sonseca Array**	**19.30**	**87**	P	**P**	**12 31 15.4**	**0.0**
EMAL	**Malaga-Limoner**	**19.84**	**96**	P	**Pn**	**12 31 25.9**	**+3.2**
	comp=Z,7.6nm,1.4s						
TIO	**Tiouine**	**20.63**	**114**	P	Pn	12 31 32.4	0.0
	comp=Z,76nm,2.1s						
IFR	**Ifrane**	**20.73**	**105**	P	Pn	12 31 35.6	+2.2
	comp=Z,8.4nm,1.4s						
FOEL	**Foel Wylfa**	**20.91**	**48**	P	Pn	12 31 33.7	-1.6
	comp=Z,23nm,1.2s						
DRLN	**Deer Lake**	**21.17**	**301**	P	**P**	**12 31 36.0**	**+0.5**
MD01	**Midelt array s**	**21.32**	**106**		**P**	**12 31 37.7**	**+0.3**
MD31	**MD31**	**21.32**	**106**	P	**P**	**12 31 35.5**	**-1.9**
MDT	**Midelt**	**21.46**	**106**	P	**P**	**12 31 40.9**	**+2.1**
	comp=Z,4.3nm,0.8s,baz=316,slow=11,SNR=6.1						
	comp=Z,4.3nm,0.8s						
MFF	**Saint Martin d**	**21.47**	**67**	P	**P**	**12 31 42.8**	**+4.0**
	comp=Z,6.6nm,2.0s						
LBWR	**Ladybower, Pea**	**21.93**	**48**	P	**P**	**12 31 42.9**	**-0.8**
	comp=Z,278nm,0.8s						
ESK	**Eskdalemuir**	**21.95**	**42**	P	**P**	**12 31 42.3**	**-1.5**
ESK				pmax	pmax		
	comp=Z,28nm,1.3s						
ESK	**Eskdalemuir**	**21.95**	**42**	P	**P**	**12 31 42.3**	**-1.5**
NRS	**Narsarsuaq**	**21.95**	**339**	P	**P**	**12 31 43.3**	**-0.4**
NRS				pmax	pmax		
	comp=Z,111nm,1.9s						
NRS	**Narsarsuaq**	**21.95**	**339**	P	**P**	**12 31 43.3**	**-0.4**
NRS				IAmb	IAmb	12 31 49.2	
	comp=Z,111nm,1.9s						
EKA	**Eskdalemuir Ar**	**21.98**	**42**	P	**P**	**12 31 45.3**	**+1.2**
	comp=Z,1.4nm,0.7s,baz=260,slow=5.0,SNR=4.2						
	comp=Z,1.4nm,0.7s						
DOU	**Dourbes**	**24.93**	**58**	*d*P	**P**	**12 32 12.7**	**-0.7**
BMRD	**Maredsous**	**25.07**	**58**	*d*P	**P**	**12 32 14.5**	**-0.2**
BCLA	**Clavier**	**25.42**	**58**	*d*P	**P**	**12 32 19.5**	**+1.6**
HGN	**Heimansgroeve**	**25.86**	**57**	P	**P**	**12 32 20.0**	**-1.8**
	comp=Z,20nm,1.3s						
WLF	**Walferdange**	**25.89**	**60**	P	**P**	**12 32 21.6**	**-0.5**
WLF				pmax	pmax		
	comp=Z,38nm,1.2s						
WLF	**Walferdange**	**25.89**	**60**	P	**P**	**12 32 21.6**	**-0.5**
WLF				IAmb	IAmb	12 32 50.5	
	comp=Z,38nm,1.2s						
WLF	**Walferdange**	**25.89**	**60**	*d*P	**P**	**12 32 23.6**	**+1.5**
MEM	**Membach**	**25.89**	**57**	*d*P	**P**	**12 32 23.3**	**+1.2**
MEM	**Membach**	**25.89**	**57**	P	**P**	**12 32 23.7**	**+1.5**
	comp=Z,28nm,1.9s						
LMN	**Caledonia Moun**	**25.90**	**292**	P	**P**	**12 32 22.7**	**+0.5**
ECH	**Echery**	**26.48**	**63**	P	**P**	**12 32 26.8**	**-0.7**
ECH				pmax	pmax		
	comp=Z,52nm,1.9s						
ECH	**Echery**	**26.48**	**63**	P	**P**	**12 32 26.8**	**-0.7**
ECH				IAmb	IAmb	12 33 01.3	
	comp=Z,52nm,1.9s						
ECH	**Echery**	**26.48**	**63**	P	**P**	**12 32 34.0**	**+6.5**
	comp=Z,18nm,2.0s						
BFO	**Black Forest**	**27.27**	**63**	P	**P**	**12 32 33.3**	**-1.3**
BFO				pmax	pmax		
	comp=Z,45nm,2.0s						
BFO	**Black Forest**	**27.27**	**63**	P	**P**	**12 32 33.3**	**-1.3**
BFO				IAmb	IAmb	12 33 08.7	
	comp=Z,45nm,2.0s						
EMMW	**East Machias**	**27.86**	**289**	P	**P**	**12 32 40.6**	**+0.7**
EMMW				IAmb	IAmb	12 33 28.0	
	comp=Z,26nm,1.2s						
SCHQ	**Schefferville**	**27.96**	**311**	P	**P**	**12 32 40.4**	**-0.3**
	comp=Z,3.1nm,0.9s,baz=230,slow=14,SNR=2.1						
	comp=Z,3.1nm,0.9s						
SCHQ	**Schefferville**	**27.96**	**311**	P	**P**	**12 32 41.1**	**+0.4**
SCHQ				IAmb	IAmb	12 33 07.1	
	comp=Z,24nm,1.6s						
TUE	**Stuetta**	**28.02**	**67**	P	**P**	**12 32 41.5**	**-0.1**
	comp=Z,48nm,1.5s						
TUE	**Stuetta**	**28.02**	**67**	P	P	12 32 48.9	+7.3
	comp=Z,10nm,1.3s						
NKC	**Novy Kostel**	**29.98**	**59**	AMS	AMS	12 43 00.0	
	comp=Z,500nm,20.5s						
CLL	**Collm**	**30.35**	**57**	L	L	12 41 00.0	
CLL				AMS	AMS	12 43 00.0	
	comp=N,100nm,22.0s						
CLL				AMS	AMS	12 43 00.0	
	comp=E,100nm,24.2s						
CLL				AMS	AMS	12 43 00.0	
	comp=Z,200nm,21.6s						
KEST	**Kesra**	**30.55**	**88**	P	**P**	**12 33 05.5**	**+1.6**
	comp=Z,1.2nm,0.5s,baz=117,slow=9.0,SNR=1.4						
	comp=Z,1.2nm,0.5s						
KEST	**Kesra**	**30.55**	**88**	P	**P**	**12 33 04.8**	**+0.9**
KEST				IAmb	IAmb	12 34 00.1	
	comp=Z,30nm,1.5s						
HSKC	**Hora Svate Kat**	**30.61**	**58**	AMS	AMS	12 44 00.0	
	comp=Z,400nm,19.9s						
KBA	**Koelnbreinsper**	**30.71**	**65**	P	P	12 33 11.6	+6.2
	comp=Z,31nm,1.2s						
KHC	**Kasperske Hory**	**30.73**	**61**	⇑*i*P	**P**	**12 33 08.0**	**+2.6**
KHC	**Kasperske Hory**	**30.73**	**61**	*e*P	P	12 33 10.0	+4.7
KHC				AMS	AMS	12 46 00.0	
	comp=Z,300nm,18.2s						
KHC	**Kasperske Hory**	**30.73**	**61**	P	**P**	**12 33 05.3**	**-0.1**
	comp=Z,6.2nm,2.7s						
KHC	**Kasperske Hory**	**30.73**	**61**	P	P	12 33 10.1	+4.8
	comp=Z,6.3nm,2.7s						
GERES	**GERESS Array B**	**30.82**	**62**	P	**P**	**12 33 06.7**	**+0.5**
	comp=Z,1.0nm,0.2s,baz=261,slow=8.9,SNR=5.6						
	comp=Z,1.0nm,0.2s						
GERES	**GERESS Array B**	**30.82**	**62**	P	**P**	**12 33 04.8**	**-1.5**
PRED	**Cave del Predi**	**30.93**	**66**	P	**P**	**12 33 06.6**	**-0.5**
PRED				IAmb	IAmb	12 33 33.4	
	comp=Z,20nm,1.5s						
BCX	**Boston College**	**30.94**	**286**	P	**P**	**12 33 06.6**	**-0.5**
BCX				IAmb	IAmb	12 33 25.4	
	comp=Z,19nm,1.0s						
NAO01	**NORSAR Array S**	**31.02**	**38**	P	**P**	**12 33 06.7**	**-1.0**
CKRC	**Cesky Krumlov**	**31.22**	**62**	AMS	AMS	12 45 10.0	
	comp=Z,300nm,18.2s						
NOA	**NORSAR Array B**	**31.24**	**38**	P	**P**	**12 33 09.4**	**-0.3**
	comp=Z,0.6nm,0.8s,baz=251,slow=9.7,SNR=3.5						
	comp=Z,0.6nm,0.8s						
NB201	**NORSAR Array S**	**31.28**	**38**	P	**P**	**12 33 10.0**	**0.0**
GUMA	**Gualdo di Mace**	**31.31**	**73**	P	**P**	**12 33 09.2**	**-1.4**
PRU	**Pruhonice**	**31.33**	**59**	AMS	AMS	12 44 20.0	
	comp=Z,500nm,19.0s						
PVCC	**Panska Ves**	**31.34**	**58**	AMS	AMS	12 48 10.0	
	comp=Z,500nm,20.3s						
AQU	**L'Aquila**	**31.52**	**74**	P	**P**	**12 33 11.9**	**-0.5**
AQU				pmax	pmax		
	comp=Z,31nm,1.0s						
AQU	**L'Aquila**	**31.52**	**74**	P	**P**	**12 33 11.9**	**-0.5**
TREC	**Trest**	**31.97**	**61**	AMS	AMS	12 48 30.0	
	comp=Z,300nm,18.5s						
UPC	**Upice**	**32.26**	**58**	AMS	AMS	12 44 30.0	
	comp=Z,400nm,17.3s						
OSTC	**Ostas**	**32.39**	**58**	AMS	AMS	12 45 10.0	
	comp=Z,400nm,17.7s						
KSP	**Ksiaz**	**32.43**	**58**	P	**P**	**12 33 20.1**	**-0.1**
	comp=Z,6.6nm,2.5s						
DPC	**Dobruska-Polom**	**32.46**	**59**	AMS	AMS	12 45 30.0	
	comp=Z,400nm,17.9s						
KRLC	**Kraliky**	**32.77**	**59**	AMS	AMS	12 45 40.0	
	comp=Z,400nm,16.5s						
KRLC	**Kraliky**	**32.77**	**59**	P	P	12 33 29.2	+6.0
	comp=Z,7.2nm,1.5s						
OKC	**Ostrava-Krasne**	**33.66**	**59**	AMS	AMS	12 46 00.0	
	comp=Z,400nm,20.2s						
MORH	**Mrgy, Hungar**	**34.44**	**66**	P	**P**	**12 33 38.0**	**+0.2**
	comp=Z,11nm,1.1s						
MORH				pP	**pP**	**12 33 41.3**	**-0.3**
	comp=Z,11nm,1.1s						
OJC	**Ojcow**	**34.70**	**59**	P	**P**	**12 33 39.9**	**-0.1**
	comp=Z,12nm,1.0s						
NIE	**Niedzica**	**35.10**	**60**	P	**P**	**12 33 43.4**	**-0.1**
	comp=Z,2.5nm,1.4s						
FINES	**FINESS Array B**	**38.33**	**40**	P	**P**	**12 34 11.1**	**+0.4**
	comp=Z,2.1nm,0.9s,baz=288,slow=7.4,SNR=4.4						
	comp=Z,2.1nm,0.9s						
RNPP9	**Sopachiv**	**38.41**	**56**	P	**P**	**12 34 11.5**	**-0.1**
RNPP2	**Kostyukhnivka**	**38.42**	**56**	P	**P**	**12 34 11.6**	**-0.1**
BUR08	**Bucovina Ar. S**	**38.59**	**62**		**P**	**12 34 12.9**	**-0.5**
BURAR	**Bucovina Array**	**38.61**	**62**	P	**P**	**12 34 13.3**	**-0.2**
O53A	**New Philadelph**	**38.78**	**286**	P	**P**	**12 34 14.4**	**-0.5**
I49A	**Point Hope**	**38.82**	**292**	P	**P**	**12 34 14.7**	**-0.4**
Q54A	**Coxs Mills**	**38.94**	**284**	P	**P**	**12 34 15.8**	**-0.5**
Q54A				IAmb	IAmb	12 34 34.7	
	comp=Z,41nm,1.9s						
TORD	**Torodi Ar. Bea**	**39.09**	**127**	P	**P**	**12 34 17.6**	**-0.1**
	comp=Z,1.9nm,0.9s,baz=326,slow=8.0,SNR=7.9						
	comp=Z,1.9nm,0.9s						
KMPD	**K-Podol'skiy**	**39.23**	**60**	P	**P**	**12 34 17.8**	**-0.8**
MNK	**Minsk**	**39.28**	**51**	*i* P	**P**	**12 34 18.3**	**-0.5**
MNK				*i*		12 35 47.8	
MNK				*i* S	**S**	**12 40 18.1**	**-0.7**
MNK				*i* SS	**SS**	**12 43 10.4**	**-1.5**
MNK				pmax	pmax		
	comp=E,7.0nm,0.7s						
MNK				pmax	pmax		
	comp=Z,14nm,0.8s						
MNK				pmax	pmax		
	comp=N,19nm,1.3s						
MNK				MLR	MLR		
	comp=Z,161nm,19.0s						
MNK				MLR	MLR		
	comp=N,139nm,21.0s						
MNK				MLR	MLR		
	comp=E,62nm,19.0s						
MNK	**Minsk**	**39.28**	**51**	*i* P	**P**	**12 34 18.4**	**-0.5**
	comp=E,7.0nm,0.7s						
MNK				*i* P	**P**	**12 34 18.4**	**-0.5**
	comp=N,19nm,1.3s						
MNK				*i* P	**P**	**12 34 18.4**	**-0.5**
	comp=Z,14nm,0.8s,baz=275						
MNK				*i* PP	**PP**	**12 35 47.8**	**-0.9**
MNK				*i* PPP	PPP	12 36 08.7	
MNK				*i* S	**S**	**12 40 18.1**	**-0.7**
MNK				*i* SS	**SS**	**12 43 10.5**	**-1.5**
MNK				*i* SSS	SSS	12 43 27.9	
MNK				*i* LQ	LQ	12 48 02.2	
MNK				*i* LR	LR	12 50 29.1	
MNK				*i* LRM	MLR	12 52 23.4	
	comp=Z,161nm,18.7s						
MNK				*i* LRM	MLR	12 52 33.1	
	comp=N,139nm,20.5s						
MNK				*i* LRM	MLR	12 52 42.9	
	comp=E,62nm,19.5s						
ARCES	**ARCESS Array B**	**39.58**	**27**	P	**P**	**12 34 19.9**	**-1.3**
	comp=E,4.8nm,0.9s,baz=245,slow=15,SNR=5.5						
	comp=E,4.8nm,0.9s						
ARCES	**ARCESS Array B**	**39.58**	**27**	P	**P**	**12 34 20.9**	**-0.3**
ARCES				pmax	pmax		
	comp=Z,24nm,1.4s						
ARCES	**ARCESS Array B**	**39.58**	**27**	P	**P**	**12 34 20.9**	**-0.3**
MLR	**Muntele Rosu**	**39.58**	**65**	P	**P**	**12 34 21.3**	**-0.4**
	comp=Z,8.7nm,1.2s						
MI28	**Mi28,Pidlybu**	**39.59**	**56**	P	**P**	**12 34 21.0**	**-0.5**
LUBAR	**Lubar, Ukraine**	**39.82**	**58**	P	**P**	**12 34 22.9**	**-0.5**
MI30	**MI30,Zelenitsa**	**39.94**	**57**	P	**P**	**12 34 22.7**	**-1.7**
	comp=Z,9.8nm,1.8s						
ISR	**Istrita**	**40.08**	**65**	P	**P**	**12 34 25.5**	**-0.3**
	comp=Z,28nm,1.4s						
BIRD	**Birdtown, Kers**	**40.37**	**277**	P	**P**	**12 34 27.7**	**-0.5**
P51A	**Williamsport**	**40.38**	**285**	P	**P**	**12 34 27.8**	**-0.4**
V55A	**Taylorsville**	**40.42**	**279**	P	**P**	**12 34 28.7**	**+0.1**
AK20	**Malin Array Si**	**40.46**	**56**	P	**P**	**12 34 28.2**	**-0.5**
AK19	**Malin Array Si**	**40.46**	**56**	P	**P**	**12 34 28.3**	**-0.4**
AK21	**Malin Array Si**	**40.47**	**56**	P	**P**	**12 34 28.3**	**-0.5**
AK22	**Malin Array Si**	**40.49**	**56**	P	**P**	**12 34 28.5**	**-0.5**
AK17	**Malin Array Si**	**40.50**	**56**	P	**P**	**12 34 28.6**	**-0.4**
AK18	**Malin Array Si**	**40.50**	**56**	P	**P**	**12 34 28.6**	**-0.4**
AK16	**Malin Array Si**	**40.53**	**57**	P	**P**	**12 34 28.8**	**-0.5**
AK14	**Malin Array Si**	**40.54**	**57**	P	**P**	**12 34 28.9**	**-0.5**
AK04	**Malin Array Si**	**40.56**	**56**	P	**P**	**12 34 29.1**	**-0.4**
AK12	**Malin Array Si**	**40.57**	**57**	P	**P**	**12 34 29.1**	**-0.5**
AK11	**Malin Array Si**	**40.57**	**56**	P	**P**	**12 34 29.1**	**-0.5**
KIEV	**Kiev**	**40.59**	**56**	P	**P**	**12 34 29.6**	**-0.2**
KIEV				pmax	pmax		
	comp=Z,7.0nm,1.0s						
KIEV	**Kiev**	**40.59**	**56**	P	**P**	**12 34 29.6**	**-0.2**
KIEV	**Kiev**	**40.59**	**56**	P	**P**	**12 34 29.4**	**-0.4**
	comp=Z,32nm,1.5s						
AK03	**Malin Array Si**	**40.59**	**56**	P	**P**	**12 34 29.3**	**-0.5**
AKASG	**Malin Array Be**	**40.60**	**56**	P	**P**	**12 34 29.2**	**-0.6**
	comp=Z,1.0nm,0.6s,baz=281,slow=8.2,SNR=8.9						
	comp=Z,1.0nm,0.6s						
AKASG	**Malin Array Be**	**40.60**	**56**	P	**P**	**12 34 29.4**	**-0.5**
AKASG				pmax	pmax		
	comp=Z,3.0nm,1.2s						
AKASG	**Malin Array Be**	**40.60**	**56**	P	**P**	**12 34 29.4**	**-0.5**
AKBB	**Malin Array Si**	**40.60**	**56**	P	**P**	**12 34 29.5**	**-0.4**
AKBB				pmax	pmax		
	comp=Z,7.0nm,1.0s						
AKBB	**Malin Array Si**	**40.60**	**56**	P	**P**	**12 34 29.5**	**-0.4**
AK05	**Malin Array Si**	**40.60**	**57**	P	**P**	**12 34 29.4**	**-0.5**
AK08	**Malin Array Si**	**40.63**	**57**	P	**P**	**12 34 29.7**	**-0.4**
AK10	**Malin Array Si**	**40.63**	**57**	P	**P**	**12 34 29.7**	**-0.5**
DBIC	**Dimbokro**	**40.97**	**141**	P	**P**	**12 34 35.8**	**+2.5**
	comp=Z,3.7nm,0.8s,baz=322,slow=5.8,SNR=3.2						
	comp=Z,3.7nm,0.8s						
DBIC	**Dimbokro**	**40.97**	**141**	P	**P**	**12 34 32.7**	**-0.6**
SPITS	**Spitsbergen Ar**	**40.99**	**13**	P	**P**	**12 34 31.7**	**-1.1**
SPITS				pmax	pmax		
	comp=Z,51nm,1.3s						
TIRR	**Tirgusor**	**41.55**	**66**	P	**P**	**12 34 37.7**	**-0.1**
TIRR				pmax	pmax		
	comp=Z,20nm,0.8s						
TIRR	**Tirgusor**	**41.55**	**66**	P	**P**	**12 34 37.7**	**-0.1**
TIRR				IAmb	IAmb	12 34 46.1	
	comp=Z,20nm,0.8s						
TIRR	**Tirgusor**	**41.55**	**66**	P	**P**	**12 34 37.6**	**-0.1**
	comp=Z,29nm,0.9s						
CPCT	**Cooper Cave**	**43.03**	**281**	P	**P**	**12 34 50.0**	**+0.1**
W50A	**Signal Mountai**	**43.72**	**281**	P	**P**	**12 34 55.0**	**-0.6**
SWET	**Sewanee**	**44.17**	**281**	P	**P**	**12 34 59.0**	**-0.2**
OLIL	**Olney**	**44.29**	**287**	P	**P**	**12 35 00.7**	**+0.6**
KLMR	**Klimovskoe**	**44.84**	**40**	*e*P	**P**	**12 35 02.3**	**-1.9**
KLMR				*e*		12 36 44.5	
KLMR				pmax	pmax		
	comp=Z,11nm,1.4s						
L40A	**Anamosa**	**45.25**	**292**	P	**P**	**12 35 08.1**	**+0.5**
L40A				IAmb	IAmb	12 35 14.6	
	comp=Z,18nm,1.2s						
PBMO	**Poplar Bluff**	**46.78**	**285**	P	**P**	**12 35 18.5**	**-1.3**
PBMO				IAmb	IAmb	12 35 25.7	
	comp=Z,9.7nm,0.9s						
P40A	**Paris**	**46.80**	**289**		**P**	**12 35 19.6**	**-0.3**
P40A				IAmb	IAmb	12 35 26.6	
	comp=Z,6.8nm,0.9s						

CCM	**Cathedral Cave**	**46.83**	**287**	P	**P**	**12 35 19.1**	**-1.0**
CCM				pmax	pmax		
	comp=Z,14nm,1.3s						
CCM	**Cathedral Cave**	**46.83**	**287**	P	**P**	**12 35 19.1**	**-1.0**
CCM				IAmb	IAmb	12 35 26.3	
	comp=Z,14nm,1.3s						
BR131	**Keskin Array S**	**46.84**	**70**	*e*P	**P**	**12 35 20.1**	**-0.3**
BRTR	**Keskin Array B**	**46.84**	**70**	P	**P**	**12 35 21.3**	**+0.9**
	comp=Z,0.4nm,0.5s,baz=341,slow=6.5,SNR=3.5						
	comp=Z,0.4nm,0.5s						
BRTR	**Keskin Array B**	**46.84**	**70**	P	**P**	**12 35 20.6**	**+0.2**
T42A	**Van Buren**	**47.15**	**286**	P	**P**	**12 35 22.4**	**-0.3**
T42A				IAmb	IAmb	12 35 28.6	
	comp=Z,12nm,1.1s						
R40A	**Maddies Statio**	**47.46**	**288**	P	**P**	**12 35 25.0**	**-0.1**
R40A				IAmb	IAmb	12 35 31.3	
	comp=Z,8.6nm,1.0s						
P38A	**Dawn**	**47.81**	**290**	P	**P**	**12 35 27.9**	**+0.1**
P38A				IAmb	IAmb	12 35 34.0	
	comp=Z,7.8nm,0.9s						
ECSD	**EROS Data Cent**	**48.32**	**296**	IAmb	IAmb	12 35 38.2	
	comp=Z,12nm,1.0s						
ECSD	**EROS Data Cent**	**48.32**	**296**		**P**	**12 35 32.0**	**+0.3**
ECSD	**EROS Data Cent**	**48.32**	**296**	P	**P**	**12 35 32.2**	**+0.5**
	comp=Z,18nm,1.1s						
S39A	**Bolivar**	**48.47**	**288**		**P**	**12 35 32.8**	**-0.1**
S39A				IAmb	IAmb	12 35 39.0	
	comp=Z,9.2nm,0.9s						
X40A	**Basin Creek Fa**	**49.56**	**284**	P	**P**	**12 35 41.6**	**+0.3**
MIAR	**Mount Ida**	**50.08**	**284**	P	**P**	**12 35 45.9**	**+0.7**
MIAR				pmax	pmax		
	comp=Z,12nm,1.0s						
MIAR	**Mount Ida**	**50.08**	**284**	P	**P**	**12 35 45.9**	**+0.7**
MIAR				IAmb	IAmb	12 35 51.4	
	comp=Z,12nm,1.0s						
MIAR	**Mount Ida**	**50.08**	**284**	P	**P**	**12 35 45.9**	**+0.7**
	comp=Z,14nm,1.7s						
WLAR	**White Oak Lake**	**50.14**	**283**	P	**P**	**12 35 46.6**	**+0.8**
KSU1	**Kansas State U**	**50.19**	**291**	P	**P**	**12 35 46.5**	**+0.4**
KSU1				IAmb	IAmb	12 36 11.8	
	comp=Z,19nm,1.3s						
KIRV	**Kirov**	**50.22**	**42**	*e*P	**P**	**12 35 45.5**	**-0.4**
GOF	**Gofitskoye**	**51.12**	**60**	*ce*P	P	12 35 46.3	-6.7
KIV	**Kislovodsk**	**51.33**	**62**	*e*P	**P**	**12 35 55.0**	**+0.3**
KIV				pmax	pmax		
	comp=Z,7.0nm,1.0s						
KIV				MLR	MLR		
	comp=Z,51nm,17.0s						
KBZ	**Khabaz**	**51.56**	**62**	P	**P**	**12 35 58.0**	**+1.7**
	comp=Z,2.4nm,1.0s,baz=328,slow=9.6,SNR=2.9						
	comp=Z,2.4nm,1.0s						
KBZ	**Khabaz**	**51.56**	**62**	*e*P	**P**	**12 35 57.8**	**+1.5**
KBZ				pmax	pmax		
	comp=Z,3.0nm,1.0s						
LAO	**LASA Array**	**53.41**	**303**	IAmb	IAmb	12 36 17.8	
	comp=Z,13nm,0.9s						
WMOK	**Wichita Mounta**	**53.74**	**287**	P	**P**	**12 36 12.9**	**+0.3**
	comp=Z,6.0nm,1.1s						
EGMT	**Eagleton**	**55.02**	**306**	IAmb	IAmb	12 36 49.0	
	comp=Z,20nm,1.3s						
K22A	**Casper**	**55.36**	**299**	IAmb	IAmb	12 36 31.2	
	comp=Z,11nm,0.9s						
APMT	**Aspermont**	**55.41**	**286**	IAmb	IAmb	12 36 30.5	
	comp=Z,9.1nm,1.0s						
ARTI	**Arti**	**55.52**	**42**	*d i*P	**P**	**12 36 25.2**	**+0.1**
ARTI						12 37 27.5	
ARTI				S	**S**	**12 44 10.7**	**+1.0**
ARTI				SS	**SS**	**12 47 51.3**	**-2.6**
ARTI				pmax	pmax		
	comp=Z,8.0nm,0.9s						
ARTI	**Arti**	**55.52**	**42**		**P**	**12 36 24.3**	**-0.8**
BRDY	**Brady**	**55.65**	**283**	IAmb	IAmb	12 36 52.6	
	comp=Z,16nm,1.3s						
RTBA	**Rita Blanca**	**55.72**	**291**		**P**	**12 36 25.9**	**-1.2**
AMTX	**Amarillo**	**55.75**	**289**		**P**	**12 36 26.4**	**-0.9**
AKT	**Akhty**	**55.76**	**62**	*e*P	**P**	**12 36 31.9**	**+4.7**
AKT				MLR	MLR		
	comp=Z,88nm,12.0s						
RLMT	**Red Lodge**	**56.00**	**303**	P	**P**	**12 36 28.6**	**-0.5**
YNE	**Yellowstone No**	**56.52**	**303**	P	**P**	**12 36 31.8**	**-1.0**
YNE				IAmb	IAmb	12 36 39.9	
	comp=Z,8.9nm,0.9s						
T25A	**Trinidad**	**56.55**	**292**	P	**P**	**12 36 32.7**	**-0.4**
T25A				IAmb	IAmb	12 37 00.9	
	comp=Z,17nm,1.5s						
YMP	**Mirror Lake Pl**	**56.74**	**303**	P	**P**	**12 36 34.1**	**-0.4**
YMP				IAmb	IAmb	12 36 41.3	
	comp=Z,12nm,0.9s						
BW06	**Boulder Array**	**57.28**	**300**	P	**P**	**12 36 38.1**	**-0.1**
PDAR	**Pinedale Array**	**57.28**	**300**	P	**P**	**12 36 38.0**	**-0.3**
	comp=Z,3.7nm,0.9s,baz=66,slow=7.4,SNR=28						
	comp=Z,3.7nm,0.9s						
YHL	**Hebgen Lake**	**57.34**	**303**	P	**P**	**12 36 39.1**	**+0.4**
YHL				IAmb	IAmb	12 37 05.4	
	comp=Z,19nm,1.8s						
SNOW	**Snow King Moun**	**57.72**	**302**	IAmb	IAmb	12 36 48.6	
	comp=Z,11nm,1.0s						
FXWY	**Fox Creek**	**57.81**	**302**	IAmb	IAmb	12 37 08.2	
	comp=Z,26nm,1.9s						
G31M	**Satah River**	**57.94**	**333**	IAmb	IAmb	12 37 08.9	
	comp=Z,15nm,1.1s						
DLMT	**Dillon**	**57.97**	**304**	IAmb	IAmb	12 36 50.5	
	comp=Z,9.4nm,1.1s						
MSO	**Missoula**	**58.10**	**306**	IAmb	IAmb	12 36 45.0	
	comp=Z,11nm,1.2s						
AHID	**Auburn Hatcher**	**58.28**	**301**	P	**P**	**12 36 45.3**	**+0.1**
	comp=Z,6.4nm,1.1s						
E29M	**Blow River**	**58.33**	**336**	IAmb	IAmb	12 36 51.2	
	comp=Z,10nm,0.9s						
SAND	**Sanderson**	**58.63**	**284**	IAmb	IAmb	12 36 53.6	
	comp=Z,11nm,0.9s						
E28M	**Babbage River**	**58.71**	**336**	IAmb	IAmb	12 36 50.7	
	comp=Z,11nm,1.1s						
D27M	**Malcolm River**	**58.77**	**337**	IAmb	IAmb	12 36 54.8	
	comp=Z,8.5nm,0.8s						
BCYI	**Bear Canyon**	**58.99**	**304**	IAmb	IAmb	12 37 14.4	
	comp=Z,9.3nm,1.4s						
ANMO	**Albuquerque**	**59.09**	**291**	*e*P	**P**	**12 36 52.0**	**+1.1**
ANMO				pmax	pmax		
	comp=Z,2.0nm,1.0s						
ANMO	**Albuquerque**	**59.09**	**291**	P	**P**	**12 36 51.9**	**+0.9**
ANMO	**Albuquerque**	**59.09**	**291**	P	**P**	**12 36 53.4**	**+2.5**
	comp=Z,3.9nm,1.9s						
ALQ	**Albuquerque**	**59.09**	**291**	P	**P**	**12 36 51.6**	**+0.7**
ALQ				IAmb	IAmb	12 37 18.3	
	comp=Z,9.6nm,1.4s						
HWUT	**Hardware Ranch**	**59.15**	**300**	IAmb	IAmb	12 36 58.1	
	comp=Z,8.7nm,0.8s						
HWUT	**Hardware Ranch**	**59.15**	**300**	P	**P**	**12 36 52.1**	**+0.8**
	comp=Z,14nm,0.9s						
BSUT	**Blindstream Ca**	**59.16**	**299**	IAmb	IAmb	12 36 58.1	
	comp=Z,9.0nm,0.9s						
G29M	**Pine Creek**	**59.19**	**334**		**P**	**12 36 50.7**	**-0.2**
P18A	**Preston Nutter**	**59.28**	**297**	P	**P**	**12 36 51.5**	**-0.8**
NEW	**Newport**	**59.30**	**309**	P	**P**	**12 36 52.0**	**0.0**
NEW				pmax	pmax		
	comp=Z,10.0nm,1.0s						
NEW	**Newport**	**59.30**	**309**		**P**	**12 36 52.0**	**0.0**
NEW				IAmb	IAmb	12 36 54.8	
	comp=Z,9.6nm,1.0s						
NEW	**Newport**	**59.30**	**309**	P	**P**	**12 36 52.8**	**+0.8**
	comp=Z,16nm,1.7s						
F28M	**Old Crow**	**59.38**	**335**	P	**P**	**12 36 51.6**	**-0.6**
F28M				IAmb	IAmb	12 37 18.2	
	comp=Z,9.7nm,0.9s						
BDFB	**Brasilia**	**59.48**	**201**	P	**P**	**12 36 54.2**	**+0.6**
	comp=Z,1.5nm,0.4s,baz=102,slow=20,SNR=1.7						
	comp=Z,1.5nm,0.4s						
BDFB	**Brasilia**	**59.48**	**201**	P	**P**	**12 36 52.6**	**-0.9**
H29M	**Whitestone**	**59.70**	**334**		**P**	**12 36 55.1**	**+0.7**
SRU	**San Rafael Swe**	**59.73**	**297**	P	**P**	**12 36 54.7**	**-0.6**
SRU				pmax	pmax		
	comp=Z,21nm,2.0s						
SRU	**San Rafael Swe**	**59.73**	**297**	P	**P**	**12 36 54.7**	**-0.6**
SRU				IAmb	IAmb	12 37 51.4	
	comp=Z,21nm,2.0s						
HVU	**Hansel Valley**	**59.85**	**301**	P	**P**	**12 36 55.7**	**-0.4**
HVU				pmax	pmax		
	comp=Z,7.0nm,0.9s						
HVU	**Hansel Valley**	**59.85**	**301**	P	**P**	**12 36 55.7**	**-0.4**
HVU				IAmb	IAmb	12 37 02.7	
	comp=Z,7.1nm,0.9s						
Y22A	**Socorro**	**59.98**	**290**		**P**	**12 36 56.9**	**-0.2**
Y22A				IAmb	IAmb	12 37 04.6	
	comp=Z,6.4nm,0.9s						
HLID	**Hailey**	**59.99**	**303**	P	**P**	**12 36 58.6**	**+1.6**
	comp=Z,8.7nm,0.9s						
TX31	**Lajitas Ar. Si**	**60.10**	**284**	P	**P**	**12 36 57.3**	**-0.5**
TX31				IAmb	IAmb	12 37 04.5	
	comp=Z,7.2nm,0.9s						
TXAR	**Lajitas Array**	**60.10**	**284**	P	**P**	**12 36 57.2**	**-0.7**
	comp=Z,2.9nm,0.9s,baz=69,slow=7.2,SNR=7.9						
	comp=Z,2.9nm,0.9s						
SBM	**South Baldy**	**60.11**	**290**	P	**P**	**12 36 58.0**	**-0.2**
C09A	**Chrisman Ranch**	**60.20**	**309**	P	**P**	**12 36 57.9**	**-0.3**
PLID	**Pearl Lake**	**60.20**	**305**		**P**	**12 36 58.0**	**-0.5**
PLID				IAmb	IAmb	12 37 25.7	
	comp=Z,13nm,1.2s						
VHRN	**Van Horn**	**60.26**	**286**		**P**	**12 36 59.2**	**+0.3**
VHRN				IAmb	IAmb	12 37 26.2	
	comp=Z,13nm,1.1s						
I28M	**Miner Creek**	**60.67**	**333**	IAmb	IAmb	12 37 09.5	
	comp=Z,9.6nm,0.9s						
DUG	**Dugway, Tooele**	**60.68**	**299**	P	**P**	**12 37 01.2**	**-0.6**
DUG				pmax	pmax		
	comp=Z,7.0nm,0.9s						
DUG	**Dugway, Tooele**	**60.68**	**299**		**P**	**12 37 01.2**	**-0.6**
DUG				IAmb	IAmb	12 37 08.5	
	comp=Z,7.0nm,0.8s						
DUG	**Dugway, Tooele**	**60.68**	**299**	P	**P**	**12 37 03.0**	**+1.2**
	comp=Z,10nm,0.9s						
E09A	**Wood Farm, Sta**	**60.77**	**308**	P	**P**	**12 37 02.2**	**+0.2**
E09A				IAmb	IAmb	12 37 28.0	
	comp=Z,11nm,1.5s						
E25K	**Arctic Village**	**60.79**	**337**	IAmb	IAmb	12 37 04.0	
	comp=Z,8.2nm,1.2s						
G26K	**Porcupine Rive**	**61.00**	**336**	IAmb	IAmb	12 37 30.1	
	comp=Z,11nm,0.9s						
D24K	**Happy Valley**	**61.02**	**339**	IAmb	IAmb	12 37 30.2	
	comp=Z,12nm,0.9s						
I27K	**Kandik River**	**61.14**	**334**	P	**P**	**12 37 04.9**	**+0.6**
LNOR	**Lincton Mounta**	**61.19**	**307**	IAmb	IAmb	12 37 31.6	
	comp=Z,8.4nm,1.1s						
DAWY	**Dawson**	**61.31**	**332**	IAmb	IAmb	12 37 33.0	
	comp=Z,9.4nm,1.1s						
YPT	**Yellepit**	**61.50**	**308**	IAmb	IAmb	12 37 10.1	
	comp=Z,10nm,1.1s						
X18A	**Snowflake**	**61.74**	**292**	IAmb	IAmb	12 37 16.6	
	comp=Z,9.2nm,1.2s						
F24K	**Squaw Lake**	**61.85**	**337**	IAmb	IAmb	12 37 41.1	
	comp=Z,10nm,1.1s						
ELK	**Elko**	**61.97**	**301**	IAmb	IAmb	12 37 17.7	
	comp=Z,7.1nm,0.9s						
WUAZ	**Wupatki**	**62.19**	**294**	IAmb	IAmb	12 37 40.2	
	comp=Z,13nm,1.3s						
SZCU	**Shurtz Canyon**	**62.24**	**297**	IAmb	IAmb	12 37 39.1	
	comp=Z,13nm,1.4s						
PSUT	**Pine Spring**	**62.24**	**298**	IAmb	IAmb	12 37 19.5	
	comp=Z,7.0nm,0.9s						
X16A	**Lo Mia Camp, P**	**62.84**	**293**	IAmb	IAmb	12 37 44.5	
	comp=Z,8.2nm,1.1s						
J25K	**Salcha River,**	**63.00**	**334**		**P**	**12 37 17.1**	**+0.3**
J25K				IAmb	IAmb	12 37 43.4	
	comp=Z,7.2nm,1.1s						
BORK	**Borovoye**	**63.18**	**42**	*e*P	**P**	**12 37 19.1**	**+0.9**
BORK				pmax	pmax		
	comp=Z,5.0nm,0.9s						
BORK	**Borovoye**	**63.18**	**42**		**P**	**12 37 18.7**	**+0.5**
BORK				IAmb	IAmb	12 37 40.2	
	comp=Z,6.1nm,0.9s						
WVOR	**Wild Horse Val**	**63.22**	**304**	P	**P**	**12 37 20.7**	**+1.9**
	comp=Z,13nm,1.0s						
BVAR	**Borovoye Array**	**63.23**	**42**	P	**P**	**12 37 18.8**	**+0.3**
	comp=Z,3.0nm,0.7s,baz=305,slow=5.2,SNR=10						
	comp=Z,3.0nm,0.7s						
ILAR	**Eielson Array**	**63.38**	**335**	P	**P**	**12 37 19.9**	**+0.6**
	comp=Z,1.9nm,1.0s,baz=39,slow=5.1,SNR=14						
	comp=Z,1.9nm,1.0s						
H23K	**Yukon River**	**63.48**	**337**	IAmb	IAmb	12 37 24.3	
	comp=Z,13nm,1.4s						
TUC	**Tucson**	**63.55**	**291**	P	**P**	**12 37 19.7**	**-1.3**
TUC				pmax	pmax		
	comp=Z,8.0nm,1.1s						
TUC	**Tucson**	**63.55**	**291**	P	**P**	**12 37 19.7**	**-1.3**
TUC				IAmb	IAmb	12 37 48.6	
	comp=Z,8.3nm,1.1s						
NLWA	**Neilton Lookou**	**63.63**	**311**	P	**P**	**12 37 21.2**	**-0.1**
HDA	**Harding Lake**	**63.65**	**335**	P	**P**	**12 37 21.9**	**+0.8**
PRN	**Pahroc Range**	**63.65**	**298**		**P**	**12 37 22.1**	**+0.4**
CCB	**Clear Creek Bu**	**63.76**	**335**	P	**P**	**12 37 22.4**	**+0.6**
PINE	**Pine Mountain**	**63.90**	**306**	IAmb	IAmb	12 37 27.2	
	comp=Z,8.2nm,1.0s						
G21K	**Allakaket**	**64.13**	**338**	IAmb	IAmb	12 37 51.2	
	comp=Z,9.1nm,1.1s						
W13A	**Hualapai Mount**	**64.14**	**295**	IAmb	IAmb	12 37 32.6	
	comp=Z,5.7nm,0.9s						
NEA2	**Nenana**	**64.19**	**335**	IAmb	IAmb	12 37 26.1	
	comp=Z,9.6nm,1.0s						
MOD	**Modoc Plateau**	**64.55**	**304**	IAmb	IAmb	12 37 31.0	
	comp=Z,9.2nm,0.8s						
NV11	**Mina Array Sit**	**65.12**	**300**	IAmb	IAmb	12 37 57.5	
	comp=Z,9.1nm,1.3s						
NVAR	**Mina Array Bea**	**65.22**	**300**	P	**P**	**12 37 32.3**	**+0.2**
	comp=Z,1.4nm,0.9s,baz=4.4,slow=1.9,SNR=7.3						
	comp=Z,1.4nm,0.9s						
GWY	**Greenwater Val**	**65.41**	**297**	IAmb	IAmb	12 37 36.8	
	comp=Z,7.0nm,1.0s						
LHV	**Little Huntoon**	**65.45**	**300**	IAmb	IAmb	12 37 40.0	
	comp=Z,6.5nm,0.9s						
BEKR	**Beckworth**	**65.73**	**302**	IAmb	IAmb	12 37 42.0	
	comp=Z,9.4nm,0.9s						
GSC	**Goldstone, Bar**	**66.00**	**297**	IAmb	IAmb	12 38 05.0	
	comp=Z,10nm,1.1s						
MPMC	**Manual Prospec**	**66.03**	**298**	IAmb	IAmb	12 37 44.7	
	comp=Z,8.8nm,0.9s						
BELC	**Belle Mtn. Jos**	**66.20**	**295**	IAmb	IAmb	12 37 46.0	
	comp=Z,7.0nm,1.0s						
CLC	**China Lake**	**66.24**	**297**	IAmb	IAmb	12 38 05.5	
	comp=Z,7.5nm,1.1s						
PMD	**Palm Desert**	**66.66**	**295**	IAmb	IAmb	12 37 44.8	
	comp=Z,7.6nm,1.0s						
PFO	**Pinyon Flats O**	**66.73**	**295**	⇑*i*P	**P**	**12 37 43.4**	**+1.6**
PFO				pmax	pmax		
	comp=Z,10.0nm,0.9s						
PFO	**Pinyon Flats O**	**66.73**	**295**	P	**P**	**12 37 41.4**	**-0.4**
PFO				IAmb	IAmb	12 37 49.3	
	comp=Z,7.7nm,0.9s						
PFO				PcP	**PcP**	**12 38 08.9**	**-1.8**
PFO	**Pinyon Flats O**	**66.73**	**295**	P	**P**	**12 37 43.6**	**+1.9**
	comp=Z,12nm,0.9s						
BORC	**Borrego Spring**	**66.90**	**295**	IAmb	IAmb	12 38 10.1	
	comp=Z,6.2nm,1.1s						
ELS	**Elsinore Mount**	**67.37**	**295**	IAmb	IAmb	12 37 52.7	
	comp=Z,5.3nm,0.8s						
DPP	**Dos Picos Cty**	**67.42**	**295**	IAmb	IAmb	12 37 53.5	
	comp=Z,7.7nm,1.2s						
BAR	**Barrett**	**67.42**	**294**	IAmb	IAmb	12 37 53.4	
	comp=Z,6.2nm,0.9s						
LPAZ	**La Paz**	**67.84**	**221**	P	**P**	**12 37 50.6**	**+1.2**
	comp=Z,3.4nm,0.9s,baz=9.8,slow=7.2,SNR=5.4						
	comp=Z,3.4nm,0.9s						
LPAZ	**La Paz**	**67.84**	**221**	P	**P**	**12 37 48.6**	**-0.8**
LPAZ	**La Paz**	**67.84**	**221**	P	**P**	**12 37 51.0**	**+1.7**
	comp=Z,5.5nm,1.2s						
KURK	**Kurchatov**	**68.69**	**40**	⇑*i*P	**P**	**12 37 54.2**	**+0.6**
KURK				pmax	pmax		
	comp=Z,5.0nm,0.9s						
KURK	**Kurchatov**	**68.69**	**40**		**P**	**12 37 53.7**	**0.0**
KURK				IAmb	IAmb	12 38 15.2	
	comp=Z,5.8nm,0.8s						
KURK	**Kurchatov**	**68.69**	**40**	P	**P**	**12 37 53.9**	**+0.3**
	comp=Z,9.4nm,1.2s						
KURBB	**Kurchatov Arra**	**68.71**	**41**	P	**P**	**12 37 54.5**	**+0.7**
	comp=Z,3.9nm,0.8s,baz=313,slow=6.6,SNR=30						
	comp=Z,3.9nm,0.8s						
KK31	**Karatay Array**	**69.12**	**51**	P	**P**	**12 37 57.0**	**+0.5**
KK31						12 38 18.1	
KK31				pmax	pmax		
	comp=Z,3.0nm,0.8s						
KK31	**Karatay Array**	**69.12**	**51**	P	**P**	**12 37 57.0**	**+0.5**
KK31				PcP	**PcP**	**12 38 18.1**	**-2.3**
KKAR	**Karatay Array**	**69.12**	**51**	P	**P**	**12 37 56.6**	**+0.1**
KKAR						12 38 18.0	
KKAR	**Karatay Array**	**69.12**	**51**	P	**P**	**12 37 56.6**	**+0.1**
KKAR				PcP	**PcP**	**12 38 18.0**	**-2.5**
ZAA0	**Zalesovo Array**	**69.40**	**35**		**P**	**12 37 57.5**	**-0.5**
ZAA0				PcP	**PcP**	**12 38 19.0**	**-2.3**
ZALV	**Zalesovo Beam**	**69.40**	**35**	P	**P**	**12 37 58.1**	**+0.1**
	comp=Z,2.3nm,0.8s,baz=302,slow=8.4,SNR=10						
	comp=Z,2.3nm,0.8s						
ZALV	**Zalesovo Beam**	**69.40**	**35**	P	**P**	**12 37 58.2**	**+0.2**
ZALV						12 38 18.9	
ZALV	**Zalesovo Beam**	**69.40**	**35**		**P**	**12 37 58.2**	**+0.2**
ZALV				PcP	**PcP**	**12 38 18.9**	**-2.4**
AAK	**Ala-Archa**	**71.70**	**49**	⇑*i*P	**P**	**12 38 14.0**	**+1.6**
AAK				pmax	pmax		
	comp=Z,2.0nm,0.9s						
AAK	**Ala-Archa**	**71.70**	**49**	P	**P**	**12 38 14.5**	**+2.0**
	comp=Z,4.0nm,1.3s						
CPUP	**Villa Florida**	**72.36**	**206**	P	**P**	**12 38 16.7**	**+0.6**
	comp=Z,1.1nm,0.6s,baz=254,slow=17,SNR=1.8						
	comp=Z,1.1nm,0.6s						
CPUP	**Villa Florida**	**72.36**	**206**	P	**P**	**12 38 15.8**	**-0.4**
CPUP				IAmb	IAmb	12 39 33.5	
	comp=Z,19nm,1.7s						
MAKZ	**Makanchi**	**72.95**	**42**	P	**P**	**12 38 18.9**	**-0.8**
MAKZ				pmax	pmax		
	comp=Z,8.0nm,1.3s						
MAKZ	**Makanchi**	**72.95**	**42**	P	**P**	**12 38 18.9**	**-0.8**
MAKZ	**Makanchi**	**72.95**	**42**	P	**P**	**12 38 20.6**	**+0.9**
	comp=Z,5.0nm,1.5s						
MK31	**Makanchi Array**	**73.11**	**42**	⇑*i*P	**P**	**12 38 21.3**	**+0.7**
MKAR	**Makanchi Array**	**73.11**	**42**	P	**P**	**12 38 21.2**	**+0.6**
	comp=Z,2.7nm,0.7s,baz=324,slow=5.8,SNR=23						
	comp=Z,2.7nm,0.7s						
MKAR	**Makanchi Array**	**73.11**	**42**	P	**P**	**12 38 20.9**	**+0.3**
MKAR	**Makanchi Array**	**73.11**	**42**		**P**	**12 38 20.9**	**+0.3**
DGZ	**Jazzator, Alta**	**73.53**	**37**	⇑*i*P	**P**	**12 38 24.9**	**+1.7**
DGZ				pmax	pmax		
	comp=Z,3.0nm,1.0s						
ASAI	**AK-SAY(Kyrgyzs**	**73.97**	**49**	P	**P**	**12 38 27.2**	**+1.1**
	comp=Z,3.6nm,1.2s						
TARG	**Taragay, Kyrgy**	**74.15**	**48**	P	**P**	**12 38 26.6**	**-0.7**
TARG				pmax	pmax		
	comp=Z,7.0nm,0.9s						
TARG	**Taragay, Kyrgy**	**74.15**	**48**	P	**P**	**12 38 26.6**	**-0.7**
TARG	**Taragay, Kyrgy**	**74.15**	**48**	P	**P**	**12 38 29.9**	**+2.6**
	comp=Z,7.2nm,1.9s						
KSH2	**Kashi**	**74.58**	**51**	P	**P**	**12 38 31.5**	**+2.0**
KSH2				sP	pwP	12 38 36.8	0.0
KSH2				pmax	pmax		
	comp=Z,8.0nm,1.3s						
SEY	**Seymchan**	**75.85**	**359**	*e*P	**P**	**12 38 37.4**	**+1.2**
SEY				pmax	pmax		
	comp=Z,4.0nm,1.1s						
KNGR	**Kungurtug, Tuv**	**77.13**	**32**	⇑*i*P	**P**	**12 38 46.1**	**+2.3**
KNGR				pmax	pmax		
	comp=Z,6.0nm,1.1s						
MOY	**Mondy**	**77.60**	**29**	*e*P	**P**	**12 38 47.9**	**+1.5**
WMQ	**Urumqi**	**77.91**	**41**	*e*P	**P**	**12 38 47.8**	**-0.5**
WMQ				PcP	**PcP**	**12 39 00.5**	**+2.4**
WMQ				pmax	pmax		
	comp=Z,20nm,0.7s						
WMQ				LR	LR		
	comp=Z,130nm,21.3s						
SONM	**Songino Array**	**82.73**	**28**	P	**P**	**12 39 15.1**	**+0.9**
	comp=Z,3.6nm,1.0s,baz=328,slow=6.5,SNR=11						
	comp=Z,3.6nm,1.0s						
SONM	**Songino Array**	**82.73**	**28**	P	**P**	**12 39 14.7**	**+0.5**
SONM				pmax	pmax		
	comp=Z,3.0nm,0.9s						
SONM	**Songino Array**	**82.73**	**28**	P	**P**	**12 39 14.7**	**+0.5**
ULN	**Ulaanbaatar**	**82.94**	**28**	⇑*i*P	**P**	**12 39 16.8**	**+1.5**
ULN				pmax	pmax		
	comp=Z,4.0nm,0.9s						
GTA2	**Gaotai**	**86.98**	**37**	*e*P	**P**	**12 39 36.3**	**+0.5**
GTA2				pmax	pmax		
	comp=Z,4.0nm,1.0s						
HHC	**Hu-ho-hao-te**	**90.63**	**29**	*e*P	**P**	**12 39 52.5**	**-0.5**
HHC				pmax	pmax		
	comp=Z,21nm,0.7s						
PZH	**PanZhiHua**	**98.52**	**43**	P	**P**	**12 40 29.0**	**-0.3**
NJ2	**Nanjing**	**101.09**	**27**	*e*P	**Pdif**	**12 40 40.3**	**-0.2**
NJ2				pmax	pmax		
	comp=Z,19nm,0.5s						
TAOE	**Nuku Hiva Isla**	**111.42**	**277**	*e*LR	LR	13 18 33.9	
	comp=Z,86nm,22.2s						
PPT2	**Papeete2**	**124.02**	**276**	*e*LR	LR	13 24 15.6	
	comp=Z,129nm,26.2s						
PPT2				*e*LR	LR	13 24 19.3	
	comp=Z,71nm,22.8s						
QSPA	**South Pole Qui**	**131.43**	**180**	PKP	**PKPdf**	**12 46 01.9**	**+0.2**
	comp=Z,3.4nm,0.9s,baz=268,slow=1.8,SNR=7.7						
QSPA	**South Pole Qui**	**131.43**	**180**		**PKiKP**	**12 46 03.5**	**+0.8**
VNDA	**Vanda**	**143.63**	**184**	PKP	**PKPdf**	**12 46 23.4**	**-0.4**
	comp=Z,1.6nm,1.0s,baz=223,slow=3.9,SNR=4.7						
VNDA	**Vanda**	**143.63**	**184**		**PKPdf**	**12 46 23.9**	**+0.1**
GIRL	**Giralia**	**144.14**	**70**	PKPdf	**PKPdf**	**12 46 25.6**	**-0.8**
MSVF	**Nonsavu**	**146.67**	**307**	PKIKP	**PKPdf**	**12 46 29.0**	**-1.9**
MSVF	**Nonsavu**	**146.67**	**307**	PKPdf	**PKPdf**	**12 46 29.0**	**-1.9**
CASY	**Casey**	**146.75**	**152**	PKPdf	**PKPdf**	**12 46 29.8**	**+0.3**
WRA	**Warramunga Arr**	**154.36**	**38**	PKPbc	**PKPbc**	**12 46 50.7**	**-0.3**
	comp=Z,0.8nm,0.9s,baz=336,slow=2.6,SNR=5.5						
ASAR	**Alice Springs**	**157.30**	**43**	PKPab	**PKPab**	**12 47 17.8**	**+0.2**
	comp=Z,2.5nm,0.8s,baz=327,slow=3.7,SNR=14						
ASAR	**Alice Springs**	**157.30**	**43**	PKP2	**PKPab**	**12 47 15.7**	**-2.0**
ASAR	**Alice Springs**	**157.30**	**43**		**PKPab**	**12 47 15.7**	**-2.0**

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*IDC **28** 12:30:29.5±0.5, 41°.59N×29°.37W, h0^{km}, mb4.3/22, mbtmp4.2/23, ML4.3/1, MS3.9/45, Error ellipse: s-maj=16.0km s-min=11.7km az=145.0*

*MOS **28** 12:30:29.4±0.9, 41°.54N×29°.42W, h9^{km}, mb4.8/41, Error ellipse: s-maj=11.2km s-min=6.4km az=136.1*

*NEIC **28** 12:30:32.0±1.5, 41°.46N±0°.08×29°.47W±0°.10, h10^{km}±1^{km}, mb4.9/231, Error ellipse: s-maj=15.0km s-min=10.4km az=319.0*

*GCMT **28** 12:30:32.0±0.3, 41°.61N±0°.04×29°.02W±0°.03, h20^{km}±1^{km}, MW4.9/89, Moment Tensor Solution. s12,c12; s89,c122; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-2.26±.18; $M_{\theta\theta}$0.34±.12; $M_{\phi\phi}$1.92±.12; $M_{r\theta}$-0.39±.26; $M_{\theta\phi}$0.29±.07; $M_{\phi r}$-1.25±.19; Best double couple: $M_0$2.48700×10^{16} NP1:ϕ_s187.00000°, δ29.00000°, λ-95.00000°. NP2: ϕ_s14.00000°, δ61.00000°, λ-87.00000°. Principal axes: T 2.3390, Plg16.0000°, Azm101.0000°; N 0.3000, Plg3.0000°, Azm192.0000°; P -2.6350, Plg74.0000°, Azm291.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*GFZ **28** 12:30:33.5±0.2, 42°N±6°×2°9W±°, h10^{km}, M4.6/43, mb4.6/43*

ISC 28 12:30:31.6±0.3**, 41°.52N**±0°.05×**29°.38W**±0°.05**, h12**^{km}**, n427,** σ**1**ˢ**63**/348**, mb4.8**/202**, MS4.0**/47**, 6C-10D, Azores Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H07N1	**FLORES T-PHASE**	**2.25**	**217**	Pn	**Pn**	**12 31 07.2**	**-1.6**
H07N1				Sn	**Sn**	**12 31 35.5**	**-1.0**
H07N1				T	T	12 33 44.8	
H07S1	**FLORES T-PHASE**	**2.55**	**214**	Pn	**Pn**	**12 31 11.5**	**-1.3**
H07S1				Sn	**Sn**	**12 31 40.0**	**-3.8**
PMOZ	**Porto Moniz, M**	**13.02**	**128**	Pn	**Pn**	**12 33 36.4**	**-0.1**
PGAV	**Gavieira, Arco**	**15.77**	**81**	*e*P	**P**	**12 34 17.9**	**+0.5**
PGAV				IAmb	IAmb	12 34 24.6	
	comp=Z,73nm,1.5s						
COI	**Coimbra**	**15.92**	**88**	P	**P**	**12 34 19.2**	**+0.2**
PCAB	**Cabril**	**15.97**	**82**	*e*P	**P**	**12 34 21.7**	**+2.1**
PCAB				IAmb	IAmb	12 34 30.8	
	comp=Z,68nm,1.9s						
POLO	**Lamas de Olo**	**16.19**	**83**	*e*P	**P**	**12 34 27.0**	**+4.9**
POLO				IAmb	IAmb	12 34 34.2	
	comp=Z,35nm,1.6s						
PVIS	**Viseu**	**16.21**	**86**	*e*P	**P**	**12 34 26.6**	**+4.2**
PSARD	**Sardoal**	**16.24**	**90**	*e*P	**P**	**12 34 22.2**	**-0.4**
PSARD				IAmb	IAmb	12 34 30.0	
	comp=Z,80nm,1.6s						
PVRL	**Vila Real**	**16.26**	**84**	*e*P	**P**	**12 34 23.8**	**+0.9**
PVRL				IAmb	IAmb	12 34 34.2	
	comp=Z,74nm,1.6s						
PMTG	**Montargil**	**16.32**	**92**	*e*P	**P**	**12 34 24.6**	**+1.1**
PMTG				IAmb	IAmb	12 34 31.0	
	comp=Z,80nm,1.5s						
MOE	**Montemor**	**16.38**	**94**	*e*P	**Pn**	**12 34 22.4**	**+1.1**
MOE				IAmb	IAmb	12 34 32.1	
	comp=Z,75nm,1.6s						
PTEO	**Sao Teotonio**	**16.42**	**97**	*e*P	**P**	**12 34 25.5**	**+0.9**
PFVI	**Vila Bisbo**	**16.49**	**99**	*e*P	**P**	**12 34 25.0**	**-0.3**
PFVI	**Vila Bisbo**	**16.49**	**99**	Pn	**Pn**	**12 34 23.5**	**+0.8**
PARRA	**Arraiolos**	**16.53**	**92**	*e*P	**P**	**12 34 27.2**	**+1.4**
PARRA				IAmb	IAmb	12 34 33.7	
	comp=Z,51nm,1.5s						
MTE	**Manteigas**	**16.53**	**87**	*e*P	**P**	**12 34 29.7**	**+3.8**
MTE				IAmb	IAmb	12 34 37.3	
	comp=Z,72nm,1.8s						

MTE	Manteigas	16.53	87		P	12 34 24.7	-1.2
MTE	Manteigas	16.53	87	P	P	12 34 26.3	+0.4
	comp=Z,31nm,1.3s						
EVO	Evora	16.63	93	P	Pn	12 34 24.2	-0.3
	comp=Z,11nm,1.4s						
MESJ	Messejana	16.69	96	*e*P	P	12 34 28.4	+0.8
MESJ				IAmb	IAmb	12 34 35.1	
	comp=Z,58nm,1.7s						
MESJ	Messejana	16.69	96	P	P	12 34 27.3	-0.3
MESJ	Messejana	16.69	96		P	12 34 27.3	-0.3
MESJ				IAmb	IAmb	12 34 34.4	
	comp=Z,130nm,2.0s						
PCBR	Castelo Branco	16.70	89	*e*P	P	12 34 28.7	+1.0
PCBR				IAmb	IAmb	12 34 37.6	
	comp=Z,72nm,1.4s						
PESTR	Estremoz	16.85	92		Pn	12 34 27.8	+0.5
PMRV	Marv??o	16.86	90	*e*P	P	12 34 30.8	+1.4
PMRV				IAmb	IAmb	12 34 39.7	
	comp=Z,42nm,1.6s						
PCVE	Castro Verde	16.90	96	*e*P	P	12 34 35.3	+5.4
PCVE				IAmb	IAmb	12 34 40.7	
	comp=Z,44nm,1.6s						
ECAL	Calabor	16.91	81	P	P	12 34 31.8	+1.7
	comp=Z,69nm,1.5s						
MACI	Morro de la Ar	16.91	137		Pn	12 34 29.2	+1.0
MACI				IAmb	IAmb	12 34 33.2	
	comp=Z,62nm,0.9s						
PBRG	Braganca	16.92	81	*e*P	P	12 34 36.2	+6.1
PBRG				IAmb	IAmb	12 34 37.8	
	comp=Z,45nm,1.6s						
PBDV	Barranco-do-Ve	17.11	97	*e*P	Pn	12 34 30.8	+0.2
PBDV				IAmb	IAmb	12 34 43.7	
	comp=Z,108nm,1.6s						
PBAR	Barrancos	17.47	94	*e*P	P	12 34 37.3	+1.1
PBAR				IAmb	IAmb	12 34 44.8	
	comp=Z,37nm,1.5s						
SFS	San Fernando	18.69	98	P	Pn	12 34 50.2	+0.2
SFS				pmax	pmax		
	comp=Z,197nm,0.8s						
SFS	San Fernando	18.69	98	P	Pn	12 34 50.2	+0.2
PAB	San Pablo	19.11	88	P	P	12 34 54.8	+0.4
PAB				pmax	pmax		
	comp=Z,43nm,1.4s						
PAB	San Pablo	19.11	88	P	P	12 34 54.8	+0.4
PAB	San Pablo	19.11	88	P	Pn	12 34 56.9	+1.6
	comp=Z,26nm,1.5s						
ESDC	Sonseca Array	19.37	87	P	P	12 34 57.1	-0.1
	comp=Z,0.2nm,0.3s,baz=298,slow=10,SNR=13						
ESDC				LR	LR	12 40 58.0	
	comp=Z,554nm,19.7s,baz=282,slow=32						
	comp=Z,2.6nm,1.0s						
ESDC				AML	AML		
ESDC	Sonseca Array	19.37	87	P	P	12 34 57.7	+0.5
ESDC				IAmb	IAmb	12 35 08.0	
	comp=Z,94nm,1.6s						
ESBB	Sonseca Array	19.37	87	P	P	12 34 57.7	+0.5
HTL	Hartland	19.57	53	P	Pn	12 35 05.1	+4.6
	comp=Z,14nm,1.1s						
EMAL	Malaga-Limoner	19.90	96	P	Pn	12 35 04.8	+0.2
	comp=Z,8.7nm,1.1s						
TIO	Tiouine	20.68	114	P	P	12 35 12.6	+1.0
	comp=Z,69nm,1.5s						
IFR	Ifrane	20.78	105	P	Pn	12 35 14.5	-0.7
	comp=Z,8.4nm,1.4s						
FOEL	Foel Wylfa	20.99	48	P	Pn	12 35 18.2	+1.0
	comp=Z,29nm,1.2s						
DRLN	Deer Lake	21.12	301	P	P	12 35 15.7	-0.4
DRLN				IAmb	IAmb	12 35 22.9	
	comp=Z,117nm,1.5s						
ATE	Arette	21.23	76	P	P	12 35 23.4	+6.1
	comp=Z,34nm,1.9s						
MD01	Midelt array s	21.38	106	P	P	12 35 20.2	+1.1
MD31	MD31	21.38	106	P	P	12 35 20.1	+1.0
MD31				IAmb	IAmb	12 35 27.4	
	comp=Z,120nm,1.9s						
MDT	Midelt	21.51	106	P	P	12 35 21.3	+0.8
	comp=Z,8.0nm,0.9s,baz=313,slow=12,SNR=6.7						
MDT				LR	LR	12 42 02.2	
	comp=Z,331nm,19.7s,baz=292,slow=32						
	comp=Z,8.0nm,0.9s						
MFF	Saint Martin d	21.55	66	P	P	12 35 23.5	+2.9
	comp=Z,8.2nm,1.1s						
CWF	Charnwood Fore	22.01	50	P	P	12 35 25.8	+0.3
	comp=Z,32nm,1.0s						
ESK	Eskdalemuir	22.02	42	P	P	12 35 26.9	+1.3
ESK				pmax	pmax		
	comp=Z,108nm,1.9s						
ESK	Eskdalemuir	22.02	42	P	P	12 35 26.9	+1.3
ESK				IAmb	IAmb	12 35 28.2	
	comp=Z,108nm,1.9s						
EKA	Eskdalemuir Ar	22.05	42	P	P	12 35 23.9	-2.1
	comp=Z,1.4nm,0.7s,baz=243,slow=9.2,SNR=3.7						
EKA				LR	LR	12 42 04.5	
	comp=Z,213nm,20.0s,baz=229,slow=32						
	comp=Z,1.4nm,0.7s						
EKA	Eskdalemuir Ar	22.05	42	P	P	12 35 26.4	+0.4
EKA				pmax	pmax		
	comp=Z,29nm,1.5s						
CEST	Esterri de Car	22.71	77	P	P	12 35 34.6	+1.3
MTLF	Montolieu	23.33	75	P	P	12 35 40.2	+0.7
	comp=Z,33nm,2.3s						
SSB	Saint Sauveur	24.82	70	P	P	12 35 53.8	+0.2
SSB				pmax	pmax		
	comp=Z,28nm,1.4s						
SSB	Saint Sauveur	24.82	70	P	P	12 35 53.8	+0.2
SSB				IAmb	IAmb	12 36 04.1	
	comp=Z,28nm,1.4s						
SSB	Saint Sauveur	24.82	70	P	P	12 36 00.1	+6.5
	comp=Z,18nm,1.4s						
UCC	Uccle	24.96	57	P	P	12 35 55.7	+1.0
UCC				pmax	pmax		
	comp=Z,47nm,1.2s						
UCC	Uccle	24.96	57	P	P	12 35 55.7	+1.0
UCC				IAmb	IAmb	12 36 00.7	
	comp=Z,47nm,1.2s						
UCC	Uccle	24.96	57	P	P	12 35 58.7	+4.0
	comp=Z,5.9nm,1.2s						
DOU	Dourbes	25.01	58	*d*P	P	12 35 54.8	-0.3
	comp=Z,13nm,1.1s						
HAL	Halifax	25.08	289	P	P	12 35 55.5	-0.3
HAL				pmax	pmax		
	comp=Z,41nm,1.4s						
HAL	Halifax	25.08	289	P	P	12 35 55.5	-0.3
HAL				IAmb	IAmb	12 36 05.8	
	comp=Z,41nm,1.4s						
BMRD	Maredsous	25.14	58	*d*P	P	12 35 56.0	-0.4
RCHB	Rochefort	25.42	58	*d*P	P	12 36 00.2	+1.3
RCHB	Rochefort	25.42	58	P	P	12 36 00.2	+1.3
	comp=Z,15nm,1.4s						
BCLA	Clavier	25.50	58	*d*P	P	12 36 00.3	+0.7
	comp=Z,21nm,1.2s						
LMN	Caledonia Moun	25.85	292	P	P	12 36 02.8	0.0
LMN				IAmb	IAmb	12 36 09.7	
	comp=Z,20nm,1.0s						
HGN	Heimansgroeve	25.94	57	P	P	12 36 08.0	+4.4
	comp=Z,29nm,1.2s						
WLF	Walferdange	25.97	60	P	P	12 36 05.1	+1.2
WLF				pmax	pmax		
	comp=Z,36nm,1.1s						
WLF	Walferdange	25.97	60	P	P	12 36 05.1	+1.2
WLF				IAmb	IAmb	12 36 11.1	
	comp=Z,36nm,1.1s						
WLF	Walferdange	25.97	60	*d*P	P	12 36 05.0	+1.2
	comp=Z,16nm,1.1s						
WLF	Walferdange	25.97	60	P	P	12 36 05.3	+1.4
	comp=Z,32nm,1.8s						
GIMEL	St. Georges /	25.97	67	P	P	12 36 04.8	+0.7
	comp=Z,16nm,1.9s						
MEM	Membach	25.97	57	*d*P	P	12 36 04.4	+0.5
MEM				*d*PP	PnPn	12 36 41.4	0.0
MEM	Membach	25.97	57	P	P	12 36 04.9	+1.0
	comp=Z,33nm,1.0s						
BNI	Bardonecchia	26.35	70	P	P	12 36 10.5	+2.9
	comp=Z,17nm,1.6s						
ECH	Echery	26.56	63	P	P	12 36 08.8	-0.5
ECH				pmax	pmax		
	comp=Z,70nm,2.0s						
ECH	Echery	26.56	63		P	12 36 08.8	-0.5
ECH				IAmb	IAmb	12 36 17.3	
	comp=Z,70nm,2.0s						
ECH	Echery	26.56	63	P	P	12 36 08.1	-1.2
	comp=Z,12nm,1.2s						
BOURR	Bourrignon	26.61	65	P	P	12 36 14.4	+4.6
	comp=Z,37nm,1.7s						
SENIN	Lac Senin/Sane	26.69	67	P	P	12 36 10.6	-0.1
SENIN				IAmb	IAmb	12 36 29.6	
	comp=Z,49nm,1.8s						
SACV	Santiago Islan	26.92	168	P	P	12 36 12.9	+0.1
SACV				IAmb	IAmb	12 36 45.9	
	comp=Z,24nm,1.1s						
GGN	Saint George	27.33	290	P	P	12 36 15.4	-0.8
BFO	Black Forest	27.34	63	P	P	12 36 17.5	+1.1
BFO				pmax	pmax		
	comp=Z,12nm,1.1s						
BFO	Black Forest	27.34	63		P	12 36 17.5	+1.1
ICQ	Pointe Anglais	27.49	300	P	P	12 36 17.9	+0.3
ICQ				IAmb	IAmb	12 36 39.0	
	comp=Z,42nm,1.6s						
EMMW	East Machias	27.81	290	P	P	12 36 20.5	0.0
EMMW				IAmb	IAmb	12 36 29.3	
	comp=Z,23nm,1.1s						
SCHQ	Schefferville	27.93	311	LR	LR	12 45 45.2	
	comp=Z,364nm,18.9s,baz=92,slow=33						
SFJD	Kangerlussuaq	28.08	342	P	P	12 36 22.7	+0.1
SFJD				pmax	pmax		
	comp=Z,68nm,2.0s						
SFJD	Kangerlussuaq	28.08	342	P	P	12 36 22.7	+0.1
TUE	Stuetta	28.10	67	P	P	12 36 24.6	+1.3
TUE				IAmb	IAmb	12 36 44.8	
	comp=Z,38nm,1.7s						
TUE	Stuetta	28.10	67	P	P	12 36 24.7	+1.3
	comp=Z,43nm,1.6s						
TUE	Stuetta	28.10	67	P	P	12 36 28.4	+5.1
	comp=Z,11nm,1.6s						
D62A	Allapoint, All	28.70	295	P	P	12 36 28.6	+0.2
D62A				IAmb	IAmb	12 36 34.0	
	comp=Z,14nm,0.9s						
CLZ	Clausthal	28.83	55	P	P	12 36 33.9	+4.4
	comp=Z,9.0nm,1.0s						
FETA	Feichten	29.01	65	*e*pP	P	12 36 33.6	+2.2
	comp=Z,8.6nm,1.3s						
MOTA	Moosalm	29.24	65	*e*pP	P	12 36 36.5	+3.1
	comp=Z,11nm,1.2s						
WIMM	Wimmelburg	29.50	56	P	P	12 36 38.0	+2.5
	comp=Z,48nm,1.2s						
WTTA	Wattenberg	29.61	65	*e*pP	P	12 36 39.4	+2.7
	comp=Z,9.0nm,0.9s						
ABTA	Abfaltersbach	30.25	66	*e*pP	P	12 36 44.9	+2.7
	comp=Z,14nm,1.1s						
LESA	Schwarzleotal	30.30	64	*e*P	P	12 36 42.2	-0.5
	comp=Z,9.8nm,1.4s						
CLL	Collm	30.43	57	*e*P	P	12 36 44.0	+0.3
CLL				*i*		12 36 47.9	
CLL	Collm	30.43	57	P	P	12 36 45.1	+1.4
	comp=Z,7.7nm,1.1s						
CLL	Collm	30.43	57	*e*P	P	12 36 44.0	+0.3
CLL				*i* x	x	12 36 47.9	
CLL				L	L	12 45 00.0	
CLL				AMS	AMS	12 46 00.0	
	comp=N,100nm,21.1s						
CLL				AMS	AMS	12 46 00.0	
	comp=E,200nm,23.5s						
CLL				AMS	AMS	12 46 00.0	
	comp=Z,200nm,23.5s						
CLL				AMS	AMS	12 48 00.0	
	comp=Z,200nm,17.5s						
KBA	Koelnbreinsper	30.79	65	*i* P	P	12 36 46.7	-0.4
	comp=Z,40nm,1.2s						
KBA	Koelnbreinsper	30.79	65	P	P	12 36 52.3	+5.1
	comp=Z,44nm,1.3s						
KHC	Kasperske Hory	30.80	61	*e*P	P	12 36 46.4	-0.7
KHC				pmax	pmax		
	comp=Z,12nm,1.2s						
KHC	Kasperske Hory	30.80	61		P	12 36 47.5	+0.4
KHC	Kasperske Hory	30.80	61	P	P	12 36 49.1	+2.0
	comp=Z,9.5nm,1.8s						
KHC	Kasperske Hory	30.80	61	P	P	12 36 51.6	+4.5
	comp=Z,9.4nm,1.7s						
GEC2	GERESS Array S	30.90	61	P	P	12 36 47.2	-0.8
GEC2				IAmb	IAmb	12 36 59.9	
	comp=Z,23nm,1.9s						
GERES	GERESS Array B	30.90	61	P	P	12 36 45.9	-2.1
	comp=Z,0.8nm,0.2s,baz=270,slow=8.0,SNR=4.5						
	comp=Z,0.8nm,0.2s						
GERES	GERESS Array B	30.90	61	P	P	12 36 48.0	0.0
GERES	GERESS Array B	30.90	61	P	P	12 36 48.0	0.0
BRG	Berggiesshubel	31.02	58	*e*P	P	12 36 53.1	+4.3
BRG				Amp		12 36 53.9	
	comp=Z,3.9nm,0.9s						
NOA	NORSAR Array B	31.31	38	P	P	12 36 51.0	-0.4
	comp=Z,3.2nm,1.2s,baz=251,slow=9.5,SNR=3.3						
NOA				LR	LR	12 47 46.4	
	comp=Z,71nm,18.6s,baz=255,slow=33						
	comp=Z,3.2nm,1.2s						
MOA	Molln	31.34	63	*i* P	P	12 36 52.9	+1.1
	comp=Z,7.2nm,1.0s						
PRU	Pruhonice	31.41	59	P	P	12 36 53.9	+1.5
	comp=Z,12nm,1.9s						
OBKA	Obir	31.67	66	*e*P	P	12 36 56.5	+1.7
	comp=Z,19nm,1.0s						
OBKA	Obir	31.67	66	P	P	12 36 55.0	+0.2
	comp=Z,40nm,2.8s						
FRB	Frobisher Bay	31.75	328	LR	LR	12 45 18.4	
	comp=Z,101nm,21.2s,baz=108,slow=28						
HFS	Hagfors	32.20	40	LR	LR	12 48 35.1	
	comp=Z,163nm,19.6s,baz=254,slow=34						
ARSA	Arzberg	32.25	64	*e*pP	P	12 37 02.5	+2.7
	comp=Z,9.1nm,1.1s						
UPC	Upice	32.34	58	P	P	12 37 03.0	+2.5
	comp=Z,12nm,1.4s						
CONA	Conrad Observa	32.40	63	*e*pP	P	12 37 03.8	+2.5
	comp=Z,8.4nm,1.5s						
KSP	Ksiaz	32.51	58	P	P	12 37 03.3	+1.3
	comp=Z,6.0nm,1.1s						
DPC	Dobruska-Polom	32.54	58	P	P	12 37 01.8	-0.5
	comp=Z,5.5nm,2.5s						
KRUC	Moravsky	32.66	61	*e*P	P	12 37 01.6	-1.7
RONA	Rosalia, Austr	32.72	63	*e*P	P	12 37 05.8	+1.8
	comp=Z,9.0nm,1.6s						
VRAC	Vranov	32.77	60	LR	LR	12 49 30.1	
	comp=Z,213nm,18.4s,baz=275,slow=35						
VRAC	Vranov	32.77	60	*e*P	P	12 37 01.6	-2.7
KRLC	Kraliky	32.85	59	P	P	12 37 04.6	-0.4
	comp=Z,7.3nm,0.5s						
MODS	Modra-Piesok	33.30	62	P	P	12 37 12.2	+3.2
	comp=Z,17nm,1.2s						
MORC	Moravsky Berou	33.35	59	P	P	12 37 11.0	+1.5
MORC				pmax	pmax		
	comp=Z,9.0nm,1.2s						
MORC	Moravsky Berou	33.35	59	P	P	12 37 11.0	+1.5
MORC	Moravsky Berou	33.35	59	*e*P	P	12 37 04.9	-4.6
MORC	Moravsky Berou	33.35	59	P	P	12 37 14.4	+4.9
	comp=Z,5.8nm,2.3s						
MPLH	Magyarpolny	33.62	64	P	P	12 37 13.3	+1.5
	comp=Z,20nm,1.1s						
OKC	Ostrava-Krasne	33.74	59	P	P	12 37 17.2	+4.4
	comp=Z,27nm,0.8s						
VLDQ	Val d'Or	34.27	298	P	P	12 37 19.6	+2.3
VLDQ				IAmb	IAmb	12 37 24.8	
	comp=Z,43nm,1.8s						
MORH	Mrgy, Hungar	34.52	66	P	P	12 37 23.9	+4.4
	comp=Z,14nm,1.2s						
OJC	Ojcow	34.77	58	P	P	12 37 23.3	+1.6
OJC	Ojcow	34.77	58	P	P	12 37 23.3	+1.6
OJC	Ojcow	34.77	58	P	P	12 37 22.9	+1.2
	comp=Z,13nm,1.3s						
OJC	Ojcow	34.77	58	P	P	12 37 21.6	-0.1
	comp=Z,13nm,1.3s						
NIE	Niedzica	35.17	60	P	P	12 37 25.8	+0.6
	comp=Z,4.2nm,2.7s						
MVL	Millersville	35.27	283	P	P	12 37 26.6	+0.5
BZS	Buzias	36.67	66	P	P	12 37 38.5	+0.4
	comp=Z,9.2nm,1.5s						
LOT	Lotru	38.18	66	P	P	12 37 51.1	0.0
	comp=Z,17nm,0.7s						
FINES	FINESS Array B	38.40	40	P	P	12 37 51.0	-1.4
	comp=Z,4.2nm,0.9s,baz=249,slow=8.0,SNR=7.7						
	comp=Z,4.2nm,0.9s						
M52A	Chesterland	38.42	288	P	P	12 37 53.6	+0.7
M52A				IAmb	IAmb	12 39 11.3	
	comp=Z,23nm,0.7s						
RNPP8	Varash	38.48	56	P	P	12 37 54.6	+1.4
RNPP9	Sopachiv	38.49	56	P	P	12 37 54.8	+1.5
RNPP5	Staryi Chortor	38.51	56	P	P	12 37 54.6	+1.1
BUR08	Bucovina Ar. S	38.67	62		P	12 37 55.1	0.0
BURAR	Bucovina Array	38.68	62	P	P	12 37 55.6	+0.4
HUMP	Col San Antoni	38.87	244	P	P	12 37 56.1	-0.8
HUMP				IAmb	IAmb	12 39 21.7	
	comp=Z,49nm,1.6s						
Q54A	Coxs Mills	38.88	284	P	P	12 37 57.0	+0.2
Q54A				IAmb	IAmb	12 38 03.6	
	comp=Z,50nm,1.7s						
VOIR		39.06	65	P	P	12 37 59.6	+1.3
	comp=Z,7.7nm,1.4s						
VOIR		39.06	65	P	P	12 37 57.9	-0.5
	comp=Z,7.6nm,1.4s						
SJG	San Juan	39.09	245	LR	LR	12 52 52.4	
	comp=Z,64nm,18.5s,baz=88,slow=34						
P53A	Whipple	39.11	285	P	P	12 37 58.6	-0.1
TORD	Torodi Ar. Bea	39.12	127	P	P	12 37 58.8	-0.2
	comp=Z,3.6nm,0.9s,baz=319,slow=9.0,SNR=9.2						
TORD				LR	LR	12 54 11.1	
	comp=Z,163nm,18.1s,baz=333,slow=36						
	comp=Z,3.6nm,0.9s						
BLA	Blacksburg	39.23	281	P	P	12 37 59.7	-0.1
BLA				pmax	pmax		
	comp=Z,11nm,1.0s						
BLA	Blacksburg	39.23	281	P	P	12 37 59.7	-0.1
MNK	Minsk	39.35	51	*i* P	P	12 37 57.0	-3.5
MNK				*i* S	S	12 44 00.6	-0.7
MNK				*i* SS	SS	12 46 52.0	-2.7
MNK				pmax	pmax		
	comp=E,7.0nm,0.6s						
MNK				pmax	pmax		
	comp=Z,9.0nm,0.9s						
MNK				pmax	pmax		
	comp=N,8.0nm,0.7s						
MNK	Minsk	39.35	51	*i* P	P	12 37 57.0	-3.5
	comp=E,7.0nm,0.6s						
MNK				*i* P	P	12 37 57.0	-3.5
	comp=N,8.0nm,0.7s						
MNK				*i* P	P	12 37 57.0	-3.5
	comp=Z,9.0nm,0.9s,baz=275						
MNK				*i* PP	PP	12 39 27.1	-3.6
MNK				*i* PPP	PPP	12 39 48.6	
MNK				*i* S	S	12 44 00.7	-0.7
MNK				*i* SS	SS	12 46 52.1	-2.7
MNK				*i* SSS	SSS	12 47 10.3	
MNK				*i* LR	LR	12 54 14.4	
CELP	Cerrillos	39.41	245	P	P	12 38 01.6	+0.2
CELP				IAmb	IAmb	12 38 03.3	
	comp=Z,41nm,1.5s						
U56A	King	39.54	280	P	P	12 38 01.0	-1.3
ARCES	ARCESS Array B	39.64	27	P	P	12 38 01.3	-1.5
	comp=Z,4.6nm,0.9s,baz=270,slow=0.4,SNR=4.8						
ARCES				LR	LR	12 51 01.1	
	comp=Z,133nm,21.8s,baz=260,slow=31						
	comp=Z,4.6nm,0.9s						
ARCES	ARCESS Array B	39.64	27	P	P	12 38 03.8	+1.0
MLR	Muntele Rosu	39.66	65	LR	LR	12 53 36.1	
	comp=Z,140nm,20.3s,baz=0.0,slow=35						
MLR	Muntele Rosu	39.66	65	P	P	12 38 03.7	+0.3
MLR				pmax	pmax		
	comp=Z,8.0nm,0.9s						
MLR	Muntele Rosu	39.66	65	P	P	12 38 03.7	+0.3
MLR	Muntele Rosu	39.66	65	P	P	12 38 04.5	+1.1
	comp=Z,9.7nm,1.0s						
MI29	MI29, Kamyanyy	39.86	57	P	P	12 38 07.0	+2.1
	comp=Z,84nm,1.1s						
LUBAR	Lubar, Ukraine	39.89	58	P	P	12 38 07.3	+2.2
Q52A	Bidwell	39.93	284	P	P	12 38 05.2	-0.4
KEV	Kevo	40.20	27	P	P	12 38 08.7	+1.3
KEV				pmax	pmax		
	comp=Z,130nm,1.8s						
KEV	Kevo	40.20	27	P	P	12 38 08.7	+1.3
BIRD	Birdtown, Kers	40.30	277	P	P	12 38 08.0	-0.7
U54A	Nelsons Funny	40.53	281	P	P	12 38 11.0	+0.3
KIEV	Kiev	40.67	56	P	P	12 38 12.1	+0.6
KIEV				pmax	pmax		
	comp=Z,13nm,1.2s						
KIEV	Kiev	40.67	56	P	P	12 38 12.1	+0.6
KIEV	Kiev	40.67	56	P	P	12 38 10.4	-1.1
	comp=Z,12nm,1.2s						
AKASG	Malin Array Be	40.68	56	P	P	12 38 09.9	-1.6
	comp=Z,3.5nm,0.8s,baz=278,slow=8.4,SNR=6.3						
	comp=Z,3.5nm,0.8s						
AKASG	Malin Array Be	40.68	56	*i* P	P	12 38 10.0	-1.6
AKASG				pmax	pmax		
	comp=Z,4.0nm,0.8s						
AKASG	Malin Array Be	40.68	56	P	P	12 38 13.0	+1.4
AKBB	Malin Array Si	40.68	56⇑	*i*P	P	12 38 09.1	-2.5
AKBB				pmax	pmax		
	comp=Z,7.0nm,1.0s						
AKBB	Malin Array Si	40.68	56	P	P	12 38 12.3	+0.7
Q51A	Peebles	40.69	285	P	P	12 38 11.9	0.0
Q51A				IAmb	IAmb	12 38 18.6	
	comp=Z,26nm,1.3s						
KMSC	Kings Mountain	40.74	279	P	P	12 38 12.0	-0.3
DBIC	Dimbokro	40.99	141	P	P	12 38 14.3	-0.2
	comp=Z,3.2nm,0.8s,baz=4.7,slow=13,SNR=3.3						
DBIC				LR	LR	12 53 06.3	
	comp=Z,205nm,20.7s,baz=344,slow=33						
	comp=Z,3.2nm,0.8s						
DBIC	Dimbokro	40.99	141	P	P	12 38 14.6	+0.1
DBIC				pmax	pmax		
	comp=Z,18nm,1.2s						
DBIC	Dimbokro	40.99	141	P	P	12 38 14.6	+0.1
DBIC				IAmb	IAmb	12 38 25.3	
	comp=Z,18nm,1.2s						
O49A	Covington	40.99	287		P	12 38 13.9	-0.4
O49A				IAmb	IAmb	12 38 20.8	
	comp=Z,15nm,1.0s						
JSC	Jenkinsville	41.05	277	P	P	12 38 14.2	-0.7
JSC				pmax	pmax		
	comp=Z,28nm,1.9s						
JSC	Jenkinsville	41.05	277	P	P	12 38 14.2	-0.7
R50A	Paris	41.68	284	P	P	12 38 20.1	+0.1
N47A	Urbana	41.73	289	P	P	12 38 19.8	-0.5
MDP	Montagnes des	41.79	216	LR	LR	12 52 21.3	
	comp=Z,117nm,18.3s,baz=14,slow=31						
SDDR	Presa de Saban	42.07	251	P	P	12 38 22.2	-1.2
SDDR				IAmb	IAmb	12 38 31.8	
	comp=Z,24nm,1.0s						
SDDR	Presa de Saban	42.07	251	P	P	12 38 26.6	+3.1
	comp=Z,29nm,1.0s						
R49A	Shelbyville	42.29	285	P	P	12 38 24.4	-0.6
R49A				IAmb	IAmb	12 38 28.1	
	comp=Z,26nm,1.6s						
TKL	Tuckaleechee C	42.33	281	LR	LR	12 55 03.3	
	comp=Z,248nm,18.5s,baz=62,slow=35						
CTYL	Yalikoy Yolu	42.48	70	P	P	12 38 27.7	+1.2
	comp=Z,4µmcomp=Z,14nm,0.8s						
CPCT	Cooper Cave	42.97	281	P	P	12 38 29.8	-0.7
GOGA	Godfrey	43.08	277	P	P	12 38 29.6	-1.9
	comp=Z,15nm,1.6s						
EYMN	Ely	43.53	300	P	P	12 38 35.0	0.0
EYMN				IAmb	IAmb	12 38 41.2	
	comp=Z,26nm,1.6s						
W50A	Signal Mountai	43.66	281	P	P	12 38 34.7	-1.5
KARP	Karpathos	43.96	79	P	P	12 38 39.3	+0.7
KARP	Karpathos	43.96	79	P	P	12 38 40.2	+1.6
	comp=Z,35nm,0.9s						
SWET	Sewanee	44.11	281	P	P	12 38 38.6	-1.2
FPAL	Fort Paine	44.17	280	P	P	12 38 40.0	-0.3
JFWS	Jewell Farm	44.23	293	P	P	12 38 39.7	-0.9
JFWS				pmax	pmax		
	comp=Z,16nm,1.5s						
JFWS	Jewell Farm	44.23	293	P	P	12 38 39.6	-0.9
OLIL	Olney	44.24	287	P	P	12 38 41.5	+0.8
OLIL				IAmb	IAmb	12 38 47.9	
	comp=Z,30nm,1.6s						
KLMR	Klimovskoe	44.91	40	*e*P	P	12 38 44.3	-1.5
KLMR				*e*		12 40 26.0	
KLMR				pmax	pmax		
	comp=Z,18nm,1.4s						
WVT	Waverly	45.11	283	P	P	12 38 48.5	+0.8
WVT				pmax	pmax		
	comp=Z,8.0nm,1.0s						
WVT	Waverly	45.11	283	P	P	12 38 48.5	+0.8
WVT	Waverly	45.11	283	P	P	12 38 48.9	+1.1
	comp=Z,10nm,1.0s						
ULM	Lac du Bonnet	45.69	305	LR	LR	12 56 50.8	
	comp=Z,329nm,18.2s,baz=34,slow=35						
KKUL	Konya-Kulu	46.62	71	P	P	12 39 04.6	+4.9
	comp=Z,8.6nm,1.0s						
P40A	Paris	46.74	289	IAmb	IAmb	12 39 06.7	
	comp=Z,10nm,1.0s						
BR106	Keskin Array S	46.89	70	P	P	12 39 02.9	+1.0
	comp=Z,2.6nm,1.2s						
BR131	Keskin Array S	46.91	70⇑	*i*P	P	12 39 01.3	-0.8
BRTR	Keskin Array B	46.91	70	P	P	12 39 01.8	-0.3
	comp=Z,0.9nm,0.8s,baz=309,slow=7.8,SNR=6.7						
BRTR				LR	LR	12 57 58.9	
	comp=Z,67nm,18.6s,baz=272,slow=35						
	comp=Z,0.9nm,0.8s						
BRTR	Keskin Array B	46.91	70	P	P	12 39 02.6	+0.5
T42A	Van Buren	47.10	286		P	12 39 03.9	+0.5

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T42A                                IAmb    IAmb    12 39 09.2
      comp=Z,15nm,1.0s
R40A  Maddies Statio    47.41 288   IAmb    IAmb    12 39 12.6
      comp=Z,15nm,1.1s
BOAV  Boa Vista         47.96 224           P       12 39 10.0 -0.3
BOAV                                IAmb    IAmb    12 39 15.2
      comp=Z,16nm,1.7s
ECSD  EROS Data Cent    48.28 296   IAmb    IAmb    12 39 18.8
      comp=Z,17nm,1.1s
ECSD  EROS Data Cent    48.28 296   P       P       12 39 13.4 +1.0
      comp=Z,14nm,1.0s
S39A  Bolivar           48.41 288   IAmb    IAmb    12 39 19.5
      comp=Z,13nm,1.0s
WHAR  Wooly Hollow      48.73 284   IAmb    IAmb    12 39 21.6
      comp=Z,14nm,1.1s
SDV   Santo Domingo     48.76 240   LR      LR      12 59 06.9
      comp=Z,40nm,18.6s,baz=62,slow=35
SDV   Santo Domingo     48.76 240   P       P       12 39 19.3 +2.7
      comp=Z,49nm,1.0s
SOC   Sochi             49.58  63  eP       P       12 39 19.9 -2.5
SOC                                e                12 41 21.2
SOC                                ePPP     PPP     12 42 10.7
SOC                                eS       S       12 46 26.8 -3.4
SOC                                eSS      SS      12 49 59.3 -2.6
SOC                                eSSS     SSS     12 51 20.2
SOC                                 pmax    pmax
      comp=Z,18nm,0.8s
SOC                                 MLR     MLR
      comp=Z,238nm,24.0s
ANDN  Andirin           49.74  72   P       P       12 39 23.6 -0.2
      comp=Z,39nm,1.2s
MIAR  Mount Ida         50.02 284   P       P       12 39 26.6 +0.7
      comp=Z,22nm,1.1s
KIRV  Kirov             50.29  42   LR      LR      12 59 55.6
      comp=Z,144nm,18.7s,baz=289,slow=35
KIRV  Kirov             50.29  42c iP       P       12 39 26.6 -0.9
ARPR  Arapgir-MALATY    50.48  69   P       P       12 39 33.5 +4.0
      comp=Z,19nm,1.9s
MMAI  Mount Meron Ar    51.18  77   LR      LR      13 00 28.5
      comp=Z,31nm,21.4s,baz=290,slow=35
KBZ   Khabaz            51.64  62   P       P       12 39 38.4 +0.5
      comp=Z,2.6nm,0.8s,baz=319,slow=5.6,SNR=4.1
KBZ                                 LR      LR      13 01 33.1
      comp=Z,80nm,19.9s,baz=336,slow=36
      comp=Z,2.6nm,0.8s
KBZ   Khabaz            51.64  62  eP       P       12 39 37.6 -0.4
KBZ                                 pmax    pmax
      comp=Z,7.0nm,1.1s
EIL   Elat              52.53  81   LR      LR      13 01 48.4
      comp=Z,73nm,19.2s,baz=275,slow=36
LAO   LASA Array        53.37 303   IAmb    IAmb    12 39 58.4
      comp=Z,24nm,1.1s
GNI   Garni             54.44  65   LR      LR      13 03 23.4
      comp=Z,43nm,21.7s,baz=312,slow=36
APMT  Aspermont         55.36 286   IAmb    IAmb    12 40 11.8
      comp=Z,21nm,1.3s
BRDY  Brady             55.59 283   IAmb    IAmb    12 40 12.7
      comp=Z,15nm,1.1s
ARTI  Arti              55.59  42d iP       P       12 40 06.1 -0.7
ARTI                                                12 41 08.0
ARTI                                                12 42 07.6
ARTI                                S       S       12 47 49.9 -2.1
ARTI                                SS      SS      12 51 29.7 -6.7
ARTI                                pmax    pmax
      comp=Z,16nm,1.0s
ARTI  Arti              55.59  42           P       12 40 06.5 -0.2
ARTI                                IAmb    IAmb    12 40 07.1
      comp=Z,13nm,0.9s
RTBA  Rita Blanca       55.67 291   IAmb    IAmb    12 40 14.2
      comp=Z,22nm,1.3s
RLMT  Red Lodge         55.96 303   IAmb    IAmb    12 40 16.6
      comp=Z,12nm,1.1s
YNE   Yellowstone No    56.48 303   IAmb    IAmb    12 40 22.0
      comp=Z,13nm,0.9s
T25A  Trinidad          56.50 292   IAmb    IAmb    12 40 21.8
      comp=Z,25nm,1.5s
INK   Inuvik            56.99 335   LR      LR      13 02 02.1
      comp=Z,178nm,18.0s,baz=306,slow=33
INK   Inuvik            56.99 335   IAmb    IAmb    12 40 21.9
      comp=Z,9.1nm,0.9s
BOZ   Bozeman (W)       57.23 304   IAmb    IAmb    12 40 25.6
      comp=Z,11nm,1.1s
BW06  Boulder Array     57.24 300   P       P       12 40 18.7 -0.3
BW06                                IAmb    IAmb    12 40 24.5
      comp=Z,8.3nm,0.9s
PD31  Pinedale Array    57.24 300   IAmb    IAmb    12 40 24.5
      comp=Z,8.8nm,1.0s
PDAR  Pinedale Array    57.24 300   P       P       12 40 18.4 -0.7
      comp=Z,4.1nm,0.8s,baz=68,slow=7.5,SNR=27
PDAR                                LR      LR      13 04 41.5
      comp=Z,171nm,18.3s,baz=346,slow=36
      comp=Z,4.1nm,0.8s
PDAR  Pinedale Array    57.24 300           P       12 40 18.6 -0.5
OZNA  Ozona             57.33 284   IAmb    IAmb    12 40 25.8
      comp=Z,9.0nm,1.1s
LOHW  Long Hollow       57.51 302   IAmb    IAmb    12 40 27.2
      comp=Z,13nm,1.2s
JTS   Las Juntas de     57.65 254   LR      LR      13 00 30.5
      comp=Z,151nm,22.0s,baz=18,slow=31
JTS   Las Juntas de     57.65 254  eP       P       12 40 22.2 +0.2
JTS                                 pmax    pmax
      comp=Z,4.0nm,1.0s
SNOW  Snow King Moun    57.68 302   IAmb    IAmb    12 40 29.2
      comp=Z,16nm,1.1s
DLMT  Dillon            57.94 304   IAmb    IAmb    12 40 31.0
      comp=Z,21nm,1.1s
G31M  Satah River       57.94 333           P       12 40 23.3 +0.1
MSO   Missoula          58.06 306   IAmb    IAmb    12 40 31.4
      comp=Z,13nm,1.1s
F30M  Barrier River     58.08 334           P       12 40 24.6 +0.4
MNHN  Monahans          58.30 285   IAmb    IAmb    12 40 32.2
      comp=Z,11nm,1.0s
RDMU  Red Mountain      58.31 298   IAmb    IAmb    12 40 33.0
      comp=Z,12nm,1.0s
H31M  Peel River        58.55 332   IAmb    IAmb    12 40 33.6
      comp=Z,15nm,1.1s
E28M  Babbage River     58.71 336   IAmb    IAmb    12 40 34.3
      comp=Z,13nm,0.8s
ANMO  Albuquerque       59.04 291  eP       P       12 40 31.7  0.0
ANMO                                pmax    pmax
      comp=Z,3.0nm,1.1s
ANMO  Albuquerque       59.04 291           P       12 40 31.6  0.0
ALQ   Albuquerque       59.04 291   IAmb    IAmb    12 40 39.0
      comp=Z,5.9nm,1.1s
EPYK  Eagle Plains      59.06 333   P       P       12 40 31.3 +0.1
BSUT  Blindstream Ca    59.12 299   IAmb    IAmb    12 40 38.6
      comp=Z,9.7nm,0.9s
G29M  Pine Creek        59.19 334           P       12 40 32.2 +0.2
P18A  Preston Nutter    59.23 297   IAmb    IAmb    12 40 39.4
      comp=Z,6.8nm,1.0s
NEW   Newport           59.27 309   LR      LR      13 04 42.2
      comp=Z,280nm,18.8s,baz=340,slow=35
MVCO  Mesa Verde        59.28 294   IAmb    IAmb    12 40 41.0
      comp=Z,15nm,1.3s
TPB28                   59.38 287   IAmb    IAmb    12 40 41.9
      comp=Z,8.2nm,1.0s
F28M  Old Crow          59.38 335   P       P       12 40 33.3 -0.1
BDFB  Brasilia          59.43 201   P       P       12 40 34.4 +0.1
      comp=Z,7.3nm,1.1s,baz=223,slow=15,SNR=3.8
      comp=Z,7.3nm,1.1s
BDFB  Brasilia          59.43 201   P       P       12 40 34.4 +0.1
ALPN  Alpine            59.45 285   IAmb    IAmb    12 40 41.3
      comp=Z,9.3nm,1.1s
I30M  Mount Dempster    59.58 332   IAmb    IAmb    12 40 40.8
      comp=Z,10nm,0.9s
AB31  Akbulak array     59.69  49           P       12 40 36.1 +0.4
ABKAR Akbulak array     59.69  49           P       12 40 36.0 +0.3
HVU   Hansel Valley     59.81 301   IAmb    IAmb    12 40 42.8
      comp=Z,10nm,1.0s
Y22A  Socorro           59.92 290   IAmb    IAmb    12 40 45.1
      comp=Z,11nm,1.1s
J30M  Hart River        59.92 331   IAmb    IAmb    12 40 43.6
      comp=Z,12nm,0.9s
HLID  Hailey            59.95 303   IAmb    IAmb    12 40 44.7
      comp=Z,7.5nm,0.9s
MNTX  Cornudas Mount    59.99 287   P       P       12 40 38.2 +0.2
TXAR  Lajitas Array     60.04 284   P       P       12 40 38.0 -0.6
      comp=Z,2.9nm,0.8s,baz=69,slow=6.9,SNR=9.3
TXAR                                LR      LR      13 07 13.4
      comp=Z,158nm,18.0s,baz=50,slow=37
      comp=Z,2.9nm,0.8s
TXAR  Lajitas Array     60.04 284   P       P       12 40 39.0 +0.5
TXAR  Lajitas Array     60.04 284           P       12 40 39.0 +0.5
TX31  Lajitas Ar. Si    60.04 284   P       P       12 40 38.6 +0.1
TX31                                IAmb    IAmb    12 40 45.1
      comp=Z,11nm,1.0s
TMUT  Trail Mountain    60.04 298           P       12 40 39.3 +0.7
PLID  Pearl Lake        60.17 305           P       12 40 40.0 +0.6
PLID                                IAmb    IAmb    12 40 46.3
      comp=Z,15nm,1.1s
VHRN  Van Horn          60.20 286           P       12 40 40.0 +0.4
NRIK  Noril'sk          60.22  21   LR      LR      13 05 32.4
      comp=Z,68nm,19.6s,baz=348,slow=35
NRIK  Noril'sk          60.22  21   P       P       12 40 40.4 +1.4
NRIK                                pmax    pmax
      comp=Z,29nm,2.0s
NRIK  Noril'sk          60.22  21   P       P       12 40 40.4 +1.4
NLU   North Lily Min    60.28 299   P       P       12 40 39.6 -0.6
OTAV  Otavalo           60.35 240   P       P       12 40 41.1 -0.1
OTAV                                pmax    pmax
      comp=Z,13nm,1.0s
OTAV  Otavalo           60.35 240   P       P       12 40 41.1 -0.1
OTAV                                IAmb    IAmb    12 42 19.3
      comp=Z,13nm,0.9s
BGU   Big Grassy Mou    60.41 300   P       P       12 40 41.5 +0.5
BGU                                 IAmb    IAmb    12 40 43.4
      comp=Z,7.5nm,1.1s
F10A  Beach Ranch, E    60.47 307   IAmb    IAmb    12 40 47.0
      comp=Z,12nm,1.2s
DUG   Dugway, Tooele    60.64 299   IAmb    IAmb    12 40 49.7
      comp=Z,14nm,1.1s
I28M  Miner Creek       60.67 333           P       12 40 42.6 +0.3
E09A  Wood Farm, Sta    60.74 308   P       P       12 40 43.6 +0.7
BMO   Blue Mountains    61.09 306   IAmb    IAmb    12 40 52.0
      comp=Z,16nm,1.6s
F25K  Christian Rive    61.15 337   IAmb    IAmb    12 40 52.2
      comp=Z,8.5nm,1.1s
LNOR  Lincton Mounta    61.15 307           P       12 40 46.2 +0.4
LNOR                                IAmb    IAmb    12 40 52.2
      comp=Z,12nm,1.0s
E08A  Dider Farm, El    61.30 308   P       P       12 40 48.0 +1.3
E08A                                IAmb    IAmb    12 40 52.4
      comp=Z,7.8nm,1.1s
DAWY  Dawson            61.31 332   P       P       12 40 47.4 +0.8
LTY   Liberty           61.84 309   IAmb    IAmb    12 40 56.2
      comp=Z,10nm,1.0s
E23K  Chandalar         61.98 338   IAmb    IAmb    12 40 59.6
      comp=Z,9.6nm,1.1s
WUAZ  Wupatki           62.15 294   IAmb    IAmb    12 41 00.9
      comp=Z,15nm,1.2s
PSUT  Pine Spring       62.20 298   IAmb    IAmb    12 41 00.6
      comp=Z,11nm,1.0s
CCUT  Cedar City        62.40 297   IAmb    IAmb    12 41 02.1
      comp=Z,11nm,1.3s
SCRK  Sand Creek        62.95 333   IAmb    IAmb    12 41 04.2
      comp=Z,7.5nm,0.9s
J25K  Salcha River,     63.00 334   IAmb    IAmb    12 41 04.6
      comp=Z,8.7nm,0.9s
PTLB  Pontes e Lacer    63.01 212   P       P       12 40 58.2 -0.2
PTLB                                IAmb    IAmb    12 41 06.0
      comp=Z,15nm,1.3s
CZSB  Cruzeiro do Su    63.05 230   P       P       12 40 58.4 -0.4
BORK  Borovoye          63.26  42d iP       P       12 40 59.6 -0.1
BORK                                pmax    pmax
      comp=Z,9.0nm,1.0s
BORK  Borovoye          63.26  42           P       12 41 00.2 +0.5
BORK                                IAmb    IAmb    12 41 00.8
      comp=Z,8.3nm,0.9s
BVAR  Borovoye Array    63.30  42   P       P       12 40 59.6 -0.4
      comp=Z,6.2nm,0.9s,baz=296,slow=4.8,SNR=14
      comp=Z,6.2nm,0.9s
BMN   Battle Mountai    63.37 301   IAmb    IAmb    12 41 07.6
      comp=Z,9.1nm,1.1s
ILAR  Eielson Array     63.39 335   P       P       12 41 00.4  0.0
      comp=Z,1.6nm,0.9s,baz=48,slow=5.0,SNR=11
      comp=Z,1.6nm,0.9s
ILAR  Eielson Array     63.39 335   P       P       12 41 00.7 +0.3
TUC   Tucson            63.49 291   P       P       12 41 02.9 +1.2
TUC                                 pmax    pmax
      comp=Z,9.0nm,1.0s
TUC   Tucson            63.49 291   P       P       12 41 02.9 +1.2
TUC                                 IAmb    IAmb    12 41 09.4
      comp=Z,8.7nm,0.9s
RAYN  Ar Rayn           63.78  81   P       P       12 41 05.3 +1.6
RAYN                                pmax    pmax
      comp=Z,5.0nm,1.1s
RAYN  Ar Rayn           63.78  81   P       P       12 41 05.2 +1.6
S11A  Rachel            63.94 298   P       P       12 41 04.7  0.0
H22K  Ishtalitna Cre    63.98 337   P       P       12 41 05.0 +0.7
G04A  Mulino            64.00 308   P       P       12 41 04.6 -0.2
W13A  Hualapai Mount    64.09 295   P       P       12 41 05.9 +0.1
W13A                                IAmb    IAmb    12 41 13.3
      comp=Z,9.3nm,1.0s
G21K  Allakaket         64.14 338   P       P       12 41 06.0 +0.6
G21K                                IAmb    IAmb    12 41 12.0
      comp=Z,8.5nm,0.9s
NEA2  Nenana            64.20 335   P       P       12 41 06.3 +0.6
MLY   Manley            64.40 336   P       P       12 41 07.5 +0.3
MLY                                 IAmb    IAmb    12 41 13.4
      comp=Z,7.8nm,1.0s
K05A  Summer Lake       64.42 305           P       12 41 08.7 +0.9
F19K  Shaleruckik Mo    65.04 340           P       12 41 11.6 +0.4
F19K                                IAmb    IAmb    12 41 17.2
      comp=Z,7.5nm,0.9s
NVAR  Mina Array Bea    65.18 300   P       P       12 41 12.6 -0.3
      comp=Z,1.3nm,0.8s,baz=39,slow=3.7,SNR=7.3
      comp=Z,1.3nm,0.8s
NVAR  Mina Array Bea    65.18 300   P       P       12 41 13.1 +0.2
BLYC  Blythe            65.28 294   IAmb    IAmb    12 41 20.7
      comp=Z,12nm,1.1s
GWY   Greenwater Val    65.36 297   IAmb    IAmb    12 41 20.9
      comp=Z,16nm,1.2s
BELC  Belle Mtn. Jos    66.15 295   IAmb    IAmb    12 41 26.6
      comp=Z,14nm,1.1s
CWC   Cottonwood Cre    66.16 298   IAmb    IAmb    12 41 25.9
      comp=Z,8.2nm,1.3s
PMD   Palm Desert       66.61 295   IAmb    IAmb    12 41 29.8
      comp=Z,11nm,1.1s
PFO   Pinyon Flats O    66.69 295  eP       P       12 41 22.6 +0.1
PFO                                 pmax    pmax
      comp=Z,10.0nm,0.9s
CMB   Columbia Colle    66.75 301   IAmb    IAmb    12 41 29.3
      comp=Z,8.9nm,0.9s
ELS   Elsinore Mount    67.32 295   IAmb    IAmb    12 41 33.3
      comp=Z,8.6nm,0.9s
LPAZ  La Paz            67.77 220   P       P       12 41 31.1 +1.2
      comp=Z,6.2nm,1.1s,baz=305,slow=4.0,SNR=7.7
      comp=Z,6.2nm,1.1s
LPAZ  La Paz            67.77 220   P       P       12 41 29.5 -0.5
LPAZ                                pmax    pmax
      comp=Z,21nm,1.4s
LPAZ  La Paz            67.77 220           P       12 41 29.5 -0.5
LPIG  La Paz            67.89 283   LR      LR      13 08 59.7
      comp=Z,123nm,21.8s,baz=48,slow=34
MBAR  Mbarara           68.45 111   LR      LR      13 11 03.1
      comp=Z,168nm,19.6s,baz=311,slow=36
KURK  Kurchatov         68.76  40d iP       P       12 41 34.5 -0.7
KURK                                pmax    pmax
      comp=Z,10.0nm,1.0s
KURK  Kurchatov         68.76  40           P       12 41 35.2  0.0
KURK                                IAmb    IAmb    12 41 35.7
      comp=Z,8.4nm,0.9s
KURBB Kurchatov Arra    68.78  41   P       P       12 41 35.0 -0.3
      comp=Z,6.6nm,0.9s,baz=313,slow=6.6,SNR=31
      comp=Z,6.6nm,0.9s
KK31  Karatay Array     69.20  51   P       P       12 41 38.2 +0.1
KK31                                pmax    pmax
      comp=Z,4.0nm,0.9s
KK31  Karatay Array     69.20  51   P       P       12 41 38.2 +0.1
KKAR  Karatay Array     69.20  51   P       P       12 41 38.1  0.0
KKAR  Karatay Array     69.20  51           P       12 41 38.0  0.0
ZAA0  Zalesovo Array    69.47  35           P       12 41 40.0 +0.4
ZALV  Zalesovo Beam     69.47  35   P       P       12 41 38.7 -0.8
      comp=Z,2.8nm,0.9s,baz=302,slow=8.4,SNR=10.0
ZALV                                LR      LR      13 10 50.0
      comp=Z,64nm,19.4s,baz=352,slow=35
      comp=Z,2.8nm,0.9s
ZALV  Zalesovo Beam     69.47  35  i P      P       12 41 39.2 -0.3
ZALV                                pmax    pmax
      comp=Z,3.0nm,0.9s
ZALV  Zalesovo Beam     69.47  35           P       12 41 39.2 -0.3
AAK   Ala-Archa         71.77  49   LR      LR      13 13 02.0
      comp=Z,145nm,20.5s,baz=334,slow=36
AAK   Ala-Archa         71.77  49  eP       P       12 41 53.3 -0.7
AAK                                 pmax    pmax
      comp=Z,3.0nm,1.5s
AAK   Ala-Archa         71.77  49           P       12 41 55.0 +1.0
AAK                                 IAmb    IAmb    12 42 01.8
      comp=Z,18nm,1.6s
MAKZ  Makanchi          73.02  42   P       P       12 42 01.0 -0.2
MAKZ                                pmax    pmax
      comp=Z,8.0nm,1.3s
MAKZ  Makanchi          73.02  42           P       12 42 01.0 -0.2
MK31  Makanchi Array    73.19  42c iP       P       12 42 02.0 -0.2
MKAR  Makanchi Array    73.19  42   P       P       12 42 01.8 -0.4
      comp=Z,5.2nm,0.9s,baz=319,slow=5.5,SNR=23
MKAR                                LR      LR      13 13 07.4
      comp=Z,140nm,19.9s,baz=316,slow=35
      comp=Z,5.2nm,0.9s
NRN   Naryn             73.41  49   P       P       12 42 04.3 +0.4
NRN                                 pmax    pmax
      comp=Z,12nm,1.1s
NRN   Naryn             73.41  49   P       P       12 42 04.3 +0.4
NRN                                 IAmb    IAmb    12 42 11.2
      comp=Z,12nm,1.1s
DGZ   Jazzator, Alta    73.61  37c iP       P       12 42 04.6 -0.1
DGZ                                 pmax    pmax
      comp=Z,6.0nm,1.0s
TARG  Taragay, Kyrgy    74.23  48   IAmb    IAmb    12 42 16.5
      comp=Z,20nm,1.4s
TSUM  Tsumeb            74.43 134   LR      LR      13 11 27.5
      comp=Z,170nm,21.3s,baz=335,slow=33
KSH2  Kashi             74.66  51   P       P       12 42 12.3 +1.2
KSH2                                pP      pwP     12 42 17.5 +0.4
KSH2                                pmax    pmax
      comp=Z,11nm,0.8s
SEY   Seymchan          75.89 359  eP       P       12 42 17.0 -0.5
SEY                                 pmax    pmax
      comp=Z,4.0nm,1.0s
KNGR  Kungurtug, Tuv    77.20  32  eP       P       12 42 25.2 -0.1
KNGR                                pmax    pmax
      comp=Z,10.0nm,1.0s
LSZ   Lusaka            77.54 123   LR      LR      13 14 02.0
      comp=Z,298nm,19.4s,baz=328,slow=34
MOY   Mondy             77.66  29  eP       P       12 42 28.6 +0.7
MOY                                 pmax    pmax
      comp=Z,24nm,3.0s
WMQ   Urumqi            77.98  41  eP       P       12 42 30.5 +0.7
WMQ                                 pmax    pmax
      comp=Z,20nm,0.7s
WMQ                                 LR      LR
      comp=Z,140nm,21.7s
TLY   Talaya            78.60  28   LR      LR      13 18 07.7
      comp=Z,60nm,18.3s,baz=339,slow=36
ZAK   Zakamensk         79.54  29  eP       P       12 42 37.6 -0.7
ZAK                                 pmax    pmax
      comp=Z,5.0nm,1.7s
MATP  Matopo            81.64 127   LR      LR      13 18 25.6
      comp=Z,110nm,18.7s,baz=322,slow=35
SONM  Songino Array     82.80  28   P       P       12 42 55.6 -0.1
      comp=Z,4.2nm,0.9s,baz=323,slow=6.1,SNR=12
      comp=Z,4.2nm,0.9s
SONM  Songino Array     82.80  28   P       P       12 42 55.9 +0.2
ULN   Ulaanbaatar       83.00  28⇑iP        P       12 42 56.7 -0.1
ULN                                 pmax    pmax
      comp=Z,6.0nm,1.1s
LBTB  Lobatse           83.49 132   LR      LR      13 18 47.8
      comp=Z,118nm,19.1s,baz=330,slow=35
SHEM  Shemya Is, Ala    83.95 346   LR      LR      13 20 41.2
      comp=Z,71nm,18.0s,baz=92,slow=36
PETK  Petropavlovsk-    85.55 356   LR      LR      13 21 43.8
      comp=Z,49nm,18.1s,baz=25,slow=36
GTA2  Gaotai            87.05  37  eP       P       12 43 17.3 +0.1
GTA2                                pmax    pmax
      comp=Z,7.0nm,1.0s
PLCA  Paso Flores       89.98 210   LR      LR      13 22 26.4
      comp=Z,26nm,18.9s,baz=13,slow=35
HHC   Hu-ho-hao-te      90.69  29  eP       P       12 43 34.3 -0.1
HHC                                 pmax    pmax
      comp=Z,14nm,0.6s
LZH   Lanzhou           91.68  36  eP       P       12 43 39.5 +0.4
LZH                                 pP      pwP     12 43 45.3  0.0
LZH                                 pmax    pmax
      comp=Z,21nm,1.8s
CN2   Changchun         92.10  18  eP       P       12 43 50.3  +10
CN2                                 pmax    pmax
      comp=Z,10.0nm,0.4s
OPO   Ambohidratompo    92.50 113   LR      LR      13 25 26.5
      comp=Z,79nm,18.5s,baz=88,slow=36
ASAJ  Asahikawa         94.45   6   LR      LR      13 23 54.0
      comp=Z,40nm,20.8s,baz=178,slow=34
BRDH  Bariadhala        95.99  53   LR      LR      13 29 05.7
      comp=Z,87nm,19.4s,baz=345,slow=37
PZH   PanZhiHua         98.60  43   P       Pdif    12 44 13.3 +2.5
NJ2   Nanjing          101.15  27  eP       Pdif    12 44 21.5 -0.4
NJ2                                 pmax    pmax
      comp=Z,9.0nm,0.5s
QSPA  South Pole Qui   131.40 180   PKP     PKiKP   12 49 43.8  0.0
      comp=Z,4.5nm,1.0s,baz=276,slow=0.8,SNR=9.1
QSPA  South Pole Qui   131.40 180           PKiKP   12 49 44.2 +0.4
VNDA  Vanda            143.59 184   PKP     PKPdf   12 50 04.1 -0.8
      comp=Z,1.3nm,0.9s,baz=229,slow=6.0,SNR=6.2
VNDA  Vanda            143.59 184           PKPdf   12 50 04.9  0.0
MTN   Manton Dam       146.75  36   PKPdf   PKPdf   12 50 12.1  0.0
CASY  Casey            146.75 152   PKPdf   PKPdf   12 50 11.4 +0.9
WRA   Warramunga Arr   154.43  38   PKPbc   PKPbc   12 50 31.0 -1.2
      comp=Z,1.1nm,0.9s,baz=333,slow=2.1,SNR=6.1
WRA                                 PKPab   PKPab   12 50 46.0 -0.4
      comp=Z,1.6nm,0.9s,baz=346,slow=4.4,SNR=5.3
ASAR  Alice Springs    157.37  43   PKP     PKPdf   12 50 27.0 -0.7
      comp=Z,0.7nm,1.0s,baz=224,slow=3.5,SNR=4.3
ASAR                                PKPab   PKPab   12 50 58.4 -0.7
      comp=Z,3.6nm,0.9s,baz=335,slow=4.0,SNR=14
ASAR  Alice Springs    157.37  43           PKPab   12 50 58.5 -0.6
```

PRU 28 12:37:11.0, 49°.83N×18°.59E, h0km, Mining Induced Event Darkov, E=4.0e+04, Czech and Slovak Republics

```
Code  Station Name       Δ°   AZ°    Phase ID          Time      Res
                                     Op      ISC       h  m  s   ISC
OKC   Ostrava-Krasne     0.29 272   e       Pn      12 37 21.0 -1.5
OKC   Ostrava-Krasne     0.29 272   ePG     Pg      12 37 16.5  0.0
OKC                                 eSG     Sg      12 37 21.0 +0.8
      comp=Z,9.6nm,0.6s
OKC                                  AML    AML
OKC   Ostrava-Krasne     0.29 272   eP      Pg      12 37 16.5  0.0
STEB  Steborice          0.54 281   ePG     Pg      12 37 21.1 -0.2
STEB                                eSG     Sg      12 37 28.0 -0.3
MORC  Moravsky Berou     0.68 266   ePG     Pg      12 37 24.0  0.0
MORC                                eSG     Sg      12 37 31.6 -1.2
LANS  Liptovska Anna     0.89 140   eP      Pb      12 37 29.3  0.0
LANS  Liptovska Anna     0.89 140   ePG     Pb      12 37 29.3  0.0
LANS                                eSG     Sn      12 37 43.9 -0.5
JAVC  Velka Javorina     1.14 212   ePG     Pb      12 37 33.9 +0.2
KRLC  Kraliky            1.19 283   eSG     Sg      12 37 49.4 +0.1
      comp=Z,4.6nm,0.3s
KRLC                                 AML    AML
VYHS  Vyhne              1.35 173   ePG     Pn      12 37 37.0 -0.1
VYHS                                eSG     Sb      12 37 55.2 +0.3
VRAC  Vranov             1.40 249   ePG     Pn      12 37 36.7 -1.1
VRAC                                eSG     Sg      12 37 54.5 -1.5
DPC   Dobruska-Polom     1.55 290   ePG     Pn      12 37 38.6 -1.3
DPC                                 eSG     Sn      12 38 00.0 -0.8
KRUC  Moravsky           1.63 243   ePG     Pn      12 37 40.0 -0.9
KRUC                                eSG     Sn      12 38 01.4 -1.1
OSTC  Ostas              1.69 296   ePG     Pn      12 37 41.8  0.0
OSTC                                eSG     Sn      12 38 04.1 -0.1
UPC   Upice              1.79 293   ePG     Pn      12 37 43.3 +0.1
UPC                                 eSG     Sb      12 38 07.4 -0.3
CHVC  Chvalec            1.80 296   eSG     Sg      12 38 08.3 -0.4
KHC   Kasperske Hory     3.34 260   eSG     Sg      12 38 57.7 -0.6
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*IDC **28** 13:04:03.2±1.1, 41°.93N×29°.41W, h0km, mb3.7/7, mbtmp3.7/8, ML4.0/1, MS3.5/10, Error ellipse: s-maj=36.5km s-min=21.5km az=20.0*

*NEIC **28** 13:04:03.5±1.0, 41°.6N±0°.1×29°.6W±0°.1, h10km±1km, mb4.5/18, Error ellipse: s-maj=20.7km s-min=15.9km az=135.0*

ISC 28 13:04:03.4±0.6**, 41°.7N**±0°.1×**29°.59W**±0°.08**, h10km, n39, σ0°.99**/29**, mb4.3**/14**, MS3.3**/9**, Azores Islands region**

```
Code  Station Name       Δ°   AZ°    Phase ID          Time      Res
                                     Op      ISC       h  m  s   ISC
H07S1 FLORES T-PHASE     2.62 209   Pn      Pn      13 04 45.1 -0.7
MACI  Morro de la Ar    17.14 137   P       Pn      13 08 03.9 +0.7
ESDC  Sonseca Array     19.52  87   P       Pn      13 08 31.2 -1.0
      0.1nm,0.3s,baz=296,slow=11,SNR=4.3
ESDC                                LR      LR      13 14 19.4
      comp=Z,180nm,21.1s,baz=298,slow=32
      0.7nm,0.8s
ESDC                                AML     AML
MD01  Midelt array s    21.57 106   P       P       13 08 52.3 -1.0
MD31  MD31              21.57 106   P       P       13 08 52.5 -0.8
MDT   Midelt            21.71 106   P       P       13 08 54.1 -0.6
      1.1nm,0.5s,baz=307,slow=14,SNR=3.9
MDT                                 LR      LR      13 15 12.9
```

	comp=Z,120nm,21.9s,baz=290,slow=31						
	1.1nm,0.5s						
BORG	**Borgarnes**	**23.58**	**9**	LR	LR	13 15 51.7	
	comp=Z,79nm,20.1s,baz=291,slow=30						
DAVOX	**Davos/Dischmat**	**28.51**	**66**	LR	LR	13 19 43.9	
	comp=Z,110nm,19.9s,baz=262,slow=33						
CLL	**Collm**	**30.46**	**57**	L	L	13 18 00.0	
L64A	**Middleborough**	**30.54**	**284**	P	**P**	**13 10 17.3**	**+0.5**
GERES	**GERESS Array B**	**30.95**	**62**	LR	LR	13 20 54.8	
	comp=Z,59nm,20.1s,baz=300,slow=33						
NOA	**NORSAR Array B**	**31.27**	**38**	LR	LR	13 21 20.4	
	comp=Z,19nm,18.6s,baz=345,slow=34						
FRB	**Frobisher Bay**	**31.52**	**328**	LR	LR	13 19 31.9	
	comp=Z,204nm,21.7s,baz=252,slow=30						
HFS	**Hagfors**	**32.16**	**40**	LR	LR	13 21 46.1	
	comp=Z,74nm,18.8s,baz=277,slow=33						
NCB	**Newcomb**	**32.52**	**289**	P	**P**	**13 10 34.7**	**+0.3**
NCB				IAmb	IAmb	13 10 38.1	
	comp=Z,16nm,1.5s						
VRAC	**Vranov**	**32.82**	**61**	LR	LR	13 22 03.7	
	comp=Z,61nm,19.6s,baz=279,slow=33						
VAE	**Valguarnera**	**33.89**	**82**	LR	LR	13 22 33.9	
	comp=Z,191nm,20.2s,baz=316,slow=33						
MEDO	**Medina**	**35.70**	**289**	P	**P**	**13 11 00.7**	**-1.1**
MEDO				IAmb	IAmb	13 11 01.0	
	comp=Z,19nm,1.0s						
TORD	**Torodi Ar. Bea**	**39.35**	**127**	P	**P**	**13 11 34.6**	**+1.6**
	comp=Z,2.6nm,1.2s,baz=327,slow=8.8,SNR=16						
	comp=Z,2.6nm,1.2s						
TIRR	**Tirgusor**	**41.69**	**66**	P	**P**	**13 11 52.4**	**+0.2**
WMOK	**Wichita Mounta**	**53.49**	**287**	P	**P**	**13 13 22.4**	**-1.6**
BRDY	**Brady**	**55.40**	**283**	P	**P**	**13 13 37.7**	**-0.2**
BRDY				IAmb	IAmb	13 13 45.6	
	comp=Z,2.4nm,1.0s						
PDAR	**Pinedale Array**	**57.02**	**300**	P	**P**	**13 13 50.7**	**+1.1**
	comp=Z,0.5nm,0.7s,baz=68,slow=18,SNR=4.9						
	comp=Z,0.5nm,0.7s						
PDAR	**Pinedale Array**	**57.02**	**300**	P	**P**	**13 13 49.5**	**-0.1**
HWUT	**Hardware Ranch**	**58.89**	**300**	P	**P**	**13 14 03.0**	**+0.3**
HWUT				IAmb	IAmb	13 14 11.1	
	comp=Z,4.3nm,0.9s						
TXAR	**Lajitas Array**	**59.85**	**284**	P	**P**	**13 14 11.0**	**+1.7**
	comp=Z,0.5nm,0.5s,baz=44,slow=7.7,SNR=2.2						
	comp=Z,0.5nm,0.5s						
F10A	**Beach Ranch, E**	**60.24**	**307**	P	**P**	**13 14 11.9**	**+0.1**
F10A				IAmb	IAmb	13 14 14.9	
	comp=Z,5.0nm,1.3s						
BMAR	**Burnt Mountain**	**60.72**	**336**	P	**P**	**13 14 14.7**	**0.0**
PTLB	**Pontes e Lacer**	**63.07**	**212**	P	**P**	**13 14 29.8**	**-1.2**
PTLB				IAmb	IAmb	13 14 33.7	
	comp=Z,4.0nm,1.2s						
BVAR	**Borovoye Array**	**63.27**	**42**	P	**P**	**13 14 32.0**	**0.0**
	comp=Z,0.6nm,0.4s,baz=316,slow=6.2,SNR=3.6						
	comp=Z,0.6nm,0.4s						
E03A	**Lebam**	**63.66**	**310**	P	**P**	**13 14 33.1**	**-1.6**
KVN	**Kaiserville**	**64.48**	**300**	P	**P**	**13 14 41.8**	**+1.4**
KVN				IAmb	IAmb	13 14 43.4	
	comp=Z,6.5nm,1.5s						
113A	**Mohawk Valley,**	**65.11**	**292**	P	**P**	**13 14 45.4**	**+1.0**
113A				IAmb	IAmb	13 15 23.1	
	comp=Z,3.6nm,1.3s						
KURK	**Kurchatov**	**68.73**	**40**	P	**P**	**13 15 07.0**	**-0.1**
KURK	**Kurchatov**	**68.73**	**40**	IAmb	IAmb	13 15 07.6	
	comp=Z,4.2nm,0.2s						
KURBB	**Kurchatov Arra**	**68.75**	**41**	P	**P**	**13 15 07.0**	**-0.2**
	comp=Z,0.8nm,0.8s,baz=306,slow=6.9,SNR=4.1						
	comp=Z,0.8nm,0.8s						
MKAR	**Makanchi Array**	**73.16**	**42**	P	**P**	**13 15 34.1**	**0.0**
	comp=Z,0.3nm,0.5s,baz=321,slow=5.3,SNR=4.3						
	comp=Z,0.3nm,0.5s						
QSPA	**South Pole Qui**	**131.57**	**180**	PKP	**PKiKP**	**13 23 17.9**	**+1.7**
	comp=Z,0.6nm,0.9s,baz=117,slow=2.3,SNR=1.5						
ASAR	**Alice Springs**	**157.35**	**43**	PKPab	**PKPab**	**13 24 30.1**	**-1.1**
	comp=Z,0.3nm,0.8s,baz=317,slow=4.0,SNR=5.5						

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*IDC **28** 13:21:02.8±0.7, 41°.60N×29°.40W, h0^{km}, mb4.0/19, mbtmp4.0/20, ML4.1/1, MS4.0/80, Error ellipse: s-maj=21.2km s-min=14.5km az=169.0*

*MOS **28** 13:21:04.3±0.9, 41°.62N×29°.35W, h12^{km}, mb4.9/31, Error ellipse: s-maj=16.0km s-min=7.0km az=48.6*

*NEIC **28** 13:21:05.0±2.0, 41°.40N±0°.08×29°.35W±0°.05, h10^{km}±1^{km}, mb4.9/120, Error ellipse: s-maj=13.8km s-min=5.9km az=12.0*

*GCMT **28** 13:21:06.0±0.2, 41°.73N±0°.03×29°.20W±0°.02, h12^{km}, MW4.8/118, Moment Tensor Solution. s29,c39; s118,c168; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-2.34±.06; M$_{\theta\theta}$0.20±.07; M$_{\phi\phi}$2.14±.05; M$_{r\theta}$0.84±.29; M$_{\theta\phi}$0.36±.05; M$_{\phi r}$-0.06±.21; Best double couple: M$_0$2.40400×10^{16} NP1:φ$_s$354.00000°,δ46.00000°, λ-114.00000°. NP2:φ$_s$207.00000°,δ49.00000°, λ-67.00000°. Principal axes: T 2.2070, Plg1.0000°, Azm281.0000°; N 0.3920, Plg17.0000°, Azm11.0000°; P -2.6000, Plg73.0000°, Azm187.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*SVSA **28** 13:21:07.2±0.8, 41°.47N×29°.38W, h15^{km}, ML3.8(INMG) Error ellipse: s-maj=20.4km s-min=6.2km az=65.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Crista Mdia Atlntico N*

*GFZ **28** 13:21:07.5±0.3, 42°N±8°×2°9W±°, h10^{km}, M4.5/19, mb4.5/19, Mw4.8/13, Error ellipse: s-maj=18.0km s-min=6.4km az=0.7, confirmed*

ISC 28 13:21:05.2±0.3**, 41°.37N**±0°.05×**29°.33W**±0°.04**, h12**^{km}**, n342,** σ1^{s}**.40**/247**, mb4.8**/120**, MS4.0**/97**, 8C-8D, Azores Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
H07N1	**FLORES T-PHASE**	**2.16**	**220**	Pn	**Pn**	**13 21 38.7**	**-2.3**
H07N1				T	T	13 24 08.1	
	SNR=9.6						
H07S1	**FLORES T-PHASE**	**2.45**	**216**	Pn	**Pn**	**13 21 44.8**	**-0.2**
H07S1				Sn	**Sn**	**13 22 13.9**	**-0.9**
PSCRZ	**Santa Cruz da**	**2.50**	**156**	*e*P	**Pn**	**13 21 44.9**	**-0.7**
SRBC	**Serra Branca**	**2.53**	**157**	*e*P	**Pn**	**13 21 45.5**	**-0.6**
PGRA	**Graciosa**	**2.56**	**156**	*e*P	**Pn**	**13 21 45.2**	**-1.2**
PCED	**Cedros**	**2.78**	**170**	*e*P	**Pn**	**13 21 50.6**	**+1.2**
CALA	**Caldeira**	**2.83**	**170**	*e*P	**Pn**	**13 21 51.4**	**+1.2**
PMAN	**Manadas**	**2.90**	**160**	*e*P	**Pn**	**13 21 50.2**	**-0.9**
PSBA	**Serra de Santa**	**3.02**	**149**	*e*P	**Pn**	**13 21 51.6**	**-1.3**
PSBA				*e*S	**Sn**	**13 22 25.1**	**-3.8**
PSBA				*i* IAML		13 22 27.8	
PSBA				*i* IAML		13 22 28.5	
PSBA				*i* IAML		13 22 29.3	
PAGU	**Agualva, Azore**	**3.08**	**147**	*e*P	**Pn**	**13 21 52.4**	**-1.2**
PAGU				*e*S	**Sn**	**13 22 26.8**	**-3.5**
PAGU				*i* IAML		13 22 28.5	
PAGU				*i* IAML		13 22 29.9	
PAGU				*i* IAML		13 22 30.2	
ADH	**Angra Heroismo**	**3.15**	**149**	*e*P	**Pn**	**13 21 53.5**	**-1.1**
ADH				*i* IAML		13 22 28.3	
ADH				*i* IAML		13 22 28.3	
ADH				*i* IAML		13 22 28.3	
PSCM	**Serra do Cume**	**3.16**	**147**	⇓*e*P	**Pn**	**13 21 53.7**	**-1.0**
PSCM				*e*S	**Sn**	**13 22 29.0**	**-3.4**
PSCM				*i* IAML		13 22 31.7	
PSCM				*i* IAML		13 22 32.1	
PSCM				*i* IAML		13 22 32.3	
CMLA	**Cha da Macela**	**4.65**	**140**	*e*P	**Pn**	**13 22 14.8**	**-0.4**
BART	**Pico Bartolome**	**4.82**	**137**	*e*P	**Pn**	**13 22 16.6**	**-1.0**
PMOZ	**Porto Moniz, M**	**12.90**	**128**	*e*P	**Pn**	**13 24 10.2**	**+1.9**
PMOZ				IAmb	IAmb	13 24 17.5	
	comp=Z,176nm,1.6s						
PMOZ				*e*LR	LR	13 27 10.6	
PMOZ				IAMs_20	IAMs_20	13 28 01.4	
	comp=Z,405nm,18.0s						
POLO	**Lamas de Olo**	**16.17**	**83**	*e*P	**Pn**	**13 24 52.3**	**+0.1**
POLO				IAmb	IAmb	13 25 07.9	
	comp=Z,27nm,1.6s						
PVIS	**Viseu**	**16.19**	**85**	*e*P	**Pn**	**13 24 52.3**	**-0.1**
PMTG	**Montargil**	**16.28**	**91**	*e*P	**P**	**13 24 57.6**	**+1.0**
PMTG				IAmb	IAmb	13 25 04.6	
	comp=Z,44nm,1.5s						
MORF	**Marmelete**	**16.50**	**97**	*e*P	**P**	**13 24 58.8**	**-0.3**
MTE	**Manteigas**	**16.50**	**86**		**P**	**13 25 00.3**	**+1.2**
PCBR	**Castelo Branco**	**16.66**	**88**	P	**P**	**13 25 03.3**	**+2.5**
PMRV	**Marv??o**	**16.82**	**89**	*e*P	**P**	**13 25 02.8**	**+0.2**
PMRV				IAmb	IAmb	13 25 05.8	
	comp=Z,37nm,1.9s						
PMRV				*e*LR	LR	13 28 53.0	
PMRV				IAMs_20	IAMs_20	13 30 30.8	
	comp=Z,1μm,18.0s						
PBAR	**Barrancos**	**17.43**	**93**	*e*P	**Pn**	**13 25 09.0**	**+1.0**
PAB	**San Pablo**	**19.08**	**87**	P	**P**	**13 25 27.6**	**0.0**
PAB				pmax	pmax		
	comp=Z,55nm,1.8s						
PAB	**San Pablo**	**19.08**	**87**		**P**	**13 25 27.6**	**0.0**
ESDC	**Sonseca Array**	**19.34**	**87**	P	**P**	**13 25 30.6**	**+0.1**
	comp=Z,0.1nm,0.3s,baz=290,slow=9.0,SNR=9.4						
ESDC				LR	LR	13 31 21.9	
	comp=Z,682nm,21.4s,baz=288,slow=32						
	comp=Z,1.3nm,0.9s						
ESDC				AML	AML		
EMAL	**Malaga-Limoner**	**19.85**	**95**	P	**Pn**	**13 25 38.4**	**+0.9**
	comp=Z,3.7nm,1.1s						
IFR	**Ifrane**	**20.71**	**104**	P	Pn	13 25 48.6	+0.7
	comp=Z,4.4nm,1.3s						
MD01	**Midelt array s**	**21.30**	**106**	P	**P**	**13 25 51.3**	**-0.5**
MD31	**MD31**	**21.30**	**106**	P	**P**	**13 25 51.2**	**-0.6**
MDT	**Midelt**	**21.44**	**105**	P	**P**	**13 25 54.4**	**+1.2**
	comp=Z,2.2nm,0.8s,baz=303,slow=9.8,SNR=7.0						
MDT				LR	LR	13 32 26.4	
	comp=Z,387nm,21.2s,baz=310,slow=32						
	comp=Z,2.2nm,0.8s						
MFF	**Saint Martin d**	**21.57**	**66**	P	**P**	**13 25 58.7**	**+4.2**
	comp=Z,7.1nm,1.7s						
EKA	**Eskdalemuir Ar**	**22.13**	**42**	P	**P**	**13 25 59.0**	**-1.4**
	comp=Z,2.1nm,0.8s,baz=258,slow=7.6,SNR=3.9						
EKA				LR	LR	13 32 48.8	
	comp=Z,236nm,18.8s,baz=238,slow=32						
	comp=Z,2.1nm,0.8s						
EKA	**Eskdalemuir Ar**	**22.13**	**42**	P	**P**	**13 25 59.0**	**-1.4**
BORG	**Borgarnes**	**23.87**	**8**	LR	LR	13 32 53.6	
	comp=Z,285nm,21.0s,baz=209,slow=30						
LOR	**Lormes**	**24.34**	**65**	P	**P**	**13 26 26.8**	**+4.0**
	comp=Z,12nm,2.1s						
UCC	**Uccle**	**25.01**	**56**	*d*P	**P**	**13 26 28.9**	**+0.2**
DOU	**Dourbes**	**25.06**	**58**	*d*P	**P**	**13 26 29.9**	**+0.8**
	comp=Z,6.8nm,1.4s						
BMRD	**Maredsous**	**25.19**	**58**	*d*P	**P**	**13 26 28.9**	**-1.4**
	comp=Z,9.9nm,1.4s						
RCHB	**Rochefort**	**25.47**	**58**	*d*P	**P**	**13 26 32.2**	**-0.6**
BCLA	**Clavier**	**25.55**	**57**	*d*P	**P**	**13 26 33.2**	**-0.3**
	comp=Z,12nm,1.4s						
ECH	**Echery**	**26.60**	**63**	P	**P**	**13 26 43.7**	**+0.6**
ECH				pmax	pmax		
	comp=Z,13nm,1.2s						
ECH	**Echery**	**26.60**	**63**		**P**	**13 26 43.7**	**+0.6**
ECH	**Echery**	**26.60**	**63**	P	**P**	**13 26 43.5**	**+0.3**
	comp=Z,12nm,2.4s						
BOURR	**Bourrignon**	**26.64**	**65**	P	**P**	**13 26 46.9**	**+3.3**
	comp=Z,28nm,2.1s						
BFO	**Black Forest**	**27.38**	**62**	P	**P**	**13 26 51.3**	**+1.1**
BFO				pmax	pmax		
	comp=Z,19nm,1.5s						
BFO	**Black Forest**	**27.38**	**62**	P	**P**	**13 26 51.3**	**+1.1**
SCHQ	**Schefferville**	**28.06**	**312**	LR	LR	13 36 10.1	
	comp=Z,425nm,21.6s,baz=101,slow=33						
TUE	**Stuetta**	**28.12**	**66**	P	**P**	**13 26 59.5**	**+2.4**
	comp=Z,38nm,1.7s						
SFJD	**Kangerlussuaq**	**28.23**	**342**	LR	LR	13 35 43.0	
	comp=Z,310nm,18.3s,baz=151,slow=31						
DAVOX	**Davos/Dischmat**	**28.47**	**66**	LR	LR	13 36 54.8	
	comp=Z,264nm,19.4s,baz=263,slow=34						
NKC	**Novy Kostel**	**30.10**	**59**	AMS	AMS	13 37 00.0	
	comp=Z,500nm,22.3s						
CLL	**Collm**	**30.48**	**56**	*e*S	**S**	**13 32 18.0**	**-0.5**
CLL				*e*x	x	13 33 30.0	
CLL				LH		13 34 00.0	
CLL				L	L	13 35 00.0	
CLL				AMS	AMS	13 37 00.0	
	comp=N,100nm,29.5s						
CLL				AMS	AMS	13 37 00.0	
	comp=E,200nm,20.7s						
CLL				AMS	AMS	13 37 00.0	
	comp=Z,300nm,17.9s						
KEST	**Kesra**	**30.59**	**88**	LR	LR	13 39 09.7	
	comp=Z,412nm,19.4s,baz=276,slow=36						
HSKC	**Hora Svate Kat**	**30.74**	**58**	AMS	AMS	13 37 50.0	
	comp=Z,400nm,21.3s						
KBA	**Koelnbreinsper**	**30.82**	**65**	P	**P**	**13 27 23.5**	**+2.6**
	comp=Z,27nm,1.6s						
KHC	**Kasperske Hory**	**30.84**	**61**	P	**P**	**13 27 21.8**	**+0.8**
KHC				pmax	pmax		
	comp=Z,24nm,2.0s						
KHC	**Kasperske Hory**	**30.84**	**61**	P	**P**	**13 27 21.8**	**+0.8**
GERES	**GERESS Array B**	**30.94**	**61**	P	**P**	**13 27 19.3**	**-2.6**
	comp=Z,0.9nm,0.2s,baz=245,slow=12,SNR=4.2						
GERES				LR	LR	13 38 07.7	
	comp=Z,252nm,19.7s,baz=214,slow=33						
	comp=Z,0.9nm,0.2s						
CKRC	**Cesky Krumlov**	**31.34**	**61**	AMS	AMS	13 39 00.0	
	comp=Z,300nm,14.2s						
NOA	**NORSAR Array B**	**31.40**	**37**	P	**P**	**13 27 23.4**	**-2.4**
	comp=Z,0.6nm,0.9s,baz=250,slow=9.8,SNR=3.4						
NOA				LR	LR	13 37 49.1	
	comp=Z,103nm,21.9s,baz=255,slow=32						
	comp=Z,0.6nm,0.9s						
PRU	**Pruhonice**	**31.45**	**59**	AMS	AMS	13 38 10.0	
	comp=Z,500nm,22.2s						
PVCC	**Panska Ves**	**31.46**	**58**	AMS	AMS	13 38 50.0	
	comp=Z,500nm,15.8s						
FRB	**Frobisher Bay**	**31.89**	**328**	LR	LR	13 36 48.2	
	comp=Z,223nm,19.8s,baz=107,slow=30						
TREC	**Trest**	**32.09**	**60**	AMS	AMS	13 39 20.0	
	comp=Z,300nm,17.9s						
HFS	**Hagfors**	**32.28**	**40**	LR	LR	13 38 38.0	
	comp=Z,185nm,21.1s,baz=256,slow=33						
UPC	**Upice**	**32.38**	**58**	AMS	AMS	13 39 40.0	
	comp=Z,500nm,19.0s						
CHVC	**Chvalec**	**32.41**	**58**	AMS	AMS	13 39 10.0	
	comp=Z,600nm,20.8s						
OSTC	**Ostas**	**32.51**	**58**	AMS	AMS	13 38 30.0	
	comp=Z,400nm,16.0s						
DPC	**Dobruska-Polom**	**32.59**	**58**	AMS	AMS	13 39 30.0	
	comp=Z,500nm,20.8s						
TRQ	**Mont Tremblant**	**32.66**	**294**	P	**P**	**13 27 35.7**	**-1.2**
TRQ				IAmb	IAmb	13 27 46.2	
	comp=Z,34nm,1.8s						
VRAC	**Vranov**	**32.81**	**60**	LR	LR	13 40 04.7	
	comp=Z,199nm,18.1s,baz=270,slow=35						
KRLC	**Kraliky**	**32.89**	**59**	AMS	AMS	13 39 30.0	
	comp=Z,400nm,15.4s						
VAE	**Valguarnera**	**33.75**	**82**	LR	LR	13 40 53.1	
	comp=Z,458nm,18.0s,baz=320,slow=35						
OKC	**Ostrava-Krasne**	**33.78**	**59**	AMS	AMS	13 40 10.0	
	comp=Z,400nm,20.1s						
MORH	**Mrgy, Hungar**	**34.55**	**65**	P	**P**	**13 27 55.8**	**+2.5**
	comp=Z,10nm,2.6s						
OJC	**Ojcow**	**34.82**	**58**	P	**P**	**13 27 56.9**	**+1.2**
OJC	**Ojcow**	**34.82**	**58**	P	**P**	**13 27 56.9**	**+1.2**
OJC	**Ojcow**	**34.82**	**58**	P	**P**	**13 27 57.8**	**+2.1**
	comp=Z,7.9nm,1.8s						
NIE	**Niedzica**	**35.22**	**60**	P	**P**	**13 28 01.1**	**+2.0**
	comp=Z,3.0nm,2.4s						
SADO	**Sadowa**	**36.09**	**293**	LR	LR	13 41 20.5	
	comp=Z,539nm,21.9s,baz=151,slow=34						
RNPP1	**Kostyukhnivka**	**38.47**	**56**	P	**P**	**13 28 28.8**	**+2.1**
FINES	**FINESS Array B**	**38.49**	**39**	P	**P**	**13 28 24.7**	**-2.0**
	comp=Z,6.5nm,1.2s,baz=213,slow=14,SNR=5.5						
FINES				LR	LR	13 42 08.9	
	comp=Z,134nm,21.8s,baz=262,slow=33						
	comp=Z,6.5nm,1.2s						
FINES	**FINESS Array B**	**38.49**	**39**	P	**P**	**13 28 25.2**	**-1.5**
FIA1	**FINESS Array S**	**38.49**	**39**	P	**P**	**13 28 25.4**	**-1.4**
RNPP8	**Varash**	**38.53**	**56**	P	**P**	**13 28 29.3**	**+2.1**
RNPP9	**Sopachiv**	**38.54**	**56**	P	**P**	**13 28 29.4**	**+2.1**
RNPP5	**Staryi Chortor**	**38.56**	**56**	P	**P**	**13 28 29.6**	**+2.1**
BURAR	**Bucovina Array**	**38.72**	**62**	P	**P**	**13 28 30.5**	**+1.5**
TORD	**Torodi Ar. Bea**	**39.01**	**127**	P	**P**	**13 28 32.8**	**+1.3**
	comp=Z,1.6nm,1.0s,baz=318,slow=8.5,SNR=5.4						
TORD				LR	LR	13 43 17.3	
	comp=Z,237nm,21.9s,baz=329,slow=34						
	comp=Z,1.6nm,1.0s						
SJG	**San Juan**	**39.06**	**245**	LR	LR	13 40 48.1	
	comp=Z,68nm,20.6s,baz=80,slow=30						
VOIR		**39.09**	**65**	P	**P**	**13 28 34.6**	**+2.5**
	comp=Z,3.7nm,1.0s						
KMPD	**K-Podol'skiy**	**39.35**	**60**	P	**P**	**13 28 36.0**	**+1.8**
MNK	**Minsk**	**39.42**	**51**	*i* P	**P**	**13 28 34.1**	**-0.5**
MNK				*i*		13 30 04.1	
MNK				*i* PPP	PPP	13 30 25.5	
MNK				*i* S	**S**	**13 34 35.2**	**-0.6**
MNK				pmax	pmax		
	comp=Z,7.0nm,0.4s						
MNK				pmax	pmax		
	comp=E,13nm,0.9s						
MNK				pmax	pmax		
	comp=N,11nm,1.0s						
MNK				MLR	MLR		
	comp=Z,86nm,15.0s						
MNK				MLR	MLR		
	comp=N,120nm,17.0s						
MNK				MLR	MLR		
	comp=E,120nm,18.0s						
MNK	**Minsk**	**39.42**	**51**	*i* P	**P**	**13 28 34.1**	**-0.5**
	comp=E,13nm,0.9s						
MNK				*i* P	**P**	**13 28 34.1**	**-0.5**
	comp=N,11nm,1.0s						
MNK				*i* P	**P**	**13 28 34.1**	**-0.5**
	comp=Z,7.0nm,0.4s,baz=275						
MNK				*i* PP	**PP**	**13 30 04.2**	**-0.8**
MNK				*i* PPP	PPP	13 30 25.6	
MNK				*i* S	**S**	**13 34 35.3**	**-0.6**
MNK				*i* SS	**SS**	**13 37 28.9**	**-0.7**
MNK				*i* SSS	SSS	13 37 47.0	
MNK				*i* LQ	LQ	13 41 41.2	
MNK				*i* LR	LR	13 44 34.0	
MNK				*i* LRM	MLR	13 46 10.2	
	comp=Z,86nm,14.6s						
MNK				*i* LRM	MLR	13 46 28.6	
	comp=N,120nm,16.7s						
MNK				*i* LRM	MLR	13 46 33.9	
	comp=E,120nm,17.8s						
MLR	**Muntele Rosu**	**39.69**	**65**	LR	LR	13 44 40.0	
	comp=E,180nm,20.2s,baz=258,slow=36						
MLR	**Muntele Rosu**	**39.69**	**65**	P	**P**	**13 28 39.8**	**+2.6**
	comp=E,7.2nm,2.2s						
ARCES	**ARCESS Array B**	**39.75**	**27**	P	**P**	**13 28 35.4**	**-1.9**
	comp=E,2.9nm,1.0s,baz=189,slow=23,SNR=5.4						
ARCES				LR	LR	13 41 46.2	
	comp=E,125nm,20.9s,baz=264,slow=31						
	comp=E,2.9nm,1.0s						
ARCES	**ARCESS Array B**	**39.75**	**27**	P	**P**	**13 28 36.5**	**-0.8**
LUBAR	**Lubar, Ukraine**	**39.94**	**58**	P	**P**	**13 28 41.4**	**+2.4**
MI30	**MI30,Zelenitsa**	**40.07**	**56**	P	**P**	**13 28 41.2**	**+1.1**
	comp=E,9.0nm,1.5s						
AK20	**Malin Array Si**	**40.59**	**56**	P	**P**	**13 28 46.2**	**+1.8**
AK19	**Malin Array Si**	**40.59**	**56**	P	**P**	**13 28 46.3**	**+1.9**
AK21	**Malin Array Si**	**40.60**	**56**	P	**P**	**13 28 46.0**	**+1.5**
AK22	**Malin Array Si**	**40.62**	**56**	P	**P**	**13 28 46.2**	**+1.5**
AK17	**Malin Array Si**	**40.63**	**56**	P	**P**	**13 28 46.2**	**+1.5**
AK18	**Malin Array Si**	**40.63**	**56**	P	**P**	**13 28 46.2**	**+1.5**
AK16	**Malin Array Si**	**40.66**	**56**	P	**P**	**13 28 46.5**	**+1.5**
AK14	**Malin Array Si**	**40.67**	**56**	P	**P**	**13 28 46.6**	**+1.6**
AK04	**Malin Array Si**	**40.69**	**56**	P	**P**	**13 28 46.7**	**+1.5**
AK12	**Malin Array Si**	**40.70**	**56**	P	**P**	**13 28 46.8**	**+1.5**
AK11	**Malin Array Si**	**40.70**	**56**	P	**P**	**13 28 46.8**	**+1.5**
N49A	**Columbus Grove**	**40.71**	**288**	P	**P**	**13 28 44.0**	**-1.6**
N49A				IAmb	IAmb	13 30 12.5	
	comp=Z,35nm,1.8s						
AK02	**Malin Array Si**	**40.72**	**56**	P	**P**	**13 28 47.0**	**+1.5**
AKASG	**Malin Array Be**	**40.73**	**56**	P	**P**	**13 28 44.3**	**-1.2**
	comp=Z,0.2nm,0.3s,baz=273,slow=8.7,SNR=6.9						
AKASG				LR	LR	13 45 27.3	
	comp=Z,258nm,18.2s,baz=284,slow=36						
	comp=Z,0.2nm,0.3s						
AKBB	**Malin Array Si**	**40.73**	**56**	*ce*P	**P**	**13 28 44.6**	**-0.9**
AKBB				pmax	pmax		
	comp=Z,16nm,2.2s						
AKBB	**Malin Array Si**	**40.73**	**56**	P	**P**	**13 28 47.0**	**+1.5**
DBIC	**Dimbokro**	**40.85**	**141**	LR	LR	13 44 01.9	
	comp=Z,284nm,20.1s,baz=335,slow=34						
MDP	**Montagnes des**	**41.70**	**216**	LR	LR	13 42 14.8	
	comp=Z,99nm,21.0s,baz=2.0,slow=30						
APA	**Apatity**	**42.24**	**30**	⇓*e*P	P	13 28 51.6	-6.1
APA				pmax	pmax		
	comp=Z,6.0nm,1.2s						
IDI	**Anoyia**	**42.38**	**80**	LR	LR	13 45 38.9	
	comp=Z,118nm,21.7s,baz=294,slow=35						
TKL	**Tuckaleechee C**	**42.39**	**281**	LR	LR	13 45 35.9	
	comp=Z,316nm,18.6s,baz=64,slow=35						
KARP	**Karpathos**	**43.95**	**78**	P	**P**	**13 29 15.4**	**+3.3**
	comp=Z,40nm,1.2s						
RES	**Resolute Bay**	**44.15**	**340**	LR	LR	13 43 06.9	
	comp=Z,178nm,21.9s,baz=2.5,slow=30						
OBN	**Obninsk**	**44.32**	**49**	LR	LR	13 48 10.3	
	comp=Z,144nm,18.1s,baz=301,slow=37						
KLMR	**Klimovskoe**	**45.00**	**40**	*e*P	**P**	**13 29 18.8**	**-1.2**
KLMR				*e*		13 30 58.3	
KLMR				pmax	pmax		
	comp=Z,12nm,1.1s						
ULM	**Lac du Bonnet**	**45.80**	**305**	LR	LR	13 46 54.7	
	comp=Z,466nm,20.9s,baz=48,slow=34						
BR106	**Keskin Array S**	**46.91**	**70**	P	**P**	**13 29 38.3**	**+2.7**
	comp=Z,38nmcomp=Z,1.4nm,0.8s						
BR105	**Keskin Array S**	**46.92**	**70**	P	**P**	**13 29 38.3**	**+2.7**
	comp=Z,1.5nm,1.2s						
BR131	**Keskin Array S**	**46.93**	**70**	*i* P	**P**	**13 29 37.1**	**+1.4**
BRTR	**Keskin Array B**	**46.93**	**70**	P	**P**	**13 29 34.9**	**-0.8**
	comp=Z,1.4nm,1.0s,baz=330,slow=8.3,SNR=2.5						
BRTR				LR	LR	13 48 12.0	
	comp=Z,61nm,21.5s,baz=258,slow=35						
	comp=Z,1.4nm,1.0s						
BRTR	**Keskin Array B**	**46.93**	**70**	P	**P**	**13 29 35.0**	**-0.8**
BR104	**Keskin Array S**	**46.94**	**70**	P	**P**	**13 29 38.5**	**+2.7**
	comp=Z,1.7nm,0.8s						
R40A	**Maddies Statio**	**47.49**	**288**		**P**	**13 29 40.1**	**+0.2**
ANN	**Anapa**	**47.64**	**62**	*e*P	**P**	**13 29 40.2**	**-0.8**
ANN				*e*S	**S**	**13 36 34.6**	**-1.7**
ANN				pmax	pmax		
	comp=Z,39nm,1.3s						
ECSD	**EROS Data Cent**	**48.37**	**297**	P	**P**	**13 29 46.3**	**-0.5**
ECSD				IAmb	IAmb	13 29 53.1	
	comp=Z,16nm,1.2s						
ECSD	**EROS Data Cent**	**48.37**	**297**	P	**P**	**13 29 46.9**	**+0.1**
	comp=Z,14nm,2.0s						
S39A	**Bolivar**	**48.49**	**288**		**P**	**13 29 47.5**	**-0.3**
S39A				IAmb	IAmb	13 29 53.8	
	comp=Z,12nm,1.1s						
SDV	**Santo Domingo**	**48.72**	**240**	LR	LR	13 47 10.0	
	comp=Z,86nm,20.4s,baz=68,slow=32						
SDV	**Santo Domingo**	**48.72**	**240**	P	P	13 29 55.2	+5.4
	comp=Z,52nm,1.8s						
ANDN	**Andirin**	**49.75**	**72**	P	P	13 30 02.4	+4.9
	comp=Z,29nm,1.1s						
MIAR	**Mount Ida**	**50.09**	**284**	P	**P**	**13 30 00.3**	**+0.3**
MIAR				pmax	pmax		
	comp=Z,28nm,1.5s						
MIAR	**Mount Ida**	**50.09**	**284**		**P**	**13 30 00.3**	**+0.3**
MIAR				IAmb	IAmb	13 30 06.3	
	comp=Z,28nm,1.4s						
MIAR	**Mount Ida**	**50.09**	**284**	P	**P**	**13 30 00.6**	**+0.6**
	comp=Z,14nm,1.4s						
KIRV	**Kirov**	**50.37**	**42**	LR	LR	13 50 30.5	
	comp=Z,102nm,20.4s,baz=291,slow=35						
KIRV	**Kirov**	**50.37**	**42**	*ce*P	**P**	**13 30 03.5**	**+1.8**
MMAI	**Mount Meron Ar**	**51.17**	**77**	LR	LR	13 52 37.8	
	comp=Z,45nm,19.4s,baz=286,slow=37						
BELG	**Belogornoye**	**51.36**	**50**	*i* P	**P**	**13 30 09.8**	**+0.5**
BELG				pmax	pmax		
	comp=Z,2.0nm,0.9s						
KIV	**Kislovodsk**	**51.45**	**61**	*e*P	**P**	**13 30 10.6**	**+0.4**
KIV				pmax	pmax		
	comp=Z,8.0nm,1.0s						
KIV				MLR	MLR		
	comp=Z,64nm,17.0s						
KVAR	**Kislovodsk Arr**	**51.45**	**61**	LR	LR	13 51 55.9	
	comp=Z,59nm,20.1s,baz=278,slow=36						
KBZ	**Khabaz**	**51.68**	**62**	LR	LR	13 52 18.0	
	comp=Z,110nm,19.7s,baz=336,slow=36						
YKA	**Yellowknife Ar**	**52.27**	**324**	LR	LR	13 49 04.3	
	comp=Z,230nm,18.6s,baz=63,slow=32						
EIL	**Elat**	**52.52**	**81**	LR	LR	13 55 35.1	
	comp=Z,52nm,18.1s,baz=274,slow=39						
ASF	**Jabal al Asfar**	**52.69**	**77**	LR	LR	13 53 26.0	
	comp=Z,41nm,21.1s,baz=241,slow=37						
LAO	**LASA Array**	**53.48**	**303**	P	**P**	**13 30 25.6**	**+0.4**
WMOK	**Wichita Mounta**	**53.77**	**287**	P	**P**	**13 30 27.2**	**-0.2**
WMOK				pmax	pmax		
	comp=Z,11nm,1.5s						
WMOK	**Wichita Mounta**	**53.77**	**287**	P	**P**	**13 30 27.2**	**-0.2**
WMOK	**Wichita Mounta**	**53.77**	**287**	P	**P**	**13 30 27.2**	**-0.2**
	comp=Z,7.9nm,1.6s						
HKT	**Hockley**	**54.02**	**280**	*i* P	**P**	**13 30 29.7**	**+0.5**
HKT				pmax	pmax		
	comp=Z,21nm,2.0s						
ROSC	**El Rosal**	**54.15**	**240**	LR	LR	13 49 52.3	
	comp=Z,107nm,21.3s,baz=111,slow=32						
GNI	**Garni**	**54.47**	**65**	LR	LR	13 57 10.9	
	comp=Z,49nm,18.3s,baz=308,slow=40						
MAK	**Makhachkala**	**55.05**	**61**	*e*P	**P**	**13 30 39.5**	**+3.0**
MAK				MLR	MLR		

	comp=Z,226nm,16.0s						
EGMT	Eagleton	55.10	306	P	P	13 30 36.8	-0.2
K22A	Casper	55.42	299	P	P	13 30 39.1	-0.4
APMT	Aspermont	55.43	286	P	P	13 30 39.9	+0.4
BRDY	Brady	55.66	284		P	13 30 40.4	-0.8
ARTI	Arti	55.68	42	LR	LR	13 54 55.1	
	comp=Z,109nm,18.1s,baz=285,slow=37						
ARTI	Arti	55.68	42	*d i*P	P	13 30 39.2	-1.7
ARTI						13 31 34.7	
ARTI				S	S	13 38 25.0	-1.7
ARTI				SS	SS	13 42 08.9	-2.4
ARTI				pmax	pmax		
	comp=Z,12nm,1.2s						
ARTI	Arti	55.68	42		P	13 30 39.9	-1.0
RLMT	Red Lodge	56.07	303	P	P	13 30 43.7	-0.5
RLMT				IAmb	IAmb	13 30 54.7	
	comp=Z,14nm,1.3s						
ISCO	Idaho Springs	56.13	296	P	P	13 30 45.6	+0.8
T25A	Trinidad	56.59	292	IAmb	IAmb	13 30 55.3	
	comp=Z,13nm,1.4s						
YNE	Yellowstone No	56.59	303	P	P	13 30 47.7	-0.2
YNE				IAmb	IAmb	13 30 54.1	
	comp=Z,11nm,1.2s						
YMP	Mirror Lake Pl	56.81	303	IAmb	IAmb	13 30 56.1	
	comp=Z,22nm,1.3s						
INK	Inuvik	57.14	335	LR	LR	13 52 18.4	
	comp=Z,176nm,18.7s,baz=1.0,slow=33						
BOZ	Bozeman (W)	57.34	304	IAmb	IAmb	13 30 59.9	
	comp=Z,23nm,1.8s						
PDAR	Pinedale Array	57.35	300	P	P	13 30 52.1	-1.2
	comp=Z,1.9nm,0.9s,baz=69,slow=8.1,SNR=14						
PDAR				LR	LR	13 55 34.1	
	comp=Z,175nm,18.4s,baz=12,slow=36						
	comp=Z,1.9nm,0.9s						
PDAR	Pinedale Array	57.35	300		P	13 30 52.4	-1.0
JTS	Las Juntas de	57.65	254	LR	LR	13 51 16.3	
	comp=Z,176nm,21.8s,baz=59,slow=32						
FXWY	Fox Creek	57.88	302		P	13 30 56.8	-0.3
AKTO	Aktyubinsk	58.10	49	LR	LR	13 55 02.8	
	comp=Z,115nm,21.8s,baz=237,slow=35						
E29M	Blow River	58.48	336	P	P	13 30 59.3	-1.2
SAND	Sanderson	58.64	284		P	13 31 02.1	-0.3
SAND				IAmb	IAmb	13 31 08.4	
	comp=Z,13nm,1.1s						
E28M	Babbage River	58.86	336		P	13 31 02.3	-0.9
E28M				IAmb	IAmb	13 31 03.3	
	comp=Z,16nm,1.4s						
PV22	Blue Mesa, Par	58.90	296	IAmb	IAmb	13 31 12.0	
	comp=Z,18nm,1.3s						
PV21	Cone Mtn., Par	59.02	296	IAmb	IAmb	13 31 16.4	
	comp=Z,15nm,1.0s						
BCYI	Bear Canyon	59.06	304	IAmb	IAmb	13 31 16.7	
	comp=Z,18nm,1.7s						
ANMO	Albuquerque	59.12	291	LR	LR	13 56 14.5	
	comp=Z,198nm,18.4s,baz=71,slow=36						
ANMO	Albuquerque	59.12	291	*ce*P	P	13 31 07.9	+2.1
ANMO				pmax	pmax		
	comp=Z,12nm,3.0s						
HWUT	Hardware Ranch	59.21	300	P	P	13 31 05.9	-0.5
	comp=Z,10.0nm,1.9s						
BSUT	Blindstream Ca	59.22	299	IAmb	IAmb	13 31 12.9	
	comp=Z,14nm,1.5s						
BDFB	Brasilia	59.30	201	LR	LR	13 53 41.0	
	comp=Z,49nm,18.6s,baz=115,slow=33						
P18A	Preston Nutter	59.33	298	IAmb	IAmb	13 31 13.8	
	comp=Z,13nm,1.7s						
G29M	Pine Creek	59.34	334		P	13 31 05.6	-1.0
G29M				IAmb	IAmb	13 31 12.0	
	comp=Z,15nm,1.1s						
MVCO	Mesa Verde	59.38	294	P	P	13 31 09.3	+1.8
	comp=Z,12nm,1.8s						
NEW	Newport	59.39	309	LR	LR	13 54 56.9	
	comp=Z,338nm,18.1s,baz=32,slow=34						
NEW	Newport	59.39	309	IAmb	IAmb	13 31 07.9	
	comp=Z,14nm,1.3s						
NEW	Newport	59.39	309	P	P	13 31 07.2	0.0
	comp=Z,9.3nm,1.6s						
TPB28		59.45	287	IAmb	IAmb	13 31 16.3	
	comp=Z,24nm,1.8s						
F28M	Old Crow	59.53	335	IAmb	IAmb	13 31 13.2	
	comp=Z,17nm,1.4s						
ABKAR	Akbulak array	59.76	49		P	13 31 10.2	+0.5
HVU	Hansel Valley	59.91	301	IAmb	IAmb	13 31 17.1	
	comp=Z,9.2nm,1.2s						
HLID	Hailey	60.06	303	P	P	13 31 11.5	-0.7
TXAR	Lajitas Array	60.11	284	P	P	13 31 11.9	-0.6
	comp=Z,2.0nm,0.8s,baz=47,slow=7.3,SNR=6.1						
TXAR				LR	LR	13 55 12.6	
	comp=Z,123nm,20.2s,baz=58,slow=34						
	comp=Z,2.0nm,0.8s						
TXAR	Lajitas Array	60.11	284	P	P	13 31 12.6	0.0
TXAR	Lajitas Array	60.11	284		P	13 31 12.6	0.0
TX31	Lajitas Ar. Si	60.11	284	IAmb	IAmb	13 31 19.3	
	comp=Z,21nm,1.5s						
TMUT	Trail Mountain	60.14	298	IAmb	IAmb	13 31 19.5	
	comp=Z,13nm,1.1s						
VHRN	Van Horn	60.27	286	IAmb	IAmb	13 31 20.6	
	comp=Z,14nm,1.3s						
I29M	Ogilvie Camp,	60.32	333	IAmb	IAmb	13 31 13.8	
	comp=Z,18nm,1.2s						
NRIK	Noril'sk	60.35	21	LR	LR	13 57 14.4	
	comp=Z,70nm,18.3s,baz=330,slow=36						
DUG	Dugway, Tooele	60.74	299	P	P	13 31 16.9	+0.1
DUG				pmax	pmax		
	comp=Z,11nm,1.2s						
DUG	Dugway, Tooele	60.74	299		P	13 31 16.9	+0.1
DUG				IAmb	IAmb	13 31 27.1	
	comp=Z,11nm,1.1s						
DUG	Dugway, Tooele	60.74	299	P	P	13 31 16.9	+0.1
	comp=Z,9.3nm,2.5s						
I28M	Miner Creek	60.82	333	IAmb	IAmb	13 31 22.6	
	comp=Z,16nm,1.3s						
G26K	Porcupine Rive	61.15	336		P	13 31 18.4	-0.5
LNOR	Lincton Mounta	61.27	307	P	P	13 31 19.4	-0.7
LNOR				IAmb	IAmb	13 31 33.1	
	comp=Z,11nm,1.4s						
I27K	Kandik River	61.29	334		P	13 31 19.5	-0.5
F25K	Christian Rive	61.30	337	IAmb	IAmb	13 31 23.5	
	comp=Z,22nm,1.8s						
121A	Cookes Peak, D	61.34	289		P	13 31 21.9	+0.9
121A				IAmb	IAmb	13 31 28.6	
	comp=Z,11nm,1.1s						
ELK	Elko	62.04	301	IAmb	IAmb	13 31 32.5	
	comp=Z,9.3nm,1.2s						
SZCU	Shurtz Canyon	62.29	297	IAmb	IAmb	13 31 34.2	
	comp=Z,18nm,1.5s						
WVOR	Wild Horse Val	63.30	304	P	P	13 31 35.2	+1.3
	comp=Z,14nm,2.1s						
BORK	Borovoye	63.34	42	*i* P	P	13 31 33.6	-0.2
BORK				pmax	pmax		
	comp=Z,10.0nm,1.3s						
BORK	Borovoye	63.34	42		P	13 31 33.4	-0.4
BORK				IAmb	IAmb	13 31 39.9	
	comp=Z,15nm,1.3s						
BBB	Bella Bella	63.38	317	LR	LR	13 57 37.1	
	comp=Z,290nm,18.2s,baz=12,slow=35						
BVAR	Borovoye Array	63.39	42	P	P	13 31 33.1	-1.1
	comp=Z,1.8nm,0.7s,baz=292,slow=4.7,SNR=7.9						
	comp=Z,1.8nm,0.7s						
BMN	Battle Mountai	63.48	302	IAmb	IAmb	13 31 41.9	
	comp=Z,8.8nm,1.3s						
ILAR	Eielson Array	63.53	335	P	P	13 31 33.1	-1.8
	comp=Z,1.8nm,1.1s,baz=53,slow=4.1,SNR=6.9						
ILAR				LR	LR	13 55 42.8	
	comp=Z,145nm,18.1s,baz=97,slow=33						
	comp=Z,1.8nm,1.1s						
ILAR	Eielson Array	63.53	335	P	P	13 31 34.2	-0.7
ILAR	Eielson Array	63.53	335	P	P	13 31 34.2	-0.7
NEA2	Nenana	64.35	335	IAmb	IAmb	13 31 46.0	
	comp=Z,12nm,1.2s						
MOD	Modoc Plateau	64.62	304	IAmb	IAmb	13 31 49.6	
	comp=Z,8.4nm,1.1s						
IMAR	Indian Mountai	64.75	338	P	P	13 31 42.2	-0.7
NVAR	Mina Array Bea	65.28	300	P	P	13 31 45.0	-2.1
	comp=Z,0.4nm,0.6s,baz=12,slow=8.2,SNR=5.0						
NVAR				LR	LR	14 00 28.9	
	comp=Z,341nm,18.8s,baz=54,slow=36						
	comp=Z,0.4nm,0.6s						
NVAR	Mina Array Bea	65.28	300	P	P	13 31 45.7	-1.4
GWY	Greenwater Val	65.46	297	IAmb	IAmb	13 31 55.3	
	comp=Z,11nm,1.3s						
BEKR	Beckworth	65.80	302	IAmb	IAmb	13 31 56.9	
	comp=Z,12nm,1.3s						
ATAH	Atahualpa	65.91	235	LR	LR	14 01 02.6	
	comp=Z,73nm,18.4s,baz=7.1,slow=36						
GSC	Goldstone, Bar	66.05	297	IAmb	IAmb	13 31 59.3	
	comp=Z,14nm,1.4s						
YBH	Yreka Blue Hor	66.21	305	LR	LR	13 58 54.6	
	comp=Z,225nm,19.1s,baz=26,slow=34						
TIXI	Tiksi	66.22	7	LR	LR	13 57 57.2	
	comp=Z,77nm,18.2s,baz=28,slow=34						
BELC	Belle Mtn. Jos	66.24	295	IAmb	IAmb	13 32 00.9	
	comp=Z,13nm,1.3s						
CLC	China Lake	66.29	297	IAmb	IAmb	13 32 00.6	
	comp=Z,11nm,1.3s						
PMD	Palm Desert	66.70	295	IAmb	IAmb	13 32 03.4	
	comp=Z,11nm,1.2s						
PFO	Pinyon Flats O	66.78	295	LR	LR	14 00 59.9	
	comp=Z,534nm,18.6s,baz=76,slow=36						
PFO	Pinyon Flats O	66.78	295	*i* P	P	13 31 58.6	+1.9
PFO	Pinyon Flats O	66.78	295	P	P	13 31 57.3	+0.6
PFO				IAmb	IAmb	13 32 04.1	
	comp=Z,15nm,1.5s						
PFO	Pinyon Flats O	66.78	295	P	P	13 31 57.7	+1.0
	comp=Z,6.0nm,1.8s						
BORC	Borrego Spring	66.95	295	IAmb	IAmb	13 32 05.0	
	comp=Z,17nm,1.6s						
LPAZ	La Paz	67.68	221	P	P	13 32 03.1	+0.2
	comp=Z,2.5nm,1.1s,baz=20,slow=8.2,SNR=6.9						
LPAZ				LR	LR	13 58 14.2	
	comp=Z,115nm,21.1s,baz=22,slow=33						
	comp=Z,2.5nm,1.1s						
LPAZ	La Paz	67.68	221	P	P	13 32 05.7	+2.7
LPAZ				pmax	pmax		
	comp=Z,20nm,1.6s						
LPAZ	La Paz	67.68	221		P	13 32 05.7	+2.7
LPAZ	La Paz	67.68	221	P	P	13 32 05.5	+2.6
	comp=Z,9.6nm,1.6s						
LPIG	La Paz	67.96	283	LR	LR	14 00 55.9	
	comp=Z,198nm,20.3s,baz=56,slow=35						
MBAR	Mbarara	68.37	111	LR	LR	14 01 37.1	
	comp=Z,183nm,20.1s,baz=298,slow=36						
NNA	Nana	68.80	231	*ce*P	P	13 32 10.6	+1.2
NNA				pmax	pmax		
	comp=Z,34nm,1.3s						
KURK	Kurchatov	68.85	40	*ce*P	P	13 32 08.6	-0.7
KURK				pmax	pmax		
	comp=Z,8.0nm,1.2s						
KURK	Kurchatov	68.85	40		P	13 32 08.5	-0.7
KURK				IAmb	IAmb	13 32 14.9	
	comp=Z,13nm,1.2s						
KURK	Kurchatov	68.85	40	P	P	13 32 09.0	-0.3
	comp=Z,10nm,1.6s						
KURBB	Kurchatov Arra	68.87	41	P	P	13 32 08.0	-1.3
	comp=Z,3.3nm,1.0s,baz=312,slow=6.8,SNR=14						
KURBB				LR	LR	14 01 41.9	
	comp=Z,90nm,20.5s,baz=176,slow=36						
	comp=Z,3.3nm,1.0s						
BRLS	Borolday	68.92	51	*e*P	P	13 32 09.8	0.0
BRLS				pmax	pmax		
	comp=Z,6.0nm,1.6s						
BRLS	Borolday	68.92	51	*e*P	P	13 32 09.9	0.0
	comp=Z,6.2nm,1.6s						
CHM	Chimkent	69.21	52	*e*P	P	13 32 11.2	-0.4
CHM	Chimkent	69.21	52	*e*P	P	13 32 11.3	-0.4
KKAR	Karatay Array	69.27	50	P	P	13 32 11.8	-0.2
KKAR	Karatay Array	69.27	50	P	P	13 32 11.8	-0.2
IUG	Iuzhnay	69.57	52	*e*P	P	13 32 13.5	-0.5
IUG				pmax	pmax		
	comp=Z,5.0nm,1.3s						
IUG	Iuzhnay	69.57	52	*e*P	P	13 32 13.6	-0.5
	comp=Z,4.8nm,1.3s						
ZALV	Zalesovo Beam	69.57	35	P	P	13 32 12.6	-1.1
	comp=Z,0.7nm,0.5s,baz=306,slow=8.5,SNR=5.7						
ZALV				LR	LR	14 01 35.5	
	comp=Z,52nm,21.0s,baz=342,slow=35						
	comp=Z,0.7nm,0.5s						
ZALV	Zalesovo Beam	69.57	35	*i* P	P	13 32 15.5	+1.8
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ZALV	Zalesovo Beam	69.57	35		P	13 32 13.4	-0.2
DZA	Taraz	69.87	50	*e*P	P	13 32 15.5	-0.2
DZA	Taraz	69.87	50	*e*P	P	13 32 15.5	-0.2
KDAK	Kodiak Island	70.43	332	LR	LR	14 00 47.0	
	comp=Z,222nm,19.0s,baz=67,slow=34						
SGDS	Sogindy	71.40	48	*e*P	P	13 32 24.8	-0.3
AAK	Ala-Archa	71.84	49	LR	LR	14 03 27.4	
	comp=Z,135nm,21.6s,baz=325,slow=36						
AAK	Ala-Archa	71.84	49	*i* P	P	13 32 28.7	+0.8
AAK				pmax	pmax		
	comp=Z,10.0nm,1.4s						
AAK	Ala-Archa	71.84	49	P	P	13 32 28.9	+1.0
	comp=Z,7.1nm,1.5s						
CPUP	Villa Florida	72.19	206	LR	LR	14 00 57.9	
	comp=Z,33nm,20.7s,baz=76,slow=33						
TDK	Taldyqorghan	72.46	45	*e*P	P	13 32 31.2	-0.2
TDK				pmax	pmax		
	comp=Z,6.0nm,0.6s						
TDK	Taldyqorghan	72.46	45	*e*P	P	13 32 31.2	-0.2
	comp=Z,6.1nm,0.6s						
AAA	Alma-Ata	72.83	47	*e*P	P	13 32 33.0	-0.7
AAA				pmax	pmax		
	comp=Z,9.0nm,0.5s						
AAA	Alma-Ata	72.83	47	*e*P	P	13 32 33.0	-0.7
	comp=Z,9.0nm,0.5s						
MDOK	Medeo	72.93	47	*e*P	P	13 32 33.9	-0.5
MDOK	Medeo	72.93	47	*e*P	P	13 32 33.9	-0.5
TNSS	Tian-Shan	72.96	47	*e*P	P	13 32 34.2	-0.7
TNSS	Tian-Shan	72.96	47	*e*P	P	13 32 34.2	-0.7
MAKZ	Makanchi	73.10	42	P	P	13 32 34.4	-0.8
MAKZ				pmax	pmax		
	comp=Z,10.0nm,1.4s						
MAKZ	Makanchi	73.10	42		P	13 32 34.4	-0.8
MK31	Makanchi Array	73.27	42	*ce*P	P	13 32 36.3	+0.1
MKAR	Makanchi Array	73.27	42	P	P	13 32 35.5	-0.7
	comp=Z,1.8nm,0.7s,baz=321,slow=5.5,SNR=11						
MKAR				LR	LR	14 05 42.8	
	comp=Z,101nm,18.4s,baz=320,slow=37						
	comp=Z,1.8nm,0.7s						
MKAR	Makanchi Array	73.27	42	P	P	13 32 35.3	-0.9
MKAR	Makanchi Array	73.27	42		P	13 32 35.3	-0.9
KMBO	Kilima Mbogo	73.37	107	LR	LR	14 04 33.6	
	comp=Z,161nm,19.5s,baz=100,slow=36						
NRN	Naryn	73.48	49	IAmb	IAmb	13 32 45.1	
	comp=Z,14nm,1.3s						
KPKS	Kokpek	73.63	46	*e*P	P	13 32 38.0	-0.4
KPKS	Kokpek	73.63	46	*e*P	P	13 32 38.1	-0.4
DGZ	Jazzator, Alta	73.70	37	*i* P	P	13 32 38.3	-0.5
DGZ				pmax	pmax		
	comp=Z,11nm,1.3s						
SATY	Saty	73.75	47	*e*P	P	13 32 38.8	-0.4
SATY	Saty	73.75	47	*e*P	P	13 32 38.8	-0.4
UZB	Uzynbulak	74.03	46	*e*P	P	13 32 40.4	-0.4
UZB	Uzynbulak	74.03	46	*e*P	P	13 32 40.4	-0.4
ZSN	Zaisan	74.09	40	*e*P	P	13 32 40.4	-0.5
ZSN	Zaisan	74.09	40	*e*P	P	13 32 40.5	-0.5
ASAI	AK-SAY(Kyrgyzs	74.11	49	P	P	13 32 43.4	+1.8
	comp=Z,3.9nm,1.4s						
SHLS	Shalkode	74.26	46	*e*P	P	13 32 43.1	+0.9
SHLS				pmax	pmax		
	comp=Z,7.0nm,1.5s						
SHLS	Shalkode	74.26	46	*e*P	P	13 32 43.2	+0.9
	comp=Z,7.3nm,1.5s						
TARG	Taragay, Kyrgy	74.30	48	P	P	13 32 46.8	+4.0
	comp=Z,9.3nm,1.1s						
KSH2	Kashi	74.72	51	P	P	13 32 46.3	+1.3
KSH2				pmax	pmax		
	comp=Z,11nm,1.3s						
KSH2				LR	LR		
	comp=N,150nm,11.8s						
KSH2				LR	LR		
	comp=E,190nm,15.9s						
KSH2				LR	LR		
	comp=Z,200nm,15.2s						
YAK	Yakutsk	75.56	10	*i* P	P	13 32 49.9	+0.8
YAK				pmax	pmax		
	comp=Z,7.0nm,0.8s						
SEY	Seymchan	76.03	359	*ce*P	P	13 32 48.8	-3.1
SEY				pmax	pmax		
	comp=Z,6.0nm,1.7s						
KNGR	Kungurtug, Tuv	77.30	32	*i* P	P	13 32 59.9	+0.5
KNGR				pmax	pmax		
	comp=Z,10.0nm,1.3s						
LSZ	Lusaka	77.43	123	LR	LR	14 07 57.5	
	comp=Z,351nm,18.1s,baz=331,slow=36						
MOY	Mondy	77.77	29	*e*P	P	13 33 02.0	0.0
MOY				pmax	pmax		
	comp=Z,23nm,2.8s						
WMQ	Urumqi	78.07	41	*e*P	P	13 33 07.0	+3.2
WMQ				pmax	pmax		
	comp=Z,12nm,1.1s						
WMQ				LR	LR		
	comp=Z,82nm,20.7s						
TLY	Talaya	78.71	28	LR	LR	14 07 11.5	
	comp=Z,32nm,19.1s,baz=334,slow=35						
MA2	Magadan	79.41	360	LR	LR	14 05 18.2	
	comp=Z,31nm,19.3s,baz=33,slow=34						
MATP	Matopo	81.52	127	LR	LR	14 10 36.1	
	comp=Z,114nm,18.2s,baz=320,slow=36						
SONM	Songino Array	82.91	28	P	P	13 33 29.2	-0.5
	comp=Z,3.0nm,1.0s,baz=323,slow=5.1,SNR=7.4						
SONM				LR	LR	14 12 09.2	
	comp=Z,52nm,18.1s,baz=348,slow=37						
	comp=Z,3.0nm,1.0s						
SONM	Songino Array	82.91	28	P	P	13 33 29.3	-0.5
ULN	Ulaanbaatar	83.12	28	*ce*P	P	13 33 31.0	+0.1
ULN				pmax	pmax		
	comp=Z,14nm,1.8s						
LBTB	Lobatse	83.37	132	LR	LR	14 08 05.4	
	comp=Z,188nm,21.9s,baz=322,slow=34						
SHEM	Shemya Is, Ala	84.11	346	LR	LR	14 13 16.6	
	comp=Z,28nm,18.5s,baz=317,slow=37						
PEA0B	Petropavlovsk-	85.70	356	*i* P	P	13 33 45.5	+1.8
PETK	Petropavlovsk-	85.70	356	LR	LR	14 12 24.9	
	comp=Z,85nm,18.4s,baz=333,slow=36						
BOSA	Boshof	86.00	134	LR	LR	14 08 40.4	
	comp=Z,202nm,21.5s,baz=357,slow=33						
SUR	Sutherland	86.72	139	LR	LR	14 08 02.2	
	comp=Z,53nm,21.0s,baz=330,slow=32						
GTA2	Gaotai	87.15	37	*e*P	P	13 33 50.5	-0.7
GTA2				pmax	pmax		
	comp=Z,4.0nm,1.4s						
KLR	Kul'dur	88.25	12	LR	LR	14 11 00.2	
	comp=Z,56nm,18.0s,baz=17,slow=34						
PLCA	Paso Flores	89.87	210	LR	LR	14 12 50.7	
	comp=Z,37nm,18.9s,baz=14,slow=34						
HHC	Hu-ho-hao-te	90.81	29	*e*P	P	13 34 07.3	-1.1
HHC				pmax	pmax		
	comp=Z,15nm,0.6s						
OPO	Ambohidratompo	92.41	113	LR	LR	14 15 09.1	
	comp=Z,118nm,20.0s,baz=89,slow=35						
USA0B	Ussuriysk Arra	93.18	13	*i* P	P	13 34 19.7	+0.6
PZH	PanZhiHua	98.68	43	P	P	13 34 44.0	-0.7
PALK	Pallekele	99.96	71	LR	LR	14 23 28.9	
	comp=Z,43nm,18.1s,baz=284,slow=38						
NJ2	Nanjing	101.27	27	*e*P	Pdif	13 34 53.8	-2.1
NJ2				pmax	pmax		
	comp=Z,9.0nm,0.6s						
QSPA	South Pole Qui	131.25	180	PKP	PKPdf	13 40 16.1	+0.1
	comp=Z,1.3nm,0.9s,baz=115,slow=2.5,SNR=3.0						
VNDA	Vanda	143.44	184	PKP	PKPdf	13 40 38.0	-0.1
	comp=Z,3.6nm,1.2s,baz=158,slow=1.5,SNR=5.8						
VNDA	Vanda	143.44	184		PKPdf	13 40 38.8	+0.6
WRA	Warramunga Arr	154.52	38	PKPbc	PKPbc	13 41 03.5	-2.5
	comp=Z,0.7nm,1.0s,baz=304,slow=5.4,SNR=3.8						
ASAR	Alice Springs	157.46	44	PKPab	PKPab	13 41 31.2	-1.7
	comp=Z,1.3nm,0.9s,baz=330,slow=4.3,SNR=8.4						

IDC 28 13:44:59.6±387.0**,52°.49N**×**44°.66E,h0km,Error ellipse: s-maj=156.2km s-min=115.9km az=137.0,Baltic States-Belarus-Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I43RU	DUBNA INFRASON	6.05	317	I	I	14 23 30.0	
	0.1nm,0.9s,baz=132,slow=309,SNR=6.1						
I31KZ	AKTYUBINSK INF	8.62	99	I	I	14 34 30.7	
	baz=290,slow=317,SNR=3.0						
I46RU	ZALESOVO INFRA	23.87	70	I	I	16 12 40.0	
	baz=286,slow=321,SNR=1.2						

SDD ***28*** *13:58:44.7±1.2, 18°.40N×71°.82W, h21km±6km, MD2.6, ML1.7, MW2.4, Presumed earthquake*

OSPL ***28*** *13:58:46.3±0.8, 18°.44N×71°.86W, h4km±111km, ML1.8, Presumed earthquake*

ISC 28 13:58:46.4±1.2**,18°.39N**±0°.04×**71°.81W**±0°.06**,h16km**±7km**, n8,**σ0s.87/15**,Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JIDR	Jimani	0.10	338	*e*P	Pg	13 58 50.1	+0.2
JIDR				*e*S	Sg	13 58 52.6	+0.5
JIDR				IAML		13 58 54.2	
	comp=N,162nm,0.2s						
JIDR				IAML		13 58 54.4	
	comp=E,220nm,0.2s						
LODU1	El Espartillar	0.32	97	*i* P	Pg	13 58 52.6	-0.5
LODU1				*e*S	Sg	13 58 58.1	+0.3
LODU1				IAML		13 59 03.8	
	comp=Z,123nm,0.3s						
NEDR	Neiba UASD	0.38	76	*e*Sg	Sb	13 59 02.0	+1.5
NEDR				IAML		13 59 02.7	
	comp=N,55nm,0.2s						
LONE3	El Aguacate, B	0.39	58	*i* P	Pb	13 58 54.2	-0.9
LONE3				*e*S	Sg	13 58 59.0	-1.0
LONE3				IAML		13 59 00.9	
	comp=Z,19nm,0.7s						
PODR	Polo	0.55	114	*i* P	Pb	13 58 57.5	-0.3
PODR				*e*S	Sg	13 59 05.5	+0.6
PODR				IAML		13 59 08.9	
	comp=Z,451nm,0.1s						
PODR	Polo	0.55	114	*e*Pg	Pb	13 58 57.7	-0.2
PODR				*e*Sg	Sb	13 59 07.0	+1.4
PODR				IAML		13 59 09.7	
	comp=E,83nm,0.4s						
PODR				IAML		13 59 11.2	
	comp=N,75nm,1.0s						
LOBH	Bahia de las A	0.55	163	*i* P	Pg	13 58 57.0	-0.5
LOBH				*e*S	Sb	13 59 05.6	+0.2
LOBH				IAML		13 59 12.5	
	comp=Z,20nm,0.6s						
REDR	Restauracion	0.86	27	*e*Pg	Pn	13 59 03.5	-0.4
REDR				*e*Sg	Sn	13 59 16.9	+0.7
REDR				IAML		13 59 18.3	
	comp=E,11nm,0.1s						
REDR				IAML		13 59 18.8	
	comp=N,13nm,0.1s						

IDC ***28*** *14:11:40.4±0.8, 17°.16S×167°.66E, h0km, mb4.2/12, mbtmp4.3/14, ML4.8/3, MS3.9/38, Error ellipse: s-maj=22.6km s-min=13.3km az=87.0*

NOU ***28*** *14:11:42.4, 17°.23S×167°.66E, h20km, MLv5.0/46, Vanuatu Islands*

NEIC ***28*** *14:11:42.2±1.5, 17°.10S±0°.06×167°.6E±0°.1, h10km±1km, mb4.7/22, Error ellipse: s-maj=18.6km s-min=9.5km az=87.0*

ISC 28 14:11:43.8±0.4**,17°.20S**±0°.04×**167°.64E**±0°.05**,h25km,n124,** σ**1s.10**/98**,mb4.5**/20**,MS3.9**/35**,1D,Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DVP	Devils Point	0.74	135	P	Pb	14 11 58.0	-0.1
DVP	Devils Point	0.74	135	S	Sb	14 12 07.0	-0.9
RTV	Rentapao	0.95	129	P	Pn	14 12 00.7	-1.0
RTV	Rentapao	0.95	129	S	Sb	14 12 13.3	-0.7
SANVU	Saraoutou	1.79	346	P	Pn	14 12 10.6	-2.5
SANVU	Saraoutou	1.79	346	S	Sn	14 12 34.2	-0.9
SANVU	Saraoutou	1.79	346		Pn	14 12 10.9	-2.3
MARNC	Mare, Loyalty	4.28	175	P	Pn	14 12 45.3	-2.1
MARNC	Mare, Loyalty	4.28	175		Pn	14 12 45.5	-1.9
KOUNC	Koumac, New Ca	4.61	223	P	Pn	14 12 51.3	-0.6
KOUNC	Koumac, New Ca	4.61	223	S	Sn	14 13 44.2	-0.5
KOUNC	Koumac, New Ca	4.61	223		Pn	14 12 51.1	-0.9
YATNC	Mamie plateau,	4.89	188	P	Pn	14 12 54.1	-1.7
YATNC	Mamie plateau,	4.89	188	S	Sn	14 13 50.9	-0.8
DZM	Mont Dzumac	4.98	193	Pn	Pn	14 12 56.2	-0.9
	9.3nm,0.3s,baz=15,slow=18,SNR=83						
DZM				Sn	Sn	14 13 50.6	-3.4
	15nm,0.3s,baz=297,slow=15,SNR=7.9						
DZM				LR	LR	14 14 35.9	
	comp=Z,1µm,20.0s,baz=5.5,slow=35						
	20nm,0.3s						
DZM				AML	AML		
NOUC	Port Laguerre	5.04	194	P	Pn	14 12 56.7	-1.2
NOUC	Port Laguerre	5.04	194	S	Sn	14 13 54.1	-1.3
ONTNC	Ouen Toro	5.21	192	P	Pn	14 12 58.9	-1.3
ONTNC	Ouen Toro	5.21	192	S	Sn	14 13 57.0	-2.5
ONTNC	Ouen Toro	5.21	192		Pn	14 12 59.4	-0.8
OUENC	Ouen Island, N	5.25	188	P	Pn	14 13 00.1	-0.7
OUENC	Ouen Island, N	5.25	188	S	Sn	14 14 00.4	-0.1
OUENC	Ouen Island, N	5.25	188		Pn	14 13 01.2	+0.4
HURO	Huro Makira	8.71	319	P	Pn	14 13 48.0	-0.3
NGOA	Tingoa Renbel	9.24	306	P	Pn	14 13 54.5	-1.1
MSVF	Nonsavu	9.95	95	Pn	Pn	14 14 11.5	+6.1

	0.6nm,0.3s,baz=261,slow=17,SNR=5.9						
MSVF				LR	LR	14 17 13.8	
	comp=Z,1µm,19.5s,baz=243,slow=34						
MSVF	**Nonsavu**	**9.95**	**95**	P	**Pn**	**14 14 04.6**	**-0.8**
HNR	**Honiara**	**10.75**	**315**	Pn	**Pn**	**14 14 16.9**	**+0.6**
	8.1nm,0.3s,baz=182,slow=3.6,SNR=4.7						
HNR				LR	LR	14 18 01.7	
	comp=Z,780nm,18.8s,baz=221,slow=36						
	99nm,0.8s						
HNR				AML	AML		
TATA	**Tatamba Isabel**	**11.62**	**318**	P	**Pn**	**14 14 29.2**	**+1.0**
LHI	**Lord Howe Isla**	**16.25**	**207**	P	**P**	**14 15 34.3**	**+0.9**
ARMA	**Armidale**	**19.66**	**225**	P	**P**	**14 16 10.7**	**-0.4**
RABL	**Rabaul**	**19.93**	**309**	P	**P**	**14 16 11.7**	**-2.4**
KRVT	**Keravat (AS076**	**19.96**	**308**	P	**Pn**	**14 16 15.7**	**-0.4**
	12nm,0.3s,baz=100,slow=16,SNR=4.9						
KRVT				AML	AML		
CTA	**Charters Tower**	**20.47**	**259**	P	**P**	**14 16 21.1**	**+1.2**
	7.9nm,0.7s,baz=83,slow=11,SNR=8.5						
CTA				LR	LR	14 22 45.8	
	comp=Z,227nm,19.1s,baz=62,slow=32						
	7.9nm,0.7s						
CTA	**Charters Tower**	**20.47**	**259**	P	**P**	**14 16 19.6**	**-0.3**
CTAO	**Charters Tower**	**20.47**	**259**	P	**P**	**14 16 19.7**	**-0.2**
CTAO	**Charters Tower**	**20.47**	**259**	P	**P**	**14 16 19.6**	**-0.3**
PMG	**Port Moresby**	**21.37**	**289**	LR	LR	14 23 24.7	
	comp=Z,269nm,18.8s,baz=108,slow=33						
TOZ	**Tahuroa Road**	**21.60**	**163**	P	**P**	**14 16 33.8**	**+2.0**
TOZ				IAmb	IAmb	14 16 49.2	
	comp=Z,109nm,1.4s						
URZ	**Urewera**	**22.57**	**160**	LR	LR	14 24 17.7	
	comp=Z,554nm,18.8s,baz=338,slow=34						
URZ	**Urewera**	**22.57**	**160**	P	**P**	**14 16 42.4**	**+0.1**
BKZ	**Black Stump Fm**	**23.21**	**162**	P	**P**	**14 16 49.7**	**+0.7**
MRZ	**Mangatainoka R**	**24.37**	**165**	P	**P**	**14 17 00.7**	**+0.7**
CMSA	**Cobar Meteorol**	**24.50**	**230**	P	**P**	**14 17 01.8**	**+0.5**
TCW	**Tory Channel**	**24.61**	**168**	P	**P**	**14 17 03.5**	**+1.4**
QIS	**Mount Isa**	**26.73**	**258**	P	**P**	**14 17 22.1**	**+0.5**
STKA	**Stephens Creek**	**27.74**	**233**	P	**P**	**14 17 31.3**	**+0.7**
	comp=Z,2.8nm,0.5s,baz=56,slow=7.3,SNR=8.3						
STKA				LR	LR	14 26 46.9	
	comp=Z,122nm,21.8s,baz=50,slow=33						
	comp=Z,2.8nm,0.5s						
STKA	**Stephens Creek**	**27.74**	**233**	P	**P**	**14 17 31.1**	**+0.5**
CORO	**Coronation Par**	**29.91**	**212**	P	**P**	**14 17 48.8**	**-0.9**
JAY	**Jayapura**	**30.21**	**296**	LR	LR	14 29 57.8	
	comp=Z,153nm,19.1s,baz=46,slow=36						
RAR	**Rarotonga**	**31.00**	**103**	LR	LR	14 29 34.9	
	comp=Z,81nm,18.9s,baz=304,slow=35						
WR8	**Warramunga Arr**	**31.51**	**260**	P	**P**	**14 18 03.7**	**-0.4**
WR8				IAmb	IAmb	14 18 08.1	
	comp=Z,13nm,1.3s						
WB0	**Warramunga Arr**	**31.61**	**260**	P	**P**	**14 18 04.5**	**-0.5**
WB0				IAmb	IAmb	14 18 45.3	
	comp=Z,6.3nm,0.9s						
WRAB	**Tennant Creek**	**31.65**	**260**	P	**P**	**14 18 04.3**	**-1.0**
WRA	**Warramunga Arr**	**31.66**	**260**	P	**P**	**14 18 04.2**	**-1.3**
	comp=Z,2.7nm,0.8s,baz=82,slow=6.1,SNR=23						
WRA				PcP	**PcP**	**14 20 58.2**	**+1.0**
	comp=Z,0.5nm,0.8s,baz=98,slow=2.9,SNR=2.2						
	comp=Z,2.7nm,0.8s						
WRA	**Warramunga Arr**	**31.66**	**260**	P	**P**	**14 18 04.5**	**-0.9**
AS31	**Alice Springs**	**32.21**	**253**	P	**P**	**14 18 09.5**	**-0.8**
AS31				IAmb	IAmb	14 18 10.5	
	comp=Z,3.1nm,0.6s						
ASAR	**Alice Springs**	**32.21**	**253**	P	**P**	**14 18 09.5**	**-0.8**
	comp=Z,6.4nm,0.5s,baz=79,slow=8.7,SNR=211						
ASAR				PcP	**PcP**	**14 20 59.4**	**+0.7**
	comp=Z,0.4nm,0.7s,baz=76,slow=2.5,SNR=1.7						
ASAR				LR	LR	14 30 08.4	
	comp=Z,234nm,18.3s,baz=94,slow=34						
	comp=Z,6.4nm,0.5s						
ASAR	**Alice Springs**	**32.21**	**253**	P	**P**	**14 18 09.2**	**-1.1**
BBOO	**Buckleboo**	**32.42**	**235**	P	**P**	**14 18 12.3**	**+0.4**
KNRA	**Kununurra**	**37.28**	**267**	P	**P**	**14 18 53.4**	**-0.7**
KNRA				IAmb	IAmb	14 19 07.2	
	comp=Z,10nm,1.4s						
GUMO	**Guam**	**37.96**	**322**	LR	LR	14 36 32.8	
	comp=Z,138nm,18.0s,baz=142,slow=39						
SIJI	**Sorong**	**39.29**	**291**	LR	LR	14 37 43.0	
	comp=Z,85nm,18.0s,baz=196,slow=40						
FITZ	**Fitzroy Crossi**	**39.97**	**262**	LR	LR	14 34 21.2	
	comp=Z,230nm,21.8s,baz=88,slow=34						
FITZ	**Fitzroy Crossi**	**39.97**	**262**	P	**P**	**14 19 16.5**	**-0.2**
FITZ	**Fitzroy Crossi**	**39.97**	**262**	P	**P**	**14 19 16.7**	**0.0**
PPT2	**Papeete2**	**40.76**	**97**	*e*S	**S**	**14 25 31.2**	**-1.7**
	comp=Z,156nm,24.5s						
PPT2				*e*SS	**SS**	**14 28 34.5**	**+0.3**
	comp=Z,108nm,24.2s						
PPT2				*e*LR	LR	14 30 31.0	
	comp=Z,278nm,26.8s						
PPT2				*e*LR	LR	14 30 33.8	
	comp=Z,230nm,30.8s						
PPT	**Papeete**	**40.77**	**97**	LR	LR	14 32 20.1	
	comp=Z,119nm,20.4s,baz=289,slow=30						
BATI	**Baumata**	**43.21**	**273**	LR	LR	14 36 56.8	
	comp=Z,164nm,18.2s,baz=143,slow=35						
MBWA	**Marble Bar**	**45.30**	**257**	P	**P**	**14 20 00.0**	**+0.1**
MBWA				IAmb	IAmb	14 20 03.4	
	comp=Z,11nm,0.8s						
MEEK	**Meekatharra**	**46.21**	**249**	P	**P**	**14 20 06.9**	**-0.3**
NWAO	**Narrogin (SRO)**	**47.83**	**241**	P	**P**	**14 20 20.0**	**+0.3**
MORW	**Morawa**	**48.57**	**246**	P	**P**	**14 20 25.2**	**-0.2**
MORW	**Morawa**	**48.57**	**246**	P	**P**	**14 20 25.1**	**-0.2**
MORW				IAmb	IAmb	14 20 52.1	
	comp=Z,23nm,1.3s						
TAOE	**Nuku Hiva Isla**	**51.41**	**88**	*e*LR	LR	14 35 31.3	
	comp=Z,194nm,29.8s						
JAGI	**Jajag, Banyuwa**	**52.73**	**272**	P	**P**	**14 20 56.7**	**-0.3**
LEM	**Lembang**	**59.41**	**272**	LR	LR	14 48 12.0	
	comp=Z,173nm,19.5s,baz=220,slow=37						
JGF	**Kuroka**	**59.84**	**332**	P	**P**	**14 21 47.1**	**-0.2**
MJAR	**Matsushiro Arr**	**60.25**	**333**	P	**P**	**14 21 48.7**	**-1.4**
	comp=Z,3.2nm,0.9s,baz=161,slow=7.7,SNR=5.3						
MJAR				LR	LR	14 47 13.3	
	comp=Z,22nm,19.6s,baz=116,slow=35						
	comp=Z,3.2nm,0.9s						
MJB9	**Matsu-Tunnel**	**60.25**	**333**	P	**P**	**14 21 50.0**	**-0.2**
VNDA	**Vanda**	**60.42**	**181**	P	**P**	**14 21 51.5**	**+0.7**
	comp=Z,0.5nm,0.8s,baz=2.8,slow=6.1,SNR=5.2						
VNDA				LR	LR	14 43 09.7	
	comp=Z,59nm,21.4s,baz=16,slow=31						
	comp=Z,0.5nm,0.8s						
VNDA	**Vanda**	**60.42**	**181**	IAmb	IAmb	14 21 54.1	
	comp=Z,8.9nm,1.8s						
SBA	**Scott Base**	**60.69**	**180**	P	**P**	**14 21 54.5**	**+1.9**
SBA				IAmb	IAmb	14 22 08.1	
	comp=Z,5.8nm,0.8s						
JNU	**Nakatsue**	**61.13**	**325**	LR	LR	14 44 59.3	
	comp=Z,26nm,21.7s,baz=101,slow=33						
ASAJ	**Asahikawa**	**65.17**	**340**	LR	LR	14 46 25.2	
	comp=Z,65nm,20.0s,baz=112,slow=32						
KSRS	**Korea Array**	**65.97**	**326**	P	**P**	**14 22 29.4**	**+1.3**
	comp=Z,0.9nm,0.8s,baz=140,slow=6.3,SNR=3.2						
KSRS				LR	LR	14 48 19.1	
	comp=Z,37nm,21.4s,baz=135,slow=33						
	comp=Z,0.9nm,0.8s						
SHEM	**Shemya Is, Ala**	**69.86**	**4**	LR	LR	14 48 20.7	
	comp=Z,159nm,20.4s,baz=176,slow=32						
PETK	**Petropavlovsk-**	**70.54**	**354**	LR	LR	14 49 02.1	
	comp=Z,85nm,19.8s,baz=217,slow=32						
QSPA	**South Pole Qui**	**72.85**	**180**	P	**P**	**14 23 11.2**	**+0.8**
	comp=Z,5.7nm,0.8s,baz=64,slow=2.8,SNR=29						
QSPA				LR	LR	14 54 18.8	
	comp=Z,83nm,18.1s,baz=36,slow=35						
	comp=Z,5.7nm,0.8s						
QSPA	**South Pole Qui**	**72.85**	**180**	P	**P**	**14 23 11.4**	**+1.0**
QSPA				IAmb	IAmb	14 23 23.9	
	comp=Z,17nm,1.1s						
KLR	**Kul'dur**	**73.40**	**336**	LR	LR	14 51 25.8	
	comp=Z,42nm,21.8s,baz=147,slow=32						
CMAR	**Chiang Mai Arr**	**76.28**	**294**	P	**P**	**14 23 31.9**	**+0.9**
	comp=Z,0.4nm,0.3s,baz=109,slow=6.7,SNR=1.7						
CMAR				LR	LR	14 57 46.9	
	comp=Z,12nm,18.9s,baz=115,slow=36						
	comp=Z,0.4nm,0.3s						
CMAR	**Chiang Mai Arr**	**76.28**	**294**	P	**P**	**14 23 30.7**	**-0.3**
RPN	**Rapa Nui**	**76.31**	**114**	LR	LR	14 53 00.6	
	comp=Z,46nm,19.1s,baz=138,slow=32						
MA2	**Magadan**	**77.72**	**351**	LR	LR	14 51 22.5	
	comp=Z,86nm,21.6s,baz=160,slow=31						
MAW	**Mawson**	**79.75**	**202**	LR	LR	14 54 41.8	
	comp=Z,85nm,20.1s,baz=106,slow=32						
BELA	**Belgrano 2**	**84.25**	**175**	P	**P**	**14 24 13.8**	**+0.9**
YAK	**Yakutsk**	**84.48**	**343**	LR	LR	15 01 06.2	
	comp=Z,56nm,19.2s,baz=108,slow=35						
SONM	**Songino Array**	**84.68**	**324**	P	**P**	**14 24 16.4**	**+0.8**
	comp=Z,1.1nm,0.7s,baz=140,slow=7.0,SNR=5.4						
SONM				LR	LR	15 01 38.9	
	comp=Z,48nm,19.0s,baz=91,slow=35						
	comp=Z,1.1nm,0.7s						
SONM	**Songino Array**	**84.68**	**324**	P	**P**	**14 24 15.5**	**-0.1**
SONM				IAmb	IAmb	14 24 31.8	
	comp=Z,5.1nm,1.4s						
GTA2	**Gaotai**	**84.70**	**314**	*e*P	**P**	**14 24 16.8**	**+0.9**
GTA2				pmax	pmax		
	comp=Z,3.0nm,1.3s						
ELIB	**Princess Elisa**	**87.87**	**190**	*d*P	**P**	**14 24 31.5**	**+0.5**
	comp=Z,2.2nm,1.1s						
PFO	**Pinyon Flats O**	**88.14**	**54**	LR	LR	14 55 06.0	
	comp=Z,97nm,21.6s,baz=286,slow=30						
TLY	**Talaya**	**88.22**	**326**	LR	LR	15 04 13.1	
	comp=Z,53nm,18.0s,baz=82,slow=36						
NVAR	**Mina Array Bea**	**88.60**	**49**	P	**P**	**14 24 35.6**	**+0.5**
	comp=Z,0.4nm,0.5s,baz=218,slow=7.0,SNR=4.0						
	comp=Z,0.4nm,0.5s						
BBB	**Bella Bella**	**88.61**	**34**	LR	LR	14 58 04.8	
	comp=Z,116nm,18.9s,baz=222,slow=31						
ILAR	**Eielson Array**	**88.75**	**18**	LR	LR	14 58 33.5	
	comp=Z,134nm,19.6s,baz=160,slow=32						
PALK	**Pallekele**	**89.22**	**278**	LR	LR	15 06 26.5	
	comp=Z,39nm,19.3s,baz=172,slow=37						
ELK	**Elko**	**91.67**	**48**	LR	LR	15 01 09.8	
	comp=Z,109nm,18.4s,baz=326,slow=32						
INK	**Inuvik**	**95.10**	**19**	LR	LR	15 03 07.6	
	comp=Z,129nm,19.0s,baz=278,slow=32						
PV19	**Morning Glory**	**95.43**	**52**	P	**P**	**14 25 08.7**	**+1.9**
MKAR	**Makanchi Array**	**99.22**	**316**	P	**Pdif**	**14 25 25.3**	**+1.9**
	comp=Z,0.3nm,0.7s,baz=96,slow=4.3,SNR=2.5						
	comp=Z,0.3nm,0.7s						
ARCES	**ARCESS Array B**	**122.71**	**345**	PKP	**PKPdf**	**14 30 36.4**	**-0.5**
	comp=Z,0.8nm,0.4s,baz=68,slow=1.6,SNR=15						
FINES	**FINESS Array B**	**128.13**	**338**	PKP	**PKPdf**	**14 30 47.2**	**-0.2**
	comp=Z,0.7nm,0.5s,baz=39,slow=0.9,SNR=7.9						
NOA	**NORSAR Array B**	**133.08**	**345**	PKP	**PKiKP**	**14 30 57.8**	**-0.3**
	comp=Z,0.4nm,0.7s,baz=32,slow=1.9,SNR=1.7						
GERES	**GERESS Array B**	**141.98**	**332**	PKP	**PKiKP**	**14 31 15.1**	**-1.6**
	comp=Z,0.5nm,0.2s,baz=9.8,slow=5.2,SNR=4.3						
SOKA	**Soboth**	**142.88**	**328**	*i* PKP	**PKPdf**	**14 31 16.2**	**+0.8**
	comp=Z,9.5nm,1.5s						
LESA	**Schwarzleotal**	**143.49**	**331**	*e*PKP	PKPbc	14 31 14.9	+1.2
	comp=Z,2.0nm,0.4s						
ABTA	**Abfaltersbach**	**144.06**	**330**	*i* PKP	PKPbc	14 31 15.7	+0.2
	comp=Z,3.9nm,0.5s						
WTTA	**Wattenberg**	**144.09**	**332**	*e*PKP	**PKPdf**	**14 31 17.3**	**-0.4**
	comp=Z,7.9nm,1.4s						
MOTA	**Moosalm**	**144.26**	**332**	*i* PKiKP	**PKiKP**	**14 31 23.3**	**+1.8**
	comp=Z,7.2nm,0.9s						
RETA	**Reutte**	**144.30**	**333**	*i* PKP	**PKPdf**	**14 31 17.5**	**-0.3**
	comp=Z,1.5nm,0.5s						
RETA				*i* PKiKP	**PKiKP**	**14 31 22.6**	**+1.1**
	comp=Z,4.6nm,1.0s						
FETA	**Feichten**	**144.68**	**332**	*i* PKP	**PKPdf**	**14 31 18.0**	**-0.6**
	comp=Z,3.0nm,0.7s						
DAVA	**Damuels**	**144.84**	**333**	*i* PKP	**PKPdf**	**14 31 18.3**	**-0.6**
	comp=Z,4.2nm,0.5s						

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*IDC **28** 14:15:37.8±1.6, 17°.08S×167°.66E, h0^{km}, mb3.9/4, mbtmp4.0/5, ML3.7/1, Error ellipse: s-maj=36.4km s-min=23.7km az=87.0*

*NEIC **28** 14:15:38.6±0.9, 17°.17S±0°.06×167°.8E±0°.1, h10^{km}±2^{km}, mb4.1/7, Error ellipse: s-maj=17.8km s-min=9.8km az=73.0*

ISC 28 14:15:40.9±1.0**, 17°.21S**±0°.06×**167°.7E**±0°.1**, h25**^{km}**, n18,** σ1^s.**02**/19**, mb4.0**/6**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SANVU	**Saraoutou**	**1.83**	**344**	Pn	**Pn**	**14 16 09.6**	**-1.2**
MARNC	**Mare, Loyalty**	**4.26**	**176**	Pn	**Pn**	**14 16 43.0**	**-1.2**
KOUNC	**Koumac, New Ca**	**4.66**	**224**	Pn	**Pn**	**14 16 49.6**	**-0.1**
DZM	**Mont Dzumac**	**4.99**	**194**	Pn	**Pn**	**14 16 54.1**	**-0.1**
	2.5nm,0.3s,baz=342,slow=16,SNR=1.7						
DZM				Sn	**Sn**	**14 17 48.9**	**-2.3**
	1.9nm,0.3s,baz=320,slow=23,SNR=1.4						
	8.8nm,0.4s						
DZM				AML	AML		
ONTNC	**Ouen Toro**	**5.21**	**193**	Pn	**Pn**	**14 16 57.0**	**-0.3**
CTA	**Charters Tower**	**20.55**	**259**	P	Pn	14 20 19.6	-0.5
	6.7nm,0.9s,baz=90,slow=9.6,SNR=3.8						
	6.7nm,0.9s						
CTAO	**Charters Tower**	**20.55**	**259**	P	**P**	**14 20 18.2**	**+0.3**
CTAO				IAmb	IAmb	14 20 21.3	
	comp=Z,10nm,0.9s						
RTZ	**Ruatahuna**	**22.81**	**161**	P	**P**	**14 20 41.7**	**-0.2**
MRNZ	**Matariki Terra**	**24.49**	**171**	P	**P**	**14 20 57.9**	**-0.2**
WB0	**Warramunga Arr**	**31.70**	**260**	P	**P**	**14 22 02.7**	**-0.1**
WB0				IAmb	IAmb	14 22 18.0	
	comp=Z,5.0nm,1.1s						
WRA	**Warramunga Arr**	**31.75**	**260**	P	**P**	**14 22 02.8**	**-0.5**
	comp=Z,0.7nm,0.8s,baz=85,slow=9.1,SNR=3.4						
	comp=Z,0.7nm,0.8s						
AS31	**Alice Springs**	**32.29**	**253**	P	**P**	**14 22 07.8**	**-0.2**
AS31				IAmb	IAmb	14 22 22.7	
	comp=Z,1.1nm,0.7s						
ASAR	**Alice Springs**	**32.29**	**253**	P	**P**	**14 22 08.0**	**0.0**
	comp=Z,1.3nm,0.6s,baz=80,slow=8.3,SNR=11						
ASAR				PcP	**PcP**	**14 24 55.7**	**-0.3**
	comp=Z,0.4nm,1.0s,baz=96,slow=3.6,SNR=2.2						
	comp=Z,1.3nm,0.6s						
ASAR	**Alice Springs**	**32.29**	**253**	P	**P**	**14 22 07.8**	**-0.2**
FITZ	**Fitzroy Crossi**	**40.06**	**262**	P	**P**	**14 23 14.7**	**+0.2**
FITZ				IAmb	IAmb	14 23 55.9	
	comp=Z,2.2nm,1.4s						
QSPA	**South Pole Qui**	**72.83**	**180**	P	**P**	**14 27 09.7**	**+2.3**
	comp=Z,1.7nm,0.8s,baz=7.9,slow=3.2,SNR=7.0						
	comp=Z,1.7nm,0.8s						
QSPA	**South Pole Qui**	**72.83**	**180**	P	**P**	**14 27 09.0**	**+1.6**
QSPA				IAmb	IAmb	14 27 22.6	
	comp=Z,6.7nm,1.2s						
ARCES	**ARCESS Array B**	**122.75**	**345**	PKP	**PKiKP**	**14 34 34.5**	**+0.4**
	comp=Z,1.0nm,0.6s,baz=43,slow=2.1,SNR=6.8						

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*SJA **28** 14:26:01.4±0.9, 29°.25S×71°.44W, h25^{km}±4^{km}, ML3.9, MW3.9*

*GUC **28** 14:26:04.2±0.6, 29°.26S×71°.22W, h51^{km}±2^{km}, ML3.9*

*NEIC **28** 14:26:05.1±0.7, 29°.26S±0°.03×71°.27W±0°.06, h35^{km}±2^{km}, ML4.1/44, ML3.9(GUC), Error ellipse: s-maj=10.2km s-min=3.1km az=120.0*

ISC 28 14:26:02.6±1.4**, 29°.27S**±0°.02×**71°.27W**±0°.04**, h14**^{km}±10^{km}**, n63,** σ1^s.**70**/86**, 1C-4D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LCO	**Las Campanas**	**0.56**	**63**	*e*P	**Pn**	**14 26 16.3**	**-0.1**
LCO				*e*S	**Sn**	**14 26 25.7**	**+0.1**
LCO				IAML		14 26 26.4	
	comp=Z,11µm,0.3s						
LCO	**Las Campanas**	**0.56**	**63**	*i* P	**Pn**	**14 26 15.7**	**-0.7**
LCO				*i* S	**Sn**	**14 26 24.5**	**-1.2**
LCO	**Las Campanas**	**0.56**	**63**		**Pn**	**14 26 16.4**	**0.0**
LCO				IAML		14 26 26.6	
	comp=Z,12µm,0.3s						
AC05	**El Transito**	**0.97**	**64**	*e*P	Pb	14 26 09.6	-12
AC05				*e*P		14 26 22.4	
AC05				*e*S	**Sn**	**14 26 38.4**	**+2.7**
AC05	**El Transito**	**0.97**	**64**	⇓*i*P	**Pn**	**14 26 22.3**	**+0.3**
AC05				*i* S	**Sb**	**14 26 34.8**	**+0.7**
AC05	**El Transito**	**0.97**	**64**		**Pn**	**14 26 22.3**	**+0.3**
GO04	**Tololo Observa**	**0.99**	**156**	*e*P	**Pn**	**14 26 22.3**	**0.0**
GO04				*e*S	**Sg**	**14 26 32.8**	**-2.0**
GO04				IAML		14 26 36.6	
	comp=Z,2µm,0.2s						
GO04	**Tololo Observa**	**0.99**	**156**	⇑*i*P	**Pn**	**14 26 22.6**	**+0.3**
GO04				IAML		14 26 37.1	
	comp=N,9µm,0.2s						
GO04	**Tololo Observa**	**0.99**	**156**		**Pn**	**14 26 22.6**	**+0.3**
GO04				IAML		14 26 37.0	
	comp=E,7µm,0.3s						
AC04	**Llanos de Chal**	**1.07**	**9**	*e*P	**Pn**	**14 26 23.6**	**+0.4**
AC04				*e*S	**Sn**	**14 26 37.8**	**-0.1**
AC04				IAML		14 26 41.3	
	comp=Z,3µm,0.4s						
AC04	**Llanos de Chal**	**1.07**	**9**	⇓*i*P	**Pn**	**14 26 24.0**	**+0.8**
AC04				*i* S	**Sn**	**14 26 37.5**	**-0.5**
AC04				IAML		14 26 41.4	
	comp=N,4µm,0.2s						
AC04	**Llanos de Chal**	**1.07**	**9**		**Pn**	**14 26 23.8**	**+0.6**
AC04				IAML		14 26 40.1	
	comp=E,4µm,0.3s						
AC04				IAML		14 26 41.3	
	comp=N,5µm,0.4s						
CO01	**Juntas del Tor**	**1.25**	**125**	*e*P	**Pg**	**14 26 26.9**	**+0.2**
CO01				*e*S	**Sg**	**14 26 43.0**	**+0.2**
CO01				IAML		14 26 43.5	
	comp=Z,1µm,0.3s						
CO01	**Juntas del Tor**	**1.25**	**125**	*i* P	**Pg**	**14 26 26.8**	**+0.2**
CO01				*i* S	**Sb**	**14 26 41.5**	**-0.6**
CO01	**Juntas del Tor**	**1.25**	**125**		**Pg**	**14 26 26.7**	**+0.2**
CO06	**Fray Jorge**	**1.44**	**193**	⇓*i*P	**Pb**	**14 26 28.8**	**-0.4**
CO06				*i* S	**Sn**	**14 26 47.2**	**+0.2**
CO06	**Fray Jorge**	**1.44**	**193**		**Pb**	**14 26 28.8**	**-0.4**
CO03	**El Pedregal**	**1.65**	**162**		**Pn**	**14 26 31.8**	**+0.6**
CO03				IAML		14 26 54.4	
	comp=N,2µm,0.3s						
AROD	**Rodeo**	**1.80**	**120**	*e*P	**Pb**	**14 26 36.1**	**+0.5**
AROD				*e*S	**Sg**	**14 26 59.9**	**-0.8**
GO03	**Copiapo**	**1.90**	**29**	*e*P	**Pn**	**14 26 35.3**	**+0.7**
GO03				*e*S	**Sg**	**14 27 05.6**	**+1.9**
GO03				IAML		14 27 09.8	
	comp=Z,759nm,0.5s						
GO03	**Copiapo**	**1.90**	**29**	*i* P	**Pn**	**14 26 34.6**	**0.0**
GO03				IAML		14 27 09.3	
	comp=N,910nm,0.3s						
GO03	**Copiapo**	**1.90**	**29**		**Pn**	**14 26 34.8**	**+0.1**
GO03				IAML		14 27 09.3	
	comp=N,1µm,0.3s						
CO02	**Combarbal**	**1.94**	**173**	*e*P	**Pn**	**14 26 35.8**	**+0.4**
CO02				*e*S	**Sn**	**14 27 00.9**	**+1.2**
CO02				IAML		14 27 03.0	
	comp=Z,1µm,0.3s						
CO02	**Combarbal**	**1.94**	**173**	⇓*i*P	**Pn**	**14 26 35.7**	**+0.4**
CO02				*i* S	**Sn**	**14 26 59.0**	**-0.7**
CO02	**Combarbal**	**1.94**	**173**		**Pn**	**14 26 35.8**	**+0.4**
ACDV	**Cuesta del Vie**	**2.08**	**116**	*e*P	**Pb**	**14 26 40.0**	**-0.2**
ACDV				*e*S	**Sn**	**14 26 54.4**	**-8.6**
ACDV				IAML		14 27 09.2	
	comp=Z,368nm,0.4s						
ACCO	**Cerro Coronel**	**2.32**	**125**	*e*P	**Pb**	**14 26 43.9**	**-0.6**
ACCO				*e*S	**Sn**	**14 27 10.1**	**+0.8**
ACCO				*e*S		14 27 15.9	
ACCO				IAML		14 27 16.0	
	comp=Z,295nm,0.4s						
CO04	**Los Peladeros**	**2.78**	**175**	*i* P	**Pn**	**14 26 47.5**	**+0.5**
CO04				*i* S	**Sn**	**14 27 20.8**	**+0.3**
CO04				IAML		14 27 33.5	
	comp=N,1µm,0.5s						
CO04	**Los Peladeros**	**2.78**	**175**		**Pn**	**14 26 47.5**	**+0.5**
CO04				IAML		14 27 31.8	
	comp=E,869nm,0.6s						
RTLS	**Leoncito**	**3.04**	**146**	*e*P	**Pn**	**14 26 53.6**	**+3.0**
RTLS				*e*S	**Sb**	**14 27 35.2**	**+1.2**
RTLS				*e*S		14 27 35.8	
RTLS				IAML		14 27 40.7	
	comp=Z,755nm,0.4s						
AC02	**Maricunga**	**3.07**	**39**	*e*P	**Pn**	**14 26 53.5**	**+2.3**
AC02				*e*S	**Sb**	**14 27 32.6**	**-2.4**
AC02				IAML		14 27 44.5	
	comp=Z,332nm,0.3s						
AC02	**Maricunga**	**3.07**	**39**	*i* P	**Pn**	**14 26 53.3**	**+2.1**
AC02				IAML		14 27 47.2	
	comp=E,562nm,0.4s						
AC02	**Maricunga**	**3.07**	**39**		**Pn**	**14 26 51.3**	**+0.1**
AC02				IAML		14 27 46.0	
	comp=N,398nm,0.4s						
AC02				IAML		14 27 47.1	
	comp=E,508nm,0.3s						
AC01	**Pan de Azucar**	**3.16**	**11**	*i* P	**Pn**	**14 26 51.2**	**-0.8**
AC01				IAML		14 27 48.0	
	comp=E,242nm,0.4s						
AC01	**Pan de Azucar**	**3.16**	**11**		**Pn**	**14 26 51.3**	**-0.7**
TINO	**Tinogasta**	**3.47**	**71**	*e*P	**Pn**	**14 26 58.3**	**+2.0**
TINO				*e*S	**Sb**	**14 27 47.1**	**+1.2**
TINO				IAML		14 27 50.7	
	comp=Z,144nm,1.5s						
CFA	**Coronel Fontan**	**3.51**	**132**	*e*P	**Pn**	**14 26 59.5**	**+2.7**
CFA				IAML		14 28 15.1	
	comp=Z,226nm,0.8s						
VA03	**San Esteban**	**3.54**	**170**	*i* P	**Pn**	**14 26 59.5**	**+2.2**
VA03				*i* S	**Sn**	**14 27 38.3**	**-0.7**
VA03				IAML		14 27 53.6	
	comp=N,547nm,0.4s						
VA03	**San Esteban**	**3.54**	**170**		**Pn**	**14 26 57.9**	**+0.6**
ROCH	**El Roble**	**3.70**	**177**	*i* P	**Pn**	**14 27 00.7**	**+1.1**
ACLC	**CERRO LA CRUZ**	**3.77**	**93**	*e*P	**Pn**	**14 27 02.8**	**+2.2**
ACLC				*e*S	**Sb**	**14 27 51.8**	**-3.0**
ACLC				IAML		14 27 54.5	
	comp=Z,120nm,0.5s						
PEL	**Peldehue**	**3.90**	**173**		**Pn**	**14 27 02.9**	**+0.8**
PEL				IAML		14 28 06.9	
	comp=E,253nm,0.8s						
PEL				IAML		14 28 07.0	
	comp=N,192nm,0.5s						
MT02	**Curacav**	**3.98**	**178**	*e*P	**Pn**	**14 27 04.1**	**+0.8**
MT02				IAML		14 28 10.0	
	comp=Z,122nm,0.5s						
MT02	**Curacav**	**3.98**	**178**	*i* P	**Pn**	**14 27 03.6**	**+0.3**
MT02				*i* S	**Sn**	**14 27 48.7**	**-1.0**
MT02	**Curacav**	**3.98**	**178**		**Pn**	**14 27 03.4**	**+0.2**
MT02				IAML		14 28 02.3	
	comp=N,168nm,0.4s						
MT02				IAML		14 28 04.1	
	comp=E,235nm,0.7s						
MT10	**Hacienda Santa**	**4.04**	**171**	*i* P	**Pn**	**14 27 06.1**	**+1.8**
MT10				*i* S	**Sn**	**14 27 50.6**	**-0.9**
MT14	**Cerro Cal¡n**	**4.16**	**172**	*i* P	**Pn**	**14 27 06.1**	**+0.3**
MT14				*i* S	**Sn**	**14 27 52.9**	**-1.5**
MT08	**Bocatoma Ro**	**4.30**	**166**	*e*P	**Pn**	**14 27 10.5**	**+2.7**
MT08				*e*P		14 27 12.1	
MT08				*e*S	**Sb**	**14 28 09.6**	**-0.4**
MT08				*e*S		14 28 10.1	
MT08				IAML		14 28 23.3	
	comp=Z,87nm,0.8s						
MT08	**Bocatoma Ro**	**4.30**	**166**	*e*P	**Pn**	**14 27 11.7**	**+3.8**
MT08	**Bocatoma Ro**	**4.30**	**166**	IAML		14 28 17.4	
	comp=N,155nm,0.8s						
MT08				IAML		14 28 18.1	
	comp=E,162nm,0.5s						
AAGR	**Agrelo**	**4.34**	**152**	*e*P	**Pn**	**14 27 10.9**	**+2.5**
AAGR				*e*S	**Sb**	**14 28 12.1**	**+1.0**
AAGR				IAML		14 28 25.9	
	comp=Z,89nm,1.2s						
VA05	**Santo Domingo**	**4.39**	**184**		**Pn**	**14 27 08.2**	**-0.6**
MT12	**Pirque**	**4.50**	**172**	*e*P	**Pn**	**14 27 12.1**	**+1.7**
MT09	**Talagante**	**4.50**	**177**	*i* P	**Pn**	**14 27 11.7**	**+1.2**
MT13	**San Alfonso**	**4.54**	**170**	*i* S	**Sn**	**14 28 02.5**	**-1.2**
MT13	**San Alfonso**	**4.54**	**170**		**Pn**	**14 27 11.5**	**+0.4**
MT13				IAML		14 28 24.2	
	comp=N,241nm,0.6s						
MT01	**Popeta**	**4.58**	**180**	*e*P	**Pn**	**14 27 12.6**	**+1.1**
MT01				*e*S	**Sn**	**14 28 10.1**	**+5.5**
MT01				IAML		14 28 19.1	
	comp=Z,101nm,0.6s						
MT01	**Popeta**	**4.58**	**180**	IAML		14 28 22.0	
	comp=E,162nm,0.3s						
MT01				IAML		14 28 22.4	
	comp=N,195nm,0.8s						
BO04	**La Punta**	**4.74**	**173**	IAML		14 28 24.7	
	comp=N,189nm,0.5s						
BO04				IAML		14 28 26.8	
	comp=E,178nm,0.5s						
BO01	**Tunca**	**5.11**	**178**	IAML		14 28 36.2	
	comp=E,95nm,1.2s						
BO01				IAML		14 28 40.3	
	comp=N,90nm,0.6s						
BI02	**San Fabin de**	**7.38**	**180**	Pn	**Pn**	**14 27 49.9**	**0.0**
VA04	**Juan Fernndez**	**7.79**	**234**	Pn	**Pn**	**14 27 54.3**	**-1.2**
TA01	**Diego Aracena**	**8.72**	**7**	Pn	**Pn**	**14 28 08.0**	**-0.3**

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*IDC **28** 14:40:00.3±1.7, 16°.15S×176°.10W, h345^{km}±21^{km}, mb3.3/4, mbtmp4.0/5, Error ellipse: s-maj=35.8km s-min=22.1km az=151.0*

*NEIC **28** 14:40:01.7±1.0, 16°.1S±0°.1×176°.04W±0°.09, h354^{km}±9^{km}, mb4.0/20, Error ellipse: s-maj=21.3km s-min=6.8km az=149.0*

ISC 28 14:40:01.6±0.6**, 16°.1S**±0°.1×**176°.05W**±0°.09**, h360**^{km}**, n31,** σ0^s.**68**/33**, mb4.0**/13**, 1D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	**4.65**	**63**	P	**Pn**	**14 41 17.8**	**-0.3**
	12nm,0.3s,baz=236,slow=3.2,SNR=13						

AFI				S	S	14 42 18.6	-1.3
	13nm,0.6s,baz=97,slow=23,SNR=1.0						
NIUE	Niue	6.56	118	Pn	Pn	14 41 39.3	+0.1
RAO	Raoul Island	13.24	187	P	P	14 42 55.8	-0.6
MARNC	Mare, Loyalty	16.00	248	P	P	14 43 26.4	-0.3
OUENC	Ouen Island, N	17.34	246	P	P	14 43 41.0	0.0
CAN	Canberra	36.61	232	P	P	14 46 34.9	-0.1
CAN				IAmb	IAmb	14 47 00.7	
	comp=Z,23nm,1.4s						
TOO	Toolangi	40.08	230	P	P	14 47 03.5	0.0
TOO				IAmb	IAmb	14 47 24.5	
	comp=Z,5.6nm,1.4s						
BBOO	Buckleboo	46.27	240	P	P	14 47 51.9	-0.7
BBOO				IAmb	IAmb	14 48 26.6	
	comp=Z,28nm,1.5s						
WB0	Warramunga Arr	47.17	258	P	P	14 47 59.5	-0.1
WB0				IAmb	IAmb	14 48 35.6	
	comp=Z,14nm,1.5s						
WRAB	Tennant Creek	47.20	258	P	P	14 47 59.8	-0.1
WRAB				IAmb	IAmb	14 48 01.5	
	comp=Z,13nm,1.4s						
WRA	Warramunga Arr	47.21	258	P	P	14 47 59.4	-0.6
	comp=Z,1.1nm,0.6s,baz=92,slow=7.2,SNR=18						
WRA				PcP	PcP	14 49 25.0	+0.1
	comp=Z,0.2nm,0.4s,baz=101,slow=3.0,SNR=1.8						
	comp=Z,1.1nm,0.6s						
WRA	Warramunga Arr	47.21	258	IAmb	IAmb	14 47 59.9	
	comp=Z,0.1nm,0.8s						
AS31	Alice Springs	47.48	252	P	P	14 48 01.1	-0.9
ASAR	Alice Springs	47.48	252	P	P	14 48 01.2	-0.9
	comp=Z,4.1nm,0.3s,baz=89,slow=7.6,SNR=235						
ASAR				PcP	PcP	14 49 25.5	-0.4
	comp=Z,0.2nm,0.5s,baz=89,slow=3.3,SNR=2.0						
	comp=Z,4.1nm,0.3s						
ASAR	Alice Springs	47.48	252	P	P	14 48 01.0	-1.0
MTN	Manton Dam	51.14	266	P	P	14 48 29.4	-0.1
MTN				IAmb	IAmb	14 48 47.8	
	comp=Z,8.0nm,1.3s						
FORT	Forrest	52.84	243	P	P	14 48 40.5	-1.1
FORT				IAmb	IAmb	14 48 52.2	
	comp=Z,7.6nm,0.9s						
KNRA	Kununurra	52.95	262	P	P	14 48 42.9	+0.2
KNRA				IAmb	IAmb	14 49 21.6	
	comp=Z,7.8nm,1.5s						
FITZ	Fitzroy Crossi	55.58	259	P	P	14 49 02.0	+0.6
MBWA	Marble Bar	60.73	254	P	P	14 49 36.6	-0.1
NWAO	Narrogin (SRO)	62.07	241	P	P	14 49 45.7	+0.2
SBA	Scott Base	62.40	184	P	P	14 49 48.5	+1.7
VNDA	Vanda	62.47	185	P	P	14 49 47.9	+0.6
QSPA	South Pole Qui	73.98	180	P	P	14 50 58.2	-0.2
	comp=Z,1.0nm,0.8s,baz=38,slow=6.1,SNR=5.5						
	comp=Z,1.0nm,0.8s						
QSPA	South Pole Qui	73.98	180	P	P	14 50 58.6	+0.2
QSPA				IAmb	IAmb	14 51 03.8	
	comp=Z,4.8nm,1.4s						
ILAR	Eielson Array	83.61	12	P	P	14 51 50.0	+0.1
	comp=Z,0.3nm,0.7s,baz=209,slow=4.5,SNR=5.9						
	comp=Z,0.3nm,0.7s						
H22K	Ishtalitna Cre	83.80	10	P	P	14 51 51.8	+1.0
H22K				IAmb	IAmb	14 52 17.0	
	comp=Z,4.8nm,1.4s						
L29M	L29M	84.26	16	P	P	14 51 54.5	+1.2
ELIB	Princess Elisa	91.23	186	*d*P	P	14 52 26.2	-0.3
BRTR	Keskin Array B	145.00	318	PKPbc	PKPbc	14 58 57.6	+0.5
	comp=Z,0.5nm,0.5s,baz=51,slow=3.6,SNR=3.8						
BRTR	Keskin Array B	145.00	318	PKPbc	PKPdf	14 58 57.4	+0.5

IDC 28 14:43:49.5±2.3, 31°.41S×178°.82W, h0^{km}, mb3.5/3, mbtmp3.5/3, Error ellipse: s-maj=64.8km s-min=38.0km az=44.0, Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	Alice Springs	42.36	268	P	P	14 51 45.3	-0.3
	0.6nm,0.8s,baz=111,slow=8.0,SNR=6.2						
	0.6nm,0.8s						
WRA	Warramunga Arr	43.44	274	P	P	14 51 54.5	0.0
	0.2nm,0.3s,baz=114,slow=7.8,SNR=8.5						
	0.2nm,0.3s						
QSPA	South Pole Qui	58.70	180	P	P	14 53 48.7	-0.1
	0.7nm,0.8s,baz=37,slow=7.1,SNR=5.4						
	0.7nm,0.8s						
FINES	FINESS Array B	145.84	339	PKPbc	PKPdf	15 03 29.2	-0.2
	1.7nm,0.8s,baz=17,slow=1.5,SNR=3.9						

NOU 28 14:51:42.1, 17°.16S×167°.62E, h10^{km}, ML4.1/17, Vanuatu Islands, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTV	Rentapao	0.99	129	P	Pb	14 52 01.6	+0.2
RTV	Rentapao	0.99	129	S	Sb	14 52 15.3	+0.7
SANVU	Saraoutou	1.75	347	P	Pn	14 52 11.4	-1.1
SANVU	Saraoutou	1.75	347	S	Sn	14 52 34.5	-0.4
MARNC	Mare, Loyalty	4.32	175	P	Pn	14 52 47.5	-0.3
YATNC	Mamie plateau,	4.92	188	P	Pn	14 52 57.3	+1.1
YATNC	Mamie plateau,	4.92	188	S	Sn	14 53 53.1	-0.1
NOUC	Port Laguerre	5.07	194	P	Pn	14 52 58.5	+0.3

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*IDC **28** 15:00:58.3±1.0, 41°.54N×29°.38W, h0^{km}, mb3.8/13, mbtmp3.8/14, ML4.0/1, MS3.6/34, Error ellipse: s-maj=28.7km s-min=19.1km az=10.0*

*NEIC **28** 15:00:59.3±1.8, 41°.35N±0°.06×29°.5W±0°.1, h10^{km}±1^{km}, mb4.4/25, Error ellipse: s-maj=18.5km s-min=4.2km az=124.0*

*SVSA **28** 15:01:01.5±0.5, 41°.29N×29°.79W, h15^{km}, ML3.8(INMG), Error ellipse: s-maj=33.2km s-min=4.3km az=62.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Crista Mdia Atlntico N*

ISC 28 15:00:59.2±0.5, 41°.34N±0°.06×29°.38W±0°.05, h12^{km}, n87, σ1^{s}11/59, mb4.2/22, MS3.6/33, Azores Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H07S1	FLORES T-PHASE	2.41	216	Pn	Pn	15 01 39.4	+1.0
H07S1				Sn	Sn	15 02 07.6	-0.3
CALA	Caldeira	2.81	169	*e*P	Pn	15 01 46.5	+2.5
CALA				*e*S	Sn	15 02 20.1	+2.3
CALA				*i* IAML		15 02 21.8	
CALA				*i* IAML		15 02 25.1	
CALA				*i* IAML		15 02 26.8	
PSBA	Serra de Santa	3.02	148	*e*P	Pn	15 01 46.6	-0.2
PSBA				*e*S	Sn	15 02 20.2	-2.7
PSBA				*i* IAML		15 02 24.4	
PSBA				*i* IAML		15 02 25.2	
PSBA				*i* IAML		15 02 26.6	
PAGU	Agualva, Azore	3.08	146	*e*P	Pn	15 01 47.4	-0.2
PAGU				*e*S	Sn	15 02 21.8	-2.5
PAGU				*i* IAML		15 02 26.4	
PAGU				*i* IAML		15 02 27.4	
PAGU				*i* IAML		15 02 28.1	
ADH	Angra Heroismo	3.15	148	*e*P	Pn	15 01 48.4	-0.2
PSCM	Serra do Cume	3.16	146	*e*P	Pn	15 01 48.5	-0.2
PSCM				*e*S	Sn	15 02 24.2	-2.2
PSCM				*i* IAML		15 02 27.0	
PSCM				*i* IAML		15 02 27.1	
PSCM				*i* IAML		15 02 29.6	
PSET	Sete Cidades	4.51	140	*e*P	Pn	15 02 07.9	+0.6
CMLA	Cha da Macela	4.65	139	*e*P	Pn	15 02 10.0	+0.7
BART	Pico Bartolome	4.82	136	*e*P	Pn	15 02 12.2	+0.5
PFVI	Vila Bisbo	16.46	98	Pn	Pn	15 04 49.8	-0.1
PFVI				IAmb	IAmb	15 05 23.1	
	comp=Z,56nm,1.2s						
MTE	Manteigas	16.54	86	Pn	Pn	15 04 52.0	+1.1
ESDC	Sonseca Array	19.38	87	P	P	15 05 25.8	+1.0
	comp=Z,0.1nm,0.3s,baz=265,slow=10,SNR=6.5						
ESDC				LR	LR	15 11 27.0	
	comp=Z,117nm,20.4s,baz=294,slow=32						
	comp=Z,0.7nm,0.7s						
ESDC				AML	AML		
ESDC	Sonseca Array	19.38	87	P	P	15 05 24.5	-0.3
MD01	Midelt array s	21.33	105	P	P	15 05 46.7	+0.5
MDT	Midelt	21.46	105	P	P	15 05 49.2	+1.7
	comp=Z,2.0nm,0.6s,baz=4.2,slow=18,SNR=3.7						
MDT				LR	LR	15 12 30.7	
	comp=Z,99nm,18.9s,baz=30,slow=32						
	comp=Z,2.0nm,0.6s						
EKA	Eskdalemuir Ar	22.18	42	P	P	15 05 55.4	+0.5
	comp=Z,0.6nm,0.6s,baz=237,slow=9.2,SNR=3.4						
	comp=Z,0.6nm,0.6s						
SCHQ	Schefferville	28.05	312	LR	LR	15 15 31.5	
	comp=Z,130nm,19.5s,baz=82,slow=31						
DAVOX	Davos/Dischmat	28.51	66	LR	LR	15 16 59.8	
	comp=Z,66nm,18.9s,baz=262,slow=34						
CLL	Collm	30.52	56	L	L	15 15 00.0	
KEST	Kesra	30.62	88	LR	LR	15 19 03.4	
	comp=Z,73nm,19.3s,baz=296,slow=35						
RGN	Rugen	30.99	50	P	P	15 07 15.1	-1.0
NOA	NORSAR Array B	31.44	37	LR	LR	15 17 19.8	
	comp=Z,33nm,21.6s,baz=350,slow=31						
FRB	Frobisher Bay	31.89	328	LR	LR	15 16 29.1	
	comp=Z,124nm,21.8s,baz=210,slow=29						
HFS	Hagfors	32.33	40	P	P	15 07 28.2	+0.3
	comp=Z,0.5nm,0.5s,baz=224,slow=9.5,SNR=1.7						
	comp=Z,0.5nm,0.5s						
KSCT	Kent School, K	32.75	286	P	P	15 07 29.7	-2.0
VRAC	Vranov	32.85	60	LR	LR	15 19 32.7	
	comp=Z,56nm,18.1s,baz=0.0,slow=34						
VAE	Valguarnera	33.78	82	LR	LR	15 19 07.8	
	comp=Z,156nm,21.7s,baz=319,slow=32						
SADO	Sadowa	36.07	293	LR	LR	15 21 15.5	
	comp=Z,108nm,21.3s,baz=342,slow=34						
FINES	FINESS Array B	38.53	39	P	P	15 08 20.6	-0.5
	comp=Z,0.9nm,0.7s,baz=258,slow=7.0,SNR=1.8						
	comp=Z,0.9nm,0.7s						
BURAR	Bucovina Array	38.76	62	P	P	15 08 24.1	+0.7
POIN	Pond Inlet	39.02	339	P	P	15 08 25.6	+0.5
TORD	Torodi Ar. Bea	39.02	127	P	P	15 08 27.3	+1.6
	comp=Z,0.8nm,0.9s,baz=325,slow=8.1,SNR=4.5						
	comp=Z,0.8nm,0.9s						
SJG	San Juan	39.02	245	LR	LR	15 20 20.7	
	comp=Z,40nm,21.1s,baz=154,slow=30						
CELP	Cerrillos	39.34	245	P	P	15 08 26.8	-1.6
CELP				IAmb	IAmb	15 08 29.8	
	comp=Z,22nm,1.2s						
MLR	Muntele Rosu	39.73	65	LR	LR	15 24 23.6	
	comp=Z,54nm,19.6s,baz=5.0,slow=35						
DBIC	Dimbokro	40.85	141	LR	LR	15 23 23.1	
	comp=Z,61nm,21.6s,baz=331,slow=33						
MDP	Montagnes des	41.66	216	LR	LR	15 23 04.2	
	comp=Z,43nm,20.0s,baz=329,slow=32						
TKL	Tuckaleechee C	42.36	281	LR	LR	15 25 42.9	
	comp=Z,84nm,18.2s,baz=80,slow=35						
ULM	Lac du Bonnet	45.79	305	LR	LR	15 26 11.2	
	comp=Z,111nm,18.7s,baz=62,slow=33						
MMAI	Mount Meron Ar	51.21	77	LR	LR	15 32 09.7	
	comp=Z,24nm,18.8s,baz=92,slow=37						
KBZ	Khabaz	51.72	62	LR	LR	15 34 28.9	
	comp=Z,35nm,18.7s,baz=7.5,slow=39						
GNI	Garni	54.51	65	LR	LR	15 34 06.1	
	comp=Z,23nm,22.0s,baz=24,slow=36						
ARTI	Arti	55.72	42	LR	LR	15 33 20.8	
	comp=Z,53nm,18.1s,baz=351,slow=35						
YNE	Yellowstone No	56.58	303	P	P	15 10 42.8	+0.9
YNE				IAmb	IAmb	15 10 45.6	
	comp=Z,2.0nm,0.9s						
INK	Inuvik	57.15	335	P	P	15 10 42.4	-2.8
INK				IAmb	IAmb	15 10 42.5	
	comp=Z,7.5nm,1.4s						
BOZ	Bozeman (W)	57.33	304	P	P	15 10 47.1	+0.1
BW06	Boulder Array	57.33	300	P	P	15 10 47.3	0.0
PDAR	Pinedale Array	57.33	300	P	P	15 10 47.5	+0.3
	comp=Z,1.2nm,0.9s,baz=70,slow=6.5,SNR=9.3						
	comp=Z,1.2nm,0.9s						
PDAR	Pinedale Array	57.33	300	P	P	15 10 47.0	-0.2
JTS	Las Juntas de	57.61	254	LR	LR	15 32 59.0	
	comp=Z,53nm,19.6s,baz=360,slow=33						
F30M	Barrier River	58.24	334	P	P	15 10 53.0	+0.1
E28M	Babbage River	58.87	336	P	P	15 10 57.3	0.0
ANMO	Albuquerque	59.10	291	LR	LR	15 35 29.7	
	comp=Z,73nm,18.1s,baz=94,slow=35						
BDFB	Brasilia	59.27	201	P	P	15 10 59.3	-1.4
BDFB				IAmb	IAmb	15 11 01.1	
	comp=Z,8.3nm,1.4s						
ABKAR	Akbulak array	59.80	49	P	P	15 11 04.6	+0.6
TXAR	Lajitas Array	60.08	284	P	P	15 11 07.4	+1.0
	comp=Z,0.7nm,0.6s,baz=52,slow=6.3,SNR=2.5						
	comp=Z,0.7nm,0.6s						
TXAR	Lajitas Array	60.08	284	P	P	15 11 05.9	-0.5
TMUT	Trail Mountain	60.12	298	P	P	15 11 06.9	+0.1
TMUT				IAmb	IAmb	15 11 13.8	
	comp=Z,3.9nm,1.1s						
PLID	Pearl Lake	60.27	305	P	P	15 11 08.3	+0.6
PLID				IAmb	IAmb	15 11 15.4	
	comp=Z,7.5nm,1.4s						
BGU	Big Grassy Mou	60.49	300	P	P	15 11 09.7	+0.6
BGU				IAmb	IAmb	15 11 39.2	
	comp=Z,2.6nm,1.0s						
CMIG	Matias Romero	60.61	267	LR	LR	15 35 06.2	
	comp=Z,50nm,19.9s,baz=146,slow=34						
BORK	Borovoye	63.38	42	P	P	15 11 28.0	-0.2
BORK				IAmb	IAmb	15 11 29.3	
	comp=Z,2.1nm,0.8s						
BVAR	Borovoye Array	63.43	42	P	P	15 11 28.8	+0.3
	comp=Z,1.9nm,0.9s,baz=298,slow=6.4,SNR=6.5						
	comp=Z,1.9nm,0.9s						
ILAR	Eielson Array	63.54	335	P	P	15 11 28.9	-0.2
	comp=Z,0.5nm,0.8s,baz=45,slow=6.1,SNR=8.2						
	comp=Z,0.5nm,0.8s						
IMAR	Indian Mountai	64.76	338	P	P	15 11 37.5	+0.5
KVN	Kaiserville	64.79	301	P	P	15 11 38.5	+0.6
KVN				IAmb	IAmb	15 11 39.5	
	comp=Z,4.0nm,0.9s						
PNTR	Pine Nut	65.73	301	P	P	15 11 42.2	-1.9
PFO	Pinyon Flats O	66.76	295	LR	LR	15 41 32.2	
	comp=Z,134nm,18.2s,baz=121,slow=36						
MBAR	Mbarara	68.39	111	LR	LR	15 41 51.7	
	comp=Z,36nm,18.2s,baz=315,slow=36						
KURK	Kurchatov	68.89	40	P	P	15 12 03.2	-0.3
KURK				IAmb	IAmb	15 12 04.3	
	comp=Z,1.9nm,0.8s						
KURBB	Kurchatov Arra	68.91	41	P	P	15 12 03.5	-0.2
	comp=Z,1.6nm,0.8s,baz=312,slow=6.7,SNR=12						
	comp=Z,1.6nm,0.8s						
ZALV	Zalesovo Beam	69.61	35	P	P	15 12 07.6	-0.3
	comp=Z,0.3nm,0.3s,baz=300,slow=6.5,SNR=3.9						
	comp=Z,0.3nm,0.3s						
AAK	Ala-Archa	71.89	49	LR	LR	15 44 57.2	
	comp=Z,54nm,18.9s,baz=348,slow=37						
MKAR	Makanchi Array	73.31	42	P	P	15 12 30.6	+0.1
	comp=Z,1.2nm,0.7s,baz=321,slow=5.9,SNR=8.7						
	comp=Z,1.2nm,0.7s						
MKAR	Makanchi Array	73.31	42	P	P	15 12 30.3	-0.1
TSUM	Tsumeb	74.31	134	LR	LR	15 42 56.7	
	comp=Z,39nm,18.4s,baz=338,slow=34						
LSZ	Lusaka	77.44	123	LR	LR	15 47 06.6	
	comp=Z,44nm,18.0s,baz=298,slow=36						
MA2	Magadan	79.44	360	LR	LR	15 45 50.8	
	comp=Z,40nm,18.8s,baz=62,slow=34						
MATP	Matopo	81.54	127	LR	LR	15 48 22.7	
	comp=Z,49nm,18.3s,baz=298,slow=35						
SONM	Songino Array	82.95	28	P	P	15 13 24.6	+0.6
	comp=Z,1.5nm,1.0s,baz=323,slow=4.7,SNR=5.4						
	comp=Z,1.5nm,1.0s						
SONM	Songino Array	82.95	28	P	P	15 13 24.0	0.0
SONM				IAmb	IAmb	15 13 25.2	
	comp=Z,1.9nm,1.0s						
LBTB	Lobatse	83.38	132	LR	LR	15 47 37.1	
	comp=Z,44nm,22.0s,baz=331,slow=34						
PETK	Petropavlovsk-	85.72	356	LR	LR	15 51 18.0	
	comp=Z,44nm,18.0s,baz=317,slow=35						
BOSA	Boshof	86.01	134	LR	LR	15 48 34.1	
	comp=Z,34nm,21.5s,baz=358,slow=33						
SUR	Sutherland	86.72	139	LR	LR	15 50 34.7	
	comp=Z,23nm,18.0s,baz=324,slow=34						
QSPA	South Pole Qui	131.23	180	PKP	PKiKP	15 20 12.2	+1.2
	comp=Z,1.9nm,1.1s,baz=251,slow=0.7,SNR=3.3						
ASAR	Alice Springs	157.50	44	PKPab	PKPab	15 21 26.9	-0.2
	comp=Z,1.1nm,0.8s,baz=336,slow=4.2,SNR=9.9						

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*IDC **28** 15:21:12.8±12.0, 0°.24N×99°.80E, h0^{km}, mb3.6/3, mbtmp3.6/3, MS3.0/1, Error ellipse: s-maj=719.7km s-min=31.5km az=56.0*

*DJA **28** 15:21:30.3±0.3, 0°N±3°×10°0E±°, h128^{km}±4^{km}, M4.0/30, mB5.2/2, mb4.5/3, MLv3.7/30, Mw(mB)4.6/2*

ISC 28 15:21:29.6±1.3, 0°.36N±0°.07×99°.71E±0°.07, h100^{km}, n22, σ2^{s}81/13, mb3.6/3, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MNSI	Mandailing Nat	0.45	344	P	Pn	15 21 49.7	+4.6
PPI	Padang Panjang	1.07	140	P	Pn	15 21 54.1	+3.3
BKNI	Bangkinang	1.33	92	P	Pn	15 21 56.7	+2.8
BKNI				AML	AML		
PBSI	Pulau Batu	1.48	254	P	Pn	15 21 58.2	+2.5
PBSI				AML	AML		
SDSI	Sungai Dareh	2.15	127	P	Pn	15 22 05.6	+1.5
SDSI				AML	AML		
GSI	Gunungsitoli	2.33	294	P	Pn	15 22 09.1	+2.6
GSI				AML	AML		
PSI	Prapat	2.55	342	P	Pn	15 22 10.3	+0.8
PSI				AML	AML		
KRJI	Kerinci	3.00	144	P	Pn	15 22 16.5	+1.0
KRJI				AML	AML		
PPSI	Pulau Pagai	3.12	174	P	Pn	15 22 17.8	+0.8
KCSI	Kotacane, Aceh	3.69	328	P	Pn	15 22 25.9	+1.3
KCSI				AML	AML		
TPTI		3.83	319	P	Pn	15 22 28.4	+1.9
TPTI				AML	AML		
SNSI	Sinabang, Aceh	3.94	301	P	Pn	15 22 29.8	+1.7
H08S2	Diego Garcia H	28.28	253	T	T	15 55 21.3	
	baz=72						
H08S3	Diego Garcia H	28.28	253	T	T	15 55 19.3	
	baz=72						
H08S1	Diego Carcia H	28.30	253	T	T	15 55 26.1	
	baz=72						
NWAO	Narrogin (SRO)	37.01	155	LR	LR	15 43 42.5	
	comp=Z,24nm,19.9s,baz=76,slow=37						
ASAR	Alice Springs	40.90	128	P	P	15 28 55.9	-6.5
	0.2nm,0.9s,baz=299,slow=8.7,SNR=2.1						
	0.2nm,0.9s						
MKAR	Makanchi Array	48.69	344	P	P	15 30 00.2	-3.6
	0.3nm,0.3s,baz=157,slow=8.8,SNR=8.5						
	0.3nm,0.3s						
ZALV	Zalesovo Beam	54.81	349	P	P	15 30 45.0	-4.0
	0.6nm,0.3s,baz=175,slow=8.0,SNR=4.9						
	0.6nm,0.3s						
H04N2	CROZET ISLANDS	62.52	216	T	T	16 37 44.1	
	baz=58,slow=76,SNR=8.1						
H04N1	CROZET ISLANDS	62.53	216	T	T	16 38 01.0	
	baz=58,slow=76,SNR=6.6						
H04N3	CROZET ISLANDS	62.54	216	T	T	16 37 58.1	
	baz=58,slow=76,SNR=7.3						

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*TEH **28** 15:22:37.8, 34°.55N×45°.51E, h8^{km}±46^{km}, ML3.3, Presumed earthquake*

*ISN **28** 15:22:40.5±1.9, 34°.55N×45°.51E, h8^{km}, ML2.7, Presumed earthquake*

ISC 28 15:22:40.0±1.2, 34°.56N±0°.05×45°.55E±0°.05, h18^{km}, n10, σ1^{s}26/13, Iran-Iraq border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IDHR	Dehrash	0.70	78	Pg	Pb	15 22 52.0	-1.8
IGHG	Ghaleghazi	0.87	105	Pg	Pb	15 22 55.2	-1.5
IGHG				Sg	Sg	15 23 09.2	+0.7
ILBA	Ilam Banvizeh	1.08	150	Pg	Pb	15 22 58.9	-1.3
KCHF	Cheshme Sefid,	1.26	103	Pg	Pn	15 23 03.1	+0.2
IKRK	Kirkuk	1.30	310	*i* P	Pn	15 23 03.5	+0.2
IKRK				*i* S	Sg	15 23 23.1	+1.1
IKRK				IAML		15 23 24.8	
	comp=N,86nm,0.7s						
IKRK				IAML		15 23 24.8	
	comp=E,176nm,0.5s						
IBDR	Badra	1.48	168	*i* P	Pn	15 23 06.6	+0.9
	baz=346						
IBDR				*i* S	Sg	15 23 28.1	+0.3
IBDR				IAML		15 23 29.5	
	comp=E,192nm,0.5s						
IBDR				IAML		15 23 30.7	
	comp=N,151nm,0.7s						
SNJK	Sanadaj _Korde	1.53	55	Pg	Pn	15 23 07.4	+0.8
SNQR	Sonqor, Kerman	1.74	80	Pg	Pn	15 23 10.8	+1.3
IBZA	Bozab	1.91	92	Pn	Pn	15 23 13.4	+1.6
IKFM	Kafar-mosalman	2.17	118	Pn	Pn	15 23 16.4	+1.3

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*SJA **28** 15:41:57.1±0.6, 29°.29S×71°.34W, h30^{km}, ML3.7, MW3.8*

*GUC **28** 15:41:59.3±0.8, 29°.27S×71°.25W, h51^{km}±3^{km}, ML3.8*

ISC 28 15:41:56.9±2.5, 29°.28S±0°.02×71°.35W±0°.06, h7^{km}±18^{km}, n37, σ1^{s}31/43, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LCO	Las Campanas	0.63	65	*e*P	Pb	15 42 10.8	+0.4
LCO				IAML		15 42 21.7	
	comp=Z,5µm,0.2s						
LCO	Las Campanas	0.63	65	*e*P	Pb	15 42 11.1	+0.7
GO04	Tololo Observa	1.01	152	*e*P	Pb	15 42 16.9	0.0
GO04				*e*S	Sb	15 42 30.9	+0.5
GO04				IAML		15 42 31.4	
	comp=Z,2µm,0.2s						
GO04	Tololo Observa	1.01	152	*e*P	Pb	15 42 17.4	+0.5
GO04				*e*S	Sb	15 42 30.8	+0.3
AC05	El Transito	1.04	65	*e*P	Pb	15 42 17.0	-0.3
AC05	El Transito	1.04	65	*e*P	Pb	15 42 17.0	-0.3
AC04	Llanos de Chal	1.10	13	*e*P	Pb	15 42 18.6	+0.4
AC04				*e*S	Sn	15 42 33.7	-0.4
AC04				IAML		15 42 35.7	
	comp=Z,4µm,0.6s						
AC04	Llanos de Chal	1.10	13	*e*P	Pb	15 42 18.8	+0.5
AC04				*e*S	Sb	15 42 32.5	-0.3
AC04				IAML		15 42 36.1	
	comp=E,4µm,0.2s						
CO01	Juntas del Tor	1.29	123	*e*P	Pn	15 42 21.3	-0.3
CO01				IAML		15 42 38.3	
	comp=Z,942nm,0.1s						
CO01	Juntas del Tor	1.29	123	*e*P	Pn	15 42 21.4	-0.2
CO06	Fray Jorge	1.41	190	*e*P	Pn	15 42 23.7	+0.6
CO03	El Pedregal	1.66	160	*e*P	Pn	15 42 26.2	-0.3
CO03				*e*S	Sn	15 42 47.4	-0.6
CO03				IAML		15 42 50.1	
	comp=Z,689nm,0.5s						
CO03	El Pedregal	1.66	160	*e*P	Pn	15 42 26.6	+0.1
CO03				IAML		15 42 49.4	
	comp=E,1µm,0.2s						
AROD	Rodeo	1.86	119	*e*P	Pn	15 42 30.6	+1.1
CO02	Combarbal	1.94	171	*e*P	Pn	15 42 30.6	+0.1
CO02				*e*S	Sn	15 42 54.7	-0.4
CO02				IAML		15 42 57.5	
	comp=Z,821nm,0.3s						
CO02	Combarbal	1.94	171	*e*P	Pn	15 42 30.5	+0.1
CO02				IAML		15 42 55.8	
	comp=E,3µm,0.3s						
GO03	Copiapo	1.95	31	*e*P	Pn	15 42 30.1	-0.3
GO03				*e*S	Sn	15 42 55.2	+0.1
GO03				IAML		15 43 05.2	
	comp=Z,911nm,0.5s						
GO03	Copiapo	1.95	31	*e*P	Pn	15 42 29.8	-0.6
GO03				IAML		15 43 00.8	
	comp=N,741nm,0.3s						
ACDV	Cuesta del Vie	2.13	115	*e*P	Pn	15 42 34.8	+1.7
ACDV				*e*S	Sn	15 42 48.7	-11
ACDV				IAML		15 42 49.6	
	comp=Z,300nm,0.6s						
ACCO	Cerro Coronel	2.37	124	*e*P	Pn	15 42 38.8	+2.2
ACCO				*e*S	Sn	15 42 54.1	-12
CO04	Los Peladeros	2.77	173	*e*P	Pn	15 42 42.8	+0.8
VCA	Vinchina	2.81	80	*e*P	Pn	15 42 27.4	-15
VCA				*e*S	Sn	15 43 02.6	-14
VCA				IAML		15 43 03.8	
	comp=Z,329nm,0.5s						
RTLS	Leoncito	3.07	145	*e*P	Pn	15 42 49.0	+2.9
RTLS				*e*S	Sn	15 43 24.0	+0.7
RTLS				IAML		15 43 35.5	
	comp=Z,408nm,0.4s						
AC02	Maricunga	3.13	39	*e*P	Pn	15 42 47.6	+0.5
AC02				IAML		15 44 21.1	
	comp=Z,453nm,0.8s						
AC02	Maricunga	3.13	39	*e*P	Pn	15 42 47.6	+0.5
AC02				IAML		15 43 41.7	
	comp=E,429nm,0.1s						
AC01	Pan de Azucar	3.19	12	*e*P	Pn	15 42 46.0	-1.5
AC01				*e*S	Sb	15 43 35.5	+2.5
AC01				IAML		15 43 42.4	
	comp=Z,214nm,0.3s						
RTLL	Cerro Villicun	3.22	130	*e*P	Pn	15 42 48.5	+0.6
RTLL				*e*S	Sg	15 43 39.8	-0.5
RTLL				IAML		15 43 51.7	
	comp=Z,121nm,0.5s						
TINO	Tinogasta	3.54	71	*e*P	Pn	15 42 52.9	+0.5
TINO				*e*S	Sn	15 43 14.3	-20
TINO				IAML		15 43 14.8	
	comp=Z,141nm,1.1s						
VA03	San Esteban	3.54	169	*e*P	Pn	15 42 36.8	-16
VA03				IAML		15 43 53.7	
	comp=Z,168nm,0.8s						
CFA	Coronel Fontan	3.55	132	*e*P	Pn	15 42 54.0	+1.6
CFA				IAML		15 43 55.7	
	comp=Z,78nm,0.5s						

ACLC	CERRO LA CRUZ	3.84	93	eP	Pn	15 42 57.5	+0.9
ACLC				eS	Sb	15 43 48.3	-3.6
ACLC				IAML		15 43 49.3	
	comp=Z,54nm,0.4s						
MT02	Curacav	3.97	177	eP	Pn	15 42 59.0	+0.8
MT02				eS	Sb	15 43 56.5	+1.1
MT02				IAML		15 44 06.3	
	comp=Z,74nm,0.5s						
ARCO	CERRO ARCO	4.11	150	eP	Pn	15 43 04.3	+4.0
ARCO				IAML		15 44 20.5	
	comp=Z,90nm,0.7s						
MT04	Ro Olivares	4.24	166	eP	Pn	15 43 05.8	+3.6
MT04				IAML		15 44 15.0	
	comp=Z,60nm,0.5s						
MT03	Universidad Ad	4.26	171	eP	Pn	15 43 06.1	+3.8
MT03				eS	Sb	15 44 04.8	+0.9
MT03				IAML		15 44 10.4	
	comp=Z,129nm,0.6s						
MT01	Popeta	4.57	179	eS	Sb	15 44 07.8	-4.9
MT01				IAML		15 44 14.0	
	comp=Z,72nm,0.5s						
CYA	Choya	4.94	82	IAML		15 44 46.0	
	comp=Z,27nm,1.5s						

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*CATAC **28** 15:55:30.6±0.7, 13°N±4°×9°0W±°, h22^{km}±5^{km}, M3.9/17, MLv3.9/17, Error ellipse: s-maj=10.0km s-min=5.4km az=18.4, confirmed*

*GCG **28** 15:55:31.1±0.9, 13°.28N×89°.93W, h34^{km}±4^{km}, MD4.5, ML4.2, Presumed earthquake*

*SNET **28** 15:55:31.8±0.8, 13°.33N×89°.87W, h33^{km}, ML3.8, Presumed earthquake*

ISC 28 15:55:32.7±1.7**, 13°.31N**±0°.08×**89°.82W**±0°.04**, h34**^{km}±3^{km}**, n47, $\sigma 0^{s}.75$**/58**, 1D, El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAYA	Jayaque - finc	0.50	46	iP	Pn	15 55 43.3	-0.3
JAYA				IAML		15 55 54.3	
	comp=N,17µm,0.3s						
JAYA	Jayaque - finc	0.50	46	eP	Pn	15 55 43.3	-0.3
JAYA	Jayaque - finc	0.50	46	P	Pn	15 55 43.3	-0.3
LALI	Alcalda de L	0.52	70	iP	Pn	15 55 43.1	-0.6
LALI				iS	Sb	15 55 51.2	+0.1
LALI	Alcalda de L	0.52	70	P	Pn	15 55 43.2	-0.4
LALI				S	Sn	15 55 51.7	+0.4
CEVE	Cerro Verde	0.55	20	eP	Pn	15 55 43.9	-0.5
CEVE	Cerro Verde	0.55	20	P	Pn	15 55 43.9	-0.5
SBLS	San Blas	0.56	20	iP	Pn	15 55 44.0	-0.4
FAME	Alcaldia de Sa	0.56	340	P	Pn	15 55 43.1	-1.2
FAME				S	Sn	15 55 51.6	-0.9
NUBE	Las Nubes	0.59	4	iP	Pb	15 55 44.1	-0.8
NUBE				iS	Sn	15 55 53.2	-0.2
NUBE				IAML		15 55 54.4	
	comp=N,5µm,0.4s						
NUBE	Las Nubes	0.59	4	P	Pb	15 55 44.1	-0.8
NUBE				S	Sn	15 55 53.6	+0.2
SNJE	San Jose	0.59	21	eP	Pb	15 55 44.5	-0.5
PMON	Piamonte	0.63	51	P	Pb	15 55 45.3	-0.3
PMON				S	Sn	15 55 56.4	+2.1
MAGS	Ministerio de	0.64	54	eP	Pb	15 55 45.2	-0.4
BOQS	Boqueron	0.67	51	eP	Pb	15 55 45.9	-0.4
LOAL	Lomas de Alarc	0.69	3	P	Pb	15 55 45.7	-0.7
LOAL				S	Sb	15 55 56.9	+1.3
PANCS	Alcalda de	0.69	64	P	Pn	15 55 45.4	-0.7
PANCS				S	Sb	15 55 56.2	+0.4
UEES	Universidad Ev	0.69	54	eP	Pb	15 55 46.0	-0.6
UEES	Universidad Ev	0.69	54	P	Pb	15 55 45.9	-0.6
SEMO	Seminario San	0.70	56	P	Pb	15 55 46.2	-0.4
SEMO				S	Sb	15 55 57.3	+1.2
ESSJ	San Jos, E	0.71	291	eP	Pb	15 55 50.9	+4.2
SLOZ	Alcaldia de Sa	0.71	3	iP	Pb	15 55 45.8	-1.0
SLOZ	Alcaldia de Sa	0.71	3	P	Pb	15 55 46.0	-0.8
LOMA	Loma Larga	0.71	62	P	Pb	15 55 46.2	-0.7
LOMA				S	Sb	15 55 58.4	+1.9
UNIC	Universidad Ca	0.72	22	eP	Pb	15 55 46.4	-0.6
UNIC	Universidad Ca	0.72	22	P	Pb	15 55 46.2	-0.7
LFRS	El Faro	0.80	67	eP	Pn	15 55 47.4	-0.4
RBDL	Robledal	0.81	9	⇓iP	Pb	15 55 47.6	-0.9
PAVA	Las Pavas	0.95	65	eP	Pb	15 55 50.0	-0.8
PAVA	Las Pavas	0.95	65	P	Pb	15 55 50.0	-0.8
COEG	Centro de Oper	0.96	71	eP	Pn	15 55 49.7	-0.3
COEG				eS	Sb	15 56 03.3	-0.2
COEG	Centro de Oper	0.96	71	P	Pn	15 55 49.8	-0.1
COEG				S	Sb	15 56 03.6	+0.1
JUAM	Asuncion Mita	1.02	6	iP	Pn	15 55 50.2	-0.6
TECO	Alcaldia de Te	1.03	77	P	Pn	15 55 50.3	-0.6
PCG5	San Vicente Pa	1.05	329	iP	Pb	15 55 53.0	+0.4
FG16	Alotenango, Sa	1.17	325	iP	Pb	15 55 55.6	+1.1
MTO3	Montecristo	1.17	22	iP	Pn	15 55 52.6	-0.4
MTO3	Montecristo	1.17	22	P	Pn	15 55 52.3	-0.6
FG8	Yepocapa, Chim	1.19	323	iP	Pb	15 55 56.0	+1.2
P5NO	Presa 5 de nov	1.23	57	eP	Pn	15 55 53.3	-0.2
P5NO	Presa 5 de nov	1.23	57	P	Pn	15 55 53.2	-0.4
TECA	Tecapa	1.29	82	eP	Pn	15 55 54.1	-0.5
RANC	El Ranchito	1.50	85	eP	Pn	15 55 57.4	+0.1
INTP	Intipuca	1.72	94	eP	Pn	15 56 00.1	-0.2
SARH	Santa Rosa de	1.78	35	iP	Pn	15 56 01.6	+0.3
APG	El Apazote	1.80	340	iP	Pn	15 56 00.8	-0.7
STG8	El Palmar, Qui	1.87	307	eP	Pb	15 56 05.5	-0.8

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*OSPL **28** 16:16:39.0±0.5, 18°.75N×70°.71W, h4^{km}±8^{km}, ML2.1, Presumed earthquake*

SDD 28 16:16:37.2±1.2**, 18°.74N×70°.83W, h18**^{km}±9^{km}**, MD2.3, ML2.5, MW2.9, 2C-4D, Presumed earthquake, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ABDR	Alto Bandera	0.20	68	eP	Pb	16 16 44.2	+1.5
ABDR				⇓eS	Sb	16 16 47.8	+1.5
SDDR	Presa de Saban	0.50	299	iP	Pn	16 16 49.5	-0.1
SDDR				eS	Sn	16 16 57.9	0.0
SDDR				IAML		16 17 02.7	
	comp=Z,55nm,0.3s						
SDDR	Presa de Saban	0.50	299	IAML		16 17 01.4	
	comp=N,73nm,1.0s						
SDDR				IAML		16 17 02.5	
	comp=E,83nm,0.8s						
BANI	BANI	0.56	128	⇓ePg	Pn	16 16 50.6	+0.1
BANI				⇓eSg	Sn	16 16 59.4	0.0
BANI				IAML		16 17 01.7	
	comp=E,104nm,0.4s						
LONE3	El Aguacate, B	0.61	258	iP	Pn	16 16 52.0	+0.7
LONE3				eS	Sn	16 17 01.7	+0.9
LONE3				IAML		16 17 02.8	
	comp=Z,31nm,2.6s						
REDR	Restauracion	0.69	309	ePg	Pn	16 16 58.6	+6.5
PODR	Polo	0.71	217	iP	Pn	16 16 53.5	+0.8
PODR				eS	Sn	16 17 03.9	+0.6
PODR				IAML		16 17 06.2	
	comp=Z,409nm,0.2s						
PODR	Polo	0.71	217	⇑ePg	Pn	16 16 53.5	+0.8
PODR				⇑eSg	Sn	16 17 05.4	+2.1
PODR				IAML		16 17 07.2	
	comp=E,160nm,0.6s						
PODR				IAML		16 17 48.4	
	comp=N,200nm,0.3s						
LODU1	El Espartillar	0.72	238	iP	Pn	16 16 54.1	+1.5
LODU1				IAML		16 17 12.6	
	comp=Z,44nm,0.7s						
DR08	Loma La Naviza	0.79	73	⇓ePg	Pn	16 16 54.2	+0.6
LOBH	Bahia de las A	1.16	222	iP	Pg	16 17 01.2	+1.5
LOBH				IAML		16 17 26.0	
	comp=Z,36nm,1.4s						

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*NEIC **28** 16:21:47.7±1.4, 17°.56N±0°.08×94°.64W±0°.06, h154^{km}±6^{km}, mb4.3/32, Md4.3/20(MEX), Error ellipse: s-maj=11.9km s-min=7.5km az=194.0*

*MEX **28** 16:21:49.6±0.6, 17°.68N×94°.63W, h149^{km}±6^{km}, MD4.3, Presumed earthquake*

ISC 28 16:21:47.2±0.8**, 17°.56N**±0°.06×**94°.65W**±0°.04**, h157**^{km}±7^{km}**, n47, $\sigma 0^{s}.76$**/67**, mb4.3**/6**, Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMIG	Matias Romero	0.52	205	iP	Pn	16 22 10.0	+0.5
CMIG				iS	Sn	16 22 26.0	-0.5
CMIG	Matias Romero	0.52	205		Pn	16 22 10.0	+0.5
CMIG					Sn	16 22 26.0	-0.5
UXUV	UXUV	0.54	117	iP	Pn	16 22 10.2	+0.7
UXUV				eS	Sn	16 22 25.6	-1.0
UXUV	UXUV	0.54	117		Pn	16 22 10.2	+0.7
UXUV					Sn	16 22 25.6	-1.0
NEUV	Arroyo Zacate	1.11	278	iP	Pn	16 22 13.8	+0.2
NEUV				eS	Sn	16 22 33.1	-0.6
NEUV	Arroyo Zacate	1.11	278		Pn	16 22 13.8	+0.2
NEUV					Sn	16 22 33.1	-0.6
TGIG		1.66	118	iP	Pn	16 22 19.7	+0.7
TGIG				eS	Sn	16 22 42.9	-0.6
TGIG		1.66	118		Pn	16 22 19.7	+0.7
TGIG					Sn	16 22 42.9	-0.6
OXBJ	Oaxaca	2.04	256	eP	Pn	16 22 24.3	+0.9
OXBJ				eS	Sn	16 22 50.9	-0.4
OXBJ	Oaxaca	2.04	256		Pn	16 22 24.3	+0.9
OXBJ					Sn	16 22 50.9	-0.4
OXIG	Oaxaca	2.05	257		Pn	16 22 24.3	+0.7
OXIG					Sn	16 22 52.4	+0.9
VHO	Vista Hermosa	2.05	257	eP	Pn	16 22 24.3	+0.8
VHO				eS	Sn	16 22 52.4	+0.9
HUIG	Huatulco	2.27	218	eP	Pn	16 22 24.5	-1.4
HUIG				eS	Sn	16 22 55.1	-0.7
HUIG	Huatulco	2.27	218		Pn	16 22 24.5	-1.4
HUIG					Sn	16 22 55.1	-0.7
TOIG	Toxpalan	2.36	283	eP	Pn	16 22 28.1	+1.0
TOIG				eS	Sn	16 22 56.6	-1.2
TOIG	Toxpalan	2.36	283		Pn	16 22 28.1	+1.0
TOIG					Sn	16 22 56.6	-1.2
JAUV	Jalcomulco	2.72	312	eP	Pn	16 22 31.5	0.0
JAUV				eS	Sn	16 23 03.7	-1.9
JAUV	Jalcomulco	2.72	312		Pn	16 22 31.5	0.0
JAUV					Sn	16 23 03.7	-1.9
YOIG	Yosondua	2.85	256	eP	Pn	16 22 33.2	-0.1
YOIG				eS	Sn	16 23 08.9	0.0
YOIG	Yosondua	2.85	256		Pn	16 22 33.2	-0.1
YOIG					Sn	16 23 08.9	0.0
TLIG	Tlapa	3.73	271		Pn	16 22 44.7	+0.3
TEIG	Tepich	6.59	65		Pn	16 23 20.8	-1.1
SNAG	San Augustine	13.90	2	Pn	Pn	16 24 57.7	+0.1
143A	Socs Landing,	15.36	10	P	P	16 25 17.5	+0.6
UALR	University of	17.27	6		Pn	16 25 39.4	+0.5
UALR				IAmb	IAmb	16 25 40.4	
	comp=Z,13nm,0.6s						
W35A	Tecumseh	17.63	354	P	P	16 25 42.8	+0.8
W35A				IAmb	IAmb	16 25 44.0	
	comp=Z,6.7nm,0.5s						
Y49A	Blount Mountai	17.83	23	P	P	16 25 45.3	+1.1
FCAR	Ozark Folk Cen	18.39	7	P	P	16 25 50.8	+0.6
FCAR				IAmb	IAmb	16 25 52.4	
	comp=Z,11nm,0.8s						
GOGA	Godfrey	18.71	30	P	P	16 25 54.4	+0.6
SWET	Sewanee	19.22	22	P	P	16 25 58.9	-0.4
WVT	Waverly	19.46	17	P	P	16 26 02.9	+1.1
T42A	Van Buren	19.65	8	P	P	16 26 04.0	+0.2
DUN6	Lazy B Ranch	19.81	322	P	P	16 26 06.5	+0.7
S39A	Bolivar	20.09	3	P	P	16 26 08.6	0.0
BG3	Lake Jocassee	20.26	29	P	P	16 26 10.5	0.0
BG3				IAmb	IAmb	16 26 11.1	
	comp=Z,4.5nm,0.7s						
U49A	Red Boiling Sp	20.44	21	P	P	16 26 12.8	+0.4
U49A				IAmb	IAmb	16 26 14.2	
	comp=Z,10nm,0.5s						
TKL	Tuckaleechee C	20.45	26	P	P	16 26 12.3	-0.2
CCM	Cathedral Cave	20.64	8	IAmb	IAmb	16 26 14.1	
	comp=Z,3.8nm,0.7s						
CCM				P	P	16 26 14.2	-0.2
V53A	Saluda	20.88	28	P	P	16 26 17.0	-0.1
V53A				IAmb	IAmb	16 26 18.4	
	comp=Z,4.9nm,0.6s						
CBKS	Cedar Bluff	21.64	349	P	P	16 26 25.8	+0.6
R49A	Shelbyville	22.26	20	P	P	16 26 31.0	-0.4
R49A				IAmb	IAmb	16 26 32.0	
	comp=Z,7.6nm,1.1s						
V58A	Windy Hill, Pi	22.80	34	P	P	16 26 36.0	-0.5
V58A				IAmb	IAmb	16 26 54.8	
	comp=Z,16nm,1.5s						
SRU	San Rafael Swe	25.54	330	P	P	16 27 01.5	-0.1
SRU				IAmb	IAmb	16 27 21.5	
	comp=Z,14nm,0.8s						
NV11	Mina Array Sit	29.23	320	P	P	16 27 34.7	+0.3
EYMN	Ely	30.41	4	P	P	16 27 44.1	-0.5
EYMN				IAmb	IAmb	16 28 18.5	
	comp=Z,12nm,1.4s						
EPLO	Experimental L	32.04	1	P	P	16 27 58.7	-0.2
EPLO				IAmb	IAmb	16 28 01.1	
	comp=Z,4.9nm,0.9s						
ULM	Lac du Bonnet	32.62	359	P	P	16 28 03.2	-0.7
ULM				IAmb	IAmb	16 28 24.7	
	comp=Z,6.6nm,1.0s						

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*GFZ **28** 16:26:55.5±0.2, 0°N±3°×10°0E±°, h113^{km}±3^{km}, M4.5/17, mb4.7/16, Error ellipse: s-maj=8.0km s-min=3.9km az=45.9, confirmed*

*NEIC **28** 16:26:55.2±1.3, 0°.07N±0°.09×99°.54E±0°.07, h96^{km}±7^{km}, mb4.7/35, Error ellipse: s-maj=13.4km s-min=8.9km az=206.0*

*DJA **28** 16:26:56.2±0.2, 0°N±2°×10°0E±°, h87^{km}±3^{km}, M4.6/52, mb4.9/15, mB5.2/9, MLv4.6/52, Mw(mB)4.5/9*

*IDC **28** 16:26:57.6±2.7, 0°.30N×99°.86E, h114^{km}±21^{km}, mb4.1/15, mbtmp4.4/16, MS2.8/1, Error ellipse: s-maj=31.9km s-min=10.9km az=55.0*

ISC 28 16:26:55.2±0.7**, 0°.15N**±0°.05×**99°.56E**±0°.04**, h100**^{km}±5^{km}**, n155, $\sigma 1^{s}.29$**/159**, mb4.6**/50**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MNSI	Mandailing Nat	0.64	2	P	Pn	16 27 12.0	-0.2
PPI	Padang Panjang	1.03	126	P	Pn	16 27 18.1	+2.0
PBSI	Pulau Batu	1.29	261	P	Pn	16 27 20.1	+1.0
PBSI				AML	AML		
PBSI	Pulau Batu	1.29	261	P	Pn	16 27 20.0	+1.0
BKNI	Bangkinang	1.49	83	Pn	Pn	16 27 22.6	+1.2
BKNI	Bangkinang	1.49	83	P	Pn	16 27 22.5	+1.1
BKNI				AML	AML		
BKNI	Bangkinang	1.49	83	P	Pn	16 27 22.7	+1.2
SDSI	Sungai Dareh	2.16	120	P	Pn	16 27 32.2	+2.3
SDSI	Sungai Dareh	2.16	120	P	Pn	16 27 31.7	+1.8
GSI	Gunungsitoli	2.29	300		Pn	16 27 32.1	+0.4
GSI	Gunungsitoli	2.29	300	P	Pn	16 27 32.0	+0.4
GSI				AML	AML		
GSI	Gunungsitoli	2.29	300	P	Pn	16 27 31.8	+0.2
RPSI	Rantau Prapat	2.61	346		Pn	16 27 36.3	+0.5
RPSI	Rantau Prapat	2.61	346	P	Pn	16 27 36.3	+0.5
PSI	Prapat	2.71	346	P	Pn	16 27 36.4	-0.9
RGRI	Rengat	2.82	100	P	Pn	16 27 40.6	+2.0
PPSI	Pulau Pagai	2.93	171	P	Pn	16 27 40.4	+0.3
PPSI	Pulau Pagai	2.93	171	P	Pn	16 27 41.5	+1.4
KRJI	Kerinci	2.93	139	P	Pn	16 27 43.6	+3.4
KRJI				AML	AML		
KRJI	Kerinci	2.93	139	P	Pn	16 27 41.6	+1.4
TSI	Tuntungan	3.47	343	P	Pn	16 27 48.3	+0.9
TSI				AML	AML		
TSI	Tuntungan	3.47	343	P	Pn	16 27 48.5	+1.1
KCSI	Kotacane, Aceh	3.80	332	P	Pn	16 27 50.9	-0.8
KCSI				AML	AML		
KCSI	Kotacane, Aceh	3.80	332	P	Pn	16 27 51.3	-0.4
TPTI		3.90	322	P	Pn	16 27 52.8	-0.3
TPTI				AML	AML		
TPTI		3.90	322	P	Pn	16 27 52.2	-0.9
SNSI	Sinabang, Aceh	3.93	305	P	Pn	16 27 54.0	+0.4
SNSI				AML	AML		
SNSI	Sinabang, Aceh	3.93	305	P	Pn	16 27 52.8	-0.7
MASI	Maura Aman, Be	4.23	141	P	Pn	16 27 59.7	+2.1
MASI				AML	AML		
MASI	Maura Aman, Be	4.23	141	P	Pn	16 27 58.7	+1.1
BTDF	Bukit Timah Da	4.38	74	P	Pn	16 28 00.7	+1.1
IPM	Ipoh	4.54	19		Pn	16 28 03.0	+1.1
IPM	Ipoh	4.54	19	P	Pn	16 28 03.8	+1.9
IPM				AML	AML		
IPM	Ipoh	4.54	19	P	Pn	16 28 03.0	+1.1
KSI	Kapahiang	4.84	141	P	Pn	16 28 07.7	+1.8
TPRI	Tanjung Pinang	5.03	81	P	Pn	16 28 09.6	+1.2
	0.3nm2µm37nm,0.5s						
TPRI				AML	AML		
TPRI	Tanjung Pinang	5.03	81	P	Pn	16 28 09.2	+0.9
	comp=Z,34nm,0.5s						
DSRI	Dabo	5.06	97	P	Pn	16 28 10.4	+1.6
	comp=Z,0.3nmcomp=Z,48nm,0.6s						
DSRI				AML	AML		
DSRI	Dabo	5.06	97	P	Pn	16 28 10.1	+1.3
	comp=Z,48nm,0.6s						
MLSI	Meulaboh, Aceh	5.16	322	P	Pn	16 28 10.1	-0.1
MLSI				AML	AML		
MLSI	Meulaboh, Aceh	5.16	322	P	Pn	16 28 09.7	-0.5
	comp=Z,150nm,0.7s						
KULM	Kulim	5.22	12		Pn	16 28 11.8	+0.8
KULM	Kulim	5.22	12	P	Pn	16 28 11.0	0.0
KULM				AML	AML		
KULM	Kulim	5.22	12	P	Pn	16 28 11.1	0.0
	comp=Z,28nm,1.1s						
MNAI	Manna	5.62	143	P	Pn	16 28 18.5	+2.0
	comp=Z,288nm,1.5s						
MNAI	Manna	5.62	143	P	Pn	16 28 16.8	+0.4
	comp=Z,295nm,1.1s						
LHMI	Lhok Sumawe	5.68	333	Pn	Pn	16 28 18.2	+1.0
MDSI	Maura Dua	6.52	135	P	Pn	16 28 30.0	+1.3
	comp=Z,0.2nmcomp=Z,48nm,0.5s						
MDSI				AML	AML		
MDSI	Maura Dua	6.52	135	P	Pn	16 28 29.1	+0.5
	comp=Z,46nm,0.5s						
BSI	Banda Aceh	6.80	321	P	Pn	16 28 31.0	-1.6
	comp=Z,0.3nmcomp=Z,58nm,0.5s						
BSI				AML	AML		
CNJI	Cibinong	10.58	135	P	Pn	16 29 23.6	-0.3
	comp=Z,42nm,1.2s						
BBJI	Bungbulang	11.06	133		Pn	16 29 27.9	-2.6
PBA	Port Blair	13.28	330	eP	Pn	16 30 00.2	+0.2
PBA				IAmb	IAmb	16 30 03.3	
	comp=Z,35nm,0.8s						
PBA				eS	Sn	16 32 29.1	+2.9
UGM	Wanagama	13.55	126	Pn	Pn	16 30 02.1	-1.4
DGPR	DIGLIPUR	14.52	333	eP	Pn	16 30 15.9	0.0
DGPR				IAmb	IAmb	16 30 23.3	
	comp=Z,24nm,0.6s						
DGPR				eS	Sn	16 32 58.3	+2.3
CMAR	Chiang Mai Arr	18.20	358	P	P	16 30 58.7	-1.7
	comp=Z,0.3nm,0.4s,baz=184,slow=10.0,SNR=7.2						
CMAR	Chiang Mai Arr	18.20	358	P	P	16 30 59.7	-0.7
CHTO	Chiang Mai	18.56	358	P	P	16 31 04.4	+0.1
CHTO	Chiang Mai	18.56	358	P	P	16 31 04.4	+0.1
KAPI	Kappang	20.81	105	LR	LR	16 39 34.5	
	comp=Z,24nm,18.4s,baz=270,slow=37						
MDRS	Chennai	23.05	305	eP	P	16 31 52.4	+0.2
MDRS				IAmb	IAmb	16 31 54.4	
	comp=Z,16nm,1.1s						
MDRS				eS	S	16 35 57.1	+1.7
LUWI	Luwuk	23.24	93	P	P	16 31 53.9	-0.2
LUWI				IAmb	IAmb	16 32 04.9	
	comp=Z,25nm,0.7s						
LUWI	Luwuk	23.24	93	P	P	16 31 52.6	-1.5
	comp=Z,37nm,0.9s						
VIS	Vishakhapatnam	23.66	318	eP	P	16 31 56.9	-0.8
VIS				IAmb	IAmb	16 32 19.6	
	comp=Z,31nm,1.7s						
VIS				eS	S	16 36 07.7	+2.5
MORE	Moreh	24.48	348	P	P	16 32 04.8	-0.2
MORE				IAmb	IAmb	16 32 06.6	
	comp=Z,13nm,0.6s						
PZH	PanZhiHua	26.29	4	P	P	16 32 26.8	+5.2
HYB	Hyderabad	26.87	311	eP	P	16 32 27.0	+0.1
HYB				epP	pP	16 32 48.5	-0.6
HYB				esP	sP	16 32 60.0	-0.9
HYB				ePcP	PcP	16 35 46.5	-0.6
HYB				eS	S	16 36 57.6	+1.3
SZP	Santa	26.87	49	P	P	16 32 24.1	-2.7
	comp=Z,28nm,1.1s						
H08S2	Diego Garcia H	28.07	253	T	T	17 00 37.0	
	baz=74,slow=75,SNR=16						
H08S3	Diego Garcia H	28.08	253	T	T	17 00 38.6	
	baz=74,slow=75,SNR=30						
H08S1	Diego Carcia H	28.09	253	T	T	17 00 40.4	
	baz=74,slow=75,SNR=11						
EVN	Everest	30.23	337	P	P	16 32 57.6	+0.3
LSA	Lhasa	30.46	345	P	P	16 32 57.3	-1.8
	comp=Z,4.2nm,0.7s						
SSLB	Suanglung	31.36	40	P	P	16 33 07.5	+0.9
SSLB				IAmb	IAmb	16 33 14.5	
	comp=Z,38nm,1.5s						
FITZ	Fitzroy Crossi	31.41	127	P	P	16 33 05.9	-1.2
	comp=Z,1.8nm,1.0s,baz=297,slow=14,SNR=2.0						
	comp=Z,1.8nm,1.0s						
ENH	Enshi	31.41	17	P	P	16 33 05.3	-1.7
	comp=Z,8.1nm,0.6s						
NJ2	Nanjing	36.60	28	eP	P	16 33 54.0	+2.2
NJ2				pmax	pmax		
	comp=Z,11nm,0.6s						
JOW	Kunigami	38.30	44	P	P	16 34 07.6	+1.4
WB0	Warramunga Arr	39.45	122	P	P	16 34 15.2	-0.8
WB0				IAmb	IAmb	16 34 18.7	
	comp=Z,5.2nm,1.2s						
WRA	Warramunga Arr	39.48	122	P	P	16 34 15.6	-0.6
	comp=Z,1.3nm,0.5s,baz=299,slow=7.8,SNR=5.6						
WRA				PcP	PcP	16 36 23.3	+1.0
	comp=Z,0.4nm,0.4s,baz=310,slow=3.0,SNR=6.6						
WRA				ScP	ScP	16 40 02.1	0.0
	comp=Z,0.6nm,1.0s,baz=305,slow=3.7,SNR=2.7						
	comp=Z,1.3nm,0.5s						
WRA	Warramunga Arr	39.48	122	IAmb	IAmb	16 34 18.3	
	comp=Z,0.1nm,0.6s						
WR8	Warramunga Arr	39.63	122	P	P	16 34 16.6	-0.8
GENI	Genyem	40.69	94	P	P	16 34 24.2	-2.1
	comp=Z,16nm,1.0s						
AS31	Alice Springs	40.89	128	P	P	16 34 26.8	-1.0
ASAR	Alice Springs	40.89	128	P	P	16 34 27.8	0.0
	comp=Z,1.0nm,0.6s,baz=298,slow=7.9,SNR=26						
ASAR				PcP	PcP	16 36 27.6	+0.8
	comp=Z,0.5nm,0.6s,baz=308,slow=3.1,SNR=6.1						
ASAR				ScP	ScP	16 40 06.8	-0.7
	comp=Z,0.4nm,0.7s,baz=312,slow=4.4,SNR=5.0						
ASAR				S	S	16 40 27.9	-4.3
	comp=Z,0.2nm,0.5s,baz=298,slow=15,SNR=5.6						
	comp=Z,1.0nm,0.6s						
ASAR	Alice Springs	40.89	128	P	P	16 34 27.0	-0.9
NIL	Nilore	41.48	326	P	P	16 34 32.9	+0.4
	comp=Z,11nm,0.8s						
HHC	Hu-ho-hao-te	41.95	14	eP	P	16 34 39.8	+3.5
HHC				pmax	pmax		
	comp=Z,9.0nm,0.7s						
KSH2	Kashi	44.60	333	P	P	16 34 58.3	+0.6
KSH2				pmax	pmax		
	comp=Z,6.0nm,0.8s						
WMQ	Urumqi	44.75	348	eP	P	16 35 01.5	+2.7
WMQ				pmax	pmax		
	comp=Z,13nm,0.7s						
WUS	Wushi	44.83	338	P	P	16 34 60.0	+0.5
	comp=Z,12nm,0.8s						
KSRS	Korea Array	45.43	32	P	P	16 35 02.8	-1.3
	comp=Z,2.2nm,0.5s,baz=221,slow=8.0,SNR=19						
	comp=Z,2.2nm,0.5s						
KS19	Wonju Array Si	45.43	32	P	P	16 35 03.8	-0.3
KS19				IAmb	IAmb	16 35 19.2	
	comp=Z,18nm,1.3s						
TARG	Taragay, Kyrgy	45.82	337	P	P	16 35 08.8	+1.2
TARG				IAmb	IAmb	16 35 36.0	
	comp=Z,5.8nm,1.0s						
NRN	Naryn	46.29	335	P	P	16 35 11.5	+0.2
NRN				IAmb	IAmb	16 35 13.1	
	comp=Z,4.8nm,0.7s						
JMN	Monobe	46.39	40	P	P	16 35 12.2	+0.3
JMN				IAmb	IAmb	16 35 17.2	
	comp=Z,37nm,1.3s						
SHLS	Shalkode	46.45	340	eP	P	16 35 12.5	+0.3
PDGK	Podgornoye	46.59	340	P	P	16 35 14.2	+0.9
UZB	Uzynbulak	46.59	339	eP	P	16 35 14.8	+1.4
SATY	Saty	46.74	339	eP	P	16 35 16.1	+1.6
KPKS	Kokpek	46.99	339	eP	P	16 35 17.7	+1.2
TNSS	Tian-Shan	47.27	337	eP	P	16 35 20.0	+1.1
MDOK	Medeo	47.33	338	eP	P	16 35 20.5	+1.4
AAA	Alma-Ata	47.42	338	eP	P	16 35 21.2	+1.5
	comp=Z,6.5nm,0.5s						
ARSB	Arslanbob	47.52	333	P	P	16 35 21.8	+1.2
ARSB				IAmb	IAmb	16 35 23.5	
	comp=Z,13nm,1.3s						
SONM	Songino Array	47.87	6	P	P	16 35 22.7	-0.4
	comp=Z,2.6nm,0.4s,baz=187,slow=9.7,SNR=17						
SONM				PcP	PcP	16 36 50.9	+0.6
	comp=Z,2.5nm,0.5s,baz=188,slow=5.6,SNR=7.0						
	comp=Z,2.6nm,0.4s						
SONM	Songino Array	47.87	6	P	P	16 35 23.7	+0.6
KUU	Kurty	48.23	338	eP	P	16 35 27.3	+1.4
TDK	Taldyqorghan	48.43	340	eP	P	16 35 28.8	+1.4
	comp=Z,4.0nm,0.4s						
ZSN	Zaisan	48.82	347	eP	P	16 35 31.7	+1.4
	comp=Z,5.6nm,1.1s						

MKAR	Makanchi Array	48.85	344	P	P	16 35 30.7	+0.1
	comp=Z,8.2nm,0.5s,baz=158,slow=8.6,SNR=100						
	comp=Z,8.2nm,0.5s						
MKAR	Makanchi Array	48.85	344	P	P	16 35 31.1	+0.4
MAKZ	Makanchi	48.95	344	P	P	16 35 31.5	+0.2
MAKZ				IAmb	IAmb	16 35 32.5	
	comp=Z,4.5nm,0.8s						
DZA	Taraz	49.51	333	eP	P	16 35 37.2	+1.5
IUG	Iuzhnay	49.55	331	eP	P	16 35 37.4	+1.3
CHM	Chimkent	49.88	331	eP	P	16 35 40.1	+1.6
	comp=Z,4.7nm,0.3s						
BRLS	Borolday	50.31	332	eP	P	16 35 42.5	+0.7
STKA	Stephens Creek	50.91	133	P	P	16 35 47.8	+1.4
	comp=Z,1.5nm,0.7s,baz=309,slow=13,SNR=2.1						
	comp=Z,1.5nm,0.7s						
USA0B	Ussuriysk Arra	52.49	29	P	P	16 35 57.8	-0.2
USA0B				IAmb	IAmb	16 35 59.3	
	comp=Z,8.2nm,0.9s						
USRK	Ussuriysk Ar.	52.49	29	P	P	16 35 57.4	-0.5
	comp=Z,4.2nm,0.8s,baz=286,slow=2.7,SNR=16						
	comp=Z,4.2nm,0.8s						
USRK	Ussuriysk Ar.	52.49	29	P	P	16 35 57.7	-0.2
KURBB	Kurchatov Arra	53.38	343	P	P	16 36 04.8	+0.4
	comp=Z,3.5nm,0.4s,baz=159,slow=7.2,SNR=48						
KURBB				PcP	PcP	16 37 11.0	+0.6
	comp=Z,0.5nm,0.5s,baz=151,slow=3.5,SNR=5.6						
	comp=Z,3.5nm,0.4s						
KURK	Kurchatov	53.43	344	P	P	16 36 05.2	+0.5
KURK				IAmb	IAmb	16 36 06.1	
	comp=Z,5.2nm,0.7s						
KURK	Kurchatov	53.43	344		PcP	16 37 11.0	+0.4
ZAA0	Zalesovo Array	54.99	349	P	P	16 36 16.1	+0.2
ZALV	Zalesovo Beam	54.99	349	P	P	16 36 16.2	+0.3
	comp=Z,12nm,0.5s,baz=170,slow=7.2,SNR=78						
	comp=Z,12nm,0.5s						
ZALV	Zalesovo Beam	54.99	349	P	P	16 36 16.1	+0.1
BVAR	Borovoye Array	58.03	340	P	P	16 36 37.4	-0.2
	comp=Z,5.5nm,0.6s,baz=139,slow=8.9,SNR=17						
	comp=Z,5.5nm,0.6s						
BORK	Borovoye	58.07	340	P	P	16 36 38.0	+0.2
BORK				IAmb	IAmb	16 36 38.5	
	comp=Z,4.8nm,0.8s						
JKA	Kamikawa-asahi	58.12	35	P	P	16 36 38.7	+0.3
AB31	Akbulak array	59.56	331	P	P	16 36 48.1	-0.1
AB31				IAmb	IAmb	16 36 49.0	
	comp=Z,2.8nm,0.7s						
ABKAR	Akbulak array	59.56	331	P	P	16 36 48.2	0.0
YSS	Yuzhno-Sakhali	59.92	33	P	P	16 36 51.1	+0.4
H04N2	CROZET ISLANDS	62.27	216	T	T	17 43 28.2	
	baz=56,slow=75,SNR=33						
H04N1	CROZET ISLANDS	62.28	216	T	T	17 43 28.9	
	baz=56,slow=75,SNR=35						
H04N3	CROZET ISLANDS	62.28	216	T	T	17 43 02.9	
	baz=56,slow=75,SNR=34						
H04S1	CROZET ISLANDS	62.57	215	T	T	17 43 30.3	
	baz=57,slow=74,SNR=11						
H04S3	CROZET ISLANDS	62.59	215	T	T	17 43 44.8	
	baz=57,slow=74,SNR=15						
H04S2	CROZET ISLANDS	62.59	215	T	T	17 43 25.8	
	baz=57,slow=74,SNR=13						
ARTI	Arti	65.12	336	P	P	16 37 25.2	0.0
ARTI				IAmb	IAmb	16 37 25.6	
	comp=Z,7.8nm,0.6s						
YAK	Yakutsk	65.79	15	P	P	16 37 28.6	-0.7
YAK				IAmb	IAmb	16 37 29.2	
	comp=Z,5.0nm,0.7s						
NRIK	Noril'sk	69.54	355	P	P	16 37 52.3	-0.5
	comp=Z,3.8nm,0.5s,baz=143,slow=6.7,SNR=4.7						
	comp=Z,3.8nm,0.5s						
NRIK	Noril'sk	69.54	355	P	P	16 37 52.8	0.0
NRIK				IAmb	IAmb	16 37 53.5	
	comp=Z,15nm,1.3s						
PETK	Petropavlovsk-	71.32	33	P	P	16 38 03.6	-0.3
	comp=Z,5.8nm,0.9s,baz=284,slow=12,SNR=4.5						
	comp=Z,5.8nm,0.9s						
PETK	Petropavlovsk-	71.32	33	P	P	16 38 03.9	-0.1
PET	Petropavlovsk	71.80	33	P	P	16 38 06.9	+0.1
LVZ	Lovozero	80.62	340	P	P	16 38 57.0	+0.4
LVZ				IAmb	IAmb	16 39 21.3	
	comp=Z,30nm,1.3s						
FIA1	FINESS Array S	82.02	332	P	P	16 39 04.5	+0.5
FIA1				IAmb	IAmb	16 39 05.8	
	comp=Z,33nm,1.4s						
FINES	FINESS Array B	82.02	332	P	P	16 39 04.6	+0.6
	comp=Z,1.6nm,0.4s,baz=104,slow=5.3,SNR=27						
	comp=Z,1.6nm,0.4s						
FINES	FINESS Array B	82.02	332	P	P	16 39 04.7	+0.7
ARCES	ARCESS Array B	84.31	340	P	P	16 39 16.4	+0.7
	comp=Z,1.2nm,0.4s,baz=107,slow=5.7,SNR=3.6						
SPB2	Spitsbergen Ar	88.45	348	P	P	16 39 36.1	+0.3
SPITS	Spitsbergen Ar	88.45	348	P	P	16 39 35.7	-0.1
	comp=Z,3.7nm,0.4s,baz=103,slow=7.2,SNR=20						
	comp=Z,3.7nm,0.4s						
PDAR	Pinedale Array	129.91	28	PKP	PKiKP	16 45 54.2	-0.3
	comp=Z,0.1nm,0.5s,baz=283,slow=4.2,SNR=1.2						
TXAR	Lajitas Array	143.24	35	PKP	PKPdf	16 46 17.0	-1.6
	comp=Z,0.4nm,0.4s,baz=267,slow=3.4,SNR=4.2						

IDC 28 16:42:58.6±2.0**, 3°.95N×125°.98E, h0^{km}, mb3.5**/4**, mbtmp3.5**/4**, Error ellipse: s-maj=206.9km s-min=26.4km az=66.0, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BIPH	Bislig	4.22	5	eP	Pn	16 44 08.5	+4.3
BIPH				eS	Sb	16 45 03.4	-1.9
WRA	Warramunga Arr	25.13	161	P	P	16 48 24.0	-1.5
	0.9nm,0.7s,baz=342,slow=9.3,SNR=10						
	0.9nm,0.7s						
ASAR	Alice Springs	28.52	165	P	P	16 48 56.4	+0.3
	0.1nm,0.4s,baz=340,slow=9.3,SNR=5.7						
	0.1nm,0.4s						
STKA	Stephens Creek	38.60	158	P	P	16 50 25.4	+1.8
	0.9nm,0.5s,baz=337,slow=8.3,SNR=2.8						
	0.9nm,0.5s						
KURBB	Kurchatov Arra	61.15	328	P	P	16 53 14.6	-0.3
	0.3nm,0.5s,baz=127,slow=6.3,SNR=4.1						
	0.3nm,0.5s						

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*IDC **28** 16:49:13.9±0.8, 32°.97S×72°.06W, h0^{km}, mb4.4/8, mbtmp4.2/13, ML4.1/5, MS3.5/18, Error ellipse: s-maj=20.9km s-min=12.5km az=129.0*

*SJA **28** 16:49:14.6±0.7, 33°.07S×72°.15W, h12^{km}±2^{km}, ML4.4, MW4.2*

*NEIC **28** 16:49:16.8±1.2, 33°.00S±0°.04×72°.06W±0°.04, h18^{km}±3^{km}, mb4.8/20, ML4.6(GUC), Error ellipse: s-maj=5.9km s-min=4.3km az=131.0*

*GUC **28** 16:49:18.2±0.8, 33°.01S×71°.99W, h25^{km}±10^{km}, ML4.6*

ISC 28 16:49:14.9±1.3**, 32°.97S**±0°.02×**72°.09W**±0°.04**, h10**^{km}±7^{km}**, n132, σ1^{s}.32**/157**, mb4.4**/10**, MS3.6**/15**, 4C-18D, Off coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VA01	Torpederas	0.38	99	⇓iP	Pb	16 49 24.6	+1.0
VA01				i S	Sb	16 49 29.4	-0.1
VA01	Torpederas	0.38	99		Pb	16 49 24.4	+0.8
VA01				Sg	Sb	16 49 29.0	-0.5
VA05	Santo Domingo	0.80	150		Pb	16 49 31.1	+0.3
VA05				Sg	Sg	16 49 40.7	0.0
MT02	Curacav	0.85	110	eP	Pb	16 49 31.8	0.0
MT02				eS	Sb	16 49 43.6	+0.4
MT02	Curacav	0.85	110	⇓iP	Pb	16 49 31.8	0.0
MT02				i S	Sg	16 49 41.9	-0.5
MT02	Curacav	0.85	110		Pb	16 49 31.7	0.0
ROCH	El Roble	0.91	91	⇓iP	Pb	16 49 33.1	+0.3
ROCH				i S	Sb	16 49 44.3	-0.8
MT01	Popeta	1.14	142	eP	Pb	16 49 36.4	-0.3
MT01				eS	Sb	16 49 51.0	-0.5
MT01				IAML		16 49 51.2	
	comp=Z,5µm,0.3s						
MT01	Popeta	1.14	142	⇓iP	Pb	16 49 36.3	-0.3
MT01				i S	Sb	16 49 49.9	-1.6
MT01	Popeta	1.14	142		Pb	16 49 36.3	-0.4
PEL	Peldehue	1.19	99	⇓iP	Pn	16 49 38.0	+0.3
PEL				i S	Sn	16 49 52.9	-1.0
PEL				IAML		16 49 57.5	
	comp=N,15µm,0.4s						
PEL	Peldehue	1.19	99		Pn	16 49 37.9	+0.3
MT05	Renca	1.21	111	eP	Pg	16 49 38.1	-0.1
MT05				eS	Sn	16 49 54.8	+0.4
MT05				IAML		16 49 58.4	
	comp=Z,6µm,0.8s						
MT05	Renca	1.21	111	⇓iP	Pg	16 49 38.0	-0.1
MT05				i S	Sn	16 49 54.1	-0.3
MT05				IAML		16 49 58.5	
	comp=E,22µm,0.3s						
MT05	Renca	1.21	111		Pb	16 49 37.9	-0.1
MT09	Talagante	1.23	132	⇓iP	Pb	16 49 38.0	-0.2
MT09				i S	Sb	16 49 52.7	-1.4
MT09				IAML		16 49 53.9	
	comp=N,15µm,0.3s						
MT09	Talagante	1.23	132		Pb	16 49 38.0	-0.2
VA03	San Esteban	1.31	82	⇓iP	Pb	16 49 39.5	-0.1
VA03				i S	Sn	16 49 57.0	+0.1
VA03				IAML		16 50 00.1	
	comp=N,24µm,0.5s						
VA03	San Esteban	1.31	82		Pb	16 49 39.5	-0.1
CO04	Los Peladeros	1.32	46	⇑iP	Pg	16 49 40.2	0.0
CO04				i S	Sn	16 49 57.7	+0.4
CO04				IAML		16 50 00.3	
	comp=E,12µm,0.5s						
CO04	Los Peladeros	1.32	46		Pg	16 49 40.0	-0.2
MT10	Hacienda Santa	1.34	104	⇓iP	Pg	16 49 40.3	-0.3
MT10				i S	Sb	16 49 55.5	-1.9
MT10				IAML		16 50 05.7	
	comp=E,29µm,0.5s						
MT14	Cerro Cal¡n	1.37	109	⇓iP	Pb	16 49 40.8	+0.1
MT14				i S	Sn	16 49 57.8	-0.6
MT14				IAML		16 50 02.9	
	comp=N,19µm,0.4s						
MT16	CCHEN	1.39	110	⇓iP	Pb	16 49 41.0	0.0
MT16				i S	Sb	16 49 58.0	-0.9
MT16	CCHEN	1.39	110		Pb	16 49 40.8	-0.2
MT03	Universidad Ad	1.42	112	eP	Pn	16 49 36.2	-4.7
MT03				eS	Sg	16 50 02.8	+2.0
MT03				IAML		16 50 06.3	
	comp=Z,11µm,0.3s						
MT03	Universidad Ad	1.42	112	⇓iP	Pb	16 49 41.4	-0.2
MT03				i S	Sg	16 49 60.0	-0.8
MT03				IAML		16 50 06.0	
	comp=N,21µm,0.3s						
MT03	Universidad Ad	1.42	112		Pb	16 49 41.3	-0.2
MT15	Las Vizcachas	1.47	116	⇓iP	Pb	16 49 42.0	-0.3
MT15				i S	Sn	16 50 00.3	-0.4
MT15				IAML		16 50 04.5	
	comp=E,25µm,0.4s						
MT12	Pirque	1.50	121	⇓iP	Pb	16 49 42.5	-0.4
MT12				i S	Sn	16 50 01.0	-0.5
MT12				IAML		16 50 06.9	
	comp=N,22µm,0.6s						
BO03	Pichilemu	1.53	176	⇑iP	Pn	16 49 42.3	0.0
BO04	La Punta	1.60	130	⇑iP	Pn	16 49 43.9	+0.6
BO04				i S	Sn	16 50 03.4	-0.7
BO04				IAML		16 50 08.6	
	comp=E,7µm,0.5s						
BO04	La Punta	1.60	130		Pn	16 49 43.5	+0.2
BO01	Tunca	1.65	150	eP	Pn	16 49 44.1	+0.2
BO01				eS	Sn	16 50 05.7	+0.5
BO01	Tunca	1.65	150		Pn	16 49 43.9	0.0
MT04	Ro Olivares	1.69	105	eP	Pb	16 49 46.0	-0.3
MT04				eS	Sg	16 50 10.1	+0.6
MT04				IAML		16 50 11.1	
	comp=Z,5µm,0.4s						
MT04	Ro Olivares	1.69	105	⇓iP	Pb	16 49 45.9	-0.4
MT04				i S	Sn	16 50 06.3	-0.3
MT04				IAML		16 50 11.2	
	comp=E,10µm,0.5s						
MT13	San Alfonso	1.70	118	eP	Pb	16 49 46.1	-0.2
MT13				eS	Sg	16 50 09.6	+0.1
MT13				IAML		16 50 11.3	
	comp=Z,11µm,0.3s						
MT13	San Alfonso	1.70	118	⇓iP	Pb	16 49 45.9	-0.4
MT13				i S	Sb	16 50 07.2	-0.5
MT13				IAML		16 50 12.4	
	comp=E,26µm,0.4s						
MT13	San Alfonso	1.70	118		Pb	16 49 45.6	-0.6
MT08	Bocatoma Ro	1.80	106	eP	Pb	16 49 48.0	-0.1
MT08				eS	Sg	16 50 12.1	-0.8
MT08				IAML		16 50 17.6	
	comp=Z,3µm,0.3s						
MT08	Bocatoma Ro	1.80	106	⇓iP	Pb	16 49 47.9	-0.2
MT08				i S	Sb	16 50 10.2	-0.6
LMEL	Las Melosas	1.81	120	⇓iP	Pb	16 49 47.5	-0.6
LMEL				i S	Sb	16 50 09.7	-1.1
LMEL				IAML		16 50 14.4	
	comp=N,12µm,0.3s						
CO02	Combarbal	1.99	28	eP	Pb	16 49 50.7	-0.5
CO02				eS	Sg	16 50 22.0	+3.2
CO02				IAML		16 50 25.1	
	comp=Z,5µm,0.2s						
CO02	Combarbal	1.99	28	⇑iP	Pb	16 49 50.2	-0.9
CO02				i S	Sb	16 50 15.9	-0.1
CO02	Combarbal	1.99	28		Pb	16 49 50.0	-1.2
GO05	Hualane	2.04	176	eP	Pn	16 49 49.5	+0.2
GO05				IAML		16 50 28.8	
	comp=Z,1µm,0.8s						
GO05	Hualane	2.04	176	i P	Pn	16 49 49.1	-0.2
GO05				i S	Sb	16 50 17.5	0.0
GO05	Hualane	2.04	176		Pn	16 49 49.0	-0.3
BO02	Sierra Bellavi	2.12	149	eP	Pn	16 49 51.5	+1.0
BO02				IAML		16 50 27.6	
	comp=Z,2µm,0.3s						
BO02	Sierra Bellavi	2.12	149		Pn	16 49 51.0	+0.5
CO03	El Pedregal	2.43	30	eP	Pb	16 49 57.3	-1.5
CO03				eS	Sg	16 50 36.9	+3.8
CO03				IAML		16 50 38.7	
	comp=Z,2µm,0.7s						
RTLS	Leoncito	2.63	65	eP	Pb	16 50 01.4	-0.9
RTLS				eS	Sg	16 50 40.9	+1.3
RTLS				IAML		16 50 50.2	
	comp=Z,3µm,0.4s						
ARCO	CERRO ARCO	2.66	88	eP	Pb	16 50 03.1	+0.5
ARCO				eS	Sb	16 50 35.2	-0.2
ARCO				IAML		16 50 44.6	
	comp=Z,1µm,0.7s						
AAGR	Agrelo	2.74	93	eP	Pb	16 50 04.1	0.0
AAGR				IAML		16 50 48.2	
	comp=Z,760nm,0.5s						
ML02	Panimavida	2.84	169		Pn	16 49 60.0	-0.4
GO04	Tololo Observa	3.00	22		Pn	16 50 03.8	+1.1
ZON	Zonda	3.22	65	eP	Pb	16 50 09.5	-2.7
ZON				eP	Pn	16 50 10.1	+4.5
ZON				eS	Sb	16 50 49.7	-1.7
ZON				IAML		16 51 03.3	
	comp=Z,682nm,1.1s						
ZON	Zonda	3.22	65	Pn	Pn	16 50 06.3	+0.8
CO01	Juntas del Tor	3.43	30	eP	Pn	16 50 11.7	+3.0
CO01				eS	Sn	16 50 47.2	-2.3
CO01				IAML		16 51 06.0	
	comp=Z,780nm,1.1s						
RTLL	Cerro Villicun	3.47	63	eP	Pn	16 50 12.6	+3.6
RTLL				eS	Sg	16 51 07.2	+0.7
RTLL				IAML		16 51 08.3	
	comp=Z,2µm,0.4s						
ACCO	Cerro Coronel	3.50	48	eP	Pn	16 50 08.7	-1.0
ACCO				eP	Pb	16 50 13.9	-3.2
ACCO				eP	Pg	16 50 14.7	-7.3
ACCO				eS	Sb	16 50 59.2	-0.6
ACCO				IAML		16 51 11.7	
	comp=Z,812nm,0.7s						
CFA	Coronel Fontan	3.53	68	Pn	Pn	16 50 12.1	+2.3
	comp=Z,20nm,0.3s,baz=240,slow=14,SNR=87						
CFA				Lg	Lg	16 51 01.4	
	comp=Z,86nm,0.3s,baz=170,slow=15,SNR=9.7						
CFA				LR	LR	16 51 46.0	
	comp=Z,588nm,18.2s,baz=344,slow=43						
	comp=Z,68nm,0.6s						
CFA				AML	AML		
CFA	Coronel Fontan	3.53	68	eP	Pb	16 50 13.6	-3.9
CFA				eS	Sg	16 51 04.4	-4.0
CFA				IAML		16 51 07.4	
	comp=Z,490nm,0.5s						
AROD	Rodeo	3.58	39	eP	Pb	16 50 14.7	-3.7
AROD				eS	Sb	16 51 02.2	+0.3
BI02	San Fabin de	3.75	170	eP	Pn	16 50 14.5	+1.7
BI02				IAML		16 51 24.2	
	comp=Z,314nm,0.8s						
BI02	San Fabin de	3.75	170		Pn	16 50 12.9	+0.1
ACDV	Cuesta del Vie	3.77	43	eP	Pn	16 50 05.3	-7.9
ACDV				eS	Sb	16 51 08.7	+1.4
ACDV				IAML		16 51 16.9	
	comp=Z,643nm,0.7s						
LCO	Las Campanas	4.12	17		Pn	16 50 18.1	0.0
ACAN	Cantantal	4.19	82	eP	Pn	16 50 21.9	+3.0
ACAN				IAML		16 51 37.7	
	comp=Z,2µm,0.6s						
AC05	El Transito	4.40	21		Pn	16 50 23.1	+1.3
AC04	Llanos de Chal	4.83	11		Pn	16 50 28.0	+0.4
H03S1	Juan Fernandez	5.77	259	T	T	16 56 55.7	
	baz=83,slow=75,SNR=242						
H03S3	Juan Fernandez	5.77	260	T	T	16 56 55.5	
	baz=83,slow=75,SNR=210						
H03S2	Juan Fernandez	5.78	260	T	T	16 56 53.7	
	baz=83,slow=75,SNR=344						
PLCA	Paso Flores	7.85	171	Pn	Pn	16 51 10.1	+1.0
	comp=Z,0.5nm,0.3s,baz=350,slow=14,SNR=13						
PLCA				LR	LR	16 54 29.3	
	comp=Z,190nm,21.9s,baz=345,slow=40						
	comp=Z,1.5nm,0.4s						
PLCA				AML	AML		
PLCA	Paso Flores	7.85	171		Pn	16 51 09.7	+0.6
PB02	IPOC Station P	11.76	10	Pn	Pn	16 52 02.9	+0.1
CPUP	Villa Florida	14.43	67	Pn	Pn	16 52 38.7	-0.5
	comp=Z,0.4nm,0.3s,baz=240,slow=13,SNR=6.4						
CPUP				Sn	Sn	16 55 21.2	+1.9
	comp=Z,0.2nm,0.3s,baz=95,slow=11,SNR=2.9						
CPUP				Lg	Lg	16 56 30.9	
	comp=Z,0.5nm,0.3s,baz=314,slow=16,SNR=3.4						
CPUP				LR	LR	16 59 00.6	
	comp=Z,64nm,20.4s,baz=254,slow=41						
	comp=Z,1.7nm,0.6s						
CPUP				AML	AML		
CPUP	Villa Florida	14.43	67	Pn	Pn	16 52 39.1	-0.1
LPAZ	La Paz	16.99	13	Pn	P	16 53 14.9	-0.3
	comp=Z,0.3nm,0.3s,baz=183,slow=5.0,SNR=8.4						
	comp=Z,2.1nm,0.6s						
LPAZ				AML	AML		
LPAZ	La Paz	16.99	13	Pn	Pn	16 53 13.0	-0.3
SIV	San Ignacio	19.63	33	P	P	16 53 44.5	+0.8
	baz=214,slow=12,SNR=14						
	comp=Z,4.3nm,0.9s						
PTLB	Pontes e Lacer	21.03	37	P	P	16 53 59.3	+0.5
PTLB				IAmb	IAmb	16 54 00.7	
	comp=Z,17nm,1.1s						
EFI	East Falkland	21.31	155	P	P	16 54 01.7	+0.1
ATAH	Atahualpa	26.36	346	LR	LR	17 02 57.7	
	comp=Z,84nm,20.9s,baz=220,slow=31						
BDFB	Brasilia	27.80	57	P	P	16 55 03.6	-0.8
	comp=Z,2.5nm,0.3s,baz=206,slow=9.6,SNR=6.6						
BDFB				LR	LR	17 06 50.1	
	comp=Z,141nm,19.2s,baz=196,slow=38						
	comp=Z,2.5nm,0.3s						
BDFB	Brasilia	27.80	57	IAmb	IAmb	16 55 05.3	
	comp=Z,17nm,1.2s						
PMSA	Palmer Station	32.22	174	LR	LR	17 07 47.8	
	comp=Z,119nm,18.5s,baz=325,slow=35						
RPN	Rapa Nui	32.64	270	LR	LR	17 05 23.8	
	comp=Z,129nm,18.6s,baz=135,slow=30						
BOAV	Boa Vista	36.83	20	P	P	16 56 23.8	+0.5
MDP	Montagnes des	42.12	30	LR	LR	17 16 50.6	
	comp=Z,118nm,18.2s,baz=133,slow=39						
PIRO	Carate, Puerto	42.51	343	P	P	16 57 10.6	+0.1
RCBR	Riachuelo	43.14	59	LR	LR	17 16 40.7	
	comp=Z,50nm,21.2s,baz=331,slow=38						
SNAA	Sanae	52.56	158	P	P	16 58 28.7	+0.6
	comp=Z,2.6nm,0.7s,baz=252,slow=9.6,SNR=3.9						
SNAA				LR	LR	17 20 08.8	
	comp=Z,34nm,18.1s,baz=20,slow=35						
	comp=Z,2.6nm,0.7s						
QSPA	South Pole Qui	57.27	180	P	P	16 59 03.4	+1.0
	comp=Z,1.8nm,0.7s,baz=161,slow=1.2,SNR=16						
	comp=Z,1.8nm,0.7s						
QSPA	South Pole Qui	57.27	180	P	P	16 59 03.5	+1.1
QSPA				IAmb	IAmb	16 59 37.3	
	comp=Z,9.7nm,1.6s						
VNDA	Vanda	65.10	191	LR	LR	17 23 19.9	
	comp=Z,28nm,20.8s,baz=358,slow=31						
TXAR	Lajitas Array	68.81	331	P	P	17 00 20.1	+0.7
	comp=Z,0.5nm,0.6s,baz=156,slow=3.4,SNR=2.1						
	comp=Z,0.5nm,0.6s						
WVT	Waverly	70.30	347	P	P	17 00 28.4	+0.1
WVT				IAmb	IAmb	17 00 30.3	
	comp=Z,4.6nm,0.8s						
PPT	Papeete	70.35	261	LR	LR	17 24 18.0	
	comp=Z,37nm,18.1s,baz=354,slow=30						
WMOK	Wichita Mounta	71.86	337	P	P	17 00 38.0	+0.1
WMOK				IAmb	IAmb	17 02 39.1	
	comp=Z,3.5nm,0.9s						
MAW	Mawson	74.18	164	P	P	17 00 51.2	0.0
	comp=Z,1.7nm,0.5s,baz=224,slow=7.7,SNR=10						
MAW				LR	LR	17 36 11.2	
	comp=Z,64nm,18.7s,baz=223,slow=38						
	comp=Z,1.7nm,0.5s						
MAW	Mawson	74.18	164	P	P	17 00 51.1	0.0
DBIC	Dimbokro	74.89	72	P	P	17 00 56.5	+0.3
	comp=Z,2.7nm,0.5s,baz=247,slow=5.6,SNR=5.1						
DBIC				LR	LR	17 32 30.5	
	comp=Z,37nm,18.9s,baz=186,slow=35						
	comp=Z,2.7nm,0.5s						
DBIC	Dimbokro	74.89	72	P	P	17 00 55.9	-0.3
DBIC				IAmb	IAmb	17 01 09.9	
	comp=Z,39nm,1.8s						
SUR	Sutherland	75.37	119	P	P	17 00 58.9	-0.1
BOSA	Boshof	80.59	118	P	P	17 01 27.6	-0.4
	comp=Z,4.3nm,0.7s,baz=242,slow=2.5,SNR=12						
BOSA				LR	LR	17 33 15.6	
	comp=Z,31nm,19.1s,baz=208,slow=33						
	comp=Z,4.3nm,0.7s						
BOSA	Boshof	80.59	118	P	P	17 01 28.1	+0.1
BOSA				IAmb	IAmb	17 03 42.3	
	comp=Z,44nm,1.8s						
ICQ	Pointe Anglais	82.23	3	P	P	17 01 36.3	+0.5
LBTB	Lobatse	82.78	115	LR	LR	17 35 03.0	
	comp=Z,25nm,18.7s,baz=232,slow=33						
LBTB	Lobatse	82.78	115	P	P	17 01 40.1	+0.5
TORD	Torodi Ar. Bea	83.90	70	P	P	17 01 45.7	+0.4
	comp=Z,4.2nm,0.8s,baz=240,slow=4.5,SNR=19						
	comp=Z,4.2nm,0.8s						
RPZ	Rata Peaks	84.40	221	LR	LR	17 31 17.8	
	comp=Z,24nm,20.8s,baz=304,slow=30						
MDT	Midelt	91.20	51	LR	LR	17 42 03.3	
	comp=Z,45nm,19.4s,baz=230,slow=35						
H11S2	WAKE ISLAND Hy	125.74	270	T	T	19 27 22.6	
	baz=118,slow=74,SNR=46						
H11S1	WAKE ISLAND Hy	125.75	270	T	T	19 27 23.5	
	baz=118,slow=74,SNR=40						
H11S3	WAKE ISLAND Hy	125.75	270	T	T	19 27 23.9	
	baz=118,slow=74,SNR=36						
H11N3	WAKE ISLAND Hy	126.12	271	T	T	19 27 38.5	
	baz=117						
H11N1	WAKE ISLAND Hy	126.14	271	T	T	19 27 45.3	
	baz=117						
H11N2	WAKE ISLAND Hy	126.14	271	T	T	19 27 51.6	
	baz=117						
BVAR	Borovoye Array	146.55	42	PKPbc	PKPab	17 08 57.0	0.0
	comp=Z,1.5nm,0.5s,baz=300,slow=2.9,SNR=8.7						
ARSB	Arslanbob	151.09	63		PKPbc	17 09 08.2	-0.1
KURBB	Kurchatov Arra	152.14	42	PKPbc	PKPbc	17 09 10.5	+0.4
	comp=Z,1.2nm,0.7s,baz=296,slow=2.9,SNR=11						
KURK	Kurchatov	152.15	42		PKPbc	17 09 10.6	+0.4
ZALV	Zalesovo Beam	153.37	31	PKPbc	PKiKP	17 09 13.7	+0.8
	comp=Z,1.6nm,0.7s,baz=325,slow=1.8,SNR=8.2						
ZALV	Zalesovo Beam	153.37	31		PKPbc	17 09 12.9	+0.2
MKAR	Makanchi Array	156.11	47	PKPab	PKPab	17 09 37.0	+0.2
	comp=Z,0.9nm,0.7s,baz=289,slow=3.7,SNR=5.9						
NJ2	Nanjing	170.71	267	eP	PKPdf	17 09 24.3	+1.0
NJ2				pmax	pmax		
	comp=Z,10.0nm,1.3s						
GTA2	Gaotai	170.75	43	ePKP	PKPdf	17 09 18.5	-4.8
HHC	Hu-ho-hao-te	171.61	341	eP	PKPdf	17 09 20.8	-2.9
PZH	PanZhiHua	171.62	139	PKP	PKPdf	17 09 23.5	-0.7

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*KRNET **28** 17:02:44.7±0.1, 42°.15N×73°.32E, h26^{km}, mb2.8*

*NNC **28** 17:02:45.3±0.8, 42°.14N×73°.37E, h0^{km}, mb3.7, mpv3.3, Error ellipse: s-maj=10.4km s-min=3.2km az=166.0*

*SOME **28** 17:02:45.2, 42°.03N×73°.37E, h15^{km}*

*KNET **28** 17:02:46.6±0.3, 42°.17N×73°.47E, h6^{km}±2^{km}, ml1.9, Error ellipse: s-maj=3.2km s-min=1.9km az=157.0*

ISC 28 17:02:44.9±1.0**, 42°.15N**±0°.03×**73°.34E**±0°.02**, h11**^{km}±9^{km}**, n58, σ1^{s}.51**/100**, 31C-27D, Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EKS2	Erkin-Say	0.61	32	⇑P	Pg	17 02 57.3	+0.5
	14nm,0.1s,SNR=87						
EKS2				⇑S	Sg	17 03 05.1	+0.3
	22nm,0.2s						
EKS2	Erkin-Say	0.61	32	⇓iP	Pg	17 02 56.7	-0.1
EKS2				⇓iS	Sg	17 03 05.3	+0.5
MNAS	Manas	0.70	299	⇓iP	Pg	17 02 58.1	-0.5

MNAS				⇓iS	Sg	17 03 07.6	-0.3
ARSB	Arslanbob	0.87	198	⇓eP	Pb	17 03 00.9	-1.1
ARSB				⇓eS	Sg	17 03 12.6	-0.4
UCH	Uchtor	0.88	85	⇑eP	Pg	17 03 01.7	-0.3
UCH				⇑eS	Sb	17 03 13.8	-0.5
AAK	Ala-Archa	0.99	60	⇑P	Pg	17 03 04.0	0.0
	5.9nm,0.1s,SNR=14						
AAK				⇑S	Sn	17 03 17.4	-1.4
	16nm,0.2s						
AAK	Ala-Archa	0.99	60	⇑P	Pb	17 03 03.8	-0.3
	2.8nm,0.5s						
AAK				⇓S	Sg	17 03 17.0	+0.2
	4.5nm,0.6s						
AAK	Ala-Archa	0.99	60	⇑eP	Pb	17 03 03.3	-0.8
AAK				⇑eS	Sg	17 03 16.9	+0.1
ARK	Arkit	1.08	252	⇓iP	Pb	17 03 04.6	-1.1
ARK				⇓eS	Sb	17 03 18.9	-1.0
FRU1	Bishkek	1.16	55	⇓eP	Pb	17 03 06.5	-0.6
FRU1				⇓eS	Sn	17 03 22.3	-0.8
KBK	Karagaybulak	1.30	66	⇓P	Pg	17 03 09.7	-0.2
	6.9nm,0.1s,SNR=9.2						
KBK				⇓S	Sg	17 03 27.4	+0.6
	31nm,0.2s						
KBK	Karagaybulak	1.30	66	⇑iP	Pn	17 03 08.8	-0.3
KBK				⇑iS	Sg	17 03 26.4	-0.3
SALK	Salom-Alik	1.32	164	⇑eP	Pn	17 03 09.1	-0.3
SALK				⇑eS	Sb	17 03 26.3	-0.4
CHMS	Chumysh	1.35	50	⇑P	Pg	17 03 10.7	-0.1
	6.7nm,0.1s,SNR=16						
CHMS				⇓S	Sg	17 03 29.6	+1.3
	9.2nm,0.2s						
CHMS	Chumysh	1.35	50	⇑iP	Pn	17 03 09.5	-0.2
CHMS				⇑iS	Sg	17 03 27.7	-0.6
USP	Ospenovka	1.41	37	⇑iP	Pn	17 03 10.6	+0.1
USP				⇑iS	Sb	17 03 29.3	+0.1
SGDS	Sogindy	1.61	36	P	Pg	17 03 15.8	-0.1
	11nm,0.1s						
SGDS				S	Sg	17 03 37.4	+0.6
	22nm,0.1s						
OHH	Osh	1.68	195	⇑eP	Pn	17 03 14.7	+0.5
OHH				⇑eS	Sb	17 03 36.6	-0.3
TRKS	Terek-Say	1.75	250	⇑eP	Pn	17 03 16.0	+0.6
TRKS				⇑eS	Sn	17 03 38.7	+0.9
TKM2	Tokmak 2	1.84	64	⇑P	Pb	17 03 19.2	+0.6
	8.3nm,0.1s,SNR=31						
TKM2				⇓S	Sg	17 03 45.0	+0.9
	15nm,0.1s						
TKM2	Tokmak 2	1.84	64	⇑eP	Pb	17 03 17.6	-1.1
TKM2				⇑iS	Sb	17 03 41.4	-0.4
BOOM	Boomskoye usch	1.96	79	⇑eP	Pb	17 03 19.7	-1.0
BOOM				⇑eS	Sb	17 03 44.5	-0.7
NRN	Naryn	2.12	109	⇓iP	Pn	17 03 21.1	+0.6
NRN				⇓iS	Sb	17 03 47.8	-2.0
KST	Kastek	2.13	64	Pg	Pg	17 03 25.6	-0.2
	6.8nm,0.3s						
KST				Lg	Lg	17 03 54.9	
	45nm,0.6s						
KST	Kastek	2.13	64	eP	Pg	17 03 25.6	-0.2
	6.8nm,0.3s						
KST				eS	Sg	17 03 54.9	+1.3
	45nm,0.6s						
SFK	Sufi-Kurgan	2.14	177	⇑iP	Pn	17 03 21.5	+0.8
SFK				⇑iS	Sn	17 03 48.2	+0.8
ULHL	Ulahol	2.16	86	⇓P	Pb	17 03 25.0	+0.8
	4.2nm,0.2s,SNR=28						
ULHL				⇑S	Sg	17 03 54.2	-0.2
	4.5nm,0.1s						
ULHL	Ulahol	2.16	86	⇓iP	Pn	17 03 22.1	+1.1
ULHL				⇓iS	Sb	17 03 49.3	-1.7
KK31	Karatay Array	2.29	296	⇓Pg	Pb	17 03 27.3	+1.0
	1.4nm,0.2s,baz=109,slow=16,SNR=6.6						
KK31				⇑Lg	Lg	17 03 58.4	
	4.0nm,0.2s,baz=119,slow=27,SNR=11						
KRBS	Karabastau	2.31	47	Pg	Pb	17 03 27.6	+1.0
	8.2nm,0.2s						
KRBS				Lg	Lg	17 03 57.6	
	3.1nm,0.4s						
KRBS	Karabastau	2.31	47	eP	Pb	17 03 27.6	+1.0
	8.2nm,0.2s						
KRBS				eS	Sg	17 03 57.6	-1.6
	3.1nm,0.4s						
IUG	Iuzhnay	2.46	271	Pg	Pb	17 03 30.9	+1.7
	19nm,0.3s						
IUG				Lg	Lg	17 04 03.2	
	180nm,0.4s						
IUG	Iuzhnay	2.46	271	eP	Pb	17 03 30.9	+1.7
	19nm,0.3s						
IUG				eS	Sg	17 04 03.2	-0.7
	180nm,0.4s						
IZV	Izvestkoviy	2.58	69	Pg	Pg	17 03 33.8	-0.5
	8.0nm,0.2s						
IZV				Lg	Lg	17 04 08.2	
	14nm,0.2s						
IZV	Izvestkoviy	2.58	69	eP	Pg	17 03 33.8	-0.5
	8.0nm,0.2s						
IZV				eS	Sg	17 04 08.2	+0.5
	14nm,0.2s						
BRLS	Borolday	2.73	290	Pg	Pg	17 03 36.4	-0.9
	2.4nm,0.2s						
BRLS				Lg	Lg	17 04 12.8	
	9.2nm,0.2s						
BRLS	Borolday	2.73	290	eP	Pg	17 03 36.4	-0.9
	2.4nm,0.2s						
BRLS				eS	Sg	17 04 12.8	+0.1
	9.2nm,0.2s						
KUU	Kurty	2.81	51	Pg	Pg	17 03 37.2	-1.5
	1.1nm,0.0s						
KUU				Lg	Lg	17 04 14.0	
	10nm,0.3s						
KUU	Kurty	2.81	51	eP	Pg	17 03 37.2	-1.5
	1.1nm,0.0s						
KUU				eS	Sg	17 04 14.0	-1.1
	10nm,0.3s						
TNSS	Tian-Shan	2.81	70	Pg	Pg	17 03 37.4	-1.4
	2.1nm,0.2s						
TNSS				Lg	Lg	17 04 14.9	
	4.1nm,0.4s						
TNSS	Tian-Shan	2.81	70	eP	Pg	17 03 37.4	-1.4
	2.1nm,0.2s						
TNSS				eS	Sg	17 04 14.9	-0.3
	4.1nm,0.4s						
BTK	Batken	2.83	223	⇓eP	Pn	17 03 30.9	+0.8
BTK				⇓eS	Sn	17 04 04.3	+0.2
KDJ	Kajisay	2.86	89	⇓iP	Pn	17 03 31.9	+1.3
KDJ				⇓iS	Sn	17 04 06.3	+1.2
DRK	Karamyk	2.91	204	⇓eP	Pn	17 03 32.1	+0.7
DRK				⇓eS	Sn	17 04 06.6	+0.1
KTBS	Karatobe	2.91	56	Pg	Pb	17 03 37.8	+1.0
	0.3nm,0.1s						
KTBS				Lg	Lg	17 04 15.6	
	14nm,0.3s						
KTBS	Karatobe	2.91	56	eP	Pb	17 03 37.9	+1.0
	0.3nm,0.1s						
KTBS				eS	Sg	17 04 15.6	-2.9
	14nm,0.3s						
MDOK	Medeo	2.92	68	Pg	Pg	17 03 38.9	-2.0
	6.0nm,0.3s						
MDOK				Lg	Lg	17 04 17.4	
	9.9nm,0.4s						
MDOK	Medeo	2.92	68	eP	Pg	17 03 38.9	-2.0
	6.0nm,0.3s						
MDOK				eS	Sg	17 04 17.4	-1.3
	9.9nm,0.4s						
KOTS	Kotyrbulak	2.99	67	Pg	Pg	17 03 41.0	-1.1
	5.3nm,0.4s						
KOTS				Lg	Lg	17 04 20.6	
	18nm,0.4s						
KOTS	Kotyrbulak	2.99	67	eP	Pg	17 03 41.0	-1.1
	5.3nm,0.4s						
KOTS				eS	Sg	17 04 20.6	-0.2
	18nm,0.4s						
KPKS	Kokpek	4.15	70	Pg	Pg	17 04 01.4	-3.0
	0.4nm,0.2s						
KPKS				Lg	Lg	17 04 55.5	
	3.3nm,0.4s						
KPKS	Kokpek	4.15	70	eP	Pg	17 04 01.4	-3.0
	0.4nm,0.2s						
KPKS				eS	Sg	17 04 55.5	-2.6
	3.3nm,0.4s						
BLB	Baldybastay	4.24	61	Pg	Pg	17 04 02.9	-3.2
	4.2nm,0.4s						
BLB				Lg	Lg	17 04 58.2	
	3.6nm,0.2s						
UZB	Uzynbulak	4.31	75	Pg	Pb	17 04 03.9	+3.1
	2.4nm,0.2s						
UZB				Lg	Lg	17 05 00.2	
	3.8nm,0.4s						
UZB	Uzynbulak	4.31	75	eP	Pb	17 04 03.9	+3.1
	2.4nm,0.2s						
UZB				eS	Sg	17 05 00.2	-3.1
	3.8nm,0.4s						
SHLS	Shalkode	4.63	75	Pg	Pg	17 04 16.3	+2.7
	2.8nm,0.2s						
SHLS				Lg	Lg	17 05 20.8	
	5.2nm,0.5s						
SHLS	Shalkode	4.63	75	eP	Pg	17 04 16.2	+2.7
	2.8nm,0.2s						
SHLS				eS	Sg	17 05 20.8	+7.3
	5.2nm,0.5s						
KNOS	Konyrlen	4.80	61	Pg	Pg	17 04 14.4	-2.6
	0.7nm,0.5s						
KNOS				Lg	Lg	17 05 17.7	
	2.4nm,0.4s						

IDC ***28*** *17:02:47.9±1.1,2°.85S×139°.23E,h0km,mb3.4/5, mbtmp3.5/7,ML3.6/2,MS2.5/1,Error ellipse: s-maj=24.2km s-min=14.8km az=167.0*

ISC 28 17:02:56.4±1.4,**3°.2S**±0°.1×**138°.9E**±0°.1,**h46km,n9, σ2s.29**/10,**mb3.5**/3,**Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAY	Jayapura	1.97	71	Pg	Pn	17 03 17.2	-10
	7.0nm,0.3s,baz=254,slow=13,SNR=53						
JAY				Lg	Lg	17 03 37.5	
	20nm,0.3s,baz=106,slow=18,SNR=7.4						
SIJI	Sorong	7.91	287	Pn	Pn	17 04 50.7	+1.8
	1.3nm,0.3s,baz=276,slow=23,SNR=9.5						
SIJI				Sn	Sn	17 06 15.6	-1.6
	0.1nm,0.3s,baz=311,slow=23,SNR=1.6						
	4.8nm,0.3s						
SIJI				AML	AML		
DAV	Davao City (W)	16.70	308	LR	LR	17 12 20.8	
	comp=Z,15nm,20.5s,baz=178,slow=34						
WRA	Warramunga Arr	17.23	194	Pn	Pn	17 06 53.8	-0.1
	0.2nm,0.3s,baz=16,slow=10,SNR=16						
WRA				Sn	Sn	17 10 00.5	-4.3
	baz=355,slow=24,SNR=1.6						
	0.3nm,0.6s						
WRA				AML	AML		
FITZ	Fitzroy Crossi	19.68	220	P	P	17 07 23.6	+1.8
	1.6nm,0.9s,baz=48,slow=14,SNR=1.5						
FITZ				S	S	17 11 02.9	+1.4
	3.4nm,1.1s,baz=133,slow=9.5,SNR=3.0						
	1.6nm,0.9s						
ASAR	Alice Springs	20.92	193	P	P	17 07 36.4	+1.1
	0.4nm,0.5s,baz=23,slow=9.5,SNR=17						
	0.4nm,0.5s						
MKAR	Makanchi Array	70.24	322	P	P	17 14 02.4	-2.4
	0.3nm,0.7s,baz=101,slow=4.6,SNR=2.0						
	0.3nm,0.7s						
VNDA	Vanda	75.31	175	P	P	17 14 34.9	+0.7
	0.4nm,0.6s,baz=316,slow=7.9,SNR=3.7						
	0.4nm,0.6s						
QSPA	South Pole Qui	86.77	180	P	P	17 15 35.8	+0.2
	0.2nm,0.5s,baz=356,slow=4.4,SNR=1.1						
	0.2nm,0.5s						

IDC 28 17:05:04.0±2.2,**31°.04S**×**178°.83W,h0km,mb3.5**/3, **mbtmp3.6**/4,**ML3.0**/1,**Error ellipse: s-maj=52.7km s-min=37.3km az=65.0,Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	7.94	204	Pn	Pn	17 07 00.2	-0.5
	0.2nm,0.3s,baz=14,slow=17,SNR=1.0						
URZ				Sn	Sn	17 08 22.6	-8.5
	0.3nm,0.3s,baz=193,slow=20,SNR=1.6						
	8.0nm,0.8s						
URZ				AML	AML		
ASAR	Alice Springs	42.37	268	P	P	17 12 60.0	-0.2
	0.4nm,0.7s,baz=108,slow=7.7,SNR=4.9						
	0.4nm,0.7s						
WRA	Warramunga Arr	43.42	273	P	P	17 13 08.8	0.0
	0.2nm,0.3s,baz=112,slow=7.8,SNR=6.7						
	0.2nm,0.3s						
QSPA	South Pole Qui	59.07	180	P	P	17 15 05.7	-0.1
	1.3nm,1.1s,baz=191,slow=21,SNR=1.2						
	1.3nm,1.1s						
FINES	FINESS Array B	145.49	339	PKPbc	PKPdf	17 24 42.6	-0.7
	1.0nm,0.9s,baz=17,slow=5.8,SNR=4.6						

IDC 28 17:31:50.1±1.9,**6°.94S**×**128°.07E,h0km,mb3.2**/2, **mbtmp3.3**/4,**ML3.5**/2,**Error ellipse: s-maj=278.0km s-min=22.6km az=64.0,Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	14.29	155	Pn	Pn	17 35 07.0	-6.9
	0.3nm,0.3s,baz=334,slow=14,SNR=19						
WRA				Sn	Sn	17 37 28.2	-25
	0.5nm,0.3s,baz=330,slow=24,SNR=11						
	0.2nm,0.2s						
WRA				AML	AML		
ASAR	Alice Springs	17.55	162	Pn	Pn	17 35 51.5	-5.0
	0.1nm,0.3s,baz=336,slow=9.7,SNR=16						
ASAR				Sn	Sn	17 38 50.5	-22
	0.1nm,0.3s,baz=318,slow=16,SNR=5.9						
	0.4nm,0.6s						
ASAR				AML	AML		
MKAR	Makanchi Array	67.14	328	P	P	17 42 46.1	+0.4
	0.1nm,0.4s,baz=134,slow=6.2,SNR=1.7						
	0.1nm,0.4s						
KURBB	Kurchatov Arra	71.47	329	P	P	17 43 12.1	-0.3
	0.1nm,0.4s,baz=133,slow=5.2,SNR=2.2						
	0.1nm,0.4s						

IDC ***28*** *17:32:39.5±4.0,20°.27S×177°.91W,h576km±26km,mb3.1/5, mbtmp4.1/7,Error ellipse: s-maj=66.8km s-min=41.6km az=130.0*

ISC 28 17:32:35.1±2.5,**20°.6S**±0°.3×**177°.4W**±0°.3,**h550km,n8, σ1s.21**/9,**mb3.7**/5,**Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	5.15	303	P	P	17 34 07.5	+1.2
	8.0nm,0.3s,baz=122,slow=7.8,SNR=30						
DZM	Mont Dzumac	15.13	261	P	P	17 35 46.7	+0.6
	7.5nm,0.8s,baz=88,slow=7.2,SNR=3.2						
STKA	Stephens Creek	38.27	244	P	P	17 39 09.1	+0.4
	0.9nm,0.7s,baz=80,slow=8.5,SNR=1.1						
	0.9nm,0.7s						
JAY	Jayapura	44.60	288	P	P	17 39 57.7	-1.4
	8.8nm,0.6s,baz=123,slow=5.6,SNR=8.9						
	8.8nm,0.6s						
ASAR	Alice Springs	45.05	257	P	P	17 40 01.9	-0.6
	1.9nm,0.6s,baz=94,slow=7.6,SNR=19						
ASAR				PcP	PcP	17 41 32.9	+1.3
	0.2nm,0.5s,baz=94,slow=2.7,SNR=1.8						
	1.9nm,0.6s						
WRA	Warramunga Arr	45.15	262	P	P	17 40 01.7	-1.5
	1.3nm,0.5s,baz=97,slow=8.2,SNR=14						
	1.3nm,0.5s						
FITZ	Fitzroy Crossi	53.58	262	P	P	17 41 04.6	-0.6
	1.2nm,0.7s,baz=124,slow=7.3,SNR=7.1						
	1.2nm,0.7s						
AKASG	Malin Array Be	143.35	331	PKP	PKPdf	17 51 06.3	-0.5
	0.4nm,0.4s,baz=51,slow=3.7,SNR=4.9						

IDC ***28*** *17:33:00.8±3.3,10°.02S×67°.22E,h0km,mb3.6/3, mbtmp3.6/3,MS3.3/2,Error ellipse: s-maj=76.3km s-min=48.5km az=80.0*

ISC 28 17:33:02.8±2.5,**10°.0S**±0°.3×**67°.3E**±0°.3,**h10km,n14, σ0s.26**/6,**mb3.9**/3,**Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H08S1	Diego Carcia H	5.63	66	Pn	Pn	17 34 26.5	0.0
	baz=90,slow=70						
H08S1				T	T	17 40 34.8	
	baz=245,slow=75,SNR=162						
H08S3	Diego Garcia H	5.65	66	Pn	Pn	17 34 26.5	-0.2
	baz=90,slow=70						
H08S3				T	T	17 40 36.3	
	baz=245,slow=75,SNR=104						
H08S2	Diego Garcia H	5.65	66	Pn	Pn	17 34 26.8	+0.1
	baz=90,slow=70						
H08S2				T	T	17 40 35.5	
	baz=245,slow=75,SNR=194						
H04N2	CROZET ISLANDS	38.40	197	T	T	18 20 50.9	
	baz=25,slow=76,SNR=7.1						
H04N1	CROZET ISLANDS	38.40	197	T	T	18 20 51.9	
	baz=25,slow=76,SNR=7.5						
H04N3	CROZET ISLANDS	38.41	197	T	T	18 20 51.0	
	baz=25,slow=76,SNR=6.4						
LSZ	Lusaka	38.47	258	LR	LR	17 53 42.0	
	comp=Z,36nm,18.2s,baz=112,slow=32						
TSUM	Tsumeb	48.82	253	LR	LR	17 58 58.7	
	comp=Z,30nm,19.1s,baz=52,slow=32						
H01W3	Cape Leeuwin H	49.30	128	T	T	18 34 57.6	
	baz=289,slow=75,SNR=14						
H01W2	Cape Leeuwin H	49.31	128	T	T	18 34 56.8	
	baz=289,slow=75,SNR=16						
H01W1	Cape Leeuwin H	49.32	128	T	T	18 34 58.0	
	baz=289,slow=75,SNR=18						
ASAR	Alice Springs	64.70	111	P	P	17 43 41.4	-0.3
	0.7nm,0.8s,baz=274,slow=6.0,SNR=8.2						
	0.7nm,0.8s						
WRA	Warramunga Arr	65.18	107	P	P	17 43 45.1	+0.3
	0.9nm,1.0s,baz=279,slow=6.4,SNR=5.5						
	0.9nm,1.0s						
SONM	Songino Array	67.20	27	P	P	17 43 57.3	0.0
	0.2nm,0.4s,baz=222,slow=5.2,SNR=2.4						
	0.2nm,0.4s						

SJA ***28*** *17:45:36.3±0.7,33°.00S×72°.09W,h21km±2km,ML3.3, MW3.5*

GUC ***28*** *17:45:39.0±0.7,33°.01S×72°.02W,h24km±14km,ML3.4*

ISC 28 17:45:36.2±1.4,**33°.03S**±0°.02×**72°.04W**±0°.05,**h11km**±10km, **n53,σ0s.97**/85,**1C-15D,Off coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VA01	Torpederas	0.33	90	eP	Pn	17 45 45.4	-1.5
VA01				eS	Sb	17 45 50.7	+1.4
VA01	Torpederas	0.33	90	⇓iP	Pn	17 45 45.6	-1.3
VA01				i		17 45 55.9	
VA05	Santo Domingo	0.72	151	i P	Pn	17 45 52.2	-0.1
VA05				i S	Sb	17 46 01.8	+1.1
VA05				IAML		17 46 03.3	
	comp=E,3µm,0.4s						
MT02	Curacav	0.79	107	eP	Pn	17 45 52.9	-0.4
MT02	Curacav	0.79	107	⇓iP	Pn	17 45 52.8	-0.4
MT02				i S	Sb	17 46 03.2	+0.5
ROCH	El Roble	0.87	87	⇓iP	Pn	17 45 54.1	-0.4
ROCH				i S	Sg	17 46 04.0	-0.2
MT01	Popeta	1.07	142	eP	Pn	17 45 57.5	+0.4
MT01				IAML		17 46 14.2	
	comp=Z,586nm,0.2s						
MT01	Popeta	1.07	142	⇓iP	Pn	17 45 57.4	+0.4
MT01				i S	Sn	17 46 11.3	-0.6
MT01				IAML		17 46 12.8	
	comp=E,1µm,0.5s						
PEL	Peldehue	1.14	96	eP	Pg	17 45 59.0	+0.8
PEL				IAML		17 46 20.3	
	comp=Z,400nm,0.2s						
PEL	Peldehue	1.14	96	i P	Pg	17 45 58.9	+0.8
PEL				i S	Sn	17 46 13.4	-0.4
PEL				IAML		17 46 18.9	
	comp=N,851nm,0.4s						
MT05	Renca	1.15	109	eP	Pg	17 45 59.2	+0.9
MT05				eS	Sn	17 46 16.3	+2.2
MT05				IAML		17 46 19.4	
	comp=Z,401nm,0.9s						
MT05	Renca	1.15	109	⇓iP	Pg	17 45 59.0	+0.6
MT05				i S	Sn	17 46 13.8	-0.3
MT05				IAML		17 46 19.6	
	comp=E,2µm,0.4s						
MT09	Talagante	1.16	131	⇓iP	Pg	17 45 59.1	+0.7
MT09				i S	Sn	17 46 13.9	-0.4
MT09				IAML		17 46 15.0	
	comp=N,3µm,0.2s						
VA03	San Esteban	1.28	79	eP	Pg	17 46 01.0	+0.2
VA03				eS	Sg	17 46 19.4	+2.0
VA03				IAML		17 46 21.5	
	comp=Z,601nm,0.2s						
VA03	San Esteban	1.28	79	⇓iP	Pg	17 46 00.5	-0.2
VA03				i S	Sg	17 46 17.4	0.0
VA03				IAML		17 46 21.0	
	comp=N,2µm,0.5s						
MT10	Hacienda Santa	1.28	102	⇓iP	Pg	17 46 01.3	+0.4
MT10				i S	Sb	17 46 16.4	-0.6
MT10				IAML		17 46 22.9	
	comp=N,1µm,0.4s						
MT14	Cerro Cal¡n	1.31	107	⇓iP	Pg	17 46 01.8	+0.4
MT14				i S	Sn	17 46 17.9	-0.2
MT14				IAML		17 46 24.4	
	comp=N,1µm,0.4s						
CO04	Los Peladeros	1.33	43	i P	Pg	17 46 01.6	-0.2
CO04				i S	Sg	17 46 18.7	-0.4
CO04				IAML		17 46 21.2	
	comp=E,966nm,0.4s						
MT16	CCHEN	1.33	108	i P	Pg	17 46 01.8	0.0
MT16				i S	Sg	17 46 19.4	+0.2
MT03	Universidad Ad	1.36	110	eP	Pn	17 45 59.2	-2.0
MT03				eP	Pg	17 46 02.9	+0.5
MT03				IAML		17 46 27.3	
	comp=Z,915nm,0.5s						
MT03	Universidad Ad	1.36	110	i P	Pg	17 46 02.5	+0.1
MT03				eS	Sg	17 46 20.5	+0.4
MT03				IAML		17 46 25.1	
	comp=E,2µm,0.3s						
MT15	Las Vizcachas	1.41	114	⇓iP	Pg	17 46 03.1	-0.1
MT15				i S	Sg	17 46 21.4	-0.1
MT15				IAML		17 46 26.0	
	comp=E,2µm,0.6s						
MT12	Pirque	1.43	120	⇓iP	Pg	17 46 03.5	-0.2
MT12				i S	Sg	17 46 22.1	-0.3
MT12				IAML		17 46 27.9	
	comp=N,2µm,0.5s						
BO03	Pichilemu	1.47	177	i P	Pb	17 46 03.4	-0.1
BO03				i S	Sn	17 46 20.9	-0.9
BO04	La Punta	1.53	129	⇑iP	Pg	17 46 05.1	-0.5
BO04				i S	Sg	17 46 24.7	-0.8
BO04				IAML		17 46 29.6	
	comp=E,474nm,0.5s						
BO01	Tunca	1.58	150	eP	Pb	17 46 05.4	0.0
BO01				IAML		17 46 27.9	
	comp=Z,177nm,0.3s						
BO01	Tunca	1.58	150	i P	Pb	17 46 04.9	-0.5
MT13	San Alfonso	1.63	117	eP	Pg	17 46 07.0	-0.6
MT13				eS	Sg	17 46 29.6	+0.9
MT13				IAML		17 46 32.2	
	comp=Z,602nm,0.3s						
MT13	San Alfonso	1.63	117	⇓iP	Pb	17 46 06.8	+0.4
MT13				i S	Sg	17 46 27.9	-0.8
MT13				IAML		17 46 32.4	
	comp=E,1µm,0.3s						
MT04	Ro Olivares	1.64	104	eP	Pg	17 46 07.0	-0.6
MT04				eS	Sg	17 46 29.4	+0.5
MT04				IAML		17 46 32.0	
	comp=Z,476nm,0.5s						
MT04	Ro Olivares	1.64	104	⇓iP	Pb	17 46 06.9	+0.4
MT04				i S	Sg	17 46 28.0	-1.0
LMEL	Las Melosas	1.74	119	⇓iP	Pb	17 46 08.6	+0.4
LMEL				i S	Sg	17 46 31.0	-1.2
MT08	Bocatoma Ro	1.75	104	eP	Pg	17 46 09.2	-0.6
MT08				eS	Sg	17 46 32.4	0.0
MT08				IAML		17 46 35.0	
	comp=Z,174nm,0.4s						
MT08	Bocatoma Ro	1.75	104	⇓iP	Pb	17 46 08.8	+0.5
MT08				i S	Sg	17 46 31.9	-0.4
MT08				IAML		17 46 36.8	
	comp=E,478nm,0.4s						
GO05	Hualane	1.98	177	i S	Sb	17 46 38.1	+1.1
CO02	Combarbal	2.02	26	eP	Pb	17 46 11.5	-1.5
CO02				IAML		17 46 45.4	
	comp=Z,356nm,0.2s						
CO02	Combarbal	2.02	26	i P	Pn	17 46 11.3	+1.0
CO02				i S	Sn	17 46 35.9	+0.4
CO02				IAML		17 46 48.8	
	comp=E,1µm,0.3s						
BO02	Sierra Bellavi	2.05	150	eP	Pb	17 46 12.5	-0.9
BO02				IAML		17 46 49.6	
	comp=Z,336nm,0.2s						
BO02	Sierra Bellavi	2.05	150	i P	Pb	17 46 12.3	-1.1
BO02				i S	Sb	17 46 38.1	-0.9
CO06	Fray Jorge	2.37	8	i P	Pn	17 46 15.0	0.0
CO03	El Pedregal	2.46	28	eP	Pn	17 46 18.0	+1.6
CO03				eS	Sb	17 46 50.0	-0.9
CO03				IAML		17 46 57.9	
	comp=Z,147nm,0.3s						

ARCO	**CERRO ARCO**	2.62	87	eP	Pb	17 46 24.1	+0.9
ARCO				IAML		17 47 03.3	
	comp=Z,93nm,1.2s						
RTLS	**Leoncito**	2.62	63	eP	Pb	17 46 23.1	-0.3
RTLS				IAML		17 47 01.8	
	comp=Z,191nm,0.5s						
AAGR	**Agrelo**	2.70	92	eP	Pn	17 46 06.5	-13
AAGR				IAML		17 46 30.8	
	comp=Z,77nm,1.0s						
ML02	**Panimavida**	2.78	170	eS	Sb	17 47 00.5	+0.6
ML02				IAML		17 47 10.9	
	comp=Z,100nm,0.7s						
AVIZ	**Vizcacheras**	2.99	100	eP	Pb	17 46 27.1	-2.4
GO04	**Tololo Observa**	3.03	21	eP	Pn	17 46 25.4	+1.1
GO04				IAML		17 47 15.1	
	comp=Z,149nm,0.5s						
ZON	**Zonda**	3.21	64	eP	Pn	17 46 29.5	+3.0
ZON				eS	Sg	17 47 18.4	-0.8
ZON				IAML		17 47 24.2	
	comp=Z,38nm,1.1s						
SJA	**San Juan**	3.30	64	eP	Pg	17 46 39.0	-0.5
SJA				IAML		17 47 41.5	
	comp=Z,81nm,0.1s						
CO01	**Juntas del Tor**	3.46	29	eP	Pn	17 46 32.3	+2.1
CO01				eS	Sb	17 47 18.2	-1.6
CO01				IAML		17 47 27.0	
	comp=Z,47nm,1.1s						
EDS3	**Malargue**	3.50	142	eP	Pn	17 46 32.2	+1.5
AC05	**El Transito**	4.44	20	eP	Pn	17 46 45.8	+2.2
AC05				IAML		17 48 01.8	
	comp=Z,34nm,0.9s						
AC04	**Llanos de Chal**	4.88	10	eP	Pn	17 46 49.2	-0.3
AC04				IAML		17 48 12.0	
	comp=Z,31nm,0.6s						

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*IDC **28** 17:58:23.5±0.9, 54°.39N×165°.83E, h0^{km}, mb3.8/10, mbtmp3.8/11, ML3.1/1, MS2.9/5, Error ellipse: s-maj=27.1km s-min=14.3km az=162.0*

*KRSC **28** 17:58:24.7±1.6, 54°.38N×165°.63E, h45^{km}±25^{km}, Ml4.1*

*NEIC **28** 17:58:24.9±2.1, 54°.4N±0°.2×165°.7E±0°.2, h10^{km}±1^{km}, mb4.3/23, Error ellipse: s-maj=29.4km s-min=15.6km az=166.0*

*MOS **28** 17:58:26.7±0.8, 54°.39N×165°.70E, h39^{km}, mb4.2/1, Error ellipse: s-maj=7.7km s-min=5.9km az=37.8*

ISC 28 17:58:28.3±0.7, **54°.40N**±0°.05×**165°.74E**±0°.05, **h35**^{km}, **n130**, σ**1^{s}.19**/155, **mb4.0**/20, **Komandorsky Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BKI	**Bering**	0.82	9	PN	Pn	17 58 41.6	-1.7
BKI				S	Sn	17 58 52.4	-1.8
BKI	**Bering**	0.82	9	eP	Pn	17 58 41.7	-1.7
BKI				eS	Sn	17 58 52.5	-1.8
MKZ	**Mys Kozlova**	2.35	275	PN	Pn	17 59 02.8	-1.5
MKZ				S	Sn	17 59 28.3	-3.5
MKZ	**Mys Kozlova**	2.35	275	eP	Pn	17 59 02.9	-1.5
MKZ				eS	Sn	17 59 28.3	-3.5
KBTR	**Krutoberegovo**	2.47	319	PN	Pn	17 59 03.3	-2.6
KBTR				S	Sn	17 59 31.6	-3.2
KBTR	**Krutoberegovo**	2.47	319	eP	Pn	17 59 03.3	-2.6
KBTR				eS	Sn	17 59 31.6	-3.2
KBG	**Krutoberegovo**	2.54	318	PN	Pn	17 59 04.8	-2.2
KBG				S	Sn	17 59 34.3	-2.4
KBG	**Krutoberegovo**	2.54	318	eP	Pn	17 59 04.9	-2.2
KBG				eS	Sn	17 59 34.4	-2.4
TUMD	**Tumrok D**	3.20	287	PN	Pn	17 59 15.0	-1.0
TUMD				S	Sn	17 59 51.3	-1.6
TUMD	**Tumrok D**	3.20	287	eP	Pn	17 59 15.1	-1.0
TUMD				eS	Sn	17 59 51.3	-1.6
KZV	**Kizimen**	3.24	285	PN	Pn	17 59 15.8	-0.9
KZV				S	Sn	17 59 51.7	-2.4
KZV	**Kizimen**	3.24	285	eP	Pn	17 59 15.9	-0.9
KZV				eS	Sn	17 59 51.7	-2.4
ZLN	**Zelenaya**	3.26	302	eS	Sn	17 59 54.4	-0.2
SMKR	**Semkarok**	3.27	314	PN	Pn	17 59 17.5	+0.4
SMKR				S	Sn	17 59 55.0	+0.3
SMKR	**Semkarok**	3.27	314	eP	Pn	17 59 17.6	+0.4
SMKR				eS	Sn	17 59 55.1	+0.3
BZGR	**Bezymyannyi-Gr**	3.28	300	PN	Pn	17 59 17.8	+0.6
BZGR				S	Sn	17 59 55.2	+0.2
BZGR	**Bezymyannyi-Gr**	3.28	300	eP	Pn	17 59 17.8	+0.6
BZGR				eS	Sn	17 59 55.2	+0.2
BZP	**Bezymyannyi-Pe**	3.35	299	PN	Pn	17 59 17.5	-0.7
BZP				S	Sn	17 59 55.7	-1.1
BZP	**Bezymyannyi-Pe**	3.35	299	eP	Pn	17 59 17.6	-0.7
BZP				eS	Sn	17 59 55.7	-1.1
TUMR	**Tumrok**	3.35	288	PN	Pn	17 59 17.9	-0.4
TUMR				S	Sn	17 59 57.0	+0.1
TUMR	**Tumrok**	3.35	288	eP	Pn	17 59 17.9	-0.4
TUMR				eS	Sn	17 59 57.0	+0.1
BZMR	**Bezymyannaya**	3.38	299	PN	Pn	17 59 18.5	-0.2
BZMR				S	Sn	17 59 57.6	0.0
BZMR	**Bezymyannaya**	3.38	299	eP	Pn	17 59 18.5	-0.2
BZMR				eS	Sn	17 59 57.7	0.0
BZWR	**Bezymyannyi-We**	3.39	300	PN	Pn	17 59 19.0	+0.2
BZWR				S	Sn	17 59 59.1	+1.2
BZWR	**Bezymyannyi-We**	3.39	300	eP	Pn	17 59 19.1	+0.2
BZWR				eS	Sn	17 59 59.1	+1.2
KMNR	**Kamenistaya**	3.44	295	PN	Pn	17 59 19.7	+0.2
KMNR				S	Sn	17 59 59.2	+0.1
KMNR	**Kamenistaya**	3.44	295	eP	Pn	17 59 19.8	+0.2
KMNR				eS	Sn	17 59 59.2	+0.1
SRKR	**Sorokina**	3.44	313	PN	Pn	17 59 19.5	0.0
SRKR	**Sorokina**	3.44	313	eP	Pn	17 59 19.5	0.0
KIRR	**Kirishev**	3.47	299	PN	Pn	17 59 20.3	+0.5
KIRR	**Kirishev**	3.47	299	eP	Pn	17 59 20.3	+0.5
KRSR	**Krestovskiy**	3.48	304	PN	Pn	17 59 19.5	-0.4
KRSR				S	Sn	17 59 59.1	-0.7
KRSR	**Krestovskiy**	3.48	304	eP	Pn	17 59 19.5	-0.4
KRSR				eS	Sn	17 59 59.2	-0.7
KLY	**Klyuchi**	3.48	306	PN	Pn	17 59 18.1	-1.8
KLY				S	Sn	17 59 57.7	-2.1
KLY	**Klyuchi**	3.48	306	eP	Pn	17 59 18.2	-1.8
KLY				eS	Sn	17 59 57.8	-2.1
KPT	**Kopyto**	3.53	299	PN	Pn	17 59 21.0	+0.3
KPT				S	Sn	18 00 01.0	-0.2
KPT	**Kopyto**	3.53	299	eP	Pn	17 59 21.1	+0.3
KPT				eS	Sn	18 00 01.0	-0.2
KII	**Karymskiy**	3.71	267	PN	Pn	17 59 23.2	+0.1
KII	**Karymskiy**	3.71	267	eP	Pn	17 59 23.2	+0.1
KOZ	**Kozyrevsk**	3.75	299	PN	Pn	17 59 23.7	+0.1
KOZ	**Kozyrevsk**	3.75	299	eP	Pn	17 59 23.8	+0.1
SRDR	**Sredinnyy**	3.94	302	PN	Pn	17 59 26.9	+0.6
SRDR				S	Sn	18 00 11.7	+0.5
SRDR	**Sredinnyy**	3.94	302	eP	Pn	17 59 26.9	+0.6
SRDR				eS	Sn	18 00 11.7	+0.5
SDLR	**Sedlovina**	4.21	257	PN	Pn	17 59 29.1	-1.0
SDLR	**Sedlovina**	4.21	257	eP	Pn	17 59 29.2	-1.0
SMAR	**Somma**	4.27	257	PN	Pn	17 59 30.1	-0.8
SMAR	**Somma**	4.27	257	eP	Pn	17 59 30.2	-0.8
KRER	**Koryakskii**	4.28	258	PN	Pn	17 59 30.4	-0.7
KRER	**Koryakskii**	4.28	258	eP	Pn	17 59 30.5	-0.7
AVH	**Avacha**	4.30	258	PN	Pn	17 59 30.7	-0.5
AVH	**Avacha**	4.30	258	eP	Pn	17 59 30.8	-0.5
ESO	**Esso**	4.32	294	PN	Pn	17 59 30.7	-0.7
ESO	**Esso**	4.32	294	eP	Pn	17 59 30.7	-0.7
KRX	**Arik**	4.33	259	PN	Pn	17 59 31.0	-0.6
KRX	**Arik**	4.33	259	eP	Pn	17 59 31.0	-0.6
KOK	**Koryaka**	4.35	258	PN	Pn	17 59 32.0	0.0
KOK	**Koryaka**	4.35	258	eP	Pn	17 59 32.0	0.0
DALK	**Dalny**	4.37	255	PN	Pn	17 59 31.1	-1.0
DALK	**Dalny**	4.37	255	eP	Pn	17 59 31.2	-1.0
PET	**Petropavlovsk**	4.43	255	Pn	Pn	17 59 32.6	-0.4
RUS	**Russkaya**	4.75	248	PN	Pn	17 59 37.2	-0.1
RUS	**Russkaya**	4.75	248	eP	Pn	17 59 37.2	-0.1
KRMR	**Karymshinskiy**	4.80	254	PN	Pn	17 59 37.6	-0.4
KRMR	**Karymshinskiy**	4.80	254	eP	Pn	17 59 37.6	-0.4
KRMR				eS	Sn	18 00 29.2	-3.0
MTVR	**Mutnovka**	4.91	250	PN	Pn	17 59 39.2	-0.4
MTVR	**Mutnovka**	4.91	250	eP	Pn	17 59 39.3	-0.4
MTVR				eS	Sn	18 00 31.9	-3.3
GRL	**Gorelyy**	4.94	251	PN	Pn	17 59 39.7	-0.3
GRL	**Gorelyy**	4.94	251	eP	Pn	17 59 39.7	-0.3
PEA0B	**Petropavlovsk-**	4.95	258	PN	Pn	17 59 40.1	+0.1
PEA0B	**Petropavlovsk-**	4.95	258	Pn	Pn	17 59 40.1	+0.1
PETK	**Petropavlovsk-**	4.95	258	Pn	Pn	17 59 40.1	+0.1
	3.9nm,0.3s,baz=77,slow=19,SNR=49						
PETK				Sn	Sn	18 00 32.9	-3.0
	2.3nm,0.3s,baz=90,slow=18,SNR=5.0						
PETK				LR	LR	18 01 40.6	
	comp=Z,61nm,18.3s,baz=42,slow=40						
	10nm,0.5s						
PETK				AML	AML		
PETK	**Petropavlovsk-**	4.95	258		Pn	17 59 39.9	-0.1
OSSR	**Ossora**	5.08	344	PN	Pn	17 59 41.9	+0.1
OSSR	**Ossora**	5.08	344	eP	Pn	17 59 41.9	+0.1
OSSR				eS	Sn	18 00 36.6	-2.6
ASAK	**Asacha**	5.11	250	PN	Pn	17 59 42.4	+0.1
ASAK	**Asacha**	5.11	250	eP	Pn	17 59 42.4	+0.1
SHEM	**Shemya Is, Ala**	5.25	105	LR	LR	18 01 34.6	
	comp=Z,124nm,18.8s,baz=318,slow=37						
MA2	**Magadan**	9.67	308	LR	LR	18 04 33.6	
	comp=Z,59nm,18.4s,baz=76,slow=38						
O16K	**Kokwok River B**	20.19	60	P	Pn	18 03 00.5	-1.1
O16K				IAmb	IAmb	18 03 32.5	
	comp=Z,19nm,1.4s						
K17K	**Iditarod**	20.27	51	P	Pn	18 03 02.0	-0.5
K17K				IAmb	IAmb	18 03 20.2	
	comp=Z,24nm,1.5s						
N17K	**Nushagak Hills**	20.64	58	P	P	18 03 03.1	-1.3
N17K				IAmb	IAmb	18 03 40.2	
	comp=Z,20nm,1.4s						
H18K	**Honhosa River**	20.71	44	P	P	18 03 05.1	-0.1
H18K				IAmb	IAmb	18 03 23.8	
	comp=Z,17nm,1.4s						
KLR	**Kul'dur**	21.50	270	LR	LR	18 12 20.5	
	comp=Z,29nm,20.9s,baz=60,slow=39						
PPLA	**Purkeypile**	23.08	52	P	P	18 03 32.1	+1.5
PPLA				IAmb	IAmb	18 03 51.2	
	comp=Z,23nm,1.5s						
CAST	**Castle Rocks**	23.15	50	P	P	18 03 30.7	-0.5
CAST				IAmb	IAmb	18 03 36.1	
	comp=Z,8.8nm,1.4s						
KDAK	**Kodiak Island**	23.22	65	P	P	18 03 30.9	-1.0
KDAK	**Kodiak Island**	23.22	65	P	P	18 03 30.9	-1.0
STLK	**Strandline Lak**	23.24	55	P	P	18 03 34.0	+1.8
SKT	**Skwentna**	23.38	54	P	P	18 03 33.9	+0.5
SKT				IAmb	IAmb	18 03 47.0	
	comp=Z,6.2nm,1.0s						
CNPM	**China Poot**	23.68	60	P	P	18 03 36.1	-0.2
KTH	**Kantishna Hill**	23.68	50	P	P	18 03 35.3	-1.1
KTH				IAmb	IAmb	18 03 47.2	
	comp=Z,13nm,1.4s						
BPAW	**Bear Paw Mtn.**	23.68	49	P	P	18 03 37.0	+0.7
BPAW				IAmb	IAmb	18 03 56.4	
	comp=Z,12nm,1.4s						
TRF	**Thorofare Moun**	23.96	50	P	P	18 03 39.8	+0.7
TRF				IAmb	IAmb	18 03 51.5	
	comp=Z,9.3nm,1.2s						
COLD	**Coldfoot**	24.38	41		P	18 03 42.9	+0.1
RND	**Reindeer**	24.61	50	P	P	18 03 44.0	-0.9
RND				pmax	pmax		
	comp=Z,5.0nm,1.0s						
RND	**Reindeer**	24.61	50	P	P	18 03 44.0	-0.9
SML	**Sawmill**	24.90	54	P	P	18 03 47.7	+0.2
WRH	**Wood River Hil**	24.96	48	P	P	18 03 49.8	+1.8
WRH				IAmb	IAmb	18 03 50.4	
	comp=Z,5.0nm,0.8s						
CCB	**Clear Creek Bu**	25.09	47	P	P	18 03 49.7	+0.5
CCB				IAmb	IAmb	18 03 51.6	
	comp=Z,8.2nm,0.6s						
SCM	**Sheep Creek Mo**	25.37	54	P	P	18 03 51.8	-0.1
SCM	**Sheep Creek Mo**	25.37	54	P	P	18 03 51.8	-0.1
IL31		25.49	47	P	P	18 03 53.9	+1.2
IL31				IAmb	IAmb	18 03 55.2	
	comp=Z,4.8nm,0.8s						
ILAR	**Eielson Array**	25.49	47	P	P	18 03 52.5	-0.3
	comp=Z,2.7nm,0.8s,baz=255,slow=8.6,SNR=17						
	comp=Z,2.7nm,0.8s						
ILAR	**Eielson Array**	25.49	47	P	P	18 03 52.2	-0.6
H11N2	**WAKE ISLAND Hy**	34.62	178	T	T	18 42 35.0	
	baz=0.1,slow=76,SNR=24						
H11N3	**WAKE ISLAND Hy**	34.63	178	T	T	18 42 16.4	
	baz=0.1,slow=76,SNR=16						
H11N1	**WAKE ISLAND Hy**	34.63	178	T	T	18 42 39.5	
	baz=0.1,slow=76,SNR=18						
H11S1	**WAKE ISLAND Hy**	35.83	178	T	T	18 43 50.9	
	baz=353						
H11S3	**WAKE ISLAND Hy**	35.84	178	T	T	18 44 19.0	
	baz=353						
H11S2	**WAKE ISLAND Hy**	35.85	178	T	T	18 44 02.8	
	baz=353						
TLY	**Talaya**	36.37	292	LR	LR	18 20 40.0	
	comp=Z,40nm,18.2s,baz=52,slow=37						
SONM	**Songino Array**	36.84	285	P	P	18 05 34.6	+1.7
	comp=Z,0.3nm,0.5s,baz=69,slow=7.9,SNR=3.1						
	comp=Z,0.3nm,0.5s						
B08A	**Colville Reser**	45.10	65	P	P	18 06 40.8	+0.1
SPITS	**Spitsbergen Ar**	46.37	352	P	P	18 06 50.0	-0.4
	comp=Z,14nm,1.1s,baz=22,slow=16,SNR=6.6						
	comp=Z,14nm,1.1s						
SPITS	**Spitsbergen Ar**	46.37	352	P	P	18 06 50.0	-0.4
KURK	**Kurchatov**	49.84	304	P	P	18 07 18.7	+1.2
KURK	**Kurchatov**	49.84	304	P	P	18 07 18.0	+0.5
KURBB	**Kurchatov Arra**	49.95	304	P	P	18 07 18.7	+0.4
	comp=Z,0.6nm,0.5s,baz=56,slow=7.7,SNR=3.3						
	comp=Z,0.6nm,0.5s						
MKAR	**Makanchi Array**	50.56	298	P	P	18 07 23.2	+0.1
	comp=Z,0.2nm,0.6s,baz=61,slow=13,SNR=2.1						
	comp=Z,0.2nm,0.6s						
MKAR	**Makanchi Array**	50.56	298	P	P	18 07 23.1	0.0
NVAR	**Mina Array Bea**	52.15	75	P	P	18 07 36.9	+1.6
	comp=Z,0.4nm,0.6s,baz=312,slow=11,SNR=1.9						
	comp=Z,0.4nm,0.6s						
BVAR	**Borovoye Array**	52.15	310	P	P	18 07 35.7	+0.9
	comp=Z,0.9nm,0.5s,baz=48,slow=6.1,SNR=5.4						
	comp=Z,0.9nm,0.5s						
TXAR	**Lajitas Array**	67.04	71	P	P	18 09 18.0	+0.2
	comp=Z,0.6nm,0.7s,baz=319,slow=7.0,SNR=4.0						
	comp=Z,0.6nm,0.7s						
TXAR	**Lajitas Array**	67.04	71	P	P	18 09 18.0	+0.2
WRA	**Warramunga Arr**	78.79	210	P	P	18 10 27.0	-0.2
	comp=Z,0.9nm,0.8s,baz=27,slow=5.5,SNR=4.9						
	comp=Z,0.9nm,0.8s						
WRA	**Warramunga Arr**	78.79	210	P	P	18 10 27.0	-0.2
WRA	**Warramunga Arr**	78.79	210	P	P	18 10 26.9	-0.2
ASAR	**Alice Springs**	82.43	209	P	P	18 10 47.3	+0.7
	comp=Z,0.9nm,0.9s,baz=17,slow=7.3,SNR=7.5						
	comp=Z,0.9nm,0.9s						
ASAR	**Alice Springs**	82.43	209	P	P	18 10 46.8	+0.1
QSPA	**South Pole Qui**	144.15	180	PKhKP	PKPpre	18 17 55.6	
	comp=Z,1.0nm,0.6s,baz=7.4,slow=0.3,SNR=10.0						

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*SJA **28** 17:59:22.9±0.7, 20°.87S×69°.09W, h127^{km}±5^{km}, ML3.4, MW3.5*

*GUC **28** 17:59:24.9±0.8, 20°.89S×69°.06W, h118^{km}±4^{km}, ML3.4*

*IDC **28** 17:59:40.1±2.2, 19°.60S×68°.34W, h212^{km}±34^{km}, mb3.0/2, mbtmp3.4/3, Error ellipse: s-maj=109.3km s-min=26.2km az=105.0*

ISC 28 17:59:24.3±1.0, **20°.90S**±0°.03×**69°.15W**±0°.07, **h124**^{km}±8^{km}, **n30**, σ**0^{s}.90**/53, **2C-1D**, **Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PB02	**IPOC Station P**	0.81	239	eP	Pn	17 59 45.1	0.0
PB02				eS	Sn	18 00 01.7	+0.9
PB02				IAML		18 00 04.1	
	comp=Z,1μm,0.4s						
PB02	**IPOC Station P**	0.81	239	eP	Pn	17 59 45.3	+0.2
PB02				eS	Sn	18 00 00.9	+0.2
PB02				IAML		18 00 02.8	
	comp=N,2μm,0.2s						
PB09	**IPOC Station P**	0.90	185	eP	Pn	17 59 45.7	-0.2
PB09				eS	Sn	18 00 02.7	+0.4
PB09				IAML		18 00 03.3	
	comp=Z,830nm,0.5s						
PB09	**IPOC Station P**	0.90	185	⇓iP	Pn	17 59 45.7	-0.2
PB09				i S	Sn	18 00 01.7	-0.6
PB09				IAML		18 00 04.1	
	comp=N,595nm,0.5s						
TA01	**Diego Aracena**	1.02	289	eP	Pn	17 59 47.0	+0.2
TA01				eS	Sn	18 00 04.8	+0.9
TA01				IAML		18 00 05.8	
	comp=Z,404nm,0.1s						
TA01	**Diego Aracena**	1.02	289	eP	Pn	17 59 47.0	+0.2
TA01				i S	Sn	18 00 03.9	0.0
TA01				IAML		18 00 06.3	
	comp=N,619nm,0.2s						
PB07	**IPOC Station P**	1.07	220	eP	Pn	17 59 47.9	+0.3
PB07				IAML		18 00 09.1	
	comp=Z,640nm,0.2s						
PB07	**IPOC Station P**	1.07	220	eP	Pn	17 59 47.9	+0.3
PB07				i S	Sn	18 00 05.4	+0.2
PB07				IAML		18 00 06.7	
	comp=N,854nm,0.2s						
TA02	**Huaiquique**	1.11	304	eP	Pn	17 59 47.9	+0.1
TA02				IAML		18 00 08.2	
	comp=Z,1μm,0.1s						
TA02	**Huaiquique**	1.11	304	⇑eP	Pn	17 59 47.8	+0.1
TA02				eS	Sn	18 00 05.4	-0.2
GO01	**Chusmiza**	1.23	358	eP	Pn	17 59 47.0	-2.5
GO01				eP		17 59 48.4	
GO01				eS	Sn	18 00 08.3	-0.3
GO01				IAML		18 00 09.1	
	comp=Z,247nm,0.1s						
GO01	**Chusmiza**	1.23	358	eP	Pn	17 59 48.3	-1.2
GO01				i S	Sn	18 00 08.1	-0.5
GO01				IAML		18 00 08.9	
	comp=E,2μm,0.1s						
PB11	**IPOC Station P**	1.23	337	eP	Pn	17 59 48.5	-0.7
PB11				eS	Sn	18 00 08.0	-0.1
PB11				IAML		18 00 12.1	
	comp=Z,469nm,0.1s						
PB11	**IPOC Station P**	1.23	337	eP	Pn	17 59 48.4	-0.7
PB11				eS	Sn	18 00 07.2	-0.8
PB11				IAML		18 00 08.4	
	comp=E,766nm,0.2s						
PB03	**IPOC Station P**	1.27	206	eP	Pn	17 59 50.0	+0.4
PB03				eS	Sn	18 00 09.6	+0.7
PB03				IAML		18 00 12.0	
	comp=Z,703nm,0.3s						
PB03	**IPOC Station P**	1.27	206	eP	Pn	17 59 50.0	+0.4
PB03				eS	Sn	18 00 09.2	+0.3
PB03				IAML		18 00 11.3	
	comp=E,697nm,0.1s						
PSGCX	**Pisagua**	1.59	325	eP	Pn	17 59 52.8	-0.3
PSGCX				eS	Sn	18 00 15.2	+0.1
PSGCX				IAML		18 00 15.8	
	comp=Z,168nm,0.7s						
PSGCX	**Pisagua**	1.59	325	⇑iP	Pn	17 59 52.7	-0.4
PSGCX				i S	Sn	18 00 14.1	-1.0
PB05	**IPOC Station P**	2.17	206	eP	Pn	17 59 58.3	-1.9
PB05				eS	Sn	18 00 27.7	-0.1
PB05				IAML		18 00 36.2	
	comp=Z,81nm,0.2s						
PB05	**IPOC Station P**	2.17	206	eP	Pn	17 59 57.9	-2.3
PB05				i S	Sn	18 00 25.9	-2.0
AF01	**San Pedro de A**	2.23	156	eP	Pn	18 00 01.3	+0.1
AF01				IAML		18 00 48.8	
	comp=Z,124nm,0.6s						
AF01	**San Pedro de A**	2.23	156	eP	Pn	18 00 00.6	-0.5
AF01				eS	Sn	18 00 29.4	0.0
AF01				IAML		18 00 47.5	
	comp=E,181nm,0.3s						
PB12	**IPOC Station P**	2.53	334	eP	Pn	18 00 04.0	-0.7
PB12				eS	Sn	18 00 36.4	+0.5
PB12				IAML		18 00 45.5	
	comp=Z,61nm,0.2s						
PB12	**IPOC Station P**	2.53	334	eP	Pn	18 00 03.8	-1.0
PB12				i S	Sn	18 00 33.9	-2.0
PB12				IAML		18 00 45.6	
	comp=E,104nm,0.3s						
PB16	**IPOC Station P**	2.57	352	eP	Pn	18 00 06.1	+0.3
PB16				eS	Sn	18 00 38.8	+1.3
PB16				IAML		18 00 43.0	
	comp=Z,59nm,0.8s						
PB16	**IPOC Station P**	2.57	352	eP	Pn	18 00 06.1	+0.3
PB16				i S	Sn	18 00 37.3	-0.3
PB16				IAML		18 00 40.9	
	comp=E,64nm,0.3s						
LPAZ	**La Paz**	4.69	12	P	Pn	18 00 34.6	+0.8
	comp=E,1.9nm,0.3s,baz=180,slow=6.7,SNR=20						
LPAZ	**La Paz**	4.69	12	eP	Pn	18 00 34.7	+0.9
TORD	**Torodi Ar. Bea**	77.37	71	P	P	18 11 05.6	-0.4
	comp=E,0.3nm,0.5s,baz=252,slow=5.5,SNR=2.4						
	comp=E,0.3nm,0.5s						
MKAR	**Makanchi Array**	145.28	35	PKP	PKPab	18 18 49.3	+1.7
	comp=E,0.5nm,0.5s,baz=322,slow=3.4,SNR=6.2						

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*SJA **28** 18:02:14.2±0.9, 33°.06S×72°.11W, h17^{km}±3^{km}, ML3.8, MW3.8*

*GUC **28** 18:02:16.8±0.6, 33°.03S×72°.01W, h25^{km}±8^{km}, ML3.8*

ISC 28 18:02:14.1±1.6, **33°.00S**±0°.03×**72°.16W**±0°.06, **h20**^{km}±4^{km}, **n43**, σ**1^{s}.42**/80, **2C-20D**, **Off coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VA01	**Torpederas**	0.43	93	eP	Pg	18 02 23.2	+0.3
VA01				eS	Sg	18 02 28.5	-0.5
VA01	**Torpederas**	0.43	93	⇓iP	Pg	18 02 23.3	+0.3
VA05	**Santo Domingo**	0.80	145	⇓iP	Pg	18 02 30.0	+0.2
VA05				i S	Sb	18 02 39.5	-0.1
VA05				IAML		18 02 41.0	
	comp=E,5μm,0.3s						
MT02	**Curacav**	0.90	107	eP	Pb	18 02 25.0	-5.9
MT02				eP	Pb	18 02 30.5	-0.4
MT02				eS	Sn	18 02 43.9	-0.1
MT02	**Curacav**	0.90	107	⇓iP	Pb	18 02 30.5	-0.4
ROCH	**El Roble**	0.97	88	⇓iP	Pb	18 02 31.8	-0.5
MT01	**Popeta**	1.15	139	eP	Pn	18 02 35.1	+0.1
MT01				IAML		18 02 50.0	
	comp=Z,1μm,0.5s						
MT01				eS	Sb	18 02 50.0	+0.3
MT01	**Popeta**	1.15	139	⇓iP	Pn	18 02 35.1	+0.1
MT01				i S	Sb	18 02 48.2	-1.5
PEL	**Peldehue**	1.25	97	⇓iP	Pn	18 02 36.7	+0.2
PEL				i S	Sb	18 02 51.6	-1.1
PEL				IAML		18 02 56.6	
	comp=N,3μm,0.4s						
MT09	**Talagante**	1.25	129	⇓iP	Pn	18 02 36.8	+0.2
MT09				i S	Sb	18 02 51.8	-1.0
MT09				IAML		18 02 55.0	
	comp=N,3μm,0.3s						
MT05	**Renca**	1.25	108	eP	Pn	18 02 36.7	+0.1
MT05				eS	Sg	18 02 54.4	-0.5
MT05				IAML		18 02 56.4	
	comp=Z,1μm,1.3s						
MT05	**Renca**	1.25	108	⇓iP	Pn	18 02 36.7	+0.1
MT05				i S	Sb	18 02 51.5	-1.4
VA03	**San Esteban**	1.37	80	eP	Pn	18 02 25.0	-13
VA03				eP	Pb	18 02 38.5	-0.7
VA03				eS	Sb	18 02 57.1	+0.7
VA03				IAML		18 03 01.5	
	comp=Z,2μm,0.7s						
VA03	**San Esteban**	1.37	80	⇓iP	Pn	18 02 38.2	-0.1
VA03				i S	Sn	18 02 55.3	-0.7
VA03				IAML		18 02 58.6	
	comp=N,4μm,0.5s						
CO04	**Los Peladeros**	1.38	47	⇑iP	Pn	18 02 39.1	+0.5
CO04				eS	Sn	18 02 56.6	+0.2
CO04				IAML		18 03 01.3	
	comp=N,3μm,0.2s						
MT10	**Hacienda Santa**	1.39	102	⇓iP	Pn	18 02 39.0	+0.5
MT10				i S	Sn	18 02 55.8	-0.6
MT10				IAML		18 03 02.1	
	comp=N,5μm,0.6s						
MT14	**Cerro Cal¡n**	1.42	107	⇓iP	Pn	18 02 39.5	+0.7
MT14				i S	Sn	18 02 56.4	-0.6
MT14				IAML		18 03 01.4	
	comp=E,2μm,0.3s						
MT16	**CCHEN**	1.44	108	⇓iP	Pn	18 02 39.7	+0.6
MT16				i S	Sn	18 02 56.6	-0.8
MT03	**Universidad Ad**	1.47	110	eP	Pn	18 02 40.3	+0.8
MT03				eS	Sb	18 03 00.1	+1.1
MT03				IAML		18 03 04.9	
	comp=Z,2μm,0.5s						
MT03	**Universidad Ad**	1.47	110	⇓iP	Pn	18 02 40.2	+0.6
MT03				i S	Sn	18 02 57.9	-0.3
MT03				IAML		18 03 02.8	
	comp=E,5μm,0.2s						
MT15	**Las Vizcachas**	1.51	114	⇓iP	Pn	18 02 40.8	+0.7
MT15				i S	Sn	18 02 59.1	-0.1
MT15				IAML		18 03 02.8	
	comp=E,5μm,0.3s						
MT12	**Pirque**	1.53	119	⇓iP	Pn	18 02 41.2	+0.7
MT12				i S	Sn	18 02 59.5	-0.3
MT12				IAML		18 03 05.6	
	comp=N,6μm,0.6s						
BO04	**La Punta**	1.63	128	⇓iP	Pn	18 02 43.0	+1.2
BO04				i S	Sn	18 03 02.5	+0.4
BO01	**Tunca**	1.65	147	eP	Pn	18 02 42.9	+0.9
BO01				eS	Sb	18 03 03.8	-0.4
MT13	**San Alfonso**	1.73	116	eP	Pb	18 02 44.9	-0.4
MT13				eS	Sg	18 03 09.5	-0.6
MT13				IAML		18 03 09.9	

	comp=Z,1µm,0.2s						
MT13	**San Alfonso**	**1.73**	**116**	⇓*i*P	**Pn**	**18 02 44.6**	**+1.3**
MT13				*i* S	**Sn**	**18 03 05.4**	**+0.5**
MT13				IAML		18 03 09.6	
	comp=E,4µm,0.6s						
MT04	**Ro Olivares**	**1.74**	**104**	*e*P	**Pn**	**18 02 44.8**	**+1.3**
MT04				*e*S	**Sb**	**18 03 07.4**	**+0.3**
MT04				IAML		18 03 09.7	
	comp=Z,1µm,0.4s						
MT04	**Ro Olivares**	**1.74**	**104**	⇓*i*P	**Pn**	**18 02 44.6**	**+1.1**
MT04				*i* S	**Sn**	**18 03 05.4**	**+0.2**
MT04				IAML		18 03 09.9	
	comp=E,2µm,0.4s						
LMEL	**Las Melosas**	**1.84**	**118**	⇓*i*P	**Pb**	**18 02 46.4**	**-0.8**
LMEL				*i* S	**Sn**	**18 03 08.5**	**+0.9**
LMEL				IAML		18 03 13.1	
	comp=N,2µm,0.3s						
MT08	**Bocatoma Ro**	**1.85**	**104**	*e*P	**Pb**	**18 02 46.9**	**-0.5**
MT08				*e*S	**Sb**	**18 03 11.0**	**+0.8**
MT08				IAML		18 03 19.6	
	comp=Z,549nm,0.4s						
MT08	**Bocatoma Ro**	**1.85**	**104**	⇓*i*P	**Pb**	**18 02 46.6**	**-0.8**
MT08				*i* S	**Sn**	**18 03 08.9**	**+1.0**
MT08				IAML		18 03 14.0	
	comp=E,1µm,0.3s						
CO02	**Combarbal**	**2.05**	**29**	⇑*i*P	**Pn**	**18 02 48.9**	**+1.4**
CO02				*i* S	**Sn**	**18 03 13.3**	**+0.8**
BO02	**Sierra Bellavi**	**2.12**	**148**	*e*P	**Pn**	**18 02 50.3**	**+1.8**
BO02				*e*S	**Sg**	**18 03 20.3**	**-2.1**
BO02				IAML		18 03 21.1	
	comp=Z,399nm,0.3s						
CO06	**Fray Jorge**	**2.36**	**11**	*i* P	**Pn**	**18 02 52.6**	**+0.8**
CO06				*i* S	**Sn**	**18 03 19.4**	**-0.9**
CO03	**El Pedregal**	**2.49**	**30**	*e*P	**Pn**	**18 02 56.1**	**+2.4**
CO03				*e*S	**Sn**	**18 03 25.0**	**+1.4**
CO03				IAML		18 03 35.5	
	comp=Z,456nm,0.6s						
RTLS	**Leoncito**	**2.70**	**64**	*e*P	**Pb**	**18 03 00.2**	**-1.7**
RTLS				*e*S	**Sg**	**18 03 38.9**	**-2.1**
RTLS				IAML		18 03 48.2	
	comp=Z,568nm,1.0s						
CO01	**Juntas del Tor**	**3.49**	**31**	*e*P	**Pn**	**18 03 10.5**	**+2.9**
CO01				*e*S	**Sb**	**18 03 56.0**	**-1.5**
CO01				IAML		18 04 04.6	
	comp=Z,167nm,1.1s						
RTLL	**Cerro Villicun**	**3.54**	**63**	*e*P	**Pn**	**18 03 11.5**	**+3.4**
RTLL				*e*S	**Sb**	**18 03 56.0**	**-2.7**
RTLL				IAML		18 04 06.9	
	comp=Z,366nm,0.4s						
ACCO	**Cerro Coronel**	**3.57**	**48**	*e*P	**Pn**	**18 03 13.1**	**+4.5**
ACCO				*e*S	**Sb**	**18 03 58.0**	**-1.8**
ACCO				IAML		18 04 09.6	
	comp=Z,154nm,0.5s						
CFA	**Coronel Fontan**	**3.60**	**68**	*e*P	**Pn**	**18 03 12.9**	**+4.0**
CFA				*e*S	**Sb**	**18 03 59.0**	**-1.4**
CFA				IAML		18 04 06.0	
	comp=Z,100nm,0.5s						
AROD	**Rodeo**	**3.64**	**40**	*e*P	**Pn**	**18 03 13.9**	**+4.2**
AROD				*e*S	**Sb**	**18 04 04.0**	**+2.2**
PLCA	**Paso Flores**	**7.82**	**171**	P	**Pn**	**18 04 08.8**	**+1.9**
	comp=Z,0.6nm,0.4s,baz=330,slow=15,SNR=2.0						
PLCA	**Paso Flores**	**7.82**	**171**				
	comp=Z,0.6nm,0.4s						

IDC ***28*** *18:16:04.6±1.1, 3°.80N×97°.44E, h0^{km}, mb3.9/9, mbtmp3.9/10, ML3.7/1, MS3.4/15, Error ellipse: s-maj=48.4km s-min=14.9km az=60.0*

BKK ***28*** *18:16:07.8±1.7, 4°N±9°×9°7E±2°1, h10^{km}, M4.6/8, mb4.7/3, Mjma4.2/8, ML4.9/8, MLv4.7/8*

DJA ***28*** *18:16:11.6±0.2, 4°N±2°×9°8E±°, h10^{km}, M4.5/25, mB5.4/1, MLv4.5/25, Mw(mB)4.8/1*

NEIC ***28*** *18:16:11.6±2.2, 3°.94N±0°.04×97°.70E±0°.06, h35^{km}±2^{km}, mb4.2/27, Error ellipse: s-maj=11.9km s-min=3.7km az=63.0*

ISC 28 18:16:08.7±0.5**, 3°.88N**±0°.04×**97°.64E**±0°.04**, h10**^{km}**, n87, σ1^{s}.47**/45**, mb4.0**/24**, MS3.4**/13**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KCSI	**Kotacane, Aceh**	**0.38**	**161**	P	**Pg**	**18 16 15.9**	**-0.4**
KCSI				S	**Sg**	**18 16 21.6**	**+0.2**
TPTI		**0.77**	**217**	P	**Pg**	**18 16 24.4**	**+0.7**
TPTI				AML	AML		
TSI	**Tuntungan**	**0.99**	**112**	P	**Pg**	**18 16 27.5**	**-0.4**
MLSI	**Meulaboh, Aceh**	**1.29**	**287**	P	**Pn**	**18 16 33.5**	**+0.6**
MLSI				AML	AML		
LHMI	**Lhok Sumawe**	**1.51**	**333**	Pn	**Pn**	**18 16 36.5**	**+0.7**
LHMI				Sn	**Sn**	**18 16 56.8**	**+1.2**
LHMI	**Lhok Sumawe**	**1.51**	**333**	P	**Pn**	**18 16 38.0**	**+2.2**
LHMI				AML	AML		
PSI	**Prapat**	**1.67**	**130**	P	**Pn**	**18 16 39.8**	**+1.6**
RPSI	**Rantau Prapat**	**1.74**	**133**		**Pn**	**18 16 40.1**	**+1.1**
RPSI				Sn	**Sn**	**18 17 02.9**	**+1.6**
SNSI	**Sinabang, Aceh**	**1.97**	**222**	P	**Pb**	**18 16 46.7**	**+2.0**
SNSI				AML	AML		
GSI	**Gunungsitoli**	**2.56**	**182**		**Pn**	**18 16 52.4**	**+2.0**
GSI	**Gunungsitoli**	**2.56**	**182**	P	**Pb**	**18 16 54.9**	**0.0**
GSI				AML	AML		
BSI	**Banda Aceh**	**2.84**	**304**	P	Pn	18 17 00.0	+5.9
BSI				AML	AML		
KULM	**Kulim**	**3.31**	**65**	Pn	**Pn**	**18 17 00.7**	**+0.1**
KULM	**Kulim**	**3.31**	**65**	P	**Pn**	**18 17 01.4**	**+0.8**
KULM				AML	AML		
IPM	**Ipoh**	**3.42**	**80**	Pn	**Pn**	**18 17 01.9**	**-0.3**
IPM	**Ipoh**	**3.42**	**80**	P	**Pn**	**18 17 05.9**	**+3.7**
IPM				AML	AML		
MNSI	**Mandailing Nat**	**3.63**	**148**	P	Pn	18 17 10.1	+5.1
MNSI				AML	AML		
PKDT	**Phuket**	**4.04**	**10**	P	Pn	18 17 09.5	-1.2
PKDT				AML	AML		
PKDT				AML	AML		
BKNI	**Bangkinang**	**4.90**	**136**	Pn	**Pn**	**18 17 22.7**	**+0.2**
RNTT	**Ranong**	**5.53**	**9**	P	**Pn**	**18 17 30.4**	**-0.8**
	0.9nm0.6nm80nm,0.5s						
RNTT				AML	AML		
RNTT				AML	AML		
PBA	**Port Blair**	**9.12**	**328**	*e*P	Pn	18 18 17.1	-3.4
PBA				IAmb	IAmb	18 18 40.3	
	comp=Z,37nm,0.3s						
PBA				*e*S	Sn	18 19 51.9	-11
PBA				IAML		18 20 08.4	
	comp=N,54nm,0.1s						
PBA				IAML		18 20 08.4	
	comp=E,52nm,0.1s						
DGPR	**DIGLIPUR**	**10.34**	**334**	*e*P	Pn	18 18 33.3	-4.0
DGPR				IAmb	IAmb	18 18 43.2	
	comp=Z,18nm,0.8s						
DGPR				*e*S	Sn	18 20 19.6	-14
DGPR				IAML		18 20 20.4	
	comp=N,54nm,0.2s						
DGPR				IAML		18 20 21.1	
	comp=E,66nm,0.4s						
CM31	**Chiang Mai Arr**	**14.54**	**5**		**Pn**	**18 19 34.7**	**0.0**
CMAR	**Chiang Mai Arr**	**14.54**	**5**	Pn	**Pn**	**18 19 35.7**	**+1.0**
	comp=E,0.1nm,0.3s,baz=188,slow=11,SNR=11						
CMAR				LR	LR	18 25 35.4	
	comp=E,91nm,19.2s,baz=195,slow=39						
	comp=E,0.6nm,0.7s						
CMAR				AML	AML		
CMAR	**Chiang Mai Arr**	**14.54**	**5**	Pn	**Pn**	**18 19 34.2**	**-0.5**
CHTO	**Chiang Mai**	**14.89**	**5**	P	Pn	18 19 45.7	+6.2
PALK	**Pallekele**	**17.19**	**282**	LR	LR	18 26 16.4	
	comp=E,96nm,19.5s,baz=128,slow=36						
QIZ	**Qiongzhong**	**19.20**	**37**	P	**P**	**18 20 34.5**	**+1.5**
QIZ				S	**Sn**	**18 24 13.5**	**+4.2**
QIZ				LR	LR		
	comp=N,170nm,13.8s						
QIZ				LR	LR		
	comp=E,230nm,14.2s						
QIZ				LR	LR		
	comp=Z,150nm,9.3s						
VIS	**Vishakhapatnam**	**19.64**	**315**	*e*P	**P**	**18 20 37.7**	**-0.1**
VIS				*e*S	S	18 23 59.1	-20
MORE	**Moreh**	**20.49**	**351**	P	**P**	**18 20 46.0**	**-1.0**
MORE				IAmb	IAmb	18 20 49.5	
	comp=Z,11nm,0.9s						
SHL	**Shillong**	**22.26**	**346**		**P**	**18 21 05.3**	**-0.9**
SHL				IAmb	IAmb	18 21 08.3	
	comp=Z,18nm,1.0s						
BOK	**Bokaro**	**22.82**	**331**	*e*P	P	18 21 22.4	+10
BOK				IAmb	IAmb	18 21 25.6	
	comp=Z,3.3nm,0.5s						
BOK				*e*S	S	18 25 10.0	-11
KAPI	**Kappang**	**23.79**	**112**	LR	LR	18 31 16.4	
	comp=Z,63nm,18.8s,baz=256,slow=38						
H08S2	**Diego Garcia H**	**27.59**	**245**	T	T	18 48 59.5	
	baz=62						
H08S3	**Diego Garcia H**	**27.59**	**246**	T	T	18 48 48.2	
	baz=62						
H08S1	**Diego Carcia H**	**27.60**	**245**	T	T	18 48 17.7	
	baz=62						
DAV	**Davao City (W)**	**27.98**	**82**	LR	LR	18 34 38.5	
	comp=Z,37nm,19.6s,baz=284,slow=40						
ENH	**Enshi**	**28.54**	**22**	P	**P**	**18 22 04.4**	**-0.4**
ENH				IAmb	IAmb	18 22 07.1	
	comp=Z,5.6nm,0.8s						
BATI	**Baumata**	**29.45**	**119**	LR	LR	18 35 25.3	
	comp=Z,144nm,19.7s,baz=290,slow=39						
TNTI	**Ternate**	**29.85**	**95**	P	P	18 22 13.6	-3.1
FITZ	**Fitzroy Crossi**	**35.20**	**129**	P	**P**	**18 23 02.0**	**-1.4**
	comp=Z,1.5nm,0.8s,baz=304,slow=7.3,SNR=2.1						
	comp=Z,1.5nm,0.8s						
FITZ	**Fitzroy Crossi**	**35.20**	**129**	P	P	18 23 01.0	-2.4
TARG	**Taragay, Kyrgy**	**41.66**	**338**	P	**P**	**18 23 56.9**	**-1.1**
WB0	**Warramunga Arr**	**43.09**	**124**	P	**P**	**18 24 07.5**	**-2.0**
WB0				IAmb	IAmb	18 24 38.1	
	comp=Z,7.4nm,1.3s						
WRA	**Warramunga Arr**	**43.13**	**125**	P	**P**	**18 24 08.6**	**-1.2**
	comp=Z,3.0nm,0.9s,baz=300,slow=7.9,SNR=39						
WRA				PcP	**PcP**	**18 25 57.7**	**-1.8**
	comp=Z,0.2nm,0.7s,baz=303,slow=3.3,SNR=1.4						
	comp=Z,3.0nm,0.9s						
WRA	**Warramunga Arr**	**43.13**	**125**	P	**P**	**18 24 08.3**	**-1.5**
WRAB	**Tennant Creek**	**43.13**	**125**	P	**P**	**18 24 08.6**	**-1.2**
WRAB				IAmb	IAmb	18 24 14.9	
	comp=Z,7.3nm,1.0s						
WB2	**Warramunga Arr**	**43.14**	**125**	P	**P**	**18 24 08.7**	**-1.1**
WB2				IAmb	IAmb	18 24 12.7	
	comp=Z,8.0nm,1.1s						
WR8	**Warramunga Arr**	**43.27**	**125**	P	**P**	**18 24 09.9**	**-1.0**
WR8				IAmb	IAmb	18 24 14.3	
	comp=Z,7.4nm,1.1s						
WR0	**Warramunga Arr**	**43.30**	**125**	P	**P**	**18 24 10.2**	**-1.0**
WR0				IAmb	IAmb	18 24 13.9	
	comp=Z,4.5nm,0.8s						
KSRS	**Korea Array**	**43.41**	**36**	P	P	18 24 06.9	-4.8
	comp=Z,1.3nm,0.8s,baz=227,slow=7.4,SNR=5.0						
AAK	**Ala-Archa**	**43.75**	**335**	LR	LR	18 44 30.2	
	comp=Z,34nm,18.7s,baz=133,slow=39						
SONM	**Songino Array**	**44.43**	**8**	P	P	18 24 16.4	-3.6
	comp=Z,0.4nm,0.3s,baz=194,slow=9.1,SNR=5.9						
	comp=Z,0.4nm,0.3s						
ASAR	**Alice Springs**	**44.70**	**130**	P	**P**	**18 24 20.6**	**-1.8**
	comp=Z,0.4nm,0.4s,baz=300,slow=8.3,SNR=22						
	comp=Z,0.4nm,0.4s						
ASAR	**Alice Springs**	**44.70**	**130**	P	**P**	**18 24 21.0**	**-1.4**
AS31	**Alice Springs**	**44.70**	**130**	P	P	18 24 20.2	-2.2
MK31	**Makanchi Array**	**44.77**	**345**	P	P	18 24 20.6	-2.0
MK31				IAmb	IAmb	18 24 28.9	
	comp=Z,3.4nm,1.4s						
MKAR	**Makanchi Array**	**44.77**	**345**	P	P	18 24 19.6	-3.0
	comp=Z,0.4nm,0.5s,baz=155,slow=7.9,SNR=5.5						
	comp=Z,0.4nm,0.5s						
MKAR	**Makanchi Array**	**44.77**	**345**	P	P	18 24 20.5	-2.1
MAKZ	**Makanchi**	**44.87**	**345**	P	P	18 24 20.6	-2.7
MAKZ				IAmb	IAmb	18 24 50.2	
	comp=Z,4.4nm,1.3s						
GUMO	**Guam**	**47.58**	**75**	LR	LR	18 46 42.4	
	comp=Z,18nm,18.5s,baz=233,slow=38						
JHJ	**Hachijo jima 2**	**48.89**	**48**	LR	LR	18 43 27.0	
	comp=Z,129nm,21.7s,baz=195,slow=33						
JHJ2	**Mitsune**	**48.91**	**48**	P	P	18 24 51.1	-4.0
KURBB	**Kurchatov Arra**	**49.28**	**344**	P	**P**	**18 24 57.1**	**-0.6**
	comp=Z,1.1nm,0.2s,baz=28,slow=16,SNR=3.2						
	comp=Z,1.1nm,0.2s						
KURK	**Kurchatov**	**49.34**	**344**	P	**P**	**18 24 57.1**	**-1.0**
KURK	**Kurchatov**	**49.34**	**344**	IAmb	IAmb	18 25 35.3	
	comp=Z,1.2nm,0.8s						
ZALV	**Zalesovo Beam**	**51.00**	**350**	P	P	18 25 08.2	-2.5
	comp=Z,0.9nm,0.6s,baz=180,slow=6.0,SNR=5.1						
	comp=Z,0.9nm,0.6s						
ZALV	**Zalesovo Beam**	**51.00**	**350**	P	P	18 25 09.0	-1.7
INKA	**Innaminka**	**52.08**	**130**	P	**P**	**18 25 18.5**	**-0.7**
INKA				IAmb	IAmb	18 25 22.9	
	comp=Z,1.7nm,0.8s						
CTA	**Charters Tower**	**53.34**	**118**	LR	LR	18 49 20.9	
	comp=Z,36nm,19.7s,baz=222,slow=37						
STKA	**Stephens Creek**	**54.85**	**134**	P	P	18 25 36.0	-3.5
	comp=Z,3.1nm,0.9s,baz=310,slow=6.8,SNR=4.4						
STKA				LR	LR	18 49 38.7	
	comp=Z,37nm,21.4s,baz=15,slow=37						
	comp=Z,3.1nm,0.9s						
AB31	**Akbulak array**	**55.38**	**331**	P	P	18 25 40.8	-2.3
AB31				IAmb	IAmb	18 25 44.9	
	comp=Z,1.9nm,1.2s						
ABKAR	**Akbulak array**	**55.38**	**331**	P	P	18 25 41.0	-2.1
ARTI	**Arti**	**60.95**	**336**	LR	LR	18 55 04.1	
	comp=Z,38nm,20.2s,baz=118,slow=38						
YAK	**Yakutsk**	**62.74**	**16**	P	P	18 26 32.1	-1.7
H04N2	**CROZET ISLANDS**	**64.23**	**214**	T	T	19 35 00.7	
	baz=52						
H04N1	**CROZET ISLANDS**	**64.25**	**214**	T	T	19 34 50.7	
	baz=52,slow=75,SNR=3.1						
H04N3	**CROZET ISLANDS**	**64.25**	**214**	T	T	19 34 50.0	
	baz=52,slow=75,SNR=3.5						
MBAR	**Mbarara**	**67.01**	**268**	LR	LR	18 55 02.2	
	comp=Z,20nm,18.6s,baz=55,slow=35						
BRTR	**Keskin Array B**	**67.66**	**311**	P	P	18 27 03.1	-3.4
	comp=Z,0.7nm,0.7s,baz=114,slow=3.6,SNR=4.5						
	comp=Z,0.7nm,0.7s						
BURAR	**Bucovina Array**	**75.32**	**318**	P	P	18 27 50.3	-2.2
BOSA	**Boshof**	**76.50**	**240**	P	P	18 27 57.1	-2.6
ARCES	**ARCESS Array B**	**80.18**	**340**	P	P	18 28 16.7	-2.3
	comp=Z,1.7nm,0.9s,baz=99,slow=5.3,SNR=1.5						
ARCES				LR	LR	19 07 02.2	
	comp=Z,30nm,19.6s,baz=102,slow=38						
ARCES	**ARCESS Array B**	**80.18**	**340**	IAmb	IAmb	18 28 18.3	
	comp=Z,159nm,0.9s						
NOA	**NORSAR Array B**	**84.89**	**331**	LR	LR	19 10 22.2	
	comp=Z,16nm,20.0s,baz=285,slow=38						
VNDA	**Vanda**	**88.35**	**169**	LR	LR	19 05 25.6	
	comp=Z,28nm,20.3s,baz=346,slow=34						
PDAR	**Pinedale Array**	**127.44**	**25**	PKP	**PKPdf**	**18 35 12.7**	**-1.9**
	comp=Z,0.1nm,0.5s,baz=326,slow=2.2,SNR=1.7						

KRSC ***28*** *18:27:20.5±1.2, 52°.39N×157°.48E, h163^{km}±9^{km}, Ml3.7*

IDC ***28*** *18:27:21.1±0.6, 52°.63N×156°.86E, h167^{km}±7^{km}, mb3.0/9, mbtmp3.5/9, Error ellipse: s-maj=26.0km s-min=19.7km az=101.0*

ISC 28 18:27:20.2±0.7**, 52°.39N**±0°.07×**157°.37E**±0°.08**, h169**^{km}±6^{km}**, n32, σ1^{s}.40**/41**, mb3.2**/8**, Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ASAK	**Asacha**	**0.33**	**91**	*e*P	**Pn**	**18 27 44.1**	**+0.9**
GRL	**Gorelyy**	**0.46**	**69**	*e*P	**Pn**	**18 27 44.6**	**+0.8**
MTVR	**Mutnovka**	**0.51**	**79**	*e*P	**Pn**	**18 27 44.5**	**+0.6**
APC	**Apacha**	**0.55**	**347**	*e*P	**Pn**	**18 27 44.3**	**+0.4**
APC				*e*S	**Sn**	**18 28 01.7**	**-0.6**
KRMR	**Karymshinskiy**	**0.64**	**46**	*e*P	**Pn**	**18 27 44.8**	**+0.5**
RUS	**Russkaya**	**0.70**	**86**	*e*P	**Pn**	**18 27 44.8**	**+0.1**
RUS				*e*S	**Sn**	**18 28 02.3**	**-1.3**
KDTR	**Khodutka, Kamc**	**0.73**	**143**	*e*P	**Pn**	**18 27 45.0**	**+0.1**
KDTR				*e*S	**Sn**	**18 28 02.7**	**-1.2**
PETK	**Petropavlovsk-**	**0.74**	**16**	P	**Pn**	**18 27 45.5**	**+0.5**
	108nm,0.4s,baz=210,slow=7.0,SNR=897						
PETK				S	**Sn**	**18 28 05.1**	**+0.9**
	28nm,0.6s,baz=213,slow=15,SNR=7.6						
PAU	**Pauzhetka**	**0.99**	**201**	*e*P	**Pn**	**18 27 47.6**	**+0.9**
INSR	**Institute**	**1.01**	**48**	*e*P	**Pn**	**18 27 47.5**	**+0.7**
INSR				*e*S	**Sn**	**18 28 07.0**	**-0.4**
DALK	**Dalny**	**1.06**	**52**	*e*P	**Pn**	**18 27 47.7**	**+0.5**
DALK				*e*S	**Sn**	**18 28 07.4**	**-0.7**
KOK	**Koryaka**	**1.19**	**40**	*e*P	**Pn**	**18 27 49.5**	**+1.1**
AVH	**Avacha**	**1.21**	**43**	*e*P	**Pn**	**18 27 49.6**	**+1.0**
SMAR	**Somma**	**1.23**	**44**	*e*P	**Pn**	**18 27 50.1**	**+1.2**
KRER	**Koryakskii**	**1.24**	**42**	*e*P	**Pn**	**18 27 49.8**	**+0.8**
KRX	**Arik**	**1.24**	**38**	*e*P	**Pn**	**18 27 49.6**	**+0.6**
SDLR	**Sedlovina**	**1.28**	**45**	*e*P	**Pn**	**18 27 49.8**	**+0.5**
SPN	**Mys Shipunski**	**1.76**	**65**	*e*S	**Sn**	**18 28 18.8**	**-1.1**
SKR	**Severo-Kuril’s**	**1.88**	**205**	*e*P	**Pn**	**18 27 56.3**	**+1.1**
SKR				*e*S	**Sn**	**18 28 21.9**	**-0.3**
KZV	**Kizimen**	**3.23**	**31**	*e*P	**Pn**	**18 28 12.6**	**+1.3**
TUMD	**Tumrok D**	**3.34**	**31**	*e*P	**Pn**	**18 28 14.6**	**+2.1**
TUMD				*e*S	**Sn**	**18 28 56.0**	**+2.6**
MKZ	**Mys Kozlova**	**3.39**	**49**	*e*P	**Pn**	**18 28 12.8**	**-0.3**
MKZ				*e*S	**Sn**	**18 28 51.1**	**-3.2**
KBTR	**Krutoberegovo**	**4.98**	**38**	*e*P	**Pn**	**18 28 33.5**	**-0.1**
MJAR	**Matsushiro Arr**	**20.83**	**228**	P	**P**	**18 31 49.9**	**+1.5**
	1.0nm,0.9s,baz=103,slow=15,SNR=2.6						
	1.0nm,0.9s						
ILAR	**Eielson Array**	**30.48**	**44**	P	**P**	**18 33 19.6**	**+2.9**
	0.2nm,0.4s,baz=270,slow=8.2,SNR=1.8						
	0.2nm,0.4s						
SONM	**Songino Array**	**32.44**	**283**	P	**P**	**18 33 34.0**	**-0.1**
	0.2nm,0.4s,baz=54,slow=7.3,SNR=1.4						
	0.2nm,0.4s						
KURBB	**Kurchatov Arra**	**46.78**	**301**	P	**P**	**18 35 30.0**	**-2.2**
	0.5nm,0.6s,baz=58,slow=8.4,SNR=3.7						
	0.5nm,0.6s						
MKAR	**Makanchi Array**	**46.95**	**295**	P	**P**	**18 35 31.2**	**-2.5**
	0.3nm,0.6s,baz=65,slow=6.8,SNR=2.8						
	0.3nm,0.6s						
KBZ	**Khabaz**	**68.88**	**315**	P	**P**	**18 38 03.9**	**-2.3**
	1.5nm,0.9s,baz=18,slow=3.2,SNR=1.9						
	1.5nm,0.9s						
EKA	**Eskdalemuir Ar**	**71.43**	**348**	P	**P**	**18 38 20.6**	**-0.9**
	0.1nm,0.3s,baz=11,slow=6.4,SNR=3.4						
	0.1nm,0.3s						
WRA	**Warramunga Arr**	**74.77**	**202**	P	**P**	**18 38 42.7**	**+1.3**
	0.3nm,0.4s,baz=17,slow=5.9,SNR=9.8						
	0.3nm,0.4s						
ASAR	**Alice Springs**	**78.46**	**202**	P	**P**	**18 39 04.0**	**+1.9**
	0.2nm,0.4s,baz=16,slow=4.9,SNR=8.0						
	0.2nm,0.4s						

SOME ***28*** *18:36:40.8, 47°.33N×85°.58E, h25^{km}*

ASRS ***28*** *18:36:43.4±0.4, 48°N±2°×8°6E±°, h9^{km}, MLh3.8/14, Error ellipse: s-maj=5.1km s-min=3.3km az=146.7, confirmed*

NNC ***28*** *18:36:44.5±1.0, 47°.39N×85°.33E, h0^{km}, mb4.1, mpv3.8, Error ellipse: s-maj=9.4km s-min=6.6km az=123.0*

ISC 28 18:36:37.7±0.8**, 47°.24N**±0°.03×**85°.63E**±0°.04**, h10**^{km}**, n53, σ2^{s}.74**/66**, 4C-4D, Kazakhstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZSN	**Zaisan**	**0.56**	**292**	P	**Pg**	**18 36 50.0**	**+1.5**
	254nm,0.2s						
ZSN				S	**Sg**	**18 36 56.5**	**+0.6**
	1µm,0.3s						
ZSN	**Zaisan**	**0.56**	**292**	*e*P	**Pg**	**18 36 50.0**	**+1.5**
	254nm,0.2s						
ZSN				*e*S	**Sg**	**18 36 56.5**	**+0.6**
	1µm,0.3s						
MK31	**Makanchi Array**	**2.33**	**260**	⇑Pn	**Pb**	**18 37 22.1**	**+2.3**
	31nm,0.4s,baz=77,slow=17,SNR=523						
MK31				⇓Lg	Lg	18 37 55.0	
	97nm,0.5s,baz=82,slow=25,SNR=14						
MAKZ	**Makanchi**	**2.54**	**261**	⇑Pn	**Pb**	**18 37 25.2**	**+1.9**
	26nm,0.5s						
MAKZ				⇓Lg	Lg	18 38 00.1	
	85nm,0.3s						
MAKZ	**Makanchi**	**2.54**	**261**	Pn	**Pb**	**18 37 25.8**	**+2.5**
MAKZ				AML	AML		
DGZ	**Jazzator, Alta**	**2.73**	**25**	Pg	**Pn**	**18 37 20.6**	**-1.2**
DGZ				Sg	**Sn**	**18 37 50.0**	**-4.9**
DGZ				AML	AML		
CHBI	**Chibit, Altay**	**3.31**	**21**	Pn	**Pn**	**18 37 27.3**	**-2.3**
CHBI				Pg	Pb	18 37 32.0	-4.6
CHBI				Sg	**Sn**	**18 38 07.3**	**-1.8**
CHBI				AML	AML		
AKAR	**Aktash**	**3.35**	**22**	Pn	**Pn**	**18 37 28.0**	**-2.2**
AKAR				Pg	Pb	18 37 33.0	-4.1
AKAR				Sg	**Sn**	**18 38 09.5**	**-0.5**
AKAR				AML	AML		
CUR	**Chagan-Uzun**	**3.38**	**31**	Pn	**Pn**	**18 37 28.6**	**-1.9**
CUR				Pg	Pb	18 37 33.0	-4.7
CUR				Sg	**Sn**	**18 38 12.2**	**+1.4**
CUR				AML	AML		
ULGR	**Ulagan, Altay**	**3.71**	**24**	Pn	**Pn**	**18 37 32.9**	**-2.3**
ULGR				Pg	Pb	18 37 39.4	-4.0
ULGR				Sg	**Sn**	**18 38 20.0**	**+1.0**
ULGR				AML	AML		
UKR	**Ust'-Kan**	**3.74**	**352**	Pn	Pn	18 37 32.2	-3.3
UKR				Pg	Pb	18 37 39.0	-4.8
UKR				Sg	**Sn**	**18 38 22.3**	**+2.7**
UKR				AML	AML		
ELDR	**Elanda**	**3.99**	**4**	Pn	Pn	18 37 35.6	-3.2
ELDR				Pg	Pb	18 37 43.1	-4.9
ELDR				Sg	**Sn**	**18 38 30.7**	**+5.1**
ELDR				AML	AML		
ARTR	**Artybash**	**4.68**	**13**	Pn	Pn	18 37 45.3	-3.1
ARTR				Pg	Pb	18 37 56.6	-3.2
ARTR				Sg	**Sb**	**18 38 51.6**	**-4.7**
ARTR				AML	AML		
YALR	**Yailyu, Altay**	**4.71**	**15**	Pn	Pn	18 37 46.0	-2.8
YALR				Pg	Pb	18 37 57.1	-3.2
YALR				Sg	**Sn**	**18 38 50.7**	**+7.3**
YALR				AML	AML		
GALT	**Gorno-Altaysk,**	**4.72**	**2**	Pg	Pb	18 37 57.3	-3.2
GALT				Sg	**Sb**	**18 38 52.6**	**-4.8**
GALT				AML	AML		
SEM	**Semipalatinsk**	**4.76**	**314**	Pg	**Pb**	**18 38 05.5**	**+4.2**
	14nm,0.4s						
SEM				Lg	Lg	18 39 06.1	
	114nm,0.6s						
SEM	**Semipalatinsk**	**4.76**	**314**	*e*P	**Pb**	**18 38 05.5**	**+4.2**
	14nm,0.4s						
SEM				*e*S	**Sg**	**18 39 06.2**	**-4.2**
	114nm,0.6s						
KAPS	**Kapalarasan**	**4.77**	**248**	Pg	Pb	18 38 07.9	+6.6
	7.3nm,0.4s						
KAPS				Lg	Lg	18 39 10.7	
	24nm,0.2s						
KAPS	**Kapalarasan**	**4.77**	**248**	*e*P	Pb	18 38 07.9	+6.6
	7.3nm,0.4s						
KAPS				*e*S	**Sg**	**18 39 10.7**	**-0.1**
	24nm,0.2s						
TEL	**Teeli**	**4.82**	**37**	Pg	**Pb**	**18 38 01.4**	**-0.9**
TEL				Sg	**Sb**	**18 38 56.9**	**-3.4**
TEL				AML	AML		
DJR	**Jarkent**	**5.02**	**237**	Pg	**Pg**	**18 38 13.7**	**0.0**
	1.7nm,0.3s						
DJR				Lg	Lg	18 39 20.6	
	24nm,0.8s						
DJR	**Jarkent**	**5.02**	**237**	*e*P	**Pg**	**18 38 13.7**	**0.0**
	1.7nm,0.3s						
DJR				*e*S	**Sg**	**18 39 20.6**	**+2.0**
	24nm,0.8s						
KTMS	**Ketmen**	**5.32**	**226**	Pg	**Pg**	**18 38 19.7**	**+0.3**
	0.4nm,0.1s						
KTMS				Lg	Lg	18 39 30.9	
	19nm,0.4s						
KTMS	**Ketmen**	**5.32**	**226**	*e*P	**Pg**	**18 38 19.8**	**+0.3**
	0.4nm,0.1s						
KTMS				*e*S	**Sg**	**18 39 30.9**	**+2.7**
	19nm,0.4s						
KNOS	**Konyrlen**	**5.35**	**240**	Pg	Pb	18 38 19.1	+7.7
	2.2nm,0.2s						
KNOS				Lg	Lg	18 39 29.8	
	25nm,0.6s						
TDK	**Taldyqorghan**	**5.50**	**249**	Pg	**Pg**	**18 38 22.4**	**-0.5**
	37nm,0.3s						
TDK				Lg	Lg	18 39 35.5	
	69nm,0.6s						
TDK	**Taldyqorghan**	**5.50**	**249**	*e*P	**Pg**	**18 38 22.4**	**-0.5**
	37nm,0.3s						
TDK				*e*S	**Sg**	**18 39 35.5**	**+1.4**
	69nm,0.6s						
TASR	**Tashtagol**	**5.71**	**14**	Pg	**Pb**	**18 38 15.3**	**-2.0**
TASR				Sg	**Sb**	**18 39 24.0**	**-1.7**
TASR				AML	AML		
KURK	**Kurchatov**	**5.78**	**310**	Pn	Pn	18 38 00.5	-2.9
KURK				S	**Sn**	**18 39 04.0**	**-5.6**
KURK				Sg	**Sb**	**18 39 35.3**	**+7.7**
KURK				AML	AML		
PDGK	**Podgornoye**	**5.84**	**230**	⇑Pn	Pn	18 38 13.2	+8.8
	4.3nm,0.8s						
PDGK				⇑Lg	Lg	18 39 48.6	
	42nm,0.8s						
BLB	**Baldybastay**	**5.92**	**240**	Pg	**Pg**	**18 38 30.5**	**-0.5**
	12nm,0.5s						
BLB				Lg	Lg	18 39 49.5	
	22nm,0.7s						
SHLS	**Shalkode**	**5.97**	**229**	Pg	Pb	18 38 28.8	+6.9
	3.0nm,0.3s						
SHLS				Lg	Lg	18 39 46.5	
	41nm,0.7s						
SHLS	**Shalkode**	**5.97**	**229**	*e*P	Pb	18 38 28.8	+6.9

	3.0nm,0.3s						
SHLS				eS	Sg	18 39 46.5	-2.8
	41nm,0.7s						
ELT	Eltsovka	6.04	3	Pn	Pn	18 38 02.7	-4.2
ELT				Pg	Pb	18 38 20.2	-2.6
ELT				Sg	Sb	18 39 32.8	-2.4
ELT				AML	AML		
KPKS	Kokpek	6.18	235	Pg	Pg	18 38 35.7	-0.3
	0.5nm,0.2s						
KPKS				Lg	Lg	18 39 58.3	
	23nm,0.6s						
KPKS	Kokpek	6.18	235	eP	Pg	18 38 35.7	-0.3
	0.5nm,0.2s						
KPKS				eS	Sg	18 39 58.3	+2.3
	23nm,0.6s						
UZB	Uzynbulak	6.21	231	Pg	Pg	18 38 35.5	-1.0
	1.6nm,0.1s						
UZB				Lg	Lg	18 39 58.0	
	11nm,0.5s						
UZB	Uzynbulak	6.21	231	eP	Pg	18 38 35.5	-1.0
	1.6nm,0.1s						
UZB				eS	Sg	18 39 58.0	+1.1
	11nm,0.5s						
KURS	Kuram	6.46	237	Pg	Pg	18 38 40.5	-0.8
	3.8nm,0.7s						
KURS				Lg	Lg	18 40 05.9	
	14nm,1.1s						
KURS	Kuram	6.46	237	eP	Pg	18 38 40.5	-0.8
	3.8nm,0.7s						
KURS				eS	Sg	18 40 05.9	+1.0
	14nm,1.1s						
DJO	Djoy, Khakassi	6.61	31	Sg	Sb	18 39 53.1	+1.5
LUZB	Luzhba, Kemero	6.75	17	Pn	Pn	18 38 12.0	-4.8
LUZB				Pg	Pb	18 38 34.2	-0.9
LUZB				Sg	Sb	18 39 57.9	+2.2
LUZB				AML	AML		
KTBS	Karatobe	7.21	244	Pg	Pg	18 38 52.9	-2.8
	0.1nm,0.1s						
KTBS				Lg	Lg	18 40 27.8	
	21nm,0.7s						
KTBS	Karatobe	7.21	244	eP	Pg	18 38 52.9	-2.8
	0.1nm,0.1s						
KTBS				eS	Sg	18 40 27.8	-1.2
	21nm,0.7s						
KOTS	Kotyrbulak	7.23	239	Pg	Pg	18 38 56.1	+0.1
	1.9nm,0.3s						
KOTS				Lg	Lg	18 40 33.2	
	27nm,0.7s						
KOTS	Kotyrbulak	7.23	239	eP	Pg	18 38 56.1	+0.1
	1.9nm,0.3s						
KOTS				eS	Sg	18 40 33.2	+3.8
	27nm,0.7s						
MDOK	Medeo	7.30	239	Pg	Pg	18 38 55.2	-2.3
	5.4nm,0.6s						
MDOK				Lg	Lg	18 40 31.7	
	12nm,0.7s						
MDOK	Medeo	7.30	239	eP	Pg	18 38 55.2	-2.3
	5.4nm,0.6s						
MDOK				eS	Sg	18 40 31.7	-0.3
	12nm,0.7s						
KRBS	Karabastau	7.84	247	Pg	Pg	18 39 04.7	-3.0
	1.2nm,0.5s						
KRBS				Lg	Lg	18 40 48.1	
	5.9nm,0.5s						
KRBS	Karabastau	7.84	247	eP	Pg	18 39 04.7	-3.0
	1.2nm,0.5s						
KRBS				eS	Sg	18 40 48.1	-1.2
	5.9nm,0.5s						
KST	Kastek	8.02	242	Pg	Pg	18 39 12.0	+0.9
	1.9nm,0.5s						
KST				Lg	Lg	18 41 00.6	
	11nm,1.0s						
KST	Kastek	8.02	242	eP	Pg	18 39 12.1	+0.9
	1.9nm,0.5s						
KST				eS	Sg	18 41 00.6	+5.7
	11nm,1.0s						
KK31	Karatay Array	11.44	254	⇓Pn	Pn	18 39 26.0	+4.9
	0.3nm,0.3s,baz=46,slow=14,SNR=3.7						
KK31				⇓Lg	Lg	18 42 41.7	
	2.6nm,0.6s,baz=61,slow=28,SNR=4.1						

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*TEH **28** 18:45:01.2, 34°.48N×45°.47E, h9^{km}±39^{km}, ML3.8, Presumed earthquake*

*ISN **28** 18:45:05.0±2.8, 34°.48N×45°.47E, h9^{km}, ML3.4, Presumed earthquake*

ISC 28 18:45:04.5±1.2, **34°.54N**±0°.05×**45°.57E**±0°.05, **h18**^{km}**, n14,** σ**1**^{s}**63**/17, **Iran-Iraq border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IDHR	Dehrash	0.69	77	Pg	Pb	18 45 16.0	-2.2
IGHG	Ghaleghazi	0.86	104	Pg	Pb	18 45 19.3	-1.6
IGHG				Sg	Sb	18 45 33.3	+1.1
ILBA	Ilam Banvizeh	1.06	150	Pg	Pb	18 45 21.8	-2.6
KCHF	Cheshme Sefid,	1.25	102	Pg	Pn	18 45 26.5	-0.7
IKRK	Kirkuk	1.32	311	iP	Pn	18 45 27.3	-0.8
IKRK				iS	Sb	18 45 46.9	+1.5
IKRK				IAML		18 45 50.1	
	comp=E,686nm,0.4s						
IKRK				IAML		18 45 50.3	
	comp=N,443nm,0.4s						
IBDR	Badra	1.46	168	iP	Pn	18 45 30.9	+0.9
	baz=344						
IBDR				iS	Sb	18 45 52.6	+3.2
IBDR				IAML		18 45 53.8	
	comp=E,1µm,0.8s						
IBDR				IAML		18 46 03.4	
	comp=N,837nm,0.8s						
SNJK	Sanadaj _Korde	1.53	54	Pg	Pn	18 45 31.3	+0.2
SNQR	Sonqor, Kerman	1.73	79	Pn	Pn	18 45 35.3	+1.4
IBZA	Bozab	1.90	92	Pn	Pn	18 45 36.9	+0.7
IKFM	Kafar-mosalman	2.15	118	Pn	Pn	18 45 39.9	+0.5
MAHB	Mahabad	2.22	3	Pn	Pn	18 45 41.2	+0.7
IDOB	Doab	2.29	108	Pn	Pn	18 45 41.9	+0.3
ISRB	Sarab	3.69	27	Pn	Pn	18 46 02.4	+1.6
ISHB	Shabestar	3.73	1	Pn	Pn	18 46 02.4	+1.0

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*MEX **28** 18:45:29.5±0.6, 14°.14N×92°.22W, h57^{km}±24^{km}, MD4.1, Presumed earthquake*

*GCG **28** 18:45:30.2±0.4, 14°.53N×91°.97W, h67^{km}±4^{km}, MD3.8, ML3.7, Presumed earthquake*

ISC 28 18:45:26.9±2.2, **14°.1N**±0°.1×**92°.15W**±0°.06, **h54**^{km}**, n11,** σ**1**^{s}**97**/16, **Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTAL	Retalhuleu	0.59	48	eP	Pn	18 45 41.0	+1.4
RTAL				eS	Sn	18 45 50.7	+2.0
STG8	El Palmar, Qui	0.84	67	iP	Pn	18 45 42.8	0.0
STG8				iS	Sn	18 45 52.8	-1.7
STG8				IAML		18 45 53.7	
	comp=N,3µm,0.2s						
FG8	Yepocapa, Chim	1.54	85	iP	Pn	18 45 49.2	-3.0
FG16	Alotenango, Sa	1.59	85	iP	Pn	18 45 50.2	-2.7
PCG5	San Vicente Pa	1.72	87	iP	Pn	18 45 53.4	-1.3
APG	El Apazote	1.85	62	iP	Pn	18 45 56.6	+0.1
APG				eS	Sn	18 46 16.7	-2.2
NUBE	Las Nubes	2.31	95	eP	Pn	18 46 05.4	+2.7
TGIG		2.80	340	eP	Pn	18 46 11.3	+1.9
TGIG				eS	Sn	18 46 41.3	-0.7
UXUV	UXUV	3.71	329	eP	Pn	18 46 22.2	+0.4
UXUV				eS	Sn	18 47 04.5	+0.2
CMIG	Matias Romero	3.96	319	eP	Pn	18 46 26.5	+1.4
CMIG				eS	Sn	18 47 10.8	+0.5
NEUV	Arroyo Zacate	5.01	316	eP	Pn	18 46 39.7	+0.1
NEUV				eS	Sn	18 47 31.5	-4.6

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*IDC **28** 18:45:56.4±0.9, 34°.51N×45°.45E, h0^{km}, mb3.6/12, mbtmp3.6/20, ML3.1/5, MS2.5/2, Error ellipse: s-maj=19.6km s-min=12.3km az=153.0*

*TEH **28** 18:45:58.9, 34°.52N×45°.50E, h9^{km}±42^{km}, ML3.9, Presumed earthquake*

*ISN **28** 18:46:02.1±2.3, 34°.52N×45°.50E, h9^{km}, ML3.6, Presumed earthquake*

ISC 28 18:46:01.2±1.1, **34°.56N**±0°.04×**45°.53E**±0°.03, **h33**^{km}±4^{km}, **n36,** σ**1**^{s}**82**/42, **mb3.7**/12, **Iran-Iraq border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IDHR	Dehrash	0.72	79	Pg	Pb	18 46 13.5	-2.1
IDHR				Sg	Sb	18 46 25.0	-0.3
IGHG	Ghaleghazi	0.89	105	Pg	Pb	18 46 16.9	-1.5
IGHG				Sg	Sn	18 46 30.9	+1.5
ILBA	Ilam Banvizeh	1.09	149	Pg	Pn	18 46 19.3	-0.9
KCHF	Cheshme Sefid,	1.28	102	Pg	Pb	18 46 24.4	-0.5
KCHF				Sg	Sb	18 46 41.5	+0.3
IKRK	Kirkuk	1.29	311	iP	Pb	18 46 24.8	-0.1
IKRK				iS	Sb	18 46 44.7	+3.6
IKRK				IAML		18 46 55.4	
	comp=N,1µm,0.7s						
IKRK				IAML		18 47 00.7	
	comp=E,1µm,0.7s						
IBDR	Badra	1.48	167	iP	Pb	18 46 27.7	-0.5
	baz=346						
IBDR				iS	Sb	18 46 49.7	+3.0
IBDR				IAML		18 46 51.0	
	comp=E,1µm,0.7s						
IBDR				IAML		18 46 52.0	
	comp=N,971nm,0.7s						
SNJK	Sanadaj _Korde	1.54	55	Pg	Pb	18 46 29.1	-0.3
SNQR	Sonqor, Kerman	1.75	80	Pg	Pb	18 46 32.6	-0.4
IBZA	Bozab	1.93	92	Pn	Pb	18 46 34.8	-1.1
IALM	Almabolaq	2.19	81	Pn	Pb	18 46 38.2	-2.2
MAHB	Mahabad	2.21	4	Pn	Pb	18 46 38.2	-2.4
GRMI	Germi	4.65	23	Pn	Pn	18 47 11.9	+2.7
QAMS	Qamsar	4.93	98	Pn	Pn	18 47 15.4	+2.1
GNI	Garni	5.62	354	Pn	Pn	18 47 25.2	+2.7
	comp=N,0.4nm,0.3s,baz=174,slow=7.8,SNR=3.3						
	comp=N,6.6nm,0.8s						
GNI				AML	AML		
ASF	Jabal al Asfar	7.60	254	Pn	Pn	18 47 49.0	-0.8
	comp=N,0.2nm,0.3s,baz=90,slow=18,SNR=3.5						
ASF				Sn	Sn	18 49 04.7	-10
	comp=N,0.1nm,0.3s,baz=75,slow=20,SNR=3.3						
ASF				Lg	Lg	18 50 03.8	
	comp=N,1.2nm,0.3s,baz=262,slow=21,SNR=6.8						
	comp=N,2.5nm,0.3s						
ASF				AML	AML		
MMAI	Mount Meron Ar	8.57	262	Pn	Pn	18 48 02.8	-0.2
	comp=N,0.9nm,0.3s,baz=71,slow=18,SNR=1.8						
MMAI				Sn	Sn	18 49 32.1	-6.4
	comp=N,0.4nm,0.3s,baz=84,slow=16,SNR=1.7						
	comp=N,0.3nm,0.3s						
MMAI				AML	AML		
EIL	Elat	10.21	244	Pn	Pn	18 48 24.2	-1.2
	comp=N,3.8nm,0.4s,baz=51,slow=6.3,SNR=7.6						
EIL				Sn	Sn	18 50 21.5	+2.8
	comp=N,0.3nm,0.3s,baz=342,slow=19,SNR=1.1						
BRTR	Keskin Array B	10.80	302	Pn	Pn	18 48 32.8	-0.8
	baz=121,slow=22,SNR=1.9						
BRTR				LR	LR	18 52 54.6	
	comp=N,29nm,18.5s,baz=112,slow=39						
	comp=N,0.1nm,0.4s						
IDI	Anoyia	16.95	278	Pn	Pn	18 49 54.9	-0.9
	comp=N,3.3nm,0.8s,baz=79,slow=16,SNR=1.8						
BELG	Belogornoye	17.89	4	P	Pn	18 50 06.9	-0.4
	comp=N,4.0nm,0.5s,baz=210,slow=20,SNR=3.7						
AKTO	Aktyubinsk	18.30	26	P	P	18 50 12.0	-0.2
	comp=N,0.1nm,0.3s,baz=207,slow=2.3,SNR=1.7						
	comp=N,0.7nm,0.6s						
AKTO				AML	AML		
AKASG	Malin Array Be	20.03	329	P	P	18 50 30.6	-0.5
	comp=N,0.3nm,0.3s,baz=141,slow=8.5,SNR=4.2						
	comp=N,0.3nm,0.3s						
BVAR	Borovoye Array	25.53	36	P	P	18 51 27.6	+1.0
	comp=N,0.4nm,0.6s,baz=232,slow=8.8,SNR=4.8						
	comp=N,0.4nm,0.6s						
FINES	FINESS Array B	29.64	341	P	P	18 52 03.6	+0.3
	comp=N,0.4nm,0.4s,baz=152,slow=9.1,SNR=3.9						
	comp=N,0.4nm,0.4s						
MKAR	Makanchi Array	30.17	55	P	P	18 52 09.0	+0.8
	comp=N,0.2nm,0.4s,baz=257,slow=5.8,SNR=1.6						
	comp=N,0.2nm,0.4s						
HFS	Hagfors	32.88	331	P	P	18 52 32.4	+0.5
	comp=N,0.8nm,0.3s,baz=138,slow=6.7,SNR=6.0						
	comp=N,0.8nm,0.3s						
ZALV	Zalesovo Beam	33.59	43	P	P	18 52 40.0	+2.0
	comp=N,0.3nm,0.3s,baz=220,slow=5.6,SNR=1.5						
	comp=N,0.3nm,0.3s						
NOA	NORSAR Array B	34.41	331	P	P	18 52 44.3	-0.8
	comp=N,0.5nm,0.6s,baz=125,slow=8.9,SNR=1.9						
	comp=N,0.5nm,0.6s						
ARCES	ARCESS Array B	36.74	348	P	P	18 53 04.7	-0.4
	comp=N,668nm,0.3s,baz=161,slow=8.1,SNR=7.9						
EKA	Eskdalemuir Ar	39.22	317	P	P	18 53 25.5	-0.6
	comp=N,0.3nm,0.4s,baz=100,slow=8.7,SNR=5.7						
	comp=N,0.3nm,0.4s						
MDT	Midelt	41.41	282	LR	LR	19 13 16.5	
	comp=N,5.2nm,18.8s,baz=42,slow=40						
TORD	Torodi Ar. Bea	44.96	253	P	P	18 54 12.9	-0.5
	comp=N,0.2nm,0.4s,baz=63,slow=5.7,SNR=4.7						
	comp=N,0.2nm,0.4s						
SPITS	Spitsbergen Ar	45.48	352	P	P	18 54 17.4	+0.6
	comp=N,0.8nm,0.4s,baz=142,slow=12,SNR=7.2						
CMAR	Chiang Mai Arr	49.86	94	P	P	18 54 51.6	+0.1
	comp=N,0.9nm,0.5s,baz=301,slow=8.1,SNR=8.5						
	comp=N,0.9nm,0.5s						
DBIC	Dimbokro	53.99	251	P	P	18 55 21.4	-1.0
	comp=N,1.1nm,0.5s,baz=68,slow=5.4,SNR=1.0						
	comp=N,1.1nm,0.5s						
KSRS	Korea Array	64.60	61	P	P	18 56 35.4	0.0
	comp=N,0.5nm,0.7s,baz=283,slow=6.5,SNR=1.7						
	comp=N,0.5nm,0.7s						

IDC 28 18:47:30.1±2.4, **2°.27N**×**127°.93E, h0**^{km}**, mb3.3**/4, **mbtmp3.4**/4, **Error ellipse: s-maj=136.2km s-min=27.3km az=70.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	20.36	186	P	P	18 52 08.8	+0.4
	2.1nm,1.1s,baz=20,slow=12,SNR=1.4						
	2.1nm,1.1s						
WRA	Warramunga Arr	22.95	164	P	P	18 52 36.5	+0.2
	0.7nm,0.5s,baz=342,slow=10.0,SNR=16						
	0.7nm,0.5s						
ASAR	Alice Springs	26.43	168	P	P	18 53 07.6	-1.2
	0.2nm,0.5s,baz=348,slow=9.3,SNR=1.4						
	0.2nm,0.5s						
MKAR	Makanchi Array	59.43	325	P	P	18 57 35.2	+0.5
	0.2nm,0.6s,baz=113,slow=7.0,SNR=1.9						
	0.2nm,0.6s						

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*IDC **28** 19:05:03.9±3.4, 22°.15N×121°.25E, h0^{km}, mb3.8/8, mbtmp3.9/10, ML3.4/2, MS3.6/28, Error ellipse: s-maj=68.6km s-min=20.8km az=163.0*

*BJI **28** 19:05:07.4, 22°.36N×120°.98E, h11^{km}, mB4.4/3, mb4.2/12, ML3.7/5, Ms4.1/14, Ms7 4.0/14*

*ASIES **28** 19:05:08.5, 22°.39N×121°.01E, h11^{km}, Mw4.3, Fault plane solution: NP1:ϕ_s149.00000°, δ39.00000°, λ9.00000°. NP2:ϕ_s53.00000°, δ84.00000°, λ129.00000°.*

*NEIC **28** 19:05:08.9±2.2, 22°.45N±0°.04×121°.24E±0°.04, h19^{km}±5^{km}, mb4.0/8, Error ellipse: s-maj=6.8km s-min=4.3km az=51.0*

*TAP **28** 19:05:08.1, 22°.39N×121°.02E, h11^{km}, ML4.5, C*

*JMA **28** 19:05:10.6±0.4, 23°N±1°×12°1E±°, h13^{km}±3^{km}, MV4.1/15, TAIWAN REGION*

*NIED **28** 19:05:10.6, 22°.64N×121°.25E, h13^{km}, MW4.3, Moment Tensor Solution. s2 Moment tensor: Scale 10^{15}Nm; M_{rr}1.41; $M_{\theta\theta}$-3.68; $M_{\phi\phi}$2.27; $M_{r\theta}$-1.74; $M_{\theta\phi}$0.82; $M_{\phi r}$-0.60; Fault plane solution: $M_0$3.62000×10^{15} NP1: ϕ_s141.00000°, δ53.00000°, λ165.00000°. NP2: ϕ_s240.00000°, δ78.00000°, λ38.00000°.*

ISC 28 19:05:06.8±0.8, **22°.36N**±0°.02×**121°.13E**±0°.02, **h5**^{km}±6^{km}, **n244,** σ**1**^{s}**11**/286, **mb3.9**/12, **MS3.6**/29, **12C-12D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TAW	Tawu	0.22	269	⇑iP	Pg	19 05 11.6	+0.5
TAW				iS	Sg	19 05 13.9	-0.1
TAWH	Dawu Township	0.23	264	⇑iP	Pg	19 05 11.9	+0.6
TAWH				iS	Sg	19 05 14.3	+0.1
EAST	Anshuo	0.26	274	⇓iP	Pg	19 05 12.4	+0.4
EAST				iS	Sg	19 05 15.1	-0.4
ECL	Taimali	0.28	325	⇓iP	Pg	19 05 13.0	+0.6
ECL				iS	Sg	19 05 17.4	+1.2
SLIU	Shizi	0.34	245	⇑eP	Pb	19 05 14.2	-1.1
SLIU				eS	Sg	19 05 18.1	+0.2
TTN	Taitung	0.39	2	⇑iP	Pb	19 05 17.4	+1.2
SMST	Manzhou Townsh	0.44	219	iP	Pb	19 05 16.9	-0.1
SMST				S	Sb	19 05 23.0	-0.8
LDUT	Ludao	0.44	45	eP	Pn	19 05 18.9	-1.0
LDUT				eS	Sb	19 05 27.6	+3.6
TWGBT	Beinan	0.46	354	P	Pb	19 05 16.6	-0.8
TWGBT	Beinan	0.46	354	S	Sb	19 05 23.9	-0.5
TWGBT	Beinan	0.46	354	⇑iP	Pb	19 05 16.9	-0.5
TWGBT				iS	Sb	19 05 23.3	-1.2
TWG	Pinlang	0.46	353		Pb	19 05 17.0	-0.5
TWG				Sg	Sb	19 05 23.2	-1.4
TWG	Pinlang	0.46	353	⇑iP	Pb	19 05 16.9	-0.5
TWG				S	Sb	19 05 23.1	-1.4
SCZT	Fangliau	0.47	271	⇓iP	Pg	19 05 16.0	+0.1
SCZT				iS	Sg	19 05 21.3	-0.8
LAY	Lan-yu	0.51	129	⇓iP	Pn	19 05 19.5	-1.2
LAY				eS	Sb	19 05 26.7	+0.8
TSEB	Hengchuen, Pin	0.51	205	⇓iP	Pn	19 05 19.1	-1.6
TSEB				iS	Sb	19 05 27.5	+1.6
HEN	Hengchun	0.51	226	⇑iP	Pb	19 05 18.3	+0.1
HEN				eS	Sb	19 05 26.6	+0.7
TWKBT	Hengchun	0.51	215	⇑iP	Pb	19 05 18.6	+0.2
TWKBT				iS	Sb	19 05 26.2	+0.1
TWK1	Hengchun	0.52	216	iP	Pb	19 05 18.6	+0.2
TWK1				eS	Sb	19 05 27.1	+1.0
MASBT	Mashibuluo	0.52	298	⇓iP	Pg	19 05 16.8	-0.1
MASBT				iS	Sg	19 05 22.7	-1.0
SSPT	Xinbi	0.53	283	⇓iP	Pb	19 05 17.7	-1.0
SSPT				eS	Sg	19 05 24.8	+0.7
LONT	Longtian	0.54	0	⇑iP	Pb	19 05 18.4	-0.5
LONT				eS	Sb	19 05 26.9	0.0
LYUB	Lan-yu	0.55	130	eP	Pb	19 05 19.0	0.0
LYUB				eS	Sb	19 05 27.3	+0.1
TSMG	Majia	0.56	307	⇓iP	Pg	19 05 17.5	-0.2
TSMG				iS	Sg	19 05 24.3	-0.7
SSD	Sandimen	0.60	310	⇓iP	Pg	19 05 18.2	-0.2
SSD				iS	Sg	19 05 25.1	-1.0
EDH	Donghe	0.63	15	eP	Pb	19 05 20.7	+0.4
EDH				eS	Sn	19 05 31.8	-1.0
SGLT	Jiouru	0.69	302	P	Pb	19 05 20.6	-0.8
WLCH	Liuqiu	0.69	269	eP	Pn	19 05 23.1	-0.3
TWP	Hsiaoliuchiu	0.71	269	eP	Pn	19 05 23.3	-0.2
ECS	Chishang	0.73	6	eP	Pb	19 05 21.6	-0.5
ECS				eS	Sb	19 05 32.1	-0.4
CHKT	Chengkung	0.77	16	eP	Pb	19 05 22.4	-0.2
CHKT				S	Sb	19 05 34.5	+1.2
SLGT	Liugui	0.77	325	⇓iP	Pg	19 05 21.8	+0.1
SLGT				eS	Sg	19 05 30.2	-1.5
EHD	Haiduan	0.79	5	eP	Pg	19 05 21.7	-0.2
SCST	Cishan	0.79	312	eP	Pb	19 05 22.9	-0.1
SCST				S	Sb	19 05 33.5	-0.4
KAU	Kaohsiung	0.79	285	eP	Pn	19 05 25.0	+0.5
TWM1	Shoushan	0.80	305	⇓iP	Pb	19 05 23.4	+0.2
TWM1				eS	Sb	19 05 35.2	+0.9
ELDTW	Lidau	0.83	353	P	Pg	19 05 22.6	-0.2
ELDTW				S	Sg	19 05 33.7	+0.1
SNJT	Kaohsiung City	0.83	298	eP	Pb	19 05 23.7	-0.1
FULB	Fuli	0.85	10	P	Pb	19 05 23.4	-0.6
WSSB	Gushan	0.85	289	eP	Pn	19 05 25.8	+0.4
WSSB				eS	Sn	19 05 39.2	+0.9
CHKH	Chenggong	0.86	17	P	Pg	19 05 23.5	+0.1
CHKH				S	Sb	19 05 36.6	+0.5
STYH	Taoyuan	0.87	338	iP	Pb	19 05 24.2	-0.1
STYH				eS	Sb	19 05 36.2	-0.1
SGST	Jiashian	0.88	325	P	Pg	19 05 23.5	-0.2
SGST				eS	Sn	19 05 37.8	-1.2
CHN1	Nanshi	0.99	326	P	Pn	19 05 27.4	0.0
CHN1				eS	Sn	19 05 41.9	+0.2
ECBN	Changbin	0.99	17	eP	Pg	19 05 26.0	0.0
ECBN				eS	Sb	19 05 40.6	+0.7
EYUL	Yuli	0.99	10	P	Pg	19 05 25.3	-0.6
TWF1	Yuli	1.00	9	eP	Pg	19 05 24.7	-1.3
WTP	Ta-pu	1.00	332	⇓P	Pn	19 05 27.0	-0.6
WTP				eS	Sn	19 05 42.1	0.0
CHN3	Shinhua	1.00	315	eP	Pn	19 05 28.7	+1.2
CHN3				S	Sn	19 05 43.9	+1.9
YULB	Yu-li	1.04	9	P	Pg	19 05 25.8	-1.0
YULB	Yu-li	1.04	9		Pg	19 05 25.1	-1.7
YULB				Sg	Sg	19 05 30.8	-9.4
YULB	Yu-li	1.04	9	eP	Pg	19 05 25.5	-1.2
TPUB	Ta-pu	1.04	334	P	Pn	19 05 28.1	0.0
TPUB	Ta-pu	1.04	334	S	Sn	19 05 42.7	-0.4
TPUB	Ta-pu	1.04	334		Pn	19 05 27.8	-0.3
TPUB					Sb	19 05 41.4	0.0
TPUB	Ta-pu	1.04	334	⇑iP	Pn	19 05 27.8	-0.3
TPUB				iS	Sn	19 05 42.4	-0.7
TAI1	Yung-k'ang	1.07	309	eP	Pn	19 05 28.0	-0.5
TWK	Hsinying	1.08	327	iP	Pn	19 05 28.6	-0.1
TWK				S	Sn	19 05 43.8	-0.2
SSHA	Shanhua	1.09	315	P	Pn	19 05 29.2	+0.4
SSHA				eS	Sn	19 05 46.0	+1.8
CHN4	Tsaushan	1.10	333	P	Pn	19 05 29.1	+0.2
CHN4				S	Sn	19 05 44.7	+0.2
YUS	Yu-Shan	1.13	352	eP	Pb	19 05 29.0	-0.2
EHYH	Wanrong	1.14	10	eP	Pn	19 05 29.6	+0.1
EHY	Hungye	1.15	9	eP	Pn	19 05 29.6	0.0
HGSD	Ruisui	1.16	14	eP	Pg	19 05 28.5	-0.6
WCKO	Fanlu	1.18	336	iP	Pn	19 05 30.3	+0.4
WCKO				eS	Sn	19 05 45.9	-0.4
ALS	Alishan	1.18	345	eP	Pn	19 05 30.6	+0.3
SCLT	Jiali	1.18	313	P	Pn	19 05 30.1	0.0
SCLT				eS	Sn	19 05 46.9	+0.4
TSCK	Chigu Township	1.24	309	eP	Pn	19 05 30.5	-0.3
TSCK				S	Sn	19 05 47.6	-0.3
ICHU	Yijhu	1.27	322	eP	Pb	19 05 30.9	-0.2
ICHU				S	Sn	19 05 49.6	+1.1
CHN8	Yiju	1.29	319	P	Pg	19 05 31.7	0.0
CHN8				eS	Sg	19 05 47.9	-0.6
CHN5	Tsauling	1.30	341	iP	Pb	19 05 32.6	+0.8
CHY	Chiayi	1.30	330	eP	Pg	19 05 32.2	+0.3
CHN2	Minshiung	1.31	333	eP	Pg	19 05 32.6	+0.6
CHN2				S	Sn	19 05 50.0	+0.4
WHYT	Xinyi Township	1.35	349	eP	Pg	19 05 32.5	-0.3
WHYT				eS	Sn	19 05 51.0	+0.2
WARBT	Fenglin Townsh	1.37	10	eP	Pn	19 05 31.9	-0.7
WGK	Gukeng	1.42	338	eP	Pg	19 05 34.2	+0.1
WGK				eS	Sg	19 05 55.0	+2.5
WSL	Shuilin Townsh	1.42	324	eP	Pn	19 05 33.1	-0.2
SSLB	Suanglung	1.43	354	P	Pb	19 05 33.7	-0.3
SSLB	Suanglung	1.43	354	S	Sg	19 05 55.8	+3.0
SSLB	Suanglung	1.43	354		Pn	19 05 32.0	-1.4
SSLB	Suanglung	1.43	354	eP	Pn	19 05 33.3	-0.2
WDLH	Douliu	1.43	338	iP	Pg	19 05 34.3	+0.1
WDL	Douliou City	1.45	338	eP	Pg	19 05 35.0	+0.3
ESL	Shilin	1.47	11	eP	Pb	19 05 34.4	-0.3
SHUL	Shoufeng	1.47	16	eP	Pn	19 05 34.0	-0.1
WTK	Tuku	1.48	333	P	Pb	19 05 34.3	-0.6
WTK				eS	Sg	19 05 55.9	+1.2
WJS	Zhushan	1.50	346	P	Pg	19 05 35.9	+0.3
WSF	Szhu	1.52	327	eP	Pn	19 05 34.6	-0.1
SMLT	Sun Moon Lake	1.53	352	eP	Pg	19 05 36.1	-0.1
SMLT				eS	Sg	19 05 58.2	+2.2
TYC	Yuchr	1.55	351	⇑iP	Pg	19 05 36.4	-0.2
TYC				eS	Sg	19 05 58.6	+1.7
TEYL	Yanliau Villag	1.56	16	eP	Pg	19 05 36.6	-0.1
WNT	Mingjian	1.56	345	eP	Pg	19 05 36.8	0.0
OWD	Renai	1.58	2	eP	Pn	19 05 35.2	-0.5
WUSB	Renai	1.62	360	eP	Pn	19 05 36.0	-0.2
WDGT	Dungji	1.62	304	eP	Pn	19 05 34.9	-1.2
ETM	Tongmen	1.63	12	eP	Pn	19 05 36.3	+0.1
LXIB	Xiulin Townshi	1.67	9	eP	Pn	19 05 35.8	-1.1
RLNB	Erlin	1.68	335	P	Pn	19 05 36.7	-0.1
RLNB				S	Sb	19 05 59.9	+0.2
WRL	Guolierlin Hig	1.68	336	P	Pn	19 05 36.9	0.0
WRL				eS	Sb	19 05 59.2	-0.5
WCS	Beigang Elemen	1.70	353	iP	Pb	19 05 38.5	0.0
TWD	Chiawan	1.76	14	eP	Pn	19 05 38.5	+0.5
WHF	Hehuan Shan	1.78	4	eP	Pb	19 05 40.2	0.0
VCHM	Qimei	1.78	299	eP	Pn	19 05 36.3	-1.9
VCHM				eS	Sn	19 05 57.5	-3.7
WCH1	Changhua City	1.78	343	eP	Pb	19 05 39.0	-1.0
WCH1				eS	Sn	19 06 00.5	-0.8
WCHH	Zhanghua	1.79	343	P	Pb	19 05 39.5	-0.6
WCHH				eS	Sb	19 06 02.1	-0.7
TCU	Taichung	1.82	347	eP	Pb	19 05 40.4	-0.3
TCU				eS	Sn	19 06 02.9	+0.6
PHUB	P'eng-hu	1.84	309	P	Pn	19 05 37.4	-1.6
PHUB				eS	Sn	19 05 59.2	-3.4
NACB	Ninganchiao	1.85	13	P	Pn	19 05 39.7	+0.5
NACB	Ninganchiao	1.85	13	S	Sg	19 06 05.7	-0.7
NACB	Ninganchiao	1.85	13		Pn	19 05 37.8	-1.5
NACB	Ninganchiao	1.85	13	eP	Pn	19 05 39.8	+0.5
ETLH	Xiulin Townshi	1.86	10	eP	Pn	19 05 38.9	-0.6
FUSS	Fushou	1.88	3	eP	Pn	19 05 39.6	-0.3

PNG	Penghu	1.88	310	*e*P	Pn	19 05 38.2	-1.4
TDCB	Techi	1.88	1	*e*P	Pn	19 05 40.0	+0.2
TWT	Tachien	1.88	1	*e*P	Pb	19 05 42.1	+0.3
WHP	Taichung City	1.91	355	*e*P	Pb	19 05 42.2	-0.1
TWQ1	Liyutan	2.00	351	*e*P	Pb	19 05 43.1	-0.7
TWQ1				S	Sb	19 06 09.9	+0.8
WDJ	Dajia District	2.03	347	*e*P	Pb	19 05 44.0	-0.1
EAHA	Aohua	2.04	16	*e*P	Pn	19 05 42.0	+0.2
EOS4	EOS4	2.06	32	*e*P	Pn	19 05 42.3	+0.5
EOS4				*e*S	Sn	19 06 06.4	-1.3
NNSB	Datong	2.07	6	*e*P	Pn	19 05 42.8	+0.4
NNS	Nan Shan	2.08	6	*e*P	Pb	19 05 44.7	-0.4
ENA	Nanau	2.13	15	*e*P	Pn	19 05 42.1	-1.0
EWUT	Wuta	2.16	16	*e*P	Pn	19 05 43.9	+0.5
LATG	Datong	2.19	9	*e*P	Pn	19 05 45.2	+1.1
EOS3	EOS3	2.20	29	*e*P	Pn	19 05 44.4	+0.4
EOS3				*e*S	Sn	19 06 12.0	+0.5
NDT	Datong Townshi	2.26	9	*e*P	Pb	19 05 46.7	-1.4
NFF	Wufeng Townshi	2.26	360	*e*P	Pn	19 05 46.3	+1.4
NSTT	Nanjuang	2.26	357	*e*P	Pb	19 05 47.7	-0.5
LIOB	Emei	2.27	357	*e*P	Pb	19 05 46.7	-1.7
EOS2	EOS2	2.28	26	*e*P	Pn	19 05 44.8	-0.2
ENTT	Nioudou	2.30	10	*e*P	Pb	19 05 47.0	-1.9
YHNB	Yeheng	2.31	6	P	Pn	19 05 46.2	+0.6
YHNB	Yeheng	2.31	6	S	Sb	19 06 16.9	-0.9
YHNB	Yeheng	2.31	6		Pn	19 05 45.3	-0.3
YHNB	Yeheng	2.31	6	*e*P	Pn	19 05 46.1	+0.5
NSK	Sanguang	2.31	5	*e*P	Pb	19 05 47.4	-1.7
NDS	Dongshan	2.32	13	*e*P	Pn	19 05 46.5	+0.7
TWC	Suao	2.33	16	*e*P	Pn	19 05 46.9	+1.1
TWC				*e*S	Sb	19 06 16.6	-1.8
TWE	Neicheng	2.40	12	*e*P	Pb	19 05 48.6	-1.9
KSHI	Guanxi Townshi	2.40	1	*e*P	Pb	19 05 48.8	-1.8
SBCB	Hsinchu	2.42	357	*e*P	Pb	19 05 51.1	+0.2
FUSB	Fushanzhiwuyua	2.42	10	*e*P	Pn	19 05 48.8	+1.6
NWLT	Wulai	2.43	8	*e*P	Pb	19 05 49.2	-1.8
NCUH	Zhongli	2.59	1	*e*P	Pb	19 05 52.5	-1.3
TATO	Taipei	2.62	7	P	Pn	19 05 50.3	+0.5
TATO	Taipei	2.62	7	S	Sb	19 06 24.6	-2.2
TATO	Taipei	2.62	7		Pn	19 05 48.4	-1.5
TWA	Mucha	2.64	9	*e*P	Pb	19 05 53.0	-1.6
JYNG	Yonagunijimaku	2.67	38	P	Pn	19 05 50.8	+0.4
TIPB	Shuangxi	2.67	14	*e*P	Pn	19 05 51.9	+1.3
TAP	Taipei	2.69	7	*e*P	Pb	19 05 54.9	-0.5
YOJ	Yonaguni jima	2.71	39	P	Pn	19 05 51.2	+0.2
YOJ	Yonaguni jima	2.71	39	S	Sn	19 06 26.2	+2.0
YOJ	Yonaguni jima	2.71	39		Pn	19 05 50.6	-0.4
YOJ	Yonaguni jima	2.71	39	P	Pn	19 05 52.0	+0.9
YOJ				*e*S	Sn	19 06 25.3	+1.1
YOJ	Yonaguni jima	2.71	39	P	Pn	19 05 51.5	+0.5
YOJ				*e*S	Sn	19 06 20.8	-3.5
TWB1	Santiao Chiao	2.75	16	*e*P	Pn	19 05 52.3	+0.8
WFSB	Wu-fen Shan	2.76	12	*e*P	Pb	19 05 54.4	-2.3
YM01	YM01	2.80	8	*e*P	Pn	19 05 54.4	+2.1
NTST	Danshui	2.80	6	*e*P	Pb	19 05 56.5	-0.9
SXI1	Grass Mountain	2.80	14	*e*P	Pn	19 05 53.5	+1.1
ZUZH	Zhuzihu	2.81	8	*e*P	Pn	19 05 53.7	+1.2
ZUZH				*e*S	Sn	19 06 28.5	+1.7
ANP	Anpu	2.83	7	*e*P	Pn	19 05 54.9	+2.1
YM08	YM08	2.84	8	*e*P	Pn	19 05 54.6	+1.7
HATJ	Hateruma jima	2.98	55	*e*P	Pn	19 05 55.2	+0.4
HATJ				*e*S	Sn	19 06 28.1	-2.8
VWUC	VWUC	3.04	330	*e*P	Pn	19 05 55.3	-0.3
IRIF	Iriomote-Funau	3.09	50	P	Pn	19 05 56.9	+0.6
KNM	Kinmen	3.21	310	*e*P	Pn	19 05 58.9	+0.9
JKRS	Kuro-shima	3.24	54	P	Pn	19 05 59.1	+0.8
PTMZ	Houxiangcun	3.24	326	*e*P	Pn	19 05 58.0	-0.3
KNMB	Chin-men Tao	3.27	310		Pn	19 05 57.7	-1.1
KNMB	Chin-men Tao	3.27	310	*e*P	Pn	19 05 57.9	-0.9
JIJ	Ishigaki jima	3.41	54	P	Pn	19 06 01.0	+0.3
QZH2	Quanzhou	3.46	318	Pn	Pn	19 06 01.0	-0.4
QZH2				Sn	Sn	19 06 41.8	-1.0
QZH2				AML	AML		
	150nm,0.9s						
QZH2				AML	AML		
	310nm,0.8s						
DSXP	Dongshan	3.67	292	*e*P	Pn	19 06 02.8	-1.3
JISG	Ishigakijimahi	3.67	52	P	Pn	19 06 04.0	-0.2
PACPP	Pamplona Cagay	3.89	177	*i* P	Pn	19 06 06.8	-0.5
PACPP				*i* S	Sn	19 06 48.0	-5.3
MATB	Ma-tsu	3.92	344	*e*P	Pn	19 06 07.0	-0.7
JTJ	Tarama	3.99	55	P	Pn	19 06 09.6	+1.0
MHZQ	Yeshan	4.18	333	*e*P	Pn	19 06 11.3	0.0
LYJJ	Jianjiangzhen	4.35	344	*e*P	Pn	19 06 13.4	-0.2
JMJ	Miyako jima 2	4.53	57	P	Pn	19 06 17.0	+0.9
JMJ	Miyako jima 2	4.53	57	S	Sn	19 07 08.8	-0.4
XPSS	Dashiqiu	4.63	350	*e*P	Pn	19 06 17.2	-0.2
HKPS	Hong Kong Po S	6.47	271	Pn	Pn	19 06 43.5	+0.7
JOW	Kunigami	7.88	54	Pn	Pn	19 07 00.0	-2.1
	1.4nm,0.3s,baz=119,slow=18,SNR=7.8						
JOW				Sn	Sn	19 08 27.3	-4.3
	0.3nm,0.3s,baz=288,slow=20,SNR=1.1						
	6.1nm,0.3s						
JOW				AML	AML		
JOW	Kunigami	7.88	54		Pn	19 06 58.6	-3.5
NJ2	Nanjing	9.86	349	*e*P	Pn	19 07 19.3	-10
NJ2				pmax	pmax		
	comp=Z,18nm,0.9s						
NJ2				LR	LR		
	comp=N,1μm,10.8s						
NJ2				LR	LR		
	comp=E,590nm,6.1s						
NJ2				LR	LR		
	comp=Z,1μm,12.3s						
QIZ	Qiongzhong	11.07	255	P	Pn	19 07 47.5	+1.6
QIZ				S	Sn	19 09 50.5	+0.3
QIZ				L	L		
	comp=Z,370nm,11.6s						
QIZ				L	L		
	comp=Z,440nm,10.9s						
QIZ				L	L		
	comp=Z,450nm,12.1s						
DAV	Davao City (W)	15.80	164	LR	LR	19 15 32.1	
	comp=Z,208nm,19.5s,baz=356,slow=40						
HNS	HongShan	15.98	341	⇑P	P	19 08 58.0	+2.1
HNS				pmax	pmax		
	comp=Z,13nm,1.2s						
HNS				L	L		
	comp=Z,680nm,13.3s						
HNS				L	L		
	comp=Z,520nm,12.4s						
HNS				L	L		
	comp=Z,740nm,13.5s						
KSRS	Korea Array	16.14	20	Pn	Pn	19 08 55.8	+1.4
	comp=Z,0.1nm,0.3s,baz=199,slow=12,SNR=4.6						
KSRS				LR	LR	19 15 54.2	
	comp=Z,103nm,19.9s,baz=215,slow=40						
	comp=Z,1.5nm,0.8s						
KSRS				AML	AML		
MJAR	Matsushiro Arr	20.47	43	P	P	19 09 43.5	-1.9
	comp=Z,3.4nm,1.2s,baz=220,slow=10,SNR=5.0						
MJAR				LR	LR	19 17 52.2	
	comp=Z,42nm,21.6s,baz=223,slow=37						
	comp=Z,3.4nm,1.2s						
BTO2	Baotou	20.65	335	*e*P	Pn	19 09 49.5	-0.2
BTO2				pmax	pmax		
	comp=Z,7.0nm,0.5s						
BTO2				pmax	pmax		
	comp=Z,320nm,8.0s						
BTO2				L	L		
	comp=Z,930nm,12.9s						
BTO2				L	L		
	comp=Z,460nm,11.1s						
BTO2				L	L		
	comp=Z,1μm,14.1s						
CMAR	Chiang Mai Arr	21.15	263	P	P	19 09 52.0	-0.9
	comp=Z,0.2nm,0.2s,baz=78,slow=8.6,SNR=1.5						
	comp=Z,0.2nm,0.2s						
SBUM	Sibu	21.60	205	P	P	19 10 00.1	+2.4
USRK	Ussuriysk Ar.	23.55	20	LR	LR	19 19 50.0	
	comp=Z,67nm,19.8s,baz=198,slow=37						
GUMO	Guam	24.18	107	LR	LR	19 18 21.6	
	comp=Z,42nm,20.4s,baz=282,slow=33						
GTA2	Gaotai	24.95	318	*e*P	P	19 10 31.5	+0.2
GTA2				S	S	19 14 42.8	-13
GTA2				pmax	pmax		
	comp=Z,3.0nm,0.7s						
GTA2				L	L		
	comp=Z,260nm,13.0s						
GTA2				L	L		
	comp=Z,190nm,15.6s						
GTA2				L	L		
	comp=Z,260nm,14.9s						
SIJI	Sorong	25.12	156	LR	LR	19 18 45.0	
	comp=Z,36nm,21.6s,baz=350,slow=33						
KAPI	Kappang	27.24	183	LR	LR	19 21 58.1	
	comp=Z,70nm,21.2s,baz=334,slow=38						
ASAJ	Asahikawa	28.00	34	LR	LR	19 23 51.1	
	comp=Z,28nm,19.3s,baz=267,slow=40						
SONM	Songino Array	28.03	339	P	P	19 10 59.1	+0.2
	comp=Z,0.8nm,0.7s,baz=149,slow=10.0,SNR=5.3						
SONM				LR	LR	19 23 32.9	
	comp=Z,192nm,19.8s,baz=150,slow=39						
	comp=Z,0.8nm,0.7s						
SONM	Songino Array	28.03	339	P	P	19 10 58.8	-0.2
KLR	Kul'dur	28.10	15	LR	LR	19 23 10.1	
	comp=Z,144nm,19.4s,baz=200,slow=38						
JAY	Jayapura	31.25	140	LR	LR	19 22 16.9	
	comp=Z,59nm,20.9s,baz=263,slow=33						
TLY	Talaya	32.25	339	LR	LR	19 26 09.5	
	comp=Z,211nm,18.3s,baz=138,slow=39						
MKAR	Makanchi Array	39.62	317	P	P	19 12 39.9	+0.4
	comp=Z,2.5nm,0.8s,baz=114,slow=9.8,SNR=18						
MKAR				LR	LR	19 29 08.5	
	comp=Z,52nm,18.1s,baz=98,slow=36						
	comp=Z,2.5nm,0.8s						
MKAR	Makanchi Array	39.62	317	P	P	19 12 39.4	0.0
MAKZ	Makanchi	39.83	317	P	P	19 12 41.5	+0.4
MAKZ					pP	19 12 42.0	-0.5
MAKZ				IAmb	IAmb	19 12 43.1	
	comp=Z,2.9nm,0.9s						
YAK	Yakutsk	40.08	6	LR	LR	19 31 04.0	
	comp=Z,91nm,20.1s,baz=187,slow=39						
ZAA0	Zalesovo Array	41.75	328	P	P	19 12 56.6	-0.2
ZAA0				IAmb	IAmb	19 13 09.1	
	comp=Z,1.7nm,0.7s						
ZALV	Zalesovo Beam	41.75	328	P	P	19 12 56.3	-0.5
	comp=Z,2.0nm,0.7s,baz=112,slow=7.5,SNR=7.7						
ZALV				LR	LR	19 30 29.5	
	comp=Z,58nm,18.8s,baz=134,slow=36						
	comp=Z,2.0nm,0.7s						
ZALV	Zalesovo Beam	41.75	328	P	P	19 12 56.0	-0.8
H11N1	WAKE ISLAND Hy	42.67	85	T	T	19 58 51.4	
	baz=282,slow=74,SNR=54						
H11N2	WAKE ISLAND Hy	42.67	85	T	T	19 58 37.1	
	baz=282,slow=74,SNR=104						
MA2	Magadan	42.68	22	LR	LR	19 32 06.9	
	comp=Z,77nm,18.0s,baz=208,slow=38						
H11N3	WAKE ISLAND Hy	42.69	85	T	T	19 58 52.7	
	baz=282,slow=74,SNR=78						
H11S3	WAKE ISLAND Hy	42.75	87	T	T	19 58 55.0	
	baz=283,slow=74,SNR=142						
H11S1	WAKE ISLAND Hy	42.76	87	T	T	19 58 56.9	
	baz=283,slow=74,SNR=131						
H11S2	WAKE ISLAND Hy	42.76	87	T	T	19 58 56.7	
	baz=283,slow=74,SNR=79						
KURK	Kurchatov	43.46	321	P	P	19 13 10.1	-0.7
KURK				IAmb	IAmb	19 13 14.8	
	comp=Z,2.1nm,0.7s						
KURBB	Kurchatov Arra	43.48	321	P	P	19 13 09.6	-1.3
	comp=Z,2.7nm,0.8s,baz=121,slow=7.0,SNR=18						
	comp=Z,2.7nm,0.8s						
AAK	Ala-Archa	43.59	309	LR	LR	19 33 43.6	
	comp=Z,94nm,18.4s,baz=103,slow=39						
KK31	Karatay Array	46.55	309	P	P	19 13 35.9	+0.3
KKAR	Karatay Array	46.55	309	P	P	19 13 36.2	+0.7
BVAR	Borovoye Array	49.06	322	P	P	19 13 55.0	+0.2
	comp=Z,0.8nm,0.6s,baz=111,slow=9.0,SNR=5.8						
	comp=Z,0.8nm,0.6s						
TIXI	Tiksi	49.51	3	LR	LR	19 37 28.9	
	comp=Z,142nm,18.2s,baz=180,slow=39						
NRIK	Noril'sk	51.14	345	LR	LR	19 36 51.0	
	comp=Z,53nm,19.8s,baz=146,slow=37						
AB31	Akbulak array	54.68	315	P	P	19 14 37.2	+0.4
AB31				IAmb	IAmb	19 14 38.2	
	comp=Z,1.9nm,0.9s						
ABKAR	Akbulak array	54.68	315	P	P	19 14 37.2	+0.4
AKTO	Aktyubinsk	56.05	317	LR	LR	19 40 45.2	
	comp=Z,64nm,18.4s,baz=222,slow=38						
ARTI	Arti	56.62	324	LR	LR	19 41 23.4	
	comp=Z,46nm,18.6s,baz=79,slow=38						
ARTI	Arti	56.62	324	P	P	19 14 50.5	-0.1
GNI	Garni	65.80	305	LR	LR	19 48 18.5	
	comp=Z,36nm,21.3s,baz=98,slow=39						
SPITS	Spitsbergen Ar	71.25	348	LR	LR	19 51 03.8	
	comp=Z,56nm,18.4s,baz=26,slow=39						
FINES	FINESS Array B	72.99	330	P	P	19 16 36.5	-0.8
	comp=Z,2.2nm,0.9s,baz=90,slow=6.9,SNR=5.3						
FINES				LR	LR	19 50 54.7	
	comp=Z,65nm,18.2s,baz=40,slow=38						
	comp=Z,2.2nm,0.9s						
HFS	Hagfors	79.12	331	LR	LR	19 53 59.1	
	comp=Z,67nm,19.2s,baz=52,slow=37						
NOA	NORSAR Array B	79.81	332	LR	LR	19 56 00.6	
	comp=Z,97nm,18.7s,baz=70,slow=38						
CLL	Collm	83.47	323	AMS	AMS	19 59 00.0	
	comp=Z,100nm,17.7s						
BORG	Borgarnes	88.46	345	LR	LR	20 00 49.6	
	comp=Z,44nm,18.9s,baz=335,slow=38						
EKA	Eskdalemuir Ar	89.28	332	LR	LR	20 02 12.5	
	comp=Z,100nm,18.8s,baz=35,slow=38						

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*IDC **28** 19:07:17.2±1.3, 6°.99S×129°.20E, h152^{km}±13^{km}, mb4.0/17, mbtmp4.5/23, Error ellipse: s-maj=12.3km s-min=8.4km az=89.0*

*NEIC **28** 19:07:21.5±2.0, 6°.92S±0°.06×129°.36E±0°.07, h189^{km}±6^{km}, mb4.5/32, Error ellipse: s-maj=10.7km s-min=7.6km az=123.0*

*DJA **28** 19:07:22.7±0.1, 7°S±2°×12°9E±°, h191^{km}±3^{km}, M4.3/36, mb4.5/36, mB4.9/19, MLv4.8/18, Mw(mB)4.2/19, MwMwp5.5/1, Mwp5.7/1*

ISC 28 19:07:21.9±0.3**, 6°.98S**±0°.04×**129°.40E**±0°.05**, h200**^{km}**, n125, σ1^{s}87**/131**, mb4.3**/27**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SAUI	Saumlaki	2.13	118	P	Pn	19 08 02.5	+0.6
SAUI	Saumlaki	2.13	118		Pn	19 08 02.0	+0.2
SAUI				Sn	Sn	19 08 30.4	-2.5
SAUI	Saumlaki	2.13	118	P	Pn	19 08 02.4	+0.6
SAUI				S	Sn	19 08 33.5	+0.6
SAUI				AML	AML		
BNDI	Bandanaira	2.49	12	P	Pn	19 08 07.9	+2.2
BNDI	Bandanaira	2.49	12	P	Pn	19 08 07.3	+1.6
BNDI				S	Sn	19 08 41.2	+1.3
BNDI				AML	AML		
NLAI	Namlea	4.36	328	P	Pn	19 08 31.3	+3.1
FAKI	Fak Fak	4.93	35		Pn	19 08 33.3	-2.2
FAKI	Fak Fak	4.93	35	P	Pn	19 08 34.7	-0.7
FAKI				AML	AML		
DRS	Darwin Rock St	5.62	165	P	Pn	19 08 43.6	-0.7
SOEI	Soe	5.78	241	P	Pn	19 08 45.4	-1.0
SOEI	Soe	5.78	241		Pn	19 08 45.1	-1.3
SOEI	Soe	5.78	241	P	Pn	19 08 45.5	-1.0
	1.0nm3μm186nm,0.7s						
SOEI				AML	AML		
SANI	Sanana	5.96	325	P	Pn	19 08 50.1	+1.4
	0.1nm51nm,0.8s						
SANI				AML	AML		
MTN	Manton Dam	6.08	164		Pn	19 08 48.7	-1.5
SIJI	Sorong	6.34	17	P	Pn	19 08 51.0	-2.7
	baz=198,slow=20,SNR=144						
SIJI				S	Sn	19 10 00.3	-6.1
	98nm,0.2s,baz=229,slow=19,SNR=18						
SWI	Sorong	6.35	17	P	Pn	19 08 52.2	-1.5
	0.8nm3μm20nm,0.6s						
SWI				AML	AML		
BATI	Baumata	6.52	240	P	Pn	19 08 49.2	-6.7
	167nm,0.4s,baz=54,slow=2.1,SNR=70						
BATI				S	Sn	19 09 58.7	-12
	178nm,0.6s,baz=90,slow=11,SNR=11						
BBSI	Bau Bau	6.95	282	P	Pn	19 09 03.5	+2.0
	0.3nm1μm102nm,1.1s						
BBSI				AML	AML		
MMRI	Maumere	7.29	256	P	Pn	19 09 05.4	-0.5
MMRI	Maumere	7.29	256	Pn	Pn	19 09 04.6	-1.3
MWPI	Manokwari, Pap	7.58	38	P	Pn	19 09 10.4	+0.6
KNRA	Kununurra	8.67	184		Pn	19 09 21.8	-2.1
BAKI	Biak	8.82	50	P	Pn	19 09 29.1	+3.2
	1μm105nm,0.7s						
LUWI	Luwuk	8.86	311	P	Pn	19 09 28.1	+1.8
	588nm49nm,1.1s						
WSI	Waingapu	9.39	253	P	Pn	19 09 31.9	-1.5
MNI	Manado	9.52	331	P	Pn	19 09 36.3	+1.3
APSI	Ampana	9.80	308	P	Pn	19 09 39.7	+1.1
	48nm,1.2s						
GTOI	Gorontalo	9.89	320	P	Pn	19 09 44.1	+4.3
	695nm85nm,0.9s						
MMSI	Mamuju	11.28	292	P	Pn	19 10 01.4	+3.6
FITZ	Fitzroy Crossi	11.65	198	P	Pn	19 09 58.8	-3.5
	3.8nm,0.3s,baz=14,slow=12,SNR=92						
FITZ				S	Sn	19 11 59.0	-13
	29nm,0.6s,baz=339,slow=14,SNR=12						
FITZ	Fitzroy Crossi	11.65	198	P	Pn	19 09 59.8	-2.5
FITZ	Fitzroy Crossi	11.65	198		Pn	19 10 00.1	-2.3
PLAI	Plampang	11.66	260	P	Pn	19 09 59.4	-3.1
TOLI2	Tolitoli	11.77	313	P	Pn	19 10 05.4	+1.5
JAY	Jayapura	12.10	69	P	Pn	19 10 08.2	0.0
	4.4nm,0.8s,baz=234,slow=14,SNR=5.6						
JAY				S	Sn	19 12 16.1	-7.2
	2.3nm,0.4s,baz=236,slow=11,SNR=1.9						
WB0	Warramunga Arr	13.61	160		Pn	19 10 24.2	-2.9
WRAB	Tennant Creek	13.75	160	P	Pn	19 10 27.5	-1.3
WRAB	Tennant Creek	13.75	160	P	Pn	19 10 26.0	-2.8
WRA	Warramunga Arr	13.75	160	P	Pn	19 10 26.0	-2.9
	6.5nm,0.6s,baz=340,slow=13,SNR=36						
WRA				S	S	19 12 50.2	-12
	12nm,0.5s,baz=331,slow=22,SNR=8.6						
WRA	Warramunga Arr	13.75	160		Pn	19 10 24.3	-4.5
WB1	Warramunga Ar.	13.77	160	P	Pn	19 10 27.1	-2.0
WR8	Warramunga Arr	13.82	160		Pn	19 10 27.3	-2.4
BBKI	Banjar Baru	14.91	283	P	P	19 10 47.2	+3.3
	11μm3μm119nm,0.8s						
JAGI	Jajag, Banyuwa	15.18	263	P	Pn	19 10 44.9	-1.6
JAGI	Jajag, Banyuwa	15.18	263	Pn	Pn	19 10 42.8	-3.7
PKKI	Palangkaraya	16.08	286	P	Pn	19 10 58.2	+0.9
QIS	Mount Isa	16.74	145	P	Pn	19 11 05.5	+0.3
MBWA	Marble Bar	16.92	213	P	P	19 11 05.6	-0.4
MBWA				IAmb	IAmb	19 11 08.8	
	comp=Z,11nm,0.9s						
AS31	Alice Springs	17.15	166		Pn	19 11 09.6	-0.5
ASAR	Alice Springs	17.15	166	P	Pn	19 11 09.5	-0.5
	comp=Z,54nm,0.6s,baz=344,slow=10,SNR=392						
ASAR				S	S	19 14 10.7	-6.3
	comp=Z,5.4nm,1.0s,baz=348,slow=23,SNR=7.6						
ASAR	Alice Springs	17.15	166		P	19 11 09.3	+0.8
ASAR					S	19 14 14.5	-2.5
PMG	Port Moresby	17.74	99	P	P	19 11 15.6	+0.5
	comp=Z,13nm,1.1s,baz=280,slow=11,SNR=4.1						
PMG	Port Moresby	17.74	99	P	Pn	19 11 18.9	+1.8
PMG	Port Moresby	17.74	99	P	Pn	19 11 19.5	+2.4
PMG	Port Moresby	17.74	99	IAmb	IAmb	19 11 24.0	
	comp=Z,19nm,0.9s						
MTSU	Mount Surprise	18.29	129	P	Pn	19 11 23.4	0.0
KKM	Kota Kinabalu	18.45	314	P	P	19 11 23.3	+0.5
KKM	Kota Kinabalu	18.45	314	P	P	19 11 22.9	0.0
SBUM	Sibu	19.54	298	P	P	19 11 34.9	+0.4
SBUM	Sibu	19.54	298		P	19 11 35.2	+0.7
SBUM				IAmb	IAmb	19 11 38.7	
	comp=Z,10nm,0.9s						
SBUM	Sibu	19.54	298	P	P	19 11 36.9	+2.4
	comp=Z,12nm,0.9s						
CTA	Charters Tower	20.91	130	P	P	19 11 50.5	+1.4
	comp=Z,13nm,0.8s,baz=311,slow=14,SNR=8.2						
	comp=Z,13nm,0.8s						
CTA	Charters Tower	20.91	130	P	P	19 11 51.6	+2.5
CTAO	Charters Tower	20.91	130	P	P	19 11 51.3	+2.2
CTAO	Charters Tower	20.91	130	P	P	19 11 49.5	+0.5
CTAO				IAmb	IAmb	19 11 53.3	
	comp=Z,15nm,0.9s						
BBJI	Bungbulang	21.58	267	P	P	19 11 55.4	-0.8
BBJI	Bungbulang	21.58	267	P	P	19 11 54.5	-1.8
LEM	Lembang	21.62	269	P	P	19 11 54.1	-2.7
	comp=Z,44nm,1.0s,baz=82,slow=14,SNR=4.2						
	comp=Z,44nm,1.0s						
MEEK	Meekatharra	22.09	206	P	P	19 12 00.0	-1.0
INKA	Innaminka	23.29	154		P	19 12 13.2	+1.3
INKA				IAmb	IAmb	19 12 14.2	
	comp=Z,12nm,0.6s						
FORT	Forrest	23.71	183		P	19 12 16.3	+0.5
QLP	Quilpie	24.07	146	P	P	19 12 21.0	+1.9
MORW	Morawa	25.33	208	P	P	19 12 30.2	-0.3
MORW	Morawa	25.33	208	P	P	19 12 29.9	-0.6
BBOO	Buckleboo	26.44	167	P	P	19 12 40.9	+0.5
BBOO	Buckleboo	26.44	167	P	P	19 12 40.5	+0.2
BBOO				IAmb	IAmb	19 12 40.9	
	comp=Z,11nm,0.7s						
STKA	Stephens Creek	27.27	157	P	P	19 12 47.7	0.0
	comp=Z,9.8nm,0.7s,baz=339,slow=11,SNR=19						
	comp=Z,9.8nm,0.7s						
STKA	Stephens Creek	27.27	157	P	P	19 12 48.4	+0.7
HTT	Hallett	27.77	163	P	P	19 12 52.2	0.0
NWAO	Narrogin (SRO)	28.19	202	P	P	19 12 56.0	0.0
CMSA	Cobar Meteorol	28.79	150	P	P	19 13 02.5	+1.2
GC1S	Gold Coast 1 S	31.06	136	P	P	19 13 22.0	+0.7
HKPS	Hong Kong Po S	32.69	333	P	P	19 13 35.3	-0.2
GSI	Gunungsitoli	32.80	283	P	P	19 13 36.5	-0.2
CAN	Canberra	33.47	150	P	P	19 13 44.5	+2.2
TOO	Toolangi	33.79	157	P	P	19 13 46.6	+1.7
CM31	Chiang Mai Arr	39.26	311	P	P	19 14 31.4	0.0
CM31				IAmb	IAmb	19 14 32.5	
	comp=Z,8.9nm,0.8s						
CMAR	Chiang Mai Arr	39.26	311	P	P	19 14 31.1	-0.3
	comp=Z,4.3nm,0.7s,baz=127,slow=8.5,SNR=40						
	comp=Z,4.3nm,0.7s						
CHTO	Chiang Mai	39.48	311	P	P	19 14 33.7	+0.5
CHTO	Chiang Mai	39.48	311		P	19 14 33.0	-0.2
CHTO				IAmb	IAmb	19 14 34.1	
	comp=Z,9.0nm,0.8s						
CHTO	Chiang Mai	39.48	311	P	P	19 14 33.4	+0.2
	comp=Z,13nm,0.9s						
MJAR	Matsushiro Arr	44.07	10	P	P	19 15 09.0	-1.1
	comp=Z,2.8nm,0.8s,baz=192,slow=9.8,SNR=8.0						
	comp=Z,2.8nm,0.8s						
KSRS	Korea Array	44.22	358	P	P	19 15 11.9	+0.7
	comp=Z,1.5nm,0.7s,baz=174,slow=8.5,SNR=7.1						
	comp=Z,1.5nm,0.7s						
MORE	Moreh	46.20	313		P	19 15 25.5	-1.5
MORE				IAmb	IAmb	19 15 26.6	
	comp=Z,8.3nm,0.8s						
MSVF	Nonsavu	48.58	107	P	P	19 15 48.3	+2.6
SHL	Shillong	48.75	313		P	19 15 46.0	-0.9
LZDM	Lanzhou Array	49.07	332	P	P	19 15 49.2	-0.1
	comp=Z,1.9nm,0.3s,baz=152,slow=9.5,SNR=1.8						
	comp=Z,1.9nm,0.3s						
USRK	Ussuriysk Ar.	50.99	2	P	P	19 16 03.4	+0.1
	comp=Z,1.9nm,0.6s,baz=174,slow=7.1,SNR=4.1						
	comp=Z,1.9nm,0.6s						
EVN	Everest	53.82	312		P	19 16 24.8	-0.3
EVN				IAmb	IAmb	19 16 26.6	
	comp=Z,5.4nm,0.6s						
SONM	Songino Array	58.23	342	P	P	19 16 55.9	+0.5
	comp=Z,1.3nm,0.6s,baz=155,slow=6.7,SNR=11						
SONM				PcP	PcP	19 17 45.4	+1.0
	comp=Z,0.2nm,0.6s,baz=158,slow=4.4,SNR=4.3						
	comp=Z,1.3nm,0.6s						
SONM	Songino Array	58.23	342	P	P	19 16 55.8	+0.4
PETK	Petropavlovsk-	64.49	18	P	P	19 17 38.2	+1.2
	comp=Z,6.6nm,0.9s,baz=213,slow=13,SNR=15						
	comp=Z,6.6nm,0.9s						
MKAR	Makanchi Array	67.88	327	P	P	19 17 58.9	+0.1
	comp=Z,3.7nm,0.5s,baz=123,slow=5.2,SNR=67						
	comp=Z,3.7nm,0.5s						
MKAR	Makanchi Array	67.88	327		P	19 17 58.7	0.0
MAKZ	Makanchi	68.06	327		P	19 17 60.0	+0.1
MAKZ				IAmb	IAmb	19 18 01.7	
	comp=Z,4.0nm,0.7s						
YAK	Yakutsk	68.80	0		P	19 18 04.0	-0.1
YAK				IAmb	IAmb	19 18 05.2	
	comp=Z,8.6nm,0.7s						
ZAA0	Zalesovo Array	71.30	334		P	19 18 18.7	-0.7
ZAA0				IAmb	IAmb	19 18 19.9	
	comp=Z,4.8nm,0.7s						
ZALV	Zalesovo Beam	71.30	334	P	P	19 18 19.0	-0.5
	comp=Z,4.3nm,0.6s,baz=129,slow=5.7,SNR=20						
	comp=Z,4.3nm,0.6s						
ZALV	Zalesovo Beam	71.30	334		P	19 18 18.8	-0.7
KURBB	Kurchatov Arra	72.18	329	P	P	19 18 24.3	-0.4
	comp=Z,3.4nm,0.6s,baz=129,slow=5.0,SNR=43						
	comp=Z,3.4nm,0.6s						
KURK	Kurchatov	72.19	329		P	19 18 24.9	+0.1
KURK				IAmb	IAmb	19 18 25.9	
	comp=Z,4.9nm,0.8s						
VNDA	Vanda	72.54	173	P	P	19 18 26.9	+0.4
	comp=Z,1.1nm,0.6s,baz=313,slow=5.6,SNR=7.8						
	comp=Z,1.1nm,0.6s						
VNDA	Vanda	72.54	173	P	P	19 18 26.9	+0.4
MAW	Mawson	74.76	201	P	P	19 18 39.8	+0.3
	comp=Z,2.2nm,0.8s,baz=72,slow=6.4,SNR=8.3						
	comp=Z,2.2nm,0.8s						
MAW	Mawson	74.76	201	P	P	19 18 40.5	+1.0
BVAR	Borovoye Array	77.73	328	P	P	19 18 56.6	+0.1
	comp=Z,3.6nm,0.8s,baz=121,slow=5.6,SNR=19						

	comp=Z,3.6nm,0.8s						
BORK	Borovoye	77.77	328		P	19 18 56.8	+0.1
AB31	Akbulak array	82.12	322		P	19 19 19.9	-0.2
ABKAR	Akbulak array	82.12	322		P	19 19 19.8	-0.3
QSPA	South Pole Qui	83.00	180	P	P	19 19 24.2	-0.3
	comp=Z,2.4nm,0.7s,baz=342,slow=6.4,SNR=23						
	comp=Z,2.4nm,0.7s						
QSPA	South Pole Qui	83.00	180	P	P	19 19 24.3	-0.3
ARTI	Arti	85.45	328		P	19 19 36.2	-0.6
ARTI				IAmb	IAmb	19 19 37.5	
	comp=Z,8.3nm,0.7s						
ARCES	ARCESS Array B	101.35	340	P	Pdif	19 20 51.5	+1.7
	comp=Z,2.5nm,1.1s,baz=63,slow=5.2,SNR=3.5						
CPUP	Villa Florida	146.25	169	PKPbc	PKPbc	19 26 40.5	+0.9
	comp=Z,1.4nm,0.8s,baz=153,slow=6.8,SNR=4.5						
LPAZ	La Paz	151.10	143	PKPbc	PKiKP	19 26 54.8	+1.2
	comp=Z,0.8nm,0.5s,baz=242,slow=2.3,SNR=4.1						

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*AFAD **28** 19:36:19.6, 38°.70N×38°.11E, h10^{km}±3^{km}, MW3.6*

*ISK **28** 19:36:19.4, 38°.69N×38°.14E, h5^{km}, ML3.4/28*

ISC 28 19:36:19.4±1.0**, 38°.73N**±0°.02×**38°.08E**±0°.02**, h14^{km}**±9^{km}**,**
n74, σ1^{s}.10/101**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HEKM	Malatya_Hekimh	0.18	327	P	Pb	19 36 24.4	-0.2
HEKM				S	Sb	19 36 27.7	-0.4
ARPR	Arapgir-MALATY	0.41	29	Pg	Pb	19 36 28.9	+0.3
ARPR				Sg	Sn	19 36 36.7	-2.0
ARPR				AML	AML		
AKCD	Akcadag	0.45	196	P	Pg	19 36 28.3	-0.2
AKCD				S	Sb	19 36 35.2	-0.8
MAYA	Malatya/Merkez	0.49	146	P	Pb	19 36 29.3	-0.6
MAYA				S	Sg	19 36 34.7	-0.9
CUGUR	Gurin_SVAS	0.63	270	P	Pb	19 36 31.9	-0.5
CUGUR				S	Sg	19 36 40.2	-0.1
ELZG	Elazig	0.74	108	P	Pb	19 36 33.9	-0.4
ELZG				S	Sb	19 36 43.7	-0.7
ILIC	ilic-Erzincan	0.81	27	Pg	Pn	19 36 36.7	+0.1
ILIC				Sg	Sn	19 36 48.8	+0.2
ILIC				AML	AML		
ESGZ	Sivrice-Elazig	0.82	111	Pg	Pb	19 36 35.3	-0.3
ESGZ				Sg	Sb	19 36 47.3	+0.6
ESGZ				AML	AML		
ELBS	KAHRAMANMARAS_	0.85	242	P	Pn	19 36 36.5	-0.6
ELBS				S	Sg	19 36 46.4	-0.7
MDYL	Doganyol-Malat	0.86	119	Pg	Pb	19 36 36.1	-0.1
MDYL				Sg	Sb	19 36 47.9	+0.4
MDYL				AML	AML		
ELZ	Elazig	0.88	92	P	Pg	19 36 36.2	-0.3
ELZ				S	Sg	19 36 47.2	-0.8
AZEY	Adyaman-Merk	0.93	172	P	Pb	19 36 36.8	-0.6
AKCA	Adyaman/G¶l	0.99	199	P	Pg	19 36 38.1	-0.4
AKCA				S	Sg	19 36 51.6	+0.2
NARI	Adyaman-Kaht	1.00	148	P	Pn	19 36 39.1	0.0
NARI				S	Sn	19 36 54.6	+1.5
ESIJ	Sivrice-Elazig	1.00	106	Pg	Pb	19 36 38.3	-0.4
ESIJ				AML	AML		
SVRC	Sivrice-ELAZID	1.02	110	Pg	Pg	19 36 38.9	-0.3
SVRC				AML	AML		
TUNC	Hafik-SIVAS	1.05	336	Pn	Pn	19 36 41.8	+1.9
CNGT	ngs	1.08	118	P	Pg	19 36 40.0	-0.4
CNGT				S	Sb	19 36 52.6	-1.5
CUAYA	Sivas-Altinyay	1.17	298	P	Pg	19 36 41.3	-0.7
CUAYA				S	Sn	19 36 58.0	+0.6
TNCL	Tunceli-Merkez	1.20	71	P	Pg	19 36 42.1	-0.4
TNCL				S	Sb	19 36 57.2	-0.3
ATAB	Bozova	1.27	172	P	Pg	19 36 44.2	+0.3
ATAB				S	Sg	19 37 00.8	+0.3
MDNT	Maden	1.30	105	P	Pg	19 36 45.6	+1.1
HANM	anlurfa/Hi	1.31	151	P	Pg	19 36 45.2	+0.6
HANM				S	Sg	19 37 01.7	+0.1
SARI	SarD1z-Kayseri	1.34	257	Pn	Pg	19 36 46.0	+0.7
SARI				AML	AML		
SCER	sogukcermik	1.35	327	P	Pg	19 36 45.3	-0.1
SCER				S	Sg	19 37 03.4	+0.4
KOVA	Elazig, Kovanc	1.35	91	P	Pg	19 36 44.6	-0.8
KOVA				S	Sn	19 37 00.9	-1.0
GZT	Gaziantep	1.43	197	P	Pg	19 36 47.3	+0.3
SVSK	Karacayir	1.45	325	Pn	Pg	19 36 48.7	+1.3
SVSK				AML	AML		
SUSE	Susehri	1.48	4	P	Pg	19 36 48.3	+0.5
SUSE				S	Sg	19 37 08.1	+0.9
KAHM	Kahramanmaras,	1.49	216	P	Pg	19 36 48.4	+0.4
KAHM				S	Sb	19 37 05.9	+0.3
KHMN	Narli-Kahraman	1.52	209	P	Pg	19 36 48.9	+0.2
ERZN	Erzincan	1.53	56	Pn	Pg	19 36 48.9	0.0
ERZN				AML	AML		
KMRS	Kahramanmaras	1.54	218	Pn	Pg	19 36 48.9	-0.1
KMRS				AML	AML		
CUSAR	Sarkisla-SIVAS	1.59	296	P	Pg	19 36 49.5	-0.5
CUSAR				S	Sg	19 37 11.6	+1.0
EUZM	Uzumlu	1.59	52	P	Pg	19 36 50.7	+0.7
EUZM				S	Sg	19 37 10.7	+0.1
KHMR	Kahramanmara	1.67	214	P	Pg	19 36 50.6	-0.9
KELT	Kelkit	1.68	32	P	Pg	19 36 51.2	-0.5
ALUC	Giresun/Alucra	1.70	18	P	Pg	19 36 52.4	+0.4
GAZ	Gaziantep	1.70	204	Pn	Pg	19 36 51.6	-0.5
GAZ				AML	AML		
SANL	SANLIURFA_Merk	1.71	155	P	Pb	19 36 50.9	+0.2
SANL				S	Sb	19 37 11.5	-0.6
NZIP	Nizip/Gaziante	1.72	191	P	Pg	19 36 51.3	-1.0
SAIM	ADANA	1.74	245	P	Pg	19 36 52.3	-0.6
SAIM				S	Sb	19 37 12.9	-0.2
BNN	Bunyan	1.75	275	Pn	Pg	19 36 52.9	-0.2
BNN				AML	AML		
RSDY	Resadiye-TOKAT	1.76	341	Pn	Pg	19 36 53.1	-0.2
RSDY				AML	AML		
ANDN	Andirin	1.79	231	P	Pg	19 36 52.8	-0.9
DIYA	Diyarbakir	1.79	116	P	Pb	19 36 52.4	+0.3
DIYA				S	Sb	19 37 15.4	+0.9
DYBB	Diyarbakir	1.79	115	Pn	Pb	19 36 52.2	+0.1
DYBB				AML	AML		
SURC	SANLIURFA_SURC	1.90	167	P	Pb	19 36 53.5	-0.3
KAMA	Osmaniye	1.91	216	P	Pb	19 36 53.0	-1.0
GUNE	Kayseri	1.93	276	P	Pg	19 36 56.5	0.0
TOKT	Tokat	1.98	324	Pn	Pg	19 36 56.4	-1.1
TOKT				AML	AML		
TOKA	Tokat	2.02	323	P	Pb	19 36 56.1	+0.2
YEDI	Yedisu-Bingol	2.04	69	Pn	Pb	19 36 56.4	0.0
YEDI				AML	AML		
BNGB	Bingl	2.04	82	Pn	Pb	19 36 55.9	-0.5
BNGB				AML	AML		
HACI	Hacifakili, Ak	2.07	299	P	Pb	19 36 56.6	-0.2
KOZT	Kozan	2.17	236	Pn	Pb	19 36 58.3	-0.3
KOZT				AML	AML		
ERBA	Erbaa	2.20	333	P	Pb	19 36 59.0	0.0
YAHY	KAYSERI_Yahyal	2.23	254	P	Pb	19 36 59.3	-0.3
ORDU	Ordu-Boztepe	2.26	356	P	Pb	19 36 59.1	-1.0
KOPT	Kop Dagi	2.27	55	P	Pg	19 37 03.9	+0.9
YOZ	Yozgat	2.33	294	Pn	Pb	19 37 01.2	-0.1
YOZ				AML	AML		
SIRC	Yozgat	2.36	286	P	Pb	19 37 00.1	-1.8
KARO	Karliova-Bingo	2.38	75	Pn	Pb	19 37 00.7	-1.5
KARO				AML	AML		
CKRK	Yozgat, Cekere	2.41	305	P	Pb	19 37 01.7	-0.9
KOZK	Kozakli-Nevseh	2.55	282	Pn	Pb	19 37 04.3	-0.8
KOZK				AML	AML		
KTUT	Trabzon	2.60	29	Pn	Pb	19 37 04.5	-1.3
KTUT				AML	AML		
CMRD	Camardi-Nigde	2.66	247	Pn	Pb	19 37 05.6	-1.3
CMRD				AML	AML		
VRTB	Varto-Mus	2.67	80	Pn	Pb	19 37 04.7	-2.3
VRTB				AML	AML		
GULA	Gulagac	3.04	264	Pn	Pb	19 37 11.0	-2.4
GULA				AML	AML		
GURO	Guroymak-BITLI	3.10	92	Pn	Pb	19 37 11.0	-3.4
GURO				AML	AML		
CHOM	Cayeli-Rize	3.13	40	Pn	Pb	19 37 11.9	-3.0
CHOM				AML	AML		
KAMT	Kaman	3.46	282	Pn	Pb	19 37 16.5	-4.1
KAMT				AML	AML		
BEIL	Beino	4.45	201	*e*P	Pn	19 37 29.4	+2.9
HWQ	Hawqa	4.76	202	*e*P	Pn	19 37 34.3	+3.3

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*IDC **28** 19:41:23.2±0.6, 17°.03S×167°.48E, h0^{km}, mb4.2/17, mbtmp4.2/20, ML4.7/2, MS3.6/16, Error ellipse: s-maj=17.9km s-min=12.8km az=95.0*

*NOU **28** 19:41:24.7, 17°.16S×167°.63E, h9^{km}, MLv4.9/31, Vanuatu Islands*

*NEIC **28** 19:41:24.4±2.3, 17°.09S±0°.06×167°.7E±0°.1, h10^{km}±1^{km}, mb4.3/10, Error ellipse: s-maj=20.4km s-min=9.6km az=86.0*

ISC 28 19:41:24.4±0.4**, 17°.12S**±0°.05×**167°.61E**±0°.05**, h10^{km}, n100,**
σ0^{s}.91/87**, mb4.2**/17**, MS3.5**/13**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DVP	Devils Point	0.82	137	P	Pb	19 41 40.8	+0.1
DVP	Devils Point	0.82	137	P	Pn	19 41 41.5	-0.5
DVP	Devils Point	0.82	137	S	Sn	19 41 54.6	+0.4
RTV	Rentapao	1.03	131	P	Pn	19 41 44.4	-0.5
RTV	Rentapao	1.03	131	P	Pn	19 41 44.3	-0.6
RTV	Rentapao	1.03	131	S	Sn	19 41 58.6	-0.8
SANVU	Saraoutou	1.71	347	P	Pn	19 41 54.5	+0.3
SANVU	Saraoutou	1.71	347	P	Pn	19 41 54.1	-0.1
SANVU	Saraoutou	1.71	347	S	Sb	19 42 16.4	-1.0
SANVU	Saraoutou	1.71	347		Pn	19 41 53.1	-1.1
MARNC	Mare, Loyalty	4.36	175	P	Pn	19 42 29.7	-1.0
MARNC	Mare, Loyalty	4.36	175	Pn	Pn	19 42 29.5	-1.2
KOUNC	Koumac, New Ca	4.64	222	P	Pn	19 42 35.0	+0.4
KOUNC	Koumac, New Ca	4.64	222		Pn	19 42 34.2	-0.4
YATNC	Mamie plateau,	4.96	188	P	Pn	19 42 38.0	-1.0
DZM	Mont Dzumac	5.05	192	Pn	Pn	19 42 39.1	-1.1
	6.8nm,0.3s,baz=13,slow=18,SNR=56						
DZM				Sn	Sn	19 43 35.8	-2.9
	11nm,0.3s,baz=108,slow=20,SNR=3.7						
DZM				LR	LR	19 43 51.9	
	comp=Z,87nm,18.9s,baz=160,slow=29						
	19nm,0.3s						
DZM				AML	AML		
NOUC	Port Laguerre	5.11	194	P	Pn	19 42 40.8	-0.2
ONTNC	Ouen Toro	5.27	192	P	Pn	19 42 42.4	-0.9
ONTNC	Ouen Toro	5.27	192		Pn	19 42 41.9	-1.4
OUENC	Ouen Island, N	5.32	188	P	Pn	19 42 45.0	+1.1
OUENC	Ouen Island, N	5.32	188	Pn	Pn	19 42 44.5	+0.5
HURO	Huro Makira	8.63	319	P	Pn	19 43 30.7	+1.3
NGOA	Tingoa Renbel	9.17	306	P	Pn	19 43 37.8	+1.0
MSVF	Nonsavu	9.99	95	Pn	Pn	19 43 54.5	+6.4
	1.5nm,0.4s,baz=255,slow=19,SNR=1.6						
MSVF				LR	LR	19 46 57.5	
	comp=Z,1µm,18.3s,baz=268,slow=33						
HNR	Honiara	10.67	315	LR	LR	19 47 42.0	
	comp=Z,397nm,18.0s,baz=176,slow=36						
TATA	Tatamba Isabel	11.54	318	P	Pn	19 44 09.7	+0.4
LKBA	Tubou, Lakemba	12.99	97	P	Pn	19 44 29.6	+0.5
EIDS	Eidsvold	17.44	239	P	P	19 45 29.7	+0.6
EIDS				IAmb	IAmb	19 45 32.0	
	comp=Z,23nm,1.2s						
ARMA	Armidale	19.69	225	P	P	19 45 54.9	+0.9
ARMA	Armidale	19.69	225	P	P	19 45 55.0	+1.0
ARMA				IAmb	IAmb	19 45 59.1	
	comp=Z,31nm,1.4s						
KRVT	Keravat (AS076	19.89	308	P	P	19 45 55.5	-0.6
	comp=Z,9.1nm,0.3s,baz=93,slow=18,SNR=2.1						
	comp=Z,23nm,0.3s						
KRVT				AML	AML		
AFI	Afiamalu	20.12	84	LR	LR	19 52 01.6	
	comp=Z,212nm,18.4s,baz=38,slow=32						
CTA	Charters Tower	20.45	258	P	P	19 46 03.4	+1.2
	comp=Z,10nm,0.8s,baz=81,slow=12,SNR=8.6						
CTA				LR	LR	19 53 04.2	
	comp=Z,163nm,18.8s,baz=44,slow=34						
	comp=Z,10nm,0.8s						
URZ	Urewera	22.65	160	LR	LR	19 54 26.8	
	comp=Z,145nm,18.0s,baz=350,slow=34						
URZ	Urewera	22.65	160	P	P	19 46 25.4	-0.3
BKZ	Black Stump Fm	23.29	162	P	P	19 46 32.9	+0.5
CMSA	Cobar Meteorol	24.52	230	P	P	19 46 44.7	+0.5
KHZ	Kahutara	25.72	170	P	P	19 46 54.7	-0.1
QIS	Mount Isa	26.71	258	P	P	19 47 05.2	+1.1
STKA	Stephens Creek	27.76	233	P	P	19 47 14.4	+1.0
	comp=Z,6.0nm,0.7s,baz=58,slow=11,SNR=9.2						
STKA				LR	LR	19 58 29.8	
	comp=Z,152nm,18.3s,baz=31,slow=37						
	comp=Z,6.0nm,0.7s						
STKA	Stephens Creek	27.76	233	P	P	19 47 14.2	+0.8
RAR	Rarotonga	31.05	103	LR	LR	19 59 46.5	
	comp=Z,65nm,18.3s,baz=298,slow=35						
PTPS	Port Pirie	31.06	233	P	P	19 47 43.8	+1.1
WB0	Warramunga Arr	31.59	260		P	19 47 46.8	-0.7
WRAB	Tennant Creek	31.63	260	P	P	19 47 47.8	-0.1
WRA	Warramunga Arr	31.64	260	P	P	19 47 46.5	-1.5
	comp=Z,2.7nm,0.7s,baz=88,slow=8.7,SNR=39						
WRA				PcP	PcP	19 50 39.7	-0.5
	comp=Z,0.4nm,0.7s,baz=97,slow=3.2,SNR=2.3						
	comp=Z,2.7nm,0.7s						
WRA	Warramunga Arr	31.64	260		P	19 47 47.5	-0.5
AS31	Alice Springs	32.20	253		P	19 47 52.6	-0.3
AS31				IAmb	IAmb	19 47 53.5	
	comp=Z,3.3nm,0.6s						
ASAR	Alice Springs	32.20	253	P	P	19 47 52.0	-0.9
	comp=Z,6.8nm,0.5s,baz=84,slow=8.4,SNR=226						
ASAR				PcP	PcP	19 50 41.9	+0.2
	comp=Z,0.8nm,0.7s,baz=85,slow=3.4,SNR=4.7						
ASAR				LR	LR	20 00 18.2	
	comp=Z,202nm,19.2s,baz=100,slow=35						
	comp=Z,6.8nm,0.5s						
ASAR	Alice Springs	32.20	253	P	P	19 47 51.0	-1.9
BBOO	Buckleboo	32.43	235	P	P	19 47 55.5	+0.7
GUMO	Guam	37.88	322	LR	LR	20 06 19.8	
	comp=Z,69nm,18.2s,baz=141,slow=40						
FITZ	Fitzroy Crossi	39.95	262	LR	LR	20 05 19.1	
	comp=Z,112nm,18.4s,baz=115,slow=36						
FITZ	Fitzroy Crossi	39.95	262	P	P	19 48 59.5	+0.3
FITZ				IAmb	IAmb	19 49 00.7	
	comp=Z,3.5nm,0.9s						
PPT2	Papeete2	40.81	97	*e*S	S	19 55 18.9	+1.2
	comp=Z,37nm,22.2s						
PPT2				*e*LR	LR	20 00 19.4	
	comp=Z,92nm,24.2s						
PPT2				*e*LR	LR	20 00 19.9	
	comp=Z,117nm,22.5s						
PPT	Papeete	40.81	97	LR	LR	20 02 00.5	
	comp=Z,90nm,21.8s,baz=284,slow=30						
MEEK	Meekatharra	46.20	249	P	P	19 49 50.4	+0.5
DAV	Davao City (W)	47.99	297	LR	LR	20 08 53.7	
	comp=Z,39nm,19.5s,baz=162,slow=34						
MORW	Morawa	48.56	246	P	P	19 50 08.6	+0.4
MJAR	Matsushiro Arr	60.17	333	P	P	19 51 32.0	-0.4
	comp=Z,3.3nm,1.0s,baz=156,slow=9.2,SNR=7.0						
	comp=Z,3.3nm,1.0s						
VNDA	Vanda	60.49	181	P	P	19 51 35.4	+1.3
	comp=Z,0.4nm,0.6s,baz=4.7,slow=5.5,SNR=4.0						
	comp=Z,0.4nm,0.6s						
VNDA	Vanda	60.49	181	IAmb	IAmb	19 52 03.3	
	comp=Z,3.2nm,1.2s						
JNU	Nakatsue	61.05	325	LR	LR	20 14 19.2	
	comp=Z,17nm,21.1s,baz=80,slow=32						
ASAJ	Asahikawa	65.09	340	LR	LR	20 16 06.8	
	comp=Z,30nm,21.2s,baz=110,slow=32						
KSRS	Korea Array	65.89	326	P	P	19 52 09.5	-0.9
	comp=Z,0.8nm,0.6s,baz=134,slow=7.0,SNR=4.7						
	comp=Z,0.8nm,0.6s						
QSPA	South Pole Qui	72.92	180	P	P	19 52 54.9	+1.1
	comp=Z,7.1nm,0.8s,baz=12,slow=2.0,SNR=30						
	comp=Z,7.1nm,0.8s						
QSPA	South Pole Qui	72.92	180	P	P	19 52 54.5	+0.8
KLR	Kul'dur	73.31	336	P	P	19 52 57.4	+1.4
	comp=Z,2.3nm,0.8s,baz=162,slow=5.1,SNR=3.9						
	comp=Z,2.3nm,0.8s						
CMAR	Chiang Mai Arr	76.22	294	P	P	19 53 12.3	-1.2
	comp=Z,0.6nm,0.3s,baz=126,slow=12,SNR=5.6						
	comp=Z,0.6nm,0.3s						
CMAR	Chiang Mai Arr	76.22	294	P	P	19 53 11.7	-1.9
MAW	Mawson	79.80	202	P	P	19 53 32.9	+0.3
	comp=Z,1.2nm,0.8s,baz=96,slow=10.0,SNR=3.2						
	comp=Z,1.2nm,0.8s						
MAW	Mawson	79.80	202	P	P	19 53 32.6	+0.1
SEY	Seymchan	80.68	353	P	P	19 53 36.2	-0.9
	comp=Z,1.7nm,0.8s,baz=183,slow=14,SNR=4.0						
	comp=Z,1.7nm,0.8s						
SONM	Songino Array	84.60	324	P	P	19 53 57.9	-0.2
	comp=Z,0.9nm,0.7s,baz=116,slow=3.4,SNR=7.1						
	comp=Z,0.9nm,0.7s						
SONM	Songino Array	84.60	324	P	P	19 53 57.5	-0.6
SONM				IAmb	IAmb	19 54 08.7	
	comp=Z,5.0nm,1.3s						
GTA2	Gaotai	84.62	314	*e*P	P	19 53 59.8	+1.4
GTA2				pmax	pmax		
	comp=Z,4.0nm,1.1s						
PFO	Pinyon Flats O	88.12	54	LR	LR	20 25 15.8	
	comp=Z,64nm,19.8s,baz=204,slow=30						
NVAR	Mina Array Bea	88.58	49	P	P	19 54 17.6	-0.4
	comp=Z,0.4nm,0.6s,baz=252,slow=5.5,SNR=3.5						
	comp=Z,0.4nm,0.6s						
NVAR	Mina Array Bea	88.58	49	P	P	19 54 16.9	-1.1
ILAR	Eielson Array	88.69	18	P	P	19 54 17.3	-0.3
	comp=Z,0.2nm,0.5s,baz=232,slow=6.7,SNR=1.6						
	comp=Z,0.2nm,0.5s						
MKAR	Makanchi Array	99.14	316	P	Pdif	19 55 06.5	+0.5
	comp=Z,0.5nm,0.7s,baz=93,slow=7.7,SNR=3.5						
	comp=Z,0.5nm,0.7s						
ZALV	Zalesovo Beam	99.50	324	P	Pdif	19 55 08.3	+0.9
	comp=Z,0.3nm,0.3s,baz=116,slow=3.4,SNR=1.7						
	comp=Z,0.3nm,0.3s						
ARCES	ARCESS Array B	122.63	345	PKP	PKPdf	20 00 19.5	-0.3
	comp=Z,2.1nm,0.6s,baz=47,slow=1.9,SNR=13						
FINES	FINESS Array B	128.05	338	PKP	PKPdf	20 00 30.4	+0.1
	comp=Z,1.5nm,0.8s,baz=46,slow=4.0,SNR=6.7						
HFS	Hagfors	133.09	342	PKhKP	PKPpre	20 00 36.6	
	comp=Z,1.7nm,0.9s,baz=212,slow=5.1,SNR=2.7						
GERES	GERESS Array B	141.90	332	PKhKP	PKPpre	20 00 53.1	
	comp=Z,0.4nm,0.3s,baz=64,slow=2.3,SNR=5.4						
GERES	GERESS Array B	141.90	332	PKPdf	PKPdf	20 00 54.0	-2.6
LESA	Schwarzleotal	143.41	331	*i* PKP	PKPbc	20 00 57.1	+0.6
	comp=Z,2.8nm,0.6s						
WATA	Walderalm	143.98	332	*i* PKP	PKPdf	20 00 59.7	-0.7
	comp=Z,2.8nm,1.0s						
ABTA	Abfaltersbach	143.98	330	*i* PKP	PKPbc	20 00 58.2	0.0
	comp=Z,4.6nm,0.6s						
WTTA	Wattenberg	144.00	332	*i* PKP	PKPdf	20 01 00.5	0.0
	comp=Z,2.2nm,0.6s						
MOTA	Moosalm	144.18	332	*i* PKP	PKPdf	20 01 00.2	-0.6
	comp=Z,5.8nm,1.0s						
SQTA	Sankt Quirin	144.23	332	*i* PKP	PKPdf	20 01 00.1	-0.7
	comp=Z,4.8nm,0.7s						
FETA	Feichten	144.59	332	*i* PKP	PKPdf	20 01 01.3	-0.2
	comp=Z,4.2nm,0.6s						
DAVA	Damuels	144.76	333	*e*PKP	PKPdf	20 01 01.6	-0.1
	comp=Z,6.7nm,0.6s						
CTI	Castel Tesino	144.90	330	PKPdf	PKPab	20 01 00.0	-1.1
ECH	Echery	145.10	337		PKPbc	20 01 01.5	-0.1
FUORN	Ofenpass-Fuorn	145.10	332		PKPdf	20 01 02.8	+0.2
TUE	Stuetta	145.62	333	PKPdf	PKPab	20 01 03.8	0.0
TORD	Torodi Ar. Bea	165.84	256	PKP	PKPdf	20 01 30.9	+0.4
	comp=Z,0.5nm,0.9s,baz=44,slow=1.4,SNR=2.9						
TORD				PKPab	PKPab	20 02 29.4	-0.6
	comp=Z,0.4nm,0.8s,baz=89,slow=4.5,SNR=2.5						

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*MDD **28** 19:46:27.7±0.5, 32°.21N×17°.17W, h40^{km}, Mb4.7/19, M_mb4.2/19, Error ellipse: s-maj=12.6km s-min=3.9km az=88.0*

*INMG **28** 19:46:30.9±1.2, 32°.24N×16°.99W, h10^{km}±9^{km}, ML2.4, Error ellipse: s-maj=7.4km s-min=1.3km az=94.0, #DIST_RANGE: REGIONAL #IPMA_REGION: S Camara de Lobos (Mdra)*

ISC 28 19:46:17.9±0.9**, 31°.82N**±0°.02×**16°.82W**±0°.08**, h10^{km}, n27,**
σ2^{s}.57/50**, 19C-1D, Madeira Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FUL	Funchal	0.82	356	*e*P	Pn	19 46 37.1	+1.5
FUL				*e*S	Sg	19 46 42.0	-2.6
FUL				*i* IAML		19 46 42.6	
FUL				*i* IAML		19 46 42.7	
FUL				*i* IAML		19 46 43.9	
PMAR	Madeira	0.90	355	*e*P	Pn	19 46 38.1	+1.2
PMAR				*e*S	Sg	19 46 43.9	-3.3
PMAR				*i* IAML		19 46 44.1	
PMAR				*i* IAML		19 46 44.9	
PMAR				*i* IAML		19 46 47.8	
PMOZ	Porto Moniz, M	1.05	342	⇓*i*P	Pn	19 46 39.9	+1.1
PMOZ				*e*S	Sg	19 46 47.6	-4.2
PMOZ				*i* IAML		19 46 48.8	
PMOZ				*i* IAML		19 46 50.9	
PMOZ				*i* IAML		19 46 53.3	
PMPST	Porto Santo, M	1.32	18	*e*P	Pg	19 46 45.3	+2.0
PMPST				*e*S	Sb	19 46 56.1	-3.7
PMPST				*i* IAML		19 46 57.5	
PMPST				*i* IAML		19 46 57.8	
PMPST				*i* IAML		19 47 00.7	
CPUN	Puntallana, La	3.18	195	P	Pg	19 47 18.3	-0.6
CPUN				⇑IVmb_VC		19 47 22.1	
	1µm,SNR=1.4						
CPUN				S	Sb	19 47 55.9	+2.4
CROM	Garafia, La Pa	3.19	197	P	Pg	19 47 18.0	-1.1
CROM				⇑IVmb_VC		19 47 21.1	
	784nm,SNR=1.2						
CROM				S	Sg	19 47 57.2	-3.2
CGOR	Puntagorda, La	3.20	199	P	Pg	19 47 17.0	-2.2
CGOR				⇑IVmb_VC		19 47 20.8	
	713nm,SNR=1.0						
CGOR				S	Sb	19 47 56.6	+2.7
CMIR	El Paso, La Pa	3.24	196	P	Pg	19 47 21.2	+1.1
CMIR				⇑IVmb_VC		19 47 22.8	
	761nm,SNR=2.9						
CMIR				S	Sb	19 47 57.1	+1.8
TBT	Taburiente	3.27	197	P	Pg	19 47 21.5	+0.8
TBT				⇑IVmb_VC		19 47 22.8	
	390nm,SNR=1.1						
TBT				S	Sb	19 47 58.1	+2.0
CBRE	Brena Baja,La	3.29	195	P	Pg	19 47 19.4	-1.6
CBRE				⇑IVmb_VC		19 47 25.7	
	2µm,SNR=1.5						
CBRE				S	Sg	19 47 59.8	-4.0
EBAJ	Bajamar	3.30	173	P	Pg	19 47 22.0	+0.8
EBAJ				⇑IVmb_VC		19 47 23.0	
	372nm,SNR=0.8						
EBAJ				S	Sg	19 48 00.1	-3.8
CVIE	Villa de Mazo,	3.33	195	P	Pb	19 47 19.1	+1.8
CVIE				S	Sg	19 48 01.3	-3.8
CJED	Jedey, El Paso	3.36	196	⇑IVmb_VC		19 47 26.0	
	1µm,SNR=1.2						
CJED				S	Sb	19 48 00.6	+2.0
EHIG	Higuera	3.37	195	⇑IVmb_VC		19 47 27.7	
	2µm,SNR=1.5						
EHIG				S	Sb	19 48 01.5	+2.7
CNOR	Icod de los Vi	3.50	178	P	Pg	19 47 25.5	+0.5
CNOR				S	Sg	19 48 07.0	-3.5
CFOR	Fortaleza, Los	3.50	177	P	Pg	19 47 25.8	+0.8
CFOR				⇑IVmb_VC		19 47 27.4	
	418nm,SNR=1.1						
CFOR				S	Sg	19 48 07.3	-3.2
CGUI	Guimar, Teneri	3.50	175	P	Pg	19 47 25.6	+0.4
CGUI				⇑IVmb_VC		19 47 29.2	
	1µm,SNR=1.4						
CGUI				S	Sg	19 48 06.3	-4.2
CDOS	Garachico, Isl	3.52	179	P	Pg	19 47 25.6	+0.3
CDOS				⇑IVmb_VC		19 47 28.2	
	1µm,SNR=0.9						
CDOS				S	Sg	19 48 07.9	-3.0
CDIE	La Orotava (Te	3.53	176	P	Pg	19 47 25.6	0.0
CDIE				S	Sg	19 48 08.0	-3.4
CRAJ	Montana Rajada	3.55	177	⇑IVmb_VC		19 47 30.5	
	808nm,SNR=1.1						
CRAJ				S	Sg	19 48 07.3	-4.7
CPVI	La Orotava (Te	3.55	178	P	Pg	19 47 26.2	+0.2
CPVI				S	Sg	19 48 07.8	-4.3
GUIA	Guia de Isora,	3.56	179	P	Pg	19 47 26.1	-0.2
GUIA				⇑IVmb_VC		19 47 29.1	
	718nm,SNR=1.0						
GUIA				S	Sg	19 48 07.8	-4.7
MACI	Morro de la Ar	3.57	176	P	Pg	19 47 26.1	-0.3
MACI				⇑IVmb_VC		19 47 28.5	
	291nm,SNR=0.5						
MACI				S	Sb	19 48 07.6	+2.8
CCHO	La Orotava (Te	3.59	178	P	Pg	19 47 25.9	-0.8
CCHO				⇑IVmb_VC		19 47 29.1	
	365nm,SNR=1.4						
CCHO				S	Sb	19 48 08.0	+2.6
CCAN	Las Canadas	3.59	177	P	Pg	19 47 25.6	-1.2
CCAN				⇑IVmb_VC		19 47 26.8	
	524nm,SNR=0.9						
CCAN				S	Sb	19 48 07.3	+1.8
CADE	Adeje, Tenerif	3.65	179	P	Pg	19 47 26.8	-1.1
CADE				⇑IVmb_VC		19 47 31.1	
	679nm,SNR=1.2						
CADE				S	Sb	19 48 08.3	+1.3
CLAJ	Vilaflor (Tene	3.66	178	⇑IVmb_VC		19 47 28.5	
	545nm,SNR=0.6						
CLAJ				S	Sb	19 48 09.2	+2.0

IDC 28 20:01:53.3±3.2**, 5°.86S**×**146°.27E, h73^{km}**±31^{km}**, mb3.2**/2**,**
mbtmp3.6/5**, Error ellipse: s-maj=48.5km s-min=20.3km**

az=66.0, Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**3.63**	**166**	P	Pn	20 02 46.6	-0.6
	8.4nm,0.2s,baz=328,slow=15,SNR=9.1						
PMG				S	Sn	20 03 29.6	+0.8
	16nm,0.4s,baz=225,slow=20,SNR=8.0						
JAY	**Jayapura**	**6.47**	**301**	P	Pn	20 03 26.3	+0.2
	3.2nm,0.8s,baz=122,slow=19,SNR=1.3						
WRA	**Warramunga Arr**	**18.18**	**219**	P	P	20 06 00.5	+0.2
	0.7nm,0.5s,baz=43,slow=11,SNR=30						
ASAR	**Alice Springs**	**21.33**	**213**	P	P	20 06 34.2	-0.3
	0.8nm,0.6s,baz=38,slow=10,SNR=17						
	0.8nm,0.6s						
ZALV	**Zalesovo Beam**	**78.51**	**328**	P	P	20 13 46.7	+0.2
	0.2nm,0.3s,baz=126,slow=7.3,SNR=1.9						
	0.2nm,0.3s						

TEH 28 20:08:29.9, 38°.00N×56°.06E, h7^{km}, ML3.3, Presumed earthquake, Northern and central Iran

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MRVT	**Maraveh tapeh**	**0.34**	**175**	Pg	Pg	20 08 36.5	0.0
IMND	**Minoodasht**	**0.90**	**215**	Pg	Pg	20 08 46.7	-0.5
IMND				Sg	Sn	20 09 01.9	-0.2
ISFR	**Sfrayin**	**1.81**	**121**	Pn	Pb	20 09 03.5	0.0
SHRO	**Shahrood**	**2.00**	**181**	Pn	Pb	20 09 06.2	-0.5
SBZV	**Sabzevar**	**2.03**	**142**	Pn	Pb	20 09 06.6	-0.7
IEMG	**Emamgholi**	**2.14**	**105**	Pn	Pb	20 09 09.2	+0.1
IGLO	**Ghaloghah**	**2.32**	**231**	Pn	Pb	20 09 10.7	-1.4
IAKL	**Akhelmad**	**2.56**	**122**	Pn	Pn	20 09 14.3	+2.1
ISHM	**Shahmirzad**	**3.11**	**226**	Pn	Pn	20 09 21.6	+1.9
TAPT	**Tabas- Tapeh t**	**3.23**	**164**	Pn	Pn	20 09 23.1	+2.0
IDMV	**Damavand**	**4.03**	**234**	Pn	Pn	20 09 34.6	+2.2
TKDS	**Koohdasht(Taba**	**4.46**	**168**	Pn	Pn	20 09 40.2	+2.1

IDC 28 20:08:47.4±8.1**, 18°.53S×173°.39W, h0^{km}, mb3.8**/3**, mbtmp3.8**/3**, Error ellipse: s-maj=347.0km s-min=41.7km az=141.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**49.21**	**259**	P	P	20 17 37.1	-0.8
	0.4nm,0.4s,baz=98,slow=7.4,SNR=24						
	0.4nm,0.4s						
ASAR	**Alice Springs**	**49.22**	**254**	P	P	20 17 38.6	+0.6
	0.9nm,0.5s,baz=93,slow=7.6,SNR=18						
	0.9nm,0.5s						
ILAR	**Eielson Array**	**85.50**	**11**	P	P	20 21 26.7	-0.1
	0.5nm,0.8s,baz=206,slow=6.0,SNR=2.8						
	0.5nm,0.8s						

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*IDC **28** 20:09:45.8±1.9, 7°.88S×146°.80E, h0^{km}, mb3.5/2, mbtmp3.6/4, ML3.6/2, Error ellipse: s-maj=48.6km s-min=16.2km az=71.0*

ISC 28 20:09:51.5±1.5**, 8°.1S**±0°.2×**146°.6E**±0°.2**, h35^{km}, n6, σ1^s.50**/6**, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**1.45**	**158**	Pg	**Pn**	**20 10 15.0**	**-0.2**
	13nm,0.3s,baz=348,slow=9.2,SNR=30						
PMG				Lg	Lg	20 10 38.3	
	22nm,0.3s,baz=345,slow=20,SNR=18						
WRA	**Warramunga Arr**	**16.76**	**224**	Pn	**P**	**20 13 45.2**	**-0.4**
	0.2nm,0.3s,baz=46,slow=12,SNR=16						
	1.5nm,0.7s						
WRA				AML	AML		
ASAR	**Alice Springs**	**19.73**	**217**	P	**Pn**	**20 14 21.0**	**+1.1**
	0.2nm,0.3s,baz=40,slow=11,SNR=18						
	1.6nm,0.7s						
ASAR				AML	AML		
CMAR	**Chiang Mai Arr**	**53.90**	**300**	P	**P**	**20 19 11.0**	**-0.9**
	0.3nm,0.5s,baz=113,slow=7.7,SNR=2.2						
	0.3nm,0.5s						
KURBB	**Kurchatov Arra**	**82.64**	**323**	P	**P**	**20 22 12.7**	**+1.5**
	0.4nm,1.0s,baz=108,slow=5.9,SNR=2.8						
	0.4nm,1.0s						
TORD	**Torodi Ar. Bea**	**145.17**	**281**	PKPbc	**PKPbc**	**20 29 24.5**	**-1.5**
	0.6nm,0.5s,baz=71,slow=3.8,SNR=6.2						

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*IDC **28** 20:13:14.9±1.8, 5°.39S×154°.17E, h132^{km}±13^{km}, mb3.9/21, mbtmp4.3/24, MS2.8/4, Error ellipse: s-maj=19.5km s-min=9.8km az=83.0*

*NEIC **28** 20:13:15.5±0.7, 5°.48S±0°.09×154°.31E±0°.09, h129^{km}±7^{km}, mb4.3/40, Error ellipse: s-maj=13.6km s-min=12.0km az=149.0*

ISC 28 20:13:13.3±0.5**, 5°.43S**±0°.06×**154°.35E**±0°.08**, h118^{km}, n73, σ1^s.06**/75**, mb4.3**/37**, 1C, Bougainville-Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RABL	**Rabaul**	**2.50**	**299**		**Pn**	**20 13 55.3**	**+2.2**
KRVT	**Keravat (AS076**	**2.57**	**296**	P	**Pn**	**20 13 55.7**	**+1.8**
	108nm,0.3s,baz=117,slow=2.3,SNR=6.0						
KRVT				S	**Sn**	**20 14 23.5**	**-1.7**
	571nm,0.4s,baz=90,slow=20,SNR=14						
KRVT				LR	LR	20 14 42.3	
	comp=Z,148nm,18.5s,baz=292,slow=37						
PMG	**Port Moresby**	**8.15**	**241**	P	**Pn**	**20 15 09.2**	**+0.2**
	21nm,0.8s,baz=86,slow=19,SNR=4.1						
PMG				S	**Sn**	**20 16 42.2**	**+2.7**
	52nm,0.8s,baz=68,slow=19,SNR=4.3						
PMG				LR	LR	20 18 16.8	
	comp=Z,54nm,18.9s,baz=38,slow=38						
PMG	**Port Moresby**	**8.15**	**241**		**Pn**	**20 15 10.0**	**+1.0**
SANVU	**Saraoutou**	**16.08**	**129**	P	**P**	**20 16 54.5**	**+0.7**
SANVU				IAmb	IAmb	20 17 26.4	
	comp=Z,30nm,0.9s						
CTA	**Charters Tower**	**16.57**	**208**	P	**P**	**20 16 60.0**	**+0.7**
	comp=Z,7.3nm,0.9s,baz=24,slow=15,SNR=3.8						
CTA				LR	LR	20 23 11.8	
	comp=Z,50nm,18.1s,baz=39,slow=36						
CTAO	**Charters Tower**	**16.57**	**208**	P	**P**	**20 16 59.8**	**+0.6**
CTAO				IAmb	IAmb	20 17 07.2	
	comp=Z,17nm,1.1s						
DZM	**Mont Dzumac**	**20.27**	**146**	P	Pn	20 17 42.2	-0.6
	comp=Z,18nm,0.5s,baz=292,slow=11,SNR=47						
	comp=Z,18nm,0.5s						
GUMO	**Guam**	**21.11**	**334**	P	**P**	**20 17 47.9**	**-0.9**
	comp=Z,30nm,0.8s,baz=165,slow=20,SNR=1.9						
GUMO				LR	LR	20 25 56.7	
	comp=Z,16nm,19.2s,baz=154,slow=36						
	comp=Z,30nm,0.8s						
SAUI	**Saumlaki**	**23.03**	**262**	P	**P**	**20 18 08.3**	**-0.2**
MTN	**Manton Dam**	**24.06**	**251**	P	**P**	**20 18 18.1**	**+0.1**
WB0	**Warramunga Arr**	**24.09**	**232**	P	**P**	**20 18 17.7**	**-0.4**
WR8	**Warramunga Arr**	**24.11**	**231**	P	**P**	**20 18 18.0**	**-0.3**
WRAB	**Tennant Creek**	**24.22**	**232**	P	**P**	**20 18 18.8**	**-0.5**
WRAB				IAmb	IAmb	20 18 20.4	
	comp=Z,5.8nm,0.8s						
WRA	**Warramunga Arr**	**24.23**	**232**	P	**P**	**20 18 18.9**	**-0.5**
	comp=Z,2.9nm,0.7s,baz=54,slow=9.9,SNR=47						
WRA				PcP	**PcP**	**20 21 56.3**	**-0.6**
	comp=Z,0.3nm,0.4s,baz=56,slow=2.6,SNR=3.4						
	comp=Z,2.9nm,0.7s						
WRA	**Warramunga Arr**	**24.23**	**232**	P	**P**	**20 18 17.9**	**-1.5**
INKA	**Innaminka**	**25.69**	**209**	P	**P**	**20 18 32.5**	**-0.1**
H11S3	**WAKE ISLAND Hy**	**26.70**	**27**	T	T	20 46 17.6	
	baz=209,slow=74						
H11S2	**WAKE ISLAND Hy**	**26.71**	**27**	T	T	20 46 41.1	
	baz=209,slow=74						
H11S1	**WAKE ISLAND Hy**	**26.72**	**27**	T	T	20 46 55.7	
	baz=209,slow=74						
AS31	**Alice Springs**	**26.77**	**225**	P	**P**	**20 18 42.8**	**+0.4**
ASAR	**Alice Springs**	**26.77**	**225**	P	**P**	**20 18 41.3**	**-1.1**
	comp=Z,0.3nm,0.4s,baz=50,slow=9.2,SNR=7.6						
ASAR				PcP	**PcP**	**20 22 01.7**	**-1.0**
	comp=Z,0.2nm,0.4s,baz=53,slow=3.3,SNR=4.7						
ASAR				ScP	**ScP**	**20 25 30.0**	**-2.1**
	comp=Z,0.2nm,0.6s,baz=40,slow=2.3,SNR=2.5						
	comp=Z,0.3nm,0.4s						
KNRA	**Kununurra**	**27.10**	**246**	P	**P**	**20 18 45.3**	**-0.1**
STKA	**Stephens Creek**	**28.90**	**203**	P	**P**	**20 18 59.8**	**-1.4**
	comp=Z,1.0nm,0.7s,baz=19,slow=17,SNR=4.0						
	comp=Z,1.0nm,0.7s						
FITZ	**Fitzroy Crossi**	**30.74**	**243**	P	**P**	**20 19 16.7**	**-0.9**
BBOO	**Buckleboo**	**32.15**	**210**	P	**P**	**20 19 29.3**	**-0.5**
TOLI2	**Tolitoli**	**34.15**	**280**	P	**P**	**20 19 47.7**	**+0.2**
TOLI2				IAmb	IAmb	20 20 16.5	
	comp=Z,9.1nm,0.9s						
THZ	**Tophouse**	**39.78**	**158**	P	**P**	**20 20 35.8**	**+0.9**
JOW	**Kunigami**	**40.81**	**323**	P	**P**	**20 20 44.4**	**+1.0**
NACB	**Ninganchiao**	**43.41**	**314**	P	**P**	**20 21 05.4**	**+0.8**
NACB				IAmb	IAmb	20 21 18.7	
	comp=Z,15nm,0.9s						
JMN	**Monobe**	**43.50**	**335**	P	**P**	**20 21 06.2**	**+1.0**
YHNB	**Yeheng**	**43.88**	**314**	P	**P**	**20 21 08.8**	**+0.4**
MJAR	**Matsushiro Arr**	**44.40**	**341**	P	**P**	**20 21 10.8**	**-1.5**
	comp=Z,0.5nm,0.4s,baz=154,slow=6.6,SNR=1.7						
	comp=Z,0.5nm,0.4s						
KSRS	**Korea Array**	**49.26**	**332**	P	**P**	**20 21 49.2**	**-0.9**
	comp=Z,2.8nm,0.7s,baz=143,slow=6.3,SNR=8.3						
	comp=Z,2.8nm,0.7s						
JKA	**Kamikawa-asahi**	**50.44**	**349**	P	**P**	**20 22 00.1**	**+1.2**
USRK	**Ussuriysk Ar.**	**53.35**	**340**	P	**P**	**20 22 20.5**	**0.0**
	comp=Z,0.9nm,0.5s,baz=146,slow=4.8,SNR=7.2						
	comp=Z,0.9nm,0.5s						
USRK	**Ussuriysk Ar.**	**53.35**	**340**	P	**P**	**20 22 21.3**	**+0.9**
USA0B	**Ussuriysk Arra**	**53.35**	**340**	P	**P**	**20 22 21.4**	**+0.9**
USA0B				IAmb	IAmb	20 22 33.0	
	comp=Z,7.3nm,1.1s						
ENH	**Enshi**	**55.71**	**312**		**P**	**20 22 38.0**	**+0.1**
BNX	**BinXian**	**56.33**	**338**	⇑P	**P**	**20 22 42.3**	**+0.4**
BNX				pmax	pmax		
	comp=Z,5.0nm,0.9s						
PETK	**Petropavlovsk-**	**58.38**	**2**	P	**P**	**20 22 57.1**	**+0.8**
	comp=Z,3.3nm,0.9s,baz=181,slow=6.1,SNR=1.8						
	comp=Z,3.3nm,0.9s						
CMAR	**Chiang Mai Arr**	**59.54**	**295**	P	**P**	**20 23 04.5**	**-0.3**
	comp=Z,2.1nm,0.9s,baz=104,slow=7.1,SNR=15						
	comp=Z,2.1nm,0.9s						
CHTO	**Chiang Mai**	**59.65**	**295**	P	**P**	**20 23 05.8**	**+0.1**
CHTO				IAmb	IAmb	20 23 06.8	
	comp=Z,8.1nm,1.4s						
LZDM	**Lanzhou Array**	**62.80**	**315**	P	**P**	**20 23 26.7**	**-0.3**
	comp=Z,4.8nm,0.4s,baz=129,slow=4.6,SNR=1.6						
	comp=Z,4.8nm,0.4s						
GTA2	**Gaotai**	**67.24**	**317**	*e*P	**P**	**20 23 56.3**	**+0.9**
GTA2				pmax	pmax		
	comp=Z,9.0nm,0.9s						
SONM	**Songino Array**	**67.68**	**327**	P	**P**	**20 23 58.2**	**+0.2**
	comp=Z,1.6nm,0.5s,baz=144,slow=5.1,SNR=18						
	comp=Z,1.6nm,0.5s						
SONM	**Songino Array**	**67.68**	**327**	P	**P**	**20 23 58.4**	**+0.4**
SONM				IAmb	IAmb	20 24 00.2	
	comp=Z,1.5nm,0.6s						
LSA	**Lhasa**	**69.86**	**304**	P	**P**	**20 24 12.9**	**+0.5**
LSA				IAmb	IAmb	20 24 13.4	
	comp=Z,4.3nm,0.7s						
VNDA	**Vanda**	**72.16**	**178**	P	**P**	**20 24 25.5**	**+0.8**
	comp=Z,1.9nm,0.7s,baz=345,slow=8.4,SNR=22						
	comp=Z,1.9nm,0.7s						
VNDA	**Vanda**	**72.16**	**178**		**P**	**20 24 25.3**	**+0.6**
VNDA				IAmb	IAmb	20 24 26.0	
	comp=Z,2.4nm,0.8s						
ACHA	**Angle Creek He**	**75.12**	**25**	P	**P**	**20 24 43.6**	**+1.2**
ACHA				IAmb	IAmb	20 24 50.9	
	comp=Z,4.0nm,1.0s						
G16K	**Koyuk River**	**77.40**	**17**	P	**P**	**20 24 56.8**	**+1.8**
G16K				IAmb	IAmb	20 25 30.4	
	comp=Z,20nm,1.4s						
L19K	**White Mountain**	**77.75**	**22**	P	**P**	**20 24 58.5**	**+1.4**
L19K				IAmb	IAmb	20 25 06.9	
	comp=Z,9.1nm,1.2s						
G18K	**Tagagawik**	**78.86**	**18**	P	**P**	**20 25 04.6**	**+1.5**
G18K				IAmb	IAmb	20 25 11.9	
	comp=Z,6.8nm,1.3s						
IMAR	**Indian Mountai**	**80.46**	**19**	P	**P**	**20 25 13.0**	**+1.2**
MLY	**Manley**	**80.92**	**21**	P	**P**	**20 25 15.2**	**+0.9**
MLY				IAmb	IAmb	20 25 48.3	
	comp=Z,6.7nm,1.4s						
MKAR	**Makanchi Array**	**81.81**	**319**	P	**P**	**20 25 18.5**	**-0.9**
	comp=Z,2.2nm,0.8s,baz=103,slow=6.1,SNR=15						
	comp=Z,2.2nm,0.8s						
MKAR	**Makanchi Array**	**81.81**	**319**		**P**	**20 25 19.1**	**-0.3**
MAKZ	**Makanchi**	**82.02**	**319**	P	**P**	**20 25 20.3**	**-0.2**
MAKZ				IAmb	IAmb	20 25 21.2	
	comp=Z,3.8nm,0.8s						
ILAR	**Eielson Array**	**82.16**	**22**	P	**P**	**20 25 20.8**	**+0.1**
	comp=Z,1.0nm,0.6s,baz=239,slow=5.5,SNR=9.2						
	comp=Z,1.0nm,0.6s						
ZALV	**Zalesovo Beam**	**82.53**	**326**	P	**P**	**20 25 21.3**	**-1.6**
	comp=Z,1.4nm,0.5s,baz=112,slow=5.6,SNR=8.6						
	comp=Z,1.4nm,0.5s						
F24K	**Squaw Lake**	**83.25**	**19**	P	**P**	**20 25 27.4**	**+1.0**
QSPA	**South Pole Qui**	**84.54**	**180**	P	**P**	**20 25 32.5**	**-0.6**
	comp=Z,9.0nm,0.6s,baz=0.0,slow=4.0,SNR=67						
	comp=Z,9.0nm,0.6s						
QSPA	**South Pole Qui**	**84.54**	**180**		**P**	**20 25 33.3**	**+0.2**
I28M	**Miner Creek**	**85.08**	**22**	P	**P**	**20 25 36.9**	**+1.1**
I28M				IAmb	IAmb	20 25 58.6	
	comp=Z,9.4nm,1.5s						
KURBB	**Kurchatov Arra**	**85.24**	**322**	P	**P**	**20 25 35.7**	**-1.1**
	comp=Z,0.6nm,0.5s,baz=99,slow=4.7,SNR=13						
	comp=Z,0.6nm,0.5s						
MAW	**Mawson**	**85.59**	**203**	P	**P**	**20 25 37.4**	**-0.8**
	comp=Z,4.1nm,0.8s,baz=97,slow=8.0,SNR=12						
	comp=Z,4.1nm,0.8s						
MAW	**Mawson**	**85.59**	**203**		**P**	**20 25 37.8**	**-0.3**
G29M	**Pine Creek**	**86.38**	**21**	P	**P**	**20 25 43.2**	**+1.2**
G29M				IAmb	IAmb	20 25 50.4	
	comp=Z,3.8nm,1.1s						
NRIK	**Noril'sk**	**87.06**	**341**	P	**P**	**20 25 43.7**	**-1.5**
	comp=Z,2.1nm,0.4s,baz=116,slow=4.2,SNR=1.8						
	comp=Z,2.1nm,0.4s						
CMB	**Columbia Colle**	**89.58**	**52**	P	**P**	**20 25 58.3**	**+0.3**
CMB				IAmb	IAmb	20 25 59.6	
	comp=Z,2.1nm,0.6s						
BVAR	**Borovoye Array**	**90.67**	**323**	P	**P**	**20 26 00.8**	**-1.8**
	comp=Z,0.7nm,0.5s,baz=90,slow=5.8,SNR=3.1						
	comp=Z,0.7nm,0.5s						
TORD	**Torodi Ar. Bea**	**151.97**	**288**	PKPbc	**PKPbc**	**20 32 53.6**	**-2.1**
	comp=Z,0.6nm,0.5s,baz=89,slow=1.5,SNR=8.6						
TORD				PKPab	**PKPab**	**20 33 04.1**	**-1.3**
	comp=Z,1.4nm,0.6s,baz=77,slow=4.7,SNR=9.5						

MAN 28 20:49:22.0, 16°.08N×121°.56E, h10^{km}, MS2.1, Luzon

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*IDC **28** 20:50:51.2±0.4, 22°.26N×121°.14E, h0^{km}, mb4.6/33, mbtmp4.6/36, ML3.8/3, MS4.3/78, Error ellipse: s-maj=12.6km s-min=9.2km az=77.0*

*NIED **28** 20:50:51.2, 22°.19N×121°.12E, h10^{km}, MW5.2, Moment Tensor Solution. s2 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.28; $M_{\theta\theta}$1.92; $M_{\phi\phi}$-0.64; $M_{r\theta}$4.66; $M_{\theta\phi}$-0.92; $M_{\phi r}$3.58; Fault plane solution: $M_0$6.12000×10^{16} NP1: ϕ_s132.00000°, δ16.00000°, λ-16.00000°. NP2: ϕ_s237.00000°, δ86.00000°, λ-105.00000°.*

*MOS **28** 20:50:51.5±0.9, 22°.25N×121°.21E, h10^{km}, mb5.1/62, MS4.7/22 Error ellipse: s-maj=7.6km s-min=4.1km az=119.5*

*JMA **28** 20:50:51.2±0.1, 22°.2N±0°.3×12°1E±°, h10^{km}±2^{km}, MV5.1/17, MW5.0/17, TAIWAN REGION*

*BJI **28** 20:50:52.0, 22°.30N×121°.10E, h13^{km}, mB5.2/50, mb4.7/72, ML5.1/5, Ms5.0/91, Ms7 5.0/84*

*GFZ **28** 20:50:54.6±0.2, 22°N±2°×12°1E±°, h10^{km}, M4.7/17, mb4.8/17*

*TAP **28** 20:50:54.7, 22°.38N×121°.02E, h12^{km}, ML5.4, C*

*ASIES **28** 20:50:54.5, 22°.39N×121°.04E, h10^{km}, Mw4.9, Fault plane solution: NP1: ϕ_s154.00000°, δ26.00000°, λ6.00000°. NP2: ϕ_s58.00000°, δ87.00000°, λ116.00000°.*

*GCMT **28** 20:50:55.9±0.2, 22°.37N±0°.01×121°.12E±0°.02, h20^{km}±1^{km}, MW5.0/97, Moment Tensor Solution. s40,c52; s97,c151; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}1.68±.12; $M_{\theta\theta}$-0.31±.08; $M_{\phi\phi}$-1.37±.09; $M_{r\theta}$2.09±.19; $M_{\theta\phi}$-1.76±.05; $M_{\phi r}$1.14±.15; Best double couple: $M_0$3.30000×10^{16} NP1: ϕ_s187.00000°, δ29.00000°, λ42.00000°. NP2: ϕ_s59.00000°, δ71.00000°, λ112.00000°. Principal axes: T 3.0010, Plg58.0000°, Azm359.0000°; N 0.6020, Plg21.0000°, Azm231.0000°; P -3.6000, Plg23.0000°, Azm132.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*NEIC **28** 20:50:55.9±1.5, 22°.41N±0°.05×121°.16E±0°.06, h20^{km}±4^{km}, mb4.9/111, Mwr5.0/31, Mww4.9/11 Error ellipse: s-maj=8.6km s-min=6.8km az=93.0, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}-0.44; $M_{\theta\theta}$2.03; $M_{\phi\phi}$-1.58; $M_{r\theta}$1.93; $M_{\theta\phi}$-0.33; $M_{\phi r}$2.03; Fault plane solution: $M_0$3.37000×10^{16} NP1: ϕ_s134.31000°, δ33.73000°, λ-7.94000°. NP2: ϕ_s230.92000°, δ85.60000°, λ-123.47000°. Principal axes: T 3.2051, Plg32.0000°, Azm348.0000°; N 0.3132, Plg33.0000°, Azm234.0000°; P -3.5183, Plg40.0000°, Azm110.0000°;*

*NEIC **28** 20:50:56.6, 22°.43N×121°.11E, h24^{km}*

ISC 28 20:50:55.5±0.4**, 22°.36N**±0°.01×**121°.10E**±0°.02**, h18^{km}**±1^{km}**, h19^{km}:pP-P, n771, σ1^s.55**/831**, mb4.9**/190**, MS4.6**/117**, 53C-31D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TAW	**Tawu**	**0.19**	**270**	⇓*i*P	**Pg**	**20 50 58.2**	**-2.1**
TAW				*i* S	**Sg**	**20 51 00.5**	**-3.1**
TAWH	**Dawu Township**	**0.20**	**264**	⇓*i*P	**Pg**	**20 50 58.5**	**-1.9**
TAWH				*i* S	**Sg**	**20 51 00.9**	**-2.9**
EAST	**Anshuo**	**0.23**	**276**	⇓*i*P	**Pg**	**20 50 58.9**	**-2.1**
EAST				*i* S	**Sg**	**20 51 01.7**	**-3.2**
ECL	**Taimali**	**0.27**	**331**	*i* P	**Pg**	**20 50 59.7**	**-2.0**
ECL				*i* S	**Sg**	**20 51 04.2**	**-1.7**
SLIU	**Shizi**	**0.31**	**243**	*i* P	**Pg**	**20 51 00.8**	**-1.5**
SLIU				*e*S	**Sg**	**20 51 04.8**	**-2.1**
TTN	**Taitung**	**0.40**	**6**	⇑*i*P	**Pb**	**20 51 04.1**	**+0.1**
TTN				*e*S	**Sb**	**20 51 11.8**	**+2.0**
SMST	**Manzhou Townsh**	**0.41**	**216**	⇑*i*P	**Pg**	**20 51 03.4**	**-0.7**
SMST				*i* S	**Sb**	**20 51 09.6**	**-0.8**
SCZT	**Fangliau**	**0.44**	**272**	⇓*i*P	**Pg**	**20 51 02.6**	**-2.0**
SCZT				*i* S	**Sg**	**20 51 07.8**	**-2.9**
TWGBT	**Beinan**	**0.46**	**358**	P	**Pg**	**20 51 03.2**	**-1.7**
TWGBT	**Beinan**	**0.46**	**358**	S	**Sg**	**20 51 09.9**	**-1.3**
TWGBT	**Beinan**	**0.46**	**358**	⇑*e*P	**Pg**	**20 51 03.6**	**-1.3**
TWGBT				S	**Sg**	**20 51 10.1**	**-1.0**
TWG	**Pinlang**	**0.46**	**357**		**Pg**	**20 51 03.2**	**-1.8**
TWG	**Pinlang**	**0.46**	**357**	⇑*i*P	**Pg**	**20 51 03.5**	**-1.4**
TWG				*i* S	**Sg**	**20 51 10.4**	**-0.9**
TWG	**Pinlang**	**0.46**	**357**	P	**Pg**	**20 51 03.6**	**-1.4**
LDUT	**Ludao**	**0.46**	**48**	⇑*i*P	**Pb**	**20 51 05.5**	**+0.4**
LDUT				S	**Sb**	**20 51 13.6**	**+1.9**
HEN	**Hengchun**	**0.48**	**224**	⇑*i*P	**Pb**	**20 51 04.9**	**-0.6**
HEN				*e*S	**Sb**	**20 51 12.4**	**+0.1**
TSEB	**Hengchuen, Pin**	**0.49**	**202**	*i* P	**Pb**	**20 51 05.8**	**+0.1**
TSEB				S	**Sb**	**20 51 13.7**	**+1.2**
TWKBT	**Hengchun**	**0.49**	**213**	*i* P	**Pb**	**20 51 05.2**	**-0.5**
TWKBT				S	**Sb**	**20 51 12.2**	**-0.4**
TWK1	**Hengchun**	**0.49**	**213**	*i* P	**Pb**	**20 51 05.2**	**-0.5**
TWK1				S	**Sb**	**20 51 12.2**	**-0.3**
MASBT	**Mashibuluo**	**0.50**	**300**	⇓*i*P	**Pg**	**20 51 03.5**	**-2.1**
MASBT				*i* S	**Sg**	**20 51 09.6**	**-2.8**
SSPT	**Xinbi**	**0.51**	**284**	⇓*i*P	**Pg**	**20 51 04.3**	**-1.4**
SSPT				S	**Sg**	**20 51 10.6**	**-2.1**
LAY	**Lan-yu**	**0.53**	**127**	*i* P	**Pb**	**20 51 06.0**	**-0.1**
LAY				S	**Sb**	**20 51 13.8**	**+0.4**
TSMG	**Majia**	**0.54**	**309**	⇓*e*P	**Pg**	**20 51 04.3**	**-2.1**
TSMG				*i* S	**Sg**	**20 51 11.0**	**-2.7**
LONT	**Longtian**	**0.55**	**3**	⇑*i*P	**Pg**	**20 51 05.0**	**-1.5**
LONT				S	**Sb**	**20 51 13.9**	**0.0**
LYUB	**Lan-yu**	**0.57**	**128**	⇓*e*P	**Pg**	**20 51 05.6**	**-1.4**
LYUB				*e*S	**Sg**	**20 51 13.5**	**-1.2**
SSD	**Sandimen**	**0.58**	**312**	⇓*i*P	**Pg**	**20 51 04.8**	**-2.3**
SSD				*i* S	**Sg**	**20 51 11.2**	**-3.6**
EDH	**Donghe**	**0.64**	**17**	P	**Pg**	**20 51 07.2**	**-1.0**
EDH				S	**Sb**	**20 51 18.0**	**+1.4**
WLCH	**Liuqiu**	**0.67**	**269**	*e*P	**Pn**	**20 51 09.7**	**-0.3**
SGLT	**Jiouru**	**0.67**	**303**	*i* P	**Pg**	**20 51 07.6**	**-1.2**
SGLT				*i* S	**Sg**	**20 51 16.4**	**-1.3**
TWP	**Hsiaoliuchiu**	**0.68**	**269**	P	**Pn**	**20 51 09.8**	**-0.4**
ECS	**Chishang**	**0.74**	**9**	*e*P	**Pg**	**20 51 08.3**	**-1.8**
ECS				*i* S	**Sb**	**20 51 19.4**	**-0.3**
SLGT	**Liugui**	**0.76**	**327**	*e*P	**Pg**	**20 51 08.4**	**-2.0**
SLGT				S	**Sg**	**20 51 17.1**	**-3.4**
KAU	**Kaohsiung**	**0.76**	**286**	*e*P	**Pn**	**20 51 11.6**	**+0.3**
SCST	**Cishan**	**0.77**	**313**	⇓*i*P	**Pg**	**20 51 09.4**	**-1.2**
SCST				*i* S	**Sb**	**20 51 20.0**	**-0.3**
CHKT	**Chengkung**	**0.78**	**18**	*i* P	**Pg**	**20 51 09.1**	**-1.7**
CHKT				S	**Sb**	**20 51 20.8**	**+0.2**
TWM1	**Shoushan**	**0.78**	**307**	*e*P	**Pb**	**20 51 10.1**	**-0.4**
TWM1				S	**Sn**	**20 51 22.3**	**-0.5**
EHD	**Haiduan**	**0.79**	**7**	*e*P	**Pg**	**20 51 08.4**	**-2.7**
EHD				*e*S	**Sg**	**20 51 19.0**	**-2.6**
SNJT	**Kaohsiung City**	**0.81**	**299**	*e*P	**Pn**	**20 51 12.2**	**+0.2**
WSSB	**Gushan**	**0.82**	**290**	⇑*i*P	**Pn**	**20 51 12.2**	**0.0**
WSSB				S	**Sn**	**20 51 26.1**	**+2.2**
ELDTW	**Lidau**	**0.83**	**355**	*e*P	**Pg**	**20 51 09.6**	**-2.2**
ELDTW				S	**Sg**	**20 51 21.0**	**-1.8**
FULB	**Fuli**	**0.85**	**12**	*e*P	**Pg**	**20 51 10.1**	**-2.2**
FULB				S	**Sb**	**20 51 23.3**	**+0.4**
STYH	**Taoyuan**	**0.86**	**340**	*i* P	**Pg**	**20 51 11.0**	**-1.4**
STYH				S	**Sg**	**20 51 21.9**	**-1.9**
SGST	**Jiashian**	**0.86**	**327**	⇓*i*P	**Pg**	**20 51 10.1**	**-2.3**
SGST				S	**Sg**	**20 51 21.6**	**-2.3**
CHKH	**Chenggong**	**0.87**	**18**	*e*P	**Pg**	**20 51 10.8**	**-1.8**
CHKH				S	**Sb**	**20 51 23.4**	**-0.1**
CHN1	**Nanshi**	**0.98**	**327**	*i* P	**Pb**	**20 51 13.7**	**-0.2**
CHN1				*i* S	**Sn**	**20 51 28.2**	**+0.5**
CHN3	**Shinhua**	**0.98**	**317**	⇓*i*P	**Pn**	**20 51 15.2**	**+0.8**
CHN3				S	**Sn**	**20 51 31.5**	**+3.6**
WTP	**Ta-pu**	**0.99**	**333**	*i* P	**Pg**	**20 51 13.7**	**-1.1**
WTP				S	**Sn**	**20 51 27.9**	**-0.2**
EYUL	**Yuli**	**1.00**	**12**	*e*P	**Pb**	**20 51 13.1**	**-1.3**
TWF1	**Yuli**	**1.00**	**10**	P	**Pb**	**20 51 11.2**	**-3.2**
ECBN	**Changbin**	**1.01**	**19**	*e*P	**Pb**	**20 51 12.9**	**-1.5**
TPUB	**Ta-pu**	**1.03**	**335**	P	**Pg**	**20 51 14.7**	**-0.9**
TPUB	**Ta-pu**	**1.03**	**335**	P	**Sn**	**20 51 29.4**	**+0.3**
TPUB	**Ta-pu**	**1.03**	**335**		**Pb**	**20 51 14.3**	**-0.6**
TPUB	**Ta-pu**	**1.03**	**335**	*e*P	**Pg**	**20 51 14.7**	**-0.9**
TPUB				*i* S	**Sn**	**20 51 29.4**	**+0.3**
TPUB	**Ta-pu**	**1.03**	**335**	P	**Pg**	**20 51 14.8**	**-0.9**
YULB	**Yu-li**	**1.04**	**10**	P	**Pb**	**20 51 11.9**	**-3.2**
YULB	**Yu-li**	**1.04**	**10**	S	**Sg**	**20 51 28.4**	**-1.2**
YULB	**Yu-li**	**1.04**	**10**		**Pb**	**20 51 14.2**	**-0.9**
YULB	**Yu-li**	**1.04**	**10**	*e*P	**Pb**	**20 51 11.8**	**-3.2**
YULB	**Yu-li**	**1.04**	**10**	P	**Pb**	**20 51 11.8**	**-3.2**
TAI1	**Yung-k'ang**	**1.05**	**310**	*e*P	**Pn**	**20 51 15.4**	**+0.1**
TAI1				S	**Sn**	**20 51 32.7**	**+3.3**
TWK	**Hsinying**	**1.06**	**328**	*i* P	**Pg**	**20 51 15.2**	**-1.0**
TWK				S	**Sn**	**20 51 30.9**	**+1.0**
SSHA	**Shanhua**	**1.08**	**316**	*e*P	**Pn**	**20 51 15.9**	**+0.3**
SSHA				S	**Sn**	**20 51 31.9**	**+1.8**
CHN4	**Tsaushan**	**1.09**	**335**	P	**Pn**	**20 51 15.8**	**-0.1**
CHN4				S	**Sn**	**20 51 31.5**	**+1.0**
YUS	**Yu-Shan**	**1.13**	**353**	*e*P	**Pb**	**20 51 15.8**	**-1.0**
EHYH	**Wanrong**	**1.15**	**11**	*e*P	**Pb**	**20 51 15.2**	**-1.7**
EHY	**Hungye**	**1.16**	**10**	*e*P	**Pg**	**20 51 17.2**	**-0.8**
SCLT	**Jiali**	**1.17**	**314**	*i* P	**Pb**	**20 51 16.6**	**-0.5**
SCLT				*e*S	**Sn**	**20 51 33.9**	**+1.6**
HGSD	**Ruisui**	**1.17**	**15**	*e*P	**Pb**	**20 51 14.9**	**-2.3**
WCKO	**Fanlu**	**1.17**	**337**	*i* P	**Pg**	**20 51 17.0**	**-1.1**
WCKO				*i* S	**Sn**	**20 51 34.3**	**+1.9**
ALS	**Alishan**	**1.18**	**347**	*e*P	**Pb**	**20 51 16.6**	**-0.9**
TSCK	**Chigu Township**	**1.22**	**310**	P	**Pn**	**20 51 17.0**	**-0.6**
TSCK				S	**Sg**	**20 51 34.2**	**-0.9**
ICHU	**Yijhu**	**1.25**	**323**	*e*P	**Pn**	**20 51 17.9**	**-0.2**
ICHU				S	**Sg**	**20 51 36.2**	**+0.1**
CHN8	**Yiju**	**1.28**	**320**	P	**Pn**	**20 51 18.1**	**-0.4**
CHN8				S	**Sg**	**20 51 38.1**	**+1.1**
CHN5	**Tsauling**	**1.29**	**343**	*e*P	**Pg**	**20 51 19.8**	**-0.7**
CHN5				S	**Sg**	**20 51 38.6**	**+1.1**
CHY	**Chiayi**	**1.29**	**331**	P	**Pb**	**20 51 18.9**	**-0.4**
CHY				S	**Sg**	**20 51 37.8**	**+0.4**
WHYT	**Xinyi Township**	**1.35**	**350**	P	**Pn**	**20 51 19.5**	**0.0**
WHYT				S	**Sg**	**20 51 39.1**	**-0.1**
WARBT	**Fenglin Townsh**	**1.38**	**11**	*e*P	**Pn**	**20 51 18.6**	**-1.2**
TEGC	**Jichi Village**	**1.40**	**17**	*e*P	**Pn**	**20 51 18.8**	**-1.4**
WSL	**Shuilin Townsh**	**1.41**	**325**	*e*P	**Pn**	**20 51 19.8**	**-0.5**
WSL				S	**Sg**	**20 51 39.7**	**-1.5**
WDLH	**Douliu**	**1.42**	**339**	*i* P	**Pb**	**20 51 20.9**	**-0.6**
WDLH				*e*S	**Sg**	**20 51 40.8**	**-0.8**
SSLB	**Suanglung**	**1.43**	**355**	P	**Pn**	**20 51 20.1**	**-0.4**
SSLB	**Suanglung**	**1.43**	**355**	P	**Sn**	**20 51 40.7**	**+1.8**
SSLB	**Suanglung**	**1.43**	**355**		**Pn**	**20 51 19.9**	**-0.7**
SSLB	**Suanglung**	**1.43**	**355**	*e*P	**Pn**	**20 51 19.8**	**-0.7**
SSLB	**Suanglung**	**1.43**	**355**	P	**Pn**	**20 51 19.7**	**-0.8**
WDL	**Douliou City**	**1.45**	**339**	*e*P	**Pb**	**20 51 21.3**	**-0.6**
WDL				*i* S	**Sg**	**20 51 42.8**	**+0.5**
WTK	**Tuku**	**1.48**	**334**	*i* P	**Pn**	**20 51 21.0**	**-0.1**
WTK				*e*S	**Sg**	**20 51 42.0**	**-1.3**
ESL	**Shilin**	**1.48**	**12**	*e*P	**Pn**	**20 51 20.1**	**-1.1**
SHUL	**Shoufeng**	**1.48**	**17**	*e*P	**Pn**	**20 51 19.6**	**-1.7**
WJS	**Zhushan**	**1.50**	**347**	P	**Pb**	**20 51 22.7**	**-0.1**

WSF	Szhu	1.51	328	P	Pn	20 51 21.2	-0.4
WSF				S	Sb	20 51 41.6	-0.1
SMLT	Sun Moon Lake	1.53	353	P	Pb	20 51 22.8	-0.5
SMLT				S	Sg	20 51 44.9	-0.1
TYC	Yuchr	1.55	352	iP	Pb	20 51 23.3	-0.5
TYC				S	Sg	20 51 46.2	+0.4
WNT	Mingjian	1.56	346	iP	Pb	20 51 23.2	-0.7
WNT				S	Sg	20 51 45.5	-0.5
TEYL	Yanliau Villag	1.57	17	eP	Pn	20 51 22.1	-0.3
OWD	Renai	1.59	3	eP	Pb	20 51 23.4	-1.0
OWD				eS	Sg	20 51 47.0	+0.1
WDGT	Dungji	1.60	304	eP	Pn	20 51 21.3	-1.6
WUSB	Renai	1.62	1	eP	Pn	20 51 22.6	-0.8
ETM	Tongmen	1.64	13	eP	Pn	20 51 21.3	-2.1
RLNB	Erlin	1.67	336	eP	Pn	20 51 24.1	+0.2
WRL	Guolierlin Hig	1.67	337	eP	Pn	20 51 23.9	+0.1
WRL				eS	Sb	20 51 47.0	+0.5
HWA	Hwalien	1.68	16	eP	Pb	20 51 25.8	0.0
WTCT	Ta-ch'eng	1.68	333	P	Pn	20 51 24.5	+0.6
WTCT				S	Sg	20 51 47.6	-2.1
LXIB	Xiulin Townshi	1.68	10	eP	Pn	20 51 21.9	-2.3
WCS	Beigang Elemen	1.70	354	iP	Pb	20 51 25.1	-1.1
WCS				eS	Sg	20 51 48.5	-1.9
VCHM	Qimei	1.76	299	⇑P	Pn	20 51 23.3	-1.7
VCHM				S	Sn	20 51 44.6	-2.3
TWD	Chiawan	1.77	15	eP	Pn	20 51 25.3	+0.1
WCH1	Changhua City	1.78	344	eP	Pb	20 51 26.2	-1.4
WCH1				eS	Sb	20 51 50.1	+0.6
WCHH	Zhanghua	1.78	344	eP	Pn	20 51 26.0	+0.6
WCHH				S	Sg	20 51 51.5	-1.6
WHF	Hehuan Shan	1.78	5	eP	Pb	20 51 27.4	-0.5
PHUB	P'eng-hu	1.82	310	⇑iP	Pn	20 51 24.2	-1.6
PHUB				S	Sn	20 51 46.7	-1.7
TCU	Taichung	1.82	348	iP	Pb	20 51 27.1	-1.2
TCU				S	Sb	20 51 51.7	+0.9
NACB	Ninganchiao	1.86	14	P	Pn	20 51 24.9	-1.6
NACB	Ninganchiao	1.86	14		Pn	20 51 24.6	-1.9
NACB	Ninganchiao	1.86	14	eP	Pn	20 51 25.9	-0.6
NACB	Ninganchiao	1.86	14	P	Pn	20 51 23.9	-2.6
PNG	Penghu	1.86	310	⇑eP	Pn	20 51 24.8	-1.6
PNG				S	Sn	20 51 47.6	-1.9
ETLH	Xiulin Townshi	1.87	11	eP	Pn	20 51 27.6	+0.8
FUSS	Fushou	1.89	4	eP	Pb	20 51 28.6	-0.9
TDCB	Techi	1.89	2	P	Pb	20 51 28.6	-0.9
TWT	Tachien	1.89	2	eP	Pb	20 51 28.9	-0.6
TWT				S	Sb	20 51 53.9	+1.1
WHP	Taichung City	1.92	356	eP	Pb	20 51 28.9	-1.0
WHP				eS	Sg	20 51 55.7	-1.6
TWQ1	Liyutan	2.00	351	eP	Pb	20 51 29.7	-1.7
WDJ	Dajia District	2.02	348	eP	Pn	20 51 29.9	+1.2
WDJ				eS	Sb	20 51 57.4	+0.8
EAHA	Aohua	2.05	17	eP	Pn	20 51 29.4	+0.4
NNSB	Datong	2.08	7	eP	Pn	20 51 30.0	+0.5
EOS4	EOS4	2.08	32	eP	Pn	20 51 28.2	-1.0
EOS4				S	Sn	20 51 53.9	-0.5
NNS	Nan Shan	2.09	7	eP	Pb	20 51 31.7	-1.2
ENA	Nanau	2.14	16	eP	Pn	20 51 29.1	-1.2
NMLH	Miaoli	2.19	353	eP	Pb	20 51 32.8	-1.7
LATG	Datong	2.20	10	eP	Pn	20 51 32.7	+1.5
EOS3	EOS3	2.22	30	eP	Pn	20 51 31.3	+0.1
EOS3				eS	Sn	20 51 58.3	+0.1
NFF	Wufeng Townshi	2.26	0	eP	Pn	20 51 33.2	+1.2
NFF				S	Sb	20 52 03.7	+0.2
NSTT	Nanjuang	2.26	358	eP	Pb	20 51 34.4	-1.5
NSTT				S	Sb	20 52 02.8	-0.7
NDT	Datong Townshi	2.27	10	eP	Pn	20 51 33.6	+1.6
LIOB	Emei	2.28	358	eP	Pb	20 51 35.1	-1.0
EOS2	EOS2	2.30	27	eP	Pn	20 51 33.6	+1.3
ESAO	Su ao	2.31	17	eP	Pn	20 51 33.6	+1.0
ENTT	Nioudou	2.31	11	eP	Pn	20 51 33.3	+0.6
YHNB	Yeheng	2.31	6	P	Pn	20 51 32.4	-0.4
YHNB	Yeheng	2.31	6		Pn	20 51 31.9	-0.9
YHNB	Yeheng	2.31	6	eP	Pb	20 51 35.3	-1.4
YHNB	Yeheng	2.31	6	P	Pn	20 51 32.4	-0.4
NSK	Sanguang	2.32	6	eP	Pn	20 51 34.5	+1.6
NSK				eS	Sn	20 52 02.2	+1.3
NDS	Dongshan	2.33	14	eP	Pb	20 51 34.8	-2.3
NDS				eS	Sn	20 52 01.7	+0.5
TWC	Suao	2.34	17	eP	Pn	20 51 34.1	+1.0
KSHI	Guanxi Townshi	2.41	2	eP	Pb	20 51 36.0	-2.3
TWE	Neicheng	2.41	12	eP	Pn	20 51 34.6	+0.7
SBCB	Hsinchu	2.42	358	eP	Pb	20 51 36.3	-2.3
FUSB	Fushanzhiwuyua	2.43	11	eP	Pn	20 51 35.2	+0.9
HSN	Hsinchu	2.44	357	eP	Pb	20 51 37.7	-1.0
NWLT	Wulai	2.44	9	eP	Pn	20 51 35.5	+1.1
ILA	Ilan	2.47	14	eP	Pn	20 51 36.1	+1.3
EGS		2.59	17	eP	Pn	20 51 36.9	+0.4
NCUH	Zhongli	2.60	2	eP	Pb	20 51 39.2	-2.4
NHDH	Xindian Distri	2.62	8	eP	Pn	20 51 38.4	+1.4
TATO	Taipei	2.63	8	P	Pn	20 51 37.6	+0.6
TATO	Taipei	2.63	8	P	Sn	20 52 10.1	+1.7
TATO	Taipei	2.63	8		Pn	20 51 36.4	-0.6
TATO	Taipei	2.63	8	P	Pn	20 51 39.3	+2.2
TWA	Mucha	2.65	10	eP	Pn	20 51 38.8	+1.5
TIPB	Shuangxi	2.69	14	eP	Pn	20 51 38.4	+0.6
JYNG	Yonagunijimaku	2.69	39	eP	Pn	20 51 37.5	-0.3
TAP	Taipei	2.69	8	eP	Pb	20 51 41.4	-1.7
NHY	Taipei	2.70	9	eP	Pn	20 51 40.2	+2.2
YOJ	Yonaguni jima	2.73	40	P	Pn	20 51 37.8	-0.6
YOJ	Yonaguni jima	2.73	40	S	Sn	20 52 11.7	+0.7
YOJ	Yonaguni jima	2.73	40	P	Pn	20 51 38.0	-0.4
YOJ	Yonaguni jima	2.73	40		Pn	20 51 38.0	-0.4
YOJ	Yonaguni jima	2.73	40	eP	Pn	20 51 38.4	-0.1
YOJ	Yonaguni jima	2.73	40	P	Pn	20 51 38.4	-0.1
YOJ	Yonaguni jima	2.73	40	P	Pn	20 51 38.1	-0.4
YOJ				eS	Sn	20 52 13.7	+2.7
TWS1	Kuangyinshan	2.75	6	eP	Pb	20 51 41.4	-2.6
TWB1	Santiao Chiao	2.76	17	eP	Pn	20 51 40.5	+1.7
WFSB	Wu-fen Shan	2.77	13	eP	Pn	20 51 40.0	+1.0
YM01	YM01	2.81	9	eP	Pb	20 51 42.2	-3.0
NTST	Danshui	2.81	6	eP	Pn	20 51 41.2	+1.7
SXI1	Grass Mountain	2.81	14	eP	Pn	20 51 41.2	+1.5
ZUZH	Zhuzihu	2.82	8	eP	Pn	20 51 41.2	+1.5
ANP	Anpu	2.84	8	eP	Pb	20 51 43.0	-2.8
TNOU	National Taiwa	2.85	12	eP	Pn	20 51 41.2	+1.2
YM08	YM08	2.85	9	eP	Pb	20 51 42.8	-3.1
TWY	Chenhua	2.94	9	eP	Pn	20 51 43.1	+1.8
HATJ	Hateruma jima	3.01	55	eP	Pn	20 51 41.9	-0.4
HATJ				A	A	20 51 41.9	
	comp=N,7.0nm,6.8s,comp=E,9.0nm,0.8s						
HATJ				eS	Sn	20 52 18.1	+0.3
VWUC	VWUC	3.02	330	eP	Pn	20 51 41.5	-1.0
IRIF	Iriomote-Funau	3.12	50	eP	Pn	20 51 43.4	-0.4
IRIF				A	A	20 51 43.4	
	comp=N,13nm,1.1s,comp=E,7.0nm,1.7s						
IRIF				eS	Sn	20 52 21.6	+1.1
KNM	Kinmen	3.19	310	eP	Pn	20 51 44.7	-0.1
PTMZ	Houxiangcun	3.23	326	eP	Pn	20 51 44.3	-0.9
PTMZ				eS	Sn	20 52 22.7	-0.5
KNMB	Chin-men Tao	3.25	311		Pn	20 51 43.9	-1.7
KNMB	Chin-men Tao	3.25	311	eP	Pn	20 51 44.3	-1.3
KNMB				eS	Sn	20 52 23.6	-0.3
KNMB	Chin-men Tao	3.25	311	P	Pn	20 51 44.3	-1.3
JKRS	Kuro-shima	3.26	54	eP	Pn	20 51 45.5	-0.2
JKRS				A	A	20 51 45.5	
	comp=N,8.0nm,1.6s,comp=E,9.0nm,4.1s						
PCYT	Pengchaiyu	3.38	15	eP	Pn	20 51 48.3	+1.0
JIJ	Ishigaki jima	3.44	54	eP	Pn	20 51 47.3	-0.8
JIJ				eS	Sn	20 52 27.9	-0.5
QZH2	Quanzhou	3.45	319	⇑iPn	Pn	20 51 46.8	-1.5
QZH2				Sn	Sn	20 52 25.5	-3.2
QZH2				AML	AML		
	comp=E,2µm,0.9s						
QZH2				AML	AML		
	comp=E,3µm,0.9s						
QZH2				L	L		
	comp=E,13µm,10.6s						
QZH2				L	L		
	comp=E,11µm,13.0s						
QZH2				L	L		
	comp=E,20µm,11.5s						
ZPLA	Ao Xicun	3.46	298	eP	Pn	20 51 46.9	-1.5
DSXP	Dongshan	3.64	292	eP	Pn	20 51 49.4	-1.6
JISG	Ishigakijimahi	3.69	52	eP	Pn	20 51 50.8	-0.8
AXDP	Jialang	3.83	312	eP	Pn	20 51 52.3	-1.1
MATB	Ma-tsu	3.92	345	eP	Pn	20 51 54.3	-0.5
JTJ	Tarama	4.01	55	eP	Pn	20 51 56.2	+0.2
MHZQ	Yeshan	4.18	334	eP	Pn	20 51 58.0	-0.3
LYJJ	Jianjiangzhen	4.35	344	eP	Pn	20 52 00.3	-0.3
SIPP	Brgy, Tapao	4.45	188	eP	Pn	20 52 03.8	+1.6
SIPP				eS	Sn	20 52 54.7	+1.2
JIRJ	Irabujima	4.49	56	eP	Pn	20 52 02.4	-0.2
JMJ2	Miyako jima3	4.55	58	eP	Pn	20 52 03.0	-0.4
JMJ	Miyako jima 2	4.56	57	P	Pn	20 52 03.0	-0.6
JIKM	Ikemajima	4.58	55	eS	Sn	20 52 56.6	0.0
XPSS	Dashiqiu	4.63	350	eP	Pn	20 52 04.0	-0.4
CVP	Callao Caves	4.68	172	eP	Pn	20 52 05.1	-0.2
SZP	Santa	4.82	187		Pn	20 52 08.4	+1.2
SZP	Santa	4.82	187	P	Pn	20 52 09.4	+2.2
HKPS	Hong Kong Po S	6.44	271	P	Pn	20 52 29.0	-0.5
HKPS	Hong Kong Po S	6.44	271		Pn	20 52 28.9	-0.5
HKPS	Hong Kong Po S	6.44	271	P	Pn	20 52 29.4	-0.1
	comp=Z,311nm,1.0s						
GZH2	Guangzhou	6.98	282	Pn	Pn	20 52 36.0	-0.8
GZH2				Sn	Sn	20 53 56.0	+0.3
GZH2				AML	AML		
	comp=Z,730nm,1.0s						
GZH2				AML	AML		
	comp=Z,560nm,0.9s						
MCO	Taipa Grande	6.99	269	P	Pn	20 52 35.0	-2.0
JOW	Kunigami	7.90	54	Pn	Pn	20 52 48.2	-1.4
	comp=Z,9.0nm,0.3s,baz=214,slow=9.1,SNR=16						
JOW				Sn	Sn	20 54 10.4	-8.1
	comp=Z,0.6nm,0.3s,baz=265,slow=16,SNR=1.3						
	comp=Z,27nm,0.5s						
JOW				AML	AML		
JOW	Kunigami	7.90	54	P	Pn	20 52 47.7	-1.8
JOW	Kunigami	7.90	54		Pn	20 52 48.0	-1.5
LQP	Lukban	8.21	177	eP	Pn	20 52 54.2	+0.2
GQP	Guinayangan	8.51	171	eP	Pn	20 52 58.0	+0.2
SSE	Sheshan	8.70	0	P	Pn	20 53 00.0	-0.4
SSE				S	Sn	20 54 39.8	+1.7
SSE				pmax	pmax		
	comp=Z,10.0nm,0.8s						
SSE				pmax	pmax		
	comp=Z,120nm,3.6s						
SSE				L	L		
	comp=Z,4µm,12.2s						
SSE				L	L		
	comp=Z,1µm,12.2s						
CNSH	ChangSha	9.39	310	P	Pn	20 53 07.3	-2.6
CNSH				S	Sn	20 54 51.5	-3.6
CNSH				SMN			
	comp=Z,570nm,1.4s						
CNSH				SME			
	comp=Z,650nm,1.2s						
NJ2	Nanjing	9.86	349	⇑P	Pn	20 53 15.8	-0.5
NJ2				S	Sn	20 55 02.5	-4.0
NJ2				L	L		
	comp=Z,13µm,8.5s						
NJ2				L	L		
	comp=Z,6µm,13.3s						
NJ2				L	L		
	comp=Z,15µm,11.8s						
JMZ	Minamidaito 2	9.87	68	P	Pn	20 53 17.5	+1.0
WHN	Wuhan	10.15	325	⇓P	Pn	20 53 18.8	-1.4
WHN				pP		20 53 23.3	
WHN				S	Sn	20 55 11.8	-1.8
WHN				L	L		
	comp=Z,21µm,10.6s						
WHN				L	L		
	comp=Z,15µm,10.3s						
WHN				L	L		
	comp=Z,30µm,11.2s						
GULI	GuiLin	10.25	289	P	Pn	20 53 22.3	+0.6
GULI				S	Sn	20 55 11.3	-4.9
GULI				pmax	pmax		
	comp=Z,48nm,1.0s						
GULI				L	L		
	comp=Z,4µm,14.6s						
GULI				L	L		
	comp=Z,5µm,10.8s						
GULI				L	L		
	comp=Z,7µm,11.8s						
QIZ	Qiongzhong	11.04	255	P	Pn	20 53 31.8	-0.8
QIZ				S	Sn	20 55 35.8	+0.1
QIZ				L	L		
	comp=Z,3µm,12.8s						
QIZ				L	L		
	comp=Z,4µm,12.7s						
QIZ	Qiongzhong	11.04	255	P	Pn	20 53 32.2	-0.4
PLP	Palo	11.73	161	eP	Pn	20 53 43.8	+1.7
ENH	Enshi	13.05	310		Pn	20 53 59.2	-0.9
GYA	Guiyang	13.77	290	⇓P	Pn	20 54 09.5	-0.4
GYA				pP	P	20 54 17.5	-0.9
GYA				PP	PnPn	20 54 22.8	+4.9
GYA				S	Sn	20 56 41.0	-1.5
GYA				PcP	PcP	20 59 37.0	+3.4
GYA				pmax	pmax		
	comp=Z,21nm,0.7s						
GYA				pmax	pmax		
	comp=Z,190nm,7.0s						
GYA				L	L		
	comp=Z,2µm,16.2s						
GYA				L	L		
	comp=Z,6µm,16.0s						
GYA				L	L		
	comp=Z,7µm,15.0s						
JNU	Nakatsue	13.77	37	Pn	Pn	20 54 07.7	-2.2
	comp=Z,0.2nm,0.3s,baz=180,slow=4.0,SNR=3.6						
	comp=Z,17nm,1.1s						
JNU				AML	AML		
TIA	Tai'an	14.23	347	P	Pn	20 54 18.8	+2.7
TIA				pP	P	20 54 24.8	+1.4
TIA				S	Sn	20 56 55.5	+2.0
TIA				SS	S	20 57 13.5	-0.5
TIA				pmax	pmax		
	comp=Z,42nm,1.1s						
TIA				pmax	pmax		
	comp=Z,530nm,3.9s						
TIA				L	L		
	comp=Z,2µm,15.3s						
TIA				L	L		
	comp=Z,4µm,15.3s						
TIA				L	L		
	comp=Z,4µm,21.6s						
LYN	LuoYang	14.31	330	P	Pn	20 54 17.0	-0.3
LYN				pP	P	20 54 19.0	-5.3
LYN				PP	PnPn	20 54 26.5	+1.2
LYN				SS	S	20 57 11.8	-3.9
LYN				pmax	pmax		
	comp=Z,37nm,0.9s						
LYN				pmax	pmax		
	comp=Z,540nm,4.1s						
LYN				L	L		
	comp=Z,8µm,10.3s						
LYN				L	L		
	comp=Z,5µm,11.6s						
LYN				L	L		
	comp=Z,10µm,10.8s						
TJN	Taejon	14.99	20	iP	Pn	20 54 26.5	+0.1
DAV	Davao City (W)	15.80	163	LR	LR	21 01 09.0	
	comp=Z,2µm,19.9s,baz=340,slow=39						
XAN	Xi'an	15.81	320	P	Pn	20 54 36.8	-0.5
XAN				pP	P	20 54 40.5	-0.5
XAN				sP	pP	20 54 44.5	-1.5
XAN				pmax	pmax		
	comp=Z,32nm,1.6s						
XAN				L	L		
	comp=Z,5µm,13.4s						
XAN				L	L		
	comp=Z,5µm,11.3s						
XAN				L	L		
	comp=Z,8µm,12.4s						
DLV	Lat	15.88	231	Pn	Pn	20 54 39.0	+0.6
HNS	HongShan	15.97	341	⇑P	P	20 54 41.0	-1.7
HNS				pmax	pmax		
	comp=Z,120nm,1.1s						
HNS				L	L		
	comp=Z,9µm,12.6s						
HNS				L	L		
	comp=Z,6µm,12.4s						
HNS				L	L		
	comp=Z,9µm,13.2s						
SLVN	Son La	16.00	270	Pn	Pn	20 54 39.0	-0.8
SLVN	Son La	16.00	270	P	Pn	20 54 39.3	-0.4
	comp=Z,17nm,1.7s						
KSRS	Korea Array	16.16	20	Pn	Pn	20 54 42.3	+0.7
	comp=Z,0.4nm,0.3s,baz=200,slow=12,SNR=18						
KSRS				Lg	Lg	20 59 16.7	
	comp=Z,0.1nm,0.3s,baz=214,slow=23,SNR=2.3						
KSRS				LR	LR	21 01 40.7	
	comp=Z,1µm,19.5s,baz=215,slow=40						
	comp=Z,6.9nm,0.7s						
KSRS				AML	AML		
KS19	Wonju Array Si	16.18	20	Pn	Pn	20 54 40.7	-1.2
DL2	Dalian	16.50	1	P	Pn	20 54 46.3	+0.3
DL2				S	S	20 57 55.0	-5.4
DL2				pmax	pmax		
	comp=Z,38nm,1.3s						
DL2				pmax	pmax		
	comp=Z,680nm,6.1s						
DL2				L	L		
	comp=Z,7µm,14.1s						
DL2				L	L		
	comp=Z,3µm,10.2s						
DL2				L	L		
	comp=Z,8µm,11.6s						
KKM	Kota Kinabalu	16.89	197	P	P	20 54 55.9	+2.8
KKM	Kota Kinabalu	16.89	197	P	P	20 54 55.6	+2.5
	comp=Z,79nm,1.8s						
TIY	Taiyuan	17.03	336	eP	P	20 54 54.8	+0.3
TIY				PP	PnPn	20 55 09.5	+6.9
TIY				S	Sn	20 58 05.3	+3.7
TIY				SS	SnSn	20 58 21.0	+5.8
TIY				pmax	pmax		
	comp=Z,750nm,5.0s						
TIY				L	L		
	comp=Z,10µm,13.6s						
TIY				L	L		
	comp=Z,5µm,13.0s						
TIY				L	L		
	comp=Z,9µm,12.4s						
KMI2	Kunming	17.03	283	P	P	20 54 55.8	+1.0
KMI2				pP	sP	20 55 02.5	+0.9
KMI2				pmax	pmax		
	comp=Z,11nm,0.8s						
KMI2				pmax	pmax		
	comp=Z,200nm,4.7s						
KMI2				L	L		
	comp=Z,2µm,15.7s						
KMI2				L	L		
	comp=Z,2µm,13.2s						
KMI2				L	L		
	comp=Z,3µm,15.1s						
CD2	Chengdu	17.67	302	P	Pn	20 55 00.8	0.0
CD2				S	Sn	20 58 19.0	+1.7
CD2				pmax	pmax		
	comp=Z,50nm,0.7s						
CD2				pmax	pmax		
	comp=Z,440nm,5.3s						
CD2				L	L		
	comp=Z,6µm,10.6s						
CD2				L	L		
	comp=Z,8µm,11.0s						
BJI2	Beijing	18.10	348	P	P	20 55 07.5	+1.3
BJI2				pP	sP	20 55 14.5	+1.2
BJI2				pmax	pmax		
	comp=Z,25nm,1.0s						
BJI2				pmax	pmax		
	comp=Z,380nm,4.1s						
BJI2				L	L		
	comp=Z,4µm,12.7s						
BJI2				L	L		
	comp=Z,720nm,15.8s						
BJI2				L	L		
	comp=Z,3µm,12.7s						
BJT	Baijiatuau	18.10	348	P	P	20 55 06.1	-0.1
BJT				pmax	pmax		
	comp=Z,27nm,0.7s						
BJT	Baijiatuau	18.10	348	P	P	20 55 06.1	-0.1
PZH	PanZhiHua	18.10	287	P	P	20 55 08.3	+1.8
PZH				S	Sn	20 58 30.0	+2.2
PZH				pmax	pmax		
	comp=Z,20nm,1.2s						
PZH				pmax	pmax		
	comp=Z,360nm,8.8s						
PZH				L	L		
	comp=Z,2µm,13.9s						
PZH				L	L		
	comp=Z,2µm,10.6s						
PZH				L	L		
	comp=Z,2µm,12.4s						
INU	Inuyama	18.99	44	P	Pn	20 55 17.5	+0.7
INU	Inuyama	18.99	44	P	P	20 55 16.2	+0.2
INU	Inuyama	18.99	44	P	Pn	20 55 18.6	+1.8
	comp=Z,80nm,1.1s						
JGF	Kuroka	19.36	43	P	P	20 55 19.9	-0.3
JGF	Kuroka	19.36	43	P	P	20 55 20.0	-0.2
JGF	Kuroka	19.36	43	P	P	20 55 16.4	-3.8
	comp=Z,44nm,0.9s						
SNY	Shenyang	19.52	6	P	P	20 55 20.0	-1.8
SNY				S	Sn	20 59 00.0	-1.8
SNY				pmax	pmax		
	comp=Z,140nm,4.1s						
SNY				L	L		
	comp=Z,2µm,17.3s						
SNY				L	L		
	comp=Z,2µm,10.6s						
SNY				L	L		
	comp=Z,3µm,17.1s						
HHC	Hu-ho-hao-te	20.12	339	⇑iP	Pn	20 55 30.5	+0.1
HHC				pP	sP	20 55 37.5	+1.9
HHC				PP	PnPn	20 55 45.5	+0.5
HHC				S	S	20 59 06.0	-7.8
HHC				sS	sS	20 59 21.3	-1.6
HHC				pmax	pmax		
	comp=Z,74nm,1.1s						
HHC				pmax	pmax		
	comp=Z,510nm,6.6s						
HHC				L	L		
	comp=Z,6µm,14.0s						
HHC				L	L		
	comp=Z,2µm,13.6s						
HHC				L	L		
	comp=Z,5µm,16.3s						
LZH	Lanzhou	20.30	316	P	Pn	20 55 32.3	-0.3
LZH				pP	sP	20 55 37.5	-0.4
LZH				S	S	20 59 18.5	+0.9
LZH				SS	SnSn	20 59 43.5	+7.9
LZH				pmax	pmax		
	comp=Z,53nm,1.9s						
LZH				pmax	pmax		
	comp=Z,790nm,5.0s						
LZH				L	L		
	comp=Z,2µm,15.2s						
LZH				L	L		
	comp=Z,4µm,16.8s						
LZH				L	L		
	comp=Z,5µm,15.9s						
LZDM	Lanzhou Array	20.32	316	P	P	20 55 30.5	-0.5
	comp=Z,19nm,0.7s,baz=133,slow=10,SNR=8.4						
LZDM				Lg	Lg	21 01 34.3	
	baz=103,slow=31						
	comp=Z,19nm,0.7s						
MAJO	Matsushiro	20.49	43	iP	P	20 55 33.2	+0.8
MAJO	Matsushiro	20.49	43		P	20 55 32.3	-0.1
MJAR	Matsushiro Arr	20.49	43	P	P	20 55 32.5	+0.1
	comp=Z,21nm,1.0s,baz=227,slow=10,SNR=35						
MJAR				LR	LR	21 04 00.4	
	comp=Z,456nm,21.1s,baz=221,slow=38						
	comp=Z,21nm,1.0s						
BTO2	Baotou	20.64	335	eP	P	20 55 35.0	+0.8
BTO2				PP	PnPn	20 55 56.5	+4.4
BTO2				pmax	pmax		
	comp=Z,82nm,0.9s						
BTO2				pmax	pmax		
	comp=Z,920nm,8.6s						
BTO2				L	L		
	comp=Z,10µm,13.1s						
BTO2				L	L		
	comp=Z,5µm,10.7s						
BTO2				L	L		
	comp=Z,13µm,14.0s						
TNCH	TengChong	20.84	282	P	Pn	20 55 38.0	-1.1
TNCH				PP	PnPn	20 55 58.8	+3.8
TNCH				S	S	20 59 29.5	+0.9
TNCH				pmax	pmax		
	comp=Z,92nm,1.3s						
TNCH				pmax	pmax		
	comp=Z,710nm,3.5s						
TNCH				L	L		
	comp=Z,2µm,10.3s						
TNCH				L	L		
	comp=Z,2µm,9.5s						
TNCH				L	L		
	comp=Z,3µm,14.0s						
CHTO	Chiang Mai	21.04	264	P	P	20 55 40.2	+1.7
CHTO	Chiang Mai	21.04	264	P	P	20 55 38.8	+0.3
CHTO				pmax	pmax		
	comp=Z,66nm,1.6s						

CHTO	**Chiang Mai**	**21.04**	**264**		**P**	**20 55 38.8**	**+0.3**
CHTO				IAmb	IAmb	20 55 53.7	
	comp=Z,66nm,1.6s						
CHTO	**Chiang Mai**	**21.04**	**264**	P	**P**	**20 55 40.1**	**+1.6**
MNI	**Manado**	**21.11**	**170**	P	**P**	**20 55 41.0**	**+1.8**
	comp=Z,3µmcomp=Z,45nm,0.6s						
CMAR	**Chiang Mai Arr**	**21.12**	**263**	P	**P**	**20 55 39.0**	**-0.4**
	comp=Z,6.5nm,0.8s,baz=78,slow=11,SNR=47						
CMAR				PcP	**PcP**	**20 59 45.1**	**-0.3**
	comp=Z,2.1nm,0.7s,baz=72,slow=2.3,SNR=9.6						
CMAR				ScP	**ScP**	**21 03 21.1**	**-0.3**
	comp=Z,0.6nm,0.8s,baz=104,slow=3.8,SNR=4.4						
CMAR				LR	LR	21 04 38.8	
	comp=Z,472nm,19.1s,baz=75,slow=39						
	comp=Z,6.5nm,0.8s						
CMAR	**Chiang Mai Arr**	**21.12**	**263**	*ce*P	**P**	**20 55 40.7**	**+1.3**
CMAR				pmax	pmax		
	comp=Z,10.0nm,0.7s						
CMAR	**Chiang Mai Arr**	**21.12**	**263**		**PcP**	**20 59 46.4**	**+1.0**
TOLI2	**Tolitoli**	**21.12**	**181**	P	**P**	**20 55 39.1**	**-0.3**
TOLI2	**Tolitoli**	**21.12**	**181**		**P**	**20 55 39.6**	**+0.2**
TOLI2				IAmb	IAmb	20 55 44.0	
	comp=Z,57nm,0.8s						
TOLI2	**Tolitoli**	**21.12**	**181**	P	**P**	**20 55 39.6**	**+0.2**
	comp=Z,83nm,1.4s						
SBUM	**Sibu**	**21.59**	**205**	P	**P**	**20 55 45.6**	**+1.2**
SBUM	**Sibu**	**21.59**	**205**	P	**P**	**20 55 45.0**	**+0.7**
SBUM				IAmb	IAmb	20 55 48.2	
	comp=Z,27nm,0.8s						
SBUM	**Sibu**	**21.59**	**205**	P	**P**	**20 55 44.7**	**+0.3**
SBUM	**Sibu**	**21.59**	**205**	P	**P**	**20 55 45.1**	**+0.7**
	comp=Z,44nm,1.0s						
GTOI	**Gorontalo**	**21.67**	**175**	P	**P**	**20 55 45.4**	**+0.1**
	comp=Z,1µmcomp=Z,113nm,1.1s						
CN2	**Changchun**	**21.69**	**9**	*e*P	**P**	**20 55 47.5**	**+2.3**
CN2				*e*S	**S**	**20 59 44.3**	**-0.2**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.9s						
CN2				pmax	pmax		
	comp=Z,100nm,5.5s						
CN2				L	L		
	comp=Z,2µm,18.0s						
CN2				L	L		
	comp=Z,1µm,18.0s						
CN2				L	L		
	comp=Z,2µm,16.1s						
XLT	**XiLinHaoTe**	**21.88**	**350**	*e*P	**P**	**20 55 46.8**	**-0.6**
XLT				pP	sP	20 55 52.5	-2.1
XLT				sP	pP	20 55 54.0	+1.5
XLT				PP	**PnPn**	**20 56 09.0**	**-0.1**
XLT				S	**S**	**20 59 46.8**	**-1.7**
XLT				pmax	pmax		
	comp=Z,31nm,1.0s						
XLT				pmax	pmax		
	comp=Z,340nm,3.8s						
XLT				L	L		
	comp=Z,430nm,13.2s						
XLT				L	L		
	comp=Z,500nm,10.2s						
XLT				L	L		
	comp=Z,5µm,12.3s						
TNTI	**Ternate**	**22.31**	**163**		**P**	**20 55 51.2**	**-0.9**
TNTI				IAmb	IAmb	20 56 05.3	
	comp=Z,46nm,1.0s						
TNTI	**Ternate**	**22.31**	**163**	P	**P**	**20 55 51.6**	**-0.5**
	comp=Z,747nmcomp=Z,50nm,1.1s						
TNTI	**Ternate**	**22.31**	**163**	P	**P**	**20 55 50.5**	**-1.7**
	comp=Z,51nm,1.1s						
APSI	**Ampana**	**23.14**	**179**	P	**P**	**20 56 02.7**	**+1.9**
	comp=Z,2µmcomp=Z,201nm,1.1s						
PCI	**Palu**	**23.16**	**183**	P	**P**	**20 56 03.5**	**+2.5**
	comp=Z,2µmcomp=Z,86nm,1.1s						
MDJ	**Mudanjiang**	**23.27**	**15**	P	**P**	**20 56 01.0**	**-1.0**
MDJ				sP	sP	20 56 11.0	+1.7
MDJ				S	**S**	**21 00 17.5**	**+4.1**
MDJ				pmax	pmax		
	comp=Z,13nm,1.9s						
MDJ				L	L		
	comp=Z,1µm,18.6s						
MDJ				L	L		
	comp=Z,2µm,20.6s						
MDJ				L	L		
	comp=Z,4µm,15.1s						
MDJ	**Mudanjiang**	**23.27**	**15**	P	**P**	**20 56 00.6**	**-1.4**
LUWI	**Luwuk**	**23.32**	**176**		**P**	**20 56 01.8**	**-0.9**
LUWI	**Luwuk**	**23.32**	**176**	P	**P**	**20 56 06.8**	**+4.2**
	comp=Z,2µmcomp=Z,223nm,1.0s						
LUWI	**Luwuk**	**23.32**	**176**	P	**P**	**20 56 01.6**	**-1.0**
	comp=Z,146nm,0.9s						
NPW	**Naypyitaw**	**23.43**	**268**	P	**P**	**20 56 04.8**	**+1.0**
	comp=Z,36nm,0.9s						
USA0B	**Ussuriysk Arra**	**23.57**	**20**	*i* P	**P**	**20 56 04.9**	**0.0**
USA0B	**Ussuriysk Arra**	**23.57**	**20**	P	**P**	**20 56 04.7**	**-0.1**
USRK	**Ussuriysk Ar.**	**23.57**	**20**	P	**P**	**20 56 04.5**	**-0.4**
	comp=Z,5.5nm,0.7s,baz=205,slow=9.0,SNR=14						
USRK				LR	LR	21 06 04.3	
	comp=Z,551nm,18.3s,baz=196,slow=39						
	comp=Z,5.5nm,0.7s						
USRK	**Ussuriysk Ar.**	**23.57**	**20**	P	**P**	**20 56 04.3**	**-0.6**
USRK	**Ussuriysk Ar.**	**23.57**	**20**	P	**P**	**20 56 04.3**	**-0.6**
BKB	**Balikpapan**	**23.83**	**190**	P	**P**	**20 56 09.7**	**+2.0**
	comp=Z,170nm,0.9s						
BKB	**Balikpapan**	**23.83**	**190**	P	**P**	**20 56 08.6**	**+0.9**
	comp=Z,171nm,0.9s						
BNX	**BinXian**	**23.88**	**11**	⇓P	**P**	**20 56 10.5**	**+2.6**
BNX				pP	**sP**	**20 56 13.8**	**-1.6**
BNX				sP	**pP**	**20 56 15.0**	**+1.7**
BNX				S	**S**	**21 00 27.5**	**+4.3**
BNX				sS	**sS**	**21 00 32.8**	**+0.6**
BNX				pmax	pmax		
	comp=Z,240nm,4.9s						
BNX				L	L		
	comp=Z,2µm,14.1s						
BNX				L	L		
	comp=Z,860nm,11.4s						
BNX				L	L		
	comp=Z,2µm,15.7s						
STKI	**Sintang**	**24.06**	**204**	P	**P**	**20 56 12.0**	**+2.2**
	comp=Z,44nm,1.1s						
GUMO	**Guam**	**24.21**	**107**	LR	LR	21 06 58.6	
	comp=Z,454nm,18.2s,baz=286,slow=40						
MORE	**Moreh**	**24.67**	**280**	P	**P**	**20 56 14.8**	**-0.7**
SANI	**Sanana**	**24.73**	**168**	P	**P**	**20 56 17.7**	**+1.8**
SANI	**Sanana**	**24.73**	**168**	P	**P**	**20 56 17.2**	**+1.3**
	comp=Z,30nm,0.8s						
GTA2	**Gaotai**	**24.93**	**318**	P	**P**	**20 56 18.0**	**+0.2**
GTA2				PcP	**PcP**	**20 59 54.5**	**+1.4**
GTA2				S	**S**	**21 00 41.8**	**+1.3**
GTA2				ScP	**ScP**	**21 03 32.0**	**+0.7**
GTA2				pmax	pmax		
	comp=Z,48nm,0.8s						
GTA2				pmax	pmax		
	comp=Z,400nm,4.4s						
GTA2				L	L		
	comp=Z,2µm,13.3s						
GTA2				L	L		
	comp=Z,2µm,15.9s						
GTA2				L	L		
	comp=Z,3µm,14.9s						
MMSI	**Mamuju**	**24.99**	**185**	P	**P**	**20 56 21.1**	**+2.8**
	comp=Z,2µmcomp=Z,127nm,0.8s						
SIJI	**Sorong**	**25.13**	**155**	P	**P**	**20 56 16.9**	**-2.6**
	comp=Z,6.1nm,0.4s,baz=0.0,slow=10,SNR=4.6						
SIJI				LR	LR	21 04 31.9	
	comp=Z,329nm,21.3s,baz=102,slow=33						
	comp=Z,6.1nm,0.4s						
NLAI	**Namlea**	**26.11**	**166**	P	**P**	**20 56 28.9**	**+0.5**
IPM	**Ipoh**	**26.34**	**230**	P	**P**	**20 56 30.7**	**+0.1**
KKSI	**Kolaka, Sulawe**	**26.37**	**179**	P	**P**	**20 56 35.3**	**+4.5**
BBKI	**Banjar Baru**	**26.38**	**194**	P	**P**	**20 56 32.0**	**+1.1**
	comp=Z,1µmcomp=Z,75nm,0.9s						
GOMU	**GeErMu**	**26.65**	**307**	P	**P**	**20 56 34.3**	**+0.6**
GOMU				pP	pP	20 56 37.5	-1.5
GOMU				sP	sP	20 56 42.0	+0.8
GOMU				S	**S**	**21 01 05.5**	**-2.8**
GOMU				pmax	pmax		
	comp=Z,10.0nm,0.8s						
GOMU				L	L		
	comp=Z,1µm,13.3s						
GOMU				L	L		
	comp=Z,3µm,13.6s						
GOMU				L	L		
	comp=Z,4µm,14.0s						
TPRI	**Tanjung Pinang**	**26.73**	**219**	P	**P**	**20 56 38.2**	**+4.1**
	comp=Z,1µmcomp=Z,56nm,1.0s						
BTDF	**Bukit Timah Da**	**26.82**	**221**	P	**P**	**20 56 39.5**	**+4.5**
	comp=Z,32nm,1.0s						
SHL	**Shillong**	**26.86**	**283**	P	**P**	**20 56 35.4**	**-0.1**
SHL				pmax	pmax		
	comp=Z,26nm,0.9s						
SHL	**Shillong**	**26.86**	**283**	P	**P**	**20 56 35.4**	**-0.1**
SHL				IAmb	IAmb	20 56 38.2	
	comp=Z,26nm,0.9s						
HIA	**Hailar**	**26.87**	**358**	*i* P	**P**	**20 56 34.5**	**-0.6**
HIA				pmax	pmax		
	comp=Z,11nm,0.9s						
ERM	**Erimo**	**26.93**	**38**	*e*P	**P**	**20 56 35.7**	**+0.1**
ERM				pmax	pmax		
	comp=Z,25nm,0.8s						
HILR	**Hailar Array B**	**27.16**	**358**	P	**P**	**20 56 37.4**	**-0.3**
	comp=Z,1.4nm,0.4s,baz=181,slow=12,SNR=3.9						
	comp=Z,1.4nm,0.4s						
BRDH	**Bariadhala**	**27.20**	**276**	LR	LR	21 07 55.1	
	comp=Z,504nm,18.5s,baz=126,slow=38						
KAPI	**Kappang**	**27.24**	**183**	P	**P**	**20 56 37.7**	**-0.9**
	comp=Z,15nm,0.6s,baz=0.0,slow=7.1,SNR=4.5						
KAPI				LR	LR	21 07 55.1	
	comp=Z,493nm,21.9s,baz=5.0,slow=38						
	comp=Z,15nm,0.6s						
KAPI	**Kappang**	**27.24**	**183**	*i* P	**P**	**20 56 35.6**	**-3.0**
KAPI				pmax	pmax		
	comp=Z,81nm,2.0s						
KAPI	**Kappang**	**27.24**	**183**	IAmb	IAmb	20 56 38.8	
	comp=Z,61nm,1.4s						
FAKI	**Fak Fak**	**27.38**	**155**	P	**P**	**20 56 39.2**	**-0.8**
ULN	**Ulaanbaatar**	**27.83**	**340**	*ce*P	**P**	**20 56 44.3**	**+0.4**
ULN				pmax	pmax		
	comp=Z,66nm,2.5s						
ULN	**Ulaanbaatar**	**27.83**	**340**	P	**P**	**20 56 42.9**	**-1.0**
ULN	**Ulaanbaatar**	**27.83**	**340**	P	**P**	**20 56 43.9**	**0.0**
	comp=Z,2µmcomp=Z,92nm,1.4s						
LSA	**Lhasa**	**27.83**	**292**	*e*P	**P**	**20 56 46.0**	**+1.5**
LSA				pmax	pmax		
	comp=Z,17nm,0.9s						
LSA				L	L		
	comp=Z,390nm,15.1s						
LSA				L	L		
	comp=Z,1µm,19.2s						
LSA				L	L		
	comp=Z,2µm,19.2s						
LSA	**Lhasa**	**27.83**	**292**	P	**P**	**20 56 44.9**	**+0.4**
LSA				pmax	pmax		
	comp=Z,24nm,0.9s						
LSA	**Lhasa**	**27.83**	**292**	P	**P**	**20 56 44.9**	**+0.4**
LSA				IAmb	IAmb	20 56 54.5	
	comp=Z,23nm,0.9s						
SONM	**Songino Array**	**28.02**	**339**	P	**P**	**20 56 45.4**	**-0.1**
	comp=Z,8.0nm,0.7s,baz=154,slow=9.4,SNR=50						
SONM				ScP	**ScP**	**21 03 39.3**	**-0.9**
	comp=Z,2.8nm,0.9s,baz=210,slow=1.2,SNR=12						
SONM				LR	LR	21 09 21.0	
	comp=Z,2µm,21.7s,baz=152,slow=40						
	comp=Z,8.0nm,0.7s						
SONM	**Songino Array**	**28.02**	**339**	P	**P**	**20 56 44.7**	**-0.9**
SONM				IAmb	IAmb	20 56 51.4	
	comp=Z,21nm,1.1s						
ASAJ	**Asahikawa**	**28.02**	**34**	LR	LR	21 08 47.8	
	comp=Z,352nm,21.8s,baz=250,slow=38						
KLR	**Kul'dur**	**28.11**	**15**	LR	LR	21 09 07.4	
	comp=Z,2µm,21.2s,baz=202,slow=39						
KLR	**Kul'dur**	**28.11**	**15**	*i* P	**P**	**20 56 47.3**	**+1.1**
KLR				pmax	pmax		
	comp=Z,16nm,1.9s						
HEH	**HeiHe**	**28.28**	**9**	*e*P	**P**	**20 56 50.5**	**+2.9**
HEH				pP	**sP**	**20 56 54.5**	**-0.7**
HEH				pmax	pmax		
	comp=Z,5.0nm,0.9s						
HEH				L	L		
	comp=Z,2µm,13.6s						
HEH				L	L		
	comp=Z,1µm,12.7s						
HEH				L	L		
	comp=Z,3µm,15.6s						
KCSI	**Kotacane, Aceh**	**29.36**	**234**	P	P	20 56 48.8	-8.9
MNSI	**Mandailing Nat**	**29.97**	**227**	P	**P**	**20 57 04.4**	**+1.4**
	comp=Z,32nm,0.8s						
SDSI	**Sungai Dareh**	**30.06**	**222**	P	**P**	**20 57 06.1**	**+2.3**
	comp=Z,17nm,1.0s						
YSS	**Yuzhno-Sakhali**	**30.13**	**30**	*e*P	P	20 57 09.1	+5.0
YSS				*e*S	**S**	**21 02 09.8**	**+7.9**
YSS				pmax	pmax		
	comp=Z,30nm,1.3s						
YSS				pmax	pmax		
	comp=Z,400nm,4.0s						
YSS				MLR	MLR		
	comp=Z,800nm,14.0s						
YSS				MLR	MLR		
	comp=N,800nm,15.0s						
YSS				MLR	MLR		
	comp=E,700nm,17.0s						
PPI	**Padang Panjang**	**30.35**	**224**	P	**P**	**20 57 08.9**	**+2.5**
	comp=E,26nm,1.1s						
LBFI	**Labuhan Bajo,**	**30.67**	**182**	P	**P**	**20 57 09.2**	**0.0**
MMRI	**Maumere**	**30.82**	**178**	P	**P**	**20 57 11.3**	**+0.8**
	comp=E,1µmcomp=E,93nm,1.0s						
EDFI	**Ende, Flores**	**30.92**	**179**	P	**P**	**20 57 10.6**	**-0.9**
ZAK	**Zakamensk**	**31.27**	**338**	*e*P	**P**	**20 57 12.9**	**-1.3**
ZAK				pmax	pmax		
	comp=Z,6.0nm,1.2s						
JAY	**Jayapura**	**31.27**	**140**	LR	LR	21 07 32.5	
	comp=Z,822nm,21.2s,baz=344,slow=32						
SNJI	**Sawahan-Nganju**	**31.32**	**198**	P	P	20 57 19.9	+4.8
	comp=Z,44nm,0.8s						
MDSI	**Maura Dua**	**31.40**	**214**	P	**P**	**20 57 19.4**	**+3.8**
	comp=Z,39nm,1.3s						
CTJI	**Waduk Cacaban**	**31.43**	**203**	P	**P**	**20 57 19.6**	**+3.7**
	comp=Z,65nm,1.1s						
EVN	**Everest**	**31.46**	**287**	P	**P**	**20 57 17.1**	**+0.2**
KSI	**Kapahiang**	**31.55**	**217**	P	P	20 57 27.7	+11
KPJI	**Karang Pucung**	**31.83**	**203**	P	**P**	**20 57 23.8**	**+4.5**
	comp=Z,57nm,2.6s						
SOEI	**Soe**	**32.07**	**174**	P	P	20 57 31.0	+9.4
TLY	**Talaya**	**32.24**	**340**	LR	LR	21 11 57.3	
	comp=Z,2µm,20.0s,baz=138,slow=39						
TLY	**Talaya**	**32.24**	**340**	*i* P	**P**	**20 57 22.9**	**+0.2**
TLY				pmax	pmax		
	comp=Z,19nm,0.8s						
TLY	**Talaya**	**32.24**	**340**	P	**P**	**20 57 22.4**	**-0.3**
TLY				IAmb	IAmb	20 57 33.1	
	comp=Z,17nm,0.8s						
BATI	**Baumata**	**32.46**	**175**	P	P	20 57 19.1	-5.9
	comp=Z,33nm,0.8s,baz=63,slow=2.3,SNR=4.9						
BATI				LR	LR	21 11 25.7	
	comp=Z,306nm,21.3s,baz=342,slow=38						
IRK	**Irkutsk**	**32.53**	**341**	*e*P	**P**	**20 57 24.5**	**-0.7**
IRK				pmax	pmax		
	comp=Z,56nm,1.4s						
MOY	**Mondy**	**33.14**	**337**	*e*P	**P**	**20 57 30.3**	**-0.4**
MOY				pmax	pmax		
	comp=Z,31nm,3.1s						
KNGR	**Kungurtug, Tuv**	**33.68**	**333**	*i* P	**P**	**20 57 36.3**	**+0.8**
KNGR				pmax	pmax		
	comp=Z,24nm,1.1s						
WMQ	**Urumqi**	**34.88**	**316**	*e*P	**P**	**20 57 47.5**	**+1.6**
WMQ				pP	sP	20 57 54.3	+0.9
WMQ				S	**S**	**21 03 11.0**	**-5.3**
WMQ				pmax	pmax		
	comp=Z,22nm,0.7s						
WMQ				pmax	pmax		
	comp=Z,110nm,4.3s						
WMQ				L	L		
	comp=Z,1µm,16.1s						
WMQ				L	L		
	comp=Z,1µm,12.3s						
WMQ				L	L		
	comp=Z,630nm,18.9s						
KDU	**Kakadu**	**36.57**	**161**	P	P	20 57 55.6	-4.9
DGZ	**Jazzator, Alta**	**38.01**	**324**	*i* P	**P**	**20 58 12.5**	**-0.1**
DGZ				pmax	pmax		
	comp=Z,7.0nm,0.6s						
ZSN	**Zaisan**	**38.32**	**320**	*e*P	**P**	**20 58 15.7**	**+0.6**
ZSN	**Zaisan**	**38.32**	**320**	*e*P	**P**	**20 58 15.8**	**+0.6**
KNRA	**Kununurra**	**38.54**	**168**	P	**P**	**20 58 14.9**	**-2.2**
MK31	**Makanchi Array**	**39.61**	**318**	*ce*P	**P**	**20 58 26.7**	**+0.8**
MKAR	**Makanchi Array**	**39.61**	**318**	P	**P**	**20 58 26.4**	**+0.5**
	comp=Z,29nm,0.7s,baz=114,slow=9.7,SNR=241						
MKAR				PcP	**PcP**	**21 00 32.5**	**-0.3**
	comp=Z,3.0nm,0.8s,baz=116,slow=4.5,SNR=3.8						
MKAR				ScP	**ScP**	**21 04 20.5**	**-0.3**
	comp=Z,1.9nm,1.0s,baz=119,slow=5.1,SNR=4.8						
MKAR				LR	LR	21 16 26.9	
	comp=Z,1µm,18.4s,baz=90,slow=39						
	comp=Z,29nm,0.7s						
MKAR	**Makanchi Array**	**39.61**	**318**	*ce*P	**P**	**20 58 26.6**	**+0.7**
MKAR				pmax	pmax		
	comp=Z,29nm,0.7s						
MKAR	**Makanchi Array**	**39.61**	**318**		**ScP**	**21 04 22.0**	**+1.2**
MAKZ	**Makanchi**	**39.81**	**317**	P	**P**	**20 58 27.9**	**+0.3**
MAKZ				pmax	pmax		
	comp=Z,38nm,0.9s						
MAKZ	**Makanchi**	**39.81**	**317**	P	**P**	**20 58 27.9**	**+0.3**
YAK	**Yakutsk**	**40.08**	**6**	LR	LR	21 16 59.1	
	comp=Z,2µm,18.1s,baz=188,slow=39						
YAK	**Yakutsk**	**40.08**	**6**	*e*P	**P**	**20 58 29.7**	**+0.2**
YAK				*e**PP	**sP**	**20 58 37.2**	**0.0**
YAK				*e*		20 59 59.1	
YAK				*e*PPP	PPP	21 00 27.2	
YAK				*e*		21 00 34.2	
YAK				*e*S	**S**	**21 04 34.1**	**-0.5**
YAK				*e*SS	**SS**	**21 07 27.4**	**-4.7**
YAK				*e*SSS	SSS	21 07 56.7	
YAK				pmax	pmax		
	comp=Z,15nm,1.0s						
YAK				pmax	pmax		
	comp=N,3.0nm,1.1s						
YAK				pmax	pmax		
	comp=E,3.0nm,1.3s						
YAK				pmax	pmax		
	comp=Z,120nm,5.1s						
YAK				pmax	pmax		
	comp=N,144nm,3.8s						
YAK				pmax	pmax		
	comp=E,96nm,5.8s						
YAK				smax	smax		
	comp=N,100nm,3.7s						
YAK				smax	smax		
	comp=E,120nm,3.7s						
YAK				MLR	MLR		
	comp=Z,2µm,19.0s						
YAK				MLR	MLR		
	comp=N,1µm,18.0s						
YAK				MLR	MLR		
	comp=E,331nm,19.0s						
SHLS	**Shalkode**	**40.18**	**311**	*e*P	**P**	**20 58 29.1**	**-1.7**
SHLS				pmax	pmax		
	comp=Z,10.0nm,0.8s						
SHLS	**Shalkode**	**40.18**	**311**	*e*P	**P**	**20 58 29.2**	**-1.7**
	comp=Z,10nm,0.8s						
KRVT	**Keravat (AS076**	**40.21**	**127**	LR	LR	21 14 14.8	
	comp=Z,398nm,18.4s,baz=282,slow=35						
FITZ	**Fitzroy Crossi**	**40.45**	**173**	P	**P**	**20 58 31.7**	**-1.3**
	comp=Z,2.8nm,1.0s						
FITZ	**Fitzroy Crossi**	**40.45**	**173**	P	**P**	**20 58 30.6**	**-2.5**
	comp=Z,4.0nm,0.8s,baz=356,slow=11,SNR=17						
	comp=Z,4.0nm,0.8s						
FITZ	**Fitzroy Crossi**	**40.45**	**173**	P	**P**	**20 58 33.1**	**0.0**
UZB	**Uzynbulak**	**40.48**	**311**	*e*P	**P**	**20 58 34.0**	**+0.7**
UZB	**Uzynbulak**	**40.48**	**311**	*e*P	**P**	**20 58 34.1**	**+0.7**
PMG	**Port Moresby**	**40.61**	**138**	LR	LR	21 15 34.5	
	comp=Z,207nm,19.1s,baz=310,slow=37						
KPKS	**Kokpek**	**40.81**	**311**	*e*P	**P**	**20 58 36.7**	**+0.7**
KPKS	**Kokpek**	**40.81**	**311**	*e*P	**P**	**20 58 36.7**	**+0.7**
SATY	**Saty**	**40.89**	**311**	*e*P	**P**	**20 58 37.2**	**+0.5**
SATY				pmax	pmax		
	comp=Z,11nm,0.7s						
SATY	**Saty**	**40.89**	**311**	*e*P	**P**	**20 58 37.3**	**+0.5**
	comp=Z,12nm,0.7s						
PETK	**Petropavlovsk-**	**41.43**	**33**	P	**P**	**20 58 40.9**	**+0.1**
	comp=Z,2.8nm,0.8s,baz=230,slow=8.2,SNR=1.8						
PETK				LR	LR	21 17 14.0	
	comp=Z,381nm,19.7s,baz=229,slow=38						
	comp=Z,2.8nm,0.8s						
TDK	**Taldyqorghan**	**41.47**	**313**	*e*P	**P**	**20 58 42.4**	**+1.1**
TDK				pmax	pmax		
	comp=Z,25nm,0.9s						
TDK	**Taldyqorghan**	**41.47**	**313**	*e*P	**P**	**20 58 42.4**	**+1.1**
	comp=Z,25nm,0.9s						
PALK	**Pallekele**	**41.67**	**255**	LR	LR	21 17 57.2	
	comp=Z,196nm,18.5s,baz=59,slow=39						
ZAA0	**Zalesovo Array**	**41.74**	**328**	IAmb	IAmb	20 58 44.4	
	comp=Z,25nm,0.9s						
ZALV	**Zalesovo Beam**	**41.74**	**328**	P	**P**	**20 58 42.9**	**-0.5**
	comp=Z,15nm,0.6s,baz=115,slow=8.0,SNR=86						
ZALV				ScP	**ScP**	**21 04 29.1**	**+0.1**
	comp=Z,0.6nm,0.5s,baz=117,slow=5.0,SNR=3.7						
ZALV				LR	LR	21 17 06.5	
	comp=Z,717nm,19.6s,baz=126,slow=38						
	comp=Z,15nm,0.6s						
ZALV	**Zalesovo Beam**	**41.74**	**328**	*i* P	**P**	**20 58 43.2**	**-0.1**
ZALV				pmax	pmax		
	comp=Z,15nm,0.6s						
ZALV	**Zalesovo Beam**	**41.74**	**328**	P	**P**	**20 58 42.8**	**-0.6**
MDOK	**Medeo**	**41.87**	**310**	*e*P	**P**	**20 58 45.6**	**+0.8**
MDOK	**Medeo**	**41.87**	**310**	*e*P	**P**	**20 58 45.7**	**+0.8**
TNSS	**Tian-Shan**	**41.91**	**310**	*e*P	**P**	**20 58 45.7**	**+0.3**
TNSS	**Tian-Shan**	**41.91**	**310**	*e*P	**P**	**20 58 45.7**	**+0.3**
AAA	**Alma-Ata**	**41.98**	**310**	*e*P	**P**	**20 58 46.2**	**+0.6**
AAA				pmax	pmax		
	comp=Z,12nm,0.7s						
AAA	**Alma-Ata**	**41.98**	**310**	*e*P	**P**	**20 58 46.2**	**+0.6**
	comp=Z,12nm,0.7s						
KSH2	**Kashi**	**42.09**	**304**	P	**P**	**20 58 48.0**	**+1.3**
KSH2				pP	sP	20 58 52.8	-1.5
KSH2				pmax	pmax		
	comp=Z,13nm,0.7s						
KSH2				L	L		
	comp=Z,1µm,15.9s						
KSH2				L	L		
	comp=Z,880nm,18.2s						
KSH2				L	L		
	comp=Z,1µm,19.1s						
NRN	**Naryn**	**42.21**	**308**	IAmb	IAmb	20 58 50.2	
	comp=Z,30nm,0.9s						
ULHL	**Ulahol**	**42.22**	**309**	P	P	20 58 49.3	-4.0
	SNR=5.9						
KUU	**Kurty**	**42.56**	**311**	*e*P	**P**	**20 58 50.9**	**+0.7**
KUU	**Kurty**	**42.56**	**311**	*e*P	**P**	**20 58 51.0**	**+0.7**
MA2	**Magadan**	**42.70**	**22**	LR	LR	21 18 39.0	
	comp=Z,506nm,18.1s,baz=220,slow=39						
H11N1	**WAKE ISLAND Hy**	**42.70**	**85**	T	T	21 44 36.7	
	baz=282,slow=74,SNR=417						
H11N2	**WAKE ISLAND Hy**	**42.70**	**85**	T	T	21 44 36.8	
	baz=282,slow=74,SNR=607						
H11N3	**WAKE ISLAND Hy**	**42.72**	**85**	T	T	21 44 38.0	
	baz=282,slow=74,SNR=540						
H11S3	**WAKE ISLAND Hy**	**42.77**	**87**	T	T	21 44 43.1	
	baz=284,slow=74,SNR=740						
H11S1	**WAKE ISLAND Hy**	**42.78**	**87**	T	T	21 44 41.9	
	baz=284,slow=74,SNR=485						
H11S2	**WAKE ISLAND Hy**	**42.79**	**87**	T	T	21 44 44.4	
	baz=284,slow=74,SNR=352						
TKM2	**Tokmak 2**	**42.84**	**310**	P	P	20 58 53.8	-4.4
	SNR=23						
KBK	**Karagaybulak**	**43.24**	**309**	P	P	20 58 57.6	-3.9
	SNR=9.2						
NIL	**Nilore**	**43.38**	**296**	P	**P**	**20 58 56.7**	**-0.3**
NIL				pmax	pmax		
	comp=Z,22nm,1.1s						
NIL	**Nilore**	**43.38**	**296**	P	**P**	**20 58 56.7**	**-0.3**
NIL				IAmb	IAmb	20 59 10.8	
	comp=Z,22nm,1.1s						
KURK	**Kurchatov**	**43.45**	**321**	*ce*P	**P**	**20 58 57.7**	**+0.4**
KURK				pmax	pmax		
	comp=Z,104nm,2.5s						
KURK	**Kurchatov**	**43.45**	**321**		**PcP**	**21 00 44.1**	**-1.2**
KURK					**ScP**	**21 04 35.1**	**-0.9**
KURK	**Kurchatov**	**43.45**	**321**	P	**P**	**20 58 57.2**	**-0.1**
KURK				IAmb	IAmb	20 58 58.8	
	comp=Z,29nm,0.8s						
KURBB	**Kurchatov Arra**	**43.46**	**321**	P	**P**	**20 58 57.6**	**+0.2**
	comp=Z,32nm,0.8s,baz=122,slow=7.1,SNR=173						
KURBB				PcP	**PcP**	**21 00 44.1**	**-1.2**
	comp=Z,1.3nm,0.8s,baz=247,slow=2.3,SNR=1.7						
KURBB				ScP	**ScP**	**21 04 35.1**	**-0.9**
	comp=Z,0.6nm,0.7s,baz=113,slow=2.4,SNR=4.4						
KURBB				LR	LR	21 17 17.3	
	comp=Z,92nm,20.1s,baz=168,slow=36						
	comp=Z,32nm,0.8s						
CHMS	**Chumysh**	**43.46**	**309**	P	P	20 58 58.6	-4.4
	SNR=9.4						
AAK	**Ala-Archa**	**43.57**	**309**	LR	LR	21 19 30.8	
	comp=Z,1µm,20.0s,baz=94,slow=39						
AAK	**Ala-Archa**	**43.57**	**309**	*ce*P	**P**	**20 59 00.5**	**+1.9**
AAK				pmax	pmax		
	comp=Z,10.0nm,1.3s						
AAK	**Ala-Archa**	**43.57**	**309**	P	**P**	**20 58 58.8**	**+0.2**
SGDS	**Sogindy**	**43.65**	**310**	*e*P	**P**	**20 58 59.7**	**+0.6**
WB0	**Warramunga Arr**	**43.84**	**162**	IAmb	IAmb	20 58 59.3	
	comp=Z,12nm,0.8s						

WB9	**Warramunga Arr**	**43.86**	**162**	P	**P**	**20 58 59.2**	**-1.7**
WB5	**Warramunga Arr**	**43.94**	**162**	P	**P**	**20 58 59.8**	**-1.7**
WRAB	**Tennant Creek**	**43.98**	**162**	P	**P**	**20 59 01.0**	**-0.9**
WRAB	**Tennant Creek**	**43.98**	**162**	*ce*P	**P**	**20 58 59.9**	**-1.9**
WRAB				pmax	pmax		
	comp=Z,12nm,0.8s						
WRAB	**Tennant Creek**	**43.98**	**162**	P	**P**	**20 58 60.0**	**-1.9**
WRAB				IAmb	IAmb	20 59 00.5	
	comp=Z,12nm,0.8s						
WRA	**Warramunga Arr**	**43.99**	**162**	P	**P**	**20 58 59.1**	**-2.8**
	comp=Z,12nm,0.7s,baz=344,slow=8.1,SNR=99						
WRA				PcP	**PcP**	**21 00 46.5**	**-1.1**
	comp=Z,1.0nm,0.5s,baz=346,slow=3.5,SNR=5.1						
WRA				ScP	**ScP**	**21 04 36.6**	**-1.9**
	comp=Z,0.9nm,0.9s,baz=335,slow=4.3,SNR=4.6						
	comp=Z,12nm,0.7s						
WRA	**Warramunga Arr**	**43.99**	**162**	*i* P	**P**	**20 58 59.5**	**-2.4**
WRA				pmax	pmax		
	comp=Z,12nm,0.7s						
WR8	**Warramunga Arr**	**44.05**	**162**	P	**P**	**20 59 00.6**	**-1.8**
WR8	**Warramunga Arr**	**44.05**	**162**	IAmb	IAmb	20 59 01.0	
	comp=Z,17nm,0.8s						
EKS2	**Erkin-Say**	**44.09**	**309**	P	P	20 59 04.1	-4.4
	SNR=5.9						
DRK	**Karamyk**	**45.03**	**304**	IAmb	IAmb	20 59 27.8	
	comp=Z,13nm,0.7s						
SEY	**Seymchan**	**45.71**	**19**	LR	LR	21 21 28.1	
	comp=Z,348nm,18.4s,baz=177,slow=40						
DZA	**Taraz**	**45.90**	**309**	*e*P	**P**	**20 59 17.7**	**+0.7**
DZA	**Taraz**	**45.90**	**309**	*e*P	**P**	**20 59 17.7**	**+0.7**
MTSU	**Mount Surprise**	**46.21**	**149**	P	**P**	**20 59 19.3**	**-0.3**
	comp=Z,10nm,1.0s						
QIS	**Mount Isa**	**46.32**	**156**	P	**P**	**20 59 19.0**	**-1.5**
	comp=Z,29nm,0.8s						
QIS	**Mount Isa**	**46.32**	**156**	P	**P**	**20 59 19.3**	**-1.2**
KK31	**Karatay Array**	**46.53**	**309**	P	**P**	**20 59 22.1**	**+0.1**
KK31				pmax	pmax		
	comp=Z,25nm,1.2s						
KK31	**Karatay Array**	**46.53**	**309**	P	**P**	**20 59 22.1**	**+0.1**
KKAR	**Karatay Array**	**46.53**	**309**	P	**P**	**20 59 21.9**	**-0.1**
KKAR	**Karatay Array**	**46.53**	**309**	P	**P**	**20 59 21.9**	**-0.1**
IUG	**Iuzhnay**	**46.73**	**307**	*e*P	**P**	**20 59 24.2**	**+0.6**
IUG				pmax	pmax		
	comp=Z,18nm,1.1s						
IUG	**Iuzhnay**	**46.73**	**307**	*e*P	**P**	**20 59 24.2**	**+0.6**
	comp=Z,18nm,1.1s						
BRLS	**Borolday**	**47.01**	**309**	*e*P	**P**	**20 59 26.8**	**+1.1**
BRLS	**Borolday**	**47.01**	**309**	*e*P	**P**	**20 59 26.9**	**+1.1**
CHM	**Chimkent**	**47.07**	**308**	*e*P	**P**	**20 59 26.8**	**+0.6**
CHM	**Chimkent**	**47.07**	**308**	*e*P	**P**	**20 59 26.9**	**+0.6**
ASAR	**Alice Springs**	**47.41**	**164**	P	**P**	**20 59 27.0**	**-2.0**
	comp=Z,5.2nm,0.6s,baz=343,slow=8.2,SNR=70						
ASAR				PcP	**PcP**	**21 00 58.0**	**-1.4**
	comp=Z,2.1nm,0.6s,baz=340,slow=3.2,SNR=7.0						
ASAR				ScP	**ScP**	**21 04 51.0**	**-1.7**
	comp=Z,1.1nm,0.8s,baz=345,slow=4.1,SNR=6.2						
ASAR				LR	LR	21 19 57.8	
	comp=Z,176nm,21.6s,baz=324,slow=37						
	comp=Z,5.2nm,0.6s						
WRKA	**Warakurna**	**47.63**	**171**	P	**P**	**20 59 29.6**	**-1.0**
	comp=Z,7.5nm,0.9s						
MEEK	**Meekatharra**	**48.77**	**183**	P	**P**	**20 59 38.1**	**-1.3**
	comp=Z,56nm,0.7s						
MEEK	**Meekatharra**	**48.77**	**183**	P	**P**	**20 59 38.9**	**-0.5**
CTA	**Charters Tower**	**48.82**	**148**	P	**P**	**20 59 37.9**	**-2.0**
	comp=Z,8.1nm,0.8s,baz=326,slow=9.5,SNR=4.8						
CTA				LR	LR	21 18 41.2	
	comp=Z,497nm,21.9s,baz=358,slow=34						
	comp=Z,8.1nm,0.8s						
BVAR	**Borovoye Array**	**49.04**	**322**	P	**P**	**20 59 41.6**	**+0.4**
	comp=Z,10nm,0.7s,baz=110,slow=8.9,SNR=27						
BVAR				PcP	**PcP**	**21 01 04.1**	**-0.8**
	comp=Z,6.8nm,0.7s,baz=106,slow=2.7,SNR=6.0						
	comp=Z,10nm,0.7s						
BORK	**Borovoye**	**49.09**	**322**	*i* P	**P**	**20 59 41.7**	**+0.1**
BORK				pmax	pmax		
	comp=Z,27nm,0.9s						
BORK	**Borovoye**	**49.09**	**322**	P	**P**	**20 59 41.8**	**+0.1**
HNR	**Honiara**	**49.48**	**125**	LR	LR	21 20 04.1	
	comp=Z,271nm,19.3s,baz=13,slow=36						
TIXI	**Tiksi**	**49.51**	**3**	LR	LR	21 23 33.2	
	comp=Z,1µm,19.4s,baz=196,slow=40						
TIXI	**Tiksi**	**49.51**	**3**	P	**P**	**20 59 43.9**	**-0.6**
TIXI				pmax	pmax		
	comp=Z,15nm,0.9s						
TIXI	**Tiksi**	**49.51**	**3**	P	**P**	**20 59 43.9**	**-0.6**
TIXI				IAmb	IAmb	20 59 46.8	
	comp=Z,15nm,0.8s						
SHEM	**Shemya Is, Ala**	**50.28**	**39**	LR	LR	21 20 41.8	
	comp=Z,100nm,21.7s,baz=288,slow=36						
NRIK	**Noril'sk**	**51.14**	**345**	P	**P**	**20 59 55.9**	**-1.0**
	comp=Z,15nm,0.9s,baz=140,slow=7.9,SNR=7.9						
NRIK				LR	LR	21 23 24.3	
	comp=Z,494nm,20.1s,baz=150,slow=38						
	comp=Z,15nm,0.9s						
NRIK	**Noril'sk**	**51.14**	**345**	IAmb	IAmb	20 59 57.4	
	comp=Z,18nm,0.9s						
MORW	**Morawa**	**51.36**	**186**	P	**P**	**20 59 58.2**	**-0.8**
	comp=Z,25nm,0.7s						
MORW	**Morawa**	**51.36**	**186**	P	**P**	**20 59 58.0**	**-1.0**
MORW	**Morawa**	**51.36**	**186**	P	**P**	**20 59 58.0**	**-1.0**
MORW				IAmb	IAmb	20 59 58.9	
	comp=Z,16nm,0.7s						
BLDU	**Ballidu**	**52.84**	**185**	P	**P**	**21 00 09.1**	**-0.9**
	comp=Z,19nm,1.8s						
BLDU	**Ballidu**	**52.84**	**185**	P	**P**	**21 00 10.7**	**+0.7**
FORT	**Forrest**	**53.26**	**173**	P	**P**	**21 00 12.8**	**-0.3**
	comp=Z,21nm,0.9s						
FORT	**Forrest**	**53.26**	**173**	P	**P**	**21 00 12.4**	**-0.7**
FORT				IAmb	IAmb	21 00 15.3	
	comp=Z,13nm,0.8s						
INKA	**Innaminka**	**53.30**	**158**	P	**P**	**21 00 12.8**	**-0.6**
KMBL	**Kambalda**	**53.42**	**179**	P	**P**	**21 00 13.3**	**-1.0**
	comp=Z,22nm,0.9s						
KLBR	**Kellerberrin**	**53.74**	**184**	P	**P**	**21 00 15.9**	**-0.7**
	comp=Z,84nm,0.8s						
KLBR	**Kellerberrin**	**53.74**	**184**	P	**P**	**21 00 17.2**	**+0.6**
ABKAR	**Akbulak array**	**54.67**	**315**	P	**P**	**21 00 23.6**	**+0.3**
SVE	**Sverdlovsk**	**55.47**	**325**	*e*P	**P**	**21 00 29.8**	**+0.9**
SVE				*e*S	**S**	**21 08 14.0**	**+1.1**
SVE				pmax	pmax		
	comp=Z,38nm,1.0s						
SVE				MLR	MLR		
	comp=Z,743nm,18.0s						
AKTO	**Aktyubinsk**	**56.03**	**317**	LR	LR	21 26 12.3	
	comp=Z,853nm,18.6s,baz=91,slow=38						
ARTI	**Arti**	**56.61**	**324**	LR	LR	21 27 10.0	
	comp=Z,497nm,18.2s,baz=96,slow=38						
ARTI	**Arti**	**56.61**	**324**	*c i*P	**P**	**21 00 37.0**	**-0.1**
ARTI						21 01 32.0	
ARTI						21 02 42.1	
ARTI				S	**S**	**21 08 28.8**	**+0.7**
ARTI				SS	**SS**	**21 12 15.7**	**+0.3**
ARTI				pmax	pmax		
	comp=Z,28nm,0.8s						
ARTI				MLR	MLR		
	comp=Z,355nm,15.0s						
ARTI	**Arti**	**56.61**	**324**	P	**P**	**21 00 36.8**	**-0.3**
BBOO	**Buckleboo**	**56.69**	**165**	P	**P**	**21 00 37.3**	**-0.6**
	comp=Z,34nm,0.9s						
BBOO	**Buckleboo**	**56.69**	**165**	P	**P**	**21 00 37.7**	**-0.2**
STKA	**Stephens Creek**	**57.39**	**159**	P	**P**	**21 00 42.1**	**-0.8**
	comp=Z,50nm,0.7s						
STKA	**Stephens Creek**	**57.39**	**159**	P	**P**	**21 00 40.5**	**-2.3**
	comp=Z,7.1nm,0.7s,baz=337,slow=7.8,SNR=16						
STKA				LR	LR	21 27 24.4	
	comp=Z,152nm,19.5s,baz=7.2,slow=38						
	comp=Z,7.1nm,0.7s						
HTT	**Hallett**	**58.02**	**162**	P	**P**	**21 00 46.8**	**-0.5**
	comp=Z,4.2nm,2.0s						
HTT	**Hallett**	**58.02**	**162**	P	**P**	**21 00 48.0**	**+0.7**
CMSA	**Cobar Meteorol**	**58.54**	**155**	P	**P**	**21 00 50.8**	**-0.2**
	comp=Z,16nm,2.4s						
CMSA	**Cobar Meteorol**	**58.54**	**155**	P	**P**	**21 00 51.2**	**+0.3**
KIRV	**Kirov**	**61.67**	**326**	LR	LR	21 30 14.1	
	comp=Z,986nm,19.7s,baz=99,slow=38						
KIRV	**Kirov**	**61.67**	**326**	*ce*P	**P**	**21 01 12.3**	**+0.2**
BELG	**Belogornoye**	**62.60**	**319**	*i* P	**P**	**21 01 17.0**	**-1.4**
BELG				pmax	pmax		
	comp=Z,8.0nm,0.9s						
MAK	**Makhachkala**	**63.34**	**308**	*c i*P	**P**	**21 01 21.3**	**-2.2**
MAK				*e*		21 03 45.5	
MAK				*e*PPP	PPP	21 05 17.3	
MAK				*e*S	**S**	**21 09 52.7**	**-2.3**
MAK				*e*SS	**SS**	**21 14 02.9**	**+1.5**
MAK				*e*SSS	SSS	21 16 58.1	
MAK				pmax	pmax		
	comp=Z,204nm,1.1s						
MAK				MLR	MLR		
	comp=Z,659nm,16.0s						
AKT	**Akhty**	**63.34**	**306**	*e*P	**P**	**21 01 23.7**	**-0.1**
AKT				*e*		21 02 00.2	
AKT				*e*		21 03 41.9	
AKT				pmax	pmax		
	comp=Z,27nm,1.1s						
AKT				MLR	MLR		
	comp=Z,800nm,18.0s						
TOO	**Toolangi**	**63.88**	**159**	P	**P**	**21 01 26.5**	**-0.6**
	comp=Z,4.6nm,1.0s						
TOO	**Toolangi**	**63.88**	**159**	P	**P**	**21 01 26.8**	**-0.3**
TOO				pmax	pmax		
	comp=Z,3.0nm,0.7s						
TOO	**Toolangi**	**63.88**	**159**	P	**P**	**21 01 26.8**	**-0.3**
GNI	**Garni**	**65.78**	**305**	LR	LR	21 34 47.1	
	comp=Z,330nm,19.0s,baz=96,slow=40						
VRH	**Novokhopyorsk**	**66.34**	**318**	*e*P	**P**	**21 01 42.6**	**-0.3**
VRH				pmax	pmax		
	comp=Z,40nm,0.9s						
KBZ	**Khabaz**	**66.56**	**309**	P	**P**	**21 01 43.9**	**-0.6**
	comp=Z,11nm,0.9s,baz=80,slow=11,SNR=17						
KBZ				LR	LR	21 35 06.5	
	comp=Z,550nm,19.1s,baz=83,slow=40						
	comp=Z,11nm,0.9s						
KBZ	**Khabaz**	**66.56**	**309**	*ce*P	**P**	**21 01 45.0**	**+0.5**
KBZ				pmax	pmax		
	comp=Z,15nm,1.0s						
KLMR	**Klimovskoe**	**66.66**	**328**	*e*P	**P**	**21 01 42.8**	**-2.0**
KLMR				S	**S**	**21 10 34.3**	**-1.0**
KLMR				pmax	pmax		
	comp=Z,40nm,1.0s						
KLMR				MLR	MLR		
	comp=Z,871nm,15.0s						
KIV	**Kislovodsk**	**66.68**	**310**	*e*P	**P**	**21 01 46.2**	**+0.8**
KIV				*e*S	**S**	**21 10 37.8**	**+1.5**
KIV				pmax	pmax		
	comp=Z,24nm,1.1s						
KIV				MLR	MLR		
	comp=Z,220nm,17.0s						
KIV	**Kislovodsk**	**66.68**	**310**	P	**P**	**21 01 45.1**	**-0.2**
KIV	**Kislovodsk**	**66.68**	**310**	⇑P	**P**	**21 01 46.2**	**+0.8**
KIV	**Kislovodsk**	**66.68**	**310**	P	**P**	**21 01 45.2**	**-0.2**
	comp=Z,275nmcomp=Z,21nm,1.1s						
SHA1	**Shidzhatmaz**	**66.73**	**309**	*ce*P	**P**	**21 01 46.9**	**+1.0**
NEUR	**Neytrino**	**66.78**	**309**	*i* P	**P**	**21 01 46.4**	**+0.2**
NEUR				pmax	pmax		
	comp=Z,7.0nm,1.3s						
VORR	**Voronezh**	**67.84**	**318**	*e*P	**P**	**21 01 52.1**	**-0.3**
VORR				pmax	pmax		
	comp=Z,22nm,0.8s						
LPSR	**Galich'ya Gora**	**67.87**	**319**	*e*P	**P**	**21 01 52.4**	**-0.3**
LPSR				pmax	pmax		
	comp=Z,40nm,0.9s						
VORD	**Divnogorie**	**67.89**	**318**	*e*P	**P**	**21 01 48.4**	**-4.4**
VORD				pmax	pmax		
	comp=Z,10.0nm,1.0s						
G21K	**Allakaket**	**67.89**	**26**	P	**P**	**21 01 52.2**	**-0.4**
G21K				IAmb	IAmb	21 01 56.5	
	comp=Z,8.2nm,1.0s						
VSR	**Storozhevoye**	**67.93**	**318**	*e*P	**P**	**21 01 52.5**	**-0.5**
VSR				pmax	pmax		
	comp=Z,22nm,1.0s						
ERBR	**Yeremizino-Bor**	**67.94**	**312**	*e*P	**P**	**21 01 53.3**	**+0.1**
ERBR				*e*S	**S**	**21 10 52.9**	**+1.7**
ERBR				pmax	pmax		
	comp=Z,43nm,1.0s						
ERBR				MLR	MLR		
	comp=Z,229nm,18.0s						
HOMI	**Horasan**	**67.94**	**306**	⇑P	**P**	**21 01 54.7**	**+1.1**
LABN	**Labinsk**	**67.95**	**311**	*e*P	**P**	**21 01 52.7**	**-0.6**
LABN				pmax	pmax		
	comp=Z,11nm,0.7s						
GURO	**Guroymak-BITLI**	**68.14**	**304**	IAmb	IAmb	21 02 20.1	
	comp=Z,18nm,1.3s						
MOS	**Moscow**	**68.20**	**323**	*e*P	**P**	**21 01 54.0**	**-0.6**
MOS				pmax	pmax		
	comp=Z,41nm,0.7s						
MOS				MLR	MLR		
	comp=Z,600nm,20.0s						
H21K	**Melozitna Rive**	**68.26**	**26**	IAmb	IAmb	21 02 16.5	
	comp=Z,8.4nm,1.1s						
MSVF	**Nonsavu**	**68.49**	**121**	LR	LR	21 26 39.9	
	comp=Z,157nm,21.9s,baz=352,slow=31						
APA	**Apatity**	**68.68**	**336**	*e*P	**P**	**21 01 56.1**	**-1.4**
APA				pmax	pmax		
	comp=Z,10.0nm,1.2s						
APA				MLR	MLR		
	comp=Z,823nm,13.0s						
D23K	**Nanushuk River**	**68.71**	**23**	IAmb	IAmb	21 02 08.3	
	comp=Z,9.2nm,0.9s						
RAYN	**Ar Rayn**	**68.81**	**288**	P	**P**	**21 01 58.6**	**-0.5**
RAYN				pmax	pmax		
	comp=Z,11nm,1.0s						
RAYN	**Ar Rayn**	**68.81**	**288**	P	**P**	**21 01 58.6**	**-0.5**
RAYN				IAmb	IAmb	21 02 00.4	
	comp=Z,11nm,1.0s						
H22K	**Ishtalitna Cre**	**68.82**	**26**	IAmb	IAmb	21 02 14.7	
	comp=Z,12nm,1.1s						
SOC	**Sochi**	**68.86**	**310**	*e*P	**P**	**21 01 59.2**	**+0.2**
SOC				*e*		21 04 32.8	
SOC				*e*PPP	PPP	21 06 11.7	
SOC				*e*S	**S**	**21 11 03.1**	**+0.8**
SOC				*e*SS	**SS**	**21 15 29.2**	**+2.0**
SOC				MLR	MLR		
	comp=Z,239nm,15.0s						
OBN	**Obninsk**	**68.88**	**322**	LR	LR	21 35 07.9	
	comp=Z,512nm,18.2s,baz=40,slow=38						
OBN	**Obninsk**	**68.88**	**322**	*c i*P	**P**	**21 01 58.3**	**-0.6**
OBN				*PP	**sP**	**21 02 07.0**	**+0.3**
OBN				*i*		21 11 56.2	
OBN				SS	SS	21 15 37.0	+10
OBN				pmax	pmax		
	comp=Z,46nm,1.3s						
OBN				MLR	MLR		
	comp=Z,339nm,17.0s						
OBN	**Obninsk**	**68.88**	**322**	P	**P**	**21 01 58.5**	**-0.4**
OBN	**Obninsk**	**68.88**	**322**	⇓P	**P**	**21 01 59.1**	**+0.1**
OBN	**Obninsk**	**68.88**	**322**	P	**P**	**21 01 58.8**	**-0.1**
	comp=Z,34nm,0.9s						
KOPT	**Kop Dagi**	**69.00**	**306**	IAmb	IAmb	21 02 11.1	
	comp=Z,13nm,1.1s						
MLY	**Manley**	**69.20**	**27**	IAmb	IAmb	21 02 10.0	
	comp=Z,11nm,1.3s						
E23K	**Chandalar**	**69.22**	**24**	IAmb	IAmb	21 02 13.1	
	comp=Z,6.3nm,0.8s						
KDAK	**Kodiak Island**	**69.44**	**35**	LR	LR	21 33 19.8	
	comp=Z,101nm,21.3s,baz=232,slow=37						
H23K	**Yukon River**	**69.58**	**26**	IAmb	IAmb	21 02 22.4	
	comp=Z,9.7nm,0.9s						
ANN	**Anapa**	**70.23**	**311**	*e*P	**P**	**21 02 06.4**	**-1.0**
ANN				*e*S	**S**	**21 11 16.9**	**-1.4**
ANN				pmax	pmax		
	comp=Z,36nm,1.0s						
RND	**Reindeer**	**70.28**	**29**	P	**P**	**21 02 06.9**	**-0.6**
RND				pmax	pmax		
	comp=Z,15nm,1.0s						
RND	**Reindeer**	**70.28**	**29**	P	**P**	**21 02 06.9**	**-0.6**
F25K	**Christian Rive**	**70.78**	**24**	IAmb	IAmb	21 02 23.4	
	comp=Z,7.0nm,1.1s						
ARPR	**Arapgir-MALATY**	**70.83**	**305**	IAmb	IAmb	21 02 44.2	
	comp=Z,5.2nm,0.8s						
ILAR	**Eielson Array**	**70.87**	**27**	P	**P**	**21 02 09.4**	**-1.6**
	comp=Z,0.5nm,0.6s,baz=301,slow=6.4,SNR=4.2						
ILAR				LR	LR	21 35 17.0	
	comp=Z,106nm,19.9s,baz=271,slow=38						
	comp=Z,0.5nm,0.6s						
ARCES	**ARCESS Array B**	**71.20**	**338**	P	**P**	**21 02 10.5**	**-2.4**
	comp=Z,7.0nm,0.8s,baz=63,slow=6.2,SNR=14						
ARCES				LR	LR	21 36 53.9	
	comp=Z,396nm,18.2s,baz=72,slow=39						
	comp=Z,7.0nm,0.8s						
SPITS	**Spitsbergen Ar**	**71.24**	**348**	P	**P**	**21 02 12.5**	**-0.6**
	comp=Z,6.6nm,0.7s,baz=79,slow=7.5,SNR=4.4						
SPITS				LR	LR	21 36 40.6	
	comp=Z,285nm,20.3s,baz=58,slow=38						
	comp=Z,6.6nm,0.7s						
GAZ	**Gaziantep**	**72.16**	**303**	IAmb	IAmb	21 02 21.5	
	comp=Z,9.9nm,0.9s						
SIM	**Simferopol'**	**72.49**	**312**	*e*P	**P**	**21 02 21.6**	**+0.5**
SIM				pmax	pmax		
	comp=Z,29nm,1.0s						
SIM				MLR	MLR		
	comp=Z,220nm,20.0s						
E28M	**Babbage River**	**72.75**	**22**	IAmb	IAmb	21 02 40.8	
	comp=Z,22nm,1.7s						
BNN	**Bunyan**	**72.78**	**305**	IAmb	IAmb	21 02 24.7	
	comp=Z,7.7nm,0.9s						
F28M	**Old Crow**	**72.92**	**23**	IAmb	IAmb	21 03 10.4	
	comp=Z,13nm,1.4s						
FINES	**FINESS Array B**	**72.98**	**330**	P	**P**	**21 02 23.0**	**-0.7**
	comp=Z,11nm,0.7s,baz=86,slow=7.1,SNR=38						
FINES				LR	LR	21 36 56.6	
	comp=Z,424nm,19.1s,baz=71,slow=38						
	comp=Z,11nm,0.7s						
FINES	**FINESS Array B**	**72.98**	**330**	*i* P	**P**	**21 02 23.5**	**-0.2**
FINES				pmax	pmax		
	comp=Z,11nm,0.7s						
FINES	**FINESS Array B**	**72.98**	**330**	P	**P**	**21 02 23.7**	**0.0**
VSU	**Vasula**	**73.46**	**327**	*ce*P	**P**	**21 02 26.5**	**0.0**
VSU				pmax	pmax		
	comp=Z,23nm,1.3s						
ASF	**Jabal al Asfar**	**73.76**	**299**	LR	LR	21 39 51.5	
	comp=Z,182nm,19.5s,baz=33,slow=40						
MNK	**Minsk**	**73.92**	**323**	*i* P	**P**	**21 02 29.8**	**+0.5**
MNK				*i*		21 05 15.2	
MNK				*i* PPP	PPP	21 06 59.7	
MNK				*i* S	**S**	**21 12 03.0**	**+2.6**
MNK				*i* SS	**SS**	**21 16 48.5**	**+4.3**
MNK				pmax	pmax		
	comp=Z,16nm,0.9s						
MNK				pmax	pmax		
	comp=E,3.0nm,0.8s						
MNK				pmax	pmax		
	comp=N,13nm,1.1s						
MNK				MLR	MLR		
	comp=Z,212nm,18.0s						
MNK				MLR	MLR		
	comp=N,269nm,15.0s						
MNK				MLR	MLR		
	comp=E,126nm,16.0s						
MNK	**Minsk**	**73.92**	**323**	*i* P	**P**	**21 02 29.9**	**+0.5**
	comp=E,3.0nm,0.8s						
MNK				*i* P	**P**	**21 02 29.9**	**+0.5**
	comp=N,13nm,1.1s						
MNK				*i* P	**P**	**21 02 29.9**	**+0.5**
	comp=Z,16nm,0.9s,baz=74						
MNK				*i* PP	**PP**	**21 05 15.2**	**+1.2**
MNK				*i* PPP	PPP	21 06 59.7	
MNK				*i* S	**S**	**21 12 03.0**	**+2.6**
MNK				*i* SS	**SS**	**21 16 48.5**	**+4.3**
MNK				*i* SSS	SSS	21 20 10.0	
MNK				*i* LQ	LQ	21 30 05.3	
MNK				*i* LR	LR	21 35 43.4	
MNK				*i* LRM	MLR	21 39 07.1	
	comp=Z,212nm,17.5s						
NOR	**Nord**	**74.14**	**354**	*i* P	**P**	**21 02 29.8**	**-0.4**
KIRS	**Kirsehir-Merke**	**74.15**	**306**	⇓P	**P**	**21 02 31.5**	**+0.4**
AK09	**Malin Array Si**	**74.17**	**319**	P	**P**	**21 02 30.7**	**-0.2**
AK03	**Malin Array Si**	**74.17**	**319**	P	**P**	**21 02 30.8**	**-0.1**
AK08	**Malin Array Si**	**74.18**	**319**	P	**P**	**21 02 30.8**	**-0.1**
AKASG	**Malin Array Be**	**74.18**	**319**	P	**P**	**21 02 30.0**	**-1.0**
	comp=Z,5.0nm,0.8s,baz=65,slow=6.1,SNR=15						
AKASG				LR	LR	21 39 41.8	
	comp=Z,188nm,18.7s,baz=78,slow=40						
	comp=Z,5.0nm,0.8s						
AKASG	**Malin Array Be**	**74.18**	**319**	*ce*P	**P**	**21 02 30.2**	**-0.7**
AKASG				pmax	pmax		
	comp=Z,6.0nm,0.8s						
AKASG	**Malin Array Be**	**74.18**	**319**	P	**P**	**21 02 30.4**	**-0.6**
AKASG				IAmb	IAmb	21 02 31.8	
	comp=Z,13nm,1.4s						
AKBB	**Malin Array Si**	**74.18**	**319**	*ce*P	**P**	**21 02 30.0**	**-0.9**
AKBB				pmax	pmax		
	comp=Z,12nm,1.0s						
AKBB	**Malin Array Si**	**74.18**	**319**	IAmb	IAmb	21 02 31.3	
	comp=Z,8.8nm,0.9s						
AKBB	**Malin Array Si**	**74.18**	**319**	P	**P**	**21 02 30.8**	**-0.1**
AK01	**Malin Array Si**	**74.19**	**319**	P	**P**	**21 02 30.5**	**-0.5**
AK10	**Malin Array Si**	**74.19**	**319**	P	**P**	**21 02 30.5**	**-0.5**
KIEV	**Kiev**	**74.19**	**319**	P	**P**	**21 02 30.1**	**-0.9**
KIEV				pmax	pmax		
	comp=Z,8.0nm,0.9s						
KIEV	**Kiev**	**74.19**	**319**	P	**P**	**21 02 30.1**	**-0.9**
KIEV				IAmb	IAmb	21 02 31.3	
	comp=Z,8.0nm,0.9s						
KIEV	**Kiev**	**74.19**	**319**	⇓P	**P**	**21 02 30.8**	**-0.2**
BR131	**Keskin Array S**	**74.19**	**307**	*i* P	**P**	**21 02 31.5**	**0.0**
BR131	**Keskin Array S**	**74.19**	**307**	IAmb	IAmb	21 02 32.8	
	comp=Z,8.4nm,1.0s						
BRTR	**Keskin Array B**	**74.19**	**307**	P	**P**	**21 02 30.5**	**-1.0**
	comp=Z,3.1nm,0.8s,baz=104,slow=6.1,SNR=20						
BRTR				LR	LR	21 40 48.1	
	comp=Z,95nm,19.2s,baz=84,slow=40						
	comp=Z,3.1nm,0.8s						
BRTR	**Keskin Array B**	**74.19**	**307**	*ce*P	**P**	**21 02 31.8**	**+0.3**
BRTR				pmax	pmax		
	comp=Z,3.0nm,0.8s						
BRTR	**Keskin Array B**	**74.19**	**307**	P	**P**	**21 02 30.9**	**-0.5**
BR104	**Keskin Array S**	**74.20**	**307**	P	**P**	**21 02 30.8**	**-0.7**
	comp=Z,55nmcomp=Z,5.1nm,1.2s						
AK02	**Malin Array Si**	**74.20**	**319**	P	**P**	**21 02 30.6**	**-0.5**
BR106	**Keskin Array S**	**74.21**	**307**	P	**P**	**21 02 30.9**	**-0.6**
	comp=Z,56nmcomp=Z,6.8nm,1.1s						
AK04	**Malin Array Si**	**74.21**	**319**	P	**P**	**21 02 30.6**	**-0.5**
BR105	**Keskin Array S**	**74.21**	**307**	P	**P**	**21 02 30.9**	**-0.7**
	comp=Z,57nmcomp=Z,6.4nm,1.1s						
AK05	**Malin Array Si**	**74.21**	**319**	P	**P**	**21 02 30.6**	**-0.6**
AK11	**Malin Array Si**	**74.22**	**319**	P	**P**	**21 02 30.7**	**-0.5**
AK06	**Malin Array Si**	**74.23**	**319**	P	**P**	**21 02 30.7**	**-0.5**
AK07	**Malin Array Si**	**74.23**	**319**	P	**P**	**21 02 30.8**	**-0.5**
AK12	**Malin Array Si**	**74.24**	**319**	P	**P**	**21 02 30.8**	**-0.5**
AK22	**Malin Array Si**	**74.25**	**319**	P	**P**	**21 02 30.9**	**-0.5**
AK16	**Malin Array Si**	**74.26**	**319**	P	**P**	**21 02 30.9**	**-0.5**
F30M	**Barrier River**	**74.40**	**23**	P	**P**	**21 02 31.8**	**-0.1**
F30M				IAmb	IAmb	21 02 57.8	
	comp=Z,11nm,0.8s						
G30M	**tAoh Zraii Nji**	**74.46**	**23**	IAmb	IAmb	21 02 55.5	
	comp=Z,8.7nm,1.0s						
BAL3X	**Bal3x, Balta**	**74.71**	**316**	P	**P**	**21 02 34.2**	**+0.1**
MMAI	**Mount Meron Ar**	**74.72**	**300**	P	**P**	**21 02 33.4**	**-1.2**
	comp=Z,3.5nm,0.9s,baz=106,slow=7.9,SNR=3.2						
MMAI				LR	LR	21 39 36.2	
	comp=Z,139nm,18.8s,baz=52,slow=39						
	comp=Z,3.5nm,0.9s						
PURM	**Purcari**	**74.93**	**314**	⇑P	**P**	**21 02 35.8**	**+0.3**
INK	**Inuvik**	**74.94**	**22**	LR	LR	21 39 10.6	
	comp=Z,190nm,18.3s,baz=285,slow=39						
ATD	**Arta Tunnel**	**74.94**	**276**	LR	LR	21 36 31.9	
	comp=Z,5.4nm,18.7s,baz=24,slow=37						
AFI	**Afiamalu**	**74.98**	**112**	LR	LR	21 30 04.7	
	comp=Z,99nm,20.0s,slow=31						
GHAJ	**Ghor Haditha**	**75.09**	**298**	IAmb	IAmb	21 02 38.0	
	comp=Z,22nm,1.2s						
LUBAR	**Lubar, Ukraine**	**75.30**	**318**	P	**P**	**21 02 37.0**	**-0.5**
SORM	**Soroca**	**75.46**	**316**	P	**P**	**21 02 37.9**	**-0.5**
	comp=Z,14nm,1.0s						
RNPP9	**Sopachiv**	**75.98**	**320**	P	**P**	**21 02 40.8**	**-0.5**
RNPP8	**Varash**	**76.03**	**320**	P	**P**	**21 02 41.1**	**-0.5**
TLCR		**76.03**	**313**	P	**P**	**21 02 42.2**	**+0.5**
TLCR		**76.03**	**313**	⇓P	**P**	**21 02 42.2**	**+0.5**
RNPP5	**Staryi Chortor**	**76.04**	**320**	P	**P**	**21 02 41.2**	**-0.5**
EIL	**Elat**	**76.09**	**297**	LR	LR	21 40 56.9	
	comp=Z,225nm,18.6s,baz=91,slow=40						
BORA	**Eskisehir**	**76.50**	**308**	IAmb	IAmb	21 02 45.5	
	comp=Z,9.2nm,1.0s						
KMPD	**K-Podol'skiy**	**76.53**	**317**	P	**P**	**21 02 42.9**	**-1.6**
KEPZ	**Antalya-Kepez**	**76.55**	**304**	⇓P	**P**	**21 02 45.5**	**+0.5**
SUW	**Suwalki**	**76.70**	**323**	*e*P	**P**	**21 02 45.0**	**-0.3**
GIRR	**Girov**	**77.01**	**316**	⇑P	**P**	**21 02 47.3**	**0.0**
TESR	**Tescani**	**77.06**	**315**	⇓P	**P**	**21 02 48.2**	**+0.6**
VRI	**Vrincioaia**	**77.22**	**314**	P	**P**	**21 02 49.2**	**+0.7**
VRI	**Vrincioaia**	**77.22**	**314**	⇑P	**P**	**21 02 49.2**	**+0.7**
PLOR	**Plostina**	**77.27**	**314**	P	**P**	**21 02 48.7**	**-0.1**
PLOR	**Plostina**	**77.27**	**314**	⇑P	**P**	**21 02 48.8**	**-0.1**
BIZ	**Bicaz**	**77.28**	**316**	⇓P	**P**	**21 02 49.0**	**+0.2**
BURAR	**Bucovina Array**	**77.62**	**316**	P	**P**	**21 02 51.2**	**+0.4**
BURAR	**Bucovina Array**	**77.62**	**316**	P	**P**	**21 02 50.4**	**-0.4**
BURAR	**Bucovina Array**	**77.62**	**316**	⇑P	**P**	**21 02 51.2**	**+0.4**
TURR	**Turia**	**77.62**	**315**	⇓P	**P**	**21 02 52.2**	**+1.4**
OZUR		**77.76**	**315**	⇓P	**P**	**21 02 52.6**	**+1.0**
BOSR	**Bodos**	**77.85**	**315**	⇑P	**P**	**21 02 53.1**	**+1.0**
MLR	**Muntele Rosu**	**77.86**	**314**	LR	LR	21 41 22.7	
	comp=Z,352nm,20.2s,baz=359,slow=39						
MLR	**Muntele Rosu**	**77.86**	**314**	P	**P**	**21 02 51.9**	**-0.3**
MLR	**Muntele Rosu**	**77.86**	**314**	IAmb	IAmb	21 02 53.7	
	comp=Z,14nm,1.1s						
MLR	**Muntele Rosu**	**77.86**	**314**	⇑P	**P**	**21 02 52.0**	**-0.3**
MLR	**Muntele Rosu**	**77.86**	**314**	P	**P**	**21 02 51.8**	**-0.4**

	comp=Z,8.9nm,1.8s						
ELL	Elmali	77.89	305	IAmb	IAmb	21 02 53.4	
	comp=Z,14nm,0.8s						
DAG	Danmarks Havn	78.15	351	i P	P	21 02 51.6	-1.5
DAG				IAmb	IAmb	21 02 54.9	
	comp=Z,6.6nm,0.9s						
ARCR	ARCALIA	78.36	316	⇑P	P	21 02 55.0	+0.2
KWP	Kalwaria Pacla	78.49	319	eP	P	21 02 55.8	+0.2
BMR	Baia Mare	78.70	317	P	P	21 02 57.2	+0.6
BMR	Baia Mare	78.70	317	⇑P	P	21 02 57.3	+0.6
ARR	Arges	78.77	314	⇓P	P	21 02 58.2	+1.0
HUMR	Humele	78.83	314	⇓P	P	21 02 57.7	+0.3
CJR	Cluj-Napoca	78.97	316	P	P	21 02 58.7	+0.5
CJR	Cluj-Napoca	78.97	316	⇑P	P	21 02 58.8	+0.5
KOLS	Kolonicke sedl	79.01	318	eP	P	21 02 59.1	+0.7
KOLS				pmax	pmax		
	comp=Z,4.0nm,0.9s						
KOLS	Kolonicke sedl	79.01	318	eP	P	21 02 59.1	+0.7
HFS	Hagfors	79.11	331	P	P	21 02 57.9	-0.8
	comp=Z,5.5nm,0.7s,baz=79,slow=10,SNR=13						
HFS				LR	LR	21 41 16.8	
	comp=Z,989nm,18.8s,baz=62,slow=38						
	comp=Z,5.5nm,0.7s						
ARG	Arkhangelos	79.42	305	IAmb	IAmb	21 03 01.8	
	comp=Z,18nm,1.0s						
DRGR		79.51	316	P	P	21 03 01.6	+0.4
DRGR		79.51	316	⇑P	P	21 03 01.6	+0.4
NC405	NORSAR Array S	79.55	332	IAmb	IAmb	21 03 01.4	
	comp=Z,15nm,0.8s						
BDRM	Kayabasi	79.64	306	⇑P	P	21 03 01.8	-0.3
DEV	Deva	79.72	315	P	P	21 03 03.4	+1.2
DEV	Deva	79.72	315	⇓P	P	21 03 03.5	+1.2
NB2	NORSAR Subarra	79.80	332	P	P	21 03 01.6	-0.8
	comp=Z,4.4nm,0.8s,baz=62,slow=5.6						
NOA	NORSAR Array B	79.80	332	P	P	21 03 01.4	-1.0
	comp=Z,4.2nm,0.8s,baz=60,slow=5.4,SNR=17						
NOA				LR	LR	21 41 47.4	
	comp=Z,1µm,18.6s,baz=65,slow=38						
	comp=Z,4.2nm,0.8s						
URZ	Urewera	79.97	138	LR	LR	21 37 34.8	
	comp=Z,130nm,19.6s,baz=302,slow=35						
GZR	Gura Zlata	79.98	315	P	P	21 03 03.6	-0.2
GZR	Gura Zlata	79.98	315	⇓P	P	21 03 03.7	-0.2
OJC	Ojcow	80.02	320	eP	P	21 03 04.0	+0.2
OJC	Ojcow	80.02	320	P	P	21 03 03.7	-0.1
OJC	Ojcow	80.02	320	P	P	21 03 03.7	-0.1
NIE	Niedzica	80.03	319	eP	P	21 03 05.8	+1.8
RPZ	Rata Peaks	80.13	146	LR	LR	21 34 20.3	
	comp=Z,28nm,21.4s,baz=124,slow=33						
SURR	Surduc	80.27	315	⇑P	P	21 03 04.9	-0.4
NEEM	North Greenlan	80.30	358	i P	P	21 03 05.2	-0.1
NEEM				IAmb	IAmb	21 03 05.6	
	comp=Z,8.8nm,1.0s						
HERR	Herculane	80.41	315	⇑P	P	21 03 06.1	+0.1
RES	Resolute Bay	80.47	9	LR	LR	21 40 48.2	
	comp=Z,214nm,21.4s,baz=346,slow=37						
DLBC	Dease Lake	80.55	30	LR	LR	21 38 33.1	
	comp=Z,108nm,21.9s,baz=294,slow=36						
JMIC	Jan Mayen	80.56	345	LR	LR	21 41 48.2	
	comp=Z,418nm,21.1s,baz=76,slow=38						
LANS	Liptovska Anna	80.63	319	eP	P	21 03 08.0	+0.8
LANS				pmax	pmax		
	comp=Z,2.0nm,1.0s						
LANS	Liptovska Anna	80.63	319	eP	P	21 03 08.0	+0.8
PSZ	Piszkesteto	80.86	318	IAmb	IAmb	21 03 10.0	
	comp=Z,13nm,1.3s						
MDVR	Moldovita	80.91	315	⇓P	P	21 03 09.2	+0.5
OKC	Ostrava-Krasne	81.15	320	AMS	AMS	21 41 20.0	
	comp=Z,300nm,13.9s						
VYHS	Vyhne	81.28	319	eP	P	21 03 11.5	+0.9
VYHS				pmax	pmax		
	comp=Z,17nm,1.2s						
VYHS	Vyhne	81.28	319	eP	P	21 03 11.5	+0.9
STEB	Steborice	81.33	321	eP	P	21 03 11.1	+0.3
BOVS	Bovan	81.35	314	⇑P	P	21 03 10.5	-0.5
MORC	Moravsky Berou	81.53	320	P	P	21 03 12.4	+0.4
MORC	Moravsky Berou	81.53	320	eP	P	21 03 12.4	+0.4
MORC	Moravsky Berou	81.53	320	⇓P	P	21 03 12.4	+0.4
KSP	Ksiaz	81.81	322	eP	P	21 03 13.8	+0.4
KSP	Ksiaz	81.81	322	P	P	21 03 12.9	-0.5
	comp=Z,8.3nm,1.3s						
JAVC	Velka Javorina	81.83	320	eP	P	21 03 14.9	+1.3
KRLC	Kraliky	81.85	321	eP	P	21 03 19.8	+6.1
KRLC				MLR	MLR		
	comp=Z,400nm,14.1s						
KRLC	Kraliky	81.85	321	eP	P	21 03 19.8	+6.1
KRLC				AMS	AMS	21 44 20.0	
	comp=Z,400nm,14.1s						
OSTC	Ostas	81.97	321	AMS	AMS	21 43 10.0	
	comp=Z,400nm,13.7s						
DPC	Dobruska-Polom	82.00	321	eP	P	21 03 14.6	+0.1
DPC				MLR	MLR		
	comp=Z,400nm,17.3s						
DPC	Dobruska-Polom	82.00	321	eP	P	21 03 14.6	+0.1
DPC				AMS	AMS	21 44 10.0	
	comp=Z,400nm,17.3s						
CHVC	Chvalec	82.05	322	eP	P	21 03 21.6	+6.9
CHVC				MLR	MLR		
	comp=Z,400nm,14.7s						
CHVC	Chvalec	82.05	322	eP	P	21 03 21.6	+6.9
CHVC				AMS	AMS	21 43 10.0	
	comp=Z,400nm,14.7s						
UPC	Upice	82.11	322	eP	P	21 03 16.8	+1.8
UPC				MLR	MLR		
	comp=Z,400nm,14.4s						
UPC	Upice	82.11	322	eP	P	21 03 16.8	+1.8
UPC				AMS	AMS	21 43 20.0	
	comp=Z,400nm,14.4s						
SMOL	Smolenice	82.12	319	eP	P	21 03 15.9	+0.8
SMOL				pmax	pmax		
	comp=Z,3.0nm,1.3s						
VRAC	Vranov	82.29	320	LR	LR	21 43 10.1	
	comp=Z,319nm,19.3s,baz=62,slow=38						
VRAC	Vranov	82.29	320	eP	P	21 03 15.9	0.0
MORH	Mrgy, Hungar	82.33	317	⇑P	P	21 03 15.8	-0.3
KRUC	Moravsky	82.51	320	eP	P	21 03 17.1	0.0
MPLH	Magyarpolny	82.62	318	P	P	21 03 17.3	-0.4
	comp=Z,24nm,1.4s						
PVCC	Panska Ves	82.93	322	esP	sP	21 03 37.9	+11
PVCC				AMS	AMS	21 42 20.0	
	comp=Z,400nm,16.1s						
TREC	Trest	82.95	321	AMS	AMS	21 44 30.0	
	comp=Z,400nm,12.1s						
BRG	Berggiesshubel	83.13	322	eP	P	21 03 20.7	+0.4
BRG				Amp		21 03 21.9	
	comp=Z,7.9nm,1.3s						
RONA	Rosalia, Austr	83.16	319	eP	P	21 03 20.5	-0.1
	comp=Z,8.0nm,1.4s						
PRU	Pruhonice	83.19	321	eP	P	21 03 32.4	+12
PRU				MLR	MLR		
	comp=Z,300nm,17.4s						
PRU	Pruhonice	83.19	321	esP	sP	21 03 32.4	+4.0
PRU				AMS	AMS	21 44 50.0	
	comp=Z,300nm,17.4s						
CONA	Conrad Observa	83.32	319	eP	P	21 03 22.1	+0.7
	comp=Z,9.3nm,1.3s						
CLL	Collm	83.46	323	i P	P	21 03 22.3	+0.4
CLL				eS	S	21 13 42.0	-0.5
CLL				pmax	pmax		
	comp=Z,13nm,1.5s						
CLL				MLR	MLR		
	comp=Z,800nm,18.6s						
CLL	Collm	83.46	323	IAmb	IAmb	21 03 33.9	
	comp=Z,4.9nm,0.7s						
CLL	Collm	83.46	323	P	P	21 03 21.5	-0.4
	comp=Z,7.2nm,1.0s						
CLL	Collm	83.46	323	i P	P	21 03 22.3	+0.4
	comp=Z,13nm,1.5s						
CLL				i (sP)	sP	21 03 33.2	+3.4
CLL				ePP	PP	21 06 34.0	+0.4
CLL				eS	S	21 13 42.0	-0.5
CLL				ePS	PnS	21 14 36.0	+1.2
CLL				eSS	SS	21 19 06.0	-1.4
CLL				ex	x	21 23 42.0	
CLL				L	L	21 32 00.0	
CLL				L	L	21 41 00.0	
CLL				AMS	AMS	21 45 00.0	
	comp=N,400nm,19.0s						
CLL				AMS	AMS	21 45 00.0	
	comp=E,600nm,20.1s						
CLL				AMS	AMS	21 45 00.0	
	comp=Z,800nm,18.6s						
HSKC	Hora Svate Kat	83.54	322	AMS	AMS	21 45 20.0	
	comp=Z,700nm,14.5s						
ARSA	Arzberg	83.83	319	eP	P	21 03 23.5	-0.4
	comp=Z,2.7nm,0.8s						
CKRC	Cesky Krumlov	83.85	320	eP	P	21 03 24.3	+0.3
CKRC				MLR	MLR		
	comp=Z,400nm,18.8s						
CKRC	Cesky Krumlov	83.85	320	eP	P	21 03 24.3	+0.3
CKRC				AMS	AMS	21 45 40.0	
	comp=Z,400nm,18.8s						
KHC	Kasperske Hory	84.14	321	ceP	P	21 03 26.7	+1.2
KHC				pmax	pmax		
	comp=Z,9.0nm,1.3s						
KHC	Kasperske Hory	84.14	321	eP	P	21 03 25.4	-0.1
KHC				AMS	AMS	21 45 40.0	
	comp=Z,500nm,16.6s						
KHC	Kasperske Hory	84.14	321	IAmb	IAmb	21 03 27.8	
	comp=Z,15nm,1.5s						
GEC2	GERESS Array S	84.20	321	IAmb	IAmb	21 03 27.2	
	comp=Z,10nm,1.1s						
GERES	GERESS Array B	84.20	321	P	P	21 03 24.7	-1.2
	comp=Z,3.7nm,0.8s,baz=64,slow=4.8,SNR=31						
GERES				LR	LR	21 45 11.9	
	comp=Z,334nm,18.6s,baz=28,slow=39						
	comp=Z,3.7nm,0.8s						
GERES	GERESS Array B	84.20	321		P	21 03 24.9	-1.1
NKC	Novy Kostel	84.27	322	AMS	AMS	21 45 40.0	
	comp=Z,700nm,15.4s						
MOA	Molln	84.32	320	eP	P	21 03 27.0	+0.6
	comp=Z,16nm,1.2s,SNR=6.4						
SOKA	Soboth	84.38	318	i P	P	21 03 26.8	-0.1
	comp=Z,12nm,1.3s						
SESA	Seetaler Alpe,	84.47	319	eP	P	21 03 27.8	+0.4
	comp=Z,51nm,1.1s,SNR=11						
YKA	Yellowknife Ar	84.67	23	P	P	21 03 25.8	-2.1
	comp=Z,3.9nm,0.8s,baz=311,slow=4.6,SNR=6.3						
YKA				LR	LR	21 46 33.4	
	comp=Z,157nm,18.1s,baz=304,slow=39						
	comp=Z,3.9nm,0.8s						
YKA	Yellowknife Ar	84.67	23	ceP	P	21 03 29.7	+1.8
YKA				pmax	pmax		
	comp=Z,3.0nm,0.8s						
KMBO	Kilima Mbogo	84.73	267	P	P	21 03 28.7	-0.7
	baz=53,slow=5.5						
KMBO				LR	LR	21 41 14.0	
	comp=Z,53nm,20.1s,baz=97,slow=36						
OBKA	Obir	84.76	318	eP	P	21 03 28.1	-0.7
	comp=Z,10nm,0.9s						
BIOA	Bad Ischl, Aus	84.77	320	i P	P	21 03 29.0	+0.2
	comp=Z,11nm,1.5s						
LESA	Schwarzleotal	85.47	320	i P	P	21 03 31.6	-0.7
	comp=Z,7.5nm,1.0s						
ABTA	Abfaltersbach	85.89	319	eP	P	21 03 33.2	-1.2
	comp=Z,4.1nm,0.8s						
WTTA	Wattenberg	86.17	320	i P	P	21 03 34.7	-1.2
	comp=Z,8.6nm,0.7s						
WATA	Walderalm	86.17	320	i P	P	21 03 35.1	-0.8
	comp=Z,7.8nm,1.1s						
SQTA	Sankt Quirin	86.44	320	i P	P	21 03 36.4	-0.8
	comp=Z,7.7nm,0.9s						
MOTA	Moosalm	86.44	320	i P	P	21 03 36.1	-1.1
	comp=Z,6.8nm,0.9s						
RETA	Reutte	86.58	320	i P	P	21 03 35.6	-2.1
	comp=Z,4.1nm,1.1s						
FETA	Feichten	86.83	320	i P	P	21 03 37.7	-1.4
	comp=Z,5.2nm,0.9s						
FUORN	Ofenpass-Fuorn	87.30	320	IAmb	IAmb	21 04 04.0	
	comp=Z,15nm,1.4s						
DAVOX	Davos/Dischmat	87.45	320	LR	LR	21 46 34.0	
	comp=Z,316nm,19.3s,baz=50,slow=38						
TUE	Stuetta	87.92	320	P	P	21 03 43.8	-0.7
BORG	Borgarnes	88.46	345	LR	LR	21 46 36.2	
	comp=Z,512nm,19.4s,baz=14,slow=38						
RAR	Rarotonga	88.46	114	LR	LR	21 37 01.2	
	comp=Z,32nm,20.5s,baz=304,slow=31						
VAE	Valguarnera	88.99	310	LR	LR	21 49 44.5	
	comp=Z,86nm,19.7s,baz=22,slow=40						
SENIN	Lac Senin/Sane	89.19	321	IAmb	IAmb	21 03 52.6	
	comp=Z,6.1nm,1.1s						
EKA	Eskdalemuir Ar	89.28	332	P	P	21 03 48.6	-1.8
	comp=Z,2.2nm,1.0s,baz=57,slow=5.2,SNR=4.7						
EKA				LR	LR	21 48 17.9	
	comp=Z,1µm,18.5s,baz=47,slow=39						
	comp=Z,2.2nm,1.0s						
MBAR	Mbarara	90.56	270	LR	LR	21 45 18.3	
	comp=Z,47nm,20.3s,baz=66,slow=36						
SFJD	Kangerlussuaq	90.70	357	LR	LR	21 49 38.9	
	comp=Z,125nm,18.1s,baz=5.0,slow=39						
YBH	Yreka Blue Hor	93.15	42	LR	LR	21 42 28.0	
	comp=Z,50nm,19.2s,baz=342,slow=33						
KEST	Kesra	93.39	311	P	P	21 04 09.8	-0.3
	comp=Z,4.9nm,0.9s,baz=357,slow=18,SNR=3.1						
KEST				LR	LR	21 54 15.6	
	comp=Z,86nm,19.0s,baz=344,slow=41						
	comp=Z,4.9nm,0.9s						
FRB	Frobisher Bay	93.85	4	LR	LR	21 50 49.8	
	comp=Z,154nm,18.9s,baz=323,slow=38						
PPT	Papeete	95.92	106	LR	LR	21 39 08.7	
	comp=Z,56nm,21.3s,baz=312,slow=30						
PPT2	Papeete2	95.92	106	eS	S	21 15 37.2	-2.6
	comp=Z,87nm,28.2s						
PPT2				eLR	LR	21 35 12.7	
	comp=Z,163nm,27.2s						
PPT2				eLR	LR	21 35 20.7	
	comp=Z,129nm,27.0s						
LSZ	Lusaka	98.30	257	LR	LR	21 48 48.5	
	comp=Z,54nm,18.5s,baz=71,slow=35						
MAW	Mawson	99.36	199	LR	LR	21 49 18.0	
	comp=Z,38nm,18.2s,baz=84,slow=35						
ESDC	Sonseca Array	99.78	320	LR	LR	21 55 15.6	
	comp=Z,175nm,18.8s,baz=37,slow=39						
VNDA	Vanda	102.51	172	PP	PP	21 09 00.6	-2.7
	comp=Z,1.2nm,1.0s,baz=320,slow=8.8,SNR=5.4						
TORD	Torodi Ar. Bea	110.93	295	PKiKP	PKiKP	21 09 27.7	-0.7
	comp=Z,0.6nm,0.8s,baz=36,slow=4.6,SNR=3.9						
QSPA	South Pole Qui	112.16	180	PKiKP	PKiKP	21 09 26.9	-2.4
	comp=Z,1.1nm,1.0s,baz=0.0,slow=2.0,SNR=1.9						
QSPA				PP	PP	21 10 11.3	-2.8
	comp=Z,1.4nm,0.9s,baz=300,slow=1.6,SNR=5.5						
TXAR	Lajitas Array	112.93	42	PKiKP	PKiKP	21 09 31.0	-1.1
	comp=Z,0.5nm,0.7s,baz=300,slow=2.6,SNR=3.0						
TXAR	Lajitas Array	112.93	42	i PKIKP	PKiKP	21 09 31.0	-1.1
ELIB	Princess Elisa	113.47	200	dPKiKP	PKiKP	21 09 31.0	-0.8
SNAA	Sanae	121.49	198c	iPKIKP	PKPdf	21 09 47.3	+0.2
SNAA				pmax	pmax		
	comp=Z,4.0nm,1.3s						

TAP 28 20:51:06.3,24°.44N×121°.87E,h14km,ML1.6,B,Taiwan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ENA	Nanau	0.12	262	eP	Pg	20 51 07.4	-2.2
ENA				eS	Sg	20 51 10.1	-1.8
ESAO	Su ao	0.13	351	P	Pg	20 51 10.1	+0.3
ESAO				S	Sg	20 51 12.4	+0.2
EAHA	Aohua	0.16	226	P	Pg	20 51 10.2	0.0
EAHA				S	Sg	20 51 13.4	+0.5
TWC	Suao	0.17	354	P	Pg	20 51 10.3	+0.1
TWC				S	Sg	20 51 13.1	+0.1
NDS	Dongshan	0.23	324	P	Pg	20 51 11.7	+0.3
NDS				S	Sg	20 51 15.0	+0.2
LATG	Datong	0.32	286	P	Pg	20 51 13.4	+0.4
LATG				S	Sg	20 51 18.3	+0.7
TWE	Neicheng	0.33	327	P	Pb	20 51 13.6	-0.4
TWE				eS	Sg	20 51 17.7	0.0
EOS2	EOS2	0.33	94	eP	Pb	20 51 13.6	-0.4
EOS2				eS	Sb	20 51 18.5	-0.6
ENTT	Nioudou	0.34	306	P	Pg	20 51 13.6	+0.4
ENTT				S	Sg	20 51 18.4	+0.6
NDT	Datong Townshi	0.36	296	eP	Pg	20 51 13.7	+0.1
NDT				eS	Sb	20 51 19.4	-0.6
NACB	Ninganchiao	0.37	223	eP	Pg	20 51 13.4	-0.3
NACB				S	Sg	20 51 19.1	+0.4
FUSB	Fushanzhiwuyua	0.40	321	P	Pg	20 51 14.8	+0.4
FUSB				eS	Sg	20 51 20.6	+0.6
ETLH	Xiulin Townshi	0.42	236	eP	Pg	20 51 14.4	-0.3
ETLH				eS	Sg	20 51 21.0	+0.4
EOS3	EOS3	0.44	111	eP	Pg	20 51 15.3	+0.3
EOS3				eS	Sg	20 51 21.3	+0.4
NNSB	Datong	0.44	268	P	Pg	20 51 15.3	+0.2
NNSB				S	Sg	20 51 21.6	+0.5
NNS	Nan Shan	0.45	270	eP	Pg	20 51 15.5	+0.3
NNS				eS	Sg	20 51 21.8	+0.4
NWLT	Wulai	0.47	315	eP	Pb	20 51 16.1	-0.2
NWLT				eS	Sg	20 51 22.2	+0.2
YHNB	Yeheng	0.50	297	P	Pb	20 51 16.8	-0.2
YHNB				S	Sg	20 51 23.4	+0.5
NSK	Sanguang	0.52	297	eP	Pb	20 51 17.0	-0.2
NSK				eS	Sg	20 51 23.7	+0.3
TIPB	Shuangxi	0.53	356	eP	Pg	20 51 17.0	+0.3
TIPB				eS	Sg	20 51 23.5	-0.2

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*GII **28** 21:20:47.3±0.0,33°.964N±0°.003×32°.031E±0°.001,h0km,*
Mws2.5,confirmed
*NIC **28** 21:20:50.7,33°.96N×31°.99E,h18km±2km,Ml2.2/6*
*ISK **28** 21:20:50.1,33°.95N×31°.90E,h13km,ML2.8/11*
*AFAD **28** 21:20:59.4,34°.56N×31°.59E,h6km±5km,ML2.2*

ISC 28 21:20:48.8±0.8,33°.93N±0°.03×31°.94E±0°.03,h10km,n58,
σ2s.60/91,Eastern Mediterranean Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OSC1	CSNet OBS 1	0.70	233	P	Pg	21 21 05.3	+3.0
OSC1				S	Sb	21 21 15.8	+3.1
OSC2	CSNet OBS 4	0.89	162	P	Pg	21 21 07.8	+1.9
OSC2				S	Sb	21 21 21.6	+3.3
NATA	Nata	1.00	31	P	Pn	21 21 10.6	+1.7
NATA				S	Sb	21 21 22.3	+1.0
NATA				AML	AML	21 21 28.0	
	0.3nm,0.3s						
NATA				AML	AML	21 21 29.1	
	0.4nm,0.4s						
AKMS	Akamas	1.14	17	P	Pb	21 21 11.1	+0.6
AKMS				S	Sg	21 21 25.0	-0.4
AKMS				AML	AML	21 21 28.7	
	0.1nm,0.4s						
AKMS				AML	AML	21 21 29.1	
	0.1nm,0.2s						
TROD	Troodos	1.27	37	P	Pb	21 21 13.6	+0.7
TROD				S	Sb	21 21 29.7	+0.2
TROD				AML	AML	21 21 34.5	
	0.1nm,0.3s						
TROD				AML	AML	21 21 37.8	
	0.1nm,0.3s						
ALFC	Alefka	1.34	24	P	Pn	21 21 14.6	+1.0
ALFC				S	Sb	21 21 30.9	-0.4
ALFC				AML	AML	21 21 34.6	
	0.2nm,0.3s						
ALFC				AML	AML	21 21 35.2	
	0.3nm,0.2s						
ASGA	Asgata	1.38	51	P	Pn	21 21 14.7	+0.6
ASGA				S	Sb	21 21 31.7	-0.7
ASGA				AML	AML	21 21 33.0	
	0.4nm,0.2s						
ASGA				AML	AML	21 21 33.2	
	0.3nm,0.4s						
XYLS	Xyliatos	1.42	40	P	Pn	21 21 15.6	+0.9
XYLS				S	Sb	21 21 34.1	+0.6
XYLS				AML	AML	21 21 34.6	
	0.3nm,0.3s						
XYLS				AML	AML	21 21 35.5	
	0.3nm,0.3s						
LFK	Lefkose	1.88	44	Pn	Pn	21 21 23.2	+2.1
LFK				Sn	Sb	21 21 47.3	+0.4
LFK				AML	AML		
GAZI	Gazipasa	2.32	7	P	Pn	21 21 26.9	-0.1
GAZI				S	Sn	21 21 50.4	-5.3
TEKE	Tekeli-Mersin	2.41	23	Pn	Pn	21 21 30.7	+2.4
TEKE				Sn	Sn	21 21 59.9	+2.1
TEKE				AML	AML		
BECE	Buyukeceli-Mer	2.59	30	Pn	Pn	21 21 32.9	+2.2
BECE				AML	AML		
GULN	MERSIN_Gulnar	2.61	30	P	Pn	21 21 32.8	+1.8
GULN				S	Sn	21 21 59.5	-3.1
BERE	Bereket-Mersin	2.63	23	Pn	Pn	21 21 33.8	+2.3
AKUM	Antalya-Kumluc	2.73	332	P	Pn	21 21 30.7	-1.9
AKUM				S	Sn	21 21 56.9	-8.7
TEVE	Tevekalti-Mers	2.79	26	Pn	Pn	21 21 35.8	+2.3
TEVE				AML	AML		
ERMK	Ermenek	2.82	16	P	Pn	21 21 37.6	+3.4
ERMK				S	Sn	21 22 08.5	+0.2
ERMK				IAML		21 22 16.0	
	comp=E,11nm,0.3s						
ERMK				IAML		21 22 29.0	
	comp=N,12nm,0.5s						
KEBE	Keben-Mersin	2.90	29	Pn	Pn	21 21 37.4	+2.3
KEBE				AML	AML		
KEPZ	Antalya-Kepez	2.98	355	P	Pn	21 21 38.2	+2.0
KEPZ				S	Sn	21 22 07.5	-4.5
MMA0B	Mount Meron ar	3.03	107	P	Pn	21 21 35.0	-1.9
MMA0B				S	Sn	21 22 10.8	-2.5
HDMB	Hadim	3.06	8	Pn	Pn	21 21 39.5	+2.1
MSAM	Misgav Am	3.09	102	P	Pn	21 21 35.4	-2.2
MSAM				S	Sn	21 22 11.8	-2.8
GEM	Giv'at Ha'Em	3.19	102	P	Pn	21 21 37.0	-2.0
GEM				S	Sn	21 22 14.5	-2.6
SHBL	Chebaa	3.22	99	eP	Pn	21 21 39.3	-0.3
MMLI	Mount Malkishu	3.27	116	P	Pn	21 21 38.4	-1.7
MMLI				S	Sn	21 22 16.5	-2.8
RCY	Rachaya	3.27	96	eP	Pn	21 21 40.0	-0.3
HWQ	Hawqa	3.34	83	eP	Pn	21 21 40.9	-0.3
IZZE	Mula-Seydike	3.35	319	P	Pn	21 21 41.3	+0.1
IZZE				S	Sn	21 22 16.8	-4.3
IZZE				IAML		21 22 22.0	
	comp=E,13nm,0.4s						
IZZE				IAML		21 22 28.0	
	comp=N,9.8nm,0.5s						
KSHT	Keshet	3.37	105	P	Pn	21 21 39.8	-1.7
KSHT				S	Sn	21 22 19.1	-2.5
KKBE	Karaman, Kazim	3.38	14	P	Pn	21 21 40.5	-1.2
KKBE				S	Sn	21 22 19.3	-2.8
HMRA	Hamra	3.40	119	P	Pn	21 21 40.1	-1.8
HMRA				S	Sn	21 22 19.8	-2.5
MEFR	Maale Efrayim	3.45	122	P	Pn	21 21 41.1	-1.4
MEFR				S	Sn	21 22 21.1	-2.3
AMAZ	Amatzia	3.46	133	P	Pn	21 21 41.1	-1.6
AMAZ				S	Sn	21 22 22.1	-1.7
SEYD	Seydisehir-KON	3.47	359	Pn	Pn	21 21 45.2	+2.2
KNIK	Mula-Seydike	3.50	327	P	Pn	21 21 46.4	+3.1
KNIK				S	Sn	21 22 19.1	-5.7
SEDI	Konya, Seydise	3.52	358	P	Pn	21 21 46.1	+2.4
SEDI				S	Sn	21 22 20.2	-5.2
YITV	Yitav	3.53	123	P	Pn	21 21 41.4	-2.2
YITV				S	Sn	21 22 23.5	-2.0
BEIL	Beino	3.57	79	eP	Pn	21 21 44.6	+0.4
FETY	Fethiye	3.57	320	Pn	Pn	21 21 46.3	+2.0
FETY				AML	AML		
CAME	Cameli-Denizli	3.70	325	Pn	Pn	21 21 48.4	+2.2
MZS	Mizpe Shalem	3.74	128	P	Pn	21 21 44.8	-1.8
MZS				S	Sn	21 22 30.2	-0.6
SABU	Mula-Dalaman	3.77	321	P	Pn	21 21 48.8	+1.7
SABU				S	Sn	21 22 26.6	-4.9
SABU				IAML		21 22 35.0	
	comp=N,7.3nm,0.7s						
GOLH	Golhisar	3.83	330	P	Pn	21 21 48.5	+0.6
GOLH				S	Sn	21 22 25.9	-7.2
GOLH				IAML		21 22 59.0	
	comp=E,9.0nm,1.0s						
GOLH				IAML		21 23 28.0	
	comp=N,8.1nm,1.6s						
CAEL	Denizli, Camel	3.84	327	P	Pn	21 21 47.1	-0.9
CAEL				S	Sn	21 22 27.8	-5.5
CAEL				IAML		21 22 41.0	
	comp=E,12nm,0.9s						
CAEL				IAML		21 23 24.0	
	comp=N,16nm,1.6s						
DALY	Dalyan (Mula)	3.94	318	Pn	Pn	21 21 51.8	+2.5
DALY	Dalyan (Mula)	3.94	318	P	Pn	21 21 50.0	+0.7
DALY				S	Sn	21 22 28.1	-7.4
DALY				IAML		21 23 02.0	
	comp=E,8.9nm,1.5s						
GHAJ	Ghor Haditha	4.03	130	P	Pn	21 21 48.5	-2.0
GHAJ				S	Sn	21 22 35.5	-2.2
BRDR	BURDUR-Merkez	4.06	338	P	Pn	21 21 54.0	+3.0
BRDR				IAML		21 22 41.0	
	comp=E,6.0nm,0.5s						
BRDR				IAML		21 22 50.0	
	comp=N,5.0nm,0.8s						
APMY	Acipayam-Deniz	4.14	329	Pn	Pn	21 21 54.6	+2.5
BAGO	Egridir - ISPA	4.16	347	P	Pn	21 21 54.0	+1.6
INCE	Denizli-Bozkur	4.24	334	P	Pn	21 21 54.0	+0.6
INCE				IAML		21 22 45.0	
	comp=E,5.3nm,0.6s						
TAVA	DENIZLI_Tavas	4.30	326	P	Pn	21 21 51.6	-2.8
YVAC	Isparta, Yalva	4.37	353	P	Pn	21 21 57.1	+1.8
YVAC				S	Sn	21 22 29.2	-17
YVAC				IAML		21 23 13.0	
	comp=N,4.8nm,0.0s						
YVAC				IAML		21 23 13.0	

	comp=E,7.4nm,0.0s						
DNIZ	**Denizli-Tavas-**	**4.38**	**328**	P	**Pn**	**21 21 57.5**	**+2.0**
DNIZ				S	**Sn**	**21 22 39.5**	**-7.1**
KRMI	**Paran Flat**	**4.47**	**147**	P	**Pn**	**21 21 55.1**	**-1.6**
CMRD	**Camardi-Nigde**	**4.47**	**33**	Pn	**Pn**	**21 21 59.0**	**+2.2**
UCKU	**Afyonkarahisar**	**4.72**	**355**	P	**Pn**	**21 22 03.0**	**+2.9**
UCKU				IAML		21 24 11.0	
	comp=E,3.2nm,0.5s						
PASA	**Karahalli, USA**	**4.84**	**336**	P	**Pn**	**21 22 04.3**	**+2.6**
PASA				IAML		21 22 57.0	
	comp=E,3.1nm,0.4s						

TAP 28 21:39:25.0, 22°.37N×121°.00E, h12km, ML3.8, 6C-8D, B, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TAW	**Tawu**	**0.10**	**265**	⇓iP	Pg	21 39 28.3	+0.4
TAW				iS	Sg	21 39 30.5	+0.6
TAWH	**Dawu Township**	**0.11**	**256**	iP	Pb	21 39 28.6	-0.4
TAWH				iS	Sg	21 39 31.1	+0.9
EAST	**Anshuo**	**0.14**	**277**	⇓iP	Pg	21 39 29.1	+0.5
EAST				iS	Sg	21 39 31.7	+0.6
ECL	**Taimali**	**0.23**	**349**	⇓iP	Pg	21 39 30.0	0.0
ECL				iS	Sg	21 39 34.9	+1.5
SLIU	**Shizi**	**0.24**	**232**	⇑iP	Pb	21 39 30.8	-0.5
SLIU				eS	Sg	21 39 34.6	+1.0
SCZT	**Fangliau**	**0.35**	**271**	⇓iP	Pb	21 39 32.8	-0.4
SCZT				S	Sb	21 39 38.2	-0.5
SMST	**Manzhou Townsh**	**0.38**	**204**	eP	Pb	21 39 33.5	-0.1
SMST				S	Sb	21 39 39.3	0.0
TTN	**Taitung**	**0.41**	**19**	eP	Pb	21 39 34.5	+0.3
TTN				eS	Sb	21 39 42.5	+2.1
SSPT	**Xinbi**	**0.42**	**286**	iP	Pb	21 39 34.6	+0.3
SSPT				eS	Sb	21 39 41.7	+1.1
MASBT	**Mashibuluo**	**0.42**	**306**	⇓iP	Pg	21 39 33.7	+0.3
MASBT				iS	Sg	21 39 39.6	+0.6
HEN	**Hengchun**	**0.43**	**214**	eP	Pb	21 39 34.8	+0.2
HEN				S	Sb	21 39 41.5	+0.5
TWGBT	**Beinan**	**0.46**	**9**	⇑iP	Pg	21 39 33.9	-0.2
TWGBT				S	Sb	21 39 41.7	0.0
TWG	**Pinlang**	**0.46**	**8**	⇑iP	Pg	21 39 33.9	-0.2
TWG				S	Sg	21 39 40.9	+0.8
TWK1	**Hengchun**	**0.46**	**204**	iP	Pb	21 39 35.1	+0.1
TWK1				S	Sb	21 39 42.5	+0.7
TWKBT	**Hengchun**	**0.46**	**203**	⇑iP	Pb	21 39 35.0	0.0
TWKBT				S	Sb	21 39 41.6	-0.1
TSEB	**Hengchuen, Pin**	**0.47**	**192**	iP	Pb	21 39 35.9	+0.7
TSEB				S	Sb	21 39 43.5	+1.3
TSMG	**Majia**	**0.47**	**316**	⇓P	Pg	21 39 34.6	+0.3
TSMG				S	Sg	21 39 41.2	+0.5
SSD	**Sandimen**	**0.51**	**318**	⇓iP	Pg	21 39 35.1	+0.1
SSD				iS	Sg	21 39 42.4	+0.6
LDUT	**Ludao**	**0.53**	**55**	P	Pg	21 39 35.8	+0.4
LDUT				S	Sb	21 39 44.0	+0.2
LONT	**Longtian**	**0.55**	**12**	⇑eP	Pg	21 39 35.5	-0.3
LONT				S	Sb	21 39 45.0	+0.6
WLCH	**Liuqiu**	**0.58**	**269**	eP	Pn	21 39 40.2	+1.2
TWP	**Hsiaoliuchiu**	**0.59**	**268**	eP	Pn	21 39 40.3	+1.0
LAY	**Lan-yu**	**0.60**	**123**	eP	Pg	21 39 36.2	-0.6
LAY				iS	Sg	21 39 44.4	-0.4
LYUB	**Lan-yu**	**0.65**	**124**	P	Pg	21 39 35.6	-2.1
EDH	**Donghe**	**0.67**	**25**	eP	Pg	21 39 37.4	-0.6
SCST	**Cishan**	**0.70**	**318**	⇓iP	Pb	21 39 39.8	+0.7
SCST				eS	Sn	21 39 50.8	-0.6
TWM1	**Shoushan**	**0.70**	**310**	eP	Pn	21 39 40.5	-0.3
TWM1				S	Sn	21 39 52.4	+0.9
SLGT	**Liugui**	**0.71**	**332**	eP	Pg	21 39 38.9	+0.1
SLGT				S	Sb	21 39 48.8	-0.1
WSSB	**Gushan**	**0.74**	**292**	eP	Pn	21 39 42.4	+1.2
WSSB				eS	Sn	21 39 55.8	+3.3
ECS	**Chishang**	**0.75**	**15**	P	Pg	21 39 38.6	-1.0
ECS				eS	Sb	21 39 50.5	+0.2
EHD	**Haiduan**	**0.80**	**13**	eP	Pg	21 39 38.8	-1.8
CHKT	**Chengkung**	**0.80**	**25**	eP	Pg	21 39 39.7	-0.8
CHKT				S	Sb	21 39 52.5	+0.8
SGST	**Jiashian**	**0.81**	**332**	eP	Pg	21 39 40.5	-0.3
SGST				eS	Sb	21 39 52.5	+0.6
ELDTW	**Lidau**	**0.82**	**1**	eP	Pg	21 39 40.0	-0.9
FULB	**Fuli**	**0.87**	**18**	eP	Pg	21 39 40.8	-1.1
CHKH	**Chenggong**	**0.90**	**24**	eP	Pg	21 39 41.3	-1.0
CHKH				S	Sg	21 39 53.9	-0.3
CHN3	**Shinhua**	**0.92**	**320**	eP	Pn	21 39 45.9	+2.1
CHN3				eS	Sn	21 40 02.0	+5.2
CHN1	**Nanshi**	**0.93**	**332**	iP	Pn	21 39 44.5	+0.7
CHN1				eS	Sn	21 39 58.8	+1.7
WTP	**Ta-pu**	**0.95**	**338**	iP	Pn	21 39 44.3	+0.1
WTP				eS	Sn	21 39 58.9	+1.3
TPUB	**Ta-pu**	**0.99**	**340**	⇑iP	Pn	21 39 45.0	+0.2
TPUB				eS	Sn	21 40 00.1	+1.3
SSHA	**Shanhua**	**1.01**	**319**	eP	Pn	21 39 46.3	+1.3
SSHA				eS	Sn	21 40 03.7	+4.6
TWK	**Hsinying**	**1.01**	**332**	eP	Pn	21 39 45.9	+0.8
TWK				S	Sn	21 40 01.2	+1.9
TWF1	**Yuli**	**1.02**	**15**	eP	Pb	21 39 42.4	-2.2
EYUL	**Yuli**	**1.02**	**17**	eP	Pb	21 39 43.5	-1.1
ECBN	**Changbin**	**1.03**	**24**	eP	Pb	21 39 43.5	-1.3
ECBN				eS	Sb	21 39 57.6	-0.7
CHN4	**Tsaushan**	**1.05**	**339**	P	Pn	21 39 46.2	+0.7
CHN4				eS	Sn	21 40 03.1	+3.0
YULB	**Yu-li**	**1.06**	**15**	eP	Pb	21 39 43.1	-2.2
SCLT	**Jiali**	**1.10**	**317**	eP	Pg	21 39 47.5	+1.4
SCLT				eS	Sn	21 40 04.5	+3.2
YUS	**Yu-Shan**	**1.12**	**358**	eP	Pb	21 39 46.6	0.0
WCKO	**Fanlu**	**1.13**	**341**	eP	Pg	21 39 47.0	+0.2
WCKO				eS	Sn	21 40 05.0	+2.9
TSCK	**Chigu Township**	**1.15**	**313**	eP	Pg	21 39 47.7	+0.5
TSCK				eS	Sn	21 40 06.0	+3.5
ALS	**Alishan**	**1.15**	**351**	eP	Pg	21 39 48.1	+0.8
EHYH	**Wanrong**	**1.17**	**16**	eP	Pb	21 39 46.5	-0.6
EHY	**Hungye**	**1.17**	**14**	eP	Pg	21 39 47.5	-0.1
HGSD	**Ruisui**	**1.19**	**19**	eP	Pn	21 39 47.1	-0.3
ICHU	**Yijhu**	**1.19**	**326**	eP	Pg	21 39 48.1	+0.1
ICHU				eS	Sn	21 40 06.8	+3.2
CHN8	**Yiju**	**1.22**	**323**	eP	Pg	21 39 49.7	+1.2
CHN8				eS	Sg	21 40 08.1	+3.7
CHY	**Chiayi**	**1.25**	**335**	eP	Pg	21 39 49.7	+0.7
CHY				eS	Sg	21 40 08.2	+2.9
CHN5	**Tsauling**	**1.26**	**346**	eP	Pg	21 39 49.9	+0.5
CHN5				eS	Sg	21 40 09.4	+3.7
WHYT	**Xinyi Township**	**1.33**	**354**	eP	Pg	21 39 50.4	-0.3
WSL	**Shuilin Townsh**	**1.35**	**328**	eP	Pb	21 39 50.1	-0.2
WSL				eS	Sg	21 40 11.5	+2.8
WDLH	**Douliu**	**1.39**	**342**	eP	Pg	21 39 51.5	-0.2
WARBT	**Fenglin Townsh**	**1.39**	**15**	eP	Pn	21 39 50.4	+0.1
SSLB	**Suanglung**	**1.42**	**358**	eP	Pg	21 39 51.8	-0.4
SSLB				eS	Sg	21 40 12.5	+1.8
WTK	**Tuku**	**1.43**	**337**	eP	Pb	21 39 51.5	-0.2
WJS	**Zhushan**	**1.47**	**350**	eP	Pg	21 39 53.2	-0.1
ESL	**Shilin**	**1.50**	**15**	eP	Pn	21 39 51.3	-0.3
SHUL	**Shoufeng**	**1.51**	**20**	eP	Pn	21 39 51.2	-0.6
SMLT	**Sun Moon Lake**	**1.51**	**356**	eP	Pb	21 39 53.5	+0.4
SMLT				eS	Sg	21 40 15.6	+1.8
WDGT	**Dungji**	**1.53**	**306**	eP	Pn	21 39 52.1	0.0
TYC	**Yuchr**	**1.54**	**355**	eP	Pb	21 39 53.9	+0.5
TYC				eS	Sg	21 40 16.5	+2.0
OWD	**Renai**	**1.59**	**6**	eP	Pb	21 39 54.4	0.0
WUSB	**Renai**	**1.62**	**4**	eP	Pn	21 39 52.9	-0.6
WRL	**Guolierlin Hig**	**1.63**	**339**	eP	Pb	21 39 54.4	-0.7
ETM	**Tongmen**	**1.66**	**16**	eP	Pn	21 39 54.0	+0.1
VCHM	**Qimei**	**1.68**	**300**	eP	Pn	21 39 53.2	-0.9
VCHM				eS	Sn	21 40 16.2	+0.6
WCS	**Beigang Elemen**	**1.69**	**357**	eP	Pb	21 39 56.1	+0.1
WCS				eS	Sg	21 40 20.4	+1.1
LXIB	**Xiulin Townshi**	**1.69**	**13**	eP	Pn	21 39 55.2	+0.7
PHUB	**P'eng-hu**	**1.75**	**311**	eP	Pn	21 39 54.8	-0.3
PHUB				S	Sn	21 40 17.4	+0.2
WHF	**Hehuan Shan**	**1.79**	**8**	eP	Pb	21 39 57.9	0.0
PNG	**Penghu**	**1.79**	**312**	eP	Pn	21 39 55.9	+0.2
PNG				eS	Sn	21 40 18.8	+0.4
TCU	**Taichung**	**1.80**	**350**	eP	Pb	21 39 57.5	-0.4
NACB	**Ninganchiao**	**1.88**	**17**	eP	Pn	21 39 56.3	-0.7
ETLH	**Xiulin Townshi**	**1.88**	**13**	eP	Pn	21 39 57.5	+0.4
TDCB	**Techi**	**1.88**	**4**	eP	Pb	21 39 59.2	-0.2
TWT	**Tachien**	**1.89**	**5**	eP	Pb	21 39 59.3	-0.2
FUSS	**Fushou**	**1.89**	**7**	eP	Pb	21 39 59.2	-0.4
WHP	**Taichung City**	**1.90**	**358**	eP	Pb	21 39 59.0	-0.7
TWQ1	**Liyutan**	**1.98**	**354**	eP	Pb	21 40 00.6	-0.5
NNSB	**Datong**	**2.08**	**10**	eP	Pb	21 40 01.7	-1.1
NNS	**Nan Shan**	**2.09**	**9**	eP	Pb	21 40 03.0	0.0
EOS4	**EOS4**	**2.12**	**34**	P	Pn	21 39 58.0	-2.0
EOS4				eS	Sn	21 40 24.3	-1.8
LATG	**Datong**	**2.21**	**12**	eP	Pn	21 40 02.1	+0.5
NFF	**Wufeng Townshi**	**2.26**	**3**	eP	Pb	21 40 05.1	-0.7
EOS3	**EOS3**	**2.26**	**32**	eP	Pn	21 40 01.3	-0.8
EOS3				eS	Sn	21 40 27.0	-2.8
LIOB	**Emei**	**2.27**	**0**	eP	Pb	21 40 05.5	-0.4
YHNB	**Yeheng**	**2.32**	**8**	eP	Pb	21 40 05.2	-1.6
ENTT	**Nioudou**	**2.32**	**13**	eP	Pn	21 40 04.8	+1.7
NSK	**Sanguang**	**2.32**	**8**	eP	Pn	21 40 04.7	+1.6
EOS2	**EOS2**	**2.33**	**29**	eP	Pn	21 40 03.4	+0.4
NDS	**Dongshan**	**2.35**	**16**	eP	Pb	21 40 05.5	-1.8
TWC	**Suao**	**2.36**	**19**	eP	Pb	21 40 05.6	-1.9
KSHI	**Guanxi Townshi**	**2.41**	**4**	eP	Pb	21 40 08.2	-0.1
TWE	**Neicheng**	**2.42**	**14**	eP	Pn	21 40 06.0	+1.6
FUSB	**Fushanzhiwuyua**	**2.44**	**13**	eP	Pn	21 40 06.3	+1.5
NWLT	**Wulai**	**2.44**	**11**	eP	Pb	21 40 06.9	-2.0
NWLT				eS	Sn	21 40 36.0	+1.5
TIPB	**Shuangxi**	**2.70**	**16**	eP	Pn	21 40 09.2	+1.0
SXI1	**Grass Mountain**	**2.83**	**16**	eP	Pn	21 40 12.7	+2.6
VWUC	**VWUC**	**2.98**	**332**	eP	Pn	21 40 11.7	-0.3
PTMZ	**Houxiangcun**	**3.17**	**327**	eP	Pn	21 40 14.6	-0.1
KNMB	**Chin-men Tao**	**3.18**	**312**	eP	Pn	21 40 14.1	-0.8
ZPLA	**Ao Xicun**	**3.38**	**298**	eP	Pn	21 40 16.9	-0.6
AXDP	**Jialang**	**3.75**	**313**	eP	Pn	21 40 23.1	+0.4
MATB	**Ma-tsu**	**3.89**	**346**	eP	Pn	21 40 24.9	+0.3
MATB				eS	Sn	21 41 10.3	+0.1
MHZQ	**Yeshan**	**4.13**	**335**	eP	Pn	21 40 27.8	-0.1
LYJJ	**Jianjiangzhen**	**4.32**	**345**	eP	Pn	21 40 30.5	+0.1
XPSS	**Dashiqiu**	**4.60**	**351**	eP	Pn	21 40 33.8	-0.6

ISK ***28*** *22:06:10.8, 36°.16N×29°.79E, h47km, ML3.2/36*
NIC ***28*** *22:06:10.8, 36°.09N×29°.81E, h35km±64km, Ml3.2/6*
AFAD ***28*** *22:06:11.7, 36°.29N×29°.69E, h52km±2km, ML2.9*
GII ***28*** *22:06:14.6±0.0, 35°.965N±0°.001×30°.081E±0°.001, h0km, Mws3.5, confirmed*

ISC 28 22:06:10.3±1.1, 36°.16N±0°.03×29°.81E±0°.02, h54km±7km, n153, σ1s.52/228, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DEMR	**Demre-Antalya**	**0.11**	**45**	Pg	**Pn**	**22 06 18.8**	**+0.1**
DEMR				Sg	**Sn**	**22 06 24.3**	**-0.4**
DEMR				AML	AML		
AKUM	**Antalya-Kumluc**	**0.46**	**69**	P	**Pn**	**22 06 21.7**	**+0.3**
AKUM				S	**Sn**	**22 06 27.2**	**-2.2**
AKUM				IAML		22 06 31.0	
	comp=E,980nm,0.3s						
AKUM				IAML		22 06 32.0	
	comp=N,894nm,0.5s						
IZZE	**Mula-Seydike**	**0.55**	**301**	P	**Pn**	**22 06 22.8**	**+0.3**
IZZE				S	**Sn**	**22 06 30.5**	**-0.7**
ELL	**Elmali**	**0.59**	**8**	Pg	**Pn**	**22 06 23.4**	**+0.3**
ELL				Sg	**Sn**	**22 06 32.9**	**+0.5**
ELL				AML	AML		
ELL	**Elmali**	**0.59**	**8**	P	**Pn**	**22 06 23.3**	**+0.1**
ELL				S	**Sn**	**22 06 33.2**	**+0.8**
KNIK	**Mula-Seydike**	**0.71**	**345**	P	**Pn**	**22 06 24.8**	**+0.2**
KNIK				S	**Sn**	**22 06 34.9**	**0.0**
KNIK				IAML		22 06 36.0	
	comp=N,617nm,0.5s						
KNIK				IAML		22 06 36.0	
	comp=E,408nm,0.4s						
KEMT	**Kemer-ANTALYA**	**0.75**	**53**	Pg	**Pn**	**22 06 25.7**	**+0.8**
KEMT				AML	AML		
FETY	**Fethiye**	**0.76**	**309**	Pg	**Pn**	**22 06 25.6**	**+0.6**
FETY				Sg	**Sn**	**22 06 36.3**	**+0.6**
FETY				AML	AML		
FETY	**Fethiye**	**0.76**	**309**	P	**Pn**	**22 06 25.9**	**+0.9**
FETY				S	**Sn**	**22 06 36.4**	**+0.7**
CAME	**Cameli-Denizli**	**0.88**	**333**	Pg	**Pn**	**22 06 27.3**	**+0.5**
CAME				Sg	**Sn**	**22 06 40.2**	**+1.3**
CAME				AML	AML		
KORT	**Korkueli**	**0.95**	**27**	Pg	**Pn**	**22 06 28.4**	**+0.8**
KORT				Sg	**Sn**	**22 06 41.3**	**+1.0**
KORT				AML	AML		
KORT	**Korkueli**	**0.95**	**27**	P	**Pn**	**22 06 28.2**	**+0.6**
KORT				S	**Sn**	**22 06 38.9**	**-1.4**
KORT				IAML		22 06 43.0	
	comp=N,294nm,0.6s						
KORT				IAML		22 06 46.0	
	comp=E,421nm,0.5s						
SABU	**Mula-Dalaman**	**0.95**	**315**	P	**Pn**	**22 06 27.9**	**+0.4**
SABU				S	**Sn**	**22 06 38.7**	**-1.5**
SABU				IAML		22 06 41.0	
	comp=E,342nm,0.4s						
SABU				IAML		22 06 43.0	
	comp=N,485nm,0.2s						
ANTB	**Antalya**	**1.00**	**42**	Pg	**Pn**	**22 06 29.5**	**+1.3**
ANTB				AML	AML		
CAEL	**Denizli, Camel**	**1.04**	**338**	P	**Pn**	**22 06 29.5**	**+0.6**
CAEL				S	**Sn**	**22 06 42.3**	**-0.2**
CAEL				IAML		22 06 46.0	
	comp=N,347nm,0.6s						
CAEL				IAML		22 06 51.0	
	comp=E,561nm,0.6s						
GOLH	**Golhisar**	**1.09**	**350**	P	**Pn**	**22 06 30.7**	**+1.1**
GOLH				S	**Sn**	**22 06 42.6**	**-1.1**
DALY	**Dalyan (Mula)**	**1.14**	**306**	Pn	**Pn**	**22 06 30.9**	**+0.9**
DALY				Sn	**Sn**	**22 06 45.4**	**+0.7**
DALY				AML	AML		
DALY	**Dalyan (Mula)**	**1.14**	**306**	P	**Pn**	**22 06 30.8**	**+0.7**
DALY				S	**Sn**	**22 06 44.3**	**-0.4**
DALY				IAML		22 06 47.0	
	comp=E,286nm,0.6s						
DALY				IAML		22 06 48.0	
	comp=N,313nm,0.5s						
BUCA	**Burdur, Bucak-**	**1.31**	**27**	P	**Pn**	**22 06 34.4**	**+1.9**
BUCA				S	**Sn**	**22 06 49.5**	**+0.6**
ARG	**Arkhangelos**	**1.36**	**273**	Pn	**Pn**	**22 06 34.0**	**+0.9**
ARG				Sn	**Sn**	**22 06 50.9**	**+0.8**
ARG				AML	AML		
ARG	**Arkhangelos**	**1.36**	**273**	P	**Pn**	**22 06 33.9**	**+0.9**
ARG				S	**Sn**	**22 06 50.4**	**+0.3**
APMY	**Acipayam-Deniz**	**1.37**	**343**	Pn	**Pn**	**22 06 34.3**	**+1.0**
APMY				Sn	**Sn**	**22 06 51.2**	**+0.8**
APMY				AML	AML		
TURN	**Turunc**	**1.40**	**296**	Pn	**Pn**	**22 06 34.7**	**+1.1**
TURN				Sn	**Sn**	**22 06 51.9**	**+0.9**
TURN				AML	AML		
TURN	**Turunc**	**1.40**	**296**	P	**Pn**	**22 06 34.6**	**+1.1**
TURN				S	**Sn**	**22 06 50.1**	**-0.9**
TURN				IAML		22 06 53.0	
	comp=N,254nm,0.2s						
TURN				IAML		22 06 53.0	
	comp=E,166nm,0.5s						
MNVG	**Manavgat-Antal**	**1.44**	**63**	Pn	**Pn**	**22 06 35.6**	**+1.5**
MNVG				AML	AML		
BCK	**Bucak**	**1.44**	**25**	Pn	**Pn**	**22 06 35.5**	**+1.3**
BCK				AML	AML		
TAVA	**DENIZLI_Tavas**	**1.49**	**331**	P	**Pn**	**22 06 35.6**	**+0.7**
TAVA				S	**Sn**	**22 06 50.8**	**-2.5**
BRDR	**BURDUR-Merkez**	**1.55**	**7**	P	**Pn**	**22 06 36.8**	**+1.1**
BRDR				S	**Sn**	**22 06 52.8**	**-1.9**
INCE	**Denizli-Bozkur**	**1.56**	**353**	P	**Pn**	**22 06 36.8**	**+1.0**
INCE				S	**Sn**	**22 06 52.0**	**-3.0**
YER	**Yerkesik**	**1.57**	**309**	Pn	**Pn**	**22 06 36.9**	**+1.0**
YER				AML	AML		
DNIZ	**Denizli-Tavas-**	**1.59**	**337**	P	**Pn**	**22 06 36.8**	**+0.6**
DNIZ				S	**Sn**	**22 06 53.6**	**-2.1**
DNIZ				IAML		22 07 00.0	
	comp=N,338nm,0.3s						
MULA	**Mugla, Merkez-**	**1.62**	**313**	P	**Pn**	**22 06 37.2**	**+0.5**
MULA				S	**Sn**	**22 06 53.6**	**-2.9**
MULA				IAML		22 07 03.0	
	comp=E,193nm,0.5s						
KEPZ	**Antalya-Kepez**	**1.62**	**62**	P	**Pn**	**22 06 38.7**	**+2.1**
KEPZ				S	**Sn**	**22 06 57.6**	**+1.1**
KEPZ				IAML		22 07 03.0	
	comp=E,102nm,0.6s						
BASM	**Basmaki-Afyon**	**1.77**	**6**	Pn	**Pn**	**22 06 39.4**	**+0.8**
BASM				AML	AML		
DATC	**Datca-Mugla**	**1.83**	**290**	Pn	**Pn**	**22 06 40.6**	**+1.2**
DATC				AML	AML		
ALAN	**Alanya-ANTALYA**	**1.84**	**77**	Pn	**Pn**	**22 06 40.8**	**+1.3**
ALAN				AML	AML		
DAT	**Datca**	**1.89**	**288**	Pn	**Pn**	**22 06 41.4**	**+1.1**
DAT				AML	AML		
DAT	**Datca**	**1.89**	**288**	P	**Pn**	**22 06 40.8**	**+0.5**
DAT				S	**Sn**	**22 06 59.9**	**-3.1**
DAT				IAML		22 07 06.0	
	comp=N,112nm,0.2s						
DAT				IAML		22 07 06.0	
	comp=E,100nm,0.2s						
YAZI	**Mula-Dat§a-**	**1.97**	**286**	P	**Pn**	**22 06 42.0**	**+0.7**
YAZI				S	**Sn**	**22 07 01.8**	**-3.1**
BAGO	**Egridir - ISPA**	**1.99**	**23**	P	**Pn**	**22 06 42.3**	**+0.7**
BAGO				S	**Sn**	**22 07 05.1**	**-0.3**
MLSB	**Milas**	**1.99**	**305**	Pn	**Pn**	**22 06 42.9**	**+1.3**
MLSB				AML	AML		
ESEN	**Aydn-Nazilli**	**2.01**	**325**	P	**Pn**	**22 06 42.3**	**+0.5**
ESEN				S	**Sn**	**22 07 03.3**	**-2.6**
SEDI	**Konya, Seydise**	**2.02**	**50**	P	**Pn**	**22 06 44.8**	**+2.6**
SEDI				S	**Sn**	**22 07 10.4**	**+4.0**
SEDI				IAML		22 07 13.0	
	comp=N,221nm,0.4s						
SEDI				IAML		22 07 14.0	
	comp=E,260nm,0.5s						
GAZI	**Gazipasa**	**2.03**	**87**	Pn	**Pn**	**22 06 42.9**	**+0.8**
GAZI				AML	AML		
GAZI	**Gazipasa**	**2.03**	**87**	P	**Pn**	**22 06 42.6**	**+0.5**
GAZI				S	**Sn**	**22 07 04.3**	**-2.1**
GAZI				IAML		22 07 07.0	
	comp=N,103nm,0.5s						
GAZI				IAML		22 07 07.0	
	comp=E,147nm,0.2s						
GAZI				IAML		22 07 13.0	
	comp=E,70nm,0.4s						
GAZI	**Gazipasa**	**2.03**	**87**	P	**Pn**	**22 06 42.0**	**-0.1**
SEYD	**Seydisehir-KON**	**2.05**	**52**	Pn	**Pn**	**22 06 44.4**	**+1.9**
SEYD				AML	AML		
SULTU	**Buldan**	**2.07**	**337**	P	**Pn**	**22 06 42.7**	**0.0**
BODA	**Bodrum-Mula**	**2.10**	**295**	Pn	**Pn**	**22 06 44.2**	**+1.1**
BDRM	**Kayabasi**	**2.11**	**296**	P	**Pn**	**22 06 44.5**	**+1.3**
BDRM				S	**Sn**	**22 07 06.7**	**-1.6**
BDRM				IAML		22 07 10.0	
	comp=E,138nm,0.2s						
BDRM				IAML		22 07 12.0	
	comp=N,221nm,0.3s						
KZIL	**AFYON_Kizioren**	**2.11**	**7**	P	**Pn**	**22 06 43.7**	**+0.3**
NAZL	**Nazilli-Aydin**	**2.17**	**326**	Pn	**Pn**	**22 06 45.4**	**+1.3**
NAZL				AML	AML		
PASA	**Karahalli, USA**	**2.20**	**353**	P	**Pn**	**22 06 44.2**	**-0.4**
PASA				S	**Sn**	**22 07 04.9**	**-5.7**
BODT	**Bodrum**	**2.20**	**295**	P	Pn	22 06 49.3	+4.8
KARP	**Karpathos**	**2.24**	**255**	Pn	**Pn**	**22 06 46.6**	**+1.6**
KARP				AML	AML		
KARP	**Karpathos**	**2.24**	**255**	P	**Pn**	**22 06 46.8**	**+1.9**
KARP				S	**Sn**	**22 07 11.5**	**+0.1**
KARP	**Karpathos**	**2.24**	**255**	P	**Pn**	**22 06 46.9**	**+1.9**
KARP				AML	AML		
KARP				AML	AML		
YKAV	**Yalikavak-Bodr**	**2.25**	**296**	Pn	**Pn**	**22 06 46.3**	**+1.2**
YKAV				AML	AML		
HDMB	**Hadim**	**2.30**	**69**	Pn	**Pn**	**22 06 47.9**	**+1.9**
HDMB				AML	AML		
HARTU	**Esme**	**2.32**	**340**	P	**Pn**	**22 06 45.8**	**-0.4**
KIRA	**zmir-Kiraz**	**2.33**	**331**	P	**Pn**	**22 06 46.2**	**0.0**
AKMS	**Akamas**	**2.35**	**118**	P	**Pn**	**22 06 47.6**	**+1.0**
AKMS				S	**Sn**	**22 07 13.3**	**-1.0**
AKMS				AML	AML	22 07 15.9	
	0.8nm,0.4s						
AKMS				AML	AML	22 07 16.3	
	0.6nm,0.3s						
AYDB	**Zeytinkoy-Aydi**	**2.35**	**320**	Pn	**Pn**	**22 06 47.7**	**+1.0**
AYDB				AML	AML		
DIDI	**Didim-Aydin**	**2.40**	**301**	Pn	**Pn**	**22 06 48.6**	**+1.5**
DIDI				AML	AML		
YVAC	**Isparta, Yalva**	**2.40**	**28**	P	**Pn**	**22 06 48.5**	**+1.2**
YVAC				S	**Sn**	**22 07 17.0**	**+1.5**
YVAC				IAML		22 07 22.0	
	comp=E,65nm,0.4s						
POL7C	**Prodromi**	**2.40**	**117**	P	**Pn**	**22 06 48.9**	**+1.7**
DDIM	**Aydin, Didim**	**2.44**	**303**	P	**Pn**	**22 06 48.1**	**+0.4**
DDIM				S	**Sn**	**22 07 12.6**	**-3.6**
DDIM				IAML		22 07 19.0	
	comp=N,94nm,0.2s						
DDIM				IAML		22 07 20.0	
	comp=E,116nm,0.5s						
SDAG	**Sultandagi-AFY**	**2.44**	**21**	Pn	**Pn**	**22 06 49.7**	**+1.8**
SDAG				AML	AML		
SHUT	**Suhut-Afyon**	**2.46**	**14**	Pn	**Pn**	**22 06 49.1**	**+0.9**
SHUT				AML	AML		
IZMR	**zmir-demi**	**2.47**	**324**	P	**Pn**	**22 06 47.3**	**-0.8**
ALFC	**Alefka**	**2.48**	**113**	P	**Pn**	**22 06 49.7**	**+1.3**
ALFC				S	**Sn**	**22 07 16.9**	**-0.6**
ALFC				AML	AML	22 07 18.8	
	0.5nm,0.1s						
ALFC				AML	AML	22 07 20.2	
	0.5nm,0.2s						
BNAZ	**Uak-Banaz**	**2.52**	**1**	P	**Pn**	**22 06 47.2**	**-1.7**
KULA	**Kula-Manisa**	**2.52**	**339**	Pn	**Pn**	**22 06 50.6**	**+1.6**
ODEM	**Odemis-Izmir**	**2.53**	**327**	Pn	**Pn**	**22 06 50.4**	**+1.4**
ODEM				AML	AML		
MANT	**Manisa**	**2.53**	**337**	P	**Pn**	**22 06 48.7**	**-0.5**
BOZY	**Bozyazi-Mersin**	**2.56**	**90**	Pn	**Pn**	**22 06 51.5**	**+2.1**
BOZY				AML	AML		
GCAM	**G?zelcaml?**	**2.57**	**307**	Pn	**Pn**	**22 06 50.7**	**+1.1**
GCAM				AML	AML		
GCAM	**G?zelcaml?**	**2.57**	**307**	P	**Pn**	**22 06 49.4**	**-0.2**
GCAM				S	**Sn**	**22 07 15.8**	**-3.8**
GCAM				IAML		22 07 20.0	
	comp=E,81nm,0.2s						
GCAM				IAML		22 07 21.0	
	comp=N,135nm,0.2s						
USAK	**Uak-Merkez**	**2.63**	**346**	P	**Pn**	**22 06 49.9**	**-0.4**
NATA	**Nata**	**2.64**	**121**	P	**Pn**	**22 06 51.8**	**+1.3**
NATA				S	**Sn**	**22 07 20.2**	**-1.1**
NATA				AML	AML	22 07 24.1	
	0.9nm,0.2s						
NATA				AML	AML	22 07 24.3	
	0.9nm,0.2s						
TEKE	**Tekeli-Mersin**	**2.67**	**89**	Pn	**Pn**	**22 06 52.9**	**+2.0**
TEKE				AML	AML		
KONT	**Konya--Tatoy**	**2.71**	**48**	Pn	**Pn**	**22 06 54.2**	**+2.7**
KONT				AML	AML		
BERE	**Bereket-Mersin**	**2.77**	**85**	Pn	**Pn**	**22 06 54.2**	**+1.9**
BERE				AML	AML		
TROD	**Troodos**	**2.77**	**115**	P	**Pn**	**22 06 53.2**	**+0.7**
TROD				S	**Sn**	**22 07 24.8**	**0.0**
TROD				AML	AML	22 07 31.4	
	0.2nm,0.6s						
TROD				AML	AML	22 07 34.8	
	0.1nm,0.3s						
DUVT	**Torbali**	**2.79**	**318**	P	**Pn**	**22 06 53.1**	**+0.5**
KTTT	**Salihli**	**2.87**	**332**	P	**Pn**	**22 06 53.1**	**-0.6**
KTTT				S	Sn	22 07 17.7	-9.3
XYLS	**Xyliatos**	**2.88**	**112**	P	**Pn**	**22 06 54.3**	**+0.5**
XYLS				S	**Sn**	**22 07 25.9**	**-1.3**
XYLS				AML	AML	22 07 32.2	
	0.3nm,0.3s						
XYLS				AML	AML	22 07 32.4	
	0.2nm,0.2s						
OSC1	**CSNet OBS 1**	**2.91**	**155**	P	**Pn**	**22 06 55.3**	**+1.1**
OSC1				S	**Sn**	**22 07 26.8**	**-1.2**
OSC1				AML	AML	22 07 35.1	
	0.1nm,0.1s						
DGB	**zmir**	**3.01**	**310**	P	**Pn**	**22 06 55.4**	**-0.1**
DGB				S	**Sn**	**22 07 24.8**	**-5.5**
DGB				IAML		22 07 29.0	
	comp=N,38nm,0.4s						
DGB				IAML		22 07 29.0	
	comp=E,61nm,0.2s						
ZKR	**Zakros**	**3.11**	**251**	P	**Pn**	**22 06 59.1**	**+2.3**
ZKR	**Zakros**	**3.11**	**251**	P	**Pn**	**22 06 59.0**	**+2.1**
ZKR				S	**Sn**	**22 07 32.8**	**+0.1**
ASGA	**Asgata**	**3.12**	**115**	P	**Pn**	**22 06 58.2**	**+1.1**
ASGA				S	**Sn**	**22 07 29.5**	**-3.7**
THR8	**Santorini-Mono**	**3.51**	**275**	P	**Pn**	**22 07 03.4**	**+1.0**
THERA	**Ancient Thera,**	**3.51**	**275**	P	**Pn**	**22 07 03.3**	**+0.9**
NPS	**Neapolis**	**3.53**	**257**	P	**Pn**	**22 07 04.2**	**+1.5**
THR2	**Thira island,**	**3.54**	**276**	P	**Pn**	**22 07 04.1**	**+1.2**
APE	**Apeiranthos**	**3.56**	**286**	P	**Pn**	**22 07 03.8**	**+0.7**
CMBO	**Columbo, Santo**	**3.57**	**276**	P	**Pn**	**22 07 04.4**	**+1.2**
THR3	**Thira Island,**	**3.57**	**275**	P	**Pn**	**22 07 04.4**	**+1.2**
THR6	**Thira Island,**	**3.57**	**274**	P	**Pn**	**22 07 04.4**	**+1.2**
SNT5	**Nea Kammeni, S**	**3.58**	**275**	P	**Pn**	**22 07 04.4**	**+1.1**
THR5	**Thira Island,**	**3.61**	**275**	P	**Pn**	**22 07 05.0**	**+1.2**
SAP3	**Santorini-Thir**	**3.62**	**276**	P	**Pn**	**22 07 05.3**	**+1.5**
OSC2	**CSNet OBS 4**	**3.68**	**146**	P	**Pn**	**22 07 07.4**	**+2.7**
PRK	**Paraskevi**	**4.17**	**319**	P	**Pn**	**22 07 12.9**	**+1.6**

BHL	Bhannes	5.30	113	eP	Pn	22 07 26.0	-1.0
HWQ	Hawqa	5.36	109	eP	Pn	22 07 28.6	+0.7
BEIL	Beino	5.45	105	eP	Pn	22 07 29.2	+0.1
QRWL	Qaraoun	5.49	117	eP	Pn	22 07 29.7	+0.2
MSAM	Misgav Am	5.55	120	P	Pn	22 07 31.2	+0.7
MSAM				S	Sn	22 08 31.0	-1.9
MMA0B	Mount Meron ar	5.58	123	P	Pn	22 07 32.0	+1.2
MMA0B				S	Sn	22 08 31.9	-1.8
GOSH	HaGoshrim	5.62	120	P	Pn	22 07 31.8	+0.6
GOSH				S	Sn	22 08 32.7	-1.7
YFTH	Yftach	5.62	121	P	Pn	22 07 31.9	+0.5
YFTH				S	Sn	22 08 32.5	-2.0
RCY	Rachaya	5.62	116	eP	Pn	22 07 32.0	+0.5
SHBL	Chebaa	5.63	118	eP	Pn	22 07 32.1	+0.4
GEM	Giv'at Ha'Em	5.65	120	P	Pn	22 07 32.2	+0.4
	36μm47μm0.2nm,0.2s						
GEM				AML	AML		
GEM				AML	AML		
GEM	Giv'at Ha'Em	5.65	120	P	Pn	22 07 32.1	+0.4
GEM				S	Sn	22 08 32.9	-2.3
ZEFT	Zefat	5.67	123	P	Pn	22 07 33.1	+1.0
ZEFT				S	Sn	22 08 34.2	-1.6
RSPN	Rosh Pina	5.70	122	P	Pn	22 07 33.3	+0.8
RSPN				S	Sn	22 08 34.4	-2.2
AMID	Amiad	5.72	123	P	Pn	22 07 33.7	+0.9
AMID				S	Sn	22 08 35.3	-1.8
MGDL	Migdal	5.75	123	P	Pn	22 07 34.2	+1.1
MGDL				S	Sn	22 08 35.9	-1.8
KNHM	Kefar Nahum	5.78	123	P	Pn	22 07 34.4	+0.9
KNHM				S	Sn	22 08 36.2	-2.2
HDNS	Had-Ness	5.79	122	P	Pn	22 07 34.6	+0.9
HDNS				S	Sn	22 08 36.8	-1.9
IZRL	Izrael	5.80	127	P	Pn	22 07 34.6	+0.8
IZRL				S	Sn	22 08 37.0	-2.0
TVER	Teveria	5.81	124	P	Pn	22 07 35.0	+1.1
TVER				S	Sn	22 08 37.0	-2.1
GNNR	Gan-Ner	5.83	127	P	Pn	22 07 35.0	+0.8
GNNR				S	Sn	22 08 37.9	-1.9
RMOT	Ramot	5.85	123	P	Pn	22 07 35.7	+1.2
RMOT				S	Sn	22 08 38.1	-2.1
KSHT	Keshet	5.88	121	P	Pn	22 07 35.7	+0.7
KSHT				S	Sn	22 08 39.4	-1.6
MNHA	Menahamia	5.89	125	P	Pn	22 07 35.9	+0.9
MNHA				S	Sn	22 08 38.7	-2.4
MMLI	Mount Malkishu	5.95	127	P	Pn	22 07 36.7	+0.9
MMLI				S	Sn	22 08 40.4	-2.2
SALP	Salfit	6.05	131	P	Pn	22 07 38.3	+1.1
	0.1nm0.2nm14nm,1.4s						
SALP				AML	AML		
SALP				AML	AML		
MEHL	Mehola	6.05	127	P	Pn	22 07 38.0	+0.8
MEHL				S	Sn	22 08 43.2	-1.9
HMRA	Hamra	6.11	129	P	Pn	22 07 38.7	+0.6
HMRA				S	Sn	22 08 44.3	-2.2
QRNJ	Al-Qirein	6.11	127	P	Pn	22 07 39.7	+1.7
	20nm14nm30μm1μm,0.6s						
QRNJ				AML	AML		
QRNJ				AML	AML		
ROII	Roi	6.11	128	P	Pn	22 07 39.1	+1.1
ROII				S	Sn	22 08 44.9	-1.6
MEFR	Maale Efrayim	6.18	130	P	Pn	22 07 40.0	+1.0
MEFR				S	Sn	22 08 46.2	-2.0
AMAZ	Amatzia	6.27	136	P	Pn	22 07 41.0	+0.7
AMAZ				S	Sn	22 08 48.6	-2.0
YITV	Yitav	6.27	130	P	Pn	22 07 41.2	+1.0
YITV				S	Sn	22 08 48.8	-1.7
UJAP	Al Uja	6.29	130	P	Pn	22 07 42.0	+1.5
	0.2nm0.2nm9.2nm,0.6s						
UJAP				AML	AML		
UJAP				AML	AML		
NAAM	Naama	6.33	130	P	Pn	22 07 41.7	+0.7
NAAM				S	Sn	22 08 49.9	-2.0
VJRH	Vered Jericho	6.36	131	P	Pn	22 07 42.3	+0.8
VJRH				S	Sn	22 08 50.7	-2.0
KZIT	Kziot	6.49	143	P	Pn	22 07 44.4	+1.1
	0.2nm0.1nm1μm12nm,0.5s						
KZIT				AML	AML		
KZIT				AML	AML		
HSUJ	Al Zarqa	6.66	126	P	Pn	22 07 47.7	+2.1
	0.0nm0.1nm1μm11nm,0.9s						
HSUJ				AML	AML		
HSUJ				AML	AML		
MSBI	Mazada	6.69	135	P	Pn	22 07 46.9	+1.0
	0.0nm0.0nm1.7nm,0.8s						
MSBI				AML	AML		
MSBI				AML	AML		
LISJ	El Lisan	6.81	134	P	Pn	22 07 49.5	+1.9
	0.1nm0.1nm648nm6.5nm,0.6s						
LISJ				AML	AML		
LISJ				AML	AML		
GHAJ	Ghor Haditha	6.81	134	P	Pn	22 07 50.2	+2.5
GHAJ				AML	AML		
GHAJ				AML	AML		
GHAJ	Ghor Haditha	6.81	134	P	Pn	22 07 48.5	+0.9
GHAJ				S	Sn	22 09 01.9	-2.0
ASF	Jabal al Asfar	7.09	122	P	Pn	22 07 52.1	+0.5
	0.3nm14nm,0.8s						
ASF				AML	AML		
PRNI	Paran	7.24	142	P	Pn	22 07 54.0	+0.4
	0.1nm0.2nm20nm,1.0s						
PRNI				AML	AML		
PRNI				AML	AML		
KRMI	Paran Flat	7.30	144	P	Pn	22 07 54.8	+0.4
HRFI	Mount Harif	7.52	143	P	Pn	22 07 58.0	+0.6
	0.0nm0.1nm8.7nm,1.1s						
HRFI				AML	AML		
HRFI				AML	AML		
AQBJ	Aqaba	7.78	144	P	Pn	22 08 02.1	+1.2
	0.1nm0.2nm20nm,0.7s						
AQBJ				AML	AML		
AQBJ				AML	AML		
EIL	Elat	7.78	145	P	Pn	22 08 01.4	+0.5
	0.0nm0.0nm6.6nm,0.9s						
EIL				AML	AML		
EIL				AML	AML		

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*IDC **28** 22:10:49.7±12.0, 3°.07N×97°.00E, h0^{km}, mb3.4/2, mbtmp3.5/3, ML4.4/1, MS3.2/1, Error ellipse: s-maj=366.7km s-min=32.8km az=75.0*
*DJA **28** 22:10:55.1±0.3, 4°N±3°×9°8E±°, h10^{km}, M3.5/19, MLv3.5/19*
ISC 28 22:10:54.7±0.9**, 3°.79N**±0°.05×**97°.68E**±0°.04**, h10^{km}, n15, σ1^{s}.54**/14**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KCSI	Kotacane, Aceh	0.28	161	P	Pg	22 10 59.1	-1.2
KCSI				AML	AML		
TPTI		0.72	224	P	Pg	22 11 09.8	+1.1
TSI	Tuntungan	0.93	108	P	Pg	22 11 12.5	-0.1
TSI				AML	AML		
MLSI	Meulaboh, Aceh	1.36	291	P	Pn	22 11 19.4	-0.4
MLSI				AML	AML		
PSI	Prapat	1.58	128	P	Pn	22 11 24.0	+1.1
PSI				AML	AML		
LHMI	Lhok Sumawe	1.61	333	P	Pb	22 11 24.3	-0.3
SNSI	Sinabang, Aceh	1.92	225	P	Pb	22 11 30.0	+0.1
GSI	Gunungsitoli	2.47	182	P	Pb	22 11 39.2	0.0
GSI				AML	AML		
KULM	Kulim	3.32	63	P	Pn	22 11 46.5	-0.2
IPM	Ipoh	3.41	78	P	Pg	22 12 01.2	+1.2
MNSI	Mandailing Nat	3.52	147	P	Pn	22 11 51.6	+2.0
CMAR	Chiang Mai Arr	14.63	5	Pn	P	22 14 30.4	+2.0
	0.5nm,0.3s,baz=196,slow=12,SNR=4.2						
	1.0nm,0.3s						
CMAR				AML	AML		
SIJI	Sorong	33.88	97	LR	LR	22 32 47.9	
	comp=Z,42nm,20.5s,baz=111,slow=38						
WRA	Warramunga Arr	43.04	125	P	P	22 18 52.6	-2.4
	0.5nm,0.8s,baz=301,slow=9.0,SNR=6.4						
	0.5nm,0.8s						
ASAR	Alice Springs	44.61	130	P	P	22 19 05.1	-2.6
	0.1nm,0.3s,baz=299,slow=7.9,SNR=1.4						
	0.1nm,0.3s						

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*NIED **28** 22:17:30.6, 22°.36N×121°.40E, h0^{km}, MW3.7, Moment Tensor Solution. s2 Moment tensor: Scale 10^{14}Nm; M_{rr}-0.80; $M_{\theta\theta}$1.83; $M_{\phi\phi}$-1.03; $M_{r\theta}$2.84; $M_{\theta\phi}$-2.15; $M_{\phi r}$2.12; Fault plane solution: $M_0$4.33000×10^{14} NP1: ϕ_s153.00000°, δ39.00000°, λ-12.00000°. NP2: ϕ_s253.00000°, δ82.00000°, λ-129.00000°.*
*JMA **28** 22:17:30.6±0.3, 22°N±1°×12°1E±°, h0^{km}, MV3.5/16, TAIWAN REGION*
*TAP **28** 22:17:33.4, 22°.36N×121°.00E, h13^{km}, ML4.0, B*
ISC 28 22:17:32.4±0.9**, 22°.36N**±0°.02×**121°.12E**±0°.02**, h9^{km}**±7^{km}**, n153, σ0^{s}.90**/194**, 6C-9D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TAW	Tawu	0.20	268	⇓iP	Pg	22 17 36.9	+0.2
TAW				iS	Sg	22 17 39.2	-0.4
TAWH	Dawu Township	0.21	264	⇓iP	Pg	22 17 37.1	+0.3
TAWH				S	Sg	22 17 39.5	-0.3
EAST	Anshuo	0.25	275	⇓iP	Pg	22 17 37.6	+0.1
EAST				iS	Sg	22 17 40.3	-0.6
ECL	Taimali	0.28	327	⇓iP	Pg	22 17 38.5	+0.4
ECL				iS	Sg	22 17 43.2	+1.4
SLIU	Shizi	0.33	244	⇑iP	Pg	22 17 39.3	+0.3
SLIU				iS	Sg	22 17 43.1	-0.2
TTN	Taitung	0.39	4	P	Pn	22 17 42.9	-1.3
SMST	Manzhou Townsh	0.43	217	iP	Pb	22 17 41.9	-0.2
SMST				S	Sg	22 17 47.5	+1.0
LDUT	Ludao	0.45	47	⇑iP	Pn	22 17 44.1	-0.9
LDUT				S	Sb	22 17 52.2	+2.9
TWGBT	Beinan	0.45	356	P	Pb	22 17 42.2	-0.4
TWGBT	Beinan	0.45	356	S	Sb	22 17 49.6	+0.2
TWGBT	Beinan	0.45	356	⇑iP	Pb	22 17 42.3	-0.3
TWGBT				S	Sb	22 17 49.6	+0.2
TWG	Pinlang	0.46	355	⇑iP	Pb	22 17 42.3	-0.4
TWG				iS	Sb	22 17 49.5	0.0
SCZT	Fangliau	0.46	271	⇓iP	Pg	22 17 41.3	-0.1
SCZT				iS	Sg	22 17 46.6	-0.9
HEN	Hengchun	0.50	225	P	Pb	22 17 43.5	+0.1
HEN				eS	Sb	22 17 50.8	+0.1
TSEB	Hengchuen, Pin	0.50	204	P	Pb	22 17 44.2	+0.8
TSEB				eS	Sb	22 17 52.5	+1.7
TWKBT	Hengchun	0.51	214	⇑iP	Pb	22 17 43.5	+0.1
TWKBT				eS	Sb	22 17 51.0	+0.1
TWK1	Hengchun	0.51	215	iP	Pb	22 17 43.6	+0.1
TWK1				eS	Sb	22 17 51.2	+0.2
MASBT	Mashibuluo	0.51	299	⇓iP	Pg	22 17 42.2	-0.1
MASBT				iS	Sg	22 17 48.6	-0.6
LAY	Lan-yu	0.52	129	P	Pn	22 17 44.8	-1.2
SSPT	Xinbi	0.52	283	⇓iP	Pg	22 17 43.1	+0.5
LONT	Longtian	0.54	1	⇑iP	Pb	22 17 43.9	-0.2
TSMG	Majia	0.55	308	⇓iP	Pg	22 17 43.0	-0.2
TSMG				iS	Sg	22 17 49.7	-0.8
LYUB	Lan-yu	0.56	130	eP	Pb	22 17 44.0	-0.4
LYUB				eS	Sb	22 17 52.1	-0.5
SSD	Sandimen	0.59	311	⇓iP	Pg	22 17 43.6	-0.3
SSD				S	Sg	22 17 50.7	-0.9
EDH	Donghe	0.63	16	P	Pb	22 17 45.9	+0.3
SGLT	Jiouru	0.68	302	P	Pb	22 17 46.6	+0.2
SGLT				S	Sg	22 17 55.8	+1.3
WLCH	Liuqiu	0.68	269	eP	Pn	22 17 48.3	+0.1
TWP	Hsiaoliuchiu	0.70	269	eP	Pn	22 17 48.6	+0.2
ECS	Chishang	0.73	7	P	Pb	22 17 47.1	-0.3
ECS				iS	Sb	22 17 58.6	+1.0
SLGT	Liugui	0.76	325	iP	Pg	22 17 47.2	0.0
CHKT	Chengkung	0.77	17	eP	Pb	22 17 47.9	0.0
CHKT				eS	Sb	22 17 59.4	+0.9
SCST	Cishan	0.78	312	iP	Pb	22 17 48.3	+0.3
SCST				S	Sg	22 17 58.7	+1.1
EHD	Haiduan	0.79	6	P	Pg	22 17 47.2	-0.4
EHD				eS	Sb	22 17 59.8	+0.8
TWM1	Shoushan	0.79	306	iP	Pb	22 17 48.9	+0.6
ELDTW	Lidau	0.83	354	eP	Pg	22 17 47.9	-0.5
ELDTW				eS	Sb	22 18 00.1	-0.2
WSSB	Gushan	0.84	290	P	Pn	22 17 50.9	+0.5
FULB	Fuli	0.85	11	P	Pb	22 17 49.1	-0.3
FULB				eS	Sb	22 18 00.8	0.0
STYH	Taoyuan	0.86	339	iP	Pb	22 17 49.8	+0.2
CHKH	Chenggong	0.86	17	eP	Pb	22 17 49.2	-0.4
CHKH				eS	Sb	22 18 01.9	+0.6
SGST	Jiashian	0.87	326	eP	Pg	22 17 48.9	-0.3
SGST				eS	Sg	22 17 59.9	-0.6
CHN1	Nanshi	0.98	327	P	Pn	22 17 52.8	+0.4
CHN3	Shinhua	0.99	316	P	Pn	22 17 54.3	+1.8
WTP	Ta-pu	0.99	332	P	Pn	22 17 52.8	+0.3
EYUL	Yuli	1.00	11	eP	Pb	22 17 51.6	-0.2
ECBN	Changbin	1.00	18	eP	Pg	22 17 51.1	-0.5
TWF1	Yuli	1.00	10	eP	Pb	22 17 51.9	0.0
TPUB	Ta-pu	1.03	334	P	Pn	22 17 53.4	+0.3
TPUB	Ta-pu	1.03	334	S	Sn	22 18 08.0	+0.3
TPUB	Ta-pu	1.03	334	P	Pn	22 17 53.4	+0.3
YULB	Yu-li	1.04	9	P	Pn	22 17 53.1	-0.1
YULB	Yu-li	1.04	9	eP	Pg	22 17 50.5	-1.9
TWK	Hsinying	1.07	327	P	Pn	22 17 54.5	+0.9
TWK				S	Sn	22 18 10.0	+1.4
CHN4	Tsaushan	1.09	334	eP	Pn	22 17 54.5	+0.5
YUS	Yu-Shan	1.13	352	eP	Pb	22 17 54.5	+0.1
EHYH	Wanrong	1.15	11	eP	Pb	22 17 54.3	-0.1
EHY	Hungye	1.15	9	eP	Pn	22 17 55.8	+1.1
HGSD	Ruisui	1.16	14	eP	Pn	22 17 55.2	+0.4
WCKO	Fanlu	1.17	336	eP	Pn	22 17 55.8	+0.8
ALS	Alishan	1.18	346	eP	Pg	22 17 54.9	-0.2
TSCK	Chigu Township	1.23	310	P	Pn	22 17 56.1	+0.4
ICHU	Yijhu	1.26	322	eP	Pn	22 17 56.2	+0.1
CHN8	Yiju	1.29	320	eP	Pn	22 17 56.9	+0.4
CHN5	Tsauling	1.29	342	P	Pg	22 17 58.5	+1.2
CHY	Chiayi	1.30	331	P	Pg	22 17 57.6	+0.2
CHN2	Minshiung	1.30	333	eP	Pg	22 17 58.1	+0.6
WHYT	Xinyi Township	1.35	350	eP	Pg	22 17 58.1	-0.2
WARBT	Fenglin Townsh	1.37	10	eP	Pb	22 17 58.0	-0.3
WGK	Gukeng	1.41	339	eP	Pg	22 17 59.3	-0.2
WSL	Shuilin Townsh	1.42	325	eP	Pn	22 17 58.4	+0.1
WDLH	Douliu	1.42	338	eP	Pb	22 17 59.5	+0.4
SSLB	Suanglung	1.43	354	P	Pb	22 17 59.2	0.0
SSLB	Suanglung	1.43	354	S	Sg	22 18 19.1	+0.8
SSLB	Suanglung	1.43	354	eP	Pb	22 17 58.9	-0.3
ESL	Shilin	1.47	11	eP	Pn	22 17 59.0	-0.2
SHUL	Shoufeng	1.48	16	eP	Pb	22 17 59.6	-0.4
WTK	Tuku	1.48	333	P	Pn	22 17 59.6	+0.4
WTK				eS	Sg	22 18 20.1	0.0
WJS	Zhushan	1.50	346	eP	Pg	22 18 01.1	-0.1
WSF	Szhu	1.51	327	eP	Pn	22 18 00.1	+0.5
WSF				eS	Sn	22 18 20.0	+0.5
SMLT	Sun Moon Lake	1.53	353	eP	Pg	22 18 01.6	-0.1
TYC	Yuchr	1.55	351	eP	Pg	22 18 02.0	-0.2
WNT	Mingjian	1.56	345	eP	Pb	22 18 01.8	+0.3
TEYL	Yanliau Villag	1.56	16	eP	Pb	22 18 01.5	0.0
OWD	Renai	1.58	2	eP	Pn	22 18 00.5	-0.3
WDGT	Dungji	1.61	304	eP	Pn	22 18 00.8	-0.2
WUSB	Renai	1.62	0	eP	Pn	22 18 01.5	+0.2
ETM	Tongmen	1.63	12	eP	Pb	22 18 02.6	-0.1
LXIB	Xiulin Townshi	1.67	9	eP	Pb	22 18 03.0	-0.5
WRL	Guolierlin Hig	1.68	336	eP	Pn	22 18 01.9	0.0
WCS	Beigang Elemen	1.70	354	eP	Pb	22 18 03.5	-0.3
TWD	Chiawan	1.77	14	eP	Pb	22 18 03.9	-1.0
VCHM	Qimei	1.77	299	eP	Pn	22 18 01.8	-1.4
VCHM				eS	Sn	22 18 22.7	-3.1
WHF	Hehuan Shan	1.78	4	eP	Pb	22 18 05.5	+0.1
WCHH	Zhanghua	1.78	343	eP	Pn	22 18 04.5	+1.1
TCU	Taichung	1.82	347	eP	Pb	22 18 05.3	-0.7
PHUB	P'eng-hu	1.83	309	eP	Pn	22 18 02.4	-1.5
PHUB				eS	Sn	22 18 25.2	-2.0
ETL	Fush Village	1.85	15	eP	Pb	22 18 05.5	-0.8
NACB	Ninganchiao	1.85	14	P	Pg	22 18 07.0	-1.0
NACB	Ninganchiao	1.85	14	S	Sn	22 18 28.2	+0.3
NACB	Ninganchiao	1.85	14	eP	Pn	22 18 04.2	-0.2
ETLH	Xiulin Townshi	1.87	10	eP	Pn	22 18 04.6	0.0
PNG	Penghu	1.87	310	eP	Pn	22 18 03.5	-1.1
FUSS	Fushou	1.88	4	eP	Pn	22 18 04.9	-0.1
TDCB	Techi	1.88	1	eP	Pb	22 18 06.6	-0.4
TWT	Tachien	1.88	2	eP	Pb	22 18 07.2	+0.1
TWQ1	Liyutan	2.00	351	eP	Pb	22 18 08.8	-0.2
EOS4	EOS4	2.07	32	eP	Pn	22 18 07.0	0.0
NNSB	Datong	2.07	7	eP	Pb	22 18 08.9	-1.3
NNS	Nan Shan	2.08	6	eP	Pb	22 18 10.1	-0.3
ENA	Nanau	2.13	15	eP	Pn	22 18 08.0	-0.2
LATG	Datong	2.19	10	eP	Pn	22 18 10.5	+1.4
EOS3	EOS3	2.21	30	eP	Pn	22 18 09.3	+0.2
NFF	Wufeng Townshi	2.26	0	eP	Pb	22 18 11.9	-1.5
NSTT	Nanjuang	2.26	357	eP	Pb	22 18 11.9	-1.5
LIOB	Emei	2.27	358	eP	Pb	22 18 12.9	-0.7
EOS2	EOS2	2.29	26	eP	Pn	22 18 11.2	+1.0
ENTT	Nioudou	2.30	10	eP	Pb	22 18 12.8	-1.3
YHNB	Yeheng	2.31	6	P	Pb	22 18 13.6	-0.7
YHNB	Yeheng	2.31	6	eP	Pn	22 18 11.2	+0.5
NSK	Sanguang	2.31	5	eP	Pb	22 18 12.6	-1.8
NDS	Dongshan	2.33	14	eP	Pb	22 18 12.8	-1.7
TWC	Suao	2.33	17	eP	Pb	22 18 12.9	-1.7
TWE	Neicheng	2.40	12	eP	Pb	22 18 13.7	-2.1
KSHI	Guanxi Townshi	2.40	1	eP	Pb	22 18 13.9	-2.0
FUSB	Fushanzhiwuyua	2.42	10	eP	Pn	22 18 13.9	+1.6
NWLT	Wulai	2.43	8	eP	Pn	22 18 14.0	+1.7
JYNG	Yonagunijimaku	2.67	39	P	Pn	22 18 16.0	+0.4
JYNG				eS	Sn	22 18 46.3	-1.8
TIPB	Shuangxi	2.68	14	eP	Pn	22 18 17.0	+1.3
YOJ	Yonaguni jima	2.72	39	eP	Pn	22 18 15.1	-1.1
YOJ	Yonaguni jima	2.72	39	eP	Pn	22 18 15.2	-1.0
YOJ				eS	Sn	22 18 51.4	+2.1
YM01	YM01	2.80	8	eP	Pn	22 18 19.8	+2.4
SXI1	Grass Mountain	2.81	14	eP	Pn	22 18 19.8	+2.3
ZUZH	Zhuzihu	2.81	8	eP	Pn	22 18 19.1	+1.5
ANP	Anpu	2.83	7	eP	Pn	22 18 19.0	+1.1
YM08	YM08	2.84	9	eP	Pn	22 18 20.2	+2.2
HATJ	Hateruma jima	2.99	55	eP	Pn	22 18 20.5	+0.5
HATJ				S	Sn	22 18 56.6	+0.5
VWUC	VWUC	3.03	330	eP	Pn	22 18 20.8	+0.3
IRIF	Iriomote-Funau	3.10	50	eP	Pn	22 18 21.8	+0.3
IRIF				S	Sn	22 19 00.1	+1.4
KNM	Kinmen	3.20	310	eP	Pn	22 18 23.2	+0.3
PTMZ	Houxiangcun	3.23	326	eP	Pn	22 18 23.1	-0.2
JKRS	Kuro-shima	3.25	54	eP	Pn	22 18 24.6	+1.0
JKRS				S	Sn	22 19 02.9	+0.5
KNMB	Chin-men Tao	3.26	310	eP	Pn	22 18 23.2	-0.5
JIJ	Ishigaki jima	3.42	54	eP	Pn	22 18 26.7	+0.8
JIJ				S	Sn	22 19 06.4	-0.2
ZPLA	Ao Xicun	3.47	297	eP	Pn	22 18 25.5	-1.1
DSXP	Dongshan	3.65	292	eP	Pn	22 18 27.4	-1.7
JISG	Ishigakijimahi	3.67	52	eP	Pn	22 18 29.7	+0.3
JISG				S	Sn	22 19 12.8	0.0
AXDP	Jialang	3.83	312	eP	Pn	22 18 31.0	-0.6
MATB	Ma-tsu	3.92	344	eP	Pn	22 18 32.4	-0.4
JTJ	Tarama	4.00	55	eP	Pn	22 18 34.6	+0.8
JTJ				S	Sn	22 19 21.2	+0.5
MHZQ	Yeshan	4.18	333	eP	Pn	22 18 36.5	+0.2
LYJJ	Jianjiangzhen	4.35	344	eP	Pn	22 18 39.0	+0.3
JMJ2	Miyako jima3	4.53	58	eP	Pn	22 18 41.9	+0.7
JMJ2				eS	Sn	22 19 35.7	+1.7
XPSS	Dashiqiu	4.62	350	eP	Pn	22 18 42.3	-0.1
SXFK	Yanhouchang	5.11	322	eP	Pn	22 18 48.5	-0.7

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*IDC **28** 22:29:03.0±1.7, 19°.52S×169°.75E, h0^{km}, mb4.2/5, mbtmp4.1/6, ML3.4/1, MS3.3/7, Error ellipse: s-maj=40.3km s-min=24.4km az=132.0*
*NOU **28** 22:29:03.2, 19°.62S×169°.78E, h2^{km}, MLv4.4/8, Vanuatu Islands*
*NEIC **28** 22:29:05.3±1.5, 19°.64S±0°.08×169°.7E±0°.1, h10^{km}±2^{km}, mb4.4/10, Error ellipse: s-maj=20.2km s-min=12.7km az=107.0*
ISC 28 22:29:04.8±1.1**, 19°.60S**±0°.07×**169°.7E**±0°.2**, h10^{km}, n33, σ0^{s}.92**/28**, mb4.3**/10**, MS3.3**/6**, 2D, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTV	Rentapao	2.15	327	P	Pn	22 29 41.7	+1.1
MARNC	Mare, Loyalty	2.41	219	P	Pn	22 29 43.4	-1.0
MARNC	Mare, Loyalty	2.41	219		Pn	22 29 43.3	-1.0
YATNC	Mamie plateau,	3.56	226	P	Pn	22 30 00.0	-0.1
OUENC	Ouen Island, N	3.84	223	Pn	Pn	22 30 04.3	+0.3
DZM	Mont Dzumac	3.88	230	Pn	Pn	22 30 05.0	+0.4
	2.3nm,0.3s,baz=116,slow=16,SNR=43						
DZM				Sn	Sn	22 30 49.1	-1.3
	23nm,0.3s,baz=312,slow=23,SNR=19						
	15nm,0.6s						
DZM				AML	AML		
NOUC	Port Laguerre	4.00	231	P	Pn	22 30 06.9	+0.7
ONTNC	Ouen Toro	4.03	227	P	Pn	22 30 08.5	+2.0
ONTNC	Ouen Toro	4.03	227	Pn	Pn	22 30 07.9	+1.4
SANVU	Saraoutou	4.75	330	Pn	Pn	22 30 15.3	-1.2
HNR	Honiara	13.80	316	LR	LR	22 37 01.8	
	comp=Z,68nm,20.4s,baz=210,slow=35						
CTA	Charters Tower	22.02	265	LR	LR	22 41 10.0	
	comp=Z,71nm,19.0s,baz=222,slow=33						
STKA	Stephens Creek	27.99	239	P	P	22 34 57.8	+1.8
	2.6nm,0.7s,baz=73,slow=8.2,SNR=3.9						
STKA				LR	LR	22 45 20.3	
	comp=Z,66nm,19.1s,baz=27,slow=35						
	2.6nm,0.7s						
WR8	Warramunga Arr	33.05	263	P	P	22 35 40.1	-0.7
WR8				IAmb	IAmb	22 35 40.9	
	comp=Z,5.3nm,1.1s						
WB0	Warramunga Arr	33.17	264	P	P	22 35 42.2	+0.4
WB0				IAmb	IAmb	22 36 26.1	
	comp=Z,9.8nm,1.4s						
WRA	Warramunga Arr	33.20	263	P	P	22 35 41.8	-0.3
	comp=Z,1.4nm,0.7s,baz=99,slow=8.2,SNR=15						
	comp=Z,1.4nm,0.7s						
WRA	Warramunga Arr	33.20	263	P	P	22 35 41.2	-0.9
AS31	Alice Springs	33.43	257	P	P	22 35 44.1	0.0
AS31				IAmb	IAmb	22 35 46.3	
	comp=Z,2.5nm,0.6s						
ASAR	Alice Springs	33.43	257	P	P	22 35 44.5	+0.5
	comp=Z,6.8nm,0.7s,baz=84,slow=9.0,SNR=56						
ASAR				LR	LR	22 49 29.9	
	comp=Z,55nm,18.7s,baz=104,slow=37						
	comp=Z,6.8nm,0.7s						
ASAR	Alice Springs	33.43	257	P	P	22 35 44.1	0.0
MTN	Manton Dam	37.53	274	P	P	22 36 19.6	+0.2
MTN				IAmb	IAmb	22 36 22.3	
	comp=Z,6.8nm,1.2s						
FAKI	Fak Fak	40.12	290	P	P	22 36 40.9	-0.1
GUMO	Guam	41.03	322	LR	LR	22 52 33.9	
	comp=Z,14nm,18.4s,baz=154,slow=34						
FITZ	Fitzroy Crossi	41.60	265	P	P	22 36 54.2	+0.9
NWAO	Narrogin (SRO)	48.40	243	P	P	22 37 45.8	-1.5
QSPA	South Pole Qui	70.45	180	P	P	22 40 19.6	+0.3
	comp=Z,2.0nm,0.9s,baz=338,slow=1.9,SNR=5.0						
	comp=Z,2.0nm,0.9s						
QSPA	South Pole Qui	70.45	180	P	P	22 40 19.6	+0.3
QSPA				IAmb	IAmb	22 40 22.0	
	comp=Z,3.8nm,1.1s						
MAW	Mawson	78.25	202	LR	LR	23 10 41.4	
	comp=Z,34nm,21.6s,baz=196,slow=32						
MA2	Magadan	80.39	350	LR	LR	23 10 16.5	
	comp=Z,23nm,20.1s,baz=90,slow=31						
ELIB	Princess Elisa	85.86	190	dP	P	22 41 44.4	-0.2
	comp=Z,1.4nm,1.2s						
SONM	Songino Array	87.75	323	P	P	22 41 53.9	-0.1
	comp=Z,0.3nm,0.3s,baz=127,slow=3.9,SNR=5.6						
	comp=Z,0.3nm,0.3s						
SONM	Songino Array	87.75	323	IAmb	IAmb	22 42 02.9	
	comp=Z,1.1nm,1.1s						
BMRD	Maredsous	147.09	342	dPKPdf	PKPdf	22 48 46.2	+0.4

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*TAP **28** 22:38:06.8, 22°.37N×121°.06E, h7^{km}, ML3.8, C*
ISC 28 22:38:07.1±1.1**, 22°.36N**±0°.02×**121°.08E**±0°.02**, h4^{km}**±9^{km}**, n101, σ1^{s}.02**/135**, 2C-10D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TAW	Tawu	0.17	269	⇓iP	Pg	22 38 10.9	+0.5
TAW				iS	Sg	22 38 13.3	+0.7
TAWH	Dawu Township	0.18	263	⇓iP	Pg	22 38 11.1	+0.5
TAWH				iS	Sg	22 38 13.8	+0.9
EAST	Anshuo	0.21	276	⇓iP	Pg	22 38 11.6	+0.4
EAST				iS	Sg	22 38 14.7	+0.6
ECL	Taimali	0.26	334	⇓iP	Pg	22 38 12.5	+0.3
ECL				iS	Sg	22 38 16.9	+1.3
SLIU	Shizi	0.30	241	⇓P	Pb	22 38 13.3	-1.7
TTN	Taitung	0.40	9	⇓P	Pb	22 38 16.9	+0.2
SMST	Manzhou Townsh	0.41	214	P	Pb	22 38 15.9	-0.9
SMST				eS	Sb	22 38 22.1	-1.3
SCZT	Fangliau	0.42	272	⇓P	Pg	22 38 15.4	+0.1
SCZT				iS	Sg	22 38 21.2	+0.4
TWGBT	Beinan	0.46	0	P	Pg	22 38 15.8	-0.1
TWGBT	Beinan	0.46	0	S	Sb	22 38 25.1	+0.2
TWGBT	Beinan	0.46	0	⇑P	Pg	22 38 16.2	+0.3
TWGBT				S	Sb	22 38 24.6	-0.3
TWG	Pinlang	0.46	359	⇑iP	Pg	22 38 16.2	+0.3
TWG				iS	Sb	22 38 23.5	-1.5
HEN	Hengchun	0.47	222	iP	Pb	22 38 17.6	-0.5
HEN				S	Sb	22 38 25.6	+0.3
LDUT	Ludao	0.48	49	eP	Pb	22 38 18.1	0.0
LDUT				iS	Sb	22 38 26.3	+0.8
MASBT	Mashibuluo	0.48	301	⇓P	Pg	22 38 16.4	0.0

MASBT				*i* S	**Sg**	**22 38 22.2**	**-0.4**
TWKBT	**Hengchun**	**0.48**	**211**	⇓P	**Pb**	**22 38 17.6**	**-0.6**
TWKBT				*e*S	**Sb**	**22 38 25.6**	**-0.1**
TWK1	**Hengchun**	**0.49**	**211**	⇓P	**Pb**	**22 38 17.6**	**-0.6**
TWK1				S	**Sb**	**22 38 25.5**	**-0.2**
TSEB	**Hengchuen, Pin**	**0.49**	**200**	*i* P	**Pb**	**22 38 18.2**	**-0.1**
SSPT	**Xinbi**	**0.49**	**285**	P	**Pb**	**22 38 17.2**	**-1.0**
SSPT				*i* S	**Sb**	**22 38 25.0**	**-0.8**
TSMG	**Majia**	**0.53**	**311**	P	**Pg**	**22 38 17.2**	**-0.1**
TSMG				*i* S	**Sg**	**22 38 24.2**	**+0.1**
LAY	**Lan-yu**	**0.54**	**126**	*i* P	**Pg**	**22 38 18.3**	**+0.8**
LAY				*e*S	**Sb**	**22 38 26.6**	**-0.8**
LONT	**Longtian**	**0.55**	**5**	*e*P	**Pg**	**22 38 17.8**	**+0.2**
SSD	**Sandimen**	**0.56**	**313**	*i* P	**Pg**	**22 38 17.8**	**-0.2**
SSD				*i* S	**Sg**	**22 38 24.6**	**-0.7**
LYUB	**Lan-yu**	**0.59**	**127**	*i* P	**Pg**	**22 38 17.9**	**-0.5**
EDH	**Donghe**	**0.64**	**19**	*e*P	**Pb**	**22 38 20.6**	**-0.4**
WLCH	**Liuqiu**	**0.65**	**269**	*e*P	**Pn**	**22 38 22.8**	**-0.3**
SGLT	**Jiouru**	**0.65**	**304**	P	**Pb**	**22 38 20.4**	**-0.7**
SGLT				*e*S	**Sb**	**22 38 30.7**	**+0.2**
TWP	**Hsiaoliuchiu**	**0.66**	**269**	*i* P	**Pn**	**22 38 22.8**	**-0.5**
ECS	**Chishang**	**0.74**	**10**	*e*P	**Pb**	**22 38 22.3**	**-0.4**
SLGT	**Liugui**	**0.75**	**328**	*e*P	**Pg**	**22 38 21.4**	**-0.1**
SCST	**Cishan**	**0.75**	**314**	*i* P	**Pb**	**22 38 22.5**	**-0.2**
SCST				S	**Sb**	**22 38 33.6**	**+0.2**
TWM1	**Shoushan**	**0.76**	**307**	*e*P	**Pn**	**22 38 23.3**	**-1.4**
CHKT	**Chengkung**	**0.78**	**20**	P	**Pg**	**22 38 22.0**	**-0.1**
EHD	**Haiduan**	**0.79**	**9**	*e*P	**Pg**	**22 38 20.8**	**-1.6**
WSSB	**Gushan**	**0.81**	**291**	*e*P	**Pn**	**22 38 25.2**	**-0.1**
ELDTW	**Lidau**	**0.83**	**356**	*e*P	**Pg**	**22 38 23.0**	**0.0**
SGST	**Jiashian**	**0.85**	**328**	*e*P	**Pg**	**22 38 23.0**	**-0.5**
STYH	**Taoyuan**	**0.85**	**341**	*e*P	**Pb**	**22 38 23.6**	**-0.9**
FULB	**Fuli**	**0.86**	**13**	*e*P	**Pg**	**22 38 23.1**	**-0.5**
CHKH	**Chenggong**	**0.88**	**19**	*e*P	**Pg**	**22 38 23.4**	**-0.5**
CHKH				S	**Sb**	**22 38 36.3**	**-0.8**
CHN1	**Nanshi**	**0.96**	**328**	*i* P	**Pn**	**22 38 27.0**	**-0.5**
CHN1				*i* S	**Sn**	**22 38 42.5**	**+0.8**
CHN3	**Shinhua**	**0.97**	**317**	*i* P	**Pn**	**22 38 28.5**	**+1.0**
CHN3				*e*S	**Sn**	**22 38 45.4**	**+3.6**
WTP	**Ta-pu**	**0.98**	**334**	*i* P	**Pn**	**22 38 26.7**	**-1.1**
EYUL	**Yuli**	**1.01**	**13**	*e*P	**Pb**	**22 38 26.6**	**-0.5**
TWF1	**Yuli**	**1.01**	**12**	*e*P	**Pg**	**22 38 25.9**	**-0.5**
ECBN	**Changbin**	**1.01**	**20**	*e*S	**Sg**	**22 38 39.7**	**+0.1**
TPUB	**Ta-pu**	**1.02**	**336**	P	**Pn**	**22 38 27.2**	**-1.1**
TPUB	**Ta-pu**	**1.02**	**336**	S	**Sn**	**22 38 43.9**	**+0.7**
TPUB	**Ta-pu**	**1.02**	**336**	*i* P	**Pn**	**22 38 27.4**	**-0.9**
TPUB				S	**Sn**	**22 38 44.5**	**+1.3**
YULB	**Yu-li**	**1.05**	**11**	P	**Pg**	**22 38 26.0**	**-1.2**
YULB	**Yu-li**	**1.05**	**11**	*e*P	**Pg**	**22 38 26.2**	**-1.0**
TWK	**Hsinying**	**1.05**	**329**	*i* P	**Pn**	**22 38 28.4**	**-0.3**
TWK				*e*S	**Sn**	**22 38 44.2**	**+0.2**
SSHA	**Shanhua**	**1.06**	**317**	*e*P	**Pn**	**22 38 29.1**	**+0.3**
CHN4	**Tsaushan**	**1.08**	**336**	*e*P	**Pn**	**22 38 29.0**	**-0.1**
YUS	**Yu-Shan**	**1.13**	**354**	*e*P	**Pg**	**22 38 27.7**	**-1.1**
WCKO	**Fanlu**	**1.16**	**338**	P	**Pn**	**22 38 30.0**	**-0.1**
WCKO				S	**Sn**	**22 38 48.6**	**+2.1**
EHY	**Hungye**	**1.16**	**11**	*e*P	**Pn**	**22 38 29.8**	**-0.4**
ALS	**Alishan**	**1.17**	**348**	P	**Pn**	**22 38 30.8**	**+0.2**
TSCK	**Chigu Township**	**1.21**	**311**	*e*P	**Pn**	**22 38 30.2**	**-0.6**
TSCK				*e*S	**Sn**	**22 38 49.4**	**+1.8**
ICHU	**Yijhu**	**1.24**	**324**	*e*P	**Pn**	**22 38 31.1**	**-0.2**
CHN8	**Yiju**	**1.27**	**321**	*e*P	**Pg**	**22 38 31.1**	**-0.3**
CHN8				*e*S	**Sn**	**22 38 51.4**	**+2.3**
CHY	**Chiayi**	**1.28**	**332**	*e*P	**Pg**	**22 38 31.8**	**+0.1**
CHY				S	**Sn**	**22 38 51.1**	**+1.6**
CHN5	**Tsauling**	**1.28**	**343**	P	**Pg**	**22 38 32.3**	**+0.5**
CHN5				*i* S	**Sn**	**22 38 52.2**	**+2.5**
WHYT	**Xinyi Township**	**1.35**	**351**	*e*P	**Pg**	**22 38 33.9**	**+1.0**
WARBT	**Fenglin Townsh**	**1.38**	**12**	*e*P	**Pn**	**22 38 32.8**	**-0.5**
WSL	**Shuilin Townsh**	**1.40**	**326**	*e*P	**Pb**	**22 38 33.0**	**-0.8**
WDLH	**Douliu**	**1.41**	**339**	*e*P	**Pg**	**22 38 33.8**	**-0.4**
WDLH				*e*S	**Sg**	**22 38 54.3**	**+1.8**
SSLB	**Suanglung**	**1.43**	**355**	P	**Pb**	**22 38 33.6**	**-0.7**
SSLB	**Suanglung**	**1.43**	**355**	S	**Sg**	**22 38 55.5**	**+2.6**
SSLB	**Suanglung**	**1.43**	**355**	*e*P	**Pg**	**22 38 34.3**	**-0.2**
WTK	**Tuku**	**1.47**	**334**	*e*P	**Pb**	**22 38 33.9**	**-1.0**
WTK				S	**Sg**	**22 38 55.7**	**+1.5**
WSF	**Szhu**	**1.50**	**328**	*e*P	**Pg**	**22 38 35.3**	**-0.5**
SMLT	**Sun Moon Lake**	**1.52**	**354**	P	**Pg**	**22 38 35.8**	**-0.6**
TYC	**Yuchr**	**1.55**	**352**	*e*P	**Pg**	**22 38 36.2**	**-0.6**
TYC				*e*S	**Sg**	**22 38 59.4**	**+2.5**
WNT	**Mingjian**	**1.55**	**347**	*e*P	**Pg**	**22 38 36.2**	**-0.7**
OWD	**Renai**	**1.59**	**3**	*e*P	**Pg**	**22 38 37.2**	**-0.4**
WUSB	**Renai**	**1.62**	**1**	*e*P	**Pg**	**22 38 37.9**	**-0.3**
ETM	**Tongmen**	**1.64**	**13**	*e*P	**Pn**	**22 38 36.6**	**-0.2**
LXIB	**Xiulin Townshi**	**1.68**	**11**	*e*P	**Pn**	**22 38 36.5**	**-0.9**
WCS	**Beigang Elemen**	**1.70**	**355**	*e*P	**Pb**	**22 38 38.2**	**-0.7**
WCS				S	**Sg**	**22 39 01.7**	**+0.1**
VCHM	**Qimei**	**1.74**	**299**	*e*P	**Pn**	**22 38 35.5**	**-2.6**
WHF	**Hehuan Shan**	**1.79**	**5**	*e*P	**Pb**	**22 38 40.5**	**-0.2**
PHUB	**P'eng-hu**	**1.80**	**310**	*e*P	**Pn**	**22 38 37.3**	**-1.6**
PNG	**Penghu**	**1.85**	**311**	*e*P	**Pn**	**22 38 38.1**	**-1.5**
NACB	**Ninganchiao**	**1.87**	**15**	P	**Pn**	**22 38 38.8**	**-1.1**
NACB	**Ninganchiao**	**1.87**	**15**	S	**Sb**	**22 39 04.4**	**-1.1**
NACB	**Ninganchiao**	**1.87**	**15**	*e*P	**Pn**	**22 38 39.2**	**-0.7**
ETLH	**Xiulin Townshi**	**1.88**	**11**	*e*P	**Pb**	**22 38 40.7**	**-1.3**
FUSS	**Fushou**	**1.89**	**5**	*e*P	**Pb**	**22 38 41.7**	**-0.6**
TDCB	**Techi**	**1.89**	**2**	*e*P	**Pb**	**22 38 41.5**	**-0.7**
TWT	**Tachien**	**1.89**	**3**	*e*P	**Pb**	**22 38 42.0**	**-0.3**
WHP	**Taichung City**	**1.91**	**356**	*e*P	**Pb**	**22 38 41.8**	**-0.9**
NNSB	**Datong**	**2.08**	**8**	*e*P	**Pn**	**22 38 43.4**	**+0.4**
NNS	**Nan Shan**	**2.09**	**7**	*e*P	**Pb**	**22 38 44.7**	**-0.9**
EOS4	**EOS4**	**2.09**	**33**	*e*P	**Pn**	**22 38 41.2**	**-1.4**
LATG	**Datong**	**2.20**	**11**	*e*P	**Pn**	**22 38 45.1**	**+0.5**
NFF	**Wufeng Townshi**	**2.26**	**1**	*e*P	**Pb**	**22 38 47.3**	**-1.3**
LIOB	**Emei**	**2.28**	**359**	*e*P	**Pb**	**22 38 47.3**	**-1.5**
YHNB	**Yeheng**	**2.31**	**7**	P	**Pn**	**22 38 46.9**	**+0.8**
YHNB	**Yeheng**	**2.31**	**7**	S	**Sb**	**22 39 16.5**	**-2.0**
YHNB	**Yeheng**	**2.31**	**7**	*e*P	**Pb**	**22 38 47.5**	**-2.0**
YHNB				*e*S	**Sb**	**22 39 16.7**	**-1.8**

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*TIR **28** 22:50:48.0, 41°.03N×19°.91E, h28km±1km, Ml2.4/4*
*PDG **28** 22:50:48.3±0.5, 41°.01N×19°.88E, h18km±1km, ML2.7/12, Error ellipse: s-maj=1.0km s-min=2.6km az=0.0*
*BEO **28** 22:50:49.0±0.4, 41°.01N×19°.83E, h13km±4km, ML2.1/6*
ISC 28 22:50:47.4±0.8, **41°.00N**±0°.02×**19°.82E**±0°.03, **h9km, n39, σ1s.09**/68, **3C-5D, Albania**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TIR	**Tirane**	**0.35**	**5**	P	**Pb**	**22 50 55.4**	**-0.4**
TIR				S	**Sb**	**22 51 01.1**	**-0.3**
TIR				AML	AML	22 51 06.4	
	1.4nm,0.7s						
TIR				AML	AML	22 51 07.8	
	2.0nm,0.5s						
VLO	**Vlora**	**0.59**	**205**	P	**Pb**	**22 51 00.2**	**+0.3**
VLO				S	**Sb**	**22 51 10.3**	**+2.0**
VLO				AML	AML	22 51 12.9	
	2.2nm,0.4s						
VLO				AML	AML	22 51 14.4	
	2.1nm,0.6s						
KBN	**Korca**	**0.82**	**117**	P	**Pg**	**22 51 02.8**	**-0.5**
KBN				S	**Sg**	**22 51 13.2**	**-0.8**
KBN				AML	AML	22 51 16.0	
	0.3nm,0.5s						
PHP	**Peshkopia**	**0.82**	**34**	P	**Pg**	**22 51 02.7**	**-0.6**
PHP				S	**Sb**	**22 51 13.9**	**-1.3**
PHP				AML	AML	22 51 15.8	
	0.1nm,0.2s						
LSK	**Leskovik**	**1.04**	**145**	P	**Pb**	**22 51 07.2**	**-0.3**
ULC	**Ulcinj**	**1.05**	**336**	⇓*i*Pg	**Pn**	**22 51 08.4**	**0.0**
ULC				*i* Sg	**Sn**	**22 51 24.8**	**+1.6**
ULC				AML	AML		
SRN	**Sarande**	**1.13**	**173**	P	**Pn**	**22 51 10.1**	**+0.7**
DRME	**Dracevica, Mon**	**1.28**	**338**	⇑*i*Pg	**Pg**	**22 51 12.2**	**+0.3**
DRME				*i* Sg	**Sn**	**22 51 31.5**	**+2.8**
DRME				AML	AML		
KEK	**Kerkira**	**1.29**	**181**	P	**Pn**	**22 51 11.6**	**0.0**
BUM	**Brajici-Budva**	**1.47**	**332**	*e*Pg	**Pn**	**22 51 14.5**	**+0.3**
BUM				*i* Sg	**Sg**	**22 51 36.3**	**+1.5**
BUM				AML	AML		
PDG	**Podgorica**	**1.49**	**344**	*e*Pg	**Pb**	**22 51 15.5**	**+0.3**
PDG				*e*Sg	**Sg**	**22 51 35.6**	**+0.3**
PDG	**Podgorica**	**1.49**	**344**	⇓*i*Pg	**Pb**	**22 51 15.6**	**+0.3**
PDG				*i* Sg	**Sg**	**22 51 36.6**	**+1.3**
PDG				AML	AML		
IGT	**Igoumenitsa**	**1.52**	**165**	*e*Pg	**Pg**	**22 51 16.2**	**-0.4**
IGT				*e*Sg	**Sg**	**22 51 37.5**	**+1.2**
PVY	**Plav**	**1.59**	**4**	⇑*i*Pn	**Pb**	**22 51 17.3**	**+0.2**
PVY				*i* Sn	**Sg**	**22 51 39.1**	**+0.4**
PVY				AML	AML		
CEME	**Cevo**	**1.68**	**337**	⇓*i*Pn	**Pn**	**22 51 17.4**	**+0.3**
CEME				*i* Sn	**Sb**	**22 51 41.1**	**+1.1**
CEME				AML	AML		
HCY	**Herceg Novi**	**1.75**	**326**	*e*Pn	**Pn**	**22 51 17.8**	**-0.2**
HCY				*i* Sn	**Sg**	**22 51 43.5**	**-0.3**
HCY				AML	AML		
KOME	**Kolasin**	**1.86**	**353**	⇑*i*Pn	**Pb**	**22 51 21.6**	**0.0**
KOME				*i* Sn	**Sb**	**22 51 45.8**	**+0.8**
KOME				AML	AML		
IVA	**Berane**	**1.87**	**2**	⇓*i*Pn	**Pb**	**22 51 22.2**	**+0.4**
IVA				*i* Sn	**Sb**	**22 51 45.8**	**+0.5**
IVA				AML	AML		
NKME	**Niksic**	**1.88**	**340**	*e*Pn	**Pn**	**22 51 20.4**	**+0.6**
NKME				*i* Sn	**Sb**	**22 51 46.0**	**+0.5**
NKME				AML	AML		
TREB	**Trebinje**	**2.04**	**328**	*e*Pn	**Pn**	**22 51 21.4**	**-0.5**
DBRK	**Dubrovnik**	**2.08**	**324**	*e*Pn	**Pn**	**22 51 22.1**	**-0.5**
DBRK				Sn	**Sn**	**22 51 48.4**	**-0.1**
BRY	**Bratogost**	**2.12**	**334**	*e*Pn	**Pn**	**22 51 23.6**	**+0.4**
BRY				*i* Sn	**Sb**	**22 51 52.0**	**-0.7**
BRY				AML	AML		
SJES	**Sjenica**	**2.26**	**3**	*e*Pn	**Pb**	**22 51 27.2**	**-1.2**
SJES				*e*Sn	**Sn**	**22 51 53.7**	**+0.6**
BARS	**Barje**	**2.34**	**39**	*e*Pn	**Pb**	**22 51 27.9**	**-1.9**
BARS				*e*Sn	**Sn**	**22 51 55.2**	**+0.2**
PLE	**Pljevlja**	**2.35**	**352**	⇓*i*Pn	**Pn**	**22 51 27.7**	**+1.4**
PLE				*i* Sn	**Sn**	**22 51 56.9**	**+1.6**
PLE				AML	AML		
SELS	**Selova**	**2.42**	**23**	*e*Pn	**Pn**	**22 51 28.5**	**+1.4**
BOSS	**Bosilegrad**	**2.48**	**52**	*e*Pn	**Pn**	**22 51 28.4**	**+0.3**
IVAS	**Ivanjica**	**2.58**	**5**	*e*Pn	**Pn**	**22 51 30.2**	**+0.7**
GOCS	**Kraljevo Serbi**	**2.67**	**17**	*e*Sn	**Sn**	**22 52 03.2**	**-0.1**
LSTV	**Lastovo**	**2.81**	**310**	*e*Pn	**Pn**	**22 51 32.6**	**+0.1**
LSTV				Sn	**Sn**	**22 52 03.7**	**-2.8**
BBLS	**Lazi&#263i**	**2.88**	**354**	*e*Pn	**Pn**	**22 51 34.8**	**+1.3**
MAKA	**Makarska**	**3.09**	**319**	*e*Pn	**Pn**	**22 51 36.2**	**-0.2**
MAKA				Sn	**Sn**	**22 52 11.8**	**-1.7**
RICI	**Ricice**	**3.19**	**322**	*e*Pn	**Pn**	**22 51 37.3**	**-0.5**
RICI				Sn	**Sn**	**22 52 15.7**	**-0.3**
HVAR	**Hvar**	**3.32**	**312**	*e*Pn	**Pn**	**22 51 39.1**	**-0.4**
HVAR				Sn	**Sn**	**22 52 17.4**	**-1.7**
ZAGS	**Zajecar**	**3.33**	**32**	*e*Pn	**Pn**	**22 51 40.4**	**+0.8**
KIJV	**Kijevo**	**3.92**	**321**	*e*Pn	**Pn**	**22 51 48.4**	**+0.6**
KIJV				Sn	**Sn**	**22 52 33.5**	**-0.4**
MORI	**Morici**	**4.18**	**315**	*e*Pn	**Pn**	**22 51 51.0**	**-0.3**
MORI				Sn	**Sn**	**22 52 37.8**	**-2.4**
DUGI	**Dugi Otok**	**4.62**	**312**	*e*Pn	**Pn**	**22 51 57.0**	**-0.4**
DUGI				Sn	**Sn**	**22 52 49.1**	**-2.0**
VIRC	**Vir**	**4.81**	**315**	*i* Pn	**Pn**	**22 52 00.2**	**+0.2**
VIRC				Sn	**Sn**	**22 52 53.1**	**-2.7**

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*RSNC **28** 22:59:43.5±0.0, 5°N±2°×7°7W±°, h74km±7km, M4.0, mB5.1, mb4.6, ML3.5, Mw(mB)4.4*
*IDC **28** 22:59:45.7±3.1, 4°.99N×76°.66W, h96km±27km, mb3.6/8, mbtmp4.0/10, MS3.4/1, Error ellipse: s-maj=31.4km s-min=16.2km az=82.0*
*CATAC **28** 22:59:45.3±0.3, 5°N±2°×7°7W±°, h45km±70km, M4.5/10, mb4.5/1, mB4.9/1, MLv4.4/10, Mw(mB)4.2/1, Error ellipse: s-maj=7.5km s-min=5.0km az=88.2, confirmed*
*NEIC **28** 22:59:45.6±2.4, 5°.11N±0°.07×76°.71W±0°.07, h78km±8km, mb4.6/23, Error ellipse: s-maj=10.4km s-min=10.1km az=211.0*
ISC 28 22:59:44.9±0.6, **5°.09N**±0°.03×**76°.70W**±0°.03, **h83km**±6km, **n98, σ1s.32**/126, **mb4.4**/13, **Colombia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PIZC	**Pizarro, Choco**	**0.67**	**259**	P	**Pn**	**23 00 00.5**	**0.0**
PIZC				S	**Sn**	**23 00 13.3**	**+1.2**
CBOC	**Ciudad Bolivar**	**1.03**	**42**	P	**Pn**	**23 00 03.6**	**-1.1**
CBOC				S	**Sn**	**23 00 17.8**	**-1.7**
ARMEC	**Armenia, Quind**	**1.17**	**117**	P	**Pn**	**23 00 06.1**	**-0.3**
ARMEC				S	**Sn**	**23 00 22.5**	**+0.1**
CMAN1	**Manizales, Cal**	**1.17**	**91**	P	**Pn**	**23 00 05.5**	**-1.1**
CMAN1				S	**Sn**	**23 00 23.0**	**+0.2**
SOLC	**Bahia Solano**	**1.33**	**328**	P	**Pn**	**23 00 07.2**	**-1.0**
SOLC				S	**Sn**	**23 00 25.3**	**-0.5**
GUY2C	**Guyana, Caldas**	**1.34**	**84**	P	**Pn**	**23 00 08.1**	**-0.7**
GUY2C				S	**Sn**	**23 00 26.3**	**-0.4**
HELC	**Santa Helena**	**1.60**	**47**	P	**Pn**	**23 00 11.1**	**-1.0**
HELC				S	**Sn**	**23 00 31.8**	**-0.7**
HELC	**Santa Helena**	**1.60**	**47**	P	**Pn**	**23 00 11.0**	**-1.0**
HELC				S	**Sn**	**23 00 32.2**	**-0.3**
MEDEC	**Medelln, Ant**	**1.62**	**43**	P	**Pn**	**23 00 11.8**	**-0.3**
MEDEC				S	**Sn**	**23 00 32.5**	**-0.1**
ORTC	**Ortega, Tolima**	**1.87**	**129**	P	**Pn**	**23 00 14.9**	**-0.3**
ORTC				S	**Sn**	**23 00 38.7**	**+0.5**
NORC	**Norcasia**	**1.89**	**75**	P	**Pn**	**23 00 15.6**	**+0.1**
NORC				S	**Sn**	**23 00 39.1**	**+0.4**
PRAC	**Prado**	**2.27**	**127**	P	**Pn**	**23 00 20.7**	**+0.1**
PRAC				S	**Sn**	**23 00 48.2**	**+0.4**
PRAC	**Prado**	**2.27**	**127**	P	**Pn**	**23 00 20.8**	**+0.3**
PRAC				S	**Sn**	**23 00 47.9**	**+0.1**
ROSC	**El Rosal**	**2.39**	**96**	P	**Pn**	**23 00 24.6**	**+2.1**
	65nm,0.3s,baz=120,slow=18,SNR=19						
ROSC				S	**Sn**	**23 00 55.4**	**+4.2**
	112nm,0.4s,baz=120,slow=22,SNR=14						
ROSC	**El Rosal**	**2.39**	**96**		**Pn**	**23 00 24.0**	**+1.6**
ROSC	**El Rosal**	**2.39**	**96**	P	**Pn**	**23 00 24.5**	**+2.1**
ROSC				S	**Sn**	**23 00 54.8**	**+3.7**
POPC	**Popayan, Colom**	**2.53**	**179**	P	**Pn**	**23 00 24.5**	**+0.2**
POPC				S	**Sn**	**23 00 54.0**	**-0.4**
PTBC	**PUERTO BERRIO,**	**2.66**	**57**	P	**Pn**	**23 00 25.7**	**-0.1**
PTBC				S	**Sn**	**23 00 57.5**	**+0.4**
SPBC	**San Pablo de B**	**2.68**	**78**	P	**Pn**	**23 00 26.5**	**+0.4**
SPBC				S	**Sn**	**23 00 58.6**	**+0.9**
CVER	**Cruz Verde, Cu**	**2.68**	**102**	P	**Pn**	**23 00 28.5**	**+2.0**
BETC	**Betania**	**2.70**	**152**	P	**Pn**	**23 00 26.9**	**+0.5**
BETC				S	**Sn**	**23 00 58.9**	**+0.6**
APAC	**Apartado, Choc**	**2.79**	**2**	P	**Pn**	**23 00 29.5**	**+1.9**
APAC				S	**Sn**	**23 01 03.6**	**+3.2**
UREC	**San Jos de Ur**	**2.89**	**24**	P	**Pn**	**23 00 29.0**	**+0.1**
UREC				S	**Sn**	**23 01 03.0**	**+0.3**
CHIC	**Chingaza**	**3.00**	**99**	P	**Pn**	**23 00 32.6**	**+1.9**
CHIC				S	**Sn**	**23 01 07.5**	**+1.7**
BBAC	**Balboa, Cauca**	**3.10**	**190**	P	**Pn**	**23 00 31.4**	**-0.5**
BBAC				S	**Sn**	**23 01 08.3**	**+0.3**
GARC	**Garzon, Huila**	**3.13**	**157**	P	**Pn**	**23 00 32.8**	**+0.5**
GARC				S	**Sn**	**23 01 09.6**	**+0.8**
VILC	**Villavicencio,**	**3.15**	**108**	P	**Pn**	**23 00 34.6**	**+2.1**
VILC				S	**Sn**	**23 01 12.7**	**+3.4**
BRJC	**Barrancabermej**	**3.49**	**57**	P	**Pn**	**23 00 37.0**	**0.0**
BRJC				S	**Sn**	**23 01 18.2**	**+1.0**
CRUC	**La Cruz**	**3.51**	**184**	P	**Pn**	**23 00 39.3**	**+1.7**
CRUC				S	**Sn**	**23 01 19.3**	**+1.1**
UPD2	**Meteti**	**3.67**	**339**	P	**Pn**	**23 00 40.6**	**+1.1**
UPD2				S	**Sn**	**23 01 22.0**	**+0.3**
RUSC	**La Rusia**	**3.69**	**77**	P	**Pn**	**23 00 40.3**	**+0.1**
RUSC	**La Rusia**	**3.69**	**77**	P	**Pn**	**23 00 40.6**	**+0.4**
BARC	**Barichara**	**3.81**	**67**	P	**Pn**	**23 00 41.9**	**+0.4**
MACC	**Macarena, Meta**	**4.08**	**136**	P	**Pn**	**23 00 44.8**	**-0.3**
AZU	**Azuero**	**4.45**	**307**	P	**Pn**	**23 00 49.5**	**-0.5**
PAMC	**Pamplona, Colo**	**4.56**	**60**	P	**Pn**	**23 00 52.4**	**+0.4**
OCAC	**Ocana**	**4.59**	**47**	P	**Pn**	**23 00 51.9**	**-0.2**
CACAO	**El Cacao, Vera**	**4.70**	**299**	P	**Pn**	**23 00 52.3**	**-1.2**
UPA	**Univ. de Panam**	**4.78**	**324**	P	**Pn**	**23 00 53.8**	**-0.7**
PNME	**Penonome**	**4.93**	**313**	P	**Pn**	**23 00 56.6**	**0.0**
SJCC	**San Jacinto, C**	**5.01**	**17**	P	**Pn**	**23 00 58.1**	**+0.4**
	617nm31nm,0.8s						
SJCC				AML	AML		
CUSE	**Cuicocha Este**	**5.04**	**200**	P	**Pn**	**23 00 57.5**	**-1.1**
CUSE				AML	AML		
TAMC	**Tame, Arauca**	**5.07**	**74**	P	**Pn**	**23 00 59.3**	**+0.8**
	2μm102nm,0.7s						
TAMC				AML	AML		
BCIP	**Isla Barro Col**	**5.11**	**323**	Pn	**Pn**	**23 00 57.9**	**-1.1**
BCIP	**Isla Barro Col**	**5.11**	**323**	P	**Pn**	**23 00 58.4**	**-0.6**
	4μm75nm,0.6s						
BCIP				AML	AML		
OTAV	**Otavalo**	**5.13**	**200**	Pn	**Pn**	**23 00 58.2**	**-1.4**
OTAV	**Otavalo**	**5.13**	**200**	P	**Pn**	**23 00 58.3**	**-1.4**
	26nm,0.6s						
OTAV				AML	AML		
PAC1	**Pacto, Paraso**	**5.23**	**204**	P	**Pn**	**23 00 58.1**	**-2.7**
PAC1				AML	AML		
GMAL	**Guarumal, Vera**	**5.23**	**301**	P	**Pn**	**23 01 01.2**	**+0.6**
SLOR	**San Lorenzo -**	**6.05**	**197**	Pn	**Pn**	**23 01 15.2**	**+2.9**
BRU2	**Volcan**	**6.99**	**302**	Pn	**Pn**	**23 01 23.9**	**-1.0**
SDV	**Santo Domingo**	**7.11**	**58**	P	**Pn**	**23 01 26.3**	**-0.1**
	31nm,0.3s,baz=246,slow=5.4,SNR=64						
SDV				S	**Sn**	**23 02 44.7**	**-1.2**
	32nm,0.5s,baz=283,slow=13,SNR=5.6						
SDV	**Santo Domingo**	**7.11**	**58**	Pn	**Pn**	**23 01 26.0**	**-0.5**
SDV	**Santo Domingo**	**7.11**	**58**	P	**Pn**	**23 01 26.2**	**-0.3**
PIRO	**Carate, Puerto**	**7.37**	**297**	Pn	**Pn**	**23 01 29.4**	**-0.4**
URIC	**Uribia, Colomb**	**8.05**	**35**	P	**Pn**	**23 01 37.3**	**-1.9**
LCR2	**La Lucha 2**	**8.59**	**303**	Pn	**Pn**	**23 01 47.8**	**+1.0**
JUD3	**Juan Diaz 3**	**10.11**	**300**	Pn	**Pn**	**23 02 09.5**	**+2.2**
MTDJ	**Mount Denham**	**13.08**	**357**		**Pn**	**23 02 50.0**	**+2.4**
BANI	**BANI**	**14.60**	**25**	P	**P**	**23 03 15.2**	**+3.5**
DR12	**Loma Pena Alta**	**15.38**	**27**	Pn	**Pn**	**23 03 16.1**	**-1.3**
CRPR	**Cabo Rojo, PR**	**15.90**	**35**	Pn	**Pn**	**23 03 23.4**	**-0.4**
CRPR				IAmb	IAmb	23 04 07.0	
	comp=Z,50nm,1.0s						
CELP	**Cerrillos**	**16.26**	**37**	P	**P**	**23 03 30.3**	**+0.3**
BOAV	**Boa Vista**	**16.36**	**99**	Pn	**Pn**	**23 03 27.4**	**-2.3**
AOPR	**Arecibo Observ**	**16.37**	**36**	P	**P**	**23 03 31.6**	**+0.3**
AOPR				IAmb	IAmb	23 03 34.3	
	comp=Z,33nm,1.2s						
GRGR	**Grenville**	**16.43**	**64**	Pn	**Pn**	**23 03 30.1**	**-0.5**
GRGR				IAmb	IAmb	23 03 49.9	
	comp=Z,71nm,1.1s						
HUMP	**Col San Antoni**	**16.76**	**38**	P	**P**	**23 03 36.3**	**+0.9**
CMIG	**Matias Romero**	**21.43**	**305**	LR	LR	23 12 23.7	
	comp=Z,107nm,19.9s,baz=176,slow=35						
LPAZ	**La Paz**	**22.87**	**158**	P	**P**	**23 04 40.1**	**-2.3**
	comp=Z,1.9nm,0.4s,baz=344,slow=3.5,SNR=11						
	comp=Z,1.9nm,0.4s						
VILB	**Vilhena**	**24.29**	**138**	P	**P**	**23 04 53.8**	**-1.0**
PB16	**IPOC Station P**	**24.33**	**163**	P	**P**	**23 04 54.7**	**-1.1**
GO01	**Chusmiza**	**25.69**	**163**	P	**P**	**23 05 07.4**	**-0.5**
PB02	**IPOC Station P**	**27.08**	**166**	P	**P**	**23 05 20.7**	**+0.7**
PB02				IAmb	IAmb	23 06 01.6	
	comp=Z,23nm,1.2s						
PB05	**IPOC Station P**	**28.49**	**167**	P	**P**	**23 05 33.2**	**+0.5**
AC01	**Pan de Azucar**	**31.61**	**169**	P	**P**	**23 06 00.7**	**+0.7**
AC01				IAmb	IAmb	23 06 27.7	
	comp=Z,24nm,1.1s						
CO03	**El Pedregal**	**36.19**	**171**	P	**P**	**23 06 40.9**	**+1.1**
CO03				IAmb	IAmb	23 06 48.1	
	comp=Z,14nm,1.3s						
CPUP	**Villa Florida**	**36.44**	**150**	P	**P**	**23 06 38.9**	**-3.0**
	comp=Z,2.1nm,0.8s,baz=346,slow=11,SNR=5.3						
	comp=Z,2.1nm,0.8s						
CPUP	**Villa Florida**	**36.44**	**150**	P	**P**	**23 06 39.1**	**-2.8**
CPUP				IAmb	IAmb	23 07 11.6	
	comp=Z,5.9nm,1.2s						
CO04	**Los Peladeros**	**37.33**	**172**	P	**P**	**23 06 50.8**	**+1.1**
MT02	**Curacav**	**38.50**	**172**	P	**P**	**23 07 00.3**	**+1.1**
MT09	**Talagante**	**39.03**	**172**	P	**P**	**23 07 04.8**	**+1.1**
SADO	**Sadowa**	**39.58**	**357**	P	**P**	**23 07 08.4**	**+0.4**
SADO				IAmb	IAmb	23 07 09.8	
	comp=Z,5.5nm,0.8s						
PLCA	**Paso Flores**	**45.95**	**173**	P	**P**	**23 07 58.4**	**-1.3**
	comp=Z,3.0nm,0.6s,baz=351,slow=10,SNR=10						
	comp=Z,3.0nm,0.6s						
PLCA	**Paso Flores**	**45.95**	**173**	P	**P**	**23 08 00.3**	**+0.7**
PLCA				IAmb	IAmb	23 08 00.9	
	comp=Z,3.8nm,0.6s						
PDAR	**Pinedale Array**	**47.48**	**327**	P	**P**	**23 08 10.8**	**-1.1**
	comp=Z,0.1nm,0.5s,baz=141,slow=6.8,SNR=1.6						
PDAR				pP	**pP**	**23 08 34.4**	**+2.1**
	comp=Z,0.4nm,0.7s,baz=127,slow=11,SNR=3.8						
	comp=Z,0.1nm,0.5s						
SCHQ	**Schefferville**	**50.23**	**7**	P	**P**	**23 08 33.0**	**+0.6**
	comp=Z,2.0nm,0.6s,baz=186,slow=7.8,SNR=3.8						
	comp=Z,2.0nm,0.6s						
SCHQ	**Schefferville**	**50.23**	**7**	P	**P**	**23 08 33.6**	**+1.1**
SCHQ				IAmb	IAmb	23 08 47.4	
	comp=Z,9.1nm,1.4s						
NVAR	**Mina Array Bea**	**50.24**	**317**	pP	pP	23 08 55.1	+1.6
	comp=Z,0.9nm,0.8s,baz=100,slow=6.4,SNR=6.2						
YKA	**Yellowknife Ar**	**63.71**	**341**	P	**P**	**23 10 06.6**	**-0.8**
	comp=Z,1.0nm,0.5s,baz=132,slow=6.3,SNR=5.4						
	comp=Z,1.0nm,0.5s						
SUMG	**Summit**	**71.36**	**11**	P	**P**	**23 10 55.9**	**-0.1**
SUMG				IAmb	IAmb	23 10 57.6	
	comp=Z,3.5nm,0.7s						
ESDC	**Sonseca Array**	**73.49**	**50**	P	**P**	**23 11 08.8**	**-0.1**
	comp=Z,0.7nm,1.0s,baz=257,slow=5.7,SNR=3.4						
	comp=Z,0.7nm,1.0s						
TORD	**Torodi Ar. Bea**	**77.58**	**78**	P	**P**	**23 11 32.2**	**-0.5**
	comp=Z,0.4nm,0.5s,baz=283,slow=6.2,SNR=8.0						
	comp=Z,0.4nm,0.5s						
AS31	**Alice Springs**	**145.21**	**235**		**PKPbc**	**23 19 13.3**	**-0.3**
ASAR	**Alice Springs**	**145.21**	**235**	PKPbc	**PKPbc**	**23 19 13.4**	**-0.3**
	comp=Z,1.7nm,0.4s,baz=115,slow=3.6,SNR=22						
ASAR	**Alice Springs**	**145.21**	**235**		**PKPbc**	**23 19 12.9**	**-0.7**
WRA	**Warramunga Arr**	**146.39**	**241**	PKPbc	**PKPdf**	**23 19 16.9**	**+0.9**
	comp=Z,0.6nm,0.5s,baz=109,slow=3.3,SNR=12						
WRA	**Warramunga Arr**	**146.39**	**241**		**PKPdf**	**23 19 16.6**	**+0.7**
WB0	**Warramunga Arr**	**146.40**	**242**	PKPbc	**PKPdf**	**23 19 16.5**	**+0.5**

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*IDC **28** 23:27:17.2±0.8, 15°.84N×97°.91W, h0km, mb4.1/11, mbtmp4.1/14, ML3.6/4, MS3.6/27, Error ellipse: s-maj=16.0km s-min=10.2km az=22.0*
*MEX **28** 23:27:19.5±0.8, 15°.89N×98°.03W, h12km±8km, MD4.9, Presumed earthquake*
*NEIC **28** 23:27:20.9±2.7, 16°.00N±0°.05×97°.93W±0°.04, h20km±5km, mb4.5/337, Md4.9/149(MEX), Error ellipse: s-maj=8.0km s-min=4.9km az=188.0*
*GFZ **28** 23:27:23.0±0.6, 16°N±7°×9°8W±°, h14km, M4.5/16, mb4.5/16, confirmed*
ISC 28 23:27:19.2±0.6, **15°.96N**±0°.03×**97°.94W**±0°.03, **h15km**±3km, **n502, σ1s.71**/575, **mb4.6**/110, **MS3.6**/25, **Near coast of Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PEIG	**Puerto Escondi**	**0.76**	**87**	*i* P	**Pn**	**23 27 33.6**	**-1.7**
PEIG				*e*S	**Sn**	**23 27 44.0**	**-2.6**
PEIG	**Puerto Escondi**	**0.76**	**87**		**Pn**	**23 27 33.6**	**-1.7**
PEIG					**Sn**	**23 27 44.0**	**-2.6**
YOIG	**Yosondua**	**0.96**	**23**	*i* P	**Pb**	**23 27 36.6**	**-1.2**
YOIG				*e*S	**Sb**	**23 27 49.4**	**-1.1**
YOIG	**Yosondua**	**0.96**	**23**		**Pb**	**23 27 36.6**	**-1.2**
YOIG					**Sb**	**23 27 49.4**	**-1.1**
TXIG	**Tlaxiaco**	**1.29**	**7**	*e*P	**Pn**	**23 27 41.1**	**-1.9**
TXIG				*e*S	**Sb**	**23 27 57.7**	**-2.3**
TXIG	**Tlaxiaco**	**1.29**	**7**		**Pn**	**23 27 41.1**	**-1.9**
TXIG					**Sb**	**23 27 57.7**	**-2.3**
CRIG	**Cruz Grande**	**1.38**	**304**	*e*P	Pn	23 27 40.4	-3.6
CRIG				*e*S	**Sn**	**23 27 55.4**	**-6.5**
CRIG	**Cruz Grande**	**1.38**	**304**		Pn	23 27 40.4	-3.6
MGIG	**Malinaltepec**	**1.43**	**332**	*e*P	**Pn**	**23 27 42.8**	**-1.9**
MGIG				*e*S	**Sn**	**23 28 00.0**	**-3.4**
MGIG	**Malinaltepec**	**1.43**	**332**		**Pn**	**23 27 42.8**	**-1.9**
MGIG					**Sn**	**23 28 00.0**	**-3.4**
VHO	**Vista Hermosa**	**1.60**	**46**	*e*P	**Pn**	**23 27 46.0**	**-1.0**
VHO				*e*S	**Sb**	**23 28 05.6**	**-2.9**
OXIG	**Oaxaca**	**1.60**	**46**		**Pn**	**23 27 46.0**	**-1.0**
OXIG					**Sb**	**23 28 05.6**	**-3.0**
OXBJ	**Oaxaca**	**1.60**	**46**	*e*P	**Pn**	**23 27 46.2**	**-0.9**
OXBJ				*e*S	**Sg**	**23 28 07.6**	**-3.2**
OXBJ	**Oaxaca**	**1.60**	**46**		**Pn**	**23 27 46.2**	**-0.9**
OXBJ					**Sg**	**23 28 07.6**	**-3.2**
OXLC	**Oaxaca**	**1.61**	**47**	*e*P	**Pn**	**23 27 44.6**	**-2.7**
OXLC				*e*S	**Sb**	**23 28 06.3**	**-2.7**
OXLC	**Oaxaca**	**1.61**	**47**		**Pn**	**23 27 44.6**	**-2.7**
OXLC					**Sb**	**23 28 06.3**	**-2.7**
TLIG	**Tlapa**	**1.70**	**339**	*e*P	**Pn**	**23 27 46.5**	**-1.9**
TLIG				*e*S	**Sn**	**23 28 09.3**	**-0.8**
TLIG	**Tlapa**	**1.70**	**339**	Pn	**Pn**	**23 27 47.5**	**-0.9**
TLIG				Sn	**Sn**	**23 28 09.1**	**-1.0**
HUIG	**Huatulco**	**1.77**	**96**	*e*P	**Pn**	**23 27 47.7**	**-1.5**
HUIG				*e*S	**Sb**	**23 28 09.8**	**-3.5**
HUIG	**Huatulco**	**1.77**	**96**		**Pn**	**23 27 47.7**	**-1.5**
HUIG					**Sb**	**23 28 09.8**	**-3.5**
FTIG	**Fresnillo de T**	**1.94**	**354**	*e*P	**Pn**	**23 27 50.2**	**-1.6**
FTIG				*e*S	**Sn**	**23 28 14.0**	**-2.0**
FTIG	**Fresnillo de T**	**1.94**	**354**		**Pn**	**23 27 50.2**	**-1.6**
FTIG					**Sn**	**23 28 14.0**	**-2.0**
DAIG	**Los Arroyos**	**1.95**	**303**	*e*P	**Pn**	**23 27 49.7**	**-2.1**
DAIG				*e*S	**Sn**	**23 28 10.8**	**-5.3**
DAIG	**Los Arroyos**	**1.95**	**303**		**Pn**	**23 27 49.7**	**-2.1**
DAIG					**Sn**	**23 28 10.8**	**-5.3**

TOIG	**Toxpalan**	**2.28**	**21**	*e*P	**Pn**	**23 27 55.8**	**-0.6**
TOIG				*e*S	**Sn**	**23 28 22.6**	**-1.6**
TOIG	**Toxpalan**	**2.28**	**21**		**Pn**	**23 27 55.8**	**-0.6**
TOIG					**Sn**	**23 28 22.6**	**-1.6**
CAIG	**El Cayaco**	**2.48**	**296**	*e*P	**Pn**	**23 27 57.0**	**-2.1**
CAIG				*e*S	**Sn**	**23 28 27.6**	**-1.5**
CAIG	**El Cayaco**	**2.48**	**296**		**Pn**	**23 27 57.0**	**-2.1**
CAIG					**Sn**	**23 28 27.6**	**-1.5**
TPIG	**Tehuac#an**	**2.50**	**13**	*e*P	**Pn**	**23 27 59.2**	**-0.3**
TPIG				*e*S	**Sn**	**23 28 31.0**	**+1.1**
TPIG	**Tehuac#an**	**2.50**	**13**		**Pn**	**23 27 59.2**	**-0.3**
TPIG					**Sn**	**23 28 31.0**	**+1.1**
MEIG	**Mezcala**	**2.53**	**321**	*e*P	**Pn**	**23 28 00.3**	**+0.4**
MEIG				*e*S	**Sn**	**23 28 28.6**	**-1.9**
MEIG	**Mezcala**	**2.53**	**321**		**Pn**	**23 28 00.3**	**+0.4**
MEIG					**Sn**	**23 28 28.6**	**-1.9**
NEUV	**Arroyo Zacate**	**2.68**	**49**	*e*P	**Pn**	**23 28 01.1**	**-0.8**
NEUV				*e*S	**Sb**	**23 28 35.8**	**-3.9**
NEUV	**Arroyo Zacate**	**2.68**	**49**		**Pn**	**23 28 01.1**	**-0.8**
NEUV					**Sb**	**23 28 35.8**	**-3.9**
PLIG	**Platanillo**	**2.84**	**328**	*e*P	**Pn**	**23 28 04.0**	**-0.2**
PLIG				*e*S	**Sn**	**23 28 37.2**	**-0.9**
PLIG	**Platanillo**	**2.84**	**328**		**Pn**	**23 28 04.0**	**-0.2**
PLIG					**Sn**	**23 28 37.2**	**-0.9**
PPCL	**Tochimilco**	**3.00**	**348**	*e*P	**Pn**	**23 28 08.2**	**+1.7**
PPCL				*e*S	**Sn**	**23 28 36.4**	**-6.0**
PPCL	**Tochimilco**	**3.00**	**348**		**Pn**	**23 28 08.2**	**+1.7**
PPCL					**Sn**	**23 28 36.4**	**-6.0**
PPPT	**Popocatepetl**	**3.07**	**348**	*e*P	**Pn**	**23 28 06.2**	**-1.4**
PPPT				*e*S	**Sn**	**23 28 43.0**	**-1.3**
PPPT	**Popocatepetl**	**3.07**	**348**		**Pn**	**23 28 06.2**	**-1.4**
PPPT					**Sn**	**23 28 43.0**	**-1.3**
YAIG	**Yautepec**	**3.08**	**340**	*e*P	**Pn**	**23 28 09.7**	**+2.2**
YAIG				*e*S	**Sn**	**23 28 42.5**	**-1.6**
YAIG	**Yautepec**	**3.08**	**340**		**Pn**	**23 28 09.7**	**+2.2**
YAIG					**Sn**	**23 28 42.5**	**-1.6**
PBXN	**Popocatepetl**	**3.11**	**347**	*e*P	**Pn**	**23 28 06.5**	**-1.7**
PBXN				*e*S	**Sn**	**23 28 44.3**	**-1.0**
PBPN	**Popocatepetl**	**3.13**	**348**	*e*P	**Pn**	**23 28 07.9**	**-0.6**
PBPN				*e*S	**Sn**	**23 28 46.0**	**+0.1**
CMIG	**Matias Romero**	**3.13**	**69**	Pn	**Pn**	**23 28 06.8**	**-1.2**
	18nm,0.3s,baz=254,slow=13,SNR=108						
CMIG				Sn	**Sn**	**23 28 43.9**	**-1.3**
	72nm,0.3s,baz=58,slow=22,SNR=7.3						
CMIG				Lg	Lg	23 28 59.6	
	74nm,0.3s,baz=64,slow=12,SNR=5.4						
	39nm,0.2s						
CMIG				AML	AML		
CMIG	**Matias Romero**	**3.13**	**69**	*e*P	**Pn**	**23 28 06.2**	**-1.8**
CMIG				*e*S	**Sn**	**23 28 44.3**	**-0.9**
CMIG	**Matias Romero**	**3.13**	**69**		**Pn**	**23 28 06.2**	**-1.8**
CMIG					**Sn**	**23 28 44.3**	**-0.9**
PPIG	**Popocatepetl**	**3.16**	**348**		**Pn**	**23 28 09.8**	**+0.9**
PPIG					**Sn**	**23 28 43.5**	**-3.0**
PPM	**Popocatepetl**	**3.16**	**348**	*e*P	**Pn**	**23 28 09.8**	**+1.0**
PPM				*e*S	**Sn**	**23 28 43.5**	**-3.0**
AMVM	**AMECAMECA**	**3.26**	**346**	*e*P	Pn	23 28 05.3	-4.7
AMVM				*e*S	**Sn**	**23 28 46.7**	**-2.0**
AMVM	**AMECAMECA**	**3.26**	**346**		Pn	23 28 05.3	-4.7
AMVM					**Sn**	**23 28 46.7**	**-2.0**
MAVM	**Malinalco, Edo**	**3.33**	**334**	*e*P	**Pn**	**23 28 10.7**	**-0.3**
MAVM				*e*S	**Sn**	**23 28 47.2**	**-3.2**
MAVM	**Malinalco, Edo**	**3.33**	**334**		**Pn**	**23 28 10.7**	**-0.3**
MAVM					**Sn**	**23 28 47.2**	**-3.2**
MPVM	**San Francisco**	**3.38**	**342**	*e*P	**Pn**	**23 28 12.6**	**+1.0**
MPVM				*e*S	**Sn**	**23 28 48.5**	**-3.2**
MPVM	**San Francisco**	**3.38**	**342**		**Pn**	**23 28 12.6**	**+1.0**
MPVM					**Sn**	**23 28 48.5**	**-3.2**
TLVM	**San Miguel Top**	**3.43**	**340**	*e*P	**Pn**	**23 28 13.1**	**+0.6**
TLVM				*e*S	**Sn**	**23 28 51.7**	**-1.3**
TLVM	**San Miguel Top**	**3.43**	**340**		**Pn**	**23 28 13.1**	**+0.6**
TLVM					**Sn**	**23 28 51.7**	**-1.3**
MZVM		**3.44**	**339**	*e*P	**Pn**	**23 28 12.6**	**+0.4**
MZVM				*e*S	**Sn**	**23 28 49.4**	**-3.3**
MZVM		**3.44**	**339**		**Pn**	**23 28 12.6**	**+0.4**
MZVM					**Sn**	**23 28 49.4**	**-3.3**
XCVM	**Xochimilco**	**3.46**	**341**	*e*P	**Pn**	**23 28 13.6**	**+0.8**
XCVM				*e*S	**Sn**	**23 28 50.0**	**-3.6**
XCVM	**Xochimilco**	**3.46**	**341**		**Pn**	**23 28 13.6**	**+0.8**
XCVM					**Sn**	**23 28 50.0**	**-3.6**
THVM	**De Xico**	**3.48**	**344**	*e*P	**Pn**	**23 28 10.2**	**-2.8**
THVM				*e*S	**Sn**	**23 28 50.2**	**-3.8**
THVM	**De Xico**	**3.48**	**344**		**Pn**	**23 28 10.2**	**-2.8**
THVM					**Sn**	**23 28 50.2**	**-3.8**
UNM	**Universidad Na**	**3.55**	**341**		**Pn**	**23 28 15.7**	**+1.6**
UNM				Sn	**Sn**	**23 28 56.6**	**+0.7**
UNM	**Universidad Na**	**3.55**	**341**	P	**Pb**	**23 28 19.8**	**-2.2**
JAUV	**Jalcomulco**	**3.55**	**18**	*e*P	**Pn**	**23 28 12.2**	**-1.7**
JAUV				*e*S	**Sn**	**23 28 54.0**	**-1.6**
JAUV	**Jalcomulco**	**3.55**	**18**		**Pn**	**23 28 12.2**	**-1.7**
JAUV					**Sn**	**23 28 54.0**	**-1.6**
INVM	**La Marquesa**	**3.59**	**338**	*e*P	**Pn**	**23 28 11.5**	**-3.1**
INVM				*e*S	**Sn**	**23 28 52.4**	**-4.5**
INVM	**La Marquesa**	**3.59**	**338**		**Pn**	**23 28 11.5**	**-3.1**
INVM					**Sn**	**23 28 52.4**	**-4.5**
PBVM	**Pinon**	**3.63**	**343**	*e*P	**Pn**	**23 28 16.1**	**+1.2**
PBVM				*e*S	**Sn**	**23 28 54.0**	**-3.4**
PBVM	**Pinon**	**3.63**	**343**		**Pn**	**23 28 16.1**	**+1.2**
PBVM					**Sn**	**23 28 54.0**	**-3.4**
MHVM	**Bosque de Chap**	**3.64**	**341**	*e*P	**Pn**	**23 28 15.2**	**0.0**
MHVM				*e*S	**Sn**	**23 28 55.6**	**-2.4**
MHVM	**Bosque de Chap**	**3.64**	**341**		**Pn**	**23 28 15.2**	**0.0**
MHVM					**Sn**	**23 28 55.6**	**-2.4**
CTVM	**Cuauhtemoc**	**3.66**	**341**	*e*S	**Sn**	**23 29 00.2**	**+1.7**
CTVM	**Cuauhtemoc**	**3.66**	**341**		**Sn**	**23 29 00.2**	**+1.7**
TOVM	**TOLUCA**	**3.70**	**334**	*e*P	**Pn**	**23 28 16.0**	**-0.1**
TOVM				*e*S	**Sn**	**23 28 55.2**	**-4.4**
TOVM	**TOLUCA**	**3.70**	**334**		**Pn**	**23 28 16.0**	**-0.1**
TOVM					**Sn**	**23 28 55.2**	**-4.4**
APVM	**Azcapotzalco**	**3.71**	**341**	*e*P	**Pn**	**23 28 13.8**	**-2.4**
APVM				*e*S	**Sn**	**23 29 00.2**	**+0.4**
APVM	**Azcapotzalco**	**3.71**	**341**		**Pn**	**23 28 13.8**	**-2.4**
APVM					**Sn**	**23 29 00.2**	**+0.4**
PMUV	**Sontecomapan**	**3.72**	**46**	*e*P	**Pn**	**23 28 13.9**	**-2.2**
PMUV				*e*S	**Sn**	**23 29 02.0**	**+2.3**
PMUV	**Sontecomapan**	**3.72**	**46**		**Pn**	**23 28 13.9**	**-2.2**
PMUV					**Sn**	**23 29 02.0**	**+2.3**
ZIIG	**Zihuatanejo**	**3.76**	**296**	*e*P	Pn	23 28 12.8	-3.8
ZIIG				*e*S	**Sn**	**23 28 58.1**	**-2.4**
ZIIG	**Zihuatanejo**	**3.76**	**296**		Pn	23 28 12.8	-3.8
ZIIG					**Sn**	**23 28 58.1**	**-2.4**
PTVM	**Pico Tres Padr**	**3.78**	**343**	*e*P	**Pn**	**23 28 16.5**	**-0.7**
PTVM				*e*S	**Sn**	**23 28 59.5**	**-2.0**
PTVM	**Pico Tres Padr**	**3.78**	**343**		**Pn**	**23 28 16.5**	**-0.7**
PTVM					**Sn**	**23 28 59.5**	**-2.0**
AZVM	**Cuida Lopez Ma**	**3.83**	**341**	*e*P	**Pn**	**23 28 18.8**	**+1.0**
AZVM				*e*S	**Sn**	**23 29 02.1**	**-0.6**
AZVM	**Cuida Lopez Ma**	**3.83**	**341**		**Pn**	**23 28 18.8**	**+1.0**
AZVM					**Sn**	**23 29 02.1**	**-0.6**
VTVM	**Tizayuca**	**3.87**	**348**	*e*P	**Pn**	**23 28 18.5**	**0.0**
VTVM				*e*S	**Sn**	**23 29 03.0**	**-0.8**
VTVM	**Tizayuca**	**3.87**	**348**		**Pn**	**23 28 18.5**	**0.0**
VTVM					**Sn**	**23 29 03.0**	**-0.8**
UXUV	**UXUV**	**3.88**	**69**	*e*P	**Pn**	**23 28 17.0**	**-1.2**
UXUV				*e*S	**Sn**	**23 29 04.0**	**+0.6**
UXUV	**UXUV**	**3.88**	**69**		**Pn**	**23 28 17.0**	**-1.2**
UXUV					**Sn**	**23 29 04.0**	**+0.6**
ATVM	**ATLACOMULCO**	**4.19**	**335**	*e*P	**Pn**	**23 28 24.1**	**+1.2**
ATVM				*e*S	**Sn**	**23 29 12.7**	**+0.9**
ATVM	**ATLACOMULCO**	**4.19**	**335**		**Pn**	**23 28 24.1**	**+1.2**
ATVM					**Sn**	**23 29 12.7**	**+0.9**
DHIG	**Demacu**	**4.44**	**347**		**Pn**	**23 28 27.1**	**+0.9**
DHIG					**Sn**	**23 29 15.4**	**-2.3**
DEIG	**Demacu**	**4.44**	**347**	*e*P	**Pn**	**23 28 27.1**	**+0.9**
DEIG				*e*S	**Sn**	**23 29 15.4**	**-2.4**
TGIG		**4.69**	**79**	*e*P	**Pn**	**23 28 27.2**	**-2.3**
TGIG				*e*S	**Sn**	**23 29 27.1**	**+3.4**
TGIG		**4.69**	**79**		**Pn**	**23 28 27.2**	**-2.3**
TGIG					**Sn**	**23 29 27.1**	**+3.4**
MOIG	**Morelia**	**4.82**	**320**	*e*P	**Pn**	**23 28 33.6**	**+2.1**
MOIG				*e*S	**Sn**	**23 29 26.1**	**-1.1**
MOIG	**Morelia**	**4.82**	**320**		**Pn**	**23 28 33.2**	**+1.7**
CTUV	**Llano Grande**	**5.50**	**356**	*e*P	Pn	23 28 47.3	+6.8
CTUV	**Llano Grande**	**5.50**	**356**		Pn	23 28 47.3	+6.8
MMIG	**Aquila**	**5.67**	**295**	*e*P	**Pn**	**23 28 41.0**	**-1.8**
MMIG				*e*S	Sn	23 29 39.5	-8.1
MMIG	**Aquila**	**5.67**	**295**		**Pn**	**23 28 41.0**	**-1.8**
MMIG					Sn	23 29 39.5	-8.1
IGIG	**Irapuato, Guan**	**5.75**	**326**	*e*P	**Pn**	**23 28 42.4**	**-1.9**
IGIG				*e*S	**Sn**	**23 29 51.1**	**+1.0**
IGIG	**Irapuato, Guan**	**5.75**	**326**		**Pn**	**23 28 42.4**	**-1.9**
IGIG					**Sn**	**23 29 51.1**	**+1.0**
RPIG	**Rio Verde**	**6.20**	**342**	*e*P	**Pn**	**23 28 52.5**	**+2.1**
RPIG				*e*S	**Sn**	**23 30 03.1**	**+2.1**
RPIG	**Rio Verde**	**6.20**	**342**		**Pn**	**23 28 52.5**	**+2.1**
RPIG					**Sn**	**23 30 03.1**	**+2.1**
INCO	**Volcan de Coli**	**6.46**	**304**	*e*P	**Pn**	**23 28 56.7**	**+2.6**
INCO				*e*S	**Sn**	**23 30 10.8**	**+3.0**
CDAR	**Ciudad de Arme**	**6.51**	**298**	*e*P	**Pn**	**23 28 54.5**	**0.0**
CDAR				*e*S	Sn	23 30 01.2	-7.3
CEGR	**Campo Tres**	**6.59**	**302**	*e*P	**Pn**	**23 28 57.5**	**+1.7**
CEGR				*e*S	**Sn**	**23 30 10.3**	**-0.5**
CEGR	**Campo Tres**	**6.59**	**302**		**Pn**	**23 28 57.5**	**+1.7**
CEGR					**Sn**	**23 30 10.3**	**-0.5**
SCIG	**Sabancuy**	**7.10**	**64**	*e*P	**Pn**	**23 29 02.0**	**-0.5**
SCIG				*e*S	**Sn**	**23 30 16.5**	**-6.5**
SCIG	**Sabancuy**	**7.10**	**64**		**Pn**	**23 29 02.0**	**-0.5**
SCIG					**Sn**	**23 30 16.5**	**-6.5**
APG	**El Apazote**	**7.26**	**97**	Pn	**Pn**	**23 29 05.7**	**+0.6**
	0.1nm,0.3s,baz=200,slow=11,SNR=6.0						
APG				Sn	**Sn**	**23 30 26.8**	**-0.7**
	0.3nm,0.3s,baz=222,slow=18,SNR=3.6						
APG				Lg	Lg	23 31 06.7	
	0.2nm,0.3s,baz=224,slow=19,SNR=4.0						
APG				AML	AML		
CIHU	**Emiliano Zapat**	**7.27**	**298**	*e*P	**Pn**	**23 29 04.8**	**-0.1**
CIHU				*e*S	Sn	23 30 20.3	-6.9
CIHU	**Emiliano Zapat**	**7.27**	**298**		**Pn**	**23 29 04.8**	**-0.1**
CIHU					Sn	23 30 20.3	-6.9
CJM	**Chamela**	**7.63**	**298**	*e*P	**Pn**	**23 29 07.5**	**-2.3**
CJM				*e*S	**Sn**	**23 30 30.5**	**-5.6**
PETF	**Flores**	**7.80**	**82**	Pn	**Pn**	**23 29 11.3**	**-0.9**
ESTA	**Talpa de Allen**	**7.91**	**305**	*e*P	**Pn**	**23 29 14.2**	**+0.4**
ESTA				*e*S	**Sn**	**23 30 44.6**	**+1.4**
ESTA	**Talpa de Allen**	**7.91**	**305**		**Pn**	**23 29 14.2**	**+0.4**
ESTA					**Sn**	**23 30 44.6**	**+1.4**
ZAIG	**Zacatecas**	**8.06**	**328**	*e*P	**Pn**	**23 29 15.9**	**-0.1**
ZAIG				*e*S	**Sn**	**23 30 51.1**	**+4.1**
ZAIG	**Zacatecas**	**8.06**	**328**		**Pn**	**23 29 16.3**	**+0.3**
MTO3	**Montecristo**	**8.42**	**99**	Pn	**Pn**	**23 29 20.8**	**-0.2**
LNIG	**Linares**	**9.01**	**351**	*e*P	**Pn**	**23 29 32.8**	**+4.1**
LNIG				*e*S	**Sn**	**23 31 10.2**	**+0.2**
LNIG	**Linares**	**9.01**	**351**		**Pn**	**23 29 32.8**	**+4.1**
LNIG					**Sn**	**23 31 10.2**	**+0.2**
TEIG	**Tepich**	**10.12**	**64**	*e*P	**Pn**	**23 29 41.8**	**-2.1**
TEIG				*e*S	Sn	23 31 28.1	-9.1
TEIG	**Tepich**	**10.12**	**64**		**Pn**	**23 29 42.4**	**-1.5**
TEIG	**Tepich**	**10.12**	**64**	P	**Pn**	**23 29 44.0**	**+0.1**
	comp=Z,84nm,1.0s						
PDIG	**Papasquiaro**	**11.42**	**323**	*e*P	**Pn**	**23 29 59.7**	**-2.2**
PDIG				*e*S	**Sn**	**23 32 11.1**	**+1.7**
PDIG	**Papasquiaro**	**11.42**	**323**		**Pn**	**23 29 59.7**	**-2.2**
PDIG					**Sn**	**23 32 11.1**	**+1.7**
HNDO	**Hondo**	**13.56**	**355**		**Pn**	**23 30 30.6**	**-0.5**
MLDN	**Muldoon**	**13.78**	**3**	Pn	**Pn**	**23 30 34.0**	**0.0**
JTS	**Las Juntas de**	**13.84**	**112**	Pn	**Pn**	**23 30 35.1**	**+0.2**
	comp=Z,0.5nm,0.3s,baz=332,slow=20,SNR=1.1						
	comp=Z,2.7nm,0.3s						
JTS				AML	AML		
JTS	**Las Juntas de**	**13.84**	**112**		**Pn**	**23 30 35.0**	**0.0**
LPIG	**La Paz**	**14.16**	**307**	LR	LR	23 36 23.3	
	comp=Z,213nm,18.8s,baz=67,slow=38						
TXAR	**Lajitas Array**	**14.32**	**339**	Pn	**Pn**	**23 30 44.0**	**+2.5**
	comp=Z,0.1nm,0.3s,baz=156,slow=9.6,SNR=7.2						
TXAR				Lg	Lg	23 34 49.4	
	comp=Z,0.1nm,0.3s,baz=159,slow=24,SNR=2.3						
TXAR				LR	LR	23 37 00.4	
	comp=Z,391nm,19.3s,baz=143,slow=40						
	comp=Z,1.0nm,0.8s						
TXAR				AML	AML		
TXAR	**Lajitas Array**	**14.32**	**339**		**Pn**	**23 30 39.5**	**-2.0**
TX31	**Lajitas Ar. Si**	**14.32**	**339**		**Pn**	**23 30 42.0**	**+0.5**
SAND	**Sanderson**	**14.45**	**345**		**Pn**	**23 30 44.2**	**+0.9**
CSIG	**Choix**	**14.53**	**320**	*e*P	**P**	**23 30 49.6**	**-1.3**
CSIG	**Choix**	**14.53**	**320**	P	**P**	**23 30 49.6**	**-1.3**
JCT	**Junction City**	**14.55**	**354**		**Pn**	**23 30 45.2**	**+0.5**
435B	**Jarrell**	**14.76**	**1**		**P**	**23 30 53.1**	**-0.3**
LCR2	**La Lucha 2**	**14.92**	**113**		**Pn**	**23 30 49.9**	**0.0**
RAFA	**San Farael, Vo**	**15.00**	**112**	Pn	**P**	**23 30 53.7**	**-2.8**
OZNA	**Ozona**	**15.18**	**349**		**Pn**	**23 30 53.8**	**+0.7**
OZNA				IAmb	IAmb	23 31 05.8	
	comp=Z,20nm,1.1s						
ALPN	**Alpine**	**15.27**	**341**		**Pn**	**23 30 55.3**	**+0.9**
BRDY	**Brady**	**15.29**	**357**	P	**P**	**23 30 57.6**	**-1.7**
SOR	**Soroa**	**15.63**	**62**	Pn	**Pn**	**23 30 59.4**	**+0.4**
TPB01	**Permian Basin**	**15.84**	**341**		**Pn**	**23 31 01.8**	**0.0**
MNHN	**Monahans**	**15.93**	**345**		**P**	**23 31 06.5**	**0.0**
WHTX	**Lake Whitney,**	**15.96**	**1**		**P**	**23 31 06.0**	**-0.7**
TMB01	**Midkiff**	**16.09**	**347**	P	**P**	**23 31 07.5**	**-0.7**
VHRN	**Van Horn**	**16.11**	**338**		**P**	**23 31 09.2**	**+0.7**
SGCY	**Sterling City**	**16.14**	**350**		**P**	**23 31 08.7**	**-0.1**
PECS	**Pecos**	**16.27**	**342**	P	**P**	**23 31 10.9**	**+0.7**
PECS				IAmb	IAmb	23 31 17.1	
	comp=Z,34nm,1.1s						
229A	**Bryant Ranch,**	**16.32**	**348**	P	**P**	**23 31 11.0**	**+0.2**
FW13	**Cleburne**	**16.32**	**2**		**P**	**23 31 10.3**	**-0.5**
TPB06	**Permian Basin**	**16.34**	**344**	P	**P**	**23 31 11.1**	**0.0**
ODSA	**Odessa**	**16.62**	**346**		**Pn**	**23 31 13.3**	**+1.5**
ABTX	**Abilene, Hawle**	**16.66**	**355**		**P**	**23 31 13.9**	**-0.6**
ABTX				IAmb	IAmb	23 31 20.9	
	comp=Z,44nm,0.8s						
TPB28		**16.74**	**340**	P	**Pn**	**23 31 14.5**	**+1.2**
TPB28				IAmb	IAmb	23 31 22.1	
	comp=Z,9.6nm,1.0s						
PLPT	**Palo Pinto**	**16.78**	**359**		**P**	**23 31 14.8**	**-1.0**
PLPT				IAmb	IAmb	23 31 22.0	
	comp=Z,49nm,1.0s						
TPB11	**China Draw**	**16.84**	**342**	P	**P**	**23 31 16.4**	**-0.3**
FW06	**Azle**	**16.94**	**1**		**Pn**	**23 31 16.2**	**+0.5**
FW06				IAmb	IAmb	23 31 22.9	
	comp=Z,35nm,0.7s						
129A	**Stewart Farms,**	**16.98**	**349**	P	**P**	**23 31 18.6**	**+0.5**
CGIG		**17.04**	**329**	*e*P	**P**	**23 31 21.0**	**+2.1**
CGIG		**17.04**	**329**	P	**P**	**23 31 21.0**	**+2.1**
MNTX	**Cornudas Mount**	**17.07**	**338**	*e*P	**P**	**23 31 19.6**	**+0.5**
MNTX	**Cornudas Mount**	**17.07**	**338**		**Pn**	**23 31 18.2**	**+0.8**
MNTX	**Cornudas Mount**	**17.07**	**338**	P	**P**	**23 31 21.2**	**+2.1**
	comp=Z,8.8nm,1.2s						
128A	**Castleberry Fa**	**17.09**	**347**		**Pn**	**23 31 18.5**	**+0.8**
CLNB	**Carlsbad**	**17.11**	**343**	P	**P**	**23 31 20.2**	**+0.6**
GDL2	**Guadalupe Moun**	**17.19**	**341**	P	**P**	**23 31 21.3**	**+0.8**
SN07	**Snyder 07**	**17.26**	**352**	P	**P**	**23 31 20.9**	**-0.4**
SN07				IAmb	IAmb	23 31 27.3	
	comp=Z,32nm,1.2s						
Z35A	**Perchaven, San**	**17.30**	**2**	P	**P**	**23 31 22.1**	**+0.5**
Z35A				IAmb	IAmb	23 31 48.4	
	comp=Z,40nm,0.9s						
POST	**Post**	**17.33**	**350**		**P**	**23 31 22.4**	**+0.3**
POST				IAmb	IAmb	23 31 29.0	
	comp=Z,58nm,0.9s						
APMT	**Aspermont**	**17.40**	**354**	P	**Pn**	**23 31 21.8**	**+0.3**
Z38A	**Mt. Pleasant**	**17.43**	**8**	P	**P**	**23 31 22.7**	**-0.3**
Z38A				IAmb	IAmb	23 31 28.1	
	comp=Z,32nm,0.9s						
HSIG		**17.68**	**320**	P	**P**	**23 31 27.4**	**+1.5**
143A	**Socs Landing,**	**17.69**	**18**	P	**P**	**23 31 25.1**	**-0.8**
143A				IAmb	IAmb	23 31 30.8	
	comp=Z,58nm,1.2s						
WTFS	**Witchita Falls**	**17.73**	**359**	P	**P**	**23 31 26.1**	**-0.3**
CPRX	**Cap Rock**	**17.82**	**344**	P	**P**	**23 31 28.4**	**+0.8**
DKNS	**Dickens**	**17.83**	**352**	P	**P**	**23 31 28.3**	**+0.7**
DKNS				IAmb	IAmb	23 31 34.5	
	comp=Z,26nm,0.8s						
Z41A	**Richland Creek**	**17.84**	**14**	P	**P**	**23 31 27.0**	**-0.5**
Z41A				IAmb	IAmb	23 31 49.9	
	comp=Z,33nm,1.0s						
LOOK	**Love County**	**17.97**	**2**	P	**P**	**23 31 28.8**	**-0.2**
LOOK				IAmb	IAmb	23 32 04.9	
	comp=Z,25nm,0.8s						
MSTX	**Muleshoe**	**18.45**	**347**		**P**	**23 31 34.6**	**+0.1**
319A	**Douglas**	**18.51**	**328**	P	**Pn**	**23 31 36.5**	**+1.2**
X34A	**Smith Ranch, M**	**18.56**	**0**	P	**Pn**	**23 31 36.0**	**+0.3**
WMOK	**Wichita Mounta**	**18.71**	**358**	P	**Pn**	**23 31 37.6**	**0.0**
WMOK	**Wichita Mounta**	**18.71**	**358**	P	**P**	**23 31 35.8**	**-1.4**
	comp=Z,13nm,2.3s						
121A	**Cookes Peak, D**	**18.76**	**333**	P	**Pn**	**23 31 39.7**	**+1.3**
MIAR	**Mount Ida**	**18.92**	**11**	P	**Pn**	**23 31 40.1**	**0.0**
MIAR	**Mount Ida**	**18.92**	**11**	P	**Pn**	**23 31 42.0**	**+2.0**
	comp=Z,28nm,1.5s						
X40A	**Basin Creek Fa**	**19.01**	**13**	P	**Pn**	**23 31 41.3**	**+0.2**
W35A	**Tecumseh**	**19.14**	**3**		**Pn**	**23 31 43.0**	**+0.3**
W35A				IAmb	IAmb	23 31 48.4	
	comp=Z,26nm,1.0s						
AMTX	**Amarillo**	**19.14**	**351**		**Pn**	**23 31 43.2**	**+0.3**
AMTX				IAmb	IAmb	23 31 51.8	
	comp=Z,23nm,0.9s						
SMWD	**Samnorwood**	**19.18**	**354**	P	**Pn**	**23 31 43.8**	**+0.6**
SMWD				IAmb	IAmb	23 31 52.0	
	comp=Z,22nm,1.0s						
FNO	**Franklin**	**19.22**	**1**	P	**Pn**	**23 31 44.0**	**+0.3**
Z47A	**Carrollton**	**19.34**	**26**	P	**Pn**	**23 31 44.8**	**-0.4**
Y45A	**Yeager Farm, C**	**19.37**	**21**	P	**Pn**	**23 31 44.9**	**-0.6**
Y45A				IAmb	IAmb	23 31 50.0	
	comp=Z,19nm,0.7s						
OKCSW	**OKLAHOMA CITY**	**19.37**	**1**	P	**Pn**	**23 31 45.4**	**-0.1**
DUN6	**Lazy B Ranch**	**19.37**	**330**	P	**Pn**	**23 31 46.5**	**+0.8**
UALR	**University of**	**19.40**	**14**		**P**	**23 31 44.5**	**-0.2**
CRNM	**Carthage**	**19.59**	**338**	P	**Pn**	**23 31 50.3**	**+1.9**
Y22A	**Socorro**	**19.66**	**337**		**Pn**	**23 31 49.5**	**+0.3**
Y22A				IAmb	IAmb	23 32 01.7	
	comp=Z,19nm,0.8s						
LRAL	**Lakeview Retre**	**19.67**	**28**		**Pn**	**23 31 48.3**	**-0.8**
PH02	**Texas Public H**	**19.68**	**350**	P	**Pn**	**23 31 49.1**	**-0.2**
PH02				IAmb	IAmb	23 31 53.8	
	comp=Z,33nm,1.0s						
OK029	**Liberty Lake**	**19.76**	**1**	P	**Pn**	**23 31 49.9**	**-0.2**
OK029				IAmb	IAmb	23 32 12.8	
	comp=Z,15nm,0.8s						
SBM	**South Baldy**	**19.78**	**337**	P	**Pn**	**23 31 51.9**	**+1.2**
DEOK	**Depew**	**19.84**	**3**	P	**Pn**	**23 31 51.6**	**+0.5**
DEOK				IAmb	IAmb	23 32 00.8	
	comp=Z,49nm,1.3s						
LENM	**Lemitar**	**19.87**	**337**		**Pn**	**23 31 53.0**	**+1.4**
WHAR	**Wooly Hollow**	**19.90**	**14**		**Pn**	**23 31 51.3**	**-0.5**
WHAR				IAmb	IAmb	23 32 30.3	
	comp=Z,24nm,1.2s						
TUL3	**Leonard**	**19.96**	**5**		**Pn**	**23 31 53.0**	**+0.5**
OK052	**Battle Ridge R**	**19.98**	**3**	P	**P**	**23 31 51.3**	**+0.3**
OK052				IAmb	IAmb	23 31 56.5	
	comp=Z,40nm,1.1s						
OXF	**Oxford**	**20.00**	**21**		**P**	**23 31 51.1**	**-0.1**
OXF				IAmb	IAmb	23 31 56.0	
	comp=Z,21nm,0.8s						
TUC	**Tucson**	**20.03**	**327**	*e*P	**P**	**23 31 52.0**	**+0.4**
TUC	**Tucson**	**20.03**	**327**	P	Pn	23 31 53.9	+0.4
TUC	**Tucson**	**20.03**	**327**	P	Pn	23 31 54.6	+1.1
	comp=Z,5.8nm,1.0s						
QUOK	**Quay**	**20.16**	**3**		**P**	**23 31 53.3**	**+0.3**
QUOK				IAmb	IAmb	23 32 03.5	
	comp=Z,26nm,0.8s						
ALQ	**Albuquerque**	**20.39**	**340**		Pn	23 31 57.3	-0.5
ALQ	**Albuquerque**	**20.39**	**340**	P	Pn	23 31 57.7	-0.1
ALQ				IAmb	IAmb	23 32 03.4	
	comp=Z,18nm,1.2s						
ANMO	**Albuquerque**	**20.39**	**340**	P	**P**	**23 31 56.9**	**+1.2**
	comp=Z,5.1nm,1.0s,baz=145,slow=12,SNR=10						
ANMO				LR	LR	23 40 37.3	
	comp=Z,255nm,21.4s,baz=150,slow=39						
	comp=Z,5.1nm,1.0s						
ANMO	**Albuquerque**	**20.39**	**340**	*e*P	**P**	**23 31 55.4**	**-0.3**
ANMO	**Albuquerque**	**20.39**	**340**		Pn	23 31 57.7	-0.1
ANMO	**Albuquerque**	**20.39**	**340**	P	Pn	23 31 58.3	+0.5
	comp=Z,10nm,1.1s						
OK048	**Pawnee Station**	**20.39**	**2**	P	Pn	23 31 56.8	-0.8
OK048				IAmb	IAmb	23 32 20.3	
	comp=Z,24nm,0.8s						
TASM	**ASL Pad, Albuq**	**20.39**	**340**	P	Pn	23 31 57.7	-0.1
TASM	**ASL Pad, Albuq**	**20.39**	**340**	P	Pn	23 31 57.7	-0.1
OK038	**West end E0370**	**20.45**	**358**	P	Pn	23 31 57.9	-0.4
OK038				IAmb	IAmb	23 32 25.2	
	comp=Z,22nm,1.0s						
CROK	**Carrier**	**20.46**	**360**	P	**P**	**23 31 56.9**	**+0.7**
CROK				IAmb	IAmb	23 32 10.2	
	comp=Z,26nm,0.9s						
152A	**Waverly Hall**	**20.50**	**33**	P	**P**	**23 31 56.0**	**-0.7**
152A				IAmb	IAmb	23 32 15.8	
	comp=Z,11nm,0.7s						
FCAR	**Ozark Folk Cen**	**20.51**	**14**	P	**P**	**23 31 56.8**	**0.0**
HHAR	**Hobbs**	**20.55**	**9**	P	**P**	**23 31 56.6**	**-0.6**
HHAR				IAmb	IAmb	23 32 06.4	
	comp=Z,20nm,0.8s						
Y49A	**Blount Mountai**	**20.63**	**28**		**P**	**23 31 57.4**	**-0.7**
U38A	**Gravette**	**20.64**	**8**		**P**	**23 31 58.9**	**+0.7**
U38A				IAmb	IAmb	23 32 07.2	
	comp=Z,15nm,0.8s						
BLOK	**Blackwell**	**20.73**	**2**	P	**P**	**23 31 59.2**	**+0.1**
BLOK				IAmb	IAmb	23 32 16.8	
	comp=Z,15nm,1.0s						
RTBA	**Rita Blanca**	**20.84**	**349**		**P**	**23 32 01.6**	**+1.1**
RTBA				IAmb	IAmb	23 32 06.2	
	comp=Z,35nm,1.1s						
CHIV	**Chivirico**	**20.85**	**76**	P	**P**	**23 32 00.3**	**-0.3**
X48A	**Hartselle**	**20.85**	**26**		**P**	**23 31 59.2**	**-1.3**
T35A	**Sooner Cattle**	**20.91**	**3**		**P**	**23 32 01.0**	**-0.1**
T35A				IAmb	IAmb	23 32 17.8	
	comp=Z,21nm,0.7s						
LCAR	**Lake Charles**	**20.92**	**16**		**P**	**23 32 01.0**	**-0.1**
GNAR	**Gosnell**	**21.14**	**18**	P	**P**	**23 32 03.0**	**-0.5**
X18A	**Snowflake**	**21.41**	**332**	P	**P**	**23 32 08.7**	**+2.0**
X18A				IAmb	IAmb	23 32 14.8	
	comp=Z,33nm,1.1s						
FPAL	**Fort Paine**	**21.56**	**29**	P	**P**	**23 32 07.1**	**-1.0**
GOGA	**Godfrey**	**21.74**	**34**	P	**P**	**23 32 09.1**	**-1.0**
GOGA				IAmb	IAmb	23 32 10.3	
	comp=Z,17nm,0.7s						
GOGA	**Godfrey**	**21.74**	**34**	P	**P**	**23 32 09.6**	**-0.5**
	comp=Z,30nm,0.9s						
Y52A	**Lilburn**	**21.78**	**33**	P	**P**	**23 32 09.4**	**-1.0**
PBMO	**Poplar Bluff**	**21.78**	**16**	P	**P**	**23 32 10.1**	**-0.3**
PBMO				IAmb	IAmb	23 32 17.8	
	comp=Z,21nm,0.8s						
W18A	**Petrified Fore**	**21.81**	**333**	P	**P**	**23 32 13.7**	**+2.7**
W18A				IAmb	IAmb	23 32 18.6	
	comp=Z,22nm,1.1s						
T42A	**Van Buren**	**21.84**	**15**		**P**	**23 32 10.5**	**-0.6**
T42A				IAmb	IAmb	23 32 20.1	
	comp=Z,12nm,0.8s						
T25A	**Trinidad**	**21.86**	**346**		**P**	**23 32 12.2**	**+0.6**
PARMO	**Parma**	**21.86**	**18**	P	**P**	**23 32 10.2**	**-1.1**
X51A	**Calhoun**	**21.94**	**30**	P	**P**	**23 32 10.9**	**-1.2**
X51A				IAmb	IAmb	23 32 12.4	
	comp=Z,15nm,0.6s						
SWET	**Sewanee**	**21.98**	**27**		**P**	**23 32 11.8**	**-0.9**
WVT	**Waverly**	**22.01**	**22**		**P**	**23 32 11.1**	**-1.8**
WVT				IAmb	IAmb	23 32 24.6	
	comp=Z,11nm,0.8s						
WVT	**Waverly**	**22.01**	**22**	P	**P**	**23 32 11.9**	**-1.0**
	comp=Z,16nm,1.0s						
S39A	**Bolivar**	**22.03**	**10**	P	**P**	**23 32 13.0**	**-0.1**
S39A				IAmb	IAmb	23 32 20.8	
	comp=Z,33nm,1.1s						
X16A	**Lo Mia Camp, P**	**22.03**	**329**		**P**	**23 32 14.8**	**+1.5**
X16A				IAmb	IAmb	23 32 21.8	
	comp=Z,22nm,0.9s						
113A	**Mohawk Valley,**	**22.04**	**322**		**P**	**23 32 14.2**	**+0.9**
V48A	**Smith Brothers**	**22.06**	**25**	P	**P**	**23 32 12.2**	**-1.2**
V48A				IAmb	IAmb	23 32 18.3	
	comp=Z,17nm,0.8s						
W50A	**Signal Mountai**	**22.25**	**28**	P	**P**	**23 32 14.4**	**-1.1**
W50A				IAmb	IAmb	23 32 16.6	
	comp=Z,14nm,0.6s						
NMDO	**Nuevo Mundo**	**22.26**	**75**	P	**P**	**23 32 14.9**	**-0.9**
NMDO				IAmb	IAmb	23 32 34.6	
	comp=Z,20nm,1.3s						
R32A	**Long Quarter,**	**22.39**	**358**	P	**P**	**23 32 16.6**	**-0.4**
R32A				IAmb	IAmb	23 32 24.3	
	comp=Z,19nm,0.9s						
Y14A	**Wickenburg**	**22.47**	**326**		**P**	**23 32 20.9**	**+3.0**
Y14A				IAmb	IAmb	23 32 26.2	
	comp=Z,14nm,1.0s						
CLTN	**Cedars of Leba**	**22.56**	**25**	P	**P**	**23 32 17.4**	**-1.4**
SDCO	**Great Sand Dun**	**22.71**	**344**	P	**P**	**23 32 21.1**	**+0.4**
SDCO				IAmb	IAmb	23 32 30.0	
	comp=Z,12nm,1.1s						
CCM	**Cathedral Cave**	**22.79**	**14**	P	**P**	**23 32 20.7**	**-0.5**
CCM	**Cathedral Cave**	**22.79**	**14**	P	**P**	**23 32 21.9**	**+0.7**
	comp=Z,28nm,0.7s						
R40A	**Maddies Statio**	**22.80**	**12**	P	**P**	**23 32 20.8**	**-0.6**
W52A	**Murphy**	**22.82**	**31**	P	**P**	**23 32 19.8**	**-1.8**
W52A				IAmb	IAmb	23 32 26.9	
	comp=Z,17nm,0.8s						
CPCT	**Cooper Cave**	**22.82**	**29**		**P**	**23 32 20.5**	**-1.1**
CPCT				IAmb	IAmb	23 32 29.1	
	comp=Z,14nm,0.8s						
ESJX	**Sierra Juarez**	**22.88**	**317**	P	**P**	**23 32 24.3**	**+1.9**
WUAZ	**Wupatki**	**22.88**	**331**		**P**	**23 32 24.7**	**+2.3**

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FVM    French Village    22.92  15           P        23 32 21.9 -0.7
S44A   Carbondale        22.97  18  P        P        23 32 21.9 -1.1
S44A                                IAmb     IAmb     23 32 40.1
       comp=Z,15nm,0.8s
HODGE  Hodges            23.02  35  P        P        23 32 21.5 -2.2
HODGE                               IAmb     IAmb     23 32 28.4
       comp=Z,13nm,0.8s
KSU1   Kansas State U    23.08   3           P        23 32 24.1 -0.1
KSU1                                IAmb     IAmb     23 32 30.0
       comp=Z,21nm,0.9s
MVCO   Mesa Verde        23.14 338           P        23 32 25.6 +0.4
MVCO   Mesa Verde        23.14 338  P        P        23 32 27.2 +2.0
       comp=Z,32nm,1.4s
U49A   Red Boiling Sp    23.15  26  P        P        23 32 24.1 -0.9
U49A                                IAmb     IAmb     23 32 30.2
       comp=Z,15nm,0.8s
BLYC   Blythe            23.18 323           P        23 32 27.0 +1.6
BG3    Lake Jocassee     23.24  33           P        23 32 24.5 -1.5
YUH    Yuha Desert       23.28 319  P        P        23 32 29.0 +2.7
TKL    Tuckaleechee C    23.34  30  LR       LR       23 44 50.3
       comp=Z,76nm,18.1s,baz=188,slow=45
TKL    Tuckaleechee C    23.34  30  P        P        23 32 26.0 -1.0
TKL                                 IAmb     IAmb     23 32 28.4
       comp=Z,9.7nm,0.8s
CBX    Cerro Bola        23.54 317  P        P        23 32 30.1 +1.0
CBX                                 IAmb     IAmb     23 33 08.8
       comp=Z,20nm,1.4s
JSC    Jenkinsville      23.62  36  P        P        23 32 28.3 -1.4
JSC                                 IAmb     IAmb     23 32 36.1
       comp=Z,17nm,0.9s
BC3    Big Chuckawall    23.67 321  P        P        23 32 32.2 +1.9
BC3                                 IAmb     IAmb     23 32 38.8
       comp=Z,13nm,1.2s
PAULI  Pauline           23.70  35  P        P        23 32 29.3 -1.2
PAULI                               IAmb     IAmb     23 32 32.8
       comp=Z,23nm,1.2s
USIN   University of     23.72  21  P        P        23 32 30.2 -0.3
USIN                                IAmb     IAmb     23 32 48.6
       comp=Z,15nm,0.8s
Q24A   Divide            23.77 346  P        P        23 32 32.8 +1.3
Q24A                                IAmb     IAmb     23 32 39.3
       comp=Z,25nm,1.4s
W13A   Hualapai Mount    23.82 326           P        23 32 33.4 +1.5
V53A   Saluda            23.83  32           P        23 32 31.1 -0.6
V53A                                IAmb     IAmb     23 32 38.3
       comp=Z,9.4nm,0.7s
IRM    Iron Mountain     23.84 323           P        23 32 33.7 +1.9
IRM                                 IAmb     IAmb     23 32 39.7
       comp=Z,14nm,1.2s
P38A   Dawn              23.89   8  P        P        23 32 31.6 -0.6
Y57A   Sumter            23.93  38  P        P        23 32 32.4 -0.3
PV01   Paradox Valley    24.00 339           P        23 32 34.6 +1.1
PV01                                IAmb     IAmb     23 32 41.9
       comp=Z,17nm,1.0s
BORC   Borrego Spring    24.00 319  P        P        23 32 35.0 +1.6
P40A   Paris             24.04  11           P        23 32 33.2 -0.4
U15A   North Rim         24.06 331  P        P        23 32 35.5 +1.4
U15A                                IAmb     IAmb     23 32 55.6
       comp=Z,12nm,1.0s
PV13   Radium Mtn., P    24.10 339  P        P        23 32 35.5 +1.0
PV13                                IAmb     IAmb     23 32 41.3
       comp=Z,18nm,0.8s
PV02   Paradox Valley    24.12 339  P        P        23 32 35.6 +1.0
PV02                                IAmb     IAmb     23 32 41.7
       comp=Z,20nm,0.9s
PV05   Paradox Valley    24.13 338  P        P        23 32 35.7 +0.9
PV05                                IAmb     IAmb     23 32 41.5
       comp=Z,17nm,1.0s
PV15   Paradox Valley    24.15 339  P        P        23 32 36.2 +1.2
Q44A   Meyer Farm, Va    24.16  17  P        P        23 32 35.0 +0.2
TZTN   Tazewell          24.16  29  P        P        23 32 34.9  0.0
TZTN                                IAmb     IAmb     23 33 09.7
       comp=Z,15nm,1.1s
TZTN   Tazewell          24.16  29  P        P        23 32 35.1 +0.3
       comp=Z,17nm,1.1s
PV03   Paradox Valley    24.20 339  P        P        23 32 36.3 +0.9
PV03                                IAmb     IAmb     23 32 42.2
       comp=Z,20nm,0.9s
KMSC   Kings Mountain    24.20  35  P        P        23 32 33.7 -1.5
KMSC                                IAmb     IAmb     23 32 42.2
       comp=Z,21nm,1.0s
PV18   Skein Mesa, Pa    24.21 339           P        23 32 36.5 +1.0
PV18                                IAmb     IAmb     23 32 42.3
       comp=Z,17nm,0.8s
PMD    Palm Desert       24.23 320  P        P        23 32 37.2 +1.7
BELC   Belle Mtn. Jos    24.23 321  P        P        23 32 37.2 +1.5
PV12   Saucer Basin,     24.24 339  P        P        23 32 36.6 +0.8
PV11   David Mesa, Pa    24.25 339  P        P        23 32 36.8 +1.0
PV11                                IAmb     IAmb     23 33 17.9
       comp=Z,15nm,0.8s
PFO    Pinyon Flats O    24.25 320  LR       LR       23 43 20.2
       comp=Z,155nm,18.6s,baz=294,slow=40
PFO    Pinyon Flats O    24.25 320  P        P        23 32 37.6 +1.8
PV17   East Wray Mesa    24.26 339  P        P        23 32 36.6 +0.6
PV16   Nyswonger Mesa    24.27 339  P        P        23 32 36.5 +0.5
PV16                                IAmb     IAmb     23 32 43.0
       comp=Z,9.9nm,0.9s
OLIL   Olney             24.28  19  P        P        23 32 35.5 -0.4
OLIL                                IAmb     IAmb     23 33 07.1
       comp=Z,16nm,0.9s
PV07   Paradox Valley    24.29 339  P        P        23 32 37.3 +1.0
PV07                                IAmb     IAmb     23 32 43.6
       comp=Z,24nm,1.1s
PV19   Morning Glory     24.30 339  P        P        23 32 37.3 +1.0
PV20   West Nyswonger    24.32 339  P        P        23 32 37.0 +0.5
PV20                                IAmb     IAmb     23 32 44.6
       comp=Z,12nm,0.8s
BIRD   Birdtown, Kers    24.34  37  P        P        23 32 35.8 -0.6
PV04   Paradox Valley    24.34 339  P        P        23 32 37.8 +1.1
PV10   Paradox Valley    24.38 338  P        P        23 32 37.4 +0.4
PV10                                IAmb     IAmb     23 32 44.4
       comp=Z,19nm,0.9s
PV23   Carpenter Ridg    24.43 339  P        P        23 32 38.8 +1.2
WCI    Wyandotte Cave    24.44  23  P        P        23 32 36.2 -1.1
WCI                                 IAmb     IAmb     23 32 46.7
       comp=Z,14nm,0.7s
WCI    Wyandotte Cave    24.44  23  P        P        23 32 38.0 +0.7
       comp=Z,18nm,0.8s
PV21   Cone Mtn., Par    24.52 339  P        P        23 32 40.8 +2.4
PV21                                IAmb     IAmb     23 32 50.5
       comp=Z,18nm,0.9s
HMU    Henry Mountain    24.64 335  P        P        23 32 41.4 +1.9
ISCO   Idaho Springs     24.68 346           P        23 32 41.2 +1.3
ISCO   Idaho Springs     24.68 346  P        P        23 32 42.6 +2.8
       comp=Z,27nm,0.9s
P43A   Skaggs, Pawnee    24.71  16           P        23 32 39.3 -0.5
P43A                                IAmb     IAmb     23 32 45.7
       comp=Z,14nm,0.9s
OTAV   Otavalo           24.77 127  P        P        23 32 43.2 +2.1
OTAV   Otavalo           24.77 127  P        P        23 32 45.2 +4.1
       comp=Z,4.3nm,1.4s
V55A   Taylorsville      24.80  34           P        23 32 40.0 -0.7
ELS    Elsinore Mount    24.89 319  P        P        23 32 43.1 +1.6
PKCU   Pink Cliffs       24.89 332  P        P        23 32 43.6 +1.8
PKCU                                IAmb     IAmb     23 32 51.7
       comp=Z,17nm,1.0s
R49A   Shelbyville       24.92  24  P        P        23 32 41.4 -0.3
R49A                                IAmb     IAmb     23 33 12.2
       comp=Z,23nm,1.5s
X58A   Rowland           24.93  39  P        P        23 32 41.7 -0.2
LCMT   Little Creek M    24.98 330  P        P        23 32 44.0 +1.6
U54A   Nelsons Funny     24.99  32  P        P        23 32 42.7 +0.2
S51A   Beattyville       25.04  28           P        23 32 43.3 +0.5
S51A                                IAmb     IAmb     23 32 50.9
       comp=Z,11nm,0.8s
N38A   Joes South For    25.08   8  P        P        23 32 43.2 +0.1
OGNE   Ogallala          25.15 353  P        P        23 32 44.9 +1.1
SZCU   Shurtz Canyon     25.37 331  P        P        23 32 47.4 +1.3
SZCU                                IAmb     IAmb     23 32 54.8
       comp=Z,19nm,1.3s
N41A   Harden Midland    25.41  13           P        23 32 46.6 +0.5
CCUT   Cedar City        25.47 331  P        P        23 32 48.1 +1.2
SRU    San Rafael Swe    25.57 337  P        P        23 32 48.7 +0.9
GSC    Goldstone, Bar    25.61 322  P        P        23 32 49.9 +1.8
U56A   King              25.62  34  P        P        23 32 47.4 -0.7
U56A                                IAmb     IAmb     23 32 54.7
       comp=Z,18nm,1.0s
Q16A   Castle Valley     25.65 336           P        23 32 49.9 +1.3
Q16A                                IAmb     IAmb     23 32 56.0
       comp=Z,13nm,0.9s
O20A   White River Ci    25.70 342           P        23 32 51.1 +2.1
HAYD   Hayden            25.78 343  P        P        23 32 51.0 +1.3
HAYD                                IAmb     IAmb     23 32 57.6
       comp=Z,14nm,1.2s
P48A   Milroy            25.84  23  IAmb     IAmb     23 33 34.0
       comp=Z,6.5nm,0.7s
V58A   Windy Hill, Pi    25.93  37  P        P        23 32 50.4 -0.4
P17A   Butcher Ranch,    25.96 337  P        P        23 32 53.5 +2.1
P17A                                IAmb     IAmb     23 33 00.7
       comp=Z,10nm,1.1s
TMUT   Trail Mountain    25.99 336  P        P        23 32 53.6 +1.8
SFIN   Lafayette         26.09  19  P        P        23 32 52.5 +0.2
SFIN                                IAmb     IAmb     23 32 58.6
       comp=Z,14nm,0.9s
QSM    Queen of Sheba    26.11 323           P        23 32 54.0 +1.4
SC01   Santiago de lo    26.14  78  P        P        23 32 54.0 +1.1
SCIA   State Center      26.17   8  P        P        23 32 53.6 +0.6
PRN    Pahroc Range      26.18 328  P        P        23 32 56.3 +3.0
PRN                                 IAmb     IAmb     23 33 25.3
       comp=Z,16nm,1.2s
TPO    Tropico Hills     26.19 320  P        P        23 32 55.8 +2.4
TPO                                 IAmb     IAmb     23 33 35.4
       comp=Z,9.1nm,1.0s
BLA    Blacksburg        26.24  33           P        23 32 53.9 +0.1
LRMC   Laurel Mtn Rad    26.25 321  P        P        23 32 56.4 +2.4
CLC    China Lake        26.43 322  P        P        23 32 56.9 +1.4
FURC   Furnace Creek,    26.46 324  P        P        23 32 57.2 +1.5
TPNV   Topopah Spring    26.47 326           P        23 32 58.1 +2.1
TPNV                                IAmb     IAmb     23 33 06.5
       comp=Z,8.4nm,0.9s
PSUT   Pine Spring       26.49 331           P        23 32 56.9 +0.7
RDMU   Red Mountain      26.52 340  P        P        23 32 58.1 +1.6
RDMU                                IAmb     IAmb     23 33 03.4
       comp=Z,13nm,1.1s
MPMC   Manual Prospec    26.54 323           P        23 32 58.6 +2.0
WCT    Wildcat Mounta    26.57 325  P        P        23 32 56.6 -0.1
O48B   Farmland          26.64  22           P        23 32 56.6 -0.7
O48B                                IAmb     IAmb     23 33 03.8
       comp=Z,17nm,0.9s
L40A   Anamosa           26.65  11           P        23 32 58.6 +1.3
Q52A   Bidwell           26.72  28  P        P        23 32 57.6 -0.4
S11A   Rachel            26.72 327  P        P        23 32 59.5 +1.3
S11A                                IAmb     IAmb     23 33 37.9
       comp=Z,14nm,1.4s
MPU    Maple Canyon      26.78 336  P        P        23 33 00.6 +1.8
MPU                                 IAmb     IAmb     23 33 08.8
       comp=Z,11nm,1.0s
P51A   Williamsport      26.80  26  P        P        23 32 58.2 -0.5
O49A   Covington         26.89  23           P        23 32 60.0 +0.5
NLU    North Lily Min    26.90 335  P        P        23 33 01.3 +1.4
NLU                                 IAmb     IAmb     23 33 07.9
       comp=Z,10.0nm,1.0s
BSUT   Blindstream Ca    26.90 338           P        23 33 01.9 +1.8
N47A   Urbana            27.00  21  P        P        23 33 00.3 -0.2
R55A   Marlinton         27.21  32           P        23 33 01.7 -0.8
GMN    Gold Mountain     27.28 325  P        P        23 33 04.8 +1.4
DUG    Dugway, Tooele    27.40 335           P        23 33 05.3 +1.0
DUG                                 IAmb     IAmb     23 33 12.6
       comp=Z,7.9nm,0.9s
DUG    Dugway, Tooele    27.40 335  P        P        23 33 06.0 +1.8
       comp=Z,10nm,1.0s
DUG                                 pP       sP       23 33 11.6 +0.7
Q54A   Coxs Mills        27.40  30  P        P        23 33 04.0 -0.2
Q54A                                IAmb     IAmb     23 33 23.1
       comp=Z,9.1nm,0.7s
S57A   Dark Hollow, R    27.43  34           P        23 33 04.3 -0.1
S57A                                IAmb     IAmb     23 33 11.5
       comp=Z,13nm,0.9s
P53A   Whipple           27.54  28  P        P        23 33 05.6 +0.2
P53A                                IAmb     IAmb     23 33 25.4
       comp=Z,12nm,1.0s
SDV    Santo Domingo     27.55 102  LR       LR       23 44 04.7
       comp=Z,70nm,19.4s,baz=268,slow=37
SDV    Santo Domingo     27.55 102           P        23 33 06.5 +0.6
SDV                                 IAmb     IAmb     23 33 13.3
       comp=Z,7.8nm,1.0s
SDV    Santo Domingo     27.55 102  P        P        23 33 08.4 +2.5
       comp=Z,53nm,0.8s
K22A   Casper            27.60 346           P        23 33 07.8 +1.8
T59A   Double "B" Far    27.65  37           P        23 33 05.7 -0.6
T59A                                IAmb     IAmb     23 33 12.4
       comp=Z,11nm,0.9s
TCUT   Toone Canyon      27.65 338  P        P        23 33 08.0 +1.4
TCUT                                IAmb     IAmb     23 33 14.2
       comp=Z,12nm,1.1s
JFWS   Jewell Farm       27.66  12  P        P        23 33 06.5 +0.1
JFWS                                IAmb     IAmb     23 33 14.8
       comp=Z,13nm,0.8s
ECSD   EROS Data Cent    27.70   2           P        23 33 06.9 +0.1
ECSD                                IAmb     IAmb     23 33 16.2
       comp=Z,9.2nm,0.9s
ECSD   EROS Data Cent    27.70   2  P        P        23 33 10.2 +3.5
       comp=Z,10nm,1.0s
ECSD                                pP       sP       23 33 15.5 +2.1
BGU    Big Grassy Mou    28.11 335  P        P        23 33 12.7 +2.1
BGU                                 IAmb     IAmb     23 33 18.8
       comp=Z,10.0nm,1.3s
R58B   Mineral           28.16  35  P        P        23 33 10.4 -0.5
Q56A   Snyder Ridge,     28.26  32  P        P        23 33 12.3 +0.4
Q56A                                IAmb     IAmb     23 33 45.2
       comp=Z,7.1nm,0.9s
PD31   Pinedale Array    28.51 342  P        P        23 33 14.9 +0.6
PD31                                IAmb     IAmb     23 33 25.7
       comp=Z,8.6nm,1.2s
PDAR   Pinedale Array    28.51 342  P        P        23 33 15.3 +1.0
       comp=Z,0.5nm,0.8s,baz=157,slow=8.0,SNR=9.5
PDAR                                LR       LR       23 45 52.8
       comp=Z,144nm,19.2s,baz=160,slow=39
       comp=Z,0.5nm,0.8s
PDAR   Pinedale Array    28.51 342           P        23 33 14.5 +0.2
BW06   Boulder Array     28.51 342  P        P        23 33 15.2 +1.0
BW06                                IAmb     IAmb     23 33 25.6
       comp=Z,8.5nm,1.2s
NV11   Mina Array Sit    28.59 325  P        P        23 33 17.1 +2.1
NV11                                IAmb     IAmb     23 33 23.2
       comp=Z,10nm,1.2s
NVAR   Mina Array Bea    28.67 325  P        P        23 33 17.4 +1.7
       comp=Z,1.6nm,0.8s,baz=140,slow=8.7,SNR=13
       comp=Z,1.6nm,0.8s
HVU    Hansel Valley     28.73 337           P        23 33 17.9 +1.7
ELK    Elko              28.90 332           P        23 33 18.8 +1.0
KVN    Kaiserville       29.00 326           P        23 33 20.9 +2.2
BMN    Battle Mountai    29.59 329  P        P        23 33 25.5 +1.7
BMN                                 IAmb     IAmb     23 33 32.2
       comp=Z,11nm,1.4s
LOHW   Long Hollow       29.60 341  P        P        23 33 24.9 +1.0
SJG    San Juan          30.45  81  LR       LR       23 47 22.3
       comp=Z,29nm,19.2s,baz=282,slow=40
RLMT   Red Lodge         30.60 344           P        23 33 34.3 +1.6
RLMT                                IAmb     IAmb     23 33 40.4
       comp=Z,16nm,1.5s
BEKR   Beckworth         30.81 325           P        23 33 36.5 +1.9
HLID   Hailey            30.88 336           P        23 33 37.0 +1.7
BCYI   Bear Canyon       31.15 338  P        P        23 33 39.3 +1.6
MFID   Camas Ranch       31.33 334           P        23 33 41.0 +1.9
MFID                                IAmb     IAmb     23 33 48.6
       comp=Z,10nm,1.4s
MCMT   McKenzie Canyo    31.41 339  P        P        23 33 41.5 +1.6
WVOR   Wild Horse Val    31.80 330  P        P        23 33 44.7 +1.4
WVOR   Wild Horse Val    31.80 330  P        P        23 33 45.5 +2.2
       comp=Z,20nm,1.1s
MDND   Maddock           31.83 358           P        23 33 44.2 +0.9
MOD    Modoc Plateau     32.23 328           P        23 33 47.3 +0.2
MOD                                 IAmb     IAmb     23 33 55.2
       comp=Z,11nm,1.2s
AGMN   Agassiz Nation    32.29   3  P        P        23 33 47.2 -0.1
       comp=Z,20nm,0.9s
AGMN                                pP       pP       23 33 51.7 -0.4
J08A   Circle Bar Ran    32.44 332  P        P        23 33 49.3 +0.4
PLID   Pearl Lake        32.78 336           P        23 33 52.6 +0.6
PLID                                IAmb     IAmb     23 33 59.0
       comp=Z,8.6nm,1.1s
SADO   Sadowa            32.81  25  LR       LR       23 50 48.3
       comp=Z,103nm,18.3s,baz=168,slow=43
DGMT   Dagmar            32.83 352  P        P        23 33 53.6 +1.5
KHBM   Hayfork Bally     32.96 323  P        P        23 33 53.2 -0.3
KHBM                                IAmb     IAmb     23 33 57.3
       comp=Z,10nm,1.3s
BMO    Blue Mountains    33.12 334           P        23 33 56.0 +1.2
BMO                                 IAmb     IAmb     23 34 01.3
       comp=Z,5.5nm,1.2s
J57A   Williamstown      33.13  30  P        P        23 33 54.4 -0.4
EGMT   Eagleton          33.42 346           pP       23 34 04.9 +2.8
F10A   Beach Ranch, E    34.00 336           P        23 34 03.1 +0.7
F10A                                IAmb     IAmb     23 34 09.2
       comp=Z,11nm,1.2s
ULM    Lac du Bonnet     34.24   2  P        P        23 34 07.1 +2.8
       comp=Z,5.7nm,1.0s,baz=186,slow=11,SNR=3.5
ULM                                 LR       LR       23 49 40.9
       comp=Z,87nm,21.9s,baz=238,slow=39
       comp=Z,5.7nm,1.0s
ULM    Lac du Bonnet     34.24   2  IAmb     IAmb     23 34 10.5
       comp=Z,9.4nm,1.3s
LDM    Libby Dam         35.41 340  P        P        23 34 14.8 +0.3
LDM                                 IAmb     IAmb     23 34 21.3
       comp=Z,10nm,1.0s
LTY    Liberty           36.45 334  P        P        23 34 23.0 -0.4
LTY                                 IAmb     IAmb     23 34 30.8
       comp=Z,6.7nm,1.1s
LON    Longmire          36.56 332  P        P        23 34 23.2 -1.1
LON                                 IAmb     IAmb     23 34 31.6
       comp=Z,4.8nm,0.9s
LPAZ   La Paz            43.49 136  P        P        23 35 23.2 +0.3
       comp=Z,2.7nm,0.8s,baz=342,slow=8.5,SNR=6.8
LPAZ                                LR       LR       23 52 23.0
       comp=Z,45nm,21.1s,baz=278,slow=35
       comp=Z,2.7nm,0.8s
LPAZ   La Paz            43.49 136  P        P        23 35 23.6 +0.6
PB16   IPOC Station P    44.10 139  P        P        23 35 29.1 +1.3
PB16                                IAmb     IAmb     23 35 31.1
       comp=Z,8.8nm,0.9s
GO01   Chusmiza          45.30 140  P        P        23 35 38.8 +1.6
GO01                                IAmb     IAmb     23 35 51.8
       comp=Z,10nm,1.3s
SCHQ   Schefferville     45.62  25  P        P        23 35 41.6 +2.8
       comp=Z,3.5nm,0.7s,baz=219,slow=8.5,SNR=5.3
SCHQ                                LR       LR       23 59 37.7
       comp=Z,93nm,18.2s,baz=224,slow=42
       comp=Z,3.5nm,0.7s
SCHQ   Schefferville     45.62  25  P        P        23 35 40.7 +1.9
SCHQ                                IAmb     IAmb     23 36 21.7
       comp=Z,5.5nm,0.9s
VILB   Vilhena           47.10 125  P        P        23 35 50.5 -0.4
YKA    Yellowknife Ar    47.94 350  LR       LR       23 58 37.8
       comp=Z,148nm,20.4s,baz=152,slow=39
PTLB   Pontes e Lacer    49.41 127  P        P        23 36 09.1 +0.3
PTLB                                IAmb     IAmb     23 36 10.4
       comp=Z,4.8nm,1.0s
FRB    Frobisher Bay     51.86  16  LR       LR       00 00 11.8
       comp=Z,49nm,19.5s,baz=328,slow=38
H03N2  Juan Fernandez    52.37 160  T        T        00 32 55.9
       baz=290,slow=74,SNR=906
H03N1  Juan Fernandez    52.38 160  T        T        00 32 53.4
       baz=331,slow=74,SNR=965
L29M   L29M              54.72 339  P        P        23 36 48.5 +0.8
M27K   Edge Creek, AK    55.61 337  P        P        23 36 55.7 +1.4
INK    Inuvik            57.01 345  P        P        23 37 04.0 +0.1
INK    Inuvik            57.01 345  P        P        23 37 04.9 +1.0
       comp=Z,10nm,1.0s
INK                                 pP       pP       23 37 09.4 +0.6
RIDG   Independent Ri    57.52 337  P        P        23 37 09.2 +1.5
F28M   Old Crow          58.23 342  P        P        23 37 12.9 +0.3
BDFB   Brasilia          58.44 120  P        P        23 37 14.9 +0.1
       comp=Z,2.2nm,0.5s,baz=337,slow=3.7,SNR=5.5
       comp=Z,2.2nm,0.5s
BDFB   Brasilia          58.44 120  P        P        23 37 15.2 +0.3
RES    Resolute Bay      58.75   1  LR       LR       00 06 15.5
       comp=Z,104nm,18.2s,baz=46,slow=40
IL31                     58.83 338  P        P        23 37 16.8 +0.1
ILAR   Eielson Array     58.83 338  P        P        23 37 18.1 +1.4
       comp=Z,3.4nm,1.0s,baz=142,slow=4.6,SNR=17
ILAR                                LR       LR       00 05 10.8
       comp=Z,250nm,18.3s,baz=109,slow=39
       comp=Z,3.4nm,1.0s
ILAR   Eielson Array     58.83 338  P        P        23 37 16.6 -0.2
RND    Reindeer          58.87 336  P        P        23 37 18.5 +1.3
TRF    Thorofare Moun    59.46 336  P        P        23 37 22.1 +0.7
BWN    Browne            59.48 337  P        P        23 37 21.7 +0.4
SFJD   Kangerlussuaq     59.49  20  LR       LR       00 04 56.3
       comp=Z,77nm,20.7s,baz=242,slow=38
BMAR   Burnt Mountain    59.53 341  P        P        23 37 22.4 +0.8
I23K   Minto, Yukon-K    59.92 338  P        P        23 37 25.3 +1.0
CAST   Castle Rocks      60.16 335  P        P        23 37 25.6 -0.5
MLY    Manley            60.38 337  P        P        23 37 28.1 +0.6
PPT    Papeete           60.83 239  LR       LR       23 58 43.0
       comp=Z,66nm,18.3s,baz=47,slow=31
PPT2   Papeete2          60.84 239  eLR      LR       23 55 10.3
       comp=Z,82nm,25.2s
PPT2                                eLR      LR       23 55 12.9
       comp=Z,93nm,34.2s
K20K   Telida            60.95 335  P        P        23 37 31.4  0.0
H22K   Ishtalitna Cre    61.02 338  P        P        23 37 32.0 +0.1
COLD   Coldfoot          61.26 339  P        P        23 37 34.6 +1.2
J20K   Nowinta River     61.32 335  P        P        23 37 34.0 +0.2
E23K   Chandalar         61.48 340  P        P        23 37 36.0 +1.0
J19K   Poorman           61.84 335  P        P        23 37 37.0 -0.4
PLCA   Paso Flores       61.87 157  P        P        23 37 37.4 -0.6
       comp=Z,3.0nm,1.0s,baz=350,slow=7.7,SNR=4.4
PLCA                                LR       LR       23 58 55.5
       comp=Z,24nm,20.9s,baz=318,slow=31
       comp=Z,3.0nm,1.0s
C24K   Franklin Bluff    62.08 342  P        P        23 37 40.5 +1.6
J18K   Innoko River      62.09 334  P        P        23 37 40.6 +1.5
O15K   Ungalikthiuk R    62.12 329  P        P        23 37 41.8 +2.5
EKA    Eskdalemuir Ar    79.72  35  P        P        23 39 25.9 -0.4
       comp=Z,1.2nm,0.9s,baz=243,slow=4.7,SNR=3.4
       comp=Z,1.2nm,0.9s
ESDC   Sonseca Array     82.97  51  P        P        23 39 43.8 -0.2
       comp=Z,0.7nm,0.9s,baz=292,slow=4.5,SNR=5.3
       comp=Z,0.7nm,0.9s
ESDC   Sonseca Array     82.97  51           P        23 39 43.9 -0.1
MDT    Midelt            84.24  58  LR       LR       00 12 24.7
       comp=Z,47nm,20.4s,baz=272,slow=32
NOA    NORSAR Array B    85.11  27  LR       LR       00 19 21.6
       comp=Z,17nm,19.1s,baz=335,slow=37
ARCES  ARCESS Array B    86.02  17  LR       LR       00 22 17.3
       comp=Z,35nm,18.3s,baz=350,slow=38
HFS    Hagfors           86.61  28  LR       LR       00 19 34.7
       comp=Z,34nm,19.5s,baz=299,slow=36
DAVOX  Davos/Dischmat    90.21  41  LR       LR       00 22 32.4
       comp=Z,22nm,19.2s,baz=266,slow=37
DBIC   Dimbokro          91.13  83  LR       LR       00 14 58.6
       comp=Z,41nm,20.3s,baz=346,slow=31
GERES  GERESS Array B    91.67  38  LR       LR       00 23 22.7
       comp=Z,34nm,18.1s,baz=37,slow=37
VRAC   Vranov            93.14  37  LR       LR       00 23 40.8
       comp=Z,14nm,18.9s,baz=302,slow=36
HHC    Hu-ho-hao-te     117.20 335  eP       PKPdf    23 46 02.0 -2.3
NJ2    Nanjing          120.65 324  eP       PKiKP    23 46 12.0 +0.9
NJ2                                 pmax     pmax
       comp=Z,12nm,1.2s
WRA    Warramunga Arr   130.27 257  PKP      PKPdf    23 46 29.5 -0.2
       comp=Z,1.4nm,0.9s,baz=100,slow=1.5,SNR=7.3
WRA    Warramunga Arr   130.27 257  PKPdf    PKiKP    23 46 31.0 +0.5
PZH    PanZhiHua        133.66 335  PKP      PKiKP    23 46 38.0 +0.6
CMAR   Chiang Mai Arr   141.97 333  PKP      PKPdf    23 46 52.0 +0.6
       comp=Z,0.5nm,0.3s,baz=329,slow=2.8,SNR=4.4
CMAR   Chiang Mai Arr   141.97 333           PKPdf    23 46 51.4 -0.1
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*TAP **28** 23:42:10.2, 24°.58N×122°.40E, h74^{km}±1^{km}, ML2.8, C*
*JMA **28** 23:42:10.4±0.0, 24°N±2°×122°.5E±0°.2, h74^{km}, MV1.6/6,*
NW OFF ISHIGAKIJIMA IS
ISC 28 23:42:09.8±1.5, **24°.61N**±0°.04×**122°.45E**±0°.03, **h79**^{km}±8^{km},
n49, σ**0^{s}.79**/85, **Taiwan region**

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Code   Station Name       Δ°   AZ°    Phase ID         Time       Res
                                    Op       ISC      h  m  s    ISC
EOS2   EOS2               0.27 227  P        Pn       23 42 21.8 +0.2
EOS2                                i S      Sn       23 42 30.7 +0.4
EOS3   EOS3               0.34 201  P        Pn       23 42 22.3 +0.3
EOS3                                S        Sn       23 42 31.7 +0.6
JYNG   Yonagunijimaku     0.48 109  P        Pn       23 42 23.0 -0.1
EOS4   EOS4               0.50 194  eP       Pn       23 42 23.3 +0.3
EOS4                                i S      Sn       23 42 32.8  0.0
YOJ    Yonaguni jima      0.53 106  eP       Pn       23 42 23.7  0.0
YOJ                                 S        Sn       23 42 33.6 -0.3
YOJ    Yonaguni jima      0.53 106  eP       Pn       23 42 23.6 -0.1
YOJ                                 eS       Sn       23 42 33.3 -0.6
TWC    Suao               0.55 270  i P      Pn       23 42 24.1 +0.3
TWC                                 i S      Sn       23 42 32.6 -1.6
EWUT   Wuta               0.63 255  eS       Sn       23 42 35.1 -0.6
NDS    Dongshan           0.67 272  eP       Pn       23 42 25.4 +0.4
NDS                                 eS       Sn       23 42 37.1 +0.8
TIPB   Shuangxi           0.68 303  eP       Pn       23 42 25.5 +0.4
TIPB                                S        Sn       23 42 35.9 -0.6
EAHA   Aohua              0.70 247  eS       Sn       23 42 36.6 -0.4
EHP    Heping Village     0.71 246  eP       Pn       23 42 26.4 +1.0
EHP                                 eS       Sn       23 42 38.0 +0.8
SXI1   Grass Mountain     0.71 313  eP       Pn       23 42 26.3 +0.7
SXI1                                eS       Sn       23 42 36.7 -0.6
TWE    Neicheng           0.72 279  i P      Pn       23 42 25.9 +0.4
TWE                                 S        Sn       23 42 36.5 -0.8
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WFSB	Wu-fen Shan	0.76	307	*i* P	Pn	23 42 26.7	+0.7
WFSB				*i* S	Sn	23 42 38.1	0.0
FUSB	Fushanzhiwuyua	0.80	281	P	Pn	23 42 27.0	+0.5
FUSB				*e*S	Sn	23 42 38.5	-0.5
ENTT	Nioudou	0.81	273	*e*P	Pn	23 42 27.4	+0.9
ENTT				*e*S	Sn	23 42 39.6	+0.6
TNOU	National Taiwa	0.82	311	*e*P	Pn	23 42 26.5	-0.1
LATG	Datong	0.84	265	*e*S	Sn	23 42 40.1	+0.2
NDT	Datong Townshi	0.85	270	*e*S	Sn	23 42 40.4	+0.5
ETL	Fush Village	0.88	240	*e*P	Pn	23 42 26.8	-0.6
ETL				*e*S	Sn	23 42 40.1	-0.3
NWLT	Wulai	0.88	281	*e*P	Pn	23 42 27.8	+0.5
NWLT				*i* S	Sn	23 42 40.1	-0.4
NACB	Ninganchiao	0.89	241	*e*P	Pn	23 42 27.0	-0.4
NACB				S	Sn	23 42 39.7	-1.0
TWD	Chiawan	0.94	236	P	Pn	23 42 27.2	-0.8
YM01	YM01	0.96	304	*e*P	Pn	23 42 28.9	+0.5
YM01				*i* S	Sn	23 42 42.1	-0.1
ETLH	Xiulin Townshi	0.97	246	*e*P	Pn	23 42 28.1	-0.4
ETLH				*e*S	Sn	23 42 41.2	-1.2
YHNB	Yeheng	0.98	274	*e*P	Pn	23 42 29.3	+0.7
YHNB				*i* S	Sn	23 42 42.9	+0.3
NNSB	Datong	0.99	260	*e*P	Pn	23 42 29.3	+0.5
NNSB				*e*S	Sn	23 42 41.9	-1.0
ZUZH	Zhuzihu	0.99	304	*i* P	Pn	23 42 29.1	+0.5
ZUZH				S	Sn	23 42 42.5	-0.4
NNS	Nan Shan	1.00	261	P	Pn	23 42 28.9	+0.1
NNS				S	Sn	23 42 42.8	-0.2
NSK	Sanguang	1.00	274	*e*S	Sn	23 42 43.3	+0.4
TEYL	Yanliau Villag	1.07	227	*e*P	Pn	23 42 29.2	-0.4
TEYL				*e*S	Sn	23 42 43.9	-0.5
ETM	Tongmen	1.08	234	*e*S	Sn	23 42 43.2	-1.5
LXIB	Xiulin Townshi	1.11	239	P	Pn	23 42 29.9	-0.3
LXIB				S	Sn	23 42 43.5	-2.1
SHUL	Shoufeng	1.15	225	*e*P	Pn	23 42 29.4	-1.2
FUSS	Fushou	1.16	252	*e*P	Pn	23 42 31.6	+0.7
FUSS				*e*S	Sn	23 42 46.2	-0.5
WHF	Hehuan Shan	1.18	247	P	Pn	23 42 31.3	-0.1
WHF				S	Sn	23 42 46.2	-1.2
IRIF	Iriomote-Funau	1.20	103	P	Pn	23 42 31.2	+0.1
IRIF				*e*S	Sn	23 42 46.6	-0.6
TWT	Tachien	1.21	253	*e*S	Sn	23 42 47.8	-0.1
TDCB	Techi	1.23	254	*e*P	Pn	23 42 32.4	+0.7
TDCB				S	Sn	23 42 47.5	-0.7
WARBT	Fenglin Townsh	1.31	228	*i* P	Pn	23 42 31.7	-1.0
OWD	Renai	1.33	241	*e*P	Pn	23 42 32.9	-0.1
OWD				S	Sn	23 42 48.5	-2.0
WUSB	Renai	1.36	244	*i* P	Pn	23 42 33.7	+0.3
WUSB				*e*S	Sn	23 42 50.4	-0.7
HGSD	Ruisui	1.45	220	*e*P	Pn	23 42 35.6	+1.1
HGSD				*e*S	Sn	23 42 54.4	+1.3
VWDT	VWDT	1.47	235	*i* P	Pn	23 42 34.8	+0.2
VWDT				*i* S	Sn	23 42 52.3	-1.1
JIJ	Ishigaki jima	1.56	99	*e*P	Pn	23 42 36.2	+0.4
WTP	Ta-pu	2.16	232	*e*P	Pn	23 42 45.5	+1.7
WTP				*i* S	Sn	23 43 09.9	+0.1
VWUC	VWUC	2.75	279	*e*P	Pn	23 42 51.7	0.0
VWUC				*e*S	Sn	23 43 21.9	-2.2
SLIU	Shizi	2.82	213	*e*P	Pn	23 42 54.3	+1.6
SLIU				S	Sn	23 43 26.1	+0.3

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*IDC **28** 23:49:15.2±2.0, 8°.02S×124°.32E, h154^{km}±17^{km}, mb3.6/7, mbtmp4.1/12, Error ellipse: s-maj=37.1km s-min=9.4km az=67.0*

*DJA **28** 23:49:20.0±0.8, 8°S±4°×12°4E±°, h152^{km}±12^{km}, M4.1/10, mb4.3/1, MLv4.0/10*

ISC 28 23:49:15.7±0.7**, 8°.05S**±0°.06×**124°.49E**±0°.09**, h150^{km}, n19, σ2^{s}.37**/24**, mb3.9**/7**, Timor region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SOEI	Soe	1.71	187	P	Pn	23 49 53.1	+5.4
SOEI				S	Sn	23 50 18.1	+5.8
BATI	Baumata	2.29	201	P	Pn	23 49 53.2	-1.2
	525nm,0.4s,baz=23,slow=2.8,SNR=66						
BATI				S	Sn	23 50 24.1	-0.1
	648nm,0.4s,baz=296,slow=23,SNR=20						
MMRI	Maumere	2.30	255	P	Pn	23 49 56.7	+2.3
MMRI				AML	AML		
EDFI	Ende, Flores	2.85	256	P	Pn	23 50 03.5	+2.2
EDFI				S	Sn	23 50 37.8	+1.3
EDFI				AML	AML		
BBSI	Bau Bau	3.17	323	P	Pn	23 50 08.6	+3.2
BBSI				AML	AML		
KDI	Kendari	4.47	335	P	Pn	23 50 24.5	+2.4
KDI				AML	AML		
KKSI	Kolaka, Sulawe	4.77	324	P	Pn	23 50 28.6	+2.4
KKSI				AML	AML		
KAPI	Kappang	5.58	302	P	Pn	23 50 35.6	-1.4
	5.6nm,0.5s,baz=158,slow=12,SNR=3.6						
FITZ	Fitzroy Crossi	10.05	174	P	Pn	23 51 36.4	-0.1
	5.8nm,0.3s,baz=4.0,slow=9.8,SNR=106						
FITZ				S	Sn	23 53 25.1	-2.7
	26nm,0.5s,baz=152,slow=7.5,SNR=20						
WRA	Warramunga Arr	15.20	142	P	Pn	23 52 43.5	+0.8
	2.6nm,0.4s,baz=318,slow=14,SNR=44						
WRA				S	Sn	23 55 27.8	-4.0
	2.9nm,0.4s,baz=314,slow=23,SNR=10						
ASAR	Alice Springs	17.96	151	P	P	23 53 16.9	+2.2
	3.8nm,0.6s,baz=331,slow=13,SNR=51						
ASAR				S	S	23 56 33.9	+0.6
	2.2nm,0.7s,baz=327,slow=23,SNR=12						
STKA	Stephens Creek	28.56	148	P	P	23 54 59.0	+1.4
	1.3nm,0.5s,baz=329,slow=10,SNR=3.0						
	1.3nm,0.5s						
USRK	Ussuriysk Ar.	52.44	7	P	P	23 58 11.7	-1.2
	1.0nm,0.4s,baz=196,slow=6.7,SNR=5.4						
	1.0nm,0.4s						
MKAR	Makanchi Array	66.23	330	P	P	23 59 45.9	-1.7
	0.9nm,0.6s,baz=128,slow=6.7,SNR=13						
	0.9nm,0.6s						
ZALV	Zalesovo Beam	70.22	336	P	P	00 00 09.5	-2.7
	0.8nm,0.3s,baz=118,slow=5.4,SNR=5.7						
	0.8nm,0.3s						
KURBB	Kurchatov Arra	70.65	331	P	P	00 00 12.6	-2.3
	0.3nm,0.3s,baz=133,slow=6.5,SNR=9.7						
	0.3nm,0.3s						
VNDA	Vanda	72.12	172	P	P	00 00 23.0	-0.3
	0.6nm,0.5s,baz=323,slow=7.3,SNR=18						
	0.6nm,0.5s						
QSPA	South Pole Qui	81.94	180	P	P	00 01 18.0	-0.6
	1.4nm,1.0s,baz=240,slow=1.6,SNR=8.1						
	1.4nm,1.0s						
CPUP	Villa Florida	145.78	177	PKPbc	PKPdf	00 08 37.4	+0.1
	2.0nm,0.8s,baz=171,slow=4.4,SNR=4.3						

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*MOS **29** 00:17:36.6±2.1, 33°.44S×178°.55W, h9^{km}, mb5.1/9, Error ellipse: s-maj=13.8km s-min=10.6km az=112.9*

*NEIC **29** 00:17:37.3±1.7, 33°.55S±0°.08×178°.2W±0°.1, h10^{km}±1^{km}, mb4.9/25, Ms_20 5.0/87, Mww5.0/11, Error ellipse: s-maj=20.8km s-min=12.1km az=103.0*

*WEL **29** 00:17:38.3±0.7, 34°S±5°×17°8W±1°0, h12^{km}, mB5.8/8, ML5.2/14, MLv5.3/13, Mw(mB)5.3/8, Error ellipse: s-maj=14.5km s-min=4.2km az=109.7, confirmed*

*IDC **29** 00:17:39.1±0.5, 33°.41S×178°.91W, h0^{km}, mb4.5/13, mbtmp4.6/17, ML5.2/3, MS4.6/34, Error ellipse: s-maj=17.0km s-min=12.6km az=96.0*

*GFZ **29** 00:17:40.2±0.4, 33°S±4°×17°8W±°, h10^{km}, M5.1/18, mb5.1/18*

*NOU **29** 00:17:41.7, 33°.83S×178°.45W, h11^{km}, mb5.0/20, South of Kermadec Islands*

*GCMT **29** 00:17:44.3±0.2, 33°.42S±0°.02×178°.31W±0°.01, h18^{km}, MW5.1/121, Moment Tensor Solution. s64,c86; s121,c180; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$4.09±.15; M$_{\theta\theta}$-0.27±.10; M$_{\phi\phi}$-3.82±.11; M$_{r\theta}$0.34±.24; M$_{\theta\phi}$-1.01±.07; M$_{\phi r}$3.53±.24; Best double couple: M$_0$5.41200×10^{16} NP1:φ$_s$201.00000°, δ25.00000°, λ101.00000°. NP2:φ$_s$9.00000°, δ66.00000°, λ85.00000°. Principal axes: T 5.4370, Plg69.0000°, Azm269.0000°; N -0.0440, Plg5.0000°, Azm11.0000°; P -5.3870, Plg20.0000°, Azm103.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 29 00:17:38.1±0.4**, 33°.51S**±0°.04×**178°.42W**±0°.07**, h10^{km}, n320, σ2^{s}.06**/263**, mb4.9**/46**, MS4.8**/73**, 6C-1D, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GLKZ	Green Lake	4.26	6	P	Pn	00 18 42.0	-0.9
GLKZ				S	Sn	00 19 30.5	-2.1
GLKZ				AML	AML		
GLKZ				AML	AML		
RAO	Raoul Island	4.27	6	Pn	Pn	00 18 43.1	0.0
	96nm,0.3s,baz=256,slow=17,SNR=3.5						
RAO				Sn	Sn	00 19 29.7	-3.2
	160nm,0.3s,baz=75,slow=22,SNR=2.2						
	244nm,0.3s						
RAO				AML	AML		
RAO	Raoul Island	4.27	6	Pn	Pn	00 18 42.8	-0.3
MXZ	Matakaoa Point	4.84	212	P	Pn	00 18 50.5	-0.5
MXZ	Matakaoa Point	4.84	212	P	Sn	00 19 45.0	-2.1
MXZ	Matakaoa Point	4.84	212		Pn	00 18 50.8	-0.2
MXZ	Matakaoa Point	4.84	212	P	Pn	00 18 52.2	+1.2
MXZ				S	Sn	00 19 44.7	-2.4
MXZ				AML	AML		
MXZ				AML	AML		
WMGZ	Waiomatatini S	5.01	210	P	Pn	00 18 54.2	+0.9
WMGZ				S	Sn	00 19 50.8	-0.5
WMGZ				AML	AML		
WMGZ				AML	AML		
PKGZ	Pakihiroa	5.20	212	P	Pn	00 18 55.7	-0.2
PKGZ				S	Sn	00 19 55.1	-0.7
PKGZ				AML	AML		
PKGZ				AML	AML		
HAZ	Te Kaha	5.24	215	P	Pn	00 18 56.4	-0.1
HAZ				S	Sn	00 19 57.9	+0.9
HAZ				AML	AML		
HAZ				AML	AML		
PUZ	Puketiti	5.29	210	P	Pn	00 18 56.5	-0.6
PUZ				S	Sn	00 19 57.8	-0.5
PUZ				AML	AML		
PUZ				AML	AML		
RUGZ	Raukumara Rang	5.46	214	P	Pn	00 18 59.6	0.0
RUGZ				AML	AML		
RUGZ				AML	AML		
TWGZ	Tauwhareparae	5.50	211	P	Pn	00 19 02.1	+2.1
TWGZ				S	Sn	00 20 02.9	-0.5
TWGZ				AML	AML		
TWGZ				AML	AML		
CNGZ	Carnagh Statio	5.67	208	P	Pn	00 19 02.0	-0.3
CNGZ				AML	AML		
CNGZ				AML	AML		
GRZ	Great Barrier	5.72	240	P	Pn	00 19 06.4	+3.3
GRZ				AML	AML		
GRZ				AML	AML		
WHRZ	Whale Island	5.73	219	P	Pn	00 19 05.5	+2.3
TKGZ	Te Karaka	5.77	210	P	Pn	00 19 05.0	+1.2
TKGZ				S	Sn	00 20 08.0	-2.0
TKGZ				AML	AML		
TKGZ				AML	AML		
MWZ	Matawai	5.83	213	P	Pn	00 19 04.6	0.0
MWZ				S	Sn	00 20 10.3	-1.2
MWZ				AML	AML		
MWZ				AML	AML		
URZ	Urewera	5.97	216	Pn	Pn	00 19 06.1	-0.3
	50nm,0.3s,baz=287,slow=1.6,SNR=95						
URZ				Sn	Sn	00 20 12.4	-2.4
	108nm,0.3s,baz=140,slow=17,SNR=8.8						
	133nm,0.3s						
URZ				AML	AML		
URZ	Urewera	5.97	216	P	Pn	00 19 05.7	-0.7
URZ	Urewera	5.97	216	P	Sn	00 20 12.9	-1.9
URZ	Urewera	5.97	216	P	Pn	00 19 06.1	-0.3
URZ				S	Sn	00 20 12.3	-2.4
URZ	Urewera	5.97	216	P	Pn	00 19 07.0	+0.6
	comp=Z,471nm,1.0s						
RIGZ	Rimuhau	6.03	210	P	Pn	00 19 08.7	+1.3
RIGZ				S	Sn	00 20 15.4	-1.1
MKAZ	Moumakai	6.35	234	P	Pn	00 19 14.8	+3.0
MKAZ				AML	AML		
MKAZ				AML	AML		
WCZ	Waipu Caves	6.43	246	P	Pn	00 19 15.7	+2.9
WCZ				AML	AML		
WCZ				AML	AML		
TOZ	Tahuroa Road	6.50	228		Pn	00 19 14.6	+0.9
TOZ	Tahuroa Road	6.50	228	P	Pn	00 19 15.3	+1.6
TOZ				AML	AML		
TOZ				AML	AML		
OUZ	Omahuta	6.81	253	P	Pn	00 19 21.3	+3.2
OUZ	Omahuta	6.81	253	P	Sn	00 20 37.8	+2.1
OUZ	Omahuta	6.81	253	P	Pn	00 19 21.5	+3.4
OUZ				AML	AML		
OUZ				AML	AML		
OUZ	Omahuta	6.81	253	P	Pn	00 19 23.5	+5.4
	comp=Z,201nm,1.1s						
BKZ	Black Stump Fm	6.98	215	P	Pn	00 19 19.9	-0.5
BKZ	Black Stump Fm	6.98	215	P	Sn	00 20 37.6	-2.2
ETVZ	East Tongariro	7.34	218	P	Pn	00 19 25.0	-0.4
ETVZ				AML	AML		
ETVZ				AML	AML		
HIZ	Hauiti	7.39	226	P	Pn	00 19 27.0	+1.1
HIZ	Hauiti	7.39	226	P	Sn	00 20 48.5	-1.3
HIZ	Hauiti	7.39	226	P	Pn	00 19 27.9	+1.9
HIZ				AML	AML		
CTZ	Chatham Island	10.31	173	P	Pn	00 20 06.1	+0.1
CTZ	Chatham Island	10.31	173	S	Pn	00 20 06.7	+0.8
LTZ	Lake Taylor	11.80	216	Pn	Pn	00 20 24.4	-2.0
RPZ	Rata Peaks	13.08	216	Pn	Pn	00 20 38.0	-5.9
	comp=Z,0.7nm,0.3s,baz=118,slow=1.1,SNR=6.6						
RPZ				Sn	Sn	00 22 53.6	-16
	comp=Z,0.7nm,0.3s,baz=93,slow=21,SNR=6.0						
RPZ	Rata Peaks	13.08	216	P	Pn	00 20 43.1	-0.9
ODZ	Otahua Downs	14.28	213	P	Pn	00 20 58.9	-1.3
JCZ	Jackson Bay	14.50	220	P	Pn	00 21 02.8	-0.6
JCZ	Jackson Bay	14.50	220	S	Sn	00 23 41.3	-2.8
MSVF	Nonsavu	16.03	348	Pn	Pn	00 21 24.2	+0.5
	comp=Z,0.7nm,0.3s,baz=134,slow=14,SNR=7.5						
MSVF				LR	LR	00 26 20.2	
	comp=Z,2μm,20.4s,baz=162,slow=33						
	comp=Z,24nm,1.1s						
MSVF				AML	AML		
MSVF	Nonsavu	16.03	348	P	P	00 21 30.6	+3.4
MSVF	Nonsavu	16.03	348	*i* P	Pn	00 21 23.3	-0.4
MSVF	Nonsavu	16.03	348		Pn	00 21 23.0	-0.7
MSVF				IAmb	IAmb	00 21 40.5	
	comp=Z,41nm,0.9s						
MSVF	Nonsavu	16.03	348	P	P	00 21 26.3	-0.9
	comp=Z,52nm,1.5s						
OUENC	Ouen Island, N	17.05	307	P	P	00 21 40.1	+1.6
OUENC				IAmb	IAmb	00 21 44.9	
	comp=Z,158nm,1.2s						
ONTNC	Ouen Toro	17.39	306		P	00 21 45.1	+3.0
ONTNC				IAmb	IAmb	00 21 55.8	
	comp=Z,126nm,1.2s						
DZM	Mont Dzumac	17.56	307	P	Pn	00 21 42.0	-1.1
	comp=Z,6.8nm,1.0s,baz=120,slow=16,SNR=6.4						
NOUC	Port Laguerre	17.63	306	P	P	00 21 49.6	+4.7
RAR	Rarotonga	20.56	58	LR	LR	00 30 34.2	
	comp=Z,408nm,18.0s,baz=248,slow=37						
SANVU	Saraoutou	22.19	321	P	P	00 22 34.9	+0.4
SANVU				IAmb	IAmb	00 22 52.1	
	comp=Z,67nm,0.9s						
SANVU	Saraoutou	22.19	321	P	P	00 22 40.4	+5.9
	comp=Z,86nm,0.9s						
ARMA	Armidale	25.55	269	P	P	00 23 09.4	+2.2
	comp=Z,17nm,1.3s						
ARMA	Armidale	25.55	269		P	00 23 07.6	+0.3
ARMA				IAmb	IAmb	00 23 12.4	
	comp=Z,24nm,1.1s						
ARMA	Armidale	25.55	269	P	P	00 23 09.9	+2.7
	comp=Z,18nm,1.3s						
CNB	Canberra Magne	26.58	257	P	P	00 23 19.6	+3.2
	comp=Z,33nm,1.4s						
CAN	Canberra	26.87	257	P	P	00 23 20.4	+1.3
	comp=Z,21nm,1.6s						
CAN	Canberra	26.87	257	P	P	00 23 19.6	+0.5
CAN				pmax	pmax		
	comp=Z,42nm,1.4s						
CAN				MLR	MLR		
	comp=Z,2μm,19.0s						
CAN	Canberra	26.87	257		P	00 23 19.6	+0.5
CAN				IAmb	IAmb	00 23 22.6	
	comp=Z,42nm,1.4s						
CAN				IAMs_20	IAMs_20	00 32 53.2	
	comp=Z,2μm,19.0s						
CAN	Canberra	26.87	257	P	P	00 23 21.0	+1.9
	comp=Z,21nm,1.6s						
EIDS	Eidsvold	27.69	279	P	P	00 23 28.9	+2.4
	comp=Z,41nm,1.1s						
EIDS	Eidsvold	27.69	279		P	00 23 27.2	+0.7
EIDS				IAmb	IAmb	00 23 29.4	
	comp=Z,33nm,0.9s						
EIDS	Eidsvold	27.69	279	P	P	00 23 28.9	+2.4
	comp=Z,41nm,1.1s						
TOO	Toolangi	29.52	252	P	P	00 23 43.1	+0.3
TOO				pmax	pmax		
	comp=Z,11nm,1.5s						
TOO	Toolangi	29.52	252	P	P	00 23 43.0	+0.3
CMSA	Cobar Meteorol	30.23	264	P	P	00 23 50.7	+1.7
	comp=Z,26nm,1.7s						
CMSA	Cobar Meteorol	30.23	264	P	P	00 23 51.0	+2.0
	comp=Z,26nm,1.7s						
PPT2	Papeete2	30.34	66	*e*PKP1	P	00 23 40.4	-10
	comp=Z,61nm,25.5s						
PPT2				*e*S	S	00 28 41.2	-9.3
	comp=Z,101nm,24.8s						
PPT2				*e*LQ	LQ	00 30 06.5	
	comp=Z,522nm,21.8s						
PPT2				*e*LR	LR	00 31 22.3	
	comp=Z,825nm,22.2s						
PPT2				*e*LR	LR	00 31 32.1	
	comp=Z,731nm,26.0s						
PPT	Papeete	30.35	66	LR	LR	00 36 10.7	
	comp=Z,722nm,18.2s,baz=243,slow=36						
QLP	Quilpie	32.92	272	P	P	00 24 14.5	+1.8
	comp=Z,60nm,1.5s						
QLP	Quilpie	32.92	272	P	P	00 24 13.9	+1.1
	comp=Z,60nm,1.5s						
STKA	Stephens Creek	33.55	262	P	P	00 24 13.9	-4.2
STKA	Stephens Creek	33.55	262	P	P	00 24 17.6	-0.6
	comp=Z,4.9nm,1.0s,baz=97,slow=5.4,SNR=4.9						
STKA				LR	LR	00 37 23.3	
	comp=Z,3μm,18.2s,baz=86,slow=36						
	comp=Z,4.9nm,1.0s						
CTA	Charters Tower	34.07	284	P	P	00 24 25.0	+2.2
	comp=Z,17nm,0.8s						
CTA	Charters Tower	34.07	284	LR	LR	00 36 36.6	
	comp=Z,614nm,19.9s,baz=71,slow=34						
CTAO	Charters Tower	34.07	284	P	P	00 24 26.1	+3.3
CTAO	Charters Tower	34.07	284	P	P	00 24 23.7	+0.9
CTAO				pmax	pmax		
	comp=Z,26nm,0.7s						
CTAO	Charters Tower	34.07	284		P	00 24 23.7	+0.9
CTAO	Charters Tower	34.07	284	P	P	00 24 25.2	+2.4
	comp=Z,44nm,0.8s						
HTT	Hallett	35.40	258	P	P	00 24 33.7	-0.5
	comp=Z,6.3nm,2.5s						
HTT	Hallett	35.40	258	P	P	00 24 37.7	+3.5
INKA	Innaminka	35.44	268		P	00 24 35.4	+0.9
INKA				IAmb	IAmb	00 24 37.4	
	comp=Z,20nm,1.1s						
MTSU	Mount Surprise	36.65	285	P	P	00 24 47.0	+2.0
	comp=Z,18nm,0.8s						
MTSU	Mount Surprise	36.65	285	P	P	00 24 47.0	+2.0
	comp=Z,18nm,0.8s						
BBOO	Buckleboo	37.88	258	P	P	00 24 55.0	-0.3
	comp=Z,20nm,2.6s						
QIS	Mount Isa	39.29	278	P	P	00 25 08.3	+1.0
	comp=Z,36nm,1.2s						
QIS	Mount Isa	39.29	278	P	P	00 25 08.5	+1.2
	comp=Z,36nm,1.2s						
PMG	Port Moresby	39.71	299	LR	LR	00 39 30.6	
	comp=Z,1μm,19.4s,baz=152,slow=33						
PMG	Port Moresby	39.71	299	*i* P	P	00 25 10.6	-0.2
PMG				pmax	pmax		
	comp=Z,29nm,1.0s						
PMG	Port Moresby	39.71	299	IAMs_20	IAMs_20	00 39 09.3	
	comp=Z,1μm,19.0s						
AS31	Alice Springs	42.68	270	P	P	00 25 34.7	-0.5
AS31				IAmb	IAmb	00 25 49.4	
	comp=Z,6.2nm,0.7s						
ASAR	Alice Springs	42.68	270	P	P	00 25 35.2	0.0
	comp=Z,19nm,0.8s,baz=112,slow=7.4,SNR=111						
ASAR				S	S	00 31 53.6	-5.1
	comp=Z,1.9nm,0.9s,baz=115,slow=15,SNR=8.6						
ASAR				LR	LR	00 42 31.5	
	comp=Z,875nm,19.7s,baz=128,slow=35						
	comp=Z,19nm,0.8s						
ASAR	Alice Springs	42.68	270	P	P	00 25 34.8	-0.4
ASAR	Alice Springs	42.68	270	P	P	00 25 34.8	-0.4
TAOE	Nuku Hiva Isla	42.93	64	*e*LR	LR	00 37 14.2	
	comp=Z,547nm,27.8s						
WR0	Warramunga Arr	43.77	276	P	P	00 25 44.7	+0.6
WR9	Warramunga Arr	43.79	276	P	P	00 25 44.8	+0.5
WR8	Warramunga Arr	43.81	276	P	P	00 25 43.7	-0.7
WR8				IAmb	IAmb	00 25 57.8	
	comp=Z,28nm,0.9s						
WRAB	Tennant Creek	43.94	276	P	P	00 25 45.1	-0.4
WRAB				pmax	pmax		
	comp=Z,24nm,0.8s						
WRAB	Tennant Creek	43.94	276	P	P	00 25 45.1	-0.4
WRAB				IAmb	IAmb	00 25 58.7	
	comp=Z,24nm,0.8s						
WRAB	Tennant Creek	43.94	276	P	P	00 25 45.0	-0.4
	comp=Z,37nm,0.8s						
WRA	Warramunga Arr	43.95	276	P	P	00 25 45.6	+0.1
	comp=Z,11nm,0.4s,baz=117,slow=7.6,SNR=128						
WRA				S	S	00 32 13.7	-3.7
	comp=Z,5.7nm,1.1s,baz=112,slow=16,SNR=6.2						
WRA				LR	LR	00 42 54.1	
	comp=Z,626nm,21.8s,baz=89,slow=35						
	comp=Z,11nm,0.4s						
WRA	Warramunga Arr	43.95	276	P	P	00 25 44.8	-0.7
WRA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
WRA	Warramunga Arr	43.95	276	P	P	00 25 44.8	-0.7
WB0	Warramunga Arr	43.98	276	P	P	00 25 45.2	-0.6
VNDA	Vanda	44.97	186	P	P	00 25 57.1	+4.2
	comp=Z,1.0nm,0.8s,baz=14,slow=6.7,SNR=11						
VNDA				LR	LR	00 41 37.4	
	comp=Z,325nm,18.1s,baz=18,slow=32						
	comp=Z,1.0nm,0.8s						
VNDA	Vanda	44.97	186	P	P	00 25 50.1	-2.9
VNDA	Vanda	44.97	186	P	P	00 25 57.2	+4.2
	comp=Z,3.2nm,0.8s						
FORT	Forrest	44.98	258	P	P	00 25 53.0	-0.6
	comp=Z,14nm,1.1s						
FORT	Forrest	44.98	258	P	P	00 25 53.2	-0.4
FORT				IAmb	IAmb	00 26 10.3	
	comp=Z,8.8nm,0.7s						
WRKA	Warakurna	46.81	266	P	P	00 26 07.5	-0.7
	comp=Z,13nm,1.2s						
JAY	Jayapura	49.07	300	P	P	00 26 26.2	+0.4
	comp=Z,19nm,0.8s,baz=22,slow=4.1,SNR=8.0						
JAY				LR	LR	00 45 13.7	
	comp=Z,419nm,20.2s,baz=342,slow=34						
	comp=Z,19nm,0.8s						
GENI	Genyem	49.41	300	P	P	00 26 21.1	-7.2
FITZ	Fitzroy Crossi	52.06	273	P	P	00 26 48.8	+0.5
FITZ	Fitzroy Crossi	52.06	273	LR	LR	00 48 46.6	
	comp=Z,2μm,18.2s,baz=116,slow=36						
FITZ	Fitzroy Crossi	52.06	273	P	P	00 26 48.0	-0.3
FITZ	Fitzroy Crossi	52.06	273	P	P	00 26 48.5	+0.2
	comp=Z,4.8nm,0.8s						
CASY	Casey	52.24	209	P	P	00 26 49.8	+0.8
CASY	Casey	52.24	209	P	P	00 26 51.5	+2.5
	comp=Z,40nm,1.8s						
NWAO	Narrogin (SRO)	53.02	252	LR	LR	00 48 19.3	
	comp=Z,538nm,19.1s,baz=60,slow=35						
NWAO	Narrogin (SRO)	53.02	252	IAMs_20	IAMs_20	00 50 49.0	
	comp=Z,705nm,19.0s						
KLBR	Kellerberrin	53.06	253	P	P	00 26 54.9	-0.7
	comp=Z,35nm,1.1s						
BAKI	Biak	53.33	297	P	P	00 27 00.5	+2.8
MEEK	Meekatharra	54.20	259	P	P	00 27 03.6	-0.4
	comp=Z,23nm,1.1s						
MORW	Morawa	55.35	256	P	P	00 27 11.2	-1.1
	comp=Z,17nm,1.5s						
MBWA	Marble Bar	55.59	266	IAMs_20	IAMs_20	00 51 51.0	
	comp=Z,817nm,19.0s						
QSPA	South Pole Qui	56.61	180	P	P	00 27 24.8	+3.9
	comp=Z,19nm,1.1s,baz=356,slow=1.0,SNR=23						
QSPA				LR	LR	00 49 07.6	
	comp=Z,611nm,19.1s,baz=36,slow=33						
	comp=Z,19nm,1.1s						
QSPA	South Pole Qui	56.61	180		P	00 27 23.7	+2.8
QSPA	South Pole Qui	56.61	180	IAMs_20	IAMs_20	00 50 21.4	
	comp=Z,729nm,19.0s						
QSPA	South Pole Qui	56.61	180	P	P	00 27 25.0	+4.1
	comp=Z,34nm,1.0s						
SIJI	Sorong	57.19	294	LR	LR	00 50 11.5	
	comp=Z,491nm,21.4s,baz=160,slow=34						
SWI	Sorong	57.20	294	P	P	00 27 28.9	+3.2
MSAI	Masohi	57.46	290	P	P	00 27 19.0	-8.5
SOEI	Soe	57.50	280	P	P	00 27 26.6	-1.3
SOEI	Soe	57.50	280	P	P	00 27 42.2	+14

SOEI	Soe	57.50	280	P	P	00 27 29.7	+1.7
	comp=Z,54nm,1.1s						
BATI	Baumata	57.75	280	LR	LR	00 53 29.5	
	comp=Z,669nm,18.5s,baz=141,slow=38						
RPN	Rapa Nui	59.01	104	LR	LR	00 49 35.1	
	comp=Z,454nm,18.4s,baz=244,slow=32						
MMRI	Maumere	59.78	280	IAMs_20	IAMs_20	00 54 54.8	
	comp=Z,669nm,18.0s						
SANI	Sanana	60.57	289	P	P	00 27 48.6	-0.5
	comp=Z,30nm,1.1s						
KAPI	Kappang	63.85	282	LR	LR	00 56 45.2	
	comp=Z,478nm,19.0s,baz=118,slow=37						
KAPI	Kappang	63.85	282	IAMs_20	IAMs_20	00 56 42.7	
	comp=Z,493nm,19.0s						
JAGI	Jajag, Banyuwa	66.56	275	IAMs_20	IAMs_20	01 01 17.3	
	comp=Z,601nm,18.0s						
TOLI2	Tolitoli	66.61	288	P	P	00 28 26.9	-2.1
TOLI2				IAmb	IAmb	00 28 45.1	
	comp=Z,7.3nm,0.9s						
BKB	Balikpapan	68.33	283	IAMs_20	IAMs_20	01 01 37.7	
	comp=Z,984nm,18.0s						
MAW	Mawson	69.28	201	P	P	00 28 45.6	+0.6
	comp=Z,3.0nm,1.6s						
MAW	Mawson	69.28	201	P	P	00 28 47.9	+2.9
	comp=Z,3.2nm,0.5s,baz=139,slow=2.9,SNR=19						
MAW				LR	LR	00 57 55.5	
	comp=Z,550nm,20.2s,baz=114,slow=35						
	comp=Z,3.2nm,0.5s						
MAW	Mawson	69.28	201	P	P	00 28 43.5	-1.5
MAW	Mawson	69.28	201	P	P	00 28 47.4	+2.4
	comp=Z,3.0nm,1.6s						
PMSA	Palmer Station	69.59	155	LR	LR	00 56 44.9	
	comp=Z,343nm,18.3s,baz=255,slow=34						
LEM	Lembang	72.89	273	LR	LR	01 02 31.6	
	comp=Z,480nm,18.8s,baz=202,slow=37						
ELIB	Princess Elisa	73.73	187	*d*P	P	00 29 11.7	-0.3
	comp=Z,8.5nm,0.8s						
SNAA	Sanae	75.07	179	P	P	00 29 23.0	+3.3
	comp=Z,3.8nm,0.9s,baz=123,slow=4.2,SNR=3.1						
	comp=Z,3.8nm,0.9s						
SNAA	Sanae	75.07	179	*i* P	P	00 29 16.5	-3.1
SNAA				pmax	pmax		
	comp=Z,22nm,1.3s						
SNAA	Sanae	75.07	179	IAMs_20	IAMs_20	01 05 06.9	
	comp=Z,715nm,18.0s						
VNA3	Neumayer Olymp	75.23	176	⇑P	P	00 29 22.9	+2.3
	comp=Z,24nm,0.8s						
VNA3	Neumayer Olymp	75.23	176	P	P	00 29 22.8	+2.3
	comp=Z,38nm,0.8s						
VNA2	Neumayer--Watz	75.66	177	⇑PcP	PcP	00 29 35.6	-0.2
	comp=Z,27nm,0.9s,baz=178,slow=4.7						
NVL	N'lazarevskaya	75.76	183	*e*P	P	00 29 24.0	+0.5
NVL				*e*S	S	00 39 02.0	-3.0
NVL				pmax	pmax		
	comp=Z,7.0nm,1.0s						
NVL				MLR	MLR		
	comp=Z,560nm,18.0s						
VNA1	Neumayer--Stat	75.90	177	⇑P	P	00 29 28.0	+3.7
	comp=Z,31nm,0.9s						
VNA1				⇑PcP	PcP	00 29 37.1	+0.4
	comp=Z,31nm,0.9s						
PMBI	Palembang	77.39	275	IAMs_20	IAMs_20	01 06 17.1	
	comp=Z,572nm,18.0s						
H03N2	Juan Fernandez	79.27	123	T	T	01 58 41.2	
	baz=23,slow=74,SNR=4.6						
H03N1	Juan Fernandez	79.28	123	T	T	01 58 36.3	
	baz=239,slow=74,SNR=9.0						
MJAR	Matsushiro Arr	80.60	326	P	P	00 29 51.3	+0.5
	comp=Z,1.5nm,0.5s,baz=137,slow=5.1,SNR=5.3						
	comp=Z,1.5nm,0.5s						
MJAR	Matsushiro Arr	80.60	326	P	P	00 29 49.5	-1.2
PLCA	Paso Flores	80.66	133	LR	LR	01 01 21.6	
	comp=Z,146nm,18.4s,baz=238,slow=32						
IPM	Ipoh	84.60	279	IAMs_20	IAMs_20	01 11 52.5	
	comp=Z,649nm,19.0s						
RPSI	Rantau Prapat	85.35	276	IAMs_20	IAMs_20	01 12 13.3	
	comp=Z,412nm,20.0s						
GSI	Gunungsitoli	85.70	274	P	P	00 30 16.5	-1.2
CO06	Fray Jorge	85.93	124	IAMs_20	IAMs_20	01 02 01.1	
	comp=Z,520nm,18.0s						
TJN	Taejon	86.00	319	*i* P	P	00 30 17.5	-1.0
LPIG	La Paz	86.48	58	LR	LR	01 03 39.4	
	comp=Z,448nm,18.2s,baz=230,slow=32						
KSRS	Korea Array	86.48	320	P	P	00 30 23.9	+3.0
	comp=Z,1.6nm,0.7s,baz=135,slow=5.8,SNR=5.7						
	comp=Z,1.6nm,0.7s						
NJ2	Nanjing	88.00	311	*e*P	P	00 30 28.5	+0.1
NJ2				pmax	pmax		
	comp=Z,13nm,0.5s						
PFO	Pinyon Flats O	88.57	47	LR	LR	01 06 35.7	
	comp=Z,340nm,18.1s,baz=242,slow=33						
PEA0B	Petropavlovsk-	88.73	346	*i* P	P	00 30 27.9	-3.4
PETK	Petropavlovsk-	88.73	346	P	P	00 30 32.7	+1.4
	comp=Z,7.5nm,0.7s,baz=108,slow=4.2,SNR=7.9						
	comp=Z,7.5nm,0.7s						
LRMC	Laurel Mtn Rad	89.10	45	IAMs_20	IAMs_20	01 09 13.3	
	comp=Z,566nm,19.0s						
USA0B	Ussuriysk Arra	89.55	327	*i* P	P	00 30 31.5	-3.9
USRK	Ussuriysk Ar.	89.55	327	P	P	00 30 36.8	+1.4
	comp=Z,1.0nm,0.4s,baz=162,slow=3.5,SNR=5.9						
	comp=Z,1.0nm,0.4s						
O03E	Paynes Creek	90.14	40	IAMs_20	IAMs_20	01 05 57.1	
	comp=Z,620nm,20.0s						
NVAR	Mina Array Bea	90.76	43	LR	LR	01 07 32.0	
	comp=Z,178nm,18.1s,baz=264,slow=33						
NNA	Nana	92.91	106	LR	LR	01 06 02.3	
	comp=Z,321nm,18.3s,baz=232,slow=31						
CMIG	Matias Romero	94.05	72	LR	LR	01 07 25.5	
	comp=Z,191nm,18.4s,baz=200,slow=32						
ELK	Elko	94.07	43	LR	LR	01 08 57.4	
	comp=Z,256nm,18.9s,baz=260,slow=33						
ELK	Elko	94.07	43	IAMs_20	IAMs_20	01 15 10.9	
	comp=Z,536nm,19.0s						
CMAR	Chiang Mai Arr	94.08	289	PP	PP	00 34 44.4	+0.7
	comp=Z,0.7nm,0.3s,baz=156,slow=7.1,SNR=5.4						
TXAR	Lajitas Array	94.36	58	P	P	00 31 01.8	+3.6
	comp=Z,0.3nm,0.7s,baz=253,slow=7.9,SNR=2.1						
TXAR				LR	LR	01 08 36.8	
	comp=Z,294nm,18.1s,baz=232,slow=32						
	comp=Z,0.3nm,0.7s						
ATAH	Atahualpa	94.39	101	LR	LR	01 07 17.1	
	comp=Z,141nm,18.2s,baz=241,slow=31						
ANMO	Albuquerque	95.79	52	LR	LR	01 08 52.2	
	comp=Z,198nm,18.3s,baz=243,slow=32						
PZH	PanZhiHua	96.42	297	P	P	00 31 05.5	-2.2
HWUT	Hardware Ranch	96.73	44	IAMs_20	IAMs_20	01 16 43.5	
	comp=Z,561nm,18.0s						
LPAZ	La Paz	97.19	115	LR	LR	01 07 13.8	
	comp=Z,74nm,20.9s,baz=222,slow=30						
CD2	Chengdu	97.43	302	*e*P	P	00 31 12.0	-0.1
JCT	Junction City	97.76	59	IAMs_20	IAMs_20	01 14 28.1	
	comp=Z,435nm,19.0s						
NEW	Newport	98.09	36	LR	LR	01 09 23.2	
	comp=Z,596nm,19.4s,baz=232,slow=32						
HHC	Hu-ho-hao-te	98.13	314	*e*P	P	00 31 14.5	-0.6
HHC				pmax	pmax		
	comp=Z,11nm,0.7s						
HHC				pmax	pmax		
	comp=Z,29nm,5.1s						
FXWY	Fox Creek	98.32	43	IAMs_20	IAMs_20	01 20 17.6	
	comp=Z,546nm,20.0s						
CPUP	Villa Florida	98.33	129	LR	LR	01 11 38.1	
	comp=Z,284nm,18.1s,baz=252,slow=33						
JTS	Las Juntas de	98.47	83	LR	LR	01 09 09.4	
	comp=Z,285nm,18.5s,baz=276,slow=31						
Q24A	Divide	99.02	49	IAMs_20	IAMs_20	01 17 17.7	
	comp=Z,524nm,20.0s						
BTO2	Baotou	99.08	313	*e*P	Pdif	00 31 19.0	-0.4
BTO2				PP	PP	00 35 22.8	+0.6
WHTX	Lake Whitney,	100.27	59	IAMs_20	IAMs_20	01 15 30.5	
	comp=Z,504nm,18.0s						
MORE	Moreh	100.84	292	IAMs_20	IAMs_20	01 24 36.1	
	comp=Z,276nm,20.0s						
TEIG	Tepich	101.00	73	IAMs_20	IAMs_20	01 14 58.4	
	comp=Z,290nm,19.0s						
BILI	Bilibino, Chuk	101.89	354	P	Pdif	00 31 30.6	-0.5
	comp=Z,32nm,0.5s						
OK052	Battle Ridge R	102.87	55	IAMs_20	IAMs_20	01 03 24.6	
	comp=Z,512nm,22.0s						
PALK	Pallekele	103.03	270	IAMs_20	IAMs_20	01 13 28.5	
	comp=Z,444nm,21.0s						
TUL3	Leonard	103.53	56	IAMs_20	IAMs_20	01 18 52.8	
	comp=Z,482nm,18.0s						
ULN	Ulaanbaatar	104.84	318	IAMs_20	IAMs_20	01 25 28.3	
	comp=Z,257nm,18.0s						
S39A	Bolivar	106.14	55	IAMs_20	IAMs_20	01 19 52.0	
	comp=Z,454nm,18.0s						
MTDJ	Mount Denham	108.71	80	IAMs_20	IAMs_20	01 21 38.4	
	comp=Z,444nm,18.0s						
HYB	Hyderabad	110.07	278	*e*PKiKP	PKiKP	00 36 09.3	-1.2
HYB				*e*SKSac	SKSac	00 42 47.3	-1.4
HYB				*e*SKKSac	SKKSac	00 43 45.0	-2.4
TIXI	Tiksi	111.15	344	IAMs_20	IAMs_20	01 16 04.0	
	comp=Z,264nm,22.0s						
A36M	Sachs Harbour	111.50	16	IAMs_20	IAMs_20	01 15 46.1	
	comp=Z,527nm,21.0s						
U54A	Nelsons Funny	113.77	61	IAMs_20	IAMs_20	01 24 50.8	
	comp=Z,405nm,18.0s						
WMQ	Urumqi	114.84	307	*e*PKP	PKPdf	00 36 11.3	-7.5
WMQ				PKS	PKSdf	00 39 51.0	-4.5
WMQ				LR	LR		
	comp=N,620nm,17.5s						
WMQ				LR	LR		
	comp=E,430nm,14.9s						
WMQ				LR	LR		
	comp=Z,620nm,19.9s						
DGZ	Jazzator, Alta	117.20	313	*i* PKIKP	PKPdf	00 36 21.7	-1.6
ZSN	Zaisan	118.02	310	*e*PKIKP	PKPdf	00 36 22.3	-2.5
ZSN	Zaisan	118.02	310	*e*PKP	PKPdf	00 36 22.3	-2.5
MK31	Makanchi Array	119.46	309	*i* PKIKP	PKPdf	00 36 24.9	-2.7
MKAR	Makanchi Array	119.46	309	PKP	PKiKP	00 36 28.3	+0.7
	comp=Z,2.4nm,0.9s,baz=42,slow=2.0,SNR=9.0						
MKAR	Makanchi Array	119.46	309*c*	*i*PKIKP	PKiKP	00 36 28.2	+0.6
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
MAKZ	Makanchi	119.67	309	IAMs_20	IAMs_20	01 38 56.3	
	comp=Z,413nm,21.0s						
WUS	Wushi	119.70	302	IAMs_20	IAMs_20	01 38 25.5	
	comp=Z,328nm,22.0s						
ZALV	Zalesovo Beam	120.09	317	PKP	PKiKP	00 36 29.1	+0.6
	comp=Z,0.7nm,0.4s,baz=146,slow=2.1,SNR=5.9						
SHLS	Shalkode	120.19	304	*e*PKIKP	PKPdf	00 36 25.9	-3.3
SHLS				*e*		00 37 51.7	
SHLS	Shalkode	120.19	304	*e*PKP	PKPdf	00 36 25.9	-3.3
SHLS				*e*PP	PP	00 37 51.7	-3.4
UZB	Uzynbulak	120.49	304	*e*PKIKP	PKPdf	00 36 27.1	-2.7
UZB	Uzynbulak	120.49	304	*e*PKP	PKPdf	00 36 27.1	-2.7
KPKS	Kokpek	120.82	304	*e*PKIKP	PKPdf	00 36 27.7	-2.7
KPKS	Kokpek	120.82	304	*e*PKP	PKPdf	00 36 27.8	-2.7
SATY	Saty	120.89	304	*e*PKIKP	PKPdf	00 36 27.8	-2.8
SATY	Saty	120.89	304	*e*PKP	PKPdf	00 36 27.9	-2.8
TDK	Taldyqorghan	121.49	306	*e*PKIKP	PKPdf	00 36 29.0	-2.5
TDK	Taldyqorghan	121.49	306	*e*PKP	PKPdf	00 36 29.0	-2.5
KSH2	Kashi	121.65	299	PKP	PKiKP	00 36 34.0	+1.7
MDOK	Medeo	121.86	303	*e*PKIKP	PKPdf	00 36 29.6	-2.8
MDOK	Medeo	121.86	303	*e*PKP	PKPdf	00 36 29.7	-2.8
TNSS	Tian-Shan	121.90	303	*e*PKIKP	PKPdf	00 36 29.7	-3.1
TNSS	Tian-Shan	121.90	303	*e*PKP	PKPdf	00 36 29.8	-3.1
WIN	Windhoek	122.31	197	IAMs_20	IAMs_20	01 28 09.3	
	comp=Z,465nm,22.0s						
KUU	Kurty	122.57	304	*e*PKIKP	PKPdf	00 36 31.0	-2.6
KUU	Kurty	122.57	304	*e*PKP	PKPdf	00 36 31.1	-2.6
KURK	Kurchatov	122.91	312	PKIKP	PKiKP	00 36 35.1	+0.9
KURK	Kurchatov	122.91	312		PKiKP	00 36 35.1	+0.9
KURBB	Kurchatov Arra	122.94	312	PKP	PKiKP	00 36 35.1	+0.8
	comp=Z,3.4nm,0.7s,baz=112,slow=1.8,SNR=16						
AAK	Ala-Archa	123.50	302	*i* PKIKP	PKPdf	00 36 32.7	-3.0
SGDS	Sogindy	123.64	303	*e*PKP	PKPdf	00 36 33.1	-2.7
DZA	Taraz	125.81	302	*e*PKIKP	PKPdf	00 36 37.2	-2.7
DZA	Taraz	125.81	302	*e*PKP	PKPdf	00 36 37.2	-2.7
CHM	Chimkent	126.90	301	*e*PKIKP	PKPdf	00 36 39.2	-2.8
CHM	Chimkent	126.90	301	*e*PKP	PKPdf	00 36 39.3	-2.8
BRLS	Borolday	126.91	302	*e*PKIKP	PKPdf	00 36 39.3	-2.6
BRLS	Borolday	126.91	302	*e*PKP	PKPdf	00 36 39.4	-2.6
BVAR	Borovoye Array	128.34	314	PKP	PKiKP	00 36 45.7	+0.7
	comp=Z,2.2nm,0.5s,baz=121,slow=1.4,SNR=18						
BORK	Borovoye	128.38	314	*i* PKIKP	PKPdf	00 36 41.3	-3.1
UOSS	Minazif	132.03	275	IAMs_20	IAMs_20	01 40 43.2	
	comp=Z,162nm,19.0s						
ARTI	Arti	135.32	319	*i* PKIKP	PKPdf	00 36 55.8	-1.6
ARTI						00 39 29.2	
ARTI				SS	SS	00 57 21.7	-8.0
MBAR	Mbarara	136.37	225	IAMs_20	IAMs_20	01 42 14.5	
	comp=Z,237nm,18.0s						
ATD	Arta Tunnel	136.43	250	IAMs_20	IAMs_20	01 37 48.0	
	comp=Z,295nm,18.0s						
RAYN	Ar Rayn	140.39	267	IAMs_20	IAMs_20	01 43 40.3	
	comp=Z,306nm,18.0s						
LVZ	Lovozero	140.68	341	PKP	PKPdf	00 37 02.6	-4.4
ARCES	ARCESS Array B	141.53	347	PKhKP	PKPpre	00 37 05.9	
	comp=Z,3.5nm,1.0s,baz=19,slow=2.4,SNR=13						
BELG	Belogornoye	142.15	314	*i* PKIKP	PKPdf	00 37 06.4	-3.6
KLMR	Klimovskoe	143.29	330	*e*PKHKP	PKPpre	00 37 06.6	
KLMR				pmax	pmax		
	comp=Z,18nm,1.5s						
NCK	Nalchik	145.95	300	*i* PKIKP	PKPdf	00 37 13.8	-3.2
VRH	Novokhopyorsk	145.99	314	*e*PKP2	PKPbc	00 37 17.4	-0.1
VRH				pmax	pmax		
	comp=Z,50nm,0.8s						
KBZ	Khabaz	146.45	300	PKPbc	PKPab	00 37 20.4	+0.3
	comp=Z,7.0nm,0.9s,baz=65,slow=3.9,SNR=7.4						
KIV	Kislovodsk	146.59	300	*i* PKIKP	PKPdf	00 37 15.9	-2.3
KIV				pmax	pmax		
	comp=Z,8.0nm,1.1s						
NEUR	Neytrino	146.62	299	*i* PKIKP	PKPdf	00 37 15.5	-2.9
SHA1	Shidzhatmaz	146.62	300	*i* PKHKP	PKPpre	00 37 14.5	
MOS	Moscow	146.64	323	*i* PKP2	PKPab	00 37 20.2	-0.2
MOS				pmax	pmax		
	comp=Z,106nm,1.3s						
LPSR	Galich'ya Gora	147.20	317	*e*PKP2	PKPdf	00 37 19.5	+0.7
LPSR				pmax	pmax		
	comp=Z,30nm,1.0s						
VORR	Voronezh	147.35	315	*e*PKP2	PKPdf	00 37 19.3	+0.3
VORR				pmax	pmax		
	comp=Z,20nm,1.0s						
OBN	Obninsk	147.46	322	*i* PKHKP	PKPpre	00 37 14.0	
OBN				pmax	pmax		
	comp=Z,40nm,1.4s						
OBN	Obninsk	147.46	322	P	PKPab	00 37 23.0	-0.7
VSR	Storozhevoye	147.52	314	*e*PKP2	PKPdf	00 37 20.4	+1.0
VSR				pmax	pmax		
	comp=Z,30nm,1.0s						
VORD	Divnogorie	147.52	314	*e*PKP2	PKPbc	00 37 20.9	-1.1
VORD				pmax	pmax		
	comp=Z,20nm,1.0s						
FINES	FINESS Array B	147.91	338	PKPbc	PKiKP	00 37 24.1	-0.4
	comp=Z,8.4nm,0.5s,baz=38,slow=3.6,SNR=96						
LABN	Labinsk	147.92	302	*i* PKP2	PKPbc	00 37 24.2	+0.9
LABN				*e*		00 44 27.6	
LABN				pmax	pmax		
	comp=Z,25nm,1.3s						
ERBR	Yeremizino-Bor	147.95	304	*i* PKP2	PKPbc	00 37 22.2	-1.1
ERBR				pmax	pmax		
	comp=Z,65nm,1.5s						
SOC	Sochi	148.76	300	*e*PKHKP	PKPpre	00 37 17.9	
SOC				*e*		00 40 55.8	
SOC				*e*PPP	PPP	00 44 14.5	
SOC				*e*SS	SS	01 00 07.6	+1.0
SOC				*e*SSS	SSS	01 05 46.2	
ANN	Anapa	150.22	303	*i* PKIKP	PKPbc	00 37 28.7	-0.3
ANN				pmax	pmax		
	comp=Z,47nm,0.9s						
GHAJ	Ghor Haditha	151.29	275	IAMs_20	IAMs_20	01 49 39.2	
	comp=Z,279nm,19.0s						
BEIL	Beino	151.38	282	*e*P	PKiKP	00 37 34.1	+1.4
RCY	Rachaya	151.51	280	*e*P	PKiKP	00 37 34.4	+1.3
HWQ	Hawqa	151.54	281	*e*P	PKiKP	00 37 33.5	+0.3
SHBL	Chebaa	151.56	279	*e*P	PKiKP	00 37 34.7	+1.5
QRWL	Qaraoun	151.64	280	*e*P	PKiKP	00 37 34.5	+1.2
BHL	Bhannes	151.72	280	*e*P	PKiKP	00 37 34.3	+0.9
NB2	NORSAR Subarra	151.75	350	PKP	PKiKP	00 37 33.7	+1.1
	comp=Z,2.2nm,0.5s,baz=14,slow=2.6						
NOA	NORSAR Array B	151.75	350	PKPbc	PKiKP	00 37 34.0	+1.4
	comp=Z,3.0nm,0.5s,baz=13,slow=4.1,SNR=27						
NOA	NORSAR Array B	151.75	350	PKIKP	PKiKP	00 37 34.0	+1.4
DQRL	Deir Qamar	151.76	280	*e*P	PKiKP	00 37 35.1	+1.5
MMAI	Mount Meron Ar	151.78	278	PKPbc	PKiKP	00 37 35.1	+1.5
	comp=Z,15nm,0.7s,baz=94,slow=5.0,SNR=21						
MNK	Minsk	152.03	327*c*	*i*PKIKP	PKPbc	00 37 33.0	0.0
HFS	Hagfors	152.20	347	PKPbc	PKiKP	00 37 34.4	+1.0
	comp=Z,4.1nm,0.6s,baz=220,slow=3.7,SNR=16						
SIM	Simferopol'	152.50	304	*i* PKIKP	PKPbc	00 37 32.6	-1.8
SIM				*e*		00 37 45.0	
SIM				pmax	pmax		
	comp=Z,50nm,1.4s						
DBIC	Dimbokro	152.63	166	PKPbc	PKiKP	00 37 37.5	+1.7
	comp=Z,4.3nm,0.9s,baz=348,slow=6.2,SNR=3.2						
PABE	Paberze	153.05	331	IAMs_20	IAMs_20	01 58 14.7	
	comp=Z,268nm,18.0s						
AKASG	Malin Array Be	153.47	319	PKPbc	PKiKP	00 37 37.8	+1.4
	comp=Z,4.6nm,0.8s,baz=58,slow=2.2,SNR=19						
BRTR	Keskin Array B	153.62	293	PKPbc	PKiKP	00 37 38.1	+0.9
	comp=Z,8.1nm,0.9s,baz=131,slow=3.4,SNR=40						
BAL3X	Bal3x, Balta	154.51	313	PKP	PKPdf	00 37 26.1	-4.1
RNPP9	Sopachiv	154.85	323	PKP	PKPdf	00 37 26.0	-4.5
ISP	Isparta	156.14	289	IAMs_20	IAMs_20	01 48 18.7	
	comp=Z,166nm,20.0s						
KLYT	Kilyos	156.91	298	PKP	PKPdf	00 37 29.4	-4.2
EKA	Eskdalemuir Ar	157.93	7	PKPab	PKPab	00 38 09.4	+1.9
	comp=Z,0.7nm,0.6s,baz=356,slow=3.2,SNR=4.0						
TORD	Torodi Ar. Bea	159.73	180	PKP	PKPdf	00 37 39.4	+1.6
	comp=Z,1.5nm,1.1s,baz=242,slow=1.0,SNR=4.1						
TORD				PKPab	pPKPab	00 38 18.1	+0.4
	comp=Z,2.2nm,0.8s,baz=170,slow=3.4,SNR=8.4						
CLL	Collm	160.36	338	*i* PKP2	PKPab	00 38 19.1	+0.9
CLL				pmax	pmax		
	comp=Z,6.0nm,0.9s						
CLL	Collm	160.36	338	*i* PKPab	PKPab	00 38 19.1	+0.9
	comp=Z,6.0nm,0.9s						
CLL				*i* pPKPab	sPKPab	00 38 23.8	+3.6
CLL				*e*x	x	00 58 36.0	
CLL				*e*SSS	SSS	01 08 30.0	
CLL				L	L	01 41 00.0	
CLL				L	L	01 46 00.0	
CLL				AMS	AMS	02 00 00.0	
	comp=N,200nm,22.0s						
CLL				AMS	AMS	02 00 00.0	
	comp=E,200nm,22.7s						
CLL				AMS	AMS	02 00 00.0	
	comp=Z,200nm,21.7s						
BRG	Berggiesshubel	160.43	336	*e*PKPab	PKPab	00 38 19.9	+1.4
BRG				Amp		00 38 20.3	
	comp=Z,4.2nm,0.9s						
GERES	GERESS Array B	162.20	333	PKP	PKPdf	00 37 41.2	+1.6
	comp=Z,0.3nm,0.2s,baz=196,slow=2.4,SNR=3.6						
GERES				PKPab	PKPab	00 38 27.3	+0.8
	comp=Z,0.4nm,0.3s,baz=263,slow=32,SNR=3.8						
ESDC	Sonseca Array	172.41	34	PKP	PKPdf	00 37 50.2	+2.9
	comp=Z,0.8nm,1.0s,baz=318,slow=2.0,SNR=4.9						

KRSC 29 00:21:39.7±1.8, 50.52N×157.21E, h45km±21km, Ml3.9, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	0.72	284	*e*P	Pn	00 21 53.8	+0.3
SKR				*e*S	Sn	00 22 03.3	-0.1
PAU	Pauzhetka	0.98	345	*e*P	Pn	00 21 58.7	+1.6
PAU				*e*S	Sn	00 22 11.7	+1.8
KDTR	Khodutka, Kamc	1.40	22	*e*P	Pn	00 22 04.6	+1.8
KDTR				*e*S	Sn	00 22 21.9	+1.8
MIPR	Malaya Ipel'ka	1.79	351	*e*P	Pn	00 22 10.2	+2.2
ASAK	Asacha	1.92	13	*e*P	Pn	00 22 12.8	+2.9
MTVR	Mutnovka	2.06	17	*e*P	Pn	00 22 13.6	+1.7
MTVR				*e*S	Sn	00 22 37.8	+1.3
RUS	Russkaya	2.08	22	*e*P	Pn	00 22 14.0	+1.9
RUS				*e*S	Sn	00 22 37.9	+1.1
GRL	Gorelyy	2.11	14	*e*P	Pn	00 22 16.2	+3.7
GRL				*e*S	Sn	00 22 41.6	+4.0
KRMR	Karymshinskiy	2.39	13	*e*S	Sn	00 22 49.2	+4.9
DALK	Dalny	2.69	20	*e*S	Sn	00 22 54.9	+3.1
AVH	Avacha	2.91	18	*e*P	Pn	00 22 27.8	+4.3
KOK	Koryaka	2.92	17	*e*P	Pn	00 22 27.2	+3.6
SMAR	Somma	2.92	19	*e*P	Pn	00 22 28.0	+4.2
SDLR	Sedlovina	2.95	20	*e*P	Pn	00 22 27.9	+3.7
KRX	Arik	2.98	17	*e*P	Pn	00 22 29.1	+4.6
GNL	Ganaly	3.21	8	*e*P	Pn	00 22 30.8	+3.1
KBTR	Krutoberegovo	6.61	28	*e*P	Pn	00 23 16.8	+2.6

IDC 29 00:22:12.0±3.0, 33.46S×178.65W, h0km, mb4.0/2, mbtmp4.1/3, ML4.1/1, Error ellipse: s-maj=74.6km s-min=45.7km az=126.0, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
URZ	Urewera	5.89	214	Pn	Pn	00 23 40.4	-0.2
	4.6nm,0.3s,baz=46,slow=18,SNR=6.3						
URZ				Sn	Sn	00 24 44.6	-4.2
	2.4nm,0.3s,baz=184,slow=18,SNR=1.2						
	18nm,0.3s						
URZ				AML	AML		
ASAR	Alice Springs	42.49	271	P	P	00 30 09.2	+0.1
	1.1nm,0.7s,baz=106,slow=7.6,SNR=5.7						
	1.1nm,0.7s						
WRA	Warramunga Arr	43.75	276	P	P	00 30 19.1	-0.3
	1.1nm,0.4s,baz=117,slow=7.9,SNR=5.4						
	1.1nm,0.4s						
FINES	FINESS Array B	147.79	338	PKPbc	PKPbc	00 41 57.2	-0.8
	0.6nm,0.5s,baz=60,slow=3.4,SNR=7.4						

IDC 29 00:33:17.1±1.0, 9.61S×119.21E, h0km, mb3.9/4, mbtmp4.0/10, ML3.9/6, MS4.3/2, Error ellipse: s-maj=22.3km s-min=12.2km az=65.0

DJA 29 00:33:20.3±0.3, 10°S±3°×11°9E±°, h10km, M4.2/17, mB4.8/1, mb4.4/3, MLv4.2/17, Mw(mB)4.0/1

ISC 29 00:33:20.7±0.7, 9.92S±0.05×119.20E±0.04, h33km, n32, σ2 S 34/34, mb3.9/4, Sumba region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WSI	Waingapu	1.11	77	P	Pb	00 33 40.4	-1.1
WSI				S	Sb	00 33 57.2	+1.5
DBNI	Kabupaten Domp	1.66	328	P	Pn	00 33 47.0	-0.5
PLAI	Plampang	1.77	308	P	Pn	00 33 47.6	-1.5
PLAI				AML	AML		
TWSI	Taliwang, Sumb	2.57	297	P	Pn	00 33 59.5	-0.5
TWSI				S	Sn	00 34 30.1	0.0
TWSI				AML	AML		
EDFI	Ende, Flores	2.72	65	P	Pn	00 34 05.1	+2.9
KHKI	Kahang-Kahang	3.87	293	P	Pn	00 34 18.6	+0.7
KHKI				S	Sn	00 35 03.4	+1.2
KHKI				AML	AML		
BSSI	Bau Bau, Buton	3.96	19	P	Pn	00 34 19.7	+0.5
BSSI				S	Sn	00 35 04.8	+0.2
BSSI				AML	AML		
IGBI	Denpasar	4.14	285	P	Pn	00 34 22.1	+0.4
SRBI	Singaraja	4.34	295	P	Pn	00 34 25.0	+0.6
SRBI				AML	AML		
BATI	Baumata	4.41	94	Pn	Pn	00 34 25.1	-0.3
	15nm,0.3s,baz=134,slow=3.7,SNR=12						
BATI				Sn	Sn	00 35 14.7	-1.0
	9.3nm,0.3s,baz=322,slow=9.3,SNR=1.8						
	38nm,0.2s						
BATI				AML	AML		
RTBI	Rangdo, Negare	4.44	289	P	Pn	00 34 27.5	+1.6
RTBI				AML	AML		
BKSI	Bulukumba	4.66	11	P	Pn	00 34 28.8	0.0
BKSI				S	Sn	00 35 22.2	+0.5
BKSI				AML	AML		
MKS	Makassar	4.68	3	P	Pn	00 34 30.0	+0.9
MKS				AML	AML		
KAPI	Kappang	4.90	6	Pn	Pn	00 34 31.1	-1.1
	7.7nm,0.3s,baz=154,slow=15,SNR=5.1						
KAPI				Sn	Sn	00 35 24.7	-3.0
	4.6nm,0.3s,baz=280,slow=15,SNR=3.9						
KAPI				LR	LR	00 35 52.8	
	comp=Z,47nm,21.2s,baz=204,slow=34						
	9.7nm,0.3s						
KAPI				AML	AML		
KAPI	Kappang	4.90	6	P	Pn	00 34 32.5	+0.3
KAPI				AML	AML		
SOEI	Soe	5.00	89	P	Pn	00 34 35.8	+2.2
	0.2nm903nm21nm,0.6s						
SOEI				AML	AML		
FITZ	Fitzroy Crossi	10.26	143	Pn	Pn	00 35 48.0	+2.3
	0.3nm,0.3s,baz=331,slow=13,SNR=8.9						
FITZ				Sn	Sn	00 37 36.2	-3.3
	0.8nm,0.3s,baz=168,slow=19,SNR=7.9						
	1.4nm,0.5s						
FITZ				AML	AML		
SIJI	Sorong	15.00	54	Pn	Pn	00 36 50.4	0.0
	2.6nm,0.3s,baz=229,slow=7.9,SNR=7.0						
	3.9nm,0.2s						
SIJI				AML	AML		
WRA	Warramunga Arr	17.69	126	P	P	00 37 27.4	+2.0
	0.3nm,0.3s,baz=303,slow=13,SNR=13						
WRA				S	Sn	00 40 33.4	-7.5
	0.9nm,1.0s,baz=307,slow=25,SNR=4.1						
	1.5nm,0.6s						
WRA				AML	AML		
ASAR	Alice Springs	19.60	136	P	Pn	00 37 50.5	+2.6
	0.2nm,0.3s,baz=314,slow=10,SNR=11						
ASAR				S	S	00 41 19.6	-6.4
	0.5nm,0.8s,baz=311,slow=22,SNR=5.8						

	1.2nm,0.7s						
ASAR				AML	AML		
H08S2	Diego Garcia H	46.18	269	T	T	01 30 53.5	
	baz=96,slow=76,SNR=73						
H08S3	Diego Garcia H	46.20	269	T	T	01 30 54.4	
	baz=96,slow=76,SNR=124						
H08S1	Diego Carcia H	46.20	269	T	T	01 30 54.9	
	baz=96,slow=76,SNR=15						
MKAR	Makanchi Array	65.36	333	P	P	00 43 59.6	-0.2
	0.6nm,0.5s,baz=155,slow=5.8,SNR=6.9						
	0.6nm,0.5s						
H04N2	CROZET ISLANDS	67.28	224	T	T	01 57 41.5	
	baz=80,slow=75						
H04N1	CROZET ISLANDS	67.30	224	T	T	01 57 39.7	
	baz=80,slow=75						
H04N3	CROZET ISLANDS	67.30	224	T	T	01 57 38.0	
	baz=80,slow=75						
KURBB	Kurchatov Arra	69.87	334	P	P	00 44 28.0	-0.1
	0.5nm,0.3s,baz=142,slow=5.6,SNR=4.2						
	0.5nm,0.3s						
ZALV	Zalesovo Beam	69.96	339	P	P	00 44 27.9	-0.8
	0.4nm,0.3s,baz=136,slow=5.7,SNR=2.9						
	0.4nm,0.3s						
QSPA	South Pole Qui	80.08	180	P	P	00 45 29.9	+2.8
	0.5nm,0.5s,baz=306,slow=2.2,SNR=9.0						
	0.5nm,0.5s						
LBTB	Lobatse	89.09	245	LR	LR	01 25 54.3	
	comp=Z,126nm,18.2s,baz=164,slow=35						
SUR	Sutherland	91.74	237	LR	LR	01 19 59.3	
	comp=Z,174nm,20.0s,baz=168,slow=30						

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*IDC **29** 00:53:23.0±2.0,18°.95S×169°.33E,h252km±19km,mb3.5/8,mbtmp4.1/10,Error ellipse: s-maj=26.6km s-min=15.8km az=154.0*

*NOU **29** 00:53:23.0,19°.03S×169°.51E,h209km,MLv4.3/8,Vanuatu Islands*

ISC 29 00:53:22.4±0.7**,19°.0S**±0°.1×**169°.3E**±0°.1**,h246**km**,n23,**σ**1s.01**/18**,mb3.7**/8**,Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MARNC	Mare, Loyalty	2.74	206	P	Pn	00 54 11.1	-0.6
MARNC	Mare, Loyalty	2.74	206	P	S	00 54 48.9	-1.9
YATNC	Mamie plateau,	3.79	217	P	Pn	00 54 22.8	-0.7
DZM	Mont Dzumac	4.06	221	P	Pn	00 54 27.6	+0.8
	7.4nm,0.4s,baz=163,slow=22,SNR=17						
OUENC	Ouen Island, N	4.11	214	P	Pn	00 54 28.4	+1.2
NOUC	Port Laguerre	4.17	222	P	Pn	00 54 29.2	+1.2
ONTNC	Ouen Toro	4.24	219	P	Pn	00 54 28.7	0.0
MSVF	Nonsavu	8.38	83	P	Pn	00 55 21.7	+1.0
	16nm,0.8s,baz=262,slow=13,SNR=9.9						
STKA	Stephens Creek	28.03	237	P	P	00 58 52.0	+1.0
	1.6nm,0.5s,baz=45,slow=7.3,SNR=5.1						
	1.6nm,0.5s						
WRA	Warramunga Arr	32.96	262	P	P	00 59 34.1	-0.2
	1.0nm,0.5s,baz=90,slow=8.5,SNR=12						
	1.0nm,0.5s						
ASAR	Alice Springs	33.26	256	P	P	00 59 37.5	+0.5
	8.4nm,0.4s,baz=82,slow=8.9,SNR=131						
	8.4nm,0.4s						
QSPA	South Pole Qui	71.04	180	P	P	01 04 14.1	+0.6
	0.8nm,0.6s,baz=244,slow=1.6,SNR=8.7						
	0.8nm,0.6s						
PETK	Petropavlovsk-	72.52	353	P	P	01 04 22.7	+0.5
	3.2nm,0.7s,baz=190,slow=7.4,SNR=1.9						
	3.2nm,0.7s						
SONM	Songino Array	87.09	323	P	P	01 05 40.7	+0.3
	0.5nm,0.5s,baz=134,slow=4.3,SNR=4.5						
	0.5nm,0.5s						
NVAR	Mina Array Bea	88.59	48	P	P	01 05 47.4	-0.5
	0.2nm,0.6s,baz=252,slow=3.8,SNR=3.6						
	0.2nm,0.6s						
ILAR	Eielson Array	90.00	17	P	P	01 05 51.8	-1.7
	0.4nm,0.7s,baz=250,slow=6.1,SNR=3.1						
	0.4nm,0.7s						
H03S2	Juan Fernandez	96.45	129	T	T	02 53 22.8	
	baz=242,slow=74						
H03S1	Juan Fernandez	96.46	129	T	T	02 53 24.0	
	baz=242,slow=74						
H03S3	Juan Fernandez	96.47	129	T	T	02 53 22.8	
	baz=242,slow=74						
H03N2	Juan Fernandez	96.63	129	T	T	02 53 32.6	
	baz=242,slow=74,SNR=9.6						
H03N1	Juan Fernandez	96.64	129	T	T	02 53 33.8	
	baz=20,slow=74,SNR=8.6						
ARCES	ARCESS Array B	124.87	345	PKP	PKPdf	01 11 51.5	-0.8
	1.5nm,0.8s,baz=62,slow=2.9,SNR=6.5						
GERES	GERESS Array B	144.33	332	PKP	PKPab	01 12 27.4	-0.6
	0.4nm,0.3s,baz=64,slow=3.1,SNR=5.4						

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*BJI **29** 01:03:50.0,13°.42N×146°.22E,h17km,mB5.1/14,mb4.7/50,Ms5.4/33,Ms7 5.3/31*

*MOS **29** 01:03:51.4±1.0,13°.55N×145°.68E,h11km,mb5.1/59,MS4.9/7,Error ellipse: s-maj=9.5km s-min=5.3km az=114.0*

*GFZ **29** 01:03:52.8±0.3,13°N±3°×14°6E±°,h10km,M4.9/22,mb4.9/22*

*NEIC **29** 01:03:53.9±1.5,13°.43N±0°.06×145°.88E±0°.02,h10km±1km,mb5.1/124,Error ellipse: s-maj=10.4km s-min=3.7km az=168.0*

*GFZ **29** 01:03:53.8,13°.46N×145°.83E,h35km,Mw5.0/35,Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}1.93; $M_{\theta\theta}$-0.55; $M_{\phi\phi}$-1.38; $M_{r\theta}$0.40; $M_{\theta\phi}$-1.37; $M_{\phi r}$2.67; Fault plane solution: $M_0$3.48171×10^{16} NP1: ϕ_s239.75437°,δ24.78838°,λ132.25714°. NP2: ϕ_s14.73226°,δ71.92181°,λ72.74760°. Principal axes: T 3.4414, Plg59.4720°, Azm260.3478°; N 0.0793, Plg16.3761°, Azm20.2368°; P -3.5207, Plg24.9944°, Azm118.1108°;*

*IDC **29** 01:03:54.8±4.4,13°.58N×145°.76E,h18km±27km,mb4.5/35,mbtmp4.6/35,MS4.2/24 Error ellipse: s-maj=17.0km s-min=11.7km az=89.0*

*DJA **29** 01:03:56.0±1.1,14°N±4°×14°6E±°,h35km±9km,M5.4/52,mb5.1/52,mB5.9/21,MLv5.1/1,Mw(mB)5.5/21*

*GCMT **29** 01:03:57.9±0.2,13°.31N±0°.02×145°.72E±0°.02,h20km±1km,MW5.0/110,Moment Tensor Solution. s59,c75; s110,c157; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}3.20±.18; $M_{\theta\theta}$-0.16±.10; $M_{\phi\phi}$-3.04±.12; $M_{r\theta}$0.59±.20; $M_{\theta\phi}$-1.03±.08; $M_{\phi r}$3.35±.25; Best double couple: $M_0$4.73000×10^{16} NP1:ϕ_s204.00000°,δ22.00000°,λ101.00000°. NP2:ϕ_s12.00000°,δ68.00000°,λ86.00000°. Principal axes: T 4.6620, Plg67.0000°, Azm274.0000°; N 0.1410, Plg4.0000°, Azm14.0000°; P -4.7980, Plg23.0000°, Azm106.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 29 01:03:54.2±0.9**,13°.50N**±0°.04×**145°.94E**±0°.04**,h19**km±4km**,n400,**σ**1s.45**/413**,mb5.0**/170**,MS4.6**/40**,14C-2D,Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	1.05	275	Pn	Pb	01 04 12.9	-0.8
	1μm,0.3s,baz=141,slow=7.6,SNR=191						
GUMO				Sn	Sb	01 04 24.7	-2.3
	2μm,0.3s,baz=194,slow=22,SNR=9.0						
GUMO	Guam	1.05	275	P	Pb	01 04 13.2	-0.5
GUMO						01 04 25.9	
GUMO	Guam	1.05	275		Pb	01 04 13.2	-0.5
GUMO				Sg	Sb	01 04 25.9	-1.2
GUMO	Guam	1.05	275	P	Pb	01 04 13.2	-0.5
DPSS	Saipan	1.74	355		Pb	01 04 25.2	-0.3
PATS	Pohnpei	13.85	117		Pn	01 07 08.5	-1.2
PATS	Pohnpei	13.85	117	P	Pn	01 07 07.7	-1.9
	comp=Z,250nm,0.7s						
JAY	Jayapura	16.73	198	LR	LR	01 14 32.5	
	comp=Z,530nm,18.4s,slow=38						
BAKI	Biak	17.55	214	P	P	01 08 00.4	+1.5
MWPI	Manokwari, Pap	18.56	220	P	Pn	01 08 13.1	+2.7
	comp=Z,73nm,0.8s						
KRVT	Keravat (AS076	18.69	161	LR	LR	01 14 12.9	
	comp=Z,752nm,21.9s,baz=2.5,slow=33						
SIJI	Sorong	20.38	227	P	P	01 08 31.2	+1.2
	comp=Z,69nm,1.0s,baz=34,slow=11,SNR=16						
SIJI				LR	LR	01 16 03.0	
	comp=Z,796nm,18.4s,baz=24,slow=36						
	comp=Z,69nm,1.0s						
SWI	Sorong	20.38	227	P	Pn	01 08 32.7	+0.6
	comp=Z,1μmcomp=Z,77nm,1.0s						
H11S3	WAKE ISLAND Hy	20.55	73	T	T	01 30 15.7	
	baz=234,slow=75,SNR=17						
H11S1	WAKE ISLAND Hy	20.56	73	T	T	01 30 05.2	
	baz=234,slow=75,SNR=13						
H11S2	WAKE ISLAND Hy	20.56	73	T	T	01 30 00.3	
	baz=234,slow=75,SNR=10						
KMPI	Kaimana, Papua	20.93	216	P	Pn	01 08 38.2	-0.3
	comp=Z,101nm,1.1s						
H11N1	WAKE ISLAND Hy	21.00	70	T	T	01 30 33.4	
	baz=256,slow=75,SNR=12						
H11N2	WAKE ISLAND Hy	21.01	70	T	T	01 30 41.5	
	baz=256,slow=75,SNR=14						
H11N3	WAKE ISLAND Hy	21.02	70	T	T	01 30 39.8	
	baz=256,slow=75,SNR=17						
JOW	Kunigami	21.20	311	P	P	01 08 39.0	+0.2
	comp=Z,22nm,0.7s,baz=138,slow=14,SNR=5.2						
	comp=Z,22nm,0.7s						
JOW	Kunigami	21.20	311		P	01 08 39.1	+0.3
JOW				IAmb	IAmb	01 08 52.4	
	comp=Z,87nm,1.1s						
JOW	Kunigami	21.20	311	P	P	01 08 41.6	+2.9
	comp=Z,84nm,1.7s						
FAKI	Fak Fak	21.23	221		P	01 08 38.3	-0.9
FAKI				IAmb	IAmb	01 08 50.7	
	comp=Z,144nm,1.3s						
FAKI	Fak Fak	21.23	221	P	P	01 08 41.9	+2.8
	comp=Z,1μmcomp=Z,117nm,1.1s						
FAKI	Fak Fak	21.23	221	P	P	01 08 41.5	+2.3
	comp=Z,118nm,1.1s						
GAMI	Galela, Maluku	21.37	239	P	P	01 08 42.4	+1.7
	comp=Z,3μmcomp=Z,125nm,1.0s						
JSG	Sagara	22.23	343	P	P	01 08 49.4	-0.2
TNTI	Ternate	22.32	237		P	01 08 49.6	-1.2
TNTI	Ternate	22.32	237	P	P	01 08 52.7	+1.8
	comp=Z,46nm,1.0s						
TNTI	Ternate	22.32	237	P	P	01 08 51.9	+1.0
	comp=Z,46nm,1.2s						
PMG	Port Moresby	22.79	177	i P	P	01 08 55.8	0.0
PMG				pmax	pmax		
	comp=Z,35nm,1.1s						
JSU	Suzuyama	22.89	324	P	P	01 08 58.5	+1.7
	comp=Z,27nm,0.8s						
JMN	Monobe	22.94	333		P	01 08 56.5	-0.7
JMN				IAmb	IAmb	01 09 09.1	
	comp=Z,78nm,1.2s						
JMN	Monobe	22.94	333	P	P	01 08 58.8	+1.5
	comp=Z,63nm,1.3s						
INU	Inuyama	23.20	341	P	P	01 08 59.7	-0.3
INU				IAmb	IAmb	01 09 10.8	
	comp=Z,42nm,1.0s						
INU	Inuyama	23.20	341	P	P	01 09 00.5	+0.6
	comp=Z,43nm,1.2s						
JGF	Kuroka	23.33	342		P	01 09 00.7	-0.6
JGF	Kuroka	23.33	342	P	P	01 09 01.7	+0.4
	comp=Z,42nm,1.0s						
MSAI	Masohi	23.77	226	P	P	01 09 08.5	+2.8
	comp=Z,4μmcomp=Z,88nm,1.1s						
JNU	Nakatsue	23.88	327	P	P	01 09 06.2	-0.5
	comp=Z,21nm,1.0s,baz=75,slow=5.4,SNR=6.0						
	comp=Z,21nm,1.0s						
JNU	Nakatsue	23.88	327	IAmb	IAmb	01 09 11.7	
	comp=Z,15nm,0.8s						
MJAR	Matsushiro Arr	23.97	345	P	P	01 09 06.8	-0.7
	comp=Z,16nm,0.9s,baz=165,slow=10.0,SNR=20						
	comp=Z,16nm,0.9s						
MJAR	Matsushiro Arr	23.97	345	P	P	01 09 07.1	-0.4
MJAR				pmax	pmax		
	comp=Z,14nm,1.2s						
MJAR	Matsushiro Arr	23.97	345	P	P	01 09 07.1	-0.4
MAJO	Matsushiro	23.98	345	i P	P	01 09 04.9	-2.6
MAJO				pmax	pmax		
	comp=Z,26nm,0.9s						
MAJO	Matsushiro	23.98	345	P	P	01 09 06.4	-1.1
MAJO	Matsushiro	23.98	345	P	P	01 09 06.7	-0.8
	comp=Z,30nm,1.0s						
MJB9	Matsu-Tunnel	23.98	345	P	P	01 09 08.0	+0.5
YOJ	Yonaguni jima	24.23	300	P	P	01 09 09.1	-0.9
YOJ				pmax	pmax		
	comp=Z,140nm,1.0s						
YOJ	Yonaguni jima	24.23	300	P	P	01 09 09.1	-0.9
AAI	Ambon	24.53	227	P	P	01 09 14.3	+1.5
	comp=Z,107nm,1.1s						
SANI	Sanana	25.11	233	P	P	01 09 17.0	-1.0
SANI	Sanana	25.11	233	P	P	01 09 16.6	-1.4
	comp=Z,27nm,1.3s						
SAUI	Saumlaki	25.82	215	P	P	01 09 24.4	-0.1
GTOI	Gorontalo	26.05	242	P	P	01 09 28.8	+2.2
	comp=Z,48nm,0.9s						
HNR	Honiara	26.69	148	LR	LR	01 19 08.4	
	comp=Z,629nm,22.0s,baz=37,slow=34						
LUWI	Luwuk	27.13	240	P	P	01 09 34.5	-1.9
LUWI	Luwuk	27.13	240	P	P	01 09 35.6	-0.7
LUWI	Luwuk	27.13	240	P	P	01 09 35.6	-0.7
	comp=Z,254nm,1.1s						
TOLI2	Tolitoli	27.78	246	P	P	01 09 41.9	-0.3
	comp=Z,21nm,1.1s						
MYLDM	Lahad Datu	28.28	256	P	P	01 09 45.9	-0.8
MYLDM				IAmb	IAmb	01 09 52.2	
	comp=Z,50nm,1.2s						
MYLDM	Lahad Datu	28.28	256	P	P	01 09 46.6	-0.1
	comp=Z,34nm,1.2s						
SSE	Sheshan	28.72	312	P	P	01 09 49.8	-0.6
SSE				S	S	01 14 40.5	+1.7
SSE				pmax	pmax		
	comp=Z,9.0nm,0.9s						
SSE				pmax	pmax		
	comp=Z,110nm,3.9s						
SSE				L	L		
	comp=Z,3μm,13.1s						
SSE				L	L		
	comp=Z,1μm,13.2s						
KSRS	Korea Array	28.77	329	P	P	01 09 50.6	-0.1
	comp=Z,4.2nm,0.6s,baz=140,slow=10,SNR=20						
	comp=Z,4.2nm,0.6s						
KS19	Wonju Array Si	28.83	329	P	P	01 09 54.2	+2.9
KDI	Kendari	28.92	235	P	P	01 09 54.2	+1.9
	comp=Z,7μmcomp=Z,34nm,1.1s						
MTN	Manton Dam	30.00	210	P	P	01 10 01.6	-0.3
NJ2	Nanjing	30.92	311	eP	P	01 10 10.0	+0.1
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.8s						
SOEI	Soe	31.57	224	P	P	01 10 17.6	+1.8
	comp=Z,40nm,1.3s						
SOEI	Soe	31.57	224	P	P	01 10 20.0	+4.1
	comp=Z,40nm,0.9s						
BKSI	Bulukumba	31.73	236	P	P	01 10 17.6	+0.5
KAPI	Kappang	31.85	236	i P	P	01 10 16.8	-1.4
KAPI				pmax	pmax		
	comp=Z,38nm,1.1s						
KAPI	Kappang	31.85	236	P	P	01 10 17.9	-0.3
KAPI				IAmb	IAmb	01 10 19.8	
	comp=Z,38nm,1.1s						
KAPI	Kappang	31.85	236	P	P	01 10 18.2	0.0
	comp=Z,13nm,1.0s						
USRK	Ussuriysk Ar.	32.85	341	P	P	01 10 24.9	-1.8
	comp=Z,10nm,0.9s,baz=148,slow=8.2,SNR=14						
	comp=Z,10nm,0.9s						
USRK	Ussuriysk Ar.	32.85	341	P	P	01 10 26.2	-0.4
USRK	Ussuriysk Ar.	32.85	341	P	P	01 10 26.2	-0.4
USA0B	Ussuriysk Arra	32.85	341	i P	P	01 10 25.5	-1.1
USA0B	Ussuriysk Arra	32.85	341		P	01 10 27.5	+0.8
YSS	Yuzhno-Sakhali	33.46	356	i P	P	01 10 30.7	-1.2
YSS				pmax	pmax		
	comp=Z,55nm,1.5s						
KNRA	Kununurra	33.60	211	P	P	01 10 32.9	-0.6
KNRA				IAmb	IAmb	01 10 35.2	
	comp=Z,26nm,1.0s						
QIS	Mount Isa	34.41	191	P	P	01 10 40.4	-0.1
	comp=Z,10nm,1.3s						
CN2	Changchun	34.95	334	P	P	01 10 44.5	-0.4
CN2				ScP	ScP	01 17 01.0	-0.9
CN2				SS	SnSn	01 18 30.0	-1.1
CN2				pmax	pmax		
	comp=Z,10.0nm,0.7s						
CN2				L	L		
	comp=Z,1μm,15.0s						
CN2				L	L		
	comp=Z,340nm,15.0s						
CN2				L	L		
	comp=Z,1μm,15.0s						
WB0	Warramunga Arr	34.95	199	P	P	01 10 45.6	+0.4
WB0				IAmb	IAmb	01 10 46.6	
	comp=Z,34nm,1.5s						
SBUM	Sibu	35.10	255	P	P	01 10 44.3	-2.2
SBUM	Sibu	35.10	255	P	P	01 10 46.6	0.0
SBUM	Sibu	35.10	255	P	P	01 10 45.8	-0.8
	comp=Z,9.2nm,1.2s						
WR8	Warramunga Arr	35.10	199	P	P	01 10 47.1	+0.7
WRAB	Tennant Creek	35.12	199	i P	P	01 10 45.9	-0.8
WRAB				pmax	pmax		
	comp=Z,19nm,1.0s						
WRAB	Tennant Creek	35.12	199	P	P	01 10 46.5	-0.1
WRAB	Tennant Creek	35.12	199	P	P	01 10 47.3	+0.7
WRA	Warramunga Arr	35.13	199	P	P	01 10 47.1	+0.3
	comp=Z,11nm,0.9s,baz=22,slow=9.5,SNR=36						
WRA				PcP	PcP	01 13 19.3	+1.1
	comp=Z,1.6nm,1.0s,baz=28,slow=3.8,SNR=2.8						
	comp=Z,11nm,0.9s						
WRA	Warramunga Arr	35.13	199	P	P	01 10 44.4	-2.4
WRA					PcP	01 13 17.8	-0.4
BNX	BinXian	35.77	338	⇑P	P	01 10 51.5	-0.4
BNX				pmax	pmax		
	comp=Z,40nm,1.1s						
HNS	HongShan	36.62	316	⇑P	P	01 10 58.5	-0.8
HNS				PcP	PcP	01 13 24.3	+2.0
HNS				S	S	01 16 45.8	+4.4
HNS				pmax	pmax		
	comp=Z,13nm,0.9s						
HNS				L	L		
	comp=Z,7μm,13.2s						
HNS				L	L		
	comp=Z,5μm,12.3s						
HNS				L	L		
	comp=Z,7μm,13.1s						
KHKI	Kahang-Kahang	37.13	236	P	P	01 11 04.9	+1.0
BJI2	Beijing	37.16	321	P	P	01 11 06.3	+2.4
BJI2				S	S	01 16 52.0	+2.4
BJI2				pmax	pmax		
	comp=Z,5.0nm,0.8s						
FITZ	Fitzroy Crossi	37.24	213	LR	LR	01 27 14.2	
	comp=Z,64nm,21.3s,baz=4.0,slow=38						
FITZ	Fitzroy Crossi	37.24	213	P	P	01 11 04.7	0.0
FITZ	Fitzroy Crossi	37.24	213	P	P	01 11 05.3	+0.5
	comp=Z,6.3nm,1.1s						
KLR	Kul'dur	37.50	345	ceP	P	01 11 05.2	-1.5
KLR				pmax	pmax		
	comp=Z,5.0nm,0.7s						
RTBI	Rangdo, Negare	37.72	236	P	P	01 11 09.5	+0.5
BLJI	Banyuglugur	38.43	239	P	P	01 11 17.1	+2.2
	comp=Z,2μmcomp=Z,78nm,1.1s						
AS31	Alice Springs	38.76	198	P	P	01 11 15.5	-2.1
ASAR	Alice Springs	38.77	198	P	P	01 11 18.5	+0.9
	comp=Z,3.5nm,0.7s,baz=22,slow=9.5,SNR=29						
ASAR				PP	PnPn	01 12 50.5	+1.6
	comp=Z,4.5nm,1.0s,baz=20,slow=10.0,SNR=4.9						
	comp=Z,3.5nm,0.7s						
ASAR	Alice Springs	38.77	198	P	P	01 11 16.2	-1.4
ASAR					PP	01 12 46.0	-0.7
ASAR				PcP	PcP	01 13 30.1	+1.0
GYA	Guiyang	38.94	295	⇑P	P	01 11 20.3	+1.0
GYA				S	S	01 17 17.0	-0.2
GYA				pmax	pmax		
	comp=Z,9.0nm,0.7s						
XAN	Xi'an	39.27	308	P	P	01 11 22.3	+0.4
XAN				sP	sP	01 11 28.8	+1.4
XAN				PcP	PcP	01 13 32.0	+1.3
XAN				pmax	pmax		
	comp=Z,11nm,0.9s						
HEH	HeiHe	39.66	341	eP	P	01 11 24.5	-0.3
HEH				pmax	pmax		
	comp=Z,32nm,1.0s						
HEH				L	L		
	comp=Z,2μm,13.8s						
HEH				L	L		
	comp=Z,770nm,15.0s						
HEH				L	L		
	comp=Z,2μm,15.7s						
QLP	Quilpie	39.87	182	P	P	01 11 27.5	+0.8
	comp=Z,25nm,1.0s						
HHC	Hu-ho-hao-te	40.52	319	eP	P	01 11 34.0	+1.7
HHC				S	S	01 17 40.5	-0.1
HHC				sS	sS	01 17 50.3	+4.3
HHC				pmax	pmax		
	comp=Z,7.0nm,0.7s						
HHC				pmax	pmax		
	comp=Z,47nm,4.5s						
HHC				L	L		
	comp=Z,5μm,12.2s						
HHC				L	L		
	comp=Z,2μm,12.8s						
HHC				L	L		
	comp=Z,3μm,12.8s						
PETK	Petropavlovsk-	40.61	11	P	P	01 11 31.5	-1.2
	comp=Z,3.7nm,0.8s,baz=178,slow=8.3,SNR=1.5						
	comp=Z,3.7nm,0.8s						
PETK	Petropavlovsk-	40.61	11	P	P	01 11 32.7	0.0
PETK	Petropavlovsk-	40.61	11	P	P	01 11 32.7	0.0
PET	Petropavlovsk	40.71	12	P	P	01 11 33.2	-0.2
	comp=Z,76nm,1.6s						
BTO2	Baotou	41.56	318	eP	P	01 11 41.5	+0.6
BTO2				PP	PP	01 13 14.0	-3.0
BTO2				S	S	01 17 59.8	+3.7
BTO2				pmax	pmax		
	comp=Z,15nm,0.7s						
BTO2				pmax	pmax		
	comp=Z,380nm,5.2s						
BTO2				L	L		
	comp=Z,8μm,13.4s						
BTO2				L	L		
	comp=Z,4μm,10.7s						
BTO2				L	L		
	comp=Z,10μm,12.6s						
HIA	Hailar	41.67	334	i P	P	01 11 39.6	-1.9
HIA				pmax	pmax		
	comp=Z,22nm,0.8s						
HILR	Hailar Array B	41.89	335	P	P	01 11 43.3	0.0
	comp=Z,4.8nm,0.5s,baz=128,slow=9.3,SNR=3.9						
	comp=Z,4.8nm,0.5s						
KMI2	Kunming	42.21	293	P	P	01 11 46.5	+0.1
KMI2				PcP	PcP	01 13 43.0	+2.4
KMI2				pmax	pmax		
	comp=Z,13nm,0.8s						
CD2	Chengdu	42.43	301	eP	P	01 11 47.8	-0.2
PZH	PanZhiHua	43.29	294	P	P	01 11 55.3	+0.2
LZH	Lanzhou	43.89	308	eP	P	01 12 05.0	+5.1
LZH				pP	pwP	01 12 10.5	-0.1
LZH				pmax	pmax		
	comp=Z,31nm,1.5s						
LZH				L	L		
	comp=Z,2μm,15.2s						
LZH				L	L		
	comp=Z,3μm,16.2s						
LZH				L	L		
	comp=Z,3μm,17.1s						
LZDM	Lanzhou Array	43.96	308	P	P	01 12 00.3	-0.3
	comp=Z,2.5nm,0.4s,baz=106,slow=11,SNR=1.8						
	comp=Z,2.5nm,0.4s						
MSVF	Nonsavu	44.35	134	LR	LR	01 29 41.1	
	comp=Z,211nm,19.2s,baz=340,slow=35						
MDSI	Maura Dua	45.14	250	P	P	01 12 08.7	-1.2
STKA	Stephens Creek	45.30	185	P	P	01 12 11.3	+0.4
	comp=Z,3.7nm,0.8s,baz=329,slow=3.4,SNR=3.6						
	comp=Z,3.7nm,0.8s						
STKA	Stephens Creek	45.30	185	i P	P	01 12 10.1	-0.8
CMAR	Chiang Mai Arr	45.36	283	P	P	01 12 10.5	-1.1
	comp=Z,5.1nm,0.8s,baz=86,slow=6.2,SNR=23						
CMAR				PcP	PcP	01 13 53.5	+2.4
	comp=Z,7.7nm,0.8s,baz=96,slow=1.7,SNR=12						
	comp=Z,5.1nm,0.8s						
CMAR	Chiang Mai Arr	45.36	283	ceP	P	01 12 12.1	+0.5
CMAR				pmax	pmax		
	comp=Z,5.0nm,0.7s						
CMAR	Chiang Mai Arr	45.36	283		P	01 12 11.6	0.0
CMAR				PcP	PcP	01 13 52.1	+1.0
MA2	Magadan	46.14	3	ceP	P	01 12 18.0	+0.9
MA2				pmax	pmax		
	comp=Z,17nm,0.7s						
MA2	Magadan	46.14	3	P	P	01 12 16.9	-0.2
MA2				IAmb	IAmb	01 12 18.2	
	comp=Z,24nm,0.8s						
MA2	Magadan	46.14	3	P	P	01 12 16.7	-0.4
	comp=Z,34nm,0.9s						
MA2	Magadan	46.14	3	P	P	01 12 17.7	+0.6
	comp=Z,31nm,0.9s						
AMKA	Amchitka	46.38	28		P	01 12 21.8	+2.6
SDSI	Sungai Dareh	46.38	256	P	P	01 12 18.9	-0.9
	comp=Z,14nm,1.0s						
ULN	Ulaanbaatar	47.06	325	P	P	01 12 23.7	-1.1
ULN	Ulaanbaatar	47.06	325	P	P	01 12 23.7	-1.1
ULN	Ulaanbaatar	47.06	325	P	P	01 12 26.9	+2.1
	comp=Z,32nm,0.8s						
ULN	Ulaanbaatar	47.06	325	P	P	01 12 25.4	+0.6

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      comp=Z,8.2nm,0.8s
FORT  Forrest            47.26 201  P      P      01 12 26.0 -0.3
FORT                                IAmb   IAmb   01 12 56.2
      comp=Z,11nm,0.9s
SONM  Songino Array      47.41 324  P      P      01 12 27.1 -0.4
      comp=Z,2.0nm,0.8s,baz=142,slow=7.5,SNR=16
SONM                                ScP    ScP    01 17 50.4 -0.8
      comp=Z,1.3nm,0.9s,baz=125,slow=3.8,SNR=5.0
      comp=Z,2.0nm,0.8s
SONM  Songino Array      47.41 324  P      P      01 12 27.8 +0.3
SONM                                pmax   pmax
      comp=Z,7.0nm,0.9s
SONM  Songino Array      47.41 324  P      P      01 12 27.8 +0.3
SONM                                       ScP    01 17 50.9 -0.2
PSI   Prapat             47.65 261  P      P      01 12 28.3 -1.5
PSI                                 pmax   pmax
      comp=Z,12nm,0.8s
RPSI  Rantau Prapat      47.68 261  P      P      01 12 28.3 -1.6
RPSI                                IAmb   IAmb   01 12 30.1
      comp=Z,12nm,0.8s
GTA2  Gaotai             48.08 311 eP      P      01 12 32.5 -0.3
GTA2                                PcP    PcP    01 14 02.0 +1.5
GTA2                                S      S      01 19 27.5 -3.2
GTA2                                pmax   pmax
      comp=Z,5.0nm,0.9s
GTA2                                L      L
      comp=Z,2µm,13.3s
GTA2                                L      L
      comp=Z,2µm,16.2s
GTA2                                L      L
      comp=Z,2µm,15.2s
GSI   Gunungsitoli       49.36 260         P      01 12 41.2 -1.7
GSI   Gunungsitoli       49.36 260  P      P      01 12 42.1 -0.7
      comp=Z,38nm,1.1s
GSI   Gunungsitoli       49.36 260  P      P      01 12 41.2 -1.7
      comp=Z,39nm,1.1s
SEY   Seymchan           49.58   4ceP      P      01 12 44.9 +1.2
SEY                                 pmax   pmax
      comp=Z,9.0nm,1.0s
YAK   Yakutsk            49.85 350 eP      P      01 12 45.0 -0.8
YAK                                e*PP    pP     01 12 49.2 -0.9
YAK                                e              01 14 36.3
YAK                                eS      S      01 19 54.9 +0.4
YAK                                e*SS    sS     01 20 14.4  +15
YAK                                e              01 22 28.9
YAK                                eSS     SS     01 23 22.8 -4.4
YAK                                eSSS    SSS    01 24 49.0
YAK                                 pmax   pmax
      comp=Z,61nm,1.0s
YAK                                 pmax   pmax
      comp=N,11nm,1.1s
YAK                                 pmax   pmax
      comp=E,3.0nm,1.0s
YAK                                 pmax   pmax
      comp=Z,168nm,3.3s
YAK                                 pmax   pmax
      comp=N,160nm,3.2s
YAK                                 pmax   pmax
      comp=E,75nm,3.2s
YAK                                 smax   smax
      comp=N,88nm,2.9s
YAK                                 smax   smax
      comp=E,56nm,2.8s
YAK   Yakutsk            49.85 350         P      01 12 45.0 -0.8
YAK   Yakutsk            49.85 350  P      P      01 12 45.4 -0.5
      comp=Z,69nm,0.8s
ZAK   Zakamensk          50.50 326 eP      P      01 12 50.4 -0.7
ZAK                                 pmax   pmax
      comp=Z,9.0nm,1.2s
GOMU  GeErMu             50.94 306  P      P      01 12 54.8 -0.2
GOMU                                sP     sP     01 13 02.0 +1.6
GOMU                                pmax   pmax
      comp=Z,3.0nm,0.4s
GOMU                                L      L
      comp=Z,1µm,14.3s
GOMU                                L      L
      comp=Z,2µm,14.8s
GOMU                                L      L
      comp=Z,3µm,14.6s
MORW  Morawa             51.24 214         P      01 12 56.3 -0.5
MORW                                IAmb   IAmb   01 12 58.6
      comp=Z,38nm,1.2s
MORW  Morawa             51.24 214  P      P      01 12 57.1 +0.3
      comp=Z,29nm,1.1s
LSA   Lhasa              52.97 297 eP      P      01 13 10.5 +0.2
LSA                                 pmax   pmax
      comp=Z,8.0nm,0.8s
KNGR  Kungurtug, Tuv     53.84 324 i P     P      01 13 16.8 +0.8
KNGR                                pmax   pmax
      comp=Z,10.0nm,1.2s
RAO   Raoul Island       54.99 141  LR     LR     01 34 39.3
      comp=Z,150nm,20.2s,baz=300,slow=33
BILL  Bilibino           56.09   9ceP      P      01 13 33.2 +1.4
BILL                                pmax   pmax
      comp=Z,10.0nm,0.8s
EVN   Everest            56.65 295  P      P      01 13 37.0 -0.3
      comp=Z,9.0nm,1.4s
WMQ   Urumqi             57.96 313 eP      P      01 13 48.0 +2.5
WMQ                                 PcP    PcP    01 14 40.3 +2.7
WMQ                                 S      S      01 21 49.5 +4.5
WMQ                                 pmax   pmax
      comp=Z,17nm,1.3s
WMQ                                 L      L
      comp=Z,720nm,19.3s
WMQ                                 L      L
      comp=Z,1µm,14.9s
WMQ                                 L      L
      comp=Z,620nm,19.3s
URZ   Urewera            59.19 152  LR     LR     01 37 58.0
      comp=Z,240nm,19.4s,baz=318,slow=34
DGZ   Jazzator, Alta     59.58 320 i P     P      01 13 56.1 -0.8
DGZ                                 pmax   pmax
      comp=Z,7.0nm,0.8s
ZSN   Zaisan             60.69 317 eP      P      01 14 03.6 -0.7
ZSN                                 pmax   pmax
      comp=Z,11nm,1.8s
ZSN   Zaisan             60.69 317 eP      P      01 14 03.6 -0.7
      comp=Z,11nm,1.8s
RPZ   Rata Peaks         61.38 159  LR     LR     01 38 16.3
      comp=Z,58nm,21.1s,baz=126,slow=34
J16K  Anvik River        62.05  24         P      01 14 15.2 +2.0
J16K                                IAmb   IAmb   01 14 17.3
      comp=Z,16nm,0.9s
MK31  Makanchi Array     62.28 316ceP      P      01 14 15.5 +0.4
MKAR  Makanchi Array     62.28 316  P      P      01 14 15.1  0.0
      comp=Z,7.0nm,1.0s,baz=94,slow=8.6,SNR=19
      comp=Z,7.0nm,1.0s
MKAR  Makanchi Array     62.28 316         P      01 14 14.5 -0.6
ZALV  Zalesovo Beam      62.31 324  P      P      01 14 15.3 +0.3
      comp=Z,2.3nm,0.7s,baz=96,slow=7.7,SNR=12
      comp=Z,2.3nm,0.7s
ZALV  Zalesovo Beam      62.31 324         P      01 14 14.8 -0.3
N17K  Nushagak Hills     62.33  28         P      01 14 16.3 +1.3
N17K                                IAmb   IAmb   01 14 20.3
      comp=Z,9.7nm,0.8s
MAKZ  Makanchi           62.50 316  P      P      01 14 16.8 +0.3
MAKZ                                pmax   pmax
      comp=Z,8.0nm,0.8s
MAKZ  Makanchi           62.50 316         P      01 14 16.8 +0.3
MAKZ                                IAmb   IAmb   01 14 27.9
      comp=Z,8.2nm,0.8s
MAKZ  Makanchi           62.50 316  P      P      01 14 16.8 +0.3
      comp=Z,12nm,1.2s
M17K  Holitna River      62.56  27         P      01 14 18.6 +1.9
J17K  VABM Dome          62.72  25         P      01 14 19.4 +1.7
J17K                                IAmb   IAmb   01 14 21.9
      comp=Z,14nm,0.9s
K17K  Iditarod           62.74  25         P      01 14 19.5 +1.7
N18K  Kilae Creek        62.98  28         P      01 14 22.2 +2.8
RAR   Rarotonga          63.49 122  LR     LR     01 36 37.5
      comp=Z,163nm,21.5s,baz=270,slow=31
KDAK  Kodiak Island      63.60  32  P      P      01 14 24.4 +0.9
      comp=Z,7.3nm,0.9s,baz=7.3,slow=2.7,SNR=5.8
KDAK                                LR     LR     01 41 27.9
      comp=Z,97nm,19.6s,baz=232,slow=35
      comp=Z,7.3nm,0.9s
KDAK  Kodiak Island      63.60  32  P      P      01 14 24.7 +1.1
KDAK                                pmax   pmax
      comp=Z,189nm,2.0s
KDAK  Kodiak Island      63.60  32  P      P      01 14 24.7 +1.1
J18K  Innoko River       63.71  25         P      01 14 25.9 +1.7
J18K                                IAmb   IAmb   01 14 38.7
      comp=Z,14nm,1.3s
PDGK  Podgornoye         63.76 312  P      P      01 14 25.4 +0.3
PDGK  Podgornoye         63.76 312         P      01 14 25.4 +0.3
SHLS  Shalkode           63.76 312 eP      P      01 14 22.1 -3.0
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SHLS  Shalkode           63.76 312 eP      P      01 14 22.1 -3.0
H18K  Honhosa River      63.78  23         P      01 14 28.0 +3.3
UZB   Uzynbulak          64.08 312 eP      P      01 14 26.3 -0.9
UZB   Uzynbulak          64.08 312 eP      P      01 14 26.3 -0.9
KPKS  Kokpek             64.36 312 eP      P      01 14 28.2 -0.8
KPKS  Kokpek             64.36 312 eP      P      01 14 28.3 -0.8
SATY  Saty               64.52 311 eP      P      01 14 29.1 -1.0
SATY  Saty               64.52 311 eP      P      01 14 29.1 -1.0
TDK   Taldyqorghan       64.72 314 eP      P      01 14 30.6 -0.6
TDK                                 pmax   pmax
      comp=Z,10.0nm,0.8s
TDK   Taldyqorghan       64.72 314 eP      P      01 14 30.6 -0.6
      comp=Z,10nm,0.8s
HYB   Hyderabad          64.78 283 eP      P      01 14 32.0 -0.1
HYB                                ePcP    PcP    01 15 05.6  0.0
HYB                                ePP     PP     01 16 54.4 -0.3
HYB                                eS      S      01 23 13.5 +1.1
KURK  Kurchatov          65.33 320ceP      P      01 14 34.6 -0.4
KURK                                pmax   pmax
      comp=Z,17nm,1.3s
KURK  Kurchatov          65.33 320         P      01 14 34.9 -0.1
KURK                                IAmb   IAmb   01 14 48.6
      comp=Z,13nm,0.9s
KURK  Kurchatov          65.33 320  P      P      01 14 34.5 -0.6
      comp=Z,15nm,1.1s
KURBB Kurchatov Arra     65.37 320  P      P      01 14 34.4 -0.9
      comp=Z,7.7nm,0.8s,baz=99,slow=6.6,SNR=48
      comp=Z,7.7nm,0.8s
SKT   Skwentna           65.40  27         P      01 14 36.6 +1.3
SKT                                 IAmb   IAmb   01 14 38.7
      comp=Z,14nm,1.0s
MDOK  Medeo              65.52 311 eP      P      01 14 35.8 -0.8
MDOK  Medeo              65.52 311 eP      P      01 14 35.8 -0.8
TNSS  Tian-Shan          65.58 311 eP      P      01 14 36.2 -1.2
TNSS  Tian-Shan          65.58 311 eP      P      01 14 36.2 -1.2
AAA   Alma-Ata           65.62 311 eP      P      01 14 36.3 -0.9
AAA                                 pmax   pmax
      comp=Z,9.0nm,0.6s
AAA   Alma-Ata           65.62 311 eP      P      01 14 36.4 -0.8
      comp=Z,8.7nm,0.6s
CAST  Castle Rocks       65.62  26         P      01 14 38.2 +1.4
CAST                                IAmb   IAmb   01 14 40.8
      comp=Z,17nm,0.9s
KUU   Kurty              66.09 312 eP      P      01 14 39.5 -0.6
KUU   Kurty              66.09 312 eP      P      01 14 39.5 -0.6
PWL   Port Wells         66.55  29         P      01 14 44.0 +1.2
NRIK  Noril'sk           66.56 341  P      P      01 14 42.5 -0.1
      comp=Z,6.7nm,0.6s,baz=105,slow=7.3,SNR=13
      comp=Z,6.7nm,0.6s
NRIK  Noril'sk           66.56 341 i P     P      01 14 41.6 -1.0
NRIK                                pmax   pmax
      comp=Z,26nm,1.6s
MLY   Manley             66.71  24         P      01 14 44.5 +0.7
MLY                                 IAmb   IAmb   01 14 47.2
      comp=Z,14nm,0.8s
H22K  Ishtalitna Cre     66.75  23         P      01 14 45.9 +1.9
SML   Sawmill            66.80  28         P      01 14 45.8 +1.4
SGDS  Sogindy            67.30 312 eP      P      01 14 47.2 -0.8
AAK   Ala-Archa          67.36 311 i P     P      01 14 47.3 -1.2
AAK                                 pmax   pmax
      comp=Z,7.0nm,1.6s
COLD  Coldfoot           67.64  22         P      01 14 50.8 +1.3
COLA  College            67.84  25 i P     P      01 14 52.1 +1.3
COLA                                pmax   pmax
      comp=Z,12nm,1.0s
D23K  Nanushuk River     68.06  20         P      01 14 53.5 +1.3
E23K  Chandalar          68.12  21         P      01 14 54.8 +2.1
IL31                     68.21  25  P      P      01 14 53.4 +0.3
IL31                                IAmb   IAmb   01 15 06.1
      comp=Z,15nm,0.9s
ILAR  Eielson Array      68.21  25  P      P      01 14 53.5 +0.3
      comp=Z,8.4nm,0.7s,baz=256,slow=5.0,SNR=50
      comp=Z,8.4nm,0.7s
ILAR  Eielson Array      68.21  25         P      01 14 53.3 +0.1
NIL   Nilore             68.33 301  P      P      01 14 51.7 -2.8
NIL                                 pmax   pmax
      comp=Z,17nm,1.0s
NIL   Nilore             68.33 301         P      01 14 51.7 -2.8
NIL                                 IAmb   IAmb   01 14 55.5
      comp=Z,17nm,0.9s
NIL   Nilore             68.33 301  P      P      01 14 54.5 -0.1
      comp=Z,21nm,0.9s
PAX   Paxson             68.38  27  P      P      01 14 54.8 +0.4
PAX                                 pmax   pmax
      comp=Z,11nm,1.0s
PAX   Paxson             68.38  27         P      01 14 54.8 +0.4
PAX                                 IAmb   IAmb   01 15 01.0
      comp=Z,11nm,1.0s
ARSB  Arslanbob          68.45 309  P      P      01 14 55.6 +0.3
ARSB                                pmax   pmax
      comp=Z,14nm,1.4s
ARSB  Arslanbob          68.45 309         P      01 14 55.6 +0.3
ARSB                                IAmb   IAmb   01 15 44.4
      comp=Z,14nm,1.4s
F24K  Squaw Lake         68.58  22         P      01 14 56.3 +0.8
F24K                                IAmb   IAmb   01 14 58.9
      comp=Z,14nm,0.9s
J25K  Salcha River,      68.80  26         P      01 14 57.8 +0.9
RIDG  Independent Ri     68.82  26         P      01 14 58.7 +1.6
RIDG                                IAmb   IAmb   01 15 24.4
      comp=Z,20nm,1.1s
SCRK  Sand Creek         69.25  26         P      01 15 01.3 +1.5
F25K  Christian Rive     69.43  22         P      01 15 03.1 +2.3
F25K                                IAmb   IAmb   01 15 15.9
      comp=Z,18nm,1.0s
DZA   Taraz              69.70 311 eP      P      01 15 02.0 -0.9
DZA                                 pmax   pmax
      comp=Z,6.0nm,0.6s
DZA   Taraz              69.70 311 eP      P      01 15 02.1 -0.9
      comp=Z,6.2nm,0.6s
BMAR  Burnt Mountain     69.78  23         P      01 15 05.5 +2.5
KK31  Karatay Array      70.30 311  P      P      01 15 05.9 -0.7
KK31                                pmax   pmax
      comp=Z,6.0nm,1.0s
KK31  Karatay Array      70.30 311         P      01 15 05.9 -0.7
KKAR  Karatay Array      70.30 311  P      P      01 15 06.8 +0.2
KKAR  Karatay Array      70.30 311         P      01 15 06.8 +0.2
I27K  Kandik River       70.56  25         P      01 15 09.4 +1.7
I27K                                IAmb   IAmb   01 15 24.9
      comp=Z,11nm,1.0s
BVAR  Borovoye Array     70.65 322  P      P      01 15 08.1 -0.4
      comp=Z,9.0nm,0.6s,baz=102,slow=7.2,SNR=34
      comp=Z,9.0nm,0.6s
IUG   Iuzhnay            70.66 310 eP      P      01 15 08.0 -0.9
IUG   Iuzhnay            70.66 310 eP      P      01 15 08.0 -0.9
BORK  Borovoye           70.69 322 i P     P      01 15 07.1 -1.6
BORK                                pmax   pmax
      comp=Z,12nm,0.9s
BORK  Borovoye           70.69 322         P      01 15 09.5 +0.8
BORK                                IAmb   IAmb   01 15 10.5
      comp=Z,8.7nm,0.7s
PPT   Papeete            70.72 114  LR     LR     01 38 39.7
      comp=Z,307nm,19.7s,baz=270,slow=29
PPT2  Papeete2           70.73 114 eS      S      01 24 20.3 -3.4
      comp=Z,94nm,24.2s
PPT2                               eSS     SS     01 28 52.1 -4.1
      comp=Z,68nm,23.5s
PPT2                               eLR     LR     01 36 31.4
      comp=Z,586nm,26.5s
PPT2                               eLR     LR     01 36 37.9
      comp=Z,766nm,25.8s
BRLS  Borolday           70.80 311 eP      P      01 15 09.6  0.0
BRLS  Borolday           70.80 311 eP      P      01 15 09.6  0.0
CHM   Chimkent           70.98 310 eP      P      01 15 10.1 -0.6
CHM   Chimkent           70.98 310 eP      P      01 15 10.1 -0.6
I28M  Miner Creek        71.22  25         P      01 15 13.5 +1.6
I28M                                IAmb   IAmb   01 15 26.4
      comp=Z,16nm,1.0s
M29M  Somme Creek        71.47  28         P      01 15 15.0 +1.6
M29M                                IAmb   IAmb   01 15 26.7
      comp=Z,28nm,1.4s
L29M  L29M               71.69  28         P      01 15 16.9 +2.3
L29M                                IAmb   IAmb   01 15 28.6
      comp=Z,19nm,0.9s
HYT   Haines Junctio     71.76  30         P      01 15 17.0 +1.8
HYT                                 IAmb   IAmb   01 15 21.0
      comp=Z,17nm,0.8s
E28M  Babbage River      71.88  22         P      01 15 18.1 +2.4
E28M                                IAmb   IAmb   01 15 31.2
      comp=Z,15nm,0.8s
H29M  Whitestone         71.97  24         P      01 15 18.4 +2.1
H29M                                IAmb   IAmb   01 15 39.0
      comp=Z,24nm,1.2s
K29M  Barlow Dome        72.05  27         P      01 15 19.0 +2.1
K29M                                IAmb   IAmb   01 15 32.2
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      comp=Z,12nm,0.9s
G29M  Pine Creek         72.20  24         P      01 15 19.8 +2.2
G29M                                IAmb   IAmb   01 15 22.4
      comp=Z,21nm,0.9s
E29M  Blow River         72.45  22         P      01 15 21.7 +2.7
E29M                                IAmb   IAmb   01 15 27.5
      comp=Z,37nm,1.8s
J30M  Hart River         72.64  26         P      01 15 22.0 +1.6
I30M  Mount Dempster     72.68  26         P      01 15 22.3 +1.6
G30M  tAoh Zraii Nji     72.91  24         P      01 15 23.7 +1.8
G30M                                IAmb   IAmb   01 15 36.3
      comp=Z,17nm,0.9s
F30M  Barrier River      73.14  23         P      01 15 24.7 +1.5
H31M  Peel River         73.57  25         P      01 15 28.1 +2.3
H31M                                IAmb   IAmb   01 15 41.0
      comp=Z,22nm,0.9s
G31M  Satah River        73.67  24         P      01 15 27.8 +1.5
INK   Inuvik             74.05  22  P      P      01 15 30.0 +1.5
INK                                 pmax   pmax
      comp=Z,27nm,1.1s
INK   Inuvik             74.05  22         P      01 15 30.0 +1.5
INK                                 IAmb   IAmb   01 15 42.9
      comp=Z,27nm,1.1s
R33M  Jennings River     74.98  32         P      01 15 36.2 +2.0
R33M                                IAmb   IAmb   01 16 01.3
      comp=Z,21nm,1.1s
DLBC  Dease Lake         75.50  33  P      P      01 15 39.1 +2.0
      comp=Z,6.3nm,0.8s,baz=293,slow=7.7,SNR=5.8
      comp=Z,6.3nm,0.8s
SVE   Sverdlovsk         76.26 326 eP      P      01 15 41.5 +0.1
TAOE  Nuku Hiva Isla     76.65 103 eLR     LR     01 39 12.0
      comp=Z,412nm,23.0s
BBB   Bella Bella        76.99  39  LR     LR     01 41 31.3
      comp=Z,261nm,21.5s,baz=251,slow=29
AB31  Akbulak array      77.31 318         P      01 15 46.9 -0.6
ABKAR Akbulak array      77.31 318  P      P      01 15 46.5 -1.0
HRA   Herat              77.37 303  P      P      01 15 47.5 -1.0
ARTI  Arti               77.54 325  P      P      01 15 48.7 +0.1
      comp=Z,5.1nm,1.0s,baz=113,slow=5.1,SNR=4.7
      comp=Z,5.1nm,1.0s
ARTI  Arti               77.54 325d iP     P      01 15 48.2 -0.4
ARTI                                S      S      01 25 41.1 +2.2
ARTI                                SS     SS     01 30 35.6 -2.2
ARTI                                pmax   pmax
      comp=Z,9.0nm,1.2s
ARTI  Arti               77.54 325         P      01 15 48.0 -0.6
CBB   Campbell River     78.96  41         P      01 15 58.3 +1.7
CBB                                 IAmb   IAmb   01 16 06.6
      comp=Z,14nm,0.9s
PGC   Sidney             80.40  42         P      01 16 06.2 +1.8
PGC                                 IAmb   IAmb   01 16 18.9
      comp=Z,17nm,1.0s
GNW   Green Mountain     81.00  43         P      01 16 09.4 +1.7
GNW                                 IAmb   IAmb   01 16 20.8
      comp=Z,13nm,0.9s
KIRV  Kirov              81.97 328  P      P      01 16 13.7 +1.1
      comp=Z,9.9nm,0.6s,baz=159,slow=2.5,SNR=7.1
      comp=Z,9.9nm,0.6s
KIRV  Kirov              81.97 328ceP      P      01 16 12.9 +0.3
YBH   Yreka Blue Hor     82.15  49  LR     LR     01 46 48.1
      comp=Z,179nm,19.1s,baz=296,slow=31
YBH   Yreka Blue Hor     82.15  49  P      P      01 16 16.4 +2.3
YBH                                 pmax   pmax
      comp=Z,9.0nm,0.9s
YBH   Yreka Blue Hor     82.15  49         P      01 16 16.4 +2.3
YBH                                 IAmb   IAmb   01 16 30.0
      comp=Z,9.2nm,0.8s
YKA   Yellowknife Ar     82.46  28  P      P      01 16 16.8 +1.6
      comp=Z,3.4nm,0.7s,baz=288,slow=5.2,SNR=10.0
YKA                                 LR     LR     01 53 08.4
      comp=Z,102nm,20.2s,baz=284,slow=36
      comp=Z,3.4nm,0.7s
YKA   Yellowknife Ar     82.46  28ceP      P      01 16 16.7 +1.6
YKA                                 pmax   pmax
      comp=Z,4.0nm,0.7s
YKA   Yellowknife Ar     82.46  28  P      P      01 16 15.9 +0.8
PINE  Pine Mountain      83.02  47         P      01 16 20.2 +1.5
EPH   Ephrata            83.19  43         P      01 16 20.8 +1.5
EPH                                 IAmb   IAmb   01 16 27.8
      comp=Z,15nm,1.0s
K05A  Summer Lake        83.27  48         P      01 16 21.5 +1.5
HAWA  Hanford            83.44  44         P      01 16 22.2 +1.6
HAWA                                IAmb   IAmb   01 16 29.6
      comp=Z,10nm,1.1s
ORV   Oroville           83.48  51  P      P      01 16 22.3 +1.3
ORV                                 pmax   pmax
      comp=Z,12nm,1.2s
ORV   Oroville           83.48  51         P      01 16 22.3 +1.3
ORV                                 IAmb   IAmb   01 16 29.8
      comp=Z,12nm,1.2s
MOD   Modoc Plateau      83.87  49         P      01 16 23.6 +0.5
MOD                                 IAmb   IAmb   01 16 32.7
      comp=Z,12nm,1.0s
BEKR  Beckworth          84.28  51         P      01 16 26.4 +1.2
BEKR                                IAmb   IAmb   01 16 34.0
      comp=Z,11nm,0.9s
BELG  Belogornoye        84.43 322  LR     LR     01 53 43.9
      comp=Z,374nm,21.8s,baz=135,slow=36
BELG  Belogornoye        84.43 322 i P     P      01 16 23.4 -2.0
BELG                                pmax   pmax
      comp=Z,3.0nm,1.0s
NEW   Newport            84.60  42  LR     LR     01 48 08.4
      comp=Z,100nm,20.0s,baz=302,slow=31
NEW   Newport            84.60  42  P      P      01 16 27.6 +1.1
NEW                                 pmax   pmax
      comp=Z,11nm,1.0s
NEW   Newport            84.60  42         P      01 16 27.6 +1.1
NEW                                 IAmb   IAmb   01 16 35.8
      comp=Z,11nm,1.0s
PAHR  Pah Rah Range      85.04  51         P      01 16 29.8 +0.7
BMO   Blue Mountains     85.32  45  P      P      01 16 31.5 +1.2
BMO                                 pmax   pmax
      comp=Z,15nm,1.1s
BMO   Blue Mountains     85.32  45         P      01 16 31.5 +1.2
BMO                                 IAmb   IAmb   01 16 39.1
      comp=Z,15nm,1.1s
LVZ   Lovozero           85.36 339  P      P      01 16 29.1 -0.8
      comp=Z,22nm,1.0s
EDM   Edmonton           85.61  36  P      P      01 16 32.8 +1.4
EDM                                 pmax   pmax
      comp=Z,19nm,0.9s
EDM   Edmonton           85.61  36         P      01 16 32.8 +1.4
APA   Apatity            85.92 339⇓eP      P      01 16 29.7 -2.9
APA                                e              01 19 47.6
APA                                 pmax   pmax
      comp=Z,14nm,0.9s
APA                                 MLR    MLR
      comp=Z,904nm,21.8s
KLMR  Klimovskoe         86.12 332 eP      P      01 16 31.6 -2.2
KLMR                                pmax   pmax
      comp=Z,18nm,1.3s
PLID  Pearl Lake         86.15  45         P      01 16 35.9 +1.3
PLID                                IAmb   IAmb   01 16 58.4
      comp=Z,10nm,0.9s
NVAR  Mina Array Bea     86.16  52  P      P      01 16 37.5 +2.8
      comp=Z,2.6nm,0.7s,baz=258,slow=5.9,SNR=13
NVAR                                LR     LR     01 53 03.8
      comp=Z,98nm,18.1s,baz=280,slow=34
      comp=Z,2.6nm,0.7s
NVAR  Mina Array Bea     86.16  52  P      P      01 16 35.7 +0.9
KVN   Kaiserville        86.17  51  P      P      01 16 36.2 +1.5
KVN                                 pmax   pmax
      comp=Z,10.0nm,1.3s
KVN   Kaiserville        86.17  51         P      01 16 36.2 +1.5
JTMT  Jette              86.58  42         P      01 16 36.8 +0.3
MFID  Camas Ranch        86.71  46         P      01 16 38.6 +1.3
AKT   Akhty              87.21 312 eP      P      01 16 38.1 -1.6
AKT                                 pmax   pmax
      comp=Z,15nm,1.1s
AKT                                 MLR    MLR
      comp=Z,1µm,21.0s
ARCES ARCESS Array B     87.49 342  P      P      01 16 40.1 -0.2
      comp=Z,17nm,0.9s,baz=60,slow=7.2,SNR=25
      comp=Z,17nm,0.9s
ARCES ARCESS Array B     87.49 342         P      01 16 40.0 -0.3
HLID  Hailey             87.66  46         P      01 16 43.2 +1.3
HLID                                IAmb   IAmb   01 16 51.0
      comp=Z,9.7nm,0.9s
ELK   Elko               87.85  49  P      P      01 16 42.6 -0.4
ELK                                 pmax   pmax
      comp=Z,15nm,1.0s
ELK   Elko               87.85  49         P      01 16 42.5 -0.4
GWY   Greenwater Val     87.99  53         P      01 16 44.4 +0.8
GWY                                 IAmb   IAmb   01 16 58.9
      comp=Z,7.8nm,1.0s
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TPNV  Topopah Spring     88.11  53  P       P       01 16 45.0 +0.8
TPNV                                pmax    pmax
      comp=Z,12nm,1.0s
TPNV  Topopah Spring     88.11  53          P       01 16 45.0 +0.8
TPNV                                IAmb    IAmb    01 17 00.2
      comp=Z,12nm,1.0s
VRH   Novokhopyorsk      88.28 322 eP       P       01 16 40.9 -3.5
VRH                                 pmax    pmax
      comp=Z,8.0nm,1.0s
PFO   Pinyon Flats O     88.83  56  LR      LR      01 53 29.1
      comp=Z,195nm,18.9s,baz=288,slow=33
HVU   Hansel Valley      89.34  47  P       P       01 16 50.3 +0.4
HVU                                 pmax    pmax
      comp=Z,12nm,1.0s
HVU   Hansel Valley      89.34  47          P       01 16 50.2 +0.4
HVU                                 IAmb    IAmb    01 16 59.2
      comp=Z,12nm,1.0s
LPSR  Galich'ya Gora     89.42 324 eP       P       01 16 47.5 -2.2
LPSR                                pmax    pmax
      comp=Z,10.0nm,0.9s
YHL   Hebgen Lake        89.50  44          P       01 16 50.8 +0.1
PSUT  Pine Spring        89.50  51          P       01 16 51.2 +0.5
YHH   Holmes Hill        89.74  44          P       01 16 52.9 +1.0
OBN   Obninsk            89.75 327 i P      P       01 16 50.6 -0.6
OBN                                 pmax    pmax
      comp=Z,6.0nm,0.6s
OBN                                 MLR     MLR
      comp=Z,455nm,21.0s
DUG   Dugway, Tooele     89.78  49  P       P       01 16 53.0 +1.1
DUG                                 pmax    pmax
      comp=Z,11nm,1.0s
DUG   Dugway, Tooele     89.78  49          P       01 16 53.0 +1.1
DUG                                 IAmb    IAmb    01 17 01.0
      comp=Z,11nm,1.0s
VSR   Storozhevoye       89.79 323 eP       P       01 16 48.2 -3.3
VSR                                 pmax    pmax
      comp=Z,7.0nm,1.0s
KBZ   Khabaz             89.97 315 i P      P       01 16 50.1 -2.4
KBZ                                 pmax    pmax
      comp=Z,11nm,2.5s
FXWY  Fox Creek          89.99  45          P       01 16 53.9 +1.0
KIV   Kislovodsk         90.04 315  P       P       01 16 52.7 -0.3
      comp=Z,4.9nm,0.9s
ERBR  Yeremizino-Bor     90.93 318 eP       P       01 16 51.3 -5.6
ERBR                                pmax    pmax
      comp=Z,7.0nm,0.6s
ERBR                                MLR     MLR
      comp=Z,290nm,21.0s
LABN  Labinsk            91.14 316 eP       P       01 17 01.9 +3.9
LABN                                pmax    pmax
      comp=Z,8.0nm,0.6s
LABN                                MLR     MLR
      comp=Z,402nm,17.0s
PDAR  Pinedale Array     91.29  45  P       P       01 16 59.5 +0.5
      comp=Z,1.5nm,1.0s,baz=260,slow=4.5,SNR=7.4
PDAR                                LR      LR      01 51 27.2
      comp=Z,100nm,20.5s,baz=310,slow=31
      comp=Z,1.5nm,1.0s
VNDA  Vanda              91.31 177  P       P       01 16 58.9 +1.0
      comp=Z,1.7nm,1.1s,baz=303,slow=4.9,SNR=7.0
      comp=Z,1.7nm,1.1s
VNDA  Vanda              91.31 177  P       P       01 16 59.4 +1.5
VNDA                                pmax    pmax
      comp=Z,7.0nm,1.4s
VNDA  Vanda              91.31 177  P       P       01 16 59.4 +1.5
Y14A  Wickenburg         91.50  55          P       01 17 00.5 +0.6
Y14A                                IAmb    IAmb    01 17 09.1
      comp=Z,8.4nm,0.9s
FINES FINESS Array B     91.68 335  P       P       01 16 58.7 -1.4
      comp=Z,2.9nm,0.5s,baz=62,slow=5.0,SNR=33
      comp=Z,2.9nm,0.5s
FINES FINESS Array B     91.68 335  P       P       01 16 58.9 -1.2
FINES FINESS Array B     91.68 335  P       P       01 16 58.9 -1.2
SOC   Sochi              92.19 316 eP       P       01 17 02.9 +0.1
SOC                                e                01 20 38.3
SOC                                ePPP     PPP     01 22 43.0
SOC                                eS       SKSac   01 27 35.9 +0.6
SOC                                eSS      SS      01 34 17.4 +3.3
SOC                                 MLR     MLR
      comp=Z,238nm,15.0s
VSU   Vasula             92.99 333ceP       P       01 17 03.6 -2.6
VSU                                 pmax    pmax
      comp=Z,12nm,1.0s
RAYN  Ar Rayn            94.00 295  P       P       01 17 10.8 -0.9
RAYN                                pmax    pmax
      comp=Z,4.0nm,1.1s
RAYN  Ar Rayn            94.00 295          P       01 17 10.8 -0.9
MNK   Minsk              94.50 329 i P      P       01 17 10.9 -2.3
MNK                                i                01 21 01.1
MNK                                i S      SKSac   01 27 45.9 -1.6
MNK                                i SS     SS      01 34 47.0 +0.6
MNK                                i SSS    SSS     01 38 29.6
MNK                                 pmax    pmax
      comp=Z,3.0nm,0.9s
MNK                                 pmax    pmax
      comp=E,8.0nm,1.0s
MNK                                 pmax    pmax
      comp=N,6.0nm,0.8s
MNK                                 MLR     MLR
      comp=E,123nm,15.0s
MNK                                 MLR     MLR
      comp=N,182nm,15.0s
MNK   Minsk              94.50 329 i P      P       01 17 11.0 -2.3
      comp=E,8.0nm,1.0s
MNK                                i P      P       01 17 11.0 -2.3
      comp=N,6.0nm,0.8s
MNK                                i P      P       01 17 11.0 -2.3
      comp=Z,3.0nm,0.9s,baz=59
MNK                                i PP     PP      01 21 01.1 +0.7
MNK                                i PPP    PPP     01 22 56.5
MNK                                i S      SKSac   01 27 45.9 -1.6
MNK                                i SS     SS      01 34 47.0 +0.6
MNK                                i SSS    SSS     01 38 29.7
MNK                                i LQ     LQ      01 53 28.2
ANMO  Albuquerque        96.28  52  LR      LR      02 00 09.7
      comp=Z,133nm,18.9s,baz=313,slow=35
ANMO  Albuquerque        96.28  52 i P      P       01 17 20.1 -2.0
ANMO                                pmax    pmax
      comp=Z,12nm,4.1s
LPIG  La Paz             96.73  63  LR      LR      01 53 40.7
      comp=Z,118nm,20.8s,baz=277,slow=31
ULM   Lac du Bonnet      96.73  35  P       P       01 17 24.5 +1.1
      comp=Z,3.2nm,0.8s,baz=315,slow=8.6,SNR=4.5
ULM                                 LR      LR      02 01 35.1
      comp=Z,134nm,18.1s,baz=320,slow=36
      comp=Z,3.2nm,0.8s
ULM   Lac du Bonnet      96.73  35  P       P       01 17 24.6 +1.1
ULM                                 pmax    pmax
      comp=Z,26nm,2.0s
ULM   Lac du Bonnet      96.73  35  P       P       01 17 24.6 +1.1
LUBAR Lubar, Ukraine     96.89 325  P       P       01 17 23.4 -0.8
HFS   Hagfors            97.27 338  P       P       01 17 24.3 -1.4
      comp=Z,1.5nm,0.9s,baz=152,slow=6.7,SNR=4.5
      comp=Z,1.5nm,0.9s
NB2   NORSAR Subarra     97.50 340  P       P       01 17 25.3 -1.5
      comp=Z,2.4nm,0.9s,baz=44,slow=5.1
NOA   NORSAR Array B     97.50 340  P       P       01 17 25.4 -1.4
      comp=Z,1.5nm,0.7s,baz=51,slow=4.2,SNR=9.9
      comp=Z,1.5nm,0.7s
BR131 Keskin Array S     97.88 314 i P      P       01 17 25.7 -3.4
BRTR  Keskin Array B     97.88 314  P       P       01 17 27.4 -1.7
      comp=Z,1.7nm,1.1s,baz=37,slow=0.6,SNR=6.5
      comp=Z,1.7nm,1.1s
BRTR  Keskin Array B     97.88 314ceP       P       01 17 28.6 -0.5
BRTR                                pmax    pmax
      comp=Z,1.0nm,0.8s
BR104 Keskin Array S     97.89 314  P       P       01 17 28.3 -0.8
      comp=Z,1.8nm,0.8s
BR106 Keskin Array S     97.89 314  P       P       01 17 27.9 -1.3
MNTX  Cornudas Mount     98.29  55          Pdif    01 17 31.7 +0.7
MAW   Mawson             99.74 203  P       Pdif    01 17 35.9 -0.5
      comp=Z,1.1nm,0.9s,baz=60,slow=5.2,SNR=3.7
MAW                                 LR      LR      02 00 20.7
      comp=Z,100nm,20.2s,baz=80,slow=34
      comp=Z,1.1nm,0.9s
MAW   Mawson             99.74 203 i P      Pdif    01 17 37.4 +1.0
MAW                                 pmax    pmax
      comp=Z,1.0nm,1.2s
MAW   Mawson             99.74 203          Pdif    01 17 37.4 +1.0
CLL   Collm             103.62 332 eP       Pdif    01 17 53.0 -1.2
CLL                                 MLR     MLR
      comp=Z,700nm,18.6s
CLL   Collm             103.62 332 e(Pdif)          01 17 53.0
CLL                                ePP      PP      01 22 10.0 +0.1
CLL                                 LH              01 55 00.0
CLL                                 LV              01 58 00.0
CLL                                 AMS     AMS     02 08 00.0
      comp=N,400nm,17.6s
CLL                                 AMS     AMS     02 08 00.0
      comp=E,500nm,19.4s
CLL                                 AMS     AMS     02 08 00.0
      comp=Z,700nm,18.6s
ESDC  Sonseca Array     120.14 333  PP      PP      01 24 08.1 -0.1
      comp=Z,2.3nm,1.2s,baz=34,slow=6.8,SNR=6.1
ESDC  Sonseca Array     120.14 333  PKPdf   PKPdf   01 22 44.3  0.0
TORD  Torodi Ar. Bea    135.77 305  PKP     PKPdf   01 23 14.2 -0.4
      comp=Z,2.4nm,0.9s,baz=36,slow=2.6,SNR=8.7
PLCA  Paso Flores       138.16 137  PKP     PKiKP   01 23 20.5 +0.1
      comp=Z,4.2nm,1.1s,baz=338,slow=1.6,SNR=4.0
DBIC  Dimbokro          144.75 303  PKP     PKPbc   01 23 30.4 +0.7
      comp=Z,45nm,0.9s,baz=56,slow=3.9,SNR=38
DBIC  Dimbokro          144.75 303          PKPbc   01 23 30.3 +0.5
LPAZ  La Paz            146.98  99  PKPbc   PKPab   01 23 38.6 -0.1
      comp=Z,1.9nm,0.7s,baz=44,slow=1.0,SNR=7.5
LPAZ  La Paz            146.98  99  PKIKP   PKPdf   01 23 34.6 -0.7
LPAZ  La Paz            146.98  99  PKPdf   PKPdf   01 23 34.6 -0.7
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*IDC **29** 01:13:20.2±17.0, 14.°05N×120.°92E, h206km±185km, mb3.1/7, mbtmp3.7/7, Error ellipse: s-maj=71.5km s-min=15.0km az=61.0*

*MAN **29** 01:13:22.0, 14.°08N×120.°45E, h210km, MS3.2*

ISC 29 01:13:21.6±0.9**, 14.°0N**±0.°1×**120.°5E**±0.°2**, h200**km**, n9,** σ**2s60**/11**, mb3.4**/7**, Mindoro**

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Code  Station Name        Δ°   AZ°     Phase ID            Time     Res
                                      Op      ISC       h  m  s    ISC
PGP   Puerto Galera      0.66 133 eP       Pn      01 13 52.4 +3.0
PGP                               eS       Sn      01 14 14.5 +3.5
BOLP  Bolinao            2.47 348 i P      Pn      01 14 06.9 +1.7
BOLP                              eS       Sn      01 14 41.0 +1.6
CMAR  Chiang Mai Arr    21.13 285  P       P       01 17 53.5 +2.3
      0.8nm,0.3s,baz=98,slow=7.9,SNR=5.8
      0.8nm,0.3s
SONM  Songino Array     35.75 344  P       P       01 19 59.8 -1.6
      0.7nm,0.6s,baz=158,slow=8.9,SNR=3.9
      0.7nm,0.6s
WRA   Warramunga Arr    36.34 158  P       P       01 20 03.6 -3.0
      0.2nm,0.5s,baz=339,slow=8.3,SNR=2.0
      0.2nm,0.5s
ASAR  Alice Springs     39.63 160  P       P       01 20 31.7 -2.4
      0.3nm,0.4s,baz=334,slow=6.9,SNR=5.5
      0.3nm,0.4s
MKAR  Makanchi Array    45.69 324  P       P       01 21 22.1 -0.5
      0.4nm,0.3s,baz=116,slow=7.9,SNR=5.7
      0.4nm,0.3s
ZALV  Zalesovo Beam     48.73 333  P       P       01 21 43.8 -2.0
      0.6nm,0.3s,baz=119,slow=8.4,SNR=3.5
      0.6nm,0.3s
KURBB Kurchatov Arra    49.85 326  P       P       01 21 53.6 -0.7
      0.5nm,0.5s,baz=130,slow=7.7,SNR=11
      0.5nm,0.5s
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*NIED **29** 01:14:12.4, 22.°21N×120.°75E, h37km, MW4.9, Moment Tensor Solution.   s2   Moment tensor: Scale 10^{16}Nm; M_{rr}1.48; $M_{\theta\theta}$-3.22; $M_{\phi\phi}$1.74; $M_{r\theta}$-0.94; $M_{\theta\phi}$-0.37; $M_{\phi r}$-0.28; Fault plane solution: $M_0$2.69000×10^{16} NP1: ϕ_s128.00000°, δ56.00000°, λ159.00000°.   NP2: ϕ_s230.00000°, δ73.00000°, λ36.00000°.*

*JMA **29** 01:14:12.4±0.2, 22°N±2°×12°1E±°, h37km, MD4.7/19, MV4.8/19, TAIWAN REGION*

*MOS **29** 01:14:13.8±0.9, 22.°20N×121.°25E, h11km, mb5.1/50, MS4.6/9, Error ellipse: s-maj=8.9km s-min=4.6km az=123.1*

*BJI **29** 01:14:15.9, 22.°33N×121.°06E, h15km, mB5.1/33, mb4.6/60, ML4.6/4, Ms4.9/70, Ms7 4.9/66*

*ASIES **29** 01:14:17.5, 22.°38N×121.°03E, h10km, Mw4.9, Fault plane solution: NP1: ϕ_s162.00000°, δ34.00000°, λ25.00000°. NP2: ϕ_s51.00000°, δ77.00000°, λ122.00000°.*

*GFZ **29** 01:14:17.3±0.2, 22°N±2°×12°1E±°, h10km, M4.6/17, mb4.6/17*

*TAP **29** 01:14:17.1, 22.°38N×121.°02E, h12km, ML5.1, C*

*NEIC **29** 01:14:18.9, 22.°42N×121.°14E, h22km*

*GCMT **29** 01:14:18.6±0.3, 22.°36N±0.°02×121.°19E±0.°03, h20km±1km, MW4.9/78, Moment Tensor Solution.   s28,c36;   s78,c111; Duration: 0   Moment tensor: Scale 10^{16}Nm; M_{rr}1.93±.19; $M_{\theta\theta}$-0.55±.11; $M_{\phi\phi}$-1.38±.12; $M_{r\theta}$2.04±.26; $M_{\theta\phi}$-1.34±.06; $M_{\phi r}$1.25±.22;   Best double couple: $M_0$3.23300×10^{16} NP1: ϕ_s196.00000°, δ25.00000°, λ55.00000°.   NP2: ϕ_s54.00000°, δ70.00000°, λ105.00000°.   Principal axes: T 3.1270, Plg62.0000°, Azm346.0000°; N 0.2150, Plg14.0000°, Azm228.0000°; P -3.3390, Plg24.0000°, Azm132.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*NEIC **29** 01:14:18.6±1.4, 22.°42N±0.°05×121.°14E±0.°07, h20km±4km, mb4.8/58, Mwr4.9/25 Error ellipse: s-maj=9.2km s-min=7.4km az=76.0, Moment Tensor Solution.   Moment tensor: Scale 10^{16}Nm; M_{rr}-0.56; $M_{\theta\theta}$1.58; $M_{\phi\phi}$-1.02; $M_{r\theta}$1.38; $M_{\theta\phi}$-0.22; $M_{\phi r}$1.58; Fault plane solution: $M_0$2.53000×10^{16} NP1: ϕ_s231.84000°, δ82.66000°, λ-122.55000°.   NP2: ϕ_s130.51000°, δ33.28000°, λ-13.47000°.   Principal axes: T 2.3519, Plg30.0000°, Azm348.0000°; N 0.3221, Plg32.0000°, Azm237.0000°; P -2.6740, Plg43.0000°, Azm111.0000°;*

*IDC **29** 01:14:22.0±3.9, 22.°23N×121.°22E, h61km±36km, mb4.1/28, mbtmp4.4/29, ML3.8/1, MS4.3/42 Error ellipse: s-maj=18.9km s-min=11.2km az=65.0*

ISC 29 01:14:16.6±0.8**, 22.°36N**±0.°01×**121.°09E**±0.°02**, h8**km±4km**, n540,** σ**1s47**/614**, mb4.8**/127**, MS4.5**/63**, 37C-15D, Taiwan region**

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Code  Station Name        Δ°   AZ°     Phase ID            Time     Res
                                      Op      ISC       h  m  s    ISC
TAW   Tawu               0.18 271⇓iP       Pg      01 14 20.6 +0.4
TAW                                S       Sg      01 14 23.0 +0.3
EAST  Anshuo             0.22 277⇓iP       Pg      01 14 21.4 +0.3
EAST                               S       Sg      01 14 24.4 +0.3
ECL   Taimali            0.27 333⇓iP       Pg      01 14 22.3 +0.3
ECL                              i S       Sg      01 14 27.0 +1.4
SLIU  Shizi              0.30 243⇑iP       Pg      01 14 23.0 +0.5
SLIU                             i S       Sg      01 14 27.1 +0.5
TTN   Taitung            0.40   8 ⇑P       Pb      01 14 26.7 +0.7
TTN                               eS       Sb      01 14 36.2 +3.9
SMST  Manzhou Townsh     0.41 215⇑iP       Pb      01 14 25.8 -0.3
SMST                              eS       Sb      01 14 31.8 -0.5
SCZT  Fangliau           0.43 272⇓iP       Pb      01 14 25.1 -1.4
SCZT                             i S       Sb      01 14 30.8 -2.4
TWGBT Beinan             0.46 359  P       Pg      01 14 25.7 +0.1
TWGBT Beinan             0.46 359⇑iP       Pg      01 14 26.2 +0.6
TWGBT                             eS       Sb      01 14 33.6 -0.5
TWG   Pinlang            0.46 358          Pg      01 14 25.9 +0.3
TWG                                Sg      Sg      01 14 31.4 -0.4
TWG   Pinlang            0.46 358⇑iP       Pg      01 14 26.1 +0.5
TWG                               eS       Sb      01 14 33.9 -0.3
TWG   Pinlang            0.46 358  P       Pg      01 14 26.2 +0.5
HEN   Hengchun           0.47 223⇑iP       Pb      01 14 27.2 -0.1
HEN                               eS       Sb      01 14 34.1 -0.2
LDUT  Ludao              0.47  48  P       Pb      01 14 27.9 +0.6
LDUT                               S       Sb      01 14 36.2 +1.8
TSEB  Hengchuen, Pin     0.48 201⇓iP       Pb      01 14 28.0 +0.7
TSEB                             i S       Sb      01 14 36.3 +1.6
TWKBT Hengchun           0.48 212⇑iP       Pb      01 14 27.4  0.0
TWKBT                             eS       Sb      01 14 34.7  0.0
TWK1  Hengchun           0.48 213⇑iP       Pb      01 14 27.4  0.0
TWK1                               S       Sb      01 14 35.2 +0.5
MASBT Mashibuluo         0.49 301⇓iP       Pg      01 14 26.1  0.0
MASBT                              S       Sg      01 14 32.1 -0.5
SSPT  Xinbi              0.50 285⇓iP       Pb      01 14 26.9 -0.7
SSPT                               S       Sb      01 14 34.5 -0.6
LAY   Lan-yu             0.53 126  P       Pg      01 14 28.4 +1.5
LAY                               eS       Sg      01 14 36.8 +2.9
TSMG  Majia              0.54 311⇓iP       Pg      01 14 26.9 -0.1
TSMG                              eS       Sg      01 14 33.6 -0.4
LONT  Longtian           0.55   4⇑iP       Pg      01 14 27.5 +0.3
LONT                              eS       Sb      01 14 37.4 +0.8
SSD   Sandimen           0.57 313⇓iP       Pg      01 14 27.4 -0.2
SSD                              i S       Sg      01 14 34.7 -0.5
LYUB  Lan-yu             0.58 127⇓eP       Pg      01 14 27.9 +0.1
LYUB                              eS       Sg      01 14 35.4 +0.1
EDH   Donghe             0.65  18 ⇑P       Pg      01 14 29.4 +0.3
EDH                               eS       Sb      01 14 39.7 +0.4
WLCH  Liuqiu             0.66 270  P       Pn      01 14 32.2  0.0
SGLT  Jiouru             0.66 304⇓iP       Pb      01 14 30.2 -0.2
SGLT                               S       Sn      01 14 40.0 -2.9
TWP   Hsiaoliuchiu       0.67 269  P       Pn      01 14 32.4 -0.1
ECS   Chishang           0.75   9 eP       Pg      01 14 30.8 -0.3
KAU   Kaohsiung          0.75 287 eP       Pn      01 14 34.3 +0.7
SLGT  Liugui             0.76 327 eP       Pg      01 14 31.1  0.0
SCST  Cishan             0.76 314⇓iP       Pb      01 14 32.0 -0.1
SCST                              eS       Sn      01 14 44.0 -1.4
TWM1  Shoushan           0.77 307⇓eP       Pn      01 14 32.7 -1.2
CHKT  Chengkung          0.79  19⇑iP       Pg      01 14 31.6 -0.1
CHKT                              eS       Sb      01 14 44.5 +1.2
EHD   Haiduan            0.80   8 eP       Pg      01 14 31.0 -1.0
SNJT  Kaohsiung City     0.80 300 eP       Pn      01 14 34.9 +0.6
SNJT                              eS       Sn      01 14 48.2 +1.9
WSSB  Gushan             0.81 291  P       Pn      01 14 34.5 +0.1
WSSB                              eS       Sn      01 14 48.0 +1.3
ELDTW Lidau              0.83 356 ⇑P       Pg      01 14 31.8 -0.9
SGST  Jiashian           0.86 327⇓iP       Pg      01 14 32.6 -0.5
STYH  Taoyuan            0.86 341⇑eP       Pb      01 14 33.5 -0.3
FULB  Fuli               0.86  13 ⇑P       Pg      01 14 32.3 -0.9
CHKH  Chenggong          0.88  19 ⇑P       Pg      01 14 32.7 -0.9
CHKH                              eS       Sb      01 14 46.1  0.0
CHN1  Nanshi             0.97 328⇑iP       Pn      01 14 36.7 +0.1
CHN1                             i S       Sn      01 14 51.2 +0.5
CHN3  Shinhua            0.98 317 eP       Pn      01 14 37.8 +1.2
CHN3                              eS       Sn      01 14 52.5 +1.7
WTP   Ta-pu              0.99 334  P       Pn      01 14 36.4 -0.5
WTP                               eS       Sn      01 14 51.4 +0.3
EYUL  Yuli               1.01  12 eP       Pb      01 14 35.1 -1.3
TWF1  Yuli               1.01  11 eP       Pg      01 14 35.0 -1.0
ECBN  Changbin           1.01  19 eP       Pb      01 14 35.7 -0.8
ECBN                              eS       Sg      01 14 49.6 +0.3
TPUB  Ta-pu              1.03 336  P       Pn      01 14 37.0 -0.5
TPUB  Ta-pu              1.03 336          Pn      01 14 37.0 -0.5
TPUB                               Sg      Sn      01 14 50.2 -1.9
TPUB  Ta-pu              1.03 336⇑iP       Pn      01 14 37.3 -0.2
TPUB                              eS       Sn      01 14 53.3 +1.2
TPUB  Ta-pu              1.03 336  P       Pn      01 14 37.3 -0.2
TAI1  Yung-k'ang         1.05 311 eS       Sn      01 14 54.3 +1.9
YULB  Yu-li              1.05  11  P       Pb      01 14 34.9 -2.2
YULB  Yu-li              1.05  11          Pb      01 14 34.2 -2.9
YULB  Yu-li              1.05  11 eP       Pb      01 14 34.4 -2.7
YULB  Yu-li              1.05  11  P       Pb      01 14 34.4 -2.7
TWK   Hsinying           1.06 329 eP       Pn      01 14 38.0 +0.2
TWK                               eS       Sn      01 14 52.8 -0.2
SSHA  Shanhua            1.07 317 eP       Pn      01 14 38.4 +0.5
SSHA                              eS       Sn      01 14 55.3 +2.3
CHN4  Tsaushan           1.09 335⇑eP       Pn      01 14 38.2 -0.1
YUS   Yu-Shan            1.14 354 eP       Pg      01 14 38.2 -0.3
EHYH  Wanrong            1.16  12 eP       Pb      01 14 37.8 -1.1
SCLT  Jiali              1.16 315 eP       Pn      01 14 39.4 +0.3
SCLT                              eS       Sn      01 14 56.3 +1.1
EHY   Hungye             1.17  11 eP       Pb      01 14 37.3 -1.8
WCKO  Fanlu              1.17 338⇑eP       Pg      01 14 39.7 +0.6
WCKO                              eS       Sn      01 14 57.1 +1.7
HGSD  Ruisui             1.17  15 eP       Pb      01 14 37.9 -1.3
ALS   Alishan            1.18 347 eP       Pb      01 14 38.6 -0.8
ALS                               eS       Sn      01 14 58.5 +2.3
ICHU  Yijhu              1.25 324 eP       Pg      01 14 40.0 -0.5
ICHU                              eS       Sn      01 14 58.5 +1.0
CHN8  Yiju               1.27 321 eP       Pg      01 14 41.0 -0.1
CHY   Chiayi             1.29 332  P       Pg      01 14 41.3 -0.1
CHY                               eS       Sg      01 15 00.0 +1.8
CHN5  Tsauling           1.29 343  P       Pg      01 14 41.8 +0.4
CHN5                              eS       Sg      01 15 01.7 +3.5
CHN2  Minshiung          1.30 334 eP       Pg      01 14 42.0 +0.5
CHN2                              eS       Sg      01 15 00.5 +2.0
WHYT  Xinyi Township     1.35 351 eP       Pb      01 14 41.9 -0.3
WHYT                              eS       Sg      01 15 03.0 +2.8
WARBT Fenglin Townsh     1.39  11 eP       Pn      01 14 40.7 -1.6
VWDT  VWDT               1.39   2 eP       Pn      01 14 41.3 -1.1
WSL   Shuilin Townsh     1.41 326 eP       Pb      01 14 42.4 -0.7
TEGC  Jichi Village      1.41  17 eP       Pn      01 14 41.6 -1.0
WGK   Gukeng             1.41 340  P       Pg      01 14 43.6 -0.1
WGK                               eS       Sg      01 15 04.1 +2.1
WDLH  Douliu             1.42 339  P       Pg      01 14 43.4 -0.5
WDLH                              eS       Sg      01 15 05.3 +2.9
SSLB  Suanglung          1.43 355  P       Pn      01 14 42.8 -0.2
SSLB  Suanglung          1.43 355  Pn      Pn      01 14 42.0 -0.9
SSLB  Suanglung          1.43 355 eP       Pn      01 14 42.9  0.0
SSLB  Suanglung          1.43 355  P       Pn      01 14 42.3 -0.6
WDL   Douliou City       1.45 340 eP       Pg      01 14 44.2 -0.1
WDL                               eS       Sg      01 15 05.7 +2.6
WTK   Tuku               1.48 334  P       Pb      01 14 43.8 -0.5
WTK                               eS       Sg      01 15 04.4 +0.4
ESL   Shilin             1.49  12 eP       Pn      01 14 44.1 +0.4
SHUL  Shoufeng           1.49  17 eP       Pn      01 14 42.9 -0.9
WJS   Zhushan            1.50 347 eP       Pb      01 14 44.8 +0.1
WSF   Szhu               1.51 328 eP       Pb      01 14 44.0 -0.9
SMLT  Sun Moon Lake      1.53 354  P       Pb      01 14 45.2 -0.1
SMLT                              eS       Sg      01 15 08.7 +2.8
TYC   Yuchr              1.56 352 eP       Pb      01 14 45.8 +0.1
TYC                               eS       Sg      01 15 09.7 +3.0
WNT   Mingjian           1.56 346 eP       Pb      01 14 46.0 +0.2
WNT                               eS       Sg      01 15 08.2 +1.4
TEYL  Yanliau Villag     1.58  17 eP       Pn      01 14 45.4 +0.4
OWD   Renai              1.59   3 eP       Pn      01 14 44.5 -0.8
OWD                               eS       Sg      01 15 09.5 +1.5
WDGT  Dungji             1.60 305 eP       Pn      01 14 43.9 -1.3
WUSB  Renai              1.63   1 eP       Pn      01 14 45.2 -0.5
ETM   Tongmen            1.65  13 eP       Pn      01 14 45.2 -0.7
RLNB  Erlin              1.67 336 eP       Pn      01 14 46.3 +0.1
WRL   Guolierlin Hig     1.67 337 eP       Pn      01 14 45.9 -0.3
WRL                               eS       Sg      01 15 09.7 -0.7
HWA   Hwalien            1.68  16 eP       Pb      01 14 47.8  0.0
LXIB  Xiulin Townshi     1.69  10 eP       Pn      01 14 45.9 -0.7
WCS   Beigang Elemen     1.70 355 eP       Pb      01 14 47.9 -0.3
WCS                               eS       Sg      01 15 13.2 +1.9
VCHM  Qimei              1.75 299  P       Pn      01 14 45.6 -1.6
VCHM                               S       Sn      01 15 08.5 -1.3
TWD   Chiawan            1.78  15 eP       Pn      01 14 47.4 -0.3
WCH1  Changhua City      1.78 344 eP       Pb      01 14 48.8 -0.7
WCH1                              eS       Sg      01 15 13.0 -0.9
WCHH  Zhanghua           1.79 344 eP       Pb      01 14 48.6 -1.0
WCHH                              eS       Sg      01 15 13.3 -0.7
WHF   Hehuan Shan        1.79   5 eP       Pn      01 14 47.9 -0.3
PHUB  P'eng-hu           1.81 310 i P      Pn      01 14 46.7 -1.5
PHUB                               S       Sn      01 15 09.6 -1.7
TCU   Taichung           1.82 348  P       Pb      01 14 49.5 -0.7
TCU                               eS       Sb      01 15 13.5 +0.3
PNG   Penghu             1.86 311 eP       Pn      01 14 47.6 -1.2
PNG                               eS       Sn      01 15 09.4 -3.1
NACB  Ninganchiao        1.87  14  P       Pn      01 14 48.7 -0.3
NACB  Ninganchiao        1.87  14          Pn      01 14 46.3 -2.7
NACB  Ninganchiao        1.87  14 eP       Pn      01 14 47.2 -1.7
NACB  Ninganchiao        1.87  14  P       Pn      01 14 49.2 +0.2
ETLH  Xiulin Townshi     1.88  11 eP       Pn      01 14 47.1 -2.0
FUSS  Fushou             1.89   4 eP       Pb      01 14 51.1 -0.4
TDCB  Techi              1.89   2 eP       Pn      01 14 49.6 +0.2
TWT   Tachien            1.89   2 eP       Pn      01 14 50.0 +0.6
WHP   Taichung City      1.92 356  P       Pb      01 14 50.9 -1.1
WHP                                S       Sg      01 15 19.1 +0.8
TWQ1  Liyutan            2.00 352  P       Pb      01 14 53.4 +0.1
TWQ1                               S       Sg      01 15 19.8 -1.3
WDJ   Dajia District     2.03 348 eP       Pb      01 14 53.0 -0.7
NNSB  Datong             2.08   7 eP       Pn      01 14 51.8 -0.2
EOS4  EOS4               2.09  33 eP       Pn      01 14 51.2 -0.4
EOS4                               S       Sn      01 15 16.6 -1.1
NNS   Nan Shan           2.09   7 eP       Pn      01 14 52.2 +0.1
ENA   Nanau              2.15  16 eP       Pn      01 14 51.0 -1.8
NMLH  Miaoli             2.19 353 eP       Pb      01 14 57.4 +0.9
LATG  Datong             2.21  10 eP       Pn      01 14 54.5 +0.8
EOS3  EOS3               2.23  30 eP       Pn      01 14 52.6 -1.2
EOS3                               S       Sn      01 15 21.0 -0.4
NFF   Wufeng Townshi     2.27   1 eP       Pb      01 14 56.1 -1.8
NSTT  Nanjuang           2.27 358 eP       Pb      01 14 57.5 -0.4
NDT   Datong Townshi     2.27  10 eP       Pn      01 14 55.4 +0.9
LIOB  Emei               2.28 358 eP       Pb      01 14 57.0 -1.1
EOS2  EOS2               2.31  27 eP       Pn      01 14 54.8 -0.1
EOS2                              eS       Sn      01 15 24.8 +1.4
ENTT  Nioudou            2.32  11 eP       Pn      01 14 55.3 +0.2
YHNB  Yeheng             2.32   7  P       Pn      01 14 55.6 +0.4
YHNB  Yeheng             2.32   7          Pn      01 14 54.3 -0.9
YHNB  Yeheng             2.32   7 eP       Pn      01 14 55.6 +0.4
YHNB  Yeheng             2.32   7  P       Pn      01 14 56.5 +1.3
NSK   Sanguang           2.32   6 eP       Pb      01 14 58.0 -0.8
NDS   Dongshan           2.34  14 eP       Pn      01 14 55.8 +0.4
TWC   Suao               2.35  17 eP       Pn      01 14 56.6 +1.0
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TWC				*e*S	**Sn**	**01 15 25.6**	**+0.9**
KSHI	**Guanxi Townshi**	**2.41**	**2**	*e*P	**Pb**	**01 14 59.4**	**-0.9**
KSHI				*e*S	**Sb**	**01 15 27.9**	**-2.4**
TWE	**Neicheng**	**2.42**	**13**	*e*P	**Pb**	**01 14 59.0**	**-1.3**
FUSB	**Fushanzhiwuyua**	**2.44**	**11**	*e*P	**Pn**	**01 14 58.1**	**+1.3**
NWLT	**Wulai**	**2.44**	**9**	*e*P	**Pn**	**01 14 58.1**	**+1.3**
TATO	**Taipei**	**2.63**	**8**	P	**Pn**	**01 14 59.6**	**+0.1**
TATO	**Taipei**	**2.63**	**8**		**Pn**	**01 14 59.5**	**0.0**
TATO	**Taipei**	**2.63**	**8**	P	**Pb**	**01 15 02.1**	**-2.0**
TIPB	**Shuangxi**	**2.69**	**14**	*e*P	**Pn**	**01 15 00.7**	**+0.4**
JYNG	**Yonagunijimaku**	**2.70**	**39**	P	**Pn**	**01 14 59.5**	**-0.8**
JYNG				*e*S	**Sn**	**01 15 31.4**	**-1.8**
YOJ	**Yonaguni jima**	**2.74**	**40**	P	**Pn**	**01 15 00.6**	**-0.3**
YOJ	**Yonaguni jima**	**2.74**	**40**	P	**Pn**	**01 15 00.2**	**-0.7**
YOJ	**Yonaguni jima**	**2.74**	**40**		**Pn**	**01 15 00.2**	**-0.7**
YOJ	**Yonaguni jima**	**2.74**	**40**	*e*P	**Pn**	**01 15 00.2**	**-0.7**
YOJ				*e*S	**Sn**	**01 15 34.2**	**-0.1**
YOJ	**Yonaguni jima**	**2.74**	**40**	P	**Pn**	**01 15 00.8**	**-0.1**
YOJ	**Yonaguni jima**	**2.74**	**40**	*e*P	**Pn**	**01 15 00.4**	**-0.6**
YOJ				*e*S	**Sn**	**01 15 34.7**	**+0.4**
TWB1	**Santiao Chiao**	**2.77**	**17**	*e*P	**Pn**	**01 15 03.3**	**+2.0**
WFSB	**Wu-fen Shan**	**2.78**	**13**	*e*P	**Pn**	**01 15 03.4**	**+2.0**
YM01	**YM01**	**2.81**	**9**	*e*P	**Pn**	**01 15 03.9**	**+2.0**
SXI1	**Grass Mountain**	**2.82**	**15**	*e*P	**Pn**	**01 15 03.4**	**+1.2**
ZUZH	**Zhuzihu**	**2.83**	**8**	*e*P	**Pn**	**01 15 03.0**	**+0.9**
YM08	**YM08**	**2.86**	**9**	*e*P	**Pn**	**01 15 03.8**	**+1.2**
HATJ	**Hateruma jima**	**3.02**	**55**	P	**Pn**	**01 15 04.3**	**-0.4**
HATJ				A	A	01 15 04.3	
	comp=N,7.0nm,3.4s,comp=E,5.0nm,4.1s						
HATJ				*e*S	**Sn**	**01 15 39.9**	**-1.3**
VWUC	**VWUC**	**3.02**	**331**	P	**Pn**	**01 15 03.6**	**-1.2**
VWUC				*e*S	**Sn**	**01 15 43.0**	**+1.8**
IRIF	**Iriomote-Funau**	**3.13**	**50**	P	**Pn**	**01 15 05.7**	**-0.6**
IRIF				*e*S	**Sn**	**01 15 43.5**	**-0.3**
KNM	**Kinmen**	**3.19**	**311**	*e*P	**Pn**	**01 15 07.3**	**+0.3**
PTMZ	**Houxiangcun**	**3.22**	**326**	*e*P	**Pn**	**01 15 06.4**	**-1.1**
KNMB	**Chin-men Tao**	**3.25**	**311**		**Pn**	**01 15 06.8**	**-1.1**
KNMB	**Chin-men Tao**	**3.25**	**311**	*e*P	**Pn**	**01 15 06.5**	**-1.4**
KNMB	**Chin-men Tao**	**3.25**	**311**	P	**Pn**	**01 15 06.9**	**-1.1**
JKRS	**Kuro-shima**	**3.28**	**55**	P	**Pn**	**01 15 08.2**	**-0.1**
JKRS				A	A	01 15 08.2	
	comp=N,6.0nm,4.3s,comp=E,6.0nm,2.8s						
JKRS				*e*S	**Sn**	**01 15 48.1**	**+0.6**
PCYT	**Pengchaiyu**	**3.38**	**15**	*e*P	**Pn**	**01 15 11.3**	**+1.5**
QZH2	**Quanzhou**	**3.44**	**319**	⇑*i*Pn	**Pn**	**01 15 09.5**	**-1.1**
QZH2				Sn	**Sn**	**01 15 48.8**	**-2.8**
QZH2				AML	AML		
	comp=E,950nm,1.4s						
QZH2				AML	AML		
	comp=E,920nm,0.7s						
QZH2				L	L		
	comp=E,10µm,10.8s						
QZH2				L	L		
	comp=E,8µm,9.6s						
QZH2				L	L		
	comp=E,15µm,11.7s						
JIJ	**Ishigaki jima**	**3.45**	**54**	P	**Pn**	**01 15 10.3**	**-0.3**
JIJ				*e*S	**Sn**	**01 15 50.0**	**-1.7**
ZPLA	**Ao Xicun**	**3.45**	**298**	*e*P	**Pn**	**01 15 09.3**	**-1.4**
DSXP	**Dongshan**	**3.63**	**292**	*e*P	**Pn**	**01 15 11.6**	**-1.6**
JISG	**Ishigakijimahi**	**3.70**	**52**	P	**Pn**	**01 15 13.8**	**-0.3**
JISG				*e*S	**Sn**	**01 15 55.9**	**-2.1**
AXDP	**Jialang**	**3.82**	**312**	*e*P	**Pn**	**01 15 14.8**	**-0.9**
PACPP	**Pamplona Cagay**	**3.88**	**176**	*i* P	**Pn**	**01 15 15.9**	**-0.7**
PACPP				*e*S	**Sn**	**01 15 59.8**	**-2.6**
MATB	**Ma-tsu**	**3.92**	**345**	*e*P	**Pn**	**01 15 15.8**	**-1.4**
MATB				*e*S	**Sn**	**01 16 01.7**	**-1.7**
JTJ	**Tarama**	**4.02**	**55**	P	**Pn**	**01 15 18.8**	**+0.3**
JTJ				*e*S	**Sn**	**01 16 06.1**	**+0.1**
MHZQ	**Yeshan**	**4.17**	**334**	*e*P	**Pn**	**01 15 20.3**	**-0.3**
LYJJ	**Jianjiangzhen**	**4.35**	**344**	*e*P	**Pn**	**01 15 22.1**	**-0.9**
JIRJ	**Irabujima**	**4.50**	**56**	P	**Pn**	**01 15 24.5**	**-0.7**
JIRJ				*e*S	**Sn**	**01 16 16.4**	**-1.4**
JMJ2	**Miyako jima3**	**4.56**	**58**	*e*P	**Pn**	**01 15 26.0**	**+0.1**
JMJ2				*e*S	**Sn**	**01 16 15.2**	**-3.9**
JMJ	**Miyako jima 2**	**4.57**	**57**	P	**Pn**	**01 15 26.7**	**+0.6**
JIKM	**Ikemajima**	**4.59**	**55**	*e*P	**Pn**	**01 15 26.3**	**-0.1**
JIKM				S	**Sn**	**01 16 19.9**	**-0.1**
XPSS	**Dashiqiu**	**4.63**	**350**	*e*P	**Pn**	**01 15 26.3**	**-0.6**
JOGS	**Gusukube**	**4.63**	**58**	*e*P	**Pn**	**01 15 27.7**	**+0.8**
JOGS				*e*S	**Sn**	**01 16 22.4**	**+1.5**
SXFK	**Yanhouchang**	**5.11**	**323**	*e*P	**Pn**	**01 15 32.4**	**-1.0**
PALP	**Palanan**	**5.41**	**166**	*i* P	Pb	01 15 46.0	-5.5
PALP				*i* S	**Sn**	**01 16 41.9**	**+1.7**
HKPS	**Hong Kong Po S**	**6.43**	**271**	P	**Pn**	**01 15 51.5**	**-0.2**
HKPS	**Hong Kong Po S**	**6.43**	**271**		**Pn**	**01 15 51.8**	**+0.2**
HKPS	**Hong Kong Po S**	**6.43**	**271**	P	**Pn**	**01 15 52.0**	**+0.3**
	comp=Z,162nm,0.8s						
GZH2	**Guangzhou**	**6.97**	**282**	Pn	**Pn**	**01 15 58.5**	**-0.6**
GZH2				Sn	**Sn**	**01 17 18.8**	**+0.2**
GZH2				AML	AML		
	comp=Z,460nm,1.2s						
GZH2				AML	AML		
	comp=Z,430nm,1.0s						
LQP	**Lukban**	**8.21**	**177**	*e*P	**Pn**	**01 16 18.5**	**+2.2**
CNSH	**ChangSha**	**9.39**	**310**	P	**Pn**	**01 16 31.0**	**-1.2**
CNSH				S	**Sn**	**01 18 17.8**	**-0.2**
CNSH				SMN			
	comp=Z,310nm,1.7s						
CNSH				SME			
	comp=Z,410nm,1.4s						
NJ2	**Nanjing**	**9.86**	**349**	⇑*i*P	**Pn**	**01 16 38.5**	**-0.2**
NJ2				pmax	pmax		
	comp=Z,55nm,0.6s						
NJ2				L	L		
	comp=Z,4µm,11.9s						
NJ2				L	L		
	comp=Z,12µm,13.3s						
WHN	**Wuhan**	**10.14**	**325**	⇑P	**Pn**	**01 16 42.0**	**-0.6**
WHN				S	**Sn**	**01 18 35.0**	**-1.6**
WHN				L	L		
	comp=Z,11µm,10.1s						
WHN				L	L		
	comp=Z,22µm,12.4s						
GULI	**GuiLin**	**10.24**	**289**	P	**Pn**	**01 16 45.5**	**+1.5**
GULI				S	**Sn**	**01 18 40.0**	**+1.0**
GULI				pmax	pmax		
	comp=Z,18nm,1.0s						
GULI				L	L		
	comp=Z,4µm,16.5s						
GULI				L	L		
	comp=Z,4µm,10.8s						
GULI				L	L		
	comp=Z,5µm,11.8s						
QIZ	**Qiongzhong**	**11.03**	**255**	P	**Pn**	**01 16 55.8**	**+1.0**
QIZ				S	**Sn**	**01 19 01.0**	**+2.5**
QIZ				pmax	pmax		
	comp=Z,15nm,1.0s						
QIZ				L	L		
	comp=Z,2µm,11.6s						
QIZ				L	L		
	comp=Z,2µm,12.4s						
QIZ				L	L		
	comp=Z,4µm,11.6s						
ENH	**Enshi**	**13.05**	**310**		**Pn**	**01 17 22.7**	**+0.3**
GYA	**Guiyang**	**13.76**	**290**	⇓P	**Pn**	**01 17 33.5**	**+1.3**
GYA				S	**Sn**	**01 20 10.0**	**+4.6**
GYA				pmax	pmax		
	comp=Z,19nm,0.8s						
JNU	**Nakatsue**	**13.78**	**37**	LR	LR	01 24 00.4	
	comp=Z,472nm,20.3s,baz=202,slow=42						
TIA	**Tai'an**	**14.23**	**347**	P	**Pn**	**01 17 41.0**	**+2.5**
TIA				pmax	pmax		
	comp=Z,24nm,1.5s						
TIA				pmax	pmax		
	comp=Z,360nm,7.8s						
TIA				L	L		
	comp=Z,3µm,12.3s						
TIA				L	L		
	comp=Z,12µm,9.8s						
LYN	**LuoYang**	**14.31**	**330**	P	**Pn**	**01 17 39.8**	**+0.2**
LYN				pmax	pmax		
	comp=Z,25nm,0.6s						
LYN				pmax	pmax		
	comp=Z,470nm,6.3s						
LYN				L	L		
	comp=Z,6µm,11.0s						
LYN				L	L		
	comp=Z,4µm,11.7s						
LYN				L	L		
	comp=Z,7µm,10.6s						
TJN	**Taejon**	**15.00**	**20**	*i* P	**Pn**	**01 17 49.4**	**+0.5**
DAV	**Davao City (W)**	**15.80**	**163**	LR	LR	01 24 31.0	
	comp=Z,2µm,20.7s,baz=346,slow=39						
XAN	**Xi'an**	**15.81**	**320**	P	**Pn**	**01 17 59.8**	**+0.1**
XAN				pP	P	01 18 03.5	-0.1
XAN				sP	sP	01 18 07.0	+0.6
XAN				pmax	pmax		
	comp=Z,20nm,1.3s						
XAN				pmax	pmax		
	comp=Z,380nm,5.3s						
XAN				L	L		
	comp=Z,4µm,14.1s						
XAN				L	L		
	comp=Z,4µm,11.7s						
XAN				L	L		
	comp=Z,6µm,12.4s						
HNS	**HongShan**	**15.97**	**341**	⇑P	**P**	**01 18 03.8**	**-1.5**
HNS				S	**Sn**	**01 20 58.5**	**-0.5**
HNS				SS	**S**	**01 21 18.0**	**+4.9**
HNS				pmax	pmax		
	comp=Z,32nm,1.7s						
HNS				L	L		
	comp=Z,5µm,12.2s						
HNS				L	L		
	comp=Z,7µm,13.2s						
SLVN	**Son La**	**15.99**	**270**		**Pn**	**01 18 01.5**	**-0.5**
SLVN	**Son La**	**15.99**	**270**	P	**Pn**	**01 18 02.6**	**+0.6**
	comp=Z,9.2nm,1.5s						
KSRS	**Korea Array**	**16.16**	**20**	P	**Pn**	**01 18 05.4**	**+1.2**
	comp=Z,0.4nm,0.3s,baz=192,slow=11,SNR=6.4						
KSRS				LR	LR	01 25 03.7	
	comp=Z,1µm,19.6s,baz=195,slow=40						
	comp=Z,1.6nm,0.5s						
KSRS				AML	AML		
DL2	**Dalian**	**16.50**	**1**	*e*P	**P**	**01 18 10.8**	**-0.4**
DL2				*e*S	**S**	**01 21 17.3**	**-6.6**
DL2				pmax	pmax		
	comp=Z,67nm,1.3s						
DL2				pmax	pmax		
	comp=Z,590nm,3.7s						
DL2				L	L		
	comp=Z,5µm,12.1s						
DL2				L	L		
	comp=Z,2µm,10.5s						
DL2				L	L		
	comp=Z,6µm,11.1s						
KKM	**Kota Kinabalu**	**16.88**	**197**	Pn	**Pn**	**01 18 14.2**	**+0.6**
KKM				IAmb	IAmb	01 18 19.0	
	comp=Z,51nm,1.0s						
KKM	**Kota Kinabalu**	**16.88**	**197**	P	**P**	**01 18 18.3**	**+2.7**
	comp=Z,4µmcomp=Z,55nm,1.7s						
KKM	**Kota Kinabalu**	**16.88**	**197**	P	**P**	**01 18 15.5**	**-0.2**
	comp=Z,56nm,1.7s						
KMI2	**Kunming**	**17.02**	**283**	P	**P**	**01 18 19.8**	**+2.6**
KMI2				S	**S**	**01 21 30.0**	**-5.0**
KMI2				pmax	pmax		
	comp=Z,12nm,0.5s						
KMI2				L	L		
	comp=Z,2µm,12.8s						
KMI2				L	L		
	comp=Z,2µm,14.3s						
KMI2				L	L		
	comp=Z,3µm,14.6s						
TIY	**Taiyuan**	**17.03**	**336**	*e*P	**P**	**01 18 17.5**	**+0.4**
TIY				PP	**PnPn**	**01 18 31.5**	**+6.5**
TIY				S	**Sn**	**01 21 27.0**	**+2.3**
TIY				pmax	pmax		
	comp=Z,650nm,5.0s						
TIY				L	L		
	comp=Z,4µm,13.4s						
TIY				L	L		
	comp=Z,8µm,13.7s						
MYLDM	**Lahad Datu**	**17.26**	**189**		**Pn**	**01 18 19.0**	**+0.9**
MYLDM	**Lahad Datu**	**17.26**	**189**	P	**P**	**01 18 23.5**	**+3.9**
	comp=Z,2µmcomp=Z,66nm,1.1s						
CD2	**Chengdu**	**17.66**	**302**	P	**P**	**01 18 23.5**	**-0.7**
CD2				S	**S**	**01 21 47.0**	**-0.8**
CD2				pmax	pmax		
	comp=Z,30nm,0.5s						
CD2				L	L		
	comp=Z,3µm,11.4s						
CD2				L	L		
	comp=Z,4µm,11.0s						
CD2				L	L		
	comp=Z,6µm,11.2s						
PZH	**PanZhiHua**	**18.09**	**287**	P	**P**	**01 18 29.8**	**+0.8**
PZH				S	**S**	**01 21 52.0**	**-4.7**
PZH				pmax	pmax		
	comp=Z,10.0nm,0.9s						
PZH				pmax	pmax		
	comp=Z,340nm,7.6s						
PZH				L	L		
	comp=Z,1µm,15.5s						
PZH				L	L		
	comp=Z,2µm,12.4s						
PZH				L	L		
	comp=Z,2µm,12.7s						
BJI2	**Beijing**	**18.10**	**348**	P	**P**	**01 18 30.0**	**+1.2**
BJI2				pmax	pmax		
	comp=Z,13nm,1.3s						
BJI2				pmax	pmax		
	comp=Z,280nm,3.9s						
BJI2				L	L		
	comp=Z,3µm,13.1s						
BJI2				L	L		
	comp=Z,720nm,16.5s						
BJI2				L	L		
	comp=Z,3µm,12.7s						
BJT	**Baijiatuau**	**18.10**	**348**	P	**Pn**	**01 18 28.2**	**-0.2**
BJT				pmax	pmax		
	comp=Z,70nm,1.6s						
BJT	**Baijiatuau**	**18.10**	**348**		**Pn**	**01 18 28.2**	**-0.2**
HHC	**Hu-ho-hao-te**	**20.12**	**339**	*e*P	Pn	01 18 53.3	+0.4
HHC				sP	sP	01 18 59.8	+5.9
HHC				S	**S**	**01 22 35.3**	**-2.0**
HHC				sS	sS	01 22 41.3	+0.9
HHC				SS	**SnSn**	**01 23 03.5**	**+9.3**
HHC				pmax	pmax		
	comp=Z,49nm,0.7s						
HHC				pmax	pmax		
	comp=Z,340nm,4.0s						
HHC				L	L		
	comp=Z,4µm,15.5s						
HHC				L	L		
	comp=Z,2µm,15.1s						
HHC				L	L		
	comp=Z,4µm,15.7s						
LZH	**Lanzhou**	**20.30**	**316**	*e*P	**P**	**01 18 52.5**	**-0.6**
LZH				pP	sP	01 18 59.3	+3.4
LZH				S	**S**	**01 22 40.0**	**-1.0**
LZH				pmax	pmax		
	comp=Z,47nm,1.7s						
LZH				pmax	pmax		
	comp=Z,270nm,4.3s						
LZH				L	L		
	comp=Z,2µm,14.3s						
LZH				L	L		
	comp=Z,3µm,15.5s						
LZH				L	L		
	comp=Z,3µm,14.9s						
LZDM	**Lanzhou Array**	**20.31**	**316**	P	Pn	01 18 54.9	-0.6
	comp=Z,3.6nm,0.4s,baz=116,slow=14,SNR=5.8						
	comp=Z,3.6nm,0.4s						
MAJO	**Matsushiro**	**20.50**	**43**	*i* P	**P**	**01 18 51.5**	**-3.7**
MAJO				pmax	pmax		
	comp=Z,35nm,1.8s						
MJAR	**Matsushiro Arr**	**20.50**	**43**	P	**P**	**01 18 56.6**	**+1.4**
	comp=Z,3.5nm,0.4s,baz=225,slow=10,SNR=19						
MJAR				LR	LR	01 27 21.4	
	comp=Z,436nm,19.3s,baz=212,slow=38						
	comp=Z,3.5nm,0.4s						
MJAR	**Matsushiro Arr**	**20.50**	**43**	P	**P**	**01 18 53.5**	**-1.7**
BTO2	**Baotou**	**20.64**	**335**	*e*P	Pn	01 18 57.5	-1.5
BTO2				pP	sP	01 19 02.0	+2.4
BTO2				PP	**PnPn**	**01 19 19.0**	**+4.5**
BTO2				pmax	pmax		
	comp=Z,65nm,0.9s						
BTO2				pmax	pmax		
	comp=Z,930nm,4.1s						
BTO2				L	L		
	comp=Z,4µm,10.1s						
BTO2				L	L		
	comp=Z,10µm,13.7s						
TNCH	**TengChong**	**20.83**	**282**	P	Pn	01 19 01.0	-0.5
TNCH				pmax	pmax		
	comp=Z,68nm,0.5s						
TNCH				L	L		
	comp=Z,2µm,10.2s						
TNCH				L	L		
	comp=Z,1µm,11.8s						
TNCH				L	L		
	comp=Z,3µm,14.3s						
CHTO	**Chiang Mai**	**21.02**	**264**	P	**P**	**01 18 59.8**	**-1.2**
CHTO				pmax	pmax		
	comp=Z,28nm,1.3s						
CHTO	**Chiang Mai**	**21.02**	**264**		**P**	**01 18 59.8**	**-1.2**
CHTO	**Chiang Mai**	**21.02**	**264**	P	**P**	**01 19 02.7**	**+1.7**
CHTO	**Chiang Mai**	**21.02**	**264**	P	**P**	**01 19 00.5**	**-0.5**
	comp=Z,20nm,1.3s						
CMAR	**Chiang Mai Arr**	**21.11**	**263**	P	**P**	**01 19 03.7**	**+1.8**
	comp=Z,8.2nm,1.0s,baz=71,slow=9.3,SNR=30						
CMAR				LR	LR	01 28 18.6	
	comp=Z,805nm,18.1s,baz=95,slow=39						
	comp=Z,8.2nm,1.0s						
CMAR	**Chiang Mai Arr**	**21.11**	**263**	P	**P**	**01 19 01.4**	**-0.5**
TOLI2	**Tolitoli**	**21.12**	**181**		**P**	**01 19 01.5**	**-0.5**
TOLI2				IAmb	IAmb	01 19 06.3	
	comp=Z,40nm,0.9s						
TOLI2	**Tolitoli**	**21.12**	**181**	P	**P**	**01 19 02.0**	**0.0**
	comp=Z,50nm,1.5s						
SBUM	**Sibu**	**21.58**	**205**		**P**	**01 19 06.5**	**-0.4**
SBUM				IAmb	IAmb	01 19 10.8	
	comp=Z,25nm,1.0s						
SBUM	**Sibu**	**21.58**	**205**	P	**P**	**01 19 07.6**	**+0.7**
SBUM	**Sibu**	**21.58**	**205**	P	**P**	**01 19 07.5**	**+0.6**
	comp=Z,27nm,1.1s						
GTOI	**Gorontalo**	**21.67**	**175**	P	**P**	**01 19 07.7**	**-0.2**
	comp=Z,1µmcomp=Z,81nm,1.0s						
XLT	**XiLinHaoTe**	**21.88**	**350**	*e*P	**P**	**01 19 11.3**	**+1.2**
XLT				pP	sP	01 19 17.0	+4.1
XLT				sP	pP	01 19 18.8	+6.8
XLT				S	**S**	**01 23 09.5**	**-2.6**
XLT				pmax	pmax		
	comp=Z,15nm,1.0s						
XLT				pmax	pmax		
	comp=Z,290nm,3.5s						
XLT				L	L		
	comp=Z,350nm,12.5s						
XLT				L	L		
	comp=Z,830nm,12.6s						
XLT				L	L		
	comp=Z,4µm,13.0s						
APSI	**Ampana**	**23.13**	**179**	P	**P**	**01 19 25.0**	**+1.6**
	comp=Z,2µmcomp=Z,164nm,1.1s						
LUWI	**Luwuk**	**23.31**	**176**	P	**P**	**01 19 26.5**	**+1.3**
	comp=Z,3µmcomp=Z,116nm,1.1s						
USA0B	**Ussuriysk Arra**	**23.57**	**20**	*i* P	**P**	**01 19 24.6**	**-3.0**
USRK	**Ussuriysk Ar.**	**23.57**	**20**	P	**P**	**01 19 29.1**	**+1.5**
	comp=Z,1.8nm,0.5s,baz=202,slow=11,SNR=4.2						
USRK				LR	LR	01 28 25.7	
	comp=Z,748nm,21.5s,baz=194,slow=36						
	comp=Z,1.8nm,0.5s						
BKB	**Balikpapan**	**23.82**	**190**	P	**P**	**01 19 29.2**	**-1.1**
BKB	**Balikpapan**	**23.82**	**190**	P	**P**	**01 19 30.3**	**0.0**
	comp=Z,136nm,1.5s						
BKB	**Balikpapan**	**23.82**	**190**	P	**P**	**01 19 31.2**	**+0.9**
	comp=Z,137nm,1.2s						
STKI	**Sintang**	**24.05**	**204**	P	**P**	**01 19 36.1**	**+3.6**
GUMO	**Guam**	**24.21**	**107**	LR	LR	01 27 41.7	
	comp=Z,370nm,20.4s,baz=282,slow=33						
SANI	**Sanana**	**24.72**	**168**	P	**P**	**01 19 39.5**	**+0.9**
	comp=Z,24nm,1.2s						
SANI	**Sanana**	**24.72**	**168**	P	**P**	**01 19 39.9**	**+1.3**
	comp=Z,29nm,0.9s						
GTA2	**Gaotai**	**24.93**	**318**	P	**P**	**01 19 40.8**	**+0.3**
GTA2				sS	sS	01 24 12.5	+4.9
GTA2				pmax	pmax		
	comp=Z,16nm,0.9s						
GTA2				pmax	pmax		
	comp=Z,310nm,4.4s						
GTA2				L	L		
	comp=Z,2µm,13.7s						
GTA2				L	L		
	comp=Z,2µm,16.2s						
GTA2				L	L		
	comp=Z,2µm,15.2s						
SIJI	**Sorong**	**25.13**	**155**	P	**P**	**01 19 38.7**	**-3.6**
	comp=Z,6.4nm,0.4s,baz=256,slow=1.3,SNR=3.5						
SIJI				LR	LR	01 27 53.8	
	comp=Z,274nm,21.7s,baz=13,slow=32						
	comp=Z,6.4nm,0.4s						
NLAI	**Namlea**	**26.11**	**166**	P	**P**	**01 19 52.9**	**+1.8**
	comp=Z,69nm,1.1s						
SPSI	**Sidrap Palu**	**26.19**	**183**	P	**P**	**01 19 53.8**	**+1.9**
	comp=Z,2µmcomp=Z,23nm,1.8s						
GOMU	**GeErMu**	**26.64**	**307**	P	**P**	**01 19 55.5**	**-0.8**
GOMU				pP	pP	01 19 59.5	+1.1
GOMU				sP	sP	01 20 03.3	+4.0
GOMU				S	**S**	**01 24 31.3**	**-0.7**
GOMU				pmax	pmax		
	comp=Z,6.0nm,0.6s						
GOMU				L	L		
	comp=Z,540nm,11.2s						
GOMU				L	L		
	comp=Z,830nm,11.9s						
GOMU				L	L		
	comp=Z,1µm,11.9s						
BRDH	**Bariadhala**	**27.18**	**276**	LR	LR	01 32 30.1	
	comp=Z,552nm,20.1s,baz=132,slow=40						
KAPI	**Kappang**	**27.23**	**183**	LR	LR	01 32 32.0	
	comp=Z,329nm,19.1s,baz=10.0,slow=40						
KAPI	**Kappang**	**27.23**	**183**	*i* P	**P**	**01 19 57.4**	**-3.9**
KAPI				pmax	pmax		
	comp=Z,28nm,1.0s						
ULN	**Ulaanbaatar**	**27.83**	**340**	c*e*P	**P**	**01 20 06.9**	**+0.3**
ULN				pmax	pmax		
	comp=Z,32nm,1.7s						
ULN	**Ulaanbaatar**	**27.83**	**340**		**P**	**01 20 06.3**	**-0.4**
ULN				IAmb	IAmb	01 20 08.0	
	comp=Z,48nm,1.6s						
ULN	**Ulaanbaatar**	**27.83**	**340**	P	**P**	**01 20 07.0**	**+0.3**
	comp=Z,67nm,1.6s						
ULN	**Ulaanbaatar**	**27.83**	**340**	P	**P**	**01 20 06.7**	**+0.1**
	comp=Z,17nm,1.6s						
SONM	**Songino Array**	**28.02**	**339**	P	**P**	**01 20 08.2**	**-0.1**
	comp=Z,4.3nm,0.9s,baz=154,slow=9.3,SNR=19						
	comp=Z,4.3nm,0.9s						
SONM	**Songino Array**	**28.02**	**339**		**P**	**01 20 07.8**	**-0.4**
ASAJ	**Asahikawa**	**28.04**	**34**	LR	LR	01 32 12.2	
	comp=Z,442nm,21.7s,baz=262,slow=38						
KLR	**Kul'dur**	**28.12**	**15**	LR	LR	01 32 19.5	
	comp=Z,1µm,19.7s,baz=200,slow=38						
KLR	**Kul'dur**	**28.12**	**15**	*i* P	**P**	**01 20 08.6**	**-0.4**
KLR				pmax	pmax		
	comp=Z,8.0nm,1.5s						
HEH	**HeiHe**	**28.29**	**9**	*e*P	P	01 20 16.5	+6.1
MNSI	**Mandailing Nat**	**29.95**	**227**	P	**P**	**01 20 27.6**	**+2.0**
SDSI	**Sungai Dareh**	**30.05**	**222**	P	**P**	**01 20 29.2**	**+2.7**
	comp=Z,10nm,1.1s						
LBFI	**Labuhan Bajo,**	**30.67**	**182**	P	**P**	**01 20 32.1**	**+0.3**
JAY	**Jayapura**	**31.27**	**140**	LR	LR	01 31 05.1	
	comp=Z,542nm,20.8s,baz=325,slow=32						
MDSI	**Maura Dua**	**31.39**	**214**	P	**P**	**01 20 42.6**	**+4.4**
	comp=Z,33nm,1.2s						
KNGR	**Kungurtug, Tuv**	**33.68**	**333**	*i* P	**P**	**01 20 58.4**	**+0.2**
KNGR				pmax	pmax		
	comp=Z,18nm,1.2s						
WMQ	**Urumqi**	**34.88**	**316**	*e*P	**P**	**01 21 10.0**	**+1.4**
WMQ				pP	sP	01 21 15.8	+4.3
WMQ				ScP	**ScP**	**01 27 29.3**	**+1.9**
WMQ				pmax	pmax		
	comp=Z,18nm,0.7s						
WMQ				pmax	pmax		
	comp=Z,110nm,3.7s						
WMQ				L	L		
	comp=Z,720nm,20.5s						
WMQ				L	L		
	comp=Z,1µm,17.9s						
WMQ				L	L		
	comp=Z,660nm,18.9s						
DGZ	**Jazzator, Alta**	**38.01**	**324**	*i* P	**P**	**01 21 34.0**	**-1.3**
DGZ				pmax	pmax		
	comp=Z,12nm,1.4s						
ZSN	**Zaisan**	**38.32**	**320**	*e*P	**P**	**01 21 38.6**	**+0.8**
ZSN	**Zaisan**	**38.32**	**320**	*e*P	**P**	**01 21 38.6**	**+0.8**
KNRA	**Kununurra**	**38.54**	**168**		**P**	**01 21 37.6**	**-2.2**
MK31	**Makanchi Array**	**39.60**	**318**	*i* P	**P**	**01 21 48.4**	**-0.2**
MK31				pmax	pmax		
	comp=Z,25nm,1.2s						
MKAR	**Makanchi Array**	**39.60**	**318**	P	**P**	**01 21 49.1**	**+0.5**
	comp=Z,7.4nm,0.6s,baz=109,slow=10,SNR=38						
	comp=Z,7.4nm,0.6s						
MKAR	**Makanchi Array**	**39.60**	**318**		**P**	**01 21 48.5**	**-0.1**
MAKZ	**Makanchi**	**39.80**	**317**	P	**P**	**01 21 50.4**	**+0.1**

MAKZ				pmax	pmax		
	comp=Z,29nm,1.2s						
MAKZ	Makanchi	39.80	317		P	01 21 50.4	+0.1
MAKZ				IAmb	IAmb	01 21 52.0	
	comp=Z,29nm,1.1s						
MAKZ	Makanchi	39.80	317	P	P	01 21 51.0	+0.7
	comp=Z,25nm,1.1s						
YAK	Yakutsk	40.09	6	LR	LR	01 40 22.0	
	comp=Z,1µm,18.7s,baz=188,slow=39						
SHLS	Shalkode	40.17	311	*e*P	P	01 21 51.6	-1.9
SHLS	Shalkode	40.17	311	*e*P	P	01 21 51.7	-1.9
PDGK	Podgornoye	40.20	311	P	P	01 21 54.0	+0.2
PDGK	Podgornoye	40.20	311		P	01 21 54.0	+0.2
KRVT	Keravat (AS076	40.22	127	LR	LR	01 36 41.3	
	comp=Z,322nm,18.2s,baz=164,slow=33						
UZB	Uzynbulak	40.48	311	*e*P	P	01 21 56.6	+0.6
UZB	Uzynbulak	40.48	311	*e*P	P	01 21 56.6	+0.6
PMG	Port Moresby	40.62	138	LR	LR	01 39 14.4	
	comp=Z,202nm,18.4s,baz=253,slow=37						
KPKS	Kokpek	40.81	311	*e*P	P	01 21 58.8	+0.1
KPKS	Kokpek	40.81	311	*e*P	P	01 21 58.9	+0.1
SATY	Saty	40.88	311	*e*P	P	01 22 00.2	+0.8
SATY	Saty	40.88	311	*e*P	P	01 22 00.2	+0.8
TARG	Taragay, Kyrgy	40.96	308	P	P	01 22 00.5	+0.1
TARG				pmax	pmax		
	comp=Z,13nm,1.2s						
TARG	Taragay, Kyrgy	40.96	308		P	01 22 00.5	+0.1
TARG	Taragay, Kyrgy	40.96	308	P	P	01 22 02.5	+2.1
	comp=Z,9.6nm,1.3s						
PETK	Petropavlovsk-	41.44	33	LR	LR	01 39 21.6	
	comp=Z,399nm,19.9s,baz=223,slow=36						
TDK	Taldyqorghan	41.47	313	*e*P	P	01 22 04.9	+0.9
TDK				pmax	pmax		
	comp=Z,10.0nm,0.7s						
TDK	Taldyqorghan	41.47	313	*e*P	P	01 22 05.0	+0.9
	comp=Z,10nm,0.7s						
ASAI	AK-SAY(Kyrgyzs	41.71	307	P	P	01 22 07.9	+1.5
	comp=Z,5.5nm,2.0s						
ZAA0	Zalesovo Array	41.74	328		P	01 22 05.2	-0.9
ZAA0				IAmb	IAmb	01 22 07.0	
	comp=Z,39nm,1.4s						
ZALV	Zalesovo Beam	41.74	328	P	P	01 22 05.8	-0.3
	comp=Z,8.4nm,0.7s,baz=117,slow=8.0,SNR=39						
	comp=Z,8.4nm,0.7s						
MDOK	Medeo	41.87	310	*e*P	P	01 22 08.2	+0.7
MDOK	Medeo	41.87	310	*e*P	P	01 22 08.3	+0.7
PET	Petropavlovsk	41.87	33	*ce*P	P	01 22 06.7	-0.5
PET				pmax	pmax		
	comp=Z,80nm,1.7s						
PET	Petropavlovsk	41.87	33	P	P	01 22 05.4	-1.8
	comp=Z,53nm,1.5s						
TNSS	Tian-Shan	41.91	310	*e*P	P	01 22 08.7	+0.6
TNSS	Tian-Shan	41.91	310	*e*P	P	01 22 08.7	+0.6
AAA	Alma-Ata	41.97	310	*e*P	P	01 22 08.9	+0.7
AAA				pmax	pmax		
	comp=Z,13nm,0.5s						
AAA	Alma-Ata	41.97	310	*e*P	P	01 22 09.0	+0.7
	comp=Z,13nm,0.5s						
KSH2	Kashi	42.09	304	P	P	01 22 11.0	+1.6
KSH2				pmax	pmax		
	comp=Z,8.0nm,1.6s						
KSH2				L	L		
	comp=Z,590nm,14.3s						
KSH2				L	L		
	comp=Z,820nm,17.3s						
KSH2				L	L		
	comp=Z,880nm,15.9s						
NRN	Naryn	42.20	308	P	P	01 22 10.2	-0.3
NRN				pmax	pmax		
	comp=Z,26nm,1.2s						
NRN	Naryn	42.20	308		P	01 22 10.2	-0.3
NRN				IAmb	IAmb	01 22 12.8	
	comp=Z,26nm,1.2s						
KUU	Kurty	42.56	311	*e*P	P	01 22 13.7	+0.7
KUU	Kurty	42.56	311	*e*P	P	01 22 13.7	+0.7
MA2	Magadan	42.71	22	LR	LR	01 41 44.1	
	comp=Z,482nm,18.0s,baz=216,slow=38						
H11N1	WAKE ISLAND Hy	42.71	85	T	T	02 08 00.5	
	baz=282,slow=74						
H11N2	WAKE ISLAND Hy	42.71	85	T	T	02 08 00.2	
	baz=282,slow=74						
H11N3	WAKE ISLAND Hy	42.73	85	T	T	02 08 01.7	
	baz=282,slow=74						
H11S3	WAKE ISLAND Hy	42.79	87	T	T	02 08 03.5	
	baz=283,slow=74						
H11S1	WAKE ISLAND Hy	42.80	87	T	T	02 08 04.4	
	baz=283,slow=74						
H11S2	WAKE ISLAND Hy	42.80	87	T	T	02 08 04.8	
	baz=283,slow=74						
KURK	Kurchatov	43.45	321	*ce*P	P	01 22 20.6	+0.6
KURK				pmax	pmax		
	comp=Z,75nm,2.5s						
KURK	Kurchatov	43.45	321		P	01 22 19.2	-0.8
KURK	Kurchatov	43.45	321	P	P	01 22 20.4	+0.4
	comp=Z,25nm,1.4s						
KURBB	Kurchatov Arra	43.46	321	P	P	01 22 20.3	+0.2
	comp=Z,16nm,1.0s,baz=120,slow=7.3,SNR=53						
	comp=Z,16nm,1.0s						
KURBB	Kurchatov Arra	43.46	321	P	P	01 22 19.1	-1.0
AAK	Ala-Archa	43.56	309	*ce*P	P	01 22 21.9	+0.6
AAK				pmax	pmax		
	comp=Z,8.0nm,1.3s						
AAK	Ala-Archa	43.56	309		P	01 22 21.0	-0.3
AAK	Ala-Archa	43.56	309	P	P	01 22 22.9	+1.6
	comp=Z,6.6nm,1.4s						
SGDS	Sogindy	43.65	310	*e*P	P	01 22 22.2	+0.4
WB0	Warramunga Arr	43.84	162		P	01 22 20.9	-2.6
WB0				IAmb	IAmb	01 23 02.8	
	comp=Z,14nm,1.3s						
WRA	Warramunga Arr	43.99	162	P	P	01 22 21.9	-2.8
	comp=Z,4.5nm,0.8s,baz=346,slow=8.5,SNR=22						
	comp=Z,4.5nm,0.8s						
WRA	Warramunga Arr	43.99	162	*i* P	P	01 22 21.8	-2.9
WRA				pmax	pmax		
	comp=Z,5.0nm,0.8s						
WRA	Warramunga Arr	43.99	162		P	01 22 22.2	-2.4
WR8	Warramunga Arr	44.05	162		P	01 22 22.8	-2.4
ARSB	Arslanbob	44.41	307	P	P	01 22 28.1	0.0
ARSB				pmax	pmax		
	comp=Z,12nm,1.2s						
ARSB	Arslanbob	44.41	307		P	01 22 28.1	0.0
ARSB				IAmb	IAmb	01 22 30.3	
	comp=Z,12nm,1.2s						
DZA	Taraz	45.90	309	*e*P	P	01 22 40.6	+0.9
DZA				pmax	pmax		
	comp=Z,6.0nm,0.9s						
DZA	Taraz	45.90	309	*e*P	P	01 22 40.6	+0.9
	comp=Z,5.6nm,0.9s						
QIS	Mount Isa	46.32	156	P	P	01 22 41.7	-1.5
	comp=Z,12nm,0.9s						
KK31	Karatay Array	46.52	309	*i* P	P	01 22 44.8	+0.1
KK31	Karatay Array	46.52	309		P	01 22 45.0	+0.3
KK31				IAmb	IAmb	01 22 46.5	
	comp=Z,13nm,1.1s						
KKAR	Karatay Array	46.52	309	P	P	01 22 44.8	+0.1
KKAR	Karatay Array	46.52	309		P	01 22 44.8	+0.1
IUG	Iuzhnay	46.72	307	*e*P	P	01 22 47.0	+0.7
IUG				pmax	pmax		
	comp=Z,15nm,1.2s						
IUG	Iuzhnay	46.72	307	*e*P	P	01 22 47.1	+0.7
	comp=Z,15nm,1.2s						
KBL	Kabul	46.88	297	P	P	01 22 48.8	+0.9
	comp=Z,5.8nm,0.9s						
BRLS	Borolday	47.00	309	*e*P	P	01 22 49.5	+1.1
BRLS	Borolday	47.00	309	*e*P	P	01 22 49.6	+1.1
CHM	Chimkent	47.06	308	*e*P	P	01 22 49.3	+0.4
CHM				pmax	pmax		
	comp=Z,4.0nm,0.4s						
CHM	Chimkent	47.06	308	*e*P	P	01 22 49.3	+0.4
	comp=Z,4.3nm,0.4s						
AS31	Alice Springs	47.41	164		P	01 22 50.2	-1.6
ASAR	Alice Springs	47.41	164	P	P	01 22 49.7	-2.1
	comp=Z,1.7nm,0.5s,baz=342,slow=6.4,SNR=21						
	comp=Z,1.7nm,0.5s						
MEEK	Meekatharra	48.76	183	P	P	01 22 59.0	-3.2
	comp=Z,28nm,2.4s						
CTA	Charters Tower	48.82	148	LR	LR	01 42 14.0	
	comp=Z,319nm,21.3s,baz=20,slow=34						
BVAR	Borovoye Array	49.04	322	P	P	01 23 04.3	+0.3
	comp=Z,2.5nm,0.5s,baz=108,slow=9.5,SNR=20						
BVAR				PcP	PcP	01 24 27.3	-0.5
	comp=Z,3.7nm,0.9s,baz=79,slow=3.8,SNR=4.9						
	comp=Z,2.5nm,0.5s						
BORK	Borovoye	49.08	322	*i* P	P	01 23 04.6	+0.3
BORK				pmax	pmax		
	comp=Z,20nm,1.2s						
BORK	Borovoye	49.08	322		P	01 23 04.7	+0.3
BORK				IAmb	IAmb	01 23 06.0	
	comp=Z,20nm,1.2s						
HNR	Honiara	49.48	125	LR	LR	01 43 45.8	
	comp=Z,207nm,19.0s,baz=14,slow=36						
TIXI	Tiksi	49.52	3	LR	LR	01 46 56.0	
	comp=Z,1µm,19.6s,baz=193,slow=39						
NRIK	Noril'sk	51.14	345	P	P	01 23 18.5	-1.2
	comp=Z,1.8nm,0.4s,baz=143,slow=8.2,SNR=6.6						
NRIK				LR	LR	01 45 13.6	
	comp=Z,480nm,20.0s,baz=140,slow=36						
	comp=Z,1.8nm,0.4s						
NRIK	Noril'sk	51.14	345	*i* P	P	01 23 19.1	-0.6
NRIK				pmax	pmax		
	comp=Z,27nm,1.5s						
NRIK	Noril'sk	51.14	345		P	01 23 18.6	-1.0
FORT	Forrest	53.25	173		P	01 23 36.1	+0.3
FORT				IAmb	IAmb	01 23 41.6	
	comp=Z,11nm,0.8s						
AB31	Akbulak array	54.66	315	*i* P	P	01 23 45.8	-0.2
AB31	Akbulak array	54.66	315	P	P	01 23 46.3	+0.3
ABKAR	Akbulak array	54.66	315		P	01 23 46.1	+0.1
SVE	Sverdlovsk	55.47	325	*e*P	P	01 23 52.3	+0.6
SVE				pmax	pmax		
	comp=Z,25nm,1.3s						
AKTO	Aktyubinsk	56.02	317	P	P	01 23 55.3	-0.5
ARTI	Arti	56.61	324	P	P	01 23 59.3	-0.5
	comp=Z,8.1nm,0.8s,baz=105,slow=1.5,SNR=13						
	comp=Z,8.1nm,0.8s						
ARTI	Arti	56.61	324	*c i*P	P	01 23 59.5	-0.4
ARTI						01 24 53.5	
ARTI						01 26 02.6	
ARTI				S	S	01 31 52.9	+0.9
ARTI				SS	SS	01 35 38.5	-0.7
ARTI				pmax	pmax		
	comp=Z,24nm,1.5s						
ARTI				MLR	MLR		
	comp=Z,317nm,17.0s						
ARTI	Arti	56.61	324		P	01 23 59.7	-0.1
ARTI				IAmb	IAmb	01 25 54.8	
	comp=Z,18nm,1.1s						
STKA	Stephens Creek	57.39	159	P	P	01 24 03.2	-2.5
	comp=Z,3.8nm,0.8s,baz=353,slow=11,SNR=5.4						
STKA				LR	LR	01 51 57.4	
	comp=Z,88nm,18.1s,baz=9.7,slow=39						
	comp=Z,3.8nm,0.8s						
KIRV	Kirov	61.67	326	P	P	01 24 34.4	-0.4
	comp=Z,11nm,0.7s,baz=83,slow=4.7,SNR=14						
	comp=Z,11nm,0.7s						
KIRV	Kirov	61.67	326	*ce*P	P	01 24 34.8	-0.1
BELG	Belogornoye	62.59	319	*i* P	P	01 24 41.1	-0.1
BELG				pmax	pmax		
	comp=Z,6.0nm,1.1s						
MAK	Makhachkala	63.33	308	*c i*P	P	01 24 43.8	-2.5
MAK				*e*		01 27 05.6	
MAK				*e*PPP	PPP	01 28 40.2	
MAK				*e*S	S	01 33 16.4	-2.5
MAK				*e*SS	SS	01 37 33.5	+8.4
MAK				pmax	pmax		
	comp=Z,262nm,1.0s						
MAK				MLR	MLR		
	comp=Z,530nm,14.0s						
AKT	Akhty	63.34	306	*e*P	P	01 24 46.8	+0.3
AKT				pmax	pmax		
	comp=Z,14nm,1.1s						
J17K	VABM Dome	65.72	29	P	P	01 25 01.7	+0.2
GNI	Garni	65.77	305	*ce*P	P	01 25 01.7	-0.9
GNI				pmax	pmax		
	comp=Z,25nm,1.7s						
GNI	Garni	65.77	305	P	P	01 25 01.6	-1.0
	comp=Z,8.7nm,1.4s						
VRH	Novokhopyorsk	66.33	318	*e*P	P	01 25 04.8	-0.9
VRH				pmax	pmax		
	comp=Z,45nm,1.4s						
KBZ	Khabaz	66.56	309	P	P	01 25 07.9	+0.6
	comp=Z,9.0nm,1.1s,baz=88,slow=5.7,SNR=7.3						
	comp=Z,9.0nm,1.1s						
KBZ	Khabaz	66.56	309	*ce*P	P	01 25 08.6	+1.3
KBZ				pmax	pmax		
	comp=Z,14nm,1.1s						
KLMR	Klimovskoe	66.66	328	*e*P	P	01 25 05.5	-2.1
KLMR				pmax	pmax		
	comp=Z,41nm,1.4s						
KLMR				MLR	MLR		
	comp=Z,720nm,16.0s						
KVAR	Kislovodsk Arr	66.67	310	LR	LR	01 58 02.6	
	comp=Z,273nm,20.4s,baz=271,slow=39						
KIV	Kislovodsk	66.67	310	*e*P	P	01 25 08.7	+0.5
KIV				*e*S	S	01 34 03.0	+2.8
KIV				pmax	pmax		
	comp=Z,18nm,1.0s						
KIV				MLR	MLR		
	comp=Z,223nm,17.0s						
KIV	Kislovodsk	66.67	310		P	01 25 08.2	0.0
KIV	Kislovodsk	66.67	310	P	P	01 25 08.4	+0.2
	comp=Z,18nm,1.4s						
SHA1	Shidzhatmaz	66.73	309	*ce*P	P	01 25 10.5	+1.8
VORR	Voronezh	67.83	318	*e*P	P	01 25 14.8	-0.4
VORR				pmax	pmax		
	comp=Z,17nm,0.4s						
LPSR	Galich'ya Gora	67.87	319	*e*P	P	01 25 14.6	-0.9
LPSR				pmax	pmax		
	comp=Z,39nm,1.4s						
VORD	Divnogorie	67.88	318	*e*P	P	01 25 12.7	-2.9
VORD				pmax	pmax		
	comp=Z,10.0nm,1.0s						
VSR	Storozhevoye	67.92	318	*e*P	P	01 25 15.0	-0.8
VSR				pmax	pmax		
	comp=Z,19nm,1.1s						
ERBR	Yeremizino-Bor	67.93	312	*e*P	P	01 25 15.5	-0.5
ERBR				pmax	pmax		
	comp=Z,35nm,1.1s						
ERBR				MLR	MLR		
	comp=Z,389nm,17.0s						
GURO	Guroymak-BITLI	68.13	304	P	P	01 25 17.4	-0.2
MOS	Moscow	68.19	323	*e*P	P	01 25 17.6	+0.2
MOS				*e*		01 25 40.9	
MOS				pmax	pmax		
	comp=Z,26nm,1.0s						
MOS				MLR	MLR		
	comp=Z,500nm,23.0s						
MOS				MLR	MLR		
	comp=E,500nm,22.0s						
D23K	Nanushuk River	68.72	23	P	P	01 25 20.9	+0.3
D23K				IAmb	IAmb	01 25 23.7	
	comp=Z,17nm,1.4s						
RAYN	Ar Rayn	68.80	288	P	P	01 25 21.0	-0.9
RAYN				pmax	pmax		
	comp=Z,10.0nm,1.1s						
RAYN	Ar Rayn	68.80	288		P	01 25 21.0	-0.9
RAYN				IAmb	IAmb	01 25 23.0	
	comp=Z,10nm,1.1s						
RAYN	Ar Rayn	68.80	288	P	P	01 25 22.0	+0.1
	comp=Z,10nm,1.3s						
SOC	Sochi	68.86	310	*e*P	P	01 25 21.7	-0.1
SOC				*e*		01 27 52.9	
SOC				*e*PPP	PPP	01 29 36.8	
SOC				*e*S	S	01 34 28.3	+2.1
SOC				*e*SS	SS	01 38 56.4	+5.5
SOC				pmax	pmax		
	comp=Z,10.0nm,0.8s						
SOC				MLR	MLR		
	comp=Z,238nm,15.0s						
OBN	Obninsk	68.88	322	P	P	01 25 20.9	-0.8
	comp=Z,8.4nm,0.5s,baz=38,slow=23,SNR=5.7						
	comp=Z,8.4nm,0.5s						
OBN	Obninsk	68.88	322	*e*P	P	01 25 22.0	+0.3
OBN				*i*		01 25 31.5	
OBN				*i*		01 25 44.3	
OBN				*i*		01 27 59.4	
OBN				*i* PPP	PPP	01 29 34.6	
OBN				pmax	pmax		
	comp=Z,24nm,1.3s						
F24K	Squaw Lake	69.96	24		P	01 25 27.2	-1.1
F24K				IAmb	IAmb	01 26 14.9	
	comp=Z,5.0nm,1.1s						
ANN	Anapa	70.22	311	*e*P	P	01 25 29.1	-1.1
ANN				pmax	pmax		
	comp=Z,31nm,1.1s						
ANN				MLR	MLR		
	comp=Z,302nm,18.0s						
ILAR	Eielson Array	70.88	27	P	P	01 25 32.2	-1.7
	comp=Z,0.2nm,0.5s,baz=281,slow=6.3,SNR=1.9						
ILAR				LR	LR	01 58 50.0	
	comp=Z,144nm,19.1s,baz=251,slow=38						
	comp=Z,0.2nm,0.5s						
ARCES	ARCESS Array B	71.20	338	P	P	01 25 34.5	-1.3
	comp=Z,2.6nm,0.9s,baz=33,slow=7.2,SNR=4.4						
	comp=Z,2.6nm,0.9s						
SPITS	Spitsbergen Ar	71.24	348	P	P	01 25 35.7	-0.2
	comp=Z,1.5nm,0.4s,baz=78,slow=8.0,SNR=6.5						
SPITS				LR	LR	02 00 02.9	
	comp=Z,179nm,21.6s,baz=58,slow=38						
	comp=Z,1.5nm,0.4s						
BNN	Bunyan	72.77	305	P	P	01 25 45.2	-0.7
BNN				IAmb	IAmb	01 25 47.3	
	comp=Z,11nm,1.2s						
FINES	FINESS Array B	72.97	330	P	P	01 25 46.2	-0.3
	comp=Z,3.2nm,0.7s,baz=58,slow=6.5,SNR=16						
	comp=Z,3.2nm,0.7s						
VSU	Vasula	73.45	327	*ce*P	P	01 25 49.7	+0.3
VSU				pmax	pmax		
	comp=Z,12nm,1.3s						
MNK	Minsk	73.92	323	*i* P	P	01 25 51.4	-0.7
MNK				*i*		01 28 40.4	
MNK				*i* PPP	PPP	01 30 22.0	
MNK				*i* S	S	01 35 26.1	+1.8
MNK				*i* SS	SS	01 40 11.7	+3.8
MNK				pmax	pmax		
	comp=Z,13nm,1.0s						
MNK				pmax	pmax		
	comp=N,14nm,1.0s						
MNK				pmax	pmax		
	comp=E,4.0nm,0.9s						
MNK				MLR	MLR		
	comp=E,91nm,14.0s						
MNK				MLR	MLR		
	comp=Z,254nm,21.0s						
MNK				MLR	MLR		
	comp=N,208nm,20.0s						
MNK	Minsk	73.92	323	*i* P	P	01 25 51.5	-0.7
	comp=E,4.0nm,0.9s						
MNK				*i* P	P	01 25 51.5	-0.7
	comp=N,14nm,1.0s						
MNK				*i* P	P	01 25 51.5	-0.7
	comp=Z,13nm,1.0s,baz=74						
MNK				*i* PP	PP	01 28 40.4	+3.6
MNK				*i* PPP	PPP	01 30 22.0	
MNK				*i* S	S	01 35 26.2	+1.8
MNK				*i* SS	SS	01 40 11.8	+3.8
MNK				*i* SSS	SSS	01 43 35.6	
MNK				*i* LQ	LQ	01 53 35.4	
MNK				*i* LR	LR	01 58 29.3	
MNK				*i* LRM	MLR	02 00 54.5	
	comp=E,91nm,14.2s						
MNK				*i* LRM	MLR	02 01 45.6	
	comp=Z,254nm,21.4s						
MNK				*i* LRM	MLR	02 01 54.5	
	comp=N,208nm,19.7s						
AK09	Malin Array Si	74.16	319	P	P	01 25 52.8	-0.9
AK03	Malin Array Si	74.17	319	P	P	01 25 52.7	-1.0
AK08	Malin Array Si	74.17	319	P	P	01 25 52.8	-1.0
AKASG	Malin Array Be	74.17	319	P	P	01 25 52.8	-1.0
	comp=N,1.0nm,0.6s,baz=63,slow=5.4,SNR=10						
	comp=N,1.0nm,0.6s						
AKASG	Malin Array Be	74.17	319	IAmb	IAmb	01 25 54.4	
	comp=Z,16nm,1.6s						
AKBB	Malin Array Si	74.17	319	*ce*P	P	01 25 51.9	-1.9
AKBB				pmax	pmax		
	comp=Z,17nm,1.5s						
AKBB	Malin Array Si	74.17	319		P	01 25 53.1	-0.6
AKBB				IAmb	IAmb	01 25 54.0	
	comp=Z,22nm,1.6s						
AKBB	Malin Array Si	74.17	319	P	P	01 25 52.9	-0.9
AK01	Malin Array Si	74.18	319	P	P	01 25 53.1	-0.7
AK10	Malin Array Si	74.19	319	P	P	01 25 53.1	-0.7
BR131	Keskin Array S	74.19	307	P	P	01 25 53.8	-0.5
BR131				pmax	pmax		
	comp=Z,8.0nm,1.2s						
BR131	Keskin Array S	74.19	307		P	01 25 53.8	-0.5
BR131				IAmb	IAmb	01 25 55.4	
	comp=Z,7.7nm,1.2s						
BRTR	Keskin Array B	74.19	307	P	P	01 25 53.3	-1.0
	comp=Z,3.8nm,1.1s,baz=116,slow=5.6,SNR=15						
BRTR				LR	LR	02 02 01.4	
	comp=Z,130nm,19.2s,baz=80,slow=38						
	comp=Z,3.8nm,1.1s						
BRTR	Keskin Array B	74.19	307	*i* P	P	01 25 54.5	+0.2
BRTR				pmax	pmax		
	comp=Z,3.0nm,1.0s						
BRTR	Keskin Array B	74.19	307		P	01 25 53.7	-0.5
KIEV	Kiev	74.19	319	P	P	01 25 53.1	-0.7
KIEV				pmax	pmax		
	comp=Z,18nm,1.5s						
KIEV	Kiev	74.19	319		P	01 25 53.1	-0.7
KIEV				IAmb	IAmb	01 25 54.1	
	comp=Z,18nm,1.5s						
KIEV	Kiev	74.19	319	P	P	01 25 52.9	-0.9
	comp=Z,32nm,1.5s						
AK02	Malin Array Si	74.20	319	P	P	01 25 52.8	-1.1
BAL3X	Bal3x, Balta	74.71	316	P	P	01 25 55.9	-1.0
ATD	Arta Tunnel	74.93	276	LR	LR	01 58 25.3	
	comp=Z,6.0nm,19.4s,baz=46,slow=35						
PURM	Purcari	74.93	314	P	P	01 25 57.4	-0.8
INK	Inuvik	74.95	22	P	P	01 25 56.0	-1.9
	comp=Z,2.0nm,0.7s,baz=341,slow=9.5,SNR=3.7						
INK				LR	LR	02 02 00.1	
	comp=Z,213nm,18.2s,baz=270,slow=38						
	comp=Z,2.0nm,0.7s						
INK	Inuvik	74.95	22	P	P	01 25 56.0	-1.9
INK	Inuvik	74.95	22	IAmb	IAmb	01 26 22.9	
	comp=Z,11nm,1.4s						
LUBAR	Lubar, Ukraine	75.30	318	P	P	01 25 59.4	-0.9
SORM	Soroca	75.45	316	P	P	01 26 00.5	-0.7
	comp=Z,7.7nm,1.3s						
PABE	Paberze	75.78	324		P	01 26 02.4	-0.5
RNPP9	Sopachiv	75.98	320	P	P	01 26 03.5	-0.7
RNPP8	Varash	76.02	320	P	P	01 26 03.9	-0.5
RNPP5	Staryi Chortor	76.04	320	P	P	01 26 03.7	-0.8
TESR	Tescani	77.06	315	P	P	01 26 09.6	-0.8
	comp=Z,9.6nm,1.6s						
ISP	Isparta	77.07	306	*ce*P	P	01 26 10.8	0.0
ISP				pmax	pmax		
	comp=Z,16nm,1.7s						
VRI	Vrincioaia	77.21	314	P	P	01 26 10.5	-0.8
	comp=Z,15nm,1.3s						
BURAR	Bucovina Array	77.62	316		P	01 26 12.8	-0.9
BUR08	Bucovina Ar. S	77.62	316		P	01 26 13.0	-0.7
BUR08				IAmb	IAmb	01 26 14.9	
	comp=Z,6.6nm,1.2s						
MLR	Muntele Rosu	77.85	314	P	P	01 26 14.4	-0.7
	comp=Z,7.2nm,2.0s						
ELL	Elmali	77.88	305	P	P	01 26 15.0	-0.4
ELL				pmax	pmax		
	comp=Z,14nm,1.0s						
ELL	Elmali	77.88	305		P	01 26 14.9	-0.4
ELL				IAmb	IAmb	01 26 16.0	
	comp=Z,14nm,1.0s						
KWP	Kalwaria Pacla	78.49	319	*e*P	P	01 26 18.2	-0.1
KWP	Kalwaria Pacla	78.49	319	P	P	01 26 17.6	-0.7
	comp=Z,22nm,1.4s						
ARG	Arkhangelos	79.41	305	P	P	01 26 23.2	-0.4
ARG				pmax	pmax		
	comp=Z,17nm,1.1s						
ARG	Arkhangelos	79.41	305		P	01 26 23.2	-0.4
ARG				IAmb	IAmb	01 26 24.4	
	comp=Z,17nm,1.1s						
EZN	Ezine	79.51	309	P	P	01 26 23.7	-0.4
	comp=Z,13nm,1.2s						
NOA	NORSAR Array B	79.79	332	P	P	01 26 24.4	-0.9
	comp=Z,2.0nm,1.0s,baz=58,slow=5.9,SNR=4.5						
	comp=Z,2.0nm,1.0s						
URZ	Urewera	79.97	138	LR	LR	02 00 57.1	
	comp=Z,135nm,19.5s,baz=299,slow=35						
OJC	Ojcow	80.01	320	*e*P	P	01 26 26.5	-0.1
OJC	Ojcow	80.01	320	P	P	01 26 26.1	-0.6
OJC	Ojcow	80.01	320		P	01 26 26.1	-0.6
OJC	Ojcow	80.01	320	P	P	01 26 26.1	-0.6
	comp=Z,14nm,1.4s						
NIE	Niedzica	80.02	319	*e*P	P	01 26 27.3	+0.6
RPZ	Rata Peaks	80.13	146	LR	LR	02 01 44.9	
	comp=Z,25nm,18.2s,baz=115,slow=36						
RES	Resolute Bay	80.47	9	LR	LR	02 04 32.6	
	comp=Z,166nm,21.4s,baz=356,slow=37						
JMIC	Jan Mayen	80.57	345	LR	LR	02 05 00.3	
	comp=Z,337nm,21.8s,baz=48,slow=38						
PSZ	Piszkesteto	80.85	318	P	P	01 26 31.1	-0.2
PSZ				pmax	pmax		
	comp=Z,12nm,1.3s						
PSZ	Piszkesteto	80.85	318	P	P	01 26 31.1	-0.2
PSZ				IAmb	IAmb	01 26 36.8	
	comp=Z,12nm,1.3s						

VYHS	**Vyhne**	**81.28**	**319**	eP	**P**	**01 26 33.6**	**+0.1**
VYHS				pmax	pmax		
	comp=Z,12nm,1.2s						
VYHS	**Vyhne**	**81.28**	**319**	eP	**P**	**01 26 33.6**	**+0.1**
STEB	**Steborice**	**81.33**	**320**	eP	P	01 26 59.1	+25
MORC	**Moravsky Berou**	**81.53**	**320**	P	**P**	**01 26 34.7**	**-0.1**
MORC				pmax	pmax		
	comp=Z,6.0nm,1.2s						
MORC	**Moravsky Berou**	**81.53**	**320**		**P**	**01 26 34.6**	**-0.1**
MORC	**Moravsky Berou**	**81.53**	**320**	eP	**P**	**01 26 34.9**	**+0.1**
KSP	**Ksiaz**	**81.80**	**322**	eP	**P**	**01 26 36.3**	**+0.1**
KSP	**Ksiaz**	**81.80**	**322**	P	**P**	**01 26 35.5**	**-0.7**
	comp=Z,8.8nm,1.4s						
JAVC	**Velka Javorina**	**81.83**	**320**	eP	**P**	**01 26 37.9**	**+1.4**
OSTC	**Ostas**	**81.97**	**321**	AMS	AMS	02 06 40.0	
	comp=Z,300nm,12.6s						
DPC	**Dobruska-Polom**	**82.00**	**321**	AMS	AMS	02 08 20.0	
	comp=Z,300nm,13.6s						
UPC	**Upice**	**82.11**	**322**	AMS	AMS	02 07 40.0	
	comp=Z,300nm,17.1s						
VRAC	**Vranov**	**82.28**	**320**	LR	LR	02 06 32.8	
	comp=Z,351nm,19.1s,baz=50,slow=38						
VRAC	**Vranov**	**82.28**	**320**	eP	**P**	**01 26 38.8**	**0.0**
MORH	**Mrgy, Hungar**	**82.32**	**317**	P	**P**	**01 26 38.5**	**-0.5**
	comp=Z,8.5nm,2.1s						
KRUC	**Moravsky**	**82.51**	**320**	eP	**P**	**01 26 39.7**	**-0.2**
MPLH	**Magyarpolny**	**82.62**	**318**	P	**P**	**01 26 39.8**	**-0.7**
	comp=Z,28nm,1.5s						
WINA	**Alland / Wiene**	**83.11**	**319**	eP	**P**	**01 26 43.8**	**+0.7**
	comp=Z,8.1nm,1.3s						
BRG	**Berggiesshubel**	**83.13**	**322**	eP	**P**	**01 26 43.3**	**+0.2**
BRG				Amp		01 26 45.2	
	comp=Z,13nm,1.5s						
RONA	**Rosalia, Austr**	**83.15**	**319**	eP	**P**	**01 26 44.5**	**+1.1**
	comp=Z,6.8nm,1.3s						
PRU	**Pruhonice**	**83.19**	**321**	AMS	AMS	02 09 00.0	
	comp=Z,300nm,16.6s						
ABNA	**Allensteig Bun**	**83.25**	**320**	eP	**P**	**01 26 44.3**	**+0.5**
	comp=Z,12nm,1.3s						
CONA	**Conrad Observa**	**83.32**	**319**	eP	**P**	**01 26 44.5**	**+0.2**
	comp=Z,9.3nm,1.5s						
CLL	**Collm**	**83.45**	**323**	P	**P**	**01 26 44.1**	**-0.7**
CLL				pmax	pmax		
	comp=Z,15nm,1.5s						
CLL	**Collm**	**83.45**	**323**		**P**	**01 26 44.1**	**-0.7**
CLL				IAmb	IAmb	01 26 46.3	
	comp=Z,15nm,1.5s						
CLL	**Collm**	**83.45**	**323**	P	**P**	**01 26 44.0**	**-0.7**
	comp=Z,7.2nm,1.4s						
CLL	**Collm**	**83.45**	**323**	i P	**P**	**01 26 44.1**	**-0.7**
	comp=Z,11nm,1.3s						
CLL				eS	**S**	**01 37 04.0**	**-2.5**
CLL				eSP	**SPn**	**01 37 51.0**	**-5.0**
KHC	**Kasperske Hory**	**84.13**	**321**	ceP	**P**	**01 26 49.4**	**+1.0**
KHC				pmax	pmax		
	comp=Z,10.0nm,1.3s						
KHC	**Kasperske Hory**	**84.13**	**321**	eP	**P**	**01 26 46.9**	**-1.5**
KHC				AMS	AMS	02 08 10.0	
	comp=Z,300nm,15.8s						
KHC	**Kasperske Hory**	**84.13**	**321**		**P**	**01 26 48.1**	**-0.3**
KHC				IAmb	IAmb	01 26 50.5	
	comp=Z,11nm,1.3s						
KHC	**Kasperske Hory**	**84.13**	**321**	P	**P**	**01 26 48.1**	**-0.3**
	comp=Z,7.0nm,1.5s						
GEC2	**GERESS Array S**	**84.19**	**321**		**P**	**01 26 48.3**	**-0.5**
GEC2				IAmb	IAmb	01 26 49.9	
	comp=Z,11nm,1.3s						
GERES	**GERESS Array B**	**84.19**	**321**	P	**P**	**01 26 48.2**	**-0.5**
	comp=Z,5.9nm,1.1s,baz=57,slow=3.7,SNR=18						
GERES				LR	LR	02 09 05.6	
	comp=Z,384nm,18.8s,baz=24,slow=39						
	comp=Z,5.9nm,1.1s						
MOA	**Molln**	**84.31**	**320**	P	**P**	**01 26 49.5**	**+0.2**
	comp=Z,15nm,1.5s,SNR=6.2						
SOKA	**Soboth**	**84.38**	**318**	P	**P**	**01 26 49.2**	**-0.5**
	comp=Z,12nm,1.4s,SNR=5.5						
SESA	**Seetaler Alpe,**	**84.47**	**319**	P	**P**	**01 26 49.5**	**-0.9**
	comp=Z,42nm,1.2s,SNR=10						
YKA	**Yellowknife Ar**	**84.68**	**23**	P	**P**	**01 26 49.6**	**-1.2**
	comp=Z,0.7nm,0.4s,baz=308,slow=5.0,SNR=11						
	comp=Z,0.7nm,0.4s						
BIOA	**Bad Ischl, Aus**	**84.76**	**320**	eP	**P**	**01 26 51.1**	**-0.5**
	comp=Z,4.3nm,1.0s						
LESA	**Schwarzleotal**	**85.46**	**320**	eP	**P**	**01 26 54.1**	**-1.0**
	comp=Z,11nm,1.5s						
ABTA	**Abfaltersbach**	**85.88**	**319**	eP	**P**	**01 26 56.0**	**-1.3**
	comp=Z,8.0nm,1.0s						
STAL	**STALIGIAL**	**86.00**	**319**	P	**P**	**01 26 56.8**	**-1.0**
WTTA	**Wattenberg**	**86.16**	**320**	eP	**P**	**01 26 57.9**	**-0.9**
	comp=Z,7.2nm,1.3s						
WATA	**Walderalm**	**86.16**	**320**	eP	**P**	**01 26 57.9**	**-0.8**
	comp=Z,9.7nm,1.5s						
SQTA	**Sankt Quirin**	**86.44**	**320**	eP	**P**	**01 26 59.3**	**-0.8**
	comp=Z,6.6nm,1.1s						
MOTA	**Moosalm**	**86.44**	**320**	eP	**P**	**01 26 59.2**	**-0.9**
	comp=Z,6.6nm,1.3s						
FUORN	**Ofenpass-Fuorn**	**87.30**	**320**		**P**	**01 27 04.0**	**-0.4**
NRCA	**Norcia**	**87.36**	**316**	P	**P**	**01 27 04.3**	**-0.3**
DAVOX	**Davos/Dischmat**	**87.45**	**320**	LR	LR	02 09 32.8	
	comp=Z,302nm,19.0s,baz=28,slow=38						
TUE	**Stuetta**	**87.92**	**320**	P	**P**	**01 27 06.3**	**-1.0**
BORG	**Borgarnes**	**88.46**	**345**	LR	LR	02 09 59.4	
	comp=Z,348nm,19.6s,baz=27,slow=38						
EKA	**Eskdalemuir Ar**	**89.27**	**332**	LR	LR	02 11 31.9	
	comp=Z,708nm,18.4s,baz=47,slow=38						
MBAR	**Mbarara**	**90.55**	**270**	LR	LR	02 10 40.6	
	comp=Z,80nm,18.9s,baz=60,slow=37						
FRB	**Frobisher Bay**	**93.85**	**4**	LR	LR	02 12 33.6	
	comp=Z,202nm,19.9s,baz=328,slow=37						
PPT	**Papeete**	**95.92**	**106**	LR	LR	02 01 56.8	
	comp=Z,40nm,21.0s,baz=288,slow=30						
LSZ	**Lusaka**	**98.29**	**257**	LR	LR	02 09 12.4	
	comp=Z,71nm,20.4s,baz=80,slow=33						
ESDC	**Sonseca Array**	**99.78**	**320**	LR	LR	02 17 05.0	
	comp=Z,173nm,19.1s,baz=32,slow=38						

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*IDC **29** 01:15:12.9±0.7, 52°.00N×169°.67W, h0^{km}, mb4.3/29, mbtmp4.3/32, ML4.1/3, MS3.6/2, Error ellipse: s-maj=19.2km s-min=11.3km az=168.0*

*AEIC **29** 01:15:15.6±2.5, 51°.83N±0°.05×169°.48W±0°.04, h30^{km}±4^{km}, Error ellipse: s-maj=6.9km s-min=3.5km az=198.0*

*NEIC **29** 01:15:15.0±1.9, 51°.97N±0°.05×169°.55W±0°.07, h10^{km}±1^{km}, mb4.3/84, ML4.1/18, ML3.8(AEIC), Error ellipse: s-maj=9.7km s-min=6.4km az=143.0*

ISC 29 01:15:13.1±2.9**, 51°.88N**±0°.07×**169°.52W**±0°.04**, h4**^{km}±17^{km}**, n219,** σ1^{s}**13**/220**, mb4.4**/73**, MS3.7**/3**, 2D, Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CLCO	**Concord Point,**	**0.91**	**352**		**Pb**	**01 15 33.1**	**+1.6**
CLCO					**Sn**	**01 15 46.1**	**-0.2**
CLES	**Cleveland East**	**0.97**	**346**		**Pb**	**01 15 33.4**	**+0.9**
CLES				Sn	**Sb**	**01 15 44.7**	**-0.9**
CLES				IAML		01 15 50.9	
	comp=E,6µm,0.7s						
CLES				IAML		01 15 57.1	
	comp=N,10µm,0.8s						
OKSP	**Okmok Steeple**	**1.56**	**28**		**Pn**	**01 15 41.8**	**+0.1**
OKSP					**Sn**	**01 16 01.9**	**-0.5**
OKCE	**Okmok Cone E**	**1.75**	**28**		**Pn**	**01 15 45.1**	**+0.9**
OKTU	**Okmok Mt. Tuli**	**1.75**	**30**		**Pn**	**01 15 44.9**	**+0.7**
OKNC	**Okmok New Cone**	**1.79**	**28**		**Pn**	**01 15 45.9**	**+1.2**
MAPS	**Pakushin South**	**2.48**	**38**		**Sn**	**01 16 24.6**	**-0.4**
MGOD	**Makushin Gods**	**2.50**	**39**		**Pn**	**01 15 55.5**	**+1.0**
MGOD					**Sn**	**01 16 25.8**	**+0.3**
MSW	**Makushin Switc**	**2.62**	**38**		**Pn**	**01 15 57.0**	**+0.8**
MNAT	**Makushin Natee**	**2.64**	**39**		**Pn**	**01 15 57.3**	**+0.9**
UNV	**Unalaska Valle**	**2.68**	**42**		**Pn**	**01 15 58.2**	**+1.2**
UNV	**Unalaska Valle**	**2.68**	**42**		**Sn**	**01 16 29.6**	**-0.3**
UNV	**Unalaska Valle**	**2.68**	**42**	IAML		01 16 57.6	
	comp=N,381nm,0.8s						
KOSE	**Korovin Southe**	**2.83**	**281**		**Pn**	**01 16 00.2**	**+1.1**
KOFP	**Korovin Flat P**	**2.85**	**280**		**Pn**	**01 16 00.7**	**+1.3**
KOFP					**Sn**	**01 16 34.8**	**+0.6**
KOFP					**Sb**	**01 16 35.9**	**-3.9**
KOKV	**Korovin Volcan**	**2.90**	**281**		**Pn**	**01 16 01.2**	**+1.1**
ATKA	**Atka Island**	**2.91**	**278**		**Pn**	**01 16 00.7**	**+0.6**
ATKA	**Atka Island**	**2.91**	**278**		**Sn**	**01 16 33.6**	**-1.8**
ATKA	**Atka Island**	**2.91**	**278**	IAML		01 16 36.4	
	comp=E,227nm,0.7s						
ATKA				IAML		01 16 59.2	
	comp=N,187nm,0.8s						
KOKL	**Mount Kliuchef**	**2.92**	**281**		**Pn**	**01 16 01.5**	**+1.2**
KOWE	**Korovin West**	**2.96**	**281**		**Pn**	**01 16 02.0**	**+1.2**
AKRB	**Akutan Reef Bi**	**3.07**	**41**		**Pn**	**01 16 03.8**	**+1.5**
AKRB					**Pb**	**01 16 04.9**	**-3.3**
AKBBA	**Akutan Broad B**	**3.10**	**43**		**Pn**	**01 16 04.1**	**+1.3**
AKBBA					Pb	01 16 04.7	-4.1
LVA	**Lava Point**	**3.10**	**41**		**Pn**	**01 16 01.8**	**-1.0**
LVA				IAML		01 17 04.8	
	comp=E,639nm,1.0s						
LVA				IAML		01 17 08.4	
	comp=N,1µm,0.8s						
AKUT	**Akutan**	**3.19**	**44**		**Pn**	**01 16 04.0**	**0.0**
AKUT				IAML		01 17 05.3	
	comp=N,261nm,0.8s						
GSIG	**Igitkin Island**	**3.97**	**274**		**Pn**	**01 16 15.6**	**+0.9**
GSMY	**Great Sitkin M**	**4.05**	**275**		**Pn**	**01 16 17.2**	**+1.4**
GSTR	**Great Sitkin T**	**4.05**	**276**	Pn	**Pn**	**01 16 16.4**	**+0.5**
GSTD	**Great Sitkin T**	**4.10**	**275**		**Pn**	**01 16 17.7**	**+1.1**
ETKA	**Kagalaska Isla**	**4.27**	**272**		**Pn**	**01 16 19.8**	**+1.0**
SSLS	**Shishaldin Sou**	**4.36**	**47**		**Pn**	**01 16 20.8**	**+0.8**
ADAG	**Mount Adagdak**	**4.39**	**274**		**Pn**	**01 16 21.9**	**+1.5**
ADK	**Adak**	**4.44**	**273**		**Pn**	**01 16 21.8**	**+0.6**
ADK				IAML		01 17 34.7	
	comp=N,149nm,1.2s						
ADK				IAML		01 17 42.0	
	comp=N,140nm,1.3s						
KIRH	**Kanaga Island**	**4.69**	**273**		**Pn**	**01 16 25.9**	**+1.3**
KIWB	**Kanaga Island**	**4.73**	**273**		**Pn**	**01 16 25.8**	**+0.7**
KIWB				IAML		01 17 24.9	
	comp=N,169nm,0.6s						
KIWB				IAML		01 17 54.6	
	comp=E,130nm,0.8s						
KIKV	**Kanaga Island**	**4.74**	**273**		**Pn**	**01 16 27.0**	**+1.7**
KIMD	**Kanaga Island**	**4.79**	**272**		**Pn**	**01 16 26.9**	**+1.0**
TAPA	**Tanaga Point A**	**5.14**	**273**		**Pn**	**01 16 32.5**	**+1.6**
TAFL	**Tanaga Flats**	**5.20**	**272**		**Pn**	**01 16 33.0**	**+1.5**
TASE	**Tanaga Southea**	**5.28**	**273**		**Pn**	**01 16 34.9**	**+2.2**
SPIA	**Saint Paul Isl**	**5.32**	**356**	Pn	**Pn**	**01 16 34.8**	**+1.6**
DT1	**Dutton Round H**	**5.39**	**50**		**Pn**	**01 16 36.1**	**+1.9**
DOL	**Dolgoi Island**	**5.62**	**51**		**Pn**	**01 16 38.5**	**+1.2**
GANE	**Gareloi Northe**	**5.74**	**273**		**Pn**	**01 16 41.7**	**+2.7**
GALAA	**Gareloi Lava P**	**5.74**	**272**		**Pn**	**01 16 41.4**	**+2.4**
GAKI	**Gareloi-Kavalg**	**5.79**	**270**		**Pn**	**01 16 41.4**	**+1.7**
GASW	**Gareloi Southw**	**5.79**	**273**		**Pn**	**01 16 41.8**	**+2.1**
SDPT	**Sand Point**	**6.40**	**54**	Pn	**Pn**	**01 16 49.0**	**+1.0**
CNBA	**Chernabura Isl**	**6.63**	**60**	Pn	**Pn**	**01 16 51.1**	**-0.1**
CEPE	**Semis' Perret**	**6.70**	**275**		**Pn**	**01 16 55.0**	**+2.8**
CESW	**Semis' Southwe**	**6.76**	**274**		**Pn**	**01 16 55.0**	**+2.0**
AMKA	**Amchitka**	**6.98**	**270**		**Pn**	**01 16 57.6**	**+1.6**
VNFG	**Fog Glacier, M**	**7.33**	**49**	Pn	**Pn**	**01 17 01.2**	**+0.3**
LSNW	**Little Sitkin**	**7.40**	**275**		**Pn**	**01 17 03.7**	**+1.9**
CHGN	**Chignik**	**7.88**	**52**	Pn	**Pn**	**01 17 09.3**	**+0.9**
O15K	**Ungalikthiuk R**	**9.14**	**33**	Pn	**Pn**	**01 17 27.4**	**+1.9**
O16K	**Kokwok River B**	**10.05**	**35**		**Pn**	**01 17 38.5**	**+0.5**
N17K	**Nushagak Hills**	**11.03**	**33**		**Pn**	**01 17 53.1**	**+1.6**
O18K	**Koktuh Hills**	**11.31**	**40**		**Pn**	**01 17 56.2**	**+0.9**
KDAK	**Kodiak Island**	**11.40**	**52**	Pn	**Pn**	**01 17 55.9**	**-0.5**
	comp=E,1.0nm,0.3s,baz=203,slow=2.1,SNR=12						
	comp=E,2.0nm,0.3s						
KDAK				AML	AML		
J18K	**Innoko River**	**13.44**	**25**		**Pn**	**01 18 24.5**	**+0.1**
J19K	**Poorman**	**14.16**	**26**	Pn	**Pn**	**01 18 35.1**	**+1.0**
H18K	**Honhosa River**	**14.49**	**19**	Pn	**Pn**	**01 18 40.1**	**+1.4**
J20K	**Nowinta River**	**14.71**	**27**	Pn	**Pn**	**01 18 41.6**	**-0.1**
CAST	**Castle Rocks**	**14.79**	**32**	Pn	**Pn**	**01 18 43.0**	**+0.2**
BPAW	**Bear Paw Mtn.**	**15.61**	**31**	Pn	**Pn**	**01 18 54.6**	**+0.9**
BPAW				IAmb	IAmb	01 18 58.7	
	comp=Z,34nm,1.1s						
I21K	**Tanana**	**16.08**	**27**	Pn	**Pn**	**01 19 00.4**	**+0.7**
I21K				IAmb	IAmb	01 19 05.3	
	comp=Z,16nm,1.1s						
H21K	**Melozitna Rive**	**16.22**	**25**	Pn	**Pn**	**01 19 01.6**	**0.0**
MLY	**Manley**	**16.34**	**29**	Pn	**Pn**	**01 19 03.5**	**+0.5**
MLY				IAmb	IAmb	01 19 07.8	
	comp=Z,13nm,0.7s						
H22K	**Ishtalitna Cre**	**16.78**	**26**		**Pn**	**01 19 10.2**	**+1.5**
CCB	**Clear Creek Bu**	**17.02**	**33**	Pn	**Pn**	**01 19 10.9**	**-0.8**
H23K	**Yukon River**	**17.25**	**28**	P	**Pn**	**01 19 15.6**	**+1.0**
IL31		**17.41**	**33**	Pn	**Pn**	**01 19 15.5**	**-1.0**
ILAR	**Eielson Array**	**17.41**	**33**	P	**Pn**	**01 19 15.2**	**-1.4**
	comp=Z,0.4nm,0.3s,baz=207,slow=9.7,SNR=12						
	comp=Z,0.7nm,0.4s						
ILAR				AML	AML		
M26K	**Nabesna, AK**	**17.69**	**43**		**Pn**	**01 19 21.1**	**+1.0**
H24K	**Noodor Dome**	**17.76**	**30**	P	**Pn**	**01 19 20.6**	**-0.4**
L26K	**Log Cabin Wild**	**17.81**	**41**	P	**Pn**	**01 19 22.3**	**+0.7**
J25K	**Salcha River,**	**17.84**	**35**		**Pn**	**01 19 20.9**	**-1.1**
J25K				IAmb	IAmb	01 19 22.4	
	comp=Z,8.2nm,0.5s						
SCRK	**Sand Creek**	**18.01**	**38**	P	**Pn**	**01 19 23.3**	**-0.9**
COLD	**Coldfoot**	**18.09**	**24**		**Pn**	**01 19 25.4**	**+0.4**
F24K	**Squaw Lake**	**18.92**	**26**		**P**	**01 19 34.6**	**+0.1**
I26K	**Coal Creek Min**	**19.01**	**35**	P	**P**	**01 19 33.9**	**-1.7**
O29M	**Mount Kennedy**	**19.05**	**52**	P	**Pn**	**01 19 37.8**	**+1.0**
F25K	**Christian Rive**	**19.60**	**28**		**P**	**01 19 42.1**	**+0.2**
M29M	**Somme Creek**	**19.67**	**45**		**Pn**	**01 19 44.4**	**+0.2**
M29M				IAmb	IAmb	01 20 26.9	
	comp=Z,15nm,1.1s						
HYT	**Haines Junctio**	**19.68**	**50**		**Pn**	**01 19 45.0**	**+0.6**
I27K	**Kandik River**	**19.72**	**35**	P	**P**	**01 19 42.6**	**-0.7**
I27K				IAmb	IAmb	01 20 01.9	
	comp=Z,15nm,1.3s						
G26K	**Porcupine Rive**	**19.75**	**30**	P	**P**	**01 19 42.8**	**-0.7**
D24K	**Happy Valley**	**19.90**	**22**	P	**Pn**	**01 19 47.7**	**+0.9**
PETK	**Petropavlovsk-**	**19.91**	**287**	P	**P**	**01 19 45.8**	**+0.4**
	comp=Z,7.7nm,0.3s,baz=81,slow=13,SNR=137						
	comp=Z,20nm,0.4s						
PETK				AML	AML		
N30M	**Aishikik Lake**	**20.02**	**49**	P	**P**	**01 19 47.9**	**+1.2**
L29M	**L29M**	**20.03**	**44**	P	**P**	**01 19 48.0**	**+1.2**
L29M				IAmb	IAmb	01 20 23.0	
	comp=Z,10nm,0.8s						
H27K	**Steamboat Moun**	**20.08**	**34**	P	**P**	**01 19 45.6**	**-1.6**
H27K				IAmb	IAmb	01 19 49.3	
	comp=Z,19nm,1.2s						
F26K	**Sheenjek River**	**20.10**	**28**	P	**P**	**01 19 47.3**	**-0.1**
I28M	**Miner Creek**	**20.25**	**37**		**P**	**01 19 47.6**	**-1.5**
I28M				IAmb	IAmb	01 19 53.3	
	comp=Z,12nm,1.1s						
N31M	**Braeburn, Yuko**	**20.64**	**49**	P	**P**	**01 19 54.6**	**+1.3**
N31M				IAmb	IAmb	01 20 10.0	
	comp=Z,24nm,0.8s						
WHY	**Whitehorse**	**20.91**	**52**		**P**	**01 19 56.5**	**+0.1**
WHY				IAmb	IAmb	01 20 11.2	
	comp=Z,28nm,1.0s						
H29M	**Whitestone**	**21.18**	**35**		**P**	**01 19 58.1**	**-1.1**
H29M				IAmb	IAmb	01 20 19.0	
	comp=Z,20nm,0.8s						
J30M	**Hart River**	**21.29**	**41**		**P**	**01 20 00.2**	**-0.2**
J30M				IAmb	IAmb	01 20 05.0	
	comp=Z,5.7nm,0.7s						
F28M	**Old Crow**	**21.37**	**31**	P	**P**	**01 20 00.2**	**-1.0**
M31M	**Drury Creek, Y**	**21.44**	**48**	P	**P**	**01 20 02.1**	**+0.2**
M31M				IAmb	IAmb	01 20 35.6	
	comp=Z,12nm,0.8s						
I30M	**Mount Dempster**	**21.51**	**39**		**P**	**01 20 00.7**	**-2.1**
I30M				IAmb	IAmb	01 20 10.8	
	comp=Z,10nm,1.3s						
G29M	**Pine Creek**	**21.63**	**34**		**P**	**01 20 02.9**	**-1.1**
EPYK	**Eagle Plains**	**21.85**	**36**	P	**P**	**01 20 05.1**	**-1.2**
EPYK				IAmb	IAmb	01 20 24.3	
	comp=Z,18nm,0.8s						
P33M	**Teslin, Yukon**	**21.87**	**53**		**P**	**01 20 06.4**	**-0.2**
P33M				IAmb	IAmb	01 20 43.4	
	comp=Z,26nm,1.1s						
D27M	**Malcolm River**	**21.99**	**27**	P	**P**	**01 20 07.8**	**0.0**
D27M				IAmb	IAmb	01 20 12.3	
	comp=Z,5.5nm,0.7s						
E28M	**Babbage River**	**22.03**	**29**		**P**	**01 20 07.3**	**-0.9**
G30M	**tAoh Zraii Nji**	**22.29**	**35**		**P**	**01 20 09.6**	**-1.5**
G30M				IAmb	IAmb	01 20 43.5	
	comp=Z,8.4nm,0.8s						
E29M	**Blow River**	**22.42**	**31**		**P**	**01 20 11.3**	**-1.0**
E29M				IAmb	IAmb	01 20 16.6	
	comp=Z,6.1nm,0.9s						
H31M	**Peel River**	**22.51**	**38**		**P**	**01 20 11.0**	**-2.4**
H31M				IAmb	IAmb	01 20 13.8	
	comp=Z,16nm,1.1s						
F30M	**Barrier River**	**22.73**	**33**		**P**	**01 20 14.7**	**-1.0**
F30M				IAmb	IAmb	01 20 34.0	
	comp=Z,12nm,0.9s						
MMPY	**Sheldon Lake,**	**22.95**	**47**		**P**	**01 20 18.6**	**+0.6**
G31M	**Satah River**	**22.97**	**36**		**P**	**01 20 17.4**	**-0.7**
G31M				IAmb	IAmb	01 20 39.4	
	comp=Z,7.3nm,0.8s						
DLBC	**Dease Lake**	**23.22**	**58**	P	**P**	**01 20 21.8**	**+0.9**
	comp=Z,4.7nm,1.1s,baz=266,slow=15,SNR=3.2						
	comp=Z,4.7nm,1.1s						
INK	**Inuvik**	**23.80**	**33**	P	**P**	**01 20 24.9**	**-1.6**
	comp=Z,4.0nm,0.5s,baz=246,slow=7.0,SNR=19						
	comp=Z,4.0nm,0.5s						
INK	**Inuvik**	**23.80**	**33**	P	**P**	**01 20 25.1**	**-1.4**
INK				IAmb	IAmb	01 21 04.0	
	comp=Z,6.7nm,1.0s						
YKA	**Yellowknife Ar**	**30.63**	**48**	P	**P**	**01 21 29.3**	**+1.4**
	comp=Z,2.5nm,0.7s,baz=279,slow=7.2,SNR=11						
	comp=Z,2.5nm,0.7s						
JRO	**Jston Ridge Ob**	**31.04**	**81**	P	**P**	**01 21 32.3**	**+0.5**
NVAR	**Mina Array Bea**	**37.75**	**90**	P	**P**	**01 22 30.6**	**+0.5**
	comp=Z,0.1nm,0.3s,baz=316,slow=6.6,SNR=1.7						
MJAR	**Matsushiro Arr**	**39.59**	**268**	P	**P**	**01 22 43.9**	**-1.5**
	comp=Z,0.9nm,0.3s,baz=42,slow=7.0,SNR=1.6						
	comp=Z,0.9nm,0.3s						
PRN	**Pahroc Range**	**40.40**	**89**		**P**	**01 22 53.6**	**+1.4**
PRN				IAmb	IAmb	01 23 22.1	
	comp=Z,9.4nm,1.3s						
BW06	**Boulder Array**	**40.59**	**78**	P	**P**	**01 22 55.0**	**+1.2**
PD31	**Pinedale Array**	**40.59**	**78**	P	**P**	**01 22 54.5**	**+0.6**
PDAR	**Pinedale Array**	**40.59**	**78**	P	**P**	**01 22 55.4**	**+1.6**
	comp=Z,1.5nm,0.8s,baz=305,slow=4.4,SNR=12						
	comp=Z,1.5nm,0.8s						
PDAR	**Pinedale Array**	**40.59**	**78**		**P**	**01 22 54.2**	**+0.4**
BNX	**BinXian**	**40.83**	**287**	⇓P	**P**	**01 22 52.5**	**-3.0**
BNX				pmax	pmax		
	comp=Z,9.0nm,1.0s						
P18A	**Preston Nutter**	**42.00**	**83**	P	**P**	**01 23 06.3**	**+0.7**
P18A				IAmb	IAmb	01 23 26.1	
	comp=Z,6.8nm,1.1s						
O20A	**White River Ci**	**42.93**	**81**	P	**P**	**01 23 13.9**	**+1.0**
O20A				IAmb	IAmb	01 23 33.4	
	comp=Z,8.5nm,1.0s						
PV22	**Blue Mesa, Par**	**43.57**	**83**	P	**P**	**01 23 19.0**	**+0.8**
PV04	**Paradox Valley**	**43.58**	**83**	P	**P**	**01 23 19.0**	**+0.7**
PV04				IAmb	IAmb	01 23 42.8	
	comp=Z,5.0nm,0.8s						
PV11	**David Mesa, Pa**	**43.66**	**83**	P	**P**	**01 23 19.6**	**+0.6**
PV18	**Skein Mesa, Pa**	**43.67**	**83**	P	**P**	**01 23 20.0**	**+0.9**
PV18				IAmb	IAmb	01 23 33.6	
	comp=Z,6.5nm,0.7s						
PV03	**Paradox Valley**	**43.71**	**83**	P	**P**	**01 23 19.1**	**-0.2**
PV03				IAmb	IAmb	01 23 32.3	
	comp=Z,6.2nm,0.9s						
PV13	**Radium Mtn., P**	**43.78**	**83**	P	**P**	**01 23 20.9**	**+1.0**
PV02	**Paradox Valley**	**43.80**	**83**	P	**P**	**01 23 20.6**	**+0.5**
PV15	**Paradox Valley**	**43.88**	**83**	P	**P**	**01 23 21.6**	**+0.9**
PV01	**Paradox Valley**	**43.95**	**83**		**P**	**01 23 21.5**	**+0.2**
PV01				IAmb	IAmb	01 23 30.0	
	comp=Z,3.5nm,0.9s						
ULM	**Lac du Bonnet**	**44.46**	**62**	P	**P**	**01 23 24.2**	**-0.8**
	comp=Z,3.1nm,0.8s,baz=327,slow=5.3,SNR=4.9						
	comp=Z,3.1nm,0.8s						
ULM	**Lac du Bonnet**	**44.46**	**62**	P	**P**	**01 23 24.6**	**-0.4**
ULM				IAmb	IAmb	01 23 27.1	
	comp=Z,4.0nm,0.9s						
KSRS	**Korea Array**	**45.37**	**277**	P	**P**	**01 23 33.2**	**+0.9**
	comp=Z,6.8nm,0.9s,baz=55,slow=7.8,SNR=18						
KSRS				LR	LR	01 41 15.0	
	comp=Z,62nm,20.7s,baz=210,slow=34						
	comp=Z,6.8nm,0.9s						
NEEM	**North Greenlan**	**45.48**	**16**	i P	**P**	**01 23 30.3**	**-2.8**
NEEM				IAmb	IAmb	01 23 33.9	
	comp=Z,11nm,0.6s						
NOR	**Nord**	**45.96**	**5**	i P	P	01 23 24.8	-12
Y22A	**Socorro**	**47.65**	**87**		**P**	**01 23 51.2**	**+0.7**
MNTX	**Cornudas Mount**	**50.15**	**88**		**P**	**01 24 10.4**	**+0.9**
MNTX				IAmb	IAmb	01 24 23.6	
	comp=Z,3.0nm,0.8s						
SPITS	**Spitsbergen Ar**	**50.15**	**358**	P	**P**	**01 24 08.4**	**-0.5**
	comp=Z,19nm,1.2s,baz=54,slow=4.3,SNR=4.0						
	comp=Z,19nm,1.2s						
DAG	**Danmarks Havn**	**50.29**	**8**	i P	P	01 24 05.5	-4.4
DAG				IAmb	IAmb	01 24 10.2	
	comp=Z,15nm,0.5s						
TPB28		**50.71**	**87**	P	**P**	**01 24 14.9**	**+1.0**
TPB28				IAmb	IAmb	01 24 25.3	
	comp=Z,5.2nm,0.4s						
VHRN	**Van Horn**	**51.02**	**88**		**P**	**01 24 17.0**	**+0.7**
VHRN				IAmb	IAmb	01 24 35.8	
	comp=Z,6.5nm,1.1s						
ULN	**Ulaanbaatar**	**51.10**	**301**	P	**P**	**01 24 16.4**	**-0.3**
ULN				IAmb	IAmb	01 24 17.6	
	comp=Z,3.7nm,0.7s						
SUMG	**Summit**	**51.27**	**17**		**P**	**01 24 18.4**	**+0.5**
SUMG	**Summit**	**51.27**	**17**	i P	P	01 24 27.8	+10
SUMG				IAmb	IAmb	01 24 34.0	
	comp=Z,17nm,0.8s						
SONM	**Songino Array**	**51.47**	**301**	P	**P**	**01 24 18.8**	**-0.7**
	comp=Z,2.8nm,0.9s,baz=55,slow=7.0,SNR=8.4						
	comp=Z,2.8nm,0.9s						
SONM	**Songino Array**	**51.47**	**301**	P	**P**	**01 24 18.7**	**-0.7**
SONM				IAmb	IAmb	01 24 20.8	
	comp=Z,2.5nm,0.9s						
MNHN	**Monahans**	**52.02**	**86**		**P**	**01 24 24.6**	**+1.0**
MNHN				IAmb	IAmb	01 24 36.6	
	comp=Z,2.8nm,0.7s						
TX31	**Lajitas Ar. Si**	**52.85**	**88**		**P**	**01 24 30.6**	**+0.7**
TX31				IAmb	IAmb	01 24 43.5	
	comp=Z,4.8nm,0.9s						
TXAR	**Lajitas Array**	**52.85**	**88**	P	**P**	**01 24 31.2**	**+1.3**
	comp=Z,1.2nm,0.6s,baz=293,slow=5.0,SNR=11						
	comp=Z,1.2nm,0.6s						
TXAR	**Lajitas Array**	**52.85**	**88**		**P**	**01 24 30.5**	**+0.6**
HHC	**Hu-ho-hao-te**	**53.01**	**291**	eP	**P**	**01 24 30.5**	**-0.4**
HHC				pmax	pmax		
	comp=Z,16nm,0.7s						
HHC				pmax	pmax		
	comp=Z,180nm,5.2s						
P40A	**Paris**	**53.02**	**71**	P	**P**	**01 24 30.9**	**+0.1**
HNS	**HongShan**	**53.42**	**286**	⇓P	**P**	**01 24 35.0**	**+1.2**
HNS				pmax	pmax		
	comp=Z,29nm,1.2s						
BRDY	**Brady**	**54.37**	**83**		**P**	**01 24 41.4**	**+0.5**
BRDY				IAmb	IAmb	01 24 55.3	
	comp=Z,4.4nm,1.0s						
MIAR	**Mount Ida**	**55.44**	**76**	P	**P**	**01 24 50.0**	**+1.5**
MIAR				IAmb	IAmb	01 25 04.3	
	comp=Z,3.7nm,1.1s						
SCHQ	**Schefferville**	**55.85**	**43**	P	**P**	**01 24 53.0**	**+1.7**
	comp=Z,2.8nm,0.6s,baz=267,slow=6.1,SNR=4.0						
	comp=Z,2.8nm,0.6s						
SCHQ	**Schefferville**	**55.85**	**43**	P	**P**	**01 24 51.7**	**+0.4**
LYN	**LuoYang**	**56.68**	**285**	P	**P**	**01 24 58.3**	**+0.8**
LYN				pmax	pmax		
	comp=Z,30nm,0.8s						
ZALV	**Zalesovo Beam**	**57.72**	**318**	P	**P**	**01 25 03.1**	**-1.4**
	comp=Z,0.8nm,0.4s,baz=45,slow=6.3,SNR=2.7						
ZALV				PcP	**PcP**	**01 25 57.3**	**-0.1**
	comp=Z,2.7nm,0.7s,baz=22,slow=4.6,SNR=5.5						
	comp=Z,0.8nm,0.4s						
ZALV	**Zalesovo Beam**	**57.72**	**318**	P	**P**	**01 25 03.5**	**-1.0**
ZALV					**PcP**	**01 25 58.4**	**+1.0**
ARCES	**ARCESS Array B**	**58.40**	**354**	P	**P**	**01 25 08.4**	**-0.7**
	comp=Z,4.8nm,0.8s,baz=19,slow=6.2,SNR=12						
	comp=Z,4.8nm,0.8s						
ARCES	**ARCESS Array B**	**58.40**	**354**	P	**P**	**01 25 08.4**	**-0.7**
LZH	**Lanzhou**	**60.68**	**292**	eP	**P**	**01 25 26.5**	**+1.0**
LZH				pP	sP	01 25 31.5	+6.0
LZH				pmax	pmax		
	comp=Z,26nm,1.5s						
KURK	**Kurchatov**	**62.68**	**318**		**P**	**01 25 38.2**	**-0.3**
KURBB	**Kurchatov Arra**	**62.78**	**318**	P	**P**	**01 25 38.7**	**-0.5**
	comp=Z,5.0nm,0.9s,baz=45,slow=8.1,SNR=18						
	comp=Z,5.0nm,0.9s						
WMQ	**Urumqi**	**63.76**	**308**	eP	**P**	**01 25 49.0**	**+3.1**
WMQ				LR	LR		
	comp=Z,74nm,16.5s						
BVAR	**Borovoye Array**	**64.05**	**324**	P	**P**	**01 25 47.5**	**-0.1**
	comp=Z,16nm,0.6s,baz=51,slow=6.7,SNR=35						
	comp=Z,16nm,0.6s						
MKAR	**Makanchi Array**	**64.07**	**313**	P	**P**	**01 25 46.5**	**-1.4**
	comp=Z,1.1nm,0.7s,baz=52,slow=5.9,SNR=4.8						
	comp=Z,1.1nm,0.7s						
MKAR	**Makanchi Array**	**64.07**	**313**	P	**P**	**01 25 46.9**	**-0.9**
ARTI	**Arti**	**65.10**	**333**	P	**P**	**01 25 53.9**	**-0.5**
	comp=Z,11nm,0.9s,baz=67,slow=7.7,SNR=7.3						
	comp=Z,11nm,0.9s						
ARTI	**Arti**	**65.10**	**333**		**P**	**01 25 54.0**	**-0.3**
KIRV	**Kirov**	**65.42**	**339**	P	**P**	**01 25 55.8**	**-0.6**
	comp=Z,20nm,1.1s,baz=117,slow=2.1,SNR=3.6						
	comp=Z,20nm,1.1s						
FINES	**FINESS Array B**	**66.34**	**352**	P	**P**	**01 26 01.3**	**-0.9**
	comp=Z,6.7nm,0.7s,baz=10,slow=6.0,SNR=13						

	comp=Z,6.7nm,0.7s						
FINES	FINESS Array B	66.34	352	P	P	01 26 02.1	-0.2
NB2	NORSAR Subarra	67.43	360	P	P	01 26 08.9	-0.4
	comp=Z,2.8nm,0.8s,baz=0.1,slow=6.5						
NOA	NORSAR Array B	67.43	360	P	P	01 26 09.1	-0.2
	comp=Z,2.6nm,0.8s,baz=360,slow=6.2,SNR=12						
	comp=Z,2.6nm,0.8s						
HFS	Hagfors	68.31	358	P	P	01 26 14.3	-0.5
	comp=Z,1.7nm,0.3s,baz=28,slow=3.5,SNR=21						
	comp=Z,1.7nm,0.3s						
DAV	Davao City (W)	69.09	254	LR	LR	01 54 32.5	
	comp=Z,41nm,19.9s,baz=108,slow=34						
AB31	Akbulak array	70.80	328	P	P	01 26 29.9	-0.5
ABKAR	Akbulak array	70.80	328	P	P	01 26 29.9	-0.5
OBN	Obninsk	71.19	345	P	P	01 26 32.5	0.0
EKA	Eskdalemuir Ar	72.55	8	P	P	01 26 41.2	+0.4
	comp=Z,0.4nm,0.4s,baz=348,slow=4.6,SNR=9.0						
	comp=Z,0.4nm,0.4s						
KSH2	Kashi	73.12	313	P	P	01 26 45.0	+0.3
KSH2				sP	pwP	01 26 56.5	+6.5
KSH2				pmax	pmax		
	comp=Z,8.0nm,1.2s						
AKASG	Malin Array Be	76.56	348	P	P	01 27 03.1	-1.0
	comp=Z,1.4nm,0.5s,baz=16,slow=5.9,SNR=6.0						
	comp=Z,1.4nm,0.5s						
AKASG	Malin Array Be	76.56	348	P	P	01 27 03.8	-0.4
AKASG				IAmb	IAmb	01 27 17.3	
	comp=Z,2.2nm,1.1s						
CMAR	Chiang Mai Arr	76.64	283	P	P	01 27 05.4	+0.3
	comp=Z,1.2nm,0.5s,baz=27,slow=6.5,SNR=6.5						
	comp=Z,1.2nm,0.5s						
CMAR	Chiang Mai Arr	76.64	283	P	P	01 27 05.6	+0.5
BRG	Berggiesshubel	77.58	358	*e*P	P	01 27 10.4	+0.6
BRG				Amp		01 27 12.0	
	comp=Z,2.6nm,0.8s						
DPC	Dobruska-Polom	78.02	356	*e*P	P	01 27 12.6	+0.2
MORC	Moravsky Berou	78.54	355	*e*P	P	01 27 15.4	+0.1
VRAC	Vranov	79.05	356	*e*P	P	01 27 18.5	+0.4
KRUC	Moravsky	79.31	356	*e*P	P	01 27 18.4	-1.1
JAVC	Velka Javorina	79.45	355	*e*P	P	01 27 14.1	-6.2
ABNA	Allensteig Bun	79.73	357	*e*P	P	01 27 22.5	+0.7
	comp=Z,6.3nm,0.9s						
RONA	Rosalia, Austr	80.67	356	*e*P	P	01 27 27.6	+0.7
	comp=Z,6.7nm,1.5s						
KBZ	Khabaz	80.72	337	P	P	01 27 27.9	+0.7
	comp=Z,3.8nm,0.9s,baz=357,slow=5.6,SNR=4.1						
	comp=Z,3.8nm,0.9s						
BIOA	Bad Ischl, Aus	80.77	358	*e*pP	P	01 27 29.4	+1.9
	comp=Z,6.3nm,1.3s						
MOTA	Moosalm	81.15	360	*e*pP	P	01 27 30.8	+1.2
	comp=Z,3.1nm,0.7s						
SQTA	Sankt Quirin	81.27	359	*e*P	P	01 27 31.2	+1.0
	comp=Z,8.3nm,0.9s						
KBA	Koelnbreinsper	81.39	358	*e*pP	P	01 27 32.3	+1.4
	comp=Z,16nm,0.7s						
FETA	Feichten	81.47	360	*e*pP	P	01 27 32.5	+1.2
	comp=Z,5.4nm,0.8s						
SOKA	Soboth	81.74	357	*e*P	P	01 27 33.5	+0.8
	comp=Z,4.4nm,0.7s						
BRTR	Keskin Array B	86.56	342	P	P	01 27 57.8	+0.4
	comp=Z,0.5nm,0.6s,baz=38,slow=2.6,SNR=2.4						
	comp=Z,0.5nm,0.6s						
BRTR	Keskin Array B	86.56	342	P	P	01 27 57.9	+0.5
WRA	Warramunga Arr	86.63	231	P	P	01 27 57.2	-0.4
	comp=Z,1.0nm,0.8s,baz=40,slow=6.1,SNR=8.4						
	comp=Z,1.0nm,0.8s						
WRA	Warramunga Arr	86.63	231	P	P	01 27 57.2	-0.4
ESDC	Sonseca Array	87.95	11	P	P	01 28 03.8	-0.2
	comp=Z,1.7nm,1.0s,baz=341,slow=4.7,SNR=8.7						
	comp=Z,1.7nm,1.0s						
ESDC	Sonseca Array	87.95	11		P	01 28 04.2	+0.2
ESDC				IAmb	IAmb	01 28 31.7	
	comp=Z,2.9nm,1.1s						
ASAR	Alice Springs	90.01	230	P	P	01 28 14.4	+0.7
	comp=Z,3.7nm,0.7s,baz=33,slow=4.8,SNR=28						
	comp=Z,3.7nm,0.7s						
ASAR	Alice Springs	90.01	230		P	01 28 14.1	+0.4
QSPA	South Pole Qui	141.65	180	PKhKP	PKPpre	01 34 37.4	
	comp=Z,1.5nm,0.8s,baz=239,slow=3.2,SNR=4.5						
MAW	Mawson	150.44	218	PKPbc	PKPbc	01 35 03.9	-0.4
	comp=Z,2.8nm,1.0s,baz=282,slow=3.5,SNR=5.4						

IDC 29 01:41:08.4±1.9**,7°.14S×127°.15E,h0^{km},mb3.6**/1**,**
mbtmp3.5/4**,ML3.5**/3**,Error ellipse: s-maj=54.4km**
s-min=20.9km az=80.0,Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	10.99	188	Pn	Pn	01 43 42.2	-4.8
	0.1nm,0.3s,baz=5.4,slow=13,SNR=15						
FITZ				Sn	Sn	01 45 37.7	-13
	0.5nm,0.3s,baz=329,slow=22,SNR=9.4						
	0.6nm,0.4s						
FITZ				AML	AML		
WRA	Warramunga Arr	14.51	152	Pn	Pn	01 44 28.9	-6.3
	0.2nm,0.3s,baz=327,slow=14,SNR=8.0						
	0.3nm,0.5s						
WRA				AML	AML		
ASAR	Alice Springs	17.66	159	P	Pn	01 45 14.6	-1.5
	0.3nm,0.3s,baz=340,slow=11,SNR=22						
	1.2nm,0.5s						
ASAR				AML	AML		
MKAR	Makanchi Array	66.82	328	P	P	01 52 02.3	+0.2
	0.3nm,0.5s,baz=134,slow=7.0,SNR=2.8						
	0.3nm,0.5s						

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*IDC **29** 02:03:52.1±0.7, 30°.67N×50°.61E, h0^{km}, mb3.9/20,*
mbtmp3.9/25, ML3.4/5, MS3.4/1, Error ellipse:
s-maj=16.6km s-min=11.3km az=167.0
*NEIC **29** 02:03:53.9±1.2, 30°.55N±0°.08×50°.63E±0°.07, h10^{km}±1^{km},*
mb4.3/26, Error ellipse: s-maj=12.9km s-min=10.7km
az=354.0
*TEH **29** 02:03:53.9, 30°.68N×50°.69E, h8^{km}±23^{km}, ML3.8,*
Presumed earthquake
*THR **29** 02:03:54.1±0.0, 30°.72N×50°.60E, h10^{km}±3^{km}, ML4.0,*
Presumed earthquake
*OMAN **29** 02:03:59.6±0.8, 30°.30N×51°.07E, h10^{km}, mb3.7/28, Error*
ellipse: s-maj=6.7km s-min=5.4km az=20.0
*DSN **29** 02:04:00.6±2.4, 30°.09N×50°.79E, h15^{km}, ML4.4/14, Error*
ellipse: s-maj=31.0km s-min=12.1km az=5.0
*NAO **29** 02:04:04.2, 30°.93N×49°.84E, h33^{km}, MB3.6*
ISC 29 02:03:55.3±0.4**,30°.60N**±0°.04×**50°.71E**±0°.04**,h25^{km},n208,**
σ**1^{s}58**/239**,mb4.3**/46**,8C-1D,Northern and central Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAZ2	Kazeron-Fars-I	1.29	140	Pg	Pn	02 04 20.0	+2.2
ZNGN	Zangian	1.52	5	Pg	Pn	02 04 21.8	+0.7
AMIS	Naft Sefid	1.61	311	Pg	Pn	02 04 23.5	+1.2
JHBN	Jahan bin	1.62	359	Pg	Pn	02 04 22.7	0.0
SHI	Shiraz	1.84	121	Pn	Pn	02 04 28.7	+3.3
IRAM	Ramesheh	1.87	50	Pn	Pn	02 04 28.1	+2.1
AHWZ	Ahwaz	1.91	293	Pn	Pn	02 04 28.7	+2.4
IGAR	Gharneh	2.13	32	Pn	Pn	02 04 31.3	+1.8
DSBU	Dashti - Bushe	2.28	168	Pn	Pn	02 04 35.0	+3.5
GTMR	Gotvand	2.31	324	*e*Pn	Pn	02 04 32.4	+0.6
GTMR				IAML		02 05 28.1	
	comp=Z,1μm,1.0s						
TAFT	Taft - Yazd	3.17	68	Pn	Pn	02 04 46.1	+2.2
KHMZ	Khomeyn	3.19	349	*e*Pn	Pn	02 04 45.6	+1.5
KHMZ				IAML		02 05 59.2	
	comp=Z,180nm,1.0s						
IMEH	Mehriz	3.45	76	Pn	Pn	02 04 50.2	+2.6
ICHK	Chekchek	3.56	62	Pn	Pn	02 04 51.5	+2.2
YZKH	Yazd	3.77	61	*e*Pn	Pn	02 04 54.6	+2.7
YZKH				IAML		02 05 57.6	
	comp=Z,110nm,1.0s						
IDOB	Doab	3.83	327	Pn	Pn	02 04 54.4	+1.5
GHVR	GHOM	3.90	7	*e*Pn	Pn	02 04 55.5	+1.8
GHVR				IAML		02 06 14.7	
	comp=Z,230nm,1.0s						
ASAO	Ashtian	3.98	352	*e*Pn	Pn	02 04 55.8	+0.9
ASAO				IAML		02 06 27.8	
	comp=Z,160nm,1.0s						
SAKB	Bahrain	4.61	182	P	Pn	02 05 06.4	+3.0
SAKB				S	Sn	02 05 57.7	+1.6
ILBA	Ilam Banvizeh	4.86	309	*e*Pn	Pn	02 05 07.1	+0.2
ILBA				IAML		02 07 13.1	
	comp=Z,100nm,1.0s						
ILBA	Ilam Banvizeh	4.86	309	Pn	Pn	02 05 08.1	+1.2
KHGB	Koh Gabri	4.99	91	Pn	Pn	02 05 11.1	+2.3
DAMV	Damavand	5.13	12	*e*Pn	Pn	02 05 12.2	+1.5
DAMV				IAML		02 07 05.9	
	comp=Z,51nm,1.0s						
QABG	Abgarm-Qazvin	5.18	350	Pn	Pn	02 05 13.2	+1.8
KRBR	Kerman	5.27	95	*e*Pn	Pn	02 05 17.4	+4.6
KRBR				IAML		02 06 37.1	
	comp=Z,77nm,1.0s						
SNGE	Sanandaj	5.29	329	*e*Pn	Pn	02 05 13.3	+0.3
SNGE				IAML		02 06 55.6	
	comp=Z,77nm,1.0s						
THKV	Tehran--Karaj	5.30	2	*e*Pn	Pn	02 05 14.7	+1.6
THKV				IAML		02 07 12.3	
	comp=Z,63nm,1.0s						
CHTH	Charan	5.30	4	*e*Pn	Pn	02 05 14.5	+1.3
CHTH				IAML		02 07 07.6	
	comp=Z,41nm,1.0s						
KRM1	Kerman Provinc	5.67	89	Pn	Pn	02 05 20.9	+2.8
BNDS	Bandar-Abbas	5.75	122	*e*Pn	Pn	02 05 23.4	+4.1
BNDS				IAML		02 06 18.8	
	comp=Z,45nm,1.0s						
JRN	Qarnain Island	5.95	161	P	Pn	02 05 23.0	+1.2
	SNR=9.6						
JRN				S	Sn	02 06 29.8	+0.7
CHMN	Cheshme madani	5.96	95	Pn	Pn	02 05 25.5	+3.2
TABS	Tabas	6.23	59	*e*Pn	Pn	02 05 28.0	+2.2
TABS				IAML		02 07 39.9	
	comp=Z,37nm,1.0s						
ZNJK	Zanjan	6.28	345	*e*Pn	Pn	02 05 27.4	+0.8
ZNJK				IAML		02 07 44.5	
	comp=Z,11nm,1.0s						
GIDE	GILAN DEYLAMAN	6.34	354	*e*Pn	Pn	02 05 28.0	+0.7
GIDE				IAML		02 07 44.1	
	comp=Z,82nm,1.0s						
SLWR	Sila	6.56	172	P	Pn	02 05 31.3	+1.1
SLWR				S	Sn	02 06 46.1	+1.8
SHME	Shamm	6.60	132	S	Sn	02 06 43.0	-2.1
BANOM	Banah	6.79	132	S	Sn	02 06 47.3	-2.6
KBAM	BAM	6.88	100	Pn	Pn	02 05 37.6	+2.9
GHWR	Ruwais	6.89	163	P	Pn	02 05 35.3	+0.6
GHWR				S	Sn	02 06 51.9	-0.4
SHRO	Shahrood	6.97	38	*e*Pn	Pn	02 05 38.0	+2.1
SHRO				IAML		02 07 35.5	
	comp=Z,2.4nm,1.0s						
MASF	Masafi	7.10	136	P	Pn	02 05 38.4	+0.7
	SNR=6.8						
MASF				S	Sn	02 06 55.8	-1.7
MSFE	Esma-Masafi	7.11	136	P	Pn	02 05 38.3	+0.6
NAZ	Nazwa, Dubai	7.11	141	P	Pn	02 05 38.7	+0.9
	SNR=15						
NAZ				S	Sn	02 06 56.8	-1.0
NAZ	Nazwa, Dubai	7.11	141	*i* P	Pn	02 05 38.1	+0.4
	SNR=15						
AJN	Ajban	7.11	147	P	Pn	02 05 39.0	+1.2
AJN				S	Sn	02 06 57.3	-0.5
ASUD	Al Ashush, Dub	7.23	144	P	Pn	02 05 40.6	+1.2
	SNR=11						
ASUD				S	Sn	02 07 00.3	-0.4
ASUD	Al Ashush, Dub	7.23	144	*i* P	Pn	02 05 40.6	+1.2
	SNR=10						
MDH	Madha	7.24	136	P	Pn	02 05 39.5	0.0
MDH				S	Sn	02 06 59.1	-1.8
MDH	Madha	7.24	136	P	Pn	02 05 39.9	+0.4
FAQ	Al Faqa, Dubai	7.27	142	P	Pn	02 05 41.5	+1.6
FAQ				S	Sn	02 07 00.5	-1.1
FAQ	Al Faqa, Dubai	7.27	142	P	Pn	02 05 39.7	-0.2
BSRN	Basiran	7.33	77	*e*Pn	Pn	02 05 44.1	+3.1
BSRN				IAML		02 08 08.3	
	comp=Z,11nm,1.0s						
MZWR	Madinat Zayed	7.38	157	P	Pn	02 05 42.5	+1.1
MZWR				S	Sn	02 07 04.6	+0.3
UOSS	Minazif	7.45	138	P	Pn	02 05 42.8	+0.4
UOSS				S	Sn	02 07 03.7	-2.4
UOSS	Minazif	7.45	138		Pn	02 05 42.7	+0.3
UOSS	Minazif	7.45	138	P	Pn	02 05 41.5	-0.9
HATD	Hatta, Dubai	7.50	139	P	Pn	02 05 43.4	+0.3
HATD				S	Sn	02 07 04.3	-3.1
HATD	Hatta, Dubai	7.50	139	P	Pn	02 05 43.2	+0.1
HATD				S	Sn	02 07 03.3	-4.1
ASHO	Ashiyiah	7.57	140	P	Pn	02 05 44.6	+0.5
	SNR=10						
ASHO				S	Sn	02 07 07.4	-1.8
JASK	Jask - Hormozg	7.88	125	P	Pn	02 05 49.2	+0.9
JASK				S	Sn	02 07 14.9	-1.9
ALNE	Al Ain	7.91	144	P	Pn	02 05 49.6	+0.7
ALNE	Al Ain	7.91	144	P	Pn	02 05 49.8	+1.0
MZR	Muzera	7.96	161	P	Pn	02 05 51.1	+1.6
	SNR=9.6						
MZR	Muzera	7.96	161	*i* P	Pn	02 05 51.1	+1.6
	SNR=9.7						
SOHO	SOHO	8.27	140	P	Pn	02 05 52.7	-0.9
SOHO				S	Sn	02 07 23.3	-2.9
RAYN	Ar Rayn	8.44	215		Pn	02 05 55.1	-1.0
RAYN	Ar Rayn	8.44	215	P	Pn	02 05 55.4	-0.7
SHRT	Shahrakht	8.68	67	*e*Pn	Pn	02 06 03.2	+3.9
SHRT				IAML		02 06 21.9	
	comp=Z,4.8nm,0.7s						
UMZA	Um Al Zommool	8.81	152	P	Pn	02 06 02.3	+1.3
UMZA				S	Sn	02 07 36.5	-3.0
ARQ	Araqi	8.90	143	P	Pn	02 06 03.2	+0.8
ARQ				S	Sn	02 07 39.2	-2.7
BJRD	Bojnurd	9.00	36	*e*Pn	Pn	02 06 06.0	+2.3
BJRD				IAML		02 06 11.0	
	comp=Z,7.5nm,0.8s						
HOQ	Hoqain	9.14	138	P	Pn	02 06 06.7	+1.1
HOQ				S	Sn	02 07 44.8	-2.9
BSY	Bisya	9.74	142	P	Pn	02 06 13.1	-0.9
BSY				S	Sn	02 07 58.3	-4.3
SMDO	Samad	9.97	137	P	Pn	02 06 18.0	+0.9
SMDO				S	Sn	02 08 04.9	-3.4
WSAR	Wadi Sarin	10.18	134	P	Pn	02 06 20.1	+0.1
WSAR				S	Sn	02 08 10.3	-3.1
JMDO	Jabal Madar	10.54	139	P	Pn	02 06 26.0	+1.2
JMDO				S	Sn	02 08 18.8	-3.3
NGCH	Negor - Chabah	10.59	117	P	Pn	02 06 25.5	0.0
NGCH				S	Sn	02 08 19.4	-4.0
WBK	Wadi Bani Khal	10.86	135	P	Pn	02 06 29.8	+0.6
WBK				S	Sn	02 08 27.5	-2.5
JLN	Jalan Bani Buh	11.47	135	P	Pn	02 06 37.0	-0.6
JLN				S	Sn	02 08 41.6	-3.4
MHTO	MHTO	11.59	144	P	Pn	02 06 40.3	+1.1
MHTO				S	Sn	02 08 45.0	-2.9
ASF	Jabal al Asfar	11.90	281	Pn	Pn	02 06 41.8	-1.7
	comp=Z,0.7nm,0.3s,baz=297,slow=21,SNR=7.0						
	comp=Z,2.0nm,0.5s						
ASF				AML	AML		
DQM	DQM	12.29	148	P	Pn	02 06 49.6	+0.8
DOK	Doka	12.33	165	P	Pn	02 06 49.9	+0.6
WHFO	Wadi Hawf	12.93	167	P	Pn	02 06 58.0	+0.4
	SNR=14						
ARPR	Arapgir-MALATY	13.22	313		Pn	02 07 01.9	+0.4
MMAI	Mount Meron Ar	13.24	284	Pn	Pn	02 07 00.4	-1.3
	comp=Z,0.4nm,0.3s,baz=91,slow=11,SNR=2.2						
	comp=Z,4.1nm,1.0s						
MMAI				AML	AML		
SHAO	Shalim	13.30	159	P	Pn	02 07 02.6	+0.1
DMTO	DMTO	13.40	162	P	Pn	02 07 03.6	-0.3
	SNR=5.7						
ABTO	Aybut	13.40	169	P	Pn	02 07 05.3	+1.3
ABTO				S	Sn	02 09 29.3	-2.9
RBK	Rabkut	13.42	165	P	Pn	02 07 04.5	+0.1
EIL	Elat	13.67	270	Pn	Pn	02 07 06.7	-0.8
	comp=Z,0.2nm,0.3s,baz=168,slow=19,SNR=2.0						
	comp=Z,2.7nm,0.7s						
EIL				AML	AML		
KBZ	Khabaz	14.49	337	Pn	Pn	02 07 18.6	-0.1
	comp=Z,0.1nm,0.3s,baz=131,slow=12,SNR=3.9						
	comp=Z,1.9nm,1.0s						
KBZ				AML	AML		
KIV	Kislovodsk	14.77	337	Pn	Pn	02 07 22.3	-0.3
BR104	Keskin Array S	16.63	308	P	Pn	02 07 47.6	+0.8
	comp=Z,2.8nm,0.8s						
BRTR	Keskin Array B	16.64	308	Pn	Pn	02 07 45.5	-1.4
	comp=Z,0.1nm,0.3s,baz=119,slow=13,SNR=4.5						
	comp=Z,0.8nm,0.9s						
BRTR				AML	AML		
BRTR	Keskin Array B	16.64	308		Pn	02 07 45.8	-1.2
BR105	Keskin Array S	16.65	308	P	Pn	02 07 47.8	+0.7
	comp=Z,3.9nm,0.9s						
BR106	Keskin Array S	16.66	308	P	Pn	02 07 47.9	+0.7
	comp=Z,33nmcomp=Z,4.3nm,0.8s						
ELL	Elmali	18.35	295		P	02 08 08.0	-0.1
AB31	Akbulak array	19.90	18		P	02 08 26.1	+1.3
ABKAR	Akbulak array	19.90	18	P	P	02 08 25.9	+1.0
KK31	Karatay Array	20.11	46		P	02 08 27.9	+0.6
KK31				IAmb	IAmb	02 08 35.3	
	comp=Z,10nm,1.1s						
KKAR	Karatay Array	20.11	46		P	02 08 28.1	+0.9
ATD	Arta Tunnel	20.33	203	P	P	02 08 31.8	+2.0
	comp=Z,0.1nm,0.4s,baz=308,slow=10,SNR=5.3						
ATD	Arta Tunnel	20.33	203	P	P	02 08 29.3	-0.5
ATD				IAmb	IAmb	02 08 38.1	
	comp=Z,13nm,1.1s						
AKTO	Aktyubinsk	20.56	13	P	P	02 08 33.5	+1.5
	comp=Z,1.8nm,0.7s,baz=218,slow=11,SNR=9.2						
	comp=Z,1.8nm,0.7s						
ARSB	Arslanbob	20.91	53		P	02 08 37.3	+1.3
ARSB				IAmb	IAmb	02 08 45.4	
	comp=Z,22nm,1.0s						
KSH2	Kashi	22.06	61	P	P	02 08 50.5	+2.1
KSH2				pmax	pmax		
	comp=Z,13nm,1.0s						
IDI	Anoyia	22.14	289	P	P	02 08 49.5	+0.3
	comp=Z,3.5nm,0.4s,baz=73,slow=11,SNR=3.6						
	comp=Z,3.5nm,0.4s						
IDI	Anoyia	22.14	289	P	P	02 08 50.3	+1.1
IDI				IAmb	IAmb	02 09 08.3	
	comp=Z,12nm,1.0s						
AAK	Ala-Archa	22.48	51	P	P	02 08 55.3	+2.4
	comp=Z,1.1nm,0.5s,baz=239,slow=7.3,SNR=6.2						
	comp=Z,1.1nm,0.5s						
AAK	Ala-Archa	22.48	51		P	02 08 54.5	+1.6
PURM	Purcari	22.66	320	P	P	02 08 56.0	+1.4
NRN	Naryn	23.06	55		P	02 09 00.4	+1.2
MLR	Muntele Rosu	24.39	314		P	02 09 12.7	+1.1
MLR				IAmb	IAmb	02 09 25.5	
	comp=Z,9.0nm,0.9s						
MLR	Muntele Rosu	24.39	314	⇑P	P	02 09 14.0	+2.3
MLR	Muntele Rosu	24.39	314	P	P	02 09 12.8	+1.1
	comp=Z,11nm,1.4s						
MLR				pP	pP	02 09 15.8	-3.5
	comp=Z,11nm,1.4s						
TARG	Taragay, Kyrgy	24.44	56	P	P	02 09 12.6	+0.1
TARG				IAmb	IAmb	02 09 20.2	
	comp=Z,8.7nm,0.9s						
TESR	Tescani	24.48	317	⇑P	P	02 09 13.5	+1.1
TESR	Tescani	24.48	317	P	P	02 09 13.2	+0.8
	comp=Z,11nm,0.8s						
TESR				pP	pP	02 09 16.4	-3.6
	comp=Z,11nm,0.8s						
ITM	Ithomi	24.71	293	P	P	02 09 14.6	0.0
VOIR		24.92	314	⇑P	P	02 09 17.9	+1.5
VOIR		24.92	314	P	P	02 09 17.1	+0.7
	comp=Z,17nm,0.9s						
BIZ	Bicaz	25.03	318	⇓P	P	02 09 17.7	+0.4
AK09	Malin Array Si	25.61	327	P	P	02 09 22.9	+0.5
AK10	Malin Array Si	25.61	327	P	P	02 09 22.9	+0.4
AK06	Malin Array Si	25.62	327	P	P	02 09 22.6	0.0
AK08	Malin Array Si	25.63	327	P	P	02 09 22.6	-0.1
AK08				pP	pP	02 09 25.7	-4.6
AK05	Malin Array Si	25.65	327	P	P	02 09 22.8	0.0
AK12	Malin Array Si	25.68	327	P	P	02 09 23.1	-0.1
AK01	Malin Array Si	25.69	327	P	P	02 09 22.8	-0.4
AKASG	Malin Array Be	25.69	328	P	P	02 09 22.4	-0.8
	comp=Z,2.2nm,0.7s,baz=136,slow=9.3,SNR=9.6						
	comp=Z,2.2nm,0.7s						
AKASG	Malin Array Be	25.69	328	P	P	02 09 22.4	-0.8
AKBB	Malin Array Si	25.69	328	P	P	02 09 23.8	+0.5
AKBB				IAmb	IAmb	02 09 34.8	
	comp=Z,7.4nm,0.9s						
AKBB	Malin Array Si	25.69	328	P	P	02 09 22.8	-0.4
KIEV	Kiev	25.70	327	P	P	02 09 23.7	+0.5
KIEV				IAmb	IAmb	02 09 34.8	
	comp=Z,6.2nm,0.9s						
KIEV	Kiev	25.70	327	P	P	02 09 22.8	-0.5
	comp=Z,33nm,0.9s						
AK14	Malin Array Si	25.70	327	P	P	02 09 22.9	-0.4
AK11	Malin Array Si	25.70	327	P	P	02 09 22.9	-0.4
AK03	Malin Array Si	25.71	328	P	P	02 09 23.0	-0.4
KMPD	K-Podol'skiy	25.73	321	P	P	02 09 23.1	-0.5
AK22	Malin Array Si	25.80	327	P	P	02 09 23.8	-0.5
AK19	Malin Array Si	25.80	327	P	P	02 09 23.8	-0.5
AK20	Malin Array Si	25.82	327	P	P	02 09 24.0	-0.4
AK21	Malin Array Si	25.83	327	P	P	02 09 24.0	-0.5
LUBAR	Lubar, Ukraine	25.88	325	P	P	02 09 24.0	-1.0
BURAR	Bucovina Array	25.90	318		P	02 09 25.9	+0.7
BURAR	Bucovina Array	25.90	318	⇑P	P	02 09 26.0	+0.7
BUR08	Bucovina Ar. S	25.92	318	P	P	02 09 26.1	+0.5
BUR08				IAmb	IAmb	02 09 39.1	
	comp=Z,4.3nm,0.9s						
MI30	MI30,Zelenitsa	26.21	327	P	P	02 09 26.9	-1.0
	comp=Z,21nm,0.6s						
GZR	Gura Zlata	26.34	312	⇑P	P	02 09 29.4	+0.1
ARTI	Arti	26.34	10	LR	LR	02 22 59.1	
	comp=Z,77nm,18.1s,baz=276,slow=44						
HERR	Herculane	26.36	311	⇑P	P	02 09 29.9	+0.5
BVAR	Borovoye Array	26.61	27	P	P	02 09 33.0	+1.4
	comp=Z,5.1nm,0.9s,baz=218,slow=7.0,SNR=18						
	comp=Z,5.1nm,0.9s						
MARR	Marisel-Cluj	26.68	315	⇑P	P	02 09 30.6	-1.8
SIRR	Siria	27.41	313	⇑P	P	02 09 39.9	+1.1
KURBB	Kurchatov Arra	28.81	38	P	P	02 09 53.3	+2.0
	comp=Z,2.3nm,0.8s,baz=240,slow=9.5,SNR=14						
	comp=Z,2.3nm,0.8s						
KURK	Kurchatov	28.91	38		P	02 09 53.5	+1.4
KURK				IAmb	IAmb	02 09 55.2	
	comp=Z,4.8nm,0.9s						
MKAR	Makanchi Array	29.23	47	P	P	02 09 55.8	+0.8
	comp=Z,1.8nm,0.8s,baz=233,slow=5.9,SNR=7.1						
	comp=Z,1.8nm,0.8s						
MKAR	Makanchi Array	29.23	47	P	P	02 09 55.4	+0.3
MORC	Moravsky Berou	31.39	317	P	P	02 10 13.1	-1.1
MORC				IAmb	IAmb	02 10 38.5	
	comp=Z,6.9nm,1.5s						
EVN	Everest	31.53	86		P	02 10 16.8	+0.5
INTR	Introdacqua	31.54	301	P	P	02 10 15.3	-0.3
WINA	Alland / Wiene	31.63	313	*e*P	P	02 10 17.0	+0.7
	comp=Z,4.5nm,1.0s						
CONA	Conrad Observa	31.70	313	*e*P	P	02 10 16.7	-0.3
	comp=Z,5.7nm,1.6s						
MOA	Molln	32.69	312	*e*P	P	02 10 25.7	+0.1
	comp=Z,4.7nm,0.9s						
BIOA	Bad Ischl, Aus	33.04	312	*e*P	P	02 10 28.6	0.0
	comp=Z,5.5nm,0.8s						
KBA	Koelnbreinsper	33.05	311	*e*P	P	02 10 29.2	+0.3
	comp=Z,11nm,0.8s						
GERES	GERESS Array B	33.37	314	P	P	02 10 30.0	-1.6
	comp=Z,0.3nm,0.3s,baz=129,slow=11,SNR=5.1						
	comp=Z,0.3nm,0.3s						
GERES	GERESS Array B	33.37	314	P	P	02 10 31.4	-0.2
ABTA	Abfaltersbach	33.51	310	*e*P	P	02 10 33.3	+0.5
	comp=Z,4.1nm,0.9s						
KHC	Kasperske Hory	33.54	314	*e*P	P	02 10 33.1	+0.1
KHC	Kasperske Hory	33.54	314		P	02 10 33.4	+0.4
KHC				IAmb	IAmb	02 10 37.5	
	comp=Z,10nm,1.5s						
KHC	Kasperske Hory	33.54	314	P	P	02 10 33.0	+0.1
	comp=Z,4.8nm,2.7s						
LESA	Schwarzleotal	33.59	311	*e*P	P	02 10 33.0	-0.4
	comp=Z,3.5nm,0.7s						
ZALV	Zalesovo Beam	33.85	37	P	P	02 10 35.3	-0.2
	comp=Z,3.3nm,0.8s,baz=254,slow=8.8,SNR=11						
	comp=Z,3.3nm,0.8s						
ZALV	Zalesovo Beam	33.85	37		P	02 10 36.5	+1.0
WTTA	Wattenberg	34.23	310	*e*P	P	02 10 38.6	-0.5
	comp=Z,7.4nm,0.9s						
WATA	Walderalm	34.28	310	*e*P	P	02 10 39.0	-0.6
	comp=Z,6.4nm,0.8s						
SQTA	Sankt Quirin	34.50	310	*e*P	P	02 10 40.8	-0.6
	comp=Z,9.4nm,0.8s						
MOTA	Moosalm	34.60	310	*e*P	P	02 10 41.2	-1.1
	comp=Z,8.1nm,0.8s						
FETA	Feichten	34.77	310	*e*P	P	02 10 43.6	-0.2
	comp=Z,7.6nm,0.9s						
FINES	FINESS Array B	34.83	339	P	P	02 10 43.0	-0.9
	comp=Z,2.3nm,0.9s,baz=133,slow=8.1,SNR=4.0						
	comp=Z,2.3nm,0.9s						
FINES	FINESS Array B	34.83	339	P	P	02 10 44.2	+0.3
RETA	Reutte	34.86	310	*e*P	P	02 10 43.3	-1.2
	comp=Z,3.2nm,0.6s						
DAVA	Damuels	35.39	310	*e*P	P	02 10 48.0	-1.2
	comp=Z,12nm,0.7s						
TUE	Stuetta	35.57	308	P	P	02 10 51.3	+0.5
	comp=Z,13nm,1.4s						
HFS	Hagfors	38.45	331	P	P	02 11 13.8	-1.1
	comp=Z,0.8nm,0.4s,baz=148,slow=8.7,SNR=5.1						
	comp=Z,0.8nm,0.4s						
NB2	NORSAR Subarra	39.97	331	P	P	02 11 29.8	+2.2
	comp=Z,0.5nm,0.5s,baz=122,slow=8.6						
NOA	NORSAR Array B	39.97	331	P	P	02 11 26.4	-1.2
	comp=Z,0.4nm,0.5s,baz=122,slow=8.4,SNR=2.7						

	comp=Z,0.4nm,0.5s						
ARCES	ARCESS Array B	41.53	347	P	P	02 11 39.9	-0.4
	comp=Z,1.6nm,1.0s,baz=160,slow=8.5,SNR=6.6						
	comp=Z,1.6nm,1.0s						
ARCES	ARCESS Array B	41.53	347	P	P	02 11 40.8	+0.5
ARCES				IAmb	IAmb	02 12 17.6	
	comp=Z,6.8nm,1.4s						
ESDC	Sonseca Array	45.01	297	P	P	02 12 09.3	+0.4
	comp=Z,0.8nm,1.0s,baz=75,slow=8.6,SNR=7.8						
	comp=Z,0.8nm,1.0s						
ESDC	Sonseca Array	45.01	297	P	P	02 12 08.5	-0.4
ESDC				IAmb	IAmb	02 12 24.1	
	comp=Z,4.5nm,1.3s						
EKA	Eskdalemuir Ar	45.07	319	P	P	02 12 08.4	-0.6
	comp=Z,2.2nm,1.0s,baz=100,slow=8.5,SNR=3.8						
	comp=Z,2.2nm,1.0s						
CMAR	Chiang Mai Arr	45.21	94	P	P	02 12 11.8	+1.2
	comp=Z,0.5nm,0.3s,baz=292,slow=8.1,SNR=1.6						
	comp=Z,0.5nm,0.3s						
CMAR	Chiang Mai Arr	45.21	94	P	P	02 12 10.5	-0.1
SONM	Songino Array	45.43	51	P	P	02 12 12.0	-0.2
	comp=Z,1.3nm,0.8s,baz=265,slow=8.6,SNR=5.6						
	comp=Z,1.3nm,0.8s						
SONM	Songino Array	45.43	51	P	P	02 12 12.6	+0.5
TORD	Torodi Ar. Bea	48.29	260	P	P	02 12 34.7	0.0
	comp=Z,2.1nm,0.6s,baz=52,slow=8.7,SNR=23						
	comp=Z,2.1nm,0.6s						
TORD	Torodi Ar. Bea	48.29	260	P	P	02 12 34.9	+0.2
HHC	Hu-ho-hao-te	49.57	61	*e*P	P	02 12 45.0	+0.6
HHC				pmax	pmax		
	comp=Z,15nm,0.8s						
HHC				pmax	pmax		
	comp=Z,51nm,3.5s						
KSRS	Korea Array	62.71	61	P	P	02 14 17.6	-0.6
	comp=Z,2.5nm,0.9s,baz=282,slow=7.5,SNR=9.3						
	comp=Z,2.5nm,0.9s						
BOSA	Boshof	63.69	205	P	P	02 14 25.9	+1.1
	comp=Z,2.7nm,0.8s,baz=49,slow=9.3,SNR=3.5						
	comp=Z,2.7nm,0.8s						
BOSA	Boshof	63.69	205	P	P	02 14 24.5	-0.3
QSPA	South Pole Qui	120.44	180	PKP	PKPdf	02 22 43.0	-0.8
	comp=Z,0.7nm,0.8s,baz=259,slow=2.2,SNR=6.0						
QSPA	South Pole Qui	120.44	180		PKPdf	02 22 44.3	+0.6

*NORS **29** 02:20:01.4, 41°.31N×45°.97E, h1^{km}, MPVA3.3*
*AZER **29** 02:20:02.4, 41°.28N×45°.95E, h24^{km}, ml1.9*
ISC 29 02:20:03.9±1.1, **41°.34N**±0°.03×**45°.92E**±0°.03, **h26**^{km}±14^{km}, **n16**, σ**1^{s}69**/31, **Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
QZX	Qazax, Azerbai	0.50	236	P	Pn	02 20 13.9	-1.5
QZX				S	Sn	02 20 22.1	-1.0
GDB	GEDABAY	0.63	191	P	Pb	02 20 15.7	-0.8
GDB				S	Sn	02 20 25.0	-1.7
GANJ	Ganja	0.76	156	P	Pn	02 20 17.7	-1.3
GANJ				S	Sn	02 20 28.8	-0.8
SEKA	Sheki	0.97	97	P	Pb	02 20 20.8	-1.4
SEKA				S	Sn	02 20 37.5	+2.4
MNGR	Mingechevir, A	1.05	122	P	Pn	02 20 23.5	+0.6
MNGR				S	Sn	02 20 39.5	+2.8
GNBR	Gunib	1.31	36	*e*Pg	Pn	02 20 26.8	+0.1
GNBR				*e*Sg	Sb	02 20 43.9	-0.4
BTLR	Botlikh	1.34	10	*e*Pg	Pb	02 20 27.5	-1.0
BTLR				*e*Sg	Sb	02 20 45.5	+0.2
GNI	Garni	1.48	217	*e*Pg	Pb	02 20 31.0	+0.1
GNI				*e*Sg	Sb	02 20 52.8	+3.4
QBL	Gabala	1.50	104	Sn	Sb	02 20 51.2	+1.4
XNQ	Khinaliq	1.68	95	Pn	Pb	02 20 32.9	-1.4
XNQ				Sn	Sb	02 20 55.9	+0.7
IML	Ismayilli	1.80	107	Pn	Pb	02 20 34.4	-1.8
IML				Sn	Sb	02 20 59.0	+0.8
DBC	Dubki	1.81	22	*e*Pg	Pb	02 20 36.3	-0.2
DBC				*e*Sg	Sb	02 21 00.8	+2.0
GROC	Groznyy	1.87	357	*e*Pg	Pb	02 20 35.7	-1.6
GROC				*e*Sg	Sb	02 21 03.4	+3.1
LACR	Lac	1.92	322	*e*Pg	Pb	02 20 37.2	-1.0
LACR				*e*Sg	Sb	02 21 02.3	+0.5
SBZ	Shahbuz	1.96	188	Pn	Pn	02 20 35.9	+0.3
SBZ				Sg	Sb	02 21 05.1	+2.1
PQL	Pirkuli	2.10	104	Pn	Pb	02 20 38.5	-2.8
PQL				Sn	Sb	02 21 07.8	+0.8

*NEIC **29** 02:45:29.4±0.9, 6°.9S±0°.1×125°.2E±0°.1, h541^{km}±4^{km}, mb4.1/11, Error ellipse: s-maj=21.7km s-min=16.4km az=73.0*
*IDC **29** 02:45:32.5±3.6, 6°.46S×126°.01E, h591^{km}±49^{km}, mb3.0/7, mbtmp4.1/9, Error ellipse: s-maj=41.1km s-min=12.2km az=68.0*
ISC 29 02:45:29.0±0.6, **6°.74S**±0°.09×**125°.4E**±0°.1, **h550**^{km}, **n31**, σ**1^{s}53**/33, **mb3.6**/10, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SOEI	Soe	3.19	200	P	P	02 46 43.7	-1.7
KAPI	Kappang	5.84	287		P	02 47 05.5	-0.7
FAKI	Fak Fak	7.84	61		P	02 47 25.0	-0.2
MTN	Manton Dam	8.31	137	P	P	02 47 31.0	+1.2
TOLI2	Tolitoli	9.04	329	P	P	02 47 36.8	-0.4
KNRA	Kununurra	9.49	160	P	P	02 47 41.2	-0.5
FITZ	Fitzroy Crossi	11.30	179	P	P	02 47 59.7	-0.5
MBWA	Marble Bar	15.34	200	P	P	02 48 39.5	-2.4
MBWA				IAmb	IAmb	02 49 14.7	
	comp=Z,19nm,1.3s						
WB0	Warramunga Arr	15.64	147	P	P	02 48 45.2	+0.1
WB0				IAmb	IAmb	02 48 47.0	
	comp=Z,4.9nm,0.6s						
WRA	Warramunga Arr	15.76	147	P	P	02 48 45.4	-0.8
	comp=Z,3.1nm,0.2s,baz=335,slow=9.2,SNR=51						
WRA	Warramunga Arr	15.76	147		P	02 48 44.2	-2.0
WR8	Warramunga Arr	15.85	147		P	02 48 47.5	+0.3
AS31	Alice Springs	18.73	155		P	02 49 15.1	+1.5
AS31				IAmb	IAmb	02 49 15.7	
	comp=Z,4.2nm,0.3s						
ASAR	Alice Springs	18.73	155	P	P	02 49 15.1	+1.5
	comp=Z,4.7nm,0.4s,baz=330,slow=8.7,SNR=142						
ASAR				S	S	02 52 16.4	+0.3
	comp=Z,0.5nm,0.7s,baz=333,slow=20,SNR=4.1						
ASAR	Alice Springs	18.73	155		P	02 49 15.2	+1.6
ASAR				PcP	PcP	02 53 10.1	-3.2
RABL	Rabaul	26.80	86	P	P	02 50 27.4	+1.6
STKA	Stephens Creek	29.25	151	P	P	02 50 48.5	+1.6
	comp=Z,3.9nm,0.3s,baz=320,slow=10,SNR=7.6						
	comp=Z,3.9nm,0.3s						
HNR	Honiara	34.34	97	P	P	02 51 26.5	-4.0
	comp=Z,106nm,0.5s,baz=283,slow=4.9,SNR=4.2						
SONM	Songino Array	56.86	345	P	P	02 54 20.2	-1.4
	comp=Z,0.8nm,0.7s,baz=158,slow=6.9,SNR=3.7						
	comp=Z,0.8nm,0.7s						
SONM	Songino Array	56.86	345	P	P	02 54 24.0	+2.3
MKAR	Makanchi Array	65.56	329	P	P	02 55 19.8	+1.3
	comp=Z,0.9nm,0.5s,baz=126,slow=8.0,SNR=11						
	comp=Z,0.9nm,0.5s						
MKAR	Makanchi Array	65.56	329	P	P	02 55 19.6	+1.1
ZALV	Zalesovo Beam	69.38	336	P	P	02 55 42.4	+0.7
	comp=Z,1.1nm,0.5s,baz=126,slow=7.5,SNR=4.0						
	comp=Z,1.1nm,0.5s						
KURBB	Kurchatov Arra	69.94	330	P	P	02 55 46.0	+0.9
	comp=Z,0.6nm,0.6s,baz=134,slow=4.7,SNR=4.5						
	comp=Z,0.6nm,0.6s						
KURK	Kurchatov	69.96	330	P	P	02 55 46.2	+1.0
KURK				IAmb	IAmb	02 56 21.0	
	comp=Z,2.7nm,1.2s						
VNDA	Vanda	73.30	172	P	P	02 56 05.1	+0.9
	comp=Z,0.2nm,0.5s,baz=332,slow=7.5,SNR=5.7						
	comp=Z,0.2nm,0.5s						
VNDA	Vanda	73.30	172	P	P	02 56 05.3	+1.1
VNDA				IAmb	IAmb	02 56 38.6	
	comp=Z,1.1nm,1.4s						
QSPA	South Pole Qui	83.24	180	P	P	02 56 58.3	+0.5
	comp=Z,1.3nm,1.1s,baz=335,slow=19,SNR=1.7						
	comp=Z,1.3nm,1.1s						
QSPA	South Pole Qui	83.24	180	P	P	02 56 58.6	+0.8
QSPA				IAmb	IAmb	02 56 58.6	
	comp=Z,2.2nm,1.1s						
SNAA	Sanae	94.81	194	P	P	02 57 52.4	+0.6
SNAA				IAmb	IAmb	02 57 53.6	
	comp=Z,3.9nm,1.4s						
AMTX	Amarillo	128.52	50		PKPdf	03 03 34.0	-0.3

*FCIAR **29** 02:47:20.0, 79°.37N×10°.00E, h10^{km}, station OMEGA has station magnitude of 3.90 station ZFI2 has station magnitude of 3.90*
*NAO **29** 02:47:23.5±1.6, 78°.40N×7°.57E, h13^{km}±13^{km}, ML2.9*
*BER **29** 02:47:24.8±4.0, 78°.35N×7°.25E, h25^{km}±35^{km}, Mw3.8, ML2.9(NAO), Confirmed Earthquake*
*KOLA **29** 02:47:26.5, 78°.55N×9°.29E, h0^{km}, ML2.5, Greenland sea*
*DNK **29** 02:47:26.0±1.0, 78°.34N×5°.43E, h0^{km}±30^{km}, ML1.8, Presumed earthquake*
ISC 29 02:47:22.5±1.9, **78°.44N**±0°.06×**8°.27E**±0°.07, **h10**^{km}±12^{km}, **n28**, σ**2^{s}19**/39, **Svalbard region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BRBB	Barentsburg B	1.27	103	Pb	Pb	02 47 47.1	+0.7
BRBB				Sb	Sn	02 48 06.5	+3.2
BRBB	Barentsburg B	1.27	103	*e*P	Pb	02 47 46.9	+0.4
BRBB				*e*S	Sn	02 48 03.3	0.0
BRBB	Barentsburg B	1.27	103	P	Pb	02 47 46.6	+0.2
BRBB				S	Sn	02 48 04.0	+0.8
BRBA	Barentsburg A	1.28	105	Pb	Pb	02 47 47.2	+0.6
BRBA				Sb	Sn	02 48 06.7	+3.1
BRBA	Barentsburg A	1.28	105	*e*P	Pb	02 47 47.1	+0.5
BRBA				*e*S	Sn	02 48 04.2	+0.6
BRBA				IAML		02 48 07.5	
	comp=Z,122nm,0.2s						
SPA0	Spitsbergen Ar	1.67	95	Pn	Pg	02 47 54.2	-0.4
	baz=270,slow=16						
SPA0				Sn	Sg	02 48 16.9	+0.7
	baz=278,slow=37						
SPA0	Spitsbergen Ar	1.67	95	*e*P	Pn	02 47 52.9	+1.0
SPA0				*e*S	Sg	02 48 16.2	0.0
SPA0	Spitsbergen Ar	1.67	95	Pn	Pg	02 47 54.2	-0.4
SPA0				Sn	Sg	02 48 16.9	+0.7
SPITS	Spitsbergen Ar	1.67	95	P	Pb	02 47 53.7	+0.3
SPITS				S	Sg	02 48 13.3	-2.9
HOPEN	Hopen	4.12	110	Pn	Pn	02 48 26.0	+0.6
HOPEN				Sn	Sn	02 49 12.5	-1.1
HOPEN	Hopen	4.12	110	*e*P	Pn	02 48 24.8	-0.6
HOPEN				*e*S	Sn	02 49 15.2	+1.7
HOPEN	Hopen	4.12	110	*e*P	Pn	02 48 25.3	-0.1
HOPEN				*e*S	Sn	02 49 12.0	-1.5
HOPEN				IAML		02 49 16.1	
	comp=Z,21nm,0.5s						
BJO1	Bjornoya	4.68	142	*e*P	Pn	02 48 34.2	+1.0
BJO1				*e*S	Sn	02 49 24.4	-3.1
BJO1				IAML		02 49 24.9	
	comp=Z,9.4nm,0.8s						
BEAR	Bear Island, N	4.69	142	Pn	Pn	02 48 34.9	+1.7
	baz=332,slow=18						
BEAR				Sn	Sn	02 49 22.2	-5.4
	baz=332,slow=37						
NOR	Nord	5.32	318	Pn	Pn	02 48 40.5	-1.4
NOR				Sn	Sn	02 49 37.5	-5.6
NOR	Nord	5.32	318	*e*P	Pn	02 48 41.4	-0.4
NOR				*e*S	Sn	02 49 39.0	-4.1
NOR	Nord	5.32	318	*e*P	Pn	02 48 39.8	-2.1
NOR				*e*S	Sn	02 49 36.6	-6.5
NOR	Nord	5.32	318	*i* P	Pn	02 48 42.0	+0.1
NOR				*i* S	Sn	02 49 37.5	-5.6
NOR				IAML		02 49 38.3	
	comp=Z,1.6nm,0.5s						
DAG	Danmarks Havn	5.99	267	*e*P	Pn	02 48 46.8	-4.3
DAG				*e*S	Sn	02 49 45.5	-14
DAG	Danmarks Havn	5.99	267	*e*P	Pn	02 48 46.1	-5.0
DAG				*i* S	Sn	02 49 46.5	-13
DAG				IAML		02 49 53.0	
	comp=Z,7.5nm,0.3s						
ZFI2	Zemlya Franca-	7.36	53	*e*P	Pn	02 49 14.3	+4.5
ZFI2				*e*S	Sn	02 50 29.5	-3.6
	comp=Z,42nm,2.2s						
ZFI2				AML	AML		
OMEGA	Omega	7.37	53	*e*P	Pn	02 49 13.8	+3.8
OMEGA				*e*S	Sn	02 50 29.5	-4.0
	comp=Z,37nm,2.2s						
OMEGA				AML	AML		
DBG	Daneborg	7.81	253	*e*P	Pn	02 49 11.6	-4.4
DBG				*e*S	Sn	02 50 29.1	-15
DBG	Daneborg	7.81	253	*e*P	Pn	02 49 11.3	-4.7
DBG				*i* S	Sn	02 50 29.5	-15
DBG				IAML		02 50 42.0	
	comp=Z,2.9nm,0.5s						
VADS	Vadso	10.03	135	P	Pn	02 49 47.8	+1.5
VADS				S	Sn	02 51 31.1	-7.6
VADS	Vadso	10.03	135	P	Pn	02 49 47.8	+1.5
VADS				S	Sn	02 51 31.1	-7.6
ARA0	ARCESS Array S	10.06	143	Pn	Pn	02 49 46.3	-0.6
	baz=349,slow=10						
ARA0	ARCESS Array S	10.06	143	Pn	Pn	02 49 46.3	-0.6

*IDC **29** 02:49:57.0±0.9, 5°.65S×152°.99E, h0^{km}, mb4.0/10, mbtmp4.0/11, ML1.9/1, MS3.1/3, Error ellipse: s-maj=22.8km s-min=15.4km az=106.0*
ISC 29 02:50:02.7±0.9, **5°.62S**±0°.08×**152°.9E**±0°.1, **h37**^{km}, **n16**, σ**1^{s}37**/16, **mb4.0**/10, **New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRVT	Keravat (AS076	1.57	326	Pn	Pn	02 50 25.4	-2.6
	133nm,0.3s,baz=180,slow=22,SNR=5.8						
KRVT				Sn	Sn	02 50 49.0	+1.9
	424nm,0.3s,baz=240,slow=22,SNR=12						
PMG	Port Moresby	6.83	236	Pn	Pn	02 51 38.2	-2.1
	1.3nm,0.3s,baz=68,slow=16,SNR=2.5						
PMG				Sn	Sn	02 52 58.8	+1.9
	0.7nm,0.3s,baz=9.9,slow=14,SNR=1.7						
	11nm,0.4s						
PMG				AML	AML		
CTA	Charters Tower	15.77	204	LR	LR	02 58 26.4	
	comp=Z,74nm,21.6s,baz=40,slow=32						
WRA	Warramunga Arr	23.00	230	P	P	02 55 04.6	+0.1
	3.0nm,1.1s,baz=56,slow=11,SNR=6.9						
	3.0nm,1.1s						
ASAR	Alice Springs	25.63	224	P	P	02 55 29.3	+0.3
	1.0nm,0.7s,baz=61,slow=8.6,SNR=11						
ASAR				LR	LR	03 05 44.9	
	comp=Z,61nm,18.1s,baz=290,slow=37						
	1.0nm,0.7s						
STKA	Stephens Creek	28.19	201	LR	LR	03 06 30.5	
	comp=Z,26nm,19.9s,baz=25,slow=35						
PETK	Petropavlovsk-	58.64	3	P	P	02 59 55.8	-0.2
	1.3nm,0.5s,baz=200,slow=6.9,SNR=1.9						
	1.3nm,0.5s						
SONM	Songino Array	67.07	328	P	P	03 00 52.8	+0.4
	0.6nm,0.5s,baz=123,slow=5.3,SNR=2.5						
	0.6nm,0.5s						
MKAR	Makanchi Array	81.00	319	P	P	03 02 15.2	+1.4
	0.8nm,0.8s,baz=108,slow=4.0,SNR=4.8						
	0.8nm,0.8s						
ZALV	Zalesovo Beam	81.89	326	P	P	03 02 18.6	+0.4
	1.8nm,0.6s,baz=117,slow=5.2,SNR=6.1						
	1.8nm,0.6s						
ILAR	Eielson Array	82.87	22	P	P	03 02 24.4	+1.3
	0.8nm,1.1s,baz=262,slow=5.6,SNR=2.7						
	0.8nm,1.1s						
QSPA	South Pole Qui	84.35	180	P	P	03 02 30.6	-0.3
	2.5nm,0.9s,baz=354,slow=3.6,SNR=4.5						
	2.5nm,0.9s						
KURBB	Kurchatov Arra	84.50	322	P	P	03 02 32.0	+0.2
	1.3nm,0.8s,baz=96,slow=3.9,SNR=5.3						
	1.3nm,0.8s						
BVAR	Borovoye Array	89.95	323	P	P	03 02 56.8	-1.4
	0.9nm,0.5s,baz=90,slow=4.3,SNR=5.0						
	0.9nm,0.5s						
BDFB	Brasilia	150.41	136	PKPbc	PKPbc	03 09 51.5	0.0
	3.4nm,0.7s,baz=304,slow=3.6,SNR=5.0						
TORD	Torodi Ar. Bea	150.65	287	PKPbc	PKPbc	03 09 52.0	+0.1
	1.9nm,0.7s,baz=65,slow=2.0,SNR=11						

*IDC **29** 02:53:49.5±0.9, 62°.31S×57°.90W, h0^{km}, mb3.9/7, mbtmp3.9/8, ML3.2/1, MS3.5/5, Error ellipse: s-maj=28.2km s-min=17.0km az=93.0*
*NEIC **29** 02:53:49.5±1.8, 62°.34S±0°.07×58°.5W±0°.2, h10^{km}±1^{km}, mb4.3/7, Error ellipse: s-maj=17.5km s-min=3.6km az=48.0*
ISC 29 02:53:50.0±0.7, **62°.34S**±0°.07×**58°.24W**±0°.08, **h10**^{km}, **n27**, σ**1^{s}04**/22, **mb4.0**/8, **MS3.5**/5, **South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ESPZ	Base Esperanza	1.20	152	Pn	Pn	02 54 11.6	-1.2
ESPZ				Sg	Sb	02 54 28.5	+0.1
PMSA	Palmer Station	3.56	224	Pn	Pn	02 54 44.8	-0.4
	2.1nm,0.3s,baz=48,slow=11,SNR=4.7						
PMSA				Sn	Sb	02 55 35.8	-0.5
	3.6nm,0.3s,baz=34,slow=4.9,SNR=3.7						
	9.3nm,0.4s						
PMSA				AML	AML		
PMSA	Palmer Station	3.56	224		Pn	02 54 45.0	-0.2
SMAI	San Martin Ant	6.89	209	Pn	Pn	02 55 29.7	-1.2
SNAA	Sanae	22.66	137	P	P	02 58 51.2	+0.3
	5.0nm,0.8s,baz=274,slow=10,SNR=9.4						
	5.0nm,0.8s						
PLCA	Paso Flores	22.87	335	P	P	02 58 55.4	+2.0
	5.0nm,1.0s,baz=154,slow=8.3,SNR=6.2						
PLCA				LR	LR	03 07 52.2	
	comp=Z,112nm,19.7s,baz=98,slow=37						
	5.0nm,1.0s						
PLCA	Paso Flores	22.87	335	P	P	02 58 52.7	-0.7
PLCA				IAmb	IAmb	02 58 57.8	
	comp=Z,6.2nm,1.1s						
GO06	Curarrehue	24.16	334	P	P	02 59 03.7	-2.5
GO06				IAmb	IAmb	02 59 10.4	
	comp=Z,19nm,0.9s						
QSPA	South Pole Qui	27.88	180	P	P	02 59 41.3	+1.6
	comp=Z,1.5nm,0.9s,baz=180,slow=2.0,SNR=6.5						
QSPA				LR	LR	03 12 55.2	
	comp=Z,52nm,19.0s,baz=178,slow=41						
	comp=Z,1.5nm,0.9s						
QSPA	South Pole Qui	27.88	180	P	P	02 59 40.1	+0.4
QSPA				IAmb	IAmb	02 59 50.1	
	comp=Z,6.2nm,1.2s						
CPUP	Villa Florida	36.01	1	P	P	03 00 51.1	+0.1
	comp=Z,2.0nm,1.1s,baz=210,slow=14,SNR=2.7						
	comp=Z,2.0nm,1.1s						
CPUP	Villa Florida	36.01	1	P	P	03 00 50.8	-0.1
CPUP				IAmb	IAmb	03 01 27.7	
	comp=Z,5.2nm,1.2s						
VNDA	Vanda	38.22	193	P	P	03 01 10.4	+1.1
	comp=Z,0.2nm,0.3s,baz=100,slow=6.2,SNR=5.9						
	comp=Z,0.2nm,0.3s						
VNDA	Vanda	38.22	193	P	P	03 01 08.9	-0.3
MAW	Mawson	43.57	152	P	P	03 01 53.4	+0.1
	comp=Z,1.1nm,0.8s,baz=225,slow=5.7,SNR=1.3						
MAW				LR	LR	03 20 22.8	
	comp=Z,120nm,18.1s,baz=223,slow=37						
	comp=Z,1.1nm,0.8s						
BDFB	Brasilia	47.20	13	P	P	03 02 22.7	-0.1
	comp=Z,0.9nm,0.4s,baz=187,slow=8.1,SNR=3.2						
	comp=Z,0.9nm,0.4s						
BDFB	Brasilia	47.20	13	P	P	03 02 22.1	-0.8
BDFB				IAmb	IAmb	03 02 24.6	
	comp=Z,4.3nm,1.0s						
RPN	Rapa Nui	48.52	292	LR	LR	03 17 44.8	
	comp=Z,52nm,20.8s,baz=125,slow=30						
SUR	Sutherland	56.88	97	LR	LR	03 23 27.8	
	comp=Z,55nm,18.1s,baz=214,slow=31						
H10S3	ASCENSION HYDR	61.92	51	T	T	04 11 33.1	
	baz=204,slow=74,SNR=3.5						
H10S2	ASCENSION HYDR	61.92	51	T	T	04 11 38.2	
	baz=16,slow=74,SNR=2.8						
H10N3	ASCENSION HYDR	63.01	50	T	T	04 12 56.6	
	baz=202,slow=75,SNR=5.8						
H10N1	ASCENSION HYDR	63.01	50	T	T	04 13 02.5	
	baz=202,slow=75,SNR=5.4						
H10N2	ASCENSION HYDR	63.02	50	T	T	04 12 57.5	
	baz=202,slow=75,SNR=5.6						
DBIC	Dimbokro	79.95	54	P	P	03 05 58.9	-0.1
BVAR	Borovoye Array	151.74	85	PKPbc	PKiKP	03 13 44.5	+0.7
	comp=Z,2.7nm,0.7s,baz=249,slow=2.6,SNR=10						
KURBB	Kurchatov Arra	153.95	97	PKPbc	PKiKP	03 13 49.4	+1.1
	comp=Z,0.3nm,0.6s,baz=238,slow=2.7,SNR=4.2						

*IDC **29** 03:00:38.6±12.0, 3°.23N×97°.21E, h0^{km}, mb3.5/2, mbtmp3.6/3, ML4.3/1, MS2.9/1, Error ellipse: s-maj=369.9km s-min=32.2km az=74.0*
*NEIC **29** 03:00:39.2±1.6, 3°.08N±0°.05×96°.77E±0°.07, h35^{km}±2^{km}, mb4.2/9, Error ellipse: s-maj=13.1km s-min=8.3km az=64.0*
*DJA **29** 03:00:43.1±0.3, 4°N±3°×9°8E±°, h10^{km}, M3.8/16, MLv3.8/16*
ISC 29 03:00:38.5±0.8, **3°.07N**±0°.06×**96°.7E**±0°.1, **h35**^{km}, **n24**, σ**1^{s}07**/22, **mb4.2**/7, **Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TPTI		0.49	67	P	Pn	03 00 54.7	+5.7
TPTI				AML	AML		
GSI	Gunungsitoli	1.95	154	Pn	Pn	03 01 09.0	-0.1
GSI					Sn	03 01 31.8	-0.5
GSI	Gunungsitoli	1.95	154	P	Sn	03 01 31.9	-0.5
LHMI	Lhok Sumawe	2.16	6	Pn	Pn	03 01 11.3	-0.6
LHMI	Lhok Sumawe	2.16	6	P	Pn	03 01 12.2	+0.2
LHMI				AML	AML		
PSI	Prapat	2.21	97	P	Pn	03 01 12.5	-0.3
RPSI	Rantau Prapat	2.23	100		Pn	03 01 12.8	-0.1
BSI	Banda Aceh	2.80	329	P	Pn	03 01 30.1	+9.3
BSI				AML	AML		
IPM	Ipoh	4.51	72		Pn	03 01 44.3	-0.1
CMAR	Chiang Mai Arr	15.45	8	Pn	P	03 04 16.8	-1.2
	0.4nm,0.3s,baz=197,slow=11,SNR=5.3						
	1.1nm,0.3s						
CMAR				AML	AML		
CMAR	Chiang Mai Arr	15.45	8	Pn	Pn	03 04 13.7	-0.2
MBWA	Marble Bar	32.98	138	P	P	03 07 09.1	-1.2
WB0	Warramunga Arr	43.40	123	P	P	03 08 37.5	-0.5
WB0				IAmb	IAmb	03 08 42.7	
	comp=Z,5.5nm,1.1s						
WRA	Warramunga Arr	43.44	123	P	P	03 08 41.1	+2.7
	comp=Z,0.9nm,0.8s,baz=303,slow=8.7,SNR=6.4						
	comp=Z,0.9nm,0.8s						
WRA	Warramunga Arr	43.44	123	P	P	03 08 38.3	-0.1
WR8	Warramunga Arr	43.58	123	P	P	03 08 39.5	0.0
WR8				IAmb	IAmb	03 09 01.8	
	comp=Z,6.5nm,1.3s						
HRA	Herat	44.71	318	P	P	03 08 48.4	-0.3
HRA				IAmb	IAmb	03 09 30.5	
	comp=Z,3.8nm,1.1s						
ASAR	Alice Springs	44.91	128	P	P	03 08 53.0	+2.9
	comp=Z,0.2nm,0.5s,baz=299,slow=8.3,SNR=2.3						
	comp=Z,0.2nm,0.5s						
ASAR	Alice Springs	44.91	128	P	P	03 08 50.9	+0.8
FORT	Forrest	45.01	141	P	P	03 08 50.6	-0.2
FORT				IAmb	IAmb	03 09 10.9	
	comp=Z,5.9nm,1.0s						
KURK	Kurchatov	49.88	345	P	P	03 09 29.3	+1.0
JHJ2	Mitsune	50.14	48	P	P	03 09 31.1	+0.5
RAYN	Ar Rayn	53.48	297	P	P	03 09 55.6	-0.2
RAYN				IAmb	IAmb	03 09 58.6	
	comp=Z,3.1nm,1.3s						
GNI	Garni	59.63	316	LR	LR	03 39 09.6	
	comp=Z,8.7nm,18.8s,baz=336,slow=39						

*MOS **29** 03:10:46.6±1.5, 78°.99N×2°.05E, h10^{km}, mb4.6/21, Error ellipse: s-maj=32.6km s-min=7.4km az=95.0*
*FCIAR **29** 03:10:46.0, 79°.34N×4°.65E, h10^{km}, station OMEGA has station magnitude of 4.00 station ZFI2 has station magnitude of 4.10*
*NAO **29** 03:10:47.3±1.1, 79°.35N×2°.75E, h15^{km}, ML3.7*
*IDC **29** 03:10:47.5±0.5, 79°.17N×2°.02E, h0^{km}, mb3.8/21, mbtmp3.8/27, ML2.9/5, MS3.4/40, Error ellipse: s-maj=12.0km s-min=10.0km az=28.0*
*BER **29** 03:10:48.2±2.6, 79°.23N×2°.41E, h10^{km}, Mw4.5, ML3.7(NAO), Confirmed Earthquake*
*KOLA **29** 03:10:49.6, 78°.94N×3°.80E, h0^{km}, ML3.1, Error ellipse: s-maj=60.9km s-min=27.4km az=10.0, Greenland sea,Knipovich ridge, north*
*NEIC **29** 03:10:49.1±1.1, 79°.07N±0°.06×2°.5E±0°.3, h10^{km}±1^{km}, mb4.6/98, Error ellipse: s-maj=11.8km s-min=7.5km az=142.0*
*DNK **29** 03:10:50.7±1.8, 79°.16N×0°.31E, h0^{km}±38^{km}, ML2.8, Presumed earthquake*
ISC 29 03:10:48.0±2.6, **79°.11N**±0°.04×**2°.18E**±0°.03, **h10**^{km}±16^{km}, **n256**, σ**2^{s}58**/263, **mb4.5**/85, **MS3.4**/38, **3C**, **Greenland Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BRBB	Barentsburg B	2.60	107	Pn	Pn	03 11 27.1	-2.9
BRBB				Sn	Sn	03 11 57.2	-4.4
BRBB	Barentsburg B	2.60	107	*e*P	Pn	03 11 27.1	-2.9
BRBB				*e*S	Sn	03 11 57.3	-4.3
BRBB	Barentsburg B	2.60	107	P	Pn	03 11 27.1	-3.0
BRBB				S	Sn	03 11 54.9	-6.7

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BRBA  Barentsburg A      2.62 108   Pn    Pn      03 11 27.6  -2.7
BRBA                                Sn    Sn      03 11 57.8  -4.3
BRBA  Barentsburg A      2.62 108  eP     Pn      03 11 28.0  -2.3
BRBA                               eS     Sn      03 11 57.2  -4.9
BRBA                                IAML          03 12 02.3
      comp=Z,123nm,0.6s
SPA0  Spitsbergen Ar     2.96 101   Pn    Pn      03 11 33.0  -2.0
      baz=293,slow=12
SPA0                                Sn    Sn      03 12 04.8  -5.6
      baz=298,slow=16
SPA0  Spitsbergen Ar     2.96 101  eP     Pn      03 11 31.9  -3.1
SPA0                               eS     Sn      03 12 03.8  -6.7
SPA0  Spitsbergen Ar     2.96 101   Pn    Pn      03 11 33.0  -2.0
SPA0                                Sn    Sn      03 12 04.8  -5.6
SPITS Spitsbergen Ar     2.96 101   Pn    Pn      03 11 32.8  -2.3
      comp=Z,67nm,0.4s,baz=286,slow=9.5,SNR=519
SPITS                               Sn    Sn      03 12 05.0  -5.5
      baz=290,slow=12
SPITS Spitsbergen Ar     2.96 101   P     Pn      03 11 32.7  -2.3
SPITS                                             03 12 07.1
SPITS Spitsbergen Ar     2.96 101   P     Pn      03 11 32.1  -2.9
SPITS                               S     Sn      03 12 04.9  -5.6
SPB2  Spitsbergen Ar     2.96 102         Pn      03 11 32.9  -2.1
SPB2                                Sn    Sn      03 12 07.6  -3.0
NOR   Nord               4.01 317   Pn    Pn      03 11 48.4  -1.2
NOR   Nord               4.01 317  eP     Pn      03 11 48.6  -0.9
NOR                                eS     Sn      03 12 37.1  +0.6
NOR   Nord               4.01 317  eP     Pn      03 11 48.2  -1.3
NOR                                eS     Sn      03 12 32.1  -4.5
NOR   Nord               4.01 317  i P    Pn      03 11 48.3  -1.2
NOR                                i S    Sn      03 12 32.5  -4.0
NOR                                 IAML          03 12 36.1
      comp=Z,38nm,0.4s
DAG   Danmarks Havn      4.94 252  eP     Pn      03 12 01.1  -1.1
DAG                                eS     Sn      03 12 53.0  -6.2
DAG   Danmarks Havn      4.94 252  i P    Pn      03 12 01.0  -1.1
DAG                                i S    Sn      03 12 53.0  -6.2
DAG                                 IAML          03 12 57.0
      comp=Z,113nm,0.4s
HOPEN Hopen              5.46 107   Pn    Pn      03 12 06.2  -3.2
HOPEN                               Sn    Sn      03 13 05.5  -6.6
HOPEN Hopen              5.46 107  eP     Pn      03 12 05.7  -3.6
HOPEN                              eS     Sn      03 13 04.8  -7.3
HOPEN Hopen              5.46 107  eP     Pn      03 12 06.2  -3.2
HOPEN                              eS     Sn      03 13 04.8  -7.3
HOPEN                               IAML          03 13 10.4
      comp=Z,23nm,0.5s
BJO1  Bjornoya           5.99 132   Pn    Pn      03 12 16.4  -0.2
BJO1  Bjornoya           5.99 132  eP     Pn      03 12 15.2  -1.4
BJO1  Bjornoya           5.99 132  eP     Pn      03 12 16.1  -0.5
BJO1                               eS     Sn      03 13 20.2  -4.9
BEAR  Bear Island, N     6.00 132   Pn    Pn      03 12 16.3  -0.4
      baz=323,slow=14
DBG   Daneborg           7.00 238   Pn    Pn      03 12 29.2  -1.3
DBG                                 Sn    Sn      03 13 41.6  -8.4
DBG   Daneborg           7.00 238  eP     Pn      03 12 28.6  -1.9
DBG                                eS     Sn      03 13 41.7  -8.4
DBG   Daneborg           7.00 238  i P    Pn      03 12 28.6  -1.9
DBG                                i S    Sn      03 13 41.6  -8.4
DBG                                 IAML          03 13 49.0
      comp=Z,42nm,0.4s
ZFI2  Zemlya Franca-     7.93  56  eP     Pn      03 12 41.4  -1.8
ZFI2                               eS     Sn      03 14 06.2  -6.7
      comp=Z,51nm,2.1s
ZFI2                                AML   AML
OMEGA Omega              7.95  56  eP     Pn      03 12 41.4  -2.0
      comp=Z,40nm,2.4s
OMEGA                              eS     Sn      03 14 06.2  -7.1
OMEGA                               AML   AML
JNW   Jan Mayen West     8.55 204  eP     Pn      03 12 50.7  -1.0
JNW                                eS     Sn      03 14 20.1  -8.0
JNW                                 IAML          03 14 24.6
      comp=Z,27nm,0.5s
JNE   Jan Mayen East     8.58 204  eP     Pn      03 12 51.6  -0.5
JMIC  Jan Mayen          8.60 204   Pn    Pn      03 12 51.0  -1.4
      comp=Z,28nm,0.3s,baz=348,slow=23,SNR=50
JMIC                                Sn    Sn      03 14 21.4  -7.9
      comp=Z,5.7nm,0.3s,baz=142,slow=19,SNR=1.3
JMIC                                LR    LR      03 15 24.6
      comp=Z,423nm,18.2s,baz=16,slow=32
JMIC  Jan Mayen          8.60 204  eP     Pn      03 12 51.1  -1.2
JMI   Jan Mayen          8.67 204  eP     Pn      03 12 52.7  -0.7
JMI                                eS     Sn      03 14 21.3   -10
JMI                                 IAML          03 14 24.3
      comp=Z,39nm,0.4s
HAMF  Hammerfest        10.08 136  eP     Pn      03 13 11.9  -0.7
TRO   Tromso            10.47 146  eP     Pn      03 13 17.7  -0.2
SCO   Scoresbysund      10.59 228   P     Pn      03 13 19.0  -0.6
SCO   Scoresbysund      10.59 228   Pn    Pn      03 13 19.0  -0.6
SCO   Scoresbysund      10.59 228  i P    Pn      03 13 18.0  -1.6
NEEM  North Greenlan    10.62 288  i P    Pn      03 13 16.0  -4.3
NEEM                                IAML          03 15 13.5
      comp=Z,33nm,0.3s
ARCES ARCESS Array B    11.35 135   Pn    Pn      03 13 29.2  -0.8
      comp=Z,0.1nm,0.3s,baz=350,slow=13,SNR=10
      comp=Z,3.3nm,0.9s
ARCES                               AML   AML
ARCES ARCESS Array B    11.35 135   P     Pn      03 13 29.7  -0.4
ARCES ARCESS Array B    11.35 135   Pn    Pn      03 13 29.7  -0.4
ARCES ARCESS Array B    11.35 135   P     Pn      03 13 28.6  -1.5
ARA0  ARCESS Array S    11.35 135   Pn    Pn      03 13 29.5  -0.6
      baz=348,slow=10
ARA0  ARCESS Array S    11.35 135   Pn    Pn      03 13 29.5  -0.6
KEV   Kevo              11.36 132   P     Pn      03 13 30.1  +0.1
KEV   Kevo              11.36 132  eP     Pn      03 13 30.1  +0.1
KEV   Kevo              11.36 132   Pn    Pn      03 13 30.1  +0.1
VADS  Vadso             11.37 128  eP     Pn      03 13 28.8  -1.4
VADS                               eS     Sn      03 15 24.4   -13
VADS                                IAML          03 15 35.7
      comp=Z,2.9nm,0.6s
VADS  Vadso             11.37 128   P     Pn      03 13 30.5  +0.3
VADS                                S     Sn      03 15 27.2   -10
LOF   Lofoten           11.45 158  eP     Pn      03 13 31.3  -0.1
KTK1  Kautokeino        11.55 140  eP     Pn      03 13 36.4  +3.6
SUMG  Summit            11.59 258   P     Pn      03 13 32.3  -1.3
SUMG  Summit            11.59 258         Pn      03 13 32.2  -1.3
SUMG  Summit            11.59 258  i P    Pn      03 13 47.3   +14
SUMG                                IAML          03 15 51.6
      comp=Z,20nm,0.4s
STEI  Steigen           11.78 155  eP     Pn      03 13 36.3  +0.5
HEF   Hetta             12.17 140  eP     Pn      03 13 41.6  +0.3
FAUS  Fauske            12.32 156   P     Pn      03 13 36.4  -6.8
FAUS                                S     Sn      03 15 37.1   -23
VAGH  Vaagaholmen       12.82 160  eP     Pn      03 13 50.0  -0.1
KONS  Konsvik           13.04 160  eP     Pn      03 13 54.0  +1.0
TERR  Teriberka         13.10 121   S     Sn      03 16 13.9  -5.3
STOK  Stokkvaagen       13.20 161  eP     Pn      03 13 55.4  +0.2
LEIR  Leirfjorden       13.43 161  eP     Pn      03 13 59.9  +1.7
APA   Apatity           14.31 126  eP     Pn      03 14 10.0  -0.4
APA                                eS     Sn      03 16 48.4  -0.4
APA                                 pmax  pmax
      comp=Z,5.0nm,1.1s
UPNV  Upernavik         14.77 276  i P    Pn      03 14 11.1  -5.5
BORG  Borgarnes         15.92 219   LR    LR      03 19 05.6
      comp=Z,240nm,21.6s,baz=23,slow=31
NC204 NORSAR Array S    18.12 167         P       03 15 01.5  +1.6
NOA   NORSAR Array B    18.38 166   P     P       03 15 02.9  +0.3
      baz=351,slow=13,SNR=2.2
NOA                                 LR    LR      03 20 51.6
      comp=Z,92nm,19.8s,baz=345,slow=33
      comp=Z,0.3nm,0.6s
SFJD  Kangerlussuaq     18.57 259   P     P       03 15 02.6  -2.1
      comp=Z,5.0nm,0.5s,baz=23,slow=13,SNR=8.1
SFJD                                LR    LR      03 22 38.2
      comp=Z,137nm,18.4s,baz=26,slow=38
SFJD  Kangerlussuaq     18.57 259   P     P       03 15 01.8  -2.9
SFJD                                pmax  pmax
      comp=Z,11nm,1.0s
SFJD  Kangerlussuaq     18.57 259   P     P       03 15 01.8  -2.9
LSH   Leshukonskoye     18.80 114  eP     Pn      03 15 08.1  +0.4
LSH                                eS     Sn      03 18 33.8  -3.9
FINES FINESS Array B    19.18 144   P     Pn      03 15 11.9  -0.3
      comp=Z,0.1nm,0.3s,baz=298,slow=4.1,SNR=4.7
FINES                               LR    LR      03 22 43.4
      comp=Z,60nm,19.5s,baz=353,slow=37
      comp=Z,0.9nm,0.8s
FINES                               AML   AML
FINES FINESS Array B    19.18 144   P     Pn      03 15 11.2  -1.0
HFS   Hagfors           19.41 163   P     Pn      03 15 14.2  -0.8
      comp=Z,0.2nm,0.3s,baz=359,slow=12,SNR=6.9
HFS                                 LR    LR      03 21 34.2
      comp=Z,129nm,18.9s,baz=356,slow=33
      comp=Z,0.9nm,0.5s
HFS                                 AML   AML
RES   Resolute Bay      19.91 309   P     P       03 15 17.6  -1.6
      comp=Z,0.3nm,0.3s,baz=42,slow=13,SNR=10
RES                                 LR    LR      03 23 08.2
      comp=Z,78nm,18.4s,baz=358,slow=37
      comp=Z,4.7nm,0.7s
RES                                 AML   AML
RES   Resolute Bay      19.91 309   P     P       03 15 18.5  -0.7
RES                                 pmax  pmax
      comp=Z,25nm,1.5s
RES   Resolute Bay      19.91 309   P     P       03 15 18.5  -0.7
KLMR  Klimovskoe        21.55 126  eP     P       03 15 38.9  +1.8
KLMR                                pmax  pmax
      comp=Z,27nm,1.4s
VSU   Vasula            22.17 145  i P    P       03 15 43.9  +0.2
ILON  Igloolik, Nuna    22.32 292   P     P       03 15 46.9  +1.6
ILON                                IAmb  IAmb    03 15 55.2
      comp=Z,13nm,0.8s
NRIK  Noril'sk          22.59  67   P     P       03 15 48.4  +0.2
      comp=Z,8.1nm,1.0s,baz=320,slow=8.3,SNR=6.4
NRIK                                LR    LR      03 26 39.0
      comp=Z,111nm,18.7s,baz=340,slow=42
      comp=Z,8.1nm,1.0s
NRIK  Noril'sk          22.59  67  i P    P       03 15 46.0  -2.1
NRIK                                pmax  pmax
      comp=Z,43nm,1.2s
NRIK  Noril'sk          22.59  67   P     P       03 15 49.2  +1.1
NRIK                                IAmb  IAmb    03 16 00.1
      comp=Z,60nm,1.4s
EKA   Eskdalemuir Ar    23.96 188   P     P       03 16 02.5  +0.5
      comp=Z,0.8nm,0.7s,baz=355,slow=7.1,SNR=3.8
EKA                                 LR    LR      03 23 37.5
      comp=Z,126nm,18.8s,baz=358,slow=32
      comp=Z,0.8nm,0.7s
FRB   Frobisher Bay     24.87 274   LR    LR      03 26 55.5
      comp=Z,81nm,18.0s,baz=20,slow=39
KIRV  Kirov             25.32 116   LR    LR      03 27 34.8
      comp=Z,60nm,18.5s,baz=1.4,slow=40
KIRV  Kirov             25.32 116  i P    P       03 16 14.6  +0.2
NACGM Naroch            25.67 146  eP     P       03 16 18.9  +1.3
      comp=Z,3.0nm,0.8s,baz=350
MNK   Minsk             26.18 145  i P    P       03 16 23.6  +1.4
MNK                                i                03 17 02.0
MNK                                i PPP  PPP     03 17 10.5
MNK                                i S    S       03 20 57.7  +3.9
MNK                                i SS   SnSn    03 21 59.0  +7.0
MNK                                i SSS  SSS     03 22 12.3
MNK                                 pmax  pmax
      comp=N,8.0nm,1.0s
MNK                                 pmax  pmax
      comp=Z,3.0nm,0.7s
MNK                                 pmax  pmax
      comp=E,11nm,0.7s
MNK                                 MLR   MLR
      comp=Z,41nm,14.0s
MNK                                 MLR   MLR
      comp=N,60nm,17.0s
MNK                                 MLR   MLR
      comp=E,116nm,20.0s
MNK   Minsk             26.18 145  i P    P       03 16 23.6  +1.4
      comp=E,11nm,0.7s
MNK                                i P    P       03 16 23.6  +1.4
      comp=N,8.0nm,1.0s
MNK                                i P    P       03 16 23.6  +1.4
      comp=Z,3.0nm,0.7s,baz=349
MNK                                i PP   PnPn    03 17 02.0  +1.4
MNK                                i PPP  PPP     03 17 10.6
MNK                                i S    S       03 20 57.7  +3.9
MNK                                i SS   SnSn    03 21 59.0  +7.0
MNK                                i SSS  SSS     03 22 12.4
MNK                                i LQ   LQ      03 24 57.1
MNK                                i LR   LR      03 26 45.0
MNK                                i LRM  MLR     03 27 39.1
      comp=Z,41nm,13.9s
MNK                                i LRM  MLR     03 27 59.4
      comp=N,60nm,17.2s
MNK                                i LRM  MLR     03 28 02.7
      comp=E,116nm,20.4s
MOS   Moscow            26.20 132  eP     P       03 16 29.0  +6.6
MOS                                e              03 17 17.4
TIXI  Tiksi             26.46  35   LR    LR      03 25 55.0
      comp=E,51nm,21.0s,baz=349,slow=34
OBN   Obninsk           26.66 134  i P    P       03 16 28.2  +1.7
OBN                                i              03 17 08.0
OBN                                 pmax  pmax
      comp=Z,44nm,1.9s
CLL   Collm             28.18 166  eP     P       03 16 41.0  +0.8
CLL   Collm             28.18 166  eP     P       03 16 41.0  +0.8
CLL                                ePPPP          03 17 46.0
CLL                                eS     S       03 21 36.0   +11
CLL                                eSS    SnSn    03 22 42.0  +1.2
CLL                                 LH            03 23 00.0
CLL                                eSSS   SSS     03 23 12.0
CLL                                 LV            03 24 00.0
CLL                                 AMS   AMS     03 27 00.0
      comp=N,100nm,16.4s
CLL                                 AMS   AMS     03 27 00.0
      comp=Z,100nm,18.7s
ARTI  Arti              28.99 108   LR    LR      03 29 41.4
      comp=Z,54nm,18.2s,baz=359,slow=39
ARTI  Arti              28.99 108c iP     P       03 16 59.0   +12
ARTI                                              03 17 53.2
ARTI                                              03 19 55.5
ARTI                                SS    SS      03 23 25.9   -14
ARTI                                pmax  pmax
      comp=Z,11nm,1.3s
VRAC  Vranov            30.37 161   LR    LR      03 28 14.5
      comp=Z,57nm,18.9s,baz=343,slow=34
GERES GERESS Array B    30.67 165   P     P       03 17 04.4  +1.9
      comp=Z,0.4nm,0.3s,baz=336,slow=6.5,SNR=2.1
GERES                               LR    LR      03 28 58.0
      comp=Z,75nm,18.8s,baz=6.0,slow=36
      comp=Z,0.4nm,0.3s
GERES GERESS Array B    30.67 165   P     P       03 17 03.5  +1.0
E29M  Blow River        30.92 332   P     P       03 17 05.3  +1.0
BMAR  Burnt Mountain    32.40 337   P     P       03 17 18.8  +1.3
DAVOX Davos/Dischmat    32.58 170   LR    LR      03 29 09.6
      comp=Z,68nm,20.8s,baz=18,slow=34
BUR08 Bucovina Ar. S    32.69 151         P       03 17 20.9  +0.6
BURAR Bucovina Array    32.72 151   P     P       03 17 20.5   0.0
BILL  Bilibino          32.76  11  i P    P       03 17 18.6  -1.9
BILL                                pmax  pmax
      comp=Z,14nm,2.0s
YKA   Yellowknife Ar    33.93 312   P     P       03 17 30.9  +0.2
      comp=Z,2.5nm,1.0s,baz=25,slow=8.2,SNR=4.4
      comp=Z,2.5nm,1.0s
YKA   Yellowknife Ar    33.93 312  i P    P       03 17 33.7  +3.0
YKA                                 pmax  pmax
      comp=Z,2.0nm,0.9s
YKA   Yellowknife Ar    33.93 312   P     P       03 17 31.4  +0.7
BORK  Borovoye          34.37  97  i P    P       03 17 35.0  +0.3
BORK                                pmax  pmax
      comp=Z,4.0nm,0.9s
BVAR  Borovoye Array    34.41  97   P     P       03 17 36.4  +1.4
      comp=Z,1.2nm,0.6s,baz=338,slow=12,SNR=3.5
      comp=Z,1.2nm,0.6s
AKTO  Aktyubinsk        34.61 111   LR    LR      03 33 43.6
      comp=Z,47nm,18.3s,baz=172,slow=40
MLR   Muntele Rosu      34.90 150   LR    LR      03 31 21.3
      comp=Z,58nm,20.4s,baz=13,slow=35
ILAR  Eielson Array     35.20 338   P     P       03 17 41.9  +0.2
      comp=Z,0.6nm,1.0s,baz=2.0,slow=6.0,SNR=4.7
      comp=Z,0.6nm,1.0s
ILAR  Eielson Array     35.20 338   P     P       03 17 42.8  +1.1
YAK   Yakutsk           35.78  40   LR    LR      03 32 21.2
      comp=Z,37nm,21.0s,baz=28,slow=36
ZALV  Zalesovo Beam     36.27  82   P     P       03 17 51.7  +0.8
      comp=Z,0.4nm,0.4s,baz=334,slow=9.6,SNR=1.6
      comp=Z,0.4nm,0.4s
ZALV  Zalesovo Beam     36.27  82   P     P       03 17 51.1  +0.2
KURK  Kurchatov         38.17  90ceP      P       03 18 07.8  +0.7
KURK                                pmax  pmax
      comp=Z,12nm,1.1s
KURK  Kurchatov         38.17  90         P       03 18 06.7  -0.4
KURBB Kurchatov Arra    38.24  90   P     P       03 18 08.8  +1.1
      comp=Z,0.8nm,0.7s,baz=339,slow=7.8,SNR=6.9
KURBB                               LR    LR      03 37 37.8
      comp=Z,73nm,18.4s,baz=177,slow=42
      comp=Z,0.8nm,0.7s
KIV   Kislovodsk        38.42 131  eP     P       03 18 10.6  +1.2
KIV                                 pmax  pmax
      comp=Z,5.0nm,1.1s
KIV                                 MLR   MLR
      comp=Z,23nm,16.0s
KBZ   Khabaz            38.67 131   P     P       03 18 12.7  +1.3
      comp=Z,2.5nm,0.8s,baz=356,slow=5.1,SNR=4.7
KBZ                                 LR    LR      03 33 58.0
      comp=Z,31nm,20.7s,baz=30,slow=36
      comp=Z,2.5nm,0.8s
KBZ   Khabaz            38.67 131  i P    P       03 18 11.0  -0.4
KBZ                                 pmax  pmax
      comp=Z,13nm,2.5s
ESDC  Sonseca Array     39.63 187   P     P       03 18 21.1  +1.5
      comp=Z,0.3nm,0.7s,baz=12,slow=8.8,SNR=2.4
ESDC                                LR    LR      03 32 58.8
      comp=Z,44nm,21.9s,baz=337,slow=34
      comp=Z,0.3nm,0.7s
ESDC  Sonseca Array     39.63 187   P     P       03 18 20.3  +0.8
MA2   Magadan           40.31  24   LR    LR      03 33 57.9
      comp=Z,62nm,19.2s,baz=319,slow=34
DGZ   Jazzator, Alta    40.81  82  i P    P       03 18 28.2  -1.1
DGZ                                 pmax  pmax
      comp=Z,10.0nm,3.0s
BRTR  Keskin Array B    41.41 143   P     P       03 18 35.6  +1.3
      comp=Z,0.4nm,0.5s,baz=2.2,slow=6.6,SNR=3.5
      comp=Z,0.4nm,0.5s
BRTR  Keskin Array B    41.41 143  i P    P       03 18 37.0  +2.7
BRTR                                pmax  pmax
      comp=Z,1.0nm,0.8s
BRTR  Keskin Array B    41.41 143   P     P       03 18 34.1  -0.2
KNGR  Kungurtug, Tuv    41.81  72  i P    P       03 18 37.5   0.0
KNGR                                pmax  pmax
      comp=Z,6.0nm,1.1s
TLY   Talaya            41.86  66   LR    LR      03 38 00.5
      comp=Z,61nm,18.0s,baz=342,slow=39
MK31  Makanchi Array    42.63  88  i P    P       03 18 45.6  +1.5
MKAR  Makanchi Array    42.63  88   P     P       03 18 45.1  +1.1
      comp=Z,0.9nm,0.6s,baz=343,slow=7.6,SNR=7.1
MKAR                                LR    LR      03 40 01.2
      comp=Z,46nm,18.0s,baz=324,slow=41
      comp=Z,0.9nm,0.6s
MKAR  Makanchi Array    42.63  88  i P    P       03 18 46.0  +1.9
MKAR                                pmax  pmax
      comp=Z,1.0nm,0.6s
MKAR  Makanchi Array    42.63  88         P       03 18 45.4  +1.3
ULM   Lac du Bonnet     42.64 290   P     P       03 18 44.0  -0.1
      comp=Z,4.5nm,0.7s,baz=13,slow=8.3,SNR=6.2
ULM                                 LR    LR      03 36 07.5
      comp=Z,90nm,18.2s,baz=60,slow=36
      comp=Z,4.5nm,0.7s
ULM   Lac du Bonnet     42.64 290   P     P       03 18 45.6  +1.5
EPLO  Experimental L    42.81 288   P     P       03 18 46.9  +1.4
EPLO                                IAmb  IAmb    03 18 47.6
      comp=Z,7.5nm,0.7s
SADO  Sadowa            44.81 272   LR    LR      03 40 10.7
      comp=Z,56nm,18.5s,baz=356,slow=39
SONM  Songino Array     46.05  65   P     P       03 19 12.5  +0.9
      comp=Z,0.2nm,0.3s,baz=339,slow=6.2,SNR=1.6
SONM                                LR    LR      03 40 51.1
      comp=Z,123nm,18.9s,baz=262,slow=39
      comp=Z,0.2nm,0.3s
SONM  Songino Array     46.05  65   P     P       03 19 11.6  +0.1
ULN   Ulaanbaatar       46.13  65ceP      P       03 19 12.6  +0.4
ULN                                 pmax  pmax
      comp=Z,9.0nm,1.1s
WMQ   Urumqi            46.52  84  eP     P       03 19 18.5  +3.3
WMQ                                 pmax  pmax
      comp=Z,13nm,0.7s
WMQ                                 LR    LR
      comp=Z,52nm,15.5s
F33A  5 Mile Ranch,     46.97 289   P     P       03 19 19.7  +1.1
F33A                                IAmb  IAmb    03 19 38.7
      comp=Z,9.2nm,1.4s
PETK  Petropavlovsk-    47.23  20   LR    LR      03 37 51.2
      comp=Z,50nm,20.9s,baz=1.6,slow=34
LDM   Libby Dam         47.61 307         P       03 19 25.4  +1.7
KLR   Kul'dur           48.55  42   LR    LR      03 40 22.4
      comp=Z,40nm,19.1s,baz=318,slow=37
PAMR  Moraine State     48.69 272   P     P       03 19 33.4  +1.4
GBMT  Granite Butte,    48.72 304   P     P       03 19 33.8  +1.4
KSH2  Kashi             48.73  98   P     P       03 19 40.0  +7.4
KSH2                                pmax  pmax
      comp=Z,4.0nm,0.9s
SUSD  Miller            48.79 291   P     P       03 19 34.3  +1.5
MSO   Missoula          48.98 305         P       03 19 35.9  +1.6
ECSD  EROS Data Cent    49.06 289         P       03 19 36.4  +1.5
ASF   Jabal al Asfar    49.25 140   LR    LR      03 43 20.5
      comp=Z,21nm,18.3s,baz=32,slow=40
RLMT  Red Lodge         49.90 301         P       03 19 42.9  +1.5
RLMT                                IAmb  IAmb    03 19 44.6
      comp=Z,5.7nm,1.1s
P53A  Whipple           50.34 273         P       03 19 45.7  +1.1
YMP   Mirror Lake Pl    50.41 301   P     P       03 19 46.6  +1.1
YMP                                 IAmb  IAmb    03 19 48.7
      comp=Z,6.4nm,1.0s
YHL   Hebgen Lake       50.47 302         P       03 19 47.5  +1.6
YHL                                 IAmb  IAmb    03 19 49.1
      comp=Z,7.4nm,1.0s
YHH   Holmes Hill       50.48 302         P       03 19 47.8  +1.8
Q54A  Coxs Mills        50.72 272   P     P       03 19 49.9  +2.5
Q54A                                IAmb  IAmb    03 19 50.1
      comp=Z,9.8nm,0.8s
YPP   Pitchstone Pla    50.98 302   P     P       03 19 51.5  +1.8
YPP                                 IAmb  IAmb    03 19 54.0
      comp=Z,5.1nm,0.9s
P48A  Milroy            51.13 277         P       03 19 51.1  +0.6
P48A                                IAmb  IAmb    03 19 52.5
      comp=Z,13nm,0.9s
BCYI  Bear Canyon       51.35 304         P       03 19 54.2  +1.8
BMO   Blue Mountains    51.43 308   P     P       03 19 54.7  +1.8
BMO                                 pmax  pmax
      comp=Z,8.0nm,1.2s
BMO   Blue Mountains    51.43 308         P       03 19 54.6  +1.8
BMO                                 IAmb  IAmb    03 19 55.7
      comp=Z,8.3nm,1.2s
FXWY  Fox Creek         51.63 302         P       03 19 56.0  +1.5
FXWY                                IAmb  IAmb    03 19 58.1
      comp=Z,7.0nm,1.1s
T59A  Double "B" Far    52.05 268   P     P       03 19 58.6  +1.2
T59A                                IAmb  IAmb    03 19 59.9
      comp=Z,8.1nm,0.7s
R50A  Paris             52.06 275         P       03 19 58.4  +0.9
R50A                                IAmb  IAmb    03 19 59.6
      comp=Z,9.1nm,0.9s
R49A  Shelbyville       52.21 276         P       03 19 59.7  +1.1
R49A                                IAmb  IAmb    03 20 00.8
      comp=Z,15nm,1.2s
PDAR  Pinedale Array    52.24 300   P     P       03 19 59.6  +0.6
      comp=Z,1.1nm,1.0s,baz=31,slow=6.9,SNR=7.7
      comp=Z,1.1nm,1.0s
PDAR  Pinedale Array    52.24 300   P     P       03 20 00.6  +1.5
HLID  Hailey            52.24 305         P       03 19 59.4  +0.3
BLA   Blacksburg        52.36 271   P     P       03 20 01.0  +1.2
BLA                                 pmax  pmax
      comp=Z,10.0nm,1.0s
BLA   Blacksburg        52.36 271   P     P       03 20 01.0  +1.2
BLA                                 IAmb  IAmb    03 20 02.4
      comp=Z,10nm,1.0s
MFID  Camas Ranch       52.60 306   P     P       03 20 02.4  +0.8
R40A  Maddies Statio    53.54 283         P       03 20 08.7  +0.2
R40A                                IAmb  IAmb    03 20 09.8
      comp=Z,8.2nm,0.8s
HHC   Hu-ho-hao-te      53.71  63  eP     P       03 20 09.3  -0.5
HHC                                 pmax  pmax
      comp=Z,8.0nm,0.6s
HHC                                 pmax  pmax
      comp=Z,96nm,5.6s
HHC                                 LR    LR
      comp=N,95nm,17.6s
HHC                                 LR    LR
      comp=E,100nm,17.5s
HHC                                 LR    LR
      comp=Z,100nm,17.7s
SPUT  South Promonto    54.13 302   P     P       03 20 14.0  +1.1
SPUT                                IAmb  IAmb    03 20 15.8
      comp=Z,6.6nm,1.1s
S39A  Bolivar           54.32 284         P       03 20 14.6  +0.5
S39A                                IAmb  IAmb    03 20 16.1
      comp=Z,3.5nm,0.8s
TKL   Tuckaleechee C    54.50 274   LR    LR      03 41 54.8
      comp=Z,42nm,19.8s,baz=142,slow=34
O20A  White River Ci    54.59 298         P       03 20 16.9  +0.6
O20A                                IAmb  IAmb    03 20 19.4
      comp=Z,9.4nm,0.9s
BSUT  Blindstream Ca    54.61 301         P       03 20 17.9  +1.2
BSUT                                IAmb  IAmb    03 20 19.8
      comp=Z,6.1nm,1.1s
PBMO  Poplar Bluff      54.67 281   P     P       03 20 17.4  +0.8
PBMO                                IAmb  IAmb    03 20 18.0
      comp=Z,8.2nm,1.0s
ASAJ  Asahikawa         54.86  34   LR    LR      03 45 06.1
      comp=Z,24nm,18.2s,baz=85,slow=38
```

ELK	Elko	55.12	305	P	P	03 20 22.2	+2.0
ELK				pmax	pmax		
	comp=Z,5.0nm,1.1s						
ELK	Elko	55.12	305		P	03 20 22.2	+2.0
ELK				IAmb	IAmb	03 20 23.6	
	comp=Z,4.8nm,1.1s						
T35A	Sooner Cattle	55.66	286	P	P	03 20 24.8	+0.9
T35A				IAmb	IAmb	03 20 25.4	
	comp=Z,8.9nm,1.0s						
U38A	Gravette	55.73	284	P	P	03 20 25.1	+0.7
FCAR	Ozark Folk Cen	55.85	282	P	P	03 20 25.6	+0.4
FCAR				IAmb	IAmb	03 20 26.5	
	comp=Z,4.2nm,0.9s						
TMUT	Trail Mountain	55.89	301	P	P	03 20 24.3	-1.6
TMUT				IAmb	IAmb	03 20 29.2	
	comp=Z,4.5nm,1.0s						
OK051	E0350 and S346	56.12	287	P	P	03 20 28.1	+1.0
OK048	Pawnee Station	56.22	287		P	03 20 28.8	+0.9
PV22	Blue Mesa, Par	56.24	298	P	P	03 20 29.1	+0.9
PV22				IAmb	IAmb	03 20 46.3	
	comp=Z,12nm,1.3s						
Q16A	Castle Valley	56.26	301		P	03 20 30.2	+1.8
Q16A				IAmb	IAmb	03 20 31.8	
	comp=Z,6.0nm,1.0s						
PV23	Carpenter Ridg	56.35	298	P	P	03 20 30.8	+1.7
PV04	Paradox Valley	56.39	298	P	P	03 20 30.4	+1.1
PV04				IAmb	IAmb	03 20 32.5	
	comp=Z,16nm,1.3s						
PV10	Paradox Valley	56.43	298	P	P	03 20 31.9	+2.2
SDCO	Great Sand Dun	56.45	295	P	P	03 20 31.3	+1.5
PV12	Saucer Basin,	56.45	298	P	P	03 20 31.5	+1.7
PV12				IAmb	IAmb	03 20 43.9	
	comp=Z,6.0nm,1.0s						
PV20	West Nyswonger	56.45	298	P	P	03 20 31.6	+1.8
WHAR	Wooly Hollow	56.46	282		P	03 20 30.6	+1.0
WHAR				IAmb	IAmb	03 20 31.4	
	comp=Z,6.0nm,0.9s						
PV16	Nyswonger Mesa	56.48	298	P	P	03 20 31.6	+1.6
PV16				IAmb	IAmb	03 20 33.1	
	comp=Z,15nm,1.4s						
PV11	David Mesa, Pa	56.48	298	P	P	03 20 31.8	+1.9
PV03	Paradox Valley	56.52	298	P	P	03 20 32.4	+2.1
PV03				IAmb	IAmb	03 21 02.2	
	comp=Z,14nm,1.4s						
PV18	Skein Mesa, Pa	56.54	298	P	P	03 20 31.8	+1.4
PV01	Paradox Valley	56.59	298		P	03 20 32.5	+1.7
PV01				IAmb	IAmb	03 20 33.9	
	comp=Z,5.0nm,0.9s						
OK052	Battle Ridge R	56.61	286	P	P	03 20 32.0	+1.4
PV13	Radium Mtn., P	56.61	298	P	P	03 20 33.0	+2.1
PV05	Paradox Valley	56.73	298	P	P	03 20 32.9	+1.1
PAHR	Pah Rah Range	56.77	308		P	03 20 33.9	+1.9
PAHR				IAmb	IAmb	03 20 35.6	
	comp=Z,7.0nm,1.3s						
PSUT	Pine Spring	57.07	303		P	03 20 36.0	+1.9
PSUT				IAmb	IAmb	03 20 37.6	
	comp=Z,4.5nm,1.0s						
KVN	Kaiserville	57.22	307	P	P	03 20 36.9	+1.7
KVN				pmax	pmax		
	comp=Z,3.0nm,0.9s						
KVN	Kaiserville	57.22	307	P	P	03 20 36.9	+1.7
MIAR	Mount Ida	57.42	283	P	P	03 20 38.2	+1.8
MIAR				pmax	pmax		
	comp=Z,7.0nm,0.8s						
MIAR	Mount Ida	57.42	283		P	03 20 38.2	+1.8
MIAR				IAmb	IAmb	03 20 38.3	
	comp=Z,7.2nm,0.8s						
W35A	Tecumseh	57.44	286		P	03 20 38.5	+2.0
W35A				IAmb	IAmb	03 20 38.7	
	comp=Z,12nm,1.2s						
NVAR	Mina Array Bea	57.86	307	P	P	03 20 40.7	+1.0
	comp=Z,1.4nm,0.9s,baz=18,slow=5.7,SNR=7.7						
	comp=Z,1.4nm,0.9s						
NVAR	Mina Array Bea	57.86	307	P	P	03 20 41.0	+1.2
PKCU	Pink Cliffs	57.88	301	P	P	03 20 41.8	+1.7
PKCU				IAmb	IAmb	03 20 44.3	
	comp=Z,9.4nm,0.9s						
WLAR	White Oak Lake	58.17	282		P	03 20 43.4	+1.7
WMOK	Wichita Mounta	58.19	288	P	P	03 20 43.7	+1.9
WMOK				pmax	pmax		
	comp=Z,7.0nm,1.3s						
WMOK	Wichita Mounta	58.19	288	P	P	03 20 43.7	+1.9
WMOK				IAmb	IAmb	03 20 45.0	
	comp=Z,6.8nm,1.2s						
KNB	Kanab	58.38	302	P	P	03 20 45.8	+2.4
KNB				pmax	pmax		
	comp=Z,7.0nm,1.1s						
KNB	Kanab	58.38	302	P	P	03 20 45.8	+2.4
KNB				IAmb	IAmb	03 20 47.0	
	comp=Z,7.5nm,1.1s						
LCMT	Little Creek M	58.46	302	P	P	03 20 46.0	+2.1
LCMT				IAmb	IAmb	03 20 47.6	
	comp=Z,6.4nm,1.2s						
GMN	Gold Mountain	58.81	306	P	P	03 20 48.4	+2.0
U15A	North Rim	58.87	301	P	P	03 20 48.6	+1.7
U15A				IAmb	IAmb	03 20 49.6	
	comp=Z,4.3nm,1.2s						
ANMO	Albuquerque	59.34	295	LR	LR	03 49 20.1	
	comp=Z,62nm,20.4s,baz=350,slow=39						
KSRS	Korea Array	59.59	48	P	P	03 20 52.6	+1.1
	comp=Z,0.4nm,0.3s,baz=3.5,slow=4.0,SNR=1.3						
KSRS				LR	LR	03 48 17.8	
	comp=Z,44nm,18.3s,baz=355,slow=38						
	comp=Z,0.4nm,0.3s						
CWC	Cottonwood Cre	59.78	306	P	P	03 20 55.0	+2.0
QSM	Queen of Sheba	60.05	305	P	P	03 20 56.8	+2.1
QSM				IAmb	IAmb	03 20 58.5	
	comp=Z,7.4nm,1.2s						
MPMC	Manual Prospec	60.06	306	P	P	03 20 56.9	+1.9
MPMC				IAmb	IAmb	03 20 58.8	
	comp=Z,4.5nm,1.0s						
W13A	Hualapai Mount	60.43	302	P	P	03 20 59.1	+1.6
MJAR	Matsushiro Arr	61.84	39	P	P	03 21 08.7	+1.8
	comp=Z,1.2nm,0.7s,baz=354,slow=5.3,SNR=2.3						
MJAR				LR	LR	03 50 47.2	
	comp=Z,16nm,18.5s,baz=28,slow=39						
	comp=Z,1.2nm,0.7s						
MJAR	Matsushiro Arr	61.84	39	P	P	03 21 08.3	+1.4
MJAR				pmax	pmax		
	comp=Z,3.0nm,1.1s						
MJAR	Matsushiro Arr	61.84	39	P	P	03 21 08.3	+1.4
MNHN	Monahans	62.21	291	P	P	03 21 11.0	+1.6
MNHN				IAmb	IAmb	03 21 11.6	
	comp=Z,6.3nm,1.2s						
VHRN	Van Horn	63.15	293		P	03 21 17.3	+1.5
VHRN				IAmb	IAmb	03 21 18.2	
	comp=Z,5.1nm,1.1s						
ALPN	Alpine	63.31	291	P	P	03 21 18.6	+1.8
ALPN				IAmb	IAmb	03 21 19.5	
	comp=Z,5.6nm,1.2s						
NJ2	Nanjing	63.51	58	*e*P	P	03 21 17.3	-0.7
NJ2				pmax	pmax		
	comp=Z,15nm,0.8s						
JNU	Nakatsue	64.27	47	LR	LR	03 51 04.5	
	comp=Z,31nm,18.8s,baz=352,slow=38						
TXAR	Lajitas Array	64.33	291	P	P	03 21 24.0	+0.5
	comp=Z,1.5nm,0.9s,baz=15,slow=6.5,SNR=7.4						
	comp=Z,1.5nm,0.9s						
TXAR	Lajitas Array	64.33	291	P	P	03 21 23.7	+0.2
PZH	PanZhiHua	65.95	75	P	P	03 21 34.5	+0.3
PZH				pmax	pmax		
	comp=Z,10.0nm,0.4s						
TORD	Torodi Ar. Bea	65.98	181	P	P	03 21 35.2	+0.9
	comp=Z,1.6nm,1.0s,baz=336,slow=5.1,SNR=6.6						
	comp=Z,1.6nm,1.0s						
TORD	Torodi Ar. Bea	65.98	181	P	P	03 21 35.2	+0.9
LPIG	La Paz	70.60	296	LR	LR	03 55 44.0	
	comp=Z,59nm,18.9s,baz=26,slow=38						
CMAR	Chiang Mai Arr	73.28	80	P	P	03 22 21.4	+2.2
	comp=Z,1.2nm,0.3s,baz=339,slow=5.4,SNR=5.6						
CMAR				LR	LR	03 59 17.4	
	comp=Z,31nm,18.4s,baz=280,slow=40						
	comp=Z,1.2nm,0.3s						
CMAR	Chiang Mai Arr	73.28	80	P	P	03 22 20.3	+1.0
CMAR	Chiang Mai Arr	73.28	80	P	P	03 22 20.2	+1.0
DAV	Davao City (W)	89.07	56	LR	LR	04 07 17.1	
	comp=Z,22nm,20.6s,baz=35,slow=38						

JMA ***29*** *03:11:06.8±0.1, 41°.3N±0°.3×142°.2E±0°.3, h53^{km}, MV3.4/40, E OFF AOMORI PREF*

IDC ***29*** *03:11:24.3±1.2, 45°.41N×141°.26E, h0^{km}, mb3.8/6, mbtmp3.8/7, ML3.1/1, MS2.9/1, Error ellipse: s-maj=29.9km s-min=21.9km az=27.0*

ISC 29 03:11:06.9±1.2**, 41°.21N**±0°.09×**142°.16E**±0°.07**, h57^{km}, n21, σ0^{s}.81**/22**, mb3.8**/6**, 9D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAHD	Aomorihigashid	0.62	276	⇓*i*P	Pn	03 11 19.9	-0.1
JAHD				⇓S	Sn	03 11 29.2	-0.3
JARK	Aomorirokkasho	0.63	252	⇓*i*P	Pn	03 11 20.1	0.0
JARK				⇓S	Sn	03 11 29.6	-0.1
JOT	Ohata	0.85	282	⇓*i*P	Pn	03 11 22.6	-0.3
JTM	Tenmabayashi	0.92	243	P	Pn	03 11 24.2	+0.4
JANG	Nango	0.96	211	*i* P	Pn	03 11 24.4	+0.1
JANG				S	Sn	03 11 37.2	0.0
JKB	Kayabe	1.08	309	⇓*i*P	Pn	03 11 25.3	-0.6
JEM	Erimo	1.10	43	P	Pn	03 11 26.2	0.0
JNBK	Urakawa-nobuka	1.16	22	P	Pn	03 11 26.7	-0.3
JSHD	Hidakashinhida	1.23	11	⇓P	Pn	03 11 28.3	+0.5
JSR	Shiriuchi	1.35	284	⇓P	Pn	03 11 29.7	+0.3
JSR				⇓*e*S	Sn	03 11 45.3	-1.0
JIAM	Iburiatsuma	1.43	353	P	Pn	03 11 31.2	+0.7
JNB	Noboribetsu	1.51	327	P	Pn	03 11 31.1	-0.6
ASAJ	Asahikawa	2.93	6	Pn	Pn	03 11 51.9	+0.9
	7.1nm,0.3s,baz=336,slow=13,SNR=19						
USRK	Ussuriysk Ar.	8.06	295	Pn	Pn	03 13 04.0	+2.8
	0.3nm,0.3s,baz=85,slow=16,SNR=4.4						
	2.0nm,0.6s						
USRK				AML	AML		
PETK	Petropavlovsk-	15.88	36	LR	LR	03 20 21.0	
	comp=Z,56nm,21.2s,baz=139,slow=41						
ZALV	Zalesovo Beam	39.64	309	P	P	03 18 32.5	-0.3
	1.2nm,0.6s,baz=81,slow=10,SNR=3.7						
	1.2nm,0.6s						
KURBB	Kurchatov Arra	43.99	305	P	P	03 19 08.3	-0.1
	0.7nm,0.4s,baz=77,slow=8.8,SNR=5.0						
	0.7nm,0.4s						
ILAR	Eielson Array	45.70	34	P	P	03 19 22.2	+0.5
	0.3nm,0.7s,baz=279,slow=7.1,SNR=2.2						
	0.3nm,0.7s						
BVAR	Borovoye Array	48.27	310	P	P	03 19 41.9	-0.1
	0.7nm,0.4s,baz=64,slow=6.6,SNR=2.3						
	0.7nm,0.4s						
FINES	FINESS Array B	65.41	332	P	P	03 21 42.6	-0.5
	1.5nm,0.7s,baz=45,slow=6.2,SNR=10						
	1.5nm,0.7s						
HFS	Hagfors	70.53	335	P	P	03 22 14.6	-0.7
	0.7nm,0.6s,baz=32,slow=5.8,SNR=4.5						
	0.7nm,0.6s						

IDC ***29*** *03:14:33.8±12.0, 21°.75N×143°.14E, h232^{km}±120^{km}, mb3.2/9, mbtmp3.8/9, Error ellipse: s-maj=34.9km s-min=20.0km az=77.0*

NEIC ***29*** *03:14:33.4±0.9, 21°.8N±0°.1×143°.2E±0°.2, h225^{km}±7^{km}, mb4.0/11, Error ellipse: s-maj=23.3km s-min=15.6km az=81.0*

ISC 29 03:14:30.8±0.7**, 21°.8N**±0°.1×**143°.1E**±0°.2**, h200^{km}, n27, σ1^{s}.32**/27**, mb3.8**/15**, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SHEM	Shemya Is, Ala	38.98	30	P	P	03 21 37.1	-0.4
CHTO	Chiang Mai	41.40	274	P	P	03 21 58.3	+0.5
CHTO				IAmb	IAmb	03 22 19.7	
	comp=Z,3.0nm,0.3s						
CTAO	Charters Tower	41.74	176	P	P	03 22 00.0	-0.4
WB0	Warramunga Arr	42.17	192	P	P	03 22 03.2	-0.8
WB0				IAmb	IAmb	03 22 23.8	
	comp=Z,12nm,1.5s						
WR8	Warramunga Arr	42.33	192	P	P	03 22 04.6	-0.6
WR8				IAmb	IAmb	03 22 18.2	
	comp=Z,7.3nm,1.3s						
WB2	Warramunga Arr	42.35	192	P	P	03 22 04.8	-0.6
WB2				IAmb	IAmb	03 22 41.9	
	comp=Z,6.2nm,1.4s						
WRA	Warramunga Arr	42.35	192	P	P	03 22 04.8	-0.6
	comp=Z,0.9nm,0.7s,baz=14,slow=8.2,SNR=7.6						
	comp=Z,0.9nm,0.7s						
WRA	Warramunga Arr	42.35	192	P	P	03 22 04.4	-1.0
FITZ	Fitzroy Crossi	43.17	205	P	P	03 22 11.4	-0.6
ASAR	Alice Springs	46.06	192	P	P	03 22 34.5	-0.3
	comp=Z,0.2nm,0.6s,baz=12,slow=14,SNR=2.5						
	comp=Z,0.2nm,0.6s						
ASAR	Alice Springs	46.06	192	P	P	03 22 34.4	-0.4
KURK	Kurchatov	57.34	317	P	P	03 23 57.9	0.0
KURK				IAmb	IAmb	03 24 17.9	
	comp=Z,2.4nm,1.1s						
KURBB	Kurchatov Arra	57.39	317	P	P	03 23 58.6	+0.4
	comp=Z,0.5nm,0.4s,baz=93,slow=7.2,SNR=6.1						
	comp=Z,0.5nm,0.4s						
ILAR	Eielson Array	62.00	27	P	P	03 24 28.7	-0.7
	comp=Z,0.6nm,0.9s,baz=264,slow=5.5,SNR=5.0						
	comp=Z,0.6nm,0.9s						
ILAR	Eielson Array	62.00	27	P	P	03 24 29.3	-0.1
BVAR	Borovoye Array	62.54	319	P	P	03 24 34.1	+0.9
	comp=Z,1.3nm,0.3s,baz=98,slow=7.0,SNR=3.2						
	comp=Z,1.3nm,0.3s						
AB31	Akbulak array	69.42	316	P	P	03 25 16.7	-0.4
AB31				IAmb	IAmb	03 25 17.9	
	comp=Z,1.5nm,0.8s						
ABKAR	Akbulak array	69.42	316	P	P	03 25 17.2	+0.1
YKA	Yellowknife Ar	76.42	28	P	P	03 25 58.3	+0.4
	comp=Z,0.4nm,0.5s,baz=298,slow=6.0,SNR=2.1						
	comp=Z,0.4nm,0.5s						
YKA	Yellowknife Ar	76.42	28	P	P	03 25 57.2	-0.7
ARCES	ARCESS Array B	78.80	341	P	P	03 26 10.4	-0.6
	comp=Z,1.7nm,0.8s,baz=62,slow=8.7,SNR=6.2						
	comp=Z,1.7nm,0.8s						
ARCES	ARCESS Array B	78.80	341	P	P	03 26 09.7	-1.4
ARCES				IAmb	IAmb	03 26 40.5	
	comp=Z,9.6nm,1.4s						
FINES	FINESS Array B	83.06	334	P	P	03 26 32.6	-1.0
	comp=Z,1.2nm,0.6s,baz=48,slow=5.1,SNR=8.4						
	comp=Z,1.2nm,0.6s						
FINES	FINESS Array B	83.06	334	P	P	03 26 32.4	-1.2
NVAR	Mina Array Bea	83.16	51	P	P	03 26 34.7	-0.3
	comp=Z,0.2nm,0.6s,baz=295,slow=4.0,SNR=2.3						
	comp=Z,0.2nm,0.6s						
LPAZ	La Paz	150.03	85	PKPbc	PKPdf	03 33 58.1	+4.1
	comp=Z,0.6nm,0.5s,baz=304,slow=3.6,SNR=5.5						
LPAZ	La Paz	150.03	85		PKPdf	03 33 57.8	+3.7

DNK 29 03:15:54.0±1.8**, 71°.36N**×**58°.36W, h0^{km}, ML2.1, Presumed Glacial event, Baffin Bay**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
UPNV	Upernavik	1.59	25	*e*P	Pn	03 16 23.2	-0.1
UPNV				*i* S	Sn	03 16 42.7	-1.7
UPNV				IAML		03 16 47.5	
	comp=Z,34nm,0.3s						
NUUG	Nuugaatsiaq	1.66	81	*i* P	Pn	03 16 24.8	+0.5
NUUG				*i* S	Sg	03 16 51.9	+4.6
NUUG				IAML		03 17 13.4	
	comp=Z,23nm,0.4s						
SAATT	Saattut	2.26	101	*i* P	Pn	03 16 31.1	-1.4
SAATT				*i* S	Sn	03 16 58.4	-2.7
SAATT				IAML		03 17 11.4	
	comp=Z,16nm,0.3s						

NEIC ***29*** *03:23:34.5±1.1, 62°.33S±0°.04×58°.5W±0°.2, h10^{km}±1^{km}, mb4.2/6, Error ellipse: s-maj=14.1km s-min=4.3km az=244.0*

IDC ***29*** *03:23:34.6±1.2, 62°.43S×58°.55W, h0^{km}, mb4.0/4, mbtmp4.0/4, MS3.8/1, Error ellipse: s-maj=68.3km s-min=23.6km az=68.0*

ISC 29 03:23:35.2±0.7**, 62°.35S**±0°.08×**58°.36W**±0°.10**, h10^{km}, n27, σ1^{s}.07**/23**, mb4.1**/5**, 4C, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ESPZ	Base Esperanza	1.22	150	Pn	Pn	03 23 56.2	-2.0
ESPZ				Sn	Sb	03 24 13.8	-0.3
PMSA	Palmer Station	3.52	224		Pn	03 24 28.9	-0.9
SMAI	San Martin Ant	6.86	208	Pn	Pn	03 25 14.4	-1.3
DSPA	Despedida	9.90	324	Pn	Pn	03 25 56.9	-0.5
EFI	East Falkland	10.71	1	Pn	Pn	03 26 07.2	-1.2
BELA	Belgrano 2	17.29	163	Pn	Pn	03 27 35.9	-0.3
BELA				IAmb	IAmb	03 27 55.5	
	comp=Z,8.6nm,1.2s						
VNA3	Neumayer Olymp	20.52	136	⇑P	Pn	03 28 14.9	-0.4
	comp=Z,11nm,0.8s						
VNA1	Neumayer--Stat	20.98	134	P	P	03 28 19.7	+1.6
	comp=Z,14nm,1.0s						
VNA2	Neumayer--Watz	21.26	135	⇑P	P	03 28 22.3	+1.2
	comp=Z,6.9nm,0.6s,baz=267,slow=11						
SNAA	Sanae	22.68	137	⇑P	P	03 28 37.1	+0.6
	comp=Z,281nm,1.0s						
SNAA	Sanae	22.68	137	P	P	03 28 37.0	+0.6
	comp=Z,14nm,1.0s,baz=270,slow=8.8,SNR=14						
	comp=Z,14nm,1.0s						
SNAA	Sanae	22.68	137	P	P	03 28 36.5	+0.1
SNAA				IAmb	IAmb	03 28 39.8	
	comp=Z,16nm,0.9s						
PLCA	Paso Flores	22.86	336	P	P	03 28 39.5	+1.1
	comp=Z,5.1nm,1.0s,baz=163,slow=8.7,SNR=6.2						
	comp=Z,5.1nm,1.0s						
PLCA	Paso Flores	22.86	336	P	P	03 28 37.4	-1.1
PLCA				IAmb	IAmb	03 28 42.4	
	comp=Z,11nm,1.2s						
GO06	Curarrehue	24.15	335	P	P	03 28 50.3	-0.9
TROLL	Troll, Antarti	24.32	139	⇑P	P	03 28 53.6	+0.9
	comp=Z,273nm,0.9s						
QSPA	South Pole Qui	27.87	180	P	P	03 29 25.0	+0.2
	comp=Z,1.9nm,1.0s,baz=200,slow=5.7,SNR=6.4						
	comp=Z,1.9nm,1.0s						
QSPA	South Pole Qui	27.87	180	P	P	03 29 25.0	+0.2
QSPA				IAmb	IAmb	03 29 39.4	
	comp=Z,4.0nm,1.0s						
MAW	Mawson	43.59	152	P	P	03 31 39.6	+0.9
	comp=Z,1.0nm,1.0s,baz=211,slow=5.9,SNR=4.8						
	comp=Z,1.0nm,1.0s						
MAW	Mawson	43.59	152	P	P	03 31 38.5	-0.2
ATAH	Atahualpa	57.04	336	LR	LR	03 55 50.5	
	comp=Z,72nm,18.3s,baz=155,slow=34						
H10N3	ASCENSION HYDR	63.05	50	T	T	04 42 44.0	
	baz=202,slow=75,SNR=5.2						
H10N1	ASCENSION HYDR	63.06	50	T	T	04 42 44.5	
	baz=202,slow=75,SNR=4.8						
H10N2	ASCENSION HYDR	63.07	50	T	T	04 42 44.6	
	baz=202,slow=75,SNR=5.7						
ARCES	ARCESS Array B	144.14	37	PKP	PKPdf	03 43 10.7	+1.5
	comp=Z,1.1nm,0.7s,baz=209,slow=3.0,SNR=4.0						
BVAR	Borovoye Array	151.80	85	PKPbc	PKiKP	03 43 29.7	+0.7
	comp=Z,1.5nm,0.6s,baz=253,slow=2.5,SNR=5.2						
MKAR	Makanchi Array	152.94	107	PKPbc	PKiKP	03 43 32.9	+1.3
	comp=Z,0.9nm,0.9s,baz=226,slow=3.8,SNR=3.3						

IDC ***29*** *03:26:11.2±1.1, 62°.21S×58°.30W, h0^{km}, mb4.1/7, mbtmp4.1/7, MS3.8/13, Error ellipse: s-maj=53.3km s-min=18.2km az=76.0*

NEIC ***29*** *03:26:11.6±1.2, 62°.34S±0°.09×58°.1W±0°.2, h10^{km}±1^{km}, mb4.7/20, Error ellipse: s-maj=18.5km s-min=11.7km az=53.0*

ISC 29 03:26:12.0±0.6**, 62°.27S**±0°.08×**58°.2W**±0°.1**, h10^{km}, n53, σ1^{s}.13**/36**, mb4.6**/11**, MS3.8**/13**, 2C, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ESPZ	Base Esperanza	1.27	154	Pn	Pn	03 26 34.1	-1.6
PMSA	Palmer Station	3.62	223	Pn	Pn	03 27 07.4	-0.6
GO08	Villa O'Higgin	15.99	323	Pn	Pn	03 29 56.9	+0.1
BELA	Belgrano 2	17.35	164		Pn	03 30 14.1	+0.3
VNA3	Neumayer Olymp	20.53	136	⇑P	Pn	03 30 55.6	+3.3
	comp=Z,7.1nm,0.7s						
LL02	Futaleuf	20.73	331	P	P	03 30 53.0	+0.6
LL02				IAmb	IAmb	03 30 58.1	
	comp=Z,32nm,1.2s						
VNA1	Neumayer--Stat	21.00	135	⇑P	Pn	03 30 58.5	+0.9
	comp=Z,8.9nm,1.0s						
SNAA	Sanae	22.70	138	P	P	03 31 15.2	+1.7
	comp=Z,181nm,1.0s						
SNAA	Sanae	22.70	138	P	P	03 31 15.9	+2.4
	comp=Z,10nm,1.0s,baz=260,slow=9.9,SNR=9.5						
SNAA				LR	LR	03 38 40.2	
	comp=Z,265nm,21.9s,baz=226,slow=33						
	comp=Z,10nm,1.0s						
SNAA	Sanae	22.70	138	P	P	03 31 14.0	+0.5
SNAA				IAmb	IAmb	03 31 18.2	
	comp=Z,26nm,1.3s						
PLCA	Paso Flores	22.81	335	P	P	03 31 15.3	+0.6
	comp=Z,7.0nm,0.9s,baz=170,slow=9.6,SNR=15						
PLCA				LR	LR	03 38 48.3	
	comp=Z,261nm,19.3s,baz=164,slow=33						
	comp=Z,7.0nm,0.9s						
PLCA	Paso Flores	22.81	335	P	P	03 31 16.1	+1.3
PLCA				IAmb	IAmb	03 31 20.6	
	comp=Z,21nm,1.1s						
GO06	Curarrehue	24.10	334	P	P	03 31 26.9	-0.8
GO06				IAmb	IAmb	03 31 33.3	
	comp=Z,28nm,1.0s						
LR03	Panguipulli	24.24	333	P	P	03 31 27.0	-1.8
BI02	San Fabin de	26.89	336	P	P	03 31 53.0	+0.2
BI02				IAmb	IAmb	03 32 09.8	
	comp=Z,12nm,0.9s						
QSPA	South Pole Qui	27.95	180	P	P	03 32 03.8	+1.5
	comp=Z,3.0nm,1.0s,baz=85,slow=20,SNR=6.8						
	comp=Z,3.0nm,1.0s						
QSPA	South Pole Qui	27.95	180	P	P	03 32 01.8	-0.5
QSPA				IAmb	IAmb	03 32 17.9	
	comp=Z,12nm,1.1s						
BO04	La Punta	29.37	339	P	P	03 32 13.6	-1.4
BO04				IAmb	IAmb	03 32 18.9	
	comp=Z,20nm,1.0s						
MT09	Talagante	29.65	338	P	P	03 32 17.1	-0.5
MT08	Bocatoma Ro	29.81	340	P	P	03 32 18.9	-0.2
MT08				IAmb	IAmb	03 32 23.8	
	comp=Z,15nm,1.0s						
MT03	Universidad Ad	29.84	339	P	P	03 32 19.2	0.0
VA03	San Esteban	30.56	339	P	P	03 32 25.0	-0.6
CO03	El Pedregal	32.47	340	P	P	03 32 42.1	-0.3
CO01	Juntas del Tor	33.22	341	P	P	03 32 48.9	-0.2
CPUP	Villa Florida	35.94	1	P	P	03 33 13.6	+1.3
	comp=Z,1.3nm,0.8s,baz=197,slow=14,SNR=3.3						
	comp=Z,1.3nm,0.8s						
CPUP	Villa Florida	35.94	1	P	P	03 33 12.3	0.0
MAW	Mawson	43.63	152	P	P	03 34 18.1	+2.2
	comp=Z,2.2nm,0.9s,baz=237,slow=10,SNR=4.0						
MAW				LR	LR	03 51 55.7	
	comp=Z,286nm,20.3s,baz=218,slow=35						
	comp=Z,2.2nm,0.9s						
MAW	Mawson	43.63	152	P	P	03 34 14.7	-1.1
LPAZ	La Paz	46.46	347	LR	LR	03 55 09.7	
	comp=Z,69nm,19.6s,baz=176,slow=38						
BDFB	Brasilia	47.13	13	P	P	03 34 45.3	+1.0
	comp=Z,4.9nm,0.9s,baz=303,slow=1.5,SNR=6.5						
	comp=Z,4.9nm,0.9s						
BDFB	Brasilia	47.13	13	P	P	03 34 44.6	+0.3
BDFB				IAmb	IAmb	03 34 47.1	
	comp=Z,5.5nm,0.9s						
RPN	Rapa Nui	48.50	292	LR	LR	03 49 46.9	
	comp=Z,93nm,20.6s,baz=160,slow=29						
SUR	Sutherland	56.89	97	LR	LR	03 56 08.3	
	comp=Z,67nm,18.1s,baz=206,slow=32						
H10S3	ASCENSION HYDR	61.87	51	T	T	04 44 00.4	
	baz=20						
H10S2	ASCENSION HYDR	61.87	51	T	T	04 44 04.0	
	baz=200						
BOSA	Boshof	62.11	99	LR	LR	03 58 51.9	
	comp=Z,31nm,18.0s,baz=192,slow=32						
H10N3	ASCENSION HYDR	62.96	50	T	T	04 45 26.2	
	baz=205						
H10N1	ASCENSION HYDR	62.96	50	T	T	04 45 24.3	
	baz=205						
H10N2	ASCENSION HYDR	62.97	50	T	T	04 45 23.5	
	baz=205						
OTAV	Otavalo	64.20	337	P	P	03 36 46.9	-0.4
OTAV				IAmb	IAmb	03 36 51.7	
	comp=Z,9.3nm,1.4s						
LBTB	Lobatse	65.33	97	LR	LR	03 59 31.2	
	comp=Z,71nm,22.0s,baz=200,slow=31						
MATP	Matopo	70.63	97	LR	LR	04 02 45.9	
	comp=Z,50nm,21.6s,baz=154,slow=31						
SDV	Santo Domingo	71.59	347	LR	LR	04 11 55.6	
	comp=Z,78nm,18.2s,baz=271,slow=38						
PPT	Papeete	75.25	260	LR	LR	04 03 27.5	
	comp=Z,59nm,18.2s,baz=126,slow=30						
SJG	San Juan	80.36	352	LR	LR	04 14 59.1	
	comp=Z,64nm,19.5s,baz=124,slow=36						
CMIG	Matias Romero	84.22	325	LR	LR	04 08 14.4	
	comp=Z,97nm,19.2s,baz=156,slow=30						
TORD	Torodi Ar. Bea	88.36	57	P	P	03 39 03.9	+0.2
	comp=Z,1.0nm,1.0s,baz=212,slow=4.7,SNR=4.4						
	comp=Z,1.0nm,1.0s						
GERES	GERESS Array B	124.59	50	PKP	PKPdf	03 45 09.1	-1.3
	comp=Z,0.5nm,0.5s,baz=226,slow=5.4,SNR=4.0						
ARCES	ARCESS Array B	144.04	37	PKP	PKPdf	03 45 44.8	-1.1
	comp=Z,4.7nm,0.8s,baz=315,slow=0.2,SNR=10						
ADZR	Andozero	144.72	49	*e*P	PKPab	03 45 43.8	-2.2

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
BVAR	Borovoye Array	151.73	85	PKPbc	PKPbc	03 46 04.9	-0.4
	comp=Z,2.4nm,0.7s,baz=254,slow=4.3,SNR=8.0						
MKAR	Makanchi Array	152.91	106	PKPbc	PKiKP	03 46 09.6	+1.2
	comp=Z,1.1nm,0.8s,baz=180,slow=0.5,SNR=4.7						
MKAR	Makanchi Array	152.91	106		PKiKP	03 46 08.2	-0.2

*IDC **29** 03:42:00.6±1.2, 62°.54S×58°.22W, h0km, mb3.7/4, mbtmp3.8/4, MS3.4/6, Error ellipse: s-maj=59.9km s-min=25.3km az=70.0*

*NEIC **29** 03:42:00.5±1.6, 62°.3S±0°.1×58°.4W±0°.2, h10km±1km, mb4.1/4, Error ellipse: s-maj=20.2km s-min=9.5km az=27.0*

ISC 29 03:42:01.3±0.9**, 62°.4S**±0°.1×**58°.3W**±0°.1**, h10**km**, n18, σ1s.78**/14**, mb3.8**/3**, MS3.1**/5**, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
ESPZ	Base Esperanza	1.15	150		Pn	03 42 22.7	-0.7
PMSA	Palmer Station	3.50	225	LR	LR	03 44 15.0	
	comp=Z,685nm,18.4s,baz=50,slow=39						
PMSA	Palmer Station	3.50	225		Pn	03 42 55.8	0.0
SMAI	San Martin Ant	6.83	209	Pn	Pn	03 43 41.3	0.0
SNAA	Sanae	22.62	137	P	P	03 47 02.3	+0.5
	2.3nm,1.0s,baz=265,slow=10,SNR=5.5						
SNAA				LR	LR	03 54 18.3	
	comp=Z,76nm,22.0s,baz=226,slow=33						
	2.3nm,1.0s						
SNAA	Sanae	22.62	137		P	03 47 02.1	+0.3
SNAA				IAmb	IAmb	03 47 05.2	
	comp=Z,8.9nm,1.4s						
PLCA	Paso Flores	22.93	335	P	P	03 47 08.4	+3.1
	comp=Z,6.3nm,1.1s,baz=172,slow=8.9,SNR=6.9						
	comp=Z,6.3nm,1.1s						
PLCA	Paso Flores	22.93	335	P	P	03 47 01.9	-3.4
PLCA				IAmb	IAmb	03 47 09.5	
	comp=Z,7.8nm,1.1s						
GO06	Curarrehue	24.22	335	P	P	03 47 16.2	-1.9
QSPA	South Pole Qui	27.82	180	P	P	03 47 50.7	+0.3
	comp=Z,1.0nm,1.0s,baz=141,slow=6.5,SNR=5.2						
QSPA				LR	LR	03 58 53.1	
	comp=Z,46nm,18.8s,baz=170,slow=37						
	comp=Z,1.0nm,1.0s						
QSPA	South Pole Qui	27.82	180	P	P	03 47 50.2	-0.2
VNDA	Vanda	38.15	193	LR	LR	04 06 12.3	
	comp=Z,50nm,19.0s,baz=192,slow=38						
MAW	Mawson	43.52	152	LR	LR	04 08 15.6	
	comp=Z,101nm,18.1s,baz=206,slow=36						
RPN	Rapa Nui	48.53	292	LR	LR	04 05 32.8	
	comp=Z,17nm,18.6s,baz=98,slow=29						
TORD	Torodi Ar. Bea	88.45	58	P	P	03 54 56.0	+2.5
	comp=Z,0.5nm,1.1s,baz=209,slow=5.4,SNR=1.8						
	comp=Z,0.5nm,1.1s						
ARCES	ARCESS Array B	144.17	37	PKP	PKPdf	04 01 33.9	-1.5
	comp=Z,3.1nm,0.9s,baz=254,slow=3.4,SNR=4.2						
BVAR	Borovoye Array	151.76	86	PKPbc	PKiKP	04 01 54.4	-0.7
	comp=Z,1.2nm,0.6s,baz=259,slow=1.5,SNR=5.5						
MKAR	Makanchi Array	152.89	107	PKPbc	PKPbc	04 01 56.8	-0.6
	comp=Z,0.6nm,0.8s,baz=240,slow=2.8,SNR=3.2						

*DNK **29** 03:56:30.5±1.5, 51°.52N×16°.75E, h0km±56km, ML2.6, Presumed earthquake*

*IDC **29** 03:56:32.2±1.1, 51°.51N×16°.17E, h0km, mbtmp3.1/8, ML2.9/7, Error ellipse: s-maj=17.4km s-min=10.0km az=112.0*

*IPEC **29** 03:56:32.1±0.2, 51°.47N×16°.28E, h1km, ML2.2/8, Error ellipse: s-maj=1.8km s-min=1.1km az=66.0*

*PRU **29** 03:56:33.8, 51°.46N×16°.26E, h0km*

*VIE **29** 03:56:33.1±0.4, 51°.37N×16°.64E, h0km, mb2.4/6, ml2.8/6, ml2.7/6, Error ellipse: s-maj=4.8km s-min=2.9km az=87.0 40 km NW of Wroclaw Suspected Mining induced.*

ISC 29 03:56:30.7±0.7**, 51°.55N**±0°.03×**16°.28E**±0°.03**, h0**km**, n45, σ0s.90**/80**, Poland**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
KSP	Ksiaz	0.71	179	ePg	Pg	03 56 44.9	+0.7
KSP				eSg	Sg	03 56 52.4	-0.9
CHVC	Chvalec	0.97	189	ePG	Pb	03 56 49.9	-0.5
CHVC				eSG	Sg	03 57 02.2	+0.3
	comp=Z,22nm,0.5s						
CHVC				AML	AML		
OSTC	Ostas	0.99	182	ePG	Pb	03 56 50.7	-0.1
OSTC				eSG	Sg	03 57 03.3	+0.7
	comp=Z,42nm,0.5s						
OSTC				AML	AML		
UPC	Upice	1.06	189	ePG	Pg	03 56 51.1	+0.2
UPC				eSG	Sg	03 57 05.2	+0.6
	comp=Z,16nm,0.4s						
UPC				AML	AML		
DPC	Dobruska-Polom	1.20	179	ePG	Pb	03 56 54.1	-0.2
DPC				eSG	Sg	03 57 08.4	-0.8
	comp=Z,26nm,0.5s						
DPC				AML	AML		
PIVO	Bartosovice	1.37	173	ePg	Pg	03 56 56.7	-0.3
	baz=353						
PIVO				eSg	Sg	03 57 12.9	-1.9
	47nm,0.4s,baz=353						
PIVO				AML	AML		
PVCC	Panska Ves	1.49	227	ePG	Pg	03 56 59.7	+0.5
PVCC				eSG	Sn	03 57 19.7	+0.9
	comp=Z,148nm,0.5s						
PVCC				AML	AML		
KRLC	Kraliky	1.51	168	ePG	Pb	03 56 59.3	-0.2
KRLC				eSG	Sg	03 57 18.9	-0.2
	comp=Z,30nm,0.6s						
KRLC				AML	AML		
BRG	Berggiesshubel	1.62	246	Pn	Pn	03 56 59.6	-0.8
BRG				Pg	Pg	03 57 02.5	+0.8
BRG				Sg	Sb	03 57 22.7	+0.3
BRG				Amp		03 57 23.8	
	comp=Z,29nm,0.4s						
ANAC	Anensky vrch	1.63	154	ePn	Pn	03 57 00.9	+0.2
	baz=334						
ANAC				eSg	Sn	03 57 21.2	-1.2
	comp=Z,39nm,0.3s,baz=334						
ANAC				AML	AML		
RYBC	Ceska Rybna	1.75	185	ePn	Pn	03 57 02.4	+0.2
	baz=4.5						
RYBC				eSg	Sn	03 57 24.5	-0.7
	comp=Z,12nm,0.1s,baz=4.5						
RYBC				AML	AML		
STEB	Steborice	1.87	149	ePG	Pg	03 57 06.6	+0.1
STEB				eSG	Sg	03 57 30.9	+0.1
	comp=Z,28nm,0.7s						
STEB				AML	AML		
MORC	Moravsky Berou	1.95	155	ePn	Pn	03 57 05.4	+0.4
	baz=335						
MORC				eSg	Sn	03 57 30.6	+0.4
	comp=Z,13nm,0.4s,baz=335						
MORC				AML	AML		
HSKC	Hora Svate Kat	2.03	243	ePN	Pb	03 57 07.5	-0.9
HSKC				ePG	Pg	03 57 09.2	-0.3
HSKC				eSG	Sg	03 57 36.4	+0.6
	comp=Z,15nm,0.3s						
HSKC				AML	AML		
CLL	Collm	2.07	265	ePn	Pn	03 57 07.0	+0.4
CLL				ePg	Pg	03 57 10.0	-0.3
CLL				ex	x	03 57 25.0	
CLL				eSg	Sg	03 57 37.0	0.0
	comp=Z,13nm,0.7s						
VRAC	Vranov	2.25	175	Pn	Pb	03 57 10.8	-1.4
	comp=Z,1.3nm,0.3s,baz=339,slow=17,SNR=6.5						
VRAC				Lg	Lg	03 57 39.8	
	comp=Z,2.4nm,0.3s,baz=259,slow=16,SNR=8.0						
	comp=Z,2.6nm,0.3s						
VRAC				AML	AML		
VRAC	Vranov	2.25	175	ePn	Pn	03 57 09.9	+0.7
	baz=355						
VRAC				eSg	Sb	03 57 40.2	-0.4
	comp=Z,11nm,0.3s,baz=355						
VRAC				AML	AML		
KRUC	Moravsky	2.49	178	ePn	Pn	03 57 12.4	0.0
	baz=358						
KRUC				eSg	Sb	03 57 47.5	+0.1
	comp=Z,13nm,0.7s,baz=358						
KRUC				AML	AML		
KRUC	Moravsky	2.49	178	ePN	Pn	03 57 12.5	0.0
KRUC				eSG	Sb	03 57 47.6	+0.1
OJC	Ojcow	2.59	120	ePg	Pn	03 57 12.5	-1.3
OJC				eSg	Pg	03 57 21.2	+0.8
STAC	Stalkov	2.60	194	ePn	Pn	03 57 14.0	0.0
	baz=14						
STAC				eSg	Sb	03 57 51.1	+0.5
	comp=Z,12nm,0.3s,baz=14						
STAC				AML	AML		
JAVC	Velka Javorina	2.84	161	ePn	Pn	03 57 17.3	+0.1
	baz=342						
JAVC	Velka Javorina	2.84	161	ePN	Pn	03 57 17.4	+0.2
ABNA	Allensteig Bun	2.93	191	ePn	Pn	03 57 19.4	+0.9
KHC	Kasperske Hory	2.98	217	ePN	Pn	03 57 20.5	+1.3
KHC				ePG	Pb	03 57 25.6	+1.0
KHC				eSN	Sn	03 57 55.7	+0.1
KHC				eSG	Sg	03 58 05.3	-0.9
	comp=Z,7.5nm,0.5s						
KHC				AML	AML		
LANS	Liptovska Anna	3.15	138	ePG	Pn	03 57 22.0	+0.5
LANS				eSG	Pg	03 57 38.2	+7.2
LANS				eLG	Lg	03 57 40.0	
LANS	Liptovska Anna	3.15	138	eSG	Sg	03 58 14.1	+2.3
GERES	GERESS Array B	3.17	213	Pn	Pn	03 57 23.1	+1.2
	comp=Z,1.5nm,0.4s,baz=32,slow=13,SNR=14						
GERES				Pg	Pb	03 57 29.4	+1.5
	comp=Z,0.9nm,0.3s,baz=29,slow=17,SNR=59						
GERES				Lg	Lg	03 58 08.0	
	comp=Z,0.2nm,0.3s,baz=33,slow=27,SNR=4.6						
MODS	Modra-Piesok	3.24	168	eSG	Sg	03 58 16.3	+1.5
NIE	Niedzica	3.34	128	ePg	Pn	03 57 23.9	-0.2
NIE				eSg	Pg	03 57 39.8	+5.2
WINA	Alland / Wiene	3.45	182	ePn	Pn	03 57 25.4	-0.2
	comp=Z,1.4nm,0.5s						
WINA				eSg	Sg	03 58 22.3	+0.9
	comp=Z,5.1nm,0.4s						
CONA	Conrad Observa	3.63	184	ePn	Pn	03 57 28.2	-0.1
	comp=Z,0.4nm,0.2s						
CONA				eSg	Sg	03 58 26.3	-1.1
	comp=Z,5.1nm,0.4s,SNR=11						
BSD	Bornholm Skovb	3.67	348	i P	Pn	03 57 30.0	+1.5
BSD				i S	Sn	03 58 13.2	+0.8
BSD				IAML		03 58 27.0	
	comp=Z,5.9nm,1.0s						
MOA	Molln	3.93	200	i Pn	Pn	03 57 33.3	+1.1
	comp=Z,0.7nm,0.2s						
MOA				eSg	Sg	03 58 37.1	+0.3
	comp=Z,0.9nm,0.2s						
ARSA	Arzberg	4.33	187	eSg	Sg	03 58 49.8	+0.1
	comp=Z,4.5nm,0.5s						
LUNU	Lund	4.43	339	i P	Pn	03 57 40.9	+1.9
LUNU				i S	Sn	03 58 32.1	+0.9
BLEU	Blekinge	4.77	357	i P	Pn	03 57 45.2	+1.5
BLEU				i S	Sn	03 58 38.8	-0.9
DEL	Delary	5.13	345	i P	Pn	03 57 50.0	+1.3
DEL				i S	Sn	03 58 49.1	+0.5
FABU	Falkenberg	5.85	340	i P	Pn	03 58 00.5	+2.0
FABU				i S	Sn	03 59 07.0	+0.8
DAVOX	Davos/Dischmat	6.36	224	Pn	Pn	03 58 07.2	+1.5
	comp=Z,0.1nm,0.3s,baz=70,slow=15,SNR=1.5						
DAVOX				Lg	Lg	03 59 50.7	
	comp=Z,0.2nm,0.3s,baz=324,slow=23,SNR=2.3						
	comp=Z,0.4nm,0.3s						
DAVOX				AML	AML		
AKASG	Malin Array Be	8.19	91	Pn	Pn	03 58 31.4	+0.7
	comp=Z,0.4nm,0.3s,baz=280,slow=12,SNR=2.1						
	comp=Z,0.3nm,0.4s						
AKASG				AML	AML		
HFS	Hagfors	8.73	351	Pn	Pn	03 58 38.3	+0.3
	comp=Z,0.1nm,0.3s,baz=194,slow=18,SNR=1.3						
	comp=Z,0.3nm,0.5s						
HFS				AML	AML		
FINES	FINESS Array B	11.28	25	Pn	Pn	03 59 12.7	-0.3
	comp=Z,0.1nm,0.3s,baz=211,slow=13,SNR=5.9						
	comp=Z,0.9nm,0.6s						
FINES				AML	AML		
EKA	Eskdalemuir Ar	12.19	296	Pn	Pn	03 59 23.5	-1.8
	baz=98,slow=13						
	comp=Z,0.3nm,0.4s						
ARCES	ARCESS Array B	18.57	10	Pn	P	04 00 47.5	-1.3
	comp=Z,0.1nm,0.3s,baz=205,slow=10,SNR=5.7						
	comp=Z,2.2nm,1.1s						
ARCES				AML	AML		

*SDD **29** 03:59:12.2±1.9, 19°.22N×67°.24W, h34km±10km, MD3.4, ML3.1, MW3.1, Presumed earthquake*

*NEIC **29** 03:59:14.6±0.8, 19°.221N±0°.009×67°.29W±0°.04, h35km±2km, ML3.1/38, Md3.5/14(RSPR), Error ellipse: s-maj=5.9km s-min=3.1km az=78.0*

*RSPR **29** 03:59:16.4, 19°.17N×67°.30W, h45km±6km, MD3.5/14*

*SSNC **29** 03:59:44.8±2.7, 20°.29N×70°.03W, h2km±999km, MD3.8, ML2.2, Presumed earthquake*

ISC 29 03:59:12.1±1.4**, 19°.31N**±0°.06×**67°.27W**±0°.03**, h26**km±13km**, n79, σ1s.48**/96**, 23C-15D, Mona Passage**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
AGPR	Aguadilla, PR	0.85	170		Pb	03 59 27.9	-0.4
AGPR					Sb	03 59 37.1	-2.3
AGPR				IAML		03 59 42.9	
	767nm,0.4s						
AGPR				IAML		03 59 46.0	
	588nm,0.3s						
AGPR	Aguadilla, PR	0.85	170	⇑eP	Pb	03 59 28.8	+0.4
AGPR	Aguadilla, PR	0.85	170	⇑iP	Pb	03 59 28.1	-0.2
AGPR				⇓iS	Sn	03 59 40.5	+0.5
AGPR				IAML		03 59 43.0	
	comp=N,410nm,0.4s						
IDE	Isla Desecheo	0.94	192		Pb	03 59 29.9	+0.1
IDE					Sn	03 59 41.6	-0.7
IDE	Isla Desecheo	0.94	192	⇑iP	Pb	03 59 29.9	+0.1
IDE				eS	Sn	03 59 41.6	-0.7
AOPR	Arecibo Observ	1.07	153		Pn	03 59 31.3	-0.2
AOPR					Sb	03 59 44.6	-1.2
AOPR				IAML		03 59 52.1	
	comp=N,549nm,0.3s						
AOPR	Arecibo Observ	1.07	153	⇓eP	Pb	03 59 32.5	+0.3
AOPR	Arecibo Observ	1.07	153	⇑iP	Pn	03 59 32.1	+0.6
AOPR				⇑iS	Sn	03 59 48.7	+3.0
AOPR				IAML		03 59 52.0	
	comp=N,491nm,0.3s						
EMPR	Esperanza - Ma	1.08	140		Pb	03 59 33.6	+1.3
EMPR					Sb	03 59 45.7	-0.2
EMPR	Esperanza - Ma	1.08	140	⇑eP	Pb	03 59 33.6	+1.3
EMPR				eS	Sb	03 59 45.7	-0.2
PRSN	Puerto Rico Se	1.09	174		Pn	03 59 31.1	-0.6
PRSN					Sb	03 59 45.0	-1.3
PRSN	Puerto Rico Se	1.09	174	⇓eP	Pn	03 59 32.2	+0.4
PRSN	Puerto Rico Se	1.09	174	⇑iP	Pn	03 59 31.8	0.0
PRSN				⇑iS	Sn	03 59 46.6	+0.5
PRSN				IAML		03 59 48.7	
	comp=N,808nm,0.3s						
LSP	Las Mesas	1.14	171		Pn	03 59 32.9	+0.4
LSP					Sb	03 59 46.7	-1.0
LSP	Las Mesas	1.14	171	⇑iP	Pn	03 59 32.9	+0.4
LSP				eS	Sb	03 59 46.7	-1.0
CRPR	Cabo Rojo, PR	1.31	174		Pn	03 59 34.4	-0.3
CRPR	Cabo Rojo, PR	1.31	174		Sn	03 59 50.0	-1.3
CRPR	Cabo Rojo, PR	1.31	174	IAML		03 59 53.9	
	comp=N,300nm,0.6s						
CRPR				IAML		03 59 54.3	
	comp=N,297nm,0.3s						
CRPR	Cabo Rojo, PR	1.31	174	⇓eP	Pn	03 59 35.1	+0.4
CRPR	Cabo Rojo, PR	1.31	174	⇑iP	Pn	03 59 35.0	+0.4
CRPR				⇑iS	Sb	03 59 52.5	+0.2
CRPR				IAML		03 59 53.5	
	comp=N,268nm,0.4s						
ECPR	Experimental S	1.31	139		Pn	03 59 35.4	+0.7
ECPR	Experimental S	1.31	139		Sn	03 59 51.4	+0.1
ECPR	Experimental S	1.31	139	IAML		03 59 55.2	
	comp=N,411nm,0.5s						
ECPR				IAML		03 59 59.0	
	comp=N,474nm,0.2s						
ECPR	Experimental S	1.31	139	⇓iP	Pn	03 59 36.1	+1.4
PCDR	Punta Cana, DR	1.32	233		Pn	03 59 36.2	+1.4
PCDR	Punta Cana, DR	1.32	233		Sn	03 59 51.2	-0.4
PCDR	Punta Cana, DR	1.32	233	IAML		03 59 55.9	
	comp=N,544nm,0.8s						
PCDR				IAML		03 59 56.1	
	comp=E,218nm,0.7s						
PCDR	Punta Cana, DR	1.32	233	⇑iP	Pn	03 59 36.4	+1.5
PCDR				eS	Sn	03 59 51.2	-0.4
PCDR	Punta Cana, DR	1.32	233	⇓iP	Pb	03 59 36.7	+0.4
PCDR				⇓iS	Sb	03 59 55.1	+2.3
PCDR				IAML		03 59 55.6	
	comp=N,285nm,0.8s						
MLPR	Magueyes Islan	1.35	171		Pn	03 59 35.6	+0.3
MLPR	Magueyes Islan	1.35	171		Sn	03 59 51.6	-0.8
MLPR	Magueyes Islan	1.35	171	IAML		03 59 56.2	
	comp=N,148nm,0.6s						
MLPR				IAML		03 59 59.3	
	comp=N,130nm,0.4s						
MLPR	Magueyes Islan	1.35	171	⇓eP	Pn	03 59 35.8	+0.5
MLPR	Magueyes Islan	1.35	171	⇑iP	Pn	03 59 35.7	+0.3
MLPR				⇓iS	Sb	03 59 52.6	-1.0
MLPR				IAML		03 59 56.0	
	comp=N,52nm,0.5s						
GBPR	Guanica, Bosqu	1.38	165		Pb	03 59 37.1	-0.2
GBPR					Sn	03 59 52.1	-1.0
GBPR	Guanica, Bosqu	1.38	165	⇑eP	Pb	03 59 37.1	-0.2
GBPR				eS	Sn	03 59 52.1	-1.0
CELP	Cerrillos	1.39	152		Pn	03 59 36.6	+0.8
CELP	Cerrillos	1.39	152		Sn	03 59 53.4	0.0
CELP	Cerrillos	1.39	152	IAML		03 59 55.7	
	comp=N,391nm,0.8s						
CELP				IAML		03 59 58.6	
	comp=N,244nm,0.3s						
CELP	Cerrillos	1.39	152	⇓eP	Pn	03 59 36.9	+1.0
CELP	Cerrillos	1.39	152	⇑iP	Pn	03 59 36.5	+0.6
CELP				⇓iS	Sb	03 59 55.2	+0.4
CELP				IAML		03 59 55.6	
	comp=N,135nm,0.6s						
HIDR	Higuey Centro	1.55	243	⇓eP	Pn	03 59 40.0	+1.9
HIDR				eS	Sn	03 59 56.8	-0.5
HIDR	Higuey Centro	1.55	243	⇑iP	Pn	03 59 39.8	+1.7
HIDR				⇑iS	Sb	04 00 02.0	+2.6
HIDR				IAML		04 00 06.1	
	comp=N,257nm,0.2s						
SJG	San Juan	1.59	138		Pn	03 59 38.8	+0.1
SJG	San Juan	1.59	138	⇑eP	Pn	03 59 40.6	+1.9
SJG	San Juan	1.59	138	⇑iP	Pb	03 59 40.8	-0.1
SJG				⇑iS	Sb	04 00 00.0	-0.6
MIDR	Miches	1.72	259	⇑iP	Pn	03 59 42.2	+1.8
MIDR				IAML		04 00 12.4	
	comp=N,100nm,1.4s						
IGPR	InterUniversit	1.73	140		Pn	03 59 41.9	+1.4
IGPR					Sn	04 00 02.1	+0.4
IGPR	InterUniversit	1.73	140	⇑eP	Pn	03 59 41.9	+1.4
PDPR	Patillas Dam,	1.74	137		Pn	03 59 41.5	+0.8
PDPR	Patillas Dam,	1.74	137		Sn	04 00 02.7	+0.6
PDPR	Patillas Dam,	1.74	137	IAML		04 00 06.3	
	comp=N,76nm,0.4s						
PDPR				IAML		04 00 15.4	
	comp=N,84nm,0.5s						
PDPR	Patillas Dam,	1.74	137	⇑eP	Pn	03 59 42.7	+2.0
HUMP	Col San Antoni	1.77	131		Pn	03 59 42.1	+0.9
HUMP	Col San Antoni	1.77	131		Sn	04 00 04.2	+1.3
HUMP	Col San Antoni	1.77	131	IAML		04 00 08.0	
	comp=N,72nm,0.5s						
HUMP				IAML		04 00 15.9	
	comp=N,101nm,0.6s						
HUMP	Col San Antoni	1.77	131	⇓eP	Pn	03 59 42.4	+1.3
SADR	Isla Saona	1.82	232	⇓iP	Pb	03 59 44.3	-0.4
SADR				IAML		04 00 21.1	
	comp=N,280nm,1.9s						
SMDR	Samana, DR	1.82	270	⇑iP	Pn	03 59 42.8	+1.1
SMDR				IAML		04 00 23.2	
	comp=N,118nm,0.9s						
DR12	Loma Pena Alta	2.07	256		Pn	03 59 47.3	+2.1
HATOM	Hato Mayor del	2.07	256	⇓iP	Pn	03 59 47.7	+2.5
HATOM				IAML		04 00 23.4	
	comp=N,74nm,0.3s						
NADR	Nagua	2.45	271	⇑iP	Pn	03 59 52.5	+2.2
NADR				IAML		04 00 45.5	
	comp=N,370nm,0.4s						
DR08	Loma La Naviza	2.63	263	⇑iP	Pn	03 59 56.0	+3.0
DR08				IAML		04 00 41.7	
	comp=N,2μm,0.1s						
BANI	BANI	3.07	253		Pn	03 59 59.7	+0.6
SC01	Santiago de lo	3.27	273	Pn	Pn	04 00 02.8	+1.0
SDDR	Presa de Saban	3.82	266		Pn	04 00 10.3	+1.0
SDDR	Presa de Saban	3.82	266	eP	Pn	04 00 13.0	+3.7
SDDR				eS	Sn	04 00 57.6	+4.3
GRTK	Grand Turk	4.24	302	eP	Pn	04 00 16.0	+1.0
GRTK				eS	Sn	04 00 57.5	-6.1
GRTK				IAML		04 01 07.3	
	comp=N,31nm,0.2s						
QMBU	Quimbuelo	7.16	278	eP	Pn	04 00 53.4	-1.9
QMBU				eS	Sn	04 02 09.8	-6.0
MOAC	Moa	7.36	282	eP	Pn	04 00 56.4	-1.5
NMDO	Nuevo Mundo	7.37	281	eP	Pn	04 00 55.9	-2.1
GTBY	Guantanamo Bay	7.42	276	eP	Pn	04 00 57.3	-1.5
PINC	Pinares de May	8.11	280	eP	Pn	04 01 05.9	-2.3
HLGC	Holguin	8.41	282	eP	Pn	04 01 12.7	+0.2
YAR	Yar	8.62	279	eP	Pn	04 01 14.6	-0.7
CHIV	Chivirico	8.65	276	eP	Pn	04 01 14.9	-0.8
LMGC	Las Mercedes	9.21	276	eP	Pn	04 01 22.2	-1.1
PILO	Pilon	9.58	275	eP	Pn	04 01 26.9	-1.5
CCCC	Cccc	10.04	283	eP	Pn	04 01 28.6	-6.1

HEL 29 04:04:36.8±0.2**, 65°.82N**×**24°.61E, h0**km**, ML1.0, Suspected explosion, Finland**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
TOF	Tornio	0.29	336	PG	Pg	04 04 42.7	+0.4
TOF				SG	Sg	04 04 43.6	-2.3
TOF				smax	smax	04 04 46.7	
	comp=Z,4.6nm,0.2s						
OUL	Oulu	0.91	143	PB	Pg	04 04 54.1	-0.2
OUL				SG	Sg	04 05 05.0	-1.1
RANF	Ranua	0.92	77	PG	Pg	04 04 53.2	-1.1
	baz=260						
RANF				SG	Sg	04 05 05.4	-0.8
RNF	Rovaniemi	0.98	35	PB	Pb	04 04 56.4	-0.2
RNF				SB	Sn	04 05 11.2	-1.0
ERTU	Ertsjaerv	1.23	308	PN	Pb	04 05 00.9	+0.1
	baz=122						
ERTU				SN	Sb	04 05 17.8	+0.6
OBF0	Syolatti, Pyha	1.34	187	PG	Pg	04 05 00.2	-2.2
OBF0				smax	smax	04 05 17.2	
	comp=Z,1.1nm,0.2s						
PAJU	Pajala	1.35	334	PN	Pg	04 05 02.4	-0.2
PAJU				SN	Sb	04 05 21.0	+0.2
KLF	Kolari	1.45	350	PN	Pn	04 05 03.9	-0.3
	baz=170						
KLF				smax	smax	04 05 20.4	
	comp=Z,1.3nm,0.2s						
KLF				SN	Sn	04 05 23.7	-0.2
OUF	Merijarvi	1.46	178	PG	Pn	04 05 02.9	-1.4
	baz=353						
OUF				smax	smax	04 05 20.6	
	comp=Z,1.0nm,0.2s						
OUF				SN	Sn	04 05 24.9	+0.8
KU2	Taivalkoski	1.50	93	PG	Pn	04 05 04.0	-0.9
KU2				SG	Sg	04 05 21.9	-2.9
OBF8	Ulkokalla	1.57	199	PG	Pn	04 05 05.5	-0.4
OBF8				smax	smax	04 05 24.0	
	comp=Z,0.7nm,0.2s						
MSF	Maaselka	1.82	85	SG	Sb	04 05 34.0	-0.4
BURU	Burvik	1.84	229	PG	Pb	04 05 10.7	-0.6
BURU				SG	Sg	04 05 35.5	-0.4
OLKF	Oulanka, Finla	2.02	73	smax	smax	04 05 36.7	
	comp=Z,0.8nm,0.2s						
OLKF				SG	Sn	04 05 38.6	+0.7
KU1	Kurvinen	2.06	95	PG	Pn	04 05 13.0	+0.3
KU1				SG	Sn	04 05 39.6	+0.5
KU6	Riekki	2.18	82	smax	smax	04 05 41.3	
	comp=Z,0.6nm,0.2s						
LANU	Lannavaara	2.46	337	PG	Pb	04 05 21.4	-0.5
HEF	Hetta	2.63	352	PG	Pb	04 05 23.8	-0.9
HEF				smax	smax	04 05 54.3	
	comp=Z,0.3nm,0.2s						
HEF				SG	Sg	04 05 59.5	-1.6
RAJF	Raja-Jooseppi	3.03	27	SN	Sn	04 05 59.4	-3.6

*HEL **29** 04:05:06.0±0.2, 67°.72N×33°.75E, h0km, ML1.1, Explosion*

KOLA 29 04:05:04.6, 67°.65N×33°.77E, h0km, ML1.2, Error ellipse: s-maj=2.8km s-min=1.2km az=130.0, Khibiny, mines Kirovsk, Yukspor, Baltic States-Belarus-Northwestern Russia

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
APA	Apatity	0.16	239	S	Sg	04 05 09.8	0.0
APA0	Apatity Array	0.30	261	P	Pg	04 05 10.0	-0.3
APA0				S	Sg	04 05 14.2	0.0
LVZ	Lovozero	0.42	54	S	Sg	04 05 17.9	+0.1
LVZ	Lovozero	0.42	54	PG	Pg	04 05 13.0	+0.5

LVZ				SG	Sg	04 05 18.3	+0.4
KVDA	Kovda	1.03	200	P	Pg	04 05 23.4	-0.8
KVDA				S	Sg	04 05 36.3	-1.2
VRF	Varrio	1.59	275	PG	Pb	04 05 34.4	-0.3
	baz=85						
VRF				smax	smax	04 05 53.2	
	comp=Z,1.4nm,0.2s						
VRF				SG	Sn	04 05 53.9	-1.2
TERR	Teriberka	1.63	17	P	Pn	04 05 33.1	-1.4
TERR				S	Sn	04 05 54.8	-1.4
OLKF	Oulanka, Finla	2.18	234	smax	smax	04 06 11.6	
	comp=Z,0.9nm,0.2s						
OLKF				SB	Sb	04 06 12.9	+0.7
KU6	Riekki	2.24	225	PN	Pb	04 05 44.6	-1.3
KU6				smax	smax	04 06 13.6	
	comp=Z,0.6nm,0.2s						
KU6				SB	Sb	04 06 14.9	+0.9
KU6	Riekki	2.24	225	SG	Pb	04 05 44.6	-1.3
VADS	Vadso	2.95	329	S	Sn	04 06 27.1	-1.5
ARA0	ARCESS Array S	3.57	306	PN	Pn	04 06 00.8	-0.3
ARA0				SG	Sb	04 06 55.3	+3.0

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*TEH **29** 04:08:00.8, 31°.60N×51°.08E, h5^{km}, ML4.8, Presumed earthquake*

*IDC **29** 04:08:02.0±0.5, 31°.57N×51°.02E, h0^{km}, mb4.6/31, mbtmp4.5/39, ML4.2/8, MS4.5/64, Error ellipse: s-maj=12.4km s-min=9.0km az=177.0*

*MOS **29** 04:08:02.2±1.4, 31°.46N×51°.08E, h15^{km}, mb4.9/44, MS4.2/22, Error ellipse: s-maj=4.8km s-min=3.4km az=107.1*

*NEIC **29** 04:08:03.1±1.4, 31°.46N±0°.07×51°.04E±0°.07, h10^{km}±1^{km}, mb4.9/96, Error ellipse: s-maj=11.2km s-min=10.3km az=190.0*

*THR **29** 04:08:03.6±0.0, 31°.60N×51°.12E, h10^{km}±7^{km}, ML5.0, Presumed earthquake*

*GFZ **29** 04:08:05.0, 31°.45N×51°.12E, h10^{km}, Mw4.9/43, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M$_{rr}$-0.55; M$_{\theta\theta}$-1.15; M$_{\phi\phi}$1.69; M$_{r\theta}$0.59; M$_{\theta\phi}$1.96; M$_{\phi r}$0.02; Fault plane solution: M$_{0}$2.53762×10^{16} NP1: φ$_{s}$342.93846°, δ74.64814°, λ-171.73340°. NP2: φ$_{s}$250.73569°, δ82.03032°, λ-15.50533°. Principal axes: T 2.7202, Plg5.1155°, Azm297.5711°; N -0.4168, Plg72.6112°, Azm44.1811°; P -2.3034, Plg16.5734°, Azm206.0444°;*

*GCMT **29** 04:08:04.0±0.2, 31°.52N±0°.01×51°.08E±0°.01, h15^{km}±1^{km}, MW5.1/128, Moment Tensor Solution. s61,c73; s128,c215; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-0.81±.10; M$_{\theta\theta}$-2.01±.09; M$_{\phi\phi}$2.82±.09; M$_{r\theta}$0.81±.20; M$_{\theta\phi}$4.02±.10; M$_{\phi r}$-0.54±.17; Best double couple: M$_{0}$4.81600×10^{16} NP1:φ$_{s}$254.00000°, δ79.00000°, λ-10.00000°. NP2:φ$_{s}$345.00000°, δ80.00000°, λ-169.00000°. Principal axes: T 5.0950, Plg1.0000°, Azm119.0000°; N -0.5560, Plg75.0000°, Azm27.0000°; P -4.5360, Plg15.0000°, Azm210.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*GFZ **29** 04:08:05.4±0.3, 31°N±4°×5°1E±°, h10^{km}, M4.5/26, mb5.0/26*

*OMAN **29** 04:08:06.9±0.9, 31°.34N×51°.20E, h27^{km}±8^{km}, mb4.6/39, ms4.3/7, Error ellipse: s-maj=4.0km s-min=3.3km az=50.0*

*DSN **29** 04:08:07.7±1.3, 31°.17N×51°.25E, h15^{km}, ML4.9/16, Error ellipse: s-maj=19.4km s-min=8.1km az=30.0*

ISC 29 04:08:02.5±0.6, **31°.48N**±0°.03×**51°.10E**±0°.03, **h7**^{km}±3^{km}, **n729,** σ1^{s}57/784, **mb4.8**/182, **MS4.4**/82, **38C-22D, Northern and central Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IBRJ	Brojen	0.45	18	Pg	Pg	04 08 07.5	-3.8
ZNGN	Zangian	0.67	342	Pg	Pg	04 08 12.4	-3.0
JHBN	Jahan bin	0.84	334	Pg	Pg	04 08 15.4	-3.3
AMIS	Naft Sefid	1.56	277	Pg	Pn	04 08 30.4	-0.2
KAZ2	Kazeron-Fars-I	1.92	165	Pn	Pg	04 08 38.8	-0.5
GTMR	Gotvand	1.96	301	*e*Pn	Pb	04 08 38.0	-0.5
GTMR				IAML		04 09 12.5	
	comp=Z,18μm,1.0s						
SHI	Shiraz	2.20	146	Pn	Pb	04 08 42.3	-0.4
KHMZ	Khomeyn	2.45	337	*e*Pn	Pn	04 08 44.5	+1.4
KHMZ				IAML		04 09 27.3	
	comp=Z,6μm,1.0s						
TAFT	Taft - Yazd	2.63	84	Pn	Pn	04 08 47.5	+1.9
KRSH	Karshahi	2.63	19	Pn	Pn	04 08 46.0	+0.4
ANAR	Anarak	2.81	52	Pn	Pn	04 08 48.7	+0.8
ICHK	Chekchek	2.92	74	Pn	Pn	04 08 50.9	+1.4
DOBD	Dorbid, Yazd	2.95	79	Pn	Pn	04 08 51.5	+1.6
GHVR	GHOM	3.00	3	*e*Pn	Pn	04 08 52.3	+1.8
GHVR				IAML		04 09 49.1	
	comp=Z,6μm,1.0s						
IMEH	Mehriz	3.00	91	Pn	Pn	04 08 52.6	+1.9
DSBU	Dashti - Bushe	3.11	177	Pn	Pb	04 08 55.5	-2.6
YZKH	Yazd	3.11	72	*e*Pn	Pn	04 08 54.1	+2.1
YZKH				IAML		04 09 50.5	
	comp=Z,2μm,1.0s						
ASAO	Ashtian	3.19	344	*e*Pn	Pn	04 08 55.2	+1.9
ASAO				IAML		04 10 02.1	
	comp=Z,6μm,1.0s						
IDOB	Doab	3.37	314	Pn	Pn	04 08 56.5	+0.7
IKFM	Kafar-mosalman	3.42	307	Pn	Pn	04 08 57.3	+1.0
ILAS	Lasjerd	4.19	21	Pn	Pn	04 09 07.4	+0.3
DAMV	Damavand	4.21	10	*e*Pn	Pn	04 09 08.1	+0.8
DAMV				IAML		04 10 26.0	
	comp=Z,1μm,1.0s						
CHTH	Charan	4.42	0	*e*Pn	Pn	04 09 10.8	+0.6
CHTH				IAML		04 10 33.4	
	comp=Z,1μm,1.0s						
THKV	Tehran--Karaj	4.43	358	*e*Pn	Pn	04 09 11.9	+1.6
THKV				IAML		04 10 37.8	
	comp=Z,2μm,1.0s						
ILBA	Ilam Banvizeh	4.65	299	*e*Pn	Pn	04 09 14.3	+1.1
ILBA				IAML		04 11 01.1	
	comp=Z,1μm,1.0s						
ILBA	Ilam Banvizeh	4.65	299	Pn	Pn	04 09 13.6	+0.3
ZRDN	Zarand Kerman	4.68	95	Pn	Pn	04 09 15.8	+2.0
ISHM	Shahmirzad	4.69	22	Pn	Pn	04 09 14.2	+0.3
SNGE	Sanandaj	4.78	320	*e*Pn	Pn	04 09 16.9	+1.7
SNGE				IAML		04 10 53.4	
	comp=Z,2μm,1.0s						
TSHB	Tabas_ShorAb	5.04	63	Pn	Pn	04 09 19.8	+1.2
KRBR	Kerman	5.10	106	*e*Pn	Pn	04 09 23.4	+3.8
KRBR				IAML		04 11 19.3	
	comp=Z,550nm,1.0s						
TNSJ	Nastanj	5.26	60	Pn	Pn	04 09 22.7	+1.0
SAKB	Bahrain	5.50	185	P	Pn	04 09 27.3	+2.5
SAKB				S	Sn	04 10 28.4	0.0
GIDE	GILAN DEYLAMAN	5.52	350	*e*Pn	Pn	04 09 27.1	+1.8
GIDE				IAML		04 11 33.8	
	comp=Z,2μm,1.0s						
TABS	Tabas	5.53	65	*e*Pn	Pn	04 09 27.1	+1.8
TABS				IAML		04 11 20.8	
	comp=Z,680nm,1.0s						
ZNJK	Zanjan	5.55	340	*e*Pn	Pn	04 09 27.0	+1.2
ZNJK				IAML		04 11 17.9	
	comp=Z,230nm,1.0s						
BNDS	Bandar-Abbas	6.00	131	*e*Pn	Pn	04 09 34.5	+2.6
BNDS				IAML		04 11 25.0	
	comp=Z,180nm,1.0s						
SHRO	Shahrood	6.08	41	*e*Pn	Pn	04 09 33.9	+1.0
SHRO				IAML		04 11 30.4	
	comp=Z,2.7nm,1.0s						
SHRO	Shahrood	6.08	41	Pn	Pn	04 09 33.6	+0.7
TAPT	Tabas- Tapeh t	6.11	55	Pn	Pn	04 09 34.0	+0.7
SRSL	SARDASHT	6.67	317	*e*Pn	Pn	04 09 43.6	+2.5
SRSL				IAML		04 12 09.8	
	comp=Z,530nm,1.0s						
JRN	Qarnain Island	6.69	166	P	Pn	04 09 41.5	+0.3
	SNR=8.9						
JRN				S	Sn	04 10 56.8	-0.9
KHNJ	Kahnooj	6.74	120	Pn	Pn	04 09 44.8	+3.0
KBAM	BAM	6.77	108	Pn	Pn	04 09 45.0	+2.6
BSRN	Basiran	6.86	84	*e*Pn	Pn	04 09 45.6	+2.0
BSRN				IAML		04 12 04.5	
	comp=Z,250nm,1.0s						
SHME	Shamm	6.99	139	P	Pn	04 09 46.1	+0.9
SHME				S	Sn	04 11 03.8	-1.2
SHME	Shamm	6.99	139	P	Pn	04 09 44.1	-1.1
UMQ	Umm Al-Quwin	7.16	145	P	Pn	04 09 50.7	+3.1
	SNR=6.8						
BANOM	Banah	7.17	139	P	Pn	04 09 48.3	+0.5
BANOM				S	Sn	04 11 07.6	-2.1
BANOM	Banah	7.17	139	*i* P	Pn	04 09 47.2	-0.7
	SNR=13						
BANOM				S	Sn	04 11 06.6	-3.1
SBZV	Sabzevar	7.30	46	*e*Pn	Pn	04 09 51.9	+2.2
SBZV				IAML		04 12 15.1	
	comp=Z,200nm,1.0s						
SBZV	Sabzevar	7.30	46	Pn	Pn	04 09 50.8	+1.0
SLWR	Sila	7.40	176	S	Sn	04 11 14.2	-0.9
MRVT	Maraveh tapeh	7.41	32	*e*Pn	Pn	04 09 52.1	+0.9
MRVT				IAML		04 12 19.3	
	comp=Z,140nm,1.0s						
MASF	Masafi	7.54	143	P	Pn	04 09 53.4	+0.6
	SNR=73						
MASF				S	Sn	04 11 17.6	-1.1
MSFE	Esma-Masafi	7.55	143	*i* P	Pn	04 09 53.2	+0.2
	SNR=72						
MSFE				S	Sn	04 11 17.2	-1.7
NAZ	Nazwa, Dubai	7.61	147	P	Pn	04 09 52.5	-1.4
	SNR=52						
NAZ	Nazwa, Dubai	7.61	147	*i* P	Pn	04 09 54.4	+0.6
	SNR=52						
MDH	Madha	7.67	142	P	Pn	04 09 55.0	+0.4
	SNR=40						
MDH				S	Sn	04 11 19.4	-2.4
MDH	Madha	7.67	142	*i* P	Pn	04 09 54.5	-0.1
	SNR=40						
AJN	Ajban	7.70	153	P	Pn	04 09 57.1	+2.1
	SNR=8.0						
AJN				S	Sn	04 11 21.4	-1.0
GRMI	Germi	7.77	341	*e*Pn	Pn	04 09 57.1	+1.0
GRMI				IAML		04 12 24.0	
	comp=Z,160nm,1.0s						
ASUD	Al Ashush, Dub	7.78	150	P	Pn	04 09 58.3	+2.2
	SNR=20						
ASUD				S	Sn	04 11 23.6	-0.9
ASUD	Al Ashush, Dub	7.78	150	*i* P	Pn	04 09 57.4	+1.2
	SNR=20						
FAQ	Al Faqa, Dubai	7.79	148	P	Pn	04 09 56.9	+0.6
	SNR=14						
FAQ				S	Sn	04 11 23.5	-1.3
FAQ	Al Faqa, Dubai	7.79	148	*i* P	Pn	04 09 56.5	+0.2
	SNR=14						
UOSS	Minazif	7.91	144	P	Pn	04 09 58.2	+0.2
UOSS				S	Sn	04 11 26.4	-1.4
UOSS	Minazif	7.91	144		Pn	04 09 57.4	-0.6
UOSS	Minazif	7.91	144	*i* P	Pn	04 09 57.6	-0.4
	SNR=38						
UOSS	Minazif	7.91	144	P	Pn	04 09 58.0	0.0
	comp=Z,124nm,0.9s						
HATD	Hatta, Dubai	7.97	145	P	Pn	04 09 60.0	+1.1
	SNR=33						
HATD				S	Sn	04 11 28.8	-0.6
HATD	Hatta, Dubai	7.97	145	*i* P	Pn	04 09 59.1	+0.3
	SNR=33						
SHRT	Shahrakht	8.05	72	*e*Pn	Pn	04 10 03.3	+3.3
SHRT				IAML_BB		04 11 02.1	
	comp=Z,690nm,1.0s						
ASHO	Ashiyiah	8.06	146	P	Pn	04 10 00.6	+0.6
	SNR=76						
ASHO				S	Sn	04 11 30.2	-1.3
ASHO	Ashiyiah	8.06	146	*i* P	Pn	04 09 59.7	-0.3
	SNR=76						
ASHO				S	Sn	04 11 26.8	-4.7
MZWR	Madinat Zayed	8.07	162	P	Pn	04 10 00.4	+0.2
MZWR				S	Sn	04 11 31.6	-0.1
BJRD	Bojnurd	8.10	38	*e*Pn	Pn	04 10 01.8	+1.2
BJRD				IAML_BB		04 11 00.6	
	comp=Z,560nm,1.0s						
JASK	Jask - Hormozg	8.16	132	P	Pn	04 10 02.1	+0.8
ALNE	Al Ain	8.46	150	P	Pn	04 10 06.2	+0.7
	SNR=24						
ALNE				S	Sn	04 11 40.7	-0.6
ALNE	Al Ain	8.46	150	*i* P	Pn	04 10 05.1	-0.4
	SNR=9.6						
ZHSF	Zahedan	8.55	100	*e*Pn	Pn	04 10 10.4	+3.5
ZHSF				IAML_BB		04 11 01.4	
	comp=Z,500nm,1.0s						
HAKT	HAKKARI	8.60	317	P	Pn	04 10 08.8	+1.2
	comp=Z,225nm,0.9s						
MZR	Muzera	8.70	165	P	Pn	04 10 10.9	+2.1
	SNR=28						
MZR				S	Sn	04 11 46.3	-1.0
MZR	Muzera	8.70	165	*i* P	Pn	04 10 10.5	+1.7
	SNR=16						
SOHO	SOHO	8.75	145	P	Pn	04 10 08.7	-0.8
SOHO				S	Sn	04 11 46.3	-2.2
SOHO	SOHO	8.75	145	*i* P	Pn	04 10 08.5	-0.9
	SNR=8.1						
RAYN	Ar Rayn	9.35	213	P	Pn	04 10 18.5	+0.9
RAYN				S	Sn	04 12 03.3	0.0
RAYN	Ar Rayn	9.35	213	P	Pn	04 10 16.7	-1.0
RAYN	Ar Rayn	9.35	213		Pn	04 10 16.7	-1.0
RAYN	Ar Rayn	9.35	213	*i* P	Pn	04 10 18.6	+0.9
	SNR=73						
RAYN	Ar Rayn	9.35	213	P	Pn	04 10 18.7	+0.9
	comp=Z,140nm,0.8s						
ARQ	Araqi	9.43	148	P	Pn	04 10 18.4	-0.4
	SNR=14						
ARQ				S	Sn	04 12 03.5	-1.6
UMZA	Um Al Zommool	9.45	157	P	Pn	04 10 20.2	+1.2
UMZA				S	Sn	04 12 03.9	-1.6
GEVA	Gevas	9.49	318		Pn	04 10 19.7	0.0
HOQ	Hoqain	9.60	143	P	Pn	04 10 20.9	-0.2
	SNR=6.9						
HOQ				S	Sn	04 12 08.2	-1.2
HRA	Herat	9.80	70		Pn	04 10 25.1	+1.0
GNI	Garni	10.07	331	Pn	Pn	04 10 29.8	+2.1
	comp=Z,6.8nm,0.3s,baz=148,slow=19,SNR=2.1						
GNI				LR	LR	04 14 27.4	
	comp=Z,922nm,20.8s,baz=148,slow=39						
	comp=Z,25nm,0.5s						
GNI				AML	AML		
GNI	Garni	10.07	331	*i* P	Pn	04 10 29.3	+1.6
GNI	Garni	10.07	331	Pn	Pn	04 10 27.4	-0.3
GURO	Guroymak-BITLI	10.25	316		Pn	04 10 29.7	-0.4
BSY	Bisya	10.25	147	P	Pn	04 10 29.6	-0.5
	SNR=16						
BSY				S	Sn	04 12 24.1	-1.3
SMDO	Samad	10.41	142	P	Pn	04 10 31.9	-0.5
	SNR=15						
SMDO				S	Sn	04 12 27.1	-2.4
WSAR	Wadi Sarin	10.59	139	LR	LR	04 15 21.3	
	comp=Z,13nm,18.9s,baz=338,slow=41						
WSAR	Wadi Sarin	10.59	139	P	Pn	04 10 34.0	-0.7
	SNR=12						
WSAR				S	Sn	04 12 30.6	-2.9
NGCH	Negor - Chabah	10.73	122	P	Pn	04 10 35.8	-0.7
NGCH				S	Sn	04 12 33.8	-3.2
JMDO	Jabal Madar	11.01	144	P	Pn	04 10 39.7	-0.8
	SNR=20						
WBK	Wadi Bani Khal	11.27	140	P	Pn	04 10 43.0	-1.1
	SNR=50						
WBK				S	Sn	04 12 48.5	-1.9
MAK	Makhachkala	11.81	347	*c i*P	Pn	04 10 50.7	-0.6
MAK				*e*S	Sn	04 13 04.1	+0.7
MAK				pmax	pmax		
	comp=Z,310nm,1.5s						
MAK				MLR	MLR		
	comp=Z,4μm,15.0s						
JLN	Jalan Bani Buh	11.88	139	P	Pn	04 10 50.6	-1.8
	SNR=7.8						
ASF	Jabal al Asfar	12.10	277	Pn	Pn	04 10 53.7	-1.7
	comp=Z,3.0nm,0.3s,baz=117,slow=22,SNR=23						
ASF				Sn	Sn	04 13 05.5	-5.2
	comp=Z,2.4nm,0.3s,baz=269,slow=23,SNR=6.1						
ASF				LR	LR	04 16 52.1	
	comp=Z,3μm,18.4s,baz=80,slow=44						
	comp=Z,12nm,0.4s						
ASF				AML	AML		
ASF	Jabal al Asfar	12.10	277	P	Pn	04 10 53.0	-2.4
KOPT	Kop Dagi	12.11	318		Pn	04 10 55.2	-0.5
MHTO	MHTO	12.12	148	P	Pn	04 10 54.7	-1.0
	SNR=51						
GAZ	Gaziantep	12.80	300		Pn	04 11 04.4	-0.6
DQM	DQM	12.88	152	P	Pn	04 11 04.8	-1.2
	SNR=8.2						
ARPR	Arapgir-MALATY	12.89	310	Pn	Pn	04 11 05.2	-1.1
ARPR	Arapgir-MALATY	12.89	310	P	Pn	04 11 12.3	+6.0
	comp=Z,30nm,1.0s						
KELT	Kelkit	12.92	315	P	Pn	04 11 11.1	+4.4
	comp=Z,72nm,1.2s						
DOK	Doka	13.09	167	P	Pn	04 11 10.0	+1.1
	SNR=9.1						
GEM	Giv'at Ha'Em	13.17	282	P	Pn	04 11 10.1	+0.2
	comp=Z,1.7nm,2.9s						
QRNJ	Al-Qirein	13.22	278	P	Pn	04 11 10.8	+0.2
	comp=Z,61μmcomp=Z,6μm,0.9s						
GHAJ	Ghor Haditha	13.27	273	P	P	04 11 17.1	-4.2
	comp=Z,58nm,1.1s						
MMAI	Mount Meron Ar	13.38	281	Pn	Pn	04 11 12.0	-0.8
	comp=Z,3.3nm,0.3s,baz=75,slow=16,SNR=6.1						
MMAI				LR	LR	04 17 44.3	
	comp=Z,3μm,20.3s,baz=90,slow=44						
	comp=Z,2.5nm,0.4s						
MMAI				AML	AML		
MMAI	Mount Meron Ar	13.38	281		Pn	04 11 12.0	-0.8
NCK	Nalchik	13.39	336	*e*P	Pn	04 11 15.3	+2.4
MSBI	Mazada	13.45	273	P	Pn	04 11 17.2	+3.5
	comp=Z,39nm,1.6s						
NEUR	Neytrino	13.52	333	*i* P	Pn	04 11 16.4	+1.6
ANDN	Andirin	13.60	301	P	Pn	04 11 16.6	+0.7
	comp=Z,109nm,0.8s						
WHFO	Wadi Hawf	13.71	169	P	Pn	04 11 17.0	-0.5
	SNR=29						
KBZ	Khabaz	13.84	334	Pn	Pn	04 11 20.1	+1.1
	comp=Z,0.2nm,0.3s,baz=173,slow=4.6,SNR=5.6						
KBZ				LR	LR	04 17 17.2	
	comp=Z,2μm,21.4s,baz=152,slow=40						
	comp=Z,4.2nm,1.1s						
KBZ				AML	AML		
KBZ	Khabaz	13.84	334	*i* P	Pn	04 11 19.4	+0.4
PRNI	Paran	13.87	270	P	Pn	04 11 21.7	+2.2
HRFI	Mount Harif	13.89	268	P	Pn	04 11 22.3	+2.5
HRFI	Mount Harif	13.89	268	P	Pn	04 11 22.4	+2.5
	comp=Z,60nm,0.9s						
AQBJ	Aqaba	13.94	267	P	Pn	04 11 20.0	-0.4
SHA1	Shidzhatmaz	13.94	334	*i* P	Pn	04 11 22.6	+2.0
SHAO	Shalim	14.01	162	P	Pn	04 11 20.2	-1.3
EIL	Elat	14.03	267	Pn	Pn	04 11 21.4	-0.3
	comp=Z,0.8nm,0.3s,baz=45,slow=8.0,SNR=5.7						
EIL				LR	LR	04 18 19.5	
	comp=Z,508nm,21.1s,baz=87,slow=44						
	comp=Z,4.7nm,0.4s						
EIL				AML	AML		
EIL	Elat	14.03	267	P	Pn	04 11 25.5	+3.8
EIL	Elat	14.03	267	P	Pn	04 11 25.6	+3.8
	comp=Z,30nm,1.4s						
KVAR	Kislovodsk Arr	14.11	334	Pn	Pn	04 11 24.9	+2.1
	baz=287,slow=20						
	comp=Z,4.3nm,0.8s						
KIV	Kislovodsk	14.11	334	P	P	04 11 27.8	-2.8
KIV	Kislovodsk	14.11	334	*e*P	Pn	04 11 24.2	+1.3
KIV				*e*S	Sn	04 14 02.6	+2.8
KIV				pmax	pmax		
	comp=Z,33nm,1.1s						
KIV				MLR	MLR		
	comp=Z,603nm,14.0s						
KIV	Kislovodsk	14.11	334		Pn	04 11 23.1	+0.3
KIV	Kislovodsk	14.11	334	P	P	04 11 28.4	-2.3
	comp=Z,71nm,0.9s						
DMTO	DMTO	14.14	165	P	Pn	04 11 22.0	-1.3
	SNR=22						
RBK	Rabkut	14.19	168	P	Pn	04 11 24.2	+0.2
	SNR=5.7						
ABTO	Aybut	14.20	171	P	Pn	04 11 23.6	-0.5
	SNR=21						
KZIT	Kziot	14.31	272	P	Pn	04 11 27.5	+1.9
KZIT	Kziot	14.31	272	P	Pn	04 11 28.9	+3.4
	comp=Z,48nm,0.9s						
BNN	Bunyan	14.47	305		Pn	04 11 28.4	+0.6
TOKA	Tokat	14.76	311	Pn	Pn	04 11 32.8	+1.1
SOC	Sochi	15.07	327	*e*P	Pn	04 11 35.0	-0.7
SOC				*e*		04 14 22.5	
SOC				pmax	pmax		
	comp=Z,17nm,0.7s						
SOC				MLR	MLR		
	comp=Z,2μm,13.0s						
KBL	Kabul	15.36	74	P	P	04 11 43.9	-0.8
	SNR=16						
KBL	Kabul	15.36	74	P	Pn	04 11 40.9	+1.0
KBL				pmax	pmax		
	comp=Z,7.0nm,1.1s						
KBL	Kabul	15.36	74	Pn	Pn	04 11 40.9	+1.0
KBL	Kabul	15.36	74	P	P	04 11 44.4	-0.3
	comp=Z,23nm,1.1s						
LABN	Labinsk	15.46	331	*e*P	P	04 11 45.0	-0.5
LABN				*e*S	Sn	04 14 40.5	+8.1
LABN				pmax	pmax		
	comp=Z,35nm,0.7s						
LABN				MLR	MLR		
	comp=Z,859nm,12.0s						
BR104	Keskin Array S	16.39	305	P	Pn	04 11 54.0	+0.9
	comp=Z,315nmcomp=Z,47nm,0.9s						
BR131	Keskin Array S	16.39	305	P	P	04 11 57.5	+1.4
	SNR=31						
BR131	Keskin Array S	16.39	305	*i* P	Pn	04 11 53.2	0.0
BR131	Keskin Array S	16.39	305		Pn	04 11 52.7	-0.5
BRTR	Keskin Array B	16.39	305	Pn	Pn	04 11 52.1	-1.1
	comp=Z,1.1nm,0.3s,baz=128,slow=13,SNR=30						
BRTR				LR	LR	04 19 36.0	
	comp=Z,4μm,18.1s,baz=113,slow=43						
BRTR				ScP	ScP	04 20 21.4	+0.5
	comp=Z,0.7nm,0.8s,baz=146,slow=3.3,SNR=3.8						
	comp=Z,3.2nm,0.9s						
BRTR				AML	AML		
BRTR	Keskin Array B	16.39	305	*i* P	P	04 11 55.7	-0.4
BRTR				pmax	pmax		
	comp=Z,24nm,0.8s						
BRTR	Keskin Array B	16.39	305	Pn	Pn	04 11 52.5	-0.7
BR105	Keskin Array S	16.41	305	P	Pn	04 11 54.1	+0.7
	comp=Z,297nmcomp=Z,45nm,0.9s						
BR106	Keskin Array S	16.41	305	P	Pn	04 11 54.2	+0.8
	comp=Z,239nmcomp=Z,40nm,0.9s						
ERBR	Yeremizino-Bor	16.44	333	*e*P	P	04 11 55.1	-1.3
ERBR				*e*S	Sn	04 15 00.4	+4.2
ERBR				pmax	pmax		
	comp=Z,72nm,0.9s						
ERBR				MLR	MLR		
	comp=Z,1μm,15.0s						
ILGA	Ilgaz	16.94	309	P	Pn	04 12 00.8	+0.6
ANN	Anapa	17.07	325	*e*P	P	04 12 03.5	+0.2
ANN				*e*S	Sn	04 15 14.3	+2.8
ANN				pmax	pmax		
	comp=Z,31nm,1.0s						
ANN				MLR	MLR		
	comp=Z,2μm,15.0s						
BZK	Bozkurt	17.21	312		Pn	04 12 04.1	+0.7
BZK	Bozkurt	17.21	312	P	Pn	04 12 03.8	+0.5
	comp=Z,62nm,1.0s						
ISP	Isparta	18.06	296	P	P	04 12 15.7	+1.2
ISP				pmax	pmax		
	comp=Z,60nm,0.9s						
ISP	Isparta	18.06	296		P	04 12 15.7	+1.2
ISP				IAmb	IAmb	04 12 21.4	
	comp=Z,60nm,0.9s						
CHM	Chimkent	18.30	49	*e*P	P	04 12 18.4	+1.5
CHM	Chimkent	18.30	49	*e*P	P	04 12 18.4	+1.5
ELL	Elmali	18.31	292	P	P	04 12 17.8	+0.6
ELL				pmax	pmax		
	comp=Z,47nm,0.8s						
ELL	Elmali	18.31	292		P	04 12 17.8	+0.6
ELL				IAmb	IAmb	04 12 26.6	
	comp=Z,47nm,0.8s						
MDUB	Mudurnu	18.41	305	P	Pn	04 12 18.3	0.0
MDUB				IAmb	IAmb	04 12 28.2	
	comp=Z,58nm,0.8s						
IUG	Iuzhnay	18.49	50	*e*P	Pn	04 12 20.3	+1.1
IUG				*e*S	S	04 15 48.8	-1.6
IUG	Iuzhnay	18.49	50	*e*P	Pn	04 12 20.4	+1.1
IUG				*e*S	S	04 15 48.8	-1.6
DRK	Karamyk	18.63	59	P	Pn	04 12 22.7	+1.6
DRK				pmax	pmax		
	comp=Z,66nm,0.2s						
DRK	Karamyk	18.63	59	P	Pn	04 12 22.7	+1.6
BORA	Eskisehir	18.72	302	P	P	04 12 21.8	0.0
NIL	Nilore	18.80	77	P	Pn	04 12 23.9	+0.9
NIL				pmax	pmax		
	comp=Z,111nm,2.0s						
NIL	Nilore	18.80	77	P	Pn	04 12 23.9	+0.9
NIL				IAmb	IAmb	04 12 35.4	
	comp=Z,110nm,1.9s						
NIL	Nilore	18.80	77	P	Pn	04 12 25.0	+2.1
	comp=Z,25nm,1.3s						
BRLS	Borolday	18.81	47	*e*P	P	04 12 21.0	-1.6
BRLS	Borolday	18.81	47	*e*P	P	04 12 21.0	-1.6
SIM	Simferopol'	18.90	320	*e*P	P	04 12 23.0	-0.5
SIM				*e*S	Sn	04 15 52.0	-3.7
SIM				pmax	pmax		

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      comp=Z,17nm,0.6s
SIM                                MLR      MLR
      comp=Z,600nm,14.9s
AB31  Akbulak array     18.97  18  P        P         04 12 22.5  -1.8
ABKAR Akbulak array     18.97  18  P        P         04 12 22.5  -1.7
TAVA  DENIZLI_Tavas     19.23 294 ⇑P        Pn        04 12 28.8  +0.6
KK31  Karatay Array     19.27  48  P        P         04 12 26.4  -1.2
KK31                               pmax     pmax
      comp=Z,20nm,1.1s
KK31  Karatay Array     19.27  48  P        P         04 12 26.4  -1.2
KKAR  Karatay Array     19.27  48  P        P         04 12 27.0  -0.7
KKAR  Karatay Array     19.27  48           P         04 12 26.9  -0.7
AKTO  Aktyubinsk        19.63  13  P        P         04 12 31.1  -0.4
      comp=Z,0.6nm,0.3s,baz=209,slow=9.8,SNR=17
AKTO                               ScP      ScP       04 20 26.3  -1.1
      comp=Z,0.8nm,0.3s,baz=185,slow=4.9,SNR=3.7
AKTO                               LR       LR        04 21 50.9
      comp=Z,1μm,19.9s,baz=143,slow=42
      comp=Z,12nm,0.6s
AKTO                               AML      AML
ARG   Arkhangelos       19.64 290  P        Pn        04 12 33.8  +0.7
      comp=Z,82nm,1.1s
DZA   Taraz             19.69  49 eP        Pn        04 12 34.2  +0.6
DZA   Taraz             19.69  49 eP        Pn        04 12 34.3  +0.6
MANT  Manisa            19.73 297  P        P         04 12 32.8  -0.1
MANT                               IAmb     IAmb      04 12 42.6
      comp=Z,93nm,1.1s
ARSB  Arslanbob         20.12  55  P        P         04 12 36.8  -0.3
ARSB                               pmax     pmax
      comp=Z,42nm,1.3s
ARSB  Arslanbob         20.12  55           P         04 12 36.8  -0.3
KLYT  Kilyos            20.22 305  P        P         04 12 38.1  +0.2
      comp=Z,594nmcomp=Z,41nm,1.0s
BDRM  Kayabasi          20.31 292 ⇑P        Pn        04 12 41.5  +0.5
BALB  Balikesir         20.53 300  P        P         04 12 42.3  +0.9
BALB                               IAmb     IAmb      04 12 57.7
      comp=Z,119nm,1.3s
BALY  Balya             20.75 300  P        P         04 12 44.6  +0.7
      comp=Z,206nm,1.0s
CTYL  Yalikoy Yolu      20.83 305  P        P         04 12 44.1  -0.5
      comp=Z,5μmcomp=Z,47nm,1.1s
VRH   Novokhopyorsk     20.90 343 eP        P         04 12 44.1  -1.1
VRH                               eS        S         04 16 37.1  -1.2
VRH                                pmax     pmax
      comp=Z,70nm,0.6s
VRH                                smax     smax
      comp=N,190nm,7.4s
VRH                                MLR      MLR
      comp=Z,1μm,19.0s
BELG  Belogornoye       21.06 354  P        P         04 12 45.5  -1.5
      comp=Z,39nm,0.6s,baz=360,slow=3.1,SNR=31
BELG                               LR       LR        04 23 00.4
      comp=Z,1μm,18.9s,baz=179,slow=43
      comp=Z,39nm,0.6s
BELG  Belogornoye       21.06 354 i P       P         04 12 46.0  -0.9
BELG                               pmax     pmax
      comp=Z,43nm,0.9s
ZKR   Zakros            21.10 287  P        P         04 12 52.4  +4.8
      comp=Z,85nm,1.0s
KSH2  Kashi             21.34  62  P        P         04 12 51.8  +1.5
KSH2                               sP       sP        04 13 00.8  +6.7
KSH2                               S        S         04 16 48.0  +0.3
KSH2                               pmax     pmax
      comp=Z,35nm,0.8s
KSH2                               L        L
      comp=Z,3μm,22.0s
KSH2                               L        L
      comp=Z,2μm,19.8s
KSH2                               L        L
      comp=Z,2μm,19.8s
VORD  Divnogorie        21.35 339 eP        P         04 12 52.8  +2.7
VORD                               pmax     pmax
      comp=Z,100nm,0.8s
VSR   Storozhevoye      21.61 339 eP        P         04 12 52.1  -0.8
VSR                               eS        S         04 16 49.6  -2.8
VSR                                pmax     pmax
      comp=Z,50nm,0.8s
VSR                                smax     smax
      comp=N,360nm,7.4s
VSR                                MLR      MLR
      comp=Z,920nm,17.0s
CHOS  Chios island      21.62 295  P        P         04 12 57.0  +3.8
      comp=Z,94nm,1.1s
AAK   Ala-Archa         21.67  53  P        P         04 12 54.6  +0.8
      comp=Z,3.8nm,0.8s,baz=253,slow=13,SNR=7.4
AAK                                LR       LR        04 22 45.6
      comp=Z,1μm,19.4s,baz=265,slow=41
      comp=Z,3.8nm,0.8s
AAK   Ala-Archa         21.67  53  P        P         04 12 57.0  +3.1
AAK   Ala-Archa         21.67  53 i P       P         04 12 53.9  +0.1
AAK                                pmax     pmax
      comp=Z,29nm,1.2s
AAK   Ala-Archa         21.67  53           P         04 12 53.7  -0.1
NE56  Odesa             21.73 320  P        P         04 12 54.3  +0.1
EZN   Ezine             21.74 299  P        P         04 12 55.1  +0.7
      comp=Z,476nmcomp=Z,35nm,1.0s
THERA Ancient Thera,    21.79 290  P        P         04 12 58.4  +3.4
      comp=Z,70nm,1.0s
APE   Apeiranthos       21.82 292 i P       P         04 12 57.3  +1.9
APE   Apeiranthos       21.82 292 eP        P         04 12 57.0  +1.6
APE   Apeiranthos       21.82 292 ⇑P        P         04 12 57.9  +2.5
APE   Apeiranthos       21.82 292  P        P         04 13 00.5  +5.0
      comp=Z,80nm,0.9s
JURR  Jurilovca         21.86 314 ⇓P        P         04 12 56.4  +0.8
MFTR  Murfatlar         21.86 312 ⇑P        P         04 12 57.3  +1.6
SGDS  Sogindy           22.09  51 eP        P         04 12 59.5  +1.2
      comp=Z,58nm,2.6s
TLCR                    22.11 315  P        P         04 12 59.0  +0.7
TLCR                    22.11 315 ⇑P        P         04 12 59.0  +0.7
TPGR  Topolog           22.19 313 ⇑P        P         04 13 00.1  +0.9
IDI   Anoyia            22.19 287  P        P         04 12 59.7  +0.3
      comp=Z,21nm,0.5s,baz=134,slow=6.7,SNR=20
IDI                                LR       LR        04 25 43.3
      comp=Z,338nm,19.3s,baz=102,slow=48
      comp=Z,21nm,0.5s
IDI   Anoyia            22.19 287  P        P         04 12 59.4   0.0
IDI                                IAmb     IAmb      04 13 06.5
      comp=Z,81nm,1.0s
PURM  Purcari           22.22 319 ⇑P        P         04 13 00.1  +0.7
PURM  Purcari           22.22 319  P        P         04 12 59.8  +0.3
      comp=Z,2μmcomp=Z,145nm,0.8s
ICOR  Ion Corvin        22.23 311 ⇑P        P         04 13 01.4  +1.8
ALN   Alexandroupoli    22.24 302  P        P         04 12 59.1  -0.6
ALN                                pmax     pmax
      comp=Z,71nm,1.4s
ALN   Alexandroupoli    22.24 302           P         04 12 59.1  -0.6
ALN                                IAmb     IAmb      04 13 01.8
      comp=Z,71nm,1.4s
ALN   Alexandroupoli    22.24 302  P        P         04 13 01.4  +1.6
      comp=Z,64nm,0.9s
TLBR  Topalu            22.27 312 ⇓P        P         04 13 01.3  +1.3
NRN   Naryn             22.29  57  P        P         04 13 02.0  +1.3
NRN                                pmax     pmax
      comp=Z,37nm,1.0s
NRN   Naryn             22.29  57  P        P         04 13 02.0  +1.3
NRN                                IAmb     IAmb      04 13 13.7
      comp=Z,37nm,1.0s
HARR  Harsova           22.41 313  P        P         04 13 02.8  +1.2
HARR  Harsova           22.41 313 ⇓P        P         04 13 02.8  +1.2
ASAI  AK-SAY(Kyrgyzs    22.51  58  P        P         04 13 07.4  +4.3
      comp=Z,15nm,1.0s
CFR   Carcaliu          22.52 314  P        P         04 13 03.3  +0.6
CFR   Carcaliu          22.52 314 ⇑P        P         04 13 03.4  +0.6
RAZG  Razgrad           22.84 309 ⇓P        P         04 13 08.0  +1.8
VLDR  Vladesti          22.89 315 ⇑P        P         04 13 08.0  +1.3
LPSR  Galich'ya Gora    22.90 341 eP        P         04 13 06.2  -0.5
LPSR                              eS        S         04 17 12.8  -3.9
LPSR                               pmax     pmax
      comp=Z,90nm,1.2s
LPSR                               smax     smax
      comp=N,350nm,2.1s
LPSR                               MLR      MLR
      comp=Z,750nm,17.0s
IMMV  Iera Moni Meta    22.94 287  P        P         04 13 14.1  +6.9
LEOM  Leova             23.12 317  P        P         04 13 12.3  +3.3
BAL3X Bal3x, Balta      23.20 321  P        P         04 13 10.3  +0.5
GHRR                    23.40 315 ⇓P        P         04 13 13.6  +1.8
GHRR                    23.40 315  P        P         04 13 12.3  +0.4
GHRR                    23.40 315  P        P         04 13 13.0  +1.1
      comp=Z,112nm,0.8s
KUU   Kurty             23.41  51 eP        P         04 13 13.6  +1.7
KUU   Kurty             23.41  51 eP        P         04 13 13.7  +1.7
SGRR  Singureni         23.46 310 ⇓P        P         04 13 13.9  +1.4
ISR   Istrita           23.49 312  P        P         04 13 14.6  +1.8
ISR   Istrita           23.49 312 ⇑P        P         04 13 14.6  +1.8
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ISR   Istrita           23.49 312  P        P         04 13 13.4  +0.6
      comp=Z,86nm,1.2s
TNSS  Tian-Shan         23.49  53 eP        P         04 13 14.5  +1.2
TNSS  Tian-Shan         23.49  53 eP        P         04 13 14.6  +1.2
AAA   Alma-Ata          23.53  53 eP        P         04 13 14.8  +1.5
AAA   Alma-Ata          23.53  53 eP        P         04 13 14.8  +1.5
MDOK  Medeo             23.61  53 eP        P         04 13 15.6  +1.5
MDOK                              eS        S         04 17 31.0  +2.0
MDOK  Medeo             23.61  53 eP        P         04 13 15.6  +1.5
MDOK                              eS        S         04 17 31.0  +2.0
ZIMR                    23.64 308  P        P         04 13 16.3  +2.0
ZIMR                    23.64 308 ⇓P        P         04 13 16.3  +2.0
TARG  Taragay, Kyrgy    23.67  57  P        P         04 13 14.0  -1.1
TARG                               pmax     pmax
      comp=Z,16nm,0.9s
TARG  Taragay, Kyrgy    23.67  57           P         04 13 14.0  -1.1
TARG  Taragay, Kyrgy    23.67  57  P        P         04 13 18.0  +3.0
      comp=Z,20nm,0.9s
SAHR  Sahastru          23.68 314 ⇑P        P         04 13 16.3  +1.6
VRI   Vrincioaia        23.72 314  P        P         04 13 15.7  +0.7
VRI   Vrincioaia        23.72 314 ⇑P        P         04 13 15.8  +0.7
VRI   Vrincioaia        23.72 314  P        P         04 13 16.0  +0.9
      comp=Z,474nmcomp=Z,29nm,1.1s
VRI   Vrincioaia        23.72 314  P        P         04 13 18.2  +3.1
      comp=Z,29nm,1.1s
PLOR  Plostina          23.76 314  P        P         04 13 16.9  +1.5
PLOR  Plostina          23.76 314 ⇑P        P         04 13 17.0  +1.5
NEHR  Nehoiu            23.78 313 ⇓P        P         04 13 17.7  +2.1
SORM  Soroca            23.99 320  P        P         04 13 16.7  -0.9
SORM  Soroca            23.99 320  P        P         04 13 16.7  -0.9
      comp=Z,48nm,1.1s
MLR   Muntele Rosu      24.03 313  LR       LR        04 24 55.6
      comp=Z,2μm,20.5s,baz=179,slow=42
MLR   Muntele Rosu      24.03 313  P        P         04 13 18.3  +0.1
MLR                                pmax     pmax
      comp=Z,28nm,0.7s
MLR   Muntele Rosu      24.03 313           P         04 13 18.3  +0.1
MLR                                IAmb     IAmb      04 13 31.8
      comp=Z,28nm,0.7s
MLR   Muntele Rosu      24.03 313 ⇑P        P         04 13 20.4  +2.3
MLR   Muntele Rosu      24.03 313  P        P         04 13 19.2  +1.0
      comp=Z,585nmcomp=Z,41nm,0.9s
SRS   Serrai            24.08 301  P        P         04 13 19.8  +1.2
      comp=Z,36nm,0.9s
TESR  Tescani           24.09 316 ⇓P        P         04 13 19.4  +0.9
TESR  Tescani           24.09 316  P        P         04 13 18.7  +0.2
      comp=Z,946nmcomp=Z,75nm,0.9s
TESR  Tescani           24.09 316  P        P         04 13 18.6   0.0
      comp=Z,75nm,0.9s
ONER  Baraj Valea Uz    24.15 315 ⇑P        P         04 13 20.0  +0.9
SOH   Sokhos            24.18 300  P        P         04 13 22.7  +3.1
      comp=Z,22nm,1.0s
TURR  Turia             24.25 314 ⇓P        P         04 13 20.8  +0.8
GIRR  Girov             24.40 316 ⇑P        P         04 13 23.1  +1.7
OZUR                    24.41 314 ⇓P        P         04 13 22.5  +0.9
VLAD  Vladila           24.42 308 ⇓P        P         04 13 23.3  +1.7
MTUR  Matau             24.47 312  P        P         04 13 24.4  +2.2
MTUR  Matau             24.47 312 ⇓P        P         04 13 24.4  +2.2
SATY  Saty              24.50  54 eP        P         04 13 23.2  +0.6
SATY                               pmax     pmax
      comp=Z,15nm,1.3s
SATY  Saty              24.50  54 eP        P         04 13 23.2  +0.6
      comp=Z,15nm,1.3s
VOIR                    24.57 312  P        P         04 13 23.7  +0.6
VOIR                    24.57 312 ⇑P        P         04 13 23.7  +0.6
VOIR                    24.57 312  P        P         04 13 23.5  +0.4
      comp=Z,604nmcomp=Z,57nm,0.8s
VOIR                    24.57 312  P        P         04 13 24.4  +1.3
      comp=Z,58nm,0.8s
DOPR  Dopca             24.59 313 ⇓P        P         04 13 24.3  +1.1
AGG   Agios Georgios    24.60 296  P        P         04 13 24.0  +0.6
      comp=Z,60nm,1.2s
BIZ   Bicaz             24.62 316 ⇑P        P         04 13 24.5  +1.0
ITM   Ithomi            24.70 291           P         04 13 24.6  +0.4
PRAR  RASCA             24.77 317 ⇓P        P         04 13 26.6  +1.9
ARR   Arges             24.81 312 ⇑P        P         04 13 26.6  +1.4
ARR   Arges             24.81 312  P        P         04 13 26.1  +0.9
      comp=Z,40nm,0.8s
GRG   Griva             24.92 300  P        P         04 13 27.1  +0.9
      comp=Z,114nm,0.8s
UZB   Uzynbulak         24.96  54 eP        P         04 13 27.8  +1.1
UZB                                pmax     pmax
      comp=Z,9.0nm,0.7s
UZB   Uzynbulak         24.96  54 eP        P         04 13 27.8  +1.1
      comp=Z,9.2nm,0.7s
AK07  Malin Array Si    25.06 326  P        P         04 13 27.4  +0.1
AK09  Malin Array Si    25.06 326  P        P         04 13 27.0  -0.3
AK10  Malin Array Si    25.07 326  P        P         04 13 27.0  -0.4
AK06  Malin Array Si    25.08 326  P        P         04 13 27.2  -0.3
AK08  Malin Array Si    25.09 326  P        P         04 13 27.2  -0.3
AK05  Malin Array Si    25.10 326  P        P         04 13 27.3  -0.4
AK02  Malin Array Si    25.13 326  P        P         04 13 27.6  -0.3
AK12  Malin Array Si    25.14 326  P        P         04 13 27.7  -0.3
AK01  Malin Array Si    25.15 326  P        P         04 13 27.7  -0.4
AKASG Malin Array Be    25.15 326  P        P         04 13 27.5  -0.6
      comp=Z,28nm,0.7s,baz=131,slow=8.5,SNR=62
AKASG                              ScP      ScP       04 20 41.2  -0.3
      comp=Z,1.0nm,0.6s,baz=90,slow=2.1,SNR=4.1
      comp=Z,28nm,0.7s
AKASG Malin Array Be    25.15 326  P        P         04 13 27.6  -0.4
AKASG                                       ScP       04 20 39.4  -2.1
AKBB  Malin Array Si    25.15 326 i P       P         04 13 27.1  -1.0
AKBB                               pmax     pmax
      comp=Z,78nm,1.1s
AKBB  Malin Array Si    25.15 326           P         04 13 27.2  -0.9
AKBB  Malin Array Si    25.15 326  P        P         04 13 27.7  -0.4
KIEV  Kiev              25.15 326  P        P         04 13 27.7  -0.4
KIEV                               pmax     pmax
      comp=Z,133nm,1.3s
KIEV  Kiev              25.15 326           P         04 13 27.7  -0.4
KIEV  Kiev              25.15 326 ⇑P        P         04 13 28.1   0.0
KIEV  Kiev              25.15 326  P        P         04 13 27.7  -0.4
      comp=Z,4μmcomp=Z,374nm,1.1s
AK14  Malin Array Si    25.16 326  P        P         04 13 27.8  -0.4
AK11  Malin Array Si    25.16 326  P        P         04 13 27.9  -0.3
AK13  Malin Array Si    25.17 326  P        P         04 13 27.9  -0.4
AK16  Malin Array Si    25.18 326  P        P         04 13 28.1  -0.3
AK04  Malin Array Si    25.19 326  P        P         04 13 28.1  -0.4
AK15  Malin Array Si    25.19 326  P        P         04 13 28.7  +0.2
AK15                               pP       pP        04 13 31.9  +0.6
TDK   Taldyqorghan      25.20  50 eP        P         04 13 30.0  +1.3
TDK   Taldyqorghan      25.20  50 eP        P         04 13 30.0  +1.3
AK17  Malin Array Si    25.22 326  P        P         04 13 29.0  +0.3
AK17                               pP       pP        04 13 32.2  +0.7
AK18  Malin Array Si    25.24 326  P        P         04 13 28.5  -0.4
AK23  Malin Array Si    25.24 326  P        P         04 13 28.5  -0.4
AK22  Malin Array Si    25.26 326  P        P         04 13 28.8  -0.3
AK22                               pP       pP        04 13 32.5  +0.6
AK19  Malin Array Si    25.26 326  P        P         04 13 28.8  -0.3
SHLS  Shalkode          25.27  55 eP        P         04 13 33.1  +3.7
SHLS                               pmax     pmax
      comp=Z,10.0nm,0.8s
SHLS  Shalkode          25.27  55 eP        P         04 13 33.2  +3.7
      comp=Z,10nm,0.8s
KMPD  K-Podol'skiy      25.27 320  P        P         04 13 28.7  -0.5
AK20  Malin Array Si    25.28 326  P        P         04 13 28.9  -0.4
AK21  Malin Array Si    25.29 326  P        P         04 13 29.0  -0.3
MDB   Medias            25.30 313  P        P         04 13 32.2  +2.7
MDB   Medias            25.30 313 ⇓P        P         04 13 32.2  +2.7
LUBAR Lubar, Ukraine    25.37 323  P        P         04 13 29.7  -0.5
LOT   Lotru             25.40 311 ⇑P        P         04 13 32.6  +2.0
LOT   Lotru             25.40 311  P        P         04 13 33.4  +2.8
      comp=Z,31nm,0.8s
ARTI  Arti              25.42   9  LR       LR        04 25 48.9
      comp=Z,937nm,19.9s,baz=190,slow=42
ARTI  Arti              25.42   9c iP       P         04 13 31.2  +0.7
ARTI                                                  04 14 04.0
ARTI                                                  04 17 01.2
ARTI                               S        S         04 18 00.1  +2.6
ARTI                               SS       SnSn      04 18 53.2  +3.9
ARTI                               pmax     pmax
      comp=Z,7.0nm,0.7s
ARTI                               MLR      MLR
      comp=Z,833nm,18.0s
ARTI  Arti              25.42   9           P         04 13 30.2  -0.3
ARTI                               IAmb     IAmb      04 13 42.4
      comp=Z,23nm,0.9s
BURAR Bucovina Array    25.48 317  P        P         04 13 32.6  +1.3
BURAR Bucovina Array    25.48 317           P         04 13 31.5  +0.1
BURAR Bucovina Array    25.48 317 ⇓P        P         04 13 32.7  +1.3
BUR08 Bucovina Ar. S    25.51 317           P         04 13 31.2  -0.3
MI29  MI29, Kamyanyy    25.64 324  P        P         04 13 33.2  +0.7
      comp=Z,637nm,1.0s
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BORK  Borovoye          25.67  27 i P       P         04 13 32.5  -0.3
BORK                               pmax     pmax
      comp=Z,13nm,1.0s
BORK  Borovoye          25.67  27           P         04 13 31.1  -1.7
MI30  MI30,Zelenitsa    25.68 325  P        P         04 13 32.4  -0.5
      comp=Z,3μmcomp=Z,269nm,1.0s
BVAR  Borovoye Array    25.68  27  P        P         04 13 32.9  -0.1
      comp=Z,7.6nm,0.7s,baz=224,slow=6.2,SNR=30
BVAR                               PcP      PcP       04 17 04.1  +1.0
      comp=Z,1.4nm,0.5s,baz=216,slow=4.6,SNR=3.2
      comp=Z,7.6nm,0.7s
ARCR  ARCALIA           25.74 315 ⇑P        P         04 13 35.4  +1.9
OBN   Obninsk           25.78 341  LR       LR        04 24 18.4
      comp=Z,814nm,21.3s,baz=168,slow=38
OBN   Obninsk           25.78 341 i P       P         04 13 33.8  +0.1
OBN                               i PPP     PPP       04 14 24.3
OBN                               i S       S         04 18 01.0  -2.1
OBN                               i SS      SnSn      04 18 59.8  +1.7
OBN                                pmax     pmax
      comp=Z,56nm,0.7s
OBN                                MLR      MLR
      comp=Z,777nm,20.0s
OBN   Obninsk           25.78 341  P        P         04 13 34.5  +0.8
      comp=Z,94nm,0.8s
MOS   Moscow            26.05 343 eP        P         04 13 32.0  -4.2
MOS                               ePPP      PPP       04 14 18.9
MOS                               eS        S         04 18 00.9  -6.4
MOS                                pmax     pmax
      comp=Z,24nm,0.6s
MOS                                smax     smax
      comp=N,1μm,5.1s
MOS                                MLR      MLR
      comp=Z,700nm,17.0s
HERR  Herculane         26.06 309 ⇓P        P         04 13 38.3  +1.9
DEV   Deva              26.13 311  P        P         04 13 39.5  +2.5
DEV   Deva              26.13 311 ⇑P        P         04 13 39.6  +2.5
BOVS  Bovan             26.13 306 ⇓P        P         04 13 38.1  +1.0
SVE   Sverdlovsk        26.20  12 eP        P         04 13 38.4  +0.8
SVE                               eS        S         04 18 08.0  -1.8
SVE                                pmax     pmax
      comp=Z,12nm,0.8s
SVE                                MLR      MLR
      comp=Z,892nm,20.0s
MARR  Marisel-Cluj      26.32 313 ⇑P        P         04 13 39.5  +0.5
MDVR  Moldovita         26.50 308 ⇓P        P         04 13 41.3  +0.8
DRGR                    26.62 313  P        P         04 13 44.1  +2.5
DRGR                    26.62 313 ⇑P        P         04 13 44.2  +2.5
BZS   Buzias            26.86 310  P        P         04 13 45.0  +1.4
BZS   Buzias            26.86 310 ⇑P        P         04 13 45.0  +1.4
SIRR  Siria             27.07 311 ⇓P        P         04 13 47.5  +1.9
RNPP5 Staryi Chortor    27.12 324  P        P         04 13 46.8  +0.9
KIRV  Kirov             27.13 358  LR       LR        04 26 24.7
      comp=Z,834nm,22.0s,baz=183,slow=41
KIRV  Kirov             27.13 358 i P       P         04 13 45.3  -0.6
RNPP8 Varash            27.20 324  P        P         04 13 47.5  +0.9
RNPP9 Sopachiv          27.23 324  P        P         04 13 47.5  +0.6
KOLS  Kolonicke sedl    27.84 317 eP        P         04 13 56.1  +3.6
KOLS                               pmax     pmax
      comp=Z,5.0nm,0.8s
KOLS  Kolonicke sedl    27.84 317 eP        P         04 13 56.1  +3.6
KURBB Kurchatov Arra    27.92  39  P        P         04 13 54.0  +0.9
      comp=Z,7.5nm,0.8s,baz=240,slow=9.3,SNR=36
KURBB                              ScP      ScP       04 20 48.9  -0.8
      comp=Z,0.6nm,0.9s,baz=254,slow=4.0,SNR=4.3
KURBB                              LR       LR        04 26 40.4
      comp=Z,2μm,19.5s,baz=206,slow=40
      comp=Z,7.5nm,0.8s
KWP   Kalwaria Pacla    27.93 319 eP        P         04 13 55.0  +1.8
KWP   Kalwaria Pacla    27.93 319  P        P         04 13 54.3  +1.0
      comp=Z,33nm,0.8s
KURK  Kurchatov         28.02  39  P        P         04 13 54.7  +0.7
KURK  Kurchatov         28.02  39ceP        P         04 13 54.9  +0.9
KURK                               pmax     pmax
      comp=Z,16nm,0.8s
KURK  Kurchatov         28.02  39           P         04 13 53.2  -0.8
KURK                               IAmb     IAmb      04 13 56.5
      comp=Z,15nm,0.9s
KURK  Kurchatov         28.02  39           ScP       04 20 48.9  -1.1
MNK   Minsk             28.35 331 i P       P         04 13 57.7  +0.8
MNK                               i                   04 14 46.3
MNK                               i PPP     PPP       04 14 54.7
MNK                               i S       S         04 18 45.3  +1.6
MNK                               i SS      SnSn      04 20 04.7  +3.9
MNK                               i SSS     SSS       04 20 19.3
MNK                                pmax     pmax
      comp=Z,42nm,0.9s
MNK                                pmax     pmax
      comp=E,23nm,0.8s
MNK                                pmax     pmax
      comp=N,44nm,1.0s
MNK                                MLR      MLR
      comp=N,451nm,19.0s
MNK                                MLR      MLR
      comp=E,610nm,20.0s
MNK                                MLR      MLR
      comp=Z,835nm,22.0s
MNK   Minsk             28.35 331 i P       P         04 13 57.7  +0.8
      comp=E,23nm,0.8s
MNK                               i P       P         04 13 57.7  +0.8
      comp=N,44nm,1.0s
MNK                               i P       P         04 13 57.7  +0.8
      comp=Z,42nm,0.9s,baz=135
MNK                               i PP      PP        04 14 46.3   -14
MNK                               i PPP     PPP       04 14 54.8
MNK                               i S       S         04 18 45.4  +1.6
MNK                               i SS      SnSn      04 20 04.8  +3.9
MNK                               i SSS     SSS       04 20 19.3
MNK                               i LQ      LQ        04 23 16.0
MNK                               i LR      LR        04 25 15.3
MNK                               i LRM     MLR       04 26 25.4
      comp=N,451nm,18.5s
MNK                               i LRM     MLR       04 26 50.4
      comp=E,610nm,19.8s
MNK                               i LRM     MLR       04 26 59.4
      comp=Z,835nm,21.7s
MK31  Makanchi Array    28.39  48ceP        P         04 13 58.8  +1.4
MKAR  Makanchi Array    28.39  48  P        P         04 13 59.4  +2.0
      comp=Z,5.7nm,1.0s,baz=234,slow=9.3,SNR=11
MKAR                               PcP      PcP       04 17 10.8  +1.1
      comp=Z,1.0nm,0.7s,baz=239,slow=2.5,SNR=2.8
MKAR                               LR       LR        04 26 31.6
      comp=Z,1μm,20.5s,baz=244,slow=39
      comp=Z,5.7nm,1.0s
MKAR  Makanchi Array    28.39  48           P         04 13 57.1  -0.4
MKAR                                        PcP       04 17 08.6  -1.2
HYB   Hyderabad         28.55 113 eP        P         04 13 59.2  +0.1
HYB                               ePP       PP        04 15 03.7  +0.2
HYB                               ePcP      PcP       04 17 09.9  -0.7
HYB                               eS        S         04 18 48.4  +0.9
TIP   Timpagrande       28.92 295  P        P         04 14 02.5  +0.2
      comp=Z,23nm,1.1s
MORH  Mrgy, Hungar      29.01 310  P        P         04 14 03.5  +0.6
      comp=Z,7.1nm,1.2s
NACGM Naroch            29.09 331 eP        P         04 14 04.3  +0.8
NIE   Niedzica          29.22 317  P        P         04 14 05.9  +1.2
      comp=Z,5.2nm,1.0s
LANS  Liptovska Anna    29.59 316 eP        P         04 14 12.2  +4.1
LANS                               pmax     pmax
      comp=Z,3.0nm,0.6s
LANS  Liptovska Anna    29.59 316 eP        P         04 14 12.2  +4.1
VYHS  Vyhne             29.71 314 eP        P         04 14 13.0  +3.9
VYHS                               pmax     pmax
      comp=Z,2.0nm,0.9s
VYHS  Vyhne             29.71 314 eP        P         04 14 13.0  +3.9
OJC   Ojcow             29.87 318 eP        P         04 14 11.8  +1.4
OJC   Ojcow             29.87 318  P        P         04 14 10.7  +0.3
OJC   Ojcow             29.87 318           P         04 14 10.7  +0.3
SUW   Suwalki           30.11 327 eP        P         04 14 13.5  +0.9
SUW   Suwalki           30.11 327 eP        P         04 14 13.7  +1.1
ZSN   Zaisan            30.27  48 eP        P         04 14 15.5  +1.4
ZSN                                pmax     pmax
      comp=Z,4.0nm,0.6s
ZSN   Zaisan            30.27  48 eP        P         04 14 15.5  +1.4
      comp=Z,4.0nm,0.6s
KLMR  Klimovskoe        30.36 349 eP        P         04 14 13.2  -1.5
KLMR                               pmax     pmax
      comp=Z,45nm,1.2s
KLMR                               MLR      MLR
      comp=Z,532nm,12.0s
PABE  Paberze           30.69 329           P         04 14 17.7  +0.1
PABE  Paberze           30.69 329 eP        P         04 14 17.1  -0.5
STEB  Steborice         30.92 316 eP        P         04 14 19.7  -0.1
MORC  Moravsky Berou    31.00 316  P        P         04 14 21.3  +0.8
MORC  Moravsky Berou    31.00 316           P         04 14 20.9  +0.4
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MORC                                IAmb     IAmb      04 14 24.8
        comp=Z,11nm,0.9s
MORC  Moravsky Berou   31.00 316  eP       P         04 14 21.8 +1.3
MORC  Moravsky Berou   31.00 316  ⇓P       P         04 14 21.4 +0.8
RONA  Rosalia, Austr   31.01 312  epP      P         04 14 23.8 +3.1
        comp=Z,4.2nm,0.5s
EVN   Everest          31.13  87           P         04 14 22.1 -0.5
EVN                                IAmb     IAmb      04 14 33.6
        comp=Z,13nm,0.9s
WMQ   Urumqi           31.24  56  eP       P         04 14 25.0 +2.3
WMQ                                pP       sP        04 14 30.0 +3.4
WMQ                                pmax     pmax
        comp=Z,16nm,1.1s
WMQ                                L        L
        comp=Z,2µm,16.9s
WMQ                                L        L
        comp=Z,1µm,19.5s
WMQ                                L        L
        comp=Z,780nm,21.9s
WINA  Alland / Wiene   31.29 312  eP       P         04 14 24.0 +0.9
        comp=Z,2.5nm,0.6s
CONA  Conrad Observa   31.36 312  eP       P         04 14 24.9 +1.0
        comp=Z,2.8nm,0.9s
VRAC  Vranov           31.39 315   LR      LR        04 28 53.8
        comp=Z,767nm,18.8s,baz=114,slow=40
VRAC  Vranov           31.39 315  eP       P         04 14 25.3 +1.4
KRUC  Moravsky         31.42 314  eP       P         04 14 25.8 +1.7
KRLC  Kraliky          31.57 316  eP       P         04 14 23.5 -2.0
KRLC                               MLR      MLR
        comp=Z,600nm,17.2s
KRLC  Kraliky          31.57 316  eP       P         04 14 23.5 -2.0
KRLC                               AMS      AMS       04 28 30.0
        comp=Z,600nm,17.2s
VSU   Vasula           31.66 336  i P      P         04 14 25.0 -1.2
VSU                                pmax     pmax
        comp=Z,21nm,0.8s
VSU   Vasula           31.66 336  eP       P         04 14 26.4 +0.2
DPC   Dobruska-Polom   31.94 316  eP       P         04 14 30.2 +1.4
DPC                                MLR      MLR
        comp=Z,700nm,15.4s
DPC   Dobruska-Polom   31.94 316  eP       P         04 14 30.2 +1.4
DPC                               ex       x         04 19 52.7
DPC                                AMS      AMS       04 28 50.0
        comp=Z,700nm,15.4s
DPC   Dobruska-Polom   31.94 316   P       P         04 14 29.6 +0.8
        comp=Z,8.6nm,0.9s
SESA  Seetaler Alpe,   31.96 310  epP      P         04 14 32.9 +3.8
        comp=Z,4.5nm,0.5s
KSP   Ksiaz            32.16 317   P       P         04 14 31.5 +0.9
        comp=Z,7.0nm,1.3s
CHVC  Chvalec          32.19 317  eP       P         04 14 31.6 +0.6
CHVC                               MLR      MLR
        comp=Z,600nm,24.1s
CHVC  Chvalec          32.19 317  eP       P         04 14 31.6 +0.6
CHVC                               AMS      AMS       04 27 20.0
        comp=Z,600nm,24.1s
MOA   Molln            32.36 311  eP       P         04 14 32.8 +0.3
        comp=Z,6.1nm,0.8s
MYKA  Terra Mystica    32.44 309  eS       S         04 19 48.8 +0.6
        comp=Z,1.1nm,0.5s
CKRC  Cesky Krumlov    32.63 313  eP       P         04 14 32.8 -2.0
CKRC                              eS       S         04 19 51.7 +0.7
CKRC                               MLR      MLR
        comp=Z,700nm,13.7s
CKRC  Cesky Krumlov    32.63 313  eP       P         04 14 32.8 -2.0
CKRC                              eS       S         04 19 51.7 +0.7
CKRC                               AMS      AMS       04 30 50.0
        comp=Z,700nm,13.7s
DGZ   Jazzator, Alta   32.64  46  i P      P         04 14 34.8 -0.3
DGZ                                pmax     pmax
        comp=Z,9.0nm,1.4s
ARBE  Arbavere         32.65 336  eP       P         04 14 31.1 -3.7
BIOA  Bad Ischl, Aus   32.73 311  eP       P         04 14 36.8 +1.1
        comp=Z,2.3nm,0.4s
KBA   Koelnbreinsper   32.76 309  eP       P         04 14 36.9 +0.8
        comp=Z,4.8nm,0.6s
PRU   Pruhonice        32.88 315  eS       S         04 19 56.6 +1.9
PRU                                AMS      AMS       04 30 50.0
        comp=Z,600nm,16.8s
ZAA0  Zalesovo Array   32.95  37           P         04 14 36.7 -0.7
ZAA0                               IAmb     IAmb      04 14 39.8
        comp=Z,21nm,1.2s
ZALV  Zalesovo Beam    32.95  37   P       P         04 14 37.4 -0.1
        comp=Z,7.9nm,0.6s,baz=250,slow=8.8,SNR=31
ZALV                               LR       LR        04 29 49.7
        comp=Z,1µm,19.1s,baz=236,slow=40
        comp=Z,7.9nm,0.6s
ZALV  Zalesovo Beam    32.95  37           P         04 14 36.3 -1.2
GERES GERESS Array B   33.02 313   P       P         04 14 38.1 -0.3
        comp=Z,1.3nm,0.5s,baz=116,slow=9.2,SNR=9.6
GERES                              PcP      PcP       04 17 23.7 +1.7
        comp=Z,0.8nm,0.7s,baz=116,slow=3.6,SNR=1.9
GERES                              ScP      ScP       04 21 07.1 +0.5
        comp=Z,1.6nm,0.8s,baz=149,slow=3.1,SNR=8.8
GERES                              LR       LR        04 30 45.3
        comp=Z,619nm,18.0s,baz=104,slow=41
        comp=Z,1.3nm,0.5s
GERES GERESS Array B   33.02 313   P       P         04 14 37.3 -1.1
GERES                                       PcP       04 17 21.3 -0.7
KHC   Kasperske Hory   33.19 313ceP        P         04 14 39.2 -0.5
KHC                                pmax     pmax
        comp=Z,10.0nm,1.7s
KHC   Kasperske Hory   33.19 313  eP       P         04 14 40.8 +1.1
KHC                               eS       S         04 19 51.7 -7.9
KHC                                AMS      AMS       04 29 40.0
        comp=Z,700nm,18.0s
KHC   Kasperske Hory   33.19 313   P       P         04 14 40.4 +0.7
        comp=Z,6.7nm,1.7s
ABTA  Abfaltersbach    33.23 308  eP       P         04 14 40.9 +0.7
        comp=Z,16nm,1.4s
LESA  Schwarzleotal    33.28 310  eP       P         04 14 41.1 +0.5
        comp=Z,2.3nm,0.4s
LESA                              eS       S         04 20 01.2  0.0
        comp=Z,3.5nm,1.1s
BRG   Berggiesshubel   33.55 316  eP       P         04 14 45.7 +3.0
BRG                                Amp                04 14 46.4
        comp=Z,3.9nm,0.7s
BRG   Berggiesshubel   33.55 316   P       P         04 14 52.4  +10
BRG                                Amp                04 14 58.7
        comp=Z,6.0nm,1.0s
BRG   Berggiesshubel   33.55 316   S       S         04 20 06.0 +0.9
WET   Wettzell         33.63 313  eP       P         04 14 42.3 -1.2
        comp=Z,6.4nm,0.9s,baz=107,slow=8.8
MEF   Metsahovi        33.77 336  eP       P         04 14 45.0 +0.4
JOF   Joensuu          33.91 344  eP       P         04 14 45.2 -0.5
WTTA  Wattenberg       33.93 309  eP       P         04 14 46.0 -0.4
        comp=Z,5.1nm,0.6s
WTTA                              eS       S         04 20 11.1 -0.4
        comp=Z,11nm,1.0s
WATA  Walderalm        33.99 309  eP       P         04 14 47.2 +0.4
        comp=Z,4.5nm,0.6s
WATA                              eS       S         04 20 12.3  0.0
        comp=Z,32nm,1.5s
FIA1  FINESS Array S   34.14 339           P         04 14 48.3 +0.5
FINES FINESS Array B   34.14 339   P       P         04 14 46.9 -0.9
        comp=Z,4.4nm,0.5s,baz=143,slow=8.5,SNR=31
FINES                              LR       LR        04 30 28.7
        comp=Z,591nm,19.2s,baz=138,slow=40
        comp=Z,4.4nm,0.5s
FINES FINESS Array B   34.14 339   P       P         04 14 47.2 -0.6
FINES FINESS Array B   34.14 339           P         04 14 47.1 -0.6
SQTA  Sankt Quirin     34.20 309  eP       P         04 14 48.0 -0.7
        comp=Z,5.0nm,0.4s
SQTA                              eS       S         04 20 16.1 +0.5
        comp=Z,37nm,1.2s
CLL   Collm            34.26 317  i P      P         04 14 48.7 -0.2
CLL                               i                  04 14 52.0
CLL                               eS       S         04 20 17.0 +1.0
CLL                                MLR      MLR
        comp=Z,800nm,21.2s
CLL   Collm            34.26 317           P         04 14 49.2 +0.3
CLL                                IAmb     IAmb      04 14 53.5
        comp=Z,11nm,0.9s
CLL   Collm            34.26 317  eP       P         04 14 48.3 -0.6
        comp=Z,10nm,0.8s,baz=107,slow=8.8
CLL   Collm            34.26 317   P       P         04 14 49.4 +0.5
        comp=Z,14nm,0.9s
CLL   Collm            34.26 317  i P      P         04 14 48.7 -0.2
CLL                               i pP     pP        04 14 52.0 +0.3
        comp=Z,11nm,0.9s
CLL                               ePP      PP        04 16 08.0 +1.7
CLL                               ePPP     PPP       04 16 14.0
CLL                               ePPPP              04 16 25.0
CLL                               eS       S         04 20 17.0 +1.0
CLL                                LH                 04 24 00.0
CLL                                L        L         04 25 00.0
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CLL                                AMS      AMS       04 29 00.0
        comp=N,800nm,21.8s
CLL                                AMS      AMS       04 29 00.0
        comp=E,500nm,24.5s
CLL                                AMS      AMS       04 30 00.0
        comp=Z,800nm,21.2s
MOTA  Moosalm          34.30 309  eP       P         04 14 48.5 -1.1
        comp=Z,6.9nm,0.7s
MOTA                              eS       S         04 20 17.0 -0.2
        comp=Z,12nm,1.1s
FETA  Feichten         34.48 308  eP       P         04 14 50.6 -0.6
        comp=Z,4.2nm,0.8s
FETA                              eS       S         04 20 18.2 -1.7
        comp=Z,12nm,1.7s
RETA  Reutte           34.56 309  eP       P         04 14 50.6 -1.2
        comp=Z,1.2nm,0.5s
RETA                              eS       S         04 20 20.1 -0.9
        comp=Z,5.6nm,1.2s
FUORN Ofenpass-Fuorn   34.71 308           P         04 14 53.3  0.0
BSD   Bornholm Skovb   34.77 323  eP       P         04 14 52.0 -1.3
BSD   Bornholm Skovb   34.77 323  i P      P         04 14 52.1 -1.2
BSD                                IAmb     IAmb      04 14 58.2
        comp=Z,28nm,1.0s
GRF   Grafenberg Arr   34.82 313  eL       L         04 31 41.3
        comp=Z,520nm,20.4s
KEST  Kesra            34.84 289   P       P         04 14 55.0 +0.6
        comp=Z,12nm,0.8s,baz=228,slow=3.0,SNR=12
        comp=Z,12nm,0.8s
KEST  Kesra            34.84 289   P       P         04 14 55.6 +1.3
KEST  Kesra            34.84 289           P         04 14 54.6 +0.3
MOX   Moxa             34.86 315  eL       L         04 32 05.8
        comp=Z,518nm,20.1s
BLEU  Blekinge         34.90 326  i P      P         04 14 54.0 -0.4
NEUB  Neuenburg        34.95 316  eP       P         04 14 56.8 +1.9
        comp=Z,14nm,0.4s,baz=107,slow=8.8
KMBO  Kilima Mbogo     34.99 205   LR      LR        04 29 49.5
        comp=Z,736nm,19.8s,baz=46,slow=37
DAVOX Davos/Dischmat   35.00 308   LR      LR        04 32 19.5
        comp=Z,523nm,20.6s,baz=86,slow=42
UBR   Ueberruh         35.03 309  eP       P         04 14 53.8 -2.0
        comp=Z,14nm,1.0s,baz=107,slow=8.8
KEF   Keuruu           35.06 339  eP       P         04 14 54.5 -1.2
DAVA  Damuels          35.10 309  eP       P         04 14 55.0 -1.5
        comp=Z,7.7nm,0.4s
SUF   Sumiainen        35.10 340  eP       P         04 14 56.0 -0.1
RAF   Rauma            35.26 336  eP       P         04 14 56.6 -0.8
TUE   Stuetta          35.31 307   P       P         04 14 58.8 +0.5
        comp=Z,41nm,1.2s
RGN   Rugen            35.34 322  eP       P         04 14 59.7 +1.5
        comp=Z,44nm,0.8s,baz=107,slow=8.8
FLTG  Flechtingen      35.64 318  eP       P         04 15 00.2 -0.6
        comp=Z,27nm,0.8s,baz=107,slow=8.8
LUNU  Lund             35.75 324  i P      P         04 15 02.6 +0.8
KIBK  Kibwezi          35.85 203           P         04 15 06.2 +3.1
DEL   Delary           35.93 325  i P      P         04 15 02.8 -0.4
CLZ   Clausthal        35.98 316  eP       P         04 15 03.6 -0.3
        comp=Z,15nm,0.8s,baz=107,slow=8.8
UPP   Uppsala          36.08 332  eP       P         04 15 04.4 -0.1
SHL   Shillong         36.16  89   P       P         04 15 06.0 +0.1
SHL   Shillong         36.16  89           P         04 15 06.0 +0.1
COP   Copenhagen       36.29 323  i P      P         04 15 08.2 +1.9
COP                                IAmb     IAmb      04 15 12.9
        comp=Z,76nm,0.9s
VAF   Ylistaro         36.40 339  eP       P         04 15 06.6 -0.6
PALK  Pallekele        36.65 125   LR      LR        04 31 06.6
        comp=Z,956nm,19.9s,baz=314,slow=38
SENIN Lac Senin/Sane   36.69 307           P         04 15 09.6 -0.6
SENIN                              IAmb     IAmb      04 15 29.9
        comp=Z,15nm,1.1s
TNS   Taunus Mts       36.69 313  eP       P         04 15 09.9 -0.1
        comp=Z,14nm,1.1s,baz=107,slow=8.8
FABU  Falkenberg       36.74 325  i P      P         04 15 10.1  0.0
BNI   Bardonecchia     36.96 304   P       P         04 15 11.7 -0.7
BNI                                pmax     pmax
        comp=Z,25nm,0.8s
BNI   Bardonecchia     36.96 304           P         04 15 11.7 -0.7
BNI                                IAmb     IAmb      04 15 23.1
        comp=Z,25nm,0.8s
BRDH  Bariadhala       36.98  94   LR      LR        04 32 54.9
        comp=Z,903nm,19.3s,baz=314,slow=40
ECH   Echery           37.08 310   P       P         04 15 12.5 -0.8
ECH                                pmax     pmax
        comp=Z,10.0nm,1.1s
ECH   Echery           37.08 310           P         04 15 12.5 -0.8
MBAR  Mbarara          37.29 215  i P      P         04 15 14.5 -1.0
MBAR                               pmax     pmax
        comp=Z,7.0nm,0.9s
MBAR  Mbarara          37.29 215           P         04 15 15.3 -0.2
ONAU  Onsala           37.30 326  i P      P         04 15 14.5 -0.5
APA   Apatity          37.61 349  eP       P         04 15 15.7 -1.7
APA                               e                  04 16 41.3
APA                               e                  04 17 31.6
APA                               eS       S         04 21 03.6 -3.4
APA                               eSS      SnSn      04 23 41.4 -3.7
APA                                pmax     pmax
        comp=Z,14nm,0.9s
APA                                MLR      MLR
        comp=Z,654nm,16.5s
SSRD  Sdr. Stenderup   37.66 322  i P      P         04 15 18.4 +0.4
SSRD                               IAmb     IAmb      04 15 21.6
        comp=Z,69nm,0.7s
LVZ   Lovozero         37.72 350ceP        P         04 15 20.3 +1.9
LVZ                                pmax     pmax
        comp=Z,95nm,2.5s
LVZ   Lovozero         37.72 350           P         04 15 17.8 -0.6
LVZ                                IAmb     IAmb      04 15 21.2
        comp=Z,25nm,0.9s
LVZ   Lovozero         37.72 350   P       P         04 15 19.2 +0.8
        comp=Z,40nm,1.9s
HFS   Hagfors          37.86 330   P       P         04 15 19.1 -0.6
        comp=Z,11nm,0.4s,baz=131,slow=8.2,SNR=20
HFS                                LR       LR        04 33 04.6
        comp=Z,573nm,19.1s,baz=122,slow=40
        comp=Z,11nm,0.4s
OVD   Ostervraa, Den   38.10 325  i P      P         04 15 23.9 +2.2
OVD                                IAmb     IAmb      04 15 25.8
        comp=Z,49nm,0.9s
STRU  Stroemstad       38.41 328  eP       P         04 15 24.1 -0.2
STRU  Stroemstad       38.41 328  i P      P         04 15 24.5 +0.2
SJUU  Sjulsmark        38.53 341  eP       P         04 15 25.2  0.0
OSL   Oslo             39.05 329  eP       P         04 15 30.2 +0.6
NC602 NORSAR Array S   39.08 330  eP       P         04 15 31.2 +1.3
NC602 NORSAR Array S   39.08 330           P         04 15 30.3 +0.3
NC602                              IAmb     IAmb      04 16 28.6
        comp=Z,49nm,1.8s
KNGR  Kungurtug, Tuv   39.12  47  i P      P         04 15 32.4 +1.8
KNGR                               pmax     pmax
        comp=Z,26nm,1.1s
NC405 NORSAR Array S   39.20 331           P         04 15 31.1 +0.1
NC405                              IAmb     IAmb      04 15 33.8
        comp=Z,36nm,1.2s
HOMB  Homborsund       39.33 326  i P      P         04 15 33.0 +1.0
NB2   NORSAR Subarra   39.38 331   P       P         04 15 30.9 -1.6
        comp=Z,5.6nm,0.6s,baz=119,slow=8.6
NB2   NORSAR Subarra   39.38 331   P       P         04 15 30.9 -1.6
NOA   NORSAR Array B   39.38 331   P       P         04 15 31.4 -1.1
        comp=Z,12nm,1.0s,baz=121,slow=8.2,SNR=21
NOA                                LR       LR        04 33 52.0
        comp=Z,478nm,20.8s,baz=125,slow=40
        comp=Z,12nm,1.0s
KONO  Kongsberg        39.41 328  i P      P         04 15 32.2 -0.5
KONO                               pmax     pmax
        comp=Z,26nm,1.1s
KONO  Kongsberg        39.41 328  eP       P         04 15 33.9 +1.1
KONO  Kongsberg        39.41 328           P         04 15 33.3 +0.6
KONO                               IAmb     IAmb      04 15 39.3
        comp=Z,25nm,1.1s
NC204 NORSAR Array S   39.69 331           P         04 15 34.6 -0.4
NC204                              IAmb     IAmb      04 15 47.5
        comp=Z,20nm,1.1s
GTA2  Gaotai           40.02  65  eP       P         04 15 39.5 +1.3
GTA2                               pmax     pmax
        comp=Z,7.0nm,1.2s
GTA2                               L        L
        comp=Z,2µm,21.6s
GTA2                               L        L
        comp=Z,790nm,21.9s
GTA2                               L        L
        comp=Z,950nm,20.0s
LANU  Lannavaara       40.34 344  eP       P         04 15 39.1 -1.3
SKAR  Skarslia         40.46 329  eP       P         04 15 43.6 +2.1
VADS  Vadso            40.56 349  eP       P         04 15 41.9 -0.2
KEV   Kevo             40.66 347   P       P         04 15 43.8 +0.9
KEV                                pmax     pmax
        comp=Z,47nm,1.4s
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KEV   Kevo             40.66 347           P         04 15 43.8 +0.9
KEV                                IAmb     IAmb      04 15 48.8
        comp=Z,47nm,1.4s
ARA0  ARCESS Array S   40.76 347  eP       P         04 15 43.2 -0.6
ARCES ARCESS Array B   40.76 347   P       P         04 15 43.1 -0.7
        comp=Z,6.8nm,0.7s,baz=141,slow=7.8,SNR=21
ARCES                              LR       LR        04 33 35.1
        comp=Z,622nm,18.0s,baz=138,slow=38
        comp=Z,6.8nm,0.7s
ARCES ARCESS Array B   40.76 347   P       P         04 15 43.3 -0.5
ARCES                              pmax     pmax
        comp=Z,28nm,1.3s
ARCES ARCESS Array B   40.76 347           P         04 15 43.3 -0.5
ARCES                              IAmb     IAmb      04 15 49.4
        comp=Z,28nm,1.3s
BLS5  Blasjo           40.77 327  eP       P         04 15 43.9 -0.1
DOMB  Dombas           40.77 331  eP       P         04 15 45.1 +1.1
KTK1  Kautokeino       40.81 345  eP       P         04 15 43.2 -1.0
ODD1  Odda             40.88 327  eP       P         04 15 45.7 +0.7
NSS   Namsos           40.97 335  eP       P         04 15 46.0 +0.5
TAM   Tamanrasset      41.23 269   P       P         04 15 47.2 -1.2
TAM                                pmax     pmax
        comp=Z,50nm,0.2s
TAM   Tamanrasset      41.23 269           P         04 15 47.2 -1.2
RAUS  Rausandaksla     41.42 339  eP       P         04 15 49.5 +0.2
HYA   Hoyanger         41.60 329  eP       P         04 15 54.1 +3.4
MOL   Molde            41.64 331  eP       P         04 15 52.9 +1.8
FAUS  Fauske           41.66 340  eP       P         04 15 52.4 +1.3
STOK  Stokkvaagen      41.68 338  eP       P         04 15 50.9 -0.4
AKN   Aaknes           41.69 331  eP       P         04 15 53.6 +2.0
VAGH  Vaagaholmen      41.84 339  eP       P         04 15 52.2 -0.5
JETT  Jettan, Norway   41.87 344  eP       P         04 15 52.5 -0.4
HAMF  Hammerfest       42.03 347  eP       P         04 15 54.7 +0.5
STEI  Steigen          42.03 341  eP       P         04 15 55.9 +1.7
TRO   Tromso           42.28 344  eP       P         04 15 55.8 -0.4
ZAK   Zakamensk        42.73  48  eP       P         04 16 02.8 +2.5
ZAK                                pmax     pmax
        comp=Z,5.0nm,1.5s
TLY   Talaya           43.10  46   LR      LR        04 35 45.6
        comp=Z,1µm,18.5s,baz=264,slow=39
NRIK  Noril'sk         43.14  18   P       P         04 16 03.3 +0.1
        comp=Z,7.0nm,0.8s,baz=243,slow=3.9,SNR=5.5
NRIK                               LR       LR        04 37 35.8
        comp=Z,809nm,18.4s,baz=226,slow=41
        comp=Z,7.0nm,0.8s
NRIK  Noril'sk         43.14  18  i P      P         04 16 04.1 +0.9
NRIK                               pmax     pmax
        comp=Z,16nm,1.1s
NRIK  Noril'sk         43.14  18           P         04 16 03.6 +0.4
LZDM  Lanzhou Array    43.55  69   LR      LR        04 35 32.9
        comp=Z,634nm,19.7s,baz=320,slow=38
LZH   Lanzhou          43.64  69  eP       P         04 16 05.0 -3.0
LZH                                pP       pP        04 16 10.8  0.0
LZH                                pmax     pmax
        comp=Z,19nm,1.2s
LZH                                L        L
        comp=Z,2µm,14.3s
LZH                                L        L
        comp=Z,980nm,16.2s
LZH                                L        L
        comp=Z,980nm,18.1s
PZH   PanZhiHua        44.26  83   P       P         04 16 14.0 +1.0
SONM  Songino Array    44.63  52   P       P         04 16 16.2 +0.6
        comp=Z,2.7nm,0.8s,baz=250,slow=8.4,SNR=7.2
SONM                               LR       LR        04 37 52.1
        comp=Z,551nm,19.1s,baz=266,slow=40
        comp=Z,2.7nm,0.8s
SONM  Songino Array    44.63  52   P       P         04 16 15.6  0.0
EKA   Eskdalemuir Ar   44.63 319   P       P         04 16 15.5 +0.1
        comp=Z,1.0nm,0.4s,baz=98,slow=8.4,SNR=17
EKA                                PcP      PP        04 17 59.6 +0.2
        comp=Z,4.2nm,0.9s,baz=156,slow=2.1,SNR=4.5
EKA                                LR       LR        04 37 18.0
        comp=Z,557nm,22.0s,baz=103,slow=39
        comp=Z,1.0nm,0.4s
CD2   Chengdu          44.68  76   P       P         04 16 15.0 -1.2
CD2                                pmax     pmax
        comp=Z,10.0nm,0.5s
CHTO  Chiang Mai       44.79  95   P       P         04 16 16.9 -0.2
CHTO                               pmax     pmax
        comp=Z,14nm,1.4s
CHTO  Chiang Mai       44.79  95           P         04 16 16.9 -0.2
CHTO                               IAmb     IAmb      04 17 13.5
        comp=Z,14nm,1.4s
CHTO  Chiang Mai       44.79  95   P       P         04 16 17.6 +0.5
        comp=Z,8.1nm,1.2s
ESBB  Sonseca Array    44.92 296           P         04 16 17.7 -0.3
ESDC  Sonseca Array    44.92 296   P       P         04 16 17.4 -0.6
        comp=Z,5.8nm,1.1s,baz=68,slow=7.6,SNR=19
ESDC                               LR       LR        04 38 43.6
        comp=Z,317nm,18.8s,baz=66,slow=41
        comp=Z,5.8nm,1.1s
ESDC  Sonseca Array    44.92 296           P         04 16 17.2 -0.8
CMAR  Chiang Mai Arr   44.94  95   P       P         04 16 19.1 +0.7
        comp=Z,1.6nm,0.3s,baz=290,slow=8.4,SNR=7.9
CMAR                               PcP      PcP       04 18 01.6 +1.8
        comp=Z,1.3nm,0.3s,baz=292,slow=5.2,SNR=4.9
CMAR                               LR       LR        04 38 50.4
        comp=Z,521nm,20.4s,baz=295,slow=41
        comp=Z,1.6nm,0.3s
CMAR  Chiang Mai Arr   44.94  95   P       P         04 16 19.5 +1.2
CMAR  Chiang Mai Arr   44.94  95   P       P         04 16 19.5 +1.2
CMAR                                        PcP       04 17 58.2 -1.6
ULN   Ulaanbaatar      45.07  52ceP        P         04 16 20.2 +1.0
ULN                                pmax     pmax
        comp=Z,6.0nm,0.8s
ULN   Ulaanbaatar      45.07  52           P         04 16 19.3 +0.1
ULN   Ulaanbaatar      45.07  52   P       P         04 16 20.7 +1.5
        comp=Z,33nm,1.1s
KMI2  Kunming          45.57  84   P       P         04 16 25.3 +1.8
KMI2                               pmax     pmax
        comp=Z,13nm,1.0s
KMI2                               L        L
        comp=Z,700nm,17.0s
KMI2                               L        L
        comp=Z,640nm,16.5s
KMI2                               L        L
        comp=Z,480nm,19.9s
PBRG  Braganca         46.76 300  eP       P         04 16 32.7 +0.3
PBAR  Barrancos        47.52 295  eP       P         04 16 38.3 -0.2
PBAR                              i IAmb   IAmb      04 16 58.3
        comp=Z,36nm,1.4s
MTE   Manteigas        47.55 298  eP       P         04 16 39.0 +0.3
MTE                               i IAmb   IAmb      04 16 59.8
        comp=Z,44nm,1.2s
MTE                               eS       S         04 23 38.3 +4.2
MTE                               eLR      LR        04 35 51.3
MTE                               i IAMs_20 IAMs_20  04 40 12.1
        comp=Z,291nm,18.0s
MTE   Manteigas        47.55 298           P         04 16 37.7 -1.0
PMRV  Marv??o          47.58 297  eP       P         04 16 39.6 +0.7
PMRV                              i IAmb   IAmb      04 16 50.4
        comp=Z,20nm,1.2s
PMRV                              eLR      LR        04 36 22.8
PMRV                              i IAMs_20 IAMs_20  04 40 35.6
        comp=Z,306nm,18.0s
POLO  Lamas de Olo     47.60 299  eP       P         04 16 39.9 +0.8
POLO                              i IAmb   IAmb      04 16 46.5
        comp=Z,11nm,1.1s
PGAV  Gavieira, Arco   47.87 300  eP       P         04 16 41.2  0.0
PGAV                              i IAmb   IAmb      04 16 46.2
        comp=Z,46nm,1.7s
PGAV                              eLR      LR        04 36 05.9
PGAV                              i IAMs_20 IAMs_20  04 40 15.0
        comp=Z,348nm,18.0s
XAN   Xi'an            48.14  71   P       P         04 16 44.3 +1.0
XAN                                pP       sP        04 16 49.0 +1.7
XAN                                pmax     pmax
        comp=Z,20nm,1.2s
XAN                                L        L
        comp=Z,1µm,18.6s
XAN                                L        L
        comp=Z,990nm,19.9s
XAN                                L        L
        comp=Z,440nm,22.7s
PSARD Sardoal          48.14 297  eP       P         04 16 43.4 +0.2
PSARD                             i IAmb   IAmb      04 17 07.1
        comp=Z,23nm,2.0s
PVAQ  Vaqueiros        48.20 294  eP       P         04 16 44.6 +0.9
PVAQ                              i IAmb   IAmb      04 16 54.2
        comp=Z,31nm,1.6s
PVAQ                              eS       S         04 23 45.9 +2.6
PVAQ                              eLR      LR        04 39 56.3
PVAQ                              i IAMs_20 IAMs_20  04 41 40.7
        comp=Z,199nm,20.0s
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PMTG	Montargil	48.28	296	eP	P	04 16 44.5	+0.2
PMTG				i IAmb	IAmb	04 17 03.2	
	comp=Z,22nm,1.5s						
PCAS	Casmilo, Conde	48.32	298	eP	P	04 16 46.1	+1.4
PCAS				i IAmb	IAmb	04 16 57.7	
	comp=Z,44nm,1.6s						
GYA	Guiyang	48.44	81	⇑P	P	04 16 46.5	+0.6
GYA				pmax	pmax		
	comp=Z,15nm,0.7s						
TORD	Torodi Ar. Bea	48.77	260	P	P	04 16 48.5	+0.1
	comp=Z,7.2nm,0.5s,baz=52,slow=9.1,SNR=44						
TORD				LR	LR	04 39 37.2	
	comp=Z,596nm,18.4s,baz=58,slow=39						
	comp=Z,7.2nm,0.5s						
TORD	Torodi Ar. Bea	48.77	260	P	P	04 16 47.2	-1.1
HHC	Hu-ho-hao-te	48.85	61	eP	P	04 16 48.3	-0.5
HHC				pmax	pmax		
	comp=Z,8.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,61nm,3.5s						
HHC				L	L		
	comp=Z,980nm,17.2s						
HHC				L	L		
	comp=Z,410nm,17.2s						
HHC				L	L		
	comp=Z,490nm,17.1s						
SPA0	Spitsbergen Ar	49.22	351	eP	P	04 16 52.3	+1.3
SPITS	Spitsbergen Ar	49.22	351	P	P	04 16 50.4	-0.5
	comp=Z,4.7nm,0.5s,baz=131,slow=8.9,SNR=13						
SPITS				LR	LR	04 41 09.0	
	comp=Z,275nm,18.1s,baz=146,slow=40						
	comp=Z,4.7nm,0.5s						
OPO	Ambohidratompo	49.90	185	LR	LR	04 36 58.6	
	comp=Z,312nm,21.0s,baz=283,slow=35						
JMIC	Jan Mayen	50.76	339	LR	LR	04 39 47.6	
	comp=Z,204nm,21.0s,baz=104,slow=38						
LYN	LuoYang	50.86	69	P	P	04 17 06.5	+2.5
LYN				pmax	pmax		
	comp=Z,35nm,1.0s						
LYN				L	L		
	comp=Z,2µm,21.3s						
LYN				L	L		
	comp=Z,850nm,21.0s						
LYN				L	L		
	comp=Z,1µm,16.5s						
LSZ	Lusaka	51.43	209	LR	LR	04 39 53.5	
	comp=Z,1µm,19.1s,baz=34,slow=37						
GSI	Gunungsitoli	53.13	115	P	P	04 17 23.5	+2.3
	comp=Z,26nm,1.2s						
PSI	Prapat	53.26	113	P	P	04 17 21.2	-1.1
PSI				pmax	pmax		
	comp=Z,15nm,1.0s						
PSI	Prapat	53.26	113	P	P	04 17 22.8	+0.5
	comp=Z,17nm,0.9s						
RPSI	Rantau Prapat	53.32	113		P	04 17 21.2	-1.3
RPSI				IAmb	IAmb	04 17 28.5	
	comp=Z,15nm,1.0s						
IPM	Ipoh	53.94	109		P	04 17 26.0	-1.1
QIZ	Qiongzhong	54.00	88	P	P	04 17 26.3	-1.2
QIZ				S	S	04 25 02.8	-1.2
QIZ				L	L		
	comp=Z,330nm,15.2s						
QIZ				L	L		
	comp=Z,150nm,14.7s						
QIZ				L	L		
	comp=Z,160nm,15.2s						
NOR	Nord	55.84	351	i P	P	04 17 39.8	-0.2
NOR				IAmb	IAmb	04 17 42.7	
	comp=Z,9.4nm,1.1s						
MATP	Matopo	55.98	206	LR	LR	04 42 46.2	
	comp=Z,313nm,18.7s,baz=350,slow=37						
PPI	Padang Panjang	56.42	115	P	P	04 17 49.1	+4.1
	comp=Z,17nm,1.2s						
TIXI	Tiksi	56.62	22	LR	LR	04 45 33.0	
	comp=Z,803nm,18.4s,baz=280,slow=40						
NJ2	Nanjing	56.70	70	eP	P	04 17 47.0	+0.2
NJ2				pmax	pmax		
	comp=Z,6.0nm,0.9s						
YAK	Yakutsk	57.45	33	LR	LR	04 45 13.5	
	comp=Z,609nm,18.1s,baz=258,slow=39						
DBIC	Dimbokro	57.65	257	P	P	04 17 54.0	+0.2
	comp=Z,8.9nm,1.0s,baz=46,slow=5.6,SNR=5.7						
DBIC				LR	LR	04 44 42.1	
	comp=Z,612nm,20.7s,baz=60,slow=38						
	comp=Z,8.9nm,1.0s						
DBIC	Dimbokro	57.65	257	P	P	04 17 52.4	-1.4
DBIC				IAmb	IAmb	04 18 06.8	
	comp=Z,23nm,1.1s						
HEH	HeiHe	58.12	47	eP	P	04 17 56.0	-0.6
HEH				pmax	pmax		
	comp=Z,13nm,1.0s						
SSE	Sheshan	58.89	70	P	P	04 18 00.3	-1.9
SSE				S	S	04 26 06.0	-2.6
SSE				pmax	pmax		
	comp=Z,6.0nm,0.5s						
SSE				pmax	pmax		
	comp=Z,130nm,3.6s						
SSE				L	L		
	comp=Z,420nm,19.6s						
SSE				L	L		
	comp=Z,190nm,19.8s						
TSUM	Tsumeb	59.78	217	LR	LR	04 45 47.7	
	comp=Z,504nm,19.1s,baz=51,slow=38						
KDWAN	Kaudwane	60.14	208		P	04 18 08.9	-2.0
SUMG	Summit	60.17	340	P	P	04 18 10.9	0.0
SUMG				pmax	pmax		
	comp=Z,63nm,1.7s						
SUMG	Summit	60.17	340		P	04 18 10.9	0.0
KLR	Kul'dur	61.09	48	ceP	P	04 18 17.8	+0.7
KLR				pmax	pmax		
	comp=Z,15nm,2.5s						
LBTB	Lobatse	61.24	206	LR	LR	04 44 10.8	
	comp=Z,361nm,21.8s,baz=36,slow=35						
KOOLE	Kule	61.72	213		P	04 18 19.9	-1.8
KSRS	Korea Array	61.99	61	P	P	04 18 24.2	+0.9
	comp=Z,3.5nm,0.6s,baz=279,slow=6.2,SNR=11						
	comp=Z,3.5nm,0.6s						
USRK	Ussuriysk Ar.	62.72	53	P	P	04 18 28.1	0.0
	comp=Z,2.7nm,0.8s,baz=343,slow=6.0,SNR=4.1						
	comp=Z,2.7nm,0.8s						
PHPEN	Phepeng	62.74	209		P	04 18 27.4	-1.0
BOSA	Boshof	64.62	205	P	P	04 18 41.5	+0.7
	comp=Z,11nm,0.9s,baz=35,slow=6.0,SNR=16						
BOSA				LR	LR	04 48 19.1	
	comp=Z,729nm,19.4s,baz=32,slow=37						
	comp=Z,11nm,0.9s						
BOSA	Boshof	64.62	205	P	P	04 18 40.7	-0.2
JNU	Nakatsue	65.81	65	LR	LR	04 49 45.2	
	comp=Z,525nm,20.8s,baz=155,slow=38						
SFJD	Kangerlussuaq	65.82	335	LR	LR	04 49 36.7	
	comp=Z,209nm,19.6s,baz=61,slow=38						
LEM	Lembang	66.00	115	LR	LR	04 50 46.2	
	comp=Z,304nm,18.9s,baz=14,slow=39						
SEY	Seymchan	67.32	29	LR	LR	04 51 55.3	
	comp=Z,456nm,18.0s,baz=302,slow=39						
SEY	Seymchan	67.32	29	ceP	P	04 18 59.3	+1.6
SEY				pmax	pmax		
	comp=Z,12nm,1.3s						
SUR	Sutherland	69.67	207	LR	LR	04 51 28.9	
	comp=Z,784nm,19.4s,baz=16,slow=37						
BILL	Bilibino	69.83	21	ceP	P	04 19 15.5	+2.2
BILL				pmax	pmax		
	comp=Z,20nm,1.7s						
MJAR	Matsushiro Arr	69.96	59	LR	LR	04 51 52.1	
	comp=Z,432nm,19.6s,baz=92,slow=38						
RES	Resolute Bay	71.78	351	LR	LR	04 53 20.7	
	comp=Z,307nm,20.9s,baz=33,slow=38						
FRB	Frobisher Bay	73.89	336	LR	LR	04 54 18.8	
	comp=Z,209nm,19.2s,baz=64,slow=38						
KAPI	Kappang	74.65	106	LR	LR	04 56 25.0	
	comp=Z,92nm,18.6s,baz=302,slow=39						
A36M	Sachs Harbour	76.79	359		P	04 19 54.4	+0.1
D23K	Nanushuk River	78.57	8		P	04 20 05.2	+0.9
D23K				IAmb	IAmb	04 20 10.1	
	comp=Z,11nm,1.1s						
SCHQ	Schefferville	78.92	329	P	P	04 20 07.6	+1.1
	comp=Z,6.6nm,0.9s,baz=58,slow=4.4,SNR=5.6						
SCHQ				LR	LR	04 54 37.7	
	comp=Z,128nm,20.3s,baz=56,slow=36						
	comp=Z,6.6nm,0.9s						
SCHQ	Schefferville	78.92	329		P	04 20 06.6	+0.1
SCHQ				IAmb	IAmb	04 20 10.2	
	comp=Z,16nm,1.3s						
D27M	Malcolm River	79.19	4		P	04 20 07.8	0.0
F19K	Shaleruckik Mo	79.56	11		P	04 20 09.9	+0.2
E23K	Chandalar	79.56	8		P	04 20 09.9	0.0
E23K				IAmb	IAmb	04 20 13.3	
	comp=Z,12nm,1.1s						
E28M	Babbage River	79.91	4		P	04 20 11.7	+0.1
E28M				IAmb	IAmb	04 20 58.2	
	comp=Z,20nm,1.7s						
E29M	Blow River	80.21	3		P	04 20 13.6	+0.3
E29M				IAmb	IAmb	04 20 51.6	
	comp=Z,29nm,1.8s						
F24K	Squaw Lake	80.28	7		P	04 20 15.4	+1.7
F24K				IAmb	IAmb	04 20 18.3	
	comp=Z,27nm,1.9s						
COLD	Coldfoot	80.29	8		P	04 20 13.7	0.0
COLD				IAmb	IAmb	04 20 20.1	
	comp=Z,8.3nm,0.9s						
INK	Inuvik	80.46	2	LR	LR	05 00 04.0	
	comp=Z,162nm,21.4s,baz=354,slow=39						
INK	Inuvik	80.46	2	P	P	04 20 14.6	0.0
INK				pmax	pmax		
	comp=Z,5.0nm,1.1s						
INK	Inuvik	80.46	2		P	04 20 14.6	0.0
BMAR	Burnt Mountain	80.69	6		P	04 20 15.8	-0.1
BATI	Baumata	80.76	108	LR	LR	04 58 40.4	
	comp=Z,277nm,21.4s,baz=106,slow=38						
F30M	Barrier River	81.08	3		P	04 20 18.4	+0.4
G30M	tAoh Zraii Nji	81.69	3		P	04 20 20.9	-0.3
G30M				IAmb	IAmb	04 20 26.0	
	comp=Z,7.5nm,0.9s						
G31M	Satah River	81.83	2		P	04 20 21.6	-0.2
G31M				IAmb	IAmb	04 20 27.0	
	comp=Z,11nm,0.8s						
H24K	Noodor Dome	81.90	8		P	04 20 21.6	-0.8
H24K				IAmb	IAmb	04 20 30.4	
	comp=Z,20nm,1.6s						
MLY	Manley	82.31	9		P	04 20 24.0	-0.6
MLY				IAmb	IAmb	04 20 32.9	
	comp=Z,9.2nm,1.1s						
H29M	Whitestone	82.34	4		P	04 20 25.0	+0.4
J20K	Nowinta River	82.61	11		P	04 20 26.4	+0.4
J20K				IAmb	IAmb	04 20 34.9	
	comp=Z,6.5nm,0.8s						
I27K	Kandik River	82.73	5		P	04 20 27.5	+0.8
I27K				IAmb	IAmb	04 21 18.8	
	comp=Z,32nm,2.0s						
I28M	Miner Creek	83.01	5		P	04 20 28.1	-0.2
I28M				IAmb	IAmb	04 20 46.0	
	comp=Z,30nm,1.9s						
ILAR	Eielson Array	83.04	8	P	P	04 20 27.9	-0.4
	comp=Z,1.9nm,0.8s,baz=320,slow=4.1,SNR=15						
ILAR				PKKPbc	PKKPbc	04 38 50.9	+0.1
	comp=Z,0.6nm,0.9s,baz=216,slow=3.2,SNR=4.2						
	comp=Z,1.9nm,0.8s						
ILAR	Eielson Array	83.04	8	P	P	04 20 28.3	0.0
I30M	Mount Dempster	83.44	3		P	04 20 29.8	-0.7
I30M				IAmb	IAmb	04 21 07.0	
	comp=Z,8.2nm,1.0s						
J30M	Hart River	84.09	3		P	04 20 33.1	-0.7
J30M				IAmb	IAmb	04 20 42.7	
	comp=Z,14nm,1.4s						
SCRK	Sand Creek	84.12	7		P	04 20 34.0	0.0
SCRK				IAmb	IAmb	04 20 40.0	
	comp=Z,12nm,0.9s						
K29M	Barlow Dome	84.76	4		P	04 20 37.4	+0.2
K29M				IAmb	IAmb	04 20 43.3	
	comp=Z,5.5nm,0.7s						
L27K	Beaver Creek,	85.22	6		P	04 20 39.7	+0.3
L27K				IAmb	IAmb	04 20 46.0	
	comp=Z,7.4nm,0.9s						
YKA	Yellowknife Ar	85.65	353	P	P	04 20 41.9	+0.4
	comp=Z,3.5nm,0.9s,baz=7.8,slow=5.3,SNR=6.6						
	comp=Z,3.5nm,0.9s						
YKA	Yellowknife Ar	85.65	353	P	P	04 20 40.7	-0.9
YKA	Yellowknife Ar	85.65	353	P	P	04 20 40.7	-0.9
FITZ	Fitzroy Crossi	86.78	113		P	04 20 47.2	-0.6
KDU	Kakadu	89.33	105	P	P	04 21 01.7	+1.7
KDU	Kakadu	89.33	105	P	P	04 21 01.9	+1.9
	comp=Z,6.4nm,1.0s						
DLBC	Dease Lake	90.42	1	LR	LR	05 11 47.0	
	comp=Z,68nm,18.1s,baz=302,slow=42						
SADO	Sadowa	91.63	327	LR	LR	05 02 45.1	
	comp=Z,140nm,19.8s,baz=94,slow=36						
ULM	Lac du Bonnet	93.53	339	P	P	04 21 17.4	-1.6
	comp=Z,1.8nm,0.7s,baz=27,slow=9.0,SNR=3.0						
ULM				LR	LR	05 04 06.7	
	comp=Z,226nm,21.6s,baz=22,slow=36						
	comp=Z,1.8nm,0.7s						
ULM	Lac du Bonnet	93.53	339	P	P	04 21 18.3	-0.7
ULM				pmax	pmax		
	comp=Z,14nm,1.5s						
ULM	Lac du Bonnet	93.53	339	P	P	04 21 18.3	-0.7
ULM				IAmb	IAmb	04 24 44.0	
	comp=Z,14nm,1.5s						
WB0	Warramunga Arr	94.63	110	P	P	04 21 23.5	-1.0
WRA	Warramunga Arr	94.68	110	P	P	04 21 24.8	+0.1
	comp=Z,1.1nm,0.8s,baz=317,slow=3.7,SNR=9.7						
WRA				PKKPbc	PKKPdf	04 38 22.4	+0.5
	comp=Z,0.3nm,0.6s,baz=119,slow=2.7,SNR=4.9						
WRA				LR	LR	05 08 52.0	
	comp=Z,121nm,19.5s,baz=271,slow=38						
	comp=Z,1.1nm,0.8s						
WRA	Warramunga Arr	94.68	110	P	P	04 21 24.4	-0.4
ASAR	Alice Springs	96.27	114	P	P	04 21 32.6	+0.7
	comp=Z,0.3nm,0.5s,baz=312,slow=6.0,SNR=5.2						
	comp=Z,0.3nm,0.5s						
ASAR	Alice Springs	96.27	114	P	P	04 21 31.6	-0.4
MDP	Montagnes des	98.99	282	LR	LR	05 06 06.8	
	comp=Z,102nm,21.7s,baz=48,slow=35						
MAW	Mawson	99.17	175	LR	LR	05 04 34.6	
	comp=Z,145nm,18.4s,baz=0.5,slow=34						
QSPA	South Pole Qui	121.31	180	PKP	PKPdf	04 26 55.5	0.0
	comp=Z,6.9nm,1.1s,baz=279,slow=2.9,SNR=13						
QSPA	South Pole Qui	121.31	180		PKPdf	04 26 53.5	-2.0
LPAZ	La Paz	123.06	270	PKP	PKiKP	04 27 02.1	+0.8
	comp=Z,1.1nm,0.9s,baz=96,slow=1.9,SNR=3.7						
LPAZ	La Paz	123.06	270	PKIKP	PKPdf	04 27 00.0	-1.1
LPAZ	La Paz	123.06	270		PKPdf	04 27 00.0	-1.1
VNDA	Vanda	124.96	166	PKP	PKiKP	04 27 02.8	+0.3
	comp=Z,0.5nm,0.9s,baz=258,slow=2.4,SNR=3.7						
VNDA	Vanda	124.96	166	PKIKP	PKPdf	04 27 01.7	-0.5
VNDA	Vanda	124.96	166		PKPdf	04 27 01.7	-0.5
TAOE	Nuku Hiva Isla	155.18	27	eLR	LR	05 19 58.5	
	comp=Z,271nm,25.4s						
PPT2	Papeete2	156.71	58	eLR	LR	05 20 42.0	
	comp=Z,155nm,24.2s						
PPT2				eLR	LR	05 20 45.3	
	comp=Z,180nm,23.5s						

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*DJA **29** 04:27:10.7±3.9, 9°N±16°×9°4E±3°8, h10^{km}, M5.0/7, mB6.0/4, mb4.5/1, MLv5.0/7, Mw(mB)5.7/4, MwMwp5.3/1, Mwp5.5/1*

IDC 29 04:27:48.1±7.0, 6°.08N×95°.37E, h0^{km}, mb3.5/4, mbtmp3.5/4, Error ellipse: s-maj=376.8km s-min=24.2km az=57.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BSI	Banda Aceh	0.59	187	P	Pn	04 28 06.5	+2.7
MKAR	Makanchi Array	42.10	347	P	P	04 35 42.0	0.0
	0.5nm,0.5s,baz=165,slow=8.1,SNR=5.9						
	0.5nm,0.5s						
WRA	Warramunga Arr	46.24	125	P	P	04 36 15.7	+0.2
	0.3nm,0.5s,baz=305,slow=9.0,SNR=5.2						
	0.3nm,0.5s						
KURBB	Kurchatov Arra	46.57	345	P	P	04 36 17.4	-0.3
	0.7nm,0.6s,baz=170,slow=7.0,SNR=9.0						
	0.7nm,0.6s						
ASAR	Alice Springs	47.84	130	P	P	04 36 27.6	-0.5
	0.2nm,0.4s,baz=298,slow=8.5,SNR=2.3						
	0.2nm,0.4s						

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*NEIC **29** 04:34:11.0±1.7, 18°.0N±0°.1×64°.01W±0°.04, h10^{km}±2^{km}, ML3.5/16, Md4.0/6(RSPR), Error ellipse: s-maj=23.0km s-min=3.7km az=11.0*

*RSPR **29** 04:34:14.0, 17°.61N×64°.19W, h120^{km}±4^{km}, MD4.0/6*

ISC 29 04:34:10.3±2.0, 18°.0N±0°.1×64°.02W±0°.05, h5^{km}±16^{km}, n36, σ0^{s}.83/46, 6C-4D, Virgin Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SABA	Saba	0.81	114	Pg	Pb	04 34 27.6	+0.7
SABA				Sn	Sn	04 34 40.5	-0.4
SABA				IAML		04 34 44.4	
	comp=N,2µm,0.4s						
SABA				IAML		04 34 45.6	
	comp=E,2µm,0.5s						
SMRT	St. Maarten	0.90	84		Pg	04 34 27.0	-0.6
SMRT				Sn	Sn	04 34 41.8	-1.3
SMRT				IAML		04 34 44.0	
	comp=N,3µm,0.3s						
SEUS	St. Eustatius	1.09	115		Pn	04 34 32.8	+0.6
SEUS				IAML		04 34 50.5	
	comp=N,1µm,0.4s						
SEUS				IAML		04 34 55.3	
	comp=E,970nm,0.5s						
HUMP	Col San Antoni	1.75	276		Pn	04 34 40.5	-1.0
HUMP				IAML		04 35 07.7	
	comp=E,172nm,0.2s						
HUMP				IAML		04 35 09.0	
	comp=E,140nm,0.2s						
HUMP	Col San Antoni	1.75	276		Sb	04 35 05.5	0.0
HUMP	Col San Antoni	1.75	276	⇑eP	Pn	04 34 41.6	+0.1
PDPR	Patillas Dam,	1.91	272		Pn	04 34 43.4	-0.2
PDPR	Patillas Dam,	1.91	272	⇓eP	Pn	04 34 44.4	+0.8
IGPR	InterUniversit	1.99	271		Pn	04 34 45.0	+0.3
IGPR					Sn	04 35 10.0	0.0
IGPR	InterUniversit	1.99	271	⇓eP	Pn	04 34 45.0	+0.3
SJG	San Juan	2.04	275		Pn	04 34 45.0	-0.3
SJG	San Juan	2.04	275	⇑iP	Pn	04 34 46.0	+0.6
ECPR	Experimental S	2.26	280		Pn	04 34 47.4	-1.0
ECPR	Experimental S	2.26	280		Sn	04 35 17.2	+0.4
ECPR	Experimental S	2.26	280	⇑iP	Pn	04 34 50.0	+1.5
CELP	Cerrillos	2.44	273		Pn	04 34 50.6	-0.3
CELP	Cerrillos	2.44	273		Sn	04 35 21.0	-0.2
CELP	Cerrillos	2.44	273	⇓eP	Pn	04 34 51.6	+0.6
EMPR	Esperanza - Ma	2.45	283		Pn	04 34 52.1	+1.1
EMPR					Sn	04 35 22.4	+1.1
EMPR	Esperanza - Ma	2.45	283	⇑eP	Pn	04 34 52.1	+1.1
EMPR				eS	Sn	04 35 22.4	+1.1
AOPR	Arecibo Observ	2.63	279		Pn	04 34 54.4	+0.8
AOPR	Arecibo Observ	2.63	279		Sn	04 35 26.1	+0.1
AOPR	Arecibo Observ	2.63	279	⇑eP	Pn	04 34 54.9	+1.3
GDHS	Morne Mazeau,	2.72	127	Pn	Pn	04 34 55.4	+0.5
MLPR	Magueyes Islan	2.88	271		Pn	04 34 56.5	-0.5
MLPR	Magueyes Islan	2.88	271	⇓eP	Pn	04 34 56.5	-0.5
LSP	Las Mesas	2.93	275		Pn	04 34 58.2	+0.5
LSP					Sn	04 35 32.1	-1.2
LSP	Las Mesas	2.93	275	⇑eP	Pn	04 34 58.2	+0.5
LSP				eS	Sn	04 35 32.1	-1.2
CRPR	Cabo Rojo, PR	2.94	272		Pn	04 34 57.3	-0.6
CBE	Ff, Capester	2.97	129	Pn	Pn	04 34 58.9	+0.7
CBE				IAML		04 35 52.6	
	comp=N,287nm,0.5s						
CBE	Ff, Capester	2.97	129		Sn	04 35 33.4	-0.9
CBE	Ff, Capester	2.97	129	⇑eP	Pn	04 34 59.4	+1.2
CBE				eS	Sn	04 35 33.4	-0.9
AGPR	Aguadilla, PR	2.99	280		Pn	04 34 58.3	-0.1
PRSN	Puerto Rico Se	2.99	276		Pn	04 34 58.5	+0.1
IDE	Isla Desecheo	3.32	278		Pn	04 35 03.5	+0.5
IDE					Sn	04 35 41.5	-1.4
IDE	Isla Desecheo	3.32	278	⇑eP	Pn	04 35 03.5	+0.5
IDE				eS	Sn	04 35 41.5	-1.4

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*GFZ **29** 04:38:38.0, 22°.19N×144°.45E, h63^{km}, Mw4.9/26, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}-1.97; $M_{\theta\theta}$0.14; $M_{\phi\phi}$1.82; $M_{r\theta}$-1.01; $M_{\theta\phi}$0.67; $M_{\phi r}$-1.72; Fault plane solution: $M_0$2.83570×10^{16} NP1: ϕ_s191.08538°, δ23.30623°, λ-104.89491°. NP2: ϕ_s27.23724°, δ67.52059°, λ-83.68109°. Principal axes: T 2.8616, Plg22.2746°, Azm112.4129°; N -0.0526, Plg5.8370°, Azm204.8128°; P -2.8090, Plg66.8928°, Azm308.6752°;*

*MOS **29** 04:38:41.5±1.0, 22°.01N×144°.28E, h56^{km}, mb5.2/65, MS4.3/5 Error ellipse: s-maj=9.1km s-min=4.5km az=121.4*

*IDC **29** 04:38:43.5±1.9, 22°.12N×144°.38E, h58^{km}±15^{km}, mb4.4/27, mbtmp4.7/32, MS4.0/57, Error ellipse: s-maj=15.2km s-min=9.7km az=86.0*

*BJI **29** 04:38:43.4, 21°.92N×144°.39E, h85^{km}, mB5.1/12, mb5.1/69, Ms4.4/40, Ms7 4.2/43*

*GCMT **29** 04:38:44.3±0.2, 22°.13N±0°.01×144°.55E±0°.01, h47^{km}±1^{km}, MW5.1/121, Moment Tensor Solution. s55,c80; s121,c185; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}3.40±.17; $M_{\theta\theta}$1.04±.12; $M_{\phi\phi}$-4.43±.11; $M_{r\theta}$1.15±.09; $M_{\theta\phi}$1.52±.09; $M_{\phi r}$2.26±.11; Best double couple: $M_0$4.95900×10^{16} NP1:ϕ_s139.00000°, δ39.00000°, λ47.00000°. NP2:ϕ_s9.00000°, δ63.00000°, λ119.00000°. Principal axes: T 4.6570, Plg61.0000°, Azm324.0000°; N 0.6150, Plg26.0000°, Azm175.0000°; P -5.2620, Plg13.0000°, Azm79.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*JMA **29** 04:38:44.2±0.3, 22°N±2°×14°5E±°, h90^{km}, MV5.0/25, IOTO ISLANDS REGION*

*NEIC **29** 04:38:45.3±1.7, 22°.22N±0°.06×144°.3E±0°.1, h67^{km}±5^{km}, mb4.9/193, Error ellipse: s-maj=16.2km s-min=8.3km az=80.0*

*GFZ **29** 04:38:45.0±0.2, 22°N±3°×14°4E±°, h68^{km}, M5.1/48, mb5.0/48*

ISC 29 04:38:45.0±0.5, 22°.17N±0°.04×144°.36E±0°.05, h70^{km}±3^{km}, h71^{km}:pP-P, n509, σ1^{s}.41/457, mb4.9/227, 22C-5D, Volcano Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHH2	Haha-jima-NKT2	4.87	336	eP	Pn	04 39 55.1	-0.6
JHH2				eS	Sn	04 40 50.5	-0.2
CBIJ	Chichi jima	5.29	338	eP	Pn	04 40 00.5	-0.9
CBIJ				S	Sn	04 40 58.9	-2.1
JCJ	Chichijima	5.29	338	P	Pn	04 40 00.1	-1.3
	103nm,0.4s						
JCJ				S	Sn	04 40 59.4	-1.6
DPSS	Saipan	7.03	169		Pn	04 40 26.2	+0.9
DPSS				Sn	Sn	04 41 45.6	+1.8
GUMO	Guam	8.55	177	P	Pn	04 40 44.2	-1.9
	53nm,0.3s,baz=21,slow=2.3,SNR=4.2						
GUMO	Guam	8.55	177	P	Pn	04 40 46.7	+0.5
GUMO	Guam	8.55	177		Pn	04 40 46.7	+0.5
GUMO	Guam	8.55	177	P	Pn	04 40 46.6	+0.4
	comp=Z,300nm,1.3s						
JMZ	Minamidaito 2	12.54	289	P	P	04 41 47.6	-2.0
	comp=Z,305nm,1.7s						
JMZ	Minamidaito 2	12.54	289	eP	Pn	04 41 43.7	+3.1
BSO3	Boso 3	13.03	346	eP	Pn	04 41 45.8	-1.1
BSO4	Boso 4	13.25	345	eS	Sn	04 44 12.9	-2.5
JOD2	Odawara 2	13.84	342	eP	Pn	04 41 55.4	-2.5
JGF	Kuroka	14.71	337	P	P	04 42 15.6	+1.9
	comp=Z,37nm,1.2s						
JGF	Kuroka	14.71	337		Pn	04 42 09.8	+0.4
JGF	Kuroka	14.71	337	P	Pn	04 42 10.9	+1.5
	comp=Z,38nm,1.2s						
JHO	Hitachi	14.76	348	eP	Pn	04 42 07.7	-2.3
JMN	Monobe	14.76	323	P	P	04 42 17.3	+3.0
	comp=Z,36nm,1.2s						
JAG	Ashikaga	14.83	344	eS	Sn	04 44 47.4	-6.7
MJAR	Matsushiro Arr	15.28	341	P	Pn	04 42 15.6	-1.1
	comp=Z,4.2nm,0.6s,baz=172,slow=11,SNR=19						
MJAR	Matsushiro Arr	15.28	341	P	P	04 42 18.5	-1.6
MJAR	Matsushiro Arr	15.28	341		P	04 42 18.5	-1.6
MAJO	Matsushiro	15.29	341	i P	P	04 42 18.9	-1.2
MAJO	Matsushiro	15.29	341		P	04 42 18.7	-1.4
MAJO	Matsushiro	15.29	341	P	Pn	04 42 16.3	-0.4
	comp=Z,30nm,0.8s						
MJB9	Matsu-Tunnel	15.29	341		P	04 42 18.7	-1.4
JOW	Kunigami	15.35	291	P	Pn	04 42 18.4	+0.7
	comp=Z,24nm,1.1s,baz=98,slow=13,SNR=9.1						
JOW	Kunigami	15.35	291	P	P	04 42 24.2	+3.3
	comp=Z,33nm,0.9s						
JSU	Suzuyama	15.49	310		Pn	04 42 20.9	+1.5
JSU	Suzuyama	15.49	310	P	P	04 42 21.4	-1.0
	comp=Z,67nm,1.0s						
JHS	Saijyo	16.13	325	eP	P	04 42 30.0	+0.5
JNU	Nakatsue	16.16	315	P	P	04 42 29.2	-0.5
	comp=Z,22nm,1.0s,baz=105,slow=7.6,SNR=7.5						
YOJ	Yonaguni jima	19.74	281	P	Pn	04 43 11.3	+0.1
	comp=Z,159nm,1.0s						
YOJ	Yonaguni jima	19.74	281	P	Pn	04 43 10.5	-0.8
YOJ				pmax	pmax		
	comp=Z,198nm,1.2s						
YOJ	Yonaguni jima	19.74	281	P	Pn	04 43 10.4	-0.8
YOJ	Yonaguni jima	19.74	281	P	P	04 43 09.5	+0.3
	comp=Z,158nm,1.0s						
ERM	Erimo	19.81	357	ceP	Pn	04 43 11.7	-0.3
ERM				pmax	pmax		

	comp=Z,56nm,1.3s						
ERM	**Erimo**	**19.81**	**357**		**Pn**	**04 43 12.2**	**+0.2**
ERM				IAmb	IAmb	04 43 15.8	
	comp=Z,62nm,1.2s						
TJN	**Taejon**	**20.45**	**318**	*i* P	**P**	**04 43 16.2**	**-0.6**
TJN	**Taejon**	**20.45**	**318**	P	**P**	**04 43 16.4**	**-0.4**
	comp=Z,79nm,0.8s						
KSRS	**Korea Array**	**20.81**	**321**	P	**P**	**04 43 20.9**	**+0.1**
	comp=Z,5.5nm,0.6s,baz=142,slow=8.7,SNR=20						
	comp=Z,5.5nm,0.6s						
KSAR	**Wonju Array Be**	**20.83**	**321**	P	**P**	**04 43 20.3**	**-0.6**
KSAR	**Wonju Array Be**	**20.83**	**321**	P	**P**	**04 43 20.3**	**-0.6**
KS19	**Wonju Array Si**	**20.88**	**321**	P	Pn	04 43 23.3	-1.3
NACB	**Ninganchiao**	**21.02**	**280**	P	**P**	**04 43 23.9**	**+0.8**
	comp=Z,29nm,0.9s						
H11N1	**WAKE ISLAND Hy**	**21.18**	**92**	T	T	05 05 49.4	
	baz=278,slow=75,SNR=14						
H11N2	**WAKE ISLAND Hy**	**21.19**	**92**	T	T	05 05 38.6	
	baz=278,slow=75,SNR=14						
H11N3	**WAKE ISLAND Hy**	**21.20**	**92**	T	T	05 05 39.0	
	baz=278,slow=75,SNR=8.9						
YHNB	**Yeheng**	**21.23**	**281**	P	**P**	**04 43 26.6**	**+1.2**
	comp=Z,64nm,1.0s						
YHNB	**Yeheng**	**21.23**	**281**		**P**	**04 43 25.8**	**+0.4**
YHNB				IAmb	IAmb	04 43 29.3	
	comp=Z,50nm,0.9s						
YHNB	**Yeheng**	**21.23**	**281**	P	**P**	**04 43 23.8**	**-1.6**
	comp=Z,64nm,1.0s						
H11S3	**WAKE ISLAND Hy**	**21.25**	**96**	T	T	05 05 42.0	
	baz=283,slow=75,SNR=84						
H11S1	**WAKE ISLAND Hy**	**21.26**	**96**	T	T	05 06 06.3	
	baz=283,slow=75,SNR=74						
H11S2	**WAKE ISLAND Hy**	**21.27**	**96**	T	T	05 05 53.9	
	baz=283,slow=75,SNR=44						
YULB	**Yu-li**	**21.30**	**278**	P	**P**	**04 43 26.5**	**+0.5**
	comp=Z,68nm,1.1s						
YULB	**Yu-li**	**21.30**	**278**	P	**P**	**04 43 26.7**	**+0.7**
YULB				IAmb	IAmb	04 43 28.6	
	comp=Z,56nm,0.9s						
YULB	**Yu-li**	**21.30**	**278**	P	**P**	**04 43 27.3**	**+1.3**
	comp=Z,68nm,1.1s						
SSLB	**Suanglung**	**21.60**	**279**		**P**	**04 43 30.3**	**+0.9**
SSLB	**Suanglung**	**21.60**	**279**	P	**P**	**04 43 30.0**	**+0.6**
	comp=Z,292nm,1.1s						
TPUB	**Ta-pu**	**21.91**	**278**	P	**P**	**04 43 33.0**	**+0.4**
TPUB	**Ta-pu**	**21.91**	**278**	P	**P**	**04 43 32.7**	**0.0**
	comp=Z,100nm,1.2s						
VLA	**Vladivostok**	**23.33**	**336**	*i* P	**P**	**04 43 48.0**	**+1.0**
VLA				pmax	pmax		
	comp=Z,107nm,0.8s						
DAV	**Davao City (W)**	**23.52**	**233**	LR	LR	04 51 09.4	
	comp=Z,654nm,21.7s,baz=30,slow=32						
QZH2	**Quanzhou**	**23.76**	**282**	P	**P**	**04 43 49.5**	**-1.7**
QZH2				pmax	pmax		
	comp=Z,80nm,1.1s						
KNMB	**Chin-men Tao**	**23.95**	**281**	P	**P**	**04 43 53.2**	**+0.4**
KNMB	**Chin-men Tao**	**23.95**	**281**	P	**P**	**04 43 51.7**	**-1.1**
	comp=Z,110nm,1.4s						
USA0B	**Ussuriysk Arra**	**24.23**	**338**	*i* P	**P**	**04 43 57.0**	**+1.8**
USA0B	**Ussuriysk Arra**	**24.23**	**338**	P	**P**	**04 43 56.7**	**+1.5**
USA0B				IAmb	IAmb	04 44 00.9	
	comp=Z,43nm,0.9s						
USRK	**Ussuriysk Ar.**	**24.23**	**338**	P	**P**	**04 43 57.2**	**+2.0**
	comp=Z,28nm,0.8s,baz=154,slow=10,SNR=20						
USRK				LR	LR	04 52 38.7	
	comp=Z,801nm,22.0s,baz=184,slow=34						
	comp=Z,28nm,0.8s						
USRK	**Ussuriysk Ar.**	**24.23**	**338**	P	**P**	**04 43 56.9**	**+1.7**
USRK	**Ussuriysk Ar.**	**24.23**	**338**	P	**P**	**04 43 56.9**	**+1.7**
NJ2	**Nanjing**	**24.69**	**299**	*e*P	**P**	**04 44 00.5**	**+1.0**
NJ2				pmax	pmax		
	comp=Z,13nm,0.7s						
YSS	**Yuzhno-Sakhali**	**24.76**	**357**	*e*P	**P**	**04 44 01.7**	**+1.7**
YSS				*e*S	**S**	**04 48 17.1**	**0.0**
YSS				pmax	pmax		
	comp=Z,600nm,3.8s						
YSS				pmax	pmax		
	comp=Z,30nm,1.3s						
YSS				smax	smax		
	comp=N,100nm,3.7s						
YSS				smax	smax		
	comp=E,300nm,3.1s						
YSS				MLR	MLR		
	comp=Z,900nm,13.0s						
YSS				MLR	MLR		
	comp=N,700nm,14.0s						
YSS				MLR	MLR		
	comp=E,700nm,12.0s						
JAY	**Jayapura**	**24.79**	**189**	LR	LR	04 53 30.0	
	comp=E,422nm,18.7s,baz=23,slow=36						
MDJ	**Mudanjiang**	**25.48**	**335**	P	**P**	**04 44 06.6**	**+0.1**
MDJ				IAmb	IAmb	04 44 13.3	
	comp=Z,32nm,1.0s						
MDJ	**Mudanjiang**	**25.48**	**335**	P	**P**	**04 44 07.3**	**+0.8**
	comp=Z,37nm,1.1s						
DL2	**Dalian**	**25.61**	**316**	P	**P**	**04 44 09.5**	**+1.7**
DL2				pmax	pmax		
	comp=Z,92nm,0.8s						
SWI	**Sorong**	**26.22**	**211**	P	**P**	**04 44 14.8**	**+1.3**
	comp=Z,14nm,0.6s						
SIJI	**Sorong**	**26.22**	**211**	LR	LR	04 53 18.2	
	comp=Z,177nm,20.0s,baz=358,slow=33						
SNY	**Shenyang**	**26.23**	**323**	P	**P**	**04 44 12.5**	**-0.9**
SNY				pmax	pmax		
	comp=Z,24nm,0.9s						
CN2	**Changchun**	**26.65**	**328**	P	**P**	**04 44 20.5**	**+3.3**
BNX	**BinXian**	**27.28**	**334**	⇓P	**P**	**04 44 23.8**	**+1.0**
BNX				pmax	pmax		
	comp=Z,28nm,0.9s						
KRVT	**Keravat (AS076**	**27.36**	**163**	LR	LR	04 53 33.7	
	comp=Z,141nm,21.3s,baz=70,slow=33						
TIA	**Tai'an**	**27.47**	**307**	P	**P**	**04 44 24.5**	**-0.1**
TIA				pmax	pmax		
	comp=Z,21nm,0.9s						
WHN	**Wuhan**	**28.09**	**294**	⇓P	**P**	**04 44 30.5**	**+0.3**
WHN				pmax	pmax		
	comp=Z,42nm,0.8s						
KLR	**Kul'dur**	**28.80**	**343**	*ce*P	**P**	**04 44 37.9**	**+1.7**
KLR				pmax	pmax		
	comp=Z,17nm,0.7s						
CNSH	**ChangSha**	**29.01**	**288**	P	**P**	**04 44 38.5**	**+0.1**
CNSH				S	**S**	**04 49 23.8**	**-0.9**
CNSH				pmax	pmax		
	comp=Z,21nm,1.1s						
CNSH				L	L		
	comp=Z,440nm,15.8s						
CNSH				L	L		
	comp=Z,610nm,21.3s						
CNSH				L	L		
	comp=Z,770nm,18.6s						
GRNR	**Gornyy**	**29.21**	**350**	⇑*i*P	**P**	**04 44 42.0**	**+2.1**
GRNR				pmax	pmax		
	comp=Z,20nm,0.7s						
HNS	**HongShan**	**29.72**	**307**	⇓P	**P**	**04 44 45.0**	**+0.4**
HNS				pmax	pmax		
	comp=Z,20nm,1.4s						
GTOI	**Gorontalo**	**29.84**	**227**	P	**P**	**04 44 47.0**	**+1.2**
	comp=Z,39nm,1.0s						
SKR	**Severo-Kuril's**	**29.91**	**15**	*e*P	**P**	**04 44 42.1**	**-4.0**
SKR				*e*S	**S**	**04 49 46.4**	**+8.1**
SKR				pmax	pmax		
	comp=Z,148nm,1.0s						
MYLDM	**Lahad Datu**	**30.18**	**240**		**P**	**04 44 48.7**	**-0.2**
HEH	**HeiHe**	**31.03**	**339**	*e*P	**P**	**04 44 56.8**	**+0.8**
HEH				pmax	pmax		
	comp=Z,74nm,1.2s						
TOLI2	**Tolitoli**	**31.06**	**231**		**P**	**04 44 56.4**	**-0.2**
TOLI2				IAmb	IAmb	04 45 00.0	
	comp=Z,28nm,1.1s						
TOLI2	**Tolitoli**	**31.06**	**231**	P	**P**	**04 44 57.1**	**+0.5**
	comp=Z,23nm,1.0s						
PMG	**Port Moresby**	**31.50**	**175**	LR	LR	04 56 42.9	
	comp=Z,150nm,21.2s,baz=307,slow=34						
KKM	**Kota Kinabalu**	**31.56**	**244**	P	**P**	**04 45 00.8**	**-0.3**
	comp=Z,22nm,1.5s						
APSI	**Ampana**	**31.89**	**227**	P	**P**	**04 45 08.5**	**+4.6**
	comp=Z,2μmcomp=Z,37nm,1.1s						
ENH	**Enshi**	**32.21**	**292**	P	**P**	**04 45 06.4**	**-0.2**
	comp=Z,21nm,1.3s						
XAN	**Xi'an**	**33.26**	**299**	P	**P**	**04 45 15.8**	**0.0**
XAN				pP	pP	04 45 32.0	+0.3
XAN				pmax	pmax		
	comp=Z,11nm,2.0s						
XAN				L	L		
	comp=Z,220nm,15.1s						
XAN				L	L		
	comp=Z,380nm,20.6s						
XAN				L	L		
	comp=Z,560nm,19.2s						
HHC	**Hu-ho-hao-te**	**33.32**	**312**	*e*P	**P**	**04 45 18.8**	**+2.4**
HHC				pmax	pmax		
	comp=Z,12nm,0.6s						
HHC				pmax	pmax		
	comp=Z,90nm,5.0s						
HHC				L	L		
	comp=Z,160nm,17.6s						
HHC				L	L		
	comp=Z,180nm,17.5s						
HHC				L	L		
	comp=Z,160nm,17.3s						
HILR	**Hailar Array B**	**33.53**	**331**	P	**P**	**04 45 18.9**	**+0.9**
	comp=Z,1.8nm,0.4s,baz=132,slow=10,SNR=3.7						
	comp=Z,1.8nm,0.4s						
KDI	**Kendari**	**33.56**	**222**	P	**P**	**04 45 21.0**	**+2.5**
	comp=Z,2μmcomp=Z,3μmcomp=Z,32nm,1.2s						
BTO2	**Baotou**	**34.46**	**311**	*e*P	**P**	**04 45 28.8**	**+2.6**
BTO2				pP	**pwP**	**04 45 46.8**	**+0.5**
BTO2				PP	**PP**	**04 46 45.3**	**-0.1**
BTO2				S	**S**	**04 50 53.3**	**+3.6**
BTO2				pmax	pmax		
	comp=Z,14nm,0.5s						
BTO2				pmax	pmax		
	comp=Z,480nm,7.8s						
BTO2				L	L		
	comp=Z,340nm,10.1s						
BTO2				L	L		
	comp=Z,430nm,14.2s						
BTO2				L	L		
	comp=Z,600nm,12.9s						
GYA	**Guiyang**	**34.53**	**285**	⇓P	**P**	**04 45 27.0**	**0.0**
GYA				pmax	pmax		
	comp=Z,19nm,0.9s						
HNR	**Honiara**	**34.93**	**152**	LR	LR	04 59 48.6	
	comp=Z,135nm,19.6s,baz=47,slow=36						
SBUM	**Sibu**	**36.86**	**242**		**P**	**04 45 45.9**	**-0.9**
SBUM				IAmb	IAmb	04 45 48.8	
	comp=Z,16nm,1.3s						
SBUM	**Sibu**	**36.86**	**242**	P	**P**	**04 45 46.6**	**-0.3**
	comp=Z,12nm,1.3s						
MTN	**Manton Dam**	**37.14**	**202**		**P**	**04 45 49.0**	**-0.2**
MTN				IAmb	IAmb	04 45 50.2	
	comp=Z,7.3nm,0.7s						
CD2	**Chengdu**	**37.18**	**292**	P	**P**	**04 45 49.5**	**-0.1**
CD2				S	**S**	**04 51 29.5**	**-1.9**
CD2				pmax	pmax		
	comp=Z,60nm,0.5s						
CD2				L	L		
	comp=Z,880nm,19.1s						
CD2				L	L		
	comp=Z,820nm,17.2s						
SOEI	**Soe**	**37.35**	**214**	P	**P**	**04 45 50.5**	**-0.6**
SOEI	**Soe**	**37.35**	**214**	P	**P**	**04 45 49.6**	**-1.5**
	comp=Z,42nm,0.9s						
SLVN	**Son La**	**37.50**	**277**		**P**	**04 45 52.3**	**-0.1**
SLVN				IAmb	IAmb	04 45 53.7	
	comp=Z,9.0nm,0.8s						
SLVN	**Son La**	**37.50**	**277**	P	**P**	**04 45 52.6**	**+0.2**
	comp=Z,12nm,1.1s						
MA2	**Magadan**	**37.65**	**5**	*i* P	**P**	**04 45 53.3**	**+0.3**
MA2				pmax	pmax		
	comp=Z,6.0nm,0.7s						
LZH	**Lanzhou**	**37.73**	**301**	*e*P	**P**	**04 45 52.8**	**-1.5**
LZH				pP	pP	04 46 12.0	+1.6
LZH				pmax	pmax		
	comp=Z,35nm,1.6s						
LZH				L	L		
	comp=Z,340nm,15.9s						
LZH				L	L		
	comp=Z,450nm,17.1s						
LZH				L	L		
	comp=Z,750nm,17.1s						
LZDM	**Lanzhou Array**	**37.83**	**300**	P	**P**	**04 45 55.8**	**+0.5**
	comp=Z,3.3nm,0.3s,baz=120,slow=8.8,SNR=13						
LZDM				LR	LR	05 02 37.6	
	comp=Z,224nm,18.1s,baz=5.0,slow=38						
	comp=Z,3.3nm,0.3s						
KMI2	**Kunming**	**38.12**	**283**	P	**P**	**04 45 58.8**	**+1.0**
KMI2				pmax	pmax		
	comp=Z,11nm,1.0s						
KMI2				L	L		
	comp=Z,150nm,13.0s						
KMI2				L	L		
	comp=Z,220nm,21.6s						
KMI2				L	L		
	comp=Z,440nm,21.1s						
PZH	**PanZhiHua**	**38.94**	**285**	P	**P**	**04 46 04.8**	**+0.3**
PZH				pmax	pmax		
	comp=Z,30nm,0.9s						
ULN	**Ulaanbaatar**	**39.30**	**320**	*ce*P	**P**	**04 46 08.1**	**+0.9**
ULN				pmax	pmax		
	comp=Z,30nm,2.5s						
ULN	**Ulaanbaatar**	**39.30**	**320**		**P**	**04 46 07.1**	**-0.1**
ULN				IAmb	IAmb	04 46 08.3	
	comp=Z,24nm,1.5s						
ULN	**Ulaanbaatar**	**39.30**	**320**	P	**P**	**04 46 07.7**	**+0.5**
	comp=Z,15nm,1.9s						
ULN	**Ulaanbaatar**	**39.30**	**320**	P	**P**	**04 46 08.2**	**+0.9**
SONM	**Songino Array**	**39.68**	**320**	P	**P**	**04 46 11.0**	**+0.6**
	comp=Z,2.9nm,0.6s,baz=128,slow=8.7,SNR=13						
SONM				LR	LR	05 03 26.2	
	comp=Z,168nm,20.1s,baz=110,slow=37						
	comp=Z,2.9nm,0.6s						
SONM	**Songino Array**	**39.68**	**320**	P	**P**	**04 46 10.0**	**-0.4**
SONM				pmax	pmax		
	comp=Z,15nm,1.5s						
SONM	**Songino Array**	**39.68**	**320**		**P**	**04 46 10.0**	**-0.4**
KNRA	**Kununurra**	**40.60**	**203**		**P**	**04 46 17.0**	**-1.1**
KNRA				IAmb	IAmb	04 46 20.2	
	comp=Z,19nm,0.6s						
YAK	**Yakutsk**	**41.09**	**350**	LR	LR	05 02 53.0	
	comp=Z,252nm,21.6s,baz=175,slow=35						
YAK	**Yakutsk**	**41.09**	**350**	*e*P	**P**	**04 46 22.2**	**+0.6**
YAK				e*PP	**pwP**	**04 46 40.6**	**-2.3**
YAK				*e*		04 48 18.6	
YAK				*e*S	**S**	**04 52 28.8**	**-0.3**
YAK				*e*SS	**SS**	**04 55 35.7**	**+1.8**
YAK				*e*		04 56 10.8	
YAK				pmax	pmax		
	comp=Z,68nm,1.4s						
YAK				pmax	pmax		
	comp=N,10.0nm,1.0s						
YAK				pmax	pmax		
	comp=E,10.0nm,1.2s						
YAK				pmax	pmax		
	comp=Z,98nm,3.2s						
YAK				pmax	pmax		
	comp=N,66nm,3.1s						
YAK				pmax	pmax		
	comp=E,93nm,3.1s						
YAK				smax	smax		
	comp=E,76nm,3.0s						
YAK				smax	smax		
	comp=N,109nm,3.0s						
YAK	**Yakutsk**	**41.09**	**350**		**P**	**04 46 22.5**	**+0.8**
YAK	**Yakutsk**	**41.09**	**350**	P	**P**	**04 46 22.8**	**+1.1**
	comp=Z,71nm,0.9s						
SEY	**Seymchan**	**41.10**	**6**	*ce*P	**P**	**04 46 24.2**	**+2.5**
SEY				pmax	pmax		
	comp=Z,25nm,2.5s						
GTA2	**Gaotai**	**41.55**	**305**	*e*P	**P**	**04 46 25.8**	**-0.1**
GTA2				PcP	**PcP**	**04 48 22.8**	**+0.7**
GTA2				S	**S**	**04 52 38.5**	**+1.7**
GTA2				pmax	pmax		
	comp=Z,20nm,1.3s						
GTA2				L	L		
	comp=Z,190nm,16.8s						
GTA2				L	L		
	comp=Z,200nm,17.5s						
GTA2				L	L		
	comp=Z,240nm,16.5s						
CHTO	**Chiang Mai**	**42.55**	**274**	P	**P**	**04 46 33.4**	**-0.8**
CHTO				pmax	pmax		
	comp=Z,19nm,1.3s						
CHTO	**Chiang Mai**	**42.55**	**274**		**P**	**04 46 33.4**	**-0.8**
CHTO				IAmb	IAmb	04 46 34.8	
	comp=Z,19nm,1.3s						
CHTO	**Chiang Mai**	**42.55**	**274**	P	**P**	**04 46 33.1**	**-1.1**
	comp=Z,12nm,1.0s						
CHTO				pP	**pP**	**04 46 50.5**	**-0.1**
CMAR	**Chiang Mai Arr**	**42.63**	**274**	P	**P**	**04 46 35.2**	**+0.3**
	comp=Z,4.0nm,0.6s,baz=57,slow=8.5,SNR=22						
CMAR				PcP	**PcP**	**04 48 27.2**	**+1.3**
	comp=Z,0.9nm,0.3s,baz=111,slow=2.8,SNR=5.7						
CMAR				LR	LR	05 02 48.1	
	comp=Z,278nm,21.6s,baz=85,slow=34						
	comp=Z,4.0nm,0.6s						
CMAR	**Chiang Mai Arr**	**42.63**	**274**		**P**	**04 46 33.8**	**-1.1**
CMAR				PcP	**PcP**	**04 48 26.1**	**+0.2**
ZAK	**Zakamensk**	**42.64**	**322**	*e*P	**P**	**04 46 34.9**	**+0.3**
ZAK				pmax	pmax		
	comp=Z,13nm,1.6s						
QIS	**Mount Isa**	**42.72**	**187**	P	**P**	**04 46 34.6**	**-0.8**
	comp=Z,14nm,0.7s						
WB0	**Warramunga Arr**	**42.80**	**194**		**P**	**04 46 35.0**	**-1.0**
WR8	**Warramunga Arr**	**42.96**	**194**		**P**	**04 46 35.9**	**-1.5**
WRAB	**Tennant Creek**	**42.98**	**194**	*ce*P	**P**	**04 46 36.7**	**-0.8**
WRAB				pmax	pmax		
	comp=Z,27nm,1.3s						
WRAB	**Tennant Creek**	**42.98**	**194**	P	**P**	**04 46 36.0**	**-1.5**
WRAB				IAmb	IAmb	04 46 40.2	
	comp=Z,15nm,0.6s						
WRAB	**Tennant Creek**	**42.98**	**194**	P	**P**	**04 46 36.5**	**-0.9**
	comp=Z,23nm,0.9s						
WRA	**Warramunga Arr**	**42.99**	**194**	P	**P**	**04 46 36.4**	**-1.2**
	comp=Z,8.2nm,0.3s,baz=14,slow=8.7,SNR=290						
WRA				ScP	**ScP**	**04 52 12.2**	**+0.3**
	comp=Z,2.3nm,0.9s,baz=11,slow=4.0,SNR=6.3						
WRA				S	**S**	**04 52 59.2**	**+1.2**
	comp=Z,3.5nm,1.2s,baz=16,slow=14,SNR=4.9						
	comp=Z,8.2nm,0.3s						
WRA	**Warramunga Arr**	**42.99**	**194**		**P**	**04 46 35.0**	**-2.5**
TLY	**Talaya**	**43.02**	**323**	LR	LR	05 05 47.0	
	comp=Z,276nm,19.5s,baz=112,slow=38						
TLY	**Talaya**	**43.02**	**323**	*i* P	**P**	**04 46 36.7**	**-0.9**
TLY				pmax	pmax		
	comp=Z,2.0nm,0.7s						
FITZ	**Fitzroy Crossi**	**44.01**	**206**		**P**	**04 46 44.3**	**-1.5**
FITZ	**Fitzroy Crossi**	**44.01**	**206**	P	**P**	**04 46 45.4**	**-0.4**
	comp=Z,7.2nm,1.0s						
GOMU	**GeErMu**	**45.00**	**299**	P	**P**	**04 46 55.3**	**+1.2**
GOMU				S	**S**	**04 53 31.0**	**+3.1**
GOMU				pmax	pmax		
	comp=Z,48nm,1.0s						
GOMU				L	L		
	comp=Z,130nm,13.5s						
GOMU				L	L		
	comp=Z,72nm,13.5s						
GOMU				L	L		
	comp=Z,170nm,13.9s						
IPM	**Ipoh**	**45.47**	**254**		**P**	**04 46 57.2**	**-0.4**
IPM				IAmb	IAmb	04 46 59.1	
	comp=Z,25nm,1.1s						
KNGR	**Kungurtug, Tuv**	**46.12**	**320**	*i* P	**P**	**04 47 02.7**	**+0.3**
KNGR				pmax	pmax		
	comp=Z,4.0nm,0.3s						
ASAR	**Alice Springs**	**46.68**	**193**	P	**P**	**04 47 05.9**	**-1.0**
	comp=Z,3.1nm,0.6s,baz=12,slow=5.8,SNR=27						
ASAR				S	**S**	**04 53 51.0**	**-0.5**
	comp=Z,1.1nm,0.9s,baz=17,slow=20,SNR=6.5						
ASAR				LR	LR	05 05 14.5	
	comp=Z,210nm,21.9s,baz=319,slow=34						
	comp=Z,3.1nm,0.6s						
ASAR	**Alice Springs**	**46.68**	**193**	P	**P**	**04 47 06.3**	**-0.6**
ASAR	**Alice Springs**	**46.68**	**193**		**P**	**04 47 06.3**	**-0.6**
BILL	**Bilibino**	**47.85**	**11**	*ce*P	**P**	**04 47 17.5**	**+2.1**
BILL				pmax	pmax		
	comp=Z,22nm,1.7s						
SHL	**Shillong**	**47.85**	**285**	P	**P**	**04 47 15.5**	**-0.9**
SHL	**Shillong**	**47.85**	**285**		**P**	**04 47 15.4**	**-0.9**
LSA	**Lhasa**	**48.09**	**291**	*e*P	**P**	**04 47 19.5**	**+1.1**
LSA				pmax	pmax		
	comp=Z,25nm,0.7s						
LSA	**Lhasa**	**48.09**	**291**	P	**P**	**04 47 18.1**	**-0.3**
LSA				pmax	pmax		
	comp=Z,19nm,0.8s						
LSA	**Lhasa**	**48.09**	**291**	P	**P**	**04 47 18.1**	**-0.3**
LSA				IAmb	IAmb	04 47 20.6	
	comp=Z,19nm,0.8s						
LSA	**Lhasa**	**48.09**	**291**	P	**P**	**04 47 18.8**	**+0.3**
	comp=Z,26nm,1.1s						
LSA	**Lhasa**	**48.09**	**291**	P	**P**	**04 47 20.2**	**+1.8**
RPSI	**Rantau Prapat**	**48.14**	**253**	P	**P**	**04 47 17.1**	**-1.3**
	comp=Z,21nm,1.1s						
QLP	**Quilpie**	**48.47**	**180**	P	**P**	**04 47 18.1**	**-2.5**
	comp=Z,29nm,0.8s						
DZM	**Mont Dzumac**	**48.96**	**152**	LR	LR	05 06 14.3	
	comp=Z,90nm,20.6s,baz=338,slow=34						
INKA	**Innaminka**	**49.74**	**184**	IAmb	IAmb	04 47 30.2	
	comp=Z,9.6nm,0.8s						
GSI	**Gunungsitoli**	**49.98**	**252**		**P**	**04 47 31.7**	**-0.8**
GSI				PcP	**PcP**	**04 48 51.0**	**-0.8**
GSI	**Gunungsitoli**	**49.98**	**252**	P	**P**	**04 47 32.1**	**-0.4**
	comp=Z,28nm,0.8s						
WMQ	**Urumqi**	**51.12**	**309**	*e*P	**P**	**04 47 41.8**	**+1.0**
WMQ				pP	sP	04 48 05.3	-0.1
WMQ				PcP	**PcP**	**04 48 53.3**	**-2.3**
WMQ				PP	**PP**	**04 49 42.5**	**+4.5**
WMQ				pmax	pmax		
	comp=Z,32nm,1.5s						
WMQ				pmax	pmax		
	comp=Z,160nm,3.7s						
WMQ				L	L		
	comp=Z,190nm,24.0s						
MSVF	**Nonsavu**	**51.58**	**138**	LR	LR	05 06 29.3	
	comp=Z,130nm,21.0s,baz=345,slow=32						
EVN	**Everest**	**52.04**	**289**		**P**	**04 47 48.0**	**-0.6**
EVN	**Everest**	**52.04**	**289**	P	**P**	**04 47 48.9**	**+0.2**
	comp=Z,33nm,0.6s						
DGZ	**Jazzator, Alta**	**52.13**	**316**	*i* P	**P**	**04 47 48.6**	**+0.2**
DGZ				pmax	pmax		
	comp=Z,38nm,1.0s						
CMSA	**Cobar Meteorol**	**53.42**	**179**	P	**P**	**04 47 57.1**	**-0.6**
	comp=Z,12nm,1.1s						
ZSN	**Zaisan**	**53.49**	**313**	*e*P	**P**	**04 47 58.9**	**+0.7**
ZSN				pmax	pmax		
	comp=Z,9.0nm,1.2s						
ZSN	**Zaisan**	**53.49**	**313**	*e*P	**P**	**04 47 58.9**	**+0.7**
	comp=Z,9.3nm,1.2s						
STKA	**Stephens Creek**	**53.81**	**183**	P	**P**	**04 47 59.4**	**-1.2**
	comp=Z,14nm,0.9s,baz=343,slow=7.6,SNR=13						
STKA				LR	LR	05 10 25.2	
	comp=Z,284nm,21.4s,baz=354,slow=35						
	comp=Z,14nm,0.9s						
STKA	**Stephens Creek**	**53.81**	**183**	*i* P	**P**	**04 47 58.5**	**-2.1**
STKA	**Stephens Creek**	**53.81**	**183**	P	**P**	**04 47 59.0**	**-1.6**
	comp=Z,82nm,1.1s						
ZAA0	**Zalesovo Array**	**54.52**	**321**		**P**	**04 48 05.1**	**-0.4**
ZAA0				IAmb	IAmb	04 48 10.8	
	comp=Z,7.9nm,0.9s						
ZALV	**Zalesovo Beam**	**54.52**	**321**	P	**P**	**04 48 05.5**	**-0.1**
	comp=Z,3.3nm,0.3s,baz=97,slow=7.4,SNR=12						
ZALV				LR	LR	05 11 30.7	
	comp=Z,221nm,21.2s,baz=92,slow=36						
	comp=Z,3.3nm,0.3s						
ZALV	**Zalesovo Beam**	**54.52**	**321**		**P**	**04 48 04.6**	**-1.0**
FORT	**Forrest**	**54.92**	**197**		**P**	**04 48 07.7**	**-1.0**
FORT				IAmb	IAmb	04 48 08.6	
	comp=Z,21nm,1.1s						
MK31	**Makanchi Array**	**55.18**	**312**	*ce*P	**P**	**04 48 11.2**	**+0.6**
MKAR	**Makanchi Array**	**55.18**	**312**	P	**P**	**04 48 11.3**	**+0.8**
	comp=Z,14nm,0.6s,baz=90,slow=9.0,SNR=77						
MKAR				PcP	**PcP**	**04 49 10.4**	**-0.5**
	comp=Z,3.6nm,0.7s,baz=83,slow=3.9,SNR=3.5						
MKAR				LR	LR	05 11 37.6	
	comp=Z,160nm,21.9s,baz=105,slow=36						
	comp=Z,14nm,0.6s						
MKAR	**Makanchi Array**	**55.18**	**312**		**P**	**04 48 10.6**	**+0.1**
MKAR				PcP	**PcP**	**04 49 10.4**	**-0.5**
MAKZ	**Makanchi**	**55.40**	**312**	P	**P**	**04 48 12.6**	**+0.5**
MAKZ				pmax	pmax		
	comp=Z,33nm,0.9s						
MAKZ	**Makanchi**	**55.40**	**312**		**P**	**04 48 12.6**	**+0.5**
MAKZ	**Makanchi**	**55.40**	**312**	P	**P**	**04 48 12.6**	**+0.5**
	comp=Z,45nm,1.2s						
MAKZ	**Makanchi**	**55.40**	**312**	P	**P**	**04 48 12.9**	**+0.8**
K17K	**Iditarod**	**55.70**	**28**	IAmb	IAmb	04 48 39.5	
	comp=Z,19nm,1.1s						
AFI	**Afiamalu**	**55.99**	**126**	LR	LR	05 07 16.6	
	comp=Z,251nm,21.8s,baz=314,slow=31						
G18K	**Tagagawik**	**56.67**	**24**		**P**	**04 48 21.0**	**+0.2**
G18K				IAmb	IAmb	04 48 23.6	
	comp=Z,17nm,1.4s						
PDGK	**Podgornoye**	**57.05**	**308**	P	**P**	**04 48 23.7**	**-0.4**
PDGK	**Podgornoye**	**57.05**	**308**		**P**	**04 48 23.7**	**-0.4**
SHLS	**Shalkode**	**57.08**	**308**	*e*P	**P**	**04 48 22.4**	**-1.8**
SHLS				pmax	pmax		
	comp=Z,13nm,1.4s						
SHLS	**Shalkode**	**57.08**	**308**	*e*P	**P**	**04 48 22.4**	**-1.8**
	comp=Z,12nm,1.4s						

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KDAK  Kodiak Island     57.19  35  LR      LR      05 10 01.7
      comp=Z,223nm,21.5s,baz=253,slow=33
J19K  Poorman           57.25  27  IAmb    IAmb    04 48 27.7
      comp=Z,17nm,1.5s
WUS   Wushi             57.30 306  P       P       04 48 25.1  -0.7
WUS   Wushi             57.30 306  P       P       04 48 27.0  +1.1
      comp=Z,16nm,1.6s
UZB   Uzynbulak         57.40 308  eP      P       04 48 26.8  +0.3
UZB                                pmax    pmax
      comp=Z,11nm,1.4s
UZB   Uzynbulak         57.40 308  eP      P       04 48 26.8  +0.3
      comp=Z,10nm,1.4s
TDK   Taldyqorghan      57.83 310  eP      P       04 48 29.9  +0.5
TDK                                pmax    pmax
      comp=Z,23nm,1.4s
TDK   Taldyqorghan      57.83 310  eP      P       04 48 29.1  -0.3
      comp=Z,23nm,1.4s
SATY  Saty              57.85 308  eP      P       04 48 30.1  +0.4
SATY                               pmax    pmax
      comp=Z,22nm,1.3s
SATY  Saty              57.85 308  eP      P       04 48 30.1  +0.4
      comp=Z,22nm,1.3s
PRZ   Przheval'sk       57.87 307  P       P       04 48 29.2  -0.7
PRZ                                pmax    pmax
      comp=Z,57nm,1.0s
PRZ   Przheval'sk       57.87 307  P       P       04 48 29.1  -0.7
KURK  Kurchatov         57.87 317  i P     P       04 48 28.9  -0.6
KURK                               pmax    pmax
      comp=Z,36nm,0.9s
KURK  Kurchatov         57.87 317  P       P       04 48 29.8  +0.3
KURK  Kurchatov         57.87 317  IAmb    IAmb    04 48 30.4
      comp=Z,25nm,0.8s
KURK  Kurchatov         57.87 317  P       P       04 48 29.8  +0.3
J20K  Nowinta River     57.92  27  IAmb    IAmb    04 48 52.8
      comp=Z,19nm,1.4s
KURBB Kurchatov Arra    57.92 317  P       P       04 48 29.8  -0.1
      comp=Z,23nm,0.6s,baz=93,slow=7.6,SNR=41
KURBB                              LR      LR      05 15 11.9
      comp=Z,121nm,18.0s,baz=164,slow=38
      comp=Z,23nm,0.6s
NRIK  Noril'sk          57.93 339  P       P       04 48 29.6   0.0
      comp=Z,15nm,0.8s,baz=117,slow=6.1,SNR=9.4
NRIK                               LR      LR      05 13 12.5
      comp=Z,216nm,21.4s,baz=120,slow=36
      comp=Z,15nm,0.8s
NRIK  Noril'sk          57.93 339  i P     P       04 48 29.7   0.0
NRIK                               pmax    pmax
      comp=Z,23nm,0.9s
NRIK  Noril'sk          57.93 339          P       04 48 29.6   0.0
TARG  Taragay, Kyrgy    58.34 306  P       P       04 48 32.9  -0.6
TARG                               pmax    pmax
      comp=Z,31nm,1.2s
TARG  Taragay, Kyrgy    58.34 306          P       04 48 32.9  -0.6
TARG  Taragay, Kyrgy    58.34 306  P       P       04 48 33.9  +0.4
      comp=Z,26nm,1.2s
CAST  Castle Rocks      58.62  28          P       04 48 35.3  +0.7
CAST                               IAmb    IAmb    04 48 36.3
      comp=Z,23nm,1.6s
KDJ   Kajisay           58.79 307  P       P       04 48 35.0  -1.3
KDJ                                pmax    pmax
      comp=Z,29nm,1.0s
KDJ   Kajisay           58.79 307          P       04 48 35.0  -1.3
KDJ   Kajisay           58.79 307  P       P       04 48 35.5  -0.8
      comp=Z,28nm,1.6s
MDOK  Medeo             58.84 308  eP      P       04 48 37.2  +0.6
MDOK  Medeo             58.84 308  eP      P       04 48 37.3  +0.6
H21K  Melozitna Rive    58.88  26  IAmb    IAmb    04 49 03.4
      comp=Z,7.5nm,1.1s
TNSS  Tian-Shan         58.92 308  eP      P       04 48 37.6  +0.1
TNSS  Tian-Shan         58.92 308  eP      P       04 48 37.7  +0.1
AAA   Alma-Ata          58.94 308  eP      P       04 48 37.8  +0.6
AAA   Alma-Ata          58.94 308  eP      P       04 48 37.8  +0.6
I21K  Tanana            59.09  26  IAmb    IAmb    04 48 40.3
      comp=Z,19nm,1.4s
BPAW  Bear Paw Mtn.     59.25  28  IAmb    IAmb    04 49 05.3
      comp=Z,32nm,1.8s
KUU   Kurty             59.33 309  eP      P       04 48 40.4  +0.6
KUU                                pmax    pmax
      comp=Z,16nm,0.9s
KUU   Kurty             59.33 309  eP      P       04 48 40.5  +0.6
      comp=Z,16nm,0.9s
ASAI  AK-SAY(Kyrgyzs    59.35 305  P       P       04 48 40.8  +0.3
      comp=Z,18nm,1.4s
TRF   Thorofare Moun    59.41  28  IAmb    IAmb    04 49 05.1
      comp=Z,8.0nm,0.9s
MLY   Manley            59.56  26          P       04 48 40.4  -0.7
MLY                                IAmb    IAmb    04 48 43.5
      comp=Z,20nm,1.6s
BOOM  Boomskoye usch    59.69 307  P       P       04 48 42.8  +0.3
      comp=Z,36nm,1.0s
NRN   Naryn             59.71 306  IAmb    IAmb    04 48 44.9
      comp=Z,15nm,1.0s
TKM2  Tokmak 2          59.92 308  P       P       04 48 45.5  +1.3
      SNR=18
I23K  Minto, Yukon-K    60.16  26          P       04 48 46.8  +1.7
I23K                               IAmb    IAmb    04 50 07.3
      comp=Z,29nm,1.8s
KSH2  Kashi             60.22 303  P       P       04 48 47.0  +0.8
KSH2                               sP      sP      04 49 15.3  +4.4
KSH2                               pmax    pmax
      comp=Z,10.0nm,1.1s
KSH2                               L       L
      comp=Z,190nm,14.3s
KSH2                               L       L
      comp=Z,180nm,17.8s
KSH2                               L       L
      comp=Z,220nm,17.8s
COLD  Coldfoot          60.29  24  IAmb    IAmb    04 48 48.8
      comp=Z,12nm,1.3s
KBK   Karagaybulak      60.41 307  P       P       04 48 48.8  +1.3
      SNR=6.5
CHMS  Chumysh           60.53 308  P       P       04 48 49.0  +0.9
      SNR=5.6
SGDS  Sogindy           60.59 308  eP      P       04 48 49.2  +0.6
USP   Ospenovka         60.70 308  P       P       04 48 50.2  +1.0
      SNR=6.6
COLA  College           60.73  27  i P     P       04 48 52.3  +3.3
COLA                               pmax    pmax
      comp=Z,15nm,2.0s
AAK   Ala-Archa         60.74 307  LR      LR      05 16 32.2
      comp=Z,148nm,21.2s,baz=82,slow=37
AAK   Ala-Archa         60.74 307ceP       P       04 48 50.7  +1.0
AAK                                pmax    pmax
      comp=Z,27nm,1.7s
AAK   Ala-Archa         60.74 307          P       04 48 49.9  +0.2
AAK                                IAmb    IAmb    04 48 51.5
      comp=Z,11nm,0.8s
AAK   Ala-Archa         60.74 307  P       P       04 48 50.9  +1.2
      comp=Z,16nm,1.2s
IL31                    61.12  27  P       P       04 48 52.2  +0.6
IL31                               IAmb    IAmb    04 48 53.0
      comp=Z,34nm,2.0s
ILAR  Eielson Array     61.12  27  P       P       04 48 50.6  -1.0
      comp=Z,1.7nm,0.6s,baz=259,slow=5.6,SNR=23
ILAR                               LR      LR      05 13 37.9
      comp=Z,177nm,20.3s,baz=268,slow=34
      comp=Z,1.7nm,0.6s
F24K  Squaw Lake        61.23  24  IAmb    IAmb    04 49 23.2
      comp=Z,8.5nm,1.2s
EKS2  Erkin-Say         61.27 308  P       P       04 48 54.4  +1.1
      SNR=10
ARSB  Arslanbob         61.98 306  P       P       04 48 57.3  -0.8
ARSB                               pmax    pmax
      comp=Z,38nm,1.0s
ARSB  Arslanbob         61.98 306          P       04 48 57.3  -0.8
F25K  Christian Rive    62.09  24          P       04 48 59.1  +0.9
F25K                               IAmb    IAmb    04 49 19.8
      comp=Z,7.2nm,1.0s
OHH   Osh               62.21 305  P       P       04 48 59.3  -0.2
      comp=Z,36nm,1.4s
F26K  Sheenjek River    62.67  24  IAmb    IAmb    04 49 14.3
      comp=Z,30nm,1.9s
G26K  Porcupine Rive    62.71  25  IAmb    IAmb    04 49 43.7
      comp=Z,11nm,1.4s
NIL   Nilore            62.78 297  P       P       04 49 03.4   0.0
NIL                                pmax    pmax
      comp=Z,47nm,0.9s
NIL   Nilore            62.78 297          P       04 49 03.4   0.0
NIL   Nilore            62.78 297  P       P       04 49 03.9  +0.5
      comp=Z,58nm,1.1s
PALK  Pallekele         62.92 267  LR      LR      05 14 47.9
      comp=Z,81nm,20.4s,baz=54,slow=34
BVAR  Borovoye Array    63.02 319  P       P       04 49 05.1  +0.5
      comp=Z,29nm,0.3s,baz=90,slow=7.6,SNR=95
DZA   Taraz             63.04 308  eP      P       04 49 05.6  +0.6
DZA                                pmax    pmax
      comp=Z,9.0nm,0.9s
DZA   Taraz             63.04 308  eP      P       04 49 05.6  +0.6
      comp=Z,9.4nm,0.9s
BORK  Borovoye          63.06 319c iP      P       04 49 04.4  -0.5
BORK                               pmax    pmax
      comp=Z,48nm,0.9s
BORK  Borovoye          63.06 319          P       04 49 04.9   0.0
H27K  Steamboat Moun    63.52  26  P       P       04 49 08.9  +1.1
KK31  Karatay Array     63.62 308  P       P       04 49 09.1  +0.3
KK31                               pmax    pmax
      comp=Z,39nm,1.0s
KK31  Karatay Array     63.62 308          P       04 49 09.1  +0.3
KKAR  Karatay Array     63.62 308  P       P       04 49 08.4  -0.3
KKAR  Karatay Array     63.62 308          P       04 49 08.4  -0.3
BTK   Batken            63.76 305  P       P       04 49 09.1  -0.8
BTK                                pmax    pmax
      comp=Z,16nm,1.2s
BTK   Batken            63.76 305  P       P       04 49 09.1  -0.8
BTK                                IAmb    IAmb    04 49 11.2
      comp=Z,16nm,1.2s
BTK   Batken            63.76 305  P       P       04 49 10.2  +0.4
      comp=Z,14nm,1.4s
D27M  Malcolm River     64.03  22          P       04 49 11.7  +0.7
IUG   Iuzhnay           64.08 307  eP      P       04 49 12.4  +0.5
IUG                                pmax    pmax
      comp=Z,25nm,1.1s
IUG   Iuzhnay           64.08 307  eP      P       04 49 12.4  +0.5
      comp=Z,25nm,1.1s
F28M  Old Crow          64.29  24  IAmb    IAmb    04 49 15.3
      comp=Z,20nm,1.6s
CHM   Chimkent          64.38 307  eP      P       04 49 14.2  +0.5
CHM                                pmax    pmax
      comp=Z,22nm,1.1s
CHM   Chimkent          64.38 307  eP      P       04 49 14.3  +0.5
      comp=Z,22nm,1.1s
E28M  Babbage River     64.49  23          P       04 49 14.5  +0.5
E28M                               IAmb    IAmb    04 49 35.3
      comp=Z,11nm,1.1s
F30M  Barrier River     65.85  24  IAmb    IAmb    04 49 34.3
      comp=Z,38nm,1.8s
KBL   Kabul             66.06 299  P       P       04 49 24.0  -1.0
KBL                                pmax    pmax
      comp=Z,34nm,0.9s
KBL   Kabul             66.06 299          P       04 49 24.0  -1.0
KBL   Kabul             66.06 299  P       P       04 49 25.2  +0.1
      comp=Z,47nm,0.9s
G31M  Satah River       66.44  25  IAmb    IAmb    04 49 28.4
      comp=Z,23nm,1.4s
INK   Inuvik            66.70  24  P       P       04 49 27.6  -0.6
INK                                pmax    pmax
      comp=Z,11nm,1.3s
INK   Inuvik            66.70  24  P       P       04 49 27.6  -0.6
INK   Inuvik            66.70  24  P       P       04 49 28.2  +0.1
      comp=Z,7.2nm,1.2s
INK                                pP      pP      04 49 47.4  +2.0
URZ   Urewera           67.52 153  LR      LR      05 17 30.1
      comp=Z,96nm,19.6s,baz=302,slow=34
SVE   Sverdlovsk        68.34 324  eP      P       04 49 39.0  +0.3
SVE                                pmax    pmax
      comp=Z,30nm,1.0s
RAR   Rarotonga         69.49 124  LR      LR      05 11 48.8
      comp=Z,190nm,21.4s,baz=297,slow=29
ARTI  Arti              69.63 324  LR      LR      05 21 32.1
      comp=Z,125nm,20.9s,baz=78,slow=37
ARTI  Arti              69.63 324c iP      P       04 49 46.3  -0.5
ARTI                               *PP     pwP     04 50 06.8  -1.8
ARTI                                               04 52 19.6
ARTI                               S       S       04 58 49.0  -0.6
ARTI                               SS      SS      05 03 16.4  -1.8
ARTI                               pmax    pmax
      comp=Z,23nm,0.9s
ARTI  Arti              69.63 324          P       04 49 46.1  -0.7
ARTI                               IAmb    IAmb    04 49 47.3
      comp=Z,24nm,0.8s
ARTI  Arti              69.63 324  P       P       04 49 47.0  +0.2
AB31  Akbulak array     69.97 316  P       P       04 49 48.6  -0.4
AB31                               IAmb    IAmb    04 49 49.6
      comp=Z,17nm,0.8s
ABKAR Akbulak array     69.97 316  P       P       04 49 48.4  -0.6
RPZ   Rata Peaks        70.00 160  LR      LR      05 17 24.3
      comp=Z,30nm,21.9s,baz=146,slow=33
AKTO  Aktyubinsk        70.96 318  LR      LR      05 23 15.1
      comp=Z,162nm,19.7s,baz=132,slow=38
HRA   Herat             71.57 300          P       04 49 58.8  -0.4
HRA                                IAmb    IAmb    04 50 00.8
      comp=Z,33nm,1.5s
KIRV  Kirov             73.87 327  LR      LR      05 25 01.4
      comp=Z,131nm,20.7s,baz=74,slow=38
KIRV  Kirov             73.87 327ceP       P       04 50 12.6  +0.5
YKA   Yellowknife Ar    75.53  28  P       P       04 50 22.4  +0.8
      comp=Z,1.0nm,0.5s,baz=293,slow=5.7,SNR=6.5
YKA                                LR      LR      05 22 07.0
      comp=Z,163nm,21.0s,baz=280,slow=34
      comp=Z,1.0nm,0.5s
SPITS Spitsbergen Ar    75.55 350  P       P       04 50 22.1  +0.6
      comp=Z,1.1nm,0.4s,baz=116,slow=6.6,SNR=12
SPITS                              LR      LR      05 25 02.2
      comp=Z,110nm,21.7s,baz=50,slow=37
      comp=Z,1.1nm,0.4s
PPT   Papeete           75.75 116  LR      LR      05 17 16.4
      comp=Z,131nm,20.1s,baz=296,slow=30
PPT2  Papeete2          75.76 116  eP      P       04 50 27.3  +3.5
      comp=Z,36nm,24.2s
PPT2                               eS      S       04 59 56.6  -4.0
      comp=Z,102nm,27.2s
PPT2                               eLR     LR      05 13 42.6
      comp=Z,868nm,33.2s
PPT2                               eLR     LR      05 13 51.3
      comp=Z,454nm,31.8s
RES   Resolute Bay      76.36  14  LR      LR      05 24 26.4
      comp=Z,67nm,22.0s,baz=344,slow=36
BELG  Belogornoye       76.71 321  LR      LR      05 24 50.2
      comp=Z,150nm,21.5s,baz=89,slow=36
BELG  Belogornoye       76.71 321  i P     P       04 50 28.0  -0.5
BELG                               pmax    pmax
      comp=Z,9.0nm,0.9s
LVZ   Lovozero          76.76 339ceP       P       04 50 30.6  +2.0
LVZ                                pmax    pmax
      comp=Z,34nm,1.7s
APA   Apatity           77.33 338  eP      P       04 50 30.0  -1.8
APA                                e               04 50 40.6
APA                                pmax    pmax
      comp=Z,16nm,1.0s
APA                                MLR     MLR
      comp=Z,330nm,4.4s
KLMR  Klimovskoe        77.82 331  eP      P       04 50 32.6  -2.0
KLMR                               pmax    pmax
      comp=Z,32nm,1.3s
PINE  Pine Mountain     78.25  47          P       04 50 38.3  +0.7
PINE                               IAmb    IAmb    04 50 57.6
      comp=Z,16nm,1.2s
KEV   Kevo              78.26 342  P       P       04 50 37.2  +0.3
KEV                                pmax    pmax
      comp=Z,114nm,2.0s
KEV   Kevo              78.26 342          P       04 50 37.1  +0.3
K05A  Summer Lake       78.63  49          P       04 50 39.8  +0.1
K05A                               IAmb    IAmb    04 51 09.5
      comp=Z,15nm,1.2s
ARCES ARCESS Array B    78.82 342  P       P       04 50 40.8  +0.7
      comp=Z,6.4nm,0.6s,baz=67,slow=7.7,SNR=42
ARCES                              LR      LR      05 29 57.1
      comp=Z,130nm,21.0s,baz=74,slow=39
      comp=Z,6.4nm,0.6s
ARCES ARCESS Array B    78.82 342  P       P       04 50 40.7  +0.7
ARCES                              pmax    pmax
      comp=Z,53nm,1.6s
ARCES ARCESS Array B    78.82 342          P       04 50 40.7  +0.7
E09A  Wood Farm, Sta    79.17  44  IAmb    IAmb    04 51 01.4
      comp=Z,12nm,1.2s
NEW   Newport           79.20  42  LR      LR      05 17 24.3
      comp=Z,202nm,21.2s,baz=320,slow=29
NEW   Newport           79.20  42  P       P       04 50 42.1  -0.4
NEW                                pmax    pmax
      comp=Z,9.0nm,1.2s
NEW   Newport           79.20  42          P       04 50 42.1  -0.4
NEW   Newport           79.20  42  P       P       04 50 43.6  +1.1
      comp=Z,12nm,1.9s
NEW                                pP      pP      04 51 01.2  +1.0
ORV   Oroville          79.27  52  P       P       04 50 43.6  +0.6
ORV                                pmax    pmax
      comp=Z,4.0nm,1.1s
ORV   Oroville          79.27  52          P       04 50 43.6  +0.6
MOD   Modoc Plateau     79.32  49  P       P       04 50 43.2  -0.3
MSF   Maaselka          79.66 338  P       P       04 50 44.5  -0.1
      comp=Z,16nm,1.1s
SGF   Sodankyl          79.68 340  P       P       04 50 45.5  +0.8
      comp=Z,31nm,1.7s
BEKR  Beckworth         79.99  51          P       04 50 47.3  +0.1
TAOE  Nuku Hiva Isla    80.09 104  eLR     LR      05 15 48.5
      comp=Z,155nm,21.8s
NEEM  North Greenlan    80.17   3  i P     P       04 50 48.7  +1.1
WVOR  Wild Horse Val    80.30  48  P       P       04 50 47.6  -1.1
WVOR                               pmax    pmax
      comp=Z,9.0nm,1.4s
WVOR  Wild Horse Val    80.30  48  P       P       04 50 47.6  -1.1
AKT   Akhty             80.38 311  eP      P       04 50 49.7  +0.6
AKT                                pmax    pmax
      comp=Z,23nm,0.9s
VRH   Novokhopyorsk     80.56 322  eP      P       04 50 49.2  -0.5
VRH                                pmax    pmax
      comp=Z,25nm,0.8s
CMB   Columbia Colle    80.61  53  P       P       04 50 49.9  -0.5
CMB                                pmax    pmax
      comp=Z,16nm,1.7s
CMB   Columbia Colle    80.61  53          P       04 50 49.9  -0.5
PNTR  Pine Nut          80.81  52  P       P       04 50 51.7  +0.1
MOS   Moscow            80.88 327  eP      P       04 50 52.2  +0.9
YERR  Yerington         81.11  52  P       P       04 50 52.2  -1.0
YERR                               IAmb    IAmb    04 50 55.2
      comp=Z,16nm,1.6s
WAKR  Walker            81.14  52  P       P       04 50 53.5  +0.1
WAKR                               IAmb    IAmb    04 50 55.6
      comp=Z,21nm,1.9s
LPSR  Galich'ya Gora    81.55 324  eP      P       04 50 54.2  -0.8
LPSR                               pmax    pmax
      comp=Z,18nm,0.6s
OBN   Obninsk           81.70 326  LR      LR      05 29 34.7
      comp=Z,176nm,20.7s,baz=36,slow=37
OBN   Obninsk           81.70 326  i P     P       04 50 56.2  +0.5
OBN                                i               04 54 02.2
OBN                                pmax    pmax
      comp=Z,15nm,1.4s
OBN                                MLR     MLR
      comp=Z,173nm,20.0s
VORR  Voronezh          81.79 323  eP      P       04 50 55.9  -0.4
VORR                               pmax    pmax
      comp=Z,25nm,0.4s
MFID  Camas Ranch       81.85  46  IAmb    IAmb    04 51 16.4
      comp=Z,11nm,1.1s
KVN   Kaiserville       81.91  51  P       P       04 50 57.0  -0.4
KVN                                pmax    pmax
      comp=Z,13nm,1.5s
KVN   Kaiserville       81.91  51          P       04 50 57.0  -0.4
LHV   Little Huntoon    81.92  52  P       P       04 50 57.0  -0.2
NVAR  Mina Array Bea    82.00  52  P       P       04 50 59.2  +1.3
      comp=Z,2.0nm,0.6s,baz=287,slow=5.5,SNR=16
NVAR                               LR      LR      05 20 14.8
      comp=Z,169nm,21.4s,baz=329,slow=30
      comp=Z,2.0nm,0.6s
NVAR  Mina Array Bea    82.00  52  P       P       04 50 57.3  -0.6
VSR   Storozhevoye      82.01 322  eP      P       04 50 56.9  -0.5
VSR                                pmax    pmax
      comp=Z,36nm,1.0s
VORD  Divnogorie        82.05 322  eP      P       04 50 54.8  -2.8
VORD                               pmax    pmax
      comp=Z,20nm,1.0s
NCK   Nalchik           82.45 314  i P     P       04 50 59.7  -0.2
NCK                                pmax    pmax
      comp=Z,13nm,0.3s
KBZ   Khabaz            82.82 314  P       P       04 51 02.6  +0.8
      comp=Z,25nm,0.8s,baz=98,slow=2.8,SNR=38
KBZ                                LR      LR      05 32 10.5
      comp=Z,114nm,18.9s,baz=62,slow=39
      comp=Z,25nm,0.8s
KBZ   Khabaz            82.82 314ceP       P       04 51 02.1  +0.3
KBZ                                pmax    pmax
      comp=Z,40nm,0.9s
KIV   Kislovodsk        82.87 315  eP      P       04 51 02.2   0.0
KIV                                pmax    pmax
      comp=Z,28nm,1.1s
KIV                                MLR     MLR
      comp=Z,86nm,19.0s
KIV   Kislovodsk        82.87 315          P       04 51 02.3  +0.1
KIV   Kislovodsk        82.87 315  P       P       04 51 02.6  +0.4
      comp=Z,25nm,1.1s
KIV   Kislovodsk        82.87 315  P       P       04 51 03.1  +0.9
      comp=Z,32nm,1.1s
GNI   Garni             82.97 310  LR      LR      05 32 05.9
      comp=Z,59nm,20.7s,baz=68,slow=39
GNI   Garni             82.97 310  i P     P       04 51 03.6  +0.7
GNI                                pmax    pmax
      comp=Z,50nm,1.1s
SHA1  Shidzhatmaz       82.98 314ceP       P       04 51 03.9  +1.0
NEUR  Neytrino          83.14 314  i P     P       04 51 04.5  +0.8
NEUR                               pmax    pmax
      comp=Z,17nm,1.3s
FIA1  FINESS Array S    83.22 335          P       04 51 03.1  -0.4
FINES FINESS Array B    83.22 335  P       P       04 51 02.6  -0.8
      comp=Z,11nm,0.5s,baz=67,slow=4.7,SNR=90
FINES                              LR      LR      05 32 04.3
      comp=Z,73nm,19.6s,baz=57,slow=38
      comp=Z,11nm,0.5s
FINES FINESS Array B    83.22 335          P       04 51 02.5  -0.9
MPMC  Manual Prospec    83.49  54  P       P       04 51 05.8  +0.1
CLC   China Lake        83.50  54  P       P       04 51 05.2  -0.4
CLC                                pmax    pmax
      comp=Z,4.0nm,0.9s
CLC   China Lake        83.50  54  P       P       04 51 05.2  -0.4
ERBR  Yeremizino-Bor    83.57 317  eP      P       04 51 05.4  -0.2
ERBR                               e*PP    pwP     04 51 26.0  -2.1
ERBR                               eS      SKSac   05 01 19.9  -2.3
ERBR                               pmax    pmax
      comp=Z,50nm,1.1s
BOZ   Bozeman (W)       83.71  43  IAmb    IAmb    04 51 12.4
      comp=Z,20nm,1.9s
FURC  Furnace Creek,    83.80  53  IAmb    IAmb    04 51 25.8
      comp=Z,24nm,1.6s
EPOS  Posof             83.84 312  P       P       04 51 08.6  +1.3
      comp=Z,41nm,1.4s
GWY   Greenwater Val    84.05  53  IAmb    IAmb    04 51 26.2
      comp=Z,19nm,1.5s
GSC   Goldstone, Bar    84.30  54  IAmb    IAmb    04 51 15.0
      comp=Z,20nm,1.9s
YHL   Hebgen Lake       84.31  44  IAmb    IAmb    04 51 29.2
      comp=Z,11nm,1.2s
HVU   Hansel Valley     84.57  47  IAmb    IAmb    04 51 30.8
      comp=Z,20nm,1.7s
VSU   Vasula            84.65 332ceP       P       04 51 09.8  -1.0
VSU                                pmax    pmax
      comp=Z,21nm,1.3s
YNR   Norris Junctio    84.69  44  IAmb    IAmb    04 51 32.5
      comp=Z,15nm,1.2s
HAKT  HAKKARI           84.74 308  P       P       04 51 11.9  -0.1
      comp=Z,93nm,1.1s
FFC   Flin Flon         84.85  32  i P     P       04 51 13.5  +1.6
FFC   Flin Flon         84.85  32          P       04 51 12.2  +0.3
FFC                                IAmb    IAmb    04 51 13.9
      comp=Z,14nm,1.1s
FFC   Flin Flon         84.85  32  P       P       04 51 11.8  -0.1
      comp=Z,14nm,2.0s
FXWY  Fox Creek         84.94  45  IAmb    IAmb    04 51 19.6
      comp=Z,14nm,1.6s
SOC   Sochi             84.98 315  eP      P       04 51 11.1  -1.7
SOC                                e               04 54 29.3
SOC                                eS      SKSac   05 01 27.0  -4.3
SOC                                eSS     SS      05 07 18.7  +8.9
SOC                                eSSS    SSS     05 10 47.6
SOC                                MLR     MLR
      comp=Z,177nm,28.0s
SPUT  South Promonto    84.99  47  IAmb    IAmb    04 51 15.3
      comp=Z,13nm,1.5s
YMP   Mirror Lake Pl    85.02  44  IAmb    IAmb    04 51 34.2
      comp=Z,23nm,1.4s
DUG   Dugway, Tooele    85.21  49  IAmb    IAmb    04 51 32.9
      comp=Z,11nm,1.4s
DUG   Dugway, Tooele    85.21  49  P       P       04 51 14.8  +0.6
      comp=Z,6.4nm,1.6s
PFO   Pinyon Flats O    85.22  56  LR      LR      05 22 42.6
      comp=Z,193nm,19.4s,baz=330,slow=31
HWUT  Hardware Ranch    85.46  47  IAmb    IAmb    04 51 21.1
      comp=Z,25nm,1.6s
HWUT  Hardware Ranch    85.46  47  P       P       04 51 16.6  +1.1
      comp=Z,9.8nm,1.3s
SUMG  Summit            85.48   1  IAmb    IAmb    04 51 17.6
      comp=Z,21nm,1.0s
GURO  Guroymak-BITLI    85.54 310  IAmb    IAmb    04 51 18.1
      comp=Z,11nm,1.0s
BC3   Big Chuckawall    85.97  55  IAmb    IAmb    04 51 23.6
      comp=Z,17nm,1.7s
TCRU  Three Creeks R    86.14  50  IAmb    IAmb    04 52 58.9
      comp=Z,7.3nm,0.4s
LCMT  Little Creek M    86.24  52  IAmb    IAmb    04 51 25.3
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         comp=Z,23nm,1.8s
PDAR  Pinedale Array     86.29  45   P        P         04 51 20.1 +0.4
         comp=Z,0.7nm,0.7s,baz=189,slow=1.0,SNR=7.4
PDAR                                 LR       LR        05 23 13.9
         comp=Z,83nm,21.5s,baz=325,slow=31
         comp=Z,0.7nm,0.7s
MNK   Minsk              86.34 328 i P        P         04 51 18.6 -0.7
MNK                                i *PP      pP        04 51 38.0 +0.4
MNK                                i                    04 54 41.0
MNK                                i PPP      PPP       04 56 34.7
MNK                                i S        SKSac     05 01 37.0 -2.5
MNK                                i SS       SS        05 07 30.3 +1.2
MNK                                i SSS      SSS       05 11 03.9
MNK                                  pmax     pmax
         comp=Z,13nm,0.8s
MNK                                  pmax     pmax
         comp=N,10.0nm,0.9s
MNK                                  pmax     pmax
         comp=E,18nm,0.8s
MNK                                  MLR      MLR
         comp=Z,232nm,24.0s
MNK                                  MLR      MLR
         comp=N,203nm,23.0s
MNK                                  MLR      MLR
         comp=E,169nm,22.0s
MNK   Minsk              86.34 328 i P        P         04 51 18.7 -0.7
         comp=E,18nm,0.8s
MNK                                i P        P         04 51 18.7 -0.7
         comp=N,10.0nm,0.9s
MNK                                i P        P         04 51 18.7 -0.7
         comp=Z,13nm,0.8s,baz=56
MNK                                i pP       pP        04 51 38.0 +0.4
MNK                                i PP       PP        04 54 41.1 +0.4
MNK                                i PPP      PPP       04 56 34.7
MNK                                i S        SKSac     05 01 37.0 -2.5
MNK                                i SS       SS        05 07 30.3 +1.2
MNK                                i SSS      SSS       05 11 04.0
MNK                                i LQ       LQ        05 24 32.0
MNK                                i LRM      MLR       05 30 42.6
         comp=Z,232nm,24.0s
MNK                                i LRM      MLR       05 30 48.0
         comp=N,203nm,23.2s
MNK                                i LRM      MLR       05 31 14.3
         comp=E,169nm,22.0s
KNB   Kanab              86.54  51   IAmb     IAmb      04 51 26.5
         comp=Z,10nm,1.0s
LAO   LASA Array         86.56  41   IAmb     IAmb      04 51 22.7
         comp=Z,13nm,1.1s
KELT  Kelkit             86.80 312   P        P         04 51 21.9 -0.2
         comp=Z,43nm,1.1s
Q16A  Castle Valley      86.90  49   IAmb     IAmb      04 51 25.6
         comp=Z,28nm,1.7s
P17A  Butcher Ranch,     86.96  49   IAmb     IAmb      04 51 24.8
         comp=Z,6.3nm,1.0s
P18A  Preston Nutter     87.23  48   IAmb     IAmb      04 51 34.6
         comp=Z,16nm,1.8s
SRU   San Rafael Swe     87.27  49   IAmb     IAmb      04 51 25.9
         comp=Z,5.0nm,0.7s
RDMU  Red Mountain       87.27  47   IAmb     IAmb      04 51 33.3
         comp=Z,24nm,1.8s
HMU   Henry Mountain     87.64  50   IAmb     IAmb      04 51 27.7
         comp=Z,5.0nm,0.8s
Y14A  Wickenburg         87.71  54   IAmb     IAmb      04 51 33.5
         comp=Z,6.0nm,0.9s
AKASG Malin Array Be     87.75 325   P        P         04 51 24.5 -1.7
         comp=Z,3.3nm,0.6s,baz=54,slow=4.8,SNR=16
AKASG                                LR       LR        05 32 13.6
         comp=Z,197nm,21.9s,baz=40,slow=37
         comp=Z,3.3nm,0.6s
AKASG Malin Array Be     87.75 325 i P        P         04 51 25.1 -1.1
AKASG                                pmax     pmax
         comp=Z,2.0nm,0.4s
AKASG Malin Array Be     87.75 325   IAmb     IAmb      04 51 26.0
         comp=Z,5.5nm,1.1s
AKBB  Malin Array Si     87.75 325ceP         P         04 51 24.7 -1.5
AKBB                                 pmax     pmax
         comp=Z,9.0nm,1.0s
AKBB  Malin Array Si     87.75 325   IAmb     IAmb      04 51 25.7
         comp=Z,7.8nm,0.9s
AKBB  Malin Array Si     87.75 325   P        P         04 51 25.1 -1.1
AK01  Malin Array Si     87.76 325   P        P         04 51 24.9 -1.4
KIEV  Kiev               87.77 325   P        P         04 51 25.2 -1.1
KIEV                                 pmax     pmax
         comp=Z,7.0nm,1.0s
KIEV  Kiev               87.77 325            P         04 51 25.2 -1.1
KIEV                                 IAmb     IAmb      04 51 25.7
         comp=Z,7.0nm,0.9s
KIEV  Kiev               87.77 325   P        P         04 51 25.1 -1.2
         comp=Z,41nm,1.4s
KIEV  Kiev               87.77 325   P        P         04 51 25.3 -1.0
         comp=Z,10nm,1.2s
AK09  Malin Array Si     87.77 325   P        P         04 51 24.9 -1.4
AK04  Malin Array Si     87.77 325   P        P         04 51 25.0 -1.3
AK08  Malin Array Si     87.77 325   P        P         04 51 25.0 -1.3
AK02  Malin Array Si     87.79 325   P        P         04 51 25.0 -1.4
AK10  Malin Array Si     87.79 325   P        P         04 51 25.1 -1.3
AK11  Malin Array Si     87.80 325   P        P         04 51 25.1 -1.3
AK22  Malin Array Si     87.80 325   P        P         04 51 25.1 -1.4
AK05  Malin Array Si     87.81 325   P        P         04 51 25.1 -1.4
AK21  Malin Array Si     87.81 325   P        P         04 51 25.1 -1.4
AK06  Malin Array Si     87.83 325   P        P         04 51 25.2 -1.4
AK16  Malin Array Si     87.83 325   P        P         04 51 25.2 -1.4
AK17  Malin Array Si     87.85 325   P        P         04 51 25.3 -1.4
AK14  Malin Array Si     87.85 325   P        P         04 51 25.3 -1.4
AK19  Malin Array Si     87.85 325   P        P         04 51 25.3 -1.4
ARPR  Arapgir-MALATY     87.91 312   IAmb     IAmb      04 51 28.6
         comp=Z,11nm,0.9s
ARPR  Arapgir-MALATY     87.91 312   P        P         04 51 27.3 -0.1
         comp=Z,15nm,1.4s
WUAZ  Wupatki            88.25  52   IAmb     IAmb      04 51 31.5
         comp=Z,8.8nm,1.2s
PV23  Carpenter Ridg     88.62  49   IAmb     IAmb      04 51 35.8
         comp=Z,9.9nm,0.7s
NC405 NORSAR Array S     88.68 339   IAmb     IAmb      04 51 29.9
         comp=Z,17nm,1.2s
HFS   Hagfors            88.71 338   P        P         04 51 29.4 -1.2
         comp=Z,1.8nm,0.4s,baz=126,slow=2.0,SNR=14
HFS                                  LR       LR        05 32 20.2
         comp=Z,79nm,22.0s,baz=39,slow=36
         comp=Z,1.8nm,0.4s
PV22  Blue Mesa, Par     88.74  49   IAmb     IAmb      04 51 50.0
         comp=Z,26nm,1.7s
PV16  Nyswonger Mesa     88.75  49   IAmb     IAmb      04 51 50.9
         comp=Z,20nm,1.5s
NB2   NORSAR Subarra     88.89 339   P        P         04 51 30.6 -0.9
         comp=Z,1.4nm,0.7s,baz=44,slow=4.4
NB2   NORSAR Subarra     88.89 339   P        P         04 51 30.6 -0.9
NOA   NORSAR Array B     88.89 339   P        P         04 51 29.7 -1.8
         comp=Z,1.8nm,0.7s,baz=277,slow=3.1,SNR=6.3
NOA                                  PP       PP        04 55 02.1 +1.1
         comp=Z,0.7nm,0.7s,baz=41,slow=7.7,SNR=3.2
NOA                                  LR       LR        05 34 34.0
         comp=Z,107nm,21.6s,baz=40,slow=38
         comp=Z,1.8nm,0.7s
RAYN  Ar Rayn            88.97 295   P        P         04 51 32.7 +0.1
RAYN  Ar Rayn            88.97 295            P         04 51 32.6 +0.1
RAYN                                 IAmb     IAmb      04 51 35.2
         comp=Z,7.2nm,0.9s
RAYN  Ar Rayn            88.97 295   P        P         04 51 32.5 -0.2
         comp=Z,11nm,1.4s
RAYN  Ar Rayn            88.97 295   P        P         04 51 32.6  0.0
PV01  Paradox Valley     89.08  49            P         04 51 32.5 -0.6
RNPP8 Varash             89.16 327   P        P         04 51 31.7 -1.1
RNPP5 Staryi Chortor     89.20 326   P        P         04 51 31.9 -1.2
ANDN  Andirin            89.99 311   P        P         04 51 37.2  0.0
         comp=Z,35nm,1.2s
ISCO  Idaho Springs      90.31  46   P        P         04 51 39.7 +0.8
         comp=Z,3.6nm,1.5s
ULM   Lac du Bonnet      90.44  34   LR       LR        05 31 45.1
         comp=Z,149nm,20.6s,baz=326,slow=35
BR131 Keskin Array S     90.81 314 i P        P         04 51 39.9 -1.1
BR131 Keskin Array S     90.81 314   IAmb     IAmb      04 51 40.7
         comp=Z,7.7nm,1.0s
BRTR  Keskin Array B     90.81 314   P        P         04 51 40.0 -1.1
         comp=Z,3.7nm,0.9s,baz=99,slow=3.9,SNR=17
BRTR                                 LR       LR        05 36 24.4
         comp=Z,46nm,21.1s,baz=50,slow=38
         comp=Z,3.7nm,0.9s
BRTR  Keskin Array B     90.81 314            P         04 51 40.2 -0.8
BR104 Keskin Array S     90.81 314   P        P         04 51 40.0 -1.0
         comp=Z,48nmcomp=Z,5.4nm,1.1s
BR105 Keskin Array S     90.82 314   P        P         04 51 40.0 -1.1
TASM  ASL Pad, Albuq     92.08  51   IAmb     IAmb      04 52 06.7
         comp=Z,6.0nm,1.5s
TASM  ASL Pad, Albuq     92.08  51   IAmb     IAmb      04 52 06.6
         comp=Z,4.9nm,1.4s
ANMO  Albuquerque        92.08  51ceP         P         04 51 49.0 +1.9
ANMO                                 pmax     pmax
         comp=Z,4.0nm,1.5s
ANMO  Albuquerque        92.08  51            P         04 51 47.8 +0.7
ANMO  Albuquerque        92.08  51   P        P         04 51 47.2 +0.1
         comp=Z,3.5nm,2.6s
ALQ   Albuquerque        92.08  51   IAmb     IAmb      04 51 52.2
         comp=Z,2.0nm,0.9s
ASF   Jabal al Asfar     92.12 306   LR       LR        05 40 20.4
         comp=Z,48nm,18.3s,baz=26,slow=40
MMAI  Mount Meron Ar     92.84 307   LR       LR        05 38 08.6
         comp=Z,24nm,19.8s,baz=33,slow=38
MNTX  Cornudas Mount     94.44  53   IAmb     IAmb      04 52 04.3
         comp=Z,4.5nm,1.2s
EIL   Elat               94.78 305   LR       LR        05 40 28.4
         comp=Z,56nm,19.4s,baz=89,slow=39
VRAC  Vranov             95.04 329   LR       LR        05 37 22.0
         comp=Z,98nm,20.1s,baz=50,slow=37
TPB28                    95.11  53   IAmb     IAmb      04 52 10.7
         comp=Z,23nm,0.2s
CLL   Collm              95.30 332 eP         P         04 52 00.0 -1.2
CLL                                eS         S         05 03 03.0 -8.2
CLL   Collm              95.30 332 eP         P         04 52 00.0 -1.2
CLL                                eSx        Sx        05 03 03.0
CLL                                ePS        PS        05 04 39.0 +2.0
CLL                                eSS        SS        05 09 54.0  +16
CLL                                  LH                 05 23 00.0
CLL                                  LV                 05 25 00.0
CLL                                  AMS      AMS       05 37 00.0
         comp=N,100nm,23.5s
CLL                                  AMS      AMS       05 37 00.0
         comp=E,100nm,24.1s
CLL                                  AMS      AMS       05 37 00.0
         comp=Z,200nm,21.2s
GERES GERESS Array B     96.73 330   P        P         04 52 06.2 -1.7
         comp=Z,0.6nm,0.2s,baz=81,slow=8.2,SNR=4.3
GERES                                LR       LR        05 38 16.0
         comp=Z,85nm,21.2s,baz=18,slow=37
         comp=Z,0.6nm,0.2s
TXAR  Lajitas Array      96.89  55   P        P         04 52 08.9 -0.2
         comp=Z,0.3nm,0.6s,baz=264,slow=2.8,SNR=5.1
         comp=Z,0.3nm,0.6s
EKA   Eskdalemuir Ar     97.98 342   LR       LR        05 43 19.9
         comp=Z,47nm,18.5s,baz=39,slow=40
SCHQ  Schefferville      98.79  18   LR       LR        05 36 40.0
         comp=Z,89nm,21.9s,baz=346,slow=35
ESDC  Sonseca Array     111.73 334   PKKPbc   PKKPbc    05 08 07.2 +1.0
         comp=Z,1.0nm,0.9s,baz=221,slow=4.1,SNR=6.0
BOSA  Boshof            125.11 250   PKP      PKPdf     04 57 37.1 -1.0
         comp=Z,6.7nm,1.1s,baz=38,slow=6.9,SNR=3.7
TROLL Troll, Antarti    125.67 194 ⇑PKPdf     PKiKP     04 57 38.2  0.0
         comp=Z,254nm,0.7s
SNAA  Sanae             127.04 192 ⇑PKPdf     PKPdf     04 57 40.3 -0.1
         comp=Z,23nm,0.3s
SNAA  Sanae             127.04 192   PKP      PKPdf     04 57 39.1 -1.3
         comp=Z,3.2nm,0.9s,baz=143,slow=3.3,SNR=3.9
SNAA  Sanae             127.04 192   PKIKP    PKPdf     04 57 39.8 -0.6
SNAA  Sanae             127.04 192            PKPdf     04 57 39.8 -0.6
VNA2  Neumayer--Watz    128.52 191 ⇓PKPdf     PKiKP     04 57 43.9 +0.1
         comp=Z,8.6nm,0.7s,baz=123,slow=1.5
VNA3  Neumayer Olymp    128.65 190 ⇑PKPdf     PKPdf     04 57 43.1 -0.3
         comp=Z,4.4nm,0.7s
VNA1  Neumayer--Stat    128.91 191 ⇑PKPdf     PKiKP     04 57 44.9 +0.4
         comp=Z,6.4nm,0.9s
TORD  Torodi Ar. Bea    129.28 310   PKP      PKPdf     04 57 45.5 -0.8
         comp=Z,0.7nm,0.4s,baz=14,slow=2.3,SNR=5.7
PLCA  Paso Flores       145.24 130   PKPbc    PKPbc     04 58 14.6 -0.1
         comp=Z,16nm,1.0s,baz=242,slow=4.3,SNR=15
LPAZ  La Paz            148.81  85   PKPbc    PKPbc     04 58 25.9 -0.2
         comp=Z,7.8nm,0.8s,baz=351,slow=2.2,SNR=24
LPAZ  La Paz            148.81  85   PKIKP    PKPdf     04 58 23.4 +1.2
LPAZ  La Paz            148.81  85            PKPdf     04 58 23.4 +1.2
CFA   Coronel Fontan    149.54 115   PKPbc    PKPbc     04 58 26.0 -0.9
         comp=Z,2.3nm,0.7s,baz=271,slow=1.9,SNR=8.6
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IDC ***29*** *04:40:28.2±0.9, 55°.39S×27°.67W, h0km, mb4.0/6, mbtmp4.1/7, ML4.5/1, Error ellipse: s-maj=34.0km s-min=21.0km az=80.0*

NEIC ***29*** *04:40:33.1±1.4, 55°.5S±0°.1×28°.2W±0°.2, h35km±1km, mb4.3/11, Error ellipse: s-maj=22.6km s-min=18.6km az=212.0*

ISC 29 04:40:31.8±0.6, **55°.47S**±0°.09×**28°.1W**±0°.1, **h26**km, **n29, σ0s.84**/28, **mb4.2**/7, **4D, South Sandwich Islands region**

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Code  Station Name         Δ°  AZ°    Phase ID             Time     Res
                                     Op       ISC        h  m  s    ISC
HOPE  Hope Point          5.02 280   Pn       Pn        04 41 44.6 -0.6
VNA3  Neumayer Olymp     17.70 160 ⇓P         Pn        04 44 35.0 -1.0
         comp=Z,5.5nm,0.8s
VNA2  Neumayer--Watz     17.91 158 ⇓P         Pn        04 44 37.0 -1.6
         comp=Z,4.6nm,0.5s,baz=314,slow=13
SNAA  Sanae              19.47 156 ⇓P         P         04 44 56.1 -0.1
         comp=Z,197nm,0.5s
SNAA  Sanae              19.47 156   P        P         04 44 56.2  0.0
         comp=Z,1.4nm,0.3s,baz=300,slow=10,SNR=20
         comp=Z,7.3nm,0.5s
SNAA                                 AML      AML
SNAA  Sanae              19.47 156   P        P         04 44 55.6 -0.6
SNAA                                 IAmb     IAmb      04 44 57.0
         comp=Z,8.0nm,0.6s
PMSA  Palmer Station     19.92 228   P        Pn        04 45 05.0 +2.2
         comp=Z,3.5nm,0.6s,baz=358,slow=3.8,SNR=4.3
         comp=Z,3.5nm,0.6s
PMSA  Palmer Station     19.92 228   P        P         04 45 00.6 -0.5
TROLL Troll, Antarti     20.98 154 ⇓P         Pn        04 45 15.8 +0.5
         comp=Z,499nm,0.5s
BELA  Belgrano 2         22.62 184   P        P         04 45 29.4 -0.7
BELA                                 IAmb     IAmb      04 45 32.3
         comp=Z,11nm,1.4s
QSPA  South Pole Qui     34.78 180   P        P         04 47 20.4 +0.6
         comp=Z,2.7nm,0.5s,baz=212,slow=1.9,SNR=42
         comp=Z,2.7nm,0.5s
QSPA  South Pole Qui     34.78 180   P        P         04 47 20.2 +0.4
QSPA                                 IAmb     IAmb      04 47 21.8
         comp=Z,3.0nm,0.6s
MAW   Mawson             40.90 144   P        P         04 48 10.7 -0.4
         comp=Z,1.0nm,0.8s,baz=240,slow=6.7,SNR=2.6
         comp=Z,1.0nm,0.8s
MAW   Mawson             40.90 144   P        P         04 48 11.0 -0.1
VNDA  Vanda              47.13 183   P        P         04 49 01.8 +0.8
         comp=Z,1.6nm,0.6s,baz=188,slow=6.4,SNR=30
         comp=Z,1.6nm,0.6s
VNDA  Vanda              47.13 183   P        P         04 49 01.3 +0.3
VNDA                                 IAmb     IAmb      04 49 02.1
         comp=Z,1.9nm,0.7s
LPAZ  La Paz             49.65 306   P        P         04 49 22.5 +0.8
         comp=Z,1.3nm,0.8s,baz=148,slow=9.3,SNR=4.6
         comp=Z,1.3nm,0.8s
LPAZ  La Paz             49.65 306   P        P         04 49 21.0 -0.8
LPAZ                                 IAmb     IAmb      04 49 37.9
         comp=Z,2.8nm,1.2s
LSZ   Lusaka             58.62  70   P        P         04 50 26.9 +0.3
LSZ                                  IAmb     IAmb      04 50 40.6
         comp=Z,5.2nm,1.3s
BOAV  Boa Vista          63.52 323   P        P         04 50 58.9 -0.8
BOAV                                 IAmb     IAmb      04 51 29.5
         comp=Z,5.3nm,1.4s
TORD  Torodi Ar. Bea     72.80  30   P        P         04 51 58.4 +0.6
         comp=Z,0.5nm,0.5s,baz=189,slow=5.9,SNR=2.8
         comp=Z,0.5nm,0.5s
TORD  Torodi Ar. Bea     72.80  30   P        P         04 51 58.8 +1.0
SEUS  St. Eustatius      78.47 326   P        P         04 52 29.2 -0.9
FINES FINESS Array B    124.10  28   PKP      PKPdf     04 59 26.3  0.0
         comp=Z,0.8nm,0.7s,baz=163,slow=2.0,SNR=4.5
FINES FINESS Array B    124.10  28            PKPdf     04 59 26.0 -0.3
ILAR  Eielson Array     149.37 313   PKPbc    PKPbc     05 00 16.8  0.0
         comp=Z,1.2nm,0.8s,baz=111,slow=1.6,SNR=9.2
ILAR  Eielson Array     149.37 313   PKPdf    PKPdf     05 00 13.1 +0.8
SONM  Songino Array     151.18  86   PKPbc    PKPbc     05 00 21.5 -0.3
         comp=Z,0.4nm,0.4s,baz=220,slow=4.3,SNR=3.7
SONM  Songino Array     151.18  86   PKPdf    PKPdf     05 00 16.9 +1.0
```

TAP 29 04:42:58.9, 22°.35N×121°.01E, h12km, ML2.6, B, Taiwan region

```
Code  Station Name         Δ°  AZ°    Phase ID             Time     Res
                                     Op       ISC        h  m  s    ISC
TAW   Tawu                0.10 273 i P        Pb        04 43 02.4 -0.5
TAW                                i S        Sg        04 43 04.7 +0.8
TAWH  Dawu Township       0.11 263 i P        Pb        04 43 02.5 -0.5
TAWH                               i S        Sg        04 43 04.9 +0.8
EAST  Anshuo              0.15 281 i P        Pb        04 43 03.1 -0.6
EAST                               i S        Sg        04 43 06.0 +0.9
SLIU  Shizi               0.24 235 i P        Pb        04 43 04.7 -0.4
SLIU                                 S        Sg        04 43 08.4 +1.1
ECL   Taimali             0.25 348   P        Pg        04 43 04.2  0.0
ECL                                  S        Sg        04 43 08.7 +1.1
SCZT  Fangliau            0.36 273 i P        Pb        04 43 06.8 -0.4
SCZT                                 S        Sb        04 43 12.4 -0.4
SMST  Manzhou Townsh      0.37 206   P        Pb        04 43 07.5 +0.2
SMST                                 S        Sb        04 43 13.5 +0.5
TTN   Taitung             0.42  18   P        Pb        04 43 07.9 -0.4
HEN   Hengchun            0.43 216   S        Sb        04 43 16.5 +1.8
SSPT  Xinbi               0.43 288   P        Pb        04 43 08.5 +0.2
SSPT                                 S        Sb        04 43 16.1 +1.3
MASBT Mashibuluo          0.43 307 i P        Pg        04 43 07.9 +0.4
MASBT                                S        Sb        04 43 14.1 -0.8
TWK1  Hengchun            0.45 205 eP         Pb        04 43 09.3 +0.6
TWK1                               eS         Sb        04 43 17.2 +1.9
TWKBT Hengchun            0.45 204   P        Pb        04 43 09.1 +0.3
TWKBT                                S        Sb        04 43 16.9 +1.5
SNW   Nanwan              0.46 212 i P        Pb        04 43 08.7 -0.2
SNW                                i S        Sb        04 43 16.1 +0.5
TSEB  Hengchuen, Pin      0.46 193   P        Pb        04 43 09.8 +0.8
TSEB                                 S        Sb        04 43 18.2 +2.4
TWGBT Beinan              0.47   8   P        Pg        04 43 07.9 -0.2
TWGBT                                S        Sb        04 43 15.3 -0.6
TWG   Pinlang             0.47   7   P        Pg        04 43 08.0 -0.2
TWG                                eS         Sg        04 43 14.3 -0.1
TSMG  Majia               0.49 316   P        Pg        04 43 08.7 +0.3
TSMG                                 S        Sg        04 43 15.0 +0.1
SSD   Sandimen            0.52 318 i P        Pg        04 43 09.3 +0.1
SSD                                  S        Sg        04 43 16.5 +0.3
LDUT  Ludao               0.53  53   P        Pb        04 43 09.8 -0.4
LDUT                                 S        Sb        04 43 18.2 +0.4
LONT  Longtian            0.56  12   P        Pg        04 43 09.3 -0.6
LYUB  Lan-yu              0.64 123   S        Sg        04 43 19.9 +0.2
EDH   Donghe              0.67  24 eP         Pg        04 43 11.0 -1.1
SCST  Cishan              0.71 318   P        Pb        04 43 13.8 +0.5
SLGT  Liugui              0.72 332   P        Pg        04 43 12.8 -0.1
ELDTW Lidau               0.83   1 eP         Pb        04 43 15.4 +0.1
ELDTW                                S        Sb        04 43 26.4 -0.2
STYH  Taoyuan             0.84 345   P        Pb        04 43 15.4  0.0
FULB  Fuli                0.88  17   P        Pg        04 43 15.2 -0.8
FULB                                 S        Sb        04 43 27.9  0.0
CHN1  Nanshi              0.94 332   P        Pn        04 43 18.6 +0.7
TPUB  Ta-pu               1.01 340   P        Pn        04 43 19.5 +0.6
TPUB                                 S        Sn        04 43 35.5 +2.6
TWK   Hsinying            1.03 332   P        Pn        04 43 20.6 +1.4
CHN4  Tsaushan            1.06 339 eP         Pn        04 43 20.7 +1.0
```

IDC ***29*** *04:58:44.0±5.5, 36°.39N×140°.10E, h73km±40km, mb3.3/3, mbtmp3.6/4, ML3.1/1, Error ellipse: s-maj=57.4km s-min=25.8km az=65.0*

JMA ***29*** *04:58:46.1±0.1, 36°.3N±0°.2×140°.0E±0°.3, h77km, MV3.3/38, SW IBARAKI PREF*

JMA Felt I J1 at SW IBARAKI PREF .

ISC 29 04:58:45.6±1.0, **36°.32N**±0°.05×**139°.95E**±0°.06, **h82**km±7km, **n15, σ0s.66**/22, **mb3.6**/3, **8D, Eastern Honshu**

```
Code  Station Name         Δ°  AZ°    Phase ID             Time     Res
                                     Op       ISC        h  m  s    ISC
JYT   Yasato              0.22 115 i P        Pn        04 58 57.7 +0.1
JYT                                  S        Sn        04 59 06.1 -0.3
JAG   Ashikaga            0.41 285⇓iP         Pn        04 58 58.7 -0.1
JAG                                 ⇓S        Sn        04 59 08.0 -0.5
JKT   Katashina           0.72 309⇓iP         Pn        04 59 01.8 +0.1
JKT                                 ⇓S        Sn        04 59 13.8 +0.2
JRY   Ryogami san         0.90 251⇓iP         Pn        04 59 04.0 +0.4
JRY                                 ⇓S        Sn        04 59 16.9 -0.1
JFY   Yanaizu             1.10 350 ⇓P         Pn        04 59 05.9  0.0
JUON  Uonuma              1.14 321 ⇓P         Pn        04 59 06.5 +0.1
JOD2  Odawara 2           1.27 214 i P        Pn        04 59 08.2 +0.2
JOD2                                 S        Sn        04 59 24.6 -0.2
JOTO  OTAMA OYAMA         1.28  14   P        Pn        04 59 08.5 +0.4
JOTO                               eS         Sn        04 59 25.5 +0.4
JFK   Kawauchi            1.28  35   P        Pn        04 59 08.4 +0.2
JYN   Shimob              1.41 235 i P        Pn        04 59 10.8 +1.1
MJAR  Matsushiro Arr      1.42 280   P        Pn        04 59 10.2 +0.2
         101nm,0.7s,baz=87,slow=14,SNR=169
MJAR                                 S        Sn        04 59 27.4 -1.0
         21nm,0.4s,baz=74,slow=19,SNR=4.6
KSRS  Korea Array         9.70 280   P        Pn        05 01 04.3 +2.0
         0.2nm,0.3s,baz=92,slow=13,SNR=2.2
         1.0nm,0.6s
KSRS                                 AML      AML
MKAR  Makanchi Array     43.51 303   P        P         05 06 40.4 -0.4
         0.6nm,0.8s,baz=78,slow=6.4,SNR=3.5
         0.6nm,0.8s
KURBB Kurchatov Arra     45.52 308   P        P         05 06 56.6 -0.1
         1.2nm,0.8s,baz=85,slow=7.9,SNR=8.1
         1.2nm,0.8s
WRA   Warramunga Arr     56.21 186   P        P         05 08 16.6 -0.6
         0.2nm,0.3s,baz=15,slow=7.2,SNR=8.7
         0.2nm,0.3s
```

KRNET ***29*** *05:05:07.2±0.1, 41°.36N×70°.10E, h18km, mb2.5*

ISU ***29*** *05:05:12, 41°.16N×70°.29E, h5km*

ISC 29 05:05:11.9±1.1, **41°.18N**±0°.04×**70°.46E**±0°.04, **h11**km±12km, **n10, σ1s.43**/18, **11C-1D, Kyrgyzstan**

```
Code  Station Name         Δ°  AZ°    Phase ID             Time     Res
                                     Op       ISC        h  m  s    ISC
CHMG  Chimgan             0.50 318   P        Pg        05 05 21.4 -0.3
CHMG                                 S        Sg        05 05 28.7 +0.4
CHRV  Charvak             0.60 320   S        Sg        05 05 32.2 +0.8
TRKS  Terek-Say           0.62  56⇑iP         Pg        05 05 22.7 -1.3
TRKS                                ⇑iS       Sb        05 05 33.9 +0.2
TVKS  Tavaksay            0.72 303   P        Pg        05 05 25.0 -0.9
TVKS                                 S        Sg        05 05 35.4  0.0
PSK   Pskem               0.75 355   S        Sb        05 05 37.6 +0.3
BTK   Batken              1.16 166⇑iP         Pb        05 05 33.1 -0.9
BTK                                 ⇑iS       Sg        05 05 52.2 +3.0
ARK   Arkit               1.29  61⇑iP         Pn        05 05 34.2 -1.8
ARK                                 ⇑iS       Sg        05 05 54.0 +0.6
ARSB  Arslanbob           1.91  85⇑iP         Pn        05 05 45.2 +0.7
ARSB                                ⇑iS       Sg        05 06 13.2 -0.1
KK31  Karatay Array       1.92   1 ⇑Pn        Pg        05 05 49.9 +1.1
         0.4nm,0.2s,baz=189,slow=13
KK31                                 ⇓Sn      Sg        05 06 16.4 +2.7
         0.8nm,0.2s,baz=190,slow=26,SNR=6.7
MNAS  Manas               2.01  49⇑iP         Pn        05 05 44.8 -1.1
MNAS                                ⇑iS       Sn        05 06 12.2 +1.1
```

IDC ***29*** *05:07:12.9±1.5, 22°.37N×121°.44E, h0km, mb3.6/6, mbtmp3.7/6, MS2.9/1, Error ellipse: s-maj=57.4km s-min=21.9km az=61.0*

JMA ***29*** *05:07:13.5±0.4, 22°N±2°×12°1E±°, h0km, MV3.5/12, TAIWAN REGION*

TAP ***29*** *05:07:16.0, 22°.39N×121°.02E, h11km, ML3.9, C*

ISC 29 05:07:14.0±1.1, **22°.34N**±0°.02×**121°.13E**±0°.02, **h4**km±8km, **n144, σ1s.18**/180, **mb3.6**/6, **6C-11D, Taiwan region**

```
Code  Station Name         Δ°  AZ°    Phase ID             Time     Res
                                     Op       ISC        h  m  s    ISC
TAW   Tawu                0.22 275⇓iP         Pg        05 07 19.6 +1.2
TAW                                i S        Sg        05 07 21.8 +0.6
EAST  Anshuo              0.27 280⇓iP         Pb        05 07 20.3 -1.2
EAST                               i S        Sg        05 07 23.0 +0.2
ECL   Taimali             0.31 328⇓iP         Pb        05 07 21.0 -1.1
ECL                                i S        Sg        05 07 25.3 +1.2
SLIU  Shizi               0.33 249 ⇓P         Pb        05 07 22.1 -0.4
SLIU                               eS         Sb        05 07 26.2 -1.9
TTN   Taitung             0.41   2 i P        Pn        05 07 25.4 -1.4
TTN                                eS         Sb        05 07 33.0 +2.4
SMST  Manzhou Townsh      0.42 221 i P        Pn        05 07 24.6 -2.1
SMST                                 S        Sb        05 07 31.1 +0.5
LDUT  Ludao               0.46  43⇑iP         Pn        05 07 26.5 -0.8
LDUT                               eS         Sb        05 07 35.3 +3.5
SCZT  Fangliau            0.47 274⇓iP         Pb        05 07 24.0 -0.9
SCZT                               i S        Sg        05 07 29.4  0.0
TWGBT Beinan              0.48 354   P        Pb        05 07 24.7 -0.4
TWGBT Beinan              0.48 354   S        Sb        05 07 31.9 -0.6
TWGBT Beinan              0.48 354⇑iP         Pb        05 07 24.7 -0.4
TWGBT                                S        Sb        05 07 31.2 -1.3
TSEB  Hengchuen, Pin      0.48 206   P        Pn        05 07 27.4 -0.3
TSEB                               eS         Sb        05 07 35.6 +3.0
TWG   Pinlang             0.48 353⇑iP         Pb        05 07 24.7 -0.4
TWG                                i S        Sb        05 07 31.1 -1.5
LAY   Lan-yu              0.49 127   P        Pn        05 07 27.2 -0.6
HEN   Hengchun            0.49 228   P        Pn        05 07 26.4 -1.4
HEN                                  S        Sb        05 07 33.3 +0.5
```

TWKBT	Hengchun	0.49	217	P	Pn	05 07 26.4	-1.4
TWKBT				S	Sb	05 07 33.8	+1.0
TWK1	Hengchun	0.49	218	P	Pn	05 07 26.4	-1.5
TWK1				S	Sb	05 07 34.0	+1.1
LYUB	Lan-yu	0.54	128	eP	Pn	05 07 26.7	-1.8
LYUB				eS	Sb	05 07 34.5	+0.4
MASBT	Mashibuluo	0.54	301	⇓iP	Pb	05 07 24.8	-1.2
MASBT				i S	Sg	05 07 31.1	-0.2
SSPT	Xinbi	0.54	286	⇓P	Pb	05 07 25.7	-0.4
SSPT				eS	Sb	05 07 33.0	-1.2
LONT	Longtian	0.57	360	⇑P	Pb	05 07 26.2	-0.3
LONT				eS	Sn	05 07 36.8	-1.9
TSMG	Majia	0.58	309	⇓iP	Pb	05 07 25.6	-1.2
TSMG				S	Sg	05 07 32.0	-0.8
SSD	Sandimen	0.62	311	⇓iP	Pg	05 07 26.1	+0.2
SSD				S	Sg	05 07 33.0	-0.9
EDH	Donghe	0.65	14	P	Pb	05 07 28.0	0.0
WLCH	Liuqiu	0.70	271	eP	Pn	05 07 31.2	+0.6
SGLT	Jiouru	0.71	303	P	Pb	05 07 28.9	0.0
SGLT				S	Sb	05 07 38.4	-0.6
ECS	Chishang	0.76	6	eP	Pb	05 07 29.2	-0.7
CHKT	Chengkung	0.79	16	P	Pn	05 07 30.4	-1.5
CHKT				eS	Sn	05 07 42.3	-1.8
SLGT	Liugui	0.79	326	P	Pb	05 07 29.6	-0.8
SCST	Cishan	0.80	313	⇓iP	Pb	05 07 30.7	+0.1
SCST				i S	Sb	05 07 41.7	-0.1
EHD	Haiduan	0.81	5	eP	Pb	05 07 29.5	-1.2
TWM1	Shoushan	0.81	307	⇓iP	Pn	05 07 31.4	-1.0
ELDTW	Lidau	0.85	353	eP	Pb	05 07 30.6	-1.0
WSSB	Gushan	0.86	291	P	Pn	05 07 33.6	+0.7
WSSB				eS	Sn	05 07 47.8	+1.9
FULB	Fuli	0.87	10	i P	Pb	05 07 31.4	-0.4
FULB				eS	Sb	05 07 43.8	0.0
CHKH	Chenggong	0.89	16	eP	Pb	05 07 31.5	-0.5
CHKH				eS	Sb	05 07 44.2	+0.1
STYH	Taoyuan	0.89	338	⇑P	Pn	05 07 32.1	-1.2
SGST	Jiashian	0.90	326	P	Pb	05 07 31.3	-0.9
SGST				S	Sb	05 07 44.2	-0.3
CHN1	Nanshi	1.01	327	P	Pn	05 07 35.1	+0.1
CHN1				eS	Sn	05 07 50.2	+0.5
ECBN	Changbin	1.02	17	eP	Pn	05 07 35.5	+0.4
EYUL	Yuli	1.02	10	eP	Pn	05 07 34.7	-0.4
CHN3	Shinhua	1.02	316	P	Pn	05 07 36.6	+1.5
CHN3				eS	Sn	05 07 52.6	+2.7
TWF1	Yuli	1.02	9	eP	Pb	05 07 33.8	-0.6
YULB	Yu-li	1.06	8	P	Pb	05 07 34.3	-0.7
YULB	Yu-li	1.06	8	S	Sg	05 07 46.9	-1.3
YULB	Yu-li	1.06	8	eP	Pn	05 07 34.8	-0.9
TPUB	Ta-pu	1.06	334	P	Pn	05 07 35.8	0.0
TPUB	Ta-pu	1.06	334	⇑iP	Pn	05 07 35.7	0.0
TPUB				eS	Sn	05 07 50.9	-0.2
TWK	Hsinying	1.10	327	eP	Pn	05 07 36.7	+0.4
TWK				eS	Sn	05 07 52.4	+0.5
CHN4	Tsaushan	1.12	334	P	Pn	05 07 36.8	+0.2
YUS	Yu-Shan	1.16	352	eP	Pn	05 07 37.5	0.0
EHYH	Wanrong	1.17	10	eP	Pn	05 07 37.7	+0.6
EHY	Hungye	1.18	9	eP	Pn	05 07 37.7	+0.5
HGSD	Ruisui	1.18	13	eP	Pn	05 07 38.1	+0.8
WCKO	Fanlu	1.20	336	eP	Pn	05 07 38.7	+1.1
WCKO				eS	Sn	05 07 55.1	+0.8
ALS	Alishan	1.21	346	eP	Pn	05 07 38.3	+0.4
ALS				eS	Sb	05 07 53.0	-0.6
TSCK	Chigu Township	1.26	310	eP	Pb	05 07 38.6	+0.3
ICHU	Yijhu	1.29	323	eP	Pb	05 07 39.3	+0.5
ICHU				eS	Sn	05 07 57.6	+1.2
CHN5	Tsauling	1.32	342	eP	Pb	05 07 40.8	+1.3
CHN5				eS	Sn	05 07 59.1	+1.6
CHY	Chiayi	1.33	331	eP	Pg	05 07 40.1	+0.6
CHY				eS	Sn	05 07 58.7	+1.3
WHYT	Xinyi Township	1.38	349	eP	Pg	05 07 40.6	+0.1
WARBT	Fenglin Townsh	1.39	10	eP	Pg	05 07 40.6	-0.2
VWDT	VWDT	1.41	0	eP	Pg	05 07 41.2	+0.1
WSL	Shuilin Townsh	1.45	325	eP	Pg	05 07 41.2	-0.5
SSLB	Suanglung	1.45	354	P	Pg	05 07 42.1	+0.2
SSLB	Suanglung	1.45	354	eP	Pg	05 07 41.7	-0.2
WDLH	Douliu	1.45	338	eP	Pg	05 07 41.7	-0.2
ESL	Shilin	1.50	11	eP	Pg	05 07 43.3	+0.5
SHUL	Shoufeng	1.50	15	eP	Pg	05 07 42.4	-0.3
WTK	Tuku	1.51	333	eP	Pb	05 07 42.2	-0.4
WJS	Zhushan	1.52	346	eP	Pg	05 07 43.3	0.0
WSF	Szhu	1.54	327	eP	Pg	05 07 42.9	-0.7
SMLT	Sun Moon Lake	1.55	352	eP	Pg	05 07 44.2	+0.4
TYC	Yuchr	1.58	351	P	Pg	05 07 44.6	+0.2
TYC				eS	Sg	05 08 06.8	+1.9
WNT	Mingjian	1.59	345	eP	Pg	05 07 44.5	0.0
OWD	Renai	1.61	1	eP	Pg	05 07 45.5	+0.5
WDGT	Dungji	1.64	304	eP	Pn	05 07 43.2	-0.5
WUSB	Renai	1.65	360	eP	Pb	05 07 43.8	-1.3
ETM	Tongmen	1.66	12	eP	Pg	05 07 45.6	-0.2
WCS	Beigang Elemen	1.72	353	eP	Pg	05 07 46.5	-0.6
TWD	Chiawan	1.79	14	eP	Pg	05 07 48.2	-0.1
VCHM	Qimei	1.79	299	eP	Pn	05 07 44.4	-1.4
WHF	Hehuan Shan	1.80	4	eP	Pg	05 07 49.4	+0.8
PHUB	P'eng-hu	1.85	309	P	Pn	05 07 45.3	-1.2
PHUB				eS	Sn	05 08 07.3	-3.2
NACB	Ninganchiao	1.88	13	P	Pb	05 07 47.2	-1.7
NACB	Ninganchiao	1.88	13	eP	Pb	05 07 47.6	-1.3
PNG	Penghu	1.90	310	eP	Pn	05 07 46.1	-1.2
PNG				eS	Sn	05 08 08.7	-2.9
FUSS	Fushou	1.91	3	eP	Pg	05 07 50.2	-0.4
TDCB	Techi	1.91	1	P	Pg	05 07 49.8	-0.9
TWT	Tachien	1.91	1	P	Pg	05 07 50.0	-0.6
TWT				eS	Sg	05 08 15.5	+0.1
WHP	Taichung City	1.94	355	eP	Pb	05 07 49.4	-0.6
TWQ1	Liyutan	2.03	351	P	Pb	05 07 50.9	-0.6
EOS4	EOS4	2.08	31	eP	Pb	05 07 49.9	-2.3
NNSB	Datong	2.10	6	eP	Pb	05 07 52.3	-0.3
NNS	Nan Shan	2.10	6	eP	Pg	05 07 53.3	-1.1
LATG	Datong	2.22	9	eP	Pb	05 07 53.4	-1.4
NFF	Wufeng Townshi	2.29	360	eP	Pb	05 07 55.6	-0.3
LIOB	Emei	2.30	357	eP	Pb	05 07 55.7	-0.4
EOS2	EOS2	2.31	26	eP	Pb	05 07 54.5	-1.6
ENTT	Nioudou	2.33	10	eP	Pb	05 07 55.7	-0.9
YHNB	Yeheng	2.33	5	P	Pb	05 07 55.2	-1.5
YHNB	Yeheng	2.33	5	eP	Pb	05 07 55.3	-1.4
NSK	Sanguang	2.34	5	eP	Pb	05 07 56.2	-0.6
NDS	Dongshan	2.35	13	eP	Pb	05 07 55.2	-1.7
TWE	Neicheng	2.42	12	eP	Pb	05 07 56.0	-2.3
KSHI	Guanxi Townshi	2.43	1	eP	Pb	05 07 58.4	+0.1
FUSB	Fushanzhiwuyua	2.45	10	eP	Pb	05 07 57.6	-1.0
NWLT	Wulai	2.45	8	eP	Pb	05 07 56.8	-1.9
TIPB	Shuangxi	2.70	13	eP	Pb	05 08 00.0	-2.9
YOJ	Yonaguni jima	2.73	39	P	Pb	05 08 00.6	-2.8
YOJ	Yonaguni jima	2.73	39	S	Sn	05 08 33.3	+1.2
YOJ	Yonaguni jima	2.73	39	eP	Pn	05 07 59.4	+0.8
YOJ	Yonaguni jima	2.73	39	P	Pn	05 07 59.6	+1.0
WFSB	Wu-fen Shan	2.79	12	eP	Pb	05 08 01.5	-2.9
SXI1	Grass Mountain	2.83	14	eP	Pn	05 08 01.7	+1.7
HATJ	Hateruma jima	3.00	55	P	Pn	05 08 03.0	+0.7
HATJ				S	Sn	05 08 38.4	-0.3
VWUC	VWUC	3.06	330	eP	Pn	05 08 03.2	0.0
IRIF	Iriomote-Funau	3.11	50	eS	Sn	05 08 43.3	+1.9
KNM	Kinmen	3.23	310	eP	Pn	05 08 06.7	+1.2
JKRS	Kuro-shima	3.25	54	P	Pn	05 08 07.3	+1.5
JKRS				eS	Sn	05 08 45.1	+0.2
PTMZ	Houxiangcun	3.26	326	eP	Pn	05 08 05.2	-0.7
KNMB	Chin-men Tao	3.29	311	eP	Pn	05 08 05.5	-0.9
JIJ	Ishigaki jima	3.42	53	eP	Pn	05 08 09.3	+1.2
JIJ				eS	Sn	05 08 48.0	-1.2
ZPLA	Ao Xicun	3.49	298	eP	Pn	05 08 07.8	-1.4
DSXP	Dongshan	3.68	293	eP	Pn	05 08 11.1	-0.5
AXDP	Jialang	3.86	312	eP	Pn	05 08 13.3	-0.9
MATB	Ma-tsu	3.95	344	eP	Pn	05 08 15.1	-0.3
JTJ	Tarama	4.00	54	eP	Pn	05 08 18.2	+2.1
MHZQ	Yeshan	4.21	333	eP	Pn	05 08 18.9	-0.1
LYJJ	Jianjiangzhen	4.38	344	eP	Pn	05 08 21.0	-0.3
XPSS	Dashiqiu	4.65	350	eP	Pn	05 08 24.9	-0.2
KSRS	Korea Array	16.17	20	LR	LR	05 17 29.4	
	comp=Z,43nm,19.2s,baz=240,slow=38						
CMAR	Chiang Mai Arr	21.15	264	P	P	05 12 02.7	+2.5
	0.9nm,0.3s,baz=67,slow=8.9,SNR=4.9						
	0.9nm,0.3s						
MKAR	Makanchi Array	39.64	318	P	P	05 14 48.1	+1.1
	1.7nm,0.7s,baz=107,slow=9.8,SNR=9.4						
	1.7nm,0.7s						
ZALV	Zalesovo Beam	41.77	328	P	P	05 15 04.5	+0.2
	0.6nm,0.4s,baz=125,slow=7.8,SNR=3.9						
	0.6nm,0.4s						
H11N1	WAKE ISLAND Hy	42.67	85	T	T	06 00 56.4	
	baz=282,slow=75,SNR=13						
H11N2	WAKE ISLAND Hy	42.67	85	T	T	06 00 57.4	
	baz=282,slow=75,SNR=18						
H11N3	WAKE ISLAND Hy	42.69	85	T	T	06 00 58.5	
	baz=282,slow=75,SNR=18						
H11S3	WAKE ISLAND Hy	42.74	87	T	T	06 01 00.5	
	baz=284,slow=74,SNR=40						
H11S1	WAKE ISLAND Hy	42.75	87	T	T	06 01 04.2	
	baz=284,slow=74,SNR=18						
H11S2	WAKE ISLAND Hy	42.76	87	T	T	06 01 00.3	
	baz=284,slow=74,SNR=16						
KURBB	Kurchatov Arra	43.50	321	P	P	05 15 19.1	+0.7
	1.2nm,0.6s,baz=129,slow=7.3,SNR=9.0						
	1.2nm,0.6s						
WRA	Warramunga Arr	43.96	162	P	P	05 15 20.3	-2.1
	0.3nm,0.7s,baz=344,slow=8.0,SNR=2.1						
	0.3nm,0.7s						
ASAR	Alice Springs	47.38	164	P	P	05 15 49.6	0.0
	0.1nm,0.3s,baz=344,slow=8.0,SNR=2.0						
	0.1nm,0.3s						

IDC 29 05:26:43.1±52.0,17°.33S×179°.75W,h0km,mb4.2/3, mbtmp4.2/3,Error ellipse: s-maj=937.0km s-min=154.3km az=78.0,Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
STKA	Stephens Creek	37.80	240	P	P	05 34 01.9	+0.6
	1.6nm,0.5s,baz=83,slow=11,SNR=3.8						
	1.6nm,0.5s						
WRA	Warramunga Arr	43.48	259	P	P	05 34 48.1	-0.5
	0.9nm,0.5s,baz=96,slow=7.7,SNR=20						
	0.9nm,0.5s						
ASAR	Alice Springs	43.72	254	P	P	05 34 50.2	-0.3
	5.5nm,0.5s,baz=88,slow=8.4,SNR=72						
	5.5nm,0.5s						

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*IDC **29** 05:40:41.4±1.1,27°.91N×103°.87E,h0km,mb3.6/4, mbtmp3.5/7,ML3.9/3,MS3.3/3,Error ellipse: s-maj=39.0km s-min=18.3km az=80.0*

ISC 29 05:40:44.7±1.0,28°.00N±0°.10×104°.0E±0°.3,h21km,n9, σ1s.08/7,mb3.6/4,Sichuan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LZDM	Lanzhou Array	7.94	358	Pn	Pn	05 42 40.0	+0.8
	baz=161,slow=10						
LZDM				Sn	Sn	05 44 17.6	+9.1
	baz=172,slow=22						
	1.8nm,0.3s						
CMAR	Chiang Mai Arr	10.59	207	Pn	Pn	05 43 15.4	+0.2
	0.2nm,0.3s,baz=22,slow=11,SNR=5.0						
CMAR				LR	LR	05 47 51.5	
	comp=Z,29nm,18.9s,baz=275,slow=41						
	0.6nm,0.3s						
CMAR				AML	AML		
SONM	Songino Array	19.89	5	P	Pn	05 45 16.6	+0.1
	0.3nm,0.3s,baz=179,slow=12,SNR=3.5						
	0.5nm,0.4s						
SONM				AML	AML		
MKAR	Makanchi Array	25.35	324	P	P	05 46 10.9	+0.7
	0.7nm,0.8s,baz=129,slow=11,SNR=4.3						
	0.7nm,0.8s						
ZALV	Zalesovo Beam	29.51	337	P	P	05 46 45.5	-1.8
	0.3nm,0.3s,baz=140,slow=7.5,SNR=1.9						
	0.3nm,0.3s						
WRA	Warramunga Arr	55.96	145	P	P	05 50 21.4	-0.3
	0.2nm,0.3s,baz=316,slow=10.0,SNR=9.2						
	0.2nm,0.3s						
BRTR	Keskin Array B	58.25	301	LR	LR	06 17 32.6	
	comp=Z,21nm,18.3s,baz=313,slow=38						
ASAR	Alice Springs	58.90	148	P	P	05 50 42.7	+0.3
	0.3nm,0.5s,baz=319,slow=6.6,SNR=2.3						
	0.3nm,0.5s						
NWAO	Narrogin (SRO)	61.88	167	LR	LR	06 19 05.6	
	comp=Z,126nm,18.7s,baz=88,slow=37						

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*AEIC **29** 05:45:17.7±1.9,58°.87N±0°.01×133°.981W±0°.009, h14km±2km,Error ellipse: s-maj=1.9km s-min=0.7km az=177.0*

*PGC **29** 05:45:18.7±0.0,58°.85N×133°.96W,h9km,ML3.2/16, ML3.1(NEIC),65km northeast of Juneau, Alaska, Usa Southeastern Alaska*

*NEIC **29** 05:45:18.4±1.0,58°.849N±0°.008×133°.96W±0°.02, h10km±1km,ML3.2/90,ML3.1(AEIC),Error ellipse: s-maj=2.8km s-min=2.1km az=104.0*

*IDC **29** 05:45:21.7±1.6,59°.10N×133°.66W,h0km,mb2.7/2, mbtmp3.0/5,ML3.1/3,Error ellipse: s-maj=34.7km s-min=11.9km az=35.0*

ISC 29 05:45:18.8±0.7,58°.87N±0°.02×133°.96W±0°.02,h10km, n101,σ1s.29/127,Southeastern Alaska

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BESE	Bessie Mountai	0.55	239	P	Pg	05 45 28.5	-0.9
BESE				S	Sg	05 45 35.9	-0.8
BESE	Bessie Mountai	0.55	239		Pg	05 45 28.5	-0.9
BESE				Sg	Sg	05 45 36.1	-0.6
JIS	Juneau Island	0.63	201		Pg	05 45 29.9	-1.1
JIS					Sg	05 45 38.3	-1.0
R32K	Eaglecrest	0.66	206		Pg	05 45 30.5	-1.1
R32K				Sg	Sg	05 45 39.3	-0.9
P32M	Atlin	0.74	10	P	Pg	05 45 32.1	-0.9
P32M				S	Sg	05 45 42.4	-0.3
P32M	Atlin	0.74	10		Pg	05 45 32.1	-0.9
P32M				Sg	Sg	05 45 42.4	-0.3
Q32M	Nakina River	0.88	83	P	Pg	05 45 34.6	-1.3
Q32M				S	Sg	05 45 46.7	-0.7
Q32M	Nakina River	0.88	83		Pg	05 45 34.8	-1.0
Q32M				Sg	Sg	05 45 46.7	-0.7
SKAG	Skagway	0.92	311		Pg	05 45 35.5	-1.1
SKAG				Sg	Sg	05 45 48.0	-0.6
SKAG				IAML		05 45 52.6	
	comp=N,915nm,0.3s						
R31K	City Hall, Gus	1.03	245	P	Pg	05 45 38.0	-0.7
R31K	City Hall, Gus	1.03	245		Pg	05 45 37.0	-1.7
R31K					Sb	05 45 52.2	-0.2
PLBC	Pleasant Camp	1.37	297	P	Pn	05 45 43.7	-0.4
PLBC				S	Sg	05 46 02.4	-0.5
PLBC	Pleasant Camp	1.37	297		Pb	05 45 44.0	-0.5
PLBC					Sg	05 46 03.5	+0.5
S32K	Killisnoo	1.44	193		Pb	05 45 44.8	-0.9
S32K					Sn	05 46 03.1	-0.7
S32K				IAML		05 46 06.1	
	comp=E,207nm,0.4s						
P33M	Teslin, Yukon	1.47	23	P	Pn	05 45 45.3	-0.1
P33M				S	Sb	05 46 04.5	-0.5
P33M	Teslin, Yukon	1.47	23		Pb	05 45 45.6	-0.7
P33M					Sb	05 46 04.7	-0.4
S31K	Pelican	1.50	234		Pn	05 45 45.5	-0.3
S31K				Sg	Sb	05 46 05.7	-0.1
R33M	Jennings River	1.63	70	Pn	Pn	05 45 47.2	-0.5
R33M				Sn	Sn	05 46 08.2	-0.6
R33M	Jennings River	1.63	70		Pn	05 45 47.5	-0.3
R33M				Sn	Sb	05 46 09.0	-0.7
R33M				IAML		05 46 13.8	
	comp=E,161nm,0.2s						
R33M				IAML		05 46 14.8	
	comp=N,160nm,0.3s						
S34M	Telegraph Cree	1.77	121	Pn	Pn	05 45 49.1	-0.4
S34M				Sg	Sg	05 46 14.1	-1.5
S34M	Telegraph Cree	1.77	121		Pn	05 45 49.1	-0.4
S34M				Sn	Sn	05 46 11.5	-0.6
WHY	Whitehorse	1.86	346	Pn	Pn	05 45 50.9	+0.1
WHY				Sn	Sn	05 46 14.3	0.0
WHY				Sg	Sg	05 46 17.4	-1.1
WHY	Whitehorse	1.86	346	Pn	Pn	05 45 50.6	-0.2
WHY				Sn	Sn	05 46 14.4	0.0
WHY				IAML		05 46 21.1	
	comp=E,332nm,0.5s						
WHY				IAML		05 46 24.4	
	comp=N,307nm,0.7s						
SIT	Sitka	1.96	202	Pn	Pn	05 45 50.9	-1.1
SIT				IAML		05 46 20.5	
	comp=E,154nm,0.6s						
SIT				IAML		05 46 21.9	
	comp=N,157nm,0.6s						
P30M	Million Dollar	1.98	311	Pn	Pn	05 45 53.2	+0.7
P30M	Million Dollar	1.98	311		Pn	05 45 53.0	+0.6
P29M	Windy Craggy	2.09	293	Pn	Pn	05 45 54.3	+0.4
P29M	Windy Craggy	2.09	293		Pn	05 45 54.4	+0.6
P29M				IAML		05 46 26.8	
	comp=N,195nm,0.6s						
P29M				IAML		05 46 29.9	
	comp=E,201nm,0.8s						
DLBC	Dease Lake	2.10	100	Pn	Pb	05 45 55.8	-1.3
	comp=E,13nm,0.3s,baz=285,slow=12,SNR=159						
DLBC				Lg	Lg	05 46 24.4	
	comp=E,33nm,0.3s,baz=121,slow=17,SNR=9.9						
	comp=E,35nm,0.4s						
DLBC				AML	AML		
DLBC	Dease Lake	2.10	100	Pn	Pn	05 45 53.9	-0.2
DLBC				Sg	Sg	05 46 24.2	-2.1
DLBC	Dease Lake	2.10	100		Pb	05 45 54.9	-2.1
T33K	Petersburg	2.13	165	Sg	Sb	05 46 24.1	+0.3
T33K	Petersburg	2.13	165		Pn	05 45 53.7	-0.6
N32M	Quiet Lake	2.33	11	Pn	Pn	05 45 58.0	+0.7
N32M				Sg	Sb	05 46 31.0	+1.1
N32M	Quiet Lake	2.33	11		Pn	05 45 56.8	-0.5
WRAK	Wrangell Islan	2.60	160	Pn	Pn	05 46 00.3	-0.6
WRAK	Wrangell Islan	2.60	160		Pn	05 46 00.4	-0.5
WRAK				IAML		05 46 44.4	
	comp=E,138nm,0.4s						
WRAK				IAML		05 46 45.3	
	comp=E,173nm,0.4s						
HYT	Haines Junctio	2.66	319	Pn	Pn	05 46 01.3	-0.5
HYT				Sg	Sb	05 46 40.9	+1.6
HYT	Haines Junctio	2.66	319	Pn	Pn	05 46 01.9	+0.1
HYT				IAML		05 46 42.6	
	comp=E,114nm,0.8s						
HYT				IAML		05 46 43.2	
	comp=N,150nm,0.6s						
T35M	Bob Quinn	2.74	132		Pn	05 46 01.6	-1.2
T35M				IAML		05 46 46.0	
	comp=E,98nm,0.5s						
O29M	Mount Kennedy	2.75	304	Sg	Sg	05 46 44.6	-2.6
O29M	Mount Kennedy	2.75	304		Pn	05 46 02.3	-0.8
O29M				IAML		05 46 54.3	
	comp=N,68nm,0.7s						
O29M				IAML		05 46 58.4	
	comp=E,70nm,0.7s						
N31M	Braeburn, Yuko	2.78	342	Sg	Sg	05 46 46.0	-2.0
N31M	Braeburn, Yuko	2.78	342		Pn	05 46 03.0	-0.5
U33K	Whale Pass	2.80	170	Pn	Pn	05 46 03.2	-0.4
U33K				IAML		05 46 53.5	
	comp=E,54nm,0.8s						
PNL	Peninsula	2.90	288	Sg	Sg	05 46 48.9	-3.2
PNL	Peninsula	2.90	288		Pn	05 46 04.9	-0.2
WTLY	Watson Lake, Y	2.92	62	Pn	Pn	05 46 04.6	-0.7
YUK5	Granite Creek	3.00	321	Sg	Sg	05 46 51.9	-3.2
N30M	Aishikik Lake	3.04	330	Sg	Sg	05 46 53.0	-3.2
N30M	Aishikik Lake	3.04	330		Pn	05 46 07.7	+0.8
N30M				IAML		05 46 59.5	
	comp=N,94nm,0.6s						
N30M				IAML		05 47 00.1	
	comp=E,68nm,0.4s						
M31M	Drury Creek, Y	3.35	357	Sg	Sg	05 47 03.3	-3.1
M31M	Drury Creek, Y	3.35	357	Pn	Pn	05 46 11.1	-0.2
M31M				IAML		05 47 10.2	
	comp=N,78nm,0.7s						
M31M				IAML		05 47 10.5	
	comp=E,73nm,0.8s						
YUK4	Talbot Arm	3.42	319	Pn	Pn	05 46 12.5	+0.2
CRAG	Craig	3.44	172	Pn	Pn	05 46 12.2	-0.1
CRAG				IAML		05 47 10.9	
	comp=N,32nm,0.8s						
CRAG				IAML		05 47 17.6	
	comp=E,31nm,1.4s						
PCA	Pinnacle	3.44	294	Pn	Pn	05 46 11.5	-1.0
PCA				IAML		05 47 08.5	
	comp=N,68nm,1.5s						
PCA				IAML		05 47 28.1	
	comp=E,59nm,1.3s						
O28M	Mount Upton	3.68	304	Pn	Pn	05 46 14.3	-1.7
O28M				IAML		05 47 22.4	
	comp=N,26nm,0.8s						
V35K	Ketchikan	3.77	159	Pn	Pn	05 46 17.1	+0.2
V35K				IAML		05 47 19.1	
	comp=E,22nm,0.7s						
YUK8	Steele Glacier	3.79	312	Pn	Pn	05 46 17.1	-0.3
TABL	Table Mountain	3.97	296	Pn	Pn	05 46 18.9	-1.0
TABL				IAML		05 47 30.4	
	comp=N,22nm,1.1s						
MMPY	Sheldon Lake,	3.99	18	Pn	Pn	05 46 20.9	+0.8
MMPY	Sheldon Lake,	3.99	18	Pn	Pn	05 46 20.8	+0.8
MMPY				IAML		05 47 28.1	
	comp=E,50nm,0.4s						
MMPY				IAML		05 47 29.5	
	comp=N,41nm,0.7s						
LOGN	Logan Glacier	4.06	302	Pn	Pn	05 46 19.5	-1.6
LOGN				IAML		05 47 29.6	
	comp=E,19nm,1.5s						
M29M	Somme Creek	4.22	330		Pn	05 46 24.2	+1.0
YAH	Yahtse	4.23	294	Pn	Pn	05 46 23.7	+0.3
YAH				IAML		05 47 32.1	
	comp=N,25nm,1.3s						
MESA	MESA	4.28	291	Pn	Pn	05 46 23.4	-0.6
MESA				IAML		05 47 11.9	
	comp=E,44nm,0.2s						
GRNC	Granite Creek	4.36	299	Pn	Pn	05 46 24.7	-0.6
GRNC				IAML		05 47 07.4	
	comp=N,19nm,1.4s						
BARN	Barnard Glacie	4.45	303	Pn	Pn	05 46 25.2	-1.3
L29M	L29M	4.71	336		Pn	05 46 30.3	+0.4
WAX	Waxell Ridge	4.78	293	Pn	Pn	05 46 29.6	-1.3
TGL	Tana Glacier	4.86	297	Pn	Pn	05 46 30.8	-1.2
TGL				IAML		05 48 56.2	
	comp=E,14nm,1.5s						
TGL				IAML		05 49 41.4	
	comp=N,21nm,1.5s						
RUBB	Prince Rupert	4.99	154	Pn	Pn	05 46 33.6	-0.1
RUBB				IAML		05 48 00.7	
	comp=N,8.9nm,1.0s						
RUBB				IAML		05 48 02.9	
	comp=E,16nm,1.5s						
CRQM	Cirque	5.01	296	Pn	Pn	05 46 33.3	-0.8
CRQM				IAML		05 47 14.0	
	comp=E,23nm,0.1s						
MCARA	McCarthy VSAT	5.19	303	Pn	Pn	05 46 35.3	-1.1
MCARA				IAML		05 47 26.6	
	comp=N,19nm,1.4s						
M27K	Edge Creek, AK	5.24	315	Pn	Pn	05 46 37.0	-0.2
M27K				IAML		05 48 16.5	
	comp=E,22nm,1.1s						
K29M	Barlow Dome	5.28	343		Pn	05 46 38.6	+0.9
K29M				IAML		05 48 09.9	
	comp=N,16nm,0.8s						
K29M				IAML		05 48 13.8	
	comp=E,20nm,1.1s						
VRDI	Verde Repeater	5.31	301	Pn	Pn	05 46 37.8	-0.6
VRDI				IAML		05 47 56.5	
	comp=N,7.9nm,1.2s						
VRDI				IAML		05 48 46.8	
	comp=E,8.6nm,1.4s						
GLB	Gilahina Butte	5.55	302	Pn	Pn	05 46 40.8	-0.7
BCAR	Beaver Creek A	5.68	321	Pn	Pn	05 46 44.1	+0.9
M26K	Nabesna, AK	5.69	312	Pn	Pn	05 46 43.6	+0.3
BC01	Beaver Creek A	5.69	321		Pn	05 46 44.2	+0.9
L27K	Beaver Creek,	5.69	321	Pn	Pn	05 46 44.6	+1.2
DIB	Dawson Inlet,	5.74	171	Pn	Pn	05 46 44.7	+0.7
BMRM	Bremner River	5.75	296	Pn	Pn	05 46 44.7	+0.5
DAWY	Dawson	5.83	336		Pn	05 46 45.9	+0.7
J30M	Hart River	5.84	350		Pn	05 46 46.7	+1.2
MOBC	Moresby Island	5.84	168	Pn	Pn	05 46 45.4	-0.1
L26K	Log Cabin Wild	6.19	316	Pn	Pn	05 46 50.4	+0.2
K27K	Chicken	6.47	327		Pn	05 46 55.5	+1.4
I30M	Mount Dempster	6.48	351		Pn	05 46 55.8	+1.5
I28M	Miner Creek	7.17	340		Pn	05 47 04.0	+0.3
EPYK	Eagle Plains	7.64	352		Pn	05 47 10.6	+0.6
H29M	Whitestone	7.65	346		Pn	05 47 11.3	+1.1
J25K	Salcha River,	7.90	322		Pn	05 47 14.4	+0.8
G31M	Satah River	8.09	359		Pn	05 47 17.2	+1.0
ILAR	Eielson Array	8.50	320	Pn	Pn	05 47 24.6	+2.8
	comp=E,0.1nm,0.3s,baz=135,slow=12,SNR=6.0						
ILAR				Pg	Pg	05 47 54.1	-7.3
	comp=E,0.1nm,0.3s,baz=125,slow=16,SNR=5.5						
ILAR				Lg	Lg	05 49 43.4	
	comp=E,0.1nm,0.3s,baz=121,slow=26,SNR=7.4						
	comp=E,0.5nm,0.9s						
ILAR				AML	AML		
BM01	Burnt Mountain	9.83	336		Pn	05 47 41.4	+1.3
F26K	Sheenjek River	9.96	337		Pn	05 47 43.5	+1.6
YKA	Yellowknife Ar	10.15	61	Pn	Pn	05 47 44.4	0.0
	comp=E,0.1nm,0.3s,baz=260,slow=13,SNR=2.5						
	comp=E,0.6nm,0.5s						
YKA				AML	AML		

PDAR	Pinedale Array	22.11	126	P	P	05 50 20.2	+5.9
	comp=E,0.1nm,0.4s,baz=324,slow=7.9,SNR=1.9						
	comp=E,0.1nm,0.4s						
NVAR	Mina Array Bea	22.81	147	P	P	05 50 26.9	+5.1
	comp=E,0.2nm,0.5s,baz=331,slow=8.9,SNR=2.9						
	comp=E,0.2nm,0.5s						

IDC ***29*** *05:48:36.7±0.8, 33°.10S×178°.82W, h0^{km}, mb4.2/7, mbtmp4.2/7, MS4.0/18, Error ellipse: s-maj=30.3km s-min=23.6km az=84.0*

NEIC ***29*** *05:48:39.4±2.0, 33°.3S±0°.1×179°.0W±0°.2, h10^{km}±1^{km}, mb4.4/12, Error ellipse: s-maj=29.0km s-min=19.5km az=101.0*

WEL ***29*** *05:48:44.4±0.6, 34°S±5°×17°9W±1°1, h12^{km}, M4.8/19, mB5.3/8, ML4.8/21, MLv4.8/19, Mw(mB)4.7/8, Error ellipse: s-maj=14.6km s-min=4.4km az=110.6, confirmed*

ISC 29 05:48:38.2±0.6**, 33°.37S**±0°.06×**178°.9W**±0°.1**, h10^{km}, n93, σ1ˢ44**/78**, mb4.4**/15**, MS4.1**/17**, 3C, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GLKZ	Green Lake	4.18	12	P	Pn	05 49 34.9	-7.1
GLKZ				S	Sn	05 50 27.2	-3.7
RAO	Raoul Island	4.19	12	Pn	Pn	05 49 41.8	-0.4
MXZ	Matakaoa Point	4.76	208	P	Pn	05 49 46.8	-3.2
MXZ				S	Sn	05 50 41.3	-3.9
MXZ				AML	AML		
WMGZ	Waiomatatini S	4.94	205	P	Pn	05 49 50.8	-1.7
WMGZ				S	Sn	05 50 49.0	-0.7
WMGZ				AML	AML		
WMGZ				AML	AML		
PKGZ	Pakihiroa	5.11	208	P	Pn	05 49 53.6	-1.2
PKGZ				S	Sn	05 50 51.1	-2.8
PKGZ				AML	AML		
PKGZ				AML	AML		
HAZ	Te Kaha	5.14	211	P	Pn	05 49 53.9	-1.2
HAZ				S	Sn	05 50 54.5	+0.1
HAZ				AML	AML		
HAZ				AML	AML		
PUZ	Puketiti	5.22	205	P	Pn	05 49 53.5	-2.9
PUZ				AML	AML		
PUZ				AML	AML		
WIZ	White Island	5.22	216	P	Pn	05 49 56.5	+0.2
WIZ				AML	AML		
WIZ				AML	AML		
RUGZ	Raukumara Rang	5.36	210	P	Pn	05 49 57.1	-1.2
RUGZ				S	Sn	05 50 59.0	-1.2
RUGZ				AML	AML		
RUGZ				AML	AML		
TWGZ	Tauwhareparae	5.42	207	P	Pn	05 49 59.1	0.0
TWGZ				AML	AML		
TWGZ				AML	AML		
CNGZ	Carnagh Statio	5.61	204	P	Pn	05 50 01.9	+0.3
CNGZ				AML	AML		
CNGZ				AML	AML		
TKGZ	Te Karaka	5.70	206	P	Pn	05 50 01.9	-1.0
TKGZ				AML	AML		
TKGZ				AML	AML		
MWZ	Matawai	5.73	209	P	Pn	05 50 01.0	-2.4
MWZ				AML	AML		
MWZ				AML	AML		
URZ	Urewera	5.85	212	Pn	Pn	05 50 04.0	-0.9
	17nm,0.3s,baz=237,slow=2.6,SNR=33						
URZ				Sn	Sn	05 51 10.1	-1.9
	24nm,0.3s,baz=147,slow=20,SNR=7.8						
URZ	Urewera	5.85	212	P	Pn	05 50 04.2	-0.7
URZ				AML	AML		
URZ				AML	AML		
RAGZ	Rawiri	5.92	209	P	Pn	05 50 05.2	-0.7
RAGZ				AML	AML		
RAGZ				AML	AML		
RIGZ	Rimuhau	5.97	206	P	Pn	05 50 04.8	-1.8
RIGZ				AML	AML		
RIGZ				AML	AML		
MKAZ	Moumakai	6.11	231	P	Pn	05 50 14.6	+6.1
WCZ	Waipu Caves	6.11	243	P	Pn	05 50 15.0	+6.4
WCZ				AML	AML		
PRGZ	Paritu Road	6.12	204	P	Pn	05 50 07.6	-1.0
PRGZ				AML	AML		
PRGZ				AML	AML		
MUGZ	Murupara	6.18	213	P	Pn	05 50 08.4	-1.1
MUGZ				AML	AML		
MUGZ				AML	AML		
RTZ	Ruatahuna	6.20	211	P	Pn	05 50 08.8	-1.0
RTZ				AML	AML		
RTZ				AML	AML		
TOZ	Tahuroa Road	6.29	225	P	Pn	05 50 12.7	+1.6
TOZ				AML	AML		
MHGZ	Mahia Peninsul	6.32	203	P	Pn	05 50 09.3	-2.0
MHGZ				AML	AML		
MHGZ				AML	AML		
RAHZ	Arahi	6.41	209	P	Pn	05 50 11.9	-0.7
RAHZ				AML	AML		
RAHZ				AML	AML		
MTHZ	Maungataniwha	6.46	211	P	Pn	05 50 13.4	+0.1
MTHZ				AML	AML		
MTHZ				AML	AML		
OUZ	Omahuta	6.46	251	P	Pn	05 50 14.7	+1.3
OUZ				AML	AML		
WHHZ	Waihua	6.49	208	P	Pn	05 50 12.9	-0.8
WHHZ				S	Sn	05 51 26.0	-1.8
WHHZ				AML	AML		
WHHZ				AML	AML		
MRHZ	Matea Rd	6.63	213	P	Pn	05 50 14.3	-1.4
MRHZ				AML	AML		
MRHZ				AML	AML		
NMHZ	Naumai	6.68	210	P	Pn	05 50 15.7	-0.7
NMHZ				AML	AML		
NMHZ				AML	AML		
ARHZ	Aropaoanui	6.74	208	P	Pn	05 50 15.8	-1.4
ARHZ				AML	AML		
ARHZ				AML	AML		
BKZ	Black Stump Fm	6.87	211	P	Pn	05 50 17.5	-1.5
KAHZ	Kahuranaki	7.25	207	P	Pn	05 50 21.7	-2.5
KRHZ	Kereru	7.32	210	P	Pn	05 50 22.4	-2.7
BHHZ	Black Hill Sta	7.32	212	P	Pn	05 50 24.1	-1.2
MOVZ	Moawhango	7.40	214	P	Pn	05 50 25.2	-1.1
VRZ	Vera Road	7.68	220	P	Pn	05 50 32.3	+2.2
CTZ	Chatham Island	10.51	171	P	Pn	05 51 08.0	-0.8
MSVF	Nonsavu	15.81	349	LR	LR	05 57 18.1	
	comp=Z,411nm,21.2s,baz=158,slow=34						
RAR	Rarotonga	20.84	59	LR	LR	06 01 24.4	
	comp=Z,93nm,18.5s,baz=265,slow=37						
EIDS	Eidsvold	27.26	279	P	P	05 54 21.3	-1.4
EIDS				IAmb	IAmb	05 54 26.8	
	comp=Z,11nm,0.8s						
PPT2	Papeete2	30.66	66	*e*LR	LR	06 02 07.6	
	comp=Z,192nm,30.2s						
PPT2				*e*LR	LR	06 02 18.4	
	comp=Z,153nm,22.2s						
PPT	Papeete	30.67	66	LR	LR	06 07 18.2	
	comp=Z,161nm,18.4s,baz=240,slow=37						
STKA	Stephens Creek	33.16	262	P	P	05 55 15.2	+0.3
	comp=Z,2.2nm,0.7s,baz=142,slow=11,SNR=3.3						
STKA				LR	LR	06 08 19.9	
	comp=Z,720nm,18.2s,baz=49,slow=36						
	comp=Z,2.2nm,0.7s						
CTA	Charters Tower	33.63	284	LR	LR	06 07 12.5	
	comp=Z,146nm,21.6s,baz=87,slow=33						
BBOO	Buckleboo	37.50	258	P	P	05 55 52.1	-0.1
PMG	Port Moresby	39.28	300	LR	LR	06 10 27.7	
	comp=Z,326nm,19.5s,baz=148,slow=33						
AS31	Alice Springs	42.26	271		P	05 56 31.7	-0.3
ASAR	Alice Springs	42.26	271	P	P	05 56 32.9	+0.9
	comp=Z,5.7nm,0.7s,baz=112,slow=7.4,SNR=63						
ASAR				S	S	06 02 49.9	-2.8
	comp=Z,0.6nm,1.0s,baz=114,slow=12,SNR=5.3						
ASAR				LR	LR	06 13 47.4	
	comp=Z,215nm,18.7s,baz=110,slow=36						
	comp=Z,5.7nm,0.7s						
ASAR	Alice Springs	42.26	271	P	P	05 56 30.9	-1.1
TAOE	Nuku Hiva Isla	43.24	65	*e*LR	LR	06 08 11.4	
	comp=Z,102nm,23.4s						
WR8	Warramunga Arr	43.38	276	P	P	05 56 41.6	+0.6
WR8				IAmb	IAmb	05 56 42.2	
	comp=Z,8.4nm,0.9s						
WRA	Warramunga Arr	43.52	276	P	P	05 56 42.7	+0.5
	comp=Z,8.1nm,0.7s,baz=117,slow=8.0,SNR=88						
WRA				LR	LR	06 14 10.5	
	comp=Z,224nm,19.9s,baz=90,slow=35						
	comp=Z,8.1nm,0.7s						
WRA	Warramunga Arr	43.52	276		P	05 56 42.0	-0.1
WB0	Warramunga Arr	43.56	276		P	05 56 43.3	+0.8
FORT	Forrest	44.60	258	P	P	05 56 50.3	-0.4
FORT				IAmb	IAmb	05 56 58.2	
	comp=Z,4.3nm,0.8s						
VNDA	Vanda	45.07	186	P	P	05 56 56.2	+2.4
	comp=Z,0.4nm,0.8s,baz=10,slow=7.8,SNR=5.8						
VNDA				LR	LR	06 13 21.3	
	comp=Z,80nm,19.1s,baz=15,slow=33						
	comp=Z,0.4nm,0.8s						
VNDA	Vanda	45.07	186	P	P	05 56 55.0	+1.1
KNRA	Kununurra	50.23	277	P	P	05 57 34.8	+0.2
KNRA				IAmb	IAmb	05 57 43.5	
	comp=Z,4.7nm,1.1s						
FITZ	Fitzroy Crossi	51.64	273	LR	LR	06 19 43.3	
	comp=Z,515nm,18.1s,baz=158,slow=36						
FITZ	Fitzroy Crossi	51.64	273	P	P	05 57 46.0	+0.7
FITZ				IAmb	IAmb	05 57 53.2	
	comp=Z,2.7nm,1.3s						
CASY	Casey	52.16	209	P	P	05 57 48.8	+0.3
QSPA	South Pole Qui	56.75	180	P	P	05 58 23.6	+1.5
	comp=Z,2.2nm,1.0s,baz=55,slow=1.5,SNR=6.9						
	comp=Z,2.2nm,1.0s						
QSPA	South Pole Qui	56.75	180	P	P	05 58 24.0	+2.0
QSPA				IAmb	IAmb	05 58 50.1	
	comp=Z,5.2nm,0.8s						
SIJI	Sorong	56.76	294	LR	LR	06 21 48.6	
	comp=Z,330nm,19.7s,baz=172,slow=35						
RPN	Rapa Nui	59.44	104	LR	LR	06 20 41.9	
	comp=Z,90nm,18.1s,baz=194,slow=32						
KAPI	Kappang	63.41	282	LR	LR	06 27 30.9	
	comp=Z,188nm,18.1s,baz=44,slow=37						
MAW	Mawson	69.26	201	P	P	05 59 47.6	+2.6
	comp=Z,0.9nm,0.4s,baz=127,slow=6.7,SNR=9.1						
	comp=Z,0.9nm,0.4s						
TROLL	Troll, Antarti	74.91	180	P	P	06 00 25.3	+6.4
	comp=Z,98nm,0.3s						
VNA3	Neumayer Olymp	75.40	176	⇑P	P	06 00 30.3	+8.7
	comp=Z,5.5nm,0.7s						
VNA2	Neumayer--Watz	75.83	177	⇑P	P	06 00 32.9	+8.9
	comp=Z,9.3nm,0.6s,baz=177,slow=5.1						
VNA1	Neumayer--Stat	76.06	177	⇑P	P	06 00 34.4	+9.1
	comp=Z,6.9nm,0.8s						
PETK	Petropavlovsk-	88.49	346	P	P	06 01 30.5	+0.2
	comp=Z,4.5nm,0.8s,baz=140,slow=9.2,SNR=3.0						
PETK				LR	LR	06 37 12.1	
	comp=Z,76nm,19.1s,baz=143,slow=33						
	comp=Z,4.5nm,0.8s						
PETK	Petropavlovsk-	88.49	346	P	P	06 01 31.2	+0.9
ELK	Elko	94.25	43	LR	LR	06 40 05.5	
	comp=Z,71nm,18.3s,baz=180,slow=33						
MA2	Magadan	95.94	345	LR	LR	06 41 10.5	
	comp=Z,46nm,19.9s,baz=163,slow=33						
LPAZ	La Paz	97.62	115	LR	LR	06 38 22.1	
	comp=Z,28nm,19.2s,baz=334,slow=31						
CPUP	Villa Florida	98.74	129	LR	LR	06 42 26.4	
	comp=Z,55nm,19.3s,baz=249,slow=33						
MKAR	Makanchi Array	119.05	309	PKP	PKPdf	06 07 25.4	-1.5
	comp=Z,0.5nm,0.6s,baz=186,slow=3.7,SNR=4.2						
KURBB	Kurchatov Arra	122.54	312	PKP	PKPdf	06 07 32.2	-1.2
	comp=Z,0.8nm,0.4s,baz=116,slow=1.4,SNR=6.7						
BVAR	Borovoye Array	127.94	314	PKP	PKPdf	06 07 43.9	+0.1
	comp=Z,1.3nm,0.5s,baz=129,slow=1.5,SNR=4.9						
ARCES	ARCESS Array B	141.30	347	PKP	PKPdf	06 08 07.9	-0.3
	comp=Z,0.5nm,0.6s,baz=29,slow=2.8,SNR=3.6						
GEVA	Gevas	145.83	290	PKPdf	PKPdf	06 08 17.0	-0.3
KIV	Kislovodsk	146.16	301	PKPdf	PKPdf	06 08 18.0	+0.4
FIA1	FINESS Array S	147.62	338	PKPdf	PKPdf	06 08 20.6	+1.3
FINES	FINESS Array B	147.62	338	PKPbc	PKPdf	06 08 21.6	+2.3
	comp=Z,3.2nm,0.5s,baz=43,slow=3.5,SNR=34						
FINES	FINESS Array B	147.62	338	PKPdf	PKPdf	06 08 20.8	+1.4
MMAI	Mount Meron Ar	151.35	279	PKPbc	PKPbc	06 08 32.9	+0.6
	comp=Z,3.2nm,0.5s,baz=49,slow=10,SNR=6.0						
NB2	NORSAR Subarra	151.54	350	PKP	PKPbc	06 08 31.4	-0.4
	comp=Z,1.1nm,0.6s,baz=15,slow=2.5						
NOA	NORSAR Array B	151.54	350	PKPbc	PKPbc	06 08 31.5	-0.4
	comp=Z,1.3nm,0.6s,baz=14,slow=4.1,SNR=9.5						
HFS	Hagfors	151.97	347	PKPbc	PKPbc	06 08 32.2	-0.6
	comp=Z,1.9nm,0.7s,baz=219,slow=1.9,SNR=5.8						
AKASG	Malin Array Be	153.09	318	PKPbc	PKPbc	06 08 35.1	-0.4
	comp=Z,1.7nm,0.8s,baz=70,slow=2.1,SNR=5.8						
BRTR	Keskin Array B	153.18	293	PKPbc	PKPbc	06 08 35.6	-0.7
	comp=Z,2.3nm,0.8s,baz=127,slow=3.3,SNR=12						

JMA ***29*** *06:11:03.5±0.1, 23°.8N±0°.4×122°.0E±0°.5, h32^{km}±2^{km}, MV2.9/14, TAIWAN REGION*

TAP ***29*** *06:11:04.2, 23°.81N×121°.93E, h38^{km}, ML3.8, C*

ISC 29 06:11:02.2±1.0**, 23°.75N**±0°.02×**122°.02E**±0°.02**, h28^{km}**±9^{km}**, n153, σ0ˢ93**/250**, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TEYL	Yanliau Villag	0.40	286	*i* P	Pn	06 11 12.2	+0.1
TEYL				S	Sn	06 11 18.2	-0.5
SHUL	Shoufeng	0.42	275	*i* P	Pn	06 11 12.5	+0.2
SHUL				S	Sn	06 11 19.1	-0.1
HWA	Hwalien	0.44	300	P	Pn	06 11 12.5	-0.1
HWA				S	Sb	06 11 18.8	+0.8
TEGC	Jichi Village	0.44	264	P	Pn	06 11 13.0	+0.3
TEGC				S	Sn	06 11 20.0	+0.3
EOS4	EOS4	0.46	37	P	Pn	06 11 13.8	+1.3
EOS4				S	Sn	06 11 21.1	+1.6
TWD	Chiawan	0.51	310	P	Pn	06 11 13.0	-0.5
TWD				S	Sb	06 11 20.0	+0.2
ETM	Tongmen	0.53	294	*i* P	Pb	06 11 13.3	+0.3
ETM				S	Sb	06 11 20.2	-0.2
ESL	Shilin	0.54	276	*i* P	Pn	06 11 13.6	-0.4
ESL				S	Sb	06 11 20.5	-0.2
ETL	Fush Village	0.54	318	P	Pb	06 11 13.6	+0.3
ETL				S	Sb	06 11 20.8	0.0
NACB	Ninganchiao	0.57	317	P	Pb	06 11 13.4	-0.3
NACB	Ninganchiao	0.57	317	S	Sb	06 11 21.1	-0.4
NACB	Ninganchiao	0.57	317	*i* P	Pb	06 11 13.8	+0.1
NACB				S	Sb	06 11 21.2	-0.4
WARBT	Fenglin Townsh	0.58	267	*i* P	Pn	06 11 14.2	-0.3
WARBT				S	Sb	06 11 22.0	+0.1
EOS3	EOS3	0.59	27	P	Pn	06 11 15.9	+1.3
EOS3				S	Sn	06 11 24.8	+1.5
HGSD	Ruisui	0.61	245	P	Pn	06 11 15.3	+0.4
EHP	Heping Village	0.61	335	P	Pb	06 11 13.1	-1.2
EHP				S	Sb	06 11 23.1	+0.5
EAHA	Aohua	0.63	336	P	Pn	06 11 15.0	-0.2
EAHA				S	Sb	06 11 23.0	-0.1
ETLH	Xiulin Townshi	0.67	313	P	Pb	06 11 15.3	-0.1
ETLH				S	Sb	06 11 24.2	-0.2
EHYH	Wanrong	0.67	247	P	Pn	06 11 16.2	+0.4
EHYH				S	Sn	06 11 25.2	-0.2
ECBN	Changbin	0.68	230	P	Pn	06 11 16.1	+0.2
ECBN				S	Sn	06 11 25.7	+0.1
EHY	Hungye	0.69	249	P	Pn	06 11 16.2	+0.2
EOS2	EOS2	0.69	16	*e*P	Pn	06 11 17.4	+1.5
EOS2				*e*S	Sn	06 11 24.9	-0.7
ENA	Nanau	0.72	339	*e*P	Pb	06 11 13.9	-2.2
ENA				*e*S	Sb	06 11 23.2	-2.5
EWUT	Wuta	0.72	342	P	Pn	06 11 16.6	+0.1
EWUT				S	Sb	06 11 26.1	+0.3
YULB	Yu-li	0.76	242	P	Pn	06 11 17.1	+0.1
YULB	Yu-li	0.76	242	*i* P	Pn	06 11 17.3	+0.3
YULB				S	Sb	06 11 27.0	+0.2
EYUL	Yuli	0.76	238	P	Pn	06 11 17.9	+0.8
EYUL				*e*S	Sn	06 11 28.4	+0.8
TWF1	Yuli	0.78	239	P	Pn	06 11 17.8	+0.6
TWF1				S	Sn	06 11 28.3	+0.4
WHF	Hehuan Shan	0.79	300	P	Pb	06 11 17.5	-0.2
WHF				*e*S	Sb	06 11 27.4	-0.8
OWD	Renai	0.80	285	P	Pn	06 11 17.7	+0.1
OWD				S	Sb	06 11 27.4	-0.8
CHKH	Chenggong	0.80	226	P	Pn	06 11 17.7	+0.1
CHKH				S	Sb	06 11 27.6	-0.5
VWDT	VWDT	0.81	270	*i* P	Pn	06 11 18.1	+0.4
VWDT				S	Sb	06 11 27.6	-0.5
ESAO	Su ao	0.83	349	S	Sn	06 11 29.4	0.0
WUSB	Renai	0.86	286	P	Pn	06 11 18.8	+0.3
WUSB				*e*S	Sb	06 11 29.0	-0.9
FUSS	Fushou	0.86	305	P	Pb	06 11 18.7	-0.1
FUSS				S	Sb	06 11 29.2	-0.8
TWC	Suao	0.86	350	*i* P	Pn	06 11 19.2	+0.7
TWC				S	Sn	06 11 30.3	+0.2
FULB	Fuli	0.87	230	*e*P	Pn	06 11 19.0	+0.5
FULB				S	Sn	06 11 30.3	0.0
CHKT	Chengkung	0.89	223	*i* P	Pn	06 11 18.8	0.0
CHKT				S	Sb	06 11 29.5	-0.9
NNSH	Datong	0.89	319	P	Pb	06 11 18.9	-0.2
NNSH				S	Sb	06 11 29.6	-1.0
NNSB	Datong	0.89	319	*i* P	Pb	06 11 18.9	-0.2
NNSB				S	Sb	06 11 29.7	-1.0
LATG	Datong	0.90	330	P	Pb	06 11 19.1	-0.2
LATG				S	Sb	06 11 29.8	-1.1
NNS	Nan Shan	0.90	319	P	Pn	06 11 19.3	+0.2
NNS				S	Sb	06 11 30.3	-0.8
NDS	Dongshan	0.92	342	P	Pn	06 11 19.8	+0.6
NDS				S	Sb	06 11 30.9	-0.5
TWT	Tachien	0.92	303	*e*P	Pn	06 11 19.9	+0.5
TWT				S	Sb	06 11 31.0	-0.5
TDCB	Techi	0.93	302	*i* P	Pn	06 11 19.9	+0.3
TDCB				*e*S	Sb	06 11 30.9	-1.0
ENTT	Nioudou	0.97	335	P	Pn	06 11 20.4	+0.4
ENTT				S	Sb	06 11 32.7	-0.3
SSLB	Suanglung	0.98	272	P	Pn	06 11 21.0	+0.9
SSLB	Suanglung	0.98	272	S	Sb	06 11 33.3	+0.2
SSLB	Suanglung	0.98	272	*e*P	Pn	06 11 20.4	+0.3
ECS	Chishang	0.99	228	S	Sn	06 11 34.4	+1.3
TWE	Neicheng	1.01	342	P	Pb	06 11 21.4	+0.3
TWE				S	Sb	06 11 33.8	-0.3
YUS	Yu-Shan	1.01	255	P	Pn	06 11 22.0	+1.0
EDH	Donghe	1.02	220	P	Pn	06 11 20.8	+0.2
EDH				*i* S	Sb	06 11 33.0	-1.2
SMLT	Sun Moon Lake	1.03	277	P	Pb	06 11 21.5	0.0
SMLT				S	Sb	06 11 33.8	-1.0
ILA	Ilan	1.04	346	S	Sn	06 11 35.4	+0.9
DPDB	Guoxing	1.04	286	*e*P	Pb	06 11 21.7	+0.1
WCS	Beigang Elemen	1.06	287	*e*P	Pb	06 11 21.8	-0.1
WHYT	Xinyi Township	1.07	267	*e*P	Pb	06 11 22.3	+0.2
WHYT				*e*S	Sb	06 11 35.0	-0.7
FUSB	Fushanzhiwuyua	1.08	339	P	Pb	06 11 22.2	0.0
FUSB				S	Sb	06 11 35.3	-0.7
TYC	Yuchr	1.08	278	*e*P	Pb	06 11 22.0	-0.2
ELDTW	Lidau	1.08	239	P	Pb	06 11 21.8	-0.5
ELDTW				*e*S	Sb	06 11 34.8	-1.3
YHNB	Yeheng	1.08	327	P	Pn	06 11 21.8	+0.2
YHNB	Yeheng	1.08	327	S	Sb	06 11 34.9	-1.3
YHNB	Yeheng	1.08	327	P	Pb	06 11 22.0	-0.4
YHNB				S	Sb	06 11 34.5	-1.7
EGS		1.09	356	*e*P	Pb	06 11 22.9	+0.5
EGS				S	Sn	06 11 36.7	+1.0
JYNG	Yonagunijimaku	1.09	50	P	Pb	06 11 23.6	+1.1
JYNG				*e*S	Sn	06 11 37.7	+1.9
NSK	Sanguang	1.10	327	P	Pn	06 11 22.1	+0.3
NSK				*e*S	Sb	06 11 35.0	-1.6
WHP	Taichung City	1.11	298	*e*S	Sb	06 11 36.0	-1.0
NWLT	Wulai	1.12	335	S	Sb	06 11 36.2	-1.0
ALS	Alishan	1.14	258	*i* P	Pb	06 11 23.8	+0.3
ALS				S	Sb	06 11 37.6	-0.4
YOJ	Yonaguni jima	1.15	52	P	Pb	06 11 24.3	+0.9
YOJ	Yonaguni jima	1.15	52	S	Sn	06 11 39.2	+2.1
YOJ	Yonaguni jima	1.15	52	*e*P	Pb	06 11 24.6	+1.2
YOJ				S	Sn	06 11 39.4	+2.3
YOJ	Yonaguni jima	1.15	52	*e*P	Pb	06 11 24.2	+0.9
YOJ				*e*S	Sn	06 11 38.8	+1.7
LONT	Longtian	1.18	224	*e*P	Pb	06 11 23.6	-0.2
LONT				*e*S	Sn	06 11 38.2	+0.4
NFF	Wufeng Townshi	1.20	317	*e*P	Pb	06 11 24.4	+0.1
NFF				*i* S	Sn	06 11 38.8	+0.2
TIPB	Shuangxi	1.23	352	*i* P	Pb	06 11 25.0	+0.3
TIPB				*i* S	Sb	06 11 40.0	-0.1
WNT	Mingjian	1.23	276	*e*P	Pb	06 11 26.1	+1.3
WNT				*e*S	Sb	06 11 40.8	+0.5
CHN5	Tsauling	1.24	263	*e*P	Pb	06 11 25.8	+0.8
TWB1	Santiao Chiao	1.25	359	P	Pb	06 11 25.0	-0.1
TWB1				*e*S	Sn	06 11 40.0	+0.4
TWGBT	Beinan	1.27	223	P	Pb	06 11 27.7	+2.2
TWGBT	Beinan	1.27	223	*e*S	Sn	06 11 39.6	-0.7
TWG	Pinlang	1.27	223	*e*P	Pb	06 11 24.6	-0.9
TWG				S	Sb	06 11 40.9	-0.6
KSHI	Guanxi Townshi	1.28	323	*i* P	Pb	06 11 26.0	+0.4
KSHI				*e*S	Sb	06 11 41.8	+0.2
LIOB	Emei	1.28	314	*i* P	Pb	06 11 25.9	+0.4
LIOB				*e*S	Sn	06 11 41.2	+0.8
NSTT	Nanjuang	1.28	313	*e*P	Pb	06 11 25.8	+0.2
NSTT				*i* S	Sn	06 11 40.6	+0.3
TTN	Taitung	1.28	219	*e*S	Sb	06 11 41.9	+0.2
STYH	Taoyuan	1.28	243	*e*P	Pb	06 11 25.8	+0.2
STYH				S	Sb	06 11 41.9	+0.1
TWA	Mucha	1.28	342	*i* P	Pb	06 11 25.9	+0.2
TWA				*i* S	Sn	06 11 41.4	+0.9
TWQ1	Liyutan	1.28	298	*i* P	Pb	06 11 26.1	+0.4
TWQ1				*i* S	Sb	06 11 41.8	0.0
NHDH	Xindian Distri	1.28	340	*e*P	Pb	06 11 25.8	+0.1
TCU	Taichung	1.29	288	*e*P	Pb	06 11 26.4	+0.6
TCU				S	Sb	06 11 43.3	+1.3
TATO	Taipei	1.31	338	P	Pb	06 11 25.7	-0.4
TATO	Taipei	1.31	338	S	Sn	06 11 41.4	+0.3
WFSB	Wu-fen Shan	1.33	351	*i* P	Pb	06 11 27.0	+0.5
WFSB				*i* S	Sb	06 11 43.1	0.0
WCKO	Fanlu	1.34	257	*e*S	Sb	06 11 44.8	+1.4
WGK	Gukeng	1.34	267	*e*S	Sb	06 11 43.5	+0.1
SXI1	Grass Mountain	1.34	354	*i* P	Pb	06 11 26.8	+0.1
SXI1				*e*S	Sb	06 11 43.5	0.0
TPUB	Ta-pu	1.35	251	P	Pb	06 11 27.7	+0.8
TPUB	Ta-pu	1.35	251	S	Sb	06 11 45.1	+1.3
TPUB	Ta-pu	1.35	251	*e*P	Pb	06 11 27.9	+1.0
TPUB				*e*S	Sb	06 11 44.9	+1.0
WDLH	Douliu	1.36	268	*e*P	Pb	06 11 28.1	+1.1
WDLH				S	Sb	06 11 44.5	+0.5
NMLH	Miaoli	1.37	305	*e*P	Pb	06 11 27.4	+0.3
CHN4	Tsaushan	1.37	253	*e*P	Pb	06 11 28.7	+1.5
CHN4				*e*S	Sb	06 11 45.3	+1.0
WCHH	Zhanghua	1.38	284	*e*P	Pb	06 11 27.7	+0.5
WCHH				*e*S	Sb	06 11 44.8	+0.4
WCH1	Changhua City	1.39	283	*e*S	Sb	06 11 46.2	+1.5
SBCB	Hsinchu	1.40	318	*e*S	Sb	06 11 45.6	+0.5
TNOU	National Taiwa	1.41	351	P	Pb	06 11 27.8	-0.1
TNOU				*e*S	Sn	06 11 44.4	+0.8
HSN	Hsinchu	1.42	318	*e*S	Sb	06 11 45.6	0.0
NCUH	Zhongli	1.43	328	*e*P	Pb	06 11 27.1	-1.0
NCUH				S	Sn	06 11 45.4	+1.3
YM01	YM01	1.45	344	*e*P	Pb	06 11 27.8	-0.7
YM01				*i* S	Sn	06 11 45.5	+0.9
TWS1	Kuangyinshan	1.45	338	*i* P	Pb	06 11 27.9	-0.6
TWS1				*i* S	Sn	06 11 45.8	+1.2
ZUZH	Zhuzihu	1.47	343	*i* P	Pb	06 11 27.7	-1.2
ZUZH				S	Sn	06 11 45.5	+0.4
SGST	Jiashian	1.48	243	*e*P	Pb	06 11 29.1	0.0
SGST				*i* S	Sb	06 11 48.1	+0.6
YM08	YM08	1.48	345	*e*P	Pb	06 11 27.9	-1.1
CHN1	Nanshi	1.48	248	*e*P	Pb	06 11 29.9	+0.8
CHN1				S	Sb	06 11 48.6	+1.1
CHY	Chiayi	1.49	260	*e*S	Sb	06 11 47.7	+0.1
TWK	Hsinying	1.49	251	*e*P	Pb	06 11 30.4	+1.2
TWK				*e*S	Sb	06 11 48.5	+0.7
ANP	Anpu	1.50	342	*e*P	Pb	06 11 28.7	-0.6
NTST	Danshui	1.50	340	*e*S	Sb	06 11 47.4	-0.5
WTK	Tuku	1.50	268	*e*P	Pb	06 11 29.8	+0.5
WTK				*e*S	Sb	06 11 48.6	+0.7
WRL	Guolierlin Hig	1.51	276	*e*P	Pb	06 11 29.9	+0.3
WRL				*i* S	Sb	06 11 48.1	-0.2
RLNB	Erlin	1.53	275	*e*S	Sb	06 11 49.1	+0.3
TWY	Chenhua	1.56	346	*e*S	Sb	06 11 49.0	-0.8
SSD	Sandimen	1.62	232	*e*P	Pb	06 11 32.2	+0.8
ICHU	Yijhu	1.65	257	*e*S	Sb	06 11 52.6	+0.4
SCST	Cishan	1.65	239	*e*P	Pb	06 11 33.3	+1.5
SCST				*i* S	Sb	06 11 54.5	+2.2
WSF	Szhu	1.65	266	*e*S	Sb	06 11 53.1	+0.8
WSL	Shuilin Townsh	1.66	262	*e*S	Sn	06 11 51.6	+1.8
HATJ	Hateruma jima	1.66	79	*e*P	Pb	06 11 31.6	-0.5
HATJ				*e*S	Sb	06 11 52.0	-0.6
IRIF	Iriomote-Funau	1.67	69	*e*P	Pb	06 11 31.7	-0.5
IRIF				*e*S	Sb	06 11 52.8	0.0
MASBT	Mashibuluo	1.71	229	*e*P	Pb	06 11 32.8	-0.2
MASBT				*e*S	Sn	06 11 52.4	+1.4
LAY	Lan-yu	1.76	194	P	Pn	06 11 31.3	+0.4
LAY				*e*S	Sn	06 11 50.7	-1.6
LYUB	Lan-yu	1.79	193	*e*P	Pn	06 11 31.0	-0.2
LYUB				*e*S	Sn	06 11 52.3	-0.7
PCYT	Pengchaiyu	1.87	1	*e*P	Pb	06 11 34.6	-1.0
TSCK	Chigu Township	1.88	252	*e*S	Sb	06 11 57.5	-1.3
JKRS	Kuro-shima	1.88	75	*e*S	Sb	06 11 58.3	-0.6
SCZT	Fangliau	1.89	223	*e*P	Pb	06 11 35.0	-1.0
SCZT				*e*S	Sn	06 11 56.9	+1.5
SLIU	Shizi	1.90	217	*e*P	Pb	06 11 34.1	-2.1

JIJ	Ishigaki jima	2.03	72	*e*P	Pb	06 11 36.5	-2.0
JIJ				*e*S	Sb	06 12 00.4	-2.9
SMST	Manzhou Townsh	2.04	213	*e*S	Sn	06 11 59.4	+0.2
TSEB	Hengchuen, Pin	2.12	209	*e*S	Sb	06 12 03.1	-2.6
TWKBT	Hengchun	2.12	212	*e*S	Sn	06 12 02.0	+0.9
WDGT	Dungji	2.22	258	*e*S	Sn	06 12 04.2	+0.6
JISG	Ishigakijimahi	2.25	68	*e*P	Pb	06 11 39.8	-2.3
PHUB	P'eng-hu	2.26	264	*e*P	Pn	06 11 39.2	+1.6
PHUB				*e*S	Sn	06 12 04.8	+0.2
PNG	Penghu	2.27	266	*e*S	Sn	06 12 05.1	+0.3
VWUC	VWUC	2.65	298	*i* P	Pn	06 11 43.2	+0.2
VWUC				*i* S	Sn	06 12 12.0	-2.2
PTMZ	Houxiangcun	2.94	296	*e*P	Pn	06 11 47.3	+0.3
PTMZ				*e*S	Sn	06 12 18.8	-2.5
MATB	Ma-tsu	3.04	322	*i* P	Pn	06 11 48.6	+0.3
MATB				*e*S	Sn	06 12 22.5	-1.4
KNMB	Chin-men Tao	3.39	283	*e*P	Pn	06 11 53.7	+0.4
KNMB				*i* S	Sn	06 12 30.1	-2.4
AXDP	Jialang	3.87	288	*e*P	Pn	06 12 00.3	+0.5
AXDP				*e*S	Sn	06 12 41.8	-2.5
ZPLA	Ao Xicun	3.91	273	*e*P	Pn	06 12 01.3	+0.9
ZPLA				*e*S	Sn	06 12 43.4	-2.0

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*MAN **29** 06:14:42.0, 9°.32N×127°.64E, h27^{km}, MS4.5*
*IDC **29** 06:14:47.6±0.7, 9°.21N×126°.62E, h0^{km}, mb4.1/15, mbtmp4.2/16, ML4.2/1, MS3.7/10, Error ellipse: s-maj=29.8km s-min=14.1km az=80.0*
*NEIC **29** 06:14:49.1±1.2, 9°.18N±0°.07×126°.8E±0°.1, h10^{km}±1^{km}, mb4.6/34, Error ellipse: s-maj=16.8km s-min=11.5km az=84.0*
ISC 29 06:14:48.4±1.6, **9°.21N**±0°.04×**126°.75E**±0°.06, **h9**^{km}±9^{km}, **n88**, σ1^{s}.**12**/95, **mb4.6**/31, **MS3.7**/8, **Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BIPH	Bislig	1.08	201	*e*P	Pn	06 15 13.2	+3.4
BIPH				*e*S	Sn	06 15 26.7	+1.8
CDOP	Cateel, Davao	1.44	192	*i* P	Pg	06 15 16.6	+0.5
CDOP				*i* S	Sg	06 15 33.9	-1.0
BUKP	Musuan	2.12	232	*e*P	Pg	06 15 29.6	+0.4
BUKP				*i* S	Sg	06 16 01.5	+4.8
CGP	Cagayan de Oro	2.16	250	*i* P	Pg	06 15 29.9	0.0
CGP				*i* S	Sg	06 16 00.6	+2.7
DAV	Davao City (W)	2.42	209	Pn	Pn	06 15 28.1	-0.1
	61nm,0.3s,baz=13,slow=12,SNR=1.4						
DAV				LR	LR	06 16 41.6	
	comp=Z,2µm,21.2s,baz=52,slow=48						
	169nm,0.3s						
DAV				AML	AML		
DAV	Davao City (W)	2.42	209		Pn	06 15 27.4	-0.8
DAV	Davao City (W)	2.42	209	P	Pb	06 15 30.0	-2.1
PLP	Palo	2.61	318	*e*P	Pn	06 15 32.2	+1.3
PLP				*e*S	Sg	06 16 14.0	+1.6
KCP	Kidapawan	2.73	217	*e*P	Pb	06 15 36.8	-0.7
TBP	Tagbilaran	2.89	280	*e*P	Pb	06 15 38.8	-1.4
TBP				*i* S	Sg	06 16 20.0	-1.3
LLP	Lapu-Lapu	2.96	292	*e*P	Pb	06 15 39.9	-1.4
LLP				*i* S	Sg	06 16 24.5	+1.1
LSIP	Lazi, Siquijor	3.08	269	*i* P	Pb	06 15 41.5	-1.9
LSIP				*i* S	Sb	06 16 20.4	-0.7
CTBH	Cotabato--PC H	3.16	232	*i* P	Pb	06 15 44.5	-0.4
DCPH	Dipolog City	3.41	260	*e*P	Pb	06 15 47.8	-1.2
SNPH	Sibulan	3.47	273	*i* P	Pb	06 15 48.0	-2.1
SNPH				*i* S	Sg	06 16 39.4	-0.5
MMPH	Masbate	4.39	316	*e*P	Pb	06 16 05.4	-0.3
MMPH				*i* S	Sn	06 16 26.6	-20
LQP	Lukban	7.06	314	*e*P	Pn	06 16 35.3	+3.1
TNTI	Ternate	8.40	176	Pn	Pn	06 16 48.5	-2.0
MYLDM	Lahad Datu	9.11	245	Pn	Pn	06 16 59.7	-0.4
SZP	Santa	10.31	324	Pn	Pn	06 17 15.6	-1.0
KKM	Kota Kinabalu	10.90	254	Pn	Pn	06 17 23.7	-1.1
SBUM	Sibu	15.93	246	Pn	Pn	06 18 32.8	-0.2
GUMO	Guam	18.29	75	LR	LR	06 26 29.1	
	comp=Z,197nm,18.2s,baz=256,slow=38						
QIZ	Qiongzhong	19.07	303	P	Pn	06 19 11.3	-0.8
QIZ				S	S	06 22 48.8	+0.9
QIZ				LR	LR		
	comp=N,150nm,9.2s						
QIZ				LR	LR		
	comp=E,170nm,13.0s						
QIZ				LR	LR		
	comp=Z,240nm,16.5s						
JAGI	Jajag, Banyuwa	21.58	216	P	P	06 19 39.0	+0.3
JAGI				IAmb	IAmb	06 19 53.8	
	comp=Z,32nm,1.0s						
KNRA	Kununurra	24.80	175	P	P	06 20 09.8	-1.1
KNRA				IAmb	IAmb	06 20 29.1	
	comp=Z,15nm,1.4s						
IPM	Ipoh	25.96	261	P	P	06 20 20.7	-0.9
FITZ	Fitzroy Crossi	27.15	182	P	P	06 20 31.9	-0.3
KSRS	Korea Array	28.14	2	P	P	06 20 41.4	+0.5
	comp=Z,1.2nm,0.5s,baz=180,slow=9.6,SNR=6.3						
	comp=Z,1.2nm,0.5s						
RPSI	Rantau Prapat	28.40	259	P	P	06 20 43.2	-0.3
CMAR	Chiang Mai Arr	28.48	292	P	P	06 20 43.9	-0.4
	comp=Z,0.7nm,0.3s,baz=115,slow=8.2,SNR=5.5						
CMAR				LR	LR	06 32 28.4	
	comp=Z,73nm,18.2s,baz=120,slow=37						
	comp=Z,0.7nm,0.3s						
WB0	Warramunga Arr	29.76	165	P	P	06 20 55.0	-0.5
WB0				IAmb	IAmb	06 21 06.2	
	comp=Z,7.5nm,0.8s						
WRA	Warramunga Arr	29.91	166	P	P	06 20 57.1	+0.3
	comp=Z,1.4nm,0.7s,baz=347,slow=8.6,SNR=17						
	comp=Z,1.4nm,0.7s						
WRA	Warramunga Arr	29.91	166	P	P	06 20 55.5	-1.3
AS31	Alice Springs	33.41	168	P	P	06 21 27.1	-0.5
ASAR	Alice Springs	33.41	168	P	P	06 21 28.6	+1.0
	comp=Z,1.1nm,0.7s,baz=344,slow=8.2,SNR=13						
	comp=Z,1.1nm,0.7s						
ASAR	Alice Springs	33.41	168	P	P	06 21 27.6	0.0
ASAJ	Asahikawa	37.41	19	LR	LR	06 36 47.8	
	comp=Z,193nm,20.1s,baz=246,slow=35						
HNR	Honiara	37.89	118	LR	LR	06 36 24.8	
	comp=Z,67nm,20.3s,baz=18,slow=34						
MORW	Morawa	39.43	195	P	P	06 22 19.1	+0.1
MORW				IAmb	IAmb	06 22 23.9	
	comp=Z,9.9nm,0.9s						
EVN	Everest	41.94	302		P	06 22 40.7	+0.1
SONM	Songino Array	42.17	340	P	P	06 22 41.1	-0.4
	comp=Z,0.6nm,0.5s,baz=156,slow=11,SNR=3.6						
	comp=Z,0.6nm,0.5s						
SONM	Songino Array	42.17	340	P	P	06 22 42.1	+0.5
BBOO	Buckleboo	42.71	168	P	P	06 22 46.1	+0.2
PETK	Petropavlovsk-	50.41	24	P	P	06 23 46.7	+0.6
	comp=Z,1.0nm,0.4s,baz=0.0,slow=3.4,SNR=5.1						
	comp=Z,1.0nm,0.4s						
PETK	Petropavlovsk-	50.41	24	P	P	06 23 47.0	+0.9
MKAR	Makanchi Array	53.16	323	P	P	06 24 07.1	+0.3
	comp=Z,3.7nm,0.8s,baz=127,slow=8.1,SNR=12						
	comp=Z,3.7nm,0.8s						
MKAR	Makanchi Array	53.16	323	P	P	06 24 07.0	+0.2
MKAR				PcP	PcP	06 25 15.3	+0.4
PDGK	Podgornoye	53.30	318	P	P	06 24 07.8	-0.2
MAKZ	Makanchi	53.35	323	P	P	06 24 07.6	-0.6
MAKZ				IAmb	IAmb	06 24 20.9	
	comp=Z,5.2nm,1.0s						
MAKZ				PcP	PcP	06 25 14.9	-0.8
KDJ	Kajisay	54.37	316	P	P	06 24 16.1	+0.2
KDJ				IAmb	IAmb	06 24 17.2	
	comp=Z,7.2nm,0.8s						
NIL	Nilore	54.72	305		P	06 24 18.2	-0.3
NIL				PcP	PcP	06 25 20.3	-0.8
NRN	Naryn	54.94	315	P	P	06 24 20.3	+0.1
NRN				IAmb	IAmb	06 24 33.0	
	comp=Z,8.7nm,1.2s						
NRN				PcP	PcP	06 25 20.4	-1.8
ZAA0	Zalesovo Array	55.78	331	P	P	06 24 24.3	-1.4
ZALV	Zalesovo Beam	55.78	331	P	P	06 24 25.2	-0.5
	comp=Z,0.6nm,0.3s,baz=116,slow=6.8,SNR=4.8						
	comp=Z,0.6nm,0.3s						
ZALV	Zalesovo Beam	55.78	331	P	P	06 24 24.5	-1.1
AAK	Ala-Archa	56.41	316	LR	LR	06 51 18.4	
	comp=Z,84nm,18.2s,baz=90,slow=39						
ARSB	Arslanbob	57.04	314	P	P	06 24 34.9	-0.2
ARSB				IAmb	IAmb	06 24 46.6	
	comp=Z,7.0nm,1.2s						
KURK	Kurchatov	57.21	326		P	06 24 36.3	+0.4
KURBB	Kurchatov Arra	57.21	326	P	P	06 24 36.0	0.0
	comp=Z,3.0nm,0.2s,baz=126,slow=6.5,SNR=13						
	comp=Z,3.0nm,0.2s						
BTK	Batken	58.24	312	P	P	06 24 43.8	+0.3
BTK				IAmb	IAmb	06 25 00.5	
	comp=Z,10.0nm,1.3s						
KBL	Kabul	58.32	305	P	P	06 24 44.2	-0.2
KBL				IAmb	IAmb	06 24 44.8	
	comp=Z,4.6nm,0.7s						
KBL				PcP	PcP	06 25 35.4	0.0
KK31	Karatay Array	59.33	315	P	P	06 24 50.7	-0.3
KK31				IAmb	IAmb	06 24 51.6	
	comp=Z,4.1nm,0.8s						
KKAR	Karatay Array	59.33	315		P	06 24 50.9	-0.1
BVAR	Borovoye Array	62.80	326	P	P	06 25 14.6	+0.2
	comp=Z,3.4nm,0.7s,baz=111,slow=8.4,SNR=13						
	comp=Z,3.4nm,0.7s						
BORK	Borovoye	62.85	326		P	06 25 15.0	+0.4
BORK				IAmb	IAmb	06 25 16.0	
	comp=Z,5.0nm,0.8s						
NRIK	Noril'sk	65.16	346	P	P	06 25 30.3	+0.8
	comp=Z,5.2nm,0.7s,baz=130,slow=6.3,SNR=4.2						
	comp=Z,5.2nm,0.7s						
NRIK	Noril'sk	65.16	346		P	06 25 30.6	+1.1
AFI	Afiamalu	65.17	110	LR	LR	06 50 37.0	
	comp=Z,43nm,19.9s,baz=76,slow=33						
AB31	Akbulak array	67.98	319		P	06 25 48.1	+0.1
ABKAR	Akbulak array	67.98	319	P	P	06 25 47.9	0.0
RAYN	Ar Rayn	78.40	292		P	06 26 50.2	+0.1
RAYN				IAmb	IAmb	06 27 04.0	
	comp=Z,4.1nm,0.8s						
ILAR	Eielson Array	80.19	26	P	P	06 27 01.0	+2.0
	comp=Z,0.3nm,0.7s,baz=269,slow=5.4,SNR=3.3						
	comp=Z,0.3nm,0.7s						
ILAR	Eielson Array	80.19	26	P	P	06 26 59.0	-0.1
K27K	Chicken	82.31	26	P	P	06 27 10.6	+0.3
K27K				IAmb	IAmb	06 27 31.5	
	comp=Z,5.5nm,1.0s						
I27K	Kandik River	82.37	25		P	06 27 10.1	-0.5
I28M	Miner Creek	83.08	25	P	P	06 27 14.3	-0.1
J30M	Hart River	84.72	25	P	P	06 27 22.9	0.0
J30M				IAmb	IAmb	06 27 28.9	
	comp=Z,6.5nm,1.2s						
ASF	Jabal al Asfar	85.04	302	LR	LR	07 11 54.5	
	comp=Z,32nm,18.8s,baz=12,slow=40						
INK	Inuvik	85.09	22	P	P	06 27 24.8	+0.4
INK				IAmb	IAmb	06 27 26.9	
	comp=Z,7.6nm,1.4s						
ARCES	ARCESS Array B	85.35	340	P	P	06 27 25.8	+0.1
	comp=Z,2.4nm,0.6s,baz=80,slow=6.8,SNR=11						
	comp=Z,2.4nm,0.6s						
ARCES	ARCESS Array B	85.35	340	P	P	06 27 25.8	+0.1
ARCES				IAmb	IAmb	06 27 40.1	
	comp=Z,8.2nm,1.4s						
FINES	FINESS Array B	87.05	332	P	P	06 27 34.0	-0.2
	comp=Z,0.6nm,0.5s,baz=68,slow=3.5,SNR=7.3						
	comp=Z,0.6nm,0.5s						
FINES	FINESS Array B	87.05	332	P	P	06 27 34.0	-0.2
EIL	Elat	87.06	299	LR	LR	07 12 56.0	
	comp=Z,74nm,19.8s,baz=96,slow=40						
VNDA	Vanda	88.82	173	P	P	06 27 43.1	+0.9
	comp=Z,0.9nm,1.1s,baz=319,slow=6.0,SNR=4.9						
	comp=Z,0.9nm,1.1s						
VNDA	Vanda	88.82	173	P	P	06 27 42.9	+0.6
VNDA				IAmb	IAmb	06 28 01.9	
	comp=Z,2.6nm,1.1s						
NOA	NORSAR Array B	93.92	334	LR	LR	07 16 27.7	
	comp=Z,19nm,19.1s,baz=290,slow=39						

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*IDC **29** 06:32:35.4±1.8, 8°.93N×126°.16E, h0^{km}, mb3.6/5, mbtmp3.6/5, Error ellipse: s-maj=181.6km s-min=23.2km az=68.0*
*MAN **29** 06:32:38.0, 9°.29N×126°.84E, h18^{km}, MS3.3*
ISC 29 06:32:36.4±2.4, **9°.30N**±0°.05×**127°.11E**±0°.08, **h15**^{km}±14^{km}, **n14**, σ1^{s}.**80**/21, **mb3.6**/5, **Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BIPH	Bislig	1.33	214	*e*P	Pn	06 33 00.2	-0.2
BIPH				*e*S	Sb	06 33 16.7	-1.2
CDOP	Cateel, Davao	1.65	204	*e*P	Pn	06 33 04.5	-0.2
CDOP				*i* S	Sn	06 33 23.3	-2.2
BUKP	Musuan	2.47	235	*e*P	Pn	06 33 17.9	+1.8
BUKP				*i* S	Sb	06 33 48.6	-2.1
CGP	Cagayan de Oro	2.53	251	*e*P	Pn	06 33 18.3	+1.4
CGP				*i* S	Sn	06 33 47.9	+0.4
PLP	Palo	2.80	312	*e*P	Pn	06 33 20.3	-0.4
PLP				*e*S	Sn	06 33 52.0	-2.2
KCP	Kidapawan	3.03	221	*e*P	Pb	06 33 30.3	+0.2
TBP	Tagbilaran	3.23	277	*e*P	Pn	06 33 26.6	+0.1
TBP				*e*S	Sn	06 34 07.1	+2.4
LLP	Lapu-Lapu	3.26	288	*e*P	Pg	06 33 38.9	0.0
LLP				*e*S	Sb	06 34 09.7	-3.8
SNPH	Sibulan	3.83	271	*e*P	Pn	06 33 38.0	+3.3
WRA	Warramunga Arr	29.91	166	P	P	06 38 44.0	+0.1
	0.3nm,0.8s,baz=344,slow=8.9,SNR=1.8						
	0.3nm,0.8s						
ASAR	Alice Springs	33.43	169	P	P	06 39 14.8	+0.1
	0.2nm,0.4s,baz=348,slow=7.5,SNR=5.6						
	0.2nm,0.4s						
MKAR	Makanchi Array	53.30	323	P	P	06 41 54.5	-0.3
	0.5nm,0.6s,baz=127,slow=8.7,SNR=4.8						
	0.5nm,0.6s						
KURBB	Kurchatov Arra	57.34	325	P	P	06 42 23.3	-0.5
	0.6nm,0.5s,baz=124,slow=7.3,SNR=1.6						
	0.6nm,0.5s						
ARCES	ARCESS Array B	85.39	340	P	P	06 45 14.4	+1.6
	0.6nm,0.5s,baz=78,slow=6.3,SNR=4.5						
	0.6nm,0.5s						

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*KRSC **29** 06:33:16.9±1.0, 56°.12N×163°.09E, h5^{km}±8^{km}, Ml4.2, Felt [II-III] at Ust-Kamchatsk.*
*IDC **29** 06:33:20.2±1.2, 56°.29N×162°.25E, h0^{km}, mb3.6/3, mbtmp3.5/4, ML2.3/1, MS3.7/1, Error ellipse: s-maj=49.0km s-min=20.6km az=142.0*
ISC 29 06:33:21.0±0.9, **56°.26N**±0°.05×**162°.77E**±0°.04, **h13**^{km}±5^{km}, **n42**, σ1^{s}.**73**/46, **mb3.9**/3, **Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBG	Krutoberegovo	0.04	258	*e*P	Pg	06 33 23.3	-0.1
KBG				*e*S	Sg	06 33 26.4	+1.4
KBTR	Krutoberegovo	0.06	154	*e*P	Pg	06 33 22.1	-1.4
SMKR	Semkarok	0.79	294	*e*P	Pn	06 33 36.7	-1.3
BDR	Baidarnaya	0.92	290	*e*P	Pn	06 33 38.9	-0.8
SRKR	Sorokina	0.97	294	*e*P	Pn	06 33 39.9	-0.6
ZLN	Zelenaya	1.13	258	*e*P	Pn	06 33 42.2	-0.4
LGNR	Loginova	1.18	262	*e*P	Pn	06 33 42.9	-0.5
KLY	Klyuchi	1.18	273	*e*P	Pg	06 33 40.8	-2.9
KLY				*e*S	Sg	06 33 56.9	-2.3
BZGR	Bezymyannyi-Gr	1.21	255	*e*P	Pn	06 33 43.2	-0.5
KRSR	Krestovskiy	1.23	269	*e*P	Pg	06 33 43.1	-1.7
BZP	Bezymyannyi-Pe	1.30	255	*e*P	Pn	06 33 44.1	-0.9
BZWR	Bezymyannyi-We	1.31	258	*e*P	Pn	06 33 43.8	-1.4
BZMR	Bezymyannaya	1.32	257	*e*P	Pn	06 33 44.8	-0.5
KPT	Kopyto	1.46	259	*e*P	Pb	06 33 47.1	-1.0
KMNR	Kamenistaya	1.51	251	*e*P	Pb	06 33 48.2	-0.8
KOZ	Kozyrevsk	1.63	264	*e*P	Pb	06 33 50.4	-0.6
KOZ				*e*S	Sg	06 34 15.2	+1.7
SRDR	Sredinnyy	1.70	273	*e*P	Pb	06 33 51.4	-0.8
SRDR				*e*S	Sg	06 34 16.7	+0.9
TUMD	Tumrok D	1.71	233	*e*P	Pn	06 33 49.4	-1.2
TUMR	Tumrok	1.78	238	*e*P	Pn	06 33 51.5	-0.1
TUMR				*e*S	Sb	06 34 15.6	-0.2
MKZ	Mys Kozlova	1.81	200	*e*P	Pn	06 33 50.2	-1.7
KZV	Kizimen	1.81	232	*e*P	Pn	06 33 51.0	-1.1
KZV				*e*S	Sn	06 34 14.9	-0.2
BKI	Bering	2.10	119	*e*S	Sn	06 34 16.4	-5.4
ESO	Esso	2.31	263	*e*P	Pb	06 34 00.7	-1.8
KII	Karymskiy	2.94	222	*e*P	Pn	06 34 08.4	+1.0
OSSR	Ossora	3.00	3	*e*P	Pn	06 34 08.8	+0.6
SDLR	Sedlovina	3.74	219	*e*P	Pn	06 34 17.4	-1.1
KRX	Arik	3.76	221	*e*P	Pn	06 34 18.0	-0.9
KRER	Koryakskii	3.77	220	*e*P	Pn	06 34 18.5	-0.5
SMAR	Somma	3.78	219	*e*P	Pn	06 34 18.7	-0.5
GNL	Ganaly	3.79	229	*e*P	Pn	06 34 20.4	+1.2
AVH	Avacha	3.81	220	*e*P	Pn	06 34 20.9	+1.5
KOK	Koryaka	3.82	221	*e*P	Pn	06 34 20.4	+0.8
DALK	Dalny	3.99	217	*e*P	Pn	06 34 22.6	+0.7
PETK	Petropavlovsk-	4.32	225	Pn	Pn	06 34 26.8	+0.4
	0.9nm,0.3s,baz=58,slow=17,SNR=7.3						
PETK				Sn	Sn	06 35 21.8	+5.2
	0.3nm,0.3s,baz=92,slow=18,SNR=1.4						
	2.7nm,0.6s						
PETK				AML	AML		
KRMR	Karymshinskiy	4.37	220	*e*P	Pn	06 34 26.8	-0.3
ASAK	Asacha	4.82	218	*e*P	Pn	06 34 34.1	+0.7
ILAR	Eielson Array	25.52	50	P	P	06 38 51.5	+2.6
	0.6nm,0.9s,baz=275,slow=8.5,SNR=4.8						
	0.6nm,0.9s						
H11N2	WAKE ISLAND Hy	36.61	173	T	T	07 19 09.2	
	baz=356,slow=76,SNR=199						
H11N3	WAKE ISLAND Hy	36.62	173	T	T	07 19 10.3	
	baz=356,slow=76,SNR=186						
H11N1	WAKE ISLAND Hy	36.62	173	T	T	07 19 10.5	
	baz=356,slow=76,SNR=308						
KURBB	Kurchatov Arra	47.51	301	P	P	06 41 54.5	-0.9
	0.7nm,0.5s,baz=59,slow=7.3,SNR=1.2						
KURBB				LR	LR	07 05 06.7	
	comp=Z,69nm,18.5s,baz=166,slow=40						
	0.7nm,0.5s						
TXAR	Lajitas Array	68.03	70	P	P	06 44 23.1	+3.1
	0.7nm,0.7s,baz=288,slow=4.4,SNR=7.6						
	0.7nm,0.7s						

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*NEIC **29** 06:41:37.1±1.5, 20°.9S±0°.2×177°.8W±0°.1, h568^{km}±9^{km}, mb4.1/18, Error ellipse: s-maj=22.6km s-min=17.4km az=158.0*
*IDC **29** 06:41:38.0±2.8, 20°.82S×177°.94W, h576^{km}±25^{km}, mb3.5/6, mbtmp4.4/8, Error ellipse: s-maj=47.4km s-min=24.0km az=138.0*
ISC 29 06:41:35.2±0.7, **21°.0S**±0°.1×**177°.67W**±0°.10, **h550**^{km}, **n37**, σ1^{s}.**05**/34, **mb4.1**/15, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	Nonsavu	5.18	308	P	P	06 43 08.5	+1.8
	23nm,0.5s,baz=142,slow=3.2,SNR=24						
MSVF	Nonsavu	5.18	308	P	P	06 43 08.9	+2.2
MSVF				S	S	06 44 22.1	+0.7
MARNC	Mare, Loyalty	13.35	265	P	P	06 44 27.7	0.0
DZM	Mont Dzumac	14.83	263	P	P	06 44 43.2	+0.2
	8.1nm,0.6s,baz=116,slow=20,SNR=11						
EIDS	Eidsvold	29.02	255	P	P	06 46 51.0	-0.3
EIDS				IAmb	IAmb	06 47 02.1	
	comp=Z,15nm,1.4s						
ARMA	Armidale	29.14	245	P	P	06 46 53.7	+1.3
ARMA				IAmb	IAmb	06 47 20.2	
	comp=Z,11nm,1.4s						
CTAO	Charters Tower	33.76	265	P	P	06 47 30.8	-1.0
TOO	Toolangi	35.87	234	P	P	06 47 49.6	+0.5
TOO				IAmb	IAmb	06 48 12.9	
	comp=Z,4.5nm,1.4s						
STKA	Stephens Creek	37.86	245	P	P	06 48 06.3	+0.8
	comp=Z,2.8nm,0.5s,baz=93,slow=7.7,SNR=6.5						
	comp=Z,2.8nm,0.5s						
BBOO	Buckleboo	42.62	244	P	P	06 48 43.9	+0.4
BBOO				IAmb	IAmb	06 48 51.3	
	comp=Z,17nm,1.4s						
AS31	Alice Springs	44.71	257		P	06 48 59.3	-0.7
ASAR	Alice Springs	44.72	257	P	P	06 48 59.3	-0.7
	comp=Z,6.6nm,0.5s,baz=94,slow=7.5,SNR=124						
	comp=Z,6.6nm,0.5s						
ASAR	Alice Springs	44.72	257	P	P	06 48 58.9	-1.1
WB0	Warramunga Arr	44.83	263		P	06 48 59.1	-1.8
WB0				IAmb	IAmb	06 48 59.7	
	comp=Z,4.7nm,0.7s						
WRA	Warramunga Arr	44.85	262	P	P	06 48 59.4	-1.6
	comp=Z,2.1nm,0.3s,baz=97,slow=7.9,SNR=76						
	comp=Z,2.1nm,0.3s						
WRA	Warramunga Arr	44.85	262		P	06 48 58.7	-2.3
MLH	Mauna Loa	45.76	30	P	P	06 49 06.6	-1.6
FORT	Forrest	49.39	247	P	P	06 49 33.8	-1.2
FORT				IAmb	IAmb	06 49 41.8	
	comp=Z,4.2nm,0.9s						
KNRA	Kununurra	50.94	267	P	P	06 49 46.0	-0.5
FITZ	Fitzroy Crossi	53.27	263	P	P	06 50 03.0	-0.2
MBWA	Marble Bar	58.05	258	P	P	06 50 35.7	-0.7
MBWA				IAmb	IAmb	06 50 35.7	
	comp=Z,11nm,1.1s						
MORW	Morawa	59.94	248	P	P	06 50 48.8	0.0
MORW				IAmb	IAmb	06 51 04.8	
	comp=Z,24nm,1.4s						
VA02	Isla de Pascua	61.94	110	P	P	06 51 02.7	+0.8
QSPA	South Pole Qui	69.09	180	P	P	06 51 46.1	0.0
QSPA				IAmb	IAmb	06 51 47.7	
	comp=Z,5.5nm,1.4s						
BRLK	Bradley Lake	83.39	13	P	P	06 53 05.1	+0.7
SNAA	Sanae	87.52	178	P	P	06 53 25.1	+0.7
	comp=Z,1.8nm,0.5s,baz=171,slow=3.8,SNR=3.9						
	comp=Z,1.8nm,0.5s						
SNAA	Sanae	87.52	178	P	P	06 53 25.3	+1.0
SNAA				IAmb	IAmb	06 53 25.4	
	comp=Z,1.9nm,0.5s						
ILAR	Eielson Array	88.72	13	P	P	06 53 29.6	-0.2
	comp=Z,0.3nm,0.9s,baz=214,slow=5.2,SNR=4.2						
	comp=Z,0.3nm,0.9s						
ILAR	Eielson Array	88.72	13	P	P	06 53 29.9	+0.1
CMAR	Chiang Mai Arr	90.57	289	P	P	06 53 38.8	-0.7
	comp=Z,1.1nm,0.3s,baz=135,slow=2.3,SNR=4.4						
	comp=Z,1.1nm,0.3s						
ARCES	ARCESS Array B	129.45	350	PKP	PKPdf	06 59 40.0	-0.8
	comp=Z,2.4nm,1.0s,baz=12,slow=3.4,SNR=3.7						
AKASG	Malin Array Be	143.59	331	PKP	PKPab	07 00 06.0	-0.1
	comp=Z,2.2nm,0.4s,baz=43,slow=4.3,SNR=17						
AKASG	Malin Array Be	143.59	331	PKPbc	PKPab	07 00 05.6	-0.5
AKBB	Malin Array Si	143.59	331	PKPbc	PKPab	07 00 05.1	-1.0
KIEV	Kiev	143.60	331	PKPbc	PKPab	07 00 05.2	-0.9
CLL	Collm	148.60	347	*i* PKPbc	PKiKP	07 00 22.0	+0.7
GERES	GERESS Array B	150.75	345	PKPbc	PKiKP	07 00 26.1	+0.1
	comp=Z,1.1nm,0.2s,baz=337,slow=2.2,SNR=4.1						

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*YARS **29** 06:43:37.2, 69°.25N×123°.93E, h30^{km}, ML2.4/2*
*IDC **29** 06:43:39.5±1.1, 75°.85N×132°.37E, h0^{km}, mb3.6/5, mbtmp3.9/7, ML4.4/2, MS3.2/7, Error ellipse: s-maj=28.5km s-min=17.6km az=114.0*
ISC 29 06:43:41.0±1.0, **75°.70N**±0°.08×**132°.7E**±0°.1, **h10**^{km}, **n16**, σ1^{s}.**79**/12, **mb3.8**/5, **MS3.3**/5, **Laptev Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TIXI	Tiksi	4.21	197	Pn	Pn	06 44 44.9	-0.2
	29nm,0.3s,baz=44,slow=11,SNR=76						
TIXI				Sn	Sn	06 45 31.5	-2.7
	36nm,0.3s,baz=313,slow=23,SNR=11						
TIXI				LR	LR	06 46 42.8	
	comp=Z,143nm,20.5s,baz=3.5,slow=42						
	70nm,0.3s						
TIXI				AML	AML		
DEPR	Deputatskiy	6.69	158	*e*Pg	Pn	06 45 19.5	+0.4
	0.9nm,0.3s						
DEPR				*e*Sg	Sn	06 46 34.6	-0.6
	12nm,1.6s						
DEPR				*e*Sg	Sn	06 46 34.6	-0.6
YBGR	Belaya Gora	8.28	143	*e*Pn	Pn	06 45 33.6	-7.2
	1.8nm,0.0s						
YBGR				*e*Sn	Sn	06 47 01.5	-13
YBGR				*e*Sn	Sn	06 47 01.5	-13
	2.0nm,0.7s						
MOMR	Moma	9.86	155	*e*Pg	Pn	06 45 59.5	-2.9
	1.4nm,1.3s						
MOMR				*e*Sg	Sn	06 47 40.7	-12
	2.6nm,2.4s						
MOMR				*e*Sg	Sn	06 47 40.7	-12
SEY	Seymchan	14.44	142	Pn	Pn	06 47 06.5	+1.4
	0.4nm,0.3s,baz=306,slow=7.2,SNR=5.5						
	1.6nm,0.2s						
SEY				AML	AML		
MA2	Magadan	17.43	148	LR	LR	06 53 49.4	
	comp=Z,36nm,18.1s,baz=124,slow=35						
SPITS	Spitsbergen Ar	22.33	331	P	P	06 48 36.5	-1.7
	5.6nm,1.1s,baz=34,slow=10,SNR=1.2						
	5.6nm,1.1s						
TLY	Talaya	26.71	222	LR	LR	07 01 03.0	
	comp=Z,72nm,18.5s,baz=71,slow=39						
ILAR	Eielson Array	26.76	70	P	P	06 49 20.6	+0.2
	0.7nm,0.8s,baz=320,slow=9.1,SNR=9.1						
	0.7nm,0.8s						
ZALV	Zalesovo Beam	28.38	247	LR	LR	07 01 28.9	
	comp=Z,67nm,19.0s,baz=348,slow=38						
SONM	Songino Array	30.01	217	P	P	06 49 51.4	+1.9
	1.1nm,0.8s,baz=9.8,slow=9.6,SNR=5.1						
	1.1nm,0.8s						
ASAJ	Asahikawa	31.97	166	LR	LR	07 02 56.2	
	comp=Z,78nm,18.2s,baz=76,slow=36						
KSRS	Korea Array	38.40	186	LR	LR	07 09 08.3	
	comp=Z,15nm,20.8s,baz=25,slow=40						
NVAR	Mina Array Bea	57.59	62	P	P	06 53 31.9	+1.2

	0.2nm,0.6s,baz=345,slow=7.1,SNR=1.9						
	0.2nm,0.6s						
TXAR	Lajitas Array	69.40	51	P	P	06 54 47.2	-1.5
	0.7nm,0.9s,baz=358,slow=3.8,SNR=4.6						
	0.7nm,0.9s						
PALK	Pallekele	74.12	234	LR	LR	07 30 42.5	
	comp=Z,47nm,19.0s,baz=7.0,slow=38						

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*IDC **29** 06:44:18.2±0.8, 12°.72N×88°.49W, h0km, mb4.0/9, mbtmp4.0/12, ML2.6/3, MS3.7/25, Error ellipse: s-maj=33.5km s-min=10.4km az=46.0*

*GCG **29** 06:44:20.4±1.1, 12°.21N×88°.97W, h35km±158km, MD4.7, Presumed earthquake*

*CATAC **29** 06:44:20.0±0.5, 12°N±2°×8°9W±°, h28km±5km, M4.5/37, mb5.2/3, mB5.3/2, MLv4.2/37, Mw(mB)4.7/2, Error ellipse: s-maj=6.0km s-min=2.1km az=42.5, confirmed*

*SNET **29** 06:44:21.2±1.8, 12°.34N×88°.78W, h34km, ML4.1, Presumed earthquake*

*NEIC **29** 06:44:22.4±1.1, 12°.36N±0°.06×88°.77W±0°.06, h35km±2km, mb4.5/156, Error ellipse: s-maj=12.0km s-min=6.8km az=220.0*

*UCR **29** 06:44:25.9±2.0, 12°.39N×88°.49W, h35km±345km, MB4.5(NEIC), Presumed earthquake*

ISC 29 06:44:22.3±0.9**, 12°.31N**±0°.04×**88°.82W**±0°.04**, h43**km±9km**, n331, σ1s.28**/330**, mb4.5**/63**, MS3.8**/25**, 4C-11D, Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ALJI	Alcalda de J	1.04	13	⇓P	Pn	06 44 39.7	-0.8
ALJI				S	Sn	06 44 56.0	+2.2
TECA	Tecapa	1.22	15	eP	Pn	06 44 41.9	-1.2
TECA				eS	Sn	06 44 59.5	+1.1
TECO	Alcaldia de Te	1.22	2	P	Pn	06 44 41.5	-1.5
TECO				S	Sn	06 45 00.1	+1.8
RANC	El Ranchito	1.23	25	eP	Pn	06 44 42.3	-0.9
RANC	El Ranchito	1.23	25	⇓P	Pn	06 44 42.2	-1.1
PACA	Pacayal	1.25	23	eP	Pn	06 44 42.5	-1.0
PACA	Pacayal	1.25	23	P	Pn	06 44 42.6	-0.9
BLLM	Bellamira	1.26	27	i P	Pn	06 44 42.5	-1.1
COEG	Centro de Oper	1.30	357	⇓P	Pn	06 44 42.7	-1.4
COEG				S	Sn	06 45 01.9	+1.5
LFRS	El Faro	1.33	350	eP	Pn	06 44 42.8	-1.7
LCND	La Caada	1.34	42	eP	Pn	06 44 43.5	-1.2
LCND	La Caada	1.34	42	P	Pn	06 44 43.6	-1.0
CNCH	Conchagua	1.36	45	eP	Pn	06 44 43.6	-1.3
CNCH	Conchagua	1.36	45	P	Pn	06 44 43.7	-1.3
LOMA	Loma Larga	1.37	346	⇓P	Pn	06 44 43.7	-1.4
LOMA				S	Sn	06 45 02.4	+0.2
PAVA	Las Pavas	1.40	355	eP	Pn	06 44 44.0	-1.6
PAVA	Las Pavas	1.40	355	P	Pn	06 44 44.2	-1.3
UTEC	Universidad Te	1.43	345	eP	Pn	06 44 46.3	+0.4
MAGS	Ministerio de	1.44	342	eP	Pn	06 44 45.3	-0.8
UEES	Universidad Ev	1.46	344	⇓P	Pn	06 44 45.0	-1.3
JAYA	Jayaque - finc	1.47	335	i P	Pn	06 44 44.6	-1.9
JAYA	Jayaque - finc	1.47	335	eP	Pn	06 44 44.6	-1.9
JAYA	Jayaque - finc	1.47	335	P	Pn	06 44 44.8	-1.8
PMON	Piamonte	1.48	341	⇓P	Pn	06 44 45.3	-1.3
PMON				S	Sn	06 45 05.2	+0.4
CEVE	Cerro Verde	1.70	333	eP	Pn	06 44 48.3	-1.4
CEVE	Cerro Verde	1.70	333	P	Pn	06 44 49.0	-0.8
CRIN	San Cristobal	1.77	77		Pn	06 44 50.4	-0.2
CRIN				Sn	Sn	06 45 09.9	-2.0
UNIC	Universidad Ca	1.81	337	P	Pn	06 44 50.9	-0.2
UNIC				S	Sn	06 45 14.4	+1.6
NUBE	Las Nubes	1.84	330	i P	Pn	06 44 49.9	-1.7
NUBE	Las Nubes	1.84	330	P	Pn	06 44 50.0	-1.6
NUBE				S	Sn	06 45 13.7	-0.1
FAME	Alcaldia de Sa	1.92	323	⇓P	Pn	06 44 50.7	-1.9
FAME				S	Sn	06 45 14.8	-0.7
QUEN	Al S del Volca	1.94	81	P	Pn	06 44 52.2	-0.7
SLOZ	Alcaldia de Sa	1.95	331	P	Pn	06 44 52.3	-0.7
MARCA	Marcala la Paz	1.99	22	i P	Pn	06 44 53.7	+0.1
CNGA	Al SSO del Vol	2.08	85	P	Pn	06 44 53.0	-1.7
CNGN	Cerro Negro	2.08	85	P	Pn	06 44 54.5	-0.2
CNGN				S	Sn	06 45 20.7	+1.2
ILCN	San Idelfonso	2.09	82	⇑P	Pn	06 44 51.5	-3.3
ILCN				S	Sn	06 45 20.9	+1.3
MTO3	Montecristo	2.14	346		Pn	06 44 55.2	-0.6
MTO3	Montecristo	2.14	346	i P	Pn	06 44 55.3	-0.5
MTO3	Montecristo	2.14	346	P	Pn	06 44 55.4	-0.5
COPN	Copaltepe	2.18	93	P	Pn	06 44 55.1	-1.0
COPN	Copaltepe	2.18	93	eP	Pn	06 44 54.6	-1.5
JUAM	Asuncion Mita	2.19	337	i P	Pn	06 44 55.7	-0.6
JUAM				i S	Sn	06 45 22.1	-0.2
ESQI	Esquipulas	2.29	347		Pn	06 44 57.6	-0.2
ESQI				Sn	Sn	06 45 24.5	-0.4
TGUH	Tegucigalpa,Un	2.30	41		Pn	06 44 57.6	-0.2
TGUH				Sn	Sn	06 45 18.5	-6.5
TGUH	Tegucigalpa,Un	2.30	41	P	Pn	06 44 58.0	+0.2
TGUH				S	Sn	06 45 25.9	+0.9
SARH	Santa Rosa de	2.45	1	i P	Pn	06 45 00.4	+0.5
SARH	Santa Rosa de	2.45	1	⇓P	Pn	06 45 00.9	+1.0
SARH				S	Sn	06 45 29.9	+1.1
TISN	Laguna Tiscapa	2.50	94	P	Pn	06 44 57.8	-2.7
UNAN	Cigeo UNAN	2.50	94	P	Pn	06 44 59.7	-0.8
UNAN				S	Sn	06 45 29.5	-0.3
MGAN	Managua	2.52	93		Pn	06 44 59.5	-1.2
MGAN				Sn	Sn	06 45 29.1	-1.1
MGAN	Managua	2.52	93	P	Pn	06 44 59.9	-0.9
MGAN				S	Sn	06 45 29.9	-0.4
WILN	Americas 2	2.58	93	P	Pn	06 45 00.4	-1.1
WILN				S	Sn	06 45 31.7	0.0
MAS3	Al N del Volca	2.60	96	P	Pn	06 45 00.4	-1.5
MAS3				S	Sn	06 45 32.7	+0.4
SABN	Sabanita	2.62	97	P	Pn	06 45 01.4	-0.8
OCON	Estacion meteo	2.63	60	P	Pn	06 45 01.7	-0.7
NANN	Nandasmo	2.66	98	⇑P	Pn	06 45 02.7	-0.1
NANN				S	Sn	06 45 34.9	+1.0
NADN	Granada	2.78	101	eP	Pn	06 45 01.9	-2.5
NADN				eS	Sn	06 45 34.4	-2.4
RCFN	Al S de San Ju	2.82	64	P	Pn	06 45 04.8	-0.2
RCFN				S	Sn	06 45 39.0	+1.2
RCVN	Varillal2	2.86	63	⇓P	Pn	06 45 04.9	-0.6
MATN	Matagalpa	2.89	77	⇑P	Pn	06 45 04.6	-1.3
MATN				S	Sn	06 45 40.9	+1.3
BOAB	BOACO BROADBAN	3.08	87		Pn	06 45 07.2	-1.3
BOAB	BOACO BROADBAN	3.08	87	P	Pn	06 45 07.2	-1.3
BOAB				S	Sn	06 45 45.3	+1.2
APG	El Apazote	3.12	329	Pn	Pn	06 45 08.3	-0.9
	0.1nm,0.3s,baz=177,slow=11,SNR=5.4						
APG				Sn	Sn	06 45 41.6	-3.8
	0.3nm,0.3s,baz=192,slow=12,SNR=6.2						
APG				AML	AML		
JAPN	Al SSO del Vol	3.17	104	P	Pn	06 45 09.3	-0.5
JAPN	Al SSO del Vol	3.17	104	eP	Pn	06 45 08.9	-0.8
MORN	Al O del Volca	3.19	103	P	Pn	06 45 09.1	-0.9
MORN				S	Sn	06 45 45.3	-1.6
LCRUZ	La Cruz	3.35	111	eP	Pn	06 45 11.6	-0.7
LCRUZ				eS	Sn	06 45 48.5	-2.3
IZABA	Izabal, Puerto	3.41	4	P	Pn	06 45 04.7	-8.2
CARN	Rivas	3.42	109	Pn	Pn	06 45 12.4	-0.6
CARN				Sn	Sn	06 45 50.1	-2.2
CARN	Rivas	3.42	109	eP	Pn	06 45 13.2	+0.1
CARN				eS	Sn	06 45 48.1	-4.2
RTAL	Retalhuleu	3.56	309	Pn	Pn	06 45 15.2	+0.1
ALIBA	Liberia Airpor	3.63	118	eP	Pn	06 45 16.7	+0.6
ALIBA				eS	Sn	06 45 57.7	0.0
LAPC	Finca la Perla	3.66	114	eP	Pn	06 45 16.0	-0.4
BUAI	Buenos Aires	3.70	112	eP	Pn	06 45 17.4	+0.3
ERIA	Liberia	3.71	116	eP	Pn	06 45 18.3	+1.2
VRLE	La Escondida,	3.71	114	eP	Pn	06 45 17.9	+0.7
PEJA	Penjamo Buenos	3.71	112	eP	Pn	06 45 18.3	+1.1
VORI	VORI	3.71	113	eP	Pn	06 45 17.6	+0.2
GPS3	Bodega del ICE	3.72	114	eP	Pn	06 45 20.2	+2.9
GPS2	Hotel Rincn d	3.73	114	eP	Pn	06 45 18.8	+1.3
SACU	Santa Cruz	3.77	122	eP	Pn	06 45 17.2	-0.7
SACU				eS	Sn	06 45 58.1	-3.0
JUD3	Juan Diaz 3	3.86	123	Pn	Pn	06 45 18.9	-0.3
JUD3	Juan Diaz 3	3.86	123	eP	Pn	06 45 19.0	-0.3
CLARA	Aguas Claras	3.88	113	eP	Pn	06 45 20.4	+0.9
MESS	Mesas	3.88	113	eP	Pn	06 45 20.2	+0.7
COLC	Colonia	3.90	114	eP	Pn	06 45 20.2	+0.4
COLC				eS	Sn	06 46 02.1	-2.3
HORNC	Hornillas	3.91	114	eP	Pn	06 45 20.7	+0.8
BAGA	Bagaces	3.91	117	eP	Pn	06 45 19.7	-0.2
VMAR	Armenia, Volca	3.92	112	eP	Pn	06 45 19.0	-1.2
VMAR				eS	Sn	06 46 03.1	-1.9
CUI	Cuipilapa	3.94	114	⇓iP	Pn	06 45 21.4	+1.1
CUI				eS	Sn	06 46 03.3	-2.1
HUEH	Huehuetenango	3.97	319	Pn	Pn	06 45 19.1	-1.7
CANAL	Canalete	3.97	111	eP	Pn	06 45 19.3	-1.4
CANAL				eS	Sn	06 46 03.3	-2.7
CMARA	Lajas Hojancha	4.04	124	P	Pn	06 45 21.5	-0.2
CMARA				S	Sn	06 46 06.3	-1.4
CMARA	Lajas Hojancha	4.04	124	eP	Pn	06 45 20.6	-1.1
TIMP	Tierras Morena	4.10	114	⇓iP	Pn	06 45 22.7	+0.1
TIMP				eS	Sn	06 46 08.1	-1.3
SIUN	Universidad Ur	4.18	70	Pn	Pn	06 45 22.6	-1.1
TILA	Tilaran	4.19	115	eP	Pn	06 45 23.7	-0.1
TILA				eS	Sn	06 46 11.5	-0.2
QUEB	Quebradon, Cot	4.20	113	eP	Pn	06 45 23.0	-0.8
QUEB				eS	Sn	06 46 09.9	-1.8
COTE	Lago Cote	4.20	114	eP	Pn	06 45 23.5	-0.3
JUNT	Juntas	4.29	118	eP	Pn	06 45 26.5	+1.4
JTS	Las Juntas de	4.29	117	Pn	Pn	06 45 25.1	0.0
	28nm,0.5s,baz=285,slow=8.3,SNR=25						
JTS				Sn	Sn	06 46 11.6	-2.4
	6.1nm,0.3s,baz=260,slow=3.7,SNR=3.5						
JTS	Las Juntas de	4.29	117		Pn	06 45 25.3	+0.2
JTS	Las Juntas de	4.29	117	eP	Pn	06 45 26.5	+1.4
TABAC	Tabacon	4.36	114	eP	Pn	06 45 27.1	+0.9
CASO	Castillo	4.42	115	eP	Pn	06 45 27.9	+1.0
ARE1	Arenal 1	4.42	114	eP	Pn	06 45 27.4	+0.5
ARE1				eS	Sn	06 46 16.5	-0.7
VARE2	V. Arenal	4.42	114	eP	Pn	06 45 26.7	-0.3
VARE2				eS	Sn	06 46 17.1	-0.2
CEDE	Laguna Cedeo	4.42	114	eP	Pn	06 45 27.9	+0.9
CEDE				eS	Sn	06 46 18.1	+0.7
VACR	Volcan Arenal	4.45	114	eP	Pn	06 45 28.8	+1.5
PAQE	Paquera	4.55	123	eP	Pn	06 45 29.0	+0.4
PAQE				eS	Sn	06 46 16.7	-3.6
PETF	Flores	4.69	348	Pn	Pn	06 45 29.9	-0.8
QUEU	Ciudad Quesada	4.73	114	eP	Pn	06 45 31.5	+0.2
VPL1	V. Platanar	4.82	115	eP	Pn	06 45 33.1	+0.4
ZARE	Zarcero	4.83	115	eP	Pn	06 45 32.5	-0.2
ZARE				eS	Sn	06 46 26.4	-1.1
VPL3	V. Platanar	4.83	113	eP	Pn	06 45 32.7	+0.1
PALD	Palmares	4.85	117	eP	Pn	06 45 33.8	+0.8
TRB2	Turrubares	4.91	119	eP	Pn	06 45 34.8	+1.2
ARTO	Ro Cuarto	4.92	113	eP	Pn	06 45 34.3	+0.5
ATEO	Atenas	4.93	118	eP	Pn	06 45 34.6	+0.6
TCS1	Tacares	4.97	116	eP	Pn	06 45 37.3	+2.7
PURI	Puriscal	5.06	118	eP	Pn	06 45 36.8	+1.0
BELE	Belen	5.10	117	eP	Pn	06 45 36.8	+0.4
VBV1	V. Barva	5.12	115	eP	Pn	06 45 37.3	+0.5
SANTA	Santa Ana	5.12	117	eP	Pn	06 45 36.8	+0.1
HEME	Heredia, Merce	5.14	116	eP	Pn	06 45 39.2	+2.3
HDC	Heredia	5.16	116		Pn	06 45 36.8	-0.3
HDC	Heredia	5.16	116	eP	Pn	06 45 37.5	+0.4
DOMI	Santo Domingo	5.18	116	eP	Pn	06 45 39.6	+2.0
ACOS	Acosta	5.21	118	eP	Pn	06 45 39.6	+1.7
LUJA	Lujan	5.23	116	eP	Pn	06 45 39.9	+1.8
LUPE	Guadalupe	5.23	116	eP	Pn	06 45 39.7	+1.6
SJS	Escuela Geolog	5.24	116	eP	Pn	06 45 39.4	+1.2
ECI	Escuela Centro	5.24	116	eP	Pn	06 45 39.6	+1.3
SJS3	Mercedes San J	5.24	116	eP	Pn	06 45 40.8	+2.5
AMPA	Desamparados	5.25	117	eP	Pn	06 45 39.2	+0.8
PICV	PH. Pirrs	5.26	120	eP	Pn	06 45 40.1	+1.5
PICV				eS	Sn	06 46 36.6	-1.5
CORON	Coronado	5.27	116	eP	Pn	06 45 41.9	+3.2
TRIO	Tres Rios	5.30	116	eP	Pn	06 45 41.3	+2.1
LCR2	La Lucha 2	5.37	118		Pn	06 45 40.0	-0.2
LCR2	La Lucha 2	5.37	118	P	Pn	06 45 40.4	+0.3
LCR2	La Lucha 2	5.37	118	eP	Pn	06 45 40.6	+0.5
TAGO	Cartago	5.38	116	eP	Pn	06 45 42.9	+2.6
PITB	Pirrs, San	5.39	119	eP	Pn	06 45 42.0	+1.6
RAZU	San Marcos de	5.39	119	eP	Pn	06 45 41.7	+1.2
VICA	Volcano Irazu	5.40	115	eP	Pn	06 45 41.0	+0.2
RAFA	San Farael, Vo	5.44	115	Pn	Pn	06 45 41.5	+0.3
REPA	Paraso	5.45	116	eP	Pn	06 45 43.3	+2.1
PCAYA	Pacayas	5.46	115	eP	Pn	06 45 42.4	+1.0
CVTQ	Turrialba Volc	5.46	114	eP	Pn	06 45 43.3	+1.8
CVTR	Volcan Turrial	5.46	114	eP	Pn	06 45 43.3	+1.7
VTR0	Volcan Turrial	5.46	114	eP	Pn	06 45 43.3	+1.7
PIEC	Cerro El Cedra	5.47	119	⇑iP	Pn	06 45 42.9	+1.4
ABRB	Las Abras (San	5.50	114	eP	Pn	06 45 41.9	-0.2
VTCV	VTCV, Calle Va	5.51	114	eP	Pn	06 45 42.6	+0.6
VINA	Juan Vinas	5.53	115	eP	Pn	06 45 44.3	+2.1
TURIB	Turrialba	5.58	115	eP	Pn	06 45 43.4	+0.6
LCOCO	El Coco	5.62	113	eP	Pn	06 45 41.9	-1.5
SAJE	San Jernim	5.99	119	eP	Pn	06 45 49.4	+0.8
EDPE	Pejibaye, P	6.03	121	eP	Pn	06 45 49.8	+0.7
BURE	Buenos Aires	6.22	120	eP	Pn	06 45 53.3	+1.6
FIMO	Fila Mora	6.30	121	eP	Pn	06 45 53.3	+0.4
PIRO	Carate, Puerto	6.64	125		Pn	06 45 58.2	+0.8
PIRO	Carate, Puerto	6.64	125	P	Pn	06 45 56.0	-1.4
PIRO	Carate, Puerto	6.64	125	eP	Pn	06 45 58.2	+0.8
NELY	Ciudad Neily	6.83	122	eP	Pn	06 46 02.3	+2.4
CDITO	Canoas	6.93	122	P	Pn	06 46 00.1	-1.2
BRU2	Volcan	6.96	120		Pn	06 46 03.3	+1.3
BRU2	Volcan	6.96	120	eP	Pn	06 46 02.5	+0.5
CLLRA	Cordillera,	7.05	120	eP	Pn	06 46 03.9	+0.6
BQTLY	Boquete Panama	7.18	119	eP	Pn	06 46 04.9	0.0
PBNVO	Pueblo Nuevo,	7.35	117	eP	Pn	06 46 07.6	+0.5
CMIG	Matias Romero	7.55	310	Pn	Pn	06 46 10.9	+1.0
	0.7nm,0.3s,baz=158,slow=10,SNR=12						
	2.0nm,0.3s						
CMIG				AML	AML		
KKNTU	Kakintº	7.71	116	eP	Pn	06 46 13.4	+1.3
TEIG	Tepich	7.89	4	Pn	Pn	06 46 14.2	-0.3
TLIG	Tlapa	10.77	300		Pn	06 46 55.5	+1.4
SOR	Soroa	11.80	27	Pn	Pn	06 47 08.3	+0.1
MOIG	Morelia	13.96	303	Pn	Pn	06 47 38.4	+0.5
OTAV	Otavalo	15.80	139	Pn	Pn	06 48 02.3	-0.1
ROSC	El Rosal	16.14	116	Pn	Pn	06 48 05.5	-1.1
ZAIG	Zacatecas	16.72	310	Pn	Pn	06 48 13.7	-0.2
SDV	Santo Domingo	18.20	99	P	P	06 48 30.7	-1.2
	0.2nm,0.3s,baz=275,slow=6.8,SNR=4.4						
SDV				LR	LR	06 56 04.7	
	comp=Z,109nm,19.4s,baz=256,slow=39						
	2.6nm,0.7s						
SDV				AML	AML		
SDV	Santo Domingo	18.20	99		P	06 48 31.2	-0.7
833A	Chaparral WMA,	18.75	330		P	06 48 37.3	-0.3
833A				IAmb	IAmb	06 48 40.1	
	comp=Z,35nm,1.4s						
MLDN	Muldoon	19.00	337	P	Pn	06 48 41.8	+0.4
MLDN				IAmb	IAmb	06 49 03.8	
	comp=Z,22nm,0.7s						
352A	Blakely	19.41	10	P	P	06 48 44.3	-0.6
352A				IAmb	IAmb	06 48 51.2	
	comp=Z,33nm,0.9s						
TIGA	Tifton	19.64	13	P	P	06 48 46.9	-0.5
TIGA				IAmb	IAmb	06 48 52.9	
	comp=Z,24nm,0.9s						
HNDO	Hondo	19.70	332	P	P	06 48 48.2	+0.1
HNDO				IAmb	IAmb	06 48 49.0	
	comp=Z,16nm,0.7s						
VBMS	Vicksburg	19.88	356	P	P	06 48 49.6	-0.4
435B	Jarrell	20.09	338		P	06 48 52.5	+0.2
NATX	Nacogdoches	20.09	345	P	P	06 48 51.8	-0.5
NATX				IAmb	IAmb	06 48 58.8	
	comp=Z,18nm,0.9s						
143A	Socs Landing,	20.44	354	P	P	06 48 56.6	+0.6
143A				IAmb	IAmb	06 49 02.7	
	comp=Z,28nm,1.0s						
152A	Waverly Hall	20.61	10	P	P	06 48 57.9	0.0
152A				IAmb	IAmb	06 49 05.1	
	comp=Z,17nm,0.9s						
LRAL	Lakeview Retre	20.70	4		P	06 48 58.2	-0.6
JCT	Junction City	20.75	332	P	P	06 48 59.3	-0.2
JCT				IAmb	IAmb	06 49 00.3	
	comp=Z,15nm,0.7s						
Z47A	Carrollton	20.80	2	P	P	06 48 58.9	-1.1
Z47A				IAmb	IAmb	06 49 03.9	
	comp=Z,18nm,1.1s						
BRDY	Brady	21.09	335		P	06 49 03.1	-0.1
BRDY				IAmb	IAmb	06 49 03.7	
	comp=Z,25nm,0.8s						
WHTX	Lake Whitney,	21.14	339		P	06 49 03.3	-0.3
WHTX				IAmb	IAmb	06 49 04.2	
	comp=Z,14nm,0.8s						
Z41A	Richland Creek	21.17	351	P	P	06 49 03.6	-0.3
Z41A				IAmb	IAmb	06 49 19.6	
	comp=Z,30nm,1.4s						
FW13	Cleburne	21.46	340	P	P	06 49 06.9	-0.1
SAND	Sanderson	21.46	327		P	06 49 06.6	-0.6
HPIG		21.49	315	P	P	06 49 08.0	+0.3
Y49A	Blount Mountai	21.56	5		P	06 49 07.4	-0.7
Z38A	Mt. Pleasant	21.60	346	P	P	06 49 08.2	-0.3
Z38A				IAmb	IAmb	06 49 12.3	
	comp=Z,18nm,0.7s						
WLAR	White Oak Lake	21.64	350		P	06 49 08.9	0.0
WLAR				IAmb	IAmb	06 49 22.8	
	comp=Z,22nm,1.0s						
OZNA	Ozona	21.74	330		P	06 49 09.8	-0.4
OZNA				IAmb	IAmb	06 49 12.2	
	comp=Z,14nm,0.9s						
TX31	Lajitas Ar. Si	21.86	323		P	06 49 11.7	+0.2
TXAR	Lajitas Array	21.86	323	P	P	06 49 12.4	+0.9
	comp=Z,4.6nm,0.7s,baz=148,slow=12,SNR=47						
	comp=Z,4.6nm,0.7s						
TXAR	Lajitas Array	21.86	323		P	06 49 11.4	-0.1
Y52A	Lilburn	21.89	11	P	P	06 49 10.4	-1.3
ATAH	Atahualpa	21.92	151	P	P	06 49 16.6	+4.0
	comp=Z,5.1nm,0.9s,baz=356,slow=6.8,SNR=3.9						
ATAH				LR	LR	06 56 22.9	
	comp=Z,98nm,19.4s,baz=335,slow=33						
	comp=Z,5.1nm,0.9s						
X48A	Hartselle	22.10	4		P	06 49 13.3	-0.6
PLPT	Palo Pinto	22.19	338		P	06 49 14.0	-0.9
PLPT				IAmb	IAmb	06 49 24.9	
	comp=Z,25nm,0.9s						
FPAL	Fort Paine	22.32	7	P	P	06 49 16.4	+0.1
X40A	Basin Creek Fa	22.38	351	P	P	06 49 16.7	-0.2
X40A				IAmb	IAmb	06 49 19.4	
	comp=Z,23nm,1.4s						
ABTX	Abilene, Hawle	22.53	336	P	P	06 49 16.8	-1.7
ABTX				IAmb	IAmb	06 49 18.4	
	comp=Z,12nm,1.1s						
MIAR	Mount Ida	22.56	350		P	06 49 18.8	0.0
SGCY	Sterling City	22.56	332		P	06 49 18.3	-0.7
UALR	University of	22.59	352		P	06 49 17.9	-1.3
UALR				IAmb	IAmb	06 49 22.0	
	comp=Z,26nm,1.0s						
ALPN	Alpine	22.62	325		P	06 49 20.0	+0.3
HODGE	Hodges	22.63	14	P	P	06 49 19.6	0.0
HODGE				IAmb	IAmb	06 49 21.1	
	comp=Z,14nm,1.1s						
TMB01	Midkiff	22.82	330	P	P	06 49 20.3	-1.4
LOOK	Love County	22.89	342	P	P	06 49 20.9	-1.4
LOOK				IAmb	IAmb	06 49 32.4	
	comp=Z,23nm,1.1s						
MNHN	Monahans	22.89	328	IAmb	IAmb	06 49 23.9	
	comp=Z,17nm,1.2s						
229A	Bryant Ranch,	22.93	331	P	P	06 49 22.8	-0.1
JSC	Jenkinsville	22.93	16	IAmb	IAmb	06 49 24.3	
	comp=Z,23nm,1.2s						
SWET	Sewanee	22.96	6	P	P	06 49 22.0	-1.0
WHAR	Wooly Hollow	23.09	353		P	06 49 24.6	+0.3
TPB01	Permian Basin	23.13	326	P	P	06 49 24.9	0.0
HBAR	Harrisburg	23.20	356	P	P	06 49 25.1	-0.4
APMT	Aspermont	23.33	336	P	P	06 49 25.9	-0.9
APMT				IAmb	IAmb	06 49 33.2	
	comp=Z,25nm,1.2s						
CPCT	Cooper Cave	23.36	9	P	P	06 49 26.8	-0.3
TPB06	Permian Basin	23.38	328	P	P	06 49 26.5	-0.7
TPB06				IAmb	IAmb	06 49 39.2	
	comp=Z,9.3nm,0.9s						
V48A	Smith Brothers	23.40	4	IAmb	IAmb	06 49 29.4	
	comp=Z,16nm,1.5s						
ODSA	Odessa	23.41	330	P	P	06 49 26.9	-0.7
ODSA				IAmb	IAmb	06 49 27.6	
	comp=Z,15nm,1.1s						
129A	Stewart Farms,	23.50	331	IAmb	IAmb	06 49 36.0	
	comp=Z,11nm,1.0s						
X34A	Smith Ranch, M	23.66	341		P	06 49 29.6	-0.2
X34A				IAmb	IAmb	06 49 38.8	
	comp=Z,21nm,0.8s						
FCAR	Ozark Folk Cen	23.67	353	P	P	06 49 29.8	-0.1
FCAR				IAmb	IAmb	06 49 31.0	
	comp=Z,20nm,0.9s						
TKL	Tuckaleechee C	23.69	10	LR	LR	06 58 46.3	
	comp=Z,94nm,19.8s,baz=200,slow=37						
TKL	Tuckaleechee C	23.69	10	IAmb	IAmb	06 49 31.5	
	comp=Z,12nm,0.9s						
POST	Post	23.70	333	IAmb	IAmb	06 49 38.6	
	comp=Z,12nm,0.8s						
WVT	Waverly	23.73	2	P	P	06 49 29.9	-0.6
LCAR	Lake Charles	23.75	355	P	P	06 49 30.1	-0.6
V53A	Saluda	23.88	12		P	06 49 31.7	-0.3
V53A				IAmb	IAmb	06 49 36.1	
	comp=Z,10nm,0.9s						
W35A	Tecumseh	23.89	344	P	P	06 49 32.0	+0.1
W35A				IAmb	IAmb	06 49 38.6	
	comp=Z,22nm,1.1s						
UTMT	University of	23.93	360	P	P	06 49 33.1	+0.8
DKNS	Dickens	23.96	334	IAmb	IAmb	06 49 41.7	
	comp=Z,11nm,0.8s						
TPB28		24.08	326	IAmb	IAmb	06 49 38.8	
	comp=Z,2.6nm,1.1s						
FNO	Franklin	24.13	343	P	P	06 49 34.4	+0.1
HHAR	Hobbs	24.31	350		P	06 49 36.5	+0.6
HHAR				IAmb	IAmb	06 49 37.7	
	comp=Z,12nm,0.8s						
TUL3	Leonard	24.33	346		P	06 49 35.3	-0.7
TUL3				IAmb	IAmb	06 49 43.4	
	comp=Z,22nm,1.1s						
PBMO	Poplar Bluff	24.41	357	IAmb	IAmb	06 49 39.1	
	comp=Z,11nm,0.9s						
GDL2	Guadalupe Moun	24.41	327	P	P	06 49 38.1	+1.1
DEOK	Depew	24.44	345	IAmb	IAmb	06 49 44.1	
	comp=Z,20nm,1.2s						
U38A	Gravette	24.54	349	IAmb	IAmb	06 49 39.2	
	comp=Z,14nm,1.1s						
OK029	Liberty Lake	24.65	343	P	P	06 49 38.5	-0.5
T42A	Van Buren	24.70	356	IAmb	IAmb	06 49 41.6	
	comp=Z,9.3nm,0.9s						
U54A	Nelsons Funny	24.92	13	IAmb	IAmb	06 49 43.9	
	comp=Z,11nm,0.9s						
V58A	Windy Hill, Pi	24.97	19	IAmb	IAmb	06 49 42.4	
	comp=Z,22nm,1.3s						
MSTX	Muleshoe	25.04	332		P	06 49 42.2	-0.4
MSTX				IAmb	IAmb	06 49 43.7	
	comp=Z,20nm,1.2s						
OK048	Pawnee Station	25.09	344	IAmb	IAmb	06 49 50.3	
	comp=Z,14nm,1.0s						
OK051	E0350 and S346	25.15	345	IAmb	IAmb	06 49 55.4	
	comp=Z,13nm,1.0s						
AMTX	Amarillo	25.33	335	IAmb	IAmb	06 49 56.6	
	comp=Z,14nm,0.8s						
T35A	Sooner Cattle	25.46	346	IAmb	IAmb	06 49 55.3	
	comp=Z,14nm,1.1s						
BLOK	Blackwell	25.49	344	IAmb	IAmb	06 49 53.4	
	comp=Z,16nm,1.1s						
CZSB	Cruzeiro do Su	25.55	140		P	06 49 48.5	+1.1
OK038	West end E0370	25.67	341	IAmb	IAmb	06 49 55.7	
	comp=Z,16nm,0.8s						
CCM	Cathedral Cave	25.73	356	P	P	06 49 48.5	-0.2
WCI	Wyandotte Cave	25.91	5	P	P	06 49 49.8	-0.6
WCI				IAmb	IAmb	06 49 50.0	
	comp=Z,8.9nm,0.7s						
KAN01	Argonia South	26.01	344	IAmb	IAmb	06 49 51.2	
	comp=Z,17nm,0.9s						
R40A	Maddies Statio	26.06	354	IAmb	IAmb	06 49 59.6	
	comp=Z,12nm,1.1s						
Q51A	Peebles	27.05	9	IAmb	IAmb	06 50 00.7	
	comp=Z,7.3nm,0.8s						
RTBA	Rita Blanca	27.10	335	IAmb	IAmb	06 50 10.6	
	comp=Z,10nm,1.0s						
R32A	Long Quarter,	27.46	343	IAmb	IAmb	06 50 12.2	
	comp=Z,18nm,1.0s						
L40A	Anamosa	29.72	356	IAmb	IAmb	06 50 24.3	
	comp=Z,14nm,1.1s						
MACA	Manacapuru-AM	31.91	117	P	P	06 50 43.6	-0.3
MACA				IAmb	IAmb	06 50 45.4	
	comp=Z,7.5nm,0.9s						
SADO	Sadowa	33.39	13	LR	LR	07 03 48.6	
	comp=Z,117nm,20.6s,baz=156,slow=36						
F33A	5 Mile Ranch,	34.02	351	IAmb	IAmb	06 51 02.2	
	comp=Z,4.8nm,0.7s						
LPAZ	La Paz	35.01	144	LR	LR	07 04 56.4	
	comp=Z,37nm,18.7s,baz=317,slow=35						
PDAR	Pinedale Array	35.28	333	P	P	06 51 13.7	+0.4
	comp=Z,0.5nm,0.8s,baz=142,slow=7.5,SNR=4.6						
	comp=Z,0.5nm,0.8s						
PDAR	Pinedale Array	35.28	333	P	P	06 51 13.0	-0.3
MNTQ	Montreal, Queb	35.52	18	P	P	06 51 14.4	-0.6
EYMN	Ely	35.60	357	P	P	06 51 14.0	-1.6
EYMN				IAmb	IAmb	06 51 14.6	
	comp=Z,7.5nm,0.8s						
AGMN	Agassiz Nation	36.36	352		P	06 51 21.1	-1.0
SNOW	Snow King Moun	36.36	333	IAmb	IAmb	06 51 25.6	
	comp=Z,6.8nm,1.0s						

NVAR	**Mina Array Bea**	**36.94**	**320**	P	**P**	**06 51 29.3**	**+1.8**
	comp=Z,0.9nm,0.8s,baz=133,slow=7.9,SNR=4.1						
NVAR				LR	LR	07 09 21.9	
	comp=Z,60nm,19.5s,baz=114,slow=41						
	comp=Z,0.9nm,0.8s						
NVAR	**Mina Array Bea**	**36.94**	**320**	P	**P**	**06 51 28.8**	**+1.3**
YNE	**Yellowstone No**	**37.28**	**335**	P	**P**	**06 51 30.9**	**+0.6**
VILB	**Vilhena**	**37.89**	**131**	P	**P**	**06 51 35.9**	**+0.3**
DGMT	**Dagmar**	**38.26**	**343**		**P**	**06 51 38.5**	**+0.2**
ULM	**Lac du Bonnet**	**38.27**	**353**	P	**P**	**06 51 36.8**	**-1.5**
	comp=Z,5.8nm,0.9s,baz=139,slow=5.5,SNR=5.6						
ULM				LR	LR	07 08 44.6	
	comp=Z,154nm,18.4s,baz=165,slow=39						
	comp=Z,5.8nm,0.9s						
ULM	**Lac du Bonnet**	**38.27**	**353**	IAmb	IAmb	06 51 44.7	
	comp=Z,8.8nm,0.9s						
BOZ	**Bozeman (W)**	**38.43**	**334**	P	**P**	**06 51 40.2**	**+0.2**
RPN	**Rapa Nui**	**43.97**	**207**	LR	LR	07 06 02.0	
	comp=Z,51nm,19.6s,baz=29,slow=29						
F04D	**Rainier, OR**	**44.38**	**326**	P	**P**	**06 52 28.5**	**0.0**
EDM	**Edmonton**	**45.26**	**339**	P	**P**	**06 52 35.5**	**0.0**
EDM				IAmb	IAmb	06 52 43.3	
	comp=Z,8.0nm,0.8s						
SCHQ	**Schefferville**	**45.81**	**18**	P	**P**	**06 52 37.4**	**-2.4**
	comp=Z,6.4nm,0.9s,baz=189,slow=5.3,SNR=6.1						
	comp=Z,6.4nm,0.9s						
SCHQ	**Schefferville**	**45.81**	**18**	P	**P**	**06 52 37.7**	**-2.0**
SCHQ				IAmb	IAmb	06 52 38.6	
	comp=Z,9.9nm,1.0s						
CPUP	**Villa Florida**	**49.12**	**142**	LR	LR	07 12 45.3	
	comp=Z,28nm,20.2s,baz=241,slow=35						
FRB	**Frobisher Bay**	**53.31**	**11**	LR	LR	07 17 48.7	
	comp=Z,144nm,18.6s,baz=234,slow=38						
YKA	**Yellowknife Ar**	**53.40**	**345**	P	**P**	**06 53 36.1**	**-1.3**
	comp=Z,3.3nm,1.1s,baz=143,slow=7.7,SNR=6.6						
	comp=Z,3.3nm,1.1s						
YKA	**Yellowknife Ar**	**53.40**	**345**	P	**P**	**06 53 36.4**	**-1.0**
PLCA	**Paso Flores**	**55.42**	**163**	P	**P**	**06 53 55.1**	**+2.7**
	comp=Z,1.9nm,1.0s,baz=357,slow=6.8,SNR=2.9						
	comp=Z,1.9nm,1.0s						
SFJD	**Kangerlussuaq**	**60.22**	**16**	LR	LR	07 20 08.6	
	comp=Z,56nm,18.2s,baz=214,slow=36						
RES	**Resolute Bay**	**62.45**	**358**	LR	LR	07 22 49.9	
	comp=Z,90nm,18.1s,baz=214,slow=37						
BYL	**Byron's Ledge**	**63.98**	**286**	P	**P**	**06 54 51.2**	**-0.7**
HATHI	**Halemaʻumaʻu T**	**63.98**	**286**	P	**P**	**06 54 51.1**	**-0.8**
F28M	**Old Crow**	**64.47**	**341**	P	**P**	**06 54 54.8**	**+0.7**
E28M	**Babbage River**	**64.91**	**342**	P	**P**	**06 54 57.3**	**+0.3**
E28M				IAmb	IAmb	06 55 08.1	
	comp=Z,5.5nm,1.1s						
ILAR	**Eielson Array**	**65.61**	**336**	P	**P**	**06 55 00.9**	**-0.7**
	comp=Z,0.9nm,1.1s,baz=139,slow=3.6,SNR=4.6						
ILAR				LR	LR	07 26 00.3	
	comp=Z,67nm,19.6s,baz=102,slow=38						
	comp=Z,0.9nm,1.1s						
ILAR	**Eielson Array**	**65.61**	**336**	P	**P**	**06 55 01.3**	**-0.3**
BMAR	**Burnt Mountain**	**65.94**	**340**	P	**P**	**06 55 04.2**	**+0.5**
PPT	**Papeete**	**66.93**	**245**	LR	LR	07 18 24.3	
	comp=Z,52nm,18.6s,baz=76,slow=30						
ESDC	**Sonseca Array**	**78.33**	**52**	LR	LR	07 28 01.5	
	comp=Z,45nm,19.0s,baz=290,slow=34						
SPITS	**Spitsbergen Ar**	**81.11**	**12**	LR	LR	07 33 25.8	
	comp=Z,62nm,18.1s,baz=296,slow=36						
NOA	**NORSAR Array B**	**84.14**	**29**	LR	LR	07 30 18.2	
	comp=Z,24nm,21.8s,baz=285,slow=33						
HFS	**Hagfors**	**85.56**	**29**	LR	LR	07 31 39.6	
	comp=Z,31nm,21.4s,baz=326,slow=33						
ARCES	**ARCESS Array B**	**86.75**	**19**	LR	LR	07 34 16.2	
	comp=Z,32nm,20.3s,baz=340,slow=35						
DAVOX	**Davos/Dischmat**	**87.00**	**43**	LR	LR	07 34 42.5	
	comp=Z,36nm,18.3s,baz=270,slow=35						
GERES	**GERESS Array B**	**88.91**	**40**	LR	LR	07 38 23.4	
	comp=Z,46nm,18.1s,baz=12,slow=37						
VRAC	**Vranov**	**90.56**	**39**	LR	LR	07 34 33.7	
	comp=Z,56nm,19.0s,baz=340,slow=34						
VAE	**Valguarnera**	**92.84**	**51**	LR	LR	07 34 48.2	
	comp=Z,125nm,18.2s,baz=320,slow=33						
NRIK	**Noril'sk**	**98.52**	**1**	LR	LR	07 45 05.6	
	comp=Z,38nm,20.1s,baz=0.5,slow=37						
YAK	**Yakutsk**	**100.01**	**343**	LR	LR	07 46 55.1	
	comp=Z,16nm,21.6s,baz=334,slow=38						
HHC	**Hu-ho-hao-te**	**123.84**	**341**	*e*P	**PKiKP**	**07 03 16.3**	**-0.1**
WMQ	**Urumqi**	**124.05**	**3**	*e*PKP	**PKiKP**	**07 03 16.8**	**+0.1**
WMQ				LR	LR		
	comp=N,170nm,18.1s						
WMQ				LR	LR		
	comp=E,150nm,22.9s						
WMQ				LR	LR		
	comp=Z,70nm,23.8s						
NJ2	**Nanjing**	**128.54**	**330**	*e*P	**PKPdf**	**07 03 24.5**	**-0.7**
NJ2				pmax	pmax		
	comp=Z,11nm,0.5s						
WRA	**Warramunga Arr**	**137.94**	**254**	PKP	**PKiKP**	**07 03 48.2**	**+3.1**
	comp=Z,0.5nm,0.7s,baz=88,slow=2.1,SNR=3.2						
ASAR	**Alice Springs**	**137.97**	**248**	PKP	**PKiKP**	**07 03 47.5**	**+2.3**
	comp=Z,0.3nm,0.7s,baz=82,slow=3.0,SNR=2.1						
PZH	**PanZhiHua**	**140.08**	**345**	PKP	**PKPdf**	**07 03 46.3**	**-0.8**
CMAR	**Chiang Mai Arr**	**148.48**	**346**	PKPbc	**PKiKP**	**07 04 06.2**	**-0.6**
	comp=Z,2.1nm,0.4s,baz=340,slow=3.3,SNR=13						

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*IDC **29** 06:48:01.8±2.9, 33°.32S×178°.72W, h0^{km}, mb3.7/2, mbtmp3.9/3, ML4.1/1, Error ellipse: s-maj=70.6km s-min=44.3km az=124.0*

*WEL **29** 06:48:07.1±1.0, 34°S±8°×17°9W±1°3, h12^{km}, M4.2/7, mB4.8/7, ML4.4/13, MLv4.3/6, Mw(mB)4.1/7, Error ellipse: s-maj=19.1km s-min=7.3km az=114.8, confirmed*

ISC 29 06:48:07.5±1.3**, 33°.83S**±0°.08×**178°.7W**±0°.1**, h10**^{km}**, n24, σ1**^{s}**.67**/38**, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GLKZ	**Green Lake**	**4.61**	**9**	P	**Pn**	**06 49 20.1**	**+3.0**
WMGZ	**Waiomatatini S**	**4.61**	**210**	P	**Pn**	**06 49 15.9**	**-1.3**
WMGZ				S	**Sn**	**06 50 11.3**	**+0.6**
PKGZ	**Pakihiroa**	**4.79**	**212**	P	**Pn**	**06 49 20.7**	**+1.0**
PKGZ				S	**Sn**	**06 50 16.4**	**+1.0**
PKGZ				AML	AML		
PKGZ				AML	AML		
HAZ	**Te Kaha**	**4.84**	**215**	P	**Pn**	**06 49 21.0**	**+0.7**
HAZ				S	**Sn**	**06 50 19.9**	**+3.5**
HAZ				AML	AML		
PUZ	**Puketiti**	**4.89**	**209**	P	**Pn**	**06 49 21.1**	**0.0**
PUZ				S	**Sn**	**06 50 18.5**	**+0.8**
PUZ				AML	AML		
RUGZ	**Raukumara Rang**	**5.06**	**214**	P	**Pn**	**06 49 24.2**	**+0.7**
RUGZ				S	**Sn**	**06 50 24.0**	**+2.1**
RUGZ				AML	AML		
RUGZ				AML	AML		
TWGZ	**Tauwhareparae**	**5.09**	**211**	P	**Pn**	**06 49 25.3**	**+1.4**
TWGZ				S	**Sn**	**06 50 25.2**	**+2.4**
TWGZ				AML	AML		
TWGZ				AML	AML		
CNGZ	**Carnagh Statio**	**5.27**	**207**	P	**Pn**	**06 49 26.0**	**-0.2**
CNGZ				AML	AML		
CNGZ				AML	AML		
TKGZ	**Te Karaka**	**5.37**	**210**	P	**Pn**	**06 49 28.3**	**+0.7**
TKGZ				S	**Sn**	**06 50 31.6**	**+2.1**
TKGZ				AML	AML		
TKGZ				AML	AML		
MWZ	**Matawai**	**5.42**	**213**	P	**Pn**	**06 49 28.5**	**+0.1**
MWZ				S	**Sn**	**06 50 32.6**	**+1.6**
MWZ				AML	AML		
URZ	**Urewera**	**5.56**	**216**	Pn	**Pn**	**06 49 30.6**	**+0.3**
	4.7nm,0.3s,baz=236,slow=1.6,SNR=36						
URZ				Sn	**Sn**	**06 50 34.8**	**+0.5**
	4.3nm,0.3s,baz=263,slow=21,SNR=7.7						
	14nm,0.2s						
URZ				AML	AML		
URZ	**Urewera**	**5.56**	**216**	P	**Pn**	**06 49 30.3**	**+0.1**
URZ				S	**Sn**	**06 50 35.2**	**+1.0**
URZ				AML	AML		
RAGZ	**Rawiri**	**5.61**	**213**	P	**Pn**	**06 49 31.5**	**+0.5**
RAGZ				S	**Sn**	**06 50 36.4**	**+1.0**
RAGZ				AML	AML		
RAGZ				AML	AML		
RIGZ	**Rimuhau**	**5.63**	**209**	P	**Pn**	**06 49 29.8**	**-1.5**
RIGZ				S	**Sn**	**06 50 38.4**	**+2.3**
RIGZ				AML	AML		
PRGZ	**Paritu Road**	**5.77**	**207**	P	**Pn**	**06 49 33.1**	**-0.1**
PRGZ				S	**Sn**	**06 50 42.1**	**+2.6**
PRGZ				AML	AML		
PRGZ				AML	AML		
MUGZ	**Murupara**	**5.90**	**217**	P	**Pn**	**06 49 34.3**	**-0.6**
MUGZ				S	**Sn**	**06 50 43.7**	**+1.1**
MUGZ				AML	AML		
MUGZ				AML	AML		
RTZ	**Ruatahuna**	**5.91**	**215**	P	**Pn**	**06 49 35.4**	**+0.3**
RTZ				AML	AML		
MHGZ	**Mahia Peninsul**	**5.96**	**206**	P	**Pn**	**06 49 35.6**	**-0.2**
MHGZ				AML	AML		
WCZ	**Waipu Caves**	**6.08**	**248**	P	**Pn**	**06 49 35.3**	**-2.0**
OUZ	**Omahuta**	**6.49**	**256**	P	**Pn**	**06 49 45.6**	**+2.5**
OUZ				AML	AML		
BKZ	**Black Stump Fm**	**6.57**	**215**	P	**Pn**	**06 49 44.2**	**0.0**
BKZ				S	**Sn**	**06 50 59.1**	**-0.1**
BKZ				AML	AML		
ASAR	**Alice Springs**	**42.44**	**271**	P	**P**	**06 55 58.8**	**-3.9**
	0.6nm,0.6s,baz=119,slow=8.1,SNR=8.3						
	0.6nm,0.6s						
WRA	**Warramunga Arr**	**43.73**	**276**	P	P	06 56 08.2	-5.0
	0.5nm,0.4s,baz=115,slow=8.0,SNR=8.0						
	0.5nm,0.4s						
FINES	**FINESS Array B**	**148.11**	**338**	PKPbc	**PKPdf**	**07 07 46.8**	**-2.6**
	0.7nm,0.5s,baz=52,slow=5.4,SNR=8.5						

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*IDC **29** 07:49:14.8±4.0, 53°.77N×88°.12E, h0^{km}, mbtmp2.7/2, ML2.6/1, Error ellipse: s-maj=37.5km s-min=23.8km az=56.0*

ASRS 29 07:49:13.0±1.1**, 53°.66N**×**88°.21E, h0**^{km}**, M2.4**(MOS)**, The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I46RU	**ZALESOVO INFRA**	**2.03**	**279**	I	I	08 02 20.0	
	baz=94,slow=340,SNR=4.2						
ZALV	**Zalesovo Beam**	**2.03**	**279**	Pn	Pb	07 49 50.4	-0.3
	0.9nm,0.3s,baz=91,slow=15,SNR=7.4						
ZALV				Lg	Lg	07 50 17.8	
	1.6nm,0.3s,baz=91,slow=26,SNR=8.1						
KURBB	**Kurchatov Arra**	**6.69**	**247**	Pn	Pn	07 50 54.5	+2.1
	0.2nm,0.3s,baz=60,slow=14,SNR=1.6						
MKAR	**Makanchi Array**	**7.85**	**211**	Pn	Pn	07 51 12.1	+3.7
	0.1nm,0.3s,baz=22,slow=12,SNR=2.1						
	0.1nm,0.3s						
MKAR				AML	AML		

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*TRN **29** 07:52:36.2, 10°.78N×62°.35W, h79^{km}, MD3.9, North of the Paria peninsula.*

*FUNV **29** 07:52:37.5, 10°.81N×62°.33W, h28^{km}, MW3.3, Presumed earthquake*

ISC 29 07:52:35.5±1.7**, 10°.79N**±0°.07×**62°.35W**±0°.07**, h87**^{km}±21^{km}**, n18, σ1**^{s}**.31**/35**, 1D, Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DMDM	**Guralp CMG5TDE**	**0.79**	**96**	*e*P	**Pn**	**07 52 53.8**	**+1.1**
DMDM				*e*S	**Sn**	**07 53 05.0**	**-0.5**
PSMG	**Mucurapo Girls**	**0.82**	**98**	*e*P	**Pn**	**07 52 53.7**	**+0.8**
PSMG				*e*S	**Sn**	**07 53 05.0**	**-1.0**
TRN	**Trinidad (W)**	**0.94**	**98**	*e*P	**Pn**	**07 52 54.9**	**+0.6**
TRN				*e*S	**Sn**	**07 53 06.8**	**-1.6**
TRN	**Trinidad (W)**	**0.94**	**98**	*e*P	**Pn**	**07 52 55.0**	**+0.6**
TRN				*e*S	**Sn**	**07 53 07.5**	**-1.0**
GRGR	**Grenville**	**1.50**	**27**	⇓*e*P	**Pn**	**07 53 01.6**	**+0.4**
GRGR				*e*S	**Sn**	**07 53 19.7**	**-0.9**
GRGR	**Grenville**	**1.50**	**27**	*e*P	**Pn**	**07 53 01.4**	**+0.3**
GRGR				*e*S	**Sn**	**07 53 20.6**	**0.0**
GRW	**Mount Saint Ca**	**1.53**	**26**	*e*P	**Pn**	**07 53 02.0**	**+0.5**
GRW				*e*S	**Sn**	**07 53 21.8**	**+0.6**
GRHS	**Sauteurs**	**1.59**	**26**	*e*P	**Pn**	**07 53 02.5**	**+0.3**
GRSS	**Sisters**	**1.67**	**26**	*e*P	**Pn**	**07 53 04.2**	**+0.9**
GRSS				*e*S	**Sn**	**07 53 24.7**	**+0.3**
SLBI	**Saint Lucia, B**	**3.49**	**23**	*e*P	**Pn**	**07 53 27.9**	**+0.4**
SLBI				*e*S	**Sn**	**07 54 06.9**	**-1.0**
BBGH	**Gun Hill**	**3.60**	**49**	*e*P	**Pn**	**07 53 30.0**	**+0.9**
BBGH				*e*S	**Sn**	**07 54 10.4**	**-0.2**
BIM	**Bigot**	**3.92**	**19**	*e*P	**Pn**	**07 53 33.9**	**+0.5**
BIM				*e*S	**Sn**	**07 54 16.5**	**-1.8**
BIM	**Bigot**	**3.92**	**19**	*e*P	**Pn**	**07 53 34.0**	**+0.6**
BIM				*e*S	**Sn**	**07 54 16.2**	**-2.1**
FUNV	**FUNVISIS**	**4.39**	**266**	*e*P	**Pn**	**07 53 41.9**	**+2.0**
FUNV				*e*S	**Sn**	**07 54 28.6**	**-1.4**
TACV	**Tcata**	**4.64**	**262**	*e*P	**Pn**	**07 53 44.8**	**+1.5**
TACV				*e*S	**Sn**	**07 54 33.2**	**-2.8**
DSLB	**Salisbury**	**4.71**	**11**	*e*P	**Pn**	**07 53 46.1**	**+1.9**
DSLB				*e*S	**Sn**	**07 54 35.9**	**-1.7**
BENV	**Beln**	**5.22**	**261**	*e*P	**Pn**	**07 53 51.8**	**+0.6**
BENV				*e*S	**Sn**	**07 54 47.6**	**-2.6**
TURV	**Turiamo**	**5.40**	**267**	*e*P	**Pn**	**07 53 55.6**	**+2.0**
TURV				*e*S	**Sn**	**07 54 54.4**	**-0.1**

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*SOME **29** 08:13:27.1, 44°.62N×82°.20E, h20^{km}*

*NNC **29** 08:13:28.6±2.0, 44°.64N×82°.09E, h0^{km}, mb3.5, mpv3.1, Error ellipse: s-maj=19.8km s-min=9.1km az=123.0, Suspected Mining explosion.*

ISC 29 08:13:25.6±1.8**, 44°.44N**±0°.07×**82°.41E**±0°.10**, h0**^{km}**, n18, σ1**^{s}**.35**/28**, 2C, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KTMS	**Ketmen**	**1.79**	**237**	P	**Pg**	**08 14 01.3**	**+1.4**
	0.9nm,0.1s						
KTMS				S	**Sg**	**08 14 26.1**	**+3.1**
	13nm,0.3s						
KTMS	**Ketmen**	**1.79**	**237**	*e*P	**Pb**	**08 13 58.4**	**-0.9**
	0.3nm,0.1s						
KTMS				*e*S	**Sb**	**08 14 21.6**	**-0.8**
	18nm,0.3s						
DJR	**Jarkent**	**1.89**	**268**	P	**Pb**	**08 14 00.1**	**-0.9**
	8.6nm,0.2s						
DJR				S	**Sb**	**08 14 24.2**	**-0.9**
	4.6nm,0.3s						
DJR	**Jarkent**	**1.89**	**268**	*e*P	**Pn**	**08 13 58.9**	**-0.3**
	8.6nm,0.2s						
DJR				*e*S	**Sn**	**08 14 21.6**	**-2.0**
	4.6nm,0.3s						
KNOS	**Konyrlen**	**2.32**	**269**	Pg	**Pb**	**08 14 07.2**	**-1.2**
	5.5nm,0.2s						
KNOS				Lg	Lg	08 14 36.4	
	32nm,0.4s						
KAPS	**Kapalarasan**	**2.33**	**292**	Pg	**Pn**	**08 14 05.6**	**+0.3**
	2.6nm,0.1s						
KAPS				Lg	Lg	08 14 33.7	
	34nm,0.3s						
KAPS	**Kapalarasan**	**2.33**	**292**	*e*P	**Pn**	**08 14 05.6**	**+0.3**
	2.6nm,0.1s						
KAPS				*e*S	**Sn**	**08 14 33.6**	**-1.1**
	34nm,0.3s						
MK31	**Makanchi Array**	**2.36**	**358**	Pn	**Pn**	**08 14 06.2**	**+0.6**
	2.0nm,0.2s,baz=184,slow=14,SNR=183						
MK31				Sn	**Sn**	**08 14 34.1**	**-1.2**
	6.1nm,0.4s,baz=194,slow=22,SNR=38						
PDGK	**Podgornoye**	**2.39**	**243**	⇑Pg	**Pb**	**08 14 09.0**	**-0.5**
	1.8nm,0.3s						
PDGK				⇑Lg	Lg	08 14 39.9	
	6.6nm,0.5s						
SHLS	**Shalkode**	**2.49**	**240**	Pg	**Pn**	**08 14 07.4**	**-0.2**
	6.6nm,0.2s						
SHLS				Lg	Lg	08 14 36.3	
	29nm,0.3s						
SHLS	**Shalkode**	**2.49**	**240**	*e*P	**Pn**	**08 14 07.4**	**-0.2**
	6.6nm,0.2s						
SHLS				*e*S	**Sn**	**08 14 36.3**	**-2.4**
	29nm,0.3s						
UZB	**Uzynbulak**	**2.77**	**243**	Pg	**Pb**	**08 14 14.8**	**-1.3**
	4.4nm,0.3s						
UZB				Lg	Lg	08 14 49.4	
	6.1nm,0.3s						
UZB	**Uzynbulak**	**2.77**	**243**	*e*P	**Pb**	**08 14 15.9**	**-0.3**
	4.4nm,0.3s						
UZB				*e*S	**Sb**	**08 14 50.7**	**0.0**
	8.4nm,0.2s						
BLB	**Baldybastay**	**2.85**	**265**	Pg	**Pb**	**08 14 16.4**	**-1.0**
	16nm,0.4s						
BLB				Lg	Lg	08 14 52.0	
	12nm,0.6s						
KPKS	**Kokpek**	**2.86**	**251**	Pg	**Pb**	**08 14 15.5**	**-2.1**
	0.2nm,0.1s						
KPKS				Lg	Lg	08 14 50.9	
	28nm,0.4s						
KPKS	**Kokpek**	**2.86**	**251**	*e*P	**Pb**	**08 14 16.9**	**-0.7**
	0.3nm,0.1s						
KPKS				*e*S	**Sb**	**08 14 52.8**	**-0.5**
	28nm,0.4s						
KTBS	**Karatobe**	**4.19**	**262**	Pg	**Pb**	**08 14 39.1**	**-1.2**
	0.2nm,0.1s						
KTBS				Lg	Lg	08 15 31.1	
	4.5nm,0.5s						
KTBS	**Karatobe**	**4.19**	**262**	*e*P	**Pb**	**08 14 41.0**	**+0.7**
	0.3nm,0.1s						
KTBS				*e*S	**Sb**	**08 15 34.0**	**+2.5**
	5.3nm,0.2s						

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*SDD **29** 08:24:11.8±1.1, 18°.32N×71°.68W, h31^{km}±7^{km}, MD2.6, ML1.9, MW2.7, Presumed earthquake*

*OSPL **29** 08:24:15.2±0.9, 18°.35N×71°.66W, h10^{km}±9^{km}, ML1.9, Presumed earthquake*

ISC 29 08:24:14.3±1.0**, 18°.32N**±0°.03×**71°.65W**±0°.04**, h17**^{km}±7^{km}**, n10, σ0**^{s}**.92**/17**, 4C-4D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LODU1	**El Espartillar**	**0.17**	**78**	*i*P	**Pb**	**08 24 18.2**	**-0.9**
LODU1				*e*S	**Sg**	**08 24 21.7**	**-0.2**
LODU1				IAML		08 24 24.4	
	comp=Z,330nm,0.3s						
JIDR	**Jimani**	**0.26**	**313**	⇓*i*P	**Pb**	**08 24 19.7**	**-0.7**
JIDR				⇓*i*S	**Sg**	**08 24 25.1**	**+1.1**
JIDR				IAML		08 24 25.5	
	comp=N,98nm,0.5s						
NEDR	**Neiba UASD**	**0.28**	**53**	⇓*i*P	**Pb**	**08 24 20.8**	**-0.1**
NEDR				⇑*i*S	**Sb**	**08 24 26.9**	**+1.6**
NEDR				IAML		08 24 28.9	
	comp=N,124nm,0.3s						
LONE3	**El Aguacate, B**	**0.34**	**33**	*i*P	**Pg**	**08 24 21.5**	**-0.1**
LONE3				IAML		08 24 28.7	
	comp=Z,81nm,0.3s						
PODR	**Polo**	**0.38**	**113**	*i*P	**Pg**	**08 24 22.1**	**-0.3**
PODR				IAML		08 24 34.2	
	comp=Z,796nm,0.5s						
PODR	**Polo**	**0.38**	**113**	⇓*i*P	**Pg**	**08 24 22.0**	**-0.3**
PODR				⇑*i*S	**Sb**	**08 24 29.8**	**+1.3**
PODR				IAML		08 24 37.1	
	comp=N,106nm,0.5s						
LOBH	**Bahia de las A**	**0.45**	**178**	*i*P	**Pb**	**08 24 24.0**	**+0.2**
LOBH				*e*S	**Sb**	**08 24 30.4**	**+0.2**
LOBH				IAML		08 24 34.1	
	comp=Z,53nm,1.4s						
LOVI	**El Cajuil, Ovi**	**0.58**	**152**	*i*P	**Pn**	**08 24 26.7**	**-1.1**
LOVI				*e*S	**Sg**	**08 24 34.7**	**+1.0**
LOVI				IAML		08 24 39.0	
	comp=Z,82nm,1.2s						
SDDR	**Presa de Saban**	**0.75**	**28**	*i*P	**Pb**	**08 24 27.9**	**-1.0**
SDDR				IAML		08 24 44.6	
	comp=Z,15nm,0.7s						
REDR	**Restauracion**	**0.88**	**16**	⇑*i*P	**Pg**	**08 24 31.5**	**+0.1**
REDR				⇑*i*S	**Sn**	**08 24 45.0**	**+0.7**
REDR				IAML		08 24 45.8	
	comp=N,44nm,0.1s						

IDC 29 08:31:26.8±14.0**, 8°.83S**×**119°.93E, h198**^{km}±96^{km}**, mb3.6**/1**, mbtmp3.6**/4**, Error ellipse: s-maj=148.5km s-min=108.1km az=69.0, Flores region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	**10.75**	**150**	P	Pn	08 33 55.8	0.0
	0.5nm,0.4s,baz=331,slow=12,SNR=1.8						
FITZ				S	S	08 35 56.5	+0.3
	1.3nm,0.4s,baz=167,slow=22,SNR=7.9						
WRA	**Warramunga Arr**	**17.78**	**130**	P	P	08 35 20.0	-0.5
	0.6nm,0.3s,baz=303,slow=12,SNR=30						
ASAR	**Alice Springs**	**19.91**	**139**	P	P	08 35 43.9	+0.3
	0.6nm,0.5s,baz=316,slow=9.9,SNR=18						
STKA	**Stephens Creek**	**30.51**	**142**	P	P	08 37 21.5	0.0
	1.4nm,0.5s,baz=310,slow=7.9,SNR=3.7						
	1.4nm,0.5s						

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*RSNC **29** 08:33:38.4±0.3, 9°N±2°×7°1W±°, h33^{km}±5^{km}, M3.5, mb3.8, ML2.9*

*FUNV **29** 08:33:40.7, 8°.67N×70°.84W, h5^{km}, MW3.3, Presumed earthquake*

ISC 29 08:33:38.2±1.2**, 8°.71N**±0°.04×**70°.91W**±0°.04**, h9**^{km}±10^{km}**, n33, σ1**^{s}**.56**/56**, Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SDV	**Santo Domingo**	**0.33**	**57**	P	**Pg**	**08 33 44.8**	**0.0**
SDV				S	**Sg**	**08 33 49.8**	**+0.6**
SDV	**Santo Domingo**	**0.33**	**57**	*e*P	**Pg**	**08 33 44.9**	**0.0**
SDV				*e*S	**Sg**	**08 33 50.1**	**+0.8**
PAMC	**Pamplona, Colo**	**2.23**	**233**	P	**Pn**	**08 34 16.0**	**+0.1**
PAMC				S	**Sg**	**08 34 48.3**	**-1.8**
TAMC	**Tame, Arauca**	**2.42**	**201**	P	**Pn**	**08 34 19.1**	**+1.0**
TAMC				S	**Sb**	**08 34 50.3**	**-1.7**
OCAC	**Ocana**	**2.43**	**259**	P	**Pn**	**08 34 19.7**	**+1.4**
OCAC				S	**Sb**	**08 34 52.6**	**+0.3**
BARC	**Barichara**	**3.08**	**227**	P	**Pn**	**08 34 28.3**	**+1.0**
BARC				S	**Sb**	**08 35 08.1**	**-3.1**
URIC	**Uribia, Colomb**	**3.16**	**340**	P	**Pn**	**08 34 26.9**	**-1.4**
URIC				S	**Sn**	**08 35 02.8**	**-3.4**
URIC	**Uribia, Colomb**	**3.16**	**340**	*e*P	**Pn**	**08 34 31.8**	**+3.5**
URIC				*e*S	**Sn**	**08 35 08.3**	**+2.2**
BRJC	**Barrancabermej**	**3.29**	**239**	P	**Pn**	**08 34 30.3**	**+0.2**
ARGC	**Ariguani, Magd**	**3.48**	**289**	P	**Pn**	**08 34 30.0**	**-2.7**
ARGC				S	**Sn**	**08 35 12.7**	**-1.5**
TURV	**Turiamo**	**3.49**	**60**	*e*P	**Pn**	**08 34 34.2**	**+1.5**
TURV				*e*S	**Sn**	**08 35 14.3**	**+0.1**
BENV	**Beln**	**3.50**	**69**	*e*P	**Pn**	**08 34 33.6**	**+0.6**
BENV				*e*S	**Sn**	**08 35 14.1**	**-0.5**
RUSC	**La Rusia**	**3.53**	**218**	P	**Pn**	**08 34 35.0**	**+1.2**
RUSC	**La Rusia**	**3.53**	**218**	*e*P	**Pn**	**08 34 35.0**	**+1.2**
RUSC				*e*S	**Sn**	**08 35 15.3**	**-0.6**
TACV	**Tcata**	**4.09**	**69**	*e*P	**Pn**	**08 34 41.8**	**+0.7**
TACV				*e*S	**Sn**	**08 35 28.0**	**-1.1**
PTBC	**PUERTO BERRIO,**	**4.12**	**239**	P	**Pn**	**08 34 40.5**	**-1.0**
PTBC				S	**Sn**	**08 35 33.6**	**+3.7**
SPBC	**San Pablo de B**	**4.36**	**226**	P	**Pn**	**08 34 46.0**	**+1.1**
SJCC	**San Jacinto, C**	**4.38**	**286**	P	**Pn**	**08 34 46.6**	**+1.6**
SJCC				S	**Sn**	**08 35 38.0**	**+1.8**
SJCC	**San Jacinto, C**	**4.38**	**286**	*e*P	**Pn**	**08 34 46.8**	**+1.7**
SJCC				*e*S	**Sn**	**08 35 37.5**	**+1.3**
FUNV	**FUNVISIS**	**4.41**	**66**	*e*P	**Pn**	**08 34 46.5**	**+1.0**
FUNV				*e*S	**Sn**	**08 35 35.5**	**-1.6**
UREC	**San Jos de Ur**	**4.67**	**259**	P	**Pn**	**08 34 49.7**	**+0.6**
CHIC	**Chingaza**	**4.92**	**215**	P	**Pn**	**08 34 53.4**	**+0.5**
	11nm,0.7s						
CHIC				S	**Sn**	**08 35 51.0**	**+0.7**
	11nm,0.7s						
CHIC				AML	AML		
NORC	**Norcasia**	**5.02**	**232**	P	**Pn**	**08 34 53.1**	**-0.8**
	4.5nm,0.4s						
NORC				AML	AML		
CVER	**Cruz Verde, Cu**	**5.21**	**217**	P	**Pn**	**08 34 58.4**	**+1.5**
	22nm,1.0s						
CVER				AML	AML		
VILC	**Villavicencio,**	**5.34**	**211**	P	**Pn**	**08 34 58.6**	**+0.3**
VILC				S	**Sn**	**08 36 01.3**	**+1.3**
GUY2C	**Guyana, Caldas**	**5.61**	**232**	P	**Pn**	**08 35 02.8**	**+0.4**
	7.4nm,0.7s						
GUY2C				AML	AML		
APAC	**Apartado, Choc**	**5.67**	**262**	P	**Pn**	**08 35 03.7**	**+1.0**
	7.8nm,1.2s						
APAC				S	**Sn**	**08 36 09.4**	**+1.4**
	7.8nm,1.2s						
APAC				AML	AML		
CBOC	**Ciudad Bolivar**	**5.79**	**241**	P	**Pn**	**08 35 06.9**	**+2.3**
	5.8nm,1.6s						
CBOC				AML	AML		
PRAC	**Prado**	**6.34**	**219**	P	**Pn**	**08 35 13.0**	**+1.0**
	6.6nm,1.3s						
PRAC				S	**Sn**	**08 36 27.5**	**+2.8**
	6.6nm,1.3s						
ORTC	**Ortega, Tolima**	**6.42**	**222**	P	**Pn**	**08 35 13.5**	**+0.3**
	5.0nm,0.4s						
ORTC				S	**Sn**	**08 36 28.8**	**+2.0**
	5.0nm,0.4s						
MACC	**Macarena, Meta**	**7.14**	**204**	P	**Pn**	**08 35 22.6**	**-0.4**
	3.2nm,0.6s						
MACC				S	**Sn**	**08 36 44.3**	**-0.1**
	3.2nm,0.6s						
GARC	**Garzon, Huila**	**7.92**	**215**	P	**Pn**	**08 35 32.8**	**-1.1**
	5.3nm,0.7s						
POPC	**Popayan, Colom**	**8.39**	**223**	P	**Pn**	**08 35 40.3**	**-0.1**

*NOU **29** 08:34:56.2,24°.86S×179°.77W,h514km,mb4.8/74,South of Fiji Islands*

*IDC **29** 08:34:56.4±0.9,24°.83S×179°.96E,h488km±9km,mb4.1/23, mbtmp4.9/26,Error ellipse: s-maj=11.6km s-min=9.4km az=74.0*

*GFZ **29** 08:34:57.7±0.5,25°S±5°×18°0E±°,h497km±6km,M4.7/28, mb4.7/28*

*NEIC **29** 08:34:57.1±1.5,24°.90S±0°.10×180°.0W±0°.1,h490km±6km, mb4.5/96,Error ellipse: s-maj=15.2km s-min=13.9km az=80.0*

ISC 29 08:34:56.6±0.3**,24°.85S**±0°.04×**179°.94W**±0°.05**,h496km, n366,σ1s.36**/386**,mb4.6**/108**,7C-8D,South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	4.74	158	P	P	08 36 21.3	+0.4
	372nm,0.3s,baz=190,slow=5.8,SNR=3.8						
RAO	Raoul Island	4.74	158	P	P	08 36 20.8	-0.2
RAO				S	S	08 37 28.6	-1.3
GLKZ	Green Lake	4.75	158	P	P	08 36 23.4	+2.3
GLKZ				S	S	08 37 29.0	-1.1
GLKZ				AML	AML		
LKBA	Tubou, Lakemba	6.67	9	P	P	08 36 39.9	+0.5
MSVF	Nonsavu	7.32	345	P	P	08 36 46.1	-0.1
	56nm,1.0s,baz=235,slow=22,SNR=45						
MSVF	Nonsavu	7.32	345	P	P	08 36 46.1	-0.1
MSVF	Nonsavu	7.32	345		P	08 36 46.2	+0.1
MSVF	Nonsavu	7.32	345	P	P	08 36 46.7	+0.5
MSVF				S	S	08 38 15.6	-0.3
MSVF				AML	AML		
MSVF	Nonsavu	7.32	345	P	P	08 36 46.3	+0.1
	comp=Z,57nm,0.9s						
TAVE	Taveuni	8.10	0	P	P	08 36 55.3	+1.2
DGTI	Dogotuki	8.51	358	P	P	08 36 59.0	+0.6
NIUE	Niue	10.92	60	P	P	08 37 23.2	-0.6
NIUE	Niue	10.92	60	P	P	08 37 23.4	-0.4
NIUE				S	S	08 39 27.2	+2.2
NIUE	Niue	10.92	60	P	P	08 37 24.1	+0.2
	comp=Z,491nm,0.9s						
MARNC	Mare, Loyalty	11.56	284	P	P	08 37 31.0	+0.4
MARNC	Mare, Loyalty	11.56	284	S	S	08 39 38.7	+1.3
MARNC	Mare, Loyalty	11.56	284	P	P	08 37 31.1	+0.6
OUZ	Omahuta	11.75	207	P	P	08 37 33.6	+1.2
OUZ	Omahuta	11.75	207	S	S	08 39 42.0	+1.2
OUZ	Omahuta	11.75	207	P	P	08 37 32.8	+0.5
OUZ	Omahuta	11.75	207	P	P	08 37 34.6	+2.2
	comp=Z,101nm,0.9s						
GRZ	Great Barrier	12.03	198	P	P	08 37 36.4	+1.0
WCZ	Waipu Caves	12.10	203	P	P	08 37 38.2	+2.1
OUENC	Ouen Island, N	12.35	279	P	P	08 37 40.2	+1.2
OUENC	Ouen Island, N	12.35	279	S	S	08 39 55.9	+3.1
OUENC	Ouen Island, N	12.35	279	P	P	08 37 40.0	+1.0
YATNC	Mamie plateau,	12.40	280	P	P	08 37 41.1	+1.6
YATNC	Mamie plateau,	12.40	280	S	S	08 39 56.8	+3.0
WIAZ	Waiheke Island	12.63	198	P	P	08 37 42.9	+1.1
MBAZ	Motutapu North	12.68	199	P	P	08 37 43.6	+1.4
ONTNC	Ouen Toro	12.73	279	P	P	08 37 43.1	+0.1
MXZ	Matakaoa Point	12.76	186	P	P	08 37 43.2	+0.1
MXZ	Matakaoa Point	12.76	186	S	S	08 40 00.4	0.0
MXZ	Matakaoa Point	12.76	186	P	P	08 37 44.1	+1.0
DZM	Mont Dzumac	12.79	280	P	P	08 37 44.4	+0.6
	comp=Z,29nm,0.8s,baz=78,slow=18,SNR=15						
NOUC	Port Laguerre	12.91	279	P	P	08 37 46.0	+1.0
NOUC	Port Laguerre	12.91	279	S	S	08 40 05.9	+2.1
WMGZ	Waiomatatini S	13.01	186	P	P	08 37 45.0	-0.7
HAZ	Te Kaha	13.01	188	P	P	08 37 44.5	-1.3
RUGZ	Raukumara Rang	13.23	188	P	P	08 37 48.0	-0.2
PUZ	Puketiti	13.27	186	P	P	08 37 47.7	-0.8
AFI	Afiamalu	13.33	37	P	P	08 37 46.3	-3.2
	comp=Z,54nm,0.7s,baz=327,slow=0.8,SNR=9.1						
AFI				S	S	08 40 04.6	-7.4
	comp=Z,50nm,0.9s,baz=179,slow=23,SNR=4.3						
AFI	Afiamalu	13.33	37	P	P	08 37 46.8	-2.7
AFI	Afiamalu	13.33	37	P	P	08 37 45.6	-3.9
AFI	Afiamalu	13.33	37	P	P	08 37 46.4	-3.1
AFI				S	S	08 40 03.1	-9.0
TWGZ	Tauwhareparae	13.40	187	P	P	08 37 50.1	+0.1
TOZ	Tahuroa Road	13.42	196	P	P	08 37 50.5	+0.5
URZ	Urewera	13.60	190	P	P	08 37 49.6	-2.4
	comp=Z,36nm,0.5s,baz=330,slow=1.3,SNR=21						
URZ				S	S	08 40 12.1	-4.5
	comp=Z,36nm,0.6s,baz=227,slow=21,SNR=8.1						
URZ	Urewera	13.60	190	P	P	08 37 49.9	-2.1
URZ	Urewera	13.60	190	S	S	08 40 17.9	+1.3
URZ	Urewera	13.60	190	P	P	08 37 49.6	-2.4
MWZ	Matawai	13.62	188	P	P	08 37 51.7	-0.5
TKGZ	Te Karaka	13.68	187	P	P	08 37 51.4	-1.4
CNGZ	Carnagh Statio	13.69	186	P	P	08 37 54.5	+1.6
RRRZ	Republican Roa	13.78	192	P	P	08 37 56.7	+2.8
RAGZ	Rawiri	13.79	189	P	P	08 37 52.3	-1.7
MUGZ	Murupara	13.87	191	P	P	08 37 54.1	-0.7
RIGZ	Rimuhau	13.95	187	P	P	08 37 55.4	-0.3
TLZ	Tolley Road	13.98	195	P	P	08 37 56.5	+0.5
RAHZ	Arahi	14.25	189	P	P	08 37 57.9	-0.9
HIZ	Hauiti	14.32	197	P	P	08 38 00.0	+0.4
HIZ	Hauiti	14.32	197	S	S	08 40 31.3	+0.8
BKZ	Black Stump Fm	14.59	191	P	P	08 38 00.7	-1.8
BKZ	Black Stump Fm	14.59	191	S	S	08 40 35.7	0.0
BKZ	Black Stump Fm	14.59	191	P	P	08 38 00.5	-1.9
NGZ	Ngauruhoe	14.77	194	P	P	08 38 03.9	-0.6
VRZ	Vera Road	14.92	196	P	P	08 38 06.5	+0.6
SANVU	Saraoutou	15.26	305	P	P	08 38 09.9	+0.3
SANVU	Saraoutou	15.26	305	S	S	08 40 52.4	+3.4
SANVU	Saraoutou	15.26	305	P	P	08 38 08.7	-1.0
SANVU	Saraoutou	15.26	305	P	P	08 38 10.0	+0.3
PXZ	Pawanui	15.38	189	P	P	08 38 09.1	-1.5
TSZ	Takapari Road	15.55	192	P	P	08 38 10.3	-2.2
MRZ	Mangatainoka R	16.21	192	P	P	08 38 15.5	-3.8
SNZO	South Karori	17.01	194	P	P	08 38 25.3	-2.3
SNZO	South Karori	17.01	194	S	S	08 41 18.4	-2.1
QRZ	Quartz Range	17.13	200	P	P	08 38 27.0	-1.8
QRZ	Quartz Range	17.13	200	S	S	08 41 22.1	-0.5
QRZ	Quartz Range	17.13	200	P	P	08 38 27.2	-1.6
NNZ	Nelson	17.25	197	P	P	08 38 26.9	-3.1
THZ	Tophouse	17.88	198	P	P	08 38 34.1	-1.9
DSZ	Denniston Nort	18.19	200	P	P	08 38 37.5	-1.4
KHZ	Kahutara	18.33	195	P	P	08 38 38.8	-1.2
KHZ	Kahutara	18.33	195	S	S	08 41 40.0	-2.2
KHZ	Kahutara	18.33	195	P	P	08 38 38.3	-1.7
GVZ	Greta Valley S	18.98	196	P	P	08 38 43.7	-2.2
LTZ	Lake Taylor	19.00	198	P	P	08 38 44.1	-2.2
INZ	Inchbonnie	19.19	200	P	P	08 38 46.3	-1.6
OXZ	Oxford	19.57	198	P	P	08 38 49.9	-1.5
LHI	Lord Howe Isla	19.65	245	P	P	08 38 53.8	+1.6
LHI	Lord Howe Isla	19.65	245	P	P	08 38 54.2	+2.0
WVZ	Waitaha Valley	19.73	201	P	P	08 38 51.4	-1.4
RPZ	Rata Peaks	20.21	199	P	P	08 38 55.7	-1.6
	comp=Z,7.1nm,0.5s,baz=24,slow=2.2,SNR=24						
	comp=Z,7.1nm,0.5s						
RPZ	Rata Peaks	20.21	199	P	P	08 38 56.0	-1.2
RPZ	Rata Peaks	20.21	199	P	P	08 38 56.1	-1.1
FOZ	Fox Glacier	20.44	202	P	P	08 38 58.1	-1.2
TMZ	Timaru	20.84	198	P	P	08 39 01.2	-1.7
LBZ	Lake Benmore	21.09	200	P	P	08 39 02.7	-2.5
JCZ	Jackson Bay	21.27	203	P	P	08 39 05.6	-1.3
JCZ	Jackson Bay	21.27	203	S	S	08 42 26.9	-2.9
JCZ	Jackson Bay	21.27	203	P	P	08 39 05.8	-1.2
ODZ	Otahua Downs	21.55	198	P	P	08 39 08.1	-1.2
ODZ	Otahua Downs	21.55	198	S	S	08 42 33.0	-0.9
ODZ	Otahua Downs	21.55	198	P	P	08 39 08.1	-1.2
MLZ	Mavora Lakes	22.63	202	P	P	08 39 18.3	-0.8
TATA	Tatamba Isabel	25.32	307	P	P	08 39 41.2	-2.2
ARMA	Armidale	25.75	251	P	P	08 39 47.9	+0.8
ARMA	Armidale	25.75	251		P	08 39 48.0	+0.8
ARMA	Armidale	25.75	251	P	P	08 39 48.3	+1.1
	comp=Z,64nm,1.1s						
EIDS	Eidsvold	26.22	263	P	P	08 39 51.4	+0.2
EIDS	Eidsvold	26.22	263		P	08 39 51.0	-0.2
EIDS	Eidsvold	26.22	263	P	P	08 39 51.5	+0.3
	comp=Z,64nm,1.1s						
MGCD	Mangrove Creek	26.58	245	P	P	08 39 54.8	+0.5
SYDH	Sydney Hard Ro	26.99	244	P	P	08 39 58.9	+1.0
CAN	Canberra	28.72	241	P	P	08 40 13.3	+0.1
CAN	Canberra	28.72	241	P	P	08 40 13.3	+0.1
CAN				IAmb	IAmb	08 40 14.2	
	comp=Z,41nm,1.3s						
PPT2	Papeete2	29.17	82	*e*sS	sS	08 47 08.9	-1.6
	comp=Z,341nm,26.2s						
CMSA	Cobar Meteorol	30.92	250	P	P	08 40 31.7	-0.5
CMSA	Cobar Meteorol	30.92	250	P	P	08 40 32.2	0.0
	comp=Z,48nm,1.1s						
GLAD	Gladstone	31.13	231	P	P	08 40 33.6	-0.2
TV1H	Townsville Har	31.27	274	P	P	08 40 34.9	-0.4
CTA	Charters Tower	31.54	272	P	P	08 40 37.5	-0.2
	comp=Z,82nm,0.5s,baz=95,slow=10,SNR=54						
	comp=Z,82nm,0.5s						
CTA	Charters Tower	31.54	272	P	P	08 40 37.6	-0.1
CTAO	Charters Tower	31.54	272	P	P	08 40 37.7	0.0
CTAO	Charters Tower	31.54	272		P	08 40 37.5	-0.2
CTAO	Charters Tower	31.54	272	P	P	08 40 38.1	+0.4
	comp=Z,156nm,0.8s						
TOO	Toolangi	31.99	238		P	08 40 41.1	-0.1
MOO	Moorlands	32.24	229	P	P	08 40 42.8	-0.5
QLP	Quilpie	32.26	259	P	P	08 40 43.2	-0.5
QLP	Quilpie	32.26	259	S	S	08 45 21.9	+0.3
QLP	Quilpie	32.26	259	P	P	08 40 43.6	-0.1
	comp=Z,86nm,1.4s						
TAU	Tasmania Unive	32.33	228	P	P	08 40 44.2	+0.1
TAU	Tasmania Unive	32.33	228	P	P	08 40 44.1	0.0
MTSU	Mount Surprise	33.85	274	P	P	08 40 57.8	+0.5
MTSU	Mount Surprise	33.85	274	P	P	08 40 57.8	+0.5
	comp=Z,132nm,0.6s						
STKA	Stephens Creek	34.43	249	P	P	08 41 02.0	-0.1
	comp=Z,15nm,0.4s,baz=100,slow=12,SNR=123						
STKA				ScP	ScP	08 46 22.2	+0.6
	comp=Z,7.1nm,0.9s,baz=111,slow=3.9,SNR=6.5						
	comp=Z,15nm,0.4s						
STKA	Stephens Creek	34.43	249	P	P	08 41 02.1	+0.1
	comp=Z,141nm,1.2s						
PMG	Port Moresby	34.86	290	P	P	08 41 05.6	-0.3
	comp=Z,40nm,0.8s,baz=98,slow=5.2,SNR=8.3						
	comp=Z,40nm,0.8s						
PMG	Port Moresby	34.86	290	P	P	08 41 05.5	-0.3
INKA	Innaminka	35.26	257	P	P	08 41 09.7	+0.7
INKA				IAmb	IAmb	08 41 10.8	
	comp=Z,34nm,1.1s						
MGBR	Mount Gambier	35.84	239	P	P	08 41 13.6	-0.2
MGBR				IAmb	IAmb	08 41 49.3	
	comp=Z,42nm,1.5s						
HTT	Hallett	36.74	247	P	P	08 41 20.7	-0.6
QIS	Mount Isa	37.47	268	P	P	08 41 26.8	-0.6
QIS	Mount Isa	37.47	268	P	P	08 41 26.8	-0.6
	comp=Z,24nm,1.2s						
PTPS	Port Pirie	37.51	247	P	P	08 41 27.1	-0.4
BBOO	Buckleboo	39.13	248	P	P	08 41 39.4	-1.4
BBOO	Buckleboo	39.13	248		P	08 41 39.9	-0.9
BBOO	Buckleboo	39.13	248	P	P	08 41 39.4	-1.4
	comp=Z,64nm,1.6s						
AS31	Alice Springs	41.94	262		P	08 42 02.9	-0.6
AS31				IAmb	IAmb	08 42 04.5	
	comp=Z,14nm,1.0s						
ASAR	Alice Springs	41.94	262	P	P	08 42 02.9	-0.6
	comp=Z,26nm,0.6s,baz=93,slow=7.3,SNR=347						
ASAR				ScP	ScP	08 46 51.0	+0.4
	comp=Z,4.4nm,0.8s,baz=110,slow=4.1,SNR=12						
ASAR				S	S	08 47 42.5	-3.3
	comp=Z,2.5nm,0.8s,baz=98,slow=18,SNR=7.4						
	comp=Z,26nm,0.6s						
WR8	Warramunga Arr	42.25	267	P	P	08 42 04.8	-1.2
WRAB	Tennant Creek	42.39	267	P	P	08 42 05.6	-1.5
WRAB	Tennant Creek	42.39	267	P	P	08 42 06.0	-1.0
WRAB	Tennant Creek	42.39	267	P	P	08 42 06.1	-1.0
	comp=Z,68nm,1.1s						
WB0	Warramunga Arr	42.40	267		P	08 42 05.7	-1.5
WRA	Warramunga Arr	42.40	267	P	P	08 42 05.9	-1.2
	comp=Z,34nm,0.5s,baz=99,slow=7.7,SNR=345						
WRA				ScP	ScP	08 46 54.3	+1.9
	comp=Z,16nm,0.9s,baz=101,slow=4.3,SNR=27						
WRA				S	S	08 47 48.5	-3.9
	comp=Z,4.0nm,0.9s,baz=102,slow=15,SNR=6.0						
	comp=Z,34nm,0.5s						
JAY	Jayapura	43.94	294	P	P	08 42 18.8	-0.5
	comp=Z,33nm,0.6s,baz=128,slow=3.9,SNR=14						
	comp=Z,33nm,0.6s						
FORT	Forrest	46.04	250		P	08 42 33.6	-1.5
DRS	Darwin Rock St	47.95	276	P	P	08 42 48.6	-1.2
BAKI	Biak	48.50	292	P	P	08 42 55.0	+1.0
	comp=Z,90nm,0.9s						
KNRA	Kununurra	48.74	271		P	08 42 55.2	-0.5
FITZ	Fitzroy Crossi	50.81	266	P	P	08 43 10.7	-0.3
	comp=Z,17nm,1.4s						
FAKI	Fak Fak	50.91	288	P	P	08 43 10.7	-1.0
FAKI	Fak Fak	50.91	288		P	08 43 10.5	-1.2
FAKI				IAmb	IAmb	08 43 11.1	
	comp=Z,16nm,0.7s						
FAKI	Fak Fak	50.91	288	P	P	08 43 11.6	-0.2
	comp=Z,25nm,1.2s						
FAKI	Fak Fak	50.91	288	P	P	08 43 10.7	-1.0
	comp=Z,25nm,1.2s						
SIJI	Sorong	52.79	289	P	P	08 43 24.8	-0.6
	comp=Z,70nm,0.5s,baz=88,slow=6.3,SNR=31						
	comp=Z,70nm,0.5s						
SWI	Sorong	52.80	289	P	P	08 43 24.5	-0.9
SBA	Scott Base	53.44	183	P	P	08 43 31.2	+2.3
SBA				IAmb	IAmb	08 43 32.5	
	comp=Z,26nm,0.9s						
SBA	Scott Base	53.44	183	P	P	08 43 30.3	+1.3
	comp=Z,30nm,1.0s						
VNDA	Vanda	53.44	185	P	P	08 43 30.3	+1.3
	comp=Z,3.9nm,0.7s,baz=359,slow=7.8,SNR=31						
VNDA				ScP	ScP	08 47 39.1	+0.9
	comp=Z,2.7nm,0.7s,baz=347,slow=4.3,SNR=10						
	comp=Z,3.9nm,0.7s						
VNDA	Vanda	53.44	185		P	08 43 30.3	+1.3
VNDA				PcP	PcP	08 44 28.5	+0.3
VNDA	Vanda	53.44	185	P	P	08 43 30.5	+1.5
	comp=Z,9.3nm,0.9s						
MSAI	Masohi	53.60	285	P	P	08 43 32.9	+1.8
	comp=Z,66nm,0.6s						
KLBR	Kellerberrin	54.67	248	P	P	08 43 37.2	-1.3
KLBR	Kellerberrin	54.67	248	P	P	08 43 37.5	-1.0
	comp=Z,158nm,0.7s						
MEEK	Meekatharra	54.90	254	P	P	08 43 38.5	-1.7
SOEI	Soe	54.98	276		P	08 43 41.8	+0.8
SOEI	Soe	54.98	276	P	P	08 43 41.6	+0.6
	comp=Z,88nm,1.1s						
SOEI	Soe	54.98	276	P	P	08 43 41.9	+0.8
	comp=Z,90nm,1.5s						
NLAI	Namlea	55.26	284	P	P	08 43 42.6	-0.2
	comp=Z,1µmcomp=Z,85nm,1.2s						
MBWA	Marble Bar	55.27	261	P	P	08 43 41.4	-1.4
MBWA	Marble Bar	55.27	261		P	08 43 41.6	-1.2
MBWA				IAmb	IAmb	08 43 42.6	
	comp=Z,17nm,0.8s						
MBWA	Marble Bar	55.27	261	P	P	08 43 40.7	-2.1
	comp=Z,28nm,1.1s						
BLDU	Ballidu	55.73	249	P	P	08 43 44.5	-1.4
BLDU	Ballidu	55.73	249	P	P	08 43 44.7	-1.1
	comp=Z,43nm,1.0s						
MUN	Mundaring	55.91	247	P	P	08 43 46.1	-1.0
MORW	Morawa	56.60	250	P	P	08 43 50.9	-1.1
MORW	Morawa	56.60	250	P	P	08 43 50.9	-1.1
MORW				IAmb	IAmb	08 43 51.4	
	comp=Z,23nm,0.6s						
SANI	Sanana	56.80	285	P	P	08 43 52.5	-1.0
SANI	Sanana	56.80	285	P	P	08 43 54.0	+0.5
	comp=Z,31nm,0.6s						
SANI	Sanana	56.80	285	P	P	08 43 52.5	-1.0
	comp=Z,32nm,0.6s						
TNTI	Ternate	56.97	288	P	P	08 43 54.2	-0.5
TNTI				IAmb	IAmb	08 43 54.9	
	comp=Z,61nm,1.3s						
MMRI	Maumere	57.26	276	P	P	08 43 55.7	-1.0
EDFI	Ende, Flores	57.71	275	P	P	08 43 58.9	-1.0
	comp=Z,681nmcomp=Z,70nm,1.0s						
CASY	Casey	59.28	206	P	P	08 44 09.2	-0.3
CASY	Casey	59.28	206	P	P	08 44 08.8	-0.7
	comp=Z,63nm,0.9s						
LBFI	Labuhan Bajo,	59.45	275	P	P	08 44 10.8	-0.7
BKSI	Bulukumba	60.55	278	P	P	08 44 17.6	-1.2
	comp=Z,650nmcomp=Z,72nm,1.0s						
GTOI	Gorontalo	60.69	286	P	P	08 44 19.9	+0.2
	comp=Z,606nmcomp=Z,53nm,0.5s						
DBNI	Kabupaten Domp	60.87	274	P	P	08 44 19.7	-1.2
PLAI	Plampang	61.23	274	P	P	08 44 22.4	-0.9
PLAI	Plampang	61.23	274	P	P	08 44 22.3	-1.0
PLAI	Plampang	61.23	274	P	P	08 44 22.7	-0.6
	comp=Z,172nm,0.6s						
TWSI	Taliwang, Sumb	62.07	273	P	P	08 44 28.8	0.0
	comp=Z,1µmcomp=Z,83nm,1.2s						
TOLI2	Tolitoli	62.87	285	P	P	08 44 33.0	-1.0
TOLI2	Tolitoli	62.87	285	P	P	08 44 32.6	-1.4
	comp=Z,19nm,0.5s						
JAGI	Jajag, Banyuwa	64.66	272	P	P	08 44 44.2	-1.3
QSPA	South Pole Qui	65.24	180	P	P	08 44 49.6	+1.2
	comp=Z,23nm,0.7s,baz=8.7,slow=1.1,SNR=107						
	comp=Z,23nm,0.7s						
QSPA	South Pole Qui	65.24	180	P	P	08 44 49.2	+0.8
QSPA	South Pole Qui	65.24	180	P	P	08 44 49.8	+1.3
	comp=Z,40nm,0.9s						
SNJI	Sawahan-Nganju	67.10	272	P	P	08 45 02.1	+1.2
	comp=Z,55nm,1.0s						
UGM	Wanagama	68.17	271	P	P	08 45 06.5	-0.8
KKM	Kota Kinabalu	69.23	287	P	P	08 45 13.3	-0.5
KKM	Kota Kinabalu	69.23	287	P	P	08 45 14.3	+0.5
	comp=Z,21nm,1.5s						
KKM	Kota Kinabalu	69.23	287	P	P	08 45 13.4	-0.4
	comp=Z,22nm,1.5s						
BBJI	Bungbulang	70.96	270	P	P	08 45 23.1	-1.0
BBJI				IAmb	IAmb	08 45 23.5	
	comp=Z,18nm,0.8s						
SBUM	Sibu	71.05	282	P	P	08 45 24.1	-0.5
SBUM	Sibu	71.05	282	P	P	08 45 24.8	+0.2
SBUM	Sibu	71.05	282	P	P	08 45 24.3	-0.3
	comp=Z,6.8nm,1.4s						
LEM	Lembang	71.24	271	P	P	08 45 25.6	-0.3
	comp=Z,39nm,0.6s,baz=109,slow=9.8,SNR=5.5						
	comp=Z,39nm,0.6s						
JYT	Yasato	71.46	327	P	P	08 45 26.6	+0.2
JOW	Kunigami	71.66	312	P	P	08 45 26.9	-1.0
JGF	Kuroka	72.43	325	P	P	08 45 32.5	+0.4
JGF				IAmb	IAmb	08 45 36.5	
	comp=Z,17nm,1.2s						
MJAR	Matsushiro Arr	72.70	326	P	P	08 45 33.1	-0.6
	comp=Z,4.3nm,0.8s,baz=159,slow=5.7,SNR=9.2						
	comp=Z,4.3nm,0.8s						
MAJO	Matsushiro	72.71	326	P	P	08 45 34.0	+0.3
JSU	Suzuyama	73.41	317	P	P	08 45 38.0	+0.2
JSU				IAmb	IAmb	08 45 48.8	
	comp=Z,22nm,1.2s						
NACB	Ninganchiao	74.70	306	P	P	08 45 44.0	-1.3
NACB				IAmb	IAmb	08 46 02.5	
	comp=Z,21nm,1.0s						
TPUB	Ta-pu	74.90	305	P	P	08 45 44.9	-1.6
SMAI	San Martin Ant	75.21	159	P	P	08 45 49.2	+1.8
MDSI	Maura Dua	75.32	272	P	P	08 45 47.5	-1.6
	comp=Z,50nm,1.0s						
BELA	Belgrano 2	75.49	173	P	P	08 45 49.4	+0.5
BELA				IAmb	IAmb	08 45 50.0	
	comp=Z,11nm,0.7s						
ADK	Adak	76.45	2	P	P	08 45 55.0	+0.6
ADK				IAmb	IAmb	08 46 02.8	
	comp=Z,21nm,1.0s						
MAW	Mawson	76.88	200	P	P	08 45 57.3	+0.6
	comp=Z,16nm,0.7s,baz=124,slow=6.7,SNR=63						
	comp=Z,16nm,0.7s						
MAW	Mawson	76.88	200	P	P	08 45 57.1	+0.4
MAW	Mawson	76.88	200	P	P	08 45 57.5	+0.8
	comp=Z,5.6nm,1.4s						
MASI	Maura Aman, Be	77.63	272	P	P	08 46 05.1	+3.2
	comp=Z,140nm,1.1s						
PMSA	Palmer Station	78.02	157	P	P	08 46 03.3	+0.4
KSRS	Korea Array	79.00	320	P	P	08 46 09.7	+1.1
	comp=Z,2.4nm,0.6s,baz=131,slow=6.0,SNR=10						
	comp=Z,2.4nm,0.6s						
INCN	Inchon	79.78	320	P	P	08 46 13.9	+1.2
INCN				IAmb	IAmb	08 46 14.1	
	comp=Z,42nm,1.5s						
PETK	Petropavlovsk-	80.03	347	P	P	08 46 13.8	+0.1
	comp=Z,6.8nm,0.6s,baz=116,slow=4.7,SNR=12						
	comp=Z,6.8nm,0.6s						
PETK	Petropavlovsk-	80.03	347	P	P	08 46 15.0	+1.3
NJ2	Nanjing	81.32	311	*e*P	P	08 46 23.3	+2.5
NJ2				pmax	pmax		
	comp=Z,5.0nm,0.5s						
ESPZ	Base Esperanza	81.33	158	P	P	08 46 21.5	+1.1
ESPZ				IAmb	IAmb	08 46 22.5	
	comp=Z,13nm,1.1s						
USRK	Ussuriysk Ar.	81.58	327	P	P	08 46 22.5	+0.6
	comp=Z,2.8nm,0.4s,baz=124,slow=5.5,SNR=6.8						
	comp=Z,2.8nm,0.4s						
IPM	Ipoh	81.96	279	P	P	08 46 24.4	-0.2
IPM				IAmb	IAmb	08 46 25.2	
	comp=Z,24nm,1.1s						
ELIB	Princess Elisa	82.13	187	*d*P	P	08 46 24.1	-0.5
	comp=Z,9.6nm,0.8s						
ELIB				*d*pP	pP	08 48 09.8	-2.1
ELIB				*d*sP	sP	08 48 58.0	-4.7
RPSI	Rantau Prapat	83.09	276		P	08 46 29.5	-0.8
RPSI				IAmb	IAmb	08 46 30.2	
	comp=Z,23nm,1.2s						
RPSI	Rantau Prapat	83.09	276	P	P	08 46 29.6	-0.8
	comp=Z,17nm,1.3s						
DPP	Dos Picos Cty	83.11	49	P	P	08 46 30.6	+0.7
DPP				IAmb	IAmb	08 46 32.6	
	comp=Z,15nm,0.9s						
BAR	Barrett	83.11	49	P	P	08 46 30.9	+0.9
PSI	Prapat	83.13	276	P	P	08 46 29.7	-1.0
	comp=Z,17nm,1.3s						
ESJX	Sierra Juarez	83.22	50	P	P	08 46 32.8	+2.0
ESJX				IAmb	IAmb	08 46 33.6	
	comp=Z,8.6nm,0.9s						
BFSC	Mount Baldy Ra	83.34	48	P	P	08 46 32.2	+1.0
TROLL	Troll, Antarti	83.39	181	⇓P	P	08 46 31.1	+0.2
	comp=Z,1µm,0.6s						
YUH	Yuha Desert	83.61	50	P	P	08 46 33.4	+1.0
YUH				IAmb	IAmb	08 46 35.5	
	comp=Z,10nm,1.1s						
KHMM	Horse Mountain	83.64	39	P	P	08 46 33.9	+1.3
KHMM				IAmb	IAmb	08 46 35.4	
	comp=Z,6.3nm,0.7s						
GSI	Gunungsitoli	83.72	274	P	P	08 46 33.6	+0.2
SNAA	Sanae	83.72	179	⇑P	P	08 46 32.4	-0.1
	comp=Z,88nm,0.7s						
SNAA	Sanae	83.72	179	P	P	08 46 32.0	-0.5
	comp=Z,2.5nm,0.5s,baz=220,slow=3.4,SNR=5.8						
	comp=Z,2.5nm,0.5s						
SNAA	Sanae	83.72	179		P	08 46 32.1	-0.4
SNAA				IAmb	IAmb	08 46 33.2	
	comp=Z,13nm,1.4s						
PFO	Pinyon Flats O	83.79	49	P	P	08 46 35.0	+1.5
PFO	Pinyon Flats O	83.79	49	P	P	08 46 34.8	+1.3
	comp=Z,7.3nm,1.9s						
PMD	Palm Desert	83.86	49		P	08 46 35.1	+1.4
VNA3	Neumayer Olymp	83.93	177	⇓P	P	08 46 33.3	-0.1
	comp=Z,25nm,0.7s						
LRMC	Laurel Mtn Rad	84.05	47	P	P	08 46 35.9	+1.1
LRMC				IAmb	IAmb	08 46 37.5	
	comp=Z,9.8nm,1.1s						
AFDM	Forest Hills D	84.06	42		P	08 46 36.0	+1.4
AFDM				IAmb	IAmb	08 46 37.0	
	comp=Z,8.4nm,1.0s						
ORV	Oroville	84.12	41		P	08 46 36.0	+1.1
BELC	Belle Mtn. Jos	84.33	49		P	08 46 37.4	+1.3
BELC				IAmb	IAmb	08 46 39.1	
	comp=Z,14nm,0.9s						
VNA2	Neumayer--Watz	84.35	178	⇓P	P	08 46 35.4	-0.2
	comp=Z,12nm,0.6s,baz=181,slow=4.7						
KCSI	Kotacane, Aceh	84.48	276	P	P	08 46 35.2	-2.0
M03C	McCloud	84.83	40	P	P	08 46 40.0	+1.6
M03C				IAmb	IAmb	08 46 41.0	
	comp=Z,12nm,0.8s						
GWY	Greenwater Val	85.13	46		P	08 46 40.9	+0.8
LHV	Little Huntoon	85.16	44	P	P	08 46 40.5	+0.6
HSIG		85.21	55		P	08 46 41.9	+1.4
HSIG				IAmb	IAmb	08 46 43.2	
	comp=Z,12nm,0.9s						
GMN	Gold Mountain	85.39	45	P	P	08 46 42.3	+0.9
NVAR	Mina Array Bea	85.40	44	P	P	08 46 42.9	+1.5
	comp=Z,3.4nm,0.8s,baz=222,slow=8.8,SNR=27						
	comp=Z,3.4nm,0.8s						
TPNV	Topopah Spring	85.85	46		P	08 46 44.6	+1.1
TPNV				IAmb	IAmb	08 46 45.6	
	comp=Z,5.8nm,0.8s						
KVN	Kaiserville	85.89	43		P	08 46 44.7	+1.0
MOD	Modoc Plateau	86.29	40		P	08 46 46.6	+1.1
W13A	Hualapai Mount	86.38	49		P	08 46 47.7	+1.5
O18K	Koktuh Hills	86.81	12	P	P	08 46 47.8	+0.5
O18K				IAmb	IAmb	08 46 48.3	
	comp=Z,16nm,0.9s						
PRN	Pahroc Range	86.89	46		P	08 46 50.3	+1.8
PRN				IAmb	IAmb	08 46 51.5	
	comp=Z,7.5nm,0.9s						
TUC	Tucson	87.05	52	P	P	08 46 51.3	+2.1
TUC				IAmb	IAmb	08 46 52.9	
	comp=Z,11nm,0.9s						
TUC	Tucson	87.05	52	P	P	08 46 51.9	+2.7
	comp=Z,13nm,1.1s						
PINE	Pine Mountain	87.10	38		P	08 46 50.8	+1.5
LYN	LuoYang	87.14	310	P	P	08 46 52.0	+2.5
LYN				pmax	pmax		

	comp=Z,21nm,0.8s						
PLCA	Paso Flores	87.57	134	P	P	08 46 52.8	+1.1
	comp=Z,3.2nm,1.1s,baz=254,slow=9.1,SNR=3.9						
	comp=Z,3.2nm,1.1s						
WVOR	Wild Horse Val	87.59	41	P	P	08 46 53.7	+2.1
	comp=Z,9.4nm,1.3s						
LCMT	Little Creek M	87.87	47	P	P	08 46 54.4	+1.4
LCMT				IAmb	IAmb	08 46 55.9	
	comp=Z,7.2nm,1.2s						
KNB	Kanab	88.16	48	P	P	08 46 55.8	+1.4
KNB				IAmb	IAmb	08 46 57.5	
	comp=Z,15nm,1.4s						
HPIG		88.20	59	P	P	08 46 56.4	+1.5
	comp=Z,12nm,0.9s						
SZCU	Shurtz Canyon	88.30	47	P	P	08 46 56.7	+1.6
ELK	Elko	88.67	43		P	08 46 57.9	+1.1
ELK				IAmb	IAmb	08 46 59.2	
	comp=Z,7.5nm,1.4s						
X18A	Snowflake	88.81	51	P	P	08 46 58.9	+1.3
X18A				IAmb	IAmb	08 47 00.0	
	comp=Z,4.4nm,0.7s						
BI02	San Fabin de	89.16	130	P	P	08 46 60.0	+0.8
BI02				IAmb	IAmb	08 47 01.6	
	comp=Z,7.5nm,0.8s						
MXC	Moxie City	89.19	37	P	P	08 47 00.1	+1.3
XAN	Xi'an	89.36	308	P	P	08 47 01.3	+1.3
XAN				pmax	pmax		
	comp=Z,19nm,1.0s						
HAWA	Hanford	89.49	37	P	P	08 47 01.2	+1.0
HAWA				IAmb	IAmb	08 47 02.7	
	comp=Z,9.8nm,1.1s						
BMO	Blue Mountains	89.81	39	P	P	08 47 02.1	+0.3
MFID	Camas Ranch	89.84	41		P	08 47 03.5	+1.5
MFID				IAmb	IAmb	08 47 04.5	
	comp=Z,8.7nm,1.1s						
DUG	Dugway, Tooele	89.90	45	P	P	08 47 03.6	+1.2
DUG				IAmb	IAmb	08 47 04.1	
	comp=Z,7.5nm,1.4s						
CMAR	Chiang Mai Arr	89.90	290	P	P	08 47 04.7	+1.9
	comp=Z,4.1nm,0.8s,baz=132,slow=3.2,SNR=22						
	comp=Z,4.1nm,0.8s						
CMAR	Chiang Mai Arr	89.90	290	P	P	08 47 04.0	+1.3
J18K	Innoko River	89.91	10		P	08 47 02.0	+0.3
J18K				IAmb	IAmb	08 47 03.1	
	comp=Z,6.4nm,0.9s						
HMU	Henry Mountain	90.05	48	P	P	08 47 03.7	+0.4
CHTO	Chiang Mai	90.06	291	P	P	08 47 02.9	-0.5
CHTO	Chiang Mai	90.06	291	P	P	08 47 05.1	+1.6
CHTO	Chiang Mai	90.06	291	P	P	08 47 04.6	+1.2
	comp=Z,12nm,1.1s						
TMUT	Trail Mountain	90.45	46	P	P	08 47 06.9	+1.6
F10A	Beach Ranch, E	90.52	38		P	08 47 05.7	+0.6
F10A				IAmb	IAmb	08 47 07.6	
	comp=Z,8.2nm,1.2s						
VHRN	Van Horn	90.57	56		P	08 47 07.3	+1.5
VHRN				IAmb	IAmb	08 47 08.0	
	comp=Z,6.1nm,1.1s						
MNTX	Cornudas Mount	90.71	55		P	08 47 07.1	+0.9
MNTX				IAmb	IAmb	08 47 08.4	
	comp=Z,3.5nm,0.8s						
MNTX	Cornudas Mount	90.71	55	P	P	08 47 08.1	+1.9
	comp=Z,6.2nm,1.3s						
HVU	Hansel Valley	90.79	44		P	08 47 07.3	+0.8
HVU				IAmb	IAmb	08 47 08.9	
	comp=Z,6.0nm,0.8s						
TXAR	Lajitas Array	90.89	58	P	P	08 47 09.0	+1.8
	comp=Z,4.4nm,0.8s,baz=210,slow=6.3,SNR=29						
	comp=Z,4.4nm,0.8s						
TXAR	Lajitas Array	90.89	58	P	P	08 47 08.8	+1.7
HHC	Hu-ho-hao-te	91.12	315	*e*P	P	08 47 11.0	+3.0
HHC				pmax	pmax		
	comp=Z,19nm,0.6s						
HHC				pmax	pmax		
	comp=Z,100nm,3.9s						
PZH	PanZhiHua	91.18	299	P	P	08 47 08.5	-0.1
ALPN	Alpine	91.40	57		P	08 47 11.0	+1.4
ALPN				IAmb	IAmb	08 47 12.0	
	comp=Z,5.3nm,0.8s						
ILAR	Eielson Array	92.94	14	P	P	08 47 14.9	-0.7
	comp=Z,0.7nm,0.7s,baz=222,slow=4.9,SNR=6.9						
	comp=Z,0.7nm,0.7s						
PDAR	Pinedale Array	93.33	44	P	P	08 47 19.0	+0.7
	comp=Z,0.9nm,0.7s,baz=191,slow=3.3,SNR=11						
	comp=Z,0.9nm,0.7s						
MKAR	Makanchi Array	112.83	312	PKiKP	PKiKP	08 52 35.5	-1.1
	comp=Z,0.6nm,0.6s,baz=56,slow=3.1,SNR=5.3						
KURK	Kurchatov	115.92	316		PKPdf	08 52 42.0	-0.2
KURBB	Kurchatov Arra	115.96	316	PKP	PKPdf	08 52 42.0	-0.3
	comp=Z,0.6nm,0.3s,baz=89,slow=2.2,SNR=6.2						
BVAR	Borovoye Array	121.18	318	PKP	PKiKP	08 52 52.5	-0.1
	comp=Z,1.8nm,0.3s,baz=78,slow=3.6,SNR=9.7						
ARCES	ARCESS Array B	132.82	348	PKhKP	PKPpre	08 53 07.2	
	comp=Z,1.2nm,0.8s,baz=48,slow=1.8,SNR=4.1						
ARCES				PKP	PKPdf	08 53 13.1	-1.0
	comp=Z,1.5nm,0.5s,baz=101,slow=1.2,SNR=8.1						
ARCES				SKPbc	SKPab	08 55 56.1	-1.0
	comp=Z,8.6nm,0.9s,baz=46,slow=4.0,SNR=12						
FINES	FINESS Array B	139.36	341	PKhKP	PKPpre	08 53 17.9	
	comp=Z,1.1nm,0.5s,baz=56,slow=4.5,SNR=14						
FINES				PKP	PKPdf	08 53 27.1	+0.8
	comp=Z,1.5nm,0.5s,baz=22,slow=2.1,SNR=7.4						
FINES				SKPbc	SKPbc	08 56 15.6	+0.9
	comp=Z,10nm,0.8s,baz=64,slow=4.4,SNR=23						
NB2	NORSAR Subarra	143.02	351	PKP	PKPab	08 53 30.4	+0.1
	comp=Z,10nm,1.1s,baz=16,slow=3.2						
NB2				SKPa		08 56 25.2	
	comp=Z,0.7nm,0.6s,baz=15,slow=2.5						
NOA	NORSAR Array B	143.02	351	PKP	PKPbc	08 53 30.8	-0.1
	comp=Z,6.4nm,0.9s,baz=16,slow=4.9,SNR=13						
NOA				SKPbc	SKPbc	08 56 24.3	+0.1
	comp=Z,0.2nm,0.5s,baz=21,slow=4.8,SNR=4.0						
HFS	Hagfors	143.48	349	PKP	PKPab	08 53 31.3	-0.7
	comp=Z,7.9nm,0.4s,baz=63,slow=3.6,SNR=30						
AKASG	Malin Array Be	145.79	327	PKPbc	PKPbc	08 53 39.0	-0.6
	comp=Z,6.4nm,0.5s,baz=46,slow=4.2,SNR=24						
AKASG				SKPbc	SKiKP	08 56 31.3	+0.1
	comp=Z,1.3nm,0.6s,baz=46,slow=2.3,SNR=4.1						
AKASG	Malin Array Be	145.79	327	PKPdf	PKPbc	08 53 38.9	-0.7
MMAI	Mount Meron Ar	148.13	293	PKPbc	PKPbc	08 53 47.0	+0.5
	comp=Z,5.0nm,0.4s,baz=51,slow=11,SNR=12						
BRTR	Keskin Array B	148.18	306	PKPbc	PKPbc	08 53 46.3	-0.3
	comp=Z,3.0nm,0.4s,baz=124,slow=3.3,SNR=14						
BRTR				PKPab	PKPab	08 53 51.3	-0.1
	comp=Z,2.9nm,0.5s,baz=95,slow=2.4,SNR=8.5						
EKA	Eskdalemuir Ar	149.46	4	PKPbc	PKPbc	08 53 48.8	-0.2
	comp=Z,3.3nm,0.8s,baz=336,slow=1.8,SNR=8.9						
OJC	Ojcow	150.41	334	*e*PKPbc	PKPbc	08 53 51.7	+0.3
NIE	Niedzica	150.82	332	*e*PKPbc	PKiKP	08 53 53.1	+0.2
KSP	Ksiaz	151.19	338	*e*PKPbc	PKiKP	08 53 53.8	+0.3
STEB	Steborice	151.42	336	⇑*e*PKP	PKPbc	08 53 53.5	-0.2
OSTC	Ostas	151.45	338	⇑*e*PKP	PKiKP	08 53 55.4	+1.3
DPC	Dobruska-Polom	151.59	338	⇑*e*PKP	PKiKP	08 53 55.5	+1.1
DPC				*e*PKPAB	PKPab	08 54 06.5	+1.5
MORC	Moravsky Berou	151.63	336	*e*PKP	PKiKP	08 53 54.8	+0.3
CLL	Collm	151.77	343	⇑*i*PKPbc	PKiKP	08 53 54.9	+0.2
	comp=Z,14nm,0.8s						
CLL				*i* PKPab	PKPab	08 54 06.3	+0.6
	comp=Z,7.0nm,0.6s						
CLL				*e*(pPKPab)		08 55 55.0	
BRG	Berggiesshubel	151.90	341	⇓*e*PKPf		08 53 49.4	
BRG				Amp		08 53 50.4	
	comp=Z,1.7nm,0.6s						
BRG				⇑PKPb		08 53 55.7	
BRG				Amp		08 53 56.4	
	comp=Z,7.1nm,0.8s						
BRG				PKPab	PKPab	08 54 07.4	+1.2
BRG				Amp		08 54 08.2	
	comp=Z,3.8nm,0.8s						
VRAC	Vranov	152.37	336	*e*PKP	PKPbc	08 53 55.6	-0.3
KRUC	Moravsky	152.65	336	*e*PKP	PKiKP	08 53 56.8	+0.2
KRUC				*e*		08 54 09.4	
ABNA	Allensteig Bun	153.32	337	*e*PKP	PKPab	08 54 13.7	+1.3
	comp=Z,6.5nm,0.9s						
KHC	Kasperske Hory	153.55	340	⇑*e*PKP	PKiKP	08 53 59.3	+0.8
KHC				*e*PKPAB	PKPab	08 54 14.9	+1.5
WINA	Alland / Wiene	153.56	335	*e*PKP	PKPab	08 54 14.0	+0.6
	comp=Z,3.8nm,0.5s						
GERES	GERESS Array B	153.76	339	PKPbc	PKiKP	08 53 59.4	+0.3
	comp=Z,1.2nm,0.2s,baz=333,slow=2.1,SNR=7.1						
CONA	Conrad Observa	153.79	335	*e*PKP	PKPab	08 54 15.0	+0.5
	comp=Z,5.3nm,1.0s						
RONA	Rosalia, Austr	153.81	335	*e*PKP	PKPab	08 54 15.9	+1.4
	comp=Z,4.9nm,1.1s						
BMRD	Maredsous	154.33	353	*d*PKP	PKPab	08 54 17.1	+0.6
BIOA	Bad Ischl, Aus	154.78	338	*e*PKP	PKPab	08 54 19.5	+0.8
	comp=Z,5.2nm,0.8s						
SESA	Seetaler Alpe,	154.95	336	*e*PKP	PKPab	08 54 20.3	+0.6
	comp=Z,14nm,0.7s						
SOKA	Soboth	155.14	335	*e*PKP	PKPab	08 54 20.9	+0.5
	comp=Z,6.6nm,1.2s						
OBKA	Obir	155.47	335	*e*PKP	PKPab	08 54 22.5	+0.8
	comp=Z,6.4nm,1.2s						
WTTA	Wattenberg	155.80	341	*e*PKP	PKPab	08 54 24.2	+0.9
	comp=Z,6.5nm,0.6s						
RETA	Reutte	155.86	342	*e*PKP	PKPab	08 54 24.1	+0.8
	comp=Z,6.4nm,0.9s						
MOTA	Moosalm	155.89	341	*e*PKP	PKPab	08 54 24.3	+0.7
	comp=Z,7.6nm,1.1s						
SQTA	Sankt Quirin	155.97	341	*e*PKP	PKPab	08 54 25.0	+1.1
	comp=Z,7.5nm,1.2s						
ABTA	Abfaltersbach	155.98	339	*e*PKP	PKPab	08 54 24.8	+0.8
	comp=Z,3.6nm,0.6s						
FETA	Feichten	156.29	342	*e*PKP	PKPab	08 54 26.2	+0.9
	comp=Z,4.3nm,1.0s						
ESDC	Sonseca Array	164.83	12	PKPab	PKPab	08 55 02.2	-0.5
	comp=Z,1.8nm,0.9s,baz=338,slow=5.0,SNR=9.7						
TORD	Torodi Ar. Bea	168.26	188	PKP	PKPdf	08 54 05.5	-1.1
	comp=Z,0.9nm,0.7s,baz=359,slow=2.3,SNR=4.9						
TORD				PKPab	PKPab	08 55 18.0	-0.3
	comp=Z,3.0nm,0.7s,baz=171,slow=3.3,SNR=17						

VIE 29 08:35:36.2±0.6**, 48°.11N×16°.37E, h0$^{\text{km}}$, mb0.6**/2**, ml0.9**/3**,**
Error ellipse: s-maj=4.7km s-min=2.3km az=28.0 5 km WNW of Maria Lanzendorf Suspected Mining explosion., Austria

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WINA	Alland / Wiene	0.20	269	*e*Pg	Pg	08 35 39.8	-0.1
	3.5nm,0.1s						
WINA				*e*Sg	Sg	08 35 42.7	+0.3
	6.9nm,0.2s						
CONA	Conrad Observa	0.38	242	*e*Pg	Pg	08 35 43.8	+0.3
	0.4nm,0.2s						
CONA				*e*Sg	Sg	08 35 49.0	+0.5
	1.3nm,0.3s						
RONA	Rosalia, Austr	0.41	186	*e*Pg	Pg	08 35 44.1	0.0
	0.2nm,0.0s						

KRSZO 29 08:35:39.3±1.2**, 47°.29N×18°.43E, h0$^{\text{km}}$, Error ellipse: s-maj=9.0km s-min=5.5km az=28.0, Suspected Explosion., Hungary**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CSKK	Cskako	0.14	304	Pg	Pg	08 35 43.1	+1.2
CSKK				Lg	Lg	08 35 45.0	
CSKK				AML	AML		
A271A	Ivancsa	0.31	115	Lg	Lg	08 35 51.0	

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*SDD **29** 08:36:36.0±2.1, 18°.77N×70°.79W, h24$^{\text{km}}$±5$^{\text{km}}$, MD2.7, ML2.2, MW2.6, Presumed earthquake*
*OSPL **29** 08:36:38.5±0.6, 18°.73N×70°.75W, h10$^{\text{km}}$±3$^{\text{km}}$, ML2.0, Presumed earthquake*
ISC 29 08:36:38.4±1.8**, 18°.70N**±0°.04×**70°.78W**±0°.03**, h14$^{\text{km}}$**±14$^{\text{km}}$**, n15, σ1$^{\text{s}}$.61**/25**, 10C-7D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ABDR	Alto Bandera	0.18	52	⇑*i*P	Pb	08 36 42.7	-1.2
ABDR				⇑*i*S	Sb	08 36 46.2	-1.2
ABDR				IAML		08 36 46.4	
	comp=N,870nm,0.4s						
BANI	BANI	0.50	127	⇓*i*P	Pb	08 36 49.2	+0.2
BANI				IAML		08 36 59.0	
	comp=N,122nm,1.2s						
BANI				⇑*i*S	Sn	08 36 59.0	-0.7
SDDR	Presa de Saban	0.56	301	*i* P	Pb	08 36 48.6	-1.4
SDDR				*e*S	Sb	08 36 56.5	-1.4
SDDR				IAML		08 37 00.5	
	comp=Z,46nm,0.4s						
SDDR	Presa de Saban	0.56	301	⇓*i*P	Pb	08 36 48.6	-1.4
SDDR				⇑*i*S	Sb	08 36 57.1	-0.8
SDDR				IAML		08 36 59.7	
	comp=N,60nm,1.0s						
LONE3	El Aguacate, B	0.65	262	*i* P	Pb	08 36 50.4	-1.2
LONE3				*e*S	Sb	08 37 00.1	-0.5
LONE3				IAML		08 37 01.4	
	comp=Z,22nm,3.5s						
PODR	Polo	0.71	222	*i* P	Pb	08 36 52.0	-0.7
PODR				IAML		08 37 05.9	
	comp=Z,519nm,0.1s						
PODR	Polo	0.71	222	⇑*i*P	Pb	08 36 52.0	-0.7
PODR				⇓*i*S	Sn	08 37 04.1	-1.0
PODR				IAML		08 37 09.2	
	comp=N,84nm,1.6s						
LODU1	El Espartillar	0.74	243	*i* P	Pb	08 36 52.5	-0.6
LODU1				IAML		08 37 09.8	
	comp=Z,34nm,0.6s						
REDR	Restauracion	0.75	309	⇑*i*P	Pn	08 36 57.5	+3.0
REDR				⇑*i*S	Sn	08 37 10.9	+5.3
REDR				IAML		08 37 14.1	
	comp=N,78nm,0.1s						
DR08	Loma La Naviza	0.77	70	⇑*i*P	Pb	08 36 52.9	-0.6
DR08				⇑*i*S	Sg	08 37 03.6	+0.2
DR08				IAML		08 37 04.3	
	comp=N,442nm,0.1s						
JIDR	Jimani	1.04	259	⇓*i*P	Pb	08 36 57.4	-0.8
JIDR				⇑*i*S	Sn	08 37 13.1	+0.3
JIDR				IAML		08 37 18.3	
	comp=N,40nm,0.9s						
LOVI	El Cajuil, Ovi	1.05	212	*i* P	Pb	08 36 58.1	-0.3
LOPP1	Punta Rusia, P	1.22	341	*i* P	Pn	08 36 59.7	-1.3
LOPP1				IAML		08 37 22.6	
	comp=Z,39nm,1.8s						
HATOM	Hato Mayor del	1.33	86	⇓*i*P	Pn	08 37 02.4	-0.1
HATOM				⇓*i*S	Sg	08 37 20.2	-1.1
HATOM				IAML		08 37 49.3	
	comp=N,24nm,2.4s						
MIDR	Miches	1.66	80	⇓*i*P	Pn	08 37 07.2	+0.1
MIDR				IAML		08 37 36.8	
	comp=N,23nm,2.4s						

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*UPA **29** 09:11:50.3±1.1, 8°.86N×82°.88W, h23$^{\text{km}}$±2$^{\text{km}}$, MW3.1, Presumed earthquake*
*UCR **29** 09:11:50.8±0.9, 8°.83N×82°.89W, h21$^{\text{km}}$±1$^{\text{km}}$, MW3.7, Presumed earthquake*
ISC 29 09:11:50.2±0.7**, 8°.84N**±0°.02×**82°.89W**±0°.01**, h10$^{\text{km}}$, n121, σ1$^{\text{s}}$.35**/195**, 31C-28D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MLIR3	Monte Lirio, C	0.08	124	*e*P	Pg	09 11 55.1	+2.5
VITO	San Vito	0.08	257	⇑*i*P	Pg	09 11 55.0	+2.3
VITO				*e*S	Sg	09 11 58.5	+4.0
VITO	San Vito	0.08	257	⇑*i*P	Pg	09 11 55.0	+2.3
VITO				*e*S	Sg	09 11 58.6	+4.1
SCLRA	Santa Clara, W	0.11	93	⇓*i*P	Pg	09 11 55.1	+2.0
SCLRA				*e*S	Sg	09 11 59.0	+3.9
SCLRA	Santa Clara, W	0.11	93	*i* P	Pg	09 11 55.1	+2.0
SCLRA				*e*S	Sg	09 11 58.1	+3.0
NELY	Ciudad Neily	0.20	196	⇑*i*P	Pg	09 11 55.9	+1.6
NELY				*e*S	Sg	09 12 00.7	+3.6
NELY	Ciudad Neily	0.20	196	⇑*i*P	Pg	09 11 55.9	+1.6
NELY				*e*S	Sg	09 12 00.8	+3.7
BRU2	Volcan	0.20	102	⇑*i*P	Pg	09 11 56.1	+1.6
BRU2				*e*S	Sg	09 12 00.4	+3.0
BRU2	Volcan	0.20	102	⇑*i*P	Pg	09 11 56.1	+1.6
BRU2				*e*S	Sg	09 12 00.5	+3.0
CLLRA	Cordillera,	0.29	109	⇑*i*P	Pb	09 11 57.5	-0.1
CLLRA				*e*S	Sb	09 12 03.0	+0.4
CLLRA	Cordillera,	0.29	109	⇑*i*P	Pb	09 11 57.5	-0.1
CLLRA				*e*S	Sb	09 12 02.9	+0.4
EDP2	Potrero Grande	0.33	302	⇑*i*P	Pg	09 11 58.1	+1.2
EDP2				*e*S	Sb	09 12 04.0	+0.3
FITO	Golfito	0.34	231	⇓*i*P	Pg	09 11 57.2	+0.3
FITO				*e*S	Sg	09 12 02.6	+1.3
FITO	Golfito	0.34	231	*i* P	Pg	09 11 57.2	+0.3
FITO				*e*S	Sg	09 12 02.7	+1.3
PTAR3	Potrerillos Ar	0.41	110	*e*P	Pg	09 11 59.4	+1.0
BQTLY	Boquete Panama	0.43	101	⇑*i*P	Pg	09 11 59.4	+0.6
BQTLY				*e*S	Sg	09 12 05.7	+1.2
BQTLY	Boquete Panama	0.43	101	⇓*i*P	Pg	09 11 59.4	+0.6
BQTLY				*e*S	Sg	09 12 05.9	+1.4
LNBQ3	Los Naranjos,	0.45	96	*e*P	Pg	09 11 59.5	+0.5
BQSF3	Alto Boquete,	0.46	102	*e*P	Pg	09 12 00.0	+0.7
FIMO	Fila Mora	0.48	288	*e*P	Pg	09 12 00.6	+1.0
FIMO				*e*S	Sb	09 12 08.2	+0.1
JIME	Puerto Jimenez	0.52	235	⇓*i*P	Pg	09 12 00.4	0.0
JIME				*e*S	Sg	09 12 08.5	+1.1
DRK0	Durika	0.55	320	⇑*i*P	Pg	09 11 46.4	-15
DRK0				*e*S	Sg	09 11 54.5	-14
DRK0	Durika	0.55	320	*e*P	Pg	09 11 46.5	-14
BURE	Buenos Aires	0.55	307	⇑*i*P	Pg	09 12 01.5	+0.4
BURE				*e*S	Sg	09 12 09.4	+1.0
PANP	Palmar Norte	0.57	282	⇓*i*P	Pg	09 12 01.3	-0.1
DVD	David	0.59	133	*e*P	Pg	09 12 02.2	+0.5
DVD	David	0.59	133	⇑*i*P	Pg	09 12 02.1	+0.4
DVD				*e*S	Sg	09 12 10.4	+1.0
PIRO	Carate, Puerto	0.62	226	⇓*e*P	Pg	09 12 01.9	-0.3
PIRO	Carate, Puerto	0.62	226	⇓*i*P	Pg	09 12 01.8	-0.4
PIRO				*e*S	Sg	09 12 03.3	-7.0
LOMA3	Las Lomas, Chi	0.64	129	*e*P	Pg	09 12 03.0	+0.4
BGUAL	Bijagual, Pana	0.64	121	⇑*i*P	Pg	09 12 03.0	+0.3
BGUAL				*e*S	Sg	09 12 11.6	+0.6
PBNVO	Pueblo Nuevo,	0.69	86	⇓*i*P	Pg	09 12 03.0	-0.6
PBNVO				*e*S	Sg	09 12 12.5	-0.2
CHIR3	Chiriqui UPA,	0.71	128	⇑*i*P	Pg	09 12 04.0	+0.1
CHIR3				*e*S	Sg	09 12 14.0	+0.8
CNI2	El Empalme, Bo	0.71	35	⇓*i*P4		09 12 03.3	
CNI2				*e*S4		09 12 13.7	
RBALA	Bur	0.73	87	⇓*i*P	Pg	09 12 03.7	-0.6
RBALA				*e*S	Sg	09 12 13.4	-0.5
RBALA	Bur	0.73	87	⇓*i*P	Pg	09 12 03.7	-0.6
RBALA				*e*S	Sg	09 12 13.6	-0.2
LIMO3	Limones	0.73	178	*e*P	Pg	09 12 02.5	-1.8
LMNES	Limones	0.73	178	*e*P	Pg	09 12 04.7	+0.3
LMNES				*e*S	Sb	09 12 15.2	0.0
LMNES	Limones	0.73	178	*e*P	Pg	09 12 04.7	+0.3
LMNES				*e*S	Sb	09 12 15.9	+0.7
EDPE	Pejibaye, P	0.74	295	*e*P	Pg	09 12 04.4	-0.2
EDPE				*e*S	Sg	09 12 15.1	+0.7
CEUA	Cerro Uatsi, L	0.78	356	*e*P	Pb	09 12 06.4	+0.5
CEUA				*e*S	Sb	09 12 18.4	+1.7
SAJE	San Jernim	0.79	310	⇑*i*P	Pg	09 12 04.9	-0.6
SAJE				*e*S	Sg	09 12 15.9	0.0
RGM0	Gandoca	0.80	20	*e*P	Pg	09 12 04.7	-0.9
RGM0				*e*S	Sn	09 12 20.3	+0.8
ZEDO	Perez Zeledon	0.94	303	⇓*i*P	Pg	09 12 08.6	+0.3
ZEDO				*e*S	Sb	09 12 21.9	+0.8
KKNTU	Kakintº	1.07	90	*e*P	Pg	09 12 08.9	-2.0
KKNTU				*e*S	Sg	09 12 23.0	-1.8
KKNTU	Kakintº	1.07	90	⇓*i*P	Pg	09 12 08.9	-2.0
KKNTU				*e*S	Sg	09 12 22.3	-2.5
BUS1	Rivas	1.11	310	⇑*i*P	Pg	09 12 10.2	-1.4
BUS1				*e*S	Sg	09 12 25.0	-1.0
PDCAN	Manzana , Fuen	1.30	115	*e*P	Pn	09 12 12.8	-1.6
PIEC	Cerro El Cedra	1.31	307	⇓*e*P	Pn	09 12 13.4	-1.4
PIEC				*e*S	Sb	09 12 31.0	-1.1
TAAN	Batan	1.32	340	⇓*i*P	Pn	09 12 14.3	-0.4
TAAN				*e*S	Sb	09 12 32.9	+0.9
TURIB	Turrialba	1.32	324	⇓*e*P	Pn	09 12 13.9	-1.0
TURIB				*e*S	Sb	09 12 31.0	-1.3
VINA	Juan Vinas	1.35	321	⇑*i*P	Pn	09 12 14.6	-0.7
VINA				*e*S	Sb	09 12 32.5	-0.5
REPA	Paraso	1.38	316	⇓*i*P	Pn	09 12 14.7	-1.0
REPA				*e*S	Sb	09 12 33.0	-1.0
RAZU	San Marcos de	1.38	306	*e*P	Pn	09 12 14.9	-0.9
RAZU				*e*S	Sb	09 12 33.0	-1.2
PITB	Pirrs, San	1.39	306	*e*P	Pn	09 12 14.8	-1.0
PITB				*e*S	Sb	09 12 32.9	-1.2
RESJ	San Isidro (Tu	1.40	328	⇑*e*P	Pn	09 12 15.5	-0.3
RESJ				*e*S	Sb	09 12 35.5	+1.0
LCOCO	El Coco	1.40	332	*e*P	Pn	09 12 15.5	-0.4
PCAYA	Pacayas	1.41	320	*e*P	Pn	09 12 15.5	-0.6
PCAYA				*e*S	Sb	09 12 34.5	-0.4
VTCV	VTCV, Calle Va	1.41	324	⇑*i*P	Pn	09 12 15.6	-0.5
VTCV				*e*S	Sn	09 12 35.0	+0.2
ABRB	Las Abras (San	1.42	325	⇑*i*P	Pn	09 12 15.9	-0.4
ABRB				*e*S	Sn	09 12 35.1	-0.1
LCR2	La Lucha 2	1.42	309	*e*P	Pn	09 12 14.8	-1.6
LCR2				*e*S	Sn	09 12 33.1	-2.1
LCR2	La Lucha 2	1.42	309	*e*P	Pn	09 12 14.7	-1.6
LCR2				*e*S	Sn	09 12 33.1	-2.1
RAFA	San Farael, Vo	1.44	321	*e*P	Pn	09 12 16.0	-0.6
RAFA				*e*S	Sn	09 12 35.3	-0.5
RVLA	Villa Bonita	1.44	331	⇓*e*P	Pn	09 12 16.1	-0.2
RVLA				*e*S	Sn	09 12 35.9	+0.6
TAGO	Cartago	1.44	315	*e*P	Pn	09 12 15.6	-1.0
TAGO				*e*S	Sn	09 12 34.7	-1.0
CVTQ	Turrialba Volc	1.45	323	⇑*i*P	Pn	09 12 16.4	-0.4
CVTQ				*e*S	Sn	09 12 36.4	+0.3
VTR0	Volcan Turrial	1.45	324	⇑*i*P	Pn	09 12 16.5	-0.5
VTR0				*e*S	Sn	09 12 36.2	-0.1
CVTR	Volcan Turrial	1.45	324	⇑*i*P	Pn	09 12 16.5	-0.5
CVTR				*e*S	Sn	09 12 36.2	-0.1
VICA	Volcano Irazu	1.48	321	⇓*i*P	Pn	09 12 16.7	-0.6
VICA				*e*S	Sn	09 12 37.3	+0.4
PICV	PH. Pirrs	1.51	301	*e*P	Pn	09 12 16.4	-1.0
TRIO	Tres Rios	1.52	314	⇓*i*P	Pn	09 12 16.8	-0.9
TRIO				*e*S	Sn	09 12 36.3	-1.2
AMPA	Desamparados	1.56	312	⇑*i*P	Pn	09 12 17.1	-1.1
AMPA				*e*S	Sn	09 12 36.9	-1.7
CVIMO	Finca Echandi	1.57	319	⇓*i*P	Pg	09 12 22.4	+2.0
CVIMO				*e*S	Sg	09 12 43.3	+2.5
CORON	Coronado	1.57	316	*e*P	Pn	09 12 18.1	-0.3
ACOS	Acosta	1.58	307	*e*P	Pn	09 12 17.2	-1.2
ACOS				*e*S	Sn	09 12 37.7	-1.2
ECI	Escuela Centro	1.58	314	⇑*e*P	Pn	09 12 17.8	-0.7
ECI				*e*S	Sn	09 12 38.8	-0.4
SJS3	Mercedes San J	1.58	314	⇑*e*P	Pn	09 12 18.0	-0.5
SJS3				*e*S	Sn	09 12 38.5	-0.7
SJS	Escuela Geolog	1.59	314	⇑*e*P	Pn	09 12 17.8	-0.7
SJS				*e*S	Sn	09 12 38.9	-0.3
LUJA	Lujan	1.59	313	⇓*i*P	Pn	09 12 18.0	-0.5
LUJA				*e*S	Sn	09 12 38.7	-0.6
LUPE	Guadalupe	1.59	314	⇓*i*P	Pn	09 12 18.1	-0.5
LUPE				*e*S	Sn	09 12 39.1	-0.2
CENT	San Jose	1.60	313	*e*P	Pn	09 12 17.8	-0.9
MEXI	Barrio Mexico	1.61	313	*e*P	Pn	09 12 18.1	-0.7
MEXI				*e*S	Sn	09 12 39.1	-0.7
TIBA	Tibas	1.61	314	*e*P	Pn	09 12 18.8	-0.1
PILE	Guapiles	1.63	327	*e*P	Pn	09 12 19.3	+0.2
PILE				*e*S	Sn	09 12 40.7	+0.6
PAVB	Pavas, San Jos	1.63	312	*e*P	Pn	09 12 18.5	-0.6
PAVB				*e*S	Sn	09 12 39.2	-1.2
DOMI	Santo Domingo	1.64	314	⇓*e*P	Pn	09 12 18.9	-0.4
DOMI				*e*S	Sn	09 12 41.0	+0.4
HDC	Heredia	1.67	314	⇑*e*P	Pn	09 12 18.8	-0.9
HDC				*e*S	Sn	09 12 40.9	-0.4
SANTA	Santa Ana	1.68	311	⇑*i*P	Pn	09 12 18.8	-0.9
HEME	Heredia, Merce	1.68	313	⇓*i*P	Pn	09 12 20.6	+0.7
HEME				*e*S	Sn	09 12 42.4	+0.8
BELE	Belen	1.71	312	⇓*i*P	Pn	09 12 19.6	-0.6
BELE				*e*S	Sn	09 12 40.7	-1.4
PURI	Puriscal	1.72	306	*e*P	Pn	09 12 19.3	-1.1
PURI				*e*S	Sn	09 12 42.1	-0.5
CARI	Cariari	1.73	331	*e*P	Pn	09 12 20.1	-0.3
VBV1	V. Barva	1.74	317	*e*P	Pn	09 12 20.7	-0.1
VBV1				*e*S	Sn	09 12 43.1	-0.1
TCS1	Tacares	1.83	311	⇓*i*P	Pn	09 12 21.9	0.0
TCS1				*e*S	Sn	09 12 46.1	+0.8
ATEO	Atenas	1.86	308	⇓*i*P	Pn	09 12 21.8	-0.4
ATEO				*e*S	Sn	09 12 44.3	-1.5
VPS5	V. Poas	1.89	316	*e*P	Pn	09 12 15.5	-7.3
SARCI	Sarchi	1.90	311	*e*P	Pn	09 12 22.0	-0.8
TRT2	Tortugero	1.90	334	⇑*e*P	Pn	09 12 22.1	-0.7
TRT2				*e*S	Sn	09 12 47.9	+1.2
PALD	Palmares	1.94	309	*e*P	Pn	09 12 23.2	-0.2
GMAL	Guarumal, Vera	1.96	123	*e*P	Pn	09 12 22.2	-1.3
ARTO	Ro Cuarto	1.99	319	*e*P	Pn	09 12 23.6	-0.4
RAMO	San Ramon	1.99	309	*e*P	Pn	09 12 23.9	-0.2
SRA1	San Ramn	2.00	308	*e*P	Pn	09 12 23.6	-0.6
SRA1				*e*S	Sn	09 12 49.5	+0.1
VPL3	V. Platanar	2.05	317	*e*P	Pn	09 12 25.2	+0.3
ITAL	Pital	2.10	320	*e*P	Pn	09 12 25.3	-0.2
ITAL				*e*S	Sn	09 12 53.4	+1.6
QUEU	Ciudad Quesada	2.12	314	*e*P	Pn	09 12 27.7	+1.9
VACR	Volcan Arenal	2.40	313	*e*P	Pb	09 12 32.4	-1.1
CASO	Castillo	2.41	311	*e*P	Pn	09 12 31.5	+1.7
ARE1	Arenal 1	2.42	312	*e*P	Pn	09 12 30.1	+0.2
VARE2	V. Arenal	2.42	312	*e*P	Pn	09 12 29.9	0.0
CEDE	Laguna Cedeo	2.42	313	*e*P	Pn	09 12 31.0	+1.0
JTS	Las Juntas de	2.49	306	*e*P	Pn	09 12 31.0	+0.1
TIMP	Tierras Morena	2.72	310	*e*P	Pn	09 12 34.1	0.0

VTON	**El Valle, Cocl**	**2.75**	**94**	*e*S	**Sb**	**09 13 12.3**	**-1.2**
CMARA	**Lajas Hojancha**	**2.76**	**295**	*e*P	**Pn**	**09 12 34.2**	**-0.5**
AZU	**Azuero**	**2.79**	**112**	*e*P	**Pb**	**09 12 40.1**	**0.0**
CUI	**Cuipilapa**	**2.88**	**309**	*e*P	**Pn**	**09 12 37.1**	**+0.9**
CANAL	**Canalete**	**2.91**	**313**	*e*P	**Pn**	**09 12 39.8**	**+3.1**
JUD3	**Juan Diaz 3**	**2.93**	**297**	*e*P	**Pn**	**09 12 36.9**	**0.0**
VMAR	**Armenia, Volca**	**2.94**	**312**	*e*P	**Pb**	**09 12 41.6**	**-1.3**
LAPC	**Finca la Perla**	**3.15**	**308**	*e*P	**Pn**	**09 12 43.3**	**+3.3**

STR 29 09:23:22.5±2.1**, 43°N**±7°×°±°**, h0^{km}, MLv1.9**/5**, LOCSAT earthModelID pyrenees_taup-2.11 preliminary, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OSSF	**Osses**	**0.14**	**177**	Pg	Pg	09 23 25.3	0.0
OSSF				Sg	Sg	09 23 27.2	+0.1
ORDF	**Ordiarp**	**0.31**	**127**	Pg	Pg	09 23 28.2	-0.2
ORDF				Sg	Sg	09 23 33.1	+0.7
IRAF	**Chalets d'Irat**	**0.41**	**155**	Pg	Pg	09 23 31.3	+1.1
IRAF				Sg	Sg	09 23 36.9	+1.4
URDF	**Urds**	**0.50**	**85**	Sg	Sg	09 23 39.3	+0.9
ATE	**Arette**	**0.52**	**127**	Pg	Pg	09 23 32.4	0.0
ATE				Sg	Sg	09 23 40.3	+1.1

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*LDG **29** 09:24:00.3±0.1, 42°.86N×1°.48W, h2^{km}, Md3.4/2, Ml3.3/26, Error ellipse: s-maj=1.9km s-min=1.5km az=135.0*

*MDD **29** 09:24:00.7±0.1, 42°.80N×1°.48W, h0^{km}, mb_Lg3.1/46, Error ellipse: s-maj=1.8km s-min=1.1km az=3.0*

*SFS **29** 09:24:00.7, 42°.74N×1°.45W, h0^{km}, mb3.6/5, ML3.3/10, ML3.6/10, MLv3.8/8*

*INMG **29** 09:24:01.0±1.8, 42°.82N×1°.53W, h0^{km}±4^{km}, ML2.8, Error ellipse: s-maj=3.3km s-min=2.7km az=112.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Pireneus (ESP)*

ISC 29 09:23:57.2±0.6**, 42°.90N**±0°.02×**1°.43W**±0°.02**, h0^{km}, n75, σ1^{s}.87**/168**, 1C-3D, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EARA	**Aranguren**	**0.16**	**221**	⇓Pg	**Pg**	**09 24 01.5**	**+1.2**
EARA				Sg	**Sg**	**09 24 03.4**	**+1.0**
EARA				IVmb_Lg		09 24 03.4	
SJPF	**Ste Jean**	**0.27**	**35**	*e*Pg	**Pb**	**09 24 06.0**	**+1.1**
SJPF				*e*Sg	**Sb**	**09 24 08.7**	**-1.3**
	602nm,0.2s						
EALK	**Alkurruntz**	**0.33**	**351**	⇑Pg	**Pb**	**09 24 07.0**	**+1.0**
EALK				Sg	**Sb**	**09 24 13.4**	**+1.6**
EALK				IVmb_Lg		09 24 16.5	
ETSF	**Etsaut**	**0.64**	**90**	*e*Pg	**Pb**	**09 24 12.2**	**+0.9**
ETSF				*e*Sg	**Sb**	**09 24 22.0**	**+1.1**
	109nm,0.3s						
EPF	**Esparros**	**1.31**	**84**	*e*Pg	**Pn**	**09 24 24.7**	**+1.9**
EPF				*e*Sg	**Sn**	**09 24 42.8**	**+1.8**
	265nm,0.3s						
EPF				AML	AML		
ESAC	**San Caprasio**	**1.38**	**148**	Pg	**Pb**	**09 24 25.0**	**+1.2**
ESAC				Sg	**Sn**	**09 24 43.3**	**+0.7**
ELAN	**Lanestosa**	**1.50**	**284**	Pg	**Pb**	**09 24 27.1**	**+1.1**
ELAN				Sg	**Sn**	**09 24 47.6**	**+1.9**
ELAN				IVmb_Lg		09 24 51.0	
ETOR	**Torete**	**2.13**	**193**	Pn	**Pn**	**09 24 35.1**	**+1.0**
ETOR				Pg	**Pg**	**09 24 38.3**	**+0.4**
ETOR				Sn	**Sn**	**09 25 01.3**	**+0.1**
ETOR				Sg	**Sb**	**09 25 04.4**	**+0.8**
ETOR				IVmb_Lg		09 25 07.9	
ERTA	**Horta de San J**	**2.34**	**145**	Pn	**Pn**	**09 24 37.7**	**+0.7**
ERTA				Pg	**Pg**	**09 24 41.8**	**-0.3**
ERTA				Sn	**Sn**	**09 25 07.8**	**+1.3**
ERTA				Sg	**Sg**	**09 25 12.1**	**-0.4**
ERTA				IVmb_Lg		09 25 21.4	
EPOB	**Poblet**	**2.42**	**129**	Pn	**Pn**	**09 24 38.9**	**+0.8**
EPOB				Pg	**Pg**	**09 24 44.4**	**+0.8**
EPOB				Sn	**Sn**	**09 25 08.9**	**+0.4**
EPOB				Sg	**Sb**	**09 25 13.7**	**+1.6**
EPOB				IVmb_Lg		09 25 23.7	
LFF	**La Frestale**	**2.58**	**37**	*e*Pn	**Pb**	**09 24 43.5**	**-0.7**
LFF				*e*Pg	**Pg**	**09 24 48.0**	**+1.5**
LFF				*e*Sn	**Sn**	**09 25 14.0**	**+1.9**
	15nm,0.2s						
LFF				AML	AML		
EMOS	**Mosqueruela**	**2.63**	**164**	Pn	**Pn**	**09 24 42.5**	**+1.4**
EMOS				Pg	**Pg**	**09 24 47.4**	**-0.2**
EMOS				Sn	**Sn**	**09 25 14.5**	**+0.7**
EMOS				Sg	**Sg**	**09 25 20.2**	**-1.5**
EMOS				IVmb_Lg		09 25 28.0	
MTLF	**Montolieu**	**2.71**	**79**	*e*P	**Pb**	**09 24 45.4**	**-1.1**
MTLF				*e*Sn	**Sb**	**09 25 18.8**	**-1.5**
	29nm,0.3s						
MTLF				AML	AML		
EARI	**Arriondas**	**2.79**	**280**	Pn	**Pn**	**09 24 44.8**	**+1.7**
EARI				Sn	**Sn**	**09 25 18.3**	**+0.7**
EARI				Sg	**Sg**	**09 25 26.5**	**-0.4**
EARI				IVmb_Lg		09 25 30.3	
GUD	**Guadarrama**	**3.04**	**223**	Pn	**Pn**	**09 24 47.4**	**+0.8**
GUD				Pg	**Pb**	**09 24 53.4**	**+1.3**
GUD				Sn	**Sn**	**09 25 22.1**	**-1.6**
GUD				Sg	**Sb**	**09 25 31.3**	**+1.5**
GUD				IVmb_Lg		09 25 35.2	
RJF	**Les Rejaudoux**	**3.21**	**40**	*e*Pn	**Pn**	**09 24 51.3**	**+2.4**
RJF				*e*Sn	**Sn**	**09 25 28.0**	**+0.2**
	15nm,0.2s						
RJF				AML	AML		
EJON	**La Jonquera**	**3.22**	**97**	Pn	**Pn**	**09 24 52.2**	**+3.2**
EJON				Sn	**Sn**	**09 25 29.6**	**+1.5**
EJON	**La Jonquera**	**3.22**	**97**	Pn	**Pn**	**09 24 52.1**	**+3.1**
EJON				Pg	**Pg**	**09 24 59.8**	**+1.0**
EJON				Sn	**Sn**	**09 25 31.4**	**+3.3**
EJON				Sg	**Sg**	**09 25 41.0**	**+0.4**
EJON				IVmb_Lg		09 25 47.4	
CAF	**Calviac**	**3.24**	**50**	*e*Pn	**Pn**	**09 24 51.0**	**+1.7**
CAF				*e*P	**Pb**	**09 24 52.8**	**-2.8**
CAF				*e*Sn	**Sn**	**09 25 28.2**	**-0.4**
	6.2nm,0.2s						
CAF				AML	AML		
ECHE	**Chera**	**3.32**	**174**	Pn	**Pn**	**09 24 51.5**	**+1.0**
CLAF	**Gruissan**	**3.33**	**84**	*e*Pn	**Pn**	**09 24 52.0**	**+1.6**
MFF	**Saint Martin d**	**3.82**	**13**	*e*Pn	**Pn**	**09 24 58.3**	**+1.1**
MFF				*e*Pg	**Pg**	**09 25 10.8**	**+0.5**
MFF				*e*Sn	**Sn**	**09 25 42.3**	**-0.4**
	8.6nm,0.2s						
MFF				*e*Sg	**Sg**	**09 25 59.8**	**+0.1**
MFF				AML	AML		
PAB	**San Pablo**	**4.00**	**214**	Pn	**Pn**	**09 24 59.7**	**-0.1**
PAB				Pg	**Pb**	**09 25 10.7**	**+2.1**
PAB				Sn	**Sn**	**09 25 47.2**	**-0.3**
PAB				Sg	**Sb**	**09 26 00.8**	**+3.1**
PAB				IVmb_Lg		09 26 06.6	
LASF	**Ste Croix**	**4.03**	**71**	*e*Pn	**Pn**	**09 25 01.7**	**+1.6**
LASF				*e*Sn	**Sn**	**09 25 47.3**	**-0.7**
	15nm,0.3s						
LASF				AML	AML		
ECAL	**Calabor**	**4.04**	**258**	Pn	**Pn**	**09 25 00.8**	**+0.4**
ECAL				Sn	**Sn**	**09 25 46.9**	**-1.5**
ECAL	**Calabor**	**4.04**	**258**	Pn	**Pn**	**09 25 00.7**	**+0.4**
ECAL				Pg	**Pb**	**09 25 11.2**	**+1.9**
ECAL				Sn	**Sn**	**09 25 46.0**	**-2.4**
ECAL				Sg	**Sg**	**09 26 03.9**	**-3.0**
ECAL				IVmb_Lg		09 26 11.8	
PBRG	**Braganca**	**4.08**	**256**	*e*Pn	**Pn**	**09 25 01.8**	**+0.9**
PBRG				*e*Sn	**Sn**	**09 25 48.8**	**-0.6**
PBRG				*e*Sg	**Sg**	**09 26 06.4**	**-1.9**
PBRG				*i* IAML		09 26 10.1	
PBRG				*i* IAML		09 26 12.8	
PBRG				*i* IAML		09 26 13.3	
EPON	**Pontenova**	**4.21**	**278**	Pn	**Pn**	**09 25 04.2**	**+1.6**
EPON				Sn	**Sn**	**09 25 53.6**	**+1.2**
EPON				Sg	**Sg**	**09 26 09.1**	**-3.2**
EPON				IVmb_Lg		09 26 22.9	
TCF	**Toulx Ste Croi**	**4.27**	**36**	*e*Pn	**Pn**	**09 25 03.9**	**+0.4**
TCF				*e*Sn	**Sn**	**09 25 54.3**	**+0.2**
	6.1nm,0.2s						
TCF				AML	AML		
EIBI	**Ibiza**	**4.40**	**151**	Pn	**Pn**	**09 25 05.1**	**-0.1**
EIBI				Sn	**Sn**	**09 25 53.0**	**-4.1**
EIBI	**Ibiza**	**4.40**	**151**	Pn	**Pn**	**09 25 05.3**	**+0.1**
EIBI				Sn	**Sn**	**09 25 52.4**	**-4.8**
EIBI				IVmb_Lg		09 25 57.9	
ETOS	**Mallorca**	**4.47**	**133**	Pn	**Pn**	**09 25 06.6**	**+0.3**
ETOS				Sn	**Sn**	**09 25 55.0**	**-4.0**
ETOS	**Mallorca**	**4.47**	**133**	Pn	**Pn**	**09 25 06.6**	**+0.3**
ETOS				Sn	**Sn**	**09 25 55.4**	**-3.6**
ETOS				IVmb_Lg		09 26 34.1	
EPLA	**Plasencia**	**4.49**	**233**	Pn	**Pn**	**09 25 06.8**	**+0.2**
EPLA				Pg	**Pg**	**09 25 21.0**	**-2.2**
EPLA				Sn	**Sn**	**09 25 57.0**	**-2.5**
EPLA				Sg	**Sg**	**09 26 16.3**	**-5.2**
EPLA				IVmb_Lg		09 26 27.8	
BGF	**Bois d'Agland**	**4.76**	**38**	*e*Pn	**Pn**	**09 25 11.2**	**+1.0**
BGF				*e*Sn	**Sn**	**09 26 04.5**	**-1.6**
	27nm,0.3s						
BGF				AML	AML		
VIVF	**Saint-Julien-l**	**4.83**	**64**	*e*Pn	**Pn**	**09 25 12.9**	**+1.8**
VIVF				*e*Sn	**Sn**	**09 26 07.8**	**0.0**
	15nm,0.4s						
VIVF				AML	AML		
POLO	**Lamas de Olo**	**4.97**	**254**	*e*Pn	**Pn**	**09 25 13.7**	**+0.6**
POLO				*e*Sn	**Sn**	**09 26 09.6**	**-1.7**
POLO				*e*Sg	**Sg**	**09 26 34.1**	**-2.6**
POLO				*i* IAML		09 26 39.8	
POLO				*i* IAML		09 26 41.7	
POLO				*i* IAML		09 26 43.4	
ELOB	**Lobios**	**5.01**	**260**	Pn	**Pn**	**09 25 13.7**	**0.0**
ELOB				Sn	**Sn**	**09 26 07.9**	**-4.5**
ELOB				Sg	**Sg**	**09 26 34.4**	**-3.9**
ELOB				IVmb_Lg		09 26 38.7	
PCAB	**Cabril**	**5.03**	**259**	*e*Pn	**Pn**	**09 25 14.1**	**+0.2**
PCAB				*e*Sn	**Sn**	**09 26 11.7**	**-1.1**
PCAB				*e*Sg	**Sg**	**09 26 38.2**	**-0.6**
PCAB				*i* IAML		09 26 40.1	
PCAB				*i* IAML		09 26 47.3	
PCAB				*i* IAML		09 26 49.9	
PGAV	**Gavieira, Arco**	**5.14**	**262**	*e*Pn	**Pn**	**09 25 16.1**	**+0.5**
PGAV				*e*Sn	**Sn**	**09 26 14.6**	**-1.0**
PGAV				*e*Sg	**Sg**	**09 26 41.9**	**-0.5**
PGAV				*i* IAML		09 26 45.4	
PGAV				*i* IAML		09 26 47.1	
PGAV				*i* IAML		09 26 52.4	
QUIF	**Quistinic**	**5.17**	**347**	*e*Pn	**Pn**	**09 25 17.5**	**+1.8**
QUIF				*e*Sn	**Sn**	**09 26 14.3**	**-1.6**
	6.4nm,0.2s						
QUIF				AML	AML		
AVF	**Avril sur Loir**	**5.17**	**40**	*e*Pn	**Pn**	**09 25 16.7**	**+0.9**
AVF				*e*Sn	**Sn**	**09 26 14.7**	**-1.4**
	2.2nm,0.2s						
AVF				AML	AML		
MTE	**Manteigas**	**5.21**	**243**	*e*Sg	**Sg**	**09 26 44.1**	**-0.5**
MTE				*i* IAML		09 26 49.6	
MTE				*i* IAML		09 26 50.1	
MTE				*i* IAML		09 26 53.2	
SMRF	**Simiane la Rot**	**5.22**	**76**	*e*Pn	**Pn**	**09 25 19.0**	**+2.5**
SMRF				*e*Sn	**Sn**	**09 26 16.9**	**-0.4**
	3.6nm,0.4s						
SMRF				AML	AML		
HYF	**Humbligny**	**5.24**	**32**	*e*Pn	**Pn**	**09 25 18.5**	**+1.8**
HYF				*e*Sn	**Sn**	**09 26 18.0**	**+0.2**
	51nm,0.2s						
HYF				AML	AML		
EADA	**Adamuz**	**5.30**	**208**	Pn	**Pn**	**09 25 17.7**	**+0.1**
EADA				Sn	**Sn**	**09 26 14.1**	**-5.2**
EADA	**Adamuz**	**5.30**	**208**	Pn	**Pn**	**09 25 17.9**	**+0.4**
EADA				Sn	**Sn**	**09 26 18.7**	**-0.6**
EADA				Sg	**Sg**	**09 26 43.7**	**-3.6**
EADA				IVmb_Lg		09 26 48.8	
PVIS	**Viseu**	**5.30**	**248**	*e*Sg	**Sg**	**09 26 46.1**	**-1.2**
SMF	**Signal de Mont**	**5.30**	**43**	*e*Pn	**Pn**	**09 25 19.1**	**+1.5**
SMF				*e*Sn	**Sn**	**09 26 19.8**	**+0.4**
	5.6nm,0.4s						
SMF				AML	AML		
SGMF	**Saint Gilles**	**5.42**	**352**	*e*Pn	**Pn**	**09 25 20.1**	**+1.0**
SGMF				*e*Sn	**Sn**	**09 26 20.7**	**-1.4**
	12nm,0.4s						
SGMF				AML	AML		
SSF	**Saint Saulge**	**5.44**	**38**	*e*Pn	**Pn**	**09 25 20.3**	**+0.8**
SSF				*e*Sn	**Sn**	**09 26 20.6**	**-2.2**
	4.0nm,0.2s						
SSF				AML	AML		
PCBR	**Castelo Branco**	**5.48**	**238**	*e*Sg	**Sg**	**09 26 51.1**	**-1.9**
PCBR				*i* IAML		09 26 53.0	
PCBR				*i* IAML		09 26 56.9	
PCBR				*i* IAML		09 26 57.0	
GRR	**Gorron**	**5.51**	**4**	*e*Pn	**Pn**	**09 25 21.4**	**+1.0**
GRR				*e*Sn	**Sn**	**09 26 21.9**	**-2.5**
	15nm,0.4s						
GRR				AML	AML		
ROSF	**Rostrenen**	**5.59**	**347**	*e*Pn	**Pn**	**09 25 22.9**	**+1.4**
ROSF				*e*Sn	**Sn**	**09 26 21.9**	**-4.5**
	12nm,0.3s						
ROSF				AML	AML		
ORIF	**Oris-en-Rattie**	**5.66**	**67**	*e*P	Pn	09 25 28.0	+5.4
ORIF				*e*Sn	**Sn**	**09 26 26.9**	**-1.4**
	2.4nm,0.3s						
ORIF				AML	AML		
PMRV	**Marv??o**	**5.68**	**234**	*e*Pn	**Pn**	**09 25 23.0**	**+0.3**
PMRV				*e*Sn	**Sn**	**09 26 27.1**	**-1.5**
PMRV				*i* IAML		09 26 60.0	
PMRV				*i* IAML		09 27 01.8	
PMRV				*i* IAML		09 27 09.5	
ECAB	**El Cabril**	**5.69**	**214**	Pn	**Pn**	**09 25 23.9**	**+0.8**
LOR	**Lormes**	**5.76**	**39**	*e*Pn	**Pn**	**09 25 25.2**	**+1.4**
LOR				*e*Sn	**Sn**	**09 26 28.5**	**-2.1**
	4.6nm,0.3s						
LOR				AML	AML		
LDF	**La Druitiere**	**5.77**	**9**	*e*Pn	**Pn**	**09 25 25.8**	**+1.8**
LDF				*e*Sn	**Sn**	**09 26 27.8**	**-3.1**
	3.8nm,0.2s						
LDF				AML	AML		
FLN	**La Foliniere**	**5.90**	**6**	*e*Pn	**Pn**	**09 25 26.4**	**+0.6**
FLN				*e*Sn	**Sn**	**09 26 31.9**	**-2.3**
	2.7nm,0.2s						
FLN				AML	AML		
EBAD	**Badajoz**	**5.92**	**228**	Pn	**Pn**	**09 25 26.1**	**+0.1**
EBAD				Sn	**Sn**	**09 26 30.7**	**-3.8**
PCAS	**Casmilo, Conde**	**6.02**	**244**	*e*Sg	**Sg**	**09 27 08.8**	**-1.7**
PCAS				*i* IAML		09 27 14.6	
PCAS				*i* IAML		09 27 16.9	
PCAS				*i* IAML		09 27 17.5	
PSARD	**Sardoal**	**6.05**	**239**	*e*Sn	**Sn**	**09 26 35.8**	**-2.0**
PSARD				*e*Sg	**Sg**	**09 27 11.0**	**-0.4**
PSARD				*i* IAML		09 27 13.9	
PSARD				*i* IAML		09 27 20.6	
PSARD				*i* IAML		09 27 24.9	
PESTR	**Estremoz**	**6.16**	**231**	Pn	**Pn**	**09 25 29.5**	**0.0**
PESTR	**Estremoz**	**6.16**	**231**	*e*Pn	**Pn**	**09 25 29.3**	**-0.1**
PESTR				*e*Sg	**Sg**	**09 27 13.9**	**-1.2**
PESTR				*i* IAML		09 27 17.4	
PESTR				*i* IAML		09 27 17.6	
PESTR				*i* IAML		09 27 17.9	
MBDF	**Montbardon**	**6.21**	**70**	*e*Pn	**Pn**	**09 25 29.4**	**-0.8**
MBDF				*e*Sn	**Sn**	**09 26 39.5**	**-2.5**
	1.7nm,0.3s						
MBDF				AML	AML		
PBAR	**Barrancos**	**6.36**	**224**	Pn	**Pn**	**09 25 32.3**	**+0.2**
PBAR				Sn	**Sn**	**09 26 41.9**	**-3.6**
PBAR	**Barrancos**	**6.36**	**224**	*e*Sg	**Sg**	**09 27 19.2**	**-2.2**
PBAR				*i* IAML		09 27 19.7	
PBAR				*i* IAML		09 27 26.6	
PBAR				*i* IAML		09 27 27.5	
LPG	**La Plagne**	**6.43**	**63**	*e*P	**Pn**	**09 25 38.0**	**+4.6**
PARRA	**Arraiolos**	**6.46**	**233**	*e*Pn	**Pn**	**09 25 33.8**	**+0.3**
PARRA				*e*Sg	**Sg**	**09 27 21.4**	**-3.1**
PARRA				*i* IAML		09 27 25.6	
PARRA				*i* IAML		09 27 29.8	
PARRA				*i* IAML		09 27 30.6	
CABF	**La Chapelle**	**6.51**	**53**	*e*Pn	**Pn**	**09 25 35.9**	**+1.6**
CABF				*e*Sn	**Sn**	**09 26 46.8**	**-2.6**
	1.5nm,0.2s						
CABF				AML	AML		
SBF	**Sospel**	**6.54**	**78**	*e*Pn	**Pn**	**09 25 36.0**	**+1.4**
MOE	**Montemor**	**6.83**	**233**	*e*Pn	**Pn**	**09 25 38.6**	**0.0**
MOE				*e*Sg	**Sg**	**09 27 34.4**	**-2.2**
MOE				*i* IAML		09 27 36.0	
MOE				*i* IAML		09 27 37.1	
MOE				*i* IAML		09 27 41.0	
PGF	**Pioggiola**	**7.69**	**89**	*e*Pn	**Pn**	**09 25 52.1**	**+1.6**
PGF				*e*Sn	**Sn**	**09 27 15.0**	**-3.4**
	3.1nm,0.2s						
PGF				AML	AML		
BMRD	**Maredsous**	**8.55**	**28**	*d*P	**Pn**	**09 26 03.0**	**+1.0**
BMRD				*d*S	**Sn**	**09 27 39.5**	**+0.4**

IDC 29 09:24:31.3±46.0**, 16°.14S**×**176°.18W, h0^{km}, mb4.0**/3**, mbtmp4.0**/3**, Error ellipse: s-maj=855.4km s-min=163.6km az=78.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	**41.35**	**240**	P	P	09 32 19.4	+0.2
	1.0nm,0.3s,baz=96,slow=7.8,SNR=5.2						
	1.0nm,0.3s						
WRA	**Warramunga Arr**	**47.07**	**258**	P	P	09 33 05.1	-0.1
	0.2nm,0.3s,baz=93,slow=7.6,SNR=20						
	0.2nm,0.3s						
ASAR	**Alice Springs**	**47.34**	**253**	P	P	09 33 06.9	-0.4
	4.1nm,0.6s,baz=89,slow=8.2,SNR=97						
	4.1nm,0.6s						

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*SNET **29** 09:34:12.6±3.5, 13°.65N×90°.57W, h44^{km}, ML2.9, Presumed earthquake*

*GCG **29** 09:34:13.0±1.2, 13°.73N×90°.64W, h42^{km}±26^{km}, MD3.6, Presumed earthquake*

ISC 29 09:34:16.3±2.1**, 13°.7N**±0°.1×**90°.43W**±0°.08**, h38^{km}, n13, σ1^{s}.33**/16**, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FG8	**Yepocapa, Chim**	**0.58**	**347**	*i* P	**Pn**	**09 34 27.9**	**-0.5**
FG16	**Alotenango, Sa**	**0.59**	**352**	*i* P	**Pn**	**09 34 28.2**	**-0.3**
FG16				*i* S	**Sn**	**09 34 38.5**	**+1.5**
NUBE	**Las Nubes**	**0.66**	**71**	*i* P	**Pn**	**09 34 28.1**	**-1.3**
RTR	**El Retiro**	**0.79**	**74**	*e*P	**Pn**	**09 34 30.4**	**-0.7**
CEVE	**Cerro Verde**	**0.79**	**80**	*e*P	Pn	09 34 25.5	-5.7
CEVE				*e*S	**Sn**	**09 34 43.6**	**+1.7**
SNJE	**San Jose**	**0.82**	**77**	*e*P	**Pn**	**09 34 30.3**	**-1.2**
SNJE				*e*S	**Sn**	**09 34 44.5**	**+2.0**
JAYA	**Jayaque - finc**	**0.95**	**92**	*e*P	**Pn**	**09 34 32.3**	**-1.0**
JAYA				*e*S	**Sn**	**09 34 46.4**	**+0.7**
JUAM	**Asuncion Mita**	**0.95**	**47**	*i* P	**Pn**	**09 34 32.3**	**-0.9**
PMON	**Piamonte**	**1.08**	**88**	*e*P	**Pn**	**09 34 34.4**	**-0.6**
STG8	**El Palmar, Qui**	**1.18**	**310**	*i* P	**Pn**	**09 34 35.9**	**-0.5**
MTO3	**Montecristo**	**1.25**	**55**	*i* P	**Pn**	**09 34 36.3**	**-1.2**
MTO3	**Montecristo**	**1.25**	**55**	*e*P	**Pn**	**09 34 36.2**	**-1.2**
APG	**El Apazote**	**1.31**	**358**	*i* P	**Pn**	**09 34 36.1**	**-2.2**

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*HEL **29** 10:00:19.1±0.4, 64°.60N×30°.80E, h0^{km}, ML2.0, Explosion*

*IDC **29** 10:00:20.3±3.4, 64°.62N×31°.27E, h0^{km}, mbtmp2.6/2, ML2.1/2, Error ellipse: s-maj=52.0km s-min=12.6km az=103.0*

*KOLA **29** 10:00:20.0±0.7, 64°.6N±0°.1×31°.0E±0°.2, h0^{km}, M2.4(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

ISC 29 10:00:20.0±0.9**, 64°.72N**±0°.03×**30°.77E**±0°.04**, h0^{km}, n40, σ1^{s}.75**/61**, Finland-Karelia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RMF	**Romuvaara**	**0.62**	**216**	PG	**Pg**	**10 00 31.0**	**-0.9**
RMF				smax	smax	10 00 36.5	
	comp=Z,30nm,0.2s						
KU1	**Kurvinen**	**0.99**	**329**	PG	**Pg**	**10 00 38.9**	**-0.1**
KU1				SB	**Sb**	**10 00 53.2**	**-0.5**
KU6	**Riekki**	**1.36**	**345**	PG	**Pg**	**10 00 45.4**	**-0.7**
	baz=163						
KU6				smax	smax	10 01 03.4	
	comp=Z,10.0nm,0.2s						
KU6				SG	**Sb**	**10 01 04.5**	**+0.1**
MSF	**Maaselka**	**1.40**	**330**	PG	**Pg**	**10 00 45.9**	**-1.0**
	baz=153						
MSF				SG	**Sb**	**10 01 05.5**	**0.0**
KU2	**Taivalkoski**	**1.46**	**314**	PG	**Pg**	**10 00 47.1**	**-0.9**
OLKF	**Oulanka, Finla**	**1.71**	**341**	PG	**Pn**	**10 00 51.6**	**+0.6**
OLKF				smax	smax	10 01 13.3	
	comp=Z,9.1nm,0.2s						
OLKF				SG	**Sg**	**10 01 15.8**	**+1.0**
JOF	**Joensuu**	**1.82**	**172**	*e*P	**Pn**	**10 00 51.8**	**-0.8**
OUL	**Oulu**	**2.11**	**282**	PG	**Pn**	**10 00 57.7**	**+1.2**
OUL				SG	**Sb**	**10 01 25.5**	**-0.3**
RANF	**Ranua**	**2.12**	**310**	PG	**Pn**	**10 00 57.7**	**+1.1**
RANF				SG	**Sb**	**10 01 26.3**	**+0.3**
KVDA	**Kovda**	**2.16**	**23**	P	**Pn**	**10 00 58.1**	**+0.8**
KVDA				S	**Sn**	**10 01 26.5**	**+1.7**
OBF4	**Vikkela, Lumij**	**2.43**	**275**	PG	**Pn**	**10 01 03.3**	**+2.4**
	baz=92						
OBF4				smax	smax	10 01 31.7	
	comp=Z,8.2nm,0.2s						
OBF4				SG	**Sg**	**10 01 37.1**	**-1.0**
OUF	**Merijarvi**	**2.63**	**265**	PB	**Pn**	**10 01 04.7**	**+1.0**
	baz=86						
OUF				smax	smax	10 01 36.8	
	comp=Z,9.7nm,0.2s						
OUF				SG	**Sb**	**10 01 40.1**	**-0.7**
RNF	**Rovaniemi**	**2.74**	**316**	PB	**Pn**	**10 01 07.9**	**+2.8**
RNF				SB	**Sb**	**10 01 44.4**	**+0.6**
OBF0	**Syolatti, Pyha**	**2.82**	**268**	PG	**Pn**	**10 01 09.7**	**+3.3**
OBF0				smax	smax	10 01 42.5	
	comp=Z,8.4nm,0.2s						
OBF0				SG	**Sb**	**10 01 46.4**	**+0.1**
SUF	**Sumiainen**	**2.87**	**228**	*e*P	**Pn**	**10 01 09.6**	**+2.6**
SUF	**Sumiainen**	**2.87**	**228**	PG	**Pn**	**10 01 09.0**	**+2.0**
SUF				smax	smax	10 01 41.8	
	comp=Z,2.7nm,0.2s						
TOF	**Tornio**	**3.02**	**300**	PG	**Pb**	**10 01 13.5**	**-1.2**
TOF				smax	smax	10 01 49.8	
	comp=Z,3.5nm,0.2s						
TOF				SB	**Sb**	**10 01 52.0**	**-0.1**
APA0	**Apatity Array**	**3.04**	**16**	P	**Pn**	**10 01 10.9**	**+1.6**
APA0				S	**Sn**	**10 01 47.4**	**+1.1**
APA	**Apatity**	**3.06**	**19**	P	**Pn**	**10 01 11.6**	**+2.1**
APA				S	**Sn**	**10 01 47.7**	**+0.9**
VRF	**Varrio**	**3.08**	**352**	PN	**Pn**	**10 01 11.2**	**+1.3**
VRF				SG	**Sg**	**10 01 59.1**	**+0.2**
OBF8	**Ulkokalla**	**3.19**	**266**	PB	**Pn**	**10 01 11.8**	**+0.5**
KAF	**Kangasniemi**	**3.30**	**220**	PG	**Pn**	**10 01 17.0**	**+4.2**
RUF	**Ruokolahti**	**3.41**	**195**	PG	**Pn**	**10 01 16.7**	**+2.4**
	baz=13						
LVZ	**Lovozero**	**3.56**	**24**	S	**Sn**	**10 02 00.8**	**+1.7**
KEF	**Keuruu**	**3.68**	**229**	*e*P	**Pn**	**10 01 20.7**	**+2.5**
KEF	**Keuruu**	**3.68**	**229**	PB	**Pn**	**10 01 20.0**	**+1.9**
KLF	**Kolari**	**3.76**	**315**	PB	**Pn**	**10 01 23.4**	**+4.2**
KLF				SG	**Sg**	**10 02 18.7**	**-1.9**
RAJF	**Raja-Jooseppi**	**3.90**	**347**	PN	**Pn**	**10 01 22.2**	**+1.1**
FINES	**FINESS Array B**	**3.92**	**215**	Pn	**Pn**	**10 01 21.8**	**+0.5**
	comp=Z,0.2nm,0.3s,baz=35,slow=13,SNR=6.8						
FINES				Pg	**Pb**	**10 01 28.0**	**-1.9**
	comp=Z,0.2nm,0.3s,baz=32,slow=18,SNR=3.1						
FINES				Sn	**Sn**	**10 02 10.0**	**+2.0**
	comp=Z,0.4nm,0.3s,baz=30,slow=20,SNR=3.5						
FINES				Lg	Lg	10 02 22.1	
	comp=Z,1.3nm,0.3s,baz=37,slow=28,SNR=11						
	comp=Z,0.3nm,0.3s						
FINES				AML	AML		
SJUU	**Sjulsmark**	**3.96**	**286**	*e*P	**Pn**	**10 01 22.9**	**+1.1**
VAF	**Ylistaro**	**3.96**	**249**	*e*P	**Pn**	**10 01 23.5**	**+1.6**
VAF	**Ylistaro**	**3.96**	**249**	PB	**Pn**	**10 01 24.0**	**+2.1**
ERTU	**Ertsjaerv**	**4.00**	**301**	PB	**Pn**	**10 01 26.9**	**+4.3**
ERTU				SG	**Sg**	**10 02 25.6**	**-2.9**
TERR	**Teriberka**	**4.81**	**19**	P	**Pn**	**10 01 34.8**	**+1.2**
TERR				S	**Sn**	**10 02 30.4**	**+0.4**
LANU	**Lannavaara**	**4.86**	**317**	*e*P	**Pn**	**10 01 32.5**	**-1.8**
ARCES	**ARCESS Array B**	**5.25**	**339**	Pn	**Pn**	**10 01 40.0**	**+0.3**
	comp=Z,0.2nm,0.3s,baz=155,slow=13,SNR=14						
ARCES				Sn	**Sn**	**10 02 39.9**	**-1.0**
	comp=Z,0.1nm,0.3s,baz=153,slow=14,SNR=2.2						
ARCES				Lg	Lg	10 03 00.5	
	comp=Z,0.5nm,0.3s,baz=160,slow=29,SNR=7.8						
	comp=Z,0.4nm,0.2s						
ARCES				AML	AML		
ARCES	**ARCESS Array B**	**5.25**	**339**	P	**Pn**	**10 01 40.0**	**+0.3**
ARCES				S	**Sn**	**10 02 41.1**	**+0.2**
RAF	**Rauma**	**5.54**	**232**	*e*P	**Pn**	**10 01 45.6**	**+2.0**
I37NO	**I37NO**	**6.47**	**318**	I	I	10 45 55.0	
	baz=126,slow=321,SNR=7.6						
FAUS	**Fauske**	**6.84**	**300**	S	**Sn**	**10 03 21.8**	**+2.0**

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*IDC **29** 10:19:24.6±0.8, 60°.21S×48°.90W, h0^{km}, mb4.1/7, mbtmp4.0/8, ML3.4/1, MS3.2/2, Error ellipse: s-maj=28.4km s-min=20.1km az=102.0*

ISC 29 10:19:26.5±0.7, **60°.3S**±0°.1×**49°.4W**±0°.1, **h10**^{km}, **n21**, σ**1^{s}10**/16, **mb4.0**/6, **2C**, **Scotia Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMSA	**Palmer Station**	**8.14**	**230**	Pn	**Pn**	**10 21 25.1**	**+0.6**
	0.5nm,0.3s,baz=67,slow=12,SNR=1.0						
PMSA				LR	LR	10 24 30.2	
	comp=Z,252nm,19.3s,baz=58,slow=37						
	1.3nm,0.4s						
PMSA				AML	AML		
VNA3	**Neumayer Olymp**	**19.19**	**141**	⇑P	**Pn**	**10 23 51.2**	**+0.3**
	comp=Z,3.5nm,0.6s						
SNAA	**Sanae**	**21.42**	**141**	⇑P	**P**	**10 24 14.8**	**+0.7**
	comp=Z,53nm,0.6s						
SNAA	**Sanae**	**21.42**	**141**	P	**P**	**10 24 13.0**	**-1.1**
	comp=Z,2.2nm,0.7s,baz=294,slow=7.8,SNR=5.1						
SNAA				LR	LR	10 31 36.2	
	comp=Z,43nm,19.3s,baz=238,slow=34						
	comp=Z,2.2nm,0.7s						
TROLL	**Troll, Antarti**	**23.12**	**141**	P	**P**	**10 24 32.6**	**+0.2**
	comp=Z,135nm,0.6s						
QSPA	**South Pole Qui**	**29.96**	**180**	P	**P**	**10 25 34.9**	**+0.2**
	comp=Z,2.4nm,0.6s,baz=173,slow=2.5,SNR=33						
	comp=Z,2.4nm,0.6s						
MAW	**Mawson**	**43.23**	**149**	P	**P**	**10 27 26.9**	**-0.3**
	comp=Z,1.7nm,0.9s,baz=236,slow=7.3,SNR=3.8						
	comp=Z,1.7nm,0.9s						
LPAZ	**La Paz**	**45.99**	**335**	P	**P**	**10 27 49.9**	**-0.6**
	comp=Z,1.1nm,0.7s,baz=160,slow=6.3,SNR=5.8						
	comp=Z,1.1nm,0.7s						
H10S2	**ASCENSION HYDR**	**57.40**	**42**	T	T	11 31 47.6	
	baz=20,slow=74,SNR=96						
H10S3	**ASCENSION HYDR**	**57.40**	**42**	T	T	11 31 45.4	
	baz=200,slow=74,SNR=94						
H10N3	**ASCENSION HYDR**	**58.49**	**42**	T	T	11 33 11.5	
	baz=198,slow=76,SNR=61						
H10N1	**ASCENSION HYDR**	**58.49**	**42**	T	T	11 33 08.4	
	baz=198,slow=76,SNR=44						
H10N2	**ASCENSION HYDR**	**58.51**	**42**	T	T	11 33 12.7	
	baz=198,slow=76,SNR=57						
DBIC	**Dimbokro**	**75.34**	**46**	P	**P**	**10 31 09.8**	**0.0**
	comp=Z,2.1nm,0.5s,baz=194,slow=5.8,SNR=2.2						
	comp=Z,2.1nm,0.5s						
TORD	**Torodi Ar. Bea**	**83.73**	**50**	P	**P**	**10 31 55.5**	**+0.1**
	comp=Z,1.5nm,0.5s,baz=205,slow=5.5,SNR=13						
	comp=Z,1.5nm,0.5s						
ASAR	**Alice Springs**	**96.32**	**183**	P	**P**	**10 32 53.3**	**-1.9**
	comp=Z,0.2nm,0.4s,baz=164,slow=5.2,SNR=4.2						
	comp=Z,0.2nm,0.4s						
WRA	**Warramunga Arr**	**100.01**	**184**	P	**Pdif**	**10 33 10.5**	**-1.3**
	comp=Z,0.2nm,0.6s,baz=180,slow=4.6,SNR=1.3						
ILAR	**Eielson Array**	**144.22**	**313**	PKP	**PKPab**	**10 38 58.6**	**-0.1**
	comp=Z,0.4nm,0.8s,baz=149,slow=1.8,SNR=5.2						
BVAR	**Borovoye Array**	**147.17**	**75**	PKPbc	**PKPdf**	**10 39 06.6**	**+0.3**
	comp=Z,0.9nm,0.4s,baz=238,slow=2.7,SNR=4.0						
MKAR	**Makanchi Array**	**149.03**	**94**	PKPbc	**PKPdf**	**10 39 11.2**	**+1.7**
	comp=Z,1.2nm,0.7s,baz=219,slow=1.8,SNR=10.0						
KURBB	**Kurchatov Arra**	**149.69**	**85**	PKPbc	**PKPdf**	**10 39 12.6**	**+2.2**
	comp=Z,0.4nm,0.5s,baz=228,slow=3.0,SNR=4.1						

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*NIED **29** 10:23:04.3, 36°.95N×141°.19E, h47^{km}, MW3.5, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M_{rr}-2.25; $M_{\theta\theta}$1.16; $M_{\phi\phi}$1.09; $M_{r\theta}$1.02; $M_{\theta\phi}$0.45; $M_{\phi r}$0.85; Fault plane solution: $M_0$2.33000×10^{14} NP1:ϕ_s47.00000°, δ28.00000°, λ-92.00000°. NP2:ϕ_s229.00000°, δ62.00000°, λ-89.00000°.*

JMA 29 10:23:04.3±0.1, **37°.0N**±0°.3×**141°.2E**±0°.4, **h47**^{km}, **MV3.5**/40, **7D, E OFF FUKUSHIMA PREF, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ONAJ	**Iwakimizuishiy**	**0.35**	**296**	⇓*i*P	Pn	10 23 13.6	-0.1
ONAJ				⇓S	Sn	10 23 19.9	-0.6
JFK	**Kawauchi**	**0.49**	**329**	⇓*i*P	Pn	10 23 15.1	-0.2
JFK				⇓S	Sn	10 23 22.5	-0.6
JFFD	**Fukushimafurud**	**0.52**	**286**	⇓P	Pn	10 23 15.6	-0.1
JHO	**Hitachi**	**0.60**	**236**	⇓P	Pn	10 23 16.4	-0.3
JHO				⇓S	Sn	10 23 24.9	-0.7
JOTO	**OTAMA OYAMA**	**0.92**	**312**	*i* P	Pn	10 23 21.8	+0.9
JOTO				S	Sn	10 23 33.8	+0.9
JMM	**Marumori**	**0.97**	**341**	*i* P	Pn	10 23 21.4	-0.1
JMM				S	Sn	10 23 33.5	-0.7
JFY	**Yanaizu**	**1.27**	**292**	P	Pn	10 23 26.2	+0.6

IDC 29 10:34:46.4±4.1, **17°.67S**×**178°.35W**, **h506**^{km}±19^{km}, **mb3.2**/4, **mbtmp4.1**/5, **Error ellipse: s-maj=98.4km s-min=57.6km az=155.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**3.43**	**268**	P	P	10 36 01.2	+0.2
	12nm,0.5s,baz=111,slow=11,SNR=34						
MSVF				S	S	10 37 01.9	+0.2
	4.7nm,1.0s,baz=107,slow=19,SNR=0.9						
CTA	**Charters Tower**	**33.54**	**260**	P	P	10 40 43.2	-0.7
	3.4nm,0.7s,baz=102,slow=9.3,SNR=1.7						
	3.4nm,0.7s						
STKA	**Stephens Creek**	**38.80**	**241**	P	P	10 41 27.4	+0.2
	1.8nm,0.5s,baz=90,slow=9.0,SNR=7.1						
	1.8nm,0.5s						
WRA	**Warramunga Arr**	**44.73**	**259**	P	P	10 42 14.2	-0.3
	0.4nm,0.5s,baz=96,slow=6.8,SNR=13						
WRA				PcP	PcP	10 43 45.7	-0.4
	0.3nm,0.7s,baz=89,slow=3.4,SNR=2.0						
	0.4nm,0.5s						
ASAR	**Alice Springs**	**44.91**	**254**	P	P	10 42 15.9	+0.2
	3.5nm,0.4s,baz=89,slow=8.6,SNR=78						
ASAR				PcP	PcP	10 43 46.2	-0.5
	0.3nm,0.4s,baz=103,slow=4.0,SNR=5.0						
	3.5nm,0.4s						

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*IDC **29** 10:48:47.1±0.6, 3°.91N×97°.51E, h0^{km}, mb4.3/20, mbtmp4.3/22, ML3.8/1, MS3.7/39, Error ellipse: s-maj=23.9km s-min=13.5km az=56.0*

*DJA **29** 10:48:51.3±0.3, 4°N±3°×9°8E±°, h10^{km}, M4.9/19, MLv4.9/19*

*GFZ **29** 10:48:51.1±0.1, 4°N±2°×9°8E±°, h10^{km}, M4.9/35, mb4.8/35*

*NEIC **29** 10:48:54.1±1.2, 3°.90N±0°.05×97°.69E±0°.05, h35^{km}±1^{km}, mb4.4/26, Error ellipse: s-maj=11.6km s-min=3.5km az=226.0*

*BKK **29** 10:48:59.7±1.2, 5°N±4°×9°8E±1°0, h17^{km}±11^{km}, M4.9/9, mB5.1/3, mb5.0/3, Mjma4.5/9, ML5.3/8, MLv5.0/8, Mw(mB)4.4/3*

ISC 29 10:48:50.2±0.3, **3°.91N**±0°.03×**97°.60E**±0°.03, **h10**^{km}, **n190**, σ**2^{s}07**/159, **mb4.6**/62, **MS3.7**/44, **1C**, **Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KCSI	**Kotacane, Aceh**	**0.42**	**156**	P	**Pg**	**10 48 57.4**	**-1.0**
KCSI	**Kotacane, Aceh**	**0.42**	**156**	P	**Pg**	**10 48 57.1**	**-1.3**
TPTI		**0.77**	**213**	P	**Pg**	**10 49 04.8**	**-0.2**
TPTI				AML	AML		
TPTI		**0.77**	**213**	P	**Pg**	**10 49 04.7**	**-0.3**
TSI	**Tuntungan**	**1.04**	**113**	P	**Pg**	**10 49 09.4**	**-0.8**
TSI				AML	AML		
TSI	**Tuntungan**	**1.04**	**113**	P	**Pg**	**10 49 08.9**	**-1.3**
MLSI	**Meulaboh, Aceh**	**1.25**	**287**	P	**Pn**	**10 49 14.0**	**+0.4**
MLSI				AML	AML		
MLSI	**Meulaboh, Aceh**	**1.25**	**287**	P	**Pn**	**10 49 14.1**	**+0.4**
LHMI	**Lhok Sumawe**	**1.47**	**334**		**Pb**	**10 49 18.7**	**+1.1**
LHMI				Sn	**Sg**	**10 49 38.7**	**+1.3**
LHMI	**Lhok Sumawe**	**1.47**	**334**	P	**Pb**	**10 49 18.6**	**+1.1**
LHMI				AML	AML		
LHMI	**Lhok Sumawe**	**1.47**	**334**	P	**Pb**	**10 49 18.8**	**+1.3**
PSI	**Prapat**	**1.72**	**130**	P	**Pn**	**10 49 21.2**	**+0.9**
RPSI	**Rantau Prapat**	**1.79**	**132**		**Pn**	**10 49 21.7**	**+0.6**
RPSI				Sn	**Sn**	**10 49 43.9**	**0.0**
RPSI	**Rantau Prapat**	**1.79**	**132**	P	**Pn**	**10 49 21.9**	**+0.8**
SNSI	**Sinabang, Aceh**	**1.96**	**221**	P	**Pb**	**10 49 27.1**	**+1.2**
SNSI				AML	AML		
SNSI	**Sinabang, Aceh**	**1.96**	**221**	P	**Pn**	**10 49 25.7**	**+2.2**
GSI	**Gunungsitoli**	**2.58**	**181**	Pn	**Pn**	**10 49 33.8**	**+1.7**
GSI	**Gunungsitoli**	**2.58**	**181**	P	**Pb**	**10 49 35.9**	**-0.8**
GSI	**Gunungsitoli**	**2.58**	**181**	P	**Pn**	**10 49 33.6**	**+1.5**
BSI	**Banda Aceh**	**2.79**	**305**	P	**Pn**	**10 49 37.5**	**+2.6**
BSI				AML	AML		
KULM	**Kulim**	**3.34**	**66**	Pn	**Pn**	**10 49 42.5**	**0.0**
KULM	**Kulim**	**3.34**	**66**	P	**Pn**	**10 49 42.6**	**+0.2**
IPM	**Ipoh**	**3.46**	**80**		**Pn**	**10 49 44.0**	**-0.2**
IPM	**Ipoh**	**3.46**	**80**	P	**Pn**	**10 49 44.8**	**+0.6**
MNSI	**Mandailing Nat**	**3.67**	**147**	P	**Pn**	**10 49 49.1**	**+2.1**
MNSI	**Mandailing Nat**	**3.67**	**147**	P	**Pn**	**10 49 47.9**	**+0.9**
PBSI	**Pulau Batu**	**3.99**	**170**	P	**Pn**	**10 49 54.2**	**+2.7**
PKDT	**Phuket**	**4.03**	**10**	P	**Pn**	**10 49 51.1**	**-0.8**
PKDT				AML	AML		
PKDT				AML	AML		
BKNI	**Bangkinang**	**4.95**	**136**	Pn	**Pn**	**10 50 04.3**	**-0.3**
BKNI	**Bangkinang**	**4.95**	**136**	P	**Pn**	**10 50 06.9**	**+2.3**
RNTT	**Ranong**	**5.52**	**9**	P	**Pn**	**10 50 11.6**	**-0.8**
RNTT				AML	AML		
RNTT				AML	AML		
SDSI	**Sungai Dareh**	**6.14**	**141**	P	**Pn**	**10 50 21.6**	**+0.5**
	comp=Z,48nm,0.8s						
BTDF	**Bukit Timah Da**	**6.66**	**112**	P	Pg	10 50 53.2	-4.7
BTDF	**Bukit Timah Da**	**6.66**	**112**	S	**Sb**	**10 52 14.2**	**+8.2**
PPSI	**Pulau Pagai**	**7.05**	**160**	P	**Pn**	**10 50 35.8**	**+2.3**
	comp=Z,231nm,1.1s						
PBA	**Port Blair**	**9.08**	**328**	*e*P	Pn	10 51 06.5	+5.2
PBA				IAmb	IAmb	10 51 09.1	
	comp=Z,65nm,0.9s						
PHET	**Kaeng Krachan**	**9.17**	**13**	P	**Pn**	**10 51 01.5**	**-1.1**
DGPR	**DIGLIPUR**	**10.30**	**334**	*e*P	Pn	10 51 23.8	+5.6
DGPR				IAmb	IAmb	10 51 35.8	
	comp=Z,59nm,1.5s						
MDSI	**Maura Dua**	**10.62**	**142**	P	**Pn**	**10 51 25.1**	**+2.6**
	comp=Z,25nm,0.9s						
DLV	**Lat**	**13.41**	**53**	P	**Pn**	**10 52 03.6**	**+2.7**
	comp=Z,17nm,1.0s						
SKJI	**Sukabumi**	**14.05**	**140**	P	**Pn**	**10 52 09.1**	**-0.4**
	comp=Z,79nm,1.3s						
CM31	**Chiang Mai Arr**	**14.52**	**5**	Pn	**Pn**	**10 52 18.4**	**+2.5**
CMAR	**Chiang Mai Arr**	**14.52**	**5**	Pn	**Pn**	**10 52 16.1**	**+0.2**
	comp=Z,1.7nm,0.7s,baz=191,slow=12,SNR=11						
CMAR				LR	LR	10 58 08.1	
	comp=Z,221nm,20.7s,baz=200,slow=39						
CMAR	**Chiang Mai Arr**	**14.52**	**5**	Pn	**Pn**	**10 52 16.5**	**+0.6**
LEM	**Lembang**	**14.62**	**137**	LR	LR	10 58 57.5	
	comp=Z,921nm,18.7s,baz=246,slow=42						
SBUM	**Sibu**	**14.67**	**95**	Pn	**Pn**	**10 52 20.6**	**+2.7**
SBUM	**Sibu**	**14.67**	**95**	P	**Pn**	**10 52 20.2**	**+2.2**
	comp=Z,3.8nm,1.4s						
CHTO	**Chiang Mai**	**14.87**	**5**	P	**P**	**10 52 29.1**	**+2.6**
CHTO	**Chiang Mai**	**14.87**	**5**	S	**Sn**	**10 55 12.8**	**+7.1**
CHTO	**Chiang Mai**	**14.87**	**5**	Pn	**Pn**	**10 52 21.8**	**+1.1**
CHTO	**Chiang Mai**	**14.87**	**5**	P	**Pn**	**10 52 24.3**	**+3.6**
	comp=Z,20nm,1.0s						
NPW	**Naypyitaw**	**15.84**	**355**	P	**Pn**	**10 52 36.1**	**+2.7**
	comp=Z,66nm,1.1s						
PALK	**Pallekele**	**17.14**	**282**	P	**Pn**	**10 52 47.4**	**-2.7**
	comp=Z,0.3nm,0.3s,baz=86,slow=19,SNR=2.2						
PALK				LR	LR	10 59 26.5	
	comp=Z,398nm,18.4s,baz=105,slow=38						
	comp=Z,8.4nm,0.8s						
PALK				AML	AML		
SLVN	**Son La**	**18.38**	**19**	P	**P**	**10 53 10.0**	**+4.7**
SLVN	**Son La**	**18.38**	**19**	S	**Sn**	**10 56 26.5**	**-4.3**
SLVN	**Son La**	**18.38**	**19**		**P**	**10 53 07.7**	**+2.3**
SLVN				IAmb	IAmb	10 53 16.4	
	comp=Z,16nm,0.8s						
SLVN	**Son La**	**18.38**	**19**	P	**P**	**10 53 08.8**	**+3.4**
	comp=Z,21nm,0.9s						
KKM	**Kota Kinabalu**	**18.66**	**83**	P	**Pn**	**10 53 15.4**	**+6.5**
KKM	**Kota Kinabalu**	**18.66**	**83**	S	**Sn**	**10 56 38.7**	**+0.8**
KKM	**Kota Kinabalu**	**18.66**	**83**	P	**Pn**	**10 53 10.3**	**+1.4**
	comp=Z,20nm,0.9s						
QIZ	**Qiongzhong**	**19.21**	**38**	P	**Pn**	**10 53 15.8**	**+0.4**
QIZ				S	**Sn**	**10 56 51.8**	**+0.9**
QIZ				LR	LR		
	comp=N,380nm,14.7s						
QIZ				LR	LR		
	comp=E,300nm,11.6s						
QIZ				LR	LR		
	comp=Z,300nm,9.6s						
MDRS	**Chennai**	**19.41**	**299**	*e*P	**Pn**	**10 53 22.0**	**+4.1**
MDRS				IAmb	IAmb	10 53 44.2	
	comp=Z,13nm,0.7s						
VIS	**Vishakhapatnam**	**19.60**	**316**	*e*P	**Pn**	**10 53 23.8**	**+3.7**
VIS				IAmb	IAmb	10 53 29.1	
	comp=Z,6.8nm,0.5s						
ABJI	**Asem Bagus**	**20.26**	**125**	P	**P**	**10 53 26.1**	**+0.1**
	comp=Z,99nm,1.1s						
MORE	**Moreh**	**20.46**	**351**		**P**	**10 53 29.3**	**+1.2**
MYLDM	**Lahad Datu**	**20.87**	**86**	P	Pn	10 53 38.8	+3.7
MYLDM	**Lahad Datu**	**20.87**	**86**	S	**S**	**10 57 18.7**	**-6.9**
MYLDM	**Lahad Datu**	**20.87**	**86**	P	**P**	**10 53 32.1**	**-0.6**
MYLDM	**Lahad Datu**	**20.87**	**86**	P	Pn	10 53 35.0	-0.1
	comp=Z,49nm,0.9s						
TRD	**Trivandrum**	**21.02**	**284**	*e*P	**P**	**10 53 38.8**	**+4.5**
TRD				IAmb	IAmb	10 53 48.2	
	comp=Z,15nm,0.2s						
TNCH	**TengChong**	**21.02**	**2**	P	**P**	**10 53 37.5**	**+3.2**
TNCH				S	**S**	**10 57 23.5**	**-5.2**
TNCH				pmax	pmax		
	comp=Z,50nm,0.7s						
TNCH				LR	LR		
	comp=N,320nm,7.0s						
TNCH				LR	LR		
	comp=E,420nm,7.4s						
TNCH				LR	LR		
	comp=Z,520nm,12.4s						
IGBI	**Denpasar**	**21.58**	**126**	P	**P**	**10 53 41.1**	**+0.8**
	comp=Z,2µm,1.1s						
KMI2	**Kunming**	**21.69**	**13**	P	**P**	**10 53 44.8**	**+3.2**
KMI2				pmax	pmax		
	comp=Z,21nm,0.8s						
KMI2				LR	LR		
	comp=N,230nm,12.1s						
KMI2				LR	LR		
	comp=E,510nm,13.3s						
KMI2				LR	LR		
	comp=Z,290nm,16.0s						
SHL	**Shillong**	**22.23**	**346**	P	**P**	**10 53 46.5**	**-0.8**
TOLI2	**Tolitoli**	**23.32**	**96**	P	**P**	**10 54 02.6**	**+3.9**
TOLI2	**Tolitoli**	**23.32**	**96**	P	**P**	**10 53 57.9**	**-0.8**
TOLI2				IAmb	IAmb	10 54 03.9	
	comp=Z,17nm,1.2s						
TOLI2	**Tolitoli**	**23.32**	**96**	P	**P**	**10 54 00.7**	**+1.9**
	comp=Z,10nm,1.2s						
PLAI	**Plampang**	**23.76**	**122**	P	**P**	**10 54 03.5**	**+0.4**
	comp=Z,32nm,0.8s						
KAPI	**Kappang**	**23.84**	**112**	LR	LR	11 03 37.6	
	comp=Z,148nm,19.2s,baz=250,slow=37						
KAPI	**Kappang**	**23.84**	**112**	P	**P**	**10 54 02.7**	**-1.1**
	comp=Z,21nm,0.9s						
BKSI	**Bulukumba**	**24.29**	**112**	P	**P**	**10 54 07.5**	**-0.5**
	comp=Z,50nm,0.9s						
HMDM	**Hanimaadhoo**	**24.48**	**278**	P	**P**	**10 54 09.8**	**0.0**
	comp=Z,118nm,1.0s						
APSI	**Ampana**	**24.50**	**101**	P	**P**	**10 54 10.8**	**+0.8**
	comp=Z,25nm,1.0s						
LBFI	**Labuhan Bajo,**	**25.41**	**119**	P	**P**	**10 54 18.8**	**+0.6**
	comp=Z,24nm,1.0s						
EVN	**Everest**	**26.03**	**338**	P	**P**	**10 54 27.1**	**+2.6**
	comp=Z,6.9nm,0.8s						
LSA	**Lhasa**	**26.37**	**347**	*e*P	**P**	**10 54 27.5**	**+0.2**
LSA	**Lhasa**	**26.37**	**347**	P	**P**	**10 54 29.4**	**+2.1**
	comp=Z,20nm,0.6s						
DAV	**Davao City (W)**	**28.02**	**82**	LR	LR	11 06 37.0	
	comp=Z,114nm,20.8s,baz=322,slow=38						
ENH	**Enshi**	**28.53**	**22**	P	**P**	**10 54 46.7**	**+0.6**
ENH	**Enshi**	**28.53**	**22**	P	**P**	**10 54 46.3**	**+0.1**
	comp=Z,17nm,0.7s						
BATI	**Baumata**	**29.50**	**119**	LR	LR	11 08 05.9	
	comp=Z,362nm,20.7s,baz=302,slow=39						
NLAI	**Namlea**	**30.32**	**103**	P	**P**	**10 55 03.3**	**+1.1**
	comp=Z,16nm,1.0s						
NACB	**Ninganchiao**	**30.68**	**47**	P	**P**	**10 55 06.2**	**+1.0**
	comp=Z,23nm,0.8s						
XAN	**Xi'an**	**31.78**	**18**	P	**P**	**10 55 15.3**	**+0.4**
XAN				pmax	pmax		
	comp=Z,20nm,0.9s						
XAN				LR	LR		
	comp=N,190nm,12.4s						
XAN				LR	LR		
	comp=E,400nm,16.5s						
XAN				LR	LR		
	comp=Z,340nm,15.8s						
LZDM	**Lanzhou Array**	**32.39**	**9**	P	**P**	**10 55 19.6**	**-0.8**
	comp=Z,2.0nm,0.3s,baz=169,slow=8.9,SNR=3.8						
	comp=Z,2.0nm,0.3s						
LZH	**Lanzhou**	**32.54**	**9**	*e*P	**P**	**10 55 19.5**	**-2.1**
LZH				pP	pP	10 55 25.0	-0.1
LZH				pmax	pmax		
	comp=Z,22nm,1.0s						
LZH				LR	LR		
	comp=N,220nm,13.0s						
LZH				LR	LR		
	comp=E,410nm,14.6s						
LZH				LR	LR		
	comp=Z,360nm,14.6s						
FITZ	**Fitzroy Crossi**	**35.25**	**129**	LR	LR	11 11 22.9	
	comp=Z,136nm,20.1s,baz=315,slow=38						
FITZ	**Fitzroy Crossi**	**35.25**	**129**	P	**P**	**10 55 44.3**	**-0.9**
FITZ	**Fitzroy Crossi**	**35.25**	**129**	P	**P**	**10 55 43.1**	**-2.1**
	comp=Z,2.3nm,2.5s						
FAKI	**Fak Fak**	**35.28**	**101**	P	**P**	**10 55 43.8**	**-1.8**
FAKI				IAmb	IAmb	10 55 45.1	
	comp=Z,11nm,1.1s						
FAKI	**Fak Fak**	**35.28**	**101**	P	**P**	**10 55 45.8**	**+0.1**
	comp=Z,9.8nm,1.8s						
GTA2	**Gaotai**	**35.47**	**3**	*e*P	**P**	**10 55 47.0**	**-0.1**
GTA2				pmax	pmax		
	comp=Z,5.0nm,1.0s						
GTA2				LR	LR		
	comp=N,110nm,12.7s						
GTA2				LR	LR		
	comp=E,160nm,10.5s						
GTA2				LR	LR		
	comp=Z,92nm,12.4s						
HNS	**HongShan**	**36.84**	**23**	⇑P	**P**	**10 56 00.0**	**+1.4**
HNS				pmax	pmax		
	comp=Z,11nm,0.7s						
HNS				LR	LR		
	comp=N,210nm,12.9s						
HNS				LR	LR		
	comp=E,120nm,11.5s						
HNS				LR	LR		
	comp=Z,110nm,10.6s						
HHC	**Hu-ho-hao-te**	**38.87**	**17**	*e*P	**P**	**10 56 18.0**	**+2.1**
HHC				pmax	pmax		
	comp=Z,17nm,0.6s						
HHC				pmax	pmax		
	comp=Z,36nm,4.5s						
HHC				LR	LR		
	comp=N,140nm,12.2s						
HHC				LR	LR		
	comp=E,290nm,12.2s						
HHC				LR	LR		
	comp=Z,95nm,13.6s						
BJT	**Baijiatuau**	**39.68**	**23**	P	**P**	**10 56 23.5**	**+1.0**
	comp=Z,13nm,0.7s						
KLBR	**Kellerberrin**	**40.18**	**153**	P	**P**	**10 56 25.6**	**-1.2**
	comp=Z,34nm,1.2s						
WMQ	**Urumqi**	**40.70**	**349**	*e*P	**P**	**10 56 30.5**	**-0.6**
WMQ				pmax	pmax		
	comp=Z,12nm,0.9s						
WMQ				LR	LR		
	comp=Z,67nm,19.3s						
NWAO	**Narrogin (SRO)**	**41.09**	**155**	LR	LR	11 12 21.5	
	comp=Z,177nm,21.0s,baz=22,slow=34						
ASAI	**AK-SAY(Kyrgyzs**	**41.44**	**336**	P	**P**	**10 56 36.8**	**-0.7**
	comp=Z,2.5nm,2.0s						
TARG	**Taragay, Kyrgy**	**41.62**	**338**	P	**P**	**10 56 38.3**	**-0.8**
TARG				IAmb	IAmb	10 56 39.1	
	comp=Z,3.5nm,0.7s						
TARG	**Taragay, Kyrgy**	**41.62**	**338**	P	**P**	**10 56 37.9**	**-1.2**
	comp=Z,6.4nm,0.8s						
TJN	**Taejon**	**42.36**	**36**	P	**P**	**10 56 43.5**	**-1.1**
	comp=Z,64nm,1.0s						
WB0	**Warramunga Arr**	**43.14**	**124**	IAmb	IAmb	10 56 53.3	
	comp=Z,9.2nm,1.0s						
WRA	**Warramunga Arr**	**43.18**	**125**	P	**P**	**10 56 49.9**	**-1.7**
	comp=Z,8.7nm,0.9s,baz=303,slow=9.1,SNR=44						
WRA				PcP	**PcP**	**10 58 39.6**	**-1.5**
	comp=Z,1.1nm,0.9s,baz=310,slow=2.9,SNR=1.5						
	comp=Z,8.7nm,0.9s						
WRA	**Warramunga Arr**	**43.18**	**125**	P	**P**	**10 56 49.6**	**-2.0**
WRAB	**Tennant Creek**	**43.18**	**125**	P	**P**	**10 56 51.4**	**-0.2**
WRAB	**Tennant Creek**	**43.18**	**125**	P	**P**	**10 56 50.4**	**-1.2**
WRAB	**Tennant Creek**	**43.18**	**125**	P	**P**	**10 56 49.9**	**-1.7**
	comp=Z,17nm,0.9s						
WR8	**Warramunga Arr**	**43.32**	**125**	IAmb	IAmb	10 56 55.1	
	comp=Z,12nm,0.8s						
WR0	**Warramunga Arr**	**43.35**	**125**	P	**P**	**10 56 51.9**	**-1.1**
KSAR	**Wonju Array Be**	**43.39**	**36**	P	**P**	**10 56 52.6**	**-0.3**
KS19	**Wonju Array Si**	**43.42**	**36**	P	**P**	**10 56 53.1**	**-0.2**
KSRS	**Korea Array**	**43.42**	**36**	P	**P**	**10 56 51.3**	**-1.9**
	comp=Z,3.4nm,0.6s,baz=228,slow=8.4,SNR=16						
KSRS				LR	LR	11 15 23.9	
	comp=Z,38nm,19.2s,baz=235,slow=37						
	comp=Z,3.4nm,0.6s						
AAK	**Ala-Archa**	**43.71**	**335**	LR	LR	11 18 08.7	
	comp=Z,86nm,18.3s,baz=156,slow=40						
AAK	**Ala-Archa**	**43.71**	**335**	P	**P**	**10 56 55.2**	**-0.5**
AAK	**Ala-Archa**	**43.71**	**335**	P	**P**	**10 56 55.5**	**-0.2**
	comp=Z,3.7nm,1.4s						
SONM	**Songino Array**	**44.41**	**8**	P	**P**	**10 57 00.3**	**-1.0**
	comp=Z,2.2nm,0.5s,baz=194,slow=9.0,SNR=8.2						
	comp=Z,2.2nm,0.5s						
SONM	**Songino Array**	**44.41**	**8**	P	**P**	**10 57 01.0**	**-0.2**
ULN	**Ulaanbaatar**	**44.54**	**9**	P	**P**	**10 57 02.4**	**+0.1**
ULN				IAmb	IAmb	10 57 07.9	
	comp=Z,4.5nm,1.2s						
MK31	**Makanchi Array**	**44.74**	**345**	P	**P**	**10 57 02.5**	**-1.2**
MKAR	**Makanchi Array**	**44.74**	**345**	P	**P**	**10 57 02.1**	**-1.6**
	comp=Z,1.7nm,0.6s,baz=159,slow=8.2,SNR=10						
MKAR				LR	LR	11 19 40.7	
	comp=Z,47nm,18.3s,baz=146,slow=42						
	comp=Z,1.7nm,0.6s						
AS31	**Alice Springs**	**44.75**	**130**		**P**	**10 57 03.1**	**-1.1**
ASAR	**Alice Springs**	**44.75**	**130**	P	**P**	**10 57 03.0**	**-1.2**
	comp=Z,1.5nm,0.6s,baz=301,slow=7.7,SNR=31						
ASAR				PcP	**PcP**	**10 58 46.3**	**-0.2**
	comp=Z,0.8nm,0.8s,baz=321,slow=3.6,SNR=4.4						
ASAR				LR	LR	11 18 50.2	
	comp=Z,76nm,18.0s,baz=296,slow=40						
	comp=Z,1.5nm,0.6s						
ASAR	**Alice Springs**	**44.75**	**130**	P	**P**	**10 57 03.0**	**-1.2**
MAKZ	**Makanchi**	**44.83**	**345**	P	**P**	**10 57 03.0**	**-1.5**
MAKZ				IAmb	IAmb	10 57 34.4	
	comp=Z,9.2nm,1.5s						
GUMO	**Guam**	**47.62**	**75**	LR	LR	11 16 09.4	
	comp=Z,62nm,21.3s,baz=257,slow=34						
QIS	**Mount Isa**	**47.85**	**122**	P	**P**	**10 57 29.5**	**+0.9**
TLY	**Talaya**	**47.88**	**5**	LR	LR	11 19 30.1	
	comp=Z,86nm,21.1s,baz=166,slow=38						
KURBB	**Kurchatov Arra**	**49.25**	**344**	P	**P**	**10 57 37.3**	**-1.5**
	comp=Z,1.2nm,0.5s,baz=160,slow=6.8,SNR=13						
	comp=Z,1.2nm,0.5s						
MJAR	**Matsushiro Arr**	**49.45**	**44**	LR	LR	11 20 58.0	
	comp=Z,49nm,19.2s,baz=231,slow=39						
USRK	**Ussuriysk Ar.**	**50.27**	**32**	P	**P**	**10 57 46.0**	**-0.8**
	comp=Z,1.0nm,0.5s,baz=240,slow=7.0,SNR=4.0						
	comp=Z,1.0nm,0.5s						
ZALV	**Zalesovo Beam**	**50.97**	**350**	P	**P**	**10 57 50.6**	**-1.2**
	comp=Z,2.3nm,0.4s,baz=174,slow=7.2,SNR=14						
ZALV				LR	LR	11 23 32.6	
	comp=Z,40nm,18.0s,baz=214,slow=41						
	comp=Z,2.3nm,0.4s						
INKA	**Innaminka**	**52.13**	**130**	IAmb	IAmb	10 58 02.6	
	comp=Z,7.2nm,1.0s						
CTA	**Charters Tower**	**53.39**	**118**	LR	LR	11 22 25.7	
	comp=Z,68nm,20.1s,baz=260,slow=38						
KLR	**Kul'dur**	**53.67**	**27**	LR	LR	11 23 03.5	
	comp=Z,86nm,19.2s,baz=220,slow=38						
BVAR	**Borovoye Array**	**53.85**	**340**	P	**P**	**10 58 11.3**	**-2.0**
	comp=Z,1.0nm,0.4s,baz=152,slow=10,SNR=6.7						
	comp=Z,1.0nm,0.4s						
RAYN	**Ar Rayn**	**53.88**	**296**	P	**P**	**10 58 13.8**	**-0.3**
RAYN				IAmb	IAmb	10 58 29.8	
	comp=Z,4.0nm,0.9s						
RAYN	**Ar Rayn**	**53.88**	**296**	P	**P**	**10 58 14.2**	**+0.1**
	comp=Z,5.3nm,1.0s						
QLP	**Quilpie**	**54.31**	**127**	P	**P**	**10 58 17.5**	**+0.4**
QLP	**Quilpie**	**54.31**	**127**	P	**P**	**10 58 16.8**	**-0.3**
	comp=Z,26nm,1.1s						
STKA	**Stephens Creek**	**54.90**	**134**	P	**P**	**10 58 20.4**	**-0.8**
	comp=Z,4.4nm,0.6s,baz=318,slow=10,SNR=8.5						
STKA				LR	LR	11 26 57.9	
	comp=Z,64nm,18.1s,baz=320,slow=42						
	comp=Z,4.4nm,0.6s						
STKA	**Stephens Creek**	**54.90**	**134**	P	**P**	**10 58 21.3**	**0.0**
AB31	**Akbulak array**	**55.34**	**331**	IAmb	IAmb	10 58 22.9	
	comp=Z,3.4nm,0.8s						
ABKAR	**Akbulak array**	**55.34**	**331**	P	**P**	**10 58 22.2**	**-2.0**
ASAJ	**Asahikawa**	**56.28**	**38**	LR	LR	11 21 44.9	
	comp=Z,45nm,21.9s,baz=256,slow=35						
AKTO	**Aktyubinsk**	**57.06**	**331**	LR	LR	11 25 31.1	
	comp=Z,47nm,19.7s,baz=322,slow=39						
CMSA	**Cobar Meteorol**	**57.74**	**131**	P	**P**	**10 58 41.3**	**-0.3**
CMSA	**Cobar Meteorol**	**57.74**	**131**	P	**P**	**10 58 41.5**	**0.0**
	comp=Z,31nm,0.8s						
AULRC	**Lightning Ridg**	**58.54**	**128**	P	**P**	**10 58 47.3**	**+0.1**

GNI	Garni	59.66	315	LR	LR	11 27 43.6	
	comp=Z,28nm,19.6s,baz=131,slow=39						
KMBO	Kilima Mbogo	60.52	267	LR	LR	11 23 16.9	
	comp=Z,40nm,18.8s,baz=100,slow=34						
YAK	Yakutsk	62.73	16	LR	LR	11 29 04.4	
	comp=Z,80nm,18.7s,baz=199,slow=38						
EIL	Elat	64.39	301	LR	LR	11 28 05.6	
	comp=Z,131nm,18.8s,baz=94,slow=37						
ANDN	Andirin	65.02	310	P	P	10 59 30.5	-0.4
	comp=Z,20nm,0.8s						
MBAR	Mbarara	66.96	268	LR	LR	11 25 05.6	
	comp=Z,62nm,21.8s,baz=66,slow=33						
BR131	Keskin Array S	67.61	311	P	P	10 59 45.3	-2.2
BR131				IAmb	IAmb	10 59 49.1	
	comp=Z,4.0nm,0.8s						
BRTR	Keskin Array B	67.61	311	P	P	10 59 45.5	-2.1
	comp=Z,2.9nm,0.8s,baz=134,slow=7.0,SNR=12						
	comp=Z,2.9nm,0.8s						
BRTR	Keskin Array B	67.61	311		P	10 59 45.2	-2.4
AKASG	Malin Array Be	73.38	322	P	P	11 00 19.3	-3.0
	comp=Z,0.9nm,0.5s,baz=86,slow=5.5,SNR=4.1						
	comp=Z,0.9nm,0.5s						
BURAR	Bucovina Array	75.28	318	P	P	11 00 32.4	-1.3
BURAR				IAmb	IAmb	11 00 36.7	
	comp=Z,2.4nm,1.0s						
LBTB	Lobatse	75.45	243	LR	LR	11 29 07.3	
	comp=Z,28nm,19.6s,baz=96,slow=32						
DRGR		76.83	317	P	P	11 00 41.7	-0.8
	comp=Z,3.9nm,1.1s						
FINES	FINESS Array B	77.80	332	P	P	11 00 44.6	-2.9
	comp=Z,0.5nm,0.4s,baz=100,slow=5.8,SNR=5.9						
	comp=Z,0.5nm,0.4s						
ARCES	ARCESS Array B	80.14	340	P	P	11 00 58.0	-2.2
	comp=Z,0.6nm,0.4s,baz=86,slow=6.2,SNR=12						
ARCES				LR	LR	11 39 42.3	
	comp=Z,82nm,20.2s,baz=112,slow=38						
	comp=Z,0.6nm,0.4s						
RPZ	Rata Peaks	80.83	135	LR	LR	11 39 49.6	
	comp=Z,22nm,18.1s,baz=217,slow=38						
GERES	GERESS Array B	83.06	319	P	P	11 01 14.8	-1.4
	comp=Z,0.9nm,0.2s,baz=115,slow=6.8,SNR=5.5						
	comp=Z,0.9nm,0.2s						
HFS	Hagfors	83.59	330	LR	LR	11 43 40.2	
	comp=Z,72nm,18.3s,baz=78,slow=39						
URZ	Urewera	84.19	129	LR	LR	11 40 51.4	
	comp=Z,129nm,18.4s,baz=265,slow=37						
SPITS	Spitsbergen Ar	84.40	348	P	P	11 01 19.9	-2.5
	comp=Z,5.7nm,0.8s,baz=115,slow=7.4,SNR=4.3						
SPITS				LR	LR	11 45 51.2	
	comp=Z,46nm,18.2s,baz=112,slow=41						
	comp=Z,5.7nm,0.8s						
NOA	NORSAR Array B	84.85	331	LR	LR	11 44 13.2	
	comp=Z,45nm,18.2s,baz=110,slow=39						
DAVOX	Davos/Dischmat	85.62	316	LR	LR	11 45 50.2	
	comp=Z,24nm,19.3s,baz=76,slow=40						
KEST	Kesra	86.33	305	P	P	11 01 33.0	0.0
	comp=Z,5.7nm,1.1s,baz=90,slow=4.0,SNR=2.5						
KEST				LR	LR	11 48 58.8	
	comp=Z,16nm,18.4s,baz=23,slow=42						
	comp=Z,5.7nm,1.1s						
RAO	Raoul Island	87.08	119	LR	LR	11 42 39.4	
	comp=Z,34nm,18.2s,baz=340,slow=37						
EKA	Eskdalemuir Ar	92.92	326	P	P	11 02 02.6	-0.9
	comp=Z,0.6nm,0.6s,baz=85,slow=4.8,SNR=2.5						
EKA				LR	LR	11 48 29.5	
	comp=Z,38nm,20.5s,baz=20,slow=39						
	comp=Z,0.6nm,0.6s						
TORD	Torodi Ar. Bea	94.86	283	P	P	11 02 12.3	-1.0
	comp=Z,0.9nm,1.0s,baz=95,slow=6.1,SNR=3.6						
	comp=Z,0.9nm,1.0s						
ESDC	Sonseca Array	96.39	310	LR	LR	11 49 56.8	
	comp=Z,20nm,20.1s,baz=124,slow=38						
BORG	Borgarnes	98.39	338	LR	LR	11 49 38.5	
	comp=Z,41nm,20.3s,baz=57,slow=37						
NVAR	Mina Array Bea	126.36	35	PKP	PKPdf	11 07 53.4	-0.8
	comp=Z,0.8nm,0.9s,baz=263,slow=0.2,SNR=3.9						
PDAR	Pinedale Array	127.44	25	PKP	PKPdf	11 07 54.4	-1.7
	comp=Z,0.3nm,0.8s,baz=217,slow=1.5,SNR=3.8						
TXAR	Lajitas Array	141.16	30	PKP	PKPdf	11 08 18.5	-3.4
	comp=Z,0.2nm,0.8s,baz=266,slow=2.6,SNR=2.1						

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*IDC **29** 10:51:45.5±1.9, 39°.21N×145°.61E, h0^{km}, mb3.7/3, mbtmp3.6/4, ML2.4/1, MS1.8/1, Error ellipse: s-maj=34.8km s-min=28.8km az=178.0*

JMA 29 10:52:02.1±0.1**, 37°.5N**±0°.3×**144°.8E**±0°.8**, h34**^{km}±1^{km}**, MV2.9**/27**, FAR E OFF NORTH HONSHU, Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MJAR	Matsushiro Arr	5.33	261	Pn	Pn	10 53 20.4	+1.2
	0.1nm,0.3s,baz=91,slow=15,SNR=4.3						
MJAR				Sn	Sn	10 54 24.0	+4.6
	0.1nm,0.3s,baz=78,slow=40,SNR=2.3						
MJAR				LR	LR	10 55 30.3	
	comp=Z,8.0nm,21.7s,baz=98,slow=35						
	0.6nm,0.4s						
MJAR				AML	AML		
ZALV	Zalesovo Beam	43.55	312	P	P	10 59 45.6	-17
	1.0nm,0.4s,baz=86,slow=11,SNR=4.6						
	1.0nm,0.4s						
WRA	Warramunga Arr	58.00	192	P	P	11 01 51.7	+0.2
	0.4nm,0.5s,baz=9.9,slow=7.1,SNR=7.1						
	0.4nm,0.5s						
ASAR	Alice Springs	61.72	191	P	P	11 02 18.3	+1.3
	0.4nm,0.8s,baz=4.9,slow=6.4,SNR=2.8						
	0.4nm,0.8s						

HEL 29 10:58:37.3±0.2**, 60°.91N×29°.33E, h0**^{km}**, ML1.6, Suspected explosion, Baltic States-Belarus-Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RUF	Ruokolahti	0.55	341	PG	Pg	10 58 47.4	-0.5
RUF				SG	Sg	10 58 54.0	-1.0
RUF				smax	smax	10 58 55.2	
	comp=Z,3.4nm,0.2s						
VJF	Virojoki	0.95	248	PG	Pg	10 58 54.4	-1.0
VJF				smax	smax	10 59 06.3	
	comp=Z,4.3nm,0.2s						
VJF				SB	Sg	10 59 07.4	-0.3
PVF	Pernaja	1.74	260	PG	Pn	10 59 08.6	-0.2
	baz=80						
PVF				smax	smax	10 59 29.4	
	comp=Z,2.1nm,0.2s						
PVF				SN	Sb	10 59 32.6	+0.1
KAF	Kangasniemi	1.89	311	PG	Pn	10 59 11.6	+0.8
	baz=126						
KAF				smax	smax	10 59 33.5	
	comp=Z,3.4nm,0.2s						
KAF				SG	Sb	10 59 36.4	-0.3
VUOS	Vuosaari Helsi	2.19	253	smax	smax	10 59 42.1	
	comp=Z,2.8nm,0.2s						
VUOS				SG	Sg	10 59 46.5	-1.0
JOF	Joensuu	2.23	24	PG	Pb	10 59 17.2	-1.2
	baz=201						
JOF				SG	Sb	10 59 45.7	-0.8
HEL1	Helsinki	2.32	254	smax	smax	10 59 45.7	
	comp=Z,9.9nm,0.2s						
HEL1				SB	Sn	10 59 46.3	+0.5
LAUT	Lauttasaari He	2.34	253	SN	Sn	10 59 46.2	0.0
LAUT				smax	smax	10 59 46.5	
	comp=Z,10nm,0.2s						
SUF	Sumiainen	2.37	322	PG	Pb	10 59 19.4	-1.4
SUF				smax	smax	10 59 47.3	
	comp=Z,0.9nm,0.2s						
SUF				SG	Sb	10 59 50.0	-0.4
KEF	Keuruu	2.48	303	smax	smax	10 59 50.6	
	comp=Z,0.8nm,0.2s						
KEF				SG	Sb	10 59 53.2	-0.6
NIF	Nilsia	2.59	345	PG	Pb	10 59 23.2	-1.4
NIF				smax	smax	10 59 53.7	
	comp=Z,1.4nm,0.2s						
NIF				SB	Sb	10 59 55.0	-2.0
RAF	Rauma	3.69	275	PG	Pb	10 59 44.0	+0.7

HEL 29 10:59:25.9±0.2**, 64°.50N×24°.26E, h0**^{km}**, ML0.7, Explosion, Finland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OBF0	Syolatti, Pyha	0.01	273	PG	Pg	10 59 25.6	-0.5
OUF	Merijarvi	0.24	122	PG	Pg	10 59 30.2	-0.3
	baz=307						
OUF				SG	Sg	10 59 33.9	+0.3
OUF				smax	smax	10 59 34.7	
	comp=Z,2.1nm,0.2s						
OBF8	Ulkokalla	0.39	245	PG	Pg	10 59 32.7	-0.6
OBF8				SG	Sg	10 59 38.3	-0.1
OBF8				smax	smax	10 59 38.9	
	comp=Z,1.2nm,0.2s						
OBF4	Vikkela, Lumij	0.48	48	PG	Pg	10 59 34.1	-1.0
OBF4				SG	Sg	10 59 40.2	-1.1
OBF4				smax	smax	10 59 41.7	
	comp=Z,1.0nm,0.2s						
OUL	Oulu	0.92	49	PB	Sg	10 59 54.2	-1.1
OUL	Oulu	0.92	49	PG	Pg	10 59 42.7	-0.7
	baz=230						
OUL				SG	Sg	10 59 54.2	-1.1
BURU	Burvik	1.25	275	PG	Pg	10 59 48.4	-1.4
BURU				SB	Sg	11 00 05.4	-0.5
TOF	Tornio	1.59	1	PG	Pn	10 59 54.8	-0.5
TOF				smax	smax	11 00 13.3	
	comp=Z,0.4nm,0.2s						
TOF				SG	Sn	11 00 14.2	-2.3
VAF	Ylistaro	1.62	207	smax	smax	11 00 14.4	
	comp=Z,0.8nm,0.2s						
VAF				SN	Sn	11 00 17.4	+0.2
UMAU	Umeaa	1.69	250	SN	Sg	11 00 20.0	0.0
KLF	Kolari	2.75	358	smax	smax	11 00 47.0	
	comp=Z,0.3nm,0.2s						
KLF				SB	Sb	11 00 48.4	-1.7
LANU	Lannavaara	3.68	347	SN	Sn	11 01 02.8	-5.3
HEL1	Helsinki	4.35	176	SB	Sb	11 01 31.3	-4.6
LAUT	Lauttasaari He	4.37	176	SB	Sb	11 01 31.9	-4.7

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*NNC **29** 11:17:24.7±4.2, 34°.75N×68°.81E, h62^{km}±54^{km}, mb4.2, mpv4.6, Error ellipse: s-maj=43.9km s-min=34.9km az=140.0*

*NEIC **29** 11:17:27.9±1.4, 35°.07N±0°.04×69°.0E±0°.1, h35^{km}±2^{km}, mb4.1/8, Error ellipse: s-maj=14.3km s-min=7.0km az=262.0*

*IDC **29** 11:17:35.3±4.7, 35°.44N×69°.42E, h88^{km}±41^{km}, mb3.4/12, mbtmp3.7/16, MS2.8/1, Error ellipse: s-maj=30.4km s-min=15.1km az=27.0*

ISC 29 11:17:28.1±0.6**, 35°.06N**±0°.06×**69°.27E**±0°.05**, h35**^{km}**, n60, **σ**1°.89**/70**, mb3.7**/13**, 2C-2D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBL	Kabul	0.55	200		Pn	11 17 39.0	-0.7
KBL					Sn	11 17 48.5	+0.8
NIL	Nilore	3.58	112	Pn	Pn	11 18 23.9	+2.6
SRNI	Srinagar	4.68	101	*e*P	Pn	11 18 37.8	+1.4
SRNI				*e*S	Sn	11 19 30.0	+0.5
SRNI				IAML		11 19 57.2	
	comp=N,970nm,0.3s						
SRNI				IAML		11 20 00.4	
	comp=E,818nm,0.2s						
DRK	Karamyk	4.85	24	Pn	Pn	11 18 39.8	+0.8
BTK	Batken	5.14	13		Pn	11 18 44.8	+2.1
JMU	Jammu	5.15	115	*e*P	Pn	11 18 45.1	+2.3
JMU				*e*S	Sn	11 19 40.7	-0.3
JMU				IAML		11 20 13.4	
	comp=E,540nm,0.5s						
JMU				IAML		11 20 27.1	
	comp=N,520nm,0.2s						
TSSA	Tissa	6.13	109	*e*P	Pn	11 18 57.5	+1.1
TSSA				*e*S	Sn	11 20 03.8	-1.7
TSSA				IAML		11 20 41.1	
	comp=E,542nm,0.0s						
TSSA				IAML		11 20 47.8	
	comp=N,415nm,0.4s						
DHRM	DHARAMSHALA	6.50	114	*e*P	Pn	11 19 02.3	+0.8
DHRM				*e*S	Sn	11 20 11.9	-2.6
DHRM				IAML		11 21 00.6	
	comp=N,201nm,1.1s						
DHRM				IAML		11 21 03.4	
	comp=E,212nm,0.6s						
ALCI	Alchi Leh	6.58	95	*e*P	Pn	11 19 03.5	+0.8
ALCI				*e*S	Sn	11 20 15.4	-1.3
ALCI				IAML		11 20 27.5	
	comp=E,166nm,0.2s						
ALCI				IAML		11 20 27.7	
	comp=N,101nm,0.1s						
ARSB	Arslanbob	6.90	24	Pn	Pn	11 19 08.2	+1.2
IUG	Iuzhnay	7.10	5	Pg	Pn	11 19 11.1	+1.5
	comp=N,29nm,0.4s						
IUG				Lg	Lg	11 20 27.6	
	comp=N,62nm,0.9s						
SMLA	Simla	7.70	118	*e*P	Pn	11 19 18.4	+0.7
SMLA				*e*S	Sn	11 20 40.1	-3.6
SMLA				IAML		11 20 50.5	
	comp=E,66nm,0.9s						
SMLA				IAML		11 20 55.9	
	comp=N,59nm,0.8s						
BRLS	Borolday	7.97	3	P	Pn	11 19 18.7	-2.8
KK31	Karatay Array	8.09	6	P	Pn	11 19 23.4	+0.3
	comp=N,7.0nm,0.5s,baz=195,slow=16,SNR=81						
KK31				S	Sn	11 21 02.5	+9.1
	comp=N,11nm,0.7s,baz=195,slow=24,SNR=3.5						
KK31	Karatay Array	8.09	6		Pn	11 19 23.7	+0.5
KKAR	Karatay Array	8.09	6	Pn	Pn	11 19 23.3	+0.2
NRN	Naryn	8.28	38	Pn	Pn	11 19 26.7	+0.7
KLP	Kalpa	8.30	113	*e*P	Pn	11 19 27.0	+0.7
KLP				*e*S	Sn	11 20 54.0	-5.0
KLP				IAML		11 21 13.7	
	comp=E,37nm,0.7s						
KLP				IAML		11 21 14.5	
	comp=N,36nm,0.4s						
HNLY	HANLEY	8.38	103	*e*P	Pn	11 19 28.5	+0.9
HNLY				*e*S	Sn	11 20 56.7	-4.5
HNLY				IAML		11 21 08.1	
	comp=E,24nm,0.1s						
HNLY				IAML		11 21 08.6	
	comp=N,23nm,0.4s						
AAK	Ala-Archa	8.59	27	P	Pn	11 19 32.0	+1.9
	comp=N,23nm,0.6s,baz=212,slow=8.8,SNR=60						
AAK				S	Sn	11 21 05.8	-0.1
	comp=N,14nm,0.9s,baz=201,slow=8.6,SNR=4.3						
AAK	Ala-Archa	8.59	27	⇑P	Pn	11 19 32.7	+2.5
	comp=N,16nm,0.8s						
AAK				⇑S	Sn	11 21 12.4	+6.5
	comp=N,6.8nm,0.7s						
AAK	Ala-Archa	8.59	27		Pn	11 19 31.6	+1.4
BOOM	Boomskoye usch	9.06	33	Pn	Pn	11 19 37.4	+0.8
KDJ	Kajisay	9.39	39	Pn	Pn	11 19 41.7	+0.7
KST	Kastek	9.52	31	P	Pn	11 19 44.2	+1.4
KRBS	Karabastau	9.95	28	P	Pn	11 19 50.4	+1.9
WUS	Wushi	9.95	49	Pn	Pn	11 19 49.7	+1.0
KOTS	Kotyrbulak	10.18	34	P	Pn	11 19 57.0	+5.1
PDGK	Podgornoye	11.44	41		Pn	11 20 08.5	-0.6
MAKZ	Makanchi	15.14	35		Pn	11 20 59.9	+0.6
MAKZ				IAmb	IAmb	11 21 12.1	
	comp=Z,16nm,1.1s						
MK31	Makanchi Array	15.28	36	⇓P	P	11 21 05.3	-0.3
	comp=Z,3.2nm,0.7s,baz=222,slow=11,SNR=19						
MKAR	Makanchi Array	15.28	36	P	Pn	11 20 59.6	-1.5
	comp=Z,0.5nm,0.7s,baz=232,slow=9.2,SNR=13						
MKAR	Makanchi Array	15.28	36		Pn	11 21 01.5	+0.3
AB31	Akbulak array	15.76	337	P	Pn	11 21 05.3	-2.1
	comp=Z,1.5nm,0.6s,baz=153,slow=13,SNR=26						
AB31	Akbulak array	15.76	337		Pn	11 21 05.3	-2.1
ABKAR	Akbulak array	15.76	337	Pn	Pn	11 21 05.1	-2.3
EVN	Everest	16.54	111	Pn	Pn	11 21 17.4	-0.7
EVN				IAmb	IAmb	11 21 31.2	
	comp=Z,6.0nm,0.6s						
KURBB	Kurchatov Arra	16.95	21	P	Pn	11 21 19.1	-3.3
	comp=Z,7.5nm,0.7s,baz=210,slow=11,SNR=11						
KURK	Kurchatov	17.06	21	⇓P	Pn	11 21 22.4	-1.4
	comp=Z,3.1nm,0.9s						
KURK	Kurchatov	17.06	21		Pn	11 21 22.3	-1.4
KURK				IAmb	IAmb	11 21 29.1	
	comp=Z,6.4nm,0.8s						
AKTO	Aktyubinsk	17.42	335	P	P	11 21 27.8	-1.4
	comp=Z,1.2nm,0.3s,baz=159,slow=12,SNR=10						
AKTO				S	Sn	11 24 38.6	-2.2
	comp=Z,0.7nm,0.3s,baz=230,slow=2.4,SNR=1.2						
BVAR	Borovoye Array	17.98	2	P	Pn	11 21 32.4	-2.7
	comp=Z,1.3nm,0.6s,baz=169,slow=9.8,SNR=11						
BORK	Borovoye	18.00	2	P	Pn	11 21 33.5	-1.9
ZAA0	Zalesovo Array	21.81	25	P	P	11 22 14.8	-2.2
ZAA0				IAmb	IAmb	11 22 24.1	
	comp=Z,16nm,0.8s						
ZALV	Zalesovo Beam	21.81	25	P	P	11 22 15.4	-1.6
	comp=Z,7.1nm,0.6s,baz=215,slow=9.8,SNR=23						
	comp=Z,7.1nm,0.6s						
KBZ	Khabaz	22.07	301	P	P	11 22 23.7	+3.8
	comp=Z,0.8nm,0.4s,baz=116,slow=15,SNR=2.1						
	comp=Z,0.8nm,0.4s						
SONM	Songino Array	30.32	54	P	P	11 23 36.5	+0.2
	comp=Z,0.4nm,0.4s,baz=256,slow=10,SNR=1.9						
	comp=Z,0.4nm,0.4s						
CMAR	Chiang Mai Arr	31.07	114	P	P	11 23 45.3	+2.2
	comp=Z,0.5nm,0.4s,baz=301,slow=5.9,SNR=4.5						
CMAR				LR	LR	11 38 49.8	
	comp=Z,17nm,18.8s,baz=215,slow=41						
	comp=Z,0.5nm,0.4s						
ISP	Isparta	31.14	287	P	P	11 23 42.5	-1.2
AKASG	Malin Array Be	32.79	311	P	P	11 24 00.2	+2.4
	comp=Z,0.3nm,0.4s,baz=91,slow=7.4,SNR=3.9						
	comp=Z,0.3nm,0.4s						
FINES	FINESS Array B	37.92	328	P	P	11 24 40.4	-1.4
ARCES	ARCESS Array B	41.95	339	P	P	11 25 14.6	-0.6
	comp=Z,1.3nm,0.9s,baz=117,slow=7.4,SNR=3.8						
	comp=Z,1.3nm,0.9s						
HFS	Hagfors	43.35	323	P	P	11 25 25.7	-0.9
	comp=Z,1.0nm,0.8s,baz=100,slow=12,SNR=2.5						
	comp=Z,1.0nm,0.8s						
NB2	NORSAR Subarra	44.70	324	P	P	11 25 38.4	+0.9
	comp=Z,2.2nm,1.0s,baz=101,slow=8.6						
NOA	NORSAR Array B	44.70	324	P	P	11 25 36.8	-0.7
	comp=Z,0.4nm,0.6s,baz=95,slow=8.1,SNR=4.6						
	comp=Z,0.4nm,0.6s						
ESDC	Sonseca Array	56.89	298	P	P	11 27 10.1	+0.5
	comp=Z,0.5nm,0.8s,baz=74,slow=8.6,SNR=1.7						
	comp=Z,0.5nm,0.8s						
ILAR	Eielson Array	76.54	15	P	P	11 29 13.4	-0.9
	comp=Z,0.5nm,1.0s,baz=311,slow=6.9,SNR=4.8						
	comp=Z,0.5nm,1.0s						
WRA	Warramunga Arr	82.45	121	P	P	11 29 48.6	+1.4
	comp=Z,0.4nm,0.6s,baz=314,slow=5.5,SNR=9.5						
	comp=Z,0.4nm,0.6s						
WB2	Warramunga Arr	82.46	121	P	P	11 29 47.0	-0.2
ASAR	Alice Springs	84.61	124	P	P	11 29 59.8	+1.6
	comp=Z,0.7nm,0.9s,baz=312,slow=5.7,SNR=5.2						
	comp=Z,0.7nm,0.9s						

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*IDC **29** 11:22:46.7±0.9, 37°.79N×34°.05E, h0^{km}, mb3.7/4, mbtmp3.7/8, ML3.2/2, MS3.1/4, Error ellipse: s-maj=16.3km s-min=9.0km az=82.0*

*AFAD **29** 11:22:48.2, 37°.96N×34°.04E, h7^{km}±1^{km}, MW3.8*

*ISK **29** 11:22:49.2, 37°.98N×34°.11E, h8^{km}, ML3.9/46*

*GII **29** 11:22:50.8±0.0, 37°.987N±0°.003×34°.138E±0°.001, h0^{km}, Md3.5/1, confirmed*

ISC 29 11:22:49.2±1.0**, 37°.99N**±0°.02×**34°.09E**±0°.02**, h10**^{km}±8^{km}**, n82, **σ**1°.45**/106**, mb3.8**/3**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YESY	Yesilyurt	0.35	233	Pg	Pg	11 22 56.5	+0.4
YESY				Sg	Sg	11 23 02.4	+1.7
YESY				AML	AML		
GULA	Gulagac	0.37	18	Pg	Pg	11 22 56.4	-0.2
GULA				Sg	Sb	11 23 02.8	-1.1
GULA				AML	AML		
NIDE	Nigde/Merkez-G	0.54	89	P	Pg	11 22 59.7	-0.1
NIDE				S	Sb	11 23 07.8	-1.0
AKSY	AKSARAY - Alti	0.70	338	P	Pg	11 23 02.0	-0.8
AKSY				S	Sg	11 23 12.6	+0.5
CMRD	Camardi-Nigde	0.79	115	Pg	Pg	11 23 04.2	-0.2
CMRD				Sg	Sb	11 23 15.4	-0.4
CMRD				AML	AML		
GULE	Gulek	0.89	142	P	Pg	11 23 05.5	-1.0
GULE				S	Sb	11 23 20.2	+1.2
ALIN	Konya, Altinte	1.00	288	P	Pg	11 23 06.3	-2.2
ALIN				S	Sg	11 23 20.8	-0.8
AVNS	Nevsehir-Avano	1.01	36	P	Pg	11 23 08.4	-0.2
AVNS				S	Sn	11 23 24.9	+1.0
YAHY	KAYSERI_Yahyal	1.01	84	P	Pg	11 23 08.0	-0.6
YAHY				S	Sb	11 23 22.8	+0.5
SERE	Sereflikochisa	1.04	337	Pg	Pb	11 23 09.6	+0.2
SERE				Sg	Sn	11 23 24.9	+0.3
SERE				AML	AML		
KRMN	Karaman	1.05	219	Pg	Pg	11 23 09.7	+0.3
KRMN				Sg	Sb	11 23 24.7	+1.3
KRMN				AML	AML		
KIRS	Kirsehir-Merke	1.15	353	P	Pg	11 23 09.9	-1.3
KIRS				S	Sb	11 23 26.9	+0.7
KKBE	Karaman, Kazim	1.20	230	P	Pg	11 23 10.4	-1.8
KKBE				S	Sb	11 23 28.8	+1.1
MCUR	KIREHR	1.22	16	P	Pg	11 23 12.1	-0.5
MCUR				S	Sn	11 23 30.4	+1.4
CBEY	Konya-Cihanbey	1.24	304	P	Pg	11 23 10.8	-2.3
CBEY				S	Sg	11 23 29.3	+0.1
CAYT	Sariam	1.27	130	P	Pg	11 23 12.6	-1.1
CAYT				S	Sn	11 23 32.6	+2.4
KULU	Kulu	1.35	321	Pn	Pb	11 23 15.1	+0.4
KULU				Sn	Sn	11 23 34.5	+2.1
KULU				AML	AML		
KOZK	Kozakli-Nevseh	1.36	26	Pn	Pg	11 23 15.0	-0.3
KOZK				AML	AML		
KONT	Konya--Tatoy	1.37	268	Pn	Pn	11 23 14.9	+0.4
KONT				Sn	Sb	11 23 33.8	+1.3
KONT				AML	AML		
LADK	Ladik-KONYA	1.38	279	Pn	Pn	11 23 13.8	-0.8
LADK				AML	AML		
KAMT	Kaman	1.40	348	Pn	Pn	11 23 14.4	-0.6
KAMT				AML	AML		
KOZT	Kozan	1.47	110	Pn	Pb	11 23 16.3	-0.4
KOZT				Sn	Sg	11 23 36.4	-0.1
KOZT				AML	AML		
KEBE	Keben-Mersin	1.57	191	Pn	Pn	11 23 17.3	0.0
KEBE				AML	AML		
SAIM	ADANA	1.57	90	P	Pb	11 23 18.3	-0.2
SAIM				S	Sg	11 23 41.0	+1.1
SLFK	Silifke-Mersin	1.60	184	Pn	Pn	11 23 18.5	+0.9
SLFK				AML	AML		
BNN	Bunyan	1.62	58	Pn	Pb	11 23 18.8	-0.6
BNN				AML	AML		
SILI	Silifke-Mersin	1.63	185	Pn	Pn	11 23 18.7	+0.7
SILI				AML	AML		
HDMB	Hadim	1.64	232	Pn	Pn	11 23 19.5	+1.2
HDMB				AML	AML		
TEVE	Tevekalti-Mers	1.64	199	Pn	Pn	11 23 18.5	+0.3
TEVE				AML	AML		
AFSR	Afar-Bala (An	1.66	332	Pn	Pn	11 23 18.7	+0.2
AFSR				AML	AML		
KRTS	Karatas	1.75	144	Pn	Pb	11 23 20.9	-0.5
KRTS				AML	AML		
BR131	Keskin Array S	1.76	349	Pn	Pn	11 23 20.5	+0.5
BR131				AML	AML		
BRTR	Keskin Array B	1.76	349	Pn	Pn	11 23 20.8	+0.8
	13nm,0.3s,baz=166,slow=20,SNR=143						
BRTR				Lg	Lg	11 23 48.8	
	39nm,0.3s,baz=169,slow=29,SNR=24						
BRTR				LR	LR	11 24 17.5	
	comp=Z,381nm,21.3s,baz=95,slow=46						
IKL	Isikli	1.78	191	Pn	Pn	11 23 21.2	+1.1
IKL				AML	AML		
BERE	Bereket-Mersin	1.78	203	Pn	Pn	11 23 20.5	+0.2
BERE				AML	AML		
KARG	Kargicak-Mersi	1.81	190	Pn	Pn	11 23 21.9	+1.4
KARG				AML	AML		
TEPK	Tepekoy-MERSIN	1.82	194	Pn	Pn	11 23 21.7	+1.0
TEPK				AML	AML		
YESI	Yesilovacik-Me	1.83	191	Pn	Pn	11 23 21.6	+0.9
YESI				AML	AML		
ANDN	Andirin	1.83	102	P	Pb	11 23 22.7	-0.3
ANDN				S	Sg	11 23 48.2	+0.1
OREN	Orenkoy-Mersin	1.85	196	Pn	Pn	11 23 21.6	+0.5
OREN				AML	AML		
TISA	Tisan-Mersin	1.86	190	Pn	Pn	11 23 21.8	+0.7
TISA				AML	AML		
SARI	SarD1z-Kayseri	1.88	77	Pn	Pb	11 23 22.6	-1.2
SARI				AML	AML		
SEYD	Seydisehir-KON	1.88	252	Pn	Pn	11 23 22.7	+1.1
SEYD				AML	AML		
BECE	Buyukeceli-Mer	1.88	193	Pn	Pn	11 23 23.0	+1.5
BECE				AML	AML		
AKK1	Akkuyu-Mersin	1.90	194	Pn	Pn	11 23 22.5	+0.8
AKK1				AML	AML		
YOZ	Yozgat	1.90	30	Pn	Pn	11 23 22.9	+1.0
YOZ				AML	AML		
YORU	Yoruktepe-Mers	1.92	197	Pn	Pn	11 23 22.9	+0.9
YORU				AML	AML		
KIZT	Kizilcal	1.95	298	Pn	Pb	11 23 24.7	-0.2
KIZT				AML	AML		

TEKE	Tekeli-Mersin	2.01	203	Pn	Pn	11 23 23.9	+0.7
TEKE				AML	AML		
BOZY	Bozyazi-Mersin	2.08	206	Pn	Pn	11 23 25.6	+1.4
BOZY				AML	AML		
LOD	Lodumlu	2.16	332	Pn	Pn	11 23 26.9	+1.6
LOD				AML	AML		
GAZI	Gazipasa	2.26	219	Pn	Pn	11 23 27.9	+1.2
GAZI				AML	AML		
POLA	Polatl-ANKAR	2.27	319	Pn	Pn	11 23 28.3	+1.4
POLA				AML	AML		
KMRS	Kahramanmaras	2.28	101	Pn	Pn	11 23 28.3	+1.3
KMRS				AML	AML		
EREN	Erenkoy	2.46	178	Pn	Pn	11 23 30.7	+1.3
EREN				AML	AML		
SVRH	Sivrihisar-ESK	2.48	307	Pn	Pn	11 23 31.5	+1.7
SVRH				AML	AML		
SDAG	Sultandagi-AFY	2.54	281	Pn	Pn	11 23 32.3	+1.7
SDAG				AML	AML		
CIFT	Cifteler, Eski	2.73	301	Pn	Pn	11 23 34.5	+1.2
CIFT				AML	AML		
LFK	Lefkose	2.75	190	Pn	Pn	11 23 34.8	+1.4
LFK				AML	AML		
SHUT	Suhut-Afyon	2.84	282	Pn	Pn	11 23 36.5	+1.7
SHUT				AML	AML		
CSS	Mathiatis	3.09	192	P	Pn	11 23 39.3	+1.2
CSS				S	Sn	11 24 16.6	+1.5
BEIL	Beino	3.84	153	*e*P	Pn	11 23 49.6	+1.1
HWQ	Hawqa	4.00	157	*e*P	Pn	11 23 51.9	+1.1
QRWL	Qaraoun	4.62	163	*e*P	Pn	11 24 02.2	+2.9
RCY	Rachaya	4.71	162	*e*P	Pn	11 24 00.8	+0.3
SHBL	Chebaa	4.83	163	*e*P	Pn	11 24 02.6	+0.5
NATI	Neve Ativ	4.91	164	P	Pn	11 24 04.5	+1.5
NATI				S	Sn	11 25 01.6	+1.7
GEM	Giv'at Ha'Em	4.94	165	P	Pn	11 24 04.5	+1.0
GEM				S	Sn	11 25 02.3	+1.5
MMA0B	Mount Meron ar	5.08	167	P	Pn	11 24 06.8	+1.2
MMA0B				S	Sn	11 25 05.8	+1.5
MMAI	Mount Meron Ar	5.08	167	Pn	Pn	11 24 02.8	-2.8
	1.2nm,0.4s,baz=2.8,slow=19,SNR=9.3						
MMAI				Sn	Sn	11 24 58.5	-5.9
	4.8nm,0.3s,baz=350,slow=13,SNR=6.0						
KNHM	Kefar Nahum	5.24	166	P	Pn	11 24 08.6	+0.9
KNHM				S	Sn	11 25 08.9	+0.7
ASF	Jabal al Asfar	6.25	158	Pn	Pn	11 24 18.8	-2.8
	0.8nm,0.3s,baz=332,slow=14,SNR=8.8						
ASF				Sn	Sn	11 25 28.1	-5.0
	baz=290,slow=15						
ASF				Lg	Lg	11 25 52.3	
	0.7nm,0.3s,baz=328,slow=19,SNR=1.7						
	3.5nm,0.7s						
ASF				AML	AML		
IDI	Anoyia	7.87	253	Pn	Pn	11 24 42.6	-1.2
	18nm,1.2s,baz=331,slow=9.7,SNR=2.2						
EIL	Elat	8.33	175	Pn	Pn	11 24 46.1	-4.0
	0.2nm,0.3s,baz=36,slow=17,SNR=1.5						
EIL				Sn	Sn	11 26 16.1	-8.3
	0.3nm,0.3s,baz=350,slow=19,SNR=1.0						
	3.8nm,0.8s						
EIL				AML	AML		
MLR	Muntele Rosu	9.65	324	LR	LR	11 29 39.3	
	comp=Z,118nm,19.4s,baz=180,slow=42						
VRAC	Vranov	16.93	317	LR	LR	11 34 19.3	
	comp=Z,37nm,19.8s,baz=102,slow=41						
GERES	GERESS Array B	18.30	313	LR	LR	11 35 29.1	
	comp=Z,52nm,19.4s,baz=128,slow=41						
DAVOX	Davos/Dischmat	19.86	304	LR	LR	11 36 26.0	
	comp=Z,58nm,18.2s,baz=77,slow=41						
AKTO	Aktyubinsk	21.07	46	P	P	11 27 33.7	+0.2
	1.1nm,0.3s,baz=260,slow=9.2,SNR=4.7						
	1.1nm,0.3s						
KURBB	Kurchatov Arra	33.71	53	P	P	11 29 31.4	+0.9
	1.2nm,0.7s,baz=273,slow=9.0,SNR=8.2						
	1.2nm,0.7s						
MKAR	Makanchi Array	36.17	60	P	P	11 29 53.0	+1.2
	1.0nm,0.6s,baz=283,slow=7.0,SNR=7.8						
	1.0nm,0.6s						
TORD	Torodi Ar. Bea	37.96	238	P	P	11 30 05.6	-1.7
	0.7nm,0.9s,baz=47,slow=8.0,SNR=5.5						
	0.7nm,0.9s						

IDC ***29*** *11:32:30.8±2.2, 23°.79N×36°.79E, h0^{km}, mb3.6/3, mbtmp3.6/4, ML3.1/1, MS2.9/3, Error ellipse: s-maj=68.3km s-min=28.9km az=149.0*

SGS ***29*** *11:32:32.2, 23°.95N×36°.87E, h17^{km}, Ml2.9*

ISC 29 11:32:31.4±1.2**, 23°.95N**±0°.07×**36°.88E**±0°.09**, h10**^{km}**, n24, σ1^{s}48**/22**, Red Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SUMJS	Umluj	0.94	30	P	Pg	11 32 48.6	-0.9
SUMJS				S	Sg	11 33 01.7	0.0
LNY05	LNY05	1.32	34	P	Pn	11 32 54.7	-1.4
LNY07	LNY07	1.33	28	P	Pn	11 32 54.5	-1.7
UMJS	Umm Lajj	1.34	17	P	Pn	11 32 54.1	-2.1
LNY08	LNY08	1.40	39	P	Pn	11 32 56.0	-1.1
LNY02	LNY02	1.48	37	P	Pn	11 32 57.2	-1.1
LNY04	LNY04	1.49	28	P	Pn	11 32 57.1	-1.2
LNY06	LNY06	1.50	33	P	Pn	11 32 57.6	-0.9
FGALY	Al Ais	1.52	60	P	Pn	11 32 58.3	-0.5
UMJ12	UMJ12	1.53	8	P	Pn	11 32 57.7	-1.1
LNY01	LNY01	1.60	38	P	Pn	11 32 59.2	-0.8
BADR	Badr	1.63	92	P	Pn	11 32 58.4	-1.8
LNY03	LNY03	1.68	32	P	Pn	11 33 00.2	-0.8
UMJ01	UMJ01	1.77	14	P	Pn	11 33 00.8	-1.3
NSAFS	Ar Rayis	1.84	104	P	Pn	11 33 01.3	-1.7
MSTR	Mastorah	2.04	110	P	Pn	11 33 04.3	-1.5
UMJ05	UMJ05	2.04	6	P	Pn	11 33 03.7	-2.2
BRTR	Keskin Array B	15.97	351	Pn	P	11 36 20.5	+0.6
	0.1nm,0.3s,baz=176,slow=16,SNR=3.9						
	0.4nm,0.4s						
BRTR				AML	AML		
GNI	Garni	17.46	20	LR	LR	11 43 42.5	
	comp=Z,31nm,19.6s,baz=254,slow=38						
KBZ	Khabaz	20.34	13	LR	LR	11 45 45.3	
	comp=Z,21nm,20.4s,baz=162,slow=39						
TORD	Torodi Ar. Bea	34.95	258	P	P	11 39 23.8	-0.1
	0.6nm,0.7s,baz=73,slow=8.5,SNR=4.5						
	0.6nm,0.7s						
KURBB	Kurchatov Arra	41.70	40	P	P	11 40 22.3	+2.0
	0.3nm,0.3s,baz=250,slow=8.0,SNR=4.1						
	0.3nm,0.3s						
MKAR	Makanchi Array	42.73	46	P	P	11 40 31.1	+2.3
	0.7nm,0.8s,baz=238,slow=6.8,SNR=5.1						
	0.7nm,0.8s						
NRIK	Noril'sk	54.33	20	LR	LR	12 08 40.0	
	comp=Z,19nm,18.3s,baz=60,slow=40						

IDC ***29*** *11:34:49.4±0.6, 62°.25S×57°.77W, h0^{km}, mb4.1/11, mbtmp4.1/13, ML4.0/2, MS4.1/36, Error ellipse: s-maj=18.5km s-min=12.9km az=98.0*

NEIC ***29*** *11:34:50.9±1.2, 62°.43S±0°.06×58°.2W±0°.1, h10^{km}±1^{km}, mb4.8/20, Error ellipse: s-maj=13.1km s-min=6.9km az=55.0*

GCMT ***29*** *11:34:53.9±0.2, 62°.39S±0°.01×58°.26W±0°.04, h15^{km}±1^{km}, MW5.0/108, Moment Tensor Solution. s29,c36; s108,c148; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.41±.12; $M_{\theta\theta}$-1.15±.09; $M_{\phi\phi}$1.56±.12; $M_{r\theta}$-0.06±.23; $M_{\theta\phi}$3.00±.10; $M_{\phi r}$-1.30±.29; Best double couple: $M_0$3.52500×10^{16} NP1:ϕ_s258.00000°, δ69.00000°, λ1.00000°. NP2:ϕ_s168.00000°, δ89.00000°, λ159.00000°. Principal axes: T 3.8010, Plg15.0000°, Azm121.0000°; N -0.5510, Plg69.0000°, Azm346.0000°; P -3.2500, Plg14.0000°, Azm215.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

GFZ ***29*** *11:34:53.2±0.2, 62°S±3°×5°8W±°, h10^{km}, M4.8/18, mb4.8/18, confirmed*

ISC 29 11:34:50.8±0.4**, 62°.32S**±0°.04×**58°.31W**±0°.05**, h10**^{km}**, n121, σ1^{s}86**/98**, mb4.8**/29**, MS4.2**/36**, 5C-1D, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JUBA	Jubany	0.19	298	*i* P	Pg	11 34 53.1	-1.6
JUBA				*i* S	Sg	11 34 55.4	-2.1
JUBA				IAML		11 34 58.9	
	comp=Z,119µm,1.4s						
ESPZ	Base Esperanza	1.23	151	*i* P	Pb	11 35 12.2	-2.0
ESPZ				*i* S	Sb	11 35 28.7	-1.5
ESPZ	Base Esperanza	1.23	151	Pn	Pb	11 35 12.0	-2.2
ESPZ				Sn	Sb	11 35 28.6	-1.5
PMSA	Palmer Station	3.56	224	Pn	Pn	11 35 45.6	-0.4
	comp=Z,7.5nm,0.3s,baz=51,slow=9.7,SNR=41						
PMSA				Sn	Sn	11 36 29.8	+1.8
	comp=Z,24nm,0.3s,baz=25,slow=15,SNR=6.2						
PMSA				LR	LR	11 37 03.7	
	comp=Z,5µm,20.1s,baz=31,slow=36						
	comp=Z,17nm,0.3s						
PMSA				AML	AML		
PMSA	Palmer Station	3.56	224	*i* P	Pn	11 35 45.5	-0.5
PMSA				*i* S	Sn	11 36 32.2	+4.3
PMSA	Palmer Station	3.56	224	Pn	Pn	11 35 44.2	-1.7
PMSA	Palmer Station	3.56	224	P	Pn	11 35 45.2	-0.8
ORCD	Orcadas	6.68	82	*i* P	Pn	11 36 26.4	-2.4
ORCD				IAML		11 39 45.6	
	comp=Z,98nm,1.9s						
ORCD	Orcadas	6.68	82	Pn	Pn	11 36 28.1	-0.7
SMAI	San Martin Ant	6.89	209	*e*P	Pn	11 36 31.6	-0.1
SMAI				IAML		11 40 02.1	
	comp=Z,154nm,0.9s						
SMAI	San Martin Ant	6.89	209	Pn	Pn	11 36 31.5	-0.3
USHA	Ushuaia	9.18	320	Pn	Pn	11 37 02.2	-0.8
	comp=Z,2.5nm,0.3s,baz=220,slow=1.7,SNR=2.7						
USHA				Sn	Sn	11 38 44.0	-2.2
	comp=Z,1.5nm,0.3s,baz=207,slow=9.5,SNR=1.4						
USHA				LR	LR	11 39 59.3	
	comp=Z,2µm,21.4s,baz=148,slow=33						
	comp=Z,23nm,0.8s						
USHA				AML	AML		
USHA	Ushuaia	9.18	320	*i* P	Pn	11 37 12.5	+9.4
USHA				*i* S	Sn	11 38 40.2	-6.1
EFI	East Falkland	10.68	1	*i* P	Pn	11 37 25.1	+1.5
EFI				*i* S	Sn	11 39 19.4	-3.7
EFI				IAML		11 40 14.2	
	comp=Z,78nm,2.5s						
EFI	East Falkland	10.68	1	Pn	Pn	11 37 25.1	+1.5
EFI	East Falkland	10.68	1	P	Pn	11 37 26.2	+2.5
	comp=Z,80nm,1.3s						
MG02	Cerro Sombrero	11.20	324	Pn	Pn	11 37 32.4	+1.6
GO08	Villa O'Higgin	16.02	324	P	P	11 38 39.0	-0.4
	comp=Z,30nm,1.4s						
BELA	Belgrano 2	17.31	163	P	Pn	11 38 51.9	-0.2
COYC	Coyhaique	18.57	328	P	Pn	11 39 11.7	+3.9
	comp=Z,29nm,1.4s						
VNA3	Neumayer Olymp	20.52	136	⇑P	Pn	11 39 29.8	-1.1
	comp=Z,17nm,0.7s						
VNA3	Neumayer Olymp	20.52	136	P	Pn	11 39 30.1	-0.9
	comp=Z,31nm,0.9s						
LL02	Futaleuf	20.76	331	P	Pn	11 39 35.9	+1.9
	comp=Z,26nm,1.5s						
VNA1	Neumayer--Stat	20.98	134	⇑P	Pn	11 39 36.5	+0.2
	comp=Z,31nm,1.1s						
VNA2	Neumayer--Watz	21.26	135	⇑P	P	11 39 38.1	+1.4
	comp=Z,17nm,0.8s,baz=268,slow=11						
VNA2	Neumayer--Watz	21.26	135	P	P	11 39 38.4	+1.6
	comp=Z,38nm,1.6s						
SNAA	Sanae	22.69	137	⇑P	P	11 39 53.1	+1.0
	comp=Z,576nm,1.1s						
SNAA	Sanae	22.69	137	P	P	11 39 52.0	-0.1
	comp=Z,43nm,1.2s,baz=256,slow=9.2,SNR=26						
SNAA				LR	LR	11 47 18.4	
	comp=Z,832nm,21.4s,baz=262,slow=33						
	comp=Z,43nm,1.2s						
SNAA	Sanae	22.69	137		P	11 39 52.0	-0.1
SNAA	Sanae	22.69	137	P	P	11 39 53.3	+1.2
	comp=Z,69nm,1.5s						
PLCA	Paso Flores	22.84	335	P	P	11 39 54.7	+0.8
	comp=Z,12nm,1.0s,baz=165,slow=10,SNR=11						
PLCA				LR	LR	11 48 51.3	
	comp=Z,544nm,18.6s,baz=164,slow=37						
	comp=Z,12nm,1.0s						
PLCA	Paso Flores	22.84	335	P	P	11 39 54.8	+0.8
PLCA	Paso Flores	22.84	335	P	P	11 39 56.5	+2.5
	comp=Z,19nm,1.1s						
GO06	Curarrehue	24.14	335		P	11 40 08.1	+1.3
GO06				IAmb	IAmb	11 40 10.5	
	comp=Z,42nm,1.1s						
GO06	Curarrehue	24.14	335	P	P	11 40 09.2	+2.4
	comp=Z,40nm,1.0s						
TROLL	Troll, Antarti	24.32	139	⇑P	P	11 40 09.6	+1.3
	comp=Z,387nm,1.0s						
BI02	San Fabin de	26.92	337	P	P	11 40 32.1	+0.1
BI02				IAmb	IAmb	11 40 38.8	
	comp=Z,13nm,1.1s						
BI02	San Fabin de	26.92	337	P	P	11 40 34.6	+2.6
QSPA	South Pole Qui	27.90	180	P	P	11 40 42.1	+1.5
	comp=Z,4.5nm,0.8s,baz=147,slow=1.9,SNR=10.0						
QSPA				LR	LR	11 52 46.5	
	comp=Z,454nm,19.4s,baz=168,slow=38						
	comp=Z,4.5nm,0.8s						
QSPA	South Pole Qui	27.90	180		P	11 40 40.5	-0.2
QSPA				IAmb	IAmb	11 40 55.1	
	comp=Z,9.1nm,0.9s						
QSPA	South Pole Qui	27.90	180	P	P	11 40 42.6	+1.9
	comp=Z,16nm,1.0s						
GO05	Hualane	28.65	336	P	P	11 40 46.5	-0.9
GO05				IAmb	IAmb	11 40 55.1	
	comp=Z,27nm,0.9s						
GO05	Hualane	28.65	336	P	P	11 40 49.7	+2.3
	comp=Z,36nm,1.1s						
BO02	Sierra Bellavi	28.66	338	P	P	11 40 48.4	+0.9
BO02				IAmb	IAmb	11 41 23.3	
	comp=Z,19nm,1.2s						
BO04	La Punta	29.41	339	P	P	11 40 54.5	+0.3
BO04				IAmb	IAmb	11 41 01.3	
	comp=Z,18nm,1.0s						
MT08	Bocatoma Ro	29.85	340	P	P	11 40 59.7	+1.4
MT08				IAmb	IAmb	11 41 06.4	
	comp=Z,17nm,0.9s						
ELIB	Princess Elisa	30.53	143	*d*P	P	11 41 04.8	+1.0
	comp=Z,2.8nm,1.2s						
VA03	San Esteban	30.60	339	P	P	11 41 08.0	+3.2
	comp=Z,23nm,0.8s						
ZON	Zonda	31.51	343	P	P	11 41 13.6	+0.8
ZON				IAmb	IAmb	11 41 20.3	
	comp=Z,26nm,1.6s						
VA04	Juan Fernndez	31.52	326	P	P	11 41 14.1	+1.3
	comp=Z,180nm,2.2s						
CO02	Combarbal	32.20	339	P	P	11 41 17.2	-1.6
CO02	Combarbal	32.20	339	P	P	11 41 22.5	+3.6
	comp=Z,36nm,0.8s						
GO04	Tololo Observa	33.18	340	P	P	11 41 24.3	-3.3
GO04	Tololo Observa	33.18	340	P	P	11 41 30.7	+3.1
	comp=Z,20nm,0.8s						
CO01	Juntas del Tor	33.26	341	P	P	11 41 31.6	+3.3
	comp=Z,14nm,0.9s						
AC05	El Transito	34.41	341	P	P	11 41 38.3	+0.2
AC05	El Transito	34.41	341	P	P	11 41 41.0	+2.9
AC04	Llanos de Chal	35.15	340	P	P	11 41 46.6	+2.2
	comp=Z,44nm,0.7s						
CPUP	Villa Florida	35.99	1	P	P	11 41 51.8	+0.1
	comp=Z,1.6nm,0.6s,baz=157,slow=10,SNR=4.4						
CPUP				LR	LR	11 56 50.1	
	comp=Z,242nm,19.6s,baz=206,slow=37						
	comp=Z,1.6nm,0.6s						
VNDA	Vanda	38.23	193	P	P	11 42 11.7	+1.4
	comp=Z,0.4nm,0.9s,baz=165,slow=10,SNR=5.1						
VNDA				LR	LR	11 57 54.3	
	comp=Z,312nm,19.0s,baz=150,slow=36						
	comp=Z,0.4nm,0.9s						
VNDA	Vanda	38.23	193	P	P	11 42 09.3	-0.9
VNDA	Vanda	38.23	193	P	P	11 42 12.1	+1.9
	comp=Z,4.4nm,2.5s						
SALTA		38.47	348	P	P	11 42 15.5	+2.2
	comp=Z,5.7nm,2.1s						
PB05	IPOC Station P	40.28	343	P	P	11 42 31.1	+3.1
	comp=Z,16nm,2.1s						
MAW	Mawson	43.60	152	P	P	11 42 55.1	+0.7
	comp=Z,3.3nm,1.0s,baz=219,slow=8.4,SNR=5.1						
MAW				LR	LR	12 01 22.8	
	comp=Z,905nm,18.3s,baz=213,slow=37						
	comp=Z,3.3nm,1.0s						
MAW	Mawson	43.60	152	P	P	11 42 52.6	-1.8
MAW	Mawson	43.60	152	P	P	11 42 56.2	+1.8
PB16	IPOC Station P	44.64	345	P	P	11 43 04.9	+0.9
PB16				IAmb	IAmb	11 43 11.0	
	comp=Z,33nm,1.7s						
LPAZ	La Paz	46.50	347	P	P	11 43 18.2	-0.5
	comp=Z,0.6nm,0.4s,baz=232,slow=11,SNR=2.0						
LPAZ				LR	LR	12 03 48.1	
	comp=Z,128nm,20.5s,baz=170,slow=37						
	comp=Z,0.6nm,0.4s						
LPAZ	La Paz	46.50	347	P	P	11 43 18.9	+0.1
BDFB	Brasilia	47.19	14	P	P	11 43 22.8	-0.8
	comp=Z,2.0nm,0.5s,baz=186,slow=3.9,SNR=3.4						
BDFB				LR	LR	12 01 47.7	
	comp=Z,327nm,21.8s,baz=160,slow=34						
	comp=Z,2.0nm,0.5s						
BDFB	Brasilia	47.19	14	P	P	11 43 24.1	+0.5
BDFB				IAmb	IAmb	11 43 46.4	
	comp=Z,25nm,1.6s						
RPN	Rapa Nui	48.49	292	LR	LR	11 58 25.5	
	comp=Z,275nm,21.3s,baz=124,slow=29						
CLDB	Colider	51.40	3	P	P	11 43 59.9	+4.3
	comp=Z,4.3nm,0.9s						
NNA	Nana	52.00	337	LR	LR	12 02 13.1	
	comp=Z,79nm,20.8s,baz=154,slow=32						
ATAH	Atahualpa	57.02	336	LR	LR	12 06 40.0	
	comp=Z,96nm,19.1s,baz=164,slow=34						
BOSA	Boshof	62.14	99	LR	LR	12 06 32.4	
	comp=Z,92nm,20.7s,baz=207,slow=31						
LBTB	Lobatse	65.36	97	LR	LR	12 09 48.2	
	comp=Z,181nm,18.5s,baz=206,slow=32						
RPZ	Rata Peaks	67.14	217	LR	LR	12 10 25.8	
	comp=Z,31nm,20.4s,baz=226,slow=32						
MDP	Montagnes des	67.37	6	LR	LR	12 16 38.8	
	comp=Z,114nm,19.5s,baz=250,slow=37						
URZ	Urewera	70.33	223	LR	LR	12 12 26.8	
	comp=Z,140nm,19.9s,baz=162,slow=32						
MATP	Matopo	70.66	97	LR	LR	12 13 02.9	
	comp=Z,160nm,18.1s,baz=212,slow=33						
LSZ	Lusaka	74.98	94	LR	LR	12 15 25.4	
	comp=Z,163nm,19.1s,baz=182,slow=33						
PPT2	Papeete2	75.18	261	*e*LR	LR	12 09 31.2	
	comp=Z,303nm,25.5s						
PPT2				*e*LR	LR	12 09 39.5	
	comp=Z,421nm,24.8s						
PPT	Papeete	75.20	261	LR	LR	12 10 31.6	
	comp=Z,210nm,19.6s,baz=152,slow=28						
JTS	Las Juntas de	75.30	333	LR	LR	12 14 27.8	
	comp=Z,67nm,19.0s,baz=162,slow=32						
RAO	Raoul Island	76.80	231	LR	LR	12 18 34.6	
	comp=Z,88nm,18.3s,baz=138,slow=34						
DBIC	Dimbokro	79.97	54	LR	LR	12 14 19.0	
	comp=Z,145nm,21.5s,baz=196,slow=30						
SJG	San Juan	80.41	352	LR	LR	12 24 32.0	
	comp=Z,152nm,19.8s,baz=122,slow=37						
OPO	Ambohidratompo	80.70	112	LR	LR	12 19 23.6	
	comp=Z,86nm,18.1s,baz=91,slow=33						
CMIG	Matias Romero	84.24	325	LR	LR	12 17 12.8	
	comp=Z,157nm,20.3s,baz=154,slow=30						
STKA	Stephens Creek	84.77	197	LR	LR	12 20 16.4	
	comp=Z,96nm,21.5s,baz=187,slow=32						
NWAO	Narrogin (SRO)	85.01	176	LR	LR	12 24 08.7	
	comp=Z,147nm,21.2s,baz=196,slow=35						
TORD	Torodi Ar. Bea	88.42	58	P	P	11 47 42.0	-0.8
	comp=Z,0.4nm,0.7s,baz=258,slow=6.6,SNR=2.5						
	comp=Z,0.4nm,0.7s						
MSVF	Nonsavu	88.79	233	LR	LR	12 19 30.1	
	comp=Z,63nm,20.8s,baz=188,slow=30						
MBAR	Mbarara	89.03	89	LR	LR	12 22 46.8	
	comp=Z,81nm,21.7s,baz=225,slow=32						
ASAR	Alice Springs	93.75	191	P	P	11 48 07.2	-0.6
	comp=Z,0.6nm,0.9s,baz=173,slow=4.3,SNR=4.6						
ASAR				LR	LR	12 29 25.7	
	comp=Z,102nm,20.3s,baz=172,slow=35						
	comp=Z,0.6nm,0.9s						
LPIG	La Paz	95.53	314	LR	LR	12 21 48.4	
	comp=Z,110nm,21.8s,baz=179,slow=30						
WRA	Warramunga Arr	97.40	192	P	P	11 48 24.5	+0.1
	comp=Z,0.5nm,0.7s,baz=169,slow=4.5,SNR=6.6						
	comp=Z,0.5nm,0.7s						
TXAR	Lajitas Array	98.31	321	LR	LR	12 26 53.8	
	comp=Z,30nm,21.0s,baz=132,slow=32						
TKL	Tuckaleechee C	99.78	339	LR	LR	12 39 33.3	
	comp=Z,93nm,18.3s,baz=162,slow=39						
FITZ	Fitzroy Crossi	99.79	184	LR	LR	12 33 26.0	
	comp=Z,111nm,19.8s,baz=188,slow=35						
GERES	GERESS Array B	124.65	50	PKP	PKPdf	11 53 48.7	-0.7
	comp=Z,0.4nm,0.4s,baz=224,slow=2.7,SNR=1.6						
CLL	Collm	126.47	48	LV		12 35 00.0	
CMAR	Chiang Mai Arr	133.39	150	PKP	PKPdf	11 54 06.2	-0.6
	comp=Z,0.4nm,0.3s,baz=193,slow=1.9,SNR=2.6						
PZH	PanZhiHua	141.79	150	PKP	PKPdf	11 54 21.5	-0.7
ILAR	Eielson Array	142.56	315	PKP	PKPdf	11 54 20.2	-2.0
	comp=Z,0.5nm,0.6s,baz=147,slow=2.1,SNR=5.0						
KSH2	Kashi	143.87	108	PKP	PKPdf	11 54 25.0	-0.6
ARCES	ARCESS Array B	144.11	37	PKP	PKPab	11 54 22.4	0.0
	comp=Z,2.9nm,0.6s,baz=243,slow=1.3,SNR=12						
H21K	Melozitna Rive	145.08	314	PKPbc	PKPbc	11 54 25.5	-0.6
J19K	Poorman	145.08	310		PKPdf	11 54 26.7	+0.1
E23K	Chandalar	145.44	319	PKPdf	PKPab	11 54 28.5	+1.0
NJ2	Nanjing	149.66	175	*e*P	PKPdf	11 54 35.5	+0.2
NJ2				pmax	pmax		
	comp=Z,6.0nm,0.5s						
BVAR	Borovoye Array	151.77	85	PKPbc	PKPbc	11 54 43.4	-0.9
	comp=Z,4.7nm,0.7s,baz=256,slow=3.1,SNR=13						
MJAR	Matsushiro Arr	152.22	209	PKPab	PKPab	11 54 55.5	-0.2
	comp=Z,2.8nm,1.0s,baz=181,slow=6.1,SNR=4.2						
WMQ	Urumqi	152.92	117	*e*PKPbc	PKPdf	11 54 41.0	+1.0
WMQ				PKPab	PKPab	11 54 59.8	+1.3
WMQ				LR	LR		
	comp=Z,44nm,15.9s						
MKAR	Makanchi Array	152.93	107	PKPbc	PKPbc	11 54 46.2	-0.9
	comp=Z,1.4nm,0.7s,baz=227,slow=1.3,SNR=11						
KURBB	Kurchatov Arra	153.98	97	PKPbc	PKPbc	11 54 47.9	-1.3
	comp=Z,0.8nm,0.7s,baz=236,slow=2.6,SNR=5.0						
HHC	Hu-ho-hao-te	157.65	159	*e*P	PKPdf	11 54 43.5	-3.0
HHC				LR	LR		
	comp=N,97nm,12.8s						
HHC				LR	LR		
	comp=E,120nm,12.3s						
HHC				LR	LR		
	comp=Z,64nm,15.3s						
ZALV	Zalesovo Beam	159.08	97	PKPab	PKPab	11 55 24.5	0.0
	comp=Z,0.7nm,0.6s,baz=191,slow=5.9,SNR=4.0						
SONM	Songino Array	163.12	142	PKPab	PKPab	11 55 42.4	-0.1
	comp=Z,0.4nm,0.5s,baz=207,slow=4.7,SNR=3.8						

REN ***29*** *11:36:11.9±1.9, 38°.19N±0°.02×117°.78W±0°.02, h10^{km}±4^{km}, Error ellipse: s-maj=2.5km s-min=2.0km az=158.0*

NEIC ***29*** *11:36:12.1, 38°.19N×117°.78W, h10^{km}*

NEIC 29 11:36:11.2±2.3**, 38°.19N**±0°.02×**117°.79W**±0°.01**, h10**^{km}±2^{km}**, ML3.7**/132**, Mwr3.6**/27**, ML3.9**/18(REN)**, Error ellipse: s-maj=3.4km s-min=3.1km az=332.0, Moment Tensor Solution. Moment tensor: Scale** 10^{14}**Nm;** M_{rr}1.42; $M_{\theta\theta}$-0.64; $M_{\phi\phi}$-0.78; $M_{r\theta}$-0.39; $M_{\theta\phi}$3.20; $M_{\phi r}$-0.12; **Fault plane solution:** $M_0$3.45000×10^{14} **NP1:**ϕ_s272.09000°**,** δ79.46000°**,** λ13.78000°. **NP2:**ϕ_s179.52000°**,** δ76.46000°**,** λ169.15000°. **Principal axes:** T 2.5995**,** Plg17.0000°**,** Azm136.0000°**;** N 1.3128**,** Plg73.0000°**,** Azm309.0000°**;** P -3.9123**,** Plg2.0000°**,** Azm45.0000°**; Nevada**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
COLR	Columbus	0.21	258		Pg	11 36 16.8	+1.1
COLR					Sg	11 36 20.5	+1.8
NV11	Mina Array Sit	0.38	311		Pb	11 36 19.9	-0.2
NV11	Mina Array Sit	0.38	311		Sb	11 36 25.5	-0.5
NV11	Mina Array Sit	0.38	311	IAML		11 36 21.1	
	comp=N,2µm,0.4s						
NV11				IAML		11 36 21.1	
	comp=E,1µm,0.6s						
NV06	Mina Array Sit	0.45	302		Pb	11 36 21.2	-0.1
NV07	Mina Array Sit	0.45	300		Pb	11 36 21.4	0.0
NV07					Sb	11 36 28.1	-0.3
NV03	Mina Array Sit	0.46	301		Pb	11 36 21.5	-0.1
NV03					Sb	11 36 28.4	-0.2
TPH	Tonopah	0.46	104		Pg	11 36 20.9	+0.6
TPH	Tonopah	0.46	104	Sg	Sg	11 36 27.1	+0.7
TPH				IAML		11 36 27.6	
	comp=N,10µm,0.4s						
TPH				IAML		11 36 27.8	
	comp=E,8µm,0.5s						
NV08	Mina Array Sit	0.47	298		Pb	11 36 21.7	0.0
NV08					Sb	11 36 28.6	-0.2
NV04	Mina Array Sit	0.47	300		Pb	11 36 21.7	0.0
NV04					Sb	11 36 28.5	-0.3
NV01	Mina Array Sit	0.47	301		Pb	11 36 21.6	-0.1
NV01					Sb	11 36 28.5	-0.4
NVAR	Mina Array Bea	0.47	301	Pg	Pb	11 36 21.6	-0.1
NV05	Mina Array Sit	0.47	304		Pb	11 36 21.6	-0.2
NV02	Mina Array Sit	0.47	302		Pb	11 36 21.7	-0.1
NV02					Sb	11 36 29.0	0.0
NV09	Mina Array Sit	0.49	300		Pb	11 36 22.1	0.0
NV09					Sb	11 36 29.6	+0.1
LHV	Little Huntoon	0.56	277		Pb	11 36 23.5	+0.3
LHV	Little Huntoon	0.56	277	Sg	Sb	11 36 31.6	+0.3
LHV				IAML		11 36 32.5	
	comp=N,6µm,0.7s						

LHV				IAML		11 36 33.7	
	comp=E,7µm,0.5s						
RYN	**Ryan**	0.72	308		Pb	11 36 26.2	+0.2
RYN	**Ryan**	0.72	308	IAML		11 36 41.5	
	comp=E,4µm,0.2s						
Q09A	**Carvers**	0.80	36	Sg	Sb	11 36 38.8	+0.3
Q09A				IAML		11 36 42.8	
	comp=N,3µm,0.3s						
Q09A				IAML		11 36 42.9	
	comp=E,3µm,0.3s						
Q09A	**Carvers**	0.80	36		Pb	11 36 27.4	0.0
KVN	**Kaiserville**	0.90	344		Pb	11 36 28.9	-0.1
KVN					Sb	11 36 41.0	0.0
KVN	**Kaiserville**	0.90	344	IAML		11 36 45.8	
	comp=N,2µm,0.5s						
LCH	**Last Change Ra**	0.96	173		Pb	11 36 30.1	+0.1
LCH					Sb	11 36 42.9	0.0
GMN	**Gold Mountain**	0.98	154		Pb	11 36 30.4	0.0
GMN					Sb	11 36 43.4	-0.2
GMN	**Gold Mountain**	0.98	154	IAML		11 36 44.2	
	comp=E,2µm,0.5s						
MLAC	**Mammoth, Mammo**	1.00	236		Pn	11 36 31.3	-0.2
MCBM	**Casa Benchmark**	1.03	239		Pn	11 36 31.9	-0.1
MDYM	**Dry Creek**	1.10	242		Pn	11 36 33.2	+0.2
MDPB	**Devils Postpil**	1.16	242		Pn	11 36 34.0	+0.3
MDPB					Sn	11 36 49.5	-0.3
TIN	**Tinemaha, Big**	1.18	197		Sn	11 36 51.0	+0.9
TIN	**Tinemaha, Big**	1.18	197		Pg	11 36 34.6	+0.6
TIN	**Tinemaha, Big**	1.18	197	IAML		11 36 51.9	
	comp=N,3µm,0.4s						
TIN				IAML		11 36 53.8	
	comp=E,3µm,0.7s						
GRAC	**Grapevine Rang**	1.24	164		Pg	11 36 35.2	+0.2
WAKR	**Walker**	1.33	284		Pg	11 36 36.6	-0.2
WAKR	**Walker**	1.33	284	IAML		11 36 59.6	
	comp=E,762nm,0.6s						
WAKR				IAML		11 37 00.6	
	comp=N,874nm,0.8s						
YERR	**Yerington**	1.39	306		Pb	11 36 37.2	-0.1
YERR	**Yerington**	1.39	306	IAML		11 36 59.1	
	comp=N,2µm,0.4s						
WCT	**Wildcat Mounta**	1.67	146		Pn	11 36 41.1	+0.4
WCT				IAML		11 37 07.0	
	comp=E,984nm,0.5s						
WCT				IAML		11 37 08.0	
	comp=N,1µm,0.5s						
PNTR	**Pine Nut**	1.68	303		Pn	11 36 41.3	+0.5
PNTR	**Pine Nut**	1.68	303	IAML		11 37 08.1	
	comp=E,1µm,0.5s						
PNTR				IAML		11 37 11.9	
	comp=N,963nm,0.8s						
S11A	**Rachel**	1.71	108		Pn	11 36 41.4	+0.2
TPNV	**Topopah Spring**	1.74	135		Pn	11 36 41.9	+0.2
TPNV	**Topopah Spring**	1.74	135	IAML		11 37 13.7	
	comp=N,724nm,0.6s						
TPNV				IAML		11 37 16.7	
	comp=N,688nm,0.5s						
CWC	**Cottonwood Cre**	1.76	188		Pn	11 36 42.7	+0.8
CWC				IAML		11 37 09.3	
	comp=N,438nm,0.2s						
CWC				IAML		11 37 09.7	
	comp=E,442nm,0.2s						
CPY	**CP-1**	1.86	132		Pn	11 36 43.6	+0.3
FURC	**Furnace Creek,**	1.87	156	Pn	Pn	11 36 44.1	+0.9
PAHR	**Pah Rah Range**	1.96	321		Pn	11 36 45.5	+0.8
PAHR				IAML		11 37 15.7	
	comp=E,334nm,0.7s						
CMB	**Columbia Colle**	2.05	267		Pn	11 36 46.4	+0.5
MPK	**Martis Peak**	2.07	303	Pn	Pn	11 36 46.9	+0.6
MPK				IAML		11 37 22.5	
	comp=N,695nm,0.7s						
MPK				IAML		11 37 23.1	
	comp=E,817nm,0.6s						
MPMC	**Manual Prospec**	2.14	173		Pn	11 36 47.7	+0.6
MPMC				IAML		11 37 21.6	
	comp=E,536nm,0.4s						
MPMC				IAML		11 37 24.2	
	comp=N,300nm,0.5s						
GWY	**Greenwater Val**	2.19	155		Pn	11 36 48.5	+0.6
GWY	**Greenwater Val**	2.19	155	IAML		11 37 23.5	
	comp=N,596nm,0.5s						
GWY				IAML		11 37 34.1	
	comp=E,554nm,0.5s						
PEAR	**Peavine Mounta**	2.21	311		Pn	11 36 49.1	+0.9
BMN	**Battle Mountai**	2.28	11		Pn	11 36 49.7	+0.5
BMN	**Battle Mountai**	2.28	11	IAML		11 37 25.4	
	comp=E,432nm,0.7s						
BMN				IAML		11 37 25.5	
	comp=N,346nm,0.4s						
DONR	**Donner Summit**	2.29	301		Pn	11 36 49.0	-0.3
QSM	**Queen of Sheba**	2.34	161		Pn	11 36 50.3	+0.5
QSM				IAML		11 37 29.0	
	comp=N,568nm,0.6s						
QSM				IAML		11 37 29.8	
	comp=E,443nm,0.6s						
TOW	**Tower One**	2.37	179		Pn	11 36 52.0	+1.8
SRTC	**Snort**	2.49	179		Pn	11 36 53.6	+1.7
VES	**Vestal, Richgr**	2.56	204	Pn	Pn	11 36 54.1	+1.3
VES				IAML		11 37 35.2	
	comp=N,460nm,0.7s						
VES				IAML		11 37 36.6	
	comp=E,484nm,0.9s						
SHOC	**Shoshone, Teco**	2.59	152		Pn	11 36 54.0	+0.8
AFDM	**Forest Hills D**	2.61	288	IAML		11 37 39.5	
	comp=E,195nm,0.5s						
AFDM				IAML		11 37 39.9	
	comp=N,227nm,0.5s						
BEKR	**Beckworth**	2.61	311		Pn	11 36 54.6	+1.0
CCCA	**Chr Cany lake**	2.68	173		Pn	11 36 55.8	+1.3
CCCA	**Chr Cany lake**	2.68	173	IAML		11 37 45.7	
	comp=E,394nm,1.1s						
LRMC	**Laurel Mtn Rad**	2.70	178	IAML		11 37 42.5	
	comp=N,177nm,0.7s						
LRMC				IAML		11 37 42.7	
	comp=E,252nm,0.8s						
GSC	**Goldstone, Bar**	2.99	164	IAML		11 37 52.4	
	comp=E,246nm,0.7s						
GSC				IAML		11 37 56.8	
	comp=N,161nm,0.8s						
BBGB	**Big Mountain B**	3.04	239		Pn	11 36 58.8	-0.8
TUQ	**Turquoise Moun**	3.13	151		Pn	11 37 01.6	+0.9
PKD	**Bear Valley Ra**	3.14	225		Pn	11 37 02.3	+1.5
MHC	**Mount Hamilton**	3.17	256	Pn	Pn	11 37 02.8	+1.5
MHC				IAML		11 37 55.8	
	comp=E,152nm,1.4s						
MHC				IAML		11 37 56.0	
	comp=N,156nm,1.3s						
ORV	**Oroville**	3.20	296		Pn	11 37 02.8	+1.2
ELK	**Elko**	3.23	37		Pn	11 37 02.7	+0.5
ELK	**Elko**	3.23	37	IAML		11 37 57.3	
	comp=N,102nm,0.6s						
SAO	**San Andreas Ge**	3.24	245	Pn	Pn	11 37 03.9	+1.8
HULI	**Fort Hunter Li**	3.50	233	IAML		11 38 08.8	
	comp=N,81nm,1.2s						
OSI	**Osito Audit: C**	3.64	192	IAML		11 38 11.3	
	comp=E,91nm,1.1s						
OSI				IAML		11 38 15.2	
	comp=N,87nm,0.8s						
CVS	**Carmenet Viney**	3.68	274	IAML		11 38 07.1	
	comp=E,79nm,0.5s						
O03E	**Paynes Creek**	3.76	305	IAML		11 38 27.6	
	comp=E,94nm,0.8s						
SZCU	**Shurtz Canyon**	3.77	98		Pn	11 37 10.2	+0.6
LCMT	**Little Creek M**	3.80	107		Pn	11 37 10.3	+0.4
HATC	**Hat Creek Radi**	3.87	314	IAML		11 38 40.1	
	comp=N,64nm,1.6s						
HATC				IAML		11 38 51.2	
	comp=E,62nm,2.4s						
MWC	**Mount Wilson**	3.96	183	IAML		11 38 30.5	
	comp=N,63nm,1.3s						
DUG	**Dugway, Tooele**	4.36	61	Pn	Pn	11 37 17.2	-0.4
DUG				IAML		11 38 31.0	
	comp=N,114nm,0.8s						
ELS	**Elsinore Mount**	4.54	176	IAML		11 38 42.9	
	comp=E,37nm,1.4s						
PFO	**Pinyon Flats O**	4.69	166	Pn	Pn	11 37 23.1	+0.8
BLYC	**Blythe**	5.16	148		Pn	11 37 30.4	+1.9
BLYC				IAML		11 38 56.2	
	comp=E,54nm,0.9s						
BLYC				IAML		11 38 59.6	
	comp=N,38nm,0.9s						
HVU	**Hansel Valley**	5.26	45	Pn	Pn	11 37 29.4	-0.7
MFID	**Camas Ranch**	5.43	15		Pb	11 37 46.9	+0.7
PINE	**Pine Mountain**	6.08	338	Pn	Pn	11 37 42.1	+0.7
WIFE	**Three Sisters-**	6.61	334	Pn	Pn	11 37 47.9	-0.6
PV18	**Skein Mesa, Pa**	7.00	87	Pn	Pn	11 37 53.4	-0.5
PD31	**Pinedale Array**	7.76	51	Pn	Pn	11 38 07.0	+2.5
PDAR	**Pinedale Array**	7.76	51	Pn	Pn	11 38 07.4	+2.9

*KRNET **29** 11:36:21.2±0.1, 42°.26N×71°.45E, h18^{km}, mb2.5*
*SOME **29** 11:36:21.8, 42°.13N×71°.50E, h15^{km}*
*NNC **29** 11:36:22.3±0.7, 42°.33N×71°.49E, h0^{km}, mb2.6, mpv3.0, Error ellipse: s-maj=8.1km s-min=3.5km az=169.0*
ISC 29 11:36:21.7±1.1, **42°.28N**±0°.03×**71°.51E**±0°.02, **h7**^{km}±12^{km}, **n16,** σ**0**^{s}**.76**/30, **10C-4D, Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ARK	**Arkit**	0.59	144	⇑*i*P	**Pg**	**11 36 33.2**	**+0.2**
ARK				⇑*i*S	**Sg**	**11 36 41.3**	**+0.6**
MNAS	**Manas**	0.77	74	⇓*i*P	**Pg**	**11 36 36.8**	**+0.3**
MNAS				⇓*i*S	**Sg**	**11 36 47.5**	**+1.0**
TRKS	**Terek-Say**	0.79	200	⇑*i*P	**Pg**	**11 36 36.8**	**-0.1**
TRKS				⇑*i*S	**Sb**	**11 36 47.5**	**-1.4**
IUG	**Iuzhnay**	1.10	264	P	**Pg**	**11 36 42.7**	**-0.1**
	28nm,0.2s						
IUG				S	**Sg**	**11 36 57.2**	**0.0**
	119nm,0.4s						
IUG	**Iuzhnay**	1.10	264	*e*P	**Pg**	**11 36 42.8**	**-0.1**
	28nm,0.2s						
IUG				*e*S	**Sg**	**11 36 57.2**	**0.0**
	119nm,0.4s						
KK31	**Karatay Array**	1.10	319	P	**Pb**	**11 36 42.6**	**-0.6**
	4.4nm,0.3s,baz=139,slow=16,SNR=43						
KK31				S	**Sb**	**11 36 57.0**	**-0.8**
	13nm,0.3s,baz=134,slow=32,SNR=15						
MRKS	**Merke**	1.36	69	P	**Pb**	**11 36 47.6**	**+0.1**
	3.0nm,0.2s						
MRKS				S	**Sg**	**11 37 06.2**	**+0.9**
	9.1nm,0.1s						
MRKS	**Merke**	1.36	69	*e*P	**Pb**	**11 36 47.6**	**+0.1**
	3.0nm,0.2s						
MRKS				*e*S	**Sg**	**11 37 06.2**	**+0.9**
	9.1nm,0.1s						
BRLS	**Borolday**	1.44	302	P	**Pg**	**11 36 49.6**	**+0.2**
	5.2nm,0.2s						
BRLS				S	**Sg**	**11 37 08.7**	**+0.6**
	26nm,0.1s						
BRLS	**Borolday**	1.44	302	*e*P	**Pg**	**11 36 49.6**	**+0.2**
	5.2nm,0.2s						
BRLS				*e*S	**Sg**	**11 37 08.7**	**+0.6**
	26nm,0.1s						
ARSB	**Arslanbob**	1.46	130	⇑*e*P	**Pb**	**11 36 48.3**	**-0.9**
ARSB				⇑*e*S	**Sg**	**11 37 08.0**	**-0.5**
EKS2	**Erkin-Say**	1.73	76	⇑*i*P	**Pb**	**11 36 53.6**	**-0.2**
EKS2				⇑*i*S	**Sg**	**11 37 16.9**	**-0.2**
AAK	**Ala-Archa**	2.24	80	⇓Pg	**Pb**	**11 37 03.1**	**+0.5**
	0.5nm,0.3s						
AAK				⇓Lg	Lg	11 37 34.2	
	0.4nm,0.3s						
SFK	**Sufi-Kurgan**	2.72	146	⇑*i*P	**Pn**	**11 37 06.9**	**+0.9**
SFK				⇑*i*S	**Sn**	**11 37 40.3**	**+1.1**
KRBS	**Karabastau**	3.37	64	Pg	**Pg**	**11 37 24.8**	**-1.5**
	1.7nm,0.3s						
KRBS				Lg	Lg	11 38 09.4	
	0.7nm,0.3s						
KRBS	**Karabastau**	3.37	64	*e*P	**Pg**	**11 37 24.8**	**-1.5**
	1.7nm,0.3s						
KRBS				*e*S	**Sg**	**11 38 09.4**	**-0.6**
	0.7nm,0.3s						

*IDC **29** 11:48:11.9±0.7, 9°.62S×119°.15E, h0^{km}, mb4.1/9, mbtmp4.0/15, ML3.9/6, MS3.2/11, Error ellipse: s-maj=21.7km s-min=11.8km az=61.0*
*NEIC **29** 11:48:13.2±1.4, 9°.76S±0°.08×119°.06E±0°.08, h10^{km}±1^{km}, mb4.2/12, Error ellipse: s-maj=14.4km s-min=12.3km az=213.0*
*DJA **29** 11:48:14.9±0.8, 10°S±9°×11°9E±°, h11^{km}±8^{km}, M4.0/4, MLv4.0/4*
ISC 29 11:48:12.9±0.6, **9°.78S**±0°.06×**119°.16E**±0°.04, **h10**^{km}**, n64,** σ**1**^{s}**.76**/54, **mb4.2**/12, **MS3.8**/6, **Sumba region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WSI	**Waingapu**	1.13	84	P	**Pb**	**11 48 36.2**	**+1.7**
WSI				AML	AML		
LBFI	**Labuhan Bajo,**	1.48	29	P	**Pn**	**11 48 42.3**	**+2.7**
LBFI				AML	AML		
DBNI	**Kabupaten Domp**	1.52	327	P	**Pn**	**11 48 41.5**	**+1.3**
PLAI	**Plampang**	1.66	305	P	**Pn**	**11 48 41.9**	**-0.2**
TWSI	**Taliwang, Sumb**	2.48	295	P	**Pn**	**11 48 54.0**	**+0.7**
EDFI	**Ende, Flores**	2.70	68	P	**Pn**	**11 48 57.5**	**+1.0**
MMRI	**Maumere**	3.25	70	Pn	**Pn**	**11 49 05.3**	**+1.4**
KHKI	**Kahang-Kahang**	3.78	292	P	**Pn**	**11 49 14.9**	**+3.6**
IGBI	**Denpasar**	4.08	283	P	**Pn**	**11 49 17.6**	**+2.3**
SRBI	**Singaraja**	4.25	293	P	**Pn**	**11 49 19.4**	**+1.7**
RTBI	**Rangdo, Negare**	4.37	287	P	**Pn**	**11 49 21.5**	**+2.1**
BATI	**Baumata**	4.46	96	Pn	**Pn**	**11 49 19.9**	**-0.7**
	13nm,0.3s,baz=269,slow=3.9,SNR=4.2						
BATI				Sn	**Sn**	**11 50 07.9**	**-4.7**
	7.8nm,0.3s,baz=288,slow=19,SNR=1.3						
BATI				LR	LR	11 51 20.6	
	comp=Z,136nm,18.6s,baz=52,slow=42						
	31nm,0.3s						
BATI				AML	AML		
KAPI	**Kappang**	4.77	7	Pn	**Pn**	**11 49 26.3**	**+1.4**
	3.6nm,0.3s,baz=192,slow=8.8,SNR=13						
KAPI				Sn	**Sn**	**11 50 15.4**	**-5.0**
	8.0nm,0.3s,baz=160,slow=21,SNR=4.2						
KAPI				LR	LR	11 51 05.3	
	comp=Z,138nm,21.6s,baz=222,slow=38						
	21nm,0.5s						
KAPI				AML	AML		
KAPI	**Kappang**	4.77	7		**Pn**	**11 49 24.6**	**-0.3**
KAPI	**Kappang**	4.77	7	P	**Pn**	**11 49 28.7**	**+3.8**
SOEI	**Soe**	5.03	90	Pn	**Pn**	**11 49 30.5**	**+1.9**
JAGI	**Jajag, Banyuwa**	5.12	284	Pn	**Pn**	**11 49 28.2**	**-1.4**
FITZ	**Fitzroy Crossi**	10.38	143	Pn	**Pn**	**11 50 42.5**	**+0.5**
	0.3nm,0.3s,baz=343,slow=9.1,SNR=10						
FITZ				Sn	**Sn**	**11 52 34.0**	**-4.5**
	0.8nm,0.3s,baz=163,slow=21,SNR=6.7						
FITZ				LR	LR	11 54 50.7	
	comp=Z,77nm,18.2s,baz=348,slow=38						
	1.7nm,0.6s						
FITZ				AML	AML		
FITZ	**Fitzroy Crossi**	10.38	143	Pn	**Pn**	**11 50 43.5**	**+1.5**
KNRA	**Kununurra**	11.05	123	Pn	**Pn**	**11 50 52.1**	**+1.1**
MBWA	**Marble Bar**	11.32	177	Pn	**Pn**	**11 50 54.1**	**-0.7**
MTN	**Manton Dam**	12.13	106		**Pn**	**11 51 06.3**	**+0.4**
SIJI	**Sorong**	14.95	54	Pn	**Pn**	**11 51 44.9**	**+0.5**
	3.5nm,0.3s,baz=258,slow=8.0,SNR=14						
SIJI				LR	LR	11 57 17.4	
	comp=Z,35nm,21.5s,baz=108,slow=37						
	9.3nm,0.8s						
SIJI				AML	AML		
WB0	**Warramunga Arr**	17.75	126	P	**Pn**	**11 52 21.2**	**+1.0**
WRA	**Warramunga Arr**	17.80	126	P	**Pn**	**11 52 21.9**	**+1.0**
	0.3nm,0.3s,baz=300,slow=15,SNR=19						
WRA				S	Sn	11 55 30.0	-9.4
	0.7nm,0.6s,baz=300,slow=23,SNR=5.4						
	1.3nm,0.6s						
WRA				AML	AML		
WRA	**Warramunga Arr**	17.80	126	P	**Pn**	**11 52 22.2**	**+1.3**
DAV	**Davao City (W)**	17.92	21	LR	LR	12 01 29.2	
	comp=Z,38nm,18.1s,baz=160,slow=45						
WR8	**Warramunga Arr**	17.93	126	P	**Pn**	**11 52 23.3**	**+0.7**
WR8				IAmb	IAmb	11 52 47.8	
	comp=Z,11nm,1.4s						
AS31	**Alice Springs**	19.72	136	P	**P**	**11 52 43.9**	**+1.1**
ASAR	**Alice Springs**	19.72	136	P	**Pn**	**11 52 45.4**	**+1.1**
	comp=Z,0.2nm,0.3s,baz=316,slow=11,SNR=17						
ASAR				S	S	11 56 14.7	-11
	comp=Z,1.3nm,0.8s,baz=299,slow=22,SNR=7.0						
	comp=Z,1.8nm,0.8s						
ASAR				AML	AML		
ASAR	**Alice Springs**	19.72	136	P	**P**	**11 52 43.9**	**+1.1**
CMAR	**Chiang Mai Arr**	34.43	325	LR	LR	12 09 31.7	
	comp=Z,50nm,18.2s,baz=225,slow=37						
JNU	**Nakatsue**	44.10	14	LR	LR	12 13 52.4	
	comp=Z,18nm,21.9s,baz=178,slow=35						
H08S2	**Diego Garcia H**	46.15	269	T	T	12 45 51.4	
	baz=96,slow=75,SNR=100						
H08S3	**Diego Garcia H**	46.16	269	T	T	12 45 51.7	
	baz=96,slow=75,SNR=165						
H08S1	**Diego Carcia H**	46.17	269	T	T	12 45 52.9	
	baz=96,slow=75,SNR=41						
KSRS	**Korea Array**	47.70	9	P	**P**	**11 56 50.9**	**+1.1**
	comp=Z,0.9nm,0.7s,baz=199,slow=6.6,SNR=4.4						
	comp=Z,0.9nm,0.7s						
USRK	**Ussuriysk Ar.**	54.97	11	P	**P**	**11 57 44.5**	**+0.3**
	comp=Z,3.3nm,0.6s,baz=186,slow=6.2,SNR=8.5						
	comp=Z,3.3nm,0.6s						
SONM	**Songino Array**	58.47	350	P	**P**	**11 58 09.6**	**+0.4**
	comp=Z,1.1nm,0.4s,baz=169,slow=8.7,SNR=8.0						
	comp=Z,1.1nm,0.4s						
SONM	**Songino Array**	58.47	350	P	**P**	**11 58 09.4**	**+0.2**
SONM				IAmb	IAmb	11 58 11.0	
	comp=Z,3.9nm,1.2s						
MKAR	**Makanchi Array**	65.22	333	P	**P**	**11 58 54.4**	**-0.2**
	comp=Z,1.6nm,0.5s,baz=154,slow=7.7,SNR=12						
	comp=Z,1.6nm,0.5s						
MKAR	**Makanchi Array**	65.22	333	P	**P**	**11 58 54.1**	**-0.5**
AAK	**Ala-Archa**	66.21	325	P	**P**	**11 59 00.4**	**-0.9**
AAK				IAmb	IAmb	11 59 43.4	
	comp=Z,3.0nm,0.9s						
ARSB	**Arslanbob**	66.23	324	P	**P**	**11 59 01.3**	**-0.1**
H04N2	**CROZET ISLANDS**	67.35	224	T	T	13 12 46.5	
	baz=80						
H04N1	**CROZET ISLANDS**	67.36	224	T	T	13 12 45.3	
	baz=80						
H04N3	**CROZET ISLANDS**	67.36	224	T	T	13 12 43.1	
	baz=80						
KURBB	**Kurchatov Arra**	69.74	334	P	**P**	**11 59 22.3**	**-0.7**
	comp=Z,0.7nm,0.7s,baz=145,slow=5.9,SNR=5.2						
	comp=Z,0.7nm,0.7s						
KURK	**Kurchatov**	69.77	334	P	**P**	**11 59 22.3**	**-0.9**
KURK	**Kurchatov**	69.77	334	IAmb	IAmb	11 59 23.9	
	comp=Z,4.5nm,1.2s						
ZAA0	**Zalesovo Array**	69.83	339	P	**P**	**11 59 22.3**	**-1.1**
ZAA0				IAmb	IAmb	11 59 32.5	
	comp=Z,1.9nm,0.9s						
ZALV	**Zalesovo Beam**	69.83	339	P	**P**	**11 59 22.5**	**-0.9**
	comp=Z,0.9nm,0.3s,baz=148,slow=4.1,SNR=6.1						
	comp=Z,0.9nm,0.3s						
BVAR	**Borovoye Array**	75.06	332	P	**P**	**11 59 53.0**	**-1.7**
	comp=Z,0.6nm,0.4s,baz=133,slow=8.3,SNR=3.6						
	comp=Z,0.6nm,0.4s						
AB31	**Akbulak array**	78.29	325	P	**P**	**12 00 12.6**	**-0.5**
AB31				IAmb	IAmb	12 00 13.6	
	comp=Z,3.0nm,1.2s						
ABKAR	**Akbulak array**	78.29	325	P	**P**	**12 00 12.5**	**-0.6**
QSPA	**South Pole Qui**	80.22	180	P	**P**	**12 00 25.3**	**+1.8**
	comp=Z,0.8nm,0.6s,baz=331,slow=10,SNR=14						
	comp=Z,0.8nm,0.6s						
QSPA	**South Pole Qui**	80.22	180	P	**P**	**12 00 24.8**	**+1.3**
QSPA				IAmb	IAmb	12 00 59.1	
	comp=Z,2.5nm,1.2s						
ASF	**Jabal al Asfar**	88.68	303	LR	LR	12 47 53.5	
	comp=Z,55nm,18.4s,baz=200,slow=40						
BR131	**Keskin Array S**	92.76	310	P	**P**	**12 01 25.6**	**-0.3**
BRTR	**Keskin Array B**	92.76	310	P	**P**	**12 01 25.0**	**-1.0**
	comp=Z,0.6nm,0.8s,baz=101,slow=7.5,SNR=2.8						
BRTR				LR	LR	12 45 33.0	
	comp=Z,32nm,21.6s,baz=156,slow=37						
	comp=Z,0.6nm,0.8s						
BRTR	**Keskin Array B**	92.76	310	P	**P**	**12 01 25.4**	**-0.5**
AKASG	**Malin Array Be**	97.45	320	LR	LR	12 51 42.5	
	comp=Z,30nm,18.0s,baz=230,slow=39						
FINES	**FINESS Array B**	99.99	331	LR	LR	12 49 24.5	
	comp=Z,31nm,21.8s,baz=230,slow=37						
TORD	**Torodi Ar. Bea**	118.75	280	PKP	**PKPdf**	**12 07 02.3**	**-0.1**
	comp=Z,0.3nm,0.5s,baz=83,slow=1.5,SNR=3.8						

HEL 29 12:07:46.1±0.2, **67°.68N**×**33°.72E, h0**^{km}**, ML1.0, Explosion, Baltic States-Belarus-Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVZ	**Lovozero**	0.42	58	PG	Pg	12 07 53.7	-0.3
LVZ				SG	Sg	12 07 58.6	-0.8
VRF	**Varrio**	1.57	274	PG	Pn	12 08 14.3	-0.9
	baz=95						
VRF				smax	smax	12 08 33.0	
	comp=Z,0.9nm,0.2s						
VRF				SN	Sn	12 08 36.0	-0.2
OLKF	**Oulanka, Finla**	2.18	233	PG	Pn	12 08 24.9	+1.4
OLKF				smax	smax	12 08 50.6	
	comp=Z,0.5nm,0.2s						
OLKF				SG	Sb	12 08 53.5	-0.3
RAJF	**Raja-Jooseppi**	2.18	294	PB	Pn	12 08 23.7	+0.2
RNF	**Rovaniemi**	3.19	254	SN	Sn	12 09 16.7	+0.5
RANF	**Ranua**	3.21	242	SB	Sb	12 09 20.4	-3.0
KEV	**Kevo**	3.21	313	PN	Pn	12 08 37.7	0.0
KEV				SN	Sn	12 09 16.8	+0.2
ARA0	**ARCESS Array S**	3.54	305	PN	Pn	12 08 41.7	-0.5
ARA0				SN	Sn	12 09 21.2	-3.5

KOLA 29 12:08:24.6, 67°.66N×33°.80E, h0^{km}**, ML1.4, Error ellipse: s-maj=3.4km s-min=1.7km az=130.0, Khibiny, mines Kirovsk, Yukspor, Baltic States-Belarus-Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
APA	**Apatity**	0.18	239	P	Pg	12 08 27.9	-0.1
APA				S	Sg	12 08 30.3	+0.1
APA0	**Apatity Array**	0.31	260	P	Pg	12 08 30.3	-0.3
APA0				S	Sg	12 08 34.2	-0.4
LVZ	**Lovozero**	0.40	53	P	Pg	12 08 31.8	-0.5
LVZ				S	Sg	12 08 37.1	-0.3
KVDA	**Kovda**	1.04	201	S	Sg	12 08 56.7	-1.2
TERR	**Teriberka**	1.62	17	S	Sn	12 09 14.7	-1.2
ARCES	**ARCESS Array B**	3.58	306	P	Pn	12 09 21.2	0.0
ARCES				S	Sn	12 10 02.0	-2.1

*NOU **29** 12:11:39.1, 21°.23S×116°.78E, h0^{km}, mb4.6/22, Western Australia*
*NEIC **29** 12:11:40.8±1.7, 21°.2S±0°.1×117°.29E±0°.07, h10^{km}±1^{km}, mb4.5/12, Error ellipse: s-maj=18.6km s-min=10.0km az=340.0*
*IDC **29** 12:11:42.0±0.7, 21°.20S×117°.08E, h0^{km}, mb4.1/10, mbtmp4.2/14, ML4.7/3, MS2.9/3, Error ellipse: s-maj=14.9km s-min=11.8km az=59.0*
*AUST **29** 12:11:44.2±0.3, 21°S±3°×11°7E±°, h10^{km}, mb4.7/27, ML4.0/16, Error ellipse: s-maj=7.4km s-min=4.2km az=128.3, confirmed*
ISC 29 12:11:41.6±0.5, **21°.30S**±0°.04×**117°.25E**±0°.04, **h10**^{km}**, n159,** σ**2**^{s}**.46**/178, **mb4.4**/17, **Western Australia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MBWA	**Marble Bar**	2.32	87	P	**Pb**	**12 12 23.7**	**+0.2**
MBWA				S	**Sg**	**12 13 00.3**	**+4.1**
MBWA				AML	AML		
MBWA	**Marble Bar**	2.32	87	P	**Pb**	**12 12 23.4**	**-0.1**
MBWA				AML	AML		
MBWA	**Marble Bar**	2.32	87	P	**Pb**	**12 12 24.9**	**+1.4**
MBWA	**Marble Bar**	2.32	87	S	**Sg**	**12 12 59.5**	**+3.3**
MBWA	**Marble Bar**	2.32	87	Pn	**Pn**	**12 12 16.9**	**-3.0**
GIRL	**Giralia**	3.10	244	P	**Pn**	**12 12 30.1**	**-0.5**
GIRL				S	**Sn**	**12 13 08.0**	**+0.2**
GIRL				AML	AML		
GIRL	**Giralia**	3.10	244	P	**Pn**	**12 12 30.1**	**-0.5**
GIRL				S	**Sn**	**12 13 09.4**	**+1.6**
GIRL				AML	AML		
GIRL	**Giralia**	3.10	244	Pn	**Pn**	**12 12 30.0**	**-0.7**
CVQOZ	**Cooralya Stati**	4.29	222	P	**Pn**	**12 12 48.5**	**+1.6**
CVQOZ				S	**Sn**	**12 13 37.4**	**+0.4**
CVQOZ				AML	AML		
CVQOZ	**Cooralya Stati**	4.29	222	P	**Pn**	**12 12 47.0**	**+0.1**
CVQOZ				S	**Sn**	**12 13 37.0**	**0.0**
CVQOZ				AML	AML		
CAAN	**Eighty Mile Be**	4.48	64	P	Pn	12 12 54.6	+4.9
CAAN				S	**Sn**	**12 13 45.0**	**+3.1**
CAAN				AML	AML		
CAAN	**Eighty Mile Be**	4.48	64	P	**Pn**	**12 12 52.7**	**+3.0**
CAAN				S	**Sn**	**12 13 45.1**	**+3.2**
CAAN				AML	AML		
MEEK	**Meekatharra**	5.46	167	P	**Pn**	**12 13 07.0**	**+3.9**
	comp=Z,119nm,0.6s,comp=Z,0.9nm						
MEEK				S	**Sn**	**12 14 09.3**	**+3.3**
MEEK				AML	AML		
MEEK	**Meekatharra**	5.46	167	P	**Pn**	**12 13 06.8**	**+3.8**
	comp=Z,119nm,0.6s,comp=Z,1.0nm						
MEEK				AML	AML		
MEEK	**Meekatharra**	5.46	167	P	**Pn**	**12 13 06.7**	**+3.6**
MEEK				S	**Sn**	**12 14 08.0**	**+2.0**

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
MEEK				AML	AML		
MEEK	Meekatharra	5.46	167	S	Sn	12 14 10.3	+4.3
MEEK	Meekatharra	5.46	167	P	Pn	12 13 05.9	+2.8
AUBRM	Broome Senior	5.75	56	P	Pn	12 13 11.0	+3.9
	comp=Z,250nm,1.3s,comp=Z,1.5nm						
AUBRM				S	Sn	12 14 13.9	+0.7
AUBRM				AML	AML		
AUBRM	Broome Senior	5.75	56	P	Pn	12 13 10.7	+3.6
	comp=Z,212nm,1.0s,comp=Z,1.5nm						
AUBRM				S	Sn	12 14 14.0	+0.8
AUBRM				AML	AML		
MORW	Morawa	7.81	188	P	Pn	12 13 36.9	+1.5
	comp=Z,38nm,0.7s,comp=Z,0.5nm						
MORW				S	Sn	12 15 01.6	-2.3
MORW				AML	AML		
MORW	Morawa	7.81	188	P	Pn	12 13 36.5	+1.1
	comp=Z,38nm,0.7s,comp=Z,0.5nm						
MORW				S	Sn	12 15 04.9	+1.0
MORW				AML	AML		
MORW	Morawa	7.81	188	P	Pn	12 13 36.0	+0.6
MORW	Morawa	7.81	188	S	Sn	12 15 04.3	+0.4
MORW	Morawa	7.81	188		Pn	12 13 36.7	+1.3
FITZ	Fitzroy Crossi	8.52	69	P	Pn	12 13 46.1	+1.0
	comp=Z,10nm,0.7s						
FITZ				S	Sn	12 15 18.7	-2.7
FITZ	Fitzroy Crossi	8.52	69	S	Sn	12 15 18.8	-2.6
FITZ	Fitzroy Crossi	8.52	69	P	Pn	12 13 46.3	+1.2
	comp=Z,10nm,0.7s						
FITZ	Fitzroy Crossi	8.52	69	Pn	Pn	12 13 45.8	+0.7
	comp=Z,8.6nm,0.3s,baz=242,slow=9.9,SNR=110						
FITZ				Sn	Sn	12 15 16.5	-4.9
	comp=Z,3.7nm,0.3s,baz=251,slow=9.6,SNR=4.0						
FITZ				LR	LR	12 16 14.7	
	comp=Z,30nm,21.9s,baz=344,slow=32						
	comp=Z,33nm,0.4s						
FITZ				AML	AML		
FITZ	Fitzroy Crossi	8.52	69	P	Pn	12 13 48.2	+3.1
FITZ	Fitzroy Crossi	8.52	69		Pn	12 13 44.5	-0.6
BCON	Beacon, Wester	9.01	177	P	Pn	12 13 53.3	+1.4
	comp=Z,25nm,1.2s,comp=Z,0.2nm						
BCON				S	Sn	12 15 31.2	-2.3
BCON				AML	AML		
BCON	Beacon, Wester	9.01	177	P	Pn	12 13 53.1	+1.3
	comp=Z,25nm,1.2s,comp=Z,0.2nm						
BCON				S	Sn	12 15 30.8	-2.6
BCON				AML	AML		
BLDU	Ballidu	9.29	183	P	Pn	12 13 56.4	+0.7
	comp=Z,27nm,2.0s,comp=Z,0.1nm						
BLDU				S	Sn	12 15 39.7	-0.6
BLDU				AML	AML		
BLDU	Ballidu	9.29	183	P	Pn	12 13 56.4	+0.7
BLDU	Ballidu	9.29	183	S	Sn	12 15 40.4	+0.2
WATNG	Wattoning, WA	9.43	175	P	Pn	12 13 59.1	+1.5
	comp=Z,47nm,1.2s,comp=Z,0.2nm						
WATNG				S	Sn	12 15 41.3	-2.5
WATNG				AML	AML		
KORDA	Koorda, Wester	9.54	179	P	Pn	12 14 00.1	+1.0
	comp=Z,23nm,0.6s,comp=Z,0.2nm						
KORDA				S	Sn	12 15 44.8	-1.6
KORDA				AML	AML		
KANBL	Kanowna Belle,	10.05	158	P	Pn	12 14 07.3	+1.3
	comp=Z,33nm,0.9s,comp=Z,0.1nm						
KANBL				S	Sn	12 15 54.8	-4.1
KANBL				AML	AML		
KANBL	Kanowna Belle,	10.05	158	S	Sn	12 15 55.7	-3.2
KANBL	Kanowna Belle,	10.05	158	P	Pn	12 14 07.2	+1.1
KANBL				AML	AML		
KLBR	Kellerberrin	10.26	178	P	Pn	12 14 09.9	+0.9
	comp=Z,54nm,0.5s,comp=Z,0.3nm						
KLBR				AML	AML		
KLBR	Kellerberrin	10.26	178	P	Pn	12 14 09.9	+0.9
	comp=Z,54nm,0.5s,comp=Z,0.3nm						
KLBR				S	Sn	12 16 01.7	-2.3
KLBR				AML	AML		
KLBR	Kellerberrin	10.26	178	P	Pn	12 14 09.7	+0.7
KLBR				AML	AML		
KLBR	Kellerberrin	10.26	178	P	Pn	12 14 09.6	+0.7
KLBR	Kellerberrin	10.26	178	S	Sn	12 16 05.3	+1.2
MUN	Mundaring	10.68	185	P	Pn	12 14 14.8	+0.1
	comp=Z,28nm,1.5s,comp=Z,0.1nm						
MUN				AML	AML		
MUN	Mundaring	10.68	185	P	Pn	12 14 14.9	+0.3
	comp=Z,28nm,1.5s,comp=Z,0.1nm						
MUN				S	Sn	12 16 12.2	-2.0
MUN				AML	AML		
MUN	Mundaring	10.68	185	P	Pn	12 14 14.8	+0.1
MUN				AML	AML		
MUN	Mundaring	10.68	185	P	Pn	12 14 14.5	-0.2
MUN	Mundaring	10.68	185	S	Sn	12 16 13.7	-0.6
WRKA	Warakurna	10.82	112	P	Pn	12 14 19.7	+3.0
	comp=Z,10nm,1.0s,comp=Z,0.0nm						
WRKA				AML	AML		
WRKA	Warakurna	10.82	112	P	Pn	12 14 20.1	+3.3
	comp=Z,10nm,1.0s,comp=Z,0.0nm						
WRKA				S	Sn	12 16 17.6	-0.4
WRKA				AML	AML		
WRKA	Warakurna	10.82	112	P	Pn	12 14 20.0	+3.3
	comp=Z,10nm,1.0s,comp=Z,0.0nm						
WRKA				AML	AML		
KMBL	Kambalda	10.85	158	P	Pn	12 14 17.9	+0.9
	comp=Z,9.5nm,1.2s,comp=Z,0.1nm						
KMBL				AML	AML		
KMBL	Kambalda	10.85	158	P	Pn	12 14 18.0	+0.9
	comp=Z,9.5nm,1.2s,comp=Z,0.1nm						
KMBL				S	Sn	12 16 16.6	-2.0
KMBL				AML	AML		
KMBL	Kambalda	10.85	158	P	Pn	12 14 17.9	+0.9
	comp=Z,9.5nm,1.2s,comp=Z,0.1nm						
KMBL				AML	AML		
NWAO	Narrogin (SRO)	11.58	180	P	Pn	12 14 26.3	-0.7
	comp=Z,68nm,1.0s						
NWAO	Narrogin (SRO)	11.58	180	P	Pn	12 14 26.8	-0.2
	comp=Z,42nm,1.0s						
NWAO				S	Sn	12 16 31.4	-5.1
NWAO	Narrogin (SRO)	11.58	180	P	Pn	12 14 26.8	-0.2
	comp=Z,68nm,1.0s						
NWAO	Narrogin (SRO)	11.58	180	P	Pn	12 14 26.4	-0.7
NWAO	Narrogin (SRO)	11.58	180	Pn	Pn	12 14 26.2	-0.9
	comp=Z,10nm,0.4s,baz=359,slow=12,SNR=19						
NWAO				Sn	Sn	12 16 29.1	-7.4
	comp=Z,5.7nm,0.3s,baz=64,slow=23,SNR=3.5						
NWAO	Narrogin (SRO)	11.58	180	P	Pn	12 14 27.3	+0.3
NWAO	Narrogin (SRO)	11.58	180	P	Pn	12 14 26.4	-0.7
NWAO	Narrogin (SRO)	11.58	180	S	Sn	12 16 37.9	+1.4
NWAO	Narrogin (SRO)	11.58	180	Pn	Pn	12 14 26.5	-0.5
KNRA	Kununurra	12.27	65	P	Pn	12 14 37.0	+0.5
	comp=Z,15nm,0.4s						
KNRA	Kununurra	12.27	65	P	Pn	12 14 37.1	+0.6
	comp=Z,15nm,0.4s						
KNRA				S	Sn	12 16 49.2	-4.2
KNRA	Kununurra	12.27	65	P	Pn	12 14 37.0	+0.5
	comp=Z,15nm,0.4s						
KNRA	Kununurra	12.27	65		Pn	12 14 34.2	-2.3
PLAI	Plampang	12.41	2	P	Pn	12 14 34.4	-4.1
	comp=Z,22nm,0.7s						
PLAI				S	Sn	12 16 39.1	-18
PLAI	Plampang	12.41	2	P	Pn	12 14 34.2	-4.3
PLAI	Plampang	12.41	2	P	Pn	12 14 35.6	-2.9
ONGER	Ongerup, WA	12.56	176	P	Pn	12 14 39.9	-0.5
	comp=Z,53nm,1.2s						
ONGER	Ongerup, WA	12.56	176	P	Pn	12 14 39.9	-0.5
	comp=Z,53nm,1.2s						
ONGER				S	Sn	12 16 54.5	-5.8
ONGER	Ongerup, WA	12.56	176	P	Pn	12 14 39.7	-0.7
DNDOZ	Balladonia	12.58	153	P	Pn	12 14 40.6	-0.2
	comp=Z,149nm,0.6s						
DNDOZ	Balladonia	12.58	153	P	Pn	12 14 41.1	+0.4
	comp=Z,148nm,0.6s						
DNDOZ				S	Sn	12 16 55.6	-5.3
DNDOZ	Balladonia	12.58	153	P	Pn	12 14 40.9	+0.2
	comp=Z,148nm,0.6s						
JAGI	Jajag, Banyuwa	13.10	346	P	Pn	12 14 42.0	-5.9
	comp=Z,23nm,1.1s						
JAGI				S	Sn	12 16 54.9	-19
JAGI	Jajag, Banyuwa	13.10	346	P	Pn	12 14 44.0	-3.9
JAGI	Jajag, Banyuwa	13.10	346	Pn	Pn	12 14 41.1	-6.8
RKGY	Rocky Gully	13.26	181	P	Pn	12 14 49.1	-0.8
	comp=Z,21nm,1.3s						
RKGY	Rocky Gully	13.26	181	P	Pn	12 14 49.4	-0.6
	comp=Z,21nm,1.3s						
RKGY				S	Sn	12 17 13.2	-4.3
RKGY	Rocky Gully	13.26	181	P	Pn	12 14 49.2	-0.8
FORT	Forrest	13.54	136	P	Pn	12 14 54.1	+0.3
	comp=Z,20nm,0.6s						
FORT	Forrest	13.54	136	P	Pn	12 14 54.6	+0.8
	comp=Z,20nm,0.6s						
FORT				S	Sn	12 17 20.7	-3.6
FORT	Forrest	13.54	136	P	Pn	12 14 54.5	+0.8
	comp=Z,20nm,0.6s						
FORT	Forrest	13.54	136		Pn	12 14 52.7	-1.1
UGM	Wanagama	14.81	333	P	Pn	12 15 06.4	-4.9
	comp=Z,136nm,1.6s						
AUALC	St Philip's Co	15.56	102	P	P	12 15 26.0	+0.5
	comp=Z,18nm,0.6s						
ASAR	Alice Springs	15.57	102	Pn	Pn	12 15 21.8	+0.4
	comp=Z,3.8nm,0.3s,baz=284,slow=12,SNR=132						
ASAR				Sn	Sn	12 18 07.2	-6.9
	comp=Z,1.9nm,0.3s,baz=271,slow=24,SNR=12						
	comp=Z,6.4nm,0.3s						
ASAR				AML	AML		
ASAR	Alice Springs	15.57	102	Pn	Pn	12 15 20.7	-0.7
AS31	Alice Springs	15.57	102	Pn	Pn	12 15 19.5	-1.9
AS18	Alice Springs	15.64	102	P	Pn	12 15 23.0	+0.7
	comp=Z,20nm,0.6s						
AS18	Alice Springs	15.64	102	P	Pn	12 15 22.6	+0.3
	comp=Z,20nm,0.6s						
DPH	Darwin Parliam	15.69	58	P	Pn	12 15 23.1	+0.3
	comp=Z,17nm,0.5s						
MTN	Manton Dam	15.70	60	P	Pn	12 15 22.2	-0.8
MTN	Manton Dam	15.70	60	P	Pn	12 15 23.1	0.0
MTN	Manton Dam	15.70	60	P	Pn	12 15 22.9	-0.2
MTN	Manton Dam	15.70	60	Pn	Pn	12 15 20.5	-2.5
DRS	Darwin Rock St	15.75	58	P	Pn	12 15 25.7	+2.0
	comp=Z,21nm,0.6s						
DRS	Darwin Rock St	15.75	58	P	P	12 15 26.6	-1.0
	comp=Z,21nm,0.6s						
DRS	Darwin Rock St	15.75	58	P	Pn	12 15 26.3	+2.6
AUKAT	Katherine High	15.83	67	P	Pn	12 15 27.0	+2.3
	comp=Z,16nm,0.5s						
WRA	Warramunga Arr	16.06	88	Pn	Pn	12 15 26.1	-1.5
	comp=Z,2.1nm,0.3s,baz=266,slow=15,SNR=115						
WRA				Sn	Sn	12 18 15.8	-10
	comp=Z,1.8nm,0.3s,baz=259,slow=25,SNR=9.0						
	comp=Z,3.8nm,0.3s						
WRA				AML	AML		
WRA	Warramunga Arr	16.06	88	Pn	Pn	12 15 26.1	-1.5
WB2	Warramunga Arr	16.07	88	P	Pn	12 15 26.9	-0.9
WB2	Warramunga Arr	16.07	88	P	Pn	12 15 26.7	-1.1
WRAB	Tennant Creek	16.07	88	P	Pn	12 15 27.6	-0.1
	comp=Z,12nm,0.7s						
WRAB	Tennant Creek	16.07	88	S	Pn	12 15 27.0	-0.8
	comp=Z,12nm,0.7s						
WRAB	Tennant Creek	16.07	88		Pn	12 15 26.8	-1.0
WB0	Warramunga Arr	16.13	88	Pn	Pn	12 15 26.7	-2.0
WB0				IAmb	IAmb	12 15 32.4	
	comp=Z,14nm,0.5s						
WR8	Warramunga Arr	16.20	88		Pn	12 15 28.1	-1.4
WR8				IAmb	IAmb	12 15 31.7	
	comp=Z,25nm,0.5s						
KAPI	Kappang	16.37	9	LR	LR	12 21 21.2	
	comp=Z,48nm,20.6s,baz=172,slow=36						
KDU	Kakadu	16.88	62	P	P	12 15 40.4	+0.2
	comp=Z,7.0nm,1.7s						
KDU	Kakadu	16.88	62	P	Pn	12 15 39.3	+1.2
	comp=Z,6.9nm,1.7s						
KDU	Kakadu	16.88	62	P	Pn	12 15 39.0	+0.9
MULG	Mulgathing	17.56	124	P	Pn	12 15 46.7	+0.1
	comp=Z,6.1nm,2.3s,comp=Z,0.0nm						
MULG				AML	AML		
MULG	Mulgathing	17.56	124	P	P	12 15 47.5	-0.2
	comp=Z,6.0nm,2.3s						
MULG	Mulgathing	17.56	124	P	Pn	12 15 46.7	+0.1
	comp=Z,6.1nm,2.3s						
BBOO	Buckleboo	20.26	128	P	Pn	12 16 20.4	+1.1
BBOO	Buckleboo	20.26	128	P	P	12 16 17.4	+0.1
BBOO				IAmb	IAmb	12 16 40.1	
	comp=Z,26nm,1.4s						
QIS	Mount Isa	20.89	92	P	Pn	12 16 29.1	+2.4
	comp=Z,13nm,0.6s						
QIS	Mount Isa	20.89	92	P	Pn	12 16 28.6	+1.8
QIS	Mount Isa	20.89	92	P	Pn	12 16 27.6	+0.8
LCRK	Leigh Creek	20.92	120	P	Pn	12 16 27.9	+0.9
	comp=Z,12nm,0.7s						
LCRK	Leigh Creek	20.92	120	P	Pn	12 16 27.6	+0.6
YAPP	Yappala Statio	21.54	124	P	P	12 16 36.3	+5.2
	comp=Z,13nm,0.8s						
NAPP	Napperby	21.98	127	P	P	12 16 40.0	+4.1
INKA	Innaminka	22.30	111	P	P	12 16 44.8	+5.5
	comp=Z,11nm,0.7s						
INKA	Innaminka	22.30	111	P	P	12 16 43.8	+4.5
KELC	Kelly Hill Cav	22.55	135	P	P	12 16 53.0	+11
	comp=Z,17nm,1.2s						
HTT	Hallett	22.67	127	P	P	12 16 44.0	+0.7
	comp=Z,6.8nm,0.8s						
HTT	Hallett	22.67	127	P	P	12 16 47.0	+3.6
	comp=Z,6.8nm,0.8s						
HTT	Hallett	22.67	127	P	P	12 16 46.6	+3.3
HTT	Hallett	22.67	127	P	P	12 16 45.5	+2.2
STKA	Stephens Creek	24.13	121	P	P	12 17 03.0	+5.2
STKA	Stephens Creek	24.13	121	P	P	12 17 01.1	+3.3
STKA	Stephens Creek	24.13	121	P	P	12 17 01.8	+4.0
	comp=Z,7.1nm,0.7s,baz=296,slow=10,SNR=12						
STKA				S	S	12 21 23.1	+7.3
	comp=Z,4.7nm,0.5s,baz=248,slow=20,SNR=3.4						
	comp=Z,7.1nm,0.7s						
ARMA	Armidale	32.14	114	P	P	12 18 07.4	-2.2
ARMA				IAmb	IAmb	12 18 36.9	
	comp=Z,18nm,1.5s						
CMAR	Chiang Mai Arr	43.39	334	P	P	12 19 45.0	+0.4
	comp=Z,0.6nm,0.3s,baz=152,slow=6.7,SNR=5.0						
	comp=Z,0.6nm,0.3s						
OUENC	Ouen Island, N	45.87	101	P	P	12 20 02.1	-2.4
RPZ	Rata Peaks	49.61	130	P	P	12 20 31.8	-1.4
PZH	PanZhiHua	49.84	342	P	P	12 20 33.5	-1.7
NJ2	Nanjing	53.07	2	*e*P	P	12 20 56.5	-2.6
NJ2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
MAW	Mawson	57.20	202	LR	LR	12 41 15.5	
	comp=Z,31nm,21.5s,baz=162,slow=31						
KSRS	Korea Array	59.30	10	P	P	12 21 45.0	+1.4
	comp=Z,1.6nm,0.9s,baz=185,slow=7.6,SNR=6.8						
	comp=Z,1.6nm,0.9s						
VNDA	Vanda	60.20	170	P	P	12 21 51.3	+1.9
	comp=Z,0.5nm,0.7s,baz=316,slow=6.1,SNR=4.9						
	comp=Z,0.5nm,0.7s						
VNDA	Vanda	60.20	170	P	P	12 21 48.4	-1.0
VNDA				IAmb	IAmb	12 21 52.4	
	comp=Z,1.7nm,1.2s						
HHC	Hu-ho-hao-te	62.05	355	*e*P	P	12 22 01.3	-1.1
HHC				pmax	pmax		
	comp=Z,10.0nm,0.7s						
HHC				pmax	pmax		
	comp=Z,47nm,4.6s						
QSPA	South Pole Qui	68.77	180	P	P	12 22 48.3	+2.6
	comp=Z,2.8nm,0.7s,baz=298,slow=1.7,SNR=17						
	comp=Z,2.8nm,0.7s						
QSPA	South Pole Qui	68.77	180	P	P	12 22 46.3	+0.6
QSPA				IAmb	IAmb	12 22 49.0	
	comp=Z,3.8nm,0.8s						
SONM	Songino Array	69.50	352	P	P	12 22 52.3	+2.0
	comp=Z,1.1nm,0.6s,baz=180,slow=4.4,SNR=6.3						
	comp=Z,1.1nm,0.6s						
WMQ	Urumqi	70.25	338	*e*P	P	12 22 52.8	-2.1
WMQ				LR	LR		
	comp=Z,43nm,22.1s						
MKAR	Makanchi Array	74.77	336	P	P	12 23 23.4	+1.6
	comp=Z,0.5nm,0.5s,baz=135,slow=7.2,SNR=5.8						
	comp=Z,0.5nm,0.5s						
MKAR	Makanchi Array	74.77	336	P	P	12 23 20.3	-1.5
KURBB	Kurchatov Arra	79.34	336	P	P	12 23 48.9	+1.5
	comp=Z,0.8nm,0.5s,baz=152,slow=4.7,SNR=8.3						
	comp=Z,0.8nm,0.5s						
ZALV	Zalesovo Beam	79.98	341	P	P	12 23 51.0	+0.2
	comp=Z,0.9nm,0.5s,baz=130,slow=4.8,SNR=4.6						
	comp=Z,0.9nm,0.5s						
AKTO	Aktyubinsk	88.43	327	P	P	12 24 34.3	+0.5
	comp=Z,0.8nm,0.2s,baz=110,slow=3.7,SNR=3.8						
	comp=Z,0.8nm,0.2s						

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*NEIC **29** 12:12:03.6±0.9, 18°.99N±0°.06×65°.03W±0°.09, h35km±2km, ML3.2/30, Md3.6/9(RSPR), Error ellipse: s-maj=14.5km s-min=10.7km az=80.0*

*SDD **29** 12:12:03.3±2.1, 18°.91N×65°.23W, h30km±49km, MD3.4, ML3.1, MW3.2, Presumed earthquake*

*RSPR **29** 12:12:06.7, 18°.89N×65°.13W, h22km±22km, MD3.6/9*

ISC 29 12:12:03.5±3.1**, 18°.9N**±0°.1×**65°.1W**±0°.2**, h22**km±7km**, n41, σ0s.76**/57**, 11C, Puerto Rico region**

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
						h m s	ISC
HUMP	Col San Antoni	1.03	221		Pb	12 12 22.8	0.0
HUMP					Sb	12 12 36.8	+0.9
HUMP				IAML		12 12 38.5	
	574nm,0.2s						
HUMP				IAML		12 12 41.8	
	389nm,0.2s						
HUMP	Col San Antoni	1.03	221	⇑*e*P	Pb	12 12 22.9	+0.2
PDPR	Patillas Dam,	1.24	223		Pb	12 12 25.7	-0.5
PDPR				Sn	Sb	12 12 42.3	+0.6
PDPR				IAML		12 12 47.1	
	286nm,0.2s						
PDPR	Patillas Dam,	1.24	223	⇑*e*P	Pb	12 12 25.7	-0.5
SJG	San Juan	1.26	230		Pn	12 12 25.7	-0.2
SJG				Sn	Sb	12 12 43.0	+0.6
SJG				IAML		12 12 43.3	
	262nm,0.4s						
SJG	San Juan	1.26	230	*i* P	Pn	12 12 25.5	-0.4
SJG				*i* S	Sb	12 12 43.3	+0.9
ECPR	Experimental S	1.31	242	Pn	Pn	12 12 26.4	-0.2
ECPR					Sb	12 12 45.6	+1.8
ECPR				IAML		12 12 57.6	
	601nm,0.2s						
ECPR	Experimental S	1.31	242	⇑*e*P	Pn	12 12 26.7	+0.2
IGPR	InterUniversit	1.33	224		Pb	12 12 27.0	-0.7
IGPR					Sn	12 12 43.1	-0.8
IGPR	InterUniversit	1.33	224	⇑*e*P	Pb	12 12 27.0	-0.7
EMPR	Esperanza - Ma	1.39	251		Pb	12 12 28.4	-0.4
EMPR					Sn	12 12 45.2	-0.2
EMPR	Esperanza - Ma	1.39	251	⇑*e*P	Pb	12 12 28.4	-0.4
EMPR				*e*S	Sn	12 12 45.2	-0.2
CELP	Cerrillos	1.61	238		Pn	12 12 31.1	+0.4
CELP				Sn	Sb	12 12 51.6	-0.9
CELP				IAML		12 12 54.5	
	169nm,0.3s						
CELP				IAML		12 12 54.7	
	265nm,0.3s						
CELP	Cerrillos	1.61	238	⇑*e*P	Pn	12 12 31.3	+0.6
CELP	Cerrillos	1.61	238	*i* P	Pn	12 12 31.2	+0.6
CELP				*i* S	Sb	12 12 52.1	-0.4
CELP				IAML		12 12 54.6	
	comp=N,96nm,0.3s						
AOPR	Arecibo Observ	1.64	249		Pn	12 12 31.3	+0.3
AOPR				IAML		12 13 03.4	
	comp=N,425nm,0.3s						
AOPR	Arecibo Observ	1.64	249	⇑*e*P	Pn	12 12 31.4	+0.3
AOPR	Arecibo Observ	1.64	249	*i* P	Pn	12 12 31.4	+0.3
AOPR				*i* S	Sb	12 12 54.5	+1.2
AOPR				IAML		12 12 59.0	
	comp=N,352nm,0.3s						
GBPR	Guanica, Bosqu	1.91	240		Pb	12 12 36.4	-1.3
GBPR	Guanica, Bosqu	1.91	240	⇑*e*P	Pb	12 12 36.4	-1.3
AGPR	Aguadilla, PR	1.93	256		Pn	12 12 35.2	+0.2
AGPR					Sn	12 12 59.3	+0.7
AGPR	Aguadilla, PR	1.93	256	IAML		12 13 03.4	
	comp=N,148nm,0.4s						
AGPR				IAML		12 13 12.4	
	comp=N,115nm,0.5s						
AGPR	Aguadilla, PR	1.93	256	⇑*e*P	Pn	12 12 35.2	+0.2
AGPR	Aguadilla, PR	1.93	256	*i* P	Pn	12 12 35.3	+0.2
AGPR				*i* S	Sn	12 12 59.3	+0.7
AGPR				IAML		12 13 12.3	
	comp=N,82nm,0.7s						
LSP	Las Mesas	1.99	248		Pn	12 12 36.8	+0.8
LSP					Sn	12 12 59.7	-0.6
LSP	Las Mesas	1.99	248	⇑*e*P	Pn	12 12 36.8	+0.8
LSP				*e*S	Sn	12 12 59.7	-0.6
PRSN	Puerto Rico Se	2.03	250	Pn	Pn	12 12 36.9	+0.4
PRSN	Puerto Rico Se	2.03	250	*i* P	Pn	12 12 36.7	+0.2
PRSN				*i* S	Sn	12 13 00.9	-0.3
PRSN				IAML		12 13 06.9	
	comp=N,330nm,0.3s						
MLPR	Magueyes Islan	2.04	242		Sn	12 13 01.7	+0.2
MLPR	Magueyes Islan	2.04	242	Pn	Pn	12 12 37.6	+0.9
MLPR	Magueyes Islan	2.04	242	IAML		12 13 06.4	
	comp=N,75nm,0.9s						
MLPR				IAML		12 13 08.5	
	comp=N,100nm,0.5s						
MLPR	Magueyes Islan	2.04	242	⇑*i*P	Pn	12 12 37.7	+1.0
MLPR	Magueyes Islan	2.04	242	*i* P	Pn	12 12 37.7	+1.0
MLPR				IAML		12 13 26.3	
	comp=N,13nm,0.3s						
CRPR	Cabo Rojo, PR	2.08	244		Pn	12 12 38.1	+0.9
CRPR					Sn	12 13 02.3	-0.2
CRPR	Cabo Rojo, PR	2.08	244	⇑*e*P	Pn	12 12 38.1	+0.9
CRPR	Cabo Rojo, PR	2.08	244	*i* P	Pn	12 12 38.1	+0.9
CRPR				*i* S	Sb	12 13 04.7	-1.4
CRPR				IAML		12 13 17.3	
	comp=N,83nm,0.4s						
HIDR	Higuey Centro	3.41	265	*i* P	Pn	12 12 57.3	+1.9
HIDR				IAML		12 14 06.2	
	comp=N,40nm,0.2s						
SADR	Isla Saona	3.53	259	*i* P	Pn	12 12 57.3	+0.2
SADR				IAML		12 14 46.1	
	comp=N,159nm,2.4s						
DR12	Loma Pena Alta	4.02	269	Pn	Pn	12 13 04.2	+0.3
HATOM	Hato Mayor del	4.02	269	*i* P	Pn	12 13 04.8	+0.9
HATOM				IAML		12 14 39.3	
	comp=N,19nm,1.7s						
DR08	Loma La Naviza	4.62	271	*i* P	Pn	12 13 11.4	-0.8
DR08				IAML		12 15 20.0	
	comp=N,170nm,0.2s						

IDC 29 12:23:02.0±3.1**, 14°.74S**×**169°.41E, h0**km**, mb4.2**/4**, mbtmp4.2**/5**, ML5.3**/1**, MS3.3**/2**, Error ellipse: s-maj=112.8km s-min=20.4km az=6.0, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
						h m s	ISC
MSVF	Nonsavu	8.82	111	Pn	Pn	12 25 12.3	+1.4
	1.2nm,0.3s,baz=280,slow=16,SNR=11						
	8.2nm,0.6s						
MSVF				AML	AML		
RPZ	Rata Peaks	28.91	178	LR	LR	12 40 00.9	
	comp=Z,15nm,19.2s,baz=50,slow=35						
STKA	Stephens Creek	30.58	231	P	P	12 29 17.2	-0.5
	1.7nm,0.4s,baz=58,slow=9.7,SNR=5.8						
	1.7nm,0.4s						
WRA	Warramunga Arr	33.83	256	P	P	12 29 47.5	+1.1
	1.4nm,0.6s,baz=87,slow=8.9,SNR=17						
	1.4nm,0.6s						
ASAR	Alice Springs	34.61	250	P	P	12 29 53.5	+0.3
	1.9nm,0.5s,baz=80,slow=9.3,SNR=69						
	1.9nm,0.5s						
FITZ	Fitzroy Crossi	42.05	259	P	P	12 30 54.5	-1.3
	1.9nm,0.5s,baz=89,slow=8.9,SNR=15						
	1.9nm,0.5s						
ZALV	Zalesovo Beam	98.63	323	LR	LR	13 20 47.9	
	comp=Z,49nm,19.5s,baz=177,slow=35						

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*HEL **29** 12:30:20.8±0.1, 67°.42N×23°.36E, h0km, ML1.4, Explosion*

*IDC **29** 12:30:40.0±2.2, 67°.46N×23°.76E, h0km, mbtmp2.4/2, ML1.8/2, Error ellipse: s-maj=37.0km s-min=15.7km az=97.0*

ISC 29 12:30:18.7±0.8**, 67°.48N**±0°.02×**23°.54E**±0°.03**, h0**km**, n25, σ1s.36**/35**, 1C, Sweden**

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
						h m s	ISC
KLF	Kolari	0.30	146	PG	Pb	12 30 26.0	-1.0
KLF				SG	Sg	12 30 29.4	+1.2
KLF				smax	smax	12 30 31.2	
	comp=Z,11nm,0.2s						
PAJU	Pajala	0.49	200	PG	Pg	12 30 28.0	-0.1
PAJU				SG	Sg	12 30 34.2	-0.2
LANU	Lannavaara	0.82	315	PG	Pb	12 30 35.2	-0.6
LANU				SB	Sb	12 30 47.4	0.0
HEF	Hetta	0.93	3	*e*P	Pn	12 30 38.8	-0.3
HEF	Hetta	0.93	3	PG	Pn	12 30 38.8	-0.3
HEF				SG	Sg	12 30 48.2	-0.5
HEF				smax	smax	12 30 51.4	
	comp=Z,3.5nm,0.2s						
ERTU	Ertsjaerv	1.07	210	PG	Pg	12 30 38.2	-1.0
ERTU				SB	Sg	12 30 52.2	-0.9
RNF	Rovaniemi	1.31	131	PG	Pn	12 30 44.4	+0.2
RNF				SG	Sn	12 31 02.3	0.0
TOF	Tornio	1.44	167	PG	Pb	12 30 46.3	-0.1
TOF				smax	smax	12 31 03.0	
	comp=Z,1.7nm,0.2s						
TOF				SG	Sg	12 31 04.2	-0.8
KTK1	Kautokeino	1.54	356	PG	Pg	12 30 49.3	+1.1

KTK1				SG	**Sn**	**12 31 07.5**	**-0.7**
SALU	**Saltoluokta**	**1.94**	**269**	*e*P	**Pb**	**12 30 54.0**	**-1.0**
RANF	**Ranua**	**1.96**	**137**	PG	**Pg**	**12 30 55.7**	**-0.5**
	baz=315						
RANF				SG	**Sg**	**12 31 21.8**	**+0.2**
RAJF	**Raja-Jooseppi**	**2.06**	**59**	PN	**Pg**	**12 30 57.8**	**-0.3**
RAJF				SG	**Sg**	**12 31 27.8**	**+3.1**
ARA0	**ARCESS Array S**	**2.19**	**18**	PB	**Pb**	**12 30 59.4**	**+0.3**
ARA0				SB	**Sg**	**12 31 28.6**	**-0.3**
ARCES	**ARCESS Array B**	**2.19**	**18**	Pn	Pg	12 31 17.3	+17
	comp=Z,0.2nm,0.3s,baz=194,slow=16,SNR=7.8						
ARCES				Lg	Lg	12 31 47.0	
	comp=Z,0.7nm,0.3s,baz=200,slow=27,SNR=11						
	comp=Z,0.4nm,0.3s						
ARCES				AML	AML		
VRF	**Varrio**	**2.34**	**81**	PN	**Pg**	**12 31 02.6**	**-0.9**
VRF				smax	smax	12 31 32.1	
	comp=Z,2.2nm,0.2s						
VRF				SB	**Sg**	**12 31 34.4**	**+0.7**
I37NO	**I37NO**	**2.43**	**313**	I	I	12 47 50.0	
	baz=127,slow=322,SNR=3.6						
KU2	**Taivalkoski**	**2.58**	**131**	PB	**Pb**	**12 31 06.1**	**+0.2**
OLKF	**Oulanka, Finla**	**2.59**	**114**	PB	**Pb**	**12 31 05.7**	**-0.3**
OLKF				smax	smax	12 31 38.3	
	comp=Z,1.2nm,0.2s						
KEV	**Kevo**	**2.61**	**27**	PN	**Pb**	**12 31 05.9**	**-0.5**
MSF	**Maaselka**	**2.70**	**123**	SG	**Sg**	**12 31 44.0**	**-1.2**
KU6	**Riekki**	**2.91**	**117**	PN	**Pb**	**12 31 09.5**	**-2.0**
	baz=300						
KU6				smax	smax	12 31 47.3	
	comp=Z,0.9nm,0.2s						
KU6				SG	**Sg**	**12 31 50.8**	**-1.4**
KU1	**Kurvinen**	**3.08**	**126**	PN	**Pb**	**12 31 11.5**	**-2.9**
	baz=306						
OUF	**Merijarvi**	**3.17**	**171**	SB	**Sn**	**12 31 50.8**	**+2.6**
OUF				smax	smax	12 31 52.5	
	comp=Z,0.8nm,0.2s						
FINES	**FINESS Array B**	**6.16**	**169**	Pn	**Pb**	**12 32 10.8**	**+4.1**
	comp=Z,0.1nm,0.3s,baz=348,slow=13,SNR=3.5						
	comp=Z,0.5nm,0.5s						
FINES				AML	AML		
BLKB	**Belogradchik**	**23.92**	**182**	⇑S	S	12 39 37.7	-13

TAP ***29*** *12:47:23.4, 22°.41N×121°.00E, h12^{km}, ML3.8, B*

ISC 29 12:47:23.2±0.8**, 22°.40N**±0°.02×**121°.04E**±0°.02**, h11**^{km}±6^{km}**, n141,** σ**1^s.16**/206**, 10C-8D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TAW	**Tawu**	**0.14**	**254**	*i* P	**Pg**	**12 47 26.7**	**+0.2**
TAW				S	**Sg**	**12 47 29.0**	**+0.1**
TAWH	**Dawu Township**	**0.15**	**249**	⇑*i*P	**Pg**	**12 47 27.0**	**+0.2**
TAWH				S	**Sg**	**12 47 29.6**	**+0.3**
EAST	**Anshuo**	**0.18**	**266**	⇓*i*P	**Pg**	**12 47 27.3**	**0.0**
EAST				*i* S	**Sg**	**12 47 30.0**	**0.0**
ECL	**Taimali**	**0.22**	**338**	⇓*i*P	**Pg**	**12 47 27.8**	**0.0**
ECL				S	**Sg**	**12 47 31.2**	**+0.3**
SLIU	**Shizi**	**0.29**	**232**	⇑*e*P	**Pg**	**12 47 29.3**	**+0.2**
SLIU				*e*S	**Sg**	**12 47 33.3**	**+0.2**
TTN	**Taitung**	**0.37**	**15**	⇑*i*P	**Pb**	**12 47 32.1**	**+0.3**
TTN				*e*S	**Sb**	**12 47 39.6**	**+2.0**
SCZT	**Fangliau**	**0.39**	**267**	⇓*i*P	**Pg**	**12 47 30.9**	**-0.2**
SCZT				*i* S	**Sb**	**12 47 36.1**	**-2.1**
SMST	**Manzhou Townsh**	**0.42**	**207**	P	**Pb**	**12 47 32.2**	**-0.4**
SMST				*e*S	**Sb**	**12 47 38.6**	**-0.4**
TWGBT	**Beinan**	**0.42**	**5**	P	**Pg**	**12 47 31.5**	**-0.1**
TWGBT	**Beinan**	**0.42**	**5**	S	**Sb**	**12 47 39.0**	**-0.1**
TWGBT	**Beinan**	**0.42**	**5**	⇑*i*P	**Pg**	**12 47 31.6**	**+0.1**
TWGBT				*i* S	**Sb**	**12 47 38.0**	**-1.1**
TWG	**Pinlang**	**0.42**	**4**	⇑*i*P	**Pg**	**12 47 31.7**	**0.0**
TWG				*i* S	**Sb**	**12 47 38.2**	**-1.0**
MASBT	**Mashibuluo**	**0.44**	**300**	⇓*i*P	**Pg**	**12 47 31.6**	**-0.3**
MASBT				*i* S	**Sg**	**12 47 36.9**	**-0.7**
SSPT	**Xinbi**	**0.45**	**281**	⇓*e*P	**Pb**	**12 47 32.5**	**-0.6**
SSPT				*e*S	**Sb**	**12 47 39.5**	**-0.3**
HEN	**Hengchun**	**0.48**	**216**	⇑*i*P	**Pb**	**12 47 33.5**	**-0.2**
HEN				*i* S	**Sb**	**12 47 41.0**	**+0.2**
TSMG	**Majia**	**0.48**	**310**	⇓*i*P	**Pg**	**12 47 32.4**	**-0.3**
TSMG				*i* S	**Sg**	**12 47 38.4**	**-0.6**
LDUT	**Ludao**	**0.48**	**55**	⇓P	**Pb**	**12 47 33.9**	**+0.1**
LDUT				*e*S	**Sb**	**12 47 42.3**	**+1.5**
TWK1	**Hengchun**	**0.50**	**206**	⇑P	**Pb**	**12 47 33.9**	**-0.2**
TWK1				*i* S	**Sb**	**12 47 42.0**	**+0.7**
TWKBT	**Hengchun**	**0.50**	**205**	⇑*i*P	**Pb**	**12 47 33.8**	**-0.2**
TWKBT				*e*S	**Sb**	**12 47 42.4**	**+1.0**
TSEB	**Hengchuen, Pin**	**0.51**	**195**	*i* P	**Pb**	**12 47 34.6**	**+0.4**
TSEB				S	**Sb**	**12 47 43.1**	**+1.5**
SNW	**Nanwan**	**0.51**	**212**	P	**Pb**	**12 47 34.9**	**+0.7**
SNW				S	**Sn**	**12 47 43.5**	**-1.7**
LONT	**Longtian**	**0.52**	**9**	⇑*i*P	**Pg**	**12 47 33.1**	**-0.2**
LONT				*e*S	**Sg**	**12 47 40.3**	**+0.2**
SSD	**Sandimen**	**0.52**	**313**	⇓*i*P	**Pg**	**12 47 32.9**	**-0.4**
SSD				S	**Sg**	**12 47 39.2**	**-0.9**
TSPT	**Pingtung City**	**0.58**	**299**	P	**Pb**	**12 47 35.6**	**+0.3**
TSPT				S	**Sn**	**12 47 44.6**	**-2.2**
LAY	**Lan-yu**	**0.59**	**127**	*e*P	**Pg**	**12 47 34.8**	**+0.1**
SGLT	**Jiouru**	**0.61**	**303**	*e*P	**Pb**	**12 47 35.7**	**-0.2**
SGLT				*e*S	**Sn**	**12 47 45.0**	**-2.5**
WLCH	**Liuqiu**	**0.62**	**266**	*e*P	**Pn**	**12 47 38.9**	**+1.0**
EDH	**Donghe**	**0.62**	**23**	P	**Pg**	**12 47 35.3**	**0.0**
EDH				*e*S	**Sb**	**12 47 45.9**	**+1.0**
TWP	**Hsiaoliuchiu**	**0.63**	**266**	*e*P	**Pn**	**12 47 38.3**	**+0.1**
LYUB	**Lan-yu**	**0.64**	**128**	*e*P	**Pg**	**12 47 34.3**	**-1.3**
SLGT	**Liugui**	**0.70**	**328**	*e*P	**Pg**	**12 47 36.5**	**-0.3**
SCST	**Cishan**	**0.70**	**314**	P	**Pb**	**12 47 37.6**	**+0.1**
SCST				S	**Sn**	**12 47 47.7**	**-2.3**
TWM1	**Shoushan**	**0.71**	**307**	*e*P	**Pn**	**12 47 38.2**	**-1.0**
TWM1				S	**Sn**	**12 47 48.9**	**-1.4**
ECS	**Chishang**	**0.71**	**13**	*e*P	**Pg**	**12 47 36.4**	**-0.7**
ECS				*e*S	**Sb**	**12 47 47.1**	**-0.5**
CHKT	**Chengkung**	**0.76**	**23**	*e*P	**Pg**	**12 47 37.5**	**-0.5**
CHKT				*e*S	**Sb**	**12 47 48.9**	**0.0**
WSSB	**Gushan**	**0.76**	**289**	*e*P	**Pn**	**12 47 40.8**	**+0.8**
EHD	**Haiduan**	**0.77**	**11**	*e*P	**Pg**	**12 47 36.6**	**-1.5**
ELDTW	**Lidau**	**0.79**	**358**	⇑P	**Pg**	**12 47 37.5**	**-1.1**
SGST	**Jiashian**	**0.80**	**328**	*e*P	**Pg**	**12 47 38.2**	**-0.6**
STYT	**Tauyuan**	**0.81**	**341**	P	**Pb**	**12 47 38.9**	**-0.5**
STYT				*e*S	**Sb**	**12 47 49.5**	**-0.9**
STYH	**Taoyuan**	**0.81**	**342**	*e*P	**Pb**	**12 47 39.2**	**-0.2**
FULB	**Fuli**	**0.83**	**16**	*e*P	**Pg**	**12 47 38.3**	**-1.1**
FULB				*e*S	**Sb**	**12 47 50.8**	**-0.2**
CHKH	**Chenggong**	**0.86**	**22**	*e*P	**Pg**	**12 47 38.6**	**-1.2**
CHKH				*e*S	**Sg**	**12 47 51.2**	**+0.2**
SHHT	**Tainan City**	**0.89**	**314**	*e*P	**Pn**	**12 47 42.9**	**+1.2**
SHHT				*e*S	**Sn**	**12 47 58.9**	**+4.3**
CHN1	**Nanshi**	**0.92**	**329**	*e*P	**Pn**	**12 47 42.2**	**+0.1**
CHN1				*e*S	**Sn**	**12 47 55.8**	**+0.4**
CHN3	**Shinhua**	**0.92**	**317**	*e*P	**Pn**	**12 47 43.4**	**+1.3**
CHN3				*e*S	**Sn**	**12 47 58.7**	**+3.3**
SNST	**Tainan City**	**0.96**	**329**	P	**Pn**	**12 47 43.0**	**+0.3**
SNST				S	**Sn**	**12 47 58.1**	**+1.7**
TPUB	**Ta-pu**	**0.98**	**337**	P	**Pn**	**12 47 42.7**	**-0.2**
TPUB	**Ta-pu**	**0.98**	**337**	S	**Sn**	**12 47 56.9**	**+0.1**
TPUB	**Ta-pu**	**0.98**	**337**	*e*P	**Pn**	**12 47 42.8**	**-0.2**
TPUB				*e*S	**Sn**	**12 47 56.6**	**-0.2**
EYUL	**Yuli**	**0.98**	**15**	*e*P	**Pb**	**12 47 41.2**	**-1.1**
TWF1	**Yuli**	**0.98**	**14**	*e*P	**Pb**	**12 47 40.6**	**-1.6**
ECBN	**Changbin**	**0.99**	**22**	*e*P	**Pb**	**12 47 40.9**	**-1.6**
ECBN				*e*S	**Sb**	**12 47 55.9**	**+0.4**
TWK	**Hsinying**	**1.01**	**330**	P	**Pn**	**12 47 43.7**	**+0.4**
TWK				*e*S	**Sn**	**12 47 59.4**	**+1.8**
YULB	**Yu-li**	**1.02**	**13**	P	**Pb**	**12 47 42.5**	**-0.4**
YULB	**Yu-li**	**1.02**	**13**	*e*P	**Pb**	**12 47 40.1**	**-2.9**
CHN4	**Tsaushan**	**1.04**	**337**	*e*P	**Pn**	**12 47 43.8**	**0.0**
CHN4				*e*S	**Sn**	**12 48 00.4**	**+2.1**
WCKO	**Fanlu**	**1.11**	**339**	*e*P	**Pn**	**12 47 45.1**	**+0.4**
WCKO				*e*S	**Sn**	**12 48 01.9**	**+1.8**
EHYH	**Wanrong**	**1.13**	**14**	*e*P	**Pb**	**12 47 42.1**	**-2.7**
ALS	**Alishan**	**1.13**	**349**	*e*P	**Pb**	**12 47 44.6**	**-0.4**
ALS				*e*S	**Sn**	**12 48 02.0**	**+1.0**
EHY	**Hungye**	**1.14**	**13**	*e*P	**Pb**	**12 47 42.4**	**-2.5**
HGSD	**Ruisui**	**1.15**	**18**	*e*P	**Pb**	**12 47 43.3**	**-1.8**
ICHU	**Yijhu**	**1.19**	**324**	*e*P	**Pg**	**12 47 45.8**	**-0.3**
ICHU				*e*S	**Sn**	**12 48 04.3**	**+2.3**
CHN8	**Yiju**	**1.22**	**321**	*e*P	**Pg**	**12 47 47.1**	**+0.4**
CHN8				*e*S	**Sn**	**12 48 04.9**	**+2.3**
CHY	**Chiayi**	**1.24**	**333**	*e*P	**Pg**	**12 47 47.4**	**+0.3**
CHY				*e*S	**Sn**	**12 48 05.6**	**+2.5**
CHN5	**Tsauling**	**1.24**	**344**	*e*P	**Pg**	**12 47 47.5**	**+0.4**
CHN5				*e*S	**Sn**	**12 48 06.7**	**+3.3**
CHN2	**Minshiung**	**1.25**	**335**	*e*P	**Pg**	**12 47 47.8**	**+0.5**
CHN2				*e*S	**Sg**	**12 48 06.6**	**+3.2**
WHYT	**Xinyi Township**	**1.31**	**352**	*e*P	**Pb**	**12 47 47.5**	**-0.3**
WHYT				*e*S	**Sg**	**12 48 07.3**	**+2.0**
WSL	**Shuilin Townsh**	**1.35**	**326**	*e*P	**Pb**	**12 47 48.1**	**-0.4**
WARBT	**Fenglin Townsh**	**1.35**	**13**	*e*P	**Pn**	**12 47 46.9**	**-1.2**
VWDT	**VWDT**	**1.35**	**4**	*e*P	**Pn**	**12 47 47.5**	**-0.6**
WGK	**Gukeng**	**1.36**	**341**	*e*P	**Pg**	**12 47 49.2**	**-0.2**
WGK				*e*S	**Sg**	**12 48 09.2**	**+2.1**
WDLH	**Douliu**	**1.37**	**340**	*e*P	**Pg**	**12 47 49.1**	**-0.4**
WDLH				*e*S	**Sg**	**12 48 09.6**	**+2.3**
SSLB	**Suanglung**	**1.39**	**357**	P	**Pn**	**12 47 48.4**	**-0.2**
SSLB	**Suanglung**	**1.39**	**357**	*e*P	**Pb**	**12 47 48.6**	**-0.6**
SSLB				*e*S	**Sg**	**12 48 08.9**	**+0.9**
WTK	**Tuku**	**1.42**	**335**	*e*P	**Pb**	**12 47 49.3**	**-0.5**
WTK				*e*S	**Sg**	**12 48 10.4**	**+1.4**
WJS	**Zhushan**	**1.45**	**349**	*e*P	**Pg**	**12 47 50.5**	**-0.5**
WJS				*e*S	**Sg**	**12 48 12.6**	**+2.7**
WSF	**Szhu**	**1.45**	**329**	*e*P	**Pb**	**12 47 49.9**	**-0.3**
WSF				*e*S	**Sg**	**12 48 08.9**	**-1.0**
ESL	**Shilin**	**1.46**	**14**	*e*P	**Pn**	**12 47 49.3**	**-0.2**
SHUL	**Shoufeng**	**1.47**	**19**	*e*P	**Pn**	**12 47 48.4**	**-1.2**
SMLT	**Sun Moon Lake**	**1.49**	**355**	*e*P	**Pg**	**12 47 51.4**	**-0.5**
SMLT				*e*S	**Sg**	**12 48 13.3**	**+2.1**
TYC	**Yuchr**	**1.51**	**354**	*e*P	**Pg**	**12 47 51.8**	**-0.5**
TYC				*e*S	**Sg**	**12 48 14.2**	**+2.3**
WNT	**Mingjian**	**1.51**	**347**	*e*P	**Pg**	**12 47 51.6**	**-0.7**
WNT				*e*S	**Sg**	**12 48 13.7**	**+1.7**
WDGT	**Dungji**	**1.54**	**304**	*e*P	**Pn**	**12 47 49.9**	**-0.7**
OWD	**Renai**	**1.56**	**4**	*e*P	**Pn**	**12 47 50.6**	**-0.4**
OWD				*e*S	**Sg**	**12 48 14.5**	**+1.1**
WUSB	**Renai**	**1.59**	**2**	*e*P	**Pn**	**12 47 50.8**	**-0.7**
ETM	**Tongmen**	**1.62**	**15**	*e*P	**Pb**	**12 47 52.3**	**-0.8**
WRL	**Guolierlin Hig**	**1.62**	**338**	*e*P	**Pb**	**12 47 52.1**	**-1.1**
LXIB	**Xiulin Townshi**	**1.65**	**12**	*e*P	**Pn**	**12 47 52.3**	**0.0**
WCS	**Beigang Elemen**	**1.66**	**356**	P	**Pb**	**12 47 53.4**	**-0.4**
WCS				*e*S	**Sg**	**12 48 16.5**	**-0.2**
VCHM	**Qimei**	**1.69**	**299**	*e*P	**Pn**	**12 47 51.9**	**-0.9**
WCHH	**Zhanghua**	**1.73**	**345**	*e*P	**Pb**	**12 47 54.3**	**-0.8**
WCHH				*e*S	**Sg**	**12 48 18.0**	**-1.1**
TWD	**Chiawan**	**1.75**	**17**	*e*P	**Pn**	**12 47 53.6**	**+0.1**
WHF	**Hehuan Shan**	**1.75**	**7**	*e*P	**Pb**	**12 47 56.0**	**+0.3**
PHUB	**P'eng-hu**	**1.75**	**310**	*e*P	**Pn**	**12 47 52.6**	**-1.0**
PHUB				*e*S	**Sn**	**12 48 14.0**	**-1.8**
TCU	**Taichung**	**1.78**	**349**	*e*P	**Pb**	**12 47 55.0**	**-0.8**
PNG	**Penghu**	**1.80**	**311**	*e*P	**Pn**	**12 47 52.7**	**-1.5**
ETL	**Fush Village**	**1.83**	**17**	*e*P	**Pn**	**12 47 54.9**	**+0.2**
NACB	**Ninganchiao**	**1.84**	**16**	P	**Pn**	**12 47 55.4**	**+0.6**
NACB	**Ninganchiao**	**1.84**	**16**	*e*P	**Pn**	**12 47 55.1**	**+0.3**
NACB				*e*S	**Sn**	**12 48 18.6**	**+0.5**
ETLH	**Xiulin Townshi**	**1.85**	**13**	*e*P	**Pn**	**12 47 54.7**	**-0.2**
TDCB	**Techi**	**1.85**	**3**	*e*P	**Pb**	**12 47 56.7**	**-0.5**
FUSS	**Fushou**	**1.85**	**6**	*e*P	**Pb**	**12 47 57.1**	**-0.2**
TWT	**Tachien**	**1.85**	**4**	*e*P	**Pb**	**12 47 57.4**	**+0.2**
WHP	**Taichung City**	**1.88**	**357**	*e*P	**Pb**	**12 47 57.0**	**-0.6**
TWQ1	**Liyutan**	**1.96**	**353**	*e*P	**Pb**	**12 47 58.6**	**-0.4**
TWQ1				*e*S	**Sg**	**12 48 24.2**	**-2.0**
NNSB	**Datong**	**2.05**	**9**	*e*P	**Pb**	**12 48 00.1**	**-0.5**
NNS	**Nan Shan**	**2.06**	**8**	*e*P	**Pb**	**12 48 00.7**	**0.0**
EOS4	**EOS4**	**2.08**	**34**	*e*P	**Pn**	**12 47 56.9**	**-0.8**
EOS4				*e*S	**Sn**	**12 48 21.8**	**-1.6**
ENA	**Nanau**	**2.12**	**17**	*e*P	**Pn**	**12 47 56.3**	**-2.4**
EWUT	**Wuta**	**2.15**	**18**	*e*P	**Pn**	**12 47 59.4**	**+0.3**
EWUT				*e*S	**Sn**	**12 48 26.4**	**+0.8**
LATG	**Datong**	**2.18**	**12**	*e*P	**Pn**	**12 48 00.4**	**+0.9**
EOS3	**EOS3**	**2.22**	**32**	*e*P	**Pn**	**12 48 00.3**	**+0.5**
NSTT	**Nanjuang**	**2.23**	**359**	*e*P	**Pn**	**12 48 01.1**	**+1.1**
NFF	**Wufeng Townshi**	**2.23**	**2**	*e*P	**Pb**	**12 48 02.5**	**-1.1**
NFF				*e*S	**Sb**	**12 48 31.6**	**+0.5**
NDT	**Datong Townshi**	**2.24**	**11**	*e*P	**Pn**	**12 48 01.1**	**+0.9**
LIOB	**Emei**	**2.24**	**359**	*e*P	**Pb**	**12 48 02.2**	**-1.5**
YHNB	**Yeheng**	**2.28**	**8**	P	**Pn**	**12 48 01.6**	**+0.6**
YHNB	**Yeheng**	**2.28**	**8**	*e*P	**Pn**	**12 48 01.5**	**+0.6**
ENTT	**Nioudou**	**2.29**	**12**	*e*P	**Pn**	**12 48 01.3**	**+0.4**
NSK	**Sanguang**	**2.29**	**7**	*e*P	**Pn**	**12 48 01.5**	**+0.5**
EOS2	**EOS2**	**2.29**	**28**	*e*P	**Pn**	**12 48 00.2**	**-0.6**
NDS	**Dongshan**	**2.31**	**15**	*e*P	**Pn**	**12 48 02.4**	**+1.2**
TWC	**Suao**	**2.32**	**18**	*e*P	**Pn**	**12 48 02.7**	**+1.3**
KSHI	**Guanxi Townshi**	**2.37**	**3**	*e*P	**Pb**	**12 48 04.8**	**-1.2**
TWE	**Neicheng**	**2.38**	**14**	*e*P	**Pn**	**12 48 03.6**	**+1.3**
FUSB	**Fushanzhiwuyua**	**2.41**	**12**	*e*P	**Pn**	**12 48 03.6**	**+0.9**
NWLT	**Wulai**	**2.41**	**10**	*e*P	**Pn**	**12 48 04.0**	**+1.3**
TIPB	**Shuangxi**	**2.66**	**15**	*e*P	**Pn**	**12 48 06.2**	**+0.1**
YOJ	**Yonaguni jima**	**2.74**	**41**	P	**Pn**	**12 48 07.6**	**+0.5**
SXI1	**Grass Mountain**	**2.79**	**16**	*e*P	**Pn**	**12 48 09.6**	**+1.6**
VWUC	**VWUC**	**2.97**	**331**	*e*P	**Pn**	**12 48 10.1**	**-0.2**
PTMZ	**Houxiangcun**	**3.17**	**327**	*e*P	**Pn**	**12 48 13.1**	**0.0**
KNMB	**Chin-men Tao**	**3.19**	**311**	*e*P	**Pn**	**12 48 12.9**	**-0.4**
ZPLA	**Ao Xicun**	**3.39**	**297**	*e*P	**Pn**	**12 48 14.8**	**-1.3**
AXDP	**Jialang**	**3.76**	**312**	*e*P	**Pn**	**12 48 20.8**	**-0.4**
MATB	**Ma-tsu**	**3.87**	**345**	*e*P	**Pn**	**12 48 22.3**	**-0.4**
MHZQ	**Yeshan**	**4.12**	**334**	*e*P	**Pn**	**12 48 25.9**	**-0.2**
LYJJ	**Jianjiangzhen**	**4.30**	**344**	*e*P	**Pn**	**12 48 27.9**	**-0.6**
XPSS	**Dashiqiu**	**4.58**	**350**	*e*P	**Pn**	**12 48 31.9**	**-0.5**
SXFK	**Yanhouchang**	**5.05**	**323**	*e*P	**Pn**	**12 48 38.0**	**-0.9**

IDC ***29*** *12:48:36.2±0.7, 48°.04N×154°.28E, h0^{km}, mb3.9/18, mbtmp3.9/24, ML3.5/4, MS3.2/7, Error ellipse: s-maj=19.0km s-min=11.6km az=151.0*

MOS ***29*** *12:48:41.8±1.7, 48°.14N×154°.54E, h49^{km}, mb4.1/7, Error ellipse: s-maj=11.3km s-min=7.2km az=64.3*

NEIC ***29*** *12:48:42.8±1.6, 48°.2N±0°.1×154°.5E±0°.1, h35^{km}±2^{km}, mb4.2/14, Error ellipse: s-maj=23.9km s-min=12.9km az=147.0*

SKHL ***29*** *12:48:43.3±0.8, 48°.10N×154°.80E, h71^{km}±7^{km}, mb5.0/4*

JMA ***29*** *12:48:48.8±0.8, 47°N±5°×15°5E±°, h2^{km}, MV3.6/18, FAR FIELD*

ISC 29 12:48:42.7±0.5**, 48°.08N**±0°.06×**154°.64E**±0°.06**, h42**^{km}**, n116,** σ**1^s.89**/118**, mb4.1**/31**, MS3.5**/6**, 2C-7D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril's**	**2.78**	**20**	⇓*e*PN	**Pn**	**12 49 25.7**	**+1.1**
SKR				*e*S	**Sn**	**12 49 56.1**	**-0.8**
SKR				pmax	pmax		
	comp=Z,323nm,0.9s						
SKR				smax	smax		
	comp=N,477nm,0.3s						
SKR				smax	smax		
	comp=E,475nm,0.6s						
SKR				MLR	MLR		
	comp=Z,400nm,12.0s						
SKR	**Severo-Kuril's**	**2.78**	**20**	*e*P	**Pn**	**12 49 25.0**	**+0.4**
SKR				AMB	AMB	12 49 28.0	
	comp=Z,200nm,0.4s						
SKR				*e*S	**Sn**	**12 49 56.0**	**-0.8**
SKR				A	A	12 50 01.0	
	comp=Z,440nm,0.4s						
SKR				A	A	12 50 01.0	
	comp=Z,620nm,0.4s						
PAU	**Pauzhetka**	**3.67**	**22**	*e*P	**Pn**	**12 49 38.3**	**+1.4**
PAU				*e*S	**Sn**	**12 50 19.0**	**+0.1**
PAU				A	A	12 50 25.6	
	comp=Z,700nm,0.3s						
PAU				A	A	12 50 25.6	
	comp=Z,370nm,0.3s						
REI	**Reidovoe**	**5.36**	**241**	*e*P	**Pn**	**12 50 02.1**	**+2.1**
REI				AMB	AMB	12 50 04.2	
	comp=Z,60nm,0.4s						
REI				*e*S	**Sn**	**12 51 01.3**	**+1.0**
REI				A	A	12 51 07.3	
	comp=Z,120nm,0.5s						
REI				A	A	12 51 07.3	
	comp=Z,120nm,0.5s						
PEA0B	**Petropavlovsk-**	**5.40**	**20**	PN	**Pn**	**12 50 02.5**	**+1.9**
PEA0B	**Petropavlovsk-**	**5.40**	**20**	Pn	**Pn**	**12 50 02.5**	**+1.9**
PETK	**Petropavlovsk-**	**5.40**	**20**	Pn	**Pn**	**12 50 02.1**	**+1.5**
	comp=Z,3.9nm,0.3s,baz=193,slow=14,SNR=15						
PETK				LR	LR	12 52 12.0	
	comp=Z,137nm,20.2s,baz=134,slow=39						
	comp=Z,8.1nm,0.4s						
PETK				AML	AML		
KUR	**Kuril'sk**	**5.46**	**241**	*e*PN	**Pn**	**12 50 04.3**	**+2.8**
KUR				*e*S	**Sn**	**12 51 06.8**	**+3.8**
KUR				pmax	pmax		
	comp=N,35nm,0.3s						
KUR				pmax	pmax		
	comp=Z,95nm,0.3s						
KUR				pmax	pmax		
	comp=E,18nm,0.2s						
KUR				smax	smax		
	comp=E,94nm,0.5s						
KUR				smax	smax		
	comp=N,39nm,0.4s						
KUR	**Kuril'sk**	**5.46**	**241**	*e*P	**Pn**	**12 50 04.3**	**+2.8**
KUR				AMB	AMB	12 50 07.2	
	comp=N,100nm,0.3s						
KUR				*e*S	**Sn**	**12 51 06.8**	**+3.8**
KUR				A	A	12 51 32.7	
	comp=N,40nm,0.4s						
KUR				A	A	12 51 32.7	
	comp=N,90nm,0.4s						
PET	**Petropavlovsk**	**5.57**	**26**	*e*PN	**Pn**	**12 50 03.5**	**+0.6**
PET				*e*S	**Sn**	**12 51 06.2**	**+0.6**
PET				smax	smax		
	comp=E,148nm,0.7s						
PET				smax	smax		
	comp=N,113nm,0.6s						
PET				MLR	MLR		
	comp=Z,100nm,15.0s						
PET	**Petropavlovsk**	**5.57**	**26**	Pn	**Pn**	**12 50 01.8**	**-1.1**
PET	**Petropavlovsk**	**5.57**	**26**	*e*P	**Pn**	**12 50 03.5**	**+0.6**
PET				*e*S	**Sn**	**12 51 04.5**	**-1.1**
YUK	**Yuzh-Kuril'sk**	**7.32**	**240**	*d i*PN	**Pn**	**12 50 29.9**	**+2.9**
YUK	**Yuzh-Kuril'sk**	**7.32**	**240**	*e*P	**Pn**	**12 50 29.0**	**+2.0**
YUK				AMB	AMB	12 50 32.1	
	comp=Z,110nm,0.8s						
YUK				*e*S	**Sn**	**12 51 49.5**	**+0.8**
YUK				A	A	12 51 52.9	
	comp=Z,120nm,0.7s						
YUK				A	A	12 51 52.9	
	comp=Z,100nm,0.7s						
NEM2	**Nemuro 2**	**7.81**	**236**	*e*P	**Pn**	**12 50 32.5**	**-1.1**
NEM2				*e*S	**Sn**	**12 51 55.2**	**-5.4**
YSS	**Yuzhno-Sakhali**	**8.12**	**266**	*e*PN	**Pn**	**12 50 41.3**	**+3.3**
YSS				*e*S	**Sn**	**12 52 12.2**	**+3.8**
YSS				pmax	pmax		
	comp=Z,30nm,0.9s						
YSS				smax	smax		
	comp=N,20nm,0.5s						
YSS				smax	smax		
	comp=E,20nm,0.5s						
YSS	**Yuzhno-Sakhali**	**8.12**	**266**	Pn	**Pn**	**12 50 36.6**	**-1.4**
YSS	**Yuzhno-Sakhali**	**8.12**	**266**	*e*P	**Pn**	**12 50 41.3**	**+3.3**
JNK	**Nakash**	**8.25**	**241**	*e*P	**Pn**	**12 50 40.7**	**+1.0**
TYV	**Tymovskoe**	**8.29**	**294**	*e*PN	Pn	12 50 33.3	-6.9
TYV				pmax	pmax		
	comp=Z,200nm,4.9s						
TYV				pmax	pmax		
	comp=Z,8.0nm,1.1s						
TYV	**Tymovskoe**	**8.29**	**294**	*e*P	**Pn**	**12 50 42.7**	**+2.5**
TYV				*e*S	**Sn**	**12 52 09.2**	**-3.2**
JTKR	**Abashiri--Toko**	**8.52**	**245**	*e*P	**Pn**	**12 50 45.0**	**+1.6**
JAK	**Akkeshi**	**8.63**	**238**	*e*P	**Pn**	**12 50 43.8**	**-1.1**
JAK				*e*S	**Sn**	**12 52 15.0**	**-5.8**
JAR	**Ashorobuto**	**8.98**	**242**	*e*P	**Pn**	**12 50 51.2**	**+1.5**
JOB	**Onbets**	**9.18**	**240**	P	**Pn**	**12 50 52.7**	**+0.2**
JWK2	**Keihoku**	**9.18**	**257**	*e*P	Pn	12 50 58.8	+6.4
JKA	**Kamikawa-asahi**	**9.25**	**249**	Pn	**Pn**	**12 50 51.3**	**-2.2**
ASAJ	**Asahikawa**	**9.26**	**249**	Pn	**Pn**	**12 50 49.9**	**-3.6**
	comp=Z,1.0nm,0.3s,baz=72,slow=12,SNR=12						
ASAJ				LR	LR	12 54 03.1	
	comp=Z,96nm,21.3s,baz=95,slow=36						
	comp=Z,9.3nm,1.1s						
ASAJ				AML	AML		
ASAJ	**Asahikawa**	**9.26**	**249**	PN	**Pn**	**12 50 51.3**	**-2.2**
JKK2	**Kamakawa 2**	**9.28**	**247**	*e*P	**Pn**	**12 50 56.4**	**+2.5**
JCH	**Churui**	**9.63**	**240**	*e*P	**Pn**	**12 50 57.9**	**-0.7**
JCH				*e*S	**Sn**	**12 52 39.6**	**-5.8**
ERM	**Erimo**	**10.13**	**237**	PN	**Pn**	**12 51 04.6**	**-0.9**
ERM	**Erimo**	**10.13**	**237**	Pn	**Pn**	**12 51 04.6**	**-0.9**
JTM	**Tenmabayashi**	**12.12**	**238**	Pn	**Pn**	**12 51 30.6**	**-2.1**
SHEM	**Shemya Is, Ala**	**13.24**	**62**	Pn	**Pn**	**12 51 47.0**	**-0.9**
	comp=Z,22nm,0.5s,baz=273,slow=17,SNR=5.6						
SMY	**Shemya**	**13.24**	**62**	PN	**Pn**	**12 51 46.8**	**-1.2**
SMY	**Shemya**	**13.24**	**62**	Pn	**Pn**	**12 51 46.8**	**-1.2**
KLR	**Kul'dur**	**15.16**	**283**	Pn	**Pn**	**12 52 11.3**	**-2.5**
	comp=Z,0.1nm,0.3s,baz=347,slow=17,SNR=1.7						
	comp=Z,0.5nm,0.4s						
KLR				AML	AML		
USRK	**Ussuriysk Ar.**	**16.16**	**265**	Pn	**Pn**	**12 52 23.3**	**-3.2**
	comp=Z,0.3nm,0.3s,baz=69,slow=13,SNR=8.6						
	comp=Z,0.8nm,0.5s						
USRK				AML	AML		
MJA0	**Matsu Arr-Jizo**	**16.69**	**232**	*e*P	**P**	**12 52 36.4**	**+1.1**
MJAR	**Matsushiro Arr**	**16.71**	**232**	Pn	Pn	12 52 24.4	-9.2
	comp=Z,0.2nm,0.4s,baz=55,slow=9.6,SNR=1.4						
MJAR				LR	LR	12 58 23.3	
	comp=Z,22nm,18.2s,baz=186,slow=36						
HEH	**HeiHe**	**17.90**	**287**	*e*P	**P**	**12 52 51.5**	**+3.0**
HEH				pmax	pmax		
	comp=Z,7.0nm,0.8s						
BNX	**BinXian**	**18.72**	**273**	⇓P	**Pn**	**12 52 58.8**	**+0.6**
BNX				pmax	pmax		
	comp=Z,2.0nm,0.8s						
YAK	**Yakutsk**	**19.81**	**324**	*e*P	**Pn**	**12 53 11.2**	**+0.2**
YAK				*e*S	**Sn**	**12 56 53.2**	**+0.8**
YAK				pmax	pmax		
	comp=Z,10.0nm,0.8s						
YAK				pmax	pmax		
	comp=E,2.0nm,1.0s						
YAK				pmax	pmax		
	comp=N,2.0nm,1.1s						
YAK				smax	smax		
	comp=N,63nm,2.6s						
YAK				smax	smax		
	comp=E,49nm,2.8s						
YAK	**Yakutsk**	**19.81**	**324**	*e*P	**Pn**	**12 53 11.2**	**+0.2**
BILL	**Bilibino**	**20.87**	**12**	⇓*e*P	**P**	**12 53 20.9**	**+0.2**
BILL	**Bilibino**	**20.87**	**12**	*e*P	**P**	**12 53 20.9**	**+0.2**
KSRS	**Korea Array**	**22.19**	**251**	P	**P**	**12 53 32.0**	**-3.2**
	comp=E,2.3nm,0.9s,baz=52,slow=11,SNR=12						
	comp=E,2.3nm,0.9s						
KSRS	**Korea Array**	**22.19**	**251**	*e*P	**P**	**12 53 35.5**	**+0.3**
KSRS				pmax	pmax		
	comp=Z,3.0nm,0.8s						
KSRS	**Korea Array**	**22.19**	**251**	*e*P	**P**	**12 53 35.5**	**+0.3**
M17K	**Holitna River**	**29.94**	**46**	P	**P**	**12 54 47.7**	**+1.3**
H11N2	**WAKE ISLAND Hy**	**29.98**	**156**	T	T	13 26 19.8	
	baz=344,slow=74						
H11N1	**WAKE ISLAND Hy**	**29.99**	**156**	T	T	13 26 27.7	
	baz=344						
H11N3	**WAKE ISLAND Hy**	**29.99**	**156**	T	T	13 26 07.8	
	baz=344,slow=74						
N17K	**Nushagak Hills**	**30.01**	**47**	P	**P**	**12 54 48.4**	**+1.3**
N17K				IAmb	IAmb	12 54 50.7	
	comp=Z,8.5nm,1.3s						
G18K	**Tagagawik**	**30.09**	**37**	P	**P**	**12 54 48.6**	**+0.9**
H11S1	**WAKE ISLAND Hy**	**31.09**	**157**	T	T	13 27 44.6	
	baz=344,slow=76,SNR=499						
H11S3	**WAKE ISLAND Hy**	**31.10**	**157**	T	T	13 27 34.2	
	baz=344,slow=76,SNR=614						
H11S2	**WAKE ISLAND Hy**	**31.11**	**157**	T	T	13 27 32.8	
	baz=344,slow=76,SNR=543						
N19K	**Bonanza Creek**	**31.35**	**47**	P	**P**	**12 55 00.7**	**+1.7**
ULN	**Ulaanbaatar**	**31.46**	**288**	⇓*e*P	**P**	**12 55 03.3**	**+3.1**
ULN				pmax	pmax		
	comp=Z,2.0nm,0.6s						
ULN	**Ulaanbaatar**	**31.46**	**288**	*e*P	**P**	**12 55 03.3**	**+3.1**
J20K	**Nowinta River**	**31.69**	**41**	P	**P**	**12 55 02.9**	**+1.1**
J20K				IAmb	IAmb	12 55 03.2	
	comp=Z,3.3nm,1.0s						
COLD	**Coldfoot**	**33.65**	**35**	P	**P**	**12 55 19.9**	**+0.9**
COLD				IAmb	IAmb	12 55 46.4	
	comp=Z,5.2nm,1.4s						
COLA	**College**	**34.45**	**40**	⇓*e*P	**P**	**12 55 27.1**	**+1.3**
COLA				pmax	pmax		
	comp=Z,6.0nm,1.2s						
IL31		**34.86**	**40**	P	**P**	**12 55 27.9**	**-1.5**
IL31				IAmb	IAmb	12 55 30.1	
	comp=Z,4.2nm,1.1s						
ILAR	**Eielson Array**	**34.86**	**40**	P	**P**	**12 55 28.9**	**-0.5**
	comp=Z,0.6nm,0.7s,baz=260,slow=5.7,SNR=7.4						
	comp=Z,0.6nm,0.7s						
ILAR	**Eielson Array**	**34.86**	**40**	*e*P	**P**	**12 55 29.7**	**+0.3**
ILAR	**Eielson Array**	**34.86**	**40**	P	**P**	**12 55 28.7**	**-0.8**
G26K	**Porcupine Rive**	**36.14**	**36**	P	**P**	**12 55 40.3**	**0.0**
G26K				IAmb	IAmb	12 55 44.3	
	comp=Z,3.2nm,0.8s						
D27M	**Malcolm River**	**37.21**	**32**	P	**P**	**12 55 50.3**	**+0.8**
D27M				IAmb	IAmb	12 55 57.0	
	comp=Z,4.2nm,1.2s						
I28M	**Miner Creek**	**37.77**	**38**	P	**P**	**12 55 54.9**	**+0.5**
ZALV	**Zalesovo Beam**	**42.68**	**305**	P	**P**	**12 56 32.8**	**-2.2**

	comp=Z,0.5nm,0.3s,baz=52,slow=9.0,SNR=2.9						
	comp=Z,0.5nm,0.3s						
MK31	Makanchi Array	47.26	297	ceP	P	12 57 13.7	+2.2
MKAR	Makanchi Array	47.26	297	P	P	12 57 09.3	-2.2
	comp=Z,0.5nm,0.7s,baz=68,slow=7.4,SNR=5.4						
	comp=Z,0.5nm,0.7s						
MKAR	Makanchi Array	47.26	297	eP	P	12 57 10.9	-0.6
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MKAR	Makanchi Array	47.26	297	P	P	12 57 10.8	-0.6
MKAR	Makanchi Array	47.26	297	eP	P	12 57 10.9	-0.6
KURK	Kurchatov	47.50	303	⇑eP	P	12 57 11.5	-1.7
KURK				pmax	pmax		
	comp=Z,6.0nm,1.8s						
KURK				MLR	MLR		
	comp=Z,59nm,20.0s						
KURK	Kurchatov	47.50	303	eP	P	12 57 11.5	-1.7
KURBB	Kurchatov Arra	47.59	303	P	P	12 57 11.8	-2.1
	comp=Z,1.0nm,0.7s,baz=65,slow=8.5,SNR=6.0						
	comp=Z,1.0nm,0.7s						
YKA	Yellowknife Ar	49.24	38	P	P	12 57 27.4	+0.9
	comp=Z,2.2nm,0.8s,baz=286,slow=8.8,SNR=2.7						
	comp=Z,2.2nm,0.8s						
YKA	Yellowknife Ar	49.24	38	P	P	12 57 26.6	+0.1
YKA	Yellowknife Ar	49.24	38	P	P	12 57 26.6	+0.1
BVAR	Borovoye Array	50.82	309	P	P	12 57 37.1	-1.5
	comp=Z,3.2nm,0.4s,baz=57,slow=8.1,SNR=16						
	comp=Z,3.2nm,0.4s						
AAK	Ala-Archa	54.17	296	⇓eP	P	12 58 05.3	+1.5
AAK				pmax	pmax		
	comp=Z,5.0nm,2.3s						
AAK				MLR	MLR		
	comp=Z,34nm,16.0s						
AAK	Ala-Archa	54.17	296	eP	P	12 58 05.3	+1.5
AB31	Akbulak array	58.37	310	P	P	12 58 32.1	-1.3
AB31				IAmb	IAmb	12 58 54.3	
	comp=Z,2.1nm,1.2s						
ABKAR	Akbulak array	58.37	310	P	P	12 58 32.2	-1.2
BMN	Battle Mountai	60.27	61	P	P	12 58 47.6	+0.7
BMN				pmax	pmax		
	comp=Z,2.0nm,0.6s						
BMN	Battle Mountai	60.27	61	P	P	12 58 47.6	+0.7
BMN				IAmb	IAmb	12 58 48.8	
	comp=Z,1.9nm,0.6s						
NVAR	Mina Array Bea	60.91	64	P	P	12 58 52.8	+1.5
	comp=Z,0.9nm,0.5s,baz=307,slow=8.0,SNR=9.7						
	comp=Z,0.9nm,0.5s						
PDAR	Pinedale Array	63.13	55	P	P	12 59 06.8	+0.6
	comp=Z,0.8nm,0.8s,baz=330,slow=2.3,SNR=8.7						
	comp=Z,0.8nm,0.8s						
PDAR	Pinedale Array	63.13	55	P	P	12 59 06.9	+0.7
FINES	FINESS Array B	63.27	335	P	P	12 59 05.4	-1.0
	comp=Z,0.6nm,0.3s,baz=33,slow=7.3,SNR=15						
	comp=Z,0.6nm,0.3s						
FINES	FINESS Array B	63.27	335	P	P	12 59 03.8	-2.7
NOA	NORSAR Array B	67.30	342	P	P	12 59 32.2	-0.4
	comp=Z,0.3nm,0.6s,baz=33,slow=7.8,SNR=1.7						
	comp=Z,0.3nm,0.6s						
WRA	Warramunga Arr	70.11	200	P	P	12 59 50.3	-0.2
	comp=Z,0.8nm,0.8s,baz=16,slow=6.6,SNR=5.6						
	comp=Z,0.8nm,0.8s						
WRA	Warramunga Arr	70.11	200	eP	P	12 59 50.9	+0.4
WRA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
WRA	Warramunga Arr	70.11	200	P	P	12 59 50.9	+0.4
AKASG	Malin Array Be	71.01	327	P	P	12 59 54.1	-1.6
	comp=Z,0.3nm,0.3s,baz=35,slow=5.8,SNR=1.1						
	comp=Z,0.3nm,0.3s						
GNI	Garni	72.45	311	LR	LR	13 33 50.6	
	comp=Z,32nm,21.8s,baz=12,slow=38						
ASAR	Alice Springs	73.80	200	P	P	13 00 12.3	-0.2
	comp=Z,0.3nm,0.6s,baz=11,slow=5.3,SNR=4.4						
	comp=Z,0.3nm,0.6s						
EKA	Eskdalemuir Ar	75.28	347	P	P	13 00 20.6	-0.3
	comp=Z,1.4nm,0.6s,baz=18,slow=5.0,SNR=8.7						
	comp=Z,1.4nm,0.6s						
CLL	Collm	75.67	336	i P	P	13 00 22.0	-1.1
	comp=Z,4.0nm,0.5s						
TX31	Lajitas Ar. Si	75.94	62	P	P	13 00 25.8	+0.6
TXAR	Lajitas Array	75.94	62	P	P	13 00 26.2	+1.0
	comp=Z,1.1nm,0.6s,baz=301,slow=4.8,SNR=15						
	comp=Z,1.1nm,0.6s						
TXAR	Lajitas Array	75.94	62	P	P	13 00 26.0	+0.8
TXAR	Lajitas Array	75.94	62	P	P	13 00 26.0	+0.8
GERES	GERESS Array B	77.70	335	P	P	13 00 33.8	-1.0
	comp=Z,1.2nm,0.2s,baz=50,slow=8.8,SNR=4.5						
GERES				LR	LR	13 36 47.8	
	comp=Z,22nm,19.8s,baz=5.5,slow=37						
	comp=Z,1.2nm,0.2s						
GERES	GERESS Array B	77.70	335	eP	P	13 00 34.6	-0.2
GERES				pmax	pmax		
	comp=Z,1.0nm,0.2s						
BRTR	Keskin Array B	78.12	318	P	P	13 00 36.3	-1.1
	comp=Z,0.5nm,0.4s,baz=46,slow=6.2,SNR=3.5						
BRTR				LR	LR	13 38 27.4	
	comp=Z,17nm,20.0s,baz=10.0,slow=38						
	comp=Z,0.5nm,0.4s						
EIL	Elat	85.62	311	LR	LR	13 44 30.3	
	comp=Z,18nm,19.2s,baz=84,slow=39						
H03N2	Juan Fernandez	137.72	90	T	T	15 41 17.1	
	baz=309,slow=76,SNR=12						
H03N1	Juan Fernandez	137.73	90	T	T	15 41 16.6	
	baz=313,slow=76,SNR=11						
QSPA	South Pole Qui	137.82	180	PKP	PKPdf	13 08 01.6	+0.5
	comp=Z,0.6nm,0.5s,baz=248,slow=0.9,SNR=5.7						

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*GCG **29** 12:49:53.2±1.1, 13°.63N×91°.99W, h2^{km}±13^{km}, MD4.6, Presumed earthquake*

*IDC **29** 12:50:01.1±2.3, 14°.08N×91°.81W, h57^{km}±19^{km}, mb3.4/4, mbtmp3.7/7, ML3.5/3, MS3.4/4, Error ellipse: s-maj=22.9km s-min=11.3km az=17.0*

ISC 29 12:49:53.7±1.1**, 13°.71N**±0°.09×**91°.94W**±0°.06**, h10**^{km}**, n19, σ1^{s}.89**/18**, mb3.8**/4**, MS3.3**/4**, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STG8	El Palmar, Qui	0.93	38	i P	Pn	12 50 15.0	+1.9
FG8	Yepocapa, Chim	1.45	68	i P	Pn	12 50 17.6	-2.4
FG16	Alotenango, Sa	1.50	68	i P	Pn	12 50 18.7	-2.1
APG	El Apazote	1.92	48	P	Pn	12 50 28.7	+2.0
	12nm,0.7s,baz=201,slow=15,SNR=109						
APG				S	Sn	12 50 47.0	-4.1
	4.3nm,0.3s,baz=240,slow=20,SNR=5.0						
APG	El Apazote	1.92	48	i P	Pb	12 50 29.0	0.0
APG				i S	Sb	12 50 56.2	+3.0
JAYA	Jayaque - finc	2.42	91	i P	Pn	12 50 34.1	+0.5
MTO3	Montecristo	2.60	74	i P	Pn	12 50 37.4	+1.5
CMIG	Matias Romero	4.40	320	P	Pn	12 51 01.2	+0.7
	2.3nm,0.3s,baz=136,slow=7.4,SNR=13						
CMIG				S	Sn	12 51 50.9	-0.9
	20nm,0.5s,baz=106,slow=22,SNR=4.6						
	6.7nm,0.4s						
CMIG				AML	AML		
JTS	Las Juntas de	7.64	116	P	Pn	12 51 51.3	+6.2
	0.9nm,0.3s,baz=305,slow=13,SNR=4.8						
JTS				S	Sn	12 53 13.8	+2.0
	1.7nm,0.3s,baz=246,slow=16,SNR=1.2						
	1.8nm,0.3s						
JTS				AML	AML		
TXAR	Lajitas Array	18.97	327	P	Pn	12 54 16.0	0.0
	baz=146,slow=7.6,SNR=12						
	2.6nm,1.0s						
TKL	Tuckaleechee C	23.06	17	LR	LR	13 04 34.4	
	comp=Z,89nm,18.8s,baz=197,slow=38						
PDAR	Pinedale Array	32.70	336	P	P	12 56 26.6	0.0
	0.3nm,0.8s,baz=152,slow=9.0,SNR=2.5						
	0.3nm,0.8s						
SADO	Sadowa	32.82	17	LR	LR	13 11 07.4	
	comp=Z,60nm,18.6s,baz=314,slow=39						
NVAR	Mina Array Bea	33.93	321	P	P	12 56 37.4	0.0
	0.9nm,0.9s,baz=141,slow=9.6,SNR=3.6						
	0.9nm,0.9s						
SCHQ	Schefferville	45.47	20	LR	LR	13 18 13.0	
	comp=Z,86nm,19.1s,baz=216,slow=38						
INK	Inuvik	60.73	344	P	P	13 00 04.0	-1.1
	2.1nm,0.9s,baz=122,slow=5.3,SNR=4.9						
	2.1nm,0.9s						
ILAR	Eielson Array	63.12	337	P	P	13 00 20.7	-0.6
	0.9nm,1.0s,baz=159,slow=4.2,SNR=5.4						
	0.9nm,1.0s						
NOA	NORSAR Array B	84.37	28	LR	LR	13 39 43.1	
	comp=Z,6.0nm,18.1s,baz=330,slow=36						
CMAR	Chiang Mai Arr	146.28	341	PKPbc	PKPbc	13 09 34.8	-0.7
	1.5nm,0.8s,baz=339,slow=4.1,SNR=8.2						

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*IDC **29** 12:57:16.2±7.4, 33°.70S×178°.76W, h56^{km}±59^{km}, mb3.8/4, mbtmp4.1/5, ML3.9/1, MS3.5/12, Error ellipse: s-maj=47.1km s-min=30.6km az=56.0*

ISC 29 12:57:14.1±1.1**, 33°.6S**±0°.2×**178°.7W**±0°.2**, h41**^{km}**, n23, σ0^{s}.41**/12**, mb4.1**/4**, MS3.4**/11**, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	5.76	215	P	Pn	12 58 37.2	+0.2
	3.8nm,0.3s,baz=261,slow=4.2,SNR=32						
URZ				S	Sn	12 59 41.7	-0.1
	47nm,0.5s,baz=246,slow=8.8,SNR=6.5						
	38nm,0.6s						
URZ				AML	AML		
MSVF	Nonsavu	16.08	349	LR	LR	13 06 20.7	
	comp=Z,165nm,18.1s,baz=165,slow=34						
RAR	Rarotonga	20.80	58	LR	LR	13 10 16.2	
	comp=Z,23nm,18.8s,baz=30,slow=37						
PPT2	Papeete2	30.58	66	eLR	LR	13 11 04.9	
	65nm,22.2s						
PPT	Papeete	30.59	66	LR	LR	13 16 00.5	
	comp=Z,58nm,18.5s,baz=263,slow=37						
HNR	Honiara	31.07	316	LR	LR	13 14 01.6	
	comp=Z,49nm,20.9s,baz=280,slow=32						
STKA	Stephens Creek	33.32	262	LR	LR	13 16 52.8	
	comp=Z,184nm,18.2s,baz=30,slow=35						
CTA	Charters Tower	33.88	284	LR	LR	13 15 33.5	
	comp=Z,55nm,19.9s,baz=42,slow=32						
ASAR	Alice Springs	42.46	271	P	P	13 05 05.5	+0.2
	3.8nm,0.8s,baz=111,slow=7.0,SNR=38						
ASAR				LR	LR	13 23 11.7	
	comp=Z,57nm,18.4s,baz=113,slow=37						
	3.8nm,0.8s						
WRA	Warramunga Arr	43.74	276	P	P	13 05 15.8	+0.2
	3.6nm,0.7s,baz=118,slow=7.5,SNR=29						
	3.6nm,0.7s						
FITZ	Fitzroy Crossi	51.85	273	LR	LR	13 28 16.1	
	comp=Z,176nm,18.1s,baz=134,slow=36						
QSPA	South Pole Qui	56.51	180	P	P	13 06 52.3	+0.4
	1.7nm,1.0s,baz=33,slow=1.1,SNR=2.9						
	1.7nm,1.0s						
BATI	Baumata	57.55	280	LR	LR	13 33 07.5	
	comp=Z,120nm,18.4s,baz=254,slow=37						
RPN	Rapa Nui	59.19	104	LR	LR	13 29 14.5	
	comp=Z,24nm,18.0s,baz=176,slow=32						
MAW	Mawson	69.11	201	P	P	13 08 15.1	-0.5
	0.7nm,1.0s,baz=63,slow=2.3,SNR=2.5						
	0.7nm,1.0s						
PMSA	Palmer Station	69.59	155	LR	LR	13 33 17.4	
	comp=Z,41nm,18.0s,baz=233,slow=31						
KSRS	Korea Array	86.42	320	LR	LR	13 47 05.3	
	comp=Z,11nm,18.6s,baz=345,slow=35						
FINES	FINESS Array B	147.92	338	PKPbc	PKPbc	13 16 54.1	0.0
	3.7nm,0.6s,baz=96,slow=3.8,SNR=8.3						
NB2	NORSAR Subarra	151.81	350	PKP	PKPbc	13 17 04.0	+0.3
	comp=Z,1.3nm,0.7s,baz=15,slow=4.0						
NOA	NORSAR Array B	151.81	350	PKPbc	PKiKP	13 17 04.2	+0.1
	comp=Z,1.0nm,0.7s,baz=14,slow=4.1,SNR=6.4						
HFS	Hagfors	152.25	347	PKPbc	PKiKP	13 17 05.2	+0.3
	comp=Z,0.9nm,0.7s,baz=101,slow=3.0,SNR=2.3						
AKASG	Malin Array Be	153.40	318	PKPbc	PKPbc	13 17 07.4	0.0
	comp=Z,0.9nm,0.5s,baz=74,slow=1.5,SNR=2.6						
BRTR	Keskin Array B	153.46	293	PKPbc	PKPbc	13 17 07.2	-0.9
	comp=Z,1.5nm,0.8s,baz=113,slow=3.2,SNR=7.5						

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*MOS **29** 13:07:14.8±1.0, 46°.03N×143°.24E, h337^{km}, mb4.2/3, Error ellipse: s-maj=14.2km s-min=8.1km az=85.8*

*SKHL **29** 13:07:15.8±0.0, 45°.80N×143°.40E, h336^{km}±2^{km}, mb4.5/6, msh4.7/4*

*JMA **29** 13:07:15.6±0.4, 46°N±2°×14°3E±°, h343^{km}±3^{km}, MV4.0/39, NE OFF HOKKAIDO*

*NEIC **29** 13:07:16.1±0.9, 46°.00N±0°.08×143°.3E±0°.1, h334^{km}±6^{km}, mb4.0/31, Error ellipse: s-maj=13.8km s-min=11.3km az=97.0*

*IDC **29** 13:07:16.3±1.1, 46°.05N×143°.18E, h335^{km}±12^{km}, mb3.2/15, mbtmp4.0/22, Error ellipse: s-maj=15.6km s-min=12.3km az=159.0*

ISC 29 13:07:15.7±0.5**, 45°.95N**±0°.04×**143°.27E**±0°.06**, h336**^{km}±5^{km}**, n116, σ1^{s}.29**/132**, mb3.8**/30**, 2C-1D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KRS4	Mayak Korsakov	0.73	334	eP	Pn	13 07 59.4	+0.6
KRS4				AMB	AMB	13 07 59.8	
	190nm,0.6s						
KRS4				eS	S	13 08 33.4	0.0
KRS4				A	A	13 08 33.8	
	280nm,0.6s						
KRS4				A	A	13 08 33.8	
	260nm,0.6s						
YSS	Yuzhno-Sakhali	1.06	341	αePN	Pn	13 08 00.6	+0.5
YSS				eS	S	13 08 34.4	-1.2
YSS				pmax	pmax		
	comp=Z,130nm,0.4s						
YSS				smax	smax		
	comp=N,160nm,0.8s						
YSS				smax	smax		
	comp=E,120nm,1.0s						
YSS	Yuzhno-Sakhali	1.06	341		Pn	13 08 00.3	+0.2
YSS					S	13 08 35.0	-0.7
YSS	Yuzhno-Sakhali	1.06	341	eP	Pn	13 08 00.6	+0.5
YSS				AMB	AMB	13 08 01.8	
	comp=E,150nm,0.4s						
YSS				eS	S	13 08 34.9	-0.7
YSS				A	A	13 08 36.8	
	comp=E,160nm,0.9s						
YSS				A	A	13 08 36.8	
	comp=E,160nm,0.9s						
JSE	Soyaes	1.10	206	P	Pn	13 08 00.6	+0.1
JSE				S	S	13 08 36.0	-0.2
JWK2	Keihoku	1.15	237	i P	Pn	13 08 01.2	+0.6
JWK2				S	S	13 08 36.4	-0.2
KHLM	Kholmsk	1.39	323	eP	Pn	13 08 02.2	+0.6
KHLM				AMB	AMB	13 08 02.4	
	comp=E,90nm,0.3s						
KHLM				eS	S	13 08 39.5	+1.0
JRR	Rishiri	1.60	240	P	Pn	13 08 03.3	+0.3
JRR				eS	S	13 08 41.2	+0.4
JRBN	Rebuntou	1.63	252	i P	Pn	13 08 02.9	-0.3
JRBN				S	S	13 08 38.9	-2.3
JSS	Shosan	1.85	213	P	Pn	13 08 05.1	+0.4
ASAJ	Asahikawa	1.90	195	P	Pn	13 08 05.5	+0.5
	comp=E,195nm,0.6s,baz=3.3,slow=7.0,SNR=389						
ASAJ	Asahikawa	1.90	195	i P	Pn	13 08 05.5	+0.5
JKA	Kamikawa-asahi	1.90	195		Pn	13 08 05.3	+0.3
JKA	Kamikawa-asahi	1.90	195	eP	Pn	13 08 05.5	+0.5
JMP	Maruseppu	1.95	178	i P	Pn	13 08 05.5	+0.1
JYG	Yagishiri	2.00	221	eP	Pn	13 08 06.1	+0.3
JTKR	Abashiri--Toko	2.03	167	P	Pn	13 08 06.3	+0.3
JTKR				eS	S	13 08 45.7	-0.5
JKK2	Kamakawa 2	2.11	190	P	Pn	13 08 07.0	+0.4
RUSJ	Misakicho	2.32	142	ePN	Pn	13 08 08.7	+0.5
RUSJ				eS	S	13 08 50.3	+0.1
JRA	Rausu	2.41	146	P	Pn	13 08 09.4	+0.5
JHR	Hokuryu	2.47	207	eP	Pn	13 08 09.6	+0.2
YUK	Yuzh-Kuril'sk	2.66	135	ePN	Pn	13 08 13.1	+2.1
YUK				eS	S	13 08 58.1	+2.8
YUK				pmax	pmax		
	comp=Z,79nm,0.2s						
YUK				pmax	pmax		
	comp=N,14nm,0.1s						
YUK				pmax	pmax		
	comp=E,68nm,0.2s						
YUK				smax	smax		
	comp=E,207nm,0.6s						
YUK				smax	smax		
	comp=N,174nm,0.7s						
YUK	Yuzh-Kuril'sk	2.66	135	eP	Pn	13 08 13.2	+2.2
YUK				AMB	AMB	13 08 17.7	
	comp=N,80nm,0.2s						
YUK				eS	S	13 08 56.7	+1.4
YUK				A	A	13 08 59.0	
	comp=N,170nm,0.6s						
YUK				A	A	13 08 59.0	
	comp=N,210nm,0.6s						
JAR	Ashorobuto	2.68	172	i P	Pn	13 08 11.2	0.0
NMR	Nemuro--Hokkai	3.12	145	ePN	Pn	13 08 13.0	-2.2
NMR				eS	S	13 08 58.4	-4.5
NMR	Nemuro--Hokkai	3.12	145	eP	Pn	13 08 13.4	-1.8
NMR				eS	S	13 08 59.2	-3.7
JAK	Akkeshi	3.13	160	P	Pn	13 08 13.6	-1.7
JAK				S	S	13 09 00.5	-2.5
NEM2	Nemuro 2	3.13	145	S	S	13 08 58.8	-4.4
AKK	Akkeshi	3.15	158	eP	Pn	13 08 14.1	-1.3
JCH	Churui	3.34	179	i P	Pn	13 08 15.8	-1.5
JCH				S	S	13 09 02.6	-4.1
JEW	Eniwo	3.37	203	P	Pn	13 08 18.1	+0.5
JNBK	Urakawa-nobuka	3.69	186	i P	Pn	13 08 19.4	-1.3
ERM	Erimo	3.94	181	PN	Pn	13 08 22.6	-0.7
ERM	Erimo	3.94	181		Pn	13 08 22.6	-0.7
JOSM	Okushiri--Mats	4.74	217	P	Pn	13 08 31.0	-0.8
JOT	Ohata	4.84	200	i P	Pn	13 08 31.5	-1.5
TYV	Tymovskoe	4.93	356	ePN	Pn	13 08 31.2	-2.5
TYV				eS	S	13 09 29.9	-6.8
TYV				pmax	pmax		
	comp=Z,11nm,1.3s						
TYV				pmax	pmax		
	comp=Z,500nm,4.6s						
TYV				smax	smax		
	comp=E,500nm,4.5s						
TYV				smax	smax		
	comp=N,25nm,1.2s						
TYV				smax	smax		
	comp=E,14nm,1.2s						
TYV	Tymovskoe	4.93	356	eP	Pn	13 08 33.7	0.0
TYV				AMB	AMB	13 08 34.0	
	comp=E,10.0nm,0.5s						
TYV				eS	S	13 09 35.4	-1.3
TYV				A	A	13 09 37.0	
	comp=E,30nm,1.0s						
TYV				A	A	13 09 37.0	
	comp=E,20nm,1.0s						
JTM	Tenmabayashi	5.41	198		Pn	13 08 37.7	-1.6
USA0B	Ussuriysk Arra	8.17	262	PN	Pn	13 09 11.6	0.0
USA0B	Ussuriysk Arra	8.17	262	Pn	Pn	13 09 11.6	0.0
USRK	Ussuriysk Ar.	8.17	262	P	Pn	13 09 11.9	+0.2
	comp=E,15nm,0.4s,baz=70,slow=12,SNR=84						
KLR	Kul'dur	8.45	297	P	Pn	13 09 15.1	+0.3
	comp=E,4.0nm,0.8s,baz=100,slow=14,SNR=8.4						
MDJ	Mudanjiang	9.73	267	P	Pn	13 09 31.0	+0.6
MDJ				pmax	pmax		
	comp=Z,39nm,1.5s						
MDJ	Mudanjiang	9.73	267	Pn	Pn	13 09 30.6	+0.2
MAJO	Matsushiro	10.14	204	PN	Pn	13 09 35.2	-0.2
MAJO	Matsushiro	10.14	204	Pn	Pn	13 09 35.2	-0.2
MJAR	Matsushiro Arr	10.14	204	P	Pn	13 09 35.9	+0.5
	comp=Z,4.3nm,0.6s,baz=13,slow=5.0,SNR=11						
MJAR	Matsushiro Arr	10.14	204	Pn	Pn	13 09 34.9	-0.5
BNX	BinXian	11.07	275	⇓P	Pn	13 09 33.0	-13
BNX				pmax	pmax		
	comp=Z,4.0nm,0.7s						
HEH	HeiHe	11.44	298	eP	Pn	13 09 50.3	-0.4
HEH				pmax	pmax		
	comp=Z,10.0nm,0.7s						
KSRS	Korea Array	14.24	239	P	Pn	13 10 24.4	+0.2
	comp=Z,2.8nm,0.7s,baz=45,slow=11,SNR=14						
MA2	Magadan	14.37	16	P	Pn	13 10 24.8	-0.5
	comp=Z,13nm,0.9s,baz=196,slow=13,SNR=5.1						
MA2	Magadan	14.37	16	P	P	13 10 23.6	-0.1
HILR	Hailar Array B	16.20	291	P	P	13 10 44.5	+0.6
	comp=Z,5.1nm,0.4s,baz=89,slow=7.6,SNR=5.9						
SEY	Seymchan	17.79	14	P	P	13 11 01.1	+0.3
	comp=Z,11nm,0.4s,baz=202,slow=7.9,SNR=38						
SEY	Seymchan	17.79	14	eP	P	13 11 00.2	-0.5
SEY				pmax	pmax		
	comp=Z,23nm,1.1s						
SONM	Songino Array	25.12	288	P	P	13 12 11.0	0.0
	comp=Z,0.8nm,0.4s,baz=68,slow=9.7,SNR=3.8						
	comp=Z,0.8nm,0.4s						
AKUT	Akutan	33.09	57	P	P	13 13 21.1	+0.4
G16K	Koyuk River	34.84	37	P	P	13 13 36.2	+0.7
G16K				IAmb	IAmb	13 14 18.5	
	comp=Z,8.8nm,1.2s						
CNBA	Chernabura Isl	36.55	55	P	P	13 13 50.4	+0.3
M17K	Holitna River	36.92	44	P	P	13 13 53.8	+0.7
M17K				IAmb	IAmb	13 13 55.6	
	comp=Z,13nm,1.3s						
L18K	Granite Mounta	37.24	42	P	P	13 13 56.2	+0.5
L18K				IAmb	IAmb	13 14 31.7	
	comp=Z,6.9nm,1.4s						
IMAR	Indian Mountai	38.43	36	P	P	13 14 05.0	-0.5
CAST	Castle Rocks	39.27	40	P	P	13 14 13.1	+0.7
PMR	Palmer	40.86	43	P	P	13 14 25.6	+0.2
PMR				pmax	pmax		
	comp=Z,10.0nm,1.1s						
PMR	Palmer	40.86	43	P	P	13 14 25.6	+0.2
PMR				IAmb	IAmb	13 14 28.1	
	comp=Z,9.9nm,1.1s						
MKAR	Makanchi Array	41.14	294	P	P	13 14 28.0	+0.1
	comp=Z,0.3nm,0.6s,baz=74,slow=9.1,SNR=4.3						
	comp=Z,0.3nm,0.6s						
ILAR	Eielson Array	41.38	37	P	P	13 14 29.1	-0.5
	comp=Z,0.6nm,0.5s,baz=255,slow=6.1,SNR=14						
ILAR				PcP	PcP	13 16 18.4	-2.0
	comp=Z,0.1nm,0.5s,baz=328,slow=3.2,SNR=4.8						
	comp=Z,0.6nm,0.5s						
ILAR	Eielson Array	41.38	37	P	P	13 14 30.1	+0.5
ILAR	Eielson Array	41.38	37	P	P	13 14 30.1	+0.5
FYU	Fort Yukon	41.83	35	P	P	13 14 33.5	+0.4
FYU				IAmb	IAmb	13 14 34.5	
	comp=Z,5.0nm,1.1s						
KURK	Kurchatov	42.02	301	P	P	13 14 35.4	+0.5
KURK	Kurchatov	42.02	301	P	P	13 14 35.4	+0.5
KURK	Kurchatov	42.02	301	IAmb	IAmb	13 15 15.2	
	comp=Z,2.7nm,0.2s						
KURK	Kurchatov	42.02	301	eP	P	13 14 35.4	+0.5
KURBB	Kurchatov Arra	42.10	301	P	P	13 14 35.4	-0.2
	comp=Z,1.1nm,0.3s,baz=71,slow=8.8,SNR=1.7						
	comp=Z,1.1nm,0.3s						
F26K	Sheenjek River	42.11	33	P	P	13 14 35.8	+0.3
H27K	Steamboat Moun	43.35	35	P	P	13 14 45.8	+0.5
BCAR	Beaver Creek A	43.92	39	P	P	13 14 50.5	+0.7
I28M	Miner Creek	44.16	36	P	P	13 14 52.3	+0.5
F30M	Barrier River	45.27	32	P	P	13 15 00.7	+0.4
F30M				IAmb	IAmb	13 15 01.6	
	comp=Z,6.9nm,1.1s						
INK	Inuvik	45.91	31	P	P	13 15 04.7	-0.6
INK	Inuvik	45.91	31	P	P	13 15 04.7	-0.6
AB31	Akbulak array	53.53	306	P	P	13 16 02.4	0.0
ABKAR	Akbulak array	53.53	306	P	P	13 16 02.4	0.0
RES	Resolute Bay	53.64	16	P	P	13 16 02.4	-0.4
RES				pmax	pmax		
	comp=Z,17nm,1.2s						
RES	Resolute Bay	53.64	16	P	P	13 16 02.4	-0.4
RES				IAmb	IAmb	13 16 08.2	
	comp=Z,17nm,1.1s						
YKAW3	Yellowknife Wh	55.46	33	P	P	13 16 16.1	+0.2
YKAW3				IAmb	IAmb	13 16 56.7	
	comp=Z,4.8nm,0.9s						
YKA	Yellowknife Ar	55.50	33	P	P	13 16 16.2	+0.1
	comp=Z,1.6nm,0.5s,baz=311,slow=7.2,SNR=7.4						
	comp=Z,1.6nm,0.5s						
FIA1	FINESS Array S	61.63	331	P	P	13 16 57.6	-0.5
SUMG	Summit	61.77	1	P	P	13 16 59.4	0.0
SUMG				pmax	pmax		
	comp=Z,5.0nm,0.9s						
SUMG	Summit	61.77	1	P	P	13 16 59.4	0.0
SUMG				IAmb	IAmb	13 17 00.1	
	comp=Z,4.9nm,0.9s						
NC405	NORSAR Array S	66.32	337	P	P	13 17 27.7	-0.8
NC405				IAmb	IAmb	13 17 29.3	
	comp=Z,8.6nm,1.2s						
NOA	NORSAR Array B	66.52	337	P	P	13 17 29.1	-0.6
	comp=Z,0.5nm,0.6s,baz=37,slow=4.5,SNR=2.1						
	comp=Z,0.5nm,0.6s						
HFS	Hagfors	66.56	335	P	P	13 17 29.1	-0.9
	comp=Z,1.2nm,0.5s,baz=66,slow=7.2,SNR=6.2						
	comp=Z,1.2nm,0.5s						
NVAR	Mina Array Bea	68.71	56	P	P	13 17 45.6	+1.7
	comp=Z,1.0nm,0.6s,baz=300,slow=6.3,SNR=12						
	comp=Z,1.0nm,0.6s						
NVAR	Mina Array Bea	68.71	56	P	P	13 17 44.2	+0.3
ASAR	Alice Springs	69.81	189	P	P	13 17 52.1	+1.7
	comp=Z,0.4nm,0.6s,baz=358,slow=5.1,SNR=7.1						
	comp=Z,0.4nm,0.6s						
PD31	Pinedale Array	70.55	48	IAmb	IAmb	13 17 56.7	
	comp=Z,1.2nm,0.8s						
PDAR	Pinedale Array	70.55	48	P	P	13 17 56.0	+1.0
	comp=Z,0.9nm,0.6s,baz=306,slow=1.5,SNR=12						
	comp=Z,0.9nm,0.6s						
PDAR	Pinedale Array	70.55	48	P	P	13 17 55.0	0.0
QSM	Queen of Sheba	71.22	58	P	P	13 17 58.9	+0.1
QSM				IAmb	IAmb	13 18 02.9	
	comp=Z,1.8nm,0.8s						
ULM	Lac du Bonnet	71.36	36	P	P	13 17 59.6	+0.2
	comp=Z,1.9nm,0.6s,baz=290,slow=5.4,SNR=5.0						
	comp=Z,1.9nm,0.6s						
ULM	Lac du Bonnet	71.36	36	IAmb	IAmb	13 18 01.5	
	comp=Z,4.8nm,0.9s						

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
PV14	Lion Creek, Pa	73.97	51	P	P	13 18 15.6	+0.4
BRTR	Keskin Array B	74.02	311	P	P	13 18 15.7	+0.4
	comp=Z,0.4nm,0.6s,baz=135,slow=47,SNR=1.8						
	comp=Z,0.4nm,0.6s						
EKA	Eskdalemuir Ar	75.18	341	P	P	13 18 21.4	0.0
	comp=Z,0.2nm,0.4s,baz=18,slow=3.8,SNR=3.5						
	comp=Z,0.2nm,0.4s						
GERES	GERESS Array B	75.86	328	P	P	13 18 26.3	+0.7
	comp=Z,0.8nm,0.2s,baz=206,slow=43,SNR=1.4						
	comp=Z,0.8nm,0.2s						
SCHQ	Schefferville	76.40	17	P	P	13 18 28.3	-0.1
SCHQ				IAmb	IAmb	13 19 10.4	
	comp=Z,5.2nm,1.0s						
SENIN	Lac Senin/Sane	80.24	331	P	P	13 18 49.7	+0.1
SENIN				IAmb	IAmb	13 19 03.0	
	comp=Z,3.3nm,1.1s						
BATG	Bathurst New B	83.66	20	P	P	13 19 07.5	+0.5
TXAR	Lajitas Array	83.66	54	P	P	13 19 08.9	+1.5
	comp=Z,0.4nm,0.5s,baz=294,slow=4.1,SNR=11						
	comp=Z,0.4nm,0.5s						
TXAR	Lajitas Array	83.66	54	P	P	13 19 07.8	+0.5
WHAR	Wooly Hollow	84.88	43	P	P	13 19 13.7	+0.5
WHAR				IAmb	IAmb	13 19 14.1	
	comp=Z,2.4nm,0.7s						
DBIC	Dimbokro	120.39	323	PKP	PKPdf	13 25 26.5	-1.2
	comp=Z,2.6nm,0.3s,baz=58,slow=3.4,SNR=3.5						

RSNC ***29*** *13:19:21.2±0.5, 2°S±3°×8°1W±°, h0^{km}, M4.0, mB5.2, mb4.2, ML3.2, Mw(mB)4.5*
IGQ ***29*** *13:19:24.6±0.3, 2°S±2°×8°1W±°, h2^{km}±1^{km}, M3.9/25, Mjma3.9/24, ML4.2/25, MLv3.8/22, Ms(BB)3.8/12*
ISC 29 13:19:21.5±1.4, **1°.62S**±0°.03×**81°.05W**±0°.05, **h5**^{km}±10^{km}, **n61**, σ**2^{s}.07**/72, **Off coast of Ecuador**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PPLP	Puerto Lpez	0.28	74	P	Pg	13 19 27.3	+0.3
PPLP				P	Pg	13 19 28.3	+1.3
PPLP				S	Sg	13 19 30.9	+0.2
PPLP				S	Sb	13 19 31.7	-2.5
PPLP	Puerto Lpez	0.28	74	P	Pg	13 19 28.3	+1.3
PPLP				S	Sg	13 19 31.9	+1.1
ISPT	Isla de la Pla	0.36	356	P	Pg	13 19 29.3	+0.8
ISPT				S	Sg	13 19 34.1	+0.9
JIPI	JIPIJAPA	0.55	62	P	Pg	13 19 32.9	+0.8
SALI	Salinas	0.56	174	P	Pn	13 19 37.1	+0.9
SALI				S	Sn	13 19 47.6	+1.7
AMNT	Manta-Manabi	0.75	25	P	Pb	13 19 36.8	-0.2
AGUAY	Guayaquil	1.18	111	P	Pn	13 19 43.6	-1.0
PECV	Mancha de Ca P	1.30	50	P	Pn	13 19 41.3	-5.1
CAB1	Cabo Pasado-Ma	1.38	27	P	Pn	13 19 46.8	-0.6
CAB1				S	Sg	13 20 05.9	+0.2
FLF1	Flavio Alfaro-	1.74	44	P	Pb	13 19 52.8	-1.2
FLF1	Flavio Alfaro-	1.74	44	P	Pn	13 19 52.6	+0.2
FLF1				S	Sb	13 20 16.1	-0.1
CHSH	Refugio Sur-Vo	2.18	87	P	Pn	13 20 00.0	+1.0
TAMH	Tambohuasha Ch	2.27	88	P	Pn	13 20 01.1	+1.0
ILLI	Illinizas Sur	2.49	69	P	Pn	13 20 04.8	+1.6
BV15	Puerto Quito-O	2.54	46	P	Pn	13 20 03.8	+0.3
BPAT	Tungurahua Vol	2.62	87	P	Pn	13 20 06.3	+1.4
PIS1	Pisayambo	2.72	78	P	Pn	13 20 08.4	+2.1
BREF	Cotopaxi Volca	2.77	70	P	Pb	13 20 10.5	-1.4
GGPT	Toaza - Volcan	2.80	60	P	Pn	13 20 07.6	+0.3
BVC2	Cotopaxi Volca	2.80	70	P	Pb	13 20 11.2	-1.2
BTAM	Cotopaxi Volca	2.81	70	P	Pb	13 20 10.8	-1.7
TERV	Terraza Guagua	2.83	60	P	Pn	13 20 08.2	+0.2
GGPC	Guagua Pichinc	2.84	60	P	Pn	13 20 08.3	+0.3
PAC1	Pacto, Paraso	2.93	50	P	Pn	13 20 08.8	-0.2
PAC1	Pacto, Paraso	2.93	50	P	Pn	13 20 08.8	-0.2
PAC1				S	Sn	13 20 46.4	+1.7
MCRA	Macar, Loja	2.94	158	P	Pn	13 20 10.6	+1.7
MCRA				S	Sn	13 20 47.0	+2.3
BOSC	San Juan Bosco	2.97	121	P	Pb	13 20 13.3	-1.7
ANTG	Antisana-Guama	3.00	68	P	Pb	13 20 13.6	-2.2
ANTM	Antisana-La Mi	3.02	69	P	Pb	13 20 13.8	-2.4
PULU	Pululahua	3.02	57	P	Pn	13 20 12.5	+2.0
PUEM	Granja Avicola	3.06	61	P	Pb	13 20 14.3	-2.3
ANTS	Antisana-Sarah	3.09	69	P	Pn	13 20 13.9	+2.4
OTAV	Otavalo	3.19	55	P	Pn	13 20 13.9	+1.1
OTAV	Otavalo	3.19	55	P	Pn	13 20 13.6	+0.9
OTAV				S	Sb	13 20 54.8	-3.5
CUSE	Cuicocha Este	3.27	54	P	Pn	13 20 15.2	+1.4
CUSE	Cuicocha Este	3.27	54	P	Pn	13 20 14.5	+0.7
CUIC	Cuicocha-Domo	3.30	55	P	Pn	13 20 15.8	+1.6
ARDO	Archidona, Ten	3.31	79	P	Pb	13 20 18.3	-2.4
COTA	Cotacachi	3.33	54	P	Pn	13 20 16.5	+1.7
IMBA	Imbabura, San	3.42	56	P	Pb	13 20 19.4	-3.5
PKYU	Pakayacu	3.45	90	P	Pn	13 20 19.0	+3.1
ANGU	Angureal	3.46	61	P	Pn	13 20 19.5	+2.9
URCU	Urcuqui	3.46	54	P	Pn	13 20 19.1	+2.7
YAHU	Yahuarcocha	3.57	56	P	Pn	13 20 20.9	+2.9
TAIS	Taisha	3.62	102	P	Pb	13 20 22.8	-3.3
ZUMB	Zumba	3.74	149	P	Pb	13 20 25.0	-3.1
LNGL	El Angel-Carch	3.84	52	P	Pn	13 20 25.3	+3.5
CHMA	Chilma	3.87	50	P	Pn	13 20 21.7	-0.3
CHL1	Volc¡n Chiles	3.92	52	P	Pn	13 20 25.2	+2.3
CHL2	Volc¡n Chiles	3.95	52	P	Pn	13 20 26.2	+2.9
TULM	Tulcn-Chalpat	4.00	55	P	Pb	13 20 29.2	-3.6
CASC	Dorado de Casc	4.10	65	P	Pb	13 20 32.2	-2.1
CASC	Dorado de Casc	4.10	65	P	Pn	13 20 27.3	+2.3
CMBC	Cumbal	4.11	52	P	Pb	13 20 30.2	-4.4
BBAC	Balboa, Cauca	5.25	46	P	Pn	13 20 43.9	+3.0
BBAC	Balboa, Cauca	5.25	46	P	Pn	13 20 40.6	-0.3
	13nm,0.5s						
BBAC				S	Sn	13 21 43.8	+1.9
	13nm,0.5s						
BBAC				AML	AML		
POPC	Popayan, Colom	6.02	47	P	Pn	13 20 50.1	-1.4
	12nm,0.9s						
POPC				AML	AML		
PTLC	Puerto Leguiza	6.50	74	P	Pn	13 21 01.1	+3.2
PTLC	Puerto Leguiza	6.50	74	P	Pn	13 21 00.7	+2.8
	998nm6.8nm,0.4s						
GARC	Garzon, Huila	6.72	56	P	Pn	13 20 59.9	-1.2
ORTC	Ortega, Tolima	7.99	47	P	Pn	13 21 22.5	+4.1

MAN ***29*** *13:26:17.0, 4°.09N×125°.88E, h119^{km}, MS4.3*
IDC ***29*** *13:26:18.8±1.6, 4°.00N×125°.82E, h113^{km}±15^{km}, mb3.6/8, mbtmp4.0/10, Error ellipse: s-maj=37.4km s-min=9.8km az=74.0*
NEIC ***29*** *13:26:19.4±1.2, 4°.05N±0°.06×125°.92E±0°.09, h111^{km}±5^{km}, mb4.3/19, Error ellipse: s-maj=13.3km s-min=8.0km az=76.0*
DJA ***29*** *13:26:22.1±0.7, 4°N±4°×12°6E±°, h118^{km}±7^{km}, M4.4/10, mB5.1/3, mb4.5/2, MLv4.3/10, Mw(mB)4.5/3*
ISC 29 13:26:18.1±0.5, **4°.03N**±0°.04×**125°.86E**±0°.06, **h107**^{km}, **n51**, σ**1^{s}.42**/65, **mb4.1**/14, **Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GSPH	General Santos	2.24	336	*i* P	Pn	13 26 53.5	-0.8
GSPH				*i* S	Sn	13 27 19.3	-2.6
MNI	Manado	2.76	202	P	Pn	13 27 02.3	+1.4
MNI				AML	AML		
DAV	Davao City (W)	3.04	355	P	Pn	13 27 05.5	+0.9
	190nm,0.4s,baz=23,slow=11,SNR=1.7						
DAV				S	Sn	13 27 42.4	+2.0
	255nm,0.4s,baz=78,slow=18,SNR=4.1						
DAV	Davao City (W)	3.04	355		Pn	13 27 05.2	+0.6
DMPH	Davao City--Mi	3.06	353	*i* P	Pn	13 27 07.2	+2.4
DMPH				*i* S	Sn	13 27 44.2	+3.3
KCP	Kidapawan	3.06	346	*i* P	Pn	13 27 05.3	+0.3
KCP				*i* S	Sn	13 27 41.1	0.0
CTBH	Cotabato--PC H	3.56	333	*i* P	Pn	13 27 11.7	+0.1
TNTI	Ternate	3.56	155		Pn	13 27 12.1	+0.4
TNTI	Ternate	3.56	155	P	Pn	13 27 12.5	+0.9
TNTI				S	Sn	13 27 51.3	-1.7
TNTI				AML	AML		
CDOP	Cateel, Davao	3.78	9	*i* P	Pn	13 27 14.5	0.0
CDOP				*i* S	Sn	13 27 58.0	-0.1
BUKP	Musuan	3.91	348	*e*P	Pn	13 27 16.8	+0.4
BUKP				*e*S	Sn	13 28 05.0	+3.6
BIPH	Bislig	4.16	7	*e*P	Pn	13 27 20.4	+0.7
BIPH				*e*S	Sn	13 28 09.4	+2.1
GTOI	Gorontalo	4.41	220	P	Pn	13 27 25.3	+2.3
GTOI				S	Sn	13 28 14.2	+0.9
GTOI				AML	AML		
PAGZ	Pagadian	4.53	327	*i* P	Pn	13 27 24.7	+0.1
PAGZ				*i* S	Sn	13 28 13.3	-2.9
CGP	Cagayan de Oro	4.55	345	*e*P	Pn	13 27 24.0	-0.9
CGP				*e*S	Sn	13 28 28.2	+11
TOLI2	Tolitoli	5.84	240	Pn	Pn	13 27 44.0	+1.6
LUWI	Luwuk	5.90	212		Pn	13 27 45.9	+2.6
SANI	Sanana	6.04	179	P	Pn	13 27 43.5	-1.5
	0.4nm3µm58nm,0.8s						
SANI				S	Sn	13 28 49.7	-3.1
	0.4nm3µm58nm,0.8s						
SANI				AML	AML		
SIJI	Sorong	7.27	132	P	Pn	13 28 03.8	+2.0
	3.8nm,0.2s,baz=286,slow=15,SNR=8.1						
SIJI				S	Sn	13 29 22.1	-0.7
	2.1nm,0.3s,baz=233,slow=20,SNR=5.5						
FAKI	Fak Fak	9.40	137	Pn	Pn	13 28 31.7	+1.0
LQP	Lukban	10.89	337	*e*P	Pn	13 28 47.3	-3.8
SZP	Santa	14.45	339	Pn	Pn	13 29 39.1	+1.5
MTN	Manton Dam	17.56	163	P	P	13 30 15.2	-0.6
KNRA	Kununurra	19.79	172	P	P	13 30 40.6	+0.5
KNRA				IAmb	IAmb	13 30 50.3	
	comp=Z,8.6nm,1.4s						
SSLB	Suanglung	20.21	347	P	P	13 30 43.9	-0.8
SSLB				IAmb	IAmb	13 31 03.7	
	comp=Z,22nm,1.2s						
FITZ	Fitzroy Crossi	21.98	181	P	P	13 31 03.6	0.0
	comp=Z,4.7nm,0.6s,baz=1.6,slow=7.4,SNR=25						
	comp=Z,4.7nm,0.6s						
FITZ	Fitzroy Crossi	21.98	181	P	P	13 31 03.7	0.0
JOW	Kunigami	22.80	6	P	P	13 31 12.1	+0.2
JOW				IAmb	IAmb	13 31 26.2	
	comp=Z,37nm,1.1s						
WB0	Warramunga Arr	25.09	161	P	P	13 31 33.1	+0.2
WB0				IAmb	IAmb	13 31 35.4	
	comp=Z,6.2nm,0.6s						
WRAB	Tennant Creek	25.23	161	P	P	13 31 34.6	+0.4
WRAB				IAmb	IAmb	13 31 37.4	
	comp=Z,3.4nm,0.8s						
WRA	Warramunga Arr	25.23	161	P	P	13 31 34.3	0.0
	comp=Z,3.5nm,0.7s,baz=339,slow=10,SNR=37						
WRA				PcP	PcP	13 35 05.2	-0.1
	comp=Z,0.3nm,0.9s,baz=333,slow=2.0,SNR=2.0						
	comp=Z,3.5nm,0.7s						
WRA	Warramunga Arr	25.23	161	IAmb	IAmb	13 31 40.4	
	comp=Z,0.2nm,1.1s						
WR8	Warramunga Arr	25.30	161	P	P	13 31 35.1	+0.2
WR8				IAmb	IAmb	13 32 15.1	
	comp=Z,11nm,1.4s						
AS31	Alice Springs	28.62	164	P	P	13 32 04.1	-0.5
ASAR	Alice Springs	28.62	164	P	P	13 32 05.1	+0.4
	comp=Z,0.5nm,0.4s,baz=342,slow=7.1,SNR=21						
ASAR				PcP	PcP	13 35 13.1	-0.2
	comp=Z,0.4nm,1.0s,baz=343,slow=3.0,SNR=4.4						
	comp=Z,0.5nm,0.4s						
ASAR	Alice Springs	28.62	164	P	P	13 32 04.1	-0.6
KSRS	Korea Array	33.32	3	P	P	13 32 45.6	-0.1
	comp=Z,1.2nm,0.6s,baz=180,slow=9.8,SNR=8.8						
	comp=Z,1.2nm,0.6s						
FORT	Forrest	34.67	177	P	P	13 32 57.9	+0.4
FORT				IAmb	IAmb	13 32 58.9	
	comp=Z,3.9nm,0.6s						
BBOO	Buckleboo	37.89	166	P	P	13 33 25.6	+0.6
EIDS	Eidsvold	38.12	141	P	P	13 33 26.8	-0.1
STKA	Stephens Creek	38.72	158	P	P	13 33 31.1	-0.8
	comp=Z,2.2nm,0.7s,baz=326,slow=10,SNR=3.3						
	comp=Z,2.2nm,0.7s						
JKA	Kamikawa-asahi	42.57	18	P	P	13 34 03.3	-0.2
PETK	Petropavlovsk-	55.49	23	P	P	13 35 43.3	+1.4
	comp=Z,2.7nm,1.0s,baz=235,slow=5.5,SNR=1.6						
	comp=Z,2.7nm,1.0s						
MKAR	Makanchi Array	56.82	326	P	P	13 35 50.8	-0.7
	comp=Z,0.1nm,0.4s,baz=114,slow=7.4,SNR=1.9						
MKAR				ScP	ScP	13 40 33.8	-2.1
	comp=Z,0.5nm,0.8s,baz=131,slow=3.5,SNR=3.7						
	comp=Z,0.1nm,0.4s						
BOOM	Boomskoye usch	58.53	318	P	P	13 36 04.3	+0.5
MIDW	Midway	58.99	59	P	P	13 36 06.0	-0.9
ROCAM	Rodrigues Isla	65.76	246	P	P	13 36 52.6	+0.4
PPLA	Purkeypile	82.76	27	P	P	13 38 30.0	-0.2
PPLA				IAmb	IAmb	13 38 42.4	
	comp=Z,18nm,1.5s						
VNDA	Vanda	83.83	173	P	P	13 38 35.2	0.0
	comp=Z,0.6nm,0.7s,baz=316,slow=6.9,SNR=6.1						
	comp=Z,0.6nm,0.7s						
VNDA	Vanda	83.83	173	P	P	13 38 36.0	+0.8
VNDA				IAmb	IAmb	13 38 39.2	
	comp=Z,2.9nm,1.4s						
BMAR	Burnt Mountain	86.14	23	P	P	13 38 47.2	+0.2

IDC ***29*** *13:29:57.4±0.5, 17°.93N×67°.05W, h0^{km}, mb4.0/17, mbtmp4.0/19, ML3.7/2, MS3.3/11, Error ellipse: s-maj=14.2km s-min=11.8km az=129.0*
PTWC ***29*** *13:29:58, 17°.90N×67°.10W, Ml4.4/18*
SDD ***29*** *13:29:58.2±2.7, 17°.97N×67°.03W, h19^{km}±3^{km}, MD3.0, ML4.3, MW4.0, Presumed earthquake*
NEIC ***29*** *13:29:59.4±1.5, 17°.94N±0°.04×67°.09W±0°.03, h10^{km}±1^{km}, mb4.5/63, ML4.1/40, ML3.9/11(RSPR), Error ellipse: s-maj=6.7km s-min=2.9km az=30.0*
RSPR ***29*** *13:29:59.9, 17°.95N×67°.07W, h12^{km}, MD3.6/11*
OSPL ***29*** *13:29:59.3±1.4, 17°.87N×67°.05W, h5^{km}±9^{km}, ML4.0, Presumed earthquake*
ISC 29 13:29:58.9±0.7, **17°.88N**±0°.03×**67°.05W**±0°.02, **h14**^{km}±4^{km}, **n170**, σ**1^{s}.39**/173, **mb4.4**/42, **MS3.4**/10, **16C-1D**, **Mona Passage**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MLPR	Magueyes Islan	0.09	3		Pg	13 30 01.8	-0.3
MLPR				Sg	Sg	13 30 03.7	-0.4
MLPR				IAML		13 30 04.5	
	136µm,0.5s						
MLPR	Magueyes Islan	0.09	3	P	Pg	13 30 01.8	-0.3
MLPR	Magueyes Islan	0.09	3	⇑*e*P	Pg	13 30 02.1	0.0
MLPR	Magueyes Islan	0.09	3	*i* P	Pg	13 30 01.9	-0.1
MLPR				*i* S	Sg	13 30 04.4	+0.3
MLPR				IAML		13 30 04.5	
	comp=N,46µm,0.4s						
CRPR	Cabo Rojo, PR	0.14	336		Pg	13 30 02.3	-0.3
CRPR				Sg	Sg	13 30 04.6	-0.6
CRPR				IAML		13 30 05.3	
	comp=N,74µm,0.4s						
CRPR	Cabo Rojo, PR	0.14	336	P	Pg	13 30 02.3	-0.3
CRPR	Cabo Rojo, PR	0.14	336	⇑*e*P	Pg	13 30 02.4	-0.2
CRPR	Cabo Rojo, PR	0.14	336	*i* P	Pg	13 30 02.3	-0.3
CRPR				*e*S	Sg	13 30 04.4	-0.7
CRPR	Cabo Rojo, PR	0.14	336	⇑*i*P	Pg	13 30 02.3	-0.3
CRPR				IAML		13 30 04.7	
	comp=N,66µm,0.4s						
CRPR				*i* S	Sg	13 30 04.8	-0.3
LSP	Las Mesas	0.30	353		Pg	13 30 04.9	-0.4
LSP	Las Mesas	0.30	353	⇓*e*P	Pg	13 30 04.9	-0.4
PRSN	Puerto Rico Se	0.35	345		Pg	13 30 05.5	-0.6
PRSN				IAML		13 30 12.6	
	comp=N,51µm,0.3s						
PRSN	Puerto Rico Se	0.35	345		Sb	13 30 10.6	-1.7
PRSN	Puerto Rico Se	0.35	345	P	Pg	13 30 05.5	-0.6
PRSN	Puerto Rico Se	0.35	345	⇑*e*P	Pg	13 30 05.6	-0.5
PRSN	Puerto Rico Se	0.35	345	⇑*i*P	Pg	13 30 05.5	-0.6
PRSN				IAML		13 30 11.1	
	comp=N,39µm,0.4s						
PRSN				*i* S	Sb	13 30 11.2	-1.2
CELP	Cerrillos	0.49	66		Pg	13 30 08.5	-0.1
CELP	Cerrillos	0.49	66		Sb	13 30 16.1	-0.2
CELP	Cerrillos	0.49	66	P	Pg	13 30 08.7	+0.1
CELP	Cerrillos	0.49	66	⇑*e*P	Pg	13 30 09.0	+0.4
CELP	Cerrillos	0.49	66	*i* P	Pg	13 30 08.8	+0.1
CELP				*i* S	Sb	13 30 16.6	+0.3
CELP				IAML		13 30 19.6	
	comp=N,2µm,0.3s						
AOPR	Arecibo Observ	0.55	31		Pg	13 30 08.8	-0.9
AOPR				IAML		13 30 18.9	
	comp=N,25µm,0.3s						
AOPR				IAML		13 30 21.6	
	comp=N,13µm,0.4s						
AOPR	Arecibo Observ	0.55	31		Sg	13 30 16.2	-0.8
AOPR	Arecibo Observ	0.55	31	P	Pg	13 30 09.1	-0.6
AOPR	Arecibo Observ	0.55	31	⇑*e*P	Pg	13 30 09.2	-0.6
AOPR	Arecibo Observ	0.55	31	*i* P	Pg	13 30 09.0	-0.6
AOPR				*i* S	Sb	13 30 17.6	-0.4
AOPR				IAML		13 30 19.9	
	comp=N,10µm,0.4s						
AGPR	Aguadilla, PR	0.59	354		Pg	13 30 09.6	-0.9
AGPR				IAML		13 30 18.0	
	comp=N,21µm,0.6s						
AGPR					Sg	13 30 17.0	-1.4
AGPR	Aguadilla, PR	0.59	354	P	Pg	13 30 09.6	-0.9
AGPR	Aguadilla, PR	0.59	354	⇑*e*P	Pg	13 30 09.7	-0.9
AGPR	Aguadilla, PR	0.59	354	*i* P	Pg	13 30 09.6	-0.9
AGPR				*e*S	Sg	13 30 17.4	-1.1
AGPR	Aguadilla, PR	0.59	354	⇑*i*P	Pg	13 30 09.6	-0.9
AGPR				*i* S	Sg	13 30 17.6	-0.9
AGPR				IAML		13 30 17.9	
	comp=N,15µm,0.5s						
EMPR	Esperanza - Ma	0.78	39		Pb	13 30 14.0	-0.2
EMPR					Sb	13 30 24.8	+0.2
EMPR	Esperanza - Ma	0.78	39	P	Pg	13 30 13.6	-0.4
EMPR	Esperanza - Ma	0.78	39	⇑*e*P	Pb	13 30 14.0	-0.2
EMPR				*e*S	Sb	13 30 24.8	+0.2
ECPR	Experimental S	0.79	56		Pg	13 30 13.5	-0.8
ECPR				IAML		13 30 25.9	
	comp=N,8µm,0.2s						
ECPR				IAML		13 30 29.0	
	comp=N,7µm,0.3s						
ECPR	Experimental S	0.79	56		Sg	13 30 23.9	-0.8
ECPR	Experimental S	0.79	56	P	Pg	13 30 13.4	-0.8
ECPR	Experimental S	0.79	56	⇑*e*P	Pg	13 30 13.8	-0.5
SJG	San Juan	0.89	75	Pn	Pg	13 30 15.6	-0.5
	comp=N,287nm,0.3s,baz=261,slow=13,SNR=108						
SJG				Sn	Sb	13 30 28.5	+0.7
	comp=N,440nm,0.3s,baz=263,slow=23,SNR=10						
SJG	San Juan	0.89	75		Pg	13 30 15.7	-0.5
SJG	San Juan	0.89	75	*e*P	Pg	13 30 15.7	-0.5
SJG	San Juan	0.89	75	⇑*e*P	Pg	13 30 15.9	-0.3
SJG	San Juan	0.89	75	*i* P	Pg	13 30 15.7	-0.5
SJG				*e*S	Sg	13 30 26.9	-0.8
SJG	San Juan	0.89	75	*i* P	Pg	13 30 15.5	-0.6
IGPR	InterUniversit	0.90	84		Pg	13 30 16.6	+0.2
IGPR					Sb	13 30 29.9	+1.7
IGPR	InterUniversit	0.90	84	P	Pg	13 30 16.2	-0.2
IGPR	InterUniversit	0.90	84	⇑*e*P	Pg	13 30 16.6	+0.2
PDPR	Patillas Dam,	0.99	82		Pg	13 30 17.3	-0.8
PDPR				IAML		13 30 34.6	
	comp=N,4µm,0.6s						
PDPR	Patillas Dam,	0.99	82	P	Pg	13 30 17.5	-0.5
PDPR	Patillas Dam,	0.99	82	⇑*e*P	Pg	13 30 17.6	-0.4
HUMP	Col San Antoni	1.17	77		Pb	13 30 20.2	-0.8
HUMP				IAML		13 30 39.7	
	comp=N,3µm,0.6s						
HUMP	Col San Antoni	1.17	77		Sn	13 30 37.4	+0.7
HUMP	Col San Antoni	1.17	77	⇑*e*P	Pb	13 30 20.6	-0.3
PCDR	Punta Cana, DR	1.42	297		Pn	13 30 23.0	-1.2
PCDR				IAML		13 30 51.3	
	comp=E,5µm,0.8s						
PCDR	Punta Cana, DR	1.42	297	P	Pn	13 30 23.2	-1.0
PCDR	Punta Cana, DR	1.42	297	⇑*e*P	Pn	13 30 23.2	-1.0
PCDR	Punta Cana, DR	1.42	297	*i* P	Pn	13 30 23.6	-0.6
PCDR				*e*S	Sb	13 30 42.2	-0.8
PCDR				IAML		13 30 51.6	
	comp=Z,2µm,0.7s						
PCDR	Punta Cana, DR	1.42	297	*i* P	Pg	13 30 25.8	-0.4
PCDR				*i* S	Sg	13 30 45.8	+1.2
PCDR				IAML		13 30 56.0	
	comp=N,4µm,0.7s						
SADR	Isla Saona	1.68	281	*i* P	Pn	13 30 28.8	+1.0
SADR				IAML		13 31 01.9	
	comp=N,7µm,0.6s						
HIDR	Higuey Centro	1.74	294	*i* P	Pn	13 30 29.3	+0.6
HIDR				*i* S	Sn	13 30 51.4	+0.7
HIDR				IAML		13 30 58.5	
	comp=N,3µm,0.7s						
MIDR	Miches	2.19	300	*i* P	Pb	13 30 37.1	-1.3
MIDR				IAML		13 31 12.3	
	comp=N,1µm,1.2s						
HATOM	Hato Mayor del	2.39	293	*i* P	Pn	13 30 38.7	+1.0
HATOM				IAML		13 31 18.8	
	comp=N,2µm,0.5s						
SMDR	Samana, DR	2.47	305	*i* P	Pb	13 30 41.8	-1.3
SMDR				IAML		13 31 21.6	
	comp=N,2µm,0.5s						
SDD	Santo Domingo	2.78	282	*i* P	Pn	13 30 44.1	+1.1
SDD				IAML		13 31 47.5	
	comp=N,470nm,0.9s						
DR08	Loma La Naviza	3.02	291	*i* P	Pn	13 30 49.2	+2.8
DR08				IAML		13 31 38.5	
	comp=N,8µm,0.7s						
NADR	Nagua	3.04	299	*i* P	Pn	13 30 47.9	+1.4
NADR				IAML		13 31 45.8	
	comp=N,4µm,0.6s						
BANI	BANI	3.19	280	*i* P	Pn	13 30 50.2	+1.5
BANI				IAML		13 31 49.5	
	comp=N,1µm,0.5s						
ABDR	Alto Bandera	3.52	286	*i* P	Pn	13 30 55.9	+2.4
ABDR				IAML		13 32 00.9	
	comp=N,877nm,0.7s						
SABA	Saba	3.64	93		Pn	13 30 53.9	-0.9
SABA				IAML		13 31 42.0	
	comp=N,491nm,0.3s						
SABA	Saba	3.64	93	*e*P	Pn	13 30 53.9	-0.9
SABA				*e*S	Sn	13 31 39.6	+2.1
SMRT	St. Maarten	3.79	87	Pn	Pn	13 30 56.5	-0.4
SMRT				IAML		13 32 29.3	
	comp=N,444nm,0.3s						
SMRT	St. Maarten	3.79	87	*e*P	Pn	13 30 55.6	-1.2
SC01	Santiago de lo	3.81	294	Pn	Pn	13 30 56.9	-0.3
SODR	Sosua Marina B	3.83	300	*i* P	Pn	13 30 59.4	+2.0
SODR				IAML		13 32 08.2	
	comp=N,2µm,0.9s						
PODR	Polo	4.04	275	*i* P	Pn	13 31 02.6	+2.1
PODR				IAML		13 32 21.7	
	comp=N,385nm,1.4s						
LOVI	El Cajuil, Ovi	4.11	270	*i* P	Pn	13 31 00.3	-1.0
LOVI				IAML		13 31 54.4	
	comp=Z,170nm,0.3s						
SKI	Saint Kitts	4.15	97	*e*P	Pn	13 31 00.7	-1.1
SDDR	Presa de Saban	4.17	286	*i* P	Pn	13 31 06.8	+4.6
SDDR				IAML		13 32 13.7	
	comp=N,745nm,0.8s						
LOBH	Bahia de las A	4.37	271	*i* P	Pn	13 31 04.3	-0.6
LOBH				*e*S	Sn	13 31 52.1	-3.5
LOBH				IAML		13 32 00.7	
	comp=Z,177nm,0.6s						
MBWH	Windy Hill	4.78	103	*e*P	Pn	13 31 10.7	+0.2
MBWH				*e*S	Sn	13 32 05.8	+0.1
MLYT	Lee's Yard	4.78	103	*e*P	Pn	13 31 10.8	+0.3
ANWB	Willy Bob	5.02	92	*e*P	Pn	13 31 14.3	+0.5
ANWB				*e*S	Sn	13 32 10.4	-1.2
GRTK	Grand Turk	5.28	314	*i* P	Pn	13 31 18.0	+0.6
GRTK				IAML		13 32 19.1	
	comp=Z,128nm,0.9s						
ABD	La Joyeuse, An	5.50	104	Pn	Pn	13 31 20.1	-0.3
CBE	Ff, Capester	5.51	108	Pn	Pn	13 31 21.9	+1.3
MAGL	Barre de l'ile	5.84	108	Pn	Pn	13 31 25.6	+0.5
DSLB	Salisbury	5.91	113	*e*P	Pn	13 31 26.3	+0.2
DSLB				*e*S	Sn	13 32 31.6	-2.2
H05N1	Guadeloupe/Mar	5.94	104	Pn	Pn	13 31 26.3	-0.2
H05N1				Sn	Sn	13 32 29.7	-4.6
DWS	Wesley	5.96	112	*e*P	Pn	13 31 27.1	+0.4
BIM	Bigot	6.64	119	Pn	Pn	13 31 35.9	-0.3
BIM	Bigot	6.64	119	*e*P	Pn	13 31 35.4	-0.8
BIM				*e*S	Sn	13 32 45.3	-6.4
BIM	Bigot	6.64	119	*e*S	Sn	13 32 45.3	-6.4
H05S1	Guadeloupe/Mar	6.88	119	Pn	Pn	13 31 39.9	+0.4
H05S1				Sn	Sn	13 32 51.6	-6.0
H05S1				T	T	13 38 37.4	
SLBI	Saint Lucia, B	6.99	122	*e*S	Sn	13 32 54.7	-5.4
SDV	Santo Domingo	9.59	202	Pn	Pn	13 32 17.9	+1.1
	comp=Z,2.2nm,0.3s,baz=28,slow=10,SNR=4.1						
SDV				Sn	Sn	13 34 03.1	-1.5
	comp=Z,1.8nm,0.3s,baz=87,slow=11,SNR=3.5						
SDV				LR	LR	13 36 19.9	
	comp=Z,88nm,19.3s,baz=74,slow=40						
	comp=Z,7.2nm,0.5s						
SDV				AML	AML		
BOAV	Boa Vista	16.66	157	Pn	Pn	13 33 51.8	-0.3
JTS	Las Juntas de	18.92	249	P	Pn	13 34 21.4	+1.3
	comp=Z,0.7nm,0.3s,baz=73,slow=8.8,SNR=5.5						
	comp=Z,6.3nm,0.7s						
JTS				AML	AML		
JTS	Las Juntas de	18.92	249	IAmb	IAmb	13 34 24.2	
	comp=Z,7.8nm,0.7s						
JUD3	Juan Diaz 3	19.50	249	P	P	13 34 25.3	-0.6
JSC	Jenkinsville	20.69	325	P	P	13 34 37.3	-1.3
TKL	Tuckaleechee C	23.10	323	LR	LR	13 43 30.0	
	comp=Z,44nm,19.6s,baz=294,slow=35						
WVT	Waverly	25.85	319	P	P	13 35 29.6	-0.4
WVT				IAmb	IAmb	13 35 38.8	
	comp=Z,6.8nm,0.8s						

SADO	Sadowa	28.67	342	LR	LR	13 46 08.9	
	comp=Z,38nm,21.9s,baz=186,slow=34						
CCM	Cathedral Cave	29.19	318	P	P	13 35 59.6	-0.3
APMT	Aspermont	33.39	304	IAmb	IAmb	13 36 38.1	
	comp=Z,6.2nm,0.7s						
OZNA	Ozona	33.50	299	IAmb	IAmb	13 36 39.6	
	comp=Z,5.2nm,1.1s						
SN07	Snyder 07	33.92	303	IAmb	IAmb	13 36 43.2	
	comp=Z,8.6nm,1.1s						
LPAZ	La Paz	33.97	182	P	P	13 36 44.5	+1.8
	comp=Z,0.5nm,0.4s,baz=256,slow=4.2,SNR=5.4						
	comp=Z,0.5nm,0.4s						
LPAZ	La Paz	33.97	182	IAmb	IAmb	13 36 51.0	
	comp=Z,3.6nm,1.1s						
SIV	San Ignacio	34.16	170	P	P	13 36 45.7	+1.8
	comp=Z,1.5nm,0.4s,baz=14,slow=8.5,SNR=13						
	comp=Z,1.5nm,0.4s						
POST	Post	34.40	303	P	P	13 36 45.0	-1.0
MNHN	Monahans	34.96	299	IAmb	IAmb	13 36 52.3	
	comp=Z,5.2nm,0.7s						
TXAR	Lajitas Array	35.30	296	P	P	13 36 54.1	+0.3
	comp=Z,3.6nm,0.6s,baz=109,slow=9.8,SNR=47						
TXAR				PcP	PcP	13 39 24.1	-0.2
	comp=Z,0.7nm,0.7s,baz=122,slow=5.4,SNR=5.1						
	comp=Z,3.6nm,0.6s						
TXAR	Lajitas Array	35.30	296	P	P	13 36 53.8	0.0
TX31	Lajitas Ar. Si	35.30	296	P	P	13 36 53.4	-0.4
TX31				IAmb	IAmb	13 36 55.7	
	comp=Z,5.2nm,0.7s						
ALPN	Alpine	35.48	297	P	P	13 36 54.3	-1.0
RTBA	Rita Blanca	36.47	308	IAmb	IAmb	13 37 04.7	
	comp=Z,6.4nm,0.7s						
SCHQ	Schefferville	36.89	0	P	P	13 37 08.1	+1.2
	comp=Z,1.4nm,0.5s,baz=186,slow=7.1,SNR=3.5						
SCHQ				LR	LR	13 50 40.9	
	comp=Z,35nm,21.5s,baz=286,slow=34						
	comp=Z,1.4nm,0.5s						
SCHQ	Schefferville	36.89	0	IAmb	IAmb	13 37 15.4	
	comp=Z,7.3nm,1.1s						
MNTX	Cornudas Mount	37.22	299	P	P	13 37 10.1	0.0
MNTX				IAmb	IAmb	13 37 12.2	
	comp=Z,3.7nm,0.6s						
PV07	Paradox Valley	41.57	308	IAmb	IAmb	13 37 48.9	
	comp=Z,6.6nm,0.7s						
PV22	Blue Mesa, Par	41.70	308	P	P	13 37 47.9	+0.3
PV22				IAmb	IAmb	13 37 49.8	
	comp=Z,7.7nm,0.6s						
PV14	Lion Creek, Pa	41.83	308	IAmb	IAmb	13 37 50.9	
	comp=Z,11nm,0.9s						
PV21	Cone Mtn., Par	41.85	308	IAmb	IAmb	13 37 51.0	
	comp=Z,7.4nm,0.8s						
PDAR	Pinedale Array	43.67	314	P	P	13 38 03.7	+0.2
	comp=Z,0.3nm,0.6s,baz=111,slow=11,SNR=4.4						
PDAR				PcP	PcP	13 39 49.8	-0.9
	comp=Z,1.2nm,0.8s,baz=117,slow=5.7,SNR=7.6						
	comp=Z,0.3nm,0.6s						
RLMT	Red Lodge	44.37	317	P	P	13 38 08.9	-0.2
RLMT				IAmb	IAmb	13 38 11.3	
	comp=Z,3.3nm,0.6s						
W13A	Hualapai Mount	44.86	302	IAmb	IAmb	13 38 16.5	
	comp=Z,5.5nm,0.9s						
CPUP	Villa Florida	44.95	168	P	P	13 38 14.1	+0.5
	comp=Z,1.8nm,0.3s,baz=14,slow=9.0,SNR=5.7						
	comp=Z,1.8nm,0.3s						
CPUP	Villa Florida	44.95	168	IAmb	IAmb	13 38 24.5	
	comp=Z,4.0nm,0.9s						
BGU	Big Grassy Mou	45.53	310	IAmb	IAmb	13 38 20.2	
	comp=Z,3.8nm,0.7s						
PSUT	Pine Spring	45.53	307	IAmb	IAmb	13 38 21.6	
	comp=Z,3.9nm,0.8s						
IRM	Iron Mountain	45.74	300		P	13 38 21.5	+1.6
FRB	Frobisher Bay	45.84	359	LR	LR	13 57 27.6	
	comp=Z,44nm,19.7s,baz=316,slow=36						
PFO	Pinyon Flats O	46.75	300	LR	LR	14 02 32.5	
	comp=Z,62nm,18.4s,baz=210,slow=42						
BCYI	Bear Canyon	46.82	315	IAmb	IAmb	13 38 37.4	
	comp=Z,5.0nm,1.3s						
HLID	Hailey	47.28	313	IAmb	IAmb	13 38 39.9	
	comp=Z,4.2nm,1.3s						
QSM	Queen of Sheba	47.40	303	IAmb	IAmb	13 38 35.4	
	comp=Z,5.7nm,0.9s						
MPMC	Manual Prospec	47.91	303	IAmb	IAmb	13 38 39.3	
	comp=Z,4.5nm,1.0s						
PLID	Pearl Lake	48.82	315	P	P	13 38 43.4	-0.7
KVN	Kaiserville	48.88	307	P	P	13 38 44.8	+0.1
KVN				IAmb	IAmb	13 38 46.7	
	comp=Z,3.1nm,0.8s						
NVAR	Mina Array Bea	48.93	306	P	P	13 38 46.3	+1.3
	comp=Z,1.4nm,0.7s,baz=94,slow=6.2,SNR=11						
	comp=Z,1.4nm,0.7s						
NVAR	Mina Array Bea	48.93	306	P	P	13 38 45.0	0.0
LHV	Little Huntoon	49.06	305	P	P	13 38 46.3	+0.6
LHV				IAmb	IAmb	13 38 47.9	
	comp=Z,4.7nm,0.6s						
NEW	Newport	50.55	318	LR	LR	14 00 28.3	
	comp=Z,92nm,18.9s,baz=237,slow=36						
YBH	Yreka Blue Hor	52.81	309	P	P	13 39 13.6	-0.5
M02C	Callahan	52.87	309	P	P	13 39 13.9	-0.6
M02C				IAmb	IAmb	13 39 42.5	
	comp=Z,7.0nm,1.4s						
KHBM	Hayfork Bally	53.03	308	P	P	13 39 15.6	-0.2
KHBM				IAmb	IAmb	13 39 56.5	
	comp=Z,3.6nm,0.6s						
KSXB	Camp Six Broad	53.69	309	P	P	13 39 20.6	+0.1
YKA	Yellowknife Ar	55.35	335	P	P	13 39 33.9	+1.8
	comp=Z,2.5nm,0.8s,baz=104,slow=5.8,SNR=3.5						
YKA				LR	LR	14 02 20.0	
	comp=Z,37nm,21.3s,baz=268,slow=35						
	comp=Z,2.5nm,0.8s						
MDT	Midelt	57.62	62	P	P	13 39 50.0	+1.1
	comp=Z,1.1nm,0.4s,baz=247,slow=5.2,SNR=1.6						
	comp=Z,1.1nm,0.4s						
ESDC	Sonseca Array	58.22	54	P	P	13 39 53.5	+0.6
	comp=Z,2.2nm,0.8s,baz=268,slow=7.0,SNR=14						
	comp=Z,2.2nm,0.8s						
ESDC	Sonseca Array	58.22	54		P	13 39 53.5	+0.6
ESDC				IAmb	IAmb	13 40 07.0	
	comp=Z,6.1nm,1.4s						
EKA	Eskdalemuir Ar	60.67	36	P	P	13 40 10.5	+1.0
	comp=Z,0.6nm,0.4s,baz=264,slow=5.1,SNR=4.4						
	comp=Z,0.6nm,0.4s						
INK	Inuvik	64.88	338	P	P	13 40 37.0	-0.3
TORD	Torodi Ar. Bea	66.09	83	P	P	13 40 46.5	+0.4
	comp=Z,0.8nm,0.8s,baz=288,slow=5.3,SNR=4.2						
	comp=Z,0.8nm,0.8s						
BCAR	Beaver Creek A	67.31	332	P	P	13 40 53.1	0.0
NOA	NORSAR Array B	68.85	31	P	P	13 41 02.8	0.0
	comp=Z,0.7nm,0.8s,baz=269,slow=6.4,SNR=3.8						
	comp=Z,0.7nm,0.8s						
F25K	Christian Rive	69.27	336	P	P	13 41 06.0	+0.6
F25K				IAmb	IAmb	13 41 11.5	
	comp=Z,4.2nm,1.2s						
ILAR	Eielson Array	69.66	333	P	P	13 41 07.0	-0.6
	comp=Z,0.9nm,0.9s,baz=92,slow=4.4,SNR=6.3						
ILAR				LR	LR	14 13 28.7	
	comp=Z,35nm,18.7s,baz=206,slow=38						
	comp=Z,0.9nm,0.9s						
ILSW	Iliamna Southw	72.76	328	P	P	13 41 26.5	-0.3
L18K	Granite Mounta	74.20	331	P	P	13 41 35.3	+0.3
L18K				IAmb	IAmb	13 41 59.2	
	comp=Z,7.7nm,1.3s						
ARCES	ARCESS Array B	74.30	21	P	P	13 41 36.7	+1.2
	comp=Z,1.7nm,0.9s,baz=252,slow=5.3,SNR=4.9						
	comp=Z,1.7nm,0.9s						
ARCES	ARCESS Array B	74.30	21	IAmb	IAmb	13 41 46.1	
	comp=Z,6.0nm,1.1s						
FINES	FINESS Array B	75.96	30	P	P	13 41 46.0	+0.9
	comp=Z,2.3nm,0.9s,baz=281,slow=4.9,SNR=5.4						
	comp=Z,2.3nm,0.9s						
BRTR	Keskin Array B	86.67	49	P	P	13 42 43.4	+0.8
	comp=Z,1.6nm,0.9s,baz=289,slow=7.2,SNR=2.7						
	comp=Z,1.6nm,0.9s						
EIL	Elat	91.26	58	LR	LR	14 26 49.2	
	comp=Z,28nm,18.5s,baz=303,slow=37						
MA2	Magadan	96.91	342	LR	LR	14 29 55.0	
	comp=Z,8.1nm,20.8s,baz=83,slow=37						
ASAR	Alice Springs	159.59	250	PKPab	PKPab	13 50 35.1	-1.2
	comp=Z,0.6nm,0.9s,baz=127,slow=4.1,SNR=4.0						
WRA	Warramunga Arr	159.66	261	PKPab	PKPab	13 50 36.6	-0.1
	comp=Z,0.3nm,0.7s,baz=86,slow=4.0,SNR=7.7						
WRA	Warramunga Arr	159.66	261		PKPab	13 50 36.2	-0.5

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*IDC **29** 13:31:41.2±1.2, 4°.65S×153°.56E, h99^{km}±9^{km}, mb3.8/16, mbtmp4.2/19, MS2.7/3, Error ellipse: s-maj=14.9km s-min=10.7km az=53.0*

*NEIC **29** 13:31:41.5±1.0, 4°.60S±0°.07×153°.60E±0°.07, h95^{km}±7^{km}, mb4.3/24, Error ellipse: s-maj=10.8km s-min=8.8km az=209.0*

ISC 29 13:31:40.1±0.5, **4°.60S**±0°.06×**153°.61E**±0°.06, **h85^{km}, n58,** σ**0^{s}.99**/55, **mb4.1**/25, **New Ireland region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RABL	Rabaul	1.50	286		Pn	13 32 07.0	+1.4
KRVT	Keravat (AS076	1.61	280	P	Pn	13 32 08.2	+1.3
	592nm,0.3s,baz=117,slow=6.8,SNR=20						
KRVT				S	Sn	13 32 28.7	+1.3
	7µm,0.8s,baz=65,slow=23,SNR=18						
KRVT				LR	LR	13 32 45.7	
	comp=Z,376nm,18.4s,baz=94,slow=41						
MANU	Manus Island	6.73	292		Pn	13 33 17.7	+1.4
HNR	Honiara	7.91	128	P	Pn	13 33 35.2	+2.8
	16nm,0.7s,baz=318,slow=15,SNR=1.4						
HNR				S	Sn	13 35 01.7	+1.3
	44nm,0.7s,baz=47,slow=19,SNR=6.5						
HNR				LR	LR	13 36 48.1	
	comp=Z,86nm,21.0s,baz=332,slow=39						
HNR	Honiara	7.91	128		Pn	13 33 33.7	+1.3
PMG	Port Moresby	7.99	233	P	Pn	13 33 35.4	+1.9
	90nm,0.4s,baz=52,slow=5.3,SNR=72						
PMG				S	Sn	13 35 01.5	-0.8
	108nm,0.5s,baz=118,slow=19,SNR=8.7						
PMG	Port Moresby	7.99	233		Pn	13 33 34.7	+1.2
PMG					Sn	13 35 03.4	+1.1
PATS	Pohnpei	12.29	22	Pn	Pn	13 34 32.2	+0.1
JAY	Jayapura	13.05	279	P	Pn	13 34 44.3	+2.0
	14nm,0.9s,baz=72,slow=7.1,SNR=4.1						
COEN	Coen	13.87	227	Pn	Pn	13 34 53.8	+0.8
SANVU	Saraoutou	17.17	130		Pn	13 35 34.9	+0.2
SANVU				IAmb	IAmb	13 36 16.3	
	comp=Z,23nm,1.1s						
GUMO	Guam	20.05	334	LR	LR	13 42 44.4	
	comp=Z,9.5nm,19.1s,baz=187,slow=33						
EIDS	Eidsvold	20.79	186	P	P	13 36 14.9	+0.3
EIDS				IAmb	IAmb	13 36 38.1	
	comp=Z,18nm,1.3s						
DZM	Mont Dzumac	21.36	146	P	P	13 36 20.0	-0.7
	comp=Z,8.3nm,1.0s,baz=318,slow=14,SNR=2.3						
	comp=Z,8.3nm,1.0s						
FAKI	Fak Fak	21.38	274	P	P	13 36 20.8	-0.2
FAKI				IAmb	IAmb	13 36 53.5	
	comp=Z,19nm,1.1s						
SIJI	Sorong	22.62	279	P	P	13 36 33.9	-0.3
	comp=Z,2.9nm,0.3s,baz=144,slow=16,SNR=5.0						
SIJI				LR	LR	13 44 56.6	
	comp=Z,31nm,18.8s,baz=166,slow=35						
	comp=Z,2.9nm,0.3s						
WB0	Warramunga Arr	24.04	230		P	13 36 47.4	-0.1
WR8	Warramunga Arr	24.07	229		P	13 36 47.9	+0.2
WR8				IAmb	IAmb	13 37 14.9	
	comp=Z,18nm,1.1s						
WRAB	Tennant Creek	24.17	229	P	P	13 36 48.7	+0.1
WRAB				IAmb	IAmb	13 37 15.9	
	comp=Z,20nm,1.2s						
WRA	Warramunga Arr	24.18	229	P	P	13 36 49.0	+0.2
	comp=Z,7.2nm,0.4s,baz=55,slow=10,SNR=158						
	comp=Z,7.2nm,0.4s						
WRA	Warramunga Arr	24.18	229		P	13 36 47.9	-0.8
H11S3	WAKE ISLAND Hy	26.32	29	T	T	14 05 18.2	
	baz=209,slow=74						
H11S2	WAKE ISLAND Hy	26.33	29	T	T	14 04 54.2	
	baz=209,slow=74						
H11S1	WAKE ISLAND Hy	26.34	29	T	T	14 06 00.4	
	baz=209						
KNRA	Kununurra	26.78	244	P	P	13 37 12.2	-0.1
KNRA				IAmb	IAmb	13 37 43.9	
	comp=Z,6.8nm,1.0s						
AS31	Alice Springs	26.84	223	P	P	13 37 12.0	-0.8
ASAR	Alice Springs	26.84	223	P	P	13 37 12.2	-0.7
	comp=Z,0.7nm,0.5s,baz=56,slow=9.1,SNR=14						
	comp=Z,0.7nm,0.5s						
ASAR	Alice Springs	26.84	223	P	P	13 37 12.0	-0.9
STKA	Stephens Creek	29.38	201	P	P	13 37 34.7	-0.6
	comp=Z,1.7nm,0.5s,baz=24,slow=11,SNR=5.0						
	comp=Z,1.7nm,0.5s						
FITZ	Fitzroy Crossi	30.46	242	P	P	13 37 43.7	-1.4
	comp=Z,1.0nm,0.3s,baz=38,slow=6.5,SNR=15						
	comp=Z,1.0nm,0.3s						
FITZ	Fitzroy Crossi	30.46	242	P	P	13 37 43.9	-1.2
FORT	Forrest	35.45	220	P	P	13 38 28.0	-0.4
FORT				IAmb	IAmb	13 39 09.8	
	comp=Z,5.8nm,1.1s						
KSRS	Korea Array	48.19	332	P	P	13 40 11.8	-0.2
	comp=Z,1.7nm,0.8s,baz=146,slow=8.6,SNR=8.1						
	comp=Z,1.7nm,0.8s						
PETK	Petropavlovsk-	57.60	3	P	P	13 41 21.3	+0.3
	comp=Z,4.5nm,1.0s,baz=197,slow=9.0,SNR=2.5						
	comp=Z,4.5nm,1.0s						
CMAR	Chiang Mai Arr	58.52	295	P	P	13 41 28.3	+0.2
	comp=Z,0.6nm,0.4s,baz=112,slow=4.7,SNR=6.1						
	comp=Z,0.6nm,0.4s						
CMAR	Chiang Mai Arr	58.52	295	P	P	13 41 27.0	-1.2
CHTO	Chiang Mai	58.63	295	P	P	13 41 27.8	-1.1
SONM	Songino Array	66.59	327	P	P	13 42 21.2	-0.3
	comp=Z,0.6nm,0.5s,baz=138,slow=5.5,SNR=3.2						
	comp=Z,0.6nm,0.5s						
SONM	Songino Array	66.59	327	IAmb	IAmb	13 42 22.9	
	comp=Z,0.7nm,0.9s						
CASY	Casey	68.44	197	P	P	13 42 32.5	-0.1
VNDA	Vanda	73.00	178	P	P	13 42 59.1	-1.0
	comp=Z,0.9nm,0.6s,baz=4.3,slow=4.9,SNR=9.9						
	comp=Z,0.9nm,0.6s						
VNDA	Vanda	73.00	178	P	P	13 42 58.7	-1.4
M17K	Holitna River	75.81	22	P	P	13 43 17.0	+0.4
L19K	White Mountain	77.26	22	P	P	13 43 25.3	+0.4
L19K				IAmb	IAmb	13 43 55.8	
	comp=Z,6.5nm,1.2s						
SML	Sawmill	79.61	24	P	P	13 43 38.1	+0.2
MKAR	Makanchi Array	80.71	319	P	P	13 43 43.6	-0.4
	comp=Z,1.6nm,1.0s,baz=98,slow=7.5,SNR=8.3						
	comp=Z,1.6nm,1.0s						
MAKZ	Makanchi	80.92	319	P	P	13 43 44.9	-0.2
H23K	Yukon River	81.26	20	P	P	13 43 46.4	-0.2
H23K				IAmb	IAmb	13 43 58.9	
	comp=Z,4.5nm,1.5s						
ZALV	Zalesovo Beam	81.44	326	P	P	13 43 46.8	-0.9
	comp=Z,0.7nm,0.5s,baz=108,slow=4.7,SNR=2.2						
	comp=Z,0.7nm,0.5s						
ILAR	Eielson Array	81.67	22	P	P	13 43 48.8	+0.1
	comp=Z,0.2nm,0.3s,baz=259,slow=4.6,SNR=6.5						
	comp=Z,0.2nm,0.3s						
D23K	Nanushuk River	82.62	18	P	P	13 43 54.2	+0.6
D23K				IAmb	IAmb	13 44 16.4	
	comp=Z,4.7nm,1.2s						
KURK	Kurchatov	84.11	322	P	P	13 44 00.5	-1.1
KURK	Kurchatov	84.11	322	IAmb	IAmb	13 44 01.7	
	comp=Z,4.8nm,1.3s						
KURBB	Kurchatov Arra	84.14	322	P	P	13 44 00.5	-1.3
	comp=Z,1.4nm,0.3s,baz=99,slow=4.2,SNR=1.7						
	comp=Z,1.4nm,0.3s						
QSPA	South Pole Qui	85.36	180	P	P	13 44 06.4	-1.4
	comp=Z,1.1nm,0.7s,baz=299,slow=0.5,SNR=7.7						
	comp=Z,1.1nm,0.7s						
QSPA	South Pole Qui	85.36	180	IAmb	IAmb	13 44 40.4	
	comp=Z,1.9nm,0.9s						
H31M	Peel River	86.90	23	P	P	13 44 15.7	+0.4
TORD	Torodi Ar. Bea	151.01	289	PKPbc	PKPbc	13 51 23.2	-1.0
	comp=Z,0.4nm,0.3s,baz=74,slow=3.6,SNR=7.2						

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*SJA **29** 14:24:30.6±0.8, 33°.71S×70°.87W, h88^{km}±2^{km}, ML4.2, MW4.0*

*GUC **29** 14:24:31.5±0.7, 33°.71S×70°.83W, h92^{km}±1^{km}, ML4.4*

*NEIC **29** 14:24:31.7±0.8, 33°.70S±0°.04×70°.83W±0°.06, h85^{km}±4^{km}, mb4.5/13, ML4.4(GUC), Error ellipse: s-maj=7.0km s-min=5.8km az=106.0*

*IDC **29** 14:24:32.6±2.6, 33°.69S×70°.74W, h94^{km}±22^{km}, mb3.6/5, mbtmp4.0/10, MS4.3/1, Error ellipse: s-maj=34.9km s-min=15.7km az=107.0*

ISC 29 14:24:31.0±0.6, **33°.70S**±0°.02×**70°.88W**±0°.03, **h90**^{km}±4^{km}, **n127,** σ**1^{s}.34**/173, **mb4.4**/9, **13C-6D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MT09	Talagante	0.12	231	⇑ *i*P	Pn	14 24 44.1	+0.1
MT09				*e*S	Sn	14 24 53.4	-0.2
MT09	Talagante	0.12	231		Pn	14 24 44.0	+0.1
MT09				Sn	Sn	14 24 53.1	-0.5
MT12	Pirque	0.28	96	⇑ *i*P	Pn	14 24 44.1	-0.3
MT12				*e*S	Sn	14 24 53.9	-0.5
MT15	Las Vizcachas	0.33	72	*i* P	Pn	14 24 44.4	-0.3
MT15				*e*S	Sn	14 24 54.2	-0.7
MT15				IAML		14 24 55.2	
	comp=E,33µm,0.2s						
MT05	Renca	0.33	21	*e*P	Pn	14 24 44.8	0.0
MT05				*e*S	Sn	14 24 55.3	+0.4
MT05				IAML		14 24 56.0	
	comp=Z,22µm,0.3s						
MT05	Renca	0.33	21	⇑ *i*P	Pn	14 24 44.9	+0.2
MT05				*e*S	Sn	14 24 55.3	+0.4
MT05	Renca	0.33	21		Pn	14 24 44.9	0.0
MT01	Popeta	0.35	243	*e*P	Pn	14 24 45.0	+0.2
MT01				*e*S	Sn	14 24 55.2	+0.2
MT01				IAML		14 24 55.7	
	comp=Z,16µm,0.2s						
MT01	Popeta	0.35	243	⇑ *i*P	Pn	14 24 45.1	+0.4
MT01				*e*S	Sn	14 24 55.1	+0.2
MT01				IAML		14 24 55.6	
	comp=N,46µm,0.2s						
MT01	Popeta	0.35	243		Pn	14 24 45.0	+0.2
BO04	La Punta	0.36	142	*i* P	Pn	14 24 44.5	-0.4
BO04				*e*S	Sn	14 24 54.8	-0.5
BO04	La Punta	0.36	142		Pn	14 24 44.5	-0.4
MT03	Universidad Ad	0.37	56	*e*P	Pn	14 24 44.9	-0.2
MT03				*e*S	Sn	14 24 55.1	-0.4
MT03				IAML		14 24 56.1	
	comp=Z,14µm,0.2s						
MT03	Universidad Ad	0.37	56	⇑ *i*P	Pn	14 24 44.6	-0.4
MT03				*e*S	Sn	14 24 54.9	-0.5
MT03				IAML		14 24 55.6	
	comp=E,45µm,0.2s						
MT03	Universidad Ad	0.37	56		Pn	14 24 44.8	-0.2
MT03				Sn	Sn	14 24 54.7	-0.7
MT16	CCHEN	0.41	47	⇑ *i*P	Pn	14 24 44.9	-0.3
MT16				*e*S	Sn	14 24 54.8	-0.9
MT16	CCHEN	0.41	47		Pn	14 24 44.9	-0.3
MT16				Sn	Sn	14 24 54.7	-1.0
MT14	Cerro Cal¡n	0.42	43	⇑ *i*P	Pn	14 24 45.1	-0.2
MT14				*e*S	Sn	14 24 55.5	-0.4
MT14				IAML		14 24 56.3	
	comp=E,25µm,0.3s						
MT02	Curacav	0.49	334	*e*P	Pn	14 24 46.0	+0.3
MT02				*e*S	Sn	14 24 57.5	+0.8
MT02				IAML		14 25 02.1	
	comp=Z,3µm,0.2s						
MT02	Curacav	0.49	334	⇑ *i*P	Pn	14 24 46.3	+0.5
MT02				*e*S	Sn	14 24 57.0	+0.3
MT02	Curacav	0.49	334		Pn	14 24 46.2	+0.5
MT13	San Alfonso	0.50	95	*e*P	Pn	14 24 45.8	-0.1
MT13				*e*S	Sn	14 24 57.4	+0.4
MT13				IAML		14 24 58.4	
	comp=Z,4µm,0.2s						
MT13	San Alfonso	0.50	95	*i* P	Pn	14 24 45.6	-0.3
MT13				*e*S	Sn	14 24 56.2	-0.8
MT13				IAML		14 24 59.0	
	comp=N,18µm,0.1s						
MT13	San Alfonso	0.50	95		Pn	14 24 45.6	-0.3
MT10	Hacienda Santa	0.52	34	⇑ *i*P	Pn	14 24 46.0	-0.1
MT10				*e*S	Sn	14 24 57.1	-0.2
LMEL	Las Melosas	0.58	104	*i* P	Pn	14 24 46.6	-0.1
LMEL				*e*S	Sn	14 24 57.8	-0.5
LMEL				IAML		14 25 00.4	
	comp=N,18µm,0.1s						
PEL	Peldehue	0.58	16	*e*P	Pn	14 24 46.3	-0.3
PEL				*e*S	Sn	14 24 58.3	+0.2
PEL				IAML		14 24 59.8	
	comp=E,18µm,0.2s						
PEL	Peldehue	0.58	16		Pn	14 24 46.7	+0.1
VA05	Santo Domingo	0.61	274	⇑ *i*P	Pn	14 24 47.4	+0.6
VA05				*e*S	Sn	14 24 59.2	+0.8
VA05				IAML		14 25 03.1	
	comp=N,29µm,0.3s						
VA05	Santo Domingo	0.61	274		Pn	14 24 47.4	+0.6
MT04	Ro Olivares	0.69	65	*e*P	Pn	14 24 47.4	-0.3
MT04				*e*S	Sn	14 25 00.5	+0.4
MT04				IAML		14 25 00.7	
	comp=Z,3µm,0.5s						
MT04	Ro Olivares	0.69	65	*i* P	Pn	14 24 47.4	-0.3
MT04				*e*S	Sn	14 24 59.4	-0.7
MT04				IAML		14 25 00.8	
	comp=N,13µm,0.2s						
BO01	Tunca	0.71	194	*e*P	Pn	14 24 47.8	+0.1
BO01				*e*S	Sn	14 25 00.7	+0.7
BO01				IAML		14 25 00.8	
	comp=Z,5µm,0.8s						
BO01	Tunca	0.71	194	⇓ *i*P	Pn	14 24 48.0	+0.4
BO01				*e*S	Sn	14 25 00.5	+0.4
BO01				IAML		14 25 01.4	
	comp=N,6µm,0.1s						
BO01	Tunca	0.71	194		Pn	14 24 48.0	+0.4
ROCH	El Roble	0.74	351	⇑ *i*P		14 24 48.6	
ROCH				*i* P	Pn	14 24 48.6	+0.3
ROCH				*e*S	Sn	14 25 01.3	+0.3
ROCH				*e*S		14 25 01.4	
ROCH				IAML		14 25 02.2	
	comp=N,21µm,0.3s						
ROCH				IAML		14 25 02.3	
	comp=N,10µm,0.2s						
MT08	Bocatoma Ro	0.77	71	*e*P	Pn	14 24 48.4	-0.1
MT08				*e*S	Sn	14 25 01.8	+0.3
MT08	Bocatoma Ro	0.77	71	*i* P	Pn	14 24 48.2	-0.2
MT08				*e*S	Sn	14 25 01.0	-0.5
MT08	Bocatoma Ro	0.77	71		Pn	14 24 48.0	-0.4
VA01	Torpederas	0.94	316	*e*P	Pn	14 24 51.3	+1.3
VA01	Torpederas	0.94	316	⇑ *i*P	Pn	14 24 51.2	+1.3
VA01	Torpederas	0.94	316		Pn	14 24 51.2	+1.2
VA03	San Esteban	0.98	17	*e*P	Pn	14 24 50.9	+0.3
VA03				*e*S	Sn	14 25 05.8	+0.5
VA03				IAML		14 25 09.7	
	comp=Z,7µm,0.2s						
VA03	San Esteban	0.98	17	⇑ *i*P	Pn	14 24 50.8	+0.3
VA03				*i* S	Sn	14 25 05.6	+0.3
VA03				*e*S	Sn	14 25 05.6	+0.3
VA03				IAML		14 25 07.7	
	comp=E,21µm,0.2s						
VA03	San Esteban	0.98	17		Pn	14 24 50.9	+0.3
BO02	Sierra Bellavi	1.09	176	*e*P	Pn	14 24 52.4	+0.5
BO02				*e*S	Sn	14 25 10.2	+2.7
BO02				IAML		14 25 11.6	
	comp=Z,11µm,0.1s						
BO02	Sierra Bellavi	1.09	176	*i* P	Pn	14 24 52.3	+0.5
BO02				*e*S	Sn	14 25 08.3	+0.8
BO02				IAML		14 25 10.1	
	comp=N,16µm,0.2s						
BO02	Sierra Bellavi	1.09	176		Pn	14 24 52.4	+0.5
BO03	Pichilemu	1.20	228	⇓ *i*P	Pn	14 24 53.8	+0.8
BO03				*e*S	Sn	14 25 10.6	+1.0
BO03				IAML		14 25 12.0	
	comp=N,3µm,0.3s						
GO05	Hualane	1.56	213	*e*P	Pn	14 24 58.1	+0.4
GO05				*e*S	Sn	14 25 14.5	-3.3
GO05				IAML		14 25 21.3	
	comp=Z,1µm,0.3s						
GO05	Hualane	1.56	213	*e*P	Pn	14 24 58.1	+0.4
GO05	Hualane	1.56	213		Pn	14 24 58.0	+0.4
CO04	Los Peladeros	1.66	357	*e*P	Pn	14 24 59.6	+0.4
CO04				*e*S	Sn	14 25 20.8	+0.4
CO04				IAML		14 25 23.1	
	comp=E,9µm,0.3s						
CO04	Los Peladeros	1.66	357		Pn	14 24 59.4	+0.3
AAGR	Agrelo	1.82	71	*e*P	Pn	14 25 02.2	+1.1
ARCO	CERRO ARCO	1.84	63	*e*P	Pn	14 25 02.5	+1.1
ARCO				*e*S	Sn	14 25 20.5	-4.0
AVIZ	Vizcacheras	1.99	84	*e*P	Pn	14 25 04.2	+1.1
AVIZ				*e*S	Sn	14 25 25.0	-2.7
ML02	Panimavida	2.10	192	*e*P	Pn	14 25 05.2	+0.7
ML02				*e*P		14 25 05.3	
ML02				*e*S	Sn	14 25 31.1	+1.0
ML02				IAML		14 25 32.4	
	comp=Z,1µm,0.2s						
ML02	Panimavida	2.10	192	*i* P	Pn	14 25 05.3	+0.7
ML02				*e*S	Sn	14 25 30.3	+0.2
ML02				IAML		14 25 35.5	
	comp=E,2µm,0.5s						
ML02	Panimavida	2.10	192		Pn	14 25 05.1	+0.5
RTLS	Leoncito	2.32	36	*e*P	Pn	14 25 09.7	+1.9
RTLS				IAML		14 25 48.2	
	comp=Z,1µm,0.4s						
CO02	Combarbal	2.50	358	*e*P	Pn	14 25 10.4	+0.5
CO02				*e*S	Sn	14 25 40.7	+1.0
CO02				IAML		14 25 47.5	
	comp=Z,2µm,0.2s						
CO02	Combarbal	2.50	358	⇓ *i*P	Pn	14 25 10.3	+0.4

CO02				eS	Sn	14 25 40.1	+0.3
CO02	Combarbal	2.50	358		Pn	14 25 10.5	+0.5
ZON	Zonda	2.84	41		Pn	14 25 15.1	+0.5
CO03	El Pedregal	2.86	3	eP	Pn	14 25 15.8	+1.0
CO03				eS	Sn	14 25 49.6	+1.1
CO03				IAML		14 25 50.1	
	comp=Z,943nm,0.3s						
CO03	El Pedregal	2.86	3	⇓iP	Pn	14 25 15.6	+0.8
CO03				eS	Sn	14 25 49.0	+0.6
CO03	El Pedregal	2.86	3		Pn	14 25 15.4	+0.6
SJA	San Juan	2.92	43	eP	Pn	14 25 16.9	+1.4
BI02	San Fabin de	2.97	186	eP	Pn	14 25 17.7	+1.5
BI02				IAML		14 25 56.2	
	comp=Z,337nm,1.0s						
BI02	San Fabin de	2.97	186	iP	Pn	14 25 17.5	+1.3
BI02	San Fabin de	2.97	186		Pn	14 25 17.2	+1.0
CFA	Coronel Fontan	3.06	48	P	Pn	14 25 17.7	+0.3
	comp=Z,43nm,0.3s,baz=233,slow=14,SNR=308						
CFA				S	Sn	14 25 53.5	+0.4
	comp=Z,74nm,0.3s,baz=96,slow=17,SNR=16						
CFA	Coronel Fontan	3.06	48	eP	Pn	14 25 17.8	+0.4
CFA				eS	Sn	14 25 54.3	+1.1
CO06	Fray Jorge	3.09	348	iP	Pn	14 25 17.9	+0.1
CO06				eS	Sn	14 25 51.4	-2.4
CO06				IAML		14 25 57.0	
	comp=E,1μm,0.2s						
CO06	Fray Jorge	3.09	348		Pn	14 25 17.9	+0.1
RTLL	Cerro Villicun	3.12	41	eP	Pn	14 25 19.0	+0.8
RTLL				IAML		14 25 59.9	
	comp=Z,381nm,0.4s						
ACCO	Cerro Coronel	3.47	27	eP	Pn	14 25 24.0	+0.8
ACCO				IAML		14 26 23.9	
	comp=Z,219nm,1.0s						
GO04	Tololo Observa	3.52	1	eP	Pn	14 25 23.9	0.0
GO04				eS	Sn	14 26 05.2	+0.6
GO04				IAML		14 26 07.9	
	comp=Z,2μm,0.3s						
GO04	Tololo Observa	3.52	1	eP	Pn	14 25 23.7	-0.2
GO04	Tololo Observa	3.52	1		Pn	14 25 23.4	-0.5
BI05	Punta Hualpn	3.58	211	eP	Pn	14 25 23.7	-0.6
BI05				IAML		14 26 06.8	
	comp=Z,208nm,0.1s						
BI05	Punta Hualpn	3.58	211	eP	Pn	14 25 23.2	-1.1
CO01	Juntas del Tor	3.77	10		Pn	14 25 27.4	+0.1
ACDV	Cuesta del Vie	3.83	23	eP	Pn	14 25 29.1	+1.2
LCO	Las Campanas	4.68	2		Pn	14 25 38.8	-0.8
TCA	Tanti	5.81	68	eP	Pn	14 25 53.2	-1.5
H03S1	Juan Fernandez	6.69	267	P	Pn	14 26 07.2	+0.8
	SNR=21						
H03S1				S	Sn	14 27 16.7	-4.2
H03S1				T	T	14 32 17.2	
	baz=85,slow=75,SNR=88						
H03S3	Juan Fernandez	6.69	267	P	Pn	14 26 07.4	+1.0
	baz=243,slow=74,SNR=20						
H03S3				S	Sn	14 27 17.1	-3.8
H03S3				T	T	14 32 34.8	
	baz=85,slow=75,SNR=117						
H03S2	Juan Fernandez	6.70	267	P	Pn	14 26 07.3	+0.7
	baz=58,slow=74,SNR=24						
H03S2				S	Sn	14 27 16.9	-4.4
H03S2				T	T	14 32 32.0	
	baz=85,slow=75,SNR=91						
H03N1	Juan Fernandez	6.71	270	P	Pn	14 26 08.8	+2.2
	baz=30,slow=74,SNR=9.5						
H03N1				S	Sn	14 27 15.3	-6.1
H03N1				T	T	14 33 26.5	
	baz=87,slow=74,SNR=76						
H03N2	Juan Fernandez	6.73	270	P	Pn	14 26 09.0	+2.1
	baz=232,slow=74,SNR=6.7						
H03N2				S	Sn	14 27 15.6	-6.3
H03N2				T	T	14 33 01.3	
	baz=175,slow=74,SNR=71						
PLCA	Paso Flores	7.02	178	P	Pn	14 26 11.9	+0.7
	comp=Z,1.6nm,0.5s,baz=340,slow=13,SNR=6.7						
PLCA				LR	LR	14 29 09.7	
	comp=Z,53nm,21.4s,baz=4.0,slow=39						
CPUP	Villa Florida	13.84	62	P	Pn	14 27 42.4	-0.9
	comp=Z,0.6nm,0.4s,baz=230,slow=16,SNR=1.7						
GO01	Chusmiza	14.06	7		Pn	14 27 46.5	-0.2
PSGCX	Pisagua	14.07	3	Pn	Pn	14 27 46.9	+0.5
PB12	IPOC Station P	15.04	2	Pn	Pn	14 27 58.8	0.0
PB12				IAmb	IAmb	14 28 00.1	
	comp=Z,60nm,1.4s						
LPAZ	La Paz	17.52	9	P	Pn	14 28 31.1	+0.9
	comp=Z,13nm,0.8s,baz=180,slow=7.5,SNR=37						
LPAZ	La Paz	17.52	9	P	P	14 28 29.7	-0.4
SIV	San Ignacio	19.73	29	P	P	14 28 53.1	-0.6
	comp=Z,7.3nm,0.4s,baz=198,slow=9.0,SNR=31						
EFI	East Falkland	20.23	156	P	P	14 28 57.7	-1.0
PTLB	Pontes e Lacer	21.05	33	P	P	14 29 07.6	-0.2
USHA	Ushuaia	21.19	176	LR	LR	14 37 55.4	
	comp=Z,750nm,20.5s,baz=267,slow=38						
VILB	Vilhena	22.84	28	P	P	14 29 27.2	+0.5
VILB				IAmb	IAmb	14 29 28.0	
	comp=Z,13nm,0.8s						
MACA	Manacapuru-AM	31.84	20	P	P	14 30 47.1	-0.4
BOAV	Boa Vista	37.21	17	P	P	14 31 33.7	-0.1
BOAV				IAmb	IAmb	14 31 34.5	
	comp=Z,3.2nm,0.7s						
VNA3	Neumayer Olymp	49.27	158	⇓P	P	14 33 11.2	+1.0
	comp=Z,2.7nm,0.3s						
TROLL	Troll, Antarti	53.21	158	⇓P	P	14 33 40.8	+1.0
	comp=Z,229nm,0.6s						
QSPA	South Pole Qui	56.53	180	P	P	14 34 05.4	+1.6
	comp=Z,3.1nm,0.8s,baz=117,slow=2.3,SNR=19						
	comp=Z,3.1nm,0.8s						
QSPA	South Pole Qui	56.53	180	P	P	14 34 05.4	+1.6
QSPA				IAmb	IAmb	14 34 06.1	
	comp=Z,3.0nm,0.8s						
833A	Chaparral WMA,	67.35	333	P	P	14 35 16.3	-0.1
833A				IAmb	IAmb	14 35 38.8	
	comp=Z,11nm,1.2s						
TXAR	Lajitas Array	69.96	330	P	P	14 35 34.5	+1.7
	comp=Z,0.2nm,0.5s,baz=150,slow=6.0,SNR=2.1						
	comp=Z,0.2nm,0.5s						
HHAR	Hobbs	72.88	341	P	P	14 35 50.8	+0.7
HHAR				IAmb	IAmb	14 35 51.6	
	comp=Z,3.5nm,0.6s						
MAW	Mawson	73.19	163	P	P	14 35 52.6	+1.0
	comp=Z,1.3nm,0.7s,baz=203,slow=6.3,SNR=4.0						
	comp=Z,1.3nm,0.7s						
MAW	Mawson	73.19	163	P	P	14 35 52.6	+1.0
BOSA	Boshof	79.35	117	P	P	14 36 27.9	+0.4
	comp=Z,4.0nm,0.9s,baz=216,slow=3.1,SNR=3.7						
	comp=Z,4.0nm,0.9s						
BOSA	Boshof	79.35	117	IAmb	IAmb	14 37 07.5	
	comp=Z,16nm,1.4s						
TORD	Torodi Ar. Bea	83.20	69	P	P	14 36 48.0	+0.3
	comp=Z,0.5nm,0.8s,baz=233,slow=3.8,SNR=2.5						
	comp=Z,0.5nm,0.8s						
TORD	Torodi Ar. Bea	83.20	69	IAmb	IAmb	14 36 54.1	
	comp=Z,27nm,0.6s						
H11S2	WAKE ISLAND Hy	126.74	269	T	T	17 02 59.8	
	baz=118,slow=75,SNR=12						
H11S1	WAKE ISLAND Hy	126.75	269	T	T	17 03 00.4	
	baz=118,slow=75,SNR=6.9						
H11S3	WAKE ISLAND Hy	126.76	269	T	T	17 03 01.1	
	baz=118,slow=75,SNR=6.0						
H11N3	WAKE ISLAND Hy	127.15	270	T	T	17 03 23.1	
	baz=117						
H11N1	WAKE ISLAND Hy	127.16	270	T	T	17 03 19.6	
	baz=117						
H11N2	WAKE ISLAND Hy	127.16	270	T	T	17 03 32.0	
	baz=117						
KSH2	Kashi	152.56	69	PKPbc	PKPdf	14 44 03.5	-6.6
HHC	Hu-ho-hao-te	172.61	345	eP	PKPdf	14 44 28.3	-1.2

IDC ***29*** *14:31:20.4±0.8, 28°.94S×112°.58W, h0^{km}, mb3.8/6, mbtmp3.9/7, ML4.1/1, MS3.8/31, Error ellipse: s-maj=24.3km s-min=19.2km az=154.0*

NEIC ***29*** *14:31:24.4±2.2, 28°.8S±0°.1×112°.2W±0°.1, h10^{km}±1^{km}, mb4.6/34, Error ellipse: s-maj=22.2km s-min=18.2km az=140.0*

GCMT ***29*** *14:31:26.4±0.4, 28°.84S±0°.02×112°.52W±0°.02, h12^{km}, MW4.8/79, Moment Tensor Solution. s14,c15; s79,c96; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-0.16±.09; M$_{\theta\theta}$-0.83±.09; M$_{\phi\phi}$0.98±.08; M$_{r\theta}$0.77±.26; M$_{\theta\phi}$-1.53±.06; M$_{\phi r}$0.01±.23; Best double couple: M$_0$1.94100×10^{16} NP1:φ$_s$194.00000°, δ67.00000°, λ-7.00000°. NP2: φ$_s$287.00000°, δ83.00000°, λ-157.00000°. Principal axes: T 1.9280, Plg11.0000°, Azm58.0000°; N 0.0260, Plg66.0000°, Azm303.0000°; P -1.9540, Plg21.0000°, Azm152.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 29 14:31:23.3±0.7**, 28°.8S**±0°.1×**112°.2W**±0°.1**, h10^{km}, n81, σ1^{s}.43**/46**, mb4.6**/20**, MS3.9**/31**, Easter Island region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VA02	Isla de Pascua	2.92	56		Pn	14 32 05.7	-4.1
RPN	Rapa Nui	3.01	56	Pn	Pn	14 32 10.4	-0.7
	19nm,0.3s,baz=138,slow=4.1,SNR=10						
RPN				Sn	Sn	14 32 47.9	+0.7
	7.1nm,0.3s,baz=48,slow=16,SNR=1.3						
	119nm,0.7s						
RPN				AML	AML		
RPN	Rapa Nui	3.01	56		Pn	14 32 09.3	-1.8
H03N2	Juan Fernandez	28.73	108	T	T	15 07 57.9	
	baz=274,slow=74,SNR=105						
H03N1	Juan Fernandez	28.75	108	T	T	15 07 49.7	
	baz=348,slow=74,SNR=130						
TAOE	Nuku Hiva Isla	32.96	302	eLR	LR	14 46 33.6	
	153nm,31.8s						
TAOE	Nuku Hiva Isla	32.96	302	P	P	14 37 58.1	-0.4
PLCA	Paso Flores	35.86	121	P	P	14 38 23.7	+0.3
	1.7nm,1.0s,baz=260,slow=15,SNR=1.4						
PLCA				LR	LR	14 49 25.6	
	comp=Z,91nm,19.9s,baz=270,slow=30						
	1.7nm,1.0s						
PPT2	Papeete2	36.03	280	eSS	SS	14 46 35.6	-5.7
	272nm,25.5s						
PPT2				eLR	LR	14 47 36.7	
	155nm,28.2s						
PPT2				eLR	LR	14 47 41.5	
	122nm,27.0s						
PPT	Papeete	36.04	280	LR	LR	14 47 43.9	
	comp=Z,42nm,21.7s,baz=97,slow=28						
NNA	Nana	36.91	70	LR	LR	14 49 43.3	
	comp=Z,250nm,19.8s,baz=205,slow=30						
ATAH	Atahualpa	38.45	62	LR	LR	14 51 11.1	
	comp=Z,230nm,18.6s,baz=239,slow=31						
LPAZ	La Paz	42.30	83	LR	LR	14 53 04.2	
	comp=Z,69nm,21.5s,baz=249,slow=30						
RAR	Rarotonga	43.58	269	LR	LR	14 52 38.9	
	comp=Z,42nm,20.4s,baz=130,slow=30						
PMSA	Palmer Station	46.80	154	LR	LR	14 55 06.9	
	comp=Z,97nm,20.1s,baz=296,slow=30						
JTS	Las Juntas de	46.93	38	LR	LR	14 54 34.8	
	comp=Z,264nm,21.1s,baz=240,slow=30						
MTO3	Montecristo	48.29	30	P	P	14 40 06.3	+1.1
MTO3				IAmb	IAmb	14 40 08.2	
	comp=Z,7.7nm,1.0s						
SIV	San Ignacio	48.59	86	P	P	14 40 09.5	+2.2
	comp=Z,0.4nm,0.3s,baz=208,slow=6.3,SNR=5.8						
	comp=Z,0.4nm,0.3s						
CMIG	Matias Romero	48.60	22	LR	LR	14 56 54.5	
	comp=Z,16nm,20.1s,baz=194,slow=31						
ROSC	El Rosal	49.43	54	LR	LR	14 57 04.9	
	comp=Z,173nm,21.8s,baz=239,slow=31						
SDV	Santo Domingo	54.86	53	LR	LR	15 02 30.6	
	comp=Z,118nm,18.4s,baz=246,slow=34						
AFI	Afiamalu	56.95	272	LR	LR	15 01 03.2	
	comp=Z,30nm,18.8s,baz=64,slow=32						
TXAR	Lajitas Array	58.40	9	P	P	14 41 18.8	-0.3
	comp=Z,0.2nm,0.3s,baz=187,slow=7.0,SNR=5.1						
	comp=Z,0.2nm,0.3s						
URZ	Urewera	58.42	241	LR	LR	15 01 01.4	
	comp=Z,197nm,18.9s,baz=100,slow=31						
SAND	Sanderson	59.23	10	P	P	14 41 25.4	+0.6
SAND				IAmb	IAmb	14 41 39.3	
	comp=Z,6.2nm,1.1s						
JCT	Junction City	60.14	12	P	P	14 41 31.4	+0.3
BRDY	Brady	61.08	13	P	P	14 41 37.2	-0.3
BRDY				IAmb	IAmb	14 41 51.5	
	comp=Z,7.0nm,1.2s						
VNDA	Vanda	61.22	194	LR	LR	15 01 36.1	
	comp=Z,48nm,21.7s,baz=90,slow=30						
QSPA	South Pole Qui	61.35	180	P	P	14 41 37.8	-1.3
	comp=Z,1.6nm,1.2s,baz=90,slow=3.0,SNR=2.2						
QSPA				LR	LR	15 04 17.5	
	comp=Z,44nm,18.9s,baz=96,slow=32						
	comp=Z,1.6nm,1.2s						
QSPA	South Pole Qui	61.35	180	P	P	14 41 38.8	-0.4
RPZ	Rata Peaks	61.60	233	LR	LR	15 03 01.6	
	comp=Z,34nm,19.1s,baz=270,slow=31						
BC3	Big Chuckawall	62.22	357	P	P	14 41 46.6	+1.4
PFO	Pinyon Flats O	62.23	356	LR	LR	15 03 25.0	
	comp=Z,90nm,19.0s,baz=244,slow=31						
IRM	Iron Mountain	62.71	357	P	P	14 41 50.9	+2.5
IRM				IAmb	IAmb	14 41 59.6	
	comp=Z,8.7nm,1.4s						
ANMO	Albuquerque	63.66	5	LR	LR	15 04 32.6	
	comp=Z,86nm,18.3s,baz=186,slow=31						
GSC	Goldstone, Bar	63.94	356	P	P	14 41 57.9	+1.3
GSC				IAmb	IAmb	14 42 06.8	
	comp=Z,5.0nm,1.1s						
MSVF	Nonsavu	64.28	263	LR	LR	15 02 25.3	
	comp=Z,64nm,21.2s,baz=107,slow=29						
SJG	San Juan	64.44	49	LR	LR	15 07 32.8	
	comp=Z,54nm,18.9s,baz=108,slow=34						
QSM	Queen of Sheba	64.60	356		P	14 42 01.5	+0.6
MPMC	Manual Prospec	64.73	355		P	14 42 03.2	+1.2
MPMC				IAmb	IAmb	14 42 11.4	
	comp=Z,5.1nm,1.0s						
GWY	Greenwater Val	64.81	356		P	14 42 03.7	+1.4
GWY				IAmb	IAmb	14 42 11.8	
	comp=Z,5.8nm,1.2s						
GMN	Gold Mountain	65.95	356	P	P	14 42 10.8	+0.9
MDP	Montagnes des	66.35	70	LR	LR	15 07 56.4	
	comp=Z,101nm,19.1s,baz=118,slow=33						
PV22	Blue Mesa, Par	67.08	3	P	P	14 42 16.3	-0.8
PV22				IAmb	IAmb	14 42 23.3	
	comp=Z,5.8nm,1.0s						
PV21	Cone Mtn., Par	67.10	3	P	P	14 42 17.0	-0.2
NV11	Mina Array Sit	67.14	355	IAmb	IAmb	14 42 26.6	
	comp=Z,5.0nm,0.9s						
NVAR	Mina Array Bea	67.15	355	P	P	14 42 18.1	+0.6
	comp=Z,1.7nm,0.9s,baz=186,slow=9.5,SNR=8.8						
NVAR				LR	LR	15 05 36.3	
	comp=Z,106nm,19.6s,baz=170,slow=31						
	comp=Z,1.7nm,0.9s						
NVAR	Mina Array Bea	67.15	355	P	P	14 42 18.7	+1.2
SRU	San Rafael Swe	67.60	1	P	P	14 42 21.4	+1.1
SRU				IAmb	IAmb	14 42 29.2	
	comp=Z,4.0nm,0.9s						
KVN	Kaiserville	67.75	355	P	P	14 42 22.6	+1.3
BEKR	Beckworth	68.77	353	P	P	14 42 30.0	+2.4
BMN	Battle Mountai	69.07	356	IAmb	IAmb	14 42 39.6	
	comp=Z,6.2nm,1.0s						
BGU	Big Grassy Mou	69.40	359	P	P	14 42 33.0	+1.5
BGU				IAmb	IAmb	14 42 35.4	
	comp=Z,5.7nm,1.5s						
TKL	Tuckaleechee C	69.49	24	LR	LR	15 09 02.5	
	comp=Z,68nm,18.5s,baz=202,slow=32						
YBH	Yreka Blue Hor	70.88	352	LR	LR	15 08 51.4	
	comp=Z,118nm,18.4s,baz=220,slow=32						
WVOR	Wild Horse Val	71.16	355	P	P	14 42 43.6	+1.4
WVOR				IAmb	IAmb	14 42 48.4	
	comp=Z,4.5nm,1.1s						
PDAR	Pinedale Array	71.28	2	P	P	14 42 42.2	-0.8
	comp=Z,1.7nm,1.2s,baz=160,slow=4.7,SNR=5.7						
	comp=Z,1.7nm,1.2s						
PDAR	Pinedale Array	71.28	2	P	P	14 42 42.6	-0.4
HLID	Hailey	72.06	358	P	P	14 42 48.5	+0.8
BMO	Blue Mountains	73.47	356	P	P	14 42 56.8	+0.9
BOZ	Bozeman (W)	74.07	0	P	P	14 43 00.3	+0.9
NEW	Newport	76.87	357	LR	LR	15 11 31.2	
	comp=Z,137nm,20.7s,baz=213,slow=31						
NEW	Newport	76.87	357	P	P	14 43 16.5	+1.2
NEW				IAmb	IAmb	14 43 25.1	
	comp=Z,6.2nm,1.1s						
SADO	Sadowa	79.20	23	LR	LR	15 14 56.3	
	comp=Z,55nm,19.0s,baz=314,slow=33						
HNR	Honiara	83.70	263	LR	LR	15 12 30.5	
	comp=Z,33nm,21.3s,baz=206,slow=30						
STKA	Stephens Creek	87.53	235	LR	LR	15 14 26.3	
	comp=Z,71nm,21.9s,baz=192,slow=30						
CTA	Charters Tower	90.11	247	LR	LR	15 16 27.4	
	comp=Z,48nm,20.3s,baz=100,slow=30						
H11N3	WAKE ISLAND Hy	91.76	291	T	T	16 25 43.6	
	baz=117						
H11N1	WAKE ISLAND Hy	91.77	291	T	T	16 25 47.3	
	baz=117						
H11N2	WAKE ISLAND Hy	91.78	291	T	T	16 25 46.9	
	baz=117						
KDAK	Kodiak Island	92.71	340	LR	LR	15 16 10.7	
	comp=Z,72nm,21.5s,baz=138,slow=29						
ASAR	Alice Springs	97.76	238	LR	LR	15 21 51.3	
	comp=Z,52nm,20.5s,baz=131,slow=31						
CLL	Collm	133.67	45	ePKPdf	PKiKP	14 50 43.0	+1.8
AKASG	Malin Array Be	143.72	42	PKP	PKPdf	14 50 58.0	-0.3
	comp=Z,0.4nm,0.3s,baz=288,slow=0.3,SNR=2.6						
AKASG	Malin Array Be	143.72	42		PKPdf	14 50 58.0	-0.3
SONM	Songino Array	144.77	313	PKP	PKPab	14 50 59.4	+0.1
	comp=Z,0.6nm,0.5s,baz=104,slow=3.0,SNR=4.0						
CMAR	Chiang Mai Arr	149.78	257	PKPbc	PKPdf	14 51 10.3	+0.9
	comp=Z,0.6nm,0.6s,baz=97,slow=0.7,SNR=4.2						
ZALV	Zalesovo Beam	152.00	338	PKPbc	PKPbc	14 51 16.3	-2.0
	comp=Z,0.5nm,0.4s,baz=346,slow=5.2,SNR=3.7						
ZALV				PKPab	PKPab	14 51 24.7	-3.0
	comp=Z,1.2nm,0.7s,baz=29,slow=3.4,SNR=4.7						
BVAR	Borovoye Array	155.75	356	PKPab	PKPab	14 51 42.0	-1.5
	comp=Z,1.4nm,0.7s,baz=29,slow=3.4,SNR=4.6						
KURK	Kurchatov	156.67	343		PKPab	14 51 46.5	-1.0
KURBB	Kurchatov Arra	156.78	343	PKPab	PKPab	14 51 46.5	-1.5
	comp=Z,1.2nm,1.1s,baz=31,slow=4.2,SNR=4.8						

NEIC ***29*** *14:32:32.0±1.2, 6°.70S±0°.08×129°.92E±0°.05, h117^{km}±8^{km}, mb4.1/8, Error ellipse: s-maj=13.5km s-min=2.1km az=148.0*

IDC ***29*** *14:32:32.3±1.7, 6°.82S×130°.01E, h114^{km}±18^{km}, mb3.4/2, mbtmp4.1/9, Error ellipse: s-maj=20.1km s-min=17.3km az=132.0*

ISC 29 14:32:30.5±0.6**, 6°.79S**±0°.05×**129°.97E**±0°.06**, h104^{km}, n28, σ2^{s}.99**/36**, mb4.0**/5**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SAUI	Saumlaki	1.77	132	Pn	Pn	14 33 04.9	+4.5
SAUI				Sn	Sn	14 33 26.5	+3.4
FAKI	Fak Fak	4.47	31	Pn	Pn	14 33 36.1	-0.1
SIJI	Sorong	6.02	12	P	Pn	14 33 57.9	+0.7
	4.8nm,0.3s,baz=202,slow=19,SNR=15						
SIJI				S	Sn	14 34 58.6	-6.2
	48nm,0.2s,baz=203,slow=23,SNR=21						
MTN	Manton Dam	6.12	169		Pn	14 34 00.5	+2.0
SOEI	Soe	6.37	242	Pn	Pn	14 34 02.4	+0.5
BATI	Baumata	7.10	241	P	Pn	14 34 13.2	+1.4
	33nm,0.4s,baz=104,slow=2.7,SNR=4.4						
BATI				S	Sn	14 35 33.5	+2.5
	21nm,0.3s,baz=93,slow=22,SNR=2.1						
MMRI	Maumere	7.88	256	Pn	Pn	14 34 23.3	+0.9
KNRA	Kununurra	8.91	188		Pn	14 34 38.5	+2.1
JAY	Jayapura	11.51	69	P	Pn	14 35 12.2	+0.5
	12nm,0.8s,baz=189,slow=18,SNR=1.7						
FITZ	Fitzroy Crossi	12.01	200	P	Pn	14 35 19.8	+1.5
	1.0nm,0.3s,baz=34,slow=12,SNR=31						
FITZ				S	Sn	14 37 23.9	-6.5
	5.4nm,0.3s,baz=51,slow=18,SNR=10						
FITZ	Fitzroy Crossi	12.01	200		Pn	14 35 19.7	+1.5
FITZ					Sn	14 37 25.6	-4.7
WB0	Warramunga Arr	13.60	162		Pn	14 35 38.3	-0.9
WRAB	Tennant Creek	13.74	162	Pn	Pn	14 35 39.8	-1.3
WRA	Warramunga Arr	13.75	162	P	Pn	14 35 40.2	-0.9
	1.3nm,0.4s,baz=342,slow=14,SNR=27						
WRA				S	Sn	14 38 03.2	-9.4
	1.7nm,0.4s,baz=348,slow=18,SNR=10						
WRA	Warramunga Arr	13.75	162		Pn	14 35 39.7	-1.4
WRA					Sn	14 38 07.6	-5.0
AS31	Alice Springs	17.20	168		Pn	14 36 25.3	+0.8
AS31				IAmb	IAmb	14 36 29.7	
	comp=Z,2.7nm,0.3s						
ASAR	Alice Springs	17.20	168	P	Pn	14 36 26.2	+1.8
	comp=Z,3.2nm,0.6s,baz=350,slow=10,SNR=121						
ASAR				S	Sn	14 39 27.8	-8.1
	comp=Z,0.7nm,0.4s,baz=356,slow=28,SNR=6.9						
ASAR				ScP	ScP	14 44 24.0	-4.2
	comp=Z,0.3nm,0.5s,baz=358,slow=1.7,SNR=4.6						
ASAR	Alice Springs	17.20	168	P	Pn	14 36 25.4	+0.9
PMG	Port Moresby	17.22	100	P	Pn	14 36 26.0	+1.3
	comp=Z,10nm,0.9s,baz=300,slow=20,SNR=1.4						
PMG	Port Moresby	17.22	100	P	Pn	14 36 25.3	+0.6
PMG				IAmb	IAmb	14 36 49.9	
	comp=Z,34nm,1.1s						
INKA	Innaminka	23.21	155	P	P	14 37 31.0	+2.5
FORT	Forrest	23.93	184	P	P	14 37 37.0	+1.9
FORT				IAmb	IAmb	14 38 14.3	
	comp=Z,8.2nm,1.2s						
STKA	Stephens Creek	27.22	158	P	P	14 38 05.8	+1.1
	comp=Z,1.1nm,0.5s,baz=346,slow=9.2,SNR=3.5						
	comp=Z,1.1nm,0.5s						
ONTNC	Ouen Toro	38.40	118	P	P	14 39 42.0	0.0
CMAR	Chiang Mai Arr	39.57	310	P	P	14 39 54.4	+2.5
	comp=Z,0.3nm,0.4s,baz=124,slow=8.7,SNR=4.1						
	comp=Z,0.3nm,0.4s						
SBA	Scott Base	73.55	172	P	P	14 43 51.5	-0.1
SBA				IAmb	IAmb	14 44 30.8	
	comp=Z,3.9nm,1.3s						
KIWB	Kanaga Island	73.77	31	P	P	14 43 52.7	-0.6
QSPA	South Pole Qui	83.19	180	P	P	14 44 46.3	+1.2
QSPA				IAmb	IAmb	14 44 57.3	
	comp=Z,6.0nm,1.4s						

SOME ***29*** *14:40:32.7, 45°.75N×84°.60E, h5^{km}*

NNC ***29*** *14:40:33.1±1.9, 45°.49N×84°.73E, h0^{km}, mb3.8, mpv3.2, Error ellipse: s-maj=15.2km s-min=5.8km az=119.0*

ISC 29 14:40:36.8±3.1**, 45°.8N**±0°.1×**85°.4E**±0°.2**, h10^{km}, n14, σ1^{s}.77**/14**, 2C-2D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZSN	Zaisan	1.71	347	Pg	Pb	14 41 09.7	+1.4
	18nm,0.3s						
ZSN				Lg	Lg	14 41 36.7	
	42nm,0.3s						
ZSN	Zaisan	1.71	347	eP	Pn	14 41 05.2	-1.5
	3.9nm,0.3s						
ZSN				eS	Sn	14 41 28.4	-0.2
	6.6nm,0.5s						
MK31	Makanchi Array	2.40	296	Pg	Pn	14 41 12.2	-3.9
	0.2nm,0.1s,baz=124,slow=16,SNR=221						
MK31				Lg	Lg	14 41 41.1	
	4.7nm,0.2s,baz=123,slow=29,SNR=39						
DJR	Jarkent	4.25	252	Pg	Pn	14 41 41.5	-0.2
	3.0nm,0.3s						
DJR				Lg	Lg	14 42 31.0	
	2.9nm,0.4s						
DJR	Jarkent	4.25	252	eP	Pn	14 41 41.5	-0.2
	3.0nm,0.3s						
DJR				eS	Sn	14 42 31.0	-0.5
	2.9nm,0.4s						
KAPS	Kapalarasan	4.30	266	Pg	Pn	14 41 41.7	-0.6
	1.2nm,0.1s						
KAPS				Lg	Lg	14 42 31.3	
	5.2nm,0.2s						
KAPS	Kapalarasan	4.30	266	eP	Pn	14 41 41.7	-0.6
	1.2nm,0.1s						
KAPS				eS	Sn	14 42 31.3	-1.2
	5.2nm,0.2s						
KNOS	Konyrlen	4.66	254	Pg	Pn	14 41 48.2	+1.0
	0.7nm,0.2s						
KNOS				Lg	Lg	14 42 42.6	
	7.5nm,0.3s						
PDGK	Podgornoye	4.91	242	⇓Pg	Pn	14 41 51.0	+0.3
	1.1nm,0.5s						
PDGK				⇑Lg	Lg	14 42 47.5	
	4.2nm,0.5s						
SHLS	Shalkode	5.02	241	Pg	Pn	14 41 49.3	-2.9
	1.2nm,0.1s						
SHLS				Lg	Lg	14 42 44.5	
	8.0nm,0.4s						
SHLS	Shalkode	5.02	241	eP	Pn	14 41 51.2	-1.0
	2.9nm,0.2s						
SHLS				eS	Sn	14 42 47.4	-2.9
	22nm,0.6s						
BLB	Baldybastay	5.22	254	Pg	Pn	14 41 59.1	+4.1
	2.8nm,0.3s						
BLB				Lg	Lg	14 43 01.4	
	13nm,0.6s						
KURBB	Kurchatov Arra	6.69	319	⇑Lg	Lg	14 44 02.7	
	13nm,0.7s						
KURK	Kurchatov	6.71	320	⇓Lg	Lg	14 44 03.8	
	1.5nm,0.6s						

NEIC ***29*** *14:45:28.6±1.2, 18°.1S±0°.1×178°.3W±0°.1, h573^{km}±7^{km}, mb4.1/29, Error ellipse: s-maj=21.4km s-min=11.6km az=123.0*

IDC ***29*** *14:45:29.6±1.4, 18°.03S×178°.42W, h585^{km}±12^{km}, mb3.0/9, mbtmp3.9/10, Error ellipse: s-maj=33.1km s-min=18.2km az=146.0*

ISC 29 14:45:28.9±0.6, 18°.1S±0°.1×178°.4W±0°.1, h579km, n48, σ0s.73/51, mb4.0/24, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	3.41	275	P	P	14 46 48.9	0.0
	24nm,0.6s,baz=141,slow=5.2,SNR=43						
MSVF				S	S	14 47 56.4	+2.4
	6.7nm,1.0s,baz=153,slow=23,SNR=1.8						
MSVF	Nonsavu	3.41	275		P	14 46 48.8	0.0
MSVF				S	S	14 47 53.0	-1.0
FUTU	Fugatoga	3.76	4	P	P	14 46 49.6	-1.6
RAO	Raoul Island	11.13	178	P	P	14 47 58.8	+0.2
THZ	Tophouse	24.75	196	P	P	14 50 04.3	-1.5
LTZ	Lake Taylor	25.87	196	P	P	14 50 15.5	-0.1
CTAO	Charters Tower	33.44	261	P	P	14 51 20.2	-0.9
INKA	Innaminka	38.70	248	P	P	14 52 05.1	+0.8
BBOO	Buckleboo	43.34	241	P	P	14 52 40.9	0.0
WR8	Warramunga Arr	44.47	260	P	P	14 52 49.6	-0.3
WR8				IAmb	IAmb	14 53 10.0	
	comp=Z,7.0nm,1.2s						
WB0	Warramunga Arr	44.59	260	P	P	14 52 50.6	-0.1
WRAB	Tennant Creek	44.61	260	P	P	14 52 50.6	-0.3
WRAB				IAmb	IAmb	14 53 24.4	
	comp=Z,12nm,1.4s						
WRA	Warramunga Arr	44.62	260	P	P	14 52 51.0	0.0
	comp=Z,0.9nm,0.5s,baz=96,slow=7.6,SNR=44						
WRA				PcP	PcP	14 54 21.8	+0.6
	comp=Z,0.1nm,0.4s,baz=97,slow=3.1,SNR=1.5						
	comp=Z,0.9nm,0.5s						
WRA	Warramunga Arr	44.62	260	IAmb	IAmb	14 52 51.4	
	comp=Z,0.3nm,1.2s						
AS31	Alice Springs	44.76	254	P	P	14 52 52.5	+0.4
AS31				IAmb	IAmb	14 52 53.5	
	comp=Z,2.3nm,0.5s						
ASAR	Alice Springs	44.76	254	P	P	14 52 52.6	+0.5
	comp=Z,5.2nm,0.5s,baz=92,slow=8.4,SNR=139						
ASAR				PcP	PcP	14 54 21.9	+0.3
	comp=Z,0.4nm,0.5s,baz=105,slow=4.0,SNR=6.8						
	comp=Z,5.2nm,0.5s						
ASAR	Alice Springs	44.76	254	P	P	14 52 52.0	-0.1
MTN	Manton Dam	48.81	269	P	P	14 53 23.0	+0.5
MTN				IAmb	IAmb	14 53 58.7	
	comp=Z,3.8nm,1.1s						
FORT	Forrest	49.95	245	P	P	14 53 30.5	-0.2
FORT				IAmb	IAmb	14 53 50.9	
	comp=Z,7.0nm,1.1s						
KNRA	Kununurra	50.49	264	P	P	14 53 35.4	+0.5
KNRA				IAmb	IAmb	14 54 07.4	
	comp=Z,8.0nm,1.3s						
MBWA	Marble Bar	58.05	256	P	P	14 54 27.8	0.0
MBWA				IAmb	IAmb	14 54 54.0	
	comp=Z,15nm,1.2s						
MJAR	Matsushiro Arr	68.05	323	P	P	14 55 30.6	-0.9
	comp=Z,0.7nm,0.5s,baz=121,slow=7.3,SNR=2.8						
	comp=Z,0.7nm,0.5s						
MJAR	Matsushiro Arr	68.05	323	P	P	14 55 31.8	+0.2
ADK	Adak	69.68	1	P	P	14 55 41.4	+0.5
QSPA	South Pole Qui	71.98	180	P	P	14 55 54.1	-0.4
	comp=Z,0.5nm,0.8s,baz=56,slow=1.5,SNR=1.4						
	comp=Z,0.5nm,0.8s						
QSPA	South Pole Qui	71.98	180	P	P	14 55 54.5	0.0
P17K	Kvichak River	79.07	11	P	P	14 56 33.4	0.0
NVAR	Mina Array Bea	79.53	44	P	P	14 56 37.1	+0.4
	comp=Z,0.5nm,0.6s,baz=253,slow=4.9,SNR=2.2						
	comp=Z,0.5nm,0.6s						
L18K	Granite Mounta	81.86	10	P	P	14 56 48.5	+0.6
K17K	Iditarod	82.07	9	P	P	14 56 49.5	+0.6
K17K				IAmb	IAmb	14 57 14.1	
	comp=Z,14nm,1.4s						
J16K	Anvik River	82.28	8	P	P	14 56 50.9	+0.9
J16K				IAmb	IAmb	14 56 51.4	
	comp=Z,14nm,1.4s						
J17K	VABM Dome	82.60	9	P	P	14 56 52.5	+0.9
J17K				IAmb	IAmb	14 56 57.5	
	comp=Z,9.4nm,1.3s						
K20K	Telida	83.37	11	P	P	14 56 55.7	+0.3
K20K				IAmb	IAmb	14 56 56.3	
	comp=Z,3.5nm,1.0s						
GLB	Gilahina Butte	83.92	16	P	P	14 56 58.2	0.0
GLB				IAmb	IAmb	14 57 06.2	
	comp=Z,11nm,1.3s						
IMAR	Indian Mountai	85.84	10	P	P	14 57 07.5	+0.1
F19K	Shaleruckik Mo	86.04	8	P	P	14 57 08.4	+0.2
F19K				IAmb	IAmb	14 57 22.2	
	comp=Z,4.7nm,1.4s						
ILAR	Eielson Array	86.05	13	P	P	14 57 07.8	-0.6
	comp=Z,0.3nm,0.4s,baz=224,slow=5.0,SNR=8.9						
	comp=Z,0.3nm,0.4s						
TXAR	Lajitas Array	86.07	58	P	P	14 57 10.7	+1.2
	comp=Z,0.3nm,0.7s,baz=273,slow=5.6,SNR=2.8						
	comp=Z,0.3nm,0.7s						
J25K	Salcha River,	86.24	14	P	P	14 57 09.1	-0.3
J25K				IAmb	IAmb	14 57 45.6	
	comp=Z,4.0nm,1.4s						
PDAR	Pinedale Array	87.46	43	P	P	14 57 16.0	+0.1
	comp=Z,0.2nm,0.6s,baz=284,slow=5.1,SNR=2.4						
	comp=Z,0.2nm,0.6s						
F24K	Squaw Lake	88.25	11	P	P	14 57 19.3	+0.6
F24K				IAmb	IAmb	14 57 41.0	
	comp=Z,3.6nm,1.4s						
BMAR	Burnt Mountain	88.82	12	P	P	14 57 22.3	+0.9
CMAR	Chiang Mai Arr	88.96	290	P	P	14 57 21.7	-1.4
	comp=Z,0.4nm,0.3s,baz=110,slow=4.7,SNR=4.6						
	comp=Z,0.4nm,0.3s						
H29M	Whitestone	89.23	15	P	P	14 57 24.0	+0.7
BRTR	Keskin Array B	144.91	315	PKP	PKPdf	15 04 00.4	-0.7
	comp=Z,0.3nm,0.4s,baz=64,slow=3.4,SNR=2.8						
CLL	Collm	145.63	347	*i* PKPbc	PKPbc	15 04 04.1	+0.8
	comp=Z,4.0nm,0.8s						
MMAI	Mount Meron Ar	146.25	303	PKPbc	PKPbc	15 04 05.4	-0.3
	comp=Z,5.2nm,0.9s,baz=64,slow=6.6,SNR=3.5						
GERES	GERESS Array B	147.78	345	PKPbc	PKPbc	15 04 09.5	+0.2
	comp=Z,0.6nm,0.2s,baz=45,slow=2.1,SNR=6.3						

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*IDC **29** 14:48:23.3±1.1, 36°.04N×27°.26E, h0km, mb3.4/3, mbtmp3.3/7, ML3.3/3, Error ellipse: s-maj=19.7km s-min=12.0km az=166.0*
*ATH **29** 14:48:24.7, 36°.03N×27°.30E, h15km±1km, ML3.2/10, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
*THE **29** 14:48:25.7, 36°N±2°×2°7E±°, h12km±4km, M3.1/9, MLh3.1/9*
*ISK **29** 14:48:25.2, 36°.01N×27°.34E, h10km, ML3.2/17*
*AFAD **29** 14:48:27.9, 36°.13N×27°.47E, h7km±5km, ML2.7*

ISC 29 14:48:24.5±1.0, 36°.04N±0°.02×27°.30E±0°.02, h17km±8km, n64, σ1s.23/97, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KARP	Karpathos	0.50	193	P	Pb	14 48 35.1	+0.3
KARP				S	Sb	14 48 42.0	+0.1
KARP				AML	AML		
KARP	Karpathos	0.50	193	Pg	Pb	14 48 34.9	0.0
KARP				Sg	Sb	14 48 42.7	+0.8
KARP				AML	AML		
KARP	Karpathos	0.50	193	P	Pb	14 48 34.6	-0.3
KARP				S	Sb	14 48 41.7	-0.2
KARP				AML	AML		
YAZI	Mula-Dat§a-	0.66	11	P	Pn	14 48 38.4	-0.7
YAZI				S	Sn	14 48 49.0	+0.1
YAZI				IAML		14 48 51.0	
	comp=E,202nm,0.3s						
YAZI				IAML		14 48 52.0	
	comp=N,255nm,0.3s						
ARG	Arkhangelos	0.69	75	P	Pb	14 48 38.4	+0.4
ARG				S	Sb	14 48 47.7	+0.3
ARG				AML	AML		
ARG	Arkhangelos	0.69	75	Pg	Pb	14 48 38.5	+0.4
ARG				Sg	Sb	14 48 48.2	+0.8
ARG				AML	AML		
ARG	Arkhangelos	0.69	75	P	Pb	14 48 38.1	0.0
ARG				S	Sb	14 48 47.5	+0.1
DAT	Datca	0.73	18	P	Pn	14 48 40.3	+0.1
DAT				S	Sn	14 48 50.8	-0.1
DAT	Datca	0.73	18	Pg	Pn	14 48 40.2	+0.1
DAT				Sg	Sn	14 48 51.2	+0.3
DAT				AML	AML		
DATC	Datca-Mugla	0.78	22	Pg	Pn	14 48 40.4	-0.3
DATC				Sg	Sn	14 48 52.2	+0.2
DATC				AML	AML		
RODB	Rodos	0.85	61	P	Pb	14 48 41.0	+0.2
RODB				S	Sn	14 48 53.0	-0.7
RODB				AML	AML		
RDI1	Rhodes Town Ha	0.85	61	P	Pn	14 48 41.4	-0.3
RDI1				S	Sn	14 48 53.3	-0.5
RDI1				AML	AML		
ASTA	Astypalaia	0.92	304	P	Pn	14 48 42.6	0.0
ASTA				S	Sn	14 48 55.0	-0.4
ASTA				AML	AML		
KLNA	Kalymnos	0.96	344	P	Pn	14 48 43.3	+0.1
BDRM	Kayabasi	1.03	6	P	Pn	14 48 46.5	+2.3
BDRM				S	Sn	14 48 58.5	+0.2
BDRM				IAML		14 49 04.0	
	comp=E,139nm,0.4s						
BDRM				IAML		14 49 07.0	
	comp=N,154nm,0.6s						
TURN	Turunc	1.06	46	Pg	Pn	14 48 45.4	+0.9
TURN				AML	AML		
TURN	Turunc	1.06	46	P	Pn	14 48 45.4	+0.9
TURN				S	Sn	14 48 58.7	-0.2
TURN				IAML		14 49 02.0	
	comp=E,413nm,0.3s						
TURN				IAML		14 49 04.0	
	comp=N,401nm,0.4s						
YKAV	Yalikavak-Bodr	1.09	359	Pn	Pn	14 48 46.6	+1.7
ZKR	Zakros	1.27	224	P	Pg	14 48 49.5	+0.4
ZKR				S	Sg	14 49 06.4	+0.7
ZKR	Zakros	1.27	224	Pn	Pg	14 48 49.7	+0.6
ZKR				AML	AML		
ZKR	Zakros	1.27	224	P	Pg	14 48 48.6	-0.4
ZKR				S	Sn	14 49 04.7	+0.5
ZKR				AML	AML		
MLSB	Milas	1.31	17	Pn	Pg	14 48 50.0	+0.2
MLSB				AML	AML		
DALY	Dalyan (Mula)	1.34	54	Pn	Pg	14 48 50.3	0.0
DALY				AML	AML		
DALY	Dalyan (Mula)	1.34	54	P	Pg	14 48 49.6	-0.7
DALY				S	Sn	14 49 06.1	+0.3
DALY				IAML		14 49 12.0	
	comp=N,254nm,0.6s						
DALY				IAML		14 49 14.0	
	comp=E,176nm,0.4s						
YER	Yerkesik	1.35	36	P	Pg	14 48 50.0	-0.5
YER				S	Sg	14 49 08.1	0.0
YER				AML	AML		
YER	Yerkesik	1.35	36	Pn	Pg	14 48 50.3	-0.2
YER				AML	AML		
MULA	Mugla, Merkez-	1.47	34	P	Pg	14 48 52.0	-0.8
MULA				S	Sg	14 49 12.2	+0.3
MULA				IAML		14 49 21.0	
	comp=N,90nm,0.3s						
MULA				IAML		14 49 21.0	
	comp=E,160nm,0.7s						
THERA	Ancient Thera,	1.51	283	P	Pb	14 48 51.8	-0.3
THERA				S	Sg	14 49 12.8	-0.5
THERA				AML	AML		
THERA	Ancient Thera,	1.51	283	P	Pb	14 48 51.5	-0.6
THERA				S	Sn	14 49 10.8	+0.6
THERA				AML	AML		
THR8	Santorini-Mono	1.52	285	P	Pn	14 48 51.3	+0.4
AGNA	Agios Nikolaos	1.54	237	P	Pn	14 48 51.7	+0.5
AGNA				S	Sn	14 49 11.4	+0.6
AGNA				AML	AML		
SABU	Mula-Dalaman	1.56	59	P	Pg	14 48 54.1	-0.4
SABU				S	Sg	14 49 13.2	-1.5
SABU				IAML		14 49 19.0	
	comp=N,305nm,0.6s						
SABU				IAML		14 49 19.0	
	comp=E,214nm,0.3s						
FETY	Fethiye	1.56	67	Pn	Pg	14 48 53.7	-0.8
FETY				AML	AML		
FETY	Fethiye	1.56	67	P	Pg	14 48 55.1	+0.6
FETY				S	Sg	14 49 16.6	+1.9
THR2	Thira island,	1.56	286	P	Pn	14 48 51.8	+0.3
THR6	Thira Island,	1.57	282	P	Pn	14 48 51.9	+0.3
NPS	Neapolis	1.58	241	P	Pb	14 48 52.8	-0.4
NPS				S	Sb	14 49 13.2	+0.4
NPS				AML	AML		
NPS	Neapolis	1.58	241	P	Pn	14 48 52.2	+0.5
NPS				S	Sn	14 49 11.9	+0.2
NPS				AML	AML		
THR3	Thira Island,	1.58	284	P	Pn	14 48 52.2	+0.5
SNT5	Nea Kammeni, S	1.58	284	P	Pn	14 48 52.2	+0.4
CMBO	Columbo, Santo	1.59	286	P	Pb	14 48 53.2	-0.2
CMBO				S	Sg	14 49 15.3	-0.5
CMBO				AML	AML		
CMBO	Columbo, Santo	1.59	286	P	Pb	14 48 53.0	-0.5
CMBO				S	Sb	14 49 13.2	0.0
GCAM	G?zelcaml?	1.66	358	Pn	Pg	14 48 55.5	-0.9
APE	Apeiranthos	1.76	306	P	Pb	14 48 55.4	-0.9
APE				AML	AML		
APE	Apeiranthos	1.76	306	Pn	Pb	14 48 55.4	-0.9
APE				AML	AML		
APE	Apeiranthos	1.76	306	P	Pn	14 48 54.9	+0.7
CAME	Cameli-Denizli	1.85	60	Pn	Pb	14 48 58.1	+0.2
CAME				AML	AML		
NAZL	Nazilli-Aydin	2.08	22	Pn	Pb	14 49 01.5	-0.3
NAZL				AML	AML		
IDI	Anoyia	2.10	250	Pn	Pn	14 49 00.1	+1.1
	14nm,0.3s,baz=70,slow=12,SNR=23						
IDI				Sn	Sn	14 49 25.7	+1.0
	14nm,0.3s,baz=36,slow=18,SNR=10						
IDI	Anoyia	2.10	250	P	Pn	14 49 00.2	+1.3
IDI				AML	AML		
IDI	Anoyia	2.10	250	P	Pn	14 48 59.4	+0.4
IDI				AML	AML		
APMY	Acipayam-Deniz	2.15	48	Pn	Pb	14 49 01.9	-1.2
APMY				AML	AML		
ELL	Elmali	2.22	71	Pn	Pb	14 49 02.9	-1.3
ELL				AML	AML		
ELL	Elmali	2.22	71	P	Pn	14 49 01.5	+0.9
SIVA	Sivas	2.27	244	P	Pb	14 49 03.4	-1.7
SIVA	Sivas	2.27	244	P	Pn	14 49 01.9	+0.6
SIVA				AML	AML		
ODEM	Odemis-Izmir	2.32	15	Pn	Pb	14 49 04.6	-1.3
ODEM				AML	AML		
KORT	Korkueli	2.64	68	Pn	Pb	14 49 08.9	-2.5
KORT				AML	AML		
BRTR	Keskin Array B	6.22	52	Pn	Pn	14 49 57.4	+1.8
	0.2nm,0.3s,baz=234,slow=12,SNR=2.6						
BRTR				Sn	Sn	14 51 09.3	+2.9
	0.1nm,0.3s,baz=223,slow=25,SNR=1.7						
	0.3nm,0.4s						
BRTR				AML	AML		
MMAI	Mount Meron Ar	7.33	112	Pn	Pn	14 50 11.8	+0.9
	1.4nm,0.3s,baz=312,slow=13,SNR=2.0						
MMAI				Sn	Sn	14 51 29.9	-3.9
	1.8nm,0.3s,baz=281,slow=25,SNR=2.2						
	0.5nm,0.2s						
MMAI				AML	AML		
EIL	Elat	9.04	132	Pn	Pn	14 50 34.3	+0.1
	0.4nm,0.3s,baz=310,slow=7.9,SNR=1.7						
EIL				Sn	Sn	14 52 07.8	-7.8
	1.5nm,0.3s,baz=348,slow=20,SNR=8.2						
	1.4nm,0.4s						
EIL				AML	AML		
TORD	Torodi Ar. Bea	32.39	232	P	P	14 54 54.5	+1.1
	0.5nm,0.5s,baz=32,slow=8.4,SNR=5.4						
	0.5nm,0.5s						
KURBB	Kurchatov Arra	39.21	52	P	P	14 55 52.6	+1.0
	0.2nm,0.5s,baz=268,slow=8.1,SNR=2.2						
	0.2nm,0.5s						
MKAR	Makanchi Array	41.84	58	P	P	14 56 14.7	+1.3
	0.3nm,0.6s,baz=279,slow=9.6,SNR=2.1						
	0.3nm,0.6s						

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*IDC **29** 15:21:48.6±0.8, 1°.06N×126°.15E, h0km, mb3.9/9, mbtmp3.9/11, ML3.4/2, MS3.2/2, Error ellipse: s-maj=37.7km s-min=14.1km az=59.0*
*DJA **29** 15:21:52.6±0.2, 1°N±3°×12°6E±°, h10km, M3.8/13, MLv3.8/13*
*NEIC **29** 15:21:55.3±0.9, 1°.11N±0°.10×126°.34E±0°.06, h46km±8km, mb4.1/11, Error ellipse: s-maj=14.5km s-min=9.0km az=189.0*

ISC 29 15:21:54.4±0.7, 1°.15N±0°.08×126°.39E±0°.05, h39km, n39, σ1s.24/38, mb4.1/14, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TNTI	Ternate	1.05	111		Pn	15 22 12.7	0.0
TNTI	Ternate	1.05	111	P	Pn	15 22 12.8	+0.2
TNTI				S	Sn	15 22 28.0	+2.0
TNTI				AML	AML		
MNI	Manado	1.58	281	P	Pn	15 22 21.0	+1.1
MNI				S	Sn	15 22 40.4	+1.3
MNI				AML	AML		
SANI	Sanana	3.21	187	P	Pn	15 22 43.1	+0.7
GTOI	Gorontalo	3.42	261	P	Pn	15 22 48.3	+3.1
GTOI				AML	AML		
LUWI	Luwuk	4.22	239	Pn	Pn	15 22 56.0	-0.4
LUWI	Luwuk	4.22	239	P	Pn	15 22 59.7	+3.4
NLAI	Namlea	4.42	171	P	Pn	15 23 00.7	+1.7
NLAI				AML	AML		
SIJI	Sorong	5.27	112	Pn	Pn	15 23 13.1	+2.3
	0.6nm,0.3s,baz=346,slow=15,SNR=5.2						
	1.8nm,0.3s						
SIJI				AML	AML		
TOLI2	Tolitoli	5.61	270	Pn	Pn	15 23 15.4	+0.1
DAV	Davao City (W)	5.93	352	LR	LR	15 25 55.4	
	comp=Z,57nm,20.7s,baz=172,slow=41						
FAKI	Fak Fak	7.12	125	Pn	Pn	15 23 37.4	+1.2
BKB	Balikpapan	9.79	256	Pn	Pn	15 24 12.3	-0.5
MTN	Manton Dam	14.68	161	P	P	15 25 24.9	-0.2
KNRA	Kununurra	16.89	172	Pn	Pn	15 25 47.2	-0.8
KNRA				IAmb	IAmb	15 25 54.4	
	comp=Z,4.5nm,0.9s						
FITZ	Fitzroy Crossi	19.14	182	P	P	15 26 12.9	-1.6
	comp=Z,0.1nm,0.3s,baz=14,slow=3.2,SNR=2.8						
	comp=Z,2.6nm,0.9s						
FITZ				AML	AML		
FITZ	Fitzroy Crossi	19.14	182	P	P	15 26 13.2	-1.3
WB0	Warramunga Arr	22.22	160	P	P	15 26 47.0	-0.8
WB0				IAmb	IAmb	15 26 58.4	
	comp=Z,11nm,1.1s						
WRAB	Tennant Creek	22.36	160	P	P	15 26 48.6	-0.8
WRAB				IAmb	IAmb	15 26 54.0	
	comp=Z,7.3nm,0.9s						
WRA	Warramunga Arr	22.37	160	P	P	15 26 48.5	-0.9
	comp=Z,4.2nm,0.7s,baz=330,slow=11,SNR=57						
	comp=Z,4.2nm,0.7s						
WR8	Warramunga Arr	22.44	160	P	P	15 26 49.4	-0.8
WR8				IAmb	IAmb	15 26 54.6	
	comp=Z,5.9nm,0.8s						
AS31	Alice Springs	25.73	164	P	P	15 27 20.4	-1.0
ASAR	Alice Springs	25.73	164	P	P	15 27 20.6	-0.8
	comp=Z,1.0nm,0.5s,baz=347,slow=7.0,SNR=23						
	comp=Z,1.0nm,0.5s						
ASAR	Alice Springs	25.73	164	P	P	15 27 20.5	-0.9
FORT	Forrest	31.80	177	P	P	15 28 15.3	0.0
FORT				IAmb	IAmb	15 28 25.9	
	comp=Z,6.3nm,1.1s						
BBOO	Buckleboo	34.99	166	P	P	15 28 42.6	-0.6
STKA	Stephens Creek	35.87	158	P	P	15 28 50.1	-0.7
	comp=Z,1.8nm,0.6s,baz=324,slow=8.9,SNR=9.3						
	comp=Z,1.8nm,0.6s						
MKAR	Makanchi Array	59.48	326	P	P	15 31 53.0	-0.6
	comp=Z,0.6nm,0.5s,baz=118,slow=8.2,SNR=9.5						
	comp=Z,0.6nm,0.5s						
MKAR	Makanchi Array	59.48	326	P	P	15 31 52.6	-1.1
ZALV	Zalesovo Beam	62.73	334	P	P	15 32 15.2	-0.2
	comp=Z,0.4nm,0.3s,baz=124,slow=7.2,SNR=1.5						
	comp=Z,0.4nm,0.3s						
KURBB	Kurchatov Arra	63.72	328	P	P	15 32 21.5	-0.6
	comp=Z,0.9nm,0.5s,baz=129,slow=5.9,SNR=26						
	comp=Z,0.9nm,0.5s						
KURK	Kurchatov	63.73	328	P	P	15 32 21.4	-0.8
KURK				IAmb	IAmb	15 32 22.3	
	comp=Z,2.1nm,0.5s						
BVAR	Borovoye Array	69.29	328	P	P	15 32 57.1	-0.5
	comp=Z,0.5nm,0.6s,baz=134,slow=12,SNR=2.8						
	comp=Z,0.5nm,0.6s						
ABKAR	Akbulak array	73.93	321	P	P	15 33 24.8	-0.8
VNDA	Vanda	80.93	173	P	P	15 34 04.2	-0.1
	comp=Z,0.6nm,0.8s,baz=325,slow=6.4,SNR=3.6						
	comp=Z,0.6nm,0.8s						
VNDA	Vanda	80.93	173	IAmb	IAmb	15 34 47.1	
	comp=Z,1.6nm,1.1s						
L18K	Granite Mounta	82.90	27	P	P	15 34 15.3	+0.4
KVAR	Kislovodsk Arr	84.66	314	LR	LR	16 17 09.6	
	comp=Z,45nm,20.3s,baz=87,slow=39						
FINES	FINESS Array B	93.93	332	P	P	15 35 09.1	+1.2
	comp=Z,1.0nm,0.8s,baz=130,slow=6.2,SNR=2.2						
	comp=Z,1.0nm,0.8s						

IDC 29 15:42:12.5±1.7, 4°.63S×150°.84E, h0km, mb3.2/2, mbtmp3.4/3, ML1.5/1, Error ellipse: s-maj=54.5km s-min=14.7km az=148.0, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KRVT	Keravat (AS076	1.22	75	Pn	Pn	15 42 36.7	-0.2
	116nm,0.3s,baz=203,slow=15,SNR=61						
KRVT				Sn	Sb	15 42 53.3	+0.5
	483nm,0.3s,baz=300,slow=20,SNR=16						
PMG	Port Moresby	6.00	217	Pn	Pn	15 43 46.7	+4.2
	0.7nm,0.3s,baz=42,slow=15,SNR=1.4						
PMG				Sn	Sn	15 44 52.9	+0.9
	2.1nm,0.3s,baz=68,slow=19,SNR=6.7						
	9.8nm,0.9s						
PMG				AML	AML		
WRA	Warramunga Arr	22.14	225	P	P	15 47 10.4	+0.4
	0.5nm,0.8s,baz=49,slow=10,SNR=7.6						
	0.5nm,0.8s						
ASAR	Alice Springs	25.01	219	P	P	15 47 37.2	-1.1
	0.8nm,0.7s,baz=60,slow=8.6,SNR=14						
	0.8nm,0.7s						
TORD	Torodi Ar. Bea	148.40	288	PKPbc	PKPbc	16 02 01.5	-0.6
	0.3nm,0.5s,baz=107,slow=1.4,SNR=2.2						

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*IDC **29** 15:42:53.9±1.2, 39°.59N×24°.64E, h0km, mb3.3/7, mbtmp3.4/8, ML3.3/1, Error ellipse: s-maj=30.2km s-min=19.3km az=173.0*
*ISK **29** 15:42:54.2, 39°.94N×24°.27E, h12km, ML3.6/32*
*THE **29** 15:42:55.4, 40°.0N±0°.9×24°.3E±0°.7, h15km±1km, M3.4/25, MLh3.4/25*
*SOF **29** 15:42:55.3, 40°.14N±0°.02×24°.35E±0°.01, h10km±1km, MD3.8/6*
*ATH **29** 15:42:55.3, 40°.00N×24°.27E, h23km±3km, ML3.5/19, Latitude uncertainty: 0 km; Longitude uncertainty: 1 km*
*AFAD **29** 15:42:56.9, 40°.03N×24°.41E, h22km±1km, ML3.3*

ISC 29 15:42:54.9±1.0, 39°.98N±0°.02×24°.32E±0°.01, h8km±8km, n161, σ1s.18/212, mb3.0/6, 22C-7D, Aegean Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OUR	Ouranopolis	0.44	324	P	Pg	15 43 03.7	+0.3
OUR				S	Sg	15 43 09.6	+0.4
OUR				AML	AML		
OUR	Ouranopolis	0.44	324	Pg	Pg	15 43 03.7	+0.3
OUR				AML	AML		
OUR	Ouranopolis	0.44	324	P	Pg	15 43 03.7	+0.3
OUR				S	Sg	15 43 09.5	+0.4
OUR				AML	AML		
PAIG	Paliouri	0.49	264	P	Pg	15 43 04.6	+0.2
PAIG				S	Sg	15 43 11.5	+0.7
PAIG				AML	AML		
LMN1	MIRINA LIMNOU	0.58	100	P	Pn	15 43 08.2	-1.2
LMN1				S	Sb	15 43 16.1	+0.4
LMN1				AML	AML		
LIA	Limnos Island	0.67	97	P	Pb	15 43 08.6	-0.2
LIA				S	Sn	15 43 19.2	-2.1
LIA				AML	AML		
LIA	Limnos Island	0.67	97	P	Pn	15 43 09.4	-1.3
LIA				S	Sn	15 43 19.3	-2.1
LIA				AML	AML		
EFSA	Agios Efstrati	0.68	130	P	Pb	15 43 09.3	+0.3
EFSA				S	Sn	15 43 19.3	-2.2
THAS	Thassos island	0.70	26	P	Pb	15 43 08.3	-1.0
THAS				S	Sb	15 43 18.6	-0.5
THAS				AML	AML		
THAS	Thassos island	0.70	26	P	Pb	15 43 09.3	0.0
THAS				S	Sb	15 43 18.3	-0.8
PLG	Polygyros	0.78	301	P	Pg	15 43 09.4	-0.3
PLG				S	Sg	15 43 20.9	+1.0
PLG				AML	AML		
PLG	Polygyros	0.78	301	P	Pg	15 43 09.4	-0.3
THS1	Thassos, Thass	0.78	15	P	Pg	15 43 09.7	-0.3
THS1				S	Sg	15 43 20.0	-0.1
AOS	Alonnisos	0.88	203	P	Pg	15 43 11.6	-0.1
AOS				S	Sb	15 43 25.2	+1.0
AOS				AML	AML		
AOS2	Alonissos-2	0.91	204	P	Pg	15 43 11.6	-0.7
AOS2				S	Sg	15 43 24.2	+0.1
AOS2				AML	AML		
KAVA	Kavala	1.03	8	P	Pg	15 43 14.2	-0.4

KAVA				S	Sn	15 43 28.8	-1.5
KAVA				AML	AML		
KAVA	Kavala	1.03	8	P	Pg	15 43 14.1	-0.5
KAVA				S	Sg	15 43 27.0	-0.9
SMTH	Samothraki Isl	1.05	62	P	Pg	15 43 14.4	-0.7
SMTH				S	Sn	15 43 30.4	-0.5
SMTH				AML	AML		
SMTH	Samothraki Isl	1.05	62	P	Pg	15 43 14.3	-0.8
SMTH				S	Sb	15 43 28.7	-0.6
SMTH				AML	AML		
XOR	Xorichti	1.06	235	P	Pb	15 43 14.7	-0.9
XOR				S	Sg	15 43 29.3	+0.2
XOR				AML	AML		
XOR	Xorichti	1.06	235	P	Pb	15 43 14.7	-0.9
XOR				S	Sg	15 43 27.3	-1.7
XOR				AML	AML		
NEO	Neokhori	1.08	232	P	Pb	15 43 15.0	-0.8
NEO				S	Sg	15 43 29.3	-0.3
NEO				AML	AML		
NEO	Neokhori	1.08	232	P	Pb	15 43 14.9	-0.9
NEO				S	Sg	15 43 28.8	-0.7
NEO				AML	AML		
HORT	Hortiatis	1.12	304	P	Pb	15 43 15.8	-0.7
HORT				S	Sb	15 43 31.0	-0.2
HORT	Hortiatis	1.12	304	P	Pb	15 43 15.8	-0.7
HORT				S	Sb	15 43 30.0	-1.3
SOH	Sokhos	1.12	319	P	Pb	15 43 16.0	-0.5
SOH				S	Sb	15 43 30.8	-0.5
SOH				AML	AML		
SOH	Sokhos	1.12	319	P	Pb	15 43 15.8	-0.7
SOH				S	Sb	15 43 29.9	-1.4
SOH				AML	AML		
DRA2	DRAMA	1.19	354	P	Pg	15 43 17.5	-0.1
DRA2				S	Sb	15 43 31.2	-2.0
DRA2				AML	AML		
THE	Thessaloniki	1.22	303	P	Pn	15 43 17.5	-0.8
THE				S	Sb	15 43 33.2	-1.0
THE				AML	AML		
THE	Thessaloniki	1.22	303	P	Pn	15 43 17.1	-1.1
THE				S	Sb	15 43 32.2	-2.0
GADA	Gvkgeada	1.23	80	P	Pb	15 43 17.4	-1.0
GADA				S	Sn	15 43 35.7	+0.5
GADA				AML	AML		
GADA	Gvkgeada	1.23	80	Pn	Pn	15 43 17.6	-0.8
GADA				Sn	Sn	15 43 36.1	+0.8
GADA				AML	AML		
SRS	Serrai	1.26	334	P	Pn	15 43 17.7	-1.3
SRS				S	Sb	15 43 33.8	-1.6
SRS				AML	AML		
SRS	Serrai	1.26	334	P	Pn	15 43 17.6	-1.3
SRS				S	Sb	15 43 32.0	-3.4
SRS				AML	AML		
BOZC	Bozcaada	1.34	95	Pn	Pg	15 43 19.8	-0.8
BOZC				Sn	Sg	15 43 38.5	+0.5
BOZC				AML	AML		
BOZC	Bozcaada	1.34	95	P	Pn	15 43 19.2	-0.8
BOZC				S	Sb	15 43 35.9	-1.8
BOZC				IAML		15 43 40.0	
	comp=N,460nm,0.5s						
BOZC				IAML		15 43 41.0	
	comp=E,569nm,0.9s						
KYMI	Kymi, Euboea I	1.35	187	P	Pn	15 43 18.9	-1.2
KYMI				S	Sb	15 43 36.8	-1.2
KYMI				AML	AML		
KYMI	Kymi, Euboea I	1.35	187	P	Pn	15 43 18.9	-1.2
KYMI				S	Sb	15 43 36.8	-1.2
KYMI				AML	AML		
MRKA	Markates	1.39	204	P	Pn	15 43 19.4	-1.2
MRKA				S	Sn	15 43 36.8	-2.4
MRKA				AML	AML		
NVR	Nevrokopi	1.41	346	P	Pn	15 43 19.6	-1.4
NVR				S	Sn	15 43 37.6	-2.2
NVR				AML	AML		
NVR	Nevrokopi	1.41	346	P	Pn	15 43 19.8	-1.1
NVR				S	Sn	15 43 36.9	-2.9
NVR				AML	AML		
ECEA	Canakkale, Ece	1.43	87	P	Pn	15 43 19.3	-1.8
ECEA				S	Sn	15 43 38.5	-1.6
ECEA				IAML		15 43 44.0	
	comp=N,562nm,0.5s						
ECEA				IAML		15 43 48.0	
	comp=E,461nm,0.5s						
KOCA	Canakkale, Ayv	1.48	108	P	Pb	15 43 21.8	-0.9
KOCA				S	Sn	15 43 39.7	-1.7
KOCA				IAML		15 43 46.0	
	comp=N,655nm,0.7s						
KOCA				IAML		15 43 47.0	
	comp=E,578nm,0.5s						
ALEX	Alexandroupoli	1.49	54	P	Pn	15 43 20.5	-1.5
GPNR	Gulpinar-Canak	1.50	110	Pn	Pb	15 43 21.9	-1.0
GPNR				AML	AML		
ENZZ	Sultanice-Enez	1.53	65	Pn	Pb	15 43 22.9	-0.6
ENZZ				AML	AML		
EZN	Ezine	1.55	95	P	Pn	15 43 22.5	-0.3
EZN				S	Sn	15 43 41.9	-1.2
EZN				AML	AML		
EZN	Ezine	1.55	95	Pn	Pb	15 43 23.1	-0.8
EZN				AML	AML		
CAVK	Edirne/Enez-Ca	1.58	63	P	Pb	15 43 23.4	-1.0
CAVK				S	Sg	15 43 46.3	+0.6
CAVK				IAML		15 43 51.0	
	comp=E,498nm,0.6s						
CAVK				IAML		15 43 56.0	
	comp=N,496nm,0.8s						
CAVK	Edirne/Enez-Ca	1.58	63	⇑P	Pb	15 43 23.8	-0.6
EZNE	Ezine-Canakkal	1.59	97	Pn	Pb	15 43 23.5	-1.0
ENEZ	Enez	1.59	61	P	Pn	15 43 22.4	-1.0
ENEZ				S	Sb	15 43 43.4	-1.5
ENEZ				AML	AML		
ENEZ	Enez	1.59	61	Pn	Pb	15 43 23.7	-0.9
ENEZ				AML	AML		
ALN	Alexandroupoli	1.61	55	P	Pn	15 43 22.3	-1.3
ALN				S	Sn	15 43 43.1	-1.4
ALN				AML	AML		
ALN	Alexandroupoli	1.61	55	P	Pn	15 43 22.1	-1.5
MMB	Musomishta	1.62	345	P	Pn	15 43 23.2	-0.6
MMB				S	Sn	15 43 43.1	-2.0
MMB				AML	AML		
MMB	Musomishta	1.62	345	*i* P	Pn	15 43 23.3	-0.6
MMB				*i* S	Sn	15 43 43.3	-1.7
TYRN	Tyrnavos	1.63	261	P	Pn	15 43 23.4	-0.5
TYRN				S	Sn	15 43 44.2	-0.8
TYRN				AML	AML		
TYRN	Tyrnavos	1.63	261	P	Pn	15 43 23.3	-0.5
COMU	Canakkale	1.66	85	Pn	Pb	15 43 24.6	-1.1
COMU				AML	AML		
LKR	Lokris	1.67	218	P	Pn	15 43 23.5	-1.0
LKR				AML	AML		
LKR	Lokris	1.67	218	P	Pn	15 43 23.3	-1.2
PRK	Paraskevi	1.68	115	P	Pn	15 43 24.5	-0.1
PRK				AML	AML		
PRK	Paraskevi	1.68	115	P	Pb	15 43 24.7	-1.3
GELI	Tayfur-Gelibol	1.71	75	Pn	Pb	15 43 24.9	-1.6
GELI				AML	AML		
BAYC	CANAKKALE_Bayr	1.73	97	P	Pb	15 43 25.5	-1.4
BAYC				S	Sn	15 43 46.1	-1.5
BAYC				IAML		15 43 54.0	
	comp=N,270nm,0.5s						
RZN	Rozhen	1.74	10	P	Pn	15 43 25.0	-0.6
RZN	Rozhen	1.74	10	*i* P	Pn	15 43 25.0	-0.6
GRG	Griva	1.76	304	P	Pn	15 43 25.3	-0.4
GRG				S	Sn	15 43 47.3	-1.0
GRG				AML	AML		
GRG	Griva	1.76	304	P	Pn	15 43 25.2	-0.5
AXAR	Agios Charalam	1.77	227	P	Pn	15 43 24.8	-0.9
AXAR				AML	AML		
AGG	Agios Georgios	1.81	239	P	Pn	15 43 25.4	-1.0
ERIK	Erikli-Kesan	1.82	67	Pn	Pn	15 43 25.4	-1.0
ERIK				AML	AML		
THL	Klokotos Trika	1.82	258	P	Pn	15 43 25.7	-0.8
KDZ	Kurdzhali	1.82	25	Pn	Pb	15 43 26.9	-1.6
KDZ				AML	AML		
KDZ	Kurdzhali	1.82	25	*i* P	Pn	15 43 26.1	-0.5
GOKT	Kean, EDRN	1.89	68	P	Pn	15 43 26.3	-1.2
GOKT				S	Sg	15 43 55.7	0.0
GOKT				IAML		15 43 58.0	
	comp=E,235nm,0.8s						
GOKT				IAML		15 44 00.0	
	comp=N,278nm,0.6s						
STFN	Stefani	1.90	199	P	Pn	15 43 26.9	-0.7
STFN				AML	AML		
DION	Dionisos Attik	1.92	189	P	Pn	15 43 26.9	-1.0
DION				AML	AML		
VIL2	Platees	1.94	205	P	Pn	15 43 27.7	-0.5
KARY	Karystos	1.95	177	P	Pn	15 43 27.5	-0.8
AYVA	Ayvalik	1.95	109	P	Pn	15 43 28.5	+0.2
AYVA				IAML		15 44 13.0	
	comp=N,281nm,0.6s						
LAPS	Lapseki, ANA	1.95	81	P	Pn	15 43 27.7	-0.7
LAPS				S	Sn	15 43 50.6	-2.5
ACHAR	Athens-Acharne	1.95	193	P	Pn	15 43 27.1	-1.2
PTL	Penteli	1.96	190	P	Pn	15 43 27.5	-0.9
KZN	Kozani	1.98	280	P	Pn	15 43 28.1	-0.7
EAG2	Marmaro, Chios	2.00	135	P	Pn	15 43 29.2	+0.3
ATHP	Athens-Neo Psi	2.02	192	P	Pn	15 43 26.9	-2.4
ATHU	Athens Univers	2.05	192	P	Pn	15 43 28.9	-0.9
ATH	Athens Observa	2.06	193	P	Pn	15 43 28.6	-1.2
KKB	Krupnik	2.07	335	*i* P	Pn	15 43 30.0	+0.1
CHOS	Chios island	2.09	139	Pn	Pn	15 43 29.8	-0.4
CHOS				AML	AML		
CHOS	Chios island	2.09	139	P	Pn	15 43 30.1	-0.1
PEHC	Pehcevo	2.09	330	*i* Pn	Pn	15 43 30.2	-0.2
CANM	Can-anakkale	2.10	88	Pn	Pn	15 43 30.9	+0.5
CANM				AML	AML		
UKOP	Uzunkopru-Edir	2.10	56	Pn	Pb	15 43 31.4	-1.9
UKOP				AML	AML		
VLY	Voula,Athens	2.16	191	P	Pn	15 43 30.3	-0.9
PLD	Plovdiv	2.19	8	Pn	Pn	15 43 31.3	-0.3
PLD				AML	AML		
BIGA	Biga-Canakkale	2.19	81	Pn	Pn	15 43 32.1	+0.5
DKL	Dikili	2.20	114	Pn	Pn	15 43 32.0	+0.3
DKL				AML	AML		
EVR	Evrytania	2.21	242	P	Pn	15 43 31.6	-0.4
LTK	Loutraki	2.22	209	P	Pn	15 43 31.3	-0.7
LOUT	Loutraki	2.25	208	P	Pn	15 43 30.9	-1.4
YENI	Yenice-Canakka	2.25	90	Pn	Pn	15 43 33.0	+0.6
KRBG	Karabiga-Canak	2.32	79	Pn	Pn	15 43 33.9	+0.5
KRBG				AML	AML		
ZEDA	zmir-Bergama	2.36	114	P	Pg	15 43 39.6	-0.6
GAZK	Gazikoy-TEKIRD	2.42	71	Pn	Pn	15 43 35.5	+0.7
GAZK				AML	AML		
PGB	Panagyurishte	2.54	358	*i* P	Pg	15 43 42.8	-0.6
MRMT	Marmara Adasi	2.58	75	Pn	Pn	15 43 37.9	+0.8
MRMT				AML	AML		
GONE	Gonen-Balikesi	2.59	87	Pn	Pn	15 43 37.9	+0.8
GONE				AML	AML		
SOMA	Soma-Manisa	2.62	107	Pn	Pn	15 43 37.9	+0.4
SOMA				AML	AML		
EDRB	Edirne	2.62	44	Pn	Pn	15 43 38.4	+0.9
EDRB				AML	AML		
EDC	Edincik	2.74	81	Pn	Pn	15 43 39.9	+0.7
EDC				AML	AML		
BALB	Balikesir	2.77	96	Pn	Pn	15 43 40.8	+1.3
BALB				AML	AML		
SUSR	Susurluk-Balik	2.90	89	Pn	Pn	15 43 42.3	+1.0
SUSR				AML	AML		
BAND	Balkesir-Ban	2.92	81	⇑P	Pn	15 43 42.1	+0.5
APE	Apeiranthos	3.06	161	Pn	Pn	15 43 43.3	-0.3
APE				AML	AML		
APE	Apeiranthos	3.06	161	⇑P	Pn	15 43 42.8	-0.7
KCTX	Karacabey (Bur	3.11	83	Pn	Pn	15 43 44.7	+0.4
KCTX				AML	AML		
GORD	Gordes-Manisa	3.17	108	Pn	Pn	15 43 45.6	+0.4
GORD				AML	AML		
SLVT	Silivri	3.22	66	Pn	Pn	15 43 47.1	+1.4
SLVT				AML	AML		
ITM	Ithomi	3.36	215	Pn	Pn	15 43 47.5	-0.3
ITM				AML	AML		
PLVB	Pleven	3.41	4	⇑P	Pn	15 43 48.0	-0.4
CTKS	Kestanelik-??a	3.43	67	Pn	Pn	15 43 50.0	+1.4
CTKS				AML	AML		
KEK	Kerkira	3.49	267	Pn	Pn	15 43 49.5	+0.1
KEK				AML	AML		
SZH	Strazhitsa	3.51	20	*i* P	Pn	15 43 50.0	+0.2
RAZG	Razgrad	3.94	24	⇑P	Pn	15 43 56.4	+0.7
BOVS	Bovan	4.14	333	⇑P	Pn	15 43 57.3	-1.1
HERR	Herculane	5.10	345	⇓P	Pn	15 44 10.6	-0.9
MDVR	Moldovita	5.17	339	⇑P	Pn	15 44 12.3	-0.3
ARR	Arges	5.39	2	⇓P	Pn	15 44 15.8	+0.2
ISR	Istrita	5.39	17	⇓P	Pn	15 44 16.3	+0.6
TIRR	Tirgusor	5.41	33	⇑P	Pn	15 44 16.3	+0.4
HARR	Harsova	5.42	28	⇑P	Pn	15 44 17.2	+1.3
LOT	Lotru	5.48	356	⇑P	Pn	15 44 16.6	-0.3
VOIR		5.48	5	⇑P	Pn	15 44 17.1	+0.2
GZR	Gura Zlata	5.53	349	⇓P	Pn	15 44 17.2	-0.3
MLR	Muntele Rosu	5.64	12	⇓P	Pn	15 44 19.8	+0.7
TNR	Turnu Rosu	5.67	360	⇓P	Pn	15 44 18.9	-0.5
TPGR	Topolog	5.74	31	⇑P	Pn	15 44 20.5	+0.1
CFR	Carcaliu	5.91	27	⇑P	Pn	15 44 22.8	+0.1
BZS	Buzias	5.97	341	⇑P	Pn	15 44 21.9	-1.7
SURR	Surduc	5.99	345	⇑P	Pn	15 44 23.2	-0.6
COVR	Voineasa-Covas	6.03	13	⇑P	Pn	15 44 25.1	+0.8
DOPR	Dopca	6.04	7	⇑P	Pn	15 44 25.4	+0.9
PLOR	Plostina	6.11	15	⇑P	Pn	15 44 26.1	+0.6
VRI	Vrincioaia	6.14	16	⇑P	Pn	15 44 26.9	+0.9
SIRR	Siria	6.58	344	⇓P	Pn	15 44 30.9	-1.0
MARR	Marisel-Cluj	6.75	353	⇑P	Pn	15 44 33.7	-0.6
BIZ	Bicaz	7.08	10	⇑P	Pn	15 44 38.3	-0.5
BRTR	Keskin Array B	7.18	89	Pn	Pn	15 44 37.1	-3.1
	0.5nm,0.3s,baz=264,slow=11,SNR=14						
	1.4nm,0.4s						
BRTR				AML	AML		
BURAR	Bucovina Array	7.66	5	⇑P	Pn	15 44 47.8	+1.0
HFS	Hagfors	21.25	345	P	P	15 47 44.0	+2.9
	0.4nm,0.5s,baz=156,slow=11,SNR=1.8						
	0.4nm,0.5s						
ESDC	Sonseca Array	21.69	278	P	P	15 47 50.2	+4.0
	0.5nm,0.7s,baz=82,slow=9.4,SNR=2.4						
	0.5nm,0.7s						
NOA	NORSAR Array B	22.59	343	P	P	15 48 01.3	+5.7
	0.4nm,0.8s,baz=155,slow=8.6,SNR=3.3						
	0.4nm,0.8s						
TORD	Torodi Ar. Bea	33.32	223	P	P	15 49 32.8	-0.5
	0.3nm,0.5s,baz=18,slow=8.8,SNR=2.4						
	0.3nm,0.5s						
KURBB	Kurchatov Arra	38.78	56	P	P	15 50 20.7	+1.0
	0.1nm,0.3s,baz=336,slow=2.0,SNR=2.4						
	0.1nm,0.3s						
MKAR	Makanchi Array	41.84	61	P	P	15 50 46.1	+0.9
	0.8nm,0.6s,baz=280,slow=7.3,SNR=6.3						
	0.8nm,0.6s						
ZALV	Zalesovo Beam	42.28	50	P	P	15 50 49.0	+0.4
	0.9nm,0.5s,baz=269,slow=8.4,SNR=4.8						
	0.9nm,0.5s						
ASAR	Alice Springs	119.45	97	PKP	PKPdf	16 01 43.6	-1.7
	0.3nm,0.7s,baz=298,slow=1.2,SNR=4.7						
QSPA	South Pole Qui	129.83	180	PKhKP	PKPpre	16 01 59.0	
	0.7nm,1.0s,baz=180,slow=4.0,SNR=1.6						

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*IDC **29** 15:45:37.5±13.0, 27°.75S×66°.07E, h0^{km}, mb3.8/3, mbtmp3.8/3, Error ellipse: s-maj=480.6km s-min=51.1km az=49.0*

*NEIC **29** 15:45:37.5±1.1, 27°.7S±0°.1×65°.7E±0°.1, h10^{km}±2^{km}, mb4.6/8, Error ellipse: s-maj=26.8km s-min=4.7km az=229.0*

ISC 29 15:45:37.0±1.1**, 27°.8S**±0°.2×**65°.6E**±0°.1**, h10**^{km}**, n17, σ0^s.97**/13**, mb4.0**/7**, Indian Ocean Triple Junction**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
ROCAM	Rodrigues Isla	8.24	345	Pn	Pn	15 47 36.7	0.0
RER	Riviere de l'E	11.14	304	Pn	Pn	15 48 16.2	-0.3
H04N2	CROZET ISLANDS	21.36	207	T	T	16 13 36.2	
	baz=36,slow=73,SNR=41						
H04N1	CROZET ISLANDS	21.37	207	T	T	16 13 37.0	
	baz=36,slow=73,SNR=29						
H04N3	CROZET ISLANDS	21.38	207	T	T	16 13 43.2	
	baz=36,slow=73,SNR=42						
MSEY	Mahe Island	24.92	335	P	P	15 50 59.5	-0.9
LBTB	Lobatse	35.85	265	P	P	15 52 37.6	+0.4
ASAR	Alice Springs	60.94	103	P	P	15 55 50.1	-0.5
	1.0nm,0.9s,baz=250,slow=6.3,SNR=13						
	1.0nm,0.9s						
ASAR	Alice Springs	60.94	103	P	P	15 55 49.4	-1.2
AS31	Alice Springs	60.95	103	P	P	15 55 50.0	-0.7
AS31				IAmb	IAmb	15 55 54.9	
	comp=Z,0.9nm,1.0s						
WRA	Warramunga Arr	62.63	99	P	P	15 56 01.5	-0.5
	comp=Z,0.8nm,0.8s,baz=248,slow=6.4,SNR=5.8						
	comp=Z,0.8nm,0.8s						
WRAB	Tennant Creek	62.64	99	P	P	15 56 01.8	-0.3
WRAB				IAmb	IAmb	15 58 08.4	
	comp=Z,15nm,1.6s						
WR8	Warramunga Arr	62.77	99	P	P	15 56 02.3	-0.6
BR131	Keskin Array S	73.47	335	P	P	15 57 08.3	-1.4
BR131				IAmb	IAmb	15 59 35.6	
	comp=Z,13nm,1.9s						
BRTR	Keskin Array B	73.47	335	P	P	15 57 08.6	-1.1
ZALV	Zalesovo Beam	83.06	11	P	P	15 58 03.9	+1.6
	comp=Z,0.5nm,0.5s,baz=180,slow=4.3,SNR=2.2						
	comp=Z,0.5nm,0.5s						
KHC	Kasperske Hory	89.52	329	P	P	15 58 35.3	+1.1
KHC				IAmb	IAmb	16 01 38.8	
	comp=Z,11nm,1.8s						

IDC 29 16:20:38.8±436.0**, 53°.53N**×**38°.06E, h0**^{km}**, Error ellipse: s-maj=189.9km s-min=71.4km az=176.0, Baltic States-Belarus-Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
I43RU	DUBNA INFRASON	3.23	352	I	I	16 39 00.0	
	baz=170,slow=318,SNR=7.1						
I31KZ	AKTYUBINSK INF	12.70	96	I	I	17 36 26.2	
	baz=291,slow=320						
I46RU	ZALESOVO INFRA	27.27	70	I	I	19 11 20.0	
	baz=286,slow=332,SNR=1.3						

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*SDD **29** 16:47:20.9±3.0, 18°.30N×71°.08W, h35^{km}±9^{km}, MD2.8, ML2.1, MW2.7, Presumed earthquake*

*OSPL **29** 16:47:23.4±0.6, 18°.30N×71°.03W, h10^{km}±2^{km}, ML2.0, Presumed earthquake*

ISC 29 16:47:22.8±1.0**, 18°.28N**±0°.04×**71°.06W**±0°.03**, h24**^{km}±9^{km}**, n15, σ1^s.50**/29**, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
PODR	Polo	0.24	242	*i* P	Pb	16 47 28.8	-0.3
PODR				*e*S	Sb	16 47 32.8	-0.6
PODR				IAML		16 47 36.5	
	comp=Z,3μm,0.1s						
PODR	Polo	0.24	242	*i* P	Pb	16 47 28.9	-0.2
PODR				*i* S	Sb	16 47 34.4	+1.1
PODR				IAML		16 47 36.7	
	comp=N,254nm,0.2s						
NEDR	Neiba UASD	0.40	300	*i* P	Pb	16 47 31.4	+0.1
NEDR				*i* S	Sn	16 47 38.3	-1.5
NEDR				IAML		16 47 40.2	
	comp=N,49nm,0.3s						
LODU1	El Espartillar	0.40	280	*i* P	Pb	16 47 31.2	-0.2
LODU1				*e*S	Sb	16 47 37.3	+0.1
LODU1				IAML		16 47 40.9	
	comp=Z,144nm,0.6s						
LONE3	El Aguacate, B	0.50	310	*i* P	Pb	16 47 32.4	-0.7
LONE3				*e*S	Sb	16 47 39.5	-0.5
LONE3				IAML		16 47 41.6	
	comp=Z,22nm,0.7s						
LOVI	El Cajuil, Ovi	0.57	212	*i* P	Pb	16 47 34.0	-0.1
LOVI				*e*S	Sb	16 47 42.3	+0.5
LOVI				IAML		16 47 43.2	
	comp=Z,77nm,0.7s						
ABDR	Alto Bandera	0.67	38	*i* P	Pb	16 47 35.6	-0.4
ABDR				*i* S	Sn	16 47 46.5	-0.5
ABDR				IAML		16 48 31.9	
	comp=N,120nm,2.5s						
BANI	BANI	0.67	81	*i* P	Pn	16 47 38.7	+1.8
BANI				*i* S	Sn	16 47 45.7	-1.1
BANI				IAML		16 47 50.2	
	comp=N,53nm,0.7s						
LOBH	Bahia de las A	0.69	233	*i* P	Pn	16 47 36.4	-0.7
LOBH				*e*S	Sb	16 47 45.9	+0.5
LOBH				IAML		16 47 52.6	
	comp=Z,58nm,3.6s						
SDDR	Presa de Saban	0.73	342	*i* P	Pn	16 47 36.6	-1.1
SDDR				*e*S	Sb	16 47 46.3	-0.2
SDDR				IAML		16 47 49.4	
	comp=Z,22nm,0.7s						
SDDR	Presa de Saban	0.73	342	*i* P	Pn	16 47 36.9	-0.8
SDDR				*i* S	Sn	16 47 47.7	-0.4
SDDR				IAML		16 47 49.1	
	comp=N,34nm,0.2s						
REDR	Restauracion	0.94	340	*i* P	Pn	16 47 43.1	+2.6
REDR				*i* S	Sn	16 47 58.9	+5.8
REDR				IAML		16 47 59.1	
	comp=N,53nm,0.2s						
HATOM	Hato Mayor del	1.67	72	*i* P	Pb	16 47 52.2	-0.7
HATOM				*i* S	Sb	16 48 13.4	-0.1
HATOM				IAML		16 48 58.9	
	comp=N,28nm,1.7s						
MCDR	Montecristi	1.70	341	*i* P	Pn	16 47 49.4	-1.6
MCDR				IAML		16 48 29.9	
	comp=N,57nm,2.9s						
MIDR	Miches	2.03	70	*i* P	Pn	16 47 55.2	-0.2
MIDR				*i* S	Sn	16 48 20.0	0.0
MIDR				IAML		16 48 48.5	
	comp=N,35nm,2.8s						

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*JMA **29** 17:18:58.8±0.1, 23°N±1°×12°1E±°, h43^{km}±1^{km}, MV3.4/11, TAIWAN REGION*

*TAP **29** 17:19:00.4, 22°.40N×121°.03E, h7^{km}, ML3.9, C*

*IDC **29** 17:19:01.1±7.8, 21°.23N×119°.30E, h0^{km}, mb3.4/3, mbtmp3.4/3, MS3.2/4, Error ellipse: s-maj=741.5km s-min=28.8km az=60.0*

ISC 29 17:19:00.5±0.8**, 22°.39N**±0°.02×**121°.07E**±0°.03**, h14**^{km}±5^{km}**, n88, σ0^s.89**/103**, mb3.4**/3**, MS3.1**/4**, 3C-6D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
TAW	Tawu	0.16	257	⇓P	Pg	17 19 04.2	-0.3
TAW				S	Sg	17 19 06.4	-0.7
TAWH	Dawu Township	0.17	252	⇓*i*P	Pg	17 19 04.5	-0.2
TAWH				*i* S	Sg	17 19 07.0	-0.5
EAST	Anshuo	0.20	267	⇓*i*P	Pg	17 19 04.8	-0.3
EAST				*i* S	Sg	17 19 07.8	-0.5
ECL	Taimali	0.23	333	⇓*i*P	Pg	17 19 05.5	0.0
ECL				*i* S	Sg	17 19 09.5	+0.6
SCZT	Fangliau	0.41	267	⇓*i*P	Pg	17 19 08.6	-0.2
SCZT				*i* S	Sg	17 19 14.3	-0.1
TWGBT	Beinan	0.42	2	P	Pg	17 19 09.0	0.0
TWGBT	Beinan	0.42	2	⇑*i*P	Pb	17 19 09.4	-0.3
TWGBT				S	Sb	17 19 17.2	+1.2
TWG	Pinlang	0.42	1	⇑*i*P	Pb	17 19 09.4	-0.4
SMST	Manzhou Townsh	0.43	210	P	Pb	17 19 09.5	-0.3
SMST				S	Sb	17 19 15.9	-0.2
MASBT	Mashibuluo	0.46	299	⇓P	Pg	17 19 09.4	-0.2
SSPT	Xinbi	0.47	281	⇑P	Pb	17 19 10.4	-0.1
SSPT				S	Sb	17 19 17.2	-0.1
HEN	Hengchun	0.49	218	P	Pb	17 19 11.0	+0.1
HEN				S	Sb	17 19 19.2	+1.2
TWKBT	Hengchun	0.51	207	P	Pb	17 19 11.1	-0.1
TWKBT				S	Sb	17 19 19.6	+1.2
TWK1	Hengchun	0.51	208	P	Pb	17 19 11.1	-0.1
TWK1				S	Sb	17 19 20.4	+2.0
TSEB	Hengchuen, Pin	0.52	197	P	Pb	17 19 11.8	+0.5
TSEB				S	Sb	17 19 20.9	+2.3
SSD	Sandimen	0.53	311	P	Pg	17 19 10.8	-0.2
SSD				S	Sg	17 19 17.8	-0.3
LAY	Lan-yu	0.57	128	P	Pg	17 19 12.0	+0.2
LAY				S	Sb	17 19 21.8	+1.5
SGLT	Jiouru	0.62	302	*e*P	Pb	17 19 13.7	+0.5
SLGT	Liugui	0.71	327	*e*P	Pb	17 19 14.3	-0.4
ECS	Chishang	0.71	12	*e*P	Pg	17 19 14.5	0.0
TWM1	Shoushan	0.73	306	*e*P	Pn	17 19 16.1	-0.3
CHKT	Chengkung	0.76	22	*e*P	Pb	17 19 15.5	+0.1
EHD	Haiduan	0.76	10	P	Pg	17 19 14.3	-1.0
EHD				S	Sb	17 19 26.9	+1.1
ELDTW	Lidau	0.79	357	P	Pb	17 19 16.2	+0.1
SGST	Jiashian	0.82	327	*e*P	Pg	17 19 16.1	-0.3
STYH	Taoyuan	0.82	341	P	Pb	17 19 16.6	+0.1
STYH				S	Sn	17 19 29.1	-0.3
FULB	Fuli	0.83	15	*e*P	Pg	17 19 16.5	-0.1
CHKH	Chenggong	0.85	21	*e*P	Pg	17 19 16.4	-0.7
CHN1	Nanshi	0.93	328	*e*P	Pn	17 19 20.1	+0.9
TWF1	Yuli	0.98	13	*e*P	Pn	17 19 21.1	+1.2
ECBN	Changbin	0.98	21	*e*P	Pn	17 19 20.9	+1.0
TPUB	Ta-pu	0.99	336	P	Pn	17 19 20.1	+0.1
TPUB	Ta-pu	0.99	336	*e*P	Pn	17 19 20.6	+0.7
YULB	Yu-li	1.02	12	P	Pg	17 19 17.9	-2.3
YULB	Yu-li	1.02	12	*e*P	Pb	17 19 20.2	+0.3
TWK	Hsinying	1.02	329	*e*P	Pn	17 19 21.5	+1.1

SSHA	**Shanhua**	**1.03**	**316**	*e*P	**Pn**	**17 19 22.0**	**+1.5**
CHN4	**Tsaushan**	**1.05**	**336**	*e*P	**Pn**	**17 19 21.9**	**+1.1**
YUS	**Yu-Shan**	**1.09**	**355**	*e*P	**Pn**	**17 19 22.2**	**+0.4**
WCKO	**Fanlu**	**1.12**	**338**	*e*P	**Pn**	**17 19 23.0**	**+1.2**
EHYH	**Wanrong**	**1.12**	**13**	*e*P	**Pn**	**17 19 23.0**	**+1.2**
ALS	**Alishan**	**1.14**	**348**	*e*P	**Pn**	**17 19 23.2**	**+0.9**
HGSD	**Ruisui**	**1.14**	**17**	*e*P	**Pn**	**17 19 23.6**	**+1.5**
TSCK	**Chigu Township**	**1.17**	**310**	*e*P	**Pn**	**17 19 23.5**	**+1.0**
CHN8	**Yiju**	**1.23**	**320**	*e*P	**Pn**	**17 19 23.9**	**+0.7**
CHY	**Chiayi**	**1.25**	**332**	*e*P	**Pg**	**17 19 24.8**	**+0.3**
CHN5	**Tsauling**	**1.25**	**343**	*e*P	**Pn**	**17 19 25.2**	**+1.5**
CHN2	**Minshiung**	**1.26**	**334**	*e*P	**Pg**	**17 19 25.2**	**+0.5**
WHYT	**Xinyi Township**	**1.31**	**351**	*e*P	**Pg**	**17 19 25.6**	**-0.2**
WARBT	**Fenglin Townsh**	**1.35**	**13**	*e*P	**Pg**	**17 19 26.4**	**-0.1**
WSL	**Shuilin Townsh**	**1.36**	**326**	*e*P	**Pb**	**17 19 25.9**	**+0.2**
WGK	**Gukeng**	**1.37**	**340**	*e*P	**Pg**	**17 19 26.6**	**-0.2**
WDLH	**Douliu**	**1.38**	**339**	*e*P	**Pg**	**17 19 26.7**	**-0.3**
SSLB	**Suanglung**	**1.39**	**356**	P	**Pn**	**17 19 26.2**	**+0.7**
SSLB	**Suanglung**	**1.39**	**356**	*e*P	**Pg**	**17 19 27.1**	**-0.2**
WDL	**Douliou City**	**1.40**	**340**	*e*P	**Pg**	**17 19 27.3**	**-0.2**
ESL	**Shilin**	**1.45**	**13**	*e*P	**Pb**	**17 19 27.8**	**+0.4**
WJS	**Zhushan**	**1.46**	**348**	*e*P	**Pg**	**17 19 28.3**	**-0.2**
SHUL	**Shoufeng**	**1.46**	**18**	*e*P	**Pb**	**17 19 28.0**	**+0.5**
SMLT	**Sun Moon Lake**	**1.49**	**354**	*e*P	**Pg**	**17 19 29.5**	**+0.3**
TYC	**Yuchr**	**1.52**	**353**	*e*P	**Pg**	**17 19 29.3**	**-0.4**
WNT	**Mingjian**	**1.52**	**347**	*e*P	**Pg**	**17 19 29.5**	**-0.2**
OWD	**Renai**	**1.56**	**4**	*e*P	**Pg**	**17 19 30.2**	**-0.3**
WUSB	**Renai**	**1.59**	**2**	*e*P	**Pn**	**17 19 29.0**	**+0.7**
ETM	**Tongmen**	**1.61**	**14**	*e*P	**Pn**	**17 19 29.9**	**+1.3**
WRL	**Guolierlin Hig**	**1.63**	**337**	*e*P	**Pb**	**17 19 29.9**	**-0.4**
LXIB	**Xiulin Townshi**	**1.65**	**11**	*e*P	**Pb**	**17 19 31.0**	**+0.2**
WCS	**Beigang Elemen**	**1.66**	**355**	*e*P	**Pb**	**17 19 31.1**	**+0.3**
WCHH	**Zhanghua**	**1.74**	**345**	*e*P	**Pn**	**17 19 31.5**	**+1.2**
NACB	**Ninganchiao**	**1.84**	**15**	P	**Pn**	**17 19 32.4**	**+0.8**
NACB	**Ninganchiao**	**1.84**	**15**	S	**Sn**	**17 19 53.9**	**-0.8**
YHNB	**Yeheng**	**2.28**	**7**	P	**Pn**	**17 19 39.6**	**+1.8**
TATO	**Taipei**	**2.60**	**8**	P	**Pn**	**17 19 44.3**	**+2.2**
YOJ	**Yonaguni jima**	**2.73**	**41**	P	**Pn**	**17 19 45.2**	**+1.4**
YOJ	**Yonaguni jima**	**2.73**	**41**	S	**Sn**	**17 20 16.9**	**+0.3**
HATJ	**Hateruma jima**	**3.02**	**56**	*e*S	**Sn**	**17 20 22.4**	**-1.4**
IRIF	**Iriomote-Funau**	**3.12**	**51**	*e*P	**Pn**	**17 19 50.2**	**+1.0**
JKRS	**Kuro-shima**	**3.27**	**55**	*e*P	**Pn**	**17 19 51.6**	**+0.3**
JKRS				*e*S	**Sn**	**17 20 29.5**	**-0.5**
JIJ	**Ishigaki jima**	**3.44**	**55**	P	**Pn**	**17 19 54.2**	**+0.6**
JIJ				*e*S	**Sn**	**17 20 33.2**	**-1.0**
JISG	**Ishigakijimahi**	**3.69**	**53**	*e*P	**Pn**	**17 19 56.3**	**-0.9**
JISG				*e*S	**Sn**	**17 20 39.2**	**-1.2**
JMJ2	**Miyako jima3**	**4.55**	**58**	*e*P	**Pn**	**17 20 09.9**	**+0.9**
SONM	**Songino Array**	**27.98**	**339**	LR	LR	17 36 59.1	
	comp=Z,36nm,21.1s,baz=132,slow=38						
MKAR	**Makanchi Array**	**39.56**	**317**	P	**P**	**17 26 32.0**	**+0.9**
	0.6nm,0.7s,baz=134,slow=8.3,SNR=3.9						
	0.6nm,0.7s						
FITZ	**Fitzroy Crossi**	**40.49**	**173**	LR	LR	17 46 44.8	
	comp=Z,56nm,18.1s,baz=186,slow=42						
ZALV	**Zalesovo Beam**	**41.69**	**328**	LR	LR	17 43 57.8	
	comp=Z,17nm,19.2s,baz=308,slow=36						
WRA	**Warramunga Arr**	**44.03**	**162**	P	**P**	**17 27 06.1**	**-1.8**
	0.5nm,0.9s,baz=341,slow=8.0,SNR=2.7						
	0.5nm,0.9s						
ASAR	**Alice Springs**	**47.46**	**164**	P	**P**	**17 27 33.0**	**-2.0**
	0.1nm,0.3s,baz=343,slow=8.8,SNR=7.2						
	0.1nm,0.3s						
NOA	**NORSAR Array B**	**79.75**	**332**	LR	LR	18 10 20.0	
	comp=Z,13nm,19.8s,baz=315,slow=38						

NOU 29 17:20:33.8, 12°.51S×166°.38E, h329^{km}, mb4.7/13, Santa Cruz Islands, Santa Cruz Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LUES	**Luesalemba Tem**	**1.89**	**346**	P	Pn	17 21 22.6	+0.1
SANVU	**Saraoutou**	**3.03**	**165**	P	Pn	17 21 31.1	-0.7
SANVU	**Saraoutou**	**3.03**	**165**	S	S	17 22 19.1	+0.7
DVP	**Devils Point**	**5.47**	**162**	P	Pn	17 21 58.1	+0.3
RTV	**Rentapao**	**5.61**	**160**	P	Pn	17 22 00.8	+1.4
MARNC	**Mare, Loyalty**	**9.06**	**170**	P	Pn	17 22 39.6	-0.8
YATNC	**Mamie plateau,**	**9.51**	**177**	P	Pn	17 22 45.2	-0.7
NOUC	**Port Laguerre**	**9.54**	**180**	P	Pn	17 22 47.0	+0.8
ONTNC	**Ouen Toro**	**9.74**	**180**	P	Pn	17 22 48.9	+0.2
OUENC	**Ouen Island, N**	**9.86**	**178**	P	Pn	17 22 50.2	+0.1

IDC ***29*** *17:55:41.9±0.4, 9°.61S×119°.23E, h0^{km}, mb4.5/23, mbtmp4.5/29, ML4.2/5, MS3.7/47, Error ellipse: s-maj=14.6km s-min=10.1km az=67.0*

NEIC ***29*** *17:55:43.2±1.7, 9°.65S±0°.06×119°.06E±0°.04, h10^{km}±1^{km}, mb4.9/62, Error ellipse: s-maj=11.2km s-min=6.7km az=195.0*

GFZ ***29*** *17:55:44.7±0.2, 10°S±4°×11°9E±°, h10^{km}, M4.7/20, mb4.7/20*

DJA ***29*** *17:55:45.2±0.2, 10°S±3°×11°9E±°, h10^{km}, M4.8/31, mB5.2/13, mb5.0/13, MLv4.9/31, Mw(mB)4.6/13, MwMwp5.1/3, Mwp5.3/3*

GCMT ***29*** *17:55:46.2±0.4, 9°.93S±0°.02×119°.01E±0°.05, h18^{km}±1^{km}, MW4.8/64, Moment Tensor Solution. s11,c11; s64,c91; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.31±.15; $M_{\theta\theta}$1.51±.09; $M_{\phi\phi}$-0.19±.10; $M_{r\theta}$-0.77±.19; $M_{\theta\phi}$-0.36±.06; $M_{\phi r}$0.60±.30; Best double couple: $M_0$1.75600×10^{16} NP1:ϕ_s264.00000°, δ32.00000°, λ-120.00000°. NP2: ϕ_s117.00000°, δ63.00000°, λ-73.00000°. Principal axes: T 1.8320, Plg16.0000°, Azm195.0000°; N -0.1510, Plg15.0000°, Azm289.0000°; P -1.6790, Plg68.0000°, Azm61.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 29 17:55:44.1±0.3, 9°.79S±0°.04×119°.11E±0°.03, h10^{km}, n266, $\sigma 1^{s}.62$/164, mb4.9/82, MS3.8/46, 4C, Sumba region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WSI	**Waingapu**	**1.18**	**84**	P	**Pb**	**17 56 05.8**	**-0.7**
WSI				S	**Sb**	**17 56 23.8**	**+2.0**
WSI				AML	AML		
DBNI	**Kabupaten Domp**	**1.50**	**328**	P	**Pn**	**17 56 10.9**	**-0.1**
DBNI				S	**Sn**	**17 56 32.3**	**+1.6**
DBNI				AML	AML		
LBFI	**Labuhan Bajo,**	**1.51**	**31**	P	**Pn**	**17 56 10.4**	**-0.8**
PLAI	**Plampang**	**1.62**	**306**	P	Pn	17 56 11.8	-1.0
PLAI				S	**Sn**	**17 56 35.0**	**+1.2**
PLAI				AML	AML		
PLAI	**Plampang**	**1.62**	**306**	P	**Pn**	**17 56 12.0**	**-0.7**
TWSI	**Taliwang, Sumb**	**2.43**	**295**	P	**Pn**	**17 56 23.5**	**-0.4**
TWSI				AML	AML		
EDFI	**Ende, Flores**	**2.75**	**68**	P	**Pn**	**17 56 27.9**	**-0.4**
EDFI				AML	AML		
MMRI	**Maumere**	**3.29**	**70**	P	**Pn**	**17 56 37.0**	**+1.3**
MMRI	**Maumere**	**3.29**	**70**		**Pn**	**17 56 35.4**	**-0.4**
MMRI				Sn	**Sn**	**17 57 14.2**	**-0.8**
MMRI	**Maumere**	**3.29**	**70**	P	**Pn**	**17 56 36.3**	**+0.6**
MMRI				AML	AML		
MMRI	**Maumere**	**3.29**	**70**	P	**Pn**	**17 56 38.4**	**+2.6**
KHKI	**Kahang-Kahang**	**3.73**	**292**	P	**Pn**	**17 56 43.6**	**+1.8**
KHKI				S	**Sn**	**17 57 28.0**	**+2.1**
KHKI				AML	AML		
BSSI	**Bau Bau, Buton**	**3.87**	**21**	P	**Pn**	**17 56 44.5**	**+0.8**
DNP	**Denpasar**	**4.00**	**286**	P	**Pn**	**17 56 47.0**	**+1.5**
DNP				S	**Sn**	**17 57 34.2**	**+1.7**
IGBI	**Denpasar**	**4.03**	**283**	P	**Pn**	**17 56 46.2**	**+0.3**
SRBI	**Singaraja**	**4.20**	**293**	P	**Pn**	**17 56 49.3**	**+1.0**
SRBI				S	**Sn**	**17 57 39.2**	**+1.7**
SRBI				AML	AML		
RTBI	**Rangdo, Negare**	**4.32**	**287**	P	**Pn**	**17 56 51.3**	**+1.4**
RTBI				S	**Sn**	**17 57 41.3**	**+0.9**
RTBI				AML	AML		
BATI	**Baumata**	**4.50**	**96**	Pn	Pn	17 56 49.4	-3.0
	33nm,0.3s,baz=300,slow=1.0,SNR=30						
BATI				Sn	Sn	17 57 35.6	-9.3
	10nm,0.3s,baz=159,slow=22,SNR=5.7						
BATI				LR	LR	17 58 49.8	
	comp=Z,2μm,19.6s,baz=358,slow=43						
	102nm,0.3s						
BATI				AML	AML		
BKSI	**Bulukumba**	**4.55**	**13**	P	**Pn**	**17 56 54.2**	**+1.2**
BKSI				S	**Sn**	**17 57 48.1**	**+2.2**
BKSI				AML	AML		
MKS	**Makassar**	**4.55**	**5**	P	**Pn**	**17 56 54.4**	**+1.3**
MKS				AML	AML		
KAPI	**Kappang**	**4.78**	**8**	Pn	**Pn**	**17 56 56.2**	**0.0**
	7.5nm,0.3s,baz=199,slow=8.6,SNR=19						
KAPI				Sn	Sn	17 57 42.9	-8.9
	26nm,0.3s,baz=308,slow=12,SNR=7.5						
	43nm,0.5s						
KAPI				AML	AML		
KAPI	**Kappang**	**4.78**	**8**		Pn	17 56 52.6	-3.6
KAPI	**Kappang**	**4.78**	**8**		Lg	17 57 48.8	
KAPI	**Kappang**	**4.78**	**8**	P	**Pn**	**17 56 57.3**	**+1.1**
KAPI				S	**Sn**	**17 57 53.5**	**+1.7**
KAPI				AML	AML		
KAPI	**Kappang**	**4.78**	**8**	P	**Pn**	**17 56 57.5**	**+1.3**
JAGI	**Jajag, Banyuwa**	**5.07**	**285**		Pn	17 56 58.5	-1.7
JAGI				Sn	**Sn**	**17 57 55.0**	**-3.8**
JAGI	**Jajag, Banyuwa**	**5.07**	**285**	P	**Pn**	**17 57 00.3**	**+0.1**
	2.0nm2μm4μm304nm,0.7s						
JAGI				AML	AML		
JAGI	**Jajag, Banyuwa**	**5.07**	**285**	P	**Pn**	**17 57 00.3**	**+0.1**
SOEI	**Soe**	**5.08**	**90**	P	**Pn**	**17 57 02.2**	**+1.7**
SOEI	**Soe**	**5.08**	**90**		**Pn**	**17 57 02.0**	**+1.5**
SOEI				Sn	**Sn**	**17 57 59.8**	**+0.4**
SOEI	**Soe**	**5.08**	**90**	P	**Pn**	**17 57 02.8**	**+2.3**
	0.8nm2μm158nm,1.3s						
SOEI				AML	AML		
SOEI	**Soe**	**5.08**	**90**	P	**Pn**	**17 57 05.2**	**+4.7**
	comp=Z,158nm,1.3s						
BBSI	**Bau Bau**	**5.48**	**39**	P	**Pn**	**17 57 07.7**	**+1.9**
	comp=Z,0.5nmcomp=Z,2μmcomp=Z,1μmcomp=Z,153nm,0.9s						
BBSI				AML	AML		
BLJI	**Banyuglugur**	**5.81**	**290**	P	**Pn**	**17 57 11.2**	**+0.8**
	comp=Z,1.1nmcomp=Z,3μmcomp=Z,198nm,0.7s						
BLJI				AML	AML		
PMSI	**Majene**	**6.25**	**358**	P	**Pn**	**17 57 18.4**	**+2.0**
	comp=Z,0.6nmcomp=Z,2μmcomp=Z,151nm,0.7s						
PMSI				AML	AML		
MMSI	**Mamuju**	**7.05**	**358**	P	**Pn**	**17 57 29.9**	**+2.4**
	comp=Z,0.3nmcomp=Z,765nmcomp=Z,60nm,0.6s						
MMSI				AML	AML		
SJI	**Sawahan**	**7.54**	**285**	P	**Pn**	**17 57 36.9**	**+2.7**
UGM	**Wanagama**	**8.69**	**282**	Pn	Pn	17 57 46.3	-3.6
FITZ	**Fitzroy Crossi**	**10.41**	**143**	Pn	Pn	17 58 11.7	-1.9
	comp=Z,1.1nm,0.3s,baz=322,slow=9.6,SNR=31						
FITZ				Sn	Sn	18 00 03.6	-6.8
	comp=Z,1.5nm,0.3s,baz=184,slow=15,SNR=6.2						
FITZ				LR	LR	18 02 41.1	
	comp=Z,500nm,18.8s,baz=335,slow=40						
	comp=Z,3.3nm,0.5s						
FITZ				AML	AML		
FITZ	**Fitzroy Crossi**	**10.41**	**143**	P	**Pn**	**17 58 12.6**	**-0.9**
FITZ	**Fitzroy Crossi**	**10.41**	**143**	S	**Sn**	**18 00 06.0**	**-4.4**
FITZ	**Fitzroy Crossi**	**10.41**	**143**		**Pn**	**17 58 12.9**	**-0.7**
FITZ	**Fitzroy Crossi**	**10.41**	**143**	P	**Pn**	**17 58 14.4**	**+0.9**
	comp=Z,2.9nm,0.6s						
TOLI2	**Tolitoli**	**10.95**	**9**	P	Pn	17 58 29.5	+8.5
TOLI2	**Tolitoli**	**10.95**	**9**	Pn	Pn	17 58 17.0	-4.0
KNRA	**Kununurra**	**11.09**	**123**		**Pn**	**17 58 22.8**	**0.0**
MBWA	**Marble Bar**	**11.32**	**177**		Pn	17 58 24.8	-1.3
BBJI	**Bungbulang**	**11.56**	**281**	P	Pn	17 58 43.4	+14
BBJI	**Bungbulang**	**11.56**	**281**	Pn	Pn	17 58 24.5	-4.9
LEM	**Lembang**	**11.74**	**284**	LR	LR	18 03 45.3	
	comp=Z,277nm,21.5s,baz=26,slow=41						
DRS	**Darwin Rock St**	**11.87**	**104**	P	**Pn**	**17 58 32.4**	**-1.1**
MTN	**Manton Dam**	**12.18**	**106**		Pn	17 58 35.7	-2.0
SAUI	**Saumlaki**	**12.18**	**83**	Pn	**Pn**	**17 58 36.0**	**-1.7**
TNTI	**Ternate**	**13.32**	**39**	Pn	Pn	17 58 50.1	-3.3
TNTI	**Ternate**	**13.32**	**39**	P	**Pn**	**17 58 57.8**	**+4.3**
	comp=Z,26nm,1.3s						
GIRL	**Giralia**	**13.61**	**199**	Pn	Pn	17 58 56.1	-1.2
SBUM	**Sibu**	**13.96**	**330**	Pn	Pn	17 58 56.1	-6.0
FAKI	**Fak Fak**	**14.73**	**63**	P	**Pn**	**17 59 14.1**	**+1.5**
FAKI	**Fak Fak**	**14.73**	**63**	Pn	**Pn**	**17 59 11.7**	**-1.0**
MYLDM	**Lahad Datu**	**14.88**	**358**	Pn	Pn	17 59 09.5	-5.2
SIJI	**Sorong**	**14.99**	**54**	Pn	**Pn**	**17 59 15.4**	**-0.8**
	comp=Z,19nm,0.7s,baz=271,slow=7.2,SNR=30						
SIJI				Sn	Sn	18 01 53.2	-9.2
	comp=Z,0.6nm,0.3s,baz=234,slow=23,SNR=7.7						
SIJI				LR	LR	18 05 29.4	
	comp=Z,439nm,18.2s,baz=261,slow=40						
KKM	**Kota Kinabalu**	**15.99**	**349**	Pn	**Pn**	**17 59 27.3**	**-2.0**
MEEK	**Meekatharra**	**16.77**	**182**	P	**Pn**	**17 59 39.2**	**0.0**
MNAI	**Manna**	**16.91**	**287**	Pn	Pn	17 59 35.5	-5.5
WB0	**Warramunga Arr**	**17.79**	**126**		**Pn**	**17 59 50.7**	**-1.2**
WRA	**Warramunga Arr**	**17.84**	**126**	P	**Pn**	**17 59 51.6**	**-1.0**
	comp=Z,0.8nm,0.3s,baz=302,slow=13,SNR=42						
WRA				S	Sn	18 02 56.6	-15
	comp=Z,3.3nm,0.8s,baz=303,slow=24,SNR=8.5						
	comp=Z,5.6nm,0.6s						
WRA				AML	AML		
WRA	**Warramunga Arr**	**17.84**	**126**	P	**Pn**	**17 59 51.5**	**-1.0**
WRAB	**Tennant Creek**	**17.84**	**126**	P	**Pn**	**17 59 52.6**	**0.0**
WRAB	**Tennant Creek**	**17.84**	**126**	P	**Pn**	**17 59 53.4**	**+0.8**
	comp=Z,11nm,0.7s						
DAV	**Davao City (W)**	**17.94**	**21**	LR	LR	18 07 13.3	
	comp=Z,136nm,21.8s,baz=190,slow=39						
WR8	**Warramunga Arr**	**17.97**	**126**		**Pn**	**17 59 52.4**	**-1.8**
MORW	**Morawa**	**19.40**	**188**	P	**P**	**18 00 13.4**	**+3.0**
MORW	**Morawa**	**19.40**	**188**		**P**	**18 00 10.3**	**-0.1**
MORW				IAmb	IAmb	18 00 17.2	
	comp=Z,77nm,1.8s						
MORW	**Morawa**	**19.40**	**188**	P	**P**	**18 00 15.0**	**+4.6**
	comp=Z,25nm,0.9s						
PPR	**Puerto Princes**	**19.44**	**359**	*e*P	**P**	**18 00 13.1**	**+2.3**
AS31	**Alice Springs**	**19.75**	**136**		**P**	**18 00 14.5**	**+0.2**
ASAR	**Alice Springs**	**19.75**	**136**	P	**P**	**18 00 14.2**	**-0.2**
	comp=Z,0.5nm,0.3s,baz=314,slow=10,SNR=91						
ASAR				S	S	18 03 45.4	-12
	comp=Z,4.2nm,0.7s,baz=300,slow=21,SNR=8.4						
ASAR				LR	LR	18 07 50.1	
	comp=Z,288nm,21.4s,baz=311,slow=37						
	comp=Z,3.5nm,0.5s						
ASAR				AML	AML		
ASAR	**Alice Springs**	**19.75**	**136**		**P**	**18 00 16.0**	**+1.7**
TBP	**Tagbilaran**	**19.92**	**14**	*e*P	**Pn**	**18 00 20.4**	**+2.6**
LLP	**Lapu-Lapu**	**20.55**	**14**	*e*P	**P**	**18 00 25.0**	**+2.0**
LLP				*e*S	**S**	**18 04 13.2**	**+0.2**
BKNI	**Bangkinang**	**20.60**	**298**	P	**P**	**18 00 21.8**	**-1.7**
BLDU	**Ballidu**	**20.85**	**186**	P	**P**	**18 00 30.6**	**+4.5**
KLBR	**Kellerberrin**	**21.74**	**183**	P	**P**	**18 00 39.0**	**+3.3**
MUN	**Mundaring**	**22.25**	**187**	P	**P**	**18 00 45.1**	**+3.9**
QIS	**Mount Isa**	**22.46**	**121**	P	**P**	**18 00 44.1**	**+0.4**
QIS	**Mount Isa**	**22.46**	**121**	P	**P**	**18 00 44.5**	**+0.8**
	comp=Z,24nm,1.1s						
FORT	**Forrest**	**22.49**	**160**		**P**	**18 00 43.8**	**0.0**
IPM	**Ipoh**	**22.92**	**307**	P	**P**	**18 00 45.2**	**-3.3**
IPM				IAmb	IAmb	18 00 49.0	
	comp=Z,35nm,1.4s						
IPM	**Ipoh**	**22.92**	**307**	P	**P**	**18 00 47.6**	**-0.9**
	comp=Z,22nm,1.5s						
NWAO	**Narrogin (SRO)**	**23.10**	**184**	LR	LR	18 10 13.0	
	comp=Z,156nm,19.8s,baz=20,slow=37						
NWAO	**Narrogin (SRO)**	**23.10**	**184**	P	**P**	**18 00 53.8**	**+3.6**
NWAO	**Narrogin (SRO)**	**23.10**	**184**	P	**P**	**18 00 53.7**	**+3.6**
NWAO	**Narrogin (SRO)**	**23.10**	**184**	P	**P**	**18 00 49.7**	**-0.4**
NWAO				IAmb	IAmb	18 01 15.2	
	comp=Z,42nm,1.4s						
RPSI	**Rantau Prapat**	**23.62**	**301**		P	18 00 51.8	-3.8
RPSI				IAmb	IAmb	18 00 55.6	
	comp=Z,55nm,1.0s						
RPSI	**Rantau Prapat**	**23.62**	**301**	P	**P**	**18 00 54.4**	**-1.2**
	comp=Z,63nm,1.4s						
KULM	**Kulim**	**23.72**	**308**	P	P	18 01 08.9	+12
GSI	**Gunungsitoli**	**24.11**	**296**	P	P	18 01 12.1	+12
MTSU	**Mount Surprise**	**25.81**	**112**	P	**P**	**18 01 16.9**	**+1.2**
INKA	**Innaminka**	**27.10**	**134**		**P**	**18 01 27.1**	**-0.1**
BBOO	**Buckleboo**	**27.74**	**148**	P	**P**	**18 01 35.4**	**+2.4**
BBOO	**Buckleboo**	**27.74**	**148**	P	**P**	**18 01 32.6**	**-0.4**
CTA	**Charters Tower**	**28.11**	**114**	LR	LR	18 14 18.3	
	comp=Z,96nm,18.3s,baz=286,slow=40						
CTAO	**Charters Tower**	**28.11**	**114**	P	**P**	**18 01 34.9**	**-1.5**
HTT	**Hallett**	**29.77**	**145**	P	**P**	**18 01 53.0**	**+2.0**
QIZ	**Qiongzhong**	**30.05**	**342**	P	**P**	**18 01 52.5**	**-1.1**
QIZ				S	**S**	**18 06 51.3**	**-0.8**
STKA	**Stephens Creek**	**30.28**	**140**	P	**P**	**18 01 55.5**	**-0.1**
	comp=Z,1.6nm,0.4s,baz=320,slow=12,SNR=4.4						
STKA				LR	LR	18 13 50.6	
	comp=Z,195nm,20.6s,baz=337,slow=36						
	comp=Z,1.6nm,0.4s						
GHSS	**Government Hou**	**30.71**	**148**	P	**P**	**18 02 01.7**	**+2.4**
YULB	**Yu-li**	**33.04**	**4**	P	P	18 02 17.6	-2.2
CM31	**Chiang Mai Arr**	**34.40**	**325**	P	P	18 02 27.1	-4.7
CMAR	**Chiang Mai Arr**	**34.40**	**325**	P	**P**	**18 02 31.4**	**-0.4**
	comp=Z,2.3nm,0.9s,baz=146,slow=6.0,SNR=12						
CMAR				PcP	**PcP**	**18 05 08.3**	**+0.7**
	comp=Z,2.5nm,0.8s,baz=188,slow=2.9,SNR=9.4						
CMAR				LR	LR	18 17 33.8	
	comp=Z,192nm,21.1s,baz=155,slow=38						
	comp=Z,2.3nm,0.9s						
CMAR	**Chiang Mai Arr**	**34.40**	**325**	P	P	18 02 26.5	-5.3
GUMO	**Guam**	**34.54**	**48**	LR	LR	18 17 31.9	
	comp=Z,29nm,20.6s,baz=214,slow=38						
CHTO	**Chiang Mai**	**34.69**	**325**	P	P	18 02 28.8	-5.5
CHTO				IAmb	IAmb	18 02 37.1	
	comp=Z,19nm,1.6s						
ARMA	**Armidale**	**36.58**	**129**	P	**P**	**18 02 49.8**	**-0.9**
NPW	**Naypyitaw**	**37.08**	**322**	P	**P**	**18 02 54.3**	**-0.4**
	comp=Z,24nm,1.1s						
JOW	**Kunigami**	**37.47**	**14**	LR	LR	18 17 55.1	
	comp=Z,132nm,21.6s,baz=311,slow=36						
GYA	**Guiyang**	**38.00**	**342**	⇑P	**P**	**18 03 02.5**	**-0.1**
GYA				pmax	pmax		
	comp=Z,14nm,0.8s						
KMI2	**Kunming**	**38.21**	**336**	P	**P**	**18 03 04.3**	**-0.2**
KMI2				pmax	pmax		
	comp=Z,13nm,1.2s						
PZH	**PanZhiHua**	**39.82**	**335**	P	**P**	**18 03 17.5**	**-0.4**
TNCH	**TengChong**	**40.00**	**330**	P	**P**	**18 03 19.0**	**-0.5**
TNCH				pmax	pmax		
	comp=Z,21nm,0.6s						
HNR	**Honiara**	**40.25**	**93**	LR	LR	18 21 38.7	
	comp=Z,50nm,18.1s,baz=355,slow=39						
WHN	**Wuhan**	**40.36**	**354**	P	**P**	**18 03 22.0**	**-0.1**
WHN				sP	**pP**	**18 03 26.8**	**+1.6**
WHN				pmax	pmax		
	comp=Z,78nm,1.3s						
ENH	**Enshi**	**40.89**	**347**	IAmb	IAmb	18 03 26.8	
	comp=Z,27nm,1.2s						
ENH	**Enshi**	**40.89**	**347**	P	P	18 03 24.6	-2.0
	comp=Z,19nm,1.1s						
MORE	**Moreh**	**41.60**	**325**		P	18 03 30.2	-2.3
MORE				IAmb	IAmb	18 03 31.8	
	comp=Z,21nm,0.9s						
NJ2	**Nanjing**	**41.60**	**360**	*e*P	**P**	**18 03 32.0**	**-0.3**
NJ2				pmax	pmax		
	comp=Z,9.0nm,0.5s						
PALK	**Pallekele**	**41.84**	**292**	LR	LR	18 21 46.7	
	comp=Z,66nm,18.2s,baz=112,slow=37						
CD2	**Chengdu**	**43.06**	**341**	*e*P	**P**	**18 03 43.3**	**-1.0**
SHL	**Shillong**	**44.02**	**324**	P	P	18 03 49.0	-3.3
LYN	**LuoYang**	**44.54**	**352**	P	**P**	**18 03 55.8**	**-0.3**
LYN				pmax	pmax		
	comp=Z,17nm,0.6s						
XAN	**Xi'an**	**44.64**	**348**	P	**P**	**18 03 55.5**	**-1.5**
XAN				pP	pP	18 03 59.8	-0.4
XAN				sP	sP	18 04 02.5	+1.1
XAN				pmax	pmax		
	comp=Z,25nm,1.2s						
XAN				L	L		
	comp=Z,180nm,17.9s						
XAN				L	L		
	comp=Z,140nm,16.5s						
XAN				L	L		
	comp=Z,340nm,22.0s						
H08S2	**Diego Garcia H**	**46.10**	**269**	T	T	18 53 18.7	
	baz=96,slow=75,SNR=132						
H08S3	**Diego Garcia H**	**46.11**	**269**	T	T	18 53 17.2	
	baz=96,slow=75,SNR=244						
H08S1	**Diego Carcia H**	**46.12**	**269**	T	T	18 53 20.1	
	baz=96,slow=75,SNR=170						
HNS	**HongShan**	**47.12**	**355**	⇑P	**P**	**18 04 15.5**	**-0.9**
HNS				ScS	ScS	18 14 10.0	-1.0
HNS				pmax	pmax		
	comp=Z,11nm,1.2s						
HNS				L	L		
	comp=Z,160nm,17.3s						
KSAR	**Wonju Array Be**	**47.69**	**9**	P	**P**	**18 04 19.9**	**-1.0**
KSRS	**Korea Array**	**47.71**	**9**	P	**P**	**18 04 19.6**	**-1.4**
	comp=Z,3.5nm,0.9s,baz=200,slow=5.9,SNR=10						
KSRS				LR	LR	18 23 48.2	
	comp=Z,84nm,21.2s,baz=185,slow=36						
	comp=Z,3.5nm,0.9s						
LZDM	**Lanzhou Array**	**47.76**	**343**	P	**P**	**18 04 21.0**	**-0.9**
	comp=Z,3.4nm,0.3s,baz=153,slow=10.0,SNR=4.3						
LZDM				LR	LR	18 26 01.7	
	comp=Z,117nm,20.2s,baz=150,slow=38						
	comp=Z,3.4nm,0.3s						
LZH	**Lanzhou**	**47.84**	**343**	*e*P	**P**	**18 04 22.0**	**-0.3**
LZH				pP	pP	18 04 27.0	+1.5
LZH				pmax	pmax		
	comp=Z,47nm,1.4s						
LZH				L	L		
	comp=Z,210nm,15.6s						
LZH				L	L		
	comp=Z,200nm,15.9s						
LZH				L	L		
	comp=Z,230nm,15.9s						
EVN	**Everest**	**48.83**	**321**		P	18 04 27.9	-2.7
MJAR	**Matsushiro Arr**	**49.46**	**20**	P	P	18 04 32.1	-2.5
	comp=Z,3.9nm,0.8s,baz=192,slow=7.4,SNR=6.9						
MJAR				LR	LR	18 24 01.2	
	comp=Z,50nm,21.8s,baz=201,slow=34						
	comp=Z,3.9nm,0.8s						
BJI2	**Beijing**	**49.62**	**357**	P	**P**	**18 04 35.0**	**-0.7**
BJI2				pmax	pmax		
	comp=Z,11nm,1.1s						
BJT	**Baijiatuau**	**49.62**	**357**	IAmb	IAmb	18 04 35.6	
	comp=Z,14nm,0.9s						
HHC	**Hu-ho-hao-te**	**50.86**	**353**	*e*P	**P**	**18 04 46.8**	**+1.6**
HHC				pmax	pmax		
	comp=Z,14nm,0.8s						
HHC				pmax	pmax		
	comp=Z,110nm,5.1s						
BTO2	**Baotou**	**50.99**	**351**	*e*P	**P**	**18 04 45.0**	**-1.3**
BTO2				PP	**PP**	**18 06 40.0**	**-2.9**
BTO2				S	**S**	**18 12 04.5**	**+1.0**
BTO2				pmax	pmax		
	comp=Z,40nm,1.1s						
BTO2				pmax	pmax		
	comp=Z,140nm,3.5s						
BTO2				L	L		
	comp=Z,110nm,5.7s						
BTO2				L	L		
	comp=Z,170nm,4.7s						
BTO2				L	L		
	comp=Z,300nm,17.5s						
GTA2	**Gaotai**	**52.21**	**341**	*e*P	**P**	**18 04 55.0**	**-0.4**
GTA2				pmax	pmax		
	comp=Z,27nm,1.1s						
GTA2				L	L		
	comp=Z,150nm,18.4s						
XLT	**XiLinHaoTe**	**53.50**	**357**	*e*P	**P**	**18 05 04.0**	**-0.8**
XLT				pmax	pmax		
	comp=Z,23nm,1.1s						
XLT				pmax	pmax		
	comp=Z,110nm,4.2s						
MDJ	**Mudanjiang**	**54.97**	**9**	P	**P**	**18 05 14.0**	**-1.4**
MDJ				pmax	pmax		
	comp=Z,21nm,1.1s						
MDJ	**Mudanjiang**	**54.97**	**9**		P	18 05 13.7	-1.7
MDJ				IAmb	IAmb	18 05 15.0	
	comp=Z,13nm,0.7s						
USA0B	**Ussuriysk Arra**	**54.99**	**11**	P	P	18 05 13.7	-1.8
USA0B				IAmb	IAmb	18 05 14.8	
	comp=Z,11nm,0.7s						
USRK	**Ussuriysk Ar.**	**54.99**	**11**	P	**P**	**18 05 13.9**	**-1.6**
	comp=Z,6.8nm,0.5s,baz=188,slow=6.9,SNR=33						
USRK				LR	LR	18 27 43.0	
	comp=Z,56nm,21.7s,baz=178,slow=35						
	comp=Z,6.8nm,0.5s						
BNX	**BinXian**	**55.77**	**7**	⇑P	P	18 05 19.0	-2.1
BNX				pmax	pmax		
	comp=Z,7.0nm,0.9s						
RPZ	**Rata Peaks**	**56.16**	**137**	LR	LR	18 30 08.4	
	comp=Z,39nm,18.1s,baz=282,slow=37						
MSVF	**Nonsavu**	**57.60**	**105**	LR	LR	18 30 41.9	
	comp=Z,48nm,18.8s,baz=90,slow=36						
ASAJ	**Asahikawa**	**57.73**	**20**	LR	LR	18 29 53.4	
	comp=Z,54nm,20.8s,baz=251,slow=36						
ULN	**Ulaanbaatar**	**58.38**	**350**	P	P	18 05 37.5	-2.3
ULN				PcP	**PcP**	**18 06 28.5**	**-2.1**
ULN	**Ulaanbaatar**	**58.38**	**350**	P	**P**	**18 05 39.0**	**-0.9**
	comp=Z,18nm,1.2s						
SONM	**Songino Array**	**58.47**	**350**	P	**P**	**18 05 39.4**	**-1.0**
	comp=Z,5.8nm,0.5s,baz=172,slow=8.0,SNR=53						
SONM				LR	LR	18 32 26.3	
	comp=Z,44nm,21.4s,baz=184,slow=38						
	comp=Z,5.8nm,0.5s						
SONM	**Songino Array**	**58.47**	**350**		P	18 05 38.6	-1.8
URZ	**Urewera**	**58.98**	**129**	LR	LR	18 30 39.2	
	comp=Z,80nm,19.8s,baz=280,slow=36						
HILR	**Hailar Array B**	**59.09**	**0**	P	**P**	**18 05 44.0**	**-0.6**
	comp=Z,1.1nm,0.4s,baz=198,slow=9.1,SNR=1.4						

	comp=Z,1.1nm,0.4s						
KLR	Kul'dur	59.80	10	LR	LR	18 31 20.9	
	comp=Z,34nm,20.4s,baz=212,slow=36						
HEH	HeiHe	60.22	6	*e*P	P	18 05 50.5	-1.8
HEH				pmax	pmax		
	comp=Z,23nm,0.9s						
WMQ	Urumqi	60.51	334	*e*P	P	18 05 53.5	-0.9
WMQ				pmax	pmax		
	comp=Z,13nm,1.3s						
NIL	Nilore	61.35	317	P	P	18 05 56.8	-3.5
NIL				IAmb	IAmb	18 05 58.2	
	comp=Z,8.2nm,0.8s						
WUS	Wushi	62.62	327	P	P	18 06 08.0	-0.9
	comp=Z,10.0nm,1.6s						
TLY	Talaya	62.66	349	LR	LR	18 35 01.2	
	comp=Z,65nm,20.5s,baz=162,slow=38						
TLY	Talaya	62.66	349	P	P	18 06 07.2	-1.6
TLY				IAmb	IAmb	18 08 17.6	
	comp=Z,5.2nm,0.6s						
KSH2	Kashi	63.29	323	P	P	18 06 11.5	-1.9
KSH2				pmax	pmax		
	comp=Z,11nm,0.8s						
TARG	Taragay, Kyrgy	63.75	327	P	P	18 06 13.7	-3.0
TARG				IAmb	IAmb	18 06 30.3	
	comp=Z,18nm,1.6s						
TARG	Taragay, Kyrgy	63.75	327	P	P	18 06 15.9	-0.8
	comp=Z,6.3nm,1.4s						
SHLS	Shalkode	63.88	329	*e*P	P	18 06 14.2	-3.0
	comp=Z,7.7nm,0.8s						
ASAI	AK-SAY(Kyrgyzs	63.91	325	P	P	18 06 13.2	-4.5
	comp=Z,5.9nm,1.4s						
PDGK	Podgornoye	63.99	329		P	18 06 15.5	-2.4
UZB	Uzynbulak	64.10	328	*e*P	P	18 06 17.2	-1.5
	comp=Z,11nm,1.3s						
SATY	Saty	64.36	328	*e*P	P	18 06 18.8	-1.6
	comp=Z,7.4nm,1.4s						
KDJ	Kajisay	64.37	327	P	P	18 06 17.8	-2.6
KDJ				IAmb	IAmb	18 06 40.7	
	comp=Z,7.5nm,0.9s						
KPKS	Kokpek	64.50	328	*e*P	P	18 06 19.8	-1.4
ZSN	Zaisan	64.60	335	*e*P	P	18 06 20.5	-1.2
	comp=Z,5.1nm,1.1s						
KBL	Kabul	64.72	316		P	18 06 19.5	-3.5
KBL	Kabul	64.72	316	P	P	18 06 20.9	-2.1
	comp=Z,28nm,0.9s						
TNSS	Tian-Shan	65.11	327	*e*P	P	18 06 23.8	-1.8
MDOK	Medeo	65.14	327	*e*P	P	18 06 23.9	-1.6
MKAR	Makanchi Array	65.20	333	P	P	18 06 24.1	-1.6
	comp=Z,7.1nm,0.7s,baz=159,slow=7.0,SNR=66						
MKAR				LR	LR	18 36 24.3	
	comp=Z,52nm,18.4s,baz=130,slow=38						
	comp=Z,7.1nm,0.7s						
MKAR	Makanchi Array	65.20	333		P	18 06 23.6	-2.0
MKAR				PcP	PcP	18 06 57.1	-1.0
AAA	Alma-Ata	65.25	327	*e*P	P	18 06 24.6	-1.4
	comp=Z,4.5nm,0.5s						
MAKZ	Makanchi	65.35	333		P	18 06 24.7	-1.9
MAKZ				IAmb	IAmb	18 06 26.0	
	comp=Z,21nm,1.6s						
MAKZ	Makanchi	65.35	333	P	P	18 06 25.4	-1.2
	comp=Z,8.8nm,1.4s						
TDK	Taldyqorghan	65.72	330	*e*P	P	18 06 27.5	-1.5
	comp=Z,11nm,1.0s						
DRK	Karamyk	65.78	321	P	P	18 06 27.9	-1.9
DRK				IAmb	IAmb	18 07 48.4	
	comp=Z,12nm,0.9s						
KUU	Kurty	66.02	327	*e*P	P	18 06 29.6	-1.4
	comp=Z,4.6nm,0.9s						
AAK	Ala-Archa	66.19	325	LR	LR	18 39 25.1	
	comp=Z,56nm,19.3s,baz=137,slow=40						
AAK	Ala-Archa	66.19	325		P	18 06 30.6	-1.6
AAK				IAmb	IAmb	18 06 32.0	
	comp=Z,16nm,1.2s						
AAK	Ala-Archa	66.19	325	P	P	18 06 31.1	-1.1
	comp=Z,14nm,1.2s						
ARSB	Arslanbob	66.21	324	P	P	18 06 30.6	-1.8
BTK	Batken	66.73	321	P	P	18 06 33.8	-1.9
H04N2	CROZET ISLANDS	67.31	224	T	T	19 20 15.2	
	baz=83,slow=74,SNR=57						
H04N1	CROZET ISLANDS	67.33	224	T	T	19 20 15.3	
	baz=83,slow=74,SNR=62						
H04N3	CROZET ISLANDS	67.33	224	T	T	19 20 14.1	
	baz=83,slow=74,SNR=61						
AFI	Afiamalu	67.57	101	P	P	18 06 40.4	-1.1
DZA	Taraz	68.14	324	*e*P	P	18 06 43.3	-1.3
IUG	Iuzhnay	68.45	323	*e*P	P	18 06 45.1	-1.5
	comp=Z,7.1nm,0.9s						
MAW	Mawson	68.54	200	P	P	18 06 46.7	+0.2
	comp=Z,6.6nm,1.2s,baz=62,slow=9.3,SNR=6.4						
MAW				LR	LR	18 31 47.5	
	comp=Z,63nm,21.2s,baz=45,slow=32						
	comp=Z,6.6nm,1.2s						
MAW	Mawson	68.54	200		P	18 06 47.0	+0.4
MAW	Mawson	68.54	200	P	P	18 06 49.0	+2.4
	comp=Z,0.9nm,1.2s						
KK31	Karatay Array	68.75	324		P	18 06 45.8	-2.5
KK31				IAmb	IAmb	18 06 48.2	
	comp=Z,8.1nm,1.2s						
KKAR	Karatay Array	68.75	324	P	P	18 06 45.6	-2.7
CHM	Chimkent	68.81	323	*e*P	P	18 06 47.4	-1.3
	comp=Z,5.7nm,0.5s						
KURBB	Kurchatov Arra	69.72	334	P	P	18 06 52.1	-2.0
	comp=Z,3.3nm,0.7s,baz=147,slow=5.2,SNR=21						
KURBB				LR	LR	18 39 25.8	
	comp=Z,101nm,21.3s,baz=168,slow=38						
	comp=Z,3.3nm,0.7s						
KURK	Kurchatov	69.75	334		P	18 06 52.1	-2.2
KURK	Kurchatov	69.75	334	P	P	18 06 52.7	-1.6
	comp=Z,18nm,1.5s						
ZAA0	Zalesovo Array	69.81	339	P	P	18 06 51.7	-2.8
ZAA0				IAmb	IAmb	18 06 53.3	
	comp=Z,11nm,1.1s						
ZALV	Zalesovo Beam	69.81	339	P	P	18 06 52.1	-2.4
	comp=Z,3.4nm,0.5s,baz=143,slow=4.8,SNR=24						
ZALV				LR	LR	18 42 31.4	
	comp=Z,27nm,18.6s,baz=244,slow=40						
	comp=Z,3.4nm,0.5s						
PETK	Petropavlovsk-	70.75	23	P	P	18 06 59.2	-1.2
	comp=Z,2.2nm,0.6s,baz=232,slow=6.8,SNR=2.2						
	comp=Z,2.2nm,0.6s						
VNDA	Vanda	71.20	171	P	P	18 07 03.6	+0.8
	comp=Z,0.7nm,0.5s,baz=321,slow=6.6,SNR=9.6						
VNDA				LR	LR	18 38 45.8	
	comp=Z,42nm,18.2s,baz=340,slow=36						
	comp=Z,0.7nm,0.5s						
VNDA	Vanda	71.20	171	P	P	18 07 03.7	+0.9
VNDA				IAmb	IAmb	18 07 40.8	
	comp=Z,13nm,1.9s						
YAK	Yakutsk	72.07	5	LR	LR	18 41 20.2	
	comp=Z,29nm,19.9s,baz=180,slow=38						
YAK	Yakutsk	72.07	5		P	18 07 06.0	-2.1
YAK				IAmb	IAmb	18 07 07.0	
	comp=Z,13nm,1.1s						
MA2	Magadan	73.64	16	LR	LR	18 38 38.4	
	comp=Z,20nm,21.8s,baz=184,slow=35						
BVAR	Borovoye Array	75.04	332	P	P	18 07 24.1	-1.7
	comp=Z,6.4nm,0.9s,baz=142,slow=7.5,SNR=27						
	comp=Z,6.4nm,0.9s						
BORK	Borovoye	75.08	332	P	P	18 07 24.0	-2.1
BORK				IAmb	IAmb	18 07 26.0	
	comp=Z,17nm,1.2s						
AB31	Akbulak array	78.26	325	P	P	18 07 42.0	-2.1
AB31				IAmb	IAmb	18 07 43.6	
	comp=Z,13nm,1.0s						
ABKAR	Akbulak array	78.26	325	P	P	18 07 42.0	-2.1
RAYN	Ar Rayn	79.14	296	P	P	18 07 47.6	-2.1
RAYN				IAmb	IAmb	18 07 49.7	
	comp=Z,8.4nm,0.8s						
RAYN	Ar Rayn	79.14	296	P	P	18 07 48.9	-0.7
	comp=Z,13nm,1.0s						
AKTO	Aktyubinsk	79.93	325	P	P	18 07 51.9	-1.4
	comp=Z,5.3nm,0.7s,baz=120,slow=3.6,SNR=16						
AKTO				LR	LR	18 47 25.3	
	comp=Z,88nm,19.2s,baz=70,slow=39						
	comp=Z,5.3nm,0.7s						
QSPA	South Pole Qui	80.21	180	P	P	18 07 55.6	+0.9
	comp=Z,2.5nm,0.6s,baz=300,slow=1.0,SNR=44						
QSPA				LR	LR	18 41 52.7	
	comp=Z,45nm,19.1s,baz=360,slow=34						
	comp=Z,2.5nm,0.6s						
QSPA	South Pole Qui	80.21	180	P	P	18 07 55.2	+0.5
QSPA				IAmb	IAmb	18 07 57.1	
	comp=Z,23nm,1.6s						
TIXI	Tiksi	81.52	3	LR	LR	18 51 04.1	
	comp=Z,35nm,18.2s,baz=186,slow=41						
TIXI	Tiksi	81.52	3	P	P	18 07 58.7	-2.6
TIXI				IAmb	IAmb	18 07 59.9	
	comp=Z,12nm,1.4s						
KMBO	Kilima Mbogo	81.79	270	P	P	18 08 04.0	-0.3
	baz=89,slow=6.0						
NRIK	Noril'sk	81.94	349	P	P	18 08 01.3	-2.3
	comp=Z,2.6nm,0.6s,baz=177,slow=0.9,SNR=4.1						
NRIK				LR	LR	18 47 51.6	
	comp=Z,51nm,19.8s,baz=142,slow=38						
	comp=Z,2.6nm,0.6s						
NRIK	Noril'sk	81.94	349	P	P	18 08 01.6	-1.9
ARTI	Arti	82.66	331	P	P	18 08 05.2	-2.4
ARTI				IAmb	IAmb	18 08 06.3	
	comp=Z,10nm,1.0s						
GEVA	Gevas	85.26	310	P	P	18 08 19.4	-2.2
GURO	Guroymak-BITLI	86.10	310	P	P	18 08 24.2	-1.4
BELG	Belogornoye	86.65	324	P	P	18 08 26.1	-1.8
	comp=Z,50nm,1.1s,baz=324,slow=2.0,SNR=18						
KBZ	Khabaz	86.91	315	P	P	18 08 28.2	-1.0
	comp=Z,3.4nm,0.9s,baz=115,slow=4.5,SNR=6.1						
	comp=Z,3.4nm,0.9s						
MATP	Matopo	87.21	250	LR	LR	18 41 07.0	
	comp=Z,36nm,21.4s,baz=292,slow=31						
KOPT	Kop Dagi	87.63	311	P	P	18 08 33.2	-0.1
MBAR	Mbarara	88.29	270	LR	LR	18 42 25.6	
	comp=Z,25nm,19.9s,baz=64,slow=32						
MBAR	Mbarara	88.29	270	P	P	18 08 35.0	-1.9
MBAR				IAmb	IAmb	18 08 59.2	
	comp=Z,6.2nm,1.1s						
MBAR	Mbarara	88.29	270	P	P	18 08 38.5	+1.6
	comp=Z,7.0nm,1.3s						
PPT2	Papeete2	88.33	107	*e*LR	LR	18 36 40.9	
	comp=Z,140nm,27.2s						
PPT2				*e*LR	LR	18 36 44.5	
	comp=Z,74nm,24.8s						
KHLH	Kahului Airpor	88.34	69	P	P	18 08 36.0	-0.6
LSZ	Lusaka	88.34	255	LR	LR	18 43 51.9	
	comp=Z,41nm,18.4s,baz=129,slow=33						
LSZ	Lusaka	88.34	255	P	P	18 08 35.8	-1.2
TROLL	Troll, Antarti	88.66	196	⇑P	P	18 08 39.5	+2.1
	comp=Z,120nm,0.7s						
BOSA	Boshof	88.73	241	LR	LR	18 42 08.8	
	comp=Z,17nm,19.5s,baz=66,slow=31						
LBTB	Lobatse	89.07	245	LR	LR	18 42 12.1	
	comp=Z,53nm,20.0s,baz=128,slow=31						
GHAJ	Ghor Haditha	89.57	302	P	P	18 08 41.3	-0.9
MMAI	Mount Meron Ar	90.05	303	P	P	18 08 44.9	+0.4
	comp=Z,1.5nm,0.6s,baz=76,slow=9.4,SNR=2.7						
	comp=Z,1.5nm,0.6s						
SNAA	Sanae	90.28	196	P	P	18 08 46.1	+1.2
	comp=Z,0.9nm,0.3s,baz=161,slow=5.3,SNR=3.4						
SNAA				LR	LR	18 47 47.0	
	comp=Z,118nm,18.5s,baz=76,slow=34						
	comp=Z,0.9nm,0.3s						
SUR	Sutherland	91.74	237	LR	LR	18 41 44.1	
	comp=Z,44nm,21.9s,baz=120,slow=30						
BRTR	Keskin Array B	92.72	310	P	P	18 08 55.5	-1.4
	comp=Z,1.9nm,0.8s,baz=118,slow=5.0,SNR=8.2						
	comp=Z,1.9nm,0.8s						
TSUM	Tsumeb	97.52	249	LR	LR	18 50 32.9	
	comp=Z,40nm,18.1s,baz=136,slow=34						
MLR	Muntele Rosu	99.11	315	LR	LR	19 02 51.3	
	comp=Z,24nm,19.6s,baz=181,slow=41						
FINES	FINESS Array B	99.97	331	P	Pdif	18 09 26.8	-2.3
	comp=Z,1.4nm,0.8s,baz=114,slow=6.7,SNR=3.9						
FINES				LR	LR	18 59 00.4	
	comp=Z,17nm,19.1s,baz=78,slow=38						
	comp=Z,1.4nm,0.8s						
CLL	Collm	107.64	321	*e*PKiKP	PKiKP	18 14 13.0	+1.6
CLL				L	L	18 54 00.0	
TORD	Torodi Ar. Bea	118.70	280	PKP	PKPdf	18 14 33.8	+0.2
	comp=Z,1.7nm,0.6s,baz=89,slow=1.9,SNR=10						
TORD	Torodi Ar. Bea	118.70	280		PKPdf	18 14 34.0	+0.5
ESDC	Sonseca Array	121.50	311	PKP	PKPdf	18 14 38.8	+0.5
	comp=Z,0.3nm,0.5s,baz=17,slow=1.7,SNR=6.2						
M57A	Sunshine Farm,	145.46	22		PKPbc	18 15 22.0	-0.7
TZTN	Tazewell	146.37	34		PKPdf	18 15 24.3	-0.2
Y49A	Blount Mountai	146.49	40		PKPdf	18 15 24.8	0.0
LRAL	Lakeview Retre	146.62	42		PKPdf	18 15 25.5	+0.5

IDC 29 18:04:09.2±436.0**, 53°.45N×38°.09E, h0^{km}, Error ellipse: s-maj=186.7km s-min=76.3km az=176.0, Baltic States-Belarus-Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I43RU	DUBNA INFRASON	3.32	352	I	I	18 23 20.0	
	baz=170,slow=313,SNR=2.8						
I31KZ	AKTYUBINSK INF	12.67	96	I	I	19 20 20.0	
	baz=291,slow=326,SNR=4.6						
I46RU	ZALESOVO INFRA	27.28	70	I	I	20 54 20.0	
	baz=287,slow=330,SNR=0.9						

ISK ***29*** *18:28:17.7, 38°.47N×31°.82E, h5^{km}, ML3.8/39*
IDC ***29*** *18:28:18.4±0.9, 38°.52N×31°.79E, h0^{km}, mb3.6/10, mbtmp3.6/12, ML1.4/1, MS2.7/7, Error ellipse: s-maj=19.8km s-min=13.5km az=138.0*
AFAD ***29*** *18:28:18.4, 38°.47N×31°.81E, h8^{km}±2^{km}, MW3.8*
ISC 29 18:28:18.7±1.0**, 38°.48N**±0°.02×**31°.81E**±0°.02**, h5^{km}**±8^{km}**, n89, σ0^{s}.73**/108**, mb3.6**/9**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KDHN	Kadinhani	0.24	80	P	Pg	18 28 23.7	+0.2
KDHN				S	Sg	18 28 26.7	-0.1
UCKU	Afyonkarahisar	0.34	298	P	Pg	18 28 25.6	+0.3
UCKU				S	Sg	18 28 29.6	-0.2
DOGA	KONYA_Doganhis	0.39	197	P	Pg	18 28 26.3	0.0
DOGA				S	Sg	18 28 32.1	+0.7
KIZT	Kizilcal	0.40	8	Pg	Pg	18 28 26.7	+0.1
KIZT				Sg	Sb	18 28 34.0	-1.0
KIZT				AML	AML		
YVAC	Isparta, Yalva	0.49	245	P	Pg	18 28 28.2	0.0
YVAC				S	Sg	18 28 35.4	+0.8
LADK	Ladik-KONYA	0.52	122	Pg	Pg	18 28 28.6	-0.1
LADK				Sg	Sg	18 28 36.1	+0.7
LADK				AML	AML		
CTIK	Konya-Celtik	0.56	346	P	Pg	18 28 29.8	+0.2
CTIK				S	Sg	18 28 37.5	+0.6
KONT	Konya--Tatoy	0.69	141	Pg	Pg	18 28 31.7	-0.2
KONT				Sg	Sb	18 28 42.5	-0.6
KONT				AML	AML		
KONT	Konya--Tatoy	0.69	141	P	Pg	18 28 32.0	+0.1
KONT				S	Sb	18 28 41.7	-1.4
SDAG	Sultandagi-AFY	0.70	267	Pg	Pg	18 28 32.1	-0.1
SDAG				Sg	Sb	18 28 43.3	-0.2
SDAG				AML	AML		
KURO	Afyon-Bolvadin	0.73	291	P	Pg	18 28 32.8	0.0
CBEY	Konya-Cihanbey	0.79	74	P	Pg	18 28 34.0	+0.1
CBEY				S	Sg	18 28 44.2	0.0
BYAT	Afyon-Bayat	0.80	306	P	Pg	18 28 34.0	0.0
BYAT				S	Sg	18 28 44.3	0.0
KMER	Konya-Meram	0.84	148	P	Pg	18 28 34.8	0.0
KMER				S	Sb	18 28 47.0	-0.5
ALIN	Konya, Altinte	0.86	102	P	Pg	18 28 35.0	-0.2
ALIN				S	Sg	18 28 45.6	-0.8
BAGO	Egridir - ISPA	0.94	239	P	Pg	18 28 36.7	0.0
SHUT	Suhut-Afyon	0.99	275	Pg	Pg	18 28 37.5	-0.2
SHUT				Sg	Sn	18 28 52.9	-1.0
SHUT				AML	AML		
SVRH	Sivrihisar-ESK	0.99	347	Pg	Pb	18 28 38.2	-0.3
SVRH				AML	AML		
SEDI	Konya, Seydise	1.03	182	P	Pg	18 28 37.9	-0.5
SEDI				S	Sg	18 28 51.3	-0.4
CIFT	Cifteler, Eski	1.06	327	Pg	Pg	18 28 38.2	-0.8
CIFT				Sg	Sb	18 28 53.5	-0.2
CIFT				AML	AML		
SEYD	Seydisehir-KON	1.07	179	Pg	Pb	18 28 39.6	-0.2
SEYD				AML	AML		
KULU	Kulu	1.09	59	Pn	Pb	18 28 39.6	-0.6
ISP	Isparta	1.21	238	Pn	Pn	18 28 42.1	-0.3
AFYO	Afyonkarahisar	1.22	285	P	Pg	18 28 41.2	-0.9
POLA	Polatl-ANKAR	1.25	13	Pn	Pn	18 28 42.9	-0.1
POLA				AML	AML		
AUKIR	Kırka- Seyitga	1.28	309	P	Pb	18 28 43.0	-0.3
SGAZ	Eskisehir, Sey	1.29	325	P	Pn	18 28 42.4	-1.1
SGAZ				S	Sn	18 29 00.7	-0.6
KZIL	AFYON_Kizioren	1.33	261	P	Pn	18 28 43.6	-0.5
KZIL				S	Sn	18 29 02.5	+0.2
AFSR	Afar-Bala (An	1.38	45	Pn	Pg	18 28 45.4	+0.2
AFSR				AML	AML		
BCK	Bucak	1.40	224	Pn	Pg	18 28 45.6	0.0
BCK				AML	AML		
ALT	Altintas	1.45	294	Pn	Pg	18 28 46.2	-0.2
ALT				AML	AML		
SERE	Sereflikochisa	1.45	71	Pn	Pb	18 28 45.9	-0.4
SERE				AML	AML		
BASM	Basmaki-Afyon	1.49	249	Pn	Pg	18 28 47.1	-0.2
BASM				AML	AML		
BUCA	Burdur, Bucak-	1.52	221	P	Pg	18 28 47.9	+0.2
BNAZ	Uak-Banaz	1.52	278	P	Pb	18 28 47.3	-0.2
KKBE	Karaman, Kazim	1.54	144	P	Pg	18 28 48.5	+0.2
KKBE				S	Sg	18 29 09.4	+1.1
KEPZ	Antalya-Kepez	1.58	186	P	Pb	18 28 47.9	-0.6
KEPZ				S	Sg	18 29 09.3	-0.3
BRDR	BURDUR-Merkez	1.58	241	P	Pg	18 28 48.6	-0.5
BRDR				S	Sg	18 29 11.5	+1.9
LOD	Lodumlu	1.59	28	Pn	Pb	18 28 48.2	-0.5
LOD				AML	AML		
HDMB	Hadim	1.60	160	Pn	Pb	18 28 48.3	-0.7
HDMB				AML	AML		
KUTH	Kutahya	1.67	304	P	Pb	18 28 49.5	-0.6
YESY	Yesilyurt	1.68	114	Pn	Pb	18 28 49.4	-0.8
YESY				AML	AML		
MNVG	Manavgat-Antal	1.71	191	Pn	Pb	18 28 49.9	-0.8
MNVG				AML	AML		
KAMT	Kaman	1.73	59	Pn	Pn	18 28 50.0	+0.4
KAMT				AML	AML		
KRMN	Karaman	1.74	138	Pn	Pb	18 28 50.4	-0.8
KRMN				AML	AML		
ANDZ	Kutahya, Merke	1.81	305	P	Pn	18 28 50.7	0.0
ANDZ				S	Sn	18 29 14.4	+0.3
SRCK	Saricakaya, Es	1.81	330	Pn	Pb	18 28 51.3	-1.1
SRCK				AML	AML		
ANTB	Antalya	1.82	211	Pn	Pb	18 28 51.6	-1.0
ANTB				AML	AML		
PASA	Karahalli, USA	1.83	267	P	Pn	18 28 51.4	+0.5
KORT	Korkueli	1.88	219	Pn	Pn	18 28 52.1	+0.5
KORT				AML	AML		
KORT	Korkueli	1.88	219	P	Pb	18 28 53.3	-0.2
KORT				S	Sg	18 29 18.1	-0.8
BR131	Keskin Array S	1.89	48	Pn	Pb	18 28 52.6	-1.3
BR131				AML	AML		
BRTR	Keskin Array B	1.89	48	Pn	Pb	18 28 52.5	-1.3
	13nm,0.3s,baz=222,slow=15,SNR=202						
BRTR				Sn	Sn	18 29 15.5	-0.7
	14nm,0.3s,baz=219,slow=25,SNR=18						
YUVA	Yuva-Kibriscik	1.91	357	Pn	Pb	18 28 53.2	-1.0
YUVA				AML	AML		
GULA	Gulagac	1.91	93	Pn	Pn	18 28 52.6	+0.5
GULA				AML	AML		
GDZ	Gediz	1.92	289	P	Pn	18 28 52.4	+0.1
GEDZ	Gediz	1.96	287	Pn	Pb	18 28 53.8	-1.1
GEDZ				AML	AML		
MDUB	Mudurnu	2.04	347	Pn	Pb	18 28 54.9	-1.5
MDUB				AML	AML		
TVSB	Tavsanli	2.07	299	Pn	Pn	18 28 55.1	+0.8
TVSB				AML	AML		
SHAP	Saphane-Kutahy	2.09	286	Pn	Pn	18 28 55.5	+0.9
SHAP				AML	AML		
GPA	Golpazari	2.15	328	Pn	Pn	18 28 56.4	+1.1
GOLH	Golhisar	2.17	236	P	Pb	18 28 57.2	-1.3
GULT	Gulveren	2.19	333	Pn	Pn	18 28 56.9	+1.0
GULT				AML	AML		
RUZG	Kolk¶y-BOLU	2.24	360	Pn	Pn	18 28 57.8	+1.1
RUZG				AML	AML		
SIMA	Simav-Kutahya	2.29	286	Pn	Pn	18 28 58.2	+0.9
SIMA				AML	AML		
SMAA	Simav-Kutahya	2.29	287	Pn	Pn	18 28 58.3	+1.0
SMAA				AML	AML		
CAVI	Cavuskoy	2.30	319	Pn	Pn	18 28 58.2	+0.9
CAVI				AML	AML		
YALI	Yalozu-CANKI	2.46	21	Pn	Pn	18 29 00.6	+1.0
YALI				AML	AML		
UVEZ	Uvezbeli-DUZCE	2.52	344	Pn	Pn	18 29 01.7	+1.3
UVEZ				AML	AML		
ADVT	Abdulvahap	2.52	321	Pn	Pn	18 29 01.5	+1.1
ADVT				AML	AML		
SAUV	Serdivan-Sakar	2.53	334	Pn	Pn	18 29 01.7	+1.2
SAUV				AML	AML		
MMAI	Mount Meron Ar	6.18	151	Pn	Pn	18 29 52.6	+1.8
	0.5nm,0.3s,baz=351,slow=18,SNR=4.6						
IDI	Anoyia	6.39	242	Pn	Pn	18 29 55.3	+1.6
	0.4nm,0.3s,baz=14,slow=12,SNR=1.6						
	8.1nm,0.7s						
IDI				AML	AML		
ASF	Jabal al Asfar	7.54	145	LR	LR	18 33 50.4	
	comp=Z,66nm,20.0s,baz=268,slow=44						
MLR	Muntele Rosu	8.25	330	LR	LR	18 34 25.5	
	comp=Z,70nm,18.8s,baz=359,slow=45						
KBZ	Khabaz	9.87	54	LR	LR	18 34 43.2	
	comp=Z,38nm,21.9s,baz=170,slow=39						
VRAC	Vranov	15.38	320	LR	LR	18 38 57.2	
	comp=Z,27nm,18.8s,baz=166,slow=42						
GERES	GERESS Array B	16.66	314	LR	LR	18 40 45.4	
	comp=Z,8.9nm,18.7s,baz=22,slow=45						
DAVOX	Davos/Dischmat	18.10	304	LR	LR	18 40 58.8	
	comp=Z,26nm,18.1s,baz=107,slow=42						
AKTO	Aktyubinsk	22.07	49	P	P	18 33 14.6	+0.2
	1.9nm,0.8s,baz=257,slow=8.6,SNR=4.7						
	1.9nm,0.8s						
FINES	FINESS Array B	23.27	353	P	P	18 33 26.8	-0.1
	1.6nm,0.9s,baz=154,slow=16,SNR=4.0						
	1.6nm,0.9s						
HFS	Hagfors	24.52	338	P	P	18 33 39.0	+0.1
	1.5nm,1.0s,baz=151,slow=13,SNR=2.2						
	1.5nm,1.0s						
NOA	NORSAR Array B	25.98	337	P	P	18 33 53.2	+1.0
	0.3nm,0.8s,baz=142,slow=10,SNR=1.6						
NOA				LR	LR	18 45 14.0	
	comp=Z,19nm,19.3s,baz=145,slow=39						
	0.3nm,0.8s						
BVAR	Borovoye Array	30.18	49	P	P	18 34 30.0	+0.3
	0.3nm,0.6s,baz=254,slow=8.3,SNR=1.8						
	0.3nm,0.6s						
ARCES	ARCESS Array B	31.30	356	P	P	18 34 38.8	-0.6
	0.6nm,0.6s,baz=168,slow=6.2,SNR=4.9						
	0.6nm,0.6s						
KURBB	Kurchatov Arra	34.87	54	P	P	18 35 11.4	+0.6
	2.8nm,0.8s,baz=276,slow=8.8,SNR=29						
	2.8nm,0.8s						
TORD	Torodi Ar. Bea	36.73	235	P	P	18 35 27.8	+0.6
	1.1nm,0.8s,baz=40,slow=9.5,SNR=6.3						
	1.1nm,0.8s						
MKAR	Makanchi Array	37.50	61	P	P	18 35 34.0	+0.6
	0.9nm,0.7s,baz=277,slow=6.5,SNR=7.1						
	0.9nm,0.7s						
ZALV	Zalesovo Beam	38.84	49	P	P	18 35 44.5	0.0
	1.5nm,0.7s,baz=274,slow=8.9,SNR=6.8						
	1.5nm,0.7s						

IDC ***29*** *18:39:19.5±3.4, 21°.46N×144°.12E, h40^{km}±29^{km}, mb3.9/21, mbtmp4.1/23, ML3.1/1, MS3.3/17, Error ellipse: s-maj=22.7km s-min=12.9km az=91.0*
NEIC ***29*** *18:39:20.2±1.0, 21°.49N±0°.06×144°.0E±0°.1, h42^{km}±6^{km}, mb4.5/46, Error ellipse: s-maj=18.0km s-min=8.8km az=79.0*
ISC 29 18:39:18.6±0.5**, 21°.45N**±0°.07×**144°.1E**±0°.1**, h33^{km}, n93, σ0^{s}.72**/72**, mb4.4**/41**, MS3.2**/15**, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JCJ	Chichijima	5.88	343	P	Pn	18 40 44.9	+1.5
	30nm,0.5s						
JCJ				S	Sn	18 41 50.2	+0.6
DPSS	Saipan	6.39	165	Pn	Pn	18 40 52.3	+1.8
GUMO	Guam	7.86	174	LR	LR	18 43 42.0	
	comp=Z,266nm,19.4s,baz=359,slow=33						
JHJ2	Mitsune	12.21	343	Pn	Pn	18 42 10.0	-0.2
JMN	Monobe	15.19	326	Pn	Pn	18 42 50.4	-0.3
JGF	Kuroka	15.27	339	Pn	Pn	18 42 51.4	-0.5
MJAR	Matsushiro Arr	15.88	343	P	Pn	18 43 00.0	+0.4
	0.1nm,0.3s,baz=162,slow=12,SNR=4.2						
MJAR				LR	LR	18 48 37.5	
	comp=Z,94nm,21.1s,baz=149,slow=35						
	1.6nm,0.5s						
MJAR				AML	AML		
MJAR	Matsushiro Arr	15.88	343		Pn	18 42 59.4	-0.2
MAJO	Matsushiro	15.88	343	Pn	Pn	18 42 59.6	-0.1
MJB9	Matsu-Tunnel	15.88	343	Pn	Pn	18 43 00.2	+0.5
YHNB	Yeheng	21.11	283		P	18 44 00.3	-0.3
YHNB				IAmb	IAmb	18 44 07.2	
	comp=Z,30nm,1.2s						
KSRS	Korea Array	21.20	322	P	P	18 44 02.1	+0.7
	comp=Z,2.1nm,0.6s,baz=147,slow=8.2,SNR=19						
	comp=Z,2.1nm,0.6s						

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H11N1 WAKE ISLAND Hy  21.44  91 T        T        19 05 59.4
      baz=278,slow=75,SNR=20
H11N2 WAKE ISLAND Hy  21.45  90 T        T        19 05 58.4
      baz=278,slow=75,SNR=19
SSLB  Suanglung       21.45 281          P        18 44 05.2 +1.0
H11N3 WAKE ISLAND Hy  21.46  91 T        T        19 06 00.7
      baz=278,slow=75,SNR=16
H11S3 WAKE ISLAND Hy  21.47  94 T        T        19 06 00.6
      baz=281,slow=75,SNR=72
H11S1 WAKE ISLAND Hy  21.48  94 T        T        19 06 01.2
      baz=281,slow=75,SNR=32
H11S2 WAKE ISLAND Hy  21.48  94 T        T        19 06 02.0
      baz=281,slow=75,SNR=40
ASAJ  Asahikawa       22.64 357 LR       LR       18 56 16.0
      comp=Z,36nm,18.0s,baz=210,slow=45
DAV   Davao City (W)  22.88 234 LR       LR       18 51 19.5
      comp=Z,220nm,21.2s,baz=88,slow=31
JAY   Jayapura        24.04 188 LR       LR       18 53 55.9
      comp=Z,73nm,18.0s,baz=18,slow=36
USRK  Ussuriysk Ar.   24.80 339 P        P        18 44 38.3 +0.8
      comp=Z,3.2nm,0.9s,baz=145,slow=10,SNR=5.0
USRK                            LR       LR       18 53 41.9
      comp=Z,60nm,18.3s,baz=160,slow=35
      comp=Z,3.2nm,0.9s
SIJI  Sorong          25.46 211 LR       LR       18 52 19.8
      comp=Z,56nm,19.8s,baz=78,slow=31
KLR   Kul'dur         29.40 343 LR       LR       18 56 50.0
      comp=Z,42nm,21.7s,baz=142,slow=36
PMG   Port Moresby    30.82 174 LR       LR       18 57 31.5
      comp=Z,67nm,19.0s,baz=318,slow=35
PETK  Petropavlovsk-  33.30  15 LR       LR       18 56 59.1
      comp=Z,94nm,21.3s,baz=187,slow=32
KAPI  Kappang         35.49 225 LR       LR       18 59 28.1
      comp=Z,44nm,21.1s,baz=94,slow=34
MA2   Magadan         38.39   5 LR       LR       19 00 38.9
      comp=Z,20nm,21.7s,baz=186,slow=33
SHEM  Shemya Is, Ala  38.83  29 LR       LR       19 00 45.1
      comp=Z,52nm,19.7s,baz=280,slow=33
KNRA  Kununurra       39.83 203 P        P        18 46 49.0 -0.1
KNRA                            IAmb     IAmb     18 46 50.9
      comp=Z,6.3nm,1.0s
SONM  Songino Array   40.05 320 P        P        18 46 51.2 +0.4
      comp=Z,0.8nm,0.5s,baz=133,slow=6.6,SNR=4.2
      comp=Z,0.8nm,0.5s
SONM  Songino Array   40.05 320 P        P        18 46 50.4 -0.4
YAK   Yakutsk         41.75 350 LR       LR       19 04 11.0
      comp=Z,36nm,21.7s,baz=161,slow=36
WB0   Warramunga Arr  42.04 194 P        P        18 47 07.2 -0.1
WB0                             IAmb     IAmb     18 47 17.5
      comp=Z,18nm,1.5s
WR8   Warramunga Arr  42.20 193 P        P        18 47 08.5 -0.1
WR8                             IAmb     IAmb     18 47 09.8
      comp=Z,10.0nm,1.2s
WRA   Warramunga Arr  42.22 194 P        P        18 47 08.1 -0.7
      comp=Z,5.2nm,0.9s,baz=15,slow=8.8,SNR=25
      comp=Z,5.2nm,0.9s
WRA   Warramunga Arr  42.22 194          P        18 47 07.9 -0.9
CMAR  Chiang Mai Arr  42.41 274 P        P        18 47 11.1 +0.7
      comp=Z,0.6nm,0.3s,baz=66,slow=7.0,SNR=4.5
CMAR                            LR       LR       19 02 59.8
      comp=Z,37nm,21.9s,baz=95,slow=34
      comp=Z,0.6nm,0.3s
CMAR  Chiang Mai Arr  42.41 274 P        P        18 47 10.1 -0.3
KIWB  Kanaga Island   42.65  35 P        P        18 47 11.0 -0.8
FITZ  Fitzroy Crossi  43.25 206 P        P        18 47 16.9 -0.1
      comp=Z,3.1nm,0.7s,baz=15,slow=9.9,SNR=8.1
      comp=Z,3.1nm,0.7s
FITZ  Fitzroy Crossi  43.25 206 P        P        18 47 17.3 +0.2
TLY   Talaya          43.44 324 LR       LR       19 05 33.7
      comp=Z,31nm,18.7s,baz=128,slow=36
ATKA  Atka Island     44.41  36 P        P        18 47 26.4 +0.4
AS31  Alice Springs   45.92 193          P        18 47 38.4  0.0
ASAR  Alice Springs   45.92 193 P        P        18 47 38.6 +0.3
      comp=Z,2.4nm,0.7s,baz=17,slow=9.5,SNR=56
      comp=Z,2.4nm,0.7s
ASAR  Alice Springs   45.92 193 P        P        18 47 38.2 -0.2
CLES  Cleveland East  47.05  37 P        P        18 47 47.2 +0.3
EVN   Everest         52.02 289          P        18 48 25.9 -0.1
EVN                             IAmb     IAmb     18 48 28.7
      comp=Z,3.8nm,0.6s
FORT  Forrest         54.16 197 P        P        18 48 40.3 -0.4
BBOO  Buckleboo       54.49 188 P        P        18 48 42.9 -0.2
ZALV  Zalesovo Beam   54.91 322 P        P        18 48 46.0  0.0
      comp=Z,0.6nm,0.4s,baz=104,slow=6.3,SNR=4.6
      comp=Z,0.6nm,0.4s
MKAR  Makanchi Array  55.46 313 P        P        18 48 50.5 +0.4
      comp=Z,0.8nm,0.7s,baz=92,slow=9.1,SNR=8.8
      comp=Z,0.8nm,0.7s
MKAR  Makanchi Array  55.46 313 P        P        18 48 49.9 -0.3
MKAR                            PcP      PcP      18 49 49.9 -0.2
K17K  Iditarod        56.47  28 P        P        18 48 58.8 +1.8
KURK  Kurchatov       58.21 317          P        18 49 09.4 -0.1
KURK                            IAmb     IAmb     18 49 10.7
      comp=Z,3.2nm,1.0s
KURBB Kurchatov Arra  58.26 317 P        P        18 49 10.2 +0.3
      comp=Z,2.6nm,0.7s,baz=94,slow=7.7,SNR=33
      comp=Z,2.6nm,0.7s
NRIK  Noril'sk        58.51 340 P        P        18 49 10.6 -0.7
      comp=Z,3.0nm,0.6s,baz=131,slow=9.3,SNR=3.9
      comp=Z,3.0nm,0.6s
NRIK  Noril'sk        58.51 340 P        P        18 49 11.5 +0.2
NRIK                            IAmb     IAmb     18 49 15.7
      comp=Z,4.7nm,0.8s
CAST  Castle Rocks    59.38  28 P        P        18 49 18.3 +0.9
CAST                            IAmb     IAmb     18 49 19.7
      comp=Z,2.8nm,0.8s
E23K  Chandalar       61.48  23 P        P        18 49 33.0 +1.2
E23K                            IAmb     IAmb     18 49 34.8
      comp=Z,4.4nm,0.9s
ILAR  Eielson Array   61.89  27 P        P        18 49 34.0 -0.6
      comp=Z,1.3nm,0.8s,baz=260,slow=6.0,SNR=11
      comp=Z,1.3nm,0.8s
ARSB  Arslanbob       62.18 306 P        P        18 49 37.6 +0.5
ARSB                            IAmb     IAmb     18 49 40.0
      comp=Z,7.5nm,1.4s
BVAR  Borovoye Array  63.39 320 P        P        18 49 45.5 +0.8
      comp=Z,4.3nm,0.7s,baz=90,slow=7.1,SNR=18
      comp=Z,4.3nm,0.7s
BORK  Borovoye        63.43 320          P        18 49 45.1 +0.1
BORK                            IAmb     IAmb     18 49 49.1
      comp=Z,4.0nm,0.7s
F26K  Sheenjek River  63.44  24 P        P        18 49 45.8 +0.9
F26K                            IAmb     IAmb     18 49 47.9
      comp=Z,2.5nm,0.7s
KK31  Karatay Array   63.85 309          P        18 49 47.9 -0.1
KK31                            IAmb     IAmb     18 49 49.9
      comp=Z,6.0nm,1.2s
KKAR  Karatay Array   63.85 309          P        18 49 48.0  0.0
D27M  Malcolm River   64.80  22          P        18 49 53.9 +0.1
D27M                            IAmb     IAmb     18 49 56.6
      comp=Z,3.2nm,0.8s
G31M  Satah River     67.21  25 IAmb     IAmb     18 50 11.0
      comp=Z,5.5nm,0.8s
INK   Inuvik          67.47  24 P        P        18 50 10.6 -0.2
      comp=Z,1.6nm,0.8s,baz=283,slow=2.4,SNR=4.2
      comp=Z,1.6nm,0.8s
INK   Inuvik          67.47  24 P        P        18 50 11.0 +0.3
INK                             IAmb     IAmb     18 50 24.1
      comp=Z,6.8nm,1.3s
AB31  Akbulak array   70.29 316          P        18 50 28.5 -0.2
AB31                            IAmb     IAmb     18 50 29.8
      comp=Z,5.2nm,0.7s
ABKAR Akbulak array   70.29 316          P        18 50 28.5 -0.3
YKA   Yellowknife Ar  76.29  28 P        P        18 51 03.8  0.0
      comp=Z,1.9nm,0.7s,baz=275,slow=5.4,SNR=2.9
      comp=Z,1.9nm,0.7s
PINE  Pine Mountain   78.93  47 P        P        18 51 20.2 +1.0
PINE                            IAmb     IAmb     18 51 31.0
      comp=Z,6.9nm,0.9s
ARCES ARCESS Array B  79.41 342 P        P        18 51 20.5 -0.6
      comp=Z,1.0nm,0.7s,baz=78,slow=8.4,SNR=6.5
      comp=Z,1.0nm,0.7s
ARCES ARCESS Array B  79.41 342 P        P        18 51 20.8 -0.4
ARCES                           IAmb     IAmb     18 51 29.5
      comp=Z,8.8nm,1.3s
BMO   Blue Mountains  81.02  45          P        18 51 30.0 -0.4
BMO                             IAmb     IAmb     18 51 41.6
      comp=Z,5.0nm,1.1s
KBZ   Khabaz          83.13 314 P        P        18 51 42.3 +1.0
      comp=Z,7.7nm,0.8s,baz=98,slow=2.3,SNR=14
      comp=Z,7.7nm,0.8s
FINES FINESS Array B  83.75 335 P        P        18 51 43.2 -0.9
      comp=Z,0.7nm,0.5s,baz=56,slow=4.6,SNR=13
      comp=Z,0.7nm,0.5s
ELK   Elko            83.97  49 P        P        18 51 45.5 -0.6
ELK                             IAmb     IAmb     18 51 57.3
      comp=Z,3.5nm,1.1s
MPMC  Manual Prospec  84.14  54 IAmb     IAmb     18 51 55.8
      comp=Z,3.2nm,1.0s
GWY   Greenwater Val  84.70  53 P        P        18 51 49.7 -0.1
GWY                             IAmb     IAmb     18 51 59.0
      comp=Z,6.5nm,1.2s
PDAR  Pinedale Array  86.99  45 P        P        18 52 00.8 -0.2
      comp=Z,0.6nm,0.9s,baz=270,slow=1.5,SNR=4.8
      comp=Z,0.6nm,0.9s
PV18  Skein Mesa, Pa  89.47  49 P        P        18 52 12.1 -0.8
NOA   NORSAR Array B  89.47 339 P        P        18 52 10.8 -1.4
      comp=Z,0.5nm,0.8s,baz=46,slow=4.4,SNR=3.2
      comp=Z,0.5nm,0.8s
BRTR  Keskin Array B  91.10 314 P        P        18 52 19.1 -1.2
      comp=Z,0.7nm,0.9s,baz=37,slow=6.2,SNR=2.2
      comp=Z,0.7nm,0.9s
GERES GERESS Array B  97.21 330 LR       LR       19 39 36.0
      comp=Z,72nm,20.6s,baz=327,slow=37
PLCA  Paso Flores    144.98 131 PKP      PKPbc    18 58 52.1 +0.1
      comp=Z,7.2nm,1.0s,baz=204,slow=5.2,SNR=5.4
LPAZ  La Paz         149.14  86 PKPbc    PKPbc    18 59 05.7 +0.4
      comp=Z,2.2nm,0.6s,baz=253,slow=3.5,SNR=9.1
LPAZ  La Paz         149.14  86          PKPdf    18 58 58.4 -2.6
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*IDC **29** 18:49:10.9±0.7,28°.08N×104°.25E,h0^{km},mb3.9/12,mbtmp3.9/15,ML4.3/2,MS3.1/2,Error ellipse: s-maj=19.8km s-min=14.3km az=75.0*

*NEIC **29** 18:49:16.3±1.0,28°.15N±0°.04×104°.23E±0°.08,h37^{km}±7^{km},mb4.2/20,Error ellipse: s-maj=11.3km s-min=3.3km az=116.0*

ISC 29 18:49:13.9±0.5,**28°.17N**±0°.07×**104°.21E**±0°.07,**h21**^{km},**n44**,σ**1°.02**/44,**mb4.0**/20,**Sichuan**

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Code  Station Name      Δ°  AZ° Phase ID                Time   Res
                                Op       ISC      h  m  s    ISC
ENH   Enshi            5.07  64          Pn       18 50 31.5 +2.8
ENH                             Sn       Sn       18 51 25.6 -1.0
SLVN  Son La           6.81 182          Pn       18 50 53.2 +0.5
LZDM  Lanzhou Array    7.77 357 Pn       Pn       18 51 07.3 +1.1
      baz=168,slow=15
      8.6nm,0.4s
MORE  Moreh            9.72 248 Pn       Pn       18 51 34.5 +1.9
CMAR  Chiang Mai Arr  10.81 208 Pn       Pn       18 51 49.5 +2.0
      1.5nm,0.8s,baz=20,slow=11,SNR=7.9
LSA   Lhasa           11.54 281 Pn       Pn       18 51 58.8 +0.9
EVN   Everest         15.36 273          Pn       18 52 50.0  0.0
EVN                             IAmb     IAmb     18 53 03.2
      comp=Z,7.1nm,1.0s
SONM  Songino Array   19.70   4 P        Pn       18 53 43.4 -0.1
      comp=Z,0.3nm,0.3s,baz=192,slow=11,SNR=8.8
      comp=Z,1.8nm,0.7s
SONM                            AML      AML
SONM  Songino Array   19.70   4 P        P        18 53 41.0 -1.0
KSRS  Korea Array     21.93  59 P        P        18 54 06.2 +0.2
      comp=Z,1.0nm,0.6s,baz=256,slow=10,SNR=5.8
      comp=Z,1.0nm,0.6s
JNU   Nakatsue        23.44  71 P        P        18 54 22.6 +0.7
      comp=Z,4.2nm,0.8s,baz=281,slow=5.2,SNR=4.7
JNU                             LR       LR       19 02 43.5
      comp=Z,46nm,20.9s,baz=244,slow=35
      comp=Z,4.2nm,0.8s
HILR  Hailar Array B  24.45  25 P        P        18 54 31.8 +0.5
      comp=Z,1.7nm,0.4s,baz=201,slow=7.7,SNR=2.5
      comp=Z,1.7nm,0.4s
PDGK  Podgornoye      25.00 314 P        P        18 54 36.5 +0.1
MKAR  Makanchi Array  25.31 323 P        P        18 54 41.2 +2.1
      comp=Z,1.3nm,0.6s,baz=123,slow=13,SNR=12
MKAR                            LR       LR       19 05 05.0
      comp=Z,40nm,19.6s,baz=114,slow=38
      comp=Z,1.3nm,0.6s
MKAR  Makanchi Array  25.31 323 P        P        18 54 39.5 +0.5
SBUM  Sibu            26.70 162 P        P        18 54 51.3 -0.5
USRK  Ussuriysk Ar.   27.37  47 P        P        18 54 58.0 +0.4
      comp=Z,3.2nm,0.7s,baz=234,slow=9.2,SNR=6.9
      comp=Z,3.2nm,0.7s
GSI   Gunungsitoli    27.46 195 P        P        18 54 57.4 -1.3
ZAA0  Zalesovo Array  29.42 336 P        P        18 55 16.2 +0.4
ZAA0                            IAmb     IAmb     18 55 19.1
      comp=Z,4.0nm,1.4s
ZALV  Zalesovo Beam   29.42 336 P        P        18 55 15.9 +0.2
      comp=Z,1.1nm,0.7s,baz=148,slow=8.7,SNR=5.6
      comp=Z,1.1nm,0.7s
KURBB Kurchatov Arra  29.67 326 P        P        18 55 19.1 +1.0
      comp=Z,0.7nm,0.5s,baz=129,slow=9.8,SNR=14
      comp=Z,0.7nm,0.5s
KURK  Kurchatov       29.69 326 P        P        18 55 18.6 +0.4
KURK                            IAmb     IAmb     18 55 25.5
      comp=Z,5.6nm,1.4s
KK31  Karatay Array   30.94 308 P        P        18 55 27.9 -1.5
KKAR  Karatay Array   30.94 308 P        P        18 55 27.9 -1.5
YAK   Yakutsk         37.82  19 P        P        18 56 28.6  0.0
ABKAR Akbulak array   39.73 314 P        P        18 56 44.0 -0.8
TIXI  Tiksi           45.60  11 P        P        18 57 32.1 -0.1
TIXI                            IAmb     IAmb     18 57 45.5
      comp=Z,3.6nm,1.0s
PATS  Pohnpei         55.28 102 P        P        18 58 45.3 -0.8
WRA   Warramunga Arr  56.01 145 P        P        18 58 50.3 -0.9
      comp=Z,1.4nm,0.7s,baz=316,slow=12,SNR=36
      comp=Z,1.4nm,0.7s
WRA   Warramunga Arr  56.01 145 P        P        18 58 49.5 -1.7
WR8   Warramunga Arr  56.10 145 P        P        18 58 50.6 -1.2
WR8                             IAmb     IAmb     18 59 05.8
      comp=Z,3.8nm,0.9s
AS31  Alice Springs   58.95 148 P        P        18 59 11.3 -0.6
AS31                            IAmb     IAmb     18 59 27.7
      comp=Z,1.6nm,1.4s
ASAR  Alice Springs   58.96 148 P        P        18 59 11.5 -0.5
      comp=Z,1.0nm,0.5s,baz=327,slow=6.6,SNR=19
      comp=Z,1.0nm,0.5s
KEV   Kevo            59.45 337 P        P        18 59 14.8 +0.1
ARCES ARCESS Array B  59.97 337 P        P        18 59 18.6 +0.2
      comp=Z,0.8nm,0.8s,baz=94,slow=9.2,SNR=1.3
      comp=Z,0.8nm,0.8s
FINES FINESS Array B  60.06 327 P        P        18 59 19.2 +0.1
      comp=Z,0.5nm,0.5s,baz=88,slow=5.9,SNR=3.6
      comp=Z,0.5nm,0.5s
NOA   NORSAR Array B  67.18 328 P        P        19 00 07.1 +0.9
      comp=Z,0.6nm,0.9s,baz=74,slow=6.5,SNR=2.2
      comp=Z,0.6nm,0.9s
ARSA  Arzberg         69.05 313 P        P        19 00 18.1  0.0
ARSA                            IAmb     IAmb     19 00 33.2
      comp=Z,6.5nm,1.4s
D23K  Nanushuk River  69.21  22 P        P        19 00 18.9 +0.1
CLL   Collm           69.27 318 LH                19 26 00.0
MLY   Manley          70.86  26 P        P        19 00 28.4 -0.5
MLY                             IAmb     IAmb     19 00 30.8
      comp=Z,5.2nm,1.4s
PPLA  Purkeypile      71.19  28 P        P        19 00 30.7 -0.5
ACHA  Angle Creek He  71.73  33 P        P        19 00 33.8 -0.6
ACHA                            IAmb     IAmb     19 00 43.0
      comp=Z,3.7nm,1.2s
BMAR  Burnt Mountain  71.94  22 P        P        19 00 36.2 +0.7
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*MOS **29** 19:01:15.0±1.4,15°.40S×173°.97W,h1^{km},mb5.0/20,MS5.1/15,Error ellipse: s-maj=15.9km s-min=8.8km az=137.9*

*BJI **29** 19:01:16.4,15°.38S×174°.06W,h11^{km},mB5.6/6,mb5.0/8,Ms5.1/14,Ms7 4.9/14*

*GFZ **29** 19:01:17.2±0.3,15°S±6°×17°4W±°,h10^{km},M4.8/13,mb4.8/13,Error ellipse: s-maj=12.2km s-min=8.5km az=161.6,confirmed*

*IDC **29** 19:01:17.2±0.6,15°.35S×174°.09W,h0^{km},mb4.3/10,mbtmp4.2/13,ML4.8/2,MS4.8/48,Error ellipse: s-maj=30.1km s-min=14.2km az=144.0*

*NEIC **29** 19:01:18.3±1.3,15°.15S±0°.10×174°.06W±0°.08,h10^{km}±1^{km},mb4.9/93,Ms_20 5.2/414,Mww5.1/11,Error ellipse: s-maj=18.1km s-min=11.2km az=147.0*

*GCMT **29** 19:01:30.3±0.2,14°.92S±0°.01×174°.08W±0°.01,h12^{km},MW5.1/108,Moment Tensor Solution. s50,c69; s108,c160; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}2.40±.06; $M_{\theta\theta}$-1.89±.06; $M_{\phi\phi}$-0.51±.05; $M_{r\theta}$-4.19±.17; $M_{\theta\phi}$-0.89±.04; $M_{\phi r}$-1.99±.19; Best double couple: $M_0$5.20700×10^{16} NP1:ϕ_s63.00000°,δ14.00000°, λ89.00000°. NP2:ϕ_s245.00000°,δ76.00000°,λ90.00000°. Principal axes: T 5.2420, Plg59.0000°, Azm155.0000°; N -0.0770, Plg0.0000°, Azm64.0000°; P -5.1720, Plg31.0000°, Azm334.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 29 19:01:17.5±0.3,**15°.27S**±0°.06×**174°.02W**±0°.06,**h10**^{km},**n455**,σ**1°.46**/224,**mb4.9**/73,**MS5.2**/269,**6C-9D**,**Tonga Islands**

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Code  Station Name      Δ°  AZ° Phase ID                Time   Res
                                Op       ISC      h  m  s    ISC
AFI   Afiamalu         2.56  58 Pn       Pn       19 01 55.2 -3.9
      22nm,0.3s,baz=332,slow=2.5,SNR=12
      100nm,0.5s
AFI                             AML      AML
AFI   Afiamalu         2.56  58 P        Pn       19 01 56.9 -2.2
AFI   Afiamalu         2.56  58 Pn       Pn       19 01 56.9 -2.2
AFI   Afiamalu         2.56  58 P        Pn       19 01 56.4 -2.8
NIUE  Niue             5.44 135 Pn       Pn       19 02 38.0 -0.8
NIUE  Niue             5.44 135 P        Pn       19 02 39.2 +0.5
      comp=Z,148nm,1.2s
MSVF  Nonsavu          7.99 251 Pn       Pn       19 03 12.5 -1.3
      comp=Z,1.3nm,0.3s,baz=284,slow=22,SNR=6.0
      comp=Z,2.4nm,0.7s
MSVF                            AML      AML
MSVF  Nonsavu          7.99 251 P        Pn       19 03 15.9 +2.1
      comp=Z,52nm,1.5s
SANVU Saraoutou       18.11 267 Pn       Pn       19 05 25.0 -4.3
MARNC Mare, Loyalty   18.11 247          Pn       19 05 24.1 -5.2
DZM   Mont Dzumac     19.69 247 P        P        19 05 47.4 +0.2
      comp=Z,6.0nm,0.9s,baz=86,slow=13,SNR=3.1
OUZ   Omahuta         22.76 207 P        P        19 06 20.6 +0.5
      comp=Z,36nm,1.4s
PPT2  Papeete2        23.56  99 eP       P        19 06 28.7 +0.3
      comp=Z,90nm,21.8s
PPT2                            eS       S        19 10 36.5 -6.3
      comp=Z,3µm,20.2s
PPT2                            eLR      LR       19 12 09.4
      comp=Z,1µm,21.2s
PPT2                            eLR      LR       19 12 15.8
      comp=Z,1µm,21.0s
XMAS  Kiritimati      23.77  45 P        P        19 06 30.0 -0.4
      comp=Z,130nm,1.0s
TOZ   Tahuroa Road    24.22 201          P        19 06 32.8 -1.6
TOZ                             IAMs_20  IAMs_20  19 15 03.2
      comp=Z,6µm,19.0s
RTZ   Ruatahuna       24.57 197 IAMs_20  IAMs_20  19 16 51.6
      comp=Z,6µm,19.0s
HNR   Honiara         26.07 280 LR       LR       19 15 43.6
      comp=Z,2µm,18.8s,baz=214,slow=33
MRZ   Mangatainoka R  26.87 198 IAMs_20  IAMs_20  19 18 28.5
      comp=Z,6µm,19.0s
SNZO  South Karori    27.73 198 IAMs_20  IAMs_20  19 18 55.1
      comp=Z,5µm,19.0s
QRZ   Quartz Range    28.02 202 P        P        19 07 09.0 +0.2
CMWZ  Cape Campbell   28.28 199 P        P        19 07 10.0 -1.0
DSZ   Denniston Nort  29.09 202 IAMs_20  IAMs_20  19 18 46.0
      comp=Z,5µm,19.0s
RPZ   Rata Peaks      31.08 201 LR       LR       19 20 21.4
      comp=Z,738nm,18.1s,baz=50,slow=37
FOZ   Fox Glacier     31.37 203 IAMs_20  IAMs_20  19 20 05.3
      comp=Z,5µm,20.0s
LBZ   Lake Benmore    31.97 202 IAMs_20  IAMs_20  19 20 29.3
      comp=Z,5µm,20.0s
TAOE  Nuku Hiva Isla  33.70  83 eLR      LR       19 16 52.7
      comp=Z,2µm,21.3s
PATS  Pohnpei         35.13 307 IAMs_20  IAMs_20  19 20 16.8
      comp=Z,5µm,18.0s
PMG   Port Moresby    38.33 274 LR       LR       19 21 18.7
      comp=Z,2µm,19.9s,baz=70,slow=31
PMG   Port Moresby    38.33 274⇓eP       P        19 08 38.4 -0.4
PMG                             pmax     pmax
      comp=Z,37nm,1.3s
CAN   Canberra        38.63 232 P        P        19 08 40.3 -0.9
CAN                             pmax     pmax
      comp=Z,58nm,1.6s
CAN                             MLR      MLR
      comp=Z,2µm,18.0s
CAN   Canberra        38.63 232 P        P        19 08 40.3 -0.9
CAN                             IAmb     IAmb     19 09 02.0
      comp=Z,58nm,1.6s
CAN   Canberra        38.63 232 P        P        19 08 41.2 -0.1
      comp=Z,25nm,2.5s
H11N3 WAKE ISLAND Hy  39.51 331 T        T        19 51 05.5
      baz=150,slow=76,SNR=1190
H11N1 WAKE ISLAND Hy  39.51 331 T        T        19 51 09.2
      baz=150,slow=76,SNR=1151
H11N2 WAKE ISLAND Hy  39.52 331 T        T        19 51 06.8
      baz=150,slow=76,SNR=1324
CMSA  Cobar Meteorol  40.10 239 P        P        19 08 52.6 -0.9
      comp=Z,12nm,1.7s
TOO   Toolangi        42.08 230 P        P        19 09 09.0 -0.8
TOO                             pmax     pmax
      comp=Z,13nm,1.3s
TOO   Toolangi        42.08 230 P        P        19 09 09.0 -0.8
TAU   Tasmania Unive  43.01 222 IAMs_20  IAMs_20  19 25 23.0
      comp=Z,3µm,19.0s
STKA  Stephens Creek  43.58 240 P        P        19 09 22.2 +0.2
      comp=Z,6.4nm,0.9s,baz=77,slow=9.5,SNR=8.3
STKA                            LR       LR       19 26 07.7
      comp=Z,2µm,20.0s,baz=84,slow=34
      comp=Z,6.4nm,0.9s
STKA  Stephens Creek  43.58 240 P        P        19 09 21.7 -0.3
      comp=Z,56nm,1.7s
QIS   Mount Isa       44.32 256 P        P        19 09 27.9 -0.2
      comp=Z,7.2nm,1.7s
JAY   Jayapura        46.37 281 LR       LR       19 27 27.0
      comp=Z,944nm,19.9s,baz=132,slow=34
BBOO  Buckleboo       48.36 240 P        P        19 09 59.3 -0.4
WR8   Warramunga Arr  49.14 257          P        19 10 04.5 -1.3
WB0   Warramunga Arr  49.25 257          P        19 10 05.4 -1.3
WB0                             PcP      PcP      19 11 29.4 -0.3
WRAB  Tennant Creek   49.28 257 P        P        19 10 06.0 -1.0
      comp=Z,16nm,2.3s
WRA   Warramunga Arr  49.29 257 P        P        19 10 07.5 +0.5
      comp=Z,2.1nm,0.9s,baz=92,slow=8.8,SNR=11
      comp=Z,2.1nm,0.9s
WRA   Warramunga Arr  49.29 257          P        19 10 05.4 -1.6
AS31  Alice Springs   49.58 252          P        19 10 08.7 -0.5
ASAR  Alice Springs   49.58 252 P        P        19 10 09.4 +0.2
      comp=Z,13nm,0.9s,baz=85,slow=8.1,SNR=29
ASAR                            LR       LR       19 30 34.6
      comp=Z,2µm,20.4s,baz=78,slow=36
      comp=Z,13nm,0.9s
ASAR  Alice Springs   49.58 252          P        19 10 08.8 -0.4
ASAR                            PcP      PcP      19 11 27.5 -3.4
GUMO  Guam            49.76 303 LR       LR       19 29 42.4
      comp=Z,1µm,18.7s,baz=182,slow=34
GUMO  Guam            49.76 303 P        P        19 10 08.6 -2.0
      comp=Z,123nm,1.2s
FITZ  Fitzroy Crossi  57.65 258 LR       LR       19 35 00.1
      comp=Z,2µm,20.5s,baz=96,slow=35
FITZ  Fitzroy Crossi  57.65 258          P        19 11 07.5 -0.9
FITZ  Fitzroy Crossi  57.65 258 P        P        19 11 09.9 +1.5
      comp=Z,3.1nm,1.9s
SOEI  Soe             60.33 267 P        P        19 11 25.8 -1.6
SOEI  Soe             60.33 267 P        P        19 11 26.7 -0.6
      comp=Z,28nm,1.2s
MBWA  Marble Bar      62.82 254 P        P        19 11 44.1 +0.2
      comp=Z,17nm,1.6s
SBA   Scott Base      63.33 184 P        P        19 11 47.7 +1.4
SBA                             pmax     pmax
      comp=Z,35nm,2.0s
SBA   Scott Base      63.33 184 P        P        19 11 47.7 +1.4
SBA   Scott Base      63.33 184 P        P        19 11 48.3 +2.0
VNDA  Vanda           63.44 186 P        P        19 11 49.4 +2.3
      comp=Z,1.0nm,1.0s,baz=358,slow=4.9,SNR=4.5
VNDA                            LR       LR       19 36 42.1
      comp=Z,534nm,19.6s,baz=12,slow=34
      comp=Z,1.0nm,1.0s
VNDA  Vanda           63.44 186 P        P        19 11 47.7 +0.6
VNDA                            IAmb     IAmb     19 12 21.3
      comp=Z,13nm,1.7s
VNDA  Vanda           63.44 186 P        P        19 11 48.8 +1.8
      comp=Z,3.1nm,2.1s
DAV   Davao City (W)  63.82 286 LR       LR       19 38 53.6
      comp=Z,932nm,18.1s,baz=119,slow=35
JHJ   Hachijo jima 2  65.27 318 LR       LR       19 36 37.3
      comp=Z,295nm,20.5s,baz=185,slow=32
KAPI  Kappang         65.77 271 LR       LR       19 42 01.2
      comp=Z,211nm,18.3s,baz=110,slow=37
ADK   Adak            66.91 358 IAMs_20  IAMs_20  19 36 23.5
      comp=Z,1µm,21.0s
MJAR  Matsushiro Arr  68.45 320 LR       LR       19 37 43.0
      comp=Z,853nm,21.8s,baz=127,slow=32
SHEM  Shemya Is, Ala  68.49 352 LR       LR       19 37 10.0
      comp=Z,2µm,21.1s,baz=134,slow=31
JOW   Kunigami        69.92 306 LR       LR       19 38 14.5
      comp=Z,823nm,21.1s,baz=44,slow=32
ASAJ  Asahikawa       71.12 328 LR       LR       19 39 14.7
      comp=Z,655nm,21.8s,baz=108,slow=32
JNU   Nakatsue        71.27 313 LR       LR       19 39 48.4
      comp=Z,454nm,19.7s,baz=104,slow=32
PET   Petropavlovsk   71.98 343 eP       P        19 12 46.0 +4.9
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PET				*e*S	S	19 22 09.3	+7.0
PET				*e*		19 22 54.1	
PET				pmax	pmax		
	comp=Z,100nm,7.0s						
PET				MLR	MLR		
	comp=Z,800nm,16.0s						
PET				MLR	MLR		
	comp=Z,600nm,16.0s						
OSI	Osito Audit: C	72.23	45	IAMs_20	IAMs_20	19 37 34.6	
	comp=Z,1µm,20.0s						
SPIA	Saint Paul Isl	72.24	2	IAMs_20	IAMs_20	19 39 44.7	
	comp=Z,1µm,20.0s						
PETK	Petropavlovsk-	72.33	343	LR	LR	19 42 40.1	
	comp=Z,315nm,18.9s,baz=164,slow=34						
BFSC	Mount Baldy Ra	72.77	46	IAMs_20	IAMs_20	19 38 01.7	
	comp=Z,2µm,20.0s						
ISA	Isabella, Lake	72.98	45	P	P	19 12 47.6	0.0
ISA				pmax	pmax		
	comp=Z,11nm,1.3s						
ISA				MLR	MLR		
	comp=Z,1µm,21.0s						
ISA	Isabella, Lake	72.98	45	P	P	19 12 47.6	0.0
ISA				IAmb	IAmb	19 13 11.4	
	comp=Z,11nm,1.2s						
ISA				IAMs_20	IAMs_20	19 38 10.3	
	comp=Z,1µm,21.0s						
CMB	Columbia Colle	73.07	42	P	P	19 12 47.4	-0.6
CMB				pmax	pmax		
	comp=Z,17nm,1.7s						
CMB	Columbia Colle	73.07	42	P	P	19 12 47.4	-0.6
CMB				IAmb	IAmb	19 13 15.1	
	comp=Z,17nm,1.7s						
YSS	Yuzhno-Sakhali	73.08	331	*e*P	P	19 12 50.3	+2.5
YSS				*e*S	S	19 22 16.5	+1.3
YSS				pmax	pmax		
	comp=Z,20nm,1.1s						
YSS	Yuzhno-Sakhali	73.08	331	P	P	19 12 46.7	-1.1
AFDM	Forest Hills D	73.23	41		P	19 12 48.9	-0.1
AFDM				IAmb	IAmb	19 13 13.7	
	comp=Z,13nm,1.5s						
PFO	Pinyon Flats O	73.28	47	LR	LR	19 38 38.1	
	comp=Z,2µm,21.1s,baz=248,slow=30						
LRMC	Laurel Mtn Rad	73.42	45	IAMs_20	IAMs_20	19 38 24.0	
	comp=Z,1µm,21.0s						
O03E	Paynes Creek	73.52	39		P	19 12 50.8	+0.1
O03E				IAmb	IAmb	19 13 10.8	
	comp=Z,32nm,1.6s						
CLC	China Lake	73.66	45	P	P	19 12 51.3	-0.3
CLC				pmax	pmax		
	comp=Z,7.0nm,1.4s						
CLC	China Lake	73.66	45	P	P	19 12 51.2	-0.3
CCCA	Chr Cany lake	73.66	45	P	P	19 12 51.6	0.0
CWC	Cottonwood Cre	73.68	44	P	P	19 12 52.3	+0.5
CWC				IAMs_20	IAMs_20	19 38 09.7	
	comp=Z,1µm,21.0s						
MDPB	Devils Postpil	73.68	43	P	P	19 12 51.9	-0.1
MDPB				IAmb	IAmb	19 13 25.7	
	comp=Z,5.2nm,0.3s						
BELC	Belle Mtn. Jos	73.81	47	P	P	19 12 52.4	-0.2
BELC				IAmb	IAmb	19 13 42.1	
	comp=Z,25nm,1.9s						
YBH	Yreka Blue Hor	73.86	37	LR	LR	19 39 13.7	
	comp=Z,832nm,21.7s,baz=231,slow=31						
MPMC	Manual Prospec	73.87	45		P	19 12 53.2	+0.2
GSC	Goldstone, Bar	73.93	46	P	P	19 12 53.6	+0.4
GSC				pmax	pmax		
	comp=Z,7.0nm,1.3s						
GSC	Goldstone, Bar	73.93	46	P	P	19 12 53.6	+0.4
WAKR	Walker	73.95	42	P	P	19 12 53.8	+0.4
WAKR				IAmb	IAmb	19 13 13.9	
	comp=Z,26nm,1.7s						
BC3	Big Chuckawall	74.01	48	IAMs_20	IAMs_20	19 38 17.9	
	comp=Z,1µm,20.0s						
BEKR	Beckworth	74.16	40	P	P	19 12 54.7	+0.1
BEKR				IAmb	IAmb	19 13 14.8	
	comp=Z,21nm,1.7s						
PNTR	Pine Nut	74.18	41	P	P	19 12 55.9	+1.1
PNTR				IAmb	IAmb	19 13 14.9	
	comp=Z,11nm,1.1s						
QSM	Queen of Sheba	74.24	45		P	19 12 55.9	+1.0
YERR	Yerington	74.35	41	P	P	19 12 56.1	+0.4
LHV	Little Huntoon	74.41	42	P	P	19 12 56.1	+0.4
LHV				IAmb	IAmb	19 13 23.8	
	comp=Z,13nm,1.2s						
GRAC	Grapevine Rang	74.46	44	P	P	19 12 57.1	+0.9
GRAC				IAmb	IAmb	19 13 20.7	
	comp=Z,13nm,1.3s						
IRM	Iron Mountain	74.49	47	P	P	19 12 56.6	+0.1
IRM				IAmb	IAmb	19 13 16.0	
	comp=Z,16nm,1.5s						
FURC	Furnace Creek,	74.51	45	IAMs_20	IAMs_20	19 39 09.9	
	comp=Z,1µm,20.0s						
BBOR	Butler Butte	74.60	37	P	P	19 12 57.7	+0.6
NVAR	Mina Array Bea	74.64	42	P	P	19 12 59.9	+2.4
	comp=Z,2.1nm,0.9s,baz=230,slow=8.9,SNR=9.7						
NVAR				LR	LR	19 39 29.0	
	comp=Z,922nm,21.6s,baz=258,slow=31						
	comp=Z,2.1nm,0.9s						
GMN	Gold Mountain	74.70	44	P	P	19 12 58.0	+0.2
QSPA	South Pole Qui	74.77	180	P	P	19 12 58.7	+1.0
	comp=Z,7.7nm,1.0s,baz=24,slow=2.7,SNR=9.2						
QSPA				LR	LR	19 43 58.2	
	comp=Z,762nm,19.3s,baz=44,slow=34						
	comp=Z,7.7nm,1.0s						
QSPA	South Pole Qui	74.77	180	P	P	19 12 59.1	+1.4
QSPA				IAmb	IAmb	19 13 03.6	
	comp=Z,15nm,1.1s						
113A	Mohawk Valley,	74.79	49	P	P	19 12 58.4	+0.3
113A				IAmb	IAmb	19 13 18.5	
	comp=Z,20nm,1.9s						
KDAK	Kodiak Island	74.92	12	LR	LR	19 40 02.5	
	comp=Z,1µm,21.2s,baz=228,slow=31						
O15K	Ungalikthiuk R	75.08	8	P	P	19 12 59.1	-0.2
O15K				IAMs_20	IAMs_20	19 40 57.5	
	comp=Z,1µm,20.0s						
KVN	Kaiserville	75.12	42	P	P	19 13 00.3	+0.1
KVN				pmax	pmax		
	comp=Z,7.0nm,1.3s						
KVN	Kaiserville	75.12	42		P	19 13 00.3	+0.1
TPH	Tonopah	75.15	43	P	P	19 13 00.3	-0.1
TPH				pmax	pmax		
	comp=Z,7.0nm,1.0s						
TPH	Tonopah	75.15	43	P	P	19 13 00.3	-0.1
TPNV	Topopah Spring	75.19	45	P	P	19 13 00.6	0.0
TPNV				pmax	pmax		
	comp=Z,22nm,1.8s						
TPNV				MLR	MLR		
	comp=Z,2µm,22.0s						
TPNV	Topopah Spring	75.19	45	P	P	19 13 00.6	0.0
TPNV				IAmb	IAmb	19 13 25.8	
	comp=Z,22nm,1.8s						
TPNV				IAMs_20	IAMs_20	19 39 31.7	
	comp=Z,1µm,22.0s						
P16K	Nushagak River	75.19	8	IAMs_20	IAMs_20	19 40 17.3	
	comp=Z,1µm,20.0s						
MOD	Modoc Plateau	75.39	38	P	P	19 13 02.2	+0.6
MOD				IAmb	IAmb	19 13 25.5	
	comp=Z,14nm,1.6s						
K05A	Summer Lake	75.54	38	P	P	19 13 02.1	-0.4
K05A				IAmb	IAmb	19 13 34.6	
	comp=Z,28nm,1.5s						
KSRS	Korea Array	75.65	316	LR	LR	19 44 11.9	
	comp=Z,487nm,19.1s,baz=120,slow=34						
O16K	Kokwok River B	75.72	8	IAMs_20	IAMs_20	19 41 26.3	
	comp=Z,1µm,20.0s						
Q19K	Cape Douglas,	75.79	11	IAMs_20	IAMs_20	19 41 16.1	
	comp=Z,1µm,20.0s						
W13A	Hualapai Mount	75.86	47	P	P	19 13 03.3	-1.3
W13A				IAmb	IAmb	19 13 29.8	
	comp=Z,18nm,1.9s						
M14K	Bethel	76.38	6		P	19 13 06.2	-0.4
O18K	Koktuh Hills	76.40	10	IAMs_20	IAMs_20	19 41 26.1	
	comp=Z,1µm,20.0s						
WVOR	Wild Horse Val	76.71	39	IAMs_20	IAMs_20	19 41 05.4	
	comp=Z,1µm,20.0s						
N17K	Nushagak Hills	76.74	8	IAMs_20	IAMs_20	19 41 48.4	
	comp=Z,1µm,20.0s						
TUC	Tucson	76.78	51	P	P	19 13 09.0	-0.7
TUC				pmax	pmax		
	comp=Z,14nm,1.5s						
TUC				MLR	MLR		
	comp=Z,1µm,20.0s						
TUC	Tucson	76.78	51	P	P	19 13 09.0	-0.7
TUC				IAmb	IAmb	19 13 33.5	
	comp=Z,14nm,1.5s						
TUC	Tucson	76.78	51	IAMs_20	IAMs_20	19 39 53.3	
	comp=Z,1µm,20.0s						
CNPM	China Poot	76.80	12	IAMs_20	IAMs_20	19 41 12.8	
	comp=Z,1µm,21.0s						
O19K	Port Alsworth	76.87	10	P	P	19 13 08.6	-0.8
O19K				IAmb	IAmb	19 13 16.4	
	comp=Z,23nm,1.2s						
O19K				IAMs_20	IAMs_20	19 41 58.5	
	comp=Z,1µm,20.0s						
ILSW	Iliamna Southw	76.87	11	P	P	19 13 08.2	-1.4
USRK	Ussuriysk Ar.	76.92	323	LR	LR	19 42 14.9	
	comp=Z,1µm,21.1s,baz=134,slow=32						
STD	Studebaker Rid	76.95	34	P	P	19 13 09.8	-0.6
STD				IAmb	IAmb	19 14 57.8	
	comp=Z,9.6nm,0.8s						
N18K	Kilae Creek	77.08	9	IAMs_20	IAMs_20	19 42 07.4	
	comp=Z,967nm,20.0s						
BRLK	Bradley Lake	77.09	12	IAMs_20	IAMs_20	19 42 04.1	
	comp=Z,1µm,21.0s						
X16A	Lo Mia Camp, P	77.28	49	P	P	19 13 12.8	+0.2
X16A				IAmb	IAmb	19 13 33.4	
	comp=Z,24nm,1.9s						
N19K	Bonanza Creek	77.43	10	IAMs_20	IAMs_20	19 41 57.2	
	comp=Z,1µm,21.0s						
M17K	Holitna River	77.55	8	IAMs_20	IAMs_20	19 42 33.7	
	comp=Z,1µm,20.0s						
L16K	Owhat River	77.59	7	IAMs_20	IAMs_20	19 42 04.7	
	comp=Z,1µm,20.0s						
SEW	Seward	77.69	12	IAMs_20	IAMs_20	19 44 21.4	
	comp=Z,928nm,20.0s						
ELK	Elko	77.89	42	LR	LR	19 41 38.5	
	comp=Z,722nm,20.8s,baz=236,slow=31						
ELK	Elko	77.89	42	P	P	19 13 16.7	+0.8
ELK				pmax	pmax		
	comp=Z,10.0nm,1.5s						
ELK	Elko	77.89	42		P	19 13 16.7	+0.8
SLKM	Skilak Lake	77.91	12	IAMs_20	IAMs_20	19 41 36.2	
	comp=Z,958nm,20.0s						
BBB	Bella Bella	78.04	27	LR	LR	19 41 07.4	
	comp=Z,950nm,21.2s,baz=236,slow=31						
J14K	Nanvaranak Lak	78.20	5	IAMs_20	IAMs_20	19 43 29.6	
	comp=Z,920nm,20.0s						
L18K	Granite Mounta	78.44	8	P	P	19 13 18.1	-0.1
RC01	Rabbit Creek A	78.54	12	IAMs_20	IAMs_20	19 43 08.7	
	comp=Z,868nm,20.0s						
MDJ	Mudanjiang	78.56	323	IAMs_20	IAMs_20	19 42 43.2	
	comp=Z,1µm,21.0s						
HIN	Hinchinbrook I	78.59	14	IAMs_20	IAMs_20	19 41 27.1	
	comp=Z,1µm,20.0s						
PWL	Port Wells	78.61	12	IAMs_20	IAMs_20	19 41 28.7	
	comp=Z,985nm,21.0s						
M20K	Styx River	78.66	10	IAMs_20	IAMs_20	19 42 57.8	
	comp=Z,1µm,21.0s						
K17K	Iditarod	78.71	7	IAMs_20	IAMs_20	19 43 21.2	
	comp=Z,1µm,21.0s						
GAMB	Gambell	78.82	1	IAMs_20	IAMs_20	19 43 47.5	
	comp=Z,979nm,20.0s						
BMO	Blue Mountains	78.89	37	IAMs_20	IAMs_20	19 41 52.9	
	comp=Z,795nm,18.0s						
GLI	Glacier Island	78.89	13	IAMs_20	IAMs_20	19 42 30.1	
	comp=Z,1µm,20.0s						
EYAK	Cordova Ski Ar	78.90	14	IAMs_20	IAMs_20	19 42 05.3	
	comp=Z,1µm,20.0s						
J16K	Anvik River	79.00	6	P	P	19 13 20.6	-0.6
J16K				IAmb	IAmb	19 13 46.3	
	comp=Z,21nm,1.1s						
RAGM	Ragged Mountai	79.01	14	IAMs_20	IAMs_20	19 41 15.2	
	comp=Z,1µm,21.0s						
SKT	Skwentna	79.03	11	IAMs_20	IAMs_20	19 43 20.5	
	comp=Z,1µm,20.0s						
M22K	Willow	79.07	11	IAMs_20	IAMs_20	19 42 38.9	
	comp=Z,1µm,21.0s						
KNK	Knik Glacier	79.09	12	IAMs_20	IAMs_20	19 42 30.4	
	comp=Z,1µm,21.0s						
DUG	Dugway, Tooele	79.18	43	IAMs_20	IAMs_20	19 41 27.2	
	comp=Z,944nm,21.0s						
BERG	Berg Lake	79.25	15	IAMs_20	IAMs_20	19 41 19.6	
	comp=Z,1µm,21.0s						
J17K	VABM Dome	79.27	7	IAMs_20	IAMs_20	19 43 49.2	
	comp=Z,1µm,20.0s						
DIV	Divide	79.41	14	IAMs_20	IAMs_20	19 42 54.7	
	comp=Z,953nm,20.0s						
BMRM	Bremner River	79.54	14	IAMs_20	IAMs_20	19 42 36.1	
	comp=Z,951nm,20.0s						
NJ2	Nanjing	79.61	307	*e*P	P	19 13 26.0	+0.8
NJ2				pmax	pmax		
	comp=Z,8.0nm,0.5s						
NJ2				L	L		
	comp=Z,390nm,20.8s						
NJ2				L	L		
	comp=Z,310nm,20.8s						
NJ2				L	L		
	comp=Z,400nm,19.6s						
J18K	Innoko River	79.63	8	IAMs_20	IAMs_20	19 43 47.7	
	comp=Z,1µm,20.0s						
KLU	Klutina	79.70	13	IAMs_20	IAMs_20	19 42 44.4	
	comp=Z,1µm,20.0s						
PPLA	Purkeypile	79.77	10	IAMs_20	IAMs_20	19 43 32.8	
	comp=Z,1µm,20.0s						
TGL	Tana Glacier	79.78	15	IAMs_20	IAMs_20	19 45 04.6	
	comp=Z,1µm,20.0s						
PLID	Pearl Lake	79.79	38	IAMs_20	IAMs_20	19 43 05.7	
	comp=Z,1µm,20.0s						
EPT	El Paso	79.79	53	IAMs_20	IAMs_20	19 43 46.4	
	comp=Z,989nm,19.0s						
TMUT	Trail Mountain	79.80	45	P	P	19 13 26.1	-0.4
MA2	Magadan	79.86	343	LR	LR	19 46 47.5	
	comp=Z,483nm,19.4s,baz=156,slow=34						
GRNC	Granite Creek	80.03	15	IAMs_20	IAMs_20	19 41 58.3	
	comp=Z,1µm,21.0s						
VRDI	Verde Repeater	80.04	14	IAMs_20	IAMs_20	19 43 03.4	
	comp=Z,866nm,19.0s						
KLR	Kul'dur	80.08	327	LR	LR	19 44 12.4	
	comp=Z,464nm,21.9s,baz=130,slow=32						
CAST	Castle Rocks	80.27	10	IAMs_20	IAMs_20	19 44 18.4	
	comp=Z,1µm,20.0s						
LOGN	Logan Glacier	80.31	16	IAMs_20	IAMs_20	19 43 00.6	
	comp=Z,1µm,22.0s						
BARN	Barnard Glacie	80.34	15	IAMs_20	IAMs_20	19 42 17.4	
	comp=Z,1µm,20.0s						
O28M	Mount Upton	80.48	16	IAMs_20	IAMs_20	19 42 12.1	
	comp=Z,1µm,21.0s						
KTH	Kantishna Hill	80.59	10	IAMs_20	IAMs_20	19 43 47.8	
	comp=Z,1µm,20.0s						
DL2	Dalian	80.66	315	P	P	19 13 38.0	+7.2
J20K	Nowinta River	80.67	9		P	19 13 29.9	-0.3
J20K				IAmb	IAmb	19 13 50.4	
	comp=Z,27nm,1.5s						
J20K				IAMs_20	IAMs_20	19 44 19.1	
	comp=Z,843nm,20.0s						
HWUT	Hardware Ranch	80.70	42	IAMs_20	IAMs_20	19 43 08.6	
	comp=Z,1µm,21.0s						
RND	Reindeer	80.83	11	P	P	19 13 31.9	+0.6
RND				pmax	pmax		
	comp=Z,34nm,1.4s						
RND				MLR	MLR		
	comp=Z,2µm,20.0s						
RND	Reindeer	80.83	11	P	P	19 13 31.9	+0.6
RND				IAmb	IAmb	19 13 55.6	
	comp=Z,34nm,1.4s						
NEW	Newport	80.94	35	LR	LR	19 43 06.6	
	comp=Z,652nm,20.7s,baz=220,slow=31						
TXAR	Lajitas Array	81.04	56	P	P	19 13 35.7	+2.5
	comp=Z,2.8nm,1.2s,baz=235,slow=4.1,SNR=8.8						
	comp=Z,2.8nm,1.2s						
TXAR	Lajitas Array	81.04	56	P	P	19 13 33.8	+0.6
H18K	Honhosa River	81.06	7	IAMs_20	IAMs_20	19 44 45.3	
	comp=Z,998nm,21.0s						
MCK	McKinley	81.11	11	P	P	19 13 33.1	+0.4
MCK				pmax	pmax		
	comp=Z,25nm,1.3s						
MCK				MLR	MLR		
	comp=Z,2µm,22.0s						
MCK	McKinley	81.11	11	P	P	19 13 33.1	+0.4
MCK				IAmb	IAmb	19 13 52.0	
	comp=Z,25nm,1.3s						
PAX	Paxson	81.11	13	IAMs_20	IAMs_20	19 43 19.7	
	comp=Z,985nm,21.0s						
M26K	Nabesna, AK	81.17	14		P	19 13 33.1	0.0
M26K				IAmb	IAmb	19 13 52.9	
	comp=Z,24nm,1.4s						
M26K				IAMs_20	IAMs_20	19 43 00.2	
	comp=Z,847nm,20.0s						
TASM	ASL Pad, Albuq	81.18	50	IAMs_20	IAMs_20	19 42 44.8	
	comp=Z,1µm,20.0s						
TASM	ASL Pad, Albuq	81.18	50	IAMs_20	IAMs_20	19 42 44.8	
	comp=Z,1µm,20.0s						
TASM	ASL Pad, Albuq	81.18	50	IAMs_20	IAMs_20	19 42 44.8	
	comp=Z,1µm,20.0s						
TASM	ASL Pad, Albuq	81.18	50	IAMs_20	IAMs_20	19 42 44.7	
	comp=Z,1µm,20.0s						
ABQ	Albuquerque	81.18	50	IAMs_20	IAMs_20	19 42 44.9	
	comp=Z,1µm,20.0s						
ALQ	Albuquerque	81.18	50	P	P	19 13 34.3	+0.4
ALQ				IAmb	IAmb	19 13 59.1	
	comp=Z,19nm,1.8s						
ALQ				IAMs_20	IAMs_20	19 42 44.8	
	comp=Z,1µm,20.0s						
ALQ	Albuquerque	81.18	50	P	P	19 13 33.8	-0.1
ALQ				IAmb	IAmb	19 13 59.1	
	comp=Z,19nm,1.8s						
ALQ				IAMs_20	IAMs_20	19 42 44.8	
	comp=Z,1µm,20.0s						
ANMO	Albuquerque	81.18	50	LR	LR	19 42 56.6	
	comp=Z,1µm,21.5s,baz=230,slow=31						
ANMO	Albuquerque	81.18	50	⇑*e*P	P	19 13 35.9	+2.0
ANMO				pmax	pmax		
	comp=Z,15nm,2.0s						
ANMO	Albuquerque	81.18	50	IAMs_20	IAMs_20	19 42 44.9	
	comp=Z,1µm,20.0s						
I20K	Naaghedeneel	81.20	8	IAMs_20	IAMs_20	19 44 46.3	
	comp=Z,1µm,20.0s						
TLIG	Tlapa	81.22	69	P	P	19 13 34.4	+0.1
K24K	Donnelly Dome	81.79	12	IAMs_20	IAMs_20	19 44 13.7	
	comp=Z,1µm,20.0s						
DLBC	Dease Lake	81.80	22	LR	LR	19 43 12.9	
	comp=Z,794nm,21.3s,baz=216,slow=31						
RIDG	Independent Ri	81.93	13	IAMs_20	IAMs_20	19 43 56.2	
	comp=Z,1µm,20.0s						
MSO	Missoula	81.94	37	IAMs_20	IAMs_20	19 43 15.6	
	comp=Z,882nm,21.0s						
WRH	Wood River Hil	81.94	11	P	P	19 13 36.2	-0.8
WRH				IAmb	IAmb	19 14 00.0	
	comp=Z,17nm,1.1s						
WRH				IAMs_20	IAMs_20	19 44 50.6	
	comp=Z,1µm,20.0s						
MLY	Manley	81.99	10	IAmb	IAmb	19 13 55.6	
	comp=Z,13nm,1.4s						
BCAR	Beaver Creek A	82.03	14	P	P	19 13 37.9	+0.3
CCB	Clear Creek Bu	82.15	11	P	P	19 13 38.2	+0.1
CCB				IAMs_20	IAMs_20	19 44 57.2	
	comp=Z,1µm,21.0s						
R33M	Jennings River	82.19	21	IAMs_20	IAMs_20	19 43 34.6	
	comp=Z,1µm,21.0s						
SEY	Seymchan	82.24	345	⇓*e*P	P	19 13 40.7	+2.1
SEY				pmax	pmax		
	comp=Z,12nm,1.5s						
H21K	Melozitna Rive	82.26	9	IAMs_20	IAMs_20	19 45 31.2	
	comp=Z,814nm,20.0s						
QIZ	Qiongzhong	82.30	292	P	P	19 13 40.3	+0.4
QIZ				S	S	19 23 55.8	-0.4
QIZ				L	L		
	comp=Z,170nm,8.8s						
QIZ				L	L		
	comp=Z,160nm,14.1s						
QIZ				L	L		
	comp=Z,260nm,13.7s						
SCRK	Sand Creek	82.32	13		P	19 13 39.1	-0.1
SCRK				IAmb	IAmb	19 14 16.2	
	comp=Z,25nm,1.8s						
SCRK				IAMs_20	IAMs_20	19 44 08.5	
	comp=Z,888nm,21.0s						
I23K	Minto, Yukon-K	82.33	10	IAMs_20	IAMs_20	19 45 24.9	
	comp=Z,1µm,20.0s						
M29M	Somme Creek	82.33	16	IAMs_20	IAMs_20	19 43 45.1	
	comp=Z,1µm,21.0s						
COLA	College	82.35	11	⇓*e*P	P	19 13 41.5	+2.4
COLA				pmax	pmax		
	comp=Z,23nm,1.6s						
ILAR	Eielson Array	82.44	11	P	P	19 13 41.7	+2.1
	comp=Z,3.3nm,1.2s,baz=217,slow=5.9,SNR=10						
ILAR				LR	LR	19 44 00.5	
	comp=Z,540nm,22.0s,baz=215,slow=31						
	comp=Z,3.3nm,1.2s						
ILAR	Eielson Array	82.44	11	P	P	19 13 39.0	-0.6
BW06	Boulder Array	82.57	42	IAMs_20	IAMs_20	19 44 19.0	
	comp=Z,878nm,20.0s						
PDAR	Pinedale Array	82.57	42	LR	LR	19 44 40.9	
	comp=Z,507nm,20.9s,baz=228,slow=32						
J25K	Salcha River,	82.59	12	P	P	19 13 39.6	-0.9
J25K				IAmb	IAmb	19 14 00.2	
	comp=Z,28nm,1.6s						
BOZ	Bozeman (W)	82.67	39	IAMs_20	IAMs_20	19 43 56.1	
	comp=Z,932nm,22.0s						
H22K	Ishtalitna Cre	82.69	9	IAMs_20	IAMs_20	19 45 33.8	
	comp=Z,916nm,20.0s						
F19K	Shaleruckik Mo	82.75	6	IAMs_20	IAMs_20	19 47 52.0	
	comp=Z,796nm,20.0s						
K27K	Chicken	82.79	14	IAMs_20	IAMs_20	19 44 52.5	
	comp=Z,812nm,20.0s						
G21K	Allakaket	82.97	8	IAMs_20	IAMs_20	19 45 30.9	
	comp=Z,878nm,20.0s						
L29M	L29M	82.97	16	IAMs_20	IAMs_20	19 44 46.9	
	comp=Z,1µm,21.0s						
SDCO	Great Sand Dun	83.08	48	IAMs_20	IAMs_20	19 44 29.8	
	comp=Z,901nm,20.0s						
PRP	Porcupine Dome	83.37	12	P	P	19 13 43.9	-0.7
RDOG	Red Dog Mine	83.49	4	IAMs_20	IAMs_20	19 46 50.3	
	comp=Z,808nm,20.0s						
K29M	Barlow Dome	83.73	15		P	19 13 47.1	+0.6
K29M				IAMs_20	IAMs_20	19 44 05.0	
	comp=Z,892nm,21.0s						
833A	Chaparral WMA,	84.15	59	P	P	19 13 48.1	-1.1
833A				IAmb	IAmb	19 13 49.3	
	comp=Z,15nm,1.4s						
I27K	Kandik River	84.24	13	IAMs_20	IAMs_20	19 45 49.4	
	comp=Z,939nm,21.0s						
BILL	Bilibino	84.31	353	⇓*e*P	P	19 13 50.5	+1.3
BILL				pmax	pmax		
	comp=Z,14nm,1.5s						
BILL	Bilibino	84.31	353	IAMs_20	IAMs_20	19 46 39.4	
	comp=Z,1µm,20.0s						
I28M	Miner Creek	84.48	14	IAMs_20	IAMs_20	19 45 57.8	
	comp=Z,945nm,21.0s						
J30M	Hart River	84.63	15	IAMs_20	IAMs_20	19 48 20.8	
	comp=Z,1µm,20.0s						
F24K	Squaw Lake	84.74	10	IAMs_20	IAMs_20	19 46 30.7	
	comp=Z,1µm,21.0s						
E23K	Chandalar	84.97	9		P	19 13 52.8	+0.2
E23K				IAmb	IAmb	19 14 18.1	
	comp=Z,6.3nm,1.1s						
EGMT	Eagleton	84.99	37	IAMs_20	IAMs_20	19 45 16.4	
	comp=Z,893nm,20.0s						
I30M	Mount Dempster	85.14	15	IAmb	IAmb	19 14 12.5	
	comp=Z,17nm,1.4s						
I30M				IAMs_20	IAMs_20	19 45 13.3	
	comp=Z,867nm,20.0s						
BMAR	Burnt Mountain	85.24	11	P	P	19 13 54.1	+0.1
ABTX	Abilene, Hawle	85.48	55	IAMs_20	IAMs_20	19 45 42.1	
	comp=Z,1µm,20.0s						
H29M	Whitestone	85.48	14	IAmb	IAmb	19 14 14.1	
	comp=Z,22nm,1.5s						
H29M				IAMs_20	IAMs_20	19 46 29.3	
	comp=Z,1µm,22.0s						
LYN	LuoYang	85.51	307	P	P	19 13 54.8	-1.2
LYN				SS	SS	19 30 04.3	+0.5
LYN				pmax	pmax		
	comp=Z,27nm,0.5s						
LYN				pmax	pmax		
	comp=Z,410nm,5.5s						
LYN				L	L		
	comp=Z,600nm,17.9s						
LYN				L	L		
	comp=Z,970nm,19.2s						
LYN				L	L		
	comp=Z,2µm,18.6s						
H03S2	Juan Fernandez	85.77	124	T	T	20 48 55.5	
	baz=251,slow=75,SNR=9.3						
H03S1	Juan Fernandez	85.79	124	T	T	20 48 44.3	
	baz=251,slow=75,SNR=8.7						
H03S3	Juan Fernandez	85.79	124	T	T	20 48 48.0	
	baz=251,slow=75,SNR=6.8						
H31M	Peel River	86.12	15	IAMs_20	IAMs_20	19 49 08.2	
	comp=Z,1µm,20.0s						
G29M	Pine Creek	86.14	13	IAMs_20	IAMs_20	19 46 17.5	
	comp=Z,976nm,20.0s						
F28M	Old Crow	86.32	12	IAMs_20	IAMs_20	19 46 54.5	
	comp=Z,882nm,20.0s						
HIA	Hailar	86.73	323	IAMs_20	IAMs_20	19 48 50.7	
	comp=Z,890nm,20.0s						
RSSD	Black Hills	86.77	43	IAMs_20	IAMs_20	19 48 59.2	
	comp=Z,745nm,20.0s						
WHTX	Lake Whitney,	86.99	56	IAMs_20	IAMs_20	19 46 59.2	
	comp=Z,836nm,20.0s						
G31M	Satah River	87.02	15	P	P	19 14 03.1	+0.4
F30M	Barrier River	87.21	14	IAMs_20	IAMs_20	19 46 39.0	

	comp=Z,804nm,21.0s						
E29M	Blow River	87.38	13	IAMs_20	IAMs_20	19 47 28.4	
	comp=Z,929nm,21.0s						
F31M	Tsiigehtchic	87.56	14		P	19 14 05.5	+0.3
Z35A	Perchaven, San	87.61	55	IAMs_20	IAMs_20	19 47 31.4	
	comp=Z,794nm,19.0s						
MAW	Mawson	87.72	199	P	P	19 14 05.3	-0.9
	comp=Z,2.6nm,1.1s,baz=76,slow=3.4,SNR=3.5						
	comp=Z,2.6nm,1.1s						
R32A	Long Quarter,	88.27	49	IAMs_20	IAMs_20	19 47 33.4	
	comp=Z,1µm,21.0s						
INK	Inuvik	88.29	14	LR	LR	19 47 33.6	
	comp=Z,400nm,21.3s,baz=227,slow=31						
HHC	Hu-ho-hao-te	88.50	313	eP	P	19 14 11.0	+0.5
HHC				S	S	19 24 54.5	-2.3
HHC				sS	ScS	19 25 05.0	+2.5
HHC				SS	SS	19 30 49.8	+2.2
HHC				pmax	pmax		
	comp=Z,16nm,0.8s						
HHC				pmax	pmax		
	comp=Z,42nm,5.1s						
HHC				L	L		
	comp=Z,120nm,15.1s						
HHC				L	L		
	comp=Z,210nm,15.2s						
HHC				L	L		
	comp=Z,280nm,16.9s						
YAK	Yakutsk	88.76	337	LR	LR	19 49 03.6	
	comp=Z,334nm,21.0s,baz=130,slow=32						
YAK	Yakutsk	88.76	337	⇑eP	P	19 14 11.4	+0.3
YAK				pmax	pmax		
	comp=Z,9.0nm,1.7s						
Z38A	Mt. Pleasant	89.38	55	IAMs_20	IAMs_20	19 48 05.3	
	comp=Z,984nm,19.0s						
BGNE	Belgrade	89.73	47	IAMs_20	IAMs_20	19 48 25.8	
	comp=Z,838nm,20.0s						
PLCA	Paso Flores	90.04	132	LR	LR	19 48 15.6	
	comp=Z,834nm,18.5s,baz=242,slow=31						
YKA	Yellowknife Ar	90.22	24	LR	LR	19 48 37.1	
	comp=Z,878nm,21.0s,baz=270,slow=31						
U38A	Gravette	90.85	52	P	P	19 14 20.6	-0.9
U38A				IAmb	IAmb	19 14 40.2	
	comp=Z,12nm,1.4s						
U38A				IAMs_20	IAMs_20	19 48 43.0	
	comp=Z,725nm,20.0s						
MIAR	Mount Ida	90.89	54	IAMs_20	IAMs_20	19 50 40.3	
	comp=Z,678nm,20.0s						
L34A	Svendsen Farm,	91.17	47	IAMs_20	IAMs_20	19 49 31.9	
	comp=Z,1µm,20.0s						
CD2	Chengdu	91.23	302	eP	P	19 14 24.0	+0.5
C36M	Paulatuk	91.40	16	IAMs_20	IAMs_20	19 49 34.7	
	comp=Z,1µm,22.0s						
PZH	PanZhiHua	91.68	297	P	P	19 14 26.0	+0.3
VA01	Torpederas	91.82	125	IAMs_20	IAMs_20	19 47 24.5	
	comp=Z,960nm,20.0s						
CMAR	Chiang Mai Arr	92.00	288	P	P	19 14 28.7	+1.4
	comp=Z,0.4nm,0.4s,baz=88,slow=4.4,SNR=4.6						
CMAR				LR	LR	19 51 54.3	
	comp=Z,279nm,20.6s,baz=115,slow=33						
	comp=Z,0.4nm,0.4s						
CMAR	Chiang Mai Arr	92.00	288	P	P	19 14 26.4	-0.9
S39A	Bolivar	92.04	52	IAMs_20	IAMs_20	19 49 59.6	
	comp=Z,985nm,20.0s						
ELIB	Princess Elisa	92.21	185	dP	P	19 14 28.0	+0.6
	comp=Z,3.1nm,1.2s						
P38A	Dawn	92.47	50	IAMs_20	IAMs_20	19 49 42.6	
	comp=Z,917nm,20.0s						
F33A	5 Mile Ranch,	92.51	43	IAMs_20	IAMs_20	19 50 07.0	
	comp=Z,906nm,21.0s						
LZH	Lanzhou	92.67	307	eP	P	19 14 25.8	-4.3
LZH				sP	sP	19 14 33.5	-0.3
LZH				pmax	pmax		
	comp=Z,16nm,1.3s						
LZH				LR	LR		
	comp=N,260nm,16.2s						
LZH				LR	LR		
	comp=E,230nm,16.5s						
LZH				LR	LR		
	comp=Z,370nm,15.5s						
LZDM	Lanzhou Array	92.74	306	LR	LR	19 52 43.2	
	comp=Z,290nm,21.2s,baz=35,slow=33						
TROLL	Troll, Antarti	92.90	179	⇑P	P	19 14 33.8	+3.2
	comp=Z,80nm,0.9s						
R40A	Maddies Statio	93.02	51	IAMs_20	IAMs_20	19 52 18.3	
	comp=Z,1µm,20.0s						
VNA3	Neumayer Olymp	93.04	175	⇑P	P	19 14 33.2	+2.2
	comp=Z,2.3nm,1.0s						
ATAH	Atahualpa	93.53	98	LR	LR	19 48 52.6	
	comp=Z,921nm,19.8s,baz=278,slow=30						
P40A	Paris	93.54	50	IAMs_20	IAMs_20	19 50 27.0	
	comp=Z,1µm,20.0s						
AGMN	Agassiz Nation	93.59	41	IAMs_20	IAMs_20	19 51 14.4	
	comp=Z,698nm,21.0s						
CCM	Cathedral Cave	93.72	52	IAMs_20	IAMs_20	19 50 31.0	
	comp=Z,876nm,20.0s						
I37A	Lemond, Waseca	93.89	46	IAMs_20	IAMs_20	19 50 27.7	
	comp=Z,1µm,21.0s						
Y45A	Yeager Farm, C	93.89	56	IAMs_20	IAMs_20	19 51 38.1	
	comp=Z,835nm,22.0s						
ULM	Lac du Bonnet	94.21	39	LR	LR	19 51 37.7	
	comp=Z,1µm,21.4s,baz=225,slow=32						
SONM	Songino Array	94.35	318	LR	LR	19 52 46.0	
	comp=Z,368nm,21.5s,baz=96,slow=33						
TIXI	Tiksi	94.72	345	LR	LR	19 53 31.1	
	comp=Z,499nm,21.4s,baz=130,slow=33						
CFA	Coronel Fontan	95.02	124	LR	LR	19 49 51.3	
	comp=Z,212nm,19.6s,baz=206,slow=31						
S44A	Carbondale	95.14	52	IAMs_20	IAMs_20	19 51 24.6	
	comp=Z,677nm,21.0s						
T45A	Paducah	95.43	53	IAMs_20	IAMs_20	19 52 17.4	
	comp=Z,749nm,20.0s						
P43A	Skaggs, Pawnee	95.45	51	IAMs_20	IAMs_20	19 54 03.6	
	comp=Z,1µm,20.0s						
WVT	Waverly	95.84	54	IAMs_20	IAMs_20	19 52 27.4	
	comp=Z,807nm,20.0s						
EYMN	Ely	96.28	42	IAMs_20	IAMs_20	19 54 29.7	
	comp=Z,652nm,20.0s						
Y49A	Blount Mountai	96.41	57	IAMs_20	IAMs_20	19 52 56.8	
	comp=Z,661nm,21.0s						
V48A	Smith Brothers	96.54	55	IAMs_20	IAMs_20	19 52 28.9	
	comp=Z,680nm,20.0s						
I42A	Draeger Farm,	96.97	47	IAMs_20	IAMs_20	19 52 50.4	
	comp=Z,632nm,20.0s						
M44A	Midewin, Midew	96.98	49	IAMs_20	IAMs_20	19 54 03.9	
	comp=Z,577nm,18.0s						
TLY	Talaya	97.16	322	LR	LR	19 55 08.1	
	comp=Z,515nm,20.4s,baz=100,slow=33						
WCI	Wyandotte Cave	97.54	53	IAMs_20	IAMs_20	19 52 19.1	
	comp=Z,732nm,20.0s						
U49A	Red Boiling Sp	97.54	54	IAMs_20	IAMs_20	19 53 19.4	
	comp=Z,667nm,20.0s						
R49A	Shelbyville	98.41	53	IAMs_20	IAMs_20	19 53 49.3	
	comp=Z,736nm,20.0s						
P48A	Milroy	98.48	51	IAMs_20	IAMs_20	19 53 18.8	
	comp=Z,998nm,21.0s						
N47A	Urbana	98.59	50	IAMs_20	IAMs_20	19 53 31.6	
	comp=Z,854nm,20.0s						
TKL	Tuckaleechee C	98.94	56	LR	LR	19 54 04.2	
	comp=Z,419nm,21.3s,baz=280,slow=32						
R50A	Paris	99.06	53	IAMs_20	IAMs_20	19 54 08.4	
	comp=Z,780nm,21.0s						
TZTN	Tazewell	99.30	55	IAMs_20	IAMs_20	19 54 25.0	
	comp=Z,603nm,20.0s						
BRDH	Bariadhala	99.66	291	LR	LR	19 59 34.8	
	comp=Z,358nm,19.0s,baz=155,slow=35						
N49A	Columbus Grove	99.72	50	IAMs_20	IAMs_20	19 54 17.5	
	comp=Z,917nm,20.0s						
J47A	Sunmer	99.72	48	IAMs_20	IAMs_20	19 54 33.4	
	comp=Z,814nm,20.0s						
Q51A	Peebles	99.96	52	IAMs_20	IAMs_20	19 54 17.3	
	comp=Z,695nm,21.0s						
GLMI	Grayling	100.18	46	IAMs_20	IAMs_20	19 53 59.4	
	comp=Z,652nm,20.0s						
M50A	Fremont	100.65	50	IAMs_20	IAMs_20	19 54 36.3	
	comp=Z,823nm,21.0s						
U54A	Nelsons Funny	100.66	55	IAMs_20	IAMs_20	19 57 04.1	
	comp=Z,613nm,19.0s						
KNGR	Kungurtug, Tuv	100.67	320	⇑eP	Pdif	19 15 06.7	+0.7
KNGR				pmax	pmax		
	comp=Z,3.0nm,1.0s						
Q52A	Bidwell	100.78	52	IAMs_20	IAMs_20	19 54 19.9	
	comp=Z,745nm,21.0s						
S54A	Dingess, Beckl	101.30	54	IAMs_20	IAMs_20	19 55 28.8	
	comp=Z,735nm,20.0s						
O52A	Adamsville	101.32	51	IAMs_20	IAMs_20	19 54 57.0	
	comp=Z,829nm,20.0s						
Q54A	Coxs Mills	101.88	53	IAMs_20	IAMs_20	19 55 17.1	
	comp=Z,759nm,21.0s						
BLA	Blacksburg	101.89	55	IAMs_20	IAMs_20	19 57 32.6	
	comp=Z,578nm,20.0s						
M52A	Chesterland	101.92	50	IAMs_20	IAMs_20	19 55 37.0	
	comp=Z,912nm,21.0s						
X58A	Rowland	102.29	57	IAMs_20	IAMs_20	19 58 18.6	
	comp=Z,543nm,18.0s						
R55A	Marlinton	102.31	53	IAMs_20	IAMs_20	19 56 10.6	
	comp=Z,808nm,20.0s						
Y60A	Bolivia	103.11	58	IAMs_20	IAMs_20	20 00 20.5	
	comp=Z,575nm,20.0s						
S57A	Dark Hollow, R	103.13	54	IAMs_20	IAMs_20	19 56 14.4	
	comp=Z,572nm,21.0s						
Q56A	Snyder Ridge,	103.15	53	IAMs_20	IAMs_20	19 56 38.8	
	comp=Z,770nm,20.0s						
R58B	Mineral	104.00	54	IAMs_20	IAMs_20	19 57 24.5	
	comp=Z,716nm,21.0s						
T59A	Double "B" Far	104.11	55	IAMs_20	IAMs_20	19 59 10.5	
	comp=Z,569nm,20.0s						
P57A	Homestead Farm	104.12	53	IAMs_20	IAMs_20	19 58 57.4	
	comp=Z,838nm,20.0s						
SSPA	Standing Stone	104.38	51	IAMs_20	IAMs_20	19 56 53.2	
	comp=Z,857nm,20.0s						
CBN	Corbin Frederi	104.43	54	IAMs_20	IAMs_20	19 57 35.8	
	comp=Z,655nm,20.0s						
PALK	Pallekele	106.57	273	IAMs_20	IAMs_20	20 07 28.6	
	comp=Z,592nm,20.0s						
LONY	Lake Ozonia	107.23	48	IAMs_20	IAMs_20	19 59 32.1	
	comp=Z,691nm,20.0s						
PAL	Palisades	107.42	51	IAMs_20	IAMs_20	19 58 37.5	
	comp=Z,828nm,21.0s						
HNH	Hanover	108.82	49	IAMs_20	IAMs_20	20 00 34.2	
	comp=Z,839nm,21.0s						
L64A	Middleborough	109.79	51	IAMs_20	IAMs_20	20 00 56.1	
	comp=Z,787nm,20.0s						
HYB	Hyderabad	110.72	283	ePKiKP	PKiKP	19 19 51.0	-0.6
HYB				eSKSac	SKSac	19 26 29.9	-1.5
HYB				eSKKSac	SKKSac	19 27 28.8	-3.2
WVL	Waterville	110.75	48	IAMs_20	IAMs_20	20 01 11.0	
	comp=Z,544nm,21.0s						
NIL	Nilore	117.09	300	IAMs_20	IAMs_20	20 14 57.8	
	comp=Z,503nm,21.0s						
BORK	Borovoye	117.45	322	IAMs_20	IAMs_20	20 09 39.0	
	comp=Z,508nm,20.0s						
LVZ	Lovozero	124.25	347	IAMs_20	IAMs_20	20 14 43.7	
	comp=Z,422nm,20.0s						
MSEY	Mahe Island	127.12	252	IAMs_20	IAMs_20	20 12 44.6	
	comp=Z,540nm,20.0s						
OBN	Obninsk	133.75	336	i PKIKP	PKPdf	19 20 35.4	+1.0
OBN				i		19 23 06.2	
OBN				pmax	pmax		
	comp=Z,3.0nm,0.6s						
NCK	Nalchik	137.38	319	⇓ePKIKP	PKPdf	19 20 41.6	0.0
PABE	Paberze	137.52	345	IAMs_20	IAMs_20	20 20 40.9	
	comp=Z,515nm,21.0s						
KIV	Kislovodsk	137.72	320	i PKIKP	PKiKP	19 20 45.3	+1.0
KIV				pmax	pmax		
	comp=Z,7.0nm,1.0s						
KIV	Kislovodsk	137.72	320	IAMs_20	IAMs_20	20 27 20.6	
	comp=Z,448nm,19.0s						
NEUR	Neytrino	138.06	319	⇓iPKIKP	PKiKP	19 20 46.3	+1.2
SUW	Suwalki	139.06	345	IAMs_20	IAMs_20	20 24 35.6	
	comp=Z,479nm,20.0s						
SOC	Sochi	139.73	321	i PKIKP	PKiKP	19 20 50.1	+1.8
SOC				e		19 23 41.9	
SOC				MLR	MLR		
	comp=Z,249nm,20.0s						
KIEV	Kiev	140.00	337	IAMs_20	IAMs_20	20 26 06.5	
	comp=Z,349nm,20.0s						
RGN	Rugen	140.39	353	IAMs_20	IAMs_20	20 20 33.6	
	comp=Z,363nm,20.0s						
CLL	Collm	143.61	353	IAMs_20	IAMs_20	20 23 29.8	
	comp=Z,422nm,21.0s						
CLL	Collm	143.61	353	ePKPdf	PKPdf	19 20 52.0	-0.6
CLL				eSKPdf	SKPdf	19 24 29.0	+1.7
CLL				eSKKSac	SKKSac	19 31 00.0	+2.5
CLL				ex	x	19 32 24.0	
CLL				e(SKSP)		19 34 06.0	
CLL				ex	x	19 34 54.0	
CLL				eSKKSdf	SKKSdf	19 37 18.0	-0.5
CLL				eSS	SS	19 42 48.0	+2.9
CLL				eSSS	SSS	19 48 18.0	
CLL				eSSSS		19 52 00.0	
CLL				LV		20 09 00.0	
CLL				LH		20 12 00.0	
CLL				L	L	20 21 00.0	
CLL				AMS	AMS	20 23 00.0	
	comp=Z,400nm,21.2s						
CLL				AMS	AMS	20 24 00.0	
	comp=N,300nm,21.2s						
CLL				AMS	AMS	20 24 00.0	
	comp=E,100nm,22.4s						
CLL				AMS	AMS	20 28 00.0	
	comp=N,200nm,19.2s						
CLL				AMS	AMS	20 28 00.0	
	comp=E,200nm,19.4s						
KIBK	Kibwezi	143.76	244	IAMs_20	IAMs_20	20 20 07.9	
	comp=Z,504nm,20.0s						
CHVC	Chvalec	143.84	349	AMS	AMS	20 23 50.0	
	comp=Z,500nm,23.3s						
UPC	Upice	143.93	349	AMS	AMS	20 24 00.0	
	comp=Z,400nm,20.2s						
ATD	Arta Tunnel	143.97	269	IAMs_20	IAMs_20	20 21 41.8	
	comp=Z,414nm,20.0s						
DPC	Dobruska-Polom	144.02	349	ePKIKP	PKiKP	19 20 57.5	+0.6
DPC				MLR	MLR		
	comp=Z,400nm,18.9s						
DPC	Dobruska-Polom	144.02	349	ePKP	PKiKP	19 20 57.5	+0.6
DPC				ex	x	19 43 58.4	
DPC				AMS	AMS	20 24 40.0	
	comp=Z,400nm,18.9s						
OKC	Ostrava-Krasne	144.13	347	AMS	AMS	20 24 50.0	
	comp=Z,400nm,19.9s						
KRLC	Kraliky	144.19	348	AMS	AMS	20 23 20.0	
	comp=Z,400nm,21.8s						
MORC	Moravsky Berou	144.32	347	PKIKP	PKPab	19 20 52.1	+0.2
MORC	Moravsky Berou	144.32	347	PKPdf	PKPab	19 20 52.1	+0.2
MORC	Moravsky Berou	144.32	347	ePKP	PKPdf	19 20 54.3	+0.3
MORC				e		19 21 09.1	
PRU	Pruhonice	144.68	350	ePKP	PKiKP	19 21 14.6	+16
PRU				ex	x	19 43 46.6	
PRU				AMS	AMS	20 25 00.0	
	comp=Z,600nm,21.9s						
NKC	Novy Kostel	144.74	353	ePKIKP	PKPdf	19 20 55.8	+1.2
NKC	Novy Kostel	144.74	353	ePKP	PKPdf	19 20 55.8	+1.2
VRAC	Vranov	144.96	348	ePKP	PKPdf	19 20 56.7	+1.7
VRAC				e		19 21 10.7	
BMRD	Maredsous	145.05	1	dPKP	PKiKP	19 20 58.2	-0.7
JAVC	Velka Javorina	145.16	346	ePKP	PKPdf	19 20 57.4	+1.9
VYHS	Vyhne	145.22	345	ePKIKP	PKiKP	19 20 59.0	-0.4
VYHS	Vyhne	145.22	345	ePKP	PKiKP	19 20 59.0	-0.4
KRUC	Moravsky	145.24	348	ePKP	PKPdf	19 20 57.3	+1.8
KRUC				e		19 21 11.8	
ZVC	Zvikov	145.27	351	ePKP	PKiKP	19 21 02.9	+3.4
ZVC				AMS	AMS	20 25 40.0	
	comp=Z,700nm,22.2s						
GRA1	Grafenberg Arr	145.41	354		PKPbc	19 20 54.5	-1.2
GRA1				IAMs_20	IAMs_20	20 30 04.2	
	comp=Z,385nm,20.0s						
GRF	Grafenberg Arr	145.41	354	PKP2	PKPbc	19 20 54.5	-1.2
GRF				MLR	MLR		
	comp=Z,400nm,20.0s						
GRFO	Grafenberg	145.41	354	IAMs_20	IAMs_20	20 29 33.3	
	comp=Z,385nm,20.0s						
PSZ	Piszkesteto	145.47	343	PKP2	PKPbc	19 20 54.0	-2.0
PSZ	Piszkesteto	145.47	343		PKPbc	19 20 54.0	-2.0
MLR	Muntele Rosu	145.50	335	IAMs_20	IAMs_20	20 24 44.5	
	comp=Z,396nm,21.0s						
KHC	Kasperske Hory	145.66	351	PKIKP	PKPdf	19 20 55.0	-1.3
KHC				MLR	MLR		
	comp=Z,500nm,20.0s						
KHC	Kasperske Hory	145.66	351	ePKP	PKPdf	19 20 56.5	+0.2
KHC				ex	x	19 21 01.6	
KHC				ePP	PP	19 24 34.9	+19
KHC				ex	x	19 44 15.1	
KHC				AMS	AMS	20 24 50.0	
	comp=Z,500nm,21.6s						
KHC	Kasperske Hory	145.66	351	PKPdf	PKPdf	19 20 55.0	-1.3
KHC				IAMs_20	IAMs_20	20 29 00.1	
	comp=Z,480nm,20.0s						
BR131	Keskin Array S	145.68	321	⇑iPKP2	PKiKP	19 21 00.6	-0.2
BRTR	Keskin Array B	145.68	321	PKPbc	PKPab	19 20 58.5	+1.2
	comp=Z,2.0nm,1.0s,baz=46,slow=4.2,SNR=6.6						
WLF	Walferdange	145.70	360	PKIKP	PKPdf	19 20 54.8	-1.5
WLF				MLR	MLR		
	comp=Z,600nm,20.0s						
WLF	Walferdange	145.70	360	PKPdf	PKPdf	19 20 54.8	-1.5
WLF	Walferdange	145.70	360	dPKP	PKPab	19 20 58.8	+1.9
MODS	Modra-Piesok	145.70	347	ePKP2	PKiKP	19 21 01.5	+1.1
MODS	Modra-Piesok	145.70	347	ePKP	PKiKP	19 21 01.5	+1.1
ABNA	Allensteig Bun	145.80	349	epPKP	PKiKP	19 20 59.9	-0.7
	comp=Z,16nm,1.6s						
CKRC	Cesky Krumlov	145.85	350	ePKP2	PKiKP	19 21 02.4	+1.7
CKRC				MLR	MLR		
	comp=Z,700nm,23.5s						
CKRC	Cesky Krumlov	145.85	350	ePKP	PKiKP	19 21 02.4	+1.7
CKRC				AMS	AMS	20 25 50.0	
	comp=Z,700nm,23.5s						
GEC2	GERESS Array S	145.92	351	PKPdf	PKPdf	19 20 54.7	-2.2
GERES	GERESS Array B	145.92	351	PKPbc	PKPab	19 20 58.6	+0.8
	comp=Z,1.6nm,0.9s,baz=64,slow=3.1,SNR=11						
GERES	GERESS Array B	145.92	351	PKPdf	PKPdf	19 20 55.0	-1.8
WINA	Alland / Wiene	146.21	348	epPKP	PKPab	19 21 00.5	+1.6
	comp=Z,9.1nm,1.6s						
CONA	Conrad Observa	146.43	348	ePKiKP	PKiKP	19 21 01.5	-0.5
	comp=Z,5.4nm,1.4s						
RONA	Rosalia, Austr	146.55	347	ePKiKP	PKiKP	19 21 02.0	-0.3
	comp=Z,2.5nm,0.6s						
MOA	Molln	146.80	350	pPKP	PKiKP	19 21 02.9	+0.2
	comp=Z,7.5nm,1.4s						
BFO	Black Forest	146.98	357	PKP2	PKPdf	19 20 59.4	+0.8
BFO				MLR	MLR		
	comp=Z,400nm,21.0s						
BFO	Black Forest	146.98	357		PKPdf	19 20 59.4	+0.8
BFO				IAMs_20	IAMs_20	20 26 03.8	
	comp=Z,366nm,21.0s						
BIOA	Bad Ischl, Aus	147.06	350	epPKP	PKPab	19 21 03.1	+0.9
	comp=Z,4.6nm,1.2s						
ECH	Echery	147.13	359	IAMs_20	IAMs_20	20 24 28.0	
	comp=Z,467nm,21.0s						
ARSA	Arzberg	147.14	348	epPKP	PKiKP	19 21 03.6	+0.1
	comp=Z,1.8nm,0.8s						
FURI	Furi	147.43	263	IAMs_20	IAMs_20	20 23 51.6	
	comp=Z,341nm,20.0s						
SESA	Seetaler Alpe,	147.46	349	ePKiKP	PKPab	19 21 03.4	-0.6
	comp=Z,13nm,1.1s						
LESA	Schwarzleotal	147.46	352	epPKP	PKPab	19 21 04.2	+0.4
	comp=Z,3.6nm,1.1s						
RETA	Reutte	147.63	354	ePKP	PKPbc	19 21 03.7	+1.3
	comp=Z,2.5nm,1.2s						
WATA	Walderalm	147.69	353	epPKP	PKPab	19 21 04.6	-0.3
	comp=Z,5.6nm,1.2s						
MOTA	Moosalm	147.74	353	epPKP	PKiKP	19 21 04.9	+0.1
	comp=Z,1.5nm,0.6s						
WTTA	Wattenberg	147.76	353	ePKiKP	PKiKP	19 21 04.5	-0.4
	comp=Z,1.7nm,0.7s						
SOKA	Soboth	147.79	348	epPKP	PKiKP	19 21 05.0	+0.1
	comp=Z,9.2nm,1.4s						
SQTA	Sankt Quirin	147.85	353	epPKP	PKiKP	19 21 05.0	0.0
	comp=Z,1.5nm,0.5s						
DAVA	Damuels	147.91	355	ePKiKP	PKPbc	19 21 04.7	+1.4
	comp=Z,2.5nm,0.6s						
OBKA	Obir	148.04	349	epPKP	PKiKP	19 21 05.4	0.0
	comp=Z,4.9nm,1.2s						
FETA	Feichten	148.10	354	epPKP	PKiKP	19 21 05.8	+0.2
	comp=Z,2.6nm,1.1s						
ABTA	Abfaltersbach	148.15	351	epPKP	PKiKP	19 21 06.2	+0.6
	comp=Z,4.3nm,1.1s						
FUORN	Ofenpass-Fuorn	148.54	354	PKPbc	PKPdf	19 21 03.3	+1.8
FUORN				IAMs_20	IAMs_20	20 32 05.2	
	comp=Z,416nm,20.0s						
GHAJ	Ghor Haditha	148.62	306	IAMs_20	IAMs_20	20 34 49.1	
	comp=Z,348nm,20.0s						
LODK	Lodwar	148.76	251	IAMs_20	IAMs_20	20 28 11.8	
	comp=Z,319nm,18.0s						
TUE	Stuetta	148.77	356	PKPdf	PKPdf	19 20 59.2	-2.6
ISP	Isparta	148.77	321	IAMs_20	IAMs_20	20 35 26.8	
	comp=Z,366nm,20.0s						
SENIN	Lac Senin/Sane	148.98	358	IAMs_20	IAMs_20	20 28 09.9	
	comp=Z,352nm,20.0s						
ESDC	Sonseca Array	154.18	18	PKPbc	PKiKP	19 21 19.1	+0.9
	comp=Z,0.8nm,1.0s,baz=348,slow=4.3,SNR=5.2						
TIP	Timpagrande	154.37	340	IAMs_20	IAMs_20	20 36 02.8	
	comp=Z,401nm,20.0s						
MAHO	Mahon	155.42	3	IAMs_20	IAMs_20	20 26 25.4	
	comp=Z,364nm,20.0s						

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*IDC **29** 19:31:08.8±6.2, 21°.42N×143°.97E, h166km±58km, mb3.3/11, mbtmp3.8/12, Error ellipse: s-maj=28.5km s-min=14.1km az=81.0*

ISC 29 19:31:07.2±0.9**, 21°.4N**±0°.1×**144°.0E**±0°.2**, h150km, n19, σ1.11**/13**, mb3.5**/11**, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MJAR	Matsushiro Arr	15.88	343	P	Pn	19 34 42.4	0.0
	1.4nm,0.9s,baz=134,slow=11,SNR=1.3						
KSRS	Korea Array	21.19	322	P	P	19 35 41.0	+0.2
	0.7nm,0.6s,baz=147,slow=8.7,SNR=4.3						
	0.7nm,0.6s						
H11N1	WAKE ISLAND Hy	21.48	90	T	T	19 57 35.5	
	baz=278,slow=75,SNR=16						
H11N2	WAKE ISLAND Hy	21.48	90	T	T	19 57 36.0	
	baz=278,slow=75,SNR=12						
H11N3	WAKE ISLAND Hy	21.50	90	T	T	19 57 36.9	
	baz=278,slow=75,SNR=11						
H11S3	WAKE ISLAND Hy	21.50	94	T	T	19 57 33.9	
	baz=280						
H11S1	WAKE ISLAND Hy	21.51	94	T	T	19 57 36.9	
	baz=280						
H11S2	WAKE ISLAND Hy	21.52	94	T	T	19 57 38.9	
	baz=280						
SONM	Songino Array	40.04	320	P	P	19 38 27.4	-0.1
	0.3nm,0.5s,baz=147,slow=8.2,SNR=2.1						
	0.3nm,0.5s						
WRA	Warramunga Arr	42.20	194	P	P	19 38 44.5	-0.9
	2.1nm,0.9s,baz=14,slow=8.1,SNR=10						
	2.1nm,0.9s						
ASAR	Alice Springs	45.90	193	P	P	19 39 14.2	-0.6
	0.8nm,0.6s,baz=18,slow=9.9,SNR=16						
	0.8nm,0.6s						
ZALV	Zalesovo Beam	54.90	322	P	P	19 40 20.5	-1.6
	0.5nm,0.6s,baz=99,slow=8.9,SNR=2.0						
	0.5nm,0.6s						
MKAR	Makanchi Array	55.45	313	P	P	19 40 26.5	+0.3
	0.4nm,0.7s,baz=89,slow=9.9,SNR=2.4						
	0.4nm,0.7s						
KURBB	Kurchatov Arra	58.24	317	P	P	19 40 46.0	+0.2
	1.0nm,0.8s,baz=97,slow=7.9,SNR=9.2						
	1.0nm,0.8s						
ILAR	Eielson Array	61.92	27	P	P	19 41 08.8	-1.7
	0.7nm,0.7s,baz=261,slow=6.5,SNR=4.9						
	0.7nm,0.7s						
BVAR	Borovoye Array	63.38	320	P	P	19 41 20.1	-0.3
	1.3nm,0.6s,baz=96,slow=6.0,SNR=4.7						
	1.3nm,0.6s						
NVAR	Mina Array Bea	82.70	52	P	P	19 43 15.7	+1.1
	0.3nm,0.5s,baz=305,slow=4.7,SNR=6.3						
	0.3nm,0.5s						
KBZ	Khabaz	83.11	314	P	P	19 43 17.8	+1.5
	4.0nm,0.9s,baz=44,slow=2.1,SNR=6.5						
	4.0nm,0.9s						
PLCA	Paso Flores	145.00	131	PKPbc	PKPbc	19 50 27.8	+1.3
	2.2nm,0.7s,baz=252,slow=6.4,SNR=2.8						

KRSC 29 19:40:53.5±1.6**, 54°.77N**×**164°.55E, h46**km±29km**, Ml3.8, Komandorsky Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BKI	Bering	0.93	62	eP	Pn	19 41 10.3	+0.1
BKI				eS	Sn	19 41 20.8	-1.5
KBTR	Krutoberegovo	1.74	326	eP	Pn	19 41 21.8	+0.6
KBTR				eS	Sn	19 41 41.5	-0.7
KBG	Krutoberegovo	1.82	326	eS	Sn	19 41 45.1	+1.0
TUMD	Tumrok D	2.43	282	eP	Pn	19 41 34.2	+3.5
TUMD				eS	Sn	19 42 02.6	+3.5
KZV	Kizimen	2.48	280	eP	Pn	19 41 34.9	+3.5
KZV				eS	Sn	19 42 03.6	+3.1
BZGR	Bezymyannyi-Gr	2.49	300	eP	Pn	19 41 35.3	+3.7
BZGR				eS	Sn	19 42 04.0	+3.2
SMKR	Semkarok	2.52	317	eP	Pn	19 41 35.6	+3.7
SMKR				eS	Sn	19 42 04.7	+3.4
CIRR	Tsirk	2.55	303	eP	Pn	19 41 34.1	+1.7
TUMR	Tumrok	2.58	283	eP	Pn	19 41 37.2	+4.3
BZMR	Bezymyannaya	2.59	298	eP	Pn	19 41 37.5	+4.5
BZWR	Bezymyannyi-We	2.60	299	eP	Pn	19 41 37.5	+4.3
BDR	Baidarnaya	2.61	315	eP	Pn	19 41 36.6	+3.4
KMNR	Kamenistaya	2.66	294	eP	Pn	19 41 37.7	+3.9
KIRR	Kirishev	2.67	298	eP	Pn	19 41 39.0	+4.9
SRKR	Sorokina	2.68	316	eP	Pn	19 41 38.2	+4.0

KRSR	**Krestovskiy**	**2.69**	**304**	*e*P	Pn	19 41 37.2	+2.9
KPT	**Kopyto**	**2.74**	**298**	*e*P	Pn	19 41 40.0	+4.9
KOZ	**Kozyrevsk**	**2.96**	**298**	*e*P	Pn	19 41 43.1	+5.2
KII	**Karymskiy**	**3.07**	**258**	*e*P	Pn	19 41 44.0	+4.5
SRDR	**Sredinnyy**	**3.15**	**301**	*e*P	Pn	19 41 45.2	+4.6
SPN	**Mys Shipunski**	**3.16**	**240**	*e*P	Pn	19 41 44.1	+3.5
SPN				*e*S	Sn	19 42 19.2	+2.2
NLC	**Nalytchevo**	**3.46**	**245**	*e*S	Sn	19 42 26.9	+2.3
ESO	**Esso**	**3.53**	**291**	*e*P	Pn	19 41 49.5	+3.7
SMAR	**Somma**	**3.71**	**248**	*e*P	Pn	19 41 53.1	+4.7
SMAR				*e*S	Sn	19 42 34.5	+3.5
KRER	**Koryakskii**	**3.72**	**249**	*e*P	Pn	19 41 53.8	+5.2
KRER				*e*S	Sn	19 42 34.7	+3.5
AVH	**Avacha**	**3.74**	**249**	*e*P	Pn	19 41 54.2	+5.4
AVH				*e*S	Sn	19 42 35.8	+4.2
KRX	**Arik**	**3.75**	**250**	*e*P	Pn	19 41 53.6	+4.7
KRX				*e*S	Sn	19 42 34.5	+2.6
KOK	**Koryaka**	**3.79**	**249**	*e*P	Pn	19 41 54.4	+5.0
KOK				*e*S	Sn	19 42 36.4	+3.7
DALK	**Dalny**	**3.84**	**245**	*e*S	Sn	19 42 36.1	+2.2
GNL	**Ganaly**	**4.02**	**257**	*e*P	Pn	19 41 57.7	+5.0
KRMR	**Karymshinskiy**	**4.27**	**246**	*e*P	Pn	19 42 00.5	+4.5
KRMR				*e*S	Sn	19 42 47.2	+2.7
MTVR	**Mutnovka**	**4.43**	**241**	*e*P	Pn	19 42 03.1	+4.9
MTVR				*e*S	Sn	19 42 51.0	+2.5
GRL	**Gorelyy**	**4.45**	**243**	*e*P	Pn	19 42 04.0	+5.6
ASAK	**Asacha**	**4.63**	**242**	*e*P	Pn	19 42 06.3	+5.4
ASAK				*e*S	Sn	19 42 56.5	+3.2

JMA ***29*** *20:03:07.6±0.5, 33˚N±2˚×13˚9E±˚, h257^{km}±3^{km}, MV3.0/25, NEAR HACHIJOJIMA ISLAND*

IDC ***29*** *20:03:09.1±0.9, 33°.19N×138°.72E, h247^{km}±10^{km}, mb3.0/4, mbtmp3.6/8, Error ellipse: s-maj=40.6km s-min=17.1km az=76.0*

ISC 29 20:03:09.3±0.9**, 33°.26N**±0°.10×**138°.97E**±0°.08**, h250**^{km}**, n22, σ0**^{s}**.75**/24**, mb3.1**/4**, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHJ	**Hachijo jima 2**	**0.70**	**101**	P	**Pn**	**20 03 43.2**	**+0.3**
	213nm,0.7s,baz=30,slow=22,SNR=1.6						
JHJ				S	**S**	**20 04 10.8**	**+1.5**
	203nm,0.6s,baz=60,slow=23,SNR=1.0						
JMKN	**Mikurajimanish**	**0.82**	**39**	*e*P	**Pn**	**20 03 42.5**	**-0.9**
JMKN				*e*S	**S**	**20 04 10.0**	**-0.3**
TTO4	**TONANKAI O.B.S**	**1.41**	**302**	*e*P	**Pn**	**20 03 46.9**	**+0.3**
TTO1	**TONANKAI O.B.S**	**1.86**	**282**	*e*P	**Pn**	**20 03 50.4**	**+0.2**
JOD2	**Odawara 2**	**2.00**	**3**	P	**Pn**	**20 03 51.7**	**-0.1**
BSO1	**Boso 1**	**2.17**	**50**	P	**Pn**	**20 03 52.0**	**-0.8**
JIE	**Ise**	**2.19**	**302**	*e*P	**Pn**	**20 03 53.3**	**-0.2**
JYN	**Shimob**	**2.26**	**351**	P	**Pn**	**20 03 54.6**	**+0.3**
JRY	**Ryogami san**	**2.75**	**359**	P	**Pn**	**20 03 59.5**	**+0.4**
JTNC	**Tanabenakahech**	**2.86**	**282**	*e*P	**Pn**	**20 03 59.9**	**-0.4**
JYTA	**Yamagatataniai**	**2.97**	**322**	*e*P	**Pn**	**20 04 01.6**	**+0.2**
JAG	**Ashikaga**	**3.18**	**7**	P	**Pn**	**20 04 02.7**	**-1.1**
MJAR	**Matsushiro Arr**	**3.33**	**349**	P	**Pn**	**20 04 04.9**	**-0.5**
	7.0nm,0.3s,baz=168,slow=11,SNR=47						
MAT	**Matsushiro**	**3.33**	**349**	P	**Pn**	**20 04 05.2**	**-0.2**
JWT	**Wachi**	**3.57**	**305**	*e*P	**Pn**	**20 04 08.1**	**-0.1**
ASAJ	**Asahikawa**	**11.20**	**14**	P	**Pn**	**20 05 43.5**	**+0.6**
	1.6nm,0.3s,baz=214,slow=7.3,SNR=6.0						
USRK	**Ussuriysk Ar.**	**12.20**	**336**	P	**Pn**	**20 05 54.2**	**-1.0**
	0.9nm,0.6s,baz=140,slow=11,SNR=6.7						
KLR	**Kul'dur**	**16.84**	**343**	P	**P**	**20 06 49.6**	**+0.4**
	1.9nm,0.5s,baz=156,slow=12,SNR=6.6						
KURBB	**Kurchatov Arra**	**46.83**	**311**	P	**P**	**20 11 14.0**	**-0.2**
	0.2nm,0.4s,baz=91,slow=9.4,SNR=4.1						
	0.2nm,0.4s						
WRA	**Warramunga Arr**	**53.09**	**185**	P	**P**	**20 12 00.3**	**-1.1**
	0.1nm,0.3s,baz=3.2,slow=7.2,SNR=5.6						
	0.1nm,0.3s						
FINES	**FINESS Array B**	**71.21**	**332**	P	**P**	**20 14 00.7**	**-0.2**
	0.6nm,0.7s,baz=46,slow=11,SNR=5.4						
	0.6nm,0.7s						
TXAR	**Lajitas Array**	**94.03**	**51**	P	**P**	**20 16 01.2**	**+1.7**
	0.3nm,0.6s,baz=241,slow=1.3,SNR=3.9						
	0.3nm,0.6s						

IDC ***29*** *20:11:46.9±1.0, 32°.82N×98°.32E, h0^{km}, mb3.4/6, mbtmp3.4/9, ML3.4/3, MS3.1/2, Error ellipse: s-maj=42.5km s-min=15.9km az=65.0*

ISC 29 20:11:51.9±1.0**, 32°.8N**±0°.1×**98°.3E**±0°.2**, h35**^{km}**, n9, σ0**^{s}**.32**/9**, mb3.6**/6**, Sichuan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**14.33**	**178**	Pn	**Pn**	**20 15 12.3**	**-0.1**
	0.1nm,0.3s,baz=358,slow=13,SNR=5.5						
CMAR				LR	LR	20 21 41.4	
	comp=Z,35nm,18.9s,baz=190,slow=42						
	0.9nm,0.8s						
CMAR				AML	AML		
SONM	**Songino Array**	**16.19**	**20**	Pn	**Pn**	**20 15 36.5**	**-0.2**
	0.1nm,0.3s,baz=209,slow=12,SNR=3.9						
	0.3nm,0.4s						
SONM				AML	AML		
MKAR	**Makanchi Array**	**18.53**	**323**	P	**P**	**20 16 05.4**	**0.0**
	0.1nm,0.3s,baz=140,slow=14,SNR=7.2						
MKAR				LR	LR	20 23 45.9	
	comp=Z,125nm,18.9s,baz=78,slow=39						
	0.4nm,0.5s						
MKAR				AML	AML		
AAK	**Ala-Archa**	**21.15**	**304**	P	**P**	**20 16 33.8**	**-0.2**
	1.3nm,0.5s,baz=99,slow=4.8,SNR=6.3						
	1.3nm,0.5s						
KURBB	**Kurchatov Arra**	**22.97**	**327**	P	**P**	**20 16 53.2**	**0.0**
	0.8nm,1.0s,baz=132,slow=11,SNR=5.2						
	0.8nm,1.0s						
ZALV	**Zalesovo Beam**	**23.18**	**340**	P	**P**	**20 16 55.8**	**+0.5**
	0.4nm,0.5s,baz=146,slow=11,SNR=3.6						
	0.4nm,0.5s						
FINES	**FINESS Array B**	**53.35**	**325**	P	**P**	**20 21 07.4**	**0.0**
	0.5nm,0.7s,baz=101,slow=9.9,SNR=3.5						
	0.5nm,0.7s						
WRA	**Warramunga Arr**	**62.78**	**141**	P	**P**	**20 22 13.7**	**-0.3**
	0.6nm,0.8s,baz=324,slow=6.4,SNR=5.6						
	0.6nm,0.8s						
ASAR	**Alice Springs**	**65.66**	**144**	P	**P**	**20 22 33.2**	**+0.4**
	0.6nm,0.9s,baz=328,slow=6.1,SNR=4.9						
	0.6nm,0.9s						

NEIC ***29*** *20:17:55.8±1.8, 23°.5S±0°.1×179°.8W±0°.1, h519^{km}±6^{km}, mb4.3/58, Error ellipse: s-maj=18.5km s-min=14.6km az=135.0*

IDC ***29*** *20:17:56.2±1.7, 23°.43S×179°.90W, h529^{km}±17^{km}, mb3.3/9, mbtmp4.2/11, Error ellipse: s-maj=21.2km s-min=15.3km az=134.0*

ISC 29 20:17:56.2±0.4**, 23°.48S**±0°.08×**179°.86W**±0°.08**, h532**^{km}**, n106, σ0**^{s}**.97**/105**, mb4.2**/35**, 1C, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**6.04**	**341**	P	**P**	**20 19 34.3**	**-0.3**
	14nm,0.5s,baz=134,slow=17,SNR=24						
MSVF	**Nonsavu**	**6.04**	**341**		**P**	**20 19 33.8**	**-0.9**
NIUE	**Niue**	**10.24**	**67**	P	**P**	**20 20 16.5**	**0.0**
MARNC	**Mare, Loyalty**	**11.38**	**278**	P	**P**	**20 20 28.0**	**-0.2**
PINNC	**Pines Island,**	**11.72**	**272**	P	**P**	**20 20 32.9**	**+1.0**
URZ	**Urewera**	**14.96**	**189**	P	**P**	**20 21 04.7**	**-0.6**
	7.3nm,0.5s,baz=340,slow=2.0,SNR=7.0						
URZ				S	**S**	**20 23 38.9**	**-2.5**
	5.6nm,0.8s,baz=21,slow=22,SNR=5.7						
MRZ	**Mangatainoka R**	**17.56**	**192**	P	**P**	**20 21 29.0**	**-1.7**
QRZ	**Quartz Range**	**18.45**	**199**	P	**P**	**20 21 39.4**	**+0.5**
LTZ	**Lake Taylor**	**20.33**	**197**	P	**P**	**20 21 56.2**	**+0.1**
ARMA	**Armidale**	**26.30**	**249**	P	**P**	**20 22 51.0**	**+1.4**
ARMA				IAmb	IAmb	20 22 58.2	
	comp=Z,23nm,1.5s						
EIDS	**Eidsvold**	**26.51**	**260**	P	**P**	**20 22 52.1**	**+0.8**
EIDS				IAmb	IAmb	20 23 18.9	
	comp=Z,21nm,1.4s						
CTAO	**Charters Tower**	**31.61**	**270**	P	**P**	**20 23 36.5**	**+0.8**
TOO	**Toolangi**	**32.79**	**237**	P	**P**	**20 23 45.7**	**+0.1**
STKA	**Stephens Creek**	**35.00**	**248**	P	**P**	**20 24 04.8**	**+0.6**
	comp=Z,2.6nm,0.6s,baz=96,slow=10,SNR=9.3						
	comp=Z,2.6nm,0.6s						
INKA	**Innaminka**	**35.68**	**255**	P	**P**	**20 24 11.4**	**+1.6**
BBOO	**Buckleboo**	**39.73**	**246**	P	**P**	**20 24 42.8**	**-0.1**
AS31	**Alice Springs**	**42.23**	**260**	P	**P**	**20 25 03.2**	**+0.2**
ASAR	**Alice Springs**	**42.23**	**260**	P	**P**	**20 25 03.3**	**+0.3**
	comp=Z,4.7nm,0.7s,baz=103,slow=7.3,SNR=62						
ASAR				ScP	**ScP**	**20 29 45.8**	**+1.0**
	comp=Z,0.6nm,0.8s,baz=116,slow=3.6,SNR=4.3						
	comp=Z,4.7nm,0.7s						
ASAR	**Alice Springs**	**42.23**	**260**	P	**P**	**20 25 02.7**	**-0.2**
WR8	**Warramunga Arr**	**42.42**	**266**	P	**P**	**20 25 04.1**	**-0.4**
WB0	**Warramunga Arr**	**42.56**	**266**	P	**P**	**20 25 05.1**	**-0.5**
WB0				IAmb	IAmb	20 25 06.0	
	comp=Z,9.6nm,0.7s						
WRAB	**Tennant Creek**	**42.56**	**266**	P	**P**	**20 25 05.3**	**-0.2**
WRAB				IAmb	IAmb	20 25 06.1	
	comp=Z,4.2nm,0.8s						
WRA	**Warramunga Arr**	**42.57**	**266**	P	**P**	**20 25 04.9**	**-0.7**
	comp=Z,5.4nm,0.6s,baz=102,slow=8.2,SNR=288						
	comp=Z,5.4nm,0.6s						
FORT	**Forrest**	**46.58**	**249**	P	**P**	**20 25 36.0**	**-0.3**
FORT				IAmb	IAmb	20 25 36.6	
	comp=Z,6.2nm,0.8s						
MTN	**Manton Dam**	**47.56**	**274**	P	**P**	**20 25 43.4**	**-0.5**
MTN				IAmb	IAmb	20 26 15.8	
	comp=Z,8.5nm,1.2s						
KNRA	**Kununurra**	**48.82**	**269**	P	**P**	**20 25 53.4**	**+0.1**
KNRA				IAmb	IAmb	20 26 27.0	
	comp=Z,14nm,1.4s						
HMH	**Humu‘ula Sheep**	**48.98**	**31**	P	**P**	**20 25 54.4**	**-0.3**
FITZ	**Fitzroy Crossi**	**50.99**	**265**	P	**P**	**20 26 09.6**	**+0.4**
MORW	**Morawa**	**57.14**	**250**	P	**P**	**20 26 52.3**	**-0.2**
MORW				IAmb	IAmb	20 27 08.8	
	comp=Z,28nm,1.4s						
TOLI2	**Tolitoli**	**62.60**	**284**	P	**P**	**20 27 29.7**	**+0.8**
TOLI2				IAmb	IAmb	20 27 33.1	
	comp=Z,3.9nm,0.7s						
QSPA	**South Pole Qui**	**66.60**	**180**	P	**P**	**20 27 54.0**	**+0.4**
	comp=Z,1.1nm,0.8s,baz=337,slow=2.4,SNR=6.9						
	comp=Z,1.1nm,0.8s						
QSPA	**South Pole Qui**	**66.60**	**180**	P	**P**	**20 27 55.2**	**+1.7**
QSPA				PcP	**PcP**	**20 28 19.8**	**+1.9**
MJAR	**Matsushiro Arr**	**71.63**	**325**	P	**P**	**20 28 22.2**	**-1.8**
	comp=Z,0.9nm,0.7s,baz=156,slow=4.0,SNR=2.7						
	comp=Z,0.9nm,0.7s						
TPUB	**Ta-pu**	**74.19**	**305**	P	**P**	**20 28 38.0**	**-0.9**
KIWB	**Kanaga Island**	**75.04**	**2**	P	**P**	**20 28 42.6**	**-0.5**
ADK	**Adak**	**75.09**	**2**	P	**P**	**20 28 42.8**	**-0.5**
ADK				IAmb	IAmb	20 28 47.1	
	comp=Z,22nm,1.1s						
JKA	**Kamikawa-asahi**	**75.55**	**333**	P	**P**	**20 28 47.5**	**+1.4**
MAW	**Mawson**	**78.19**	**200**	P	**P**	**20 29 01.2**	**+1.0**
PETK	**Petropavlovsk-**	**78.72**	**346**	P	**P**	**20 29 03.1**	**-0.1**
	comp=Z,1.8nm,0.7s,baz=172,slow=5.8,SNR=1.9						
	comp=Z,1.8nm,0.7s						
KHMM	**Horse Mountain**	**82.54**	**39**	P	**P**	**20 29 25.0**	**+1.5**
O02D	**Mt. Diablo Mer**	**82.65**	**40**	P	**P**	**20 29 25.3**	**+1.3**
O02D				IAmb	IAmb	20 29 26.9	
	comp=Z,5.8nm,1.1s						
KHBM	**Hayfork Bally**	**82.70**	**40**	P	**P**	**20 29 25.9**	**+1.5**
KHBM				IAmb	IAmb	20 29 51.3	
	comp=Z,8.6nm,1.4s						
M02C	**Callahan**	**83.38**	**39**	P	**P**	**20 29 29.2**	**+1.6**
M02C				IAmb	IAmb	20 29 30.3	
	comp=Z,5.8nm,0.9s						
WAKR	**Walker**	**83.68**	**43**	P	**P**	**20 29 30.9**	**+1.6**
GSI	**Gunungsitoli**	**83.70**	**274**	P	**P**	**20 29 29.6**	**-0.1**
IRM	**Iron Mountain**	**84.04**	**49**	P	**P**	**20 29 32.4**	**+1.4**
NVAR	**Mina Array Bea**	**84.36**	**44**	P	**P**	**20 29 33.2**	**+0.6**
	comp=Z,0.4nm,0.5s,baz=218,slow=9.3,SNR=3.9						
	comp=Z,0.4nm,0.5s						
TPNV	**Topopah Spring**	**84.84**	**46**	P	**P**	**20 29 36.0**	**+1.0**
O18K	**Koktuh Hills**	**85.46**	**12**	P	**P**	**20 29 37.2**	**0.0**
ILSW	**Iliamna Southw**	**85.99**	**13**	P	**P**	**20 29 39.7**	**-0.2**
BRLK	**Bradley Lake**	**86.28**	**14**	P	**P**	**20 29 41.1**	**0.0**
M17K	**Holitna River**	**86.50**	**11**	P	**P**	**20 29 42.9**	**+0.8**
SLKM	**Skilak Lake**	**87.10**	**14**	P	**P**	**20 29 45.2**	**+0.2**
U15A	**North Rim**	**87.22**	**48**	P	**P**	**20 29 48.0**	**+1.4**
U15A				IAmb	IAmb	20 29 49.0	
	comp=Z,3.7nm,0.9s						
L18K	**Granite Mounta**	**87.39**	**11**	P	**P**	**20 29 46.8**	**+0.5**
L18K				IAmb	IAmb	20 30 07.0	
	comp=Z,8.0nm,1.5s						
STLK	**Strandline Lak**	**87.64**	**13**	P	**P**	**20 29 46.6**	**-1.0**
STLK				IAmb	IAmb	20 29 48.8	
	comp=Z,6.8nm,1.2s						
L19K	**White Mountain**	**87.68**	**11**	P	**P**	**20 29 48.0**	**+0.3**
L19K				IAmb	IAmb	20 29 49.0	
	comp=Z,3.5nm,0.8s						
SUA	**Susitna One**	**87.84**	**14**	P	**P**	**20 29 48.4**	**-0.2**
SUA				IAmb	IAmb	20 29 49.4	
	comp=Z,5.5nm,0.8s						
J18K	**Innoko River**	**88.55**	**10**	P	**P**	**20 29 51.8**	**+0.1**
J18K				IAmb	IAmb	20 29 57.0	
	comp=Z,8.0nm,1.4s						
MESA	**MESA**	**88.91**	**18**	P	**P**	**20 29 55.0**	**+1.3**
CAST	**Castle Rocks**	**89.33**	**12**	P	**P**	**20 29 54.5**	**-0.9**
CAST				IAmb	IAmb	20 29 55.3	
	comp=Z,3.5nm,0.8s						
TMUT	**Trail Mountain**	**89.45**	**46**	P	**P**	**20 29 57.8**	**+0.9**
TMUT				IAmb	IAmb	20 29 59.2	
	comp=Z,4.0nm,0.8s						
GLB	**Gilahina Butte**	**89.47**	**16**	P	**P**	**20 29 56.7**	**+0.7**
TRF	**Thorofare Moun**	**89.71**	**13**	P	**P**	**20 29 56.8**	**-0.5**
TRF				IAmb	IAmb	20 29 57.8	
	comp=Z,4.8nm,0.9s						
HVU	**Hansel Valley**	**89.74**	**44**		**P**	**20 29 58.3**	**+0.3**
HVU				IAmb	IAmb	20 29 59.3	
	comp=Z,2.2nm,0.8s						
MNTX	**Cornudas Mount**	**89.86**	**55**	P	**P**	**20 29 59.5**	**+0.9**
MNTX				IAmb	IAmb	20 30 00.7	
	comp=Z,2.6nm,1.0s						
TX31	**Lajitas Ar. Si**	**90.10**	**58**	P	**P**	**20 30 00.2**	**+0.4**
TX31				IAmb	IAmb	20 30 02.1	
	comp=Z,1.9nm,0.9s						
TXAR	**Lajitas Array**	**90.10**	**58**	P	**P**	**20 30 00.9**	**+1.1**
	comp=Z,1.1nm,0.7s,baz=217,slow=6.9,SNR=10						
	comp=Z,1.1nm,0.7s						
TXAR	**Lajitas Array**	**90.10**	**58**	P	**P**	**20 30 00.6**	**+0.8**
BSUT	**Blindstream Ca**	**90.39**	**45**		**P**	**20 30 02.1**	**+0.8**
BSUT				IAmb	IAmb	20 30 03.2	
	comp=Z,4.5nm,0.8s						
ALQ	**Albuquerque**	**90.59**	**52**	P	**P**	**20 30 02.2**	**+0.1**
ALQ	**Albuquerque**	**90.59**	**52**	P	**P**	**20 30 02.3**	**+0.2**
ALQ				IAmb	IAmb	20 30 03.4	
	comp=Z,1.4nm,0.8s						
Q32M	**Nakina River**	**91.03**	**22**	P	**P**	**20 30 04.5**	**+1.0**
PDAR	**Pinedale Array**	**92.30**	**44**	P	**P**	**20 30 10.0**	**+0.2**
	comp=Z,0.5nm,0.6s,baz=222,slow=2.0,SNR=6.8						
	comp=Z,0.5nm,0.6s						
KURK	**Kurchatov**	**114.99**	**317**		PKPdf	20 35 35.8	-0.6
KURBB	**Kurchatov Arra**	**115.03**	**316**	PKP	**PKPdf**	**20 35 35.8**	**-0.7**
	comp=Z,0.3nm,0.7s,baz=114,slow=2.4,SNR=4.2						
BVAR	**Borovoye Array**	**120.21**	**319**	PKP	**PKPdf**	**20 35 46.0**	**-0.4**
	comp=Z,0.7nm,0.5s,baz=0.0,slow=0.4,SNR=4.7						
ARCES	**ARCESS Array B**	**131.50**	**348**	PKP	**PKPdf**	**20 36 07.8**	**+0.2**
	comp=Z,1.6nm,0.9s,baz=5.7,slow=1.2,SNR=5.9						
FINES	**FINESS Array B**	**138.09**	**342**	PKhKP	PKPpre	20 36 13.2	
	comp=Z,0.7nm,0.8s,baz=48,slow=4.1,SNR=3.8						
NB2	**NORSAR Subarra**	**141.69**	**351**	PKP	**PKPdf**	**20 36 22.1**	**-4.5**
	comp=Z,0.4nm,0.6s,baz=20,slow=3.6						
NOA	**NORSAR Array B**	**141.69**	**351**	PKhKP	PKPpre	20 36 21.5	
	comp=Z,0.8nm,0.7s,baz=16,slow=4.7,SNR=6.3						
HFS	**Hagfors**	**142.16**	**349**	PKhKP	PKPpre	20 36 23.4	
	comp=Z,2.2nm,0.4s,baz=64,slow=3.4,SNR=19						
AKASG	**Malin Array Be**	**144.69**	**328**	PKP	**PKPdf**	**20 36 31.9**	**-0.2**
	comp=Z,2.7nm,0.6s,baz=46,slow=4.0,SNR=18						
AKASG	**Malin Array Be**	**144.69**	**328**		**PKPdf**	**20 36 31.2**	**-0.9**
AKBB	**Malin Array Si**	**144.69**	**328**		**PKPdf**	**20 36 31.0**	**-1.1**
KIEV	**Kiev**	**144.70**	**328**		**PKPdf**	**20 36 30.9**	**-1.2**
SUW	**Suwalki**	**144.93**	**336**	PKPdf	**PKPdf**	**20 36 31.5**	**-0.9**
BRTR	**Keskin Array B**	**147.43**	**308**	PKPbc	**PKPbc**	**20 36 40.5**	**-0.2**
	comp=Z,0.7nm,0.7s,baz=152,slow=4.9,SNR=3.6						
MMAI	**Mount Meron Ar**	**147.65**	**295**	PKPbc	**PKPbc**	**20 36 41.2**	**-0.1**
	comp=Z,1.3nm,0.4s,baz=57,slow=5.3,SNR=4.5						
EKA	**Eskdalemuir Ar**	**148.09**	**4**	PKPbc	**PKPbc**	**20 36 41.0**	**-0.7**
	comp=Z,0.6nm,0.4s,baz=342,slow=2.3,SNR=6.9						
BURAR	**Bucovina Array**	**148.69**	**327**	PKPbc	**PKPbc**	**20 36 42.2**	**-1.3**
STEB	**Steborice**	**150.20**	**337**	*e*PKP	**PKiKP**	**20 36 47.5**	**0.0**
OSTC	**Ostas**	**150.21**	**339**	*e*PKP	**PKiKP**	**20 36 48.0**	**+0.5**
UPC	**Upice**	**150.32**	**339**	*e*PKP	**PKiKP**	**20 36 47.7**	**0.0**
DPC	**Dobruska-Polom**	**150.35**	**339**	*e*PKP	**PKiKP**	**20 36 48.2**	**+0.3**
MORC	**Moravsky Berou**	**150.42**	**337**	*e*PKP	**PKPbc**	**20 36 47.1**	**-0.4**
KRLC	**Kraliky**	**150.44**	**338**	*e*PKP	**PKiKP**	**20 36 48.2**	**+0.2**
CLL	**Collm**	**150.49**	**344**		**PKPbc**	**20 36 46.2**	**-1.3**
CLL	**Collm**	**150.49**	**344**	⇑ *i*PKPbc	**PKiKP**	**20 36 47.8**	**-0.2**
	comp=Z,7.0nm,0.8s						
CLL				*i* PKPab	**PKPab**	**20 36 56.5**	**0.0**
	comp=Z,4.0nm,1.0s						
BRG	**Berggiesshubel**	**150.63**	**342**	*e*P	**PKiKP**	**20 36 48.4**	**0.0**
BRG				Amp		20 36 49.2	
	comp=Z,4.1nm,0.8s						
HSKC	**Hora Svate Kat**	**151.01**	**342**	*e*PKP	**PKPdf**	**20 36 41.9**	**-0.5**
VRAC	**Vranov**	**151.15**	**337**	*e*PKP	**PKiKP**	**20 36 49.6**	**+0.1**
KRUC	**Moravsky**	**151.43**	**337**	*e*PKP	**PKPbc**	**20 36 49.3**	**-0.5**
KHC	**Kasperske Hory**	**152.29**	**341**	*e*PKP	PKPdf	20 36 34.7	-10
CKRC	**Cesky Krumlov**	**152.34**	**340**	*e*PKP	**PKPdf**	**20 36 42.9**	**-1.6**
GERES	**GERESS Array B**	**152.51**	**340**	PKPbc	**PKPbc**	**20 36 51.9**	**-0.4**
	comp=Z,0.4nm,0.3s,baz=23,slow=3.4,SNR=4.0						

IDC ***29*** *20:40:04.6±0.7, 21°.42N×144°.20E, h0^{km}, mb4.1/19, mbtmp4.1/20, MS3.8/51, Error ellipse: s-maj=21.9km s-min=15.0km az=78.0*

NEIC ***29*** *20:40:07.2±1.3, 21°.53N±0°.07×144°.2E±0°.1, h10^{km}±1^{km}, mb4.7/108, Error ellipse: s-maj=18.8km s-min=11.6km az=78.0*

GCMT ***29*** *20:40:10.2±0.4, 21°.45N±0°.03×144°.15E±0°.03, h12^{km}, MW4.8/75, Moment Tensor Solution. s9,c9; s75,c95; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-1.36±.06; M$_{\theta\theta}$0.56±.06; M$_{\phi\phi}$0.80±.06; M$_{r\theta}$0.98±.23; M$_{\theta\phi}$-0.74±.04; M$_{\phi r}$0.89±.20; Best double couple: M$_0$1.81200×10^{16} NP1:ϕ_s292.00000°, δ52.00000°, λ-132.00000°. NP2: ϕ_s168.00000°, δ54.00000°, λ-49.00000°. Principal axes: T 1.4330, Plg1.0000°, Azm231.0000°; N 0.7560, Plg32.0000°, Azm322.0000°; P -2.1900, Plg58.0000°, Azm139.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

GFZ ***29*** *20:40:19.6±0.3, 21˚N±4˚×14˚4E±˚, h108^{km}, M4.5/25, mb4.5/25, confirmed*

ISC 29 20:40:07.1±0.4**, 21°.54N**±0°.05×**144°.26E**±0°.08**, h10**^{km}**, n216, σ1**^{s}**.31**/152**, mb4.6**/89**, MS3.9**/48**, 1D, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JCJ	**Chichijima**	**5.85**	**342**	Pn	**Pn**	**20 41 33.5**	**-0.4**
	66nm,0.7s						
JCJ				Sn	**Sn**	**20 42 42.2**	**+1.2**
DPSS	**Saipan**	**6.43**	**167**	Pn	**Pn**	**20 41 46.4**	**+4.5**
DPSS				Sn	**Sn**	**20 42 52.4**	**-3.0**
GUMO	**Guam**	**7.93**	**176**	LR	LR	20 44 33.8	
	comp=Z,734nm,19.6s,baz=9.0,slow=34						
GUMO	**Guam**	**7.93**	**176**	P	Pn	20 42 11.6	+9.1
	comp=Z,173nm,1.3s						
JGF	**Kuroka**	**15.26**	**338**	Pn	**Pn**	**20 43 42.1**	**-0.6**
JOW	**Kunigami**	**15.51**	**293**	LR	LR	20 48 36.3	
	comp=Z,123nm,20.3s,baz=232,slow=33						
MJAR	**Matsushiro Arr**	**15.85**	**342**	Pn	**Pn**	**20 43 48.7**	**-1.7**
	comp=Z,0.1nm,0.3s,baz=166,slow=10,SNR=11						
MJAR				LR	LR	20 49 41.4	
	comp=Z,220nm,19.7s,baz=144,slow=36						
MJAR	**Matsushiro Arr**	**15.85**	**342**		**Pn**	**20 43 49.3**	**-1.1**
MAJO	**Matsushiro**	**15.85**	**342**		**Pn**	**20 43 49.1**	**-1.3**
MAJO	**Matsushiro**	**15.85**	**342**	P	**P**	**20 43 56.4**	**+2.2**
	comp=Z,12nm,2.2s						
ERM	**Erimo**	**20.44**	**358**	P	**P**	**20 44 44.6**	**+0.1**
ERM				IAmb	IAmb	20 44 50.7	
	comp=Z,57nm,1.2s						
NACB	**Ninganchiao**	**21.05**	**281**	P	**P**	**20 44 54.7**	**+3.3**
	comp=Z,17nm,1.3s						
KSRS	**Korea Array**	**21.25**	**322**	P	**P**	**20 44 52.1**	**-1.3**
	comp=Z,5.4nm,0.8s,baz=145,slow=9.0,SNR=11						
KSRS				LR	LR	20 53 38.8	
	comp=Z,143nm,18.2s,baz=140,slow=38						
H11N1	**WAKE ISLAND Hy**	**21.26**	**91**	T	T	21 06 51.9	
	baz=278,slow=75,SNR=177						
H11N2	**WAKE ISLAND Hy**	**21.26**	**91**	T	T	21 06 52.6	
	baz=278,slow=75,SNR=139						
KSAR	**Wonju Array Be**	**21.26**	**322**	P	**P**	**20 44 52.2**	**-1.4**
H11N3	**WAKE ISLAND Hy**	**21.27**	**91**	T	T	21 06 53.2	
	baz=278,slow=75,SNR=141						
YHNB	**Yeheng**	**21.27**	**283**	P	**P**	**20 44 53.0**	**-0.8**
YHNB				IAmb	IAmb	20 44 58.3	
	comp=Z,53nm,1.2s						
YHNB	**Yeheng**	**21.27**	**283**	P	**P**	**20 44 57.1**	**+3.2**
	comp=Z,49nm,1.4s						
H11S3	**WAKE ISLAND Hy**	**21.29**	**94**	T	T	21 06 53.0	
	baz=281,slow=75,SNR=265						
H11S1	**WAKE ISLAND Hy**	**21.30**	**94**	T	T	21 06 53.7	
	baz=281,slow=75,SNR=229						
YULB	**Yu-li**	**21.30**	**279**	P	**P**	**20 44 51.4**	**-2.7**
YULB				IAmb	IAmb	20 45 12.4	
	comp=Z,34nm,1.2s						
YULB	**Yu-li**	**21.30**	**279**	P	**P**	**20 44 57.5**	**+3.5**
	comp=Z,27nm,1.4s						
H11S2	**WAKE ISLAND Hy**	**21.30**	**94**	T	T	21 06 54.3	
	baz=281,slow=75,SNR=240						
KS19	**Wonju Array Si**	**21.32**	**322**	P	**P**	**20 44 53.4**	**-0.7**
TWG	**Pinlang**	**21.51**	**278**	P	**P**	**20 44 56.2**	**-0.1**
TWG				IAmb	IAmb	20 45 01.2	
	comp=Z,31nm,1.1s						
TWG	**Pinlang**	**21.51**	**278**	P	**P**	**20 44 59.5**	**+3.2**
	comp=Z,26nm,1.1s						
SSLB	**Suanglung**	**21.62**	**280**		**P**	**20 44 57.2**	**-0.4**
SSLB	**Suanglung**	**21.62**	**280**	P	**P**	**20 45 00.6**	**+3.0**
	comp=Z,71nm,1.1s						
TPUB	**Ta-pu**	**21.91**	**279**	P	**P**	**20 45 00.7**	**0.0**
TPUB				IAmb	IAmb	20 45 08.6	
	comp=Z,38nm,1.1s						
ASAJ	**Asahikawa**	**22.56**	**357**	LR	LR	20 57 17.1	
	comp=Z,62nm,18.1s,baz=189,slow=46						
DAV	**Davao City (W)**	**23.08**	**234**	LR	LR	20 52 11.7	
	comp=Z,521nm,21.2s,baz=70,slow=32						
USA0B	**Ussuriysk Arra**	**24.78**	**339**	P	**P**	**20 45 28.4**	**-0.7**
USRK	**Ussuriysk Ar.**	**24.78**	**339**	P	**P**	**20 45 28.6**	**-0.4**
	comp=Z,1.9nm,0.8s,baz=158,slow=10,SNR=6.5						
USRK				LR	LR	20 54 34.5	
	comp=Z,213nm,20.9s,baz=149,slow=35						
	comp=Z,1.9nm,0.8s						
USRK	**Ussuriysk Ar.**	**24.78**	**339**	P	**P**	**20 45 28.3**	**-0.8**
SWI	**Sorong**	**25.63**	**211**	P	**P**	**20 45 36.9**	**-0.1**
	comp=Z,20nm,1.2s						
SIJI	**Sorong**	**25.63**	**211**	LR	LR	20 53 13.2	
	comp=Z,126nm,19.9s,baz=64,slow=31						
KRVT	**Keravat (AS076**	**26.79**	**163**	LR	LR	20 56 46.7	
	comp=Z,54nm,19.2s,baz=216,slow=38						
FAKI	**Fak Fak**	**27.00**	**207**	P	**P**	**20 45 48.8**	**-0.6**
FAKI				IAmb	IAmb	20 45 51.0	
	comp=Z,28nm,1.4s						
BNX	**BinXian**	**27.81**	**334**	⇓P	**P**	**20 45 59.5**	**+3.2**
BNX				pmax	pmax		
	comp=Z,5.0nm,1.2s						
KLR	**Kul'dur**	**29.37**	**343**	P	**P**	**20 46 11.2**	**+0.9**
	comp=Z,6.3nm,0.6s,baz=158,slow=5.5,SNR=14						
KLR				LR	LR	20 58 14.2	
	comp=Z,116nm,19.2s,baz=150,slow=37						
	comp=Z,6.3nm,0.6s						
MYLDM	**Lahad Datu**	**29.79**	**241**		**P**	**20 46 13.6**	**-0.7**
MYLDM	**Lahad Datu**	**29.79**	**241**	P	**P**	**20 46 15.5**	**+1.2**
	comp=Z,23nm,1.1s						
MYLDM	**Lahad Datu**	**29.79**	**241**	P	**P**	**20 46 16.0**	**+1.7**
	comp=Z,23nm,1.1s						
TOLI2	**Tolitoli**	**30.59**	**232**	P	**P**	**20 46 19.9**	**-1.5**
TOLI2				IAmb	IAmb	20 46 22.9	
	comp=Z,14nm,1.1s						
TOLI2	**Tolitoli**	**30.59**	**232**	P	**P**	**20 46 20.6**	**-0.8**
	comp=Z,11nm,1.1s						
PMG	**Port Moresby**	**30.88**	**174**	LR	LR	20 58 13.5	
	comp=Z,132nm,18.6s,baz=347,slow=35						
HEH	**HeiHe**	**31.59**	**339**	*e*P	**P**	**20 46 31.5**	**+1.7**
HEH				pmax	pmax		
	comp=Z,8.0nm,0.8s						
QIZ	**Qiongzhong**	**32.34**	**272**	P	**P**	**20 46 39.1**	**+2.3**
	comp=Z,15nm,2.1s						
PETK	**Petropavlovsk-**	**33.16**	**15**	LR	LR	20 58 14.1	
	comp=Z,206nm,21.7s,baz=194,slow=33						
HNR	**Honiara**	**34.42**	**152**	LR	LR	20 59 30.4	
	comp=Z,84nm,20.5s,baz=39,slow=34						
KAPI	**Kappang**	**35.68**	**225**	LR	LR	20 59 59.3	
	comp=Z,66nm,19.8s,baz=26,slow=34						
SBUM	**Sibu**	**36.49**	**243**		**P**	**20 47 12.7**	**0.0**
SBUM	**Sibu**	**36.49**	**243**	P	**P**	**20 47 14.4**	**+1.7**
SBUM	**Sibu**	**36.49**	**243**	P	**P**	**20 47 14.6**	**+1.9**
	comp=Z,6.6nm,1.4s						
BATI	**Baumata**	**37.47**	**215**	LR	LR	21 03 07.5	
	comp=Z,98nm,18.2s,baz=46,slow=37						
MA2	**Magadan**	**38.28**	**5**	LR	LR	21 00 36.8	
	comp=Z,54nm,20.8s,baz=206,slow=32						
SHEM	**Shemya Is, Ala**	**38.66**	**29**	LR	LR	21 00 12.8	
	comp=Z,234nm,21.7s,baz=276,slow=31						
ULN	**Ulaanbaatar**	**39.72**	**320**	P	**P**	**20 47 38.6**	**-1.2**
KNRA	**Kununurra**	**39.99**	**204**	P	**P**	**20 47 40.8**	**-1.3**

SONM	Songino Array	40.10	320	P	P	20 47 41.6	-1.4
	comp=Z,0.8nm,0.7s,baz=139,slow=7.6,SNR=5.6						
SONM				LR	LR	21 06 07.2	
	comp=Z,70nm,18.2s,baz=272,slow=39						
	comp=Z,0.8nm,0.7s						
CTA	Charters Tower	41.42	177	LR	LR	21 02 17.4	
	comp=Z,62nm,20.0s,baz=3.0,slow=32						
YAK	Yakutsk	41.70	350	LR	LR	21 09 04.3	
	comp=Z,30nm,18.1s,baz=142,slow=42						
GTA2	Gaotai	41.84	306	*e*P	P	20 47 57.5	+0.1
GTA2				pmax	pmax		
	comp=Z,5.0nm,0.9s						
JAGI	Jajag, Banyuwa	41.98	228	P	P	20 47 57.3	-1.4
QIS	Mount Isa	42.08	187	P	P	20 47 59.2	-0.2
	comp=Z,12nm,1.0s						
WR8	Warramunga Arr	42.33	194		P	20 48 00.5	-0.8
WR8				IAmb	IAmb	20 48 08.6	
	comp=Z,16nm,1.4s						
WRAB	Tennant Creek	42.34	194	P	P	20 48 00.0	-1.4
WRAB	Tennant Creek	42.34	194	P	P	20 48 02.0	+0.6
	comp=Z,10nm,1.7s						
WRA	Warramunga Arr	42.35	194	P	P	20 47 59.0	-2.5
	comp=Z,5.7nm,0.9s,baz=17,slow=9.1,SNR=16						
	comp=Z,5.7nm,0.9s						
WRA	Warramunga Arr	42.35	194		P	20 47 59.2	-2.3
CMAR	Chiang Mai Arr	42.59	274	P	P	20 48 02.8	-0.9
	comp=Z,0.4nm,0.4s,baz=71,slow=10,SNR=4.4						
CMAR				LR	LR	21 03 52.0	
	comp=Z,73nm,21.9s,baz=75,slow=34						
	comp=Z,0.4nm,0.4s						
SNJI	Sawahan-Nganju	43.20	231	P	P	20 48 10.3	+1.6
	comp=Z,63nm,2.6s						
FITZ	Fitzroy Crossi	43.41	206	P	P	20 48 09.5	-0.6
TLY	Talaya	43.48	324	LR	LR	21 07 12.8	
	comp=Z,59nm,18.2s,baz=112,slow=37						
ATKA	Atka Island	44.23	36	P	P	20 48 16.3	-0.1
KULM	Kulim	45.20	255	P	P	20 48 23.3	-1.3
KULM	Kulim	45.20	255	P	P	20 48 26.3	+1.6
	comp=Z,15nm,1.3s						
IPM	Ipoh	45.20	254		P	20 48 23.5	-1.2
IPM				IAmb	IAmb	20 48 28.4	
	comp=Z,13nm,1.1s						
IPM	Ipoh	45.20	254	P	P	20 48 26.6	+1.9
	comp=Z,12nm,1.2s						
LEM	Lembang	45.68	236	LR	LR	21 07 45.0	
	comp=Z,78nm,21.2s,baz=220,slow=36						
MORE	Moreh	45.91	283		P	20 48 28.3	-1.9
AS31	Alice Springs	46.05	193	P	P	20 48 29.4	-1.8
ASAR	Alice Springs	46.05	193	P	P	20 48 29.8	-1.4
	comp=Z,2.0nm,0.7s,baz=14,slow=8.9,SNR=16						
ASAR				LR	LR	21 06 37.5	
	comp=Z,119nm,21.4s,baz=12,slow=35						
	comp=Z,2.0nm,0.7s						
ASAR	Alice Springs	46.05	193	P	P	20 48 30.2	-1.0
KOUNC	Koumac, New Ca	46.18	154	P	P	20 48 32.4	+0.2
RPSI	Rantau Prapat	47.87	253		P	20 48 44.3	-1.3
RPSI	Rantau Prapat	47.87	253	P	P	20 48 46.6	+1.0
	comp=Z,14nm,1.0s						
SHL	Shillong	47.93	285	P	P	20 48 45.4	-0.9
MNSI	Mandailing Nat	48.17	251	P	P	20 48 49.3	+1.4
	comp=Z,19nm,1.2s						
LSA	Lhasa	48.23	291	P	P	20 48 48.1	-0.7
LSA				IAmb	IAmb	20 48 54.8	
	comp=Z,8.3nm,1.3s						
KCSI	Kotacane, Aceh	48.54	255	P	P	20 48 51.0	+0.1
	comp=Z,17nm,1.2s						
LHMI	Lhok Sumawe	48.57	258	P	P	20 48 50.8	-0.3
MBWA	Marble Bar	48.73	211	P	P	20 48 52.3	+0.2
MBWA				IAmb	IAmb	20 48 53.5	
	comp=Z,11nm,1.1s						
INKA	Innaminka	49.11	184	P	P	20 48 53.5	-1.3
GSI	Gunungsitoli	49.70	253	P	P	20 48 58.5	-1.2
TIXI	Tiksi	50.91	354	LR	LR	21 13 34.0	
	comp=Z,33nm,20.9s,baz=149,slow=39						
MSVF	Nonsavu	51.17	137	P	P	20 49 17.2	+6.4
EVN	Everest	52.16	289		P	20 49 17.7	-1.2
EVN				IAmb	IAmb	20 49 22.0	
	comp=Z,8.4nm,1.2s						
EVN	Everest	52.16	289	P	P	20 49 19.0	+0.1
	comp=Z,5.9nm,1.2s						
ZAA0	Zalesovo Array	54.96	322	P	P	20 49 37.4	-0.8
ZALV	Zalesovo Beam	54.96	322	P	P	20 49 37.5	-0.7
	comp=Z,1.1nm,0.6s,baz=90,slow=7.4,SNR=6.6						
	comp=Z,1.1nm,0.6s						
ZALV	Zalesovo Beam	54.96	322	P	P	20 49 37.2	-1.0
MKAR	Makanchi Array	55.54	313	P	P	20 49 41.8	-0.8
	comp=Z,0.7nm,0.5s,baz=92,slow=8.7,SNR=8.2						
MKAR				PcP	PcP	20 50 44.1	+1.6
	comp=Z,2.1nm,0.9s,baz=85,slow=5.2,SNR=4.3						
	comp=Z,0.7nm,0.5s						
MKAR	Makanchi Array	55.54	313		P	20 49 41.5	-1.1
MKAR					PcP	20 50 42.6	+0.1
MAKZ	Makanchi	55.76	313	P	P	20 49 43.5	-0.7
MAKZ				IAmb	IAmb	20 49 49.8	
	comp=Z,6.8nm,1.2s						
K17K	Iditarod	56.30	28	P	P	20 49 49.1	+1.4
N18K	Kilae Creek	56.78	31	P	P	20 49 52.2	+1.0
PDGK	Podgornoye	57.38	308		P	20 49 54.9	-1.0
WUS	Wushi	57.59	306	P	P	20 49 57.1	-0.3
KDAK	Kodiak Island	57.76	34	LR	LR	21 11 51.8	
	comp=Z,177nm,21.5s,baz=237,slow=33						
KURK	Kurchatov	58.27	317		P	20 50 00.8	-1.1
KURK	Kurchatov	58.27	317	P	P	20 50 00.9	-0.9
	comp=Z,5.6nm,1.4s						
KURBB	Kurchatov Arra	58.32	317	P	P	20 50 01.3	-0.9
	comp=Z,3.7nm,0.8s,baz=95,slow=7.8,SNR=28						
	comp=Z,3.7nm,0.8s						
NRIK	Noril'sk	58.49	340	LR	LR	21 17 11.1	
	comp=Z,123nm,18.1s,baz=46,slow=38						
J20K	Nowinta River	58.53	27	P	P	20 50 04.7	+1.3
J20K				IAmb	IAmb	20 50 33.1	
	comp=Z,12nm,1.4s						
TARG	Taragay, Kyrgy	58.64	307	P	P	20 50 04.2	-0.9
CAST	Castle Rocks	59.21	28		P	20 50 09.5	+1.2
ASAI	AK-SAY(Kyrgyzs	59.64	306	P	P	20 50 12.7	+0.8
	comp=Z,4.4nm,1.4s						
BPAW	Bear Paw Mtn.	59.85	27	P	P	20 50 13.2	+0.6
BPAW				IAmb	IAmb	20 50 18.0	
	comp=Z,4.0nm,0.8s						
NRN	Naryn	60.01	306		P	20 50 13.6	-0.9
NRN				IAmb	IAmb	20 50 18.7	
	comp=Z,8.2nm,1.3s						
TRF	Thorofare Moun	60.01	28	P	P	20 50 14.2	+0.3
MLY	Manley	60.17	26	P	P	20 50 15.2	+0.4
GHO	Glory Hole Cre	60.31	30	P	P	20 50 15.3	-0.5
AAK	Ala-Archa	61.06	308	LR	LR	21 19 45.9	
	comp=Z,82nm,18.6s,baz=254,slow=39						
AAK	Ala-Archa	61.06	308		P	20 50 20.5	-1.0
AAK	Ala-Archa	61.06	308	P	P	20 50 21.0	-0.4
	comp=Z,3.6nm,1.2s						
E23K	Chandalar	61.32	23		P	20 50 22.8	+0.1
E23K				IAmb	IAmb	20 50 44.6	
	comp=Z,5.5nm,0.8s						
ILAR	Eielson Array	61.73	27	P	P	20 50 25.1	-0.3
	comp=Z,1.3nm,0.8s,baz=251,slow=5.9,SNR=8.2						
ILAR				LR	LR	21 14 14.6	
	comp=Z,107nm,21.7s,baz=268,slow=33						
	comp=Z,1.3nm,0.8s						
RAO	Raoul Island	62.27	143	LR	LR	21 15 26.6	
	comp=Z,59nm,19.2s,baz=146,slow=34						
ARSB	Arslanbob	62.28	306		P	20 50 28.3	-1.3
PALK	Pallekele	62.80	267	LR	LR	21 17 20.3	
	comp=Z,83nm,18.6s,baz=1.0,slow=36						
SCRK	Sand Creek	62.86	28		P	20 50 32.9	-0.2
SCRK				IAmb	IAmb	20 50 40.6	
	comp=Z,4.5nm,1.0s						
ARK	Arkit	63.00	307	P	P	20 50 34.6	+0.1
	comp=Z,5.6nm,1.0s						
BMAR	Burnt Mountain	63.08	24	P	P	20 50 36.2	+1.8
F26K	Sheenjek River	63.28	24	IAmb	IAmb	20 51 00.6	
	comp=Z,5.5nm,1.1s						
G26K	Porcupine Rive	63.32	25	IAmb	IAmb	20 50 42.4	
	comp=Z,3.6nm,0.8s						
BVAR	Borovoye Array	63.44	320	P	P	20 50 36.8	-0.2
	comp=Z,4.3nm,0.6s,baz=94,slow=8.0,SNR=18						
	comp=Z,4.3nm,0.6s						
BORK	Borovoye	63.48	320		P	20 50 35.5	-1.8
BORK				IAmb	IAmb	20 50 40.5	
	comp=Z,5.8nm,0.9s						
BCAR	Beaver Creek A	63.76	29	P	P	20 50 39.1	+0.1
KK31	Karatay Array	63.94	308		P	20 50 39.9	-0.7
KK31				IAmb	IAmb	20 50 44.4	
	comp=Z,8.2nm,1.1s						
KKAR	Karatay Array	63.94	308		P	20 50 39.6	-0.9
H27K	Steamboat Moun	64.13	26	IAmb	IAmb	20 50 45.0	
	comp=Z,10nm,1.5s						
D27M	Malcolm River	64.65	22	IAmb	IAmb	20 51 04.4	
	comp=Z,4.3nm,0.9s						
E28M	Babbage River	65.10	23		P	20 50 48.7	+1.0
E28M				IAmb	IAmb	20 51 08.4	
	comp=Z,5.2nm,1.0s						
KBL	Kabul	66.29	299	P	P	20 50 54.7	-1.4
KBL				IAmb	IAmb	20 51 01.0	
	comp=Z,5.5nm,1.1s						
H31M	Peel River	67.05	26		P	20 51 01.4	+1.2
H31M				IAmb	IAmb	20 51 06.3	
	comp=Z,5.2nm,0.9s						
G31M	Satah River	67.05	25		P	20 51 01.2	+1.1
INK	Inuvik	67.31	24	P	P	20 51 02.0	+0.2
	comp=Z,3.0nm,0.9s,baz=244,slow=9.6,SNR=3.9						
	comp=Z,3.0nm,0.9s						
INK	Inuvik	67.31	24	IAmb	IAmb	20 51 05.4	
	comp=Z,7.7nm,1.2s						
DLBC	Dease Lake	69.69	34	LR	LR	21 18 50.1	
	comp=Z,84nm,21.9s,baz=262,slow=33						
ARTI	Arti	70.09	324	P	P	20 51 17.9	-1.5
ARTI				IAmb	IAmb	20 51 29.7	
	comp=Z,3.4nm,0.5s						
AB31	Akbulak array	70.36	316		P	20 51 19.7	-1.4
AB31				IAmb	IAmb	20 51 22.5	
	comp=Z,5.3nm,0.8s						
ABKAR	Akbulak array	70.36	316		P	20 51 19.9	-1.2
HRA	Herat	71.81	300	P	P	20 51 28.7	-1.8
BBB	Bella Bella	71.86	40	LR	LR	21 14 25.9	
	comp=Z,109nm,21.0s,baz=228,slow=29						
PPT	Papeete	75.56	116	LR	LR	21 20 33.2	
	comp=Z,33nm,20.8s,baz=1.5,slow=32						
YKA	Yellowknife Ar	76.13	28	LR	LR	21 24 36.0	
	comp=Z,130nm,20.4s,baz=278,slow=35						
RES	Resolute Bay	77.00	14	LR	LR	21 30 14.1	
	comp=Z,66nm,19.3s,baz=47,slow=39						
JRO	Jston Ridge Ob	77.10	45		P	20 52 01.1	+0.2
YBH	Yreka Blue Hor	78.16	50	LR	LR	21 19 28.7	
	comp=Z,167nm,20.9s,baz=311,slow=30						
J05D	Fort Rock, OR	78.70	48	P	P	20 52 08.4	-1.5
M03C	McCloud	78.72	50	P	P	20 52 09.3	-0.7
PINE	Pine Mountain	78.74	47		P	20 52 09.6	-0.6
O03E	Paynes Creek	79.27	51	P	P	20 52 12.4	-0.6
ARCES	ARCESS Array B	79.39	342	P	P	20 52 12.4	-0.6
	comp=Z,2.0nm,0.9s,baz=72,slow=7.8,SNR=5.1						
ARCES				LR	LR	21 31 40.6	
	comp=Z,59nm,18.9s,baz=210,slow=39						
	comp=Z,2.0nm,0.9s						
ARCES	ARCESS Array B	79.39	342	P	P	20 52 12.1	-0.9
ARCES				IAmb	IAmb	20 52 54.0	
	comp=Z,8.7nm,1.2s						
NEW	Newport	79.73	42	LR	LR	21 20 57.5	
	comp=Z,164nm,21.2s,baz=308,slow=31						
AFDM	Forest Hills D	80.32	52	P	P	20 52 17.8	-0.9
BEKR	Beckworth	80.45	51		P	20 52 18.8	-0.7
BEKR				IAmb	IAmb	20 52 30.5	
	comp=Z,7.3nm,1.0s						
J08A	Circle Bar Ran	80.57	47	P	P	20 52 20.1	0.0
J08A				IAmb	IAmb	20 52 31.4	
	comp=Z,7.0nm,1.0s						
WVOR	Wild Horse Val	80.78	48	P	P	20 52 21.8	+0.5
WVOR				IAmb	IAmb	20 52 34.1	
	comp=Z,5.0nm,1.1s						
WVOR	Wild Horse Val	80.78	48	P	P	20 52 22.0	+0.7
	comp=Z,4.9nm,1.2s						
BMO	Blue Mountains	80.83	45		P	20 52 20.1	-1.3
CMB	Columbia Colle	81.06	53	P	P	20 52 21.6	-1.1
CMB				IAmb	IAmb	20 52 28.5	
	comp=Z,10nm,1.4s						
YERR	Yerington	81.57	52	P	P	20 52 24.6	-1.0
YERR				IAmb	IAmb	20 52 39.6	
	comp=Z,4.4nm,1.0s						
PKD	Bear Valley Ra	81.67	55	P	P	20 52 25.3	-0.6
MFID	Camas Ranch	82.35	46		P	20 52 29.3	-0.2
MFID				IAmb	IAmb	20 52 41.3	
	comp=Z,6.0nm,0.9s						
KVN	Kaiserville	82.38	51	P	P	20 52 30.2	+0.4
KVN				IAmb	IAmb	20 52 40.9	
	comp=Z,6.8nm,1.1s						
NVAR	Mina Array Bea	82.46	52	P	P	20 52 30.7	+0.4
	comp=Z,1.3nm,0.8s,baz=264,slow=5.3,SNR=8.2						
NVAR				LR	LR	21 21 39.9	
	comp=Z,151nm,20.9s,baz=274,slow=30						
	comp=Z,1.3nm,0.8s						
KBZ	Khabaz	83.20	314	P	P	20 52 33.5	-0.1
	comp=Z,8.3nm,0.8s,baz=38,slow=7.8,SNR=6.9						
GMN	Gold Mountain	83.64	53	IAmb	IAmb	20 52 47.4	
	comp=Z,3.8nm,1.0s						
FINES	FINESS Array B	83.75	335	P	P	20 52 34.1	-2.0
	comp=Z,1.1nm,0.5s,baz=95,slow=3.3,SNR=8.8						
	comp=Z,1.1nm,0.5s						
FINES	FINESS Array B	83.75	335	P	P	20 52 35.5	-0.7
ELK	Elko	83.78	49	LR	LR	21 22 17.0	
	comp=Z,79nm,20.7s,baz=346,slow=30						
ELK	Elko	83.78	49		P	20 52 37.3	+0.2
ELK				IAmb	IAmb	20 52 49.9	
	comp=Z,4.2nm,1.0s						
MPMC	Manual Prospec	83.94	54	IAmb	IAmb	20 52 49.0	
	comp=Z,4.7nm,0.9s						
CLC	China Lake	83.95	54	IAmb	IAmb	20 52 48.7	
	comp=Z,3.8nm,0.9s						
TPNV	Topopah Spring	84.52	53		P	20 52 40.8	-0.1
TPNV				IAmb	IAmb	20 52 50.6	
	comp=Z,7.8nm,1.4s						
YHL	Hebgen Lake	84.83	44	IAmb	IAmb	20 52 54.1	
	comp=Z,7.0nm,1.3s						
HVU	Hansel Valley	85.06	47	IAmb	IAmb	20 52 55.0	
	comp=Z,3.2nm,0.8s						
HAKT	HAKKARI	85.06	308	P	P	20 52 43.8	+0.2
	comp=Z,19nm,1.6s						
SPUT	South Promonto	85.48	47	IAmb	IAmb	20 52 56.8	
	comp=Z,3.6nm,0.9s						
PFO	Pinyon Flats O	85.65	56	LR	LR	21 24 01.8	
	comp=Z,69nm,20.3s,baz=7.5,slow=31						
DUG	Dugway, Tooele	85.69	48	IAmb	IAmb	20 52 57.7	
	comp=Z,8.2nm,1.2s						
DUG	Dugway, Tooele	85.69	48	P	P	20 52 48.0	+1.4
	comp=Z,6.5nm,1.3s						
HWUT	Hardware Ranch	85.96	47	P	P	20 52 49.4	+1.4
	comp=Z,4.9nm,1.4s						
PDAR	Pinedale Array	86.80	45	P	P	20 52 50.9	-1.3
	comp=Z,0.5nm,0.8s,baz=282,slow=2.9,SNR=5.0						
PDAR				LR	LR	21 24 06.3	
	comp=Z,87nm,21.9s,baz=338,slow=30						
	comp=Z,0.5nm,0.8s						
PDAR	Pinedale Array	86.80	45	P	P	20 52 51.5	-0.6
U15A	North Rim	87.64	52	P	P	20 52 56.5	+0.1
U15A				IAmb	IAmb	20 53 05.6	
	comp=Z,2.5nm,0.8s						
Y14A	Wickenburg	88.16	54	P	P	20 52 58.0	-0.6
AKASG	Malin Array Be	88.22	325	P	P	20 52 56.1	-2.4
	comp=Z,0.4nm,0.4s,baz=54,slow=4.8,SNR=4.1						
	comp=Z,0.4nm,0.4s						
HFS	Hagfors	89.26	338	LR	LR	21 34 24.5	
	comp=Z,46nm,19.7s,baz=29,slow=36						
PV03	Paradox Valley	89.31	49	IAmb	IAmb	20 53 07.5	
	comp=Z,7.8nm,1.2s						
NOA	NORSAR Array B	89.45	339	P	P	20 53 04.6	+0.4
	comp=Z,0.5nm,0.8s,baz=47,slow=4.8,SNR=3.4						
NOA				LR	LR	21 36 09.0	
	comp=Z,36nm,21.5s,baz=40,slow=38						
	comp=Z,0.5nm,0.8s						
ULM	Lac du Bonnet	91.02	34	LR	LR	21 32 11.2	
	comp=Z,102nm,21.4s,baz=0.5,slow=34						
BRTR	Keskin Array B	91.18	314	P	P	20 53 13.8	+1.0
	comp=Z,0.6nm,0.7s,baz=55,slow=3.8,SNR=2.3						
	comp=Z,0.6nm,0.7s						
BRTR	Keskin Array B	91.18	314	P	P	20 53 11.4	-1.4
FRB	Frobisher Bay	91.21	14	LR	LR	21 35 22.0	
	comp=Z,46nm,22.0s,baz=62,slow=36						
ANMO	Albuquerque	92.55	51	LR	LR	21 28 52.5	
	comp=Z,96nm,20.7s,baz=346,slow=32						
LPIG	La Paz	94.48	62	LR	LR	21 26 54.6	
	comp=Z,59nm,21.8s,baz=261,slow=30						
VRAC	Vranov	95.53	329	LR	LR	21 40 40.7	
	comp=Z,45nm,18.9s,baz=22,slow=38						
GERES	GERESS Array B	97.23	330	LR	LR	21 38 52.5	
	comp=Z,36nm,20.6s,baz=19,slow=36						
PLCA	Paso Flores	144.90	131	PKP	PKPab	20 59 42.1	-1.8
	comp=Z,13nm,1.1s,baz=214,slow=4.5,SNR=5.7						
LPAZ	La Paz	148.95	86	PKPbc	PKPdf	20 59 56.6	+3.8
	comp=Z,1.2nm,0.4s,baz=240,slow=3.3,SNR=5.0						
LPAZ	La Paz	148.95	86		PKPdf	20 59 51.4	-1.5

IDC 29 20:45:44.0±1.8**, 13°.07N**×**92°.31E, h0^{km}, mb3.5**/4**,**
mbtmp3.5/5**, Error ellipse: s-maj=42.9km s-min=26.9km**
az=60.0, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	8.33	49	Pn	Pn	20 47 47.3	+1.1
	0.6nm,0.4s,baz=221,slow=15,SNR=4.3						
MKAR	Makanchi Array	34.65	348	P	P	20 52 35.9	+0.7
	0.8nm,0.8s,baz=150,slow=6.7,SNR=3.7						
	0.8nm,0.8s						
KURBB	Kurchatov Arra	39.09	346	P	P	20 53 12.4	-0.5
	0.4nm,0.7s,baz=169,slow=8.6,SNR=4.4						
	0.4nm,0.7s						
ZALV	Zalesovo Beam	41.20	353	P	P	20 53 29.8	-0.5
	0.4nm,0.6s,baz=181,slow=9.4,SNR=2.3						
	0.4nm,0.6s						
ASAR	Alice Springs	54.66	132	P	P	20 55 15.1	-0.1
	0.2nm,0.4s,baz=304,slow=7.1,SNR=6.7						
	0.2nm,0.4s						

IDC 29 20:47:04.5±11.0**, 19°.31S**×**173°.63W, h0^{km}, mb3.7**/4**,**
mbtmp3.7/4**, MS3.5**/5**, Error ellipse: s-maj=312.4km**
s-min=38.4km az=34.0, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSVF	Nonsavu	8.05	280	LR	LR	20 51 51.9	
	comp=Z,284nm,18.3s,baz=129,slow=36						
URZ	Urewera	20.52	201	LR	LR	20 57 54.8	
	comp=Z,127nm,19.2s,baz=45,slow=32						
PPT	Papeete	22.88	90	LR	LR	20 59 03.3	
	comp=Z,26nm,20.0s,baz=6.0,slow=31						
ASAR	Alice Springs	48.79	255	P	P	20 55 52.0	+0.2
	0.3nm,0.5s,baz=108,slow=8.4,SNR=7.6						
	0.3nm,0.5s						
WRA	Warramunga Arr	48.84	260	P	P	20 55 51.8	-0.4
	0.5nm,1.0s,baz=96,slow=7.0,SNR=8.7						
	0.5nm,1.0s						
VNDA	Vanda	59.48	186	P	P	20 57 08.5	-0.4
	0.7nm,1.0s,baz=3.8,slow=7.4,SNR=3.9						
	0.7nm,1.0s						
QSPA	South Pole Qui	70.75	180	P	P	20 58 22.8	+0.3
	3.2nm,1.0s,baz=39,slow=3.5,SNR=6.2						
	3.2nm,1.0s						
H03S2	Juan Fernandez	83.24	123	T	T	22 31 02.8	
	baz=242,slow=75,SNR=75						
H03S1	Juan Fernandez	83.25	123	T	T	22 31 00.3	
	baz=242,slow=75,SNR=66						
H03S3	Juan Fernandez	83.26	123	T	T	22 31 02.4	
	baz=242,slow=75,SNR=74						
H03N2	Juan Fernandez	83.36	123	T	T	22 31 15.8	
	baz=252,slow=14,SNR=28						
H03N3	Juan Fernandez	83.36	123	T	T	22 31 13.5	
	baz=252,slow=14,SNR=60						
H03N1	Juan Fernandez	83.38	123	T	T	22 31 14.4	
	baz=252,slow=14,SNR=31						
KLR	Kul'dur	83.67	327	LR	LR	21 31 12.3	
	comp=Z,39nm,19.6s,baz=303,slow=32						
YAK	Yakutsk	92.60	337	LR	LR	21 36 26.9	
	comp=Z,51nm,20.6s,baz=334,slow=32						

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*IDC **29** 20:56:23.1±1.6, 31°.03N×56°.59E, h0^{km}, mb3.5/10,*
mbtmp3.5/10, MS3.2/1, Error ellipse: s-maj=38.5km
s-min=20.4km az=175.0
*TEH **29** 20:56:23.8, 31°.27N×56°.58E, h5^{km}, ML4.0, Presumed*
earthquake
*THR **29** 20:56:25.0±0.0, 31°.28N×56°.62E, h10^{km}±468^{km}, ML4.1,*
Presumed earthquake
ISC 29 20:56:25.6±0.7**, 31°.24N**±0°.05×**56°.58E**±0°.05**, h10^{km}, n58,**
σ1ˢ38/57**, mb3.5**/8**, Northern and central Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ZRDN	Zarand Kerman	0.28	187	Pg	Pg	20 56 30.2	-1.1
KHGB	Koh Gabri	0.87	186	Pg	Pg	20 56 41.6	-0.8
IBAF	Bafgh	0.93	292	Pg	Pg	20 56 41.0	-2.5
CHMN	Cheshme madani	1.61	149	Pg	Pb	20 56 55.0	-0.6
IMEH	Mehriz	1.69	275	Pg	Pn	20 56 55.6	+0.2
TPRV	Parvadeh(Tabas	1.78	3	Pg	Pn	20 56 56.8	+0.3
DOBD	Dorbid, Yazd	1.91	293	Pn	Pn	20 56 59.5	+1.2
YZKH	Yazd	2.04	305	*e*Pn	Pn	20 57 01.1	+1.0
YZKH				IAML		20 57 35.8	
	comp=Z,1μm,1.0s						
ICHK	Chekchek	2.10	299	Pn	Pn	20 57 02.2	+1.1
TAFT	Taft - Yazd	2.11	284	Pn	Pn	20 57 02.3	+1.2
BSRN	Basiran	2.29	71	*e*Pn	Pn	20 57 03.6	0.0
BSRN				IAML		20 57 47.9	
	comp=Z,630nm,1.0s						
BSRN	Basiran	2.29	71	Pn	Pn	20 57 04.2	+0.6
IKOO	Kooshah	2.38	60	Pn	Pn	20 57 05.6	+0.7
TKDS	Koohdasht(Taba	2.41	11	Pn	Pn	20 57 06.3	+1.1
TABS	Tabas	2.44	11	*e*Pn	Pn	20 57 06.5	+0.9
TABS				IAML		20 57 49.5	
	comp=Z,450nm,1.0s						
TSHB	Tabas_ShorAb	2.44	358	Pn	Pn	20 57 06.2	+0.6
ITEG	Tejag	2.47	48	Pn	Pn	20 57 06.7	+0.6
KBAM	BAM	2.66	142	Pn	Pn	20 57 09.9	+1.3
TNSJ	Nastanj	2.71	1	Pn	Pn	20 57 10.3	+1.0
NHDN	Nehbandan	2.98	86	Pn	Pn	20 57 14.2	+1.2
AFRZ	Afriz	3.00	43	Pn	Pn	20 57 14.1	+0.7
ANAR	Anarak	3.10	310	Pn	Pn	20 57 15.6	+0.9
BNDS	Bandar-Abbas	3.85	185	*e*Pn	Pn	20 57 27.0	+2.0
BNDS				IAML		20 59 13.8	
	comp=Z,65nm,1.0s						
SHRT	Shahrakht	3.95	52	*e*Pn	Pn	20 57 27.1	+0.8
SHRT				IAML		20 58 46.9	
	comp=Z,120nm,1.0s						
ZHSF	Zahedan	3.98	113	*e*Pn	Pn	20 57 27.8	+1.0
ZHSF				IAML		20 58 54.3	
	comp=Z,31nm,1.0s						
ZHSF	Zahedan	3.98	113	Pn	Pn	20 57 27.9	+1.1
TBHD	Torbat heydari	4.72	27	Pn	Pn	20 57 38.5	+1.5
SHRO	Shahrood	4.76	354	*e*Pn	Pn	20 57 38.3	+0.8
SHRO				IAML		20 59 46.9	
	comp=Z,2.4nm,1.0s						
ILAS	Lasjerd	5.12	325	Pn	Pn	20 57 44.0	+1.4
SBZV	Sabzevar	5.20	9	*e*Pn	Pn	20 57 45.3	+1.6
SBZV				IAML		20 59 23.7	
	comp=Z,68nm,1.0s						
SBZV	Sabzevar	5.20	9	Pn	Pn	20 57 45.2	+1.5
ISHM	Shahmirzad	5.31	330	Pn	Pn	20 57 46.0	+0.7
DSBU	Dashti - Bushe	5.44	239	Pn	Pn	20 57 48.9	+2.1
GHVR	GHOM	5.49	307	*e*Pn	Pn	20 57 49.4	+1.9
GHVR				IAML		20 59 40.2	
	comp=Z,90nm,1.0s						
IGLO	Ghaloghah	5.72	337	Pn	Pn	20 57 52.4	+1.6
DAMV	Damavand	5.83	320	*e*Pn	Pn	20 57 53.6	+1.3
DAMV				IAML		20 59 58.7	
	comp=Z,54nm,1.0s						
ISFR	Sfrayin	5.91	11	Pn	Pn	20 57 54.6	+1.1
KHMZ	Khomeyn	6.12	296	*e*Pn	Pn	20 57 58.3	+2.0
KHMZ				IAML		20 59 51.2	
	comp=Z,25nm,1.0s						
SRVN	Saravan	6.36	126	*e*Pn	Pn	20 58 01.7	+2.1
SRVN				IAML		21 00 26.0	
	comp=Z,20nm,1.0s						
MRVT	Maraveh tapeh	6.41	357	*e*Pn	Pn	20 58 01.7	+1.5
MRVT				IAML		21 00 13.9	
	comp=Z,24nm,1.0s						
ASAO	Ashtian	6.42	303	*e*Pn	Pn	20 58 02.0	+1.6
ASAO				IAML		21 00 08.2	
	comp=Z,23nm,1.0s						
GTMR	Gotvand	6.47	283	*e*Pn	Pn	20 58 01.9	+1.0
GTMR				IAML		21 00 15.8	
	comp=Z,21nm,1.0s						
BJRD	Bojnurd	6.48	6	*e*Pn	Pn	20 58 02.7	+1.6
BJRD				IAML		21 00 17.8	
	comp=Z,11nm,1.0s						
CHTH	Charan	6.50	317	*e*Pn	Pn	20 58 03.2	+1.6
CHTH				IAML		21 00 10.1	
	comp=Z,33nm,1.0s						
THKV	Tehran--Karaj	6.66	316	*e*Pn	Pn	20 58 05.9	+2.3
THKV				IAML		21 00 17.6	
	comp=Z,50nm,1.0s						
ZNJK	Zanjan	8.50	312	*e*Pn	Pn	20 58 31.9	+2.9
ZNJK				IAML		20 58 33.6	
	comp=Z,10.0nm,0.5s						
ILBA	Ilam Banvizeh	9.08	288	*e*Pn	Pn	20 58 38.2	+1.4
ILBA				IAML		20 58 58.3	
	comp=Z,3.8nm,0.9s						
AKTO	Aktyubinsk	19.20	3	LR	LR	21 10 30.6	
	comp=Z,72nm,19.4s,baz=358,slow=44						
BRTR	Keskin Array B	20.46	301	P	P	21 01 04.8	+1.3
	comp=Z,1.3nm,0.7s,baz=122,slow=10,SNR=6.6						
	comp=Z,1.3nm,0.7s						

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BVAR	Borovoye Array	23.97	21	P	P	21 01 41.2	+1.2
	comp=Z,0.7nm,0.6s,baz=206,slow=8.0,SNR=4.5						
	comp=Z,0.7nm,0.6s						
MKAR	Makanchi Array	25.15	45	P	P	21 01 51.4	+0.6
	comp=Z,1.6nm,0.9s,baz=236,slow=10,SNR=7.0						
	comp=Z,1.6nm,0.9s						
KURBB	Kurchatov Arra	25.33	34	P	P	21 01 54.0	+1.7
	comp=Z,0.5nm,0.7s,baz=236,slow=8.8,SNR=5.1						
	comp=Z,0.5nm,0.7s						
ZALV	Zalesovo Beam	30.42	34	P	P	21 02 36.9	-1.1
	comp=Z,1.0nm,0.8s,baz=236,slow=10,SNR=4.7						
	comp=Z,1.0nm,0.8s						
FINES	FINESS Array B	36.17	336	P	P	21 03 28.3	+0.4
	comp=Z,0.5nm,0.7s,baz=136,slow=15,SNR=1.6						
	comp=Z,0.5nm,0.7s						
GERES	GERESS Array B	36.67	311	P	P	21 03 31.6	-0.8
	comp=Z,0.8nm,0.8s,baz=106,slow=10,SNR=4.4						
	comp=Z,0.8nm,0.8s						
CMAR	Chiang Mai Arr	40.26	98	P	P	21 04 01.0	-2.0
	comp=Z,0.4nm,0.3s,baz=301,slow=5.9,SNR=1.2						
	comp=Z,0.4nm,0.3s						
SONM	Songino Array	41.09	52	P	P	21 04 10.6	+1.1
	comp=Z,0.4nm,0.6s,baz=256,slow=12,SNR=2.2						
	comp=Z,0.4nm,0.6s						
TORD	Torodi Ar. Bea	53.37	263	P	P	21 05 45.0	-0.5
	comp=Z,0.4nm,0.8s,baz=58,slow=8.9,SNR=2.5						
	comp=Z,0.4nm,0.8s						

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*TEH **29** 21:04:58.9, 31°.27N×56°.59E, h5^{km}, ML3.9, Presumed earthquake*

*IDC **29** 21:05:01.8±8.5, 31°.55N×56°.55E, h0^{km}, mb3.5/5, mbtmp3.5/5, Error ellipse: s-maj=176.8km s-min=35.8km az=174.0*

ISC 29 21:05:01.0±0.9**, 31°.23N**±0°.05×**56°.58E**±0°.05**, h10^{km}, n31, σ0^{s}.70**/30**, mb3.5**/4**, Northern and central Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZRDN	Zarand Kerman	0.27	188	Pg	Pg	21 05 05.8	-0.7
KHGB	Koh Gabri	0.86	186	Pg	Pg	21 05 16.3	-1.3
IBAF	Bafgh	0.94	293	Pg	Pg	21 05 16.2	-2.9
CHMN	Cheshme madani	1.60	149	Pg	Pn	21 05 30.4	+0.8
IMEH	Mehriz	1.69	276	Pg	Pn	21 05 31.0	+0.1
TPRV	Parvadeh(Tabas	1.79	3	Pg	Pn	21 05 32.2	+0.1
DOBD	Dorbid, Yazd	1.92	294	Pn	Pn	21 05 34.8	+0.9
ICHK	Chekchek	2.11	299	Pn	Pn	21 05 37.5	+0.9
TAFT	Taft - Yazd	2.12	284	Pn	Pn	21 05 37.6	+0.9
BSRN	Basiran	2.29	71	Pn	Pn	21 05 39.3	+0.2
IKOO	Kooshah	2.38	59	Pn	Pn	21 05 40.8	+0.4
TKDS	Koohdasht(Taba	2.42	11	Pn	Pn	21 05 41.4	+0.6
TSHB	Tabas_ShorAb	2.45	358	Pn	Pn	21 05 41.7	+0.5
ITEG	Tejag	2.48	47	Pn	Pn	21 05 41.9	+0.3
KBAM	BAM	2.65	142	Pn	Pn	21 05 44.9	+1.1
TNSJ	Nastanj	2.72	1	Pn	Pn	21 05 45.4	+0.5
NHDN	Nehbandan	2.98	86	Pn	Pn	21 05 49.2	+0.8
AFRZ	Afriz	3.00	43	Pn	Pn	21 05 48.8	0.0
ANAR	Anarak	3.10	310	Pn	Pn	21 05 50.6	+0.4
TAPT	Tabas- Tapeh t	3.67	7	Pn	Pn	21 05 58.5	+0.5
ZHSF	Zahedan	3.97	113	Pn	Pn	21 06 03.1	+1.0
TBHD	Torbat heydari	4.72	27	Pn	Pn	21 06 13.2	+0.7
ISHM	Shahmirzad	5.32	330	Pn	Pn	21 06 21.2	+0.4
IFIR	Firoozkooh	5.44	325	Pn	Pn	21 06 23.2	+0.8
IAKL	Akhelmad	5.65	18	Pn	Pn	21 06 26.0	+0.7
ISFR	Sfrayin	5.92	11	Pn	Pn	21 06 29.9	+0.8
BRTR	Keskin Array B	20.47	301	P	P	21 09 39.3	+0.2
	1.2nm,0.8s,baz=116,slow=12,SNR=6.2						
	1.2nm,0.8s						
BVAR	Borovoye Array	23.98	21	P	P	21 10 14.7	-0.9
	0.8nm,0.8s,baz=187,slow=10.0,SNR=4.9						
	0.8nm,0.8s						
MKAR	Makanchi Array	25.15	45	P	P	21 10 26.6	+0.3
	1.4nm,0.8s,baz=222,slow=7.4,SNR=6.1						
	1.4nm,0.8s						
KURBB	Kurchatov Arra	25.33	34	P	P	21 10 28.2	+0.3
	0.5nm,0.8s,baz=233,slow=7.7,SNR=4.4						
	0.5nm,0.8s						
ZALV	Zalesovo Beam	30.43	34	P	P	21 11 13.6	+0.2
	1.0nm,0.7s,baz=232,slow=8.9,SNR=4.2						
	1.0nm,0.7s						

IDC 29 21:06:04.2±67.0**, 20°.17S×179°.15E, h0^{km}, mb3.6**/3**, mbtmp3.6**/3**, Error ellipse: s-maj=1194.0km s-min=154.6km az=81.0, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	35.54	243	P	P	21 13 02.8	-0.3
	0.8nm,0.4s,baz=72,slow=9.2,SNR=3.8						
	0.8nm,0.4s						
ASAR	Alice Springs	41.99	257	P	P	21 13 57.3	-0.2
	0.5nm,0.6s,baz=98,slow=7.6,SNR=7.8						
	0.5nm,0.6s						
WRA	Warramunga Arr	42.00	262	P	P	21 13 57.5	0.0
	0.2nm,0.4s,baz=96,slow=7.8,SNR=12						
	0.2nm,0.4s						
H03S2	Juan Fernandez	88.37	125	T	T	22 55 44.3	
	baz=242,slow=74,SNR=21						
H03S1	Juan Fernandez	88.38	125	T	T	22 55 44.1	
	baz=242,slow=74,SNR=20						
H03S3	Juan Fernandez	88.39	125	T	T	22 55 43.4	
	baz=242,slow=74,SNR=21						
H03N2	Juan Fernandez	88.52	125	T	T	22 55 52.7	
	baz=243,slow=71,SNR=8.9						
H03N3	Juan Fernandez	88.52	125	T	T	22 55 40.9	
	baz=243,slow=71,SNR=12						
H03N1	Juan Fernandez	88.54	125	T	T	22 55 53.4	
	baz=243,slow=71,SNR=11						

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*NEIC **29** 21:12:22.7±0.5, 17°.8S±0°.3×177°.93W±0°.08, h506^{km}±22^{km}, mb4.1/10, Error ellipse: s-maj=40.1km s-min=9.8km az=184.0*

*IDC **29** 21:12:25.1±3.4, 17°.87S×178°.15W, h520^{km}±14^{km}, mb3.3/5, mbtmp4.2/6, Error ellipse: s-maj=75.7km s-min=25.6km az=29.0*

ISC 29 21:12:22.3±0.8**, 17°.8S**±0°.1×**177°.9W**±0°.1**, h500^{km}, n22, σ1^{s}.16**/23**, mb4.0**/11**, 1D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FUTU	Fugatoga	3.49	356	P	P	21 13 37.1	+0.3
MSVF	Nonsavu	3.88	270	P	P	21 13 40.8	+0.9
	35nm,0.6s,baz=118,slow=17,SNR=59						
MSVF				S	S	21 14 46.1	+3.1
	6.6nm,0.9s,baz=160,slow=21,SNR=1.8						
NIUE	Niue	7.65	101	P	P	21 14 15.5	+0.3
MLZ	Mavora Lakes	29.86	200	P	P	21 17 48.0	-0.3
CTAO	Charters Tower	33.96	260	P	P	21 18 22.7	-1.0
CTAO				IAmb	IAmb	21 18 49.6	
	comp=Z,18nm,1.2s						
STKA	Stephens Creek	39.12	241	P	P	21 19 05.5	-0.7
	comp=Z,1.9nm,0.6s,baz=97,slow=5.7,SNR=6.6						
	comp=Z,1.9nm,0.6s						
BBOO	Buckleboo	43.90	241	P	P	21 19 43.5	-0.6
WR8	Warramunga Arr	44.99	259	P	P	21 19 52.1	-0.7
WR8				IAmb	IAmb	21 20 31.5	
	comp=Z,10nm,1.4s						
WB0	Warramunga Arr	45.11	260	P	P	21 19 52.5	-1.2
WB0				IAmb	IAmb	21 19 52.9	
	comp=Z,4.2nm,0.9s						
WRAB	Tennant Creek	45.14	259	P	P	21 19 51.9	-2.0
WRAB				IAmb	IAmb	21 19 53.5	
	comp=Z,11nm,1.4s						
WRA	Warramunga Arr	45.15	259	P	P	21 19 52.6	-1.3
	comp=Z,1.6nm,0.6s,baz=97,slow=7.1,SNR=42						
	comp=Z,1.6nm,0.6s						
WRA	Warramunga Arr	45.15	259	P	P	21 19 52.7	-1.3
AS31	Alice Springs	45.30	254	P	P	21 19 54.2	-1.0
AS31				IAmb	IAmb	21 19 55.3	
	comp=Z,4.5nm,0.7s						
ASAR	Alice Springs	45.30	254	P	P	21 19 54.3	-0.9
	comp=Z,14nm,0.6s,baz=88,slow=8.3,SNR=187						
ASAR				PcP	PcP	21 21 24.8	+0.2
	comp=Z,0.5nm,0.4s,baz=97,slow=4.0,SNR=4.4						
	comp=Z,14nm,0.6s						
ASAR	Alice Springs	45.30	254	P	P	21 19 53.9	-1.2
VNDA	Vanda	60.59	185	P	P	21 21 44.4	+1.0
	comp=Z,0.5nm,0.8s,baz=6.8,slow=9.6,SNR=2.3						
	comp=Z,0.5nm,0.8s						
VNDA	Vanda	60.59	185	P	P	21 21 44.1	+0.7
QSPA	South Pole Qui	72.25	180	P	P	21 22 56.8	+0.6
	comp=Z,1.6nm,0.6s,baz=156,slow=8.8,SNR=14						
	comp=Z,1.6nm,0.6s						
QSPA	South Pole Qui	72.25	180	P	P	21 22 56.6	+0.4
QSPA				IAmb	IAmb	21 22 57.4	
	comp=Z,1.8nm,0.6s						
ELIB	Princess Elisa	89.32	186	*d*P	P	21 24 24.1	-0.5
	comp=Z,1.1nm,0.8s						
BUR08	Bucovina Ar. S	144.74	333	PKPdf	PKPbc	21 31 02.7	+0.5
BURAR	Bucovina Array	144.76	333	PKPdf	PKPab	21 31 02.9	0.0

IDC 29 21:18:04.3±8.1**, 19°.01N×144°.49E, h114^{km}**±70^{km}**, mb3.1**/3**, mbtmp3.7**/4**, Error ellipse: s-maj=143.2km s-min=27.4km az=110.0, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	5.41	176	P	Pn	21 19 23.1	+0.4
	49nm,0.3s,baz=9.5,slow=18,SNR=3.3						
GUMO				S	Sn	21 20 24.0	+0.3
	23nm,0.3s,baz=17,slow=23,SNR=1.4						
H11S3	WAKE ISLAND Hy	21.03	88	T	T	21 43 31.0	
	baz=275,slow=74,SNR=10.0						
H11S1	WAKE ISLAND Hy	21.04	88	T	T	21 43 31.9	
	baz=275,slow=74,SNR=6.2						
H11S2	WAKE ISLAND Hy	21.05	88	T	T	21 43 32.3	
	baz=275,slow=74,SNR=7.5						
WRA	Warramunga Arr	39.97	195	P	P	21 25 27.0	-0.8
	0.4nm,0.4s,baz=14,slow=7.7,SNR=11						
	0.4nm,0.4s						
ASAR	Alice Springs	43.66	194	P	P	21 25 58.5	+0.7
	0.2nm,0.5s,baz=20,slow=11,SNR=4.8						
	0.2nm,0.5s						
ILAR	Eielson Array	63.87	26	P	P	21 28 24.4	0.0
	0.3nm,0.4s,baz=272,slow=8.7,SNR=2.5						
	0.3nm,0.4s						

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*IDC **29** 22:05:32.5±0.7, 3°.83N×71°.36W, h0^{km}, mb4.0/9, mbtmp4.1/12, ML3.3/3, MS3.4/15, Error ellipse: s-maj=16.5km s-min=13.1km az=173.0*

*RSNC **29** 22:05:36.5±0.0, 4°N±1°×7°1W±°, h-2^{km}±2^{km}, M4.6, mB5.2, mb5.1, ML4.1, MLv5.0, Mw(mB)4.6*

*NEIC **29** 22:05:39.1±1.5, 4°.03N±0°.07×71°.47W±0°.08, h25^{km}±4^{km}, mb4.4/56, Error ellipse: s-maj=12.5km s-min=9.3km az=122.0*

ISC 29 22:05:36.0±0.7**, 3°.96N**±0°.03×**71°.43W**±0°.04**, h13^{km}**±4^{km}**, n144, σ1^{s}.45**/164**, mb4.4**/47**, MS3.6**/12**, 4D, Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PGA4	Puerto Gaitan	0.09	177	P	Pg	22 05 38.1	-0.8
PGA4				S	Sg	22 05 40.4	-0.6
PGA4				AML	AML		
PGA4				AML	AML		
PGA3	Puerto Gaitan	0.15	248	P	Pg	22 05 38.0	-1.7
PGA3				AML	AML		
PGA3				AML	AML		
GUVC	San Jose del G	1.84	221	P	Pn	22 06 07.3	0.0
GUVC				S	Sb	22 06 30.9	-1.7
GUVC				AML	AML		
GUVC				AML	AML		
VILC	Villavicencio,	2.27	274	P	Pn	22 06 14.4	+1.1
VILC				S	Sb	22 06 43.6	-1.3
VILC				AML	AML		
VILC				AML	AML		
CHIC	Chingaza	2.40	286	P	Pn	22 06 16.0	+0.7
CHIC				S	Sn	22 06 46.2	+1.5
CHIC				AML	AML		
CHIC				AML	AML		
TAMC	Tame, Arauca	2.49	352	P	Pn	22 06 18.4	+2.1
TAMC				S	Sn	22 06 50.2	+3.7
TAMC				AML	AML		
TAMC				AML	AML		
RUSC	La Rusia	2.54	319	P	Pn	22 06 18.5	+1.2
RUSC				S	Sn	22 06 50.7	+2.4
RUSC				AML	AML		
RUSC				AML	AML		
CVER	Cruz Verde, Cu	2.70	282	P	Pn	22 06 20.9	+1.4
CVER				S	Sn	22 06 54.0	+1.7
CVER				AML	AML		
CVER				AML	AML		
MACC	Macarena, Meta	3.01	233	P	Pn	22 06 23.9	+0.5
MACC				S	Sn	22 07 01.9	+2.5
MACC				AML	AML		
MACC				AML	AML		
ROSC	El Rosal	3.02	287	Pn	Pn	22 06 26.0	+2.2
	39nm,0.3s,baz=101,slow=5.6,SNR=31						
ROSC				Sn	Sn	22 07 00.2	+0.2
	108nm,0.3s,baz=129,slow=22,SNR=4.2						
ROSC				Lg	Lg	22 07 11.4	
	229nm,0.3s,baz=130,slow=19,SNR=4.9						
	166nm,0.4s						
ROSC				AML	AML		
ROSC	El Rosal	3.02	287		Pn	22 06 25.4	+1.7
ROSC	El Rosal	3.02	287	P	Pn	22 06 25.8	+2.0
ROSC				S	Sn	22 07 00.9	+0.9
ROSC				AML	AML		
ROSC				AML	AML		
SPBC	San Pablo de B	3.13	303	P	Pn	22 06 25.6	+0.5
SPBC				S	Sn	22 07 01.4	-1.0
SPBC				AML	AML		
SPBC				AML	AML		
BARC	Barichara	3.15	326	P	Pn	22 06 27.1	+1.6
BARC				S	Sn	22 07 05.9	+2.8
BARC				AML	AML		
BARC				AML	AML		
PRAC	Prado	3.46	266	P	Pn	22 06 31.0	+1.4
PRAC				S	Sn	22 07 13.2	+2.7
PRAC				AML	AML		
PRAC				AML	AML		
PAMC	Pamplona, Colo	3.59	339	P	Pn	22 06 33.1	+1.3
PAMC				S	Sn	22 07 14.7	+0.3
PAMC				AML	AML		
PAMC				AML	AML		
VMM09	Lebrija	3.66	330	P	Pn	22 06 33.4	+1.0
VMM09				S	Sn	22 07 18.8	+3.3
VMM09				AML	AML		
VMM09				AML	AML		
BRJC	Barrancabermej	3.78	323	P	Pn	22 06 34.7	+0.7
BRJC				S	Sn	22 07 18.5	+0.1
BRJC				AML	AML		
BRJC				AML	AML		
NORC	Norcasia	3.79	295	P	Pn	22 06 34.7	+0.6
NORC				S	Sn	22 07 19.7	+1.2
NORC				AML	AML		
NORC				AML	AML		
ORTC	Ortega, Tolima	3.81	269	P	Pn	22 06 35.3	+0.9
ORTC				S	Sn	22 07 23.0	+3.8
ORTC				AML	AML		
ORTC				AML	AML		
PTBC	PUERTO BERRIO,	3.96	311	P	Pn	22 06 35.9	-0.6
PTBC				S	Sn	22 07 26.7	+3.9
PTBC				AML	AML		
PTBC				AML	AML		
GUY2C	Guyana, Caldas	4.12	288	P	Pn	22 06 39.9	+0.8
GUY2C				S	Sn	22 07 27.4	-0.1
GUY2C				AML	AML		
GUY2C				AML	AML		
BETC	Betania	4.20	253	P	Pn	22 06 40.5	+0.7
BETC				AML	AML		
BETC				AML	AML		
GARC	Garzon, Huila	4.42	247	P	Pn	22 06 43.4	+0.3
GARC				S	Sn	22 07 38.9	+4.3
GARC				AML	AML		
GARC				AML	AML		
HELC	Santa Helena	4.65	299	P	Pn	22 06 46.5	+0.2
HELC				S	Sn	22 07 43.8	+3.5
HELC				AML	AML		
HELC				AML	AML		
OCAC	Ocana	4.65	336	P	Pn	22 06 47.7	+1.6
OCAC				S	Sn	22 07 41.2	+1.1
OCAC				AML	AML		
OCAC				AML	AML		
CBOC	Ciudad Bolivar	4.95	293	P	Pn	22 06 51.0	+0.8
CBOC				S	Sn	22 07 48.4	+1.0
CBOC				AML	AML		
CBOC				AML	AML		
SDV	Santo Domingo	4.96	9	Pn	Pn	22 06 52.0	+1.6
	14nm,0.3s,baz=327,slow=4.2,SNR=13						
SDV				Sn	Sn	22 07 47.2	-0.6
	34nm,0.3s,baz=2.3,slow=12,SNR=4.3						
SDV				Lg	Lg	22 08 09.6	
	74nm,0.3s,baz=314,slow=12,SNR=6.4						
	28nm,0.4s						
SDV				AML	AML		
SDV	Santo Domingo	4.96	9	Pn	Pn	22 06 49.7	-0.7
SDV	Santo Domingo	4.96	9	P	Pn	22 06 50.2	-0.2
	8.7nm14µm1µm,0.8s						
SDV				S	Sn	22 07 49.3	+1.5
	8.7nm14µm1µm,0.8s						
SDV				AML	AML		
SDV				AML	AML		
PTLC	Puerto Leguiza	5.05	222	P	Pn	22 06 53.1	+1.7
PTLC				S	Sn	22 07 53.6	+4.0
PTLC				AML	AML		
PTLC				AML	AML		
POPC	Popayan, Colom	5.43	255	P	Pn	22 06 58.1	+1.3
	0.6nm797nm88nm,0.6s						
POPC				AML	AML		
POPC				AML	AML		
UREC	San Jos de Ur	5.56	313	P	Pn	22 06 58.3	-0.2
	878nm46nm,0.8s						
UREC				S	Sn	22 08 01.8	-0.5
	878nm46nm,0.8s						
UREC				AML	AML		
SGC2	Sao Gabriel da	6.03	132	P	Pn	22 07 06.4	+1.5
	402nm,0.9s						
SGC2				S	Sn	22 08 13.9	0.0
	402nm,0.9s						
SGC2				AML	AML		
BBAC	Balboa, Cauca	6.12	252	P	Pn	22 07 06.8	+0.4
	94nm,0.7s						
BBAC				S	Sn	22 08 19.8	+3.4
	94nm,0.7s						
BBAC				AML	AML		
APAC	Apartado, Choc	6.45	308	P	Pn	22 07 11.0	+0.3
	1µm130nm,0.6s						
APAC				S	Sn	22 08 27.6	+3.3
	1µm130nm,0.6s						
SJCC	San Jacinto, C	6.98	328	P	Pn	22 07 17.6	-0.4
SJCC				S	Sn	22 08 36.6	-0.8
CASC	Dorado de Casc	7.02	237	P	Pn	22 07 17.6	-1.0
	1µm82nm,1.1s						
OTAV	Otavalo	7.93	242	Pn	Pn	22 07 33.4	+1.9
SLOR	San Lorenzo -	8.46	237	Pn	Pn	22 07 40.4	+1.7
BOAV	Boa Vista	11.00	98	Pn	Pn	22 08 11.8	-1.3
ATAH	Atahualpa	13.03	212	Pn	Pn	22 08 40.1	-1.2
	0.4nm,0.3s,baz=66,slow=20,SNR=1.8						
ATAH				Sn	Sn	22 11 01.9	-4.5
	0.3nm,0.3s,baz=97,slow=15,SNR=1.7						
ATAH				LR	LR	22 13 58.1	
	comp=Z,117nm,21.1s,baz=39,slow=39						
	7.7nm,0.8s						
ATAH				AML	AML		
CELP	Cerrillos	14.81	18	Pn	Pn	22 09 05.2	-0.1
JTS	Las Juntas de	14.82	296	LR	LR	22 15 06.9	
	comp=Z,119nm,21.5s,baz=81,slow=38						
SJG	San Juan	14.99	20	LR	LR	22 15 40.4	
	comp=Z,51nm,20.9s,baz=258,slow=40						
JUD3	Juan Diaz 3	15.30	295	P	P	22 09 17.3	+0.6
JUD3				IAmb	IAmb	22 09 36.6	
	comp=Z,17nm,1.2s						
MDP	Montagnes des	18.76	86	P	Pn	22 09 57.0	+1.6
	comp=Z,2.1nm,0.4s,baz=281,slow=15,SNR=7.0						
MDP				Lg	Lg	22 15 20.0	
	comp=Z,0.3nm,0.3s,baz=164,slow=23,SNR=6.3						
LPAZ	La Paz	20.38	171	P	Pn	22 10 15.8	+0.6
	comp=Z,5.9nm,0.8s,baz=345,slow=12,SNR=14						
LPAZ				Lg	Lg	22 16 12.8	
	comp=Z,0.1nm,0.3s,baz=181,slow=11,SNR=3.9						
LPAZ				LR	LR	22 18 43.3	
	comp=Z,268nm,18.4s,baz=10,slow=39						
LPAZ	La Paz	20.38	171	P	Pn	22 10 15.8	+0.5
MTO3	Montecristo	20.50	302	P	P	22 10 14.1	-0.1
CAMR	Camarioca	21.29	334	P	P	22 10 24.4	+2.0
APG	El Apazote	21.73	302	P	P	22 10 28.5	+1.1
	comp=Z,0.5nm,0.8s,baz=141,slow=11,SNR=2.8						
PB16	IPOC Station P	22.23	175	P	P	22 10 34.3	+1.1
PB16				IAmb	IAmb	22 10 34.5	
	comp=Z,12nm,1.4s						
PTLB	Pontes e Lacer	22.80	148	P	P	22 10 41.4	+2.8
GO01	Chusmiza	23.58	175	P	P	22 10 47.4	+0.4
PB11	IPOC Station P	23.63	176	P	P	22 10 49.4	+2.2
PB11				IAmb	IAmb	22 11 02.9	
	comp=Z,14nm,1.1s						
PB08	IPOC Station P	24.05	175	P	P	22 10 53.9	+2.5
PB08				IAmb	IAmb	22 10 56.2	
	comp=Z,8.8nm,0.9s						
AQDB	Aquidauana	28.77	148	P	P	22 11 35.2	+1.6
AQDB				IAmb	IAmb	22 11 37.4	
	comp=Z,8.7nm,0.9s						
BDFB	Brasilia	30.27	131	LR	LR	22 24 39.3	
	comp=Z,147nm,18.9s,baz=299,slow=38						
CPUP	Villa Florida	33.06	156	LR	LR	22 26 23.5	
	comp=Z,140nm,18.1s,baz=26,slow=38						
TKL	Tuckaleechee C	33.55	342	LR	LR	22 27 47.0	
	comp=Z,77nm,18.7s,baz=130,slow=40						
X48A	Hartselle	33.64	336	P	P	22 12 16.6	+0.2
X48A				IAmb	IAmb	22 12 18.3	
	comp=Z,8.0nm,0.9s						
HBVL	Hebbronville	34.72	314	P	P	22 12 26.1	+0.2
WVT	Waverly	35.41	337	P	P	22 12 31.4	-0.3
WVT				IAmb	IAmb	22 12 32.9	
	comp=Z,5.4nm,0.8s						
MIAR	Mount Ida	36.73	329	P	P	22 12 43.2	+0.1
MIAR				IAmb	IAmb	22 12 46.8	
	comp=Z,7.5nm,1.1s						
PBMO	Poplar Bluff	37.04	334	P	P	22 12 45.5	-0.2
T42A	Van Buren	37.54	334	P	P	22 12 49.7	-0.2
T42A				IAmb	IAmb	22 12 50.6	
	comp=Z,5.7nm,0.9s						
BRDY	Brady	37.58	319	P	P	22 12 49.8	-0.5
BRDY				IAmb	IAmb	22 12 50.5	
	comp=Z,7.5nm,0.8s						
FVM	French Village	38.06	335	P	P	22 12 54.2	0.0
PLPT	Palo Pinto	38.16	322	P	P	22 12 54.7	-0.6
PLPT				IAmb	IAmb	22 12 56.1	
	comp=Z,8.5nm,0.8s						
CCM	Cathedral Cave	38.47	335	P	P	22 12 56.5	-1.1
CCM				IAmb	IAmb	22 12 58.2	
	comp=Z,9.2nm,0.9s						
SAND	Sanderson	38.87	315	P	P	22 13 01.1	-0.2
TXAR	Lajitas Array	39.63	313	P	P	22 13 07.7	0.0
	comp=Z,1.7nm,0.7s,baz=127,slow=8.3,SNR=22						
	comp=Z,1.7nm,0.7s						
TXAR	Lajitas Array	39.63	313	P	P	22 13 07.9	+0.2
TX31	Lajitas Ar. Si	39.63	313	P	P	22 13 06.7	-1.0
WMOK	Wichita Mounta	39.77	324	P	P	22 13 07.9	-0.8
229A	Bryant Ranch,	39.86	318	P	P	22 13 08.8	-0.7
229A				IAmb	IAmb	22 13 10.1	
	comp=Z,7.4nm,0.7s						
HPIG		39.90	308	P	P	22 13 09.6	-0.6
HPIG				IAmb	IAmb	22 13 11.3	
	comp=Z,6.8nm,0.8s						
TPB05	Hovey Rd	40.28	315	P	P	22 13 12.1	-0.9
TPB05				IAmb	IAmb	22 13 13.7	
	comp=Z,8.2nm,0.8s						
129A	Stewart Farms,	40.31	319	P	P	22 13 11.4	-1.9
129A				IAmb	IAmb	22 13 13.8	
	comp=Z,9.0nm,1.2s						
POST	Post	40.34	319	P	P	22 13 12.7	-0.9
POST				IAmb	IAmb	22 13 14.1	
	comp=Z,11nm,0.9s						
DKNS	Dickens	40.36	321	P	P	22 13 13.8	+0.1
DKNS				IAmb	IAmb	22 13 14.3	
	comp=Z,6.3nm,0.9s						
128A	Castleberry Fa	40.72	318	P	P	22 13 16.3	-0.4
128A				IAmb	IAmb	22 13 17.3	
	comp=Z,7.0nm,0.9s						
P38A	Dawn	40.76	334	P	P	22 13 15.6	-1.2
P38A				IAmb	IAmb	22 13 16.9	
	comp=Z,5.0nm,0.8s						
SMWD	Samnorwood	40.89	323	P	P	22 13 17.0	-1.0
SMWD				IAmb	IAmb	22 13 18.2	
	comp=Z,8.8nm,0.9s						
KAN08	Anthony NE Sta	41.09	327	P	P	22 13 19.8	+0.2
SADO	Sadowa	41.21	352	LR	LR	22 29 30.1	
	comp=Z,43nm,21.7s,baz=162,slow=35						
VHRN	Van Horn	41.38	314	P	P	22 13 22.9	+0.7
VHRN				IAmb	IAmb	22 13 23.0	
	comp=Z,6.3nm,1.0s						
MNTX	Cornudas Mount	42.17	315	P	P	22 13 28.9	+0.4
MNTX				IAmb	IAmb	22 13 29.6	
	comp=Z,11nm,0.9s						
ALQ	Albuquerque	44.75	318	P	P	22 13 49.5	-0.1
ALQ	Albuquerque	44.75	318	P	P	22 13 49.6	0.0
ALQ				IAmb	IAmb	22 13 55.1	
	comp=Z,2.4nm,1.1s						
ANMO	Albuquerque	44.75	318	LR	LR	22 36 23.3	

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      comp=Z,31nm,18.1s,baz=102,slow=41
TASM  ASL Pad, Albuq     44.75 318    P       P        22 13 49.7 +0.1
TASM  ASL Pad, Albuq     44.75 318    P       P        22 13 49.6  0.0
TASM                                  IAmb    IAmb     22 13 52.2
      comp=Z,1.8nm,0.9s
SDCO  Great Sand Dun     45.83 322    P       P        22 13 58.0 -0.2
PV15  Paradox Valley     48.06 320    P       P        22 14 15.8 +0.3
PV02  Paradox Valley     48.14 320    P       P        22 14 16.0 -0.2
PV02                                  IAmb    IAmb     22 14 17.2
      comp=Z,4.8nm,0.7s
PV13  Radium Mtn., P     48.17 320    P       P        22 14 16.2 -0.2
PV18  Skein Mesa, Pa     48.27 320    P       P        22 14 17.5 +0.3
ULM   Lac du Bonnet      50.54 340    LR      LR       22 37 18.2
      comp=Z,48nm,19.3s,baz=131,slow=38
BSUT  Blindstream Ca     50.77 321    P       P        22 14 35.1 -1.3
BSUT                                  IAmb    IAmb     22 14 37.0
      comp=Z,2.5nm,0.9s
SCHQ  Schefferville      50.86   3    P       P        22 14 35.8 -0.6
      comp=Z,3.9nm,0.6s,baz=167,slow=6.6,SNR=6.3
SCHQ                                  LR      LR       22 35 54.2
      comp=Z,16nm,19.7s,baz=284,slow=36
      comp=Z,3.9nm,0.6s
SCHQ  Schefferville      50.86   3    P       P        22 14 36.9 +0.6
PDAR  Pinedale Array     51.37 324    P       P        22 14 38.9 -1.8
      comp=Z,1.0nm,1.0s,baz=118,slow=5.7,SNR=6.1
      comp=Z,1.0nm,1.0s
PDAR  Pinedale Array     51.37 324    P       P        22 14 40.1 -0.6
NVAR  Mina Array Bea     54.69 315    P       P        22 15 03.4 -1.8
      comp=Z,0.2nm,0.4s,baz=100,slow=7.3,SNR=3.6
      comp=Z,0.2nm,0.4s
SFJD  Kangerlussuaq      64.56   9    LR      LR       22 44 43.5
      comp=Z,16nm,19.1s,baz=218,slow=36
DBIC  Dimbokro           66.30  84    P       P        22 16 26.0 +1.2
YKA   Yellowknife Ar     66.52 340    LR      LR       22 45 37.8
      comp=Z,54nm,19.7s,baz=273,slow=36
MD01  Midelt array s     68.31  56    P       P        22 16 37.9 +0.5
ESDC  Sonseca Array      70.20  49    P       P        22 16 47.5 -1.3
      comp=Z,1.7nm,1.1s,baz=259,slow=5.7,SNR=6.9
      comp=Z,1.7nm,1.1s
DLBC  Dease Lake         70.63 332    LR      LR       22 50 36.4
      comp=Z,46nm,18.1s,baz=164,slow=38
SUMG  Summit             71.49  10    P       P        22 16 56.2 -0.3
TORD  Torodi Ar. Bea     72.68  78    P       P        22 17 03.3 -0.9
      comp=Z,0.4nm,0.5s,baz=284,slow=5.8,SNR=11
      comp=Z,0.4nm,0.5s
NEEM  North Greenlan     74.25   5  i P       P        22 17 12.4 -0.3
DOU   Dourbes            78.02  40   dP       P        22 17 34.4 +0.2
BMRD  Maredsous          78.16  40   dP       P        22 17 35.0  0.0
      comp=Z,3.5nm,1.3s
BMRD                                 dpP      sP       22 17 42.8 +1.8
WLF   Walferdange        78.96  40   dP       P        22 17 39.9 +0.5
      comp=Z,5.0nm,1.3s
ILAR  Eielson Array      80.26 335    LR      LR       22 54 59.5
      comp=Z,34nm,18.4s,baz=92,slow=37
DAVA  Damuels            81.21  43   eP       P        22 17 52.2 +0.3
      comp=Z,3.1nm,1.0s
FETA  Feichten           81.77  43   eP       P        22 17 55.7 +0.9
      comp=Z,3.8nm,1.2s
MOTA  Moosalm            82.04  43   eP       P        22 17 56.4 +0.1
      comp=Z,2.9nm,1.0s
SQTA  Sankt Quirin       82.11  43   eP       P        22 17 57.2 +0.7
      comp=Z,4.1nm,1.1s
ABTA  Abfaltersbach      82.98  44   eP       P        22 18 00.9 -0.2
      comp=Z,1.3nm,0.8s
NB2   NORSAR Subarra     82.99  29    P       P        22 18 01.5 +0.7
      comp=Z,2.4nm,1.0s,baz=267,slow=5.3
NOA   NORSAR Array B     82.99  29    P       P        22 17 59.4 -1.3
      comp=Z,1.3nm,0.8s,baz=266,slow=5.2,SNR=5.0
      comp=Z,1.3nm,0.8s
MYKA  Terra Mystica      83.76  44   eP       P        22 18 05.6 +0.5
      comp=Z,0.8nm,0.5s
GERES GERESS Array B     83.83  41    P       P        22 18 04.4 -1.0
      comp=Z,1.6nm,0.6s,baz=247,slow=2.8,SNR=14
      comp=Z,1.6nm,0.6s
GERES GERESS Array B     83.83  41    P       P        22 18 05.4 -0.1
MOA   Molln              84.20  42   eP       P        22 18 08.6 +1.4
      comp=Z,3.0nm,1.2s
SESA  Seetaler Alpe,     84.39  43   eP       P        22 18 09.5 +1.0
      comp=Z,5.6nm,0.9s
SOKA  Soboth             84.71  44   eP       P        22 18 11.0 +1.0
      comp=Z,1.1nm,0.8s
ABNA  Allensteig Bun     84.98  42  i P       P        22 18 12.5 +1.3
      comp=Z,3.4nm,1.2s
CONA  Conrad Observa     85.27  42   eP       P        22 18 13.6 +0.8
      comp=Z,2.2nm,0.7s
WINA  Alland / Wiene     85.41  42   eP       P        22 18 14.4 +1.1
      comp=Z,2.9nm,0.9s
ARCES ARCESS Array B     88.75  20    P       P        22 18 28.4 -0.7
      comp=Z,0.5nm,0.4s,baz=278,slow=3.3,SNR=8.9
      comp=Z,0.5nm,0.4s
ARCES ARCESS Array B     88.75  20    P       P        22 18 28.1 -1.0
ZALV  Zalesovo Beam     118.98  16    PKP     PKPdf    22 24 23.7 -0.7
      comp=Z,0.4nm,0.3s,baz=328,slow=5.3,SNR=4.2
ZALV  Zalesovo Beam     118.98  16            PKPdf    22 24 23.5 -0.9
MKAR  Makanchi Array    124.39  22    PKP     PKPdf    22 24 33.3 -1.8
      comp=Z,0.7nm,0.8s,baz=4.8,slow=3.5,SNR=3.0
ASAR  Alice Springs     148.66 229    PKPbc   PKPdf    22 25 21.3 +1.2
      comp=Z,1.9nm,0.8s,baz=127,slow=3.0,SNR=12
ASAR  Alice Springs     148.66 229    PKPdf   PKPdf    22 25 20.3 +0.2
WRA   Warramunga Arr    150.28 236    PKP     PKPdf    22 25 20.6 -2.2
      comp=Z,1.3nm,0.8s,baz=106,slow=2.7,SNR=16
WRA   Warramunga Arr    150.28 236    PKPdf   PKPdf    22 25 21.4 -1.4
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*ISK **29** 22:05:58.3, 36°82N×35°96E, h6^{km}, ML2.5/19*

*AFAD **29** 22:05:59.1, 36°83N×36°00E, h7^{km}±3^{km}, ML2.6*

ISC 29 22:05:58.8±1.1**, 36°83N**±0°02×**35°98E**±0°02**, h7**^{km}±10^{km}**,**
n31, σ0^{s}41/48**, Turkey**

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Code  Station Name        Δ°   AZ°    Phase ID              Time     Res
                                      Op      ISC          h  m  s   ISC
HASA  Hatay-Hassa-Ha      0.41 101    P       Pg       22 06 06.9  0.0
HASA                                  S       Sg       22 06 11.7 -0.5
HASA                                  IAML             22 06 13.0
      comp=N,781nm,0.2s
HASA                                  IAML             22 06 14.0
      comp=E,547nm,0.2s
TAHT  Tahtakopru-Hat      0.48 160    Pg      Pg       22 06 08.1  0.0
TAHT                                  Sg      Sg       22 06 15.2 +0.9
TAHT                                  AML     AML
KRTS  Karatas             0.55 243    Pg      Pg       22 06 09.1 -0.3
KRTS                                  AML     AML
CAYT  Sariam              0.63 303    P       Pg       22 06 11.2 +0.1
CAYT                                  S       Sb       22 06 21.3  0.0
KAMA  Osmaniye            0.66  57    P       Pg       22 06 10.8 -0.7
KAMA                                  S       Sb       22 06 21.1 -0.8
KOZT  Kozan               0.66 349    Pg      Pg       22 06 11.5 -0.1
KOZT                                  AML     AML
RHAN  Hatay/Reyhanl       0.76 138    P       Pb       22 06 13.9 -0.3
RHAN                                  S       Sb       22 06 24.2 -0.5
RHAN                                  IAML             22 06 25.0
      comp=N,336nm,0.3s
RHAN                                  IAML             22 06 25.0
      comp=E,211nm,0.9s
YAYL  Yayladag            0.80 173    P       Pb       22 06 15.0  0.0
YAYL                                  S       Sb       22 06 25.9 -0.1
YAYL                                  IAML             22 06 28.0
      comp=N,211nm,0.3s
ANDN  Andirin             0.81  21    P       Pb       22 06 15.1 -0.1
ANDN                                  S       Sb       22 06 27.2 +0.8
ANDN                                  IAML             22 06 28.0
      comp=E,208nm,0.8s
KUZU  Kuzuini             0.88  93    P       Pb       22 06 16.3 -0.1
KUZU                                  S       Sb       22 06 28.0 -0.3
KUZU                                  IAML             22 06 29.0
      comp=E,346nm,0.3s
KUZU                                  IAML             22 06 30.0
      comp=N,386nm,0.3s
KHMR  Kahramanmara        0.90  55    P       Pb       22 06 16.5 -0.3
KHMR                                  S       Sg       22 06 27.5 -0.3
KMRS  Kahramanmaras       1.00  47    Pg      Pg       22 06 18.1 +0.1
KMRS                                  Sg      Sn       22 06 32.8 -0.8
KMRS                                  AML     AML
GAZ   Gaziantep           1.04  70    Pg      Pg       22 06 18.9 +0.1
GAZ                                   Sg      Sb       22 06 33.9 +0.8
GAZ                                   AML     AML
KAHM  Kahramanmaras,      1.06  49    P       Pb       22 06 19.3 -0.1
KAHM                                  S       Sg       22 06 33.0 +0.2
KAHM                                  IAML             22 06 34.0
      comp=N,194nm,0.4s
KAHM                                  IAML             22 06 34.0
      comp=E,155nm,0.4s
GULE  Gulek               1.07 296    P       Pn       22 06 20.0 -0.3
KHMN  Narli-Kahraman      1.09  59    Pn      Pg       22 06 19.9 +0.1
KHMN                                  Sn      Sn       22 06 35.8 -0.2
KHMN                                  AML     AML
KHMN  Narli-Kahraman      1.09  59    P       Pb       22 06 20.0 -0.1
KHMN                                  S       Sn       22 06 35.5 -0.5
KHMN                                  IAML             22 06 36.0
      comp=E,265nm,0.5s
KHMN                                  IAML             22 06 37.0
      comp=N,194nm,0.3s
CMRD  Camardi-Nigde       1.15 317    Pn      Pg       22 06 20.6 -0.3
CMRD                                  Sn      Sb       22 06 36.7 +0.4
CMRD                                  AML     AML
NZIP  Nizip/Gaziante      1.37  80    P       Pg       22 06 25.3 +0.2
NZIP                                  S       Sn       22 06 43.1 +0.2
NZIP                                  IAML             22 06 46.0
      comp=N,101nm,0.5s
NZIP                                  IAML             22 06 48.0
      comp=E,88nm,0.5s
SARI  SarD1z-Kayseri      1.61  12    Pn      Pn       22 06 28.0 +0.1
SARI                                  Sn      Sb       22 06 50.0 +0.3
SARI                                  AML     AML
KEBE  Keben-Mersin        1.86 259    Pn      Pn       22 06 31.4 +0.2
KEBE                                  AML     AML
IKL   Isikli              1.94 253    Pn      Pn       22 06 32.4 +0.3
BNN   Bunyan              2.02 357    Pn      Pn       22 06 33.9 +0.4
YESY  Yesilyurt           2.02 299    Pn      Pn       22 06 33.6 +0.2
YESY                                  AML     AML
GULA  Gulagac             2.05 318    Pn      Pn       22 06 34.1 +0.3
GULA                                  AML     AML
TEVE  Tevekalti-Mers      2.08 260    Pn      Pn       22 06 34.4 +0.3
TEVE                                  AML     AML
DARE  Darende-Malaty      2.11  34    Pn      Pn       22 06 35.1 +0.5
DARE                                  AML     AML
KRMN  Karaman             2.20 280    Pn      Pn       22 06 36.3 +0.4
KRMN                                  AML     AML
BERE  Bereket-Mersin      2.27 259    Pn      Pn       22 06 37.1 +0.2
BERE                                  AML     AML
URFA  Urfa                2.35  74    Pn      Pn       22 06 38.5 +0.6
URFA                                  AML     AML
TEKE  Tekeli-Mersin       2.41 254    Pn      Pn       22 06 38.9 +0.3
TEKE                                  AML     AML
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*NEIC **29** 22:57:11.8±1.0, 17°92N±0°04×67°09W±0°02, h10^{km}±1^{km}, ML3.4/38, Md3.4/11(RSPR), Error ellipse: s-maj=6.8km s-min=2.8km az=9.0*

*RSPR **29** 22:57:12.2, 17°94N×67°07W, h12^{km}, MD3.4/11*

*OSPL **29** 22:57:12.1±0.4, 17°96N×67°08W, h14^{km}±1^{km}, ML3.4, Presumed earthquake*

ISC 29 22:57:11.6±1.0**, 17°94N**±0°05×**67°07W**±0°03**, h16**^{km}±5^{km}**,**
n33, σ0^{s}69/49**, 8C-1D, Mona Passage**

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Code  Station Name        Δ°   AZ°    Phase ID              Time     Res
                                      Op      ISC          h  m  s   ISC
MLPR  Magueyes Islan      0.04  39    Pg      Pg       22 57 14.0 -0.6
MLPR                                  Sg      Sg       22 57 16.2 -0.4
MLPR                                  IAML             22 57 16.3
      14μm,0.2s
MLPR  Magueyes Islan      0.04  39⇑ eP       Pg       22 57 14.5 -0.1
CRPR  Cabo Rojo, PR       0.08 332    Pg      Pg       22 57 14.7 -0.1
CRPR                                  Sg      Sg       22 57 16.9 -0.1
CRPR                                  IAML             22 57 17.0
      18μm,0.3s
CRPR                                  IAML             22 57 17.0
      27μm,0.3s
CRPR  Cabo Rojo, PR       0.08 332⇑ eP       Pg       22 57 14.7 -0.1
CRPR  Cabo Rojo, PR       0.08 332  i P       Pg       22 57 14.7 -0.1
CRPR                                 eS       Sg       22 57 16.3 -0.6
GBPR  Guanica, Bosqu      0.19  78            Pg       22 57 16.3 +0.1
GBPR                                          Sg       22 57 19.5 +0.3
GBPR  Guanica, Bosqu      0.19  78⇑ eP       Pg       22 57 16.3 +0.1
GBPR                                 eS       Sg       22 57 19.5 +0.3
LSP   Las Mesas           0.24 357            Pg       22 57 17.1 +0.1
LSP   Las Mesas           0.24 357⇑ eP       Pg       22 57 17.1 +0.1
PRSN  Puerto Rico Se      0.29 346    Pg      Pg       22 57 17.8  0.0
PRSN                                  Sg      Sg       22 57 22.0  0.0
PRSN  Puerto Rico Se      0.29 346⇓ eP       Pg       22 57 18.0 +0.2
CELP  Cerrillos           0.49  74    Pg      Pg       22 57 21.4  0.0
CELP                                  Sg      Sg       22 57 28.4 +0.4
AOPR  Arecibo Observ      0.51  36    Pg      Pg       22 57 21.4 -0.3
AOPR                                  Sg      Sg       22 57 28.6  0.0
AGPR  Aguadilla, PR       0.53 356    Pg      Pg       22 57 21.9 -0.2
AGPR                                  Sg      Sg       22 57 29.4 +0.2
AGPR                                  IAML             22 57 30.0
      2μm,0.2s
AGPR  Aguadilla, PR       0.53 356⇑ eP       Pg       22 57 22.1 -0.1
AGPR  Aguadilla, PR       0.53 356  i P       Pg       22 57 21.1 -1.0
AGPR                                 eS       Sg       22 57 28.1 -1.2
IDE   Isla Desecheo       0.59 319            Pg       22 57 22.9 -0.4
IDE                                           Sg       22 57 31.3 +0.1
IDE   Isla Desecheo       0.59 319⇑ eP       Pg       22 57 22.9 -0.4
IDE                                  eS       Sg       22 57 31.3 +0.1
EMPR  Esperanza - Ma      0.74  44            Pg       22 57 26.2 +0.1
EMPR                                          Sb       22 57 36.7 +0.6
EMPR  Esperanza - Ma      0.74  44⇑ eP       Pg       22 57 26.2 +0.1
EMPR                                 eS       Sb       22 57 36.7 +0.6
ECPR  Experimental S      0.77  61    Pg      Pg       22 57 25.7 -1.0
ECPR                                  Sg      Sg       22 57 36.7 -0.3
ECPR                                  IAML             22 57 37.7
      2μm,0.2s
ECPR                                  IAML             22 57 39.7
      1μm,0.2s
SJG   San Juan            0.89  79    Pg      Pg       22 57 27.7 -1.3
SJG   San Juan            0.89  79⇑ eP       Pg       22 57 28.3 -0.7
SJG   San Juan            0.89  79  i P       Pg       22 57 27.6 -1.4
SJG                                  eS       Sg       22 57 39.6 -1.2
SJG                                   IAML             22 57 44.5
      comp=Z,5μm,0.2s
IGPR  InterUniversit      0.92  88            Sb       22 57 43.1 +2.0
PDPR  Patillas Dam,       1.00  85            Pb       22 57 29.7 -0.9
PDPR                                  IAML             22 57 46.2
      comp=Z,882nm,0.7s
HUMP  Col San Antoni      1.18  80    Pn      Pn       22 57 33.2 -0.2
HUMP                                  IAML             22 57 51.0
      comp=Z,674nm,0.4s
PCDR  Punta Cana, DR      1.37 295    Pn      Pn       22 57 36.3 +0.2
PCDR  Punta Cana, DR      1.37 295  i P       Pn       22 57 34.9 -1.2
PCDR                                  IAML             22 58 02.5
      comp=Z,166nm,2.6s
DR12  Loma Pena Alta      2.35 291    Pn      Pn       22 57 50.5 +0.9
BANI  BANI                3.16 279    Pn      Pn       22 58 01.1 +0.3
SABA  Saba                3.66  94    Pn      Pn       22 58 09.0 +1.4
SDDR  Presa de Saban      4.13 285    Pn      Pn       22 58 14.8 +0.6
SDDR                                  IAML             22 59 22.0
      comp=Z,33nm,1.0s
SDDR                                  IAML             22 59 27.5
      comp=Z,31nm,1.1s
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*IDC **30** 00:46:33.0±0.8, 2°05S×78°38W, h0^{km}, mb3.6/7, mbtmp3.9/11, ML3.9/4, Error ellipse: s-maj=23.4km s-min=13.6km az=77.0*

*RSNC **30** 00:46:39.2±0.6, 2°S±7°×8°0W±°, h247^{km}±4^{km}, M4.2, mB4.9, mb4.2, ML3.4, Mw(mB)4.2*

*NEIC **30** 00:46:44.7±2.7, 2°48S±0°06×78°6W±0°1, h105^{km}±6^{km}, mb4.2/17, Error ellipse: s-maj=19.5km s-min=8.4km az=85.0*

*IGQ **30** 00:46:44.4±0.3, 2°S±2°×7°9W±°, h80^{km}±3^{km}, M3.9/30, Mjma4.0/30, Mjma3.7/1, MLv3.8/30, Ms(BB)3.9/13*

ISC 30 00:46:42.8±0.6**, 2°50S**±0°03×**78°73W**±0°04**, h98**^{km}±6^{km}**,**
n116, σ1^{s}40/127**, mb3.9**/12**, 27C-10D, Ecuador**

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Code  Station Name        Δ°   AZ°    Phase ID              Time     Res
                                      Op      ISC          h  m  s   ISC
AZOG  Ecuador-Azogue      0.28 205 ⇓P         Pn       00 46 57.6 +0.1
AZOG                                  S       Sn       00 47 08.8 +0.4
ACUE  Ecuador-Cuenca      0.47 209 ⇓P         Pn       00 46 59.6 +1.0
ACUE                                  S       Sn       00 47 12.6 +2.3
SANGA Volcan Sangay       0.57  39 ⇓P         Pn       00 46 59.0 -0.5
SANGA                                 S       Sn       00 47 10.8 -1.1
BOSC  San Juan Bosco      0.69 160 ⇓P         Pn       00 47 01.4 +1.2
BOSC                                  S       Sn       00 47 15.4 +2.3
JSCH  Cashca Tororas      0.81 342 ⇓P         Pn       00 47 01.2 -0.4
JSCH                                  S       Sn       00 47 15.1 -0.5
TAMH  Tambohuasha Ch      0.95 357 ⇓P         Pn       00 47 02.9 -0.2
AGRD  Ecuador-Guaran      0.96 343  P         Pn       00 47 02.9 -0.2
IGUA  Igualata            1.01   5 ⇓P         Pn       00 47 03.1 -0.7
CHSH  Refugio Sur-Vo      1.01 352 ⇓P         Pn       00 47 03.3 -0.6
ARRY  Arrayan             1.02  16 ⇑P         Pn       00 47 03.1 -0.7
PORT  Chimborazo Vol      1.03 358 ⇓P         Pn       00 47 03.9 -0.2
BPAT  Tungurahua Vol      1.03  17 ⇑P         Pn       00 47 03.5 -0.5
ABAB  Ecuador-Univer      1.05 312  P         Pn       00 47 01.3 -2.3
BIL2  Estacion Bilba      1.06  12  P         Pn       00 47 04.3 +0.2
BBIL  Ulba Tungurahu      1.07  13  P         Pn       00 47 03.8 -0.4
JUI6  Juive               1.10  14 ⇑P         Pn       00 47 04.2 -0.4
GYE3  Ecuador-Guayaq      1.22 286 ⇓P         Pn       00 47 03.0 -2.5
PUYO  Puyo, Santa Ro      1.22  35 ⇑P         Pn       00 47 05.7 -0.1
TAIS  Taisha              1.23  85 ⇑P         Pn       00 47 06.3 +0.5
AGUAY Guayaquil           1.30 290  P         Pn       00 47 04.8 -1.7
AC07  Ecuador-Guayaq      1.30 285 ⇑P         Pn       00 47 05.0 -1.5
ACH2  Ecuador-Machal      1.32 235  P         Pn       00 47 06.6 -0.2
PKYU  Pakayacu            1.41  53 ⇑P         Pn       00 47 08.3 +0.3
PIS1  Pisayambo           1.47  14 ⇑P         Pn       00 47 09.7 +0.5
ISPG  Isla Puna-Puer      1.51 252 ⇑P         Pn       00 47 09.5 +0.3
ALJ1  Ecuador-Loja-U      1.55 198  P         Pn       00 47 10.6 +0.6
MORR  Playas El Morr      1.61 265 ⇑P         Pn       00 47 09.9 -0.5
BRRN  Barrancas-Volc      1.72   8 ⇑P         Pn       00 47 12.7 +0.4
SRAM  San Ramn-Vol        1.75   5 ⇑P         Pn       00 47 13.3 +0.8
ARDO  Archidona, Ten      1.76  32 ⇑P         Pn       00 47 11.9 -0.4
ILLI  Illinizas Sur       1.77   0 ⇑P         Pn       00 47 13.6 +0.7
SLOR  San Lorenzo -       1.77   8            Pn       00 47 12.8 -0.1
SLOR  San Lorenzo -       1.77   8 ⇑P         Pn       00 47 13.6 +0.7
BMOR  Cotopaxi Volca      1.78   9 ⇑P         Pn       00 47 13.7 +0.7
TAMB  Tambo               1.83  11  P         Pn       00 47 14.4 +0.7
BREF  Cotopaxi Volca      1.84   9  P         Pn       00 47 14.9 +1.0
BTAM  Cotopaxi Volca      1.84  10  P         Pn       00 47 14.4 +0.5
GONZ  Gonzanam            1.85 201 ⇑P         Pn       00 47 14.6 +0.8
BVC2  Cotopaxi Volca      1.86  10 ⇑P         Pn       00 47 14.8 +0.7
NAS2  Nasa                1.86   8 ⇑P         Pn       00 47 15.1 +1.0
SUCR  Mariscal Sucre      1.86   7  P         Pn       00 47 15.1 +1.0
VC1   Cotopaxi 1          1.87  10  P         Pn       00 47 14.9 +0.7
PITA  Cotopaxi Volc       1.95   9  P         Pn       00 47 15.1 -0.1
ANTM  Antisana-La Mi      2.02  15  P         Pn       00 47 16.3 +0.3
ANTG  Antisana-Guama      2.04  13 ⇑P         Pn       00 47 16.7 +0.3
ANTS  Antisana-Sarah      2.07  16 ⇑P         Pn       00 47 17.2 +0.4
ANTI  Antisana            2.11  16 ⇑P         Pn       00 47 17.7 +0.3
JIPI  JIPIJAPA            2.15 302  P         Pn       00 47 16.6 -0.8
PECV  Mancha de Ca P      2.16 322  P         Pn       00 47 19.2 +1.7
MCRA  Macar, Loja         2.22 213 ⇑P         Pn       00 47 17.6 -0.8
PPLP  Puerto Lpez         2.25 295 ⇑P         Pn       00 47 16.5 -2.2
PPLP  Puerto Lpez         2.25 295  P         Pn       00 47 16.7 -2.0
PPLP                                S         Sn       00 47 46.8 +0.7
GGPT  Toaza - Volcan      2.26   3  P         Pn       00 47 19.8 +0.6
JUA2  San Juan 2          2.27   3  P         Pn       00 47 19.8 +0.4
SALI  Salinas             2.28 278 ⇑P         Pn       00 47 19.0  0.0
GGPC  Guagua Pichinc      2.31   3  P         Pn       00 47 20.7 +0.8
TERV  Terraza Guagua      2.31   3  P         Pn       00 47 20.9 +0.9
ZUMB  Zumba               2.38 190 ⇑P         Pn       00 47 21.8 +1.2
FLF1  Flavio Alfaro-      2.40 332  P         Pn       00 47 19.5 -1.2
FLF1                                S         Sn       00 47 47.1 -2.5
PULU  Pululahua           2.51   5  P         Pn       00 47 23.2 +0.7
CAYR  Refugio Cayamb      2.60  16  P         Pn       00 47 24.6 +0.7
ANGU  Angureal            2.63  16  P         Pn       00 47 24.9 +0.7
ISPT  Isla de la Pla      2.65 298 ⇑P         Pn       00 47 23.2 -0.7
BV15  Puerto Quito-O      2.69 349  P         Pn       00 47 23.2 -1.2
OTAV  Otavalo             2.73   6  Pn        Pn       00 47 25.1 -0.3
OTAV  Otavalo             2.73   6  P         Pn       00 47 26.2 +0.8
OTAV                                S         Sn       00 47 59.4 +1.3
PAC1  Pacto, Paraso       2.75 359  P         Pn       00 47 26.3 +0.9
PAC1  Pacto, Paraso       2.75 359  P         Pn       00 47 26.6 +1.2
PAC1                                S         Sn       00 47 59.4 +1.4
CUSE  Cuicocha Este       2.81   7  P         Pn       00 47 29.9 +3.5
CUIC  Cuicocha-Domo       2.81   8  P         Pn       00 47 27.3 +0.9
CASC  Dorado de Casc      2.96  28  P         Pn       00 47 27.8 -0.4
CASC                                S         Sn       00 48 24.5  +21
ATAH  Atahualpa           4.62 176  Pn        Pn       00 47 52.6 +1.9
      4.8nm,0.3s,baz=9.6,slow=6.9,SNR=47
ATAH                                Sn        Sn       00 48 44.0 +0.5
      7.5nm,0.3s,baz=114,slow=24,SNR=9.0
      11nm,0.3s
ATAH                                AML       AML
BBAC  Balboa, Cauca       4.73  18  P         Pn       00 47 52.6 +0.5
PTLC  Puerto Leguiza      4.74  56  P         Pn       00 47 48.0 -4.1
POPC  Popayan, Colom      5.41  22  P         Pn       00 48 01.0 -0.4
      12nm,0.8s
POPC                                AML       AML
GARC  Garzon, Huila       5.67  35  P         Pn       00 48 03.7 -1.2
      2μm154nm,0.4s
ORTC  Ortega, Tolima      7.25  29  P         Pn       00 48 28.0 +1.7
      30nm,0.9s
PRAC  Prado               7.27  32  P         Pn       00 48 26.6 +0.1
      1μm11nm,1.2s
CZSB  Cruzeiro do Su      7.94 131  Pn        Pn       00 48 34.7 -0.8
CZSB  Cruzeiro do Su      7.94 131  P         Pn       00 48 34.9 -0.7
CZSB                                S         Sn       00 50 00.7 -3.1
NNA   Nana                9.61 169  Pn        Pn       00 48 58.7 +0.3
      4.4nm,0.3s,baz=350,slow=16,SNR=7.7
NNA                                 Sn        Sn       00 50 39.9 -4.8
      4.8nm,0.3s,baz=355,slow=12,SNR=5.3
      14nm,0.4s
NNA                                 AML       AML
NNA   Nana                9.61 169  Pn        Pn       00 48 57.8 -0.6
NNA   Nana                9.61 169  P         Pn       00 48 58.3 -0.1
SDV   Santo Domingo      13.89  35  Pn        Pn       00 49 44.3  -12
      4.1nm,0.3s,baz=42,slow=21,SNR=12
      17nm,0.4s
SDV                                 AML       AML
SDV   Santo Domingo      13.89  35  Pn        Pn       00 49 44.6  -11
LPAZ  La Paz             17.22 143  Pn        P        00 50 39.0 +0.9
      0.1nm,0.3s,baz=316,slow=13,SNR=5.5
LPAZ                                Sn        Sn       00 53 43.3 -6.6
      0.1nm,0.3s,baz=189,slow=13,SNR=1.7
      0.9nm,0.7s
LPAZ                                AML       AML
LPAZ  La Paz             17.22 143  Pn        Pn       00 50 35.8 -2.2
MACA  Manacapuru-AM      18.04  93  P         P        00 50 44.6 -1.9
PB16  IPOC Station P     18.15 151  P         Pn       00 50 50.0 +0.8
PB16                                IAmb      IAmb     00 50 53.5
      comp=Z,9.0nm,1.3s
BOAV  Boa Vista          18.84  75  P         Pn       00 50 59.7 +2.8
PB11  IPOC Station P     19.31 153  P         Pn       00 51 03.0 +0.4
PB11                                IAmb      IAmb     00 51 04.4
      comp=Z,14nm,1.1s
GO01  Chusmiza           19.44 152  P         P        00 51 03.0 +0.7
GO01                                IAmb      IAmb     00 51 10.2
      comp=Z,12nm,1.3s
PB02  IPOC Station P     20.59 156  P         P        00 51 14.5 +0.2
PB09  IPOC Station P     21.29 155  P         P        00 51 23.5 +1.7
PB09                                IAmb      IAmb     00 51 27.5
      comp=Z,16nm,1.1s
SIV   San Ignacio        21.95 129  P         P        00 51 29.2 +0.3
      comp=Z,0.9nm,0.4s,baz=303,slow=10,SNR=5.4
      comp=Z,0.9nm,0.4s
MDP   Montagnes des      27.13  74  P         P        00 52 15.3 -1.8
      comp=Z,3.1nm,0.5s,baz=253,slow=8.1,SNR=9.8
      comp=Z,3.1nm,0.5s
TXAR  Lajitas Array      39.65 325  P         P        00 54 06.4 +0.9
      comp=Z,0.1nm,0.6s,baz=130,slow=7.7,SNR=1.6
      comp=Z,0.1nm,0.6s
PLPT  Palo Pinto         39.71 334  P         P        00 54 07.0 +1.2
PLPT                                IAmb      IAmb     00 54 07.7
      comp=Z,4.5nm,0.6s
VHRN  Van Horn           41.49 325  P         P        00 54 21.8 +1.1
ANMO  Albuquerque        45.43 328  P         P        00 54 53.3 +1.0
      comp=Z,1.6nm,0.8s,baz=151,slow=7.6,SNR=6.3
      comp=Z,1.6nm,0.8s
ANMO  Albuquerque        45.43 328  P         P        00 54 53.3 +1.0
SDCO  Great Sand Dun     47.10 331  P         P        00 55 07.3 +1.8
SDCO                                IAmb      IAmb     00 55 07.6
      comp=Z,1.2nm,0.7s
PV13  Radium Mtn., P     49.10 328  P         P        00 55 22.1 +1.3
PV13                                IAmb      IAmb     00 55 22.7
      comp=Z,6.0nm,0.8s
PDAR  Pinedale Array     52.95 332  P         P        00 55 49.9 +0.3
      comp=Z,0.5nm,0.8s,baz=144,slow=7.4,SNR=4.8
      comp=Z,0.5nm,0.8s
PDAR  Pinedale Array     52.95 332  P         P        00 55 49.7 +0.1
NVAR  Mina Array Bea     54.69 322  P         P        00 56 03.4 +1.1
      comp=Z,0.4nm,0.7s,baz=127,slow=7.2,SNR=4.2
      comp=Z,0.4nm,0.7s
VNA3  Neumayer Olymp     81.00 162  P         P        00 58 47.9 +1.4
SCM   Sheep Creek Mo     82.25 334  P         P        00 58 53.7 +0.4
ILAR  Eielson Array      83.10 336  P         P        00 58 57.9 +0.4
      comp=Z,0.4nm,0.7s,baz=106,slow=8.0,SNR=2.7
      comp=Z,0.4nm,0.7s
PPLA  Purkeypile         84.73 334  P         P        00 59 05.1 -0.9
TROLL Troll, Antarti     84.93 162  P         P        00 59 07.9 +1.0
      comp=Z,62nm,0.9s
QSPA  South Pole Qui     87.57 180  P         P        00 59 21.6 +1.7
      comp=Z,2.5nm,0.9s,baz=187,slow=1.1,SNR=9.0
QSPA  South Pole Qui     87.57 180  P         P        00 59 21.1 +1.2
QSPA                                IAmb      IAmb     00 59 25.0
      comp=Z,9.1nm,1.5s
WRA   Warramunga Arr    140.62 234  PKP       PKiKP    01 06 04.1 -0.5
      comp=Z,0.5nm,0.6s,baz=119,slow=2.1,SNR=5.7
FITZ  Fitzroy Crossi    148.45 229  PKPbc     PKPbc    01 06 19.0 -0.2
MBWA  Marble Bar        150.34 217  PKPbc     PKPbc    01 06 23.6 -0.2
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IDC ***30*** *00:49:37.1±0.6, 19°.73N×122°.44E, h0^{km}, mb4.2/25, mbtmp4.2/28, ML4.5/3, MS3.6/41, Error ellipse: s-maj=15.1km s-min=11.5km az=81.0*

BJI ***30*** *00:49:39.8, 19°.99N×122°.43E, h5^{km}, mB4.7/13, mb4.6/46, ML4.4/2, Ms4.1/37, Ms7 3.8/37*

NEIC ***30*** *00:49:39.3±2.2, 19°.88N±0°.06×122°.62E±0°.08, h10^{km}±1^{km}, mb4.7/64, Error ellipse: s-maj=13.5km s-min=9.6km az=105.0*

GFZ ***30*** *00:49:40.9±0.2, 20°N±2°×12°3E±°, h10^{km}, M4.5/25, mb4.7/25, confirmed*

MAN ***30*** *00:49:41.0, 19°.78N×122°.45E, h28^{km}, MS4.7*

DJA ***30*** *00:49:41.7±1.3, 20°N±2°×12°3E±°, h26^{km}±10^{km}, M5.0/25, mb4.7/25, mB5.6/10, MLv5.2/5, Mw(mB)5.1/10*

NIED ***30*** *00:49:42.0, 19°.98N×122°.44E, h115^{km}, MW4.7, Moment Tensor Solution. s2 Moment tensor: Scale 10^{16}Nm; M_{rr}0.08; $M_{\theta\theta}$0.84; $M_{\phi\phi}$-0.92; $M_{r\theta}$0.40; $M_{\theta\phi}$-0.59; $M_{\phi r}$0.17; Fault plane solution: $M_0$1.15000×10^{16} NP1: ϕ_s153.00000°, δ68.00000°, λ3.00000°. NP2: ϕ_s61.00000°, δ87.00000°, λ158.00000°.*

JMA ***30*** *00:49:42.0±0.4, 20°N±2°×122°.4E±1°.0, h1^{km}, MV4.7/22, FAR FIELD*

ISC 30 00:49:42.9±0.3**, 19°.89N**±0°.03×**122°.63E**±0°.04**, h36^{km}, n278,** σ**1^{s}92**/244**, mb4.5**/79**, MS3.7**/46**, 1C-1D, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PACPP	Pamplona Cagay	1.86	221	*i* P	Pn	00 50 09.2	-3.0
PACPP				*i* S	Sn	00 50 29.8	-4.8
CVP	Callao Caves	2.30	200	*e*P	Pn	00 50 16.8	-1.5
CVP				*e*S	Sn	00 50 46.8	+1.4
SIPP	Brgy, Tapao	2.84	227	*e*P	Pn	00 50 23.5	-2.1
SIPP				*e*S	Sn	00 50 55.8	-2.8
SZP	Santa	3.10	222	P	Pn	00 50 30.2	+0.9
SZP	Santa	3.10	222	S	Sn	00 51 06.9	+1.7
SZP	Santa	3.10	222		Pn	00 50 27.4	-1.9
SZP	Santa	3.10	222	P	Pn	00 50 30.0	+0.7
TWGBT	Beinan	3.25	334	P	Pn	00 50 29.9	-1.5
TWGBT	Beinan	3.25	334	S	Sn	00 51 06.9	-2.0
TWG	Pinlang	3.26	334	Pn	Pn	00 50 29.2	-2.3
TWG	Pinlang	3.26	334	P	Pn	00 50 29.7	-1.8
YULB	Yu-li	3.70	341	P	Pn	00 50 35.5	-2.1
YULB	Yu-li	3.70	341	S	Sn	00 51 16.7	-3.3
YULB	Yu-li	3.70	341	Pn	Pn	00 50 34.7	-2.9
YULB	Yu-li	3.70	341	P	Pn	00 50 35.4	-2.2
TPUB	Ta-pu	3.87	332	P	Pn	00 50 39.6	-0.3
TPUB	Ta-pu	3.87	332	Pn	Pn	00 50 38.7	-1.3
TPUB	Ta-pu	3.87	332	P	Pn	00 50 41.1	+1.2
SSLB	Suanglung	4.18	338	P	Pn	00 50 43.6	-0.6
SSLB	Suanglung	4.18	338	S	Sn	00 51 31.4	-0.4
SSLB	Suanglung	4.18	338	Pn	Pn	00 50 42.1	-2.0
SSLB	Suanglung	4.18	338	P	Pn	00 50 43.8	-0.4
HATJ	Hateruma jima	4.29	15	P	Pn	00 50 45.5	-0.1
HATJ				S	Sn	00 51 34.4	0.0
BOLP	Bolinao	4.34	217	*i* P	Pn	00 50 45.9	-0.4
BOLP				*e*S	Sn	00 51 34.4	-1.3
NACB	Ninganchiao	4.37	348	P	Pn	00 50 44.9	-1.9
NACB	Ninganchiao	4.37	348	P	Pn	00 50 45.6	-1.2
JKRS	Kuro-shima	4.51	16	P	Pn	00 50 49.4	+0.7
IRIF	Iriomote-Funau	4.54	13	P	Pn	00 50 49.6	+0.5
JYNG	Yonagunijimaku	4.55	4	P	Pn	00 50 49.0	-0.2
JYNG				S	Sn	00 51 40.1	-0.7
YOJ	Yonaguni jima	4.57	4	P	Pn	00 50 49.4	0.0
YOJ	Yonaguni jima	4.57	4	S	Sn	00 51 41.2	0.0
YOJ	Yonaguni jima	4.57	4	Pn	Pn	00 50 48.6	-0.8
YOJ	Yonaguni jima	4.57	4	P	Pn	00 50 49.6	+0.2
YOJ	Yonaguni jima	4.57	4	P	Pn	00 50 49.3	0.0
YOJ				*e*S	Sn	00 51 40.4	-0.8
JIJ	Ishigaki jima	4.67	17	P	Pn	00 50 51.1	+0.3
YHNB	Yeheng	4.90	347	P	Pn	00 50 53.7	-0.4
YHNB	Yeheng	4.90	347	S	Sn	00 51 46.3	-3.3
YHNB	Yeheng	4.90	347	Pn	Pn	00 50 53.2	-0.9
YHNB	Yeheng	4.90	347	P	Pn	00 50 54.4	+0.3
	comp=Z,261nm,0.6s						
JISG	Ishigakijimahi	4.93	18	P	Pn	00 50 54.4	0.0
JTJ	Tarama	5.11	22	P	Pn	00 50 57.2	+0.4
JTJ				*e*S	Sn	00 51 52.6	-1.9
TATO	Taipei	5.17	348	S	Sn	00 51 54.5	-1.7
TATO	Taipei	5.17	348	Pn	Pn	00 50 57.8	+0.1
TATO	Taipei	5.17	348	P	Pn	00 51 00.7	+3.0
	comp=Z,280nm,0.8s						
PCPS	Palayan City	5.42	196	*e*P	Pn	00 50 49.1	-12
PCPS				*e*S	Sn	00 51 48.7	-14
JMJ2	Miyako jima3	5.44	27	P	Pn	00 51 02.2	+0.8
JOGS	Gusukube	5.49	27	P	Pn	00 51 02.7	+0.6
JMJ	Miyako jima 2	5.49	26	P	Pn	00 51 02.4	+0.3
LQP	Lukban	5.84	190	*e*P	Pn	00 51 06.9	-0.2
LQP				*e*S	Sn	00 52 11.7	-1.2
KNMB	Chin-men Tao	6.02	320	Pn	Pn	00 51 07.7	-1.6
KNMB	Chin-men Tao	6.02	320	P	Pn	00 51 08.6	-0.7
	comp=Z,144nm,0.7s						
LUBP	Lubang	6.53	201	*e*P	Pn	00 51 19.1	+2.7
LUBP				*e*S	Sn	00 52 33.8	+4.1
JKE	Kume jima 2	7.46	30	P	Pn	00 51 28.5	-0.7
JAGN	Aguni-jima	7.90	32	P	Pn	00 51 34.6	-0.7
JIH	Iheya	8.64	34	P	Pn	00 51 44.3	-1.0
JOW	Kunigami	8.64	36	Pn	Pn	00 51 45.0	-0.4
	comp=Z,26nm,0.3s,baz=90,slow=22,SNR=128						
JOW				Sn	Sn	00 53 14.4	-7.1
	comp=Z,3.8nm,0.3s,baz=111,slow=29,SNR=1.6						
	comp=Z,134nm,0.7s						
JOW				AML	AML		
JOW	Kunigami	8.64	36	P	Pn	00 51 45.0	-0.4
JOW	Kunigami	8.64	36	P	Pn	00 51 45.0	-0.4
	comp=Z,231nm,0.9s						
JOW	Kunigami	8.64	36	P	Pn	00 51 44.8	-0.5
CADP	Cadiz City	8.94	176	*e*P	Pn	00 51 51.6	+2.1
PLP	Palo	8.96	165	*e*P	Pn	00 51 51.0	+1.2
PLP				*e*S	Sn	00 53 26.1	-3.5
GZH2	Guangzhou	9.14	296	P	Pn	00 51 50.5	-1.8
LLP	Lapu-Lapu	9.60	172	*e*P	Pn	00 52 04.0	+5.4
LLP				*e*S	Sn	00 54 14.9	+30
JTK	Tokunoshima	9.76	35	P	Pn	00 51 59.1	-1.6
JMZ	Minamidaito 2	9.88	52	Pn	Pn	00 52 01.2	-1.2
JAMN	Amaminishikomi	10.24	34	P	Pn	00 52 05.8	-1.5
QIZ	Qiongzhong	12.09	268	P	Pn	00 52 31.3	-1.4
QIZ				S	Sn	00 54 48.0	+1.6
QIZ				pmax	pmax		
	comp=Z,17nm,0.7s						
QIZ				L	L		
	comp=Z,450nm,15.6s						
QIZ				L	L		
	comp=Z,290nm,15.7s						
QIZ				L	L		
	comp=Z,480nm,13.9s						
QIZ	Qiongzhong	12.09	268		Pn	00 52 31.1	-1.6
CNSH	ChangSha	12.11	315	P	Pn	00 52 31.3	-1.5
CNSH				S	Sn	00 54 40.5	-6.1
CNSH				L	L		
	comp=Z,480nm,14.4s						
CNSH				L	L		
	comp=Z,450nm,18.6s						
CNSH				L	L		
	comp=Z,460nm,16.3s						
NJ2	Nanjing	12.58	345	*e*P	Pn	00 52 39.3	0.0
NJ2				pmax	pmax		
	comp=Z,8.0nm,0.6s						
NJ2				L	L		
	comp=Z,420nm,16.6s						
NJ2				L	L		
	comp=Z,650nm,16.6s						
NJ2				L	L		
	comp=Z,590nm,15.2s						
WHN	Wuhan	12.98	326	P	Pn	00 52 44.0	-0.8
DAV	Davao City (W)	13.06	167	LR	LR	00 58 08.8	
	comp=Z,506nm,19.6s,baz=354,slow=40						
JNU	Nakatsue	15.10	28	Pn	Pn	00 53 12.8	-0.8
	comp=Z,0.9nm,0.3s,baz=163,slow=6.4,SNR=5.2						
JNU				LR	LR	00 59 34.6	
	comp=Z,51nm,18.6s,baz=204,slow=39						
	comp=Z,14nm,0.9s						
JNU				AML	AML		
KKM	Kota Kinabalu	15.11	205	P	P	00 53 16.4	-2.2
KKM	Kota Kinabalu	15.11	205	Pn	Pn	00 53 12.5	-1.3
KKM				IAmb	IAmb	00 53 15.8	
	comp=Z,34nm,1.3s						
KKM	Kota Kinabalu	15.11	205	P	Pn	00 53 13.3	-0.5
	comp=Z,20nm,1.0s						
KKM	Kota Kinabalu	15.11	205	P	Pn	00 53 13.4	-0.5
	comp=Z,20nm,1.0s						
MYLDM	Lahad Datu	15.16	196	P	P	00 53 17.3	-1.8
MYLDM	Lahad Datu	15.16	196	Pn	Pn	00 53 13.7	-0.7
MYLDM				IAmb	IAmb	00 53 57.7	
	comp=Z,34nm,1.2s						
MYLDM	Lahad Datu	15.16	196	P	P	00 53 17.0	-2.1
	comp=Z,29nm,1.3s						
ENH	Enshi	15.76	314	P	Pn	00 53 23.6	+1.4
	comp=Z,21nm,0.8s						
GYA	Guiyang	16.07	297	P	P	00 53 37.0	+7.8
GYA				pmax	pmax		
	comp=Z,20nm,0.8s						
TJN	Taejon	16.95	13	P	P	00 53 38.4	-0.4
JMN	Monobe	17.04	34	Pn	Pn	00 53 36.4	-1.9
LYN	LuoYang	17.16	330	P	P	00 53 43.3	+2.1
LYN				pmax	pmax		
	comp=Z,54nm,0.8s						
LYN				L	L		
	comp=Z,440nm,19.2s						
LYN				L	L		
	comp=Z,480nm,16.5s						
LYN				L	L		
	comp=Z,330nm,18.6s						
SLVN	Son La	17.59	278	P	P	00 53 45.8	-0.3
SLVN	Son La	17.59	278		Pn	00 53 45.7	+0.3
SLVN	Son La	17.59	278	P	P	00 53 47.2	+1.1
	comp=Z,12nm,0.8s						
INCN	Inchon	17.88	10	P	P	00 53 50.6	+1.5
INCN	Inchon	17.88	10	P	P	00 53 52.0	+2.9
	comp=Z,67nm,1.1s						
KSAR	Wonju Array Be	18.08	14	P	Pn	00 53 50.6	-0.6
KSRS	Korea Array	18.10	14	P	P	00 53 52.2	+0.7
	comp=Z,0.6nm,0.3s,baz=187,slow=12,SNR=27						
KSRS				LR	LR	01 00 53.7	
	comp=Z,157nm,19.4s,baz=205,slow=37						
	comp=Z,9.1nm,0.7s						
KSRS				AML	AML		
KS19	Wonju Array Si	18.14	13		Pn	00 53 50.0	-1.8
XAN	Xi'an	18.63	322	P	Pn	00 53 58.8	+0.9
XAN				sP	pP	00 54 06.0	+0.1
XAN				pmax	pmax		
	comp=Z,12nm,0.8s						
XAN				L	L		
	comp=Z,390nm,18.6s						
XAN				L	L		
	comp=Z,340nm,19.2s						
XAN				L	L		
	comp=Z,400nm,22.7s						
TOLI2	Tolitoli	18.75	186	P	Pn	00 54 02.1	+2.7
TOLI2	Tolitoli	18.75	186		P	00 53 57.8	-1.0
TOLI2	Tolitoli	18.75	186	P	Pn	00 54 02.3	+2.9
	comp=Z,25nm,1.3s						
HNS	HongShan	18.77	340	⇑P	Pn	00 54 00.0	+0.5
HNS				S	Sn	00 57 27.5	-0.9
HNS				L	L		
	comp=Z,200nm,13.9s						
HNS				L	L		
	comp=Z,610nm,16.5s						
HNS				L	L		
	comp=Z,410nm,16.7s						
KMI2	Kunming	19.09	290	P	Pn	00 54 05.8	+2.0
KMI2				pP	pP	00 54 08.8	-2.6
KMI2				pmax	pmax		
	comp=Z,9.0nm,0.7s						
KMI2				L	L		
	comp=Z,280nm,13.0s						
KMI2				L	L		
	comp=Z,280nm,15.6s						
KMI2				L	L		
	comp=Z,350nm,18.9s						
INU	Inuyama	19.96	37	P	Pn	00 54 14.8	+1.0
INU	Inuyama	19.96	37	S	Sn	00 58 00.3	+3.1
INU	Inuyama	19.96	37	P	Pn	00 54 16.1	+2.3
	comp=Z,34nm,1.1s						
SBUM	Sibu	20.09	212	P	P	00 54 13.8	+0.3
SBUM	Sibu	20.09	212	P	P	00 54 12.7	-0.9
SBUM				IAmb	IAmb	00 54 14.3	
	comp=Z,26nm,0.8s						
SBUM	Sibu	20.09	212	P	P	00 54 13.3	-0.3
	comp=Z,306nmcomp=Z,38nm,1.0s						
SBUM	Sibu	20.09	212	P	P	00 54 13.3	-0.3
	comp=Z,38nm,1.0s						
PZH	PanZhiHua	20.29	293	P	Pn	00 54 17.3	-0.5
JGF	Kuroka	20.33	37	P	Pn	00 54 18.0	-0.2
APSI	Ampana	20.69	183	P	P	00 54 20.5	+0.5
	comp=Z,1μmcomp=Z,40nm,1.2s						
LUWI	Luwuk	20.80	180	P	Pn	00 54 23.2	-0.5
LUWI	Luwuk	20.80	180	P	P	00 54 18.8	-2.4
LUWI	Luwuk	20.80	180	P	Pn	00 54 24.8	+1.1
	comp=Z,92nm,0.8s						
BJI2	Beijing	20.82	346	P	P	00 54 21.5	+0.3
BJI2				pP	Pn	00 54 25.5	+1.7
BJI2				PP	PnPn	00 54 44.3	+4.1
BJI2				S	S	00 58 10.5	-1.0
BJI2				pmax	pmax		
	comp=Z,4.0nm,0.6s						
BJI2				pmax	pmax		
	comp=Z,53nm,6.1s						
BJI2				L	L		
	comp=Z,110nm,15.0s						
BJI2				L	L		
	comp=Z,120nm,13.8s						
BJI2				L	L		
	comp=Z,97nm,16.8s						
BJT	Baijiatuau	20.82	346	P	P	00 54 22.0	+0.8
	comp=Z,11nm,1.1s						
MAJO	Matsushiro	21.48	36	P	P	00 54 30.4	+2.0
MJAR	Matsushiro Arr	21.48	36	P	P	00 54 31.8	+3.4
	comp=Z,6.1nm,0.9s,baz=232,slow=11,SNR=10						
MJAR				LR	LR	01 02 07.1	
	comp=Z,76nm,21.1s,baz=230,slow=34						
	comp=Z,6.1nm,0.9s						
SNY	Shenyang	21.89	2	P	P	00 54 36.0	+3.4
SNY				pmax	pmax		
	comp=Z,17nm,1.1s						
SNY				pmax	pmax		
	comp=Z,89nm,4.2s						
SNY				L	L		
	comp=Z,220nm,12.6s						
SNY				L	L		
	comp=Z,550nm,14.8s						
SNY				L	L		
	comp=Z,160nm,16.1s						
GUMO	Guam	22.19	103	LR	LR	01 01 14.8	
	comp=Z,42nm,20.5s,baz=257,slow=31						
SWI	Sorong	22.29	157	P	P	00 54 37.7	+0.5
	comp=Z,54nm,1.0s						
SIJI	Sorong	22.30	157	P	P	00 54 37.0	-0.3
	comp=Z,14nm,0.8s,baz=359,slow=8.3,SNR=5.3						
	comp=Z,14nm,0.8s						
CHTO	Chiang Mai	22.37	271	P	P	00 54 39.6	+1.5
CHTO	Chiang Mai	22.37	271	P	P	00 54 41.2	+3.1
CHTO	Chiang Mai	22.37	271	P	P	00 54 42.3	+4.1
	comp=Z,12nm,1.2s						
CM31	Chiang Mai Arr	22.42	270	P	P	00 54 36.5	-2.1
CMAR	Chiang Mai Arr	22.42	270	P	P	00 54 36.8	-1.8
	comp=Z,2.4nm,0.7s,baz=80,slow=8.5,SNR=12						
CMAR				LR	LR	01 04 04.5	
	comp=Z,60nm,19.8s,baz=95,slow=39						
	comp=Z,2.4nm,0.7s						
CMAR	Chiang Mai Arr	22.42	270	P	P	00 54 38.1	-0.5
MMSI	Mamuju	22.73	190	P	P	00 54 40.9	-1.0
	comp=Z,593nmcomp=Z,63nm,0.9s						
HHC	Hu-ho-hao-te	22.93	338	*e*P	P	00 54 44.0	+0.1
HHC				S	S	00 58 53.5	+1.9
HHC				SS	SnSn	00 59 33.5	+8.5
HHC				pmax	pmax		
	comp=Z,6.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,79nm,4.7s						
HHC				L	L		
	comp=Z,130nm,11.5s						
HHC				L	L		
	comp=Z,210nm,10.7s						
HHC				L	L		
	comp=Z,300nm,11.8s						
LZH	Lanzhou	23.08	318	*e*P	P	00 54 49.3	+3.8
LZH				sP	pwP	00 54 58.3	-0.2
LZH				pmax	pmax		
	comp=Z,11nm,1.2s						
LZH				L	L		
	comp=Z,320nm,20.1s						
LZH				L	L		
	comp=Z,310nm,18.9s						
LZH				L	L		
	comp=Z,330nm,20.1s						
LZDM	Lanzhou Array	23.09	318	P	P	00 54 45.7	-0.1
	comp=Z,1.4nm,0.4s,baz=124,slow=9.3,SNR=6.1						
LZDM				LR	LR	01 04 35.6	
	comp=Z,168nm,20.8s,baz=265,slow=39						
	comp=Z,1.4nm,0.4s						
CN2	Changchun	23.96	5	*e*P	P	00 54 55.3	+1.5
CN2				*e*sP	pP	00 55 02.0	-1.0
CN2				*e*S	S	00 59 09.5	+1.5
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
CN2				pmax	pmax		
	comp=Z,100nm,4.0s						
CN2				L	L		
	comp=Z,100nm,11.0s						
CN2				L	L		
	comp=Z,100nm,11.0s						
CN2				L	L		
	comp=Z,100nm,11.0s						
KAPI	Kappang	24.91	187	P	P	00 55 01.5	-1.1
KAPI	Kappang	24.91	187	P	P	00 55 01.7	-0.9
	comp=Z,15nm,1.1s						
KAPI	Kappang	24.91	187	P	P	00 55 02.2	-0.4
	comp=Z,29nm,1.1s						
MDJ	Mudanjiang	25.33	12	P	P	00 55 08.5	+2.3
MDJ				pmax	pmax		
	comp=Z,18nm,1.2s						
USRK	Ussuriysk Ar.	25.47	16	P	P	00 55 09.1	+1.6
	comp=Z,9.5nm,0.8s,baz=202,slow=10,SNR=12						
USRK				LR	LR	01 05 22.7	
	comp=Z,58nm,19.4s,baz=196,slow=37						
	comp=Z,9.5nm,0.8s						
BTDF	Bukit Timah Da	26.06	227	P	P	00 55 14.0	+0.8
	comp=Z,40nm,1.1s						
BNX	BinXian	26.08	8	⇓P	P	00 55 15.0	+2.0
BNX				pP	pP	00 55 18.0	-4.1
BNX				sP	sP	00 55 19.8	-6.0
BNX				S	S	00 59 47.8	+6.0
BNX				sS	sS	00 59 51.3	-7.0
BNX				pmax	pmax		
	comp=Z,16nm,1.2s						
BNX				L	L		
	comp=Z,120nm,11.9s						
BNX				L	L		
	comp=Z,300nm,15.2s						
GTA2	Gaotai	27.73	320	*e*P	P	00 55 28.8	+0.7
GTA2				pmax	pmax		
	comp=Z,5.0nm,0.9s						
GTA2				L	L		
	comp=Z,180nm,21.6s						
GTA2				L	L		
	comp=Z,150nm,19.4s						
GTA2				L	L		
	comp=Z,190nm,20.9s						
JAY	Jayapura	28.47	139	LR	LR	01 05 02.1	
	comp=Z,98nm,21.4s,slow=32						
BRDH	Bariadhala	28.98	281	LR	LR	01 07 15.6	
	comp=Z,185nm,18.4s,baz=121,slow=37						
ASAJ	Asahikawa	29.35	30	LR	LR	01 07 02.9	
	comp=Z,98nm,21.4s,baz=140,slow=35						
KLR	Kul'dur	30.18	12	LR	LR	01 09 15.6	
	comp=Z,145nm,18.7s,baz=193,slow=39						
LEM	Lembang	30.38	211	LR	LR	01 09 00.4	
	comp=Z,149nm,18.4s,baz=345,slow=39						
ULN	Ulaanbaatar	30.64	339	P	P	00 55 53.0	-0.8
ULN	Ulaanbaatar	30.64	339	P	P	00 55 54.7	+0.9
	comp=Z,7.6nm,0.9s						
SONM	Songino Array	30.83	338	P	P	00 55 55.4	-0.2
	comp=Z,0.9nm,0.5s,baz=157,slow=10.0,SNR=5.0						
	comp=Z,0.9nm,0.5s						
SONM	Songino Array	30.83	338	P	P	00 55 53.5	-2.1
EVN	Everest	33.61	291	P	P	00 56 21.1	+0.4
EVN				IAmb	IAmb	00 56 35.0	
	comp=Z,10nm,0.7s						
EVN	Everest	33.61	291	P	P	00 56 22.2	+1.4
	comp=Z,16nm,0.9s						
TLY	Talaya	35.05	339	LR	LR	01 13 41.3	
	comp=Z,146nm,18.6s,baz=143,slow=41						
WMQ	Urumqi	37.65	317	*e*P	P	00 56 57.5	+2.9
FITZ	Fitzroy Crossi	37.87	175	P	P	00 56 53.9	-2.5
MBWA	Marble Bar	40.89	184	P	P	00 57 19.6	-2.1
MBWA				IAmb	IAmb	00 57 48.2	
	comp=Z,22nm,1.4s						
WB0	Warramunga Arr	41.06	163	P	P	00 57 20.9	-2.2
ZSN	Zaisan	41.12	321	*e*P	P	00 57 24.7	+1.3
WRAB	Tennant Creek	41.21	163	P	P	00 57 22.4	-1.9
WRAB				IAmb	IAmb	00 57 32.6	
	comp=Z,13nm,0.7s						
WRAB	Tennant Creek	41.21	163	P	P	00 57 22.8	-1.5
	comp=Z,24nm,0.9s						
WRA	Warramunga Arr	41.21	163	P	P	00 57 22.4	-1.9
	comp=Z,12nm,0.7s,baz=344,slow=9.2,SNR=80						
WRA				PcP	PcP	00 59 22.5	-0.6
	comp=Z,0.4nm,0.7s,baz=356,slow=4.0,SNR=1.3						
	comp=Z,12nm,0.7s						
WRA	Warramunga Arr	41.21	163	P	P	00 57 21.6	-2.8
WR8	Warramunga Arr	41.27	163	P	P	00 57 22.8	-2.0
H11S3	WAKE ISLAND Hy	41.55	84	T	T	01 41 51.2	
	baz=275,slow=75,SNR=59						
H11N1	WAKE ISLAND Hy	41.55	82	T	T	01 42 27.1	
	baz=278,slow=74						
H11S1	WAKE ISLAND Hy	41.55	84	T	T	01 41 52.1	
	baz=275,slow=75,SNR=46						
H11N2	WAKE ISLAND Hy	41.56	82	T	T	01 41 53.7	
	baz=278						
H11S2	WAKE ISLAND Hy	41.56	84	T	T	01 41 55.4	
	baz=275,slow=75,SNR=36						
H11N3	WAKE ISLAND Hy	41.57	82	T	T	01 41 53.2	
	baz=278,slow=74						
MKAR	Makanchi Array	42.39	319	P	P	00 57 34.5	+0.7
	comp=Z,5.2nm,0.5s,baz=111,slow=8.7,SNR=65						
MKAR				LR	LR	01 16 46.4	
	comp=Z,87nm,19.8s,baz=116,slow=38						
	comp=Z,5.2nm,0.5s						
MKAR	Makanchi Array	42.39	319	P	P	00 57 34.7	+0.9
YAK	Yakutsk	42.39	5	LR	LR	01 18 07.7	
	comp=Z,88nm,18.6s,baz=184,slow=40						
WUS	Wushi	42.46	310	P	P	00 57 36.3	+1.7
	comp=Z,6.3nm,0.5s						
MAKZ	Makanchi	42.59	319	P	P	00 57 35.7	+0.3
MAKZ	Makanchi	42.59	319	P	P	00 57 36.2	+0.8
	comp=Z,9.2nm,0.8s						
PETK	Petropavlovsk-	42.76	31	P	P	00 57 38.9	+2.2
	comp=Z,3.4nm,0.7s,baz=158,slow=1.6,SNR=5.0						
	comp=Z,3.4nm,0.7s						
PETK	Petropavlovsk-	42.76	31	P	P	00 57 38.2	+1.5
SHLS	Shalkode	42.88	313	*e*P	P	00 57 36.6	-1.4
PDGK	Podgornoye	42.92	313	P	P	00 57 39.1	+0.8
UZB	Uzynbulak	43.19	312	*e*P	P	00 57 41.5	+1.1
QIS	Mount Isa	43.50	157	P	P	00 57 42.3	-0.6
	comp=Z,12nm,0.9s						
KPKS	Kokpek	43.52	313	*e*P	P	00 57 43.9	+0.8
SATY	Saty	43.59	312	*e*P	P	00 57 44.4	+0.7
TDK	Taldyqorghan	44.21	315	*e*P	P	00 57 49.6	+1.1
	comp=Z,6.1nm,0.7s						
ASAI	AK-SAY(Kyrgyzs	44.35	309	P	P	00 57 52.2	+2.1
	comp=Z,4.8nm,1.3s						
MA2	Magadan	44.48	20	LR	LR	01 17 01.1	
	comp=Z,60nm,20.3s,baz=243,slow=37						
MDOK	Medeo	44.57	312	*e*P	P	00 57 52.3	+0.8
ZAA0	Zalesovo Array	44.58	329	P	P	00 57 50.4	-0.9
ZALV	Zalesovo Beam	44.58	329	P	P	00 57 50.9	-0.4
	comp=Z,3.2nm,0.5s,baz=118,slow=8.0,SNR=21						
ZALV				LR	LR	01 18 17.9	
	comp=Z,61nm,18.0s,baz=118,slow=39						
	comp=Z,3.2nm,0.5s						
ZALV	Zalesovo Beam	44.58	329	P	P	00 57 50.5	-0.7
TNSS	Tian-Shan	44.60	312	*e*P	P	00 57 52.4	+0.3
AS31	Alice Springs	44.66	165	P	P	00 57 50.7	-1.6
AS31				IAmb	IAmb	00 57 52.5	
	comp=Z,3.6nm,0.5s						
ASAR	Alice Springs	44.66	165	P	P	00 57 51.2	-1.0
	comp=Z,7.1nm,0.6s,baz=351,slow=8.2,SNR=81						
	comp=Z,7.1nm,0.6s						
ASAR	Alice Springs	44.66	165	P	P	00 57 50.5	-1.8
AAA	Alma-Ata	44.67	312	*e*P	P	00 57 53.1	+0.8
	comp=Z,9.3nm,0.6s						
KSH2	Kashi	44.67	306	P	P	00 57 54.3	+1.8
KSH2				sP	pP	00 58 00.0	-2.0
KSH2				pmax	pmax		
	comp=Z,5.0nm,1.1s						
KSH2				L	L		
	comp=Z,190nm,16.9s						
KSH2				L	L		
	comp=Z,110nm,19.4s						
KSH2				L	L		
	comp=Z,130nm,18.1s						
KUU	Kurty	45.27	313	*e*P	P	00 57 57.9	+0.9

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NIL   Nilore            45.77 298  P      P      00 58 00.8 -0.2
NIL   Nilore            45.77 298  P      P      00 58 01.8 +0.7
      comp=Z,30nm,0.9s
CTA   Charters Tower    45.98 148  LR     LR     01 15 17.6
      comp=Z,44nm,21.8s,baz=32,slow=34
AAK   Ala-Archa         46.24 310  LR     LR     01 17 57.8
      comp=Z,88nm,20.6s,baz=106,slow=37
KURK  Kurchatov         46.27 322  P      P      00 58 04.1 -0.6
KURK                               IAmb   IAmb   00 58 32.3
      comp=Z,5.8nm,0.8s
KURK  Kurchatov         46.27 322  P      P      00 58 05.4 +0.7
      comp=Z,11nm,1.1s
KURBB Kurchatov Arra    46.28 322  P      P      00 58 03.0 -1.8
      comp=Z,2.3nm,0.5s,baz=117,slow=7.8,SNR=15
      comp=Z,2.3nm,0.5s
HNR   Honiara           46.89 125  LR     LR     01 16 05.4
      comp=Z,52nm,21.1s,baz=75,slow=34
DRK   Karamyk           47.61 306  P      P      00 58 19.7 +3.9
      comp=Z,7.2nm,0.5s
ARK   Arkit             47.89 309  P      P      00 58 19.6 +1.9
      comp=Z,9.3nm,1.4s
DZA   Taraz             48.56 310 eP      P      00 58 23.6 +0.8
KK31  Karatay Array     49.20 310  P      P      00 58 27.1 -0.5
KK31                               IAmb   IAmb   00 58 42.9
      comp=Z,6.1nm,0.9s
KKAR  Karatay Array     49.20 310  P      P      00 58 28.1 +0.5
KBL   Kabul             49.31 299  P      P      00 58 27.8 -1.0
KBL                                IAmb   IAmb   00 58 41.7
      comp=Z,10nm,1.1s
KBL   Kabul             49.31 299  P      P      00 58 30.6 +1.8
      comp=Z,7.5nm,0.9s
IUG   Iuzhnay           49.37 309 eP      P      00 58 29.6 +0.6
      comp=Z,6.3nm,0.8s
BRLS  Borolday          49.67 310 eP      P      00 58 32.5 +1.3
CHM   Chimkent          49.71 309 eP      P      00 58 32.3 +0.8
FORT  Forrest           50.64 174  P      P      00 58 37.1 -1.4
BVAR  Borovoye Array    51.86 323  P      P      00 58 48.0 +0.5
      comp=Z,1.0nm,0.5s,baz=107,slow=8.1,SNR=5.4
      comp=Z,1.0nm,0.5s
TIXI  Tiksi             51.90   3  LR     LR     01 21 47.8
      comp=Z,96nm,20.3s,baz=208,slow=37
BORK  Borovoye          51.91 323  P      P      00 58 47.7 -0.2
BORK                               IAmb   IAmb   00 59 12.1
      comp=Z,5.5nm,0.8s
NRIK  Noril'sk          53.88 345  P      P      00 59 02.2 +0.1
      comp=Z,2.5nm,0.3s,baz=140,slow=8.8,SNR=5.0
      comp=Z,2.5nm,0.3s
NRIK  Noril'sk          53.88 345  P      P      00 59 02.4 +0.3
STKA  Stephens Creek    54.59 160  P      P      00 59 06.3 -1.4
      comp=Z,1.5nm,0.6s,baz=340,slow=7.8,SNR=2.0
      comp=Z,1.5nm,0.6s
AB31  Akbulak array     57.43 316  P      P      00 59 27.8 -0.1
AB31                               IAmb   IAmb   00 59 35.6
      comp=Z,6.0nm,0.8s
ABKAR Akbulak array     57.43 316  P      P      00 59 28.0 +0.1
AKTO  Aktyubinsk        58.80 318  LR     LR     01 24 01.2
      comp=Z,49nm,18.8s,baz=130,slow=35
ARTI  Arti              59.44 324  P      P      00 59 41.1 -0.7
ARTI                               IAmb   IAmb   00 59 49.0
      comp=Z,11nm,1.2s
M14K  Bethel            65.73  31  P      P      01 00 25.4 +1.7
MSVF  Nonsavu           66.00 121  P      P      01 00 26.0 -0.2
      comp=Z,0.9nm,0.3s,baz=217,slow=14,SNR=2.4
      comp=Z,0.9nm,0.3s
F17K  Baldwin Pennin    66.40  25  P      P      01 00 30.7 +2.8
I17K  Unalakleet        66.47  28  P      P      01 00 31.1 +2.7
KBZ   Khabaz            69.23 310  P      P      01 00 47.1 +1.0
      comp=Z,2.2nm,1.0s,baz=108,slow=13,SNR=2.1
KBZ                                LR     LR     01 35 54.2
      comp=Z,31nm,18.6s,baz=50,slow=40
      comp=Z,2.2nm,1.0s
G21K  Allakaket         69.50  25  IAmb   IAmb   01 01 17.1
      comp=Z,7.6nm,1.1s
MLY   Manley            70.75  27  IAmb   IAmb   01 01 15.7
      comp=Z,5.8nm,1.0s
RAYN  Ar Rayn           70.93 289  P      P      01 00 57.3 +0.3
RAYN                               IAmb   IAmb   01 01 09.4
      comp=Z,5.5nm,1.1s
RAYN  Ar Rayn           70.93 289  P      P      01 00 58.4 +1.3
      comp=Z,5.3nm,1.2s
C24K  Franklin Bluff    71.06  22  IAmb   IAmb   01 01 00.9
      comp=Z,7.8nm,1.1s
D24K  Happy Valley      71.08  22  IAmb   IAmb   01 01 01.2
      comp=Z,7.7nm,1.0s
NEA2  Nenana            71.51  27  IAmb   IAmb   01 01 03.6
      comp=Z,5.9nm,0.7s
F24K  Squaw Lake        71.61  24  IAmb   IAmb   01 01 20.9
      comp=Z,5.8nm,0.8s
RND   Reindeer          71.76  28  P      P      01 01 01.7 +0.3
ILAR  Eielson Array     72.42  27  P      P      01 01 06.1 +0.9
      comp=Z,0.6nm,0.8s,baz=268,slow=5.7,SNR=5.1
ILAR                               LR     LR     01 36 56.4
      comp=Z,12nm,18.1s,baz=178,slow=39
      comp=Z,0.6nm,0.8s
ILAR  Eielson Array     72.42  27  P      P      01 01 05.6 +0.5
F25K  Christian Rive    72.46  24  IAmb   IAmb   01 01 10.1
      comp=Z,9.7nm,1.4s
BMAR  Burnt Mountain    72.89  24  P      P      01 01 09.6 +1.6
F26K  Sheenjek River    73.00  23  IAmb   IAmb   01 01 34.1
      comp=Z,12nm,1.4s
G26K  Porcupine Rive    73.28  24  IAmb   IAmb   01 01 23.1
      comp=Z,6.5nm,1.0s
SPITS Spitsbergen Ar    73.94 348  LR     LR     01 38 10.4
      comp=Z,62nm,18.2s,baz=31,slow=39
ARCES ARCESS Array B    74.01 339  P      P      01 01 14.6 +0.2
      comp=Z,1.6nm,0.7s,baz=65,slow=6.4,SNR=7.8
      comp=Z,1.6nm,0.7s
ARCES ARCESS Array B    74.01 339  P      P      01 01 14.3 -0.2
ARCES                              IAmb   IAmb   01 01 21.6
      comp=Z,12nm,1.3s
I27K  Kandik River      74.43  25  IAmb   IAmb   01 01 46.6
      comp=Z,14nm,1.3s
M26K  Nabesna, AK       74.58  29  IAmb   IAmb   01 01 30.1
      comp=Z,6.9nm,0.9s
F28M  Old Crow          74.61  23  IAmb   IAmb   01 01 39.5
      comp=Z,6.0nm,1.0s
L27K  Beaver Creek,     74.95  28  IAmb   IAmb   01 01 24.6
      comp=Z,12nm,1.4s
I28M  Miner Creek       75.15  25  IAmb   IAmb   01 01 33.2
      comp=Z,5.5nm,1.0s
G29M  Pine Creek        75.50  24  IAmb   IAmb   01 01 35.2
      comp=Z,9.8nm,1.2s
FINES FINESS Array B    75.82 331  P      P      01 01 24.7 -0.3
      comp=Z,1.3nm,0.7s,baz=63,slow=5.6,SNR=7.5
      comp=Z,1.3nm,0.7s
FINES FINESS Array B    75.82 331  P      P      01 01 23.8 -1.2
ASF   Jabal al Asfar    76.20 299  LR     LR     01 38 01.3
      comp=Z,28nm,19.7s,baz=34,slow=38
L29M  L29M              76.56  27  IAmb   IAmb   01 01 42.2
      comp=Z,6.8nm,0.9s
I30M  Mount Dempster    76.64  25  P      P      01 01 31.5 +1.6
I30M                               IAmb   IAmb   01 01 49.1
      comp=Z,5.9nm,1.2s
BRTR  Keskin Array B    76.82 308  P      P      01 01 29.8 -1.6
      comp=Z,0.7nm,1.0s,baz=71,slow=5.3,SNR=1.9
      comp=Z,0.7nm,1.0s
BRTR  Keskin Array B    76.82 308  P      P      01 01 30.3 -1.1
AKASG Malin Array Be    76.97 319  P      P      01 01 30.7 -1.0
      comp=Z,0.2nm,0.3s,baz=72,slow=6.0,SNR=1.9
AKASG                              LR     LR     01 38 57.2
      comp=Z,27nm,18.7s,baz=47,slow=38
      comp=Z,0.2nm,0.3s
MMAI  Mount Meron Ar    77.19 301  LR     LR     01 39 10.1
      comp=Z,35nm,18.1s,baz=66,slow=39
NACGM Naroch            77.25 324 eP      P      01 01 39.4 +6.1
      comp=Z,13nm,0.9s,baz=74
EIL   Elat              78.48 297  LR     LR     01 39 52.9
      comp=Z,48nm,18.5s,baz=87,slow=38
MLR   Muntele Rosu      80.60 315  LR     LR     01 41 31.7
      comp=Z,40nm,18.5s,baz=359,slow=39
DLBC  Dease Lake        81.95  30  LR     LR     01 41 14.0
      comp=Z,44nm,18.5s,baz=221,slow=38
HFS   Hagfors           81.96 331  P      P      01 01 58.8  0.0
      comp=Z,1.8nm,1.0s,baz=65,slow=6.0,SNR=3.5
HFS                                LR     LR     01 41 56.1
      comp=Z,84nm,18.6s,baz=62,slow=38
      comp=Z,1.8nm,1.0s
NB2   NORSAR Subarra    82.64 333  P      P      01 02 01.4 -0.9
      comp=Z,0.6nm,0.7s,baz=63,slow=5.1
NOA   NORSAR Array B    82.64 333  P      P      01 02 01.3 -1.1
      comp=Z,0.5nm,0.6s,baz=62,slow=4.8,SNR=6.4
NOA                                LR     LR     01 42 19.6
      comp=Z,67nm,19.0s,baz=60,slow=38
      comp=Z,0.5nm,0.6s
VRAC  Vranov            85.09 321  LR     LR     01 41 58.4
      comp=Z,31nm,20.5s,baz=58,slow=37
MPLH  Magyarpolny       85.41 319  P      P      01 02 22.2 +5.6
      comp=Z,4.0nm,1.1s
CLL   Collm             86.28 324  LH            01 33 00.0
CLL                                LV            01 35 00.0
YKA   Yellowknife Ar    86.39  23  P      P      01 02 21.8 +0.6
      comp=Z,1.0nm,0.5s,baz=307,slow=4.7,SNR=5.6
YKA                                LR     LR     01 47 13.8
      comp=Z,12nm,18.2s,baz=307,slow=40
      comp=Z,1.0nm,0.5s
GERES GERESS Array B    87.01 321  LR     LR     01 43 06.3
      comp=Z,39nm,18.2s,baz=42,slow=37
DAVOX Davos/Dischmat    90.26 321  LR     LR     01 44 12.5
      comp=Z,40nm,18.6s,baz=74,slow=36
EKA   Eskdalemuir Ar    92.12 332  LR     LR     01 48 51.2
      comp=Z,63nm,18.2s,baz=48,slow=39
PPT   Papeete           93.83 107  LR     LR     01 38 35.1
      comp=Z,12nm,18.5s,baz=296,slow=31
FRB   Frobisher Bay     96.18   5  LR     LR     01 51 14.5
      comp=Z,22nm,18.3s,baz=320,slow=38
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*PDG **30** 01:00:59.5±0.1, 35.°73N×14.°67E, h13^{km}±16^{km}, ML4.3/13, Error ellipse: s-maj=17.6km s-min=9.0km az=90.0*

*NEIC **30** 01:01:01.5±1.2, 35.°66N±0.°04×14.°42E±0.°08, h11^{km}±4^{km}, mb4.4/31, Error ellipse: s-maj=9.3km s-min=5.7km az=116.0*

*MED_RC **30** 01:01:01.0, 35.°66N×14.°42E, h10^{km}, Mw4.3, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}-2.16±.12; $M_{\theta\theta}$1.38±.09; $M_{\phi\phi}$0.00±.14; $M_{r\theta}$-0.51±.34; $M_{\theta\phi}$-0.98±.09; $M_{\phi r}$2.74±.33; Fault plane solution: $M_0$3.46000×10^{15} NP1:ϕ_s291.00000°, δ25.00000°, λ-133.00000°. NP2:ϕ_s157.00000°, δ72.00000°, λ-73.00000°. Principal axes: T 3.1200, Plg25.0000°, Azm234.0000°; N 0.6800, Plg17.0000°, Azm332.0000°; P -3.8000, Plg59.0000°, Azm91.0000°;*

*GFZ **30** 01:01:04.8±0.4, 36°N±3°×1°5E±°, h10^{km}, M4.3/22, mb4.3/22*

*IDC **30** 01:01:05.4±1.9, 35.°69N×14.°46E, h35^{km}±16^{km}, mb3.9/16, mbtmp4.0/28, ML3.7/11, MS3.2/21, Error ellipse: s-maj=11.7km s-min=9.3km az=162.0*

ISC 30 01:01:02.1±0.7**, 35.°69N**±0.°03×**14.°56E**±0.°03**, h18**^{km}±2^{km}**, n346,** σ1^{s}**90**/359**, mb4.4**/27**, MS3.4**/12**, 16C-5D, Central Mediterranean Sea**

```
Code  Station Name      Δ°    AZ°  Phase ID      Time       Res
                                   Op     ISC    h  m  s    ISC
WDD   Wied Dalam         0.15 351         Pb     01 01 05.7 +0.3
WDD                                Sg     Sg     01 01 08.4 -1.0
WDD   Wied Dalam         0.15 351 ⇑P      Pb     01 01 05.7 +0.3
WDD   Wied Dalam         0.15 351 ⇑P      Pb     01 01 05.7 +0.3
WDD                                S      Sg     01 01 08.6 -0.8
WDD                                AML    AML
WDD                                AML    AML
WDD                                AML    AML
WDD   Wied Dalam         0.15 351 ⇑P      Pb     01 01 05.7 +0.3
WDD   Wied Dalam         0.15 351  P      Pb     01 01 05.8 +0.3
HPAC  Pachino            1.10  24 ⇑P      Pb     01 01 23.0 +0.4
HPAC                               S      Sg     01 01 39.6 +1.7
HPAC                               AML    AML
      comp=N,64700µm,0.8s
HPAC                               AML    AML
      comp=N,64700µm,1.2s
HPAC                               AML    AML
      comp=E,45050µm,0.5s
HPAC  Pachino            1.10  24  S      Sg     01 01 39.7 +1.7
ISPIC ISPICA             1.13  14  P      Pb     01 01 23.4 +0.3
CROCE Santa Croce Ca     1.15 359 ⇑P      Pn     01 01 22.8 -0.4
CROCE                              S      Sg     01 01 39.1 -0.2
CROCE                              AML    AML
      comp=E,15800µm,0.8s
CROCE                              AML    AML
      comp=N,11400µm,0.6s
CROCE                              AML    AML
      comp=N,9210µm,0.5s
CROCE                              AML    AML
      comp=N,11450µm,0.6s
CROCE                              AML    AML
      comp=E,12800µm,0.8s
CROCE                              AML    AML
      comp=E,15800µm,1.2s
CROCE                              AML    AML
      comp=E,12800µm,1.2s
CROCE Santa Croce Ca     1.15 359  S      Sg     01 01 39.1 -0.2
HMDC  Modica             1.28   8 ⇑P      Pn     01 01 25.2  0.0
HMDC  Modica             1.28   8 ⇑P      Pn     01 01 25.2  0.0
HMDC  Modica             1.28   8 ⇑P      Pn     01 01 25.2  0.0
HMDC                               S      Sg     01 01 44.1 +0.3
HMDC                               AML    AML
      comp=E,17950µm,0.7s
HMDC                               AML    AML
      comp=N,22250µm,0.8s
HMDC                               AML    AML
      comp=E,18300µm,0.7s
HMDC                               AML    AML
      comp=N,21600µm,0.8s
HMDC                               AML    AML
      comp=N,21600µm,1.2s
HMDC  Modica             1.28   8  S      Sg     01 01 44.2 +0.5
ACATE Acate (RG)         1.34 358 ⇑P      Pn     01 01 25.6 -0.2
ACATE                              S      Sb     01 01 44.2 +0.8
ACATE                              AML    AML
      comp=E,21450µm,0.7s
ACATE                              AML    AML
      comp=N,16900µm,0.5s
ACATE                              AML    AML
      comp=N,16650µm,0.9s
ACATE                              AML    AML
      comp=E,19950µm,0.7s
ACATE                              AML    AML
      comp=N,16650µm,1.1s
ACATE                              AML    AML
      comp=E,21450µm,1.3s
ACATE                              AML    AML
      comp=E,19950µm,1.3s
ACATE Acate (RG)         1.34 358  S      Sb     01 01 44.1 +0.8
HAVL  Avola              1.35  20 ⇓P      Pb     01 01 26.6 -0.3
HAVL  Avola              1.35  20 ⇓P      Pb     01 01 26.6 -0.3
HAVL                               S      Sg     01 01 45.5 -0.4
HAVL                               AML    AML
      comp=E,14850µm,1.6s
HAVL                               AML    AML
      comp=N,21950µm,0.7s
HAVL                               AML    AML
      comp=E,14850µm,0.4s
HAVL  Avola              1.35  20 ⇓P      Pb     01 01 26.6 -0.3
HAVL  Avola              1.35  20  S      Sg     01 01 45.5 -0.4
SSY   Sortino            1.52  16 ⇑P      Pb     01 01 29.2 -0.6
SSY   Sortino            1.52  16 ⇑P      Pb     01 01 29.2 -0.6
SSY                                S      Sg     01 01 50.6 -0.8
SSY                                AML    AML
      comp=E,44200µm,0.5s
SSY                                AML    AML
      comp=N,74950µm,0.9s
SSY   Sortino            1.52  16 ⇑P      Pb     01 01 29.2 -0.6
SSY   Sortino            1.52  16  S      Sg     01 01 50.6 -0.8
RAFF  Raffo Rosso        1.54 354         Pn     01 01 28.7 +0.1
RAFF                               Sn     Sb     01 01 49.4 +0.1
RAFF  Raffo Rosso        1.54 354 ⇑P      Pn     01 01 28.9 +0.2
RAFF                               S      Sb     01 01 49.8 +0.5
RAFF                               AML    AML
      comp=E,10950µm,1.1s
RAFF                               AML    AML
      comp=E,10950µm,0.9s
RAFF                               AML    AML
      comp=N,6925µm,0.9s
CLTA  Licata             1.55 342  P      Pn     01 01 28.6  0.0
CLTA  Licata             1.55 342  P      Pn     01 01 28.6  0.0
CLTA                               S      Sb     01 01 49.0 -0.4
CLTA                               AML    AML
      comp=E,4135µm,1.4s
CLTA                               AML    AML
      comp=N,3280µm,0.9s
CLTA                               AML    AML
      comp=E,4140µm,1.4s
CLTA                               AML    AML
      comp=E,4140µm,0.6s
CLTA  Licata             1.55 342  P      Pn     01 01 28.6  0.0
LPDG  Lampedusa Capo     1.58 265  P      Pn     01 01 27.1 -2.0
LPDG                               S      Sn     01 01 45.6 -3.4
LPDG                               AML    AML
      comp=E,6810µm,0.6s
LPDG                               AML    AML
      comp=N,7385µm,0.5s
HCRL  Carlentini         1.64  13  P      Pb     01 01 30.9 -0.9
HCRL                               AML    AML
      comp=E,10850µm,0.7s
HCRL                               AML    AML
      comp=N,9000µm,0.8s
HCRL                               AML    AML
      comp=E,10850µm,1.3s
AGST  Augusta-Monte      1.66  19  P      Pn     01 01 30.7 +0.5
AGST                               S      Sb     01 01 52.8 +0.1
AGST                               AML    AML
      comp=N,13450µm,0.8s
AGST                               AML    AML
      comp=E,16450µm,0.8s
AGST                               AML    AML
      comp=N,13450µm,1.2s
HAGA  Augusta            1.67  17  P      Pn     01 01 30.9 +0.5
HAGA                               S      Sb     01 01 53.0  0.0
HAGA                               AML    AML
      comp=E,9270µm,0.7s
HAGA                               AML    AML
      comp=N,13950µm,0.8s
HLNI  Lentini            1.68   9 ⇑P      Pn     01 01 30.9 +0.4
HLNI                               S      Sb     01 01 52.6 -0.6
HLNI                               AML    AML
      comp=E,6975µm,1.3s
HLNI                               AML    AML
      comp=N,9190µm,0.7s
CPTP  Pietraperzia       1.75 350  P      Pb     01 01 33.2 -0.5
CPTP                               AML    AML
      comp=E,8735µm,1.6s
CPTP                               AML    AML
      comp=N,10600µm,1.0s
CPTP                               AML    AML
      comp=N,10600µm,1.0s
CPTP                               AML    AML
      comp=E,8735µm,0.4s
VAE   Valguarnera        1.79 356  Pn     Pn     01 01 33.2 +1.0
      comp=E,38nm,0.3s,baz=347,slow=6.1,SNR=57
VAE                                Sn     Sb     01 01 55.7 -0.9
      comp=E,191nm,0.3s,baz=232,slow=15,SNR=12
VAE                                Lg     Lg     01 02 02.7
      comp=E,134nm,0.3s,baz=236,slow=14,SNR=10
VAE                                LR     LR     01 02 30.8
      comp=E,1µm,18.4s,baz=132,slow=48
ESML  S. M. di Licod     1.95   8  P      Pn     01 01 35.5 +1.3
ESML                               AML    AML
      comp=N,8090µm,0.7s
ESML                               AML    AML
      comp=N,8090µm,1.3s
ESML                               AML    AML
      comp=E,5920µm,0.9s
ENIC  Nicolosi           1.98  11  P      Pb     01 01 37.5 -0.1
ENIC                               AML    AML
      comp=N,15350µm,0.8s
ENIC                               AML    AML
      comp=N,11200µm,0.7s
ENIC                               AML    AML
      comp=E,15450µm,1.1s
ENIC                               AML    AML
      comp=N,15350µm,1.2s
ENIC                               AML    AML
      comp=N,11200µm,1.3s
ENIC                               AML    AML
      comp=E,9980µm,1.1s
RESU  Resuttano          2.00 349  P      Pb     01 01 36.6 -1.3
RESU                               AML    AML
      comp=E,2725µm,0.9s
RESU                               AML    AML
      comp=N,2955µm,1.4s
RESU                               AML    AML
      comp=N,2955µm,0.6s
RESU                               AML    AML
      comp=E,2725µm,1.1s
GALF  Gagliano Caste     2.02   0  P      Pn     01 01 36.7 +1.4
GALF                               AML    AML
      comp=N,14750µm,0.6s
GALF                               AML    AML
      comp=E,11300µm,0.7s
EVRN  Santa Venerina     2.05  13  P      Pb     01 01 37.3 -1.5
EVRN                               AML    AML
      comp=E,16550µm,0.7s
EVRN                               AML    AML
      comp=E,16950µm,0.7s
EVRN                               AML    AML
      comp=N,10550µm,0.8s
EVRN                               AML    AML
      comp=N,10670µm,0.6s
EVRN                               AML    AML
      comp=E,16550µm,1.3s
EVRN                               AML    AML
      comp=E,16950µm,1.3s
EMSG  Monte Spagnolo     2.15   8  P      Pb     01 01 39.5 -1.2
EMSG                               AML    AML
      comp=N,6010µm,0.8s
EMSG                               AML    AML
      comp=E,7365µm,0.6s
SCIAC Sciacca            2.17 328  P      Pn     01 01 35.8 -1.5
SCIAC                              AML    AML
      comp=E,1800µm,0.7s
SCIAC                              AML    AML
      comp=E,1800µm,1.3s
SCIAC                              AML    AML
      comp=N,2180µm,0.9s
PETRA Petralia Sopra     2.17 351  P      Pn     01 01 38.4 +0.9
PETRA                              AML    AML
      comp=N,4165µm,0.7s
PETRA                              AML    AML
      comp=E,4455µm,0.5s
CLTB  Caltabellotta      2.18 331  P      Pn     01 01 36.9 -0.5
CLTB                               AML    AML
      comp=N,14150µm,0.6s
CLTB                               AML    AML
      comp=E,5970µm,0.6s
CLTB  Caltabellotta      2.18 331  P      Pn     01 01 37.1 -0.3
CSLB  Castelbuono        2.28 350  P      Pn     01 01 40.0 +1.1
CSLB                               AML    AML
      comp=E,2015µm,0.9s
CSLB                               AML    AML
      comp=E,2015µm,1.1s
CSLB                               AML    AML
      comp=N,1480µm,0.7s
PLLN  Pollina            2.33 352  P      Pn     01 01 40.5 +1.0
PLLN                               AML    AML
      comp=E,6255µm,0.9s
PLLN                               AML    AML
      comp=N,5860µm,0.6s
PLLN                               AML    AML
      comp=E,6255µm,1.1s
GIB   Gibilmanna         2.34 350  P      Pn     01 01 41.0 +1.3
GIB                                S      Sn     01 02 09.8 +1.8
GIB                                AML    AML
      comp=N,4735µm,0.5s
GIB                                AML    AML
      comp=E,7000µm,1.1s
GIB                                AML    AML
      comp=N,4735µm,1.5s
SCIAR Sciara             2.34 344  P      Pn     01 01 40.2 +0.5
SCIAR                              AML    AML
      comp=E,1665µm,0.8s
SCIAR                              AML    AML
      comp=N,1795µm,0.7s
SCIAR                              AML    AML
      comp=E,1495µm,0.9s
SCIAR                              AML    AML
      comp=E,1495µm,1.1s
SCIAR                              AML    AML
      comp=N,1625µm,0.7s
MSFR  San Fratello       2.34   1  P      Pn     01 01 40.9 +1.1
MSFR                               AML    AML
      comp=E,1835µm,1.3s
MSFR                               AML    AML
      comp=N,1840µm,1.3s
MSFR                               AML    AML
      comp=E,1835µm,0.7s
MSFR                               AML    AML
      comp=N,1840µm,0.7s
AIO   Antillo            2.35  13  P      Pn     01 01 41.1 +1.3
AIO   Antillo            2.35  13  P      Pn     01 01 41.1 +1.3
AIO                                AML    AML
      comp=E,2350µm,0.8s
AIO                                AML    AML
      comp=N,3150µm,0.7s
AIO                                AML    AML
      comp=N,3150µm,1.3s
AIO                                AML    AML
      comp=E,2350µm,1.2s
PANTE Pantelleria        2.35 299  P      Pn     01 01 38.0 -1.8
PANTE                              AML    AML
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	comp=N,1195µm,0.5s						
PANTE				AML	AML		
	comp=E,722µm,0.9s						
MUCR	**Ucria**	2.37	6	P	Pn	01 01 41.5	+1.4
MUCR				AML	AML		
	comp=E,2620µm,0.5s						
MUCR				AML	AML		
	comp=N,2920µm,0.8s						
MUCR				AML	AML		
	comp=N,2920µm,1.2s						
NOV	**Novara**	2.38	11	P	Pn	01 01 42.0	+1.7
NOV				AML	AML		
	comp=N,7345µm,1.5s						
NOV				AML	AML		
	comp=N,7345µm,0.5s						
NOV				AML	AML		
	comp=E,12500µm,0.7s						
CORL	**Corleone**	2.42	336	⇓P	Pn	01 01 40.9	0.0
CORL				S	Sn	01 02 10.5	+0.4
CORL				AML	AML		
	comp=E,4155µm,0.5s						
CORL				AML	AML		
	comp=N,3925µm,0.7s						
CRJA	**Costa Raja**	2.45	330	P	Pn	01 01 40.9	-0.3
CRJA				AML	AML		
	comp=E,2040µm,0.6s						
CRJA				AML	AML		
	comp=E,2040µm,1.4s						
CRJA				AML	AML		
	comp=N,1710µm,0.8s						
CAVT	**Castelvetrano**	2.46	325	P	Pn	01 01 40.7	-0.6
CAVT				AML	AML		
	comp=N,1665µm,0.9s						
CAVT				AML	AML		
	comp=N,1665µm,1.1s						
CAVT				AML	AML		
	comp=E,1620µm,1.0s						
MFNL	**Monte Finestre**	2.48	329	P	Pn	01 01 41.0	-0.5
MFNL	**Monte Finestre**	2.48	329	P	Pn	01 01 41.0	-0.5
MFNL				AML	AML		
	comp=N,814µm,0.7s						
MFNL				AML	AML		
	comp=E,1128µm,0.6s						
MTTG	**Motta San Giov**	2.49	21	P	Pb	01 01 44.0	-2.2
MTTG				AML	AML		
	comp=E,1745µm,0.8s						
MTTG				AML	AML		
	comp=N,1735µm,1.0s						
MTTG				AML	AML		
	comp=E,1745µm,1.2s						
MTTG				AML	AML		
	comp=N,1735µm,1.0s						
MPNC	**Port Mandanici**	2.54	14	P	Pn	01 01 43.9	+1.5
MPNC				AML	AML		
	comp=N,6150µm,1.0s						
MPNC				AML	AML		
	comp=E,3935µm,0.7s						
MBFT	**Monte Bonifato**	2.60	331	P	Pn	01 01 42.8	-0.4
MBFT				AML	AML		
	comp=E,760µm,0.7s						
MBFT				AML	AML		
	comp=N,432µm,1.0s						
MBFT				AML	AML		
	comp=N,432µm,1.0s						
MTGR	**Montagna Grand**	2.63	327	P	Pn	01 01 42.8	-1.0
MTGR				AML	AML		
	comp=E,244µm,0.8s						
MTGR				AML	AML		
	comp=N,484µm,0.4s						
MTGR				AML	AML		
	comp=N,484µm,1.6s						
MILZ	**Milazzo**	2.64	12	P	Pn	01 01 45.1	+1.5
MILZ				AML	AML		
	comp=E,9760µm,0.8s						
MILZ				AML	AML		
	comp=N,4785µm,0.8s						
MPG	**Monte Pellegri**	2.65	339	P	Pn	01 01 44.2	+0.3
MPG				AML	AML		
	comp=N,620µm,0.4s						
MPG				AML	AML		
	comp=E,614µm,0.7s						
MPG	**Monte Pellegri**	2.65	339	P	Pn	01 01 44.2	+0.3
SOI	**Samo**	2.67	26	P	Pn	01 01 46.0	+1.9
SOI	**Samo**	2.67	26	P	Pn	01 01 46.0	+1.9
SOI				AML	AML		
	comp=E,934µm,0.7s						
SOI				AML	AML		
	comp=N,932µm,0.7s						
SOI				AML	AML		
	comp=E,934µm,1.3s						
SOI	**Samo**	2.67	26	P	Pn	01 01 46.0	+1.9
GMB	**Gambarie**	2.68	22	P	Pn	01 01 46.0	+1.6
GMB	**Gambarie**	2.68	22	P	Pn	01 01 46.0	+1.6
GMB				AML	AML		
	comp=N,2710µm,0.7s						
GMB				AML	AML		
	comp=E,4775µm,0.6s						
GMB				AML	AML		
	comp=N,2710µm,1.3s						
MSRU	**Castanea**	2.68	16	P	Pn	01 01 46.3	+1.9
MSRU				AML	AML		
	comp=N,3300µm,0.9s						
MSRU				AML	AML		
	comp=E,3700µm,0.6s						
MSRU				AML	AML		
	comp=N,3300µm,1.1s						
MSRU	**Castanea**	2.68	16	P	Pn	01 01 46.3	+1.9
MSRU	**Castanea**	2.68	16	P	Pn	01 01 46.3	+1.9
VPL	**Vulcano Piano**	2.71	7	P	Pn	01 01 46.3	+1.6
VPL				AML	AML		
	comp=E,4830µm,0.9s						
VPL				AML	AML		
	comp=N,4350µm,0.6s						
VPL				AML	AML		
	comp=E,4830µm,1.1s						
VPL				AML	AML		
	comp=N,4350µm,1.4s						
VPL	**Vulcano Piano**	2.71	7	P	Pn	01 01 46.3	+1.6
VPL	**Vulcano Piano**	2.71	7	P	Pn	01 01 46.3	+1.6
CEL	**Celeste**	2.78	22		Pn	01 01 47.1	+1.3
CEL	**Celeste**	2.78	22	P	Pn	01 01 47.4	+1.6
CEL				AML	AML		
	comp=E,976µm,0.8s						
CEL				AML	AML		
	comp=N,1305µm,0.9s						
CEL				AML	AML		
	comp=N,1335µm,0.9s						
CEL				AML	AML		
	comp=E,1002µm,1.0s						
CEL	**Celeste**	2.78	22	P	Pb	01 01 48.9	-2.4
IACL	**Alicudi**	2.85	357	P	Pn	01 01 47.3	+0.7
IACL				AML	AML		
	comp=E,1715µm,0.8s						
IACL				AML	AML		
	comp=N,1590µm,0.8s						
IACL				AML	AML		
	comp=N,1590µm,1.2s						
IFIL	**Filicudi I Eol**	2.87	0	P	Pn	01 01 47.7	+0.8
IFIL				AML	AML		
	comp=E,6660µm,0.7s						
IFIL				AML	AML		
	comp=N,2525µm,1.5s						
IFIL				AML	AML		
	comp=E,6660µm,1.3s						
JOPP	**Joppolo**	3.10	20	P	Pn	01 01 51.7	+1.6
JOPP	**Joppolo**	3.10	20	P	Pn	01 01 51.7	+1.6
JOPP				AML	AML		
	comp=E,487µm,1.2s						
JOPP				AML	AML		
	comp=N,552µm,0.8s						
JOPP				AML	AML		
	comp=E,487µm,0.8s						
PLAC	**Placanica**	3.14	28	P	Pn	01 01 52.9	+2.2
PLAC				AML	AML		
	comp=E,1245µm,0.6s						
PLAC				AML	AML		
	comp=N,1295µm,0.6s						
PLAC				AML	AML		
	comp=E,825µm,0.9s						
PLAC				AML	AML		
	comp=N,816µm,0.9s						
USI	**Ustica**	3.21	340	P	Pn	01 01 50.7	-0.9
USI				S	Sn	01 02 28.5	-0.9
USI				AML	AML		
	comp=E,584µm,0.8s						
USI				AML	AML		
	comp=N,2740µm,0.5s						
USI				AML	AML		
	comp=N,2740µm,1.5s						
USI				AML	AML		
	comp=E,584µm,1.2s						
USI	**Ustica**	3.21	340	S	Sn	01 02 28.6	-0.8
USI	**Ustica**	3.21	340	S	Sn	01 02 28.6	-0.8
GRI	**Girifalco**	3.47	25	P	Pn	01 01 56.9	+1.8
GRI				AML	AML		
	comp=E,610µm,0.7s						
GRI				AML	AML		
	comp=N,444µm,0.9s						
GIZZ	**Gizzeria**	3.54	21	P	Pn	01 01 57.6	+1.4
ALB1	**ALBI**	3.71	25	P	Pn	01 02 00.9	+2.4
SERS	**Sersale**	3.75	26	P	Pn	01 02 01.2	+2.1
SERS				AML	AML		
	comp=E,294µm,0.8s						
SERS				AML	AML		
	comp=E,314µm,0.8s						
SERS				AML	AML		
	comp=N,313µm,0.7s						
SERS				AML	AML		
	comp=N,294µm,0.8s						
SERS	**Sersale**	3.75	26	P	Pn	01 02 01.2	+2.1
CAR1	**CAROLEI**	3.80	20	P	Pn	01 02 00.9	+1.2
CAR1				AML	AML		
	comp=E,870µm,1.0s						
CAR1				AML	AML		
	comp=E,781µm,1.0s						
CAR1				AML	AML		
	comp=N,884µm,0.5s						
CAR1				AML	AML		
	comp=N,884µm,1.5s						
CAR1				AML	AML		
	comp=N,802µm,0.7s						
CAR1				AML	AML		
	comp=E,870µm,1.0s						
CAR1				AML	AML		
	comp=E,781µm,1.0s						
SPS2	**Spezzano della**	3.87	21	P	Pn	01 02 02.0	+1.3
SPS2				AML	AML		
	comp=E,112µm,1.4s						
SPS2				AML	AML		
	comp=E,112µm,0.6s						
SPS2				AML	AML		
	comp=N,130µm,0.5s						
TIP	**Timpagrande**	3.90	26		Pn	01 02 02.5	+1.3
TIP	**Timpagrande**	3.90	26	⇑P	Pn	01 02 03.0	+1.8
TIP				AML	AML		
	comp=E,276µm,0.8s						
TIP				AML	AML		
	comp=N,268µm,1.4s						
TIP				AML	AML		
	comp=E,272µm,0.7s						
TIP				AML	AML		
	comp=N,256µm,0.8s						
TIP				AML	AML		
	comp=E,272µm,1.3s						
TIP				AML	AML		
	comp=E,276µm,1.2s						
TIP				AML	AML		
	comp=N,268µm,0.6s						
TIP	**Timpagrande**	3.90	26	P	Pn	01 02 03.3	+2.1
CET2	**Cetraro**	4.00	16	P	Pn	01 02 03.7	+1.3
CET2				AML	AML		
	comp=E,841µm,0.7s						
CET2				AML	AML		
	comp=N,942µm,0.7s						
CET2				AML	AML		
	comp=N,942µm,1.3s						
CET2				AML	AML		
	comp=E,841µm,1.3s						
CELI	**Celico**	4.02	22	P	Pn	01 02 04.5	+1.6
CELI				AML	AML		
	comp=N,344µm,1.1s						
CELI				AML	AML		
	comp=N,344µm,0.9s						
CELI				AML	AML		
	comp=E,286µm,0.9s						
LADO	**San Nicola del**	4.08	27	P	Pn	01 02 04.9	+1.4
LADO				AML	AML		
	comp=N,354µm,0.7s						
LADO				AML	AML		
	comp=E,418µm,0.7s						
PIPA	**Pietrapaola**	4.20	25	P	Pn	01 02 07.1	+1.9
PIPA				AML	AML		
	comp=E,426µm,0.8s						
PIPA				AML	AML		
	comp=N,380µm,0.9s						
PIPA				AML	AML		
	comp=E,425µm,0.7s						
PIPA				AML	AML		
	comp=N,402µm,0.9s						
PIPA				AML	AML		
	comp=E,426µm,1.2s						
PIPA				AML	AML		
	comp=E,425µm,1.3s						
KEST	**Kesra**	4.24	272	Pn	Pn	01 02 05.1	-0.7
	comp=E,1.6nm,0.3s,baz=143,slow=5.6,SNR=70						
KEST				Sn	Sn	01 02 52.0	-2.9
	comp=E,4.5nm,0.3s,baz=99,slow=22,SNR=16						
KEST				LR	LR	01 04 14.2	
	comp=E,155nm,18.8s,baz=188,slow=45						
	comp=E,8.7nm,0.5s						
KEST				AML	AML		
KEST	**Kesra**	4.24	272		Pn	01 02 04.5	-1.3
SIRI	**Monte Sirino -**	4.61	13	P	Pn	01 02 12.4	+1.6
SIRI				AML	AML		
	comp=E,206µm,0.4s						
SIRI				AML	AML		
	comp=N,129µm,1.0s						
SIRI				AML	AML		
	comp=E,198µm,0.4s						
SIRI				AML	AML		
	comp=N,136µm,0.7s						
MARCO	**Tramutola**	4.71	12	P	Pn	01 02 16.6	+4.4
CRAC	**Craco**	4.90	17	P	Pn	01 02 17.6	+2.7
CRAC				AML	AML		
	comp=E,303µm,0.9s						
CRAC				AML	AML		
	comp=N,268µm,1.0s						
CRAC				AML	AML		
	comp=E,303µm,1.1s						
ACER	**Acerenza**	5.21	12	Pn	Pn	01 02 20.9	+1.8
MATE	**Matera**	5.24	18	P	Pn	01 02 20.8	+1.4
	comp=Z,38nm,0.8s						
DMLN	**Damoulianata-K**	5.31	60	P	Pn	01 02 21.6	+1.2
PSDA	**Pessada-Kefalo**	5.41	62	P	Pn	01 02 22.8	+1.1
LTHK	**Lithakia**	5.44	66	P	Pn	01 02 24.0	+1.8
AMUR	**Altamura**	5.46	17	P	Pn	01 02 23.3	+0.8
NOCI	**Noci**	5.46	20	P	Pn	01 02 22.4	-0.2
RTZL	**Ratzakli, Kefa**	5.53	63	P	Pn	01 02 24.9	+1.6
FSK	**Fiskardo**	5.54	58	P	Pn	01 02 25.3	+1.7
VSL	**Villasalto**	5.60	314		Pn	01 02 23.2	-1.2
VSL	**Villasalto**	5.60	314	P	Pn	01 02 24.1	-0.3
VSL	**Villasalto**	5.60	314	P	Pn	01 02 24.8	+0.3
	comp=Z,26nm,1.1s						
EVGI	**Lefkada island**	5.69	57	P	Pn	01 02 27.6	+2.0
NYDR	**Nydri-Lefkada**	5.76	57	P	Pn	01 02 28.0	+1.4
KEK	**Kerkira**	5.78	44	P	Pn	01 02 25.2	-1.7
KEK	**Kerkira**	5.78	44	Pn	Pn	01 02 25.4	-1.5
KEK	**Kerkira**	5.78	44	P	Pn	01 02 25.3	-1.7
TSLK	**Tsoukalades, L**	5.79	55	P	Pn	01 02 28.4	+1.4
PYL	**PYLOS**	5.93	76	P	Pn	01 02 29.9	+1.0
IGT	**Igoumenitsa**	5.98	48	P	Pn	01 02 29.8	+0.2
AXS	**Araxos**	6.01	63	P	Pn	01 02 32.9	+2.8
SRN	**Sarande**	6.01	44	P	Pn	01 02 29.6	-0.4
RLS	**Riolos of Patr**	6.03	65	P	Pn	01 02 33.0	+2.7
PDO	**Prodromos**	6.04	59	P	Pn	01 02 32.8	+2.3
AMT	**Artemida-Makis**	6.04	70	P	Pn	01 02 32.6	+2.0
PLEV	**Plevrona-Mesol**	6.12	62	P	Pn	01 02 33.5	+2.0
ITM	**Ithomi**	6.13	74	P	Pn	01 02 33.9	+2.2
ITM	**Ithomi**	6.13	74		Pn	01 02 33.5	+1.8
SGRT	**San Giovanni R**	6.13	8	Pn	Pn	01 02 32.9	+1.1
DRO	**Drossia**	6.17	66	P	Pn	01 02 35.0	+2.8
PVO	**Paravola**	6.29	60	P	Pn	01 02 36.7	+2.8
INTR	**Introdacqua**	6.34	356	Pn	Pn	01 02 35.0	+0.3
JAN	**Janina**	6.38	50	P	Pn	01 02 36.1	+1.0
VVK	**Vomvokou**	6.41	63	P	Pn	01 02 38.0	+2.3
PRMD	**Pramanda**	6.46	52	P	Pn	01 02 37.7	+1.5
LAKA	**Lakka**	6.47	65	P	Pn	01 02 39.8	+3.4
TETR	**Tetrakomo, Epi**	6.47	54	P	Pn	01 02 38.2	+1.7
KLV	**Kalavryta, Ach**	6.53	67	P	Pn	01 02 40.2	+3.0
KLV	**Kalavryta, Ach**	6.53	67	P	Pn	01 02 39.9	+2.6
ANX	**Ano Chora**	6.56	62	P	Pn	01 02 40.2	+2.5
EVR	**Evrytania**	6.62	59	P	Pn	01 02 41.8	+3.3
GUR	**Goura**	6.64	68	P	Pn	01 02 41.7	+2.9
KPRO	**Kipourio**	6.87	50	P	Pn	01 02 43.7	+1.8
KBN	**Korca**	6.96	43	P	Pn	01 02 45.8	+2.7
	comp=Z,27nm,0.6s						
AGG	**Agios Georgios**	7.03	59	P	Pn	01 02 46.7	+2.6
AGG	**Agios Georgios**	7.03	59	P	Pn	01 02 47.5	+3.4
	comp=Z,150nm,0.8s						
THL	**Klokotos Trika**	7.07	55	P	Pn	01 02 46.4	+1.8
ULC	**Ulcinj**	7.26	29	*e*Pn	Pn	01 02 46.0	-1.2
ULC				*i* Sn	Sn	01 04 05.7	-3.4
ULC				AML	AML		
TYRN	**Tyrnavos**	7.29	54	P	Pn	01 02 49.1	+1.5
HCY	**Herceg Novi**	7.41	23	*e*Pn	Pn	01 02 47.4	-1.9
HCY	**Herceg Novi**	7.41	23	*e*Pn	Pn	01 02 48.1	-1.2
HCY				*i* Sn	Sn	01 04 09.5	-3.4
HCY				AML	AML		
BUM	**Brajici-Budva**	7.42	26	*e*Pn	Pn	01 02 48.3	-1.1
BUM				*i* Sn	Sn	01 04 09.5	-3.6
BUM				AML	AML		
DRME	**Dracevica, Mon**	7.43	28	*e*Pn	Pn	01 02 47.9	-1.6
DRME	**Dracevica, Mon**	7.43	28	*e*Pn	Pn	01 02 48.2	-1.3
DRME				*i* Sn	Sn	01 04 09.7	-3.5
DRME				AML	AML		
FDMO	**Fiordimonte**	7.43	352	Pn	Pn	01 02 50.1	+0.5
PHP	**Peshkopia**	7.55	36	P	Pn	01 02 50.8	-0.4
TREB	**Trebinje**	7.61	22	*e*Pn	Pn	01 02 49.6	-2.5
CEME	**Cevo**	7.64	25	*e*Pn	Pn	01 02 51.3	-1.2
CEME				*i* Sn	Sn	01 04 15.0	-3.7
CEME				AML	AML		
PDG	**Podgorica**	7.66	27		Pn	01 02 51.2	-1.5
PDG	**Podgorica**	7.66	27	*e*Pn	Pn	01 02 51.2	-1.5
PDG	**Podgorica**	7.66	27	P	Pn	01 02 53.0	+0.3
	comp=Z,32nm,0.8s						
PDG	**Podgorica**	7.66	27	⇓*i*Pn	Pn	01 02 51.6	-1.1
PDG				*i* Sn	Sn	01 04 15.4	-3.6
PDG				AML	AML		
VLY	**Voula,Athens**	7.72	71	P	Pn	01 02 54.5	+0.9
NEO	**Neokhori**	7.78	60	P	Pn	01 02 56.3	+1.9
BRY	**Bratogost**	7.84	22	*e*Pn	Pn	01 02 53.6	-1.7
BRY	**Bratogost**	7.84	22	*e*Pn	Pn	01 02 54.0	-1.3
BRY				*i* Sn	Sn	01 04 19.9	-3.7
BRY				AML	AML		
NKME	**Niksic**	7.85	24	*e*Pn	Pn	01 02 54.1	-1.3
NKME				*i* Sn	Sn	01 04 20.0	-3.7
NKME				AML	AML		
DION	**Dionisos Attik**	7.88	70	P	Pn	01 02 57.0	+1.2
PVY	**Plav**	8.07	30	*e*Pn	Pn	01 02 57.3	-1.2
PVY				*i* Sn	Sn	01 04 25.4	-4.0
PVY				AML	AML		
KLINJ	**Klinje**	8.10	21	*e*Pn	Pn	01 02 56.2	-2.6
GRG	**Griva**	8.11	47	P	Pn	01 03 01.7	+2.8
	comp=Z,33nm,0.9s						
KOME	**Kolasin**	8.12	27	⇑*i*Pn	Pn	01 02 57.9	-1.2
KOME				*i* Sn	Sn	01 04 26.4	-4.1
KOME				AML	AML		
UPM	**Unac-Piva**	8.23	23	*e*Pn	Pn	01 03 01.9	+1.3
UPM	**Unac-Piva**	8.23	23	*e*Pn	Pn	01 02 59.5	-1.1
UPM				*i* Sn	Sn	01 04 29.1	-4.1
UPM				AML	AML		
IVA	**Berane**	8.28	28	*e*Pn	Pn	01 03 00.2	-1.1
IVA				*i* Sn	Sn	01 04 30.3	-4.1
IVA				AML	AML		
PAIG	**Paliouri**	8.37	57	P	Pn	01 03 03.5	+1.0
IDI	**Anoyia**	8.44	90	Pn	Pn	01 03 06.2	+2.7
	comp=Z,29nm,0.8s,baz=280,slow=9.5,SNR=14						
IDI				Sn	Sn	01 04 37.6	-0.7
	comp=Z,3.6nm,0.3s,baz=144,slow=20,SNR=6.9						
IDI	**Anoyia**	8.44	90	Pn	Pn	01 03 05.5	+2.0
PLE	**Pljevlja**	8.50	25	*e*Pn	Pn	01 03 03.3	-1.0
PLE				*i* Sn	Sn	01 04 35.6	-4.1
PLE				AML	AML		
SOH	**Sokhos**	8.61	51	P	Pn	01 03 06.5	+0.7
SOH	**Sokhos**	8.61	51	P	Pn	01 03 07.1	+1.3
	comp=Z,22nm,0.8s						
OUR	**Ouranopolis**	8.77	55	P	Pn	01 03 08.8	+1.0
BBLS	**Lazi&#263i**	8.98	23	*e*Pn	Pn	01 03 10.6	-0.3
MAHO	**Mahon**	9.16	300	Pn	Pn	01 03 11.9	-1.4
BLY	**Banja Luka**	9.27	12		Pn	01 03 16.3	+1.5
BLY	**Banja Luka**	9.27	12	*e*Pn	Pn	01 03 18.5	+3.7
BLY	**Banja Luka**	9.27	12	P	Pn	01 03 19.3	+4.5
	comp=Z,9.5nm,1.0s						
TEKS	**Tekeris**	9.64	22	*e*Pn	Pn	01 03 18.2	-1.6
SABO	**M.te Sabotino**	10.31	356	Pn	Pn	01 03 29.2	+0.2
ALN	**Alexandroupoli**	10.42	57	Pn	Pn	01 03 31.4	+0.9
OBKA	**Obir**	10.81	360	*e*Pn	Pn	01 03 42.0	+6.0
	comp=Z,0.4nm,0.3s						
MORH	**Mrgy, Hungar**	10.96	15	*e*Pn	Pn	01 03 39.3	+1.4
SOKA	**Soboth**	10.99	2	*e*Pn	Pn	01 03 45.1	+6.7
	comp=Z,0.6nm,0.3s						
ARG	**Arkhangelos**	11.02	83	Pn	Pn	01 03 40.6	+1.9
ABTA	**Abfaltersbach**	11.16	353	*e*Pn	Pn	01 03 46.7	+6.0
	comp=Z,7.1nm,0.9s						
BZS	**Buzias**	11.27	26	P	Pn	01 03 42.7	+0.5
BALB	**Balikesir**	11.27	66		Pn	01 03 45.0	+2.7
SESA	**Seetaler Alpe,**	11.42	0	*e*Pn	Pn	01 03 51.5	+7.1
	comp=Z,4.5nm,0.7s						
DAVOX	**Davos/Dischmat**	11.63	344	Pn	Pn	01 03 51.4	+4.2
	comp=Z,0.1nm,0.3s,baz=152,slow=15,SNR=2.6						
DAVOX				LR	LR	01 08 39.2	
	comp=Z,56nm,19.4s,baz=171,slow=39						
	comp=Z,1.1nm,0.6s						
DAVOX				AML	AML		
FETA	**Feichten**	11.68	347	*e*Pn	Pn	01 03 55.3	+7.4
	comp=Z,8.5nm,0.8s						
WTTA	**Wattenberg**	11.77	350	*e*Pn	Pn	01 03 54.1	+4.9
	comp=Z,3.2nm,0.7s						
SQTA	**Sankt Quirin**	11.79	349	*e*Pn	Pn	01 03 54.6	+5.2
	comp=Z,3.5nm,0.8s						
LESA	**Schwarzleotal**	11.81	354	*e*Pn	Pn	01 03 55.2	+5.5
	comp=Z,2.2nm,0.8s						
WATA	**Walderalm**	11.85	350	*e*Pn	Pn	01 03 55.3	+5.0
	comp=Z,7.5nm,1.1s						
MOTA	**Moosalm**	11.93	349	*e*Pn	Pn	01 03 57.1	+5.8
	comp=Z,2.8nm,0.9s						
LOT	**Lotru**	12.00	33	P	Pn	01 03 55.3	+3.1
	comp=Z,17nm,0.8s						
BIOA	**Bad Ischl, Aus**	12.02	357	*e*Pn	P	01 03 59.5	-5.8
	comp=Z,4.9nm,1.2s						
DAVA	**Damuels**	12.11	345	*e*Pn	P	01 04 00.8	-5.6
	comp=Z,3.7nm,1.1s						
RETA	**Reutte**	12.13	348	*i* Pn	P	01 04 00.3	-6.2
	comp=Z,2.0nm,0.8s						
MOA	**Molln**	12.16	359	*i* Pn	P	01 04 00.8	-6.1
	comp=Z,8.2nm,1.2s						
ELL	**Elmali**	12.45	81	Pn	Pn	01 04 00.7	+2.3
WINA	**Alland / Wiene**	12.46	5	*i* Pn	P	01 04 04.5	-5.7
	comp=Z,6.1nm,1.2s						
VOIR		12.58	36	P	Pn	01 04 03.1	+3.0
	comp=Z,10nm,1.0s						
MLR	**Muntele Rosu**	13.06	38	Pn	Pn	01 04 10.4	+3.7
	comp=Z,0.3nm,0.3s,baz=268,slow=24,SNR=4.4						
MLR				LR	LR	01 10 30.0	
	comp=Z,88nm,21.8s,baz=182,slow=43						
	comp=Z,4.0nm,0.8s						
MLR				AML	AML		
MLR	**Muntele Rosu**	13.06	38	Pn	Pn	01 04 08.2	+1.5
CKRC	**Cesky Krumlov**	13.13	359	*e*P	Pn	01 04 12.5	+5.0
CKRC				AMS	AMS	01 10 10.0	
	comp=Z,100nm,13.7s						
GEC2	**GERESS Array S**	13.17	358	Pn	Pn	01 04 08.8	+0.6
GEC2	**GERESS Array S**	13.17	358	P	P	01 04 13.2	-4.9
	comp=Z,6.6nm,1.1s						
GERES	**GERESS Array B**	13.17	358	Pn	Pn	01 04 12.2	+4.1
	baz=164,slow=15,SNR=14						
GERES				LR	LR	01 09 32.1	
	comp=Z,61nm,19.2s,baz=198,slow=38						
	comp=Z,2.3nm,0.7s						
GERES	**GERESS Array B**	13.17	358		Pn	01 04 08.5	+0.4
BORA	**Eskisehir**	13.25	67	Pn	Pn	01 04 10.8	+1.5
KRUC	**Moravsky**	13.44	5	*e*P	P	01 04 18.3	-2.7
KHC	**Kasperske Hory**	13.46	357	*e*P	P	01 04 18.1	-3.2
KHC	**Kasperske Hory**	13.46	357	Pn	Pn	01 04 11.8	-0.2
KHC	**Kasperske Hory**	13.46	357	P	Pn	01 04 14.2	+2.1
	comp=Z,5.2nm,1.6s						
WET	**Wettzell**	13.51	355	P	Pn	01 04 14.9	+2.2
	comp=Z,7.3nm,1.2s						
GRC4	**Grafenberg Arr**	13.58	351	P	P	01 04 18.3	-4.3
	comp=Z,8.9nm,1.2s						
VRAC	**Vranov**	13.70	6	Pn	Pn	01 04 19.2	+4.0
	comp=Z,0.2nm,0.3s,baz=184,slow=8.7,SNR=5.9						
VRAC				LR	LR	01 10 19.0	
	comp=Z,57nm,18.6s,baz=206,slow=40						
	comp=Z,0.9nm,0.3s						

VRAC				AML	AML		
VRAC	**Vranov**	**13.70**	**6**	*e*P	**P**	**01 04 22.7**	**-1.2**
GRB2	**Grafenberg Arr**	**13.74**	**352**	P	**Pn**	**01 04 17.1**	**+1.2**
	comp=Z,14nm,0.8s						
GRB3	**Grafenberg Arr**	**13.80**	**352**	P	**P**	**01 04 20.9**	**-4.1**
	comp=Z,11nm,1.2s						
GRB4	**Grafenberg Arr**	**13.95**	**352**	P	**P**	**01 04 24.8**	**-1.9**
	comp=Z,7.7nm,1.1s						
MORC	**Moravsky Berou**	**14.25**	**8**	*e*P	**P**	**01 04 26.5**	**-3.6**
BURAR	**Bucovina Array**	**14.32**	**30**	Pn	**Pn**	**01 04 25.0**	**+1.1**
BUR08	**Bucovina Ar. S**	**14.34**	**30**	Pn	**Pn**	**01 04 24.8**	**+0.7**
KRLC	**Kraliky**	**14.47**	**6**	*e*P	**P**	**01 04 32.1**	**-0.5**
DPC	**Dobruska-Polom**	**14.71**	**4**	*e*P	**P**	**01 04 36.8**	**+1.6**
PVCC	**Panska Ves**	**14.84**	**0**	P	**P**	**01 04 35.9**	**-0.6**
	comp=Z,10.0nm,1.2s						
UPC	**Upice**	**14.85**	**4**	*e*P	**P**	**01 04 36.2**	**-0.5**
CHVC	**Chvalec**	**14.94**	**4**	*e*P	**P**	**01 04 35.9**	**-1.8**
TAM	**Tamanrasset**	**15.06**	**214**	Pn	**Pn**	**01 04 31.9**	**-2.3**
TAM	**Tamanrasset**	**15.06**	**214**	P	**P**	**01 04 38.2**	**-1.2**
	comp=Z,4.6nm,1.0s						
BRG	**Berggiesshubel**	**15.19**	**359**	*e*P	**P**	**01 04 40.8**	**+0.3**
BRG				Amp		01 04 43.3	
	comp=Z,2.8nm,0.9s						
ESDC	**Sonseca Array**	**15.19**	**291**	Pn	**Pn**	**01 04 37.4**	**+1.7**
	comp=Z,0.1nm,0.3s,baz=98,slow=12,SNR=6.1						
ESDC				LR	LR	01 09 35.6	
	comp=Z,21nm,21.2s,baz=102,slow=34						
	comp=Z,0.7nm,0.7s						
ESDC				AML	AML		
CSS	**Mathiatis**	**15.35**	**87**	Pn	**Pn**	**01 04 38.1**	**+0.4**
CSS				IAmb	IAmb	01 04 59.0	
	comp=Z,13nm,1.0s						
BRTR	**Keskin Array B**	**15.63**	**69**	Pn	**P**	**01 04 44.3**	**-1.3**
	comp=Z,0.2nm,0.3s,baz=243,slow=11,SNR=8.1						
BRTR				LR	LR	01 11 31.0	
	comp=Z,43nm,20.6s,baz=266,slow=40						
	comp=Z,1.2nm,0.8s						
BRTR				AML	AML		
BRTR	**Keskin Array B**	**15.63**	**69**	Pn	**Pn**	**01 04 42.3**	**+0.8**
CLL	**Collm**	**15.66**	**356**	Pn	**Pn**	**01 04 41.9**	**+0.3**
CLL	**Collm**	**15.66**	**356**	P	**P**	**01 04 52.1**	**+6.5**
	comp=Z,6.6nm,1.0s						
CLL	**Collm**	**15.66**	**356**	P	**P**	**01 04 45.1**	**-0.5**
	comp=Z,6.6nm,1.0s						
CLL	**Collm**	**15.66**	**356**	*i* Px	Px	01 04 44.6	
	comp=Z,9.0nm,1.5s						
CLL				*i* PP	**PnPn**	**01 04 50.0**	**-0.1**
	comp=Z,46nm,2.3s						
CLL				*i* sPP		01 04 56.7	
CLL				*i* x	x	01 05 05.5	
CLL				L	L	01 09 00.0	
CLL				AMS	AMS	01 12 00.0	
	comp=Z,100nm,15.8s						
MDT	**Midelt**	**16.10**	**265**	Pn	**Pn**	**01 04 48.2**	**+0.7**
	comp=Z,0.2nm,0.3s,baz=100,slow=13,SNR=4.3						
MDT				LR	LR	01 11 59.2	
	comp=Z,97nm,19.0s,baz=80,slow=41						
MD01	**Midelt array s**	**16.21**	**266**	Pn	**Pn**	**01 04 47.5**	**-1.6**
MD31	**MD31**	**16.21**	**266**	Pn	**Pn**	**01 04 47.0**	**-2.0**
BNN	**Bunyan**	**17.24**	**73**	Pn	**Pn**	**01 05 02.2**	**+0.3**
KZIT	**Kziot**	**17.25**	**100**	P	**Pn**	**01 05 01.8**	**-0.3**
	comp=Z,27nm,1.0s						
KZIT	**Kziot**	**17.25**	**100**	P	**P**	**01 05 07.6**	**+4.1**
	comp=Z,26nm,1.0s						
MMAI	**Mount Meron Ar**	**17.42**	**93**	Pn	**P**	**01 05 05.1**	**-0.3**
	comp=Z,1.7nm,0.3s,baz=331,slow=15,SNR=9.4						
MMAI				Sn	**Sn**	**01 08 10.0**	**-7.6**
	comp=Z,0.5nm,0.3s,baz=72,slow=24,SNR=1.7						
MMAI				LR	LR	01 13 53.3	
	comp=Z,30nm,18.2s,baz=236,slow=44						
	comp=Z,0.8nm,0.5s						
MMAI				AML	AML		
SALP	**Salfit**	**17.51**	**96**	P	**Pn**	**01 05 04.9**	**-0.4**
	comp=Z,33nm,0.7s						
GEM	**Giv'at Ha'Em**	**17.58**	**92**	P	**Pn**	**01 05 05.8**	**-0.3**
MMLI	**Mount Malkishu**	**17.59**	**95**	P	**P**	**01 05 13.5**	**+6.3**
	comp=Z,24nm,1.7s						
QRNJ	**Al-Qirein**	**17.74**	**95**	P	**Pn**	**01 05 07.8**	**-0.3**
	comp=Z,3µm,0.9s						
UJAP	**Al Uja**	**17.77**	**96**	P	**Pn**	**01 05 08.1**	**-0.2**
	comp=Z,14nm,0.9s						
UJAP	**Al Uja**	**17.77**	**96**	P	**Pn**	**01 05 08.1**	**-0.2**
	comp=Z,14nm,0.9s						
MSBI	**Mazada**	**17.88**	**98**	P	**Pn**	**01 05 09.2**	**-0.6**
	comp=Z,2.7nm,1.2s						
PRNI	**Paran**	**17.95**	**101**	P	**Pn**	**01 05 10.3**	**-0.4**
	comp=Z,34nm,0.9s						
LISJ	**El Lisan**	**18.01**	**98**	P	**Pn**	**01 05 09.8**	**-1.5**
	comp=Z,12nm,1.2s						
GHAJ	**Ghor Haditha**	**18.05**	**98**		**P**	**01 05 13.5**	**+1.2**
GHAJ				IAmb	IAmb	01 05 25.2	
	comp=Z,24nm,1.1s						
GHAJ	**Ghor Haditha**	**18.05**	**98**	P	**Pn**	**01 05 11.7**	**-0.2**
	comp=Z,18nm,0.8s						
GHAJ	**Ghor Haditha**	**18.05**	**98**	P	**P**	**01 05 17.0**	**+4.8**
	comp=Z,19nm,0.8s						
HRFI	**Mount Harif**	**18.09**	**102**	P	**P**	**01 05 18.6**	**+5.8**
	comp=Z,13nm,0.8s						
EIL	**Elat**	**18.18**	**103**	P	**P**	**01 05 15.9**	**+2.3**
	comp=Z,0.1nm,0.3s,baz=304,slow=15,SNR=2.0						
EIL				S	**Sn**	**01 08 30.4**	**-5.5**
	comp=Z,3.5nm,0.8s,baz=17,slow=10.0,SNR=1.9						
	comp=Z,2.7nm,0.7s						
EIL				AML	AML		
GAZ	**Gaziantep**	**18.29**	**79**		**Pn**	**01 05 14.5**	**-0.4**
GAZ				IAmb	IAmb	01 05 21.4	
	comp=Z,11nm,0.8s						
HSUJ	**Al Zarqa**	**18.31**	**95**	P	**Pn**	**01 05 14.7**	**-0.4**
	comp=Z,18nm,0.8s						
KIEV	**Kiev**	**18.36**	**31**	P	**Pn**	**01 05 16.1**	**+0.5**
KIEV	**Kiev**	**18.36**	**31**	P	**Pn**	**01 05 18.5**	**+2.9**
	comp=Z,9.4nm,0.9s						
AKASG	**Malin Array Be**	**18.38**	**31**	P	**Pn**	**01 05 16.4**	**+0.7**
	comp=Z,0.8nm,0.3s,baz=227,slow=10,SNR=16						
	comp=Z,3.7nm,0.7s						
AKASG				AML	AML		
AKASG	**Malin Array Be**	**18.38**	**31**	P	**P**	**01 05 14.5**	**-1.2**
AKBB	**Malin Array Si**	**18.38**	**31**	P	**P**	**01 05 15.5**	**-0.2**
SWQJ	**Swaqa**	**18.47**	**98**	P	**P**	**01 05 16.4**	**-0.6**
	comp=Z,4.4nm,0.8s						
HSNJ	**Maan**	**18.53**	**101**	P	**P**	**01 05 17.3**	**-0.4**
	comp=Z,66nm,0.4s						
ASF	**Jabal al Asfar**	**18.86**	**94**	P	**Pn**	**01 05 25.4**	**+3.5**
	comp=Z,0.2nm,0.3s,baz=289,slow=8.7,SNR=13						
ASF				S	**Sn**	**01 08 48.0**	**-4.6**
	comp=Z,0.9nm,0.6s,baz=296,slow=24,SNR=2.4						
	comp=Z,5.2nm,0.8s						
ASF				AML	AML		
ASF	**Jabal al Asfar**	**18.86**	**94**	P	**P**	**01 05 20.8**	**-0.5**
	comp=Z,54nm,0.8s						
SUW	**Suwalki**	**19.29**	**16**	P	**P**	**01 05 26.2**	**+0.5**
PABE	**Paberze**	**20.85**	**15**	P	**P**	**01 05 40.7**	**-1.9**
PABE				IAmb	IAmb	01 05 45.5	
	comp=Z,24nm,1.1s						
PABE	**Paberze**	**20.85**	**15**	P	**P**	**01 05 42.8**	**+0.2**
	comp=Z,20nm,1.1s						
NACGM	**Naroch**	**21.00**	**20**	*e*P	Pn	01 05 46.5	-0.3
GURO	**Guroymak-BITLI**	**22.07**	**74**	P	**P**	**01 05 55.6**	**-0.5**
GURO				IAmb	IAmb	01 06 04.7	
	comp=Z,13nm,0.9s						
EKA	**Eskdalemuir Ar**	**23.12**	**334**	P	**P**	**01 06 06.5**	**-0.4**
	comp=Z,0.9nm,0.4s,baz=146,slow=11,SNR=8.4						
	comp=Z,0.9nm,0.4s						
KBZ	**Khabaz**	**23.16**	**61**	P	**P**	**01 06 08.8**	**+1.5**
	comp=Z,5.2nm,1.0s,baz=268,slow=9.5,SNR=5.3						
	comp=Z,5.2nm,1.0s						
HAKT	**HAKKARI**	**23.43**	**77**	P	**P**	**01 06 13.6**	**+3.1**
	comp=Z,45nm,1.3s						
GNI	**Garni**	**24.17**	**70**	LR	LR	01 16 57.5	
	comp=Z,32nm,21.2s,baz=264,slow=39						
GNI	**Garni**	**24.17**	**70**	P	**P**	**01 06 18.2**	**+0.8**
HFS	**Hagfors**	**24.47**	**359**	P	**P**	**01 06 19.6**	**-0.1**
	comp=Z,1.5nm,0.8s,baz=160,slow=4.6,SNR=4.8						
HFS				LR	LR	01 15 45.5	
	comp=Z,25nm,20.5s,baz=146,slow=36						
	comp=Z,1.5nm,0.8s						
NC602	**NORSAR Array S**	**25.14**	**357**	P	**P**	**01 06 25.6**	**-0.2**
NC602				IAmb	IAmb	01 06 50.3	
	comp=Z,9.7nm,1.3s						
TORD	**Torodi Ar. Bea**	**25.26**	**211**	P	**P**	**01 06 27.9**	**+0.7**
	comp=Z,2.2nm,0.8s,baz=17,slow=10.0,SNR=10						
	comp=Z,2.2nm,0.8s						
NOA	**NORSAR Array B**	**25.46**	**356**	P	**P**	**01 06 28.9**	**+0.1**
	comp=Z,0.4nm,0.6s,baz=179,slow=12,SNR=6.1						
NOA				LR	LR	01 17 12.8	
	comp=Z,28nm,20.0s,baz=185,slow=38						
	comp=Z,0.4nm,0.6s						
FINES	**FINESS Array B**	**26.80**	**12**	P	**P**	**01 06 40.9**	**+0.1**
	comp=Z,3.6nm,0.9s,baz=188,slow=8.4,SNR=10						
FINES				LR	LR	01 18 10.9	
	comp=Z,29nm,19.1s,baz=255,slow=38						
	comp=Z,3.6nm,0.9s						
FINES	**FINESS Array B**	**26.80**	**12**	P	**P**	**01 06 39.7**	**-1.0**
FIA1	**FINESS Array S**	**26.80**	**12**	P	**P**	**01 06 39.7**	**-1.0**
FIA1				IAmb	IAmb	01 06 42.9	
	comp=Z,9.8nm,0.9s						
DBIC	**Dimbokro**	**33.93**	**216**	P	**P**	**01 07 45.0**	**+0.8**
	comp=Z,4.7nm,1.1s,baz=45,slow=4.3,SNR=2.0						
DBIC				LR	LR	01 23 05.3	
	comp=Z,88nm,18.6s,baz=38,slow=39						
	comp=Z,4.7nm,1.1s						
DBIC	**Dimbokro**	**33.93**	**216**	P	**P**	**01 07 43.3**	**-1.0**
ARCES	**ARCESS Array B**	**34.44**	**7**	P	**P**	**01 07 48.5**	**+0.4**
	comp=Z,1.0nm,0.8s,baz=186,slow=9.8,SNR=5.4						
	comp=Z,1.0nm,0.8s						
ARCES	**ARCESS Array B**	**34.44**	**7**	P	**P**	**01 07 46.8**	**-1.3**
ARCES				IAmb	IAmb	01 08 02.2	
	comp=Z,10nm,1.4s						
AB31	**Akbulak array**	**35.58**	**53**	P	**P**	**01 07 59.2**	**+1.0**
AB31				IAmb	IAmb	01 08 03.2	
	comp=Z,2.6nm,0.9s						
ABKAR	**Akbulak array**	**35.58**	**53**	P	**P**	**01 07 58.9**	**+0.7**
ARTI	**Arti**	**35.98**	**41**	P	**P**	**01 08 01.8**	**+0.3**
ARTI				IAmb	IAmb	01 08 21.9	
	comp=Z,3.5nm,0.7s						
HRA	**Herat**	**38.77**	**78**	P	**P**	**01 08 26.3**	**+0.6**
HRA				IAmb	IAmb	01 08 29.4	
	comp=Z,4.7nm,0.9s						
MBAR	**Mbarara**	**39.13**	**154**	LR	LR	01 24 30.1	
	comp=Z,22nm,18.9s,baz=297,slow=36						
BORK	**Borovoye**	**42.31**	**48**	P	**P**	**01 08 55.9**	**+1.3**
BORK				IAmb	IAmb	01 08 57.7	
	comp=Z,5.6nm,0.8s						
BVAR	**Borovoye Array**	**42.35**	**48**	P	**P**	**01 08 56.4**	**+1.5**
	comp=Z,4.4nm,0.8s,baz=256,slow=6.0,SNR=18						
	comp=Z,4.4nm,0.8s						
KK31	**Karatay Array**	**43.18**	**62**	P	**P**	**01 09 03.2**	**+1.5**
KKAR	**Karatay Array**	**43.18**	**62**	P	**P**	**01 09 02.8**	**+1.0**
KURBB	**Kurchatov Arra**	**47.53**	**51**	P	**P**	**01 09 37.5**	**+1.4**
	comp=Z,3.6nm,0.8s,baz=279,slow=8.8,SNR=31						
	comp=Z,3.6nm,0.8s						
KURK	**Kurchatov**	**47.58**	**51**	P	**P**	**01 09 37.0**	**+0.6**
NIL	**Nilore**	**47.69**	**75**	P	**P**	**01 09 39.6**	**+2.0**
NIL				IAmb	IAmb	01 09 41.6	
	comp=Z,5.0nm,0.9s						
MKAR	**Makanchi Array**	**50.66**	**55**	P	**P**	**01 10 01.7**	**+1.5**
	comp=Z,2.7nm,0.6s,baz=283,slow=6.8,SNR=26						
	comp=Z,2.7nm,0.6s						
MKAR	**Makanchi Array**	**50.66**	**55**		**P**	**01 10 01.1**	**+0.9**
ZAA0	**Zalesovo Array**	**50.88**	**46**		**P**	**01 10 02.7**	**+1.1**
ZAA0				IAmb	IAmb	01 10 04.0	
	comp=Z,5.1nm,0.8s						
ZALV	**Zalesovo Beam**	**50.88**	**46**	P	**P**	**01 10 03.1**	**+1.4**
	comp=Z,5.1nm,0.7s,baz=280,slow=7.8,SNR=23						
ZALV				LR	LR	01 33 44.6	
	comp=Z,33nm,18.6s,baz=59,slow=38						
	comp=Z,5.1nm,0.7s						
ZALV	**Zalesovo Beam**	**50.88**	**46**		**P**	**01 10 02.6**	**+1.0**
KSANE	**Kasane**	**54.13**	**168**	P	**P**	**01 10 25.9**	**-0.3**
KSANE				IAmb	IAmb	01 10 29.6	
	comp=Z,5.9nm,1.0s						
TSUM	**Tsumeb**	**54.66**	**176**	LR	LR	01 34 09.1	
	comp=Z,74nm,18.8s,baz=342,slow=36						
KOOLE	**Kule**	**58.60**	**174**	P	**P**	**01 10 57.6**	**-0.4**
LBTB	**Lobatse**	**61.27**	**169**	P	**P**	**01 11 17.5**	**+1.3**
TLY	**Talaya**	**62.45**	**45**	LR	LR	01 42 03.1	
	comp=Z,38nm,18.3s,baz=269,slow=39						
BOSA	**Boshof**	**64.75**	**170**	P	**P**	**01 11 39.7**	**+0.4**
	comp=Z,2.6nm,0.8s,baz=348,slow=8.6,SNR=4.2						
BOSA				LR	LR	01 41 11.9	
	comp=Z,24nm,18.4s,baz=32,slow=37						
	comp=Z,2.6nm,0.8s						
BOSA	**Boshof**	**64.75**	**170**	P	**P**	**01 11 39.4**	**+0.1**
SONM	**Songino Array**	**65.70**	**48**	P	**P**	**01 11 46.7**	**+1.2**
	comp=Z,1.9nm,0.6s,baz=284,slow=8.1,SNR=6.8						
	comp=Z,1.9nm,0.6s						
SONM	**Songino Array**	**65.70**	**48**	P	**P**	**01 11 46.1**	**+0.6**
SONM				IAmb	IAmb	01 11 48.2	
	comp=Z,2.5nm,0.8s						
SUR	**Sutherland**	**67.96**	**174**	LR	LR	01 43 02.2	
	comp=Z,62nm,18.3s,baz=54,slow=37						
M57A	**Sunshine Farm,**	**68.65**	**306**	P	**P**	**01 12 04.9**	**+0.7**
HHC	**Hu-ho-hao-te**	**72.36**	**52**	*e*P	**P**	**01 12 26.0**	**-1.0**
HHC				pmax	pmax		
	comp=Z,9.0nm,0.5s						
HHC				pmax	pmax		
	comp=Z,76nm,6.9s						
BDFB	**Brasilia**	**78.13**	**241**	P	**P**	**01 13 02.0**	**+1.5**
	comp=Z,2.0nm,0.5s,baz=68,slow=4.3,SNR=4.2						
	comp=Z,2.0nm,0.5s						
CPUP	**Villa Florida**	**91.66**	**239**	LR	LR	01 55 25.7	
	comp=Z,35nm,20.5s,baz=74,slow=36						
TXAR	**Lajitas Array**	**93.04**	**310**	P	**P**	**01 14 15.7**	**+0.8**
	comp=Z,0.3nm,0.7s,baz=67,slow=5.3,SNR=4.0						
	comp=Z,0.3nm,0.7s						
TXAR	**Lajitas Array**	**93.04**	**310**	P	**P**	**01 14 14.8**	**-0.2**

RSNC 30 01:05:49.5±0.0**,7°N**±1°×**7°3W**±°**,h150**km±2km**,M2.1,mB4.6,**
mb3.8,ML1.9,Mw(mB)3.8,Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
BARC	**Barichara**	**0.27**	**187**	P	Pn	01 06 10.3	0.0
BARC				S	Sn	01 06 24.9	-1.2
BRJC	**Barrancabermej**	**0.60**	**281**	P	Pn	01 06 11.3	-0.1
BRJC				S	Sn	01 06 28.5	+0.5
PAMC	**Pamplona, Colo**	**0.65**	**43**	P	Pn	01 06 12.4	+0.1
PAMC				S	Sn	01 06 28.8	-0.8
RUSC	**La Rusia**	**0.96**	**176**	P	Pn	01 06 14.1	-0.5
RUSC				S	Sn	01 06 32.4	-1.2
RUSC	**La Rusia**	**0.96**	**176**	P	Pn	01 06 14.3	-0.3
PTBC	**PUERTO BERRIO,**	**1.34**	**256**	P	Pn	01 06 16.4	-1.0
PTBC				S	Sn	01 06 37.9	-0.8
PTBC	**PUERTO BERRIO,**	**1.34**	**256**	P	Pn	01 06 16.5	-0.9
OCAC	**Ocana**	**1.38**	**353**	P	Pn	01 06 17.5	-0.5
OCAC				S	Sn	01 06 39.2	-0.7
OCAC	**Ocana**	**1.38**	**353**	P	Pn	01 06 17.7	-0.3
TAMC	**Tame, Arauca**	**1.41**	**107**	P	Pn	01 06 18.0	-0.2
TAMC				S	Sn	01 06 39.9	-0.3
SPBC	**San Pablo de B**	**1.51**	**217**	P	Pn	01 06 18.5	-0.8
SPBC				S	Sn	01 06 40.9	-1.2
NORC	**Norcasia**	**2.14**	**233**	P	Pn	01 06 26.3	-0.1
NORC				S	Sn	01 06 53.8	-0.9
CHIC	**Chingaza**	**2.29**	**195**	P	Pn	01 06 28.4	-0.1
HELC	**Santa Helena**	**2.46**	**254**	P	Pn	01 06 31.6	+1.2
HELC				S	Sn	01 07 01.8	-0.1
UREC	**San Jos de Ur**	**2.52**	**291**	P	Pn	01 06 29.6	-1.3
UREC				S	Sn	01 07 01.4	-1.5
GUY2C	**Guyana, Caldas**	**2.74**	**234**	P	Pn	01 06 34.3	+0.2
GUY2C				S	Sn	01 07 11.3	+2.9
ORTC	**Ortega, Tolima**	**3.60**	**216**	P	Pn	01 06 44.5	-0.1
ORTC				S	Sn	01 07 28.2	+0.8
SJCC	**San Jacinto, C**	**3.62**	**326**	P	Pn	01 06 43.1	-1.9
SJCC				S	Sn	01 07 24.7	-3.3
LCBC	**Los crdobas,**	**3.75**	**302**	P	Pn	01 06 43.8	-2.8
CRJC	**Cerrejon, Guaj**	**4.14**	**4**	P	Pn	01 06 49.8	-1.9
MACC	**Macarena, Meta**	**4.74**	**188**	P	Pn	01 06 56.7	-2.8
URIC	**Uribia, Colomb**	**4.95**	**13**	P	Pn	01 06 59.8	-2.4
BBAC	**Balboa, Cauca**	**6.31**	**221**	P	Pn	01 07 20.2	-0.4
	678nm5.3nm,0.5s						
BCIP	**Isla Barro Col**	**7.01**	**290**	P	Pn	01 07 30.5	+0.8

IDC ***30*** *01:12:04.2±3.1,33°.40S×178°.95W,h0km,mb3.6/2,*
mbtmp3.7/3,ML3.8/1,Error ellipse: s-maj=71.5km
s-min=36.2km az=114.0
WEL ***30*** *01:12:08.4±1.2,33°S±19°×17°9W±3°3,h12km,M4.1/10,*
mB4.6/4,ML4.1/12,MLv4.2/10,Mw(mB)3.8/4,Error ellipse:
s-maj=49.1km s-min=8.6km az=118.3,confirmed
ISC 30 01:12:10.3±2.2**,33°.4S**±0°.1×**179°.0W**±0°.3**,h48**km**,n19,**
σ**1s.09**/31**,South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	**4.68**	**208**	P	**Pn**	**01 13 17.5**	**-0.9**
MXZ				S	**Sn**	**01 14 11.8**	**+0.4**
MXZ				AML	AML		
MXZ				AML	AML		
WMGZ	**Waiomatatini S**	**4.87**	**205**	P	**Pn**	**01 13 20.9**	**-0.1**
WMGZ				S	**Sn**	**01 14 17.6**	**+1.6**
WMGZ				AML	AML		
WMGZ				AML	AML		
PKGZ	**Pakihiroa**	**5.04**	**208**	P	**Pn**	**01 13 21.5**	**-1.8**
PKGZ				S	**Sn**	**01 14 20.6**	**+0.5**
PKGZ				AML	AML		
PKGZ				AML	AML		
HAZ	**Te Kaha**	**5.06**	**211**	P	**Pn**	**01 13 24.3**	**+0.7**
HAZ				S	**Sn**	**01 14 23.2**	**+2.4**
HAZ				AML	AML		
PUZ	**Puketiti**	**5.15**	**205**	P	**Pn**	**01 13 24.1**	**-0.7**
PUZ				S	**Sn**	**01 14 22.3**	**-0.6**
PUZ				AML	AML		
PUZ				AML	AML		
RUGZ	**Raukumara Rang**	**5.28**	**210**	P	**Pn**	**01 13 24.5**	**-2.2**
RUGZ				S	**Sn**	**01 14 27.4**	**+1.0**
RUGZ				AML	AML		
RUGZ				AML	AML		
TWGZ	**Tauwhareparae**	**5.34**	**207**	P	**Pn**	**01 13 26.7**	**-0.8**
TWGZ				S	**Sn**	**01 14 28.8**	**+1.0**
TWGZ				AML	AML		
TWGZ				AML	AML		
CNGZ	**Carnagh Statio**	**5.54**	**204**	P	**Pn**	**01 13 30.0**	**-0.1**
CNGZ				AML	AML		
CNGZ				AML	AML		
MWZ	**Matawai**	**5.66**	**209**	P	**Pn**	**01 13 30.4**	**-1.4**
MWZ				S	**Sn**	**01 14 34.2**	**-1.3**
MWZ				AML	AML		
MWZ				AML	AML		
URZ	**Urewera**	**5.78**	**212**	Pn	**Pn**	**01 13 32.1**	**-1.2**
	2.8nm,0.3s,baz=2.6,slow=2.4,SNR=15						
URZ				Sn	**Sn**	**01 14 37.3**	**-0.9**
	2.0nm,0.3s,baz=157,slow=23,SNR=7.8						
	6.7nm,0.3s						
URZ				AML	AML		
URZ	**Urewera**	**5.78**	**212**	P	**Pn**	**01 13 32.1**	**-1.2**
URZ				S	**Sn**	**01 14 38.0**	**-0.3**
URZ				AML	AML		
URZ				AML	AML		
RAGZ	**Rawiri**	**5.84**	**209**	P	**Pn**	**01 13 33.9**	**-0.4**
RAGZ				S	**Sn**	**01 14 40.7**	**+0.6**
RAGZ				AML	AML		
RAGZ				AML	AML		
MUGZ	**Murupara**	**6.11**	**213**	P	**Pn**	**01 13 38.2**	**+0.2**
MUGZ				S	**Sn**	**01 14 46.7**	**+0.2**
MUGZ				AML	AML		
MUGZ				AML	AML		
MTHZ	**Maungataniwha**	**6.38**	**211**	P	**Pn**	**01 13 40.8**	**-1.0**
MTHZ				S	**Sn**	**01 14 54.0**	**+0.6**
MTHZ				AML	AML		
MTHZ				AML	AML		
OUZ	**Omahuta**	**6.42**	**252**	P	Pn	01 13 50.2	+8.0
ETVZ	**East Tongariro**	**7.13**	**216**	P	**Pn**	**01 13 51.2**	**-0.9**
ETVZ				AML	AML		
ASAR	**Alice Springs**	**42.24**	**271**	P	**P**	**01 19 59.9**	**+0.9**
	0.5nm,0.7s,baz=107,slow=7.0,SNR=6.6						
	0.5nm,0.7s						
WRA	**Warramunga Arr**	**43.50**	**276**	P	**P**	**01 20 09.0**	**-0.2**
	0.7nm,0.5s,baz=116,slow=7.9,SNR=6.4						
	0.7nm,0.5s						
FINES	**FINESS Array B**	**147.68**	**338**	PKPbc	**PKPbc**	**01 31 48.9**	**+0.2**
	0.3nm,0.4s,baz=32,slow=3.4,SNR=5.3						

IDC ***30*** *01:16:03.7±0.6,9°.57S×119°.25E,h0km,mb4.2/13,*
mbtmp4.2/19,ML4.0/6,MS3.2/16,Error ellipse:
s-maj=16.9km s-min=10.5km az=58.0
NEIC ***30*** *01:16:04.6±1.3,9°.46S±0°.04×119°.35E±0°.07,h10km±1km,*
mb4.5/19,Error ellipse: s-maj=11.0km s-min=6.4km
az=86.0
GFZ ***30*** *01:16:05.3±1.3,10°S±3°×11°9E±°,h28km±12km,M4.5/13,*
mb4.6/12,Error ellipse: s-maj=6.8km s-min=4.6km
az=18.5,confirmed
DJA ***30*** *01:16:07.2±0.2,10°S±2°×11°9E±°,h10km,M4.4/19,*
mB5.1/3,mb4.4/7,MLv4.4/19,Mw(mB)4.5/3
ISC 30 01:16:04.6±0.4**,9°.51S**±0°.04×**119°.32E**±0°.03**,h10**km**,n120,**
σ**2s.18**/113**,mb4.5**/30**,MS3.4**/11**,Sumba region**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
WSI	**Waingapu**	**0.98**	**100**	P	**Pn**	**01 16 27.6**	**+3.3**
WSI				S	**Sn**	**01 16 44.7**	**+6.5**
DBNI	**Kabupaten Domp**	**1.41**	**315**	P	**Pg**	**01 16 32.6**	**+0.9**
DBNI				S	**Sg**	**01 16 53.8**	**+3.8**
DBNI	**Kabupaten Domp**	**1.41**	**315**	P	**Pg**	**01 16 32.2**	**+0.5**
BASI	**Baing, Sumba**	**1.43**	**120**	P	**Pg**	**01 16 34.4**	**+2.4**
BASI				S	**Sg**	**01 16 54.0**	**+3.5**
BASI				AML	AML		
BASI	**Baing, Sumba**	**1.43**	**120**	P	**Pn**	**01 16 30.4**	**-0.2**
PLAI	**Plampang**	**1.67**	**294**	P	**Pn**	**01 16 33.7**	**-0.2**
PLAI				S	**Sb**	**01 16 56.8**	**+0.3**
PLAI				AML	AML		
PLAI	**Plampang**	**1.67**	**294**	P	**Pn**	**01 16 33.2**	**-0.7**
EDFI	**Ende, Flores**	**2.46**	**72**	P	**Pg**	**01 16 49.8**	**-1.9**
EDFI				AML	AML		
EDFI	**Ende, Flores**	**2.46**	**72**	P	**Pb**	**01 16 47.7**	**-1.2**
TWSI	**Taliwang, Sumb**	**2.53**	**287**	P	**Pn**	**01 16 45.5**	**-0.2**
TWSI				AML	AML		
TWSI	**Taliwang, Sumb**	**2.53**	**287**	P	**Pn**	**01 16 44.3**	**-1.4**
MMRI	**Maumere**	**3.01**	**74**		**Pn**	**01 16 50.8**	**-1.5**
MMRI	**Maumere**	**3.01**	**74**	P	**Pb**	**01 16 54.9**	**-3.3**
BSSI	**Bau Bau, Buton**	**3.54**	**19**	P	**Pb**	**01 17 06.3**	**-1.0**
BSSI				S	**Sb**	**01 17 52.3**	**+1.9**
BSSI	**Bau Bau, Buton**	**3.54**	**19**	P	**Pb**	**01 17 05.1**	**-2.2**
KHKI	**Kahang-Kahang**	**3.84**	**287**	P	**Pn**	**01 17 06.3**	**+2.5**
KHKI				AML	AML		
IGBI	**Denpasar**	**4.18**	**279**	P	**Pn**	**01 17 09.0**	**+0.6**
IGBI				AML	AML		
IGBI	**Denpasar**	**4.18**	**279**	P	**Pn**	**01 17 05.5**	**-2.9**
BKSI	**Bulukumba**	**4.23**	**11**	P	**Pb**	**01 17 16.1**	**-3.1**
BKSI				S	**Sb**	**01 18 08.7**	**-1.7**
BKSI				AML	AML		
BKSI	**Bulukumba**	**4.23**	**11**	P	**Pb**	**01 17 14.9**	**-4.3**
MKS	**Makassar**	**4.26**	**2**	P	**Pb**	**01 17 16.4**	**-3.3**
MKS				S	**Sb**	**01 18 08.6**	**-2.7**
SRBI	**Singaraja**	**4.30**	**289**	P	**Pn**	**01 17 11.0**	**+0.9**
SRBI	**Singaraja**	**4.30**	**289**	P	**Pn**	**01 17 07.5**	**-2.6**
BATI	**Baumata**	**4.33**	**100**	Pn	**Pn**	**01 17 10.9**	**+0.3**
	36nm,0.3s,baz=234,slow=2.1,SNR=21						
BATI				Sn	**Sn**	**01 18 02.5**	**+1.2**
	5.9nm,0.3s,baz=323,slow=20,SNR=1.5						
BATI				LR	LR	01 19 12.0	
	comp=Z,360nm,18.4s,baz=12,slow=43						
	80nm,0.2s						
BATI				AML	AML		
RTBI	**Rangdo, Negare**	**4.45**	**283**	P	**Pn**	**01 17 12.5**	**+0.3**
RTBI				AML	AML		
RTBI	**Rangdo, Negare**	**4.45**	**283**	P	**Pn**	**01 17 09.1**	**-3.1**
KAPI	**Kappang**	**4.48**	**5**	Pn	Pn	01 17 17.2	+4.6
	3.2nm,0.3s,baz=177,slow=15,SNR=8.2						
KAPI				Sn	**Sb**	**01 18 13.0**	**-4.6**
	7.1nm,0.3s,baz=165,slow=20,SNR=5.1						
KAPI				LR	LR	01 19 29.2	
	comp=Z,451nm,18.1s,baz=160,slow=45						
	8.8nm,0.3s						
KAPI				AML	AML		
KAPI	**Kappang**	**4.48**	**5**		**Pn**	**01 17 11.6**	**-1.0**
KAPI	**Kappang**	**4.48**	**5**	P	Pb	01 17 18.4	-5.0
KAPI				S	**Sb**	**01 18 14.1**	**-3.5**
KAPI				AML	AML		
KAPI	**Kappang**	**4.48**	**5**	P	Pb	01 17 18.2	-5.2
SOEI	**Soe**	**4.88**	**93**		**Pn**	**01 17 16.7**	**-1.6**
SOEI	**Soe**	**4.88**	**93**	P	Pn	01 17 23.5	+5.3
SOEI				AML	AML		
SOEI	**Soe**	**4.88**	**93**	P	**Pn**	**01 17 19.9**	**+1.7**
	comp=Z,110nm,1.1s						
BBSI	**Bau Bau**	**5.13**	**39**	P	Pn	01 17 26.2	+4.7
	comp=Z,54nm,1.1s						
JAGI	**Jajag, Banyuwa**	**5.21**	**281**	Pn	**Pn**	**01 17 21.7**	**-0.9**
JAGI	**Jajag, Banyuwa**	**5.21**	**281**	P	**Pn**	**01 17 22.9**	**+0.3**
	comp=Z,0.5nmcomp=Z,68nm,0.8s						
JAGI				AML	AML		
JAGI	**Jajag, Banyuwa**	**5.21**	**281**	P	**Pn**	**01 17 20.0**	**-2.6**
	comp=Z,66nm,0.8s						
SPSI	**Sidrap Palu**	**5.52**	**5**	P	Pb	01 17 33.7	-7.5
	comp=Z,42nm,0.9s						
SPSI	**Sidrap Palu**	**5.52**	**5**	P	Pn	01 17 31.1	+4.2
	comp=Z,40nm,0.9s						
MMSI	**Mamuju**	**6.79**	**357**	P	**Pn**	**01 17 48.4**	**+4.1**
	comp=Z,358nm,0.9s						
SJI	**Sawahan**	**7.67**	**283**	P	**Pn**	**01 17 54.2**	**-2.3**
	comp=Z,81nm,1.1s						

UGM	Wanagama	8.84	280	Pn	Pn	01 18 12.7	+0.1
FITZ	Fitzroy Crossi	10.51	145	Pn	Pn	01 18 34.8	-0.6
	comp=Z,0.5nm,0.3s,baz=333,slow=10,SNR=16						
FITZ				Sn	Sn	01 20 23.9	-9.5
	comp=Z,0.9nm,0.3s,baz=322,slow=19,SNR=8.2						
FITZ				LR	LR	01 22 53.4	
	comp=Z,75nm,20.4s,baz=7.0,slow=39						
	comp=Z,3.7nm,0.6s						
FITZ				AML	AML		
FITZ	Fitzroy Crossi	10.51	145		Pn	01 18 35.3	-0.2
FITZ	Fitzroy Crossi	10.51	145	P	Pn	01 18 31.9	-3.5
	comp=Z,2.6nm,0.9s						
KNRA	Kununurra	11.07	125		Pn	01 18 43.6	+0.6
MBWA	Marble Bar	11.59	178	P	Pn	01 18 43.5	-6.7
	comp=Z,13nm,1.1s						
MTN	Manton Dam	12.05	107		Pn	01 18 56.0	-0.6
GIRL	Giralia	13.94	200	Pn	Pn	01 19 19.7	-2.6
FAKI	Fak Fak	14.42	64	P	P	01 19 32.7	-3.1
	comp=Z,29nm,0.9s						
SIJI	Sorong	14.66	55	Pn	P	01 19 36.7	-1.9
	comp=Z,4.5nm,0.3s,baz=233,slow=4.7,SNR=35						
SIJI				LR	LR	01 25 42.7	
	comp=Z,93nm,20.3s,baz=273,slow=39						
	comp=Z,6.8nm,0.5s						
SIJI				AML	AML		
DAV	Davao City (W)	17.61	21	LR	LR	01 28 16.2	
	comp=Z,37nm,18.1s,baz=161,slow=41						
WB0	Warramunga Arr	17.78	127		Pn	01 20 09.9	-2.4
WB0				IAmb	IAmb	01 20 39.2	
	comp=Z,12nm,1.1s						
WRA	Warramunga Arr	17.83	127	P	Pn	01 20 13.1	+0.1
	comp=Z,0.3nm,0.3s,baz=303,slow=14,SNR=9.2						
WRA				S	Sn	01 23 20.1	-12
	comp=Z,1.0nm,0.7s,baz=301,slow=23,SNR=6.2						
	comp=Z,4.7nm,0.7s						
WRA				AML	AML		
WRA	Warramunga Arr	17.83	127		Pn	01 20 10.5	-2.5
MORW	Morawa	19.70	189	P	P	01 20 33.1	-1.1
MORW				IAmb	IAmb	01 20 52.0	
	comp=Z,36nm,1.5s						
AS31	Alice Springs	19.81	137	P	P	01 20 34.1	-1.3
ASAR	Alice Springs	19.81	137	P	P	01 20 36.5	+1.0
	comp=Z,0.2nm,0.3s,baz=324,slow=12,SNR=18						
ASAR				S	S	01 24 10.3	-8.5
	comp=Z,1.6nm,0.8s,baz=298,slow=20,SNR=7.3						
ASAR				LR	LR	01 28 49.3	
	comp=Z,41nm,21.6s,baz=301,slow=39						
	comp=Z,2.8nm,0.8s						
ASAR				AML	AML		
ASAR	Alice Springs	19.81	137	P	P	01 20 34.1	-1.4
QIS	Mount Isa	22.43	122	P	P	01 21 02.0	-1.8
	comp=Z,25nm,0.9s						
RPSI	Rantau Prapat	23.66	300	P	P	01 21 15.4	-1.0
RPSI				IAmb	IAmb	01 21 18.2	
	comp=Z,17nm,1.3s						
RPSI	Rantau Prapat	23.66	300	P	P	01 21 14.9	-1.5
	comp=Z,13nm,1.6s						
COEN	Coen	23.76	103	P	P	01 21 16.9	-0.6
	comp=Z,500nm,0.8s						
MTSU	Mount Surprise	25.71	112	P	P	01 21 34.1	-1.3
	comp=Z,6.0nm,1.2s						
QLP	Quilpie	29.05	129	P	P	01 22 02.9	-2.3
	comp=Z,13nm,1.2s						
QIZ	Qiongzhong	29.86	342	P	P	01 22 12.8	+0.5
	comp=Z,12nm,2.3s						
RMQ	Roma	32.57	125	P	P	01 22 33.9	-2.4
	comp=Z,343nm,1.2s						
CMAR	Chiang Mai Arr	34.30	324	LR	LR	01 37 44.5	
	comp=Z,63nm,19.6s,baz=190,slow=38						
PZH	PanZhiHua	39.66	335	P	P	01 23 39.5	+2.5
NJ2	Nanjing	41.33	359	*e*P	P	01 23 52.0	+1.4
NJ2				pmax	pmax		
	comp=Z,9.0nm,0.5s						
JNU	Nakatsue	43.80	14	LR	LR	01 45 24.3	
	comp=Z,18nm,18.2s,baz=193,slow=40						
H08S2	Diego Garcia H	46.32	268	T	T	02 13 37.0	
	baz=96,slow=76,SNR=61						
H08S3	Diego Garcia H	46.33	269	T	T	02 13 38.4	
	baz=96,slow=76,SNR=232						
H08S1	Diego Carcia H	46.33	268	T	T	02 13 42.6	
	baz=96,slow=76,SNR=15						
KSAR	Wonju Array Be	47.39	9	P	P	01 24 37.6	-1.4
KSRS	Korea Array	47.40	9	P	P	01 24 41.4	+2.3
	comp=Z,1.5nm,0.8s,baz=193,slow=7.8,SNR=4.2						
KSRS				LR	LR	01 43 57.8	
	comp=Z,18nm,21.1s,baz=170,slow=35						
	comp=Z,1.5nm,0.8s						
LSA	Lhasa	47.49	326	P	P	01 24 39.8	-0.8
LZDM	Lanzhou Array	47.56	343	P	P	01 24 42.2	+1.4
	comp=Z,1.4nm,0.4s,baz=163,slow=10,SNR=1.7						
	comp=Z,1.4nm,0.4s						
EVN	Everest	48.75	321	P	P	01 24 49.9	-0.7
EVN				IAmb	IAmb	01 24 54.2	
	comp=Z,6.9nm,1.2s						
MJAR	Matsushiro Arr	49.13	20	LR	LR	01 46 02.3	
	comp=Z,13nm,19.7s,baz=306,slow=36						
BJI2	Beijing	49.36	357	P	P	01 24 56.5	+2.3
BJI2				pP	sP	01 25 00.5	+1.8
BJI2				sP	pP	01 25 03.5	+6.1
BJI2				PP	PP	01 26 52.0	+3.6
BJI2				pmax	pmax		
	comp=Z,5.0nm,0.7s						
HHC	Hu-ho-hao-te	50.61	352	*e*P	P	01 25 04.3	+0.4
HHC				pmax	pmax		
	comp=Z,13nm,0.5s						
HHC				pmax	pmax		
	comp=Z,73nm,4.4s						
GTA2	Gaotai	52.02	341	*e*P	P	01 25 17.3	+2.8
GTA2				pmax	pmax		
	comp=Z,6.0nm,1.1s						
USRK	Ussuriysk Ar.	54.67	11	P	P	01 25 35.4	+1.6
	comp=Z,4.9nm,0.6s,baz=195,slow=7.2,SNR=7.5						
	comp=Z,4.9nm,0.6s						
USRK	Ussuriysk Ar.	54.67	11	P	P	01 25 33.5	-0.2
SONM	Songino Array	58.23	350	P	P	01 26 00.9	+1.7
	comp=Z,2.2nm,0.8s,baz=178,slow=9.7,SNR=7.9						
	comp=Z,2.2nm,0.8s						
SONM	Songino Array	58.23	350	P	P	01 25 59.3	+0.1
SONM				IAmb	IAmb	01 26 02.2	
	comp=Z,5.2nm,1.2s						
KLR	Kul'dur	59.50	9	LR	LR	01 53 02.5	
	comp=Z,26nm,19.2s,baz=226,slow=37						
WMQ	Urumqi	60.35	334	*e*P	P	01 26 16.0	+2.1
WMQ				LR	LR		
	comp=Z,57nm,23.8s						
KBL	Kabul	64.67	315	P	P	01 26 42.2	-1.0
KBL				IAmb	IAmb	01 26 43.8	
	comp=Z,5.0nm,0.7s						
MKAR	Makanchi Array	65.05	333	P	P	01 26 46.0	+0.9
	comp=Z,2.2nm,0.7s,baz=150,slow=7.3,SNR=20						
MKAR				LR	LR	01 57 13.3	
	comp=Z,27nm,18.9s,baz=102,slow=38						
	comp=Z,2.2nm,0.7s						
MKAR	Makanchi Array	65.05	333	P	P	01 26 45.2	0.0
BOOM	Boomskoye usch	65.17	326	P	P	01 26 45.6	-0.6
ARSB	Arslanbob	66.11	323	P	P	01 26 52.1	-0.2
H04N2	CROZET ISLANDS	67.66	224	T	T	02 40 27.1	
	baz=79						
H04N1	CROZET ISLANDS	67.67	224	T	T	02 40 26.6	
	baz=79						
H04N3	CROZET ISLANDS	67.67	224	T	T	02 40 25.8	
	baz=79						
KK31	Karatay Array	68.65	324	P	P	01 27 06.4	-1.8
KK31				IAmb	IAmb	01 27 13.2	
	comp=Z,6.0nm,1.5s						
KKAR	Karatay Array	68.65	324	P	P	01 27 06.7	-1.4
MAW	Mawson	68.87	200	P	P	01 27 08.8	-0.3
	comp=Z,2.2nm,1.0s,baz=62,slow=6.6,SNR=4.3						
MAW				LR	LR	01 51 58.4	
	comp=Z,19nm,21.4s,baz=44,slow=31						
	comp=Z,2.2nm,1.0s						
MAW	Mawson	68.87	200	P	P	01 27 09.2	+0.1
KURBB	Kurchatov Arra	69.56	334	P	P	01 27 14.0	+0.4
	comp=Z,1.8nm,0.2s,baz=149,slow=5.4,SNR=4.3						
KURBB				LR	LR	02 01 12.1	
	comp=Z,41nm,18.3s,baz=177,slow=39						
	comp=Z,1.8nm,0.2s						
KURK	Kurchatov	69.59	334	P	P	01 27 13.2	-0.5
ZAA0	Zalesovo Array	69.62	339	P	P	01 27 13.4	-0.5
ZAA0				IAmb	IAmb	01 27 16.2	
	comp=Z,2.2nm,0.7s						
ZALV	Zalesovo Beam	69.62	339	P	P	01 27 14.2	+0.3
	comp=Z,2.3nm,0.7s,baz=155,slow=4.7,SNR=9.6						
	comp=Z,2.3nm,0.7s						
ZALV	Zalesovo Beam	69.62	339	P	P	01 27 13.8	-0.2
PETK	Petropavlovsk-	70.41	23	P	P	01 27 20.2	+1.4
	comp=Z,1.5nm,0.6s,baz=221,slow=5.2,SNR=1.5						
	comp=Z,1.5nm,0.6s						
VNDA	Vanda	71.44	171	P	P	01 27 25.2	+0.5
	comp=Z,0.7nm,0.9s,baz=326,slow=5.8,SNR=4.2						
	comp=Z,0.7nm,0.9s						
VNDA	Vanda	71.44	171	P	P	01 27 24.9	+0.1
VNDA				IAmb	IAmb	01 27 54.0	
	comp=Z,2.7nm,1.4s						
BVAR	Borovoye Array	74.89	332	P	P	01 27 45.9	+0.5
	comp=Z,1.7nm,0.8s,baz=134,slow=6.4,SNR=5.4						
	comp=Z,1.7nm,0.8s						
AB31	Akbulak array	78.16	325	P	P	01 28 03.0	-1.1
AB31				IAmb	IAmb	01 28 05.3	
	comp=Z,6.5nm,1.3s						
ABKAR	Akbulak array	78.16	325	P	P	01 28 03.6	-0.5
QSPA	South Pole Qui	80.49	180	P	P	01 28 17.7	+0.9
	comp=Z,1.0nm,0.6s,baz=321,slow=1.3,SNR=9.3						
	comp=Z,1.0nm,0.6s						
QSPA	South Pole Qui	80.49	180	P	P	01 28 17.4	+0.7
GURO	Guroymak-BITLI	86.08	310	P	P	01 28 45.6	-0.5
GURO				IAmb	IAmb	01 28 52.0	
	comp=Z,8.0nm,1.2s						
LBTB	Lobatse	89.38	245	LR	LR	02 00 29.7	
	comp=Z,16nm,19.9s,baz=116,slow=30						
SNAA	Sanae	90.60	196	LR	LR	02 04 44.2	
	comp=Z,24nm,21.6s,baz=86,slow=32						
BRTR	Keskin Array B	92.70	310	P	P	01 29 17.2	-0.2
	comp=Z,0.7nm,0.8s,baz=103,slow=5.5,SNR=3.7						
	comp=Z,0.7nm,0.8s						
BRTR	Keskin Array B	92.70	310	P	P	01 29 16.7	-0.7
TORD	Torodi Ar. Bea	118.86	280	PKP	PKiKP	01 34 55.2	+0.8
	comp=Z,0.4nm,0.6s,baz=67,slow=3.7,SNR=6.2						

IDC 30 01:33:08.2±1.9, 7°.43S×126°.53E, h0km, mb3.5/1, mbtmp4.0/3, ML4.3/2, Error ellipse: s-maj=263.5km s-min=26.4km az=60.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	14.57	149	Pn	Pn	01 36 29.1	-6.7
	1.2nm,0.3s,baz=326,slow=14,SNR=34						
WRA				Sn	Sn	01 38 53.0	-25
	1.1nm,0.3s,baz=330,slow=22,SNR=11						
	1.3nm,0.3s						
WRA				AML	AML		
ASAR	Alice Springs	17.63	157	Pn	Pn	01 37 10.8	-4.6
	1.1nm,0.3s,baz=340,slow=12,SNR=55						
ASAR				Sn	Sn	01 40 09.6	-23
	0.4nm,0.3s,baz=316,slow=16,SNR=7.2						
	3.4nm,0.4s						
ASAR				AML	AML		
MKAR	Makanchi Array	66.74	329	P	P	01 44 01.3	0.0
	0.2nm,0.5s,baz=134,slow=4.7,SNR=2.2						
	0.2nm,0.5s						

NOU 30 01:43:16.0, 17°.00S×167°.75E, h6km, MLv4.1/13, Vanuatu Islands, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RTV	Rentapao	1.02	141	P	Pg	01 43 35.8	+0.2
RTV	Rentapao	1.02	141	S	Sg	01 43 49.1	+0.3
SANVU	Saraoutou	1.63	341	P	Pn	01 43 45.5	+0.2
YATNC	Mamie plateau,	5.10	189	P	Pn	01 44 31.7	-1.3
NOUC	Port Laguerre	5.25	195	P	Pn	01 44 34.7	-0.4
OUENC	Ouen Island, N	5.46	189	P	Pn	01 44 39.2	+1.3

IDC 30 01:54:09.9±1.7, 5°.80S×152°.44E, h0km, mb3.6/4, mbtmp3.6/4, MS3.0/1, Error ellipse: s-maj=49.4km s-min=18.6km az=98.0

ISC 30 01:54:15.8±1.7, 5°.8S±0°.1×152°.3E±0°.3, h38km, n7, σ0s.84/7, mb3.6/4, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRVT	Keravat (AS076	1.46	351	Pn	Pn	01 54 39.4	-0.2
	135nm,0.3s,baz=123,slow=4.9,SNR=28						
KRVT				Sn	Sn	01 54 58.1	+0.7
	122nm,0.3s,baz=219,slow=18,SNR=8.1						
CTA	Charters Tower	15.40	202	LR	LR	02 02 16.0	
	comp=Z,53nm,18.6s,baz=186,slow=32						
WRA	Warramunga Arr	22.41	229	P	P	01 59 11.4	+0.1
	0.7nm,0.7s,baz=53,slow=10.0,SNR=4.9						
	0.7nm,0.7s						
ASAR	Alice Springs	25.09	223	P	P	01 59 38.1	+1.1
	1.4nm,0.8s,baz=57,slow=9.1,SNR=12						
	1.4nm,0.8s						
SONM	Songino Array	66.84	328	P	P	02 05 03.2	-0.8
	0.5nm,0.4s,baz=134,slow=6.2,SNR=2.1						
	0.5nm,0.4s						
ILAR	Eielson Array	83.24	22	P	P	02 06 38.4	+0.4
	0.4nm,0.6s,baz=235,slow=5.8,SNR=4.1						
	0.4nm,0.6s						
TORD	Torodi Ar. Bea	150.07	286	PKPbc	PKPbc	02 14 03.0	-0.6
	1.8nm,0.7s,baz=65,slow=3.0,SNR=12						

IDC 30 01:54:12.4±8.7, 36°.42N×71°.17E, h131km±61km, mb3.1/4, mbtmp3.6/10, MS2.9/1, Error ellipse: s-maj=77.2km s-min=48.1km az=166.0

NNC 30 01:54:16.4±5.3, 36°.73N×70°.97E, h186km±57km, mb2.8, mpv3.8, Error ellipse: s-maj=50.9km s-min=37.8km az=54.0

ISC 30 01:54:16.8±1.9, 36°.8N±0°.1×70°.9E±0°.1, h150km, n15, σ1s.62/20, mb3.4/4, 2C-6D, Hindu Kush region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KK31	Karatay Array	6.33	357	⇓P	Pn	01 55 47.5	-0.4
	6.1nm,0.3s,baz=182,slow=12,SNR=106						
KK31				⇓S	Sn	01 57 02.4	+3.3
	2.3nm,0.3s,baz=182,slow=22,SNR=7.6						
AAK	Ala-Archa	6.47	24	P	Pn	01 55 48.9	-0.9
	7.2nm,0.3s,baz=192,slow=7.1,SNR=24						
AAK				S	Sn	01 57 03.7	+1.0
	8.2nm,0.8s,baz=327,slow=21,SNR=9.7						
AAK	Ala-Archa	6.47	24	⇓P	Pn	01 55 49.4	-0.4
	1.6nm,0.4s						
AAK				⇑S	Sn	01 57 04.4	+1.7
	8.2nm,0.9s						
MKAR	Makanchi Array	13.11	37	P	Pn	01 57 14.9	-2.3
	0.5nm,0.7s,baz=211,slow=13,SNR=2.6						
AB31	Akbulak array	14.81	331	⇓P	Pn	01 57 38.8	+0.1
	0.4nm,0.5s,baz=147,slow=12,SNR=15						
AB31				⇓S	Sn	02 00 20.5	-2.5
	0.5nm,0.5s,baz=158,slow=24,SNR=5.6						
KURBB	Kurchatov Arra	14.88	19	P	P	01 57 40.5	-0.9
	0.5nm,0.6s,baz=203,slow=12,SNR=4.9						
BVAR	Borovoye Array	16.25	359	P	P	01 57 58.2	+1.6
	0.4nm,0.4s,baz=163,slow=10,SNR=2.9						
AKTO	Aktyubinsk	16.51	330	P	Pn	01 58 01.4	+1.9
	3.5nm,0.5s,baz=144,slow=8.9,SNR=20						
AKTO	Aktyubinsk	16.51	330	⇓P	Pn	01 58 00.4	+0.9
	2.6nm,0.7s						
AKTO				⇑S	S	02 01 00.1	-2.8
	1.1nm,1.1s						
ZALV	Zalesovo Beam	19.69	25	P	P	01 58 34.4	+0.2
	1.1nm,0.3s,baz=213,slow=10,SNR=6.6						
FINES	FINESS Array B	37.22	326	P	P	02 01 14.1	+0.8
	0.3nm,0.3s,baz=126,slow=9.0,SNR=6.1						
	0.3nm,0.3s						
ARCES	ARCESS Array B	40.87	337	P	P	02 01 44.3	+0.8
	0.5nm,0.4s,baz=110,slow=8.7,SNR=12						
	0.5nm,0.4s						
HFS	Hagfors	42.81	322	P	P	02 01 59.7	+0.3
	0.3nm,0.5s,baz=99,slow=8.9,SNR=4.5						
	0.3nm,0.5s						
NB2	NORSAR Subarra	44.12	323	P	P	02 02 09.8	-0.1
	comp=Z,0.2nm,0.5s,baz=93,slow=7.9						
NOA	NORSAR Array B	44.12	323	P	P	02 02 10.2	+0.2
	comp=Z,0.2nm,0.5s,baz=94,slow=7.7,SNR=4.1						
NOA				LR	LR	02 20 46.8	
	comp=Z,14nm,18.1s,baz=255,slow=36						
	comp=Z,0.2nm,0.5s						

KRSC 30 02:03:31.6±4.0, 59°.06N×158°.67E, h37km±21km, Ml4.4

IDC 30 02:03:33.1±0.7, 58°.78N×159°.01E, h0km, mb3.7/15, mbtmp3.7/19, ML3.9/3, MS3.1/8, Error ellipse: s-maj=15.3km s-min=11.8km az=33.0

MOS 30 02:03:33.4±1.5, 58°.92N×158°.91E, h10km, mb4.6/5, Error ellipse: s-maj=14.0km s-min=4.3km az=96.9

NEIC 30 02:03:35.1±1.1, 58°.82N±0°.09×159°.0E±0°.2, h10km±1km, mb4.1/14, Error ellipse: s-maj=17.3km s-min=14.8km az=59.0

NERS 30 02:03:39.2, 58°.95N×158°.44E, h17km

ISC 30 02:03:34.9±0.4, 58°.82N±0°.03×159°.05E±0°.02, h10km, n118, σ1s.64/131, mb4.1/25, MS3.1/4, Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALN	Palana	0.55	60	PN	Pg	02 03 45.0	-0.5
PALN				S	Sg	02 03 53.8	+1.0
PALN	Palana	0.55	60	*e*P	Pg	02 03 45.1	-0.5
PALN				*e*S	Sg	02 03 53.8	+1.0
TIGL	Tigil	1.07	191	PN	Pg	02 03 54.8	-0.6
TIGL				S	Sn	02 04 11.7	+0.9
TIGL	Tigil	1.07	191	*e*P	Pg	02 03 54.9	-0.6
TIGL				*e*S	Sn	02 04 11.8	+0.9
OSSR	Ossora	2.12	76	PN	Pn	02 04 09.5	-0.7
OSSR				S	Sn	02 04 35.8	-0.8
OSSR	Ossora	2.12	76	*e*P	Pn	02 04 09.6	-0.7
OSSR				*e*S	Sn	02 04 35.8	-0.8
SRKR	Sorokina	2.45	151	PN	Pn	02 04 14.9	0.0
SRKR	Sorokina	2.45	151	*e*P	Pn	02 04 14.9	0.0
SRDR	Sredinnyy	2.53	171	PN	Pn	02 04 15.9	-0.1
SRDR	Sredinnyy	2.53	171	*e*P	Pn	02 04 15.9	-0.1
BDR	Baidarnaya	2.54	152	PN	Pn	02 04 16.2	+0.1
BDR	Baidarnaya	2.54	152	*e*P	Pn	02 04 16.2	+0.1
SMKR	Semkarok	2.59	149	PN	Pn	02 04 16.9	+0.1
SMKR	Semkarok	2.59	149	*e*P	Pn	02 04 16.9	+0.1
KRSR	Krestovskiy	2.73	162	PN	Pn	02 04 19.5	+0.7
KRSR	Krestovskiy	2.73	162	*e*P	Pn	02 04 19.5	+0.7
KOZ	Kozyrevsk	2.80	170	PN	Pn	02 04 20.1	+0.5
KOZ	Kozyrevsk	2.80	170	*e*P	Pn	02 04 20.2	+0.5
CIRR	Tsirk	2.86	161	PN	Pn	02 04 23.4	+2.8
CIRR	Tsirk	2.86	161	*e*P	Pn	02 04 23.4	+2.8
ESO	Esso	2.90	184	PN	Pn	02 04 21.0	-0.1
ESO	Esso	2.90	184	*e*P	Pn	02 04 21.0	-0.1
KPT	Kopyto	2.93	167	PN	Pn	02 04 23.3	+1.9
KPT	Kopyto	2.93	167	*e*P	Pn	02 04 23.3	+1.9
KIRR	Kirishev	2.95	166	PN	Pn	02 04 24.4	+2.5
KIRR	Kirishev	2.95	166	*e*P	Pn	02 04 24.4	+2.5
BZWR	Bezymyannyi-We	2.96	164	PN	Pb	02 04 26.9	-0.9
BZWR	Bezymyannyi-We	2.96	164	*e*P	Pb	02 04 26.9	-0.9
BZMR	Bezymyannaya	2.99	164	PN	Pb	02 04 27.3	-0.9
BZMR	Bezymyannaya	2.99	164	*e*P	Pb	02 04 27.4	-0.9
BZGR	Bezymyannyi-Gr	3.02	162	PN	Pb	02 04 28.2	-0.4
BZGR	Bezymyannyi-Gr	3.02	162	*e*P	Pb	02 04 28.3	-0.4
BZP	Bezymyannyi-Pe	3.02	164	PN	Pb	02 04 26.7	-2.0
BZP	Bezymyannyi-Pe	3.02	164	*e*P	Pb	02 04 26.8	-2.0
KMNR	Kamenistaya	3.13	168	PN	Pn	02 04 27.8	+3.5
KMNR	Kamenistaya	3.13	168	*e*P	Pn	02 04 27.9	+3.5
KBTR	Krutoberegovo	3.31	140	PN	Pb	02 04 31.4	-2.2
KBTR	Krutoberegovo	3.31	140	*e*P	Pb	02 04 31.5	-2.2
TUMR	Tumrok	3.59	170	PN	Pn	02 04 31.1	+0.5
TUMR	Tumrok	3.59	170	*e*P	Pn	02 04 31.1	+0.5
TUMD	Tumrok D	3.70	168	PN	Pn	02 04 33.5	+1.6
TUMD	Tumrok D	3.70	168	*e*P	Pn	02 04 33.6	+1.6
KZV	Kizimen	3.77	169	PN	Pn	02 04 34.5	+1.3
KZV	Kizimen	3.77	169	*e*P	Pn	02 04 34.5	+1.3
GADL	Gadlja	4.06	285	*e*P	Pn	02 04 38.0	+1.1
GADL				*e*Pg	Pb	02 04 48.7	+2.4
GADL				*e*Sg	Sb	02 05 39.1	+3.7
GADL				Sgmax		02 05 57.5	
	2μm,0.8s						
TLAR	Talaya	4.07	308	*e*P	Pn	02 04 36.5	-0.6
TLAR				*e*Pg	Pb	02 04 48.2	+1.7
TLAR				Pgmax		02 04 55.2	
	130nm,0.7s						
TLAR				*e*S	Sn	02 05 25.9	+1.1
TLAR				*e*Sg	Sb	02 05 39.5	+3.8
TLAR				Sgmax		02 05 51.4	
	290nm,0.7s						
TLAR				Sgmax		02 05 51.4	
	450nm,0.7s						
MA2	Magadan	4.33	284	Pn	Pn	02 04 42.2	+1.7
	3.1nm,0.3s,baz=93,slow=13,SNR=6.0						
MA2				Lg	Lg	02 05 47.7	
	12nm,0.3s,baz=138,slow=23,SNR=9.9						
MA2				LR	LR	02 06 32.1	
	comp=Z,92nm,18.7s,baz=120,slow=42						
	11nm,0.5s						
MA2				AML	AML		
MA2	Magadan	4.33	284	*i* PN	Pn	02 04 41.2	+0.6
MA2	Magadan	4.33	284		Pn	02 04 39.8	-0.7
MA2	Magadan	4.33	284	*e*P	Pn	02 04 41.4	+0.8
MA2				*e*Pg	Pb	02 04 53.2	+2.3
MA2				Pgmax		02 05 00.6	
	60nm,0.7s						
MA2				*e*Sg	Sg	02 05 48.3	-5.3
MA2				Sgmax		02 06 05.5	
	370nm,0.8s						
MA2				Sgmax		02 06 05.5	
	250nm,0.8s						
MGD	Magadan 1	4.42	290	*e*P	Pn	02 04 41.5	-0.4
MGD				Pmax		02 04 43.1	
	30nm,0.4s						
MGD				*e*Sg	Sg	02 05 50.6	-6.1
MGD				Sgmax		02 06 05.5	
	210nm,0.7s						
SEY	Seymchan	5.26	325	Pn	Pn	02 04 53.5	+0.1
	0.5nm,0.3s,baz=124,slow=13,SNR=4.9						
SEY				Lg	Lg	02 06 16.6	
	3.6nm,0.3s,baz=39,slow=18,SNR=4.3						
	1.4nm,0.4s						
SEY				AML	AML		
SEY	Seymchan	5.26	325	*i* PN	Pn	02 04 53.1	-0.3
SEY	Seymchan	5.26	325	*e*P	Pn	02 04 55.0	+1.6
SEY				*e*Pg	Pg	02 05 12.2	-3.2
SEY				Pgmax		02 05 23.9	
	30nm,0.8s						
SEY				*e*Sg	Sg	02 06 18.4	-5.1
SEY				Sgmax		02 06 50.0	
	40nm,0.9s						
SEY				Sgmax		02 06 50.0	
	70nm,0.9s						
TLON	Talon	5.41	284	*e*Sg	Sb	02 06 19.7	+5.5
TLON				Sgmax		02 06 46.7	
	380nm,0.6s						
KRX	Arik	5.47	182	PN	Pn	02 04 57.5	+1.0
KRX	Arik	5.47	182	*e*P	Pn	02 04 57.5	+1.0
PEA0B	Petropavlovsk-	5.77	188	PN	Pn	02 05 02.0	+1.5
PEA0B	Petropavlovsk-	5.77	188	Pn	Pn	02 05 02.0	+1.5
PETK	Petropavlovsk-	5.77	188	Pn	Pn	02 05 00.8	+0.3
	1.1nm,0.6s,baz=32,slow=13,SNR=2.3						
PETK				LR	LR	02 07 23.7	
	comp=Z,175nm,19.2s,baz=359,slow=40						
PETK	Petropavlovsk-	5.77	188		Pn	02 05 00.1	-0.3
SUUS	Susuman	6.64	311	*e*P	Pn	02 05 13.5	+1.1
SUUS				Pmax		02 05 45.1	
	20nm,0.6s						
SUUS				*e*Sg	Sg	02 07 02.2	-5.5
SUUS				Sgmax		02 07 16.0	
	100nm,0.8s						
YAK	Yakutsk	14.78	295	Pn	Pn	02 07 04.2	+0.6
ASAJ	Asahikawa	17.85	222	LR	LR	02 14 43.2	
	comp=Z,72nm,18.1s,baz=82,slow=38						
KLR	Kul'dur	18.56	251	Pn	Pn	02 07 53.3	+1.6
	0.1nm,0.3s,baz=50,slow=13,SNR=4.6						
KLR				LR	LR	02 15 21.5	
	comp=Z,76nm,19.9s,baz=28,slow=38						
	1.7nm,0.8s						
KLR				AML	AML		
F17K	Baldwin Pennin	19.46	50		Pn	02 08 03.3	+0.8
J17K	VABM Dome	20.46	59	P	P	02 08 13.1	+0.9
H18K	Honhosa River	20.64	54	P	P	02 08 14.3	+0.2
H18K				IAmb	IAmb	02 08 18.0	
	comp=Z,13nm,1.4s						
J18K	Innoko River	21.50	59	P	P	02 08 24.5	+1.0
J19K	Poorman	21.91	57	P	P	02 08 28.3	+0.4
J19K				IAmb	IAmb	02 08 51.2	
	comp=Z,8.4nm,1.4s						
USRK	Ussuriysk Ar.	22.09	240	P	P	02 08 29.3	-0.6
	comp=Z,0.8nm,0.6s,baz=27,slow=13,SNR=2.5						
	comp=Z,0.8nm,0.6s						
USRK	Ussuriysk Ar.	22.09	240	P	P	02 08 28.5	-1.4
USRK	Ussuriysk Ar.	22.09	240	P	P	02 08 28.5	-1.4
IMAR	Indian Mountai	22.51	52	P	P	02 08 34.0	-0.1
G21K	Allakaket	22.57	50	P	P	02 08 35.0	+0.1
G21K				IAmb	IAmb	02 08 41.2	
	comp=Z,11nm,1.2s						
F24K	Squaw Lake	24.70	47	P	P	02 08 56.1	+0.4
F24K				IAmb	IAmb	02 08 57.7	
	comp=Z,3.3nm,1.1s						
CCB	Clear Creek Bu	25.16	54	P	P	02 08 59.9	+0.1
ILAR	Eielson Array	25.52	54	P	P	02 09 02.2	-0.9
	comp=Z,0.8nm,0.7s,baz=269,slow=8.0,SNR=6.4						

ILAR				LR	LR	02 19 11.8	
	comp=Z,30nm,18.3s,baz=287,slow=37						
	comp=Z,0.8nm,0.7s						
ILAR	**Eielson Array**	**25.52**	**54**	*e*P	**P**	**02 09 03.2**	**+0.1**
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
SML	**Sawmill**	**25.64**	**61**	P	**P**	**02 09 03.9**	**-0.3**
BMAR	**Burnt Mountain**	**25.97**	**47**	P	**P**	**02 09 06.9**	**-0.3**
SCM	**Sheep Creek Mo**	**26.09**	**60**	P	**P**	**02 09 08.4**	**+0.1**
SCM				pmax	pmax		
	comp=Z,42nm,1.5s						
SCM	**Sheep Creek Mo**	**26.09**	**60**	P	**P**	**02 09 08.4**	**+0.1**
MJAR	**Matsushiro Arr**	**26.12**	**221**	LR	LR	02 19 29.5	
	comp=Z,48nm,19.3s,baz=36,slow=37						
JNU	**Nakatsue**	**31.86**	**229**	LR	LR	02 22 21.0	
	comp=Z,41nm,19.0s,baz=18,slow=36						
SONM	**Songino Array**	**32.46**	**274**	P	**P**	**02 10 04.0**	**-1.1**
	comp=Z,0.4nm,0.4s,baz=20,slow=4.6,SNR=2.2						
	comp=Z,0.4nm,0.4s						
LZH	**Lanzhou**	**42.16**	**262**	*e*P	**P**	**02 11 29.0**	**+1.6**
LZH				pP	sP	02 11 39.0	+7.2
LZH				sP	pP	02 11 42.3	+12
LZH				pmax	pmax		
	comp=Z,19nm,1.1s						
KURK	**Kurchatov**	**44.42**	**296**	P	**P**	**02 11 44.7**	**-0.6**
KURK				pmax	pmax		
	comp=Z,5.0nm,1.0s						
KURK	**Kurchatov**	**44.42**	**296**		**P**	**02 11 44.7**	**-0.6**
KURK				IAmb	IAmb	02 11 48.0	
	comp=Z,4.7nm,1.0s						
KURBB	**Kurchatov Arra**	**44.53**	**296**	P	**P**	**02 11 46.0**	**-0.2**
	comp=Z,1.7nm,0.2s,baz=49,slow=7.9,SNR=12						
	comp=Z,1.7nm,0.2s						
MKAR	**Makanchi Array**	**45.38**	**290**	P	**P**	**02 11 52.8**	**-0.3**
	comp=Z,0.9nm,0.9s,baz=42,slow=8.8,SNR=3.2						
	comp=Z,0.9nm,0.9s						
MKAR	**Makanchi Array**	**45.38**	**290**	P	**P**	**02 11 51.9**	**-1.2**
MKAR	**Makanchi Array**	**45.38**	**290**	P	**P**	**02 11 51.9**	**-1.2**
BVAR	**Borovoye Array**	**46.53**	**304**	P	**P**	**02 12 02.4**	**+0.4**
	comp=Z,1.2nm,0.6s,baz=59,slow=6.9,SNR=5.1						
	comp=Z,1.2nm,0.6s						
BORK	**Borovoye**	**46.55**	**304**	P	**P**	**02 12 02.3**	**+0.1**
BORK				pmax	pmax		
	comp=Z,3.0nm,1.0s						
BORK	**Borovoye**	**46.55**	**304**	P	**P**	**02 12 02.3**	**+0.1**
BORK				IAmb	IAmb	02 12 05.2	
	comp=Z,2.7nm,1.0s						
ARCES	**ARCESS Array B**	**47.68**	**340**	P	**P**	**02 12 11.1**	**+0.3**
	comp=Z,1.5nm,0.9s,baz=54,slow=12,SNR=1.5						
	comp=Z,1.5nm,0.9s						
NEW	**Newport**	**47.73**	**64**	LR	LR	02 34 10.6	
	comp=Z,36nm,19.4s,baz=290,slow=38						
AB31	**Akbulak array**	**53.76**	**307**	P	**P**	**02 12 57.4**	**+0.5**
AB31				IAmb	IAmb	02 13 21.7	
	comp=Z,3.1nm,1.4s						
ABKAR	**Akbulak array**	**53.76**	**307**	P	**P**	**02 12 57.0**	**+0.1**
KK31	**Karatay Array**	**53.76**	**295**	P	**P**	**02 12 56.9**	**-0.1**
KK31				pmax	pmax		
	comp=Z,3.0nm,0.9s						
KK31	**Karatay Array**	**53.76**	**295**		**P**	**02 12 56.9**	**-0.1**
KK31				IAmb	IAmb	02 13 00.2	
	comp=Z,2.6nm,0.8s						
KKAR	**Karatay Array**	**53.76**	**295**	P	**P**	**02 12 56.3**	**-0.7**
KKAR	**Karatay Array**	**53.76**	**295**		**P**	**02 12 56.3**	**-0.7**
FINES	**FINESS Array B**	**54.66**	**334**	P	**P**	**02 13 03.3**	**+0.2**
	comp=Z,1.0nm,0.8s,baz=26,slow=7.3,SNR=2.3						
	comp=Z,1.0nm,0.8s						
FINES	**FINESS Array B**	**54.66**	**334**	P	**P**	**02 13 03.0**	**-0.2**
FINES	**FINESS Array B**	**54.66**	**334**	P	**P**	**02 13 03.0**	**-0.2**
PDAR	**Pinedale Array**	**55.36**	**63**	P	**P**	**02 13 09.5**	**+0.6**
	comp=Z,0.4nm,0.7s,baz=349,slow=2.5,SNR=4.4						
	comp=Z,0.4nm,0.7s						
BTK	**Batken**	**55.96**	**292**	P	**P**	**02 13 13.1**	**+0.1**
BTK				pmax	pmax		
	comp=Z,4.0nm,0.8s						
BTK	**Batken**	**55.96**	**292**	P	**P**	**02 13 13.1**	**+0.1**
AKASG	**Malin Array Be**	**63.44**	**327**	P	**P**	**02 14 02.6**	**-1.7**
	comp=Z,0.7nm,0.5s,baz=34,slow=6.9,SNR=2.3						
	comp=Z,0.7nm,0.5s						
KBZ	**Khabaz**	**65.04**	**314**	P	**P**	**02 14 14.7**	**-0.1**
	comp=Z,2.5nm,0.9s,baz=0.0,slow=7.1,SNR=2.9						
	comp=Z,2.5nm,0.9s						
TXAR	**Lajitas Array**	**68.99**	**68**	P	**P**	**02 14 41.0**	**+0.7**
	comp=Z,0.4nm,0.9s,baz=304,slow=3.6,SNR=3.4						
	comp=Z,0.4nm,0.9s						
TXAR	**Lajitas Array**	**68.99**	**68**	P	**P**	**02 14 41.0**	**+0.7**
ESDC	**Sonseca Array**	**80.86**	**347**	P	**P**	**02 15 48.7**	**0.0**
	comp=Z,0.4nm,0.7s,baz=350,slow=4.6,SNR=4.7						
	comp=Z,0.4nm,0.7s						
WRA	**Warramunga Arr**	**81.07**	**203**	P	**P**	**02 15 49.9**	**+0.1**
	comp=Z,0.3nm,0.6s,baz=14,slow=5.5,SNR=2.4						
	comp=Z,0.3nm,0.6s						
ASAR	**Alice Springs**	**84.78**	**203**	P	**P**	**02 16 08.9**	**-0.1**
	comp=Z,0.4nm,0.5s,baz=11,slow=6.3,SNR=4.2						
	comp=Z,0.4nm,0.5s						
QSPA	**South Pole Qui**	**148.57**	**180**	PKPbc	**PKPbc**	**02 23 19.7**	**-0.7**
	comp=Z,2.0nm,0.8s,baz=11,slow=2.9,SNR=9.8						

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*DJA **30** 02:34:37.0±0.3, 9°S±2°×12°0E±°, h52^{km}±5^{km}, M3.8/12, MLv3.8/12*

*IDC **30** 02:34:39.9±4.0, 9°.01S×120°.98E, h117^{km}±35^{km}, mb3.3/2, mbtmp3.7/6, MS3.0/1, Error ellipse: s-maj=84.7km s-min=9.6km az=52.0*

ISC 30 02:34:34.3±0.8**, 9°.58S**±0°.04×**120°.29E**±0°.04**, h90**^{km}±7^{km}**, n19,** σ**2^{s}65**/33**, Sumba region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WSI	**Waingapu**	**0.09**	**173**	P	**Pn**	**02 34 47.4**	**+0.3**
WSI				S	**Sn**	**02 34 55.9**	**-0.6**
WSI				AML	AML		
BASI	**Baing, Sumba**	**0.70**	**156**	P	**Pn**	**02 34 53.3**	**+2.5**
BASI				S	**Sn**	**02 35 04.9**	**+1.7**
LBFI	**Labuhan Bajo,**	**1.16**	**340**	P	**Pn**	**02 34 55.6**	**-0.3**
EDFI	**Ende, Flores**	**1.61**	**59**	P	**Pn**	**02 35 02.9**	**+1.3**
EDFI				S	**Sn**	**02 35 21.8**	**-0.5**
EDFI				AML	AML		
MMRI	**Maumere**	**2.14**	**64**	P	**Pn**	**02 35 10.5**	**+2.1**
MMRI				S	**Sn**	**02 35 36.0**	**+1.5**
MMRI				AML	AML		
DBNI	**Kabupaten Domp**	**2.22**	**299**	P	**Pn**	**02 35 10.5**	**+1.0**
DBNI				S	**Sn**	**02 35 36.4**	**0.0**
PLAI	**Plampang**	**2.59**	**287**	P	**Pn**	**02 35 15.0**	**+0.7**
PLAI				S	**Sn**	**02 35 43.4**	**-1.7**
PLAI				AML	AML		
BATI	**Baumata**	**3.38**	**101**	P	**Pn**	**02 35 23.6**	**-1.4**
	53nm,0.4s,baz=284,slow=13,SNR=4.7						
BATI				S	**Sn**	**02 36 00.1**	**-4.2**
	59nm,0.3s,baz=43,slow=22,SNR=11						
BATI				LR	LR	02 36 44.6	
	comp=Z,262nm,19.8s,baz=170,slow=43						
BSSI	**Bau Bau, Buton**	**3.42**	**3**	P	**Pn**	**02 35 26.5**	**+1.0**
BSSI				S	**Sn**	**02 36 04.8**	**-0.3**
TWSI	**Taliwang, Sumb**	**3.46**	**284**	P	**Pn**	**02 35 27.7**	**+1.6**
TWSI				S	**Sn**	**02 36 06.9**	**+0.7**
TWSI				AML	AML		
SOEI	**Soe**	**3.93**	**93**	S	**Sn**	**02 36 21.3**	**+3.7**
BKSI	**Bulukumba**	**4.23**	**358**	P	**Pn**	**02 35 38.5**	**+2.0**
BKSI				S	**Sn**	**02 36 23.6**	**-1.2**
KAPI	**Kappang**	**4.56**	**353**	P	**Pn**	**02 35 41.0**	**-0.1**
	11nm,0.2s,baz=166,slow=16,SNR=7.2						
KAPI				S	**Sn**	**02 36 30.3**	**-2.6**
	13nm,0.4s,baz=10,slow=23,SNR=7.6						
KAPI	**Kappang**	**4.56**	**353**	P	**Pn**	**02 35 42.3**	**+1.2**
FITZ	**Fitzroy Crossi**	**9.94**	**149**	P	**Pn**	**02 36 54.9**	**+0.7**
	1.6nm,0.4s,baz=329,slow=14,SNR=16						
FITZ				S	**Sn**	**02 38 38.7**	**-5.2**
	13nm,0.5s,baz=176,slow=20,SNR=16						
WRA	**Warramunga Arr**	**17.04**	**129**	P	**P**	**02 38 30.5**	**+3.0**
	0.6nm,0.5s,baz=302,slow=13,SNR=12						
WRA				S	**Sn**	**02 41 27.9**	**-8.4**
	1.2nm,0.5s,baz=294,slow=28,SNR=7.6						
ASAR	**Alice Springs**	**19.12**	**139**	P	**Pn**	**02 38 55.1**	**+3.0**
	0.6nm,0.5s,baz=317,slow=12,SNR=16						
ASAR				S	**S**	**02 42 19.1**	**-3.4**
	1.0nm,0.5s,baz=314,slow=23,SNR=7.1						
MKAR	**Makanchi Array**	**65.55**	**332**	P	**P**	**02 45 09.3**	**+1.0**
	0.3nm,0.6s,baz=137,slow=6.6,SNR=1.9						
	0.3nm,0.6s						
ZALV	**Zalesovo Beam**	**70.03**	**339**	P	**P**	**02 45 36.9**	**+0.7**
	0.5nm,0.3s,baz=146,slow=4.9,SNR=1.9						
	0.5nm,0.3s						

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*CRAAG **30** 02:35:52.1, 36°.45N×5°.12E, Ml3.3, Algrie 05km SE Bouandas*

*MDD **30** 02:35:52.2±0.7, 36°.50N×5°.38E, h0^{km}±8^{km}, Mb4.1/32, M_mb3.4/32, Error ellipse: s-maj=9.3km s-min=3.9km az=155.0*

ISC 30 02:35:52.9±0.9**, 36°.59N**±0°.04×**5°.20E**±0°.02**, h10**^{km}**, n43,** σ**1^{s}44**/53**, 14C, Northern Algeria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTCHA	**Tamokra**	**0.47**	**250**	P	**Pg**	**02 36 01.2**	**-0.8**
DFRA	**Djebel Bou Aff**	**0.55**	**95**	P	**Pb**	**02 36 04.9**	**+0.1**
ATKB	**Taksebt**	**0.87**	**276**	P	**Pg**	**02 36 09.8**	**+0.2**
CBHR	**Beni Haroun da**	**0.87**	**91**	P	**Pb**	**02 36 10.8**	**+0.7**
ATKJ	**Tikjda**	**0.88**	**261**	P	**Pg**	**02 36 09.7**	**-0.2**
CBOS	**Bilal Ibnou Ra**	**0.92**	**77**	P	**Pg**	**02 36 10.8**	**+0.1**
COAT	**Oued Athmania**	**0.95**	**112**	P	**Pn**	**02 36 12.4**	**0.0**
CJSR	**Ain Djasser**	**0.95**	**140**	P	**Pg**	**02 36 11.1**	**-0.1**
CASM	**Ain Smara**	**1.10**	**107**	P	**Pn**	**02 36 15.5**	**+1.1**
AKET	**Djebel Ketaf**	**1.19**	**243**	P	**Pb**	**02 36 15.0**	**-0.7**
CSGS	**Sigus**	**1.31**	**110**	P	**Pg**	**02 36 19.0**	**+1.0**
CAEH	**'Ain El Ouahch**	**1.34**	**81**	P	**Pg**	**02 36 20.3**	**+1.6**
ABSD	**Ouled Sidi Bra**	**1.41**	**215**	P	**Pn**	**02 36 19.1**	**+0.4**
CKTS	**El Kantara**	**1.42**	**163**	P	**Pg**	**02 36 19.8**	**-0.4**
ABRIN	**Birine**	**1.93**	**241**	P	**Pn**	**02 36 26.3**	**+0.4**
AFRS	**Ain Fares**	**1.96**	**198**	P	**Pn**	**02 36 26.8**	**+0.5**
CDCN	**Doucen**	**2.00**	**182**	P	**Pn**	**02 36 27.7**	**+0.9**
ADCK	**Dar Chioukh**	**2.20**	**221**	P	**Pn**	**02 36 30.5**	**+0.9**
MAHO	**Mahon**	**3.38**	**348**	Pn	**Pn**	**02 36 45.2**	**-0.5**
ETOS	**Mallorca**	**3.68**	**330**	Pn	**Pn**	**02 36 50.5**	**+0.6**
ETOS	**Mallorca**	**3.68**	**330**	Pn	**Pn**	**02 36 50.8**	**+0.9**
ETOS				⇑IVmb_VC		02 36 51.4	
	228nm,SNR=1.6						
ETOS				Sn	**Sn**	**02 37 34.4**	**+0.9**
EIBI	**Ibiza**	**3.90**	**310**	Pn	**Pn**	**02 36 53.8**	**+1.0**
EIBI				Sn	**Sn**	**02 37 36.8**	**-2.0**
EIBI	**Ibiza**	**3.90**	**310**	Pn	**Pn**	**02 36 53.9**	**+1.0**
EIBI				⇑IVmb_VC		02 36 59.0	
	182nm,SNR=1.5						
EIBI				Sn	**Sn**	**02 37 41.0**	**+2.2**
VSL	**Villasalto**	**4.39**	**47**	Pn	**Pn**	**02 36 59.0**	**-0.7**
VSL				Sn	**Sn**	**02 37 46.8**	**-4.1**
EBEN2	**Beniarda presa**	**4.75**	**298**	Pn	**Pn**	**02 37 05.4**	**+0.8**
EBEN2				⇑IVmb_VC		02 37 13.2	
	450nm,SNR=1.8						
EBEN2				Sn	**Sn**	**02 38 01.3**	**+1.5**
ECOL	**Islas Columbre**	**4.85**	**314**	Pn	**Pn**	**02 37 06.2**	**+0.3**
ECOL				Sn	**Sn**	**02 38 02.7**	**+0.6**
AFON	**Font Roja**	**5.00**	**296**	Pn	**Pn**	**02 37 09.4**	**+1.3**
AFON				⇑IVmb_VC		02 37 11.7	
	138nm,SNR=1.6						
CART	**Cartagena**	**5.05**	**283**	Pn	**Pn**	**02 37 08.6**	**-0.1**
EMUR	**La Murta**	**5.29**	**286**	Pn	**Pn**	**02 37 13.0**	**+1.0**
EMUR	**La Murta**	**5.29**	**286**	Pn	**Pn**	**02 37 13.4**	**+1.4**
EMUR				⇑IVmb_VC		02 37 15.1	
	117nm,SNR=1.6						
EZAR	**Zarzadilla de**	**5.64**	**285**	Pn	**Pn**	**02 37 18.2**	**+1.2**
EZAR				⇑IVmb_VC		02 37 18.8	
	124nm,SNR=1.5						
EVIV	**Cofrentes, Val**	**5.66**	**300**	Pn	**Pn**	**02 37 18.6**	**+1.4**
EVIV				⇑IVmb_VC		02 37 19.8	
	159nm,SNR=2.1						
ECHE	**Chera**	**5.71**	**303**	Pn	**Pn**	**02 37 19.5**	**+1.7**
ECHE	**Chera**	**5.71**	**303**	⇑IVmb_VC		02 37 19.2	
	105nm,SNR=1.5						
ECHE				Pn	**Pn**	**02 37 19.6**	**+1.8**
ETOB	**Tobarra**	**5.73**	**293**	Pn	**Pn**	**02 37 19.4**	**+1.3**
ETOB				Sn	**Sn**	**02 38 23.9**	**-0.1**
ETOB	**Tobarra**	**5.73**	**293**	Pn	**Pn**	**02 37 20.2**	**+2.1**
ETOB				⇑IVmb_VC		02 37 21.5	
	116nm,SNR=1.4						
EPOB	**Poblet**	**5.73**	**327**	Pn	**Pn**	**02 37 19.2**	**+1.1**
EPOB				⇑IVmb_VC		02 37 21.1	
	68nm,SNR=1.6						
EPOB				Sn	**Sn**	**02 38 20.2**	**-3.9**
EMOS	**Mosqueruela**	**5.83**	**312**	Pn	**Pn**	**02 37 21.6**	**+2.1**
EMOS				⇑IVmb_VC		02 37 25.2	
	67nm,SNR=1.6						
EMIR	**Miracle**	**6.03**	**333**	Pn	**Pn**	**02 37 23.9**	**+1.6**
EMIR				⇑IVmb_VC		02 37 28.2	
	241nm,SNR=1.8						
EJON	**La Jonquera**	**6.12**	**344**	Pn	**Pn**	**02 37 23.2**	**-0.1**
EJON				Sn	**Sn**	**02 38 30.2**	**-3.2**
EJON	**La Jonquera**	**6.12**	**344**	Pn	**Pn**	**02 37 23.9**	**+0.5**
EJON				⇑IVmb_VC		02 37 27.7	
	71nm,SNR=1.3						
EQES	**Quesada**	**6.71**	**283**	Pn	**Pn**	**02 37 33.5**	**+1.9**
EQES				⇑IVmb_VC		02 37 36.8	
	76nm,SNR=1.4						
EQES				Sn	**Sn**	**02 38 47.3**	**-0.9**
PSIM	**Granatula de C**	**7.44**	**290**	Pn	**Pn**	**02 37 43.4**	**+1.9**

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*IDC **30** 02:40:40.7±0.8, 38°.44N×39°.27E, h0^{km}, mb3.6/6, mbtmp3.5/12, ML3.1/6, MS2.9/7, Error ellipse: s-maj=15.3km s-min=9.6km az=131.0*

*ISK **30** 02:40:40.1, 38°.52N×39°.22E, h4^{km}, ML3.7/24*

*AFAD **30** 02:40:40.6, 38°.49N×39°.24E, h10^{km}±1^{km}, MW3.6*

ISC 30 02:40:40.9±1.1**, 38°.51N**±0°.02×**39°.22E**±0°.02**, h2**^{km}±9^{km}**, n62,** σ**0^{s}99**/67**, mb3.7**/6**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ESIJ	**Sivrice-Elazig**	**0.10**	**131**	Pg	**Pg**	**02 40 42.8**	**0.0**
ESIJ				Sg	**Sg**	**02 40 45.1**	**+1.0**
ESGZ	**Sivrice-Elazig**	**0.15**	**237**	Pg	**Pg**	**02 40 44.1**	**+0.3**
ESGZ				Sg	**Sg**	**02 40 46.7**	**+0.9**
ESGZ				AML	AML		
SVRC	**Sivrice-ELAZID**	**0.15**	**152**	Pg	**Pg**	**02 40 43.9**	**0.0**
SVRC				AML	AML		
ELZ	**Elazig**	**0.18**	**357**	P	**Pg**	**02 40 45.5**	**+1.1**
ELZ				S	**Sg**	**02 40 48.6**	**+1.8**
ELZG	**Elazig**	**0.18**	**266**	P	**Pg**	**02 40 45.3**	**+0.7**
ELZG				S	**Sg**	**02 40 48.3**	**+1.3**
MDYL	**Doganyol-Malat**	**0.24**	**216**	Pg	**Pg**	**02 40 45.5**	**-0.1**
MDYL				AML	AML		
MDNT	**Maden**	**0.38**	**108**	P	**Pg**	**02 40 48.0**	**-0.3**
MDNT				S	**Sg**	**02 40 53.0**	**-0.2**
KOVA	**Elazig, Kovanc**	**0.50**	**67**	P	**Pg**	**02 40 50.6**	**-0.1**
MAYA	**Malatya/Merkez**	**0.65**	**254**	P	**Pb**	**02 40 53.4**	**-1.7**
MAYA				S	**Sg**	**02 41 01.8**	**0.0**
TNCL	**Tunceli-Merkez**	**0.65**	**23**	P	**Pg**	**02 40 53.2**	**-0.3**
TNCL				S	**Sb**	**02 41 02.2**	**-2.6**
NARI	**Adyaman-Kaht**	**0.72**	**210**	P	**Pb**	**02 40 55.2**	**-1.1**
ARPR	**Arapgir-MALATY**	**0.90**	**310**	Pg	**Pb**	**02 40 57.8**	**-1.6**
ARPR				AML	AML		
DYBB	**Diyarbakir**	**0.91**	**127**	Pg	**Pb**	**02 40 58.3**	**-1.3**
DYBB				AML	AML		
AKCD	**Akcadag**	**1.04**	**258**	P	**Pg**	**02 41 00.3**	**-0.6**
AKCD				S	**Sb**	**02 41 14.9**	**-1.1**
ILIC	**ilic-Erzincan**	**1.07**	**332**	Pg	**Pg**	**02 41 00.5**	**-0.9**
ILIC				AML	AML		
ERZN	**Erzincan**	**1.14**	**20**	Pn	**Pb**	**02 41 02.3**	**-1.2**
ERZN				AML	AML		
BNGB	**Bingl**	**1.24**	**67**	Pn	**Pg**	**02 41 03.5**	**-1.2**
DARE	**Darende-Malaty**	**1.36**	**273**	Pn	**Pn**	**02 41 04.7**	**-2.4**
YEDI	**Yedisu-Bingol**	**1.39**	**48**	Pn	**Pg**	**02 41 07.1**	**-0.4**
KARO	**Karliova-Bingo**	**1.64**	**60**	Pn	**Pb**	**02 41 10.7**	**-1.3**
KARO				AML	AML		
TUNC	**Hafik-SIVAS**	**1.76**	**313**	Pn	**Pn**	**02 41 11.9**	**-0.8**
VRTB	**Varto-Mus**	**1.86**	**69**	Pn	**Pn**	**02 41 13.6**	**-0.5**
VRTB				AML	AML		
GAZ	**Gaziantep**	**2.08**	**231**	Pn	**Pn**	**02 41 16.1**	**-0.8**
GAZ				AML	AML		
KMRS	**Kahramanmaras**	**2.09**	**242**	Pn	**Pn**	**02 41 16.3**	**-0.7**
KMRS				AML	AML		
SARI	**SarD1z-Kayseri**	**2.20**	**268**	Pn	**Pn**	**02 41 18.7**	**0.0**
SARI				AML	AML		
GURO	**Guroymak-BITLI**	**2.21**	**88**	Pn	**Pn**	**02 41 18.5**	**-0.3**
GURO				AML	AML		
SVSK	**Karacayir**	**2.22**	**310**	Pn	**Pn**	**02 41 18.8**	**0.0**
SVSK				AML	AML		
RSDY	**Resadiye-TOKAT**	**2.39**	**323**	Pn	**Pn**	**02 41 21.1**	**0.0**
RSDY				AML	AML		
KTUT	**Trabzon**	**2.51**	**10**	Pn	**Pn**	**02 41 22.8**	**0.0**
KOPR	**Koprukoy-ERZUR**	**2.52**	**53**	Pn	**Pn**	**02 41 23.0**	**-0.2**
KOPR				AML	AML		
BNN	**Bunyan**	**2.66**	**278**	Pn	**Pn**	**02 41 24.9**	**-0.1**
BNN				AML	AML		
MLAZ	**Malazgirt-MUS**	**2.68**	**75**	Pn	**Pn**	**02 41 25.1**	**-0.1**
MLAZ				AML	AML		
TOKT	**Tokat**	**2.75**	**312**	Pn	**Pn**	**02 41 26.3**	**+0.2**
TOKT				AML	AML		
CHOM	**Cayeli-Rize**	**2.84**	**24**	Pn	**Pn**	**02 41 27.7**	**+0.3**
CHOM				AML	AML		
KOZT	**Kozan**	**2.87**	**250**	Pn	**Pn**	**02 41 28.0**	**+0.2**
KOZT				AML	AML		
AKDM	**Akdamar-Van**	**2.96**	**92**	Pn	**Pn**	**02 41 28.7**	**-0.5**
AKDM				AML	AML		
AGRB	**Hanur-Agry**	**3.12**	**69**	Pn	**Pn**	**02 41 31.6**	**+0.2**
AGRB				AML	AML		
SENK	**Senkaya-Erzuru**	**3.17**	**49**	Pn	**Pn**	**02 41 32.3**	**+0.2**
TAHT	**Tahtakopru-Hat**	**3.22**	**229**	Pn	**Pn**	**02 41 30.9**	**-1.7**
TAHT				AML	AML		
BRTR	**Keskin Array B**	**4.51**	**287**	Pn	**Pn**	**02 41 51.7**	**+1.3**
	0.6nm,0.3s,baz=103,slow=14,SNR=25						
BRTR				Pg	**Pg**	**02 42 05.8**	**-1.5**
	1.3nm,0.3s,baz=112,slow=15,SNR=15						
BRTR				LR	LR	02 43 59.0	
	comp=Z,110nm,19.8s,baz=113,slow=43						
	5.2nm,0.8s						
BRTR				AML	AML		
GNI	**Garni**	**4.58**	**67**	Pn	**Pn**	**02 41 52.5**	**+1.1**
	2.1nm,0.3s,baz=245,slow=4.4,SNR=8.0						
GNI				LR	LR	02 43 42.1	
	comp=Z,18nm,18.4s,baz=264,slow=40						
	6.3nm,0.5s						
GNI				AML	AML		
BEIL	**Beino**	**4.65**	**213**	*e*P	**Pn**	**02 41 52.4**	**+0.1**
HWQ	**Hawqa**	**4.98**	**213**	*e*P	**Pn**	**02 41 57.1**	**+0.3**
BHL	**Bhannes**	**5.42**	**213**	*e*P	**Pn**	**02 42 03.3**	**+0.3**
DQRL	**Deir Qamar**	**5.63**	**213**	*e*P	**Pn**	**02 42 07.3**	**+1.5**
RCY	**Rachaya**	**5.71**	**210**	*e*P	**Pn**	**02 42 08.2**	**+1.4**
QRWL	**Qaraoun**	**5.72**	**211**	*e*P	**Pn**	**02 42 08.2**	**+1.2**
SHBL	**Chebaa**	**5.87**	**210**	*e*P	**Pn**	**02 42 10.7**	**+1.6**
KBZ	**Khabaz**	**5.91**	**27**	LR	LR	02 44 58.1	
	comp=Z,100nm,18.6s,baz=232,slow=43						
KVAR	**Kislovodsk Arr**	**6.04**	**25**	Pn	**Pn**	**02 42 11.4**	**0.0**
	baz=206,slow=14						
	2.5nm,0.6s						
MMAI	**Mount Meron Ar**	**6.30**	**211**	Pn	**Pn**	**02 42 16.2**	**+1.2**
	2.2nm,0.3s,baz=28,slow=22,SNR=5.2						
MMAI				Lg	Lg	02 44 03.6	
	3.3nm,0.3s,baz=20,slow=29,SNR=4.2						
	0.8nm,0.3s						
MMAI				AML	AML		
ASF	**Jabal al Asfar**	**6.60**	**197**	Pn	**Pn**	**02 42 19.5**	**+0.4**
	0.3nm,0.3s,baz=311,slow=21,SNR=4.6						
ASF				Lg	Lg	02 44 08.0	
	0.8nm,0.3s,baz=191,slow=16,SNR=3.8						
ASF				LR	LR	02 45 10.9	
	comp=Z,88nm,19.5s,baz=28,slow=41						
	5.5nm,1.1s						
ASF				AML	AML		
EIL	**Elat**	**9.50**	**203**	Lg	Lg	02 45 40.7	
	0.3nm,0.3s,baz=289,slow=2.3,SNR=1.9						
EIL				LR	LR	02 46 51.7	
	comp=Z,61nm,21.9s,baz=38,slow=39						
AKTO	**Aktyubinsk**	**17.89**	**42**	P	**P**	**02 44 52.2**	**+0.7**
	0.1nm,0.3s,baz=235,slow=12,SNR=5.3						
	1.0nm,0.6s						
AKTO				AML	AML		
GERES	**GERESS Array B**	**21.05**	**308**	P	**P**	**02 45 26.9**	**+0.7**
	0.3nm,0.3s,baz=120,slow=9.4,SNR=4.2						
	0.3nm,0.3s						
KEST	**Kesra**	**23.93**	**273**	P	**P**	**02 45 57.2**	**+0.8**
	3.1nm,0.7s,baz=76,slow=8.3,SNR=6.8						
	3.1nm,0.7s						
FINES	**FINESS Array B**	**24.37**	**345**	P	**P**	**02 46 00.9**	**+0.7**
	0.5nm,0.6s,baz=156,slow=9.0,SNR=1.6						
	0.5nm,0.6s						
BVAR	**Borovoye Array**	**25.89**	**46**	P	**P**	**02 46 15.0**	**+1.0**
	0.6nm,0.4s,baz=251,slow=8.7,SNR=2.4						
	0.6nm,0.4s						
KURBB	**Kurchatov Arra**	**30.16**	**53**	P	**P**	**02 46 53.1**	**+0.9**
	0.8nm,0.7s,baz=267,slow=9.1,SNR=9.3						
	0.8nm,0.7s						
MKAR	**Makanchi Array**	**32.40**	**61**	P	**P**	**02 47 12.8**	**+0.7**
	0.6nm,0.6s,baz=276,slow=8.6,SNR=4.1						
	0.6nm,0.6s						
KSRS	**Korea Array**	**67.07**	**60**	LR	LR	03 23 33.6	
	comp=Z,8.5nm,19.4s,baz=240,slow=38						
INK	**Inuvik**	**73.36**	**357**	LR	LR	03 30 05.3	
	comp=Z,42nm,18.0s,baz=298,slow=40						

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*IDC **30** 02:42:46.9±1.7, 35°.26N×14°.79W, h0^{km}, mb3.5/3, mbtmp3.9/5, ML4.6/2, Error ellipse: s-maj=31.3km s-min=26.8km az=1.0*

*CNRM **30** 02:42:48.2, 35°.13N×14°.45W, h44^{km}, ML4.3*

*MDD **30** 02:42:48.1±0.2, 35°.25N×14°.84W, h35^{km}, Mb4.7/97, M_mb4.2/98, Error ellipse: s-maj=3.3km s-min=1.0km az=126.0*

*IGIL **30** 02:42:49.8, 35°.25N×14°.83W, h31^{km}, ML3.4*

*INMG **30** 02:42:51.2±2.2, 35°.31N×14°.85W, h15^{km}±3^{km}, ML3.4, Error ellipse: s-maj=5.2km s-min=1.5km az=121.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Horseshoe-Ampere*

ISC 30 02:42:43.0±0.7**, 35°.19N**±0°.04×**14°.64W**±0°.05**, h10**^{km}**, n185,** σ**3^{s}64**/322**, mb3.6**/4**, 75C-1D, Azores-Cape St. Vincent Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMPST	**Porto Santo, M**	**2.53**	**214**	⇑*e*P	**Pn**	**02 43 26.7**	**+2.5**
PMPST				*e*S	**Sn**	**02 43 52.5**	**-2.6**
PMPST				*i* IAML		02 43 55.1	
PMPST				*i* IAML		02 43 56.0	
PMPST				*i* IAML		02 43 56.1	
PMPST				*e*T	T	02 45 46.0	
PMAR	**Madeira**	**3.10**	**218**	*e*P	**Pn**	**02 43 34.6**	**+2.4**
PMAR				*e*S	**Sn**	**02 44 07.3**	**-2.1**
PMAR				*i* IAML		02 44 11.8	
PMAR				*i* IAML		02 44 12.2	
PMAR				*i* IAML		02 44 14.7	
PMAR				*e*T	T	02 46 35.2	
PMAR	**Madeira**	**3.10**	**218**	P	**Pn**	**02 43 35.3**	**+3.1**
PMAR				S	**Sn**	**02 44 13.0**	**+3.5**
FUL	**Funchal**	**3.15**	**217**	*e*P	**Pn**	**02 43 35.2**	**+2.5**
FUL				*e*S	**Sn**	**02 44 07.7**	**-2.7**
FUL				*i* IAML		02 44 10.7	
FUL				*i* IAML		02 44 10.8	
FUL				*i* IAML		02 44 11.4	
FUL				*e*T	T	02 46 35.8	
PMOZ	**Porto Moniz, M**	**3.18**	**223**	Pn	**Pn**	**02 43 35.8**	**+2.7**
PMOZ				Sn	**Sn**	**02 44 07.6**	**-3.5**
PMOZ	**Porto Moniz, M**	**3.18**	**223**	⇑*e*P	**Pn**	**02 43 35.8**	**+2.7**
PMOZ				*e*S	**Sn**	**02 44 08.4**	**-2.7**
PMOZ				*i* IAML		02 44 14.1	
PMOZ				*i* IAML		02 44 15.1	
PMOZ				*i* IAML		02 44 15.1	
PMOZ				*e*T	T	02 46 32.6	
PMOZ	**Porto Moniz, M**	**3.18**	**223**	P	**Pn**	**02 43 35.8**	**+2.7**
PMOZ				S	**Sn**	**02 44 14.2**	**+3.1**
PFVI	**Vila Bisbo**	**5.08**	**66**	Pn	**Pn**	**02 44 02.9**	**+3.7**
PFVI				Sn	**Sn**	**02 44 54.8**	**-3.3**
PFVI	**Vila Bisbo**	**5.08**	**66**	⇑*e*P	**Pn**	**02 44 02.9**	**+3.7**
PFVI				*e*S	**Sn**	**02 44 55.2**	**-2.8**
PFVI				*i* IAML		02 44 56.9	
PFVI				*i* IAML		02 44 56.9	
PFVI				*i* IAML		02 44 57.7	
PFVI				*e*T	T	02 48 49.1	
PFVI	**Vila Bisbo**	**5.08**	**66**	P	**Pn**	**02 44 00.3**	**+1.0**
PFVI				S	**Sn**	**02 44 56.4**	**-1.6**
MORF	**Marmelete**	**5.28**	**65**	*e*P	**Pn**	**02 44 05.6**	**+3.7**
MORF				*e*S	**Sn**	**02 45 01.3**	**-1.5**
MORF				IAML		02 45 03.9	
	comp=N,59nm,0.1s						
MORF	**Marmelete**	**5.28**	**65**	⇑*e*P	**Pn**	**02 44 05.6**	**+3.7**
MORF				*e*S	**Sn**	**02 45 01.6**	**-1.2**
MORF				*i* IAML		02 45 03.8	
MORF				*i* IAML		02 45 10.5	
MORF				*i* IAML		02 45 10.7	
MORF				*e*T	T	02 48 51.2	
PTEO	**Sao Teotonio**	**5.32**	**62**	⇑*e*P	**Pn**	**02 44 06.5**	**+4.1**
PTEO				*e*S	**Sn**	**02 45 01.8**	**-1.9**
PTEO				*i* IAML		02 45 11.8	
PTEO				*i* IAML		02 45 14.8	
PTEO				*i* IAML		02 45 17.5	
PTEO				*e*T	T	02 48 54.8	
LIS	**Lisbon**	**5.63**	**50**	*e*P	**Pn**	**02 44 09.8**	**+3.1**
LIS				*e*S	**Sn**	**02 45 08.2**	**-3.2**
LIS				IAML		02 45 10.2	

	comp=N,106nm,0.3s						
LIS	**Lisbon**	**5.63**	**50**	*e*P	**Pn**	**02 44 09.8**	**+3.1**
LIS				*e*S	**Sn**	**02 45 08.2**	**-3.2**
LIS				*i* IAML		02 45 10.2	
LIS				*i* IAML		02 45 13.5	
LIS				*i* IAML		02 45 16.2	
PMAFR	**Mafra**	**5.70**	**47**	Pn	**Pn**	**02 44 10.2**	**+2.6**
PMAFR				Sn	**Sn**	**02 45 08.9**	**-4.2**
PMAFR	**Mafra**	**5.70**	**47**	⇓*e*P	**Pn**	**02 44 10.4**	**+2.8**
PMAFR				*e*S	**Sn**	**02 45 08.7**	**-4.4**
PMAFR				*i* IAML		02 45 10.5	
PMAFR				*i* IAML		02 45 11.8	
PMAFR				*i* IAML		02 45 13.8	
PMAFR				*e*T	T	02 49 28.7	
PLOUS	**Minas do Lousa**	**5.75**	**59**	*e*P	**Pn**	**02 44 11.8**	**+3.5**
PLOUS				*e*S	**Sn**	**02 45 11.4**	**-2.9**
PLOUS				*i* IAML		02 45 14.7	
PLOUS				*i* IAML		02 45 15.7	
PLOUS				*i* IAML		02 45 20.8	
PLOUS				*e*T	T	02 49 16.9	
PBDV	**Barranco-do-Ve**	**5.79**	**67**	Pn	**Pn**	**02 44 13.1**	**+4.0**
PBDV				Sn	**Sn**	**02 45 13.1**	**-2.4**
PBDV	**Barranco-do-Ve**	**5.79**	**67**	⇑*e*P	**Pn**	**02 44 13.0**	**+4.0**
PBDV				*e*S	**Sn**	**02 45 13.2**	**-2.4**
PBDV				*i* IAML		02 45 19.8	
PBDV				*i* IAML		02 45 20.2	
PBDV				*i* IAML		02 45 21.7	
PBDV				*e*T	T	02 49 00.4	
MESJ	**Messejana**	**5.80**	**61**	*e*P	**Pn**	**02 44 12.7**	**+3.6**
MESJ				*e*S	**Sn**	**02 45 13.1**	**-2.7**
MESJ				IAML		02 45 18.0	
	comp=N,12nm,0.2s						
MESJ	**Messejana**	**5.80**	**61**	*e*P	**Pn**	**02 44 12.7**	**+3.6**
MESJ				*e*S	**Sn**	**02 45 12.9**	**-2.9**
MESJ				*i* IAML		02 45 19.4	
MESJ				*i* IAML		02 45 20.1	
MESJ				*i* IAML		02 45 22.8	
MESJ				*e*T	T	02 49 15.0	
PCVE	**Castro Verde**	**5.85**	**63**	Pn	**Pn**	**02 44 13.6**	**+3.8**
PCVE				Sn	**Sn**	**02 45 13.4**	**-3.5**
PCVE	**Castro Verde**	**5.85**	**63**	*e*P	**Pn**	**02 44 13.6**	**+3.8**
PCVE				*e*S	**Sn**	**02 45 14.6**	**-2.3**
PCVE				*i* IAML		02 45 18.6	
PCVE				*i* IAML		02 45 19.5	
PCVE				*i* IAML		02 45 19.8	
PCVE				*e*T	T	02 49 10.6	
PVAQ	**Vaqueiros**	**6.01**	**66**	*e*P	**Pn**	**02 44 15.9**	**+4.0**
PVAQ				*e*S	**Sn**	**02 45 18.4**	**-2.4**
PVAQ				*i* IAML		02 45 19.8	
PVAQ				*i* IAML		02 45 20.2	
PVAQ				*i* IAML		02 45 23.0	
PVAQ				*e*T	T	02 48 56.5	
PVAQ	**Vaqueiros**	**6.01**	**66**	P	**Pn**	**02 44 13.2**	**+1.2**
PVAQ				S	**Sn**	**02 45 20.6**	**-0.2**
MOE	**Montemor**	**6.04**	**55**	*e*P	**Pn**	**02 44 15.0**	**+2.7**
MOE				*e*S	**Sn**	**02 45 17.4**	**-4.2**
MOE				*i* IAML		02 45 21.3	
MOE				*i* IAML		02 45 21.7	
MOE				*i* IAML		02 45 23.1	
MOE				*e*T	T	02 49 23.4	
CDLV	**Cueva Verdes**	**6.09**	**170**	Pn	**Pn**	**02 44 17.1**	**+4.0**
CDLV				⇑IVmb_VC		02 44 18.4	
	comp=N,622nm,SNR=1.4						
CDLV				Sn	**Sn**	**02 45 21.5**	**-1.4**
EFAM	**Famara**	**6.12**	**171**	Pn	**Pn**	**02 44 17.2**	**+3.8**
EFAM				⇑IVmb_VC		02 44 20.9	
	comp=N,540nm,SNR=1.3						
EFAM				Sn	**Sn**	**02 45 22.0**	**-1.6**
PBEJ	**Beja**	**6.14**	**61**	*e*P	**Pn**	**02 44 17.4**	**+3.7**
PBEJ				*e*S	**Sn**	**02 45 20.5**	**-3.5**
PBEJ				*i* IAML		02 45 23.8	
PBEJ				*i* IAML		02 45 24.5	
PBEJ				*i* IAML		02 45 27.2	
EXAYA	**Ayamonte**	**6.19**	**69**	Pn	**Pn**	**02 44 18.7**	**+4.3**
EXAYA				Sn	**Sn**	**02 45 23.2**	**-2.0**
CBLAA	**Tinajo**	**6.19**	**172**	Pn	**Pn**	**02 44 18.0**	**+3.5**
CBLAA				Sn	**Sn**	**02 45 23.8**	**-1.5**
CTIM	**Tinajo, Isla d**	**6.22**	**173**	Pn	**Pn**	**02 44 19.1**	**+4.2**
CTIM				Sn	**Sn**	**02 45 27.2**	**+1.1**
EGRO	**El Granado**	**6.23**	**66**	Pn	**Pn**	**02 44 18.9**	**+4.0**
EGRO				Sn	**Sn**	**02 45 22.8**	**-3.4**
EGRO	**El Granado**	**6.23**	**66**	Pn	**Pn**	**02 44 18.9**	**+4.0**
EGRO				Pn	**Pn**	**02 44 18.9**	**+4.0**
EGRO				Sn	**Sn**	**02 45 24.3**	**-1.9**
EGRO				Sn	**Sn**	**02 45 24.3**	**-1.9**
SRHM	**Skhour des Reh**	**6.23**	**114**	P	**Pn**	**02 44 17.7**	**+2.6**
SRHM				S	**Sn**	**02 45 23.9**	**-2.5**
EVO	**Evora**	**6.27**	**56**	Pn	**Pn**	**02 44 18.0**	**+2.5**
EVO				Sn	**Sn**	**02 45 22.5**	**-4.7**
EVO	**Evora**	**6.27**	**56**	*e*P	**Pn**	**02 44 18.2**	**+2.7**
EVO				*e*S	**Sn**	**02 45 22.9**	**-4.4**
EVO				*i* IAML		02 45 27.7	
EVO				*i* IAML		02 45 28.3	
EVO				*i* IAML		02 45 28.5	
AVE	**Averroes**	**6.27**	**105**	Pn	Pn	02 44 21.0	+5.4
AVE				Sn	**Sn**	**02 45 27.3**	**0.0**
AVE	**Averroes**	**6.27**	**105**	P	**Pn**	**02 44 17.7**	**+2.1**
AVE				S	**Sn**	**02 45 26.0**	**-1.4**
PSBE	**So Bento**	**6.34**	**45**	*e*P	**Pn**	**02 44 19.5**	**+2.9**
PSBE				*e*S	**Sn**	**02 45 24.6**	**-4.5**
PSBE				*i* IAML		02 45 31.2	
PSBE				*i* IAML		02 45 32.8	
PSBE				*i* IAML		02 45 35.2	
PSBE				*e*T	T	02 49 38.3	
PARRA	**Arraiolos**	**6.40**	**54**	*e*P	**Pn**	**02 44 19.5**	**+2.2**
PARRA				*e*S	**Sn**	**02 45 25.5**	**-4.9**
PARRA				*i* IAML		02 45 28.3	
PARRA				*i* IAML		02 45 32.7	
PARRA				*i* IAML		02 45 34.1	
PARRA				*e*T	T	02 49 29.1	
PMTG	**Montargil**	**6.42**	**51**	*e*P	**Pn**	**02 44 19.9**	**+2.3**
PMTG				*e*S	**Sn**	**02 45 26.4**	**-4.5**
PMTG				*i* IAML		02 45 31.4	
PMTG				*i* IAML		02 45 31.5	
PMTG				*i* IAML		02 45 32.2	
PMTG				*e*T	T	02 49 32.9	
RTC	**Rabat Centre**	**6.53**	**98**	P	**Pn**	**02 44 20.1**	**+1.0**
RTC				S	**Sn**	**02 45 31.9**	**-1.7**
CFUE	**Fuerteventura**	**6.55**	**175**	Pn	**Pn**	**02 44 22.4**	**+2.9**
CFUE				⇑IVmb_VC		02 44 29.0	
	comp=N,332nm,SNR=2.6						
CFUE				Sn	**Sn**	**02 45 30.6**	**-3.6**
EXHU	**Huelva**	**6.57**	**69**	Sn	**Sn**	**02 45 32.6**	**-1.9**
ARNO	**Arenosillo**	**6.67**	**71**	Sn	**Sn**	**02 45 35.1**	**-2.0**
PESTR	**Estremoz**	**6.72**	**55**	Pn	**Pn**	**02 44 24.8**	**+3.0**
PESTR				Sn	**Sn**	**02 45 32.4**	**-6.1**
PESTR	**Estremoz**	**6.72**	**55**	*e*P	**Pn**	**02 44 24.9**	**+3.0**
PESTR				*e*S	**Sn**	**02 45 34.1**	**-4.3**
PESTR				*i* IAML		02 45 40.1	
PESTR				*i* IAML		02 45 40.7	
PESTR				*i* IAML		02 45 41.4	
PESTR				*e*T	T	02 49 51.5	
PESTR	**Estremoz**	**6.72**	**55**	P	**Pn**	**02 44 22.6**	**+0.8**
PESTR				S	**Sn**	**02 45 36.9**	**-1.6**
CFTV	**Fuerteventura**	**6.77**	**176**	⇑IVmb_VC		02 44 28.2	
	comp=N,277nm,SNR=1.8						
CFTV				Sn	**Sn**	**02 45 34.9**	**-4.9**
PSARD	**Sardoal**	**6.78**	**48**	*e*P	**Pn**	**02 44 25.1**	**+2.6**
PSARD				*e*S	**Sn**	**02 45 35.3**	**-4.4**
PSARD				*i* IAML		02 45 37.1	
PSARD				*i* IAML		02 45 37.3	
PSARD				*i* IAML		02 45 41.0	
PSARD				*e*T	T	02 49 38.3	
EBAJ	**Bajamar**	**6.79**	**193**	⇑IVmb_VC		02 44 28.8	
	comp=N,358nm,SNR=0.8						
EBAJ				Sn	**Sn**	**02 45 35.7**	**-4.3**
PBAR	**Barrancos**	**6.79**	**62**	Pn	**Pn**	**02 44 26.5**	**+3.8**
PBAR				Sn	**Sn**	**02 45 35.1**	**-5.0**
PBAR	**Barrancos**	**6.79**	**62**	*e*P	**Pn**	**02 44 26.5**	**+3.8**
PBAR				*e*S	**Sn**	**02 45 35.9**	**-4.2**
PBAR				*i* IAML		02 45 42.5	
PBAR				*i* IAML		02 45 42.5	
PBAR				*i* IAML		02 45 46.1	
PBAR				*e*T	T	02 49 44.0	
ZHG	**ZHG**	**6.84**	**102**	P	**Pn**	**02 44 24.5**	**+1.1**
ZHG				S	**Sn**	**02 45 37.0**	**-4.4**
PCAS	**Casmilo, Conde**	**6.88**	**43**	*e*P	**Pn**	**02 44 26.6**	**+2.8**
PCAS				*e*S	**Sn**	**02 45 37.0**	**-5.2**
PCAS				*i* IAML		02 45 40.9	
PCAS				*i* IAML		02 45 44.3	
PCAS				*i* IAML		02 45 47.7	
EMIN	**Mina Concepcio**	**6.91**	**66**	Pn	**Pn**	**02 44 27.8**	**+3.5**
EMIN	**Mina Concepcio**	**6.91**	**66**	Pn	**Pn**	**02 44 27.9**	**+3.5**
EMIN				⇑IVmb_VC		02 44 28.6	
	comp=N,668nm,SNR=10.0						
EMIN				Sn	**Sn**	**02 45 39.3**	**-3.7**
OUK	**Oukaimeden**	**6.93**	**123**	P	**Pn**	**02 44 26.1**	**+1.2**
OUK				S	**Sn**	**02 45 40.8**	**-3.1**
CPUN	**Puntallana, La**	**6.96**	**203**	⇑IVmb_VC		02 44 31.2	
	comp=N,831nm,SNR=1.6						
CPUN				Sn	**Sn**	**02 45 38.0**	**-6.3**
TTIG	**Tnine Tigouga,**	**6.97**	**130**	P	**Pn**	**02 44 24.7**	**-0.6**
TTIG				S	**Sn**	**02 45 42.3**	**-2.4**
CROM	**Garafia, La Pa**	**6.98**	**204**	Pn	**Pn**	**02 44 27.8**	**+2.2**
CROM				⇑IVmb_VC		02 44 29.6	
	comp=N,621nm,SNR=1.4						
CROM				Sn	**Sn**	**02 45 38.6**	**-6.6**
CGIN	**Giniginamar, F**	**6.98**	**176**	Pn	**Pn**	**02 44 28.6**	**+3.3**
CGIN				⇑IVmb_VC		02 44 33.4	
	comp=N,299nm,SNR=1.2						
CGIN				Sn	**Sn**	**02 45 39.1**	**-5.7**
CGOR	**Puntagorda, La**	**7.00**	**205**	Pn	**Pn**	**02 44 28.0**	**+2.4**
CGOR				⇑IVmb_VC		02 44 32.8	
	comp=N,928nm,SNR=1.6						
CGOR				Sn	**Sn**	**02 45 39.6**	**-5.7**
CREA	**Los Realejos,**	**7.01**	**194**	⇑IVmb_VC		02 44 31.3	
	comp=N,719nm,SNR=2.0						
CREA				Sn	**Sn**	**02 45 44.1**	**-1.7**
CGUI	**Guimar, Teneri**	**7.02**	**193**	⇑IVmb_VC		02 44 32.3	
	comp=N,279nm,SNR=0.7						
CGUI				Sn	**Sn**	**02 45 43.1**	**-2.8**
CMIR	**El Paso, La Pa**	**7.03**	**204**	Pn	**Pn**	**02 44 27.3**	**+1.2**
CMIR				⇑IVmb_VC		02 44 30.9	
	comp=N,866nm,SNR=4.2						
CMIR				Sn	**Sn**	**02 45 37.7**	**-8.5**
CFOR	**Fortaleza, Los**	**7.05**	**194**	⇑IVmb_VC		02 44 35.0	
	comp=N,374nm,SNR=1.4						
CFOR				Sn	**Sn**	**02 45 42.3**	**-4.7**
EBAD	**Badajoz**	**7.06**	**58**	Pn	**Pn**	**02 44 29.2**	**+2.7**
EBAD				Sn	**Sn**	**02 45 41.2**	**-5.6**
EBAD	**Badajoz**	**7.06**	**58**	Pn	**Pn**	**02 44 29.2**	**+2.7**
EBAD				⇑IVmb_VC		02 44 34.1	
	comp=N,433nm,SNR=5.6						
EBAD				Sn	**Sn**	**02 45 42.7**	**-4.1**
TBT	**Taburiente**	**7.06**	**204**	Pn	**Pn**	**02 44 28.2**	**+1.7**
TBT				⇑IVmb_VC		02 44 32.1	
	comp=N,356nm,SNR=1.3						
TBT				Sn	**Sn**	**02 45 39.4**	**-7.4**
CNOR	**Icod de los Vi**	**7.07**	**195**	Pn	**Pn**	**02 44 28.7**	**+2.0**
CNOR				Sn	**Sn**	**02 45 44.1**	**-3.1**
CBRE	**Brena Baja,La**	**7.07**	**203**	Pn	**Pn**	**02 44 29.2**	**+2.6**
CBRE				⇑IVmb_VC		02 44 36.6	
	comp=N,1μm,SNR=1.8						
CBRE				Sn	**Sn**	**02 45 40.6**	**-6.5**
CDIE	**La Orotava (Te**	**7.08**	**194**	Sn	**Sn**	**02 45 43.4**	**-4.1**
EXILP	**La Palma**	**7.08**	**204**	Sn	**Sn**	**02 45 40.2**	**-7.0**
CENR	**El Paso, La Pa**	**7.09**	**203**	Pn	**Pn**	**02 44 29.4**	**+2.5**
CENR				⇑IVmb_VC		02 44 34.0	
	comp=N,1μm,SNR=1.5						
CENR				Sn	**Sn**	**02 45 41.7**	**-6.0**
GGC	**Guia, Gran Can**	**7.10**	**187**	Sn	**Sn**	**02 45 44.2**	**-3.6**
CRAJ	**Montana Rajada**	**7.10**	**194**	⇑IVmb_VC		02 44 36.1	
	comp=N,542nm,SNR=1.3						
CRAJ				Sn	**Sn**	**02 45 44.0**	**-4.2**
CBOL	**Buenavista del**	**7.11**	**196**	⇑IVmb_VC		02 44 35.7	
	comp=N,292nm,SNR=1.7						
CBOL				Sn	**Sn**	**02 45 43.7**	**-4.4**
CDOS	**Garachico, Isl**	**7.11**	**195**	Pn	**Pn**	**02 44 29.7**	**+2.5**
CDOS				⇑IVmb_VC		02 44 38.0	
	comp=N,672nm,SNR=0.8						
CDOS				Sn	**Sn**	**02 45 42.6**	**-5.5**
CVIE	**Villa de Mazo,**	**7.11**	**203**	Pn	**Pn**	**02 44 29.7**	**+2.4**
CVIE				Sn	**Sn**	**02 45 43.0**	**-5.4**
CPVI	**La Orotava (Te**	**7.12**	**195**	Sn	**Sn**	**02 45 44.7**	**-4.0**
CJED	**Jedey, El Paso**	**7.14**	**204**	Pn	**Pn**	**02 44 29.7**	**+2.1**
CJED				⇑IVmb_VC		02 44 34.5	
	comp=N,949nm,SNR=1.2						
CJED				Sn	**Sn**	**02 45 43.1**	**-5.8**
CCAN	**Las Canadas**	**7.15**	**194**	Pn	**Pn**	**02 44 30.2**	**+2.4**
CCAN				⇑IVmb_VC		02 44 31.9	
	comp=N,288nm,SNR=1.1						
CCAN				Sn	**Sn**	**02 45 42.8**	**-6.5**
GUIA	**Guia de Isora,**	**7.15**	**195**	Pn	**Pn**	**02 44 29.7**	**+1.9**
GUIA				⇑IVmb_VC		02 44 35.7	
	comp=N,631nm,SNR=1.3						
GUIA				Sn	**Sn**	**02 45 43.5**	**-5.7**
PMRV	**Marv??o**	**7.16**	**52**	*e*P	**Pn**	**02 44 30.4**	**+2.6**
PMRV				*e*S	**Sn**	**02 45 44.0**	**-5.1**
PMRV				*i* IAML		02 45 47.1	
PMRV				*i* IAML		02 45 50.1	
PMRV				*i* IAML		02 45 51.1	
PMRV				*e*T	T	02 49 48.4	
CCHO	**La Orotava (Te**	**7.16**	**195**	Pn	**Pn**	**02 44 30.3**	**+2.3**
CCHO				⇑IVmb_VC		02 44 32.7	
	comp=N,246nm,SNR=1.4						
CCHO				Sn	**Sn**	**02 45 43.0**	**-6.5**
CVIL	**Vilaflor**	**7.21**	**194**	⇑IVmb_VC		02 44 35.1	
	comp=N,589nm,SNR=1.8						
CVIL				Sn	**Sn**	**02 45 45.6**	**-5.2**
CLAJ	**Vilaflor (Tene**	**7.22**	**194**	⇑IVmb_VC		02 44 36.4	
	comp=N,533nm,SNR=1.1						
CLAJ				Sn	**Sn**	**02 45 45.9**	**-5.2**
CADE	**Adeje, Tenerif**	**7.24**	**195**	⇑IVmb_VC		02 44 35.0	
	comp=N,275nm,SNR=0.7						
CADE				Sn	**Sn**	**02 45 46.3**	**-4.9**
RSA	**Sarsar**	**7.24**	**90**	P	**Pn**	**02 44 28.3**	**-0.6**
RSA				S	**Sn**	**02 45 48.0**	**-3.2**
CGRA	**Granadilla de**	**7.25**	**193**	⇑IVmb_VC		02 44 37.4	
	comp=N,802nm,SNR=1.3						
CGRA				Sn	**Sn**	**02 45 48.3**	**-3.1**
CTFS	**San Miguel de**	**7.29**	**194**	⇑IVmb_VC		02 44 35.6	
	comp=N,386nm,SNR=1.0						
CTFS				Sn	**Sn**	**02 45 46.6**	**-5.8**
ESPR	**Espera**	**7.31**	**74**	Pn	**Pn**	**02 44 33.8**	**+4.0**
ESPR				Sn	**Sn**	**02 45 49.8**	**-3.0**
ESPR	**Espera**	**7.31**	**74**	Pn	**Pn**	**02 44 33.7**	**+3.9**
ESPR				⇑IVmb_VC		02 44 36.2	
	comp=N,622nm,SNR=9.1						
ESPR				Sn	**Sn**	**02 45 49.8**	**-3.0**
PCBR	**Castelo Branco**	**7.34**	**49**	*e*P	**Pn**	**02 44 32.8**	**+2.6**
PCBR				*e*S	**Sn**	**02 45 48.5**	**-5.1**
PCBR				*i* IAML		02 45 53.9	
PCBR				*i* IAML		02 45 56.3	
PCBR				*i* IAML		02 45 58.3	
TANT	**Tantan**	**7.36**	**156**	P	**Pn**	**02 44 32.1**	**+1.6**
TANT				S	**Sn**	**02 45 54.2**	**+0.1**
CLUM	**San Bartolome**	**7.40**	**187**	Pn	**Pn**	**02 44 33.0**	**+1.9**
CLUM				⇑IVmb_VC		02 44 39.5	
	comp=N,533nm,SNR=1.3						
CLUM				Sn	**Sn**	**02 45 50.0**	**-5.2**
TIO	**Tiouine**	**7.51**	**122**	Pn	Pn	02 44 37.6	+4.9
TIO				Sn	**Sn**	**02 45 56.2**	**-1.8**
TIO	**Tiouine**	**7.51**	**122**	P	**Pn**	**02 44 32.5**	**-0.2**
TIO				S	**Sn**	**02 45 55.7**	**-2.3**
SMIR	**Smir Dam**	**7.57**	**84**	P	**Pn**	**02 44 33.2**	**-0.2**
SMIR				P	Pb	02 44 33.4	-21
SMIR				S	**Sn**	**02 45 55.4**	**-3.9**
SMIR				S	Sb	02 45 55.6	-29
PTO	**Porto**	**7.60**	**37**	*e*P	**Pn**	**02 44 36.4**	**+2.5**
PTO				*e*S	**Sn**	**02 45 54.0**	**-6.0**
PTO				*i* IAML		02 45 55.5	
PTO				*i* IAML		02 45 56.7	
PTO				*i* IAML		02 45 56.9	
CHEFC	**Chefchaouen**	**7.62**	**88**	P	**Pn**	**02 44 34.0**	**-0.1**
CHEFC				S	**Sn**	**02 45 59.5**	**-1.1**
MTE	**Manteigas**	**7.65**	**45**	*e*P	**Pn**	**02 44 37.2**	**+2.6**
MTE				*e*S	**Sn**	**02 45 55.3**	**-6.0**
MTE				*i* IAML		02 45 58.0	
MTE				*i* IAML		02 46 00.1	
MTE				*i* IAML		02 46 00.5	
PVIS	**Viseu**	**7.67**	**42**	*e*P	**Pn**	**02 44 36.9**	**+2.1**
PVIS				*e*S	**Sn**	**02 45 55.5**	**-6.1**
PVIS				*e*T	T	02 50 14.2	
TISM	**Timmit**	**7.67**	**114**	P	**Pn**	**02 44 34.6**	**-0.2**
TISM				S	**Sn**	**02 45 60.0**	**-1.8**
SICH	**Sidi Chahed**	**7.76**	**95**	P	**Pn**	**02 44 35.9**	**-0.1**
SICH				S	**Sn**	**02 46 02.2**	**-1.6**
OUZM	**OUZ**	**7.87**	**121**	P	**Pn**	**02 44 38.2**	**+0.6**
OUZM				S	**Sn**	**02 46 02.6**	**-4.3**
ECAB	**El Cabril**	**7.95**	**66**	Pn	**Pn**	**02 44 41.9**	**+3.3**
ECAB				Sn	**Sn**	**02 46 03.5**	**-5.2**
ECAB	**El Cabril**	**7.95**	**66**	Pn	**Pn**	**02 44 42.1**	**+3.5**
ECAB				⇑IVmb_VC		02 44 43.1	
	comp=N,423nm,SNR=9.1						
ECAB				Sn	**Sn**	**02 46 04.3**	**-4.3**
CTAN	**El Hierro**	**7.97**	**202**	⇑IVmb_VC		02 44 44.4	
	comp=N,814nm,SNR=1.7						
CTAN				Sn	**Sn**	**02 46 04.6**	**-4.4**
CCUM	**Cumbre, El Hie**	**7.97**	**202**	⇑IVmb_VC		02 44 42.9	
	comp=N,454nm,SNR=1.9						
CCUM				Sn	**Sn**	**02 46 03.8**	**-5.3**
CMCL	**Mercadel, El H**	**7.99**	**202**	⇑IVmb_VC		02 44 48.4	
	comp=N,649nm,SNR=2.1						
CMCL				Sn	**Sn**	**02 46 05.0**	**-4.9**
CJUL	**El Julan, El H**	**8.00**	**203**	⇑IVmb_VC		02 44 44.2	
	comp=N,854nm,SNR=1.4						
CJUL				Sn	**Sn**	**02 46 03.7**	**-6.3**
CTAC	**Tacoron (Front**	**8.03**	**202**	⇑IVmb_VC		02 44 47.8	
	comp=N,1μm,SNR=2.2						
CTAC				Sn	**Sn**	**02 46 05.5**	**-5.1**
CCAL	**Punta Orchilla**	**8.03**	**203**	⇑IVmb_VC		02 44 46.1	
	comp=N,1μm,SNR=1.7						
CCAL				Sn	**Sn**	**02 46 05.5**	**-5.2**
IFR	**Ifrane**	**8.04**	**99**	Pn	**Pn**	**02 44 44.2**	**+4.2**
IFR				Sn	**Sn**	**02 46 06.9**	**-4.2**
EMIJ	**Mijas**	**8.12**	**77**	Pn	**Pn**	**02 44 45.3**	**+4.2**
EMIJ				Sn	**Sn**	**02 46 08.2**	**-4.8**
EMIJ	**Mijas**	**8.12**	**77**	Pn	**Pn**	**02 44 45.2**	**+4.2**
EMIJ				Pn	Pb	02 44 45.3	-19
EMIJ				⇑IVmb_VC		02 44 47.0	
	comp=N,197nm,SNR=1.5						
EMIJ				Sn	**Sn**	**02 46 12.8**	**-0.1**
EMIJ				Sn	**Sn**	**02 46 12.8**	**-0.1**
PVRL	**Vila Real**	**8.16**	**40**	*e*P	**Pn**	**02 44 43.5**	**+2.0**
PVRL				*e*S	**Sn**	**02 46 07.3**	**-6.4**
PVRL				*i* IAML		02 46 09.0	
PVRL				*i* IAML		02 46 09.8	
PVRL				*i* IAML		02 46 15.9	
POLO	**Lamas de Olo**	**8.19**	**39**	*e*P	**Pn**	**02 44 43.8**	**+1.9**
POLO				*e*S	Sn	02 46 07.1	-7.4
POLO				*i* IAML		02 46 10.7	
POLO				*i* IAML		02 46 10.7	
POLO				*i* IAML		02 46 10.8	
LCRM	**LCR**	**8.22**	**98**	P	**Pn**	**02 44 41.5**	**-0.9**
LCRM				S	**Sn**	**02 46 11.2**	**-4.2**
CZD	**Col de Zad**	**8.24**	**102**	P	**Pn**	**02 44 42.4**	**-0.5**
CZD				S	**Sn**	**02 46 14.9**	**-1.3**
PCAB	**Cabril**	**8.32**	**37**	*e*P	**Pn**	**02 44 46.0**	**+2.3**
PCAB				*e*S	**Sn**	**02 46 11.2**	**-6.5**
PCAB				*i* IAML		02 46 12.2	
PCAB				*i* IAML		02 46 15.6	
PCAB				*i* IAML		02 46 19.4	
EPLA	**Plasencia**	**8.35**	**52**	Pn	**Pn**	**02 44 46.7**	**+2.5**
EPLA				⇑IVmb_VC		02 44 47.8	
	comp=N,192nm,SNR=4.2						
EPLA				Sn	**Sn**	**02 46 13.4**	**-5.1**
PGAV	**Gavieira, Arco**	**8.40**	**34**	*e*P	**Pn**	**02 44 46.1**	**+1.3**
PGAV				*e*S	**Sn**	**02 46 12.9**	**-6.9**
PGAV				*i* IAML		02 46 16.4	
PGAV				*i* IAML		02 46 18.1	
PGAV				*i* IAML		02 46 18.9	
ELOB	**Lobios**	**8.42**	**36**	Pn	**Pn**	**02 44 47.6**	**+2.5**
ELOB				⇑IVmb_VC		02 44 50.3	
	comp=N,253nm,SNR=3.2						
ELOB				Sn	**Sn**	**02 46 14.4**	**-5.9**
MD31	**MD31**	**8.52**	**103**	P	**Pn**	**02 44 46.4**	**-0.1**
MD31				S	**Sn**	**02 46 20.8**	**-1.9**
CIBOR	**Castaar de Ib**	**8.57**	**56**	Pn	**Pn**	**02 44 49.5**	**+2.4**
CIBOR				Sn	**Sn**	**02 46 18.7**	**-5.1**
EADA	**Adamuz**	**8.61**	**67**	Pn	**Pn**	**02 44 51.1**	**+3.4**
EADA				Sn	**Sn**	**02 46 20.1**	**-4.8**
EADA	**Adamuz**	**8.61**	**67**	Pn	**Pn**	**02 44 51.0**	**+3.3**
EADA				⇑IVmb_VC		02 44 52.0	
	comp=N,421nm,SNR=8.8						
EADA				Sn	**Sn**	**02 46 20.8**	**-4.1**
MDT	**Midelt**	**8.66**	**103**	Pn	**Pn**	**02 44 53.1**	**+4.7**
	comp=N,5.1nm,0.3s,baz=290,slow=13,SNR=125						
MDT				Sn	**Sn**	**02 46 19.8**	**-6.4**
	comp=N,4.0nm,0.3s,baz=78,slow=5.9,SNR=7.3						
	comp=N,10nm,0.3s						
MDT				AML	AML		
MDT	**Midelt**	**8.66**	**103**	P	**Pn**	**02 44 48.1**	**-0.3**
MDT				S	**Sn**	**02 46 24.0**	**-2.2**
VPORT	**Vila do Porto,**	**8.68**	**285**	Pn	**Pn**	**02 44 48.3**	**-0.3**
VPORT				⇑IVmb_VC		02 44 49.6	
	comp=N,514nm,SNR=0.8						
VPORT				Sn	Sn	02 46 17.7	-8.8
EGOR	**Sierra Gorda,**	**8.73**	**74**	Pn	**Pn**	**02 44 53.6**	**+4.2**
EGOR				⇑IVmb_VC		02 44 57.4	
	comp=N,147nm,SNR=3.6						
EGOR				Sn	**Sn**	**02 46 24.3**	**-3.7**
PALE	**Palemas**	**8.76**	**87**	P	**Pn**	**02 44 50.3**	**+0.6**
PALE				S	**Sn**	**02 46 27.2**	**-1.4**
TZRR	**Tazzarine**	**8.79**	**117**	P	**Pn**	**02 44 50.9**	**+0.6**
TZRR				S	**Sn**	**02 46 26.4**	**-3.0**
GOLM	**Goulmima**	**8.81**	**111**	P	**Pn**	**02 44 51.6**	**+1.1**
GOLM				S	**Sn**	**02 46 28.8**	**-1.1**
AKLM	**AKL**	**8.88**	**91**	P	**Pn**	**02 44 50.6**	**-0.9**
AKLM				S	**Sn**	**02 46 25.8**	**-5.9**
EMAZ	**Mazaricos**	**8.91**	**28**	Pn	**Pn**	**02 44 53.3**	**+1.6**
EMAZ				⇑IVmb_VC		02 44 56.1	
	comp=N,357nm,SNR=2.9						
PBRG	**Braganca**	**9.05**	**41**	*e*P	**Pn**	**02 44 55.8**	**+2.1**
PBRG				*e*S	Sn	02 46 27.7	-7.9
PBRG				*i* IAML		02 46 31.4	
PBRG				*i* IAML		02 46 34.2	
PBRG				*i* IAML		02 46 37.5	
EJUZ	**Juzbado, Salam**	**9.06**	**47**	Pn	**Pn**	**02 44 55.9**	**+2.0**
EJUZ				Sn	**Sn**	**02 46 31.3**	**-4.6**
ELGU	**Los Guajares,**	**9.07**	**76**	Pn	**Pn**	**02 44 58.9**	**+4.8**
ELGU				Sn	**Sn**	**02 46 33.1**	**-3.3**
ELGU	**Los Guajares,**	**9.07**	**76**	Pn	**Pn**	**02 44 58.5**	**+4.4**
ELGU				⇑IVmb_VC		02 45 01.9	
	comp=N,88nm,SNR=1.2						
ELGU				Sn	**Sn**	**02 46 33.2**	**-3.2**
ZGR	**Zagora**	**9.13**	**121**	P	**Pn**	**02 44 55.1**	**+0.2**
ZGR				S	**Sn**	**02 46 36.1**	**-1.7**
ECAL	**Calabor**	**9.14**	**40**	Pn	**Pn**	**02 44 57.5**	**+2.4**
ECAL				Sn	**Sn**	**02 46 31.6**	**-6.5**
ECAL	**Calabor**	**9.14**	**40**	Pn	**Pn**	**02 44 57.1**	**+2.0**
ECAL				⇑IVmb_VC		02 45 00.5	
	comp=N,548nm,SNR=4.8						
ECAL				Sn	**Sn**	**02 46 32.3**	**-5.7**
EAGO	**Agolada(Pontev**	**9.15**	**32**	Pn	**Pn**	**02 44 56.8**	**+1.7**
EAGO				⇑IVmb_VC		02 44 59.9	
	comp=N,294nm,SNR=3.8						
EAGO				Sn	Sn	02 46 29.0	-9.0
PAB	**San Pablo**	**9.27**	**59**	Pn	**Pn**	**02 44 59.3**	**+2.5**
PAB				Pn	Pn	02 45 00.4	+3.6
PAB				Sn	**Sn**	**02 46 37.6**	**-3.6**
EQUE	**Quentar**	**9.27**	**74**	Pn	**Pn**	**02 45 01.2**	**+4.4**
EQUE				⇑IVmb_VC		02 45 01.4	
	comp=N,89nm,SNR=1.4						
EQUE				Sn	**Sn**	**02 46 40.6**	**-0.7**
PSIM	**Granatula de C**	**9.43**	**64**	Pn	**Pn**	**02 45 02.6**	**+3.7**
PSIM				Sn	**Sn**	**02 46 41.2**	**-3.7**
ARF	**Arif**	**9.49**	**110**	P	**Pn**	**02 45 00.5**	**+0.7**
ARF				S	**Sn**	**02 46 44.1**	**-2.5**
ESDC	**Sonseca Array**	**9.59**	**59**	Pn	**Pn**	**02 45 04.4**	**+3.2**
	comp=N,1.6nm,0.3s,baz=243,slow=13,SNR=63						
ESDC				Sn	Sn	02 46 41.4	-7.7
	comp=N,0.5nm,0.3s,baz=247,slow=23,SNR=5.5						
	comp=N,3.3nm,0.3s						
ESDC				AML	AML		
ESDC	**Sonseca Array**	**9.59**	**59**	Pn	**Pn**	**02 45 04.5**	**+3.3**
ESDC				⇑IVmb_VC		02 45 05.9	
	comp=N,181nm,SNR=3.8						
ESDC				Sn	**Sn**	**02 46 44.3**	**-4.8**
ESBB	**Sonseca Array**	**9.60**	**59**	Pn	**Pn**	**02 45 04.2**	**+3.0**
ESBB				⇑IVmb_VC		02 45 06.0	
	comp=N,190nm,SNR=3.7						
ESBB				Sn	**Sn**	**02 46 44.3**	**-4.9**
EBER	**Berja**	**9.67**	**76**	Pn	**Pn**	**02 45 06.7**	**+4.4**
EBER				⇑IVmb_VC		02 45 09.8	
	comp=N,123nm,SNR=1.0						
EBER				Sn	**Sn**	**02 46 48.7**	**-2.3**
EQES	**Quesada**	**9.67**	**71**	Pn	**Pn**	**02 45 05.7**	**+3.4**
EQES				⇑IVmb_VC		02 45 07.4	
	comp=N,110nm,SNR=2.1						
EQES				Sn	**Sn**	**02 46 47.9**	**-3.2**
GUD	**Guadarrama**	**9.91**	**54**	Pn	**Pn**	**02 45 07.9**	**+2.4**
GUD				⇑IVmb_VC		02 45 13.3	
	comp=N,76nm,SNR=2.3						
GUD				Sn	**Sn**	**02 46 50.5**	**-6.4**

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JBK   JBK                9.97  91  P         Pn      02 45 04.8 -1.6
JBK                                S         Sn      02 46 55.9 -2.6
EPON  Pontenova          9.98  33  Pn        Pn      02 45 08.4 +1.9
EPON                              ⇑IVmb_VC           02 45 11.5
      comp=N,142nm,SNR=1.6
EPON                               Sn        Sn      02 46 49.8 -8.7
TAF   Taforalt          10.04  89  P         Pn      02 45 07.0 -0.3
TAF                                S         Sn      02 46 56.9 -3.0
UCM   Universidad Co    10.36  57  Pn        Pn      02 45 14.3 +2.6
UCM                                Sn        Sn      02 47 02.7 -5.2
YEBES Yebes (Guadala    10.56  56  Pn        Pn      02 45 17.5 +3.0
YEBES                             ⇑IVmb_VC           02 45 23.1
      comp=N,321nm,SNR=1.6
EZAR  Zarzadilla de     10.75  72  Pn        Pn      02 45 21.5 +4.4
EZAR                              ⇑IVmb_VC           02 45 24.7
      comp=N,127nm,SNR=1.4
EZAR                               Sn        Sn      02 47 13.6 -4.0
EARI  Arriondas         10.90  39  Pn        Pn      02 45 21.7 +2.6
EARI                              ⇑IVmb_VC           02 45 22.4
      comp=N,98nm,SNR=1.1
EARI                               Sn        Sn      02 47 17.2 -3.9
ETOB  Tobarra           11.03  68  Pn        Pn      02 45 24.2 +3.3
ETOB                               Sn        Sn      02 47 19.2 -5.1
ETOB  Tobarra           11.03  68  Pn        Pn      02 45 24.1 +3.3
ETOB                              ⇑IVmb_VC           02 45 27.1
      comp=N,111nm,SNR=1.4
ETOB                               Sn        Sn      02 47 22.5 -1.8
EMUR  La Murta          11.10  72  Pn        Pn      02 45 25.9 +4.1
EMUR                              ⇑IVmb_VC           02 45 29.0
      comp=N,95nm,SNR=1.3
ETOR  Torete            11.40  57  Pn        Pn      02 45 29.2 +3.2
ETOR                              ⇑IVmb_VC           02 45 29.9
      comp=N,159nm,SNR=2.8
ETOR                               Sn        Sn      02 47 24.5 -9.0
EVIV  Cofrentes, Val    11.52  65  Pn        Pn      02 45 31.0 +3.5
EVIV                              ⇑IVmb_VC           02 45 32.5
      comp=N,64nm,SNR=0.9
EVIV                               Sn        Sn      02 47 30.1 -6.1
FIGM  Figuig            11.55 102  P         Pn      02 45 29.1 +1.0
FIGM                               S         Sn      02 47 35.3 -2.0
ECHE  Chera             11.72  64  Pn        Pn      02 45 34.3 +4.0
ECHE                               Sn        Sn      02 47 36.6 -4.7
ECHE  Chera             11.72  64  Pn        Pn      02 45 34.3 +4.0
ECHE                              ⇑IVmb_VC           02 45 35.4
      comp=N,113nm,SNR=1.5
AFON  Font Roja         11.80  69  Pn        Pn      02 45 35.6 +4.2
AFON                              ⇑IVmb_VC           02 45 36.0
      comp=N,171nm,SNR=1.7
ELAN  Lanestosa         11.82  44  Pn        Pn      02 45 34.9 +3.2
ELAN                              ⇑IVmb_VC           02 45 37.3
      comp=N,99nm,SNR=1.5
ELAN                               Sn        Sn      02 47 38.0 -5.6
E0901 Celadas (Terue    11.91  60  Pn        Pn      02 45 36.2 +3.2
E0901                             ⇑IVmb_VC           02 45 41.6
      comp=N,156nm,SNR=2.9
EMOS  Mosqueruela       12.34  61  Pn        Pn      02 45 43.6 +4.8
EMOS                              ⇑IVmb_VC           02 45 44.0
      comp=N,50nm,SNR=0.9
EMOS                               Sn        Sn      02 47 53.7 -2.8
EALK  Alkurruntz        12.95  48  Pn        Pn      02 45 49.9 +2.8
EALK                              ⇑IVmb_VC           02 45 50.8
      comp=N,46nm,SNR=0.9
EKA   Eskdalemuir Ar    21.65  18  P         P       02 47 39.2 +5.8
      comp=N,1.1nm,0.6s,baz=206,slow=11,SNR=2.1
      comp=N,1.1nm,0.6s
ARCES ARCESS Array B    40.78  20  P         P       02 50 29.4 +5.4
      comp=N,0.7nm,0.6s,baz=234,slow=7.2,SNR=7.8
      comp=N,0.7nm,0.6s
KURBB Kurchatov Arra    65.58  44  P         P       02 53 32.5 +5.7
      comp=N,0.3nm,0.6s,baz=300,slow=7.4,SNR=2.8
      comp=N,0.3nm,0.6s
CN2   Changchun         93.39  28  eP        P       02 55 54.8 -3.6
CN2                                pmax      pmax
      comp=Z,10.0nm,0.6s
WRA   Warramunga Arr   148.74  69  PKPbc     PKPab   03 02 36.1 +1.3
      comp=Z,0.3nm,0.5s,baz=329,slow=1.7,SNR=1.7
ASAR  Alice Springs    150.41  76  PKPbc     PKPab   03 02 40.2 -1.3
      comp=Z,0.4nm,0.6s,baz=295,slow=1.9,SNR=7.3
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*KRNET **30** 02:55:29.1±0.1, 41.°82N×79.°42E, h16^{km}, mb2.6*
*SOME **30** 02:55:30.7, 41.°83N×79.°38E, h5^{km}*
*NNC **30** 02:55:31.8±1.5, 41.°87N×79.°38E, h0^{km}, mb2.8, mpv2.8, Error ellipse: s-maj=9.9km s-min=7.1km az=158.0*
ISC 30 02:55:29.5±1.9, **41.°69N**±0.°07×**79.°40E**±0.°05, **h26**^{km}±17^{km}, **n30**, σ1^{s}**46**/55, **13C-5D, Kyrgyzstan-Xinjiang border region**

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Code  Station Name        Δ°   AZ°   Phase ID            Time     Res
                                     Op        ISC       h  m  s  ISC
PRZ   Przheval'sk        1.09 317 ⇑iP        Pn      02 55 48.3 -0.9
PRZ                           ⇑iS        Sn      02 56 02.6 -1.0
TARG  Taragay, Kyrgy     1.20 273 ⇑iP        Pb      02 55 52.2 +0.5
TARG                          ⇑iS        Sn      02 56 08.7 +2.2
SHLS  Shalkode           1.47   2  P         Pb      02 55 56.9 +0.6
      6.6nm,0.1s
SHLS                               S         Sb      02 56 15.5 +0.9
      11nm,0.3s
SHLS  Shalkode           1.47   2 eP         Pb      02 55 56.9 +0.6
      6.6nm,0.1s
SHLS                              eS         Sb      02 56 15.5 +0.9
      11nm,0.3s
UZB   Uzynbulak          1.49 349  P         Pb      02 55 55.5 -1.0
      2.8nm,0.2s
UZB                                S         Sb      02 56 13.2 -1.9
      3.8nm,0.3s
UZB   Uzynbulak          1.49 349 eP         Pb      02 55 55.5 -1.0
      2.8nm,0.2s
UZB                               eS         Sb      02 56 13.2 -1.9
      3.8nm,0.3s
SATY  Saty               1.56 332  P         Pb      02 55 57.0 -0.7
      1.6nm,0.1s
SATY                               S         Sb      02 56 15.6 -1.4
      13nm,0.2s
SATY  Saty               1.56 332 eP         Pb      02 55 57.0 -0.7
      1.6nm,0.1s
SATY                              eS         Sb      02 56 15.6 -1.4
      13nm,0.2s
PDGK  Podgornoye         1.64   2 ⇑P         Pb      02 55 58.0 -1.2
      1.0nm,0.6s
PDGK                              ⇓S         Sb      02 56 18.8 -0.7
      6.8nm,0.5s
ANVS  Anan'yevo          1.69 311 ⇑iP        Pb      02 55 59.1 -0.9
ANVS                          ⇑iS        Sb      02 56 21.2 +0.2
KDJ   Kajisay            1.72 286 ⇓iP        Pb      02 56 00.3 -0.1
KDJ                           ⇓iS        Sb      02 56 23.4 +1.7
KPKS  Kokpek             1.86 344  P         Pb      02 56 03.2 +0.4
      0.3nm,0.2s
KPKS                               S         Sb      02 56 26.3 +0.7
      13nm,0.3s
KPKS  Kokpek             1.86 344 eP         Pb      02 56 03.2 +0.4
      0.3nm,0.2s
KPKS                              eS         Sb      02 56 26.3 +0.7
      13nm,0.3s
KTMS  Ketmen             1.90  21  P         Pb      02 56 03.9 +0.5
      1.2nm,0.2s
KTMS                               S         Sb      02 56 27.4 +0.7
      2.6nm,0.2s
KTMS  Ketmen             1.90  21 eP         Pb      02 56 03.9 +0.5
      1.2nm,0.2s
KTMS                              eS         Sb      02 56 27.4 +0.7
      2.6nm,0.2s
KURS  Kuram              2.02 334  P         Pb      02 56 06.3 +0.8
      0.4nm,0.1s
KURS                               S         Sb      02 56 31.4 +1.2
      3.6nm,0.3s
KURS  Kuram              2.02 334 eP         Pb      02 56 06.3 +0.8
      0.4nm,0.1s
KURS                              eS         Sb      02 56 31.4 +1.2
      3.6nm,0.3s
MDOK  Medeo              2.28 311  Pg        Pb      02 56 11.1 +1.0
      6.7nm,0.2s
MDOK                               Lg        Lg      02 56 40.2
      14nm,0.4s
MDOK  Medeo              2.28 311 eP         Pb      02 56 11.1 +1.0
      6.7nm,0.2s
MDOK                              eS         Sb      02 56 40.2 +2.3
      14nm,0.4s
ULHL  Ulahol             2.42 284 ⇑iP        Pb      02 56 11.5 -1.0
ULHL                          ⇑iS        Sb      02 56 42.2 +0.2
NRN   Naryn              2.56 266 ⇓iP        Pb      02 56 14.2 -0.8
NRN                           ⇓iS        Sb      02 56 47.2 +1.0
DJR   Jarkent            2.66   6  Pg        Pb      02 56 16.5  0.0
      1.1nm,0.2s
DJR                                Lg        Lg      02 56 49.1
      3.5nm,0.3s
DJR   Jarkent            2.66   6 eP         Pb      02 56 16.5  0.0
      1.1nm,0.2s
DJR                               eS         Sb      02 56 49.1 +0.4
      3.5nm,0.3s
KNOS  Konyrlen           2.68 357  Pg        Pb      02 56 16.9 +0.1
      1.0nm,0.1s
KNOS                               Lg        Lg      02 56 49.8
      8.2nm,0.2s
BOOM  Boomskoye usch     2.70 288 ⇑iP        Pb      02 56 15.1 -2.1
BOOM                          ⇑iS        Sb      02 56 48.7 -1.2
KTBS  Karatobe           2.85 316  Pg        Pb      02 56 20.3 +0.7
      0.2nm,0.1s
KTBS                               Lg        Lg      02 56 56.0
      5.1nm,0.3s
KTBS  Karatobe           2.85 316 eP         Pb      02 56 20.4 +0.7
      0.2nm,0.1s
KTBS                              eS         Sb      02 56 56.0 +1.9
      5.1nm,0.3s
KST   Kastek             2.89 299  Pg        Pb      02 56 22.5 +2.1
      0.9nm,0.3s
KST                                Lg        Lg      02 56 59.3
      5.8nm,0.5s
KST   Kastek             2.89 299 eP         Pb      02 56 22.5 +2.1
      0.9nm,0.3s
KST                               eS         Sb      02 56 59.3 +4.1
      5.8nm,0.5s
TKM2  Tokmak 2           3.08 295 ⇑iP        Pb      02 56 20.1 -3.6
TKM2                          ⇑iS        Sb      02 56 57.3 -3.6
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*ISK **30** 03:33:54.5, 39.°96N×24.°34E, h10^{km}, ML3.9/26*
*IDC **30** 03:33:54.5±0.8, 39.°99N×24.°27E, h0^{km}, mb3.5/8, mbtmp3.6/15, ML3.4/6, MS3.0/13, Error ellipse: s-maj=12.6km s-min=10.4km az=86.0*
*PDG **30** 03:33:55.3±0.4, 39.°96N×24.°28E, h23^{km}, ML3.6/12, Error ellipse: s-maj=0.3km s-min=0.4km az=0.0*
*THE **30** 03:33:55.5, 40.°0N±0.°7×24.°3E±0.°7, h11^{km}±1^{km}, M3.5/37, MLh3.5/37*
*SOF **30** 03:33:55.6, 40.°13N±0.°02×24.°39E±0.°02, h10^{km}±1^{km}, MD4.0/6*
*ATH **30** 03:33:55.3, 39.°96N×24.°30E, h15^{km}±1^{km}, ML3.6/18, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*
*BEO **30** 03:33:58.1±0.6, 40.°12N×24.°30E, h14^{km}±3^{km}, ML3.5/13*
*AFAD **30** 03:33:58.0, 40.°03N×24.°46E, h24^{km}, MW3.8*
*NAO **30** 03:34:02.6, 39.°96N×24.°32E, h10^{km}, MB3.6*
ISC 30 03:33:55.3±1.0, **39.°98N**±0.°02×**24.°32E**±0.°01, **h10**^{km}±7^{km}, **n254**, σ1^{s}**24**/321, **mb3.5**/8, **MS3.1**/8, **24C-13D, Aegean Sea**

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Code  Station Name        Δ°   AZ°   Phase ID            Time     Res
                                     Op        ISC       h  m  s  ISC
OUR   Ouranopolis        0.44 324  P         Pb      03 34 04.5 -0.7
OUR                                S         Sb      03 34 11.0 -0.8
OUR                                AML       AML
OUR   Ouranopolis        0.44 324  Pg        Pg      03 34 04.1 +0.2
OUR                                AML       AML
OUR   Ouranopolis        0.44 324  P         Pg      03 34 04.1 +0.2
OUR                                S         Sg      03 34 10.2 +0.6
OUR                                AML       AML
PAIG  Paliouri           0.49 264  P         Pg      03 34 05.1 +0.1
PAIG                               S         Sg      03 34 12.4 +0.9
PAIG                               AML       AML
LMN1  MIRINA LIMNOU      0.58 100  P         Pg      03 34 06.9 +0.3
LMN1                               S         Sb      03 34 15.2 -0.7
LIA   Limnos Island      0.67  97  P         Pg      03 34 08.3 +0.1
LIA                                S         Sb      03 34 17.8 -0.7
LIA                                AML       AML
LIA   Limnos Island      0.67  97  P         Pg      03 34 08.3 +0.1
LIA                                S         Sb      03 34 17.9 -0.6
LIA                                AML       AML
EFSA  Agios Efstrati     0.68 130  P         Pg      03 34 08.9 +0.5
EFSA                               S         Sb      03 34 18.7  0.0
THAS  Thassos island     0.69  26  P         Pg      03 34 08.8  0.0
THAS                               S         Sb      03 34 19.5 +0.3
THAS                               AML       AML
THAS  Thassos island     0.69  26  P         Pb      03 34 09.2 -0.4
THAS                               S         Sb      03 34 19.5 +0.3
PLG   Polygyros          0.78 301  P         Pg      03 34 10.1 -0.2
PLG                                AML       AML
PLG   Polygyros          0.78 301  P         Pg      03 34 10.1 -0.2
THS1  Thassos, Thass     0.78  14  P         Pb      03 34 11.2 +0.2
THS1                               S         Sn      03 34 22.2 -2.0
AOS   Alonnisos          0.88 203  P         Pb      03 34 12.1 -0.6
AOS                                S         Sb      03 34 25.3 +0.8
AOS                                AML       AML
AOS2  Alonissos-2        0.91 204  P         Pb      03 34 12.2 -1.1
AOS2                               S         Sb      03 34 24.5 -0.9
AOS2                               AML       AML
KAVA  Kavala             1.02   8  P         Pb      03 34 14.7 -0.5
KAVA                               S         Sn      03 34 29.8 -0.5
KAVA                               AML       AML
KAVA  Kavala             1.02   8  P         Pb      03 34 14.9 -0.3
KAVA                               S         Sn      03 34 29.0 -1.2
SMTH  Samothraki Isl     1.05  62  P         Pb      03 34 14.6 -1.0
SMTH                               S         Sn      03 34 30.1 -0.7
SMTH                               AML       AML
SMTH  Samothraki Isl     1.05  62  P         Pb      03 34 14.9 -0.7
SMTH                               S         Sg      03 34 29.4 +0.3
SMTH                               AML       AML
XOR   Xorichti           1.07 235  P         Pb      03 34 15.0 -0.9
XOR                                S         Sg      03 34 30.2 +0.5
XOR                                AML       AML
XOR   Xorichti           1.07 235  P         Pb      03 34 15.3 -0.6
XOR                                S         Sb      03 34 29.6 -0.4
XOR                                AML       AML
NEO   Neokhori           1.08 232  P         Pb      03 34 15.2 -1.0
NEO                                S         Sb      03 34 30.4  0.0
NEO                                AML       AML
NEO   Neokhori           1.08 232  P         Pb      03 34 15.3 -0.9
NEO                                AML       AML
SOH   Sokhos             1.12 319  P         Pb      03 34 16.3 -0.5
SOH                                S         Sn      03 34 32.4 -0.2
SOH                                AML       AML
SOH   Sokhos             1.12 319  P         Pb      03 34 16.5 -0.3
SOH                                S         Sg      03 34 31.5 +0.2
DRA2  DRAMA              1.18 354  P         Pg      03 34 18.3 +0.2
THE   Thessaloniki       1.22 303  P         Pn      03 34 17.5 -1.0
THE   Thessaloniki       1.22 303  P         Pn      03 34 17.9 -0.7
GADA  Gvkgeada           1.23  80  P         Pn      03 34 17.6 -1.0
GADA                               AML       AML
GADA  Gvkgeada           1.23  80  Pn        Pn      03 34 18.2 -0.4
GADA                               Sn        Sg      03 34 35.3 +0.4
GADA                               AML       AML
GOAD  anakkale-G¶        1.23  81  P         Pn      03 34 17.7 -1.0
GOAD                               S         Sb      03 34 34.1 -0.6
SRS   Serrai             1.26 334  P         Pn      03 34 18.4 -0.7
SRS                                AML       AML
SRS   Serrai             1.26 334 ePg        Pn      03 34 18.4 -0.7
SRS                               eSg        Sb      03 34 34.3 -1.3
SRS   Serrai             1.26 334  P         Pb      03 34 18.9 -0.4
SRS                                S         Sg      03 34 35.7 -0.3
SRS                                AML       AML
BOZC  Bozcaada           1.34  95  Pn        Pn      03 34 19.6 -0.5
BOZC                               AML       AML
BOZC  Bozcaada           1.34  95  P         Pn      03 34 19.6 -0.5
BOZC                               P         Pn      03 34 19.7 -0.5
BOZC                               S         Sb      03 34 37.8  0.0
KYMI  Kymi, Euboea I     1.36 187  P         Pn      03 34 19.2 -1.2
KYMI                               S         Sn      03 34 38.0 -0.4
KYMI                               AML       AML
KYMI  Kymi, Euboea I     1.36 187  P         Pn      03 34 18.9 -1.4
KYMI                               AML       AML
MRKA  Markates           1.40 204  P         Pn      03 34 19.5 -1.4
MRKA                               AML       AML
NVR   Nevrokopi          1.41 346  P         Pn      03 34 20.5 -0.7
NVR                                S         Sg      03 34 40.3 -0.4
NVR                                AML       AML
NVR   Nevrokopi          1.41 346  P         Pn      03 34 20.2 -1.0
NVR                                S         Sb      03 34 39.4 -0.5
NVR                                AML       AML
ECEA  Canakkale, Ece     1.43  87  P         Pg      03 34 23.0 +0.3
ECEA                               S         Sb      03 34 39.7 -0.5
KOCA  Canakkale, Ayv     1.48 108  P         Pb      03 34 22.4 -0.6
KOCA                               S         Sb      03 34 41.8 -0.1
GPNR  Gulpinar-Canak     1.49 110  Pn        Pb      03 34 22.9 -0.3
ENZZ  Sultanice-Enez     1.53  65  Pn        Pn      03 34 22.4 -0.3
ENZZ                               AML       AML
EZN   Ezine              1.55  95  P         Pn      03 34 22.6 -0.4
EZN                                AML       AML
EZN   Ezine              1.55  95  Pn        Pn      03 34 22.6 -0.4
EZN                                AML       AML
EZN   Ezine              1.55  95  P         Pn      03 34 22.4 -0.6
CAVK  Edirne/Enez-Ca     1.58  63  P         Pb      03 34 23.9 -0.8
CAVK  Edirne/Enez-Ca     1.58  63 ⇑P         Pb      03 34 23.8 -0.8
CNKL  anakkale-Mer       1.59  86  P         Pn      03 34 23.0 -0.6
CNKL                               P         Pn      03 34 23.0 -0.6
CNKL                               S         Sn      03 34 42.5 -1.7
EZNE  Ezine-Canakkal     1.59  97  Pn        Pn      03 34 23.2 -0.4
ENEZ  Enez               1.59  61  Pn        Pn      03 34 23.4 -0.2
ENEZ                               AML       AML
ALN   Alexandroupoli     1.60  55  P         Pn      03 34 22.5 -1.3
ALN                                AML       AML
ALN   Alexandroupoli     1.60  55  Pn        Pn      03 34 23.6 -0.2
ALN                                AML       AML
ALN   Alexandroupoli     1.60  55  P         Pn      03 34 23.7 -0.1
ALN                                AML       AML
MMB   Musomishta         1.62 345  P         Pn      03 34 23.8 -0.3
MMB                                AML       AML
MMB   Musomishta         1.62 345 i P        Pn      03 34 24.0 -0.1
MMB                               i S        Sn      03 34 43.8 -1.3
TYRN  Tyrnavos           1.63 261  P         Pn      03 34 23.6 -0.5
TYRN                               AML       AML
TYRN  Tyrnavos           1.63 261  P         Pn      03 34 23.8 -0.3
TYRN                               AML       AML
COMU  Canakkale          1.66  85  Pn        Pn      03 34 24.2 -0.3
COMU                               AML       AML
PRK   Paraskevi          1.68 115  P         Pn      03 34 24.5 -0.2
PRK                                AML       AML
LKR   Lokris             1.68 218  P         Pn      03 34 23.7 -1.1
LKR   Lokris             1.68 218  P         Pn      03 34 23.7 -1.1
GELI  Tayfur-Gelibol     1.70  75  Pn        Pn      03 34 24.9 -0.2
BAYC  CANAKKALE_Bayr     1.73  97  P         Pn      03 34 25.4 -0.2
BAYC                               S         Sn      03 34 45.8 -1.9
RZN   Rozhen             1.74  10  P         Pn      03 34 25.5 -0.3
RZN                                AML       AML
RZN   Rozhen             1.74  10 i P        Pn      03 34 25.6 -0.3
RZN                               i S        Sn      03 34 47.2 -1.0
GRG   Griva              1.76 304  P         Pn      03 34 25.7 -0.2
GRG                                AML       AML
GRG   Griva              1.76 304  P         Pn      03 34 25.8 -0.2
AXAR  Agios Charalam     1.77 227  P         Pn      03 34 25.5 -0.5
AXAR                               AML       AML
ERIK  Erikli-Kesan       1.81  67  Pn        Pn      03 34 25.4 -1.2
ERIK                               AML       AML
AGG   Agios Georgios     1.81 239  P         Pn      03 34 25.9 -0.8
AGG                                AML       AML
AGG   Agios Georgios     1.81 239  P         Pn      03 34 26.6 -0.1
AGG                                AML       AML
KDZ   Kurdzhali          1.82  25  P         Pn      03 34 26.2 -0.6
KDZ                                AML       AML
KDZ   Kurdzhali          1.82  25  Pn        Pn      03 34 25.9 -0.9
KDZ                                AML       AML
KDZ   Kurdzhali          1.82  25 i P        Pn      03 34 26.2 -0.6
THL   Klokotos Trika     1.82 258  P         Pn      03 34 26.1 -0.7
THL                                AML       AML
THL   Klokotos Trika     1.82 258  P         Pn      03 34 26.1 -0.7
GOKT  Kean, EDRN         1.89  68  P         Pn      03 34 27.5 -0.2
GOKT                               S         Sg      03 34 56.3 +0.3
STFN  Stefani            1.90 199  P         Pn      03 34 27.2 -0.7
STFN                               AML       AML
STFN  Stefani            1.90 199  P         Pn      03 34 27.2 -0.7
STFN                               AML       AML
LPK   Lapseki            1.91  77  Pn        Pn      03 34 27.2 -0.8
LPK                                AML       AML
DION  Dionisos Attik     1.93 189  P         Pn      03 34 27.0 -1.2
DION                               AML       AML
DION  Dionisos Attik     1.93 189  P         Pn      03 34 27.2 -1.0
DION                               AML       AML
KARY  Karystos           1.95 177  P         Pn      03 34 27.7 -0.8
KARY                               AML       AML
KARY  Karystos           1.95 177  P         Pn      03 34 27.7 -0.8
AYVA  Ayvalik            1.95 109  P         Pn      03 34 28.5  0.0
AYVA                               S         Sb      03 34 56.2 +0.9
LAPS  Lapseki, ANA       1.95  81  P         Pn      03 34 28.6  0.0
LAPS                               S         Sn      03 34 51.2 -1.9
VILL  Villia             1.98 204  P         Pn      03 34 28.0 -1.0
VILL                               AML       AML
KZN   Kozani             1.98 280  P         Pn      03 34 28.5 -0.6
KZN                                AML       AML
KESN  Edirne-Kesan       1.99  64  P         Pn      03 34 29.5 +0.1
KESN                               S         Sg      03 34 58.8 -0.5
ATHU  Athens Univers     2.06 192  P         Pn      03 34 29.0 -1.0
ATHU                               AML       AML
ATH   Athens Observa     2.06 193  P         Pn      03 34 29.8 -0.3
ATH                                AML       AML
KKB   Krupnik            2.07 334  P         Pn      03 34 30.3 +0.1
KKB   Krupnik            2.07 334 i P        Pn      03 34 30.8 +0.6
CHOS  Chios island       2.09 139  P         Pn      03 34 29.8 -0.7
CHOS                               AML       AML
CHOS  Chios island       2.09 139  Pn        Pn      03 34 30.0 -0.5
CHOS                               AML       AML
PEHC  Pehcevo            2.09 330 i Pn       Pn      03 34 31.0 +0.4
CANM  Can-anakkale       2.10  88  Pn        Pn      03 34 30.5 -0.1
CANM                               AML       AML
UKOP  Uzunkopru-Edir     2.10  56  Pn        Pn      03 34 30.7 +0.1
UKOP                               AML       AML
YAYO  Edremit-Balk       2.15  99  Pn        Pn      03 34 31.2 -0.1
YAYO                               AML       AML
VLY   Voula,Athens       2.17 191  P         Pn      03 34 30.5 -1.0
VLY                                AML       AML
BUHA  Balikesir, Bur     2.18 102  P         Pn      03 34 31.8 +0.1
BUHA                               S         Sg      03 35 03.9 -1.4
PLD   Plovdiv            2.19   8  P         Pn      03 34 31.6 -0.3
PLD                                AML       AML
PLD   Plovdiv            2.19   8  Pn        Pn      03 34 31.5 -0.3
PLD   Plovdiv            2.19   8 ePn        Pn      03 34 32.0 +0.2
BIGA  Biga-Canakkale     2.19  81  Pn        Pn      03 34 31.9 +0.1
DKL   Dikili             2.20 114  Pn        Pn      03 34 31.7 -0.2
DKL                                AML       AML
EVR   Evrytania          2.22 242  P         Pn      03 34 31.8 -0.5
EVR                                AML       AML
KRBN  Karaburun          2.22 128  Pn        Pn      03 34 32.0 -0.2
LTK   Loutraki           2.22 209  P         Pn      03 34 31.4 -0.8
LTK                                AML       AML
YENI  Yenice-Canakka     2.25  90  Pn        Pn      03 34 32.6  0.0
FOCM  Foa                2.26 123  Pn        Pn      03 34 32.6 -0.1
DIM   Dimitrovgrad       2.27  24  P         Pn      03 34 32.9 -0.1
RKY   Sarkoy-Tekirda     2.29  71  Pn        Pn      03 34 33.4 +0.1
RKY                                AML       AML
KRBG  Karabiga-Canak     2.32  79  Pn        Pn      03 34 33.6  0.0
KRBG                               AML       AML
GAZK  Gazikoy-TEKIRD     2.42  71  Pn        Pn      03 34 35.2 +0.2
GAZK                               AML       AML
ATIT  Gnen               2.49  87  P         Pn      03 34 36.3 +0.3
ATIT                               S         Sg      03 35 13.6 -1.8
PGB   Panagyurishte      2.53 358 i P        Pg      03 34 43.4 -0.5
MADA  Marmara adas       2.55  75  P         Pg      03 34 44.1  0.0
MADA                               S         Sg      03 35 15.6 -1.6
BALY  Balya              2.55  94  P         Pn      03 34 37.7 +0.8
BALY                               S         Sg      03 35 16.0 -1.3
GONE  Gonen-Balikesi     2.59  87  Pn        Pn      03 34 37.4 +0.1
EDRB  Edirne             2.62  44  Pn        Pn      03 34 38.3 +0.6
EDRB                               AML       AML
SOMA  Soma-Manisa        2.62 107  Pn        Pn      03 34 37.7  0.0
SOMA                               AML       AML
BLCB  Balcova            2.65 126  Pn        Pn      03 34 38.1  0.0
MURA  Muratl, TEK        2.68  63  P         Pn      03 34 38.5  0.0
MURA                               S         Sg      03 35 21.2 -0.2
STEP  BALIKESIR_Sava     2.69 102  P         Pn      03 34 39.7 +0.9
EDC   Edincik            2.74  81  Pn        Pn      03 34 39.7 +0.3
EDC                                AML       AML
VTS   Vitosha            2.76 343 ePn        Pn      03 34 40.3 +0.5
VTS                               eSn        Sn      03 35 12.2 -1.1
BALB  Balikesir          2.76  96  Pn        Pn      03 34 39.7  0.0
BALB                               AML       AML
BKES  Balkesir-Mer       2.79  94  P         Pn      03 34 40.8 +0.7
BKES                               S         Sg      03 35 22.7 -2.3
CMHT  Manyas             2.80  88  P         Pn      03 34 41.8 +1.6
CRLT  Corlu              2.84  65  Pn        Pn      03 34 41.4 +0.6
CRLT                               AML       AML
BOSS  Bosilegrad         2.87 332 ePn        Pn      03 34 41.7 +0.5
BOSS                              eSn        Sn      03 35 15.2 -0.6
SUSR  Susurluk-Balik     2.89  89  Pn        Pn      03 34 41.8 +0.3
OHR   Ohrid              2.91 294 i Pn       Pn      03 34 43.2 +1.4
BAND  Balkesir-Ban       2.92  81  P         Pn      03 34 43.0 +1.2
BAND                               S         Sg      03 35 26.2 -2.9
BAND  Balkesir-Ban       2.92  81 ⇑P         Pn      03 34 42.2 +0.3
SKO   Skopje             2.95 313 i Pn       Pn      03 34 43.2 +0.9
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APE	Apeiranthos	3.06	162	Pn	Pn	03 34 43.8	0.0
APE	Apeiranthos	3.06	162	⇑P	Pn	03 34 43.8	0.0
IGT	Igoumenitsa	3.11	263	*e*Pn	Pn	03 34 46.9	+2.5
GORD	Gordes-Manisa	3.17	109	Pn	Pn	03 34 45.7	+0.3
GORD				AML	AML		
PVL	Pavlikeni	3.20	11	*i* P	Pn	03 34 46.1	+0.3
SLVT	Silivri	3.21	66	Pn	Pn	03 34 46.7	+0.8
SLVT				AML	AML		
ITM	Ithomi	3.37	215	Pn	Pn	03 34 48.6	+0.5
BARS	Barje	3.40	327	*e*Pn	Pn	03 34 48.8	+0.3
PLVB	Pleven	3.41	4	⇑P	Pn	03 34 49.2	+0.6
KEK	Kerkira	3.49	267	Pn	Pn	03 34 50.7	+1.0
ZAPS	Zavoj	3.52	340	*e*Pn	Pn	03 34 51.3	+1.1
ZAPS				*e*Sn	Sn	03 35 31.2	-0.8
BDRM	Kayabasi	3.81	139	⇑P	Pn	03 34 54.6	+0.5
VLAD	Vladila	4.01	1	⇑P	Pn	03 34 58.1	+1.2
SELS	Selova	4.03	324	*e*Pn	Pn	03 34 57.2	+0.1
ZAGS	Zajecar	4.13	339	*e*Pn	Pn	03 34 58.6	+0.1
ZAGS				*e*Sn	Sn	03 35 44.9	-2.0
BOVS	Bovan	4.14	333	*e*Pn	Pn	03 34 58.5	-0.1
BOVS				*e*Sn	Sn	03 35 44.7	-2.4
BOVS	Bovan	4.14	333	⇑P	Pn	03 34 59.0	+0.4
PVY	Plav	4.20	310	*e*Pn	Pn	03 34 59.2	-0.3
PVY				*i* Sn	Sn	03 35 46.1	-2.6
PVY				AML	AML		
ULC	Ulcinj	4.32	299	*e*Pn	Pn	03 35 01.1	-0.1
ULC				*i* Sn	Sn	03 35 49.0	-2.7
ULC				AML	AML		
TAVA	DENIZLI_Tavas	4.38	124	⇑P	Pn	03 35 03.0	+1.0
IVA	Berane	4.41	312	*e*Pn	Pn	03 35 02.3	-0.1
IVA				*i* Sn	Sn	03 35 51.2	-2.6
IVA				AML	AML		
GOCS	Kraljevo Serbi	4.41	325	*e*Sn	Sn	03 35 52.1	-1.8
DRME	Dracevica, Mon	4.46	301	*e*Pn	Pn	03 35 05.8	+2.7
DRME	Dracevica, Mon	4.46	301	*e*Pn	Pn	03 35 02.9	-0.2
DRME				*i* Sn	Sn	03 35 52.3	-2.8
DRME				AML	AML		
PDG	Podgorica	4.54	304	*e*Pn	Pn	03 35 05.6	+1.5
PDG	Podgorica	4.54	304	⇑P	Pn	03 35 05.7	+1.6
PDG	Podgorica	4.54	304	*e*Pn	Pn	03 35 06.3	+2.2
PDG	Podgorica	4.54	304	*e*Pn	Pn	03 35 04.5	+0.4
PDG				*i* Sn	Sn	03 35 54.1	-2.8
PDG				AML	AML		
HUMR	Humele	4.57	6	⇓P	Pn	03 35 04.1	-0.4
KOME	Kolasin	4.61	310	*e*Pn	Pn	03 35 05.0	-0.2
KOME				*i* Sn	Sn	03 35 56.2	-2.7
KOME				AML	AML		
SJES	Sjenica	4.62	317	*e*Pn	Pn	03 35 06.1	+0.8
SJES	Sjenica	4.62	317	*e*Pn	Pn	03 35 06.6	+1.3
BUM	Brajici-Budva	4.71	301	*e*Pn	Pn	03 35 06.3	-0.2
BUM				*i* Sn	Sn	03 35 58.3	-2.9
BUM				AML	AML		
IDI	Anoyia	4.71	174	Pn	Pn	03 35 06.1	-0.5
	4.9nm,0.3s,baz=334,slow=10.0,SNR=7.4						
IDI				Sn	Sn	03 35 55.5	-5.7
	1.1nm,0.3s,baz=344,slow=10.0,SNR=1.7						
GRUS	Gruza	4.74	327	*e*Pn	Pn	03 35 06.7	-0.2
IVAS	Ivanjica	4.75	320	*e*Pn	Pn	03 35 07.1	0.0
IVAS				*e*Sn	Sn	03 35 58.9	-3.5
CEME	Cevo	4.81	304	⇑*i*Pn	Pn	03 35 07.8	-0.1
CEME				*i* Sn	Sn	03 36 00.7	-3.0
CEME				AML	AML		
KUBS	Kucevo	4.84	337	*e*Pn	Pn	03 35 07.3	-1.0
ICOR	Ion Corvin	4.88	31	⇓P	Pn	03 35 09.3	+0.5
SULR		4.91	16	⇑P	Pn	03 35 10.1	+1.0
PLE	Pljevlja	4.98	314	*e*Pn	Pn	03 35 10.2	-0.1
PLE				*i* Sn	Sn	03 36 05.0	-3.1
PLE				AML	AML		
HCY	Herceg Novi	5.04	301	*e*Pn	Pn	03 35 12.0	+1.0
HCY	Herceg Novi	5.04	301	*e*Pn	Pn	03 35 10.9	-0.1
HCY				*i* Sn	Sn	03 36 06.1	-3.1
HCY				AML	AML		
TRUS	Trudelj	5.14	327	*e*Pn	Pn	03 35 12.1	-0.3
MDVR	Moldovita	5.17	339	*e*Pn	Pn	03 35 12.5	-0.3
MDVR				*e*Sn	Sn	03 36 09.3	-3.3
MDVR	Moldovita	5.17	339	⇑P	Pn	03 35 12.6	-0.3
UPM	Unac-Piva	5.18	310	*e*Pn	Pn	03 35 14.2	+1.1
UPM	Unac-Piva	5.18	310	*e*Pn	Pn	03 35 13.1	0.0
UPM				*i* Sn	Sn	03 36 09.7	-3.3
UPM				AML	AML		
DIVS	Divibare	5.22	323	*e*Pn	Pn	03 35 13.7	+0.1
DIVS				*e*Sn	Sn	03 36 10.5	-3.5
BRY	Bratogost	5.23	306	*e*Pn	Pn	03 35 14.5	+0.7
BRY	Bratogost	5.23	306	*e*Pn	Pn	03 35 13.7	-0.1
BRY				*i* Sn	Sn	03 36 10.8	-3.5
BRY				AML	AML		
TREB	Trebinje	5.26	303	*e*Pn	Pn	03 35 17.5	+3.5
BBLS	Lazi&#263i	5.34	318	*e*Pn	Pn	03 35 14.9	-0.3
BBLS	Lazi&#263i	5.34	318	*e*Pn	Pn	03 35 15.8	+0.6
KLINJ	Klinje	5.35	308	*e*Pn	Pn	03 35 18.0	+2.6
ARR	Arges	5.39	2	⇓P	Pn	03 35 15.9	+0.1
ISR	Istrita	5.39	17	⇑P	Pn	03 35 16.8	+0.9
TIRR	Tirgusor	5.41	33	⇓P	Pn	03 35 16.3	+0.2
VOIR		5.48	5	⇑P	Pn	03 35 17.9	+0.8
GZR	Gura Zlata	5.53	349	*e*Pn	Pn	03 35 17.3	-0.5
GZR				*e*Sn	Sn	03 36 16.8	-4.6
GZR	Gura Zlata	5.53	349	⇓P	Pn	03 35 17.7	-0.1
VRSS	Vrsac	5.59	338	*e*Pn	Pn	03 35 18.1	-0.5
MLR	Muntele Rosu	5.63	12	Pn	Pn	03 35 18.8	-0.4
	1.1nm,0.3s,baz=270,slow=23,SNR=15						
MLR				Sn	Sn	03 36 25.6	+1.4
	2.0nm,0.3s,baz=267,slow=23,SNR=1.6						
MLR				Lg	Lg	03 36 54.0	
	2.0nm,0.3s,baz=245,slow=22,SNR=4.3 10.0nm,0.6s						
MLR				AML	AML		
MLR	Muntele Rosu	5.63	12	*e*Pn	Pn	03 35 19.9	+0.6
MLR	Muntele Rosu	5.63	12	⇑P	Pn	03 35 20.4	+1.1
TEKS	Tekeris	5.78	324	*e*Pn	Pn	03 35 20.9	-0.3
TEKS				*e*Sn	Sn	03 36 22.8	-4.9
TEKS	Tekeris	5.78	324	*e*Pn	Pn	03 35 20.7	-0.5
TIP	Timpagrande	5.90	265	⇓P	Pn	03 35 23.7	+0.8
BZS	Buzias	5.97	341	*e*Pn	Pn	03 35 23.4	-0.4
BZS	Buzias	5.97	341	⇓P	Pn	03 35 23.6	-0.2
SURR	Surduc	5.99	345	⇑P	Pn	03 35 24.7	+0.6
SAHR	Sahastru	6.00	16	⇓P	Pn	03 35 25.9	+1.7
PLOR	Plostina	6.11	15	⇑P	Pn	03 35 26.4	+0.6
VRI	Vrincioaia	6.14	16	⇑P	Pn	03 35 27.0	+0.9
FRGS	Fruska Gora	6.15	329	*e*Pn	Pn	03 35 26.9	+0.6
MDB	Medias	6.16	0	⇓P	Pn	03 35 27.7	+1.3
TLCR		6.17	31	⇑P	Pn	03 35 27.0	+0.6
TURR	Turia	6.20	11	⇑P	Pn	03 35 28.2	+1.3
OZUR		6.21	9	⇓P	Pn	03 35 27.9	+0.9
VARL	Varlezi	6.46	22	⇓P	Pn	03 35 31.9	+1.5
VLDR	Vladesti	6.48	24	⇑P	Pn	03 35 31.7	+1.0
TESR	Tescani	6.75	14	⇑P	Pn	03 35 35.2	+0.8
BIZ	Bicaz	7.08	10	⇓P	Pn	03 35 40.3	+1.4
BLY	Banja Luka	7.11	314	⇑P	Pn	03 35 40.9	+1.4
BLY	Banja Luka	7.11	314	*e*Pn	Pn	03 35 41.1	+1.6
BRTR	Keskin Array B	7.17	89	Pn	Pn	03 35 40.5	0.0
	0.8nm,0.3s,baz=262,slow=11,SNR=22						
BRTR				Sn	Sn	03 36 59.0	-3.1
	0.3nm,0.3s,baz=268,slow=18,SNR=1.4						
BRTR				Lg	Lg	03 37 45.0	
	baz=266,slow=18						
BRTR				LR	LR	03 38 28.9	
	comp=Z,49nm,19.5s,baz=272,slow=38 1.6nm,0.4s						
BRTR				AML	AML		
BURAR	Bucovina Array	7.66	5	⇑P	Pn	03 35 47.9	+0.8
SORM	Soroca	8.65	18	⇓P	Pn	03 36 00.1	-0.4
SOKA	Soboth	9.51	318	*e*Pn	Pn	03 36 13.6	+1.2
	0.9nm,0.4s						
RONA	Rosalia, Austr	9.64	326	*e*Pn	Pn	03 36 15.3	+1.1
	1.6nm,0.5s						
OBKA	Obir	9.66	316	*e*Pn	Pn	03 36 15.3	+0.9
	2.0nm,0.5s						
VRAC	Vranov	10.82	332	Pn	Pn	03 36 29.5	-0.8
	0.2nm,0.3s,baz=133,slow=19,SNR=1.5 0.9nm,0.3s						
VRAC				AML	AML		
ABTA	Abfaltersbach	10.93	312	*e*Pn	Pn	03 36 33.0	+1.2
	1.3nm,0.5s						
LESA	Schwarzleotal	11.23	315	*e*Pn	Pn	03 36 37.5	+1.5
	2.2nm,0.6s						
AKASG	Malin Array Be	11.26	16	Pn	Pn	03 36 35.1	-1.1
	1.2nm,0.3s,baz=206,slow=12,SNR=4.8 0.3nm,0.3s						
AKASG				AML	AML		
MMAI	Mount Meron Ar	11.30	125	LR	LR	03 41 42.7	
	comp=Z,37nm,19.8s,baz=312,slow=41						
GERES	GERESS Array B	11.66	323	Pn	Pn	03 36 44.5	+2.7
	baz=151,slow=20,SNR=3.6						
GERES				LR	LR	03 42 10.1	
	comp=Z,38nm,18.6s,baz=174,slow=43 0.4nm,0.4s						
WTTA	Wattenberg	11.71	313	*e*Pn	Pn	03 36 44.1	+1.4
	0.9nm,0.3s						
DAVOX	Davos/Dischmat	12.50	308	Pn	Pn	03 36 52.6	-0.8
	0.1nm,0.3s,baz=135,slow=8.6,SNR=4.3						
DAVOX				LR	LR	03 42 44.8	
	comp=Z,86nm,18.2s,baz=92,slow=43 0.6nm,0.4s						
DAVOX				AML	AML		
ASF	Jabal al Asfar	12.81	124	LR	LR	03 43 12.8	
	comp=Z,32nm,21.0s,baz=208,slow=44						
HFS	Hagfors	21.24	345	P	P	03 38 43.1	+1.8
	0.8nm,0.8s,baz=159,slow=13,SNR=2.1						
HFS				LR	LR	03 47 23.1	
	comp=Z,17nm,18.0s,baz=183,slow=38 0.8nm,0.8s						
FINES	FINESS Array B	21.52	2	P	P	03 38 43.7	-0.5
	0.8nm,0.8s,baz=189,slow=14,SNR=1.5						
FINES				LR	LR	03 48 06.7	
	comp=Z,83nm,18.4s,baz=190,slow=40 0.8nm,0.8s						
ESDC	Sonseca Array	21.69	278	P	P	03 38 45.2	-1.1
	1.2nm,0.9s,baz=75,slow=11,SNR=5.5 1.2nm,0.9s						
NB2	NORSAR Subarra	22.59	343	P	P	03 38 52.4	-3.4
	comp=Z,4.6nm,1.4s,baz=153,slow=11						
NOA	NORSAR Array B	22.59	343	P	P	03 38 55.1	-0.7
	comp=Z,1.3nm,1.1s,baz=147,slow=9.1,SNR=6.7						
NOA				LR	LR	03 48 12.0	
	comp=Z,14nm,21.6s,baz=85,slow=38 comp=Z,1.3nm,1.1s						
AKTO	Aktyubinsk	25.73	55	LR	LR	03 51 20.2	
	comp=Z,34nm,18.8s,baz=288,slow=41						
ARCES	ARCESS Array B	29.62	1	LR	LR	03 52 38.5	
	comp=Z,88nm,18.1s,baz=160,slow=38						
TORD	Torodi Ar. Bea	33.33	223	P	P	03 40 33.9	+0.3
	comp=Z,1.0nm,0.6s,baz=33,slow=9.2,SNR=10 comp=Z,1.0nm,0.6s						
MKAR	Makanchi Array	41.84	61	P	P	03 41 47.4	+2.0
	comp=Z,0.6nm,0.6s,baz=287,slow=6.6,SNR=6.4 comp=Z,0.6nm,0.6s						
ZALV	Zalesovo Beam	42.28	50	P	P	03 41 49.9	+1.2
	comp=Z,0.7nm,0.5s,baz=282,slow=7.4,SNR=3.7						
ZALV				LR	LR	04 01 03.3	
	comp=Z,21nm,18.3s,baz=117,slow=38 comp=Z,0.7nm,0.5s						
NRIK	Noril'sk	43.85	27	LR	LR	04 01 18.8	
	comp=Z,37nm,18.8s,baz=186,slow=38						
CMAR	Chiang Mai Arr	66.75	85	P	P	03 44 49.3	+2.2
	comp=Z,1.9nm,0.3s,baz=326,slow=12,SNR=4.1						
BOSA	Boshof	68.25	179	P	P	03 44 58.6	+2.3
	comp=Z,2.5nm,0.9s,baz=2.6,slow=6.0,SNR=3.9 comp=Z,2.5nm,0.9s						
PDAR	Pinedale Array	87.66	328	LR	LR	04 26 46.7	
	comp=Z,24nm,18.3s,baz=163,slow=36						

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*MEX **30** 03:37:52.8±0.7, 14°.81N×93°.28W, h15^{km}±13^{km}, MD3.9, Presumed earthquake*

*GCG **30** 03:37:54.6±1.0, 15°.03N×92°.96W, h60^{km}±22^{km}, MD4.1, Presumed earthquake*

ISC 30 03:37:47.6±1.9**, 14°.76N**±0°.09×**93°.24W**±0°.04**, h15**^{km}±14^{km}**, n14, σ1^{s}.70**/24**, Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THIG		0.96	81	*e*P	Pn	03 38 08.5	+2.0
THIG				*e*S	Sn	03 38 21.1	+1.2
THIG		0.96	81	*i* P	Pn	03 38 08.6	+2.0
PATR	El Naranjo	1.04	70	*e*P	Pn	03 38 09.3	+1.4
PATR				*e*S	Sn	03 38 22.3	0.0
PAVE	Pavencul	1.12	67	*e*P	Pn	03 38 10.3	+1.3
PAVE				*e*S	Sn	03 38 24.4	+0.1
CHUJ	Union Juarez	1.15	73	*e*P	Pn	03 38 10.8	+1.4
CHUJ				*e*S	Sn	03 38 25.3	+0.3
RTAL	Retalhuleu	1.52	99	*e*P	Pg	03 38 16.7	-0.1
RTAL				*e*S	Sb	03 38 35.1	+0.5
STG8	El Palmar, Qui	1.86	99	*i* P	Pn	03 38 17.5	-1.7
TGIG		2.01	3	*e*P	Pb	03 38 22.9	-1.0
TGIG				*e*S	Sn	03 38 45.6	-0.5
TGIG		2.01	3	*i* P	Pb	03 38 22.9	-1.0
UXUV	UXUV	2.69	341	*e*P	Pn	03 38 33.0	+2.6
UXUV				*e*S	Sn	03 39 03.7	+1.0
CMIG	Matias Romero	2.81	326	*e*P	Pn	03 38 33.5	+1.5
CMIG				*e*S	Sn	03 39 04.8	-0.8
NEUV	Arroyo Zacate	3.83	320	*e*P	Pn	03 38 47.3	+1.2
NEUV				*e*S	Sn	03 39 30.2	-0.7
PEIG	Puerto Escondi	3.96	289	*e*P	Pn	03 38 49.1	+1.2
PEIG				*e*S	Sn	03 39 32.9	-1.4
SCIG	Sabancuy	4.62	25	*e*S	Sn	03 39 45.8	-4.7

RSNC 30 04:01:10.7±0.0**, 4°N**±1°×**7°1W**±°**, h0**^{km}±2^{km}**, M3.1, mb4.1, ML2.8, MLv3.7, Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PGA4	Puerto Gaitan	0.08	134	P	Pg	04 01 12.0	-0.3
PGA4				S	Sg	04 01 14.4	+1.1
PGA4				AML	AML		
PGA4				AML	AML		
PGA3	Puerto Gaitan	0.09	256	P	Pg	04 01 11.2	-1.2
PGA3				S	Sg	04 01 13.3	-0.3
PGA3				AML	AML		
PGA3				AML	AML		
GUVC	San Jose del G	1.78	220	P	Pn	04 01 40.8	-2.0
GUVC				S	Sn	04 02 05.0	-1.2
GUVC				AML	AML		
GUVC				AML	AML		
VILC	Villavicencio,	2.22	275	P	Pn	04 01 48.5	-0.4
VILC				S	Sn	04 02 18.1	+1.0
VILC				AML	AML		
VILC				AML	AML		
CHIC	Chingaza	2.35	288	P	Pn	04 01 50.0	-1.0
CHIC				S	Sn	04 02 20.4	-0.4
CHIC				AML	AML		
CHIC				AML	AML		
TAMC	Tame, Arauca	2.52	353	P	Pn	04 01 52.0	-1.0
TAMC				S	Sn	04 02 24.3	-0.1
TAMC				AML	AML		
TAMC				AML	AML		
RUSC	La Rusia	2.53	321	P	Pn	04 01 52.6	-0.9
RUSC				S	Sn	04 02 24.7	-0.6
RUSC				AML	AML		
RUSC				AML	AML		
CVER	Cruz Verde, Cu	2.66	283	P	Pn	04 01 54.3	-0.9
CVER				S	Sn	04 02 28.8	+0.4
CVER				AML	AML		
CVER				AML	AML		
MACC	Macarena, Meta	2.95	233	P	Pn	04 01 59.2	+0.3
MACC				S	Sn	04 02 36.3	+1.3
MACC				AML	AML		
MACC				AML	AML		
ROSC	El Rosal	2.98	288	P	Pn	04 01 59.7	+0.1
ROSC				S	Sn	04 02 36.5	+0.3
ROSC				AML	AML		
ROSC				AML	AML		
SPBC	San Pablo de B	3.10	304	P	Pn	04 02 00.5	-0.6
SPBC				S	Sn	04 02 36.3	-2.6
SPBC				AML	AML		
SPBC				AML	AML		
BARC	Barichara	3.15	328	P	Pn	04 02 00.1	-1.7
BARC				S	Sn	04 02 38.6	-1.7
BARC				AML	AML		
BARC				AML	AML		
PRAC	Prado	3.41	267	P	Pn	04 02 05.1	-0.1
PRAC				S	Sn	04 02 46.8	+0.5
PRAC				AML	AML		
PRAC				AML	AML		
PAMC	Pamplona, Colo	3.61	340	P	Pn	04 02 04.4	-3.9
PAMC				AML	AML		
PAMC				AML	AML		
NORC	Norcasia	3.75	296	P	Pn	04 02 08.8	-1.1
NORC				S	Sn	04 02 55.3	+0.4
NORC				AML	AML		
NORC				AML	AML		
ORTC	Ortega, Tolima	3.76	270	P	Pn	04 02 09.8	-0.2
ORTC				S	Sn	04 02 56.0	+1.0
ORTC				AML	AML		
ORTC				AML	AML		
PTBC	PUERTO BERRIO,	3.94	311	P	Pn	04 02 10.8	-1.8
PTBC				AML	AML		
PTBC				AML	AML		
GUY2C	Guyana, Caldas	4.08	289	P	Pn	04 02 14.4	-0.5
GUY2C				S	Sn	04 02 59.6	-4.1
GUY2C				AML	AML		
GUY2C				AML	AML		
GARC	Garzon, Huila	4.36	247	P	Pn	04 02 17.8	-0.7
GARC				AML	AML		
GARC				AML	AML		
OCAC	Ocana	4.66	337	P	Pn	04 02 20.9	-1.7
OCAC				AML	AML		
OCAC				AML	AML		
CBOC	Ciudad Bolivar	4.91	293	P	Pn	04 02 26.1	+0.1
CBOC				AML	AML		
CBOC				AML	AML		
PTLC	Puerto Leguiza	4.99	222	P	Pn	04 02 27.2	+0.3
PTLC				AML	AML		
PTLC				AML	AML		
POPC	Popayan, Colom	5.37	255	P	Pn	04 02 32.7	+0.4
	0.0nm6.1nm,0.6s						
POPC				S	Sn	04 03 35.9	+0.9
	0.0nm6.1nm,0.6s						
POPC				AML	AML		
POPC				AML	AML		
URIC	Uribia, Colomb	7.75	356	P	Pn	04 03 01.2	-3.6

HEL 30 04:05:28.2±0.2**, 67°.65N**×**33°.67E, h0**^{km}**, ML1.1, Explosion, Baltic States-Belarus-Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LVZ	Lovozero	0.45	55	SG	Sg	04 05 42.3	-0.3
VRF	Varrio	1.55	276	PN	Pn	04 05 56.8	-0.3
VRF				smax	smax	04 06 14.9	
	comp=Z,1.9nm,0.2s						
VRF				SG	Sn	04 06 16.0	-1.9
OLKF	Oulanka, Finla	2.14	234	PG	Pb	04 06 06.7	-1.1
OLKF				smax	smax	04 06 31.7	
	comp=Z,0.9nm,0.2s						
OLKF				SG	Sb	04 06 35.0	+0.1
RAJF	Raja-Jooseppi	2.18	295	SN	Sn	04 06 30.8	-2.5
KU6	Riekki	2.21	224	PG	Pb	04 06 07.7	-1.2
	baz=42						
KU6				smax	smax	04 06 33.8	
	comp=Z,0.5nm,0.2s						
KU6				SG	Sb	04 06 37.4	+0.6
KU2	Taivalkoski	2.91	231	PG	Pb	04 06 22.2	+1.3
RNF	Rovaniemi	3.17	254	SB	Sn	04 06 59.4	+1.8
RANF	Ranua	3.18	242	SG	Sb	04 07 04.8	+0.2
KEV	Kevo	3.23	314	SN	Sn	04 06 58.4	-0.7
ARA0	ARCESS Array S	3.54	306	SN	Sn	04 07 05.3	-1.6
PAJU	Pajala	4.13	266	SN	Sn	04 07 20.2	-1.3

KOLA 30 04:06:09.1, 67°.67N×**33°.74E, h0**^{km}**, ML1.4, Error ellipse: s-maj=2.3km s-min=1.1km az=130.0, Khibiny, mines Kirovsk, Yukspor, Baltic States-Belarus-Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APA	Apatity	0.16	233	P	Pg	04 06 12.1	0.0
APA				S	Sg	04 06 14.5	+0.3
APA0	Apatity Array	0.29	258	P	Pg	04 06 14.2	-0.4
APA0				S	Sg	04 06 18.3	-0.1
LVZ	Lovozero	0.42	56	S	Sg	04 06 22.7	+0.2
KVDA	Kovda	1.03	199	P	Pg	04 06 27.8	-1.1
KVDA				S	Sg	04 06 41.0	-1.3
TERR	Teriberka	1.62	18	P	Pn	04 06 37.9	-1.0
TERR				S	Sn	04 06 58.9	-1.6
ARCES	ARCESS Array B	3.55	306	P	Pn	04 07 04.3	-1.1

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*ISK **30** 04:15:33.9, 38°.06N×34°.03E, h5^{km}, ML4.0/45*

*IDC **30** 04:15:34.9±0.8, 38°.09N×34°.27E, h0^{km}, mb3.7/6, mbtmp3.7/12, ML3.5/5, MS3.3/12, Error ellipse: s-maj=20.0km s-min=8.4km az=78.0*

*AFAD **30** 04:15:34.6, 38°.05N×34°.03E, h7^{km}±2^{km}, MW4.0*

ISC 30 04:15:35.5±1.1**, 38°.07N**±0°.02×**34°.04E**±0°.02**, h6**^{km}±8^{km}**, n92, σ0^{s}.87**/103**, mb3.6**/5**, MS3.1**/6**, 1D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BSIR	Belisirma, Guz	0.28	44	P	Pg	04 15 41.4	+0.4
GULA	Gulagac	0.31	29	Pg	Pg	04 15 41.6	-0.1
GULA				Sg	Sb	04 15 47.2	-1.8
GULA				AML	AML		
YESY	Yesilyurt	0.37	220	Pg	Pg	04 15 42.0	-0.8
YESY				AML	AML		
NIDE	Nigde/Merkez-G	0.58	97	P	Pg	04 15 46.3	-0.5
NIDE				S	Sg	04 15 54.5	+0.2
AKSY	AKSARAY - Alti	0.62	339	P	Pg	04 15 47.3	-0.1
AKSY				S	Sg	04 15 55.5	0.0
CMRD	Camardi-Nigde	0.85	118	Pg	Pg	04 15 51.4	-0.5
CMRD				Sg	Sb	04 16 04.1	-0.4
CMRD				AML	AML		
ALIN	Konya, Altinte	0.95	284	P	Pg	04 15 52.8	-0.9
ALIN				S	Sg	04 16 06.2	+0.3
SERE	Sereflikochisa	0.95	337	Pg	Pg	04 15 53.2	-0.6
SERE				AML	AML		
AVNS	Nevsehir-Avano	0.97	40	P	Pg	04 15 53.5	-0.6
AVNS				S	Sn	04 16 09.2	-0.7
YAHY	KAYSERI_Yahyal	1.04	88	P	Pg	04 15 54.6	-0.9
YAHY				S	Sb	04 16 09.4	-0.6
KIRS	Kirsehir-Merke	1.07	355	P	Pg	04 15 55.5	-0.5
KIRS				S	Sb	04 16 10.4	-0.3
KRMN	Karaman	1.09	215	Pg	Pg	04 15 55.4	-1.0
KRMN				AML	AML		
MCUR	KIREHR	1.15	19	P	Pg	04 15 56.8	-0.8
MCUR				S	Sb	04 16 13.2	-0.1
CBEY	Konya-Cihanbey	1.17	302	P	Pg	04 15 57.0	-0.9
CBEY				S	Sg	04 16 13.0	-0.1
KKBE	Karaman, Kazim	1.22	226	P	Pg	04 15 57.9	-1.0
KULU	Kulu	1.27	320	Pn	Pg	04 15 58.9	-0.9
KULU				AML	AML		
KOZK	Kozakli-Nevseh	1.31	29	Pn	Pb	04 16 00.2	-0.4
KOZK				AML	AML		
KAMT	Kaman	1.32	349	Pn	Pg	04 16 00.3	-0.6
KAMT				AML	AML		
LADK	Ladik-KONYA	1.33	276	Pn	Pn	04 15 59.6	-1.2
LADK				AML	AML		
KONT	Konya--Tatoy	1.34	265	Pn	Pn	04 16 00.1	-0.6
KONT				AML	AML		
CAYT	Sariam	1.35	131	P	Pn	04 15 59.5	-1.4
CAYT				S	Sn	04 16 20.0	+0.8
KMER	Konya-Meram	1.36	258	P	Pn	04 16 00.3	-0.8
KMER				S	Sn	04 16 20.5	+0.9
AKPI	Kirsehir/Akpin	1.43	359	P	Pn	04 16 01.0	-1.1
AKPI				S	Sn	04 16 22.9	+1.5
KOZT	Kozan	1.53	112	Pn	Pn	04 16 03.4	0.0
KOZT				AML	AML		
AFSR	Afar-Bala (An	1.57	331	Pn	Pn	04 16 03.9	-0.2
AFSR				AML	AML		
CDAG	Cicekdag	1.57	9	P	Pb	04 16 04.3	-0.8
CDAG				S	Sg	04 16 27.1	+1.1
KIZK	Mersin	1.59	177	Pn	Pn	04 16 03.9	-0.3
KIZK				AML	AML		
KIZK	Mersin	1.59	177	P	Pn	04 16 04.1	-0.1
KIZK				S	Sn	04 16 24.8	-0.2
KESK	Krkkale-Ke	1.60	347	P	Pb	04 16 05.1	-0.5
KESK				S	Sg	04 16 27.6	+0.5
BNN	Bunyan	1.62	61	Pn	Pn	04 16 04.7	0.0
BNN				AML	AML		
BBAL	Bala	1.64	334	P	Pg	04 16 06.6	-0.3
BBAL				S	Sg	04 16 29.0	+0.8
KEBE	Keben-Mersin	1.64	189	Pn	Pn	04 16 04.7	-0.3
KEBE				AML	AML		
HDMB	Hadim	1.66	229	Pn	Pn	04 16 05.0	-0.4
HDMB				AML	AML		
SLFK	Silifke-Mersin	1.68	183	Pn	Pn	04 16 05.2	-0.2
SLFK				AML	AML		
BR131	Keskin Array S	1.68	349	Pn	Pn	04 16 05.5	-0.1
BR131				AML	AML		
BRTR	Keskin Array B	1.68	349	Pg	Pn	04 16 05.2	-0.5
	15nm,0.3s,baz=162,slow=17,SNR=172						
BRTR				Lg	Lg	04 16 31.8	
	65nm,0.3s,baz=166,slow=28,SNR=31						
BRTR				LR	LR	04 17 01.0	
	comp=Z,572nm,20.6s,baz=26,slow=51						

ERMK	Ermenek	1.69	213	P	Pg	04 16 08.3	+0.5
ERMK				S	Sg	04 16 31.2	+1.5
TEVE	Tevekalti-Mers	1.70	197	Pn	Pn	04 16 05.6	-0.2
TEVE				AML	AML		
SILI	Silifke-Mersin	1.70	183	Pn	Pn	04 16 05.7	0.0
SILI				AML	AML		
YOZG	Bozok Univ. Me	1.81	19	P	Pn	04 16 07.5	+0.2
YOZG				S	Sb	04 16 32.0	0.0
BERE	Bereket-Mersin	1.84	201	Pn	Pn	04 16 07.5	-0.3
BERE				AML	AML		
IKL	Isikli	1.85	189	Pn	Pn	04 16 07.9	+0.1
IKL				AML	AML		
YOZ	Yozgat	1.86	32	Pn	Pn	04 16 08.2	+0.2
YOZ				AML	AML		
SEYD	Seydisehir-KON	1.87	250	Pn	Pn	04 16 08.1	-0.1
SEYD				AML	AML		
KIZT	Kizilcal	1.88	296	Pn	Pb	04 16 09.9	-0.4
KIZT				AML	AML		
KARG	Kargicak-Mersi	1.88	188	Pn	Pn	04 16 08.1	-0.1
KARG				AML	AML		
TEPK	Tepekoy-MERSIN	1.89	192	Pn	Pn	04 16 08.2	-0.1
YESI	Yesilovacik-Me	1.90	190	Pn	Pn	04 16 08.3	-0.1
YESI				AML	AML		
SARI	SarD1z-Kayseri	1.90	79	Pn	Pn	04 16 08.8	+0.2
SARI				AML	AML		
OREN	Orenkoy-Mersin	1.92	194	Pn	Pn	04 16 08.6	-0.1
OREN				AML	AML		
GULN	MERSIN_Gulnar	1.93	192	P	Pn	04 16 09.6	+0.8
TISA	Tisan-Mersin	1.93	189	Pn	Pn	04 16 08.8	0.0
BECE	Buyukeceli-Mer	1.95	192	Pn	Pn	04 16 09.2	+0.1
BECE				AML	AML		
AKK1	Akkuyu-Mersin	1.96	192	Pn	Pn	04 16 09.4	+0.1
AKK1				AML	AML		
YORU	Yoruktepe-Mers	1.98	195	Pn	Pn	04 16 09.7	+0.1
YORU				AML	AML		
TEKE	Tekeli-Mersin	2.06	201	Pn	Pn	04 16 10.7	0.0
TEKE				AML	AML		
LOD	Lodumlu	2.07	332	Pn	Pn	04 16 11.6	+0.7
LOD				AML	AML		
GAZI	Gazipasa	2.29	218	Pn	Pn	04 16 14.0	+0.1
GAZI				AML	AML		
KMRS	Kahramanmaras	2.33	103	Pn	Pn	04 16 14.9	+0.4
KMRS				AML	AML		
SVRH	Sivrihisar-ESK	2.40	306	Pn	Pn	04 16 15.7	+0.2
SVRH				AML	AML		
TAHT	Tahtakopru-Hat	2.41	134	Pn	Pn	04 16 16.7	+1.3
TAHT				AML	AML		
SDAG	Sultandagi-AFY	2.49	279	Pn	Pn	04 16 16.9	+0.2
SDAG				AML	AML		
CIFT	Cifteler, Eski	2.67	300	Pn	Pn	04 16 19.1	0.0
CIFT				AML	AML		
GAZ	Gaziantep	2.67	109	Pn	Pn	04 16 19.6	+0.5
GAZ				AML	AML		
DARE	Darende-Malaty	2.75	78	Pn	Pn	04 16 20.9	+0.6
DARE				AML	AML		
YALI	Yalozu-CANKI	2.82	343	Pn	Pn	04 16 22.2	+1.0
YALI				AML	AML		
SVSK	Karacayir	2.95	50	Pn	Pn	04 16 23.7	+0.8
SVSK				AML	AML		
TOKT	Tokat	2.97	40	Pn	Pn	04 16 24.1	+0.9
TOKT				AML	AML		
MMAI	Mount Meron Ar	5.16	167	Pn	Pn	04 16 54.4	+0.9
	7.3nm,0.3s,baz=355,slow=18,SNR=12						
MMAI				Sn	Sn	04 17 51.9	-1.5
	baz=356,slow=31						
MMAI				LR	LR	04 19 36.3	
	comp=Z,178nm,18.2s,baz=344,slow=47						
	4.8nm,0.4s						
MMAI				AML	AML		
ASF	Jabal al Asfar	6.33	157	Pn	Pn	04 17 10.8	+1.3
	0.9nm,0.3s,baz=313,slow=19,SNR=7.0						
ASF				Lg	Lg	04 18 48.0	
	0.5nm,0.3s,baz=160,slow=23,SNR=6.4						
	4.9nm,0.6s						
ASF				AML	AML		
SEV	Sevastopol'	6.47	358	⇓eP	Pn	04 17 11.8	+0.5
SEV				pmax	pmax	04 17 16.4	
	comp=Z,7.0nm,0.4s						
SEV				ex	x	04 18 18.6	
SEV				ex	Sn	04 18 24.9	-0.6
SEV				smax	smax	04 18 41.4	
	comp=N,2.0nm,0.4s						
SEV				smax	smax	04 18 41.4	
	comp=E,1.0nm,0.4s						
DNZ2	Donuzlav2	7.33	355	eP	Pn	04 17 27.6	+4.6
DNZ2				pmax	pmax	04 17 30.4	
	comp=Z,32nm,0.5s						
IDI	Anoyia	7.86	252	Pn	Pn	04 17 35.9	+5.4
	comp=Z,12nm,0.9s,baz=274,slow=13,SNR=1.6						
EIL	Elat	8.41	175	Pn	Pn	04 17 40.8	+2.8
	comp=Z,0.5nm,0.3s,baz=349,slow=10,SNR=1.7						
EIL				LR	LR	04 20 46.6	
	comp=Z,85nm,19.8s,baz=358,slow=37						
	comp=Z,2.5nm,0.5s						
EIL				AML	AML		
GNI	Garni	8.57	73	Sn	Sn	04 19 14.8	-2.5
	comp=Z,4.0nm,0.3s,baz=160,slow=20,SNR=1.7						
MLR	Muntele Rosu	9.56	323	LR	LR	04 22 22.8	
	comp=Z,249nm,19.2s,baz=180,slow=42						
AKASG	Malin Array Be	13.09	346	Pn	Pn	04 18 42.5	+0.7
	comp=Z,0.4nm,0.3s,baz=159,slow=13,SNR=2.0						
	comp=Z,0.1nm,0.2s						
AKASG				AML	AML		
VRAC	Vranov	16.85	317	LR	LR	04 27 24.0	
	comp=Z,92nm,19.4s,baz=142,slow=42						
GERES	GERESS Array B	18.22	313	Pn	P	04 19 50.9	+1.6
	baz=135,slow=13,SNR=3.7						
GERES				LR	LR	04 28 12.2	
	comp=Z,92nm,18.3s,baz=142,slow=41						
	comp=Z,0.6nm,0.2s						
DAVOX	Davos/Dischmat	19.79	304	LR	LR	04 28 46.5	
	comp=Z,74nm,18.6s,baz=96,slow=40						
CLL	Collm	19.88	318	eS	Sn	04 23 56.0	+3.5
CLL				LV		04 26 00.0	
CLL				LH		04 26 00.0	
CLL				AMS	AMS	04 29 00.0	
	comp=N,100nm,16.3s						
CLL				AMS	AMS	04 29 00.0	
	comp=E,100nm,15.1s						
CLL				AMS	AMS	04 29 00.0	
	comp=Z,200nm,14.3s						
AKTO	Aktyubinsk	21.05	46	P	P	04 20 19.1	-1.0
	comp=Z,0.7nm,0.3s,baz=260,slow=9.6,SNR=3.6						
	comp=Z,0.7nm,0.3s						
FINES	FINESS Array B	23.92	351	P	P	04 20 49.6	-0.3
	comp=Z,0.3nm,0.4s,baz=161,slow=8.9,SNR=5.8						
	comp=Z,0.3nm,0.4s						
HFS	Hagfors	25.58	336	P	P	04 21 05.7	+0.6
	comp=Z,1.1nm,0.8s,baz=140,slow=9.3,SNR=1.9						
HFS				LR	LR	04 33 09.4	
	comp=Z,76nm,18.3s,baz=144,slow=41						
	comp=Z,1.1nm,0.8s						
NOA	NORSAR Array B	27.07	335	LR	LR	04 34 04.0	
	comp=Z,46nm,18.9s,baz=135,slow=41						
ESDC	Sonseca Array	29.49	285	LR	LR	04 33 05.0	
	comp=Z,40nm,21.7s,baz=120,slow=35						
EKA	Eskdalemuir Ar	30.33	317	LR	LR	04 34 42.2	
	comp=Z,48nm,18.2s,baz=158,slow=38						
ARCES	ARCESS Array B	31.86	354	P	P	04 21 59.8	-1.2
	comp=Z,0.6nm,0.8s,baz=170,slow=11,SNR=7.0						
	comp=Z,0.6nm,0.8s						
KURBB	Kurchatov Arra	33.69	54	P	P	04 22 16.8	-0.4
	comp=Z,2.5nm,0.2s,baz=271,slow=10,SNR=7.7						
	comp=Z,2.5nm,0.2s						
MKAR	Makanchi Array	36.17	60	LR	LR	04 39 35.9	
	comp=Z,32nm,20.4s,baz=250,slow=40						
TORD	Torodi Ar. Bea	37.97	238	P	P	04 22 55.2	+1.0
	comp=Z,2.1nm,0.9s,baz=38,slow=10,SNR=8.5						
	comp=Z,2.1nm,0.9s						
LZDM	Lanzhou Array	54.43	69	LR	LR	04 49 50.8	
	comp=Z,166nm,19.2s,baz=130,slow=38						

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*ISK **30** 04:19:51.4, 38.°05N×34.°03E, h6^{km}, ML3.7/28*
*AFAD **30** 04:19:51.1, 38.°04N×34.°00E, h7^{km}±3^{km}, MW3.8*
*IDC **30** 04:19:52.2±0.9, 38.°10N×34.°19E, h0^{km}, mb3.4/4, mbtmp3.5/8, ML3.3/2, Error ellipse: s-maj=19.8km s-min=9.8km az=82.0*
ISC 30 04:19:51.9±1.1, **38.°05N**±0.°02×**34.°03E**±0.°02, **h5**^{km}±9^{km}, **n62, σ0^{s}90**/81, **mb3.3**/3, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BSIR	Belisirma, Guz	0.30	42	P	Pg	04 19 58.5	+0.7
GULA	Gulagac	0.34	28	Pg	Pg	04 19 58.6	+0.1
GULA				Sg	Sb	04 20 04.4	-1.8
GULA				AML	AML		
YESY	Yesilyurt	0.35	221	Pg	Pg	04 19 59.2	+0.4
YESY				AML	AML		
NIDE	Nigde/Merkez-G	0.59	95	P	Pg	04 20 03.3	0.0
NIDE				S	Sb	04 20 11.7	-1.8
AKSY	AKSARAY - Alti	0.64	340	P	Pg	04 20 03.7	-0.4
AKSY				S	Sg	04 20 12.0	-0.5
CMRD	Camardi-Nigde	0.85	117	Pg	Pg	04 20 07.2	-1.0
CMRD				AML	AML		
ALIN	Konya, Altinte	0.94	286	P	Pg	04 20 09.0	-1.0
ALIN				S	Sg	04 20 21.3	-1.0
SERE	Sereflikochisa	0.97	338	Pg	Pg	04 20 10.5	0.0
SERE				AML	AML		
AVNS	Nevsehir-Avano	0.99	40	P	Pg	04 20 10.6	-0.3
AVNS				S	Sb	04 20 25.5	+0.5
YAHY	KAYSERI_Yahyal	1.05	87	P	Pg	04 20 11.8	-0.3
YAHY				S	Sb	04 20 26.0	-0.8
KRMN	Karaman	1.07	215	Pg	Pg	04 20 11.3	-1.1
KRMN				Sg	Sb	04 20 27.5	+0.3
KRMN				AML	AML		
KIRS	Kirsehir-Merke	1.09	355	P	Pg	04 20 12.4	-0.4
KIRS				S	Sg	04 20 27.2	+0.4
CBEY	Konya-Cihanbey	1.17	303	P	Pg	04 20 13.8	-0.7
CBEY				S	Sg	04 20 30.5	+0.8
MCUR	KIREHR	1.18	19	P	Pg	04 20 13.6	-0.9
MCUR				S	Sg	04 20 29.9	+0.1
KULU	Kulu	1.28	321	Pn	Pn	04 20 16.2	-0.4
KULU				AML	AML		
LADK	Ladik-KONYA	1.32	277	Pn	Pn	04 20 16.6	-0.6
LADK				AML	AML		
KONT	Konya--Tatoy	1.33	266	Pn	Pn	04 20 16.7	-0.4
KONT				AML	AML		
KOZK	Kozakli-Nevseh	1.33	29	Pn	Pb	04 20 17.3	-0.1
KOZK				AML	AML		
KAMT	Kaman	1.34	349	Pn	Pn	04 20 16.4	-1.0
KAMT				AML	AML		
CAYT	Sariam	1.34	130	P	Pn	04 20 16.5	-0.8
CAYT				S	Sn	04 20 36.3	+0.7
AKPI	Kirsehir/Akpin	1.45	359	P	Pn	04 20 18.8	-0.2
AKPI				S	Sb	04 20 36.8	-1.5
GUNE	Kayseri	1.51	55	P	Pg	04 20 20.8	-0.1
KOZT	Kozan	1.53	111	Pn	Pn	04 20 19.9	0.0
KOZT				AML	AML		
SIRC	Yozgat	1.55	34	P	Pn	04 20 20.0	-0.3
SIRC				S	Sg	04 20 41.7	-0.1
KIZK	Mersin	1.57	177	Pn	Pn	04 20 20.5	+0.1
KIZK				AML	AML		
KIZK	Mersin	1.57	177	P	Pn	04 20 20.5	+0.1
KIZK				S	Sn	04 20 39.2	-1.9
AFSR	Afar-Bala (An	1.59	332	Pn	Pn	04 20 20.8	0.0
AFSR				AML	AML		
CDAG	Cicekdag	1.59	9	P	Pn	04 20 21.3	+0.4
CDAG				S	Sg	04 20 44.3	+1.2
KEBE	Keben-Mersin	1.62	189	Pn	Pn	04 20 21.3	+0.1
KEBE				AML	AML		
SAIM	ADANA	1.62	92	P	Pb	04 20 22.1	-0.2
SAIM				S	Sg	04 20 43.2	-0.8
KESK	Krkkale-Ke	1.62	348	P	Pn	04 20 21.7	+0.4
KESK				S	Sg	04 20 44.2	+0.2
BNN	Bunyan	1.63	60	Pn	Pn	04 20 21.5	0.0
BNN				AML	AML		
HDMB	Hadim	1.64	229	Pn	Pn	04 20 21.6	0.0
HDMB				AML	AML		
BBAL	Bala	1.65	335	P	Pb	04 20 22.6	-0.4
BBAL				S	Sg	04 20 46.4	+1.4
SLFK	Silifke-Mersin	1.66	182	Pn	Pn	04 20 21.9	+0.3
SLFK				AML	AML		
TEVE	Tevekalti-Mers	1.68	197	Pn	Pn	04 20 22.3	+0.3
TEVE				AML	AML		
SILI	Silifke-Mersin	1.68	183	Pn	Pn	04 20 22.3	+0.3
SILI				AML	AML		
BR131	Keskin Array S	1.70	350	Pn	Pn	04 20 22.6	+0.2
BR131				AML	AML		
BRTR	Keskin Array B	1.70	350	Pg	Pb	04 20 23.4	-0.4
	22nm,0.3s,baz=162,slow=21,SNR=30						
BRTR				Lg	Lg	04 20 48.0	
	53nm,0.3s,baz=157,slow=28,SNR=19						
BERE	Bereket-Mersin	1.82	201	Pn	Pn	04 20 23.7	-0.3
BERE				AML	AML		
IKL	Isikli	1.83	189	Pn	Pn	04 20 24.3	+0.3
IKL				AML	AML		
SEYD	Seydisehir-KON	1.86	250	Pn	Pn	04 20 24.8	+0.3
SEYD				AML	AML		
KARG	Kargicak-Mersi	1.86	188	Pn	Pn	04 20 24.8	+0.3
TEPK	Tepekoy-MERSIN	1.86	192	Pn	Pn	04 20 24.9	+0.4
YESI	Yesilovacik-Me	1.88	190	Pn	Pn	04 20 25.2	+0.6
YOZ	Yozgat	1.88	32	Pn	Pn	04 20 24.9	0.0
YOZ				AML	AML		
KIZT	Kizilcal	1.88	297	Pn	Pb	04 20 26.3	-0.6
KIZT				AML	AML		
OREN	Orenkoy-Mersin	1.90	194	Pn	Pn	04 20 25.2	+0.3
TISA	Tisan-Mersin	1.91	189	Pn	Pn	04 20 25.4	+0.4
SARI	SarD1z-Kayseri	1.91	78	Pn	Pn	04 20 25.4	+0.1
SARI				AML	AML		
LOD	Lodumlu	2.09	332	Pn	Pn	04 20 27.9	+0.2
LOD				AML	AML		
POLA	Polatl-ANKAR	2.20	319	Pn	Pg	04 20 35.3	+1.2
POLA				AML	AML		
MMAI	Mount Meron Ar	5.14	167	Pn	Pn	04 21 12.1	+2.4
	3.2nm,0.3s,baz=347,slow=14,SNR=12						
MMAI				Sn	Sn	04 22 10.3	+0.9
	baz=341,slow=35						
ASF	Jabal al Asfar	6.31	157	Pn	Pn	04 21 28.4	+2.7
	0.9nm,0.3s,baz=331,slow=19,SNR=2.8						
	2.4nm,0.4s						
ASF				AML	AML		
SEV	Sevastopol'	6.50	358	eP	Pn	04 21 28.9	+0.8
SEV				pmax	pmax	04 21 33.5	
	comp=Z,5.0nm,0.4s						
SEV				ex	x	04 22 47.0	
SEV				smax	smax	04 22 49.6	
	comp=N,1.0nm,0.3s						
SEV				smax	smax	04 22 49.6	
	comp=E,1.0nm,0.4s						
DNZ2	Donuzlav2	7.35	355	eP	Pn	04 21 41.7	+1.9
DNZ2				pmax	pmax	04 21 46.0	
	comp=Z,22nm,0.3s						
IDI	Anoyia	7.85	252	Pn	Pn	04 21 52.0	+5.2
	comp=Z,10nm,0.9s,baz=67,slow=14,SNR=1.1						
EIL	Elat	8.39	175	Pn	Pn	04 21 57.4	+3.2
	comp=Z,0.3nm,0.3s,baz=354,slow=14,SNR=2.0						
EIL				Sn	Sn	04 23 28.6	-0.7
	comp=Z,0.4nm,0.3s,baz=49,slow=20,SNR=1.3						
	comp=Z,2.5nm,0.5s						
EIL				AML	AML		
ARCES	ARCESS Array B	31.88	354	P	P	04 26 17.9	+0.2
	comp=Z,0.1nm,0.4s,baz=170,slow=11,SNR=1.1						
	comp=Z,0.1nm,0.4s						
KURBB	Kurchatov Arra	33.71	54	P	P	04 26 33.4	-0.5
	comp=Z,0.2nm,0.4s,baz=275,slow=8.9,SNR=1.3						
	comp=Z,0.2nm,0.4s						
MKAR	Makanchi Array	36.19	60	P	P	04 26 55.6	+0.3
	comp=Z,0.2nm,0.4s,baz=270,slow=8.6,SNR=2.7						
	comp=Z,0.2nm,0.4s						
TORD	Torodi Ar. Bea	37.95	238	P	P	04 27 11.5	+0.8
	comp=Z,1.0nm,0.9s,baz=31,slow=8.7,SNR=3.7						
	comp=Z,1.0nm,0.9s						

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*BJI **30** 04:37:19.4, 24.°82N×122.°10E, h115^{km}, mB5.1/39, mb4.8/73*
*MOS **30** 04:37:19.3±0.9, 24.°90N×122.°16E, h119^{km}, mb5.0/39, Error ellipse: s-maj=6.8km s-min=4.4km az=111.4*
*TAP **30** 04:37:20.3, 24.°84N×122.°10E, h106^{km}, ML6.0, C*
*GFZ **30** 04:37:21.0±0.1, 25°N±2°×12°2E±°, h110^{km}, M4.8/60, mb5.1/60, confirmed*
*GFZ **30** 04:37:20.8, 24.°78N×122.°14E, h102^{km}, Mw5.0/45, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M$_{rr}$2.43; M$_{\theta\theta}$-1.76; M$_{\phi\phi}$-0.68; M$_{r\theta}$1.37; M$_{\theta\phi}$-0.28; M$_{\phi r}$-3.06; Fault plane solution: M$_0$4.00927×10^{16} NP1: φ$_s$149.47876°, δ77.25109°, λ96.38593°. NP2: φ$_s$302.58651°, δ14.23514°, λ63.82189°. Principal axes: T 4.5881, Plg57.2923°, Azm67.8478°; N -1.7589, Plg6.2279°, Azm328.0639°; P -2.8292, Plg31.9616°, Azm234.1597°;*
*JMA **30** 04:37:20.1±0.2, 24.°8N±0.°9×122.°1E±0.°5, h108^{km}±2^{km}, MD5.0/19, MW5.1/19, TAIWAN REGION*
JMA Felt I J1 at TAIWAN REGION .
*NEIC **30** 04:37:20.1±1.6, 24.°88N±0.°06×122.°08E±0.°05, h106^{km}±4^{km}, mb5.1/266, Mwr5.1/27, Mww5.0/28, Error ellipse: s-maj=8.5km s-min=6.1km az=176.0, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M$_{rr}$2.85; M$_{\theta\theta}$-2.06; M$_{\phi\phi}$-0.79; M$_{r\theta}$2.64; M$_{\theta\phi}$-0.47; M$_{\phi r}$-3.52; Fault plane solution: M$_0$5.10000×10^{16} NP1: φ$_s$278.61000°, δ14.82000°, λ54.14000°. NP2: φ$_s$135.39000°, δ78.04000°, λ98.81000°. Principal axes: T 5.7950, Plg56.0000°, Azm57.0000°; N -1.9744, Plg9.0000°, Azm314.0000°; P -3.8206, Plg32.0000°, Azm218.0000°;*
*ASIES **30** 04:37:20.5, 24.°85N×122.°13E, h106^{km}, Mw5.1, Fault plane solution: NP1: φ$_s$28.00000°, δ12.00000°, λ133.00000°. NP2: φ$_s$164.00000°, δ81.00000°, λ82.00000°.*
*IDC **30** 04:37:20.8±1.1, 24.°89N×122.°12E, h117^{km}±9^{km}, mb4.4/37, mbtmp4.8/41, MS3.7/46, Error ellipse: s-maj=10.3km s-min=6.5km az=65.0*
*NEIC **30** 04:37:20.5, 24.°85N×122.°08E, h104^{km}*
*NIED **30** 04:37:20.1, 24.°80N×122.°07E, h108^{km}, MW5.1, Moment Tensor Solution. s2 Moment tensor: Scale 10^{16}Nm; M$_{rr}$1.63; M$_{\theta\theta}$-0.25; M$_{\phi\phi}$-1.38; M$_{r\theta}$2.28; M$_{\theta\phi}$-0.41; M$_{\phi r}$-3.36; Fault plane solution: M$_0$4.28000×10^{16} NP1: φ$_s$21.00000°, δ13.00000°, λ139.00000°. NP2: φ$_s$151.00000°, δ82.00000°, λ80.00000°.*
*GCMT **30** 04:37:21.1±0.2, 24.°79N±0.°01×122.°04E±0.°01, h118^{km}±1^{km}, MW5.1/140, Moment Tensor Solution. s90, c122; s140, c224; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$2.83±.11; M$_{\theta\theta}$-1.29±.14; M$_{\phi\phi}$-1.54±.15; M$_{r\theta}$2.52±.07; M$_{\theta\phi}$-0.40±.12; M$_{\phi r}$-4.45±.09; Best double couple: M$_0$5.49800×10^{16} NP1: φ$_s$353.00000°, δ11.00000°, λ110.00000°. NP2: φ$_s$153.00000°, δ79.00000°, λ86.00000°. Principal axes: T 6.3360, Plg56.0000°, Azm58.0000°; N -1.6760, Plg4.0000°, Azm154.0000°; P -4.6600, Plg34.0000°, Azm247.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
ISC 30 04:37:20.2±0.2, **24.°87N**±0.°02×**122.°09E**±0.°02, **h111**^{km}±1^{km}, **h111**^{km}**:pP-P, n916, σ1^{s}34**/1081, **mb5.1**/269, **105C-20D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EGS		0.14	259	⇑iP	Pn	04 37 35.2	-0.4
TWB1	Santiao Chiao	0.16	327	⇑iP	Pn	04 37 35.5	-0.1
TWB1				iS	Sn	04 37 46.4	-0.9
NTC	Toucheng	0.23	266	⇑iP	Pn	04 37 35.5	-0.3
NTC				eS	Sn	04 37 46.4	-1.1
TIPB	Shuangxi	0.26	293	⇑iP	Pn	04 37 35.7	-0.3
TIPB				iS	Sn	04 37 46.3	-1.5
SXI1	Grass Mountain	0.29	319	⇑iP	Pn	04 37 35.9	-0.3
SXI1				eS	Sn	04 37 47.7	-0.4
ILA	Ilan	0.32	251	⇑iP	Pn	04 37 36.2	0.0
ILA				iS	Sn	04 37 47.4	-0.8
TWC	Suao	0.34	219	⇑iP	Pn	04 37 35.8	-0.5
TWC				iS	Sn	04 37 46.5	-1.7
WFSB	Wu-fen Shan	0.34	306	⇑iP	Pn	04 37 36.3	0.0
WFSB				iS	Sn	04 37 47.7	-0.6
ESAO	Su ao	0.37	217	⇑P	Pn	04 37 36.1	-0.3
ESAO				eS	Sn	04 37 46.2	-2.3
TNOU	National Taiwa	0.40	314	⇑iP	Pn	04 37 36.4	-0.1
TNOU				iS	Sn	04 37 47.7	-1.1
TWE	Neicheng	0.41	249	⇑iP	Pn	04 37 36.4	-0.2
NDS	Dongshan	0.41	235	⇑iP	Pn	04 37 36.5	-0.1
NDS				eS	Sn	04 37 48.2	-0.7
FUSB	Fushanzhiwuyua	0.47	256	⇑iP	Pn	04 37 36.8	-0.2
FUSB				S	Sn	04 37 49.6	0.0
TWA	Mucha	0.47	283	⇑iP	Pn	04 37 36.7	-0.3
TWA				eS	Sn	04 37 48.1	-1.5
EOS2	EOS2	0.47	163	⇑P	Pn	04 37 37.3	+0.4
EOS2				S	Sn	04 37 49.9	+0.6
NHY	Taipei	0.50	290	⇑iP	Pn	04 37 37.0	-0.1
NHY				S	Sn	04 37 48.7	-1.1
EWUT	Wuta	0.51	213	⇑iP	Pn	04 37 37.3	0.0
EWUT				S	Sn	04 37 49.5	-0.5
NHDH	Xindian Distri	0.52	280	⇑iP	Pn	04 37 37.1	-0.1
NHDH				eS	Sn	04 37 50.0	0.0
ENTT	Nioudou	0.53	244	⇑iP	Pn	04 37 37.5	+0.1
ENTT				S	Sn	04 37 50.0	-0.2
NWLT	Wulai	0.54	260	⇑iP	Pn	04 37 37.2	-0.3
NWLT				iS	Sn	04 37 49.8	-0.7
ENA	Nanau	0.54	215	⇑iP	Pn	04 37 35.0	-2.5
ENA				eS	Sn	04 37 47.6	-2.8
YM01	YM01	0.54	300	⇑iP	Pn	04 37 37.3	-0.2
YM01				iS	Sn	04 37 48.9	-1.6
YM08	YM08	0.55	305	⇑eP	Pn	04 37 37.1	-0.4
TAP	Taipei	0.55	288	⇑iP	Pn	04 37 37.3	-0.2
TAP				eS	Sn	04 37 49.1	-1.4
TATO	Taipei	0.55	281	P	Pn	04 37 37.1	-0.4
TATO	Taipei	0.55	281		Pn	04 37 37.0	-0.5
TATO				Sn	Sn	04 37 48.2	-2.3
TATO	Taipei	0.55	281	P	Pn	04 37 37.3	-0.2
	comp=Z,27µm,0.6s						
ZUZH	Zhuzihu	0.57	301	⇑iP	Pn	04 37 37.3	-0.4
ZUZH				eS	Sn	04 37 49.3	-1.6
NDT	Datong Townshi	0.58	243	⇑iP	Pn	04 37 38.1	+0.4
NDT				eS	Sn	04 37 51.0	0.0
TWY	Chenhua	0.60	313	⇑iP	Pn	04 37 37.9	0.0
TWY				iS	Sn	04 37 50.5	-0.6
ANP	Anpu	0.60	302	⇑eP	Pn	04 37 37.6	-0.4
ANP				eS	Sn	04 37 52.6	+1.3
LATG	Datong	0.61	237	⇑iP	Pn	04 37 38.5	+0.4
LATG				S	Sn	04 37 52.0	+0.5
EOS3	EOS3	0.62	160	⇑iP	Pn	04 37 38.5	+0.6
EOS3				S	Sn	04 37 51.6	+0.5
EAHA	Aohua	0.62	210	⇑iP	Pn	04 37 37.8	-0.3
EAHA				S	Sn	04 37 50.6	-0.9
EHP	Heping Village	0.64	209	⇑eP	Pn	04 37 38.1	-0.1
EHP				iS	Sn	04 37 51.9	+0.1
NTST	Danshui	0.65	297	⇑iP	Pn	04 37 38.3	0.0
NTST				S	Sn	04 37 51.8	0.0
TWS1	Kuangyinshan	0.65	291	⇑iP	Pn	04 37 38.3	0.0
TWS1				iS	Sn	04 37 52.8	+1.0
YHNB	Yeheng	0.68	253	P	Pn	04 37 38.1	-0.5
YHNB	Yeheng	0.68	253	Pn	Pn	04 37 38.3	-0.3
YHNB				Sn	Sn	04 37 51.1	-1.3
YHNB	Yeheng	0.68	253	⇑iP	Pn	04 37 38.5	-0.1
YHNB				S	Sn	04 37 51.6	-0.8
YHNB	Yeheng	0.68	253	P	Pn	04 37 38.4	-0.1
	comp=Z,91µm,0.7s						
NSK	Sanguang	0.69	254	⇑iP	Pn	04 37 38.6	-0.1
NSK				iS	Sn	04 37 51.4	-1.2
PCYT	Pengchaiyu	0.76	359	P	Pn	04 37 39.5	+0.4
PCYT				iS	Sn	04 37 54.1	+0.7
EOS4	EOS4	0.78	164	⇑iP	Pn	04 37 38.8	-0.2
EOS4				iS	Sn	04 37 52.5	-0.5
NNS	Nan Shan	0.78	237	⇑iP	Pn	04 37 39.7	+0.2
NNS				S	Sn	04 37 54.0	0.0
NNSB	Datong	0.78	236	⇑iP	Pn	04 37 39.7	+0.2
NNSB				iS	Sn	04 37 53.9	0.0
NCU	National Centr	0.82	277	⇑eP	Pn	04 37 40.1	+0.4
NCUH	Zhongli	0.82	277	⇑iP	Pn	04 37 40.0	+0.2
NCUH				iS	Sn	04 37 55.2	+0.8
ETL	Fush Village	0.82	211	⇑iP	Pn	04 37 39.3	-0.6
ETL				S	Sn	04 37 53.7	-0.9
NACB	Ninganchiao	0.83	213	P	Pn	04 37 38.9	-0.9
NACB	Ninganchiao	0.83	213	S	Sn	04 37 52.0	-2.5
NACB	Ninganchiao	0.83	213		Pn	04 37 39.0	-0.9
NACB				Sn	Sn	04 37 52.7	-1.8
NACB	Ninganchiao	0.83	213	⇑iP	Pn	04 37 39.2	-0.6
NACB				iS	Sn	04 37 53.1	-1.4
NACB	Ninganchiao	0.83	213	P	Pn	04 37 39.3	-0.6
	comp=Z,25µm,0.6s						
KSHI	Guanxi Townshi	0.83	264	⇑iP	Pn	04 37 40.2	+0.4
KSHI				iS	Sn	04 37 55.0	+0.4
ETLH	Xiulin Townshi	0.86	220	⇑iP	Pn	04 37 40.0	-0.3
ETLH				eS	Sn	04 37 54.8	-0.5
JYNG	Yonagunijimaku	0.89	118	iP	Pn	04 37 40.2	-0.2
JYNG				A	A	04 37 40.2	
	comp=N,120nm,1.8s,comp=E,184nm,2.0s						
JYNG				S	Sn	04 37 54.6	-0.9
TWD	Chiawan	0.91	210	⇑iP	Pn	04 37 39.9	-0.6
TWD				S	Sn	04 37 54.2	-1.6
NFF	Wufeng Townshi	0.91	255	⇑iP	Pn	04 37 40.6	-0.1
NFF				eS	Sn	04 37 55.1	-1.0
YOJ	Yonaguni jima	0.94	116	P	Pn	04 37 40.1	-0.7

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YOJ   Yonaguni jima      0.94 116   P    Sn    04 37 55.2 -1.2
YOJ   Yonaguni jima      0.94 116   P    Pn    04 37 40.6 -0.2
YOJ                                            04 37 55.1
YOJ   Yonaguni jima      0.94 116        Pn    04 37 40.6 -0.2
YOJ                                 Sn   Sn    04 37 55.1 -1.3
YOJ   Yonaguni jima      0.94 116⇓iP     Pn    04 37 40.8 -0.1
YOJ                                 S    Sn    04 37 55.4 -0.9
YOJ   Yonaguni jima      0.94 116   P    Pn    04 37 40.8 -0.1
      comp=Z,39µm,0.7s
YOJ   Yonaguni jima      0.94 116  i P   Pn    04 37 40.7 -0.2
YOJ                                 A    A     04 37 40.7
      comp=N,116nm,1.5s,comp=E,170nm,1.4s
YOJ                                 S    Sn    04 37 55.5 -0.9
HWA   Hwalien            0.99 206⇑iP     Pn    04 37 41.3 -0.1
HWA                                eS    Sn    04 37 56.9 -0.5
LIOB  Emei               1.00 257⇑iP     Pn    04 37 41.6 +0.2
LIOB                                S    Sn    04 37 56.6 -0.9
SBCB  Hsinchu            1.00 266⇑iP     Pn    04 37 42.0 +0.4
SBCB                               eS    Sn    04 37 57.5 -0.1
NSTT  Nanjuang           1.01 257⇑iP     Pn    04 37 41.7 +0.1
NSTT                               i S   Sn    04 37 57.1 -0.7
HSN   Hsinchu            1.02 266⇑iP     Pn    04 37 41.5 -0.2
HSN                                i S   Sn    04 37 56.9 -1.0
TWT   Tachien            1.03 234⇑iP     Pn    04 37 42.8 +0.8
TWT                                i S   Sn    04 37 58.3 -0.1
WHF   Hehuan Shan        1.04 226⇑iP     Pn    04 37 42.4  0.0
WHF                                i S   Sn    04 37 57.8 -1.3
LXIB  Xiulin Townshi     1.04 216⇑iP     Pn    04 37 41.4 -0.8
LXIB                               i S   Sn    04 37 57.2 -1.4
TDCB  Techi              1.04 234⇑iP     Pn    04 37 42.8 +0.7
TDCB                               i S   Sn    04 37 58.9 +0.2
ETM   Tongmen            1.05 211  eP    Pn    04 37 40.9 -1.1
ETM                                i S   Sn    04 37 56.7 -1.8
TEYL  Yanliau Villag     1.09 204  ⇑P    Pn    04 37 42.0 -0.5
TEYL                               eS    Sn    04 37 58.7 -0.6
SHUL  Shoufeng           1.18 204⇑iP     Pn    04 37 43.2 -0.2
SHUL                               i S   Sn    04 38 00.9  0.0
WHP   Taichung City      1.19 241  ⇑P    Pn    04 37 44.3 +0.6
WHP                                 S    Sn    04 38 01.0 -0.4
ESL   Shilin             1.21 210⇑iP     Pn    04 37 42.6 -1.2
ESL                                eS    Sn    04 37 59.3 -2.3
NMLH  Miaoli             1.22 254  eP    Pn    04 37 44.3 +0.4
NMLH                                S    Sn    04 38 01.6 -0.2
OWD   Renai              1.23 222⇑iP     Pn    04 37 44.3 +0.1
OWD                                eS    Sn    04 38 02.5 +0.3
WUSB  Renai              1.24 225⇑iP     Pn    04 37 44.7 +0.5
WUSB                               i S   Sn    04 38 02.4  0.0
TEGC  Jichi Village      1.26 203  eP    Pn    04 37 44.2 -0.1
TEGC                               i S   Sn    04 38 02.7 +0.2
TWQ1  Liyutan            1.30 247⇑iP     Pn    04 37 45.0 +0.2
TWQ1                               eS    Sn    04 38 02.6 -0.8
WARBT Fenglin Townsh     1.31 209⇑iP     Pn    04 37 43.6 -1.3
WARBT                              eS    Sn    04 38 02.0 -1.7
WCS   Beigang Elemen     1.34 233   P    Pn    04 37 45.8 +0.6
WCS                                 S    Sn    04 38 04.9 +0.7
VWDT  VWDT               1.41 218⇑iP     Pn    04 37 46.5 +0.5
VWDT                                S    Sn    04 38 05.0 -0.6
WDJ   Dajia District     1.42 249⇑eP     Pn    04 37 46.6 +0.6
WDJ                                 S    Sn    04 38 06.0 +0.3
SMLT  Sun Moon Lake      1.46 228⇑iP     Pn    04 37 47.3 +0.5
SMLT                               i S   Sn    04 38 07.7 +0.9
TCU   Taichung           1.47 241⇑iP     Pn    04 37 47.2 +0.5
TCU                                i S   Sn    04 38 05.9 -1.0
TYC   Yuchr              1.48 230⇑iP     Pn    04 37 47.3 +0.5
TYC                                eS    Sn    04 38 07.6 +0.6
SSLB  Suanglung          1.49 224   P    Pn    04 37 47.5 +0.5
SSLB  Suanglung          1.49 224        Pn    04 37 47.1 +0.1
SSLB  Suanglung          1.49 224⇑iP     Pn    04 37 47.6 +0.5
SSLB                               i S   Sn    04 38 08.1 +0.6
SSLB  Suanglung          1.49 224   P    Pn    04 37 47.7 +0.6
      comp=Z,90µm,0.8s
HGSD  Ruisui             1.50 204⇑eP     Pn    04 37 46.8 -0.3
HGSD                                S    Sn    04 38 07.4 -0.1
EHY   Hungye             1.53 207  eP    Pn    04 37 46.3 -1.2
EHYH  Wanrong            1.53 206  eP    Pn    04 37 46.0 -1.5
EHYH                               eS    Sn    04 38 05.9 -2.2
IRIF  Iriomote-Funau     1.59 109  i P   Pn    04 37 47.8 -0.3
IRIF                                A    A     04 37 47.8
      comp=N,52nm,1.8s,comp=E,29nm,0.5s
IRIF                                S    Sn    04 38 08.4 -1.0
WCHH  Zhanghua           1.60 241   P    Pn    04 37 48.5 +0.2
WCHH                               i S   Sn    04 38 09.8 +0.2
WCH1  Changhua City      1.61 241  eP    Pn    04 37 48.8 +0.4
WCH1                               i S   Sn    04 38 10.0 +0.1
WNT   Mingjian           1.62 233⇑iP     Pn    04 37 49.0 +0.5
WNT                                eS    Sn    04 38 10.5 +0.5
WJS   Zhushan            1.62 230⇑iP     Pn    04 37 48.9 +0.3
WJS                                 S    Sn    04 38 10.6 +0.5
WHYT  Xinyi Township     1.62 224⇑iP     Pn    04 37 49.4 +0.8
WHYT                                S    Sn    04 38 10.8 +0.6
YULB  Yu-li              1.64 206   P    Pn    04 37 47.6 -1.2
YULB  Yu-li              1.64 206        Pn    04 37 47.3 -1.5
YULB  Yu-li              1.64 206  ⇑P    Pn    04 37 47.3 -1.5
YULB                                S    Sn    04 38 09.9 -0.7
YULB  Yu-li              1.64 206   P    Pn    04 37 47.4 -1.4
      comp=Z,38µm,0.8s
ECBN  Changbin           1.65 201   P    Pn    04 37 48.5 -0.4
ECBN                               i S   Sn    04 38 09.4 -1.4
TWF1  Yuli               1.68 206⇑eP     Pn    04 37 47.9 -1.4
YUS   Yu-Shan            1.72 217  eP    Pn    04 37 50.9 +0.6
YUS                                i S   Sn    04 38 14.2 +1.1
HATJ  Hateruma jima      1.77 117  i P   Pn    04 37 50.4 +0.1
HATJ                                A    A     04 37 50.4
      comp=N,46nm,1.6s,comp=E,40nm,2.0s
HATJ                               eS    Sn    04 38 12.7 -0.6
CHKH  Chenggong          1.79 201⇑iP     Pn    04 37 49.6 -1.0
CHKH                                S    Sn    04 38 12.4 -1.4
ALS   Alishan            1.79 221⇑iP     Pn    04 37 51.9 +0.9
ALS                                i S   Sn    04 38 14.7 +0.5
CHN5  Tsauling           1.81 226   P    Pn    04 37 51.4 +0.5
CHN5                               i S   Sn    04 38 15.0 +0.7
FULB  Fuli               1.82 204  i P   Pn    04 37 50.5 -0.5
FULB                               eS    Sn    04 38 13.3 -1.1
WDL   Douliou City       1.82 231  eP    Pn    04 37 51.8 +0.8
WDL                                eS    Sn    04 38 15.4 +0.9
WGK   Gukeng             1.82 230  eP    Pn    04 37 51.8 +0.7
WGK                                eS    Sn    04 38 15.0 +0.4
WRL   Guolierlin Hig     1.83 239   P    Pn    04 37 51.0 -0.2
WRL                                eS    Sn    04 38 13.7 -1.0
WDLH  Douliu             1.84 230   P    Pn    04 37 51.8 +0.5
WDLH                               eS    Sn    04 38 14.8  0.0
RLNB  Erlin              1.85 239  i P   Pn    04 37 51.5 +0.1
RLNB                               i S   Sn    04 38 14.3 -0.8
JKRS  Kuro-shima         1.86 109  i P   Pn    04 37 51.7 +0.2
JKRS                                A    A     04 37 51.7
      comp=N,53nm,1.5s,comp=E,35nm,1.7s
JKRS                                S    Sn    04 38 15.2 -0.2
CHKT  Chengkung          1.88 201⇑eP     Pn    04 37 51.0 -0.8
CHKT                                S    Sn    04 38 13.7 -2.2
EHD   Haiduan            1.89 205   P    Pn    04 37 50.6 -1.4
EHD                                eS    Sn    04 38 13.8 -2.4
WTCT  Ta-ch'eng          1.93 239  eP    Pn    04 37 53.2 +0.9
WTCT                               i S   Sn    04 38 16.8  0.0
ECS   Chishang           1.94 204  eP    Pn    04 37 51.9 -0.6
ECS                                eS    Sn    04 38 15.6 -1.5
ELDTW Lidau              1.94 210   P    Pn    04 37 51.7 -0.9
ELDTW                              eS    Sn    04 38 15.1 -2.2
JIJ   Ishigaki jima      1.94 105  i P   Pn    04 37 52.1 -0.4
JIJ                                 A    A     04 37 52.1
      comp=N,17nm,0.8s,comp=E,12nm,0.8s
JIJ                                 S    Sn    04 38 15.9 -1.3
WCKO  Fanlu              1.97 224   P    Pn    04 37 53.6 +0.7
WCKO                               i S   Sn    04 38 18.7 +0.9
CHN2  Minshiung          1.98 228  i P   Pn    04 37 54.0 +0.9
CHN2                               i S   Sn    04 38 18.8 +0.6
CHN4  Tsaushan           2.04 222⇑eP     Pn    04 37 54.5 +0.7
CHN4                               i S   Sn    04 38 22.2 +2.8
CHY   Chiayi             2.04 228   P    Pn    04 37 54.2 +0.4
CHY                                i S   Sn    04 38 20.0 +0.5
JISG  Ishigakijimahi     2.04  98   P    Pn    04 37 54.0 +0.2
JISG                                A    A     04 37 54.0
      comp=N,21nm,1.3s,comp=E,26nm,0.6s
JISG                                S    Sn    04 38 19.1 -0.3
TPUB  Ta-pu              2.05 221   P    Pn    04 37 54.2 +0.2
TPUB  Ta-pu              2.05 221   S    Sn    04 38 18.9 -0.9
TPUB  Ta-pu              2.05 221        Pn    04 37 54.2 +0.2
TPUB  Ta-pu              2.05 221⇓iP     Pn    04 37 54.4 +0.5
TPUB                               eS    Sn    04 38 20.3 +0.5
TPUB  Ta-pu              2.05 221   P    Pn    04 37 54.5 +0.5
      comp=Z,36µm,0.7s
STYH  Taoyuan            2.07 216⇑iP     Pn    04 37 55.0 +0.8
STYH                               i S   Sn    04 38 21.2 +1.1
WSF   Szhu               2.10 235  i P   Pn    04 37 54.7 +0.2
WSF                                 S    Sn    04 38 20.8 +0.1
WSL   Shuilin Townsh     2.16 232   P    Pn    04 37 55.5 +0.1
WSL                                i S   Sn    04 38 22.4 +0.2
TWK   Hsinying           2.16 223   P    Pn    04 37 55.6 +0.2
TWK                                 S    Sn    04 38 22.8 +0.4
CHN1  Nanshi             2.20 221  i P   Pn    04 37 56.1 +0.3
CHN1                               i S   Sn    04 38 22.8 -0.3
TWGBT Beinan             2.24 204   P    Pn    04 37 54.9 -1.5
TWGBT Beinan             2.24 204   S    Sn    04 38 22.2 -1.9
TWGBT Beinan             2.24 204   P    Pn    04 37 55.1 -1.2
TWGBT                               S    Sn    04 38 22.0 -2.1
TWG   Pinlang            2.24 205        Pn    04 37 54.7 -1.7
TWG   Pinlang            2.24 205  eP    Pn    04 37 55.4 -1.0
TWG                                eS    Sn    04 38 21.2 -2.9
TWG   Pinlang            2.24 205   P    Pn    04 37 55.1 -1.3
      comp=Z,3µm,0.7s
SGST  Jiashian           2.25 218   P    Pn    04 37 56.1 -0.3
SGST                               i S   Sn    04 38 23.7 -0.6
TTN   Taitung            2.28 202  eP    Pn    04 37 56.4 -0.4
TTN                                eS    Sn    04 38 23.6 -1.2
SLGT  Liugui             2.29 215  eP    Pn    04 37 58.0 +1.1
SLGT                               eS    Sn    04 38 26.1 +1.1
CHN8  Yiju               2.29 229  eP    Pn    04 37 57.1 +0.2
CHN8                               i S   Sn    04 38 25.2 +0.1
MATB  Ma-tsu             2.31 304  i P   Pn    04 37 57.0 -0.3
MATB                               eS    Sn    04 38 24.4 -1.3
CHN3  Shinhua            2.38 222  eP    Pn    04 37 58.6 +0.5
CHN3                                S    Sn    04 38 28.6 +1.4
SSHA  Shanhua            2.38 224  eS    Sn    04 38 27.1 -0.2
JTJ   Tarama             2.39  95  i P   Pn    04 37 58.9 +0.7
JTJ                                 A    A     04 37 58.9
      comp=N,17nm,2.5s,comp=E,22nm,1.9s
JTJ                                eS    Sn    04 38 28.4 +1.0
VWUC  VWUC               2.40 273  i P   Pn    04 37 57.9 -0.4
VWUC                                S    Sn    04 38 25.2 -2.4
SCLT  Jiali              2.42 226   P    Pn    04 37 59.0 +0.4
SCLT                               i S   Sn    04 38 28.2 +0.2
ECL   Taimali            2.49 205  eP    Pn    04 37 58.8 -0.8
ECL                                eS    Sn    04 38 26.8 -2.9
TAI1  Yung-k'ang         2.49 223  eP    Pn    04 38 00.3 +0.8
TAI1                               eS    Sn    04 38 31.3 +1.5
SSD   Sandimen           2.50 212  i P   Pn    04 38 00.5 +0.8
SSD                                i S   Sn    04 38 32.3 +2.3
TWM1  Shoushan           2.54 217   P    Pn    04 38 01.3 +1.0
TWM1                               eS    Sn    04 38 34.5 +3.4
SGLT  Jiouru             2.59 215  eP    Pn    04 38 03.3 +2.4
MASBT Mashibuluo         2.61 211  i P   Pn    04 38 02.1 +0.9
MASBT                              eS    Sn    04 38 33.2 +0.6
SNJT  Kaohsiung City     2.65 218  eS    Sn    04 38 35.8 +2.4
PNG   Penghu             2.65 241  i P   Pn    04 38 00.6 -1.0
PNG                                 S    Sn    04 38 30.7 -2.8
PHUB  P'eng-hu           2.66 240  i P   Pn    04 38 01.2 -0.6
PHUB                               i S   Sn    04 38 31.6 -2.2
XPSS  Dashiqiu           2.67 321   P    Pn    04 38 01.2 -0.6
XPSS                               eS    Sn    04 38 32.8 -1.1
LYJJ  Jianjiangzhen      2.68 309   P    Pn    04 38 01.5 -0.5
PTMZ  Houxiangcun        2.70 274  i P   Pn    04 38 02.1 -0.1
PTMZ                                S    Sn    04 38 32.2 -2.4
EAST  Anshuo             2.73 205  eP    Pn    04 38 02.8 +0.1
EAST                                S    Sn    04 38 34.0 -1.4
TAW   Tawu               2.73 204  eP    Pn    04 38 01.1 -1.6
TAW                                eS    Sn    04 38 33.4 -2.0
WDGT  Dungji             2.74 235  i P   Pn    04 38 02.4 -0.3
WDGT                               i S   Sn    04 38 33.3 -2.2
SSPT  Xinbi              2.75 211  eP    Pn    04 38 02.3 -0.7
SSPT                               eS    Sn    04 38 36.4 +0.4
WSSB  Gushan             2.78 217  eP    Pn    04 38 03.6 +0.2
WSSB                                S    Sn    04 38 37.6 +1.1
JIRJ  Irabujima          2.82  90   P    Pn    04 38 04.8 +0.8
JIRJ                                A    A     04 38 04.8
      comp=N,14nm,3.0s,comp=E,15nm,4.6s
JIRJ                                S    Sn    04 38 36.9 -0.6
SCZT  Fangliau           2.83 209   P    Pn    04 38 04.0  0.0
LAY   Lan-yu             2.86 190  i P   Pn    04 38 03.4 -1.2
LAY                                 S    Sn    04 38 35.5 -3.1
JIKM  Ikemajima          2.87  88   P    Pn    04 38 05.6 +1.1
JIKM                               eS    Sn    04 38 39.8 +1.1
LYUB  Lan-yu             2.89 189   P    Pn    04 38 03.3 -1.6
LYUB                               eS    Sn    04 38 34.2 -5.1
JMJ   Miyako jima 2      2.92  90   P    Pn    04 38 05.6 +0.5
JMJ   Miyako jima 2      2.92  90   S    Sn    04 38 39.7  0.0
VCHM  Qimei              2.94 236  i P   Pn    04 38 05.1 -0.4
VCHM                               i S   Sn    04 38 38.5 -1.8
JMJ2  Miyako jima3       2.95  92   P    Pn    04 38 06.5 +1.0
JMJ2                                A    A     04 38 06.5
      comp=N,14nm,3.7s,comp=E,13nm,4.1s
JMJ2                               eS    Sn    04 38 41.7 +1.1
WLCH  Liuqiu             2.96 212  eP    Pn    04 38 07.2 +1.5
TWP   Hsiaoliuchiu       2.97 212  eP    Pn    04 38 06.8 +0.9
JOGS  Gusukube           3.02  91   P    Pn    04 38 07.7 +1.2
JOGS                                A    A     04 38 07.7
      comp=N,24nm,1.1s,comp=E,17nm,2.6s
JOGS                               eS    Sn    04 38 44.5 +2.3
MHZQ  Yeshan             3.02 295   P    Pn    04 38 06.2 -0.3
SMST  Manzhou Townsh     3.06 202  eP    Pn    04 38 07.3 +0.2
HEN   Hengchun           3.11 204  eP    Pn    04 38 08.5 +0.8
HEN                                eS    Sn    04 38 42.2 -2.1
TWK1  Hengchun           3.14 202  eP    Pn    04 38 08.9 +0.7
TWK1                               eS    Sn    04 38 43.8 -1.3
TWKBT Hengchun           3.14 202   P    Pn    04 38 08.7 +0.5
TWKBT                              eS    Sn    04 38 42.6 -2.6
TSEB  Hengchuen, Pin     3.15 200   P    Pn    04 38 09.1 +0.8
TSEB                               eS    Sn    04 38 43.8 -1.6
QZH2  Quanzhou           3.17 272⇑iP     Pn    04 38 08.3 -0.1
KNM   Kinmen             3.35 263  eP    Pn    04 38 12.3 +1.3
KNMB  Chin-men Tao       3.39 264        Pn    04 38 10.7 -0.7
KNMB  Chin-men Tao       3.39 264  eP    Pn    04 38 11.0 -0.3
KNMB                               eS    Sn    04 38 48.5 -2.4
KNMB  Chin-men Tao       3.39 264   P    Pn    04 38 11.1 -0.3
AXDP  Jialang            3.74 271⇑iP     Pn    04 38 15.9 -0.2
AXDP                               i S   Sn    04 38 58.0 -1.3
ZPLA  Ao Xicun           4.06 258  eP    Pn    04 38 19.9 -0.5
SXFK  Yanhouchang        4.29 292  eP    Pn    04 38 23.2 -0.3
DSXP  Dongshan           4.41 256  i P   Pn    04 38 25.0  0.0
JKE   Kume jima 2        4.49  70   A    A     04 38 27.5
      comp=N,5.0nm,6.4s,comp=E,4.0nm,3.0s
JAGN  Aguni-jima         4.96  69   A    A     04 38 34.0
      comp=N,9.0nm,3.8s,comp=E,6.0nm,4.1s
JOW   Kunigami           5.91  69   P    Pn    04 38 44.5 -0.8
      comp=E,349nm,0.5s,baz=228,slow=10,SNR=234
JOW                                 S    Sn    04 39 49.5 -2.2
      comp=E,77nm,0.3s,baz=101,slow=26,SNR=1.8
JOW   Kunigami           5.91  69   P    Pn    04 38 44.4 -0.9
JOW   Kunigami           5.91  69   S    Sn    04 39 52.9 +1.2
JOW   Kunigami           5.91  69        Pn    04 38 44.5 -0.8
JOW                                      Sn    04 39 50.5 -1.2
JOW   Kunigami           5.91  69   P    Pn    04 38 44.8 -0.6
      comp=Z,567nm,0.7s
SSE   Sheshan            6.25 353   P    Pn    04 38 49.5 -0.4
SSE                                 S    Sn    04 40 00.0  0.0
SSE                                 SMN
      comp=Z,210nm,1.0s
SSE                                 SME
      comp=Z,340nm,1.0s
SSE                                 L    L
      comp=Z,420nm,6.5s
SSE                                 L    L
      comp=Z,1µm,6.4s
PACPP Pamplona Cagay     6.42 186  eP    Pn    04 38 52.1 -0.2
PACPP                              i S   Sn    04 40 02.2 -2.0
SIPP  Brgy, Tapao        7.08 193  eP    Pn    04 39 01.0 -0.3
SIPP                               eS    Sn    04 40 12.5 -7.7
SZP   Santa              7.44 192   P    Pn    04 39 05.8 -0.4
SZP   Santa              7.44 192        Pn    04 39 05.7 -0.5
SZP   Santa              7.44 192   P    Pn    04 39 06.7 +0.6
      comp=Z,259nm,0.9s
NJ2   Nanjing            7.70 339  ⇓P    Pn    04 39 09.5 -0.1
NJ2                                 S    Sn    04 40 35.0 -0.1
NJ2                                 pmax pmax
      comp=Z,72nm,0.9s
NJ2                                 SMN
      comp=Z,430nm,1.1s
NJ2                                 SME
      comp=Z,480nm,1.6s
NJ2                                 L    L
      comp=Z,2µm,8.2s
NJ2                                 L    L
      comp=Z,3µm,8.6s
NJ2                                 L    L
      comp=Z,2µm,7.4s
HKPS  Hong Kong Po S     7.73 252   P    Pn    04 39 12.2 +2.1
HKPS  Hong Kong Po S     7.73 252        Pn    04 39 10.3 +0.2
HKPS  Hong Kong Po S     7.73 252   P    Pn    04 39 12.9 +2.8
      comp=Z,202nm,0.9s
GZH2  Guangzhou          7.79 263   P    Pn    04 39 11.5 +0.6
GZH2                                S    Sn    04 40 38.5 +1.1
GZH2                                SMN
      comp=Z,1µm,0.9s
GZH2                                SME
      comp=Z,470nm,1.1s
MCO   Taipa Grande       8.29 252   P    Pn    04 39 18.0 +0.3
JMZ   Minamidaito 2      8.32  82        Pn    04 39 15.3 -2.7
CNSH  ChangSha           8.84 294   P    Pn    04 39 25.5 +0.5
CNSH                                S    Sn    04 41 00.5 -2.3
CNSH                                SMN
      comp=Z,1µm,1.2s
CNSH                                SME
      comp=Z,1µm,1.0s
WHN   Wuhan              8.88 311   P    Pn    04 39 26.0 +0.4
WHN                                 sP         04 40 01.0
WHN                                 S    Sn    04 41 05.0 +1.1
WHN                                 L    L
      comp=Z,4µm,4.0s
WHN                                 L    L
      comp=Z,3µm,4.1s
JSU   Suzuyama           9.91  46   P    Pn    04 39 40.7 +1.1
JSU   Suzuyama           9.91  46   S    Sn    04 41 31.8 +2.9
JSU   Suzuyama           9.91  46        Pn    04 39 40.6 +1.1
JSU   Suzuyama           9.91  46   P    Pn    04 39 41.1 +1.6
      comp=Z,193nm,0.9s
GULI  GuiLin            10.63 275  ⇓P    Pn    04 39 51.5 +2.1
GULI                                S    Sn    04 41 40.5 -6.0
GULI                                pmax pmax
      comp=Z,69nm,1.4s
GULI                                L    L
      comp=Z,1µm,3.8s
GULI                                L    L
      comp=Z,1µm,3.8s
GULI                                L    L
      comp=Z,980nm,10.3s
LQP   Lukban            10.72 183  eP    Pn    04 39 51.9 +1.1
JNU   Nakatsue          11.26  41   P    Pn    04 40 00.2 +2.4
      comp=Z,102nm,1.0s,baz=215,slow=9.8,SNR=33
JTU   Tsushima          11.53  32   P    Pn    04 40 04.7 +3.4
JTU   Tsushima          11.53  32   P    Pn    04 40 04.3 +3.0
      comp=Z,126nm,1.0s
TIA   Tai'an            12.08 340   P    Pn    04 40 11.0 +2.3
TIA                                 pmax pmax
      comp=Z,29nm,1.1s
TIA                                 pmax pmax
      comp=Z,160nm,3.8s
TIA                                 L    L
      comp=Z,450nm,4.6s
TIA                                 L    L
      comp=Z,960nm,7.4s
TIA                                 L    L
      comp=Z,620nm,6.5s
TJN   Taejon            12.33  20   P    Pn    04 40 15.2 +3.3
TJN   Taejon            12.33  20⇑eP     Pn    04 40 12.5 +0.6
TJN   Taejon            12.33  20        Pn    04 40 13.7 +1.7
TJN   Taejon            12.33  20   P    Pn    04 40 15.3 +3.3
      comp=Z,481nm,1.3s
ENH   Enshi             12.40 299   P    Pn    04 40 15.4 +2.5
ENH   Enshi             12.40 299   S    Sn    04 42 33.1 +3.7
ENH   Enshi             12.40 299        Pn    04 40 11.3 -1.6
ENH   Enshi             12.40 299   P    Pn    04 40 13.8 +0.8
      comp=Z,46nm,1.1s
LYN   LuoYang           12.76 321   P    Pn    04 40 19.8 +2.3
LYN                                 S    Sn    04 42 41.5 +3.7
LYN                                 pmax pmax
      comp=Z,18nm,0.5s
LYN                                 pmax pmax
      comp=Z,290nm,3.7s
QIZ   Qiongzhong        12.76 245   P    Pn    04 40 18.3 +0.6
QIZ                                 S    Sn    04 42 36.5 -1.6
QIZ                                 pmax pmax
      comp=Z,31nm,1.3s
QIZ                                 pmax pmax
      comp=Z,400nm,4.0s
QIZ                                 L    L
      comp=Z,540nm,12.7s
QIZ                                 L    L
      comp=Z,820nm,12.0s
QIZ                                 L    L
      comp=Z,850nm,14.0s
QIZ   Qiongzhong        12.76 245   P    Pn    04 40 18.7 +1.0
QIZ   Qiongzhong        12.76 245   S    Sn    04 42 39.3 +1.2
QIZ   Qiongzhong        12.76 245        Pn    04 40 16.6 -1.1
QIZ   Qiongzhong        12.76 245   P    Pn    04 40 18.5 +0.8
      comp=Z,72nm,1.7s
INCN  Inchon            13.16  16   P    Pn    04 40 25.7 +2.9
INCN  Inchon            13.16  16   P    Pn    04 40 21.9 -0.9
INCN  Inchon            13.16  16        Pn    04 40 21.9 -0.9
INCN  Inchon            13.16  16   P    P     04 40 26.2 -2.5
      comp=Z,248nm,1.3s
KSAR  Wonju Array Be    13.47  20   P    Pn    04 40 26.4 -0.4
KSAR  Wonju Array Be    13.47  20        Pn    04 40 26.4 -0.4
KSRS  Korea Array       13.50  20   P    Pn    04 40 29.5 +2.4
      comp=Z,178nm,0.8s,baz=202,slow=9.4,SNR=90
KSRS                                LR   LR    04 46 27.1
      comp=Z,354nm,19.3s,baz=205,slow=41
KS19  Wonju Array Si    13.52  20   Pn   Pn    04 40 25.5 -2.0
JMN   Monobe            13.55  47   P    Pn    04 40 29.7 +1.8
JMN   Monobe            13.55  47        Pn    04 40 24.2 -3.6
PLP   Palo              13.91 168  eP    P     04 40 35.7 -1.4
HNS   HongShan          13.99 335  ⇑P    Pn    04 40 35.5 +2.0
HNS                                 S    Sn    04 43 12.3 +4.7
HNS                                 pmax pmax
      comp=Z,25nm,1.1s
HNS                                 L    L
      comp=Z,330nm,9.1s
HNS                                 L    L
      comp=Z,630nm,10.6s
HNS                                 L    L
      comp=Z,620nm,12.9s
DL2   Dalian            14.00 359   P    P     04 40 40.8 +2.8
DL2                                eSP   Pn    04 41 11.3  +38
DL2                                 S    S     04 43 21.5 -0.1
DL2                                 pmax pmax
      comp=Z,210nm,1.0s
DL2                                 pmax pmax
      comp=Z,480nm,5.0s
GYA   Guiyang           14.00 280   P    Pn    04 40 32.3 -1.6
GYA                                 S    Sn    04 43 13.5 +5.3
GYA                                 pmax pmax
      comp=Z,20nm,0.8s
GYA                                 pmax pmax
      comp=Z,210nm,4.6s
GYA                                 L    L
      comp=Z,4µm,3.8s
GYA                                 L    L
      comp=Z,2µm,3.8s
GYA                                 L    L
      comp=Z,1µm,5.4s
XAN   Xi'an             14.65 312   P    Pn    04 40 42.8 +0.8
XAN                                 S    Sn    04 43 28.0 +4.2
XAN                                 pmax pmax
      comp=Z,17nm,1.1s
XAN                                 L    L
      comp=Z,1µm,7.9s
XAN                                 L    L
      comp=Z,870nm,7.2s
XAN                                 L    L
      comp=Z,270nm,9.6s
TBP   Tagbilaran        15.19 173  eP    Pn    04 40 49.6 +0.6
TBP                                eS    S     04 43 41.8 -4.4
TIY   Taiyuan           15.21 330   P    P     04 40 54.5 +2.9
TIY                                 S    Sn    04 43 39.0 +1.6
TIY                                 pmax pmax
      comp=Z,130nm,5.2s
TIY                                 L    L
      comp=Z,420nm,11.0s
TIY                                 L    L
      comp=Z,680nm,5.8s
TIY                                 L    L
      comp=Z,320nm,9.6s
PPR   Puerto Princes    15.35 193  i P   Pn    04 40 51.2 +0.2
BJI2  Beijing           15.90 343   P    P     04 41 00.0 +0.9
BJI2                                S    Sn    04 43 52.8 -1.0
BJI2                                pmax pmax
      comp=Z,11nm,1.6s
BJI2                                pmax pmax
      comp=Z,200nm,4.1s
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BJI2				L	L		
	comp=Z,130nm,6.3s						
BJI2				L	L		
	comp=Z,150nm,5.9s						
BJI2				L	L		
	comp=Z,180nm,14.9s						
BJT	Baijiatuau	15.90	343	P	P	04 41 00.9	+1.8
BJT	Baijiatuau	15.90	343	P	Pn	04 40 56.3	-1.3
BJT	Baijiatuau	15.90	343	P	Pn	04 40 56.3	-1.3
BJT	Baijiatuau	15.90	343	P	P	04 41 00.6	+1.5
	comp=Z,20nm,1.0s						
INU	Inuyama	16.59	48	P	P	04 41 08.9	+2.1
JGF	Kuroka	16.96	47	P	P	04 41 13.3	+2.4
JGF	Kuroka	16.96	47		Pn	04 41 09.8	-1.0
JGF	Kuroka	16.96	47	P	P	04 41 13.2	+2.4
	comp=Z,26nm,1.2s						
SLVN	Son La	17.09	262	P	Pn	04 41 14.7	+2.2
SLVN	Son La	17.09	262		Pn	04 41 12.7	+0.2
SLVN	Son La	17.09	262	P	Pn	04 41 15.0	+2.5
	comp=Z,54nm,2.9s						
CD2	Chengdu	17.27	294	P	Pn	04 41 15.0	+0.4
CD2				S	Sn	04 44 23.8	-3.3
CD2				pmax	pmax		
	comp=Z,80nm,0.8s						
CD2				pmax	pmax		
	comp=Z,470nm,5.4s						
CD2				L	L		
	comp=Z,970nm,8.6s						
CD2				L	L		
	comp=Z,1µm,7.5s						
CD2				L	L		
	comp=Z,1µm,7.5s						
JHJ	Hachijo jima 2	17.51	58	P	Pn	04 41 19.4	+1.9
	comp=Z,984nm,0.8s,baz=207,slow=3.8,SNR=9.3						
JHJ				LR	LR	04 47 46.9	
	comp=Z,321nm,19.4s,baz=288,slow=36						
KMI2	Kunming	17.53	275	⇓P	Pn	04 41 19.8	+1.8
KMI2				PP	pP	04 41 40.8	+3.1
KMI2				pmax	pmax		
	comp=Z,55nm,1.1s						
KMI2				pmax	pmax		
	comp=Z,180nm,3.9s						
KMI2				L	L		
	comp=Z,710nm,6.2s						
KMI2				L	L		
	comp=Z,950nm,7.6s						
KMI2				L	L		
	comp=Z,780nm,9.1s						
JHJ2	Mitsune	17.54	58	P	Pn	04 41 19.9	+2.2
DAV	Davao City (W)	18.02	169	LR	LR	04 48 07.5	
	comp=Z,233nm,19.5s,baz=344,slow=36						
MAJO	Matsushiro	18.07	46	P	Pn	04 41 24.4	+0.3
MAJO	Matsushiro	18.07	46	⇓eP	Pn	04 41 23.8	-0.3
MAJO	Matsushiro	18.07	46	P	Pn	04 41 24.1	0.0
MAJO	Matsushiro	18.07	46	P	Pn	04 41 24.1	0.0
	comp=Z,24nm,1.1s						
MJB9	Matsu-Tunnel	18.07	46	P	Pn	04 41 23.8	-0.3
MJAR	Matsushiro Arr	18.07	46	P	P	04 41 21.8	-1.2
	comp=Z,7.0nm,0.7s,baz=237,slow=10,SNR=16						
MJAR				LR	LR	04 49 06.5	
	comp=Z,122nm,20.2s,baz=233,slow=39						
MJAR	Matsushiro Arr	18.07	46	P	P	04 41 22.4	-0.7
MJAR	Matsushiro Arr	18.07	46	P	P	04 41 22.4	-0.7
DLV	Lat	18.20	227	P	Pn	04 41 26.8	+0.9
DLV	Lat	18.20	227	P	P	04 41 24.9	+0.2
HHC	Hu-ho-hao-te	18.20	334	eP	Pn	04 41 25.5	-0.2
HHC				sP	sP	04 41 57.8	-1.1
HHC				S	S	04 44 40.5	-6.7
HHC				pmax	pmax		
	comp=Z,11nm,0.5s						
HHC				pmax	pmax		
	comp=Z,270nm,3.7s						
JCJ	Chichijima	18.21	79	P	P	04 41 24.2	-0.4
	comp=Z,207nm,0.9s,baz=269,slow=10						
PZH	PanZhiHua	18.41	279	P	P	04 41 27.3	+0.3
PZH				S	S	04 44 50.8	-0.9
PZH				PcP	PcP	04 45 58.0	+4.7
PZH				pmax	pmax		
	comp=Z,30nm,0.8s						
PZH				pmax	pmax		
	comp=Z,360nm,4.6s						
BTO2	Baotou	18.83	330	eP	P	04 41 32.0	+0.5
BTO2				S	S	04 44 57.8	-2.0
BTO2				pmax	pmax		
	comp=Z,17nm,0.7s						
BTO2				pmax	pmax		
	comp=Z,260nm,4.4s						
BTO2				L	L		
	comp=Z,800nm,7.3s						
BTO2				L	L		
	comp=Z,730nm,5.3s						
BTO2				L	L		
	comp=Z,830nm,11.8s						
CN2	Changchun	19.08	7	⇑P	P	04 41 35.0	+1.0
CN2				epP	pP	04 41 53.0	-1.5
CN2				eS	S	04 45 00.5	-4.0
CN2				pmax	pmax		
	comp=Z,30nm,1.2s						
CN2				pmax	pmax		
	comp=Z,200nm,3.0s						
LZH	Lanzhou	19.26	310	eP	Pn	04 41 39.5	+1.2
LZH				sP	sP	04 42 18.0	+7.3
LZH				S	S	04 45 10.0	+1.6
LZH				pmax	pmax		
	comp=Z,49nm,1.1s						
LZH				pmax	pmax		
	comp=Z,280nm,6.6s						
LZDM	Lanzhou Array	19.30	309	P	Pn	04 41 38.8	-0.2
	comp=Z,19nm,0.8s,baz=104,slow=12,SNR=14						
KKM	Kota Kinabalu	19.55	198	P	P	04 41 40.0	+0.5
KKM	Kota Kinabalu	19.55	198	P	P	04 41 39.4	0.0
KKM	Kota Kinabalu	19.55	198	P	P	04 41 39.9	+0.5
	comp=Z,2µmcomp=Z,234nm,1.1s						
KKM	Kota Kinabalu	19.55	198	P	P	04 41 40.2	+0.8
	comp=Z,234nm,1.1s						
XLT	XiLinHaoTe	19.61	347	eP	Pn	04 41 41.3	-0.9
XLT				S	S	04 45 14.8	-0.3
XLT				pmax	pmax		
	comp=Z,59nm,1.2s						
XLT				pmax	pmax		
	comp=Z,180nm,4.0s						
XLT				L	L		
	comp=Z,31nm,10.3s						
XLT				L	L		
	comp=Z,190nm,13.8s						
XLT				L	L		
	comp=Z,360nm,12.4s						
MYLDM	Lahad Datu	19.88	191	P	P	04 41 43.6	+0.7
MYLDM	Lahad Datu	19.88	191		P	04 41 43.2	+0.3
MYLDM	Lahad Datu	19.88	191	P	Pn	04 41 45.1	-0.5
	comp=Z,106nm,1.1s						
VLA	Vladivostok	19.91	21	deP	Pn	04 41 44.6	-1.0
VLA				pmax	pmax		
	comp=Z,164nm,1.1s						
MDJ	Mudanjiang	20.62	15	P	P	04 41 51.3	+0.6
MDJ				S	S	04 45 37.0	+2.0
MDJ				pmax	pmax		
	comp=Z,56nm,1.1s						
MDJ				L	L		
	comp=Z,580nm,11.8s						
MDJ				L	L		
	comp=Z,240nm,12.6s						
MDJ				L	L		
	comp=Z,610nm,12.7s						
MDJ	Mudanjiang	20.62	15	P	P	04 41 51.5	+0.9
MDJ	Mudanjiang	20.62	15	P	P	04 41 51.6	+0.9
	comp=Z,82nm,1.2s						
USRK	Ussuriysk Ar.	20.91	20	P	P	04 41 54.2	+0.6
	comp=Z,11nm,0.7s,baz=215,slow=9.8,SNR=14						
USRK				LR	LR	04 51 08.0	
	comp=Z,167nm,18.8s,baz=193,slow=40						
	comp=Z,11nm,0.7s						
USRK	Ussuriysk Ar.	20.91	20	P	P	04 41 53.7	0.0
USRK	Ussuriysk Ar.	20.91	20		P	04 41 53.7	0.0
BNX	BinXian	21.26	10	⇑P	P	04 41 56.8	-0.7
BNX				S	S	04 45 48.5	+1.2
BNX				sS	sS	04 46 21.3	-0.6
BNX				pmax	pmax		
	comp=Z,44nm,1.8s						
BNX				pmax	pmax		
	comp=Z,250nm,3.8s						
BNX				L	L		
	comp=Z,200nm,10.8s						
BNX				L	L		
	comp=Z,220nm,12.5s						
BNX				L	L		
	comp=Z,250nm,14.1s						
TNCH	TengChong	21.36	275	P	P	04 42 00.5	+1.5
TNCH				pP	pP	04 42 22.5	+2.6
TNCH				PP	PnPn	04 42 26.3	+1.1
TNCH				sP	sP	04 42 35.3	+1.5
TNCH				S	S	04 45 37.0	-13
TNCH				pmax	pmax		
	comp=Z,60nm,1.1s						
CHTO	Chiang Mai	22.30	259	P	P	04 42 09.7	+1.0
CHTO	Chiang Mai	22.30	259	P	P	04 42 08.5	-0.2
CHTO	Chiang Mai	22.30	259		P	04 42 08.5	-0.2
CHTO	Chiang Mai	22.30	259	P	P	04 42 10.0	+1.4
CHTO	Chiang Mai	22.30	259	P	P	04 42 10.1	+1.4
	comp=Z,48nm,1.6s						
CMAR	Chiang Mai Arr	22.42	258	P	P	04 42 11.3	+1.4
	comp=Z,8.2nm,0.8s,baz=61,slow=7.9,SNR=42						
CMAR				PcP	PcP	04 46 02.1	+1.4
	comp=Z,3.3nm,0.6s,baz=62,slow=2.4,SNR=9.5						
CMAR				ScP	ScP	04 49 27.6	-0.6
	comp=Z,1.2nm,0.4s,baz=10.0,slow=1.5,SNR=5.6						
	comp=Z,8.2nm,0.8s						
CMAR	Chiang Mai Arr	22.42	258	i P	P	04 42 11.3	+1.4
CMAR				pmax	pmax		
	comp=Z,12nm,0.9s						
CMAR	Chiang Mai Arr	22.42	258		P	04 42 09.8	-0.1
CMAR				pP	pP	04 42 31.2	0.0
CMAR					PcP	04 46 00.6	-0.2
CMAR					ScP	04 49 27.1	-1.1
TOLI2	Tolitoli	23.66	183	P	P	04 42 20.9	-0.8
TOLI2	Tolitoli	23.66	183		P	04 42 21.0	-0.7
TOLI2	Tolitoli	23.66	183	P	P	04 42 20.8	-0.8
	comp=Z,62nm,1.1s						
GTA2	Gaotai	23.77	313	eP	P	04 42 23.0	+0.3
GTA2				PcP	PcP	04 46 04.3	+0.9
GTA2				S	S	04 46 29.0	-1.2
GTA2				sS	sS	04 47 14.0	+2.7
GTA2				ScP	ScP	04 49 31.5	-0.1
GTA2				ScS	ScS	04 53 18.0	-0.6
GTA2				pmax	pmax		
	comp=Z,5.0nm,0.9s						
GTOI	Gorontalo	24.11	178	P	P	04 42 24.2	-1.6
	comp=Z,1µmcomp=Z,118nm,0.8s						
DPSS	Saipan	24.21	109		P	04 42 26.3	-0.3
GUMO	Guam	24.22	113	P	P	04 42 27.4	+0.6
	comp=Z,69nm,0.3s,baz=280,slow=1.0,SNR=6.8						
GUMO	Guam	24.22	113	P	P	04 42 28.0	+1.2
GUMO	Guam	24.22	113	P	P	04 42 26.8	0.0
GUMO	Guam	24.22	113		P	04 42 26.8	0.0
GUMO	Guam	24.22	113	P	P	04 42 27.9	+1.2
	comp=Z,290nm,1.4s						
SBUM	Sibu	24.24	205	P	P	04 42 27.0	+0.1
SBUM	Sibu	24.24	205	P	P	04 42 26.7	-0.2
	comp=Z,64nm,0.9s						
SBUM	Sibu	24.24	205	P	P	04 42 26.9	-0.1
	comp=Z,64nm,0.9s						
SBUM				pP	pP	04 42 52.5	+2.1
ERM	Erimo	24.42	40	deP	P	04 42 26.2	-2.1
ERM				pmax	pmax		
	comp=Z,55nm,1.0s						
ERM	Erimo	24.42	40	P	P	04 42 26.1	-2.3
HIA	Hailar	24.42	356	P	P	04 42 29.3	+1.0
HIA	Hailar	24.42	356	P	P	04 42 29.7	+1.3
	comp=Z,54nm,1.1s						
TNTI	Ternate	24.50	167	P	P	04 42 30.7	+1.4
TNTI	Ternate	24.50	167	P	P	04 42 30.5	+1.2
	comp=Z,402nm,1.0s						
TNTI	Ternate	24.50	167	P	P	04 42 30.4	+1.1
	comp=Z,405nm,1.0s						
NPW	Naypyitaw	24.51	263	P	P	04 42 31.4	+2.0
	comp=Z,71nm,1.0s						
NPW				pP	pP	04 42 55.4	+2.1
HILR	Hailar Array B	24.71	356	P	P	04 42 31.8	+0.8
	comp=Z,26nm,0.9s,baz=172,slow=12,SNR=12						
	comp=Z,26nm,0.9s						
ASAJ	Asahikawa	25.46	36	P	P	04 42 37.8	0.0
ASAJ				pmax	pmax		
	comp=Z,33nm,0.7s						
JKA	Kamikawa-asahi	25.46	36		P	04 42 37.8	0.0
JKA				IAmb	IAmb	04 43 05.5	
	comp=Z,33nm,0.7s						
KLR	Kul'dur	25.46	15	P	P	04 42 38.5	+0.7
	comp=Z,47nm,0.9s,baz=203,slow=11,SNR=53						
KLR				PcP	PcP	04 46 06.7	0.0
	comp=Z,3.7nm,0.5s,baz=219,slow=2.7,SNR=5.7						
KLR				ScP	ScP	04 49 35.0	-0.9
	comp=Z,1.5nm,0.6s,baz=196,slow=2.6,SNR=3.7						
KLR				LR	LR	04 53 13.3	
	comp=Z,331nm,20.8s,baz=196,slow=37						
	comp=Z,47nm,0.9s						
KLR	Kul'dur	25.46	15	d iP	P	04 42 37.3	-0.5
KLR				pmax	pmax		
	comp=Z,81nm,1.0s						
SMKI	Samarinda	25.61	191	P	P	04 42 41.1	+1.7
	comp=Z,209nm,1.4s						
APSI	Ampana	25.63	181	P	P	04 42 40.0	+0.4
	comp=Z,2µmcomp=Z,273nm,1.2s						
HEH	HeiHe	25.67	8	eP	P	04 42 39.5	-0.1
HEH				pP	pP	04 43 04.8	+1.0
HEH				S	S	04 47 05.5	+5.6
HEH				pmax	pmax		
	comp=Z,83nm,1.1s						
HEH				pmax	pmax		
	comp=Z,530nm,4.6s						
PCI	Palu	25.72	185	P	P	04 42 41.9	+1.5
	comp=Z,147nm,0.9s						
LUWI	Luwuk	25.77	178	P	P	04 42 43.0	+2.2
LUWI	Luwuk	25.77	178	P	P	04 42 41.2	+0.4
	comp=Z,3µmcomp=Z,144nm,0.8s						
ULN	Ulaanbaatar	25.85	336	c iP	P	04 42 42.2	+0.7
ULN				pmax	pmax		
	comp=Z,64nm,1.3s						
ULN	Ulaanbaatar	25.85	336		P	04 42 41.7	+0.2
ULN				IAmb	IAmb	04 42 43.4	
	comp=Z,67nm,1.2s						
ULN	Ulaanbaatar	25.85	336	P	P	04 42 42.0	+0.5
	comp=Z,2µmcomp=Z,181nm,1.2s						
ULN	Ulaanbaatar	25.85	336	P	P	04 42 42.2	+0.7
	comp=Z,46nm,1.2s						
GOMU	GeErMu	25.98	302	P	P	04 42 42.5	-0.5
GOMU				S	S	04 47 12.5	+6.8
GOMU				pmax	pmax		
	comp=Z,3.0nm,0.5s						
GOMU				L	L		
	comp=Z,290nm,8.8s						
GOMU				L	L		
	comp=Z,120nm,8.7s						
GOMU				L	L		
	comp=Z,140nm,8.9s						
SONM	Songino Array	26.07	336	P	P	04 42 44.0	+0.6
	comp=Z,58nm,1.0s,baz=153,slow=8.7,SNR=105						
SONM				PcP	PcP	04 46 09.6	+1.2
	comp=Z,8.9nm,1.3s,baz=160,slow=4.6,SNR=3.8						
SONM				ScP	ScP	04 49 36.8	-1.1
	comp=Z,10nm,1.1s,baz=160,slow=3.9,SNR=20						
	comp=Z,58nm,1.0s						
SONM	Songino Array	26.07	336		P	04 42 43.6	+0.1
SONM				IAmb	IAmb	04 42 45.4	
	comp=Z,78nm,1.1s						
SONM					PcP	04 46 08.6	+0.3
SONM					ScP	04 49 36.5	-1.5
BKB	Balikpapan	26.46	192	P	P	04 42 47.5	+0.5
BKB	Balikpapan	26.46	192	P	P	04 42 47.5	+0.5
	comp=Z,2µmcomp=Z,204nm,1.2s						
BKB	Balikpapan	26.46	192	P	P	04 42 48.0	+0.9
	comp=Z,203nm,1.2s						
STKI	Sintang	26.71	204	P	P	04 42 50.1	+0.8
	comp=Z,88nm,0.9s						
SANI	Sanana	27.03	171	P	P	04 42 52.9	+0.8
SANI	Sanana	27.03	171	P	P	04 42 51.1	-1.0
	comp=Z,47nm,1.1s						
SANI	Sanana	27.03	171	P	P	04 42 51.3	-0.8
	comp=Z,47nm,1.1s						
SIJI	Sorong	27.09	159	LR	LR	04 52 39.9	
	comp=Z,68nm,21.7s,baz=326,slow=34						
YUK	Yuzh-Kuril'sk	27.22	39	ceP	P	04 42 53.5	-0.1
YSS	Yuzhno-Sakhali	27.52	32	P	P	04 42 58.8	+2.6
YSS	Yuzhno-Sakhali	27.52	32	eP	P	04 42 55.1	-1.1
YSS				e*SP	pP	04 43 24.5	+4.2
YSS				eS	S	04 47 25.2	-3.8
YSS				pmax	pmax		
	comp=Z,200nm,3.5s						
YSS				pmax	pmax		
	comp=Z,80nm,0.8s						
YSS				MLR	MLR		
	comp=Z,200nm,16.0s						
YSS	Yuzhno-Sakhali	27.52	32	P	P	04 42 56.9	+0.7
YSS	Yuzhno-Sakhali	27.52	32	P	P	04 42 58.4	+2.2
	comp=Z,223nm,1.2s						
MMSI	Mamuju	27.57	187	P	P	04 42 57.7	+0.7
	comp=Z,1µmcomp=Z,186nm,0.9s						
LSA	Lhasa	27.86	287	eP	P	04 42 49.8	-10
LSA				S	S	04 47 34.8	-1.0
LSA				LR	LR		
	comp=N,190nm,7.9s						
LSA				LR	LR		
	comp=E,330nm,14.8s						
LSA				LR	LR		
	comp=Z,220nm,9.6s						
LSA	Lhasa	27.86	287	P	P	04 43 02.1	+2.0
	comp=Z,28nm,1.1s						
NLAI	Namlea	28.36	169	P	P	04 43 04.8	+0.8
	comp=Z,1µmcomp=Z,98nm,1.2s						
IPM	Ipoh	28.65	228	P	P	04 43 07.3	+0.6
IPM	Ipoh	28.65	228		P	04 43 06.8	+0.1
IPM	Ipoh	28.65	228	P	P	04 43 07.2	+0.6
	comp=Z,2µmcomp=Z,177nm,1.0s						
IPM	Ipoh	28.65	228	P	P	04 43 07.5	+0.8
	comp=Z,177nm,1.0s						
IPM				pP	pP	04 43 31.4	-0.2
ZEA	Zeya	29.09	6	eP	P	04 43 10.4	+0.3
ZEA				pmax	pmax		
	comp=N,10.0nm,1.0s						
ZEA				pmax	pmax		
	comp=Z,10.0nm,1.4s						
ZAK	Zakamensk	29.33	335	eP	P	04 43 11.6	-0.9
ZAK				e		04 43 37.3	
ZAK				pmax	pmax		
	comp=Z,11nm,1.0s						
ZAK				pmax	pmax		
	comp=Z,10.0nm,1.3s						
KAPI	Kappang	29.79	185	P	P	04 43 15.6	-1.0
	comp=Z,13nm,0.6s,baz=350,slow=9.5,SNR=5.6						
KAPI				LR	LR	04 55 24.7	
	comp=Z,155nm,21.8s,baz=8.5,slow=36						
	comp=Z,13nm,0.6s						
KAPI	Kappang	29.79	185	P	P	04 43 16.4	-0.3
KAPI	Kappang	29.79	185	P	P	04 43 15.7	-1.0
KAPI				pmax	pmax		
	comp=Z,31nm,1.1s						
KAPI	Kappang	29.79	185	P	P	04 43 15.7	-0.9
KAPI				IAmb	IAmb	04 43 16.8	
	comp=Z,31nm,1.1s						
KAPI	Kappang	29.79	185	P	P	04 43 15.5	-1.2
KAPI	Kappang	29.79	185	P	P	04 43 15.8	-0.9
	comp=Z,31nm,1.2s						
TLY	Talaya	30.25	337	LR	LR	04 56 54.2	
	comp=Z,122nm,18.2s,baz=138,slow=39						
TLY	Talaya	30.25	337	c iP	P	04 43 21.0	+0.5
TLY				pmax	pmax		
	comp=Z,59nm,1.7s						
TLY	Talaya	30.25	337		P	04 43 20.8	+0.3
TLY				IAmb	IAmb	04 43 22.1	
	comp=Z,22nm,0.7s						
TLY	Talaya	30.25	337	P	P	04 43 21.3	+0.8
	comp=Z,46nm,1.1s						
TLY				pP	pP	04 43 46.8	+1.8
TSI	Tuntungan	31.05	231	P	P	04 43 29.7	+1.8
	comp=Z,6µmcomp=Z,131nm,1.1s						
MOY	Mondy	31.23	334	eP	P	04 43 29.4	+0.2
MOY				pmax	pmax		
	comp=Z,45nm,2.7s						
PSI	Prapat	31.30	229	P	P	04 43 31.6	+1.4
PSI	Prapat	31.30	229	P	P	04 43 30.6	+0.4
PSI				*PP	pP	04 43 54.9	-0.5
PSI				pmax	pmax		
	comp=Z,121nm,1.0s						
PSI	Prapat	31.30	229	P	P	04 43 31.4	+1.2
	comp=Z,1µmcomp=Z,126nm,1.0s						
RPSI	Rantau Prapat	31.38	229		P	04 43 30.6	-0.1
RPSI				pP	pP	04 43 54.9	-1.0
RPSI	Rantau Prapat	31.38	229	P	P	04 43 31.6	+0.9
	comp=Z,126nm,1.0s						
RPSI				pP	pP	04 43 56.7	+0.8
KCSI	Kotacane, Aceh	31.60	232	P	P	04 43 32.5	-0.2
	comp=Z,28nm,0.7s						
EVN	Everest	31.67	283	IAmb	IAmb	04 44 01.4	
	comp=Z,31nm,1.2s						
EVN	Everest	31.67	283	P	P	04 43 35.1	+1.1
	comp=Z,22nm,1.2s						
EVN				pP	pP	04 43 59.3	+0.8
KNGR	Kungurtug, Tuv	31.92	330	⇓eP	P	04 43 36.7	+1.4
KNGR				pmax	pmax		
	comp=Z,7.0nm,1.0s						
MLSI	Meulaboh, Aceh	32.08	234	P	P	04 43 37.9	+1.0
BSI	Banda Aceh	32.12	238	P	P	04 43 38.2	+1.0
	comp=Z,50nm,1.5s						
MNSI	Mandailing Nat	32.34	226	P	P	04 43 39.7	+0.5
JAY	Jayapura	32.68	144	LR	LR	04 54 42.0	
	comp=Z,120nm,21.4s,baz=1.5,slow=32						
PPI	Padang Panjang	32.79	223	P	P	04 43 44.1	+1.1
	comp=Z,2µmcomp=Z,105nm,1.4s						
LBFI	Labuhan Bajo,	33.22	184	P	P	04 43 46.1	-0.7
SNSI	Sinabang, Aceh	33.40	232	P	P	04 43 48.3	-0.1
	comp=Z,277nm,1.1s						
EDFI	Ende, Flores	33.42	181	P	P	04 43 47.2	-1.4
	comp=Z,797nmcomp=Z,102nm,0.8s						
BLJI	Banyuglugur	33.46	195	P	P	04 43 49.2	+0.4
KHKI	Kahang-Kahang	33.63	192	P	P	04 43 52.4	+2.1
	comp=Z,1µmcomp=Z,117nm,1.1s						
PLAI	Plampang	33.76	188	P	P	04 43 52.4	+1.0
PLAI	Plampang	33.76	188	P	P	04 43 50.3	-1.1
	comp=Z,46nm,0.9s						
PLAI	Plampang	33.76	188	P	P	04 43 51.2	-0.3
WMQ	Urumqi	33.78	313	eP	P	04 43 54.8	+3.3
SNJI	Sawahan-Nganju	33.98	199	P	P	04 43 54.7	+1.1
	comp=Z,146nm,1.2s						
MDSI	Maura Dua	33.98	213	P	P	04 43 54.0	+0.6
	comp=Z,696nmcomp=Z,57nm,1.2s						
CTJI	Waduk Cacaban	34.09	203	P	P	04 43 55.6	+1.3
	comp=Z,90nm,1.0s						
WOJI	Wonogiri, Jawa	34.28	200	P	P	04 43 56.4	+0.4
	comp=Z,178nm,1.3s						
KPJI	Karang Pucung	34.48	203	P	P	04 43 58.9	+1.2
	comp=Z,54nm,1.2s						
SOEI	Soe	34.48	176	P	P	04 43 58.3	+0.5
SOEI	Soe	34.48	176	IAmb	IAmb	04 44 09.0	
	comp=Z,38nm,0.8s						
SOEI	Soe	34.48	176	P	P	04 43 55.5	-2.3
	comp=Z,57nm,0.8s						
SOEI	Soe	34.48	176	P	P	04 43 55.8	-2.1
	comp=Z,57nm,0.8s						
LEM	Lembang	34.52	206	P	P	04 43 58.7	+0.5
	comp=Z,22nm,0.5s,baz=346,slow=19,SNR=3.6						
	comp=Z,22nm,0.5s						
BBJI	Bungbulang	35.08	205	P	P	04 44 05.5	+2.5
BBJI	Bungbulang	35.08	205		P	04 44 04.6	+1.7
BBJI	Bungbulang	35.08	205	P	P	04 44 05.5	+2.5
	comp=Z,2µmcomp=Z,133nm,0.6s						
CNJI	Cibinong	35.15	206	P	P	04 44 04.3	+0.9
MANU	Manus Island	36.29	134	P	P	04 44 14.1	+0.8
MANU				IAmb	IAmb	04 44 15.2	
	comp=Z,13nm,0.8s						
DGZ	Jazzator, Alta	36.56	322	⇑eP	P	04 44 15.8	+0.5
DGZ				pmax	pmax		
	comp=Z,6.0nm,1.5s						
SKR	Severo-Kuril's	36.72	37	deP	P	04 44 16.8	+0.3
ZSN	Zaisan	37.05	317	eP	P	04 44 20.1	+0.7
ZSN	Zaisan	37.05	317	eP	P	04 44 20.2	+0.7
YAK	Yakutsk	37.50	6	LR	LR	05 00 14.8	
	comp=Z,124nm,20.4s,baz=186,slow=37						
YAK	Yakutsk	37.50	6	eP	P	04 44 21.9	-1.0
YAK				e*PP	pP	04 44 45.2	-2.7
YAK				e		04 45 49.7	
YAK				e		04 46 37.1	
YAK				eS	S	04 50 04.2	+0.9
YAK				eSS	SS	04 52 45.1	-6.8
YAK				pmax	pmax		
	comp=Z,49nm,1.2s						
YAK				pmax	pmax		
	comp=N,23nm,1.0s						
YAK				pmax	pmax		
	comp=E,11nm,1.3s						
YAK				pmax	pmax		
	comp=Z,139nm,3.3s						
YAK				pmax	pmax		
	comp=N,123nm,3.2s						
YAK				pmax	pmax		
	comp=E,68nm,3.2s						
YAK				smax	smax		
	comp=E,74nm,3.2s						
YAK				smax	smax		
	comp=N,85nm,3.0s						

YAK				MLR	MLR		
	comp=Z,212nm,15.0s						
YAK				MLR	MLR		
	comp=N,172nm,14.0s						
YAK				MLR	MLR		
	comp=E,64nm,16.0s						
YAK	Yakutsk	37.50	6	P	P	04 44 22.3	-0.7
YAK				IAmb	IAmb	04 44 25.2	
	comp=Z,36nm,0.8s						
YAK	Yakutsk	37.50	6	P	P	04 44 22.1	-0.9
	comp=Z,48nm,0.9s						
AUDHS	Darwin High Sc	38.05	166	P	P	04 44 27.2	-0.9
DRS	Darwin Rock St	38.06	166	P	P	04 44 28.9	+0.8
MK31	Makanchi Array	38.42	315	*c* *i*P	P	04 44 31.2	+0.2
MKAR	Makanchi Array	38.42	315	P	P	04 44 31.4	+0.4
	comp=Z,4.5nm,0.6s,baz=101,slow=11,SNR=34						
MKAR				PcP	PcP	04 46 42.0	-0.1
	comp=Z,3.3nm,0.7s,baz=104,slow=3.5,SNR=3.0						
MKAR				ScP	S	04 50 18.7	+0.9
	comp=Z,1.5nm,0.8s,baz=94,slow=4.9,SNR=6.3						
MKAR				LR	LR	05 03 00.9	
	comp=Z,84nm,18.4s,baz=75,slow=40						
	comp=Z,4.5nm,0.6s						
MKAR	Makanchi Array	38.42	315		P	04 44 30.7	-0.3
MKAR				pP	pP	04 44 54.5	-1.5
MKAR					PcP	04 46 42.3	+0.3
MKAR					ScP	04 50 19.6	-0.3
MTN	Manton Dam	38.51	166	P	P	04 44 30.9	-1.0
MTN	Manton Dam	38.51	166	P	P	04 44 29.8	-2.1
	comp=Z,61nm,0.8s						
MTN	Manton Dam	38.51	166	P	P	04 44 31.3	-0.6
	comp=Z,61nm,0.8s						
MTN	Manton Dam	38.51	166		P	04 44 30.4	-1.5
MAKZ	Makanchi	38.63	315		P	04 44 33.3	+0.6
MAKZ				pP	pP	04 44 56.5	-1.3
MAKZ				IAmb	IAmb	04 45 00.6	
	comp=Z,21nm,1.1s						
MAKZ	Makanchi	38.63	315	P	P	04 44 33.4	+0.7
	comp=Z,13nm,0.7s						
MAKZ				P	pP	04 44 59.1	+1.3
MAKZ	Makanchi	38.63	315	P	P	04 44 33.2	+0.5
MAKZ				pP	pP	04 44 58.6	+0.8
KDU	Kakadu	38.68	164	P	P	04 44 32.4	-0.9
KDU	Kakadu	38.68	164	P	P	04 44 31.4	-2.0
	comp=Z,26nm,1.1s						
PETK	Petropavlovsk-	38.84	34	P	P	04 44 34.8	+0.5
	comp=Z,1.8nm,0.7s,baz=222,slow=11,SNR=2.0						
PETK				PcP	PcP	04 46 41.9	-1.3
	comp=Z,4.5nm,0.9s,baz=232,slow=4.7,SNR=3.2						
PETK				PKKP	PKKPdf	05 08 38.6	-2.6
	comp=Z,1.2nm,0.5s,baz=64,slow=3.4,SNR=4.0						
	comp=Z,1.8nm,0.7s						
PETK	Petropavlovsk-	38.84	34	P	P	04 44 34.7	+0.4
PETK	Petropavlovsk-	38.84	34	P	P	04 44 34.7	+0.4
PATS	Pohnpei	39.01	111	P	P	04 44 36.9	+0.7
PATS	Pohnpei	39.01	111	P	P	04 44 35.8	-0.3
	comp=Z,334nm,1.2s						
PATS	Pohnpei	39.01	111	P	P	04 44 38.2	+2.0
PATS	Pohnpei	39.01	111	P	P	04 44 35.3	-0.9
PATS	Pohnpei	39.01	111	P	P	04 44 36.9	+0.7
	comp=Z,334nm,1.2s						
SHLS	Shalkode	39.27	308	*e*P	P	04 44 36.3	-1.9
SHLS	Shalkode	39.27	308	*e*P	P	04 44 36.4	-1.9
PDGK	Podgornoye	39.29	309	P	P	04 44 37.9	-0.5
PDGK				*PP	pP	04 45 02.0	-1.6
PDGK	Podgornoye	39.29	309		P	04 44 37.9	-0.5
PDGK				pP	pP	04 45 02.0	-1.6
UZB	Uzynbulak	39.58	308	*e*P	P	04 44 41.5	+0.7
UZB	Uzynbulak	39.58	308	*e*P	P	04 44 41.5	+0.7
SATY	Saty	40.00	308	*e*P	P	04 44 44.8	+0.5
SATY	Saty	40.00	308	*e*P	P	04 44 44.8	+0.5
MA2	Magadan	40.04	22	LR	LR	05 02 43.4	
	comp=Z,136nm,18.8s,baz=221,slow=38						
MA2	Magadan	40.04	22	⇑*e*P	P	04 44 43.2	-1.0
MA2				pmax	pmax		
	comp=Z,18nm,1.4s						
ZAA0	Zalesovo Array	40.12	326		P	04 44 44.0	-1.0
ZAA0				pP	pP	04 45 08.6	-1.6
ZAA0				ScP	ScP	04 50 24.8	-1.5
ZALV	Zalesovo Beam	40.12	326	P	P	04 44 44.5	-0.4
	comp=Z,12nm,0.8s,baz=113,slow=7.8,SNR=40						
ZALV				ScP	ScP	04 50 23.9	-2.4
	comp=Z,6.2nm,1.1s,baz=123,slow=5.5,SNR=5.8						
	comp=Z,12nm,0.8s						
ZALV	Zalesovo Beam	40.12	326	*i* P	P	04 44 44.5	-0.4
ZALV				pmax	pmax		
	comp=Z,12nm,0.8s						
ZALV	Zalesovo Beam	40.12	326		P	04 44 44.5	-0.4
ZALV				pP	pP	04 45 08.7	-1.4
ZALV					ScP	04 50 23.9	-2.4
TARG	Taragay, Kyrgy	40.17	306	P	P	04 44 49.4	+3.4
	comp=Z,21nm,1.4s						
TDK	Taldyqorghan	40.46	311	*e*P	P	04 44 48.7	+0.8
TDK				pmax	pmax		
	comp=Z,10.0nm,0.6s						
TDK	Taldyqorghan	40.46	311	*e*P	P	04 44 48.7	+0.8
	comp=Z,9.9nm,0.6s						
KDJ	Kajisay	40.70	306	IAmb	IAmb	04 45 18.5	
	comp=Z,27nm,1.1s						
KDJ	Kajisay	40.70	306	P	P	04 44 51.8	+1.6
	comp=Z,29nm,1.3s						
KDJ				pP	pP	04 45 16.9	+1.5
KNRA	Kununurra	40.83	170	P	P	04 44 50.4	-0.7
KNRA	Kununurra	40.83	170	P	P	04 44 49.3	-1.7
	comp=Z,34nm,0.9s						
KNRA	Kununurra	40.83	170		P	04 44 49.9	-1.1
KNRA				IAmb	IAmb	04 44 51.3	
	comp=Z,37nm,1.1s						
ASAI	AK-SAY(Kyrgyzs	40.99	304	P	P	04 44 55.1	+2.4
	comp=Z,6.0nm,1.0s						
ASAI				pP	pP	04 45 20.1	+2.1
MDOK	Medeo	41.00	308	*e*P	P	04 44 52.9	+0.4
MDOK	Medeo	41.00	308	*e*P	P	04 44 53.0	+0.4
TNSS	Tian-Shan	41.04	308	*e*P	P	04 44 53.5	+0.3
TNSS	Tian-Shan	41.04	308	*e*P	P	04 44 53.5	+0.3
KRVT	Keravat (AS076	41.09	131	LR	LR	04 58 30.6	
	comp=Z,84nm,21.0s,baz=304,slow=31						
AAA	Alma-Ata	41.10	308	*e*P	P	04 44 53.8	+0.6
AAA				pmax	pmax		
	comp=Z,26nm,1.1s						
AAA	Alma-Ata	41.10	308	*e*P	P	04 44 53.9	+0.6
	comp=Z,26nm,1.1s						
HYB	Hyderabad	41.14	268	*e*P	P	04 44 52.7	-1.1
HYB				*e*pP	pP	04 45 17.9	-1.3
HYB				*e*sP	sP	04 45 30.3	-1.6
HYB				*e*PP	PP	04 46 30.6	-0.3
HYB				*e*PcP	PcP	04 46 50.8	-0.5
HYB				*e*S	S	04 50 59.3	+0.3
HYB				*e*ScS	ScS	04 54 46.6	-0.5
KSH2	Kashi	41.49	302	P	P	04 44 58.8	+2.2
KSH2				pP	pP	04 45 23.8	+1.7
KSH2				pmax	pmax		
	comp=Z,8.0nm,0.9s						
H11N1	WAKE ISLAND Hy	41.63	88	T	T	05 31 16.0	
	baz=282,slow=75,SNR=9.7						
H11N2	WAKE ISLAND Hy	41.63	88	T	T	05 31 18.6	
	baz=282,slow=75,SNR=10						
KUU	Kurty	41.65	309	*e*P	P	04 44 58.3	+0.7
KUU	Kurty	41.65	309	*e*P	P	04 44 58.3	+0.7
H11N3	WAKE ISLAND Hy	41.65	88	T	T	05 31 21.1	
	baz=282,slow=75,SNR=9.7						
H11S3	WAKE ISLAND Hy	41.79	90	T	T	05 31 01.8	
	baz=284,slow=75,SNR=8.3						
H11S1	WAKE ISLAND Hy	41.80	90	T	T	05 31 07.2	
	baz=284,slow=75,SNR=7.0						
H11S2	WAKE ISLAND Hy	41.80	90	T	T	05 31 18.8	
	baz=284,slow=75,SNR=7.6						
PMG	Port Moresby	41.94	141	P	P	04 44 59.5	-0.7
	comp=Z,30nm,0.8s,baz=328,slow=8.2,SNR=4.5						
	comp=Z,30nm,0.8s						
PMG	Port Moresby	41.94	141	*d* *i*P	P	04 45 01.2	+1.0
PMG				pmax	pmax		
	comp=Z,62nm,1.1s						
PMG	Port Moresby	41.94	141	P	P	04 45 00.4	+0.2
PMG				IAmb	IAmb	04 45 01.8	
	comp=Z,60nm,1.1s						
KURK	Kurchatov	42.10	319	*c* *i*P	P	04 45 01.1	-0.1
KURK				pmax	pmax		
	comp=Z,27nm,1.7s						
KURK	Kurchatov	42.10	319		P	04 45 00.5	-0.7
KURK					ScP	04 50 31.5	-2.6
KURK	Kurchatov	42.10	319	P	P	04 45 01.3	+0.2
	comp=Z,13nm,1.5s						
KURK	Kurchatov	42.10	319	P	P	04 45 01.5	+0.3
KURK				pP	pP	04 45 26.6	0.0
KURBB	Kurchatov Arra	42.12	319	P	P	04 45 00.5	-0.8
	comp=Z,3.6nm,0.7s,baz=114,slow=7.4,SNR=13						
KURBB				ScP	ScP	04 50 31.3	-2.9
	comp=Z,0.3nm,0.3s,baz=110,slow=3.7,SNR=4.7						
	comp=Z,3.6nm,0.7s						
AAK	Ala-Archa	42.75	307	LR	LR	05 05 32.7	
	comp=Z,84nm,18.2s,baz=96,slow=40						
AAK	Ala-Archa	42.75	307	*d* *i*P	P	04 45 06.6	-0.2
AAK				pmax	pmax		
	comp=Z,4.0nm,0.7s						
AAK	Ala-Archa	42.75	307	P	P	04 45 07.6	+0.8
FITZ	Fitzroy Crossi	42.85	175	P	P	04 45 07.2	-0.3
FITZ	Fitzroy Crossi	42.85	175	P	P	04 45 06.4	-1.1
	comp=Z,25nm,0.5s,baz=2.7,slow=7.3,SNR=149						
	comp=Z,25nm,0.5s						
FITZ	Fitzroy Crossi	42.85	175	P	P	04 45 06.0	-1.5
FITZ	Fitzroy Crossi	42.85	175	P	P	04 45 06.6	-0.9
	comp=Z,12nm,1.0s						
SEY	Seymchan	43.05	20	⇑*i*P	P	04 45 08.4	-0.3
SEY				pmax	pmax		
	comp=Z,11nm,1.0s						
NIL	Nilore	43.16	293	P	P	04 45 08.7	-1.4
NIL				pmax	pmax		
	comp=Z,26nm,1.2s						
NIL	Nilore	43.16	293		P	04 45 08.7	-1.4
NIL				IAmb	IAmb	04 45 37.3	
	comp=Z,25nm,1.2s						
NIL	Nilore	43.16	293	P	P	04 45 11.3	+1.2
	comp=Z,17nm,1.0s						
NIL				pP	pP	04 45 36.1	+0.5
PALK	Pallekele	43.22	253	LR	LR	05 03 37.4	
	comp=Z,101nm,20.7s,baz=64,slow=36						
OHH	Osh	43.76	303	P	P	04 45 15.1	+0.3
	comp=Z,26nm,0.7s						
OHH				pP	pP	04 45 40.6	+0.1
DRK	Karamyk	44.43	302	P	P	04 45 23.3	+2.8
	comp=Z,18nm,0.5s						
DRK				pP	pP	04 45 47.8	+1.6
DZA	Taraz	45.09	307	*e*P	P	04 45 25.9	+0.6
DZA	Taraz	45.09	307	*e*P	P	04 45 25.9	+0.6
KK31	Karatay Array	45.71	307	*i* P	P	04 45 31.5	+1.3
KKAR	Karatay Array	45.71	307	P	P	04 45 30.4	+0.2
KKAR				*PP	pP	04 45 55.4	-0.6
KKAR	Karatay Array	45.71	307		P	04 45 30.4	+0.2
KKAR				pP	pP	04 45 55.4	-0.6
KKAR				ScP	ScP	04 50 49.4	+0.2
MBWA	Marble Bar	45.81	183	P	P	04 45 30.0	-1.1
MBWA	Marble Bar	45.81	183	P	P	04 45 30.5	-0.6
	comp=Z,65nm,0.8s						
MBWA	Marble Bar	45.81	183	P	P	04 45 30.0	-1.1
MBWA	Marble Bar	45.81	183		P	04 45 29.7	-1.4
MBWA				IAmb	IAmb	04 45 30.7	
	comp=Z,48nm,0.8s						
MBWA	Marble Bar	45.81	183	P	P	04 45 29.9	-1.2
	comp=Z,65nm,0.8s						
MBWA	Marble Bar	45.81	183	P	P	04 45 29.8	-1.2
MBWA				pP	pP	04 45 56.6	+0.7
IUG	Iuzhnay	45.97	305	*e*P	P	04 45 33.1	+0.7
IUG	Iuzhnay	45.97	305	*e*P	P	04 45 33.1	+0.7
WB6	Warramunga Arr	46.04	164	P	P	04 45 33.2	+0.3
	comp=Z,59nm,1.2s						
WB4	Warramunga Arr	46.08	164	P	P	04 45 33.6	+0.4
	comp=Z,77nm,0.9s						
WRAB	Tennant Creek	46.11	164	P	P	04 45 33.8	+0.4
WRAB	Tennant Creek	46.11	164	*d* *i*P	P	04 45 33.3	-0.1
WRAB				pmax	pmax		
	comp=Z,84nm,1.2s						
WRAB	Tennant Creek	46.11	164	P	P	04 45 32.7	-0.7
WRAB	Tennant Creek	46.11	164	P	P	04 45 33.6	+0.2
	comp=Z,74nm,1.1s						
WRAB	Tennant Creek	46.11	164	P	P	04 45 33.5	0.0
WRAB				pP	pwP	04 46 00.6	-1.1
WRA	Warramunga Arr	46.11	164	P	P	04 45 32.6	-1.0
	comp=Z,36nm,0.6s,baz=347,slow=8.8,SNR=263						
WRA				S	S	04 52 09.5	-1.6
	comp=Z,3.2nm,1.2s,baz=339,slow=13,SNR=8.8						
	comp=Z,36nm,0.6s						
WRA	Warramunga Arr	46.11	164	*i* P	P	04 45 32.5	-1.0
WRA				pmax	pmax		
	comp=Z,40nm,0.6s						
WRA	Warramunga Arr	46.11	164		P	04 45 31.8	-1.7
WB1	Warramunga Ar.	46.13	164	P	P	04 45 35.4	+1.8
BRLS	Borolday	46.20	307	*e*P	P	04 45 35.1	+1.1
BRLS	Borolday	46.20	307	*e*P	P	04 45 35.1	+1.1
CHM	Chimkent	46.30	306	*e*P	P	04 45 35.6	+0.7
CHM	Chimkent	46.30	306	*e*P	P	04 45 35.6	+0.7
KBL	Kabul	46.62	295	P	P	04 45 38.8	+1.2
KBL				pmax	pmax		
	comp=Z,24nm,0.9s						
KBL	Kabul	46.62	295		P	04 45 38.8	+1.2
KBL				IAmb	IAmb	04 45 40.5	
	comp=Z,24nm,0.9s						
KBL	Kabul	46.62	295	P	P	04 45 39.7	+2.0
	comp=Z,31nm,0.9s						
KBL				pP	pP	04 46 03.8	+0.3
TIXI	Tiksi	46.97	3	LR	LR	05 07 04.0	
	comp=Z,180nm,20.4s,baz=190,slow=38						
TIXI	Tiksi	46.97	3	*c* *i*P	P	04 45 38.7	-0.8
TIXI				pmax	pmax		
	comp=Z,105nm,1.2s						
TIXI	Tiksi	46.97	3		P	04 45 38.8	-0.8
BVAR	Borovoye Array	47.67	320	P	P	04 45 44.9	-0.4
	comp=Z,4.4nm,0.5s,baz=102,slow=8.0,SNR=16						
BVAR				PcP	PcP	04 47 13.4	+0.4
	comp=Z,3.1nm,0.6s,baz=59,slow=5.6,SNR=1.7						
BVAR				ScP	ScP	04 50 55.5	-1.6
	comp=Z,1.1nm,0.4s,baz=132,slow=6.2,SNR=7.5						
	comp=Z,4.4nm,0.5s						
BORK	Borovoye	47.72	320	*c* *i*P	P	04 45 45.8	+0.2
BORK				pmax	pmax		
	comp=Z,17nm,1.3s						
BORK	Borovoye	47.72	320		P	04 45 45.6	0.0
BORK				pP	pP	04 46 11.1	-0.4
BORK				IAmb	IAmb	04 46 13.7	
	comp=Z,26nm,0.9s						
BORK				ScP	ScP	04 50 56.8	-0.5
GIRL	Giralia	47.84	190	P	P	04 45 47.5	+0.7
MTSU	Mount Surprise	47.92	151	P	P	04 45 49.5	+1.9
MTSU	Mount Surprise	47.92	151	P	P	04 45 49.4	+1.8
MTSU	Mount Surprise	47.92	151	P	P	04 45 49.5	+1.9
	comp=Z,19nm,1.0s						
MTSU				pP	pP	04 46 14.7	+1.4
QIS	Mount Isa	48.27	158	P	P	04 45 50.7	+0.5
QIS	Mount Isa	48.27	158	P	P	04 45 50.6	+0.4
QIS	Mount Isa	48.27	158	P	P	04 45 47.8	-2.4
	comp=Z,37nm,0.9s						
QIS				P	pP	04 46 17.5	+1.5
NRIK	Noril'sk	48.96	345	P	P	04 45 54.1	-0.9
	comp=Z,16nm,0.9s,baz=133,slow=7.3,SNR=12						
NRIK				LR	LR	05 08 58.1	
	comp=Z,98nm,18.9s,baz=144,slow=39						
	comp=Z,16nm,0.9s						
NRIK	Noril'sk	48.96	345	*c* *i*P	P	04 45 54.0	-0.9
NRIK				pmax	pmax		
	comp=Z,30nm,1.1s						
NRIK	Noril'sk	48.96	345	IAmb	IAmb	04 45 55.2	
	comp=Z,24nm,1.0s						
AS15	Alice Springs	49.56	166	P	P	04 46 00.6	+0.5
AS16	Alice Springs	49.57	166	P	P	04 46 00.9	+0.8
	comp=Z,32nm,0.7s						
AS14	Alice Springs	49.58	166	P	P	04 46 01.3	+1.1
	comp=Z,36nm,0.7s						
AS31	Alice Springs	49.59	166	P	P	04 46 01.0	+0.7
ASAR	Alice Springs	49.59	166	P	P	04 46 00.6	+0.2
	comp=Z,20nm,0.6s,baz=339,slow=6.4,SNR=178						
ASAR				PcP	PcP	04 47 20.1	-0.3
	comp=Z,3.6nm,0.8s,baz=350,slow=6.1,SNR=1.9						
ASAR				ScP	ScP	04 51 04.5	-1.1
	comp=Z,0.5nm,0.8s,baz=343,slow=4.7,SNR=4.2						
ASAR				S	S	04 53 00.7	+0.5
	comp=Z,0.6nm,0.9s,baz=355,slow=21,SNR=5.1						
	comp=Z,20nm,0.6s						
ASAR	Alice Springs	49.59	166	P	P	04 46 00.3	0.0
ASAR	Alice Springs	49.59	166		P	04 46 00.2	0.0
ASAR					PcP	04 47 19.4	-0.9
AS01	Alice Springs	49.60	166	P	P	04 46 01.3	+0.9
AS11	Alice Springs	49.60	166	P	P	04 46 01.4	+1.0
	comp=Z,40nm,0.8s						
AS17	Alice Springs	49.61	166	P	P	04 46 01.2	+0.8
AS09	Alice Springs	49.63	166	P	P	04 46 01.4	+0.7
AS19	Alice Springs	49.64	166	P	P	04 46 01.4	+0.7
	comp=Z,32nm,0.8s						
WRKA	Warakurna	49.98	173	P	P	04 46 03.5	+0.3
	comp=Z,16nm,0.8s						
CTA	Charters Tower	50.50	150	P	P	04 46 08.4	+1.2
CTA	Charters Tower	50.50	150	P	P	04 46 07.9	+0.7
	comp=Z,11nm,0.9s,baz=332,slow=7.7,SNR=5.4						
CTA				LR	LR	05 06 24.5	
	comp=Z,70nm,20.7s,baz=32,slow=34						
	comp=Z,11nm,0.9s						
CTA	Charters Tower	50.50	150	P	P	04 46 08.7	+1.5
CTAO	Charters Tower	50.50	150	P	P	04 46 08.7	+1.5
CTAO	Charters Tower	50.50	150	P	P	04 46 06.7	-0.5
CTAO				pmax	pmax		
	comp=Z,32nm,1.3s						
CTAO	Charters Tower	50.50	150	P	P	04 46 06.7	-0.5
CTAO				IAmb	IAmb	04 46 36.1	
	comp=Z,32nm,1.2s						
BILL	Bilibino	50.76	20	*d* *i*P	P	04 46 08.1	-0.5
BILL				pmax	pmax		
	comp=Z,25nm,1.0s						
BILL	Bilibino	50.76	20	P	P	04 46 07.7	-0.9
BILL				IAmb	IAmb	04 46 09.9	
	comp=Z,16nm,0.8s						
BILI	Bilibino, Chuk	50.83	20	P	P	04 46 08.4	-0.7
	comp=Z,12nm,1.2s						
MEEK	Meekatharra	51.32	184	P	P	04 46 12.6	-0.6
	comp=Z,57nm,1.0s						
MEEK	Meekatharra	51.32	184	P	P	04 46 12.0	-1.3
MEEK	Meekatharra	51.32	184	P	P	04 46 11.9	-1.3
	comp=Z,57nm,1.0s						
AB31	Akbulak array	53.55	314	*i* P	P	04 46 30.1	+0.6
AB31	Akbulak array	53.55	314	IAmb	IAmb	04 46 31.1	
	comp=Z,17nm,0.8s						
ABKAR	Akbulak array	53.55	314		P	04 46 28.9	-0.6
ABKAR				pP	pP	04 46 55.2	-0.7
MORW	Morawa	53.94	187	P	P	04 46 32.2	-0.3
	comp=Z,53nm,0.8s						
MORW	Morawa	53.94	187	P	P	04 46 31.7	-0.8
MORW	Morawa	53.94	187	P	P	04 46 31.8	-0.7
	comp=Z,53nm,0.8s						
SVE	Sverdlovsk	53.98	323	*e*P	P	04 46 32.6	+0.1
SVE				pmax	pmax		
	comp=Z,22nm,1.3s						
AKTO	Aktyubinsk	54.86	315	LR	LR	05 12 44.8	
	comp=Z,58nm,20.1s,baz=210,slow=39						
AKTO	Aktyubinsk	54.86	315	P	P	04 46 39.1	+0.1
ARTI	Arti	55.15	323	*c* *i*P	P	04 46 40.3	-0.7
ARTI				*PP	pP	04 47 06.6	-1.0
ARTI						04 47 39.9	
ARTI						04 48 41.1	
ARTI				S	S	04 54 14.2	-1.1
ARTI				SS	SS	04 57 56.6	-3.9
ARTI				pmax	pmax		
	comp=Z,26nm,1.5s						
ARTI	Arti	55.15	323		P	04 46 39.8	-1.1
ARTI				IAmb	IAmb	04 46 40.8	
	comp=Z,15nm,0.8s						
ARTI	Arti	55.15	323	P	P	04 46 40.5	-0.4
ARTI				pP	pP	04 47 07.5	-0.1
INKA	Innaminka	55.31	160		P	04 46 42.9	+0.5
BLDU	Ballidu	55.41	186	P	P	04 46 42.6	-0.4
	comp=Z,25nm,0.8s						
QLP	Quilpie	55.44	156	P	P	04 46 44.4	+1.0
QLP	Quilpie	55.44	156	P	P	04 46 41.9	-1.5
	comp=Z,31nm,0.8s						
FORT	Forrest	55.63	174	P	P	04 46 44.9	+0.2
FORT	Forrest	55.63	174	IAmb	IAmb	04 46 46.3	
	comp=Z,18nm,0.8s						
KMBL	Kambalda	55.92	180	P	P	04 46 46.5	-0.2
KLBR	Kellerberrin	56.30	184	P	P	04 46 49.5	+0.1
	comp=Z,111nm,0.8s						
KLBR	Kellerberrin	56.30	184	P	P	04 46 48.8	-0.6
KLBR	Kellerberrin	56.30	184	P	P	04 46 48.5	-0.9
	comp=Z,111nm,0.8s						
MUN	Mundaring	56.81	186	P	P	04 46 53.0	0.0
AUKUL	Kulin High Sch	57.34	184	P	P	04 46 56.9	+0.2
NWAO	Narrogin (SRO)	57.66	185	P	P	04 46 59.5	+0.5
	comp=Z,66nm,1.2s						
NWAO	Narrogin (SRO)	57.66	185	P	P	04 46 59.3	+0.4
	comp=Z,107nm,1.2s						
NWAO	Narrogin (SRO)	57.66	185	P	P	04 47 00.1	+1.1
NWAO	Narrogin (SRO)	57.66	185	P	P	04 46 59.7	+0.7
NWAO	Narrogin (SRO)	57.66	185	P	P	04 46 58.6	-0.4
NWAO				pmax	pmax		
	comp=Z,48nm,0.9s						
NWAO	Narrogin (SRO)	57.66	185		P	04 46 58.5	-0.4
NWAO	Narrogin (SRO)	57.66	185	P	P	04 46 59.2	+0.2
	comp=Z,63nm,1.2s						
NWAO	Narrogin (SRO)	57.66	185	P	P	04 46 59.0	0.0
BBOO	Buckleboo	58.89	166	P	P	04 47 08.0	+0.5
	comp=Z,57nm,0.7s						
BBOO	Buckleboo	58.89	166	P	P	04 47 08.0	+0.5
BBOO	Buckleboo	58.89	166	P	P	04 47 07.4	-0.1
	comp=Z,56nm,0.7s						
STKA	Stephens Creek	59.43	161	P	P	04 47 11.9	+0.6
	comp=Z,105nm,0.9s						
STKA	Stephens Creek	59.43	161	P	P	04 47 11.4	+0.2
	comp=Z,17nm,0.9s,baz=340,slow=7.7,SNR=16						
	comp=Z,17nm,0.9s						
STKA	Stephens Creek	59.43	161	P	P	04 47 11.7	+0.4
STKA	Stephens Creek	59.43	161	P	P	04 47 11.8	+0.6
	comp=Z,105nm,0.9s						
KIRV	Kirov	60.13	325	LR	LR	05 16 04.2	
	comp=Z,48nm,19.9s,baz=89,slow=39						
KIRV	Kirov	60.13	325	*c* *i*P	P	04 47 15.3	-0.5
HTT	Hallett	60.15	164	P	P	04 47 16.8	+0.5
	comp=Z,15nm,0.9s						
HTT	Hallett	60.15	164	P	P	04 47 17.5	+1.2
CMSA	Cobar Meteorol	60.46	157	P	P	04 47 19.5	+1.2
CMSA	Cobar Meteorol	60.46	157	P	P	04 47 20.0	+1.7
CMSA	Cobar Meteorol	60.46	157	P	P	04 47 19.5	+1.2
	comp=Z,22nm,1.1s						
BELG	Belogornoye	61.34	318	*i* P	P	04 47 23.5	-0.5
BELG				pmax	pmax		
	comp=Z,5.0nm,1.2s						
RDOG	Red Dog Mine	61.58	24	IAmb	IAmb	04 47 26.7	
	comp=Z,29nm,1.5s						
G16K	Koyuk River	61.66	27	P	P	04 47 26.0	0.0
G16K				PcP	PcP	04 48 07.1	+0.7
G16K				IAmb	IAmb	04 48 08.7	
	comp=Z,18nm,1.0s						
ARMA	Armidale	61.84	151	P	P	04 47 28.5	+0.7
AUPHS	Peel High Scho	62.11	152	P	P	04 47 31.1	+1.6
F17K	Baldwin Pennin	62.15	26		P	04 47 29.8	+0.5
F17K				IAmb	IAmb	04 47 41.8	
	comp=Z,47nm,1.8s						
MAK	Makhachkala	62.53	307	*c* *i*P	P	04 47 33.0	+0.8
MAK				*e**PP	pP	04 47 57.2	-2.3
MAK				*e**SP	PcP	04 48 09.7	-0.7
MAK				*e*S	S	04 55 53.2	+2.1
MAK				pmax	pmax		
	comp=Z,207nm,1.0s						
AKT	Akhty	62.61	305	*e*P	P	04 47 32.7	-0.3
AKT				pmax	pmax		
	comp=Z,23nm,1.4s						
J17K	VABM Dome	63.09	30	IAmb	IAmb	04 47 37.4	
	comp=Z,61nm,1.6s						
DZM	Mont Dzumac	63.50	134	P	P	04 47 40.7	+1.7
	comp=Z,32nm,1.2s,baz=316,slow=6.3,SNR=4.0						
	comp=Z,32nm,1.2s						
F19K	Shaleruckik Mo	63.53	26	IAmb	IAmb	04 47 39.6	
	comp=Z,26nm,1.5s						
ARPS	Mount Arapiles	64.08	162	P	P	04 47 42.9	+0.6
	comp=Z,17nm,1.0s						
L18K	Granite Mounta	64.25	31	IAmb	IAmb	04 48 16.1	
	comp=Z,24nm,1.3s						
J19K	Poorman	64.59	29	IAmb	IAmb	04 47 47.5	
	comp=Z,22nm,1.1s						
I20K	Naaghedeneel	65.01	28	IAmb	IAmb	04 47 50.8	
	comp=Z,32nm,0.9s						
KLMR	Klimovskoe	65.02	328	*e*P	P	04 47 46.0	-2.3
KLMR				*e**PP	pP	04 48 12.8	-2.8
KLMR				pmax	pmax		
	comp=Z,38nm,1.3s						
L19K	White Mountain	65.11	31	IAmb	IAmb	04 48 22.5	
	comp=Z,22nm,1.1s						
VRH	Novokhopyorsk	65.12	317	*e*P	P	04 47 48.4	-0.6
VRH				pmax	pmax		
	comp=Z,26nm,1.0s						
IMAR	Indian Mountai	65.20	27	P	P	04 47 49.9	+0.6
J20K	Nowinta River	65.22	29	IAmb	IAmb	04 47 51.5	
	comp=Z,50nm,1.5s						
G21K	Allakaket	65.25	26	IAmb	IAmb	04 47 51.4	
	comp=Z,20nm,1.1s						
K20K	Telida	65.34	30	IAmb	IAmb	04 47 52.4	
	comp=Z,44nm,1.6s						
BRAT	Ballarat	65.40	161	P	P	04 47 52.4	+1.5
H21K	Melozitna Rive	65.62	27	IAmb	IAmb	04 47 56.1	
	comp=Z,18nm,1.0s						

KBZ	Khabaz	65.69	309	P	P	04 47 52.6	-0.2
	comp=Z,4.2nm,1.0s,baz=63,slow=8.9,SNR=4.3						
	comp=Z,4.2nm,1.0s						
KBZ	Khabaz	65.69	309⇑	iP	P	04 47 53.1	+0.2
KBZ				pmax	pmax		
	comp=Z,15nm,1.6s						
KIV	Kislovodsk	65.80	309	eP	P	04 47 55.0	+1.3
KIV				eS	S	04 56 33.2	+1.6
KIV				pmax	pmax		
	comp=Z,18nm,1.0s						
KIV				MLR	MLR		
	comp=Z,29nm,17.0s						
KIV	Kislovodsk	65.80	309	P	P	04 47 54.4	+0.7
	comp=Z,22nm,1.2s						
KIV				pP	pP	04 48 18.5	-2.7
	comp=Z,22nm,1.2s						
SHA1	Shidzhatmaz	65.86	309⇓	eP	P	04 47 55.2	+0.9
TOO	Toolangi	65.90	160	P	P	04 47 55.3	+1.1
	comp=Z,14nm,0.9s						
TOO	Toolangi	65.90	160	P	P	04 47 54.8	+0.6
TOO				pmax	pmax		
	comp=Z,8.0nm,0.8s						
TOO	Toolangi	65.90	160		P	04 47 54.8	+0.6
I21K	Tanana	66.02	27	IAmb	IAmb	04 47 58.8	
	comp=Z,22nm,1.0s						
D23K	Nanushuk River	66.05	23	IAmb	IAmb	04 47 56.9	
	comp=Z,40nm,1.1s						
H22K	Ishtalitna Cre	66.18	27	IAmb	IAmb	04 48 00.0	
	comp=Z,30nm,1.1s						
E23K	Chandalar	66.56	24	IAmb	IAmb	04 48 01.3	
	comp=Z,29nm,1.1s						
MLY	Manley	66.56	28	IAmb	IAmb	04 47 59.9	
	comp=Z,18nm,1.1s						
LPSR	Galich'ya Gora	66.58	319	eP	P	04 47 57.8	-0.6
LPSR				pmax	pmax		
	comp=Z,19nm,0.8s						
VORR	Voronezh	66.58	318	eP	P	04 47 56.9	-1.5
VORR				pmax	pmax		
	comp=Z,55nm,0.4s						
C24K	Franklin Bluff	66.65	22	IAmb	IAmb	04 47 60.0	
	comp=Z,37nm,0.9s						
D24K	Happy Valley	66.69	23	IAmb	IAmb	04 48 00.5	
	comp=Z,26nm,0.9s						
VSR	Storozhevoye	66.70	317	eP	P	04 47 58.6	-0.6
VSR				pmax	pmax		
	comp=Z,18nm,1.1s						
MOS	Moscow	66.76	322	eP	P	04 47 59.5	0.0
MOS				e*PP	pP	04 48 26.8	-0.1
MOS				eS	S	04 56 40.7	-2.0
MOS				e*SS	sS	04 57 28.2	-1.6
MOS				pmax	pmax		
	comp=Z,38nm,1.1s						
APA	Apatity	66.78	335⇓	eP	P	04 47 57.5	-1.9
APA				e*PP	pP	04 48 24.1	-2.7
APA				e		04 50 26.4	
APA				eS	S	04 56 35.8	-6.7
APA				pmax	pmax		
	comp=Z,9.0nm,1.2s						
KDAK	Kodiak Island	66.87	35	LR	LR	05 17 27.4	
	comp=Z,74nm,21.3s,baz=267,slow=36						
H23K	Yukon River	66.94	27	IAmb	IAmb	04 48 04.8	
	comp=Z,28nm,1.0s						
I23K	Minto, Yukon-K	67.12	27	IAmb	IAmb	04 48 30.6	
	comp=Z,20nm,1.3s						
F24K	Squaw Lake	67.30	25	IAmb	IAmb	04 48 04.9	
	comp=Z,21nm,0.8s						
NEA2	Nenana	67.34	28	IAmb	IAmb	04 48 04.3	
	comp=Z,32nm,1.2s						
M22K	Willow	67.39	31	IAmb	IAmb	04 48 05.4	
	comp=Z,51nm,1.1s						
OBN	Obninsk	67.47	322d	iP	P	04 48 03.8	-0.2
OBN				i *PP	pP	04 48 31.0	-0.5
OBN				e		04 50 34.6	
OBN				i S	S	04 56 46.7	-4.5
OBN				i SS	SS	05 01 14.9	+2.0
OBN				pmax	pmax		
	comp=Z,45nm,2.1s						
MCK	McKinley	67.56	29	IAmb	IAmb	04 48 31.5	
	comp=Z,31nm,1.3s						
RND	Reindeer	67.65	29	IAmb	IAmb	04 48 07.9	
	comp=Z,26nm,0.9s						
WRH	Wood River Hil	67.78	28	IAmb	IAmb	04 48 07.8	
	comp=Z,26nm,1.2s						
COLA	College	67.80	27	P	P	04 48 09.1	+3.2
COLA	College	67.80	27	P	P	04 48 07.1	+1.2
	comp=Z,11nm,0.9s						
COLA				pP	PcP	04 48 30.7	-1.0
ILAR	Eielson Array	68.23	27	P	P	04 48 07.6	-1.0
	comp=Z,2.1nm,0.8s,baz=266,slow=6.3,SNR=19						
	comp=Z,2.1nm,0.8s						
ILAR	Eielson Array	68.23	27	P	P	04 48 08.8	+0.2
ILAR	Eielson Array	68.23	27	P	P	04 48 08.8	+0.2
FYU	Fort Yukon	68.51	25	IAmb	IAmb	04 48 12.3	
	comp=Z,49nm,1.6s						
BMAR	Burnt Mountain	68.56	24		P	04 48 11.6	+0.9
F26K	Sheenjek River	68.67	24	IAmb	IAmb	04 48 13.4	
	comp=Z,20nm,1.0s						
SCM	Sheep Creek Mo	68.67	31	IAmb	IAmb	04 48 15.8	
	comp=Z,42nm,1.2s						
MSF	Maaselka	68.80	334	P	P	04 48 11.8	-0.3
	comp=Z,11nm,1.4s						
K24K	Donnelly Dome	68.91	28	IAmb	IAmb	04 48 13.4	
	comp=Z,24nm,0.9s						
RAYN	Ar Rayn	68.93	287	P	P	04 48 13.7	-0.1
RAYN				pmax	pmax		
	comp=Z,10.0nm,1.2s						
RAYN	Ar Rayn	68.93	287		P	04 48 13.7	-0.1
RAYN	Ar Rayn	68.93	287	P	P	04 48 14.5	+0.7
	comp=Z,6.6nm,1.4s						
SPITS	Spitsbergen Ar	68.99	348	P	P	04 48 12.4	-0.7
	comp=Z,2.0nm,0.4s,baz=84,slow=7.6,SNR=14						
SPITS				LR	LR	05 21 10.5	
	comp=Z,50nm,21.4s,baz=48,slow=38						
	comp=Z,2.0nm,0.4s						
MSVF	Nonsavu	69.03	122	P	P	04 48 15.0	+0.7
	comp=Z,27nm,0.9s,baz=311,slow=5.6,SNR=11						
MSVF				LR	LR	05 15 28.5	
	comp=Z,36nm,21.3s,baz=334,slow=33						
	comp=Z,27nm,0.9s						
MSVF	Nonsavu	69.03	122	P	P	04 48 16.7	+2.4
MSVF	Nonsavu	69.03	122	P	P	04 48 14.5	+0.2
MSVF				pmax	pmax		
	comp=Z,35nm,1.0s						
MSVF	Nonsavu	69.03	122		P	04 48 14.5	+0.2
MSVF				IAmb	IAmb	04 48 16.7	
	comp=Z,35nm,1.0s						
MSVF	Nonsavu	69.03	122	P	P	04 48 16.3	+1.9
	comp=Z,45nm,1.1s						
MSVF	Nonsavu	69.03	122	P	P	04 48 15.9	+1.6
ARCES	ARCESS Array B	69.21	338	P	P	04 48 14.2	-0.5
	comp=Z,3.1nm,0.7s,baz=58,slow=7.5,SNR=11						
	comp=Z,3.1nm,0.7s						
ARCES	ARCESS Array B	69.21	338	P	P	04 48 14.6	0.0
ARCES				pmax	pmax		
	comp=Z,25nm,1.5s						
ARCES	ARCESS Array B	69.21	338	P	P	04 48 14.6	0.0
SGF	Sodankyl	69.39	336	pP	pP	04 48 43.8	+0.4
	comp=Z,20nm,2.6s						
D27M	Malcolm River	69.42	22	IAmb	IAmb	04 48 17.7	
	comp=Z,19nm,1.0s						
DGTI	Dogotuki	69.51	120	P	P	04 48 19.2	+2.0
DIV	Divide	69.56	31	IAmb	IAmb	04 48 18.1	
	comp=Z,86nm,2.0s						
SCRK	Sand Creek	69.64	28	IAmb	IAmb	04 48 18.4	
	comp=Z,60nm,1.8s						
MENT	Mentasta	70.03	29	P	P	04 48 22.6	+2.8
F28M	Old Crow	70.26	24	IAmb	IAmb	04 48 25.1	
	comp=Z,20nm,0.9s						
OUL	Oulu	70.28	333	P	P	04 48 21.4	+0.3
	comp=Z,16nm,1.5s						
GLB	Gilahina Butte	70.39	31	IAmb	IAmb	04 48 26.1	
	comp=Z,24nm,1.2s						
M26K	Nabesna, AK	70.50	29	IAmb	IAmb	04 48 26.1	
	comp=Z,21nm,1.0s						
MCARA	McCarthy VSAT	70.77	31	IAmb	IAmb	04 48 28.3	
	comp=Z,17nm,0.9s						
BCAR	Beaver Creek A	70.84	29		P	04 48 24.9	+0.2
G29M	Pine Creek	71.17	24	IAmb	IAmb	04 48 29.8	
	comp=Z,26nm,1.1s						
H29M	Whitestone	71.26	25	IAmb	IAmb	04 49 01.4	
	comp=Z,55nm,1.9s						
FINES	FINESS Array B	71.27	330	P	P	04 48 26.8	-0.5
	comp=Z,3.0nm,0.7s,baz=76,slow=8.0,SNR=12						
FINES				LR	LR	05 22 23.5	
	comp=Z,71nm,18.5s,baz=70,slow=38						
	comp=Z,3.0nm,0.7s						
FINES	FINESS Array B	71.27	330	i P	P	04 48 27.6	+0.4
FINES				pmax	pmax		
	comp=Z,3.0nm,0.7s						
FINES	FINESS Array B	71.27	330	P	P	04 48 27.1	-0.1
GRNC	Granite Creek	71.56	31	IAmb	IAmb	04 48 33.1	
	comp=Z,20nm,0.9s						
F30M	Barrier River	71.75	23	IAmb	IAmb	04 48 31.2	
	comp=Z,24nm,1.1s						
G30M	tAoh Zraii Nji	71.81	24	IAmb	IAmb	04 48 32.8	
	comp=Z,25nm,1.1s						
EPYK	Eagle Plains	71.84	25	IAmb	IAmb	04 48 33.1	
	comp=Z,23nm,1.1s						
VSU	Vasula	71.86	327⇓	iP	P	04 48 29.9	-0.9
VSU				pmax	pmax		
	comp=Z,18nm,1.2s						
J29N	Klondike Camp	71.91	27	IAmb	IAmb	04 48 34.5	
	comp=Z,14nm,0.7s						
INK	Inuvik	72.28	22	LR	LR	05 22 49.7	
	comp=Z,58nm,18.3s,baz=312,slow=38						
INK	Inuvik	72.28	22	IAmb	IAmb	04 48 33.8	
	comp=Z,20nm,0.9s						
L29M	L29M	72.40	28	IAmb	IAmb	04 48 37.7	
	comp=Z,23nm,0.9s						
PCA	Pinnacle	72.46	31	IAmb	IAmb	04 48 38.0	
	comp=Z,36nm,1.0s						
MNK	Minsk	72.49	322	i P	P	04 48 34.4	-0.2
MNK				i		04 48 51.3	
MNK				i *PP	pP	04 49 02.1	-0.4
MNK				i		04 51 16.8	
MNK				i PPP	PPP	04 53 01.5	
MNK				i S	S	04 57 50.5	+0.7
MNK				i		04 58 31.0	
MNK				i *SS	sS	04 58 38.6	+1.0
MNK				i SS	SS	05 02 32.4	+2.4
MNK				pmax	pmax		
	comp=N,8.0nm,0.7s						
MNK				pmax	pmax		
	comp=E,9.0nm,0.9s						
MNK				pmax	pmax		
	comp=Z,13nm,0.8s						
MNK				MLR	MLR		
	comp=E,150nm,20.0s						
MNK				MLR	MLR		
	comp=N,129nm,22.0s						
MNK				MLR	MLR		
	comp=Z,23nm,13.0s						
MNK	Minsk	72.49	322	i P	P	04 48 34.5	-0.2
	comp=E,9.0nm,0.9s						
MNK				i P	P	04 48 34.5	-0.2
	comp=N,8.0nm,0.7s						
MNK				i P	P	04 48 34.5	-0.2
	comp=Z,13nm,0.8s,baz=72						
MNK				i pP	pP	04 49 02.1	-0.4
MNK				i PP	PP	04 51 16.9	0.0
MNK				i PPP	PPP	04 53 01.5	
MNK				i S	S	04 57 50.5	+0.7
MNK				i sS	sS	04 58 38.6	+1.0
MNK				i SS	SS	05 02 32.4	+2.4
MNK				i SSS	SSS	05 05 53.3	
MNK				i LR	LR	05 20 33.6	
MNK				i LRM	MLR	05 22 50.9	
	comp=E,150nm,20.1s						
MNK				i LRM	MLR	05 22 53.5	
	comp=N,129nm,21.5s						
MNK				i LRM	MLR	05 23 30.1	
	comp=Z,23nm,13.2s						
F31M	Tsiigehtchic	72.54	23	IAmb	IAmb	04 48 35.1	
	comp=Z,20nm,0.9s						
AKASG	Malin Array Be	72.90	318	P	P	04 48 36.1	-1.1
	comp=Z,1.8nm,0.7s,baz=61,slow=5.7,SNR=10						
	comp=Z,1.8nm,0.7s						
AKASG	Malin Array Be	72.90	318	i P	P	04 48 36.7	-0.5
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.7s						
AKASG	Malin Array Be	72.90	318	P	P	04 48 36.9	-0.3
AKBB	Malin Array Si	72.90	318c	iP	P	04 48 36.3	-0.9
AKBB				pmax	pmax		
	comp=Z,17nm,1.6s						
AKBB	Malin Array Si	72.90	318	P	P	04 48 36.6	-0.6
AK08	Malin Array Si	72.91	318	P	P	04 48 36.6	-0.6
AK01	Malin Array Si	72.91	318	P	P	04 48 36.6	-0.7
KIEV	Kiev	72.92	318	P	P	04 48 36.5	-0.7
KIEV				pmax	pmax		
	comp=Z,17nm,1.4s						
KIEV	Kiev	72.92	318		P	04 48 36.5	-0.7
KIEV	Kiev	72.92	318	P	P	04 48 36.6	-0.7
KIEV	Kiev	72.92	318	P	P	04 48 36.2	-1.1
	comp=Z,8.0nm,1.4s						
KIEV				pP	pP	04 49 03.8	-1.4
AK10	Malin Array Si	72.92	318	P	P	04 48 36.8	-0.5
AK02	Malin Array Si	72.93	318	P	P	04 48 36.8	-0.6
AK04	Malin Array Si	72.93	318	P	P	04 48 36.9	-0.5
AK15	Malin Array Si	72.97	318	P	P	04 48 36.9	-0.7
AK22	Malin Array Si	72.98	318	P	P	04 48 37.0	-0.6
AK16	Malin Array Si	72.98	318	P	P	04 48 37.1	-0.6
AK21	Malin Array Si	72.99	318	P	P	04 48 37.1	-0.6
BR131	Keskin Array S	73.43	306d	iP	P	04 48 41.1	+0.4
BRTR	Keskin Array B	73.43	306	P	P	04 48 39.9	-0.8
	comp=Z,5.2nm,1.0s,baz=93,slow=4.9,SNR=16						
	comp=Z,5.2nm,1.0s						
BRTR	Keskin Array B	73.43	306	i P	P	04 48 40.7	0.0
BRTR				pmax	pmax		
	comp=Z,5.0nm,1.0s						
BRTR	Keskin Array B	73.43	306		P	04 48 40.1	-0.6
LUBAR	Lubar, Ukraine	74.05	318	P	P	04 48 43.7	-0.2
MMAI	Mount Meron Ar	74.28	299	LR	LR	05 25 36.7	
	comp=Z,29nm,18.4s,baz=97,slow=39						
RNPP9	Sopachiv	74.65	320	P	P	04 48 47.2	-0.2
RNPP8	Varash	74.70	320	P	P	04 48 47.7	0.0
RNPP5	Staryi Chortor	74.72	320	P	P	04 48 48.5	+0.7
WHY	Whitehorse	74.74	30	IAmb	IAmb	04 48 50.8	
	comp=Z,33nm,1.3s						
C36M	Paulatuk	74.88	20	IAmb	IAmb	04 48 48.5	
	comp=Z,28nm,1.1s						
SKAG	Skagway	75.02	31	P	P	04 48 50.7	+1.4
KMPD	K-Podol'skiy	75.31	317	P	P	04 48 50.8	-0.5
DAH	Dandelion	75.32	75	P	P	04 48 51.5	-0.7
PUH	Pauahi	75.71	75	P	P	04 48 53.2	-1.0
KNHH	Kane Nui o Ham	75.75	75	P	P	04 48 54.0	-0.4
MLR	Muntele Rosu	76.76	314	LR	LR	05 27 06.6	
	comp=Z,36nm,20.1s,baz=0.0,slow=39						
HFS	Hagfors	77.37	331	P	P	04 49 02.1	-0.5
	comp=Z,1.4nm,0.7s,baz=77,slow=14,SNR=3.8						
HFS				LR	LR	05 26 49.6	
	comp=Z,88nm,18.1s,baz=60,slow=38						
	comp=Z,1.4nm,0.7s						
NC405	NORSAR Array S	77.75	332		P	04 49 04.8	0.0
NC405				IAmb	IAmb	04 49 33.8	
	comp=Z,20nm,0.9s						
RES	Resolute Bay	77.85	9	LR	LR	05 26 44.3	
	comp=Z,40nm,20.6s,baz=28,slow=38						
DLBC	Dease Lake	77.94	31	LR	LR	05 23 35.0	
	comp=Z,31nm,21.7s,baz=261,slow=36						
NB2	NORSAR Subarra	78.00	332	P	P	04 49 05.3	-0.9
	comp=Z,1.5nm,0.9s,baz=56,slow=5.9						
NOA	NORSAR Array B	78.00	332	P	P	04 49 05.4	-0.8
	comp=Z,1.8nm,0.8s,baz=58,slow=5.7,SNR=9.7						
NOA				LR	LR	05 26 49.2	
	comp=Z,54nm,21.2s,baz=70,slow=38						
	comp=Z,1.8nm,0.8s						
JMIC	Jan Mayen	78.38	345	LR	LR	05 26 57.6	
	comp=Z,26nm,21.8s,baz=190,slow=38						
URZ	Urewera	81.26	139	P	P	04 49 22.8	-1.1
	comp=Z,4.7nm,0.7s,baz=270,slow=6.1,SNR=1.6						
URZ				LR	LR	05 22 28.5	
	comp=Z,22nm,20.9s,baz=295,slow=33						
	comp=Z,4.7nm,0.7s						
URZ	Urewera	81.26	139	P	P	04 49 25.9	+1.9
CLL	Collm	82.00	323	epP	pP	04 49 55.0	-1.3
CLL				eS	S	04 59 33.0	+0.2
CLL				esS	sS	05 00 20.0	-1.7
CLL				eSS	SS	05 04 57.0	+3.8
CLL				eSSS	SSS	05 08 24.0	
CLL				LH		05 13 00.0	
CLL				LV		05 18 00.0	
YKA	Yellowknife Ar	82.02	23	P	P	04 49 26.9	-0.8
	comp=Z,11nm,0.8s,baz=309,slow=5.0,SNR=18						
YKA				LR	LR	05 28 58.4	
	comp=Z,53nm,18.3s,baz=277,slow=38						
	comp=Z,11nm,0.8s						
YKA	Yellowknife Ar	82.02	23	P	P	04 49 27.1	-0.6
YKA	Yellowknife Ar	82.02	23		P	04 49 27.1	-0.6
ARSA	Arzberg	82.54	319	eP	P	04 49 30.6	-0.2
	comp=Z,0.9nm,0.6s						
GERES	GERESS Array B	82.83	321	P	P	04 49 32.2	-0.1
	comp=Z,0.6nm,0.3s,baz=48,slow=4.0,SNR=4.8						
	comp=Z,0.6nm,0.3s						
GERES	GERESS Array B	82.83	321	P	P	04 49 32.4	0.0
GERES	GERESS Array B	82.83	321	P	P	04 49 32.4	0.0
SOKA	Soboth	83.11	318	eP	P	04 49 33.7	-0.1
	comp=Z,1.8nm,0.6s						
SOKA				epP	pP	04 50 01.7	-0.7
	comp=Z,2.9nm,0.8s						
SESA	Seetaler Alpe,	83.18	319	eP	P	04 49 34.3	-0.1
	comp=Z,13nm,1.5s						
SESA				epP	pP	04 50 02.6	-0.4
	comp=Z,1.4nm,0.3s						
OBKA	Obir	83.49	318	eP	P	04 49 35.4	-0.4
	comp=Z,2.4nm,1.0s						
LESA	Schwarzleotal	84.14	320	eP	P	04 49 38.8	-0.3
	comp=Z,3.9nm,0.9s						
LESA				epP	pP	04 50 06.9	-0.8
	comp=Z,4.6nm,1.0s						
ABTA	Abfaltersbach	84.58	319	eP	P	04 49 40.8	-0.5
	comp=Z,1.4nm,0.4s						
ABTA				epP	pP	04 50 08.4	-1.6
	comp=Z,6.7nm,1.3s						
WTTA	Wattenberg	84.83	320	epP	pP	04 50 09.9	-1.5
	comp=Z,6.0nm,1.0s						
ABPO	Ambohimpanom	84.89	246	i P	P	04 49 44.3	+0.9
ABPO	Ambohimpanom	84.89	246		P	04 49 42.9	-0.5
ABPO				IAmb	IAmb	04 49 44.9	
	comp=Z,17nm,0.8s						
ABPO	Ambohimpanom	84.89	246	P	P	04 49 44.1	+0.7
	comp=Z,24nm,0.8s						
ABPO	Ambohimpanom	84.89	246	P	P	04 49 44.1	+0.7
ABPO				pP	pP	04 50 12.5	+0.4
MOTA	Moosalm	85.10	320	eP	P	04 49 43.7	-0.3
	comp=Z,2.0nm,0.7s						
MOTA				epP	pP	04 50 11.9	-0.8
	comp=Z,1.8nm,0.4s						
SQTA	Sankt Quirin	85.10	320	epP	pwP	04 50 11.6	-1.0
	comp=Z,2.7nm,0.8s						
KIBK	Kibwezi	85.57	265		P	04 49 46.4	-0.4
KIBK	Kibwezi	85.57	265	P	P	04 49 48.6	+1.8
	comp=Z,8.3nm,1.1s						
KMBO	Kilima Mbogo	85.78	267	P	P	04 49 49.0	+1.0
	baz=44,slow=12						
LLLB	Lillooet	86.08	35	IAmb	IAmb	04 49 50.6	
	comp=Z,18nm,1.1s						
FDMO	Fiordimonte	86.12	316	IAmb	IAmb	04 50 22.5	
	comp=Z,15nm,1.0s						
BORG	Borgarnes	86.27	345	LR	LR	05 31 58.7	
	comp=Z,24nm,19.0s,baz=27,slow=38						
A04D	Lummi Island	86.72	37	IAmb	IAmb	04 49 54.0	
	comp=Z,21nm,1.1s						
GNW	Green Mountain	87.31	38	IAmb	IAmb	04 49 57.0	
	comp=Z,26nm,1.4s						
EKA	Eskdalemuir Ar	87.49	332	LR	LR	05 34 52.8	
	comp=Z,66nm,18.8s,baz=12,slow=39						
LON	Longmire	88.35	38	IAmb	IAmb	04 50 01.3	
	comp=Z,22nm,1.5s						
EDM	Edmonton	88.61	30	IAmb	IAmb	04 50 02.4	
	comp=Z,24nm,0.9s						
RAR	Rarotonga	88.64	114	LR	LR	05 25 00.8	
	comp=Z,22nm,21.3s,baz=294,slow=32						
EPH	Ephrata	89.21	37	IAmb	IAmb	04 50 05.4	
	comp=Z,48nm,1.6s						
WAH2	Wahluke Slope	89.59	37	IAmb	IAmb	04 50 08.1	
	comp=Z,26nm,1.0s						
C09A	Chrisman Ranch	89.65	36	IAmb	IAmb	04 50 07.7	
	comp=Z,26nm,1.1s						
HAWA	Hanford	89.83	38	IAmb	IAmb	04 50 09.4	
	comp=Z,27nm,1.2s						
NEW	Newport	89.97	35	P	P	04 50 07.4	+0.2
	comp=Z,7.5nm,0.9s,baz=302,slow=3.0,SNR=14						
NEW				LR	LR	05 31 44.8	
	comp=Z,19nm,19.8s,baz=296,slow=36						
	comp=Z,7.5nm,0.9s						
NEW	Newport	89.97	35	IAmb	IAmb	04 50 09.1	
	comp=Z,43nm,1.6s						
NEW	Newport	89.97	35	P	P	04 50 07.8	+0.6
	comp=Z,20nm,1.6s						
YPT	Yellepit	90.35	38	IAmb	IAmb	04 50 11.2	
	comp=Z,40nm,1.4s						
YBH	Yreka Blue Hor	90.70	43	P	P	04 50 11.2	+0.4
	comp=Z,12nm,1.1s,baz=311,slow=4.5,SNR=15						
YBH				LR	LR	05 35 26.5	
	comp=Z,16nm,18.2s,baz=292,slow=38						
	comp=Z,12nm,1.1s						
YBH	Yreka Blue Hor	90.70	43	IAmb	IAmb	04 50 12.8	
	comp=Z,28nm,1.2s						
LDM	Libby Dam	90.78	34	IAmb	IAmb	04 50 13.2	
	comp=Z,21nm,1.3s						
M02C	Callahan	90.80	43	IAmb	IAmb	04 50 13.5	
	comp=Z,18nm,1.1s						
LNOR	Lincton Mounta	90.83	37	IAmb	IAmb	04 50 13.3	
	comp=Z,20nm,1.2s						
KHBM	Hayfork Bally	90.99	44	IAmb	IAmb	04 50 14.2	
	comp=Z,19nm,1.2s						
FRB	Frobisher Bay	91.28	5	LR	LR	05 32 47.4	
	comp=Z,39nm,21.3s,baz=304,slow=36						
O02D	Mt. Diablo Mer	91.53	44	IAmb	IAmb	04 50 16.8	
	comp=Z,22nm,1.1s						
BMO	Blue Mountains	92.00	38	IAmb	IAmb	04 50 18.4	
	comp=Z,14nm,1.1s						
FFC	Flin Flon	92.17	24	i P	P	04 50 18.3	+1.1
FFC	Flin Flon	92.17	24		P	04 50 16.9	-0.3
FFC				IAmb	IAmb	04 50 18.7	
	comp=Z,16nm,1.1s						
FFC	Flin Flon	92.17	24	P	P	04 50 16.8	-0.5
	comp=Z,19nm,1.3s						
GDXM	Geysers	92.30	45	IAmb	IAmb	04 50 20.2	
	comp=Z,26nm,1.3s						
MSO	Missoula	92.55	35	IAmb	IAmb	04 50 20.5	
	comp=Z,14nm,1.2s						
ORV	Oroville	92.70	44	IAmb	IAmb	04 50 20.8	
	comp=Z,15nm,0.9s						
WVOR	Wild Horse Val	92.73	40	IAmb	IAmb	04 50 22.2	
	comp=Z,23nm,1.3s						
WVOR	Wild Horse Val	92.73	40	P	P	04 50 21.1	+0.8
	comp=Z,14nm,1.4s						
AFDM	Forest Hills D	93.39	44	IAmb	IAmb	04 50 24.3	
	comp=Z,16nm,1.1s						
MFID	Camas Ranch	93.74	38	IAmb	IAmb	04 50 26.8	
	comp=Z,13nm,1.1s						
MHC	Mount Hamilton	93.89	46	IAmb	IAmb	04 50 27.0	
	comp=Z,19nm,1.3s						
HLID	Hailey	94.43	37	IAmb	IAmb	04 50 30.3	
	comp=Z,11nm,1.1s						
HLID	Hailey	94.43	37	P	P	04 50 29.2	+1.1
	comp=Z,12nm,1.6s						
YERR	Yerington	94.45	43	IAmb	IAmb	04 50 29.7	
	comp=Z,19nm,1.2s						
BOZ	Bozeman (W)	94.56	35	IAmb	IAmb	04 50 30.0	
	comp=Z,9.8nm,1.4s						
WAKR	Walker	94.62	44	IAmb	IAmb	04 50 30.7	
	comp=Z,10nm,0.9s						
YHL	Hebgen Lake	95.30	35	IAmb	IAmb	04 50 34.1	
	comp=Z,8.7nm,1.2s						
MDPB	Devils Postpil	95.36	44	IAmb	IAmb	04 50 33.9	
	comp=Z,11nm,1.0s						
NVAR	Mina Array Bea	95.37	43	P	P	04 50 32.6	0.0
	comp=Z,7.1nm,0.8s,baz=288,slow=5.4,SNR=55						
NVAR				LR	LR	05 29 47.9	
	comp=Z,25nm,20.8s,baz=328,slow=33						
NVAR	Mina Array Bea	95.37	43	P	P	04 50 32.3	-0.2
PPT	Papeete	95.76	107	LR	LR	05 26 05.1	
	comp=Z,25nm,19.7s,baz=300,slow=30						
PPT2	Papeete2	95.77	107	eLR	LR	05 21 30.5	
	comp=Z,200nm,37.2s						
PPT2				eLR	LR	05 21 40.9	
	comp=Z,122nm,31.0s						
ELK	Elko	95.78	40	P	P	04 50 34.7	+0.3
	comp=Z,0.6nm,0.4s,baz=310,slow=2.2,SNR=5.1						
	comp=Z,0.6nm,0.4s						
ELK	Elko	95.78	40	IAmb	IAmb	04 50 37.6	
	comp=Z,23nm,1.9s						
H17A	Grant Village	95.93	35	IAmb	IAmb	04 50 38.2	
	comp=Z,13nm,1.4s						
GMN	Gold Mountain	96.71	44	IAmb	IAmb	04 50 40.1	
	comp=Z,5.5nm,0.9s						
MPMC	Manual Prospec	97.33	45	IAmb	IAmb	04 50 42.6	
	comp=Z,6.8nm,1.0s						
CLC	China Lake	97.41	45	IAmb	IAmb	04 50 42.8	
	comp=Z,8.3nm,1.0s						
WCT	Wildcat Mounta	97.43	44	IAmb	IAmb	04 50 43.1	
	comp=Z,5.5nm,1.2s						
S11A	Rachel	97.44	43	IAmb	IAmb	04 50 44.8	
	comp=Z,8.2nm,1.1s						
FURC	Furnace Creek,	97.48	44	IAmb	IAmb	04 50 43.3	
	comp=Z,11nm,1.0s						
LRMC	Laurel Mtn Rad	97.56	45	IAmb	IAmb	04 50 43.5	
	comp=Z,6.8nm,0.9s						

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TPNV  Topopah Spring     97.56  43  IAmb    IAmb    04 50 43.7
        comp=Z,5.5nm,1.0s
PDAR  Pinedale Array     97.59  36  P       P       04 50 42.5  0.0
        comp=Z,0.4nm,0.7s,baz=321,slow=2.1,SNR=5.1
PDAR                                LR      LR      05 39 14.3
        comp=Z,22nm,18.0s,baz=323,slow=38
        comp=Z,0.4nm,0.7s
PDAR  Pinedale Array     97.59  36  P       P       04 50 41.3 -1.2
GWY   Greenwater Val     97.78  44  IAmb    IAmb    04 50 44.5
        comp=Z,6.7nm,1.1s
QSM   Queen of Sheba     97.79  45  IAmb    IAmb    04 50 44.6
        comp=Z,8.5nm,1.1s
ULM   Lac du Bonnet      97.99  24  LR      LR      05 42 37.5
        comp=Z,34nm,18.2s,baz=360,slow=40
PRN   Pahroc Range       98.02  42  IAmb    IAmb    04 50 46.2
        comp=Z,5.8nm,1.2s
GSC   Goldstone, Bar     98.23  45  IAmb    IAmb    04 50 46.7
        comp=Z,6.8nm,1.1s
MTPC  Mountain Pass      98.92  44  IAmb    IAmb    04 50 49.9
        comp=Z,7.0nm,1.1s
PFO   Pinyon Flats O     99.50  46  LR      LR      05 32 53.9
        comp=Z,31nm,21.7s,baz=297,slow=34
QSPA  South Pole Qui    114.66 180  PKP     PKPdf   04 55 45.6 -1.2
        comp=Z,1.4nm,0.7s,baz=320,slow=1.8,SNR=10
QSPA  South Pole Qui    114.66 180          PKPdf   04 55 46.0 -0.9
TKL   Tuckaleechee C    115.02  23  PKP     PKiKP   04 55 48.0 -0.5
        comp=Z,1.8nm,0.3s,baz=214,slow=3.6,SNR=1.6
DBIC  Dimbokro          119.60 294  PKP     PKiKP   04 55 57.9  0.0
        comp=Z,2.2nm,0.8s,baz=297,slow=2.3,SNR=1.2
DBIC  Dimbokro          119.60 294  PKIKP   PKPdf   04 55 57.6 -0.3
DBIC  Dimbokro          119.60 294          PKPdf   04 55 57.6 -0.3
TROLL Troll, Antarti    122.47 199  PKPdf   PKPdf   04 56 01.6 -0.3
        comp=Z,159nm,0.6s
VNA2  Neumayer--Watz    125.79 198 ⇑PKPdf   PKPdf   04 56 07.9 -0.1
        comp=Z,7.0nm,0.6s,baz=70,slow=2.9
VNA1  Neumayer--Stat    126.18 198  PKPdf   PKiKP   04 56 09.0 -0.2
        comp=Z,6.4nm,0.9s
VNA3  Neumayer Olymp    126.26 197 ⇑PKPdf   PKPdf   04 56 08.6 -0.4
        comp=Z,4.0nm,0.8s
SDV   Santo Domingo     144.23  22          PKPab   04 56 41.6 -0.6
ROSC  El Rosal          146.43  31  PKPbc   PKPbc   04 56 49.4 -0.3
        comp=Z,37nm,0.9s,baz=342,slow=3.1,SNR=14
ROSC  El Rosal          146.43  31  PKIKP   PKPdf   04 56 46.7 -1.5
ROSC  El Rosal          146.43  31  PKPdf   PKPdf   04 56 46.7 -1.5
OTAV  Otavalo           148.09  42  PKIKP   PKPdf   04 56 49.1 -2.0
OTAV  Otavalo           148.09  42  PKPdf   PKPdf   04 56 49.1 -2.0
BOAV  Boa Vista         152.78   6  PKPdf   PKPdf   04 56 56.0 -1.9
BDFB  Brasilia          166.94 313  PKP     PKPdf   04 57 13.6 -0.1
        comp=Z,4.0nm,0.8s,baz=46,slow=4.6,SNR=7.5
BDFB  Brasilia          166.94 313  PKIKP   PKPdf   04 57 11.2 -2.5
BDFB  Brasilia          166.94 313          PKPdf   04 57 11.2 -2.5
LPAZ  La Paz            167.18  50  PKP     PKPdf   04 57 14.9 +0.4
        comp=Z,11nm,1.1s,baz=15,slow=3.8,SNR=22
LPAZ  La Paz            167.18  50  PKP2    PKPab   04 58 17.8 -1.6
LPAZ                                                05 57 13.3
LPAZ  La Paz            167.18  50  PKPdf   PKPdf   04 57 13.2 -1.3
LPAZ                                        PKPab   04 58 17.8 -1.6
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IDC ***30*** *04:57:34.4±1.2, 57°.08N×7°.50E, h0km, mbtmp3.5/6, ML2.8/5, Error ellipse: s-maj=19.0km s-min=10.1km az=139.0*

BGR ***30*** *04:57:36.0±0.7, 56°.78N×7°.80E, h10km, ML3.5/17, Error ellipse: s-maj=8.9km s-min=4.4km az=152.0*

DNK ***30*** *04:57:36.7±2.4, 56°.83N×7°.82E, h40km±8km, ML3.3, Confirmed Earthquake*

BER ***30*** *04:57:36.4±2.7, 56°.83N×7°.79E, h15km, ML2.6, ML3.4(DNK), Confirmed Earthquake*

UPP ***30*** *04:57:38.8±2.1, 56°.97N×8°.26E, h18km±35km, ML2.6, Confirmed Earthquake*

PRU ***30*** *04:57:41.5, 54°.61N×7°.38E, h1km*

ISC 30 04:57:33.0±1.2**, 56°.80N**±0°.02×**7°.72E**±0°.03**, h25**km±12km**, n119, σ2s.33**/218**, 1D, North Sea**

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Code  Station Name        Δ°  AZ°    Phase ID          Time     Res
                                    Op      ISC      h  m  s    ISC
MUD   Monsted U'grnd      0.88 113 i P      Pn      04 57 52.3 +2.7
MUD                                i S      Sn      04 58 02.6 +1.1
MUD                                  IAML           04 58 04.1
        comp=Z,886nm,0.3s
MUD   Monsted U'grnd      0.88 113 ePg      Pn      04 57 52.3 +2.7
MUD                                eSg      Sn      04 58 02.6 +1.1
MUD   Monsted U'grnd      0.88 113 i P      Pn      04 57 52.3 +2.7
MUD                                i S      Sn      04 58 02.6 +1.1
MUD                                  IAML           04 58 04.1
        comp=Z,886nm,0.3s
MUD                                  IAML           04 58 04.1
        comp=Z,886nm,0.3s
OVD   Ostervraa, Den      1.45  68 i P      Pb      04 58 02.1 +2.8
OVD                                eS       Sb      04 58 17.6 +0.3
OVD                                  IAML           04 58 30.1
        comp=Z,417nm,0.2s
OVD   Ostervraa, Den      1.45  68 i P      Pb      04 58 02.1 +2.8
OVD                                eS       Sb      04 58 17.6 +0.3
OVD                                  IAML           04 58 30.1
        comp=Z,417nm,0.2s
OVD                                  IAML           04 58 30.1
        comp=Z,417nm,0.2s
HOMB  Homborsund          1.53  16 eP       Pb      04 58 01.7 +1.1
HOMB                               eS       Sb      04 58 20.0 +0.4
HOMB                                 IAML           04 58 34.0
        comp=Z,249nm,0.4s
HOMB  Homborsund          1.53  16 eP       Pb      04 58 01.7 +1.1
HOMB                               eS       Sb      04 58 20.0 +0.4
HOMB                                 IAML           04 58 34.0
        comp=Z,249nm,0.4s
SNART Snartemo            1.56 350 eP       Pb      04 58 02.3 +1.0
SNART                              eS       Sb      04 58 20.3 -0.3
SNART                                IAML           04 58 36.6
        comp=Z,115nm,0.3s
SNART Snartemo            1.56 350 i P      Pb      04 58 02.2 +1.0
SNART                              i S      Sb      04 58 19.9 -0.6
SNART                                IAML           04 58 36.6
        comp=Z,115nm,0.3s
SSRD  Sdr. Stenderup      1.70 140 i P      Pb      04 58 03.7 +0.1
SSRD                               eS       Sb      04 58 25.2 +0.6
SSRD                                 IAML           04 58 42.9
        comp=Z,124nm,0.6s
SSRD  Sdr. Stenderup      1.70 140 i P      Pb      04 58 03.7 +0.1
SSRD                               eS       Sb      04 58 25.2 +0.6
SSRD                                 IAML           04 58 42.9
        comp=Z,124nm,0.6s
SSRD                                 IAML           04 58 42.9
        comp=Z,124nm,0.6s
SKMB  Sankelmark Bun      2.31 154 ePn      Pn      04 58 11.3 +2.0
ONAU  Onsala              2.37  74   P      Pn      04 58 12.2 +2.0
ONAU                                 S      Sn      04 58 37.4 -0.9
ONAU  Onsala              2.37  74   P      Pn      04 58 12.2 +2.0
ONAU                                 S      Sn      04 58 37.4 -0.9
STAV  Stavanger           2.39 334 i P      Pb      04 58 14.4 -1.0
STAV                               eP       Pn      04 58 15.3 +4.8
STAV                               eS       Sn      04 58 39.3 +0.4
STAV                               eS       Sb      04 58 41.3 -3.1
STAV                                 IAML           04 58 58.7
        comp=Z,72nm,0.3s
TJOU  Tjoern              2.44  58   P      Pn      04 58 13.8 +2.6
TJOU                                 S      Sn      04 58 40.1 -0.2
TJOU  Tjoern              2.44  58 i P      Pb      04 58 14.9 -1.3
TJOU  Tjoern              2.44  58   P      Pn      04 58 13.8 +2.6
TJOU                               i P      Pb      04 58 14.9 -1.3
TJOU                                 S      Sn      04 58 40.1 -0.2
HLG   Helgoland           2.63 178 i P      Pn      04 58 16.9 +3.2
HLG                                eS       Sn      04 58 47.9 +3.2
HLG   Helgoland           2.63 178 ePn      Pb      04 58 17.6 -1.7
HLG   Helgoland           2.63 178 i P      Pn      04 58 16.9 +3.2
HLG                                eS       Sn      04 58 47.9 +3.2
BLS5  Blasjo              2.71 346 eP       Pn      04 58 17.7 +2.8
BLS5                               eS       Sn      04 58 48.2 +1.4
BLS5                                 IAML           04 59 09.3
        comp=Z,63nm,0.4s
BLS5  Blasjo              2.71 346 eP       Pn      04 58 17.7 +2.8
BLS5                               eS       Sn      04 58 48.2 +1.4
BLS5                                 IAML           04 59 09.3
        comp=Z,63nm,0.4s
FABU  Falkenberg          2.75  84   P      Pn      04 58 17.7 +2.3
FABU                                 S      Sn      04 58 47.2 -0.6
FABU  Falkenberg          2.75  84 i P      Pn      04 58 18.4 +3.0
FABU                               i S      Sn      04 58 46.9 -0.8
FABU  Falkenberg          2.75  84   P      Pn      04 58 17.7 +2.3
FABU                               i P      Pn      04 58 18.4 +3.0
FABU                               i S      Sn      04 58 46.9 -0.8
KMY   Karmoy              2.75 332 eP       Pn      04 58 18.3 +2.9
KMY                                eS       Sn      04 58 48.4 +0.6
KMY                                  IAML           04 59 10.1
        comp=Z,45nm,0.3s
KMY   Karmoy              2.75 332 eP       Pn      04 58 18.3 +2.9
KMY                                eS       Sn      04 58 48.4 +0.6
KMY                                  IAML           04 59 10.1
        comp=Z,45nm,0.3s
COP   Copenhagen          2.86 111 i P      Pb      04 58 21.2 -2.0
COP                                i S      Sn      04 58 49.8 -0.6
COP   Copenhagen          2.86 111 ePn      Pn      04 58 20.1 +3.2
COP                                eSn      Sn      04 58 49.8 -0.6
COP   Copenhagen          2.86 111 i P      Pb      04 58 21.2 -2.0
COP                                i S      Sn      04 58 49.8 -0.6
VANU  Vaenersborg         2.89  52   P      Pn      04 58 19.6 +2.3
VANU                                 S      Sn      04 58 50.2 -0.9
VANU  Vaenersborg         2.89  52   P      Pn      04 58 19.6 +2.3
VANU                                 S      Sn      04 58 50.2 -0.9
STRU  Stroemstad          2.90  38 ⇓P       Pn      04 58 19.8 +2.3
STRU                                 S      Sn      04 58 50.9 -0.5
STRU  Stroemstad          2.90  38 i P      Pn      04 58 19.5 +2.0
STRU                               i S      Sn      04 58 51.5 +0.1
STRU  Stroemstad          2.90  38 i P      Pn      04 58 19.5 +2.0
STRU                                 S      Sn      04 58 50.9 -0.5
STRU                               i S      Sn      04 58 51.5 +0.1
LLD   Lille Linde         2.92 118 i S      Sn      04 58 51.2 -0.7
LLD   Lille Linde         2.92 118 i S      Sn      04 58 51.2 -0.7
KONO  Kongsberg           3.02  18 eP       Pn      04 58 21.6 +2.4
KONO                               eS       Sn      04 58 54.7 +0.2
KONO                                 IAML           04 59 19.3
        comp=Z,55nm,0.4s
KONO  Kongsberg           3.02  18 eP       Pn      04 58 21.6 +2.4
KONO                               eS       Sn      04 58 54.7 +0.2
KONO                                 IAML           04 59 19.3
        comp=Z,55nm,0.4s
ODD1  Odda                3.17 350 eP       Pn      04 58 24.7 +3.4
ODD1                               eS       Sn      04 58 58.8 +0.6
ODD1                                 IAML           04 59 23.3
        comp=Z,50nm,0.4s
ODD1  Odda                3.17 350 eP       Pn      04 58 24.7 +3.4
ODD1                               eS       Sn      04 58 58.8 +0.6
ODD1                                 IAML           04 59 23.3
        comp=Z,50nm,0.4s
KHUS  Kellenhusen         3.23 143 ePn      Pn      04 58 25.3 +3.3
BSEG  Bad Segeberg        3.23 152 ePn      Pn      04 58 24.6 +2.5
GNOU  Gnosjoe             3.33  79   P      Pn      04 58 26.6 +3.2
GNOU                                 S      Sn      04 59 01.6 -0.6
GNOU  Gnosjoe             3.33  79   P      Pn      04 58 26.6 +3.2
GNOU                                 S      Sn      04 59 01.6 -0.6
LUNU  Lund                3.41 108 i P      Pn      04 58 26.8 +2.3
LUNU                               i S      Sn      04 59 03.0 -1.0
LUNU  Lund                3.41 108 i P      Pn      04 58 26.8 +2.3
LUNU                               i S      Sn      04 59 03.0 -1.0
DEL   Delary              3.41  93   P      Pn      04 58 27.6 +3.0
DEL                                  S      Sn      04 59 04.1  0.0
DEL   Delary              3.41  93 i P      Pn      04 58 27.2 +2.7
DEL                                i S      Sn      04 59 03.1 -1.0
DEL   Delary              3.41  93 i P      Pn      04 58 27.2 +2.7
DEL                                i S      Sn      04 59 03.1 -1.0
DEL                                  S      Sb      04 59 04.1  -10
OSL   Oslo                3.52  25 eP       Pn      04 58 27.9 +2.0
OSL                                eS       Sn      04 59 04.7 -2.0
OSL                                  IAML           04 59 21.0
        comp=Z,26nm,0.4s
OSL   Oslo                3.52  25 eP       Pn      04 58 27.9 +2.0
OSL                                eS       Sn      04 59 04.7 -2.0
OSL                                  IAML           04 59 21.0
        comp=Z,26nm,0.4s
FINU  Finntorp            3.63  42   P      Pn      04 58 30.0 +2.5
FINU  Finntorp            3.63  42   P      Pn      04 58 30.0 +2.5
BER   Bergen              3.80 342 eP       Pn      04 58 34.0 +4.1
BER                                eS       Sn      04 59 14.5 +0.8
BER                                  IAML           04 59 47.6
        comp=Z,36nm,0.4s
BER   Bergen              3.80 342 eP       Pn      04 58 34.0 +4.1
BER                                i S      Sn      04 59 14.0 +0.3
BER                                eS       Sb      04 59 14.5  -10
BER                                  IAML           04 59 47.6
        comp=Z,36nm,0.4s
RGN   Rugen               3.89 123 eP       Pn      04 58 35.5 +4.4
RGN   Rugen               3.89 123 eP       Pn      04 58 35.5 +4.4
SKAR  Skarslia            3.90   4 eP       Pn      04 58 34.4 +3.1
SKAR                               eS       Sn      04 59 16.3 +0.1
SKAR                                 IAML           04 59 49.2
        comp=Z,35nm,0.5s
SKAR  Skarslia            3.90   4 eP       Pn      04 58 34.4 +3.1
SKAR                               eS       Sn      04 59 16.3 +0.1
SKAR                                 IAML           04 59 49.2
        comp=Z,35nm,0.5s
ASK   Askoy               3.92 341 eP       Pn      04 58 34.4 +2.9
ASK                                eS       Sn      04 59 15.0 -1.5
ASK                                  IAML           04 59 52.7
        comp=Z,23nm,0.4s
ASK   Askoy               3.92 341 eP       Pn      04 58 34.4 +2.9
ASK                                eS       Sn      04 59 15.0 -1.5
ASK                                  IAML           04 59 52.7
        comp=Z,23nm,0.4s
RETH  Rethem/Aller,       4.18 166 ePn      Pn      04 58 37.8 +2.7
NAO01 NORSAR Array S      4.37  21 eP       Pn      04 58 39.6 +1.9
NAO01                              eS       Sn      04 59 25.2 -2.6
NAO01                                IAML           04 59 57.2
        comp=Z,18nm,0.5s
NAO01 NORSAR Array S      4.37  21 eP       Pn      04 58 39.6 +1.9
NAO01                              eS       Sn      04 59 25.2 -2.6
NAO01                                IAML           04 59 57.2
        comp=Z,18nm,0.5s
BSD   Bornholm Skovb      4.38 110 i P      Pn      04 58 39.8 +2.0
BSD                                i S      Sn      04 59 26.1 -2.0
BSD                                  IAML           05 00 05.3
        comp=Z,23nm,0.5s
BSD   Bornholm Skovb      4.38 110 ePn      Pn      04 58 39.7 +1.8
BSD                                eSn      Sn      04 59 26.5 -1.5
BSD   Bornholm Skovb      4.38 110 i P      Pn      04 58 39.8 +2.0
BSD                                i S      Sn      04 59 26.1 -2.0
BSD                                  IAML           05 00 05.3
        comp=Z,23nm,0.5s
BSD                                  IAML           05 00 05.3
        comp=Z,23nm,0.5s
NC602 NORSAR Array S      4.42  25 eP       Pn      04 58 40.0 +1.7
NC602                              eS       Sn      04 59 25.4 -3.5
NC602                                IAML           04 59 30.6
        comp=Z,32nm,0.3s
NC602 NORSAR Array S      4.42  25 eP       Pn      04 58 40.0 +1.7
NC602                              eS       Sn      04 59 25.4 -3.5
NC602                                IAML           04 59 30.6
        comp=Z,32nm,0.3s
HYA   Hoyanger            4.45 350 eP       Pn      04 58 41.7 +3.0
HYA                                eS       Sn      04 59 29.9 +0.3
HYA                                  IAML           05 00 08.3
        comp=Z,19nm,0.5s
HYA   Hoyanger            4.45 350 eP       Pn      04 58 41.7 +3.0
HYA                                eS       Sn      04 59 29.9 +0.3
HYA                                  IAML           05 00 08.3
        comp=Z,19nm,0.5s
BLEU  Blekinge            4.51  93 i P      Pn      04 58 42.4 +2.9
BLEU                               eS       Sn      04 59 28.5 -2.6
BLEU  Blekinge            4.51  93 i P      Pn      04 58 42.4 +2.9
BLEU                               eS       Sn      04 59 28.5 -2.6
SUE   Sulen               4.53 341 eP       Pn      04 58 43.8 +3.9
SUE                                eS       Sn      04 59 29.6 -2.1
SUE                                  IAML           05 00 03.8
        comp=Z,10.0nm,0.8s
SUE   Sulen               4.53 341 eP       Pn      04 58 43.8 +3.9
SUE                                eS       Sn      04 59 29.6 -2.1
SUE                                  IAML           05 00 03.8
        comp=Z,10.0nm,0.8s
HFS   Hagfors             4.58  41   Pn     Pn      04 58 42.9 +2.4
        comp=Z,1.1nm,0.3s,baz=228,slow=17,SNR=8.1
HFS                                  Sn     Sn      04 59 31.7 -1.1
        comp=Z,3.7nm,0.3s,baz=227,slow=27,SNR=6.8
HFS                                  Lg     Lg      04 59 44.3
        comp=Z,5.2nm,0.3s,baz=226,slow=27,SNR=7.1
        comp=Z,3.2nm,0.2s
HFS                                  AML    AML
NOA   NORSAR Array B      4.62  22   Pn     Pn      04 58 41.7 +0.5
        comp=Z,0.1nm,0.3s,baz=206,slow=14,SNR=22
NOA                                  Sn     Sn      04 59 28.9 -5.0
        comp=Z,0.2nm,0.3s,baz=344,slow=8.1,SNR=8.7
NOA                                  Lg     Lg      04 59 50.3
        comp=Z,0.4nm,0.3s,baz=144,slow=5.0,SNR=2.5
        comp=Z,1.5nm,0.4s
NOA                                  AML    AML
WTSB  Winterswijk         4.88 187 eSn      Sn      04 59 38.3 -1.9
FLTG  Flechtingen         4.93 154 ePn      Pn      04 58 45.9 +0.6
FLTG                               eSn      Sn      04 59 38.5 -3.0
LNIZ  Loecknitz           4.98 129 eSn      Sn      04 59 43.0 +0.1
ASSE  Asse, Remlinge      4.99 159 eSn      Sn      04 59 40.4 -2.5
FOO   Floro               5.00 345 eP       Pn      04 58 50.3 +4.0
FOO                                eS       Sn      04 59 42.2 -1.0
FOO                                  IAML           05 00 18.0
        comp=Z,8.3nm,0.7s
FOO   Floro               5.00 345 eP       Pn      04 58 50.3 +4.0
FOO                                eS       Sn      04 59 42.2 -1.0
FOO                                  IAML           05 00 18.0
        comp=Z,8.3nm,0.7s
CLZ   Clausthal           5.21 162 ePn      Pn      04 58 51.5 +2.3
CLZ                                eSn      Sn      04 59 46.1 -2.4
DOMB  Dombas              5.30   7 eP       Pn      04 58 53.9 +3.4
DOMB                               eS       Sn      04 59 50.2 -0.4
DOMB                                 IAML           05 00 31.5
        comp=Z,28nm,0.5s
DOMB  Dombas              5.30   7 eP       Pn      04 58 53.9 +3.4
DOMB                               eS       Sn      04 59 50.2 -0.4
DOMB                                 IAML           05 00 31.5
        comp=Z,28nm,0.5s
GDLE  Glaisdale, N Y      5.39 247 eP       Pn      04 58 54.6 +2.8
GDLE                               eS       Sn      04 59 53.0 +0.1
GDLE  Glaisdale, N Y      5.39 247 eP       Pn      04 58 54.6 +2.8
GDLE                               eS       Sn      04 59 53.0 +0.1
AKN   Aaknes              5.40 356 eP       Pn      04 58 54.4 +2.5
AKN                                eS       Sn      04 59 52.7 -0.5
AKN                                  IAML           05 00 36.3
        comp=Z,16nm,0.5s
AKN   Aaknes              5.40 356 eP       Pn      04 58 54.4 +2.5
AKN                                eS       Sn      04 59 52.7 -0.5
AKN                                  IAML           05 00 36.3
        comp=Z,16nm,0.5s
GTTG  Gottingen           5.43 165 eSn      Sn      04 59 53.1 -0.8
DRUM  Mains of Drumt      5.60 275 eP       Pn      04 58 57.3 +2.7
DRUM                               eS       Sn      04 59 54.9 -3.2
DRUM  Mains of Drumt      5.60 275 eP       Pn      04 58 57.3 +2.7
DRUM                               eS       Sn      04 59 54.9 -3.2
KASTN Kahler Asten        5.63 176 ePn      Pn      04 58 58.9 +3.9
KASTN                              eSn      Sn      04 59 56.6 -2.2
LRW   Lerwick             5.74 309 eP       Pn      04 58 59.9 +3.4
LRW                                eS       Sn      05 00 00.1 -1.3
LRW                                  IAML           05 00 18.0
        comp=Z,7.7nm,0.5s
LRW   Lerwick             5.74 309 eP       Pn      04 58 59.9 +3.4
LRW                                eS       Sn      05 00 00.1 -1.3
LRW                                  IAML           05 00 18.0
        comp=Z,7.7nm,0.5s
MOL   Molde               5.79 359 eP       Pn      04 58 59.6 +2.6
MOL                                eS       Sn      05 00 01.9 -0.6
MOL                                  IAML           05 00 49.2
        comp=Z,15nm,0.5s
MOL   Molde               5.79 359 eP       Pn      04 58 59.6 +2.6
MOL                                eS       Sn      05 00 01.9 -0.6
MOL                                  IAML           05 00 49.2
        comp=Z,15nm,0.5s
EDMD  Edmundbyers         5.81 254 eP       Pn      04 58 59.7 +2.3
EDMD                               eS       Sn      05 00 00.2 -3.0
EDMD  Edmundbyers         5.81 254 eP       Pn      04 58 59.7 +2.3
EDMD                               eS       Sn      05 00 00.2 -3.0
EDI   Edinburgh           6.13 266 eP       Pn      04 59 04.5 +2.7
EDI                                eS       Sn      05 00 10.4 -0.6
EDI   Edinburgh           6.13 266 eP       Pn      04 59 04.5 +2.7
EDI                                eS       Sn      05 00 10.4 -0.6
HGN   Heimansgroeve       6.14 191 ePn      Pn      04 59 03.5 +1.5
HGN                                eSn      Sn      05 00 09.2 -2.3
EKA   Eskdalemuir Ar      6.27 261   Pn     Pn      04 59 05.4 +1.6
        comp=Z,3.7nm,0.3s,baz=74,slow=13,SNR=34
EKA                                  Sn     Sn      05 00 11.7 -2.9
        baz=72,slow=24
MEM   Membach             6.29 190 ePn      Pn      04 59 06.7 +2.6
CLL   Collm               6.32 148 ePn      Pn      04 59 06.0 +1.5
CLL                                eSn      Sn      05 00 12.0 -3.8
CLL                                eSg      Sb      05 00 52.0  +15
BIGH  Upper Bighouse      6.47 290 eP       Pn      04 59 09.6 +3.1
BIGH                               eS       Sn      05 00 15.6 -3.8
BIGH  Upper Bighouse      6.47 290 eP       Pn      04 59 09.6 +3.1
BIGH                               eS       Sn      05 00 15.6 -3.8
TNS   Taunus Mts          6.61 176 ePn      Pn      04 59 11.1 +2.6
TNS                                eSn      Sn      05 00 19.5 -3.4
KPL   Plockton            7.31 280 eP       Pn      04 59 19.9 +1.8
KPL                                eS       Sn      05 00 37.6 -2.4
KPL   Plockton            7.31 280 eP       Pn      04 59 19.9 +1.8
KPL                                eS       Sn      05 00 37.6 -2.4
KHC   Kasperske Hory      8.46 153 eSG      Sn      05 01 14.4 +6.0
GERES GERESS Array B      8.75 153   Pn     Pn      04 59 45.4 +7.5
        comp=Z,0.1nm,0.3s,baz=340,slow=13,SNR=4.5
        comp=Z,0.6nm,0.2s
GERES                                AML    AML
LEIR  Leirfjorden         9.69  13 eP       Pn      04 59 51.2 +0.7
FINES FINESS Array B     10.50  56   Pn     Pn      05 00 02.5 +0.8
        comp=Z,0.5nm,0.3s,baz=247,slow=13,SNR=32
FINES                                Sn     Sn      05 01 52.2 -6.1
        comp=Z,1.0nm,0.3s,baz=254,slow=22,SNR=7.5
FINES                                Lg     Lg      05 02 52.5
        comp=Z,0.2nm,0.3s,baz=251,slow=31,SNR=1.5
        comp=Z,1.6nm,0.3s
FINES                                AML    AML
AKASG Malin Array Be     14.08 107   Lg     Lg      05 05 07.9
        comp=Z,0.3nm,0.3s,baz=312,slow=31,SNR=1.6
ARCES ARCESS Array B     14.99  25   Pn     Pn      05 01 00.8 -2.1
        comp=Z,0.1nm,0.3s,baz=214,slow=13,SNR=9.0
        comp=Z,0.2nm,0.3s
ARCES                                AML    AML
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IDC ***30*** *05:23:10.5±0.8, 7°.18S×125°.11E, h465km±9km, mb3.4/14, mbtmp4.4/19, Error ellipse: s-maj=17.5km s-min=7.8km az=74.0*

DJA ***30*** *05:23:12.9±0.4, 7°S±3°×12°5E±°, h477km±5km, M4.3/30, mB4.9/22, mb4.7/25, MLv4.8/30, Mw(mB)4.2/22*

NEIC ***30*** *05:23:12.3±1.8, 7°.14S±0°.08×125°.2E±0°.1, h481km±8km, mb4.4/23, Error ellipse: s-maj=14.5km s-min=11.2km az=98.0*

GFZ ***30*** *05:23:12.7±0.2, 7°S±3°×12°5E±°, h481km, M4.3/17, mb4.5/17, confirmed*

ISC 30 05:23:13.0±0.4**, 7°.17S**±0°.04×**125°.18E**±0°.06**, h500**km**, n140, σ1s.77**/143**, mb4.0**/31**, Banda Sea**

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Code  Station Name        Δ°  AZ°    Phase ID          Time     Res
                                    Op      ISC      h  m  s    ISC
SOEI  Soe                 2.73 199  P       P       05 24 21.2 -1.2
SOEI  Soe                 2.73 199  S       S       05 25 14.3 -4.4
SOEI  Soe                 2.73 199          P       05 24 20.7 -1.6
SOEI  Soe                 2.73 199  P       P       05 24 21.0 -1.3
SOEI                                S       S       05 25 15.1 -3.6
SOEI                                AML     AML
SOEI  Soe                 2.73 199  P       P       05 24 21.1 -1.2
MMRI  Maumere             3.26 243  P       P       05 24 23.9 -1.9
MMRI  Maumere             3.26 243  S       S       05 25 21.8 -3.2
MMRI  Maumere             3.26 243          P       05 24 23.3 -2.4
MMRI  Maumere             3.26 243  P       P       05 24 23.6 -2.2
MMRI                                AML     AML
MMRI  Maumere             3.26 243  P       P       05 24 23.7 -2.1
BATI  Baumata             3.37 206  P       P       05 24 20.3 -6.3
        2µm,0.4s,baz=97,slow=7.7,SNR=115
BATI                                S       S       05 25 18.3 -8.2
        393nm,0.5s,baz=108,slow=20,SNR=7.0
EDFI  Ende, Flores        3.80 245  P       P       05 24 27.5 -2.4
EDFI                                S       S       05 25 29.1 -3.4
EDFI                                AML     AML
KDI   Kendari             4.08 321  P       P       05 24 32.0 -0.1
KDI                                 AML     AML
NLAI  Namlea              4.34  26  P       P       05 24 34.0 -0.3
NLAI                                S       S       05 25 38.1 -2.4
NLAI                                AML     AML
AAI   Ambon               4.58  41  P       P       05 24 35.8 -0.5
AAI                                 AML     AML
BSSI  Bau Bau, Buton      4.77 282  P       P       05 24 38.2 +0.3
BSSI                                AML     AML
SANI  Sanana              5.15   9  P       P       05 24 40.1 -1.2
SANI  Sanana              5.15   9  S       S       05 25 49.7 -3.7
SANI  Sanana              5.15   9  P       P       05 24 40.3 -1.0
        1.0nm2µm282nm,1.0s
SANI                                AML     AML
SANI  Sanana              5.15   9  P       P       05 24 40.4 -1.0
        comp=Z,278nm,1.0s
BKSI  Bulukumba           5.35 290  P       P       05 24 43.7 +0.5
BKSI                                AML     AML
LBFI  Labuhan Bajo,       5.40 256  P       P       05 24 42.7 -1.0
WSI   Waingapu            5.43 242  P       P       05 24 42.0 -1.9
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BASI	Baing, Sumba	5.47	236	P	P	05 24 42.3	-2.0
KAPI	Kappang	5.81	291	P	P	05 24 46.7	-0.8
	comp=Z,19nm,0.6s,baz=103,slow=8.9,SNR=10						
KAPI				S	S	05 25 59.4	-5.2
	comp=Z,3.5nm,0.2s,baz=168,slow=19,SNR=0.8						
KAPI	Kappang	5.81	291		P	05 24 46.9	-0.6
KAPI	Kappang	5.81	291	P	P	05 24 47.4	-0.1
KAPI	Kappang	5.81	291	P	P	05 24 48.8	+1.4
	comp=Z,27nm,0.6s						
SPSI	Sidrap Palu	6.25	300	P	P	05 24 51.6	-0.2
	comp=Z,0.2nmcomp=Z,34nm,0.8s						
SPSI				AML	AML		
LUWI	Luwuk	6.54	338		P	05 24 54.6	-0.1
LUWI	Luwuk	6.54	338	P	P	05 24 55.1	+0.4
LUWI	Luwuk	6.54	338	P	P	05 24 55.1	+0.4
	comp=Z,436nm,0.9s						
DBNI	Kabupaten Domp	6.93	259	P	P	05 24 56.8	-1.7
	comp=Z,0.4nmcomp=Z,1µmcomp=Z,79nm,0.5s						
DBNI				AML	AML		
APSI	Ampana	7.14	330	P	P	05 25 01.6	+0.9
	comp=Z,0.6nmcomp=Z,1µmcomp=Z,201nm,1.0s						
APSI				AML	AML		
PLAI	Plampang	7.52	257	P	P	05 25 01.6	-2.8
PLAI	Plampang	7.52	257	P	P	05 25 01.9	-2.5
	comp=Z,0.4nmcomp=Z,1µmcomp=Z,97nm,0.6s						
PLAI				AML	AML		
PLAI	Plampang	7.52	257	P	P	05 25 02.2	-2.3
	comp=Z,118nm,0.7s						
MMSI	Mamuju	7.67	305	P	P	05 25 07.7	+1.7
	comp=Z,0.3nmcomp=Z,990nmcomp=Z,101nm,0.7s						
MMSI				AML	AML		
DRS	Darwin Rock St	7.69	133	P	P	05 25 05.5	-0.7
GTOI	Gorontalo	8.05	344	P	P	05 25 12.2	+2.3
MTN	Manton Dam	8.13	134		P	05 25 09.9	-0.9
TNTI	Ternate	8.18	16	P	P	05 25 10.2	-1.2
	comp=Z,80nm,0.8s						
PCI	Palu	8.19	319	P	P	05 25 14.0	+2.6
	comp=Z,6µmcomp=Z,121nm,0.8s						
FAKI	Fak Fak	8.21	59	P	P	05 25 09.7	-1.9
FAKI	Fak Fak	8.21	59	P	P	05 25 07.9	-3.7
	comp=Z,29nm,1.2s						
SIJI	Sorong	8.71	44	P	P	05 25 15.7	-1.2
	comp=Z,13nm,0.3s,baz=212,slow=9.5,SNR=6.0						
SIJI				S	S	05 26 53.0	-5.6
	comp=Z,7.7nm,0.5s,baz=198,slow=20,SNR=1.6						
KNRA	Kununurra	9.16	158		P	05 25 21.4	-0.1
TOLI2	Tolitoli	9.32	332	P	P	05 25 23.5	+0.3
TOLI2	Tolitoli	9.32	332	S	S	05 27 09.5	-0.8
TOLI2	Tolitoli	9.32	332		P	05 25 23.7	+0.4
TOLI2	Tolitoli	9.32	332	P	P	05 25 23.7	+0.4
	comp=Z,168nm,0.8s						
FITZ	Fitzroy Crossi	10.88	178	P	P	05 25 38.4	-1.2
	comp=Z,25nm,0.5s,baz=0.3,slow=8.3,SNR=166						
FITZ				S	S	05 27 36.9	-3.4
	comp=Z,36nm,0.8s,baz=349,slow=19,SNR=20						
FITZ	Fitzroy Crossi	10.88	178	P	P	05 25 38.4	-1.2
FITZ	Fitzroy Crossi	10.88	178		P	05 25 39.4	-0.2
FITZ	Fitzroy Crossi	10.88	178	P	P	05 25 39.7	+0.1
	comp=Z,11nm,1.0s						
JAGI	Jajag, Banyuwa	11.00	263	P	P	05 25 39.6	-1.4
JAGI	Jajag, Banyuwa	11.00	263		P	05 25 38.9	-2.2
JAGI	Jajag, Banyuwa	11.00	263	P	P	05 25 39.0	-2.1
	comp=Z,36nm,0.9s						
MBWA	Marble Bar	14.88	200	P	P	05 26 21.1	-0.7
WB0	Warramunga Arr	15.39	145		P	05 26 26.1	-1.2
WB0				IAmb	IAmb	05 26 29.7	
	comp=Z,19nm,0.9s						
WRAB	Tennant Creek	15.50	146	P	P	05 26 27.4	-1.0
WRAB	Tennant Creek	15.50	146	P	P	05 26 27.5	-0.9
	comp=Z,28nm,0.9s						
WRA	Warramunga Arr	15.50	146	P	P	05 26 27.2	-1.3
	comp=Z,10nm,0.7s,baz=324,slow=10,SNR=87						
WRA				S	S	05 29 07.8	-1.9
	comp=Z,2.9nm,0.8s,baz=324,slow=16,SNR=5.7						
WRA	Warramunga Arr	15.50	146	P	P	05 26 26.4	-2.0
JAY	Jayapura	16.14	74	P	P	05 26 34.0	-1.3
	comp=Z,37nm,0.8s,baz=243,slow=4.1,SNR=7.7						
AS31	Alice Springs	18.42	154		P	05 26 57.1	-0.2
AS31				IAmb	IAmb	05 26 59.3	
	comp=Z,9.9nm,0.6s						
ASAR	Alice Springs	18.42	154	P	P	05 26 57.7	+0.4
	comp=Z,23nm,0.6s,baz=331,slow=8.5,SNR=181						
ASAR				S	S	05 30 01.3	+1.1
	comp=Z,11nm,1.0s,baz=347,slow=23,SNR=18						
ASAR				ScP	ScP	05 33 51.3	+1.4
	comp=Z,0.8nm,0.7s,baz=315,slow=1.5,SNR=5.4						
ASAR	Alice Springs	18.42	154	P	P	05 26 58.0	+0.8
AS01	Alice Springs	18.44	154	P	P	05 26 57.4	0.0
GIRL	Giralia	18.65	213	P	P	05 27 00.8	+1.5
QIS	Mount Isa	19.30	135	P	P	05 27 05.6	+0.3
QIS	Mount Isa	19.30	135	P	P	05 27 06.4	+1.1
	comp=Z,59nm,0.5s						
MEEK	Meekatharra	20.35	197	P	P	05 27 15.1	+0.3
MEEK	Meekatharra	20.35	197	P	P	05 27 15.6	+0.8
	comp=Z,42nm,1.0s						
MORW	Morawa	23.43	200	P	P	05 27 40.7	-1.8
FORT	Forrest	23.65	174		P	05 27 44.7	+0.3
FORT				IAmb	IAmb	05 27 45.8	
	comp=Z,17nm,0.6s						
BLDU	Ballidu	24.64	198	P	P	05 27 53.0	-0.3
INKA	Innaminka	25.23	146	P	P	05 27 59.2	+0.8
INKA				IAmb	IAmb	05 28 00.6	
	comp=Z,4.2nm,0.8s						
KLBR	Kellerberrin	25.27	195	P	P	05 27 59.2	+0.4
	comp=Z,24nm,0.9s						
QLP	Quilpie	26.48	139	P	P	05 28 11.0	+1.4
	comp=Z,40nm,0.8s						
NWAO	Narrogin (SRO)	26.68	195	P	P	05 28 11.5	+0.3
NWAO	Narrogin (SRO)	26.68	195	P	P	05 28 11.0	-0.2
NWAO	Narrogin (SRO)	26.68	195	P	P	05 28 11.3	+0.1
NWAO				IAmb	IAmb	05 28 38.6	
	comp=Z,49nm,1.4s						
NWAO	Narrogin (SRO)	26.68	195	P	P	05 28 11.7	+0.5
	comp=Z,28nm,1.9s						
BBOO	Buckleboo	27.45	160	P	P	05 28 18.7	+0.7
BBOO	Buckleboo	27.45	160	P	P	05 28 18.7	+0.7
BBOO				IAmb	IAmb	05 28 19.4	
	comp=Z,15nm,0.6s						
BBOO	Buckleboo	27.45	160	P	P	05 28 18.7	+0.7
	comp=Z,28nm,0.6s						
STKA	Stephens Creek	28.96	150	P	P	05 28 31.9	+0.6
	comp=Z,20nm,0.8s,baz=324,slow=9.3,SNR=21						
	comp=Z,20nm,0.8s						
STKA	Stephens Creek	28.96	150	P	P	05 28 32.4	+1.1
STKA	Stephens Creek	28.96	150	P	P	05 28 32.4	+1.1
	comp=Z,104nm,0.8s						
HTT	Hallett	29.07	156	P	P	05 28 33.7	+1.4
TPUB	Ta-pu	30.61	352	P	P	05 28 46.0	+0.4
TPUB	Ta-pu	30.61	352	P	P	05 28 44.6	-1.0
CMSA	Cobar Meteorol	30.90	144	P	P	05 28 49.7	+1.6
CMSA	Cobar Meteorol	30.90	144	P	P	05 28 49.6	+1.6
	comp=Z,17nm,0.5s						
ARMA	Armidale	33.91	136	P	P	05 29 15.5	+1.6
ARMA				IAmb	IAmb	05 29 16.6	
	comp=Z,18nm,1.4s						
ARMA	Armidale	33.91	136	P	P	05 29 16.0	+2.1
	comp=Z,11nm,1.7s						
CAN	Canberra	35.54	145	P	P	05 29 27.6	+0.1
CAN				IAmb	IAmb	05 30 08.0	
	comp=Z,32nm,1.4s						
CAN	Canberra	35.54	145	P	P	05 29 29.6	+2.2
	comp=Z,20nm,1.5s						
CMAR	Chiang Mai Arr	36.31	315	P	P	05 29 34.0	+0.1
	comp=Z,1.0nm,0.3s,baz=124,slow=8.7,SNR=1.7						
	comp=Z,1.0nm,0.3s						
WHN	Wuhan	38.91	345	P	P	05 29 51.3	-3.7
NJ2	Nanjing	39.46	352	*e*P	P	05 30 02.5	+3.0
NJ2				pmax	pmax		
	comp=Z,12nm,0.5s						
PZH	PanZhiHua	40.46	327	P	P	05 30 09.0	+1.2
KSRS	Korea Array	44.46	3	P	P	05 30 39.8	+0.9
	comp=Z,2.1nm,0.7s,baz=179,slow=9.1,SNR=6.4						
	comp=Z,2.1nm,0.7s						
MJAR	Matsushiro Arr	45.16	15	P	P	05 30 43.2	-1.2
	comp=Z,3.0nm,0.6s,baz=195,slow=9.5,SNR=8.6						
	comp=Z,3.0nm,0.6s						
MJAR	Matsushiro Arr	45.16	15	IAmb	IAmb	05 31 11.3	
	comp=Z,4.2nm,1.4s						
HHC	Hu-ho-hao-te	49.39	346	*e*P	P	05 31 20.5	+4.1
HHC				pmax	pmax		
	comp=Z,15nm,0.5s						
HHC				pmax	pmax		
	comp=Z,82nm,4.4s						
JTM	Tenmabayashi	49.91	16	P	P	05 31 20.6	+0.6
CN2	Changchun	50.73	0	*e*P	P	05 31 30.5	+4.5
CN2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
USRK	Ussuriysk Ar.	51.50	6	P	P	05 31 32.4	+0.9
	comp=Z,2.2nm,0.6s,baz=177,slow=7.2,SNR=3.2						
	comp=Z,2.2nm,0.6s						
WHZ	Wether Hill Ro	53.31	144	P	P	05 31 45.3	+0.7
WHZ				IAmb	IAmb	05 31 56.4	
	comp=Z,50nm,1.5s						
SONM	Songino Array	57.22	345	P	P	05 32 11.4	-0.6
	comp=Z,2.0nm,0.7s,baz=152,slow=6.5,SNR=7.1						
	comp=Z,2.0nm,0.7s						
SONM	Songino Array	57.22	345	IAmb	IAmb	05 32 14.0	
	comp=Z,4.0nm,1.0s						
CASY	Casey	59.89	187	P	P	05 32 30.4	+0.9
CASY				IAmb	IAmb	05 32 54.2	
	comp=Z,36nm,1.5s						
MKAR	Makanchi Array	65.83	329	P	P	05 33 09.0	+0.7
	comp=Z,2.9nm,0.7s,baz=132,slow=7.9,SNR=24						
	comp=Z,2.9nm,0.7s						
MKAR	Makanchi Array	65.83	329	P	P	05 33 09.5	+1.2
PEA0B	Petropavlovsk-	66.07	21	P	P	05 33 10.6	+1.0
PETK	Petropavlovsk-	66.07	21	P	P	05 33 10.7	+1.0
	comp=Z,2.2nm,0.6s,baz=223,slow=6.9,SNR=4.2						
	comp=Z,2.2nm,0.6s						
ZAA0	Zalesovo Array	69.70	336	P	P	05 33 32.1	+0.3
ZAA0				IAmb	IAmb	05 33 32.7	
	comp=Z,3.9nm,0.8s						
ZALV	Zalesovo Beam	69.70	336	P	P	05 33 31.6	-0.2
	comp=Z,3.1nm,0.7s,baz=139,slow=4.7,SNR=14						
	comp=Z,3.1nm,0.7s						
ZALV	Zalesovo Beam	69.70	336	P	P	05 33 31.8	0.0
KURBB	Kurchatov Arra	70.22	331	P	P	05 33 35.8	+0.8
	comp=Z,1.9nm,0.7s,baz=132,slow=4.8,SNR=19						
	comp=Z,1.9nm,0.7s						
KURK	Kurchatov	70.24	331	P	P	05 33 35.7	+0.6
	comp=Z,5.4nm,1.1s						
VNDA	Vanda	72.90	172	P	P	05 33 51.0	+0.7
	comp=Z,0.5nm,0.5s,baz=321,slow=5.6,SNR=11						
	comp=Z,0.5nm,0.5s						
VNDA	Vanda	72.90	172	P	P	05 33 51.6	+1.4
VNDA	Vanda	72.90	172	P	P	05 33 51.6	+1.4
MAW	Mawson	73.07	201	P	P	05 33 52.9	+1.6
	comp=Z,1.2nm,1.0s,baz=56,slow=6.1,SNR=2.5						
	comp=Z,1.2nm,1.0s						
MAW	Mawson	73.07	201	P	P	05 33 53.1	+1.7
BVAR	Borovoye Array	75.71	329	P	P	05 34 07.1	+0.5
	comp=Z,2.5nm,0.5s,baz=127,slow=9.3,SNR=9.0						
	comp=Z,2.5nm,0.5s						
AB31	Akbulak array	79.71	323	P	P	05 34 29.3	+1.0
ABKAR	Akbulak array	79.71	323	P	P	05 34 28.6	+0.4
QSPA	South Pole Qui	82.81	180	P	P	05 34 44.9	+0.8
	comp=Z,1.2nm,0.7s,baz=27,slow=2.3,SNR=9.8						
	comp=Z,1.2nm,0.7s						
QSPA	South Pole Qui	82.81	180	IAmb	IAmb	05 34 46.0	
	comp=Z,2.2nm,0.9s						
ILAR	Eielson Array	95.55	25	P	P	05 35 41.9	-1.8
	comp=Z,0.2nm,0.4s,baz=263,slow=5.3,SNR=4.1						
RAGM	Ragged Mountai	96.25	30	P	P	05 35 47.5	+0.5
NVAR	Mina Array Bea	115.13	51	PKP	PKiKP	05 40 58.4	+0.7
	comp=Z,0.1nm,0.5s,baz=308,slow=3.6,SNR=2.1						
PDAR	Pinedale Array	120.38	44	PKP	PKiKP	05 41 08.3	+0.5
	comp=Z,0.2nm,0.5s,baz=263,slow=2.6,SNR=3.6						
TORD	Torodi Ar. Bea	124.15	281	PKP	PKiKP	05 41 15.8	+0.1
	comp=Z,0.3nm,0.7s,baz=90,slow=0.9,SNR=3.6						
TXAR	Lajitas Array	129.09	58	SKPbc	SKPbc	05 44 01.4	+2.4
	comp=Z,1.1nm,0.8s,baz=287,slow=4.1,SNR=12						
DBIC	Dimbokro	130.42	273	SKPbc	SKPab	05 44 05.6	+1.1
	comp=Z,1.6nm,0.7s,baz=73,slow=5.8,SNR=3.7						

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*SFS **30** 05:26:05.2, 36°.81N×4°.46W, h54^{km}, ML2.9/18, ML2.8/18, MLv2.8/18*

*IGIL **30** 05:26:06.5, 36°.76N×4°.42W, h32^{km}, ML2.1*

*INMG **30** 05:26:06.5±1.8, 36°.78N×4°.43W, h47^{km}±8^{km}, ML2.3, Error ellipse: s-maj=3.1km s-min=2.9km az=141.0, #DIST_RANGE: REGIONAL #IPMA_REGION: NW Malaga (ESP)*

*CNRM **30** 05:26:06.4, 36°.64N×4°.75W, h74^{km}, ML2.0*

*MDD **30** 05:26:06.4±0.5, 36°.76N×4°.42W, h54^{km}±6^{km}, Mb3.2/21, Error ellipse: s-maj=4.7km s-min=2.6km az=178.0*

ISC 30 05:26:04.8±1.1**, 36°.78N**±0°.02×**4°.44W**±0°.02**, h60**^{km}±6^{km}**, n81, σ1^{s}48**/155**, 16C, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EMAL	Malaga-Limoner	0.02	164	Pn	Pn	05 26 14.1	+0.3
EMAL				Sn	Sn	05 26 19.6	-0.5
EMIJ	Mijas	0.35	232	Pn	Pn	05 26 16.0	+0.6
EMIJ				Sn	Sn	05 26 21.7	-1.3
EMIJ	Mijas	0.35	232	Pg	Pn	05 26 16.0	+0.6
EMIJ				Sg	Sn	05 26 22.1	-0.9
EGOR	Sierra Gorda,	0.42	38	Pn	Pn	05 26 16.9	+0.6
EGOR				Sn	Sn	05 26 24.8	+0.4
EGOR	Sierra Gorda,	0.42	38	⇑Pg	Pn	05 26 16.8	+0.6
EGOR				⇑IVmb_VC		05 26 17.2	
	3µm,SNR=64						
EGOR				Sg	Sn	05 26 25.5	+1.1
ELGU	Los Guajares,	0.66	82	Pn	Pn	05 26 18.8	+0.2
ELGU				Sn	Sn	05 26 28.3	-0.4
ELGU	Los Guajares,	0.66	82	Pg	Pn	05 26 18.7	+0.1
ELGU				⇑IVmb_VC		05 26 20.8	
	2µm,SNR=24						
ELGU				Sg	Sn	05 26 27.6	-1.1
EQTA	Presa de Quent	0.90	61	Pn	Pn	05 26 23.0	+1.3
EQTA				Sn	Sn	05 26 34.7	+0.5
EQUE	Quentar	0.90	62	Pg	Pn	05 26 22.9	+1.2
EQUE				⇑IVmb_VC		05 26 24.3	
	462nm,SNR=6.8						
EQUE				Sg	Sn	05 26 35.3	+1.2
ESPR	Espera	1.14	275	Pn	Pn	05 26 27.1	+2.3
EBER	Berja	1.25	84	Pn	Pn	05 26 26.9	+0.6
EBER				Sn	Sn	05 26 41.1	-1.2
EBER	Berja	1.25	84	Pg	Pn	05 26 26.6	+0.3
EBER				⇑IVmb_VC		05 26 28.7	
	134nm,SNR=1.4						
SMIR	Smir Dam	1.33	215	P	Pn	05 26 27.2	-0.1
SMIR				S	Sn	05 26 41.6	-2.5
EADA	Adamuz	1.39	355	Pn	Pn	05 26 29.0	+0.9
EADA				Sn	Sn	05 26 45.4	-0.1
EADA	Adamuz	1.39	355	Pn	Pn	05 26 29.0	+0.9
EADA				⇑IVmb_VC		05 26 31.7	
	138nm,SNR=3.3						
EADA				Sn	Sn	05 26 45.1	-0.4
EADA				Sg		05 26 51.4	
ECAB	El Cabril	1.51	329	Pn	Pn	05 26 30.3	+0.6
ECAB				Sn	Sn	05 26 48.1	-0.3
ECAB	El Cabril	1.51	329	Pn	Pn	05 26 30.3	+0.6
ECAB				⇑IVmb_VC		05 26 31.0	
	52nm,SNR=1.4						
ECAB				Sn	Sn	05 26 47.9	-0.5
PALE	Palemas	1.61	165	P	Pn	05 26 32.3	+1.3
PALE				S	Sn	05 26 52.3	+1.5
ENIJ	Nijar	1.80	83	Pn	Pn	05 26 33.4	-0.1
ENIJ				Sn	Sn	05 26 56.6	+1.3
EMIN	Mina Concepcio	2.04	300	Pn	Pn	05 26 37.5	+0.6
EMIN	Mina Concepcio	2.04	300	Pn	Pn	05 26 37.4	+0.6
EMIN				⇑IVmb_VC		05 26 39.1	
	114nm,SNR=1.8						
EMIN				Sn	Sn	05 27 01.5	+0.3
PSIM	Granatula de C	2.11	15	Pn	Pn	05 26 38.7	+0.9
PSIM				Sn	Sn	05 27 02.8	-0.1
AKLM	AKL	2.31	168	P	Pn	05 26 41.5	+0.9
AKLM				S	Sn	05 27 07.3	-0.6
PBAR	Barrancos	2.50	305	Pn	Pn	05 26 43.7	+0.7
PBAR				Sn	Sn	05 27 10.7	-1.6
PBAR	Barrancos	2.50	305	*e*P	Pn	05 26 43.8	+0.7
PBAR				S	Sn	05 27 12.3	0.0
PBAR				*i* IAML		05 27 35.8	
PBAR				*i* IAML		05 27 35.8	
PBAR				*i* IAML		05 27 38.5	
EGRO	El Granado	2.55	288	Pn	Pn	05 26 45.0	+1.3
EGRO				Sn	Sn	05 27 12.4	-1.2
EGRO	El Granado	2.55	288	Pn	Pn	05 26 45.3	+1.5
EGRO				⇑IVmb_VC		05 26 47.2	
	150nm,SNR=1.4						
EGRO				Sn	Sn	05 27 13.0	-0.6
PVAQ	Vaqueiros	2.70	284	*e*P	Pn	05 26 47.1	+1.3
PVAQ				S	Sn	05 27 16.2	-1.1
PVAQ				*i* IAML		05 27 17.6	
PVAQ				*i* IAML		05 27 17.9	
PVAQ				*i* IAML		05 27 18.0	
PAB	San Pablo	2.76	1	Pn	Pn	05 26 48.3	+1.5
PAB				⇑IVmb_VC		05 26 49.2	
	134nm,SNR=3.3						
PAB				Sn	Sn	05 27 17.6	-1.4
PBDV	Barranco-do-Ve	2.84	280	Pn	Pn	05 26 48.6	+0.9
PBDV				Sn	Sn	05 27 18.6	-2.1
PBDV	Barranco-do-Ve	2.84	280	*e*P	Pn	05 26 49.0	+1.3
PBDV				S	Sn	05 27 19.4	-1.3
PBDV				*i* IAML		05 27 19.6	
PBDV				*i* IAML		05 27 23.1	
PBDV				*i* IAML		05 27 26.8	
EBAD	Badajoz	2.84	315	Pn	Pn	05 26 48.6	+0.8
EBAD				⇑IVmb_VC		05 26 50.1	
	161nm,SNR=2.6						
EBAD				Sn	Sn	05 27 19.5	-1.2
CART	Cartagena	2.86	73	Pn	Pn	05 26 49.2	+1.3
JBK	JBK	2.88	147	P	Pn	05 26 49.6	+1.2
JBK				S	Sn	05 27 22.5	+0.6
ETOB	Tobarra	2.95	50	Pn	Pn	05 26 49.6	+0.3
ETOB				Sn	Sn	05 27 21.7	-1.9
ETOB	Tobarra	2.95	50	Pn	Pn	05 26 49.8	+0.4
ETOB				⇑IVmb_VC		05 26 50.8	
	104nm,SNR=1.6						
ETOB				Sn	Sn	05 27 20.6	-3.0
CIBOR	Castaar de Ib	2.96	345	Pn	Pn	05 26 51.1	+1.7
CIBOR				Sn	Sn	05 27 21.2	-2.4
PCVE	Castro Verde	3.00	288	Pn	Pn	05 26 50.7	+0.8
PCVE				Sn	Sn	05 27 24.0	-0.7
PCVE	Castro Verde	3.00	288	*e*P	Pn	05 26 51.4	+1.4
PCVE				*e*S	Sn	05 27 24.4	-0.2
PCVE				*i* IAML		05 27 26.0	
PCVE				*i* IAML		05 27 26.9	
PCVE				*i* IAML		05 27 28.3	
PBEJ	Beja	3.00	296	S	Sn	05 27 24.7	0.0
PBEJ				*i* IAML		05 27 25.8	
PBEJ				*i* IAML		05 27 25.9	
PBEJ				*i* IAML		05 27 26.5	
MESJ	Messejana	3.20	290	*e*P	Pn	05 26 53.5	+0.9
MESJ				*e*S	Sn	05 27 28.3	-1.3
MESJ				IAML		05 27 30.4	
	comp=E,6.1nm,0.2s						
MESJ	Messejana	3.20	290	*e*P	Pn	05 26 54.4	+1.7
MESJ				S	Sn	05 27 28.9	-0.6
MESJ				*i* IAML		05 27 30.1	
MESJ				*i* IAML		05 27 30.4	
MESJ				*i* IAML		05 27 31.1	
PESTR	Estremoz	3.25	311	Pn	Pn	05 26 55.4	+2.0
PESTR				Sn	Sn	05 27 29.3	-1.6
PESTR	Estremoz	3.25	311	*e*P	Pn	05 26 55.2	+1.8
PESTR				*e*S	Sn	05 27 29.5	-1.4
PESTR	Estremoz	3.25	311	P	Pn	05 26 54.3	+0.9
PESTR				S	Sn	05 27 30.0	-0.9
IFR	Ifrane	3.30	190	Pn	Pn	05 26 55.3	+1.0
IFR				Sn	Sn	05 27 31.4	-1.0
EVO	Evora	3.33	303	Pn	Pn	05 26 56.0	+1.6
EVO				Sn	Sn	05 27 32.7	-0.2
EVO	Evora	3.33	303	*e*P	Pn	05 26 56.4	+1.9
EVO				*e*S	Sn	05 27 32.6	-0.2
EVO				*i* IAML		05 27 33.6	
EVO				*i* IAML		05 27 33.8	
EVO				*i* IAML		05 27 34.2	
PLOUS	Minas do Lousa	3.41	293	*e*P	Pn	05 26 57.1	+1.6
PLOUS				*e*S	Sn	05 27 34.6	-0.1
PLOUS				*i* IAML		05 27 35.3	
PLOUS				*i* IAML		05 27 36.2	
PLOUS				*i* IAML		05 27 37.5	
MORF	Marmelete	3.42	280	*e*P	Pn	05 26 57.6	+2.0
MORF				*e*S	Sn	05 27 34.4	-0.5
MORF				*i* IAML		05 27 34.9	
MORF				*i* IAML		05 27 36.6	
MORF				*i* IAML		05 27 37.1	
PARRA	Arraiolos	3.50	307	*e*P	Pn	05 26 58.5	+1.7
PARRA				*e*S	Sn	05 27 35.0	-2.1
PARRA				*i* IAML		05 27 37.2	
PARRA				*i* IAML		05 27 37.8	
PARRA				*i* IAML		05 28 04.2	
PTEO	Sao Teotonio	3.51	284	*e*P	Pn	05 26 58.7	+1.8
PTEO				S	Sn	05 27 36.9	-0.3
PTEO				*i* IAML		05 27 38.0	
PTEO				*i* IAML		05 27 38.6	
PTEO				*i* IAML		05 27 41.0	
PMRV	Marv??o	3.53	319	*e*P	Pn	05 26 59.0	+1.9
PMRV				*e*S	Sn	05 27 36.9	-0.7
PFVI	Vila Bisbo	3.54	277	Pn	Pn	05 26 58.9	+1.7
PFVI				Sn	Sn	05 27 35.8	-2.0
PFVI	Vila Bisbo	3.54	277	*e*P	Pn	05 26 59.4	+2.1
PFVI				*e*S	Sn	05 27 36.0	-1.8
PFVI				*i* IAML		05 27 40.0	
PFVI				*i* IAML		05 27 42.7	
PFVI				*i* IAML		05 27 50.3	
PFVI	Vila Bisbo	3.54	277	P	Pn	05 26 56.1	-1.1
PFVI				S	Sn	05 27 34.8	-2.9
MOE	Montemor	3.56	300	*e*P	Pn	05 26 59.4	+1.8
MOE				*e*S	Sn	05 27 37.1	-1.3
MOE				*i* IAML		05 27 39.1	
MOE				*i* IAML		05 27 39.5	
MOE				*i* IAML		05 27 39.6	
EVIV	Cofrentes, Val	3.61	46	Pn	Pn	05 26 58.5	+0.2
EVIV				⇑IVmb_VC		05 27 00.3	
	comp=E,111nm,SNR=1.5						
EVIV				Sn	Sn	05 27 36.3	-3.4
PMTG	Montargil	3.77	308	*e*P	Pn	05 27 01.9	+1.5
PMTG				*e*S	Sn	05 27 42.6	-0.9
PMTG				*i* IAML		05 27 44.3	
PMTG				*i* IAML		05 28 14.1	
PMTG				*i* IAML		05 28 20.6	
ZHG	ZHG	3.79	209	P	Pn	05 27 00.9	+0.2
ZHG				S	Sn	05 27 44.0	-0.1
GUD	Guadarrama	3.86	3	Pn	Pn	05 27 03.4	+1.5
GUD				⇑IVmb_VC		05 27 03.7	
	comp=E,199nm,SNR=5.8						
GUD				Sn	Sn	05 27 44.9	-1.2
PCBR	Castelo Branco	3.88	323	*e*P	Pn	05 27 04.0	+2.0
PCBR				S	Sn	05 27 43.9	-2.4
PCBR				*i* IAML		05 27 45.9	
PCBR				*i* IAML		05 27 46.2	
PCBR				*i* IAML		05 27 46.4	
YEBES	Yebes (Guadala	3.88	15	Pn	Pn	05 27 03.7	+1.6
YEBES				Sn	Sn	05 27 46.4	-0.1
MD31	MD31	3.91	184	P	Pn	05 27 03.0	+0.5
MD31				S	Sn	05 27 47.5	+0.3
ECHE	Chera	3.92	43	Pn	Pn	05 27 02.8	+0.3
ECHE				Sn	Sn	05 27 44.6	-2.7
ECHE	Chera	3.92	43	Pn	Pn	05 27 02.8	+0.3
ECHE				⇑IVmb_VC		05 27 03.0	
	comp=E,80nm,SNR=1.2						
ECHE				Sn	Sn	05 27 43.1	-4.1
MDT	Midelt	3.96	182	P	Pn	05 27 03.7	+0.6
MDT				S	Sn	05 27 48.3	-0.1
PSARD	Sardoal	4.07	315	*e*P	Pn	05 27 06.4	+1.8
PSARD				S	Sn	05 27 49.5	-1.4
PSARD				*i* IAML		05 27 50.9	
PSARD				*i* IAML		05 27 53.2	
PSARD				*i* IAML		05 27 53.3	
MTE	Manteigas	4.36	327	*e*P	Pn	05 27 10.4	+1.8
MTE				S	Sn	05 27 56.9	-1.2
MTE				*i* IAML		05 27 57.0	
MTE				*i* IAML		05 27 58.1	
PSBE	So Bento	4.39	310	*e*P	Pn	05 27 10.8	+1.9
PSBE				*e*S	Sn	05 27 58.0	-0.8
PSBE				*i* IAML		05 28 00.2	
PSBE				*i* IAML		05 28 04.2	
PSBE				*i* IAML		05 28 04.3	
PMAFR	Mafra	4.41	301	Pn	Pn	05 27 10.2	+1.0
PMAFR				Sn	Sn	05 27 58.3	-0.9
PMAFR	Mafra	4.41	301	*e*P	Pn	05 27 11.0	+1.8
PMAFR				*e*S	Sn	05 27 58.6	-0.7
PMAFR				*i* IAML		05 27 58.6	
PMAFR				*i* IAML		05 27 59.4	
ETOR	Torete	4.44	24	Pn	Pn	05 27 10.5	+0.7
ETOR				⇑IVmb_VC		05 27 11.2	
	comp=E,114nm,SNR=1.7						
ETOR				Sn	Sn	05 27 56.4	-3.7
PCAS	Casmilo, Conde	4.57	317	*e*P	Pn	05 27 13.3	+2.0
PCAS				*e*S	Sn	05 28 01.9	-1.3
PCAS				*i* IAML		05 28 03.4	
PVIS	Viseu	4.77	327	*e*P	Pn	05 27 15.8	+1.6
PVIS				*e*S	Sn	05 28 06.0	-2.2
PVRL	Vila Real	5.17	331	*e*S	Sn	05 28 15.6	-2.3
POLO	Lamas de Olo	5.28	331	*e*P	Pn	05 27 23.2	+2.0
POLO				*e*S	Sn	05 28 18.0	-2.7
PBRG	Braganca	5.33	341	S	Sn	05 28 18.4	-3.4

PGAV	Gavieira, Arco	5.97	331	*e*P	Pn	05 27 32.5	+1.9
PGAV				*e*S	Sn	05 28 34.7	-3.0
OUZM	OUZ	6.17	199	P	Pn	05 27 34.4	+1.0
OUZM				S	Sn	05 28 42.2	-0.4
OUK	Oukaimeden	6.25	208	P	Pn	05 27 33.6	-1.1
OUK				S	Sn	05 28 41.0	-3.9

IDC ***30*** *05:42:26.2±0.7, 2°.82S×67°.95E, h0^{km}, mb4.0/20, mbtmp4.0/21, ML3.9/1, MS4.2/51, Error ellipse: s-maj=22.2km s-min=16.2km az=53.0*

GFZ ***30*** *05:42:28.3±0.2, 3°S±4°×6°8E±°, h10^{km}, M5.3/37, mb4.5/37*

GFZ ***30*** *05:42:28.3, 2°.85S×67°.93E, h20^{km}, Mw5.1/31, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M$_{rr}$-6.95; M$_{\theta\theta}$3.38; M$_{\phi\phi}$3.57; M$_{r\theta}$0.78; M$_{\theta\phi}$-0.81; M$_{\phi r}$-0.43; Fault plane solution: M$_0$6.13484×10^{16} NP1: ϕ_s139.31450°, δ40.75295°, λ-87.46073°. NP2: ϕ_s315.96409°, δ49.29552°, λ-92.18643°. Principal axes: T 4.3519, Plg4.2731°, Azm47.5143°; N 2.6647, Plg1.6573°, Azm317.3904°; P -7.0166, Plg85.4156°, Azm206.2382°;*

NEIC ***30*** *05:42:29.4±1.8, 2°.74S±0°.09×68°.0E±0°.1, h10^{km}±1^{km}, mb4.7/28 Error ellipse: s-maj=19.8km s-min=15.7km az=258.0*

GCMT ***30*** *05:42:41.4±0.2, 2°.72S±0°.02×68°.09E±0°.02, h20^{km}, MW5.1/124, Moment Tensor Solution. s21,c27; s124,c192; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-5.95±.26; M$_{\theta\theta}$3.66±.15; M$_{\phi\phi}$2.28±.15; M$_{r\theta}$2.18±.26; M$_{\theta\phi}$-2.06±.08; M$_{\phi r}$-0.69±.28; Best double couple: M$_0$5.99300×10^{16} NP1: ϕ_s131.00000°, δ34.00000°, λ-81.00000°. NP2: ϕ_s300.00000°, δ56.00000°, λ-96.00000°. Principal axes: T 5.5570, Plg11.0000°, Azm34.0000°; N 0.8610, Plg5.0000°, Azm303.0000°; P -6.4290, Plg78.0000°, Azm188.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 30 05:42:28.4±0.4**, 2°.77S**±0°.06×**67°.99E**±0°.07**, h11^{km}, n169, σ1.^{s}03**/126**, mb4.5**/70**, MS4.3**/57**, Carlsberg Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAAM	Kaadhehdhoo	5.96	57	Pn	Pn	05 43 54.4	-2.3
DGAR	Diego Garcia	6.40	136	Pn	Pn	05 44 02.0	-0.7
DGAR	Diego Garcia	6.40	136	P	Pn	05 44 02.8	+0.1
	comp=Z,130nm,0.8s						
H08S3	Diego Garcia H	6.58	137	Pn	Pn	05 44 03.9	-1.0
	baz=193,slow=74						
H08S3				T	T	05 50 59.2	
	baz=307,slow=79						
H08S1	Diego Carcia H	6.59	137	Pn	Pn	05 44 03.8	-1.1
H08S1				T	T	05 51 13.1	
	baz=307,slow=79						
H08S2	Diego Garcia H	6.60	137	Pn	Pn	05 44 04.3	-0.9
	baz=111,slow=74						
H08S2				T	T	05 51 12.3	
	baz=307,slow=79						
PALK	Pallekele	16.14	52	Pn	Pn	05 46 12.3	-3.2
	comp=Z,0.4nm,0.3s,baz=230,slow=16,SNR=1.3						
PALK				LR	LR	05 51 13.7	
	comp=Z,3µm,21.1s,baz=218,slow=33						
	comp=Z,9.4nm,1.0s						
PALK				AML	AML		
HYB	Hyderabad	22.61	27	*e*P	P	05 47 29.5	+0.1
HYB				*e*S	S	05 51 38.3	+1.2
OPO	Ambohidratompo	25.72	231	LR	LR	05 56 07.6	
	comp=Z,1µm,18.9s,baz=284,slow=32						
VOI	Vohitsoka	28.03	226	P	P	05 48 19.6	-0.3
	comp=Z,15nm,2.3s						
PBA	Port Blair	28.48	59	P	P	05 48 23.3	-0.6
	comp=Z,133nm,1.1s						
ATD	Arta Tunnel	28.76	300	LR	LR	05 57 49.1	
	comp=Z,12nm,21.1s,baz=144,slow=32						
KIBK	Kibwezi	29.91	270	P	P	05 48 35.4	-1.3
	comp=Z,2.8nm,1.2s						
KMBO	Kilima Mbogo	30.76	272	LR	LR	05 58 51.3	
	comp=Z,480nm,21.7s,baz=98,slow=32						
LODK	Lodwar	33.19	280	P	P	05 49 04.7	-0.9
	comp=Z,4.5nm,1.2s						
SDSI	Sungai Dareh	33.47	88	P	P	05 49 08.1	+0.2
	comp=Z,9.2nm,2.1s						
RAYN	Ar Rayn	34.10	321	P	P	05 49 13.2	-0.2
	comp=Z,4.4nm,1.8s						
EVN	Everest	35.52	29	P	P	05 49 26.6	+0.3
	comp=Z,5.3nm,2.1s						
NPW	Naypyitaw	35.59	50	P	P	05 49 26.4	+0.2
NIL	Nilore	36.57	7	P	P	05 49 36.6	+2.2
	comp=Z,22nm,0.5s						
CMAR	Chiang Mai Arr	37.07	54	P	P	05 49 38.9	0.0
	comp=Z,1.4nm,0.4s,baz=236,slow=8.6,SNR=14						
CMAR				LR	LR	06 03 04.5	
	comp=Z,624nm,22.0s,baz=240,slow=33						
	comp=Z,1.4nm,0.4s						
CMAR	Chiang Mai Arr	37.07	54		P	05 49 39.1	+0.3
MORE	Moreh	37.09	42	P	P	05 49 40.7	+1.8
KBL	Kabul	37.13	1	P	P	05 49 39.5	+0.1
KBL				IAmb	IAmb	05 50 09.1	
	comp=Z,18nm,1.4s						
KBL	Kabul	37.13	1	P	P	05 49 40.5	+1.1
	comp=Z,9.5nm,1.2s						
CHTO	Chiang Mai	37.25	54		P	05 49 41.8	+1.3
CHTO				IAmb	IAmb	05 50 09.2	
	comp=Z,16nm,1.1s						
CHTO	Chiang Mai	37.25	54	P	P	05 49 41.8	+1.3
	comp=Z,11nm,1.6s						
MBAR	Mbarara	37.29	273	LR	LR	06 03 43.5	
	comp=Z,296nm,20.0s,baz=68,slow=34						
PPBI	Pangkal Pinang	38.12	90	P	P	05 49 48.9	+1.0
LSA	Lhasa	39.17	33	P	P	05 49 55.9	-1.1
LSA				IAmb	IAmb	05 50 25.9	
	comp=Z,21nm,1.3s						
LSA	Lhasa	39.17	33	P	P	05 49 57.4	+0.4
	comp=Z,13nm,1.7s						
LEM	Lembang	39.68	97	LR	LR	06 03 24.6	
	comp=Z,602nm,21.7s,baz=180,slow=32						
LSZ	Lusaka	41.13	250	LR	LR	06 05 00.4	
	comp=Z,1µm,18.5s,baz=104,slow=33						
LSZ	Lusaka	41.13	250	P	P	05 50 13.3	+0.2
CTJI	Waduk Cacaban	41.25	97	P	P	05 50 14.7	+0.7
	comp=Z,27nm,0.6s						
DRK	Karamyk	42.19	4	P	P	05 50 21.5	-0.2
KSH2	Kashi	42.29	9	P	P	05 50 24.0	+1.7
KSH2				pP	pwP	05 50 29.3	-0.2
KSH2				pmax	pmax		
	comp=Z,9.0nm,1.3s						
KSH2				LR	LR		
	comp=N,550nm,20.4s						
KSH2				LR	LR		
	comp=E,310nm,15.3s						
KSH2				LR	LR		
	comp=Z,800nm,18.6s						
MATP	Matopo	42.30	242	LR	LR	06 05 59.1	
	comp=Z,426nm,20.4s,baz=104,slow=33						
SLVN	Son La	42.54	54		P	05 50 24.8	+0.3
SLVN	Son La	42.54	54	P	P	05 50 25.2	+0.8
	comp=Z,7.3nm,1.4s						
BTK	Batken	42.70	3	P	P	05 50 25.4	-0.2
BTK				IAmb	IAmb	05 50 29.3	
	comp=Z,15nm,1.2s						
BTK	Batken	42.70	3	P	P	05 50 26.6	+1.1
	comp=Z,11nm,1.1s						
ASAI	AK-SAY(Kyrgyzs	44.18	9	P	P	05 50 39.0	+1.3
	comp=Z,5.8nm,1.9s						
ARK	Arkit	44.51	4	P	P	05 50 40.3	+0.2
	comp=Z,5.2nm,1.3s						
WUS	Wushi	44.95	12	P	P	05 50 45.0	+1.4
WUS				IAmb	IAmb	05 50 46.9	
	comp=Z,16nm,1.5s						
WUS	Wushi	44.95	12	P	P	05 50 44.7	+1.1
	comp=Z,8.2nm,1.6s						
TARG	Taragay, Kyrgy	45.18	10	P	P	05 50 46.3	+0.5
	comp=Z,4.4nm,1.8s						
H04N2	CROZET ISLANDS	45.47	196	T	T	06 39 49.0	
	baz=19,slow=76,SNR=9.1						
H04N1	CROZET ISLANDS	45.48	196	T	T	06 39 57.5	
	baz=19,slow=76,SNR=11						
H04N3	CROZET ISLANDS	45.49	196	T	T	06 39 57.3	
	baz=19,slow=76,SNR=7.9						
ASF	Jabal al Asfar	45.58	322	LR	LR	06 08 32.1	
	comp=Z,280nm,20.9s,baz=161,slow=34						
AAK	Ala-Archa	45.58	7	LR	LR	06 10 02.8	
	comp=Z,355nm,19.9s,baz=186,slow=36						
AAK	Ala-Archa	45.58	7	P	P	05 50 50.2	+1.5
AAK				IAmb	IAmb	05 50 57.2	
	comp=Z,18nm,1.4s						
AAK	Ala-Archa	45.58	7	P	P	05 50 49.4	+0.8
	comp=Z,9.5nm,1.7s						
KKAR	Karatay Array	45.72	3		P	05 50 51.0	+1.4
LBTB	Lobatse	46.41	238	LR	LR	06 08 06.0	
	comp=Z,638nm,21.9s,baz=72,slow=33						
PDGK	Podgornoye	47.05	11	P	P	05 51 00.1	-0.1
MMAI	Mount Meron Ar	47.07	322	LR	LR	06 09 08.0	
	comp=Z,226nm,21.5s,baz=120,slow=34						
GNI	Garni	47.73	336	LR	LR	06 10 25.1	
	comp=Z,117nm,21.4s,baz=134,slow=35						
BOSA	Boshof	48.09	233	LR	LR	06 08 22.1	
	comp=Z,408nm,21.3s,baz=42,slow=32						
KKM	Kota Kinabalu	48.95	80	P	P	05 51 15.6	+0.3
	comp=Z,8.2nm,0.5s						
ANDN	Andirin	49.73	327	P	P	05 51 21.6	+0.7
	comp=Z,32nm,1.6s						
MAKZ	Makanchi	50.89	12	P	P	05 51 29.5	0.0
	comp=Z,3.8nm,1.6s						
MKAR	Makanchi Array	50.94	13	P	P	05 51 28.4	-1.4
	comp=Z,0.8nm,0.7s,baz=179,slow=7.2,SNR=6.8						
MKAR				LR	LR	06 13 50.0	
	comp=Z,159nm,18.5s,baz=162,slow=37						
	comp=Z,0.8nm,0.7s						
MKAR	Makanchi Array	50.94	13		P	05 51 29.1	-0.8
LZDM	Lanzhou Array	50.95	38	P	P	05 51 30.3	-0.2
	comp=Z,0.9nm,0.3s,baz=215,slow=9.8,SNR=1.5						
	comp=Z,0.9nm,0.3s						
LZH	Lanzhou	51.13	38	*e*P	P	05 51 31.3	-0.3
LZH				sP	pwP	05 51 38.5	+0.1
LZH				S	S	05 58 48.5	-1.3
LZH				pmax	pmax		
	comp=Z,11nm,1.0s						
LZH				LR	LR		
	comp=N,400nm,18.0s						
LZH				LR	LR		
	comp=E,300nm,18.2s						
LZH				LR	LR		
	comp=Z,680nm,19.1s						
GTA2	Gaotai	51.19	32	*e*P	P	05 51 33.0	+1.0
GTA2				S	S	05 58 56.5	+6.0
GTA2				pmax	pmax		
	comp=Z,6.0nm,1.3s						
GTA2				LR	LR		
	comp=N,770nm,20.9s						
GTA2				LR	LR		
	comp=E,730nm,21.0s						
GTA2				LR	LR		
	comp=Z,1µm,21.9s						
ENH	Enshi	51.46	47	P	P	05 51 34.1	+0.1
	comp=Z,9.9nm,1.0s						
KBZ	Khabaz	51.49	337	P	P	05 51 34.6	+0.7
	comp=Z,2.2nm,0.8s,baz=153,slow=8.8,SNR=4.0						
KBZ				LR	LR	06 14 17.2	
	comp=Z,70nm,20.8s,baz=150,slow=37						
	comp=Z,2.2nm,0.8s						
KAPI	Kappang	51.68	94	LR	LR	06 11 17.9	
	comp=Z,358nm,21.4s,baz=275,slow=34						
TSUM	Tsumeb	51.88	248	LR	LR	06 11 23.6	
	comp=Z,599nm,19.9s,baz=149,slow=34						
BKSI	Bulukumba	52.05	95	P	P	05 51 39.7	+1.0
	comp=Z,14nm,1.8s						
AB31	Akbulak array	52.29	353		P	05 51 40.2	+0.4
ABKAR	Akbulak array	52.29	353		P	05 51 39.7	-0.1
BRTR	Keskin Array B	52.74	327	P	P	05 51 44.0	+0.5
	comp=Z,1.0nm,0.9s,baz=133,slow=10,SNR=4.5						
BRTR				LR	LR	06 14 31.0	
	comp=Z,180nm,18.4s,baz=142,slow=36						
	comp=Z,1.0nm,0.9s						
TOLI2	Tolitoli	52.92	87	P	P	05 51 43.5	-1.7
TOLI2				IAmb	IAmb	05 52 08.0	
	comp=Z,9.9nm,0.9s						
TOLI2	Tolitoli	52.92	87	P	P	05 51 44.2	-0.9
	comp=Z,12nm,1.6s						
SUR	Sutherland	53.12	231	LR	LR	06 10 56.8	
	comp=Z,1µm,21.7s,baz=64,slow=32						
XAN	Xi'an	53.14	43	P	P	05 51 46.8	+0.3
XAN				pmax	pmax		
	comp=Z,15nm,1.6s						
XAN				LR	LR		
	comp=N,400nm,19.2s						
XAN				LR	LR		
	comp=E,310nm,17.9s						
XAN				LR	LR		
	comp=Z,350nm,22.7s						
H01W3	Cape Leeuwin H	53.40	132	T	T	06 49 33.3	
	baz=296,slow=74						
H01W2	Cape Leeuwin H	53.40	132	T	T	06 49 36.0	
	baz=296						
H01W1	Cape Leeuwin H	53.41	132	T	T	06 49 39.5	
	baz=296,slow=74						
AKTO	Aktyubinsk	53.69	352	LR	LR	06 15 34.3	
	comp=Z,146nm,20.2s,baz=172,slow=37						
KURBB	Kurchatov Arra	53.95	8	P	P	05 51 51.7	-0.3
	comp=Z,2.9nm,1.0s,baz=201,slow=7.6,SNR=5.0						
KURBB				LR	LR	06 13 42.8	
	comp=Z,349nm,22.0s,baz=175,slow=35						
	comp=Z,2.9nm,1.0s						
KURK	Kurchatov	54.06	8		P	05 51 53.2	+0.4
KURK	Kurchatov	54.06	8	P	P	05 51 53.3	+0.5
	comp=Z,7.7nm,1.3s						
BVAR	Borovoye Array	55.63	2	P	P	05 52 03.8	-0.4
	comp=Z,0.6nm,0.4s,baz=187,slow=7.1,SNR=4.0						
	comp=Z,0.6nm,0.4s						
BORK	Borovoye	55.65	2	P	P	05 52 04.8	+0.5
ZAA0	Zalesovo Array	58.24	12		P	05 52 23.1	+0.5
ZAA0				IAmb	IAmb	05 52 24.3	
	comp=Z,11nm,1.4s						
ZALV	Zalesovo Beam	58.24	12	P	P	05 52 22.5	-0.2
	comp=Z,2.4nm,0.8s,baz=219,slow=3.7,SNR=9.1						
ZALV				LR	LR	06 17 49.6	
	comp=Z,242nm,19.2s,baz=220,slow=36						
	comp=Z,2.4nm,0.8s						
ZALV	Zalesovo Beam	58.24	12		P	05 52 21.9	-0.7
DAV	Davao City (W)	58.30	80	LR	LR	06 15 52.6	
	comp=Z,170nm,21.6s,baz=294,slow=34						
FITZ	Fitzroy Crossi	58.46	109	P	P	05 52 25.0	+0.2
	comp=Z,2.7nm,0.9s,baz=290,slow=12,SNR=5.0						
FITZ				LR	LR	06 14 05.5	
	comp=Z,138nm,20.6s,baz=331,slow=32						
	comp=Z,2.7nm,0.9s						
FITZ	Fitzroy Crossi	58.46	109	IAmb	IAmb	05 52 32.7	
	comp=Z,4.2nm,1.4s						
FITZ	Fitzroy Crossi	58.46	109	P	P	05 52 25.0	+0.2
	comp=Z,1.9nm,1.0s						
ARTI	Arti	59.48	354	P	P	05 52 31.2	0.0
ARTI				IAmb	IAmb	05 52 50.0	
	comp=Z,12nm,1.1s						
SONM	Songino Array	60.54	29	P	P	05 52 39.3	+0.4
	comp=Z,3.7nm,0.9s,baz=216,slow=6.9,SNR=16						
SONM				LR	LR	06 18 43.8	
	comp=Z,1µm,20.8s,baz=232,slow=36						
	comp=Z,3.7nm,0.9s						
SONM	Songino Array	60.54	29		P	05 52 39.8	+0.9
VRI	Vrincioaia	60.64	328	P	P	05 52 39.2	-0.3
	comp=Z,17nm,1.6s						
MLR	Muntele Rosu	60.82	327	P	P	05 52 41.4	+0.6
	comp=Z,6.6nm,1.6s						
ULN	Ulaanbaatar	60.88	29		P	05 52 41.0	-0.2
ULN				IAmb	IAmb	05 52 44.9	
	comp=Z,11nm,1.4s						
ULN	Ulaanbaatar	60.88	29	P	P	05 52 40.9	-0.4
	comp=Z,6.1nm,1.6s						
TESR	Tescani	61.11	329	P	P	05 52 42.1	-0.5
	comp=Z,12nm,0.5s						
VOIR		61.27	327	P	P	05 52 42.8	-1.0
	comp=Z,3.7nm,1.5s						
ARR	Arges	61.45	327	P	P	05 52 44.5	-0.5
	comp=Z,4.4nm,2.4s						
PHP	Peshkopia	61.76	321	P	P	05 52 47.1	-0.1
	comp=Z,7.1nm,1.0s						
TLY	Talaya	62.12	24	LR	LR	06 21 24.3	
	comp=Z,120nm,19.4s,baz=213,slow=38						
BURAR	Bucovina Array	62.57	329		P	05 52 52.4	-0.1
AKASG	Malin Array Be	62.73	333	P	P	05 52 52.6	-0.8
	comp=Z,0.4nm,0.6s,baz=126,slow=5.8,SNR=7.9						
	comp=Z,0.4nm,0.6s						
KIEV	Kiev	62.73	333	P	P	05 52 54.1	+0.7
	comp=Z,4.2nm,1.4s						
KIRV	Kirov	62.94	349	LR	LR	06 22 38.2	
	comp=Z,141nm,18.7s,baz=152,slow=38						
TRPA	Tarpa	64.29	328	P	P	05 53 04.5	+0.7
	comp=Z,7.5nm,1.7s						
DL2	Dalian	64.41	44	*e*P	P	05 53 05.0	+0.3
DL2				S	S	06 01 42.8	-0.6
DL2				pmax	pmax		
	comp=Z,54nm,1.2s						
DL2				LR	LR		
	comp=N,530nm,16.8s						
DL2				LR	LR		
	comp=E,570nm,16.1s						
DL2				LR	LR		
	comp=Z,540nm,18.9s						
MAW	Mawson	64.81	182	LR	LR	06 14 27.7	
	comp=Z,521nm,21.7s,baz=352,slow=30						
MAW	Mawson	64.81	182	P	P	05 53 07.5	+0.7
	comp=Z,1.3nm,1.3s						
JOW	Kunigami	65.11	59	LR	LR	06 23 35.9	
	comp=Z,177nm,18.2s,baz=66,slow=38						
MORH	Mrgy, Hungar	65.34	325	P	P	05 53 10.7	0.0
	comp=Z,5.2nm,2.0s						
WRA	Warramunga Arr	66.84	110	P	P	05 53 20.2	-0.7
	comp=Z,4.3nm,1.2s,baz=276,slow=6.8,SNR=13						
	comp=Z,4.3nm,1.2s						
WRA	Warramunga Arr	66.84	110		P	05 53 20.9	0.0
ASAR	Alice Springs	66.86	114	P	P	05 53 20.3	-0.7
	comp=Z,0.9nm,0.7s,baz=278,slow=5.9,SNR=7.9						
ASAR				LR	LR	06 18 26.3	
	comp=Z,136nm,21.4s,baz=304,slow=32						
	comp=Z,0.9nm,0.7s						
ASAR	Alice Springs	66.86	114	P	P	05 53 21.5	+0.5
WB0	Warramunga Arr	66.88	110	P	P	05 53 21.2	+0.1
WR8	Warramunga Arr	67.00	110	P	P	05 53 21.7	-0.2
NRCA	Norcia	67.03	319	P	P	05 53 21.1	-0.7
JAVC	Velka Javorina	67.35	327	*e*P	P	05 53 24.2	+0.6
MORC	Moravsky Berou	67.93	327	P	P	05 53 27.7	+0.5
MORC				IAmb	IAmb	05 53 34.0	
	comp=Z,13nm,1.5s						
MORC	Moravsky Berou	67.93	327	*e*P	P	05 53 27.7	+0.5
KRUC	Moravsky	68.16	326	*e*P	P	05 53 28.5	-0.2
VRAC	Vranov	68.19	327	*e*P	P	05 53 28.8	0.0
KSRS	Korea Array	68.34	48	P	P	05 53 30.3	+0.3
	comp=Z,1.5nm,0.9s,baz=248,slow=9.5,SNR=2.4						
	comp=Z,1.5nm,0.9s						
HILR	Hailar Array B	68.52	33	P	P	05 53 32.0	+1.0
	comp=Z,1.5nm,0.5s,baz=223,slow=7.7,SNR=1.6						
	comp=Z,1.5nm,0.5s						
MOA	Molln	68.74	324	P	P	05 53 33.2	+0.9
	comp=Z,6.3nm,1.8s						
JNU	Nakatsue	69.16	53	LR	LR	06 25 19.7	
	comp=Z,242nm,18.7s,baz=250,slow=37						
FUORN	Ofenpass-Fuorn	70.56	322	P	P	05 53 44.0	+0.1
FUORN				IAmb	IAmb	05 54 12.1	
	comp=Z,11nm,1.1s						
FUORN	Ofenpass-Fuorn	70.56	322	P	P	05 53 42.7	-1.2
	comp=Z,14nm,1.6s						
DAVA	Damuels	71.09	322	P	P	05 53 46.4	-0.6
	comp=Z,15nm,1.1s						
UBR	Ueberruh	71.13	323	P	P	05 53 47.4	+0.3
	comp=Z,18nm,1.5s						
CLL	Collm	71.20	327	*e*P	P	05 53 48.0	+0.7
CLL				*e*PcP	PcP	05 54 06.0	-1.3
CLL				*e*SSSS		06 12 00.0	
CLL				LH		06 18 00.0	
CLL				L	L	06 21 00.0	
CLL				AMS	AMS	06 26 00.0	
	comp=Z,100nm,20.5s						
FINES	FINESS Array B	71.64	340	LR	LR	06 28 43.3	
	comp=Z,73nm,18.2s,baz=124,slow=39						
JAY	Jayapura	72.63	92	LR	LR	06 26 59.4	
	comp=Z,46nm,20.0s,baz=344,slow=37						
NRIK	Noril'sk	73.20	7	LR	LR	06 26 59.9	
	comp=Z,160nm,20.8s,baz=188,slow=36						
DBIC	Dimbokro	73.31	278	LR	LR	06 24 12.8	
	comp=Z,122nm,21.6s,baz=130,slow=34						
STKA	Stephens Creek	74.63	122	LR	LR	06 24 39.9	
	comp=Z,111nm,19.6s,baz=242,slow=34						
MJAR	Matsushiro Arr	75.89	51	P	P	05 54 15.4	+0.1
	comp=Z,1.2nm,0.7s,baz=245,slow=3.2,SNR=4.9						
MJAR				LR	LR	06 29 00.7	
	comp=Z,237nm,19.0s,baz=254,slow=37						
	comp=Z,1.2nm,0.7s						
MJAR	Matsushiro Arr	75.89	51	P	P	05 54 17.7	+2.4
MJAR				IAmb	IAmb	05 54 25.0	
	comp=Z,6.7nm,1.4s						
MDT	Midelt	76.96	304	LR	LR	06 28 38.5	
	comp=Z,86nm,20.1s,baz=126,slow=36						
NOA	NORSAR Array B	77.03	335	P	P	05 54 19.8	-1.5
	comp=Z,0.1nm,0.3s,baz=114,slow=5.8,SNR=1.8						
	comp=Z,0.1nm,0.3s						
ARCES	ARCESS Array B	77.64	346	LR	LR	06 30 46.5	
	comp=Z,118nm,19.9s,baz=121,slow=37						
ESDC	Sonseca Array	77.98	311	P	P	05 54 27.0	0.0
	comp=Z,2.0nm,0.9s,baz=110,slow=5.7,SNR=11						
	comp=Z,2.0nm,0.9s						
ESDC	Sonseca Array	77.98	311		P	05 54 27.8	+0.7
CTA	Charters Tower	78.03	110	LR	LR	06 27 54.7	
	comp=Z,67nm,18.7s,baz=234,slow=35						
PMG	Port Moresby	78.87	99	LR	LR	06 30 33.5	
	comp=Z,86nm,20.0s,baz=226,slow=37						
ASAJ	Asahikawa	80.93	45	LR	LR	06 32 16.9	
	comp=Z,145nm,19.5s,baz=269,slow=37						
SNAA	Sanae	81.41	198	LR	LR	06 24 15.3	
	comp=Z,334nm,19.7s,baz=78,slow=31						
EKA	Eskdalemuir Ar	81.66	327	LR	LR	06 31 24.4	
	comp=Z,19nm,21.1s,baz=35,slow=36						
VNA2	Neumayer--Watz	82.63	199	P	P	05 54 50.8	-0.7
	comp=Z,8.1nm,1.7s						
TIXI	Tiksi	83.78	16	LR	LR	06 33 32.5	
	comp=Z,381nm,19.6s,baz=274,slow=37						
SPITS	Spitsbergen Ar	85.36	351	LR	LR	06 36 19.5	
	comp=Z,115nm,19.8s,baz=106,slow=38						
QSPA	South Pole Qui	87.23	180	P	P	05 55 14.8	0.0
	comp=Z,3.4nm,1.2s,baz=245,slow=2.5,SNR=6.7						
QSPA				LR	LR	06 28 14.9	
	comp=Z,454nm,21.9s,baz=278,slow=32						
	comp=Z,3.4nm,1.2s						
QSPA	South Pole Qui	87.23	180	P	P	05 55 16.3	+1.5
VNDA	Vanda	88.15	167	P	P	05 55 18.6	-0.2
	comp=Z,0.3nm,0.6s,baz=282,slow=4.1,SNR=3.2						
	comp=Z,0.3nm,0.6s						
VNDA	Vanda	88.15	167	IAmb	IAmb	05 55 39.2	
	comp=Z,6.8nm,1.5s						
JMIC	Jan Mayen	88.22	341	LR	LR	06 36 24.6	
	comp=Z,92nm,19.5s,baz=36,slow=37						
HNR	Honiara	91.48	99	LR	LR	06 41 05.4	
	comp=Z,72nm,18.0s,baz=336,slow=38						
PETK	Petropavlovsk-	92.02	37	LR	LR	06 39 54.4	
	comp=Z,124nm,18.9s,baz=287,slow=37						
PDAR	Pinedale Array	140.12	357	PKP	PKPdf	06 01 57.5	-0.3
	comp=Z,0.5nm,0.9s,baz=9.7,slow=3.3,SNR=4.0						
NVAR	Mina Array Bea	144.05	8	PKP	PKPdf	06 02 06.0	+1.1
	comp=Z,0.9nm,0.9s,baz=356,slow=5.1,SNR=4.3						
TXAR	Lajitas Array	152.42	344	PKPbc	PKPbc	06 02 25.3	-0.3
	comp=Z,0.8nm,0.8s,baz=22,slow=3.6,SNR=8.9						

IDC ***30*** *05:52:29.0±1.1, 9°.49S×119°.21E, h0^{km}, mb3.8/4, mbtmp3.9/9, ML3.7/5, MS4.6/1, Error ellipse: s-maj=29.6km s-min=12.9km az=65.0*

DJA ***30*** *05:52:33.4±0.3, 10°S±2°×11°9E±°, h10^{km}, M4.2/13, mb4.5/1, MLv4.0/13*

ISC 30 05:52:34.5±1.1**, 9°.81S**±0°.05×**119°.17E**±0°.04**, h44^{km}**±15^{km}**, n28, σ2.^{s}84**/33**, mb3.6**/4**, Sumba region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WSI	Waingapu	1.12	83	P	Pn	05 52 54.1	+0.4
WSI				S	Sn	05 53 10.6	+2.7
BASI	Baing, Sumba	1.44	106	P	Pn	05 52 59.0	+0.9
BASI				S	Sn	05 53 19.2	+3.3
BASI				AML	AML		
LBFI	Labuhan Bajo,	1.50	28	P	Pn	05 52 59.3	+0.3
DBNI	Kabupaten Domp	1.56	327	P	Pn	05 52 59.5	-0.2
DBNI				S	Sn	05 53 19.7	+1.0
DBNI				AML	AML		
PLAI	Plampang	1.69	305	P	Pn	05 53 00.1	-1.5
PLAI				S	Sn	05 53 22.4	+0.4
PLAI				AML	AML		
TWSI	Taliwang, Sumb	2.50	295	P	Pn	05 53 13.2	+0.5
TWSI				AML	AML		
EDFI	Ende, Flores	2.70	67	P	Pn	05 53 15.9	+0.4
EDFI				S	Sn	05 53 51.0	+4.0
EDFI				AML	AML		
BSSI	Bau Bau, Buton	3.87	20	P	Pn	05 53 32.8	+1.2
BSSI				S	Sn	05 54 18.7	+2.9
BSSI				AML	AML		
IGBI	Denpasar	4.10	284	P	Pn	05 53 36.1	+1.5
IGBI				S	Sn	05 54 24.0	+2.7
IGBI				AML	AML		
RTBI	Rangdo, Negare	4.39	288	P	Pn	05 53 40.4	+1.7
RTBI				AML	AML		
BATI	Baumata	4.44	95	Pn	Pn	05 53 37.6	-1.8

	11nm,0.3s,baz=207,slow=2.3,SNR=1.9						
	117nm,0.7s						
BATI				AML	AML		
BKSI	Bulukumba	4.56	12	P	Pn	05 53 42.2	+1.2
BKSI				S	Sn	05 54 34.8	+2.0
BKSI				AML	AML		
MKS	Makassar	4.58	4	P	Pn	05 53 43.3	+2.1
MKS				S	Sn	05 54 35.6	+2.5
MKS				AML	AML		
KAPI	Kappang	4.80	7	Pn	Pn	05 53 40.2	-4.1
	3.7nm,0.3s,baz=191,slow=5.2,SNR=1.9						
KAPI				Sn	Sn	05 54 34.9	-3.9
	2.0nm,0.3s,baz=204,slow=12,SNR=3.5						
KAPI				LR	LR	05 55 33.4	
	comp=Z,148nm,20.8s,baz=154,slow=41						
	7.5nm,0.3s						
KAPI				AML	AML		
FITZ	Fitzroy Crossi	10.35	143	Pn	Pn	05 55 01.1	+0.6
	0.2nm,0.3s,baz=320,slow=8.9,SNR=6.3						
FITZ				Sn	Sn	05 56 50.7	-4.4
	0.3nm,0.3s,baz=343,slow=19,SNR=3.2						
	1.5nm,0.7s						
FITZ				AML	AML		
WRA	Warramunga Arr	17.77	126	P	P	05 56 39.1	0.0
	0.2nm,0.3s,baz=302,slow=13,SNR=17						
WRA				S	Sn	05 59 46.6	-9.4
	0.7nm,0.8s,baz=303,slow=24,SNR=2.3						
	2.1nm,0.7s						
WRA				AML	AML		
ASAR	Alice Springs	19.69	136	P	Pn	05 57 03.0	+1.1
	0.2nm,0.3s,baz=325,slow=13,SNR=9.7						
	1.2nm,0.6s						
ASAR				AML	AML		
H08S2	Diego Garcia H	46.16	269	T	T	06 50 04.8	
	baz=96,slow=75,SNR=57						
H08S3	Diego Garcia H	46.17	269	T	T	06 50 06.3	
	baz=96,slow=75,SNR=87						
H08S1	Diego Carcia H	46.18	269	T	T	06 50 05.6	
	baz=96,slow=75,SNR=18						
MKAR	Makanchi Array	65.25	333	P	P	06 03 09.5	-2.2
	0.2nm,0.4s,baz=134,slow=6.2,SNR=3.9						
	0.2nm,0.4s						
H04N2	CROZET ISLANDS	67.34	224	T	T	07 17 02.8	
	baz=82,slow=75						
H04N1	CROZET ISLANDS	67.35	224	T	T	07 17 04.1	
	baz=82,slow=75						
H04N3	CROZET ISLANDS	67.35	224	T	T	07 17 01.4	
	baz=82,slow=75						
KURBB	Kurchatov Arra	69.77	334	P	P	06 03 39.7	-0.4
	1.1nm,0.2s,baz=133,slow=5.2,SNR=1.9						
	1.1nm,0.2s						
ZALV	Zalesovo Beam	69.86	339	P	P	06 03 40.8	+0.3
	0.3nm,0.5s,baz=132,slow=4.3,SNR=2.2						
	0.3nm,0.5s						
SEY	Seymchan	76.90	15	LR	LR	06 37 22.9	
	comp=Z,430nm,21.8s,baz=274,slow=35						
QSPA	South Pole Qui	80.19	180	P	P	06 04 42.7	+2.5
	0.9nm,0.9s,baz=18,slow=2.1,SNR=2.2						
	0.9nm,0.9s						

UCR ***30*** *05:59:51.7±1.1, 10°.19N×84°.21W, h88^{km}±1^{km}, MW4.4, Presumed earthquake*

CATAC ***30*** *05:59:52.7±0.2, 10°N±2°×8°4W±°, h69^{km}±3^{km}, M3.8/25, MLv3.8/25, Error ellipse: s-maj=5.5km s-min=2.3km az=47.0, confirmed*

ISC 30 05:59:52.5±1.2**, 10°.13N**±0°.03×**84°.21W**±0°.02**, h87**^{km}±4^{km}**, n153, σ0^{s}.66**/266**, 55C-53D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VPS8	V Poas	0.05	327	⇓*i*P	Pn	06 00 04.8	-0.4
VPS8				*e*S	Sn	06 00 14.6	0.0
VPS5	V. Poas	0.06	341	⇓*i*P	Pn	06 00 04.7	-0.5
VPS5				*e*S	Sn	06 00 14.6	0.0
POAS	San Pedro de P	0.07	208	*e*P	Pn	06 00 04.7	-0.3
POAS				*e*S	Sn	06 00 14.3	+0.1
GREC	Grecia	0.11	238	⇓*e*P	Pn	06 00 05.8	+0.8
GREC				*e*S	Sn	06 00 15.8	+1.5
VBV1	V. Barva	0.11	100	⇑*e*P	Pn	06 00 04.7	-0.5
VBV1				*e*S	Sn	06 00 14.1	-0.6
TCS1	Tacares	0.12	223	P	Pn	06 00 04.7	-0.3
TCS1	Tacares	0.12	223	⇓*i*P	Pn	06 00 04.7	-0.3
TCS1				*e*S	Sn	06 00 14.6	+0.3
SARCI	Sarchi	0.14	252	⇓*i*P	Pn	06 00 03.7	-1.3
SARCI				*e*S	Sn	06 00 13.8	-0.6
HEME	Heredia, Merce	0.16	152	⇑*i*P	Pn	06 00 05.8	+0.7
HEME				*e*S	Sn	06 00 15.7	+1.1
BELE	Belen	0.16	171	⇑*i*P	Pn	06 00 04.6	-0.5
BELE				*e*S	Sn	06 00 14.2	-0.3
HDC	Heredia	0.16	144	P	Pn	06 00 04.4	-0.8
HDC				S	Sn	06 00 13.9	-0.6
HDC	Heredia	0.16	144	⇑*i*P	Pn	06 00 04.8	-0.4
HDC				*e*S	Sn	06 00 14.9	+0.3
NARAN	Naranjo de Ala	0.17	258	⇓*i*P	Pn	06 00 04.8	-0.3
NARAN				*e*S	Sn	06 00 14.9	+0.3
ZARE	Zarcero	0.18	286	⇓*i*P	Pn	06 00 05.1	-0.3
ZARE				*e*S	Sn	06 00 15.4	+0.6
DOMI	Santo Domingo	0.19	142	⇑*i*P	Pn	06 00 05.0	-0.2
DOMI				*e*S	Sn	06 00 15.0	+0.3
VPL1	V. Platanar	0.19	309	⇓*i*P	Pn	06 00 05.0	-0.4
SANTA	Santa Ana	0.20	172	⇑*i*P	Pn	06 00 04.7	-0.6
SANTA				*e*S	Sn	06 00 14.5	-0.2
ARTO	Ro Cuarto	0.21	359	⇓*i*P	Pn	06 00 04.5	-0.7
ARTO				*e*S	Sn	06 00 14.2	-0.4
PAVB	Pavas, San Jos	0.21	154	⇑*i*P	Pn	06 00 04.8	-0.5
PAVB				*e*S	Sn	06 00 14.6	-0.3
TIBA	Tibas	0.22	141	*e*P	Pn	06 00 05.0	-0.4
TIBA				*e*S	Sn	06 00 14.9	-0.1
ATEO	Atenas	0.23	227	⇓*i*P	Pn	06 00 04.7	-0.6
ATEO				*e*S	Sn	06 00 14.2	-0.6
MEXI	Barrio Mexico	0.23	147	⇑*i*P	Pn	06 00 05.1	-0.3
MEXI				*e*S	Sn	06 00 15.4	+0.4
PALD	Palmares	0.23	250	⇓*i*P	Pn	06 00 04.7	-0.7
PALD				*e*S	Sn	06 00 14.3	-0.6
VPL3	V. Platanar	0.23	336	⇓*i*P	Pn	06 00 04.8	-0.5
VPL3				*e*S	Sn	06 00 15.3	+0.4
CENT	San Jose	0.24	147	⇑*i*P	Pn	06 00 05.1	-0.4
CENT				*e*S	Sn	06 00 15.3	+0.2
VPL2	V. Platanar	0.24	316	⇓*i*P	Pn	06 00 05.3	-0.2
LUPE	Guadalupe	0.24	140	⇑*i*P	Pn	06 00 05.0	-0.5
LUPE				*e*S	Sn	06 00 15.1	+0.1
LUJA	Lujan	0.25	146	⇑*i*P	Pn	06 00 05.1	-0.4
LUJA				*e*S	Sn	06 00 15.3	+0.1
SJS	Escuela Geolog	0.25	141	⇑*i*P	Pn	06 00 05.1	-0.4
SJS				*e*S	Sn	06 00 15.4	+0.3
ECI	Escuela Centro	0.25	141	⇑*i*P	Pn	06 00 05.1	-0.5
ECI				*e*S	Sn	06 00 15.5	+0.4
SJS3	Mercedes San J	0.25	141	⇑*i*P	Pn	06 00 05.2	-0.3
SJS3				*e*S	Sn	06 00 15.5	+0.4
RAMO	San Ramon	0.26	260	⇓*e*P	Pn	06 00 04.9	-0.6
RAMO				*e*S	Sn	06 00 15.0	-0.1
CORON	Coronado	0.26	128	⇑*i*P	Pn	06 00 05.3	-0.3
CORON				*e*S	Sn	06 00 15.5	+0.2
SRA1	San Ramn	0.27	260	⇓*i*P	Pn	06 00 04.9	-0.6
SRA1				*e*S	Sn	06 00 15.1	-0.1
AMPA	Desamparados	0.28	148	⇑*e*P	Pn	06 00 05.0	-0.6
AMPA				*e*S	Sn	06 00 15.3	-0.1
CVIMO	Finca Echandi	0.29	112	⇑*i*P	Pn	06 00 09.4	+3.7
CVIMO				*e*S	Sn	06 00 19.5	+3.9
QUEU	Ciudad Quesada	0.29	311	⇓*i*P	Pn	06 00 05.3	-0.3
QUEU				*e*S	Sn	06 00 16.3	+1.0
PURI	Puriscal	0.30	199	⇑*i*P	Pn	06 00 05.3	-0.5
PURI				*e*S	Sn	06 00 15.5	0.0
TRIO	Tres Rios	0.31	137	⇑*i*P	Pn	06 00 05.3	-0.5
TRIO				*e*S	Sn	06 00 15.7	-0.1
TRB2	Turrubares	0.32	227	P	Pn	06 00 05.2	-0.5
TRB2				S	Sn	06 00 15.4	0.0
TRB2	Turrubares	0.32	227	⇑*e*P	Pn	06 00 05.3	-0.4
TRB2				*e*S	Sn	06 00 15.5	0.0
ITAL	Pital	0.32	349	⇓*i*P	Pn	06 00 05.2	-0.5
ITAL				*e*S	Sn	06 00 14.9	-0.6
ACOS	Acosta	0.34	172	⇑*e*P	Pn	06 00 05.4	-0.6
ACOS				*e*S	Sn	06 00 15.8	-0.2
OROT	Orotina	0.38	235	⇑*e*P	Pn	06 00 05.6	-0.5
OROT				*e*S	Sn	06 00 15.7	-0.5
TAGO	Cartago	0.39	133	⇑*i*P	Pn	06 00 06.0	-0.4
TAGO				*e*S	Sn	06 00 17.5	+0.9
VICA	Volcano Irazu	0.39	112	⇑*i*P	Pn	06 00 06.3	-0.4
VICA				*e*S	Sn	06 00 16.1	-1.1
PILE	Guapiles	0.42	79	⇑*i*P	Pn	06 00 06.3	-0.1
PILE				*e*S	Sn	06 00 17.1	+0.4
RAFA	San Farael, Vo	0.43	114	⇑*i*P	Pn	06 00 06.8	0.0
LCR2	La Lucha 2	0.44	152	P	Pn	06 00 06.0	-0.8
LCR2	La Lucha 2	0.44	152	⇑*i*P	Pn	06 00 06.2	-0.6
LCR2				*e*S	Sn	06 00 17.1	-0.2
PCAYA	Pacayas	0.45	119	⇑*i*P	Pn	06 00 06.7	-0.1
PCAYA				*e*S	Sn	06 00 18.3	+0.9
ABE2	San Pablo	0.45	160	*e*P	Pn	06 00 06.0	-0.8
ABE2				*e*S	Sn	06 00 17.8	+0.3
REPA	Paraso	0.46	132	⇑*i*P	Pn	06 00 06.5	-0.3
REPA				*e*S	Sn	06 00 18.0	+0.7
CVTQ	Turrialba Volc	0.46	106	⇑*i*P	Pn	06 00 06.9	-0.1
CVTQ				*e*S	Sn	06 00 18.3	+0.5
CVTR	Volcan Turrial	0.46	104	⇑*i*P	Pn	06 00 06.8	-0.3
CVTR				*e*S	Sn	06 00 18.2	+0.3
VTR0	Volcan Turrial	0.46	105	⇑*i*P	Pn	06 00 06.9	-0.2
VTR0				*e*S	Sn	06 00 19.1	+1.2
ARZA	Esparza	0.47	253	⇓*i*P	Pn	06 00 06.2	-0.5
ARZA				*e*S	Sn	06 00 16.7	-0.6
VTCV	VTCV, Calle Va	0.50	107	⇑*i*P	Pn	06 00 07.1	0.0
VTCV				*e*S	Sn	06 00 19.4	+1.3
ABRB	Las Abras (San	0.50	105	⇑*e*P	Pn	06 00 07.2	0.0
ABRB				*e*S	Sn	06 00 19.6	+1.4
PICV	PH. Pirrs	0.50	178	⇑*e*P	Pn	06 00 06.4	-0.7
PICV				*e*S	Sn	06 00 17.8	0.0
PITB	Pirrs, San	0.51	158	⇑*e*P	Pn	06 00 06.5	-0.8
PITB				*e*S	Sn	06 00 18.2	+0.1
RAZU	San Marcos de	0.51	158	⇑*e*P	Pn	06 00 06.4	-0.8
RAZU				*e*S	Sn	06 00 18.6	+0.5
VINA	Juan Vinas	0.52	117	⇑*i*P	Pn	06 00 07.1	-0.2
VINA				*e*S	Sn	06 00 18.7	+0.5
CARI	Cariari	0.52	64	⇓*i*P	Pn	06 00 06.9	-0.2
CARI				*e*S	Sn	06 00 18.6	+0.6
TURIB	Turrialba	0.56	113	⇑*i*P	Pn	06 00 07.2	-0.3
TURIB				*e*S	Sn	06 00 19.0	+0.2
PIEC	Cerro El Cedra	0.57	154	⇑*i*P	Pn	06 00 07.1	-0.8
VACR	Volcan Arenal	0.57	306	⇓*i*P	Pn	06 00 07.2	-0.3
RESJ	San Isidro (Tu	0.57	100	⇑*i*P	Pn	06 00 07.7	+0.1
RESJ				*e*S	Sn	06 00 20.0	+1.2
CASO	Castillo	0.59	300	⇓*i*P	Pn	06 00 07.4	-0.4
ARE1	Arenal 1	0.59	303	⇓*i*P	Pn	06 00 07.6	-0.2
VARE2	V. Arenal	0.59	303	⇓*i*P	Pn	06 00 07.6	-0.3
CEDE	Laguna Cedeo	0.60	306	⇓*i*P	Pn	06 00 07.6	-0.2
COVE	Coope Vega, Sa	0.61	342	P	Pn	06 00 07.2	-0.8
COVE				S	Sn	06 00 19.4	0.0
RVLA	Villa Bonita	0.61	92	⇑*i*P	Pn	06 00 08.1	+0.2
RVLA				*e*S	Sn	06 00 20.6	+1.2
REZ	Monterrey de S	0.62	309	⇓*i*P	Pn	06 00 07.9	-0.1
TRT2	Tortugero	0.63	48	⇓*i*P	Pn	06 00 07.5	-0.6
ENAS	Puntarenas	0.63	256	*e*P	Pn	06 00 07.6	-0.4
ENAS				*e*S	Sn	06 00 19.8	+0.1
LCOCO	El Coco	0.65	94	⇑*i*P	Pn	06 00 08.2	0.0
LCOCO				*e*S	Sn	06 00 20.8	+0.9
BITO	Garabito Jaco	0.65	218	*e*P	Pn	06 00 08.2	-0.1
BITO				*e*S	Sn	06 00 19.6	-0.3
TABAC	Tabacon	0.66	304	⇓*i*P	Pn	06 00 08.3	-0.1
QUEP	Quepos	0.70	176	P	Pn	06 00 08.3	-0.4
QUEP				S	Sn	06 00 21.4	+0.5
QUEP	Quepos	0.70	176	⇑*i*P	Pn	06 00 08.4	-0.3
QUEP				*e*S	Sn	06 00 21.2	+0.4
JTS	Las Juntas de	0.74	282	P	Pn	06 00 08.5	-0.7
JTS				S	Sn	06 00 22.0	+0.3
JTS	Las Juntas de	0.74	282	⇓*i*P	Pn	06 00 08.7	-0.6
JTS				*e*S	Sn	06 00 21.5	-0.2
CHIK	Chiripa	0.75	294	⇓*i*P	Pn	06 00 09.3	-0.1
CHIK				*e*S	Sn	06 00 23.5	+1.5
JUNT	Juntas	0.75	281	⇓*i*P	Pn	06 00 08.7	-0.6
JUNT				*e*S	Sn	06 00 22.2	+0.4
PAQE	Paquera	0.78	246	*e*P	Pn	06 00 09.5	0.0
PAQE				*e*S	Sn	06 00 23.0	+0.8
TILA	Tilaran	0.82	294	⇓*i*P	Pn	06 00 09.7	-0.3
TILA				*e*S	Sn	06 00 23.5	+0.4
COTE	Lago Cote	0.82	302	⇓*i*P	Pn	06 00 09.6	-0.4
QUEB	Quebradon, Cot	0.83	306	*e*P	Pn	06 00 09.4	-0.8
TAAN	Batan	0.85	93	⇑*i*P	Pn	06 00 10.4	+0.1
TAAN				*e*S	Sn	06 00 24.8	+1.2
TIMP	Tierras Morena	0.91	299	⇓*i*P	Pn	06 00 10.6	-0.4
TIMP				*e*S	Sn	06 00 25.4	+0.4
CNAS	Canas	0.92	289	⇓*i*P	Pn	06 00 10.7	-0.3
CNAS				*e*S	Sn	06 00 25.9	+1.0
ZEDO	Perez Zeledon	0.93	146	⇑*i*P	Pn	06 00 12.0	+0.6
ZEDO				*e*S	Sn	06 00 26.0	+0.6
TENO	El Achiote	0.94	307	⇓*e*P	Pn	06 00 11.0	-0.4
TENO				*e*S	Sn	06 00 26.8	+1.3
LCHIL	Los Chiles	1.02	331	⇓*i*P	Pn	06 00 11.7	-0.6
LCHIL				*e*S	Sn	06 00 26.8	-0.3
NYURE	Nandayure	1.03	262	⇓*i*P	Pn	06 00 12.2	-0.2
NYURE				*e*S	Sn	06 00 27.9	+0.6
SAJE	San Jernim	1.05	138	⇑*i*P	Pn	06 00 11.9	-0.8
SAJE				*e*S	Sn	06 00 26.6	-1.3
CUI	Cuipilapa	1.07	299	⇓*i*P	Pn	06 00 12.6	-0.3
CUI				*e*S	Sn	06 00 28.4	+0.2
UPAL	Upala	1.09	314	P	Pn	06 00 12.4	-0.7
UPAL				S	Sn	06 00 27.9	-0.6
UPAL	Upala	1.09	314	⇓*i*P	Pn	06 00 12.5	-0.5
UPAL				*e*S	Sn	06 00 28.1	-0.4
HORNC	Hornillas	1.11	301	⇓*i*P	Pn	06 00 13.0	-0.4
HORNC				*e*S	Sn	06 00 29.1	0.0
VMAR	Armenia, Volca	1.11	307	⇓*i*P	Pn	06 00 13.0	-0.4
VMAR				*e*S	Sn	06 00 28.4	-0.7
MESS	Mesas	1.14	302	⇓*i*P	Pn	06 00 13.4	-0.3
MESS				*e*S	Sn	06 00 30.0	+0.4
CLARA	Aguas Claras	1.15	304	⇓*i*P	Pn	06 00 13.3	-0.5
EDPE	Pejibaye, P	1.16	147	⇑*i*P	Pn	06 00 13.8	-0.1
EDPE				*e*S	Sn	06 00 30.1	+0.2
CMARA	Lajas Hojancha	1.20	265	P	Pn	06 00 14.0	-0.4
CMARA				S	Sn	06 00 31.3	+0.4
CMARA	Lajas Hojancha	1.20	265	⇓*i*P	Pn	06 00 13.9	-0.5
CMARA				*e*S	Sn	06 00 31.1	+0.2
GPS2	Hotel Rincn d	1.28	299	⇓*i*P	Pn	06 00 15.1	-0.3
GPS2				*e*S	Sn	06 00 32.7	0.0
BURE	Buenos Aires	1.29	138	⇑*e*P	Pn	06 00 14.9	-0.6
BURE				*e*S	Sn	06 00 32.1	-0.6
DRK0	Durika	1.29	132	⇑*i*P	Pn	06 00 00.5	-15
DRK0				*e*S	Sn	06 00 18.0	-15
GPS3	Bodega del ICE	1.29	299	⇑*e*P	Pn	06 00 17.3	+1.7
GPS3				*e*S	Sn	06 00 34.4	+1.5
JUD3	Juan Diaz 3	1.31	272	⇓*i*P	Pn	06 00 15.5	-0.2
VORI	VORI	1.31	301	⇓*i*P	Pn	06 00 15.5	-0.4
VORI				*e*S	Sn	06 00 34.5	+1.1
VRLE	La Escondida,	1.31	300	⇓*i*P	Pn	06 00 15.1	-0.7
VRLE				*e*S	Sn	06 00 33.6	+0.3
PEJA	Penjamo Buenos	1.32	305	⇓*i*P	Pn	06 00 15.6	-0.3
PEJA				*e*S	Sn	06 00 33.6	+0.1
BUAI	Buenos Aires	1.33	304	⇓*i*P	Pn	06 00 15.2	-0.7
BUAI				*e*S	Sn	06 00 33.9	+0.2
LAPC	Finca la Perla	1.36	298	⇓*i*P	Pn	06 00 15.8	-0.6
LAPC				*e*S	Sn	06 00 33.6	-0.7
PANP	Palmar Norte	1.38	147	*e*P	Pn	06 00 16.3	-0.3
ALIBA	Liberia Airpor	1.39	289	⇓*e*P	Pn	06 00 16.6	-0.1
ALIBA				*e*S	Sn	06 00 35.3	+0.3
FIMO	Fila Mora	1.42	143	*e*P	Pn	06 00 17.1	-0.1
EDP2	Potrero Grande	1.51	137	⇑*i*P	Pn	06 00 18.1	-0.2
EDP2				*e*S	Sn	06 00 38.4	+0.7
CARN	Rivas	1.66	309	P	Pn	06 00 19.6	-0.5
CARN				S	Sn	06 00 41.4	+0.3
CARN	Rivas	1.66	309	⇓*i*P	Pn	06 00 19.8	-0.3
RGM0	Gandoca	1.67	109	P	Pn	06 00 19.5	-0.8
RGM0				S	Sn	06 00 40.6	-0.8
LCRUZ	La Cruz	1.68	304	*e*P	Pn	06 00 19.9	-0.5
VITO	San Vito	1.79	137	*e*P	Pn	06 00 21.9	-0.1
BLUN	Bluefields	1.91	13	P	Pn	06 00 22.8	-0.7
BLUN				S	Sn	06 00 45.7	-1.2
SCLRA	Santa Clara, W	1.91	132	*e*P	Pn	06 00 23.7	+0.1
PIRO	Carate, Puerto	1.92	153	P	Pn	06 00 24.6	+1.0
PIRO				S	Sn	06 00 47.6	+0.3
PIRO	Carate, Puerto	1.92	153	*e*P	Pn	06 00 24.2	+0.6
NELY	Ciudad Neily	1.93	140	*e*P	Pn	06 00 22.9	-0.8
MORN	Al O del Volca	1.99	315	P	Pn	06 00 24.2	-0.3
JAPN	Al SSO del Vol	2.00	314	P	Pn	06 00 24.5	-0.1
BRU2	Volcan	2.01	131	P	Pn	06 00 24.9	0.0
BRU2				S	Sn	06 00 49.6	+0.2
BRU2	Volcan	2.01	131	⇑*i*P	Pn	06 00 24.8	-0.1
BRU2				*e*S	Sn	06 00 49.0	-0.5
CDITO	Canoas	2.04	139	P	Pn	06 00 24.3	-0.9
CDITO				S	Sn	06 00 48.8	-1.2
ACON	Acoyapa	2.05	333	P	Pn	06 00 25.0	-0.3
ACON				S	Sn	06 00 50.0	-0.4
CLLRA	Cordillera,	2.10	131	⇑*i*P	Pn	06 00 26.1	0.0
BQTLY	Boquete Panama	2.20	128	*e*P	Pn	06 00 27.1	-0.3
PBNVO	Pueblo Nuevo,	2.34	122	⇑*i*P	Pn	06 00 29.0	-0.2
RBALA	Bur	2.38	121	*e*P	Pn	06 00 29.0	-0.7
NADN	Granada	2.40	312	P	Pn	06 00 29.8	-0.2
NADN				S	Sn	06 00 58.8	+0.2
BGUAL	Bijagual, Pana	2.46	131	*e*P	Pn	06 00 30.5	-0.2
BOAB	BOACO BROADBAN	2.71	328	P	Pn	06 00 33.4	-0.6
BOAB				S	Sn	06 01 05.9	-0.1
MOMN	Momotombo	3.21	315	S	Sn	06 01 18.5	+0.2
MATN	Matagalpa	3.25	329	P	Pn	06 00 41.2	-0.2
CNGA	Al SSO del Vol	3.39	314	P	Pn	06 00 44.1	+0.9
CNGN	Cerro Negro	3.39	314	P	Pn	06 00 43.7	+0.5
ROCN	Rota Cerro Neg	3.43	314	P	Pn	06 00 43.7	-0.1
ROCN				S	Sn	06 01 24.9	+1.3
ILCN	San Idelfonso	3.44	315	P	Pn	06 00 43.4	-0.5
ILCN				S	Sn	06 01 24.6	+0.9
PLRN	Geotermica Pol	3.50	314	P	Pn	06 00 45.1	+0.4
PLRN				S	Sn	06 01 25.7	+0.7
RCVN	Varillal2	3.94	331	P	Pn	06 00 51.1	+0.3

IDC ***30*** *06:23:01.7±1.2, 31°.54S×76°.71E, h0^{km}, mb3.9/9, mbtmp3.9/9, MS3.4/7, Error ellipse: s-maj=41.3km s-min=27.9km az=62.0*

ISC 30 06:23:03.4±1.1**, 31°.5S**±0°.2×**76°.7E**±0°.3**, h10**^{km}**, n28, σ1^{s}.14**/9**, mb3.9**/9**, MS3.5**/7**, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H08S2	Diego Garcia H	24.09	350	T	T	06 53 19.2	
	baz=172,slow=76,SNR=104						
H08S1	Diego Carcia H	24.09	350	T	T	06 53 19.4	
	baz=172,slow=76,SNR=39						
H08S3	Diego Garcia H	24.11	350	T	T	06 53 20.7	
	baz=172,slow=76,SNR=253						
H04N2	CROZET ISLANDS	24.14	226	T	T	06 53 18.2	
	baz=61,slow=74,SNR=1116						
H04N1	CROZET ISLANDS	24.16	226	T	T	06 53 12.5	
	baz=61,slow=74,SNR=1540						
H04N3	CROZET ISLANDS	24.16	226	T	T	06 53 11.7	
	baz=61,slow=74,SNR=1369						
H04S1	CROZET ISLANDS	24.41	224	T	T	06 53 33.0	
	baz=60,slow=76,SNR=182						
H04S3	CROZET ISLANDS	24.42	224	T	T	06 53 35.3	
	baz=60,slow=76,SNR=563						
H04S2	CROZET ISLANDS	24.42	224	T	T	06 53 35.2	
	baz=60,slow=76,SNR=185						
H01W2	Cape Leeuwin H	31.38	106	T	T	07 02 33.2	
	baz=265						
H01W3	Cape Leeuwin H	31.38	106	T	T	07 02 28.5	
	baz=265,SNR=5.1						
H01W1	Cape Leeuwin H	31.40	106	T	T	07 02 49.0	
	baz=265						
MAW	Mawson	37.02	189	LR	LR	06 43 00.3	
	comp=Z,63nm,21.7s,baz=308,slow=32						
BOSA	Boshof	44.28	260	LR	LR	06 47 19.8	
	comp=Z,33nm,18.2s,baz=30,slow=33						
LBTB	Lobatse	45.14	265	LR	LR	06 47 40.2	
	comp=Z,56nm,19.2s,baz=100,slow=33						
SUR	Sutherland	46.95	253	LR	LR	06 47 18.7	
	comp=Z,56nm,19.4s,baz=134,slow=31						
ASAR	Alice Springs	50.82	96	P	P	06 32 03.5	-0.9
	0.4nm,0.6s,baz=251,slow=7.1,SNR=7.7						
	0.4nm,0.6s						
WRA	Warramunga Arr	52.67	92	P	P	06 32 17.6	-0.6
	0.3nm,0.7s,baz=243,slow=7.5,SNR=2.1						
	0.3nm,0.7s						
CMAR	Chiang Mai Arr	54.10	26	P	P	06 32 28.6	+0.1
	0.8nm,0.3s,baz=163,slow=8.5,SNR=1.3						
	0.8nm,0.3s						
QSPA	South Pole Qui	58.61	180	P	P	06 33 00.8	+0.5
	0.7nm,0.7s,baz=304,slow=7.3,SNR=1.8						
	0.7nm,0.7s						
PMG	Port Moresby	68.51	88	LR	LR	07 02 19.7	
	comp=Z,55nm,18.3s,baz=166,slow=34						
MKAR	Makanchi Array	78.13	4	P	P	06 35 01.8	-0.6
	0.9nm,0.8s,baz=198,slow=9.1,SNR=5.0						
	0.9nm,0.8s						
BRTR	Keskin Array B	81.38	328	P	P	06 35 18.8	-1.6
	0.7nm,0.8s,baz=157,slow=7.3,SNR=2.6						
	0.7nm,0.8s						
KURBB	Kurchatov Arra	81.81	1	P	P	06 35 23.2	+1.0
	1.0nm,0.3s,baz=196,slow=6.5,SNR=2.3						
	1.0nm,0.3s						
SONM	Songino Array	83.39	20	P	P	06 35 32.3	+1.6
	0.6nm,0.6s,baz=200,slow=3.8,SNR=2.5						
	0.6nm,0.6s						
KSRS	Korea Array	83.66	39	LR	LR	07 12 17.9	
	comp=Z,8.3nm,18.1s,baz=85,slow=35						
ZALV	Zalesovo Beam	85.42	5	P	P	06 35 40.9	+0.3
	1.3nm,0.6s,baz=198,slow=4.1,SNR=7.2						
	1.3nm,0.6s						
DBIC	Dimbokro	86.30	280	LR	LR	07 10 59.8	
	comp=Z,24nm,20.7s,baz=114,slow=33						

CATAC ***30*** *06:39:34.6±0.4, 14°N±3°×9°2W±°, h13^{km}±3^{km}, M4.0/31, MLv4.0/31, Error ellipse: s-maj=6.9km s-min=3.9km az=44.3, confirmed*

GCG ***30*** *06:39:34.3±1.6, 13°.94N×91°.59W, h29^{km}±6^{km}, MD4.5, ML4.3, Presumed earthquake*

IDC ***30*** *06:39:35.7±2.3, 14°.01N×91°.68W, h58^{km}±19^{km}, mb3.2/3, mbtmp3.5/6, ML3.7/3, MS2.5/1, Error ellipse: s-maj=21.7km s-min=11.1km az=16.0*

SNET ***30*** *06:39:38.4±4.3, 14°.29N×91°.31W, h61^{km}, ML3.9, Presumed earthquake*

ISC 30 06:39:34.3±1.3**, 13°.88N**±0°.08×**91°.67W**±0°.06**, h49**^{km}±12^{km}**, n67, σ1^{s}.04**/106**, mb3.6**/3**, 4C, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTAL	Retalhuleu	0.64	358	*i* P	Pn	06 39 46.9	-0.5
RTAL				*e*S	Sn	06 39 56.3	-0.5
RTAL	Retalhuleu	0.64	358	P	Pn	06 39 47.0	-0.4
RTAL				S	Sn	06 39 56.2	-0.5
STG8	El Palmar, Qui	0.65	29	⇑*i*P	Pn	06 39 49.1	+1.5
STG8				IAML		06 40 03.8	
	comp=E,11μm,0.1s						
THIG		1.17	331	*e*P	Pn	06 39 54.2	-0.2
THIG				*e*S	Sn	06 40 08.5	-0.8
FG16	Alotenango, Sa	1.19	71	⇑*i*P	Pn	06 39 50.9	-3.9
PCG5	San Vicente Pa	1.30	75	*e*P	Pn	06 39 52.8	-3.4
GCG4	OSOP	1.31	57	*e*P	Pn	06 39 56.0	-0.4
GCG4				*i* S	Sn	06 40 12.8	-0.1
HUEH	Huehuetenango	1.44	6	⇑*i*P	Pn	06 39 58.6	+0.3
HUEH	Huehuetenango	1.44	6	*i* P	Pn	06 39 58.7	+0.4
HUEH				*e*S	Sn	06 40 19.2	+3.1
HUEH	Huehuetenango	1.44	6	P	Pn	06 39 58.7	+0.4
HUEH				S	Sn	06 40 19.2	+3.1
FAME	Alcaldia de Sa	1.61	91	P	Pn	06 39 59.8	-0.5
FAME				S	Sn	06 40 19.2	-0.7
APG	El Apazote	1.62	46	P	Pn	06 40 00.7	0.0
	comp=E,26nm,0.4s,baz=174,slow=12,SNR=382						
APG				S	Sn	06 40 20.1	-0.4
	comp=E,17nm,0.4s,baz=142,slow=12,SNR=7.8						
APG	El Apazote	1.62	46	⇑*i*P	Pn	06 40 00.9	+0.2
NUBE	Las Nubes	1.84	89	*e*P	Pn	06 40 02.8	-0.8
NUBE	Las Nubes	1.84	89	P	Pn	06 40 03.2	-0.3
NUBE				S	Sn	06 40 25.0	-0.8
SLOZ	Alcaldia de Sa	1.84	85	*i* P	Pn	06 40 03.4	-0.1
SLOZ	Alcaldia de Sa	1.84	85	P	Pn	06 40 03.7	+0.2
LOAL	Lomas de Alarc	1.84	86	*i* P	Pn	06 40 03.9	+0.3
LOAL				*e*S	Sn	06 40 24.7	-1.0
LOAL	Lomas de Alarc	1.84	86	P	Pn	06 40 03.8	+0.3
LOAL				S	Sn	06 40 25.3	-0.4
JUAM	Asuncion Mita	1.96	76	*i* P	Pn	06 40 05.0	-0.2
RTR	El Retiro	1.97	89	*i* P	Pn	06 40 05.8	+0.4
CEVE	Cerro Verde	1.99	91	P	Pn	06 40 06.0	+0.2
CEVE				S	Sn	06 40 30.6	+1.0
AVCB	Coban	2.00	38	*e*P	Pn	06 40 06.6	+0.7
SNJE	San Jose	2.01	90	*i* P	Pn	06 40 06.2	+0.2
UNIC	Universidad Ca	2.06	87	P	Pn	06 40 06.9	+0.3
UNIC				S	Sn	06 40 32.1	+0.9
JAYA	Jayaque - finc	2.17	96	*e*P	Pn	06 40 07.6	-0.5
JAYA	Jayaque - finc	2.17	96	*i* P	Pn	06 40 07.7	-0.4
JAYA				*e*S	Sn	06 40 32.5	-1.5
JAYA	Jayaque - finc	2.17	96	P	Pn	06 40 08.0	-0.1
JAYA				S	Sn	06 40 33.9	0.0
CEDA	San Andres	2.21	92	*i* P	Pn	06 40 09.3	+0.7
CEDA				*e*S	Sn	06 40 34.3	-0.5
CEDA	San Andres	2.21	92	P	Pn	06 40 10.0	+1.4
CEDA				S	Sn	06 40 34.5	-0.3
PMON	Piamonte	2.29	94	P	Pn	06 40 10.1	+0.2
PMON				S	Sn	06 40 37.0	+0.1

MTO3	**Montecristo**	**2.30**	**77**	*e*P	**Pn**	**06 40 09.4**	**-0.6**
MTO3	**Montecristo**	**2.30**	**77**	*i* P	**Pn**	**06 40 09.6**	**-0.4**
MTO3	**Montecristo**	**2.30**	**77**	P	**Pn**	**06 40 09.6**	**-0.4**
MTO3				S	**Sn**	**06 40 37.8**	**+0.6**
LALI	**Alcalda de L**	**2.32**	**99**	P	**Pn**	**06 40 10.5**	**+0.5**
LALI				S	**Sn**	**06 40 37.4**	**+0.1**
ESQI	**Esquipulas**	**2.36**	**73**	P	**Pn**	**06 40 10.3**	**-0.4**
UEES	**Universidad Ev**	**2.37**	**94**	P	**Pn**	**06 40 11.4**	**+0.6**
UEES				S	**Sn**	**06 40 39.1**	**+0.4**
SEMO	**Seminario San**	**2.38**	**94**	P	**Pn**	**06 40 10.9**	**-0.1**
SEMO				S	**Sn**	**06 40 39.6**	**+0.5**
UTEC	**Universidad Te**	**2.41**	**94**	P	**Pn**	**06 40 12.0**	**+0.7**
UTEC				S	**Sn**	**06 40 40.0**	**+0.4**
PANCS	**Alcalda de**	**2.44**	**96**	P	**Pn**	**06 40 12.4**	**+0.7**
PANCS				S	**Sn**	**06 40 39.6**	**-0.7**
LOMA	**Loma Larga**	**2.44**	**95**	*i* P	**Pn**	**06 40 12.5**	**+0.7**
LOMA				*e*S	**Sn**	**06 40 40.1**	**-0.5**
LOMA	**Loma Larga**	**2.44**	**95**	P	**Pn**	**06 40 12.6**	**+0.8**
LOMA				S	**Sn**	**06 40 40.9**	**+0.4**
LFRS	**El Faro**	**2.55**	**95**	*e*P	**Pn**	**06 40 14.8**	**+1.5**
LFRS				*e*S	**Sn**	**06 40 42.8**	**-0.4**
PAVA	**Las Pavas**	**2.66**	**93**	P	**Pn**	**06 40 15.6**	**+0.7**
PAVA				S	**Sn**	**06 40 46.3**	**+0.3**
COEG	**Centro de Oper**	**2.72**	**95**	P	**Pn**	**06 40 16.4**	**+0.7**
COEG				S	**Sn**	**06 40 48.0**	**+0.6**
TECO	**Alcaldia de Te**	**2.83**	**97**	P	**Pn**	**06 40 17.5**	**+0.4**
P5NO	**Presa 5 de nov**	**2.83**	**87**	S	**Sn**	**06 40 50.3**	**+0.4**
ALJI	**Alcalda de J**	**3.06**	**100**	S	**Sn**	**06 40 56.8**	**+1.1**
TGIG		**3.21**	**334**	*e*P	**Pn**	**06 40 23.0**	**+0.7**
PACA	**Pacayal**	**3.28**	**97**	P	**Pn**	**06 40 24.4**	**+1.1**
PACA				S	**Sn**	**06 41 01.5**	**+0.3**
RANC	**El Ranchito**	**3.32**	**97**	P	**Pn**	**06 40 24.0**	**+0.1**
RANC				S	**Sn**	**06 41 02.9**	**+0.8**
LCND	**La Caada**	**3.72**	**98**	P	**Pn**	**06 40 30.2**	**+0.9**
CNCH	**Conchagua**	**3.78**	**99**	P	**Pn**	**06 40 31.3**	**+1.1**
CNCH				S	**Sn**	**06 41 14.4**	**+0.9**
CMIG	**Matias Romero**	**4.45**	**316**	P	**Pn**	**06 40 39.5**	**+0.2**
	comp=E,5.0nm,0.3s,baz=141,slow=8.6,SNR=56						
CMIG				S	**Sn**	**06 41 28.3**	**-1.5**
	comp=E,26nm,0.4s,baz=99,slow=19,SNR=6.7						
CMIG				LR	LR	06 42 04.7	
	comp=E,56nm,21.3s,baz=172,slow=34 comp=E,11nm,0.3s						
CMIG				AML	AML		
QUEN	**Al S del Volca**	**4.86**	**105**	P	**Pn**	**06 40 45.5**	**+0.5**
PLRN	**Geotermica Pol**	**4.94**	**105**	P	**Pn**	**06 40 46.9**	**+0.8**
PLRN				S	**Sn**	**06 41 42.9**	**+0.9**
ROCN	**Rota Cerro Neg**	**4.99**	**105**	P	**Pn**	**06 40 46.5**	**-0.1**
ROCN				S	**Sn**	**06 41 44.1**	**+1.1**
ILCN	**San Idelfonso**	**5.01**	**104**	P	**Pn**	**06 40 47.0**	**0.0**
CNGA	**Al SSO del Vol**	**5.03**	**105**	P	**Pn**	**06 40 48.0**	**+0.7**
CNGN	**Cerro Negro**	**5.03**	**105**	P	**Pn**	**06 40 48.1**	**+0.8**
OCON	**Estacion meteo**	**5.05**	**92**	P	**Pn**	**06 40 47.8**	**+0.2**
JTS	**Las Juntas de**	**7.47**	**118**	P	**Pn**	**06 41 23.2**	**+2.4**
	comp=E,0.8nm,0.3s,baz=313,slow=14,SNR=4.1						
JTS				S	**Sn**	**06 42 48.3**	**+4.0**
	comp=E,1.9nm,0.4s,baz=330,slow=20,SNR=1.3 comp=E,3.3nm,0.5s						
JTS				AML	AML		
TXAR	**Lajitas Array**	**18.97**	**326**	P	**P**	**06 43 52.0**	**+0.2**
	baz=142,slow=8.3,SNR=7.5						
TXAR				PcP	**PcP**	**06 48 15.6**	**-0.4**
	comp=E,0.3nm,0.9s,baz=136,slow=3.2,SNR=2.3 comp=E,0.8nm,0.9s						
PDAR	**Pinedale Array**	**32.66**	**335**	P	**P**	**06 46 02.9**	**+0.9**
	comp=E,0.2nm,0.7s,baz=134,slow=14,SNR=1.7						
PDAR				PcP	**PcP**	**06 48 45.7**	**-1.4**
	comp=E,0.1nm,0.5s,baz=186,slow=4.9,SNR=1.7 comp=E,0.2nm,0.7s						
NVAR	**Mina Array Bea**	**33.97**	**321**	P	**P**	**06 46 14.3**	**+0.9**
	comp=E,0.7nm,0.7s,baz=119,slow=6.2,SNR=6.6						
NVAR				PcP	**PcP**	**06 48 50.9**	**+0.1**
	comp=E,0.3nm,0.6s,baz=89,slow=2.7,SNR=3.1 comp=E,0.7nm,0.7s						
ILAR	**Eielson Array**	**63.08**	**337**	P	**P**	**06 49 55.3**	**-1.0**
	comp=E,0.6nm,1.1s,baz=123,slow=6.0,SNR=5.7 comp=E,0.6nm,1.1s						
CMAR	**Chiang Mai Arr**	**146.21**	**342**	PKPbc	**PKPdf**	**06 59 08.1**	**-1.1**
	comp=E,1.0nm,0.3s,baz=331,slow=2.0,SNR=5.9						

IDC ***30*** *06:40:36.9±0.6, 32°.74N×140°.04E, h87^{km}±4^{km}, mb3.5/10, mbtmp3.9/13, MS2.4/2, Error ellipse: s-maj=27.0km s-min=11.7km az=74.0*

NIED ***30*** *06:40:38.4, 32°.90N×140°.22E, h89^{km}, MW3.9, Moment Tensor Solution. s3 Moment tensor: Scale 10^{14}Nm; M$_{rr}$6.20; M$_{\theta\theta}$-5.29; M$_{\phi\phi}$-0.91; M$_{r\theta}$-1.26; M$_{\theta\phi}$4.91; M$_{\phi r}$-3.48; Fault plane solution: M$_0$8.45000×10^{14} NP1: φ$_s$276.00000°, δ49.00000°, λ48.00000°. NP2: φ$_s$150.00000°, δ56.00000°, λ128.00000°.*

JMA ***30*** *06:40:38.4±0.1, 32°.9N±0°.3×140°.2E±0°.9, h89^{km}±1^{km}, MV3.8/32, E OFF HACHIJOJIMA ISLAND*

ISC 30 06:40:37.4±0.8**, 32°.81N**±0°.05×**140°.27E**±0°.09**, h94**^{km}±6^{km}**, n37, σ0^{s}.87**/37**, mb3.8**/10**, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHCJ	**Hachijojimakas**	**0.48**	**303**	P	**Pn**	**06 40 52.3**	**-0.1**
JHCJ				*e*S	**Sn**	**06 41 02.8**	**-0.7**
JHJ2	**Mitsune**	**0.49**	**308**	P	**Pn**	**06 40 52.5**	**+0.1**
JHJ2				*e*S	**Sn**	**06 41 02.9**	**-0.7**
JHJ	**Hachijo jima 2**	**0.51**	**307**	P	**Pn**	**06 40 52.4**	**-0.2**
	4μm,0.3s,baz=197,slow=14,SNR=263						
JHJ				S	**Sn**	**06 41 03.0**	**-0.9**
	5μm,0.4s,baz=217,slow=20,SNR=33						
JHJ				LR	LR	06 41 09.8	
	comp=Z,294nm,18.3s,baz=330,slow=78						
JAOM	**Aogashimamukai**	**0.55**	**231**	P	**Pn**	**06 40 53.9**	**+0.9**
JAOM				*e*S	**Sn**	**06 41 05.6**	**+1.1**
JMKN	**Mikurajimanish**	**1.22**	**332**	P	**Pn**	**06 40 59.7**	**-0.2**
JMYK	**Miyake Tsubota**	**1.39**	**334**	*e*P	**Pn**	**06 41 01.7**	**-0.2**
JMYK				S	**Sn**	**06 41 19.7**	**-0.7**
JTHY	**Toshimahigashi**	**1.90**	**335**	P	**Pn**	**06 41 08.9**	**+0.6**
BSO1	**Boso 1**	**1.93**	**18**	P	**Pn**	**06 41 08.4**	**+0.2**
BSO3	**Boso 3**	**2.00**	**6**	P	**Pn**	**06 41 09.9**	**+0.5**
JIM2	**Oshima 3**	**2.03**	**340**	P	**Pn**	**06 41 10.2**	**+0.1**
BSO4	**Boso 4**	**2.17**	**1**	*e*P	**Pn**	**06 41 12.5**	**+0.6**
JOD2	**Odawara 2**	**2.64**	**338**	P	**Pn**	**06 41 18.6**	**+0.5**
TTO2	**TONANKAI O.B.S**	**2.87**	**290**	P	**Pn**	**06 41 21.8**	**+0.9**
JYN	**Shimob**	**3.04**	**332**	P	**Pn**	**06 41 25.0**	**+1.4**
MJAR	**Matsushiro Arr**	**4.09**	**336**	P	**Pn**	**06 41 38.4**	**+0.7**
	7.6nm,0.5s,baz=169,slow=12,SNR=21						
MJAR				S	**Sn**	**06 42 22.6**	**-1.9**
	7.6nm,0.6s,baz=154,slow=14,SNR=4.1						
MJAR				LR	LR	06 43 04.6	
	comp=Z,40nm,20.5s,baz=96,slow=36						
JCJ	**Chichijima**	**5.93**	**163**	P	**Pn**	**06 42 01.7**	**-1.1**
	51nm,0.8s,baz=0.0,slow=0.0						
KSRS	**Korea Array**	**11.12**	**298**	LR	LR	06 46 53.4	
	comp=Z,24nm,18.9s,baz=225,slow=34						
USRK	**Ussuriysk Ar.**	**13.08**	**333**	P	**Pn**	**06 43 40.9**	**+1.5**
	1.4nm,0.6s,baz=165,slow=17,SNR=1.6						
H11N2	**WAKE ISLAND Hy**	**27.11**	**112**	T	T	07 15 18.7	
	baz=305,slow=75,SNR=38						
H11N1	**WAKE ISLAND Hy**	**27.11**	**112**	T	T	07 15 08.8	
	baz=305,slow=75,SNR=37						
H11N3	**WAKE ISLAND Hy**	**27.13**	**112**	T	T	07 15 23.6	
	baz=305,slow=75,SNR=31						
H11S3	**WAKE ISLAND Hy**	**27.65**	**115**	T	T	07 15 42.7	
	baz=306,slow=74,SNR=7.4						
H11S1	**WAKE ISLAND Hy**	**27.66**	**115**	T	T	07 15 50.3	
	baz=306,slow=74,SNR=6.1						
H11S2	**WAKE ISLAND Hy**	**27.67**	**115**	T	T	07 15 50.7	
	baz=306						
MKAR	**Makanchi Array**	**45.69**	**305**	P	**P**	**06 48 48.2**	**-0.6**
	0.5nm,0.5s,baz=90,slow=7.9,SNR=6.0 0.5nm,0.5s						
KURBB	**Kurchatov Arra**	**47.96**	**311**	P	**P**	**06 49 05.7**	**-0.6**
	0.4nm,0.4s,baz=87,slow=6.9,SNR=5.0 0.4nm,0.4s						
WRA	**Warramunga Arr**	**52.76**	**187**	P	**P**	**06 49 41.8**	**-1.0**
	2.1nm,0.4s,baz=6.2,slow=7.4,SNR=55						
WRA				PcP	**PcP**	**06 50 51.3**	**0.0**
	0.4nm,0.8s,baz=4.2,slow=3.9,SNR=1.5 2.1nm,0.4s						
BVAR	**Borovoye Array**	**52.79**	**315**	P	**P**	**06 49 43.0**	**+0.2**
	0.7nm,0.5s,baz=102,slow=6.1,SNR=1.5 0.7nm,0.5s						
ASAR	**Alice Springs**	**56.49**	**187**	P	**P**	**06 50 09.7**	**-0.1**
	1.0nm,0.4s,baz=4.9,slow=6.9,SNR=31 1.0nm,0.4s						
STKA	**Stephens Creek**	**64.35**	**179**	P	**P**	**06 51 01.9**	**-1.2**
	2.0nm,0.7s,baz=28,slow=9.0,SNR=2.0 2.0nm,0.7s						
FINES	**FINESS Array B**	**72.11**	**333**	P	**P**	**06 51 50.7**	**-0.6**
	0.5nm,0.4s,baz=53,slow=6.7,SNR=2.1 0.5nm,0.4s						
NVAR	**Mina Array Bea**	**78.30**	**52**	P	**P**	**06 52 29.2**	**+1.7**
	0.3nm,0.6s,baz=315,slow=4.8,SNR=2.0 0.3nm,0.6s						
PDAR	**Pinedale Array**	**81.31**	**44**	P	**P**	**06 52 45.0**	**+1.2**
	0.1nm,0.4s,baz=309,slow=7.8,SNR=2.4 0.1nm,0.4s						
TXAR	**Lajitas Array**	**93.45**	**52**	P	**P**	**06 53 43.6**	**+0.8**
	0.5nm,0.7s,baz=318,slow=4.7,SNR=9.6 0.5nm,0.7s						
TORD	**Torodi Ar. Bea**	**119.55**	**312**	PKP	**PKPdf**	**06 59 16.2**	**-0.6**
	0.7nm,1.0s,baz=50,slow=2.0,SNR=2.7						
QSPA	**South Pole Qui**	**122.56**	**180**	PKP	**PKiKP**	**06 59 20.8**	**-0.5**
	1.4nm,1.1s,baz=332,slow=0.7,SNR=5.1						
LPAZ	**La Paz**	**149.51**	**64**	PKPbc	**PKiKP**	**07 00 18.1**	**0.0**
	0.5nm,0.5s,baz=303,slow=2.6,SNR=5.4						

IDC ***30*** *06:45:34.0±4.2, 53°.43N×87°.68E, h0^{km}, mbtmp2.5/2, ML2.2/2, Error ellipse: s-maj=38.9km s-min=21.2km az=63.0*

ASRS 30 06:45:35.0±0.8**, 53°.42N**×**87°.47E, h0**^{km}**, M2.3**(MOS)**, The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022., Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	**ZALESOVO INFRA**	**1.66**	**290**	I	I	06 56 50.0	
	baz=105,slow=328,SNR=0.9						
ZALV	**Zalesovo Beam**	**1.66**	**290**	Pg	Pg	06 46 07.1	+0.3
	0.8nm,0.3s,baz=107,slow=15,SNR=5.3						
ZALV				Lg	Lg	06 46 30.7	
	0.4nm,0.3s,baz=107,slow=23,SNR=2.6						
KURBB	**Kurchatov Arra**	**6.19**	**247**	Pn	Pn	06 47 09.4	+1.9
	baz=63,slow=14,SNR=1.4 0.2nm,0.3s						
MKAR	**Makanchi Array**	**7.42**	**209**	Pn	Pn	06 47 25.2	+0.7
	baz=25,slow=14,SNR=1.7 0.1nm,0.5s						

MAN 30 06:49:30.0, 7°.85N×**127°.25E, h18**^{km}**, MS3.5, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CDOP	**Cateel, Davao**	**0.81**	**265**	*i* P	Pb	06 49 45.3	-0.2
CDOP				*i* S	Sb	06 49 56.2	+0.2
BIPH	**Bislig**	**0.94**	**291**	*i* P	Pb	06 49 47.4	-0.4
BIPH				*e*S	Sb	06 49 58.0	-2.0
TSSP	**Tandag City**	**1.58**	**319**	*e*P	Pn	06 49 57.6	+0.5
TSSP				*e*S	Sn	06 50 14.6	-2.4
BUKP	**Musuan**	**2.17**	**271**	*i* P	Pb	06 50 07.5	-1.2
BUKP				*e*S	Sb	06 50 35.5	+0.2
DDMP	**Don Marcelino,**	**2.31**	**221**	*e*P	Pn	06 50 07.7	+0.5
DDMP				*e*S	Sn	06 50 35.6	+0.4
CGP	**Cagayan de Oro**	**2.60**	**284**	*e*P	Pg	06 50 29.6	+10

NEIC ***30*** *06:51:32.6±1.5, 23°.4S±0°.1×179°.3W±0°.2, h485^{km}±10^{km}, mb4.2/21, Error ellipse: s-maj=22.1km s-min=18.1km az=117.0*

IDC ***30*** *06:51:36.0±1.4, 23°.25S×179°.61W, h517^{km}±15^{km}, mb3.1/10, mbtmp3.9/11, Error ellipse: s-maj=20.3km s-min=17.9km az=105.0*

ISC 30 06:51:37.1±0.7**, 23°.33S**±0°.09×**179°.6W**±0°.1**, h536**^{km}**, n33, σ1^{s}.63**/34**, mb4.2**/20**, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	**Nonsavu**	**5.98**	**338**	P	**P**	**06 53 13.3**	**-1.8**
	1.6nm,0.2s,baz=164,slow=19,SNR=6.6						
RAO	**Raoul Island**	**6.09**	**166**	P	**P**	**06 53 16.3**	**+0.6**
	212nm,0.3s,baz=175,slow=22,SNR=2.2						
RAO	**Raoul Island**	**6.09**	**166**	P	P	06 53 06.9	-8.9
URZ	**Urewera**	**15.14**	**190**	P	**P**	**06 54 44.6**	**-3.5**
	13nm,1.0s,baz=14,slow=0.9,SNR=7.9						
QRZ	**Quartz Range**	**18.65**	**199**	P	**P**	**06 55 18.8**	**-2.6**
LTZ	**Lake Taylor**	**20.53**	**197**	P	**P**	**06 55 36.1**	**-2.4**
INZ	**Inchbonnie**	**20.71**	**199**	P	**P**	**06 55 38.3**	**-1.8**
WHZ	**Wether Hill Ro**	**24.66**	**201**	P	**P**	**06 56 13.8**	**-1.6**
EIDS	**Eidsvold**	**26.74**	**260**	P	**P**	**06 56 34.4**	**+0.3**
EIDS				IAmb	IAmb	06 57 06.2	
	comp=Z,11nm,1.2s						
CAN	**Canberra**	**29.73**	**239**	P	**P**	**06 57 00.1**	**+0.1**
CTAO	**Charters Tower**	**31.82**	**269**	P	**P**	**06 57 18.8**	**+0.6**
CTAO				IAmb	IAmb	06 57 20.4	
	comp=Z,10.0nm,0.6s						
STKA	**Stephens Creek**	**35.26**	**247**	P	**P**	**06 57 46.3**	**-0.7**
	comp=Z,2.2nm,0.5s,baz=141,slow=14,SNR=3.8 comp=Z,2.2nm,0.5s						
BBOO	**Buckleboo**	**39.98**	**246**	P	**P**	**06 58 24.7**	**-0.9**
BBOO				IAmb	IAmb	06 58 57.9	
	comp=Z,13nm,1.2s						
AS31	**Alice Springs**	**42.47**	**260**		**P**	**06 58 45.4**	**-0.1**
AS31				IAmb	IAmb	06 58 48.0	
	comp=Z,1.9nm,0.5s						
ASAR	**Alice Springs**	**42.47**	**260**	P	**P**	**06 58 45.9**	**+0.5**
	comp=Z,5.5nm,0.7s,baz=99,slow=8.1,SNR=52						
ASAR				ScP	**ScP**	**07 03 28.8**	**+3.0**
	comp=Z,0.5nm,0.7s,baz=102,slow=4.6,SNR=4.6 comp=Z,5.5nm,0.7s						
ASAR	**Alice Springs**	**42.47**	**260**	P	**P**	**06 58 45.4**	**0.0**
WR8	**Warramunga Arr**	**42.64**	**265**	P	**P**	**06 58 47.2**	**+0.5**
WR8				IAmb	IAmb	06 58 47.5	
	comp=Z,4.8nm,0.5s						
WB0	**Warramunga Arr**	**42.78**	**266**	P	**P**	**06 58 48.2**	**+0.3**
WB0				IAmb	IAmb	06 58 48.9	
	comp=Z,8.3nm,0.7s						
WRAB	**Tennant Creek**	**42.78**	**265**	P	**P**	**06 58 48.3**	**+0.4**
WRAB				IAmb	IAmb	06 58 48.8	
	comp=Z,6.2nm,0.8s						
WRA	**Warramunga Arr**	**42.79**	**265**	P	**P**	**06 58 48.2**	**+0.2**
	comp=Z,5.1nm,0.4s,baz=103,slow=8.0,SNR=104						
WRA				PcP	**pwP**	**07 00 28.3**	**-0.6**
	comp=Z,0.7nm,0.8s,baz=100,slow=3.3,SNR=2.1						
WRA				ScP	**ScP**	**07 03 32.0**	**+4.8**
	comp=Z,0.4nm,1.0s,baz=95,slow=3.8,SNR=2.2 comp=Z,5.1nm,0.4s						
WRA	**Warramunga Arr**	**42.79**	**265**		**P**	**06 58 47.1**	**-0.8**
FORT	**Forrest**	**46.83**	**249**	P	**P**	**06 59 18.5**	**-0.4**
FORT				IAmb	IAmb	06 59 18.8	
	comp=Z,12nm,0.6s						
KNRA	**Kununurra**	**49.04**	**269**	P	**P**	**06 59 36.8**	**+1.3**
KNRA				IAmb	IAmb	07 00 16.3	
	comp=Z,9.6nm,1.4s						
FITZ	**Fitzroy Crossi**	**51.22**	**265**	P	**P**	**06 59 52.9**	**+1.4**
VNDA	**Vanda**	**54.97**	**185**	P	**P**	**07 00 17.4**	**+0.2**
	comp=Z,0.3nm,0.7s,baz=0.0,slow=1.0,SNR=1.7 comp=Z,0.3nm,0.7s						
MORW	**Morawa**	**57.39**	**250**	P	**P**	**07 00 35.1**	**+0.3**
MORW				IAmb	IAmb	07 00 50.0	
	comp=Z,19nm,1.5s						
QSPA	**South Pole Qui**	**66.75**	**180**	P	**P**	**07 01 35.9**	**+0.9**
	comp=Z,0.6nm,0.8s,baz=45,slow=1.4,SNR=1.5 comp=Z,0.6nm,0.8s						
QSPA	**South Pole Qui**	**66.75**	**180**	IAmb	IAmb	07 02 13.4	
	comp=Z,5.5nm,1.5s						
MJAR	**Matsushiro Arr**	**71.63**	**325**	P	**P**	**07 02 05.6**	**+1.0**
	comp=Z,0.7nm,0.4s,baz=162,slow=6.4,SNR=1.9 comp=Z,0.7nm,0.4s						
MAW	**Mawson**	**78.40**	**200**	P	**P**	**07 02 42.4**	**+0.6**
	comp=Z,0.7nm,0.7s,baz=129,slow=7.9,SNR=2.0 comp=Z,0.7nm,0.7s						
PETK	**Petropavlovsk-**	**78.63**	**346**	P	**P**	**07 02 41.7**	**-1.5**
	comp=Z,1.4nm,0.6s,baz=177,slow=7.8,SNR=2.0 comp=Z,1.4nm,0.6s						
TXAR	**Lajitas Array**	**89.84**	**58**	P	**P**	**07 03 40.6**	**+1.4**
	comp=Z,0.2nm,0.9s,baz=250,slow=5.1,SNR=5.0 comp=Z,0.2nm,0.9s						
ILAR	**Eielson Array**	**91.40**	**13**	P	**P**	**07 03 44.2**	**-1.2**
	comp=Z,0.3nm,0.4s,baz=213,slow=4.6,SNR=9.4 comp=Z,0.3nm,0.4s						

IDC ***30*** *06:56:20.7±1.5, 51°.74N×74°.11E, h0^{km}, mbtmp2.4/3, ML2.1/3, Error ellipse: s-maj=33.6km s-min=10.5km az=29.0*

NNC ***30*** *06:56:25.7±2.5, 51°.92N×74°.53E, h0^{km}, mb2.5, mpv2.2, Error ellipse: s-maj=17.1km s-min=14.9km az=110.0, Suspected Mining explosion.*

ISC 30 06:56:21.6±1.4**, 51°.6N**±0°.1×**73°.99E**±0°.10**, h0**^{km}**, n8, σ1^{s}.42**/7**, 3C-2D, Central Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BVAR	**Borovoye Array**	**2.62**	**304**	Pg	**Pb**	**06 57 10.2**	**+0.8**
	0.1nm,0.3s,baz=116,slow=13,SNR=4.2						
BVAR				Lg	Lg	06 57 44.6	
	0.4nm,0.3s,baz=115,slow=27,SNR=11						
KURBB	**Kurchatov Arra**	**3.03**	**107**	Pn	**Pn**	**06 57 10.7**	**-0.1**
	0.2nm,0.3s,baz=299,slow=14,SNR=5.1						
KURBB				Lg	Lg	06 57 54.6	
	0.2nm,0.3s,baz=294,slow=31,SNR=13 0.3nm,0.3s						
KURBB				AML	AML		
KURBB	**Kurchatov Arra**	**3.03**	**107**	⇑Pg	**Pb**	**06 57 17.3**	**+0.9**
	1.3nm,0.3s,baz=301,slow=18						
KURBB				⇓Lg	Lg	06 57 55.6	
	12nm,0.7s,baz=298,slow=29						
KURK	**Kurchatov**	**3.05**	**105**	⇑Pg	**Pb**	**06 57 17.4**	**+0.7**
	0.1nm,0.3s						
KURK				⇑Lg	Lg	06 57 55.8	
	1.7nm,0.7s						
ZALV	**Zalesovo Beam**	**6.98**	**66**	Pn	**Pn**	**06 58 03.7**	**-1.2**
	0.2nm,0.3s,baz=252,slow=14,SNR=2.4 0.5nm,0.5s						
ZALV				AML	AML		
I46RU	**ZALESOVO INFRA**	**6.98**	**66**	I	I	07 36 40.0	
	baz=254,slow=328,SNR=6.0						
MK31	**Makanchi Array**	**7.27**	**128**	⇓Lg	Lg	07 00 15.8	
	0.9nm,0.7s						
MKAR	**Makanchi Array**	**7.27**	**128**	Pn	**Pn**	**06 58 07.1**	**-1.9**
	0.1nm,0.3s,baz=313,slow=14,SNR=1.6						
MKAR				Sn	**Sn**	**06 59 33.1**	**+0.9**
	0.1nm,0.3s,baz=322,slow=18,SNR=2.0						
MKAR				Lg	Lg	07 00 09.3	
	0.1nm,0.3s,baz=322,slow=28,SNR=5.8 0.1nm,0.4s						
MKAR				AML	AML		

ASRS ***30*** *07:34:38.0±1.1, 49°.70N×81°.55E, h0^{km}, M2.6(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*

NNC ***30*** *07:34:41.0±1.5, 49°.75N×82°.05E, h0^{km}, mb2.8, mpv2.4, Error ellipse: s-maj=18.3km s-min=5.3km az=52.0, Suspected Mining explosion.*

IDC ***30*** *07:34:45.7±2.0, 49°.68N×82°.25E, h0^{km}, mbtmp2.7/2, ML2.3/2, Error ellipse: s-maj=57.2km s-min=12.6km az=101.0*

ISC 30 07:34:37.9±1.3**, 49°.85N**±0°.05×**82°.10E**±0°.07**, h0**^{km}**, n7, σ0^{s}.91**/9**, 6C-2D, Eastern Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KURK	**Kurchatov**	**2.39**	**293**	⇑Pn	**Pb**	**07 35 22.0**	**+0.2**
	0.8nm,0.3s						
KURK				⇑Sn	**Sb**	**07 35 52.2**	**+0.4**
	5.4nm,0.6s						
KURBB	**Kurchatov Arra**	**2.42**	**290**	⇑Pn	**Pb**	**07 35 22.3**	**+0.1**
	3.2nm,0.3s						
KURBB				⇓Sn	**Sb**	**07 35 53.2**	**+0.7**
	18nm,0.7s						
MAKZ	**Makanchi**	**3.04**	**182**	⇑Pg	**Pb**	**07 35 34.3**	**+1.4**
	0.5nm,0.3s						
MAKZ				⇓Lg	Lg	07 36 14.3	
	8.3nm,0.9s						
MK31	**Makanchi Array**	**3.06**	**178**	⇑Pg	**Pg**	**07 35 35.3**	**-1.2**
	0.2nm,0.3s,baz=355,slow=18,SNR=7.3						
MK31				⇑Lg	Lg	07 36 14.7	
	6.0nm,0.9s,baz=360,slow=28,SNR=16						
MKAR	**Makanchi Array**	**3.06**	**178**	Pn	**Pb**	**07 35 34.0**	**+0.7**
	1.0nm,0.3s,baz=355,slow=13,SNR=26						
MKAR				Sn	**Sb**	**07 36 10.9**	**-0.2**
	1.1nm,0.3s,baz=3.8,slow=28,SNR=19 1.0nm,0.3s						
MKAR				AML	AML		
I46RU	**ZALESOVO INFRA**	**4.44**	**21**	I	I	08 02 25.0	
	baz=204,slow=324,SNR=6.2						
ZALV	**Zalesovo Beam**	**4.44**	**21**	Pn	**Pb**	**07 35 57.1**	**+0.5**
	0.3nm,0.3s,baz=205,slow=12,SNR=3.3						
ZALV				Lg	Lg	07 37 09.9	
	0.5nm,0.3s,baz=198,slow=27,SNR=9.2 0.7nm,0.3s						
ZALV				AML	AML		

IDC ***30*** *07:47:32.8±0.8, 24°.21N×124°.95E, h0^{km}, mb3.9/13, mbtmp3.8/16, ML3.1/2, MS2.9/9, Error ellipse: s-maj=20.8km s-min=17.3km az=106.0*

JMA ***30*** *07:47:37.4±0.2, 24°N±1°×125°.2E±0°.7, h37^{km}, MV3.7/10, NEAR MIYAKOJIMA ISLAND*

NIED ***30*** *07:47:37.4, 24°.27N×125°.19E, h37^{km}, MW4.0, Moment Tensor Solution. s2 Moment tensor: Scale 10^{15}Nm; M$_{rr}$0.06; M$_{\theta\theta}$0.18; M$_{\phi\phi}$-0.24; M$_{r\theta}$0.86; M$_{\theta\phi}$-0.29; M$_{\phi r}$0.46; Fault plane solution: M$_0$1.04000×10^{15} NP1: φ$_s$161.00000°, δ19.00000°, λ8.00000°. NP2: φ$_s$63.00000°, δ87.00000°, λ109.00000°.*

NEIC ***30*** *07:47:38.3±2.1, 24°.28N±0°.04×125°.29E±0°.07, h36^{km}±7^{km}, mb4.4/10 Error ellipse: s-maj=9.8km s-min=5.3km az=105.0*

ISC 30 07:47:36.0±1.8**, 24°.21N**±0°.07×**125°.29E**±0°.06**, h24**^{km}±11^{km}**, n69, σ1^{s}.31**/58**, mb4.0**/18**, MS3.0**/6**, Southwestern Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JMJ2	**Miyako jima3**	**0.53**	**4**	*i* P	**Pn**	**07 47 47.5**	**-0.5**
JMJ2				S	**Sb**	**07 47 55.1**	**+1.2**
JOGS	**Gusukube**	**0.56**	**11**	P	**Pn**	**07 47 48.3**	**-0.1**
JOGS				S	**Sn**	**07 47 56.5**	**-0.4**
JMJ	**Miyako jima 2**	**0.60**	**1**	P	**Pb**	**07 47 47.4**	**-0.5**
JIRJ	**Irabujima**	**0.62**	**352**	*i* P	**Pb**	**07 47 48.4**	**+0.1**
JIRJ				S	**Sb**	**07 47 57.1**	**+0.4**
JTJ	**Tarama**	**0.68**	**309**	*i* P	**Pb**	**07 47 48.8**	**-0.4**
JTJ				*e*S	**Sb**	**07 47 56.9**	**-1.4**
JIKM	**Ikemajima**	**0.71**	**357**	*i* P	**Pb**	**07 47 49.9**	**+0.2**
JIKM				S	**Sb**	**07 47 59.3**	**+0.2**
JISG	**Ishigakijimahi**	**0.96**	**293**	P	**Pb**	**07 47 52.9**	**-1.1**
JISG				S	**Sb**	**07 48 05.7**	**-0.6**
JIJ	**Ishigaki jima**	**1.05**	**278**	*i* P	**Pn**	**07 47 54.7**	**-0.5**
JKRS	**Kuro-shima**	**1.17**	**272**	P	**Pb**	**07 47 57.4**	**-0.1**
HATJ	**Hateruma jima**	**1.36**	**264**	P	**Pn**	**07 47 59.7**	**+0.2**
HATJ				S	**Sn**	**07 48 16.5**	**-0.3**
YOJ	**Yonaguni jima**	**2.09**	**277**	P	**Pn**	**07 48 11.1**	**+1.6**
YOJ	**Yonaguni jima**	**2.09**	**277**		**Pn**	**07 48 10.4**	**+1.0**
NACB	**Ninganchiao**	**3.37**	**270**	P	**Pn**	**07 48 26.6**	**-0.5**
NACB	**Ninganchiao**	**3.37**	**270**		**Pn**	**07 48 26.6**	**-0.5**
YHNB	**Yeheng**	**3.59**	**278**	P	**Pn**	**07 48 31.6**	**+1.4**
YHNB	**Yeheng**	**3.59**	**278**		**Pn**	**07 48 31.5**	**+1.2**
YULB	**Yu-li**	**3.74**	**258**	P	**Pn**	**07 48 30.7**	**-1.6**
YULB	**Yu-li**	**3.74**	**258**		**Pn**	**07 48 31.2**	**-1.0**
JOW	**Kunigami**	**3.76**	**45**	Pn	**Pn**	**07 48 31.8**	**-0.6**
	1.2nm,0.3s,baz=95,slow=26,SNR=1.6						
JOW				Sn	**Sn**	**07 49 10.4**	**-5.5**
	6.7nm,0.3s,baz=101,slow=20,SNR=4.1 7.9nm,0.3s						
JOW				AML	AML		
SSLB	**Suanglung**	**3.98**	**265**	P	**Pn**	**07 48 35.8**	**+0.2**
SSLB	**Suanglung**	**3.98**	**265**		**Pn**	**07 48 36.4**	**+0.8**
TWGBT	**Beinan**	**4.10**	**251**	P	**Pn**	**07 48 35.9**	**-1.3**
TWG	**Pinlang**	**4.11**	**251**		**Pn**	**07 48 36.0**	**-1.3**
TPUB	**Ta-pu**	**4.36**	**259**	P	**Pn**	**07 48 41.1**	**+0.3**
TPUB	**Ta-pu**	**4.36**	**259**		**Pn**	**07 48 41.8**	**+1.1**
JMZ	**Minamidaito 2**	**5.62**	**72**	Pn	**Pn**	**07 48 59.7**	**+1.7**
JNU	**Nakatsue**	**10.14**	**28**	LR	LR	07 53 43.5	
	comp=Z,30nm,21.0s,baz=180,slow=36						
KSRS	**Korea Array**	**13.39**	**9**	Pn	**Pn**	**07 50 46.4**	**+1.9**
	0.6nm,0.3s,baz=193,slow=11,SNR=6.4						
KSRS				LR	LR	07 56 10.4	
	comp=Z,26nm,19.0s,baz=195,slow=39 0.6nm,0.3s						
KSRS				AML	AML		
MJAR	**Matsushiro Arr**	**16.57**	**39**	Pn	**P**	**07 51 29.1**	**-0.1**
	1.5nm,1.0s,baz=210,slow=44,SNR=1.1						
DAV	**Davao City (W)**	**17.05**	**179**	LR	LR	07 57 29.6	
	comp=Z,44nm,21.0s,baz=280,slow=35						
MYLDM	**Lahad Datu**	**20.02**	**200**		Pn	07 52 10.4	+1.4
GUMO	**Guam**	**21.30**	**116**	LR	LR	07 59 03.0	
	comp=Z,22nm,20.4s,baz=97,slow=32						
ASAJ	**Asahikawa**	**24.39**	**31**	LR	LR	08 01 41.1	
	comp=Z,50nm,18.5s,baz=263,slow=35						
CMAR	**Chiang Mai Arr**	**25.17**	**262**	P	**P**	**07 52 55.6**	**-4.1**
	0.9nm,0.3s,baz=66,slow=13,SNR=1.6						
CMAR				LR	LR	08 03 45.2	
	comp=Z,20nm,19.9s,baz=180,slow=39 0.9nm,0.3s						

PETK	Petropavlovsk-	37.81	32	P	P	07 54 51.0	+0.7
	1.0nm,0.6s,baz=238,slow=8.3,SNR=1.3						
	1.0nm,0.6s						
H11N1	WAKE ISLAND Hy	38.74	88	T	T	08 36 27.9	
	baz=287						
H11N2	WAKE ISLAND Hy	38.74	88	T	T	08 36 28.2	
	baz=287						
H11N3	WAKE ISLAND Hy	38.76	88	T	T	08 36 38.1	
	baz=287						
H11S3	WAKE ISLAND Hy	38.87	90	T	T	08 36 52.9	
	baz=286						
H11S1	WAKE ISLAND Hy	38.88	90	T	T	08 36 40.8	
	baz=286						
H11S2	WAKE ISLAND Hy	38.89	90	T	T	08 37 30.5	
	baz=286						
MA2	Magadan	39.60	20	LR	LR	08 11 35.8	
	comp=Z,21nm,18.1s,baz=18,slow=36						
MKAR	Makanchi Array	40.96	314	P	P	07 55 15.7	-1.0
	1.6nm,0.4s,baz=102,slow=9.7,SNR=28						
	1.6nm,0.4s						
ZAA0	Zalesovo Array	42.31	325		P	07 55 28.2	+0.6
ZALV	Zalesovo Beam	42.31	325	LR	LR	08 14 01.0	
	comp=Z,24nm,19.1s,baz=40,slow=38						
ZALV	Zalesovo Beam	42.31	325		P	07 55 27.4	-0.2
KURK	Kurchatov	44.51	319	P	P	07 55 44.6	-0.8
KURK	Kurchatov	44.51	319	IAmb	IAmb	07 55 45.1	
	comp=Z,4.4nm,1.1s						
KURBB	Kurchatov Arra	44.53	319	P	P	07 55 44.6	-1.0
	comp=Z,0.8nm,0.5s,baz=105,slow=8.0,SNR=9.1						
	comp=Z,0.8nm,0.5s						
WB0	Warramunga Arr	44.60	168	P	P	07 55 47.5	+1.0
WB0				IAmb	IAmb	07 55 47.8	
	comp=Z,3.9nm,1.1s						
WRA	Warramunga Arr	44.77	168	P	P	07 55 48.7	+0.9
	comp=Z,0.8nm,0.7s,baz=348,slow=8.2,SNR=7.3						
	comp=Z,0.8nm,0.7s						
WRA	Warramunga Arr	44.77	168	IAmb	IAmb	07 55 57.4	
	comp=Z,0.2nm,1.1s						
WR8	Warramunga Arr	44.81	168	P	P	07 55 49.4	+1.2
WR8				IAmb	IAmb	07 55 58.7	
	comp=Z,6.9nm,1.2s						
ASAR	Alice Springs	48.32	169	P	P	07 56 17.2	+1.6
	comp=Z,0.3nm,0.6s,baz=350,slow=9.1,SNR=4.7						
	comp=Z,0.3nm,0.6s						
KKAR	Karatay Array	48.44	307	P	P	07 56 16.8	+0.4
AB31	Akbulak array	56.10	314	IAmb	IAmb	07 57 13.9	
	comp=Z,4.5nm,0.7s						
ABKAR	Akbulak array	56.10	314	P	P	07 57 13.3	0.0
ILAR	Eielson Array	67.46	28	P	P	07 58 31.6	+2.1
	comp=Z,0.4nm,0.8s,baz=275,slow=7.7,SNR=2.4						
	comp=Z,0.4nm,0.8s						
SPITS	Spitsbergen Ar	70.24	348	P	P	07 58 46.1	-0.5
	comp=Z,2.4nm,0.5s,baz=70,slow=4.7,SNR=5.6						
ARCES	ARCESS Array B	70.90	338	P	P	07 58 50.5	-0.3
	comp=Z,1.8nm,1.0s,baz=65,slow=6.2,SNR=1.9						
	comp=Z,1.8nm,1.0s						
ARCES	ARCESS Array B	70.90	338	IAmb	IAmb	07 59 06.0	
	comp=Z,11nm,1.4s						
FINES	FINESS Array B	73.30	330	P	P	07 59 04.9	-0.2
	comp=Z,2.1nm,0.6s,baz=62,slow=5.5,SNR=11						
	comp=Z,2.1nm,0.6s						
AKASG	Malin Array Be	75.32	319	P	P	07 59 17.0	-0.1
	comp=Z,0.2nm,0.3s,baz=70,slow=6.2,SNR=1.2						
	comp=Z,0.2nm,0.3s						
AKASG	Malin Array Be	75.32	319	IAmb	IAmb	07 59 17.9	
	comp=Z,2.5nm,1.1s						
BRTR	Keskin Array B	76.15	307	P	P	07 59 23.0	+0.7
	comp=Z,0.5nm,0.7s,baz=68,slow=11,SNR=5.3						
	comp=Z,0.5nm,0.7s						
HFS	Hagfors	79.34	332	P	P	07 59 39.8	+0.3
	comp=Z,1.5nm,0.8s,baz=140,slow=9.2,SNR=3.8						
	comp=Z,1.5nm,0.8s						
NB2	NORSAR Subarra	79.92	333	P	P	07 59 42.1	-0.6
	comp=Z,0.5nm,0.6s,baz=58,slow=5.3						
NOA	NORSAR Array B	79.92	333	P	P	07 59 41.8	-0.9
	comp=Z,1.4nm,0.9s,baz=56,slow=5.5,SNR=4.9						
	comp=Z,1.4nm,0.9s						
VRAC	Vranov	83.29	321	LR	LR	08 40 29.1	
	comp=Z,20nm,18.1s,baz=21,slow=38						

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*MEX **30** 07:52:13.4±0.4, 14°.58N×92°.17W, h86^{km}±4^{km}, MD3.9, Presumed earthquake*

*CATAC **30** 07:52:14.9±0.7, 14°N±5°×9°2W±°, h28^{km}±3^{km}, M3.7/17, MLv3.7/17, Error ellipse: s-maj=13.5km s-min=4.3km az=41.1, confirmed*

*GCG **30** 07:52:14.8±1.9, 14°.43N×92°.21W, h50^{km}±18^{km}, MD4.0, ML3.9, Presumed earthquake*

ISC 30 07:52:11.9±1.5**, 14°.34N**±0°.05×**92°.38W**±0°.04**, h27**^{km}±13^{km}**, n41, σ2^{s}10**/65**, 1D, Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THIG		0.57	11	eP	Pb	07 52 25.0	+1.6
THIG				eS	Sn	07 52 34.5	+1.7
THIG		0.57	11	eP	Pb	07 52 24.8	+1.4
THIG				iS	Sn	07 52 34.5	+1.7
RTAL	Retalhuleu	0.69	74	eP	Pn	07 52 26.4	+0.6
RTAL				eS	Sn	07 52 35.8	+0.3
RTAL	Retalhuleu	0.69	74	P	Pn	07 52 26.4	+0.6
RTAL				S	Sn	07 52 36.3	+0.8
PATR	El Naranjo	0.79	10	eP	Pb	07 52 26.8	-0.4
PATR				eS	Sb	07 52 37.5	0.0
CHUJ	Union Juarez	0.79	19	eP	Pb	07 52 27.0	-0.2
CHUJ				eS	Sb	07 52 37.1	-0.6
PAVE	Pavencul	0.87	13	eP	Pb	07 52 27.9	-0.7
PAVE				eS	Sb	07 52 38.9	-1.0
STG8	El Palmar, Qui	1.00	84	⇓iP	Pn	07 52 28.2	-2.0
STG8				eS	Sb	07 52 39.7	-3.9
STG8				IAML		07 52 42.8	
	comp=N,5µm,0.1s						
HUEH	Huehuetenango	1.29	41	eP	Pn	07 52 35.0	+0.7
HUEH				eS	Sn	07 52 49.7	-1.0
HUEH	Huehuetenango	1.29	41	eP	Pn	07 52 35.1	+0.8
HUEH				iS	Sb	07 52 51.9	0.0
HUEH	Huehuetenango	1.29	41	P	Pn	07 52 35.1	+0.7
HUEH				S	Sb	07 52 52.2	+0.3
FG8	Yepocapa, Chim	1.76	92	eP	Pn	07 52 35.8	-4.9
FG8				iS	Sn	07 52 52.4	-10
FG16	Alotenango, Sa	1.81	92	eP	Pn	07 52 36.9	-4.5
FG16				iS	Sn	07 52 54.7	-8.9
PCG5	San Vicente Pa	1.94	93	eP	Pn	07 52 40.2	-3.0
APG	El Apazote	1.96	70	eP	Pn	07 52 44.4	+0.8
ESSJ	San Jos, E	1.98	113	eP	Pn	07 52 39.1	-4.4
FAME	Alcaldia de Sa	2.34	102	P	Pn	07 52 48.9	+0.3
FAME				S	Sn	07 53 14.2	-2.3
TGIG		2.53	344	eP	Pn	07 52 53.3	+2.1
TGIG				eS	Sn	07 53 20.1	-1.1
SLOZ	Alcaldia de Sa	2.53	97	P	Pn	07 52 52.4	+1.2
LOAL	Lomas de Alarc	2.54	97	P	Pn	07 52 52.2	+0.9
NUBE	Las Nubes	2.56	99	eP	Pn	07 52 52.4	+0.8
NUBE				iS	Sn	07 53 21.8	-0.2
NUBE	Las Nubes	2.56	99	P	Pn	07 52 52.4	+0.8
NUBE				S	Sn	07 53 21.9	-0.1
JUAM	Asuncion Mita	2.59	90	eP	Pn	07 52 54.8	+2.8
CEVE	Cerro Verde	2.72	100	P	Pn	07 52 55.8	+1.8
CEVE				S	Sn	07 53 27.8	+1.7
UNIC	Universidad Ca	2.77	97	P	Pn	07 52 56.6	+2.2
JAYA	Jayaque - finc	2.92	103	eP	Pn	07 52 57.3	+0.7
JAYA	Jayaque - finc	2.92	103	P	Pn	07 52 57.2	+0.5
JAYA				S	Sn	07 53 31.2	+0.2
MTO3	Montecristo	2.92	88	eP	Pn	07 52 57.3	+0.5
PMON	Piamonte	3.04	101	P	Pn	07 52 59.6	+1.4
PMON				S	Sn	07 53 36.1	+2.4
LOMA	Loma Larga	3.19	102	P	Pn	07 53 02.2	+1.9
LOMA				S	Sn	07 53 38.4	+0.9
UXUV	UXUV	3.42	330	eP	Pn	07 53 04.5	+1.1
UXUV				eS	Sn	07 53 42.6	-0.4
COEG	Centro de Oper	3.47	101	P	Pn	07 53 07.0	+2.9
COEG				S	Sn	07 53 44.8	+0.4
PETF	Flores	3.52	43	P	Pn	07 53 05.1	+0.3
TECO	Alcaldia de Te	3.58	102	P	Pn	07 53 06.6	+1.0
TECO				S	Sn	07 53 48.1	+1.1
CMIG	Matias Romero	3.65	319	eP	Pn	07 53 07.1	+0.6
CMIG				eP	Pb	07 53 07.2	-8.5
CMIG				eS	Sn	07 53 47.3	-1.5
PACA	Pacayal	4.03	102	P	Pn	07 53 15.2	+3.3
PACA				S	Sn	07 54 02.3	+4.0
NEUV	Arroyo Zacate	4.70	316	eP	Pn	07 53 22.1	+1.1
NEUV				eS	Sn	07 54 15.5	+0.8
SCIG	Sabancuy	4.74	14	S	Sn	07 54 10.8	-4.9
PEIG	Puerto Escondi	4.89	290	eP	Pn	07 53 23.1	-0.6
PEIG				eS	Sn	07 54 12.2	-7.3
VHO	Vista Hermosa	5.00	303	eP	Pn	07 53 26.3	+1.0
VHO				eS	Sn	07 54 18.8	-3.6
YOIG	Yosondua	5.58	297	eP	Pn	07 53 34.8	+1.5
YOIG				eS	Sn	07 54 32.8	-3.8

UCR 30 07:54:39.2±0.8**, 5°.00N**×**82°.63W, h0**^{km}±249^{km}**, MW3.5, Presumed earthquake, South of Panama**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FIMO	Fila Mora	4.03	350	eP	Pn	07 55 42.6	+0.4
PIEC	Cerro El Cedra	4.77	344	eP	Pn	07 55 53.2	+0.5
PIEC				eS	Sn	07 56 51.3	+2.4
ABRB	Las Abras (San	5.08	348	eP	Pn	07 55 57.4	+0.5
VBV1	V. Barva	5.28	344	eP	Pn	07 56 00.2	+0.5
CMARA	Lajas Hojancha	5.70	331	eP	Pn	07 56 05.5	+0.3
JUD3	Juan Diaz 3	5.88	331	eP	Pn	07 56 08.9	+1.1

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*NAO **30** 08:36:01.3, 39°.75N×24°.64E, h10^{km}, MB3.7*

*AFAD **30** 08:36:02.3, 39°.87N×24°.30E, h18^{km}±3^{km}, ML3.4*

*ISK **30** 08:36:03.9, 40°.02N×24°.39E, h10^{km}, ML3.7/34*

*IDC **30** 08:36:03.4±1.0, 39°.95N×24°.52E, h0^{km}, mb3.5/5, mbtmp3.5/9, ML3.7/3, MS2.7/7, Error ellipse: s-maj=17.1km s-min=14.7km az=111.0*

*SOF **30** 08:36:04.2, 40°.13N±0°.02×24°.40E±0°.02, h10^{km}±1^{km}, MD3.9/6*

*THE **30** 08:36:04.8, 40°.0N±0°.7×24°.3E±0°.7, h15^{km}±1^{km}, M3.5/46, MLh3.5/46*

*ATH **30** 08:36:04.3, 40°.00N×24°.31E, h18^{km}±1^{km}, ML3.7/33, Latitude uncertainty: 0 km; Longitude uncertainty: 0 km*

ISC 30 08:36:04.6±0.9**, 39°.99N**±0°.02×**24°.31E**±0°.01**, h13**^{km}±7^{km}**, n199, σ0^{s}84**/238**, mb3.6**/4**, MS2.9**/3**, 17C-7D, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OUR	Ouranopolis	0.42	324	P	Pg	08 36 12.9	-0.1
OUR				S	Sg	08 36 19.0	+0.3
OUR				AML	AML		
OUR	Ouranopolis	0.42	324	Pg	Pg	08 36 12.9	-0.1
OUR				AML	AML		
OUR	Ouranopolis	0.42	324	P	Pg	08 36 12.9	-0.1
OUR				S	Sg	08 36 18.8	+0.2
OUR				AML	AML		
PAIG	Paliouri	0.49	262	P	Pg	08 36 14.1	-0.1
PAIG				S	Sb	08 36 21.1	-0.8
PAIG				AML	AML		
LMN1	MIRINA LIMNOU	0.59	101	P	Pg	08 36 16.4	+0.3
LMN1				S	Sg	08 36 23.8	-0.1
LIA	Limnos Island	0.68	98	P	Pg	08 36 18.0	+0.2
LIA				S	Sb	08 36 28.5	+0.9
LIA				AML	AML		
LIA	Limnos Island	0.68	98	P	Pb	08 36 18.5	+0.3
LIA				S	Sg	08 36 27.2	+0.4
LIA				AML	AML		
EFSA	Agios Efstrati	0.69	130	P	Pg	08 36 18.3	+0.2
EFSA				S	Sb	08 36 28.3	+0.4
PLG	Polygyros	0.76	300	P	Pg	08 36 18.7	-0.7
PLG				S	Sb	08 36 29.9	0.0
PLG				AML	AML		
PLG	Polygyros	0.76	300	P	Pg	08 36 18.8	-0.5
PLG				AML	AML		
THS1	Thassos, Thass	0.77	15	P	Pg	08 36 18.7	-0.8
THS1				S	Sg	08 36 29.8	0.0
AOS	Alonnisos	0.89	202	P	Pb	08 36 21.5	-0.2
AOS				S	Sn	08 36 34.9	-0.4
AOS				AML	AML		
AOS2	Alonissos-2	0.92	203	P	Pb	08 36 21.2	-1.1
AOS2				S	Sb	08 36 34.2	-0.2
AOS2				AML	AML		
KAVA	Kavala	1.01	9	P	Pb	08 36 23.3	-0.6
KAVA				S	Sg	08 36 37.3	-0.1
KAVA				AML	AML		
KAVA	Kavala	1.01	9	P	Pb	08 36 23.3	-0.6
KAVA				S	Sb	08 36 36.5	-0.7
SMTH	Samothraki Isl	1.05	63	P	Pb	08 36 23.6	-1.0
SMTH				AML	AML		
SMTH	Samothraki Isl	1.05	63	P	Pb	08 36 23.5	-1.1
SMTH				S	Sb	08 36 37.5	-0.7
SMTH				AML	AML		
XOR	Xorichti	1.06	234	P	Pb	08 36 24.2	-0.6
XOR				S	Sg	08 36 38.9	-0.1
XOR				AML	AML		
XOR	Xorichti	1.06	234	P	Pb	08 36 24.4	-0.4
XOR				S	Sb	08 36 38.5	-0.1
XOR				AML	AML		
NEO	Neokhori	1.08	231	P	Pb	08 36 24.3	-0.8
NEO				S	Sg	08 36 39.5	0.0
NEO				AML	AML		
NEO	Neokhori	1.08	231	P	Pb	08 36 24.6	-0.5
NEO				S	Sb	08 36 38.4	-0.7
NEO				AML	AML		
SOH	Sokhos	1.10	319	P	Pb	08 36 24.9	-0.6
SOH				S	Sn	08 36 40.2	-0.6
SOH				AML	AML		
SOH	Sokhos	1.10	319	P	Pb	08 36 25.2	-0.3
SOH				S	Sg	08 36 40.0	-0.2
SOH				AML	AML		
HORT	Hortiatis	1.10	304	P	Pb	08 36 24.5	-1.0
HORT				AML	AML		
HORT	Hortiatis	1.10	304	P	Pb	08 36 24.3	-1.2
HORT				S	Sg	08 36 39.8	-0.5
DRA2	DRAMA	1.17	354	P	Pb	08 36 26.7	+0.1
DRA2				S	Sb	08 36 40.5	-1.2
THE	Thessaloniki	1.21	302	P	Pn	08 36 26.2	-0.9
THE				S	Sn	08 36 42.7	-0.6
THE				AML	AML		
THE	Thessaloniki	1.21	302	P	Pn	08 36 26.6	-0.5
THE				S	Sb	08 36 42.3	-0.4
GADA	Gvkgeada	1.24	80	P	Pn	08 36 26.6	-0.9
GADA				AML	AML		
GADA	Gvkgeada	1.24	80	Pn	Pn	08 36 26.8	-0.7
GADA				AML	AML		
GOAD	anakkale-G¶	1.24	82	P	Pn	08 36 26.4	-1.1
GOAD				S	Sb	08 36 44.1	+0.4
GOAD				IAML		08 36 46.0	
	comp=N,2µm,1.0s						
GOAD				IAML		08 36 47.0	
	comp=E,2µm,0.4s						
SRS	Serrai	1.25	334	P	Pn	08 36 26.8	-0.9
SRS				S	Sb	08 36 43.5	-0.4
SRS				AML	AML		
SRS	Serrai	1.25	334	P	Pn	08 36 26.9	-0.7
SRS				S	Sb	08 36 43.0	-0.9
SRS				AML	AML		
BOZC	Bozcaada	1.35	96	Pn	Pn	08 36 28.5	-0.6
BOZC				AML	AML		
BOZC	Bozcaada	1.35	96	P	Pn	08 36 28.1	-0.9
BOZC				S	Sn	08 36 45.3	-1.5
BOZC				IAML		08 36 49.0	
	comp=N,722nm,0.8s						
BOZC				IAML		08 36 50.0	
	comp=E,796nm,0.8s						
KYMI	Kymi, Euboea I	1.37	187	P	Pn	08 36 28.4	-0.9
KYMI				AML	AML		
KYMI	Kymi, Euboea I	1.37	187	P	Pn	08 36 28.3	-1.0
KYMI				S	Sn	08 36 45.9	-1.4
KYMI				AML	AML		
NVR	Nevrokopi	1.40	346	P	Pn	08 36 29.0	-0.8
NVR				AML	AML		
NVR	Nevrokopi	1.40	346	P	Pn	08 36 29.2	-0.6
NVR				AML	AML		
MRKA	Markates	1.40	204	P	Pn	08 36 28.9	-0.8
MRKA				AML	AML		
ECEA	Canakkale, Ece	1.44	87	P	Pn	08 36 29.9	-0.3
ECEA				S	Sg	08 36 51.3	+0.5
ECEA				IAML		08 36 54.0	
	comp=E,1µm,0.8s						
ECEA				IAML		08 36 56.0	
	comp=N,1µm,0.8s						
ALEX	Alexandroupoli	1.49	54	P	Pn	08 36 30.2	-0.8
KOCA	Canakkale, Ayv	1.50	109	P	Pn	08 36 31.0	-0.1
KOCA				S	Sn	08 36 49.5	-0.9
KOCA				IAML		08 36 54.0	
	comp=E,594nm,0.5s						
KOCA				IAML		08 36 55.0	
	comp=N,666nm,0.5s						
GPNR	Gulpinar-Canak	1.51	110	Pn	Pn	08 36 30.8	-0.4
GPNR				AML	AML		
ENZZ	Sultanice-Enez	1.53	66	Pn	Pn	08 36 31.2	-0.3
ENZZ				AML	AML		
EZN	Ezine	1.56	96	P	Pn	08 36 31.6	-0.4
EZN				AML	AML		
EZN	Ezine	1.56	96	Pn	Pn	08 36 31.7	-0.2
EZN				AML	AML		
CAVK	Edirne/Enez-Ca	1.58	63	P	Pn	08 36 31.9	-0.4
CAVK				S	Sg	08 36 56.1	+0.5
CAVK				IAML		08 36 58.0	
	comp=N,1µm,1.3s						
CAVK				IAML		08 37 00.0	
	comp=E,1µm,0.9s						
CAVK	Edirne/Enez-Ca	1.58	63	⇑P	Pb	08 36 34.4	+0.7
CAVK				⇓S	Sg	08 36 56.0	+0.5
ENEZ	Enez	1.59	62	P	Pn	08 36 31.4	-1.0
ENEZ				AML	AML		
ENEZ	Enez	1.59	62	Pn	Pn	08 36 32.2	-0.2
ENEZ				AML	AML		
CNKL	anakkale-Mer	1.60	87	P	Pn	08 36 30.4	-2.1
CNKL				S	Sg	08 36 55.7	-0.3
CNKL				IAML		08 37 03.0	
	comp=N,666nm,0.6s						
CNKL				IAML		08 37 07.0	
	comp=E,522nm,1.1s						
EZNE	Ezine-Canakkal	1.60	98	Pn	Pn	08 36 32.3	-0.2
ALN	Alexandroupoli	1.60	55	P	Pn	08 36 31.5	-1.0
ALN				AML	AML		
ALN	Alexandroupoli	1.60	55	Pn	Pn	08 36 31.7	-0.8
ALN				AML	AML		
ALN	Alexandroupoli	1.60	55	P	Pn	08 36 31.4	-1.1
ALN				AML	AML		
MMB	Musomishta	1.61	345	P	Pn	08 36 32.4	-0.2
MMB				AML	AML		
MMB	Musomishta	1.61	345	iP	Pn	08 36 32.6	-0.1
MMB				iS	Sn	08 36 52.3	-1.0
TYRN	Tyrnavos	1.62	261	P	Pn	08 36 32.4	-0.3
TYRN				AML	AML		
TYRN	Tyrnavos	1.62	261	P	Pn	08 36 33.0	+0.2
TYRN				AML	AML		
COMU	Canakkale	1.67	86	Pn	Pn	08 36 33.1	-0.3
COMU				AML	AML		
LKR	Lokris	1.68	218	P	Pn	08 36 32.8	-0.8
LKR				AML	AML		
LKR	Lokris	1.68	218	P	Pn	08 36 32.9	-0.6
PRK	Paraskevi	1.69	116	P	Pn	08 36 33.5	-0.2
PRK				AML	AML		
PRK	Paraskevi	1.69	116	P	Pn	08 36 33.8	+0.1
PRK				AML	AML		
GELI	Tayfur-Gelibol	1.71	76	Pn	Pn	08 36 33.4	-0.6
GELI				AML	AML		
RZN	Rozhen	1.73	11	P	Pn	08 36 34.0	-0.5
RZN				AML	AML		
RZN	Rozhen	1.73	11	iP	Pn	08 36 34.2	-0.3
RZN				iS	Sn	08 36 55.7	-0.8
BAYC	CANAKKALE_Bayr	1.74	98	P	Pn	08 36 33.8	-0.7
BAYC				S	Sn	08 36 55.0	-1.5
BAYC				IAML		08 37 01.0	
	comp=E,163nm,0.6s						
BAYC				IAML		08 37 03.0	
	comp=N,373nm,0.5s						
GRG	Griva	1.74	304	P	Pn	08 36 34.9	+0.5
AXAR	Agios Charalam	1.77	227	P	Pn	08 36 34.1	-0.7
AXAR				AML	AML		
AXAR	Agios Charalam	1.77	227	P	Pn	08 36 34.6	-0.2
AXAR				AML	AML		
AGG	Agios Georgios	1.81	238	P	Pn	08 36 34.9	-0.5
AGG				AML	AML		
AGG	Agios Georgios	1.81	238	P	Pn	08 36 35.3	-0.1
AGG				AML	AML		
KDZ	Kurdzhali	1.81	25	P	Pn	08 36 34.7	-0.7
KDZ				AML	AML		
KDZ	Kurdzhali	1.81	25	Pn	Pn	08 36 34.3	-1.1
KDZ				AML	AML		
KDZ	Kurdzhali	1.81	25	iP	Pn	08 36 34.7	-0.7
THL	Klokotos Trika	1.82	257	P	Pn	08 36 35.0	-0.5
THL				AML	AML		
THL	Klokotos Trika	1.82	257	P	Pn	08 36 35.4	-0.1
ERIK	Erikli-Kesan	1.82	67	Pn	Pn	08 36 34.6	-0.9
ERIK				AML	AML		
STFN	Stefani	1.91	198	P	Pn	08 36 36.4	-0.4
STFN				AML	AML		
STFN	Stefani	1.91	198	P	Pn	08 36 36.5	-0.3
STFN				AML	AML		
LPK	Lapseki	1.92	78	Pn	Pn	08 36 36.4	-0.4
LPK				AML	AML		
DION	Dionisos Attik	1.94	189	P	Pn	08 36 36.7	-0.5
DION				AML	AML		
DION	Dionisos Attik	1.94	189	P	Pn	08 36 36.6	-0.5
SFL1	Soufli	1.94	51	P	Pn	08 36 37.7	+0.7
VIL2	Platees	1.95	205	P	Pn	08 36 37.1	-0.3
VIL2				AML	AML		
LAPS	Lapseki, ANA	1.96	82	P	Pn	08 36 36.7	-0.7
LAPS				S	Sn	08 37 00.9	-1.0
LAPS				IAML		08 37 09.0	
	comp=N,209nm,0.4s						
LAPS				IAML		08 37 09.0	
	comp=E,334nm,0.4s						
KARY	Karystos	1.96	177	P	Pn	08 36 36.7	-0.8
KARY				AML	AML		
KARY	Karystos	1.96	177	P	Pn	08 36 36.8	-0.6
KARY				AML	AML		
AYVA	Ayvalik	1.96	110	P	Pn	08 36 37.5	+0.1
AYVA				S	Sn	08 37 01.1	-0.8
AYVA				IAML		08 37 08.0	
	comp=E,253nm,1.1s						
AYVA				IAML		08 37 13.0	
	comp=N,406nm,0.8s						
KZN	Kozani	1.97	280	P	Pn	08 36 37.7	+0.1
PTL	Penteli	1.97	190	P	Pn	08 36 37.5	-0.1
PTL				AML	AML		
PTL	Penteli	1.97	190	P	Pn	08 36 36.8	-0.8
PTL				AML	AML		
VILL	Villia	1.98	203	P	Pn	08 36 37.2	-0.6
VILL				AML	AML		
ATHP	Athens-Neo Psi	2.03	192	P	Pn	08 36 38.2	-0.2
KKB	Krupnik	2.05	335	iP	Pn	08 36 39.3	+0.6
ATH5	Athens Parliam	2.06	193	P	Pn	08 36 37.6	-1.2
ATHU	Athens Univers	2.06	192	P	Pn	08 36 38.2	-0.7
ATHU				AML	AML		
ATHU	Athens Univers	2.06	192	P	Pn	08 36 37.7	-1.2
ATHU				AML	AML		
DLFA	Delphi	2.06	223	P	Pn	08 36 38.5	-0.5
NOAC	Athens-Thissio	2.07	193	P	Pn	08 36 38.8	-0.1
ATH	Athens Observa	2.07	193	P	Pn	08 36 38.1	-0.8
ATH				AML	AML		
PEHC	Pehcevo	2.08	330	iPn	Pn	08 36 39.3	+0.2
CHOS	Chios island	2.10	139	P	Pn	08 36 39.3	-0.2
CHOS				AML	AML		
CHOS	Chios island	2.10	139	Pn	Pn	08 36 39.6	+0.1
CHOS				AML	AML		
CHOS	Chios island	2.10	139	P	Pn	08 36 39.4	0.0
CHOS				AML	AML		
UKOP	Uzunkopru-Edir	2.10	57	Pn	Pn	08 36 39.1	-0.3
UKOP				AML	AML		
KARB	zmir-Karabur	2.10	128	P	Pn	08 36 38.9	-0.5
CANM	Can-anakkale	2.11	89	Pn	Pn	08 36 39.5	0.0
CANM				AML	AML		
YAYO	Edremit-Balk	2.17	99	Pn	Pn	08 36 40.3	+0.1
YAYO				AML	AML		
VLY	Voula,Athens	2.17	191	P	Pn	08 36 40.0	-0.3
VLY				AML	AML		
VLY	Voula,Athens	2.17	191	P	Pn	08 36 40.1	-0.3
PLD	Plovdiv	2.18	9	P	Pn	08 36 39.9	-0.5
PLD				AML	AML		
PLD	Plovdiv	2.18	9	Pn	Pn	08 36 40.5	+0.1
PLD				AML	AML		
BUHA	Balikesir, Bur	2.19	102	P	Pn	08 36 40.5	-0.1
BUHA				S	Sg	08 37 14.3	-0.8
BUHA				IAML		08 37 17.0	
	comp=E,366nm,0.5s						
BUHA				IAML		08 37 25.0	
	comp=N,232nm,0.5s						
BIGA	Biga-Canakkale	2.20	82	Pn	Pn	08 36 40.7	0.0
DKL	Dikili	2.21	114	Pn	Pn	08 36 41.1	+0.2
DKL				AML	AML		
EVR	Evrytania	2.21	242	P	Pn	08 36 40.9	-0.1
LTK	Loutraki	2.23	208	P	Pn	08 36 40.7	-0.4
LTK				AML	AML		
LTK	Loutraki	2.23	208	P	Pn	08 36 41.0	-0.2
LTK				AML	AML		
LOUT	Loutraki	2.25	208	P	Pn	08 36 40.5	-1.1

LOUT				AML	AML		
YENI	Yenice-Canakka	2.26	91	Pn	Pn	08 36 41.5	0.0
KPRO	Kipourio	2.26	270	P	Pn	08 36 42.4	+0.8
KPRO				AML	AML		
DIM	Dimitrovgrad	2.27	25	P	Pn	08 36 41.4	-0.2
DIM				AML	AML		
RKY	Sarkoy-Tekirda	2.30	72	Pn	Pn	08 36 42.0	-0.2
RKY				AML	AML		
ANX	Ano Chora	2.32	234	P	Pn	08 36 42.3	-0.2
ANX				AML	AML		
ANX	Ano Chora	2.32	234	P	Pn	08 36 42.7	+0.2
ANX				AML	AML		
KALE	Kalithea	2.32	227	P	Pn	08 36 42.8	+0.3
KALE				AML	AML		
KRBG	Karabiga-Canak	2.33	79	Pn	Pn	08 36 42.4	0.0
KRBG				AML	AML		
THAL	Thalero	2.33	214	P	Pn	08 36 42.2	-0.4
THAL				AML	AML		
SERG	Sergoula	2.35	229	P	Pn	08 36 42.6	-0.2
SERG				AML	AML		
ZEDA	zmir-Bergama	2.38	115	P	Pn	08 36 43.2	+0.1
PYRG	Pyrgos, Dorida	2.38	229	P	Pn	08 36 43.4	+0.1
MG00	Magoula, Dorid	2.42	230	P	Pn	08 36 43.7	0.0
MG00				AML	AML		
GAZK	Gazikoy-TEKIRD	2.43	71	Pn	Pn	08 36 43.8	0.0
GAZK				AML	AML		
TETR	Tetrakomo, Epi	2.43	255	P	Pn	08 36 44.1	+0.2
TETR				AML	AML		
ZEYE	Izmir, Urla-Ze	2.45	135	P	Pn	08 36 44.1	0.0
PGB	Panagyurishte	2.52	358	*i* P	Pg	08 36 52.1	-0.8
GUR	Goura	2.56	217	P	Pn	08 36 45.4	-0.4
GUR				AML	AML		
KLV	Kalavryta, Ach	2.57	221	P	Pn	08 36 45.7	-0.2
KLV				AML	AML		
GONE	Gonen-Balikesi	2.60	88	Pn	Pn	08 36 46.4	+0.2
GONE				AML	AML		
EDRB	Edirne	2.62	44	Pn	Pn	08 36 46.7	+0.3
EDRB				AML	AML		
SOMA	Soma-Manisa	2.63	107	Pn	Pn	08 36 47.1	+0.4
SOMA				AML	AML		
CAMT	Merkez	2.64	117	P	Pn	08 36 46.8	0.0
STEP	BALIKESIR_Sava	2.70	102	P	Pn	08 36 47.8	+0.1
VTS	Vitosha	2.74	343	P	Pn	08 36 48.6	+0.3
VTS				AML	AML		
VTS	Vitosha	2.74	343	*i* P	Pn	08 36 48.9	+0.5
EDC	Edincik	2.75	81	Pn	Pn	08 36 48.4	+0.1
EDC				AML	AML		
BALB	Balikesir	2.77	96	Pn	Pn	08 36 48.9	+0.3
BALB				AML	AML		
CMHT	Manyas	2.81	88	P	Pn	08 36 48.7	-0.4
OHR	Ohrid	2.90	294	*i* Pn	Pn	08 36 52.7	+2.3
SUSR	Susurluk-Balik	2.90	89	Pn	Pn	08 36 50.6	+0.2
SUSR				AML	AML		
BAND	Balkesir-Ban	2.93	82	⇑P	Pn	08 36 51.4	+0.7
BAND				⇓S	Sb	08 37 30.0	-2.3
SKO	Skopje	2.94	313	*i* Pn	Pn	08 36 53.0	+2.1
BOTS	Marmara Eregli	2.97	69	Pn	Pn	08 36 51.7	+0.4
BOTS				AML	AML		
VLX	Vlachokerasia	3.02	211	P	Pn	08 36 52.2	0.0
VLX				AML	AML		
APE	Apeiranthos	3.07	161	P	Pn	08 36 52.0	-0.8
APE	Apeiranthos	3.07	161	⇑P	Pn	08 36 53.6	+0.8
GORD	Gordes-Manisa	3.19	109	Pn	Pn	08 36 54.8	+0.4
GORD				AML	AML		
KTTT	Salihli	3.21	113	P	Pn	08 36 55.4	+0.7
SLVT	Silivri	3.22	66	Pn	Pn	08 36 55.2	+0.5
SLVT				AML	AML		
ODEM	Odemis-Izmir	3.40	119	Pn	Pn	08 36 58.0	+0.8
ODEM				AML	AML		
PLVB	Pleven	3.40	4	⇑P	Pn	08 36 57.8	+0.6
AYDB	Zeytinkoy-Aydi	3.46	125	Pn	Pn	08 36 59.1	+0.9
AYDB				AML	AML		
NAZL	Nazilli-Aydin	3.71	122	Pn	Pn	08 37 02.5	+1.0
NAZL				AML	AML		
BDRM	Kayabasi	3.82	139	⇑P	Pn	08 37 03.7	+0.6
BOVS	Bovan	4.12	333	⇓P	Pn	08 37 07.6	+0.4
TAVA	DENIZLI_Tavas	4.40	124	⇑P	Pn	08 37 12.4	+1.4
IDI	Anoyia	4.72	174	Pn	Pn	08 37 15.3	-0.2
	13nm,0.6s,baz=352,slow=12,SNR=9.2						
IDI				Sn	Sn	08 38 05.8	-4.3
	0.9nm,0.3s,baz=293,slow=19,SNR=1.6						
ICOR	Ion Corvin	4.87	31	⇑P	Pn	08 37 18.1	+0.6
HERR	Herculane	5.08	345	⇑P	Pn	08 37 20.1	-0.2
MDVR	Moldovita	5.16	339	⇓P	Pn	08 37 21.5	+0.1
ARR	Arges	5.38	2	⇓P	Pn	08 37 25.2	+0.7
VOIR		5.47	6	⇑P	Pn	08 37 26.4	+0.7
GZR	Gura Zlata	5.51	349	⇑P	Pn	08 37 26.4	+0.1
MLR	Muntele Rosu	5.62	12	Pn	Pn	08 37 28.8	+0.9
	1.3nm,0.3s,baz=89,slow=24,SNR=13						
MLR				Sn	Sn	08 38 31.5	-0.9
	2.3nm,0.3s,baz=160,slow=14,SNR=3.3						
MLR				Lg	Lg	08 39 07.9	
	1.8nm,0.3s,baz=270,slow=20,SNR=4.8						
	9.5nm,0.6s						
MLR				AML	AML		
MLR	Muntele Rosu	5.62	12	⇑P	Pn	08 37 29.0	+1.1
TIP	Timpagrande	5.89	264	⇓P	Pn	08 37 30.8	-0.7
CFR	Carcaliu	5.90	27	⇑P	Pn	08 37 31.7	+0.2
BZS	Buzias	5.96	342	⇑P	Pn	08 37 32.7	+0.3
COVR	Voineasa-Covas	6.01	13	⇑P	Pn	08 37 34.3	+1.2
PLOR	Plostina	6.10	16	⇓P	Pn	08 37 36.0	+1.7
VRI	Vrincioaia	6.13	16	⇑P	Pn	08 37 36.2	+1.4
VLDR	Vladesti	6.47	24	⇑P	Pn	08 37 40.8	+1.4
TESR	Tescani	6.74	14	⇑P	Pn	08 37 44.2	+1.2
BRTR	Keskin Array B	7.19	89	Pn	Pn	08 37 48.0	-1.4
	0.7nm,0.3s,baz=264,slow=12,SNR=14						
BRTR				Sn	Sn	08 39 06.7	-4.2
	0.2nm,0.3s,baz=269,slow=17,SNR=1.7						
BRTR				Lg	Lg	08 40 03.2	
	baz=252,slow=24,SNR=3.6						
BRTR				LR	LR	08 40 55.2	
	comp=Z,34nm,21.4s,baz=286,slow=42						
	2.3nm,0.4s						
BRTR				AML	AML		
AKASG	Malin Array Be	11.25	16	Pn	Pn	08 38 43.2	-1.7
	0.9nm,0.3s,baz=208,slow=11,SNR=3.9						
AKASG				LR	LR	08 43 45.6	
	comp=Z,23nm,19.0s,baz=46,slow=41						
	0.2nm,0.3s						
AKASG				AML	AML		
DAVOX	Davos/Dischmat	12.49	308	LR	LR	08 44 47.8	
	comp=Z,22nm,20.2s,baz=50,slow=42						
GNI	Garni	15.65	83	LR	LR	08 45 43.6	
	comp=Z,23nm,18.5s,baz=170,slow=38						
FINES	FINESS Array B	21.50	2	LR	LR	08 49 58.3	
	comp=Z,56nm,18.4s,baz=173,slow=39						
ESDC	Sonseca Array	21.68	278	P	P	08 40 58.5	+3.6
	0.3nm,0.4s,baz=77,slow=12,SNR=5.6						
	0.3nm,0.4s						
NB2	NORSAR Subarra	22.57	343	P	P	08 41 03.8	-0.5
	comp=Z,3.0nm,1.0s,baz=153,slow=10						
NOA	NORSAR Array B	22.57	343	P	P	08 41 04.1	-0.2
	comp=Z,1.1nm,0.8s,baz=153,slow=10,SNR=4.7						
	comp=Z,1.1nm,0.8s						
AKTO	Aktyubinsk	25.73	55	LR	LR	08 54 02.7	
	comp=Z,22nm,21.7s,baz=124,slow=42						
ARCES	ARCESS Array B	29.61	1	LR	LR	08 55 27.9	
	comp=Z,25nm,19.5s,baz=199,slow=39						
TORD	Torodi Ar. Bea	33.33	223	P	P	08 42 44.1	+1.9
	comp=Z,0.4nm,0.7s,baz=34,slow=10,SNR=2.5						
	comp=Z,0.4nm,0.7s						
MKAR	Makanchi Array	41.84	61	P	P	08 43 54.6	+0.6
	comp=Z,0.8nm,0.6s,baz=288,slow=6.2,SNR=8.0						
	comp=Z,0.8nm,0.6s						
ZALV	Zalesovo Beam	42.28	50	P	P	08 43 58.2	+0.8
	comp=Z,1.1nm,0.5s,baz=280,slow=9.5,SNR=4.9						
	comp=Z,1.1nm,0.5s						

IDC 30 08:39:48.6±3.6, 54°.00N×86°.68E, h0^{km}, mbtmp2.5/2, ML2.4/2, Error ellipse: s-maj=27.8km s-min=16.6km az=78.0, Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	1.10	268	I	I	08 47 00.0	
	baz=89,slow=331,SNR=4.6						
ZALV	Zalesovo Beam	1.10	268	Pg	Pg	08 40 08.4	-1.2
	0.9nm,0.3s,baz=84,slow=15,SNR=8.5						
ZALV				Lg	Lg	08 40 23.8	
	1.0nm,0.3s,baz=89,slow=32,SNR=6.6						
KURBB	Kurchatov Arra	6.03	239	Pn	Pn	08 41 20.2	+1.2
	0.1nm,0.3s,baz=54,slow=13,SNR=3.4						
KURBB				Lg	Lg	08 43 01.8	
	baz=45,slow=17,SNR=2.0						
	0.2nm,0.3s						
KURBB				AML	AML		
MKAR	Makanchi Array	7.74	203	Pn	Pn	08 41 43.8	+1.4
	0.1nm,0.3s,baz=25,slow=14,SNR=1.8						
	0.1nm,0.3s						
MKAR				AML	AML		

IDC 30 08:45:13.0±4.2, 54°.28N×87°.15E, h0^{km}, mbtmp2.6/2, ML2.3/2, Error ellipse: s-maj=40.5km s-min=21.4km az=67.0, Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	1.41	257	I	I	08 54 00.0	
	baz=76,slow=332,SNR=1.2						
ZALV	Zalesovo Beam	1.41	257	Pg	Pn	08 45 38.0	-1.9
	0.7nm,0.3s,baz=72,slow=18,SNR=8.2						
ZALV				Lg	Lg	08 45 59.1	
	0.8nm,0.3s,baz=79,slow=23,SNR=6.5						
KURBB	Kurchatov Arra	6.42	239	Pn	Pn	08 46 50.7	+2.0
	baz=56,slow=13,SNR=3.0						
	0.2nm,0.2s						
MKAR	Makanchi Array	8.11	204	Pn	Pn	08 47 13.0	+1.1
	0.1nm,0.3s,baz=22,slow=12,SNR=1.5						
	0.1nm,0.3s						
MKAR				AML	AML		

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*NOU **30** 08:50:56.1, 20°.94S×178°.60W, h575^{km}, mb4.7/41, Fiji Islands Region*

*NEIC **30** 08:50:56.1±1.7, 20°.91S±0°.10×178°.65W±0°.09, h566^{km}±6^{km}, mb4.4/148, Error ellipse: s-maj=15.6km s-min=9.9km az=144.0*

*GFZ **30** 08:50:56.2±0.4, 21°S±4°×17°9W±°, h578^{km}±5^{km}, M4.7/28, mb4.7/28, Error ellipse: s-maj=11.5km s-min=7.5km az=97.6, confirmed*

*IDC **30** 08:50:57.7±1.1, 20°.76S×178°.84W, h589^{km}±11^{km}, mb3.7/17, mbtmp4.6/19, Error ellipse: s-maj=12.5km s-min=9.1km az=154.0*

ISC 30 08:50:56.7±0.5, 20°.86S±0°.05×178°.67W±0°.05, h585^{km}±5^{km}, n391, σ1^{s}.21/368, mb4.5/119, 30C-27D, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LKBA	Tubou, Lakemba	2.62	357	P	P	08 52 11.9	-0.7
LKBA	Tubou, Lakemba	2.62	357	S	S	08 53 13.5	-0.8
TAVE	Taveuni	4.30	344	P	P	08 52 23.1	-0.2
TAVE	Taveuni	4.30	344	S	S	08 53 34.2	+0.4
MSVF	Nonsavu	4.39	315	P	P	08 52 23.1	-1.0
	9.0nm,0.4s,baz=182,slow=3.4,SNR=28						
MSVF	Nonsavu	4.39	315	P	P	08 52 23.5	-0.6
MSVF	Nonsavu	4.39	315	S	S	08 53 35.1	-0.2
MSVF	Nonsavu	4.39	315		P	08 52 23.9	-0.3
MSVF	Nonsavu	4.39	315	P	P	08 52 22.2	-2.0
DGTI	Dogotuki	4.79	341	P	P	08 52 26.0	-1.1
DGTI	Dogotuki	4.79	341	S	S	08 53 40.6	-0.1
FUTU	Fugatoga	6.54	5	P	P	08 52 41.2	-0.8
FUTU	Fugatoga	6.54	5	S	S	08 54 08.1	+0.1
FUTU	Fugatoga	6.54	5	P	P	08 52 41.0	-1.0
FUTU	Fugatoga	6.54	5	P	P	08 52 41.2	-0.8
	comp=Z,659nm,0.9s						
GLKZ	Green Lake	8.39	176	S	S	08 54 37.9	-1.7
NIUE	Niue	8.41	79	P	P	08 52 49.5	-10
NIUE				S	S	08 54 44.1	+3.9
AFI	Afiamalu	9.54	45	P	P	08 53 07.8	-3.0
	comp=Z,146nm,0.8s,baz=348,slow=6.6,SNR=4.5						
AFI				S	S	08 54 52.2	-8.6
	comp=Z,54nm,0.5s,baz=174,slow=14,SNR=3.8						
AFI	Afiamalu	9.54	45	P	P	08 53 09.7	-1.1
MARNC	Mare, Loyalty	12.43	265	P	P	08 53 39.4	-0.3
DZM	Mont Dzumac	13.91	262	P	P	08 53 54.1	-1.0
	comp=Z,8.3nm,0.6s,baz=146,slow=23,SNR=8.6						
SANVU	Saraoutou	14.47	290	P	P	08 54 01.3	+0.9
OUZ	Omahuta	15.84	204	P	P	08 54 13.4	+0.4
OUZ	Omahuta	15.84	204	P	P	08 54 14.2	+1.2
OUZ	Omahuta	15.84	204	P	P	08 54 15.0	+2.0
	comp=Z,105nm,0.8s						
KOUNC	Koumac, New Ca	15.96	268	P	P	08 54 15.4	+1.0
GRZ	Great Barrier	16.17	197	P	P	08 54 16.9	+0.8
WCZ	Waipu Caves	16.22	201	P	P	08 54 18.5	+2.0
ABAZ	Army Bay	16.68	199	P	P	08 54 21.6	+0.9
WIAZ	Waiheke Island	16.77	197	P	P	08 54 23.0	+1.5
MBAZ	Motutapu North	16.81	198	P	P	08 54 23.7	+1.8
MXZ	Matakaoa Point	16.85	188	P	P	08 54 20.9	-1.3
RVAZ	Riverhead Bore	16.91	199	P	P	08 54 24.1	+1.3
HBAZ	Herne Bay Bore	16.94	198	P	P	08 54 24.7	+1.7
MYRZ	Mayor Island	16.95	194	P	P	08 54 25.0	+1.8
EPAZ	Eden Park BICE	16.96	198	P	P	08 54 25.0	+1.8
ETAZ	East Tamaki Re	16.98	198	P	P	08 54 25.1	+1.7
MKAZ	Moumakai	17.05	197	P	P	08 54 25.5	+1.4
WTAZ	Waiatarua	17.06	199	P	P	08 54 26.1	+1.9
WMGZ	Waiomatatini S	17.09	188	P	P	08 54 23.2	-1.2
WMGZ				S	S	08 57 10.6	-2.9
HAZ	Te Kaha	17.11	190	P	P	08 54 23.8	-0.9
KBAZ	Karaka Road Bo	17.12	198	P	P	08 54 27.2	+2.5
AWAZ	Awhitu Peninsu	17.16	198	P	P	08 54 26.6	+1.5
PKGZ	Pakihiroa	17.18	189	P	P	08 54 24.5	-0.8
RUGZ	Raukumara Rang	17.33	190	P	P	08 54 25.9	-0.9
PUZ	Puketiti	17.35	188	P	P	08 54 26.9	0.0
TGRZ	Tauranga	17.37	194	P	P	08 54 28.4	+1.4
TOZ	Tahuroa Road	17.55	195	P	P	08 54 29.4	+0.7
URZ	Urewera	17.72	191	P	P	08 54 28.1	-2.1
	comp=Z,28nm,0.4s,baz=357,slow=6.4,SNR=6.8						
URZ				S	S	08 57 16.1	-7.6
	comp=Z,14nm,0.7s,baz=76,slow=19,SNR=5.9						
URZ	Urewera	17.72	191	P	P	08 54 27.9	-2.2
	comp=Z,98nm,0.8s						
MWZ	Matawai	17.72	190	P	P	08 54 28.3	-1.9
CNGZ	Carnagh Statio	17.77	188	P	P	08 54 29.6	-1.0
RRRZ	Republican Roa	17.91	192	P	P	08 54 31.4	-0.5
HIZ	Hauiti	18.46	196	P	P	08 54 36.7	-0.2
HIZ	Hauiti	18.46	196	P	P	08 54 38.5	+1.6
	comp=Z,104nm,1.8s						
KHEZ	Kahui Hut	19.42	197	P	P	08 54 45.2	-0.5
BFZ	Birch Farm	20.23	191	P	P	08 54 51.3	-1.6
SNZO	South Karori	21.14	194	P	P	08 55 00.0	-1.1
QRZ	Quartz Range	21.26	199	P	P	08 55 02.1	-0.1
QRZ	Quartz Range	21.26	199	S	S	08 58 19.8	-0.5
QRZ	Quartz Range	21.26	199	P	P	08 55 02.1	-0.1
KHZ	Kahutara	22.47	195	P	P	08 55 11.4	-1.5
KHZ	Kahutara	22.47	195	P	P	08 55 11.0	-2.0
	comp=Z,62nm,0.9s						
TARA	Tarawa	23.57	339	P	P	08 55 22.3	-0.8
	comp=Z,105nm,0.9s						
TATA	Tatamba Isabel	24.20	298	P	P	08 55 28.0	-0.8
RPZ	Rata Peaks	24.35	198	P	P	08 55 29.7	0.0
JCZ	Jackson Bay	25.39	201	P	P	08 55 38.5	-0.5
ODZ	Otahua Downs	25.68	198	P	P	08 55 41.4	0.0
PPT	Papeete	27.65	88	P	P	08 55 59.3	+0.3
	comp=Z,39nm,0.9s,baz=240,slow=14,SNR=4.2						
	comp=Z,39nm,0.9s						
PPTF	Pamatai, Papee	27.65	88	P	P	08 55 58.5	-0.7
EIDS	Eidsvold	28.15	255	P	P	08 56 04.1	+0.8
EIDS				IAmb	IAmb	08 56 48.5	
	comp=Z,6.8nm,1.1s						
ARMA	Armidale	28.35	244	P	P	08 56 05.5	+0.4
ARMA	Armidale	28.35	244	P	P	08 56 06.1	+1.0
ARMA				IAmb	IAmb	08 56 06.8	
	comp=Z,13nm,0.8s						
ARMA	Armidale	28.35	244	P	P	08 56 06.1	+1.0
CAN	Canberra	31.79	236	P	P	08 56 35.5	+1.0
CAN				IAmb	IAmb	08 56 36.0	
	comp=Z,20nm,1.2s						
CTA	Charters Tower	32.84	265	P	P	08 56 43.7	+0.2
	comp=Z,14nm,0.5s,baz=95,slow=10,SNR=9.7						
	comp=Z,14nm,0.5s						
CTA	Charters Tower	32.84	265	P	P	08 56 43.7	+0.2
CTAO	Charters Tower	32.84	265	P	P	08 56 43.8	+0.2
CTAO	Charters Tower	32.84	265	P	P	08 56 43.7	+0.2
CTAO	Charters Tower	32.84	265	P	P	08 56 43.8	+0.2
	comp=Z,24nm,0.6s						
CMSA	Cobar Meteorol	33.57	244	P	P	08 56 49.7	+0.2
CMSA	Cobar Meteorol	33.57	244	P	P	08 56 50.2	+0.7
	comp=Z,15nm,0.7s						
BULU	Kimbe	33.72	292	P	P	08 56 53.0	+2.0
PMG	Port Moresby	34.82	284		P	08 57 00.6	+0.4
PMG	Port Moresby	34.82	284	P	P	08 57 00.5	+0.4
	comp=Z,114nm,0.9s						
MTSU	Mount Surprise	34.95	268	P	P	08 57 01.7	+0.4
	comp=Z,19nm,0.7s						
TOO	Toolangi	35.18	234	P	P	08 57 03.1	+0.3
TOO				IAmb	IAmb	08 57 13.0	
	comp=Z,8.2nm,1.2s						
STKA	Stephens Creek	37.07	244	P	P	08 57 19.1	+0.7
	comp=Z,5.4nm,0.8s,baz=93,slow=10,SNR=7.1						
STKA				PcP	PcP	08 59 23.6	+0.5
	comp=Z,1.7nm,0.5s,baz=333,slow=4.5,SNR=4.2						
	comp=Z,5.4nm,0.8s						
STKA	Stephens Creek	37.07	244	P	P	08 57 18.8	+0.3
	comp=Z,44nm,1.4s						
MANU	Manus Island	38.03	295	P	P	08 57 27.4	+0.9
MANU				IAmb	IAmb	08 57 28.3	
	comp=Z,18nm,0.9s						
TAOE	Nuku Hiva Isla	38.99	78	P	P	08 57 35.0	+0.6
BBOO	Buckleboo	41.83	244	P	P	08 57 56.7	+0.1
BBOO				IAmb	IAmb	08 57 57.6	
	comp=Z,28nm,1.4s						
BBOO	Buckleboo	41.83	244	P	P	08 57 56.4	-0.1
	comp=Z,14nm,1.1s						
WR8	Warramunga Arr	43.78	263		P	08 58 11.4	-0.6
WR8				IAmb	IAmb	08 58 12.8	
	comp=Z,13nm,1.1s						
AS31	Alice Springs	43.83	257		P	08 58 12.3	0.0
AS31				PcP	PcP	08 59 45.6	0.0
ASAR	Alice Springs	43.83	257	P	P	08 58 12.1	-0.3
	comp=Z,9.0nm,0.7s,baz=96,slow=7.7,SNR=94						
ASAR				PcP	PcP	08 59 45.6	0.0
	comp=Z,4.7nm,0.6s,baz=97,slow=3.3,SNR=17						
ASAR				ScP	ScP	09 02 44.0	+1.9
	comp=Z,0.4nm,0.7s,baz=88,slow=5.0,SNR=2.3						
ASAR				S	S	09 03 58.7	-3.1
	comp=Z,2.2nm,1.0s,baz=92,slow=16,SNR=11						
	comp=Z,9.0nm,0.7s						
ASAR	Alice Springs	43.83	257	P	P	08 58 11.8	-0.6
ASAR				PcP	PcP	08 59 45.3	-0.3
WB0	Warramunga Arr	43.91	263		P	08 58 12.4	-0.6
WRAB	Tennant Creek	43.92	263	P	P	08 58 12.2	-0.9
WRAB	Tennant Creek	43.92	263	P	P	08 58 12.2	-0.9
WRAB				IAmb	IAmb	08 58 13.2	
	comp=Z,19nm,1.1s						
WRAB	Tennant Creek	43.92	263	P	P	08 58 12.3	-0.8
	comp=Z,24nm,1.0s						
WRA	Warramunga Arr	43.93	263	P	P	08 58 12.2	-0.9
	comp=Z,9.8nm,0.7s,baz=94,slow=6.7,SNR=384						
WRA				PcP	PcP	08 59 46.1	+0.2
	comp=Z,1.1nm,0.8s,baz=96,slow=2.9,SNR=4.6						
WRA				S	S	09 03 59.5	-3.8
	comp=Z,2.2nm,1.0s,baz=95,slow=13,SNR=7.2						
	comp=Z,9.8nm,0.7s						
WRA	Warramunga Arr	43.93	263	P	P	08 58 11.8	-1.3
GENI	Genyem	44.01	289	P	P	08 58 14.4	+0.7
	comp=Z,156nm,0.8s						
MTN	Manton Dam	48.54	271		P	08 58 47.4	-0.5
MTN				IAmb	IAmb	08 58 48.3	
	comp=Z,12nm,0.8s						
MTN				PcP	PcP	09 00 03.2	+0.7
FORT	Forrest	48.58	247	P	P	08 58 47.2	-0.8
FORT				IAmb	IAmb	08 59 12.3	
	comp=Z,16nm,1.4s						
FORT				PcP	PcP	09 00 02.6	+0.3
GUMO	Guam	49.56	311	P	P	08 58 55.5	+0.1
FITZ	Fitzroy Crossi	52.36	263		P	08 59 15.9	+0.2
FITZ	Fitzroy Crossi	52.36	263	P	P	08 59 15.4	-0.3
	comp=Z,2.3nm,1.2s						
SIJI	Sorong	52.73	286	P	P	08 59 18.3	-0.1
	comp=Z,110nm,0.8s,baz=101,slow=5.8,SNR=22						
SOEI	Soe	55.89	272	P	P	08 59 41.9	+1.3
SOEI	Soe	55.89	272		P	08 59 41.2	+0.5
SOEI	Soe	55.89	272	P	P	08 59 42.0	+1.4
	comp=Z,83nm,0.9s						
TNTI	Ternate	56.95	285	P	P	08 59 47.3	-0.4
	comp=Z,27nm,0.9s						
SANI	Sanana	57.04	282	P	P	08 59 47.6	-0.8
	comp=Z,33nm,1.1s						
MBWA	Marble Bar	57.17	258	P	P	08 59 48.6	-0.6
MBWA	Marble Bar	57.17	258		P	08 59 48.5	-0.6
MBWA				IAmb	IAmb	08 59 49.4	
	comp=Z,16nm,0.8s						
MBWA				PcP	PcP	09 00 35.9	+0.4
MBWA	Marble Bar	57.17	258	P	P	08 59 48.6	-0.6
	comp=Z,22nm,0.7s						
MEEK	Meekatharra	57.21	251	P	P	08 59 48.7	-0.8
	comp=Z,17nm,1.8s						
KLBR	Kellerberrin	57.34	245	P	P	08 59 49.9	-0.3
	comp=Z,33nm,0.9s						
VNDA	Vanda	57.49	185	P	P	08 59 52.3	+1.9
	comp=Z,0.9nm,0.7s,baz=358,slow=6.7,SNR=11						
VNDA				ScP	ScP	09 03 41.8	+1.9
	comp=Z,1.3nm,0.8s,baz=17,slow=5.1,SNR=5.6						
	comp=Z,0.9nm,0.7s						
VNDA	Vanda	57.49	185	P	P	08 59 50.8	+0.4
VNDA	Vanda	57.49	185	P	P	08 59 52.2	+1.8
BLDU	Ballidu	58.34	246	P	P	08 59 56.6	-0.3
BLDU	Ballidu	58.34	246	P	P	08 59 56.4	-0.5
MORW	Morawa	59.11	248	P	P	09 00 01.9	-0.3
MORW	Morawa	59.11	248	P	P	09 00 02.1	0.0
MORW				IAmb	IAmb	09 00 43.6	
	comp=Z,14nm,1.4s						
KAPI	Kappang	61.70	276	P	P	09 00 21.1	+1.7
GIRL	Giralia	61.85	255	P	P	09 00 19.9	-0.3
PLAI	Plampang	62.25	271	P	P	09 00 22.2	-0.8
	comp=Z,37nm,0.9s						
TOLI2	Tolitoli	63.07	282	P	P	09 00 28.2	-0.1
TOLI2	Tolitoli	63.07	282	P	P	09 00 27.8	-0.4
TOLI2				IAmb	IAmb	09 00 28.7	
	comp=Z,14nm,0.9s						
TOLI2	Tolitoli	63.07	282	P	P	09 00 28.1	-0.1
	comp=Z,16nm,0.8s						
PCJI	Pacitan	68.63	269	P	P	09 01 02.8	0.0
	comp=Z,83nm,1.4s						
QSPA	South Pole Qui	69.20	180	P	P	09 01 06.7	+1.2
	comp=Z,0.9nm,0.4s,baz=208,slow=2.4,SNR=28						
	comp=Z,0.9nm,0.4s						
KKM	Kota Kinabalu	69.25	285	P	P	09 01 07.0	+0.4
KKM				IAmb	IAmb	09 01 07.8	
	comp=Z,13nm,1.1s						
JGF	Kuroka	69.92	323	P	P	09 01 10.2	+0.2
JGF				IAmb	IAmb	09 01 52.6	
	comp=Z,18nm,1.4s						
MJAR	Matsushiro Arr	70.14	324	P	P	09 01 10.9	-0.3
	comp=Z,3.2nm,0.6s,baz=163,slow=6.1,SNR=11						
	comp=Z,3.2nm,0.6s						
MAJO	Matsushiro	70.14	324	P	P	09 01 11.4	+0.1
MAJO				IAmb	IAmb	09 01 11.6	
	comp=Z,4.2nm,0.6s						
MJB9	Matsu-Tunnel	70.14	324	P	P	09 01 12.4	+1.1
MJB9				IAmb	IAmb	09 01 18.9	
	comp=Z,16nm,1.5s						
JSU	Suzuyama	71.34	316	P	P	09 01 18.3	-0.2
JSU				IAmb	IAmb	09 01 19.1	
	comp=Z,8.3nm,0.7s						
BBJI	Bungbulang	72.17	269	P	P	09 01 22.5	-1.2
KIWB	Kanaga Island	72.42	1	P	P	09 01 23.9	-0.3
ADK	Adak	72.45	1	P	P	09 01 23.9	-0.5
ADK	Adak	72.45	1	P	P	09 01 24.0	-0.3
ADK	Adak	72.45	1	P	P	09 01 23.6	-0.7
	comp=Z,55nm,1.4s						
TWGBT	Beinan	73.05	303	P	P	09 01 30.4	+2.0
TWG	Pinlang	73.05	303	P	P	09 01 26.0	-2.5
NACB	Ninganchiao	73.37	305	P	P	09 01 28.5	-1.7
NACB				IAmb	IAmb	09 01 30.9	
	comp=Z,15nm,0.8s						
TPUB	Ta-pu	73.65	303	P	P	09 01 31.0	-0.9
TPUB	Ta-pu	73.65	303	P	P	09 01 30.5	-1.4
	comp=Z,42nm,0.8s						
JKA	Kamikawa-asahi	73.75	332	P	P	09 01 33.3	+1.4
JKA				IAmb	IAmb	09 01 33.9	
	comp=Z,11nm,0.8s						
JKA	Kamikawa-asahi	73.75	332	P	P	09 01 33.5	+1.6
	comp=Z,18nm,1.9s						
MDSI	Maura Dua	76.42	270	P	P	09 01 46.2	-1.4
	comp=Z,22nm,0.9s						
PEA0B	Petropavlovsk-	76.46	346	P	P	09 01 47.1	+0.2
PETK	Petropavlovsk-	76.46	346	P	P	09 01 46.9	0.0
	comp=Z,8.8nm,0.7s,baz=127,slow=6.2,SNR=16						
	comp=Z,8.8nm,0.7s						
KSRS	Korea Array	76.75	319	P	P	09 01 49.5	+0.7
	comp=Z,1.7nm,0.7s,baz=117,slow=5.2,SNR=6.1						
	comp=Z,1.7nm,0.7s						
BBGB	Big Mountain B	78.87	44	P	P	09 02 00.2	-0.1
BBGB				IAmb	IAmb	09 02 20.0	
	comp=Z,15nm,1.1s						
USA0B	Ussuriysk Arra	78.92	326	P	P	09 02 00.8	+0.6
USA0B				IAmb	IAmb	09 02 01.7	

	comp=Z,9.5nm,0.8s						
USRK	Ussuriysk Ar.	78.92	326	P	P	09 02 00.6	+0.4
	comp=Z,5.5nm,0.7s,baz=132,slow=2.8,SNR=7.1						
	comp=Z,5.5nm,0.7s						
USRK	Ussuriysk Ar.	78.92	326		P	09 02 01.3	+1.1
BELA	Belgrano 2	79.28	173	P	P	09 02 02.3	+0.5
KMRM	Mail Ridge	79.43	40	P	P	09 02 04.6	+1.4
KMRM				IAmb	IAmb	09 02 06.3	
	comp=Z,11nm,0.8s						
CBX	Cerro Bola	79.43	50	P	P	09 02 03.3	-0.1
CBX				IAmb	IAmb	09 02 04.0	
	comp=Z,30nm,1.3s						
O02D	Mt. Diablo Mer	79.95	40	P	P	09 02 07.8	+1.8
O02D				IAmb	IAmb	09 02 08.8	
	comp=Z,14nm,1.4s						
KHBM	Hayfork Bally	80.00	40	P	P	09 02 07.8	+1.6
AFDM	Forest Hills D	80.32	42	P	P	09 02 09.1	+1.2
ORV	Oroville	80.36	41	P	P	09 02 09.3	+1.4
O03E	Paynes Creek	80.62	40	P	P	09 02 10.6	+1.2
O03E				IAmb	IAmb	09 02 12.2	
	comp=Z,6.2nm,1.1s						
OHAK	Old Harbor	80.65	14	P	P	09 02 09.5	+0.6
M02C	Callahan	80.67	39	P	P	09 02 10.4	+0.8
M02C				IAmb	IAmb	09 02 12.5	
	comp=Z,7.0nm,0.8s						
CCCA	Chr Cany lake	80.71	46	P	P	09 02 10.2	+0.3
CCCA				IAmb	IAmb	09 02 12.8	
	comp=Z,7.5nm,1.2s						
CWC	Cottonwood Cre	80.74	45	P	P	09 02 11.2	+1.0
MDPB	Devils Postpil	80.76	44	P	P	09 02 11.9	+1.5
MPMC	Manual Prospec	80.92	46	P	P	09 02 12.4	+1.3
YBH	Yreka Blue Hor	80.96	39	P	P	09 02 12.2	+1.1
MAW	Mawson	81.01	200	P	P	09 02 11.8	+1.0
	comp=Z,1.4nm,0.5s,baz=135,slow=5.7,SNR=5.0						
	comp=Z,1.4nm,0.5s						
M03C	McCloud	81.03	40	P	P	09 02 13.2	+1.7
M03C				IAmb	IAmb	09 02 13.7	
	comp=Z,9.8nm,0.8s						
PNTR	Pine Nut	81.27	42	IAmb	IAmb	09 02 15.1	
	comp=Z,6.7nm,0.8s						
YERR	Yerington	81.44	43	P	P	09 02 14.9	+1.2
YERR				IAmb	IAmb	09 02 15.7	
	comp=Z,8.2nm,1.3s						
LHV	Little Huntoon	81.49	44	P	P	09 02 15.7	+1.9
NVAR	Mina Array Bea	81.72	44	P	P	09 02 16.5	+1.3
	comp=Z,1.8nm,0.7s,baz=222,slow=8.3,SNR=19						
	comp=Z,1.8nm,0.7s						
GMN	Gold Mountain	81.76	45	P	P	09 02 16.8	+1.3
P17K	Kvichak River	81.84	11	P	P	09 02 14.8	-0.2
TPH	Tonopah	82.22	44	IAmb	IAmb	09 02 19.7	
	comp=Z,4.7nm,0.9s						
J04A	Umpqua Nationa	82.24	38	IAmb	IAmb	09 02 20.1	
	comp=Z,16nm,0.8s						
BNX	BinXian	82.36	325	⇑P	P	09 02 18.5	+0.5
BNX				pmax	pmax		
	comp=Z,14nm,0.6s						
MOD	Modoc Plateau	82.50	40	IAmb	IAmb	09 02 21.0	
	comp=Z,4.9nm,0.7s						
IPM	Ipoh	82.56	278	P	P	09 02 20.3	+0.5
	comp=Z,24nm,0.8s						
K05A	Summer Lake	82.64	39	IAmb	IAmb	09 02 22.2	
	comp=Z,15nm,1.0s						
PINE	Pine Mountain	83.25	38	IAmb	IAmb	09 02 25.3	
	comp=Z,10nm,0.8s						
I05D	Terrebonne, OR	83.36	37	IAmb	IAmb	09 02 25.1	
	comp=Z,7.0nm,0.8s						
TUC	Tucson	83.69	52	P	P	09 02 26.1	+0.9
RPSI	Rantau Prapat	83.87	275	P	P	09 02 26.1	-0.2
	comp=Z,12nm,1.2s						
MA2	Magadan	83.97	345	P	P	09 02 25.0	-0.7
	comp=Z,12nm,1.0s						
STD	Studebaker Rid	84.03	36	IAmb	IAmb	09 02 30.2	
	comp=Z,6.0nm,0.8s						
JRO	Jston Ridge Ob	84.06	36	IAmb	IAmb	09 02 30.3	
	comp=Z,11nm,1.1s						
X16A	Lo Mia Camp, P	84.26	50	P	P	09 02 28.8	+0.9
SLKM	Skilak Lake	84.31	14	P	P	09 02 27.5	+0.1
LCMT	Little Creek M	84.31	47	P	P	09 02 29.3	+1.2
GNW	Green Mountain	84.54	34	IAmb	IAmb	09 02 30.7	
	comp=Z,3.6nm,0.8s						
GSI	Gunungsitoli	84.63	273	P	P	09 02 31.1	+1.1
	comp=Z,31nm,1.0s						
U15A	North Rim	84.67	48	IAmb	IAmb	09 02 32.4	
	comp=Z,4.5nm,0.7s						
HEH	HeiHe	85.29	329	eP	P	09 02 32.5	+0.2
HEH				pmax	pmax		
	comp=Z,10.0nm,0.6s						
A04D	Lummi Island	85.33	33	IAmb	IAmb	09 02 34.7	
	comp=Z,13nm,0.9s						
E07A	Sunnyside	85.53	36	IAmb	IAmb	09 02 35.7	
	comp=Z,8.6nm,1.0s						
HAWA	Hanford	85.61	37	IAmb	IAmb	09 02 36.1	
	comp=Z,7.4nm,0.9s						
ENH	Enshi	85.73	304	P	P	09 02 35.9	+0.9
BMO	Blue Mountains	85.99	39	IAmb	IAmb	09 02 37.6	
	comp=Z,3.2nm,0.8s						
ELIB	Princess Elisa	86.21	187	dP	P	09 02 36.4	-0.2
	comp=Z,6.9nm,0.6s						
D08A	Wollman Farm,	86.34	36	IAmb	IAmb	09 02 39.5	
	comp=Z,9.2nm,1.0s						
F10A	Beach Ranch, E	86.67	38		P	09 02 40.0	+0.9
PLID	Pearl Lake	86.89	39	IAmb	IAmb	09 02 41.5	
	comp=Z,3.0nm,0.8s						
HLID	Hailey	87.01	41	IAmb	IAmb	09 02 43.1	
	comp=Z,3.9nm,0.9s						
C09A	Chrisman Ranch	87.13	36	IAmb	IAmb	09 02 42.8	
	comp=Z,5.7nm,0.8s						
TROLL	Troll, Antarti	87.36	180	P	P	09 02 43.1	+1.0
	comp=Z,130nm,0.4s						
TROLL				pP	pP	09 04 47.6	-0.3
	comp=Z,117nm,0.7s						
VHRN	Van Horn	87.37	56	IAmb	IAmb	09 02 45.3	
	comp=Z,4.2nm,1.0s						
MNTX	Cornudas Mount	87.47	55	P	P	09 02 44.2	+1.1
	comp=Z,4.4nm,1.1s						
TX31	Lajitas Ar. Si	87.78	58		P	09 02 45.0	+0.3
TX31				IAmb	IAmb	09 02 47.3	
	comp=Z,3.0nm,0.9s						
TXAR	Lajitas Array	87.78	58	P	P	09 02 46.5	+1.8
	comp=Z,1.8nm,0.8s,baz=221,slow=5.6,SNR=21						
	comp=Z,1.8nm,0.8s						
TXAR	Lajitas Array	87.78	58	P	P	09 02 45.0	+0.3
VNA3	Neumayer Olymp	87.82	176	⇓P	P	09 02 43.9	-0.2
	comp=Z,4.5nm,0.5s						
VNA3				⇓pP	pP	09 04 52.2	+2.4
	comp=Z,4.2nm,1.0s						
VNA3	Neumayer Olymp	87.82	176	P	P	09 02 44.2	+0.1
	comp=Z,11nm,2.2s						
S34M	Telegraph Cree	87.84	23	P	P	09 02 45.5	+1.3
S34M				IAmb	IAmb	09 02 46.4	
	comp=Z,11nm,1.0s						
XAN	Xi'an	87.86	308	P	P	09 02 46.0	+1.1
XAN				S	S	09 12 39.5	0.0
XAN				pmax	pmax		
	comp=Z,16nm,1.1s						
HYT	Haines Junctio	87.92	19	IAmb	IAmb	09 02 46.1	
	comp=Z,6.2nm,0.8s						
BCYI	Bear Canyon	88.02	41	IAmb	IAmb	09 02 48.2	
	comp=Z,6.7nm,1.5s						
TASM	ASL Pad, Albuq	88.11	52	P	P	09 02 46.2	-0.1
TASM	ASL Pad, Albuq	88.11	52	P	P	09 02 47.4	+1.1
TASM				IAmb	IAmb	09 02 48.6	
	comp=Z,2.3nm,1.0s						
ALQ	Albuquerque	88.12	52	P	P	09 02 47.4	+1.1
ALQ				IAmb	IAmb	09 02 48.7	
	comp=Z,3.1nm,1.2s						
ANMO	Albuquerque	88.12	52	P	P	09 02 47.3	+1.0
ANMO	Albuquerque	88.12	52	P	P	09 02 47.1	+0.8
ANMO				IAmb	IAmb	09 02 48.6	
	comp=Z,2.9nm,1.1s						
VNA2	Neumayer--Watz	88.25	177	P	P	09 02 46.1	0.0
	comp=Z,4.2nm,0.6s,baz=161,slow=3.5						
VNA2				pP	pP	09 04 55.6	+3.5
	comp=Z,2.9nm,0.8s						
H21K	Melozitna Rive	88.47	10	IAmb	IAmb	09 02 47.4	
	comp=Z,5.9nm,0.8s						
VNA1	Neumayer--Stat	88.48	177	P	P	09 02 47.4	+0.3
	comp=Z,5.3nm,0.8s						
VNA1				pP	pP	09 04 56.6	+3.4
	comp=Z,5.9nm,1.1s						
COLA	College	88.70	13	P	P	09 02 47.4	-0.6
COLA	College	88.70	13	P	P	09 02 47.5	-0.4
COLA	College	88.70	13	P	P	09 02 47.6	-0.4
	comp=Z,23nm,1.1s						
IL31		88.81	13	P	P	09 02 48.0	-0.5
IL31				IAmb	IAmb	09 02 48.2	
	comp=Z,4.8nm,0.7s						
ILAR	Eielson Array	88.81	13	P	P	09 02 47.7	-0.8
	comp=Z,6.3nm,0.9s,baz=220,slow=5.5,SNR=36						
	comp=Z,6.3nm,0.9s						
ILAR	Eielson Array	88.81	13		P	09 02 48.0	-0.6
F19K	Shaleruckik Mo	88.83	8	IAmb	IAmb	09 02 49.1	
	comp=Z,5.8nm,0.8s						
LDM	Libby Dam	89.14	37	IAmb	IAmb	09 02 52.1	
	comp=Z,6.2nm,0.8s						
FXWY	Fox Creek	89.15	42	P	P	09 02 51.7	+0.7
HHC	Hu-ho-hao-te	89.16	315	eP	P	09 02 50.8	-0.1
HHC				pmax	pmax		
	comp=Z,7.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,94nm,4.8s						
SNOW	Snow King Moun	89.23	42	IAmb	IAmb	09 02 53.4	
	comp=Z,4.7nm,0.8s						
K27K	Chicken	89.27	15	IAmb	IAmb	09 02 52.2	
	comp=Z,6.6nm,0.8s						
CMAR	Chiang Mai Arr	89.65	290	P	P	09 02 55.3	+1.8
	comp=Z,7.2nm,1.0s,baz=124,slow=2.8,SNR=24						
	comp=Z,7.2nm,1.0s						
BW06	Boulder Array	89.65	43	IAmb	IAmb	09 02 54.9	
	comp=Z,9.9nm,1.5s						
PD31	Pinedale Array	89.65	43	P	P	09 02 53.8	+0.5
PD31				IAmb	IAmb	09 02 54.5	
	comp=Z,2.9nm,0.7s						
PDAR	Pinedale Array	89.65	43	P	P	09 02 53.9	+0.5
	comp=Z,2.5nm,0.7s,baz=217,slow=3.3,SNR=32						
	comp=Z,2.5nm,0.7s						
PDAR	Pinedale Array	89.65	43		P	09 02 53.7	+0.4
BOZ	Bozeman (W)	89.77	40	IAmb	IAmb	09 02 55.5	
	comp=Z,2.4nm,0.9s						
CHTO	Chiang Mai	89.78	290	P	P	09 02 54.3	+0.2
CHTO	Chiang Mai	89.78	290	P	P	09 02 55.3	+1.1
	comp=Z,12nm,1.2s						
DAWY	Dawson	89.98	16	P	P	09 02 54.6	+0.6
DAWY				IAmb	IAmb	09 02 55.2	
	comp=Z,9.1nm,1.0s						
K29M	Barlow Dome	90.30	17	IAmb	IAmb	09 02 57.0	
	comp=Z,6.8nm,0.8s						
I28M	Miner Creek	90.97	15	IAmb	IAmb	09 02 58.9	
	comp=Z,4.9nm,0.8s						
I30M	Mount Dempster	91.69	16	IAmb	IAmb	09 03 02.8	
	comp=Z,3.4nm,0.8s						
H29M	Whitestone	91.97	15	IAmb	IAmb	09 03 03.9	
	comp=Z,5.5nm,0.8s						
E28M	Babbage River	93.62	13	IAmb	IAmb	09 03 11.6	
	comp=Z,4.0nm,0.8s						
OK048	Pawnee Station	95.78	53	P	P	09 03 19.1	-2.1
BVAR	Borovoye Array	118.95	320	PKP	PKPdf	09 08 38.4	-0.9
	comp=Z,6.8nm,0.5s,baz=82,slow=1.5,SNR=16						
SPITS	Spitsbergen Ar	122.19	356	PKP	PKPdf	09 08 44.4	-0.5
	comp=Z,7.6nm,0.7s,baz=102,slow=7.8,SNR=5.6						
ABKAR	Akbulak array	125.92	316		PKPdf	09 08 52.2	-0.6
AKTO	Aktyubinsk	126.92	318	PKP	PKPdf	09 08 54.2	-0.4
	comp=Z,4.4nm,0.7s,baz=48,slow=2.3,SNR=5.0						
KIRV	Kirov	128.97	330	PKP	PKPdf	09 08 58.0	-0.2
	comp=Z,9.1nm,0.4s,baz=199,slow=7.9,SNR=4.1						
ARCES	ARCESS Array B	129.16	349	PKP	PKPdf	09 08 57.8	-0.6
	comp=Z,3.7nm,0.5s,baz=6.7,slow=1.2,SNR=28						
BELG	Belogornoye	132.52	323	PKP	PKPdf	09 09 05.2	+0.1
	comp=Z,21nm,0.5s,baz=252,slow=4.9,SNR=4.8						
FINES	FINESS Array B	135.94	343	PKhKP	PKPpre	09 09 02.0	
	comp=Z,0.6nm,0.5s,baz=354,slow=5.9,SNR=3.8						
FINES				PKP	PKPdf	09 09 11.7	+0.5
	comp=Z,2.5nm,0.5s,baz=54,slow=2.4,SNR=9.9						
FINES				SKP	SKPbc	09 11 50.5	+1.7
	comp=Z,2.6nm,0.8s,baz=11,slow=1.9,SNR=6.1						
NB2	NORSAR Subarra	139.26	353	PKP	PKPdf	09 09 08.8	-8.7
	comp=Z,0.4nm,0.5s,baz=16,slow=3.2						
NOA	NORSAR Array B	139.26	353	PKhKP	PKPpre	09 09 08.7	
	comp=Z,1.1nm,0.7s,baz=13,slow=2.4,SNR=6.4						
NOA				PKP	PKPdf	09 09 17.6	+0.2
	comp=Z,1.1nm,0.6s,baz=14,slow=4.0,SNR=5.6						
HFS	Hagfors	139.80	350	PKhKP	PKPpre	09 09 11.5	
	comp=Z,2.3nm,0.4s,baz=2.4,slow=3.5,SNR=18						
HOMB	Homborsund	142.28	354	i P	PKPdf	09 09 18.8	-4.0
LODK	Lodwar	142.63	247		PKPdf	09 09 23.1	-1.8
ONAU	Onsala	142.69	351	i P	PKPdf	09 09 20.0	-3.6
FABU	Falkenberg	142.94	350	i P	PKPdf	09 09 20.9	-3.1
BLEU	Blekinge	143.00	347	i P	PKPdf	09 09 20.8	-3.4
AK03	Malin Array Si	143.01	330	P	PKPab	09 09 20.9	-1.2
AKASG	Malin Array Be	143.02	330	PKP	PKPab	09 09 22.0	-0.2
	comp=Z,26nm,0.6s,baz=44,slow=4.3,SNR=132						
AKASG	Malin Array Be	143.02	330		PKPpre	09 09 21.5	
KIEV	Kiev	143.04	330		PKPpre	09 09 21.3	
KIEV	Kiev	143.04	330	⇑P	PKPab	09 09 21.3	-0.9
DEL	Delary	143.24	348	i P	PKPab	09 09 22.1	-0.7
ARPR	Arapgir-MALATY	143.47	308	PKPbc	PKPab	09 09 23.7	-0.8
MUD	Monsted U'grnd	143.98	353	i P	PKPbc	09 09 25.2	-0.1
LUNU	Lund	144.11	348	i P	PKPbc	09 09 25.0	-0.8
RNPP5	Staryi Chortor	144.11	334	PKP	PKPbc	09 09 25.3	-0.7
LUBAR	Lubar, Ukraine	144.24	331	PKP	PKPbc	09 09 25.5	-0.9
BSD	Bornholm Skovb	144.30	347	i P	PKPbc	09 09 25.9	-0.5
BAL3X	Bal3x, Balta	144.68	327	PKP	PKPdf	09 09 27.1	-0.3
GAZ	Gaziantep	144.92	305	PKPdf	PKPdf	09 09 28.0	-0.2
SORM	Soroca	145.18	328	⇓P	PKPdf	09 09 28.6	+0.4
SORM	Soroca	145.18	328	PKP	PKPdf	09 09 28.2	0.0
BNN	Bunyan	145.38	309	PKPdf	PKPdf	09 09 29.0	0.0
BZK	Bozkurt	145.39	315	PKPdf	PKPbc	09 09 29.7	-0.4
EKA	Eskdalemuir Ar	145.42	5	PKPbc	PKPdf	09 09 28.6	+0.2
	comp=Z,7.3nm,0.7s,baz=356,slow=2.4,SNR=11						
KMPD	K-Podol'skiy	145.81	330	PKP	PKPdf	09 09 29.6	+0.4
ILGA	Ilgaz	145.99	314	PKPbc	PKPbc	09 09 32.9	+0.8
ASF	Jabal al Asfar	146.39	297	PKPbc	PKPbc	09 09 33.7	+0.3
	comp=Z,10nm,0.7s,baz=139,slow=1.7,SNR=15						
VASR	Vaslui	146.46	326	⇓P	PKPbc	09 09 33.0	0.0
BR131	Keskin Array S	146.62	311		PKPbc	09 09 33.4	-0.4
BRTR	Keskin Array B	146.62	311	PKPbc	PKPbc	09 09 33.3	-0.5
	comp=Z,7.1nm,0.6s,baz=135,slow=4.4,SNR=32						
BRTR	Keskin Array B	146.62	311		PKPbc	09 09 33.5	-0.3
KIRS	Kirsehir-Merke	146.66	310	⇑P	PKPbc	09 09 34.0	+0.1
VLDR	Vladesti	146.82	325	⇑P	PKPbc	09 09 34.6	+0.6
TLCR		146.83	323	⇑P	PKPbc	09 09 33.9	0.0
GHRR		147.04	326	⇑P	PKiKP	09 09 35.6	-0.7
BUR08	Bucovina Ar. S	147.05	330		PKPbc	09 09 35.0	+0.4
BURAR	Bucovina Array	147.07	330		PKPbc	09 09 35.1	+0.4
BURAR	Bucovina Array	147.07	330	⇑P	PKPbc	09 09 35.3	+0.6
BIZ	Bicaz	147.11	328	⇓P	PKPbc	09 09 35.5	+0.8
TESR	Tescani	147.13	327	⇓P	PKPbc	09 09 34.5	-0.3
CFR	Carcaliu	147.22	324	⇑P	PKPbc	09 09 35.2	+0.2
TPGR	Topolog	147.26	323	⇑P	PKPbc	09 09 35.6	+0.4
OJC	Ojcow	147.27	338		PKPbc	09 09 34.8	-0.2
KOLS	Kolonicke sedl	147.37	334	ePKP	PKiKP	09 09 36.2	-0.7
KOLS				e		09 09 38.9	
STHS	Stebnicka Huta	147.39	336	ePKP	PKPbc	09 09 35.7	+0.3
STHS				e		09 09 39.8	
MMAI	Mount Meron Ar	147.45	299	PKPbc	PKiKP	09 09 36.9	-0.8
	comp=Z,7.2nm,0.5s,baz=44,slow=6.5,SNR=13						
TIRR	Tirgusor	147.50	323	PKPbc	PKPbc	09 09 35.9	+0.2
VRI	Vrincioaia	147.53	326	⇑P	PKPbc	09 09 35.2	-0.6
SAHR	Sahastru	147.64	326	⇓P	PKPbc	09 09 36.2	0.0
TLBR	Topalu	147.66	323	⇓P	PKPbc	09 09 36.6	+0.5
GHAJ	Ghor Haditha	147.66	296	PKPbc	PKiKP	09 09 37.4	-0.6
MANR	Mangalia	147.79	322	⇑P	PKPbc	09 09 36.6	+0.1
COVR	Voineasa-Covas	147.81	327	⇓P	PKPbc	09 09 36.3	-0.3
CY604	RAF Akrotiri,	147.84	302	PKPbc	PKPbc	09 09 36.4	-0.1
OZUR		147.85	327	⇑P	PKPbc	09 09 36.2	-0.5
BOSR	Bodos	147.93	327	⇓P	PKiKP	09 09 37.7	-0.5
SAHE	Sakarya_HENDEK	148.00	315	⇑P	PKPbc	09 09 37.1	-0.1
ISR	Istrita	148.12	325	⇓P	PKPbc	09 09 37.6	+0.2
OSTC	Ostas	148.13	342	⇑ePKP	PKPbc	09 09 37.8	+0.6
DOPR	Dopca	148.14	327	⇓P	PKiKP	09 09 38.2	-0.4
CHVC	Chvalec	148.15	342	⇑ePKP	PKPbc	09 09 37.4	+0.1
MLR	Muntele Rosu	148.18	326	⇓P	PKPbc	09 09 37.5	-0.2
STEB	Steborice	148.19	340	⇑ePKP	PKPbc	09 09 37.7	+0.3
STEB				ePKPAB	PKPab	09 09 43.1	+0.5
CLL	Collm	148.27	346	⇓iPKPbc	PKPbc	09 09 37.5	0.0
	comp=Z,28nm,0.9s						
CLL				⇑iPKPab	PKPab	09 09 42.6	-0.2
	comp=Z,12nm,0.7s						
LANS	Liptovska Anna	148.28	337	ePKP	PKiKP	09 09 38.8	0.0
LANS				e		09 09 44.1	
DPC	Dobruska-Polom	148.28	342	⇑ePKP	PKiKP	09 09 38.4	-0.4
MORC	Moravsky Berou	148.41	340	ePKP	PKPbc	09 09 37.8	-0.2
MORC	Moravsky Berou	148.41	340	⇑P	PKPbc	09 09 38.5	+0.5
BRG	Berggiesshubel	148.45	345	⇑iPKPb		09 09 38.2	
BRG				Amp		09 09 38.7	
	comp=Z,15nm,1.0s						
BRG				PKPab	PKPab	09 09 43.6	0.0
BRG				Amp		09 09 44.2	
	comp=Z,6.4nm,0.7s						
EIL	Elat	148.45	293	PKPbc	PKPbc	09 09 39.2	+0.5
	comp=Z,9.2nm,0.7s,baz=301,slow=1.6,SNR=6.7						
VOIR		148.68	327	⇑P	PKPbc	09 09 38.9	+0.1
MARR	Marisel-Cluj	148.73	331	⇑P	PKPbc	09 09 37.1	-1.8
HSKC	Hora Svate Kat	148.82	345	⇑ePKP	PKPbc	09 09 39.1	+0.2
ARR	Arges	148.94	327	⇓P	PKiKP	09 09 40.5	+0.2
VYHS	Vyhne	149.06	337	ePKP	PKPbc	09 09 39.7	+0.2
VYHS				e		09 09 46.8	
PRU	Pruhonice	149.11	343	⇑ePKP	PKPbc	09 09 39.8	+0.2
VRAC	Vranov	149.12	340	PKPbc	PKPbc	09 09 39.1	-0.5
	comp=Z,2.1nm,0.3s,baz=23,slow=3.4,SNR=7.3						
VRAC	Vranov	149.12	340	ePKP	PKPbc	09 09 39.7	0.0
PSZ	Piszkesteto	149.13	335	⇑P	PKPbc	09 09 39.2	-0.6
JAVC	Velka Javorina	149.16	339	ePKP	PKiKP	09 09 40.4	-0.3
KRUC	Moravsky	149.40	340	ePKP	PKPbc	09 09 39.8	-0.5
SIRR	Siria	149.70	331	⇑P	PKPbc	09 09 41.3	+0.1
ZVC	Zvikov	149.70	343	⇑ePKP	PKiKP	09 09 41.8	+0.1
ZVC				ePKPAB	PKPab	09 09 49.6	+0.8
MODS	Modra-Piesok	149.71	339	ePKP	PKiKP	09 09 42.0	+0.2
GZR	Gura Zlata	149.84	329	⇓P	PKPbc	09 09 41.4	-0.1
SURR	Surduc	149.88	330	⇑P	PKPbc	09 09 41.6	+0.1
ABNA	Allensteig Bun	150.04	341	ePKP	PKiKP	09 09 42.4	0.0
	comp=Z,7.7nm,0.9s						
MEM	Membach	150.09	354	dPKP	PKPbc	09 09 41.9	0.0
KHC	Kasperske Hory	150.15	344	⇑ePKP	PKiKP	09 09 42.4	-0.3
KHC				ePKPAB	PKPab	09 09 51.3	+0.5
BZS	Buzias	150.22	331	⇓P	PKPbc	09 09 42.2	-0.1
PLVB	Pleven	150.30	324	⇓P	PKPbc	09 09 42.7	+0.1
WINA	Alland / Wiene	150.34	340	ePKP	PKiKP	09 09 43.0	-0.1
	comp=Z,10nm,0.6s						
GERES	GERESS Array B	150.38	343	PKPbc	PKPbc	09 09 42.6	-0.2
	comp=Z,8.3nm,0.7s,baz=17,slow=1.4,SNR=37						
HERR	Herculane	150.39	329	⇓P	PKPbc	09 09 42.6	-0.1
BMRD	Maredsous	150.50	356	dPKP	PKiKP	09 09 43.1	-0.2
CONA	Conrad Observa	150.56	340	i PKP	PKPbc	09 09 43.3	+0.1
	comp=Z,10.0nm,0.7s						
RCHB	Rochefort	150.61	355	dPKP	PKPbc	09 09 43.1	0.0
RONA	Rosalia, Austr	150.62	339	i PKP	PKPbc	09 09 43.3	0.0
	comp=Z,13nm,0.5s						
DOU	Dourbes	150.72	356	dPKP	PKPbc	09 09 43.3	0.0
TAVA	DENIZLI_Tavas	150.93	311	⇓P	PKPbc	09 09 44.3	-0.1
WLF	Walferdange	151.01	354	dPKP	PKiKP	09 09 45.0	+0.7
MORH	Mrgy, Hungar	151.02	335	⇓P	PKPbc	09 09 44.1	0.0
MOA	Molln	151.12	342	i PKP	PKPbc	09 09 44.0	-0.4
	comp=Z,3.8nm,0.6s						
BOVS	Bovan	151.65	328	⇑P	PKPbc	09 09 45.0	-0.6
SESA	Seetaler Alpe,	151.69	341	ePKP	PKPbc	09 09 45.1	-0.8
	comp=Z,31nm,0.6s						
SOKA	Soboth	151.93	340	ePKP	PKPbc	09 09 45.6	-0.7
	comp=Z,6.6nm,1.0s						
LESA	Schwarzleotal	151.95	343	ePKP	PKPbc	09 09 45.8	-0.5
	comp=Z,4.2nm,0.5s						
WATA	Walderalm	152.31	345	ePKP	PKPbc	09 09 46.8	-0.4
	comp=Z,5.2nm,0.5s						
WTTA	Wattenberg	152.37	345	ePKP	PKPbc	09 09 47.0	-0.4
	comp=Z,6.9nm,0.5s						
MYKA	Terra Mystica	152.41	342	ePKP	PKPbc	09 09 46.2	-1.1
	comp=Z,3.0nm,0.6s						
MOTA	Moosalm	152.42	346	ePKP	PKPbc	09 09 46.9	-0.5
	comp=Z,6.3nm,0.7s						
SQTA	Sankt Quirin	152.51	345	ePKP	PKPbc	09 09 47.2	-0.5
	comp=Z,6.5nm,0.6s						
ABTA	Abfaltersbach	152.62	343	ePKP	PKPbc	09 09 47.2	-0.7
	comp=Z,9.0nm,0.6s						
DAVA	Damuels	152.74	347	ePKiKP	PKiKP	09 09 49.0	+0.7
	comp=Z,8.5nm,1.0s						
FETA	Feichten	152.81	346	ePKP	PKPbc	09 09 48.1	-0.2
	comp=Z,6.8nm,0.9s						
DAVOX	Davos/Dischmat	153.23	347	PKPbc	PKiKP	09 09 49.4	0.0
	comp=Z,8.4nm,0.6s,baz=199,slow=0.7,SNR=9.9						
ESDC	Sonseca Array	160.71	12	PKPab	PKPab	09 10 36.2	-0.3
	comp=Z,1.8nm,0.8s,baz=344,slow=3.5,SNR=10.0						
TORD	Torodi Ar. Bea	172.32	183	PKP	PKPdf	09 09 59.2	-0.7
	comp=Z,2.0nm,0.8s,baz=96,slow=0.1,SNR=10.0						

IDC 30 09:00:01.7±4.5, 52°.33N×35°.32E, h0km, mbtmp3.4/5, ML3.1/5, Error ellipse: s-maj=51.5km s-min=19.9km az=115.0, Baltic States-Belarus-Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AKASG	Malin Array Be	4.14	249	Pn	Pn	09 01 04.4	-1.7
	1.1nm,0.3s,baz=55,slow=11,SNR=3.5						
AKASG				Sn	Sn	09 01 57.5	+2.3
	3.7nm,0.3s,baz=63,slow=21,SNR=5.7						
	0.8nm,0.3s						
AKASG				AML	AML		
I43RU	DUBNA INFRASON	4.54	13	I	I	09 24 35.0	
	0.1nm,1.1s,baz=194,slow=317,SNR=16						
FINES	FINESS Array B	10.43	335	Pn	Pn	09 02 30.5	-1.8
	0.4nm,0.3s,baz=149,slow=15,SNR=13						
FINES				Sn	Sn	09 04 21.5	-8.2
	0.4nm,0.3s,baz=152,slow=25,SNR=2.1						
	1.0nm,0.3s						
FINES				AML	AML		
HFS	Hagfors	14.29	312	Pn	Pn	09 03 20.6	-4.4
	0.2nm,0.3s,baz=115,slow=21,SNR=1.9						
	0.4nm,0.4s						
HFS				AML	AML		
I31KZ	AKTYUBINSK INF	14.31	89	I	I	10 31 30.0	
	baz=290,slow=322,SNR=0.4						
NOA	NORSAR Array B	15.77	313	Pn	Pn	09 03 39.8	-5.1
	baz=123,slow=12,SNR=5.6						
	0.5nm,0.7s						
ARCES	ARCESS Array B	17.87	349	Pn	Pn	09 04 06.0	-5.3
	0.4nm,0.3s,baz=161,slow=11,SNR=25						
	0.9nm,0.7s						
ARCES				AML	AML		

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*IDC **30** 09:00:38.6±2.2, 17°.47S×178°.87W, h590km±20km, mb3.0/6, mbtmp3.9/7, Error ellipse: s-maj=124.3km s-min=18.6km az=152.0*

ISC 30 09:00:34.6±1.6, 17°.4S±0°.9×178°.8W±0°.5, h539km, n7, σ0ˢ.48/6, mb3.4/6, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSVF	Nonsavu	2.99	262	P	P	09 01 56.7	+8.0
	29nm,0.6s,baz=68,slow=19,SNR=46						
STKA	Stephens Creek	38.53	240	P	P	09 07 10.9	-0.2
	2.0nm,0.5s,baz=81,slow=9.6,SNR=5.7						
	2.0nm,0.5s						
WRA	Warramunga Arr	44.33	259	P	P	09 07 57.4	+0.2
	0.8nm,0.5s,baz=94,slow=7.1,SNR=5.0						
	0.8nm,0.5s						
ASAR	Alice Springs	44.55	254	P	P	09 07 59.0	+0.2
	8.2nm,0.6s,baz=88,slow=8.4,SNR=54						
	8.2nm,0.6s						
NVAR	Mina Array Bea	79.32	44	P	P	09 11 44.7	-0.1
	0.4nm,0.7s,baz=258,slow=5.3,SNR=4.0						
	0.4nm,0.7s						
TXAR	Lajitas Array	86.05	58	P	P	09 12 19.2	+0.5
	0.4nm,0.7s,baz=216,slow=6.2,SNR=6.2						
	0.4nm,0.7s						
PDAR	Pinedale Array	87.24	44	P	P	09 12 23.6	-0.6
	0.2nm,0.6s,baz=260,slow=5.1,SNR=2.2						
	0.2nm,0.6s						

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*IDC **30** 09:00:45.4±0.8, 1°.70N×126°.80E, h0km, mb4.2/8, mbtmp4.1/9, ML3.6/1, MS3.1/4, Error ellipse: s-maj=60.2km s-min=17.3km az=77.0*

*DJA **30** 09:00:48.5±0.3, 2°N±3°×12°7E±°, h10km, M4.1/10, MLv4.1/10*

*NEIC **30** 09:00:49.8±0.7, 1°.65N±0°.07×126°.64E±0°.09, h29km±6km, mb4.2/12, Error ellipse: s-maj=13.9km s-min=9.1km az=62.0*

ISC 30 09:00:47.1±0.6, 1°.74N±0°.05×126°.70E±0°.07, h10km, n36, σ1ˢ.53/35, mb4.2/11, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TNTI	Ternate	1.17	145		Pb	09 01 09.9	+0.4
TNTI	Ternate	1.17	145	P	Pb	09 01 10.0	+0.6
TNTI				S	Sb	09 01 25.8	+1.1
MNI	Manado	1.89	261	P	Pn	09 01 19.7	+0.3
MNI				S	Sn	09 01 44.6	+1.3
MNI				AML	AML		
GTOI	Gorontalo	3.85	253	P	Pn	09 01 49.0	+2.6
DDMP	Don Marcelino,	4.44	347	eP	Pn	09 01 58.1	+3.5
DDMP				eS	Sn	09 02 45.8	-0.6
LUWI	Luwuk	4.81	235	Pn	Pn	09 02 04.1	+4.5
SIJI	Sorong	5.25	120	LR	LR	09 04 29.1	
	comp=Z,298nm,18.8s,baz=316,slow=44						

DAV	Davao City (W)	5.41	348	LR	LR	09 04 42.3	
	comp=Z,98nm,19.3s,baz=142,slow=43						
TOLI2	Tolitoli	5.95	264	Pn	Pn	09 02 14.9	-0.4
MYLDM	Lahad Datu	8.87	293	Pn	Pn	09 02 55.5	+0.1
SBUM	Sibu	14.49	273	Pn	Pn	09 04 11.9	-0.5
KNRA	Kununurra	17.43	173		Pn	09 04 50.1	-0.4
FITZ	Fitzroy Crossi	19.74	183	P	P	09 05 16.8	-0.5
	0.1nm,0.3s,baz=5.2,slow=12,SNR=5.1						
	2.4nm,0.8s						
FITZ				AML	AML		
FITZ	Fitzroy Crossi	19.74	183	P	P	09 05 15.8	-1.4
GUMO	Guam	21.48	56	LR	LR	09 12 20.8	
	comp=Z,28nm,20.5s,baz=235,slow=32						
WB0	Warramunga Arr	22.67	161		P	09 05 47.3	-1.6
WB0				IAmb	IAmb	09 05 49.8	
	comp=Z,19nm,1.1s						
WRAB	Tennant Creek	22.81	161	P	P	09 05 48.4	-2.0
WRA	Warramunga Arr	22.82	161	P	P	09 05 48.9	-1.5
	comp=Z,12nm,0.8s,baz=340,slow=10,SNR=32						
WRA				PcP	PcP	09 09 41.7	-0.2
	comp=Z,0.3nm,0.6s,baz=319,slow=2.6,SNR=2.2						
	comp=Z,12nm,0.8s						
WRA	Warramunga Arr	22.82	161		P	09 05 48.2	-2.2
WB2	Warramunga Arr	22.82	161	P	P	09 05 49.0	-1.4
WR8	Warramunga Arr	22.88	161		P	09 05 49.2	-1.8
WR8				IAmb	IAmb	09 05 52.5	
	comp=Z,12nm,0.8s						
PMG	Port Moresby	23.19	119	LR	LR	09 18 10.3	
	comp=Z,86nm,18.2s,baz=123,slow=45						
AS31	Alice Springs	26.21	165		P	09 06 21.4	-0.9
AS31				IAmb	IAmb	09 06 24.8	
	comp=Z,2.4nm,0.8s						
ASAR	Alice Springs	26.21	165	P	P	09 06 21.2	-1.1
	comp=Z,4.7nm,0.8s,baz=348,slow=9.2,SNR=38						
ASAR				PcP	PcP	09 09 49.1	-0.2
	comp=Z,0.5nm,0.7s,baz=337,slow=2.3,SNR=2.2						
	comp=Z,4.7nm,0.8s						
ASAR	Alice Springs	26.21	165	P	P	09 06 19.6	-2.7
MJAR	Matsushiro Arr	36.23	16	P	P	09 07 50.3	0.0
	comp=Z,2.2nm,0.8s,baz=191,slow=9.6,SNR=5.6						
	comp=Z,2.2nm,0.8s						
MJAR	Matsushiro Arr	36.23	16	P	P	09 07 50.2	-0.1
MJAR				IAmb	IAmb	09 07 54.3	
	comp=Z,2.0nm,0.9s						
STKA	Stephens Creek	36.30	158	P	P	09 07 49.7	-1.3
	comp=Z,2.6nm,0.9s,baz=331,slow=10,SNR=3.3						
	comp=Z,2.6nm,0.9s						
MKAR	Makanchi Array	59.17	326	P	P	09 10 48.6	+0.3
	comp=Z,0.7nm,0.5s,baz=119,slow=8.6,SNR=1.4						
	comp=Z,0.7nm,0.5s						
MKAR	Makanchi Array	59.17	326	P	P	09 10 48.0	-0.3
KURBB	Kurchatov Arra	63.39	328	P	P	09 11 16.8	0.0
	comp=Z,1.5nm,0.5s,baz=134,slow=6.5,SNR=4.1						
	comp=Z,1.5nm,0.5s						
KURK	Kurchatov	63.40	328	P	P	09 11 17.2	+0.5
VNDA	Vanda	81.47	173	P	P	09 13 03.7	-0.4
	comp=Z,1.8nm,0.8s,baz=318,slow=6.4,SNR=7.2						
	comp=Z,1.8nm,0.8s						
VNDA	Vanda	81.47	173	P	P	09 13 03.0	-1.1
VNDA				IAmb	IAmb	09 13 04.4	
	comp=Z,2.4nm,0.9s						
QSPA	South Pole Qui	91.66	180	P	P	09 13 55.0	+0.5
	comp=Z,0.8nm,0.7s,baz=8.4,slow=4.2,SNR=6.8						
	comp=Z,0.8nm,0.7s						
QSPA	South Pole Qui	91.66	180	P	P	09 13 53.8	-0.7
QSPA				IAmb	IAmb	09 14 24.2	
	comp=Z,1.8nm,1.1s						

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*MOS **30** 09:02:03.9±1.3, 51.°22N×97.°94E, h6^{km}, mb4.4/6, Error ellipse: s-maj=9.6km s-min=7.6km az=20.9*

*IDC **30** 09:02:04.6±0.6, 51.°20N×97.°96E, h0^{km}, mb3.9/9, mbtmp3.8/18, ML3.3/8, MS3.2/25, Error ellipse: s-maj=15.7km s-min=7.2km az=9.0*

*ASRS **30** 09:02:05.0±0.2, 51°N±2°×97.°9E±1.°0, h10^{km}, MLh4.8/8, Error ellipse: s-maj=4.0km s-min=2.1km az=6.6, confirmed*

*NNC **30** 09:02:31.7±4.5, 51.°91N×95.°47E, h0^{km}, mb3.9, mpv3.7, Error ellipse: s-maj=41.4km s-min=28.1km az=115.0*

ISC 30 09:02:06.0±0.4**, 51.°22N**±0.°03×**97.°84E**±0.°03**, h10^{km}, n100, σ2.^{s}56**/109**, mb4.0**/11**, MS3.2**/23**, 9C-5D,**

Tuva-Buryatia-Mongolia border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KNGR	Kungurtug, Tuv	0.65	199	⇓*i*PG	Pg	09 02 17.3	-1.3
KNGR				*e*S	Sg	09 02 27.0	-0.2
KNGR	Kungurtug, Tuv	0.65	199	Pg	Pg	09 02 17.4	-1.2
KNGR				Sg	Sg	09 02 27.3	+0.1
KNGR				AML	AML		
TDJR	Todzha	1.60	318	PN	Pg	09 02 36.4	-0.3
TDJR						09 02 58.8	
TDJR	Todzha	1.60	318	Pg	Pg	09 02 36.4	-0.3
TDJR				Sg	Sg	09 02 58.9	+1.4
TDJR				AML	AML		
MOY	Mondy	2.02	76	*e*PN	Pb	09 02 39.7	-3.2
MOY				*i*		09 02 44.3	
MOY				*e*		09 03 05.8	
MOY				*i*		09 03 10.0	
ARS	Arshan	2.94	74	*e*PN	Pb	09 02 56.1	-2.5
ARS				*e*		09 03 33.7	
ARS				pmax	pmax		
	comp=Z,334nm,0.7s						
ARS				smax	smax		
	comp=N,3µm,0.7s						
ZAK	Zakamensk	3.55	102	*e*PN	Pb	09 03 05.3	-3.6
ZAK				*e*		09 03 51.9	
ZAK				pmax	pmax		
	comp=Z,258nm,0.6s						
ZAK				smax	smax		
	comp=N,2µm,0.8s						
ZAK	Zakamensk	3.55	102	Pg	Pb	09 03 05.7	-3.2
ZAK				Sg	Sb	09 03 52.3	+0.2
ZAK				AML	AML		
TLY	Talaya	3.66	81	Pn	Pn	09 03 02.5	-0.1
	comp=N,8.3nm,0.3s,baz=247,slow=14,SNR=22						
TLY				Pg	Pb	09 03 08.6	-2.1
	comp=N,17nm,0.3s,baz=279,slow=10,SNR=19						
TLY				Lg	Lg	09 03 53.9	
	comp=N,33nm,0.3s,baz=15,slow=11,SNR=11						
	comp=N,2.0nm,0.4s						
TLY				AML	AML		
TLY	Talaya	3.66	81	*i* PN	Pn	09 03 01.9	-0.7
TLY	Talaya	3.66	81	Pg	Pb	09 03 08.6	-2.1
TLY				Sg	Sb	09 03 55.2	+0.1
TLY				AML	AML		
IRK	Irkutsk	4.12	73	*e*PN	Pb	09 03 16.1	-2.6
IRK				*e*		09 04 07.2	
IRK				pmax	pmax		
	comp=Z,127nm,0.2s						
IRK				smax	smax		
	comp=N,3µm,1.3s						
IRK	Irkutsk	4.12	73	Pg	Pb	09 03 18.3	-0.4
IRK				Sg	Sb	09 04 10.4	+1.9
MINR	Mina	4.29	331	Pg	Pg	09 03 24.3	-3.8
MINR				Sg	Sg	09 04 22.2	-1.4
MINR				AML	AML		
CERR	Cheremushki	4.29	295	PN	Pb	09 03 21.3	-0.2
CERR	Cheremushki	4.29	295	Pg	Pb	09 03 24.0	+2.5
CERR				Sg	Sg	09 04 20.6	-3.1
CERR				AML	AML		
DJO	Djoy, Khakassi	4.38	293	PN	Pb	09 03 23.9	+0.9
DJO	Djoy, Khakassi	4.38	293	Pg	Pb	09 03 24.8	+1.8
DJO				Sg	Sg	09 04 24.7	-1.9
DJO				AML	AML		
TEL	Teeli	4.82	271	PN	Pn	09 03 21.1	+2.5
TEL						09 03 33.9	
TEL						09 04 35.8	
TEL	Teeli	4.82	271	Pn	Pn	09 03 21.2	+2.5
TEL				Pg	Pb	09 03 34.0	+3.4
TEL				Sg	Sg	09 04 35.9	-4.8
TEL				AML	AML		
VEH	Verkhnyaya Baz	5.05	297	PN	Pn	09 03 24.0	+2.2
VEH						09 03 36.7	
VEH	Verkhnyaya Baz	5.05	297	Pn	Pn	09 03 24.1	+2.2
VEH				Pg	Pb	09 03 36.7	+2.2
VEH				Sg	Sg	09 04 44.5	-3.6
TRG	Tyrgan	5.48	70	*e*PN	Pb	09 03 35.5	-6.2
TRG				*e*		09 03 40.9	
TRG				*e*		09 04 49.1	
TRG				pmax	pmax		
	comp=Z,94nm,0.9s						
TRG				smax	smax		
	comp=N,842nm,1.6s						
LUZB	Luzhba, Kemero	5.99	298	PN	Pn	09 03 39.4	+4.8
LUZB						09 03 52.9	
LUZB	Luzhba, Kemero	5.99	298	Pn	Pn	09 03 39.4	+4.8
LUZB				Pg	Pb	09 03 52.9	+2.5
LUZB				Sg	Sg	09 05 11.7	-6.5
CUR	Chagan-Uzun	6.14	263	PN	Pn	09 03 39.1	+2.3
CUR						09 03 57.2	
CUR	Chagan-Uzun	6.14	263	Pn	Pn	09 03 39.1	+2.3
CUR				Pg	Pb	09 03 57.2	+4.2
CUR				Sg	Sg	09 05 16.9	-6.1
ULGR	Ulagan, Altay	6.28	268	PN	Pn	09 03 41.2	+2.5
ULGR						09 04 01.0	
ULGR	Ulagan, Altay	6.28	268	Pn	Pn	09 03 41.2	+2.5
ULGR				Pg	Pg	09 04 01.0	-5.1
ULGR				Sg	Sg	09 05 21.6	-5.9
TASR	Tashtagol	6.34	288	Pg	Pg	09 04 01.7	-5.7
TASR				Sg	Sg	09 05 26.3	-3.2
YALR	Yailyu, Altay	6.42	279	PN	Pn	09 03 43.2	+2.7
YALR						09 04 03.3	
YALR	Yailyu, Altay	6.42	279	Pn	Pn	09 03 43.2	+2.7
YALR				Pg	Pg	09 04 03.4	-5.4
YALR				Sg	Sg	09 05 27.2	-4.6
SONM	Songino Array	6.52	118	Pn	Pn	09 03 43.5	+1.5
	comp=N,0.7nm,0.3s,baz=295,slow=16,SNR=3.0						
SONM				Pg	Pb	09 03 58.5	-0.9
	comp=N,3.0nm,0.3s,baz=301,slow=17,SNR=42						
SONM				Lg	Lg	09 05 24.9	
	comp=N,8.4nm,0.3s,baz=299,slow=29,SNR=13						
	comp=N,1.5nm,0.4s						
SONM				AML	AML		
AKAR	Aktash	6.55	266	PN	Pn	09 03 45.1	+2.7
AKAR						09 04 05.6	
AKAR	Aktash	6.55	266	Pn	Pn	09 03 45.1	+2.7
AKAR				Pg	Pb	09 04 05.6	+5.7
AKAR				Sg	Sg	09 05 29.6	-6.5
KIYZ	Kiyzas, Kuzbas	6.60	295	Pg	Pb	09 04 04.3	+3.5
KIYZ				Sg	Sg	09 05 33.5	-4.2
ARTR	Artybash	6.62	279	P*	Pg	09 04 09.4	-3.2
ARTR	Artybash	6.62	279	Pg	Pg	09 04 09.5	-3.2
ARTR				Sg	Sg	09 05 34.5	-3.8
CHBI	Chibit, Altay	6.62	266	PN	Pn	09 03 46.4	+3.0
CHBI						09 04 07.3	
CHBI	Chibit, Altay	6.62	266	Pn	Pn	09 03 46.4	+3.0
CHBI				Pg	Pg	09 04 07.4	-5.3
CHBI				Sg	Sg	09 05 31.8	-6.6
DGZ	Jazzator, Alta	6.82	261	*i* PN	Pn	09 03 47.3	+1.1
ULN	Ulaanbaatar	6.87	116	*i* PN	Pn	09 03 46.2	-0.7
ZAA0	Zalesovo Array	8.39	294	⇓Pn	Pn	09 04 11.1	+3.6
	comp=N,2.1nm,0.8s						
ZAA0				⇑Pg	Pb	09 04 36.6	+5.4
	comp=N,12nm,0.9s						
ZAA0				⇓Lg	Lg	09 06 05.0	
	comp=N,94nm,0.9s						
ZALV	Zalesovo Beam	8.39	294	Pn	Pn	09 04 07.9	+0.4
	comp=N,0.2nm,0.3s,baz=105,slow=11,SNR=9.5						
ZALV				Lg	Lg	09 06 26.6	
	comp=N,1.6nm,0.3s,baz=105,slow=23,SNR=10						
ZALV				LR	LR	09 07 29.7	
	comp=N,185nm,19.6s,baz=104,slow=38						
	comp=N,0.9nm,0.5s						
ZALV				AML	AML		
MK31	Makanchi Array	11.13	253	⇑Pn	Pn	09 04 54.0	+8.9
	comp=N,0.8nm,0.6s,baz=68,slow=15,SNR=3.5						
MK31				⇑Sn	Sn	09 06 49.0	-0.6
	comp=N,1.7nm,0.6s						
MK31				⇑Lg	Lg	09 07 46.3	
	comp=N,14nm,0.9s,baz=66,slow=30,SNR=4.5						
MK31	Makanchi Array	11.13	253	*i* P	Pn	09 04 46.1	+1.0
MKAR	Makanchi Array	11.13	253	Pn	Pn	09 04 48.7	+3.6
	comp=N,0.1nm,0.3s,baz=61,slow=15,SNR=3.8						
MKAR				Sn	Sn	09 06 47.6	-2.0
	comp=N,0.4nm,0.3s,baz=72,slow=19,SNR=2.0						
MKAR				Lg	Lg	09 07 54.0	
	comp=N,0.4nm,0.3s,baz=58,slow=33,SNR=5.6						
MKAR				LR	LR	09 09 29.1	
	comp=N,72nm,21.3s,baz=55,slow=40						
	comp=N,0.3nm,0.4s						
MKAR				AML	AML		
MAKZ	Makanchi	11.31	253	⇑Pn	Pn	09 05 01.7	+14
	comp=N,1.6nm,0.6s						
MAKZ				⇑Sn	Sn	09 06 56.9	+2.9
	comp=N,2.9nm,0.8s						
MAKZ				⇓Lg	Lg	09 07 57.1	
	comp=N,38nm,1.4s						
KURK	Kurchatov	12.13	275	⇓Pn	Pn	09 05 06.5	+7.8
	comp=N,0.7nm,0.8s						
KURK				⇑Lg	Lg	09 08 09.1	
	comp=N,18nm,1.1s						
KURK	Kurchatov	12.13	275	*i* P	Pn	09 04 59.1	+0.4
KURBB	Kurchatov Arra	12.20	275	Pn	Pn	09 05 01.2	+1.5
	comp=N,0.1nm,0.3s,baz=80,slow=14,SNR=6.0						
KURBB				Lg	Lg	09 08 27.2	
	comp=N,0.2nm,0.3s,baz=81,slow=32,SNR=7.2						
KURBB				LR	LR	09 09 45.3	
	comp=N,103nm,21.5s,baz=202,slow=38						
	comp=N,0.8nm,0.8s						
KURBB				AML	AML		
KURBB	Kurchatov Arra	12.20	275	⇑Pn	Pn	09 05 04.7	+5.0
	comp=N,2.6nm,0.4s						
KURBB				⇑Lg	Lg	09 08 09.5	
	comp=N,63nm,0.9s						
BTO2	Baotou	13.39	137	*e*P	Pn	09 05 14.8	-1.3
BTO2				S	Sn	09 07 44.5	-0.5
BTO2				pmax	pmax		
	comp=Z,9.0nm,0.7s						
BTO2				pmax	pmax		
	comp=Z,200nm,5.9s						
BTO2				LR	LR		
	comp=N,890nm,8.1s						
BTO2				LR	LR		
	comp=E,690nm,5.8s						
BTO2				LR	LR		
	comp=Z,1µm,8.4s						
HILR	Hailar Array B	14.07	88	Lg	Lg	09 09 26.3	
	baz=275,slow=33						
LZH	Lanzhou	15.73	162	*e*P	Pn	09 05 47.3	-0.4
LZH				sP	P	09 05 52.5	+0.8
LZH				pmax	pmax		
	comp=Z,17nm,1.1s						
LZH				LR	LR		
	comp=N,170nm,10.7s						
LZH				LR	LR		
	comp=E,490nm,11.2s						
LZH				LR	LR		
	comp=Z,330nm,11.9s						
LZDM	Lanzhou Array	15.83	162	Pn	Pn	09 05 49.8	+0.7
	comp=Z,2.0nm,0.3s,baz=356,slow=13,SNR=5.7						
LZDM				Lg	Lg	09 10 25.8	
	baz=20,slow=42						
BVAR	Borovoye Array	16.92	287	Pn	Pn	09 06 01.1	-1.5
	comp=Z,0.1nm,0.3s,baz=82,slow=12,SNR=15						
	comp=Z,1.4nm,0.5s						
BVAR				AML	AML		
BORK	Borovoye	16.96	287	*i* P	Pn	09 06 03.3	+0.2
AAK	Ala-Archa	18.05	251	Pn	P	09 06 18.1	+0.7
	comp=Z,0.2nm,0.3s,baz=52,slow=22,SNR=3.5						
AAK				Lg	Lg	09 11 32.7	
	comp=Z,0.3nm,0.3s,baz=56,slow=22,SNR=2.0						
	comp=Z,2.0nm,0.6s						
AAK				AML	AML		
AAK	Ala-Archa	18.05	251	*i* P	P	09 06 17.8	+0.4
NRIK	Noril'sk	18.83	349	Pn	Pn	09 06 25.4	-0.6
	comp=Z,0.3nm,0.3s,baz=132,slow=10,SNR=2.3						
NRIK				Lg	Lg	09 11 52.4	
	comp=Z,0.3nm,0.3s,baz=101,slow=17,SNR=1.0						
NRIK				LR	LR	09 14 22.4	
	comp=Z,30nm,21.1s,baz=152,slow=39						
	comp=Z,5.0nm,0.8s						
NRIK				AML	AML		
NRIK	Noril'sk	18.83	349	*i* P	P	09 06 24.0	-1.5
NRIK				pmax	pmax		
	comp=Z,10.0nm,1.4s						
YAK	Yakutsk	20.36	46	*i* P	P	09 06 39.9	-2.3
YAK				pmax	pmax		
	comp=Z,12nm,0.6s						
KLR	Kul'dur	21.68	82	P	P	09 06 56.1	-0.5
	comp=Z,0.6nm,0.4s,baz=274,slow=8.8,SNR=3.7						
KLR				LR	LR	09 15 44.7	
	comp=Z,52nm,19.2s,baz=284,slow=38						
	comp=Z,0.6nm,0.4s						
KLR	Kul'dur	21.68	82	*i* P	P	09 06 53.5	-3.1
KLR				pmax	pmax		
	comp=Z,7.0nm,1.5s						
ARTI	Arti	23.62	298	P	P	09 07 17.0	+0.1
ARTI				S	S	09 11 34.1	+3.0
ARTI				SS	SnSn	09 12 10.4	+2.7
TIXI	Tiksi	24.75	23	*i* P	P	09 07 26.5	-0.7
TIXI				pmax	pmax		
	comp=Z,11nm,0.9s						
AKTO	Aktyubinsk	24.96	284	P	P	09 07 30.2	+0.9
	comp=Z,6.4nm,0.9s,baz=78,slow=7.0,SNR=13						
AKTO				LR	LR	09 17 32.5	
	comp=Z,58nm,21.4s,baz=308,slow=37						
	comp=Z,6.4nm,0.9s						
KSRS	Korea Array	25.33	111	LR	LR	09 18 44.8	
	comp=Z,10nm,20.8s,baz=290,slow=40						
KIRV	Kirov	28.25	304	LR	LR	09 20 24.9	
	comp=Z,68nm,18.0s,baz=114,slow=39						
JNU	Nakatsue	30.09	114	LR	LR	09 20 07.9	
	comp=Z,38nm,18.8s,baz=245,slow=36						
ASAJ	Asahikawa	30.57	86	LR	LR	09 19 40.6	
	comp=Z,50nm,20.8s,baz=255,slow=35						
BELG	Belogornoye	30.57	292	*i* P	P	09 08 19.5	0.0
BELG				pmax	pmax		
	comp=Z,3.0nm,1.3s						
CMAR	Chiang Mai Arr	32.70	178	LR	LR	09 22 32.3	
	comp=Z,22nm,20.2s,baz=175,slow=38						
LVZ	Lovozero	34.21	323	*i* P	P	09 08 57.5	+6.3
LVZ	Lovozero	34.21	323	PKP	P	09 08 57.3	+6.1
KBZ	Khabaz	37.12	280	LR	LR	09 27 36.5	
	comp=Z,21nm,19.0s,baz=44,slow=41						
SHA1	Shidzhatmaz	37.26	281	*i* P	P	09 09 17.9	0.0
ARCES	ARCESS Array B	37.35	326	P	P	09 09 19.8	+1.6
	comp=Z,1.5nm,0.6s,baz=85,slow=10,SNR=4.2						
ARCES				LR	LR	09 25 13.7	
	comp=Z,35nm,20.6s,baz=51,slow=37						
	comp=Z,1.5nm,0.6s						
GNI	Garni	37.93	274	LR	LR	09 26 30.7	
	comp=Z,31nm,18.1s,baz=96,slow=39						
FINES	FINESS Array B	39.07	314	LR	LR	09 27 23.3	
	comp=Z,42nm,20.4s,baz=74,slow=39						
MNK	Minsk	40.78	303	*i* P	P	09 09 47.9	+1.0
MNK				*i*		09 11 22.5	
MNK				*i* PPP	PPP	09 11 48.7	
MNK				*i* S	S	09 16 00.7	+3.4
MNK				*i* SSS	SSS	09 19 29.0	
MNK				*i*		09 19 52.9	
MNK				pmax	pmax		
	comp=N,26nm,0.9s						
MNK				pmax	pmax		
	comp=E,21nm,0.9s						
MNK				pmax	pmax		
	comp=Z,7.0nm,0.6s						
MNK				MLR	MLR		
	comp=E,37nm,16.0s						
MNK				MLR	MLR		
	comp=Z,43nm,15.0s						
MNK				MLR	MLR		
	comp=N,59nm,18.0s						
MNK	Minsk	40.78	303	*i* P	P	09 09 48.0	+1.0
	comp=E,21nm,0.9s						
MNK				*i* P	P	09 09 48.0	+1.0
	comp=N,26nm,0.9s						
MNK				*i* P	P	09 09 48.0	+1.0
	comp=Z,7.0nm,0.6s,baz=65						
MNK				*i* PP	PnPn	09 11 22.5	-2.3
MNK				*i* PPP	PPP	09 11 48.8	
MNK				*i* S	S	09 16 00.7	+3.4
MNK				*i* SS	SnSn	09 19 03.8	-0.4
MNK				*i* SSS	SSS	09 19 29.0	
MNK				*i* LQ	LQ	09 24 21.1	
MNK				*i* LR	LR	09 26 53.7	
MNK				*i* LRM	MLR	09 28 01.2	
	comp=E,37nm,16.3s						
MNK				*i* LRM	MLR	09 28 07.2	
	comp=Z,43nm,15.1s						
MNK				*i* LRM	MLR	09 28 41.5	
	comp=N,59nm,18.4s						
AKASG	Malin Array Be	41.77	297	LR	LR	09 28 21.5	
	comp=N,62nm,20.6s,baz=56,slow=38						
BRTR	Keskin Array B	45.09	281	LR	LR	09 32 08.2	
	comp=N,17nm,18.1s,baz=99,slow=40						
HFS	Hagfors	45.15	315	LR	LR	09 29 25.7	
	comp=N,36nm,20.7s,baz=54,slow=36						
NOA	NORSAR Array B	45.80	317	P	P	09 10 28.3	+0.9
	comp=N,0.8nm,0.6s,baz=60,slow=7.7,SNR=3.9						
NOA				LR	LR	09 30 38.3	
	comp=N,17nm,20.8s,baz=55,slow=37						
	comp=N,0.8nm,0.6s						
VRAC	Vranov	49.42	302	LR	LR	09 33 16.2	
	comp=N,39nm,18.1s,baz=49,slow=38						
CLL	Collm	50.15	305	LV		09 28 00.0	
CLL				AMS	AMS	09 34 00.0	
	comp=Z,100nm,16.9s						
EIL	Elat	50.78	270	LR	LR	09 33 54.2	
	comp=Z,26nm,18.7s,baz=14,slow=38						
GERES	GERESS Array B	51.24	303	LR	LR	09 34 51.1	
	comp=Z,34nm,20.5s,baz=18,slow=38						
ILAR	Eielson Array	54.02	29	P	P	09 11 30.3	+0.5
	comp=Z,0.7nm,0.8s,baz=329,slow=5.1,SNR=5.4						
	comp=Z,0.7nm,0.8s						
EKA	Eskdalemuir Ar	55.28	317	LR	LR	09 38 12.8	
	comp=Z,40nm,19.4s,baz=22,slow=39						
ESDC	Sonseca Array	66.73	305	P	P	09 12 58.1	+1.0
	comp=Z,1.3nm,0.9s,baz=69,slow=6.1,SNR=6.4						
	comp=Z,1.3nm,0.9s						
MDT	Midelt	72.23	300	LR	LR	09 48 10.5	
	comp=Z,24nm,18.4s,baz=301,slow=38						
WRA	Warramunga Arr	77.76	145	P	P	09 14 02.0	-1.1
	comp=Z,1.7nm,1.0s,baz=343,slow=5.7,SNR=5.7						
	comp=Z,1.7nm,1.0s						
WRA	Warramunga Arr	77.76	145	*i* P	P	09 14 02.7	-0.4
WRA				pmax	pmax		
	comp=Z,2.0nm,1.1s						
ASAR	Alice Springs	81.04	147	P	P	09 14 21.1	+0.2
	comp=Z,0.7nm,0.9s,baz=339,slow=5.0,SNR=4.6						
	comp=Z,0.7nm,0.9s						
TORD	Torodi Ar. Bea	83.68	283	P	P	09 14 35.9	+0.9
	comp=Z,0.8nm,0.6s,baz=25,slow=4.5,SNR=4.9						
	comp=Z,0.8nm,0.6s						
SADO	Sadowa	84.35	358	LR	LR	09 53 04.2	
	comp=Z,30nm,18.3s,baz=353,slow=36						

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*SOME **30** 09:10:17.8, 44.°83N×78.°83E, h5^{km}*

*NNC **30** 09:10:19.0±1.9, 44.°85N×78.°86E, h0^{km}, mb3.6, mpv2.8, Error ellipse: s-maj=12.3km s-min=8.7km az=170.0, Suspected Mining explosion.*

ISC 30 09:10:16.0±2.7**, 45.°0N**±0.°1×**78.°88E**±0.°09**, h0^{km}, n13, σ0.^{s}86**/26**, Eastern Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KNOS	Konyrlen	0.69	162	P	Pg	09 10 28.4	-0.7
KNOS				S	Sg	09 10 36.3	-1.7
	6.5nm,0.3s						
DJR	Jarkent	0.94	136	P	Pb	09 10 34.8	-0.4
	1.7nm,0.1s						
DJR				S	Sg	09 10 47.1	+0.9
	1.7nm,0.1s						
DJR	Jarkent	0.94	136	*e*P	Pb	09 10 34.8	-0.4
	1.7nm,0.1s						
DJR				*e*S	Sg	09 10 47.1	+0.9
	1.7nm,0.1s						
KPKS	Kokpek	1.55	185	P	Pn	09 10 45.3	+0.4
	0.2nm,0.1s						
KPKS				S	Sn	09 11 05.2	-0.6
	11nm,0.4s						
KPKS	Kokpek	1.55	185	*e*P	Pn	09 10 45.3	+0.4
	0.2nm,0.1s						
KPKS				*e*S	Sn	09 11 05.2	-0.6
	11nm,0.4s						
UZB	Uzynbulak	1.87	177	P	Pn	09 10 49.6	+0.2
	1.3nm,0.1s						
UZB				S	Sn	09 11 13.4	-0.3
	5.9nm,0.2s						
UZB	Uzynbulak	1.87	177	*e*P	Pn	09 10 49.6	+0.2
	1.3nm,0.1s						
UZB				*e*S	Sn	09 11 12.2	-1.5
	5.9nm,0.2s						
KTMS	Ketmen	1.89	145	P	Pb	09 10 51.2	-0.2
	0.5nm,0.2s						
KTMS				S	Sb	09 11 15.3	-0.3
	2.3nm,0.2s						
KTMS	Ketmen	1.89	145	*e*P	Pb	09 10 51.2	-0.2
	0.5nm,0.2s						
KTMS				*e*S	Sb	09 11 15.3	-0.3
	2.3nm,0.2s						
SHLS	Shalkode	1.90	167	P	Pg	09 10 53.2	+0.8
	8.9nm,0.3s						
SHLS				S	Sg	09 11 18.6	+1.6
	17nm,0.6s						

SHLS	Shalkode	1.90	167	*e*P	Pg	09 10 53.2	+0.8
	8.9nm,0.3s						
SHLS				*e*S	Sg	09 11 18.6	+1.6
	17nm,0.6s						
SATY	Saty	1.98	190	P	Pn	09 10 51.3	+0.4
	4.1nm,0.1s						
SATY				S	Sn	09 11 15.7	-0.8
	9.7nm,0.2s						
SATY	Saty	1.98	190	*e*P	Pn	09 10 51.4	+0.4
	4.1nm,0.1s						
SATY				*e*S	Sn	09 11 15.7	-0.8
	9.7nm,0.2s						

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*IDC **30** 09:17:07.1±3.0, 9°.37S×119°.50E, h0^{km}, mb3.6/1, mbtmp3.2/3, ML3.1/2, Error ellipse: s-maj=248.5km s-min=29.7km az=50.0*
*DJA **30** 09:17:09.1±0.5, 10°S±4°×11°9E±°, h10^{km}, M3.5/8, MLv3.5/8*
ISC 30 09:17:08.0±1.1**, 9°.88S**±0°.09×**119°.07E**±0°.05**, h10^{km}, n15, σ0^{s}.82**/16**, Sumba region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WSI	Waingapu	1.23	80	P	Pb	09 17 30.5	-0.8
WSI				S	Sb	09 17 46.9	-0.3
WSI				AML	AML		
BASI	Baing, Sumba	1.52	103	P	Pb	09 17 37.0	+0.7
BASI				AML	AML		
DBNI	Kabupaten Domp	1.56	331	P	Pn	09 17 36.5	+0.7
DBNI				S	Sn	09 17 56.5	+0.4
DBNI				AML	AML		
LBFI	Labuhan Bajo,	1.61	30	P	Pn	09 17 36.6	+0.1
PLAI	Plampang	1.65	309	P	Pn	09 17 36.4	-0.6
PLAI				S	Sn	09 17 59.7	+1.4
PLAI				AML	AML		
TWSI	Taliwang, Sumb	2.44	298	P	Pn	09 17 48.3	+0.4
TWSI				AML	AML		
EDFI	Ende, Flores	2.82	67	P	Pn	09 17 54.0	+0.8
EDFI				AML	AML		
BSSI	Bau Bau, Buton	3.97	21	P	Pn	09 18 09.9	+0.9
BSSI				AML	AML		
BKSI	Bulukumba	4.65	13	P	Pn	09 18 18.8	+0.5
BKSI				S	Sn	09 19 12.5	+0.2
WRA	Warramunga Arr	17.81	126	P	Pn	09 21 15.2	-1.0
	0.1nm,0.3s,baz=302,slow=14,SNR=6.3						
	0.5nm,0.9s						
WRA				AML	AML		
ASAR	Alice Springs	19.71	136	P	Pn	09 21 40.0	+0.7
	0.1nm,0.3s,baz=310,slow=9.3,SNR=5.9						
	0.2nm,0.5s						
ASAR				AML	AML		
H08S2	Diego Garcia H	46.06	269	T	T	10 14 45.6	
	baz=96,slow=75,SNR=9.4						
H08S3	Diego Garcia H	46.07	269	T	T	10 14 42.9	
	baz=96,slow=75,SNR=31						
H08S1	Diego Carcia H	46.08	269	T	T	10 14 44.2	
	baz=96,slow=75,SNR=6.2						
MKAR	Makanchi Array	65.27	333	P	P	09 27 48.9	-1.0
	0.4nm,0.5s,baz=155,slow=7.9,SNR=4.0						
	0.4nm,0.5s						

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*ASRS **30** 09:40:10.0±0.8, 53°.92N×86°.59E, h0^{km}, M2.5(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*
IDC 30 09:40:09.7±3.3**, 53°.84N×86°.72E, h0^{km}, mbtmp2.8**/2**, ML2.6**/2**, Error ellipse: s-maj=26.5km s-min=14.3km az=86.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	1.13	276	I	I	09 47 30.0	
	baz=90,slow=334,SNR=3.2						
ZALV	Zalesovo Beam	1.13	276	Pg	Pg	09 40 31.6	+0.3
	0.8nm,0.3s,baz=92,slow=15,SNR=5.8						
ZALV				Lg	Lg	09 40 46.6	
	1.9nm,0.3s,baz=99,slow=30,SNR=13						
KURBB	Kurchatov Arra	5.98	241	Pn	Pn	09 41 40.9	+1.6
	0.1nm,0.3s,baz=56,slow=14,SNR=6.4						
KURBB				Lg	Lg	09 43 17.3	
	0.2nm,0.3s,baz=52,slow=35,SNR=5.0						
	0.5nm,0.3s						
KURBB				AML	AML		
MKAR	Makanchi Array	7.60	204	Pn	Pn	09 42 02.0	+0.3
	0.1nm,0.3s,baz=17,slow=13,SNR=2.4						
MKAR				Lg	Lg	09 44 08.2	
	0.1nm,0.3s,baz=22,slow=28,SNR=2.3						
	0.1nm,0.3s						
MKAR				AML	AML		

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*ASRS **30** 09:54:11.0±0.4, 54°.39N×86°.84E, h0^{km}, M2.3(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*
IDC 30 09:54:12.5±4.1**, 54°.38N×86°.94E, h0^{km}, mbtmp2.9**/2**, ML2.6**/2**, Error ellipse: s-maj=36.4km s-min=19.1km az=66.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I46RU	ZALESOVO INFRA	1.32	252	I	I	10 02 20.0	
	baz=70,slow=332,SNR=2.2						
ZALV	Zalesovo Beam	1.32	252	Pg	Pg	09 54 36.5	-1.2
	1.1nm,0.3s,baz=70,slow=18,SNR=12						
ZALV				Lg	Lg	09 54 56.2	
	1.6nm,0.3s,baz=74,slow=28,SNR=8.1						
KURBB	Kurchatov Arra	6.36	237	Pn	Pn	09 55 47.8	+0.4
	0.1nm,0.3s,baz=53,slow=14,SNR=4.6						
KURBB				Sn	Sn	09 57 01.8	+1.2
	baz=60,slow=42,SNR=1.8						
	1.4nm,0.5s						
KURBB				AML	AML		
MKAR	Makanchi Array	8.14	203	Pn	Pn	09 56 14.1	+2.2
	0.1nm,0.3s,baz=17,slow=14,SNR=2.1						
	0.2nm,0.4s						
MKAR				AML	AML		

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*IDC **30** 10:00:34.1±3.1, 64°.62N×31°.28E, h0^{km}, mbtmp2.9/3, ML2.1/3, Error ellipse: s-maj=40.8km s-min=11.2km az=99.0*
*KOLA **30** 10:00:36.0±0.8, 64°.7N±0°.2×30°.8E±0°.3, h0^{km}, M2.4(MOS), The earthquakes of Russia in 2020. Obninsk, GS RAS, 2022.*
ISC 30 10:00:33.7±1.2**, 64°.75N**±0°.06×**30°.85E**±0°.09**, h0^{km}, n11, σ1^{s}.09**/15**, Finland-Karelia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KVDA	Kovda	2.12	22	P	Pg	10 01 13.8	-0.5
KVDA				S	Sg	10 01 41.8	+0.1
APA0	Apatity Array	3.00	16	P	Pb	10 01 26.9	-0.9
APA0				S	Sb	10 02 03.0	-1.9
LVZ	Lovozero	3.51	24	S	Sn	10 02 12.8	+1.1
FINES	FINESS Array B	3.96	215	Pn	Pn	10 01 36.2	+0.6
	0.2nm,0.3s,baz=37,slow=13,SNR=6.1						
FINES				Sn	Sn	10 02 23.0	+0.2
	0.4nm,0.3s,baz=38,slow=21,SNR=4.9						
FINES				Lg	Lg	10 02 34.9	
	1.3nm,0.3s,baz=37,slow=28,SNR=12						
	0.3nm,0.3s						
FINES				AML	AML		
TERR	Teriberka	4.77	19	S	Sn	10 02 44.8	+2.2
ARCES	ARCESS Array B	5.24	339	Pn	Pn	10 01 53.7	+0.6
	0.2nm,0.3s,baz=153,slow=13,SNR=22						
ARCES				Sn	Sn	10 02 54.4	+0.3
	0.2nm,0.3s,baz=144,slow=23,SNR=5.4						
ARCES				Lg	Lg	10 03 16.9	
	0.4nm,0.3s,baz=152,slow=29,SNR=7.9						
	0.4nm,0.2s						
ARCES				AML	AML		
ARCES	ARCESS Array B	5.24	339	P	Pn	10 01 54.6	+1.5
ARCES				S	Sn	10 02 54.4	+0.3
VADS	Vadso	5.42	355	S	Sn	10 02 59.0	+0.3
I37NO	I37NO	6.47	317	I	I	10 45 20.0	
	baz=124,slow=323,SNR=2.5						
FAUS	Fauske	6.85	300	S	Sn	10 03 33.9	+0.1
HFS	Hagfors	9.19	248	Pn	Pn	10 02 47.4	+0.2
	0.2nm,0.3s,baz=66,slow=14,SNR=1.9						
	0.3nm,0.3s						
HFS				AML	AML		

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*KRNET **30** 10:19:16.6±0.1, 39°.58N×72°.51E, h18^{km}, mb3.3*
*SOME **30** 10:19:18.8, 39°.58N×72°.53E, h10^{km}*
*NNC **30** 10:19:21.4±1.8, 39°.72N×72°.44E, h0^{km}, mb3.8, mpv3.4, Error ellipse: s-maj=14.2km s-min=7.3km az=174.0*
ISC 30 10:19:16.9±1.1**, 39°.60N**±0°.05×**72°.50E**±0°.03**, h10^{km}, n39, σ1^{s}.59**/69**, 22C-20D, Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DRK	Karamyk	0.55	258	⇑*i*P	Pg	10 19 27.4	-0.3
DRK				⇑*i*S	Sg	10 19 35.2	+0.2
SFK	Sufi-Kurgan	0.88	62	⇑*i*P	Pg	10 19 33.2	-0.7
SFK				⇑*i*S	Sg	10 19 45.1	-0.3
OHH	Osh	0.95	13	⇑*i*P	Pg	10 19 34.8	-0.5
OHH				⇑*i*S	Sg	10 19 48.1	+0.4
BTK	Batken	1.37	290	⇓*e*P	Pn	10 19 42.0	-0.2
BTK				⇓*i*S	Sn	10 20 00.7	+0.2
ARSB	Arslanbob	1.76	12	⇑*i*P	Pb	10 19 49.1	-0.4
ARSB				⇑*i*S	Sb	10 20 12.9	+1.2
TRKS	Terek-Say	2.19	332	⇓*e*P	Pn	10 19 54.3	+0.8
TRKS				⇓*i*S	Sn	10 20 21.5	+0.7
ARK	Arkit	2.23	350	⇓*i*P	Pn	10 19 55.8	+1.7
ARK				⇓*i*S	Sb	10 20 24.5	-0.8
MNAS	Manas	2.89	0	⇓*e*P	Pn	10 20 04.9	+1.8
MNAS				⇓*e*S	Sn	10 20 39.9	+1.9
UCH	Uchtor	3.04	30	⇑*i*P	Pn	10 20 07.1	+1.6
UCH				⇑*i*S	Sn	10 20 43.7	+1.5
IUG	Iuzhnay	3.16	325	Pg	Pg	10 20 16.5	-0.9
	82nm,0.3s						
IUG				Lg	Lg	10 20 59.1	
	56nm,0.4s						
IUG	Iuzhnay	3.16	325	*e*P	Pg	10 20 16.5	-0.9
	82nm,0.3s						
IUG				*e*S	Sg	10 20 58.2	-0.1
	56nm,0.4s						
MRKS	Merke	3.19	10	Pg	Pg	10 20 17.3	-0.8
	25nm,0.3s						
MRKS				Lg	Lg	10 21 00.2	
	63nm,0.4s						
MRKS	Merke	3.19	10	*e*P	Pg	10 20 17.7	-0.4
	25nm,0.3s						
MRKS				*e*S	Sg	10 21 00.2	+0.7
	63nm,0.4s						
EKS2	Erkin-Say	3.21	17	⇑*i*P	Pn	10 20 09.3	+1.8
EKS2				⇑*i*S	Sn	10 20 47.5	+1.6
NRN	Naryn	3.24	54	⇑*i*P	Pn	10 20 09.2	+1.1
NRN				⇑*i*S	Sn	10 20 47.4	+0.5
AAK	Ala-Archa	3.39	26	⇑Pn	Pb	10 20 15.7	-1.5
	1.4nm,0.5s						
AAK				⇑Pg	Pg	10 20 20.5	-1.5
	2.7nm,0.4s						
AAK				⇑Lg	Lg	10 21 05.9	
	5.5nm,0.5s						
AAK	Ala-Archa	3.39	26	⇓*e*P	Pn	10 20 11.6	+1.5
AAK				⇓*i*S	Sn	10 20 51.9	+1.5
KBK	Karagaybulak	3.57	30	⇓*i*P	Pn	10 20 14.2	+1.6
KBK				⇓*i*S	Sn	10 20 56.3	+1.4
CHMS	Chumysh	3.80	26	⇓*i*P	Pn	10 20 17.2	+1.7
CHMS				⇓*i*S	Sn	10 21 01.6	+1.3
KK31	Karatay Array	3.81	338	⇓Pn	Pb	10 20 20.1	-4.1
	2.2nm,0.3s,baz=162,slow=14,SNR=55						
KK31				⇑Pg	Pg	10 20 28.2	-1.6
	3.9nm,0.3s,baz=162,slow=17,SNR=14						
KK31				⇓Lg	Lg	10 21 15.9	
	7.8nm,0.5s,baz=155,slow=28						
BOOM	Boomskoye usch	3.89	41	⇓*i*P	Pn	10 20 18.7	+1.8
BOOM				⇓*i*S	Sn	10 21 03.7	+1.0
BRLS	Borolday	3.97	331	Pg	Pb	10 20 28.9	+1.9
	6.1nm,0.3s						
BRLS				Lg	Lg	10 21 20.5	
	19nm,0.4s						
BRLS	Borolday	3.97	331	*e*P	Pb	10 20 29.4	+2.4
	6.1nm,0.3s						
BRLS				*e*S	Sg	10 21 20.5	-3.9
	19nm,0.4s						
SGDS	Sogindy	4.17	22	Pg	Pg	10 20 35.5	-1.3
	2.2nm,0.2s						
SGDS				Lg	Lg	10 21 31.0	
	12nm,0.3s						
KST	Kastek	4.32	36	Pg	Pg	10 20 38.7	-1.0
	1.2nm,0.4s						
KST				Lg	Lg	10 21 37.1	
	12nm,0.6s						
KST	Kastek	4.32	36	*e*P	Pg	10 20 38.7	-1.0
	1.2nm,0.4s						
KST				*e*S	Sg	10 21 36.2	+0.6
	12nm,0.6s						
KDJ	Kajisay	4.36	53	⇑*e*P	Pn	10 20 25.1	+1.7
KDJ				⇑*i*S	Sn	10 21 14.9	+0.5
DGS	Degeres	4.39	33	Pg	Pg	10 20 40.5	-0.6
	7.7nm,0.5s						
DGS				Lg	Lg	10 21 39.4	
	7.7nm,0.5s						
DGS	Degeres	4.39	33	*e*P	Pg	10 20 40.5	-0.6
	7.7nm,0.5s						
DGS				*e*S	Sg	10 21 39.4	+1.4
	7.7nm,0.5s						
TARG	Taragay, Kyrgy	4.56	60	⇓*i*P	Pn	10 20 27.9	+1.5
TARG				⇓*i*S	Sn	10 21 19.9	+0.2
KRBS	Karabastau	4.74	29	Pg	Pg	10 20 46.1	-1.5
	3.9nm,0.5s						
KRBS				Lg	Lg	10 21 49.4	
	6.6nm,0.4s						
KRBS	Karabastau	4.74	29	*e*P	Pg	10 20 46.1	-1.5
	3.9nm,0.5s						
KRBS				*e*S	Sg	10 21 49.4	+0.4
	6.6nm,0.4s						
TNSS	Tian-Shan	4.80	43	Pg	Pg	10 20 47.4	-1.5
	0.8nm,0.3s						
TNSS				Lg	Lg	10 21 51.3	
	2.0nm,0.5s						
TNSS	Tian-Shan	4.80	43	*e*P	Pg	10 20 47.4	-1.5
	0.8nm,0.3s						
TNSS				*e*S	Sg	10 21 51.3	+0.3
	2.0nm,0.5s						
MDOK	Medeo	4.94	42	*e*P	Pg	10 20 49.2	-2.4
	2.4nm,0.5s						
MDOK				*e*S	Sg	10 21 53.9	-1.6
	8.6nm,0.9s						
KOTS	Kotyrbulak	5.02	42	*e*P	Pg	10 20 51.0	-2.1
	4.7nm,0.5s						
KOTS				*e*S	Sg	10 21 57.1	-1.1
	21nm,0.7s						
ANVS	Anan'yevo	5.03	49	⇑*i*P	Pn	10 20 34.4	+1.7
ANVS				⇑*i*S	Sn	10 21 30.9	-0.1
KTBS	Karatobe	5.17	36	Pg	Pg	10 20 52.4	-3.5
	0.2nm,0.1s						
KTBS				Lg	Lg	10 21 60.0	
	7.5nm,0.5s						
KTBS	Karatobe	5.17	36	*e*P	Pg	10 20 52.4	-3.5
	0.2nm,0.1s						
KTBS				*e*S	Sg	10 21 60.0	-2.9
	7.5nm,0.5s						

IDC 30 10:41:33.8±1.3**, 5°.29S×131°.43E, h0^{km}, mb3.5**/1**, mbtmp3.7**/5**, ML3.7**/4**, Error ellipse: s-maj=49.7km s-min=13.8km az=90.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SIJI	Sorong	4.40	358	Pn	Pn	10 42 42.5	+0.6
	6.4nm,0.3s,baz=250,slow=22,SNR=70						
SIJI				Sn	Sn	10 43 28.8	-5.1
	3.6nm,0.3s,baz=227,slow=23,SNR=8.7						
	17nm,0.2s						
SIJI				AML	AML		
FITZ	Fitzroy Crossi	13.93	203	Pn	Pn	10 44 48.7	-4.0
	0.1nm,0.3s,baz=27,slow=12,SNR=7.6						
FITZ				Sn	Sn	10 47 12.2	-16
	0.4nm,0.3s,baz=159,slow=21,SNR=6.9						
	1.8nm,1.1s						
FITZ				AML	AML		
WRA	Warramunga Arr	14.84	169	Pn	Pn	10 44 59.8	-5.3
	0.4nm,0.3s,baz=355,slow=14,SNR=22						
WRA				Sn	Sn	10 47 33.9	-16
	0.2nm,0.3s,baz=349,slow=24,SNR=4.1						
	0.4nm,0.3s						
WRA				AML	AML		
ASAR	Alice Springs	18.42	173	P	Pn	10 45 49.4	-1.4
	0.3nm,0.3s,baz=348,slow=9.4,SNR=17						
ASAR				S	Sn	10 49 05.5	-12
	0.3nm,0.4s,baz=2.0,slow=29,SNR=6.6						
	1.3nm,0.5s						
ASAR				AML	AML		
MKAR	Makanchi Array	67.60	326	P	P	10 52 31.3	-1.2
	0.2nm,0.3s,baz=118,slow=7.8,SNR=4.0						
	0.2nm,0.3s						

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*KRSC **30** 10:44:41.8±0.4, 55°.85N×162°.04E, h66^{km}±8^{km}, Ml4.2*
*MOS **30** 10:44:42.8±0.6, 55°.90N×161°.98E, h58^{km}, mb4.1/2, Error ellipse: s-maj=8.9km s-min=4.3km az=72.0*
*NEIC **30** 10:44:45.7±1.2, 55°.96N±0°.03×161°.5E±0°.2, h65^{km}±7^{km}, mb4.1/18, Error ellipse: s-maj=12.8km s-min=4.6km az=90.0*
*IDC **30** 10:44:47.5±2.4, 55°.96N×161°.57E, h83^{km}±24^{km}, mb3.5/17, mbtmp3.8/18, MS2.9/7, Error ellipse: s-maj=17.0km s-min=14.6km az=134.0*
ISC 30 10:44:44.2±0.8**, 55°.86N**±0°.02×**162°.00E**±0°.03**, h54^{km}**±8^{km}**, n147, σ1^{s}.08**/169**, mb4.0**/24**, MS2.9**/4**, Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBG	Krutoberegovo	0.56	45	PN	Pn	10 44 55.5	-0.9
KBG	Krutoberegovo	0.56	45	*e*P	Pn	10 44 55.6	-0.9
KBTR	Krutoberegovo	0.58	52	PN	Pn	10 44 55.8	-0.8
KBTR	Krutoberegovo	0.58	52	*e*P	Pn	10 44 55.9	-0.8
ZLN	Zelenaya	0.69	284	PN	Pn	10 44 57.6	-0.5
ZLN	Zelenaya	0.69	284	*e*P	Pn	10 44 57.6	-0.5
BZGR	Bezymyannyi-Gr	0.74	277	PN	Pn	10 44 58.2	-0.5
BZGR	Bezymyannyi-Gr	0.74	277	*e*P	Pn	10 44 58.2	-0.5
CIRR	Tsirk	0.75	291	PN	Pn	10 44 58.1	-0.8
CIRR	Tsirk	0.75	291	*e*P	Pn	10 44 58.2	-0.8
LGNR	Loginova	0.77	287	PN	Pn	10 44 58.8	-0.5
LGNR	Loginova	0.77	287	*e*P	Pn	10 44 58.8	-0.5
SMKR	Semkarok	0.78	338	PN	Pn	10 44 58.9	-0.3
SMKR				S	Sn	10 45 10.8	+0.6
SMKR	Semkarok	0.78	338	*e*P	Pn	10 44 59.0	-0.3
SMKR				*e*S	Sn	10 45 10.9	+0.6
BZP	Bezymyannyi-Pe	0.83	274	PN	Pn	10 44 59.1	-0.8
BZP	Bezymyannyi-Pe	0.83	274	*e*P	Pn	10 44 59.1	-0.8
BDR	Baidarnaya	0.84	328	PN	Pn	10 44 59.8	-0.2
BDR				S	Sn	10 45 12.1	+0.6
BDR	Baidarnaya	0.84	328	*e*P	Pn	10 44 59.8	-0.2
BDR				*e*S	Sn	10 45 12.2	+0.6
BZMR	Bezymyannaya	0.85	276	PN	Pn	10 44 59.8	-0.5
BZMR	Bezymyannaya	0.85	276	*e*P	Pn	10 44 59.8	-0.5
BZWR	Bezymyannyi-We	0.85	278	PN	Pn	10 44 59.9	-0.4
BZWR				S	Sn	10 45 12.4	+0.4
BZWR	Bezymyannyi-We	0.85	278	*e*P	Pn	10 44 59.9	-0.4
BZWR				*e*S	Sn	10 45 12.5	+0.4
KRSR	Krestovskiy	0.88	295	PN	Pn	10 44 59.6	-1.0
KRSR				S	Sn	10 45 11.6	-0.9
KRSR	Krestovskiy	0.88	295	*e*P	Pn	10 44 59.6	-1.0
KRSR				*e*S	Sn	10 45 11.7	-0.9
SRKR	Sorokina	0.92	330	PN	Pn	10 45 00.9	-0.1
SRKR	Sorokina	0.92	330	*e*P	Pn	10 45 01.0	-0.1
KIRR	Kirishev	0.94	276	PN	Pn	10 45 01.1	-0.3
KIRR				S	Sn	10 45 14.3	+0.4
KIRR	Kirishev	0.94	276	*e*P	Pn	10 45 01.1	-0.3
KIRR				*e*S	Sn	10 45 14.4	+0.4
KMNR	Kamenistaya	1.00	265	PN	Pn	10 45 01.8	-0.3
KMNR				S	Sn	10 45 15.5	+0.2
KMNR	Kamenistaya	1.00	265	*e*P	Pn	10 45 01.8	-0.3
KMNR				*e*S	Sn	10 45 15.6	+0.2
KPT	Kopyto	1.01	277	PN	Pn	10 45 02.0	-0.2
KPT				S	Sn	10 45 16.1	+0.6
KPT	Kopyto	1.01	277	*e*P	Pn	10 45 02.1	-0.2
KPT				*e*S	Sn	10 45 16.1	+0.6
TUMD	Tumrok D	1.12	235	PN	Pn	10 45 02.9	-0.8
TUMD				S	Sn	10 45 17.6	-0.5
TUMD	Tumrok D	1.12	235	*e*P	Pn	10 45 03.0	-0.8
TUMD				*e*S	Sn	10 45 17.7	-0.5
TUMR	Tumrok	1.20	242	PN	Pn	10 45 04.9	+0.1
TUMR	Tumrok	1.20	242	*e*P	Pn	10 45 05.0	+0.1
KOZ	Kozyrevsk	1.21	280	PN	Pn	10 45 05.2	+0.3
KOZ				S	Sn	10 45 22.1	+1.8
KOZ	Kozyrevsk	1.21	280	*e*P	Pn	10 45 05.2	+0.3
KOZ				*e*S	Sn	10 45 22.1	+1.8
KZV	Kizimen	1.23	233	PN	Pn	10 45 04.4	-0.8
KZV	Kizimen	1.23	233	*e*P	Pn	10 45 04.5	-0.8
MKZ	Mys Kozlova	1.31	187	PN	Pn	10 45 05.3	-0.9
MKZ				S	Sn	10 45 21.8	-0.8
MKZ	Mys Kozlova	1.31	187	*e*P	Pn	10 45 05.3	-0.9
MKZ				*e*S	Sn	10 45 21.9	-0.8
SRDR	Sredinnyy	1.36	291	PN	Pn	10 45 06.8	-0.1
SRDR				S	Sn	10 45 25.0	+1.1
SRDR	Sredinnyy	1.36	291	*e*P	Pn	10 45 06.9	-0.1
SRDR				*e*S	Sn	10 45 25.1	+1.1
ESO	Esso	1.86	273	PN	Pn	10 45 13.2	-0.5
ESO	Esso	1.86	273	*e*P	Pn	10 45 13.2	-0.5
KII	Karymskiy	2.35	220	PN	Pn	10 45 20.5	+0.1
KII	Karymskiy	2.35	220	*e*P	Pn	10 45 20.5	+0.1
BKI	Bering	2.35	105	PN	Pn	10 45 20.0	-0.3
BKI				S	Sn	10 45 47.2	-0.7
BKI	Bering	2.35	105	*e*P	Pn	10 45 20.1	-0.3
BKI				*e*S	Sn	10 45 47.3	-0.7
TIGL	Tigil	2.65	318	PN	Pn	10 45 24.9	+0.6
TIGL	Tigil	2.65	318	*e*P	Pn	10 45 24.9	+0.6
SPN	Mys Shipunski	3.00	203	PN	Pn	10 45 28.9	-0.3
SPN				S	Sn	10 46 02.7	-1.2
SPN	Mys Shipunski	3.00	203	*e*P	Pn	10 45 28.9	-0.3
SPN				*e*S	Sn	10 46 02.7	-1.2
NLC	Nalytchevo	3.11	211	PN	Pn	10 45 30.5	-0.1
NLC	Nalytchevo	3.11	211	*e*P	Pn	10 45 30.6	-0.1
SDLR	Sedlovina	3.16	216	PN	Pn	10 45 31.6	+0.1
SDLR	Sedlovina	3.16	216	*e*P	Pn	10 45 31.6	+0.1
KRX	Arik	3.17	219	PN	Pn	10 45 32.5	+0.8
KRX	Arik	3.17	219	*e*P	Pn	10 45 32.5	+0.8
KRER	Koryakskii	3.18	218	PN	Pn	10 45 32.7	+0.8
KRER	Koryakskii	3.18	218	*e*P	Pn	10 45 32.8	+0.8
GNL	Ganaly	3.20	229	PN	Pn	10 45 32.3	+0.3
GNL	Ganaly	3.20	229	*e*P	Pn	10 45 32.4	+0.3
SMAR	Somma	3.20	217	PN	Pn	10 45 32.7	+0.5
SMAR	Somma	3.20	217	*e*P	Pn	10 45 32.8	+0.5
AVH	Avacha	3.22	217	PN	Pn	10 45 33.3	+1.0
AVH	Avacha	3.22	217	*e*P	Pn	10 45 33.3	+1.0
KOK	Koryaka	3.23	219	PN	Pn	10 45 33.6	+1.1
KOK	Koryaka	3.23	219	*e*P	Pn	10 45 33.6	+1.1
DALK	Dalny	3.41	215	PN	Pn	10 45 35.2	+0.4
DALK				S	Sn	10 46 13.8	-0.1
DALK	Dalny	3.41	215	*e*P	Pn	10 45 35.3	+0.4
DALK				*e*S	Sn	10 46 13.8	-0.1
PALN	Palana	3.42	342	PN	Pn	10 45 36.3	+1.4
PALN	Palana	3.42	342	*e*P	Pn	10 45 36.3	+1.4
INSR	Institute	3.43	217	*e*S	Sn	10 46 16.4	+2.0
OSSR	Ossora	3.45	9	PN	Pn	10 45 35.9	+0.6
OSSR				S	Sn	10 46 14.8	0.0
OSSR	Ossora	3.45	9	*e*P	Pn	10 45 36.0	+0.6
OSSR				*e*S	Sn	10 46 14.8	0.0
PET	Petropavlovsk	3.45	216	*e*PN	Pn	10 45 35.8	+0.4
PET				*e*S	Sn	10 46 15.6	+0.7
PET				smax	smax		
	comp=E,152nm,0.6s						
PET				smax	smax		
	comp=N,239nm,0.6s						
PET	Petropavlovsk	3.45	216		Pn	10 45 36.0	+0.6
PEA0B	Petropavlovsk-	3.73	224	*i* PN	Pn	10 45 39.5	+0.2
PEA0B				*i* S	Sn	10 46 22.7	+0.9
PEA0B	Petropavlovsk-	3.73	224		Pn	10 45 39.4	+0.2
PETK	Petropavlovsk-	3.73	224	P	Pn	10 45 39.7	+0.5
	comp=N,10nm,0.4s,baz=54,slow=15,SNR=68						
PETK				S	Sn	10 46 24.8	+3.0
	comp=N,11nm,0.7s,baz=75,slow=18,SNR=1.2						
PETK	Petropavlovsk-	3.73	224		Pn	10 45 39.2	0.0
KRMR	Karymshinskiy	3.79	218	PN	Pn	10 45 41.0	+1.0
KRMR	Karymshinskiy	3.79	218	*e*P	Pn	10 45 41.0	+1.0
GRL	Gorelyy	4.04	216	PN	Pn	10 45 44.4	+0.9
GRL	Gorelyy	4.04	216	*e*P	Pn	10 45 44.5	+0.9
MTVR	Mutnovka	4.06	215	PN	Pn	10 45 44.9	+1.1
MTVR	Mutnovka	4.06	215	*e*P	Pn	10 45 45.0	+1.1
APC	Apacha	4.08	226	PN	Pn	10 45 44.9	+0.9
APC	Apacha	4.08	226	*e*P	Pn	10 45 45.0	+0.9
ASAK	Asacha	4.24	216	PN	Pn	10 45 47.5	+1.3
ASAK	Asacha	4.24	216	*e*P	Pn	10 45 47.5	+1.3
KDTR	Khodutka, Kamc	4.68	211	PN	Pn	10 45 54.1	+1.9
KDTR	Khodutka, Kamc	4.68	211	*e*P	Pn	10 45 54.1	+1.9
SKR	Severo-Kuril’s	6.27	217	*i* PN	Pn	10 46 16.6	+2.6
MA2	Magadan	7.07	306	LR	LR	10 49 16.7	
	comp=N,50nm,19.1s,baz=117,slow=40						
SMY	Shemya	7.74	109	PN	Pn	10 46 37.2	+3.1
SMY	Shemya	7.74	109	Pn	Pn	10 46 37.2	+3.1
ATKA	Atka Island	14.43	95	Pn	P	10 48 11.3	+0.6
YSS	Yuzhno-Sakhali	14.91	241	*i* P	Pn	10 48 12.6	+1.1
ASAJ	Asahikawa	17.07	235	LR	LR	10 55 23.6	
	comp=N,32nm,21.2s,baz=47,slow=38						

KLR	Kul'dur	19.45	263	LR	LR	10 55 50.8	
	comp=N,46nm,20.0s,baz=74,slow=34						
L16K	Owhat River	20.56	58	P	Pn	10 49 20.1	-0.6
L16K				IAmb	IAmb	10 49 20.4	
	comp=Z,14nm,1.4s						
J17K	VABM Dome	20.78	53	P	Pn	10 49 22.3	-1.0
J17K				IAmb	IAmb	10 49 24.0	
	comp=Z,20nm,1.4s						
TIXI	Tiksi	21.11	331	LR	LR	10 57 09.8	
	comp=Z,26nm,18.8s,baz=150,slow=36						
K17K	Iditarod	21.11	55	P	P	10 49 25.6	+1.7
K17K				IAmb	IAmb	10 49 27.6	
	comp=Z,20nm,1.1s						
M17K	Holitna River	21.55	58	P	P	10 49 32.3	+3.6
M17K				IAmb	IAmb	10 49 34.0	
	comp=Z,14nm,0.9s						
F19K	Shaleruckik Mo	21.75	44	P	P	10 49 33.3	+2.6
F19K				IAmb	IAmb	10 49 33.6	
	comp=Z,9.9nm,1.5s						
J19K	Poorman	22.34	51	P	P	10 49 38.2	+1.1
J19K				IAmb	IAmb	10 49 40.8	
	comp=Z,9.9nm,1.4s						
IMAR	Indian Mountai	23.24	46	P	P	10 49 48.0	+1.7
SUA	Susitna One	24.74	57	P	P	10 50 01.0	+0.6
D23K	Nanushuk River	24.74	39	P	P	10 50 01.4	+1.3
D23K				IAmb	IAmb	10 50 05.9	
	comp=Z,8.0nm,1.5s						
H23K	Yukon River	24.96	47	P	P	10 50 03.5	+1.3
H23K				IAmb	IAmb	10 50 06.8	
	comp=Z,5.5nm,1.1s						
MJAR	Matsushiro Arr	25.16	230	P	P	10 50 03.4	-0.9
	comp=Z,1.0nm,0.6s,baz=23,slow=8.3,SNR=2.9						
	comp=Z,1.0nm,0.6s						
MJAR	Matsushiro Arr	25.16	230	P	P	10 50 03.4	-0.9
MJAR				pmax	pmax		
	comp=Z,4.0nm,1.4s						
MJAR	Matsushiro Arr	25.16	230	IAmb	IAmb	10 50 10.9	
	comp=Z,3.9nm,1.4s						
CCB	Clear Creek Bu	25.73	50	P	P	10 50 12.2	+3.1
PWL	Port Wells	26.00	58	P	P	10 50 12.8	+1.2
ILAR	Eielson Array	26.12	49	P	P	10 50 13.2	+0.5
	comp=Z,1.5nm,1.0s,baz=259,slow=9.9,SNR=11						
ILAR				LR	LR	11 01 41.6	
	comp=Z,36nm,19.3s,baz=86,slow=39						
	comp=Z,1.5nm,1.0s						
SCM	Sheep Creek Mo	26.29	56	P	P	10 50 15.4	+1.1
SCM	Sheep Creek Mo	26.29	56	P	P	10 50 15.4	+1.1
BCAR	Beaver Creek A	28.59	52	P	P	10 50 35.4	+0.6
TLY	Talaya	33.85	288	LR	LR	11 06 00.4	
	comp=Z,38nm,18.9s,baz=52,slow=38						
SPITS	Spitsbergen Ar	44.59	350	P	P	10 52 50.1	-0.2
	comp=Z,6.4nm,0.6s,baz=58,slow=8.2,SNR=11						
	comp=Z,6.4nm,0.6s						
KURK	Kurchatov	47.25	301	P	P	10 53 09.8	-1.7
KURK	Kurchatov	47.25	301	P	P	10 53 09.8	-1.7
KURK	Kurchatov	47.25	301	IAmb	IAmb	10 53 10.6	
	comp=Z,2.0nm,0.4s						
KURBB	Kurchatov Arra	47.35	301	P	P	10 53 09.8	-2.5
	comp=Z,0.9nm,0.4s,baz=55,slow=8.0,SNR=8.5						
	comp=Z,0.9nm,0.4s						
MKAR	Makanchi Array	47.99	295	P	P	10 53 15.4	-2.0
	comp=Z,0.5nm,0.6s,baz=55,slow=7.8,SNR=4.6						
	comp=Z,0.5nm,0.6s						
ARCES	ARCESS Array B	51.00	342	P	P	10 53 38.8	-1.1
	comp=Z,2.1nm,0.8s,baz=22,slow=10,SNR=7.0						
	comp=Z,2.1nm,0.8s						
NVAR	Mina Array Bea	53.81	73	P	P	10 54 03.7	+2.3
	comp=Z,0.9nm,0.7s,baz=297,slow=8.1,SNR=8.6						
	comp=Z,0.9nm,0.7s						
PDAR	Pinedale Array	55.25	64	P	P	10 54 13.4	+1.6
	comp=Z,0.2nm,0.5s,baz=1.8,slow=3.7,SNR=6.7						
	comp=Z,0.2nm,0.5s						
FINES	FINESS Array B	58.02	337	P	P	10 54 29.8	-1.0
	comp=Z,1.5nm,0.6s,baz=31,slow=9.2,SNR=8.0						
	comp=Z,1.5nm,0.6s						
NB2	NORSAR Subarra	61.19	344	P	P	10 54 51.6	-1.1
	comp=Z,0.4nm,0.5s,baz=18,slow=6.9						
NOA	NORSAR Array B	61.19	344	P	P	10 54 51.1	-1.6
	comp=Z,0.4nm,0.4s,baz=18,slow=6.5,SNR=4.4						
	comp=Z,0.4nm,0.4s						
HFS	Hagfors	61.65	343	P	P	10 54 54.2	-1.5
	comp=Z,1.2nm,0.7s,baz=18,slow=6.7,SNR=2.3						
	comp=Z,1.2nm,0.7s						
SIJI	Sorong	61.83	215	LR	LR	11 22 47.5	
	comp=Z,8.4nm,18.8s,baz=233,slow=37						
AKASG	Malin Array Be	66.80	329	P	P	10 55 28.4	-1.3
	comp=Z,0.3nm,0.3s,baz=30,slow=7.5,SNR=2.2						
	comp=Z,0.3nm,0.3s						
AKASG	Malin Array Be	66.80	329	P	P	10 55 28.4	-1.3
AKASG				pmax	pmax		
	comp=Z,2.0nm,1.2s						
AKASG	Malin Array Be	66.80	329	IAmb	IAmb	10 55 57.3	
	comp=Z,2.1nm,1.2s						
TXAR	Lajitas Array	68.57	69	P	P	10 55 42.4	+1.2
	comp=Z,0.1nm,0.5s,baz=308,slow=5.0,SNR=7.5						
	comp=Z,0.1nm,0.5s						
GERES	GERESS Array B	72.35	339	P	P	10 56 03.6	-0.4
	comp=Z,0.7nm,0.2s,baz=359,slow=7.2,SNR=3.8						
	comp=Z,0.7nm,0.2s						
WRA	Warramunga Arr	79.06	206	P	P	10 56 41.7	-0.7
	comp=Z,0.5nm,0.8s,baz=17,slow=5.8,SNR=2.6						
	comp=Z,0.5nm,0.8s						
ASAR	Alice Springs	82.74	206	P	P	10 57 01.8	-0.2
	comp=Z,0.5nm,0.8s,baz=14,slow=5.4,SNR=6.5						
	comp=Z,0.5nm,0.8s						
ESDC	Sonseca Array	84.09	349	P	P	10 57 08.7	-0.3
	comp=Z,0.3nm,0.6s,baz=338,slow=3.0,SNR=2.0						
	comp=Z,0.3nm,0.6s						
QSPA	South Pole Qui	145.61	180	PKPbc	PKPdf	11 04 14.2	-0.6
	comp=Z,0.7nm,0.6s,baz=311,slow=1.6,SNR=10						

IDC 30 11:39:57.5±545.0, 53°.79N×2°.00E, h0km, Error ellipse: s-maj=280.1km s-min=193.0km az=88.0, North Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
I26DE	FREYUNG INFRAS	8.84	119	I	I	12 33 42.9	
	baz=310,slow=325,SNR=1.5						
I37NO	I37NO	17.16	20	I	I	13 32 10.0	
	baz=216,slow=322,SNR=1.6						
I43RU	DUBNA INFRASON	20.15	67	I	I	13 46 00.0	
	baz=278,slow=327,SNR=1.6						

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*NOU **30** 11:47:06.2, 38°.06S×175°.88E, h295km, MLv3.7/19, North Island, New Zealand*

*WEL **30** 11:47:09.4±0.6, 38°S±4°×17°6E±°, h262km±4km, M3.0/53, ML2.3/9, MLv3.0/53, Error ellipse: s-maj=5.5km s-min=5.1km az=36.2, confirmed*

ISC 30 11:47:03.0±2.0, 37°.88S±0°.06×175°.94E±0°.06, h310km±11km, n122, σ2^{s}01/147, North Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KMRZ	Kaimai	0.04	3	P	Pn	11 47 43.6	+1.3
KMRZ				S	S	11 48 13.7	+0.2
KMRZ				AML	AML		
KARZ	Kaharoa	0.28	120	P	Pn	11 47 43.9	+1.6
KARZ				AML	AML		
KARZ				AML	AML		
NGRZ	Ngongotaha	0.29	138	P	Pn	11 47 44.1	+1.8
NGRZ				S	S	11 48 10.8	-2.9
NGRZ				AML	AML		
NGRZ				AML	AML		
TOZ	Tahuroa Road	0.38	293	P	Pn	11 47 43.9	+1.4
TOZ				AML	AML		
TOZ				AML	AML		
HLRZ	Highlands Stat	0.49	139	P	Pn	11 47 45.3	+2.6
HLRZ				AML	AML		
HLRZ				AML	AML		
TLZ	Tolley Road	0.55	215	P	Pn	11 47 44.9	+2.1
TLZ				S	S	11 48 10.8	-3.7
TLZ				AML	AML		
TARZ	Mount Tarawera	0.57	128	P	Pn	11 47 44.7	+1.8
TARZ				AML	AML		
TARZ				AML	AML		
HRRZ	Handcock Road	0.58	152	P	Pn	11 47 44.6	+1.8
HRRZ				AML	AML		
HRRZ				AML	AML		
MARZ	Manawahe	0.59	100	P	Pn	11 47 44.3	+1.3
MARZ				AML	AML		
RRRZ	Republican Roa	0.64	135	P	Pn	11 47 44.7	+1.6
RRRZ				AML	AML		
RRRZ				AML	AML		
WPRZ	Whakapapatarin	0.66	165	P	Pn	11 47 45.0	+1.9
WPRZ				AML	AML		
WPRZ				AML	AML		
PRRZ	Plateau Road	0.71	150	P	Pn	11 47 44.9	+1.6
PRRZ				S	S	11 48 12.9	-2.5
PRRZ				AML	AML		
ALRZ	Allen Road	0.75	155	P	Pn	11 47 45.1	+1.7
ALRZ				S	S	11 48 15.6	0.0
ALRZ				AML	AML		
ALRZ				AML	AML		
MUGZ	Murupara	0.89	132	P	Pn	11 47 45.2	+1.3
MUGZ				S	S	11 48 13.6	-2.9
MUGZ				AML	AML		
MUGZ				AML	AML		
MKAZ	Moumakai	0.99	321	P	Pn	11 47 46.0	+1.6
MKAZ				AML	AML		
RATZ	Rangitukua	0.99	188	P	Pn	11 47 46.1	+1.8
RATZ				AML	AML		
URZ	Urewera	1.00	113	P	Pn	11 47 45.2	+0.9
URZ	Urewera	1.00	113	P	Pn	11 47 45.4	+1.0
URZ				S	S	11 48 14.4	-2.9
URZ				AML	AML		
MRHZ	Matea Rd	1.02	159	P	Pn	11 47 46.0	+1.5
MRHZ				S	S	11 48 14.9	-2.7
MRHZ				AML	AML		
MRHZ				AML	AML		
HIZ	Hauiti	1.06	233	P	Pn	11 47 47.1	+2.5
HIZ	Hauiti	1.06	233	P	Pn	11 47 46.9	+2.3
RITZ	Rihia Road	1.10	183	P	Pn	11 47 47.4	+2.6
RITZ				AML	AML		
RTZ	Ruatahuna	1.10	132	P	Pn	11 47 46.4	+1.5
RTZ				S	S	11 48 16.5	-1.9
RTZ				AML	AML		
KATZ	Kakaramea	1.11	190	P	Pn	11 47 46.9	+1.9
KATZ				AML	AML		
MTHZ	Maungataniwha	1.20	144	P	Pn	11 47 47.3	+1.9
MTHZ				S	S	11 48 17.2	-2.0
MTHZ				AML	AML		
ETAZ	East Tamaki Re	1.23	319	P	Pn	11 47 47.2	+1.6
ETAZ				AML	AML		
NTVZ	North Tongarir	1.23	190	P	Pn	11 47 47.9	+2.2
NTVZ				AML	AML		
KRVZ	Karewarewa	1.23	191	P	Pn	11 47 47.7	+2.0
KRVZ				AML	AML		
TMVZ	Te Maari	1.25	188	P	Pn	11 47 47.8	+2.1
TMVZ				S	S	11 48 18.1	-1.7
TMVZ				AML	AML		
TWVZ	Taurewa	1.25	198	P	Pn	11 47 47.7	+2.0
TWVZ				S	S	11 48 18.3	-1.4
TWVZ				AML	AML		
WIAZ	Waiheke Island	1.26	329	P	Pn	11 47 47.4	+1.6
WIAZ				AML	AML		
WTVZ	West Tongariro	1.26	192	P	Pn	11 47 47.7	+1.9
WTVZ				AML	AML		
ETVZ	East Tongariro	1.27	188	P	Pn	11 47 47.8	+2.0
ETVZ				S	S	11 48 18.6	-1.4
ETVZ				AML	AML		
AWAZ	Awhitu Peninsu	1.31	308	P	Pn	11 47 47.9	+1.9
AWAZ				AML	AML		
RAGZ	Rawiri	1.31	118	P	Pn	11 47 48.1	+2.0
RAGZ				S	S	11 48 18.9	-1.5
RAGZ				AML	AML		
NGZ	Ngauruhoe	1.32	191	P	Pn	11 47 48.1	+2.0
NGZ				S	S	11 48 19.5	-1.1
NGZ				AML	AML		
SNVZ	South Ngauruho	1.32	190	P	Pn	11 47 48.3	+2.0
SNVZ				S	S	11 48 20.3	-0.4
SNVZ				AML	AML		
MWZ	Matawai	1.33	110	P	Pn	11 47 47.6	+1.5
MWZ				S	S	11 48 18.8	-1.7
MWZ				AML	AML		
COVZ	Chateau Observ	1.35	193	P	Pn	11 47 48.2	+1.9
COVZ				S	S	11 48 19.4	-1.4
COVZ				AML	AML		
BKZ	Black Stump Fm	1.35	161	P	Pn	11 47 47.9	+1.7
BKZ	Black Stump Fm	1.35	161	P	Pn	11 47 48.0	+1.8
BKZ				S	S	11 48 18.8	-1.9
BKZ				AML	AML		
RAHZ	Arahi	1.37	139	P	Pn	11 47 48.9	+2.6
RAHZ				S	S	11 48 20.1	-0.7
RAHZ				AML	AML		
RUGZ	Raukumara Rang	1.38	94	P	Pn	11 47 46.9	+0.4
RUGZ				S	S	11 48 17.7	-3.5
RUGZ				AML	AML		
EPAZ	Eden Park BICE	1.38	316	P	Pn	11 47 48.2	+1.8
EPAZ				AML	AML		
MBAZ	Motutapu North	1.39	323	P	Pn	11 47 48.1	+1.6
MBAZ				AML	AML		
NMHZ	Naumai	1.39	151	P	Pn	11 47 49.4	+2.9
NMHZ				S	S	11 48 20.6	-0.6
NMHZ				AML	AML		
FWVZ	Far West T-bar	1.40	192	P	Pn	11 47 48.7	+1.9
FWVZ				S	S	11 48 19.4	-2.2
HBAZ	Herne Bay Bore	1.41	317	P	Pn	11 47 48.4	+1.8
HBAZ				AML	AML		
WTAZ	Waiatarua	1.44	311	P	Pn	11 47 49.0	+2.2
WTAZ				AML	AML		
HAZ	Te Kaha	1.47	86	P	Pn	11 47 47.5	+0.6
HAZ				S	S	11 48 19.0	-2.9
HAZ				AML	AML		
MOVZ	Moawhango	1.53	185	P	Pn	11 47 49.0	+1.6
MOVZ				AML	AML		
MTVZ	Mangateitei	1.54	194	P	Pn	11 47 49.5	+2.1
MTVZ				AML	AML		
VRZ	Vera Road	1.55	216	P	Pn	11 47 49.9	+2.5
VRZ				AML	AML		
RVAZ	Riverhead Bore	1.55	315	P	Pn	11 47 49.2	+1.8
RVAZ				AML	AML		
ABAZ	Army Bay	1.55	325	P	Pn	11 47 49.4	+1.9
ABAZ				AML	AML		
WHHZ	Waihua	1.57	140	P	Pn	11 47 50.2	+2.7
WHHZ				AML	AML		
KWHZ	Kaweka Forest	1.59	166	P	Pn	11 47 50.1	+2.4
KWHZ				AML	AML		
TKGZ	Te Karaka	1.60	111	P	Pn	11 47 50.1	+2.4
TKGZ				S	S	11 48 21.8	-1.7
TKGZ				AML	AML		
BHHZ	Black Hill Sta	1.61	177	P	Pn	11 47 49.7	+1.9
BHHZ				AML	AML		
ARHZ	Aropaoanui	1.61	149	P	Pn	11 47 50.3	+2.6
ARHZ				AML	AML		
TWGZ	Tauwhareparae	1.64	101	P	Pn	11 47 50.3	+2.3
TWGZ				AML	AML		
RIGZ	Rimuhau	1.65	120	P	Pn	11 47 50.5	+2.4
RIGZ				AML	AML		
MCHZ	McNeill Hill	1.67	159	P	Pn	11 47 51.0	+2.9
MCHZ				AML	AML		
GRZ	Great Barrier	1.67	347	P	Pn	11 47 49.8	+1.5
GRZ				AML	AML		
PKGZ	Pakihiroa	1.69	90	P	Pn	11 47 50.4	+2.0
PKGZ				AML	AML		
KNZ	Kokohu	1.77	130	P	Pn	11 47 51.1	+2.3
KRHZ	Kereru	1.79	169	P	Pn	11 47 51.2	+2.2
KRHZ				AML	AML		
PUZ	Puketiti	1.84	97	P	Pn	11 47 51.2	+1.8
PUZ				AML	AML		
PRGZ	Paritu Road	1.85	125	P	Pn	11 47 51.9	+2.4
PRGZ				AML	AML		
CNGZ	Carnagh Statio	1.89	109	P	Pn	11 47 52.4	+2.7
CNGZ				AML	AML		
MXZ	Matakaoa Point	1.90	81	P	Pn	11 47 51.5	+1.6
MXZ	Matakaoa Point	1.90	81	P	Pn	11 47 51.6	+1.7
MXZ				AML	AML		
WMGZ	Waiomatatini S	1.96	89	P	Pn	11 47 52.3	+2.1
WMGZ				AML	AML		
MHGZ	Mahia Peninsul	2.00	130	P	Pn	11 47 53.2	+2.6
MHGZ				AML	AML		
NEZ	North Egmont	2.00	226	P	Pn	11 47 53.7	+3.0
WAZ	Wanganui	2.01	201	P	Pn	11 47 52.9	+2.3
PKE	Pukeiti	2.02	229	P	Pn	11 47 54.0	+3.3
PNHZ	Pukenui	2.04	174	P	Pn	11 47 52.8	+1.9
KAHZ	Kahuranaki	2.05	159	P	Pn	11 47 53.5	+2.6
KHEZ	Kahui Hut	2.06	226	P	Pn	11 47 53.9	+2.8
KHEZ	Kahui Hut	2.06	226	S	S	11 48 30.5	+0.9
KHEZ	Kahui Hut	2.06	226	P	Pn	11 47 53.9	+2.8
TSZ	Takapari Road	2.17	180	P	Pn	11 47 53.8	+1.9
WPHZ	Waipukurau	2.21	170	P	Pn	11 47 54.5	+2.2
PXZ	Pawanui	2.26	162	P	Pn	11 47 55.1	+2.5
WCZ	Waipu Caves	2.32	326	P	Pn	11 47 55.0	+1.7
WCZ				AML	AML		
OHWZ	Ohakea	2.37	192	P	Pn	11 47 56.3	+2.7
DVHZ	Dannevirke	2.42	176	P	Pn	11 47 55.7	+1.7
PRHZ	Porangahau	2.44	167	P	Pn	11 47 56.8	+2.6
POWZ	Post Office Ro	2.51	183	P	Pn	11 47 56.4	+1.7
ANWZ	Angora Road	2.61	171	P	Pn	11 47 58.1	+2.4
PRWZ	Pori Road	2.67	179	P	Pn	11 47 58.4	+2.2
MRZ	Mangatainoka R	2.79	186	P	Pn	11 47 58.9	+1.6
BFZ	Birch Farm	2.81	175	P	Pn	11 47 59.3	+1.8
BFZ	Birch Farm	2.81	175	S	S	11 48 40.1	-1.0
BFZ	Birch Farm	2.81	175	P	Pn	11 47 59.4	+2.0
TIWZ	Tintock	2.89	181	P	Pn	11 48 00.8	+2.5
OGWZ	Otaki Gorge	2.99	191	P	Pn	11 48 00.8	+1.6
HOWZ	Holdsworth Sta	3.03	186	P	Pn	11 48 01.2	+1.6
KIW	Kapiti Island	3.08	195	P	Pn	11 48 01.4	+1.3
TMWZ	Te Maipa	3.22	181	P	Pn	11 48 03.9	+2.4
OUZ	Omahuta	3.26	324	P	Pn	11 48 03.6	+1.6
OUZ	Omahuta	3.26	324	P	Pn	11 48 03.9	+1.9
MTW	Mount Morrison	3.29	186	P	Pn	11 48 03.5	+1.4
CAW	Cannon Point	3.29	192	P	Pn	11 48 03.4	+1.2
DUWZ	D'Urville Isla	3.31	208	P	Pn	11 48 03.5	+1.1
PAWZ	Paruwai Farm	3.52	186	P	Pn	11 48 06.0	+1.5
SNZO	South Karori	3.56	195	P	Pn	11 48 06.6	+1.8
SNZO	South Karori	3.56	195	S	S	11 48 51.9	-2.5
TCW	Tory Channel	3.56	201	P	Pn	11 48 06.5	+1.5
PLWZ	Palliser	3.72	188	P	Pn	11 48 08.1	+1.5
TUWZ	Tuamarina	3.86	203	P	Pn	11 48 09.8	+1.7
NNZ	Nelson	3.87	210	P	Pn	11 48 08.9	+0.7
TKNZ	Takaka Hill	3.90	215	P	Pn	11 48 09.9	+1.4
QRZ	Quartz Range	3.95	221	P	Pn	11 48 09.6	+0.5
QRZ	Quartz Range	3.95	221	S	S	11 48 59.5	-2.7
QRZ	Quartz Range	3.95	221	P	Pn	11 48 09.6	+0.5
KHZ	Kahutara	4.89	201	P	Pn	11 48 20.9	+1.5
KHZ	Kahutara	4.89	201	P	S	11 49 18.1	-2.9
RPZ	Rata Peaks	6.90	211	P	Pn	11 48 43.7	+0.5
ODZ	Otahua Downs	8.18	207	P	Pn	11 49 00.3	+1.6
JCZ	Jackson Bay	8.21	219	P	Pn	11 48 59.6	+0.4

IDC 30 12:00:10.3±2.2, 1°.69N×127°.32E, h0km, mb3.5/3, mbtmp3.5/3, MS2.8/1, Error ellipse: s-maj=155.4km s-min=27.7km az=66.0, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DDMP	Don Marcelino,	4.67	340	*e*P	Pb	12 01 36.3	+3.1
DDMP				*e*S	Sb	12 02 27.9	-2.3
KAPI	Kappang	10.07	229	LR	LR	12 07 21.6	
	comp=Z,54nm,21.7s,baz=40,slow=43						
WRA	Warramunga Arr	22.57	163	P	P	12 05 13.0	+0.6
	1.0nm,0.4s,baz=342,slow=10,SNR=28						
	1.0nm,0.4s						
ASAR	Alice Springs	26.00	166	P	P	12 05 44.5	-0.7
	0.2nm,0.4s,baz=345,slow=7.7,SNR=15						
	0.2nm,0.4s						
MKAR	Makanchi Array	59.56	326	P	P	12 10 16.2	+0.3
	0.3nm,0.4s,baz=129,slow=7.6,SNR=2.6						
	0.3nm,0.4s						

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*IDC **30** 12:00:26.6±0.7, 46°.23N×142°.94E, h342km±8km, mb3.2/16, mbtmp4.0/25, Error ellipse: s-maj=13.0km s-min=10.8km az=162.0*

*NIED **30** 12:00:26.4, 46°.04N×143°.06E, h353km, MW4.0, Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M_{rr}0.07; $M_{\theta\theta}$-0.57; $M_{\phi\phi}$0.50; $M_{r\theta}$0.96; $M_{\theta\phi}$-0.54; $M_{\phi r}$-0.43; Fault plane solution: $M_0$1.30000×10^{15} NP1: ϕ_s204.00000°, δ36.00000°, λ3.00000°. NP2: ϕ_s112.00000°, δ88.00000°, λ126.00000°.*

*JMA **30** 12:00:26.4±0.3, 46°N±2°×14°3E±°, h353km±2km, MV3.9/39, SOUTH SAKHALIN*

*SKHL **30** 12:00:27.1±0.1, 46°.00N×143°.20E, h341km±1km, mb4.4/2, msh4.7/5*

ISC 30 12:00:26.4±0.6, 46°.06N±0°.04×143°.09E±0°.06, h346km±5km, n55, σ1^{s}40/76, mb3.6/18, Sakhalin Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRS4	Mayak Korsakov	0.58	340	*e*P	Pn	12 01 10.8	+0.6
KRS4				AMB	AMB	12 01 11.1	
	150nm,0.4s						
KRS4				*e*S	S	12 01 44.8	-0.6
KRS4				A	A	12 01 45.5	
	120nm,0.6s						
KRS4				A	A	12 01 45.5	
	270nm,0.6s						
YSS	Yuzhno-Sakhali	0.92	346	*e*P	Pn	12 01 11.7	+0.5
YSS				AMB	AMB	12 01 12.0	
	200nm,2.0s						
YSS				AMB	AMB	12 01 12.9	
	230nm,0.3s						
YSS				*e*S	S	12 01 46.2	-1.1
YSS				A	A	12 01 46.6	
	300nm,3.0s						
YSS				A	A	12 01 46.6	
	300nm,3.0s						
YSS				A	A	12 01 47.2	
	120nm,0.8s						
YSS				A	A	12 01 47.2	
	130nm,0.8s						
JWK2	Keihoku	1.12	229	P	Pn	12 01 13.1	+0.9
JWK2				S	S	12 01 48.7	-0.2
JSE	Soyaes	1.16	198	P	Pn	12 01 13.0	+0.6
JSE				S	S	12 01 48.4	-0.9
KHLM	Kholmsk	1.22	325	*e*P	Pn	12 01 12.8	+0.3
KHLM				AMB	AMB	12 01 12.9	
	200nm,0.2s						
KHLM				*e*S	S	12 01 48.2	-1.4
KHLM				A	A	12 01 49.6	
	180nm,0.4s						
KHLM				A	A	12 01 49.6	
	170nm,0.4s						
JRR	Rishiri	1.55	234	P	Pn	12 01 15.3	+0.9
JRR				*e*S	S	12 01 53.9	+1.0
JRBN	Rebuntou	1.55	246	P	Pn	12 01 14.6	+0.2
JRBN				*e*S	S	12 01 51.4	-1.5
JSS	Shosan	1.88	208	P	Pn	12 01 17.5	+1.0
ASAJ	Asahikawa	1.98	190	P	Pn	12 01 18.1	+0.9
	126nm,0.6s,baz=4.9,slow=6.8,SNR=207						
ASAJ				S	S	12 01 59.3	+1.4
	6.7nm,0.4s,baz=131,slow=21,SNR=0.9						
ASAJ	Asahikawa	1.98	190	P	Pn	12 01 18.2	+1.0
JMP	Maruseppu	2.06	175	P	Pn	12 01 18.6	+0.7
JTKR	Abashiri--Toko	2.17	164	P	Pn	12 01 19.5	+0.9
JTKR				*e*S	S	12 02 01.6	+1.2
JKK2	Kamakawa 2	2.20	186	P	Pn	12 01 19.9	+1.0
JHR	Hokuryu	2.51	203	*e*P	Pn	12 01 22.2	+0.9
JRA	Rausu	2.57	145	*e*P	Pn	12 01 22.9	+1.2
JRA				*e*S	S	12 02 09.1	+3.0
JAR	Ashorobuto	2.81	170	*i* P	Pn	12 01 24.8	+1.0
JAR				*e*S	S	12 02 10.7	+0.8
UGL	Uglegorsk	3.10	347	*e*P	Pn	12 01 26.6	+0.5
UGL				AMB	AMB	12 01 26.7	
	50nm,0.4s						
JAK	Akkeshi	3.27	159	P	Pn	12 01 27.9	-0.1
JAK				S	S	12 02 16.4	-1.2
NMR	Nemuro--Hokkai	3.29	144	*e*P	Pn	12 01 27.9	-0.2
NMR				*e*S	S	12 02 15.2	-2.5
AKK	Akkeshi	3.29	157	*e*P	Pn	12 01 27.5	-0.7
NEM2	Nemuro 2	3.29	144	P	Pn	12 01 28.9	+0.8
NEM2				S	S	12 02 15.0	-2.8
JEW	Eniwo	3.43	201	P	Pn	12 01 30.7	+1.2
JEW				*e*S	S	12 02 20.3	0.0
JCH	Churui	3.45	177	P	Pn	12 01 29.0	-0.7
JCH				S	S	12 02 16.9	-3.8
JNBK	Urakawa-nobuka	3.79	184	P	Pn	12 01 33.6	+0.5
JNBK				*e*S	S	12 02 26.5	-0.3
JOSM	Okushiri--Mats	4.75	214	P	Pn	12 01 43.1	0.0
TYV	Tymovskoe	4.81	357	*e*P	Pn	12 01 42.8	-0.7
TYV				AMB	AMB	12 01 42.9	
	20nm,0.5s						
TYV				AMB	AMB	12 01 43.1	
	20nm,0.8s						
TYV				*e*S	S	12 02 43.5	-2.5
TYV				A	A	12 02 44.5	
	10.0nm,0.8s						
TYV				A	A	12 02 44.5	
	10.0nm,0.8s						
TYV				A	A	12 02 46.3	
	200nm,5.4s						
TYV				A	A	12 02 46.3	
	200nm,5.4s						
JOT	Ohata	4.91	198	*i* P	Pn	12 01 44.0	-0.8

JOT				S	S	12 02 44.9	-3.3
JOMM	Oshimamatsumae	5.05	207	P	Pn	12 01 46.2	-0.2
JOMM				S	S	12 02 49.3	-1.8
JANG	Nango	5.80	192	P	Pn	12 01 53.7	-1.2
JANG				S	S	12 03 01.4	-5.1
USRK	Ussuriysk Ar.	8.07	261	P	Pn	12 02 21.5	+0.3
	14nm,0.6s,baz=65,slow=12,SNR=33						
KLR	Kul'dur	8.29	297	P	Pn	12 02 22.8	-0.9
	2.9nm,0.6s,baz=109,slow=15,SNR=9.5						
MJAR	Matsushiro Arr	10.19	203	P	P	12 02 48.0	-0.1
	15nm,0.7s,baz=23,slow=10,SNR=44						
PETK	Petropavlovsk-	11.80	48	P	Pn	12 03 05.8	+0.1
	1.5nm,0.5s,baz=235,slow=8.3,SNR=24						
KSRS	Korea Array	14.20	238	P	Pn	12 03 34.9	+0.9
	1.3nm,0.6s,baz=46,slow=11,SNR=7.7						
MA2	Magadan	14.29	16	P	P	12 03 33.8	+0.7
	10nm,0.8s,baz=183,slow=9.2,SNR=8.6						
HILR	Hailar Array B	16.05	291	P	P	12 03 52.7	+0.3
	8.7nm,0.5s,baz=97,slow=12,SNR=10						
SEY	Seymchan	17.71	14	P	P	12 04 09.6	-0.5
	12nm,0.8s,baz=193,slow=9.8,SNR=12						
SONM	Songino Array	24.96	287	P	P	12 05 19.4	-0.2
	2.8nm,0.7s,baz=76,slow=6.1,SNR=3.5						
	2.8nm,0.7s						
LZH	Lanzhou	30.94	265	eP	P	12 06 14.0	+1.5
LZH				pP	pP	12 06 22.5	-54
LZH				pmax	pmax		
	comp=Z,18nm,1.3s						
GTA2	Gaotai	32.16	274	eP	P	12 06 24.0	+1.0
GTA2				pmax	pmax		
	comp=Z,8.0nm,0.7s						
ZALV	Zalesovo Beam	37.31	304	P	P	12 07 04.3	-1.9
	comp=Z,0.4nm,0.3s,baz=79,slow=7.6,SNR=2.6						
	comp=Z,0.4nm,0.3s						
MKAR	Makanchi Array	40.98	294	P	P	12 07 35.6	-0.9
	comp=Z,0.8nm,0.6s,baz=79,slow=8.1,SNR=6.9						
	comp=Z,0.8nm,0.6s						
ILAR	Eielson Array	41.37	38	P	P	12 07 38.5	-0.9
	comp=Z,1.3nm,0.7s,baz=279,slow=8.0,SNR=15						
	comp=Z,1.3nm,0.7s						
KURBB	Kurchatov Arra	41.94	301	P	P	12 07 42.8	-1.3
	comp=Z,1.1nm,0.3s,baz=69,slow=8.7,SNR=5.0						
	comp=Z,1.1nm,0.3s						
BVAR	Borovoye Array	45.80	306	P	P	12 08 13.7	-0.8
	comp=Z,0.8nm,0.3s,baz=71,slow=9.3,SNR=3.5						
	comp=Z,0.8nm,0.3s						
YKA	Yellowknife Ar	55.47	33	P	P	12 09 25.4	-0.4
	comp=Z,2.6nm,0.7s,baz=308,slow=7.0,SNR=11						
	comp=Z,2.6nm,0.7s						
FINES	FINESS Array B	61.48	331	P	P	12 10 05.4	-1.4
	comp=Z,1.4nm,0.5s,baz=45,slow=8.1,SNR=14						
	comp=Z,1.4nm,0.5s						
WRA	Warramunga Arr	66.17	189	P	P	12 10 38.7	+1.1
	comp=Z,0.2nm,0.6s,baz=5.8,slow=6.6,SNR=4.6						
	comp=Z,0.2nm,0.6s						
NOA	NORSAR Array B	66.37	337	P	P	12 10 37.6	-0.9
	comp=Z,0.2nm,0.5s,baz=41,slow=5.9,SNR=2.2						
	comp=Z,0.2nm,0.5s						
HFS	Hagfors	66.41	335	P	P	12 10 37.3	-1.3
	comp=Z,1.3nm,0.6s,baz=32,slow=8.7,SNR=4.1						
	comp=Z,1.3nm,0.6s						
NVAR	Mina Array Bea	68.75	56	P	P	12 10 55.3	+1.4
	comp=Z,1.1nm,0.6s,baz=298,slow=5.7,SNR=11						
	comp=Z,1.1nm,0.6s						
ASAR	Alice Springs	69.90	189	P	P	12 11 02.6	+2.0
	comp=Z,0.2nm,0.6s,baz=6.7,slow=5.6,SNR=5.8						
	comp=Z,0.2nm,0.6s						
PDAR	Pinedale Array	70.57	48	P	P	12 11 05.6	+0.8
	comp=Z,1.0nm,0.6s,baz=319,slow=2.2,SNR=12						
	comp=Z,1.0nm,0.6s						
ULM	Lac du Bonnet	71.35	35	P	P	12 11 08.6	-0.4
	comp=Z,3.4nm,0.6s,baz=305,slow=7.5,SNR=5.9						
	comp=Z,3.4nm,0.6s						
TXAR	Lajitas Array	83.69	54	P	P	12 12 17.9	+0.7
	comp=Z,0.4nm,0.5s,baz=296,slow=3.8,SNR=12						
	comp=Z,0.4nm,0.5s						

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*UCR **30** 12:05:09.4±0.7, 8.°63N×83.°25W, h20km±3km, MW3.9, Presumed earthquake*
*UPA **30** 12:05:10.3±3.0, 8.°62N×83.°20W, h16km±4km, MW3.6, Presumed earthquake*
ISC 30 12:05:09.1±0.9, **8.°66N**±0.°03×**83.°23W**±0.°02, **h17**km±5km, **n53, σ0.s93**/70, **3C-17D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITO	Golfito	0.08	114	⇑iP	Pg	12 05 12.9	+0.4
FITO				eS	Sg	12 05 15.6	+0.8
PIRO	Carate, Puerto	0.27	204	i P	Pg	12 05 15.4	+0.2
PIRO				eS	Sb	12 05 20.6	+0.7
NELY	Ciudad Neily	0.28	91	eP	Pg	12 05 16.1	+0.9
NELY				eS	Sb	12 05 21.6	+1.6
VITO	San Vito	0.30	57	⇓iP	Pb	12 05 17.0	+0.9
VITO				eS	Sb	12 05 23.2	+2.5
EDP2	Potrero Grande	0.36	8	⇓iP	Pg	12 05 17.6	+0.9
EDP2				eS	Sb	12 05 24.0	+1.6
SCLRA	Santa Clara, W	0.47	68	eP	Pg	12 05 19.6	+0.8
SCLRA	Santa Clara, W	0.47	68	eP	Pg	12 05 19.7	+1.0
SCLRA				eS	Sn	12 05 29.3	+0.1
BURE	Buenos Aires	0.53	348	⇓iP	Pg	12 05 20.1	+0.4
BRU2	Volcan	0.55	75	⇓iP	Pg	12 05 20.5	+0.4
BRU2	Volcan	0.55	75	⇓iP	Pg	12 05 20.5	+0.4
BRU2				eS	Sb	12 05 29.0	+1.1
EDPE	Pejibaye, P	0.60	326	⇓iP	Pb	12 05 20.8	-0.5
CLLRA	Cordillera,	0.61	82	⇓iP	Pg	12 05 21.7	+0.4
CLLRA	Cordillera,	0.61	82	⇓iP	Pg	12 05 21.7	+0.4
CLLRA				eS	Sg	12 05 27.6	-1.9
LMNES	Limones	0.66	147	eP	Pb	12 05 22.4	+0.3
LMNES	Limones	0.66	147	⇑iP	Pb	12 05 22.5	+0.3
LMNES				eS	Sg	12 05 31.9	+0.9
SAJE	San Jernim	0.74	338	⇓eP	Pb	12 05 23.0	-0.7
SAJE				eS	Sb	12 05 33.2	-0.3
BQTLY	Boquete Panama	0.76	82	⇓eP	Pb	12 05 23.8	-0.3
BQTLY	Boquete Panama	0.76	82	⇓eP	Pb	12 05 23.7	-0.3
BQTLY				eS	Sn	12 05 36.5	+0.1
BGUAL	Bijagual, Pana	0.89	99	⇓iP	Pb	12 05 25.8	-0.3
BGUAL	Bijagual, Pana	0.89	99	⇑eP	Pb	12 05 25.9	-0.3
CHIR3	Chiriqui UPA,	0.92	106	eP	Pb	12 05 26.8	+0.1
CHIR3				eS	Sg	12 05 40.1	+0.8
CEUA	Cerro Uatsi, L	1.00	16	eP	Pb	12 05 28.9	+0.9
BUS1	Rivas	1.03	330	⇓eP	Pb	12 05 27.9	-0.9
PBNVO	Pueblo Nuevo,	1.05	77	eP	Pb	12 05 27.8	-1.0
PBNVO	Pueblo Nuevo,	1.05	77	eP	Pb	12 05 27.9	-0.9
PBNVO				eS	Sb	12 05 41.9	-0.3
RBALA	Bur	1.08	78	eP	Pb	12 05 28.3	-1.1
RBALA	Bur	1.08	78	⇓eP	Pb	12 05 28.4	-1.0
RBALA				eS	Sb	12 05 42.9	-0.3
RGM0	Gandoca	1.11	33	⇓iP	Pb	12 05 31.0	+1.1
PIEC	Cerro El Cedra	1.20	323	eP	Pn	12 05 30.6	-0.8
PITB	Pirrs, San	1.27	322	eP	Pn	12 05 32.3	+0.1
ABE2	San Pablo	1.32	322	eP	Pn	12 05 33.3	+0.3
LCR2	La Lucha 2	1.32	325	eP	Pn	12 05 32.3	-0.7
LCR2	La Lucha 2	1.32	325	i P	Pn	12 05 32.4	-0.7
LCR2				eS	Sb	12 05 52.2	+1.8
PICV	PH. Pirrs	1.36	315	eP	Pn	12 05 33.4	+0.1
PCAYA	Pacayas	1.38	335	eP	Pn	12 05 33.4	-0.4
VTCV	VTCV, Calle Va	1.41	339	eP	Pn	12 05 34.5	+0.3
KKNTU	Kakintº	1.42	82	⇓eP	Pn	12 05 33.3	-0.7
KKNTU	Kakintº	1.42	82	eP	Pn	12 05 33.4	-0.7
KKNTU				eS	Sn	12 05 51.5	-0.7
ABRB	Las Abras (San	1.43	340	eP	Pn	12 05 34.6	+0.2
RESJ	San Isidro (Tu	1.43	343	eP	Pn	12 05 34.7	+0.4
CVTQ	Turrialba Volc	1.44	338	eP	Pn	12 05 35.2	+0.4
VTR0	Volcan Turrial	1.45	339	eP	Pn	12 05 34.8	-0.1
CVTR	Volcan Turrial	1.45	339	eP	Pn	12 05 34.6	-0.4
VICA	Volcano Irazu	1.46	335	eP	Pn	12 05 34.7	-0.3
LCOCO	El Coco	1.46	347	⇓iP	Pn	12 05 35.0	+0.3
RVLA	Villa Bonita	1.49	346	eP	Pn	12 05 35.3	+0.3
CVIMO	Finca Echandi	1.53	333	eP	Pg	12 05 39.9	+1.2
PDCAN	Manzana , Fuen	1.56	103	eP	Pn	12 05 36.1	+0.1
PDCAN	Manzana , Fuen	1.56	103	eS	Sg	12 05 58.7	-0.7
PILE	Guapiles	1.65	340	eP	Pn	12 05 38.3	+1.0
VBV1	V. Barva	1.69	329	eP	Pn	12 05 38.1	+0.1
AZU	Azuero	3.04	106	eP	Pn	12 05 59.0	+2.5
AZU				eS	Sb	12 06 39.9	+0.1
VTON	El Valle, Cocl	3.08	91	eS	Sg	12 06 45.3	-2.8

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*KRNET **30** 12:13:56.9±0.1, 42.°54N×75.°98E, h18km, mb2.7*
*NNC **30** 12:13:56.9±1.0, 42.°56N×75.°92E, h2km±9km, mb1.8, mpv2.7, Error ellipse: s-maj=9.5km s-min=3.9km az=161.0*
*KNET **30** 12:13:57.2±0.5, 42.°52N×75.°91E, h0km, ml1.2, Error ellipse: s-maj=6.8km s-min=2.6km az=30.0*
*SOME **30** 12:13:57.4, 42.°52N×75.°93E, h15km*
ISC 30 12:13:56.5±0.8, **42.°51N**±0.°02×**75.°97E**±0.°02, **h17**km±5km, **n41, σ0.s61**/79, **32C-9D, Lake Issyk-Kul region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOOM	Boomskoye usch	0.03	230	⇑iP	Pg	12 14 00.0	+0.2
BOOM				⇑iS	Sg	12 14 01.9	-0.2
ULHL	Ulahol	0.33	143	⇑P	Pb	12 14 04.4	+0.3
	4.4nm,0.2s						
ULHL				⇑S	Sb	12 14 09.5	+0.3
	45nm,0.2s						
ULHL	Ulahol	0.33	143	⇑iP	Pb	12 14 04.1	0.0
ULHL				⇑iS	Sb	12 14 09.0	-0.2
TKM2	Tokmak 2	0.50	326	⇑P	Pb	12 14 06.7	-0.2
	4.4nm,0.2s						
TKM2				⇑S	Sg	12 14 13.3	0.0
	49nm,0.1s						
TKM2	Tokmak 2	0.50	326	⇑iP	Pb	12 14 06.5	-0.4
TKM2				⇑iS	Sg	12 14 13.1	-0.2
KST	Kastek	0.53	359	P	Pb	12 14 07.4	-0.2
	2.1nm,0.1s						
KST				S	Sg	12 14 14.7	+0.2
	48nm,0.2s						
KST	Kastek	0.53	359	eP	Pb	12 14 07.3	-0.2
	2.1nm,0.1s						
KST				eS	Sg	12 14 14.3	-0.1
	48nm,0.2s						
IZV	Izvestkoviy	0.71	42	eP	Pg	12 14 09.5	-0.9
	2.2nm,0.1s						
IZV				eS	Sg	12 14 18.0	-1.9
	33nm,0.2s						
DGS	Degeres	0.75	349	P	Pb	12 14 11.4	+0.2
	6.7nm,0.1s						
DGS				S	Sg	12 14 21.1	-0.1
	14nm,0.2s						
DGS	Degeres	0.75	349	eP	Pb	12 14 11.3	+0.2
	6.7nm,0.1s						
DGS				eS	Sg	12 14 21.1	-0.1
	14nm,0.2s						
KBK	Karagaybulak	0.77	281	⇑P	Pb	12 14 12.0	+0.5
	3.9nm,0.1s						
KBK				⇑S	Sb	12 14 22.9	+1.1
	14nm,0.2s						
KBK	Karagaybulak	0.77	281	⇓iP	Pb	12 14 11.6	0.0
KBK				⇓iS	Sb	12 14 22.2	+0.4
TNSS	Tian-Shan	0.89	53	P	Pb	12 14 14.0	+0.2
	0.5nm,0.1s						
TNSS				S	Sb	12 14 25.6	+0.1
	3.2nm,0.3s						
TNSS	Tian-Shan	0.89	53	eP	Pb	12 14 14.0	+0.2
	0.5nm,0.1s						
TNSS				eS	Sb	12 14 25.6	+0.1
	3.2nm,0.3s						
KDJ	Kajisay	0.97	112	⇑iP	Pn	12 14 15.4	-0.2
KDJ				⇑iS	Sn	12 14 28.7	-0.4
CHMS	Chumysh	1.02	299	⇓P	Pb	12 14 16.0	+0.2
	4.4nm,0.3s						
CHMS				⇓S	Sb	12 14 29.6	+0.6
	7.4nm,0.2s						
CHMS	Chumysh	1.02	299	⇑iP	Pb	12 14 15.8	0.0
CHMS				⇑iS	Sg	12 14 29.3	-0.5
MDOK	Medeo	1.03	50	Pg	Pb	12 14 16.0	+0.1
	3.2nm,0.2s						
MDOK				Lg	Lg	12 14 29.1	
	7.7nm,0.3s						
MDOK	Medeo	1.03	50	eP	Pb	12 14 16.0	+0.1
	3.2nm,0.2s						
MDOK				eS	Sg	12 14 29.1	-0.8
	7.7nm,0.3s						
NRN	Naryn	1.07	179	⇑eP	Pn	12 14 17.8	+0.7
NRN				⇑eS	Sn	12 14 32.7	+0.9
AAK	Ala-Archa	1.10	277	⇑P	Pn	12 14 17.6	+0.4
	3.9nm,0.2s						
AAK				⇓S	Sn	12 14 32.2	+0.1
	3.5nm,0.2s						
AAK	Ala-Archa	1.10	277	⇓P	Pg	12 14 16.9	-1.0
	0.1nm,0.2s						
AAK				⇑S	Sb	12 14 31.8	+0.5
	0.4nm,0.3s						
AAK	Ala-Archa	1.10	277	⇑iP	Pn	12 14 17.3	0.0
AAK				⇑iS	Sb	12 14 32.0	+0.8
KOTS	Kotyrbulak	1.11	49	eP	Pn	12 14 18.4	+1.0
	2.3nm,0.2s						
KOTS				eS	Sn	12 14 33.1	+0.7
	11nm,0.3s						
UCH	Uchtor	1.12	256	⇓iP	Pn	12 14 17.8	0.0
UCH				⇓iS	Sn	12 14 33.0	0.0
KRBS	Karabastau	1.21	350	P	Pb	12 14 19.3	+0.3
	6.0nm,0.2s						
KRBS				S	Sb	12 14 34.5	+0.3
	5.5nm,0.4s						
KRBS	Karabastau	1.21	350	eP	Pb	12 14 19.3	+0.3
	6.0nm,0.2s						
KRBS				eS	Sb	12 14 34.5	+0.3
	5.5nm,0.4s						
ANVS	Anan'yevo	1.28	77	⇑eP	Pg	12 14 20.3	-1.0
ANVS				⇑eS	Sn	12 14 37.6	+0.9
KTBS	Karatobe	1.31	23	P	Pn	12 14 20.3	+0.3
	1.6nm,0.1s						
KTBS				S	Sb	12 14 37.2	0.0
	8.5nm,0.2s						
KTBS	Karatobe	1.31	23	eP	Pn	12 14 20.3	+0.3
	1.6nm,0.1s						
KTBS				eS	Sb	12 14 36.8	-0.5
	8.5nm,0.2s						
USP	Ospenovka	1.32	306	⇑P	Pg	12 14 21.2	-0.8
	1.3nm,0.2s						
USP				⇓S	Sg	12 14 38.9	-0.4
	5.1nm,0.2s						
USP	Ospenovka	1.32	306	⇑iP	Pb	12 14 20.9	0.0
USP				⇑iS	Sn	12 14 38.5	+1.1
TARG	Taragay, Kyrgy	1.57	119	⇑iP	Pg	12 14 25.8	-1.0
TARG				⇑iS	Sg	12 14 46.8	-0.5
EKS2	Erkin-Say	1.63	276	⇑P	Pg	12 14 27.2	-0.7
	1.6nm,0.2s						
EKS2	Erkin-Say	1.63	276	⇑iP	Pg	12 14 26.7	-1.1
EKS2				⇑iS	Sg	12 14 48.2	-0.8
SATY	Saty	1.88	72	P	Pg	12 14 32.5	-0.1
	1.7nm,0.1s						
SATY				S	Sg	12 14 57.3	+0.4
	11nm,0.1s						
SATY	Saty	1.88	72	eP	Pg	12 14 32.5	-0.1
	1.7nm,0.1s						
SATY				eS	Sg	12 14 57.3	+0.4
	11nm,0.1s						
MRKS	Merke	2.04	278	eP	Pg	12 14 34.6	-1.1
	3.0nm,0.2s						
MRKS				eS	Sg	12 15 01.4	-0.8
	14nm,0.4s						
KPKS	Kokpek	2.21	63	Pg	Pg	12 14 38.9	0.0
	0.1nm,0.1s						
KPKS				Lg	Lg	12 15 08.2	
	11nm,0.4s						
KPKS	Kokpek	2.21	63	eP	Pg	12 14 38.9	0.0
	0.1nm,0.1s						
KPKS				eS	Sg	12 15 08.2	+0.7
	11nm,0.4s						
UZB	Uzynbulak	2.33	73	eP	Pg	12 14 40.0	-1.3
	1.9nm,0.2s						
UZB				eS	Sg	12 15 10.0	-1.5
	3.2nm,0.3s						

SOME 30 12:27:42.9, 42.°40N×81.°03E, h10km, Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KTMS	Ketmen	1.16	335	eP	Pb	12 28 04.8	-0.3
	0.6nm,0.2s						
KTMS				eS	Sb	12 28 20.6	+0.3
	2.1nm,0.2s						
SHLS	Shalkode	1.38	304	eP	Pn	12 28 05.6	-2.8
	3.6nm,0.1s						
SHLS				eS	Sb	12 28 21.7	-5.0
	8.5nm,0.3s						
UZB	Uzynbulak	1.66	297	eP	Pb	12 28 14.1	+0.4
	2.1nm,0.2s						
UZB				eS	Sg	12 28 36.5	+0.3
	4.3nm,0.2s						
KPKS	Kokpek	2.03	302	eP	Pb	12 28 19.6	-0.3
	0.2nm,0.1s						
KPKS				eS	Sg	12 28 47.3	-0.8
	9.4nm,0.3s						
KPKS	Kokpek	2.03	302	eP	Pb	12 28 19.6	-0.3
	3.4nm,0.4s						
KPKS				eS	Sb	12 28 45.5	+0.3
	7.6nm,0.2s						
SATY	Saty	2.04	290	eP	Pb	12 28 19.7	-0.5
	1.8nm,0.2s						
SATY				eS	Sg	12 28 47.3	-1.3
	8.5nm,0.2s						
SATY	Saty	2.04	290	eP	Pb	12 28 20.5	+0.3
	2.1nm,0.2s						
SATY				eS	Sg	12 28 47.6	-1.0
	8.3nm,0.3s						

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*TAP **30** 12:42:52.0, 24.°69N×122.°45E, h104km, ML3.3, C*
*JMA **30** 12:42:52.2±0.1, 24.°7N±0.°9×122.°5E±0.°3, h101km±1km, MV2.4/16, NW OFF ISHIGAKIJIMA IS*
ISC 30 12:42:52.6±1.3, **24.°66N**±0.°04×**122.°45E**±0.°02, **h99**km±7km, **n99, σ0.s92**/176, **Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EOS2	EOS2	0.31	220	eP	Pn	12 43 07.0	0.0
EOS2				i S	Sn	12 43 19.5	+1.8
EOS3	EOS3	0.39	199	eP	Pn	12 43 08.3	+0.8
EOS3				eS	Sn	12 43 20.3	+1.8
JYNG	Yonagunijimaku	0.49	115	P	Pn	12 43 08.3	0.0
JYNG				eS	Sn	12 43 20.1	+0.1
YOJ	Yonaguni jima	0.54	111	P	Pn	12 43 08.6	0.0
YOJ				S	Sn	12 43 21.0	+0.3
YOJ	Yonaguni jima	0.54	111	P	Pn	12 43 08.5	-0.1
YOJ				eS	Sn	12 43 20.9	+0.3
TWB1	Santiao Chiao	0.55	309	i P	Pn	12 43 08.6	-0.1
TWB1				eS	Sn	12 43 20.4	-0.3
EOS4	EOS4	0.55	193	eP	Pn	12 43 08.5	+0.2
EOS4				eS	Sn	12 43 20.7	+0.7
TWC	Suao	0.55	265	P	Pn	12 43 08.4	-0.3
TWC				S	Sn	12 43 19.7	-1.0
EWUT	Wuta	0.65	251	P	Pn	12 43 09.5	0.0
EWUT				i S	Sn	12 43 22.1	-0.1
TIPB	Shuangxi	0.65	299	i P	Pn	12 43 09.5	-0.1
TIPB				S	Sn	12 43 21.6	-0.7
NDS	Dongshan	0.67	268	P	Pn	12 43 09.8	0.0
NDS				S	Sn	12 43 21.9	-0.7
SXI1	Grass Mountain	0.68	310	P	Pn	12 43 09.7	-0.2
SXI1				S	Sn	12 43 23.5	+0.7
ENA	Nanau	0.69	251	eP	Pn	12 43 07.5	-2.4
TWE	Neicheng	0.72	275	i P	Pn	12 43 10.1	0.0
TWE				eS	Sn	12 43 22.9	-0.4
EAHA	Aohua	0.73	243	i P	Pn	12 43 10.3	+0.1
EAHA				eS	Sn	12 43 23.9	+0.4
FUSB	Fushanzhiwuyua	0.80	277	i P	Pn	12 43 10.9	0.0
FUSB				S	Sn	12 43 23.7	-1.0
ENTT	Nioudou	0.81	269	eP	Pn	12 43 11.4	+0.4
ENTT				S	Sn	12 43 25.7	+0.8
TWA	Mucha	0.85	292	eP	Pn	12 43 11.3	-0.2
LATG	Datong	0.85	262	eP	Pn	12 43 11.8	+0.2
LATG				S	Sn	12 43 26.1	+0.3
NDT	Datong Townshi	0.86	266	eP	Pn	12 43 12.2	+0.7
NDT				S	Sn	12 43 26.4	+0.6
NWLT	Wulai	0.87	278	eP	Pn	12 43 11.6	-0.1
NWLT				S	Sn	12 43 25.5	-0.5
NHDH	Xindian Distri	0.90	290	eP	Pn	12 43 11.8	-0.1
ETL	Fush Village	0.91	237	eP	Pn	12 43 11.6	-0.5
ETL				S	Sn	12 43 25.7	-0.9
NACB	Ninganchiao	0.92	239	P	Pn	12 43 12.0	-0.1
NACB	Ninganchiao	0.92	239	P	Pn	12 43 11.6	-0.5
NACB				S	Sn	12 43 26.1	-0.8
TATO	Taipei	0.93	290	P	Pn	12 43 11.9	-0.3
YM01	YM01	0.94	301	eP	Pn	12 43 12.3	-0.1
YM01				eS	Sn	12 43 26.7	-0.6
YM08	YM08	0.94	304	eP	Pn	12 43 11.9	-0.5
ZUZH	Zhuzihu	0.97	301	eP	Pn	12 43 12.4	-0.2
TWD	Chiawan	0.97	234	P	Pn	12 43 12.0	-0.7
TWD				eS	Sn	12 43 27.3	-0.5
YHNB	Yeheng	0.98	271	P	Pn	12 43 13.0	+0.1
YHNB	Yeheng	0.98	271	i P	Pn	12 43 13.2	+0.3
YHNB				i S	Sn	12 43 28.1	0.0
TWY	Chenhua	0.99	309	eP	Pn	12 43 12.5	-0.3
ETLH	Xiulin Townshi	0.99	243	P	Pn	12 43 12.8	-0.2
ETLH				i S	Sn	12 43 27.4	-0.9
NSK	Sanguang	1.00	271	i P	Pn	12 43 13.2	+0.2
NSK				S	Sn	12 43 28.3	-0.1
ANP	Anpu	1.00	302	eP	Pn	12 43 12.1	-1.0
NNSB	Datong	1.00	257	i P	Pn	12 43 13.4	+0.2
NNSB				i S	Sn	12 43 28.4	-0.2
NNS	Nan Shan	1.01	258	P	Pn	12 43 13.3	+0.1
NNS				i S	Sn	12 43 28.5	-0.2
TWS1	Kuangyinshan	1.04	295	P	Pn	12 43 13.2	-0.2
TWS1				S	Sn	12 43 30.6	+1.6
TEYL	Yanliau Villag	1.11	225	eP	Pn	12 43 14.0	-0.2
TEYL				i S	Sn	12 43 30.6	+0.1
ETM	Tongmen	1.12	232	i P	Pn	12 43 14.0	-0.3
ETM				eS	Sn	12 43 29.3	-1.3
LXIB	Xiulin Townshi	1.14	236	i P	Pn	12 43 14.3	-0.4
LXIB				S	Sn	12 43 30.2	-1.2
KSHI	Guanxi Townshi	1.17	276	i P	Pn	12 43 15.3	+0.4
KSHI				S	Sn	12 43 31.6	0.0
FUSS	Fushou	1.18	250	P	Pn	12 43 15.6	+0.4
FUSS				eS	Sn	12 43 31.5	-0.8
SHUL	Shoufeng	1.19	223	eP	Pn	12 43 15.4	+0.3
SHUL				S	Sn	12 43 31.9	-0.2
NCUH	Zhongli	1.19	285	eP	Pn	12 43 15.7	+0.5
NCUH				S	Sn	12 43 31.9	-0.3
WHF	Hehuan Shan	1.20	245	i P	Pn	12 43 15.6	0.0
WHF				S	Sn	12 43 32.4	-0.6
IRIF	Iriomote-Funau	1.21	105	eS	Sn	12 43 32.4	0.0
NFF	Wufeng Townshi	1.22	269	i P	Pn	12 43 15.7	+0.2
NFF				i S	Sn	12 43 32.4	-0.4
TWT	Tachien	1.23	251	eP	Pn	12 43 16.7	+0.9
TWT				eS	Sn	12 43 33.3	0.0
TDCB	Techi	1.25	251	eP	Pn	12 43 16.5	+0.6
TDCB				S	Sn	12 43 33.2	-0.4
ESL	Shilin	1.26	228	eP	Pn	12 43 15.2	-0.7
ESL				eS	Sn	12 43 32.0	-1.5
LIOB	Emei	1.31	270	i P	Pn	12 43 16.8	+0.3
LIOB				i S	Sn	12 43 34.6	0.0
NSTT	Nanjuang	1.32	269	i P	Pn	12 43 17.0	+0.3
NSTT				i S	Sn	12 43 34.7	-0.2
WARBT	Fenglin Townsh	1.35	226	eP	Pn	12 43 16.3	-0.8
WARBT				eS	Sn	12 43 33.3	-2.3
OWD	Renai	1.36	239	eP	Pn	12 43 16.9	-0.4
OWD				i S	Sn	12 43 35.2	-0.7
HATJ	Hateruma jima	1.37	116	eS	Sn	12 43 36.1	+0.2
WUSB	Renai	1.39	242	i P	Pn	12 43 18.1	+0.5
WUSB				eS	Sn	12 43 36.1	-0.4
WHP	Taichung City	1.43	255	eP	Pn	12 43 18.9	+0.9
WHP				S	Sn	12 43 37.9	+0.7
JKRS	Kuro-shima	1.48	106	S	Sn	12 43 38.4	+0.1
HGSD	Ruisui	1.50	219	eP	Pn	12 43 18.7	-0.1
HGSD				S	Sn	12 43 38.9	+0.2
VWDT	VWDT	1.50	233	eP	Pn	12 43 19.2	+0.4
VWDT				S	Sn	12 43 38.4	-0.2
NMLH	Miaoli	1.52	266	P	Pn	12 43 19.4	+0.4
NMLH				S	Sn	12 43 39.4	+0.2
WCS	Beigang Elemen	1.53	247	P	Pn	12 43 19.9	+0.8
WCS				S	Sn	12 43 40.4	+1.0
EHYH	Wanrong	1.54	221	eP	Pn	12 43 19.0	-0.3
EHYH				S	Sn	12 43 37.9	-1.8
TWQ1	Liyutan	1.56	259	P	Pn	12 43 19.4	-0.2
TWQ1				S	Sn	12 43 40.2	+0.1
JIJ	Ishigaki jima	1.57	100	P	Pn	12 43 19.6	0.0
JIJ				S	Sn	12 43 39.6	-0.6
SMLT	Sun Moon Lake	1.61	242	P	Pn	12 43 21.9	+1.5
SMLT				eS	Sn	12 43 43.3	+1.8
SSLB	Suanglung	1.62	238	P	Pn	12 43 21.2	+0.8
SSLB	Suanglung	1.62	238	S	Sn	12 43 42.4	+0.9
SSLB	Suanglung	1.62	238	eP	Pn	12 43 21.0	+0.6
SSLB				eS	Sn	12 43 42.0	+0.5
TYC	Yuchr	1.64	243	P	Pn	12 43 21.7	+1.1
TYC				eS	Sn	12 43 43.1	+1.3
YULB	Yu-li	1.65	220	P	Pn	12 43 20.5	-0.2
YULB	Yu-li	1.65	220	P	Pn	12 43 19.9	-0.8
YULB				S	Sn	12 43 40.2	-1.8
EYUL	Yuli	1.67	219	eP	Pn	12 43 22.0	+1.0
EYUL				eS	Sn	12 43 43.3	+0.8
TWF1	Yuli	1.68	219	eP	Pn	12 43 20.6	-0.4
TWF1				eS	Sn	12 43 40.9	-1.7
JISG	Ishigakijimahi	1.69	92	P	Pn	12 43 21.6	+0.4
JISG				eS	Sn	12 43 42.5	-0.4
WHYT	Xinyi Township	1.75	237	eP	Pn	12 43 23.1	+1.2
WHYT				eS	Sn	12 43 45.9	+1.6

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
WJS	Zhushan	1.78	242	eP	Pn	12 43 22.5	+0.2
WJS				eS	Sn	12 43 46.8	+1.7
FULB	Fuli	1.80	216	eP	Pn	12 43 22.8	+0.1
FULB				eS	Sn	12 43 45.0	-0.5
CHKT	Chengkung	1.84	213	P	Pn	12 43 22.4	-0.7
CHKT				S	Sn	12 43 44.6	-1.8
ALS	Alishan	1.89	233	eP	Pn	12 43 25.4	+1.4
ALS				eS	Sn	12 43 48.4	+0.4
CHN5	Tsauling	1.94	237	eP	Pn	12 43 25.8	+1.4
CHN5				eS	Sn	12 43 50.4	+1.7
ELDTW	Lidau	1.97	222	eP	Pn	12 43 24.3	-0.5
ELDTW				S	Sn	12 43 48.3	-1.1
EDH	Donghe	1.98	212	P	Pn	12 43 24.4	-0.5
EDH				S	Sn	12 43 47.8	-1.8
JTJ	Tarama	2.04	90	eS	Sn	12 43 51.5	+0.5
STYH	Taoyuan	2.13	226	eP	Pn	12 43 28.2	+1.3
STYH				eS	Sn	12 43 53.1	0.0
CHN4	Tsaushan	2.14	233	eP	Pn	12 43 28.1	+1.0
CHN4				eS	Sn	12 43 55.1	+1.8
TPUB	Ta-pu	2.15	231	P	Pn	12 43 29.5	+2.4
TPUB	Ta-pu	2.15	231	S	Sn	12 43 55.0	+1.5
TPUB	Ta-pu	2.15	231	eP	Pn	12 43 28.5	+1.3
TPUB				eS	Sn	12 43 54.5	+1.0
TWGBT	Beinan	2.22	215	eP	Pn	12 43 29.6	+1.5
TWK	Hsinying	2.27	233	eP	Pn	12 43 29.9	+1.1
CHN1	Nanshi	2.29	231	eP	Pn	12 43 31.4	+2.4
CHN1				eS	Sn	12 43 58.6	+1.8
JIRJ	Irabujima	2.50	85	eP	Pn	12 43 32.0	+0.4
JIRJ				S	Sn	12 44 01.4	-0.2
MASBT	Mashibuluo	2.63	220	eP	Pn	12 43 34.1	+0.6
MASBT				eS	Sn	12 44 06.4	+1.5
VWUC	VWUC	2.75	278	eP	Pn	12 43 34.3	-0.7
VWUC				eS	Sn	12 44 04.7	-2.9
LYUB	Lan-yu	2.76	197	eP	Pn	12 43 33.8	-1.4
LYUB				eS	Sn	12 44 05.0	-3.0
PTMZ	Houxiangcun	3.05	278	eP	Pn	12 43 38.2	-0.8

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*IDC **30** 13:02:03.4±0.9, 8°.10N×127°.43E, h0^{km}, mb3.9/8, mbtmp3.9/9, ML3.4/1, MS3.2/2, Error ellipse: s-maj=23.0km s-min=17.2km az=91.0*

*MAN **30** 13:02:05.0, 7°.84N×127°.31E, h16^{km}, MS4.0*

ISC 30 13:02:03.6±2.1,**7°.88N**±0°.04×**127°.35E**±0°.07,**h3**^{km}±12^{km}, **n23**,σ**1^{s}.74**/35,**mb4.0**/8,**Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CDOP	Cateel, Davao	0.91	264	iP	Pg	13 02 21.3	+0.3
CDOP				iS	Sg	13 02 32.6	-0.3
BIPH	Bislig	1.03	287	iP	Pg	13 02 23.9	+0.6
BIPH				eS	Sn	13 02 45.3	+5.5
TSSP	Tandag City	1.62	315	eP	Pn	13 02 33.3	+0.2
TSSP				eS	Sn	13 02 51.8	-2.8
DAV	Davao City (W)	1.93	245	Pn	Pb	13 02 39.6	0.0
	13nm,0.3s,baz=26,slow=4.7,SNR=4.8						
DAV				Sn	Sb	13 03 03.8	-0.3
	137nm,0.3s,baz=74,slow=23,SNR=5.6						
DAV				LR	LR	13 03 43.3	
	comp=Z,417nm,20.2s,baz=62,slow=48						
	166nm,0.3s						
DAV				AML	AML		
DMPH	Davao City--Mi	1.99	247	iP	Pb	13 02 39.8	-0.7
DMPH				iS	Sb	13 03 05.8	0.0
GLSP	General Luna,	2.24	327	iP	Pn	13 02 41.9	+0.2
GLSP				eS	Sn	13 03 10.2	+0.2
BUKP	Musuan	2.27	270	eP	Pn	13 02 43.2	+1.2
BUKP				iS	Sb	13 03 11.9	-1.9
DDMP	Don Marcelino,	2.40	223	eP	Pn	13 02 43.4	-0.5
DDMP				eS	Sn	13 03 13.3	-0.6
KCP	Kidapawan	2.41	249	eP	Pn	13 02 38.5	-5.5
KCP				eS	Sn	13 03 12.8	-1.3
CGP	Cagayan de Oro	2.69	282	eP	Pn	13 02 49.1	+1.3
CGP				eS	Sb	13 03 27.7	+1.8
CTBH	Cotabato--PC H	3.15	258	iP	Pn	13 02 55.0	+0.9
TBP	Tagbilaran	3.89	298	eP	Pn	13 03 05.6	+1.2
TBP				iS	Sb	13 04 00.3	-0.2
PLP	Palo	4.01	325	eP	Pn	13 03 10.2	+4.1
PLP				eS	Sb	13 04 04.5	+0.5
LLP	Lapu-Lapu	4.13	306	eP	Pb	13 03 14.0	-2.9
LLP				eS	Sb	13 04 06.3	-1.0
WRA	Warramunga Arr	28.49	166	P	P	13 08 03.4	+3.0
	1.2nm,0.7s,baz=347,slow=9.3,SNR=14						
	1.2nm,0.7s						
ASAR	Alice Springs	32.00	169	P	P	13 08 32.0	+0.5
	0.3nm,0.8s,baz=342,slow=9.0,SNR=7.2						
ASAR				PcP	PcP	13 11 21.5	-0.1
	0.2nm,0.6s,baz=352,slow=3.8,SNR=1.8						
	0.3nm,0.8s						
MKAR	Makanchi Array	54.57	323	P	P	13 11 32.4	-0.9
	1.9nm,0.7s,baz=122,slow=8.2,SNR=17						
	1.9nm,0.7s						
ZALV	Zalesovo Beam	57.22	332	P	P	13 11 51.6	-0.6
	0.5nm,0.3s,baz=125,slow=7.4,SNR=4.5						
	0.5nm,0.3s						
KURBB	Kurchatov Arra	58.63	326	P	P	13 12 01.0	-1.1
	1.5nm,0.6s,baz=126,slow=6.2,SNR=16						
	1.5nm,0.6s						
BVAR	Borovoye Array	64.23	326	P	P	13 12 39.5	-0.5
	1.1nm,0.4s,baz=108,slow=7.7,SNR=4.4						
	1.1nm,0.4s						
ILAR	Eielson Array	81.11	26	P	P	13 14 20.2	0.0
	0.2nm,0.5s,baz=255,slow=5.5,SNR=4.6						
	0.2nm,0.5s						
EIL	Elat	88.22	300	LR	LR	13 59 44.6	
	comp=Z,13nm,18.1s,baz=298,slow=39						
FINES	FINESS Array B	88.49	332	P	P	13 14 56.0	-1.3
	0.9nm,0.8s,baz=65,slow=4.7,SNR=2.2						
	0.9nm,0.8s						

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*SKHL **30** 13:05:15.9±0.1, 44°.40N×147°.00E, h144^{km}±6^{km}, mb4.4/2, msh5.2/2*

*MOS **30** 13:05:16.2±1.2, 44°.48N×146°.83E, h159^{km}, mb4.0/1, Error ellipse: s-maj=18.0km s-min=16.4km az=49.4*

*JMA **30** 13:05:18.0±0.3, 44°N±1°×14°7E±°, h152^{km}±2^{km}, MV3.7/35, NEAR ETOROFU ISLAND*

*IDC **30** 13:05:19.6±2.0, 44°.52N×146°.60E, h174^{km}±19^{km}, mb3.0/9, mbtmp3.5/11, Error ellipse: s-maj=24.9km s-min=19.0km az=140.0*

ISC 30 13:05:16.8±0.8,**44°.43N**±0°.06×**146°.95E**±0°.05,**h150**^{km}±6^{km}, **n48**,σ**0^{s}.97**/59,**mb3.3**/9,**2D**,**Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YUK	Yuzh-Kuril'sk	0.88	244	d iPN	Pn	13 05 41.0	+0.4
YUK				iS	Sn	13 05 59.3	+0.7
YUK				pmax	pmax		
	comp=Z,1μm,0.2s						
YUK				pmax	pmax		
	comp=N,200nm,0.1s						
YUK				pmax	pmax		
	comp=E,311nm,0.1s						
YUK				smax	smax		
	comp=N,328nm,0.3s						
YUK				smax	smax		
	comp=E,989nm,0.4s						
YUK	Yuzh-Kuril'sk	0.88	244	iP	Pn	13 05 41.0	+0.4
YUK				AMB	AMB	13 05 42.1	
	comp=E,120nm,0.2s						
YUK				iS	Sn	13 05 59.9	+1.3
YUK				A	A	13 06 00.2	
	comp=E,330nm,0.3s						
YUK				A	A	13 06 00.2	
	comp=E,990nm,0.3s						
KUR	Kuril'sk	1.04	39	ePN	Pn	13 05 41.5	-0.4
KUR				iS	Sn	13 06 00.8	-0.2
KUR	Kuril'sk	1.04	39	eP	Pn	13 05 42.3	+0.4
KUR				AMB	AMB	13 05 43.0	
	comp=E,80nm,0.4s						
KUR				eS	Sn	13 06 02.0	+1.0
KUR				A	A	13 06 02.4	
	comp=E,290nm,0.4s						
KUR				A	A	13 06 02.4	
	comp=E,180nm,0.4s						
REI	Reidovoe	1.13	42	eP	Pn	13 05 41.5	-1.2
REI				eS	Sn	13 06 02.5	0.0
RUSJ	Misakicho	1.27	256	ePN	Pn	13 05 44.2	+0.2
NEM2	Nemuro 2	1.38	220	iP	Pn	13 05 45.1	0.0
NEM2				S	Sn	13 06 05.5	-1.2
NMR	Nemuro--Hokkai	1.38	220	⇓iPN	Pn	13 05 45.1	-0.1
NMR				iS	Sn	13 06 05.4	-1.3
NMR	Nemuro--Hokkai	1.38	220	iP	Pn	13 05 45.0	-0.1
NMR				iS	Sn	13 06 05.4	-1.3
JRA	Rausu	1.40	250	P	Pn	13 05 45.9	+0.5
JNSB	Nemuroshibetsu	1.55	246	P	Pn	13 05 47.7	+0.9
JNSB				eS	Sn	13 06 10.4	+0.6
JNK	Nakash	1.82	243	iP	Pn	13 05 50.4	+0.5
JKHN	Kushirohamanak	1.87	225	iP	Pn	13 05 50.6	+0.2
JKHN				S	Sn	13 06 15.2	-0.9
AKK	Akkeshi	2.08	228	eP	Pn	13 05 52.9	0.0
JAK	Akkeshi	2.17	230	iP	Pn	13 05 54.1	+0.2
JAK				S	Sn	13 06 21.7	-0.8
JTKR	Abashiri--Toko	2.23	259	P	Pn	13 05 55.1	+0.4
JTKR				S	Sn	13 06 23.3	-0.5
JAR	Ashorobuto	2.56	245	iP	Pn	13 05 59.7	+1.0
JAR				S	Sn	13 06 31.4	+0.4
JMP	Maruseppu	2.62	262	P	Pn	13 05 59.6	+0.3
JOB	Onbets	2.73	237	iP	Pn	13 06 01.5	+0.8
JOB				S	Sn	13 06 33.5	-1.0
JKK2	Kamakawa 2	3.08	261	eP	Pn	13 06 06.2	+1.0
JKA	Kamikawa-asahi	3.14	266	eP	Pn	13 06 06.7	+0.8
ASAJ	Asahikawa	3.14	266	P	Pn	13 06 06.7	+0.7
	comp=E,12nm,0.3s,baz=73,slow=15,SNR=53						
ASAJ				S	Sn	13 06 43.5	-0.4
	comp=E,8.0nm,0.7s,baz=349,slow=31,SNR=1.7						
ASAJ	Asahikawa	3.14	266	P	Pn	13 06 06.9	+1.0
JSE	Soyaes	3.16	281	P	Pn	13 06 06.5	+0.3
JCH	Churui	3.18	236	iP	Pn	13 06 06.6	+0.2
JCH				S	Sn	13 06 42.2	-2.6
JWK2	Keihoku	3.70	286	P	Pn	13 06 14.7	+1.6
JNBK	Urakawa-nobuka	3.74	236	P	Pn	13 06 13.0	-0.6
YSS	Yuzhno-Sakhali	3.88	312	ePN	Pn	13 06 15.1	-0.3
YSS				eS	Sn	13 07 00.8	-0.1
YSS				pmax	pmax		
	comp=Z,10.0nm,0.7s						
YSS	Yuzhno-Sakhali	3.88	312	eP	Pn	13 06 15.1	-0.3
MJAR	Matsushiro Arr	10.31	223	S	Sn	13 09 34.9	-0.1
	comp=Z,0.8nm,0.6s,baz=78,slow=24,SNR=1.6						
USRK	Ussuriysk Ar.	10.73	274	P	Pn	13 07 46.0	-0.3
	comp=Z,4.5nm,0.6s,baz=84,slow=15,SNR=4.8						
H11N2	WAKE ISLAND Hy	29.71	140	T	T	13 42 22.8	
	baz=330,slow=75,SNR=28						
H11N1	WAKE ISLAND Hy	29.72	140	T	T	13 42 21.8	
	baz=330,slow=75,SNR=21						
H11N3	WAKE ISLAND Hy	29.73	140	T	T	13 42 24.2	
	baz=330,slow=75,SNR=21						
H11S1	WAKE ISLAND Hy	30.68	141	T	T	13 43 30.1	
	baz=330,slow=76,SNR=49						
H11S3	WAKE ISLAND Hy	30.69	141	T	T	13 43 31.9	
	baz=330,slow=76,SNR=40						
H11S2	WAKE ISLAND Hy	30.70	141	T	T	13 43 35.6	
	baz=330,slow=76,SNR=28						
ILAR	Eielson Array	41.03	37	P	P	13 12 46.5	+1.7
	comp=Z,0.8nm,0.5s,baz=274,slow=9.0,SNR=14						
	comp=Z,0.8nm,0.5s						
MKAR	Makanchi Array	44.15	297	P	P	13 13 09.4	-0.9
	comp=Z,0.3nm,0.7s,baz=76,slow=9.1,SNR=1.9						
	comp=Z,0.3nm,0.7s						
KURK	Kurchatov	45.03	303	P	P	13 13 15.3	-1.9
KURK	Kurchatov	45.03	303	eP	P	13 13 15.3	-1.9
KURBB	Kurchatov Arra	45.12	303	P	P	13 13 15.3	-2.5
	comp=Z,0.2nm,0.6s,baz=70,slow=8.7,SNR=1.6						
	comp=Z,0.2nm,0.6s						
FINES	FINESS Array B	64.21	333	P	P	13 15 33.6	-1.4
	comp=Z,0.6nm,0.5s,baz=51,slow=7.6,SNR=4.6						
	comp=Z,0.6nm,0.5s						
WRA	Warramunga Arr	65.09	193	P	P	13 15 41.9	+0.7
	comp=Z,0.3nm,0.7s,baz=7.4,slow=6.5,SNR=1.8						
	comp=Z,0.3nm,0.7s						
NVAR	Mina Array Bea	67.34	58	P	P	13 15 55.9	+0.1
	comp=Z,0.2nm,0.4s,baz=318,slow=7.0,SNR=3.7						
	comp=Z,0.2nm,0.4s						
ASAR	Alice Springs	68.81	193	P	P	13 16 05.3	+0.6
	comp=Z,0.4nm,1.0s,baz=10,slow=6.6,SNR=1.6						
	comp=Z,0.4nm,1.0s						
PDAR	Pinedale Array	69.58	50	P	P	13 16 10.7	+1.0
	comp=Z,0.4nm,0.7s,baz=191,slow=0.3,SNR=4.4						
	comp=Z,0.4nm,0.7s						
TXAR	Lajitas Array	82.39	56	P	P	13 17 23.4	+1.1
	comp=Z,0.3nm,0.6s,baz=284,slow=3.7,SNR=5.8						
	comp=Z,0.3nm,0.6s						

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*IDC **30** 13:11:32.5±2.5, 17°.69S×178°.29W, h642^{km}±21^{km}, mb2.8/5, mbtmp3.8/6, Error ellipse: s-maj=103.4km s-min=20.7km az=152.0*

ISC 30 13:11:33.2±1.8,**17°.6S**±0°.7×**178°.4W**±0°.4,**h650**^{km},**n6**, σ**0^{s}.65**/7,**mb3.3**/5,**Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSVF	Nonsavu	3.37	267	P	P	13 12 57.8	-0.8
	20nm,0.7s,baz=129,slow=3.2,SNR=20						
WRA	Warramunga Arr	44.69	259	P	P	13 18 52.0	+0.6
	0.4nm,0.3s,baz=96,slow=7.5,SNR=23						
	0.4nm,0.3s						
ASAR	Alice Springs	44.88	254	P	P	13 18 53.1	+0.3
	1.2nm,0.5s,baz=91,slow=7.9,SNR=66						
ASAR				PcP	PcP	13 20 19.8	0.0
	0.2nm,0.6s,baz=90,slow=3.4,SNR=4.1						
	1.2nm,0.5s						
ILAR	Eielson Array	85.55	13	P	P	13 23 04.5	+0.3
	0.3nm,0.5s,baz=209,slow=5.5,SNR=6.6						
	0.3nm,0.5s						
TXAR	Lajitas Array	85.82	58	P	P	13 23 06.8	+0.4
	0.6nm,0.7s,baz=233,slow=6.1,SNR=5.2						
	0.6nm,0.7s						
PDAR	Pinedale Array	87.11	43	P	P	13 23 11.9	-0.5
	0.2nm,0.6s,baz=248,slow=8.1,SNR=2.3						
	0.2nm,0.6s						

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*KRSC **30** 13:27:24.1±1.1, 56°.12N×163°.11E, h7^{km}±5^{km}, Ml3.7*

*IDC **30** 13:27:27.4±1.4, 56°.39N×162°.07E, h0^{km}, mb3.5/3, mbtmp3.5/4, ML2.1/1, Error ellipse: s-maj=36.7km s-min=19.6km az=130.0*

ISC 30 13:27:26.6±1.0,**56°.26N**±0°.04×**162°.93E**±0°.05,**h16**^{km}±4^{km}, **n49**,σ**1^{s}.48**/51,**mb3.7**/3,**Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBTR	Krutoberegovo	0.08	229	eP	Pb	13 27 29.2	-0.6
KBTR				eS	Sb	13 27 31.0	-0.9
KBG	Krutoberegovo	0.13	266	eP	Pg	13 27 30.2	-0.1
KBG				eS	Sg	13 27 33.4	+0.7
SMKR	Semkarok	0.87	292	eP	Pg	13 27 43.5	-0.1
BDR	Baidarnaya	1.00	288	eP	Pn	13 27 46.0	-0.1
SRKR	Sorokina	1.05	293	eP	Pn	13 27 46.7	-0.2
ZLN	Zelenaya	1.22	259	eP	Pb	13 27 49.0	-0.3
CIRR	Tsirk	1.23	264	eP	Pb	13 27 49.4	-0.2
LGNR	Loginova	1.27	263	eP	Pn	13 27 50.1	+0.2
KLY	Klyuchi	1.27	273	eP	Pn	13 27 47.8	-1.9
BZGR	Bezymyannyi-Gr	1.29	256	eP	Pn	13 27 49.9	-0.2
KRSR	Krestovskiy	1.32	269	eP	Pn	13 27 50.0	-0.6
BZP	Bezymyannyi-Pe	1.39	256	eP	Pn	13 27 51.0	-0.5
BZWR	Bezymyannyi-We	1.40	259	eP	Pn	13 27 51.6	0.0
BZMR	Bezymyannaya	1.41	257	eP	Pn	13 27 52.1	+0.3
KIRR	Kirishev	1.48	259	eP	Pn	13 27 53.1	+0.4
KPT	Kopyto	1.55	260	eP	Pn	13 27 54.2	+0.6
KMNR	Kamenistaya	1.60	253	eP	Pn	13 27 55.3	+1.0
KOZ	Kozyrevsk	1.72	264	eP	Pb	13 27 57.2	-0.7
KOZ				eS	Sg	13 28 23.0	+0.9
TUMD	Tumrok D	1.78	234	eP	Pn	13 27 56.3	-0.5
TUMD				eS	Sb	13 28 21.5	+0.5
SRDR	Sredinnyy	1.79	273	eP	Pb	13 27 58.4	-0.8
MKZ	Mys Kozlova	1.84	202	eP	Pn	13 27 57.1	-0.4
TUMR	Tumrok	1.85	239	eP	Pn	13 27 58.5	+0.6
KZV	Kizimen	1.89	233	eP	Pn	13 27 58.5	+0.1
BKI	Bering	2.02	120	eS	Sn	13 28 23.6	-1.3
ESO	Esso	2.40	264	eP	Pb	13 28 07.8	-1.6
TIGL	Tigil	2.77	305	eP	Pb	13 28 14.4	-1.4
OSSR	Ossora	3.00	1	eP	Pn	13 28 16.6	+3.2
OSSR				eS	Sb	13 28 53.3	-2.6
PALN	Palana	3.25	332	eP	Pn	13 28 19.9	+3.1
SPN	Mys Shipunski	3.59	209	eP	Pn	13 28 21.7	0.0
NLC	Nalytchevo	3.73	215	eS	Sn	13 29 06.7	-0.4
SDLR	Sedlovina	3.80	220	eP	Pn	13 28 25.5	+0.9
KRX	Arik	3.82	222	eP	Pn	13 28 26.0	+1.1
KRER	Koryakskii	3.83	221	eP	Pn	13 28 27.4	+2.4
SMAR	Somma	3.84	220	eP	Pn	13 28 24.8	-0.4
GNL	Ganaly	3.86	230	eP	Pn	13 28 26.8	+1.4
AVH	Avacha	3.86	221	eP	Pn	13 28 25.0	-0.4
KOK	Koryaka	3.88	222	eP	Pn	13 28 27.9	+2.2
DALK	Dalny	4.05	219	eP	Pn	13 28 28.1	+0.3
PETK	Petropavlovsk-	4.38	226	Pn	Pn	13 28 33.3	+0.8
	0.6nm,0.3s,baz=48,slow=11,SNR=34						
PETK				Sn	Sn	13 29 25.8	+2.6
	baz=45,slow=19						
	1.2nm,0.3s						
PETK				AML	AML		
KRMR	Karymshinskiy	4.43	221	eP	Pn	13 28 34.7	+1.5
GRL	Gorelyy	4.68	219	eP	Pn	13 28 37.8	+1.2
APC	Apacha	4.74	228	eP	Pn	13 28 41.0	+3.6
ASAK	Asacha	4.88	219	eP	Pn	13 28 43.7	+4.4
H11N2	WAKE ISLAND Hy	36.60	174	T	T	14 13 16.5	
	baz=356,slow=76,SNR=224						
H11N3	WAKE ISLAND Hy	36.61	174	T	T	14 13 17.4	
	baz=356,slow=76,SNR=182						
H11N1	WAKE ISLAND Hy	36.61	174	T	T	14 13 17.7	
	baz=356,slow=76,SNR=188						
KURBB	Kurchatov Arra	47.59	301	P	P	13 36 00.7	-0.6
	0.4nm,0.5s,baz=63,slow=7.2,SNR=2.5						
	0.4nm,0.5s						
MKAR	Makanchi Array	48.29	295	P	P	13 36 06.2	-0.6
	0.3nm,0.4s,baz=55,slow=6.6,SNR=6.8						
	0.3nm,0.4s						
TXAR	Lajitas Array	67.94	70	P	P	13 38 30.8	+6.2
	0.4nm,0.7s,baz=325,slow=7.0,SNR=4.8						
	0.4nm,0.7s						

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*SJA **30** 13:29:30.2±0.7, 19°.48S×69°.36W, h111^{km}±2^{km}, ML3.7, MW3.8*

*IDC **30** 13:29:31.3±4.5, 19°.59S×69°.14W, h114^{km}±32^{km}, mb3.6/6, mbtmp4.0/9, Error ellipse: s-maj=55.3km s-min=22.3km az=32.0*

*NEIC **30** 13:29:31.5±0.8, 19°.47S±0°.03×69°.38W±0°.05, h106^{km}±4^{km}, mb4.5/12, ML3.7(GUC), Error ellipse: s-maj=7.4km s-min=4.2km az=82.0*

*GUC **30** 13:29:32.0±0.8, 19°.46S×69°.32W, h102^{km}±3^{km}, ML3.7*

ISC 30 13:29:30.8±0.6,**19°.46S**±0°.03×**69°.32W**±0°.05,**h109**^{km}±5^{km}, **n76**,σ**0^{s}.94**/98,**mb4.2**/6,**3C-1D**,**Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GO01	Chusmiza	0.24	150	eP	Pn	13 29 47.1	+0.3
GO01				eS	Sn	13 29 59.5	+0.8
GO01				IAML		13 30 01.1	
	comp=Z,2μm,0.7s						
GO01	Chusmiza	0.24	150	⇓iP	Pn	13 29 46.9	+0.1
GO01				iS	Sn	13 29 58.7	0.0
GO01	Chusmiza	0.24	150		Pn	13 29 46.8	+0.1
GO01				Sn	Sn	13 29 59.0	+0.3
PB11	IPOC Station P	0.43	227	eP	Pn	13 29 47.3	0.0
PB11				eS	Sn	13 29 59.9	+0.2
PB11				IAML		13 30 01.1	
	comp=Z,4μm,0.1s						
PB11	IPOC Station P	0.43	227	⇑iP	Pn	13 29 47.3	0.0
PB11				iS	Sn	13 29 59.5	-0.2
PB11	IPOC Station P	0.43	227		Pn	13 29 47.4	0.0
PB11				Sn	Sn	13 29 59.5	-0.2
PB08	IPOC Station P	0.69	167	eP	Pn	13 29 50.0	+0.6
PB08				eS	Sn	13 30 04.2	+0.8
PB08				IAML		13 30 05.5	
	comp=Z,3μm,0.3s						
PB08	IPOC Station P	0.69	167	eP	Pn	13 29 50.0	+0.6
PB08				iS	Sn	13 30 03.6	+0.2
PB08				IAML		13 30 05.2	
	comp=E,4μm,0.3s						
PB08	IPOC Station P	0.69	167	Pn	Pn	13 29 50.0	+0.6
PB08				Sn	Sn	13 30 03.8	+0.3
PSGCX	Pisagua	0.77	260	eP	Pn	13 29 49.6	-0.2
PSGCX				eS	Sn	13 30 04.5	+0.5
PSGCX				IAML		13 30 05.8	
	comp=Z,868nm,0.3s						
PSGCX	Pisagua	0.77	260	⇑iP	Pn	13 29 49.5	-0.2
PSGCX				iS	Sn	13 30 03.3	-0.7
PSGCX	Pisagua	0.77	260		Pn	13 29 49.5	-0.2
PSGCX				Sn	Sn	13 30 03.4	-0.7
TA02	Huaiquique	1.11	223	eP	Pn	13 29 53.1	+0.1
TA02				eS	Sn	13 30 10.3	+0.5
TA02				IAML		13 30 11.3	
	comp=Z,1μm,0.1s						
TA02	Huaiquique	1.11	223	eP	Pn	13 29 53.3	+0.3
TA02				iS	Sn	13 30 09.1	-0.7
PB16	IPOC Station P	1.14	351	eP	Pn	13 29 54.8	+0.9
PB16				eS	Sn	13 30 12.4	+1.0
PB16				IAML		13 30 16.2	
	comp=Z,1μm,0.4s						
PB16	IPOC Station P	1.14	351	⇑iP	Pn	13 29 54.8	+0.9
PB16				iS	Sn	13 30 12.1	+0.8
PB16				IAML		13 30 13.8	
	comp=N,2μm,0.7s						
PB16	IPOC Station P	1.14	351		Pn	13 29 54.8	+0.9
PB16				Sn	Sn	13 30 12.1	+0.8
PB12	IPOC Station P	1.27	311	eP	Pn	13 29 54.8	-0.2
PB12				eP		13 29 54.9	
PB12				eS	Sn	13 30 12.9	-0.3
PB12				IAML		13 30 17.3	
	comp=Z,948nm,0.3s						
PB12	IPOC Station P	1.27	311	eP	Pn	13 29 54.8	-0.2
PB12				iS	Sn	13 30 12.2	-1.0
PB12				IAML		13 30 14.4	
	comp=E,3μm,0.6s						
PB12	IPOC Station P	1.27	311		Pn	13 29 54.6	-0.3
TA01	Diego Aracena	1.36	216	eP	Pn	13 29 47.1	-8.8
TA01				eP		13 29 55.9	
TA01				eS	Sn	13 30 14.9	-0.1
TA01	Diego Aracena	1.36	216	eP	Pn	13 29 55.9	-0.1
TA01				iS	Sn	13 30 14.1	-0.9
TA01				IAML		13 30 15.2	
	comp=E,1μm,0.5s						
TA01	Diego Aracena	1.36	216		Pn	13 29 55.8	-0.1
AP01	Chacalluta	1.46	318	eP	Pn	13 29 57.3	+0.3
AP01				eS	Sn	13 30 17.5	+0.6
AP01				IAML		13 30 20.5	
	comp=Z,1μm,0.2s						
AP01	Chacalluta	1.46	318	eP	Pn	13 29 57.2	+0.3
AP01				iS	Sn	13 30 16.5	-0.3
AP01	Chacalluta	1.46	318		Pn	13 29 57.3	+0.3
PB18	Visviri	1.87	355	Pn	Pn	13 30 02.6	0.0
PB02	IPOC Station P	1.93	196	eP	Pn	13 30 03.2	+0.3
PB02				eS	Sn	13 30 28.3	+0.9
PB02				IAML		13 30 37.7	
	comp=Z,677nm,0.3s						
PB02	IPOC Station P	1.93	196	eP	Pn	13 30 03.1	+0.3
PB02				iS	Sn	13 30 25.9	-1.4
PB02				IAML		13 30 34.9	
	comp=E,920nm,0.3s						
PB02	IPOC Station P	1.93	196		Pn	13 30 03.0	+0.1
PB07	IPOC Station P	2.31	193	eP	Pn	13 30 08.4	+0.4
PB07				eS	Sn	13 30 36.1	-0.3
PB07				IAML		13 30 47.8	
	comp=Z,319nm,0.5s						
PB07	IPOC Station P	2.31	193		Pn	13 30 08.3	+0.4
PB09	IPOC Station P	2.32	178	eP	Pn	13 30 09.0	+1.0
PB09				eS	Sn	13 30 36.2	-0.4
PB09				IAML		13 30 43.2	
	comp=Z,243nm,0.7s						
PB09	IPOC Station P	2.32	178	eP	Pn	13 30 09.0	+1.0
PB09	IPOC Station P	2.32	178		Pn	13 30 08.8	+0.7
PB03	IPOC Station P	2.61	189	eP	Pn	13 30 12.4	+0.7
PB03				eS	Sn	13 30 42.9	-0.2
PB03				IAML		13 31 11.2	
	comp=Z,204nm,0.5s						
PB03	IPOC Station P	2.61	189		Pn	13 30 11.7	0.0
PB06	IPOC Station P	3.24	184	eP	Pn	13 30 20.5	+0.5
PB06				eS	Sn	13 30 57.7	-0.4
PB06				IAML		13 31 26.6	
	comp=Z,133nm,1.0s						
PB06	IPOC Station P	3.24	184		Pn	13 30 20.2	+0.1
LPAZ	La Paz	3.35	20	P	Pn	13 30 24.6	+2.5
	comp=Z,6.5nm,0.3s,baz=183,slow=7.5,SNR=28						
LPAZ				S	Sn	13 30 57.7	-3.8
	comp=Z,8.6nm,0.4s,baz=187,slow=15,SNR=3.8						
LPAZ	La Paz	3.35	20	eP	Pn	13 30 24.6	+2.5
LPAZ	La Paz	3.35	20		Pn	13 30 23.6	+1.5
PB05	IPOC Station P	3.47	194	eP	Pn	13 30 23.5	+0.3
PB05				eS	Sn	13 30 48.7	-15
PB05				IAML		13 31 28.5	
	comp=Z,89nm,0.6s						
PB05	IPOC Station P	3.47	194		Pn	13 30 23.0	-0.1
AF01	San Pedro de A	3.63	163	Pn	Pn	13 30 25.9	+0.4
HJA	Humahuaca	5.21	136	eP	Pn	13 30 49.3	+2.4
AC01	Pan de Azucar	6.76	190	Pn	Pn	13 31 05.8	-1.6
SIV	San Ignacio	8.58	68	P	Pn	13 31 30.0	-2.2
	comp=Z,11nm,0.5s,baz=260,slow=9.6,SNR=51						

VILB	Vilhena	10.89	55		Pn	13 32 04.7	+1.2
CPUP	Villa Florida	12.99	124	P	Pn	13 32 28.4	-2.8
	comp=Z,1.9nm,0.5s,baz=297,slow=14,SNR=4.2						
CPUP	Villa Florida	12.99	124	Pn	Pn	13 32 31.6	+0.4
TRCB	Terra Rica	15.92	105	Pn	P	13 33 09.4	-0.7
ML02	Panimavida	16.34	186		P	13 33 14.8	0.0
ML02				IAmb	IAmb	13 33 16.2	
	comp=Z,55nm,1.5s						
CPSB	Cacapava Do Su	18.04	130	P	Pn	13 33 34.0	-0.4
CPSB				IAmb	IAmb	13 33 36.4	
	comp=Z,21nm,1.4s						
MACA	Manacapuru-AM	18.27	29	P	Pn	13 33 36.3	-1.0
MACA				IAmb	IAmb	13 33 37.9	
	comp=Z,15nm,0.5s						
BDFB	Brasilia	20.66	83	P	P	13 34 01.4	-0.8
	comp=Z,5.8nm,0.6s,baz=258,slow=9.5,SNR=6.6 comp=Z,5.8nm,0.6s						
BDFB	Brasilia	20.66	83	P	Pn	13 34 03.7	-1.8
VAO	Valinhos	21.13	104	P	P	13 34 06.3	-0.8
VAO				IAmb	IAmb	13 34 22.5	
	comp=Z,26nm,1.2s						
LL06	Loncomilla	22.98	188	P	P	13 34 26.4	+0.5
BOAV	Boa Vista	23.38	23	P	P	13 34 30.3	+0.3
TX31	Lajitas Ar. Si	58.75	325	P	P	13 39 17.2	-0.4
TX31				IAmb	IAmb	13 39 25.8	
	comp=Z,3.9nm,1.4s						
TXAR	Lajitas Array	58.75	325	P	P	13 39 18.2	+0.6
	comp=Z,0.3nm,0.7s,baz=152,slow=4.8,SNR=2.3 comp=Z,0.3nm,0.7s						
TXAR	Lajitas Array	58.75	325	P	P	13 39 17.8	+0.2
DBIC	Dimbokro	68.54	74	P	P	13 40 21.7	-0.5
	comp=Z,4.0nm,0.7s,baz=300,slow=22,SNR=2.2 comp=Z,4.0nm,0.7s						
DBIC	Dimbokro	68.54	74	P	P	13 40 22.2	0.0
QSPA	South Pole Qui	70.72	180	P	P	13 40 36.4	+1.5
PDAR	Pinedale Array	72.16	330	P	P	13 40 45.1	+1.1
	comp=Z,0.1nm,0.5s,baz=125,slow=4.8,SNR=2.1 comp=Z,0.1nm,0.5s						
TORD	Torodi Ar. Bea	77.05	71	P	P	13 41 11.4	-1.0
	comp=Z,0.8nm,0.5s,baz=250,slow=5.2,SNR=6.2 comp=Z,0.8nm,0.5s						
YKA	Yellowknife Ar	89.15	341	P	P	13 42 14.6	+1.1
	comp=Z,1.4nm,0.7s,baz=133,slow=5.0,SNR=7.0 comp=Z,1.4nm,0.7s						
H11S2	WAKE ISLAND Hy	127.22	279	T	T	16 08 00.9	
	baz=100,slow=75,SNR=13						
H11S1	WAKE ISLAND Hy	127.22	279	T	T	16 07 58.4	
	baz=100,slow=75,SNR=16						
H11S3	WAKE ISLAND Hy	127.23	279	T	T	16 08 12.9	
	baz=100,slow=75,SNR=15						
H11N3	WAKE ISLAND Hy	127.24	280	T	T	16 08 17.1	
	baz=101,slow=74						
H11N2	WAKE ISLAND Hy	127.26	280	T	T	16 08 00.4	
	baz=101,slow=74						
H11N1	WAKE ISLAND Hy	127.26	280	T	T	16 08 19.0	
	baz=101						
WRA	Warramunga Arr	134.49	212	PKP	PKiKP	13 48 37.6	-0.9
	comp=Z,0.2nm,0.5s,baz=139,slow=1.9,SNR=1.3						

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*CATAC **30** 13:42:16.8±0.5, 14°N±3°×9°2W±°, h21^{km}±3^{km}, M4.8/19, mb5.2/2, mB5.5/4, MLv4.6/19, Mw(mB)5.0/4, Error ellipse: s-maj=7.9km s-min=3.9km az=38.3, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}0.81; $M_{\theta\theta}$1.47; $M_{\phi\phi}$-2.28; $M_{r\theta}$0.37; $M_{\theta\phi}$4.97; $M_{\phi r}$0.72; Fault plane solution: $M_0$5.41457×10^{16} NP1:ϕ_s100.62864°, δ80.77459°, λ4.51041°. NP2:ϕ_s9.90408°, δ85.54805°, λ170.74643°. Principal axes: T 5.0242, Plg9.6861°, Azm324.9763°; N 0.7106, Plg79.7396°, Azm164.4293°; P -5.7348, Plg3.3523°, Azm55.5492°; confirmed*

*MEX **30** 13:42:17.4±0.8, 14°.28N×92°.08W, h65^{km}±13^{km}, MD4.3, Presumed earthquake*

*GCG **30** 13:42:17.5±1.5, 14°.32N×91°.91W, h55^{km}±11^{km}, MD4.7, ML4.8, Fault plane solution: NP1:ϕ_s18.00000°, δ18.00000°, λ-180.00000°., Presumed earthquake*

ISC 30 13:42:16.1±1.6**, 14°.27N**±0°.06×**92°.03W**±0°.04**, h23**^{km}±14^{km}**, n51,** $\sigma 1^{s}$**77**/77**, 3D, Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RTAL	Retalhuleu	0.41	52	eP	Pn	13 42 27.6	+0.9
RTAL				eS	Sn	13 42 35.9	+2.3
RTAL	Retalhuleu	0.41	52	P	Pn	13 42 26.6	0.0
RTAL				S	Sn	13 42 35.6	+1.9
THIG		0.67	340	eP	Pn	13 42 30.8	+0.6
THIG				eS	Sn	13 42 41.4	+1.4
THIG		0.67	340	eP	Pn	13 42 30.5	+0.3
THIG				eS	Sn	13 42 41.4	+1.4
STG8	El Palmar, Qui	0.68	75	⇓iP	Pb	13 42 29.7	+0.2
STG8				IAML		13 42 30.4	
	comp=E,41µm,0.2s						
STG8				eS	Sb	13 42 39.1	+0.4
CHUJ	Union Juarez	0.82	355	eP	Pb	13 42 31.5	-0.4
CHUJ				eS	Sb	13 42 43.3	+0.6
PATR	El Naranjo	0.86	347	eP	Pb	13 42 32.1	-0.5
PATR				eS	Sb	13 42 43.9	+0.1
PAVE	Pavencul	0.93	351	eP	Pb	13 42 33.3	-0.3
PAVE				eS	Sb	13 42 45.8	+0.1
HUEH	Huehuetenango	1.16	26	eP	Pn	13 42 36.9	-0.2
HUEH				eS	Sb	13 42 52.2	-0.1
HUEH	Huehuetenango	1.16	26	i P	Pn	13 42 37.3	+0.1
HUEH				i S	Sn	13 42 53.3	+0.9
HUEH				IAML		13 42 58.9	
	comp=E,13µm,0.5s						
HUEH	Huehuetenango	1.16	26	P	Pn	13 42 37.4	+0.2
HUEH				S	Sn	13 42 53.8	+1.4
FG8	Yepocapa, Chim	1.43	90	⇓iP	Pn	13 42 35.3	-5.4
FG16	Alotenango, Sa	1.48	90	⇓iP	Pn	13 42 36.4	-5.1
PCG5	San Vicente Pa	1.61	92	eP	Pn	13 42 39.4	-3.8
APG	El Apazote	1.68	64	i P	Pn	13 42 43.9	-0.5
FAME	Alcaldia de Sa	2.00	102	P	Pn	13 42 47.9	-0.7
FAME				S	Sn	13 43 10.3	-2.7
SLOZ	Alcaldia de Sa	2.19	96	P	Pn	13 42 51.8	+0.6
LOAL	Lomas de Alarc	2.20	97	P	Pn	13 42 51.9	+0.6
LOAL				S	Sn	13 43 18.1	+0.3
NUBE	Las Nubes	2.22	99	i P	Pn	13 42 51.5	-0.1
NUBE				i S	Sn	13 43 15.2	-3.2
NUBE	Las Nubes	2.22	99	P	Pn	13 42 51.7	+0.1
NUBE				S	Sn	13 43 16.8	-1.6
CEVE	Cerro Verde	2.38	100	P	Pn	13 42 54.7	+0.7
CEVE				S	Sn	13 43 23.5	+0.9
UNIC	Universidad Ca	2.43	96	P	Pn	13 42 55.1	+0.6
UNIC				S	Sn	13 43 23.5	0.0
JAYA	Jayaque - finc	2.58	103	eP	Pn	13 42 56.5	-0.1
JAYA				IAML		13 43 31.2	
	comp=N,5µm,0.4s						
JAYA	Jayaque - finc	2.58	103	P	Pn	13 42 56.7	+0.1
JAYA				S	Sn	13 43 26.2	-1.2
MTO3	Montecristo	2.59	87	eP	Pn	13 42 55.9	-1.0
ESQI	Esquipulas	2.62	83	P	Pn	13 42 57.6	+0.4
PMON	Piamonte	2.70	102	P	Pn	13 42 59.2	+1.1
PMON				S	Sn	13 43 31.6	+1.4
TGIG		2.71	337	eP	Pn	13 42 56.6	-1.7
TGIG				eS	Sn	13 43 31.9	+1.5
LALI	Alcalda de L	2.75	106	S	Sn	13 43 31.5	+0.3
UEES	Universidad Ev	2.77	101	S	Sn	13 43 32.2	+0.2
SEMO	Seminario San	2.78	101	S	Sn	13 43 32.5	+0.2
UTEC	Universidad Te	2.81	101	S	Sn	13 43 34.1	+1.3
LOMA	Loma Larga	2.85	102	P	Pn	13 43 01.8	+1.5
LOMA				S	Sn	13 43 33.6	-0.3
PAVA	Las Pavas	3.06	100	P	Pn	13 43 03.1	0.0
PAVA				S	Sn	13 43 41.7	+2.7
COEG	Centro de Oper	3.13	102	P	Pn	13 43 05.1	+1.0
COEG				S	Sn	13 43 43.1	+2.3
PETF	Flores	3.36	38	eP	Pn	13 43 06.1	-1.1
PETF				eS	Sn	13 43 40.0	-6.4
UXUV	UXUV	3.65	326	eP	Pn	13 43 10.9	-0.3
UXUV				eS	Sn	13 43 56.8	+3.2
PACA	Pacayal	3.69	102	P	Pn	13 43 12.4	+0.5
PACA				S	Sn	13 43 57.5	+2.7
CMIG	Matias Romero	3.92	316	eP	Pn	13 43 15.1	+0.1
CMIG				eS	Sn	13 43 58.6	-1.7
HUIG	Huatulco	4.21	291	eP	Pn	13 43 17.5	-1.4
NEUV	Arroyo Zacate	4.99	314	eP	Pn	13 43 30.6	+1.0
NEUV				eS	Sn	13 44 22.5	-4.0
PEIG	Puerto Escondi	5.23	290	eP	Pn	13 43 31.8	-1.2
PEIG				eS	Sn	13 44 20.1	-12
VHO	Vista Hermosa	5.32	302	eP	Pn	13 43 38.7	+4.4
VHO				eS	Sn	13 44 26.2	-8.8
MOM3	MOM3	5.64	107	P	Pn	13 43 40.4	+1.7
MOM2	El Cardon	5.70	108	P	Pn	13 43 40.4	+1.0
MOM2				S	Sn	13 44 44.9	+0.8
RCVN	Varillal2	5.71	96	P	Pn	13 43 39.7	0.0
YOIG	Yosondua	5.90	297	eP	Pn	13 43 42.0	-0.4
YOIG				eS	Sn	13 44 44.3	-5.2
TOIG	Toxpalan	6.15	309	eP	Pn	13 43 46.1	+0.4
TOIG				eS	Sn	13 44 43.9	-12
TPIG	Tehuac#an	6.57	310	eS	Sn	13 44 56.5	-9.4
FTIG	Fresnillo de T	6.89	302	eP	Pn	13 43 49.8	-6.0
FTIG				eS	Sn	13 45 03.5	-10
CMARA	Lajas Hojancha	7.72	122	P	Pn	13 44 04.0	-3.2

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*IDC **30** 13:43:54.6±2.1, 12°.00N×92°.99E, h0^{km}, mb3.9/3, mbtmp3.9/4, ML4.1/1, Error ellipse: s-maj=49.1km s-min=24.0km az=82.0*

*BKK **30** 13:44:05.5±0.6, 12°N±4°×9°3E±°, h10^{km}, M4.1/13, mB4.6/6, mb4.2/11, Mjma3.9/12, ML4.3/13, MLv4.3/12, Mw(mB)3.8/6*

*NDI **30** 13:44:06.0±0.3, 12°.24N×93°.69E, h75^{km}, ML4.1, MW4.3, mb4.4(NEIC), Presumed earthquake*

*NEIC **30** 13:44:06.4±1.5, 12°.22N±0°.07×93°.71E±0°.07, h76^{km}±6^{km}, mb4.4/24, Error ellipse: s-maj=10.6km s-min=9.1km az=208.0*

ISC 30 13:44:07.0±0.5**, 12°.20N**±0°.06×**93°.62E**±0°.06**, h93**^{km}**, n47,** $\sigma 1^{s}$**48**/46**, mb4.4**/15**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PBA	Port Blair	1.01	238		Pn	13 44 26.0	-1.1
PBA				Sn	Sn	13 44 41.7	-0.4
PBA	Port Blair	1.01	238	eP	Pn	13 44 25.9	-1.1
PBA				eS	Sn	13 44 40.6	-1.5
PBA				IAML		13 44 43.2	
	comp=E,4µm,0.3s						
PBA				IAML		13 44 43.4	
	comp=N,4µm,0.4s						
DGPR	DIGLIPUR	1.18	325	eP	Pn	13 44 27.3	-1.7
DGPR				eS	Sn	13 44 42.8	-2.8
DGPR				IAML		13 44 45.4	
	comp=E,3µm,0.5s						
DGPR				IAML		13 44 47.2	
	comp=N,3µm,0.5s						
KHLT	Khaolaem Dam	5.48	61	P	Pn	13 45 27.6	+1.4
KHLT				AML	AML		
RNTT	Ranong	5.53	120	P	Pn	13 45 31.3	+4.4
RNTT				AML	AML		
RNTT				AML	AML		
PKDT	Phuket	6.31	132	P	Pn	13 45 42.6	+5.0
	comp=N,0.2nmcomp=N,23nm,1.9s						
PKDT				AML	AML		
LHMI	Lhok Sumawe	7.67	154	Pn	Pn	13 45 54.2	-1.8
CM01	Chiang Mai Arr	8.05	39	P	Pn	13 46 02.0	+0.8
	comp=N,0.0nmcomp=N,6.6nm,0.6s						
CM01				AML	AML		
CMAR	Chiang Mai Arr	8.07	39	Pn	Pn	13 46 01.9	+0.5
	comp=N,0.6nm,0.3s,baz=231,slow=15,SNR=17 comp=N,2.4nm,0.5s						
CMAR				AML	AML		
CMAR	Chiang Mai Arr	8.07	39	Pn	Pn	13 45 60.0	-1.5
CHTO	Chiang Mai	8.34	37	Pn	Pn	13 46 03.3	-1.9
KULM	Kulim	9.77	134	Pn	Pn	13 46 21.0	-3.7
MDRS	Chennai	13.08	275	eP	Pn	13 47 09.1	-0.2
TRD	Trivandrum	16.79	259	eP	P	13 47 58.2	+0.9
EVN	Everest	16.92	339		Pn	13 47 59.0	+0.3
KAAM	Kaadhehdhoo	23.54	242	P	P	13 49 09.9	+0.7
UGM	Wanagama	26.11	139	P	P	13 49 32.1	-0.3
H08S3	Diego Garcia H	28.80	228	T	T	14 19 46.9	
	baz=44						
H08S2	Diego Garcia H	28.81	228	T	T	14 19 39.1	
	baz=44						
H08S1	Diego Carcia H	28.82	228	T	T	14 19 31.0	
	baz=44						
LUWI	Luwuk	31.80	112	P	P	13 50 21.5	-1.5
TARG	Taragay, Kyrgy	32.50	338	P	P	13 50 29.4	0.0
KDJ	Kajisay	33.09	337	P	P	13 50 33.7	-0.5
KDJ				IAmb	IAmb	13 50 54.4	
	comp=Z,7.7nm,1.4s						
ZALV	Zalesovo Beam	42.23	352	P	P	13 51 49.7	-1.1
	comp=Z,0.8nm,0.5s,baz=175,slow=7.4,SNR=4.4 comp=Z,0.8nm,0.5s						
FITZ	Fitzroy Crossi	43.65	133	P	P	13 52 04.0	+1.4
AB31	Akbulak array	46.23	330	P	P	13 52 21.9	-0.9
ABKAR	Akbulak array	46.23	330	P	P	13 52 21.8	-1.0
MJB9	Matsu-Tunnel	46.75	51	P	P	13 52 27.4	+0.3
MJB9				IAmb	IAmb	13 52 53.7	
	comp=Z,13nm,1.4s						
MAJO	Matsushiro	46.75	51	P	P	13 52 26.7	-0.3
MAJO				IAmb	IAmb	13 52 52.8	
	comp=Z,11nm,1.3s						
MJAR	Matsushiro Arr	46.75	51	P	P	13 52 26.8	-0.3
MJAR				IAmb	IAmb	13 52 49.0	
	comp=Z,3.1nm,1.4s						
ATD	Arta Tunnel	49.63	275	P	P	13 52 50.5	+0.8
WB0	Warramunga Arr	51.19	128	P	P	13 53 01.3	+0.1
WB0				IAmb	IAmb	13 53 15.7	
	comp=Z,4.1nm,1.2s						
WRA	Warramunga Arr	51.25	128	P	P	13 53 03.3	+1.7
	comp=Z,0.7nm,0.5s,baz=304,slow=8.4,SNR=13 comp=Z,0.7nm,0.5s						
WRA	Warramunga Arr	51.25	128	P	P	13 53 01.4	-0.2
WR8	Warramunga Arr	51.38	128	P	P	13 53 02.6	0.0
WR8				IAmb	IAmb	13 53 04.3	
	comp=Z,4.0nm,1.1s						
AS31	Alice Springs	53.13	132	P	P	13 53 14.1	-1.5
ASAR	Alice Springs	53.13	132	P	P	13 53 17.0	+1.5
	comp=Z,0.9nm,0.4s,baz=307,slow=6.8,SNR=22 comp=Z,0.9nm,0.4s						
ASAR	Alice Springs	53.13	132	P	P	13 53 14.6	-0.9
TIRR	Tirgusor	63.89	314	P	P	13 54 31.0	+1.1
PDG	Podgorica	70.35	311	P	P	13 55 11.6	+0.6
PDG				IAmb	IAmb	13 55 29.5	
	comp=Z,9.3nm,1.2s						
ACER	Acerenza	72.84	309	P	P	13 55 27.2	+1.2
ACER				IAmb	IAmb	13 55 38.6	
	comp=Z,9.2nm,1.1s						
FUORN	Ofenpass-Fuorn	76.70	315	P	P	13 55 49.9	+1.5
FUORN				IAmb	IAmb	13 55 51.1	
	comp=Z,2.9nm,0.8s						
BOSA	Boshof	77.47	237	P	P	13 55 53.1	+0.3
BOSA				IAmb	IAmb	13 56 17.4	
	comp=Z,8.9nm,1.4s						
VSL	Villasalto	77.94	308	P	P	13 55 56.4	+1.2
PAB	San Pablo	88.38	310	P	P	13 56 50.5	+1.5
PAB				IAmb	IAmb	13 56 58.6	
	comp=Z,7.1nm,1.4s						
SUMG	Summit	89.84	347	P	P	13 56 57.7	+2.2
SUMG				IAmb	IAmb	13 57 17.8	
	comp=Z,1.4nm,0.9s						
TCW	Tory Channel	91.03	132	P	P	13 57 02.4	+1.3

IDC 30 13:45:52.5±4.5**, 28°.22S**×**177°.46W, h0**^{km}**, mb3.5**/2**, mbtmp3.5**/2**, Error ellipse: s-maj=90.0km s-min=27.1km az=91.0, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	1.11	201	Pn	Pg	13 46 12.3	-1.4
	283nm,0.3s,baz=48,slow=15,SNR=20						
RAO				Sn	Sg	13 46 28.2	+0.1
	464nm,0.3s,baz=114,slow=20,SNR=7.9						
ASAR	Alice Springs	43.74	264	P	P	13 53 58.9	-1.0
	0.3nm,0.5s,baz=104,slow=7.2,SNR=1.7 0.3nm,0.5s						
WRA	Warramunga Arr	44.53	270	P	P	13 54 06.7	+0.4
	0.4nm,0.4s,baz=111,slow=7.7,SNR=7.0 0.4nm,0.4s						
FINES	FINESS Array B	143.25	341	PKP	PKPdf	14 05 27.4	-0.6
	0.9nm,0.5s,baz=45,slow=3.2,SNR=8.3						

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*HEL **30** 13:47:22.5±0.3, 61°.77N×30°.74E, h0^{km}, ML1.6, Explosion*

*IDC **30** 13:47:25.7±4.3, 61°.91N×30°.39E, h0^{km}, mbtmp3.3/1, ML2.1/1, Error ellipse: s-maj=40.5km s-min=17.5km az=127.0*

ISC 30 13:47:22.3±1.4**, 61°.87N**±0°.06×**30°.65E**±0°.07**, h0**^{km}**, n26,** $\sigma 1^{s}$**52**/36**, Finland-Karelia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RUF	Ruokolahti	0.92	242	PG	Pg	13 47 39.5	-0.5
RUF				smax	smax	13 47 51.0	
	comp=Z,5.3nm,0.2s						
RUF				SG	Sg	13 47 51.4	-0.4
JOF	Joensuu	1.10	16	PG	Pg	13 47 44.1	+0.7
JOF				SB	Sb	13 47 59.6	+0.5
VJF	Virojoki	2.00	230	PG	Pn	13 47 57.3	0.0
VJF				smax	smax	13 48 21.3	
	comp=Z,3.1nm,0.2s						
VJF				SG	Sn	13 48 24.0	+1.0
NIF	Nilsia	2.02	321	PG	Pb	13 47 59.9	+0.1
NIF				smax	smax	13 48 25.2	
	comp=Z,3.2nm,0.2s						
NIF				SG	Sg	13 48 27.1	+0.1
KAF	Kangasniemi	2.06	279	PG	Pb	13 48 00.4	-0.2
KAF				smax	smax	13 48 25.5	
	comp=Z,3.9nm,0.2s						
KAF				SB	Sb	13 48 27.6	+0.8
FIA0	FINESS Array S	2.22	261	PB	Pn	13 48 01.5	+1.2
	baz=83						
FIA0				smax	smax	13 48 29.1	
	comp=Z,2.5nm,0.2s						
FIA0				SG	Sb	13 48 31.1	-0.1
FINES	FINESS Array B	2.22	261	Pg	Pn	13 48 01.9	+1.6
	comp=Z,1.0nm,0.3s,baz=79,slow=16,SNR=37						
FINES				Lg	Lg	13 48 31.4	
	comp=Z,0.5nm,0.3s,baz=73,slow=26,SNR=9.7						
FINES				Rg	Rg	13 48 43.0	
	comp=Z,5.5nm,1.0s,baz=80,slow=27,SNR=4.3						
SUF	Sumiainen	2.27	294	eP	Pb	13 48 04.6	+0.5
SUF	Sumiainen	2.27	294	PG	Pb	13 48 04.4	+0.3
SUF				smax	smax	13 48 31.9	
	comp=Z,2.3nm,0.2s						
SUF				SG	Sg	13 48 35.1	+0.1
RMF	Romuvaara	2.38	352	PG	Pb	13 48 06.2	+0.2
RMF				smax	smax	13 48 35.8	
	comp=Z,1.5nm,0.2s						
RMF				SB	Sg	13 48 37.3	-1.4
PVF	Pernaja	2.67	242	PN	Pn	13 48 07.4	+0.9
PVF				smax	smax	13 48 41.0	
	comp=Z,1.4nm,0.2s						
KEF	Keuruu	2.74	279	eP	Pb	13 48 10.8	-1.2
KEF	Keuruu	2.74	279	PB	Pb	13 48 10.9	-1.2
KEF				smax	smax	13 48 44.9	
	comp=Z,1.5nm,0.2s						
KEF				SB	Sb	13 48 46.7	+0.5
NUR	Nurmijarvi	3.21	248	PN	Pn	13 48 15.1	+1.3
LAUT	Lauttasaari He	3.30	241	PB	Pn	13 48 17.3	+2.2
	baz=62						
LAUT				SN	Sn	13 48 52.8	-2.2
MEF	Metsahovi	3.46	244	eP	Pn	13 48 17.7	+0.4
MEF	Metsahovi	3.46	244	PN	Pn	13 48 18.1	+0.8
KU1	Kurvinen	3.75	353	PN	Pn	13 48 22.2	+0.9
	baz=175						
VAF	Ylistaro	3.89	291	eP	Pn	13 48 26.4	+3.2
KU2	Taivalkoski	4.01	346	PN	Pn	13 48 27.2	+2.4
	baz=162						
KPF	Kankaanpaa	4.06	273	PN	Pn	13 48 28.7	+3.1
KU6	Riekki	4.19	356	PN	Pn	13 48 27.9	+0.5
RAF	Rauma	4.35	263	eP	Pn	13 48 31.1	+1.6
RAF	Rauma	4.35	263	PN	Pn	13 48 32.0	+2.5
I43RU	DUBNA INFRASON	6.16	144	I	I	14 24 50.0	
	baz=332,slow=336,SNR=2.9						
ARCES	ARCESS Array B	7.99	347	Pn	Pn	13 49 19.0	-0.4
	baz=162,slow=15,SNR=2.3						
ARCES				Sn	Sn	13 50 46.4	-3.9
	baz=157,slow=25,SNR=1.7 comp=Z,2.2nm,1.1s						

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*MOS **30** 13:58:42.5±0.8, 38°.84N×142°.15E, h41^{km}, mb5.0/40, Error ellipse: s-maj=6.6km s-min=4.2km az=110.5*

*BJI **30** 13:58:43.7, 38°.68N×142°.07E, h57^{km}, mB4.9/7, mb4.8/43, Ms4.3/4, Ms7 4.0/12*

*JMA **30** 13:58:44.0±0.1, 38°.8N±0°.2×142°.2E±0°.2, h43^{km}, MD4.6/40, MV4.8/40, E OFF MIYAGI PREF*

JMA Felt II J1 at E OFF MIYAGI PREF .

*NIED **30** 13:58:44.0, 38°.78N×142°.17E, h43^{km}, MW4.4, Moment Tensor Solution. s3 Moment tensor: Scale 10^{15}Nm; M_{rr}3.59; $M_{\theta\theta}$-0.39; $M_{\phi\phi}$-3.20; $M_{r\theta}$1.69; $M_{\theta\phi}$-1.40; $M_{\phi r}$3.42; Fault plane solution: $M_0$5.31000×10^{15} NP1: ϕ_s199.00000°, δ22.00000°, λ84.00000°. NP2:ϕ_s25.00000°, δ68.00000°, λ92.00000°.*

*NEIC **30** 13:58:44.8±1.3, 38°.80N±0°.06×142°.14E±0°.09, h43^{km}±5^{km}, mb4.8/89 Error ellipse: s-maj=10.7km s-min=7.8km az=108.0*

*IDC **30** 13:58:45.4±1.6, 38°.76N×142°.10E, h53^{km}±14^{km}, mb4.2/27, mbtmp4.5/36, ML4.2/6, MS3.6/55, Error ellipse: s-maj=13.4km s-min=9.9km az=103.0*

*GFZ **30** 13:58:46.6±0.7, 39°N±6°×14°2E±1°0, h56^{km}±4^{km}, M4.9/21, mb4.9/21*

ISC 30 13:58:44.9±0.5**, 38°.76N**±0°.03×**142°.25E**±0°.05**, h52**^{km}±3^{km}**, h52**^{km}**:pP-P, n486,** $\sigma 1^{s}$**36**/456**, mb4.7**/132**, MS3.7**/57**, 25C-26D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OFUJ	Ofunato	0.56	305	⇓iP	Pn	13 58 54.8	-2.1
OFUJ				A	A	13 58 54.8	
	comp=N,30nm,0.4s,comp=E,70nm,0.9s						
OFUJ				⇓S	Sn	13 59 02.3	-3.4
JKMT	Kesennumamotoy	0.61	275	⇓iP	Pn	13 58 55.3	-2.3
JKMT				A	A	13 58 55.3	
	comp=N,33nm,0.2s,comp=E,39nm,0.3s						
JKMT				⇓S	Sn	13 59 03.1	-3.7
JIKH	Ishinomakikobu	0.76	234	A	A	13 58 57.7	
	comp=N,36nm,2.3s,comp=E,41nm,1.1s						
JIO	Ouri	0.77	247	⇓iP	Pn	13 58 57.4	-2.2
JIO				A	A	13 58 57.4	
	comp=N,30nm,2.7s,comp=E,20nm,0.5s						
JIO				⇓S	Sn	13 59 06.6	-3.7
JMK	Ichinoseki	0.83	284	⇓iP	Pn	13 58 58.5	-1.9
JMK				⇓S	Sn	13 59 08.8	-2.9
JOM	Ohasama	1.03	314	⇓iP	Pn	13 59 01.7	-1.4
JOM				A	A	13 59 01.7	
	comp=N,31nm,0.3s,comp=E,46nm,0.3s						
JOM				⇓S	Sn	13 59 14.4	-2.2
JOFO	Osakifurukawao	1.06	262	A	A	13 59 01.8	
	comp=N,67nm,0.7s,comp=E,54nm,0.5s						
JTH	Tanohata	1.22	346	⇓iP	Pn	13 59 04.1	-1.5
JOU	Okura	1.31	253	⇓iP	Pn	13 59 05.2	-1.6
JOU				A	A	13 59 05.2	
	comp=N,23nm,0.7s,comp=E,19nm,0.9s						
JSZI	Iwateshizukuis	1.41	315	A	A	13 59 06.9	
	comp=N,21nm,1.2s,comp=E,24nm,1.9s						
JRG	Rokugo	1.41	297	⇓iP	Pn	13 59 06.9	-1.3
JRG				A	A	13 59 06.9	
	comp=N,12nm,2.7s,comp=E,15nm,0.5s						
JKZ	Kuzumaki	1.42	330	A	A	13 59 07.3	
	comp=N,13nm,0.5s,comp=E,12nm,3.3s						
JMM	Marumori	1.45	233	A	A	13 59 07.8	
	comp=N,16nm,1.3s,comp=E,19nm,0.9s						
JYK	Kaneyama	1.49	277	A	A	13 59 08.0	
	comp=N,5.0nm,2.6s,comp=E,8.0nm,5.5s						
JMST	Minamisoumatoc	1.49	227	A	A	13 59 08.4	
	comp=N,26nm,1.9s,comp=E,23nm,0.7s						
JKEN	Kujiedanarisaw	1.51	344	A	A	13 59 08.7	
	comp=N,24nm,0.7s,comp=E,23nm,0.5s						
JANG	Nango	1.71	341	A	A	13 59 11.7	
	comp=N,8.0nm,0.5s,comp=E,7.0nm,0.2s						
JFK	Kawauchi	1.76	219	A	A	13 59 12.6	
	comp=N,6.0nm,0.5s,comp=E,5.0nm,5.5s						
JYW	Yuwa	1.77	297	A	A	13 59 12.1	
	comp=N,20nm,1.3s,comp=E,23nm,0.8s						
JYYZ	Yamagatayuza	1.83	279	A	A	13 59 12.8	
	comp=N,11nm,1.7s,comp=E,15nm,3.6s						
JYAR	Yonezawaarcadi	1.86	244	A	A	13 59 13.6	
	comp=N,28nm,1.1s,comp=E,29nm,1.2s						
JOTO	OTAMA OYAMA	1.93	232	A	A	13 59 14.7	
	comp=N,26nm,1.4s,comp=E,21nm,0.7s						
JYA	Atsumi	2.00	266	A	A	13 59 15.3	
	comp=N,8.0nm,1.3s,comp=E,10.0nm,0.6s						
JNTW	Noshirotokiwa	2.21	314	A	A	13 59 18.5	
	comp=N,27nm,1.6s,comp=E,17nm,2.4s						
JTM	Tenmabayashi	2.22	336	P	Pn	13 59 19.0	-0.3
JTM	Tenmabayashi	2.22	336	S	Sn	13 59 45.9	+0.4
JTM	Tenmabayashi	2.22	336		Pn	13 59 18.3	-1.0
JTM				Sn	Sn	13 59 42.2	-3.3
JTM	Tenmabayashi	2.22	336	P	Pn	13 59 19.8	+0.5
JHHS	Hirosakihyakuz	2.39	323	A	A	13 59 21.1	
	comp=N,13nm,1.1s,comp=E,12nm,5.7s						
JOG3	Oga3	2.72	296	A	A	13 59 18.5	
	comp=N,6.0nm,2.3s,comp=E,5.0nm,2.2s						
ERM	Erimo	3.33	12	P	Pn	13 59 34.1	-0.3
ERM	Erimo	3.33	12	S	Sn	14 00 11.6	-1.1
ERM	Erimo	3.33	12	P	Pn	13 59 33.8	-0.5

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ERM                                               14 00 11.5
ERM    Erimo               3.33  12        Pn     13 59 33.8 -0.5
ERM                                 Sn     Sn     14 00 11.5 -1.1
ERM    Erimo               3.33  12 P      Pn     13 59 34.4 +0.1
JEM    Erimo               3.33  12 P      Pn     13 59 34.1 -0.3
JEM    Erimo               3.33  12 S      Sn     14 00 11.6 -1.0
MAJO   Matsushiro          3.90 237 P      Pn     13 59 42.6 +0.3
MAJO   Matsushiro          3.90 237 i P    Pn     13 59 42.2 -0.1
MAJO   Matsushiro          3.90 237        Pn     13 59 41.9 -0.4
MAJO   Matsushiro          3.90 237 P      Pn     13 59 43.1 +0.9
MJAR   Matsushiro Arr      3.90 237 P      Pn     13 59 42.5 +0.2
       comp=E,7.7nm,0.3s,baz=36,slow=13,SNR=179
MJAR                                Lg     Lg     14 00 38.4
       comp=E,1.8nm,0.3s,baz=90,slow=6.2,SNR=4.2
MJAR                                LR     LR     14 01 23.6
       comp=E,755nm,19.8s,baz=62,slow=42
       comp=E,80nm,0.5s
MJAR                                AML    AML
MJAR   Matsushiro Arr      3.90 237        Pn     13 59 41.5 -0.8
MJB9   Matsu-Tunnel        3.90 237 Pn     Pn     13 59 41.8 -0.4
JGF    Kuroka              5.02 233 P      Pn     13 59 59.0 +1.3
JGF    Kuroka              5.02 233 S      Sn     14 00 56.0 +1.6
JGF    Kuroka              5.02 233 Pn     Pn     13 59 56.4 -1.3
JGF    Kuroka              5.02 233 P      Pn     13 59 59.4 +1.7
       comp=Z,145nm,0.9s
JSG    Sagara              5.22 220 P      Pn     14 00 00.4  0.0
JSG    Sagara              5.22 220 S      Sn     14 01 00.4 +1.1
JSG    Sagara              5.22 220        Pn     13 59 59.7 -0.6
JSG    Sagara              5.22 220 P      Pn     14 00 04.7 +4.3
       comp=Z,215nm,1.3s
NMR    Nemuro--Hokkai      5.30  29⇓iP     Pn     13 59 59.3 -2.1
NMR                                i S     Sn     14 00 55.8 -5.4
ASAJ   Asahikawa           5.36   3 P      Pn     14 00 01.9 -0.4
       comp=Z,9.5nm,0.3s,baz=210,slow=12,SNR=69
ASAJ                                S      Sn     14 01 04.7 +2.0
       comp=Z,114nm,0.8s,baz=268,slow=18,SNR=6.0
       comp=Z,22nm,0.3s
ASAJ                                AML    AML
JKA    Kamikawa-asahi      5.36   3        Pn     14 00 01.9 -0.4
JKA    Kamikawa-asahi      5.36   3 P      Pn     14 00 02.1 -0.1
       comp=Z,62nm,0.6s
INU    Inuyama             5.39 233 P      Pn     14 00 03.4 +0.7
INU    Inuyama             5.39 233 S      Sn     14 01 05.1 +1.6
INU    Inuyama             5.39 233        Pn     14 00 03.1 +0.3
INU    Inuyama             5.39 233 P      Pn     14 00 04.1 +1.4
       comp=Z,121nm,0.6s
RUSJ   Misakicho           5.80  22 eP     Pn     14 00 06.7 -1.5
RUSJ                               i S     Sn     14 01 10.6 -2.7
YUK    Yuzh-Kuril'sk       5.93  26c iP    Pn     14 00 08.1 -1.9
YUK                                i S     Sn     14 01 11.1 -5.5
YUK                                 pmax   pmax
       comp=Z,295nm,0.3s
YUK                                 pmax   pmax
       comp=N,73nm,0.2s
YUK                                 pmax   pmax
       comp=E,89nm,0.2s
YUK                                 smax   smax
       comp=N,696nm,0.3s
YUK                                 smax   smax
       comp=E,1µm,0.4s
JHJ2   Mitsune             5.97 200 P      Pn     14 00 10.4 -0.2
JHJ2   Mitsune             5.97 200 S      Sn     14 01 17.9 +0.2
JHJ2   Mitsune             5.97 200 Pn     Pn     14 00 10.0 -0.7
JHJ    Hachijo jima 2      5.97 200 P      Pn     14 00 10.5 -0.2
       comp=E,37nm,0.3s,baz=292,slow=21,SNR=12
JHJ                                 S      Sn     14 01 13.2 -4.5
       comp=E,146nm,0.3s,baz=64,slow=24,SNR=6.8
JHJ                                 LR     LR     14 02 19.0
       comp=E,125nm,21.9s,baz=333,slow=36
       comp=E,93nm,0.3s
JHJ                                 AML    AML
TEY    Ternei              7.56 328 eP     Pn     14 00 17.1  -15
KUR    Kuril'sk            7.70  31 eP     Pn     14 00 34.1 -0.2
KUR                                i S     Sn     14 01 54.6 -5.5
KUR                                 pmax   pmax
       comp=E,39nm,0.6s
KUR                                 pmax   pmax
       comp=Z,62nm,0.6s
KUR                                 smax   smax
       comp=E,265nm,0.7s
KUR                                 smax   smax
       comp=N,191nm,0.6s
YSS    Yuzhno-Sakhali      8.20   2 P      Pn     14 00 41.0 -0.1
YSS    Yuzhno-Sakhali      8.20   2 S      Sn     14 02 12.1 -0.2
YSS    Yuzhno-Sakhali      8.20   2 eP     Pn     14 00 41.4 +0.3
YSS                                 eS     Sn     14 02 08.5 -3.8
YSS                                 pmax   pmax
       comp=Z,30nm,0.8s
YSS                                 pmax   pmax
       comp=Z,100nm,3.8s
YSS                                 smax   smax
       comp=N,30nm,1.5s
YSS                                 smax   smax
       comp=E,20nm,1.5s
YSS                                 MLR    MLR
       comp=Z,200nm,13.0s
YSS    Yuzhno-Sakhali      8.20   2        Pn     14 00 41.1 -0.1
JMN    Monobe              8.42 236 P      Pn     14 00 44.1 -0.2
JMN    Monobe              8.42 236 S      Sn     14 02 19.8 +1.9
JMN    Monobe              8.42 236        Pn     14 00 43.8 -0.4
VLA    Vladivostok         8.97 302 i P    Pn     14 00 54.2 +2.5
USA0B  Ussuriysk Arra      9.43 308 i P    Pn     14 01 00.1 +2.2
USA0B  Ussuriysk Arra      9.43 308 Pn     Pn     14 00 56.2 -1.7
USRK   Ussuriysk Ar.       9.43 308 P      Pn     14 00 58.3 +0.3
       comp=Z,4.6nm,0.3s,baz=116,slow=17,SNR=70
USRK                                LR     LR     14 04 25.2
       comp=Z,425nm,19.3s,baz=129,slow=36
       comp=Z,92nm,0.8s
USRK                                AML    AML
USRK   Ussuriysk Ar.       9.43 308        Pn     14 00 56.9 -1.0
JNU    Nakatsue           10.80 242 P      Pn     14 01 17.1 +0.3
       comp=Z,1.0nm,0.3s,baz=160,slow=1.0,SNR=14
JNU                                 LR     LR     14 05 42.4
       comp=Z,385nm,20.7s,baz=44,slow=39
       comp=Z,16nm,0.8s
JNU                                 AML    AML
MDJ    Mudanjiang         11.13 306 Pn     Pn     14 01 19.1 -2.1
KSRS   Korea Array        11.37 268 P      Pn     14 01 26.3 +1.9
       comp=Z,10nm,0.6s,baz=77,slow=14,SNR=38
KSRS                                LR     LR     14 05 22.6
       comp=Z,282nm,20.4s,baz=75,slow=35
KSAR   Wonju Array Be     11.40 268 P      Pn     14 01 22.5 -2.4
KSAR   Wonju Array Be     11.40 268 Pn     Pn     14 01 22.5 -2.4
KS19   Wonju Array Si     11.40 268 Pn     Pn     14 01 23.3 -1.7
JCJ    Chichijima         11.63 180 P      Pn     14 01 27.6 -0.5
       comp=Z,30nm,0.5s,baz=0.0,slow=0.0
JCJ                                 S      Sn     14 03 23.8  -13
       baz=0.0,slow=0.0
TJN    Taejon             12.05 263 P      Pn     14 01 35.4 +1.6
TJN    Taejon             12.05 263 i P    Pn     14 01 34.4 +0.6
TJN    Taejon             12.05 263 Pn     Pn     14 01 32.2 -1.6
JSU    Suzuyama           12.06 237 Pn     Pn     14 01 32.4 -1.6
TYV    Tymovskoe          12.11   1 eP     Pn     14 01 32.9 -1.6
TYV                                 pmax   pmax
       comp=Z,100nm,2.6s
TYV                                 pmax   pmax
       comp=Z,10.0nm,1.3s
INCN   Inchon             12.37 269 P      Pn     14 01 36.6 -1.6
INCN   Inchon             12.37 269 Pn     Pn     14 01 36.6 -1.6
KLR    Kul'dur            12.90 328 P      Pn     14 01 44.5 -0.9
       comp=Z,0.4nm,0.3s,baz=136,slow=12,SNR=13
KLR                                 LR     LR     14 06 38.0
       comp=Z,343nm,19.7s,baz=142,slow=37
       comp=Z,4.8nm,0.7s
KLR                                 AML    AML
KLR    Kul'dur            12.90 328ceP     Pn     14 01 44.8 -0.5
KLR                                 pmax   pmax
       comp=Z,5.0nm,0.8s
BNX    BinXian            13.02 307 ⇓P     Pn     14 01 47.5 +0.6
BNX                                 pmax   pmax
       comp=Z,13nm,1.0s
CN2    Changchun          13.60 297 eP     Pn     14 01 56.8 +1.9
CN2                                 pmax   pmax
       comp=Z,10.0nm,0.5s
HEH    HeiHe              15.59 322 eP     Pn     14 02 17.5 -3.6
HEH                                 pmax   pmax
       comp=Z,7.0nm,0.6s
DL2    Dalian             16.08 277 P      Pn     14 02 26.3 -1.0
DL2                                 S      Sn     14 05 18.8 -5.7
DL2                                 pmax   pmax
       comp=Z,54nm,1.0s
DL2                                 pmax   pmax
       comp=Z,270nm,7.4s
PETK   Petropavlovsk-     17.87  32 P      Pn     14 02 49.4 -0.1
       comp=Z,1.1nm,0.7s,baz=200,slow=8.1,SNR=5.1
PETK                                LR     LR     14 10 18.2
       comp=Z,22nm,20.7s,baz=214,slow=39
PETK   Petropavlovsk-     17.87  32        Pn     14 02 49.0 -0.5
ZEA    Zeya               18.17 330 eP     P      14 02 51.2 -1.6
ZEA                                 pmax   pmax
       comp=E,30nm,0.9s
ZEA                                 pmax   pmax
       comp=Z,20nm,0.7s
HIA    Hailar             19.23 310 P      P      14 03 03.2 -1.4
HIA                                 pmax   pmax
       comp=Z,10.0nm,0.9s
HIA    Hailar             19.23 310 P      P      14 03 03.2 -1.4
HILR   Hailar Array B     19.35 311 P      P      14 03 03.4 -2.5
       comp=Z,7.8nm,0.4s,baz=123,slow=11,SNR=12
TIA    Tai'an             20.09 271 P      P      14 03 12.0 -2.0
TIA                                 pmax   pmax
       comp=Z,18nm,1.0s
XLT    XiLinHaoTe         20.28 293 eP     P      14 03 16.0 -0.1
XLT                                 pmax   pmax
       comp=Z,47nm,0.7s
XLT                                 pmax   pmax
       comp=Z,45nm,4.0s
MA2    Magadan            21.53  12 P      P      14 03 29.5 +0.2
       comp=Z,13nm,0.7s,baz=188,slow=9.8,SNR=9.4
MA2                                 LR     LR     14 11 52.4
       comp=Z,43nm,19.5s,baz=216,slow=36
       comp=Z,13nm,0.7s
MA2    Magadan            21.53  12 P      P      14 03 30.0 +0.7
MA2    Magadan            21.53  12ceP     P      14 03 30.1 +0.7
MA2                                 pmax   pmax
       comp=Z,27nm,1.3s
MA2    Magadan            21.53  12        P      14 03 29.2 -0.1
MA2    Magadan            21.53  12 P      P      14 03 29.8 +0.4
       comp=Z,24nm,1.1s
MA2    Magadan            21.53  12 P      P      14 03 29.7 +0.4
       comp=Z,22nm,1.1s
HNS    HongShan           21.70 275 ⇑P     P      14 03 27.3 -4.0
HNS                                 pmax   pmax
       comp=Z,12nm,1.0s
HNS                                 L      L
       comp=Z,260nm,15.9s
YHNB   Yeheng             22.57 238 P      P      14 03 42.6 +1.7
NACB   Ninganchiao        22.77 236 P      P      14 03 43.5 +0.6
YULB   Yu-li              23.51 235 P      P      14 03 50.9 +0.7
TPUB   Ta-pu              24.01 236 P      P      14 03 54.9 +0.1
TWG    Pinlang            24.07 235 P      P      14 03 54.6 -0.7
TWG                                 IAmb   IAmb   14 04 02.7
       comp=Z,24nm,0.7s
LYN    LuoYang            24.21 269 P      P      14 03 56.5  0.0
LYN                                 pmax   pmax
       comp=Z,42nm,0.7s
LYN                                 L      L
       comp=Z,270nm,14.4s
YAK    Yakutsk            24.55 346 LR     LR     14 14 10.7
       comp=Z,82nm,18.4s,baz=158,slow=38
YAK    Yakutsk            24.55 346 eP     P      14 03 58.5 -0.8
YAK                                 e*PP   pP     14 04 08.2 -4.3
YAK                                 e             14 07 33.0
YAK                                 eS     S      14 08 17.9 +1.7
YAK                                 eSS    SnSn   14 09 09.9 +4.7
YAK                                 eSSS   SSS    14 09 19.4
YAK                                 pmax   pmax
       comp=Z,32nm,0.9s
YAK                                 pmax   pmax
       comp=E,2.0nm,0.7s
YAK                                 pmax   pmax
       comp=N,11nm,0.9s
YAK                                 smax   smax
       comp=E,44nm,2.2s
YAK                                 smax   smax
       comp=N,89nm,2.4s
YAK                                 MLR    MLR
       comp=Z,83nm,15.0s
YAK                                 MLR    MLR
       comp=N,59nm,15.0s
YAK                                 MLR    MLR
       comp=E,59nm,16.0s
YAK    Yakutsk            24.55 346        P      14 03 58.6 -0.8
YAK    Yakutsk            24.55 346 P      P      14 03 58.1 -1.3
       comp=Z,54nm,1.0s
SEY    Seymchan           24.98  11ceP     P      14 04 02.9 -0.3
SEY                                 pmax   pmax
       comp=Z,16nm,1.0s
GUMO   Guam               25.18 174 LR     LR     14 13 24.0
       comp=Z,29nm,21.2s,baz=358,slow=35
SHEM   Shemya Is, Ala     26.00  47 LR     LR     14 13 25.7
       comp=Z,30nm,20.9s,baz=268,slow=34
ULN    Ulaanbaatar        26.98 301 P      P      14 04 21.6 -0.1
ULN                                 pmax   pmax
       comp=Z,5.0nm,0.9s
ULN    Ulaanbaatar        26.98 301        P      14 04 21.6 -0.1
ULN    Ulaanbaatar        26.98 301 P      P      14 04 22.4 +0.6
       comp=Z,5.9nm,1.1s
XAN    Xi'an              27.15 270 P      P      14 04 23.3 +0.1
XAN                                 pmax   pmax
       comp=Z,15nm,0.9s
XAN                                 L      L
       comp=Z,210nm,17.9s
SONM   Songino Array      27.42 301 P      P      14 04 25.2 -0.4
       comp=Z,3.7nm,0.6s,baz=101,slow=8.6,SNR=4.5
SONM                                LR     LR     14 15 43.9
       comp=Z,149nm,19.7s,baz=65,slow=37
       comp=Z,3.7nm,0.6s
SONM   Songino Array      27.42 301 P      P      14 04 23.9 -1.7
ENH    Enshi              28.18 263 P      P      14 04 33.3 +0.9
ENH    Enshi              28.18 263        P      14 04 30.9 -1.5
H11N2  WAKE ISLAND Hy     28.52 125 T      T      14 35 02.7
       baz=317,slow=76,SNR=4745
H11N1  WAKE ISLAND Hy     28.53 125 T      T      14 35 00.5
       baz=317,slow=76,SNR=6864
H11N3  WAKE ISLAND Hy     28.54 125 T      T      14 35 01.1
       baz=317,slow=76,SNR=5946
H11S1  WAKE ISLAND Hy     29.29 127 T      T      14 35 56.7
       baz=318,slow=76,SNR=1237
H11S3  WAKE ISLAND Hy     29.30 127 T      T      14 36 00.3
       baz=318,slow=76,SNR=1452
H11S2  WAKE ISLAND Hy     29.31 127 T      T      14 35 58.4
       baz=318,slow=76,SNR=720
TLY    Talaya             29.74 308 LR     LR     14 17 20.4
       comp=Z,184nm,18.3s,baz=96,slow=38
TLY    Talaya             29.74 308ceP     P      14 04 46.3 +0.2
TLY                                 pmax   pmax
       comp=Z,9.0nm,0.8s
TLY    Talaya             29.74 308        P      14 04 45.9 -0.2
TLY    Talaya             29.74 308 P      P      14 04 46.0 -0.1
       comp=Z,12nm,0.8s
ZAK    Zakamensk          29.76 306 eP     P      14 04 45.7 -0.7
ZAK                                 pmax   pmax
       comp=Z,13nm,1.0s
LZH    Lanzhou            30.47 277 eP     P      14 04 50.5 -2.4
LZH                                 sP     pP     14 05 08.3 +2.1
LZH                                 pmax   pmax
       comp=Z,23nm,1.1s
LZH                                 L      L
       comp=Z,280nm,17.0s
LZDM   Lanzhou Array      30.63 277 P      P      14 04 54.1 -0.3
       comp=Z,5.9nm,0.5s,baz=91,slow=5.9,SNR=6.3
       comp=Z,5.9nm,0.5s
GTA2   Gaotai             32.75 285 eP     P      14 05 12.8  0.0
GTA2                                pmax   pmax
       comp=Z,10.0nm,0.9s
GTA2                                L      L
       comp=Z,160nm,16.2s
GTA2                                L      L
       comp=Z,260nm,16.2s
GTA2                                L      L
       comp=Z,310nm,16.2s
KNGR   Kungurtug, Tuv     33.45 306 i P    P      14 05 19.0 +0.3
KNGR                                pmax   pmax
       comp=Z,16nm,0.8s
TIXI   Tiksi              33.67 352 LR     LR     14 20 18.5
       comp=Z,74nm,18.0s,baz=9.0,slow=38
DAV    Davao City (W)     34.96 210 LR     LR     14 19 32.7
       comp=Z,39nm,19.3s,baz=43,slow=36
GAMB   Gambell            36.90  32 P      P      14 05 49.1 +1.0
SLVN   Son La             37.14 253 P      P      14 05 50.0 -0.7
GOMU   GeErMu             37.41 281 P      P      14 05 52.8 -0.4
GOMU                                pmax   pmax
       comp=Z,17nm,0.7s
MYLDM  Lahad Datu         39.77 219 P      P      14 06 14.0 +1.4
MYLDM                               IAmb   IAmb   14 06 20.7
       comp=Z,30nm,1.3s
DGZ    Jazzator, Alta     39.95 304c iP    P      14 06 14.9 +0.8
DGZ                                 pmax   pmax
       comp=Z,29nm,0.9s
SIJI   Sorong             40.71 197 LR     LR     14 19 60.0
       comp=Z,40nm,21.9s,baz=77,slow=31
JAY    Jayapura           41.09 182 LR     LR     14 20 24.2
       comp=Z,26nm,20.4s,baz=332,slow=32
ZAA0   Zalesovo Array     41.27 311        P      14 06 24.9 +0.2
ZALV   Zalesovo Beam      41.27 311 P      P      14 06 24.1 -0.6
       comp=Z,18nm,0.5s,baz=91,slow=8.4,SNR=56
ZALV                                PcP    PcP    14 08 22.8 +0.3
       comp=Z,1.6nm,0.4s,baz=76,slow=6.1,SNR=2.4
ZALV                                LR     LR     14 24 15.3
       comp=Z,143nm,18.1s,baz=82,slow=37
       comp=Z,18nm,0.5s
ZALV   Zalesovo Beam      41.27 311 i P    P      14 06 24.6 -0.1
ZALV                                pmax   pmax
       comp=Z,18nm,0.5s
ZALV   Zalesovo Beam      41.27 311        P      14 06 24.5 -0.1
ZALV                                       PcP    14 08 22.6 +0.1
NRIK   Noril'sk           41.99 334 P      P      14 06 29.2 -1.2
       comp=Z,3.0nm,0.3s,baz=86,slow=8.1,SNR=4.1
NRIK                                LR     LR     14 25 02.4
       comp=Z,152nm,19.3s,baz=102,slow=38
       comp=Z,3.0nm,0.3s
NRIK   Noril'sk           41.99 334 i P    P      14 06 29.3 -1.1
NRIK                                pmax   pmax
       comp=Z,37nm,4.4s
NRIK   Noril'sk           41.99 334 P      P      14 06 29.6 -0.8
TOLI2  Tolitoli           42.31 213 P      P      14 06 33.5 -0.1
CHTO   Chiang Mai         42.38 255 P      P      14 06 34.1  0.0
CHTO                                pmax   pmax
       comp=Z,8.0nm,0.6s
CHTO   Chiang Mai         42.38 255 P      P      14 06 34.1  0.0
CHTO                                IAmb   IAmb   14 06 45.0
       comp=Z,8.0nm,0.6s
CHTO   Chiang Mai         42.38 255 P      P      14 06 38.6 +4.4
       comp=Z,12nm,0.7s
FAKI   Fak Fak            42.49 195 P      P      14 06 35.0  0.0
FAKI                                IAmb   IAmb   14 06 56.9
       comp=Z,21nm,1.1s
CM31   Chiang Mai Arr     42.59 254 P      P      14 06 35.8 -0.1
CMAR   Chiang Mai Arr     42.59 254 P      P      14 06 35.8 -0.1
       comp=Z,0.9nm,0.7s,baz=47,slow=7.0,SNR=6.4
CMAR                                LR     LR     14 26 02.2
       comp=Z,19nm,19.2s,baz=45,slow=38
       comp=Z,0.9nm,0.7s
CMAR   Chiang Mai Arr     42.59 254 P      P      14 06 35.6 -0.3
G18K   Tagagawik          42.83  31 P      P      14 06 39.3 +2.0
L18K   Granite Mounta     43.27  37 P      P      14 06 43.5 +2.6
MK31   Makanchi Array     43.79 301ceP     P      14 06 45.2 -0.1
MKAR   Makanchi Array     43.79 301 P      P      14 06 45.1 -0.2
       comp=Z,7.8nm,0.6s,baz=86,slow=11,SNR=77
MKAR                                PcP    PcP    14 08 30.8 -0.3
       comp=Z,1.6nm,0.9s,baz=73,slow=5.0,SNR=1.9
MKAR                                LR     LR     14 25 43.1
       comp=Z,49nm,19.4s,baz=51,slow=37
       comp=Z,7.8nm,0.6s
MKAR   Makanchi Array     43.79 301ceP     P      14 06 45.0 -0.3
MKAR                                pmax   pmax
       comp=Z,8.0nm,0.6s
MKAR   Makanchi Array     43.79 301        P      14 06 45.4 +0.1
MKAR                                       PcP    14 08 30.6 -0.5
NPW    Naypyitaw          43.94 258 P      P      14 06 47.2 +0.4
       comp=Z,5.4nm,1.2s
MAKZ   Makanchi           44.00 301 P      P      14 06 47.0  0.0
MAKZ                                pmax   pmax
       comp=Z,12nm,0.9s
MAKZ   Makanchi           44.00 301        P      14 06 47.0  0.0
MAKZ                                IAmb   IAmb   14 07 03.3
       comp=Z,12nm,0.9s
MAKZ   Makanchi           44.00 301 P      P      14 06 47.0  0.0
       comp=Z,15nm,0.9s
MAKZ   Makanchi           44.00 301 P      P      14 06 46.8 -0.2
MAKZ                                pP     pP     14 07 00.7 -0.1
IMAR   Indian Mountai     44.84  31 P      P      14 06 55.1 +1.8
KDAK   Kodiak Island      45.38  43 LR     LR     14 27 21.0
       comp=Z,38nm,19.4s,baz=260,slow=38
KURK   Kurchatov          45.41 307ceP     P      14 06 57.8 -0.3
KURK                                pmax   pmax
       comp=Z,36nm,0.7s
KURK   Kurchatov          45.41 307        P      14 06 57.8 -0.3
KURK                                       PcP    14 08 36.0 -0.5
KURK   Kurchatov          45.41 307 P      P      14 06 57.9 -0.3
       comp=Z,56nm,0.8s
KURK   Kurchatov          45.41 307 P      P      14 06 57.8 -0.3
KURBB  Kurchatov Arra     45.48 307 P      P      14 06 58.1 -0.6
       comp=Z,32nm,0.6s,baz=82,slow=8.3,SNR=162
KURBB                               PcP    PcP    14 08 37.0 +0.2
       comp=Z,0.8nm,0.3s,baz=76,slow=3.9,SNR=2.2
KURBB                               LR     LR     14 26 31.8
       comp=Z,86nm,20.1s,baz=184,slow=37
       comp=Z,32nm,0.6s
BRDH   Bariadhala         45.79 265 LR     LR     14 28 16.7
       comp=Z,104nm,18.6s,baz=127,slow=39
H23K   Yukon River        46.55  32 IAmb   IAmb   14 07 23.4
       comp=Z,7.7nm,0.8s
PDGK   Podgornoye         46.58 297 P      P      14 07 06.8 -0.8
E23K   Chandalar          46.59  29        P      14 07 08.7 +1.4
E23K                                IAmb   IAmb   14 07 23.5
       comp=Z,8.2nm,0.8s
SHLS   Shalkode           46.65 296 eP     P      14 07 05.4 -2.7
SHLS   Shalkode           46.65 296 eP     P      14 07 05.4 -2.7
TDK    Taldyqorghan       46.85 299 eP     P      14 07 09.5  0.0
TDK                                 pmax   pmax
       comp=Z,8.0nm,0.6s
TDK    Taldyqorghan       46.85 299 eP     P      14 07 09.6  0.0
       comp=Z,8.2nm,0.6s
UZB    Uzynbulak          46.95 297 eP     P      14 07 10.0 -0.5
UZB    Uzynbulak          46.95 297 eP     P      14 07 10.1 -0.5
KPKS   Kokpek             47.10 297 eP     P      14 07 11.5 -0.1
KPKS   Kokpek             47.10 297 eP     P      14 07 11.6 -0.1
SATY   Saty               47.41 297 eP     P      14 07 13.8 -0.3
SATY   Saty               47.41 297 eP     P      14 07 13.9 -0.3
WUS    Wushi              47.42 294 IAmb   IAmb   14 07 21.7
       comp=Z,19nm,1.4s
IL31                      47.69  33 P      P      14 07 16.0 +0.3
IL31                                IAmb   IAmb   14 07 31.2
       comp=Z,7.0nm,0.8s
ILAR   Eielson Array      47.69  33 P      P      14 07 17.1 +1.3
       comp=Z,3.4nm,0.7s,baz=266,slow=5.7,SNR=30
       comp=Z,3.4nm,0.7s
ILAR   Eielson Array      47.69  33 P      P      14 07 16.8 +1.0
F25K   Christian Rive     48.09  29 IAmb   IAmb   14 07 30.8
       comp=Z,12nm,1.5s
TARG   Taragay, Kyrgy     48.25 295 P      P      14 07 21.8 +0.9
       comp=Z,8.3nm,0.7s
MDOK   Medeo              48.33 297 eP     P      14 07 21.0 -0.2
MDOK   Medeo              48.33 297 eP     P      14 07 21.1 -0.2
AAA    Alma-Ata           48.41 297 eP     P      14 07 21.6 -0.1
AAA                                 pmax   pmax
       comp=Z,7.0nm,0.5s
AAA    Alma-Ata           48.41 297 eP     P      14 07 21.6 -0.1
       comp=Z,6.8nm,0.5s
TNSS   Tian-Shan          48.44 297 eP     P      14 07 21.7 -0.6
TNSS   Tian-Shan          48.44 297 eP     P      14 07 21.7 -0.6
KUU    Kurty              48.59 298 eP     P      14 07 22.9 -0.1
KUU    Kurty              48.59 298 eP     P      14 07 23.0 -0.1
F26K   Sheenjek River     48.66  29 IAmb   IAmb   14 07 43.9
       comp=Z,10nm,0.8s
ASAI   AK-SAY(Kyrgyzs     49.44 295 P      P      14 07 30.6 +0.6
       comp=Z,3.4nm,0.8s
K27K   Chicken            49.84  34 IAmb   IAmb   14 07 53.2
       comp=Z,8.8nm,1.0s
SGDS   Sogindy            49.91 298 eP     P      14 07 32.9 -0.3
BVAR   Borovoye Array     49.92 311 P      P      14 07 32.5 -0.5
       comp=Z,10.0nm,0.5s,baz=69,slow=8.0,SNR=67
BVAR                                PcP    PcP    14 08 53.0 +0.3
       comp=Z,2.9nm,0.5s,baz=83,slow=3.2,SNR=4.7
       comp=Z,10.0nm,0.5s
BORK   Borovoye           49.95 311 eP     P      14 07 33.1 -0.2
BORK                                pmax   pmax
       comp=Z,9.0nm,0.6s
BORK   Borovoye           49.95 311        P      14 07 33.5 +0.2
BORK                                IAmb   IAmb   14 07 34.8
       comp=Z,9.2nm,0.7s
KULM   Kulim              50.26 239 P      P      14 07 35.1 -0.9
KULM                                IAmb   IAmb   14 07 37.5
       comp=Z,14nm,1.2s
AAK    Ala-Archa          50.27 297 LR     LR     14 29 59.8
       comp=Z,53nm,18.0s,baz=82,slow=37
AAK    Ala-Archa          50.27 297ceP     P      14 07 36.6 +0.5
AAK                                 pmax   pmax
       comp=Z,2.0nm,0.7s
AAK    Ala-Archa          50.27 297        P      14 07 36.3 +0.2
AAK    Ala-Archa          50.27 297 P      P      14 07 36.0 -0.1
       comp=Z,3.8nm,0.7s
E28M   Babbage River      50.31  28 P      P      14 07 37.8 +2.0
E28M                                IAmb   IAmb   14 07 52.2
       comp=Z,3.9nm,0.7s
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I28M	Miner Creek	50.55	32		P	14 07 38.9	+1.1
I28M				IAmb	IAmb	14 07 53.9	
	comp=Z,5.6nm,0.7s						
IPM	Ipoh	50.61	238		P	14 07 38.5	-0.2
IPM	Ipoh	50.61	238	P	P	14 07 38.1	-0.6
	comp=Z,17nm,1.4s						
HNR	Honiara	50.70	157	LR	LR	14 26 43.4	
	comp=Z,55nm,21.8s,baz=44,slow=33						
KSH2	Kashi	50.76	293	P	P	14 07 40.5	+0.7
KSH2				pP	pP	14 07 56.8	+3.0
KSH2				pmax	pmax		
	comp=Z,4.0nm,0.8s						
E29M	Blow River	50.94	28	IAmb	IAmb	14 07 57.1	
	comp=Z,5.5nm,0.8s						
ARSB	Arslanbob	51.79	296	IAmb	IAmb	14 07 52.6	
	comp=Z,8.6nm,0.6s						
G30M	tAoh Zraii Nji	51.79	30	IAmb	IAmb	14 08 05.0	
	comp=Z,9.6nm,1.0s						
DZA	Taraz	52.37	299	eP	P	14 07 51.4	-0.2
DZA				pmax	pmax		
	comp=Z,5.0nm,0.7s						
DZA	Taraz	52.37	299	eP	P	14 07 51.4	-0.2
	comp=Z,4.9nm,0.7s						
G31M	Satah River	52.55	30	IAmb	IAmb	14 08 08.2	
	comp=Z,8.3nm,0.6s						
KK31	Karatay Array	52.85	299	i P	P	14 07 54.6	-0.5
KK31	Karatay Array	52.85	299		P	14 07 54.7	-0.5
KK31				IAmb	IAmb	14 07 55.2	
	comp=Z,5.1nm,0.8s						
KKAR	Karatay Array	52.85	299	P	P	14 07 54.7	-0.4
KKAR	Karatay Array	52.85	299		P	14 07 54.7	-0.4
BRLS	Borolday	53.34	299	eP	P	14 07 59.8	+1.1
BRLS	Borolday	53.34	299	eP	P	14 07 59.9	+1.1
IUG	Iuzhnay	53.53	298	eP	P	14 08 00.1	-0.2
IUG				pmax	pmax		
	comp=Z,15nm,1.1s						
IUG	Iuzhnay	53.53	298	eP	P	14 08 00.1	-0.2
	comp=Z,15nm,1.1s						
CHM	Chimkent	53.76	299	eP	P	14 08 01.7	-0.1
CHM				pmax	pmax		
	comp=Z,6.0nm,0.6s						
CHM	Chimkent	53.76	299	eP	P	14 08 01.7	-0.1
	comp=Z,6.2nm,0.6s						
SVE	Sverdlovsk	54.30	318	eP	P	14 08 06.0	+0.5
SVE				pmax	pmax		
	comp=Z,20nm,1.0s						
NIL	Nilore	54.72	287	P	P	14 08 09.7	+0.7
NIL				pmax	pmax		
	comp=Z,17nm,0.8s						
NIL	Nilore	54.72	287		P	14 08 09.7	+0.7
NIL	Nilore	54.72	287	P	P	14 08 09.5	+0.6
	comp=Z,24nm,0.9s						
KNRA	Kununurra	55.60	196	P	P	14 08 15.9	+0.7
KNRA				IAmb	IAmb	14 08 22.0	
	comp=Z,11nm,1.3s						
ARTI	Arti	55.63	318	c iP	P	14 08 15.0	0.0
ARTI				*PP	pP	14 08 30.5	+1.3
ARTI						14 09 13.2	
ARTI						14 10 14.4	
ARTI				S	S	14 15 58.7	+1.8
ARTI				SS	SS	14 19 35.4	-6.6
ARTI				pmax	pmax		
	comp=Z,21nm,0.9s						
ARTI	Arti	55.63	318		P	14 08 15.1	0.0
ARTI	Arti	55.63	318	P	P	14 08 14.8	-0.2
ARTI				pP	pP	14 08 29.5	+0.3
AB31	Akbulak array	57.35	310	i P	P	14 08 27.0	-0.4
AB31	Akbulak array	57.35	310		P	14 08 27.0	-0.4
ABKAR	Akbulak array	57.35	310		P	14 08 27.0	-0.4
KBL	Kabul	57.43	290	P	P	14 08 28.3	-0.2
KBL				pmax	pmax		
	comp=Z,6.0nm,0.7s						
KBL	Kabul	57.43	290		P	14 08 28.3	-0.2
KBL				IAmb	IAmb	14 08 28.7	
	comp=Z,5.8nm,0.7s						
KBL	Kabul	57.43	290	P	P	14 08 28.2	-0.2
	comp=Z,8.0nm,0.9s						
AKTO	Aktyubinsk	58.03	311	LR	LR	14 35 00.1	
	comp=Z,76nm,18.0s,baz=78,slow=38						
AKTO	Aktyubinsk	58.03	311	P	P	14 08 31.2	-1.0
WB0	Warramunga Arr	58.68	189		P	14 08 36.5	-0.4
WRAB	Tennant Creek	58.85	189	ceP	P	14 08 36.8	-1.3
WRAB				pmax	pmax		
	comp=Z,9.0nm,1.7s						
WR8	Warramunga Arr	58.85	189		P	14 08 37.9	-0.3
WR8				IAmb	IAmb	14 08 52.3	
	comp=Z,8.4nm,1.0s						
WRA	Warramunga Arr	58.86	189	P	P	14 08 38.1	-0.1
	comp=Z,3.6nm,0.7s,baz=5.8,slow=7.0,SNR=60						
	comp=Z,3.6nm,0.7s						
WRA	Warramunga Arr	58.86	189	i P	P	14 08 38.0	-0.2
WRA				pmax	pmax		
	comp=Z,4.0nm,0.7s						
WRA	Warramunga Arr	58.86	189		P	14 08 37.8	-0.4
SPITS	Spitsbergen Ar	58.97	349	P	P	14 08 38.8	+0.5
SPITS				pmax	pmax		
	comp=Z,47nm,1.4s						
KIRV	Kirov	59.28	323	LR	LR	14 36 29.3	
	comp=Z,39nm,18.1s,baz=107,slow=38						
KIRV	Kirov	59.28	323	ceP	P	14 08 41.1	+0.4
NOR	Nord	59.38	356	i P	P	14 08 41.0	-0.1
BBB	Bella Bella	60.37	45	LR	LR	14 36 21.7	
	comp=Z,34nm,19.2s,baz=187,slow=37						
RES	Resolute Bay	60.77	15	P	P	14 08 50.7	0.0
RES				pmax	pmax		
	comp=Z,19nm,1.2s						
RES	Resolute Bay	60.77	15	P	P	14 08 50.7	0.0
VADS	Vadso	61.20	339	eP	P	14 08 54.0	+0.4
APA	Apatity	61.39	336	eP	P	14 08 53.8	-1.2
APA				e		14 09 34.4	
APA				pmax	pmax		
	comp=Z,4.0nm,1.2s						
APA				MLR	MLR		
	comp=Z,273nm,4.3s						
YKA	Yellowknife Ar	61.99	31	P	P	14 08 60.0	+0.9
	comp=Z,1.7nm,0.8s,baz=301,slow=5.8,SNR=4.2						
	comp=Z,1.7nm,0.8s						
YKA	Yellowknife Ar	61.99	31	P	P	14 09 00.0	+0.9
YKA	Yellowknife Ar	61.99	31	P	P	14 08 59.2	+0.1
KEV	Kevo	62.07	339	P	P	14 08 59.4	-0.1
KEV				pmax	pmax		
	comp=Z,11nm,1.1s						
KEV	Kevo	62.07	339	P	P	14 08 59.4	-0.1
KEV				IAmb	IAmb	14 09 18.5	
	comp=Z,11nm,1.1s						
AS31	Alice Springs	62.59	189		P	14 09 03.7	+0.2
ASAR	Alice Springs	62.59	189	P	P	14 09 03.5	-0.1
	comp=Z,1.9nm,0.7s,baz=7.1,slow=5.1,SNR=33						
	comp=Z,1.9nm,0.7s						
ASAR	Alice Springs	62.59	189	P	P	14 09 03.4	-0.2
ARA0	ARCESS Array S	62.62	339	eP	P	14 09 03.6	+0.4
ARCES	ARCESS Array B	62.62	339	P	P	14 09 03.3	+0.1
	comp=Z,0.9nm,0.5s,baz=54,slow=8.0,SNR=17						
ARCES				LR	LR	14 38 46.6	
	comp=Z,34nm,20.9s,baz=32,slow=38						
	comp=Z,0.9nm,0.5s						
KLMR	Klimovskoe	62.66	327	eP	P	14 09 01.7	-1.9
KLMR				e*PP	pP	14 09 18.6	+0.7
KLMR				pmax	pmax		
	comp=Z,13nm,1.3s						
MBWA	Marble Bar	63.23	204	P	P	14 09 07.9	+0.1
KTK1	Kautokeino	63.58	339	eP	P	14 09 09.9	+0.3
NEEM	North Greenlan	63.77	3	i P	P	14 09 11.4	+0.3
JETT	Jettan, Norway	63.98	341	eP	P	14 09 12.4	+0.2
DAG	Danmarks Havn	64.12	355	i P	P	14 09 13.1	+0.1
EIDS	Eidsvold	64.32	171	P	P	14 09 15.9	+1.0
EIDS				IAmb	IAmb	14 09 19.2	
	comp=Z,12nm,1.2s						
DZM	Mont Dzumac	64.62	155	LR	LR	14 38 43.1	
	comp=Z,43nm,18.4s,baz=316,slow=37						
INKA	Innaminka	66.17	181	P	P	14 09 28.4	+1.6
MOS	Moscow	66.27	323	eP	P	14 09 28.3	+1.1
MOS				e		14 09 44.6	
MOS				e		14 09 56.8	
STEI	Steigen	66.46	341	eP	P	14 09 27.9	-0.4
FAUS	Fauske	66.85	340	eP	P	14 09 31.0	+0.2
OBN	Obninsk	67.12	323	⇑eP	P	14 09 31.4	-1.2
OBN				e		14 09 57.1	
OBN				e		14 12 04.5	
OBN				pmax	pmax		
	comp=Z,11nm,0.5s						
OBN				MLR	MLR		
	comp=Z,61nm,16.0s						
FIA1	FINESS Array S	67.60	332		P	14 09 35.8	+0.2
FINES	FINESS Array B	67.60	332	P	P	14 09 35.4	-0.2
	comp=Z,8.2nm,0.7s,baz=56,slow=7.4,SNR=35						
FINES				LR	LR	14 40 35.4	
	comp=Z,57nm,21.5s,baz=48,slow=37						
	comp=Z,8.2nm,0.7s						
FINES	FINESS Array B	67.60	332	P	P	14 09 35.8	+0.2
FINES	FINESS Array B	67.60	332		P	14 09 35.8	+0.2
AFI	Afiamalu	67.74	131	LR	LR	14 36 09.1	
	comp=Z,22nm,18.7s,slow=33						
VAGH	Vaagaholmen	67.87	341	eP	P	14 09 37.3	+0.1
RAUS	Rausandaksla	67.89	340	eP	P	14 09 36.8	-0.5
LEIR	Leirfjorden	68.38	340	eP	P	14 09 40.0	-0.4
AKT	Akhty	68.59	306	eP	P	14 09 41.9	-0.4
AKT				e*PP	pP	14 09 56.3	-0.6
AKT				e		14 12 14.8	
AKT				pmax	pmax		
	comp=Z,42nm,1.8s						
SUMG	Summit	68.96	0	P	P	14 09 44.9	+0.4
SUMG				pmax	pmax		
	comp=Z,27nm,1.4s						
SUMG	Summit	68.96	0	P	P	14 09 44.9	+0.4
SUMG	Summit	68.96	0	i P	P	14 10 13.3	+29
VSU	Vasula	69.31	330	ceP	P	14 09 46.1	-0.2
VSU				pmax	pmax		
	comp=Z,13nm,1.7s						
GOF	Gofitskoye	69.44	312	ceP	P	14 09 48.0	+0.6
MTSE	Matsula	70.27	331	P	P	14 09 52.7	+0.5
	comp=Z,93nm,0.8s						
KIV	Kislovodsk	70.28	311	eP	P	14 09 53.4	+0.7
KIV				pmax	pmax		
	comp=Z,19nm,1.0s						
KIV				MLR	MLR		
	comp=Z,28nm,17.0s						
KIV	Kislovodsk	70.28	311	P	P	14 09 53.6	+0.9
KBZ	Khabaz	70.29	311	P	P	14 09 52.4	-0.1
	comp=Z,9.4nm,0.9s,baz=12,slow=1.9,SNR=10						
KBZ				LR	LR	14 45 39.4	
	comp=Z,40nm,18.6s,baz=48,slow=40						
	comp=Z,9.4nm,0.9s						
KBZ	Khabaz	70.29	311	ceP	P	14 09 52.9	+0.3
KBZ				pmax	pmax		
	comp=Z,16nm,1.1s						
GNI	Garni	71.21	307	LR	LR	14 44 26.4	
	comp=Z,52nm,18.0s,baz=44,slow=38						
BEKR	Beckworth	71.30	54	P	P	14 10 00.0	+1.0
BBOO	Buckleboo	71.44	186	P	P	14 10 00.1	+0.6
BBOO				IAmb	IAmb	14 10 21.2	
	comp=Z,7.8nm,1.0s						
MNK	Minsk	71.44	326	i P	P	14 09 59.5	+0.2
MNK				i *PP	pP	14 10 16.0	+2.0
MNK				i		14 10 18.2	
MNK				i		14 12 39.0	
MNK				i PPP	PPP	14 14 22.7	
MNK				i S	S	14 19 15.1	+1.5
MNK				i *SS	sS	14 19 43.5	+5.0
MNK				i		14 19 59.3	
MNK				i SS	SS	14 23 52.5	+4.4
MNK				pmax	pmax		
	comp=E,14nm,0.8s						
MNK				pmax	pmax		
	comp=Z,10.0nm,0.8s						
MNK				pmax	pmax		
	comp=N,12nm,0.8s						
MNK				MLR	MLR		
	comp=Z,91nm,16.0s						
MNK				MLR	MLR		
	comp=N,206nm,18.0s						
MNK				MLR	MLR		
	comp=E,336nm,21.0s						
MNK	Minsk	71.44	326	i P	P	14 09 59.6	+0.2
	comp=E,14nm,0.8s						
MNK				i P	P	14 09 59.6	+0.2
	comp=N,12nm,0.8s						
MNK				i P	P	14 09 59.6	+0.2
	comp=Z,10.0nm,0.8s,baz=48						
MNK				i pP	pP	14 10 16.1	+2.0
MNK				i PP	PP	14 12 39.0	+1.2
MNK				i PPP	PPP	14 14 22.8	
MNK				i S	S	14 19 15.1	+1.5
MNK				i sS	sS	14 19 43.5	+5.0
MNK				i SS	SS	14 23 52.5	+4.4
MNK				i SSS	SSS	14 27 12.3	
MNK				i LR	LR	14 42 08.3	
MNK				i LRM	MLR	14 44 06.5	
	comp=Z,91nm,16.4s						
MNK				i LRM	MLR	14 44 47.1	
	comp=N,206nm,18.1s						
MNK				i LRM	MLR	14 44 49.0	
	comp=E,336nm,20.9s						
NACGM	Naroch	71.65	327	eP	P	14 10 01.3	+0.6
	comp=Z,20nm,1.0s,baz=48						
UOSS	Minazif	71.92	288	P	P	14 10 03.1	+0.3
UOSS				IAmb	IAmb	14 10 03.7	
	comp=Z,6.6nm,0.8s						
SOC	Sochi	72.24	312	eP	P	14 10 04.4	0.0
SOC				e		14 12 39.4	
SOC				ePPP	PPP	14 14 26.7	
SOC				eS	S	14 19 25.0	+1.8
SOC				eSS	SS	14 24 03.6	+2.7
HFS	Hagfors	72.79	336	P	P	14 10 07.7	+0.3
	comp=Z,1.4nm,0.5s,baz=56,slow=3.7,SNR=8.1						
HFS				LR	LR	14 44 52.6	
	comp=Z,81nm,18.4s,baz=34,slow=38						
	comp=Z,1.4nm,0.5s						
NC204	NORSAR Array S	72.80	338	P	P	14 10 07.3	-0.2
NC204				IAmb	IAmb	14 10 08.7	
	comp=Z,15nm,1.1s						
NB2	NORSAR Subarra	72.86	337	P	P	14 10 07.6	-0.2
	comp=Z,1.0nm,0.5s,baz=36,slow=6.5						
NB2	NORSAR Subarra	72.86	337	P	P	14 10 07.6	-0.2
NOA	NORSAR Array B	72.86	337	P	P	14 10 07.8	0.0
	comp=Z,2.7nm,0.8s,baz=38,slow=6.0,SNR=10						
NOA				LR	LR	14 44 44.6	
	comp=Z,62nm,21.4s,baz=40,slow=38						
	comp=Z,2.7nm,0.8s						
NC602	NORSAR Array S	73.00	337	eP	P	14 10 07.9	-0.7
AK03	Malin Array Si	73.33	322	P	P	14 10 10.1	-0.6
AKASG	Malin Array Be	73.34	322	P	P	14 10 10.5	-0.3
	comp=Z,3.6nm,0.5s,baz=46,slow=5.6,SNR=16						
AKASG				LR	LR	14 45 10.3	
	comp=Z,65nm,18.7s,baz=70,slow=38						
	comp=Z,3.6nm,0.5s						
AKASG	Malin Array Be	73.34	322	P	P	14 10 09.7	-1.1
AKBB	Malin Array Si	73.34	322	ceP	P	14 10 10.0	-0.8
AKBB				pmax	pmax		
	comp=Z,13nm,1.0s						
AKBB	Malin Array Si	73.34	322	IAmb	IAmb	14 10 11.4	
	comp=Z,10nm,0.9s						
AKBB	Malin Array Si	73.34	322	P	P	14 10 10.6	-0.2
AK01	Malin Array Si	73.35	322	P	P	14 10 10.4	-0.5
KIEV	Kiev	73.35	322	P	P	14 10 10.9	+0.1
KIEV	Kiev	73.35	322		P	14 10 10.7	-0.2
KIEV				IAmb	IAmb	14 10 11.4	
	comp=Z,9.2nm,0.9s						
KIEV	Kiev	73.35	322	⇓P	P	14 10 11.0	+0.1
KIEV	Kiev	73.35	322	P	P	14 10 10.0	-0.9
	comp=Z,43nm,1.0s						
KIEV	Kiev	73.35	322	P	P	14 10 10.7	-0.2
	comp=Z,11nm,1.0s						
AK04	Malin Array Si	73.36	322	P	P	14 10 10.2	-0.7
AK16	Malin Array Si	73.42	322	P	P	14 10 11.0	-0.2
NVAR	Mina Array Bea	73.43	54	P	P	14 10 13.2	+1.4
	comp=Z,0.9nm,0.8s,baz=289,slow=4.5,SNR=4.2						
	comp=Z,0.9nm,0.8s						
NVAR	Mina Array Bea	73.43	54	P	P	14 10 12.0	+0.2
ELK	Elko	73.94	51	LR	LR	14 45 24.0	
	comp=Z,19nm,18.0s,baz=320,slow=38						
RNPP9	Sopachiv	74.42	324	P	P	14 10 16.9	-0.2
LUBAR	Lubar, Ukraine	74.56	322	P	P	14 10 16.6	-1.4
SORM	Soroca	75.48	321	P	P	14 10 23.1	-0.1
SORM	Soroca	75.48	321	⇓P	P	14 10 23.1	-0.1
SORM	Soroca	75.48	321	P	P	14 10 22.8	-0.5
	comp=Z,9.7nm,0.9s						
BW06	Boulder Array	75.99	46	P	P	14 10 27.9	+1.3
PD31	Pinedale Array	75.99	46	P	P	14 10 28.3	+1.7
PDAR	Pinedale Array	75.99	46	P	P	14 10 27.9	+1.3
	comp=Z,1.2nm,0.7s,baz=266,slow=1.6,SNR=15						
	comp=Z,1.2nm,0.7s						
KMPD	K-Podol'skiy	76.11	322	P	P	14 10 25.9	-0.9
KWP	Kalwaria Pacla	77.12	325	P	P	14 10 33.6	+1.1
	comp=Z,18nm,1.1s						
ILGA	Ilgaz	77.30	313	P	P	14 10 34.0	0.0
BUR08	Bucovina Ar. S	77.36	322		P	14 10 33.9	-0.2
BUR08				IAmb	IAmb	14 10 35.4	
	comp=Z,5.8nm,0.9s						
BURAR	Bucovina Array	77.37	322	P	P	14 10 35.0	+0.9
BURAR	Bucovina Array	77.37	322		P	14 10 34.7	+0.6
BURAR				IAmb	IAmb	14 10 35.7	
	comp=Z,5.4nm,0.9s						
BURAR	Bucovina Array	77.37	322	⇑P	P	14 10 35.0	+0.9
BIZ	Bicaz	77.41	321	⇓P	P	14 10 35.0	+0.8
TESR	Tescani	77.44	320	⇓P	P	14 10 34.8	+0.5
TESR	Tescani	77.44	320	P	P	14 10 34.6	+0.2
	comp=Z,13nm,1.6s						
PFO	Pinyon Flats O	77.54	57	LR	LR	14 36 04.5	
	comp=Z,38nm,21.9s,baz=330,slow=29						
TPGR	Topolog	77.67	318	⇓P	P	14 10 35.9	+0.2
ULM	Lac du Bonnet	77.70	34	P	P	14 10 36.1	+0.3
	comp=Z,1.5nm,0.6s,baz=331,slow=18,SNR=1.3						
	comp=Z,1.5nm,0.6s						
ULM	Lac du Bonnet	77.70	34	P	P	14 10 35.8	0.0
VRI	Vrincioaia	77.84	320	P	P	14 10 36.8	+0.2
VRI	Vrincioaia	77.84	320	⇓P	P	14 10 36.9	+0.2
OJC	Ojcow	77.98	326	P	P	14 10 38.0	+0.7
	comp=Z,10nm,0.8s						
OZUR		78.16	320	⇓P	P	14 10 40.0	+1.5
BR131	Keskin Array S	78.20	312	i P	P	14 10 39.0	+0.1
BR131	Keskin Array S	78.20	312		P	14 10 39.1	+0.1
BR131				IAmb	IAmb	14 10 40.2	
	comp=Z,3.8nm,0.5s						
BRTR	Keskin Array B	78.21	312	P	P	14 10 39.3	+0.3
	comp=Z,2.6nm,0.4s,baz=109,slow=3.3,SNR=20						
BRTR				LR	LR	14 50 25.2	
	comp=Z,25nm,19.1s,baz=348,slow=40						
	comp=Z,2.6nm,0.4s						
BRTR	Keskin Array B	78.21	312	P	P	14 10 39.2	+0.2
BR106	Keskin Array S	78.21	312	P	P	14 10 39.3	+0.3
	comp=Z,4.1nm,1.1s						
BR104	Keskin Array S	78.22	312	P	P	14 10 39.1	+0.1
	comp=Z,4.4nm,0.8s						
BR105	Keskin Array S	78.22	312	P	P	14 10 39.2	+0.1
	comp=Z,5.0nm,0.8s						
TRPA	Tarpa	78.27	324	P	P	14 10 40.0	+1.0
	comp=Z,8.5nm,0.9s						
HMU	Henry Mountain	78.41	51	P	P	14 10 40.6	+0.3
DOPR	Dopca	78.44	321	⇑P	P	14 10 40.8	+0.8
MLR	Muntele Rosu	78.50	320	LR	LR	14 48 28.5	
	comp=Z,62nm,18.1s,baz=0.0,slow=38						
KSP	Ksiaz	78.98	328	P	P	14 10 43.7	+0.8
	comp=Z,11nm,1.1s						
STEB	Steborice	79.06	327	eP	P	14 10 44.2	+0.9
ARR	Arges	79.24	321	⇓P	P	14 10 46.1	+1.6
ARR	Arges	79.24	321	P	P	14 10 46.3	+1.8
	comp=Z,13nm,1.1s						
MORC	Moravsky Berou	79.28	327	P	P	14 10 45.2	+0.7
MORC				pmax	pmax		
	comp=Z,9.0nm,1.1s						
MORC	Moravsky Berou	79.28	327		P	14 10 45.2	+0.7
MORC				IAmb	IAmb	14 10 46.2	
	comp=Z,9.1nm,1.1s						
MORC	Moravsky Berou	79.28	327	eP	P	14 10 44.8	+0.3
MORC	Moravsky Berou	79.28	327	⇓P	P	14 10 45.1	+0.5
MORC	Moravsky Berou	79.28	327	P	P	14 10 45.4	+0.8
	comp=Z,9.4nm,1.0s						
DPC	Dobruska-Polom	79.35	328	eP	P	14 10 50.9	+6.0
DPC	Dobruska-Polom	79.35	328	eP	P	14 10 50.9	+6.0
UPC	Upice	79.36	328	eP	P	14 10 50.9	+6.0
UPC	Upice	79.36	328	eP	P	14 10 50.9	+6.0
BRG	Berggiesshubel	79.91	330	eP	P	14 10 48.5	+0.7
BRG				Amp		14 10 48.9	
	comp=Z,4.0nm,0.9s						
PVCC	Panska Ves	79.93	329	eP	P	14 10 48.0	0.0
PVCC	Panska Ves	79.93	329	eP	P	14 10 48.0	0.0
CLL	Collm	79.93	330	i P	P	14 10 48.0	0.0
CLL				i *PP	pP	14 11 05.0	+2.2
CLL				pmax	pmax		
	comp=Z,10.0nm,1.0s						
CLL	Collm	79.93	330	IAmb	IAmb	14 10 49.0	
	comp=Z,9.3nm,0.9s						
CLL	Collm	79.93	330	P	P	14 10 48.2	+0.2
	comp=Z,12nm,0.8s						
CLL	Collm	79.93	330	i P	P	14 10 48.0	0.0
	comp=Z,10.0nm,1.0s						
CLL				i sP	pP	14 11 05.0	+2.2
CLL				L	L	14 42 00.0	
CLL				AMS	AMS	14 49 00.0	
	comp=Z,100nm,15.9s						
VRAC	Vranov	80.03	327	LR	LR	14 49 13.3	
	comp=Z,68nm,18.1s,baz=38,slow=38						
VRAC	Vranov	80.03	327	P	P	14 10 49.5	+0.9
VRAC	Vranov	80.03	327	eP	P	14 10 49.5	+0.9
VRAC	Vranov	80.03	327	⇑P	P	14 10 49.5	+0.9
GZR	Gura Zlata	80.14	321	P	P	14 10 49.8	+0.5
GZR	Gura Zlata	80.14	321	⇓P	P	14 10 49.8	+0.5
SURR	Surduc	80.19	322	⇓P	P	14 10 50.5	+1.0
KRUC	Moravsky	80.31	327	eP	P	14 10 50.5	+0.4
HSKC	Hora Svate Kat	80.32	330	eP	P	14 10 49.4	-0.7
PRU	Pruhonice	80.36	329	eP	P	14 10 50.9	+0.6
PRU	Pruhonice	80.36	329	eP	P	14 10 50.9	+0.6
RAYN	Ar Rayn	80.61	292	P	P	14 10 52.7	+0.5
RAYN	Ar Rayn	80.61	292	P	P	14 10 52.1	-0.1
RAR	Rarotonga	80.64	127	LR	LR	14 45 21.1	
	comp=Z,21nm,19.5s,baz=24,slow=35						
ABNA	Allensteig Bun	81.01	328	eP	P	14 10 54.8	+0.9
	comp=Z,5.9nm,1.2s						
ASF	Jabal al Asfar	81.10	304	LR	LR	14 49 27.2	
	comp=Z,32nm,21.1s,baz=343,slow=38						
MDVR	Moldovita	81.10	322	⇑P	P	14 10 54.6	+0.2
WINA	Alland / Wiene	81.18	327	eP	P	14 10 55.9	+1.2
	comp=Z,11nm,1.1s						
RONA	Rosalia, Austr	81.39	326	eP	P	14 10 57.0	+1.0
	comp=Z,8.7nm,1.0s						
CONA	Conrad Observa	81.41	327	eP	P	14 10 57.2	+1.1
	comp=Z,5.1nm,1.0s						
KHC	Kasperske Hory	81.42	329	ceP	P	14 10 56.5	+0.5
KHC				pmax	pmax		
	comp=Z,12nm,2.5s						
KHC	Kasperske Hory	81.42	329	eP	P	14 10 56.6	+0.5
KHC	Kasperske Hory	81.42	329		P	14 10 56.9	+0.8
KHC				IAmb	IAmb	14 10 57.6	
	comp=Z,5.3nm,0.8s						
KHC	Kasperske Hory	81.42	329	P	P	14 10 56.9	+0.8
MMAI	Mount Meron Ar	81.51	306	P	P	14 10 57.1	+0.2
	comp=Z,2.2nm,0.6s,baz=23,slow=12,SNR=1.9						
MMAI				LR	LR	14 51 42.3	
	comp=Z,30nm,18.5s,baz=38,slow=39						
	comp=Z,2.2nm,0.6s						
GERES	GERESS Array B	81.59	329	P	P	14 10 57.4	+0.3
	comp=Z,1.3nm,0.4s,baz=20,slow=4.3,SNR=12						
GERES				LR	LR	14 49 50.7	
	comp=Z,68nm,20.1s,baz=22,slow=38						
	comp=Z,1.3nm,0.4s						
GERES	GERESS Array B	81.59	329	P	P	14 10 57.1	0.0
EKA	Eskdalemuir Ar	81.73	341	P	P	14 10 58.1	+0.6
	comp=Z,0.6nm,0.4s,baz=28,slow=5.6,SNR=3.9						
	comp=Z,0.6nm,0.4s						
ARSA	Arzberg	82.08	327	eP	P	14 10 59.7	+0.1
	comp=Z,5.2nm,1.2s						
SESA	Seetaler Alpe,	82.59	327	eP	P	14 11 03.1	+0.6
	comp=Z,21nm,1.0s,SNR=7.9						
GROS	Grobnik	82.70	326	i P	P	14 11 02.7	-0.1
PERS	Pernice	82.73	326	i P	P	14 11 03.3	+0.3
SOKA	Soboth	82.73	326	eP	P	14 11 03.7	+0.6
	comp=Z,7.0nm,0.9s,SNR=6.0						
OBKA	Obir	83.07	327	i P	P	14 11 05.2	+0.4
	comp=Z,3.2nm,0.8s						
LESA	Schwarzleotal	83.14	328	ePcP	P	14 11 05.9	+0.8
	comp=Z,7.4nm,0.9s						
LEGS	Legarje	83.17	326	i P	P	14 11 05.0	-0.3
STU	Stuttgart	83.43	331	P	P	14 11 07.1	+0.6
STU				pmax	pmax		
	comp=Z,10.0nm,0.9s						
STU	Stuttgart	83.43	331	P	P	14 11 07.1	+0.6
STU				IAmb	IAmb	14 11 07.9	
	comp=Z,9.8nm,0.9s						
WTTA	Wattenberg	83.69	329	ePcP	P	14 11 08.6	+0.5
	comp=Z,5.5nm,0.8s						
ABTA	Abfaltersbach	83.75	328	eP	P	14 11 08.1	-0.2
	comp=Z,4.5nm,0.9s						
MOTA	Moosalm	83.84	329	i PcP	P	14 11 09.5	+0.6
	comp=Z,5.5nm,0.8s						
RETA	Reutte	83.87	329	i PcP	P	14 11 09.7	+0.8
	comp=Z,9.3nm,0.9s						
SQTA	Sankt Quirin	83.90	329	ePcP	P	14 11 09.6	+0.5
	comp=Z,4.5nm,0.8s						
EIL	Elat	83.99	303	LR	LR	14 53 02.4	
	comp=Z,44nm,18.3s,baz=63,slow=39						
PDG	Podgorica	84.04	321	⇑P	P	14 11 10.0	+0.3
STAL	STALIGIAL	84.05	327	IAmb	IAmb	14 11 09.4	
	comp=Z,7.5nm,0.6s						
BFO	Black Forest	84.12	331	i P	P	14 11 07.4	-2.7

FETA	Feichten	84.26	329	*i* PcP	P	14 11 11.5	+0.6
	comp=Z,5.5nm,0.8s						
DAVA	Damuels	84.38	330	*i* PcP	P	14 11 12.2	+0.6
	comp=Z,8.4nm,0.8s						
DAVOX	Davos/Dischmat	84.79	329	LR	LR	14 52 27.9	
	comp=Z,54nm,18.3s,baz=77,slow=38						
PPT	Papeete	84.82	117	LR	LR	14 40 48.5	
	comp=Z,43nm,20.6s,baz=344,slow=30						
PPT2	Papeete2	84.83	117	*e*LR	LR	14 38 01.5	
	comp=Z,76nm,23.8s						
TUE	Stuetta	85.26	329	IAmb	IAmb	14 11 18.7	
	comp=Z,4.2nm,0.8s						
FDMO	Fiordimonte	86.45	325	IAmb	IAmb	14 11 23.0	
	comp=Z,4.1nm,0.8s						
TXAR	Lajitas Array	88.55	53	P	P	14 11 33.1	+0.9
	comp=Z,0.7nm,0.6s,baz=292,slow=3.5,SNR=10.0						
	comp=Z,0.7nm,0.6s						
TXAR	Lajitas Array	88.55	53	P	P	14 11 32.6	+0.4
SADO	Sadowa	88.86	28	LR	LR	14 53 44.6	
	comp=Z,40nm,18.1s,baz=320,slow=37						
VAE	Valguarnera	90.22	321	LR	LR	14 57 22.1	
	comp=Z,59nm,19.6s,baz=161,slow=39						
KEST	Kesra	94.05	323	LR	LR	14 59 16.2	
	comp=Z,65nm,18.3s,baz=333,slow=39						
TKL	Tuckaleechee C	94.60	36	LR	LR	14 57 50.2	
	comp=Z,18nm,18.1s,baz=202,slow=37						
ESDC	Sonseca Array	96.03	334	LR	LR	15 00 31.0	
	comp=Z,52nm,18.3s,baz=12,slow=39						
TORD	Torodi Ar. Bea	116.57	316	PKP	PKPdf	14 17 23.1	-0.3
	comp=Z,0.3nm,0.5s,baz=10,slow=1.6,SNR=2.5						
VNDA	Vanda	116.64	175	PKP	PKiKP	14 17 21.8	0.0
	comp=Z,0.5nm,0.9s,baz=24,slow=4.8,SNR=1.4						
QSPA	South Pole Qui	128.50	180	PKP	PKPdf	14 17 44.9	+0.1
	comp=Z,1.4nm,1.0s,baz=244,slow=1.6,SNR=8.5						
VNA2	Neumayer--Watz	144.16	196	P	PKPab	14 18 07.9	-3.4
	baz=121,slow=2.8						
VNA3	Neumayer Olymp	144.40	195	P	PKPab	14 18 11.3	-1.0
LPAZ	La Paz	145.24	58	PKPbc	PKPdf	14 18 18.2	+0.4
	comp=Z,0.9nm,0.5s,baz=321,slow=4.8,SNR=5.1						
LPAZ	La Paz	145.24	58		PKPbc	14 18 16.4	-1.2
PB16	IPOC Station P	145.73	63	PKPdf	PKPdf	14 18 17.6	-1.0
PB11	IPOC Station P	146.58	65	PKPdf	PKPdf	14 18 19.4	-0.1

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*IDC **30** 14:11:35.2±1.6, 6°.77S×127°.59E, h295^{km}±19^{km}, mb2.8/2, mbtmp4.0/7, Error ellipse: s-maj=23.9km s-min=13.5km az=79.0*

ISC 30 14:11:34.9±0.9**, 6°.71S**±0°.07×**127°.6E**±0°.1**, h300**^{km}**, n7,** σ**1^{s}.44**/12**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BATI	Baumata	5.22	228	P	Pn	14 12 54.9	-0.2
	80nm,0.3s,baz=43,slow=4.1,SNR=12						
BATI				S	S	14 13 57.9	-1.5
	62nm,0.9s,baz=61,slow=22,SNR=5.9						
SIJI	Sorong	6.86	32	P	Pn	14 13 15.8	+1.2
	2.1nm,0.2s,baz=204,slow=23,SNR=1.4						
SIJI				S	S	14 14 32.0	-3.2
	4.4nm,0.5s,baz=241,slow=23,SNR=1.9						
FITZ	Fitzroy Crossi	11.48	189	P	P	14 14 12.6	-0.5
	2.2nm,0.4s,baz=18,slow=7.6,SNR=20						
FITZ				S	S	14 16 18.6	-0.7
	2.5nm,1.0s,baz=183,slow=7.3,SNR=1.8						
WRA	Warramunga Arr	14.69	154	P	P	14 14 48.0	-0.6
	2.8nm,0.4s,baz=328,slow=12,SNR=37						
WRA				S	S	14 17 30.3	+0.9
	0.5nm,1.1s,baz=342,slow=19,SNR=1.7						
ASAR	Alice Springs	17.91	161	P	P	14 15 24.1	+0.5
	5.4nm,0.6s,baz=343,slow=12,SNR=131						
ASAR				S	S	14 18 34.0	+0.4
	0.5nm,0.7s,baz=347,slow=24,SNR=4.7						
MKAR	Makanchi Array	66.70	328	P	P	14 21 55.1	+1.1
	0.1nm,0.4s,baz=117,slow=8.8,SNR=2.1						
	0.1nm,0.4s						
KURBB	Kurchatov Arra	71.04	329	P	P	14 22 21.6	+1.1
	0.3nm,0.4s,baz=127,slow=4.7,SNR=1.7						
	0.3nm,0.4s						

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*CATAC **30** 14:11:59.4±0.7, 12°N±3°×8°9W±°, h23^{km}±6^{km}, M3.8/19, MLv3.8/19, Error ellipse: s-maj=8.9km s-min=3.1km az=48.5, confirmed*

*IDC **30** 14:12:02.1±2.9, 14°.60N×87°.37W, h0^{km}, mb3.3/3, mbtmp3.4/3, MS3.1/1, Error ellipse: s-maj=168.8km s-min=54.0km az=47.0*

*SNET **30** 14:12:03.0±1.3, 12°.61N×89°.36W, h54^{km}±15^{km}, ML3.7, Presumed earthquake*

*GCG **30** 14:12:04.4±1.6, 12°.72N×89°.37W, h30^{km}±16^{km}, MD4.5, Presumed earthquake*

ISC 30 14:11:54.2±1.9**, 12°.23N**±0°.08×**89°.39W**±0°.05**, h14**^{km}±11^{km}**, n59,** σ**1^{s}.29**/72**, mb3.4**/3**, 1D, Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LALI	Alcalda de L	1.25	3	*e*P	Pg	14 12 18.8	+0.4
LALI	Alcalda de L	1.25	3	*e*P	Pb	14 12 17.8	+0.1
LALI				*e*S	Sn	14 12 32.0	-2.1
LALI	Alcalda de L	1.25	3	P	Pg	14 12 18.5	+0.2
LALI				S	Sn	14 12 33.5	-0.6
PANCS	Alcalda de	1.39	9	S	Sn	14 12 36.6	-1.0
JAYA	Jayaque - finc	1.42	358	*e*P	Pg	14 12 21.4	-0.1
JAYA	Jayaque - finc	1.42	358	*e*P	Pb	14 12 20.8	+0.3
JAYA				*e*S	Sn	14 12 36.7	-1.7
JAYA	Jayaque - finc	1.42	358	P	Pg	14 12 21.2	-0.3
JAYA				S	Sn	14 12 37.5	-0.9
LFRS	El Faro	1.42	13	*e*P	Pb	14 12 21.3	+0.7
LOMA	Loma Larga	1.42	9	P	Pg	14 12 21.5	-0.2
LOMA				S	Sn	14 12 37.0	-1.5
SJTE	Alcalda de S	1.43	15	*e*P	Pb	14 12 20.4	-0.3
SJTE				*e*S	Sn	14 12 36.6	-1.9
TECO	Alcaldia de Te	1.43	25	P	Pg	14 12 21.8	+0.1
TECO				S	Sn	14 12 38.9	+0.4
COEG	Centro de Oper	1.47	20	*e*P	Pb	14 12 22.2	+0.8
COEG	Centro de Oper	1.47	20	P	Pb	14 12 21.8	+0.4
COEG				S	Sn	14 12 40.7	+1.1
PMON	Piamonte	1.48	3	*e*P	Pb	14 12 22.1	+0.6
PMON	Piamonte	1.48	3	P	Pb	14 12 22.1	+0.6
PMON				S	Sn	14 12 40.2	+0.5
UEES	Universidad Ev	1.48	6	P	Pb	14 12 21.8	+0.1
BOQS	Boqueron	1.50	4	*e*P	Pb	14 12 22.6	+0.6
JUCU	Jucuar¡n	1.51	48	*e*P	Pb	14 12 23.0	+0.9
TECA	Tecapa	1.53	35	*e*P	Pb	14 12 23.5	+1.0
LFU	La Fuente	1.53	10	*e*P	Pb	14 12 23.2	+0.7
PAVA	Las Pavas	1.54	17	*e*P	Pb	14 12 23.1	+0.5
PAVA	Las Pavas	1.54	17	P	Pb	14 12 23.2	+0.5
CEVE	Cerro Verde	1.60	352	*e*P	Pg	14 12 24.9	-0.2
CEVE	Cerro Verde	1.60	352	P	Pb	14 12 24.3	+0.5
PACA	Pacayal	1.61	40	*e*P	Pb	14 12 25.0	+1.1
PACA	Pacayal	1.61	40	P	Pg	14 12 25.4	+0.1
SBLS	San Blas	1.61	352	*e*P	Pb	14 12 23.8	-0.2
SNJE	San Jose	1.64	353	*e*P	Pb	14 12 24.2	-0.2
NUBE	Las Nubes	1.70	347	*i* P	Pb	14 12 24.9	-0.5
NUBE				*i* S	Sn	14 12 43.3	-2.1
NUBE	Las Nubes	1.70	347	*e*P	Pb	14 12 25.0	-0.5
NUBE	Las Nubes	1.70	347	P	Pb	14 12 25.0	-0.5
NUBE				S	Sn	14 12 43.7	-1.7
FAME	Alcaldia de Sa	1.71	339	P	Pb	14 12 24.9	-0.7
FAME				S	Sn	14 12 43.7	-1.7
UNIC	Universidad Ca	1.75	355	P	Pb	14 12 26.2	0.0
LOAL	Lomas de Alarc	1.80	348	⇓*e*P	Pg	14 12 27.7	-1.1
LOAL	Lomas de Alarc	1.80	348	P	Pg	14 12 27.7	-1.1
LOAL				S	Sn	14 12 47.5	-0.1
LCND	La Caada	1.82	54	*e*P	Pb	14 12 28.2	+0.9
LCND	La Caada	1.82	54	P	Pb	14 12 28.5	+1.2
CNCH	Conchagua	1.84	55	*e*P	Pg	14 12 29.8	+0.2
P5NO	Presa 5 de nov	1.85	19	P	Pb	14 12 27.4	-0.5
RBDL	Robledal	1.89	351	*e*P	Pb	14 12 28.2	-0.5
LLGN	La Laguna	1.97	13	P	Pb	14 12 29.4	-0.6
MTO3	Montecristo	2.16	1	*e*P	Pb	14 12 32.2	-1.0
FG8	Yepocapa, Chim	2.32	331	*e*P	Pg	14 12 41.4	+2.7
CNGN	Cerro Negro	2.65	84	P	Pb	14 12 41.6	+0.2
CNGN				S	Sb	14 13 13.8	0.0
ILCN	San Idelfonso	2.65	82	P	Pb	14 12 40.0	-1.5
ILCN				S	Sb	14 13 13.0	-1.0
MOMN	Momotombo	2.79	86	S	Sb	14 13 15.9	-2.2
MOM3	MOM3	2.82	84	P	Pb	14 12 43.8	-0.6
MOM2	El Cardon	2.85	86	P	Pb	14 12 44.2	-0.7
MOM2				S	Sb	14 13 18.3	-1.4
APG	El Apazote	2.95	339	*e*P	Pb	14 12 43.6	-3.1
UNAN	Cigeo UNAN	3.06	92	S	Sb	14 13 23.7	-1.9
MGAN	Managua	3.08	91	S	Sb	14 13 24.0	-2.2
WILN	Americas 2	3.13	91	S	Sb	14 13 25.5	-2.4
NANN	Nandasmo	3.21	95	S	Sb	14 13 28.0	-2.2
TXAR	Lajitas Array	21.59	324	P	P	14 16 48.5	+4.7
	1.5nm,0.6s,baz=134,slow=8.1,SNR=20						
	1.5nm,0.6s						
PDAR	Pinedale Array	35.10	334	P	P	14 18 47.0	-0.4
	0.2nm,0.6s,baz=162,slow=4.0,SNR=1.9						
	0.2nm,0.6s						
NVAR	Mina Array Bea	36.64	320	P	P	14 19 05.9	+5.2
	0.4nm,0.7s,baz=120,slow=8.1,SNR=2.7						
NVAR				LR	LR	14 36 41.2	
	comp=Z,31nm,21.8s,baz=310,slow=41						
	0.4nm,0.7s						
WRA	Warramunga Arr	137.39	254	PKP	PKiKP	14 31 33.2	+13
	0.4nm,0.8s,baz=87,slow=1.9,SNR=2.4						
ASAR	Alice Springs	137.43	248	PKP	PKiKP	14 31 32.5	+12
	0.4nm,1.1s,baz=83,slow=2.0,SNR=1.7						
CMAR	Chiang Mai Arr	148.42	345	PKPbc	PKPab	14 31 46.0	+1.5
	0.5nm,0.3s,baz=21,slow=3.2,SNR=5.1						

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*TRN **30** 14:33:48.6, 9°.33N×58°.30W, h3^{km}, MD4.3, Far South-east of Trinidad.*

*FUNV **30** 14:33:50.5, 9°.19N×58°.44W, h5^{km}, MW4.6, Presumed earthquake*

ISC 30 14:33:54.8±2.5**, 9°.44N**±0°.09×**58°.97W**±0°.10**, h10**^{km}**, n17,** σ**2^{s}.04**/32**, North Atlantic Ocean**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TRN	Trinidad (W)	2.68	297	*e*P	Pb	14 34 41.2	-1.7
TRN				*e*S	Sg	14 35 18.9	-2.1
TRN	Trinidad (W)	2.68	297	*e*P	Pb	14 34 42.1	-0.8
TRN				*e*S	Sg	14 35 20.7	-0.3
DMDM	Guralp CMG5TDE	2.83	296	*e*P	Pb	14 34 44.8	-0.7
DMDM				*e*S	Sg	14 35 24.1	-1.7
BBGH	Gun Hill	3.73	351	*e*P	Pn	14 34 49.7	-2.8
GRGR	Grenville	3.76	316	*e*P	Pn	14 34 55.9	+3.0
GRGR				*e*S	Sb	14 35 43.0	-4.0
GRGR	Grenville	3.76	316	*e*P	Pn	14 34 56.7	+3.9
GRGR				*e*S	Sb	14 35 45.8	-1.2
GRW	Mount Saint Ca	3.78	316	*e*P	Pn	14 34 56.9	+3.6
GRW				*e*S	Sb	14 35 48.4	+0.7
GRSS	Sisters	3.85	318	*e*P	Pn	14 34 57.2	+3.1
GRSS				*e*S	Sb	14 35 48.7	-0.9
MCLT	Moule a Chique	4.67	336	*e*P	Pn	14 35 05.8	+0.5
MCLT				*e*S	Sn	14 36 02.6	+3.0
SLBI	Saint Lucia, B	4.96	337	*e*P	Pn	14 35 09.8	+0.4
BIM	Bigot	5.45	338	*e*P	Pn	14 35 16.7	+0.5
BIM				*e*S	Sn	14 36 20.4	+1.4
BIM	Bigot	5.45	338	*e*P	Pn	14 35 17.4	+1.2
BIM				*e*S	Sn	14 36 21.2	+2.2
PCRV	Puerto La Cruz	5.63	278	*e*P	Pn	14 35 19.9	+1.3
PCRV				*e*S	Sn	14 36 25.9	+2.4
DSLB	Salisbury	6.43	338	*e*P	Pn	14 35 31.3	+1.7
DSLB				*e*S	Sn	14 36 45.4	+2.3
TACV	Tcata	7.97	276	*e*P	Pn	14 35 52.1	+1.2
TACV				*e*S	Sn	14 37 21.3	+0.1
BENV	Beln	8.52	274	*e*P	Pn	14 35 59.1	+0.7
BENV				*e*S	Sn	14 37 35.8	+1.1
TURV	Turiamo	8.79	277	*e*P	Pn	14 36 02.3	+0.2
TURV				*e*S	Sn	14 37 40.8	-0.6

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*NEIC **30** 14:35:39.3±1.7, 62°.11S±0°.06×58°.04W±0°.06, h5^{km}±1^{km}, mb4.7/50, Error ellipse: s-maj=9.7km s-min=4.9km az=2.0*

*IDC **30** 14:35:40.9±0.8, 61°.99S×57°.60W, h0^{km}, mb3.9/5, mbtmp3.9/6, ML3.4/1, MS3.3/11, Error ellipse: s-maj=25.4km s-min=17.1km az=124.0*

ISC 30 14:35:40.4±0.4**, 62°.03S**±0°.05×**57°.89W**±0°.08**, h10**^{km}**, n98,** σ**1^{s}.38**/89**, mb4.7**/28**, MS3.2**/10**, South Shetland Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ESPZ	Base Esperanza	1.44	164	Pn	Pn	14 36 04.6	-1.9
ESPZ				Sg	Sn	14 36 20.7	-4.6
PMSA	Palmer Station	3.91	222	Pn	Pn	14 36 40.8	+0.5
	2.6nm,0.3s,baz=48,slow=9.3,SNR=9.3						
PMSA				Sn	Sn	14 37 26.2	0.0
	4.4nm,0.3s,baz=2.0,slow=6.3,SNR=7.9						
PMSA				LR	LR	14 38 02.4	
	comp=Z,400nm,20.1s,baz=70,slow=35						
	13nm,0.5s						
PMSA				AML	AML		
PMSA	Palmer Station	3.91	222		Pn	14 36 38.7	-1.7
ORCD	Orcadas	6.45	84	Pn	Pn	14 37 15.2	-0.1
SMAI	San Martin Ant	7.25	208	Pn	Pn	14 37 24.4	-1.8
EFI	East Falkland	10.38	359	Pn	Pn	14 38 07.5	-1.6
GO08	Villa O'Higgin	15.90	322	Pn	Pn	14 39 24.4	+0.4
GO08				IAmb	IAmb	14 39 26.6	
	comp=Z,41nm,1.5s						
BELA	Belgrano 2	17.54	164	Pn	Pn	14 39 42.2	-2.3
COYC	Coyhaique	18.42	327	P	P	14 39 54.2	-1.3
LL02	Futaleuf	20.60	330	P	P	14 40 17.1	-2.2
VNA3	Neumayer Olymp	20.60	137	P	Pn	14 40 23.3	+1.9
	comp=Z,4.3nm,0.7s						
LL07	Hotel Espejo d	21.34	327	P	P	14 40 25.9	-1.4
VNA2	Neumayer--Watz	21.34	136	P	P	14 40 31.2	+4.0
	comp=Z,3.9nm,0.6s,baz=262,slow=9.4						
PLCA	Paso Flores	22.66	334	P	P	14 40 44.2	+2.6
	comp=Z,6.5nm,1.0s,baz=146,slow=8.4,SNR=6.0						
PLCA				LR	LR	14 49 20.6	
	comp=Z,47nm,19.6s,baz=177,slow=36						
	comp=Z,6.5nm,1.0s						
PLCA	Paso Flores	22.66	334	P	P	14 40 41.0	-0.6
SNAA	Sanae	22.78	138	P	P	14 40 46.6	+4.0
	comp=Z,59nm,0.5s						
SNAA	Sanae	22.78	138	P	P	14 40 44.3	+1.7
	comp=Z,1.9nm,0.5s,baz=228,slow=4.8,SNR=5.5						
SNAA				LR	LR	14 48 21.3	
	comp=Z,58nm,20.2s,baz=236,slow=34						
	comp=Z,1.9nm,0.5s						
SNAA	Sanae	22.78	138	P	P	14 40 40.7	-1.9
GO06	Curarrehue	23.95	333	P	P	14 40 54.2	-0.4
GO06				IAmb	IAmb	14 41 03.4	
	comp=Z,15nm,1.1s						
LR04	Corral	24.11	330	P	P	14 40 56.4	+0.5
TRQA	Tornquist	24.13	352	P	P	14 40 55.9	-0.3
TROLL	Troll, Antarti	24.42	139	P	P	14 41 02.5	+3.7
	comp=Z,239nm,1.1s						
BI05	Punta Hualpn	27.05	332	P	P	14 41 22.8	+0.2
QSPA	South Pole Qui	28.20	180	P	P	14 41 34.0	+1.0
	comp=Z,1.3nm,0.8s,baz=240,slow=2.9,SNR=6.3						
QSPA				LR	LR	14 54 35.9	
	comp=Z,51nm,18.4s,baz=136,slow=40						
	comp=Z,1.3nm,0.8s						
QSPA	South Pole Qui	28.20	180	P	P	14 41 33.3	+0.4
BO04	La Punta	29.21	338	P	P	14 41 41.6	-0.4
BO04				IAmb	IAmb	14 41 58.3	
	comp=Z,14nm,1.1s						
MT08	Bocatoma Ro	29.64	339	P	P	14 41 46.1	+0.1
MT08				IAmb	IAmb	14 41 56.1	
	comp=Z,16nm,1.1s						
MT02	Curacav	30.01	337	P	P	14 41 48.3	-0.8
MT02				IAmb	IAmb	14 41 49.0	
	comp=Z,22nm,1.4s						
VA03	San Esteban	30.39	339	P	P	14 41 52.0	-0.6
VA03				IAmb	IAmb	14 42 02.0	
	comp=Z,16nm,1.1s						
CO04	Los Peladeros	31.17	338	P	P	14 41 58.5	-1.1
CO04				IAmb	IAmb	14 42 08.2	
	comp=Z,11nm,1.0s						
CO02	Combarbal	31.99	338	P	P	14 42 06.3	-0.4
CO02				IAmb	IAmb	14 42 11.9	
	comp=Z,13nm,0.7s						
CO03	El Pedregal	32.30	339	P	P	14 42 08.6	-0.7
CO03				IAmb	IAmb	14 42 14.7	
	comp=Z,11nm,0.8s						
GO04	Tololo Observa	32.97	339	P	P	14 42 15.1	-0.2
GO04				IAmb	IAmb	14 42 20.3	
	comp=Z,13nm,0.8s						
CO01	Juntas del Tor	33.04	340	P	P	14 42 16.5	+0.5
CO01				IAmb	IAmb	14 42 24.1	
	comp=Z,21nm,1.3s						
LCO	Las Campanas	34.09	340	P	P	14 42 25.1	0.0
LCO				IAmb	IAmb	14 42 54.0	
	comp=Z,10nm,0.8s						
AC05	El Transito	34.19	340	P	P	14 42 25.5	-0.3
AC05				IAmb	IAmb	14 42 31.2	
	comp=Z,9.2nm,0.8s						
AC04	Llanos de Chal	34.94	339	P	P	14 42 31.9	-0.2
GO03	Copiapo	35.40	341	P	P	14 42 36.0	-0.2
GO03				IAmb	IAmb	14 42 57.3	
	comp=Z,10nm,1.1s						
CPUP	Villa Florida	35.69	1	LR	LR	14 58 52.0	
	comp=Z,20nm,18.1s,baz=255,slow=39						
VNDA	Vanda	38.57	193	LR	LR	14 58 15.5	
	comp=Z,30nm,19.8s,baz=68,slow=35						
VNDA	Vanda	38.57	193	P	P	14 43 03.0	+0.4
PB05	IPOC Station P	40.05	342	P	P	14 43 16.0	+0.4
PB05				IAmb	IAmb	14 43 33.5	
	comp=Z,19nm,1.3s						
PB06	IPOC Station P	40.11	343	P	P	14 43 16.5	+0.3
PB06				IAmb	IAmb	14 43 25.8	
	comp=Z,13nm,1.0s						
PB03	IPOC Station P	40.78	343	P	P	14 43 21.2	-0.5
PB03				IAmb	IAmb	14 43 40.9	
	comp=Z,22nm,1.4s						
PB08	IPOC Station P	42.58	344	P	P	14 43 35.5	-1.2
PB08				IAmb	IAmb	14 43 45.7	
	comp=Z,12nm,1.5s						
PB11	IPOC Station P	43.02	344	P	P	14 43 39.1	-1.0
PB11				IAmb	IAmb	14 43 54.2	
	comp=Z,8.6nm,1.0s						
PSGCX	Pisagua	43.24	343	P	P	14 43 40.8	-1.0
PSGCX				IAmb	IAmb	14 43 43.5	
	comp=Z,30nm,1.4s						
MAW	Mawson	43.77	152	P	P	14 43 47.9	+2.5
	comp=Z,2.0nm,0.9s,baz=207,slow=6.6,SNR=3.6						
MAW				LR	LR	15 01 47.0	
	comp=Z,89nm,20.2s,baz=212,slow=36						
	comp=Z,2.0nm,0.9s						
MAW	Mawson	43.77	152	P	P	14 43 45.0	-0.4
PB16	IPOC Station P	44.40	344	P	P	14 43 50.7	-1.0
LPAZ	La Paz	46.26	346	P	P	14 44 05.5	-1.0
PTLB	Pontes e Lacer	46.53	358	P	P	14 44 06.9	-0.9
VILB	Vilhena	49.03	357	P	P	14 44 26.5	-0.7
VILB				IAmb	IAmb	14 44 30.8	
	comp=Z,11nm,0.9s						
SUR	Sutherland	56.76	97	LR	LR	15 04 08.2	
	comp=Z,26nm,21.2s,baz=194,slow=30						
SUR	Sutherland	56.76	97	P	P	14 45 23.1	-1.4
GRHM	Grahamstown, E	58.60	102	P	P	14 45 36.4	-0.8
H10S3	ASCENSION HYDR	61.59	50	T	T	15 53 29.9	
	baz=18,slow=74,SNR=3.1						
H10S2	ASCENSION HYDR	61.59	50	T	T	15 53 28.6	
	baz=202,slow=74,SNR=3.2						
H10N3	ASCENSION HYDR	62.68	50	T	T	15 54 48.1	
	baz=201,slow=75,SNR=6.5						
H10N1	ASCENSION HYDR	62.68	50	T	T	15 54 46.1	
	baz=201,slow=75,SNR=6.7						
H10N2	ASCENSION HYDR	62.69	50	T	T	15 54 48.7	
	baz=201,slow=75,SNR=7.1						
BOAV	Boa Vista	64.28	357	P	P	14 46 15.6	0.0
BOAV				IAmb	IAmb	14 46 30.2	
	comp=Z,2.4nm,0.9s						
LBTB	Lobatse	65.20	97	LR	LR	15 10 28.8	
	comp=Z,26nm,18.9s,baz=183,slow=32						
PAYG	Puerto Ayora	65.90	324	P	P	14 46 26.7	+0.5
MATP	Matopo	70.50	97	LR	LR	15 12 15.7	
	comp=Z,27nm,20.4s,baz=172,slow=31						
SJCC	San Jacinto, C	72.96	342	P	P	14 47 10.2	+0.4
ILAM	Ilet Lapin Mar	76.58	357	P	P	14 47 30.1	-0.6
USIM	UNAN	77.19	332	P	P	14 47 34.5	+0.4
BOAB	BOACO BROADBAN	77.37	332	P	P	14 47 34.7	-0.4
SJG	San Juan	80.14	352	LR	LR	15 26 16.1	
	comp=Z,13nm,18.3s,baz=216,slow=38						
BBOO	Buckleboo	84.82	192	P	P	14 48 14.4	-0.5
BBOO				IAmb	IAmb	14 48 28.3	
	comp=Z,8.8nm,1.0s						
TEIG	Tepich	85.48	332	P	P	14 48 17.4	-0.6
FORT	Forrest	87.40	185	P	P	14 48 27.8	+0.2
FORT				IAmb	IAmb	14 48 45.3	
	comp=Z,10nm,1.1s						
TORD	Torodi Ar. Bea	88.10	57	P	P	14 48 33.5	+2.6
	comp=Z,0.6nm,0.8s,baz=204,slow=5.6,SNR=3.2						
	comp=Z,0.6nm,0.8s						
TORD	Torodi Ar. Bea	88.10	57	P	P	14 48 29.3	-1.6
OUENC	Ouen Island, N	88.60	221		P	14 48 34.3	+0.9
GERES	GERESS Array B	124.31	49	PKP	PKiKP	14 54 38.9	+0.3
	comp=Z,1.0nm,0.2s,baz=234,slow=3.3,SNR=4.8						
FINES	FINESS Array B	138.55	46	PKP	PKPdf	14 55 04.9	+0.3
	comp=Z,1.4nm,0.9s,baz=270,slow=2.1,SNR=2.4						
ARCES	ARCESS Array B	143.75	36	PKP	PKPdf	14 55 13.2	-0.6
	comp=Z,4.1nm,0.7s,baz=262,slow=1.8,SNR=18						
AB31	Akbulak array	144.14	82	PKPdf	PKPdf	14 55 14.4	-0.6
ABKAR	Akbulak array	144.14	82	PKPdf	PKPdf	14 55 14.4	-0.7
KEV	Kevo	144.30	36	PKPdf	PKPdf	14 55 15.1	+0.5
ARSB	Arslanbob	144.34	102	PKPdf	PKPdf	14 55 15.8	-0.1
I21K	Tanana	144.46	314	PKPdf	PKiKP	14 55 17.1	-1.6
F24K	Squaw Lake	144.49	319	PKPdf	PKPdf	14 55 16.2	+1.0
KK31	Karatay Array	144.58	98	PKPdf	PKPdf	14 55 17.1	+1.1
KKAR	Karatay Array	144.58	98	PKPdf	PKPdf	14 55 16.7	+0.6
J19K	Poorman	145.04	310	PKPbc	PKPdf	14 55 17.6	+1.5
K17K	Iditarod	145.28	307		PKPdf	14 55 18.2	+1.6
LVZ	Lovozero	145.51	42	PKPdf	PKPab	14 55 18.6	+1.3
IMAR	Indian Mountai	145.52	314	PKPdf	PKPab	14 55 18.5	+1.1
G21K	Allakaket	145.74	315	PKPdf	PKPab	14 55 18.6	+0.4
C24K	Franklin Bluff	145.98	321	PKPdf	PKPab	14 55 19.4	+0.4
ADK	Adak	146.39	281	PKPdf	PKPbc	14 55 19.9	-0.3
KDJ	Kajisay	146.90	106	PKPdf	PKPdf	14 55 19.9	-0.4
LZDM	Lanzhou Array	151.46	148	PKPbc	PKiKP	14 55 36.4	+1.9
	comp=Z,1.2nm,0.3s,baz=224,slow=4.1,SNR=3.9						
BVAR	Borovoye Array	151.55	84	PKPbc	PKiKP	14 55 35.1	+1.4
	comp=Z,2.8nm,0.6s,baz=236,slow=1.6,SNR=14						
MKAR	Makanchi Array	152.82	106	PKPbc	PKiKP	14 55 37.9	+1.3
	comp=Z,0.9nm,0.6s,baz=225,slow=2.2,SNR=9.4						
MKAR				PKPab	PKPab	14 55 48.9	+1.4
	comp=Z,1.1nm,0.9s,baz=232,slow=3.1,SNR=3.6						

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*IDC **30** 14:41:56.2±2.2, 7°.35S×129°.32E, h108^{km}±30^{km}, mb3.0/1, mbtmp3.9/6, Error ellipse: s-maj=37.4km s-min=21.8km az=97.0*

ISC 30 14:41:53.7±0.8**, 7°.40S**±0°.06×**129°.40E**±0°.07**, h200**^{km}**, n13,** σ**2^{s}.93**/14**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SAUI	Saumlaki	1.97	107	P	Pn	14 42 34.2	+2.2
DRS	Darwin Rock St	5.22	164	P	Pn	14 43 16.6	+5.7
FAKI	Fak Fak	5.27	33	P	Pn	14 43 12.4	+0.7
SOEI	Soe	5.59	245	P	Pn	14 43 23.6	+7.7
BATI	Baumata	6.32	243	P	Pn	14 43 27.2	+2.0
	24nm,0.3s,baz=202,slow=5.5,SNR=2.6						
BATI				S	Sn	14 44 34.1	-3.5
	21nm,0.3s,baz=130,slow=21,SNR=6.2						
SIJI	Sorong	6.74	16	P	Pn	14 43 33.1	+2.3
	4.2nm,0.2s,baz=216,slow=23,SNR=30						
SIJI				S	Sn	14 44 41.8	-5.9
	6.1nm,0.2s,baz=222,slow=22,SNR=8.5						
FITZ	Fitzroy Crossi	11.25	199	P	P	14 44 34.1	-1.0
	1.8nm,0.3s,baz=26,slow=12,SNR=39						
FITZ				S	Sn	14 46 31.1	-3.5
	0.8nm,0.3s,baz=187,slow=20,SNR=1.4						
FITZ	Fitzroy Crossi	11.25	199	P	P	14 44 34.8	-0.2
PLAI	Plampang	11.60	262	P	P	14 44 41.5	+2.6
WRA	Warramunga Arr	13.36	159	P	P	14 45 01.2	+2.7
	0.7nm,0.3s,baz=338,slow=14,SNR=32						
WRA				S	S	14 47 22.7	-2.2
	2.7nm,0.6s,baz=340,slow=22,SNR=11						
ASAR	Alice Springs	16.75	166	P	Pn	14 45 45.7	+8.6
	0.7nm,0.5s,baz=337,slow=11,SNR=24						
ASAR				S	Sn	14 48 45.6	-0.1
	0.4nm,0.4s,baz=345,slow=26,SNR=4.8						
MTSU	Mount Surprise	18.03	128	P	P	14 45 49.7	-0.3
MKAR	Makanchi Array	68.23	327	P	P	14 52 44.5	+12
	0.2nm,0.5s,baz=115,slow=8.1,SNR=2.3						
	0.2nm,0.5s						

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*AZER **30** 15:13:23.7, 41°.06N×44°.31E, h4^{km}, ml1.8*

*NORS **30** 15:13:25.4, 41°.50N×43°.61E, h18^{km}, MPVA3.5*

ISC 30 15:13:22.1±1.5**, 41°.29N**±0°.05×**43°.96E**±0°.10**, h14**^{km}±14^{km}**, n7,** σ**1^{s}.00**/13**, Turkey-Georgia-Armenia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
QZX	Qazax, Azerbai	1.09	102	P	Pn	15 13 41.8	-1.3
QZX				S	Sb	15 13 56.9	0.0
IGDI	IGDIR	1.43	176	S	Sg	15 14 08.3	+0.2
GDB	GEDABAY	1.47	112	P	Pn	15 13 48.3	-0.2
GDB				S	Sn	15 14 07.1	-0.5
DIGR	Digorskoe uzhe	1.63	350	*e*Pg	Pb	15 13 51.3	-0.9
DIGR				*e*Sg	Sb	15 14 12.2	-0.5
KORR	Kora	1.79	3	*e*Pg	Pg	15 13 57.1	+0.4
KORR				*e*Sg	Sg	15 14 19.5	-0.5
GANJ	Ganja	1.90	109	Pn	Pb	15 13 56.5	-0.2
GANJ				Sn	Sn	15 14 20.0	+2.0

LSNR	Lesken	1.99	357	ePg	Pb	15 13 59.1	+0.9
LSNR				eSg	Sb	15 14 23.5	+0.7

IDC 30 15:34:33.5±445.0,53°.16N×38°.14E,h0^{km},Error ellipse: s-maj=190.1km s-min=79.9km az=177.0,Baltic States-Belarus-Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
I43RU	DUBNA INFRASON	3.61	352	I	I	15 56 00.0	
	baz=171,slow=314,SNR=2.2						
I31KZ	AKTYUBINSK INF	12.62	95	I	I	16 50 50.0	
	baz=291,slow=329,SNR=2.4						
I46RU	ZALESOVO INFRA	27.36	69	I	I	18 24 17.1	
	baz=285,slow=324,SNR=2.3						

MAN 30 15:36:47.0,9°.69N×126°.44E,h18^{km},MS2.5,Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GLSP	General Luna,	0.32	287	eS	Sn	15 37 01.6	-1.5
GLSP	General Luna,	0.32	287	i P	Pb	15 36 54.6	+0.4
TSSP	Tandag City	0.69	200	eS	Sn	15 37 13.7	+1.7
TSSP	Tandag City	0.69	200	eP	Pb	15 37 00.1	-0.3
BIPH	Bislig	1.50	183	eS	Sb	15 37 32.8	-0.2
BIPH	Bislig	1.50	183	eP	Pn	15 37 12.2	-0.8
CDOP	Cateel, Davao	1.89	180	i S	Sn	15 37 40.1	-1.8
CDOP	Cateel, Davao	1.89	180	i P	Pn	15 37 16.6	-1.9
PLP	Palo	2.05	316	eS	Sb	15 37 50.1	+1.1
PLP	Palo	2.05	316	eP	Pn	15 37 21.4	+0.7
CGP	Cagayan de Oro	2.12	235	eS	Sb	15 37 50.9	+0.1
CGP	Cagayan de Oro	2.12	235	eP	Pb	15 37 25.9	+1.1

IDC 30 15:36:49.6±1.7,1°.05S×127°.08E,h0^{km},mb3.1/3, mbtmp3.2/4,ML2.8/1,Error ellipse: s-maj=31.3km s-min=27.5km az=33.0,Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SIJI	Sorong	4.19	88	Pn	Pn	15 37 55.3	+0.5
	0.6nm,0.3s,baz=238,slow=23,SNR=11						
SIJI				Sn	Sn	15 38 37.6	-6.9
	1.1nm,0.3s,baz=214,slow=22,SNR=10 1.8nm,0.3s						
SIJI				AML	AML		
WRA	Warramunga Arr	20.07	160	P	P	15 41 24.7	0.0
	0.5nm,0.8s,baz=341,slow=11,SNR=4.7 0.5nm,0.8s						
ASAR	Alice Springs	23.43	164	P	P	15 42 00.6	-0.1
	0.4nm,0.5s,baz=344,slow=11,SNR=8.4 0.4nm,0.5s						
MKAR	Makanchi Array	61.69	327	P	P	15 47 09.5	-0.1
	0.1nm,0.3s,baz=117,slow=8.4,SNR=2.0 0.1nm,0.3s						

IDC 30 15:52:54.4±1.0,54°.46N×164°.29E,h0^{km},mb3.6/8, mbtmp3.6/10,ML3.1/2,MS2.4/1,Error ellipse: s-maj=33.1km s-min=14.7km az=157.0

KRSC 30 15:52:55.0±1.6,54°.37N×164°.25E,h60^{km}±22^{km},Ml3.7

ISC 30 15:52:54.1±2.0,54°.40N±0°.05×164°.26E±0°.07,h3^{km}±14^{km}, n52,σ1^{s}.56/63,mb3.7/8,Komandorsky Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BKI	Bering	1.28	50	eP	Pg	15 53 18.2	-0.5
BKI				eS	Sg	15 53 34.2	-1.0
MKZ	Mys Kozlova	1.48	277	eP	Pn	15 53 21.5	-0.3
MKZ				eS	Sn	15 53 39.3	-2.3
KBTR	Krutoberegovo	1.99	336	eP	Pn	15 53 27.4	-1.4
KBTR				eS	Sn	15 53 49.8	-4.3
KBG	Krutoberegovo	2.06	335	eS	Sn	15 53 53.6	-2.3
TUMD	Tumrok D	2.37	291	eP	Pn	15 53 34.3	+0.3
TUMD				eS	Sn	15 54 02.0	-1.6
KZV	Kizimen	2.41	289	eP	Pn	15 53 35.2	+0.6
KZV				eS	Sn	15 54 03.5	-1.1
TUMR	Tumrok	2.54	292	eP	Pn	15 53 37.5	+1.2
TUMR				eS	Sn	15 54 07.2	-0.6
ZLN	Zelenaya	2.56	311	eP	Pn	15 53 38.3	+1.7
BZGR	Bezymyannyi-Gr	2.56	309	eP	Pn	15 53 37.9	+1.3
BZGR				eS	Sn	15 54 07.9	-0.4
BZP	Bezymyannyi-Pe	2.62	307	eP	Pn	15 53 38.6	+1.1
LGNR	Loginova	2.65	311	eP	Pn	15 53 40.0	+2.0
BZMR	Bezymyannaya	2.65	307	eP	Pn	15 53 38.8	+0.8
BZWR	Bezymyannyi-We	2.67	308	eP	Pn	15 53 39.4	+1.2
KMNR	Kamenistaya	2.68	302	eP	Pn	15 53 39.3	+1.0
SMKR	Semkarok	2.70	325	eP	Pn	15 53 38.7	+0.2
KIRR	Kirishev	2.73	306	eP	Pn	15 53 40.2	+1.2
BDR	Baidarnaya	2.78	323	eP	Pn	15 53 40.6	+0.9
KRSR	Krestovskiy	2.79	312	eP	Pn	15 53 40.4	+0.7
KPT	Kopyto	2.79	306	eP	Pn	15 53 42.1	+2.2
KLY	Klyuchi	2.81	314	eP	Pn	15 53 39.6	-0.4
SPN	Mys Shipunski	2.83	244	eP	Pn	15 53 40.4	+0.1
SPN				eS	Sn	15 54 12.3	-2.6
KII	Karymskiy	2.85	265	eP	Pn	15 53 41.1	+0.6
KII				eS	Sn	15 54 13.7	-1.7
SRKR	Sorokina	2.86	323	eP	Pn	15 53 41.4	+0.7
KOZ	Kozyrevsk	3.01	305	eP	Pn	15 53 44.3	+1.5
NLC	Nalytchevo	3.16	249	eS	Sn	15 54 19.9	-3.1
SDLR	Sedlovina	3.38	253	eP	Pn	15 53 48.1	+0.2
SMAR	Somma	3.43	253	eP	Pn	15 53 49.0	+0.3
KRER	Koryakskii	3.44	254	eP	Pn	15 53 50.1	+1.3
AVH	Avacha	3.46	253	eP	Pn	15 53 49.9	+0.9
KRX	Arik	3.48	255	eP	Pn	15 53 49.9	+0.6
KOK	Koryaka	3.51	254	eP	Pn	15 53 50.6	+0.9
ESO	Esso	3.53	298	eP	Pn	15 53 50.5	+0.5
DALK	Dalny	3.54	249	eP	Pn	15 53 50.3	+0.2
DALK				eS	Sn	15 54 29.2	-3.2
INSR	Institute	3.61	251	eS	Sn	15 54 32.2	-2.0
GNL	Ganaly	3.79	262	eP	Pn	15 53 55.0	+1.5
RUS	Russkaya	3.96	242	eP	Pn	15 53 56.6	+0.8
KRMR	Karymshinskiy	3.97	249	eP	Pn	15 53 57.6	+1.7
KRMR				eS	Sn	15 54 42.3	-0.7
PETK	Petropavlovsk-	4.10	254	Pn	Pn	15 53 59.1	+1.3
	0.9nm,0.3s,baz=76,slow=18,SNR=30						
PETK				Sn	Sn	15 54 45.1	-1.1
	1.0nm,0.3s,baz=20,slow=17,SNR=4.1						
PETK				LR	LR	15 55 23.5	
	comp=Z,50nm,19.1s,baz=88,slow=36 1.9nm,0.5s						
PETK				AML	AML		
MTVR	Mutnovka	4.11	245	eP	Pn	15 53 59.2	+1.3
MTVR				eS	Sn	15 54 43.9	-2.7
GRL	Gorelyy	4.13	246	eP	Pn	15 53 57.6	-0.7
ASAK	Asacha	4.31	245	eP	Pn	15 54 01.3	+0.7
KDTR	Khodutka, Kamc	4.54	238	eS	Sn	15 54 52.1	-4.8
OSSR	Ossora	4.91	353	eP	Pn	15 54 08.5	-0.2
ASAJ	Asahikawa	17.41	243	P	Pn	15 56 59.1	+1.2
	0.2nm,0.3s,baz=345,slow=20,SNR=1.3 2.3nm,0.7s						
ASAJ				AML	AML		
ILAR	Eielson Array	26.12	47	P	P	15 58 28.9	-0.2
	1.0nm,0.8s,baz=254,slow=9.3,SNR=8.1 1.0nm,0.8s						
YKA	Yellowknife Ar	40.51	45	P	P	16 00 34.2	+0.3
	1.0nm,0.7s,baz=293,slow=7.7,SNR=2.6 1.0nm,0.7s						
KURBB	Kurchatov Arra	49.22	303	P	P	16 01 43.9	+0.5
	0.6nm,0.4s,baz=55,slow=7.7,SNR=6.1 0.6nm,0.4s						
MKAR	Makanchi Array	49.79	297	P	P	16 01 48.2	+0.3
	0.4nm,0.7s,baz=59,slow=7.2,SNR=4.2 0.4nm,0.7s						
BVAR	Borovoye Array	51.49	310	P	P	16 01 59.9	-0.6
	0.5nm,0.5s,baz=64,slow=7.0,SNR=2.3 0.5nm,0.5s						
TXAR	Lajitas Array	67.86	70	P	P	16 03 55.4	+1.6
	0.3nm,0.5s,baz=305,slow=6.0,SNR=3.6 0.3nm,0.5s						
WRA	Warramunga Arr	78.36	209	P	P	16 04 56.2	+0.5
	0.5nm,0.7s,baz=24,slow=6.2,SNR=2.8 0.5nm,0.7s						
ASAR	Alice Springs	82.02	208	P	P	16 05 15.7	+0.3
	0.5nm,0.9s,baz=10.0,slow=5.9,SNR=3.6 0.5nm,0.9s						

IDC 30 16:50:27.5±3.6,25°.27N×123°.86E,h148^{km}±43^{km},mb3.2/7, mbtmp3.7/9,Error ellipse: s-maj=36.0km s-min=20.6km az=67.0

JMA 30 16:50:28.9±0.2,25°N±2°×123°.7E±0°.5,h132^{km}±2^{km}, MV3.6/18,NW OFF ISHIGAKIJIMA IS

ISC 30 16:50:27.4±0.7,25°.17N±0°.08×123°.74E±0°.04,h146^{km}±7^{km}, n35,σ1^{s}.08/48,mb3.5/7,Northeast of Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JISG	Ishigakijimahi	0.78	138	P	Pn	16 50 50.1	0.0
JISG				S	Sn	16 51 06.3	-1.0
IRIF	Iriomote-Funau	0.83	180	P	Pn	16 50 50.3	-0.2
IRIF				eS	Sn	16 51 07.2	-0.9
JIJ	Ishigaki jima	0.88	155	P	Pn	16 50 50.8	-0.1
JIJ				eS	Sn	16 51 07.5	-1.3
JKRS	Kuro-shima	0.96	165	P	Pn	16 50 51.9	+0.4
JKRS				eS	Sn	16 51 09.3	-0.5
YOJ	Yonaguni jima	0.96	223	eP	Pn	16 50 51.7	+0.2
YOJ				S	Sn	16 51 08.8	-1.0
JYNG	Yonagunijimaku	1.01	225	P	Pn	16 50 52.1	+0.2
JYNG				S	Sn	16 51 09.7	-0.9
JTJ	Tarama	1.02	121	P	Pn	16 50 52.5	+0.4
JTJ				eS	Sn	16 51 10.5	-0.3
HATJ	Hateruma jima	1.11	177	eP	Pn	16 50 53.2	+0.3
HATJ				eS	Sn	16 51 11.7	-0.5
JIRJ	Irabujima	1.36	104	eP	Pn	16 50 55.7	+0.4
JIRJ				eS	Sn	16 51 16.2	-0.4
JIKM	Ikemajima	1.39	100	eP	Pn	16 50 56.3	+0.8
JIKM				eS	Sn	16 51 17.2	+0.2
JMJ2	Miyako jima3	1.51	106	eP	Pn	16 50 57.8	+1.0
JMJ2				eS	Sn	16 51 19.8	+0.6
JOGS	Gusukube	1.57	105	eP	Pn	16 50 58.5	+1.1
JOGS				eS	Sn	16 51 21.3	+0.9
TATO	Taipei	2.05	265	P	Pn	16 51 04.2	+1.3
NACB	Ninganchiao	2.19	243	P	Pn	16 51 04.6	+0.1
NACB	Ninganchiao	2.19	243	S	Sn	16 51 32.6	-0.4
YHNB	Yeheng	2.20	257	P	Pn	16 51 06.2	+1.4
YHNB	Yeheng	2.20	257	S	Sn	16 51 33.9	+0.4
YULB	Yu-li	2.84	232	P	Pn	16 51 12.2	-0.5
YULB	Yu-li	2.84	232	S	Sn	16 51 44.6	-3.0
SSLB	Suanglung	2.88	242	P	Pn	16 51 13.6	+0.4
SSLB	Suanglung	2.88	242	S	Sn	16 51 47.3	-1.2
TWGBT	Beinan	3.37	227	P	Pn	16 51 19.0	-0.5
TWGBT	Beinan	3.37	227	S	Sn	16 51 57.2	-2.5
TPUB	Ta-pu	3.39	237	P	Pn	16 51 21.0	+1.3
TPUB	Ta-pu	3.39	237	S	Sn	16 51 59.8	-0.4
JOW	Kunigami	4.41	67	P	Pn	16 51 32.1	-0.8
	53nm,0.2s,baz=100,slow=17,SNR=58						
JOW				S	Sn	16 52 20.3	-3.6
	10nm,0.3s,baz=92,slow=23,SNR=1.6						
KSRS	Korea Array	12.76	15	P	Pn	16 53 23.2	-0.3
	0.7nm,0.7s,baz=181,slow=12,SNR=4.2						
CMAR	Chiang Mai Arr	23.94	259	P	P	16 55 29.1	+0.9
	0.5nm,0.8s,baz=59,slow=8.4,SNR=4.1 0.5nm,0.8s						
MKAR	Makanchi Array	39.29	314	P	P	16 57 41.6	-0.3
	0.3nm,0.3s,baz=103,slow=9.1,SNR=9.3 0.3nm,0.3s						
ZALV	Zalesovo Beam	40.72	325	P	P	16 57 53.0	-0.6
	0.5nm,0.3s,baz=113,slow=8.9,SNR=4.2 0.5nm,0.3s						
KURBB	Kurchatov Arra	42.88	318	P	P	16 58 11.3	+0.2
	0.2nm,0.4s,baz=114,slow=7.4,SNR=6.6 0.2nm,0.4s						
WRA	Warramunga Arr	46.01	166	P	P	16 58 36.9	+0.6
	0.1nm,0.4s,baz=7.7,slow=7.8,SNR=4.8 0.1nm,0.4s						
BVAR	Borovoye Array	48.41	320	P	P	16 58 54.5	0.0
	0.8nm,0.3s,baz=94,slow=8.8,SNR=3.5 0.8nm,0.3s						
ASAR	Alice Springs	49.54	168	PcP	PcP	17 00 24.1	+1.0
	0.2nm,0.8s,baz=355,slow=5.1,SNR=2.2						
FINES	FINESS Array B	71.77	330	P	P	17 01 33.5	0.0
	0.5nm,0.6s,baz=45,slow=4.1,SNR=1.8 0.5nm,0.6s						

IDC 30 16:58:39.9±0.7,62°.09S×57°.90W,h0^{km},mb4.2/9, mbtmp4.1/10,ML3.7/1,MS3.7/21,Error ellipse: s-maj=24.0km s-min=15.0km az=107.0

NEIC 30 16:58:42.1±2.2,62°.33S±0°.06×58°.5W±0°.2,h10^{km}±1^{km}, mb4.8/15,Error ellipse: s-maj=13.4km s-min=8.2km az=238.0

GFZ 30 16:58:43.8±0.2,62°S±4°×5°8W±°,h10^{km},M4.5/12, mb4.5/12,confirmed

ISC 30 16:58:42.1±0.9,62°.27S±0°.05×58°.49W±0°.06,h12^{km}±5^{km}, n105,σ1^{s}.93/87,mb4.5/25,MS3.7/21,3D,South Shetland Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JUBA	Jubany	0.09	292	eP	Pg	16 58 44.7	-0.1
JUBA				i S	Sg	16 58 47.2	+0.5
JUBA				IAML		16 58 50.6	
	comp=Z,104µm,1.1s						
ESPZ	Base Esperanza	1.32	149	eP	Pn	16 59 03.3	-3.0
ESPZ				eS	Sb	16 59 20.0	-3.6
ESPZ	Base Esperanza	1.32	149	Pn	Pn	16 59 03.2	-3.0
PMSA	Palmer Station	3.54	222	Pn	Pn	16 59 37.5	+0.9
	comp=Z,4.8nm,0.3s,baz=56,slow=11,SNR=4.8						
PMSA				Sn	Sn	17 00 20.4	+2.0
	comp=Z,13nm,0.3s,baz=298,slow=19,SNR=4.1						
PMSA				LR	LR	17 00 55.7	
	comp=Z,2µm,18.6s,baz=34,slow=35 comp=Z,27nm,0.7s						
PMSA				AML	AML		
PMSA	Palmer Station	3.54	222	eP	Pn	16 59 37.2	+0.5
PMSA				eS	Sn	17 00 19.0	+0.7
PMSA	Palmer Station	3.54	222	Pn	Pn	16 59 36.3	-0.3
PMSA	Palmer Station	3.54	222	P	Pb	16 59 40.7	-3.8
ORCD	Orcadas	6.76	83	eP	Pn	17 00 23.4	+2.5
ORCD				i S	Sn	17 01 38.1	+0.5
ORCD				IAML		17 02 18.6	
	comp=Z,62nm,3.3s						
ORCD	Orcadas	6.76	83	Pn	Pn	17 00 21.7	+0.9
SMAI	San Martin Ant	6.90	208	eP	Pn	17 00 26.2	+3.3
SMAI	San Martin Ant	6.90	208	Pn	Pn	17 00 21.8	-1.0
USHA	Ushuaia	9.08	321	Sn	Sn	17 02 28.9	-5.9
	comp=Z,1.5nm,0.3s,baz=49,slow=18,SNR=2.1						
DSPA	Despedida	9.80	324	i P	Pn	17 01 09.4	+6.8
EFI	East Falkland	10.62	1	eP	Pn	17 01 16.3	+2.4
EFI				i S	Sn	17 03 10.1	-2.5
EFI	East Falkland	10.62	1	Pn	Pn	17 01 16.1	+2.3
VNA3	Neumayer Olymp	20.62	136	⇓P	P	17 03 21.8	+1.1
	comp=Z,14nm,0.8s						
VNA3	Neumayer Olymp	20.62	136	P	Pn	17 03 22.4	-0.6
	comp=Z,24nm,0.9s						
VNA1	Neumayer--Stat	21.08	135	P	P	17 03 25.9	+0.2
	comp=Z,15nm,0.9s						
VNA2	Neumayer--Watz	21.36	135	P	P	17 03 30.4	+1.7
	comp=Z,7.2nm,0.8s,baz=262,slow=9.4						
VNA2	Neumayer--Watz	21.36	135	P	P	17 03 29.8	+1.1
	comp=Z,19nm,1.1s						
PLCA	Paso Flores	22.76	336	P	P	17 03 44.3	+0.3
	comp=Z,3.0nm,0.8s,baz=167,slow=14,SNR=4.3						
PLCA				LR	LR	17 12 41.6	
	comp=Z,198nm,18.1s,baz=165,slow=37 comp=Z,3.0nm,0.8s						
PLCA	Paso Flores	22.76	336	P	P	17 03 45.1	+1.1
PLCA				IAmb	IAmb	17 03 55.4	
	comp=Z,44nm,1.9s						
PLCA	Paso Flores	22.76	336	P	P	17 03 46.5	+2.5
SNAA	Sanae	22.79	138	⇓P	P	17 03 44.8	+0.8
	comp=Z,210nm,1.0s						
SNAA	Sanae	22.79	138	P	P	17 03 43.6	-0.4
	comp=Z,8.1nm,0.9s,baz=274,slow=12,SNR=9.4						
SNAA				LR	LR	17 11 09.0	
	comp=Z,231nm,21.3s,baz=252,slow=33 comp=Z,8.1nm,0.9s						
SNAA	Sanae	22.79	138		P	17 03 42.1	-1.9
SNAA	Sanae	22.79	138	P	P	17 03 43.9	-0.2
	comp=Z,16nm,1.3s						
GO06	Curarrehue	24.05	335	P	P	17 03 57.6	+0.7
GO06				IAmb	IAmb	17 04 02.4	
	comp=Z,28nm,1.1s						
GO06	Curarrehue	24.05	335	P	P	17 03 59.7	+2.8
	comp=Z,27nm,1.0s						
TROLL	Troll, Antarti	24.42	139	P	P	17 04 01.3	+1.2
	comp=Z,335nm,1.0s						
QSPA	South Pole Qui	27.96	180	P	P	17 04 34.8	+2.8
	comp=Z,4.0nm,0.9s,baz=180,slow=2.2,SNR=16						
QSPA				LR	LR	17 16 06.6	
	comp=Z,138nm,19.0s,baz=168,slow=37 comp=Z,4.0nm,0.9s						
QSPA	South Pole Qui	27.96	180	P	P	17 04 34.5	+2.4
QSPA	South Pole Qui	27.96	180	P	P	17 04 34.8	+2.8
	comp=Z,8.5nm,1.1s						
BO02	Sierra Bellavi	28.57	339	P	P	17 04 39.3	+1.7
	comp=Z,9.8nm,0.9s						
MT08	Bocatoma Ro	29.77	340	P	P	17 04 49.6	+1.1
MT08				IAmb	IAmb	17 04 55.9	
	comp=Z,18nm,1.1s						
VA03	San Esteban	30.52	340	P	P	17 04 57.2	+2.3
VA03	San Esteban	30.52	340	P	P	17 04 58.4	+3.4
	comp=Z,29nm,1.1s						
ELIB	Princess Elisa	30.63	143	dP	P	17 04 55.9	+0.2
	comp=Z,2.5nm,1.4s						
CO02	Combarbal	32.12	340	P	P	17 05 10.3	+1.2
CO02				IAmb	IAmb	17 05 10.6	
	comp=Z,14nm,0.8s						
CO03	El Pedregal	32.42	340	P	P	17 05 12.1	+0.4
CO03				IAmb	IAmb	17 05 14.0	
	comp=Z,11nm,0.9s						
CO03	El Pedregal	32.42	340	P	P	17 05 12.4	+0.6
GO04	Tololo Observa	33.09	340	P	P	17 05 18.1	+0.4
GO04	Tololo Observa	33.09	340	P	P	17 05 18.4	+0.6
	comp=Z,34nm,1.7s						
CO01	Juntas del Tor	33.18	341	P	P	17 05 18.9	+0.4
CO01				IAmb	IAmb	17 05 30.7	
	comp=Z,15nm,1.2s						
CO01	Juntas del Tor	33.18	341	P	P	17 05 20.8	+2.3
CPUP	Villa Florida	35.94	2	P	P	17 05 41.2	-0.9
	comp=Z,1.6nm,0.8s,baz=167,slow=8.7,SNR=3.8						
CPUP				LR	LR	17 20 48.8	
	comp=Z,63nm,18.8s,baz=239,slow=37 comp=Z,1.6nm,0.8s						
VNDA	Vanda	38.27	193	LR	LR	17 23 12.4	
	comp=Z,85nm,20.0s,baz=156,slow=38						
SALTA		38.40	348	P	P	17 06 04.0	+0.4
	comp=Z,5.2nm,1.8s						
PB11	IPOC Station P	43.17	345	P	P	17 06 46.0	+3.4
	comp=Z,17nm,1.8s						
PSGCX	Pisagua	43.40	344	P	P	17 06 46.1	+1.8
PSGCX				IAmb	IAmb	17 08 03.4	
	comp=Z,36nm,1.5s						
MAW	Mawson	43.69	152	P	P	17 06 47.4	+1.4
	comp=Z,4.1nm,1.0s,baz=243,slow=10,SNR=8.3						
MAW				LR	LR	17 25 04.4	
	comp=Z,227nm,18.5s,baz=210,slow=36 comp=Z,4.1nm,1.0s						
MAW	Mawson	43.69	152	P	P	17 06 47.1	+1.0
MAW	Mawson	43.69	152	P	P	17 06 48.7	+2.7
	comp=Z,0.8nm,1.0s						
LPAZ	La Paz	46.43	347	LR	LR	17 27 26.4	
	comp=Z,54nm,18.1s,baz=154,slow=37						
BDFB	Brasilia	47.16	14	P	P	17 07 13.3	-0.9
	comp=Z,2.2nm,0.4s,baz=244,slow=2.0,SNR=4.0						
BDFB				LR	LR	17 25 37.6	
	comp=Z,90nm,21.5s,baz=131,slow=34 comp=Z,2.2nm,0.4s						
BDFB	Brasilia	47.16	14	P	P	17 07 13.0	-1.2
BDFB				IAmb	IAmb	17 07 15.9	
	comp=Z,15nm,1.4s						
RPN	Rapa Nui	48.39	292	LR	LR	17 22 16.8	
	comp=Z,106nm,21.0s,baz=120,slow=29						
NNA	Nana	51.92	337	LR	LR	17 28 06.2	
	comp=Z,96nm,18.6s,baz=160,slow=34						
ATAH	Atahualpa	56.94	336	LR	LR	17 30 03.2	
	comp=Z,25nm,21.4s,baz=288,slow=33						
SUR	Sutherland	57.01	98	LR	LR	17 28 10.8	
	comp=Z,70nm,19.3s,baz=179,slow=31						
BOSA	Boshof	62.23	99	LR	LR	17 30 23.7	
	comp=Z,32nm,20.3s,baz=191,slow=31						
H10N3	ASCENSION HYDR	63.05	51	T	T	18 17 36.7	
	baz=201,slow=75,SNR=4.1						
H10N1	ASCENSION HYDR	63.05	51	T	T	18 17 40.9	
	baz=201,slow=75,SNR=4.5						
H10N2	ASCENSION HYDR	63.07	51	T	T	18 17 38.1	
	baz=201,slow=75,SNR=3.4						
BOAV	Boa Vista	64.51	358	P	P	17 09 17.8	-0.7
BOAV				IAmb	IAmb	17 09 30.8	
	comp=Z,10nm,1.4s						
LBTB	Lobatse	65.45	97	LR	LR	17 33 28.3	
	comp=Z,57nm,18.4s,baz=188,slow=32						
RPZ	Rata Peaks	67.13	217	P	P	17 09 38.0	+2.8
MATP	Matopo	70.75	97	LR	LR	17 36 52.9	
	comp=Z,55nm,18.1s,baz=196,slow=32						
LSZ	Lusaka	75.07	94	LR	LR	17 38 45.6	
	comp=Z,71nm,19.4s,baz=176,slow=32						
LSZ	Lusaka	75.07	94	P	P	17 10 23.2	-0.5
	comp=Z,6.4nm,1.9s						
PPT2	Papeete2	75.11	261	eLR	LR	17 33 24.8	
	comp=Z,138nm,25.8s						
PPT2				eLR	LR	17 33 27.1	
	comp=Z,122nm,25.0s						
PPT	Papeete	75.13	261	LR	LR	17 36 27.8	
	comp=Z,37nm,20.9s,baz=177,slow=30						
DBIC	Dimbokro	80.01	54	LR	LR	17 38 29.9	
	comp=Z,36nm,20.7s,baz=172,slow=30						
STKA	Stephens Creek	84.79	197	LR	LR	17 47 27.7	
	comp=Z,22nm,18.1s,baz=202,slow=34						
TEIG	Tepich	85.56	332	P	P	17 11 20.7	+1.1
TORD	Torodi Ar. Bea	88.46	58	P	P	17 11 31.8	-2.1
	comp=Z,0.4nm,0.7s,baz=225,slow=3.7,SNR=2.5 comp=Z,0.4nm,0.7s						
MBAR	Mbarara	89.11	90	LR	LR	17 48 38.8	
	comp=Z,36nm,18.1s,baz=226,slow=34						
QLP	Quilpie	89.60	200	P	P	17 11 41.8	+2.5
	comp=Z,15nm,2.0s						
ASAR	Alice Springs	93.79	191	P	P	17 11 59.3	+0.5
	comp=Z,0.7nm,1.1s,baz=183,slow=4.3,SNR=3.2 comp=Z,0.7nm,1.1s						
WRA	Warramunga Arr	97.44	192	P	P	17 12 14.9	-0.5
	comp=Z,1.2nm,1.2s,baz=170,slow=4.3,SNR=1.7 comp=Z,1.2nm,1.2s						
GERES	GERESS Array B	124.68	50	PKP	PKPdf	17 17 37.6	-2.7
	comp=Z,0.4nm,0.2s,baz=182,slow=3.9,SNR=4.9						
CLL	Collm	126.50	48	L	L	18 25 00.0	
BURAR	Bucovina Array	128.03	59	PKPdf	PKPdf	17 17 45.6	-1.1
PZH	PanZhiHua	141.88	151	PKP	PKPdf	17 18 12.0	-1.3
KSH2	Kashi	143.96	108	PKP	PKPab	17 18 13.8	-0.1
ARCES	ARCESS Array B	144.11	37	PKhKP	PKPpre	17 18 09.7	
	comp=Z,4.5nm,0.8s,baz=209,slow=2.2,SNR=10						
AB31	Akbulak array	144.45	82	PKPdf	PKPab	17 18 12.7	-2.5
ABKAR	Akbulak array	144.45	82	PKPdf	PKPab	17 18 12.8	-2.3
ARSB	Arslanbob	144.56	103	PKPdf	PKPbc	17 18 16.9	+0.7
KK31	Karatay Array	144.82	99	PKPdf	PKPdf	17 18 17.7	0.0
KKAR	Karatay Array	144.82	99	PKPdf	PKPab	17 18 16.1	-0.7
LVZ	Lovozero	145.88	42	PKPdf	PKPdf	17 18 17.9	-0.9
GOMU	GeErMu	149.06	135	PKPbc	PKPdf	17 18 27.3	+1.7
NJ2	Nanjing	149.72	176	eP	PKPdf	17 18 27.0	+0.8
NJ2				pmax	pmax		
	comp=Z,9.0nm,0.6s						
LZH	Lanzhou	151.56	149	ePKPbc	PKiKP	17 18 37.3	+1.5
LZH				sPKP	sPKPab	17 18 45.3	-3.8
BVAR	Borovoye Array	151.85	85	PKPbc	PKPbc	17 18 34.1	-1.1
	comp=Z,1.9nm,0.5s,baz=242,slow=2.0,SNR=17						
MJAR	Matsushiro Arr	152.23	210	PKPbc	PKPbc	17 18 36.6	-0.1
	comp=Z,0.6nm,0.6s,baz=157,slow=6.6,SNR=1.9						
WMQ	Urumqi	153.02	117	ePKPbc	PKPdf	17 18 32.3	+1.3
WMQ				LR	LR		
	comp=Z,93nm,24.1s						
MKAR	Makanchi Array	153.02	107	PKPbc	PKPbc	17 18 36.6	-1.6
	comp=Z,0.6nm,0.7s,baz=218,slow=1.3,SNR=6.1						
MKAR	Makanchi Array	153.02	107		PKPbc	17 18 37.1	-1.0
GTA2	Gaotai	153.64	140	ePKPbc	PKiKP	17 18 40.5	+0.5
KURBB	Kurchatov Arra	154.07	97	PKPbc	PKPbc	17 18 38.2	-2.0
	comp=Z,0.5nm,0.5s,baz=228,slow=2.5,SNR=4.5						
KURK	Kurchatov	154.18	97		PKPbc	17 18 38.6	-1.9
HHC	Hu-ho-hao-te	157.73	160	eP	PKPdf	17 18 34.0	-3.5
SONM	Songino Array	163.21	143	PKP	PKPdf	17 18 41.3	-2.1
	comp=Z,2.5nm,0.4s,baz=194,slow=5.3,SNR=2.5						

IDC 30 17:40:55.8±1.2,14°.36N×93°.96W,h0^{km},mb4.1/8, mbtmp4.0/11,ML3.6/3,MS3.6/30,Error ellipse: s-maj=34.0km s-min=14.8km az=36.0

MEX 30 17:40:58.7±0.7,14°.36N×94°.09W,h16^{km}±22^{km},MD4.6, Presumed earthquake

NEIC 30 17:40:58.6±1.7,14°.56N±0°.06×93°.92W±0°.05,h9^{km}±4^{km}, mb4.4/97,Md4.6/63(MEX),Error ellipse: s-maj=10.2km s-min=6.3km az=208.0

GCG 30 17:40:59.6±1.5,14°.42N×94°.02W,h35^{km}±73^{km},MD5.1, Presumed earthquake

ISC 30 17:40:58.0±3.6,14°.50N±0°.05×94°.06W±0°.03,h17^{km}±22^{km}, n206,σ2^{s}.09/210,mb4.4/30,MS3.7/28,Off coast of Chiapas

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PATR	El Naranjo	1.87	70	eP	Pn	17 41 27.5	-2.0
PATR				eS	Sn	17 41 50.9	-1.9

PATR	El Naranjo	1.87	70		Pn	17 41 27.5	-2.0
PATR					Sn	17 41 50.9	-1.9
PAVE	Pavencul	1.95	69	*e*P	Pn	17 41 29.5	-1.0
PAVE				*e*S	Sn	17 41 52.4	-2.3
PAVE	Pavencul	1.95	69		Pn	17 41 29.5	-1.0
PAVE					Sn	17 41 52.4	-2.3
CHUJ	Union Juarez	1.98	72	*e*P	Pn	17 41 29.1	-1.9
CHUJ				*e*S	Sn	17 41 53.5	-2.0
RTAL	Retalhuleu	2.29	89	*e*P	Pn	17 41 33.2	-1.9
RTAL				*e*S	Sn	17 41 59.7	-3.1
RTAL	Retalhuleu	2.29	89	Pn	Pn	17 41 34.5	-0.5
RTAL				Sn	Sn	17 42 01.9	-0.9
HUIG	Huatulco	2.35	303	*e*P	Pn	17 41 34.9	-1.0
HUIG				*e*S	Sn	17 42 00.0	-4.3
HUIG	Huatulco	2.35	303		Pn	17 41 34.9	-1.0
HUIG					Sn	17 42 00.0	-4.3
TGIG		2.44	22	*e*P	Pn	17 41 38.0	+0.8
TGIG				*e*S	Sn	17 42 08.0	+1.3
HUEH	Huehuetenango	2.60	71	*e*P	Pn	17 41 40.0	+0.5
HUEH				*e*S	Sn	17 42 12.5	+1.6
HUEH	Huehuetenango	2.60	71		Pn	17 41 39.7	+0.2
HUEH				Sn	Sn	17 42 11.2	+0.3
HUEH	Huehuetenango	2.60	71	*e*P	Pn	17 41 40.7	+1.1
STG8	El Palmar, Qui	2.62	91	*i* P	Pn	17 41 35.7	-4.2
CMIG	Matias Romero	2.70	343	Pn	Pn	17 41 41.1	+0.4
	32nm,0.3s,baz=178,slow=13,SNR=168						
CMIG				Sn	Sn	17 42 11.4	-1.7
	36nm,0.3s,baz=170,slow=12,SNR=5.3						
CMIG				LR	LR	17 42 39.8	
	comp=Z,274nm,20.4s,baz=262,slow=36						
	74nm,0.3s						
CMIG				AML	AML		
CMIG	Matias Romero	2.70	343	*e*P	Pn	17 41 40.3	-0.4
CMIG				*e*S	Sn	17 42 06.9	-6.2
CMIG	Matias Romero	2.70	343		Pn	17 41 40.3	-0.4
CMIG					Sn	17 42 06.9	-6.2
UXUV	UXUV	2.81	358	*e*P	Pn	17 41 43.4	+1.2
UXUV				*e*S	Sn	17 42 16.2	+0.5
UXUV	UXUV	2.81	358		Pn	17 41 43.4	+1.2
UXUV					Sn	17 42 16.2	+0.5
QUIS	Sacapulas	2.97	74	*e*P	Pn	17 41 46.5	+1.9
APG	El Apazote	3.51	81	Pn	Pn	17 41 51.6	-0.5
	0.9nm,0.3s,baz=179,slow=11,SNR=28						
APG				Sn	Sn	17 42 24.4	-9.0
	1.2nm,0.3s,baz=228,slow=20,SNR=8.4						
APG				AML	AML		
APG	El Apazote	3.51	81	*e*P	Pn	17 41 53.0	+0.9
NEUV	Arroyo Zacate	3.61	333	*e*P	Pn	17 41 54.5	+1.2
NEUV				*e*S	Sn	17 42 34.9	-0.6
NEUV	Arroyo Zacate	3.61	333		Pn	17 41 54.5	+1.2
NEUV					Sn	17 42 34.9	-0.6
OXIG	Oaxaca	3.63	315		Pn	17 41 55.7	+1.9
OXIG					Sn	17 42 34.7	-1.7
VHO	Vista Hermosa	3.63	315	*e*P	Pn	17 41 55.7	+1.9
VHO				*e*S	Sn	17 42 34.7	-1.7
YOIG	Yosondua	4.10	305	*e*P	Pn	17 42 02.1	+1.9
YOIG				*e*S	Sn	17 42 47.2	-0.7
YOIG	Yosondua	4.10	305		Pn	17 42 02.1	+1.9
YOIG					Sn	17 42 47.2	-0.7
NUBE	Las Nubes	4.19	98	*e*P	Pn	17 42 01.2	-0.1
JAYA	Jayaque - finc	4.55	100	*e*P	Pn	17 42 06.2	-0.1
MTO3	Montecristo	4.55	91		Pn	17 42 06.0	-0.4
MTO3	Montecristo	4.55	91	*e*P	Pn	17 42 06.4	0.0
ESQI	Esquipulas	4.57	89		Pn	17 42 06.2	-0.3
TOIG	Toxpalan	4.60	322	*e*P	Pn	17 42 09.6	+2.7
TOIG				*e*S	Sn	17 43 02.1	+2.0
TOIG	Toxpalan	4.60	322		Pn	17 42 09.6	+2.7
TOIG					Sn	17 43 02.1	+2.0
PETF	Flores	4.70	59	*e*P	Pn	17 42 07.9	-0.3
PETF				*e*S	Sn	17 43 00.4	-1.9
PETF	Flores	4.70	59		Pn	17 42 08.8	+0.6
PETF	Flores	4.70	59		Sn	17 43 00.4	-1.9
PETF	Flores	4.70	59	*e*P	Pn	17 42 09.4	+1.3
TPIG	Tehuac#an	5.03	321	*e*P	Pn	17 42 16.2	+3.3
TPIG				*e*S	Sb	17 43 20.0	-6.0
TPIG	Tehuac#an	5.03	321		Pn	17 42 16.2	+3.3
TPIG					Sb	17 43 20.0	-6.0
MGIG	Malinaltepec	5.18	302	*e*P	Pn	17 42 17.2	+2.3
MGIG				*e*S	Sn	17 43 12.1	-2.3
MGIG	Malinaltepec	5.18	302		Pn	17 42 17.2	+2.3
MGIG					Sn	17 43 12.1	-2.3
FTIG	Fresnillo de T	5.18	311	*e*P	Pn	17 42 17.9	+3.0
FTIG				*e*S	Sn	17 43 10.9	-3.5
FTIG	Fresnillo de T	5.18	311		Pn	17 42 17.9	+3.0
FTIG					Sn	17 43 10.9	-3.5
SCIG	Sabancuy	5.23	31	*e*P	Pn	17 42 10.6	-4.9
SCIG				*e*S	Sn	17 43 10.3	-5.1
SCIG	Sabancuy	5.23	31		Pn	17 42 10.6	-4.9
SCIG					Sn	17 43 10.3	-5.1
TLIG	Tlapa	5.30	306	*e*P	Pn	17 42 20.0	+3.4
TLIG				*e*S	Sn	17 43 17.7	+0.3
TLIG	Tlapa	5.30	306		Pn	17 42 18.9	+2.3
TLIG	Tlapa	5.30	306		Sn	17 43 17.7	+0.3
CRIG	Cruz Grande	5.37	295	*e*P	Pn	17 42 18.7	+1.2
CRIG				*e*S	Sn	17 43 12.2	-6.8
CRIG	Cruz Grande	5.37	295		Pn	17 42 18.7	+1.2
CRIG					Sn	17 43 12.2	-6.8
JAUV	Jalcomulco	5.51	332	*e*P	Pn	17 42 17.9	-1.5
JAUV				*e*S	Sn	17 43 18.3	-4.1
JAUV	Jalcomulco	5.51	332		Pn	17 42 17.9	-1.5
JAUV					Sn	17 43 18.3	-4.1
DAIG	Los Arroyos	5.94	296	*e*P	Pn	17 42 26.3	+1.0
DAIG				*e*S	Sn	17 43 27.9	-5.1
DAIG	Los Arroyos	5.94	296		Pn	17 42 26.3	+1.0
DAIG					Sn	17 43 27.9	-5.1
PPCU	Popocatapetl	6.26	316	*e*P	Pn	17 42 35.5	+5.3
PPCU	Popocatapetl	6.26	316		Pn	17 42 35.5	+5.3
PBXN	Popocatepetl	6.29	316	*e*P	Pn	17 42 35.5	+5.0
PBPN	Popocatepetl	6.29	317	*e*P	Pn	17 42 35.5	+4.9
PPM	Popocatepetl	6.31	317	*e*P	Pn	17 42 35.5	+4.6
PPM				*e*S	Sn	17 43 42.8	0.0
PPIG	Popocatepetl	6.31	317		Pn	17 42 35.5	+4.6
PPIG					Sn	17 43 42.8	0.0
MEIG	Mezcala	6.34	303	*e*P	Pn	17 42 33.5	+2.7
MEIG				*e*S	Sn	17 43 44.8	+1.8
MEIG	Mezcala	6.34	303		Pn	17 42 33.5	+2.7
MEIG					Sn	17 43 44.8	+1.8
YAIG	Yautepec	6.47	313	*e*P	Pn	17 42 36.7	+4.0
YAIG				*e*S	Sn	17 43 44.9	-1.4
YAIG	Yautepec	6.47	313		Pn	17 42 36.7	+4.0
YAIG					Sn	17 43 44.9	-1.4
CAIG	El Cayaco	6.50	294	*e*P	Pn	17 42 35.1	+2.2
CAIG				*e*S	Sn	17 43 41.8	-4.8
CAIG	El Cayaco	6.50	294		Pn	17 42 35.1	+2.2
CAIG					Sn	17 43 41.8	-4.8
PLIG	Platanillo	6.50	307	*e*P	Pn	17 42 37.2	+4.1
PLIG				*e*S	Sn	17 43 44.5	-2.5
PLIG	Platanillo	6.50	307		Pn	17 42 37.2	+4.1
PLIG					Sn	17 43 44.5	-2.5
CXUV	Coxquihui	6.58	330	*e*P	Pn	17 42 34.5	+0.4
CXUV				*e*S	Sn	17 43 46.9	-1.8
CXUV	Coxquihui	6.58	330		Pn	17 42 34.5	+0.4
CXUV					Sn	17 43 46.9	-1.8
TEIG	Tepich	7.93	43		Pn	17 42 52.5	-0.1
JTS	Las Juntas de	9.83	114	Pn	Pn	17 43 17.1	-1.6
	0.8nm,0.3s,baz=246,slow=19,SNR=1.4						
	2.2nm,0.3s						
JTS				AML	AML		
LCR2	La Lucha 2	10.90	115	Pn	Pn	17 43 30.2	-3.4
RAFA	San Farael, Vo	10.98	113	Pn	Pn	17 43 33.2	-1.6
ZAIG	Zacatecas	11.52	317	Pn	Pn	17 43 44.4	+2.3
HBVL	Hebbronville	13.23	342	Pn	Pn	17 44 06.8	+1.7
833A	Chaparral WMA,	14.63	341	Pn	Pn	17 44 24.2	0.0
EF02	Christine	14.80	344	Pn	Pn	17 44 28.1	+1.4
HKT	Hockley	15.47	354	Pn	Pn	17 44 35.7	+0.3
HNDO	Hondo	15.72	343	Pn	Pn	17 44 38.9	+0.1
HNDO				IAmb	IAmb	17 44 50.7	
	comp=Z,29nm,1.0s						
CAIB	Caibarien	15.95	58		Pn	17 44 40.3	-1.4
CAIB				IAmb	IAmb	17 44 46.7	
	comp=Z,29nm,1.1s						
HNVL	Huntsville, TX	16.24	356	Pn	Pn	17 44 45.3	-0.1
HPIG		16.45	321	Pn	Pn	17 44 48.1	-0.2
435B	Jarrell	16.53	349	Pn	Pn	17 44 49.1	0.0
435B				IAmb	IAmb	17 45 07.2	
	comp=Z,28nm,0.8s						
JCT	Junction City	16.76	343	Pn	Pn	17 44 51.1	-1.1
JCT				IAmb	IAmb	17 45 05.1	
	comp=Z,17nm,0.8s						
SAND	Sanderson	17.09	336		P	17 44 58.2	+0.2
NATX	Nacogdoches	17.19	358	Pn	Pn	17 44 56.8	-0.7
TXAR	Lajitas Array	17.23	331	P	P	17 45 00.5	+0.9
	comp=Z,0.8nm,0.8s,baz=151,slow=11,SNR=6.3						
TXAR	Lajitas Array	17.23	331	P	P	17 45 00.3	+0.7
TX31	Lajitas Ar. Si	17.23	331		Pn	17 44 58.6	+0.5
BRDY	Brady	17.32	346		P	17 45 00.3	-0.1
OZNA	Ozona	17.59	340		P	17 45 04.0	+0.5
OZNA				IAmb	IAmb	17 45 14.5	
	comp=Z,45nm,1.2s						
LPIG	La Paz	18.05	304	LR	LR	17 51 05.3	
	comp=Z,76nm,19.8s,baz=90,slow=34						
ALPN	Alpine	18.10	332	P	P	17 45 10.5	+1.3
ALPN				IAmb	IAmb	17 45 24.8	
	comp=Z,24nm,1.2s						
SGCY	Sterling City	18.50	341		P	17 45 13.4	-0.1
SGCY				IAmb	IAmb	17 45 24.4	
	comp=Z,23nm,1.0s						
MNHN	Monahans	18.57	336		P	17 45 14.5	+0.2
TMB01	Midkiff	18.61	338	P	Pn	17 45 16.2	+1.2
TPB01	Permian Basin	18.65	333		Pn	17 45 16.9	+1.3
ABTX	Abilene, Hawle	18.75	345		Pn	17 45 17.6	+0.9
229A	Bryant Ranch,	18.78	339		P	17 45 16.9	+0.3
TPB06	Permian Basin	19.02	335		Pn	17 45 20.8	+0.8
PECS	Pecos	19.05	333	P	Pn	17 45 20.7	+0.3
VHRN	Van Horn	19.07	330		Pn	17 45 22.3	+1.6
ODSA	Odessa	19.18	338		P	17 45 20.3	-0.7
129A	Stewart Farms,	19.41	340	P	P	17 45 24.1	+0.6
129A				IAmb	IAmb	17 45 34.6	
	comp=Z,27nm,1.0s						
SN07	Snyder 07	19.53	343	P	Pn	17 45 26.2	+0.1
SN07				IAmb	IAmb	17 45 34.1	
	comp=Z,16nm,1.1s						
APMT	Aspermont	19.54	345	P	P	17 45 25.2	+0.4
LRAL	Lakeview Retre	19.54	18	P	P	17 45 25.1	+0.3
LRAL				IAmb	IAmb	17 45 36.1	
	comp=Z,15nm,1.1s						
TPB28		19.59	333	P	P	17 45 25.7	+0.2
TPB28				IAmb	IAmb	17 45 40.3	
	comp=Z,10nm,1.2s						
128A	Castleberry Fa	19.61	338	P	Pn	17 45 27.2	+0.1
128A				IAmb	IAmb	17 45 38.3	
	comp=Z,13nm,0.8s						
TPB11	China Draw	19.61	334	P	Pn	17 45 27.1	-0.1
POST	Post	19.69	341	P	Pn	17 45 27.5	-0.5
POST				IAmb	IAmb	17 45 40.8	
	comp=Z,12nm,0.8s						
GDL2	Guadalupe Moun	19.98	334	P	Pn	17 45 31.1	-0.4
MNTX	Cornudas Mount	20.02	331		Pn	17 45 31.6	-0.3
DKNS	Dickens	20.08	343	P	P	17 45 31.0	+0.3
DKNS				IAmb	IAmb	17 45 42.1	
	comp=Z,13nm,0.7s						
X34A	Smith Ranch, M	20.31	351	P	Pn	17 45 34.5	-0.7
WMOK	Wichita Mounta	20.60	349		P	17 45 36.7	+0.3
W35A	Tecumseh	20.73	353		P	17 45 38.3	+0.6
X48A	Hartselle	20.86	16		P	17 45 38.3	-0.9
X48A				IAmb	IAmb	17 45 48.1	
	comp=Z,22nm,1.1s						
MSTX	Muleshoe	20.93	339		Pn	17 45 41.7	-1.0
SMWD	Samnorwood	21.26	346	P	P	17 45 44.7	+1.1
SMWD				IAmb	IAmb	17 45 55.0	
	comp=Z,20nm,0.8s						
OK029	Liberty Lake	21.43	352		P	17 45 45.4	+0.1
AMTX	Amarillo	21.43	343		P	17 45 47.2	+1.8
319A	Douglas	21.84	323		P	17 45 50.1	+0.3
121A	Cookes Peak, D	21.89	327		P	17 45 53.2	+2.8
121A				IAmb	IAmb	17 46 06.5	
	comp=Z,23nm,0.9s						
PH02	Texas Public H	21.98	343	P	P	17 45 52.0	+0.7
CROK	Carrier	22.20	352		P	17 45 51.5	-2.0
CROK				IAmb	IAmb	17 46 04.6	
	comp=Z,21nm,0.9s						
DUN6	Lazy B Ranch	22.60	325		P	17 46 00.7	+2.6
Y22A	Socorro	22.61	331		P	17 46 00.5	+2.2
Y22A				IAmb	IAmb	17 46 09.8	
	comp=Z,16nm,1.1s						
LENM	Lemitar	22.80	331		P	17 46 01.4	+1.1
S39A	Bolivar	23.11	1	IAmb	IAmb	17 46 12.6	
	comp=Z,13nm,0.8s						
RTBA	Rita Blanca	23.19	342		P	17 46 05.6	+1.5
RTBA				IAmb	IAmb	17 46 15.0	
	comp=Z,21nm,1.1s						
ALQ	Albuquerque	23.23	333		P	17 46 05.6	+1.0
TUC	Tucson	23.40	322		P	17 46 06.2	0.0
TUC				IAmb	IAmb	17 46 19.7	
	comp=Z,16nm,1.4s						
SDV	Santo Domingo	23.59	101	LR	LR	17 57 06.1	
	comp=Z,122nm,18.6s,baz=254,slow=41						
SDV	Santo Domingo	23.59	101		P	17 46 08.9	+0.5
CCM	Cathedral Cave	23.60	6	P	P	17 46 07.8	-0.2
CCM				IAmb	IAmb	17 46 22.3	
	comp=Z,8.2nm,1.0s						
T25A	Trinidad	24.36	340		P	17 46 12.5	-3.0
T25A				IAmb	IAmb	17 46 25.1	
	comp=Z,23nm,1.5s						
S51A	Beattyville	24.86	20		P	17 46 20.5	+0.8
SDCO	Great Sand Dun	25.29	338		P	17 46 24.4	+0.5
X16A	Lo Mia Camp, P	25.30	325		P	17 46 24.9	+0.9
X16A				IAmb	IAmb	17 46 38.1	
	comp=Z,5.2nm,0.9s						
WUAZ	Wupatki	26.08	326	IAmb	IAmb	17 46 38.5	
	comp=Z,6.6nm,0.9s						
ATAH	Atahualpa	26.52	143	LR	LR	17 55 15.2	
	comp=Z,65nm,18.0s,baz=344,slow=33						
BC3	Big Chuckawall	27.20	318	P	P	17 46 42.8	+1.6
BC3				IAmb	IAmb	17 46 45.5	
	comp=Z,5.8nm,1.0s						
U15A	North Rim	27.25	327		P	17 46 43.1	+1.3
U15A				IAmb	IAmb	17 47 03.1	
	comp=Z,7.8nm,1.5s						
IRM	Iron Mountain	27.33	319	P	P	17 46 42.9	+0.7
PFO	Pinyon Flats O	27.83	317	LR	LR	17 58 27.6	
	comp=Z,149nm,18.5s,baz=132,slow=38						
PSUT	Pine Spring	29.65	328	P	P	17 47 03.4	+0.4
PSUT				IAmb	IAmb	17 47 16.0	
	comp=Z,4.3nm,0.9s						
CLC	China Lake	29.93	319	P	P	17 47 05.5	+0.1
PDAR	Pinedale Array	31.18	338	P	P	17 47 18.1	+1.7
	comp=Z,0.6nm,1.1s,baz=155,slow=7.3,SNR=2.1						
	comp=Z,0.6nm,1.1s						
PDAR	Pinedale Array	31.18	338	P	P	17 47 17.6	+1.2
HVU	Hansel Valley	31.66	333	P	P	17 47 23.3	+2.7
HVU				IAmb	IAmb	17 47 32.7	
	comp=Z,4.8nm,0.9s						
ELK	Elko	32.02	329		P	17 47 25.3	+1.4
ELK				IAmb	IAmb	17 47 36.3	
	comp=Z,4.7nm,1.0s						
NVAR	Mina Array Bea	32.05	323	P	P	17 47 27.3	+3.1
	comp=Z,3.8nm,0.9s,baz=143,slow=8.8,SNR=20						
	comp=Z,3.8nm,0.9s						
NVAR	Mina Array Bea	32.05	323	P	P	17 47 26.2	+2.0
KVN	Kaiserville	32.35	324	IAmb	IAmb	17 47 39.9	
	comp=Z,6.7nm,1.4s						
SADO	Sadowa	32.73	20	LR	LR	18 02 33.9	
	comp=Z,176nm,18.9s,baz=226,slow=40						
WVOR	Wild Horse Val	34.99	328	IAmb	IAmb	17 48 02.3	
	comp=Z,7.2nm,1.1s						
MOD	Modoc Plateau	35.51	325	IAmb	IAmb	17 48 11.7	
	comp=Z,8.8nm,1.4s						
J08A	Circle Bar Ran	35.57	329	IAmb	IAmb	17 48 06.5	
	comp=Z,6.5nm,1.1s						
ULM	Lac du Bonnet	35.69	358	LR	LR	18 04 54.0	
	comp=Z,46nm,18.8s,baz=189,slow=40						
PLID	Pearl Lake	35.71	333	IAmb	IAmb	17 48 07.7	
	comp=Z,4.0nm,0.8s						
YBH	Yreka Blue Hor	36.76	323	LR	LR	18 02 26.8	
	comp=Z,156nm,18.9s,baz=154,slow=35						
F10A	Beach Ranch, E	36.94	333	IAmb	IAmb	17 48 17.7	
	comp=Z,7.8nm,0.8s						
NEW	Newport	38.69	335	LR	LR	18 06 51.0	
	comp=Z,89nm,19.7s,baz=146,slow=40						
MDP	Montagnes des	41.80	99	LR	LR	18 06 34.3	
	comp=Z,65nm,19.6s,baz=130,slow=37						
SCHQ	Schefferville	45.48	22	LR	LR	18 11 59.9	
	comp=Z,148nm,18.7s,baz=217,slow=41						
BBB	Bella Bella	46.37	332	LR	LR	18 09 14.8	
	comp=Z,42nm,19.3s,baz=142,slow=36						
YKA	Yellowknife Ar	50.10	348	P	P	17 49 53.2	+1.2
	comp=Z,4.0nm,0.9s,baz=152,slow=7.6,SNR=11						
	comp=Z,4.0nm,0.9s						
YKA	Yellowknife Ar	50.10	348	P	P	17 49 52.8	+0.8
FRB	Frobisher Bay	52.30	14	LR	LR	18 13 33.7	
	comp=Z,56nm,18.9s,baz=302,slow=37						
BDFB	Brasilia	54.47	122	P	P	17 50 25.4	+0.2
	comp=Z,2.6nm,0.5s,baz=303,slow=12,SNR=3.9						
	comp=Z,2.6nm,0.5s						
BDFB	Brasilia	54.47	122	P	P	17 50 22.5	-2.7
BDFB				IAmb	IAmb	17 50 26.5	
	comp=Z,6.0nm,1.1s						
SPT	South Point	58.92	284	P	P	17 50 59.0	+2.2
INK	Inuvik	59.41	344	LR	LR	18 19 11.8	
	comp=Z,88nm,18.9s,baz=326,slow=38						
SFJD	Kangerlussuaq	59.66	18	LR	LR	18 17 56.2	
	comp=Z,73nm,18.7s,baz=210,slow=37						
RES	Resolute Bay	60.19	360	LR	LR	18 17 57.3	
	comp=Z,21nm,21.9s,baz=30,slow=37						
F28M	Old Crow	60.77	342	P	P	17 51 10.6	+1.9
ILAR	Eielson Array	61.61	337	P	P	17 51 16.4	+2.1
	comp=Z,1.9nm,0.9s,baz=135,slow=4.1,SNR=12						
	comp=Z,1.9nm,0.9s						
ILAR	Eielson Array	61.61	337	P	P	17 51 16.1	+1.8
RND	Reindeer	61.74	335	P	P	17 51 16.7	+1.3
BORG	Borgarnes	69.63	26	LR	LR	18 20 40.2	
	comp=Z,54nm,20.4s,baz=294,slow=34						
EKA	Eskdalemuir Ar	78.73	36	LR	LR	18 28 44.4	
	comp=Z,75nm,18.1s,baz=220,slow=36						
SPITS	Spitsbergen Ar	80.00	11	LR	LR	18 29 55.5	
	comp=Z,69nm,20.9s,baz=286,slow=37						
MDT	Midelt	81.84	58	LR	LR	18 22 12.1	
	comp=Z,12nm,19.8s,baz=43,slow=30						
NB2	NORSAR Subarra	84.66	28	P	P	17 53 32.1	+1.4
	comp=Z,8.7nm,1.2s,baz=289,slow=5.1						
NOA	NORSAR Array B	84.66	28	P	P	17 53 30.5	-0.2
	comp=Z,2.1nm,0.8s,baz=291,slow=4.9,SNR=8.0						
NOA				LR	LR	18 30 05.2	
	comp=Z,27nm,19.8s,baz=285,slow=35						
	comp=Z,2.1nm,0.8s						
HFS	Hagfors	86.13	29	LR	LR	18 30 58.6	
	comp=Z,56nm,19.8s,baz=288,slow=35						
ARCES	ARCESS Array B	86.29	18	P	P	17 53 38.9	+0.3
	comp=Z,0.6nm,0.6s,baz=297,slow=5.3,SNR=7.1						
	comp=Z,0.6nm,0.6s						
DAVOX	Davos/Dischmat	88.83	42	LR	LR	18 28 40.5	
	comp=Z,45nm,19.9s,baz=264,slow=32						
TIXI	Tiksi	89.35	348	LR	LR	18 39 18.9	
	comp=Z,14nm,18.9s,baz=190,slow=39						
GERES	GERESS Array B	90.48	39	P	P	17 53 58.5	-0.7
	comp=Z,0.3nm,0.3s,baz=240,slow=4.5,SNR=4.9						
GERES				LR	LR	18 31 39.1	
	comp=Z,35nm,19.6s,baz=303,slow=34						
	comp=Z,0.3nm,0.3s						
GERES	GERESS Array B	90.48	39	P	P	17 53 58.1	-1.0
FINES	FINESS Array B	90.89	25	LR	LR	18 34 22.8	
	comp=Z,28nm,20.2s,baz=276,slow=35						
VRAC	Vranov	92.03	38	LR	LR	18 38 28.8	
	comp=Z,32nm,18.0s,baz=286,slow=38						
VAE	Valguarnera	95.36	49	LR	LR	18 35 39.4	
	comp=Z,43nm,18.9s,baz=320,slow=34						
NRIK	Noril'sk	96.38	359	LR	LR	18 42 54.3	
	comp=Z,21nm,18.3s,baz=302,slow=38						
MLR	Muntele Rosu	99.43	38	LR	LR	18 36 56.6	
	comp=Z,31nm,21.3s,baz=320,slow=34						
WRA	Warramunga Arr	133.58	256	PKP	PKPdf	18 00 14.5	0.0
	comp=Z,0.3nm,0.7s,baz=93,slow=3.2,SNR=4.7						
WRA	Warramunga Arr	133.58	256		PKPdf	18 00 14.8	+0.3
ASAR	Alice Springs	133.94	251	PKP	PKiKP	18 00 16.2	-0.3
	comp=Z,0.4nm,0.9s,baz=96,slow=1.7,SNR=2.4						
ASAR	Alice Springs	133.94	251		PKPdf	18 00 16.0	+0.8
CMAR	Chiang Mai Arr	144.84	338	PKPbc	PKPdf	18 00 35.2	+0.2
	comp=Z,2.4nm,0.9s,baz=340,slow=3.1,SNR=8.5						
KAPI	Kappang	145.42	282	PKPdf	PKPbc	18 00 35.1	-1.0

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*NEIC **30** 17:41:44.5±1.6, 24°.3S±0°.1×179°.6W±0°.2, h496km±16km, mb4.1/6, Error ellipse: s-maj=24.6km s-min=15.8km az=116.0*

*IDC **30** 17:41:46.3±2.3, 24°.20S×179°.90W, h504km±28km, mb3.0/4, mbtmp3.8/6, Error ellipse: s-maj=30.2km s-min=23.6km az=68.0*

ISC 30 17:41:44.7±1.0**, 24°.30S**±0°.09×**179°.7W**±0°.2**, h490**km**, n15, σ1^{s}07**/16**, mb3.8**/7**, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	Raoul Island	5.19	162	P	P	17 43 11.6	-1.2
MSVF	Nonsavu	6.85	342	P	P	17 43 30.5	+1.3
	3.0nm,0.5s,baz=73,slow=23,SNR=6.8						
MSVF	Nonsavu	6.85	342	P	P	17 43 29.8	+0.6
URZ	Urewera	14.18	190	P	P	17 44 46.9	+0.8
	2.8nm,0.3s,baz=342,slow=9.6,SNR=6.5						
URZ				S	S	17 47 15.7	-0.2
	7.7nm,0.8s,baz=203,slow=22,SNR=7.1						
CTAO	Charters Tower	31.73	271	P	P	17 47 28.2	+0.4
CTAO				IAmb	IAmb	17 47 49.6	
	comp=Z,18nm,1.5s						
BBOO	Buckleboo	39.52	247	P	P	17 48 32.1	-0.4
ASAR	Alice Springs	42.22	261	P	P	17 48 53.7	-0.5
	comp=Z,0.3nm,0.5s,baz=97,slow=7.1,SNR=7.7						
	comp=Z,0.3nm,0.5s						
WR8	Warramunga Arr	42.48	267	P	P	17 48 55.0	-1.3
WR8				IAmb	IAmb	17 49 18.2	
	comp=Z,11nm,1.4s						
WB0	Warramunga Arr	42.63	267	P	P	17 48 56.6	-0.7
WB0				IAmb	IAmb	17 49 17.1	
	comp=Z,8.5nm,1.4s						
WRA	Warramunga Arr	42.63	266	P	P	17 48 56.7	-0.7
	comp=Z,0.4nm,0.3s,baz=104,slow=7.7,SNR=21						
	comp=Z,0.4nm,0.3s						
WRA	Warramunga Arr	42.63	266	P	P	17 48 56.4	-1.1
QSPA	South Pole Qui	65.79	180	P	P	17 51 42.1	+1.7
	comp=Z,1.5nm,0.8s,baz=41,slow=1.9,SNR=7.9						
	comp=Z,1.5nm,0.8s						
QSPA	South Pole Qui	65.79	180	P	P	17 51 41.9	+1.5
QSPA				IAmb	IAmb	17 51 44.7	
	comp=Z,4.0nm,1.2s						
ILAR	Eielson Array	92.35	13	P	P	17 54 00.5	-1.1
	comp=Z,0.4nm,0.6s,baz=193,slow=8.4,SNR=2.8						
	comp=Z,0.4nm,0.6s						
CLL	Collm	151.30	343	*e*PKPbc	PKiKP	18 00 42.0	-0.4

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*IDC **30** 18:38:50.4±0.8, 9°.67S×119°.23E, h0km, mb3.9/10, mbtmp4.0/16, ML4.0/6, MS3.2/3, Error ellipse: s-maj=19.3km s-min=10.5km az=54.0*

*DJA **30** 18:38:53.7±0.3, 10°S±3°×11°9E±°, h10km, M4.4/25, mB5.0/3, mb4.6/6, MLv4.3/25, Mw(mB)4.3/3*

*NEIC **30** 18:38:55.5±1.6, 9°.87S±0°.08×119°.16E±0°.03, h40km±11km, mb4.0/9, Error ellipse: s-maj=11.7km s-min=3.3km az=165.0*

ISC 30 18:38:54.5±0.5**, 9°.88S**±0°.05×**119°.18E**±0°.03**, h33**km**, n68, σ1^{s}79**/67**, mb4.0**/12**, Sumba region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WSI	Waingapu	1.12	80	P	Pn	18 39 13.3	-0.6
WSI				S	Sb	18 39 30.7	+1.0
LBFI	Labuhan Bajo,	1.55	27	P	Pn	18 39 19.5	-0.4
DBNI	Kabupaten Domp	1.61	328	P	Pn	18 39 20.2	-0.4
DBNI				S	Sn	18 39 40.5	+0.2
PLAI	Plampang	1.73	307	P	Pn	18 39 20.7	-1.6
PLAI				S	Sn	18 39 44.7	+1.5
PLAI				AML	AML		
TWSI	Taliwang, Sumb	2.53	296	P	Pn	18 39 33.2	-0.1
TWSI				S	Sn	18 40 04.9	+1.9
TWSI				AML	AML		
EDFI	Ende, Flores	2.72	66	P	Pn	18 39 36.6	+0.6
EDFI				AML	AML		
MMRI	Maumere	3.26	68		Pn	18 39 44.3	+0.9
MMRI				Sn	Sn	18 40 18.1	-2.9
MMRI	Maumere	3.26	68	P	Pn	18 39 44.1	+0.7
MMRI				AML	AML		
KHKI	Kahang-Kahang	3.83	293	P	Pn	18 39 48.6	-2.6
KHKI				AML	AML		
BSSI	Bau Bau, Buton	3.93	19	P	Pn	18 39 54.9	+2.4
BSSI				AML	AML		
DNP	Denpasar	4.09	287	P	Pn	18 39 57.3	+2.5
IGBI	Denpasar	4.12	284	P	Pn	18 39 56.4	+1.3
IGBI				AML	AML		
SRBI	Singaraja	4.30	294	P	Pn	18 39 57.9	+0.3
SRBI				AML	AML		
RTBI	Rangdo, Negare	4.41	288	P	Pn	18 40 01.4	+2.2
RTBI				AML	AML		
BATI	Baumata	4.43	95	Pn	Pn	18 39 57.2	-2.2
	14nm,0.3s,baz=261,slow=2.0,SNR=12						
BATI				Sn	Sn	18 40 50.0	+0.1
	3.1nm,0.3s,baz=16,slow=23,SNR=5.7						
BATI				LR	LR	18 41 47.6	
	comp=Z,179nm,20.4s,baz=7.5,slow=40						
	32nm,0.3s						
BATI				AML	AML		

BKSI	**Bulukumba**	**4.62**	**12**	P	**Pn**	**18 40 04.3**	**+2.3**
BKSI				AML	AML		
MKS	**Makassar**	**4.64**	**4**	P	**Pn**	**18 40 03.5**	**+1.2**
MKS				AML	AML		
KAPI	**Kappang**	**4.86**	**7**	Pn	**Pn**	**18 40 05.5**	**+0.2**
	6.8nm,0.3s,baz=179,slow=6.9,SNR=14						
KAPI				Sn	**Sn**	**18 40 57.6**	**-3.0**
	7.9nm,0.3s,baz=295,slow=18,SNR=4.2						
KAPI				LR	LR	18 41 54.2	
	comp=Z,166nm,20.9s,baz=128,slow=40						
	23nm,0.4s						
KAPI				AML	AML		
KAPI	**Kappang**	**4.86**	**7**		**Pn**	**18 40 05.8**	**+0.4**
KAPI				Sn	**Sn**	**18 40 54.8**	**-5.8**
KAPI	**Kappang**	**4.86**	**7**	P	**Pn**	**18 40 04.9**	**-0.5**
KAPI				AML	AML		
SOEI	**Soe**	**5.02**	**89**		**Pn**	**18 40 09.9**	**+2.3**
SOEI	**Soe**	**5.02**	**89**	P	**Pn**	**18 40 10.6**	**+3.0**
	0.2nm47nm,0.6s						
SOEI				AML	AML		
JAGI	**Jajag, Banyuwa**	**5.15**	**285**		**Pn**	**18 40 09.1**	**-0.3**
JAGI	**Jajag, Banyuwa**	**5.15**	**285**	P	**Pn**	**18 40 08.9**	**-0.5**
	0.3nm1µm39nm,0.6s						
JAGI				AML	AML		
BBSI	**Bau Bau**	**5.50**	**38**	P	**Pn**	**18 40 16.9**	**+2.7**
	0.1nm56nm,1.0s						
BBSI				AML	AML		
PCI	**Palu**	**8.94**	**4**	P	Pn	18 41 14.4	+13
FITZ	**Fitzroy Crossi**	**10.30**	**143**	Pn	**Pn**	**18 41 20.1**	**+0.1**
	0.5nm,0.3s,baz=339,slow=9.4,SNR=16						
FITZ				Sn	**Sn**	**18 43 06.9**	**-7.6**
	0.2nm,0.3s,baz=190,slow=19,SNR=1.6						
	1.8nm,0.5s						
FITZ				AML	AML		
FITZ	**Fitzroy Crossi**	**10.30**	**143**	Pn	**Pn**	**18 41 20.4**	**+0.3**
KNRA	**Kununurra**	**10.98**	**123**	Pn	**Pn**	**18 41 30.2**	**+0.9**
MBWA	**Marble Bar**	**11.23**	**177**	Pn	**Pn**	**18 41 33.0**	**+0.2**
MTN	**Manton Dam**	**12.09**	**105**		**Pn**	**18 41 44.6**	**+0.1**
FAKI	**Fak Fak**	**14.71**	**63**	Pn	**Pn**	**18 42 20.6**	**+0.3**
SWI	**Sorong**	**14.99**	**54**	P	**P**	**18 42 29.2**	**+0.1**
SIJI	**Sorong**	**14.99**	**54**	Pn	**Pn**	**18 42 24.4**	**+0.3**
	2.0nm,0.3s,baz=288,slow=8.5,SNR=7.3						
	15nm,0.7s						
SIJI				AML	AML		
WB0	**Warramunga Arr**	**17.68**	**126**	Pn	**Pn**	**18 42 57.2**	**-1.1**
WB0				IAmb	IAmb	18 43 00.1	
	comp=Z,6.4nm,1.0s						
WRA	**Warramunga Arr**	**17.73**	**126**	P	**P**	**18 42 59.8**	**+0.2**
	comp=Z,0.4nm,0.3s,baz=303,slow=13,SNR=39						
WRA				S	Sn	18 46 03.4	-12
	comp=Z,0.3nm,0.7s,baz=301,slow=18,SNR=1.7						
	comp=Z,2.6nm,0.7s						
WRA				AML	AML		
WRA	**Warramunga Arr**	**17.73**	**126**	Pn	**Pn**	**18 42 57.0**	**-2.0**
WR8	**Warramunga Arr**	**17.86**	**126**		**Pn**	**18 43 00.0**	**-0.6**
WR8				IAmb	IAmb	18 43 07.4	
	comp=Z,5.5nm,0.9s						
MORW	**Morawa**	**19.32**	**188**	P	**Pn**	**18 43 17.9**	**-0.3**
MORW				IAmb	IAmb	18 43 20.7	
	comp=Z,23nm,1.4s						
AS31	**Alice Springs**	**19.64**	**136**		**P**	**18 43 21.5**	**+0.9**
ASAR	**Alice Springs**	**19.64**	**136**	P	**Pn**	**18 43 23.4**	**+1.2**
	comp=Z,0.5nm,0.3s,baz=317,slow=11,SNR=72						
	comp=Z,2.3nm,0.5s						
ASAR				AML	AML		
ASAR	**Alice Springs**	**19.64**	**136**	P	**P**	**18 43 20.5**	**-0.1**
STKA	**Stephens Creek**	**30.17**	**140**	P	**P**	**18 45 04.4**	**+2.6**
	comp=Z,1.4nm,0.7s,baz=315,slow=10,SNR=3.6						
	comp=Z,1.4nm,0.7s						
CMAR	**Chiang Mai Arr**	**34.52**	**325**	P	**P**	**18 45 39.2**	**-0.7**
	comp=Z,0.4nm,0.8s,baz=142,slow=9.0,SNR=1.5						
	comp=Z,0.4nm,0.8s						
MORE	**Moreh**	**41.71**	**325**	P	**P**	**18 46 40.5**	**0.0**
MORE				IAmb	IAmb	18 46 43.8	
	comp=Z,4.3nm,1.1s						
H08S2	**Diego Garcia H**	**46.16**	**269**	T	T	19 36 26.7	
	baz=96,slow=75,SNR=178						
H08S3	**Diego Garcia H**	**46.18**	**269**	T	T	19 36 27.5	
	baz=96,slow=75,SNR=378						
H08S1	**Diego Carcia H**	**46.18**	**269**	T	T	19 36 28.1	
	baz=96,slow=75,SNR=83						
KSRS	**Korea Array**	**47.79**	**9**	P	**P**	**18 47 28.2**	**-0.4**
	comp=Z,0.7nm,0.7s,baz=186,slow=9.0,SNR=4.5						
	comp=Z,0.7nm,0.7s						
MJAR	**Matsushiro Arr**	**49.52**	**20**	P	**P**	**18 47 41.7**	**-0.3**
	comp=Z,0.5nm,0.5s,baz=200,slow=9.3,SNR=1.8						
	comp=Z,0.5nm,0.5s						
JTM	**Tenmabayashi**	**54.31**	**20**	P	**P**	**18 48 18.4**	**+0.7**
USRK	**Ussuriysk Ar.**	**55.06**	**11**	P	**P**	**18 48 22.8**	**-0.2**
	comp=Z,1.5nm,0.5s,baz=191,slow=7.3,SNR=6.1						
	comp=Z,1.5nm,0.5s						
USRK	**Ussuriysk Ar.**	**55.06**	**11**	P	**P**	**18 48 22.6**	**-0.4**
SONM	**Songino Array**	**58.56**	**350**	P	**P**	**18 48 48.9**	**+0.9**
	comp=Z,2.9nm,0.6s,baz=179,slow=7.2,SNR=3.2						
	comp=Z,2.9nm,0.6s						
SONM	**Songino Array**	**58.56**	**350**	IAmb	IAmb	18 48 55.2	
	comp=Z,4.0nm,1.0s						
MKAR	**Makanchi Array**	**65.31**	**333**	P	**P**	**18 49 33.0**	**-0.3**
	comp=Z,1.6nm,0.8s,baz=154,slow=6.6,SNR=12						
	comp=Z,1.6nm,0.8s						
MKAR	**Makanchi Array**	**65.31**	**333**		**P**	**18 49 32.0**	**-1.3**
H04N2	**CROZET ISLANDS**	**67.30**	**224**	T	T	20 03 12.8	
	baz=79,slow=75						
H04N1	**CROZET ISLANDS**	**67.31**	**224**	T	T	20 03 13.1	
	baz=79,slow=75						
H04N3	**CROZET ISLANDS**	**67.31**	**224**	T	T	20 03 13.6	
	baz=79,slow=75						
KURBB	**Kurchatov Arra**	**69.83**	**334**	P	**P**	**18 50 01.0**	**-0.7**
	comp=Z,0.8nm,0.2s,baz=141,slow=5.3,SNR=2.9						
	comp=Z,0.8nm,0.2s						
KURK	**Kurchatov**	**69.85**	**334**	P	**P**	**18 50 01.0**	**-0.8**
KURK	**Kurchatov**	**69.85**	**334**	IAmb	IAmb	18 50 44.1	
	comp=Z,2.6nm,1.1s						
ZALV	**Zalesovo Beam**	**69.92**	**339**	P	**P**	**18 50 00.9**	**-1.2**
	comp=Z,0.7nm,0.6s,baz=161,slow=5.3,SNR=4.4						
	comp=Z,0.7nm,0.6s						
BVAR	**Borovoye Array**	**75.14**	**332**	P	**P**	**18 50 32.6**	**-0.7**
	comp=Z,0.8nm,0.6s,baz=142,slow=5.5,SNR=4.7						
	comp=Z,0.8nm,0.6s						
SUR	**Sutherland**	**91.75**	**237**	LR	LR	19 28 15.9	
	comp=Z,31nm,19.0s,baz=94,slow=32						
EKA	**Eskdalemuir Ar**	**116.17**	**327**	PKP	**PKiKP**	**18 57 35.9**	**+1.7**
	comp=Z,1.5nm,0.8s,baz=97,slow=2.9,SNR=1.8						
TORD	**Torodi Ar. Bea**	**118.78**	**280**	PKP	**PKiKP**	**18 57 40.9**	**+0.5**
	comp=Z,0.3nm,0.7s,baz=115,slow=2.4,SNR=2.0						

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*BKK **30** 18:44:18.7±1.8, 3°N±9°×9°7E±2°1, h10^{km}, M5.2/8, mb5.3/3, mB5.2/2, Mjma4.7/8, ML5.4/8, MLv5.2/8, Mw(mB)4.6/2*

*DJA **30** 18:44:19.3±0.3, 4°N±2°×9°8E±°, h10^{km}, M4.7/15, MLv4.7/15*

*IDC **30** 18:44:23.8±0.7, 3°.91N×97°.39E, h0^{km}, mb4.1/15, mbtmp4.1/17, ML3.5/2, MS3.5/30, Error ellipse: s-maj=25.0km s-min=13.0km az=55.0*

*BJI **30** 18:44:28.8, 3°.63N×97°.18E, h56^{km}, mb4.5/13, Ms4.3/10, Ms7 4.0/10*

*GFZ **30** 18:44:28.8±0.2, 4°N±2°×9°8E±°, h30^{km}, M4.5/24, mb4.6/24, confirmed*

*NEIC **30** 18:44:29.3±2.0, 3°.66N±0°.06×97°.02E±0°.09, h54^{km}±3^{km}, mb4.4/23, Error ellipse: s-maj=12.5km s-min=8.4km az=80.0*

ISC 30 18:44:28.8±0.4, **3°.76N**±0°.04×**97°.43E**±0°.04, **h35**^{km}**, n134,** σ**2**^{s}**.32**/101, **mb4.4**/42, **MS3.6**/29, **1C, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KCSI	**Kotacane, Aceh**	**0.42**	**125**	P	Pn	18 44 24.1	-14
KCSI				S	Sn	18 44 30.1	-15
KCSI	**Kotacane, Aceh**	**0.42**	**125**	P	**Pn**	**18 44 34.6**	**-3.7**
TPTI		**0.56**	**207**	P	Pn	18 44 31.8	-8.5
TPTI				S	**Sn**	**18 44 41.9**	**-6.4**
TPTI				AML	AML		
TPTI		**0.56**	**207**	P	**Pn**	**18 44 41.1**	**+0.8**
TPTI				S	**Sn**	**18 44 51.0**	**+2.7**
MLSI	**Meulaboh, Aceh**	**1.14**	**296**	P	Pn	18 44 43.3	-4.9
MLSI				AML	AML		
MLSI	**Meulaboh, Aceh**	**1.14**	**296**	P	**Pn**	**18 44 52.6**	**+4.4**
TSI	**Tuntungan**	**1.16**	**103**	P	Pn	18 44 38.1	-10
TSI				AML	AML		
TSI	**Tuntungan**	**1.16**	**103**	P	**Pn**	**18 44 47.2**	**-1.3**
LHMI	**Lhok Sumawe**	**1.53**	**342**	Pn	**Pn**	**18 44 54.6**	**+1.0**
LHMI	**Lhok Sumawe**	**1.53**	**342**	P	Pn	18 44 47.0	-6.6
LHMI				AML	AML		
LHMI	**Lhok Sumawe**	**1.53**	**342**	P	**Pn**	**18 44 55.3**	**+1.6**
SNSI	**Sinabang, Aceh**	**1.74**	**219**	P	**Pn**	**18 44 52.5**	**-4.0**
SNSI				AML	AML		
SNSI	**Sinabang, Aceh**	**1.74**	**219**	P	**Pn**	**18 44 55.4**	**-1.1**
PSI	**Prapat**	**1.77**	**123**	P	Pn	18 44 50.0	-7.0
PSI				AML	AML		
RPSI	**Rantau Prapat**	**1.83**	**125**		**Pn**	**18 44 58.9**	**+1.1**
RPSI				Sn	**Sn**	**18 45 23.8**	**+4.1**
GSI	**Gunungsitoli**	**2.45**	**177**		**Pn**	**18 45 06.1**	**-0.1**
GSI	**Gunungsitoli**	**2.45**	**177**	P	**Pn**	**18 45 08.3**	**+2.0**
BSI	**Banda Aceh**	**2.74**	**309**	P	**Pn**	**18 45 13.8**	**+3.6**
KULM	**Kulim**	**3.55**	**65**	P	**Pn**	**18 45 19.4**	**-2.0**
KULM	**Kulim**	**3.55**	**65**	P	**Pn**	**18 45 19.5**	**-2.0**
MNSI	**Mandailing Nat**	**3.65**	**144**	P	**Pn**	**18 45 27.0**	**+4.3**
IPM	**Ipoh**	**3.65**	**79**		Pn	18 45 29.3	+6.5
IPM				Sn	Sn	18 46 14.5	+10
IPM	**Ipoh**	**3.65**	**79**	P	**Pn**	**18 45 22.2**	**-0.7**
IPM	**Ipoh**	**3.65**	**79**	P	**Pn**	**18 45 21.3**	**-1.6**
PKDT	**Phuket**	**4.20**	**12**	P	**Pn**	**18 45 27.9**	**-2.4**
PKDT				AML	AML		
PPI	**Padang Panjang**	**5.13**	**145**	P	Pn	18 45 49.4	+6.2
RNTT	**Ranong**	**5.69**	**10**	P	**Pn**	**18 45 48.4**	**-2.4**
	2.2nm1.5nm175nm,0.5s						
RNTT				AML	AML		
RNTT				AML	AML		
TPRI	**Tanjung Pinang**	**7.63**	**112**	P	**Pn**	**18 46 16.4**	**-1.1**
PBA	**Port Blair**	**9.11**	**330**	*e*P	Pn	18 46 28.7	-9.2
PBA				IAmb	IAmb	18 46 55.7	
PBA				*e*S	Sn	18 48 01.2	-18
PBA				IAML		18 48 07.8	
	comp=N,198nm,0.7s						
PBA				IAML		18 48 14.2	
	comp=E,196nm,0.7s						
DGPR	**DIGLIPUR**	**10.36**	**335**	*e*P	Pn	18 46 45.7	-9.2
DGPR				IAmb	IAmb	18 46 57.8	
	comp=Z,89nm,1.3s						
DGPR				*e*S	Sn	18 48 31.1	-19
DGPR				IAML		18 48 38.2	
	comp=N,107nm,1.2s						
DGPR				IAML		18 48 38.8	
	comp=E,106nm,0.5s						
LEM	**Lembang**	**14.63**	**136**	LR	LR	18 54 21.4	
	comp=E,227nm,20.3s,baz=280,slow=40						
CM31	**Chiang Mai Arr**	**14.68**	**6**	P	**P**	**18 47 58.4**	**-1.3**
CMAR	**Chiang Mai Arr**	**14.68**	**6**	Pn	**Pn**	**18 47 53.8**	**-0.2**
	comp=E,0.1nm,0.3s,baz=200,slow=13,SNR=6.3						
CMAR				Lg	Lg	18 51 57.0	
	baz=166,slow=32						
CMAR				LR	LR	18 53 55.6	
	comp=E,220nm,20.8s,baz=195,slow=39						
	comp=E,1.3nm,0.9s						
CMAR				AML	AML		
CMAR	**Chiang Mai Arr**	**14.68**	**6**		**P**	**18 48 00.3**	**+0.6**
SBUM	**Sibu**	**14.82**	**95**		**P**	**18 48 00.7**	**-0.7**
SBUM	**Sibu**	**14.82**	**95**	P	**P**	**18 48 05.1**	**+3.7**
CHTO	**Chiang Mai**	**15.03**	**6**		**Pn**	**18 47 58.4**	**-0.3**
CHTO	**Chiang Mai**	**15.03**	**6**	P	**P**	**18 48 06.1**	**+2.4**
CHTO	**Chiang Mai**	**15.03**	**6**	P	**P**	**18 48 02.5**	**-1.2**
	comp=Z,14nm,1.5s						
NPW	**Naypyitaw**	**15.97**	**356**	P	**P**	**18 48 12.6**	**-1.5**
	comp=Z,40nm,1.1s						
PALK	**Pallekele**	**17.01**	**283**	Pn	**Pn**	**18 48 23.7**	**-0.5**
	comp=Z,0.2nm,0.3s,baz=88,slow=13,SNR=1.3						
PALK				Sn	Sn	18 51 11.9	-20
	comp=Z,0.3nm,0.3s,baz=110,slow=19,SNR=1.3						
PALK				LR	LR	18 54 40.5	
	comp=Z,190nm,18.2s,baz=98,slow=36						
	comp=Z,12nm,1.1s						
PALK				AML	AML		
PALK	**Pallekele**	**17.01**	**283**	IAmb	IAmb	18 48 50.8	
	comp=Z,34nm,1.1s						
SJI	**Sawahan**	**18.30**	**129**	P	Pn	18 48 52.3	+12
SLVN	**Son La**	**18.56**	**19**		**Pn**	**18 48 46.5**	**+3.3**
SLVN				IAmb	IAmb	18 48 48.4	
	comp=Z,12nm,0.8s						
SLVN	**Son La**	**18.56**	**19**	P	**Pn**	**18 48 45.2**	**+2.0**
	comp=Z,20nm,1.4s						
KKM	**Kota Kinabalu**	**18.85**	**82**	P	**Pn**	**18 48 48.6**	**+1.8**
KKM	**Kota Kinabalu**	**18.85**	**82**	P	Pn	18 48 54.7	+7.9
MDRS	**Chennai**	**19.34**	**300**	*e*P	P	18 48 43.9	-7.4
MDRS				IAmb	IAmb	18 48 56.2	
	comp=Z,26nm,1.3s						
MDRS				*e*S	S	18 51 55.5	-33
QIZ	**Qiongzhong**	**19.42**	**38**	P	**Pn**	**18 48 56.8**	**+3.2**
QIZ				S	**Sn**	**18 52 35.3**	**+4.7**
QIZ				L	L		
	comp=Z,310nm,15.4s						
QIZ				L	L		
	comp=Z,370nm,17.5s						
QIZ				L	L		
	comp=Z,510nm,10.9s						
BRDH	**Bariadhala**	**19.62**	**344**	LR	LR	18 58 22.7	
	comp=Z,243nm,18.8s,baz=164,slow=43						
MORE	**Moreh**	**20.58**	**352**		**P**	**18 49 04.3**	**-0.4**
MORE				IAmb	IAmb	18 49 07.3	
	comp=Z,24nm,0.8s						
TRD	**Trivandrum**	**20.89**	**284**	*e*P	**P**	**18 49 03.2**	**-5.0**
MYLDM	**Lahad Datu**	**21.05**	**85**		**P**	**18 49 12.5**	**+2.5**
MYLDM	**Lahad Datu**	**21.05**	**85**	P	P	18 49 17.7	+7.7
TNCH	**TengChong**	**21.17**	**3**	⇑P	**P**	**18 49 13.3**	**+2.0**
TNCH				pP	sP	18 49 24.5	-1.1
TNCH				sP	pP	18 49 32.8	+12
TNCH				S	**S**	**18 52 58.5**	**-6.6**
TNCH				sS	sS	18 53 19.8	-0.8
TNCH				pmax	pmax		
	comp=Z,34nm,1.0s						
TNCH				L	L		
	comp=Z,280nm,7.6s						
TNCH				L	L		
	comp=Z,310nm,6.6s						
TNCH				L	L		
	comp=Z,320nm,14.9s						
KMI2	**Kunming**	**21.87**	**13**	P	**P**	**18 49 21.3**	**+2.4**
KMI2				pP	sP	18 49 34.5	+1.3
KMI2				pmax	pmax		
	comp=Z,14nm,1.3s						
KMI2				L	L		
	comp=Z,210nm,15.6s						
KMI2				L	L		
	comp=Z,320nm,12.7s						
KMI2				L	L		
	comp=Z,230nm,10.8s						
SHL	**Shillong**	**22.32**	**347**	P	**P**	**18 49 22.4**	**-1.3**
TOLI2	**Tolitoli**	**23.48**	**96**		**P**	**18 49 35.9**	**+0.4**
TOLI2	**Tolitoli**	**23.48**	**96**	P	**P**	**18 49 36.6**	**+1.1**
	comp=Z,29nm,1.2s						
PLAI	**Plampang**	**23.83**	**122**	P	**P**	**18 49 38.8**	**-0.1**
	comp=Z,22nm,1.0s						
KAPI	**Kappang**	**23.94**	**111**	LR	LR	18 59 33.3	
	comp=Z,116nm,18.4s,baz=278,slow=38						
KAPI	**Kappang**	**23.94**	**111**	P	**P**	**18 49 41.9**	**+2.0**
KAPI	**Kappang**	**23.94**	**111**	P	**P**	**18 49 42.3**	**+2.4**
	comp=Z,27nm,1.4s						
BKSI	**Bulukumba**	**24.40**	**112**	P	**P**	**18 49 46.3**	**+2.2**
GTOI	**Gorontalo**	**25.75**	**96**	P	**P**	**18 50 03.3**	**+6.9**
LUWI	**Luwuk**	**25.77**	**100**	P	P	18 50 05.8	+9.2
LSA	**Lhasa**	**26.47**	**348**	P	**P**	**18 50 07.8**	**+4.5**
	comp=Z,16nm,1.0s						
LZDM	**Lanzhou Array**	**32.55**	**9**	LR	LR	19 05 30.2	
	comp=Z,132nm,18.1s,baz=160,slow=39						
SIJI	**Sorong**	**34.13**	**97**	P	**P**	**18 51 12.1**	**+1.4**
	comp=Z,11nm,1.0s,baz=275,slow=6.8,SNR=4.7						
	comp=Z,11nm,1.0s						
FITZ	**Fitzroy Crossi**	**35.29**	**129**	P	**P**	**18 51 20.7**	**+0.1**
MORW	**Morawa**	**37.22**	**152**	P	**P**	**18 51 37.5**	**+0.5**
	comp=Z,12nm,1.1s						
HHC	**Hu-ho-hao-te**	**39.05**	**17**	*e*P	**P**	**18 51 54.8**	**+2.4**
HHC				pmax	pmax		
	comp=Z,13nm,0.5s						
HHC				L	L		
	comp=Z,150nm,16.0s						
HHC				L	L		
	comp=Z,170nm,17.6s						
HHC				L	L		
	comp=Z,140nm,16.8s						
NWAO	**Narrogin (SRO)**	**41.03**	**154**	LR	LR	19 07 28.1	
	comp=Z,158nm,21.5s,baz=63,slow=34						
WB0	**Warramunga Arr**	**43.20**	**124**	P	**P**	**18 52 26.2**	**-0.5**
WB0				IAmb	IAmb	18 52 27.8	
	comp=Z,7.0nm,1.1s						
WRA	**Warramunga Arr**	**43.24**	**124**	P	**P**	**18 52 26.8**	**-0.2**
	comp=Z,6.5nm,0.9s,baz=302,slow=8.9,SNR=29						
WRA				PcP	**PcP**	**18 54 17.0**	**+1.0**
	comp=Z,0.6nm,0.9s,baz=303,slow=3.4,SNR=2.1						
	comp=Z,6.5nm,0.9s						
WRA	**Warramunga Arr**	**43.24**	**124**	P	**P**	**18 52 26.4**	**-0.7**
WRAB	**Tennant Creek**	**43.24**	**124**	P	**P**	**18 52 26.1**	**-1.0**
WRAB				IAmb	IAmb	18 52 28.8	
	comp=Z,6.4nm,0.8s						
WRAB	**Tennant Creek**	**43.24**	**124**	P	**P**	**18 52 26.3**	**-0.8**
	comp=Z,10nm,1.2s						
WR8	**Warramunga Arr**	**43.38**	**124**	P	**P**	**18 52 27.1**	**-1.1**
WR8				IAmb	IAmb	18 52 29.9	
	comp=Z,7.6nm,0.8s						
KSRS	**Korea Array**	**43.63**	**36**	P	**P**	**18 52 28.3**	**-1.6**
	comp=Z,2.0nm,0.9s,baz=225,slow=7.0,SNR=4.5						
KSRS				LR	LR	19 11 50.7	
	comp=Z,59nm,19.3s,baz=215,slow=38						
	comp=Z,2.0nm,0.9s						
AAK	**Ala-Archa**	**43.77**	**335**	LR	LR	19 13 44.3	
	comp=Z,71nm,18.0s,baz=159,slow=40						
SONM	**Songino Array**	**44.58**	**9**	P	**P**	**18 52 37.5**	**0.0**
	comp=Z,2.9nm,0.4s,baz=177,slow=8.5,SNR=2.5						
	comp=Z,2.9nm,0.4s						
SONM	**Songino Array**	**44.58**	**9**	IAmb	IAmb	18 52 49.1	
	comp=Z,3.2nm,0.8s						
ASAR	**Alice Springs**	**44.79**	**129**	P	**P**	**18 52 40.7**	**+1.2**
	comp=Z,2.6nm,0.7s,baz=301,slow=8.0,SNR=59						
ASAR				PcP	**PP**	**18 54 23.4**	**-1.1**
	comp=Z,0.8nm,0.9s,baz=297,slow=3.5,SNR=4.1						
	comp=Z,2.6nm,0.7s						
MKAR	**Makanchi Array**	**44.83**	**345**	P	**P**	**18 52 37.7**	**-1.7**
	comp=Z,0.3nm,0.3s,baz=160,slow=8.8,SNR=7.8						
	comp=Z,0.3nm,0.3s						
KK31	**Karatay Array**	**45.89**	**332**	P	**P**	**18 52 45.3**	**-2.6**
KKAR	**Karatay Array**	**45.89**	**332**	P	**P**	**18 52 44.2**	**-3.7**
GUMO	**Guam**	**47.81**	**75**	LR	LR	19 12 14.7	
	comp=Z,32nm,21.0s,baz=280,slow=35						
KURBB	**Kurchatov Arra**	**49.34**	**344**	P	**P**	**18 53 13.8**	**-0.7**
	comp=Z,1.8nm,0.2s,baz=164,slow=6.4,SNR=2.0						
	comp=Z,1.8nm,0.2s						
KURK	**Kurchatov**	**49.40**	**344**	P	**P**	**18 53 13.8**	**-1.2**
KURK	**Kurchatov**	**49.40**	**344**	IAmb	IAmb	18 53 47.9	
	comp=Z,4.3nm,1.2s						
MJAR	**Matsushiro Arr**	**49.67**	**44**	LR	LR	19 16 45.4	
	comp=Z,46nm,18.8s,baz=226,slow=39						
USRK	**Ussuriysk Ar.**	**50.48**	**32**	LR	LR	19 15 36.2	
	comp=Z,49nm,18.4s,baz=211,slow=37						
ZAA0	**Zalesovo Array**	**51.08**	**350**	P	**P**	**18 53 30.7**	**+3.1**
ZAA0				IAmb	IAmb	18 53 47.1	
	comp=Z,3.4nm,0.8s						
ZALV	**Zalesovo Beam**	**51.08**	**350**	P	**P**	**18 53 27.2**	**-0.4**
	comp=Z,1.2nm,0.4s,baz=171,slow=7.5,SNR=7.5						
ZALV				LR	LR	19 16 55.5	
	comp=Z,30nm,19.8s,baz=220,slow=38						
	comp=Z,1.2nm,0.4s						
ZALV	**Zalesovo Beam**	**51.08**	**350**	P	**P**	**18 53 25.3**	**-2.3**
INKA	**Innaminka**	**52.17**	**130**	P	**P**	**18 53 34.6**	**-1.6**
INKA				IAmb	IAmb	18 53 39.1	
	comp=Z,3.6nm,0.8s						
CTA	**Charters Tower**	**53.47**	**118**	LR	LR	19 17 48.3	
	comp=Z,75nm,18.7s,baz=240,slow=37						
RAYN	**Ar Rayn**	**53.80**	**296**	P	**P**	**18 53 49.5**	**+1.1**
	comp=Z,3.7nm,1.1s						
KLR	**Kul'dur**	**53.88**	**27**	LR	LR	19 17 41.5	
	comp=Z,52nm,18.4s,baz=216,slow=37						
BVAR	**Borovoye Array**	**53.93**	**340**	P	**P**	**18 53 47.0**	**-1.8**
	comp=Z,0.5nm,0.4s,baz=124,slow=7.8,SNR=3.2						
	comp=Z,0.5nm,0.4s						
STKA	**Stephens Creek**	**54.92**	**134**	P	**P**	**18 53 57.8**	**+1.4**
	comp=Z,4.7nm,0.6s,baz=306,slow=8.5,SNR=13						
STKA				LR	LR	19 22 04.8	
	comp=Z,49nm,18.2s,baz=334,slow=41						
	comp=Z,4.7nm,0.6s						
STKA	**Stephens Creek**	**54.92**	**134**	P	**P**	**18 53 57.0**	**+0.7**
	comp=Z,39nm,0.8s						
AB31	**Akbulak array**	**55.39**	**331**	P	**P**	**18 53 56.1**	**-3.3**
AB31				IAmb	IAmb	18 53 59.4	
	comp=Z,3.4nm,1.1s						
ABKAR	**Akbulak array**	**55.39**	**331**	P	**P**	**18 53 56.6**	**-2.8**
ASAJ	**Asahikawa**	**56.50**	**38**	LR	LR	19 17 45.1	
	comp=Z,41nm,21.5s,baz=248,slow=36						
CMSA	**Cobar Meteorol**	**57.77**	**131**	P	**P**	**18 54 17.8**	**+1.1**
	comp=Z,15nm,0.7s						
GNI	**Garni**	**59.64**	**315**	LR	LR	19 24 39.3	
	comp=Z,23nm,18.2s,baz=62,slow=41						
HRFI	**Mount Harif**	**64.31**	**301**	P	**P**	**18 55 02.5**	**+1.3**
	comp=Z,6.3nm,1.0s						
MMAI	**Mount Meron Ar**	**64.62**	**305**	LR	LR	19 26 17.7	
	comp=Z,34nm,18.6s,baz=143,slow=39						
MBAR	**Mbarara**	**66.79**	**268**	LR	LR	19 21 03.7	
	comp=Z,22nm,20.3s,baz=68,slow=33						
BRTR	**Keskin Array B**	**67.58**	**312**	P	**P**	**18 55 22.0**	**-0.2**
	comp=Z,1.0nm,0.6s,baz=115,slow=6.6,SNR=6.7						
BRTR				LR	LR	19 27 25.4	
	comp=Z,16nm,18.3s,baz=117,slow=38						
	comp=Z,1.0nm,0.6s						
MA2	**Magadan**	**68.94**	**26**	LR	LR	19 29 46.3	
	comp=Z,41nm,18.3s,baz=232,slow=40						
PETK	**Petropavlovsk-**	**69.49**	**34**	LR	LR	19 29 21.0	
	comp=Z,20nm,18.4s,baz=304,slow=39						
OBN	**Obninsk**	**70.58**	**328**	LR	LR	19 31 32.5	
	comp=Z,39nm,18.7s,baz=262,slow=40						
KARP	**Karpathos**	**71.79**	**306**	P	**P**	**18 55 48.9**	**+0.8**
AKASG	**Malin Array Be**	**73.39**	**322**	LR	LR	19 31 54.7	
	comp=Z,19nm,19.5s,baz=59,slow=39						
VRI	**Vrincioaia**	**73.92**	**317**	P	**P**	**18 56 01.0**	**+0.6**
	comp=Z,6.9nm,2.2s						
TESR	**Tescani**	**74.10**	**317**	P	**P**	**18 56 01.2**	**-0.2**
	comp=Z,7.4nm,1.3s						
VOIR		**74.99**	**316**	P	**P**	**18 56 07.1**	**+0.3**
	comp=Z,2.2nm,1.0s						
ARR	**Arges**	**75.27**	**316**	P	**P**	**18 56 08.0**	**-0.4**
	comp=Z,3.8nm,2.5s						
AGG	**Agios Georgios**	**76.07**	**309**	P	**P**	**18 56 11.5**	**-1.6**
	comp=Z,11nm,1.8s						
ITM	**Ithomi**	**76.19**	**307**	P	**P**	**18 56 13.4**	**-0.4**
	comp=Z,26nm,2.3s						
GRG	**Griva**	**76.24**	**311**	P	**P**	**18 56 13.3**	**-0.7**
	comp=Z,10nm,0.8s						
DRGR		**76.82**	**317**	P	**P**	**18 56 17.8**	**+0.6**
	comp=Z,5.4nm,1.4s						
BZS	**Buzias**	**77.40**	**316**	P	**P**	**18 56 20.6**	**+0.2**
	comp=Z,3.4nm,2.2s						
FINES	**FINESS Array B**	**77.85**	**332**	P	**P**	**18 56 21.5**	**-1.0**
	comp=Z,0.9nm,0.7s,baz=98,slow=3.9,SNR=6.7						
	comp=Z,0.9nm,0.7s						
ARCES	**ARCESS Array B**	**80.22**	**340**	P	**P**	**18 56 34.6**	**-0.7**
	comp=Z,0.5nm,0.5s,baz=87,slow=4.8,SNR=7.9						
ARCES				LR	LR	19 35 18.7	
	comp=Z,54nm,19.2s,baz=90,slow=38						
	comp=Z,0.5nm,0.5s						
GERES	**GERESS Array B**	**83.05**	**319**	P	**P**	**18 56 51.0**	**+0.1**
	comp=Z,0.4nm,0.3s,baz=120,slow=5.3,SNR=5.5						
	comp=Z,0.4nm,0.3s						
HFS	**Hagfors**	**83.63**	**330**	LR	LR	19 36 52.3	
	comp=Z,27nm,20.0s,baz=16,slow=38						
SPITS	**Spitsbergen Ar**	**84.50**	**348**	LR	LR	19 42 04.8	
	comp=Z,47nm,18.1s,baz=123,slow=41						
NOA	**NORSAR Array B**	**84.89**	**331**	P	**P**	**18 56 58.8**	**-1.1**
	comp=Z,0.8nm,0.9s,baz=91,slow=5.1,SNR=1.5						
NOA				LR	LR	19 40 08.2	
	comp=Z,22nm,18.8s,baz=300,slow=40						
	comp=Z,0.8nm,0.9s						
BORG	**Borgarnes**	**98.45**	**338**	LR	LR	19 45 31.6	
	comp=Z,28nm,18.1s,baz=310,slow=37						
CPUP	**Villa Florida**	**147.01**	**225**	PKPbc	**PKPbc**	**19 04 09.5**	**+0.9**
	comp=Z,0.8nm,0.4s,baz=108,slow=8.7,SNR=3.0						

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*IDC **30** 19:35:21.9±0.4, 17°.00S×167°.79E, h0^{km}, mb4.6/25, mbtmp4.6/29, ML5.0/4, MS4.6/60, Error ellipse: s-maj=13.7km s-min=10.3km az=79.0*

*MOS **30** 19:35:22.4±1.1, 17°.10S×167°.61E, h12^{km}, mb5.3/31, MS4.8/6, Error ellipse: s-maj=10.0km s-min=7.3km az=41.6*

*BJI **30** 19:35:22.0, 17°.03S×167°.75E, h11^{km}, mB5.4/33, mb4.8/57, Ms5.0/46, Ms7 4.9/49*

*NOU **30** 19:35:22.4, 17°.07S×167°.85E, h4^{km}, mb5.2/57, Vanuatu Islands*

*NEIC **30** 19:35:23.7±1.6, 17°.02S±0°.05×167°.76E±0°.05, h10^{km}±2^{km}, mb5.3/133, Mww5.3/26, Error ellipse: s-maj=7.9km s-min=7.1km az=131.0*

*NEIC **30** 19:35:23.9, 17°.02S×167°.76E, h11^{km}*

*GFZ **30** 19:35:24.1, 16°.96S×167°.74E, h10^{km}, Mw5.3/67, Moment Tensor Solution. Moment tensor: Scale 10^{17}Nm; M_{rr}0.89; $M_{\theta\theta}$-0.13; $M_{\phi\phi}$-0.76; $M_{r\theta}$-0.09; $M_{\theta\phi}$0.08; $M_{\phi r}$0.66; Fault plane solution: $M_0$1.06917×10^{17} NP1: ϕ_s172.60234°, δ25.58642°, λ90.47967°. NP2: ϕ_s352.07051°, δ64.41454°, λ89.77032°. Principal axes: T 1.1249, Plg70.5846°, Azm261.5819°; N -0.1218,* *Plg0.2072°, Azm352.1697°; P -1.0030, Plg19.4142°, Azm82.2427°;*

GFZ **30** *19:35:25.3±0.3, 17°S±4°×16°8E±°, h10km, M5.2/24, mb5.1/24*

GCMT **30** *19:35:26.9±0.1, 17°.01S±0°.01×167°.65E, h12km, MW5.3/152, Moment Tensor Solution. s126,c210; s152,c291; Duration: 1^{s}1 Moment tensor: Scale 10^{17} Nm; M_{rr}1.05±.01; $M_{\theta\theta}$0.20±.01; $M_{\phi\phi}$-1.25±.01; $M_{r\theta}$0.13±.03; $M_{\theta\phi}$-0.03±.01; $M_{\phi r}$-0.15±.03; Best double couple: $M_0$1.16900×10^{17} NP1:ϕ_s10.00000°,δ42.00000°, λ103.00000°. NP2:ϕ_s173.00000°,δ49.00000°,λ79.00000°. Principal axes: T 1.0790, Plg81.0000°, Azm24.0000°; N 0.1820, Plg8.0000°, Azm180.0000°; P -1.2600, Plg4.0000°, Azm271.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

NEIC **30** *19:35:30.1, 17°.02S×167°.76E, h12km, Moment Tensor Solution. Duration: 2^{s}4 Moment tensor: Scale 10^{17}Nm; M_{rr}0.93; $M_{\theta\theta}$0.12; $M_{\phi\phi}$-1.05; $M_{r\theta}$0.54; $M_{\theta\phi}$0.10; $M_{\phi r}$0.55; Fault plane solution: $M_0$1.26000×10^{17} NP1: ϕ_s152.67000°,δ36.27000°,λ48.21000°. NP2:ϕ_s20.62000°, δ63.83000°,λ116.06000°. Principal axes: T 1.3246, Plg62.0000°, Azm332.0000°; N -0.1342, Plg23.0000°, Azm188.0000°; P -1.1904, Plg15.0000°, Azm92.0000°;*

ISC 30 19:35:23.7±0.6**, 17°.06S**±0°.03×**167°.84E**±0°.04**, h11**km±3km**, n535, σ1^{s}57**/495**, mb5.2**/169**, MS4.7**/85**, 15C-5D, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DVP	Devils Point	0.74	154	P	Pg	19 35 36.8	-1.1
DVP	Devils Point	0.74	154	S	Sg	19 35 46.6	-1.0
RTV	Rentapao	0.91	143	P	Pg	19 35 40.4	-0.9
RTV	Rentapao	0.91	143	S	Sg	19 35 53.2	-0.1
SANVU	Saraoutou	1.72	339	P	Pn	19 35 52.8	-0.7
SANVU	Saraoutou	1.72	339	P	Sn	19 36 17.6	+2.1
SANVU	Saraoutou	1.72	339		Pn	19 35 51.0	-2.6
SANVU				Sn	Sg	19 36 17.9	-1.2
SANVU	Saraoutou	1.72	339	P	Pn	19 35 51.3	-2.3
SANVU				S	Sb	19 36 15.7	-1.2
SANVU				AML	AML		
SANVU				AML	AML		
SANVU	Saraoutou	1.72	339	P	Pn	19 35 51.5	-2.1
MARNC	Mare, Loyalty	4.40	178	P	Pn	19 36 29.6	-0.8
MARNC	Mare, Loyalty	4.40	178		Pn	19 36 27.5	-2.9
KOUNC	Koumac, New Ca	4.84	224	P	Pn	19 36 35.8	-0.6
KOUNC	Koumac, New Ca	4.84	224		Pn	19 36 35.3	-1.1
YATNC	Mamie plateau,	5.05	190	P	Pn	19 36 38.7	-0.7
YATNC	Mamie plateau,	5.05	190	S	Sn	19 37 38.0	+0.3
DZM	Mont Dzumac	5.15	195	Pn	Pn	19 36 40.5	-0.4
	17nm,0.3s,baz=33,slow=20,SNR=94						
DZM				Sn	Sn	19 37 38.7	-1.7
	21nm,0.3s,baz=294,slow=20,SNR=3.8						
	166nm,0.7s						
DZM				AML	AML		
NOUC	Port Laguerre	5.22	196	P	Pn	19 36 40.9	-0.8
NOUC	Port Laguerre	5.22	196	P	Pn	19 36 42.4	+0.8
NOUC				S	Sn	19 37 42.8	+0.9
NOUC				AML	AML		
NOUC				AML	AML		
ONTNC	Ouen Toro	5.38	194	P	Pn	19 36 42.3	-1.6
ONTNC	Ouen Toro	5.38	194		Pn	19 36 42.3	-1.6
OUENC	Ouen Island, N	5.41	190	P	Pn	19 36 44.5	+0.2
OUENC	Ouen Island, N	5.41	190		Pn	19 36 43.8	-0.5
HURO	Huro Makira	8.73	318	P	Pn	19 37 30.0	0.0
NGOA	Tingoa Renbel	9.32	305	P	Pn	19 37 37.9	-0.1
MSVF	Nonsavu	9.77	95	Pn	Pn	19 37 48.1	+3.8
	0.7nm,0.3s,baz=284,slow=11,SNR=15						
MSVF				LR	LR	19 40 53.7	
	comp=Z,18µm,19.6s,baz=313,slow=34						
	6.0nm,0.8s						
MSVF				AML	AML		
MSVF	Nonsavu	9.77	95	P	Pn	19 37 44.1	-0.1
MSVF	Nonsavu	9.77	95	*i* P	Pn	19 37 48.5	+4.3
MSVF	Nonsavu	9.77	95		Pn	19 37 46.1	+1.9
MSVF	Nonsavu	9.77	95	P	Pn	19 37 51.6	+7.4
	comp=Z,105nm,1.6s						
HNR	Honiara	10.80	314	Pn	Pn	19 37 58.8	+0.5
	comp=Z,11nm,0.3s,baz=273,slow=4.2,SNR=6.5						
HNR				Sn	Sn	19 39 55.5	-3.7
	comp=Z,4.0nm,0.3s,baz=52,slow=16,SNR=1.2						
HNR				LR	LR	19 41 34.3	
	comp=Z,5µm,21.1s,baz=218,slow=35						
	comp=Z,235nm,1.0s						
HNR				AML	AML		
HNR	Honiara	10.80	314		Pn	19 37 56.8	-1.5
HNR	Honiara	10.80	314	P	Pn	19 37 59.9	+1.6
HNR	Honiara	10.80	314	P	Pn	19 37 60.0	+1.6
	comp=Z,598nm,1.0s						
TATA	Tatamba Isabel	11.65	317	P	Pn	19 38 09.7	-0.3
NFK	Norfolk Island	11.93	180	P	Pn	19 38 14.0	+0.3
	comp=Z,80nm,1.1s,comp=Z,0.0nm,0.2s						
NFK	Norfolk Island	11.93	180	P	Pn	19 38 14.1	+0.4
	comp=Z,80nm,1.1s						
FUTU	Fugatoga	13.79	80	Pn	Pn	19 38 39.4	+0.2
FUTU	Fugatoga	13.79	80	P	P	19 38 45.9	-1.9
LHI	Lord Howe Isla	16.46	207	P	Pn	19 39 13.7	-0.9
	comp=Z,49nm,2.0s						
EIDS	Eidsvold	17.66	239	P	P	19 39 35.0	+4.3
	comp=Z,43nm,1.6s,comp=Z,0.0nm						
EIDS	Eidsvold	17.66	239	P	Pn	19 39 29.4	-0.4
	comp=Z,44nm,2.1s,comp=Z,0.0nm						
EIDS	Eidsvold	17.66	239		Pn	19 39 30.1	+0.2
EIDS	Eidsvold	17.66	239	P	P	19 39 32.4	+1.6
	comp=Z,44nm,2.1s						
RAO	Raoul Island	17.83	135	LR	LR	19 44 54.6	
	comp=Z,4µm,21.1s,baz=312,slow=32						
OUZ	Omahuta	18.80	165	P	P	19 39 42.6	-0.5
OUZ	Omahuta	18.80	165	P	Pn	19 39 45.5	+1.9
OUZ	Omahuta	18.80	165	P	Pn	19 39 45.8	+2.1
	comp=Z,85nm,1.7s						
WCZ	Waipu Caves	19.67	164	P	Pn	19 39 55.7	+1.6
ARMA	Armidale	19.89	225	P	Pn	19 39 56.7	-0.2
	comp=Z,82nm,1.2s						
ARMA	Armidale	19.89	225	P	P	19 39 55.7	+0.4
ARMA	Armidale	19.89	225		P	19 39 55.2	-0.1
ARMA	Armidale	19.89	225	P	Pn	19 39 58.2	+1.3
	comp=Z,82nm,1.2s						
KRVT	Keravat (AS076	20.03	307	P	P	19 39 55.9	-0.9
	comp=Z,5.8nm,0.3s,baz=214,slow=4.9,SNR=6.5						
KRVT				LR	LR	19 46 30.0	
	comp=Z,2µm,21.0s,baz=128,slow=34						
	comp=Z,54nm,0.8s						
KRVT				AML	AML		
TV1H	Townsville Har	20.12	261	P	P	19 39 57.9	+0.2
GRZ	Great Barrier	20.27	162	P	Pn	19 40 01.2	0.0
MBAZ	Motutapu North	20.60	164	P	Pn	19 40 04.8	-0.2
CTA	Charters Tower	20.68	258	P	P	19 40 04.7	+0.8
CTA	Charters Tower	20.68	258	P	P	19 40 03.5	-0.4
	comp=Z,13nm,0.8s,baz=80,slow=12,SNR=14						
CTA				LR	LR	19 47 03.8	
	comp=Z,4µm,19.1s,baz=76,slow=34						
	comp=Z,13nm,0.8s						
CTAO	Charters Tower	20.68	258	P	P	19 40 04.0	+0.1
CTAO	Charters Tower	20.68	258	P	P	19 40 02.7	-1.2
CTAO				pmax	pmax		
	comp=Z,95nm,1.3s						
CTAO	Charters Tower	20.68	258		P	19 40 02.6	-1.2
CTAO	Charters Tower	20.68	258	P	Pn	19 40 05.9	-0.3
	comp=Z,58nm,1.7s						
WIAZ	Waiheke Island	20.68	163	P	Pn	19 40 06.5	+0.4
MKAZ	Moumakai	20.98	163	P	P	19 40 08.5	+1.6
PMG	Port Moresby	21.51	288	P	P	19 40 12.0	-0.8
	comp=Z,17nm,0.9s,baz=101,slow=13,SNR=5.9						
PMG				LR	LR	19 47 21.6	
	comp=Z,4µm,20.2s,baz=122,slow=34						
	comp=Z,17nm,0.9s						
PMG	Port Moresby	21.51	288	*i* P	P	19 40 12.4	-0.4
PMG				pmax	pmax		
	comp=Z,91nm,1.4s						
PMG	Port Moresby	21.51	288	P	P	19 40 11.2	-1.7
PMG				IAmb	IAmb	19 40 22.6	
	comp=Z,259nm,1.9s						
PMG	Port Moresby	21.51	288	P	P	19 40 16.7	+3.9
TOZ	Tahuroa Road	21.66	163		P	19 40 16.5	+2.2
TOZ				IAmb	IAmb	19 40 25.0	
	comp=Z,75nm,0.9s						
HIZ	Hauiti	22.24	165	P	P	19 40 22.9	+2.5
HIZ	Hauiti	22.24	165	P	P	19 40 23.1	+2.7
	comp=Z,266nm,1.7s						
MTSU	Mount Surprise	22.45	264	P	P	19 40 23.5	+0.6
	comp=Z,52nm,1.1s						
MTSU	Mount Surprise	22.45	264	P	P	19 40 22.8	-0.1
	comp=Z,52nm,1.1s						
MTSU	Mount Surprise	22.45	264	P	P	19 40 22.9	-0.1
	comp=Z,52nm,1.1s						
URZ	Urewera	22.63	161	LR	LR	19 47 32.4	
	comp=Z,2µm,19.7s,baz=354,slow=32						
URZ	Urewera	22.63	161	P	P	19 40 24.7	+0.1
URZ	Urewera	22.63	161	P	P	19 40 26.5	+2.0
URZ	Urewera	22.63	161	P	P	19 40 26.6	+2.0
	comp=Z,95nm,1.6s						
MWZ	Matawai	22.83	160	P	P	19 40 28.9	+2.1
RTZ	Ruatahuna	22.91	161	P	P	19 40 28.8	+1.1
RTZ				IAmb	IAmb	19 40 45.9	
	comp=Z,147nm,1.3s						
WTVZ	West Tongariro	22.99	164	P	P	19 40 32.7	+4.2
ETVZ	East Tongariro	23.04	164	P	P	19 40 32.8	+3.7
OTVZ	Oturere	23.05	164	P	P	19 40 32.1	+2.8
SNVZ	South Ngauruho	23.07	164	P	P	19 40 32.5	+3.1
MTHZ	Maungataniwha	23.09	162	P	P	19 40 31.5	+2.0
FWVZ	Far West T-bar	23.11	165	P	P	19 40 32.9	+3.0
WNVZ	Wahianoa	23.19	165	P	P	19 40 33.5	+2.9
BKZ	Black Stump Fm	23.28	163	P	P	19 40 31.8	+0.4
BKZ	Black Stump Fm	23.28	163	P	P	19 40 32.0	+0.6
MOVZ	Moawhango	23.31	164	P	P	19 40 34.1	+2.4
NMHZ	Naumai	23.31	162	P	P	19 40 34.0	+2.2
BHHZ	Black Hill Sta	23.46	164	P	P	19 40 35.0	+1.8
KWHZ	Kaweka Forest	23.50	163	P	P	19 40 34.8	+1.2
KRHZ	Kereru	23.69	163	P	P	19 40 37.1	+1.6
QLP	Quilpie	23.84	243	P	P	19 40 37.2	+0.2
	comp=Z,146nm,1.3s						
QLP	Quilpie	23.84	243	P	P	19 40 37.5	+0.5
QLP	Quilpie	23.84	243	P	P	19 40 37.1	+0.1
	comp=Z,146nm,1.3s						
PNHZ	Pukenui	23.90	164	P	P	19 40 38.3	+0.8
KAHZ	Kahuranaki	23.97	163	P	P	19 40 40.3	+2.1
TSZ	Takapari Road	23.97	165	P	P	19 40 39.1	+0.9
DVHZ	Dannevirke	24.25	164	P	P	19 40 41.3	+0.6
TKNZ	Takaka Hill	24.29	171	P	P	19 40 42.6	+1.5
MRZ	Mangatainoka R	24.45	166		P	19 40 42.5	0.0
MRZ				IAmb	IAmb	19 40 58.7	
	comp=Z,145nm,1.4s						
MRZ	Mangatainoka R	24.45	166	P	P	19 40 42.4	0.0
YNG	Young	24.45	222	P	P	19 40 43.6	+0.9
	comp=Z,1.6nm,1.5s						
OGWZ	Otaki Gorge	24.50	167	P	P	19 40 43.3	+0.3
CNB	Canberra Magne	24.53	219	P	P	19 40 44.4	+1.0
	comp=Z,94nm,1.2s						
CNB	Canberra Magne	24.53	219	P	P	19 40 43.7	+0.3
	comp=Z,94nm,1.2s						
MRNZ	Matariki Terra	24.62	171	P	P	19 40 44.3	+0.3
BFZ	Birch Farm	24.63	165	P	P	19 40 45.0	+0.9
BFZ	Birch Farm	24.63	165	P	P	19 40 45.1	+0.9
HOWZ	Holdsworth Sta	24.66	166	P	P	19 40 44.5	+0.1
TCW	Tory Channel	24.70	168	P	P	19 40 45.0	+0.3
CMSA	Cobar Meteorol	24.73	230	P	P	19 40 45.8	+0.6
	comp=Z,53nm,1.4s						
CMSA	Cobar Meteorol	24.73	230	P	P	19 40 46.0	+0.8
CMSA	Cobar Meteorol	24.73	230	P	P	19 40 47.2	+2.0
	comp=Z,53nm,1.3s						
CAW	Cannon Point	24.76	167	P	P	19 40 53.6	+8.3
MTW	Mount Morrison	24.90	166	P	P	19 40 49.1	+2.5
THZ	Tophouse	25.00	171	IAmb	IAmb	19 41 01.6	
	comp=Z,66nm,0.8s						
MANU	Manus Island	25.06	304	P	P	19 40 46.9	-1.4
KHZ	Kahutara	25.73	170	P	P	19 40 55.1	+1.1
	comp=Z,59nm,0.9s						
INZ	Inchbonnie	25.76	174	IAmb	IAmb	19 41 12.1	
	comp=Z,80nm,1.0s						
LTZ	Lake Taylor	25.91	173	IAmb	IAmb	19 41 35.2	
	comp=Z,138nm,1.5s						
RPZ	Rata Peaks	26.71	175	LR	LR	19 50 55.0	
	comp=Z,318nm,18.8s,baz=278,slow=35						
QIS	Mount Isa	26.94	258	P	P	19 41 05.3	-0.1
	comp=Z,51nm,1.1s						
QIS	Mount Isa	26.94	258	P	P	19 41 04.9	-0.4
QIS	Mount Isa	26.94	258	P	P	19 41 05.5	+0.1
	comp=Z,51nm,1.1s						
STKA	Stephens Creek	27.98	233	P	P	19 41 14.6	+0.1
STKA	Stephens Creek	27.98	233	P	P	19 41 14.6	+0.1
	comp=Z,9.5nm,0.7s,baz=65,slow=8.2,SNR=2.9						
STKA				PcP	PcP	19 44 27.9	-1.8
	comp=Z,6.5nm,0.9s,baz=60,slow=5.1,SNR=4.2						
STKA				LR	LR	19 52 23.4	
	comp=Z,2µm,19.0s,baz=59,slow=36						
	comp=Z,9.5nm,0.7s						
STKA	Stephens Creek	27.98	233	P	P	19 41 13.5	-1.0
STKA	Stephens Creek	27.98	233	*i* P	P	19 41 11.1	-3.4
STKA	Stephens Creek	27.98	233	P	P	19 41 14.8	+0.3
	comp=Z,235nm,1.3s						
TOO	Toolangi	28.36	220	P	P	19 41 20.7	+2.8
	comp=Z,7.6nm,1.5s						
TOO	Toolangi	28.36	220	P	P	19 41 18.4	+0.5
	comp=Z,14nm,2.3s						
ARPS	Mount Arapiles	30.22	224	P	P	19 41 34.9	+0.6
	comp=Z,9.8nm,1.2s						
JAY	Jayapura	30.33	296	LR	LR	19 53 23.0	
	comp=Z,2µm,18.8s,baz=80,slow=36						
HTT	Hallett	30.68	232	P	P	19 41 39.3	+0.8
	comp=Z,8.4nm,1.3s						
HTT	Hallett	30.68	232	P	P	19 41 38.3	-0.2
GENI	Genyem	30.76	295	P	P	19 41 40.7	+1.4
	comp=Z,57nm,2.3s						
GENI	Genyem	30.76	295	P	P	19 41 39.7	+0.4
	comp=Z,57nm,2.3s						
MOO	Moorlands	30.84	211	P	P	19 41 41.1	+1.4
	comp=Z,64nm,1.5s						
RAR	Rarotonga	30.84	103	LR	LR	19 51 30.2	
	comp=Z,1µm,21.8s,baz=269,slow=31						
WR8	Warramunga Arr	31.72	260	P	P	19 41 46.3	-1.5
WR8	Warramunga Arr	31.72	260	IAmb	IAmb	19 41 56.1	
	comp=Z,104nm,1.9s						
WB0	Warramunga Arr	31.82	260	IAmb	IAmb	19 41 57.8	
	comp=Z,24nm,0.9s						
WB7	Warramunga Arr	31.84	260	P	P	19 41 47.9	-0.9
WC2	Warramunga Arr	31.85	260	P	P	19 41 48.1	-0.9
WRAB	Tennant Creek	31.86	260	P	P	19 41 48.4	-0.6
WRAB	Tennant Creek	31.86	260	*i* P	P	19 41 48.3	-0.7
WRAB				pmax	pmax		
	comp=Z,23nm,0.9s						
WRAB	Tennant Creek	31.86	260	P	P	19 41 45.2	-3.8
WRAB	Tennant Creek	31.86	260	P	P	19 41 48.0	-1.0
	comp=Z,22nm,1.6s						
WRA	Warramunga Arr	31.87	260	P	P	19 41 47.5	-1.7
	comp=Z,8.2nm,0.8s,baz=89,slow=8.7,SNR=33						
WRA				PcP	PcP	19 44 40.0	+0.1
	comp=Z,2.6nm,0.8s,baz=91,slow=3.5,SNR=5.3						
WRA				LR	LR	19 53 45.4	
	comp=Z,3µm,20.2s,baz=90,slow=35						
	comp=Z,8.2nm,0.8s						
WRA	Warramunga Arr	31.87	260	P	P	19 41 46.5	-2.7
AS17	Alice Springs	32.35	253	P	P	19 41 52.0	-1.4
	comp=Z,71nm,0.9s						
AS17	Alice Springs	32.35	253	P	P	19 41 51.8	-1.6
	comp=Z,71nm,0.9s						
AS06	Alice Springs	32.37	253	P	P	19 41 52.7	-0.8
	comp=Z,66nm,0.9s						
AS01	Alice Springs	32.39	253	P	P	19 41 53.2	-0.5
AS09	Alice Springs	32.40	253	P	P	19 41 52.6	-1.2
AS04	Alice Springs	32.41	253	P	P	19 41 52.9	-0.9
	comp=Z,86nm,0.9s						
AS15	Alice Springs	32.42	253	P	P	19 41 53.1	-0.9
AS31	Alice Springs	32.43	253	P	P	19 41 53.8	-0.3
AS31	Alice Springs	32.43	253	P	P	19 41 52.5	-1.6
	comp=Z,27nm,0.6s						
AS31	Alice Springs	32.43	253	IAmb	IAmb	19 42 02.2	
	comp=Z,19nm,0.6s						
ASAR	Alice Springs	32.43	253	P	P	19 41 52.5	-1.6
	comp=Z,10nm,0.4s,baz=82,slow=8.4,SNR=161						
ASAR				PcP	PcP	19 44 40.4	-1.1
	comp=Z,1.8nm,0.7s,baz=90,slow=2.8,SNR=4.2						
ASAR				LR	LR	19 54 08.7	
	comp=Z,5µm,20.8s,baz=85,slow=35						
	comp=Z,10nm,0.4s						
ASAR	Alice Springs	32.43	253	P	P	19 41 51.8	-2.3
BBOO	Buckleboo	32.65	235	P	P	19 41 55.6	-0.2
	comp=Z,44nm,1.2s						
BBOO	Buckleboo	32.65	235	P	P	19 41 56.0	+0.2
BBOO	Buckleboo	32.65	235	P	P	19 41 54.7	-1.1
BBOO				IAmb	IAmb	19 42 04.6	
	comp=Z,56nm,1.1s						
BBOO	Buckleboo	32.65	235	P	P	19 41 56.1	+0.2
	comp=Z,44nm,1.2s						
KDU	Kakadu	34.43	272	P	P	19 42 10.6	-0.9
	comp=Z,10nm,2.4s						
BAKI	Biak	34.98	293	P	P	19 42 18.0	+1.7
	comp=Z,894nmcomp=Z,73nm,1.3s						
MTN	Manton Dam	35.68	272	P	P	19 42 21.5	-0.8
	comp=Z,7.5nm,1.6s						
KNRA	Kununurra	37.48	266	P	P	19 42 35.7	-1.9
	comp=Z,15nm,1.3s						
WRKA	Warakurna	37.65	251	P	P	19 42 37.1	-2.0
	comp=Z,17nm,1.4s,comp=Z,0.0nm,18.0s						
WRKA	Warakurna	37.65	251	P	P	19 42 37.7	-1.3
	comp=Z,17nm,1.4s						
FAKI	Fak Fak	37.67	288	P	P	19 42 39.3	0.0
GUMO	Guam	37.98	322	LR	LR	19 56 31.2	
	comp=Z,2µm,21.9s,baz=136,slow=34						
FORT	Forrest	38.64	242	P	P	19 42 47.3	0.0
	comp=Z,19nm,1.2s						
SIJI	Sorong	39.42	290	LR	LR	20 00 06.1	
	comp=Z,2µm,18.1s,baz=90,slow=38						
SWI	Sorong	39.43	290	P	P	19 42 54.1	0.0
	comp=Z,720nmcomp=Z,50nm,1.4s						
FITZ	Fitzroy Crossi	40.18	262	LR	LR	19 58 50.7	
	comp=Z,4µm,20.2s,baz=100,slow=35						
PPT2	Papeete2	40.59	97	*e*P	P	19 43 06.8	+3.0
	comp=Z,92nm,25.0s						
PPT2				*e*S	S	19 49 08.0	-5.5
	comp=Z,566nm,24.8s						
PPT2				*e*SS	SS	19 52 10.5	-3.0
	comp=Z,704nm,24.5s						
PPT2				*e*LR	LR	19 54 10.7	
	comp=Z,3µm,28.8s						
PPT2				*e*LR	LR	19 54 11.6	
	comp=Z,5µm,26.5s						
PPT	Papeete	40.59	97	LR	LR	19 56 11.7	
	comp=Z,1µm,21.7s,baz=260,slow=31						
NLAI	Namlea	42.27	284	P	P	19 43 18.8	+1.2
	comp=Z,1µmcomp=Z,74nm,1.7s						
SOEI	Soe	42.93	274	P	P	19 43 24.6	+1.6
	comp=Z,44nm,1.1s						
BATI	Baumata	43.40	273	LR	LR	20 00 10.7	
	comp=Z,2µm,21.8s,baz=126,slow=34						
SANI	Sanana	43.75	285	P	P	19 43 29.9	+0.4
	comp=Z,990nmcomp=Z,55nm,1.5s						
SANI	Sanana	43.75	285	P	P	19 43 29.6	0.0
	comp=Z,54nm,1.5s						
KMBL	Kambalda	43.96	242	P	P	19 43 30.7	-0.3
	comp=Z,24nm,1.3s,comp=Z,0.0nm,6.8s						
KMBL	Kambalda	43.96	242	P	P	19 43 30.5	-0.6
	comp=Z,24nm,1.3s						
MMRI	Maumere	45.16	275	P	P	19 43 43.0	+2.2
	comp=Z,963nmcomp=Z,40nm,1.5s						
MBWA	Marble Bar	45.51	257	P	P	19 43 43.5	-0.1
	comp=Z,46nm,1.1s,comp=Z,0.0nm,7.7s						
MBWA	Marble Bar	45.51	257	P	P	19 43 43.4	-0.1
	comp=Z,46nm,1.1s						
MBWA	Marble Bar	45.51	257	P	P	19 43 43.2	-0.4
MBWA	Marble Bar	45.51	257	P	P	19 43 43.5	-0.1
	comp=Z,46nm,1.1s						
EDFI	Ende, Flores	45.65	274	P	P	19 43 50.7	+5.9
	comp=Z,22nm,0.8s						
BBSI	Bau Bau	45.75	279	P	P	19 43 45.7	+0.2
MNI	Manado	46.21	289	P	P	19 43 51.4	+2.3
MEEK	Meekatharra	46.44	249	P	P	19 43 50.3	-0.6
MEEK	Meekatharra	46.44	249	P	P	19 43 49.9	-0.9
	comp=Z,105nm,1.4s						
MEEK	Meekatharra	46.44	249	P	P	19 43 50.2	-0.6
MEEK	Meekatharra	46.44	249	P	P	19 43 50.6	-0.3
	comp=Z,105nm,1.4s						
KKSI	Kolaka, Sulawe	47.04	280	P	P	19 43 56.4	+0.8
	comp=Z,1µmcomp=Z,30nm,2.4s						
KLBR	Kellerberrin	47.49	243	P	P	19 43 58.6	-0.3
KLBR	Kellerberrin	47.49	243	P	P	19 43 58.6	-0.3
	comp=Z,61nm,1.0s						
KLBR	Kellerberrin	47.49	243	P	P	19 43 58.4	-0.5
KLBR	Kellerberrin	47.49	243	P	P	19 43 58.7	-0.3
	comp=Z,61nm,1.0s						
NWAO	Narrogin (SRO)	48.06	241	P	P	19 44 02.5	-0.9
NWAO	Narrogin (SRO)	48.06	241	P	P	19 44 03.3	0.0
	comp=Z,65nm,1.1s						
NWAO	Narrogin (SRO)	48.06	241	LR	LR	20 03 42.5	
	comp=Z,2µm,20.7s,baz=94,slow=35						
NWAO	Narrogin (SRO)	48.06	241	P	P	19 44 03.4	0.0
NWAO	Narrogin (SRO)	48.06	241	P	P	19 44 02.0	-1.4
NWAO				pmax	pmax		
	comp=Z,146nm,1.5s						
NWAO	Narrogin (SRO)	48.06	241	P	P	19 44 02.0	-1.4
NWAO	Narrogin (SRO)	48.06	241	P	P	19 44 03.1	-0.3
	comp=Z,62nm,1.1s						
DAV	Davao City (W)	48.17	296	LR	LR	20 03 37.6	
	comp=Z,369nm,20.2s,baz=126,slow=35						
APSI	Ampana	48.19	285	P	P	19 44 05.6	+1.0
	comp=Z,1µmcomp=Z,86nm,1.4s						
BLDU	Ballidu	48.30	244	P	P	19 44 08.3	+3.1
BLDU	Ballidu	48.30	244	P	P	19 44 04.7	-0.5
	comp=Z,32nm,1.4s						
BLDU	Ballidu	48.30	244	P	P	19 44 05.1	-0.1
KAPI	Kappang	48.56	279	LR	LR	20 03 38.3	
	comp=Z,688nm,21.6s,baz=100,slow=35						
KAPI	Kappang	48.56	279	*i* P	P	19 44 06.1	-1.3
KAPI				pmax	pmax		
	comp=Z,48nm,1.0s						
KAPI	Kappang	48.56	279	P	P	19 44 06.0	-1.5
KAPI				IAmb	IAmb	19 44 16.2	
	comp=Z,36nm,1.0s						
KAPI	Kappang	48.56	279	P	P	19 44 07.9	+0.5
	comp=Z,21nm,0.9s						
MORW	Morawa	48.79	246	P	P	19 44 09.0	-0.1
	comp=Z,41nm,1.1s,comp=Z,0.0nm,7.0s						
MORW	Morawa	48.79	246	P	P	19 44 09.2	+0.1
	comp=Z,41nm,1.1s						
MORW	Morawa	48.79	246	P	P	19 44 09.4	+0.3
MORW	Morawa	48.79	246	IAmb	IAmb	19 44 18.6	
	comp=Z,32nm,0.9s						
MORW	Morawa	48.79	246	P	P	19 44 08.4	-0.6
	comp=Z,42nm,1.1s						
DBNI	Kabupaten Domp	48.93	274	P	P	19 44 10.6	+0.3
	comp=Z,1µmcomp=Z,67nm,0.8s						
PLAI	Plampang	49.36	273	P	P	19 44 12.9	-0.7
PLAI	Plampang	49.36	273	P	P	19 44 18.1	+4.5
	comp=Z,55nm,0.8s						
TOLI2	Tolitoli	49.77	287	P	P	19 44 14.6	-2.1
TOLI2				IAmb	IAmb	19 44 28.8	
	comp=Z,39nm,1.2s						
TOLI2	Tolitoli	49.77	287	P	P	19 44 15.5	-1.2
	comp=Z,35nm,1.5s						
PCI	Palu	49.88	284	P	P	19 44 19.5	+2.0
	comp=Z,1µmcomp=Z,101nm,1.2s						
MMSI	Mamuju	50.11	281	P	P	19 44 19.9	+0.6
	comp=Z,567nmcomp=Z,17nm,1.4s						
OVEH	Oceanview Est	50.74	46	P	P	19 44 23.3	-0.8
DAH	Dandelion	50.95	46	P	P	19 44 24.6	-1.3
TAOE	Nuku Hiva Isla	51.21	88	*e*S	S	19 51 46.0	-0.5
	comp=Z,732nm,24.3s						
TAOE				*e*SS	SS	19 55 24.6	+2.5
	comp=Z,431nm,27.6s						
TAOE				*e*LR	LR	19 59 07.8	
	comp=Z,4µm,26.3s						
MYLDM	Lahad Datu	53.52	290	P	P	19 44 46.8	+2.0
	comp=Z,40nm,1.6s						
KKM	Kota Kinabalu	55.94	290		P	19 45 01.4	-1.1
KKM	Kota Kinabalu	55.94	290	P	P	19 45 03.7	+1.2
	comp=Z,734nmcomp=Z,38nm,1.6s						
KKM	Kota Kinabalu	55.94	290	P	P	19 45 03.0	+0.5
	comp=Z,38nm,1.6s						
JHJ	Hachijo jima 2	56.65	332	LR	LR	20 05 51.2	
	comp=Z,216nm,20.9s,baz=135,slow=32						
STKI	Sintang	58.03	281	P	P	19 45 18.6	+1.4
	comp=Z,33nm,0.8s						
SBUM	Sibu	58.18	284	P	P	19 45 16.8	-1.4
SBUM	Sibu	58.18	284	P	P	19 45 19.3	+1.1
SBUM	Sibu	58.18	284	P	P	19 45 18.6	+0.4
	comp=Z,6.7nm,1.2s						
LEM	Lembang	59.59	272	LR	LR	20 10 46.5	
	comp=Z,916nm,21.2s,baz=164,slow=36						
JMN	Monobe	60.00	327	P	P	19 45 29.5	-1.0
MJAR	Matsushiro Arr	60.22	333	P	P	19 45 30.7	-1.2
	comp=Z,7.2nm,1.0s,baz=168,slow=8.7,SNR=15						
MJAR				LR	LR	20 08 48.7	
	comp=Z,296nm,22.0s,baz=146,slow=33						
	comp=Z,7.2nm,1.0s						
MAJO	Matsushiro	60.22	333	*i* P	P	19 45 30.0	-1.8
MAJO				pmax	pmax		
	comp=Z,16nm,1.2s						
MAJO	Matsushiro	60.22	333	P	P	19 45 30.1	-1.8
MAJO	Matsushiro	60.22	333	P	P	19 45 30.5	-1.4
	comp=Z,14nm,1.1s						
MJB9	Matsu-Tunnel	60.23	333	P	P	19 45 30.5	-1.4
VNDA	Vanda	60.55	181	P	P	19 45 33.9	+0.2
	comp=Z,2.7nm,0.8s,baz=11,slow=7.3,SNR=15						

VNDA				LR	LR	20 08 25.6	
	comp=Z,316nm,20.3s,baz=20,slow=33						
	comp=Z,2.7nm,0.8s						
VNDA	**Vanda**	**60.55**	**181**	P	**P**	**19 45 33.2**	**-0.5**
SBA	**Scott Base**	**60.82**	**180**	P	**P**	**19 45 36.0**	**+0.6**
SBA				pmax	pmax		
	comp=Z,29nm,0.9s						
SBA	**Scott Base**	**60.82**	**180**	P	**P**	**19 45 36.0**	**+0.6**
SBA				IAmb	IAmb	19 45 40.5	
	comp=Z,29nm,0.9s						
SBA	**Scott Base**	**60.82**	**180**	P	**P**	**19 45 37.2**	**+1.8**
	comp=Z,41nm,2.6s						
JNU	**Nakatsue**	**61.13**	**325**	P	**P**	**19 45 37.7**	**-0.5**
	comp=Z,9.4nm,0.9s,baz=101,slow=9.2,SNR=3.9						
JNU				LR	LR	20 08 13.6	
	comp=Z,230nm,21.9s,baz=116,slow=32						
	comp=Z,9.4nm,0.9s						
JNU	**Nakatsue**	**61.13**	**325**	IAmb	IAmb	19 46 11.7	
	comp=Z,13nm,0.7s						
YHNB	**Yeheng**	**61.42**	**311**	P	**P**	**19 45 39.1**	**-1.3**
CASY	**Casey**	**61.59**	**203**	P	**P**	**19 45 41.5**	**+0.7**
ASAJ	**Asahikawa**	**65.11**	**340**	P	**P**	**19 46 04.3**	**0.0**
	comp=Z,4.5nm,0.7s,baz=228,slow=4.2,SNR=5.8						
ASAJ				LR	LR	20 11 13.3	
	comp=Z,636nm,20.8s,baz=172,slow=33						
	comp=Z,4.5nm,0.7s						
SSE	**Sheshan**	**65.59**	**317**	P	**P**	**19 46 08.0**	**+0.3**
SSE				S	**S**	**19 54 53.3**	**+0.2**
SSE				pmax	pmax		
	comp=Z,5.0nm,0.9s						
SSE				pmax	pmax		
	comp=Z,110nm,5.1s						
SSE				L	L		
	comp=Z,130nm,22.3s						
SSE				L	L		
	comp=Z,190nm,21.2s						
KSRS	**Korea Array**	**65.97**	**326**	P	**P**	**19 46 09.7**	**-0.3**
	comp=Z,2.5nm,1.0s,baz=142,slow=6.2,SNR=6.5						
KSRS				LR	LR	20 12 03.5	
	comp=Z,327nm,21.3s,baz=140,slow=33						
	comp=Z,2.5nm,1.0s						
KSAR	**Wonju Array Be**	**65.98**	**326**	P	**P**	**19 46 09.3**	**-0.8**
KSAR	**Wonju Array Be**	**65.98**	**326**	P	**P**	**19 46 09.3**	**-0.8**
QIZ	**Qiongzhong**	**67.36**	**300**	P	**P**	**19 46 19.3**	**0.0**
QIZ				S	**S**	**19 55 16.3**	**+1.2**
QIZ				SS	**SS**	**19 59 33.3**	**-2.1**
QIZ				pmax	pmax		
	comp=Z,200nm,5.7s						
QIZ				L	L		
	comp=Z,290nm,17.5s						
QIZ				L	L		
	comp=Z,380nm,19.8s						
QIZ				L	L		
	comp=Z,650nm,26.8s						
YSS	**Yuzhno-Sakhali**	**67.61**	**342**	*e*P	**P**	**19 46 21.6**	**+1.4**
YSS				*e*S	**S**	**19 55 19.7**	**+2.7**
YSS				pmax	pmax		
	comp=Z,20nm,1.0s						
YSS				MLR	MLR		
	comp=Z,400nm,18.0s						
NJ2	**Nanjing**	**67.73**	**316**	*e*P	**P**	**19 46 21.5**	**+0.1**
NJ2				pmax	pmax		
	comp=Z,11nm,0.9s						
NJ2				pmax	pmax		
	comp=Z,290nm,4.4s						
NJ2				L	L		
	comp=Z,360nm,15.2s						
NJ2				L	L		
	comp=Z,320nm,17.5s						
NJ2				L	L		
	comp=Z,790nm,24.1s						
USA0B	**Ussuriysk Arra**	**69.21**	**333**	*i* P	**P**	**19 46 29.9**	**-0.4**
USRK	**Ussuriysk Ar.**	**69.21**	**333**	P	**P**	**19 46 30.8**	**+0.5**
	comp=Z,1.8nm,0.7s,baz=57,slow=7.0,SNR=7.3						
USRK				LR	LR	20 12 45.6	
	comp=Z,217nm,21.5s,baz=152,slow=32						
	comp=Z,1.8nm,0.7s						
USRK	**Ussuriysk Ar.**	**69.21**	**333**		**P**	**19 46 29.8**	**-0.6**
IPM	**Ipoh**	**69.34**	**282**	P	**P**	**19 46 29.5**	**-2.4**
IPM				IAmb	IAmb	19 46 45.0	
	comp=Z,34nm,1.2s						
IPM	**Ipoh**	**69.34**	**282**	P	**P**	**19 46 32.4**	**+0.5**
	comp=Z,503nmcomp=Z,22nm,1.8s						
MNSI	**Mandailing Nat**	**69.50**	**277**	P	**P**	**19 46 32.4**	**-0.5**
SHEM	**Shemya Is, Ala**	**69.71**	**4**	LR	LR	20 12 17.3	
	comp=Z,431nm,19.9s,baz=123,slow=32						
WHN	**Wuhan**	**69.91**	**312**	P	**P**	**19 46 34.3**	**-0.7**
KULM	**Kulim**	**69.97**	**282**	IAmb	IAmb	19 46 48.9	
	comp=Z,29nm,1.2s						
KULM	**Kulim**	**69.97**	**282**	P	**P**	**19 46 36.9**	**+1.2**
	comp=Z,630nmcomp=Z,22nm,0.9s						
PET	**Petropavlovsk**	**70.25**	**354**	*e*P	**P**	**19 46 39.3**	**+2.8**
PET				*e*S	**S**	**19 55 53.0**	**+5.0**
PEA0B	**Petropavlovsk-**	**70.43**	**354**	*e*P	**P**	**19 46 37.2**	**-0.5**
PETK	**Petropavlovsk-**	**70.43**	**354**	P	**P**	**19 46 37.5**	**-0.1**
	comp=Z,2.7nm,0.8s,baz=147,slow=6.9,SNR=6.5						
PETK				LR	LR	20 11 32.0	
	comp=Z,322nm,21.6s,baz=169,slow=31						
	comp=Z,2.7nm,0.8s						
PETK	**Petropavlovsk-**	**70.43**	**354**	P	**P**	**19 46 37.4**	**-0.3**
DL2	**Dalian**	**70.49**	**323**	P	**P**	**19 46 40.8**	**+2.5**
DL2				S	**S**	**19 55 58.5**	**+7.0**
DL2				pmax	pmax		
	comp=Z,20nm,1.5s						
DL2				pmax	pmax		
	comp=Z,200nm,8.1s						
DL2				L	L		
	comp=Z,350nm,24.1s						
DL2				L	L		
	comp=Z,410nm,25.7s						
DL2				L	L		
	comp=Z,600nm,26.7s						
MDJ	**Mudanjiang**	**70.59**	**332**	P	**P**	**19 46 40.5**	**+1.6**
MDJ				S	**S**	**19 55 56.3**	**+3.9**
MDJ				pmax	pmax		
	comp=Z,10.0nm,1.0s						
MDJ				pmax	pmax		
	comp=Z,340nm,6.0s						
MDJ				L	L		
	comp=Z,550nm,23.8s						
RPSI	**Rantau Prapat**	**70.73**	**279**	P	**P**	**19 46 38.6**	**-1.8**
RPSI				IAmb	IAmb	19 46 43.2	
	comp=Z,30nm,0.9s						
PSI	**Prapat**	**70.76**	**279**	P	**P**	**19 46 38.6**	**-2.2**
PSI				pmax	pmax		
	comp=Z,30nm,0.9s						
PSI	**Prapat**	**70.76**	**279**	P	**P**	**19 46 39.9**	**-0.9**
	comp=Z,681nmcomp=Z,39nm,0.8s						
TYV	**Tymovskoe**	**71.16**	**343**	*e*P	**P**	**19 46 43.0**	**+0.9**
TYV				*e*S	**S**	**19 56 00.7**	**+1.9**
TYV				pmax	pmax		
	comp=Z,100nm,3.1s						
TYV				pmax	pmax		
	comp=Z,12nm,1.2s						
TYV				smax	smax		
	comp=N,400nm,7.3s						
TYV				smax	smax		
	comp=E,200nm,7.3s						
TIA	**Tai'an**	**71.44**	**319**	P	**P**	**19 46 44.3**	**0.0**
TIA				pmax	pmax		
	comp=E,8.0nm,1.7s						
GSI	**Gunungsitoli**	**71.56**	**277**	P	**P**	**19 46 44.4**	**-1.0**
GSI	**Gunungsitoli**	**71.56**	**277**	P	**P**	**19 46 48.9**	**+3.4**
CN2	**Changchun**	**71.92**	**329**	*e*P	**P**	**19 46 50.0**	**+3.1**
CN2				pmax	pmax		
	comp=E,10.0nm,0.7s						
KCSI	**Kotacane, Aceh**	**72.08**	**280**	P	**P**	**19 46 50.3**	**+1.7**
	comp=E,18nm,0.9s						
BNX	**BinXian**	**72.44**	**332**	⇓P	**P**	**19 46 49.0**	**-1.0**
BNX				pP	**pwP**	**19 46 55.8**	**-2.0**
BNX				sP	**sP**	**19 46 58.5**	**+4.5**
BNX				PcP	**PcP**	**19 47 07.5**	**-0.3**
BNX				S	**S**	**19 56 13.8**	**0.0**
BNX				sS	**SKiKP**	**19 56 25.0**	**-0.6**
BNX				pmax	pmax		
	comp=E,11nm,0.9s						
BNX				pmax	pmax		
	comp=E,230nm,4.6s						
BNX				L	L		
	comp=E,280nm,17.4s						
BNX				L	L		
	comp=E,240nm,16.8s						
BNX				L	L		
	comp=E,390nm,21.7s						
GRNR	**Gornyy**	**72.96**	**340**	⇓*i*P	**P**	**19 46 54.3**	**+1.3**
GRNR				pmax	pmax		
	comp=Z,10.0nm,1.0s						
GRNR				MLR	MLR		
	comp=E,100nm,18.0s						
QSPA	**South Pole Qui**	**72.98**	**180**	P	**P**	**19 46 53.8**	**+0.6**
	comp=E,37nm,0.8s,baz=19,slow=1.3,SNR=124						
QSPA				LR	LR	20 16 12.1	
	comp=E,250nm,19.5s,baz=30,slow=34						
	comp=E,37nm,0.8s						
QSPA	**South Pole Qui**	**72.98**	**180**	P	**P**	**19 46 52.7**	**-0.5**
KLR	**Kul'dur**	**73.35**	**336**	P	**P**	**19 46 54.7**	**-0.7**
	comp=E,3.3nm,0.9s,baz=148,slow=5.9,SNR=12						
KLR				LR	LR	20 16 21.8	
	comp=E,383nm,20.9s,baz=159,slow=34						
	comp=E,3.3nm,0.9s						
KLR	**Kul'dur**	**73.35**	**336**	*ce*P	**P**	**19 46 55.7**	**+0.4**
KLR				pmax	pmax		
	comp=Z,31nm,1.7s						
GYA	**Guiyang**	**73.49**	**305**	P	**P**	**19 46 56.8**	**0.0**
GYA				pmax	pmax		
	comp=Z,20nm,1.8s						
LYN	**LuoYang**	**73.50**	**315**	P	**P**	**19 46 57.0**	**+0.4**
LYN				S	**S**	**19 56 26.0**	**-0.3**
LYN				sS	sS	19 56 39.3	+9.0
LYN				pmax	pmax		
	comp=Z,26nm,0.8s						
LYN				pmax	pmax		
	comp=Z,230nm,5.6s						
LYN				L	L		
	comp=Z,540nm,19.2s						
LYN				L	L		
	comp=Z,450nm,18.6s						
LYN				L	L		
	comp=Z,710nm,20.6s						
HNS	**HongShan**	**73.70**	**318**	⇑P	**P**	**19 46 57.5**	**-0.1**
HNS				S	**SKiKP**	**19 56 28.0**	**+0.3**
HNS				pmax	pmax		
	comp=Z,15nm,1.4s						
HNS				pmax	pmax		
	comp=Z,220nm,4.8s						
HNS				L	L		
	comp=Z,150nm,13.0s						
HNS				L	L		
	comp=Z,490nm,16.7s						
HNS				L	L		
	comp=Z,470nm,17.3s						
BJI2	**Beijing**	**74.41**	**321**	P	**P**	**19 47 01.8**	**+0.1**
BJI2				PP	**PP**	**19 49 49.3**	**+1.0**
BJI2				S	**S**	**19 56 34.0**	**-2.3**
BJI2				pmax	pmax		
	comp=Z,5.0nm,2.2s						
BJI2				pmax	pmax		
	comp=Z,160nm,4.2s						
BJI2				L	L		
	comp=Z,200nm,22.2s						
BJI2				L	L		
	comp=Z,230nm,22.6s						
BJI2				L	L		
	comp=Z,300nm,24.5s						
BSI	**Banda Aceh**	**75.06**	**281**	P	**P**	**19 47 06.6**	**+0.5**
	comp=Z,63nm,1.6s						
TIY	**Taiyuan**	**75.34**	**318**	*e*P	**P**	**19 47 07.3**	**0.0**
TIY				S	**S**	**19 56 43.5**	**-3.5**
TIY				pmax	pmax		
	comp=Z,240nm,5.1s						
TIY				L	L		
	comp=Z,230nm,15.1s						
TIY				L	L		
	comp=Z,340nm,19.0s						
TIY				L	L		
	comp=Z,200nm,17.7s						
XAN	**Xi'an**	**75.67**	**313**	P	**P**	**19 47 09.0**	**-0.2**
XAN				pmax	pmax		
	comp=Z,26nm,1.5s						
XAN				L	L		
	comp=Z,230nm,14.4s						
XAN				L	L		
	comp=Z,530nm,20.6s						
XAN				L	L		
	comp=Z,650nm,22.7s						
HEH	**HeiHe**	**75.89**	**335**	*e*P	**P**	**19 47 10.0**	**0.0**
HEH				pmax	pmax		
	comp=Z,5.0nm,0.9s						
HEH				L	L		
	comp=Z,310nm,20.6s						
HEH				L	L		
	comp=Z,400nm,19.3s						
HEH				L	L		
	comp=Z,480nm,19.5s						
KMI2	**Kunming**	**76.01**	**302**	⇑P	**P**	**19 47 12.3**	**+0.7**
KMI2				S	**S**	**19 56 58.3**	**+3.1**
KMI2				pmax	pmax		
	comp=Z,21nm,1.9s						
KMI2				pmax	pmax		
	comp=Z,300nm,4.0s						
KMI2				L	L		
	comp=Z,270nm,23.0s						
KMI2				L	L		
	comp=Z,210nm,25.4s						
KMI2				L	L		
	comp=Z,600nm,25.7s						
RPN	**Rapa Nui**	**76.19**	**114**	LR	LR	20 13 21.1	
	comp=Z,228nm,22.0s,baz=268,slow=30						
CM31	**Chiang Mai Arr**	**76.40**	**294**	P	**P**	**19 47 12.4**	**-1.2**
CMAR	**Chiang Mai Arr**	**76.40**	**294**	P	**P**	**19 47 14.2**	**+0.5**
	comp=Z,3.2nm,0.8s,baz=126,slow=4.3,SNR=15						
CMAR				LR	LR	20 19 42.8	
	comp=Z,122nm,21.8s,baz=120,slow=35						
	comp=Z,3.2nm,0.8s						
CMAR	**Chiang Mai Arr**	**76.40**	**294**	P	**P**	**19 47 13.4**	**-0.3**
CMAR	**Chiang Mai Arr**	**76.40**	**294**	P	**P**	**19 47 13.4**	**-0.3**
CHTO	**Chiang Mai**	**76.54**	**295**	P	**P**	**19 47 13.9**	**-0.6**
CHTO				pmax	pmax		
	comp=Z,12nm,1.0s						
CHTO	**Chiang Mai**	**76.54**	**295**	P	**P**	**19 47 13.9**	**-0.6**
CHTO	**Chiang Mai**	**76.54**	**295**	P	**P**	**19 47 15.7**	**+1.2**
	comp=Z,14nm,1.8s						
XLT	**XiLinHaoTe**	**76.91**	**324**	*e*P	**P**	**19 47 16.5**	**+0.4**
XLT				S	**S**	**19 57 03.5**	**-0.6**
XLT				pmax	pmax		
	comp=Z,10.0nm,1.7s						
XLT				pmax	pmax		
	comp=Z,190nm,5.7s						
XLT				L	L		
	comp=Z,19nm,17.7s						
XLT				L	L		
	comp=Z,190nm,14.6s						
XLT				L	L		
	comp=Z,200nm,19.6s						
MA2	**Magadan**	**77.62**	**351**	LR	LR	20 17 57.6	
	comp=Z,180nm,21.9s,baz=177,slow=33						
HHC	**Hu-ho-hao-te**	**77.71**	**320**	*e*P	**P**	**19 47 21.3**	**+0.6**
HHC				sP	PcP	19 47 29.3	-1.5
HHC				S	**S**	**19 57 13.0**	**0.0**
HHC				sS	sS	19 57 19.3	+2.4
HHC				SKS	**SKSac**	**19 57 31.5**	**-2.9**
HHC				pmax	pmax		
	comp=Z,11nm,0.5s						
HHC				pmax	pmax		
	comp=Z,160nm,4.2s						
HHC				L	L		
	comp=Z,270nm,16.8s						
HHC				L	L		
	comp=Z,230nm,17.6s						
HHC				L	L		
	comp=Z,280nm,18.3s						
CD2	**Chengdu**	**77.86**	**308**	*e*P	**P**	**19 47 21.0**	**-0.7**
ZEA	**Zeya**	**78.64**	**337**	*e*P	P	19 47 36.0	+11
ZEA				pmax	pmax		
	comp=Z,10.0nm,0.9s						
BTO2	**Baotou**	**78.70**	**319**	*e*P	**P**	**19 47 26.5**	**+0.3**
BTO2				sP	**PcP**	**19 47 34.8**	**-0.3**
BTO2				S	**S**	**19 57 23.5**	**-0.2**
BTO2				pmax	pmax		
	comp=Z,23nm,1.1s						
BTO2				pmax	pmax		
	comp=Z,370nm,4.9s						
BTO2				L	L		
	comp=Z,600nm,17.0s						
BTO2				L	L		
	comp=Z,540nm,20.0s						
BTO2				L	L		
	comp=Z,760nm,23.7s						
TNCH	**TengChong**	**79.42**	**300**	⇑P	**P**	**19 47 30.0**	**-0.6**
TNCH				sP	pwP	19 47 36.3	-1.9
TNCH				S	S	19 57 23.0	-9.0
TNCH				pmax	pmax		
	comp=Z,22nm,2.0s						
TNCH				pmax	pmax		
	comp=Z,160nm,3.0s						
TNCH				L	L		
	comp=Z,260nm,18.4s						
TNCH				L	L		
	comp=Z,230nm,21.9s						
TNCH				L	L		
	comp=Z,400nm,17.9s						
MAW	**Mawson**	**79.94**	**202**	P	**P**	**19 47 33.7**	**+1.3**
	comp=Z,2.3nm,1.5s						
MAW	**Mawson**	**79.94**	**202**	P	**P**	**19 47 33.4**	**+0.9**
	comp=Z,7.1nm,1.0s,baz=120,slow=3.3,SNR=14						
MAW				LR	LR	20 17 57.3	
	comp=Z,267nm,21.5s,baz=91,slow=32						
	comp=Z,7.1nm,1.0s						
MAW	**Mawson**	**79.94**	**202**	P	**P**	**19 47 32.8**	**+0.4**
MAW				pmax	pmax		
	comp=Z,3.0nm,1.2s						
MAW	**Mawson**	**79.94**	**202**	P	**P**	**19 47 32.8**	**+0.4**
LZH	**Lanzhou**	**80.29**	**312**	*e*P	**P**	**19 47 35.8**	**+0.8**
LZH				pP	pwP	19 47 40.5	-2.2
LZH				S	**S**	**19 57 44.8**	**+4.0**
LZH				pmax	pmax		
	comp=Z,47nm,1.1s						
LZH				pmax	pmax		
	comp=Z,290nm,5.0s						
LZH				L	L		
	comp=Z,330nm,17.7s						
LZH				L	L		
	comp=Z,280nm,17.9s						
LZH				L	L		
	comp=Z,610nm,19.4s						
LZDM	**Lanzhou Array**	**80.33**	**312**	P	**P**	**19 47 36.0**	**+0.5**
	comp=Z,0.9nm,0.3s,baz=99,slow=17,SNR=3.8						
LZDM				LR	LR	20 19 01.1	
	comp=Z,135nm,21.7s,baz=135,slow=33						
	comp=Z,0.9nm,0.3s						
SEY	**Seymchan**	**80.65**	**353**	LR	LR	20 18 41.6	
	comp=Z,551nm,21.6s,baz=156,slow=32						
SEY	**Seymchan**	**80.65**	**353**	*ce*P	**P**	**19 47 37.1**	**+1.0**
SEY				pmax	pmax		
	comp=Z,8.0nm,1.0s						
KDAK	**Kodiak Island**	**81.45**	**20**	LR	LR	20 21 43.0	
	comp=Z,245nm,19.1s,baz=219,slow=34						
CIT	**Chita**	**83.36**	**330**	*e*P	**P**	**19 47 50.1**	**-0.6**
CIT				*e*		19 47 57.7	
CIT				pmax	pmax		
	comp=Z,55nm,2.3s						
ULN	**Ulaanbaatar**	**84.33**	**324**	*ce*P	**P**	**19 47 56.2**	**+0.3**
ULN				pmax	pmax		
	comp=Z,39nm,2.5s						
ULN	**Ulaanbaatar**	**84.33**	**324**	P	**P**	**19 47 55.7**	**-0.2**
ULN				IAmb	IAmb	19 47 57.4	
	comp=Z,43nm,1.7s						
ULN	**Ulaanbaatar**	**84.33**	**324**	P	**P**	**19 47 56.4**	**+0.5**
	comp=Z,406nmcomp=Z,47nm,1.7s						
YAK	**Yakutsk**	**84.41**	**343**	LR	LR	20 25 50.7	
	comp=Z,430nm,18.4s,baz=144,slow=36						
YAK	**Yakutsk**	**84.41**	**343**	*e*P	**P**	**19 47 54.2**	**-1.5**
YAK				*e**PP	**pwP**	**19 48 00.1**	**-1.8**
YAK				*e*S	**SKSac**	**19 58 16.0**	**-3.0**
YAK				*e**SS	**S**	**19 58 21.8**	**+0.3**
YAK				pmax	pmax		
	comp=Z,17nm,0.9s						
YAK				pmax	pmax		
	comp=E,2.0nm,1.3s						
YAK				pmax	pmax		
	comp=N,6.0nm,1.3s						
YAK				pmax	pmax		
	comp=Z,98nm,3.7s						
YAK				pmax	pmax		
	comp=N,54nm,2.5s						
YAK				pmax	pmax		
	comp=E,34nm,2.6s						
YAK				smax	smax		
	comp=E,7.0nm,1.6s						
YAK				smax	smax		
	comp=N,71nm,3.8s						
YAK				MLR	MLR		
	comp=Z,632nm,19.0s						
YAK				MLR	MLR		
	comp=N,243nm,17.0s						
YAK				MLR	MLR		
	comp=E,155nm,15.0s						
YAK	**Yakutsk**	**84.41**	**343**	P	**P**	**19 47 55.0**	**-0.7**
SONM	**Songino Array**	**84.69**	**324**	P	**P**	**19 47 58.1**	**+0.4**
	comp=E,3.3nm,0.6s,baz=126,slow=7.3,SNR=4.5						
	comp=E,3.3nm,0.6s						
SONM	**Songino Array**	**84.69**	**324**	P	**P**	**19 47 58.1**	**+0.4**
SONM				pmax	pmax		
	comp=Z,48nm,1.8s						
SONM	**Songino Array**	**84.69**	**324**	IAmb	IAmb	19 47 59.1	
	comp=Z,48nm,1.8s						
GTA2	**Gaotai**	**84.75**	**314**	P	**P**	**19 47 58.3**	**+0.1**
GTA2				S	**S**	**19 58 29.8**	**+3.6**
GTA2				pmax	pmax		
	comp=Z,17nm,1.7s						
GTA2				L	L		
	comp=Z,250nm,19.4s						
GTA2				L	L		
	comp=Z,270nm,20.9s						
GTA2				L	L		
	comp=Z,570nm,20.9s						
BILL	**Bilibino**	**84.87**	**359**	*ce*P	**P**	**19 47 59.8**	**+1.9**
BILL				pmax	pmax		
	comp=Z,19nm,1.7s						
KHMM	**Horse Mountain**	**85.61**	**45**	IAmb	IAmb	19 48 14.0	
	comp=Z,18nm,1.1s						
O02D	**Mt. Diablo Mer**	**85.94**	**46**	IAmb	IAmb	19 48 18.9	
	comp=Z,23nm,1.2s						
M02C	**Callahan**	**86.43**	**45**	IAmb	IAmb	19 48 18.0	
	comp=Z,38nm,1.8s						
SYO	**Syowa Base**	**86.64**	**196**	⇑*i*P	**P**	**19 48 07.2**	**+0.3**
SYO	**Syowa Base**	**86.64**	**196**	⇑*i*P	**P**	**19 48 11.6**	**+4.7**
O03E	**Paynes Creek**	**86.67**	**46**	IAmb	IAmb	19 48 21.6	
	comp=Z,17nm,1.1s						
AFDM	**Forest Hills D**	**86.68**	**48**	IAmb	IAmb	19 48 16.6	
	comp=Z,12nm,0.9s						
YBH	**Yreka Blue Hor**	**86.68**	**45**	LR	LR	20 20 46.0	
	comp=Z,302nm,19.5s,baz=258,slow=31						
YBH	**Yreka Blue Hor**	**86.68**	**45**	IAmb	IAmb	19 48 14.4	
	comp=Z,31nm,1.9s						
CMB	**Columbia Colle**	**86.71**	**49**	IAmb	IAmb	19 48 22.0	
	comp=Z,14nm,1.1s						
GOMU	**GeErMu**	**86.88**	**309**	P	**P**	**19 48 09.0**	**-0.2**
GOMU				pP	PcP	19 48 12.8	+1.4
GOMU				sP	pwP	19 48 16.8	-0.1
GOMU				PP	**PP**	**19 51 30.5**	**-1.8**
GOMU				S	**S**	**19 58 48.0**	**+0.2**
GOMU				SS	**SS**	**20 04 29.8**	**-0.8**
GOMU				pmax	pmax		
	comp=Z,3.0nm,0.5s						
GOMU				L	L		
	comp=Z,260nm,18.4s						
GOMU				L	L		
	comp=Z,350nm,18.7s						
GOMU				L	L		
	comp=Z,680nm,18.7s						
TPO	**Tropico Hills**	**87.04**	**52**	IAmb	IAmb	19 48 24.8	
	comp=Z,20nm,1.2s						
MDPB	**Devils Postpil**	**87.49**	**49**	IAmb	IAmb	19 48 21.1	
	comp=Z,19nm,1.0s						
WAKR	**Walker**	**87.59**	**49**	IAmb	IAmb	19 48 27.0	
	comp=Z,23nm,1.1s						
LRMC	**Laurel Mtn Rad**	**87.68**	**52**	IAmb	IAmb	19 48 29.8	
	comp=Z,36nm,1.8s						
PNTR	**Pine Nut**	**87.71**	**48**	IAmb	IAmb	19 48 27.3	
	comp=Z,14nm,1.0s						
ZAK	**Zakamensk**	**87.77**	**325**	*e*P	**P**	**19 48 11.7**	**-1.0**
ZAK				pmax	pmax		
	comp=Z,14nm,2.0s						
CLC	**China Lake**	**87.88**	**52**	IAmb	IAmb	19 48 22.9	
	comp=Z,19nm,1.1s						
PFO	**Pinyon Flats O**	**87.91**	**54**	LR	LR	20 19 48.7	
	comp=Z,878nm,20.3s,baz=240,slow=30						
PFO	**Pinyon Flats O**	**87.91**	**54**	*i* P	**P**	**19 48 16.3**	**+2.4**
PFO				pmax	pmax		
	comp=Z,20nm,1.6s						
YERR	**Yerington**	**87.92**	**48**	IAmb	IAmb	19 48 28.8	
	comp=Z,18nm,1.3s						
ELIB	**Princess Elisa**	**88.03**	**190**	*d*P	**P**	**19 48 14.0**	**+0.1**
MPMC	**Manual Prospec**	**88.05**	**51**	IAmb	IAmb	19 48 23.1	
	comp=Z,21nm,1.6s						
K05A	**Summer Lake**	**88.32**	**44**	IAmb	IAmb	19 48 39.4	
	comp=Z,27nm,1.4s						
NVAR	**Mina Array Bea**	**88.37**	**49**	P	**P**	**19 48 16.5**	**+0.4**
	comp=Z,3.9nm,0.9s,baz=228,slow=6.5,SNR=15						

NVAR				LR	LR	20 21 26.6	
	comp=Z,413nm,19.6s,baz=267,slow=31						
	comp=Z,3.9nm,0.9s						
NVAR	**Mina Array Bea**	**88.37**	**49**	P	**P**	**19 48 15.3**	**-0.7**
MOD	**Modoc Plateau**	**88.38**	**45**	IAmb	IAmb	19 48 17.5	
	comp=Z,32nm,1.9s						
BBB	**Bella Bella**	**88.40**	**34**	LR	LR	20 20 14.9	
	comp=Z,256nm,21.5s,baz=226,slow=30						
BELC	**Belle Mtn. Jos**	**88.41**	**54**	IAmb	IAmb	19 48 32.3	
	comp=Z,34nm,1.5s						
NV11	**Mina Array Sit**	**88.48**	**49**	IAmb	IAmb	19 48 25.7	
	comp=Z,23nm,1.2s						
GRAC	**Grapevine Rang**	**88.50**	**51**	IAmb	IAmb	19 48 25.9	
	comp=Z,21nm,1.1s						
ILAR	**Eielson Array**	**88.57**	**18**	P	**P**	**19 48 14.4**	**-1.7**
	comp=Z,1.0nm,0.8s,baz=240,slow=5.1,SNR=4.4						
ILAR				LR	LR	20 21 20.4	
	comp=Z,413nm,21.3s,baz=242,slow=31						
	comp=Z,1.0nm,0.8s						
FURC	**Furnace Creek,**	**88.67**	**51**	IAmb	IAmb	19 48 26.6	
	comp=Z,27nm,1.3s						
GWY	**Greenwater Val**	**88.71**	**52**	IAmb	IAmb	19 48 32.3	
	comp=Z,15nm,1.3s						
PINE	**Pine Mountain**	**88.74**	**43**	IAmb	IAmb	19 48 35.6	
	comp=Z,16nm,1.2s						
KVN	**Kaiserville**	**88.76**	**48**	IAmb	IAmb	19 48 26.9	
	comp=Z,15nm,1.1s						
SHOC	**Shoshone, Teco**	**88.90**	**52**	IAmb	IAmb	19 48 33.2	
	comp=Z,18nm,1.1s						
WCT	**Wildcat Mounta**	**88.97**	**51**	IAmb	IAmb	19 48 28.0	
	comp=Z,12nm,1.1s						
JRO	**Jston Ridge Ob**	**89.00**	**41**	IAmb	IAmb	19 48 26.0	
	comp=Z,38nm,1.6s						
TPH	**Tonopah**	**89.02**	**50**	IAmb	IAmb	19 48 28.2	
	comp=Z,23nm,1.4s						
IRM	**Iron Mountain**	**89.12**	**54**	P	**P**	**19 48 19.4**	**-0.1**
IRM				IAmb	IAmb	19 48 29.1	
	comp=Z,27nm,1.5s						
TPNV	**Topopah Spring**	**89.31**	**51**	IAmb	IAmb	19 48 31.6	
	comp=Z,12nm,1.1s						
PMSA	**Palmer Station**	**89.40**	**160**	LR	LR	20 25 16.1	
	comp=Z,180nm,19.9s,baz=238,slow=34						
LPIG	**La Paz**	**89.68**	**65**	LR	LR	20 19 07.6	
	comp=Z,619nm,21.6s,baz=238,slow=29						
WVOR	**Wild Horse Val**	**89.72**	**45**	P	**P**	**19 48 21.4**	**-0.8**
WVOR				pmax	pmax		
	comp=Z,17nm,1.2s						
WVOR	**Wild Horse Val**	**89.72**	**45**	P	**P**	**19 48 21.4**	**-0.8**
WVOR				IAmb	IAmb	19 48 37.3	
	comp=Z,17nm,1.1s						
BMN	**Battle Mountai**	**89.92**	**47**	IAmb	IAmb	19 48 32.5	
	comp=Z,18nm,1.1s						
S11A	**Rachel**	**89.94**	**50**	IAmb	IAmb	19 48 37.1	
	comp=Z,23nm,1.2s						
J08A	**Circle Bar Ran**	**90.20**	**44**	IAmb	IAmb	19 48 33.4	
	comp=Z,14nm,1.1s						
PRN	**Pahroc Range**	**90.37**	**51**	IAmb	IAmb	19 48 35.4	
	comp=Z,11nm,0.9s						
TROLL	**Troll, Antarti**	**90.59**	**185**	⇑P	**P**	**19 48 25.8**	**0.0**
	comp=Z,1μm,0.8s						
HAWA	**Hanford**	**90.73**	**41**	IAmb	IAmb	19 48 45.3	
	comp=Z,24nm,1.6s						
DLBC	**Dease Lake**	**90.73**	**28**	LR	LR	20 23 04.0	
	comp=Z,330nm,19.8s,baz=222,slow=32						
NVL	**N'lazarevskaya**	**90.83**	**188**	*e*P	**P**	**19 48 25.6**	**-1.1**
NVL				*e*S	**SKSac**	**19 58 57.0**	**-1.3**
NVL				pmax	pmax		
	comp=Z,11nm,0.7s						
NVL				MLR	MLR		
	comp=Z,322nm,16.0s						
KNGR	**Kungurtug, Tuv**	**91.12**	**323**	*i* P	**P**	**19 48 29.2**	**+0.7**
KNGR				pmax	pmax		
	comp=Z,9.0nm,1.1s						
SNAA	**Sanae**	**91.26**	**183**	⇑P	**P**	**19 48 28.7**	**-0.2**
	comp=Z,293nm,0.9s						
SNAA	**Sanae**	**91.26**	**183**	P	**P**	**19 48 28.7**	**-0.2**
	comp=Z,6.2nm,0.6s,baz=194,slow=5.3,SNR=16						
SNAA				LR	LR	20 28 11.7	
	comp=Z,359nm,18.0s,baz=194,slow=35						
	comp=Z,6.2nm,0.6s						
SNAA	**Sanae**	**91.26**	**183**	*i* P	**P**	**19 48 28.3**	**-0.6**
SNAA				pmax	pmax		
	comp=Z,40nm,1.8s						
SNAA	**Sanae**	**91.26**	**183**	P	**P**	**19 48 27.8**	**-1.0**
ELK	**Elko**	**91.44**	**48**	LR	LR	20 23 56.4	
	comp=Z,304nm,18.8s,baz=258,slow=32						
BMO	**Blue Mountains**	**91.56**	**43**	IAmb	IAmb	19 48 38.6	
	comp=Z,25nm,1.9s						
E09A	**Wood Farm, Sta**	**91.66**	**42**	IAmb	IAmb	19 48 51.0	
	comp=Z,19nm,1.8s						
VNA3	**Neumayer Olymp**	**91.90**	**181**	⇑P	**P**	**19 48 31.5**	**-0.3**
	comp=Z,22nm,0.7s						
VNA2	**Neumayer--Watz**	**92.18**	**182**	⇑P	**P**	**19 48 32.9**	**-0.1**
	comp=Z,23nm,0.7s,baz=144,slow=3.4						
TIXI	**Tiksi**	**92.35**	**348**	LR	LR	20 29 06.7	
	comp=Z,256nm,19.2s,baz=158,slow=35						
VNA1	**Neumayer--Stat**	**92.47**	**181**	⇑P	**P**	**19 48 34.4**	**+0.1**
	comp=Z,20nm,1.0s						
MTPU	**Mount Pierson**	**92.72**	**51**	IAmb	IAmb	19 49 22.9	
	comp=Z,15nm,1.9s						
NEW	**Newport**	**92.98**	**40**	LR	LR	20 23 35.9	
	comp=Z,151nm,20.5s,baz=246,slow=31						
HYB	**Hyderabad**	**94.33**	**287**	*e*PKiKP	**PKiKP**	**19 53 26.6**	**-1.1**
HYB				*e*SKSac	**SKSac**	**19 59 17.7**	**-1.9**
HYB				*e*SKKSac	**SKKSac**	**19 59 37.7**	**-3.1**
WMQ	**Urumqi**	**94.75**	**314**	*e*P	**P**	**19 48 45.0**	**-0.4**
WMQ				pmax	pmax		
	comp=Z,25nm,0.7s						
WMQ				L	L		
	comp=Z,280nm,18.1s						
WMQ				L	L		
	comp=Z,330nm,22.7s						
WMQ				L	L		
	comp=Z,430nm,22.7s						
INK	**Inuvik**	**94.91**	**19**	LR	LR	20 25 21.4	
	comp=Z,282nm,21.9s,baz=234,slow=32						
PDAR	**Pinedale Array**	**96.12**	**47**	P	**P**	**19 48 51.7**	**-0.1**
	comp=Z,0.1nm,0.3s,baz=278,slow=4.2,SNR=1.8						
PDAR				LR	LR	20 24 40.6	
	comp=Z,114nm,20.7s,baz=239,slow=31						
	comp=Z,0.1nm,0.3s						
ANMO	**Albuquerque**	**96.16**	**55**	LR	LR	20 23 56.9	
	comp=Z,377nm,21.4s,baz=244,slow=30						
DGZ	**Jazzator, Alta**	**96.80**	**320**	*i* P	**P**	**19 48 53.8**	**-0.9**
DGZ				pmax	pmax		
	comp=Z,13nm,1.9s						
TXAR	**Lajitas Array**	**96.90**	**62**	P	**P**	**19 48 57.0**	**+1.4**
	comp=Z,0.1nm,0.3s,baz=273,slow=5.7,SNR=1.7						
TXAR				LR	LR	20 27 18.7	
	comp=Z,272nm,18.1s,baz=255,slow=32						
	comp=Z,0.1nm,0.3s						
TXAR	**Lajitas Array**	**96.90**	**62**	P	**P**	**19 48 57.0**	**+1.4**
ZSN	**Zaisan**	**97.75**	**317**	*e*P	Pdif	19 48 59.0	+0.1
ZSN	**Zaisan**	**97.75**	**317**	*e*P	Pdif	19 48 59.0	+0.1
MK31	**Makanchi Array**	**99.26**	**316**	*i* P	**Pdif**	**19 49 03.3**	**-2.4**
MKAR	**Makanchi Array**	**99.26**	**316**	P	**Pdif**	**19 49 06.0**	**+0.4**
	comp=Z,0.8nm,0.7s,baz=94,slow=5.7,SNR=6.6						
MKAR				PP	**PP**	**19 53 07.5**	**-1.3**
	comp=Z,0.5nm,0.8s,baz=93,slow=10,SNR=3.5						
MKAR				LR	LR	20 32 39.9	
	comp=Z,199nm,21.9s,baz=104,slow=35						
	comp=Z,0.8nm,0.7s						
MKAR	**Makanchi Array**	**99.26**	**316**	P	**Pdif**	**19 49 04.2**	**-1.5**
YKA	**Yellowknife Ar**	**99.36**	**27**	LR	LR	20 31 11.2	
	comp=Z,149nm,18.0s,baz=240,slow=34						
ZALV	**Zalesovo Beam**	**99.59**	**323**	P	**Pdif**	**19 49 05.7**	**-1.1**
	comp=Z,1.7nm,0.9s,baz=101,slow=7.9,SNR=7.0						
ZALV				LR	LR	20 33 36.9	
	comp=Z,143nm,21.3s,baz=106,slow=35						
	comp=Z,1.7nm,0.9s						
ZALV	**Zalesovo Beam**	**99.59**	**323**	*i* P	**Pdif**	**19 49 05.6**	**-1.3**
ZALV				pmax	pmax		
	comp=Z,1.0nm,0.8s						
ZALV	**Zalesovo Beam**	**99.59**	**323**		**Pdif**	**19 49 04.8**	**-2.1**
SHLS	**Shalkode**	**100.31**	**312**	*e*P	**Pdif**	**19 49 09.0**	**-1.5**
SHLS	**Shalkode**	**100.31**	**312**	*e*P	**Pdif**	**19 49 09.1**	**-1.5**
UZB	**Uzynbulak**	**100.62**	**312**	*e*P	**Pdif**	**19 49 11.7**	**-0.2**
UZB	**Uzynbulak**	**100.62**	**312**	*e*P	**Pdif**	**19 49 11.8**	**-0.2**
UZB				*e*PKiKP	**PKiKP**	**19 53 38.8**	**+0.5**
KPKS	**Kokpek**	**100.94**	**312**	*e*P	**Pdif**	**19 49 13.1**	**-0.2**
KPKS	**Kokpek**	**100.94**	**312**	*e*P	**Pdif**	**19 49 13.2**	**-0.1**
SATY	**Saty**	**101.04**	**312**	*e*P	**Pdif**	**19 49 13.7**	**-0.1**
SATY	**Saty**	**101.04**	**312**	*e*P	**Pdif**	**19 49 13.7**	**-0.1**
TDK	**Taldyqorghan**	**101.47**	**314**	*e*P	**Pdif**	**19 49 15.5**	**0.0**
TDK	**Taldyqorghan**	**101.47**	**314**	*e*P	**Pdif**	**19 49 15.6**	**0.0**
MDOK	**Medeo**	**102.03**	**312**	*e*P	**Pdif**	**19 49 18.0**	**-0.2**
MDOK	**Medeo**	**102.03**	**312**	*e*P	**Pdif**	**19 49 18.1**	**-0.2**
TNSS	**Tian-Shan**	**102.08**	**311**	*e*P	**Pdif**	**19 49 18.2**	**-0.6**
TNSS	**Tian-Shan**	**102.08**	**311**	*e*P	**Pdif**	**19 49 18.3**	**-0.6**
AAA	**Alma-Ata**	**102.14**	**312**	*e*P	**Pdif**	**19 49 18.5**	**-0.1**
AAA	**Alma-Ata**	**102.14**	**312**	*e*P	**Pdif**	**19 49 18.5**	**-0.1**
KURK	**Kurchatov**	**102.53**	**319**	*i* P	**Pdif**	**19 49 20.2**	**+0.2**
KURK	**Kurchatov**	**102.53**	**319**		**Pdif**	**19 49 20.2**	**+0.2**
KURBB	**Kurchatov Arra**	**102.56**	**319**	P	**Pdif**	**19 49 20.2**	**0.0**
	comp=Z,0.1nm,0.3s,baz=108,slow=3.0,SNR=1.7						
KURBB				PP	**PP**	**19 53 32.2**	**-1.3**
	comp=Z,0.5nm,0.9s,baz=100,slow=6.5,SNR=5.5						
DZA	**Taraz**	**106.11**	**311**	*i* P	**Pdif**	**19 49 36.1**	**-0.1**
DZA	**Taraz**	**106.11**	**311**	*e*Pdif	**Pdif**	**19 49 36.1**	**-0.1**
IUG	**Iuzhnay**	**106.96**	**310**	*i* P	**Pdif**	**19 49 39.8**	**-0.3**
IUG	**Iuzhnay**	**106.96**	**310**	*e*Pdif	**Pdif**	**19 49 39.9**	**-0.3**
IUG				*e*PKiKP	**PKiKP**	**19 53 50.0**	**+0.2**
BRLS	**Boroldav**	**107.22**	**311**	*i* P	**Pdif**	**19 49 41.4**	**+0.3**
BRLS	**Boroldav**	**107.22**	**311**	*e*Pdif	**Pdif**	**19 49 41.5**	**+0.3**
BVAR	**Borovoye Array**	**107.90**	**321**	Pdiff	**Pdif**	**19 49 44.9**	**+1.0**
	comp=Z,0.3nm,0.5s,baz=90,slow=1.5,SNR=3.6						
BVAR				PKiKP	**PKiKP**	**19 53 51.2**	**+0.1**
	comp=Z,0.6nm,0.6s,baz=93,slow=2.9,SNR=4.2						
ARTI	**Arti**	**114.81**	**325**	*i* PKIKP	PKPdf	19 54 04.5	+0.4
ARTI						19 55 00.7	
ARTI						20 01 16.7	
BELG	**Belogornoye**	**121.70**	**322**	*i* PKIKP	**PKiKP**	**19 54 18.6**	**+1.0**
APA	**Apatity**	**121.76**	**341**	*i* PKIKP	**PKiKP**	**19 54 17.4**	**+0.1**
APA				*e*		19 55 47.7	
APA				pmax	pmax		
	comp=Z,4.0nm,1.2s						
APA				MLR	MLR		
	comp=Z,614nm,22.5s						
BOSA	**Boshof**	**121.94**	**219**	PKP	**PKPdf**	**19 54 18.6**	**-0.3**
	comp=Z,6.0nm,0.9s,baz=81,slow=1.3,SNR=5.9						
ARCES	**ARCESS Array B**	**122.64**	**345**	PKP	**PKPdf**	**19 54 18.4**	**-0.4**
	comp=Z,2.8nm,0.6s,baz=78,slow=2.2,SNR=12						
ARCES	**ARCESS Array B**	**122.64**	**345**	PKIKP	**PKPdf**	**19 54 18.2**	**-0.6**
ARCES	**ARCESS Array B**	**122.64**	**345**		**PKPdf**	**19 54 18.2**	**-0.6**
KLMR	**Klimovskoe**	**123.00**	**333**	*e*PKIKP	**PKPdf**	**19 54 17.5**	**-2.2**
KLMR				pmax	pmax		
	comp=Z,10.0nm,1.4s						
RAYN	**Ar Rayn**	**125.83**	**287**	PKIKP	**PKPdf**	**19 54 22.4**	**-4.0**
RAYN	**Ar Rayn**	**125.83**	**287**		**PKPdf**	**19 54 22.4**	**-4.0**
MOS	**Moscow**	**126.14**	**328**	*e*PKIKP	**PKPdf**	**19 54 26.0**	**+0.1**
MOS				*e*		19 56 27.7	
KIV	**Kislovodsk**	**126.83**	**312**	*i* PKIKP	**PKiKP**	**19 54 30.5**	**+2.3**
KIV				*e*		19 56 25.8	
KIV				*e*SS	SS	20 13 32.1	0.0
KIV				pmax	pmax		
	comp=Z,8.0nm,1.1s						
OBN	**Obninsk**	**126.96**	**327**	⇑*e*PKIKP	**PKiKP**	**19 54 27.8**	**-0.1**
OBN				*e*		19 56 29.6	
OBN				*e*PPP	PPP	19 59 06.5	
OBN				*e*		20 01 40.6	
OBN				pmax	pmax		
	comp=Z,19nm,1.4s						
FINES	**FINESS Array B**	**128.08**	**338**	PKP	**PKiKP**	**19 54 29.8**	**-0.2**
	comp=Z,1.9nm,0.9s,baz=86,slow=1.8,SNR=4.3						
SOC	**Sochi**	**129.01**	**313**	*e*PKIKP	**PKPdf**	**19 54 30.5**	**-1.3**
SOC				*e*		19 56 35.2	
SOC				*e*PPP	PPP	19 59 22.9	
SOC				*e*SS	SS	20 13 56.9	-2.0
SOC				*e*SSS	SSS	20 18 38.2	
SOC				MLR	MLR		
	comp=Z,142nm,22.0s						
MNK	**Minsk**	**131.61**	**330**	*i* P	**Pdif**	**19 51 30.4**	**+1.2**
MNK				*i*		19 54 37.5	
MNK				*i*		19 56 57.4	
MNK				*i* PPP	PPP	19 59 47.4	
MNK				*i*		20 01 49.0	
MNK				*i* SS	SS	20 14 33.5	+3.9
MNK				pmax	pmax		
	comp=E,6.0nm,1.0s						
MNK				pmax	pmax		
	comp=N,2.0nm,0.7s						
MNK				pmax	pmax		
	comp=Z,2.0nm,0.7s						
MNK				MLR	MLR		
	comp=Z,395nm,23.0s						
MNK				MLR	MLR		
	comp=N,249nm,21.0s						
MNK				MLR	MLR		
	comp=E,515nm,24.0s						
MNK	**Minsk**	**131.61**	**330**	*i* P	**Pdif**	**19 51 30.4**	**+1.2**
	comp=E,6.0nm,1.0s						
MNK				*i* P	**Pdif**	**19 51 30.4**	**+1.2**
	comp=N,2.0nm,0.7s						
MNK				*i* P	**Pdif**	**19 51 30.4**	**+1.2**
	comp=Z,2.0nm,0.7s,baz=56						
MNK				*i* PKP	**PKiKP**	**19 54 37.6**	**+0.3**
MNK				*i* PP	**PP**	**19 56 57.5**	**+1.9**
MNK				*i* PPP	PPP	19 59 47.4	
MNK				*i* SKS	**SKSdf**	**20 01 49.0**	**+1.4**
MNK				*i* SS	**SS**	**20 14 33.5**	**+4.0**
MNK				*i* LQ	LQ	20 46 37.2	
MNK				*i* LRM	MLR	20 51 41.5	
	comp=Z,395nm,22.9s						
MNK				*i* LRM	MLR	20 51 52.6	
	comp=N,249nm,20.8s						
MNK				*i* LRM	MLR	20 52 21.7	
	comp=E,515nm,24.3s						
AKASG	**Malin Array Be**	**132.96**	**325**	PKP	**PKPdf**	**19 54 37.5**	**-1.5**
	comp=E,0.5nm,0.5s,baz=64,slow=1.4,SNR=5.1						
AKBB	**Malin Array Si**	**132.96**	**325**	*i* PKIKP	**PKPdf**	**19 54 39.4**	**+0.4**
NB2	**NORSAR Subarra**	**133.01**	**345**	PKPdf	**PKiKP**	**19 54 40.6**	**+0.6**
	comp=Z,0.8nm,0.7s,baz=31,slow=1.9						
NOA	**NORSAR Array B**	**133.01**	**345**	PKP	**PKPdf**	**19 54 39.3**	**+0.4**
	comp=Z,0.7nm,0.6s,baz=40,slow=1.9,SNR=6.7						
BR131	**Keskin Array S**	**134.43**	**309**	*i* PKIKP	**PKPdf**	**19 54 41.5**	**-0.8**
BRTR	**Keskin Array B**	**134.43**	**309**	PKP	**PKiKP**	**19 54 43.1**	**-0.6**
	comp=Z,0.6nm,0.7s,baz=190,slow=3.0,SNR=4.0						
BRTR	**Keskin Array B**	**134.43**	**309**	PKIKP	**PKPdf**	**19 54 42.6**	**+0.3**
BRTR	**Keskin Array B**	**134.43**	**309**		**PKPdf**	**19 54 42.6**	**+0.3**
STHS	**Stebnicka Huta**	**137.93**	**328**	*e*P	**Pdif**	**19 51 56.5**	**-1.1**
STHS	**Stebnicka Huta**	**137.93**	**328**	*e*PDIFF	**Pdif**	**19 51 56.5**	**-1.1**
OSTC	**Ostas**	**139.59**	**332**	*e*PKIKP	**PKPdf**	**19 54 47.9**	**-3.5**
OSTC	**Ostas**	**139.59**	**332**	*e*PKP	**PKPdf**	**19 54 47.9**	**-3.5**
DPC	**Dobruska-Polom**	**139.69**	**332**	*e*PKIKP	**PKiKP**	**19 54 54.6**	**+0.6**
DPC	**Dobruska-Polom**	**139.69**	**332**	*e*PKP	**PKiKP**	**19 54 54.6**	**+0.6**
BRG	**Berggiesshubel**	**140.34**	**334**	⇓*e*PKPf		19 54 52.0	
CLL	**Collm**	**140.40**	**335**	*e*PKIKP	**PKPdf**	**19 54 49.0**	**-3.8**
CLL	**Collm**	**140.40**	**335**	*e*(PKPdf)	**PKPdf**	**19 54 49.0**	**-3.8**
CLL				*e*SKPdf	**SKPdf**	**19 58 24.0**	**-3.6**
CLL				*e*PPP	PPP	20 00 48.0	
CLL				*e*SS	**SS**	**20 16 18.0**	**+3.7**
CLL				*e*SSS	SSS	20 21 32.0	
CLL				*e*SSSS		20 25 36.0	
CLL				LH		20 41 00.0	
CLL				AMS	AMS	20 58 00.0	
	comp=N,200nm,23.2s						
CLL				AMS	AMS	20 58 00.0	
	comp=E,100nm,24.2s						
CLL				AMS	AMS	20 58 00.0	
	comp=Z,200nm,24.8s						
CLL				AMS	AMS	21 04 00.0	
	comp=Z,200nm,19.1s						
MODS	**Modra-Piesok**	**140.61**	**329**	*e*P	**Pdif**	**19 52 09.0**	**-0.5**
MODS	**Modra-Piesok**	**140.61**	**329**	*e*PDIFF	**Pdif**	**19 52 09.0**	**-0.5**
MODS	**Modra-Piesok**	**140.61**	**329**	*e*PKP	**PKiKP**	**19 55 01.0**	**+5.1**
EKA	**Eskdalemuir Ar**	**141.18**	**352**	PKP	**PKPdf**	**19 54 52.4**	**-1.7**
	comp=Z,1.8nm,0.8s,baz=32,slow=1.8,SNR=3.4						
CKRC	**Cesky Krumlov**	**141.70**	**332**	*e*PKIKP	**PKPdf**	**19 54 53.2**	**-2.1**
CKRC	**Cesky Krumlov**	**141.70**	**332**	*e*PKP	**PKPdf**	**19 54 53.2**	**-2.1**
KHC	**Kasperske Hory**	**141.80**	**333**	*e*PKIKP	**PKPdf**	**19 54 54.4**	**-1.1**
KHC	**Kasperske Hory**	**141.80**	**333**	*e*PKP	**PKPdf**	**19 54 54.4**	**-1.1**
GERES	**GERESS Array B**	**141.96**	**332**	PKP	**PKPdf**	**19 54 54.0**	**-1.8**
	comp=Z,1.5nm,0.8s,baz=40,slow=2.3,SNR=8.4						
GERES	**GERESS Array B**	**141.96**	**332**	PKIKP	**PKPdf**	**19 54 54.0**	**-1.8**
LESA	**Schwarzleotal**	**143.47**	**331**	*e*PKP	PKPbc	19 54 56.6	+0.8
	comp=Z,105nm,2.6s,SNR=8.2						
BOJS	**Bojanci**	**143.56**	**327**	*e*PKPdf	PKPbc	19 54 55.6	-0.3
LJU	**Ljubljana**	**143.57**	**328**	*e*PKPdf	PKPab	19 54 55.0	0.0
GBAS	**Gorenja Brezov**	**143.68**	**328**	*e*PKPdf	PKPbc	19 54 56.0	-0.4
WATA	**Walderalm**	**144.03**	**332**	*e*PKP	**PKPab**	**19 54 56.6**	**-0.4**
	comp=Z,0.6nm,0.3s						
ABTA	**Abfaltersbach**	**144.04**	**331**	PKP	PKPbc	19 54 57.3	-0.2
	comp=Z,84nm,2.2s,SNR=8.2						
WTTA	**Wattenberg**	**144.06**	**332**	PKP	PKPbc	19 54 57.4	-0.2
	comp=Z,12nm,1.3s,SNR=6.4						
BMRD	**Maredsous**	**144.16**	**341**	*d*PKP	**PKiKP**	**19 55 02.7**	**-0.3**
MOTA	**Moosalm**	**144.24**	**333**	*e*PKP	**PKPab**	**19 54 57.7**	**-0.1**
	comp=Z,135nm,3.1s						
SQTA	**Sankt Quirin**	**144.28**	**332**	*e*PKP	**PKPab**	**19 54 58.0**	**+0.1**
	comp=Z,126nm,2.6s						
FETA	**Feichten**	**144.65**	**333**	*e*PKP	**PKPab**	**19 54 59.1**	**-0.2**
	comp=Z,194nm,2.8s,SNR=7.9						
DAVA	**Damuels**	**144.81**	**334**	*e*PKP	PKPbc	19 55 00.4	+0.5
	comp=Z,351nm,3.3s,SNR=6.3						
CTI	**Castel Tesino**	**144.96**	**331**	PKIKP	**PKPab**	**19 54 58.7**	**-1.7**
CTI	**Castel Tesino**	**144.96**	**331**		**PKPab**	**19 54 58.7**	**-1.7**
TUE	**Stuetta**	**145.67**	**333**		**PKPdf**	**19 55 01.1**	**-1.5**
SGRT	**San Giovanni R**	**145.69**	**322**		**PKPdf**	**19 55 01.9**	**-0.6**
SALO	**Salr**	**145.81**	**331**	PKPdf	**PKPdf**	**19 55 01.4**	**-1.2**
ACER	**Acerenza**	**146.15**	**320**	PKPdf	**PKPdf**	**19 55 02.2**	**-1.1**
FDMO	**Fiordimonte**	**146.37**	**326**		**PKPdf**	**19 55 01.9**	**-1.8**
NRCA	**Norcia**	**146.50**	**325**		**PKPdf**	**19 55 04.3**	**+0.4**
ZCCA	**Zocca**	**146.53**	**329**		**PKPdf**	**19 55 03.5**	**-0.3**
TIP	**Timpagrande**	**146.54**	**317**		**PKPdf**	**19 55 02.5**	**-1.6**
CESX	**Cesi**	**146.94**	**326**		**PKPdf**	**19 55 05.0**	**+0.4**
CEL	**Celeste**	**147.61**	**316**		**PKPdf**	**19 55 06.0**	**+0.2**
BNI	**Bardonecchia**	**147.93**	**334**	PKIKP	**PKPdf**	**19 55 05.0**	**-1.3**
BNI	**Bardonecchia**	**147.93**	**334**		**PKPdf**	**19 55 05.0**	**-1.3**
SSB	**Saint Sauveur**	**148.58**	**337**	PKHKP	PKPpre	19 55 04.6	
SSB	**Saint Sauveur**	**148.58**	**337**		**PKPdf**	**19 55 04.6**	**-2.6**
RAFF	**Raffo Rosso**	**149.19**	**316**		**PKPbc**	**19 55 12.4**	**-0.3**
KEST	**Kesra**	**153.33**	**318**	PKPbc	**PKPbc**	**19 55 21.4**	**-1.0**
	comp=Z,4.2nm,0.8s,baz=332,slow=3.3,SNR=5.2						
KEST	**Kesra**	**153.33**	**318**		**PKiKP**	**19 55 25.6**	**+3.0**
ESDC	**Sonseca Array**	**156.37**	**344**	PKPab	**PKPab**	**19 55 45.0**	**-2.0**
	comp=Z,1.3nm,1.0s,baz=26,slow=4.4,SNR=6.9						
TORD	**Torodi Ar. Bea**	**166.07**	**256**	PKP	**PKPdf**	**19 55 30.3**	**+0.5**
	comp=Z,1.3nm,0.8s,baz=206,slow=1.4,SNR=4.9						
TORD				PKPab	**PKPab**	**19 56 29.6**	**-0.6**
	comp=Z,5.2nm,0.8s,baz=102,slow=4.2,SNR=10						

IDC ***30*** *19:40:37.0±1.5, 5°.00N×124°.85E, h0^{km}, mb3.6/6, mbtmp3.6/6, Error ellipse: s-maj=182.6km s-min=20.1km az=66.0*

MAN ***30*** *19:40:40.0, 5°.69N×126°.75E, h33^{km}, MS3.8*

ISC 30 19:40:36.2±1.1, **5°.90N**±0°.05×**126°.69E**±0°.06, **h10^{km}, n23,** σ**2^{s}.12**/26, **mb3.7**/6, **Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DDMP	**Don Marcelino,**	**0.99**	**282**	*i* P	**Pn**	**19 40 59.9**	**+3.7**
DDMP				*e*S	**Sn**	**19 41 10.9**	**+0.6**
GSPH	**General Santos**	**1.74**	**276**	*i* P	**Pb**	**19 41 07.8**	**-0.5**
GSPH				*i* S	**Sn**	**19 41 27.1**	**-1.8**
CDOP	**Cateel, Davao**	**1.89**	**353**	*i* P	**Pg**	**19 41 13.8**	**+1.3**
CDOP				*i* S	**Sg**	**19 41 38.7**	**+1.6**
KCP	**Kidapawan**	**1.93**	**305**	*e*P	**Pn**	**19 41 09.4**	**+0.2**
KCP				*e*S	**Sg**	**19 41 37.9**	**-0.5**
BUKP	**Musuan**	**2.54**	**321**	*e*P	**Pg**	**19 41 24.1**	**-1.0**
BUKP				*i* S	**Sb**	**19 41 53.7**	**+0.3**
TSSP	**Tandag City**	**3.16**	**351**	*e*P	**Pb**	**19 41 32.4**	**-0.2**
TSSP	**Tandag City**	**3.16**	**351**	*i* P	Pg	19 41 54.4	+18
TSSP				*e*S	**Sn**	**19 42 03.1**	**-0.8**
CGP	**Cagayan de Oro**	**3.22**	**322**	*e*P	**Pb**	**19 41 32.6**	**-0.9**
CGP				*e*S	**Sb**	**19 42 13.7**	**+0.9**
CGP	**Cagayan de Oro**	**3.22**	**322**	*i* P	**Sg**	**19 42 19.5**	**-0.2**
GLSP	**General Luna,**	**3.90**	**352**	*i* P	Pg	19 42 00.6	+10
GLSP				*i* S	**Sn**	**19 42 15.2**	**-7.0**
TBP	**Tagbilaran**	**4.69**	**324**	*e*S	**Sg**	**19 43 06.7**	**-0.3**
SNPH	**Sibulan**	**4.84**	**315**	*e*P	**Pb**	**19 41 58.4**	**-2.7**
LLP	**Lapu-Lapu**	**5.15**	**329**	*e*S	**Sb**	**19 43 10.4**	**+1.9**
PLP	**Palo**	**5.50**	**342**	*e*P	Pg	19 42 26.8	+5.2
PLP				*e*S	**Sn**	**19 43 04.5**	**+2.9**
LBFI	**Labuhan Bajo,**	**15.81**	**205**	P	Pn	19 44 04.5	-15
PLAI	**Plampang**	**17.11**	**211**	P	Pn	19 44 15.8	-20
TWSI	**Taliwang, Sumb**	**17.52**	**214**	P	Pn	19 44 21.1	-20
	1μm67nm,1.3s						
WRA	**Warramunga Arr**	**26.76**	**164**	P	**P**	**19 46 17.0**	**+0.6**
	0.3nm,0.6s,baz=338,slow=10,SNR=5.5						
	0.3nm,0.6s						
ASAR	**Alice Springs**	**30.22**	**167**	P	**P**	**19 46 45.2**	**-2.0**
	0.2nm,0.8s,baz=338,slow=6.7,SNR=4.4						
	0.2nm,0.8s						
MKAR	**Makanchi Array**	**55.77**	**324**	P	**P**	**19 50 12.4**	**-1.0**
	0.2nm,0.4s,baz=124,slow=7.5,SNR=4.9						
	0.2nm,0.4s						
ZALV	**Zalesovo Beam**	**58.65**	**332**	P	**P**	**19 50 34.5**	**+0.9**
	0.4nm,0.4s,baz=116,slow=6.6,SNR=2.2						
	0.4nm,0.4s						
KURBB	**Kurchatov Arra**	**59.91**	**327**	P	**P**	**19 50 43.7**	**+1.3**
	0.7nm,0.5s,baz=127,slow=6.9,SNR=19						
	0.7nm,0.5s						
BVAR	**Borovoye Array**	**65.50**	**326**	P	**P**	**19 51 21.1**	**+1.4**
	0.8nm,0.5s,baz=120,slow=7.7,SNR=6.7						
	0.8nm,0.5s						

SFS ***30*** *19:46:38.6, 36°.60N×4°.68W, h64^{km}, ML2.0/12, ML2.1/12, MLv2.2/9*

INMG ***30*** *19:46:39.8±1.5, 36°.66N×4°.75W, h53^{km}±7^{km}, ML1.8, Error ellipse: s-maj=3.9km s-min=3.1km az=88.0, #DIST_RANGE: REGIONAL #IPMA_REGION: SW Malaga (ESP)*

MDD ***30*** *19:46:39.0±0.5, 36°.63N×4°.66W, h62^{km}±6^{km}, Mb2.9/23, Error ellipse: s-maj=4.1km s-min=2.4km az=168.0*

CNRM ***30*** *19:46:41.1, 36°.47N×4°.48W, h27^{km}*

ISC 30 19:46:37.9±1.2, **36°.68N**±0°.02×**4°.63W**±0°.02, **h68^{km}**±6^{km}, **n58,** σ**1^{s}.55**/102, **16C, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EMIJ	**Mijas**	**0.16**	**225**	Pn	**Pn**	**19 46 47.4**	**-0.7**
EMIJ				Sn	**Sn**	**19 46 54.0**	**-1.6**
EMIJ	**Mijas**	**0.16**	**225**	Pg	**Pn**	**19 46 47.4**	**-0.7**
EMIJ				Sg	**Sn**	**19 46 53.5**	**-2.0**
EMAL	**Malaga-Limoner**	**0.18**	**63**	Pn	**Pn**	**19 46 48.7**	**+0.6**
EMAL				Sn	**Sn**	**19 46 55.8**	**+0.2**
EGOR	**Sierra Gorda,**	**0.60**	**44**	Pn	**Pn**	**19 46 53.1**	**+1.4**
EGOR				Sn	**Sn**	**19 47 03.6**	**+1.7**
EGOR	**Sierra Gorda,**	**0.60**	**44**	Pg	**Pn**	**19 46 52.8**	**+1.1**
EGOR				Sg	**Sn**	**19 47 02.7**	**+0.9**
ELGU	**Los Guajares,**	**0.83**	**77**	Pn	**Pn**	**19 46 54.6**	**+0.4**
ELGU				Sn	**Sn**	**19 47 06.4**	**+0.1**
ELGU	**Los Guajares,**	**0.83**	**77**	Pg	**Pn**	**19 46 54.4**	**+0.2**
ELGU				⇑IVmb_VC		19 46 56.2	
	150nm,SNR=3.1						
ELGU				Sg	**Sn**	**19 47 06.6**	**+0.2**
ECEU	**Ceuta**	**0.98**	**218**	Pg	**Pn**	**19 46 55.5**	**-0.6**
ECEU				⇑IVmb_VC		19 46 57.4	
	65nm,SNR=1.3						
ECEU				Sg	**Sn**	**19 47 08.2**	**-1.4**
ESPR	**Espera**	**1.00**	**281**	Pg	**Pn**	**19 46 56.8**	**+0.5**
ESPR				⇑IVmb_VC		19 46 57.6	
	53nm,SNR=0.9						
ESPR				Sg	**Sn**	**19 47 09.9**	**0.0**
EQTA	**Presa de Quent**	**1.09**	**61**	Sn	**Sn**	**19 47 13.4**	**+1.3**
EQUE	**Quentar**	**1.09**	**61**	Pg	**Pn**	**19 46 58.4**	**+0.9**
EQUE				⇑IVmb_VC		19 46 59.8	
	102nm,SNR=1.5						
EQUE				Sg	**Sn**	**19 47 13.4**	**+1.3**
SMIR	**Smir Dam**	**1.17**	**212**	P	**Pn**	**19 47 00.1**	**+1.7**
SMIR				S	**Sn**	**19 47 14.8**	**+1.1**
CPS	**Cap Spartel**	**1.36**	**230**	P	**Pn**	**19 47 04.8**	**+3.8**
CPS				S	**Sn**	**19 47 22.3**	**+4.0**
EADA	**Adamuz**	**1.49**	**2**	Pn	**Pn**	**19 47 04.0**	**+1.3**
EADA				Sn	**Sn**	**19 47 22.6**	**+1.3**
EADA	**Adamuz**	**1.49**	**2**	Pn	**Pn**	**19 47 04.0**	**+1.3**
EADA				⇑IVmb_VC		19 47 04.4	
	205nm,SNR=3.2						
EADA				Sn	**Sn**	**19 47 21.6**	**+0.3**
ECAB	**El Cabril**	**1.53**	**336**	Pn	**Pn**	**19 47 04.0**	**+0.7**
ECAB				Sn	**Sn**	**19 47 22.0**	**-0.2**
ECAB	**El Cabril**	**1.53**	**336**	Pn	**Pn**	**19 47 03.9**	**+0.7**
ECAB				⇑IVmb_VC		19 47 04.7	
	71nm,SNR=1.3						
ECAB				Sn	**Sn**	**19 47 21.9**	**-0.4**
PALE	**Palemas**	**1.56**	**159**	P	**Pn**	**19 47 03.4**	**-0.3**
PALE				S	**Sn**	**19 47 22.2**	**-0.9**
EQES	**Quesada**	**1.68**	**48**	Pn	**Pn**	**19 47 06.4**	**+1.1**
EQES				⇑IVmb_VC		19 47 06.8	
	87nm,SNR=1.6						
EQES				Sn	**Sn**	**19 47 26.5**	**+0.6**
EMIN	**Mina Concepcio**	**1.96**	**304**	Pn	**Pn**	**19 47 09.2**	**+0.3**
EMIN	**Mina Concepcio**	**1.96**	**304**	Pn	**Pn**	**19 47 09.2**	**+0.3**
EMIN				⇑IVmb_VC		19 47 09.6	
	104nm,SNR=1.5						
EMIN				Sn	**Sn**	**19 47 31.5**	**-1.0**
PSIM	**Granatula de C**	**2.25**	**18**	Pn	**Pn**	**19 47 14.2**	**+1.3**
PSIM				Sn	**Sn**	**19 47 38.6**	**-1.0**
AKLM	**AKL**	**2.25**	**164**	P	**Pn**	**19 47 13.4**	**+0.3**
AKLM				S	**Sn**	**19 47 35.6**	**-4.3**
PBAR	**Barrancos**	**2.43**	**309**	Pn	**Pn**	**19 47 16.1**	**+0.8**

PBAR				Sn	Sn	19 47 42.4	-1.6
PBAR	**Barrancos**	2.43	309	eP	Pn	19 47 16.1	+0.8
PBAR				eS	Sn	19 47 43.0	-1.0
PBAR				i IAML		19 47 44.6	
PBAR				i IAML		19 47 45.6	
EGRO	**El Granado**	2.43	291	Pn	Pn	19 47 15.5	+0.1
EGRO	**El Granado**	2.43	291	Pn	Pn	19 47 15.4	+0.1
EGRO				⇑IVmb_VC		19 47 15.7	
	102nm,SNR=0.8						
EGRO				Sn	Sn	19 47 42.3	-1.7
PVAQ	**Vaqueiros**	2.57	287	eP	Pn	19 47 17.2	-0.1
PVAQ				eS	Sn	19 47 45.1	-2.4
PVAQ				i IAML		19 47 46.1	
PVAQ				i IAML		19 47 46.5	
PVAQ				i IAML		19 47 46.6	
PBDV	**Barranco-do-Ve**	2.70	283	eS	Sn	19 47 49.5	-1.2
EBAD	**Badajoz**	2.81	318	Pn	Pn	19 47 21.3	+0.9
EBAD				Sn	Sn	19 47 51.8	-1.3
EBAD	**Badajoz**	2.81	318	Pn	Pn	19 47 21.3	+0.9
EBAD				⇑IVmb_VC		19 47 22.0	
	288nm,SNR=3.8						
EBAD				Sn	Sn	19 47 51.9	-1.1
PAB	**San Pablo**	2.87	4	Pn	Pn	19 47 23.1	+1.7
PAB				⇑IVmb_VC		19 47 23.7	
	54nm,SNR=1.1						
PAB				Sn	Sn	19 47 55.4	+0.6
JBK	**JBK**	2.88	144	P	Pn	19 47 22.4	+0.8
JBK				S	Sn	19 47 53.5	-1.8
PCVE	**Castro Verde**	2.88	290	eP	Pn	19 47 21.6	+0.1
PCVE				eS	Sn	19 47 53.0	-2.0
PCVE				i IAML		19 47 58.0	
PCVE				i IAML		19 48 31.3	
CIBOR	**Castaar de Ib**	3.02	348	Pn	Pn	19 47 24.5	+1.2
CIBOR				Sn	Sn	19 47 58.5	+0.1
MESJ	**Messejana**	3.09	293	eS	Sn	19 47 57.9	-2.2
ETOB	**Tobarra**	3.14	50	Pn	Pn	19 47 25.8	+0.8
ETOB				Sn	Sn	19 47 59.5	-1.8
ETOB	**Tobarra**	3.14	50	Pn	Pn	19 47 25.5	+0.5
ETOB				⇑IVmb_VC		19 47 26.4	
	55nm,SNR=0.7						
ETOB				Sn	Sn	19 47 59.5	-1.8
PESTR	**Estremoz**	3.20	314	eP	Pn	19 47 27.3	+1.4
PESTR				eS	Sn	19 48 01.4	-1.5
PESTR	**Estremoz**	3.20	314	P	Pn	19 47 32.5	+6.7
PESTR				S	Sn	19 48 13.3	+10
EVO	**Evora**	3.26	306	eP	Pn	19 47 27.9	+1.3
EVO				eS	Sn	19 48 02.8	-1.5
EVO				i IAML		19 48 04.2	
EVO				i IAML		19 48 04.3	
EVO				i IAML		19 48 04.7	
PLOUS	**Minas do Lousa**	3.31	295	eS	Sn	19 48 03.0	-2.4
PARRA	**Arraiolos**	3.44	309	eP	Pn	19 47 29.9	+0.8
PARRA				eS	Sn	19 48 07.1	-1.6
PARRA				i IAML		19 48 09.0	
PARRA				i IAML		19 48 09.1	
PARRA				i IAML		19 48 09.8	
PMRV	**Marv??o**	3.50	322	eP	Pn	19 47 31.3	+1.4
PMRV				eS	Sn	19 48 09.0	-1.3
EPLA	**Plasencia**	3.57	342	Pn	Pn	19 47 32.2	+1.3
EPLA				⇑IVmb_VC		19 47 32.9	
	72nm,SNR=0.9						
EPLA				Sn	Sn	19 48 11.1	-0.7
ZHG	**ZHG**	3.62	208	P	Pn	19 47 36.7	+5.0
ZHG				S	Sn	19 48 20.1	+6.9
PMTG	**Montargil**	3.71	311	eP	Pn	19 47 33.9	+1.2
PMTG				eS	Sn	19 48 13.3	-2.0
MD31	**MD31**	3.80	182	P	Pn	19 47 33.4	-0.7
MD31				S	Sn	19 48 16.9	-0.8
GUD	**Guadarrama**	3.98	5	Pn	Pn	19 47 38.0	+1.4
GUD				⇑IVmb_VC		19 47 39.1	
	54nm,SNR=1.1						
GUD				Sn	Sn	19 48 21.7	-0.2
PSARD	**Sardoal**	4.03	317	eP	Pn	19 47 38.5	+1.3
PSARD				eS	Sn	19 48 21.9	-1.2
PSARD				i IAML		19 48 22.9	
PSARD				i IAML		19 48 23.4	
PSARD				i IAML		19 48 25.1	
ECHE	**Chera**	4.10	44	Pn	Pn	19 47 38.4	+0.3
ECHE				⇑IVmb_VC		19 47 39.1	
	125nm,SNR=1.4						
ECHE				Sn	Sn	19 48 21.9	-2.9
PSBE	**So Bento**	4.34	312	eS	Sn	19 48 29.7	-0.9
PCAS	**Casmilo, Conde**	4.54	319	eS	Sn	19 48 35.1	-0.4
ETOR	**Torete**	4.60	25	Pn	Pn	19 47 45.2	+0.2
ETOR				⇑IVmb_VC		19 47 46.4	
	84nm,SNR=1.5						
ETOR				Sn	Sn	19 48 35.1	-2.1
PVRL	**Vila Real**	5.18	333	eS	Sn	19 48 51.0	-0.3
PVRL				i IAML		19 48 52.4	
PVRL				i IAML		19 48 52.6	
PVRL				i IAML		19 48 52.7	
ECOL	**Islas Columbre**	5.27	51	Pn	Pn	19 47 54.3	+0.2
ECOL				Sn	Sn	19 48 50.8	-2.7
POLO	**Lamas de Olo**	5.29	333	eS	Sn	19 48 53.9	-0.3
PGAV	**Gavieira, Arco**	5.99	333	eS	Sn	19 49 09.7	-1.4

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*IDC **30** 19:56:11.7±1.3, 9°.51N×127°.57E, h0^{km}, mb3.5/5, mbtmp3.6/6, MS4.0/7, Error ellipse: s-maj=34.6km s-min=18.0km az=94.0*

*MAN **30** 19:56:13.0, 9°.17N×127°.01E, h1^{km}, MS4.2*

ISC 30 19:56:14.3±1.8**, 9°.18N**±0°.04×**126°.97E**±0°.07**, h13**^{km}±10^{km}**, n28,** σ1^{s}.**90**/36**, mb3.8**/5**, MS4.1**/7**, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TSSP	**Tandag City**	0.77	260	eP	Pb	19 56 29.1	-0.5
TSSP				eS	Sg	19 56 38.8	-0.6
GLSP	**General Luna,**	1.02	306	i P	Pn	19 56 35.2	+0.7
GLSP				eS	Sn	19 56 49.4	+0.8
BIPH	**Bislig**	1.16	211	eP	Pg	19 56 36.6	-0.1
BIPH				eS	Sb	19 56 49.8	-1.5
CDOP	**Cateel, Davao**	1.49	201	i P	Pb	19 56 41.8	-0.1
CDOP				i S	Sn	19 56 58.3	-1.8
BUKP	**Musuan**	2.29	236	i P	Pb	19 56 54.5	-1.0
BUKP				i S	Sn	19 57 20.3	+0.4
CGP	**Cagayan de Oro**	2.36	252	i P	Pn	19 56 53.8	+1.0
CGP				i S	Sn	19 57 22.6	+0.9
DAV	**Davao City (W)**	2.51	213	Pn	Pg	19 57 03.2	+0.7
	112nm,0.4s,baz=42,slow=16,SNR=1.1						
DAV				Sn	Sg	19 57 36.1	+1.1
	baz=258,slow=23						
DMPH	**Davao City--Mi**	2.54	215	eP	Pg	19 57 01.4	-1.6
DMPH				i S	Sg	19 57 38.9	+2.9
PLP	**Palo**	2.77	315	eP	Pb	19 57 01.6	-2.2
PLP				eS	Sb	19 57 36.1	-1.8
KCP	**Kidapawan**	2.85	221	eP	Pb	19 57 04.7	-0.5
KCP				eS	Sn	19 57 30.5	-3.5
TBP	**Tagbilaran**	3.10	280	eP	Pn	19 57 05.6	+2.5
TBP				i S	Sb	19 57 45.1	-2.2
LLP	**Lapu-Lapu**	3.16	291	i P	Pb	19 57 08.0	-2.5
LLP				i S	Sb	19 57 48.8	-0.2
DDMP	**Don Marcelino,**	3.30	202	eP	Pb	19 57 09.5	-3.3
DDMP				eS	Sn	19 57 45.3	+0.2
DCPH	**Dipolog City**	3.62	261	i P	Pn	19 57 12.0	+1.8
SNPH	**Sibulan**	3.69	273	eP	Pn	19 57 13.9	+2.8
SNPH				eS	Sb	19 58 03.4	-0.7
CADP	**Cadiz City**	4.01	296	eP	Pn	19 57 19.1	+3.6
IBAJ	**Ibajay, Aklan**	5.39	299	eP	Pn	19 57 38.6	+4.0
WRA	**Warramunga Arr**	29.84	166	P	P	20 02 21.4	-0.1
	0.2nm,0.6s,baz=344,slow=8.7,SNR=1.4						
	0.2nm,0.6s						
ASAR	**Alice Springs**	33.35	168	P	P	20 02 53.9	+1.4
	0.2nm,0.3s,baz=345,slow=8.6,SNR=4.7						
	0.2nm,0.3s						
MKAR	**Makanchi Array**	53.30	323	P	P	20 05 33.3	0.0
	0.7nm,0.6s,baz=124,slow=6.3,SNR=6.3						
	0.7nm,0.6s						
KURBB	**Kurchatov Arra**	57.35	326	P	P	20 06 02.5	+0.3
	0.9nm,0.8s,baz=127,slow=6.6,SNR=5.3						
KURBB				LR	LR	20 33 43.0	
	comp=Z,87nm,20.9s,baz=158,slow=39						
	0.9nm,0.8s						
BVAR	**Borovoye Array**	62.94	326	P	P	20 06 39.7	-0.9
	0.4nm,0.6s,baz=116,slow=6.6,SNR=2.3						
	0.4nm,0.6s						
AKTO	**Aktyubinsk**	69.59	320	LR	LR	20 42 00.4	
	comp=Z,112nm,19.8s,baz=80,slow=39						
KIRV	**Kirov**	75.72	328	LR	LR	20 45 15.4	
	comp=Z,254nm,21.9s,baz=75,slow=39						
BELG	**Belogornoye**	76.28	322	LR	LR	20 45 54.3	
	comp=Z,142nm,19.3s,baz=87,slow=39						
KBZ	**Khabaz**	79.44	313	LR	LR	20 49 13.8	
	comp=Z,89nm,20.1s,baz=64,slow=40						
ATD	**Arta Tunnel**	82.49	280	LR	LR	20 45 54.6	
	comp=Z,21nm,20.2s,baz=134,slow=36						
OBN	**Obninsk**	82.77	325	LR	LR	20 48 59.6	
	comp=Z,105nm,21.7s,baz=25,slow=38						

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*AZER **30** 19:59:30.1, 39°.86N×51°.09E, h62^{km}, ml2.7*

ISC 30 19:59:25.6±1.1**, 39°.90N**±0°.05×**51°.35E**±0°.08**, h125**^{km}±11^{km}**, n33,** σ2^{s}.**12**/60**, 1C, Caspian Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GALA	**Gala**	1.05	299	S	Sn	20 00 01.9	-4.0
NDR	**Nardaran**	1.25	304	P	Pn	19 59 51.6	+1.1
NDR				S	Sn	20 00 07.8	-1.8
GOBA	**Gobu**	1.34	293	Pg	Pn	19 59 54.8	+3.2
GOBA				S	Sn	20 00 08.4	-2.9
GBS	**Qobustan**	1.95	290	Pn	Pn	20 00 00.6	+1.8
GBS				Sn	Sn	20 00 24.0	-0.2
ATGJ	**Altiaghaj**	2.08	298	Pn	Pn	20 00 01.5	+1.1
ATGJ				Sn	Sn	20 00 27.6	+0.6
SIZA	**Siyzn**	2.21	303	Pn	Pn	20 00 04.1	+2.1
SIZA				Sn	Sn	20 00 30.8	+0.9
SAAT	**Saatly**	2.25	270	Sn	Sn	20 00 32.5	+1.8
PQL	**Pirkuli**	2.29	294	Pn	Pn	20 00 04.5	+1.5
PQL				Sn	Sn	20 00 31.4	-0.3
LKRN	**Lenkeran, Azer**	2.32	240	Pn	Pn	20 00 05.2	+1.9
LKRN				Sn	Sn	20 00 31.2	-1.1
GLBA	**Clilabad**	2.38	255	Pn	Pn	20 00 05.3	+1.3
GLBA				Sn	Sn	20 00 31.8	-1.8
ASTR	**Astara**	2.40	237	Pn	Pn	20 00 05.9	+1.6
ASTR				Sn	Sn	20 00 32.8	-1.2
IML	**Ismayilli**	2.58	291	Pn	Pn	20 00 07.8	+1.1
IML				Sn	Sn	20 00 35.9	-2.4
YRD	**Yardimli**	2.60	249	Pn	Pn	20 00 08.1	+0.9
YRD				Sn	Sn	20 00 36.0	-3.0
QUBA	**Quba, Azerbaij**	2.62	305	Pn	Pn	20 00 08.7	+1.6
QUBA				Sn	Sn	20 00 39.8	+0.7
LRK	**Lerik**	2.65	243	Pn	Pn	20 00 09.5	+1.8
LRK				Sn	Sn	20 00 38.3	-1.8
XNQ	**Khinaliq**	2.76	298	Pn	Pn	20 00 10.2	+1.0
XNQ				Sn	Sn	20 00 40.0	-2.6
ZRD	**Zardab**	2.84	279	Sn	Sn	20 00 44.1	0.0
QSAR	**Qusar**	2.85	306	Pn	Pn	20 00 11.8	+1.6
QSAR				Sn	Sn	20 00 43.6	-0.8
QBL	**Gabala**	2.88	292	Pn	Pn	20 00 11.2	+0.7
QBL				Sn	Sn	20 00 42.2	-3.0
BLQ	**Beylaqan**	2.93	268	Sn	Sn	20 00 44.7	-1.5
BRDA	**Brd**	3.22	278	Pn	Pn	20 00 18.2	+3.2
BRDA				Sn	Sn	20 00 54.5	+1.5
AGDM	**Agdam**	3.27	275	Sn	Sn	20 00 53.0	-1.2
SEKA	**Sheki**	3.42	294	Pn	Pn	20 00 19.4	+1.7
SEKA				Sn	Sn	20 00 56.0	-1.9
GANJ	**Ganja**	3.92	283	Pn	Pn	20 00 25.0	+0.8
GANJ				Sn	Sn	20 01 05.3	-4.3
ZKTA	**Zakatala**	3.99	297	Pn	Pn	20 00 28.5	+3.4
ZKTA				Sn	Sn	20 01 10.8	-0.4
VSHL	**Vashlovani**	4.00	291	P	Pn	20 00 27.3	+2.1
VSHL				S	Sn	20 01 12.6	+1.1
ORD	**Ordubad**	4.26	259	Pn	Pn	20 00 32.4	+3.6
ORD				Sn	Sn	20 01 17.3	-0.6
GDB	**GEDABAY**	4.36	283	Pn	Pn	20 00 32.2	+2.1
GDB				Sn	Sn	20 01 16.2	-4.1
QZX	**Qazax, Azerbai**	4.71	286	Pn	Pn	20 00 35.8	+1.1
QZX				Sn	Sn	20 01 25.6	-2.7
SHTL	**Shatili**	5.42	303	P	Pn	20 00 46.6	+2.2
CHRG	**Chargali**	5.43	299	P	Pn	20 00 46.0	+1.6
CHRG				S	Sn	20 01 43.8	-2.1
AB31	**Akbulak array**	11.17	30	P	P	20 02 07.8	-3.0
	0.2nm,0.6s,baz=209,slow=11,SNR=4.2						
AB31				S	Sn	20 04 07.3	+2.7
	0.3nm,0.3s,baz=218,slow=26,SNR=7.4						
AKTO	**Aktyubinsk**	11.53	22	P	Pn	20 02 07.9	+1.6
	0.5nm,0.5s						
AKTO				⇑S	Sn	20 04 11.5	-1.7
	0.6nm,0.6s						

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*IDC **30** 20:03:00.1±1.1, 16°.85S×167°.71E, h0^{km}, mb4.1/6, mbtmp4.2/8, ML4.6/2, MS4.0/1, Error ellipse: s-maj=24.2km s-min=20.1km az=86.0*

*NEIC **30** 20:03:02.4±2.0, 17°.01S±0°.06×167°.8E±0°.1, h10^{km}±1^{km}, mb4.6/9, Error ellipse: s-maj=19.1km s-min=9.9km az=86.0*

ISC 30 20:03:04.1±0.8**, 17°.00S**±0°.06×**167°.7E**±0°.1**, h25**^{km}**, n24,** σ1^{s}.**03**/25**, mb4.2**/8**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SANVU	**Saraoutou**	1.62	343		Pn	20 03 29.9	-1.2
MARNC	**Mare, Loyalty**	4.46	176	Pn	Pn	20 04 08.4	-1.8
KOUNC	**Koumac, New Ca**	4.78	222	Pn	Pn	20 04 12.7	-1.9
DZM	**Mont Dzumac**	5.18	193	Pn	Pn	20 04 18.8	-1.3
	3.8nm,0.3s,baz=8.8,slow=16,SNR=14						
DZM				Sn	Sn	20 05 17.8	-1.3
	baz=342,slow=20						
	14nm,0.4s						
DZM				AML	AML		
ONTNC	**Ouen Toro**	5.40	192	Pn	Pn	20 04 22.6	-0.6
OUENC	**Ouen Island, N**	5.45	188	Pn	Pn	20 04 23.3	-0.4
AFI	**Afiamalu**	20.02	84	P	P	20 07 34.6	-0.8
	7.4nm,0.3s,baz=264,slow=9.2,SNR=7.0						
	20nm,0.3s						
AFI				AML	AML		
AFI	**Afiamalu**	20.02	84	P	P	20 07 34.2	-1.1
AFI				IAmb	IAmb	20 08 00.2	
	comp=Z,86nm,1.3s						
STKA	**Stephens Creek**	27.90	233	P	P	20 08 53.3	+1.1
	comp=Z,3.3nm,0.9s,baz=54,slow=7.8,SNR=4.4						
	comp=Z,3.3nm,0.9s						
WRA	**Warramunga Arr**	31.74	259	P	P	20 09 26.6	+0.2
	comp=Z,1.1nm,0.7s,baz=84,slow=7.8,SNR=17						
WRA				PcP	PcP	20 12 17.1	-0.6
	comp=Z,0.4nm,0.7s,baz=87,slow=3.2,SNR=2.1						
	comp=Z,1.1nm,0.7s						
WRA	**Warramunga Arr**	31.74	259	P	P	20 09 26.4	0.0
AS31	**Alice Springs**	32.32	253	P	P	20 09 31.6	+0.2
AS31				IAmb	IAmb	20 09 32.9	
	comp=Z,1.9nm,0.4s						
ASAR	**Alice Springs**	32.32	253	P	P	20 09 31.9	+0.5
	comp=Z,2.7nm,0.4s,baz=86,slow=8.0,SNR=67						
ASAR				PcP	PcP	20 12 19.7	+0.4
	comp=Z,0.4nm,0.7s,baz=91,slow=2.7,SNR=2.9						
	comp=Z,2.7nm,0.4s						
ASAR	**Alice Springs**	32.32	253	P	P	20 09 31.4	0.0
KNRA	**Kununurra**	37.34	266	P	P	20 10 15.3	+0.4
KNRA				IAmb	IAmb	20 10 33.3	
	comp=Z,31nm,1.5s						
FITZ	**Fitzroy Crossi**	40.05	262	LR	LR	20 25 44.3	
	comp=Z,190nm,18.9s,baz=87,slow=34						
FITZ	**Fitzroy Crossi**	40.05	262	P	P	20 10 38.2	+0.6
MORW	**Morawa**	48.69	246	P	P	20 11 47.0	+0.4
VNDA	**Vanda**	60.61	181	P	P	20 13 13.9	+1.6
	comp=Z,0.2nm,0.5s,baz=342,slow=9.6,SNR=13						
	comp=Z,0.2nm,0.5s						
VNDA	**Vanda**	60.61	181	IAmb	IAmb	20 13 24.6	
	comp=Z,2.1nm,1.0s						
QSPA	**South Pole Qui**	73.04	180	P	P	20 14 32.8	+1.0
	comp=Z,6.0nm,0.9s,baz=26,slow=2.7,SNR=23						
	comp=Z,6.0nm,0.9s						
QSPA	**South Pole Qui**	73.04	180	P	P	20 14 33.2	+1.4
QSPA				IAmb	IAmb	20 14 34.0	
	comp=Z,6.8nm,0.9s						
CMAR	**Chiang Mai Arr**	76.25	294	P	P	20 14 49.8	-1.3
	comp=Z,0.7nm,0.7s,baz=114,slow=6.2,SNR=5.0						
	comp=Z,0.7nm,0.7s						
BELA	**Belgrano 2**	84.44	175	P	P	20 15 34.4	+0.3

NOU 30 20:15:04.3, 17°.03S×167°.75E, h4^{km}, MLv4.5/16**, Vanuatu Islands, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DVP	**Devils Point**	0.81	149	P	Pb	20 15 20.5	-0.4
RTV	**Rentapao**	0.99	140	P	Pb	20 15 23.9	-0.2
RTV	**Rentapao**	0.99	140	S	Sb	20 15 37.5	-0.1
SANVU	**Saraoutou**	1.66	341	P	Pn	20 15 32.9	-1.3
SANVU	**Saraoutou**	1.66	341	S	Sb	20 15 56.5	-0.2
MARNC	**Mare, Loyalty**	4.43	177	P	Pn	20 16 12.1	-0.3
YATNC	**Mamie plateau,**	5.07	189	P	Pn	20 16 20.1	-1.0
NOUC	**Port Laguerre**	5.23	195	P	Pn	20 16 23.2	-0.1
ONTNC	**Ouen Toro**	5.39	193	P	Pn	20 16 25.8	+0.3
OUENC	**Ouen Island, N**	5.43	189	P	Pn	20 16 26.8	+0.7

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*SJA **30** 20:37:05.6±0.6, 21°.29S×68°.58W, h142^{km}±4^{km}, ML3.6, MW3.6*

*GUC **30** 20:37:05.8±0.8, 21°.30S×68°.62W, h139^{km}±7^{km}, ML3.5*

ISC 30 20:37:06.7±1.6**, 21°.30S**±0°.04×**68°.60W**±0°.06**, h139**^{km}±13^{km}**, n26,** σ0^{s}.**60**/48**, 5C, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PB09	**IPOC Station P**	0.78	230	eP	Pn	20 37 28.6	-0.1
PB09				eS	Sn	20 37 45.6	0.0
PB09				IAML		20 37 46.0	
	comp=Z,1µm,0.7s						
PB09	**IPOC Station P**	0.78	230	⇑iP	Pn	20 37 28.7	-0.1
PB09				eS	Sn	20 37 45.4	-0.2
PB09				IAML		20 37 47.4	
	comp=E,1µm,0.3s						
PB02	**IPOC Station P**	1.21	269	eP	Pn	20 37 32.9	+0.4
PB02				eS	Sn	20 37 52.5	+0.4
PB02				IAML		20 37 53.5	
	comp=Z,2µm,0.2s						
PB02	**IPOC Station P**	1.21	269	⇑iP	Pn	20 37 32.6	+0.1
PB02				eS	Sn	20 37 52.1	0.0
PB08	**IPOC Station P**	1.26	336	eP	Pn	20 37 33.2	-0.2
PB08				eP		20 37 33.2	
PB08				eS	Sn	20 37 53.6	0.0
PB08				IAML		20 37 55.6	
	comp=Z,308nm,0.6s						
PB08	**IPOC Station P**	1.26	336	i P	Pn	20 37 33.1	-0.2
PB08				eS	Sn	20 37 53.2	-0.4
PB08				IAML		20 37 54.9	
	comp=E,617nm,0.3s						
PB07	**IPOC Station P**	1.27	250	eP	Pn	20 37 33.2	0.0
PB07				eS	Sn	20 37 53.5	+0.1
PB07				IAML		20 37 55.8	
	comp=Z,380nm,0.2s						
PB07	**IPOC Station P**	1.27	250	⇑iP	Pn	20 37 33.2	0.0
PB07				eS	Sn	20 37 53.3	-0.1
PB07				IAML		20 37 53.7	
	comp=N,1µm,0.3s						
PB03	**IPOC Station P**	1.31	235	eP	Pn	20 37 33.6	+0.1
PB03				eS	Sn	20 37 54.2	+0.1
PB03				IAML		20 37 57.5	
	comp=Z,564nm,0.2s						
PB03	**IPOC Station P**	1.31	235	⇑iP	Pn	20 37 33.6	+0.1
PB03				eS	Sn	20 37 53.9	-0.1
PB03				IAML		20 37 55.3	
	comp=N,781nm,0.6s						
TA01	**Diego Aracena**	1.65	296	eP	Pn	20 37 37.1	+0.1
TA01				eS	Sn	20 38 00.3	+0.1
TA01				IAML		20 38 02.8	
	comp=Z,575nm,0.6s						
PB06	**IPOC Station P**	1.67	213	eP	Pn	20 37 37.4	0.0
PB06				eS	Sn	20 38 01.3	+0.3
PB06				IAML		20 38 03.0	
	comp=Z,343nm,0.2s						
PB06	**IPOC Station P**	1.67	213	⇑iP	Pn	20 37 37.4	0.0
PB06				eS	Sn	20 38 01.0	0.0
PB06				IAML		20 38 01.8	
	comp=E,901nm,0.1s						
GO01	**Chusmiza**	1.71	341	eP	Pn	20 37 38.4	+0.1
GO01				eS	Sn	20 38 03.2	+0.8
GO01				IAML		20 38 05.2	
	comp=Z,218nm,0.2s						
GO01	**Chusmiza**	1.71	341	i P	Pn	20 37 38.0	-0.3
GO01				eS	Sn	20 38 03.1	+0.7
PB11	**IPOC Station P**	1.82	327	eP	Pn	20 37 38.9	-0.3
PB11				eS	Sn	20 38 04.2	+0.1
PB11				IAML		20 38 06.0	
	comp=Z,368nm,0.1s						
PB11	**IPOC Station P**	1.82	327	i P	Pn	20 37 38.7	-0.5
PB11				eS	Sn	20 38 03.1	-1.0
PB11				IAML		20 38 05.3	
	comp=N,903nm,0.4s						
PB05	**IPOC Station P**	2.15	223	eP	Pn	20 37 43.0	0.0
PB05				eS	Sn	20 38 11.9	+1.0
PB05	**IPOC Station P**	2.15	223	eP	Pn	20 37 43.0	0.0
PSGCX	**Pisagua**	2.21	320	eP	Pn	20 37 43.3	-0.5
PSGCX				eS	Sn	20 38 12.2	-0.2
PSGCX				IAML		20 38 13.9	
	comp=Z,303nm,0.2s						
PB16	**IPOC Station P**	3.07	344	eP	Pn	20 37 55.3	+0.2
PB16				eS	Sn	20 38 33.3	+1.0
PB16	**IPOC Station P**	3.07	344	eP	Pn	20 37 55.6	+0.6
PB12	**IPOC Station P**	3.12	328	eP	Pn	20 37 54.4	-1.0
PB12				eS	Sn	20 38 31.5	-1.4
PB12				IAML		20 38 33.5	
	comp=Z,85nm,0.4s						
PB12	**IPOC Station P**	3.12	328	eP	Pn	20 37 53.8	-1.5
HJA	**Humahuaca**	3.52	123	eP	Pn	20 38 01.0	+0.3
HJA				eS	Sn	20 38 40.7	-1.7
LPAZ	**La Paz**	5.00	5	eP	Pn	20 38 21.9	+1.4

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*IDC **30** 20:39:14.9±0.6, 0°.82S×127°.96E, h0^{km}, mb3.9/13, mbtmp4.0/17, ML4.0/4, MS3.4/10, Error ellipse: s-maj=12.9km s-min=10.7km az=81.0*

*DJA **30** 20:39:18.5±0.1, 1°S±1°×12°8E±°, h10^{km}, M4.5/32, mB5.0/12, mb4.9/31, MLv4.7/32, Mw(mB)4.4/12*

*NEIC **30** 20:39:18.4±1.3, 0°.74S±0°.04×128°.06E±0°.06, h23^{km}±2^{km}, mb4.4/21, Error ellipse: s-maj=9.3km s-min=5.5km az=64.0*

ISC 30 20:39:20.0±0.5**, 0°.74S**±0°.04×**128°.08E**±0°.05**, h35**^{km}**, n84,** σ1^{s}.**80**/90**, mb4.2**/21**, MS3.4**/7**, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TNTI	**Ternate**	1.66	335	P	Pn	20 39 45.6	-1.0
TNTI	**Ternate**	1.66	335		Pn	20 39 45.9	-0.7
TNTI				Sn	Sn	20 40 05.9	-0.8
TNTI	**Ternate**	1.66	335	P	Pn	20 39 45.0	-1.6
TNTI				S	Sn	20 40 07.6	+0.9
SANI	**Sanana**	2.46	238	P	Pn	20 39 58.0	+0.3
SANI	**Sanana**	2.46	238	P	Pn	20 39 57.9	+0.3
SANI				S	Sn	20 40 31.1	+4.6
NLAI	**Namlea**	2.67	201	P	Pn	20 40 01.2	+0.7
NLAI				AML	AML		
SWI	**Sorong**	3.18	92	P	Pn	20 40 08.5	+0.9
SWI				AML	AML		
SIJI	**Sorong**	3.19	92	Pn	Pn	20 40 08.4	+0.8
	21nm,0.3s,baz=260,slow=11,SNR=56						
SIJI				Sn	Sn	20 40 48.9	+4.3
	14nm,0.3s,baz=209,slow=22,SNR=9.8						
	61nm,0.3s						
SIJI				AML	AML		
MNI	**Manado**	3.90	304	P	Pn	20 40 17.0	-0.4
MNI				S	Sn	20 41 04.3	+2.3
MNI				AML	AML		
BNDI	**Bandanaira**	4.18	154	P	Pn	20 40 23.5	+2.2
BNDI	**Bandanaira**	4.18	154	P	Pn	20 40 23.7	+2.4
BNDI				AML	AML		
FAKI	**Fak Fak**	4.70	118	P	Pn	20 40 28.1	-0.3
FAKI	**Fak Fak**	4.70	118		Pn	20 40 28.3	-0.1
FAKI				Sn	Sn	20 41 21.6	-0.1
FAKI	**Fak Fak**	4.70	118	P	Pn	20 40 29.2	+0.8
FAKI				AML	AML		
GTOI	**Gorontalo**	5.25	285	P	Pn	20 40 38.8	+2.8
	0.7nm1µm150nm,0.8s						
GTOI				AML	AML		
LUWI	**Luwuk**	5.31	267	P	Pn	20 40 37.4	+0.5
LUWI	**Luwuk**	5.31	267		Pn	20 40 36.7	-0.2
LUWI	**Luwuk**	5.31	267	P	Pn	20 40 36.1	-0.8
	0.6nm1µm114nm,0.7s						
LUWI				AML	AML		
MWPI	**Manokwari, Pap**	5.96	92	P	Pn	20 40 48.0	+2.2
	0.4nm89nm,0.8s						
MWPI				AML	AML		
KDI	**Kendari**	6.32	240	P	Pn	20 40 53.6	+2.9
	0.1nm25nm,0.8s						
KDI				AML	AML		
APSI	**Ampana**	6.43	268	P	Pn	20 40 52.5	+0.3
	0.8nm2µm133nm,0.5s						
APSI				AML	AML		
DDMP	**Don Marcelino,**	7.20	341	eP	Pn	20 41 03.0	+0.3
BBSI	**Bau Bau**	7.24	229	P	Pn	20 41 06.2	+2.8
	0.2nm53nm,1.0s						
BBSI				AML	AML		
TOLI2	**Tolitoli**	7.52	284	P	Pn	20 41 08.8	+1.5

TOLI2	**Tolitoli**	**7.52**	**284**		**Pn**	**20 41 02.5**	**-4.7**
SAUI	**Saumlaki**	**7.88**	**156**	Pn	**Pn**	**20 41 09.3**	**-2.9**
SAUI	**Saumlaki**	**7.88**	**156**	P	**Pn**	**20 41 14.6**	**+2.4**
PCI	**Palu**	**8.24**	**269**	P	**Pn**	**20 41 17.8**	**+0.7**
	53nm,0.7s						
BKSI	**Bulukumba**	**9.15**	**240**	P	**Pn**	**20 41 32.5**	**+2.9**
	479nm46nm,0.6s						
KAPI	**Kappang**	**9.34**	**243**	Pn	**Pn**	**20 41 32.4**	**+0.3**
	1.7nm,0.3s,baz=74,slow=6.8,SNR=6.4						
KAPI				Sn	**Sn**	**20 43 14.6**	**-1.4**
	0.6nm,0.3s,baz=78,slow=20,SNR=1.1						
KAPI				LR	LR	20 45 00.5	
	comp=Z,145nm,20.9s,baz=92,slow=38						
	6.7nm,0.5s						
KAPI				AML	AML		
KAPI	**Kappang**	**9.34**	**243**		**Pn**	**20 41 30.2**	**-1.9**
KAPI	**Kappang**	**9.34**	**243**	P	**Pn**	**20 41 34.3**	**+2.2**
MMSI	**Mamuju**	**9.37**	**258**	P	**Pn**	**20 41 37.0**	**+4.4**
	34nm,0.9s						
PMSI	**Majene**	**9.56**	**253**	P	**Pn**	**20 41 37.7**	**+2.5**
	140nm,2.0s						
SOEI	**Soe**	**9.73**	**203**	Pn	**Pn**	**20 41 36.5**	**-1.1**
SOEI	**Soe**	**9.73**	**203**	P	**Pn**	**20 41 41.1**	**+3.5**
	33nm,1.6s						
BATI	**Baumata**	**10.38**	**205**	Pn	**Pn**	**20 41 46.0**	**-0.5**
	1.3nm,0.3s,baz=333,slow=4.5,SNR=4.3						
	11nm,0.6s						
BATI				AML	AML		
MYLDM	**Lahad Datu**	**11.23**	**302**		**Pn**	**20 41 57.0**	**-1.1**
MTN	**Manton Dam**	**12.40**	**166**		**Pn**	**20 42 13.1**	**-1.1**
JAY	**Jayapura**	**12.74**	**98**	LR	LR	20 48 23.7	
	comp=Z,273nm,20.6s,baz=217,slow=43						
KNRA	**Kununurra**	**14.86**	**177**		**Pn**	**20 42 46.1**	**-1.5**
SBUM	**Sibu**	**16.17**	**281**		**Pn**	**20 43 01.6**	**-3.1**
FITZ	**Fitzroy Crossi**	**17.42**	**188**	P	**Pn**	**20 43 18.0**	**-2.4**
	0.3nm,0.3s,baz=24,slow=11,SNR=11						
FITZ				LR	LR	20 50 43.2	
	comp=Z,138nm,18.2s,baz=3.0,slow=40						
	5.1nm,0.9s						
FITZ				AML	AML		
FITZ	**Fitzroy Crossi**	**17.42**	**188**	Pn	**Pn**	**20 43 18.7**	**-1.7**
WB0	**Warramunga Arr**	**19.90**	**162**		**P**	**20 43 47.4**	**-1.2**
WB0				IAmb	IAmb	20 43 52.1	
	comp=Z,18nm,0.8s						
WRAB	**Tennant Creek**	**20.04**	**163**	P	**P**	**20 43 49.4**	**-0.8**
WRAB				IAmb	IAmb	20 43 55.4	
	comp=Z,19nm,0.9s						
WRA	**Warramunga Arr**	**20.05**	**163**	P	**P**	**20 43 49.1**	**-1.1**
	comp=Z,5.6nm,0.7s,baz=335,slow=12,SNR=23						
WRA				S	**S**	**20 47 31.4**	**-2.5**
	comp=Z,0.7nm,0.8s,baz=348,slow=20,SNR=2.7						
	comp=Z,5.6nm,0.7s						
WRA	**Warramunga Arr**	**20.05**	**163**		**P**	**20 43 48.2**	**-2.0**
WR8	**Warramunga Arr**	**20.11**	**162**		**P**	**20 43 49.9**	**-1.0**
WR8				IAmb	IAmb	20 43 56.5	
	comp=Z,27nm,1.4s						
MBWA	**Marble Bar**	**21.87**	**201**	P	**P**	**20 44 08.1**	**-1.7**
MBWA				IAmb	IAmb	20 44 19.7	
	comp=Z,29nm,1.3s						
AS31	**Alice Springs**	**23.48**	**166**		**P**	**20 44 26.0**	**-0.7**
AS31				IAmb	IAmb	20 44 31.7	
	comp=Z,5.7nm,0.7s						
ASAR	**Alice Springs**	**23.48**	**166**	P	**P**	**20 44 26.7**	**0.0**
	comp=Z,19nm,0.9s,baz=342,slow=9.6,SNR=75						
ASAR				S	**S**	**20 48 39.1**	**+0.9**
	comp=Z,2.4nm,1.0s,baz=353,slow=23,SNR=8.0						
ASAR				LR	LR	20 53 05.9	
	comp=Z,61nm,21.5s,baz=344,slow=36						
	comp=Z,19nm,0.9s						
ASAR	**Alice Springs**	**23.48**	**166**		**P**	**20 44 26.1**	**-0.6**
MDSI	**Maura Dua**	**24.16**	**261**	P	**P**	**20 44 34.9**	**+1.7**
	comp=Z,788nmcomp=Z,49nm,1.0s						
CTA	**Charters Tower**	**26.19**	**138**	LR	LR	20 56 16.9	
	comp=Z,114nm,20.5s,baz=296,slow=39						
BBOO	**Buckleboo**	**32.77**	**168**	P	**P**	**20 45 50.9**	**+1.0**
STKA	**Stephens Creek**	**33.50**	**159**	P	**P**	**20 45 56.1**	**-0.1**
	comp=Z,1.9nm,0.7s,baz=337,slow=10,SNR=5.5						
STKA				LR	LR	20 59 37.4	
	comp=Z,116nm,19.0s,baz=20,slow=36						
	comp=Z,1.9nm,0.7s						
CM31	**Chiang Mai Arr**	**34.41**	**305**	P	**P**	**20 46 03.8**	**-0.6**
CM31				IAmb	IAmb	20 46 35.6	
	comp=Z,5.9nm,1.1s						
CMAR	**Chiang Mai Arr**	**34.41**	**305**	P	**P**	**20 46 03.1**	**-1.2**
	comp=Z,0.5nm,0.8s,baz=123,slow=8.6,SNR=5.2						
	comp=Z,0.5nm,0.8s						
CMAR	**Chiang Mai Arr**	**34.41**	**305**	P	**P**	**20 46 02.6**	**-1.7**
ENH	**Enshi**	**35.56**	**332**	P	**P**	**20 46 14.3**	**+0.2**
ENH				IAmb	IAmb	20 46 16.9	
	comp=Z,5.8nm,0.8s						
KSRS	**Korea Array**	**38.00**	**360**	P	**P**	**20 46 34.1**	**-0.6**
	comp=Z,0.7nm,0.8s,baz=179,slow=9.0,SNR=2.8						
KSRS				LR	LR	21 01 35.0	
	comp=Z,17nm,21.2s,baz=180,slow=35						
	comp=Z,0.7nm,0.8s						
MJAR	**Matsushiro Arr**	**38.27**	**13**	P	**P**	**20 46 36.8**	**-0.2**
	comp=Z,1.1nm,0.6s,baz=188,slow=10,SNR=5.5						
MJAR				LR	LR	21 00 36.8	
	comp=Z,26nm,19.6s,baz=214,slow=33						
	comp=Z,1.1nm,0.6s						
MJAR	**Matsushiro Arr**	**38.27**	**13**	P	**P**	**20 46 36.7**	**-0.4**
MAJO	**Matsushiro**	**38.27**	**13**	P	**P**	**20 46 34.8**	**-2.2**
MAJO				IAmb	IAmb	20 46 43.4	
	comp=Z,4.5nm,0.9s						
MJB9	**Matsu-Tunnel**	**38.27**	**13**	P	**P**	**20 46 35.2**	**-1.8**
LZH	**Lanzhou**	**43.03**	**331**	*e*P	**P**	**20 47 19.0**	**+2.5**
LZH				sP	pP	20 47 28.0	+1.2
LZH				pmax	pmax		
	comp=Z,9.0nm,1.3s						
SHL	**Shillong**	**43.67**	**309**		**P**	**20 47 21.8**	**-0.1**
USRK	**Ussuriysk Ar.**	**44.88**	**4**	P	**P**	**20 47 32.3**	**+1.3**
	comp=Z,1.6nm,0.7s,baz=169,slow=8.5,SNR=2.9						
	comp=Z,1.6nm,0.7s						
ASAJ	**Asahikawa**	**46.50**	**14**	LR	LR	21 08 14.5	
	comp=Z,46nm,18.6s,baz=198,slow=37						
RAO	**Raoul Island**	**58.68**	**124**	P	**P**	**20 49 11.3**	**-3.0**
PETK	**Petropavlovsk-**	**59.08**	**20**	P	**P**	**20 49 18.6**	**+2.0**
	comp=Z,1.0nm,0.6s,baz=235,slow=8.4,SNR=2.6						
	comp=Z,1.0nm,0.6s						
PETK	**Petropavlovsk-**	**59.08**	**20**	P	**P**	**20 49 15.5**	**-1.1**
MKAR	**Makanchi Array**	**61.98**	**326**	P	**P**	**20 49 36.3**	**-0.3**
	comp=Z,0.6nm,0.6s,baz=115,slow=8.1,SNR=5.8						
	comp=Z,0.6nm,0.6s						
MAKZ	**Makanchi**	**62.16**	**326**	P	**P**	**20 49 37.7**	**-0.2**
MAKZ				IAmb	IAmb	20 49 53.4	
	comp=Z,4.5nm,1.0s						
ZALV	**Zalesovo Beam**	**65.16**	**333**	P	**P**	**20 49 57.9**	**+0.5**
	comp=Z,0.2nm,0.3s,baz=132,slow=2.1,SNR=4.3						
	comp=Z,0.2nm,0.3s						
ZALV	**Zalesovo Beam**	**65.16**	**333**	P	**P**	**20 49 56.7**	**-0.7**
KURBB	**Kurchatov Arra**	**66.21**	**328**	P	**P**	**20 50 03.6**	**-0.6**
	comp=Z,0.9nm,0.7s,baz=129,slow=5.7,SNR=13						
	comp=Z,0.9nm,0.7s						
KURK	**Kurchatov**	**66.22**	**328**		**P**	**20 50 04.1**	**-0.2**
KURK				IAmb	IAmb	20 50 25.0	
	comp=Z,3.5nm,0.8s						
VNDA	**Vanda**	**78.85**	**173**	P	**P**	**20 51 20.3**	**+1.3**
	comp=Z,0.8nm,0.8s,baz=328,slow=6.8,SNR=5.8						
VNDA				LR	LR	21 26 11.1	
	comp=Z,38nm,18.0s,baz=306,slow=36						
	comp=Z,0.8nm,0.8s						
VNDA	**Vanda**	**78.85**	**173**	P	**P**	**20 51 20.0**	**+1.0**
QSPA	**South Pole Qui**	**89.20**	**180**	P	**P**	**20 52 13.4**	**+1.4**
	comp=Z,2.7nm,0.9s,baz=265,slow=0.8,SNR=14						
	comp=Z,2.7nm,0.9s						
QSPA	**South Pole Qui**	**89.20**	**180**	P	**P**	**20 52 12.9**	**+0.9**
TORD	**Torodi Ar. Bea**	**125.50**	**286**	PKP	**PKiKP**	**20 58 20.6**	**+1.7**
	comp=Z,0.6nm,0.9s,baz=76,slow=5.2,SNR=3.2						

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*MAN **30** 20:47:51.0, 7°.86N×127°.56E, h1^{km}, MS4.1*
*IDC **30** 20:47:54.7±0.8, 8°.05N×127°.30E, h0^{km}, mb3.9/11, mbtmp3.9/11, Error ellipse: s-maj=20.0km s-min=14.2km az=91.0*
*NEIC **30** 20:48:01.3±1.4, 7°.86N±0°.08×127°.0E±0°.1, h44^{km}±8^{km}, mb4.0/8, Error ellipse: s-maj=15.2km s-min=11.1km az=107.0*
ISC 30 20:47:57.0±1.7**, 7°.93N**±0°.03×**127°.10E**±0°.06**, h15**^{km}±10^{km}**, n37, σ1^{s}.47**/51**, mb3.9**/13**, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CDOP	**Cateel, Davao**	**0.67**	**257**	*i* P	**Pn**	**20 48 12.2**	**+0.2**
CDOP				*i* S	**Sn**	**20 48 22.3**	**0.0**
BIPH	**Bislig**	**0.77**	**289**	*e*P	**Pn**	**20 48 14.3**	**+1.0**
BIPH				*e*S	**Sn**	**20 48 24.9**	**+0.1**
TSSP	**Tandag City**	**1.42**	**321**	*e*P	**Pg**	**20 48 24.6**	**+0.3**
TSSP				*e*S	**Sn**	**20 48 37.8**	**-2.9**
DAV	**Davao City (W)**	**1.73**	**240**	Pn	**Pb**	**20 48 28.2**	**-0.4**
	24nm,0.3s,baz=77,slow=4.3,SNR=9.0						
DAV				Lg	Lg	20 48 57.5	
	37nm,0.3s,baz=0.0,slow=18,SNR=11						
DAV	**Davao City (W)**	**1.73**	**240**		**Pb**	**20 48 27.7**	**-0.9**
DMPH	**Davao City--Mi**	**1.79**	**242**	*e*P	**Pg**	**20 48 30.7**	**-0.7**
DMPH				*i* S	**Sg**	**20 48 54.8**	**+0.1**
BUKP	**Musuan**	**2.02**	**269**	*e*P	**Pb**	**20 48 34.1**	**+0.6**
BUKP				*i* S	**Sg**	**20 49 01.7**	**-0.3**
GLSP	**General Luna,**	**2.07**	**332**	*i* P	**Pb**	**20 48 33.0**	**-1.3**
GLSP				*e*S	**Sb**	**20 48 59.6**	**-0.4**
KCP	**Kidapawan**	**2.19**	**245**	*e*P	**Pn**	**20 48 32.1**	**-0.9**
KCP				*e*S	**Sb**	**20 49 04.9**	**+1.4**
DDMP	**Don Marcelino,**	**2.28**	**217**	*e*P	**Pn**	**20 48 33.8**	**-0.4**
DDMP				*e*S	**Sn**	**20 49 03.4**	**+1.4**
CGP	**Cagayan de Oro**	**2.44**	**282**	*e*P	**Pb**	**20 48 39.5**	**-1.1**
CGP				*e*S	**Sg**	**20 49 17.8**	**+2.5**
CTBH	**Cotabato--PC H**	**2.92**	**256**	*i* P	**Pb**	**20 48 45.9**	**-2.8**
TBP	**Tagbilaran**	**3.65**	**299**	*e*P	**Pn**	**20 48 55.3**	**+2.4**
DCPH	**Dipolog City**	**3.77**	**280**	*e*P	**Pn**	**20 48 58.2**	**+3.7**
PLP	**Palo**	**3.83**	**327**	*e*P	**Pn**	**20 48 57.5**	**+2.0**
PLP				*e*S	**Sg**	**20 50 01.4**	**+1.3**
LLP	**Lapu-Lapu**	**3.90**	**308**	*e*P	**Pb**	**20 49 04.3**	**-1.2**
LLP				*e*S	**Sg**	**20 50 02.8**	**+0.5**
SNPH	**Sibulan**	**4.07**	**290**	*e*P	**Pb**	**20 49 03.7**	**-4.7**
SNPH				*e*S	**Sb**	**20 49 55.1**	**-2.4**
TNTI	**Ternate**	**7.12**	**178**	Pn	**Pn**	**20 49 40.7**	**0.0**
SBUM	**Sibu**	**15.78**	**251**	Pn	**Pn**	**20 51 39.1**	**+0.2**
FITZ	**Fitzroy Crossi**	**25.91**	**183**	P	**P**	**20 53 28.9**	**+0.2**
	2.2nm,0.6s,baz=5.4,slow=7.0,SNR=10.0						
	2.2nm,0.6s						
FITZ	**Fitzroy Crossi**	**25.91**	**183**	P	**P**	**20 53 28.5**	**-0.1**
FITZ				IAmb	IAmb	20 53 41.5	
	comp=Z,2.5nm,1.4s						
WB0	**Warramunga Arr**	**28.45**	**165**	P	**P**	**20 53 51.9**	**+0.3**
WB0				IAmb	IAmb	20 54 20.7	
	comp=Z,3.5nm,0.8s						
WRA	**Warramunga Arr**	**28.60**	**166**	P	**P**	**20 53 54.3**	**+1.4**
	comp=Z,0.8nm,0.8s,baz=347,slow=10,SNR=6.7						
	comp=Z,0.8nm,0.8s						
WRA	**Warramunga Arr**	**28.60**	**166**	P	**P**	**20 53 52.4**	**-0.5**
WR8	**Warramunga Arr**	**28.66**	**165**	P	**P**	**20 53 51.8**	**-1.6**
WR8				IAmb	IAmb	20 54 09.6	
	comp=Z,8.2nm,1.2s						
KSRS	**Korea Array**	**29.40**	**1**	P	**P**	**20 54 00.1**	**+0.3**
	comp=Z,0.6nm,0.7s,baz=182,slow=9.6,SNR=1.6						
	comp=Z,0.6nm,0.7s						
ASAR	**Alice Springs**	**32.10**	**168**	P	**P**	**20 54 25.2**	**+1.3**
	comp=Z,0.2nm,0.4s,baz=359,slow=8.9,SNR=2.1						
ASAR				PcP	**PcP**	**20 57 12.3**	**-0.9**
	comp=Z,0.4nm,0.8s,baz=328,slow=2.2,SNR=2.7						
	comp=Z,0.2nm,0.4s						
STKA	**Stephens Creek**	**41.94**	**161**	P	**P**	**20 55 47.6**	**+0.3**
	comp=Z,1.1nm,0.8s,baz=295,slow=7.7,SNR=3.6						
	comp=Z,1.1nm,0.8s						
MKAR	**Makanchi Array**	**54.38**	**323**	P	**P**	**20 57 23.7**	**+0.4**
	comp=Z,2.1nm,0.7s,baz=118,slow=8.3,SNR=15						
MKAR				PcP	**PcP**	**20 58 26.3**	**-0.9**
	comp=Z,0.5nm,0.7s,baz=120,slow=5.2,SNR=2.3						
	comp=Z,2.1nm,0.7s						
MKAR	**Makanchi Array**	**54.38**	**323**	P	**P**	**20 57 23.0**	**-0.3**
ZALV	**Zalesovo Beam**	**57.06**	**332**	P	**P**	**20 57 42.0**	**-0.4**
	comp=Z,0.8nm,0.7s,baz=126,slow=7.3,SNR=5.2						
	comp=Z,0.8nm,0.7s						
KURK	**Kurchatov**	**58.45**	**326**	P	**P**	**20 57 52.2**	**-0.1**
KURBB	**Kurchatov Arra**	**58.45**	**326**	P	**P**	**20 57 52.4**	**+0.1**
	comp=Z,1.6nm,0.6s,baz=124,slow=6.8,SNR=13						
	comp=Z,1.6nm,0.6s						
BVAR	**Borovoye Array**	**64.04**	**326**	P	**P**	**20 58 30.4**	**+0.2**
	comp=Z,1.0nm,0.4s,baz=107,slow=6.2,SNR=7.5						
	comp=Z,1.0nm,0.4s						
BORK	**Borovoye**	**64.09**	**326**	P	**P**	**20 58 29.5**	**-1.0**
BRTR	**Keskin Array B**	**87.64**	**310**	P	**P**	**21 00 47.1**	**+1.7**
	comp=Z,0.6nm,0.9s,baz=39,slow=9.3,SNR=2.7						
	comp=Z,0.6nm,0.9s						
FINES	**FINESS Array B**	**88.32**	**332**	P	**P**	**21 00 46.7**	**-1.2**
	comp=Z,0.9nm,0.8s,baz=90,slow=5.7,SNR=5.1						
	comp=Z,0.9nm,0.8s						

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*BKK **30** 20:56:27.0±1.4, 4°N±6°×9°8E±1°2, h10^{km}, M3.9/5, Mjma3.4/5, ML4.1/5, MLv4.0/3*
DJA 30 20:56:28.7±0.2**, 4°N**±2°×**9°8E**±°**, h10**^{km}**, M3.6**/19**, MLv3.6**/19**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KCSI	**Kotacane, Aceh**	**0.33**	**144**	P	Pg	20 56 34.1	-1.2
TPTI		**0.66**	**217**	P	Pg	20 56 40.8	-0.7
TPTI				AML	AML		
TSI	**Tuntungan**	**1.02**	**106**	P	Pg	20 56 47.9	-0.5
TSI				S	Sg	20 57 01.6	-0.2
TSI				AML	AML		
MLSI	**Meulaboh, Aceh**	**1.27**	**292**	P	Pg	20 56 52.9	-0.1
MLSI				AML	AML		
LHMI	**Lhok Sumawe**	**1.56**	**336**	P	Pn	20 56 55.7	-0.8
LHMI				AML	AML		
PSI	**Prapat**	**1.66**	**126**	P	Pb	20 56 59.3	-0.2
SNSI	**Sinabang, Aceh**	**1.86**	**222**	P	Pn	20 56 59.8	-0.8
SNSI				AML	AML		
GSI	**Gunungsitoli**	**2.47**	**180**	P	Pn	20 57 10.9	+1.8
GSI				AML	AML		
BSI	**Banda Aceh**	**2.84**	**307**	P	Pn	20 57 14.8	+0.7
BSI				AML	AML		
KULM	**Kulim**	**3.40**	**64**	P	Pn	20 57 20.6	-1.3
KULM				AML	AML		
IPM	**Ipoh**	**3.50**	**79**	P	Pn	20 57 24.9	+1.6
PKDT	**Phuket**	**4.14**	**10**	Pg	Pb	20 57 43.0	+1.2

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*IDC **30** 21:08:06.5±0.5, 9°.12N×126°.69E, h0^{km}, mb4.1/27, mbtmp4.1/29, ML4.2/2, MS3.8/20, Error ellipse: s-maj=22.0km s-min=10.1km az=83.0*
*MAN **30** 21:08:08.0, 9°.15N×126°.89E, h1^{km}, MS4.4*
*NEIC **30** 21:08:08.3±1.3, 9°.16N±0°.07×126°.62E±0°.07, h10^{km}±1^{km}, mb4.6/50, Error ellipse: s-maj=14.0km s-min=11.0km az=43.0*
*DJA **30** 21:08:10.7±2.2, 9°N±6°×12°7E±°, h23^{km}±16^{km}, M4.8/27, mb4.7/27, mB5.2/12, MLv5.3/4, Mw(mB)4.6/12*
*GCMT **30** 21:08:14.3±0.3, 9°.13N±0°.02×126°.87E±0°.02, h28^{km}±1^{km}, MW5.0/88, Moment Tensor Solution. s31,c34; s88,c120; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$3.04±.21; M$_{\theta\theta}$-0.18±.11; M$_{\phi\phi}$-2.86±.12; M$_{r\theta}$0.05±.17; M$_{\theta\phi}$0.29±.07; M$_{\phi r}$2.28±.17; Best double couple: M$_0$3.74100×10^{16} NP1:φ$_s$170.00000°, δ26.00000°, λ83.00000°. NP2: φ$_s$358.00000°, δ64.00000°, λ94.00000°. Principal axes: T 3.8230, Plg71.0000°, Azm276.0000°; N -0.1610, Plg3.0000°, Azm177.0000°; P -3.6580, Plg19.0000°, Azm85.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*
ISC 30 21:08:09.3±1.0**, 9°.13N**±0°.03×**126°.72E**±0°.04**, h17**^{km}±6^{km}**, n164, σ1^{s}.81**/152**, mb4.4**/56**, MS3.9**/26**, 1D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TSSP	**Tandag City**	**0.52**	**261**	*i* P	**Pb**	**21 08 20.9**	**+0.9**
TSSP				*e*S	**Sn**	**21 08 30.4**	**-0.1**
GLSP	**General Luna,**	**0.88**	**318**	*i* P	**Pn**	**21 08 27.4**	**+0.4**
GLSP				*i* S	**Sn**	**21 08 41.4**	**+2.0**
BIPH	**Bislig**	**1.00**	**201**	*e*P	**Pg**	**21 08 28.7**	**0.0**
BIPH				*e*S	**Sg**	**21 08 41.5**	**-0.3**
CDOP	**Cateel, Davao**	**1.36**	**192**	*e*P	**Pn**	**21 08 33.8**	**+0.2**
CDOP				*i* S	**Sg**	**21 08 53.1**	**-0.3**
BUKP	**Musuan**	**2.06**	**233**	*i* P	**Pb**	**21 08 46.5**	**+0.2**
BUKP				*i* S	**Sb**	**21 09 11.0**	**-0.5**
CGP	**Cagayan de Oro**	**2.11**	**252**	*i* P	**Pb**	**21 08 46.0**	**-1.2**
CGP				*i* S	**Sg**	**21 09 16.1**	**-1.3**
DAV	**Davao City (W)**	**2.33**	**209**	Pn	**Pn**	**21 08 46.4**	**-0.6**
	44nm,0.3s,baz=200,slow=4.3,SNR=4.8						
DAV				Lg	Lg	21 09 25.0	
	69nm,0.3s,baz=90,slow=21,SNR=8.0						
	129nm,0.4s						
DAV				AML	AML		
DAV	**Davao City (W)**	**2.33**	**209**	P	**Pg**	**21 08 54.4**	**+0.3**
DAV				AML	AML		
DAV	**Davao City (W)**	**2.33**	**209**	P	**Pb**	**21 08 52.0**	**+1.0**
DMPH	**Davao City--Mi**	**2.36**	**211**	*e*P	**Pg**	**21 08 53.8**	**-0.7**
DMPH				*i* S	**Sg**	**21 09 28.7**	**+3.5**
KCP	**Kidapawan**	**2.65**	**218**	*e*P	**Pb**	**21 08 55.6**	**-0.8**
KCP				*e*S	Sn	21 09 08.9	-14
PLP	**Palo**	**2.66**	**320**	*e*P	**Pn**	**21 08 53.7**	**+2.4**
PLP				*e*S	**Sb**	**21 09 27.8**	**-1.0**
TBP	**Tagbilaran**	**2.88**	**282**	*i* P	**Pn**	**21 08 57.1**	**+2.7**
TBP				*i* S	**Sb**	**21 09 33.7**	**-1.5**
LLP	**Lapu-Lapu**	**2.96**	**294**	*e*P	**Pb**	**21 08 59.1**	**-2.6**
LLP				*e*S	**Sb**	**21 09 35.2**	**-2.5**
LSIP	**Lazi, Siquijor**	**3.05**	**270**	*e*P	**Pn**	**21 08 59.2**	**+2.4**
LSIP				*e*S	**Sn**	**21 09 32.5**	**-0.6**
CTBH	**Cotabato--PC H**	**3.10**	**233**	*i* P	**Pb**	**21 09 00.9**	**-3.0**
DDMP	**Don Marcelino,**	**3.16**	**199**	*e*P	**Pb**	**21 09 02.3**	**-2.8**
DDMP				*e*S	**Sn**	**21 09 38.6**	**+2.8**
DCPH	**Dipolog City**	**3.37**	**261**	*e*P	**Pn**	**21 09 03.6**	**+2.3**
DCPH				*i* S	**Sn**	**21 09 44.3**	**+3.4**
SNPH	**Sibulan**	**3.45**	**274**	*e*P	**Pn**	**21 09 05.7**	**+3.3**
SNPH				*e*S	**Sb**	**21 09 50.5**	**-1.2**
GSPH	**General Santos**	**3.49**	**210**	*i* P	**Pb**	**21 09 07.9**	**-2.9**
GSPH				*i* S	**Sn**	**21 09 46.6**	**+2.5**
CADP	**Cadiz City**	**3.82**	**298**	*i* P	**Pn**	**21 09 11.5**	**+4.1**
CADP				*i* S	**Sn**	**21 09 55.5**	**+3.6**
MMPH	**Masbate**	**4.43**	**317**	*e*P	**Pn**	**21 09 20.5**	**+4.8**
JAP	**San Jose, Anti**	**4.97**	**289**	*e*P	Pb	21 09 30.1	-5.8
IBAJ	**Ibajay, Aklan**	**5.22**	**301**	*e*P	Pn	21 09 31.7	+5.1
GQP	**Guinayangan**	**6.33**	**319**	*e*P	Pn	21 09 34.0	-8.0
LQP	**Lukban**	**7.09**	**315**	*e*P	Pn	21 09 59.0	+6.3
PCPS	**Palayan City**	**7.80**	**315**	*e*P	Pn	21 10 13.1	+11
MNI	**Manado**	**7.86**	**194**	P	Pn	21 10 10.4	+7.5
	61nm,0.5s						
PPR	**Puerto Princes**	**7.91**	**275**	*i* P	**Pn**	**21 10 04.6**	**+0.9**
TNTI	**Ternate**	**8.32**	**176**	Pn	**Pn**	**21 10 10.0**	**+0.7**
TNTI	**Ternate**	**8.32**	**176**	P	Pn	21 10 13.6	+4.3
	45nm,0.9s						
MYLDM	**Lahad Datu**	**9.05**	**245**	P	Pn	21 10 28.0	+8.7
	19nm,1.1s						
GTOI	**Gorontalo**	**9.21**	**204**	P	Pn	21 10 27.9	+6.5
TOLI2	**Tolitoli**	**9.92**	**217**	Pn	**Pn**	**21 10 32.3**	**+1.1**
KKM	**Kota Kinabalu**	**10.86**	**254**	P	Pn	21 10 51.9	+7.8
	16nm,1.3s						
SWI	**Sorong**	**10.90**	**155**	P	**Pn**	**21 10 48.2**	**+3.5**
	15nm,0.6s						
SIJI	**Sorong**	**10.91**	**155**	Pn	**Pn**	**21 10 44.5**	**-0.3**
	2.2nm,0.3s,baz=323,slow=20,SNR=6.0						
SIJI				Sn	Sn	21 12 36.7	-10
	0.4nm,0.3s,baz=233,slow=20,SNR=1.5						
	2.6nm,0.4s						
SIJI				AML	AML		
SANI	**Sanana**	**11.12**	**184**	P	**Pn**	**21 10 50.6**	**+2.9**
	18nm,0.7s						
APSI	**Ampana**	**11.18**	**207**	P	Pn	21 10 57.3	+8.9
	602nm35nm,0.9s						
FAKI	**Fak Fak**	**13.17**	**155**	Pn	**Pn**	**21 11 15.0**	**-0.7**
TPUB	**Ta-pu**	**15.26**	**338**	P	**Pn**	**21 11 46.2**	**+2.1**
TPUB				IAmb	IAmb	21 11 53.4	
	comp=Z,48nm,1.2s						
SBUM	**Sibu**	**15.87**	**246**		**P**	**21 11 54.7**	**-1.1**
SBUM	**Sibu**	**15.87**	**246**	P	**P**	**21 11 58.7**	**+2.9**
	comp=Z,7.9nm,0.9s						
YHNB	**Yeheng**	**16.28**	**342**	P	**Pn**	**21 11 58.2**	**+0.8**
YHNB				IAmb	IAmb	21 12 37.3	
	comp=Z,60nm,1.3s						
LBFI	**Labuhan Bajo,**	**18.77**	**201**	P	**Pn**	**21 12 33.9**	**+5.6**
SOEI	**Soe**	**18.91**	**187**	P	Pn	21 12 38.2	+8.0
	comp=Z,1μmcomp=Z,56nm,0.8s						
QIZ	**Qiongzhong**	**19.09**	**303**	P	**P**	**21 12 30.8**	**-0.5**
QIZ				S	**Sn**	**21 16 04.5**	**-1.3**
QIZ				pmax	pmax		
	comp=Z,220nm,9.3s						
QIZ				LR	LR		
	comp=N,440nm,15.5s						
QIZ				LR	LR		
	comp=E,610nm,15.5s						
QIZ				LR	LR		
	comp=Z,920nm,16.0s						
QIZ	**Qiongzhong**	**19.09**	**303**	P	**P**	**21 12 30.1**	**-1.2**
BATI	**Baumata**	**19.44**	**189**	P	**P**	**21 12 31.1**	**-4.1**
	comp=Z,25nm,0.4s,baz=25,slow=2.2,SNR=10						
NJ2	**Nanjing**	**23.95**	**343**	*e*P	**P**	**21 13 24.8**	**+2.0**
NJ2				S	**S**	**21 17 47.3**	**+8.5**
NJ2				pmax	pmax		
	comp=Z,9.0nm,0.8s						
NJ2				pmax	pmax		
	comp=Z,270nm,4.5s						
NJ2				LR	LR		
	comp=N,480nm,17.1s						
NJ2				LR	LR		
	comp=E,560nm,18.5s						
NJ2				LR	LR		
	comp=Z,2μm,24.7s						
JNU	**Nakatsue**	**24.19**	**9**	P	**P**	**21 13 23.8**	**-1.2**
	comp=Z,8.9nm,1.0s,baz=144,slow=8.7,SNR=2.9						
	comp=Z,8.9nm,1.0s						
KNRA	**Kununurra**	**24.72**	**175**	P	**P**	**21 13 29.8**	**-0.2**
KNRA				IAmb	IAmb	21 13 59.2	
	comp=Z,8.3nm,0.8s						
LEM	**Lembang**	**24.77**	**231**	P	**P**	**21 13 31.6**	**+1.0**
	comp=Z,12nm,0.4s,baz=348,slow=19,SNR=1.9						
	comp=Z,12nm,0.4s						
SLVN	**Son La**	**25.10**	**302**	P	**P**	**21 13 31.8**	**-1.6**
JMN	**Monobe**	**25.36**	**14**	P	**P**	**21 13 35.3**	**-0.3**
IPM	**Ipoh**	**25.92**	**261**	P	**P**	**21 13 39.6**	**-1.4**
IPM				IAmb	IAmb	21 14 00.2	
	comp=Z,14nm,0.9s						
IPM	**Ipoh**	**25.92**	**261**	P	**P**	**21 13 43.2**	**+2.2**
	comp=Z,17nm,0.9s						
KULM	**Kulim**	**26.14**	**263**	P	**P**	**21 13 41.4**	**-1.6**
KULM				IAmb	IAmb	21 14 16.8	
	comp=Z,14nm,1.2s						
JHJ	**Hachijo jima 2**	**26.75**	**25**	LR	LR	21 24 55.6	
	comp=Z,197nm,18.7s,baz=174,slow=38						
FITZ	**Fitzroy Crossi**	**27.07**	**182**	P	**P**	**21 13 51.2**	**0.0**
	comp=Z,2.5nm,0.4s,baz=1.7,slow=12,SNR=15						
	comp=Z,2.5nm,0.4s						
FITZ	**Fitzroy Crossi**	**27.07**	**182**	P	**P**	**21 13 51.0**	**-0.2**
KSRS	**Korea Array**	**28.23**	**2**	P	**P**	**21 14 01.7**	**+0.4**
	comp=Z,1.3nm,0.7s,baz=187,slow=10,SNR=5.4						
	comp=Z,1.3nm,0.7s						
RPSI	**Rantau Prapat**	**28.36**	**259**	P	**P**	**21 14 01.2**	**-1.7**
RPSI				IAmb	IAmb	21 14 21.3	
	comp=Z,22nm,1.4s						
CMAR	**Chiang Mai Arr**	**28.49**	**292**	P	**P**	**21 14 03.1**	**-0.9**
	comp=Z,0.4nm,0.5s,baz=98,slow=8.1,SNR=4.2						
	comp=Z,0.4nm,0.5s						
CMAR	**Chiang Mai Arr**	**28.49**	**292**	P	**P**	**21 14 02.1**	**-1.9**
KRVT	**Keravat (AS076**	**28.54**	**117**	LR	LR	21 25 24.7	
	comp=Z,184nm,18.3s,baz=292,slow=36						
MJAR	**Matsushiro Arr**	**29.22**	**19**	LR	LR	21 26 01.9	
	comp=Z,142nm,18.7s,baz=187,slow=37						
PZH	**PanZhiHua**	**29.30**	**309**	P	**P**	**21 14 11.8**	**+0.5**
WB0	**Warramunga Arr**	**29.69**	**165**	P	**P**	**21 14 13.4**	**-1.2**
WB0				IAmb	IAmb	21 14 28.6	
	comp=Z,6.4nm,0.8s						
WRAB	**Tennant Creek**	**29.84**	**165**	P	**P**	**21 14 14.9**	**-0.9**
WRA	**Warramunga Arr**	**29.84**	**165**	P	**P**	**21 14 14.7**	**-1.2**
	comp=Z,1.0nm,0.6s,baz=344,slow=8.9,SNR=15						
	comp=Z,1.0nm,0.6s						
WRA	**Warramunga Arr**	**29.84**	**165**	P	**P**	**21 14 15.2**	**-0.7**
GSI	**Gunungsitoli**	**30.02**	**257**	P	**P**	**21 14 16.2**	**-1.4**
MBWA	**Marble Bar**	**30.87**	**193**	P	**P**	**21 14 24.1**	**-0.8**
MBWA				IAmb	IAmb	21 14 41.0	
	comp=Z,11nm,1.1s						
BJI2	**Beijing**	**32.17**	**345**	P	**P**	**21 14 36.3**	**0.0**
BJI2				pP	**pP**	**21 14 40.3**	**+0.7**
BJI2				PP	**PnPn**	**21 15 43.8**	**+1.5**
BJI2				S	**S**	**21 19 46.3**	**-2.1**
BJI2				pmax	pmax		
	comp=Z,4.0nm,1.4s						
BJI2				pmax	pmax		
	comp=Z,55nm,7.6s						
BJI2				LR	LR		
	comp=N,100nm,17.7s						
BJI2				LR	LR		
	comp=E,130nm,18.2s						
BJI2				LR	LR		
	comp=Z,120nm,20.1s						
BJT	**Baijiatuau**	**32.17**	**345**	P	**P**	**21 14 34.8**	**-1.5**
BJT				IAmb	IAmb	21 14 49.9	
	comp=Z,18nm,1.5s						
AS31	**Alice Springs**	**33.34**	**168**	P	**P**	**21 14 45.3**	**-1.3**
ASAR	**Alice Springs**	**33.34**	**168**	P	**P**	**21 14 45.7**	**-1.0**
	comp=Z,1.4nm,0.4s,baz=353,slow=6.8,SNR=25						
ASAR				PcP	**PcP**	**21 17 29.4**	**+0.8**
	comp=Z,1.1nm,0.7s,baz=345,slow=1.8,SNR=6.2						
	comp=Z,1.4nm,0.4s						
ASAR	**Alice Springs**	**33.34**	**168**	P	**P**	**21 14 46.0**	**-0.6**

LZDM	**Lanzhou Array**	**33.96**	**325**	LR	LR	21 30 25.8	
	comp=Z,304nm,18.0s,baz=235,slow=40						
LZH	**Lanzhou**	**33.97**	**326**	*e*P	P	21 14 45.8	-6.4
LZH				pP	pP	21 14 50.3	-5.2
LZH				pmax	pmax		
	comp=Z,10.0nm,1.0s						
HHC	**Hu-ho-hao-te**	**34.34**	**339**	*e*P	**P**	**21 14 55.5**	**+0.2**
HHC				pmax	pmax		
	comp=Z,11nm,0.6s						
HHC				pmax	pmax		
	comp=Z,140nm,5.0s						
HHC				LR	LR		
	comp=N,220nm,14.5s						
HHC				LR	LR		
	comp=E,120nm,15.3s						
HHC				LR	LR		
	comp=Z,230nm,15.3s						
CTA	**Charters Tower**	**34.82**	**147**	LR	LR	21 31 10.4	
	comp=Z,166nm,18.3s,baz=323,slow=40						
USA0B	**Ussuriysk Arra**	**35.24**	**7**	P	**P**	**21 15 03.5**	**+0.6**
USA0B				IAmb	IAmb	21 15 24.9	
	comp=Z,6.5nm,0.8s						
USRK	**Ussuriysk Ar.**	**35.24**	**7**	P	**P**	**21 15 02.1**	**-0.8**
	comp=Z,2.2nm,0.7s,baz=165,slow=5.8,SNR=4.4						
	comp=Z,2.2nm,0.7s						
BRDH	**Bariadhala**	**36.22**	**296**	LR	LR	21 31 32.0	
	comp=Z,123nm,18.8s,baz=150,slow=39						
BNX	**BinXian**	**36.49**	**1**	⇓P	**P**	**21 15 14.0**	**+0.4**
BNX				pmax	pmax		
	comp=Z,4.0nm,1.0s						
SHL	**Shillong**	**36.90**	**301**	P	**P**	**21 15 15.5**	**-2.2**
ASAJ	**Asahikawa**	**37.49**	**19**	P	**P**	**21 15 21.9**	**-0.3**
	comp=Z,8.1nm,1.1s,baz=168,slow=14,SNR=1.8						
ASAJ				LR	LR	21 29 53.8	
	comp=Z,173nm,21.5s,baz=212,slow=35						
	comp=Z,8.1nm,1.1s						
JKA	**Kamikawa-asahi**	**37.49**	**19**	P	**P**	**21 15 22.0**	**-0.2**
HNR	**Honiara**	**37.87**	**118**	LR	LR	21 29 42.1	
	comp=Z,111nm,21.1s,baz=16,slow=34						
GTA2	**Gaotai**	**38.66**	**326**	*e*P	**P**	**21 15 32.5**	**+0.3**
GTA2				pmax	pmax		
	comp=Z,3.0nm,1.1s						
GTA2				LR	LR		
	comp=N,420nm,15.5s						
GTA2				LR	LR		
	comp=E,460nm,17.1s						
GTA2				LR	LR		
	comp=Z,740nm,17.8s						
MORW	**Morawa**	**39.34**	**195**	P	**P**	**21 15 37.5**	**-0.4**
MORW				IAmb	IAmb	21 15 40.9	
	comp=Z,15nm,1.1s						
FORT	**Forrest**	**39.70**	**178**	P	**P**	**21 15 40.9**	**+0.1**
FORT				IAmb	IAmb	21 15 53.4	
	comp=Z,15nm,1.2s						
H11S3	**WAKE ISLAND Hy**	**39.83**	**72**	T	T	21 58 41.2	
	baz=261,slow=73,SNR=56						
H11S1	**WAKE ISLAND Hy**	**39.84**	**72**	T	T	21 58 42.2	
	baz=261,slow=73,SNR=50						
H11S2	**WAKE ISLAND Hy**	**39.85**	**72**	T	T	21 58 43.2	
	baz=261,slow=73,SNR=49						
H11N1	**WAKE ISLAND Hy**	**40.20**	**70**	T	T	21 59 21.1	
	baz=265,slow=74,SNR=32						
H11N2	**WAKE ISLAND Hy**	**40.21**	**70**	T	T	21 59 18.1	
	baz=265,slow=74,SNR=27						
H11N3	**WAKE ISLAND Hy**	**40.22**	**70**	T	T	21 59 18.8	
	baz=265,slow=74,SNR=38						
HILR	**Hailar Array B**	**40.72**	**353**	P	**P**	**21 15 50.0**	**+0.8**
	comp=Z,0.6nm,0.3s,baz=165,slow=12,SNR=1.8						
	comp=Z,0.6nm,0.3s						
HEH	**HeiHe**	**41.00**	**1**	*e*P	**P**	**21 15 51.3**	**-0.1**
EVN	**Everest**	**41.96**	**302**	P	**P**	**21 15 57.7**	**-2.7**
ULN	**Ulaanbaatar**	**42.05**	**340**	P	**P**	**21 15 59.2**	**-1.0**
BBOO	**Buckleboo**	**42.64**	**168**	P	**P**	**21 16 04.9**	**-0.1**
BBOO				IAmb	IAmb	21 16 09.1	
	comp=Z,25nm,1.1s						
NWAO	**Narrogin (SRO)**	**42.78**	**192**	P	**P**	**21 16 06.6**	**+0.4**
STKA	**Stephens Creek**	**43.18**	**161**	P	**P**	**21 16 09.4**	**0.0**
	comp=Z,2.9nm,0.7s,baz=354,slow=7.4,SNR=7.9						
STKA				LR	LR	21 38 59.9	
	comp=Z,104nm,18.0s,baz=356,slow=43						
	comp=Z,2.9nm,0.7s						
PALK	**Pallekele**	**45.56**	**271**	LR	LR	21 37 25.4	
	comp=Z,149nm,18.4s,baz=57,slow=39						
WMQ	**Urumqi**	**48.40**	**322**	*e*P	**P**	**21 16 52.5**	**+1.9**
WMQ				LR	LR		
	comp=N,490nm,17.5s						
WMQ				LR	LR		
	comp=E,420nm,17.5s						
WMQ				LR	LR		
	comp=Z,220nm,17.5s						
PEA0B	**Petropavlovsk-**	**50.49**	**24**	P	**P**	**21 17 07.1**	**+0.7**
PEA0B				IAmb	IAmb	21 17 31.4	
	comp=Z,12nm,1.1s						
PETK	**Petropavlovsk-**	**50.49**	**24**	P	**P**	**21 17 06.6**	**+0.3**
	comp=Z,0.6nm,0.7s,baz=238,slow=4.5,SNR=3.2						
PETK				LR	LR	21 38 15.1	
	comp=Z,84nm,19.5s,baz=204,slow=36						
	comp=Z,0.6nm,0.7s						
MKAR	**Makanchi Array**	**53.20**	**323**	P	**P**	**21 17 26.2**	**-0.6**
	comp=Z,1.5nm,0.5s,baz=123,slow=7.6,SNR=16						
MKAR				LR	LR	21 43 01.5	
	comp=Z,142nm,18.4s,baz=127,slow=39						
	comp=Z,1.5nm,0.5s						
MKAR	**Makanchi Array**	**53.20**	**323**	P	**P**	**21 17 25.8**	**-0.9**
PDGK	**Podgornoye**	**53.34**	**318**	P	**P**	**21 17 26.7**	**-1.3**
MAKZ	**Makanchi**	**53.40**	**323**	P	**P**	**21 17 27.0**	**-1.2**
MAKZ				IAmb	IAmb	21 17 42.5	
	comp=Z,6.2nm,1.1s						
KSH2	**Kashi**	**54.50**	**312**	P	**P**	**21 17 39.5**	**+2.9**
KSH2				sP	pwP	21 17 47.0	0.0
KSH2				pmax	pmax		
	comp=Z,3.0nm,1.6s						
KSH2				LR	LR		
	comp=N,670nm,16.1s						
KSH2				LR	LR		
	comp=E,400nm,19.6s						
KSH2				LR	LR		
	comp=Z,340nm,16.9s						
NIL	**Nilore**	**54.75**	**305**	P	**P**	**21 17 36.7**	**-1.6**
ZALV	**Zalesovo Beam**	**55.84**	**332**	P	**P**	**21 17 44.5**	**-1.2**
	comp=Z,0.4nm,0.3s,baz=101,slow=7.7,SNR=3.9						
	comp=Z,0.4nm,0.3s						
ARSB	**Arslanbob**	**57.08**	**314**	P	**P**	**21 17 53.4**	**-1.6**
ARSB				IAmb	IAmb	21 18 33.1	
	comp=Z,6.8nm,1.4s						
KURK	**Kurchatov**	**57.26**	**326**	P	**P**	**21 17 54.5**	**-1.4**
KURK				IAmb	IAmb	21 18 09.0	
	comp=Z,4.0nm,0.8s						
KURBB	**Kurchatov Arra**	**57.26**	**326**	P	**P**	**21 17 54.9**	**-1.0**
	comp=Z,1.8nm,0.6s,baz=124,slow=6.9,SNR=19						
	comp=Z,1.8nm,0.6s						
MSVF	**Nonsavu**	**57.29**	**118**	LR	LR	21 40 28.3	
	comp=Z,62nm,21.2s,baz=297,slow=34						
KBL	**Kabul**	**58.35**	**305**	P	**P**	**21 18 02.4**	**-1.7**
KK31	**Karatay Array**	**59.37**	**315**	P	**P**	**21 18 08.6**	**-2.2**
KKAR	**Karatay Array**	**59.37**	**315**	P	**P**	**21 18 09.4**	**-1.5**
BVAR	**Borovoye Array**	**62.86**	**326**	P	**P**	**21 18 33.7**	**-0.6**
	comp=Z,1.9nm,0.6s,baz=132,slow=8.7,SNR=6.5						
	comp=Z,1.9nm,0.6s						
BORK	**Borovoye**	**62.90**	**326**	P	**P**	**21 18 32.7**	**-1.8**
BORK				IAmb	IAmb	21 18 47.8	
	comp=Z,4.2nm,0.7s						
AFI	**Afiamalu**	**65.17**	**110**	LR	LR	21 43 42.5	
	comp=Z,93nm,20.1s,baz=30,slow=33						
NRIK	**Noril'sk**	**65.23**	**346**	P	**P**	**21 18 48.7**	**-0.8**
	comp=Z,2.5nm,0.5s,baz=156,slow=7.5,SNR=3.7						
NRIK				LR	LR	21 50 11.4	
	comp=Z,112nm,19.6s,baz=150,slow=39						
	comp=Z,2.5nm,0.5s						
NRIK	**Noril'sk**	**65.23**	**346**	P	**P**	**21 18 48.1**	**-1.4**
URZ	**Urewera**	**66.52**	**139**	LR	LR	21 45 21.6	
	comp=Z,56nm,21.1s,baz=300,slow=34						
AB31	**Akbulak array**	**68.03**	**320**	P	**P**	**21 19 06.1**	**-1.7**
ABKAR	**Akbulak array**	**68.03**	**320**	P	**P**	**21 19 05.9**	**-1.9**
ARTI	**Arti**	**70.51**	**327**	P	**P**	**21 19 21.4**	**-1.6**
M17K	**Holitna River**	**75.27**	**29**	P	**P**	**21 19 52.1**	**+0.9**
GNI	**Garni**	**78.07**	**309**	LR	LR	21 58 59.9	
	comp=Z,73nm,21.2s,baz=72,slow=39						
RAR	**Rarotonga**	**78.17**	**114**	LR	LR	21 47 24.2	
	comp=Z,82nm,20.9s,baz=325,slow=30						
RAYN	**Ar Rayn**	**78.41**	**292**	P	**P**	**21 20 07.8**	**-1.9**
RAYN				IAmb	IAmb	21 20 20.1	
	comp=Z,2.5nm,0.6s						
D23K	**Nanushuk River**	**78.88**	**21**	P	**P**	**21 20 12.2**	**+0.8**
D23K				IAmb	IAmb	21 20 49.2	
	comp=Z,10nm,1.4s						
KBZ	**Khabaz**	**79.31**	**313**	P	**P**	**21 20 16.0**	**+1.8**
	comp=Z,1.8nm,0.9s,baz=45,slow=5.7,SNR=2.0						
	comp=Z,1.8nm,0.9s						
D24K	**Happy Valley**	**79.56**	**21**	P	**P**	**21 20 15.9**	**+0.8**
D24K				IAmb	IAmb	21 20 24.3	
	comp=Z,6.3nm,1.1s						
C24K	**Franklin Bluff**	**79.62**	**21**	P	**P**	**21 20 16.1**	**+0.7**
C24K				IAmb	IAmb	21 20 59.6	
	comp=Z,12nm,1.2s						
ILAR	**Eielson Array**	**80.27**	**26**	P	**P**	**21 20 20.8**	**+1.7**
	comp=Z,0.7nm,0.7s,baz=236,slow=5.3,SNR=4.8						
	comp=Z,0.7nm,0.7s						
ILAR	**Eielson Array**	**80.27**	**26**	P	**P**	**21 20 19.4**	**+0.4**
BMAR	**Burnt Mountain**	**81.14**	**23**	P	**P**	**21 20 24.2**	**+0.5**
K27K	**Chicken**	**82.39**	**26**	P	**P**	**21 20 30.8**	**+0.5**
K27K				IAmb	IAmb	21 20 50.0	
	comp=Z,6.8nm,1.0s						
F28M	**Old Crow**	**82.93**	**23**	P	**P**	**21 20 33.5**	**+0.5**
F28M				IAmb	IAmb	21 20 48.0	
	comp=Z,2.9nm,0.7s						
I28M	**Miner Creek**	**83.16**	**25**	P	**P**	**21 20 35.8**	**+1.4**
SPITS	**Spitsbergen Ar**	**85.22**	**349**	P	**P**	**21 20 44.1**	**-0.5**
	comp=Z,6.2nm,0.9s,baz=101,slow=7.5,SNR=1.2						
	comp=Z,6.2nm,0.9s						
ARCES	**ARCESS Array B**	**85.42**	**340**	P	**P**	**21 20 45.1**	**-0.5**
	comp=Z,1.0nm,0.6s,baz=83,slow=6.3,SNR=11						
	comp=Z,1.0nm,0.6s						
ARCES	**ARCESS Array B**	**85.42**	**340**	P	**P**	**21 20 44.8**	**-0.9**
MMAI	**Mount Meron Ar**	**86.20**	**303**	LR	LR	22 05 33.8	
	comp=Z,43nm,18.4s,baz=54,slow=40						
BRTR	**Keskin Array B**	**86.60**	**310**	LR	LR	22 04 51.6	
	comp=Z,56nm,20.7s,baz=40,slow=39						
FIA1	**FINESS Array S**	**87.10**	**332**	P	**P**	**21 20 53.1**	**-1.0**
FINES	**FINESS Array B**	**87.11**	**332**	P	**P**	**21 20 52.8**	**-1.3**
	comp=Z,0.3nm,0.4s,baz=48,slow=5.7,SNR=7.3						
	comp=Z,0.3nm,0.4s						
AKASG	**Malin Array Be**	**87.73**	**321**	P	**P**	**21 20 57.3**	**0.0**
	comp=Z,0.2nm,0.4s,baz=62,slow=5.0,SNR=2.0						
	comp=Z,0.2nm,0.4s						
VNDA	**Vanda**	**88.74**	**173**	P	**P**	**21 21 01.8**	**+0.3**
	comp=Z,0.7nm,0.9s,baz=276,slow=11,SNR=3.0						
	comp=Z,0.7nm,0.9s						
VNDA	**Vanda**	**88.74**	**173**	P	**P**	**21 21 01.1**	**-0.4**
VNDA				IAmb	IAmb	21 21 26.4	
	comp=Z,4.8nm,1.4s						
MAW	**Mawson**	**88.78**	**200**	P	**P**	**21 21 03.0**	**+1.2**
	comp=Z,0.8nm,0.8s,baz=74,slow=8.9,SNR=1.8						
	comp=Z,0.8nm,0.8s						
MAW	**Mawson**	**88.78**	**200**	P	**P**	**21 21 01.7**	**-0.1**
HFS	**Hagfors**	**93.27**	**333**	P	**P**	**21 21 23.6**	**+0.7**
	comp=Z,1.4nm,0.9s,baz=80,slow=9.4,SNR=1.8						
	comp=Z,1.4nm,0.9s						
YKA	**Yellowknife Ar**	**94.61**	**24**	P	**P**	**21 21 30.6**	**+1.5**
	comp=Z,0.7nm,0.8s,baz=290,slow=8.0,SNR=1.7						
	comp=Z,0.7nm,0.8s						
TXAR	**Lajitas Array**	**118.23**	**50**	PKP	**PKiKP**	**21 26 57.2**	**+0.7**
	comp=Z,0.1nm,0.6s,baz=246,slow=3.6,SNR=1.7						
TORD	**Torodi Ar. Bea**	**121.10**	**291**	PKP	**PKPdf**	**21 26 60.0**	**-2.3**
	comp=Z,0.4nm,0.7s,baz=76,slow=1.5,SNR=1.6						

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*IDC **30** 21:13:08.5±0.5, 9°.24N×126°.91E, h0^{km}, mb4.2/26, mbtmp4.2/29, ML4.2/3, MS3.8/4, Error ellipse: s-maj=19.8km s-min=9.8km az=84.0*

*MAN **30** 21:13:09.0, 9°.16N×126°.92E, h2^{km}, MS4.6*

*BJI **30** 21:13:09.3, 9°.18N×126°.73E, h11^{km}, mB4.8/8, mb4.5/28, Ms4.4/16, Ms7 4.3/15*

*NEIC **30** 21:13:10.4±1.1, 9°.21N±0°.07×126°.76E±0°.09, h10^{km}±1^{km}, mb4.6/60, Error ellipse: s-maj=15.7km s-min=11.8km az=89.0*

*DJA **30** 21:13:12.4±0.4, 9°N±3°×12°7E±°, h10^{km}, M5.2/28, mB6.0/6, mb4.7/28, MLv5.2/2, Mw(mB)5.6/6, MwMwp7.2/1, Mwp7.0/1*

*GCMT **30** 21:13:16.4±0.4, 9°.19N±0°.03×126°.95E±0°.03, h33^{km}, MW5.0/68, Moment Tensor Solution. s23,c25; s68,c86; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}3.87±.24; $M_{\theta\theta}$-0.87±.13; $M_{\phi\phi}$-3.00±.13; $M_{r\theta}$-0.07±.15; $M_{\theta\phi}$0.32±.07; $M_{\phi r}$1.22±.12; Best double couple: $M_0$3.66800×10^{16} NP1:ϕ_s171.00000°,δ35.00000°,λ88.00000°. NP2: ϕ_s353.00000°,δ55.00000°,λ91.00000°. Principal axes: T 4.0800, Plg80.0000°, Azm269.0000°; N -0.8220, Plg1.0000°, Azm172.0000°; P -3.2560, Plg10.0000°, Azm82.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

ISC 30 21:13:11.8±0.7**, 9°.14N**±0°.03×**126°.89E**±0°.05**, h22**^{km}±6^{km}**, n163,** σ1°.**66**/175**, mb4.5**/65**, MS3.9**/9**, 1D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TSSP	**Tandag City**	**0.69**	**262**	*i* P	**Pb**	**21 13 23.4**	**-1.8**
TSSP				*e*S	**Sb**	**21 13 31.8**	**-2.4**
GLSP	**General Luna,**	**0.99**	**311**	*e*P	**Pb**	**21 13 29.6**	**-0.7**
GLSP				*e*S	**Sn**	**21 13 43.9**	**+0.3**
BIPH	**Bislig**	**1.08**	**209**	*e*P	**Pb**	**21 13 32.3**	**+0.4**
BIPH				*e*S	**Sb**	**21 13 44.6**	**-1.0**
CDOP	**Cateel, Davao**	**1.42**	**198**	*i* P	**Pn**	**21 13 35.8**	**-0.5**
CDOP				*i* S	**Sn**	**21 13 52.3**	**-2.0**
BUKP	**Musuan**	**2.20**	**235**	*i* P	**Pn**	**21 13 48.8**	**+1.7**
BUKP				*i* S	**Sb**	**21 14 16.8**	**-0.9**
CGP	**Cagayan de Oro**	**2.27**	**253**	*i* P	**Pn**	**21 13 48.7**	**+0.6**
CGP				*i* S	**Sn**	**21 14 15.9**	**+0.5**
DAV	**Davao City (W)**	**2.43**	**212**	Pn	**Pb**	**21 13 53.3**	**-1.5**
	64nm,0.3s,baz=21,slow=8.6,SNR=8.4						
DAV				Lg	Lg	21 14 27.6	
	117nm,0.3s,baz=249,slow=20,SNR=13						
	150nm,0.3s						
DAV				AML	AML		
DAV	**Davao City (W)**	**2.43**	**212**	Pn	**Pn**	**21 13 51.3**	**+1.1**
DAV	**Davao City (W)**	**2.43**	**212**	P	**Pb**	**21 13 55.2**	**+0.3**
DAV				S	**Sb**	**21 14 27.0**	**+2.6**
DAV				AML	AML		
DMPH	**Davao City--Mi**	**2.46**	**214**	*e*P	**Pb**	**21 13 56.9**	**+1.6**
DMPH				*i* S	**Sb**	**21 14 32.6**	**+7.4**
PLP	**Palo**	**2.75**	**317**	*e*P	**Pn**	**21 13 55.7**	**+1.0**
PLP				*e*S	**Sb**	**21 14 33.6**	**-0.1**
KCP	**Kidapawan**	**2.77**	**220**	*e*P	**Pn**	**21 13 57.6**	**+2.7**
KCP				*i* S	**Sb**	**21 14 33.1**	**-1.0**
TBP	**Tagbilaran**	**3.03**	**281**	*i* P	**Pn**	**21 13 59.5**	**+1.0**
TBP				*e*S	**Sn**	**21 14 35.7**	**+1.5**
LLP	**Lapu-Lapu**	**3.11**	**292**	*e*P	**Pn**	**21 14 01.1**	**+1.6**
LLP				*e*S	**Sn**	**21 14 39.0**	**+2.9**
DDMP	**Don Marcelino,**	**3.23**	**201**	*e*P	**Pn**	**21 14 02.5**	**+1.3**
DDMP				*e*S	**Sn**	**21 14 38.2**	**-0.9**
CTBH	**Cotabato--PC H**	**3.23**	**234**	*i* P	**Pn**	**21 14 03.4**	**+2.1**
DCPH	**Dipolog City**	**3.54**	**261**	*e*P	**Pn**	**21 14 05.8**	**+0.4**
DCPH				*i* S	**Sn**	**21 14 46.2**	**-0.4**
GSPH	**General Santos**	**3.59**	**212**	*i* P	**Pn**	**21 14 04.8**	**-1.5**
GSPH				*i* S	**Sn**	**21 14 48.5**	**+0.4**
SNPH	**Sibulan**	**3.61**	**274**	*e*P	**Pn**	**21 14 07.9**	**+1.4**
SNPH				*e*S	**Sb**	**21 14 56.7**	**-1.8**
PAGZ	**Pagadian**	**3.70**	**250**	*i* P	**Pn**	**21 14 09.8**	**+2.1**
PAGZ				*e*S	**Sn**	**21 14 50.5**	**0.0**
CADP	**Cadiz City**	**3.96**	**297**	*e*P	**Pn**	**21 14 13.4**	**+2.1**
CADP				*e*S	**Sn**	**21 15 02.7**	**+5.7**
MMPH	**Masbate**	**4.53**	**315**	*e*P	**Pn**	**21 14 22.4**	**+3.3**
JAP	**San Jose, Anti**	**5.12**	**289**	*e*P	**Pn**	**21 14 31.8**	**+4.6**
IBAJ	**Ibajay, Aklan**	**5.35**	**300**	*e*P	Pn	21 14 35.4	+5.0
GQP	**Guinayangan**	**6.43**	**318**	*e*P	Pn	21 14 53.5	+8.3
LQP	**Lukban**	**7.20**	**314**	*e*P	**Pn**	**21 14 57.8**	**+1.8**
PPR	**Puerto Princes**	**8.07**	**275**	*i* P	**Pn**	**21 15 11.4**	**+3.6**
TNTI	**Ternate**	**8.33**	**177**	Pn	**Pn**	**21 15 12.6**	**+1.3**
TNTI	**Ternate**	**8.33**	**177**	P	Pn	21 15 16.2	+4.9
	46nm,1.0s						
GTOI	**Gorontalo**	**9.29**	**205**	P	**Pn**	**21 15 26.6**	**+2.1**
	52nm,0.7s						
TOLI2	**Tolitoli**	**10.03**	**218**	Pn	**Pn**	**21 15 34.1**	**-0.6**
SIJI	**Sorong**	**10.86**	**156**	Pn	**Pn**	**21 15 48.7**	**+2.7**
	1.5nm,0.3s,baz=342,slow=18,SNR=4.2						
SIJI				Sn	**Sn**	**21 17 40.1**	**-6.9**
	0.7nm,0.3s,baz=270,slow=20,SNR=1.8						
SIJI				LR	LR	21 20 36.7	
	comp=Z,587nm,18.7s,baz=32,slow=41						
	4.6nm,0.3s						
SIJI				AML	AML		
LUWI	**Luwuk**	**10.91**	**202**	Pn	**Pn**	**21 15 47.2**	**+0.4**
SANI	**Sanana**	**11.15**	**185**	P	**Pn**	**21 15 53.4**	**+3.4**
	24nm,1.2s						
APSI	**Ampana**	**11.27**	**208**	P	**Pn**	**21 15 54.6**	**+3.0**
	60nm,1.2s						
FAKI	**Fak Fak**	**13.12**	**156**	Pn	**Pn**	**21 16 18.4**	**+1.4**
BAKI	**Biak**	**13.77**	**138**	P	**P**	**21 16 33.1**	**-1.2**
	69nm,0.8s						
TWG	**Pinlang**	**14.70**	**338**		**Pn**	**21 16 38.2**	**-0.3**
KAPI	**Kappang**	**15.76**	**207**	Pn	**P**	**21 16 55.4**	**-0.9**
	1.0nm,0.3s,baz=56,slow=13,SNR=1.2						
	3.1nm,0.4s						
KAPI				AML	AML		
SBUM	**Sibu**	**16.03**	**246**	P	**Pn**	**21 16 56.6**	**+0.5**
SBUM	**Sibu**	**16.03**	**246**	P	**P**	**21 16 58.5**	**-0.8**
SOEI	**Soe**	**18.95**	**188**	P	**Pn**	**21 17 35.9**	**+3.4**
	73nm,1.2s						
QIZ	**Qiongzhong**	**19.22**	**303**	P	**P**	**21 17 33.8**	**-0.8**
BATI	**Baumata**	**19.48**	**190**	P	**P**	**21 17 33.9**	**-3.6**
	21nm,0.4s,baz=358,slow=5.5,SNR=6.6						
MTN	**Manton Dam**	**22.24**	**169**	P	**P**	**21 18 07.5**	**+0.2**
SSE	**Sheshan**	**22.48**	**347**	P	**P**	**21 18 09.5**	**-0.2**
SSE				S	**S**	**21 22 15.5**	**+0.1**
SSE				pmax	pmax		
	comp=Z,11nm,1.5s						
SSE				pmax	pmax		
	comp=Z,120nm,5.0s						
SSE				L	L		
	comp=N,240nm,16.4s						
SSE				L	L		
	comp=E,140nm,16.8s						
NJ2	**Nanjing**	**23.99**	**343**	*e*P	**P**	**21 18 24.8**	**-0.1**
NJ2				pmax	pmax		
	comp=Z,13nm,0.7s						
JNU	**Nakatsue**	**24.15**	**8**	P	**P**	**21 18 25.9**	**-0.6**
	5.7nm,0.7s,baz=181,slow=4.8,SNR=4.0						
JNU				LR	LR	21 26 58.9	
	comp=Z,156nm,21.6s,baz=180,slow=34						
	5.7nm,0.7s						
WHN	**Wuhan**	**24.30**	**333**	P	**P**	**21 18 27.8**	**0.0**
KNRA	**Kununurra**	**24.73**	**176**	P	**P**	**21 18 31.5**	**-0.2**
KNRA				IAmb	IAmb	21 19 00.3	
	comp=Z,11nm,0.8s						
LEM	**Lembang**	**24.91**	**231**	P	**P**	**21 18 34.6**	**+0.9**
	comp=Z,10nm,0.4s,baz=49,slow=9.3,SNR=4.1						
	comp=Z,10nm,0.4s						
SLVN	**Son La**	**25.23**	**301**	P	**P**	**21 18 33.4**	**-3.0**
IPM	**Ipoh**	**26.09**	**262**	P	**P**	**21 18 42.2**	**-2.0**
IPM	**Ipoh**	**26.09**	**262**	P	**P**	**21 18 44.9**	**+0.7**
	comp=Z,33nm,1.3s						
KULM	**Kulim**	**26.30**	**263**	P	**P**	**21 18 44.2**	**-1.9**
KULM				IAmb	IAmb	21 18 49.7	
	comp=Z,30nm,1.3s						
KULM	**Kulim**	**26.30**	**263**	P	**P**	**21 18 47.9**	**+1.7**
	comp=Z,18nm,1.2s						
FITZ	**Fitzroy Crossi**	**27.09**	**183**	P	**P**	**21 18 53.5**	**+0.3**
	comp=Z,6.1nm,0.7s,baz=356,slow=6.9,SNR=7.6						
	comp=Z,6.1nm,0.7s						
FITZ	**Fitzroy Crossi**	**27.09**	**183**	P	**P**	**21 18 53.2**	**0.0**
KSRS	**Korea Array**	**28.20**	**2**	P	**P**	**21 19 02.1**	**-0.8**
	comp=Z,1.2nm,0.6s,baz=185,slow=9.4,SNR=8.9						
KSRS				PcP	**PcP**	**21 22 18.7**	**+2.3**
	comp=Z,0.5nm,0.6s,baz=187,slow=3.6,SNR=1.3						
	comp=Z,1.2nm,0.6s						
PSI	**Prapat**	**28.50**	**259**	P	**P**	**21 19 07.2**	**+1.2**
	comp=Z,15nm,1.2s						
RPSI	**Rantau Prapat**	**28.52**	**259**	P	**P**	**21 19 05.4**	**-0.7**
RPSI				IAmb	IAmb	21 19 08.7	
	comp=Z,25nm,1.3s						
CM31	**Chiang Mai Arr**	**28.64**	**292**	P	**P**	**21 19 05.5**	**-1.6**
CM31				IAmb	IAmb	21 19 07.2	
	comp=Z,9.4nm,1.1s						
CMAR	**Chiang Mai Arr**	**28.64**	**292**	P	**P**	**21 19 06.6**	**-0.5**
	comp=Z,1.6nm,0.8s,baz=96,slow=6.5,SNR=9.4						
CMAR				PcP	**PcP**	**21 22 19.0**	**+1.1**
	comp=Z,0.5nm,0.6s,baz=111,slow=2.6,SNR=1.8						
	comp=Z,1.6nm,0.8s						
CMAR	**Chiang Mai Arr**	**28.64**	**292**	P	**P**	**21 19 05.3**	**-1.8**
MJAR	**Matsushiro Arr**	**29.15**	**19**	P	**P**	**21 19 10.6**	**-0.9**
	comp=Z,0.9nm,0.7s,baz=191,slow=9.0,SNR=2.6						
	comp=Z,0.9nm,0.7s						
PZH	**PanZhiHua**	**29.42**	**309**	P	**P**	**21 19 15.5**	**+1.4**
KCSI	**Kotacane, Aceh**	**29.46**	**261**	P	**P**	**21 19 15.0**	**+0.6**
	comp=Z,18nm,0.9s						
JYT	**Yasato**	**29.56**	**22**	P	**P**	**21 19 13.3**	**-1.7**
WB0	**Warramunga Arr**	**29.66**	**166**	P	**P**	**21 19 15.6**	**-0.5**
WB0				IAmb	IAmb	21 19 35.1	
	comp=Z,14nm,1.2s						
WRA	**Warramunga Arr**	**29.82**	**166**	P	**P**	**21 19 17.0**	**-0.4**
	comp=Z,1.3nm,0.5s,baz=348,slow=9.4,SNR=13						
	comp=Z,1.3nm,0.5s						
WRA	**Warramunga Arr**	**29.82**	**166**	P	**P**	**21 19 17.0**	**-0.4**
WR8	**Warramunga Arr**	**29.87**	**166**	P	**P**	**21 19 17.5**	**-0.4**
WR8				IAmb	IAmb	21 19 39.8	
	comp=Z,5.8nm,0.8s						
GSI	**Gunungsitoli**	**30.19**	**257**	P	**P**	**21 19 19.2**	**-1.7**
MBWA	**Marble Bar**	**30.92**	**193**	P	**P**	**21 19 26.5**	**-0.7**
MBWA				IAmb	IAmb	21 19 32.1	
	comp=Z,6.7nm,0.7s						
TNCH	**TengChong**	**31.28**	**304**	P	**P**	**21 19 31.8**	**+1.2**
TNCH				pP	pP	21 19 34.8	-0.5
TNCH				pmax	pmax		
	comp=Z,11nm,1.7s						
BJI2	**Beijing**	**32.20**	**344**	P	**P**	**21 19 37.3**	**-1.0**
BJI2				pP	**pP**	**21 19 41.5**	**-1.2**
BJI2				pmax	pmax		
	comp=Z,4.0nm,1.8s						
BJI2				L	L		
	comp=Z,110nm,14.5s						
BJI2				L	L		
	comp=Z,130nm,14.3s						
BJI2				L	L		
	comp=Z,97nm,18.7s						
BJT	**Baijiatuau**	**32.20**	**344**	P	**P**	**21 19 37.0**	**-1.2**
BJT				IAmb	IAmb	21 19 39.9	
	comp=Z,15nm,1.4s						
AS31	**Alice Springs**	**33.32**	**168**	P	**P**	**21 19 48.0**	**-0.2**
ASAR	**Alice Springs**	**33.32**	**168**	P	**P**	**21 19 48.5**	**+0.3**
	comp=Z,1.4nm,0.4s,baz=353,slow=6.4,SNR=38						
ASAR				PcP	**PcP**	**21 22 30.9**	**+0.7**
	comp=Z,0.8nm,0.7s,baz=5.7,slow=1.9,SNR=3.5						
	comp=Z,1.4nm,0.4s						
ASAR	**Alice Springs**	**33.32**	**168**	P	**P**	**21 19 48.3**	**0.0**
LZDM	**Lanzhou Array**	**34.04**	**325**	P	**P**	**21 19 55.8**	**+1.0**
	comp=Z,0.7nm,0.3s,baz=147,slow=14,SNR=1.3						
	comp=Z,0.7nm,0.3s						
LZH	**Lanzhou**	**34.05**	**326**	*e*P	P	21 19 44.5	-10
LZH				sP	pP	21 19 50.8	-8.8
LZH				pmax	pmax		
	comp=Z,9.0nm,1.3s						
LZH				LR	LR		
	comp=N,400nm,16.0s						
LZH				LR	LR		
	comp=E,220nm,15.8s						
LZH				LR	LR		
	comp=Z,490nm,17.9s						
HHC	**Hu-ho-hao-te**	**34.38**	**339**	*e*P	**P**	**21 19 58.0**	**+0.5**
HHC				pmax	pmax		
	comp=Z,6.0nm,0.6s						
HHC				pmax	pmax		
	comp=Z,76nm,4.5s						
USRK	**Ussuriysk Ar.**	**35.21**	**6**	P	**P**	**21 20 04.2**	**-0.2**
	comp=Z,4.5nm,0.8s,baz=182,slow=5.2,SNR=6.0						
	comp=Z,4.5nm,0.8s						
MDJ	**Mudanjiang**	**35.42**	**3**	P	**P**	**21 20 08.8**	**+2.6**
MDJ				pmax	pmax		
	comp=Z,12nm,1.1s						
MDJ	**Mudanjiang**	**35.42**	**3**	P	**P**	**21 20 05.7**	**-0.5**
MDJ				IAmb	IAmb	21 20 22.6	
	comp=Z,18nm,1.2s						
BNX	**BinXian**	**36.47**	**1**	⇓P	**P**	**21 20 16.3**	**+1.1**
BNX				pmax	pmax		
	comp=Z,7.0nm,0.9s						
ASAJ	**Asahikawa**	**37.43**	**19**	P	**P**	**21 20 23.8**	**+0.5**
	comp=Z,6.6nm,0.7s,baz=272,slow=7.3,SNR=4.6						
	comp=Z,6.6nm,0.7s						
JKA	**Kamikawa-asahi**	**37.43**	**19**	P	**P**	**21 20 23.8**	**+0.5**
JKA				IAmb	IAmb	21 20 28.0	
	comp=Z,11nm,0.9s						
LSA	**Lhasa**	**39.18**	**306**	P	**P**	**21 20 37.6**	**-1.3**
MORW	**Morawa**	**39.40**	**195**	P	**P**	**21 20 39.7**	**-0.4**
MORW				IAmb	IAmb	21 20 46.6	
	comp=Z,19nm,1.2s						
H11S3	**WAKE ISLAND Hy**	**39.67**	**72**	T	T	22 03 42.5	
	baz=262,slow=74,SNR=53						
H11S1	**WAKE ISLAND Hy**	**39.69**	**72**	T	T	22 03 45.5	
	baz=262,slow=74,SNR=28						
H11S2	**WAKE ISLAND Hy**	**39.69**	**72**	T	T	22 03 48.6	
	baz=262,slow=74,SNR=24						
FORT	**Forrest**	**39.70**	**178**	P	**P**	**21 20 42.8**	**+0.2**
FORT				IAmb	IAmb	21 20 56.8	
	comp=Z,9.2nm,0.9s						
H11N1	**WAKE ISLAND Hy**	**40.05**	**70**	T	T	22 04 17.0	
	baz=265,slow=74,SNR=18						
H11N2	**WAKE ISLAND Hy**	**40.05**	**70**	T	T	22 04 27.5	
	baz=265,slow=74,SNR=18						

H11N3	WAKE ISLAND Hy	40.06	70	T	T	22 04 21.3	
	baz=265,slow=74,SNR=19						
HEH	HeiHe	40.99	1	eP	P	21 20 55.0	+2.0
HEH				pmax	pmax		
	comp=Z,7.0nm,0.9s						
HEH				L	L		
	comp=Z,190nm,17.2s						
HEH				L	L		
	comp=Z,230nm,17.2s						
HEH				L	L		
	comp=Z,320nm,17.5s						
ULN	Ulaanbaatar	42.09	340	P	P	21 21 01.1	-1.2
EVN	Everest	42.09	302	P	P	21 21 01.8	-1.4
EVN				IAmb	IAmb	21 21 18.0	
	comp=Z,16nm,1.5s						
BBOO	Buckleboo	42.62	169	P	P	21 21 06.9	+0.3
BBOO				IAmb	IAmb	21 21 13.6	
	comp=Z,18nm,0.9s						
NWAO	Narrogin (SRO)	42.83	192	P	P	21 21 08.4	+0.1
STKA	Stephens Creek	43.14	162	P	P	21 21 11.2	+0.3
	comp=Z,2.3nm,0.4s,baz=330,slow=8.3,SNR=10						
	comp=Z,2.3nm,0.4s						
WMQ	Urumqi	48.48	322	eP	P	21 21 53.5	+0.5
WMQ				L	L		
	comp=Z,550nm,22.3s						
WMQ				L	L		
	comp=Z,420nm,19.1s						
WMQ				L	L		
	comp=Z,250nm,22.3s						
PEA0B	Petropavlovsk-	50.42	24	P	P	21 22 07.5	0.0
PETK	Petropavlovsk-	50.42	24	P	P	21 22 10.3	+2.8
	comp=Z,2.0nm,0.7s,baz=201,slow=3.7,SNR=4.9						
WUS	Wushi	52.75	316	P	P	21 22 24.9	-0.5
YAK	Yakutsk	52.83	2	P	P	21 22 25.7	+0.3
YAK				IAmb	IAmb	21 22 30.0	
	comp=Z,11nm,0.8s						
MKAR	Makanchi Array	53.29	323	P	P	21 22 28.4	-0.7
	comp=Z,3.7nm,0.7s,baz=123,slow=8.1,SNR=22						
	comp=Z,3.7nm,0.7s						
MKAR	Makanchi Array	53.29	323	P	P	21 22 27.8	-1.4
PDGK	Podgornoye	53.44	318	P	P	21 22 28.9	-1.5
MAKZ	Makanchi	53.48	323	P	P	21 22 29.4	-1.2
MAKZ				IAmb	IAmb	21 22 30.8	
	comp=Z,6.8nm,1.0s						
KSH2	Kashi	54.61	312	P	P	21 22 38.5	-0.6
KSH2				pmax	pmax		
	comp=Z,4.0nm,1.1s						
NIL	Nilore	54.87	305	P	P	21 22 39.0	-1.9
NRN	Naryn	55.08	315	P	P	21 22 41.1	-1.6
NRN				IAmb	IAmb	21 22 42.7	
	comp=Z,5.4nm,1.1s						
ZAA0	Zalesovo Array	55.90	331	P	P	21 22 46.8	-1.1
ZALV	Zalesovo Beam	55.90	331	P	P	21 22 46.6	-1.3
	comp=Z,1.3nm,0.6s,baz=107,slow=7.9,SNR=6.5						
	comp=Z,1.3nm,0.6s						
KURK	Kurchatov	57.34	326	P	P	21 22 56.7	-1.4
KURBB	Kurchatov Arra	57.34	326	P	P	21 22 57.4	-0.8
	comp=Z,4.8nm,0.9s,baz=123,slow=7.3,SNR=30						
	comp=Z,4.8nm,0.9s						
BTK	Batken	58.38	312	P	P	21 23 04.2	-1.7
BTK				IAmb	IAmb	21 23 29.7	
	comp=Z,4.8nm,1.2s						
KBL	Kabul	58.47	305	P	P	21 23 05.1	-1.6
KBL				IAmb	IAmb	21 23 09.1	
	comp=Z,3.8nm,0.6s						
KK31	Karatay Array	59.47	315	P	P	21 23 11.6	-1.7
KK31				IAmb	IAmb	21 23 13.0	
	comp=Z,3.5nm,0.9s						
KKAR	Karatay Array	59.47	315	P	P	21 23 11.4	-1.9
BVAR	Borovoye Array	62.94	326	P	P	21 23 35.9	-0.7
	comp=Z,4.0nm,0.8s,baz=111,slow=8.1,SNR=20						
	comp=Z,4.0nm,0.8s						
BORK	Borovoye	62.98	326	P	P	21 23 35.8	-1.0
HRA	Herat	63.99	304	P	P	21 23 42.5	-1.7
HRA				IAmb	IAmb	21 23 55.4	
	comp=Z,2.3nm,0.7s						
NRIK	Noril'sk	65.25	346	P	P	21 23 50.2	-1.2
	comp=Z,2.3nm,0.5s,baz=138,slow=10,SNR=3.9						
	comp=Z,2.3nm,0.5s						
NRIK	Noril'sk	65.25	346	P	P	21 23 51.1	-0.4
THZ	Tophouse	65.90	144	P	P	21 23 57.4	+1.3
LTZ	Lake Taylor	66.18	145	P	P	21 23 59.0	+1.0
AB31	Akbulak array	68.12	319	P	P	21 24 08.9	-1.2
ABKAR	Akbulak array	68.12	319	P	P	21 24 08.9	-1.2
ARTI	Arti	70.58	327	P	P	21 24 23.9	-1.4
K17K	Iditarod	74.97	27	P	P	21 24 51.9	+0.7
L18K	Granite Mounta	75.64	28	P	P	21 24 56.0	+1.0
L18K				IAmb	IAmb	21 25 09.7	
	comp=Z,11nm,1.2s						
CASY	Casey	76.17	187	P	P	21 24 59.4	+1.6
CASY				IAmb	IAmb	21 25 09.9	
	comp=Z,8.1nm,1.1s						
CAST	Castle Rocks	77.87	27	P	P	21 25 08.1	+0.5
CAST				IAmb	IAmb	21 25 23.7	
	comp=Z,9.1nm,1.4s						
RAYN	Ar Rayn	78.56	292	P	P	21 25 10.8	-1.5
RAYN				IAmb	IAmb	21 25 12.2	
	comp=Z,5.5nm,0.9s						
F24K	Squaw Lake	79.79	23	P	P	21 25 18.8	+0.6
F24K				IAmb	IAmb	21 25 35.0	
	comp=Z,3.9nm,0.8s						
ILAR	Eielson Array	80.19	26	P	P	21 25 19.4	-0.8
	comp=Z,0.3nm,0.6s,baz=241,slow=5.4,SNR=5.5						
	comp=Z,0.3nm,0.6s						
GURO	Guroymak-BITLI	80.36	308		P	21 25 21.2	-0.8
BMAR	Burnt Mountain	81.06	23	P	P	21 25 25.9	+0.9
K27K	Chicken	82.31	26	P	P	21 25 32.4	+0.9
G29M	Pine Creek	83.66	23	P	P	21 25 40.1	+1.6
ARCES	ARCESS Array B	85.46	340	P	P	21 25 47.5	0.0
	comp=Z,2.5nm,0.8s,baz=69,slow=6.8,SNR=5.7						
	comp=Z,2.5nm,0.8s						
ARCES	ARCESS Array B	85.46	340	P	P	21 25 47.0	-0.5
ARCES				IAmb	IAmb	21 26 02.3	
	comp=Z,6.0nm,1.1s						
MMAI	Mount Meron Ar	86.33	303	P	P	21 25 53.1	+0.4
	comp=Z,0.3nm,0.3s,baz=76,slow=6.4,SNR=1.3						
	comp=Z,0.3nm,0.3s						
BRTR	Keskin Array B	86.72	310	P	P	21 25 55.1	+0.5
	comp=Z,0.2nm,0.4s,baz=38,slow=4.0,SNR=1.4						
	comp=Z,0.2nm,0.4s						
FINES	FINESS Array B	87.17	332	P	P	21 25 54.8	-1.3
	comp=Z,2.2nm,1.0s,baz=55,slow=7.2,SNR=4.1						
	comp=Z,2.2nm,1.0s						
FINES	FINESS Array B	87.17	332	P	P	21 25 55.2	-0.9
EIL	Elat	87.21	299	LR	LR	22 12 52.1	
	comp=Z,48nm,18.3s,baz=86,slow=41						
AKASG	Malin Array Be	87.82	321	P	P	21 25 58.8	-0.7
	comp=Z,0.4nm,0.4s,baz=75,slow=3.1,SNR=4.1						
	comp=Z,0.4nm,0.4s						
AKASG	Malin Array Be	87.82	321	P	P	21 25 57.9	-1.6
AKASG				IAmb	IAmb	21 26 07.8	
	comp=Z,4.8nm,1.4s						
VNDA	Vanda	88.74	173	P	P	21 26 03.3	+0.1
	comp=Z,0.5nm,0.7s,baz=271,slow=3.4,SNR=4.3						
VNDA				LR	LR	22 07 28.5	
	comp=Z,43nm,19.6s,baz=329,slow=37						
	comp=Z,0.5nm,0.7s						
VNDA	Vanda	88.74	173	P	P	21 26 04.1	+1.0
VNDA				IAmb	IAmb	21 26 24.1	
	comp=Z,4.0nm,1.1s						
MAW	Mawson	88.85	200	P	P	21 26 04.0	+0.2
	comp=Z,1.6nm,1.0s,baz=54,slow=8.0,SNR=2.9						
	comp=Z,1.6nm,1.0s						
MAW	Mawson	88.85	200	P	P	21 26 03.9	+0.2
YKA	Yellowknife Ar	94.53	24	P	P	21 26 31.8	+1.4
	comp=Z,0.9nm,0.7s,baz=302,slow=4.6,SNR=5.1						
	comp=Z,0.9nm,0.7s						
CLL	Collm	97.36	325	LH		21 59 00.0	
CLL				L	L	22 05 00.0	
	comp=N,100nm,22.4s						
CLL				L	L	22 05 00.0	
	comp=E,100nm,26.8s						
CLL				L	L	22 05 00.0	
	comp=Z,100nm,22.1s						
TXAR	Lajitas Array	118.09	50	PKP	PKPdf	21 31 56.8	-1.2
	comp=Z,0.1nm,0.3s,baz=360,slow=1.9,SNR=2.6						
TORD	Torodi Ar. Bea	121.25	291	PKP	PKPdf	21 32 03.7	-0.5
	comp=Z,0.6nm,0.9s,baz=54,slow=1.8,SNR=2.9						
PLCA	Paso Flores	144.93	157	PKPbc	PKPdf	21 32 48.5	+0.7
	comp=Z,3.2nm,1.0s,baz=262,slow=3.6,SNR=3.0						

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*GUC **30** 21:15:22.9±0.7, 20.°84S×67.°98W, h177^{km}±7^{km}, ML3.6*
*SCB **30** 21:15:22.1±1.6, 20.°87S×67.°86W, h156^{km}±20^{km}, ML3.5/3, Error ellipse: s-maj=6.6km s-min=4.1km az=0.0*
ISC 30 21:15:21.4±1.9**, 20.°86S**±0.°04×**67.°92W**±0.°05**, h172**^{km}±17^{km}**, n25, σ1.^{s}07**/39**, 1C-1D, Southern Bolivia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PB08	IPOC Station P	1.36	301	eP	Pn	21 15 52.6	+0.7
PB08				iS	Sn	21 16 15.7	+0.4
PB08	IPOC Station P	1.36	301	P	Pn	21 15 52.7	+0.8
PB09	IPOC Station P	1.55	233	eP	Pn	21 15 54.6	+1.2
PB09				iS	Sn	21 16 19.3	+1.1
PB09				IAML		21 16 21.1	
	comp=N,222nm,0.1s						
PB09	IPOC Station P	1.55	233	P	Pn	21 15 53.9	+0.5
GO01	Chusmiza	1.69	314	P	Pn	21 15 55.5	+0.3
PB02	IPOC Station P	1.91	256	eP	Pn	21 15 57.5	+0.4
PB02				iS	Sn	21 16 24.4	-0.2
PB02	IPOC Station P	1.91	256	P	Pn	21 15 57.8	+0.8
PB02				S	Sn	21 16 24.4	-0.2
PB02				IAML		21 16 25.0	
	comp=N,633nm,0.2s						
PB11	IPOC Station P	1.96	303	eP	Pn	21 15 58.0	+0.2
PB11				iS	Sn	21 16 25.1	-0.7
PB11				IAML		21 16 28.1	
	comp=E,301nm,0.3s						
PB11	IPOC Station P	1.96	303	P	Pn	21 15 58.3	+0.5
PB11				S	Sn	21 16 25.3	-0.5
PB11				IAML		21 16 28.2	
	comp=E,246nm,0.3s						
PB07	IPOC Station P	2.03	244	eP	Pn	21 15 58.9	+0.4
PB07				iS	Sn	21 16 26.9	-0.3
PB07				IAML		21 16 28.1	
	comp=E,666nm,0.2s						
PB03	IPOC Station P	2.08	235	eP	Pn	21 15 59.6	+0.6
PB03				iS	Sn	21 16 27.7	-0.5
PB03				IAML		21 16 28.7	
	comp=E,407nm,0.2s						
TA01	Diego Aracena	2.14	277	⇑iP	Pn	21 15 59.6	+0.1
TA01				iS	Sn	21 16 27.6	-1.4
TA01				IAML		21 16 28.8	
	comp=E,257nm,0.2s						
MOCB	Mochara	2.16	101	P	Pn	21 16 00.2	0.0
MOCB				S	Sn	21 16 28.4	-1.8
MOCB				IAML		21 16 29.0	
	comp=E,93nm,0.7s						
PB06	IPOC Station P	2.40	220	⇓iP	Pn	21 16 03.6	+0.9
PB06				iS	Sn	21 16 34.4	-0.4
PB06	IPOC Station P	2.40	220	P	Pn	21 16 03.6	+0.9
PSGCX	Pisagua	2.42	301	eP	Pn	21 16 02.5	-0.4
PSGCX				iS	Sn	21 16 33.0	-2.0
PB05	IPOC Station P	2.91	227	eP	Pn	21 16 09.3	+0.6
PB05				iS	Sn	21 16 44.2	-1.4
PB05				IAML		21 16 47.3	
	comp=E,131nm,0.1s						
PB16	IPOC Station P	2.92	329	eP	Pn	21 16 10.9	+1.5
PB16				iS	Sn	21 16 46.9	+0.3
PB16	IPOC Station P	2.92	329	P	Pn	21 16 10.9	+1.5
PB12	IPOC Station P	3.19	314	eP	Pn	21 16 11.3	-0.8
PB12				iS	Sn	21 16 48.8	-2.8
PB12				IAML		21 16 54.8	
	comp=E,36nm,0.2s						
SOET	ToroToro	3.37	36	P	Pn	21 16 15.3	+0.6
BBOJ	La Paz, Jacaqu	3.87	356	P	Pn	21 16 22.6	+1.4
LPAZ	La Paz	4.55	357	P	Pn	21 16 31.6	+1.6
BBOB	La Paz, Bander	4.70	357	P	Pn	21 16 32.9	+1.1
SIV	San Ignacio	8.10	54	P	Pn	21 17 12.5	-3.6

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*IDC **30** 21:36:50.9±3.3, 4.°88S×153.°64E, h78^{km}±24^{km}, mb3.6/10, mbtmp4.0/12, MS3.6/1, Error ellipse: s-maj=34.8km s-min=16.2km az=65.0*
ISC 30 21:36:47.6±1.0**, 4.°8S**±0.°1×**153.°8E**±0.°1**, h50**^{km}**, n14, σ1.^{s}09**/17**, mb3.8**/10**, New Ireland region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRVT	Keravat (AS076	1.88	286	P	Pn	21 37 17.9	+0.6
	401nm,0.3s,baz=97,slow=5.6,SNR=6.7						
KRVT				LR	LR	21 37 35.9	
	comp=Z,79nm,20.1s,baz=89,slow=26						
KRVT				S	Sn	21 37 40.4	+0.5
	2µm,0.4s,baz=120,slow=20,SNR=28						
PMG	Port Moresby	8.03	235	P	Pn	21 38 41.5	-0.2
	17nm,0.5s,baz=44,slow=8.8,SNR=7.4						
JAY	Jayapura	13.30	280	P	Pn	21 39 54.9	+0.9
	9.1nm,1.0s,baz=45,slow=14,SNR=1.6						
DZM	Mont Dzumac	21.04	146	P	P	21 41 29.6	+2.1
	6.6nm,0.9s,baz=318,slow=11,SNR=1.5						
DZM				LR	LR	21 48 42.7	
	comp=Z,134nm,18.3s,baz=340,slow=34						
	6.6nm,0.9s						
WRA	Warramunga Arr	24.20	230	P	P	21 41 58.2	-1.5
	1.1nm,0.8s,baz=53,slow=10,SNR=13						
WRA				PcP	PcP	21 45 39.7	+0.2
	0.3nm,0.7s,baz=47,slow=2.1,SNR=2.7						
	1.1nm,0.8s						
ASAR	Alice Springs	26.82	224	P	P	21 42 21.9	-1.6
	0.3nm,0.4s,baz=54,slow=8.5,SNR=4.5						
ASAR				PcP	PcP	21 45 45.9	+0.5
	0.4nm,0.6s,baz=62,slow=2.6,SNR=4.7						
	0.3nm,0.4s						
VNDA	Vanda	72.75	178	P	P	21 48 10.5	+0.3
	1.7nm,0.7s,baz=338,slow=6.1,SNR=14						
	1.7nm,0.7s						
MKAR	Makanchi Array	81.03	319	P	P	21 48 57.3	0.0
	0.4nm,0.6s,baz=101,slow=7.7,SNR=4.6						
	0.4nm,0.6s						
ZALV	Zalesovo Beam	81.76	326	P	P	21 48 58.9	-2.0
	0.3nm,0.3s,baz=48,slow=2.1,SNR=1.8						
	0.3nm,0.3s						
KURBB	Kurchatov Arra	84.47	322	P	P	21 49 14.6	-0.4
	0.6nm,0.9s,baz=91,slow=4.1,SNR=4.6						
	0.6nm,0.9s						
QSPA	South Pole Qui	85.12	180	P	P	21 49 18.2	0.0
	3.0nm,0.5s,baz=45,slow=0.8,SNR=32						
	3.0nm,0.5s						
MAW	Mawson	85.93	203	P	P	21 49 21.8	-0.2
	1.0nm,0.5s,baz=97,slow=5.2,SNR=9.2						
	1.0nm,0.5s						
BVAR	Borovoye Array	89.89	323	P	P	21 49 40.5	-0.7
	0.6nm,0.8s,baz=62,slow=3.9,SNR=2.8						
	0.6nm,0.8s						
TORD	Torodi Ar. Bea	151.30	289	PKPbc	PKPbc	21 56 36.1	-0.7
	1.1nm,0.5s,baz=80,slow=1.6,SNR=23						

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*IDC **30** 21:53:45.6±1.2, 9.°20N×126.°87E, h0^{km}, mb3.5/5, mbtmp3.6/6, ML4.2/1, MS3.1/1, Error ellipse: s-maj=35.6km s-min=15.5km az=99.0*
*MAN **30** 21:53:47.0, 9.°10N×126.°77E, h1^{km}, MS4.3*
ISC 30 21:53:46.5±1.8**, 9.°12N**±0.°04×**126.°89E**±0.°07**, h4**^{km}±11^{km}**, n28, σ1.^{s}54**/34**, mb3.5**/5**, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TSSP	Tandag City	0.68	264	iP	Pg	21 53 59.1	-0.5
TSSP				eS	Sb	21 54 09.9	-0.8
GLSP	General Luna,	1.00	312	eP	Pg	21 54 05.2	-0.5
GLSP				iS	Sn	21 54 22.7	+0.8
BIPH	Bislig	1.06	209	eP	Pn	21 54 09.9	+1.7
BIPH				eS	Sb	21 54 21.5	-0.1
CDOP	Cateel, Davao	1.40	199	iP	Pb	21 54 13.5	+0.4
CDOP				iS	Sn	21 54 31.3	-0.3
BUKP	Musuan	2.18	236	eP	Pb	21 54 26.2	-0.4
BUKP				eS	Sn	21 54 51.8	+0.6
CGP	Cagayan de Oro	2.26	253	eP	Pb	21 54 26.3	-1.6
CGP				eS	Sn	21 54 54.0	+0.9
DAV	Davao City (W)	2.41	213	Pn	Pn	21 54 25.8	-0.9
	51nm,0.3s,baz=43,slow=19,SNR=3.7						
DAV				Lg	Lg	21 55 05.8	
	13nm,0.3s,baz=8.1,slow=18,SNR=3.6						
DAV				LR	LR	21 55 41.9	
	comp=Z,363nm,20.1s,baz=50,slow=47						
	73nm,0.3s						
DAV				AML	AML		
DMPH	Davao City--Mi	2.44	214	eP	Pg	21 54 32.9	-0.3
DMPH				iS	Sg	21 55 07.2	+2.4
KCP	Kidapawan	2.75	220	eP	Pb	21 54 34.0	-2.2
KCP				iS	Sb	21 55 08.7	-1.6
PLP	Palo	2.77	318	eP	Pn	21 54 33.0	+1.3
PLP				eS	Sn	21 55 05.8	+0.2
TBP	Tagbilaran	3.04	281	eP	Pn	21 54 37.0	+1.7
TBP				eS	Sn	21 55 13.0	+0.8
LLP	Lapu-Lapu	3.12	293	eP	Pn	21 54 38.4	+2.0
LLP				eS	Sn	21 55 16.5	+2.3
DDMP	Don Marcelino,	3.21	201	eP	Pb	21 54 42.5	-1.5
DDMP				eS	Sn	21 55 18.9	+2.5
LSIP	Lazi, Siquijor	3.21	271	iP	Pn	21 54 39.0	+1.3
LSIP				eS	Sn	21 55 13.4	-3.1
DCPH	Dipolog City	3.53	262	iP	Pn	21 54 43.5	+1.4
SNPH	Sibulan	3.61	274	eP	Pn	21 54 46.2	+3.0
LQP	Lukban	7.22	314	eP	Pn	21 55 38.7	+5.7
KSRS	Korea Array	28.23	2	P	P	21 59 40.1	-0.5
	0.6nm,0.7s,baz=191,slow=9.4,SNR=1.6						
	0.6nm,0.7s						
WRA	Warramunga Arr	29.79	166	P	P	21 59 55.5	+0.8
	0.2nm,0.5s,baz=345,slow=8.6,SNR=1.2						
	0.2nm,0.5s						
ASAR	Alice Springs	33.30	168	P	P	22 00 25.6	+0.1
	0.2nm,0.3s,baz=345,slow=8.8,SNR=5.2						
	0.2nm,0.3s						
H11S3	WAKE ISLAND Hy	39.68	72	T	T	22 44 20.8	
	SNR=12						
H11S1	WAKE ISLAND Hy	39.70	72	T	T	22 44 21.3	
	SNR=7.0						
H11S2	WAKE ISLAND Hy	39.70	72	T	T	22 44 22.3	
	SNR=5.4						
H11N1	WAKE ISLAND Hy	40.06	70	T	T	22 45 00.1	
	baz=265,slow=74,SNR=4.2						
H11N2	WAKE ISLAND Hy	40.06	70	T	T	22 45 03.0	
	baz=265,slow=74,SNR=4.3						
H11N3	WAKE ISLAND Hy	40.07	70	T	T	22 44 58.9	
	baz=265,slow=74,SNR=4.7						
MKAR	Makanchi Array	53.31	323	P	P	22 03 06.0	-0.7
	0.7nm,0.7s,baz=116,slow=7.5,SNR=5.2						
	0.7nm,0.7s						
KURBB	Kurchatov Arra	57.36	326	P	P	22 03 34.7	-1.2
	0.7nm,0.7s,baz=125,slow=6.6,SNR=6.0						
	0.7nm,0.7s						

MAN 30 21:58:28.0, 4.°67N×126.°21E, h33^{km}, MS3.9, Talaud Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DDMP	Don Marcelino,	1.51	341	eP	Pb	21 58 54.3	-1.2
DDMP				eS	Sn	21 59 10.6	-0.7
GSPH	General Santos	1.89	318	iP	Pn	21 58 55.0	-3.1
GSPH				iS	Sn	21 59 19.9	-0.9
KCP	Kidapawan	2.58	334	eP	Pn	21 59 00.9	-6.6
CDOP	Cateel, Davao	3.10	4	eP	Pn	21 59 16.2	+1.5
CDOP				iS	Sn	21 59 49.4	-1.2
BIPH	Bislig	3.49	2	eP	Pb	21 59 25.3	-3.9
BIPH				eS	Sn	21 59 58.8	-1.5

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*IDC **30** 22:02:29.8±0.5, 42.°87N×1.°52W, h0^{km}, mb4.2/22, mbtmp4.2/32, ML4.0/10, MS3.5/17, Error ellipse: s-maj=11.2km s-min=6.9km az=124.0*
*BGR **30** 22:02:29.3±0.7, 42.°98N×2.°08W, h10^{km}, ML5.2, Error ellipse: s-maj=15.6km s-min=6.7km az=160.0*
*STR **30** 22:02:30.9±0.0, 42.°90N±0.°08×1.°58W±0.°07, h6^{km}, mb5.0/36, LOCSAT earthModelID pyrenees_taup-2.11 preliminary*
*MED_RC **30** 22:02:30.0, 42.°83N×1.°47W, h14^{km}, Mw4.4, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}-4.14±.41; $M_{\theta\theta}$2.91±.27; $M_{\phi\phi}$0.00±.22; $M_{r\theta}$-1.90±.34; $M_{\theta\phi}$-1.42±.13; $M_{\phi r}$1.81±.32; Fault plane solution: $M_0$4.72000×10^{15} NP1:ϕ_s294.00000°, δ29.00000°, λ-101.00000°. NP2:ϕ_s127.00000°, δ62.00000°, λ-84.00000°. Principal axes: T 4.4800, Plg17.0000°, Azm212.0000°; N 0.4900, Plg5.0000°, Azm304.0000°; P -4.9600, Plg72.0000°, Azm51.0000°;*
*NEIC **30** 22:02:31.0±1.4, 42.°82N±0.°06×1.°55W±0.°07, h10^{km}±1^{km}, mb4.6/56 Error ellipse: s-maj=9.7km s-min=8.7km az=335.0*
*MDD **30** 22:02:31.5±0.1, 42.°84N×1.°47W, h1^{km}, mb_Lg4.6/88, Error ellipse: s-maj=1.1km s-min=0.8km az=178.0*
*INMG **30** 22:02:31.1±2.3, 42.°85N×1.°49W, h1^{km}±3^{km}, ML4.2, Error ellipse: s-maj=2.3km s-min=2.1km az=117.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Pireneus (ESP)*
*SFS **30** 22:02:31.1, 42.°87N×1.°41W, h0^{km}, mb5.0/24, mB5.2/14, ML5.4/24, ML5.3/25, MLv5.3/25, Mw(mB)4.6/14*
*IGIL **30** 22:02:31.9, 42.°84N×1.°47W, h1^{km}*
*LDG **30** 22:02:31.9±0.1, 42.°89N×1.°46W, h2^{km}, Md4.6/2, Ml5.0/36, Error ellipse: s-maj=1.5km s-min=1.1km az=122.0*
*GFZ **30** 22:02:32.1±0.2, 43°N±2°×°±°, h10^{km}, M4.4/91, mb4.7/91*
*GFZ **30** 22:02:32.0, 42.°88N×1.°60W, h10^{km}, Mw4.1/54, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}-1.05; $M_{\theta\theta}$0.55; $M_{\phi\phi}$0.50; $M_{r\theta}$-0.10; $M_{\theta\phi}$-1.01; $M_{\phi r}$-1.11; Fault plane solution: $M_0$1.75516×10^{15} NP1: ϕ_s104.72650°, δ39.49408°, λ-142.78523°. NP2: ϕ_s344.35370°, δ67.37770°, λ-56.72144°. Principal axes: T 1.7342, Plg15.8831°, Azm50.5630°; N 0.0412, Plg30.4305°, Azm150.1846°; P -1.7754, Plg54.8512°, Azm296.7267°;*
*NAO **30** 22:02:36.7, 42.°86N×1.°51W, h10^{km}, MB4.2*
*DNK **30** 22:02:43.1±3.0, 43.°95N×1.°15W, h0^{km}±451^{km}, Presumed earthquake*
ISC 30 22:02:30.9±0.7**, 42.°86N**±0.°02×**1.°51W**±0.°01**, h13**^{km}±4^{km}**, n727, σ2.^{s}09**/976**, mb4.5**/50**, MS3.5**/13**, 29C-50D, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EARA	Aranguren	0.10	210	Pg	Pg	22 02 32.8	-1.1
EARA				Sg	Sg	22 02 35.6	-0.5
EARA	Aranguren	0.10	210	⇓Pg	Pg	22 02 33.0	-0.9
EARA				Sg	Sg	22 02 35.1	-1.0
EORO	Oroz-Betelu	0.15	79	Pg	Pg	22 02 34.0	-0.6
SJPF	Ste Jean	0.33	40	ePg	Pg	22 02 37.6	+0.1
SJPF				eSg	Sg	22 02 40.7	-1.3
	42µm,0.4s						
EALK	Alkurruntz	0.36	0	Pg	Pg	22 02 38.5	+0.4
EALK				Sg	Sg	22 02 43.5	+0.5
EALK	Alkurruntz	0.36	0	⇑Pg	Pg	22 02 38.5	+0.4
EALK				Sg	Sg	22 02 43.2	+0.3
EALK				IVmb_Lg		22 02 49.0	
IRAF	Chalets d’Irat	0.39	64	Pg	Pg	22 02 38.7	0.0
IRAF				Sg	Sb	22 02 44.8	-0.8
OSSF	Osses	0.43	25	Pg	Pg	22 02 39.6	+0.1
ORDF	Ordiarp	0.55	50	Pg	Pg	22 02 41.7	+0.1
ATE	Arette	0.63	69	Pg	Pg	22 02 43.0	-0.2
ATE				Sg	Sb	22 02 52.2	-0.4
ATE	Arette	0.63	69	P	Pg	22 02 43.1	-0.2
ETSF	Etsaut	0.70	87	ePg	Pg	22 02 43.6	-0.9
ETSF				eSg	Sb	22 02 54.4	-0.1
	20µm,0.4s						
CANF	Canfranc	0.74	97	Pg	Pg	22 02 44.4	-0.7
CANF				Sg	Sb	22 02 56.3	+0.6
REYF	Montagne du Re	0.84	76	Pg	Pg	22 02 46.3	-0.9
REYF				Sg	Sb	22 02 58.5	-0.2
TERF	Tercis-les-Bai	0.86	19	Pg	Pb	22 02 48.2	+0.5
URDF	Urds	0.88	49	Pg	Pg	22 02 47.9	0.0
PYLO	Lourdes	1.10	77	Pg	Pb	22 02 50.6	-1.1
PYLO				Sg	Sn	22 03 07.5	+0.5
VIEF	Viey	1.13	88	Pg	Pb	22 02 51.2	-1.1
VIEF				Sg	Sn	22 03 08.2	+0.4
LABF	Labassere	1.18	80	Pg	Pb	22 02 51.9	-1.2
ECHI	Chisagues Biel	1.27	98	Pn	Pn	22 02 53.8	-0.6
ECHI	Chisagues Biel	1.27	98	Pg	Pn	22 02 53.9	-0.5
ECHI				Sg	Sb	22 03 10.6	-0.4
ECHI				IVmb_Lg		22 03 16.9	
RESF	Ens	1.36	92	Pn	Pn	22 02 55.1	-0.5
RESF				Sg	Sg	22 03 17.2	+2.6
EPF	Esparros	1.37	82	ePg	Pn	22 02 55.3	-0.4
EPF				eSg	Sg	22 03 14.7	-0.2
	21µm,0.6s						
EPF				AML	AML		
ESAC	San Caprasio	1.38	146	Pg	Pb	22 02 56.1	-0.3
ESAC				Sg	Sb	22 03 14.1	+0.1
MLZA	Monlezun-d-Arm	1.40	46	Pn	Pn	22 02 56.3	+0.3
ELAN	Lanestosa	1.46	285	Pn	Pg	22 02 58.5	-0.4
ELAN				Sn	Sg	22 03 17.5	-0.4
ELAN				IVmb_Lg		22 03 26.9	
MELF	Melles	1.67	89	Pn	Pb	22 03 00.9	-0.6
CRAS	Crastes	1.84	62	Pn	Pn	22 03 02.7	+0.5
CRAS				Sg	Sg	22 03 30.1	0.0
RUFF	Ruffiac, Nouve	1.88	36	Pn	Pn	22 03 03.1	+0.4
RUFF				Pg	Pg	22 03 06.3	-0.6
MLS	Moulis	1.92	86	Pn	Pb	22 03 04.5	-1.1
ALT04	Santillana del	1.98	286	Pn	Pn	22 03 05.4	+1.4
ALT04				Sn	Sn	22 03 29.9	+1.3

ALT01	**Santillana del**	1.98	286	Pn	Pn	22 03 05.4	+1.4
ALT01				Sn	Sb	22 03 30.2	-1.1
ALT01				Sg	Sg	22 03 35.1	+0.7
ALT02	**Santillana del**	1.98	286	Pn	Pb	22 03 05.6	-1.1
ALT02				Sn	Sn	22 03 29.8	+1.1
ALT03	**Santillana del**	1.98	286	Pn	Pn	22 03 05.1	+1.1
ALT03				Sn	Sb	22 03 30.9	-0.5
SALF	**Salau**	1.99	92	Pn	Pb	22 03 06.5	-0.4
CEST	**Esterri de Car**	2.05	96		Pb	22 03 06.7	-1.3
CEST				Sn	Sb	22 03 32.7	-0.9
ETOR	**Torete**	2.08	191	⇑Pn	Pn	22 03 06.3	+0.8
ETOR				Sn	Sn	22 03 32.3	+0.9
ETOR				IVmb_Lg		22 03 40.1	
LATF	**Latrape**	2.10	79	Pn	Pn	22 03 07.0	+1.3
LRVF	**chteau la Riv**	2.26	22	Pn	Pn	22 03 08.3	+0.4
GENF	**Genat**	2.27	90	Pn	Pb	22 03 10.3	-1.3
PAND	**Andorre**	2.28	98	Pn	Pb	22 03 10.3	-1.6
ERTA	**Horta de San J**	2.35	144	Pn	Pn	22 03 09.0	-0.2
ERTA				Sn	Sn	22 03 36.3	-1.6
ERTA				IVmb_Lg		22 03 56.4	
E0901	**Celadas (Terue**	2.40	173	Pn	Pn	22 03 10.7	+0.7
E0901				Pg	Pb	22 03 14.9	+1.0
E0901				Sn	Sn	22 03 40.3	+1.1
E0901				Sg	Sg	22 03 47.2	-0.7
EMIR	**Miracle**	2.44	112	Pn	Pn	22 03 11.0	+0.5
EMIR				Pg	Pb	22 03 14.5	-0.1
EMIR				Sn	Sn	22 03 40.6	+0.5
EMIR				Sg	Sb	22 03 45.5	+0.9
DUNF	**Dun**	2.44	85	Pn	Pn	22 03 12.3	+1.9
EPOB	**Poblet**	2.45	127	Pn	Pn	22 03 10.4	-0.1
EPOB				Pg	Pb	22 03 14.9	+0.2
EPOB				Sn	Sn	22 03 38.9	-1.4
EPOB				Sg	Sb	22 03 46.1	+1.3
EPOB				IVmb_Lg		22 03 51.9	
MONQ	**Montcuq**	2.47	52	Pn	Pn	22 03 10.7	-0.1
EBR	**Ebro Roquetas**	2.53	143	Pn	Pn	22 03 11.5	-0.1
EBR					Sn	22 03 42.1	-0.2
EMOS	**Mosqueruela**	2.62	162	Pn	Pn	22 03 13.1	+0.1
EMOS				Pg	Pb	22 03 18.4	+0.7
EMOS				Sn	Sn	22 03 44.3	-0.4
EMOS				Sg	Sb	22 03 51.7	+1.9
EMOS				IVmb_Lg		22 04 01.1	
YEBES	**Yebes (Guadala**	2.62	207	⇑Pn	Pn	22 03 13.5	+0.6
YEBES				Sn	Sn	22 03 43.4	-1.3
YEBES				Sg	Sg	22 03 54.4	-0.6
YEBES				IVmb_Lg		22 04 02.9	
LFF	**La Frestale**	2.64	37	*e*Pn	Pn	22 03 13.1	0.0
LFF				*e*Sn	Sn	22 03 43.2	-1.7
	3µm,0.5s						
LFF				AML	AML		
CARF	**Carcanieres**	2.66	92	Pn	Pn	22 03 15.9	+2.3
VALC	**Valcebollere**	2.67	99	Pn	Pn	22 03 15.5	+1.9
EARI	**Arriondas**	2.75	280	Pn	Pn	22 03 16.4	+1.8
EARI				Sn	Sn	22 03 49.3	+1.6
EARI				IVmb_Lg		22 04 09.5	
MTLF	**Montolieu**	2.77	79	*e*Pn	Pn	22 03 15.8	+0.9
MTLF	**Montolieu**	2.77	79	P	Pn	22 03 16.2	+1.3
CORI	**Orista**	2.78	107	Pn	Pn	22 03 15.9	+0.8
UCM	**Universidad Co**	2.87	208	P	Pn	22 03 16.5	+0.3
UCM	**Universidad Co**	2.87	208	P	Pn	22 03 16.7	+0.4
GUD	**Guadarrama**	2.97	223	⇑Pn	Pn	22 03 18.7	+0.8
GUD				Sn	Sn	22 03 54.6	+1.2
GUD				IVmb_Lg		22 04 10.9	
SLVF	**La Salvetat-Pe**	2.98	62	Pn	Pn	22 03 17.8	0.0
FILF	**Fillols**	3.01	94	Pn	Pn	22 03 18.8	+0.5
UNIO	**Chateau-d'Oler**	3.04	4	Pn	Pn	22 03 20.3	+1.7
ABJF	**Abjat-sur-Band**	3.16	30	Pn	Pn	22 03 19.9	-0.4
SDOF	**Saint-Denis-d'**	3.18	1	Pn	Pn	22 03 21.8	+1.3
SJAF	**Saint Jean de**	3.26	95	Pn	Pn	22 03 23.1	+1.5
SJAF	**Saint Jean de**	3.26	95	P	Pn	22 03 23.6	+1.9
EJON	**La Jonquera**	3.27	96	P	Pn	22 03 23.0	+1.2
EJON	**La Jonquera**	3.27	96	Pn	Pn	22 03 23.1	+1.2
EJON				Pg	Pb	22 03 30.0	+1.2
EJON				Sn	Sn	22 04 01.9	+1.3
EJON				Sg	Sg	22 04 14.4	-1.4
EJON				IVmb_Lg		22 04 17.6	
EJON	**La Jonquera**	3.27	96	P	Pn	22 03 23.4	+1.5
RJF	**Les Rejaudoux**	3.27	41	*e*Pn	Pn	22 03 21.1	-0.7
RJF	**Les Rejaudoux**	3.27	41	*e*Pn	Pn	22 03 21.2	-0.6
RJF				*e*Sn	Sn	22 03 57.0	-3.6
	2µm,0.4s						
RJF				AML	AML		
ECHE	**Chera**	3.29	173	P	Pn	22 03 22.6	+0.4
ECHE				S	Sn	22 04 00.3	-0.9
ECHE	**Chera**	3.29	173	Pn	Pn	22 03 22.6	+0.4
ECHE				Pg	Pb	22 03 31.5	+2.3
ECHE				Sn	Sn	22 03 58.9	-2.3
ECHE				Sg	Sg	22 04 13.2	-3.5
ECHE				IVmb_Lg		22 04 21.4	
CAF	**Calviac**	3.30	50	*e*Pn	Pn	22 03 22.2	-0.1
CAF				*e*Sn	Sn	22 03 58.2	-3.3
	2µm,0.5s						
CAF				AML	AML		
CHIF	**Chize**	3.36	13	Pn	Pn	22 03 23.2	+0.2
CLAF	**Gruissan**	3.38	84	Pn	Pn	22 03 24.4	+1.1
ECOL	**Islas Columbre**	3.39	150	Pn	Pn	22 03 23.0	-0.4
ECOL				Pg	Pb	22 03 31.2	+0.5
ECOL				Sn	Sn	22 04 02.7	-0.8
ECOL				Sg	Sg	22 04 16.5	-3.3
GNEF	**Genouille - 86**	3.50	21	Pn	Pn	22 03 24.5	-0.4
EVIV	**Cofrentes, Val**	3.61	175	Pn	Pn	22 03 26.9	+0.5
EVIV				Pg	Pg	22 03 38.6	-1.3
EVIV				Sn	Sn	22 04 08.3	-0.6
EVIV				Sg	Sb	22 04 19.3	+1.1
EVIV				IVmb_Lg		22 04 32.6	
LAJAS	**L'Hospitalet-d**	3.62	71	Pn	Pn	22 03 26.9	+0.2
ESBB	**Sonseca Array**	3.68	211		Pn	22 03 27.3	-0.2
ESBB	**Sonseca Array**	3.68	211	Pn	Pn	22 03 27.4	-0.2
ESBB				Sn	Sn	22 04 10.4	-0.4
ESBB				Sg	Sb	22 04 24.7	+4.3
ESDC	**Sonseca Array**	3.68	211	Pn	Pn	22 03 27.1	-0.4
	7.7nm,0.3s,baz=38,slow=14,SNR=623						
ESDC				Pg	Pg	22 03 40.1	-1.3
	27nm,0.3s,baz=36,slow=17,SNR=43						
ESDC				Sn	Sn	22 04 08.3	-2.6
	18nm,0.3s,baz=34,slow=32,SNR=5.8						
ESDC				Lg	Lg	22 04 27.2	
	51nm,0.3s,baz=31,slow=28,SNR=7.0						
	47nm,0.6s						
ESDC				AML	AML		
ESDC	**Sonseca Array**	3.68	211		Pn	22 03 26.7	-0.9
ESDC	**Sonseca Array**	3.68	211	Pn	Pn	22 03 27.4	-0.2
ESDC				Sn	Sn	22 04 10.4	-0.5
ESDC				Sg	Sb	22 04 23.6	+3.2
ESDC				IVmb_Lg		22 04 32.5	
EJUZ	**Juzbado, Salam**	3.72	243	Pn	Pn	22 03 28.6	+0.6
EJUZ				Sn	Sn	22 04 11.1	-0.6
EJUZ				Sg	Sb	22 04 25.4	+4.0
MFF	**Saint Martin d**	3.86	14	*e*Pn	Pn	22 03 29.8	-0.1
MFF				*e*Sn	Sn	22 04 12.3	-2.8
	991nm,0.6s						
MFF				AML	AML		
MFF	**Saint Martin d**	3.86	14	P	Pn	22 03 30.9	+1.0
PAB	**San Pablo**	3.95	214	Pn	Pn	22 03 30.7	-0.4
PAB	**San Pablo**	3.95	214	Pn	Pn	22 03 31.1	0.0
PAB				Sn	Sn	22 04 17.1	-0.2
PAB				Sg	Sg	22 04 33.7	-3.9
PAB				IVmb_Lg		22 04 41.5	
PAB	**San Pablo**	3.95	214	P	Pn	22 03 31.3	+0.1
ECAL	**Calabor**	3.98	258	P	Pn	22 03 32.5	+0.8
ECAL	**Calabor**	3.98	258	Pn	Pn	22 03 32.5	+0.8
ECAL				Sn	Sn	22 04 20.3	+2.1
ECAL				IVmb_Lg		22 04 47.6	
ECAL	**Calabor**	3.98	258	P	Pn	22 03 32.8	+1.2
PBRG	**Braganca**	4.02	257	*e*Pn	Pn	22 03 33.0	+0.8
PBRG				*e*Sn	Sn	22 04 20.6	+1.4
PBRG				*i* IAML		22 04 41.5	
PBRG				*i* IAML		22 04 45.2	
PBRG				*i* IAML		22 04 56.2	
LASF	**Ste Croix**	4.09	71	*e*Pn	Pn	22 03 33.2	+0.1
LASF				*e*Sn	Sn	22 04 17.3	-3.5
	3µm,0.7s						
LASF				AML	AML		
EPON	**Pontenova**	4.16	278	Pn	Pn	22 03 35.7	+1.7
EPON				Sn	Sn	22 04 24.9	+2.4
EPON				IVmb_Lg		22 04 57.1	
TRBF	**Trabuc cave**	4.17	71	Pn	Pn	22 03 34.1	0.0
ETOB	**Tobarra**	4.21	180	P	Pn	22 03 35.5	+0.6
ETOB				S	Sn	22 04 24.8	+0.9
ETOB	**Tobarra**	4.21	180	Pn	Pn	22 03 36.0	+1.2
ETOB				Sn	Sn	22 04 24.6	+0.7
ETOB				IVmb_Lg		22 04 56.6	
AFON	**Font Roja**	4.26	170	Pn	Pn	22 03 36.5	+1.0
AFON				Sn	Sn	22 04 26.5	+1.4
AFON				IVmb_Lg		22 04 55.2	
EBEN2	**Beniarda presa**	4.30	166	Pn	Pn	22 03 36.2	+0.2
EBEN2				Sn	Sn	22 04 24.5	-1.5
EBEN2				IVmb_Lg		22 04 49.7	
CRNF	**Coron - 49109**	4.31	8	Pn	Pn	22 03 35.9	-0.2
TCF	**Toulx Ste Croi**	4.33	37	*e*Pn	Pn	22 03 35.3	-1.1
TCF				*e*Sn	Sn	22 04 22.8	-4.0
	1µm,0.5s						
TCF				AML	AML		
CIBOR	**Castaar de Ib**	4.37	224	Pn	Pn	22 03 38.0	+1.0
CIBOR				Sn	Sn	22 04 26.6	-1.2
PSIM	**Granatula de C**	4.38	204	⇑Pn	Pn	22 03 36.5	-0.7
PSIM				Sn	Sn	22 04 25.9	-2.3
EIBI	**Ibiza**	4.40	150	P	Pn	22 03 36.4	-0.9
EIBI				S	Sn	22 04 24.2	-4.2
EIBI	**Ibiza**	4.40	150	Pn	Pn	22 03 36.6	-0.7
EIBI				Sn	Sn	22 04 23.0	-5.4
EIBI				IVmb_Lg		22 04 53.3	
CFF	**Clermont-Ferra**	4.40	47	Pn	Pn	22 03 38.1	+0.7
EPLA	**Plasencia**	4.43	232	Pn	Pn	22 03 38.1	+0.3
EPLA				Sn	Sn	22 04 28.8	-0.4
EPLA				IVmb_Lg		22 04 58.2	
ETOS	**Mallorca**	4.49	132	P	Pn	22 03 37.8	-0.8
ETOS				S	Sn	22 04 27.5	-3.2
ETOS	**Mallorca**	4.49	132	Pn	Pn	22 03 38.1	-0.5
ETOS				Sn	Sn	22 04 26.3	-4.4
ETOS				IVmb_Lg		22 04 54.5	
BIMF	**Belle-Ile-en-M**	4.62	346	Pn	Pn	22 03 41.1	+0.8
GIZF	**Gizeux - Indre**	4.70	14	Pn	Pn	22 03 41.3	-0.2
BEGF	**Beganne - 5601**	4.78	354	Pn	Pn	22 03 42.6	+0.1
BGF	**Bois d'Agland**	4.82	39	*e*Pn	Pn	22 03 41.8	-1.3
BGF				*e*Sn	Sn	22 04 33.7	-5.2
	4µm,0.6s						
BGF				AML	AML		
EAGO	**Agolada(Pontev**	4.84	272	Pn	Pn	22 03 44.3	+0.9
EAGO				Sn	Sn	22 04 38.1	-1.2
EAGO				IVmb_Lg		22 05 12.1	
PVRL	**Vila Real**	4.88	253	*e*Pn	Pn	22 03 44.5	+0.5
PVRL				*e*Sg	Sg	22 05 02.0	-5.6
PVRL				*i* IAML		22 05 08.8	
PVRL				*i* IAML		22 05 11.5	
PVRL				*i* IAML		22 05 15.4	
VIVF	**Saint-Julien-l**	4.89	64	*e*Pn	Pn	22 03 43.7	-0.4
VIVF				*e*Sn	Sn	22 04 40.1	-0.5
	1µm,0.6s						
VIVF				AML	AML		
POLO	**Lamas de Olo**	4.91	254	*e*Pn	Pn	22 03 44.7	+0.3
POLO				*e*Sn	Sn	22 04 38.8	-2.2
POLO				*e*Sg	Sg	22 05 03.0	-5.3
POLO				*i* IAML		22 05 14.3	
POLO				*i* IAML		22 05 17.2	
POLO				*i* IAML		22 05 19.0	
SAUF	**chteau de Sau**	4.94	75	Pn	Pn	22 03 45.6	+0.9
ELOB	**Lobios**	4.96	261	⇑Pn	Pn	22 03 45.4	+0.4
ELOB				Sn	Sn	22 04 43.1	+0.9
ELOB				IVmb_Lg		22 05 17.7	
PCAB	**Cabril**	4.97	259	*e*Pn	Pn	22 03 45.6	+0.4
PCAB				*e*Pg	Pg	22 04 04.4	-1.6
PCAB				*e*Sn	Sn	22 04 42.3	-0.3
PCAB				*i* IAML		22 05 23.1	
SSB	**Saint Sauveur**	4.98	59	Pn	Pn	22 03 45.3	-0.1
SSB	**Saint Sauveur**	4.98	59	Pn	Pn	22 03 45.5	+0.1
SSB	**Saint Sauveur**	4.98	59	P	Pn	22 03 46.0	+0.6
	comp=Z,242nm,0.5s						
EZAR	**Zarzadilla de**	4.99	182	Pn	Pn	22 03 46.6	+1.1
EZAR				Sn	Sn	22 04 41.9	-1.1
EZAR				IVmb_Lg		22 05 16.5	
EMUR	**La Murta**	5.02	178	P	Pn	22 03 46.7	+0.8
EMUR	**La Murta**	5.02	178	Pn	Pn	22 03 46.7	+0.8
EMUR				Sn	Sn	22 04 43.9	+0.1
EMUR				IVmb_Lg		22 05 17.0	
EMUR	**La Murta**	5.02	178	P	Pn	22 03 47.0	+1.1
	comp=Z,368nm,0.7s						
ARBF	**Arbois**	5.04	81	P	Pn	22 03 47.9	+1.7
	comp=Z,222nm,0.9s						
PLOF	**Ploemeur**	5.07	345	Pn	Pn	22 03 47.2	+0.7
TSDF	**Thoir-sur-Di**	5.08	15	Pn	Pn	22 03 48.0	+1.4
PGAV	**Gavieira, Arco**	5.08	262	*e*Pn	Pn	22 03 47.4	+0.6
PGAV				*e*Sn	Sn	22 04 46.8	+1.3
PGAV				*e*Sg	Sg	22 05 11.4	-2.7
PGAV				*i* IAML		22 05 23.3	
PGAV				*i* IAML		22 05 25.4	
PGAV				*i* IAML		22 05 28.6	
GUEF	**Guhenno - 56**	5.09	351	Pn	Pn	22 03 47.4	+0.7
MTE	**Manteigas**	5.15	243	*e*Pn	Pn	22 03 47.3	-0.4
MTE				*i* IAML		22 05 18.7	
MTE				*i* IAML		22 05 18.7	
MTE				*i* IAML		22 05 37.4	
MTE	**Manteigas**	5.15	243	Pn	Pn	22 03 46.6	-1.1
MTE	**Manteigas**	5.15	243	P	Pn	22 03 52.1	+4.5
	comp=Z,250nm,0.9s						
QUIF	**Quistinic**	5.19	348	*e*Pn	Pn	22 03 48.4	+0.3
QUIF				*e*Sn	Sn	22 04 44.1	-3.6
	comp=Z,543nm,0.9s						
QUIF				AML	AML		
EQES	**Quesada**	5.19	194	Pn	Pn	22 03 49.0	+0.7
EQES				Sn	Sn	22 04 47.4	-0.8
EQES				IVmb_Lg		22 05 22.3	
TLOR	**Lorca, Murcia**	5.20	182	P	Pn	22 03 49.9	+1.5
RUSF	**Rustrel**	5.21	76	Pn	Pn	22 03 49.2	+0.8
RUSF	**Rustrel**	5.21	76	P	Pn	22 03 50.4	+1.9
	comp=Z,146nm,0.8s						
AVF	**Avril sur Loir**	5.23	40	*e*Pn	Pn	22 03 47.7	-1.0
AVF				*e*Sn	Sn	22 04 43.5	-5.4
	comp=Z,1µm,1.0s						
AVF				AML	AML		
PVIS	**Viseu**	5.23	248	*e*Pn	Pn	22 03 49.1	+0.2
PVIS				*e*Sn	Sn	22 04 47.0	-2.1
EADA	**Adamuz**	5.24	208	P	Pn	22 03 49.4	+0.4
EADA				S	Sn	22 04 48.7	-0.5
EADA	**Adamuz**	5.24	208	Pn	Pn	22 03 49.3	+0.4
EADA				Sn	Sn	22 04 48.4	-0.8
EADA				Sg	Sg	22 05 15.3	-3.7
EADA				IVmb_Lg		22 05 25.6	
MAHO	**Mahon**	5.26	122	P	Pn	22 03 49.3	+0.2
MAHO				S	Sn	22 04 45.8	-3.8
MAHO	**Mahon**	5.26	122	Pn	Pn	22 03 48.7	-0.4
MAHO	**Mahon**	5.26	122	P	Pn	22 03 49.1	0.0
	comp=Z,136nm,0.7s						
SMRF	**Simiane la Rot**	5.28	75	*e*Pn	Pn	22 03 50.3	+0.9
SMRF				*e*Sn	Sn	22 04 46.9	-3.2
	comp=Z,2µm,1.3s						
SMRF				*e*Sg	Sg	22 05 15.5	-4.7
SMRF				AML	AML		
CART	**Cartagena**	5.29	176	P	Pn	22 03 49.7	+0.2
CART	**Cartagena**	5.29	176	Pn	Pn	22 03 48.9	-0.6
HYF	**Humbligny**	5.29	32	*e*Pn	Pn	22 03 49.1	-0.5
HYF				*e*Sn	Sn	22 04 45.3	-5.1
	comp=Z,3µm,0.5s						
HYF				AML	AML		
BSTF	**la Bastide-des**	5.31	77	Pn	Pn	22 03 50.6	+0.7
LEPF	**PUYLOUBIER**	5.31	80	Pn	Pn	22 03 51.0	+1.1
SMF	**Signal de Mont**	5.37	43	*e*Pn	Pn	22 03 49.5	-1.1
SMF				*e*Sn	Sn	22 04 47.1	-5.1
	comp=Z,1µm,1.0s						
SMF				AML	AML		
OLIV	**Plomelin**	5.39	341	Pn	Pn	22 03 51.2	+0.4
ARTF	**Artigues**	5.39	80	Pn	Pn	22 03 51.9	+1.0
PCBR	**Castelo Branco**	5.41	238	*e*Pn	Pn	22 03 51.5	+0.2
PCBR				*e*Sn	Sn	22 04 52.1	-1.3
PCBR				*i* IAML		22 05 35.1	
PCBR				*i* IAML		22 05 37.7	
PCBR				*i* IAML		22 05 44.2	
SGMF	**Saint Gilles**	5.44	353	*e*Pn	Pn	22 03 52.4	+0.8
SGMF				*e*Sn	Sn	22 04 50.6	-3.4
	comp=Z,691nm,0.8s						
SGMF				AML	AML		
EMAZ	**Mazaricos**	5.49	273	Pn	Pn	22 03 52.9	+0.6
EMAZ				Sn	Sn	22 04 52.1	-3.1
EMAZ				IVmb_Lg		22 05 39.2	
SSF	**Saint Saulge**	5.50	39	*e*Pn	Pn	22 03 50.9	-1.5
SSF				*e*Sn	Sn	22 04 50.6	-5.0
	comp=Z,657nm,0.7s						
SSF				AML	AML		
GRR	**Gorron**	5.54	4	*e*Pn	Pn	22 03 52.5	-0.5
GRR				*e*Sn	Sn	22 04 52.6	-4.0
	comp=Z,1µm,1.1s						
GRR				AML	AML		
PTO	**Porto**	5.56	254	*e*Pn	Pn	22 03 54.0	+0.7
PTO				*i* IAML		22 05 30.5	
PTO				*i* IAML		22 05 36.2	
PTO				*i* IAML		22 05 36.9	
ROSF	**Rostrenen**	5.61	348	*e*Pn	Pn	22 03 54.2	+0.3
ROSF				*e*Sn	Sn	22 04 54.3	-3.9
	comp=Z,428nm,0.8s						
ROSF				AML	AML		
PMRV	**Marv??o**	5.61	234	*e*Pn	Pn	22 03 54.2	+0.2
PMRV				*e*Sn	Sn	22 04 55.3	-3.0
PMRV				*e*Sg	Sg	22 05 28.0	-2.9
PMRV				*i* IAML		22 05 37.7	
PMRV				*i* IAML		22 05 41.6	
PMRV				*i* IAML		22 05 42.8	
ECAB	**El Cabril**	5.64	213	P	Pn	22 03 54.3	-0.1
ECAB				S	Sn	22 04 58.1	-0.9
ECAB	**El Cabril**	5.64	213	Pn	Pn	22 03 54.5	+0.2
ECAB				Sn	Sn	22 04 56.9	-2.0
ECAB				IVmb_Lg		22 05 38.8	
PLEF	**Pleven - 22200**	5.66	354	Pn	Pn	22 03 54.6	0.0
ORIF	**Oris-en-Rattie**	5.72	66	*e*Pn	Pn	22 03 56.5	+0.9
ORIF				*e*Sn	Sn	22 04 59.0	-2.1
	comp=Z,468nm,0.6s						
ORIF				AML	AML		
ORIF	**Oris-en-Rattie**	5.72	66	P	Pn	22 03 57.0	+1.4
	comp=Z,134nm,0.5s						
GRN	**Grenoble**	5.74	63	Pn	Pn	22 03 56.4	+0.6
LDF	**La Druitiere**	5.81	9	*e*Pn	Pn	22 03 56.1	-0.6
LDF				*e*Sn	Sn	22 04 58.1	-5.1
	comp=Z,765nm,0.8s						
LDF				AML	AML		
LOUF	**Saint-Loup**	5.82	1	Pn	Pn	22 03 56.5	-0.2
OGDI	**Digne**	5.82	75	Pn	Pn	22 03 57.4	+0.6
LOR	**Lormes**	5.82	39	*e*Pn	Pn	22 03 55.5	-1.3
LOR				*e*Sn	Sn	22 04 57.2	-6.1
	comp=Z,796nm,0.7s						
LOR				AML	AML		
LOR	**Lormes**	5.82	39	P	Pn	22 03 57.4	+0.6
	comp=Z,62nm,0.6s						
CAMF	**Camaret-sur-Me**	5.83	339	Pn	Pn	22 03 58.1	+1.2
EQTA	**Presa de Quent**	5.84	195	P	Pn	22 03 58.4	+1.2
EQUE	**Quentar**	5.84	195	Pn	Pn	22 03 58.2	+1.0
EQUE				Sn	Sn	22 05 03.7	-0.4
EQUE				IVmb_Lg		22 05 43.6	
TRIGF	**Trigance**	5.84	79	Pn	Pn	22 03 58.3	+1.1
EBAD	**Badajoz**	5.85	227	P	Pn	22 03 56.9	-0.4
EBAD				S	Sn	22 05 03.7	-0.6
EBAD	**Badajoz**	5.85	227	Pn	Pn	22 03 57.5	+0.2
EBAD				Sn	Sn	22 05 03.4	-0.9
EBAD				IVmb_Lg		22 05 44.9	
OGSM	**Saint Maurice**	5.86	60	Pn	Pn	22 03 58.0	+0.7
LMR	**La Mourre**	5.89	83	*e*Pn	Pn	22 03 58.8	+1.0
LMR				*e*Sn	Sn	22 05 00.7	-4.4
	comp=Z,151nm,0.4s						
LMR				AML	AML		
ENIJ	**Nijar**	5.91	185	P	Pn	22 03 59.4	+1.3
ENIJ	**Nijar**	5.91	185	Pn	Pn	22 03 59.2	+1.2
ENIJ				Sn	Sn	22 05 05.1	-0.6
ENIJ				IVmb_Lg		22 05 45.5	
FLN	**La Foliniere**	5.94	7	*e*Pn	Pn	22 03 57.9	-0.6
FLN				*e*Sn	Sn	22 05 04.9	-1.5
	comp=Z,870nm,1.0s						
FLN				AML	AML		
PCAS	**Casmilo, Conde**	5.96	244	*e*Pn	Pn	22 03 59.6	+0.9
PCAS				*e*Sn	Sn	22 05 03.9	-2.9
PCAS				*i* IAML		22 05 49.4	
PCAS				*i* IAML		22 05 54.3	
PCAS				*i* IAML		22 05 56.2	
OG35	**Corcelles**	5.98	55	Pn	Pn	22 03 59.5	+0.4
PSARD	**Sardoal**	5.98	239	*e*Pn	Pn	22 03 58.8	-0.3
PSARD				*e*Sn	Sn	22 05 06.5	-1.0
PSARD				*e*Sg	Sg	22 05 38.0	-4.8
PSARD				*i* IAML		22 05 42.5	
PSARD				*i* IAML		22 05 49.9	
PSARD				*i* IAML		22 05 53.7	
LOCF	**Locquirec - 29**	6.01	346	Pn	Pn	22 03 59.7	+0.3
CLEV	**Clevilliers**	6.04	19	Pn	Pn	22 03 59.9	+0.1
EBER	**Berja**	6.05	191	P	Pn	22 04 02.2	+2.0
EBER				S	Sn	22 05 09.7	+0.2
EBER	**Berja**	6.05	191	Pn	Pn	22 04 02.4	+2.1
EBER				Sn	Sn	22 05 09.1	-0.3
EBER				Sg	Sg	22 05 42.4	-2.7
EBER				IVmb_Lg		22 05 51.3	
OGAG	**Argentiere**	6.05	72	Pn	Pn	22 04 03.3	+3.1
SALSA	**La sagne**	6.06	78	Pn	Pn	22 04 01.7	+1.5
EGOR	**Sierra Gorda,**	6.08	200	P	Pn	22 04 01.3	+0.7
EGOR	**Sierra Gorda,**	6.08	200	Pn	Pn	22 04 01.3	+0.7
EGOR				Sn	Sn	22 05 11.1	+1.0
EGOR				IVmb_Lg		22 05 53.6	
PESTR	**Estremoz**	6.10	231	P	Pn	22 04 00.4	-0.2
PESTR				S	Sn	22 05 06.9	-3.3
PESTR	**Estremoz**	6.10	231	*e*Pn	Pn	22 04 00.4	-0.2
PESTR				*e*Sn	Sn	22 05 07.0	-3.3
PESTR				*e*Sg	Sg	22 05 39.0	-7.6
PESTR				*i* IAML		22 05 57.7	
PESTR				*i* IAML		22 05 58.2	
PESTR				*i* IAML		22 06 10.9	
PESTR	**Estremoz**	6.10	231	Pn	Pn	22 04 00.0	-0.6
PESTR	**Estremoz**	6.10	231	P	Pn	22 04 01.4	+0.8
	comp=Z,95nm,0.8s						
CREF	**Crivoux**	6.13	71	Pn	Pn	22 04 02.7	+1.5
ENAUX	**Enaux**	6.15	76	Pn	Pn	22 04 02.9	+1.4
JAUF	**Jausiers**	6.19	73	Pn	Pn	22 04 03.3	+1.2
ELGU	**Los Guajares,**	6.21	196	P	Pn	22 04 03.5	+1.3
ELGU				S	Sn	22 05 12.7	-0.4
ELGU	**Los Guajares,**	6.21	196	Pn	Pn	22 04 03.7	+1.5
ELGU				Sn	Sn	22 05 14.8	+1.8
ELGU				IVmb_Lg		22 05 58.5	
CALF	**Calern**	6.21	79	Pn	Pn	22 04 03.5	+1.2
CALF	**Calern**	6.21	79	P	Pn	22 04 03.9	+1.6
	comp=Z,244nm,0.8s						
SURF	**Saint Ours**	6.25	72	Pn	Pn	22 04 04.9	+2.1
MBDF	**Montbardon**	6.28	70	*e*Pn	Pn	22 04 04.7	+1.5
MBDF				*e*Sn	Sn	22 05 13.4	-1.4
	comp=Z,249nm,0.7s						
MBDF				AML	AML		
PBAR	**Barrancos**	6.30	224	P	Pn	22 04 03.5	+0.1
PBAR				S	Sn	22 05 15.1	-0.1
PBAR	**Barrancos**	6.30	224	*e*Pn	Pn	22 04 04.4	+1.0
PBAR				*e*Sn	Sn	22 05 09.2	-6.0
PBAR				*e*Sg	Sg	22 05 50.2	-2.8
PBAR				*i* IAML		22 05 51.2	
PBAR				*i* IAML		22 06 10.9	
PBAR				*i* IAML		22 06 12.8	
BNI	**Bardonecchia**	6.30	67	Pn	Pn	22 04 05.0	+1.4
BNI	**Bardonecchia**	6.30	67	Pn	Pn	22 04 05.0	+1.4
BNI				Sn	Sn	22 05 13.8	-1.7
BNI	**Bardonecchia**	6.30	67	P	Pn	22 04 05.4	+1.8
	comp=Z,91nm,0.7s						
RRL	**Rocca Remolon**	6.34	68	Pn	Pn	22 04 05.7	+1.6
PMTG	**Montargil**	6.34	236	*e*Pn	Pn	22 04 04.4	+0.4
PMTG				*e*Sn	Sn	22 05 13.8	-2.5
PMTG				*i* IAML		22 05 59.9	
PMTG				*i* IAML		22 06 02.7	
PMTG				*i* IAML		22 06 11.3	
JSA	**Saint Aubin**	6.34	356	Pn	Pn	22 04 03.6	-0.4
JSA	**Saint Aubin**	6.34	356	Pn	Pn	22 04 03.0	-1.0
JSA				Sn	Sn	22 05 12.9	-3.3
OGMO	**Fort Saint-Gob**	6.35	66	Pn	Pn	22 04 06.1	+1.8
ISO	**Isola**	6.36	75	Pn	Pn	22 04 05.7	+1.4
ISO	**Isola**	6.36	75	P	Pn	22 04 06.4	+2.1
	comp=Z,81nm,0.7s						
PARRA	**Arraiolos**	6.39	233	*e*Pn	Pn	22 04 04.5	-0.2
PARRA				*e*Sn	Sn	22 05 14.6	-3.0
PARRA				*e*Sg	Sg	22 05 52.4	-3.6
PARRA				*i* IAML		22 06 05.0	
PARRA				*i* IAML		22 06 11.4	
PARRA				*i* IAML		22 06 15.9	
MVIF	**Mont Vial**	6.40	78	Pn	Pn	22 04 06.3	+1.5
OG02	**Monnetier-Morn**	6.43	57	Pn	Pn	22 04 05.4	+0.2
PSBE	**So Bento**	6.43	241	*e*Pn	Pn	22 04 06.2	+0.9
PSBE				*e*Sn	Sn	22 05 15.7	-2.9
PSBE				*i* IAML		22 06 05.0	
PSBE				*i* IAML		22 06 17.8	
PSBE				*i* IAML		22 06 19.1	
EMIN	**Mina Concepcio**	6.44	219	P	Pn	22 04 05.1	-0.3
EMIN	**Mina Concepcio**	6.44	219	Pn	Pn	22 04 04.5	-0.8
EMIN				Sn	Sn	22 05 18.7	+0.1
EMIN				IVmb_Lg		22 06 00.7	
PZZ	**Stroppo**	6.46	72	Pn	Pn	22 04 07.3	+1.5

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RSL   Roselend          6.49  61  Pn     Pn   22 04 08.0 +1.9
LPL   La Plagne         6.49  63 ePn     Pn   22 04 07.3 +1.1
LPL                            eSn     Sn   22 05 16.4 -3.8
EMAL  Malaga-Limoner    6.50 201  P      Pn   22 04 06.9 +0.8
EMAL  Malaga-Limoner    6.50 201  P      Pn   22 04 07.5 +1.4
      comp=Z,34nm,0.7s
LPG   La Plagne         6.50  63 ePn     Pn   22 04 07.6 +1.2
LPG                            eSn     Sn   22 05 16.0 -4.5
      comp=Z,564nm,1.0s
LPG                             AML    AML
ESCA  l'Escarene        6.55  78  Pn     Pn   22 04 08.3 +1.4
ESCA  l'Escarene        6.55  78  P      Pn   22 04 08.2 +1.4
      comp=Z,83nm,0.5s
RIVEL MONT RIVEL        6.56  51  Pn     Pn   22 04 07.3 +0.2
EVO   Evora             6.57 231  P      Pn   22 04 07.2 +0.1
EVO                             S      Sn   22 05 23.0 +1.2
EVO   Evora             6.57 231 ePn     Pn   22 04 07.7 +0.6
EVO                            eSn     Sn   22 05 19.4 -2.4
EVO                            i IAML       22 06 07.6
EVO                            i IAML       22 06 13.3
EVO                            i IAML       22 06 22.8
EVO   Evora             6.57 231  P      Pn   22 04 07.3 +0.2
      comp=Z,36nm,0.7s
MON   Monaco            6.58  79  P      Pn   22 04 11.4 +4.2
      comp=Z,190nm,0.8s
TURF  col de Turini     6.58  77  Pn     Pn   22 04 08.5 +1.1
CABF  La Chapelle       6.58  53 ePn     Pn   22 04 06.9 -0.4
CABF                           eSn     Sn   22 05 16.2 -6.0
      comp=Z,816nm,0.9s
CABF                            AML    AML
SBF   Sospel            6.59  78 ePn     Pn   22 04 08.2 +0.7
SBF                            eSn     Sn   22 05 16.2 -6.4
      comp=Z,209nm,0.5s
SBF                             AML    AML
ENR   Entracque         6.63  75  Pn     Pn   22 04 10.1 +2.0
BHB   Bricherasio       6.64  70  Pn     Pn   22 04 10.2 +2.0
GIMEL St. Georges /     6.64  54  Pn     Pn   22 04 09.8 +1.6
GIMEL St. Georges /     6.64  54  P      Pn   22 04 09.7 +1.5
      comp=Z,85nm,0.8s
SAOF  Saorge            6.70  77  Pn     Pn   22 04 10.2 +1.3
OGSI  Sixt              6.72  59  Pn     Pn   22 04 10.6 +1.3
RSP   Reno Superiore    6.73  67  Pn     Pn   22 04 11.8 +2.4
LSD   Lago del Serru    6.74  64  Pn     Pn   22 04 11.3 +1.7
PIAF  les Granges de    6.75  76  Pn     Pn   22 04 11.3 +1.6
FAHY  Fahy-L¨s-Autr     6.77  44  Pn     Pn   22 04 08.3 -1.5
MOE   Montemor          6.77 232 ePn     Pn   22 04 10.3 +0.4
MOE                            eSn     Sn   22 05 23.5 -3.3
MOE                            eSg     Sg   22 06 06.2 -1.8
MOE                            i IAML       22 06 26.4
MOE                            i IAML       22 06 26.5
MOE                            i IAML       22 06 38.4
EMIJ  Mijas             6.78 203  P      Pn   22 04 11.0 +1.0
EMIJ  Mijas             6.78 203  Pn     Pn   22 04 10.8 +0.8
EMIJ                            Sn     Sn   22 05 29.6 +2.6
EMIJ                            IVmb_Lg     22 06 16.9
PBEJ  Beja              6.84 227 ePn     Pn   22 04 11.8 +0.9
PBEJ                           eSn     Sn   22 05 25.4 -3.2
PBEJ                           i IAML       22 06 20.3
PBEJ                           i IAML       22 06 30.7
PBEJ                           i IAML       22 06 31.9
ESPR  Espera            6.86 211  P      Pn   22 04 11.6 +0.5
ESPR                            S      Sn   22 05 28.6 -0.4
ESPR  Espera            6.86 211  Pn     Pn   22 04 11.7 +0.7
ESPR                            Sn     Sn   22 05 28.2 -0.7
ESPR                            IVmb_Lg     22 06 24.8
REMY  Saint-Rhmy-en     6.89  61  Pn     Pn   22 04 13.6 +1.8
GBOS  Grotte di Boss    6.93  75  Pn     Pn   22 04 14.1 +1.9
AIGLE Aigle             6.97  57  Pn     Pn   22 04 14.5 +1.9
BRANT Les Verrieres     6.98  52  Pn     Pn   22 04 12.8  0.0
BRANT                           Sn     Sn   22 05 31.4 -0.7
EGRO  El Granado        7.02 223  P      Pn   22 04 12.8 -0.5
EGRO                            S      Sn   22 05 30.4 -2.5
EGRO  El Granado        7.02 223  Pn     Pn   22 04 11.5 -1.8
EGRO                            Sn     Sn   22 05 29.5 -3.4
EGRO                            IVmb_Lg     22 06 19.3
BOUC  Bouclans          7.03  49  Pn     Pn   22 04 13.0 -0.5
PMAFR Mafra             7.06 239  P      Pn   22 04 14.7 +0.8
PMAFR                           S      Sn   22 05 30.7 -3.3
PMAFR Mafra             7.06 239 ePn     Pn   22 04 15.3 +1.4
PMAFR                          eSn     Sn   22 05 30.9 -3.2
PMAFR                          i IAML       22 06 28.3
PMAFR                          i IAML       22 06 43.8
PMAFR                          i IAML       22 06 44.5
LIS   Lisbon            7.12 237 ePn     Pn   22 04 15.7 +1.0
DIX   Grande Dixence    7.14  60  Pn     Pn   22 04 16.5 +1.2
PLOUS Minas do Lousa    7.15 230 ePn     Pn   22 04 15.5 +0.4
PLOUS                          eSn     Sn   22 05 32.6 -3.5
PLOUS                          i IAML       22 06 24.6
PLOUS                          i IAML       22 06 27.9
PLOUS                          i IAML       22 06 42.2
MESJ  Messejana         7.17 228 eP      Pn   22 04 14.9 -0.5
MESJ  Messejana         7.17 228 ePn     Pn   22 04 15.8 +0.4
MESJ                           eSn     Sn   22 05 34.5 -2.2
MESJ                           eSg     Sg   22 06 20.9  0.0
MESJ                           i IAML       22 06 31.9
MESJ                           i IAML       22 06 37.6
MESJ                           i IAML       22 06 39.7
MESJ  Messejana         7.17 228  Pn     Pn   22 04 14.7 -0.7
TORNY Torny/Romont      7.18  54  Pn     Pn   22 04 17.3 +1.8
SENIN Lac Senin/Sane    7.19  58  Pn     Pn   22 04 15.9 +0.1
SENIN Lac Senin/Sane    7.19  58  Pn     Pn   22 04 17.0 +1.1
SENIN                           Sn     Sn   22 05 37.8 +0.3
PCVE  Castro Verde      7.23 226  P      Pn   22 04 15.8 -0.4
PCVE                            S      Sn   22 05 37.0 -1.1
PCVE  Castro Verde      7.23 226 ePn     Pn   22 04 15.9 -0.2
PCVE                           eSn     Sn   22 05 36.6 -1.5
PCVE                           i IAML       22 06 33.1
PCVE                           i IAML       22 06 36.2
PCVE                           i IAML       22 06 37.5
PVAQ  Vaqueiros         7.24 223 ePn     Pn   22 04 15.9 -0.3
PVAQ                           eSn     Sn   22 05 35.2 -3.0
PVAQ                           i IAML       22 06 28.7
PVAQ                           i IAML       22 06 29.1
PVAQ                           i IAML       22 06 36.3
PVAQ  Vaqueiros         7.24 223  P      Pn   22 04 20.6 +4.3
      comp=Z,56nm,1.3s
CHMF  Charmoille        7.25  50  Pn     Pn   22 04 17.0 +0.5
MEZF  Maizieres J'vi    7.27  37 ePn     Pn   22 04 16.1 -0.6
MEZF                           eSn     Sn   22 05 33.0 -6.1
      comp=Z,712nm,0.8s
MEZF                            AML    AML
CNIL  Conil             7.37 210  P      Pn   22 04 18.7 +0.6
SAVF  Savonnieres en    7.39  37  Pn     Pn   22 04 18.3  0.0
EMBD  Embd, Matterta    7.47  60  Pn     Pn   22 04 21.5 +1.9
PBDV  Barranco-do-Ve    7.47 223  P      Pn   22 04 20.3 +0.8
PBDV                            S      Sn   22 05 41.4 -2.6
PBDV  Barranco-do-Ve    7.47 223 ePn     Pn   22 04 18.8 -0.6
PBDV                           eSn     Sn   22 05 40.9 -3.2
PBDV                           i IAML       22 06 35.4
PBDV                           i IAML       22 06 42.7
PBDV                           i IAML       22 06 44.1
PCP   Piancastagn       7.48  74  Pn     Pn   22 04 21.5 +1.9
PCP                             Sn     Sn   22 05 44.4 +0.1
HAU   Haudompre         7.55  44 ePn     Pn   22 04 19.8 -0.7
HAU                            eSn     Sn   22 05 39.9 -6.0
      comp=Z,487nm,0.9s
HAU                             AML    AML
PAGF  Fort de Pagny     7.62  39 ePn     Pn   22 04 21.6 +0.1
PAGF                           eSn     Sn   22 05 44.1 -3.5
      comp=Z,1µm,1.3s
PAGF                            AML    AML
BOURR Bourrignon        7.66  51  Pn     Pn   22 04 22.9 +0.8
BOURR Bourrignon        7.66  51  P      Pn   22 04 23.4 +1.3
      comp=Z,93nm,0.6s
PTEO  Sao Teotonio      7.66 229 ePn     Pn   22 04 21.9 -0.2
PTEO                           eSn     Sn   22 05 45.0 -3.7
PTEO                           i IAML       22 06 35.3
PTEO                           i IAML       22 06 40.9
PTEO                           i IAML       22 06 41.5
HINF  Hinteralfeld      7.69  47 ePn     Pn   22 04 21.8 -0.8
HINF                           eSn     Sn   22 05 43.1 -6.5
      comp=Z,361nm,1.0s
HINF                            AML    AML
FIESA Fiescheralp       7.73  59  Pn     Pn   22 04 24.7 +1.4
FIESA                           Sn     Sn   22 05 53.1 +2.3
PGF   Pioggiola         7.75  89 ePn     Pn   22 04 22.7 -0.7
PGF                            eSn     Sn   22 05 46.1 -4.9
      comp=Z,107nm,0.4s
PGF                             AML    AML
PGF   Pioggiola         7.75  89  P      Pn   22 04 24.2 +0.8
      comp=Z,88nm,0.8s
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DYA   Yadsworthy        7.75 348  Pn     Pn   22 04 23.4  0.0
DYA   Yadsworthy        7.75 348  Pn     Pn   22 04 23.2 -0.2
DYA                             Sn     Sn   22 05 47.8 -3.1
CCA1  Carnmenellis      7.76 342  Pn     Pn   22 04 23.7 +0.3
CCA1  Carnmenellis      7.76 342  Pn     Pn   22 04 23.5 +0.1
CCA1                            Sn     Sn   22 05 47.9 -3.2
MORF  Marmelete         7.80 227 eP      Pn   22 04 23.1 -0.9
MORF  Marmelete         7.80 227 ePn     Pn   22 04 23.6 -0.4
MORF                           eSn     Sn   22 05 50.6 -1.5
MORF                           i IAML       22 06 55.2
MORF                           i IAML       22 07 00.8
MORF                           i IAML       22 07 01.3
HASLI Hasliberg/Brie    7.89  57  Pn     Pn   22 04 26.4 +1.0
HASLI                           Sn     Sn   22 05 54.6  0.0
BALST Balsthal          7.90  52  Pn     Pn   22 04 25.5 +0.1
BALST Balsthal          7.90  52 ePn     Pn   22 04 26.4 +1.0
BALST                          eSn     Sn   22 05 55.0 +0.4
MANO  Manonville        7.90  38  Pn     Pn   22 04 25.6 +0.2
MORSI Morsiglia         7.98  86  Pn     Pn   22 04 26.4 -0.1
SMPL  Sampolo           8.02  92  Pn     Pn   22 04 27.6 +0.6
PFVI  Vila Bisbo        8.02 227 ePn     Pn   22 04 27.5 +0.5
PFVI  Vila Bisbo        8.02 227  Pn     Pn   22 04 25.9 -1.1
ECH   Echery            8.10  46  Pn     Pn   22 04 27.7 -0.4
ECH   Echery            8.10  46  P      Pn   22 04 29.9 +1.8
      comp=Z,21nm,0.6s
HMNX  Herstmonceux      8.11   8  Pn     Pn   22 04 27.1 -1.0
HMNX                            Sn     Sn   22 05 58.9 -0.7
BNALP Bannalp           8.11  57  P      Pn   22 04 30.7 +2.3
      comp=Z,24nm,0.7s
ENDD  Endenburg         8.12  50  Pn     Pn   22 04 28.9 +0.4
BAIF  Baives            8.21  27 ePn     Pn   22 04 29.4 -0.1
BAIF                           eSn     Sn   22 05 54.6 -7.4
      comp=Z,396nm,0.9s
BAIF                            AML    AML
SULZ  Cheisacher        8.24  52 ePn     Pn   22 04 30.9 +0.9
CDF   Champ du Feu      8.28  45 ePn     Pn   22 04 29.5 -1.2
CDF                            eSn     Sn   22 05 56.4 -7.7
      comp=Z,606nm,1.1s
CDF                             AML    AML
KIZ   Kirchzarten       8.36  49  Pn     Pn   22 04 31.4 -0.3
DOU   Dourbes           8.37  28 dP      Pn   22 04 31.0 -0.8
      comp=Z,91nm,0.8s
DOU                            dS      Sn   22 05 59.8 -6.2
      comp=E,245nm,1.0s
DOU                             AML    AML
HTL   Hartland          8.38 347  Pn     Pn   22 04 31.8 -0.1
HTL   Hartland          8.38 347  Pn     Pn   22 04 31.1 -0.9
HTL                             Sn     Sn   22 06 03.3 -3.1
GIVF  Givet             8.45  29 ePn     Pn   22 04 31.8 -1.1
GIVF                           eSn     Sn   22 06 03.1 -5.0
      comp=E,361nm,0.6s
GIVF                            AML    AML
ELSH  Elham, Standar    8.48  11  Pn     Pn   22 04 32.9 -0.4
ELSH  Elham, Standar    8.48  11  Pn     Pn   22 04 32.3 -1.0
ELSH                            Sn     Sn   22 06 08.1 -0.7
TUE   Stuetta           8.54  61  Pn     Pn   22 04 36.0 +1.7
TUE   Stuetta           8.54  61  P      Pn   22 04 38.7 +4.4
      comp=E,0.6nmcomp=E,181nm,0.8s
TUE   Stuetta           8.54  61  Pn     Pn   22 04 36.7 +2.4
TUE                             Sn     Sn   22 06 13.5 +3.0
TUE   Stuetta           8.54  61  P      Pn   22 04 38.4 +4.1
      comp=Z,46nm,0.8s
SLE   Schleitheim       8.58  52  Pn     Pn   22 04 34.1 -0.7
SLE   Schleitheim       8.58  52 ePn     Pn   22 04 35.2 +0.5
SLE                            eSn     Sn   22 06 10.7 -0.6
SLE   Schleitheim       8.58  52  Pn     Pn   22 04 31.8 -2.9
SLE                             Sn     Sn   22 06 10.2 -1.2
SLE   Schleitheim       8.58  52  P      Pn   22 04 35.4 +0.7
      comp=Z,44nm,0.8s
BMRD  Maredsous         8.60  28 dP      Pn   22 04 34.5 -0.4
BMRD                           dS      Sn   22 06 07.8 -4.0
WLF   Walferdange       8.62  35  P      Pn   22 04 34.8 -0.5
WLF                             S      Sn   22 06 08.6 -3.7
WLF   Walferdange       8.62  35  Pn     Pn   22 04 34.2 -1.0
WLF   Walferdange       8.62  35 dP      Pn   22 04 34.8 -0.5
WLF                            dS      Sn   22 06 08.2 -4.2
WLF   Walferdange       8.62  35 ePn     Pn   22 04 34.6 -0.7
WLF   Walferdange       8.62  35  P      Pn   22 04 35.1 -0.2
      comp=Z,54nm,0.8s
RCHB  Rochefort         8.64  30 dP      Pn   22 04 34.6 -0.9
RCHB                           dS      Sn   22 06 07.2 -5.7
RCHB  Rochefort         8.64  30  P      Pn   22 04 35.1 -0.5
      comp=Z,116nm,0.7s
WILA  Wila              8.65  55 ePn     Pn   22 04 36.8 +1.1
SWN1  Swindon           8.66 359  Pn     Pn   22 04 36.2 +0.6
SWN1  Swindon           8.66 359  Pn     Pn   22 04 34.5 -1.2
SWN1                            Sn     Sn   22 06 12.3 -0.7
VLC   Villacollemand    8.74  77  P      Pn   22 04 40.3 +3.3
      comp=Z,32nm,0.9s
PRMA  PARMA             8.76  73  Pn     Pn   22 04 39.0 +1.9
PLONS Plons/SG          8.78  58 ePn     Pn   22 04 39.6 +2.1
BFO   Black Forest      8.80  48  Pn     Pn   22 04 36.8 -0.9
BFO   Black Forest      8.80  48 ePn     Pn   22 04 36.7 -0.9
BFO                            eSn     Sn   22 06 16.2 -0.4
VSL   Villasalto        8.87 109  Pn     Pn   22 04 37.8 -0.9
BCLA  Clavier           8.89  29 dP      Pn   22 04 38.1 -0.8
BCLA                           dS      Sn   22 06 14.6 -4.2
UCC   Uccle             8.89  25  Pn     Pn   22 04 39.6 +0.6
UCC   Uccle             8.89  25 dP      Pn   22 04 39.5 +0.6
UCC                            dS      Sn   22 06 16.3 -2.7
UCC   Uccle             8.89  25  P      Pn   22 04 39.6 +0.6
      comp=Z,9.0nm,0.7s
BOST  Ostende           8.91  18 dP      Pn   22 04 38.4 -0.8
BOST                           dS      Sn   22 06 15.8 -3.4
BABA  Baden-Baden-Ne    8.95  46  Pn     Pn   22 04 39.1 -0.7
DAVOX Davos/Dischmat    8.99  60  Pn     Pn   22 04 41.5 +1.0
      comp=Z,3.0nm,0.3s,baz=268,slow=14,SNR=40
DAVOX                           Sn     Sn   22 06 21.5 -0.1
      comp=Z,3.1nm,0.3s,baz=291,slow=5.2,SNR=6.6
DAVOX                           Lg     Lg   22 07 14.8
      comp=Z,1.0nm,0.3s,baz=320,slow=20,SNR=1.0
DAVOX                           LR     LR   22 08 43.2
      comp=Z,427nm,18.0s,baz=230,slow=42
      comp=Z,17nm,0.5s
DAVOX                           AML    AML
SALO  Salr              9.07  68  Pn     Pn   22 04 42.4 +1.0
CASP  Castiglione de    9.10  86  Pn     Pn   22 04 41.9 +0.1
GUT   Gutenstein        9.10  51  Pn     Pn   22 04 42.1 +0.3
FUORN Ofenpass-Fuorn    9.18  62  Pn     Pn   22 04 45.1 +2.0
FUORN Ofenpass-Fuorn    9.18  62  Pn     Pn   22 04 46.0 +2.9
FUORN                           Sn     Sn   22 06 30.0 +3.6
FUORN Ofenpass-Fuorn    9.18  62  P      Pn   22 04 47.2 +4.0
      comp=Z,75nm,0.8s
DAVA  Damuels           9.19  57 ePn     Pn   22 04 45.8 +2.6
DAVA  Damuels           9.19  57 ePn     Pn   22 04 46.8 +3.6
      comp=Z,24nm,0.5s,SNR=9.5
DAVA  Damuels           9.19  57  P      Pn   22 04 46.1 +2.9
      comp=Z,59nm,0.8s
MCH1  Michaelchurch     9.19 354  Pn     Pn   22 04 42.7 -0.4
MCH1                            Sn     Sn   22 06 25.3 -1.0
MEM   Membach           9.30  31 dP      Pn   22 04 43.7 -0.9
MEM                            dS      Sn   22 06 22.3 -6.7
MEM   Membach           9.30  31  P      Pn   22 04 44.9 +0.3
      comp=Z,112nm,0.9s
BTNL  Ternell           9.33  32 dP      Pn   22 04 44.3 -0.7
BTNL                           dS      Sn   22 06 27.3 -2.5
HGN   Heimansgroeve     9.40  30  P      Pn   22 04 46.1 +0.2
      comp=Z,57nm,0.8s
BMOL  Mol               9.48  26 dP      Pn   22 04 42.1 -5.0
BMOL                           dS      Sn   22 06 28.5 -4.9
UBR   Ueberruh          9.50  56 ePn     Pn   22 04 49.0 +1.7
UBR                            eSn     Sn   22 06 32.8 -1.2
UBR   Ueberruh          9.50  56  P      Pn   22 04 51.3 +3.9
      comp=Z,32nm,0.7s
STU   Stuttgart         9.52  48  Pn     Pn   22 04 48.9 +1.3
STU   Stuttgart         9.52  48  P      Pn   22 04 49.4 +1.9
      comp=Z,24nm,0.8s
BOPT  Opiter            9.58  28 dP      Pn   22 04 48.3  0.0
BOPT                           dS      Sn   22 06 31.2 -4.6
FETA  Feichten          9.62  60 ePn     Pn   22 04 51.2 +2.1
      comp=Z,36nm,0.5s,SNR=78
FETA                           eSn     Sn   22 06 39.0 +1.9
      comp=Z,32nm,0.6s
IFR   Ifrane            9.76 198  P      Pn   22 04 51.1 +0.1
IFR   Ifrane            9.76 198  P      Pn   22 04 52.1 +1.1
      comp=Z,4.7nm,0.7s
TEOL  Teolo             9.80  71  Pn     Pn   22 04 52.2 +0.8
RETA  Reutte            9.82  58 ePn     Pn   22 04 54.9 +3.1
      comp=Z,15nm,0.3s,SNR=9.6
RETA                           eSn     Sn   22 06 40.3 -1.5
      comp=Z,32nm,0.4s
CWF   Charnwood Fore    9.88   1  Pn     Pn   22 04 51.3 -1.2
CWF                             Sn     Sn   22 06 37.5 -5.7
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CTI   Castel Tesino     9.93  67  Pn     Pn   22 04 55.0 +1.7
WACR  West Acre         9.97   8  Pn     Pn   22 04 51.4 -2.2
WACR                            Sn     Sn   22 06 45.3  0.0
MOTA  Moosalm           9.98  59 ePn     Pn   22 04 55.1 +1.2
MOTA                           eSn     Sn   22 06 46.0 +0.2
MOTA  Moosalm           9.98  59 ePn     Pn   22 04 55.2 +1.2
      comp=Z,50nm,0.5s,SNR=45
MOTA                           eSn     Sn   22 06 45.8  0.0
      comp=Z,60nm,0.5s
CGRP  Cima Grappa       9.99  68  Pn     Pn   22 04 54.4 +0.1
CGRP                            Sn     Sn   22 06 47.5 +1.2
CGRP  Cima Grappa       9.99  68  P      Pn   22 04 57.0 +2.8
      comp=Z,44nm,0.9s
SQTA  Sankt Quirin     10.00  60 ePn     Pn   22 04 56.2 +2.0
      comp=Z,19nm,0.2s,SNR=37
SQTA                           eSn     Sn   22 06 47.3 +1.0
      comp=Z,49nm,0.7s
ROSI  Rosskopf         10.03  62  Pn     Pn   22 04 54.8 +0.1
ROSI                            Sn     Sn   22 06 46.4 -0.7
TNS   Taunus Mts       10.05  40 ePn     Pn   22 04 53.9 -1.0
TNS   Taunus Mts       10.05  40  P      Pn   22 04 55.9 +0.9
      comp=Z,25nm,0.7s
WATA  Walderalm        10.27  60 i Pn    Pn   22 04 59.2 +1.2
      comp=Z,45nm,0.5s,SNR=40
WATA                           i Sn    Sn   22 06 55.6 +2.6
      comp=Z,43nm,0.7s
MURB  Monte Urbino     10.28  83  Pn     Pn   22 05 00.6 +2.5
WTTA  Wattenberg       10.29  60 ePn     Pn   22 04 59.9 +1.6
      comp=Z,34nm,0.6s,SNR=76
WTTA                           eSn     Sn   22 06 55.4 +2.0
      comp=Z,29nm,0.4s
WTTA  Wattenberg       10.29  60  P      Pn   22 05 00.4 +2.1
      comp=Z,109nm,0.9s
MD01  Midelt array s   10.30 195  Pn     Pn   22 04 58.1 -0.4
MD31  MD31             10.30 195  Pn     Pn   22 04 58.1 -0.3
MDT   Midelt           10.33 195  Pn     Pn   22 04 59.7 +0.9
      comp=Z,1.0nm,0.3s,baz=16,slow=11,SNR=49
MDT                             LR     LR   22 09 49.5
      comp=Z,123nm,18.1s,baz=35,slow=43
      comp=Z,24nm,0.7s
MDT                             AML    AML
FUR   Furstenfeldbru   10.42  55 eSn     Sn   22 06 56.7 +0.3
FUR   Furstenfeldbru   10.42  55  P      Pn   22 05 03.1 +3.2
      comp=Z,60nm,1.3s
BUG   Bochum--Univer   10.45  32 ePn     Pn   22 04 59.4 -0.8
BUG                            eSn     Sn   22 06 52.3 -4.8
BUG   Bochum--Univer   10.45  32  P      Pn   22 04 59.8 -0.4
      comp=Z,97nm,0.8s
AVE   Averroes         10.62 208  P      Pn   22 05 04.3 +1.7
ABTA  Abfaltersbach    10.69  64 i Pn    Pn   22 05 07.0 +3.3
      comp=Z,14nm,0.9s,SNR=23
ABTA                           eSn     Sn   22 07 02.4 -0.8
      comp=Z,24nm,0.6s
WTSB  Winterswijk      10.70  29  P      Pn   22 05 03.4 -0.2
      comp=Z,115nm,0.8s
STAL  STALIGIAL        10.70  67  Pn     Pn   22 05 05.0 +1.3
KASTN Kahler Asten     10.74  36 ePn     Pn   22 05 03.7 -0.5
NRCA  Norcia           10.74  85         Pn   22 05 05.7 +1.4
GRC2  Grafenberg Arr   10.80  52  P      Pn   22 05 09.5 +4.4
      comp=Z,29nm,1.1s
VAL   Valentia         10.83 330  P      Pn   22 05 05.7 +0.3
VAL                             S      Sn   22 07 02.6 -3.8
DSB   Dublin           10.88 344  P      Pn   22 05 06.9 +0.7
DSB                             S      Sn   22 07 02.1 -5.6
DSB   Dublin           10.88 344  Pn     Pn   22 05 07.1 +0.9
FUSE  Fusea            10.93  66  P      Pn   22 05 09.6 +2.6
      comp=Z,26nm,0.7s
GRC3  Grafenberg Arr   10.93  52  P      Pn   22 05 09.1 +2.2
      comp=Z,22nm,1.0s
GRC1  Grafenberg Arr   10.95  51  P      Pn   22 05 09.2 +2.1
      comp=Z,29nm,0.8s
GRC4  Grafenberg Arr   10.99  51  P      Pn   22 05 09.8 +2.1
      comp=Z,62nm,1.0s
AQU   L'Aquila         11.01  88  Pn     Pn   22 05 09.2 +1.2
AQU   L'Aquila         11.01  88  P      Pn   22 05 13.1 +5.1
      comp=Z,28nm,1.0s
LESA  Schwarzleotal    11.01  61 ePn     Pn   22 05 09.1 +1.1
LESA                           eSn     Sn   22 07 09.6 -1.3
LESA  Schwarzleotal    11.01  61 ePn     Pn   22 05 09.6 +1.6
      comp=Z,20nm,0.6s,SNR=19
LESA                           eSn     Sn   22 07 10.7 -0.2
      comp=Z,16nm,0.4s
KEST  Kesra            11.01 127  Pn     Pn   22 05 10.1 +2.0
      comp=Z,1.7nm,0.3s,baz=317,slow=18,SNR=30
KEST                            Sn     Sn   22 07 06.5 -4.7
      comp=Z,2.1nm,0.3s,baz=283,slow=18,SNR=3.7
KEST                            LR     LR   22 09 18.1
      comp=Z,130nm,21.0s,baz=110,slow=37
      comp=Z,4.1nm,0.3s
KEST                            AML    AML
GRB5  Grafenberg Arr   11.09  51  P      Pn   22 05 11.0 +1.9
      comp=Z,55nm,1.1s
GRA1  Grafenberg Arr   11.14  48         Pn   22 05 10.9 +1.2
GRA1  Grafenberg Arr   11.14  48  P      Pn   22 05 15.0 +5.3
      comp=Z,39nm,1.5s
GRB2  Grafenberg Arr   11.17  50  P      Pn   22 05 13.5 +3.4
      comp=Z,62nm,1.1s
RJOB  Jochberg         11.19  59  P      Pn   22 05 11.8 +1.3
      comp=Z,32nm,1.0s
GRA2  Grafenberg Arr   11.19  48  P      Pn   22 05 12.8 +2.3
      comp=Z,36nm,1.1s
GRB4  Grafenberg Arr   11.21  49  P      Pn   22 05 13.7 +3.0
      comp=Z,44nm,1.1s
GRB1  Grafenberg Arr   11.22  50  P      Pn   22 05 13.9 +3.1
      comp=Z,46nm,1.2s
GRA3  Grafenberg Arr   11.23  48  P      Pn   22 05 14.0 +3.1
      comp=Z,30nm,1.5s
SABO  M.te Sabotino    11.25  69         Pn   22 05 12.7 +1.5
GRB3  Grafenberg Arr   11.28  50  P      Pn   22 05 15.0 +3.4
      comp=Z,65nm,2.0s
ACOM  Acomizza, Ital   11.31  66  P      Pn   22 05 17.7 +5.5
      comp=Z,31nm,0.8s
TRI   Trieste          11.31  70  Pn     Pn   22 05 11.1 -1.0
DRE   Drenchia         11.31  68  P      Pn   22 05 14.6 +2.4
      comp=Z,28nm,0.9s
PRED  Cave del Predi   11.32  66         Pn   22 05 13.7 +1.5
IBBN  Ibbenburen       11.32  30 ePn     Pn   22 05 11.9 -0.3
IBBN  Ibbenburen       11.32  30  P      Pn   22 05 11.7 -0.4
      comp=Z,114nm,0.9s
KBA   Koelnbreinsper   11.33  63 ePn     Pn   22 05 17.1 +4.6
      comp=Z,16nm,0.5s,SNR=9.8
KBA                            eSn     Sn   22 07 22.3 +3.2
      comp=Z,18nm,0.7s
KBA   Koelnbreinsper   11.33  63  P      Pn   22 05 17.4 +4.8
      comp=Z,49nm,1.1s
MYKA  Terra Mystica    11.41  66 ePn     Pn   22 05 17.6 +4.1
      comp=Z,5.9nm,0.5s
MYKA                           eSn     Sn   22 07 22.7 +1.9
      comp=Z,7.2nm,0.7s
INTR  Introdacqua      11.43  89  Pn     Pn   22 05 14.3 +0.6
GORS  Gorjuse          11.58  67 i Pn    Pn   22 05 18.2 +2.3
GORS                           i            22 05 22.2
BIOA  Bad Ischl, Aus   11.71  60 ePn     Pn   22 05 20.1 +2.5
      comp=Z,14nm,0.6s,SNR=17
BIOA                           eSn     Sn   22 07 28.4 +0.4
      comp=Z,25nm,0.6s
WET   Wettzell         11.80  53 ePn     Pn   22 05 20.0 +1.2
WET                            eSn     Sn   22 07 28.5 -1.8
WET   Wettzell         11.80  53  P      Pn   22 05 21.1 +2.3
      comp=Z,23nm,1.8s
MOX   Moxa             11.89  45  P      Pn   22 05 21.5 +1.5
      comp=Z,9.8nm,0.8s
LJU   Ljubljana        11.89  69 i Pn    Pn   22 05 22.6 +2.5
LJU                            i            22 05 26.7
OBKA  Obir             11.99  67 ePn     Pn   22 05 25.4 +3.9
      comp=Z,9.2nm,0.7s,SNR=7.6
OBKA                           eSn     Sn   22 07 35.4 +0.2
      comp=Z,10.0nm,0.9s
OBKA  Obir             11.99  67  P      Pn   22 05 25.8 +4.3
      comp=Z,28nm,0.8s
CLZ   Clausthal        12.05  38 ePn     Pn   22 05 22.3 +0.1
CLZ   Clausthal        12.05  38  P      Pn   22 05 23.7 +1.5
      comp=Z,8.3nm,1.1s
SESA  Seetaler Alpe,   12.15  64 ePn     Pn   22 05 26.2 +2.5
      comp=Z,22nm,0.6s,SNR=13
SESA                           eSn     Sn   22 07 37.9 -1.2
      comp=Z,34nm,0.7s
MOA   Molln            12.16  60 eSn     Sn   22 07 36.9 -2.1
MOA   Molln            12.16  60 ePn     Pn   22 05 25.7 +2.0
      comp=Z,6.3nm,0.5s,SNR=12
MOA                            eSn     Sn   22 07 35.9 -3.2
      comp=Z,18nm,0.4s
MOA   Molln            12.16  60  P      Pn   22 05 26.2 +2.5
      comp=Z,27nm,0.8s
GEC2  GERESS Array S   12.17  55         Pn   22 05 24.0 +0.1
GEC2  GERESS Array S   12.17  55 ePn     Pn   22 05 24.5 +0.7
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GEC2				*e*Sn	Sn	22 07 38.3	-1.1
GEC2	GERESS Array S	12.17	55	P	Pn	22 05 25.1	+1.3
	comp=Z,19nm,0.6s						
GERES	GERESS Array B	12.17	55	Pn	Pn	22 05 22.7	-1.1
	comp=Z,0.3nm,0.3s,baz=251,slow=15,SNR=46						
GERES				Sn	Sn	22 07 32.6	-6.7
	comp=Z,1.5nm,0.3s,baz=253,slow=28,SNR=10						
	comp=Z,5.6nm,0.5s						
GERES				AML	AML		
GERES	GERESS Array B	12.17	55		Pn	22 05 23.0	-0.9
TANN	Tannenbergstha	12.20	47	P	Pn	22 05 26.8	+2.5
	comp=Z,26nm,1.0s						
KHC	Kasperske Hory	12.21	54	*e*PN	Pn	22 05 25.1	+0.7
KHC				*e*SN	Sn	22 07 39.9	-0.4
KHC	Kasperske Hory	12.21	54		Pn	22 05 25.0	+0.6
KHC	Kasperske Hory	12.21	54	P	Pn	22 05 26.6	+2.2
	comp=Z,33nm,1.4s						
SOKA	Soboth	12.36	66	*i* Pn	Pn	22 05 28.9	+2.4
	comp=Z,3.6nm,0.7s,SNR=10						
SOKA				*e*Sn	Sn	22 07 46.1	+2.1
	comp=Z,3.7nm,0.8s						
ASSE	Asse, Remlinge	12.38	37	P	Pn	22 05 29.1	+2.4
	comp=Z,29nm,1.2s						
ESK	Eskdalemuir	12.51	356	Pn	Pn	22 05 27.5	-1.0
CKRC	Cesky Krumlov	12.53	56	*e*PN	Pn	22 05 29.7	+1.0
CKRC				*e*SN	Sn	22 07 45.4	-2.6
EKA	Eskdalemuir Ar	12.53	356	Pn	Pn	22 05 26.9	-1.7
	baz=177,slow=14						
EKA				Sn	Sn	22 07 41.0	-7.0
	baz=173,slow=25						
	comp=Z,1.2nm,0.3s						
ZVC	Zvikov	12.71	53	*e*PN	Pn	22 05 32.2	+1.1
ZVC				*e*SN	Sn	22 07 52.2	-0.2
TIO	Tiouine	12.77	203	P	Pn	22 05 31.3	-0.9
TIO				S	Sn	22 07 46.8	-7.5
TIO	Tiouine	12.77	203	P	Pn	22 05 31.6	-0.6
	comp=Z,68nm,0.7s						
FLTG	Flechtingen	12.78	38	P	Pn	22 05 33.1	+1.1
	comp=Z,17nm,1.1s						
ARSA	Arzberg	12.81	64		Pn	22 05 33.0	+0.4
ARSA	Arzberg	12.81	64	*e*Pn	Pn	22 05 34.1	+1.4
	comp=Z,6.5nm,0.6s						
ARSA				*e*Sn	Sn	22 07 52.6	-2.5
	comp=Z,7.9nm,0.6s						
ARSA	Arzberg	12.81	64	P	Pn	22 05 34.4	+1.8
	comp=Z,24nm,1.4s						
SGRT	San Giovanni R	12.82	89	Pn	Pn	22 05 34.4	+1.6
HSKC	Hora Svate Kat	12.83	48	P	Pn	22 05 36.7	+3.9
	comp=Z,14nm,1.3s						
CLL	Collm	12.98	44		Pn	22 05 36.0	+1.1
CLL	Collm	12.98	44	P	Pn	22 05 35.8	+0.9
	comp=Z,6.9nm,1.1s						
CLL	Collm	12.98	44	*e*Pn	Pn	22 05 36.0	+1.1
CLL				*e*x	x	22 07 16.0	
CLL				*e*Sn	Sn	22 07 45.0	-14
CLL				*e*x	x	22 07 59.0	
CLL				*e*Sb		22 08 32.0	
CLL				*e*Sg		22 09 24.0	
CLL				AMS	AMS	22 10 00.0	
	comp=N,600nm,11.0s						
CLL				AMS	AMS	22 10 00.0	
	comp=E,600nm,12.2s						
CLL				AMS	AMS	22 10 00.0	
	comp=Z,600nm,11.1s						
CLL				AMS	AMS	22 11 00.0	
	comp=Z,0.0nm,5.8s						
KOGS	Kog	13.14	68	*i* Pn	Pn	22 05 38.4	+1.4
KOGS				*i*		22 05 42.4	
PRU	Pruhonice	13.15	52	*e*PN	Pn	22 05 39.8	+2.6
PRU				*e*SN	Sn	22 08 03.3	+0.1
PRU	Pruhonice	13.15	52	P	Pn	22 05 37.6	+0.4
	comp=Z,7.4nm,0.5s						
ABNA	Allensteig Bun	13.17	58	*e*Pn	Pn	22 05 38.4	+1.0
	comp=Z,1.3nm,0.2s						
ABNA				*e*Sn	Sn	22 07 59.7	-3.9
	comp=Z,25nm,0.5s						
CONA	Conrad Observa	13.21	61	*i* Pn	Pn	22 05 39.9	+1.8
	comp=Z,8.4nm,0.6s,SNR=9.5						
CONA				*e*Sn	Sn	22 08 00.4	-4.4
	comp=Z,27nm,0.6s						
BRG	Berggiesshubel	13.24	47	P	Pn	22 05 41.8	+3.3
	comp=Z,8.5nm,0.8s						
BRG	Berggiesshubel	13.24	47	*e*P	Pn	22 05 38.7	+0.2
BRG				Amp		22 05 43.3	
	comp=Z,3.4nm,0.8s						
BRG	Berggiesshubel	13.24	47	P	P	22 05 49.4	+1.0
BRG				Amp		22 05 50.2	
	comp=Z,4.9nm,0.9s						
BRG				S	Sn	22 08 07.8	+2.2
BRG				Amp		22 08 11.1	
	comp=Z,5.2nm,0.8s						
WINA	Alland / Wiene	13.39	61	*i* Pn	Pn	22 05 42.3	+1.8
	comp=Z,7.2nm,0.6s,SNR=5.9						
WINA				*e*Sn	Sn	22 08 06.7	-2.6
	comp=Z,26nm,0.6s						
PVCC	Panska Ves	13.42	50	P	Pn	22 05 43.6	+2.8
	comp=Z,11nm,1.0s						
TREC	Trest	13.42	56	P	Pn	22 05 43.1	+2.1
	comp=Z,20nm,1.8s						
RONA	Rosalia, Austr	13.43	63	*i* Pn	Pn	22 05 43.2	+2.1
	comp=Z,9.6nm,0.5s,SNR=13						
RONA				*e*Sn	Sn	22 08 09.7	-0.4
	comp=Z,5.6nm,0.5s						
BEHE	Becsehely	13.50	68	Pn	Pn	22 05 44.4	+2.4
BSEG	Bad Segeberg	13.56	31	*e*Pn	Pn	22 05 42.0	-0.7
BLY	Banja Luka	13.63	76	Pn	Pn	22 05 43.8	0.0
BLY	Banja Luka	13.63	76	⇑P	Pn	22 05 46.6	+2.8
BLY	Banja Luka	13.63	76	P	Pn	22 05 44.8	+1.0
	comp=Z,13nm,1.1s						
KRUC	Moravsky	13.90	57	*e*PN	Pn	22 05 47.6	+0.2
KRUC				*e*		22 08 13.9	
KRUC	Moravsky	13.90	57	P	Pn	22 05 48.6	+1.2
	comp=Z,17nm,1.0s						
CEL	Celeste	14.00	103	Pn	Pn	22 05 50.1	+1.1
VRAC	Vranov	14.10	57	Pn	Pn	22 05 51.7	+1.4
	comp=Z,0.8nm,0.3s,baz=253,slow=14,SNR=7.6						
VRAC				Sn	Sn	22 08 20.6	-5.9
	comp=Z,1.6nm,0.3s,baz=149,slow=23,SNR=6.6						
	comp=Z,4.9nm,0.7s						
VRAC				AML	AML		
VRAC	Vranov	14.10	57	*e*PN	Pn	22 05 50.2	0.0
VRAC				*e*		22 08 21.1	
VRAC	Vranov	14.10	57	⇓P	Pn	22 05 51.6	+1.4
VRAC	Vranov	14.10	57	P	Pn	22 05 52.8	+2.5
	comp=Z,3.3nm,1.4s						
MPLH	Magyarpolny	14.14	66	P	Pn	22 05 53.4	+2.7
	comp=Z,14nm,0.8s						
UPC	Upice	14.23	51	P	Pn	22 05 55.5	+3.6
	comp=Z,15nm,1.3s						
MODS	Modra-Piesok	14.24	61	*e*PN	Pn	22 05 55.2	+3.1
MODS	Modra-Piesok	14.24	61	*e*SN	Sn	22 08 25.5	-4.4
MODS	Modra-Piesok	14.24	61	P	Pn	22 05 53.5	+1.4
	comp=Z,26nm,0.8s						
TIP	Timpagrande	14.27	99	Pn	Pn	22 05 54.9	+2.3
TIP	Timpagrande	14.27	99	⇓P	P	22 05 59.1	-0.8
CHVC	Chvalec	14.29	51	*e*PN	Pn	22 05 53.9	+1.2
DPC	Dobruska-Polom	14.34	52	*e*PN	Pn	22 05 55.5	+2.0
DPC				*e*SN	Sn	22 08 31.7	-0.6
DPC	Dobruska-Polom	14.34	52	P	P	22 05 57.8	-2.8
	comp=Z,7.6nm,1.0s						
KRLC	Kraliky	14.50	54	P	Pn	22 05 57.4	+1.7
	comp=Z,9.4nm,1.2s						
JAVC	Velka Javorina	14.63	59	P	Pn	22 05 58.3	+0.8
	comp=Z,9.7nm,1.7s						
MORH	Mrgy, Hungar	14.75	70	⇓P	Pn	22 06 01.3	+2.2
MORH	Mrgy, Hungar	14.75	70	P	Pn	22 06 00.6	+1.6
	comp=Z,14nm,1.3s						
MORC	Moravsky Berou	14.85	56		Pn	22 06 00.4	0.0
MORC	Moravsky Berou	14.85	56	*e*PN	Pn	22 06 01.1	+0.7
MORC				*e*		22 08 41.9	
MORC	Moravsky Berou	14.85	56	⇑P	Pn	22 06 01.0	+0.7
MORC	Moravsky Berou	14.85	56	P	P	22 06 04.0	-2.2
	comp=Z,21nm,0.8s						
STEB	Steborice	15.04	55	*e*PN	Pn	22 06 02.5	-0.5
STEB				*e*SN	Sn	22 08 46.0	-3.3
OKC	Ostrava-Krasne	15.23	56	P	P	22 06 08.9	-1.5
	comp=Z,17nm,1.4s						
VYHS	Vyhne	15.28	61	*e*P	Pn	22 06 07.4	+1.3
PDG	Podgorica	15.29	85	Pn	Pn	22 06 07.3	+1.1
PSZ	Piszkesteto	15.85	64		Pn	22 06 13.3	-0.2
PSZ	Piszkesteto	15.85	64	⇓P	Pn	22 06 14.9	+1.3
PSZ	Piszkesteto	15.85	64	P	Pn	22 06 14.6	+1.1
	comp=Z,17nm,0.9s						
LANS	Liptovska Anna	15.85	59	*e*P	P	22 06 16.4	-0.9
KEK	Kerkira	16.32	94	Pn	Pn	22 06 21.0	+1.4

OJC	Ojcow	16.37	56		P	22 06 22.0	-1.0
OJC	Ojcow	16.37	56	P	P	22 06 25.2	+2.2
	comp=Z,6.9nm,1.3s						
SNART	Snartemo	16.43	16	*i* P	Pn	22 06 19.5	-1.3
SNART				*i* S	Sn	22 09 12.2	-11
NIE	Niedzica	16.44	59	*e*P	P	22 06 24.5	+0.6
HOMB	Homborsund	16.65	19	*i* P	Pn	22 06 23.5	-0.2
HOMB				*i* S	Sn	22 09 18.8	-9.5
BZS	Buzias	16.79	73	⇓P	P	22 06 27.3	-0.4
BZS	Buzias	16.79	73	P	P	22 06 26.9	-0.8
	comp=Z,16nm,1.3s						
ABAH	Abaujker	16.80	63	P	P	22 06 29.1	+1.3
	comp=Z,15nm,1.6s						
FABU	Falkenberg	16.80	28	*i* P	Pn	22 06 25.5	-0.1
FABU				*i* S	Sn	22 09 19.5	-12
DEL	Delary	16.81	31	*i* P	P	22 06 27.7	-0.1
DEL				*i* S	Sn	22 09 22.9	-9.3
SIRR	Siria	16.84	70	⇓P	P	22 06 29.1	+0.8
ONAU	Onsala	16.85	26	*i* P	Pn	22 06 25.6	-0.6
ONAU				*i* S	Sn	22 09 24.2	-9.0
MDVR	Moldovita	16.86	76	⇓P	P	22 06 29.9	+1.4
BOVS	Bovan	16.93	79	⇓P	P	22 06 30.4	+1.2
STHS	Stebnicka Huta	17.04	60	*e*P	P	22 06 37.3	+6.8
SURR	Surduc	17.15	72	⇑P	P	22 06 32.1	+0.5
TJOU	Tjoern	17.28	24	*i* P	Pn	22 06 31.7	0.0
TJOU				*i* S	Sn	22 09 33.5	-10
HERR	Herculane	17.36	75	⇑P	P	22 06 35.2	+1.2
BLEU	Blekinge	17.45	34	*i* P	P	22 06 35.9	+0.9
BLEU				*i* S	Sn	22 09 37.9	-10
KOLS	Kolonicke sedl	17.59	62	*e*P	P	22 06 39.5	+2.9
KOLS	Kolonicke sedl	17.59	62	P	P	22 06 39.5	+2.9
	comp=Z,7.2nm,0.9s						
DRGR		17.60	69	⇑P	P	22 06 37.5	+0.7
DRGR		17.60	69	P	P	22 06 36.9	+0.1
	comp=Z,11nm,1.1s						
GZR	Gura Zlata	17.60	73	⇓P	P	22 06 37.6	+0.8
TRPA	Tarpa	17.63	64	P	P	22 06 39.6	+2.6
	comp=Z,9.4nm,1.1s						
DEV	Deva	17.69	72	⇓P	P	22 06 39.1	+1.4
DEV	Deva	17.69	72	P	P	22 06 38.8	+1.1
	comp=Z,13nm,1.2s						
MESR	Meseseni	17.79	68	⇑P	P	22 06 40.0	+1.2
MARR	Marisel-Cluj	17.87	69	⇑P	Pn	22 06 39.2	0.0
GRG	Griva	17.89	88	P	P	22 06 42.6	+2.7
	comp=Z,26nm,0.9s						
STRU	Stroemstad	18.00	22	*i* P	P	22 06 41.0	0.0
STRU				*i* S	Sn	22 09 50.2	-11
KONO	Kongsberg	18.14	18		P	22 06 42.7	+0.2
BMR	Baia Mare	18.21	66	⇓P	P	22 06 45.0	+1.6
BMR	Baia Mare	18.21	66	P	P	22 06 45.2	+1.8
	comp=Z,19nm,1.1s						
LOT	Lotru	18.30	73	⇑P	P	22 06 46.9	+2.4
LOT	Lotru	18.30	73	P	P	22 06 45.9	+1.3
	comp=Z,6.7nm,1.1s						
AGG	Agios Georgios	18.40	94	P	Pn	22 06 49.5	+3.9
	comp=Z,16nm,1.1s						
ARCR	ARCALIA	18.74	68	⇓P	Pn	22 06 51.1	+1.4
ITM	Ithomi	18.80	100	P	Pn	22 06 50.2	-0.2
ITM				IAmb	IAmb	22 06 55.0	
	comp=Z,41nm,0.8s						
ITM	Ithomi	18.80	100	P	Pn	22 06 52.2	+1.7
	comp=Z,56nm,0.8s						
ARR	Arges	18.91	73	⇑P	Pn	22 06 53.1	+1.3
ARR	Arges	18.91	73	P	Pn	22 06 53.8	+1.9
	comp=Z,8.8nm,1.9s						
VOIR		19.20	73	⇓P	Pn	22 06 57.0	+1.7
VOIR		19.20	73	P	Pn	22 06 58.1	+2.8
	comp=Z,8.1nm,1.1s						
BUR08	Bucovina Ar. S	19.36	66	P	Pn	22 06 56.7	-0.5
BURAR	Bucovina Array	19.37	67	P	Pn	22 06 57.1	-0.2
BURAR	Bucovina Array	19.37	67	⇓P	Pn	22 06 58.0	+0.7
DOPR	Dopca	19.43	72	⇑P	Pn	22 06 58.6	+0.6
NC602	NORSAR Array S	19.56	19	P	Pn	22 06 59.0	-0.4
HFS	Hagfors	19.63	23	P	Pn	22 07 00.0	-0.2
	comp=Z,0.4nm,0.3s,baz=211,slow=11,SNR=10						
HFS				S	S	22 10 28.8	-11
	comp=Z,3.4nm,0.8s,baz=222,slow=23,SNR=4.6						
HFS				LR	LR	22 15 57.9	
	comp=Z,207nm,18.8s,baz=146,slow=41						
	comp=Z,6.3nm,0.8s						
HFS				AML	AML		
OZUR		19.70	71	⇑P	Pn	22 07 01.7	+0.4
SUW	Suwalki	19.71	47	P	Pn	22 07 00.7	-0.5
NB2	NORSAR Subarra	19.75	18	P	Pn	22 07 01.6	-0.2
	comp=Z,18nm,1.2s,baz=209,slow=11						
NOA	NORSAR Array B	19.75	18	P	Pn	22 07 02.6	+0.8
	baz=212,slow=11,SNR=5.5						
NOA				S	S	22 10 31.4	-11
	comp=Z,0.4nm,0.8s,baz=210,slow=22,SNR=1.7						
NOA				LR	LR	22 16 12.5	
	comp=Z,203nm,18.7s,baz=210,slow=42						
	comp=Z,2.6nm,0.9s						
MLR	Muntele Rosu	19.83	73	P	Pn	22 07 03.4	+0.6
	comp=Z,0.1nm,0.3s,baz=288,slow=8.2,SNR=10						
MLR				LR	LR	22 14 15.8	
	comp=Z,146nm,21.9s,baz=98,slow=36						
	comp=Z,16nm,1.2s						
MLR				AML	AML		
MLR	Muntele Rosu	19.83	73	P	P	22 07 01.7	+0.3
MLR				IAmb	IAmb	22 07 07.6	
	comp=Z,32nm,1.4s						
MLR	Muntele Rosu	19.83	73	⇓P	Pn	22 07 03.2	+0.3
MLR	Muntele Rosu	19.83	73	P	Pn	22 07 04.2	+1.3
	comp=Z,15nm,1.3s						
TURR	Turia	19.86	71	⇑P	Pn	22 07 03.6	+0.3
BIZ	Bicaz	19.93	69	⇑P	Pn	22 07 04.7	+0.7
COVR	Voineasa-Covas	20.00	72	⇑P	Pn	22 07 05.7	+0.8
PRAR	RASCA	20.03	67	⇓P	Pn	22 07 05.6	+0.4
NEHR	Nehoiu	20.08	73	⇑P	Pn	22 07 06.1	+0.4
GIRR	Girov	20.21	69	⇓P	Pn	22 07 07.5	+0.3
ISR	Istrita	20.27	74	⇑P	Pn	22 07 08.2	+0.1
TESR	Tescani	20.30	70	⇑P	Pn	22 07 08.2	-0.1
TESR	Tescani	20.30	70	P	Pn	22 07 08.3	0.0
	comp=Z,19nm,1.7s						
PLOR	Plostina	20.31	72	⇓P	Pn	22 07 08.3	-0.1
SAHR	Sahastru	20.34	72	⇓P	Pn	22 07 09.1	+0.3
VRI	Vrincioaia	20.36	72	⇓P	Pn	22 07 08.5	-0.6
VRI	Vrincioaia	20.36	72	P	Pn	22 07 08.9	-0.2
	comp=Z,20nm,1.8s						
RAZG	Razgrad	20.40	78	⇑P	Pn	22 07 09.8	+0.4
ALN	Alexandroupoli	20.58	86	P	P	22 07 09.7	+0.4
PABE	Paberze	20.77	44	P	P	22 07 11.6	+0.4
PABE	Paberze	20.77	44	P	Pn	22 07 13.1	-0.5
	comp=Z,53nm,0.8s						
GHRR		20.83	71	⇓P	Pn	22 07 14.3	-0.2
GHRR		20.83	71	P	Pn	22 07 13.7	-0.8
	comp=Z,48nm,1.0s						
TAM	Tamanrasset	20.86	161	P	P	22 07 12.3	-0.3
TAM	Tamanrasset	20.86	161	P	Pn	22 07 15.3	+0.3
	comp=Z,6.9nm,1.9s						
BIR	Birlad	20.98	71	⇓P	Pn	22 07 15.6	-0.6
SCTR	Scanteiesti	21.26	72	⇑P	P	22 07 17.9	+1.3
VLDR	Vladesti	21.31	72	⇓P	P	22 07 18.3	+1.1
CFR	Carcaliu	21.39	74	⇓P	P	22 07 17.7	-0.4
APE	Apeiranthos	21.47	97	⇑P	P	22 07 22.3	+3.3
APE	Apeiranthos	21.47	97	P	P	22 07 20.8	+1.8
	comp=Z,38nm,1.3s						
SORM	Soroca	21.50	65	⇑P	P	22 07 18.4	-0.8
TPGR	Topolog	21.62	74	⇑P	P	22 07 20.8	+0.2
TIRR	Tirgusor	21.65	75	⇓P	P	22 07 22.7	+1.8
IDI	Anoyia	21.79	101	P	P	22 07 23.5	+1.1
	comp=Z,6.5nm,0.7s,baz=281,slow=12,SNR=8.0						
	comp=Z,6.5nm,0.7s						
IDI	Anoyia	21.79	101	P	P	22 07 22.4	0.0
IDI				IAmb	IAmb	22 07 32.4	
	comp=Z,26nm,1.1s						
NACGM	Naroch	21.99	47	*e*P	P	22 07 25.2	+0.8
	comp=E,30nm,1.0s						
BALY	Balya	22.05	88	P	P	22 07 25.8	+0.5
	comp=Z,131nm,1.5s						
BAND	Balkesir-Ban	22.23	86	⇑P	P	22 07 30.8	+3.7
BALB	Balikesir	22.28	88	P	P	22 07 27.5	-0.1
KIEV	Kiev	22.32	59	⇓P	P	22 07 27.8	-0.2
MTSE	Matsula	22.33	36	P	P	22 07 29.0	+1.0
	comp=Z,104nm,0.8s						
AKASG	Malin Array Be	22.33	59	P	P	22 07 27.1	-1.0
	comp=Z,3.1nm,0.7s,baz=254,slow=9.9,SNR=12						
AKASG				LR	LR	22 16 49.3	
	comp=Z,90nm,20.4s,baz=238,slow=38						
	comp=Z,3.1nm,0.7s						
AKASG	Malin Array Be	22.33	59	P	P	22 07 26.6	-1.5
AKBB	Malin Array Si	22.33	59	P	P	22 07 26.7	-1.5
AKBB				IAmb	IAmb	22 07 33.4	
	comp=Z,18nm,1.1s						

MNK	Minsk	22.45	49	*i* P	P	22 07 28.9	-0.5
	comp=E,16nm,1.0s						
MNK				*i* P	P	22 07 28.9	-0.5
	comp=N,20nm,1.0s						
MNK				*i* P	P	22 07 28.9	-0.5
	comp=Z,29nm,0.9s,baz=251						
MNK				*i* PP	PnPn	22 07 51.5	-0.8
MNK				*i* PPP	PPP	22 07 59.3	
MNK				*i* S	S	22 11 35.3	-0.1
MNK				*i* SS	SnSn	22 12 04.2	+0.6
MNK				*i* SSS	SSS	22 12 17.4	
MNK				*i* LQ	LQ	22 13 57.5	
MNK				*i* LR	LR	22 16 09.7	
MNK				*i* LRM	MLR	22 17 16.1	
	comp=Z,190nm,13.3s						
MNK				*i* LRM	MLR	22 17 20.1	
	comp=E,64nm,11.9s						
MNK				*i* LRM	MLR	22 17 20.6	
	comp=N,116nm,14.5s						
AYDN	Tasoluk	22.96	93	P	P	22 07 34.5	-0.4
	comp=Z,72nm,1.1s						
BORA	Eskisehir	24.09	86	P	P	22 07 45.6	-0.5
BORA				IAmb	IAmb	22 07 51.2	
	comp=Z,11nm,1.0s						
MDUB	Mudurnu	24.47	84	P	P	22 07 49.9	+0.3
BORG	Borgarnes	24.64	340	LR	LR	22 16 04.6	
	comp=Z,65nm,19.0s,baz=106,slow=33						
FINES	FINESS Array B	24.83	32	P	P	22 07 53.0	+0.6
	comp=Z,6.3nm,0.6s,baz=231,slow=8.6,SNR=32						
FINES				LR	LR	22 17 17.6	
	comp=Z,96nm,20.0s,baz=276,slow=36						
	comp=Z,6.3nm,0.6s						
FIA1	FINESS Array S	24.83	32	P	P	22 07 53.0	+0.5
ILGA	Ilgaz	26.14	82	P	P	22 08 06.5	+1.6
BR131	Keskin Array S	26.48	85	P	P	22 08 08.1	+0.3
BR131				IAmb	IAmb	22 08 18.8	
	comp=Z,10nm,1.3s						
BRTR	Keskin Array B	26.48	85	P	P	22 08 08.4	+0.6
	comp=Z,3.1nm,1.0s,baz=291,slow=8.4,SNR=8.4						
BRTR				LR	LR	22 20 18.6	
	comp=Z,56nm,18.2s,baz=317,slow=40						
	comp=Z,3.1nm,1.0s						
BRTR	Keskin Array B	26.48	85	P	P	22 08 07.3	-0.5
KIRS	Kirsehir-Merke	26.87	86	⇓P	P	22 08 12.9	+1.6
TORD	Torodi Ar. Bea	29.74	174	P	P	22 08 36.9	0.0
	comp=Z,1.3nm,0.8s,baz=340,slow=8.4,SNR=6.5						
TORD				PcP	PcP	22 11 41.2	+0.5
	comp=Z,0.3nm,0.6s,baz=41,slow=3.7,SNR=2.1						
	comp=Z,1.3nm,0.8s						
ARCES	ARCESS Array B	30.13	19	P	P	22 08 40.0	0.0
	comp=Z,4.0nm,0.6s,baz=213,slow=8.7,SNR=34						
ARCES				PcP	PcP	22 11 41.6	+0.7
	comp=Z,1.6nm,0.9s,baz=215,slow=3.0,SNR=2.6						
ARCES				LR	LR	22 21 44.6	
	comp=Z,80nm,19.5s,baz=224,slow=38						
	comp=Z,4.0nm,0.6s						
ARCES	ARCESS Array B	30.13	19	P	P	22 08 40.0	0.0
ARCES				IAmb	IAmb	22 09 13.3	
	comp=Z,16nm,1.4s						
KEV	Kevo	30.65	19	P	P	22 08 44.1	-0.4
KEV				IAmb	IAmb	22 09 15.4	
	comp=Z,13nm,1.4s						
KBZ	Khabaz	32.04	73	LR	LR	22 23 38.7	
	comp=Z,72nm,19.2s,baz=336,slow=40						
GNI	Garni	34.41	78	P	P	22 09 18.7	+0.8
KIRV	Kirov	34.90	45	LR	LR	22 22 56.9	
	comp=Z,100nm,21.6s,baz=325,slow=35						
SFJD	Kangerlussuaq	35.67	329	LR	LR	22 21 32.9	
	comp=Z,69nm,18.3s,baz=86,slow=32						
SPITS	Spitsbergen Ar	36.15	6	P	P	22 09 31.9	-0.4
	comp=Z,7.5nm,0.8s,baz=202,slow=8.3,SNR=2.3						
	comp=Z,7.5nm,0.8s						
DBIC	Dimbokro	36.17	186	P	P	22 09 33.0	0.0
	comp=Z,4.5nm,0.8s,baz=5.5,slow=9.1,SNR=6.3						
DBIC				LR	LR	22 24 53.6	
	comp=Z,81nm,19.5s,baz=33,slow=37						
	comp=Z,4.5nm,0.8s						
DBIC	Dimbokro	36.17	186	P	P	22 09 32.6	-0.4
DBIC				IAmb	IAmb	22 09 53.9	
	comp=Z,13nm,1.1s						
ARTI	Arti	39.79	49	P	P	22 10 03.0	-0.2
ARTI				IAmb	IAmb	22 10 04.6	
	comp=Z,10nm,0.7s						
AB31	Akbulak array	42.08	59	P	P	22 10 22.4	+0.3
ABKAR	Akbulak array	42.08	59	P	P	22 10 22.1	-0.1
RAYN	Ar Rayn	43.19	101	P	P	22 10 31.6	+0.1
BORK	Borovoye	47.25	51	P	P	22 11 04.0	+0.6
BORK				IAmb	IAmb	22 11 05.7	
	comp=Z,5.8nm,0.8s						
BVAR	Borovoye Array	47.30	51	P	P	22 11 04.6	+0.8
	comp=Z,6.2nm,0.8s,baz=287,slow=7.3,SNR=13						
	comp=Z,6.2nm,0.8s						
UOSS	Minazif	50.15	92	P	P	22 11 25.9	-0.1
UOSS				IAmb	IAmb	22 12 02.6	
	comp=Z,8.1nm,1.2s						
KK31	Karatay Array	51.12	63	P	P	22 11 33.6	+0.5
KK31				IAmb	IAmb	22 11 37.3	
	comp=Z,7.3nm,1.2s						
KKAR	Karatay Array	51.12	63	P	P	22 11 33.9	+0.7
BTK	Batken	52.71	67		P	22 11 46.0	+0.8
BTK				IAmb	IAmb	22 11 55.5	
	comp=Z,5.8nm,1.1s						
KURBB	Kurchatov Arra	52.88	52	P	P	22 11 46.8	+0.7
	comp=Z,4.4nm,0.8s,baz=298,slow=8.3,SNR=26						
	comp=Z,4.4nm,0.8s						
KURK	Kurchatov	52.89	52	P	P	22 11 46.7	+0.5
KURK				IAmb	IAmb	22 11 47.9	
	comp=Z,4.7nm,0.8s						
ARSB	Arslanbob	53.56	64	P	P	22 11 52.7	+1.2
ARSB				IAmb	IAmb	22 11 54.1	
	comp=Z,9.2nm,1.1s						
AAK	Ala-Archa	53.94	62		P	22 11 55.2	+1.0
AAK				IAmb	IAmb	22 12 00.8	
	comp=Z,13nm,1.4s						
FRU1	Bishkek	53.95	62	P	P	22 11 55.3	+1.1
ZAA0	Zalesovo Array	54.93	46	P	P	22 12 01.5	+0.4
ZAA0				IAmb	IAmb	22 12 03.4	
	comp=Z,5.8nm,1.1s						
ZALV	Zalesovo Beam	54.93	46	P	P	22 12 02.4	+1.3
	comp=Z,2.5nm,0.5s,baz=288,slow=8.1,SNR=19						
	comp=Z,2.5nm,0.5s						
KSH2	Kashi	56.35	66	P	P	22 12 13.0	+1.3
KSH2				pP	pP	22 12 16.3	+0.2
KSH2				pmax	pmax		
	comp=Z,10.0nm,1.0s						
PDGK	Podgornoye	56.81	59	P	P	22 12 15.4	+0.5
MKAR	Makanchi Array	56.84	55	P	P	22 12 15.7	+0.8
	comp=Z,1.3nm,0.7s,baz=289,slow=5.4,SNR=10						
	comp=Z,1.3nm,0.7s						
MKAR	Makanchi Array	56.84	55	P	P	22 12 15.6	+0.7
WUS	Wushi	57.71	62	P	P	22 12 22.1	+0.8
MDP	Montagnes des	58.70	245	LR	LR	22 36 06.2	
	comp=Z,64nm,18.0s,baz=57,slow=34						
WMQ	Urumqi	61.64	55	*e*P	P	22 12 47.8	-0.4
WMQ				pmax	pmax		
	comp=Z,26nm,0.7s						
WMQ				LR	LR		
	comp=N,1µm,19.1s						
WMQ				LR	LR		
	comp=E,2µm,13.1s						
WMQ				LR	LR		
	comp=Z,1µm,17.9s						
YKA	Yellowknife Ar	62.20	331	P	P	22 12 52.8	+1.3
	comp=Z,1.9nm,0.7s,baz=58,slow=6.6,SNR=7.9						
	comp=Z,1.9nm,0.7s						
E29M	Blow River	64.38	344	P	P	22 13 07.3	+1.4
E29M				IAmb	IAmb	22 13 09.1	
	comp=Z,5.6nm,0.9s						
G31M	Satah River	64.78	341	P	P	22 13 09.4	+0.9
H29M	Whitestone	66.30	342	P	P	22 13 19.6	+1.2
I28M	Miner Creek	67.30	343	P	P	22 13 26.8	+1.9
I28M				IAmb	IAmb	22 13 36.6	
	comp=Z,6.5nm,1.1s						
MIAR	Mount Ida	68.86	298	P	P	22 13 35.3	+0.2
ILAR	Eielson Array	69.32	345	P	P	22 13 39.3	+1.8
	comp=Z,0.9nm,0.9s,baz=20,slow=7.0,SNR=4.8						
	comp=Z,0.9nm,0.9s						
IMAR	Indian Mountai	69.38	348	P	P	22 13 39.2	+1.4
EVN	Everest	70.42	70	P	P	22 13 46.1	+0.4
EVN				IAmb	IAmb	22 13 47.5	
	comp=Z,3.8nm,0.7s						
LPHEP	Lephephe	70.56	153	P	P	22 13 45.4	-0.2
PDAR	Pinedale Array	73.09	313	P	P	22 14 01.4	+0.4
	comp=Z,0.3nm,0.6s,baz=20,slow=7.2,SNR=4.3						
	comp=Z,0.3nm,0.6s						
PDAR	Pinedale Array	73.09	313	P	P	22 14 00.9	-0.1

RDMU	**Red Mountain**	74.60	311	P	P	22 14 10.2	+0.4
BOSA	**Boshof**	75.27	156	P	P	22 14 15.8	+2.3
	comp=Z,2.7nm,0.8s,baz=342,slow=6.4,SNR=3.1						
	comp=Z,2.7nm,0.8s						
BOSA	**Boshof**	75.27	156	P	P	22 14 14.2	+0.7
SHL	**Shillong**	75.43	69	P	P	22 14 14.8	0.0
LZDM	**Lanzhou Array**	76.13	54	P	P	22 14 20.8	+2.0
	comp=Z,0.7nm,0.3s,baz=319,slow=6.0,SNR=1.3						
	comp=Z,0.7nm,0.3s						
BGU	**Big Grassy Mou**	76.24	313	P	P	22 14 20.2	+1.0
BGU				IAmb	IAmb	22 14 21.6	
	comp=Z,4.0nm,1.1s						
DUG	**Dugway, Tooele**	76.64	313	P	P	22 14 21.9	+0.5
DUG				IAmb	IAmb	22 14 24.3	
	comp=Z,4.5nm,0.9s						
HHC	**Hu-ho-hao-te**	77.11	46	*e*P	P	22 14 24.8	+0.8
HHC				pmax	pmax		
	comp=Z,5.0nm,0.5s						
HHC				pmax	pmax		
	comp=Z,91nm,5.2s						
TXAR	**Lajitas Array**	78.75	300	P	P	22 14 34.7	+1.4
	comp=Z,0.4nm,0.7s,baz=55,slow=4.3,SNR=4.7						
	comp=Z,0.4nm,0.7s						
TXAR	**Lajitas Array**	78.75	300	P	P	22 14 33.8	+0.5
K05A	**Summer Lake**	78.91	319	P	P	22 14 34.8	+0.7
K05A				IAmb	IAmb	22 14 46.3	
	comp=Z,5.0nm,1.0s						
U15A	**North Rim**	79.03	310		P	22 14 35.8	+0.8
NVAR	**Mina Array Bea**	80.84	315	P	P	22 14 46.5	+1.8
	comp=Z,0.5nm,0.7s,baz=27,slow=7.8,SNR=3.0						
	comp=Z,0.5nm,0.7s						
TUC	**Tucson**	81.08	306	P	P	22 14 47.1	+1.2
PZH	**PanZhiHua**	81.38	62	P	P	22 14 47.5	-0.1
GWY	**Greenwater Val**	81.63	312		P	22 14 49.8	+1.0
GWY				IAmb	IAmb	22 14 56.1	
	comp=Z,9.2nm,1.3s						
O02D	**Mt. Diablo Mer**	81.78	319	P	P	22 14 50.5	+1.0
O02D				IAmb	IAmb	22 14 56.1	
	comp=Z,12nm,1.5s						
PETK	**Petropavlovsk-**	82.74	12	P	P	22 14 55.6	+1.4
	comp=Z,3.5nm,1.0s,baz=351,slow=5.5,SNR=4.8						
	comp=Z,3.5nm,1.0s						
CMAR	**Chiang Mai Arr**	85.03	70	P	P	22 15 07.2	+0.8
	comp=Z,2.6nm,0.3s,baz=315,slow=7.1,SNR=6.6						
	comp=Z,2.6nm,0.3s						
CMAR	**Chiang Mai Arr**	85.03	70	P	P	22 15 06.8	+0.4
CPUP	**Villa Florida**	85.89	228	LR	LR	22 48 47.0	
	comp=Z,44nm,19.1s,baz=46,slow=32						
NJ2	**Nanjing**	87.57	47	*e*P	P	22 15 18.5	-0.2
NJ2				pmax	pmax		
	comp=Z,4.0nm,0.7s						
KSRS	**Korea Array**	87.78	38	P	P	22 15 21.2	+1.6
	comp=Z,1.4nm,0.9s,baz=333,slow=6.0,SNR=3.6						
	comp=Z,1.4nm,0.9s						
QSPA	**South Pole Qui**	132.73	180	PKP	PKiKP	22 21 45.2	-0.2
	comp=Z,1.2nm,0.6s,baz=231,slow=2.8,SNR=9.9						
QSPA	**South Pole Qui**	132.73	180		PKiKP	22 21 45.6	+0.2
VNDA	**Vanda**	144.57	174	PKP	PKPdf	22 22 06.3	+0.7
	comp=Z,1.6nm,0.6s,baz=259,slow=2.5,SNR=16						
VNDA	**Vanda**	144.57	174		PKPdf	22 22 06.5	+0.9

*BJI **30** 22:10:42.1, 8°.78N×126°.69E, h10^{km}, mB5.2/48, mb5.0/77, Ms4.9/78, Ms7 4.8/76*

*MOS **30** 22:10:44.9±0.9, 9°.14N×126°.53E, h10^{km}, mb5.4/76, MS4.7/15, Error ellipse: s-maj=8.7km s-min=4.1km az=117.1*

*NEIC **30** 22:10:47.2±1.4, 9°.23N±0°.06×126°.70E±0°.08, h10^{km}±1^{km}, mb5.2/135, Mww5.1/19, Error ellipse: s-maj=12.9km s-min=10.7km az=101.0*

*GFZ **30** 22:10:48.0, 9°.32N×126°.72E, h21^{km}, Mw5.1/79, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M_{rr}6.05; $M_{\theta\theta}$0.28; $M_{\phi\phi}$-6.33; $M_{r\theta}$1.52; $M_{\theta\phi}$0.60; $M_{\phi r}$-0.22; Fault plane solution: $M_0$6.41458×10^{16} NP1: ϕ_s161.46924°, δ48.26500°, λ71.38675°. NP2: ϕ_s8.30574°, δ44.99246°, λ109.68710°. Principal axes: T 6.4307, Plg76.1145°, Azm1.3412°; N -0.0324, Plg13.7792°, Azm174.1060°; P -6.3983, Plg1.6821°, Azm264.5186°;*

*GFZ **30** 22:10:48.7±0.2, 9°N±2°×12°7E±°, h10^{km}, M5.0/43, mb5.2/43*

*DJA **30** 22:10:50.6±0.4, 10°N±2°×12°7E±°, h38^{km}±4^{km}, M5.1/109, mb5.1/109, mB5.6/71, MLv5.9/4, Mw(mB)5.0/71, MwMwp5.0/10, Mwp5.3/10*

*MAN **30** 22:10:50.0, 9°.23N×126°.59E, h15^{km}, MS5.3*

MAN INTENSITY IV - BAYABAS SURIGAO DEL SUR.

*GCMT **30** 22:10:52.2±0.1, 9°.14N±0°.01×126°.77E±0°.01, h21^{km}, MW5.3/131, Moment Tensor Solution. s111,c165; s131,c224; Duration: $1^{s}1$ Moment tensor: Scale 10^{17} Nm; M_{rr}0.74±.02; $M_{\theta\theta}$0.10±.01; $M_{\phi\phi}$-0.84±.01; $M_{r\theta}$0.05±.02; $M_{\theta\phi}$0.11±.01; $M_{\phi r}$0.62±.03; Best double couple: $M_0$1.01400×10^{17} NP1: ϕ_s165.00000°, δ27.00000°, λ76.00000°. NP2: ϕ_s1.00000°, δ64.00000°, λ97.00000°. Principal axes: T 0.9640, Plg70.0000°, Azm286.0000°; N 0.1000, Plg6.0000°, Azm178.0000°; P -1.0640, Plg19.0000°, Azm86.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s. Triangular moment-rate function*

*IDC **30** 22:10:53.2±1.7, 9°.10N×126°.55E, h62^{km}±15^{km}, mb4.6/33, mbtmp4.8/38, MS4.4/70 Error ellipse: s-maj=17.7km s-min=9.2km az=77.0*

ISC 30 22:10:48.6±0.5, **9°.18N**±0°.02×**126°.73E**±0°.03, **h22**^{km}±3^{km}, **h23**^{km}**:pP-P, n778,** $\sigma 1^{s}$**91**/801, **mb5.1**/214, **MS4.5**/105, **27C-3D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TSSP	**Tandag City**	0.54	256	*i* P	Pb	22 10 59.6	+0.1
TSSP				*i* S	Sn	22 11 08.5	-0.8
GLSP	**General Luna,**	0.84	315	*e*P	Pn	22 11 05.8	+0.6
GLSP				*e*S	Sn	22 11 19.9	+3.0
BIPH	**Bislig**	1.05	200	*e*P	Pn	22 11 10.9	+2.8
BIPH				*e*S	Sb	22 11 20.6	-0.9
CDOP	**Cateel, Davao**	1.42	192	*i* P	Pn	22 11 12.3	-0.8
CDOP				*e*S	Sn	22 11 26.0	-5.0
BUKP	**Musuan**	2.09	232	*e*P	Pb	22 11 24.7	-1.3
BUKP				*i* S	Sb	22 11 50.9	-0.7
CGP	**Cagayan de Oro**	2.13	250	*i* P	Pn	22 11 24.5	+1.6
CGP				*i* S	Sb	22 11 53.9	+1.2
DAV	**Davao City (W)**	2.38	209	P	Pb	22 11 29.4	-1.5
	916nm,0.5s,baz=22,slow=3.2,SNR=57						
DAV				S	Sb	22 11 58.0	-1.9
	3µm,0.6s,baz=343,slow=8.5,SNR=9.0						
DAV				LR	LR	22 12 41.2	
	comp=Z,28µm,20.7s,baz=45,slow=48						
DAV	**Davao City (W)**	2.38	209	P	Pb	22 11 30.4	-0.5
DAV	**Davao City (W)**	2.38	209	S	Sn	22 11 55.7	+0.7
DAV	**Davao City (W)**	2.38	209	P	Pb	22 11 30.3	-0.5
DAV				S	Sb	22 12 01.0	+1.1
DAV	**Davao City (W)**	2.38	209		Pb	22 11 29.4	-1.5
DAV				Sn	Sn	22 11 57.0	+2.0
DAV	**Davao City (W)**	2.38	209	P	Pb	22 11 30.4	-0.5
DAV				AML	AML		
DAV	**Davao City (W)**	2.38	209	P	Pb	22 11 30.0	-0.9
DAV	**Davao City (W)**	2.38	209	P	Pb	22 11 34.0	+3.1
DMPH	**Davao City--Mi**	2.41	210	*e*P	Pb	22 11 30.3	-1.0
DMPH				*i* S	Sb	22 12 02.0	+1.4
PLP	**Palo**	2.62	319	*e*P	Pn	22 11 31.1	+1.5
PLP				*e*S	Sb	22 12 10.9	+4.2
KCP	**Kidapawan**	2.70	217	*e*P	Pb	22 11 34.1	-2.2
KCP				*i* S	Sb	22 12 07.0	-2.1
TBP	**Tagbilaran**	2.87	280	*i* P	Pb	22 11 36.0	-3.2
TBP				*i* S	Sb	22 12 10.6	-3.4
LLP	**Lapu-Lapu**	2.95	293	*e*P	Pb	22 11 37.2	-3.3
LLP				*e*S	Sb	22 12 16.6	+0.4
LSIP	**Lazi, Siquijor**	3.06	269	*e*P	Pn	22 11 37.9	+2.2
LSIP				*i* S	Sb	22 12 15.5	-3.9
CTBH	**Cotabato--PC H**	3.13	232	*i* P	Pn	22 11 39.8	+3.1
DDMP	**Don Marcelino,**	3.22	198	*e*P	Pn	22 11 39.6	+1.8
DDMP				*e*S	Sn	22 12 19.8	+4.2
DCPH	**Dipolog City**	3.39	260	*e*P	Pn	22 11 42.1	+1.9
DCPH				*i* S	Sn	22 12 21.7	+2.0
SNPH	**Sibulan**	3.45	273	*e*P	Pn	22 11 44.2	+3.1
SNPH				*e*S	Sb	22 12 36.7	+6.1
GSPH	**General Santos**	3.54	210	*i* P	Pn	22 11 45.5	+3.0
GSPH				*i* S	Sn	22 12 26.9	+3.2
PAGZ	**Pagadian**	3.56	248	*e*P	Pb	22 11 46.7	-4.3
PAGZ				*i* S	Sn	22 12 25.3	+1.2
CADP	**Cadiz City**	3.80	297	*i* P	Pn	22 11 48.6	+2.8
CADP				*e*S	Sn	22 12 14.2	-16
MMPH	**Masbate**	4.39	316	*i* P	Pn	22 11 58.5	+4.6
JAP	**San Jose, Anti**	4.96	289	*e*P	Pb	22 12 08.4	-6.5
IBAJ	**Ibajay, Aklan**	5.19	301	*e*P	Pn	22 12 09.8	+4.8
GQP	**Guinayangan**	6.30	319	*e*P	Pn	22 12 21.7	+1.5
BUSP	**Coron**	7.00	294	*i* P	Pn	22 12 33.3	+3.3
BUSP				*i* S		22 12 40.7	
LQP	**Lukban**	7.06	314	*e*P	Pn	22 12 32.6	+1.7
LUBP	**Lubang**	7.80	306	*e*P	Pn	22 12 39.8	-1.1
LUBP				*e*S	Sb	22 14 24.1	-12
MNI	**Manado**	7.91	194	P	Pn	22 12 48.2	+5.8
	5µm227nm,0.7s						
PPR	**Puerto Princes**	7.91	275	*i* P	Pn	22 12 45.7	+3.3
TNTI	**Ternate**	8.38	176	P	Pn	22 12 53.4	+4.6
TNTI	**Ternate**	8.38	176	S	Sn	22 14 27.3	+4.6
TNTI	**Ternate**	8.38	176		Pn	22 12 49.3	+0.5
TNTI	**Ternate**	8.38	176	P	Pn	22 12 55.4	+6.6
	0.9nm3µm157nm,1.1s						
TNTI				AML	AML		
TNTI	**Ternate**	8.38	176	P	Pn	22 12 51.9	+3.1
	comp=Z,192nm,1.0s						
PALP	**Palanan**	8.88	332	*i* P	Pn	22 12 58.5	+2.8
PALP				*e*S	Sn	22 14 28.1	-7.1
MYLDM	**Lahad Datu**	9.08	245	P	Pn	22 12 59.3	+0.9
MYLDM	**Lahad Datu**	9.08	245	Pn	Pn	22 13 00.9	+2.5
MYLDM	**Lahad Datu**	9.08	245	P	Pn	22 13 06.4	+8.0
	comp=Z,3µmcomp=Z,100nm,1.3s						
LBMI	**Labuha**	9.78	175	P	Pn	22 13 16.0	+7.9
TOLI2	**Tolitoli**	9.96	217	P	Pn	22 13 12.6	+2.1
TOLI2	**Tolitoli**	9.96	217	Pn	Pn	22 13 10.4	-0.2
TOLI2	**Tolitoli**	9.96	217	P	Pn	22 13 14.9	+4.4
	comp=Z,28nm,1.2s						
KKM	**Kota Kinabalu**	10.88	254	P	Pn	22 13 23.1	-0.1
KKM	**Kota Kinabalu**	10.88	254	Pn	Pn	22 13 24.9	+1.7
KKM	**Kota Kinabalu**	10.88	254	P	Pn	22 13 28.8	+5.6
	comp=Z,6µmcomp=Z,1µmcomp=Z,53nm,1.4s						
KKM	**Kota Kinabalu**	10.88	254	P	Pn	22 13 28.8	+5.6
	comp=Z,53nm,1.4s						
LUWI	**Luwuk**	10.89	201	P	Pn	22 13 27.2	+3.9
LUWI	**Luwuk**	10.89	201	Pn	Pn	22 13 24.5	+1.2
LUWI	**Luwuk**	10.89	201	P	Pn	22 13 30.5	+7.2
	comp=Z,3µmcomp=Z,144nm,1.1s						
LUWI	**Luwuk**	10.89	201	P	Pn	22 13 29.3	+6.0
	comp=Z,140nm,1.1s						
SWI	**Sorong**	10.95	155	P	Pn	22 13 29.4	+5.3
	comp=Z,1µmcomp=Z,74nm,0.7s						
SIJI	**Sorong**	10.96	155	P	Pn	22 13 26.4	+2.2
	comp=Z,18nm,0.4s,baz=225,slow=22,SNR=14						
SIJI				S	Sn	22 15 18.4	-7.8
	comp=Z,3.9nm,0.3s,baz=329,slow=23,SNR=1.1						
SIJI				LR	LR	22 18 13.4	
	comp=Z,2µm,18.8s,baz=352,slow=40						
SANI	**Sanana**	11.18	184	P	Pn	22 13 30.0	+2.8
SANI	**Sanana**	11.18	184	S	Sn	22 15 33.4	+1.8
SANI	**Sanana**	11.18	184	P	Pn	22 13 28.4	+1.1
	comp=Z,74nm,0.8s						
APSI	**Ampana**	11.23	207	P	Pn	22 13 36.2	+8.3
	comp=Z,2µmcomp=Z,177nm,1.2s						
PCI	**Palu**	12.14	215	P	P	22 13 47.3	-5.6
	comp=Z,68nm,1.2s						
NLAI	**Namlea**	12.34	178	P	Pn	22 13 48.9	+5.8
	comp=Z,2µmcomp=Z,67nm,0.5s						
MWPI	**Manokwari, Pap**	12.41	144	P	Pn	22 13 48.7	+4.7
	comp=Z,2µmcomp=Z,167nm,1.0s						
FAKI	**Fak Fak**	13.22	155	P	Pn	22 13 59.3	+4.2
FAKI	**Fak Fak**	13.22	155	S	Sn	22 16 27.8	+6.2
FAKI	**Fak Fak**	13.22	155	Pn	Pn	22 13 54.8	-0.4
FAKI	**Fak Fak**	13.22	155	P	Pn	22 14 00.5	+5.4
	comp=Z,1µmcomp=Z,68nm,1.1s						
FAKI	**Fak Fak**	13.22	155	P	Pn	22 13 58.6	+3.5
	comp=Z,69nm,1.1s						
KDI	**Kendari**	13.68	198	P	P	22 14 09.5	-0.5
	comp=Z,26nm,0.7s						
BAKI	**Biak**	13.91	137	P	Pn	22 14 07.5	+3.0
	comp=Z,4µmcomp=Z,2µmcomp=Z,140nm,1.2s						
BNDI	**Bandanaira**	13.97	167	P	P	22 14 11.3	-2.0
	comp=Z,6µmcomp=Z,132nm,1.0s						
MMSI	**Mamuju**	14.13	214	P	P	22 14 14.8	-0.2
	comp=Z,35nm,1.1s						
YULB	**Yu-li**	15.06	340		P	22 14 23.1	-2.2
TPUB	**Ta-pu**	15.21	338	P	P	22 14 26.8	-0.2
TPUB	**Ta-pu**	15.21	338		P	22 14 24.8	-2.2
TPUB				IAmb	IAmb	22 14 28.4	
	comp=Z,96nm,1.0s						
TPUB	**Ta-pu**	15.21	338	P	P	22 14 27.2	+0.2
	comp=Z,119nm,1.1s						
SSLB	**Suanglung**	15.54	340	P	P	22 14 30.8	+0.1
SSLB	**Suanglung**	15.54	340		Pn	22 14 28.2	+1.7
NACB	**Ninganchiao**	15.70	342	P	P	22 14 32.3	-0.1
NACB	**Ninganchiao**	15.70	342		P	22 14 30.4	-2.0
KAPI	**Kappang**	15.72	207	P	Pn	22 14 30.8	+1.9
	comp=Z,4.7nm,0.4s,baz=18,slow=10,SNR=5.9						
KAPI				LR	LR	22 21 12.6	
	comp=Z,1µm,18.8s,baz=28,slow=40						
KAPI	**Kappang**	15.72	207	P	Pn	22 14 30.7	+1.9
KAPI	**Kappang**	15.72	207	P	P	22 14 33.9	+1.2
KAPI				S	Sn	22 17 28.1	+5.5
KAPI	**Kappang**	15.72	207	*i* P	Pn	22 14 31.1	+2.2
KAPI	**Kappang**	15.72	207		Pn	22 14 30.8	+1.9
KAPI	**Kappang**	15.72	207	P	P	22 14 38.7	+6.0
KAPI	**Kappang**	15.72	207	P	P	22 14 33.8	+1.1
	comp=Z,44nm,1.3s						
BKSI	**Bulukumba**	15.84	205	P	P	22 14 36.1	+2.1
SBUM	**Sibu**	15.90	246	P	P	22 14 33.0	-1.7
SBUM	**Sibu**	15.90	246		Pn	22 14 32.8	+1.6
SBUM	**Sibu**	15.90	246	P	P	22 14 35.0	+0.3
	comp=Z,1µmcomp=Z,65nm,1.2s						
SBUM	**Sibu**	15.90	246	P	P	22 14 33.9	-0.8
	comp=Z,65nm,1.2s						
YHNB	**Yeheng**	16.23	342	P	P	22 14 39.0	+0.6
YHNB	**Yeheng**	16.23	342		Pn	22 14 36.2	+0.8
YHNB	**Yeheng**	16.23	342	P	P	22 14 40.2	+1.8
	comp=Z,107nm,1.0s						
JOW	**Kunigami**	17.62	5	P	P	22 14 56.4	+2.7
	comp=Z,9.9nm,0.4s,baz=179,slow=12,SNR=4.6						
JOW				LR	LR	22 22 39.6	
	comp=Z,1µm,18.6s,baz=206,slow=40						
JOW	**Kunigami**	17.62	5	P	P	22 14 57.5	+3.8
JOW	**Kunigami**	17.62	5	P	P	22 14 53.1	-0.5
JOW	**Kunigami**	17.62	5	P	P	22 14 57.6	+4.0
	comp=Z,106nm,1.1s						
STKI	**Sintang**	17.68	240	P	P	22 14 57.7	+3.3
	comp=Z,3µmcomp=Z,49nm,0.4s						
GENI	**Genyem**	17.78	131	P	P	22 15 00.4	+4.9
GENI	**Genyem**	17.78	131	P	P	22 14 59.6	+4.0
	comp=Z,65nm,1.5s						
JAY	**Jayapura**	18.14	129	P	P	22 15 02.0	+2.5
	comp=Z,27nm,1.1s,baz=321,slow=6.7,SNR=7.0						
JAY				LR	LR	22 20 27.1	
	comp=Z,2µm,21.5s,baz=342,slow=32						
JAY	**Jayapura**	18.14	129	P	P	22 15 02.0	+2.5
DLV	**Lat**	18.14	280	P	P	22 15 00.4	+0.7
DLV	**Lat**	18.14	280		P	22 14 59.6	-0.1
DLV	**Lat**	18.14	280	P	P	22 15 00.9	+1.1
	comp=Z,60nm,1.7s						
MMRI	**Maumere**	18.25	194	P	P	22 15 03.3	+2.6
MMRI	**Maumere**	18.25	194		Pn	22 15 00.9	+0.3
MMRI	**Maumere**	18.25	194	P	P	22 15 06.3	+5.6
	comp=Z,92nm,1.1s						
MMRI	**Maumere**	18.25	194	P	P	22 15 05.7	+4.9
	comp=Z,94nm,0.7s						
GUMO	**Guam**	18.31	74	LR	LR	22 22 40.4	
	comp=Z,1µm,18.1s,baz=244,slow=38						
EDFI	**Ende, Flores**	18.50	196	P	Pn	22 15 07.8	+4.0
LBFI	**Labuhan Bajo,**	18.82	201	P	Pn	22 15 15.0	+7.5
SOEI	**Soe**	18.97	187	P	Pn	22 15 12.1	+2.6
SOEI	**Soe**	18.97	187	P	P	22 15 09.0	+0.2
SOEI				IAmb	IAmb	22 15 21.9	
	comp=Z,135nm,1.4s						
SOEI	**Soe**	18.97	187	P	Pn	22 15 16.6	+7.1
	comp=Z,2µmcomp=Z,168nm,1.0s						
SOEI	**Soe**	18.97	187	P	Pn	22 15 13.5	+4.0
	comp=Z,168nm,1.0s						
QIZ	**Qiongzhong**	19.06	303	P	P	22 15 09.3	-0.3
QIZ				S	S	22 18 46.8	+2.2
QIZ				pmax	pmax		
	comp=Z,50nm,1.1s						
QIZ				L	L		
	comp=Z,1µm,16.6s						
QIZ				L	L		
	comp=Z,2µm,17.0s						
QIZ				L	L		
	comp=Z,3µm,17.4s						
QIZ	**Qiongzhong**	19.06	303	P	P	22 15 09.3	-0.3
QIZ	**Qiongzhong**	19.06	303	P	P	22 15 08.3	-1.4
DBNI	**Kabupaten Domp**	19.46	206	P	Pn	22 15 18.4	+3.1
BATI	**Baumata**	19.50	189	P	P	22 15 04.7	-10
	comp=Z,11nm,0.3s,baz=14,slow=4.2,SNR=5.7						
DPSS	**Saipan**	19.57	70	P	P	22 15 14.3	-0.9
DPSS				IAmb	IAmb	22 15 21.7	
	comp=Z,268nm,1.2s						
PLAI	**Plampang**	19.99	207	P	Pn	22 15 22.3	+0.8
PLAI	**Plampang**	19.99	207	P	Pn	22 15 26.7	+5.2
	comp=Z,107nm,0.8s						
PLAI	**Plampang**	19.99	207	P	Pn	22 15 25.7	+4.2
	comp=Z,109nm,0.8s						
TWSI	**Taliwang, Sumb**	20.32	209	P	Pn	22 15 28.7	+3.2
	comp=Z,1µmcomp=Z,86nm,1.1s						
SRBI	**Singaraja**	20.63	214	P	Pn	22 15 33.0	+3.9
	comp=Z,64nm,1.0s						
JAGI	**Jajag, Banyuwa**	21.55	216	P	P	22 15 37.0	+0.4
AUDHS	**Darwin High Sc**	21.86	169	P	P	22 15 44.5	+4.5
DRS	**Darwin Rock St**	21.87	169	P	P	22 15 44.2	+4.2
MTN	**Manton Dam**	22.31	169	P	P	22 15 46.1	+1.3
	comp=Z,37nm,1.1s,comp=Z,0.0nm						
MTN	**Manton Dam**	22.31	169	P	P	22 15 44.4	-0.5
	comp=Z,38nm,1.1s						
MTN	**Manton Dam**	22.31	169	P	P	22 15 44.5	-0.3
SSE	**Sheshan**	22.41	347	P	P	22 15 47.5	+1.8
SSE				S	S	22 19 50.5	-0.3
SSE				pmax	pmax		
	comp=Z,93nm,1.0s						
SSE				pmax	pmax		
	comp=Z,370nm,5.2s						
SSE				L	L		
	comp=Z,520nm,15.0s						
SSE				L	L		
	comp=Z,350nm,15.9s						
KDU	**Kakadu**	22.46	165	P	P	22 15 47.5	+1.1
	comp=Z,38nm,1.0s						
KDU	**Kakadu**	22.46	165	P	P	22 15 46.8	+0.4
	comp=Z,38nm,1.0s						
JSU	**Suzuyama**	22.48	8	P	P	22 15 49.9	+3.3
JSU	**Suzuyama**	22.48	8	P	P	22 15 45.9	-0.7
JSU				IAmb	IAmb	22 15 51.0	
	comp=Z,52nm,1.0s						
SMRI	**Semarang**	22.88	226	P	P	22 15 51.0	+0.1
SMRI				IAmb	IAmb	22 15 56.5	
	comp=Z,119nm,1.1s						
MANU	**Manus Island**	23.39	117	P	P	22 15 55.6	-0.5
CTJI	**Waduk Cacaban**	23.75	228	P	P	22 16 04.2	+4.6
	comp=Z,3µmcomp=Z,147nm,1.7s						
NJ2	**Nanjing**	23.90	343	⇑P	P	22 16 01.3	+0.5
NJ2				sP	sP	22 16 08.0	-0.1
NJ2				S	S	22 20 19.8	+3.8
NJ2				pmax	pmax		
	comp=Z,110nm,0.9s						
NJ2				pmax	pmax		
	comp=Z,630nm,3.7s						
NJ2				L	L		
	comp=Z,980nm,16.6s						
NJ2				L	L		
	comp=Z,740nm,11.8s						
NJ2				L	L		
	comp=Z,2µm,19.9s						
BTDF	**Bukit Timah Da**	24.12	253	P	P	22 16 04.7	+1.6
BTDF	**Bukit Timah Da**	24.12	253	P	P	22 16 06.2	+3.1
JNU	**Nakatsue**	24.13	9	LR	LR	22 25 01.0	
	comp=Z,458nm,21.8s,baz=184,slow=35						
KPJI	**Karang Pucung**	24.16	228	P	P	22 16 08.5	+5.1
	comp=Z,79nm,1.1s						
WHN	**Wuhan**	24.19	333	P	P	22 16 03.3	-0.3
WHN				S	S	22 20 29.0	+8.3
WHN				pmax	pmax		
	comp=Z,74nm,1.0s						
WHN				L	L		
	comp=Z,3µm,17.3s						
WHN				L	L		
	comp=Z,4µm,15.8s						
WHN				L	L		
	comp=Z,5µm,17.2s						
KNRA	**Kununurra**	24.78	175	P	P	22 16 10.9	+1.9
	comp=Z,36nm,0.9s,comp=Z,0.0nm						
KNRA	**Kununurra**	24.78	175	P	P	22 16 09.5	+0.5
	comp=Z,36nm,0.9s,comp=Z,0.0nm						
KNRA	**Kununurra**	24.78	175	P	P	22 16 09.6	+0.6
	comp=Z,36nm,0.9s						
KNRA	**Kununurra**	24.78	175	P	P	22 16 09.0	+0.1
PMBI	**Palembang**	24.97	242	P	P	22 16 12.2	+1.4
SLVN	**Son La**	25.07	301	P	P	22 16 11.4	-0.4
SLVN	**Son La**	25.07	301	P	P	22 16 10.3	-1.5
SLVN				IAmb	IAmb	22 16 24.6	
	comp=Z,39nm,1.0s						
SLVN	**Son La**	25.07	301	P	P	22 16 11.9	+0.1
	comp=Z,47nm,1.3s						
CBJI	**Citeko**	25.15	233	P	P	22 16 19.5	+7.1
BBJI	**Bungbulang**	25.19	230	P	P	22 16 12.6	-0.3
JMN	**Monobe**	25.30	14	P	P	22 16 17.0	+3.3
JMN	**Monobe**	25.30	14	P	P	22 16 16.5	+2.8
	comp=Z,93nm,1.1s						
SBJI	**Serang**	25.54	234	P	P	22 16 21.7	+5.7
GYA	**Guiyang**	25.63	315	P	P	22 16 13.5	-3.3
GYA				pmax	pmax		
	comp=Z,8.0nm,1.2s						
IPM	**Ipoh**	25.94	261	P	P	22 16 20.0	+0.4
IPM	**Ipoh**	25.94	261	P	P	22 16 19.4	-0.2
IPM				IAmb	IAmb	22 16 22.6	
	comp=Z,77nm,0.9s						
IPM	**Ipoh**	25.94	261	P	P	22 16 20.1	+0.4
	comp=Z,1µmcomp=Z,106nm,1.4s						
IPM	**Ipoh**	25.94	261	P	P	22 16 20.3	+0.7
	comp=Z,106nm,1.4s						
KULM	**Kulim**	26.15	263	P	P	22 16 22.5	+0.9
KULM	**Kulim**	26.15	263	P	P	22 16 22.4	+0.9
KULM				IAmb	IAmb	22 16 33.6	
	comp=Z,75nm,1.3s						
KULM	**Kulim**	26.15	263	P	P	22 16 22.8	+1.3
	comp=Z,739nmcomp=Z,44nm,1.2s						
KULM	**Kulim**	26.15	263	P	P	22 16 22.9	+1.3
	comp=Z,44nm,1.2s						
MDSI	**Maura Dua**	26.26	240	P	P	22 16 23.5	+1.0
	comp=Z,690nmcomp=Z,45nm,1.1s						
ENH	**Enshi**	26.45	325	P	P	22 16 24.6	+0.4
ENH	**Enshi**	26.45	325	P	P	22 16 23.4	-0.7
JHJ	**Hachijo jima 2**	26.70	25	LR	LR	22 27 36.2	
	comp=Z,572nm,18.9s,baz=180,slow=37						
BKNI	**Bangkinang**	27.04	252	P	P	22 16 32.5	+2.9
BKNI	**Bangkinang**	27.04	252	P	P	22 16 31.4	+1.8
	comp=Z,417nm,0.5s						
TJN	**Taejon**	27.08	1	P	P	22 16 31.9	+2.2
TJN	**Taejon**	27.08	1	P	P	22 16 30.4	+0.8
TJN				pmax	pmax		
	comp=Z,155nm,1.0s						
TJN	**Taejon**	27.08	1	P	P	22 16 30.4	+0.8
TJN	**Taejon**	27.08	1	P	P	22 16 31.4	+1.7
	comp=Z,191nm,0.9s						
FITZ	**Fitzroy Crossi**	27.12	182	P	P	22 16 31.2	+1.1
	comp=Z,17nm,1.1s						
FITZ	**Fitzroy Crossi**	27.12	182	P	P	22 16 30.7	+0.4
	comp=Z,17nm,1.1s						
FITZ	**Fitzroy Crossi**	27.12	182	P	P	22 16 31.3	+1.1
FITZ	**Fitzroy Crossi**	27.12	182	P	P	22 16 30.0	-0.2
FITZ	**Fitzroy Crossi**	27.12	182	P	P	22 16 30.6	+0.4
	comp=Z,17nm,1.1s						
PMG	**Port Moresby**	27.47	132	LR	LR	22 29 12.9	
	comp=Z,552nm,18.2s,baz=316,slow=40						
PMG	**Port Moresby**	27.47	132	*i* P	P	22 16 31.6	-1.8
PMG				pmax	pmax		
	comp=Z,59nm,1.3s						
INU	**Inuyama**	27.69	18	P	P	22 16 38.3	+3.1
INU	**Inuyama**	27.69	18	P	P	22 16 37.0	+1.8
	comp=Z,29nm,0.9s						
KMI2	**Kunming**	27.80	308	P	P	22 16 37.5	+1.0
KMI2				pmax	pmax		
	comp=Z,10.0nm,0.8s						
KMI2				pmax	pmax		
	comp=Z,260nm,7.9s						
KMI2				L	L		
	comp=Z,960nm,17.3s						
KMI2				L	L		
	comp=Z,1µm,23.1s						
KMI2				L	L		
	comp=Z,2µm,20.9s						
PPI	**Padang Panjang**	27.92	251	P	P	22 16 39.5	+2.1
	comp=Z,27nm,1.5s						
KSAR	**Wonju Array Be**	28.16	2	P	P	22 16 38.5	-0.8
KSAR	**Wonju Array Be**	28.16	2	P	P	22 16 38.5	-0.8
KSRS	**Korea Array**	28.17	2	P	P	22 16 40.3	+0.9
	comp=Z,14nm,1.0s,baz=189,slow=9.6,SNR=29						
KSRS				PcP	PcP	22 19 51.8	-1.3
	comp=Z,0.5nm,0.3s,baz=179,slow=2.9,SNR=5.0						

KSRS				ScP	**ScP**	**22 23 27.3**	**-5.6**
	comp=Z,0.8nm,0.8s,baz=158,slow=1.7,SNR=2.3						
KSRS				LR	LR	22 29 59.0	
	comp=Z,806nm,19.0s,baz=185,slow=41						
	comp=Z,14nm,1.0s						
KS19	**Wonju Array Si**	**28.22**	**2**	P	**P**	**22 16 39.0**	**-0.8**
KS19				IAmb	IAmb	22 16 55.1	
	comp=Z,126nm,1.9s						
TIA	**Tai'an**	**28.29**	**343**	P	**P**	**22 16 41.3**	**+0.8**
TIA				S	**S**	**22 21 27.8**	**+2.1**
TIA				pmax	pmax		
	comp=Z,26nm,1.4s						
TIA				pmax	pmax		
	comp=Z,320nm,8.1s						
TIA				L	L		
	comp=Z,1µm,21.0s						
TIA				L	L		
	comp=Z,560nm,10.2s						
TIA				L	L		
	comp=Z,2µm,21.1s						
PSI	**Prapat**	**28.35**	**259**	P	**P**	**22 16 42.2**	**+0.8**
PSI	**Prapat**	**28.35**	**259**	P	**P**	**22 16 41.3**	**-0.2**
PSI				pmax	pmax		
	comp=Z,98nm,1.3s						
PSI	**Prapat**	**28.35**	**259**	P	**P**	**22 16 42.3**	**+0.8**
	comp=Z,1µmcomp=Z,60nm,1.2s						
RPSI	**Rantau Prapat**	**28.38**	**259**	P	**P**	**22 16 41.3**	**-0.2**
RPSI				IAmb	IAmb	22 16 45.5	
	comp=Z,98nm,1.3s						
RPSI	**Rantau Prapat**	**28.38**	**259**	P	**P**	**22 16 42.9**	**+1.3**
	comp=Z,60nm,1.2s						
LYN	**LuoYang**	**28.44**	**335**	P	**P**	**22 16 42.0**	**+0.1**
LYN				pmax	pmax		
	comp=Z,29nm,0.8s						
LYN				pmax	pmax		
	comp=Z,380nm,10.8s						
LYN				L	L		
	comp=Z,1µm,13.1s						
LYN				L	L		
	comp=Z,1µm,15.1s						
LYN				L	L		
	comp=Z,1µm,14.4s						
CM31	**Chiang Mai Arr**	**28.48**	**292**	P	**P**	**22 16 43.2**	**+0.8**
	SNR=8.8						
CM31	**Chiang Mai Arr**	**28.48**	**292**	P	**P**	**22 16 42.3**	**-0.1**
CM31				IAmb	IAmb	22 16 43.7	
	comp=Z,28nm,1.0s						
CMAR	**Chiang Mai Arr**	**28.48**	**292**	P	**P**	**22 16 42.0**	**-0.5**
	comp=Z,15nm,0.9s,baz=106,slow=7.0,SNR=58						
CMAR				PcP	**PcP**	**22 19 53.4**	**-0.9**
	comp=Z,2.7nm,0.6s,baz=92,slow=0.8,SNR=6.8						
CMAR				ScP	**ScP**	**22 23 29.2**	**-5.1**
	comp=Z,1.7nm,0.3s,baz=92,slow=3.3,SNR=2.0						
CMAR				LR	LR	22 28 41.6	
	comp=Z,1µm,18.1s,baz=115,slow=38						
	comp=Z,15nm,0.9s						
CMAR	**Chiang Mai Arr**	**28.48**	**292**	*i* P	**P**	**22 16 42.9**	**+0.5**
CMAR				pmax	pmax		
	comp=Z,20nm,1.0s						
CMAR	**Chiang Mai Arr**	**28.48**	**292**	P	**P**	**22 16 41.9**	**-0.5**
CMAR					**PcP**	**22 19 54.7**	**+0.5**
CMAR					**ScP**	**22 23 32.6**	**-1.7**
KRVT	**Keravat (AS076**	**28.55**	**117**	LR	LR	22 28 14.2	
	comp=Z,555nm,18.7s,baz=281,slow=36						
CHTO	**Chiang Mai**	**28.57**	**293**	P	**P**	**22 16 42.9**	**-0.3**
CHTO	**Chiang Mai**	**28.57**	**293**	P	**P**	**22 16 43.2**	**0.0**
CHTO				S	**S**	**22 21 31.5**	**+1.1**
CHTO	**Chiang Mai**	**28.57**	**293**	P	**P**	**22 16 42.3**	**-0.9**
CHTO						22 19 54.3	
CHTO				pmax	pmax		
	comp=Z,14nm,1.0s						
CHTO	**Chiang Mai**	**28.57**	**293**	P	**P**	**22 16 42.3**	**-0.9**
CHTO				PcP	**PcP**	**22 19 54.3**	**-0.1**
CHTO	**Chiang Mai**	**28.57**	**293**	P	**P**	**22 16 43.1**	**-0.1**
	comp=Z,15nm,1.1s						
CHTO	**Chiang Mai**	**28.57**	**293**	P	**P**	**22 16 43.2**	**0.0**
	comp=Z,15nm,1.1s						
MAJO	**Matsushiro**	**29.17**	**19**	*i* P	**P**	**22 16 47.3**	**-1.0**
MAJO				pmax	pmax		
	comp=Z,20nm,1.3s						
MJAR	**Matsushiro Arr**	**29.17**	**19**	P	**P**	**22 16 48.6**	**+0.3**
	comp=Z,3.1nm,0.9s,baz=195,slow=9.5,SNR=8.1						
MJAR				LR	LR	22 28 41.5	
	comp=Z,564nm,18.5s,baz=194,slow=36						
	comp=Z,3.1nm,0.9s						
MJAR	**Matsushiro Arr**	**29.17**	**19**	P	**P**	**22 16 47.4**	**-0.9**
PZH	**PanZhiHua**	**29.27**	**309**	P	**P**	**22 16 52.0**	**+2.5**
PZH				S	**S**	**22 21 44.3**	**+2.8**
PZH				L	L		
	comp=Z,820nm,16.9s						
PZH				L	L		
	comp=Z,1µm,16.1s						
PZH				L	L		
	comp=Z,2µm,17.6s						
KCSI	**Kotacane, Aceh**	**29.31**	**261**	P	**P**	**22 16 49.6**	**-0.3**
	comp=Z,758nmcomp=Z,87nm,1.0s						
XAN	**Xi'an**	**29.67**	**329**	P	**P**	**22 16 51.8**	**-1.0**
XAN				pmax	pmax		
	comp=Z,15nm,1.0s						
XAN				L	L		
	comp=Z,1µm,16.5s						
XAN				L	L		
	comp=Z,770nm,15.8s						
XAN				L	L		
	comp=Z,2µm,16.5s						
WB0	**Warramunga Arr**	**29.74**	**165**	P	**P**	**22 16 51.8**	**-1.7**
WB0				IAmb	IAmb	22 17 18.5	
	comp=Z,24nm,0.9s						
WB9	**Warramunga Arr**	**29.76**	**165**	P	**P**	**22 16 53.3**	**-0.4**
LHMI	**Lhok Sumawe**	**29.80**	**265**	P	**P**	**22 16 55.3**	**+1.1**
LHMI	**Lhok Sumawe**	**29.80**	**265**		**P**	**22 16 53.4**	**-0.8**
LHMI	**Lhok Sumawe**	**29.80**	**265**	P	**P**	**22 16 56.8**	**+2.6**
LHMI	**Lhok Sumawe**	**29.80**	**265**	P	**P**	**22 16 56.3**	**+2.1**
	comp=Z,121nm,1.2s						
WB5	**Warramunga Arr**	**29.84**	**165**	P	**P**	**22 16 54.3**	**-0.1**
WB3	**Warramunga Arr**	**29.88**	**165**	P	**P**	**22 16 54.5**	**-0.2**
WRAB	**Tennant Creek**	**29.89**	**165**	P	**P**	**22 16 58.4**	**+3.6**
WRAB	**Tennant Creek**	**29.89**	**165**	*i* P	**P**	**22 16 54.0**	**-0.8**
WRAB				pmax	pmax		
	comp=Z,20nm,0.8s						
WRAB	**Tennant Creek**	**29.89**	**165**	P	**P**	**22 16 51.5**	**-3.3**
	comp=Z,25nm,1.3s						
WRA	**Warramunga Arr**	**29.89**	**166**	P	**P**	**22 16 53.2**	**-1.6**
	comp=Z,5.7nm,0.5s,baz=348,slow=9.3,SNR=67						
	comp=Z,5.7nm,0.5s						
WRA	**Warramunga Arr**	**29.89**	**166**	*i* P	**P**	**22 16 53.2**	**-1.6**
WRA				pmax	pmax		
	comp=Z,7.0nm,0.5s						
WRA	**Warramunga Arr**	**29.89**	**166**	P	**P**	**22 16 53.3**	**-1.6**
WR2	**Warramunga Arr**	**29.90**	**165**	P	**P**	**22 16 54.9**	**-0.1**
WR8	**Warramunga Arr**	**29.95**	**165**	P	**P**	**22 16 55.2**	**-0.1**
DL2	**Dalian**	**29.95**	**352**	P	**P**	**22 16 57.0**	**+1.8**
DL2				pmax	pmax		
	comp=Z,130nm,0.8s						
DL2				pmax	pmax		
	comp=Z,320nm,5.0s						
DL2				L	L		
	comp=Z,780nm,14.4s						
DL2				L	L		
	comp=Z,570nm,13.6s						
DL2				L	L		
	comp=Z,820nm,14.8s						
GSI	**Gunungsitoli**	**30.04**	**257**	P	**P**	**22 16 55.9**	**-0.4**
GSI	**Gunungsitoli**	**30.04**	**257**	P	**P**	**22 16 57.4**	**+1.0**
	comp=Z,98nm,1.2s						
HNS	**HongShan**	**30.12**	**341**	⇑P	**P**	**22 16 57.3**	**+0.5**
HNS				S	**S**	**22 21 51.0**	**-3.4**
HNS				SS	**SnSn**	**22 23 33.3**	**+5.1**
HNS				pmax	pmax		
	comp=Z,41nm,0.9s						
HNS				L	L		
	comp=Z,2µm,16.3s						
HNS				L	L		
	comp=Z,540nm,16.6s						
HNS				L	L		
	comp=Z,2µm,17.1s						
CD2	**Chengdu**	**30.42**	**319**	P	**P**	**22 17 01.0**	**+1.5**
CD2				S	**S**	**22 22 03.3**	**+4.0**
CD2				pmax	pmax		
	comp=Z,180nm,6.8s						
CD2				L	L		
	comp=Z,3µm,15.1s						
CD2				L	L		
	comp=Z,3µm,15.7s						
CD2				L	L		
	comp=Z,3µm,15.3s						
MBWA	**Marble Bar**	**30.92**	**193**	P	**P**	**22 17 04.1**	**+0.1**
	comp=Z,36nm,0.9s						
MBWA	**Marble Bar**	**30.92**	**193**	P	**P**	**22 17 04.4**	**+0.4**
MBWA	**Marble Bar**	**30.92**	**193**	P	**P**	**22 17 04.2**	**+0.2**
MBWA	**Marble Bar**	**30.92**	**193**	P	**P**	**22 17 03.3**	**-0.7**
MBWA				IAmb	IAmb	22 17 15.6	
	comp=Z,22nm,0.8s						
MBWA	**Marble Bar**	**30.92**	**193**	P	**P**	**22 17 04.1**	**+0.1**
	comp=Z,36nm,0.9s						
TNCH	**TengChong**	**31.13**	**304**	P	**P**	**22 17 04.5**	**-1.5**
TNCH				pP	pP	22 17 07.8	-3.6
TNCH				sP	sP	22 17 09.5	-3.6
TNCH				PP	**PnPn**	**22 18 06.0**	**-1.9**
TNCH				S	**S**	**22 22 08.5**	**-2.3**
TNCH				pmax	pmax		
	comp=Z,20nm,1.2s						
TNCH				L	L		
	comp=Z,700nm,13.6s						
TNCH				L	L		
	comp=Z,710nm,13.1s						
TNCH				L	L		
	comp=Z,1µm,15.5s						
TIY	**Taiyuan**	**31.20**	**338**	*e*P	**P**	**22 17 05.5**	**-0.9**
TIY				S	**S**	**22 22 10.8**	**-0.7**
TIY				pmax	pmax		
	comp=Z,210nm,4.7s						
TIY				L	L		
	comp=Z,940nm,17.2s						
TIY				L	L		
	comp=Z,330nm,10.9s						
TIY				L	L		
	comp=Z,760nm,17.9s						
NPW	**Naypyitaw**	**31.38**	**293**	P	**P**	**22 17 08.8**	**+0.7**
	comp=Z,40nm,1.0s						
BJI2	**Beijing**	**32.12**	**345**	P	**P**	**22 17 14.8**	**+0.5**
BJI2				PP	**PnPn**	**22 18 21.3**	**+0.9**
BJI2				S	**S**	**22 22 25.8**	**+0.2**
BJI2				pmax	pmax		
	comp=Z,27nm,1.2s						
BJI2				pmax	pmax		
	comp=Z,200nm,4.0s						
BJI2				L	L		
	comp=Z,350nm,17.7s						
BJI2				L	L		
	comp=Z,290nm,14.7s						
BJI2				L	L		
	comp=Z,410nm,21.7s						
BJT	**Baijiatuau**	**32.12**	**345**	P	**P**	**22 17 15.7**	**+1.4**
BJT	**Baijiatuau**	**32.12**	**345**	P	**P**	**22 17 14.5**	**+0.2**
BJT				pmax	pmax		
	comp=Z,44nm,1.0s						
BJT	**Baijiatuau**	**32.12**	**345**	P	**P**	**22 17 14.5**	**+0.2**
BJT				IAmb	IAmb	22 17 16.3	
	comp=Z,44nm,1.0s						
QIS	**Mount Isa**	**32.15**	**157**	P	**P**	**22 17 15.3**	**+0.5**
	comp=Z,98nm,1.1s						
QIS	**Mount Isa**	**32.15**	**157**	P	**P**	**22 17 14.9**	**+0.1**
	comp=Z,98nm,1.1s						
QIS	**Mount Isa**	**32.15**	**157**	P	**P**	**22 17 17.9**	**+3.1**
QIS	**Mount Isa**	**32.15**	**157**	P	**P**	**22 17 15.3**	**+0.5**
	comp=Z,98nm,1.1s						
MTSU	**Mount Surprise**	**32.22**	**147**	P	**P**	**22 17 16.7**	**+1.2**
	comp=Z,13nm,0.9s						
MTSU	**Mount Surprise**	**32.22**	**147**	P	**P**	**22 17 16.2**	**+0.7**
	comp=Z,13nm,0.9s						
MTSU	**Mount Surprise**	**32.22**	**147**	P	**P**	**22 17 19.5**	**+4.0**
MTSU	**Mount Surprise**	**32.22**	**147**	P	**P**	**22 17 16.1**	**+0.6**
	comp=Z,13nm,0.9s						
SNY	**Shenyang**	**32.64**	**356**	P	**P**	**22 17 20.8**	**+2.0**
SNY				pP	**sP**	**22 17 24.0**	**-2.1**
SNY				sP	**pwP**	**22 17 31.8**	**+0.2**
SNY				pmax	pmax		
	comp=Z,140nm,1.0s						
SNY				pmax	pmax		
	comp=Z,190nm,2.6s						
SNY				L	L		
	comp=Z,630nm,20.0s						
SNY				L	L		
	comp=Z,690nm,16.7s						
SNY				L	L		
	comp=Z,1µm,16.7s						
AS15	**Alice Springs**	**33.36**	**168**	P	**P**	**22 17 25.9**	**+0.4**
	comp=Z,19nm,1.2s						
AS15	**Alice Springs**	**33.36**	**168**	P	**P**	**22 17 24.9**	**-0.6**
	comp=Z,19nm,1.2s						
AS16	**Alice Springs**	**33.37**	**168**	P	**P**	**22 17 26.1**	**+0.7**
	comp=Z,17nm,0.8s						
AS13	**Alice Springs**	**33.37**	**168**	P	**P**	**22 17 25.4**	**-0.1**
	comp=Z,17nm,0.7s						
AS31	**Alice Springs**	**33.39**	**168**	P	**P**	**22 17 26.2**	**+0.5**
	comp=Z,7.5nm,0.6s,comp=Z,0.0nm						
AS31	**Alice Springs**	**33.39**	**168**	P	**P**	**22 17 25.5**	**-0.1**
	comp=Z,7.5nm,0.6s						
AS31	**Alice Springs**	**33.39**	**168**		**P**	**22 17 24.9**	**-0.7**
ASAR	**Alice Springs**	**33.39**	**168**	P	**P**	**22 17 24.4**	**-1.2**
	comp=Z,4.1nm,0.4s,baz=354,slow=6.5,SNR=110						
ASAR				PcP	**PcP**	**22 20 06.5**	**-0.6**
	comp=Z,1.8nm,0.7s,baz=339,slow=3.1,SNR=2.4						
ASAR				LR	LR	22 33 05.5	
	comp=Z,576nm,18.2s,baz=336,slow=40						
	comp=Z,4.1nm,0.4s						
ASAR	**Alice Springs**	**33.39**	**168**	P	**P**	**22 17 24.4**	**-1.2**
ASAR					**PcP**	**22 20 07.0**	**-0.1**
AS01	**Alice Springs**	**33.40**	**168**	P	**P**	**22 17 28.0**	**+2.3**
AS17	**Alice Springs**	**33.41**	**168**	P	**P**	**22 17 26.0**	**+0.2**
AUALC	**St Philip's Co**	**33.41**	**168**	P	**P**	**22 17 28.8**	**+3.0**
AS09	**Alice Springs**	**33.43**	**168**	P	**P**	**22 17 25.8**	**-0.2**
LZDM	**Lanzhou Array**	**33.91**	**325**	P	**P**	**22 17 30.8**	**+0.3**
	comp=Z,1.2nm,0.4s,baz=134,slow=10,SNR=1.5						
LZDM				LR	LR	22 33 03.9	
	comp=Z,1µm,18.2s,baz=125,slow=39						
	comp=Z,1.2nm,0.4s						
LZH	**Lanzhou**	**33.93**	**326**	*e*P	**P**	**22 17 32.8**	**+2.4**
LZH				sP	sP	22 17 37.5	-0.1
LZH				S	**S**	**22 22 57.0**	**+2.9**
LZH				pmax	pmax		
	comp=Z,15nm,1.2s						
LZH				L	L		
	comp=Z,2µm,17.2s						
LZH				L	L		
	comp=Z,1µm,18.0s						
LZH				L	L		
	comp=Z,2µm,18.0s						
WRKA	**Warakurna**	**34.04**	**177**	P	**P**	**22 17 32.2**	**+0.8**
	comp=Z,15nm,1.1s						
HHC	**Hu-ho-hao-te**	**34.29**	**339**	*e*P	**P**	**22 17 34.3**	**+0.9**
HHC				PP	**PP**	**22 18 51.0**	**-0.3**
HHC				S	**S**	**22 22 58.3**	**-1.2**
HHC				sS	sS	22 23 08.0	+0.4
HHC				ScS	**ScS**	**22 27 53.5**	**-2.4**
HHC				pmax	pmax		
	comp=Z,17nm,0.8s						
HHC				pmax	pmax		
	comp=Z,250nm,4.4s						
HHC				L	L		
	comp=Z,850nm,16.0s						
HHC				L	L		
	comp=Z,210nm,15.3s						
HHC				L	L		
	comp=Z,830nm,17.6s						
CN2	**Changchun**	**34.51**	**358**	*e*P	**P**	**22 17 36.5**	**+1.4**
CN2				*e*S	**S**	**22 23 00.8**	**-1.7**
CN2				pmax	pmax		
	comp=Z,10.0nm,0.8s						
CN2				pmax	pmax		
	comp=Z,100nm,5.0s						
CN2				L	L		
	comp=Z,200nm,13.0s						
CN2				L	L		
	comp=Z,100nm,13.0s						
CN2				L	L		
	comp=Z,200nm,15.0s						
CTA	**Charters Tower**	**34.86**	**147**	LR	LR	22 33 41.6	
	comp=Z,584nm,18.8s,baz=320,slow=39						
CTAO	**Charters Tower**	**34.86**	**147**	P	**P**	**22 17 38.3**	**-0.1**
CTAO				pmax	pmax		
	comp=Z,12nm,1.0s						
CTAO	**Charters Tower**	**34.86**	**147**	P	**P**	**22 17 38.3**	**-0.1**
USA0B	**Ussuriysk Arra**	**35.19**	**7**	P	**P**	**22 17 41.2**	**+0.2**
USA0B				pmax	pmax		
	comp=Z,59nm,1.0s						
USA0B	**Ussuriysk Arra**	**35.19**	**7**	P	**P**	**22 17 41.2**	**+0.2**
USA0B				IAmb	IAmb	22 17 56.1	
	comp=Z,59nm,1.0s						
USRK	**Ussuriysk Ar.**	**35.19**	**7**	P	**P**	**22 17 42.0**	**+1.0**
	comp=Z,17nm,0.8s,baz=186,slow=7.9,SNR=34						
USRK				LR	LR	22 30 51.9	
	comp=Z,356nm,21.7s,baz=182,slow=34						
	comp=Z,17nm,0.8s						
MDJ	**Mudanjiang**	**35.39**	**4**	P	**P**	**22 17 44.5**	**+1.8**
MDJ				S	**S**	**22 23 15.0**	**-1.1**
MDJ				pmax	pmax		
	comp=Z,85nm,1.4s						
MDJ				pmax	pmax		
	comp=Z,440nm,5.0s						
MDJ				L	L		
	comp=Z,450nm,19.7s						
MDJ				L	L		
	comp=Z,140nm,9.2s						
MDJ				L	L		
	comp=Z,920nm,19.0s						
MDJ	**Mudanjiang**	**35.39**	**4**	P	**P**	**22 17 45.0**	**+2.3**
MDJ	**Mudanjiang**	**35.39**	**4**	P	**P**	**22 17 44.1**	**+1.3**
XLT	**XiLinHaoTe**	**35.81**	**347**	*e*P	**P**	**22 17 47.0**	**+0.5**
XLT				S	**S**	**22 23 24.3**	**+1.5**
XLT				pmax	pmax		
	comp=Z,60nm,0.8s						
XLT				pmax	pmax		
	comp=Z,350nm,8.5s						
XLT				L	L		
	comp=Z,570nm,15.7s						
XLT				L	L		
	comp=Z,930nm,17.1s						
BRDH	**Bariadhala**	**36.20**	**296**	LR	LR	22 34 00.8	
	comp=Z,693nm,18.1s,baz=141,slow=38						
BNX	**BinXian**	**36.43**	**1**	⇓P	**P**	**22 17 53.0**	**+1.4**
BNX				PcP	**PcP**	**22 20 14.0**	**-1.5**
BNX				S	**S**	**22 23 30.8**	**-1.2**
BNX				pmax	pmax		
	comp=Z,28nm,1.0s						
BNX				pmax	pmax		
	comp=Z,210nm,5.2s						
BNX				L	L		
	comp=Z,960nm,18.4s						
BNX				L	L		
	comp=Z,470nm,12.0s						
BNX				L	L		
	comp=Z,1µm,19.0s						
MEEK	**Meekatharra**	**36.46**	**192**	P	**P**	**22 17 52.5**	**+0.3**
	comp=Z,58nm,0.9s						
MEEK	**Meekatharra**	**36.46**	**192**	P	**P**	**22 17 52.2**	**0.0**
	comp=Z,58nm,0.9s						
MEEK	**Meekatharra**	**36.46**	**192**	P	**P**	**22 17 52.1**	**0.0**
	comp=Z,58nm,0.9s						
MEEK	**Meekatharra**	**36.46**	**192**	P	**P**	**22 17 52.1**	**0.0**
MEEK	**Meekatharra**	**36.46**	**192**	P	**P**	**22 17 52.4**	**+0.3**
	comp=Z,58nm,0.9s						
SHL	**Shillong**	**36.88**	**301**	P	**P**	**22 17 55.9**	**0.0**
	SNR=6.8						
SHL	**Shillong**	**36.88**	**301**	P	**P**	**22 17 55.0**	**-0.9**
SHL	**Shillong**	**36.88**	**301**	P	**P**	**22 17 55.0**	**-0.9**
ASAJ	**Asahikawa**	**37.44**	**19**	LR	LR	22 32 54.4	
	comp=Z,530nm,20.1s,baz=208,slow=35						
ASAJ	**Asahikawa**	**37.44**	**19**	P	**P**	**22 18 00.3**	**+0.1**
ASAJ				pmax	pmax		
	comp=Z,39nm,0.9s						
JKA	**Kamikawa-asahi**	**37.44**	**19**	P	**P**	**22 18 00.3**	**+0.1**
JKA				IAmb	IAmb	22 18 16.1	
	comp=Z,39nm,0.9s						
JKA	**Kamikawa-asahi**	**37.44**	**19**	P	**P**	**22 18 03.6**	**+3.4**
	comp=Z,50nm,1.6s						
HNR	**Honiara**	**37.89**	**118**	LR	LR	22 32 10.9	
	comp=Z,502nm,21.1s,baz=14,slow=34						
GTA2	**Gaotai**	**38.61**	**326**	*e*P	**P**	**22 18 09.8**	**-0.6**
GTA2				PP	**PnPn**	**22 19 42.0**	**+0.9**
GTA2				S	**S**	**22 24 08.3**	**+2.6**
GTA2				SS	**SnSn**	**22 26 51.3**	**-2.9**
GTA2				pmax	pmax		
	comp=Z,11nm,0.7s						
GTA2				pmax	pmax		
	comp=Z,270nm,9.2s						
GTA2				L	L		
	comp=Z,1µm,17.1s						
GTA2				L	L		
	comp=Z,2µm,17.5s						
GTA2				L	L		
	comp=Z,3µm,17.8s						
LSA	**Lhasa**	**39.03**	**306**	*e*P	**P**	**22 18 12.8**	**-1.6**
LSA				S	**S**	**22 24 09.3**	**-3.6**
LSA				pmax	pmax		
	comp=Z,13nm,1.1s						
LSA				L	L		
	comp=Z,530nm,17.9s						
LSA				L	L		
	comp=Z,400nm,22.0s						
LSA				L	L		
	comp=Z,890nm,20.6s						
LSA	**Lhasa**	**39.03**	**306**	P	**P**	**22 18 14.1**	**-0.3**
LSA				pmax	pmax		
	comp=Z,32nm,1.2s						
LSA	**Lhasa**	**39.03**	**306**	P	**P**	**22 18 14.1**	**-0.3**
INKA	**Innaminka**	**39.13**	**160**		**P**	**22 18 14.7**	**0.0**
MORW	**Morawa**	**39.40**	**195**	P	**P**	**22 18 17.4**	**+0.6**
MORW	**Morawa**	**39.40**	**195**	P	**P**	**22 18 16.3**	**-0.5**
	comp=Z,46nm,1.0s						
MORW	**Morawa**	**39.40**	**195**	P	**P**	**22 18 16.9**	**+0.1**
	comp=Z,46nm,1.0s						
MORW	**Morawa**	**39.40**	**195**	P	**P**	**22 18 17.9**	**+1.0**
MORW	**Morawa**	**39.40**	**195**		**P**	**22 18 16.7**	**-0.2**
MORW				IAmb	IAmb	22 18 29.1	
	comp=Z,33nm,0.8s						
MORW	**Morawa**	**39.40**	**195**	P	**P**	**22 18 17.4**	**+0.6**
QLP	**Quilpie**	**39.41**	**155**	P	**P**	**22 18 20.4**	**+3.5**
QLP	**Quilpie**	**39.41**	**155**	P	**P**	**22 18 18.0**	**+1.0**
	comp=Z,43nm,1.2s						
GOMU	**GeErMu**	**39.55**	**318**	P	**P**	**22 18 18.3**	**-0.2**
GOMU				pP	pP	22 18 22.0	-1.9
GOMU				sP	sP	22 18 25.5	-0.2
GOMU				S	**S**	**22 24 23.5**	**+3.2**
GOMU				pmax	pmax		
	comp=Z,7.0nm,0.5s						
GOMU				L	L		
	comp=Z,350nm,15.6s						
GOMU				L	L		
	comp=Z,1µm,15.4s						
GOMU				L	L		
	comp=Z,2µm,15.7s						
FORT	**Forrest**	**39.75**	**178**	P	**P**	**22 18 20.9**	**+1.2**
	comp=Z,26nm,0.7s						
FORT	**Forrest**	**39.75**	**178**	P	**P**	**22 18 19.7**	**0.0**
	comp=Z,26nm,0.7s						
FORT	**Forrest**	**39.75**	**178**		**P**	**22 18 19.8**	**+0.1**
H11S3	**WAKE ISLAND Hy**	**39.81**	**72**	T	T	23 01 23.7	
	baz=261,slow=73,SNR=311						
H11S1	**WAKE ISLAND Hy**	**39.82**	**72**	T	T	23 01 27.0	
	baz=261,slow=73,SNR=206						
H11S2	**WAKE ISLAND Hy**	**39.83**	**72**	T	T	23 01 24.8	
	baz=261,slow=73,SNR=172						
AUNRC	**North Rockhamp**	**39.84**	**145**	P	**P**	**22 18 24.5**	**+3.9**
RK1H	**Rockhampton Ha**	**39.85**	**145**	P	P	22 18 26.6	+5.9
YSS	**Yuzhno-Sakhali**	**40.05**	**17**	P	P	22 18 27.1	+5.1
YSS	**Yuzhno-Sakhali**	**40.05**	**17**	*e*P	**P**	**22 18 24.7**	**+2.7**
YSS				*e*S	**S**	**22 24 32.0**	**+5.4**
YSS				*e*SS	SS	22 27 59.1	+35
YSS				pmax	pmax		
	comp=Z,20nm,0.9s						
YSS				MLR	MLR		
	comp=Z,400nm,14.0s						
YSS				MLR	MLR		
	comp=N,300nm,16.0s						
YSS				MLR	MLR		
	comp=E,200nm,16.0s						
KLR	**Kul'dur**	**40.14**	**5**	LR	LR	22 38 17.4	
	comp=E,438nm,18.2s,baz=192,slow=41						
KLR	**Kul'dur**	**40.14**	**5**	*e*P	**P**	**22 18 23.5**	**+0.7**
KLR				pmax	pmax		
	comp=Z,7.0nm,1.4s						
H11N1	**WAKE ISLAND Hy**	**40.18**	**70**	T	T	23 01 55.4	
	baz=265,slow=74,SNR=124						
H11N2	**WAKE ISLAND Hy**	**40.19**	**70**	T	T	23 02 00.6	
	baz=265,slow=74,SNR=87						
H11N3	**WAKE ISLAND Hy**	**40.20**	**70**	T	T	23 01 59.5	
	baz=265,slow=74,SNR=126						
HIA	**Hailar**	**40.38**	**353**	*i* P	**P**	**22 18 25.5**	**+0.6**
HIA				pmax	pmax		
	comp=Z,64nm,1.3s						
HIA	**Hailar**	**40.38**	**353**	P	**P**	**22 18 25.4**	**+0.6**
HIA				IAmb	IAmb	22 18 27.9	
	comp=Z,40nm,1.0s						
KMBL	**Kambalda**	**40.58**	**186**	P	**P**	**22 18 27.4**	**+0.7**
	comp=Z,28nm,1.7s						
KMBL				pP	**pwP**	**22 18 38.7**	**+0.2**

HILR	Hailar Array B	40.67	353	P	P	22 18 28.0	+0.8
	comp=Z,20nm,0.7s,baz=158,slow=12,SNR=23						
	comp=Z,20nm,0.7s						
BLDU	Ballidu	40.72	193	P	P	22 18 26.9	-0.9
	comp=Z,48nm,1.0s						
BLDU	Ballidu	40.72	193	P	P	22 18 27.7	-0.1
	comp=Z,48nm,1.0s						
BLDU	Ballidu	40.72	193	P	P	22 18 28.7	+0.9
HEH	HeiHe	40.95	1	eP	P	22 18 31.3	+1.8
HEH				S	S	22 24 38.5	-1.6
HEH				pmax	pmax		
	comp=Z,42nm,1.1s						
HEH				pmax	pmax		
	comp=Z,430nm,5.5s						
HEH				L	L		
	comp=Z,830nm,18.0s						
HEH				L	L		
	comp=Z,650nm,15.2s						
HEH				L	L		
	comp=Z,1µm,18.1s						
KLBR	Kellerberrin	41.44	192	P	P	22 18 33.4	-0.3
	comp=Z,80nm,0.9s						
KLBR				pP	pwP	22 18 45.2	-0.8
KLBR	Kellerberrin	41.44	192	P	P	22 18 34.7	+1.0
KLBR	Kellerberrin	41.44	192	P	P	22 18 33.4	-0.3
	comp=Z,80nm,0.9s						
EIDS	Eidsvold	41.73	146	P	P	22 18 34.5	-1.7
	comp=Z,22nm,0.5s						
EIDS	Eidsvold	41.73	146	P	P	22 18 35.2	-1.1
	comp=Z,22nm,0.5s						
EIDS	Eidsvold	41.73	146	P	P	22 18 40.7	+4.5
EIDS	Eidsvold	41.73	146	P	P	22 18 33.8	-2.4
EIDS				IAmb	IAmb	22 18 41.6	
	comp=Z,35nm,1.1s						
EIDS	Eidsvold	41.73	146	P	P	22 18 35.6	-0.6
	comp=Z,22nm,0.5s						
EVN	Everest	41.94	302	P	P	22 18 37.8	-0.9
EVN				IAmb	IAmb	22 19 00.9	
	comp=Z,48nm,1.2s						
EVN	Everest	41.94	302	P	P	22 18 38.1	-0.6
	comp=Z,36nm,1.2s						
ULN	Ulaanbaatar	41.99	340	P	P	22 18 38.1	-0.2
ULN				S	S	22 24 53.3	-2.7
ULN	Ulaanbaatar	41.99	340	ceP	P	22 18 38.5	+0.2
ULN				pmax	pmax		
	comp=Z,9.0nm,0.6s						
ULN	Ulaanbaatar	41.99	340	P	P	22 18 37.5	-0.8
ULN	Ulaanbaatar	41.99	340	P	P	22 18 38.7	+0.4
ULN	Ulaanbaatar	41.99	340	P	P	22 18 38.2	-0.2
	comp=Z,20nm,0.8s						
MUN	Mundaring	42.14	193	P	P	22 18 40.3	+0.8
SONM	Songino Array	42.19	340	P	P	22 18 40.4	+0.5
	comp=Z,3.7nm,0.6s,baz=147,slow=7.8,SNR=2.4						
	comp=Z,3.7nm,0.6s						
SONM	Songino Array	42.19	340	P	P	22 18 39.4	-0.5
GRNR	Gornyy	42.23	9	⇑iP	P	22 18 42.2	+2.2
GRNR				pmax	pmax		
	comp=Z,20nm,1.1s						
GRNR				MLR	MLR		
	comp=E,210nm,16.0s						
GRNR				MLR	MLR		
	comp=N,290nm,17.0s						
GRNR				MLR	MLR		
	comp=Z,320nm,16.0s						
AUKUL	Kulin High Sch	42.41	191	P	P	22 18 43.3	+1.6
BBOO	Buckleboo	42.69	168	P	P	22 18 44.5	+0.6
	comp=Z,74nm,1.4s						
BBOO	Buckleboo	42.69	168	P	P	22 18 44.6	+0.6
	comp=Z,74nm,1.4s						
BBOO	Buckleboo	42.69	168	P	P	22 18 46.4	+2.5
BBOO	Buckleboo	42.69	168	P	P	22 18 43.6	-0.4
BBOO				IAmb	IAmb	22 18 55.9	
	comp=Z,41nm,0.9s						
BBOO	Buckleboo	42.69	168	P	P	22 18 44.6	+0.6
	comp=Z,74nm,1.4s						
NWAO	Narrogin (SRO)	42.84	192	P	P	22 18 45.8	+0.7
	comp=Z,61nm,1.0s						
NWAO	Narrogin (SRO)	42.84	192	P	P	22 18 45.8	+0.7
	comp=Z,99nm,1.0s						
NWAO	Narrogin (SRO)	42.84	192	P	P	22 18 45.2	+0.1
	comp=Z,61nm,1.0s						
NWAO	Narrogin (SRO)	42.84	192	P	P	22 18 45.5	+0.4
	comp=Z,99nm,1.0s						
NWAO	Narrogin (SRO)	42.84	192	LR	LR	22 39 58.8	
	comp=Z,268nm,18.6s,baz=292,slow=41						
NWAO	Narrogin (SRO)	42.84	192	P	P	22 18 45.9	+0.7
NWAO	Narrogin (SRO)	42.84	192	P	P	22 18 45.5	+0.4
NWAO	Narrogin (SRO)	42.84	192	P	P	22 18 45.0	-0.1
NWAO	Narrogin (SRO)	42.84	192	P	P	22 18 45.1	0.0
NWAO				pmax	pmax		
	comp=Z,114nm,1.4s						
NWAO	Narrogin (SRO)	42.84	192	P	P	22 18 45.1	0.0
NWAO				IAmb	IAmb	22 18 51.8	
	comp=Z,114nm,1.4s						
NWAO	Narrogin (SRO)	42.84	192	P	P	22 18 45.4	+0.3
	comp=Z,58nm,1.0s						
STKA	Stephens Creek	43.23	161	P	P	22 18 49.4	+1.0
	comp=Z,107nm,1.1s						
STKA	Stephens Creek	43.23	161	P	P	22 18 49.2	+0.9
	comp=Z,107nm,1.1s						
STKA	Stephens Creek	43.23	161	P	P	22 18 48.5	+0.2
	comp=Z,5.6nm,0.4s,baz=337,slow=8.0,SNR=20						
STKA				LR	LR	22 43 29.4	
	comp=Z,297nm,18.1s,baz=332,slow=45						
	comp=Z,5.6nm,0.4s						
STKA	Stephens Creek	43.23	161	P	P	22 18 51.2	+2.9
STKA	Stephens Creek	43.23	161	eP	P	22 18 49.6	+1.3
STKA	Stephens Creek	43.23	161	P	P	22 18 50.0	+1.7
	comp=Z,107nm,1.1s						
AULRC	Lightning Ridg	43.51	153	P	P	22 18 54.4	+3.8
TYV	Tymovskoe	43.59	15	eP	P	22 18 54.5	+3.5
TYV				pmax	pmax		
	comp=Z,200nm,5.2s						
TYV				pmax	pmax		
	comp=Z,17nm,1.3s						
HTT	Hallett	43.93	165	P	P	22 18 54.8	+0.7
	comp=Z,10nm,2.4s						
HTT	Hallett	43.93	165	P	P	22 18 58.6	+4.6
TW1H	Toowoomba 1 Ha	43.94	147	P	P	22 18 59.2	+5.0
AUTOO	Toowoomba Stat	43.94	147	P	P	22 18 59.2	+5.0
CIT	Chita	44.05	348	eP	P	22 18 57.0	+2.2
CIT				e		22 20 36.8	
CIT				pmax	pmax		
	comp=Z,147nm,1.2s						
CMSA	Cobar Meteorol	44.37	157	P	P	22 18 57.6	+0.1
	comp=Z,30nm,1.1s						
CMSA	Cobar Meteorol	44.37	157	P	P	22 19 01.5	+4.0
CMSA	Cobar Meteorol	44.37	157	P	P	22 19 02.8	+5.3
	comp=Z,30nm,1.1s						
ZEA	Zeya	44.44	0	eP	P	22 18 58.7	+1.0
ZEA				e		22 19 07.8	
ZEA				pmax	pmax		
	comp=Z,20nm,0.5s						
RKGY	Rocky Gully	44.52	191	P	P	22 19 00.8	+2.2
	comp=Z,28nm,1.0s						
RKGY	Rocky Gully	44.52	191	P	P	22 18 59.2	+0.6
	comp=Z,27nm,1.0s						
ZAK	Zakamensk	45.44	339	eP	P	22 19 04.8	-1.1
ZAK				pmax	pmax		
	comp=Z,6.0nm,1.2s						
PALK	Pallekele	45.57	271	LR	LR	22 40 12.8	
	comp=Z,518nm,18.8s,baz=78,slow=39						
PALK	Pallekele	45.57	271	P	P	22 19 07.7	+0.2
PALK	Pallekele	45.57	271	P	P	22 19 08.8	+1.4
ARMA	Armidale	46.07	150	P	P	22 19 17.4	+6.3
ARMA	Armidale	46.07	150	P	P	22 19 16.5	+5.4
ARMA	Armidale	46.07	150	P	P	22 19 10.9	-0.3
ARMA				IAmb	IAmb	22 19 25.0	
	comp=Z,40nm,1.2s						
ARMA	Armidale	46.07	150	P	P	22 19 17.5	+6.3
	comp=Z,28nm,1.3s						
TLY	Talaya	46.41	340	LR	LR	22 41 55.8	
	comp=Z,423nm,18.4s,baz=144,slow=40						
TLY	Talaya	46.41	340	P	P	22 19 13.8	+0.4
TLY	Talaya	46.41	340	ceP	P	22 19 14.8	+1.4
TLY				pmax	pmax		
	comp=Z,15nm,1.0s						
TLY	Talaya	46.41	340	P	P	22 19 13.4	0.0
TLY				IAmb	IAmb	22 19 15.1	
	comp=Z,14nm,0.9s						
TLY	Talaya	46.41	340	P	P	22 19 14.7	+1.2
	comp=Z,21nm,1.1s						
HYB	Hyderabad	47.49	285	eP	P	22 19 21.4	-1.0
HYB				ePcP	PcP	22 20 51.9	-0.6
HYB				ePP	PP	22 21 13.2	-0.8
HYB				eS	S	22 26 17.0	+0.7
HYB				eScS	ScS	22 29 15.9	+0.2
KNGR	Kungurtug, Tuv	47.83	335	i P	P	22 19 25.4	+0.7
KNGR				pmax	pmax		
	comp=Z,13nm,1.0s						
WMQ	Urumqi	48.36	322	eP	P	22 19 29.8	+1.0
WMQ				sP	sP	22 19 36.5	+0.4
WMQ				PP	PP	22 21 20.8	-0.7
WMQ				pmax	pmax		
	comp=Z,30nm,1.3s						
WMQ				L	L		
	comp=Z,1µm,17.7s						
WMQ				L	L		
	comp=Z,1µm,14.7s						
WMQ				L	L		
	comp=Z,1µm,14.7s						
BRAT	Ballarat	49.20	162	P	P	22 19 39.7	+4.6
TOO	Toolangi	49.71	160	P	P	22 19 39.9	+0.7
TOO				pmax	pmax		
	comp=Z,23nm,1.7s						
TOO	Toolangi	49.71	160	P	P	22 19 39.9	+0.7
PETK	Petropavlovsk-	50.44	24	LR	LR	22 41 05.6	
	comp=Z,230nm,19.4s,baz=223,slow=36						
PET	Petropavlovsk	50.76	24	eP	P	22 19 48.8	+1.9
PET				eS	S	22 26 59.5	-1.7
PET				pmax	pmax		
	comp=Z,100nm,6.4s						
PET				MLR	MLR		
	comp=Z,500nm,15.0s						
PET				MLR	MLR		
	comp=Z,300nm,16.0s						
PET	Petropavlovsk	50.76	24	P	P	22 19 47.4	+0.6
PET				IAmb	IAmb	22 19 55.5	
	comp=Z,57nm,1.3s						
DGZ	Jazzator, Alta	51.93	329	i P	P	22 19 56.0	+0.1
DGZ				pmax	pmax		
	comp=Z,10.0nm,1.1s						
ZSN	Zaisan	52.01	325	c iP	P	22 19 56.2	-0.2
ZSN				eS	S	22 27 20.6	+1.9
ZSN	Zaisan	52.01	325	⇑iP	P	22 19 56.2	-0.2
ZSN				eS	S	22 27 20.7	+1.9
WUS	Wushi	52.61	316	P	P	22 20 00.2	-0.9
WUS				IAmb	IAmb	22 20 01.8	
	comp=Z,20nm,1.0s						
YAK	Yakutsk	52.80	2	LR	LR	22 45 41.4	
	comp=Z,303nm,18.4s,baz=176,slow=40						
YAK	Yakutsk	52.80	2	eP	P	22 20 02.3	+0.4
YAK				e		22 21 18.8	
YAK				e		22 22 01.5	
YAK				ePPP	PPP	22 23 10.6	
YAK				eS	S	22 27 27.0	-1.8
YAK				eSS	SS	22 31 08.7	+1.0
YAK				pmax	pmax		
	comp=Z,65nm,0.9s						
YAK				pmax	pmax		
	comp=N,36nm,1.3s						
YAK				pmax	pmax		
	comp=E,13nm,1.4s						
YAK				pmax	pmax		
	comp=Z,64nm,2.4s						
YAK				pmax	pmax		
	comp=N,69nm,3.2s						
YAK				pmax	pmax		
	comp=E,96nm,4.1s						
YAK				smax	smax		
	comp=E,76nm,2.4s						
YAK				smax	smax		
	comp=N,72nm,3.2s						
YAK				MLR	MLR		
	comp=Z,372nm,16.0s						
YAK				MLR	MLR		
	comp=N,205nm,16.0s						
YAK				MLR	MLR		
	comp=E,290nm,16.0s						
YAK	Yakutsk	52.80	2	P	P	22 20 02.9	+1.0
YAK	Yakutsk	52.80	2	P	P	22 20 03.7	+1.8
	comp=Z,86nm,1.2s						
MK31	Makanchi Array	53.16	323	i P	P	22 20 04.5	-0.5
MK31				pmax	pmax		
	comp=Z,25nm,0.7s						
MKAR	Makanchi Array	53.16	323	P	P	22 20 04.5	-0.5
	comp=Z,34nm,0.7s,baz=123,slow=8.2,SNR=204						
MKAR				LR	LR	22 44 33.6	
	comp=Z,681nm,19.4s,baz=124,slow=38						
	comp=Z,34nm,0.7s						
MKAR	Makanchi Array	53.16	323	i P	P	22 20 04.6	-0.4
MKAR				pmax	pmax		
	comp=Z,34nm,0.7s						
MKAR	Makanchi Array	53.16	323		P	22 20 04.3	-0.7
SHLS	Shalkode	53.25	318	c iP	P	22 20 03.4	-2.4
SHLS				pmax	pmax		
	comp=Z,20nm,1.1s						
SHLS	Shalkode	53.25	318	⇑iP	P	22 20 03.5	-2.4
	comp=Z,20nm,1.1s						
PDGK	Podgornoye	53.30	318	P	P	22 20 05.5	-0.7
PDGK	Podgornoye	53.30	318		P	22 20 05.5	-0.7
MAKZ	Makanchi	53.36	323	P	P	22 20 06.1	-0.3
MAKZ				pmax	pmax		
	comp=Z,55nm,1.1s						
MAKZ	Makanchi	53.36	323	P	P	22 20 06.1	-0.3
MAKZ				IAmb	IAmb	22 20 07.2	
	comp=Z,55nm,1.1s						
MA2	Magadan	53.46	15	P	P	22 20 11.2	+4.3
MA2	Magadan	53.46	15	i P	P	22 20 07.0	+0.1
MA2				pmax	pmax		
	comp=Z,20nm,1.2s						
UZB	Uzynbulak	53.54	318	c iP	P	22 20 07.6	-0.3
UZB				pmax	pmax		
	comp=Z,15nm,0.8s						
UZB	Uzynbulak	53.54	318	⇑iP	P	22 20 07.7	-0.3
	comp=Z,15nm,0.8s						
TARG	Taragay, Kyrgy	53.79	316	P	P	22 20 09.8	-0.3
TARG				pmax	pmax		
	comp=Z,54nm,1.2s						
TARG	Taragay, Kyrgy	53.79	316		P	22 20 09.8	-0.3
TARG				IAmb	IAmb	22 20 22.0	
	comp=Z,54nm,1.2s						
TARG	Taragay, Kyrgy	53.79	316	P	P	22 20 10.8	+0.7
	comp=Z,38nm,1.2s						
KPKS	Kokpek	53.90	318	eP	P	22 20 10.1	-0.4
KPKS	Kokpek	53.90	318	eP	P	22 20 10.1	-0.4
SATY	Saty	53.91	317	c iP	P	22 20 10.4	-0.3
SATY				pmax	pmax		
	comp=Z,20nm,1.0s						
SATY	Saty	53.91	317	⇑iP	P	22 20 10.4	-0.3
	comp=Z,20nm,1.0s						
KAAM	Kaadhehdhoo	54.17	264	P	P	22 20 12.4	-0.4
KDJ	Kajisay	54.38	316	P	P	22 20 13.3	-0.8
KDJ				pmax	pmax		
	comp=Z,44nm,1.0s						
KDJ	Kajisay	54.38	316	P	P	22 20 13.3	-0.8
KDJ				IAmb	IAmb	22 20 15.1	
	comp=Z,44nm,1.0s						
ASAI	AK-SAY(Kyrgyzs	54.39	314	P	P	22 20 14.2	-0.2
	comp=Z,31nm,1.1s						
KSH2	Kashi	54.47	312	P	P	22 20 15.0	+0.2
KSH2				sP	pwP	22 20 25.0	-1.3
KSH2				pmax	pmax		
	comp=Z,24nm,1.2s						
KSH2				L	L		
	comp=Z,1µm,18.0s						
KSH2				L	L		
	comp=Z,1µm,18.5s						
KSH2				L	L		
	comp=Z,1µm,17.3s						
NIL	Nilore	54.72	305	P	P	22 20 15.8	-0.7
NIL	Nilore	54.72	305	P	P	22 20 15.9	-0.7
NIL				pmax	pmax		
	comp=Z,71nm,0.8s						
NIL	Nilore	54.72	305	P	P	22 20 15.8	-0.7
NIL	Nilore	54.72	305	P	P	22 20 15.8	-0.7
	comp=Z,105nm,1.0s						
TDK	Taldyqorghan	54.73	320	c iP	P	22 20 16.2	-0.2
TDK				pmax	pmax		
	comp=Z,33nm,1.0s						
TDK	Taldyqorghan	54.73	320	⇑iP	P	22 20 16.3	-0.2
	comp=Z,33nm,1.0s						
MDOK	Medeo	54.87	317	eP	P	22 20 17.3	-0.3
MDOK				eS	S	22 27 59.6	+1.7
MDOK	Medeo	54.87	317	eP	P	22 20 17.3	-0.3
MDOK				eS	S	22 27 59.7	+1.7
TNSS	Tian-Shan	54.88	317	eP	P	22 20 17.5	-0.5
TNSS	Tian-Shan	54.88	317	eP	P	22 20 17.6	-0.5
ULHL	Ulahol	55.07	316	P	P	22 20 19.4	+0.2
	SNR=9.6						
BOOM	Boomskoye usch	55.37	316	P	P	22 20 20.4	-0.9
BOOM				pmax	pmax		
	comp=Z,19nm,1.1s						
BOOM	Boomskoye usch	55.37	316	P	P	22 20 20.4	-0.9
BOOM				IAmb	IAmb	22 20 51.4	
	comp=Z,19nm,1.1s						
KUU	Kurty	55.62	318	eP	P	22 20 22.8	-0.1
KUU				pmax	pmax		
	comp=Z,27nm,1.1s						
KUU	Kurty	55.62	318	eP	P	22 20 22.8	-0.1
	comp=Z,27nm,1.1s						
TKM2	Tokmak 2	55.76	316	P	P	22 20 23.8	-0.3
	SNR=21						
ZAA0	Zalesovo Array	55.79	331	P	P	22 20 22.8	-1.1
ZAA0				IAmb	IAmb	22 20 24.1	
	comp=Z,16nm,0.9s						
ZALV	Zalesovo Beam	55.79	331	P	P	22 20 23.1	-0.8
	comp=Z,16nm,0.8s,baz=116,slow=7.0,SNR=48						
ZALV				LR	LR	22 45 29.3	
	comp=Z,286nm,19.1s,baz=126,slow=37						
	comp=Z,16nm,0.8s						
KBK	Karagaybulak	56.11	316	P	P	22 20 26.5	-0.1
	SNR=23						
CHMS	Chumysh	56.37	316	P	P	22 20 28.0	-0.3
	SNR=26						
FRU1	Bishkek	56.38	316	P	P	22 20 27.6	-0.8
FRU1				pmax	pmax		
	comp=Z,19nm,0.8s						
FRU1	Bishkek	56.38	316	P	P	22 20 27.6	-0.8
FRU1				IAmb	IAmb	22 20 30.7	
	comp=Z,19nm,0.8s						
AAK	Ala-Archa	56.41	316	P	P	22 20 28.2	-0.6
	SNR=8.4						
AAK	Ala-Archa	56.41	316	LR	LR	22 46 31.8	
	comp=Z,986nm,21.7s,baz=91,slow=38						
AAK	Ala-Archa	56.41	316	P	P	22 20 28.0	-0.8
AAK				S	S	22 28 18.1	-0.5
AAK	Ala-Archa	56.41	316	i P	P	22 20 28.1	-0.6
AAK				pmax	pmax		
	comp=Z,109nm,1.1s						
AAK	Ala-Archa	56.41	316	P	P	22 20 28.0	-0.8
AAK				IAmb	IAmb	22 20 40.5	
	comp=Z,33nm,1.4s						
AAK	Ala-Archa	56.41	316	i P	P	22 20 28.1	-0.6
	SNR=9.6						
AAK	Ala-Archa	56.41	316	P	P	22 20 28.9	+0.1
	comp=Z,17nm,1.3s						
SGDS	Sogindy	56.61	317	eP	P	22 20 29.3	-0.8
USP	Ospenovka	56.63	316	P	P	22 20 29.5	-0.7
	SNR=25						
SEY	Seymchan	56.76	14	ceP	P	22 20 31.5	+0.9
SEY				pmax	pmax		
	comp=Z,31nm,1.7s						
EKS2	Erkin-Say	56.92	315	P	P	22 20 32.0	-0.3
	SNR=29						
ARSB	Arslanbob	57.04	314	P	P	22 20 32.7	-0.5
ARSB				pmax	pmax		
	comp=Z,34nm,1.2s						
ARSB	Arslanbob	57.04	314	P	P	22 20 32.7	-0.5
ARSB				IAmb	IAmb	22 20 33.9	
	comp=Z,34nm,1.2s						
KURK	Kurchatov	57.22	326	P	P	22 20 33.5	-0.5
KURK	Kurchatov	57.22	326	ceP	P	22 20 33.8	-0.3
KURK				pmax	pmax		
	comp=Z,100nm,1.0s						
KURK	Kurchatov	57.22	326	P	P	22 20 33.4	-0.7
KURK	Kurchatov	57.22	326	P	P	22 20 33.6	-0.5
	comp=Z,101nm,1.0s						
KURBB	Kurchatov Arra	57.22	326	P	P	22 20 33.3	-0.8
	comp=Z,29nm,0.7s,baz=126,slow=6.4,SNR=181						
KURBB				LR	LR	22 47 04.7	
	comp=Z,438nm,19.0s,baz=171,slow=38						
	comp=Z,29nm,0.7s						
MSVF	Nonsavu	57.31	118	P	P	22 20 41.7	+6.4
MSVF	Nonsavu	57.31	118	i P	P	22 20 34.3	-1.0
MSVF				pmax	pmax		
	comp=Z,52nm,1.6s						
SHEM	Shemya Is, Ala	57.83	32	LR	LR	22 41 11.0	
	comp=Z,108nm,21.9s,baz=234,slow=31						
BTK	Batken	58.24	312	P	P	22 20 40.6	-1.0
BTK				pmax	pmax		
	comp=Z,33nm,1.2s						
BTK	Batken	58.24	312		P	22 20 40.6	-1.0
BTK				IAmb	IAmb	22 20 53.5	
	comp=Z,33nm,1.2s						
DGTI	Dogotuki	58.24	116	P	P	22 20 47.9	+6.1
KBL	Kabul	58.32	305	P	P	22 20 41.5	-0.9
	SNR=11						
KBL				S	S	22 28 43.3	-0.7
KBL	Kabul	58.32	305	P	P	22 20 41.1	-1.4
KBL				pmax	pmax		
	comp=Z,24nm,0.7s						
KBL	Kabul	58.32	305	P	P	22 20 41.1	-1.4
KBL				IAmb	IAmb	22 20 44.5	
	comp=Z,24nm,0.7s						
DZA	Taraz	58.70	315	eP	P	22 20 44.4	-0.3
DZA				pmax	pmax		
	comp=Z,12nm,0.9s						
DZA	Taraz	58.70	315	eP	P	22 20 44.5	-0.3
	comp=Z,12nm,0.9s						
KK31	Karatay Array	59.34	315	P	P	22 20 48.1	-1.0
KK31				pmax	pmax		
	comp=Z,26nm,0.9s						
KK31	Karatay Array	59.34	315		P	22 20 48.1	-1.0
KK31				IAmb	IAmb	22 20 50.6	
	comp=Z,26nm,0.8s						
KKAR	Karatay Array	59.34	315	P	P	22 20 48.0	-1.1
KKAR	Karatay Array	59.34	315	P	P	22 20 48.0	-1.1
IUG	Iuzhnay	59.40	314	c iP	P	22 20 49.3	-0.3
IUG				pmax	pmax		
	comp=Z,16nm,0.8s						
IUG	Iuzhnay	59.40	314	⇑iP	P	22 20 49.3	-0.3
	comp=Z,16nm,0.8s						
CHM	Chimkent	59.75	314	eP	P	22 20 51.7	-0.2
CHM	Chimkent	59.75	314	eP	P	22 20 51.8	-0.2
TIXI	Tiksi	62.43	1	LR	LR	22 52 07.6	
	comp=Z,450nm,18.1s,baz=170,slow=40						
TIXI	Tiksi	62.43	1	ceP	P	22 21 11.2	+1.7
TIXI				pmax	pmax		
	comp=Z,52nm,1.0s						
TIXI	Tiksi	62.43	1	P	P	22 21 09.6	+0.1
BVAR	Borovoye Array	62.81	326	P	P	22 21 12.4	-0.1
	comp=Z,37nm,0.9s,baz=119,slow=7.6,SNR=87						
	comp=Z,37nm,0.9s						
BORK	Borovoye	62.86	326	i P	P	22 21 11.9	-0.9
BORK				pmax	pmax		
	comp=Z,59nm,0.9s						
BORK	Borovoye	62.86	326	P	P	22 21 12.2	-0.6
HRA	Herat	63.84	304	P	P	22 21 18.9	-1.1
HRA				IAmb	IAmb	22 21 20.5	
	comp=Z,7.8nm,0.7s						
BILL	Bilibino	64.33	15	ceP	P	22 21 24.8	+2.6
BILL				pmax	pmax		
	comp=Z,38nm,1.7s						
BILL	Bilibino	64.33	15	P	P	22 21 22.8	+0.6
NRIK	Noril'sk	65.18	346	P	P	22 21 28.1	+0.4
	comp=Z,39nm,0.9s,baz=133,slow=6.2,SNR=30						
NRIK				LR	LR	22 52 50.7	
	comp=Z,554nm,19.5s,baz=146,slow=39						
	comp=Z,39nm,0.9s						
NRIK	Noril'sk	65.18	346	P	P	22 21 27.9	+0.2
AFI	Afiamalu	65.18	110	LR	LR	22 46 22.5	
	comp=Z,330nm,19.9s,baz=338,slow=33						
JCZ	Jackson Bay	65.26	148	P	P	22 21 32.3	+3.6
JLN	Jalan Bani Buh	65.64	290	P	P	22 21 29.6	-2.0
THZ	Tophouse	66.03	144	P	P	22 21 33.0	-0.7
THZ				IAmb	IAmb	22 21 40.4	
	comp=Z,20nm,0.9s						
WBK	Wadi Bani Khal	66.05	291	P	P	22 21 33.3	-1.0
RPZ	Rata Peaks	66.23	146	LR	LR	22 52 02.5	
	comp=Z,65nm,18.3s,baz=328,slow=37						
RPZ	Rata Peaks	66.23	146	P	P	22 21 35.5	+0.6
WSAR	Wadi Sarin	66.36	291	P	P	22 21 34.7	-1.6
URZ	Urewera	66.55	139	LR	LR	22 52 51.2	
	comp=Z,379nm,18.2s,baz=304,slow=38						
BKZ	Black Stump Fm	66.67	140	P	P	22 21 43.3	+5.5
JMDO	Jabal Madar	66.85	290	P	P	22 21 37.8	-1.6
SMDO	Samad	66.90	291	P	P	22 21 38.2	-1.6
MHTO	MHTO	67.00	289	P	P	22 21 38.6	-1.8
JASK	Jask - Hormozg	67.07	294	P	P	22 21 40.3	-0.4
DQM	DQM	67.43	288	P	P	22 21 42.4	-0.7
HOQ	Hoqain	67.57	292	P	P	22 21 42.7	-1.2
	SNR=7.0						
BSY	Bisya	67.68	291	P	P	22 21 43.4	-1.2
AB31	Akbulak array	67.99	319	P	P	22 21 44.8	-1.2
AB31				IAmb	IAmb	22 21 57.1	
	comp=Z,14nm,1.0s						

ABKAR	Akbulak array	67.99	319	P	P	22 21 44.9	-1.2
SOHO	SOHO	68.28	292	P	P	22 21 46.6	-1.8
SOHO	SOHO	68.28	292	*i* P	P	22 21 47.3	-1.1
	SNR=10						
ARQ	Araqi	68.30	291	P	P	22 21 47.4	-1.1
BANOM	Banah	68.48	294	P	P	22 21 49.5	-0.1
BANOM	Banah	68.48	294	P	P	22 21 48.8	-0.8
MDH	Madha	68.49	294	P	P	22 21 47.5	-2.1
UOSS	Minazif	68.57	293	P	P	22 21 47.9	-2.2
UOSS	Minazif	68.57	293	P	P	22 21 48.0	-2.2
UOSS				IAmb	IAmb	22 21 50.9	
	comp=Z,11nm,0.8s						
UOSS	Minazif	68.57	293	P	P	22 21 48.2	-1.9
MASF	Masafi	68.61	294	P	P	22 21 49.7	-0.8
MSFE	Esma-Masafi	68.61	294	*i* P	P	22 21 50.0	-0.4
	SNR=5.5						
SHME	Shamm	68.63	294	P	P	22 21 50.2	-0.2
SHME	Shamm	68.63	294	P	P	22 21 50.3	-0.2
HATD	Hatta, Dubai	68.64	293	P	P	22 21 50.0	-0.6
HATD	Hatta, Dubai	68.64	293	*i* P	P	22 21 50.0	-0.6
	SNR=17						
ASHO	Ashiyiah	68.71	293	P	P	22 21 50.1	-1.0
ASHO	Ashiyiah	68.71	293	*i* P	P	22 21 50.1	-1.0
	SNR=17						
ALNE	Al Ain	69.00	292	P	P	22 21 52.5	-0.3
	SNR=8.1						
ALNE	Al Ain	69.00	292	*i* P	P	22 21 51.9	-1.0
	SNR=16						
NAZ	Nazwa, Dubai	69.06	293	P	P	22 21 52.3	-0.9
NAZ	Nazwa, Dubai	69.06	293	P	P	22 21 52.0	-1.2
FAQ	Al Faqa, Dubai	69.13	293	P	P	22 21 52.3	-1.3
FAQ	Al Faqa, Dubai	69.13	293	*i* P	P	22 21 52.4	-1.3
	SNR=9.8						
SHAO	Shalim	69.33	286	P	P	22 21 54.9	-0.1
SHAO	Shalim	69.33	286	P	P	22 21 54.8	-0.2
SVE	Sverdlovsk	69.37	328	*de*P	P	22 21 54.0	-0.5
SVE				pmax	pmax		
	comp=Z,63nm,1.1s						
SVE				MLR	MLR		
	comp=Z,447nm,17.0s						
ASUD	Al Ashush, Dub	69.37	293	P	P	22 21 55.0	-0.2
ASUD	Al Ashush, Dub	69.37	293	P	P	22 21 54.7	-0.4
AKTO	Aktyubinsk	69.45	320	LR	LR	22 55 08.1	
	comp=Z,1µm,18.4s,baz=36,slow=38						
UMZA	Um Al Zommool	69.57	291	P	P	22 21 55.1	-1.2
DMTO	DMTO	69.99	286	P	P	22 21 58.7	-0.4
ARTI	Arti	70.47	327	*c i*P	P	22 21 59.9	-1.4
ARTI						22 22 22.1	
ARTI				S	S	22 31 13.7	+0.7
ARTI				SS	SS	22 35 44.7	+0.7
ARTI				pmax	pmax		
	comp=Z,30nm,1.0s						
ARTI	Arti	70.47	327	P	P	22 21 59.6	-1.7
RBK	Rabkut	70.71	285	P	P	22 22 03.4	-0.1
DOK	Doka	70.71	287	P	P	22 22 02.4	-1.1
DOK				S	S	22 31 14.9	-2.2
MZWR	Madinat Zayed	70.71	292	P	P	22 22 01.6	-1.8
WHFO	Wadi Hawf	71.10	286	P	P	22 22 04.3	-1.5
MZR	Muzera	71.11	291	P	P	22 22 05.1	-0.7
	SNR=5.7						
MZR	Muzera	71.11	291	*i* P	P	22 22 05.3	-0.5
	SNR=14						
ABTO	Aybut	71.59	285	P	P	22 22 07.4	-1.5
JRN	Qarnain Island	71.62	293	P	P	22 22 08.0	-0.9
GHWR	Ruwais	71.63	292	P	P	22 22 07.7	-1.2
SLWR	Sila	72.70	292	P	P	22 22 14.5	-0.8
SAKB	Bahrain	73.67	294	S	SKiKP	22 31 48.9	-1.2
RDOG	Red Dog Mine	74.24	22	P	P	22 22 24.1	+0.5
RDOG				IAmb	IAmb	22 22 39.7	
	comp=Z,31nm,1.0s						
G18K	Tagagawik	75.40	24	P	P	22 22 30.8	+0.5
G18K				IAmb	IAmb	22 22 45.3	
	comp=Z,24nm,1.3s						
KIRV	Kirov	75.61	328	LR	LR	22 59 10.8	
	comp=Z,525nm,18.5s,baz=106,slow=38						
KIRV	Kirov	75.61	328	*i* P	P	22 22 30.5	-1.1
AKT	Akhty	75.75	310	*e*P	P	22 22 32.5	-0.5
AKT				*e*		22 22 44.2	
AKT				*e*PPP	PPP	22 27 11.9	
AKT				pmax	pmax		
	comp=Z,49nm,1.1s						
AKT				MLR	MLR		
	comp=Z,711nm,18.0s						
MAK	Makhachkala	75.93	312	*c i*P	P	22 22 29.3	-4.5
MAK				*e*		22 25 22.1	
MAK				*e*PPP	PPP	22 27 06.6	
MAK				*e*S	S	22 32 10.1	-5.3
MAK				*e*SS	SS	22 37 05.3	-2.6
MAK				*e*SSS	SSS	22 40 26.5	
MAK				pmax	pmax		
	comp=Z,388nm,1.2s						
BELG	Belogornoye	76.14	322	*i* P	P	22 22 33.2	-1.6
BELG				pmax	pmax		
	comp=Z,12nm,1.0s						
CASY	Casey	76.19	187	P	P	22 22 35.0	+0.3
CASY				IAmb	IAmb	22 22 46.6	
	comp=Z,15nm,0.8s						
KDAK	Kodiak Island	77.33	33	P	P	22 22 42.5	+1.2
	comp=Z,18nm,0.9s,baz=289,slow=3.9,SNR=4.3						
KDAK				LR	LR	22 53 27.5	
	comp=Z,249nm,19.8s,baz=236,slow=33						
	comp=Z,18nm,0.9s						
IMAR	Indian Mountai	77.40	24		P	22 22 41.8	+0.1
G21K	Allakaket	77.56	24		P	22 22 43.5	+1.0
CAST	Castle Rocks	77.90	27	P	P	22 22 45.2	+0.6
CAST				IAmb	IAmb	22 22 59.9	
	comp=Z,29nm,1.0s						
GNI	Garni	78.04	309	LR	LR	23 01 27.9	
	comp=Z,250nm,21.8s,baz=78,slow=39						
GNI	Garni	78.04	309	P	P	22 22 46.4	+0.4
GNI	Garni	78.04	309	*ce*P	P	22 22 47.4	+1.4
GNI				pmax	pmax		
	comp=Z,37nm,1.3s						
GNI	Garni	78.04	309	P	P	22 22 45.7	-0.2
GNI	Garni	78.04	309	P	P	22 22 46.1	+0.1
GNI	Garni	78.04	309	P	P	22 22 46.8	+0.8
	comp=Z,41nm,1.5s						
SKT	Skwentna	78.07	29		P	22 22 45.7	+0.2
SKT				IAmb	IAmb	22 23 00.5	
	comp=Z,54nm,1.3s						
RAR	Rarotonga	78.19	114	LR	LR	22 49 39.4	
	comp=Z,222nm,21.2s,baz=287,slow=30						
RAYN	Ar Rayn	78.39	292	P	P	22 22 46.7	-1.5
RAYN	Ar Rayn	78.39	292	P	P	22 22 46.9	-1.3
RAYN				pmax	pmax		
	comp=Z,24nm,0.8s						
RAYN	Ar Rayn	78.39	292	P	P	22 22 46.9	-1.3
RAYN				IAmb	IAmb	22 22 49.1	
	comp=Z,24nm,0.8s						
RAYN	Ar Rayn	78.39	292	*i* P	P	22 22 46.8	-1.3
	SNR=7.4						
MLY	Manley	78.58	25	P	P	22 22 48.6	+0.3
MLY				IAmb	IAmb	22 23 03.6	
	comp=Z,24nm,0.9s						
NCK	Nalchik	78.78	313	*i* P	P	22 22 49.0	-0.8
NCK				pmax	pmax		
	comp=Z,21nm,0.8s						
PMR	Palmer	79.20	29	P	P	22 22 54.3	+2.6
KBZ	Khabaz	79.28	313	P	P	22 22 51.5	-1.0
	comp=Z,20nm,1.1s,baz=107,slow=4.6,SNR=17						
KBZ				LR	LR	23 02 09.5	
	comp=Z,339nm,18.9s,baz=79,slow=39						
	comp=Z,20nm,1.1s						
MCK	McKinley	79.32	27	P	P	22 22 53.1	+0.7
MCK				pmax	pmax		
	comp=Z,126nm,1.4s						
MCK	McKinley	79.32	27	P	P	22 22 53.1	+0.7
KIV	Kislovodsk	79.42	313	P	P	22 22 53.1	-0.3
KIV	Kislovodsk	79.42	313	*e*P	P	22 22 52.8	-0.6
KIV				pmax	pmax		
	comp=Z,43nm,1.1s						
KIV				MLR	MLR		
	comp=Z,597nm,19.0s						
KIV	Kislovodsk	79.42	313	P	P	22 22 52.8	-0.6
KIV				IAmb	IAmb	22 22 54.6	
	comp=Z,42nm,0.8s						
KIV	Kislovodsk	79.42	313	*i* P	P	22 22 52.8	-0.6
	SNR=9.6						
KIV	Kislovodsk	79.42	313	P	P	22 22 53.6	+0.2
	comp=Z,38nm,1.4s						
GEVA	Gevas	79.43	307		P	22 22 53.2	-0.5
GEVA				IAmb	IAmb	22 22 56.1	
	comp=Z,34nm,1.0s						
NEUR	Neytrino	79.44	312	*i* P	P	22 22 53.5	-0.1
NEUR				pmax	pmax		
	comp=Z,14nm,1.1s						
SHA1	Shidzhatmaz	79.45	313	*i* P	P	22 22 52.8	-1.0
VRH	Novokhopyorsk	79.79	320	*e*P	P	22 22 53.7	-1.4
VRH				pmax	pmax		
	comp=Z,41nm,1.0s						
COLA	College	79.81	26	P	P	22 23 00.7	+5.8
COLA	College	79.81	26	*i* P	P	22 22 54.8	-0.1
COLA				pmax	pmax		
	comp=Z,16nm,0.9s						
CCB	Clear Creek Bu	79.83	26		P	22 22 55.7	+0.6
CCB				IAmb	IAmb	22 23 11.9	
	comp=Z,18nm,1.0s						
HDA	Harding Lake	80.20	26	P	P	22 22 57.5	+0.5
HDA				IAmb	IAmb	22 23 10.8	
	comp=Z,85nm,1.7s						
GURO	Guroymak-BITLI	80.22	308		P	22 22 58.1	+0.2
ILAR	Eielson Array	80.22	26	P	P	22 22 58.3	+1.1
	comp=Z,2.1nm,0.7s,baz=256,slow=5.2,SNR=13						
ILAR				LR	LR	22 59 14.8	
	comp=Z,76nm,20.5s,baz=262,slow=36						
	comp=Z,2.1nm,0.7s						
ILAR	Eielson Array	80.22	26		P	22 22 57.9	+0.7
KLMR	Klimovskoe	80.69	330	*e*P	P	22 22 57.8	-2.0
KLMR				pmax	pmax		
	comp=Z,102nm,1.3s						
KLMR				MLR	MLR		
	comp=Z,371nm,15.0s						
LABN	Labinsk	80.79	314	*e*P	P	22 23 00.1	-0.6
LABN				pmax	pmax		
	comp=Z,27nm,0.8s						
LABN				MLR	MLR		
	comp=Z,899nm,19.0s						
ERBR	Yeremizino-Bor	80.89	315	*e*P	P	22 22 59.6	-1.6
ERBR				pmax	pmax		
	comp=Z,38nm,1.0s						
BMAR	Burnt Mountain	81.09	23	P	P	22 23 02.7	+0.9
ADZR	Andozero	81.14	333	*e*P	P	22 23 00.2	-1.9
ADZR				pmax	pmax		
	comp=Z,53nm,1.7s						
VORD	Divnogorie	81.33	320	*e*P	P	22 23 00.7	-2.7
VORD				pmax	pmax		
	comp=Z,10.0nm,1.0s						
VORR	Voronezh	81.34	321	*e*P	P	22 23 02.5	-0.9
VORR				pmax	pmax		
	comp=Z,23nm,0.4s						
VSR	Storozhevoye	81.39	321	*e*P	P	22 23 02.3	-1.4
VSR				pmax	pmax		
	comp=Z,16nm,0.7s						
LPSR	Galich'ya Gora	81.45	322	*e*P	P	22 23 03.0	-1.0
LPSR				pmax	pmax		
	comp=Z,40nm,0.8s						
SCRK	Sand Creek	81.51	26	P	P	22 23 04.9	+0.6
SOC	Sochi	81.59	313	*e*P	P	22 23 05.7	+0.8
SOC				*e*		22 26 07.2	
SOC				*e*S	S	22 33 20.0	+4.0
SOC				*e*SS	SS	22 38 33.8	+0.8
SOC				*e*SSS	SSS	22 41 50.4	
SOC				MLR	MLR		
	comp=Z,330nm,17.0s						
MENT	Mentasta	81.69	28	P	P	22 23 08.9	+3.8
MOS	Moscow	81.98	325	*e*P	P	22 23 05.7	-1.0
MOS				*e*		22 26 12.5	
MOS				*e*S	S	22 33 24.1	+4.6
MOS				pmax	pmax		
	comp=Z,30nm,0.9s						
MOS				MLR	MLR		
	comp=Z,300nm,18.0s						
MOS				MLR	MLR		
	comp=E,400nm,19.0s						
LVZ	Lovozero	82.35	338	*ce*P	P	22 23 09.5	+1.0
LVZ				pmax	pmax		
	comp=Z,31nm,1.3s						
LVZ	Lovozero	82.35	338		P	22 23 08.2	-0.3
LVZ				IAmb	IAmb	22 23 09.7	
	comp=Z,29nm,1.1s						
LVZ	Lovozero	82.35	338	P	P	22 23 08.7	+0.2
	comp=Z,31nm,1.2s						
BCAR	Beaver Creek A	82.56	27		P	22 23 10.9	+1.2
OBN	Obninsk	82.64	325	LR	LR	23 02 19.4	
	comp=Z,227nm,18.4s,baz=120,slow=37						
OBN	Obninsk	82.64	325	*de*P	P	22 23 09.6	-0.5
OBN				*e*		22 23 15.8	
OBN				*e*		22 26 15.4	
OBN				*e*PPP	PPP	22 28 09.0	
OBN				pmax	pmax		
	comp=Z,27nm,1.3s						
OBN				MLR	MLR		
	comp=Z,322nm,16.0s						
OBN	Obninsk	82.64	325	P	P	22 23 09.2	-1.0
APA	Apatity	82.86	337	*e*P	P	22 23 09.5	-1.6
APA				*e*		22 23 17.4	
APA				*e*		22 26 20.5	
APA				*e*S	S	22 33 26.4	-1.6
APA				*e*SS	SS	22 38 51.7	+1.1
APA				pmax	pmax		
	comp=Z,26nm,1.0s						
APA				MLR	MLR		
	comp=Z,655nm,18.1s						
ANN	Anapa	83.11	314	*e*P	P	22 23 13.1	+0.3
ANN				pmax	pmax		
	comp=Z,64nm,1.1s						
ANN				MLR	MLR		
	comp=Z,369nm,20.0s						
ABPO	Ambohimpanom	83.17	250	*i* P	P	22 23 13.2	-0.7
ABPO	Ambohimpanom	83.17	250	P	P	22 23 12.0	-1.8
ABPO				IAmb	IAmb	22 23 13.8	
	comp=Z,10.0nm,1.0s						
PNL	Peninsula	84.11	31	P	P	22 23 21.8	+4.1
GAZ	Gaziantep	84.14	307	P	P	22 23 18.2	-0.2
VOI	Vohitsoka	84.18	247	P	P	22 23 17.2	-1.7
VOI	Vohitsoka	84.18	247	P	P	22 23 16.9	-2.0
KEV	Kevo	84.81	340	P	P	22 23 20.7	-0.3
KEV				pmax	pmax		
	comp=Z,19nm,1.0s						
KEV	Kevo	84.81	340	P	P	22 23 20.7	-0.3
KEV				IAmb	IAmb	22 23 33.7	
	comp=Z,19nm,1.0s						
HYT	Haines Junctio	84.86	29	P	P	22 23 21.8	+0.2
HYT				IAmb	IAmb	22 23 38.1	
	comp=Z,34nm,1.1s						
BNN	Bunyan	85.00	308	P	P	22 23 22.1	-0.7
BNN				IAmb	IAmb	22 23 25.4	
	comp=Z,30nm,1.1s						
ASF	Jabal al Asfar	85.04	302	LR	LR	23 06 14.6	
	comp=Z,231nm,20.6s,baz=28,slow=39						
INK	Inuvik	85.12	22	P	P	22 23 23.5	+0.9
	comp=Z,12nm,1.0s,baz=289,slow=3.7,SNR=11						
	comp=Z,12nm,1.0s						
INK	Inuvik	85.12	22	P	P	22 23 23.0	+0.4
SPB2	Spitsbergen Ar	85.17	349	P	P	22 23 22.7	0.0
SPITS	Spitsbergen Ar	85.17	349	P	P	22 23 22.5	-0.2
	comp=Z,9.0nm,0.8s,baz=64,slow=6.6,SNR=9.3						
SPITS				LR	LR	23 08 17.5	
	comp=Z,285nm,18.2s,baz=73,slow=40						
	comp=Z,9.0nm,0.8s						
ARCES	ARCESS Array B	85.37	340	P	P	22 23 23.6	-0.3
	comp=Z,10nm,0.7s,baz=88,slow=6.5,SNR=44						
ARCES				LR	LR	23 06 16.0	
	comp=Z,154nm,18.0s,baz=86,slow=39						
	comp=Z,10nm,0.7s						
SIM	Simferopol'	85.43	315	*e*P	P	22 23 24.0	-0.7
SIM				pmax	pmax		
	comp=Z,38nm,1.1s						
WHY	Whitehorse	86.16	29	P	P	22 23 28.6	+0.6
MMAI	Mount Meron Ar	86.17	303	P	P	22 23 28.1	-0.6
	comp=Z,8.8nm,0.9s,baz=80,slow=5.2,SNR=6.9						
MMAI				LR	LR	23 07 26.6	
	comp=Z,112nm,18.0s,baz=54,slow=39						
	comp=Z,8.8nm,0.9s						
SKAG	Skagway	86.18	30	P	P	22 23 33.0	+5.0
GHAJ	Ghor Haditha	86.28	301		P	22 23 28.2	-0.9
ILGA	Ilgaz	86.30	311	P	P	22 23 28.4	-1.0
BR131	Keskin Array S	86.57	310	P	P	22 23 29.4	-1.1
BR131	Keskin Array S	86.57	310	*i* P	P	22 23 29.5	-1.1
BR131	Keskin Array S	86.57	310		P	22 23 29.4	-1.1
BRTR	Keskin Array B	86.57	310	P	P	22 23 29.2	-1.4
	comp=Z,1.1nm,0.5s,baz=123,slow=4.7,SNR=7.7						
BRTR				LR	LR	23 07 30.0	
	comp=Z,175nm,20.6s,baz=66,slow=39						
	comp=Z,1.1nm,0.5s						
BRTR	Keskin Array B	86.57	310	*i* P	P	22 23 29.5	-1.2
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
FURI	Furi	86.70	278	P	P	22 23 30.7	-1.3
FURI				IAmb	IAmb	22 23 46.9	
	comp=Z,29nm,0.9s						
PPT	Papeete	86.80	108	LR	LR	22 54 30.8	
	comp=Z,166nm,21.7s,baz=342,slow=30						
PPT2	Papeete2	86.80	108	*e*S	SKSac	22 33 55.6	-2.7
	comp=Z,252nm,25.8s						
PPT2				*e*LQ	LQ	22 47 06.0	
	comp=Z,352nm,32.2s						
PPT2				*e*LR	LR	22 50 46.3	
	comp=Z,403nm,23.5s						
PPT2				*e*LR	LR	22 50 54.5	
	comp=Z,353nm,26.2s						
EIL	Elat	87.05	299	LR	LR	23 10 46.6	
	comp=Z,145nm,18.1s,baz=82,slow=41						
FIA1	FINESS Array S	87.06	332	P	P	22 23 31.0	-1.3
FINES	FINESS Array B	87.06	332	P	P	22 23 31.4	-0.9
	comp=Z,4.1nm,0.6s,baz=72,slow=4.6,SNR=30						
FINES				LR	LR	23 06 29.8	
	comp=Z,464nm,19.6s,baz=83,slow=38						
	comp=Z,4.1nm,0.6s						
FINES	FINESS Array B	87.06	332	*i* P	P	22 23 31.3	-1.0
FINES				pmax	pmax		
	comp=Z,4.0nm,0.6s						
VSU	Vasula	87.43	329	*ce*P	P	22 23 35.2	+1.0
VSU				pmax	pmax		
	comp=Z,19nm,1.7s						
CSS	Mathiatis	87.57	305	P	P	22 23 34.5	-0.9
AK09	Malin Array Si	87.67	321	P	P	22 23 35.6	+0.1
AKASG	Malin Array Be	87.69	321	P	P	22 23 34.7	-0.9
	comp=Z,2.8nm,0.7s,baz=64,slow=4.9,SNR=15						
AKASG				LR	LR	23 06 08.2	
	comp=Z,293nm,19.3s,baz=68,slow=38						
	comp=Z,2.8nm,0.7s						
AKASG	Malin Array Be	87.69	321	*i* P	P	22 23 34.2	-1.4
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.6s						
AKASG	Malin Array Be	87.69	321	P	P	22 23 34.3	-1.3
AKASG				IAmb	IAmb	22 23 47.5	
	comp=Z,13nm,1.2s						
AKBB	Malin Array Si	87.69	321	*ce*P	P	22 23 36.1	+0.5
AKBB				pmax	pmax		
	comp=Z,10.0nm,0.9s						
AKBB	Malin Array Si	87.69	321		P	22 23 34.6	-0.9
AKBB				IAmb	IAmb	22 23 36.4	
	comp=Z,8.1nm,0.8s						
AKBB	Malin Array Si	87.69	321	P	P	22 23 35.9	+0.3
MNK	Minsk	87.70	325	*i* P	P	22 23 35.6	+0.1
MNK				*i*		22 27 01.0	
MNK				*i* PPP	PPP	22 28 56.0	
MNK				*i* S	SKSac	22 34 03.1	+0.8
MNK				*i* SS	SS	22 40 06.2	+3.9
MNK				*i* SSS	SSS	22 43 39.7	
MNK				pmax	pmax		
	comp=N,4.0nm,0.7s						
MNK				pmax	pmax		
	comp=E,8.0nm,0.9s						
MNK				pmax	pmax		
	comp=Z,4.0nm,0.7s						
MNK				MLR	MLR		
	comp=Z,290nm,17.0s						
MNK				MLR	MLR		
	comp=N,259nm,17.0s						
MNK				MLR	MLR		
	comp=E,241nm,17.0s						
MNK	Minsk	87.70	325	*i* P	P	22 23 35.6	+0.1
	comp=E,8.0nm,0.9s						
MNK				*i* P	P	22 23 35.6	+0.1
	comp=N,4.0nm,0.7s						
MNK				*i* P	P	22 23 35.6	+0.1
	comp=Z,4.0nm,0.7s,baz=78						
MNK				*i* PP	PP	22 27 01.0	+0.2
MNK				*i* PPP	PPP	22 28 56.0	
MNK				*i* S	SKSac	22 34 03.1	+0.8
MNK				*i* SS	SS	22 40 06.2	+3.9
MNK				*i* SSS	SSS	22 43 39.8	
MNK				*i* LQ	LQ	22 57 15.1	
MNK				*i* LR	LR	23 04 07.7	
MNK				*i* LRM	MLR	23 05 34.5	
	comp=Z,290nm,16.9s						
NOR	Nord	87.70	355	*i* P	P	22 23 35.7	+0.6
NOR				IAmb	IAmb	22 23 36.8	
	comp=Z,26nm,1.3s						
KIEV	Kiev	87.70	321	P	P	22 23 34.4	-1.2
KIEV				pmax	pmax		
	comp=Z,8.0nm,0.9s						
KIEV	Kiev	87.70	321	P	P	22 23 34.4	-1.2
KIEV				IAmb	IAmb	22 23 36.4	
	comp=Z,7.7nm,0.9s						
KIEV	Kiev	87.70	321	P	P	22 23 35.7	+0.1
	comp=Z,41nm,1.3s						
BAL3X	Bal3x, Balta	88.00	318	P	P	22 23 37.1	0.0
C36M	Paulatuk	88.11	20		P	22 23 37.6	+0.4
LUBAR	Lubar, Ukraine	88.77	320	P	P	22 23 39.5	-1.2
VNDA	Vanda	88.80	173	P	P	22 23 39.9	-0.3
	comp=Z,3.1nm,0.9s,baz=332,slow=5.9,SNR=12						
VNDA				LR	LR	23 04 55.3	
	comp=Z,274nm,18.8s,baz=344,slow=36						
	comp=Z,3.1nm,0.9s						
VNDA	Vanda	88.80	173	P	P	22 23 40.3	+0.1
VNDA				pmax	pmax		
	comp=Z,10.0nm,1.0s						
VNDA	Vanda	88.80	173	P	P	22 23 40.3	+0.1
VNDA				IAmb	IAmb	22 23 52.3	
	comp=Z,9.7nm,1.0s						
MAW	Mawson	88.84	200	P	P	22 23 41.0	+0.5
	comp=Z,2.2nm,1.4s						
MAW	Mawson	88.84	200	P	P	22 23 39.9	-0.6
	comp=Z,2.1nm,0.6s,baz=74,slow=5.2,SNR=6.8						
MAW				LR	LR	22 59 52.9	
	comp=Z,90nm,20.6s,baz=58,slow=33						
	comp=Z,2.1nm,0.6s						
MAW	Mawson	88.84	200	P	P	22 23 40.3	-0.2
MAW				pmax	pmax		
	comp=Z,4.0nm,1.5s						
MAW	Mawson	88.84	200	P	P	22 23 40.3	-0.2
KIBK	Kibwezi	89.07	267	P	P	22 23 42.4	-0.6
KIBK	Kibwezi	89.07	267	P	P	22 23 41.4	-1.6
KIBK				IAmb	IAmb	22 23 43.8	
	comp=Z,8.4nm,1.0s						
DLBC	Dease Lake	89.09	31	LR	LR	22 56 47.8	
	comp=Z,66nm,21.6s,baz=266,slow=31						
RNPP9	Sopachiv	89.58	322	P	P	22 23 44.2	-0.3
PABE	Paberze	89.64	326	P	P	22 23 44.0	-0.6
PABE				IAmb	IAmb	22 23 46.9	
	comp=Z,25nm,1.1s						
KMBO	Kilima Mbogo	89.66	269	LR	LR	23 02 18.2	
	comp=Z,87nm,19.5s,baz=96,slow=34						
KMBO	Kilima Mbogo	89.66	269	*i* P	P	22 23 44.4	-1.6
ELL	Elmali	89.99	307	P	P	22 23 44.7	-2.2
ELL				pmax	pmax		
	comp=Z,27nm,1.3s						
ELL	Elmali	89.99	307	P	P	22 23 44.7	-2.2
ELL				IAmb	IAmb	22 24 53.6	
	comp=Z,26nm,1.3s						
TESR	Tescani	90.27	317	P	P	22 23 47.2	-0.7
	comp=Z,8.5nm,1.0s						
BURAR	Bucovina Array	90.95	318	P	P	22 23 50.4	-0.8
BUR08	Bucovina Ar. S	90.95	318		P	22 23 50.5	-0.7
BUR08				IAmb	IAmb	22 24 03.9	
	comp=Z,10nm,1.3s						
MLR	Muntele Rosu	90.99	316	LR	LR	23 09 13.9	
	comp=Z,536nm,21.8s,baz=66,slow=38						
DAG	Danmarks Havn	91.89	352	*i* P	P	22 23 53.9	-0.9
DAG				IAmb	IAmb	22 24 01.1	
	comp=Z,15nm,1.0s						
BBB	Bella Bella	91.95	36	LR	LR	23 04 36.2	
	comp=Z,53nm,19.1s,baz=270,slow=35						
KWP	Kalwaria Pacla	92.01	321	P	P	22 23 55.9	0.0
	comp=Z,19nm,1.1s						
RES	Resolute Bay	92.48	10	P	P	22 23 58.5	+1.0
	comp=Z,23nm,0.8s,baz=326,slow=3.3,SNR=12						
RES				LR	LR	23 11 22.6	
	comp=Z,73nm,18.4s,baz=4.0,slow=39						
	comp=Z,23nm,0.8s						
RES	Resolute Bay	92.48	10	P	P	22 23 57.8	+0.3
HFS	Hagfors	93.22	333	P	P	22 24 00.2	-1.0
	comp=Z,5.1nm,1.0s,baz=63,slow=4.4,SNR=6.0						
HFS				LR	LR	23 09 59.6	
	comp=Z,447nm,18.9s,baz=66,slow=38						
	comp=Z,5.1nm,1.0s						
NEEM	North Greenlan	93.51	360	*i* P	P	22 24 03.9	+1.3
NB2	NORSAR Subarra	93.93	334	P	P	22 24 03.2	-1.3
	comp=Z,4.8nm,1.0s,baz=62,slow=4.4						
NB2	NORSAR Subarra	93.93	334	P	P	22 24 03.2	-1.3
NOA	NORSAR Array B	93.93	334	P	P	22 24 03.4	-1.1
	comp=Z,1.5nm,1.0s,baz=66,slow=4.6,SNR=4.4						

NOA				LR	LR	23 10 41.7	
	comp=Z,267nm,18.1s,baz=70,slow=38						
	comp=Z,1.5nm,1.0s						
IDI	**Anoyia**	**94.28**	**307**	LR	LR	23 13 20.9	
	comp=Z,119nm,19.4s,baz=103,slow=40						
TAOE	**Nuku Hiva Isla**	**94.44**	**98**	*e*LR	LR	22 54 19.0	
	comp=Z,754nm,28.0s						
YKA	**Yellowknife Ar**	**94.56**	**24**	P	**P**	**22 24 07.6**	**+0.3**
	comp=Z,4.4nm,0.8s,baz=302,slow=4.5,SNR=15						
	comp=Z,4.4nm,0.8s						
YKA	**Yellowknife Ar**	**94.56**	**24**	*i* P	**P**	**22 24 09.1**	**+1.8**
YKA				pmax	pmax		
	comp=Z,5.0nm,0.8s						
JMIC	**Jan Mayen**	**94.59**	**347**	LR	LR	23 11 12.1	
	comp=Z,150nm,20.5s,baz=98,slow=38						
VRAC	**Vranov**	**95.89**	**322**	LR	LR	23 11 31.1	
	comp=Z,198nm,18.1s,baz=80,slow=38						
MBAR	**Mbarara**	**96.01**	**270**	LR	LR	23 10 20.4	
	comp=Z,115nm,18.1s,baz=64,slow=37						
BRG	**Berggiesshubel**	**96.87**	**324**	SP	SP	22 37 09.0	+10
CLL	**Collm**	**97.24**	**325**	*i* P	**P**	**22 24 19.6**	**-0.1**
CLL				*e*S	**S**	**22 35 48.0**	**+5.8**
CLL				MLR	MLR		
	comp=Z,300nm,18.2s						
CLL	**Collm**	**97.24**	**325**	*i* P	**P**	**22 24 19.6**	**-0.1**
CLL				*e*PP	**PP**	**22 28 15.0**	**-0.8**
CLL				*e*S	**S**	**22 35 48.0**	**+5.8**
CLL				*e*SS	**SS**	**22 42 18.0**	**-1.2**
CLL				*e*SSS	SSS	22 45 48.0	
CLL				*e*SSSS		22 49 30.0	
CLL				LH		22 56 00.0	
CLL				L	L	23 01 00.0	
CLL				AMS	AMS	23 08 00.0	
	comp=N,300nm,19.3s						
CLL				AMS	AMS	23 08 00.0	
	comp=E,200nm,23.5s						
CLL				AMS	AMS	23 13 00.0	
	comp=N,100nm,25.0s						
CLL				AMS	AMS	23 13 00.0	
	comp=E,200nm,18.4s						
CLL				AMS	AMS	23 13 00.0	
	comp=Z,300nm,18.2s						
GERES	**GERESS Array B**	**97.83**	**322**	P	**P**	**22 24 21.6**	**-1.0**
	comp=Z,0.6nm,0.4s,baz=72,slow=5.7,SNR=8.7						
GERES				LR	LR	23 12 40.3	
	comp=Z,213nm,19.2s,baz=76,slow=38						
	comp=Z,0.6nm,0.4s						
YBH	**Yreka Blue Hor**	**98.89**	**45**	LR	LR	23 00 50.5	
	comp=Z,104nm,21.9s,baz=326,slow=30						
QSPA	**South Pole Qui**	**99.05**	**180**	P	**Pdif**	**22 24 27.2**	**-0.4**
	comp=Z,1.1nm,0.9s,baz=329,slow=2.9,SNR=2.3						
QSPA				LR	LR	23 08 45.6	
	comp=Z,156nm,21.2s,baz=351,slow=35						
	comp=Z,1.1nm,0.9s						
QSPA	**South Pole Qui**	**99.05**	**180**	P	**Pdif**	**22 24 28.2**	**+0.6**
PDAR	**Pinedale Array**	**107.24**	**40**	PKKPbc	PKKPbc	22 40 43.0	+12
	comp=Z,1.0nm,0.6s,baz=65,slow=2.4,SNR=7.4						
TXAR	**Lajitas Array**	**118.19**	**50**	PKP	**PKPdf**	**22 29 34.8**	**-0.1**
	comp=Z,0.8nm,0.8s,baz=298,slow=2.5,SNR=7.2						
TXAR				PKKPab	**PKKPbc**	**22 39 54.4**	**+0.4**
	comp=Z,0.5nm,1.0s,baz=133,slow=7.0,SNR=3.5						
TORD	**Torodi Ar. Bea**	**121.08**	**291**	PKP	**PKPdf**	**22 29 39.3**	**-1.3**
	comp=Z,2.3nm,0.7s,baz=36,slow=2.4,SNR=12						
TORD				PKKPab	**PKKPbc**	**22 39 43.8**	**+0.9**
	comp=Z,1.3nm,0.9s,baz=273,slow=2.3,SNR=4.4						
DBIC	**Dimbokro**	**129.25**	**286**	PKP	**PKPdf**	**22 29 54.8**	**-1.5**
	comp=Z,3.8nm,0.8s,baz=333,slow=2.3,SNR=3.6						
DBIC	**Dimbokro**	**129.25**	**286**		**PKPdf**	**22 29 54.4**	**-1.9**
PLCA	**Paso Flores**	**145.03**	**157**	PKPbc	**PKPbc**	**22 30 24.0**	**0.0**
	comp=Z,8.3nm,1.0s,baz=222,slow=3.1,SNR=7.2						
PLCA	**Paso Flores**	**145.03**	**157**	PKPbc	**PKPbc**	**22 30 23.8**	**-0.2**
PLCA	**Paso Flores**	**145.03**	**157**	*e*P	**PKPbc**	**22 30 20.9**	**-3.1**
DR12	**Loma Pena Alta**	**147.99**	**30**		**PKPbc**	**22 30 32.3**	**-1.0**
BI02	**San Fabin de**	**148.13**	**152**		**PKPbc**	**22 30 32.0**	**-1.2**
BO02	**Sierra Bellavi**	**149.88**	**150**	PKPbc	**PKPbc**	**22 30 37.5**	**-0.3**
MT02	**Curacav**	**150.92**	**148**		**PKPbc**	**22 30 40.0**	**-0.1**
OTAV	**Otavalo**	**153.24**	**71**	*e*P	**PKPdf**	**22 30 33.2**	**-5.9**
CFA	**Coronel Fontan**	**153.71**	**150**	PKPbc	**PKPbc**	**22 30 44.1**	**-2.4**
	comp=Z,0.5nm,0.4s,baz=210,slow=1.1,SNR=1.2						
SDV	**Santo Domingo**	**155.08**	**44**		**PKPdf**	**22 30 47.5**	**+6.2**
PLTB	**Pedras Altas**	**157.53**	**179**	*e*P	**PKPdf**	**22 30 39.1**	**-4.7**
CZSB	**Cruzeiro do Su**	**160.72**	**87**	*e*P	**PKPdf**	**22 30 42.3**	**-5.7**
LPAZ	**La Paz**	**163.88**	**117**	PKP	**PKPdf**	**22 30 52.2**	**+0.4**
	comp=Z,2.1nm,1.0s,baz=243,slow=0.6,SNR=4.7						
LPAZ	**La Paz**	**163.88**	**117**		**PKPdf**	**22 30 49.9**	**-2.0**
LPAZ	**La Paz**	**163.88**	**117**	*e*P	**PKPdf**	**22 30 45.7**	**-6.1**
ARCA	**Ara§uai, MG**	**166.60**	**234**	*e*P	**PKPdf**	**22 30 48.4**	**-4.9**
MURT	**Porto Murtinho**	**166.91**	**162**	*e*P	**PKPdf**	**22 30 50.4**	**-3.0**
PTLB	**Pontes e Lacer**	**171.54**	**138**	*e*P	**PKPdf**	**22 30 54.0**	**-2.4**
ITTB	**Itaituba**	**174.63**	**27**	*e*P	**PKPdf**	**22 30 52.7**	**-5.1**

IDC ***30*** *22:16:56.8±1.1, 9°.20N×126°.92E, h0^{km}, mb3.9/10, mbtmp3.9/11, ML4.2/1, Error ellipse: s-maj=34.3km s-min=13.9km az=100.0*

NEIC ***30*** *22:16:59.5±1.2, 9°.13N±0°.08×126°.6E±0°.2, h10^{km}±1^{km}, mb4.4/15, Error ellipse: s-maj=30.9km s-min=14.0km az=92.0*

MAN ***30*** *22:17:00.0, 9°.11N×126°.81E, h4^{km}, MS3.3*

ISC 30 22:16:57.9±1.8**, 9°.15N**±0°.03×**126°.66E**±0°.06**, h3**^{km}±11^{km}**, n51,** σ1^{s}**32**/57**, mb4.2**/18**, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TSSP	**Tandag City**	**0.47**	**257**	*i* P	**Pn**	**22 17 12.5**	**+0.9**
TSSP				*e*S	**Sb**	**22 17 20.8**	**+4.7**
GLSP	**General Luna,**	**0.82**	**320**	*i* P	**Pn**	**22 17 18.9**	**+2.4**
GLSP				*e*S	**Sn**	**22 17 31.6**	**+2.5**
BIPH	**Bislig**	**1.00**	**197**	*i* P	**Pn**	**22 17 20.6**	**+1.7**
BIPH				*e*S	**Sn**	**22 17 33.3**	**-0.3**
CDOP	**Cateel, Davao**	**1.37**	**189**	*i* P	**Pg**	**22 17 25.8**	**+1.6**
CDOP				*e*S	**Sb**	**22 17 42.3**	**+0.1**
BUKP	**Musuan**	**2.02**	**232**	*e*P	**Pg**	**22 17 37.7**	**+0.9**
BUKP				*i* S	**Sg**	**22 18 02.8**	**-0.2**
CGP	**Cagayan de Oro**	**2.06**	**251**	*i* P	**Pg**	**22 17 37.7**	**+0.1**
CGP				*i* S	**Sg**	**22 18 05.6**	**+1.3**
DAV	**Davao City (W)**	**2.33**	**208**	Pn	**Pb**	**22 17 40.8**	**+0.3**
	51nm,0.3s,baz=65,slow=16,SNR=2.5						
DAV				Lg	Lg	22 18 13.9	
	88nm,0.3s,baz=62,slow=21,SNR=5.5						
	102nm,0.4s						
DAV				AML	AML		
DAV	**Davao City (W)**	**2.33**	**208**		**Pn**	**22 17 37.9**	**+0.8**
PLP	**Palo**	**2.60**	**321**	*e*P	**Pb**	**22 17 44.9**	**-0.3**
PLP				*e*S	**Sb**	**22 18 17.0**	**-0.6**
KCP	**Kidapawan**	**2.63**	**216**	*i* P	**Pg**	**22 17 47.8**	**-0.6**
KCP				*i* S	**Sb**	**22 18 19.0**	**+0.3**
LLP	**Lapu-Lapu**	**2.90**	**294**	*e*P	**Pb**	**22 17 50.4**	**+0.1**
LLP				*e*S	**Sb**	**22 18 26.7**	**+0.4**
LSIP	**Lazi, Siquijor**	**2.99**	**270**	*i* P	**Pb**	**22 17 51.2**	**-0.7**
LSIP				*i* S	**Sb**	**22 18 26.9**	**-2.0**
CTBH	**Cotabato--PC H**	**3.06**	**232**	*i* P	**Pb**	**22 17 52.7**	**-0.4**
DDMP	**Don Marcelino,**	**3.17**	**197**	*e*P	**Pb**	**22 17 53.6**	**-1.3**
DDMP				*e*S	**Sn**	**22 18 28.6**	**+1.5**
SNPH	**Sibulan**	**3.39**	**274**	*e*P	**Pb**	**22 17 56.7**	**-2.0**
SNPH				*e*S	**Sg**	**22 18 43.5**	**-3.3**
TPUB	**Ta-pu**	**15.21**	**338**	Pn	**Pn**	**22 20 34.6**	**+0.8**
TPUB				IAmb	IAmb	22 20 44.5	
	comp=Z,40nm,1.3s						
KNRA	**Kununurra**	**24.75**	**175**	P	**P**	**22 22 18.8**	**-2.2**
KNRA				IAmb	IAmb	22 22 29.4	
	comp=Z,8.2nm,1.1s						
FITZ	**Fitzroy Crossi**	**27.09**	**182**	P	**P**	**22 22 41.5**	**-0.6**
KSRS	**Korea Array**	**28.20**	**2**	P	**P**	**22 22 51.4**	**-0.5**
	comp=Z,1.0nm,0.7s,baz=181,slow=9.9,SNR=1.9						
	comp=Z,1.0nm,0.7s						
WB0	**Warramunga Arr**	**29.72**	**165**	P	**P**	**22 23 04.9**	**-0.7**
WB0				IAmb	IAmb	22 23 32.2	
	comp=Z,16nm,1.4s						
WRA	**Warramunga Arr**	**29.88**	**165**	P	**P**	**22 23 05.7**	**-1.3**
	comp=Z,0.6nm,0.8s,baz=344,slow=8.3,SNR=1.2						
	comp=Z,0.6nm,0.8s						
WRA	**Warramunga Arr**	**29.88**	**165**	P	**P**	**22 23 06.0**	**-0.9**
AS31	**Alice Springs**	**33.37**	**168**	P	**P**	**22 23 36.5**	**-1.2**
ASAR	**Alice Springs**	**33.37**	**168**	P	**P**	**22 23 37.0**	**-0.8**
	comp=Z,0.5nm,0.7s,baz=352,slow=6.5,SNR=1.5						
	comp=Z,0.5nm,0.7s						
ASAR	**Alice Springs**	**33.37**	**168**	P	**P**	**22 23 36.4**	**-1.3**
USRK	**Ussuriysk Ar.**	**35.23**	**7**	P	**P**	**22 23 52.1**	**-1.4**
	comp=Z,0.7nm,0.7s,baz=184,slow=9.7,SNR=1.5						
	comp=Z,0.7nm,0.7s						
H11S3	**WAKE ISLAND Hy**	**39.88**	**72**	T	T	23 07 33.3	
	baz=322,slow=78,SNR=18						
H11S1	**WAKE ISLAND Hy**	**39.89**	**72**	T	T	23 07 33.2	
	baz=322,slow=78,SNR=9.2						
H11S2	**WAKE ISLAND Hy**	**39.90**	**72**	T	T	23 07 33.9	
	baz=322,slow=78,SNR=8.4						
H11N1	**WAKE ISLAND Hy**	**40.25**	**70**	T	T	23 08 02.4	
	baz=265						
H11N2	**WAKE ISLAND Hy**	**40.26**	**70**	T	T	23 08 10.3	
	baz=265						
H11N3	**WAKE ISLAND Hy**	**40.27**	**70**	T	T	23 08 10.8	
	baz=265						
BBOO	**Buckleboo**	**42.67**	**168**	P	**P**	**22 24 55.7**	**-0.4**
BBOO				IAmb	IAmb	22 24 56.5	
	comp=Z,14nm,1.3s						
MKAR	**Makanchi Array**	**53.15**	**323**	P	**P**	**22 26 17.3**	**+0.1**
	comp=Z,2.0nm,0.7s,baz=125,slow=8.1,SNR=7.6						
	comp=Z,2.0nm,0.7s						
MKAR	**Makanchi Array**	**53.15**	**323**	P	**P**	**22 26 17.4**	**+0.2**
MAKZ	**Makanchi**	**53.34**	**323**	P	**P**	**22 26 18.5**	**-0.1**
MAKZ				IAmb	IAmb	22 26 37.5	
	comp=Z,5.7nm,1.2s						
ZALV	**Zalesovo Beam**	**55.79**	**332**	P	**P**	**22 26 35.7**	**-0.6**
	comp=Z,0.9nm,0.6s,baz=91,slow=8.6,SNR=3.1						
	comp=Z,0.9nm,0.6s						
KURK	**Kurchatov**	**57.21**	**326**	P	**P**	**22 26 45.9**	**-0.5**
KURK				IAmb	IAmb	22 26 47.6	
	comp=Z,2.7nm,0.8s						
KURBB	**Kurchatov Arra**	**57.21**	**326**	P	**P**	**22 26 46.4**	**0.0**
	comp=Z,1.9nm,0.6s,baz=127,slow=6.4,SNR=8.0						
	comp=Z,1.9nm,0.6s						
KKAR	**Karatay Array**	**59.31**	**315**		**P**	**22 27 01.0**	**-0.3**
BVAR	**Borovoye Array**	**62.80**	**326**	P	**P**	**22 27 25.0**	**+0.2**
	comp=Z,2.0nm,0.7s,baz=111,slow=7.0,SNR=4.1						
	comp=Z,2.0nm,0.7s						
AB31	**Akbulak array**	**67.97**	**320**	P	**P**	**22 27 57.8**	**-0.6**
AB31				IAmb	IAmb	22 28 24.5	
	comp=Z,1.7nm,1.1s						
ABKAR	**Akbulak array**	**67.97**	**320**	P	**P**	**22 27 57.8**	**-0.6**
RAYN	**Ar Rayn**	**78.35**	**292**	P	**P**	**22 28 59.4**	**-0.9**
RAYN				IAmb	IAmb	22 29 00.2	
	comp=Z,1.4nm,0.6s						
H29M	**Whitestone**	**83.70**	**24**	P	**P**	**22 29 30.0**	**+2.0**
G29M	**Pine Creek**	**83.74**	**23**	P	**P**	**22 29 29.1**	**+0.9**
ARCES	**ARCESS Array B**	**85.38**	**340**	P	**P**	**22 29 35.6**	**-0.7**
	comp=Z,0.9nm,0.7s,baz=64,slow=5.2,SNR=2.3						
	comp=Z,0.9nm,0.7s						
FINES	**FINESS Array B**	**87.06**	**332**	P	**P**	**22 29 44.0**	**-0.8**
	comp=Z,1.5nm,0.9s,baz=58,slow=5.2,SNR=4.1						
	comp=Z,1.5nm,0.9s						
FINES	**FINESS Array B**	**87.06**	**332**	P	**P**	**22 29 44.3**	**-0.5**
R33M	**Jennings River**	**88.43**	**30**	P	**P**	**22 29 52.2**	**+0.6**
VNDA	**Vanda**	**88.77**	**173**	P	**P**	**22 29 53.8**	**+1.2**
VNDA				IAmb	IAmb	22 30 04.8	
	comp=Z,1.4nm,1.1s						

PRU 30 22:23:24.0, 50°.13N×19°.05E, h0^{km}, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OJC	**Ojcow**	**0.49**	**79**	*e*Pg	Pg	22 23 32.6	-0.8
OJC				*e*Sg	Sg	22 23 39.4	-0.4
STEB	**Steborice**	**0.85**	**257**	*e*SG	Sg	22 23 51.5	+0.3
LANS	**Liptovska Anna**	**1.02**	**164**	*e*PG	Pb	22 23 44.3	-0.2
LANS				*e*SG	Sn	22 23 59.9	-0.7
LANS				*e*LG	Lg	22 24 03.1	
MORC	**Moravsky Berou**	**1.04**	**251**	*e*PG	Pg	22 23 43.4	-0.4
MORC				*e*SG	Sg	22 23 56.7	-0.5
NIE	**Niedzica**	**1.08**	**131**	*e*Pg	Pb	22 23 45.6	+0.1
NIE				*e*Sg	Sn	22 24 02.7	+0.6
NIE	**Niedzica**	**1.08**	**131**	P	Sg	22 24 03.0	+4.4
VYHS	**Vyhne**	**1.64**	**185**	*e*PG	Pn	22 23 53.9	-0.2
VYHS				*e*SG	Sg	22 24 16.6	-0.2
DPC	**Dobruska-Polom**	**1.77**	**278**	*e*PG	Pn	22 23 54.8	-1.1
DPC				*e*SG	Sn	22 24 19.5	+0.5
	comp=Z,7.6nm,0.7s						
DPC				AML	AML		
VRAC	**Vranov**	**1.79**	**244**	*e*PN	Pn	22 23 56.0	-0.2
VRAC				*e*SG	Sb	22 24 20.3	-0.5
OSTC	**Ostas**	**1.86**	**284**	*e*PG	Pn	22 23 57.3	+0.1
OSTC				*e*SG	Sb	22 24 23.3	+0.5
	comp=Z,1.0nm,0.3s						
OSTC				AML	AML		
KSP	**Ksiaz**	**1.90**	**293**	*e*Pg	Pb	22 23 59.2	-0.3
KSP				*e*Sg	Sb	22 24 23.1	-0.7
CHVC	**Chvalec**	**1.97**	**285**	*e*SG	Sg	22 24 26.8	-0.5
KRUC	**Moravsky**	**2.03**	**239**	*e*SG	Sb	22 24 27.4	-0.2
PVCC	**Panska Ves**	**2.90**	**280**	*e*SG	Sg	22 24 55.9	-1.2
BRG	**Berggiesshubel**	**3.34**	**285**	*e*P	Pn	22 24 17.5	0.0
BRG				Amp		22 24 21.2	
	comp=Z,3.8nm,1.1s						
KHC	**Kasperske Hory**	**3.69**	**256**	*e*SG	Sg	22 25 21.7	-0.9

CATAC ***30*** *22:35:50.0±0.3, 13°N±2°×8°9W±°, h29^{km}±2^{km}, M4.3/39, MLv4.3/39, Error ellipse: s-maj=5.0km s-min=2.1km az=31.8, confirmed*

SNET ***30*** *22:35:51.0±0.8, 13°.05N×89°.07W, h48^{km}±10^{km}, ML4.2, Presumed earthquake*

GCG ***30*** *22:35:52.0±0.7, 13°.09N×89°.13W, h49^{km}±7^{km}, MD4.6, ML4.5, Presumed earthquake*

UCR ***30*** *22:35:54.3±1.3, 13°.00N×88°.82W, h34^{km}±999^{km}, MW4.0, Presumed earthquake*

ISC 30 22:35:51.0±1.3**, 13°.03N**±0°.04×**89°.07W**±0°.03**, h28**^{km}±12^{km}**, n115,** σ0^{s}**77**/148**, 4C-15D, El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LALI	**Alcalda de L**	**0.52**	**331**	*e*P	**Pn**	**22 36 02.2**	**-0.3**
LALI				*e*S	**Sn**	**22 36 10.2**	**-0.2**
LALI	**Alcalda de L**	**0.52**	**331⇓**	*e*P	**Pn**	**22 36 02.2**	**-0.3**
LALI	**Alcalda de L**	**0.52**	**331**	P	**Pn**	**22 36 02.2**	**-0.3**
LALI				S	**Sn**	**22 36 10.8**	**+0.4**
ALJI	**Alcalda de J**	**0.56**	**59**	*e*P	**Pn**	**22 36 03.5**	**+0.3**
ALJI	**Alcalda de J**	**0.56**	**59**	P	**Pn**	**22 36 03.5**	**+0.3**
ALJI				S	**Sn**	**22 36 13.3**	**+1.7**
TECO	**Alcaldia de Te**	**0.57**	**29**	*e*P	**Pn**	**22 36 02.7**	**-0.6**
TECO				*e*S	**Sn**	**22 36 12.1**	**+0.2**
TECO	**Alcaldia de Te**	**0.57**	**29**	P	**Pn**	**22 36 02.9**	**-0.4**
TECO				S	**Sn**	**22 36 12.5**	**+0.6**
SJTE	**Alcalda de S**	**0.58**	**6⇓**	*e*P	**Pn**	**22 36 02.9**	**-0.6**
PANCS	**Alcalda de**	**0.59**	**349**	P	**Pn**	**22 36 02.9**	**-0.6**
PANCS				S	**Sn**	**22 36 12.0**	**-0.2**
LFRS	**El Faro**	**0.59**	**0⇑**	*e*P	**Pn**	**22 36 03.1**	**-0.5**
COEG	**Centro de Oper**	**0.61**	**17⇓**	*e*P	**Pn**	**22 36 03.3**	**-0.5**
COEG	**Centro de Oper**	**0.61**	**17**	P	**Pn**	**22 36 03.4**	**-0.5**
COEG				S	**Sn**	**22 36 13.1**	**+0.2**
LOMA	**Loma Larga**	**0.62**	**351⇓**	*e*P	**Pn**	**22 36 03.6**	**-0.5**
LOMA				*e*S	**Sn**	**22 36 13.1**	**+0.1**
LOMA	**Loma Larga**	**0.62**	**351**	P	**Pn**	**22 36 03.5**	**-0.5**
LOMA				S	**Sn**	**22 36 13.3**	**+0.2**
MAGS	**Ministerio de**	**0.68**	**342**	*e*P	**Pn**	**22 36 04.4**	**-0.5**
SEMO	**Seminario San**	**0.68**	**347**	*e*P	**Pn**	**22 36 04.3**	**-0.5**
SEMO	**Seminario San**	**0.68**	**347**	P	**Pn**	**22 36 04.4**	**-0.5**
SEMO				S	**Sn**	**22 36 14.5**	**-0.2**
PAVA	**Las Pavas**	**0.69**	**11⇓**	*e*P	**Pn**	**22 36 04.5**	**-0.5**
PAVA	**Las Pavas**	**0.69**	**11**	P	**Pn**	**22 36 04.7**	**-0.3**
PAVA				S	**Sn**	**22 36 15.3**	**+0.4**
UEES	**Universidad Ev**	**0.70**	**346**	*e*P	**Pn**	**22 36 04.6**	**-0.5**
UEES				*e*S	**Sn**	**22 36 15.0**	**0.0**
UEES	**Universidad Ev**	**0.70**	**346**	P	**Pn**	**22 36 04.6**	**-0.5**
UEES				S	**Sn**	**22 36 15.4**	**+0.3**
LFU	**La Fuente**	**0.71**	**356⇓**	*e*P	**Pn**	**22 36 05.0**	**-0.3**
TECA	**Tecapa**	**0.72**	**50⇑**	*e*P	**Pn**	**22 36 05.1**	**-0.4**
PMON	**Piamonte**	**0.72**	**340⇓**	*e*P	**Pn**	**22 36 04.8**	**-0.5**
PMON	**Piamonte**	**0.72**	**340**	P	**Pn**	**22 36 04.8**	**-0.5**
PMON				S	**Sn**	**22 36 16.0**	**+0.4**
JAYA	**Jayaque - finc**	**0.72**	**329⇓**	*i*P	**Pn**	**22 36 04.8**	**-0.7**
JAYA				*e*S	**Sn**	**22 36 15.4**	**-0.3**
JAYA				IAML		22 36 16.2	
	comp=E,25µm,0.4s						
JAYA	**Jayaque - finc**	**0.72**	**329⇓**	*e*P	**Pn**	**22 36 04.8**	**-0.7**
JAYA	**Jayaque - finc**	**0.72**	**329**	P	**Pn**	**22 36 04.9**	**-0.5**
JAYA				S	**Sn**	**22 36 15.9**	**+0.2**
BOQS	**Boqueron**	**0.73**	**343⇓**	*i*P	**Pn**	**22 36 05.3**	**-0.4**
PIC2	**El Picacho**	**0.73**	**345⇓**	*e*P	**Pn**	**22 36 05.4**	**-0.3**
SCLA	**Alcaldia de Sa**	**0.74**	**26**	S	**Sn**	**22 36 17.1**	**+1.0**
PQSS	**Presa 15 de Se**	**0.77**	**40**	*e*P	**Pb**	**22 36 05.8**	**+0.1**
PQSS	**Presa 15 de Se**	**0.77**	**40**	P	**Pb**	**22 36 05.9**	**+0.1**
PQSS				S	**Sn**	**22 36 17.3**	**+0.7**
JUCU	**Jucuar¡n**	**0.83**	**74**	*e*P	**Pn**	**22 36 06.0**	**-0.8**
CEDA	**San Andres**	**0.83**	**337**	*e*P	**Pn**	**22 36 06.3**	**-0.6**
CEDA	**San Andres**	**0.83**	**337**	P	**Pn**	**22 36 06.3**	**-0.6**
CEDA				S	**Sn**	**22 36 18.5**	**+0.3**
PACA	**Pacayal**	**0.84**	**59⇑**	*e*P	**Pb**	**22 36 06.9**	**-0.3**
PACA				*e*S	**Sn**	**22 36 19.6**	**+0.9**
PACA	**Pacayal**	**0.84**	**59**	P	**Pb**	**22 36 06.9**	**-0.3**
PACA				S	**Sn**	**22 36 19.5**	**+0.8**
LCY	**Lacayo**	**0.85**	**63**	*e*P	**Pb**	**22 36 06.7**	**-0.4**
RANC	**El Ranchito**	**0.86**	**62**	*e*P	**Pb**	**22 36 06.9**	**-0.4**
RANC	**El Ranchito**	**0.86**	**62**	P	**Pb**	**22 36 07.1**	**-0.3**
RANC				S	**Sn**	**22 36 19.9**	**+0.9**
BLLM	**Bellamira**	**0.90**	**63**	*e*P	**Pn**	**22 36 07.4**	**-0.5**
CEVE	**Cerro Verde**	**0.96**	**326**	*e*P	**Pn**	**22 36 08.4**	**-0.4**
CEVE	**Cerro Verde**	**0.96**	**326**	P	**Pn**	**22 36 08.4**	**-0.4**
CEVE				S	**Sb**	**22 36 22.4**	**+0.8**
SBLS	**San Blas**	**0.97**	**326⇓**	*e*P	**Pn**	**22 36 08.4**	**-0.5**
SNJE	**San Jose**	**0.98**	**328⇓**	*e*P	**Pn**	**22 36 08.5**	**-0.6**
P5NO	**Presa 5 de nov**	**0.99**	**18**	*e*P	**Pn**	**22 36 08.4**	**-0.7**
P5NO	**Presa 5 de nov**	**0.99**	**18**	P	**Pn**	**22 36 08.5**	**-0.6**
P5NO				S	**Sn**	**22 36 22.4**	**+0.2**
INTP	**Intipuca**	**1.00**	**80**	*e*P	**Pn**	**22 36 08.5**	**-0.7**
RTR	**El Retiro**	**1.03**	**327**	*e*P	**Pb**	**22 36 09.4**	**-0.9**
UNIC	**Universidad Ca**	**1.05**	**334**	P	**Pn**	**22 36 09.5**	**-0.4**
UNIC				S	**Sb**	**22 36 24.1**	**0.0**
NUBE	**Las Nubes**	**1.11**	**321**	*e*P	**Pn**	**22 36 10.1**	**-0.7**
NUBE				*e*S	**Sn**	**22 36 24.5**	**-0.8**
NUBE				IAML		22 36 25.4	
	comp=N,8µm,0.3s						
NUBE	**Las Nubes**	**1.11**	**321⇓**	*e*P	**Pn**	**22 36 10.1**	**-0.7**
NUBE	**Las Nubes**	**1.11**	**321**	P	**Pn**	**22 36 09.9**	**-0.8**
NUBE				S	**Sn**	**22 36 24.9**	**-0.3**
LLGN	**La Laguna**	**1.13**	**6**	*e*P	**Pn**	**22 36 10.4**	**-0.7**
LLGN	**La Laguna**	**1.13**	**6**	P	**Pn**	**22 36 10.2**	**-0.8**
LLGN				S	**Sn**	**22 36 25.8**	**+0.1**
LCND	**La Caada**	**1.18**	**76**	*e*P	**Pn**	**22 36 11.0**	**-0.6**
LCND	**La Caada**	**1.18**	**76**	P	**Pn**	**22 36 11.2**	**-0.4**
LOAL	**Lomas de Alarc**	**1.19**	**324**	P	**Pn**	**22 36 11.5**	**-0.3**
SLOZ	**Alcaldia de Sa**	**1.21**	**325**	*e*P	**Pn**	**22 36 11.9**	**-0.2**
SLOZ	**Alcaldia de Sa**	**1.21**	**325**	P	**Pn**	**22 36 11.9**	**-0.2**
CNCH	**Conchagua**	**1.23**	**78⇑**	*e*P	**Pn**	**22 36 11.6**	**-0.8**
CNCH	**Conchagua**	**1.23**	**78**	P	**Pn**	**22 36 11.6**	**-0.8**
CNCH				S	**Sb**	**22 36 29.4**	**+0.3**
FAME	**Alcaldia de Sa**	**1.23**	**311**	P	**Pn**	**22 36 11.4**	**-0.9**
FAME				S	**Sn**	**22 36 26.9**	**-1.1**
RBDL	**Robledal**	**1.23**	**331⇓**	*e*P	**Pn**	**22 36 12.0**	**-0.5**
JUAM	**Asuncion Mita**	**1.44**	**334**	*e*P	**Pn**	**22 36 14.8**	**-0.4**
CSGN	**Cosiguina Volc**	**1.47**	**92**	P	**Pn**	**22 36 15.0**	**-0.7**
POTN	**Potosi Cosigui**	**1.52**	**91**	P	**Pn**	**22 36 15.5**	**-0.8**
POTN				S	**Sn**	**22 36 35.4**	**+0.2**
ESQI	**Esquipulas**	**1.54**	**350**	*e*P	**Pn**	**22 36 16.4**	**-0.3**
ESQI	**Esquipulas**	**1.54**	**350**	P	**Pn**	**22 36 16.4**	**-0.3**
ESQI				S	**Sn**	**22 36 35.8**	**0.0**
FG16	**Alotenango, Sa**	**1.87**	**311**	*e*P	**Pb**	**22 36 26.3**	**+1.7**
FG8	**Yepocapa, Chim**	**1.90**	**310**	*e*P	**Pb**	**22 36 26.7**	**+1.7**
CRIN	**San Cristobal**	**1.99**	**99**	S	**Sn**	**22 36 48.2**	**+1.2**
TGUH	**Tegucigalpa,Un**	**2.02**	**60**	P	**Pn**	**22 36 22.4**	**-0.9**
PKGN	**Cerro Pekin**	**2.07**	**100**	P	**Pn**	**22 36 24.0**	**+0.1**
PKGN				S	**Sn**	**22 36 49.0**	**+0.3**
QUEN	**Al S del Volca**	**2.20**	**101**	P	**Pn**	**22 36 25.0**	**-0.7**
TELN	**Telica**	**2.22**	**101**	P	**Pn**	**22 36 24.8**	**-1.3**
PLRN	**Geotermica Pol**	**2.29**	**101**	P	**Pn**	**22 36 25.9**	**-1.0**
PLRN				S	**Sn**	**22 36 52.6**	**-1.6**
ROCN	**Rota Cerro Neg**	**2.32**	**102**	P	**Pn**	**22 36 25.1**	**-2.3**
CNGA	**Al SSO del Vol**	**2.37**	**103**	P	**Pn**	**22 36 27.0**	**-1.1**
CNGN	**Cerro Negro**	**2.37**	**103**	P	**Pn**	**22 36 27.5**	**-0.6**
APG	**El Apazote**	**2.38**	**325**	*e*P	**Pn**	**22 36 28.4**	**0.0**
MOM3	**MOM3**	**2.54**	**101**	P	**Pn**	**22 36 29.4**	**-0.9**
COPN	**Copaltepe**	**2.56**	**109**	P	**Pn**	**22 36 29.6**	**-1.0**
COPN	**Copaltepe**	**2.56**	**109**	*e*P	**Pn**	**22 36 30.4**	**-0.3**
COPN				*e*S	**Sn**	**22 36 58.3**	**-2.6**
OCON	**Estacion meteo**	**2.59**	**76**	P	**Pn**	**22 36 30.0**	**-1.1**
STG8	**El Palmar, Qui**	**2.63**	**303**	*e*P	**Pb**	**22 36 36.6**	**-1.0**
RCFN	**Al S de San Ju**	**2.82**	**80**	P	**Pn**	**22 36 32.1**	**-2.3**
RCVN	**Varillal2**	**2.85**	**79**	P	**Pn**	**22 36 33.8**	**-1.0**
RCPN	**Sur Rio San Ju**	**2.94**	**80**	P	**Pn**	**22 36 35.0**	**-0.9**
MATN	**Matagalpa**	**3.06**	**92**	P	**Pn**	**22 36 36.5**	**-1.1**
BOAB	**BOACO BROADBAN**	**3.37**	**100**	P	**Pn**	**22 36 40.1**	**-1.6**
LCRUZ	**La Cruz**	**3.88**	**120**	*e*P	**Pn**	**22 36 48.7**	**-0.1**
LAPC	**Finca la Perla**	**4.21**	**122**	*e*P	**Pn**	**22 36 54.0**	**+0.6**
BUAI	**Buenos Aires**	**4.24**	**120**	*e*P	**Pn**	**22 36 53.1**	**-0.6**
VRLE	**La Escondida,**	**4.25**	**121**	*e*P	**Pn**	**22 36 54.9**	**+0.8**
MESS	**Mesas**	**4.42**	**121**	*e*P	**Pn**	**22 36 56.5**	**+0.1**
HORNC	**Hornillas**	**4.45**	**121**	*e*P	**Pn**	**22 36 56.1**	**-0.6**
VMAR	**Armenia, Volca**	**4.45**	**119**	*e*P	**Pn**	**22 36 56.1**	**-0.6**
JUD3	**Juan Diaz 3**	**4.48**	**129**	*e*P	**Pn**	**22 36 57.2**	**+0.1**
CUI	**Cuipilapa**	**4.49**	**121**	*e*P	Pn	22 37 01.7	+4.5
QUEB	**Quebradon, Cot**	**4.73**	**120**	*e*P	**Pn**	**22 37 00.3**	**-0.2**
JUNT	**Juntas**	**4.86**	**124**	*e*P	**Pn**	**22 37 01.7**	**-0.6**
JTS	**Las Juntas de**	**4.87**	**124**	*e*P	**Pn**	**22 37 03.3**	**+1.0**
CEDE	**Laguna Cedeo**	**4.96**	**120**	*e*P	**Pn**	**22 37 04.6**	**+0.8**
ARE1	**Arenal 1**	**4.97**	**121**	*e*P	**Pn**	**22 37 04.2**	**+0.4**
VARE2	**V. Arenal**	**4.97**	**121**	*e*P	**Pn**	**22 37 04.6**	**+0.7**
LAFE	**Finca La Fe, P**	**5.18**	**128**	*e*P	**Pn**	**22 37 06.1**	**-0.6**
VPS8	**V Poas**	**5.51**	**120**	*e*P	**Pn**	**22 37 12.8**	**+1.3**
VBV1	**V. Barva**	**5.67**	**120**	*e*P	**Pn**	**22 37 14.2**	**+0.6**
PICV	**PH. Pirrs**	**5.86**	**125**	*e*P	**Pn**	**22 37 17.4**	**+1.4**
LCR2	**La Lucha 2**	**5.94**	**123**	*e*P	**Pn**	**22 37 17.8**	**+0.4**
PIEC	**Cerro El Cedra**	**6.05**	**124**	*e*P	**Pn**	**22 37 19.5**	**+0.7**
SAJE	**San Jernim**	**6.57**	**123**	*e*P	**Pn**	**22 37 26.6**	**+0.6**
FIMO	**Fila Mora**	**6.90**	**125**	*e*P	**Pn**	**22 37 31.9**	**+1.4**

TAP ***30*** *22:40:05.0, 23°.89N×122°.64E, h23^{km}, ML2.7, D*

JMA ***30*** *22:40:06.0±0.2, 24°N±1°×122°.6E±0°.5, h30^{km}±3^{km}, MV2.1/11, NW OFF ISHIGAKIJIMA IS*

ISC 30 22:40:05.2±1.2**, 23°.92N**±0°.04×**122°.66E**±0°.02**, h26**^{km}±12^{km}**, n48,** σ0^{s}**73**/74**, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EOS4	**EOS4**	**0.37**	**303**	*i* P	**Pn**	**22 40 13.8**	**-0.8**
EOS4				S	**Sn**	**22 40 19.8**	**-0.9**
EOS3	**EOS3**	**0.48**	**319**	*e*P	**Pb**	**22 40 15.4**	**+0.4**
EOS3				S	**Sn**	**22 40 23.1**	**-0.7**
JYNG	**Yonagunijimaku**	**0.59**	**26**	P	**Pb**	**22 40 16.3**	**-0.6**
JYNG				S	**Sb**	**22 40 23.6**	**-1.3**
YOJ	**Yonaguni jima**	**0.63**	**31**	P	**Pb**	**22 40 17.4**	**-0.1**
YOJ	**Yonaguni jima**	**0.63**	**31**	P	**Pb**	**22 40 17.0**	**-0.6**
YOJ				*e*S	**Sb**	**22 40 24.8**	**-1.1**
EOS2	**EOS2**	**0.63**	**322**	*e*P	**Pn**	**22 40 18.2**	**-0.1**
EOS2				S	**Sn**	**22 40 27.9**	**+0.3**
EWUT	**Wuta**	**0.96**	**303**	*e*P	**Pn**	**22 40 22.8**	**-0.1**
EWUT				*i* S	**Sn**	**22 40 36.7**	**+0.9**
ESAO	**Su ao**	**0.99**	**311**	*e*P	**Pb**	**22 40 23.5**	**-0.2**
ESAO				*e*S	**Sn**	**22 40 36.1**	**-0.4**
NACB	**Ninganchiao**	**1.00**	**285**	*e*P	**Pn**	**22 40 23.0**	**-0.6**
NACB				*e*S	**Sn**	**22 40 36.7**	**-0.2**
TWC	**Suao**	**1.01**	**313**	*i* P	**Pn**	**22 40 23.5**	**-0.1**
TWC				*i* S	**Sb**	**22 40 36.0**	**-0.8**
SHUL	**Shoufeng**	**1.01**	**263**	*e*S	**Sn**	**22 40 39.0**	**+1.9**
IRIF	**Iriomote-Funau**	**1.06**	**67**	P	**Pb**	**22 40 25.1**	**+0.2**
ETM	**Tongmen**	**1.07**	**273**	P	**Pn**	**22 40 24.1**	**-0.4**
ETM				S	**Sn**	**22 40 38.3**	**-0.2**
ETLH	**Xiulin Townshi**	**1.11**	**285**	*i* P	**Pn**	**22 40 25.0**	**-0.2**
ETLH				*e*S	**Sn**	**22 40 39.4**	**-0.3**
NDS	**Dongshan**	**1.11**	**310**	*e*P	**Pb**	**22 40 26.1**	**+0.3**
NDS				S	**Sb**	**22 40 42.0**	**+2.1**
ESL	**Shilin**	**1.13**	**265**	S	**Sn**	**22 40 39.9**	**-0.1**
LXIB	**Xiulin Townshi**	**1.14**	**275**	P	**Pn**	**22 40 25.5**	**-0.1**
LXIB				*e*S	**Sn**	**22 40 40.1**	**-0.5**
WARBT	**Fenglin Townsh**	**1.18**	**260**	*e*P	**Pn**	**22 40 24.9**	**-1.2**
WARBT				*e*S	**Sn**	**22 40 40.8**	**-0.6**
LATG	**Datong**	**1.20**	**301**	*e*P	**Pb**	**22 40 27.6**	**+0.3**
LATG				*e*S	**Sb**	**22 40 43.5**	**+1.0**
TWE	**Neicheng**	**1.21**	**312**	*i* P	**Pb**	**22 40 27.2**	**-0.1**
TWE				*i* S	**Sb**	**22 40 43.3**	**+0.8**
HGSD	**Ruisui**	**1.21**	**250**	*e*P	**Pn**	**22 40 25.7**	**-0.7**
HGSD				*e*S	**Sn**	**22 40 42.3**	**+0.3**
ENTT	**Nioudou**	**1.23**	**306**	*e*P	**Pb**	**22 40 27.6**	**-0.1**
TWB1	**Santiao Chiao**	**1.24**	**331**	*e*P	**Pn**	**22 40 26.1**	**-0.8**
NDT	**Datong Townshi**	**1.25**	**303**	*e*P	**Pb**	**22 40 28.7**	**+0.6**
NDT				*e*S	**Sb**	**22 40 45.0**	**+1.3**
NNSB	**Datong**	**1.27**	**294**	*e*P	**Pn**	**22 40 27.7**	**+0.3**
JKRS	**Kuro-shima**	**1.27**	**75**	*e*P	**Pb**	**22 40 28.5**	**+0.1**
NNS	**Nan Shan**	**1.28**	**294**	P	**Pb**	**22 40 28.5**	**-0.3**
FUSB	**Fushanzhiwuyua**	**1.28**	**311**	*i* P	**Pb**	**22 40 29.4**	**+0.6**
FUSB				S	**Sb**	**22 40 46.8**	**+1.9**
TIPB	**Shuangxi**	**1.29**	**324**	P	**Pb**	**22 40 28.9**	**+0.1**
TIPB				*i* S	**Sb**	**22 40 45.5**	**+0.4**
WHF	**Hehuan Shan**	**1.29**	**280**	*i* P	**Pn**	**22 40 27.9**	**-0.1**
YULB	**Yu-li**	**1.35**	**247**	*e*P	**Pn**	**22 40 28.6**	**+0.1**
YULB				*e*S	**Sn**	**22 40 45.7**	**+0.1**

NWLT	**Wulai**	**1.36**	**309**	*e*P	**Pb**	**22 40 29.6**	**-0.3**
OWD	**Renai**	**1.36**	**272**	*e*P	**Pn**	**22 40 28.9**	**+0.3**
OWD				S	**Sn**	**22 40 45.0**	**-0.9**
SXI1	**Grass Mountain**	**1.37**	**329**	P	**Pn**	**22 40 28.7**	**0.0**
SXI1				S	**Sn**	**22 40 45.6**	**-0.4**
TWF1	**Yuli**	**1.37**	**246**	*e*P	**Pn**	**22 40 29.3**	**+0.7**
TWF1				*e*S	**Sn**	**22 40 46.3**	**+0.3**
YHNB	**Yeheng**	**1.39**	**303**	P	**Pn**	**22 40 29.3**	**+0.3**
TWT	**Tachien**	**1.40**	**284**	*e*P	**Pb**	**22 40 30.3**	**-0.4**
WFSB	**Wu-fen Shan**	**1.40**	**325**	*e*P	**Pb**	**22 40 29.6**	**-1.0**
NSK	**Sanguang**	**1.41**	**303**	*e*P	**Pn**	**22 40 29.4**	**+0.2**
TDCB	**Techi**	**1.41**	**284**	*e*P	**Pb**	**22 40 30.2**	**-0.7**
WUSB	**Renai**	**1.41**	**273**	*e*P	**Pn**	**22 40 29.5**	**+0.2**
JIJ	**Ishigaki jima**	**1.43**	**72**	P	**Pn**	**22 40 29.8**	**+0.4**
JIJ				*e*S	**Sn**	**22 40 48.0**	**+0.6**
CHKT	**Chengkung**	**1.44**	**236**	S	**Sn**	**22 40 46.3**	**-1.4**
NFF	**Wufeng Townshi**	**1.57**	**297**	*e*P	**Pb**	**22 40 33.1**	**-0.6**
WCS	**Beigang Elemen**	**1.60**	**275**	*e*P	**Pb**	**22 40 33.2**	**-0.9**
SMLT	**Sun Moon Lake**	**1.61**	**269**	P	**Pn**	**22 40 32.7**	**+0.7**
JISG	**Ishigakijimahi**	**1.65**	**66**	P	**Pn**	**22 40 32.8**	**+0.3**
JISG				*e*S	**Sn**	**22 40 53.2**	**+0.5**
WHYT	**Xinyi Township**	**1.67**	**263**	*e*P	**Pb**	**22 40 34.4**	**-0.9**

IDC 30 22:43:29.5±2.8**, 6°.10S×147°.83E, h0^{km}, mb3.6**/3**, mbtmp3.6**/5**, ML3.7**/1**, MS3.8**/1**, Error ellipse: s-maj=76.5km s-min=18.9km az=92.0, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**3.35**	**191**	Pn	Pn	22 44 24.6	+1.4
	8.7nm,0.3s,baz=13,slow=14,SNR=2.7						
PMG				Sn	Sn	22 45 03.6	-0.2
	14nm,0.3s,baz=16,slow=20,SNR=8.2						
WRA	**Warramunga Arr**	**19.00**	**222**	P	P	22 47 52.1	-0.9
	0.3nm,0.3s,baz=47,slow=11,SNR=9.0						
	1.0nm,0.6s						
WRA				AML	AML		
ASAR	**Alice Springs**	**22.01**	**216**	P	P	22 48 24.1	-1.6
	0.6nm,0.4s,baz=38,slow=10,SNR=4.1						
	0.6nm,0.4s						
RAO	**Raoul Island**	**39.68**	**130**	LR	LR	23 04 12.7	
	comp=Z,114nm,19.1s,baz=154,slow=31						
USRK	**Ussuriysk Ar.**	**52.07**	**346**	P	P	22 52 40.1	-1.1
	0.5nm,0.4s,baz=186,slow=7.2,SNR=1.7						
	0.5nm,0.4s						
CMAR	**Chiang Mai Arr**	**54.02**	**298**	P	P	22 52 57.7	+1.6
	0.5nm,0.3s,baz=94,slow=8.8,SNR=1.4						
	0.5nm,0.3s						

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*IDC **30** 22:54:13.0±1.4, 42°.81N×1°.43W, h0^{km}, mbtmp3.4/4, ML3.3/4, Error ellipse: s-maj=23.6km s-min=12.2km az=125.0*

*INMG **30** 22:54:14.6±1.6, 42°.87N×1°.46W, h12^{km}±2^{km}, ML3.2, Error ellipse: s-maj=2.0km s-min=1.8km az=59.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Pireneus (ESP)*

*LDG **30** 22:54:14.4±0.1, 42°.86N×1°.45W, h2^{km}, Md3.3/1, Ml3.6/16, Error ellipse: s-maj=1.6km s-min=1.2km az=127.0*

*MDD **30** 22:54:14.1±0.1, 42°.83N×1°.49W, h0^{km}, mb_Lg3.4/91, Error ellipse: s-maj=0.9km s-min=0.7km az=170.0*

*SFS **30** 22:54:17.2, 42°.79N×1°.46W, h23^{km}, mb4.0/12, ML3.6/24, ML3.9/24, MLv4.0/18*

ISC 30 22:54:13.5±0.7**, 42°.84N**±0°.02×**1°.50W**±0°.01**, h15^{km}**±5^{km}**, n161, σ1^{s}.93**/366**, 1C, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EARA	**Aranguren**	**0.09**	**221**	Pg	**Pg**	**22 54 15.6**	**-1.1**
EARA				Sg	**Sg**	**22 54 17.8**	**-1.0**
EARA				IVmb_Lg		22 54 18.4	
EORO	**Oroz-Betelu**	**0.15**	**69**	Pg	**Pg**	**22 54 16.6**	**-0.9**
EORO				Sg	**Sg**	**22 54 19.3**	**-0.9**
SJPF	**Ste Jean**	**0.34**	**36**	*e*Pg	**Pg**	**22 54 20.2**	**-0.4**
SJPF				*e*Sg	**Sg**	**22 54 23.1**	**-2.3**
	2µm,0.4s						
EALK	**Alkurruntz**	**0.38**	**359**	⇑Pg	**Pg**	**22 54 21.2**	**-0.2**
EALK				Sg	**Sg**	**22 54 26.6**	**0.0**
EALK				IVmb_Lg		22 54 30.1	
ETSF	**Etsaut**	**0.70**	**85**	*e*Pg	**Pg**	**22 54 26.2**	**-0.9**
ETSF				*e*Sg	**Sg**	**22 54 35.2**	**-1.2**
	383nm,0.4s						
ECHI	**Chisagues Biel**	**1.26**	**97**	Pg	**Pb**	**22 54 36.8**	**-0.2**
ECHI				Sg	**Sg**	**22 54 54.3**	**0.0**
ECHI				IVmb_Lg		22 54 58.3	
ESAC	**San Caprasio**	**1.35**	**145**	Pg	**Pg**	**22 54 38.9**	**-0.6**
ESAC				Sg	**Sg**	**22 54 56.9**	**-0.3**
ESAC				IVmb_Lg		22 55 05.2	
EPF	**Esparros**	**1.37**	**81**	*e*Pg	**Pb**	**22 54 38.5**	**-0.3**
EPF				*e*Sg	**Sg**	**22 54 57.9**	**+0.3**
	318nm,0.4s						
EPF				AML	AML		
ELAN	**Lanestosa**	**1.47**	**286**	Pg	**Pg**	**22 54 41.5**	**-0.3**
ELAN				Sg	**Sg**	**22 55 01.3**	**+0.4**
ELAN				IVmb_Lg		22 55 06.4	
ALT04	**Santillana del**	**1.99**	**287**	Pn	**Pn**	**22 54 47.7**	**+1.1**
ALT04				Pg	**Pb**	**22 54 49.7**	**+0.3**
ALT04				Sn	**Sb**	**22 55 12.8**	**-1.1**
ALT04				Sg	**Sg**	**22 55 17.9**	**+0.4**
ALT01	**Santillana del**	**1.99**	**287**	Pn	**Pb**	**22 54 48.3**	**-1.1**
ALT01				Sn	**Sb**	**22 55 13.5**	**-0.5**
ALT01				Sg	**Sg**	**22 55 16.7**	**-0.9**
ALT02	**Santillana del**	**1.99**	**287**	Pn	**Pn**	**22 54 47.8**	**+1.2**
ALT02				Pg	**Pb**	**22 54 49.5**	**+0.1**
ALT02				Sn	**Sb**	**22 55 13.1**	**-0.9**
ALT02				Sg	**Sg**	**22 55 16.7**	**-0.8**
ALT03	**Santillana del**	**1.99**	**287**	Pn	**Pn**	**22 54 47.6**	**+1.0**
ALT03				Pg	**Pb**	**22 54 50.2**	**+0.7**
ALT03				Sn	**Sb**	**22 55 13.2**	**-0.9**
ALT03				Sg	**Sg**	**22 55 19.7**	**+2.1**
ETOR	**Torete**	**2.06**	**192**	Pn	**Pn**	**22 54 48.4**	**+0.7**
ETOR				Pg	**Pb**	**22 54 51.5**	**+0.9**
ETOR				Sn	**Sn**	**22 55 14.7**	**+1.7**
ETOR				Sg	**Sg**	**22 55 20.0**	**+0.3**
ETOR				IVmb_Lg		22 55 27.0	
ERTA	**Horta de San J**	**2.33**	**143**	Pn	**Pn**	**22 54 51.7**	**+0.4**
ERTA				Pg	**Pb**	**22 54 55.5**	**+0.4**
ERTA				Sn	**Sn**	**22 55 19.9**	**+0.4**
ERTA				Sg	**Sg**	**22 55 26.9**	**-1.4**
ERTA				IVmb_Lg		22 55 36.8	
E0901	**Celadas (Terue**	**2.37**	**173**	Pn	**Pn**	**22 54 52.6**	**+0.6**
E0901				Pg	**Pb**	**22 54 57.3**	**+1.3**
E0901				Sn	**Sn**	**22 55 22.1**	**+1.3**
E0901				Sg	**Sg**	**22 55 30.8**	**+1.0**
E0901				IVmb_Lg		22 55 39.7	
EMIR	**Miracle**	**2.43**	**111**	Pn	**Pn**	**22 54 53.2**	**+0.6**
EMIR				Pg	**Pb**	**22 54 57.5**	**+0.6**
EMIR				Sn	**Sn**	**22 55 23.2**	**+1.1**
EMIR				Sg	**Sg**	**22 55 30.5**	**-1.0**
EMIR				IVmb_Lg		22 55 41.8	
EPOB	**Poblet**	**2.43**	**127**	Pn	**Pn**	**22 54 52.9**	**+0.2**
EPOB				Pb	**Pb**	**22 54 56.0**	**-0.9**
EPOB				Pg	**Pg**	**22 54 58.4**	**-1.7**
EPOB				Sn	**Sn**	**22 55 21.4**	**-0.7**
EPOB				Sg	**Sg**	**22 55 28.9**	**-2.6**
EPOB				IVmb_Lg		22 55 42.8	
EMOS	**Mosqueruela**	**2.59**	**162**	Pn	**Pn**	**22 54 56.2**	**+1.2**
EMOS				Pg	**Pb**	**22 55 00.4**	**+0.6**
EMOS				Sn	**Sn**	**22 55 26.7**	**+0.4**
EMOS				Sg	**Sg**	**22 55 39.7**	**+2.9**
EMOS				IVmb_Lg		22 55 46.5	
YEBES	**Yebes (Guadala**	**2.60**	**208**	Pn	**Pn**	**22 54 55.7**	**+0.7**
YEBES				Pg	**Pb**	**22 55 00.4**	**+0.6**
YEBES				Sn	**Sn**	**22 55 27.2**	**+0.8**
YEBES				Sg	**Sg**	**22 55 38.1**	**+1.1**
YEBES				IVmb_Lg		22 55 45.3	
LFF	**La Frestale**	**2.65**	**37**	*e*Pn	**Pn**	**22 54 56.0**	**+0.3**
LFF				*e*Sn	**Sn**	**22 55 26.2**	**-1.4**
	96nm,0.4s						
LFF				AML	AML		
EARI	**Arriondas**	**2.76**	**281**	Pn	**Pn**	**22 54 59.0**	**+1.8**
EARI				Pg	**Pb**	**22 55 03.4**	**+0.9**
EARI				Sn	**Sn**	**22 55 32.4**	**+2.1**
EARI				Sg	**Sg**	**22 55 40.0**	**-2.0**
EARI				IVmb_Lg		22 55 49.7	
MTLF	**Montolieu**	**2.77**	**78**	*e*Pn	**Pn**	**22 54 58.9**	**+1.5**
MTLF				*e*Sg	**Sb**	**22 55 35.2**	**-1.3**
	49nm,0.4s						
MTLF				AML	AML		
UCM	**Universidad Co**	**2.85**	**208**	Pn	**Pn**	**22 54 59.3**	**+0.8**
UCM				Sn	**Sn**	**22 55 31.1**	**-1.3**
UCM				Sg	**Sb**	**22 55 42.0**	**+3.4**
GUD	**Guadarrama**	**2.96**	**223**	Pn	**Pn**	**22 55 01.3**	**+1.2**
GUD				Pg	**Pb**	**22 55 07.6**	**+1.7**
GUD				Sn	**Sn**	**22 55 37.1**	**+1.8**
GUD				Sg	**Sg**	**22 55 48.4**	**-0.1**
GUD				IVmb_Lg		22 55 50.6	
EJON	**La Jonquera**	**3.26**	**95**	Pn	**Pn**	**22 55 06.0**	**+1.9**
EJON				Sn	**Sn**	**22 55 41.1**	**-1.6**
EJON				Sg	**Sg**	**22 55 54.2**	**-4.1**
EJON	**La Jonquera**	**3.26**	**95**	Pn	**Pn**	**22 55 05.6**	**+1.4**
EJON				Pg	**Pb**	**22 55 12.6**	**+1.5**
EJON				Sn	**Sn**	**22 55 44.4**	**+1.7**
EJON				Sg	**Sg**	**22 55 57.0**	**-1.3**
EJON				IVmb_Lg		22 56 01.2	
ECHE	**Chera**	**3.27**	**173**	Pn	**Pn**	**22 55 05.9**	**+1.6**
ECHE				Sn	**Sn**	**22 55 39.3**	**-3.5**
ECHE				Sg	**Sb**	**22 55 53.3**	**+2.4**
ECHE	**Chera**	**3.27**	**173**	Pn	**Pn**	**22 55 06.1**	**+1.9**
ECHE				Pg	**Pb**	**22 55 12.8**	**+1.5**
ECHE				Sn	**Sn**	**22 55 44.3**	**+1.5**
ECHE				Sg	**Sg**	**22 55 56.1**	**-2.4**
ECHE				IVmb_Lg		22 56 11.2	
RJF	**Les Rejaudoux**	**3.29**	**40**	*e*Pn	**Pn**	**22 55 04.2**	**-0.3**
RJF				*e*Sn	**Sn**	**22 55 42.5**	**-0.8**
	43nm,0.2s						
RJF				AML	AML		
CAF	**Calviac**	**3.32**	**50**	*e*Pn	**Pn**	**22 55 04.5**	**-0.4**
CAF				*e*Sn	**Sn**	**22 55 42.3**	**-1.8**
	56nm,0.3s						
CAF				AML	AML		
ECOL	**Islas Columbre**	**3.37**	**150**	Pg	**Pb**	**22 55 14.6**	**+1.8**
ECOL				Sn	**Sn**	**22 55 47.3**	**+2.2**
ECOL				Sg	**Sg**	**22 55 59.2**	**-2.4**
EVIV	**Cofrentes, Val**	**3.58**	**175**	Pn	**Pn**	**22 55 08.8**	**+0.3**
EVIV				Pg	**Pg**	**22 55 19.7**	**-2.4**
EVIV				Sn	**Sn**	**22 55 51.8**	**+1.3**
EVIV				Sg	**Sg**	**22 56 10.4**	**+1.9**
EVIV				IVmb_Lg		22 56 15.5	
ESBB	**Sonseca Array**	**3.66**	**211**	Pn	**Pn**	**22 55 10.3**	**+0.7**
ESBB				Pg	**Pg**	**22 55 21.2**	**-2.5**
ESBB				Sg	**Sg**	**22 56 09.0**	**-2.2**
ESDC	**Sonseca Array**	**3.66**	**211**	Pn	**Pn**	**22 55 10.1**	**+0.3**
	1.3nm,0.3s,baz=35,slow=13,SNR=89						
ESDC				Pg	**Pg**	**22 55 21.6**	**-2.1**
	2.3nm,0.3s,baz=35,slow=17,SNR=25						
ESDC				Sn	**Sn**	**22 55 52.5**	**-0.2**
	1.9nm,0.3s,baz=32,slow=20,SNR=5.4						
ESDC				Lg	Lg	22 56 10.0	
	4.1nm,0.3s,baz=30,slow=28,SNR=7.6						
	3.0nm,0.3s						
ESDC				AML	AML		
ESDC	**Sonseca Array**	**3.66**	**211**	Pn	**Pn**	**22 55 10.0**	**+0.3**
ESDC				Pg	**Pb**	**22 55 18.4**	**+0.4**
ESDC				Sn	**Sn**	**22 55 54.7**	**+2.0**
ESDC				Sg	**Sg**	**22 56 09.5**	**-1.7**
ESDC				IVmb_Lg		22 56 15.4	
EJUZ	**Juzbado, Salam**	**3.71**	**243**	Pn	**Pn**	**22 55 11.2**	**+0.9**
EJUZ				Pg	**Pb**	**22 55 21.4**	**+2.6**
EJUZ				Sn	**Sn**	**22 55 56.2**	**+2.4**
MFF	**Saint Martin d**	**3.89**	**14**	*e*Pn	**Pn**	**22 55 12.8**	**+0.1**
MFF				*e*Sn	**Sn**	**22 55 55.0**	**-3.0**
	36nm,0.4s						
MFF				AML	AML		
PAB	**San Pablo**	**3.93**	**214**	Pn	**Pn**	**22 55 13.8**	**+0.4**
PAB				Pg	**Pg**	**22 55 27.6**	**-1.2**
PAB				Sn	**Sn**	**22 55 57.5**	**-1.7**
PAB				Sg	**Sg**	**22 56 18.4**	**-1.2**
PAB				IVmb_Lg		22 56 27.1	
ECAL	**Calabor**	**3.98**	**259**	Pn	**Pn**	**22 55 15.0**	**+1.0**
ECAL				Sn	**Sn**	**22 56 00.2**	**-0.3**
ECAL				Sg	**Sb**	**22 56 15.8**	**+4.4**
ECAL	**Calabor**	**3.98**	**259**	Pn	**Pn**	**22 55 15.1**	**+1.0**
ECAL				Pg	**Pb**	**22 55 24.3**	**+1.0**
ECAL				Sn	**Sn**	**22 56 00.1**	**-0.3**
ECAL				Sg	**Sg**	**22 56 17.7**	**-3.6**
ECAL				IVmb_Lg		22 56 30.5	
PBRG	**Braganca**	**4.02**	**257**	*e*Pn	**Pn**	**22 55 15.8**	**+1.3**
PBRG				*e*Sn	**Sn**	**22 56 02.0**	**+0.6**
PBRG				*e*Sg	**Sg**	**22 56 21.7**	**-0.8**
PBRG				*i* IAML		22 56 22.6	
PBRG				*i* IAML		22 56 25.1	
PBRG				*i* IAML		22 56 37.3	
LASF	**Ste Croix**	**4.09**	**71**	*e*Pn	**Pn**	**22 55 16.4**	**+0.9**
LASF				*e*Sn	**Sn**	**22 56 00.3**	**-2.9**
	123nm,0.7s						
LASF				AML	AML		
EPON	**Pontenova**	**4.17**	**279**	Pn	**Pn**	**22 55 17.5**	**+0.9**
EPON				Sn	**Sn**	**22 56 06.1**	**+1.1**
EPON				Sg	**Sb**	**22 56 21.8**	**+5.2**
EPON				IVmb_Lg		22 56 39.3	
ETOB	**Tobarra**	**4.19**	**180**	Pn	**Pn**	**22 55 19.1**	**+2.2**
ETOB	**Tobarra**	**4.19**	**180**	Pn	**Pn**	**22 55 18.4**	**+1.5**
ETOB				Pg	**Pg**	**22 55 30.9**	**-2.9**
ETOB				Sn	**Sn**	**22 56 05.8**	**+0.2**
ETOB				Sg	**Sg**	**22 56 23.0**	**-5.0**
ETOB				IVmb_Lg		22 56 55.1	
AFON	**Font Roja**	**4.23**	**170**	Pn	**Pn**	**22 55 18.3**	**+0.8**
AFON				Pg	**Pg**	**22 55 33.6**	**-1.0**
AFON				Sn	**Sn**	**22 56 07.4**	**+0.7**
AFON				IVmb_Lg		22 56 44.2	
EBEN2	**Beniarda presa**	**4.28**	**166**	Pn	**Pn**	**22 55 18.8**	**+0.7**
EBEN2				Pg	**Pb**	**22 55 30.5**	**+2.1**
EBEN2				Sn	**Sn**	**22 56 07.1**	**-0.5**
EBEN2				IVmb_Lg		22 56 39.6	
TCF	**Toulx Ste Croi**	**4.35**	**36**	*e*Pn	**Pn**	**22 55 18.0**	**-1.1**
TCF				*e*Sn	**Sn**	**22 56 06.3**	**-3.2**
	31nm,0.3s						
TCF				AML	AML		
CIBOR	**Castaar de Ib**	**4.36**	**224**	Pn	**Pn**	**22 55 20.7**	**+1.6**
CIBOR				Pg	**Pg**	**22 55 33.6**	**-3.4**
CIBOR				Sn	**Sn**	**22 56 09.6**	**-0.1**
CIBOR				Sg	**Sg**	**22 56 29.8**	**-3.6**
PSIM	**Granatula de C**	**4.36**	**204**	Pn	**Pn**	**22 55 19.1**	**-0.2**
PSIM				Pg	**Pb**	**22 55 32.0**	**+2.1**
PSIM				Sn	**Sn**	**22 56 07.0**	**-2.8**
PSIM				Sg	**Sg**	**22 56 30.3**	**-3.2**
EIBI	**Ibiza**	**4.38**	**150**	Pn	**Pn**	**22 55 19.0**	**-0.4**
EIBI				Sn	**Sn**	**22 56 05.6**	**-4.5**
EIBI	**Ibiza**	**4.38**	**150**	Pn	**Pn**	**22 55 19.4**	**0.0**
EIBI				Pg	**Pb**	**22 55 32.7**	**+2.7**
EIBI				Sn	**Sn**	**22 56 06.5**	**-3.6**
EIBI				IVmb_Lg		22 56 28.7	
EPLA	**Plasencia**	**4.42**	**233**	Pn	**Pn**	**22 55 21.3**	**+1.3**
EPLA				Pg	**Pg**	**22 55 36.4**	**-1.7**
EPLA				Sn	**Sn**	**22 56 09.7**	**-1.4**
EPLA				Sg	**Sg**	**22 56 32.0**	**-3.3**
EPLA				IVmb_Lg		22 56 41.0	
ETOS	**Mallorca**	**4.47**	**132**	Pn	**Pn**	**22 55 20.7**	**0.0**
ETOS				Sn	**Sn**	**22 56 09.3**	**-3.1**
ETOS	**Mallorca**	**4.47**	**132**	Pn	**Pn**	**22 55 20.8**	**0.0**
ETOS				Pg	**Pb**	**22 55 32.6**	**+0.9**
ETOS				Sn	**Sn**	**22 56 09.8**	**-2.6**
ETOS				IVmb_Lg		22 57 16.5	
BGF	**Bois d'Agland**	**4.84**	**38**	*e*Pn	**Pn**	**22 55 24.8**	**-1.0**
BGF				*e*Sn	**Sn**	**22 56 18.0**	**-3.6**
	142nm,0.6s						
BGF				AML	AML		
EAGO	**Agolada(Pontev**	**4.84**	**272**	Pn	**Pn**	**22 55 27.1**	**+1.2**
EAGO				Pg	**Pb**	**22 55 42.1**	**+4.1**
EAGO				Sn	**Sn**	**22 56 21.5**	**-0.2**
EAGO				Sg	**Sg**	**22 56 47.3**	**-1.7**
EAGO				IVmb_Lg		22 57 07.4	
PVRL	**Vila Real**	**4.88**	**253**	*e*Sn	**Sn**	**22 56 23.4**	**+0.7**
PVRL				*e*Sg	**Sg**	**22 56 46.8**	**-3.4**
PVRL				*i* IAML		22 56 47.4	
PVRL				*i* IAML		22 56 56.0	
PVRL				*i* IAML		22 56 58.4	
VIVF	**Saint-Julien-l**	**4.90**	**64**	*e*Pn	**Pn**	**22 55 27.0**	**+0.4**
VIVF				*e*Sn	**Sn**	**22 56 20.5**	**-2.6**
	23nm,0.5s						
VIVF				AML	AML		
POLO	**Lamas de Olo**	**4.90**	**255**	*e*Pn	**Pn**	**22 55 28.3**	**+1.5**
POLO				*e*Sn	**Sn**	**22 56 23.3**	**+0.1**
POLO				*e*Sg	**Sg**	**22 56 50.1**	**-0.9**
POLO				*i* IAML		22 56 56.4	
POLO				*i* IAML		22 57 00.1	
POLO				*i* IAML		22 57 05.4	
ELOB	**Lobios**	**4.96**	**261**	Pn	**Pn**	**22 55 28.2**	**+0.7**
ELOB				Pg	**Pg**	**22 55 47.4**	**-1.0**
ELOB				Sn	**Sn**	**22 56 23.6**	**-0.9**
ELOB				Sg	**Sg**	**22 56 50.3**	**-2.3**
ELOB				IVmb_Lg		22 56 58.8	
EZAR	**Zarzadilla de**	**4.96**	**182**	Pn	**Pn**	**22 55 28.6**	**+1.1**
EZAR				Sn	**Sn**	**22 56 25.3**	**+0.6**
EZAR				IVmb_Lg		22 57 01.0	
PCAB	**Cabril**	**4.97**	**259**	*e*Pn	**Pn**	**22 55 28.5**	**+0.9**
PCAB				*e*Sn	**Sn**	**22 56 24.6**	**-0.2**
PCAB				*e*Sg	**Sg**	**22 56 50.6**	**-2.4**
PCAB				*i* IAML		22 56 52.1	
PCAB				*i* IAML		22 56 53.7	
PCAB				*i* IAML		22 56 54.8	
EMUR	**La Murta**	**4.99**	**178**	Pn	**Pn**	**22 55 29.6**	**+1.7**
EMUR	**La Murta**	**4.99**	**178**	Pn	**Pn**	**22 55 28.1**	**+0.1**
EMUR				IVmb_Lg		22 57 10.5	
PGAV	**Gavieira, Arco**	**5.09**	**262**	*e*Pn	**Pn**	**22 55 31.3**	**+2.1**
PGAV				*e*Sn	**Sn**	**22 56 28.7**	**+1.0**
PGAV				*e*Sg	**Sg**	**22 56 54.6**	**-2.1**
PGAV				*i* IAML		22 57 03.3	
PGAV				*i* IAML		22 57 08.1	
PGAV				*i* IAML		22 57 21.9	
MTE	**Manteigas**	**5.14**	**244**	*e*Pn	**Pn**	**22 55 31.7**	**+1.7**
MTE				*e*Sn	**Sn**	**22 56 27.9**	**-1.1**
MTE				*e*Sg	**Sg**	**22 56 55.5**	**-3.0**
MTE				*i* IAML		22 56 55.8	
MTE				*i* IAML		22 56 59.7	
MTE				*i* IAML		22 57 04.7	
EQES	**Quesada**	**5.17**	**194**	Pn	**Pn**	**22 55 31.2**	**+0.7**
EQES				Pg	**Pg**	**22 55 50.4**	**-2.2**
EQES				Sn	**Sn**	**22 56 30.5**	**+0.7**
EQES				Sg	**Sg**	**22 56 54.9**	**-4.6**
EQES				IVmb_Lg		22 57 14.9	
QUIF	**Quistinic**	**5.21**	**348**	*e*Pn	**Pn**	**22 55 29.4**	**-1.5**
EADA	**Adamuz**	**5.22**	**208**	Pn	**Pn**	**22 55 32.0**	**+1.0**
EADA				Sn	**Sn**	**22 56 27.9**	**-3.1**
EADA				Sg	**Sb**	**22 56 47.9**	**+0.9**
EADA	**Adamuz**	**5.22**	**208**	Pn	**Pn**	**22 55 31.2**	**+0.2**
EADA				Pg	**Pb**	**22 55 46.6**	**+2.1**
EADA				Sn	**Sn**	**22 56 30.8**	**-0.2**
EADA				Sg	**Sg**	**22 56 57.0**	**-4.0**
EADA				IVmb_Lg		22 57 05.9	
PVIS	**Viseu**	**5.23**	**248**	*e*Sn	**Sn**	**22 56 30.7**	**-0.5**
PVIS				*e*Sg	**Sg**	**22 56 58.9**	**-2.4**
AVF	**Avril sur Loir**	**5.25**	**39**	*e*Pn	**Pn**	**22 55 30.0**	**-1.4**
AVF				*e*Sn	**Sn**	**22 56 29.0**	**-2.6**
	2.1nm,0.4s						
AVF				AML	AML		
SMRF	**Simiane la Rot**	**5.28**	**75**	*e*Pn	**Pn**	**22 55 33.1**	**+1.2**
HYF	**Humbligny**	**5.31**	**32**	*e*Sn	**Sn**	**22 56 29.0**	**-4.2**
	209nm,0.4s						
HYF				AML	AML		
SMF	**Signal de Mont**	**5.38**	**43**	*e*Pn	**Pn**	**22 55 31.8**	**-1.4**
PCBR	**Castelo Branco**	**5.40**	**238**	*e*Pn	**Pn**	**22 55 34.5**	**+1.0**
PCBR				*e*Sn	**Sn**	**22 56 34.6**	**-0.8**
PCBR				*e*Sg	**Sg**	**22 57 04.0**	**-2.9**
PCBR				*i* IAML		22 57 14.2	
PCBR				*i* IAML		22 57 18.1	
PCBR				*i* IAML		22 57 19.5	
SGMF	**Saint Gilles**	**5.47**	**353**	*e*Pn	**Pn**	**22 55 35.0**	**+0.6**
SGMF				*e*Sn	**Sn**	**22 56 32.8**	**-4.2**
EMAZ	**Mazaricos**	**5.49**	**274**	Pn	**Pn**	**22 55 35.4**	**+0.7**
EMAZ				Sn	**Sn**	**22 56 36.5**	**-1.1**
EMAZ				IVmb_Lg		22 56 39.4	
SSF	**Saint Saulge**	**5.52**	**38**	*e*Pn	**Pn**	**22 55 34.1**	**-1.0**
SSF				*e*Sn	**Sn**	**22 56 34.0**	**-4.3**
	18nm,0.3s						
SSF				AML	AML		
GRR	**Gorron**	**5.57**	**4**	*e*Pn	**Pn**	**22 55 36.4**	**+0.6**
GRR				*e*Sn	**Sn**	**22 56 34.8**	**-4.7**
	31nm,0.4s						
GRR				AML	AML		
PMRV	**Marv??o**	**5.60**	**235**	*e*Pn	**Pn**	**22 55 37.0**	**+0.7**
PMRV				*e*Sn	**Sn**	**22 56 38.2**	**-2.1**
PMRV				*e*Sg	**Sg**	**22 57 11.3**	**-1.9**
PMRV				*i* IAML		22 57 14.7	
PMRV				*i* IAML		22 57 19.5	
PMRV				*i* IAML		22 57 22.7	
ECAB	**El Cabril**	**5.62**	**213**	Pn	**Pn**	**22 55 37.5**	**+1.1**
ECAB	**El Cabril**	**5.62**	**213**	Pn	**Pn**	**22 55 37.3**	**+0.8**
ECAB				Sn	**Sn**	**22 56 38.7**	**-2.0**
ECAB				Sg	**Sg**	**22 57 12.3**	**-1.5**
ECAB				IVmb_Lg		22 57 31.8	
ROSF	**Rostrenen**	**5.64**	**348**	*e*Pn	**Pn**	**22 55 37.8**	**+1.1**
ROSF				*e*Sn	**Sn**	**22 56 36.3**	**-4.9**
	13nm,0.4s						
ROSF				AML	AML		
ORIF	**Oris-en-Rattie**	**5.73**	**66**	*e*Pn	**Pn**	**22 55 38.7**	**+0.7**
ORIF				*e*P	**Pn**	**22 55 42.3**	**+4.3**
EQTA	**Presa de Quent**	**5.82**	**195**	Pn	**Pn**	**22 55 41.6**	**+2.3**
EQUE	**Quentar**	**5.82**	**195**	Pn	**Pn**	**22 55 39.7**	**+0.3**
EQUE				Sg	**Sg**	**22 57 20.1**	**-0.1**
EQUE				IVmb_Lg		22 57 24.9	
LOR	**Lormes**	**5.83**	**39**	*e*Pn	**Pn**	**22 55 39.5**	**+0.1**
LOR				*e*Sn	**Sn**	**22 56 43.3**	**-2.7**
	5.5nm,0.4s						
LOR				AML	AML		
LDF	**La Druitiere**	**5.84**	**9**	*e*Pn	**Pn**	**22 55 39.8**	**+0.3**
LDF				*e*Sn	**Sn**	**22 56 41.4**	**-4.7**
EBAD	**Badajoz**	**5.84**	**228**	Pn	**Pn**	**22 55 39.8**	**+0.3**
EBAD				Sn	**Sn**	**22 56 43.6**	**-2.6**
EBAD	**Badajoz**	**5.84**	**228**	Pn	**Pn**	**22 55 39.4**	**-0.2**
EBAD				Sn	**Sn**	**22 56 44.8**	**-1.4**
EBAD				Sg	**Sg**	**22 57 16.8**	**-4.1**
EBAD				IVmb_Lg		22 57 26.4	
ENIJ	**Nijar**	**5.88**	**186**	Pn	**Pn**	**22 55 42.2**	**+2.1**
ENIJ	**Nijar**	**5.88**	**186**	Pn	**Pn**	**22 55 41.0**	**+0.8**
ENIJ				IVmb_Lg		22 57 41.9	
PCAS	**Casmilo, Conde**	**5.95**	**244**	*e*Pn	**Pn**	**22 55 42.5**	**+1.5**
PCAS				*e*Sn	**Sn**	**22 56 47.8**	**-1.1**
PCAS				*e*Sg	**Sg**	**22 57 20.6**	**-3.8**
PCAS				*i* IAML		22 57 22.5	
PCAS				*i* IAML		22 57 31.2	
PCAS				*i* IAML		22 57 32.8	
FLN	**La Foliniere**	**5.97**	**7**	*e*Pn	**Pn**	**22 55 43.1**	**+1.8**
FLN				*e*Sn	**Sn**	**22 56 44.5**	**-4.8**
PSARD	**Sardoal**	**5.97**	**239**	*e*Pn	**Pn**	**22 55 42.1**	**+0.7**
PSARD				*e*Sn	**Sn**	**22 56 48.9**	**-0.6**
PSARD				*i* IAML		22 57 26.5	
PSARD				*i* IAML		22 57 32.2	
PSARD				*i* IAML		22 57 35.4	
EBER	**Berja**	**6.03**	**191**	Pn	**Pn**	**22 55 44.9**	**+2.7**
EBER	**Berja**	**6.03**	**191**	Pn	**Pn**	**22 55 44.2**	**+1.9**
EBER				Sn	**Sn**	**22 56 52.8**	**+1.7**
EBER				Sg	**Sg**	**22 57 23.1**	**-3.8**
EBER				IVmb_Lg		22 57 44.6	
EGOR	**Sierra Gorda,**	**6.06**	**200**	Pn	**Pn**	**22 55 43.9**	**+1.2**
EGOR	**Sierra Gorda,**	**6.06**	**200**	Pn	**Pn**	**22 55 43.5**	**+0.8**
EGOR				Sn	**Sn**	**22 56 53.8**	**+2.0**
EGOR				IVmb_Lg		22 57 36.3	
PESTR	**Estremoz**	**6.08**	**231**	Pn	**Pn**	**22 55 43.3**	**+0.4**
PESTR				Sn	**Sn**	**22 56 49.6**	**-2.7**
PESTR	**Estremoz**	**6.08**	**231**	*e*Pn	**Pn**	**22 55 43.7**	**+0.8**
PESTR				*e*Sn	**Sn**	**22 56 50.8**	**-1.4**
PESTR				*e*Sg	**Sg**	**22 57 28.1**	**-0.7**
PESTR				*i* IAML		22 57 31.8	
PESTR				*i* IAML		22 57 36.2	
PESTR				*i* IAML		22 57 40.8	
ELGU	**Los Guajares,**	**6.18**	**196**	Pn	**Pn**	**22 55 46.7**	**+2.4**
ELGU	**Los Guajares,**	**6.18**	**196**	Pn	**Pn**	**22 55 46.0**	**+1.7**
ELGU				IVmb_Lg		22 57 41.0	
MBDF	**Montbardon**	**6.28**	**70**	*e*Pn	**Pn**	**22 55 46.6**	**+0.9**
PBAR	**Barrancos**	**6.28**	**224**	Pn	**Pn**	**22 55 46.9**	**+1.3**
PBAR	**Barrancos**	**6.28**	**224**	*e*Pn	**Pn**	**22 55 46.9**	**+1.3**
PBAR				*e*Sn	**Sn**	**22 56 56.9**	**-0.2**
PBAR				*e*Sg	**Sg**	**22 57 33.7**	**-1.4**
PBAR				*i* IAML		22 57 35.5	
PBAR				*i* IAML		22 57 45.5	
BNI	**Bardonecchia**	**6.31**	**67**	Pn	**Pn**	**22 55 47.4**	**+1.3**
BNI				Sn	**Sn**	**22 56 57.9**	**0.0**
PMTG	**Montargil**	**6.33**	**236**	*e*Pn	**Pn**	**22 55 47.7**	**+1.4**
PMTG				*e*Sn	**Sn**	**22 56 56.3**	**-1.9**
PMTG				*e*Sg	**Sg**	**22 57 35.9**	**-0.6**
PMTG				*i* IAML		22 57 36.4	
PMTG				*i* IAML		22 57 39.3	
PMTG				*i* IAML		22 57 42.6	
JSA	**Saint Aubin**	**6.37**	**356**	Pn	**Pn**	**22 55 47.7**	**+1.0**
JSA				Sn	**Sn**	**22 56 55.7**	**-3.4**
PARRA	**Arraiolos**	**6.38**	**233**	*e*Pn	**Pn**	**22 55 47.5**	**+0.5**

PARRA				*e*Sn	Sn	22 56 58.3	-1.2
PARRA				*e*Sg	Sg	22 57 35.9	-2.3
PARRA				*i* IAML		22 57 42.9	
PARRA				*i* IAML		22 57 45.4	
PARRA				*i* IAML		22 57 48.1	
EMIN	**Mina Concepcio**	6.42	220	Pn	Pn	22 55 48.6	+1.0
EMIN				Sg	Sg	22 57 36.9	-2.7
PSBE	**So Bento**	6.43	241	*e*Pn	Pn	22 55 50.1	+2.5
PSBE				*e*Sg	Sg	22 57 38.8	-0.9
EMAL	**Malaga-Limoner**	6.47	201	Pn	Pn	22 55 50.9	+2.7
LPL	**La Plagne**	6.50	63	*e*P	Pn	22 55 52.5	+3.7
LPG	**La Plagne**	6.50	63	*e*P	Pn	22 55 52.5	+3.6
EVO	**Evora**	6.55	231	Pn	Pn	22 55 49.4	+0.1
EVO				Sn	Sn	22 57 01.7	-2.1
EVO	**Evora**	6.55	231	*e*Pn	Pn	22 55 50.0	+0.7
EVO				*e*Sg	Sg	22 57 42.7	-1.1
CABF	**La Chapelle**	6.59	52	*e*Pn	Pn	22 55 51.6	+1.7
EMIJ	**Mijas**	6.75	203	Pn	Pn	22 55 54.0	+1.9
EMIJ	**Mijas**	6.75	203	Pn	Pn	22 55 53.7	+1.6
EMIJ				Sn	Sn	22 57 08.4	-0.3
EMIJ				Sg	Sg	22 57 48.9	-1.2
EMIJ				IVmb_Lg		22 58 05.7	
MOE	**Montemor**	6.76	233	*e*Pn	Pn	22 55 52.4	+0.3
MOE				*e*Sn	Sn	22 57 07.8	-1.0
MOE				*e*Sg	Sg	22 57 49.5	-0.8
MOE				*i* IAML		22 57 50.1	
MOE				*i* IAML		22 57 58.4	
MOE				*i* IAML		22 57 58.6	
PBEJ	**Beja**	6.83	227	*e*Pn	Pn	22 55 54.2	+1.1
PBEJ				*e*Sg	Sg	22 57 50.9	-1.7
ESPR	**Espera**	6.84	211	Pn	Pn	22 55 54.8	+1.6
ESPR	**Espera**	6.84	211	Pn	Pn	22 55 54.0	+0.8
ESPR				Sn	Sn	22 57 13.8	+3.1
ESPR				Sg	Sg	22 57 52.6	-0.3
ESPR				IVmb_Lg		22 58 20.4	
BRANT	**Les Verrieres**	6.99	51	Pn	Pn	22 55 55.3	-0.1
BRANT				Sn	Sn	22 57 14.9	+0.3
EGRO	**El Granado**	7.00	223	Pn	Pn	22 55 57.3	+1.9
EGRO	**El Granado**	7.00	223	Pn	Pn	22 55 56.9	+1.5
EGRO				Sg	Sg	22 57 53.7	-4.3
EGRO				IVmb_Lg		22 58 09.8	
EJIF	**Jimena Fronter**	7.07	207	Pn	Pn	22 55 57.9	+1.5
EJIF				Sn	Sn	22 57 19.7	+3.1
PLOUS	**Minas do Lousa**	7.13	230	*e*Pn	Pn	22 55 58.9	+1.7
PLOUS				*e*Sn	Sn	22 57 16.9	-1.1
PLOUS				*i* IAML		22 57 59.4	
PLOUS				*i* IAML		22 57 59.6	
MESJ	**Messejana**	7.16	228	*e*Pn	Pn	22 55 59.5	+1.9
MESJ				*e*Sn	Sn	22 57 17.0	-1.6
MESJ				*e*Sg	Sg	22 58 02.7	-0.4
SENIN	**Lac Senin/Sane**	7.20	58	Pn	Pn	22 55 59.2	+0.8
SENIN				Sn	Sn	22 57 21.3	+1.3
PCVE	**Castro Verde**	7.21	226	Pn	Pn	22 55 58.3	0.0
PCVE	**Castro Verde**	7.21	226	*e*Pn	Pn	22 55 59.2	+0.9
PCVE				*e*Sn	Sn	22 57 19.1	-0.8
PCVE				*i* IAML		22 57 46.4	
PCVE				*i* IAML		22 58 04.9	
PCVE				*i* IAML		22 58 12.0	
PVAQ	**Vaqueiros**	7.22	223	*e*Pn	Pn	22 55 59.5	+1.1
PVAQ				*e*Sn	Sn	22 57 18.5	-1.6
PVAQ				*e*Sg	Sg	22 58 05.3	+0.3
PVAQ				*i* IAML		22 58 07.4	
PVAQ				*i* IAML		22 58 11.3	
PVAQ				*i* IAML		22 58 20.7	
MEZF	**Maizieres J'vi**	7.29	37	*e*Pn	Pn	22 55 59.0	-0.4
SAVF	**Savonnieres en**	7.41	36	*e*Pn	Pn	22 56 01.3	+0.3
PBDV	**Barranco-do-Ve**	7.45	224	*e*Sn	Sn	22 57 21.1	-4.8
PBDV				*i* IAML		22 58 16.4	
PBDV				*i* IAML		22 58 30.3	
PBDV				*i* IAML		22 58 31.4	
PCP	**Piancastagn**	7.48	73	Pn	Pn	22 56 03.6	+1.5
PCP				Sn	Sn	22 57 27.7	+1.1
ECEU	**Ceuta**	7.55	205	Pn	Pn	22 56 04.8	+1.7
ECEU				Sn	Sn	22 57 21.6	-6.8
ECEU				Sg	Sb	22 58 09.0	+15
HAU	**Haudompre**	7.56	44	*e*Pn	Pn	22 56 02.9	-0.2
PTEO	**Sao Teotonio**	7.65	229	*e*Pn	Pn	22 56 05.3	+1.0
PTEO				*e*Sn	Sn	22 57 28.8	-1.9
PTEO				*e*Sg	Sb	22 58 14.8	+18
PTEO				*i* IAML		22 58 18.8	
PTEO				*i* IAML		22 58 28.2	
PTEO				*i* IAML		22 58 29.0	
HINF	**Hinteralfeld**	7.71	47	*e*Pn	Pn	22 56 05.4	+0.2
FIESA	**Fiescheralp**	7.74	59	Pn	Pn	22 56 06.7	+0.8
FIESA				Sn	Sn	22 57 35.0	+1.7
PGF	**Pioggiola**	7.74	89	*e*Pn	Pn	22 56 05.1	-0.6
DYA	**Yadsworthy**	7.78	348	Pn	Pn	22 56 06.7	+0.6
DYA				Sn	Sn	22 57 29.7	-4.2
MORF	**Marmelete**	7.78	227	*e*Pn	Pn	22 56 07.5	+1.3
CCA1	**Carnmenellis**	7.79	342	Pn	Pn	22 56 07.4	+1.2
CCA1				Sn	Sn	22 57 28.8	-5.2
HASLI	**Hasliberg/Brie**	7.90	57	Pn	Pn	22 56 09.1	+1.2
HASLI				Sn	Sn	22 57 38.9	+1.7
BAIF	**Baives**	8.23	27	*e*Pn	Pn	22 56 12.5	+0.3
GIVF	**Givet**	8.47	29	*e*Pn	Pn	22 56 16.4	+0.8
DAVA	**Damuels**	9.20	57	*e*Pn	Pn	22 56 36.1	+10
	0.8nm,0.3s						
DAVA				*e*Sn	Sn	22 58 12.2	+3.2
	3.5nm,0.5s						
FETA	**Feichten**	9.63	60	*e*Pn	Pn	22 56 36.5	+4.9
	1.6nm,0.5s						
FETA				*e*Sn	Sn	22 58 22.3	+2.7
	0.7nm,0.4s						
MOTA	**Moosalm**	9.99	59	*e*Pn	Pn	22 56 40.4	+3.9
	1.9nm,0.5s						
SQTA	**Sankt Quirin**	10.01	60	*e*Pn	Pn	22 56 41.6	+4.8
	2.3nm,0.4s						
WTTA	**Wattenberg**	10.29	60	*e*Pn	Pn	22 56 45.6	+4.9
	2.1nm,0.6s						
KEST	**Kesra**	10.99	127	Pn	Pn	22 56 51.7	+1.4
	0.1nm,0.3s,baz=330,slow=16,SNR=0.7						
	0.5nm,0.5s						
KEST				AML	AML		
GERES	**GERESS Array B**	12.18	55	Pn	Pn	22 57 07.9	+1.5
	baz=248,slow=16,SNR=5.2						
	0.4nm,0.2s						
EKA	**Eskdalemuir Ar**	12.55	356	Pn	Pn	22 57 10.3	-1.1
	baz=168,slow=15						
	0.4nm,0.5s						

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*LDG **30** 22:57:54.0±0.1, 42°.87N×1°.49W, h2^{km}, Md2.5/1, Ml2.2/4, Error ellipse: s-maj=2.8km s-min=2.1km az=122.0*

*MDD **30** 22:57:54.2±0.2, 42°.85N×1°.49W, h1^{km}, mb_Lg2.1/35, Error ellipse: s-maj=1.8km s-min=1.3km az=178.0*

ISC 30 22:57:53.7±0.9**, 42°.86N**±0°.03×**1°.49W**±0°.03**, h8**^{km}±7^{km}**, n22, σ1^{s}33**/46**, 1C, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EARA	**Aranguren**	0.11	216	Pg	Pg	22 57 55.5	-0.7
EARA				Sg	Sg	22 57 57.4	-0.6
SJPF	**Ste Jean**	0.32	38	*e*Pg	Pg	22 58 00.0	0.0
SJPF				*e*Sg	Sg	22 58 03.1	-1.1
	90nm,0.2s						
EALK	**Alkurruntz**	0.36	358	⇑Pg	Pg	22 58 01.0	+0.3
EALK				Sg	Sg	22 58 04.9	-0.6
EALK				IVmb_Lg		22 58 08.5	
ETSF	**Etsaut**	0.69	87	*e*Pg	Pg	22 58 06.2	-0.6
ETSF	**Etsaut**	0.69	87	*e*Pg	Pg	22 58 06.3	-0.6
ETSF				*e*Sg	Sg	22 58 16.6	+0.7
	14nm,0.2s						
ETSF				*e*Sg	Sg	22 58 16.6	+0.7
ECHI	**Chisagues Biel**	1.26	98	Pg	Pn	22 58 16.9	-0.7
ECHI				Sg	Sb	22 58 34.6	+0.5
ECHI				IVmb_Lg		22 58 39.3	
EPF	**Esparros**	1.35	82	*e*Pn	Pn	22 58 18.8	-0.1
EPF				*e*Pg	Pn	22 58 18.8	-0.1
EPF				*e*Pg	Pb	22 58 21.3	+2.0
EPF				*e*Sg	Sb	22 58 38.5	+1.7
	8.2nm,0.4s						
EPF				*e*Sg	Sg	22 58 39.1	+1.9
EPF				AML	AML		
ESAC	**San Caprasio**	1.37	146	Pg	Pn	22 58 18.2	-0.9
ESAC				Sg	Sn	22 58 37.4	0.0
ESAC				IVmb_Lg		22 58 45.5	
ELAN	**Lanestosa**	1.47	285	Pn	Pn	22 58 20.7	+0.2
ELAN				Sn	Sn	22 58 39.5	-0.5
ELAN				IVmb_Lg		22 58 48.0	
ETOR	**Torete**	2.08	192	Pn	Pn	22 58 28.7	-0.3
ETOR				Pg	Pb	22 58 32.8	+1.1
ETOR				Sn	Sn	22 58 55.1	0.0
ETOR				IVmb_Lg		22 59 03.1	
ERTA	**Horta de San J**	2.34	144	Pn	Pn	22 58 32.0	-0.4
ERTA				Sn	Sn	22 58 59.1	-2.3
ERTA				IVmb_Lg		22 59 10.4	
E0901	**Celadas (Terue**	2.39	173	Pn	Pn	22 58 34.4	+1.1
E0901				Sn	Sn	22 59 03.0	+0.1
E0901				IVmb_Lg		22 59 17.4	
EPOB	**Poblet**	2.44	127	Pn	Pn	22 58 31.8	-2.0
EPOB				Pg	Pb	22 58 37.5	-0.3
EPOB				Sn	Sn	22 59 01.2	-2.6
EPOB				Sg	Sb	22 59 09.0	+1.1
EPOB				IVmb_Lg		22 59 16.6	
EMOS	**Mosqueruela**	2.61	163	Pn	Pn	22 58 36.1	-0.2
EMOS				Sn	Sn	22 59 07.6	-0.7
EMOS				IVmb_Lg		22 59 22.1	
LFF	**La Frestale**	2.63	37	*e*P	Pn	22 58 38.1	+1.7
LFF				*e*Sn	Sn	22 59 07.5	-1.0
	1.9nm,0.2s						
LFF				AML	AML		
MTLF	**Montolieu**	2.76	79	*e*P	Pn	22 58 40.0	+1.8
RJF	**Les Rejaudoux**	3.27	41	*e*Pn	Pn	22 58 44.1	-1.0
RJF				*e*Sn	Sn	22 59 21.7	-2.5
	1.9nm,0.2s						
RJF				AML	AML		
CAF	**Calviac**	3.30	50	*e*Pn	Pn	22 58 44.8	-0.8
MFF	**Saint Martin d**	3.86	14	*e*P	Pn	22 58 54.6	+1.3
MFF				*e*Sn	Sn	22 59 35.6	-3.2
LASF	**Ste Croix**	4.08	71	*e*P	Pn	22 58 57.6	+1.3
TCF	**Toulx Ste Croi**	4.33	36	*e*Pn	Pn	22 58 59.1	-0.7
TCF				*e*Sn	Sn	22 59 47.7	-2.7
	1.0nm,0.3s						
TCF				AML	AML		
BGF	**Bois d'Agland**	4.82	38	*e*Pn	Pn	22 59 06.0	-0.5

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*IDC **30** 23:06:01.1±2.3, 32°.88N×115°.81W, h0^{km}, mbtmp2.9/4, ML3.1/4, Error ellipse: s-maj=26.5km s-min=10.8km az=40.0*

*NEIC **30** 23:06:02.1±1.2, 33°.028N±0°.007×115°.574W±0°.010, h5^{km}±1^{km}, ML3.5/36, Mwr3.6/43, Mwr3.7/4(PAS), Error ellipse: s-maj=2.3km s-min=1.3km az=50.0, Moment Tensor Solution. Moment tensor: Scale 10^{14}Nm; M$_{rr}$-0.83; M$_{\theta\theta}$-0.79; M$_{\phi\phi}$1.62; M$_{r\theta}$0.18; M$_{\theta\phi}$2.42; M$_{\phi r}$-1.00; Fault plane solution: M$_0$2.97000×10^{14} NP1: ϕ_s349.33000°, δ81.99000°, λ-155.99000°. NP2: ϕ_s255.78000°, δ66.24000°, λ-8.76000°. Principal axes: T 3.2603, Plg11.0000°, Azm120.0000°; N -0.6939, Plg65.0000°, Azm7.0000°; P -2.5664, Plg23.0000°, Azm215.0000°;*

*PAS **30** 23:06:02.6±0.9, 33°.045N±0°.006×115°.590W±0°.010, h3^{km}±3^{km} Error ellipse: s-maj=1.3km s-min=0.6km az=119.0*

*NEIC **30** 23:06:02.4, 33°.05N×115°.61W, h15^{km}*

ISC 30 23:06:02.0±0.8**, 33°.05N**±0°.02×**115°.58W**±0°.02**, h13**^{km}±7^{km}**, n72, σ0^{s}86**/97**, Southern California**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OBB	**Obsidian Butte**	0.12	339		Pb	23 06 06.1	-0.1
OBB					Sg	23 06 08.6	+1.0
SUP	**Superstition M**	0.22	245		Pg	23 06 07.1	+0.3
SUP					Sg	23 06 10.5	+0.5
SNR	**Schaffner Ranc**	0.22	147		Sg	23 06 07.7	-2.4
DREC	**Desert Rsrch C**	0.27	155		Pb	23 06 08.8	+0.1
SLVP	**Salvation Pass**	0.30	51		Pb	23 06 08.7	-0.6
SLVP					Sb	23 06 13.1	-1.0
WESC	**Westside Schoo**	0.32	203		Pb	23 06 09.1	-0.4
WESC					Sb	23 06 14.2	-0.3
5271	**Bombay Beach**	0.33	338		Pb	23 06 09.4	-0.3
5271					Sb	23 06 15.4	+0.6
BOMB	**Bombay Beach**	0.34	339		Pb	23 06 09.9	0.0
BOMB					Sb	23 06 15.8	+0.6
FRK	**Frink**	0.35	353		Pb	23 06 09.6	-0.5
FRK					Sb	23 06 15.1	-0.5
CRR	**Carrizo Plain**	0.36	243		Pb	23 06 09.7	-0.6
CRR					Sg	23 06 14.9	+0.7
SALN	**Salton City**	0.41	304	Pg	Pb	23 06 10.8	-0.2
SALN				IAML		23 06 23.6	
	comp=E,7µm,0.7s						
SGL	**Mount Signal**	0.42	197		Pg	23 06 10.5	+0.3
SGL					Sg	23 06 16.5	+0.7
COA	**Coachella**	0.43	115		Pb	23 06 11.2	-0.2
YUH	**Yuha Desert**	0.49	216	Pg	Pg	23 06 11.7	0.0
YUH				Sg	Sg	23 06 18.4	+0.1
YUH				IAML		23 06 20.1	
	comp=N,2µm,0.7s						
BRGC	**Borrego Mounta**	0.51	284		Sb	23 06 19.7	-0.4
RUN	**Ruthven**	0.52	98		Pb	23 06 12.4	-0.4
RUN					Sb	23 06 20.0	-0.3
EMSC	**East Mesa**	0.59	121		Pb	23 06 14.2	0.0
EMSC					Sb	23 06 23.1	+0.7
IKP	**In-Ko-Pah, Jac**	0.59	228		Pg	23 06 13.7	0.0
IKP					Sb	23 06 22.6	-0.1
RMX	**La Rumorosa**	0.61	223		Pg	23 06 14.1	+0.1
RMX					Sb	23 06 23.2	+0.1
BC3	**Big Chuckawall**	0.61	10	Pg	Pb	23 06 14.3	-0.3
BC3				Sg	Sb	23 06 22.9	-0.3
BC3				IAML		23 06 30.0	
	comp=N,2µm,0.8s						
BC3				IAML		23 06 30.6	
	comp=E,2µm,0.8s						
HAY	**Hayfield**	0.66	353		Pb	23 06 15.4	0.0
HAY					Sb	23 06 25.3	+0.8
CPBX	**Cerro Prieto**	0.67	159	Pg	Pb	23 06 15.2	-0.3
CTW	**Cottonwood Mou**	0.67	339		Sb	23 06 24.8	0.0
CTCC	**Cactus City**	0.69	331		Pb	23 06 15.4	-0.5
CTCC					Sb	23 06 25.7	+0.3
BORC	**Borrego Spring**	0.73	288	Pg	Pg	23 06 15.9	-0.3
BORC					Sg	23 06 25.8	0.0
PESCX	**Ej. Pescaderos**	0.81	139		Pg	23 06 17.2	-0.4
PESCX					Sn	23 06 30.2	-0.7
JUEM	**Julian Eagle M**	0.85	272		Sb	23 06 29.9	-0.2
PMD	**Palm Desert**	0.89	312		Sg	23 06 30.5	-0.4
PMD	**Palm Desert**	0.89	312	Pg	Pg	23 06 18.4	-0.8
PMD	**Palm Desert**	0.89	312	IAML		23 06 31.6	
	comp=N,885nm,1.1s						
PMD				IAML		23 06 32.4	
	comp=E,758nm,0.8s						
MATG	**Mataguay Scout**	0.91	280		Pb	23 06 19.6	0.0
XPFO	**Pinon Flat**	0.92	308		Pg	23 06 19.4	-0.3
XPFO					Sb	23 06 31.7	-0.3
PFO	**Pinyon Flats O**	0.92	308	Pg	Pg	23 06 18.5	-1.4
	comp=E,20nm,0.3s,baz=128,slow=15,SNR=7.5						
PFO				Lg	Lg	23 06 31.5	
	comp=E,155nm,0.3s,baz=59,slow=12,SNR=23						
PFO	**Pinyon Flats O**	0.92	308		Pg	23 06 19.4	-0.5
PFO					Sg	23 06 31.7	-0.2
PFO	**Pinyon Flats O**	0.92	308	Pg	Pg	23 06 19.3	-0.5
PFO				IAML		23 06 33.0	
	comp=E,898nm,0.8s						
PFO				IAML		23 06 33.3	
	comp=E,658nm,1.2s						
FRD	**Ford Ranch, An**	0.96	298		Sg	23 06 33.0	-0.2
FRD	**Ford Ranch, An**	0.96	298		Pg	23 06 19.6	-0.9
TKX	**Tecate**	0.99	241		Pb	23 06 20.9	-0.1
TKX					Sg	23 06 33.5	-0.5
BAR	**Barrett**	0.99	248	Pg	Pb	23 06 20.7	-0.3
BAR				Sg	Sg	23 06 33.1	-0.8
BAR				IAML		23 06 34.7	
	comp=E,1µm,0.3s						
BAR				IAML		23 06 34.9	
	comp=N,1µm,0.5s						
SNDA	**J Saunders Pla**	1.00	300		Pg	23 06 20.8	-0.4
BZNA	**Buzz No.'s Pla**	1.01	296		Pg	23 06 21.5	0.0
BZNA					Sg	23 06 34.4	-0.3
BELC	**Belle Mtn. Jos**	1.01	340	Pg	Pg	23 06 20.9	-0.6
BELC				IAML		23 06 43.1	
	comp=E,860nm,0.9s						
DNR	**Dunn Ranch,Anz**	1.02	301	Pg	Pb	23 06 21.1	-0.5
DNR				IAML		23 06 48.2	
	comp=N,2µm,0.8s						
ESJX	**Sierra Juarez**	1.09	197	Pg	Pb	23 06 22.3	-0.5
ESJX				Sg	Sb	23 06 36.5	-0.4
ESJX				IAML		23 06 37.2	
	comp=N,1µm,0.2s						
DUZA	**Dulzura**	1.10	247		Pb	23 06 22.7	-0.2
BLYC	**Blythe**	1.13	51	Pg	Pg	23 06 23.7	-0.1
DPP	**Dos Picos Cty**	1.14	268	Pg	Pn	23 06 23.6	-0.1
DPP				Sg	Sb	23 06 37.5	-0.9
DPP				IAML		23 06 39.3	
	comp=N,1µm,0.6s						
DPP				IAML		23 06 47.2	
	comp=E,1µm,0.6s						
IRM	**Iron Mountain**	1.16	18	Pg	Pg	23 06 24.1	-0.3
IRM				IAML		23 06 48.1	
	comp=E,1µm,0.9s						
IRM				IAML		23 06 48.1	
	comp=N,2µm,0.7s						
CBX	**Cerro Bola**	1.17	231	Pg	Pb	23 06 23.4	-0.8
TJX	**Tijuana**	1.35	247		Pb	23 06 26.8	-0.4
ELS	**Elsinore Mount**	1.65	292		Pn	23 06 31.1	+0.3
W13A	**Hualapai Mount**	2.48	34	Pn	Pn	23 06 43.2	+0.9
GWY	**Greenwater Val**	3.25	344	Pn	Pn	23 06 53.2	+0.3
X16A	**Lo Mia Camp, P**	3.71	67	Pn	Pn	23 07 00.4	+1.2
TUC	**Tucson**	4.11	99	Pn	Pn	23 07 04.5	-0.1
TUC	**Tucson**	4.11	99	IAML		23 08 33.1	
	comp=N,41nm,0.9s						
GRAC	**Grapevine Rang**	4.20	340	Pn	Pn	23 07 06.5	+0.7
PRN	**Pahroc Range**	4.37	6	Pn	Pn	23 07 08.5	+0.3
GMN	**Gold Mountain**	4.46	343	Pn	Pn	23 07 10.7	+1.2
CCUT	**Cedar City**	4.84	21	Pn	Pn	23 07 15.4	+0.6
X18A	**Snowflake**	4.92	71		Pn	23 07 17.3	+1.6
PKD	**Bear Valley Ra**	5.01	307	Pn	Pn	23 07 18.4	+1.5
W18A	**Petrified Fore**	5.27	65		Pn	23 07 21.9	+1.2
DUN6	**Lazy B Ranch**	5.49	93	Pn	Pn	23 07 23.7	+0.1
NVAR	**Mina Array Bea**	5.81	338	Pn	Pn	23 07 27.6	-0.4
	comp=N,0.1nm,0.3s,baz=163,slow=14,SNR=2.3						
NVAR				Pg	Pg	23 07 50.9	-2.2
	comp=N,0.3nm,0.3s,baz=159,slow=16,SNR=8.3						
NVAR				Lg	Lg	23 09 07.7	
	baz=356,slow=37						
	comp=N,0.3nm,0.5s						
NVAR				AML	AML		
HMU	**Henry Mountain**	6.28	38	Pn	Pn	23 07 35.5	+1.0
121A	**Cookes Peak, D**	6.59	92		Pn	23 07 39.4	+0.7
ELK	**Elko**	7.69	2	Pg	Pg	23 08 28.9	-0.2
	comp=N,0.2nm,0.3s,baz=180,slow=13,SNR=4.3						
ELK				Lg	Lg	23 10 04.6	
	comp=N,0.1nm,0.3s,baz=290,slow=13,SNR=5.8						
ANMO	**Albuquerque**	7.81	73	Pn	Pn	23 07 60.0	+4.4
	comp=N,0.1nm,0.3s,baz=257,slow=14,SNR=1.3						
ANMO				Pg	Pg	23 08 29.0	-2.5
	comp=N,0.2nm,0.3s,baz=264,slow=14,SNR=4.2						
ANMO				Lg	Lg	23 10 07.2	
	comp=N,0.1nm,0.3s,baz=189,slow=19,SNR=1.6						
	comp=N,0.7nm,0.8s						
ANMO				AML	AML		
MNTX	**Cornudas Mount**	8.73	96		Pn	23 08 09.1	+1.0
PDAR	**Pinedale Array**	10.80	24	Pn	Pn	23 08 41.9	+5.4
	baz=211,slow=11,SNR=5.2						
PDAR				Pg		23 09 25.2	
	comp=N,0.1nm,0.3s,baz=202,slow=11,SNR=4.3						
PDAR				Lg	Lg	23 11 55.2	
	baz=201,slow=31,SNR=1.7						
	comp=N,0.2nm,0.7s						
TXAR	**Lajitas Array**	10.86	107	Pn	Pn	23 08 38.5	+1.3
	comp=N,0.1nm,0.3s,baz=286,slow=12,SNR=5.8						
TXAR				Lg	Lg	23 11 47.1	
	baz=331,slow=20,SNR=4.0						
	comp=N,0.3nm,0.6s						
TXAR				AML	AML		

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*PAS **30** 23:13:37.5±1.3, 33°.042N±0°.007×115°.580W±0°.010, h4^{km}±1^{km}, Error ellipse: s-maj=1.2km s-min=1.1km az=72.0*

NEIC 30 23:13:37.6±1.2**, 33°.048N**±0°.005×**115°.62W**±0°.01**, h8**^{km}±7^{km}**, ML2.8**/32**, ML2.9**/29(PAS)**, Error ellipse: s-maj=1.5km s-min=0.8km az=100.0, Southern California**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WEMD	**Westmorland, C**	0.03	107		Pg	23 13 40.0	+0.8
OBB	**Obsidian Butte**	0.12	353		Sg	23 13 43.2	+1.0
SWSC	**Sam W. Stewart**	0.18	236		Sg	23 13 44.8	+0.8
ERRC	**Elmore Ranch**	0.18	292		Sg	23 13 46.5	+2.6
SUP	**Superstition M**	0.20	242		Pg	23 13 42.0	+0.4
SUP					Sg	23 13 45.1	+0.8
COK2	**Cook Ranch 2**	0.22	205		Pg	23 13 42.8	+0.8
COK2					Sg	23 13 47.2	+2.3
WIS	**Wister**	0.23	5		Sg	23 13 47.1	+1.8
SNR	**Schaffner Ranc**	0.24	140		Sg	23 13 47.2	+1.6
DREC	**Desert Rsrch C**	0.28	149		Sb	23 13 49.4	-0.3
WESC	**Westside Schoo**	0.30	198		Pg	23 13 44.0	+0.4
WESC					Sb	23 13 49.5	-0.8
SLVP	**Salvation Pass**	0.33	54		Pg	23 13 43.7	-0.3
BOMB	**Bombay Beach**	0.33	344		Pb	23 13 44.9	-0.8
BOMB					Sb	23 13 50.9	-0.2
CRR	**Carrizo Plain**	0.34	241		Sb	23 13 50.1	-1.1
FRK	**Frink**	0.35	357		Pg	23 13 44.5	0.0
FRK					Sg	23 13 49.8	+0.6
SALN	**Salton City**	0.39	307		Pg	23 13 45.7	+0.6
SALN				IAML		23 13 53.3	
	comp=N,2µm,0.5s						
SGL	**Mount Signal**	0.41	193		Pg	23 13 45.2	-0.3
SGL					Sg	23 13 51.5	+0.6
COA	**Coachella**	0.46	114		Pg	23 13 45.6	-0.8
COA					Sg	23 13 53.1	+0.7
YUH	**Yuha Desert**	0.47	213	Pg	Pg	23 13 46.6	-0.2
YUH				Sg	Sg	23 13 53.6	+0.6
BRGC	**Borrego Mounta**	0.48	285		Pg	23 13 47.4	+0.4
BRGC					Sb	23 13 54.5	-1.0
RUN	**Ruthven**	0.55	98		Pg	23 13 47.3	-0.8
RUN					Sg	23 13 55.0	-0.3
IKP	**In-Ko-Pah, Jac**	0.57	226		Pg	23 13 49.0	+0.4
IKP					Sg	23 13 57.2	+1.0
RMX	**La Rumorosa**	0.59	221		Pg	23 13 49.2	+0.3
RMX					Sg	23 13 57.6	+0.9
EMSC	**East Mesa**	0.62	120		Pg	23 13 48.8	-0.7
EMSC					Sg	23 13 58.1	+0.6
BC3	**Big Chuckawall**	0.62	13		Pg	23 13 49.1	-0.5
BC3					Sg	23 13 58.0	+0.2
HAY	**Hayfield**	0.66	355		Pg	23 13 50.1	-0.2
CTW	**Cottonwood Mou**	0.66	341		Pg	23 13 50.2	-0.2
CTW					Sg	23 13 59.9	+0.8
CPBX	**Cerro Prieto**	0.68	157	Pg	Pg	23 13 50.2	-0.4
CPBX				Sg	Sb	23 14 00.5	-0.7
CTCC	**Cactus City**	0.68	333		Pg	23 13 50.4	-0.3
CTCC					Sb	23 14 00.5	-0.8
BORC	**Borrego Spring**	0.70	288		Pg	23 13 50.0	-1.1
BORC					Sg	23 14 00.7	+0.4
BORC				IAML		23 14 01.8	
	comp=N,210nm,1.1s						
JUEM	**Julian Eagle M**	0.82	273		Pg	23 13 53.8	+0.3
JUEM					Sb	23 14 05.1	-0.3
PMD	**Palm Desert**	0.87	314	Pg	Pg	23 13 53.5	-0.8
PMD				Sg	Sg	23 14 05.3	-0.4
MATG	**Mataguay Scout**	0.88	280		Pg	23 13 54.6	+0.2
MATG					Sg	23 14 06.3	+0.4
XPFO	**Pinon Flat**	0.90	309		Pg	23 13 54.3	-0.5
XPFO					Sg	23 14 06.6	0.0
PFO	**Pinyon Flats O**	0.90	309		Pg	23 13 54.3	-0.6
PFO					Sg	23 14 06.6	-0.1
PFO	**Pinyon Flats O**	0.90	309	Pg	Pg	23 13 54.2	-0.7
PFO				Sg	Sg	23 14 06.2	-0.4
PFO				IAML		23 14 07.6	
	comp=N,158nm,0.8s						
PFO				IAML		23 14 07.9	
	comp=N,78nm,0.6s						
BAR	**Barrett**	0.96	248	Pg	Pg	23 13 55.6	-0.4
BAR				IAML		23 14 09.5	
	comp=N,311nm,0.3s						
TKX	**Tecate**	0.96	240		Pg	23 13 55.9	-0.1
TKX					Sg	23 14 08.2	-0.3
BZNA	**Buzz No.'s Pla**	0.98	297		Pg	23 13 56.3	-0.2
BZNA					Sg	23 14 09.3	0.0
DNR	**Dunn Ranch,Anz**	0.99	302		Pg	23 13 56.1	-0.5
DNR				IAML		23 14 20.1	
	comp=N,376nm,0.8s						
BELC	**Belle Mtn. Jos**	1.00	342	Pg	Pg	23 13 55.3	-1.6
EML	**El Monte Cty P**	1.04	262		Pg	23 13 57.1	-0.5
EML					Sg	23 14 10.9	-0.2
DUZA	**Dulzura**	1.07	246		Pn	23 14 00.8	+1.9
DUZA					Sg	23 14 11.6	-0.4
CRY	**Cary Ranch**	1.07	299		Pg	23 13 57.5	-0.6
CRY					Sg	23 14 11.7	-0.4
ESJX	**Sierra Juarez**	1.08	195		Pg	23 13 57.2	-1.0
ESJX					Sg	23 14 11.3	-1.0
ESJX				IAML		23 14 12.1	
	comp=N,187nm,0.2s						

ESJX				IAML		23 14 12.1	
	comp=E,321nm,0.2s						
PLM	**Palomar**	**1.09**	**287**		Pg	23 13 57.6	-0.8
PLM					Sg	23 14 12.1	-0.5
DPP	**Dos Picos Cty**	**1.11**	**268**		Pg	23 13 58.6	-0.4
DPP				Sg	Sg	23 14 12.2	-1.2
DPP				IAML		23 14 13.6	
	comp=E,191nm,0.8s						
DPP				IAML		23 14 14.3	
	comp=N,245nm,0.5s						
CBX	**Cerro Bola**	**1.15**	**231**		Pg	23 13 58.1	-1.5
CBX					Sg	23 14 13.7	-0.8
CBX				IAML		23 14 22.1	
	comp=N,334nm,0.9s						
CBX				IAML		23 14 22.2	
	comp=E,327nm,1.1s						
BLYC	**Blythe**	**1.15**	**52**	Pg	Pg	23 13 58.7	-1.0
IRM	**Iron Mountain**	**1.18**	**20**	Pg	Pb	23 13 59.8	-0.3
OLP	**Otay Lakes Par**	**1.19**	**249**		Pb	23 13 59.5	-0.8
OLP					Sg	23 14 15.1	-0.7
TJX	**Tijuana**	**1.32**	**246**		Pn	23 14 01.8	-0.5
CCX	**Cicese**	**1.47**	**217**		Pn	23 14 03.8	-0.6

*PAS **30** 23:15:24.5±1.4, 33°.048N±0°.006×115°.588W±0°.007, h3^{km}±1^{km}, Error ellipse: s-maj=1.0km s-min=0.9km az=214.0*

NEIC 30 23:15:24.4±1.2**, 33°.040N**±0°.004×**115°.60W**±0°.01**, h5**^{km}±1^{km}**, ML2.8**/7(PAS)**, Error ellipse: s-maj=2.4km s-min=1.5km az=91.0, Southern California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WEMD	**Westmorland, C**	**0.01**	**96**		Pg	23 15 25.4	+0.1
WEMD					Sg	23 15 27.2	+1.2
OBB	**Obsidian Butte**	**0.13**	**345**		Pg	23 15 27.9	+0.8
OBB					Sg	23 15 30.7	+1.8
IMPE	**Imperial**	**0.14**	**168**		Pg	23 15 28.4	+1.1
IMPE					Sg	23 15 31.9	+2.8
SWSC	**Sam W. Stewart**	**0.20**	**241**		Pg	23 15 28.9	+0.6
SWSC					Sg	23 15 32.1	+1.3
ERRC	**Elmore Ranch**	**0.20**	**292**		Pg	23 15 29.5	+1.0
SUP	**Superstition M**	**0.21**	**246**		Pg	23 15 29.1	+0.6
SUP					Sg	23 15 32.3	+1.0
COK2	**Cook Ranch 2**	**0.22**	**210**		Pg	23 15 29.9	+1.2
SNR	**Schaffner Ranc**	**0.22**	**143**		Pg	23 15 29.9	+1.1
WIS	**Wister**	**0.24**	**1**		Pg	23 15 29.6	+0.6
WESC	**Westside Schoo**	**0.30**	**202**		Pg	23 15 31.2	+0.9
SLVP	**Salvation Pass**	**0.32**	**51**		Pg	23 15 30.7	+0.1
SLVP					Sg	23 15 34.8	0.0
BOMB	**Bombay Beach**	**0.34**	**341**		Pg	23 15 31.1	0.0
CRR	**Carrizo Plain**	**0.35**	**244**		Pg	23 15 32.0	+0.8
FRK	**Frink**	**0.36**	**355**		Pg	23 15 31.6	+0.1
SGL	**Mount Signal**	**0.40**	**196**		Pg	23 15 32.6	+0.4
SGL					Sg	23 15 38.8	+1.3
SALN	**Salton City**	**0.41**	**306**		Pg	23 15 32.9	+0.7
SALN				Sg	Sg	23 15 35.9	-1.7
COA	**Coachella**	**0.44**	**114**		Pg	23 15 33.4	+0.5
YUH	**Yuha Desert**	**0.48**	**215**	Pg	Pg	23 15 33.8	+0.2
BRGC	**Borrego Mounta**	**0.50**	**285**		Pg	23 15 34.3	+0.2
RUN	**Ruthven**	**0.53**	**97**		Pg	23 15 34.6	0.0
IKP	**In-Ko-Pah, Jac**	**0.58**	**228**		Pg	23 15 35.6	0.0
RMX	**La Rumorosa**	**0.59**	**223**		Pg	23 15 36.3	+0.4
EMSC	**East Mesa**	**0.60**	**120**		Pg	23 15 36.2	+0.4
BC3	**Big Chuckawall**	**0.62**	**11**		Pg	23 15 36.5	0.0
HAY	**Hayfield**	**0.67**	**354**		Pg	23 15 37.4	+0.1
CTW	**Cottonwood Mou**	**0.68**	**340**		Pg	23 15 37.2	-0.3
BORC	**Borrego Spring**	**0.72**	**289**	Pg	Pg	23 15 37.8	-0.5
JUEM	**Julian Eagle M**	**0.84**	**273**		Pg	23 15 41.0	+0.4
PMD	**Palm Desert**	**0.89**	**313**		Pg	23 15 40.9	-0.7
PMD	**Palm Desert**	**0.89**	**313**	Pg	Pg	23 15 40.6	-1.0
MATG	**Mataguay Scout**	**0.90**	**281**		Pg	23 15 41.2	-0.4
XPFO	**Pinon Flat**	**0.92**	**309**		Pg	23 15 41.3	-0.8
PFO	**Pinyon Flats O**	**0.92**	**309**	Pg	Pg	23 15 41.1	-1.0
BAR	**Barrett**	**0.97**	**249**	Pg	Pg	23 15 42.7	-0.4
DNR	**Dunn Ranch,Anz**	**1.01**	**302**	Pg	Pg	23 15 43.4	-0.5
BELC	**Belle Mtn. Jos**	**1.01**	**341**		Pg	23 15 42.8	-1.1
ESJX	**Sierra Juarez**	**1.07**	**196**		Pg	23 15 44.2	-0.8
DPP	**Dos Picos Cty**	**1.13**	**268**	Pg	Pg	23 15 45.1	-1.0
113A	**Mohawk Valley,**	**1.56**	**99**		Pn	23 15 51.5	-1.4

*NEIC **30** 23:15:30.8±0.8, 33°.046N±0°.009×115°.610W±0°.009, h6^{km}±1^{km}, ML3.3/30, Mwr3.5/4(PAS), Error ellipse: s-maj=1.4km s-min=1.0km az=164.0*

*PAS **30** 23:15:30.9±1.0, 33°.048N±0°.007×115°.597W±0°.010, h3^{km}±2^{km}, Error ellipse: s-maj=1.2km s-min=1.0km az=72.0*

*IDC **30** 23:15:35.3±1.8, 33°.28N×115°.80W, h0^{km}, mbtmp3.2/3, ML4.1/3, Error ellipse: s-maj=21.8km s-min=11.1km az=23.0*

ISC 30 23:15:31.4±0.9**, 33°.04N**±0°.02×**115°.61W**±0°.02**, h9**^{km}±6^{km}**, n56,** $\sigma 1^{s}$**19**/69**, Southern California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WEMD	**Westmorland, C**	**0.02**	**101**		**Pg**	**23 15 31.7**	**-1.3**
WEMD					**Sg**	**23 15 33.5**	**-0.6**
IMPE	**Imperial**	**0.15**	**164**		**Pg**	**23 15 34.7**	**+0.1**
IMPE					**Sg**	**23 15 38.3**	**+1.6**
SWSC	**Sam W. Stewart**	**0.19**	**239**		**Pg**	**23 15 35.5**	**+0.2**
SWSC					**Sg**	**23 15 37.8**	**-0.1**
ERRC	**Elmore Ranch**	**0.19**	**292**		**Pg**	**23 15 33.8**	**-1.6**
SUP	**Superstition M**	**0.20**	**244**		**Pg**	**23 15 35.5**	**0.0**
SUP					**Sg**	**23 15 39.1**	**+0.8**
WIS	**Wister**	**0.23**	**3**		**Pg**	**23 15 36.2**	**0.0**
WESC	**Westside Schoo**	**0.30**	**200**		**Pg**	**23 15 37.6**	**+0.2**
SLVP	**Salvation Pass**	**0.32**	**53**		**Pg**	**23 15 37.3**	**-0.5**
SLVP					**Sg**	**23 15 41.2**	**-0.9**
BOMB	**Bombay Beach**	**0.34**	**343**		**Sg**	**23 15 43.2**	**+0.6**
CRR	**Carrizo Plain**	**0.34**	**243**		**Pg**	**23 15 38.4**	**+0.3**
FRK	**Frink**	**0.36**	**356**		**Pg**	**23 15 38.1**	**-0.4**
FRK					**Sg**	**23 15 43.5**	**+0.3**
SALN	**Salton City**	**0.40**	**307**		**Pg**	**23 15 39.2**	**+0.1**
SALN				Sg	**Sg**	**23 15 42.7**	**-1.7**
SALN				IAML		23 15 51.5	
	comp=N,17μm,0.5s						
SALN				IAML		23 15 51.7	
	comp=E,9μm,0.7s						
SGL	**Mount Signal**	**0.40**	**194**		**Sg**	**23 15 45.0**	**+0.3**
COA	**Coachella**	**0.45**	**113**		**Pg**	**23 15 39.7**	**-0.4**
YUH	**Yuha Desert**	**0.47**	**214**		**Sg**	**23 15 40.4**	**-6.5**
YUH	**Yuha Desert**	**0.47**	**214**	Pg	**Pg**	**23 15 40.1**	**-0.5**
YUH				Sg	**Sg**	**23 15 46.8**	**0.0**
YUH				IAML		23 15 47.6	
	comp=N,909nm,0.7s						
YUH				IAML		23 15 54.3	
	comp=E,606nm,0.7s						
BRGC	**Borrego Mounta**	**0.49**	**285**		**Pg**	**23 15 40.3**	**-0.6**
RUN	**Ruthven**	**0.54**	**97**		**Pg**	**23 15 41.0**	**-0.8**
IKP	**In-Ko-Pah, Jac**	**0.57**	**227**		**Pg**	**23 15 42.5**	**0.0**
RMX	**La Rumorosa**	**0.59**	**222**		**Sg**	**23 15 51.5**	**+0.8**
EMSC	**East Mesa**	**0.61**	**120**		**Pg**	**23 15 42.9**	**-0.2**
BC3	**Big Chuckawall**	**0.62**	**12**	Pg	**Pg**	**23 15 42.8**	**-0.8**
BC3				Sg	**Sg**	**23 15 51.8**	**0.0**
BC3				IAML		23 15 57.6	
	comp=N,950nm,0.7s						
BC3				IAML		23 15 57.7	
	comp=E,963nm,0.6s						
HAY	**Hayfield**	**0.67**	**355**		**Pg**	**23 15 43.7**	**-0.6**
HAY					**Sg**	**23 15 52.9**	**-0.1**
CTW	**Cottonwood Mou**	**0.67**	**341**		**Pg**	**23 15 43.6**	**-0.7**
CTW					**Sg**	**23 15 53.1**	**0.0**
CPBX	**Cerro Prieto**	**0.67**	**157**	Pg	**Pg**	**23 15 43.3**	**-1.1**
CTCC	**Cactus City**	**0.69**	**333**		**Pg**	**23 15 43.9**	**-0.9**
CTCC					**Sg**	**23 15 53.9**	**+0.2**
BORC	**Borrego Spring**	**0.71**	**289**	Pg	**Pg**	**23 15 44.5**	**-0.7**
BORC				Sg	**Sg**	**23 15 54.4**	**-0.1**
BORC				IAML		23 16 00.8	
	comp=N,1μm,0.9s						
BORC				IAML		23 16 01.3	
	comp=E,760nm,0.8s						
MATG	**Mataguay Scout**	**0.89**	**280**		**Sg**	**23 15 59.6**	**-0.3**
XPFO	**Pinon Flat**	**0.91**	**309**		**Pg**	**23 15 47.9**	**-1.0**
XPFO					**Sg**	**23 16 00.2**	**-0.5**
PFO	**Pinyon Flats O**	**0.91**	**309**	Pg	**Pg**	**23 15 47.1**	**-1.8**
	comp=E,83nm,0.3s,baz=120,slow=11,SNR=9.8						
PFO				Lg	Lg	23 15 59.5	
	comp=E,76nm,0.3s,baz=19,slow=10,SNR=10						
PFO	**Pinyon Flats O**	**0.91**	**309**		**Pg**	**23 15 47.8**	**-1.2**
PFO					**Sg**	**23 16 00.1**	**-0.7**
PFO	**Pinyon Flats O**	**0.91**	**309**	Pg	**Pg**	**23 15 47.8**	**-1.2**
PFO				Sg	**Sg**	**23 15 59.5**	**-1.3**
PFO				IAML		23 16 06.2	
	comp=E,430nm,1.0s						
PFO				IAML		23 16 18.9	
	comp=E,373nm,0.7s						
FRD	**Ford Ranch, An**	**0.95**	**299**		**Sg**	**23 16 01.9**	**0.0**
TKX	**Tecate**	**0.96**	**241**		**Sg**	**23 16 02.3**	**-0.2**
BAR	**Barrett**	**0.96**	**248**	Pg	**Pg**	**23 15 49.3**	**-0.7**
BAR				Sg	**Sg**	**23 16 01.5**	**-1.0**
BAR				IAML		23 16 08.4	
	comp=N,931nm,0.7s						
BAR				IAML		23 16 12.9	
	comp=E,532nm,0.6s						
BZNA	**Buzz No.'s Pla**	**0.99**	**297**		**Sg**	**23 16 03.5**	**+0.1**
BELC	**Belle Mtn. Jos**	**1.01**	**341**	Pg	**Pg**	**23 15 49.3**	**-1.6**
BELC				IAML		23 16 04.8	
	comp=N,414nm,0.6s						
BELC				IAML		23 16 10.2	
	comp=E,495nm,0.7s						
DUZA	**Dulzura**	**1.07**	**246**		**Pg**	**23 15 51.0**	**-1.0**
ESJX	**Sierra Juarez**	**1.07**	**196**	Pg	**Pg**	**23 15 50.9**	**-1.1**
ESJX				IAML		23 16 10.9	
	comp=E,417nm,0.8s						
ESJX				IAML		23 16 12.4	
	comp=N,297nm,0.6s						
DPP	**Dos Picos Cty**	**1.12**	**268**	Pg	**Pg**	**23 15 52.0**	**-0.9**
DPP				IAML		23 16 12.9	
	comp=E,856nm,0.7s						
DPP				IAML		23 16 13.0	
	comp=N,1μm,0.6s						
BLYC	**Blythe**	**1.15**	**52**	Pg	**Pg**	**23 15 52.3**	**-1.2**
IRM	**Iron Mountain**	**1.18**	**19**	Pg	**Pg**	**23 15 52.7**	**-1.3**
IRM				IAML		23 16 16.2	
	comp=E,957nm,1.2s						
IRM				IAML		23 16 16.3	
	comp=N,808nm,1.0s						
TJX	**Tijuana**	**1.33**	**247**	Pg	**Pn**	**23 15 55.6**	**-0.5**
113A	**Mohawk Valley,**	**1.57**	**100**		**Pn**	**23 15 58.7**	**-0.9**
ELS	**Elsinore Mount**	**1.64**	**292**		**Pn**	**23 15 59.6**	**-0.9**
BFSC	**Mount Baldy Ra**	**2.08**	**305**	Pn	**Pn**	**23 16 06.9**	**+0.2**
Y14A	**Wickenburg**	**2.35**	**67**	Pn	**Pn**	**23 16 09.3**	**-1.0**
MWC	**Mount Wilson**	**2.36**	**301**	Pn	**Pn**	**23 16 09.8**	**-0.7**
MWC				IAML		23 17 02.1	
	comp=E,284nm,0.8s						
SHOC	**Shoshone, Teco**	**2.90**	**349**	Pn	**Pn**	**23 16 17.2**	**-0.7**
QSM	**Queen of Sheba**	**3.10**	**341**	Pn	**Pn**	**23 16 21.4**	**+0.9**
WCT	**Wildcat Mounta**	**3.83**	**348**	Pn	**Pn**	**23 16 31.4**	**+0.7**
NVAR	**Mina Array Bea**	**5.80**	**339**	Pg	**Pb**	**23 17 15.6**	**+2.6**
	comp=E,0.8nm,0.3s,baz=149,slow=19,SNR=2.2						
NVAR				Lg	Lg	23 18 27.0	
	baz=158,slow=29						
ELK	**Elko**	**7.69**	**2**	Lg	Lg	23 19 32.5	
	comp=E,0.1nm,0.3s,baz=277,slow=18,SNR=3.9						
ANMO	**Albuquerque**	**7.83**	**73**	Pn	Pn	23 17 32.3	+6.5
	comp=E,0.4nm,0.3s,baz=53,slow=9.1,SNR=3.9						
ANMO				Lg	Lg	23 19 45.0	
	comp=E,0.1nm,0.3s,baz=158,slow=22,SNR=1.0						
	comp=E,1.8nm,0.7s						
ANMO				AML	AML		
PDAR	**Pinedale Array**	**10.82**	**24**	Pn	Pn	23 18 13.3	+6.6
	comp=E,0.6nm,0.3s,baz=195,slow=12,SNR=10						
	comp=E,0.6nm,0.3s						
PDAR				AML	AML		
TXAR	**Lajitas Array**	**10.87**	**107**	Pn	Pn	23 18 13.0	+5.6
	comp=E,0.1nm,0.3s,baz=290,slow=13,SNR=6.9						
	comp=E,0.1nm,0.5s						
TXAR				AML	AML		

MDD 30 23:23:11.8±0.3**, 42°.82N**×**1°.53W, h1**^{km}**, mb_Lg1.7**/12**, Error ellipse: s-maj=2.7km s-min=1.9km az=7.0, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EARA	**Aranguren**	**0.07**	**218**	Pg	Pg	23 23 12.7	-0.4
EARA				Sg	Sg	23 23 14.4	+0.5
EARA				IVmb_Lg		23 23 15.4	
EALK	**Alkurruntz**	**0.40**	**2**	Pg	Pg	23 23 18.2	-1.3
EALK				Sg	Sg	23 23 24.0	-0.6
EALK				IVmb_Lg		23 23 27.0	
ECHI	**Chisagues Biel**	**1.28**	**97**	Pg	Pg	23 23 35.1	-1.2
ECHI				Sg	Sg	23 23 53.1	+0.2
ESAC	**San Caprasio**	**1.35**	**144**	Pg	Pg	23 23 36.3	-1.4
ESAC				Sg	Sg	23 23 54.1	-1.2
ELAN	**Lanestosa**	**1.46**	**287**	Pg	Pn	23 23 38.1	-1.3
ELAN				Sg	Sg	23 23 58.7	+0.1
ELAN				IVmb_Lg		23 24 27.6	

MDD 30 23:23:38.2±0.3**, 42°.85N**×**1°.50W, h1**^{km}**, mb_Lg1.6**/9**, Error ellipse: s-maj=2.7km s-min=1.9km az=8.0, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EARA	**Aranguren**	**0.09**	**218**	Pg	Pg	23 23 39.2	-0.8
EARA				Sg	Sg	23 23 41.3	0.0
EALK	**Alkurruntz**	**0.37**	**359**	Pg	Pg	23 23 44.5	-0.8
EALK				Sg	Sg	23 23 50.1	-0.1
EALK				IVmb_Lg		23 23 52.1	
ECHI	**Chisagues Biel**	**1.26**	**98**	Pg	Pg	23 24 02.1	-0.3
ECHI				IVmb_Lg		23 24 03.7	
ECHI				Sg	Sg	23 24 17.8	-0.9
ESAC	**San Caprasio**	**1.36**	**145**	Sg	Sg	23 24 19.1	-2.8
ELAN	**Lanestosa**	**1.47**	**286**	Pn	Pn	23 24 03.0	-2.9
ELAN				Sn	Sg	23 24 24.4	-1.0

*NEIC **30** 23:31:51.2±1.5, 33°.056N±0°.006×115°.626W±0°.007, h3^{km}±2^{km}, mb4.3/2, ML4.1/42, Mwr4.2/146, Mwr4.4/4(PAS), Error ellipse: s-maj=1.1km s-min=0.8km az=130.0, Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M_{rr}-0.97; $M_{\theta\theta}$-0.50; $M_{\phi\phi}$1.47; $M_{r\theta}$0.77; $M_{\theta\phi}$2.32; $M_{\phi r}$-0.57; Fault plane solution: $M_0$2.83000×10^{15} NP1: ϕ_s352.77000°, δ69.67000°, λ-156.98000°. NP2: ϕ_s254.38000°, δ68.49000°, λ-21.92000°. Principal axes: T 3.0082, Plg1.0000°, Azm123.0000°; N -0.4111, Plg60.0000°, Azm32.0000°; P -2.5971, Plg30.0000°, Azm214.0000°;*

*NEIC **30** 23:31:51.2, 33°.06N×115°.63W, h3^{km}*

*PAS **30** 23:31:51.8±1.2, 33°.053N±0°.008×115°.596W±0°.009, h5^{km}±2^{km}, Error ellipse: s-maj=1.2km s-min=1.0km az=201.0*

*IDC **30** 23:31:52.3±1.7, 33°.13N×115°.64W, h0^{km}, mbtmp3.4/5, ML3.7/4, Error ellipse: s-maj=18.7km s-min=9.7km az=29.0*

ISC 30 23:31:51.9±0.7**, 33°.06N**±0°.02×**115°.63W**±0°.02**, h15**^{km}±5^{km}**, n115,** $\sigma 1^{s}$**06**/135**, Southern California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WEMD	**Westmorland, C**	**0.04**	**113**		**Pg**	**23 31 52.8**	**-1.9**
IMPE	**Imperial**	**0.16**	**160**		**Pg**	**23 31 55.5**	**-0.5**
IMPE					**Sg**	**23 31 59.1**	**+0.4**
ERRC	**Elmore Ranch**	**0.17**	**291**		**Sg**	**23 31 56.7**	**-2.3**
SWSC	**Sam W. Stewart**	**0.18**	**233**		**Pg**	**23 31 56.0**	**-0.2**
SUP	**Superstition M**	**0.19**	**239**		**Sg**	**23 31 59.6**	**+0.2**
SUP	**Superstition M**	**0.19**	**239**		**Pg**	**23 31 56.4**	**0.0**
COK2	**Cook Ranch 2**	**0.22**	**203**		**Pg**	**23 31 57.1**	**+0.3**
WIS	**Wister**	**0.22**	**8**		**Sg**	**23 32 01.4**	**+1.1**
SNR	**Schaffner Ranc**	**0.25**	**140**		**Pg**	**23 31 57.0**	**-0.3**
SNR					**Sb**	**23 32 01.7**	**-0.6**
DREC	**Desert Rsrch C**	**0.29**	**148**		**Pg**	**23 31 58.1**	**+0.1**
WESC	**Westside Schoo**	**0.31**	**196**		**Pg**	**23 31 58.5**	**+0.2**
SLVP	**Salvation Pass**	**0.33**	**56**		**Pg**	**23 31 57.7**	**-1.0**
SLVP					**Sg**	**23 32 02.3**	**-1.0**
CRR	**Carrizo Plain**	**0.33**	**240**		**Pg**	**23 31 59.0**	**+0.2**
CRR					**Sg**	**23 32 03.4**	**0.0**
FRK	**Frink**	**0.35**	**359**		**Pg**	**23 31 58.7**	**-0.4**
SALN	**Salton City**	**0.38**	**307**	Pg	**Pb**	**23 31 60.0**	**-0.3**
SALN				Sg	**Sg**	**23 32 03.0**	**-1.7**
SALN				IAML		23 32 07.6	
	comp=N,30μm,0.5s						
SALN				IAML		23 32 10.0	
	comp=E,42μm,0.7s						
SGL	**Mount Signal**	**0.41**	**191**		**Pg**	**23 31 59.9**	**-0.3**
SGL					**Sg**	**23 32 06.0**	**+0.1**
COA	**Coachella**	**0.47**	**114**		**Pg**	**23 32 00.6**	**-0.6**
COA					**Sg**	**23 32 07.8**	**+0.4**
BRGC	**Borrego Mounta**	**0.47**	**284**		**Pb**	**23 32 01.7**	**-0.3**
BRGC					**Sb**	**23 32 09.3**	**+0.6**
YUH	**Yuha Desert**	**0.48**	**212**	Pg	**Pg**	**23 32 01.0**	**-0.3**
RUN	**Ruthven**	**0.55**	**98**		**Pg**	**23 32 01.7**	**-1.1**
RUN					**Sg**	**23 32 08.7**	**-1.5**
IKP	**In-Ko-Pah, Jac**	**0.57**	**225**		**Sb**	**23 32 12.4**	**+0.7**
RMX	**La Rumorosa**	**0.59**	**220**		**Pg**	**23 32 03.5**	**0.0**
RMX					**Sb**	**23 32 12.5**	**+0.2**
BC3	**Big Chuckawall**	**0.62**	**14**	Pg	**Pg**	**23 32 03.6**	**-0.5**
BC3				Sg	**Sg**	**23 32 12.4**	**+0.1**
BC3				IAML		23 32 19.9	
	comp=N,6μm,0.7s						
BC3				IAML		23 32 20.4	
	comp=E,7μm,0.6s						
EMSC	**East Mesa**	**0.63**	**120**		**Pg**	**23 32 03.3**	**-0.9**
EMSC					**Sg**	**23 32 12.5**	**0.0**
HAY	**Hayfield**	**0.65**	**356**		**Pg**	**23 32 04.4**	**-0.3**
HAY					**Sb**	**23 32 13.9**	**0.0**
CTW	**Cottonwood Mou**	**0.65**	**342**		**Pg**	**23 32 04.5**	**-0.2**
CTW					**Sb**	**23 32 14.4**	**+0.4**
CTCC	**Cactus City**	**0.67**	**333**		**Pg**	**23 32 04.8**	**-0.3**
CPBX	**Cerro Prieto**	**0.69**	**157**	Pg	**Pg**	**23 32 04.3**	**-1.1**
CPBX					**Sg**	**23 32 14.3**	**-0.2**
BORC	**Borrego Spring**	**0.69**	**288**	Pg	**Pg**	**23 32 04.8**	**-0.7**
BORC				Sg	**Sb**	**23 32 15.1**	**0.0**
PESCX	**Ej. Pescaderos**	**0.83**	**138**		**Pg**	**23 32 06.8**	**-1.3**
PMD	**Palm Desert**	**0.86**	**314**	Pg	**Pg**	**23 32 07.5**	**-1.2**
PMD				Sg	**Sg**	**23 32 19.5**	**-0.5**
PMD				IAML		23 32 21.6	
	comp=N,4μm,0.7s						
PMD				IAML		23 32 22.8	
	comp=E,4μm,0.6s						
MATG	**Mataguay Scout**	**0.87**	**280**		**Pg**	**23 32 07.9**	**-0.9**
I57US	**PINON FLAT INF**	**0.88**	**309**	Pg	**Pb**	**23 32 09.6**	**+0.5**
	baz=127,slow=25						
XPFO	**Pinon Flat**	**0.89**	**309**		**Pg**	**23 32 08.3**	**-0.8**
PFO	**Pinyon Flats O**	**0.89**	**309**	Pg	**Pg**	**23 32 08.2**	**-1.0**
	comp=E,637nm,0.3s,baz=128,slow=15,SNR=39						
PFO				Lg	Lg	23 32 19.5	
	comp=E,1μm,0.3s,baz=13,slow=11,SNR=20						
PFO	**Pinyon Flats O**	**0.89**	**309**	Pg	**Pg**	**23 32 08.2**	**-1.0**
PFO				Sg	**Sg**	**23 32 20.4**	**-0.5**
PFO				IAML		23 32 23.0	
	comp=E,4μm,0.8s						
PFO	**Pinyon Flats O**	**0.89**	**309**		**Sb**	**23 32 22.0**	**+1.1**
FRD	**Ford Ranch, An**	**0.93**	**299**		**Sb**	**23 32 22.4**	**+0.5**
FRD	**Ford Ranch, An**	**0.93**	**299**		**Sb**	**23 32 22.2**	**+0.3**
BAR	**Barrett**	**0.95**	**247**	Pg	**Pg**	**23 32 09.4**	**-1.0**
BAR				Sg	**Sg**	**23 32 22.2**	**-0.7**
BAR				IAML		23 32 24.9	
	comp=E,5μm,0.3s						
BAR				IAML		23 32 25.7	
	comp=N,6μm,0.3s						
TKX	**Tecate**	**0.96**	**240**		**Pg**	**23 32 09.7**	**-0.7**
TKX					**Sg**	**23 32 22.8**	**-0.2**
SNDA	**J Saunders Pla**	**0.96**	**301**		**Sb**	**23 32 23.3**	**+0.3**
BZNA	**Buzz No.'s Pla**	**0.97**	**297**		**Sb**	**23 32 23.6**	**+0.3**
DNR	**Dunn Ranch,Anz**	**0.98**	**302**	Pg	**Pg**	**23 32 09.9**	**-1.0**
DNR				IAML		23 32 25.9	
	comp=N,9μm,0.5s						
DNR				IAML		23 32 26.1	
	comp=E,11μm,0.5s						
BELC	**Belle Mtn. Jos**	**0.99**	**342**	Pg	**Pg**	**23 32 09.9**	**-1.2**
BELC					**Sg**	**23 32 23.4**	**-0.8**
CRY	**Cary Ranch**	**1.06**	**299**		**Pg**	**23 32 11.4**	**-1.0**
DUZA	**Dulzura**	**1.06**	**245**		**Pg**	**23 32 11.2**	**-1.3**
DUZA					**Sg**	**23 32 25.7**	**-0.7**
PLM	**Palomar**	**1.08**	**286**		**Pg**	**23 32 11.3**	**-1.4**
ESJX	**Sierra Juarez**	**1.08**	**195**	Pg	**Pg**	**23 32 10.9**	**-1.9**
ESJX				IAML		23 32 33.8	
	comp=E,5μm,0.8s						
DPP	**Dos Picos Cty**	**1.10**	**267**	Pg	**Pg**	**23 32 12.2**	**-1.0**
DPP				IAML		23 32 29.4	
	comp=N,6μm,0.7s						
DPP				IAML		23 32 37.4	
	comp=E,4μm,0.7s						
CBX	**Cerro Bola**	**1.14**	**230**	Pg	**Pg**	**23 32 12.6**	**-1.4**
BLYC	**Blythe**	**1.16**	**53**	Pg	**Pg**	**23 32 12.9**	**-1.3**
IRM	**Iron Mountain**	**1.17**	**20**	Pg	**Pg**	**23 32 13.3**	**-1.2**
IRM				IAML		23 32 38.1	
	comp=N,6μm,0.5s						
IRM				IAML		23 32 38.7	
	comp=E,6μm,1.1s						
OLP	**Otay Lakes Par**	**1.18**	**248**		**Pg**	**23 32 13.2**	**-1.6**
OLP					**Sg**	**23 32 29.1**	**-1.1**
BLAC	**Blackrock camp**	**1.20**	**328**		**Pg**	**23 32 13.4**	**-1.6**
POB	**Polly Butte**	**1.25**	**301**		**Pb**	**23 32 14.7**	**-0.7**
TJX	**Tijuana**	**1.32**	**246**		**Pg**	**23 32 17.3**	**0.0**
TJX	**Tijuana**	**1.32**	**246**		**Pn**	**23 32 15.5**	**-0.3**
CCX	**Cicese**	**1.47**	**217**		**Pn**	**23 32 17.8**	**0.0**
ELS	**Elsinore Mount**	**1.62**	**292**		**Pn**	**23 32 19.5**	**-0.4**
PDMCI	**Parker Dam,Lak**	**1.76**	**44**		**Pb**	**23 32 23.9**	**+0.1**
BFSC	**Mount Baldy Ra**	**2.06**	**305**	Pn	**Pn**	**23 32 26.8**	**+0.6**
OSI	**Osito Audit: C**	**3.01**	**302**	Pn	**Pn**	**23 32 37.8**	**-1.3**
OSI				IAML		23 33 38.7	
	comp=N,583nm,1.0s						
OSI				IAML		23 33 39.9	
	comp=E,652nm,0.9s						
QSM	**Queen of Sheba**	**3.08**	**341**	Pn	**Pn**	**23 32 39.8**	**-0.2**
GWY	**Greenwater Val**	**3.24**	**345**	Pn	**Pn**	**23 32 42.0**	**-0.3**
MPMC	**Manual Prospec**	**3.37**	**333**	Pn	**Pn**	**23 32 43.8**	**-0.4**
CWC	**Cottonwood Cre**	**3.93**	**330**	Pn	**Pn**	**23 32 51.1**	**-0.8**
TUC	**Tucson**	**4.15**	**99**	Pn	**Pn**	**23 32 53.2**	**-1.6**
TUC	**Tucson**	**4.15**	**99**	IAML		23 34 26.7	
	comp=E,200nm,2.1s						
TUC				IAML		23 34 32.3	
	comp=E,169nm,0.9s						
GRAC	**Grapevine Rang**	**4.18**	**341**	Pn	**Pn**	**23 32 56.2**	**+1.0**
WUAZ	**Wupatki**	**4.29**	**54**	Pn	**Pn**	**23 32 57.4**	**+0.6**
PRN	**Pahroc Range**	**4.37**	**6**	Pn	**Pn**	**23 32 57.8**	**0.0**
CCUT	**Cedar City**	**4.85**	**22**	Pn	**Pn**	**23 33 04.0**	**-0.6**
X18A	**Snowflake**	**4.95**	**71**	Pn	**Pn**	**23 33 06.5**	**+0.5**
PKD	**Bear Valley Ra**	**4.98**	**307**	Pn	**Pn**	**23 33 07.2**	**+1.1**
SZCU	**Shurtz Canyon**	**4.98**	**24**		**Pn**	**23 33 07.4**	**+1.0**
PKCU	**Pink Cliffs**	**5.15**	**31**	Pn	**Pn**	**23 33 10.6**	**+1.8**
W18A	**Petrified Fore**	**5.30**	**66**	Pn	**Pn**	**23 33 11.9**	**+1.1**
MDPB	**Devils Postpil**	**5.37**	**329**	Pn	**Pn**	**23 33 11.9**	**+0.2**
DUN6	**Lazy B Ranch**	**5.53**	**93**		**Pn**	**23 33 12.6**	**-1.2**
319A	**Douglas**	**5.63**	**106**	Pn	**Pn**	**23 33 14.2**	**-1.0**
PSUT	**Pine Spring**	**5.65**	**14**	Pn	**Pn**	**23 33 15.5**	**-0.1**
BBGB	**Big Mountain B**	**5.67**	**310**	Pn	**Pn**	**23 33 16.1**	**+0.4**
NVAR	**Mina Array Bea**	**5.79**	**339**	Pg	**Pb**	**23 33 36.9**	**+4.2**
	comp=E,0.8nm,0.3s,baz=162,slow=18,SNR=6.5						
NVAR				Lg	Lg	23 34 51.5	
	baz=228,slow=51						
WAKR	**Walker**	**6.26**	**331**	Pn	**Pn**	**23 33 25.7**	**+1.9**
CMB	**Columbia Colle**	**6.30**	**323**		**Pn**	**23 33 25.5**	**+1.1**
KVN	**Kaiserville**	**6.31**	**342**	Pn	**Pn**	**23 33 25.4**	**+0.9**
MHC	**Mount Hamilton**	**6.52**	**313**		**Pn**	**23 33 28.1**	**+0.6**
121A	**Cookes Peak, D**	**6.62**	**92**	Pn	**Pn**	**23 33 29.0**	**+0.1**
ELK	**Elko**	**7.68**	**2**	Pn	**Pn**	**23 33 44.7**	**+1.3**
	comp=E,0.8nm,0.6s,baz=182,slow=14,SNR=0.9						
ELK				Pg		23 34 13.9	
	comp=E,0.4nm,0.3s,baz=183,slow=18,SNR=4.5						
ELK				Lg	Lg	23 35 49.2	
	comp=E,0.7nm,0.3s,baz=237,slow=21,SNR=3.8						
ELK	**Elko**	**7.68**	**2**	Pn	**Pn**	**23 33 45.2**	**+1.8**
ALQ	**Albuquerque**	**7.84**	**74**	Pn	**Pn**	**23 33 46.7**	**+1.1**
ANMO	**Albuquerque**	**7.85**	**74**	Pn	**Pn**	**23 33 48.3**	**+2.6**
	comp=E,0.2nm,0.3s,baz=265,slow=11,SNR=3.6						
ANMO				Pg		23 34 18.4	
	comp=E,0.8nm,0.3s,baz=259,slow=15,SNR=6.9						
ANMO				Lg	Lg	23 35 57.5	
	comp=E,1.1nm,0.3s,baz=180,slow=20,SNR=4.7						
	comp=E,1.1nm,0.6s						
ANMO				AML	AML		
ANMO	**Albuquerque**	**7.85**	**74**		**Pn**	**23 33 46.8**	**+1.1**
MNTX	**Cornudas Mount**	**8.77**	**96**	Pn	**Pn**	**23 33 58.5**	**+0.2**
RDMU	**Red Mountain**	**8.93**	**31**	Pn	**Pn**	**23 33 59.4**	**-1.3**
VHRN	**Van Horn**	**9.32**	**101**	Pn	**Pn**	**23 34 06.6**	**+0.7**
GDL2	**Guadalupe Moun**	**9.54**	**92**	Pn	**Pn**	**23 34 09.8**	**+1.0**
PECS	**Pecos**	**10.11**	**96**	Pn	**Pn**	**23 34 17.0**	**+0.5**
TPB01	**Permian Basin**	**10.28**	**99**	Pn	**Pn**	**23 34 19.0**	**+0.1**
ALPN	**Alpine**	**10.55**	**101**	Pn	**Pn**	**23 34 23.7**	**+0.9**
PDAR	**Pinedale Array**	**10.81**	**25**	Pn	**Pn**	**23 34 29.3**	**+3.0**
	comp=E,0.1nm,0.3s,baz=200,slow=12,SNR=7.1						
PDAR				Pg		23 35 10.7	
	comp=E,0.1nm,0.3s,baz=194,slow=12,SNR=4.1						
PDAR				Lg	Lg	23 37 35.9	
	comp=E,0.1nm,0.3s,baz=195,slow=11,SNR=3.7						
	comp=E,1.1nm,0.8s						
PDAR				AML	AML		

PDAR	Pinedale Array	10.81	25		Pn	23 34 27.5	+1.1
TX31	Lajitas Ar. Si	10.89	107	Pn	Pn	23 34 27.0	-0.3
TXAR	Lajitas Array	10.89	107	Pn	Pn	23 34 27.8	+0.4
	comp=E,0.3nm,0.3s,baz=288,slow=13,SNR=17						
TXAR				Lg	Lg	23 37 37.3	
	baz=287,slow=26						
	comp=E,1.1nm,0.6s						
TXAR				AML	AML		
TXAR	Lajitas Array	10.89	107		Pn	23 34 27.6	+0.2
128A	Castleberry Fa	11.07	89	Pn	Pn	23 34 30.5	+0.8
SAND	Sanderson	11.93	101	Pn	Pn	23 34 42.3	+0.7
NEW	Newport	15.24	356	Pn	P	23 35 32.1	+0.7
	comp=E,0.1nm,0.3s,baz=179,slow=17,SNR=1.5						
	comp=E,1.3nm,0.6s						
NEW				AML	AML		
WHTX	Lake Whitney,	15.37	89		Pn	23 35 28.3	0.0
WHTX				IAmb	IAmb	23 35 46.3	
	comp=Z,6.5nm,0.9s						
SUSD	Miller	17.24	44	Pn	Pn	23 35 51.7	-0.4
SUSD				IAmb	IAmb	23 36 20.8	
	comp=Z,69nm,1.2s						
TAOE	Nuku Hiva Isla	47.77	214	*e*LR	LR	23 53 59.8	
	comp=Z,328nm,26.9s						
PPT2	Papeete2	59.90	218	*e*LR	LR	23 59 33.5	
	comp=Z,96nm,25.0s						
HHC	Hu-ho-hao-te	94.54	326	*e*P	P	23 45 09.5	-2.6
HHC				pmax	pmax		
	comp=Z,10.0nm,0.5s						
HHC				pmax	pmax		
	comp=Z,95nm,4.4s						
WMQ	Urumqi	100.58	343	*e*P	Pdif	23 45 42.3	+3.1
WMQ				LR	LR		
	comp=Z,100nm,24.2s						

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*PAS **30** 23:34:08.2±1.1, 33°.044N±0°.006×115°.587W±0°.009, h4^{km}±2^{km}, Error ellipse: s-maj=1.2km s-min=0.8km az=57.0*

NEIC 30 23:34:08.3±1.2**, 33°.050N**±0°.007×**115°.639W**±0°.007, **h5**^{km}±1^{km}**, ML2.9**/20**, ML2.9**/23(PAS)**, Error ellipse: s-maj=2.2km s-min=1.3km az=118.0, Southern California**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WEMD	Westmorland, C	0.05	103		Pg	23 34 09.2	-0.4
WEMD					Sg	23 34 11.1	+0.6
OBB	Obsidian Butte	0.12	1		Pg	23 34 11.6	+0.8
OBB					Sg	23 34 14.1	+1.7
IMPE	Imperial	0.16	156		Pg	23 34 11.8	+0.3
IMPE					Sg	23 34 15.3	+1.7
SWSC	Sam W. Stewart	0.17	232		Pg	23 34 12.6	+0.9
SWSC					Sg	23 34 15.6	+1.6
SUP	Superstition M	0.18	239		Pg	23 34 12.6	+0.7
SUP					Sg	23 34 15.7	+1.4
COK2	Cook Ranch 2	0.21	201		Pg	23 34 13.3	+0.9
WESC	Westside Schoo	0.30	195		Pg	23 34 14.9	+0.8
CRR	Carrizo Plain	0.32	240		Pb	23 34 15.6	-0.9
CRR					Sb	23 34 20.5	-1.5
SLVP	Salvation Pass	0.34	56		Pg	23 34 14.1	-0.8
SLVP					Sg	23 34 18.6	-0.8
SALN	Salton City	0.37	308	Pg	Pg	23 34 16.3	+0.8
SALN				Sg	Sg	23 34 19.5	-0.9
SALN				IAML		23 34 26.7	
	comp=N,3μm,1.3s						
SGL	Mount Signal	0.41	190		Pg	23 34 16.1	0.0
SGL					Sg	23 34 22.1	+0.7
BRGC	Borrego Mounta	0.47	285		Pg	23 34 18.0	+0.7
BRGC					Sb	23 34 25.3	-0.9
YUH	Yuha Desert	0.47	211	Pg	Pg	23 34 17.5	+0.2
YUH				Sg	Sg	23 34 24.2	+0.8
COA	Coachella	0.47	113		Pg	23 34 16.9	-0.5
COA					Sg	23 34 24.1	+0.6
IKP	In-Ko-Pah, Jac	0.56	225		Pg	23 34 19.6	+0.5
IKP					Sg	23 34 27.6	+1.1
RUN	Ruthven	0.56	98		Pg	23 34 18.1	-1.0
RUN					Sg	23 34 25.5	-0.9
RMX	La Rumorosa	0.58	220		Pg	23 34 19.8	+0.3
RMX					Sb	23 34 28.3	-1.3
BC3	Big Chuckawall	0.62	14	Pg	Pg	23 34 19.6	-0.7
BC3					Sg	23 34 28.4	0.0
EMSC	East Mesa	0.63	119		Pg	23 34 19.8	-0.6
HAY	Hayfield	0.66	357		Pg	23 34 20.8	-0.2
HAY					Sg	23 34 30.1	+0.6
CTCC	Cactus City	0.67	334		Sb	23 34 31.6	-0.6
BORC	Borrego Spring	0.69	289	Pg	Pg	23 34 21.7	+0.2
MATG	Mataguay Scout	0.86	280		Pb	23 34 25.4	-0.3
MATG					Sb	23 34 36.9	-0.7
PMD	Palm Desert	0.86	314		Sg	23 34 36.4	+0.5
PMD	Palm Desert	0.86	314	Pg	Pg	23 34 24.2	-0.6
PMD				IAML		23 34 44.6	
	comp=E,277nm,0.7s						
XPFO	Pinon Flat	0.88	310		Pg	23 34 25.1	-0.2
XPFO					Sg	23 34 37.0	+0.2
PFO	Pinyon Flats O	0.89	309		Pg	23 34 25.0	-0.3
PFO					Sg	23 34 37.6	+0.7
PFO	Pinyon Flats O	0.89	309	Pg	Pg	23 34 24.9	-0.5
PFO				IAML		23 34 50.2	
	comp=E,214nm,0.8s						
PFO				IAML		23 34 56.1	
	comp=E,236nm,0.8s						
BAR	Barrett	0.94	247	Pg	Pg	23 34 26.2	-0.2
BAR				IAML		23 34 58.2	
	comp=E,326nm,0.2s						
BAR				IAML		23 34 58.4	
	comp=N,475nm,0.5s						
DNR	Dunn Ranch,Anz	0.98	302		Pg	23 34 27.4	+0.3
ESJX	Sierra Juarez	1.07	194	Pg	Pg	23 34 28.0	-0.9
ESJX					Sg	23 34 42.1	-0.7
ESJX				IAML		23 34 52.1	
	comp=N,198nm,0.7s						
ESJX				IAML		23 35 01.3	
	comp=E,315nm,0.3s						
DPP	Dos Picos Cty	1.09	268	Pg	Pg	23 34 29.2	-0.2
DPP				IAML		23 35 08.1	
	comp=N,639nm,0.6s						
DPP				IAML		23 35 08.4	
	comp=E,444nm,0.7s						
IRM	Iron Mountain	1.18	20	Pg	Pg	23 34 30.6	-0.3

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*PAS **30** 23:34:26.0±1.5, 33°.054N±0°.006×115°.593W±0°.005, h3^{km}±2^{km}, Error ellipse: s-maj=1.0km s-min=0.6km az=155.0*

NEIC 30 23:34:26.0±0.9**, 33°.057N**±0°.006×**115°.620W**±0°.006, **h5**^{km}±1^{km}**, ML3.0**/18**, ML3.1**/22(PAS)**, Error ellipse: s-maj=2.2km s-min=1.2km az=81.0, Southern California**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WEMD	Westmorland, C	0.04	120		Pg	23 34 26.8	-0.3
WEMD					Sg	23 34 28.6	+0.7
OBB	Obsidian Butte	0.11	353		Pg	23 34 31.8	+3.4
IMPE	Imperial	0.16	162		Pg	23 34 29.8	+0.5
IMPE					Sg	23 34 33.3	+1.9
ERRC	Elmore Ranch	0.18	289		Pg	23 34 30.9	+1.3
ERRC					Sg	23 34 35.1	+3.1
SUP	Superstition M	0.20	239		Pg	23 34 30.6	+0.7
SUP					Sg	23 34 33.9	+1.3
WIS	Wister	0.22	6		Pg	23 34 31.1	+0.7
WIS					Sg	23 34 35.5	+2.3
COK2	Cook Ranch 2	0.23	204		Pg	23 34 31.4	+1.0
COK2					Sg	23 34 34.7	+1.3
DREC	Desert Rsrch C	0.29	150		Pb	23 34 34.4	+0.7
DREC					Sb	23 34 37.3	-1.5
5271	Bombay Beach	0.31	342		Pg	23 34 32.7	+0.6
WESC	Westside Schoo	0.31	198		Pg	23 34 32.7	+0.6
SLVP	Salvation Pass	0.32	56		Pg	23 34 32.1	-0.2
SLVP					Sg	23 34 36.1	-0.4
CRR	Carrizo Plain	0.34	240		Pg	23 34 33.5	+0.9
CRR					Sg	23 34 38.4	+1.4
FRK	Frink	0.34	358		Pg	23 34 32.9	+0.1
FRK					Sg	23 34 38.4	+1.1
SALN	Salton City	0.38	306	Pg	Pb	23 34 34.4	-0.9
SALN				Sg	Sg	23 34 37.0	-1.3
SGL	Mount Signal	0.42	192		Pg	23 34 34.0	0.0
SGL					Sg	23 34 40.2	+0.7
COA	Coachella	0.46	115		Pg	23 34 35.0	+0.1
COA					Sg	23 34 42.2	+1.2
BRGC	Borrego Mounta	0.48	284		Pg	23 34 35.6	+0.4
BRGC					Sb	23 34 43.1	-1.2
YUH	Yuha Desert	0.48	212	Pg	Pg	23 34 35.3	0.0
YUH				Sg	Sg	23 34 42.1	+0.6
RUN	Ruthven	0.55	99		Pg	23 34 36.1	-0.5
IKP	In-Ko-Pah, Jac	0.58	226		Pg	23 34 37.4	+0.2
IKP					Sg	23 34 45.9	+1.2
RMX	La Rumorosa	0.59	221		Pg	23 34 38.0	+0.5
RMX					Sg	23 34 46.4	+1.2
BC3	Big Chuckawall	0.61	13	Pg	Pg	23 34 37.7	-0.2
BC3					Sg	23 34 46.4	+0.6
BC3				IAML		23 34 52.6	
	comp=N,872nm,0.7s						
BC3				IAML		23 34 55.3	
	comp=E,818nm,0.8s						
EMSC	East Mesa	0.62	120		Pg	23 34 38.2	+0.3
HAY	Hayfield	0.65	355		Pg	23 34 38.5	-0.1
HAY					Sb	23 34 48.4	-0.9
CTW	Cottonwood Mou	0.65	341		Pg	23 34 38.6	0.0
JUEM	Julian Eagle M	0.82	272		Sg	23 34 53.4	+0.9
PESCX	Ej. Pescaderos	0.83	138		Pg	23 34 42.2	+0.2
PMD	Palm Desert	0.87	313	Pg	Pg	23 34 42.1	-0.6
PMD				IAML		23 35 00.4	
	comp=N,470nm,0.9s						
PMD				IAML		23 35 07.0	
	comp=E,317nm,0.6s						
PMD	Palm Desert	0.87	313		Sg	23 34 54.3	+0.4
MATG	Mataguay Scout	0.87	280		Sg	23 34 54.8	+0.6
XPFO	Pinon Flat	0.89	309		Pg	23 34 42.8	-0.4
XPFO					Sg	23 34 54.0	-0.8
PFO	Pinyon Flats O	0.89	308		Pg	23 34 42.9	-0.3
PFO					Sg	23 34 55.2	+0.4
PFO	Pinyon Flats O	0.89	308	Pg	Pg	23 34 42.8	-0.4
PFO				Sg	Sg	23 34 54.8	-0.1
PFO				IAML		23 35 03.4	
	comp=E,339nm,1.1s						
PFO				IAML		23 35 09.1	
	comp=E,259nm,1.6s						
FRD	Ford Ranch, An	0.93	298		Sg	23 34 55.9	-0.2
BAR	Barrett	0.96	247	Pg	Pg	23 34 44.5	0.0
BAR				Sg	Sg	23 34 56.6	-0.3
BAR				IAML		23 35 03.5	
	comp=N,554nm,0.7s						
BAR				IAML		23 35 08.4	
	comp=E,342nm,0.7s						
ESJX	Sierra Juarez	1.08	195	Pg	Pg	23 34 46.0	-0.9
CBX	Cerro Bola	1.15	230	Pg	Pg	23 34 47.3	-0.8
113A	Mohawk Valley,	1.59	100		Pn	23 34 54.2	-0.6
PASC	Pasadena Art C	2.41	298	Pn	Pn	23 35 05.6	-0.6
PASC				IAML		23 35 34.3	
	comp=E,92nm,3.3s						
PASC				IAML		23 35 52.4	
	comp=N,85nm,1.2s						
PASC	Pasadena Art C	2.41	298		Pb	23 35 08.3	-1.6

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*IDC **30** 23:37:30.4±0.8, 42°.99N×1°.80W, h0^{km}, mb3.6/7, mbtmp3.6/14, ML3.4/7, MS2.7/2, Error ellipse: s-maj=20.0km s-min=8.2km az=120.0*

*INMG **30** 23:37:31.8±1.5, 42°.83N×1°.50W, h2^{km}, ML3.6, Error ellipse: s-maj=1.8km s-min=1.7km az=114.0, #DIST_RANGE: REGIONAL #IPMA_REGION: Pireneus (ESP)*

*MDD **30** 23:37:31.9±0.1, 42°.85N×1°.50W, h1^{km}, mb_Lg3.7/87, Error ellipse: s-maj=1.1km s-min=0.9km az=179.0*

*IGIL **30** 23:37:32.8, 42°.85N×1°.50W, h1^{km}*

*LDG **30** 23:37:32.2±0.1, 42°.87N×1°.49W, h2^{km}, Md3.0/3, Ml4.0/33, Error ellipse: s-maj=1.6km s-min=1.1km az=126.0*

*SFS **30** 23:37:33.3, 42°.76N×1°.47W, h7^{km}, mb4.2/11, ML3.9/22, ML4.1/22, MLv4.2/16*

*CNRM **30** 23:39:05.5, 36°.02N×4°.10W, h30^{km}, ML1.7*

ISC 30 23:37:31.5±0.8**, 42°.89N**±0°.02×**1°.48W**±0°.02**, h13**^{km}±5^{km}**, n185, σ2^{s}37**/355**, mb3.8**/6**, 2C, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EORO	Oroz-Betelu	0.12	88	Pg	Pg	23 37 34.4	-0.4
EORO				Sg	Sg	23 37 36.8	-0.4
EARA	Aranguren	0.14	212	⇑Pg	Pg	23 37 33.3	-1.7
EARA				Sg	Sg	23 37 35.4	-2.0
EARA				IVmb_Lg		23 37 35.9	
SJPF	Ste Jean	0.29	40	*e*Pg	Pg	23 37 37.6	0.0
SJPF				*e*Sg	Sg	23 37 41.1	-0.5
	3μm,0.3s						
EALK	Alkurruntz	0.33	357	⇑Pg	Pg	23 37 38.7	+0.4
EALK				Sg	Sb	23 37 44.1	-0.5
EALK				IVmb_Lg		23 37 48.1	
ETSF	Etsaut	0.68	89	*e*Pg	Pg	23 37 43.5	-1.2
ETSF	Etsaut	0.68	89	*e*Pg	Pg	23 37 43.7	-1.0
ETSF				*e*Sg	Sg	23 37 53.1	-0.5
ETSF				*e*Sg	Sb	23 37 53.7	-0.8
ECHI	Chisagues Biel	1.25	100	Pg	Pn	23 37 55.0	+0.2
ECHI				Sg	Sb	23 38 12.4	+1.2
ECHI				IVmb_Lg		23 38 17.5	
EPF	Esparros	1.34	83	*e*Pg	Pn	23 37 56.1	+0.1
EPF	Esparros	1.34	83	*e*Pg	Pn	23 37 56.6	+0.6
EPF				*e*Sg	Sn	23 38 14.7	+0.9
EPF				*e*Sg	Sb	23 38 15.4	+1.7
	1μm,0.7s						
EPF				AML	AML		
ESAC	San Caprasio	1.39	147	Pg	Pn	23 37 56.5	-0.1
ESAC				Sg	Sn	23 38 14.7	-0.1
ESAC				IVmb_Lg		23 38 17.4	
ELAN	Lanestosa	1.47	284	Pn	Pn	23 37 58.9	+1.1
ELAN				Sn	Sn	23 38 17.0	+0.1
ELAN				IVmb_Lg		23 38 23.6	
ALT04	Santillana del	1.99	285	Pn	Pn	23 38 05.9	+1.1
ALT04				Sn	Sn	23 38 28.3	-1.4
ALT04				Sg	Sb	23 38 34.1	+1.8
ALT01	Santillana del	1.99	285	Pn	Pn	23 38 06.3	+1.4
ALT01				Sn	Sn	23 38 30.1	+0.4
ALT01				Sg	Sb	23 38 35.0	+2.7
ALT02	Santillana del	1.99	285	Pn	Pn	23 38 06.3	+1.4
ALT02				Sn	Sn	23 38 29.7	0.0
ALT02				Sg	Sb	23 38 34.3	+2.0
ALT03	Santillana del	2.00	285	Pn	Pn	23 38 05.7	+0.8
ALT03				Sn	Sn	23 38 30.6	+0.9
ALT03				Sg	Sg	23 38 36.7	+1.1
ETOR	Torete	2.11	192	Pn	Pn	23 38 06.5	-0.1
ETOR				Pg	Pb	23 38 10.3	+0.6
ETOR				Sn	Sn	23 38 33.3	+0.5
ETOR				IVmb_Lg		23 38 41.2	
ERTA	Horta de San J	2.36	144	Pn	Pn	23 38 09.3	-0.7
ERTA				Sn	Sn	23 38 40.1	+1.3
ERTA				IVmb_Lg		23 38 54.4	
E0901	Celadas (Terue	2.42	174	Pn	Pn	23 38 10.9	0.0
E0901				Pg	Pb	23 38 15.3	+0.3
E0901				Sn	Sn	23 38 39.1	-1.3
E0901				Sg	Sb	23 38 45.7	+0.9
E0901				IVmb_Lg		23 38 54.9	
EMIR	Miracle	2.43	113	Pn	Pn	23 38 10.8	-0.2
EMIR				Pg	Pb	23 38 15.1	0.0
EMIR				Sn	Sn	23 38 41.8	+1.2
EMIR				IVmb_Lg		23 38 58.0	
EPOB	Poblet	2.44	128	Pn	Pn	23 38 10.6	-0.6
EPOB				Pg	Pb	23 38 14.3	-1.1
EPOB				Sn	Sn	23 38 42.5	+1.6
EPOB				IVmb_Lg		23 38 56.2	
LFF	La Frestale	2.60	37	*e*Pn	Pn	23 38 14.3	+1.0
LFF				*e*Sn	Sn	23 38 43.5	-1.3
	302nm,0.5s						
LFF				AML	AML		
EMOS	Mosqueruela	2.63	163	Pn	Pn	23 38 14.0	+0.1
EMOS				Sn	Sn	23 38 45.4	-0.4
EMOS				Sg	Sb	23 38 54.2	+3.2
EMOS				IVmb_Lg		23 39 00.1	
YEBES	Yebes (Guadala	2.65	208	Pn	Pn	23 38 14.0	0.0
YEBES				Sn	Sn	23 38 44.5	-1.6
YEBES				IVmb_Lg		23 39 02.9	
MTLF	Montolieu	2.75	79	*e*Pn	Pn	23 38 16.0	+0.8
MTLF				*e*Sn	Sn	23 38 47.0	-1.3
	560nm,1.1s						
MTLF				AML	AML		
EARI	Arriondas	2.76	280	Pn	Pn	23 38 16.7	+1.2
EARI				Sn	Sn	23 38 49.5	+0.7
EARI				IVmb_Lg		23 39 07.3	
UCM	Universidad Co	2.90	208	Pn	Pn	23 38 16.7	-0.6
GUD	Guadarrama	3.00	223	Pn	Pn	23 38 18.8	-0.1
GUD				Pg	Pb	23 38 24.3	-0.7
GUD				Sn	Sn	23 38 55.6	+0.7
GUD				IVmb_Lg		23 39 06.6	
RJF	Les Rejaudoux	3.24	41	*e*Pn	Pn	23 38 22.3	+0.3
RJF				*e*Sn	Sn	23 38 59.0	-1.5
	118nm,0.2s						
RJF				AML	AML		
EJON	La Jonquera	3.25	96	Pn	Pn	23 38 23.8	+1.5
EJON	La Jonquera	3.25	96	Pn	Pn	23 38 23.7	+1.5
EJON				Pg	Pb	23 38 30.5	+1.4
EJON				Sn	Sn	23 39 00.5	-0.4
EJON				Sg	Sg	23 39 15.6	-0.3
EJON				IVmb_Lg		23 39 18.9	
CAF	Calviac	3.27	50	*e*Pn	Pn	23 38 23.5	+1.0
CAF				*e*Sn	Sn	23 38 59.9	-1.4
	92nm,0.3s						
CAF				AML	AML		
ECHE	Chera	3.32	173	Pn	Pn	23 38 21.7	-1.5
ECHE				Pg	Pb	23 38 30.1	-0.1
ECHE				Sn	Sn	23 39 01.4	-1.0
ECHE				Sg	Sb	23 39 15.8	+5.3
ECHE				IVmb_Lg		23 39 16.2	
ECOL	Islas Columbre	3.40	151	Pn	Pn	23 38 23.9	-0.4
ECOL				Pg	Pb	23 38 29.8	-1.8
ECOL				Sn	Sn	23 39 05.7	+1.3
ECOL				Sg	Sg	23 39 21.2	+0.5
EVIV	Cofrentes, Val	3.63	176	Pn	Pn	23 38 27.3	-0.1
EVIV				Pg	Pb	23 38 36.0	+0.5
EVIV				Sg	Sb	23 39 22.8	+3.3
EVIV				IVmb_Lg		23 39 38.3	
ESBB	Sonseca Array	3.71	211	Pn	Pn	23 38 28.2	-0.4
ESBB				Sn	Sn	23 39 12.0	-0.3
ESDC	Sonseca Array	3.72	211	Pn	Pn	23 38 27.5	-1.1
	1.2nm,0.3s,baz=36,slow=14,SNR=86						
ESDC				Pg	Pb	23 38 39.0	+1.9
	3.7nm,0.3s,baz=20,slow=18,SNR=29						
ESDC				Sn	Sn	23 39 10.6	-1.7
	4.0nm,0.3s,baz=30,slow=23,SNR=6.5						
ESDC				Lg	Lg	23 39 28.8	
	11nm,0.3s,baz=28,slow=27,SNR=8.9						
	5.0nm,0.6s						
ESDC				AML	AML		
ESDC	Sonseca Array	3.72	211	Pn	Pn	23 38 28.1	-0.6
ESDC				Pg	Pb	23 38 38.7	+1.6
ESDC				Sn	Sn	23 39 09.1	-3.2
ESDC				IVmb_Lg		23 39 31.3	
EJUZ	Juzbado, Salam	3.75	243	Pn	Pn	23 38 28.6	-0.4
EJUZ				Sn	Sn	23 39 10.4	-2.7
EJUZ				Sg	Sb	23 39 25.6	+2.7
MFF	Saint Martin d	3.83	14	*e*Pn	Pn	23 38 30.3	+0.1
MFF				*e*Pg	Pg	23 38 43.4	-1.5
MFF				*e*Sn	Sn	23 39 13.9	-1.2
	22nm,0.2s						
MFF				AML	AML		
PAB	San Pablo	3.98	214	Pn	Pn	23 38 31.5	-0.8
PAB				Sn	Sn	23 39 17.5	-1.4
PAB				Sg	Sb	23 39 32.7	+3.1
PAB				IVmb_Lg		23 39 45.3	
ECAL	Calabor	4.01	258	Pn	Pn	23 38 32.6	0.0
ECAL	Calabor	4.01	258	Pn	Pn	23 38 32.6	0.0
ECAL				Sn	Sn	23 39 16.7	-2.8
ECAL				Sg	Sb	23 39 35.1	+4.7
ECAL				IVmb_Lg		23 39 46.3	
PBRG	Braganca	4.05	256	*e*Pn	Pn	23 38 33.3	+0.1
PBRG				*e*Sn	Sn	23 39 20.0	-0.4
PBRG				*e*Sg	Sb	23 39 36.4	+4.9
PBRG				*i* IAML		23 39 40.4	
PBRG				*i* IAML		23 39 43.0	
PBRG				*i* IAML		23 39 54.9	
LASF	Ste Croix	4.06	71	*e*Pn	Pn	23 38 33.2	-0.1
LASF				*e*Sn	Sn	23 39 18.5	-2.3
	241nm,0.7s						
LASF				AML	AML		
EPON	Pontenova	4.17	278	Pn	Pn	23 38 36.1	+1.2
EPON				Sn	Sn	23 39 23.9	+0.4
EPON				IVmb_Lg		23 39 57.1	
ETOB	Tobarra	4.24	181	Pn	Pn	23 38 36.3	+0.5
ETOB	Tobarra	4.24	181	Pn	Pn	23 38 36.4	+0.5
ETOB				Sn	Sn	23 39 24.2	-1.0
ETOB				IVmb_Lg		23 39 58.7	
AFON	Font Roja	4.28	170	Pn	Pn	23 38 36.4	0.0
AFON				Sn	Sn	23 39 25.8	-0.5
AFON				IVmb_Lg		23 39 57.0	
TCF	Toulx Ste Croi	4.30	37	*e*Pn	Pn	23 38 35.8	-0.8
TCF				*e*Sn	Sn	23 39 24.5	-2.2
	88nm,0.5s						
TCF				AML	AML		
EBEN2	Beniarda presa	4.32	166	Pn	Pn	23 38 36.5	-0.4
EBEN2				Sn	Sn	23 39 24.3	-2.8
EBEN2				IVmb_Lg		23 39 56.6	
CIBOR	Castaar de Ib	4.41	224	Pn	Pn	23 38 37.7	-0.3
CIBOR				Sn	Sn	23 39 27.0	-2.2
EIBI	Ibiza	4.41	150	Pn	Pn	23 38 36.7	-1.4
EIBI				Sn	Sn	23 39 25.0	-4.4
EIBI	Ibiza	4.41	150	Pn	Pn	23 38 37.3	-0.8
EIBI				Sn	Sn	23 39 23.8	-5.6
EIBI				IVmb_Lg		23 40 00.3	
PSIM	Granatula de C	4.42	204	Pn	Pn	23 38 36.6	-1.6
PSIM				Sn	Sn	23 39 27.5	-2.0
EPLA	Plasencia	4.46	232	Pn	Pn	23 38 38.6	-0.3
EPLA				Sn	Sn	23 39 26.9	-3.8
EPLA				Sg	Sb	23 39 49.9	+6.5
EPLA				IVmb_Lg		23 39 59.5	
ETOS	Mallorca	4.49	133	Pn	Pn	23 38 38.6	-0.6
ETOS				Sn	Sn	23 39 27.0	-4.4
ETOS	Mallorca	4.49	133	Pn	Pn	23 38 38.7	-0.5
ETOS				Sn	Sn	23 39 26.5	-4.8
ETOS				IVmb_Lg		23 40 08.6	
BGF	Bois d'Agland	4.79	39	*e*Pn	Pn	23 38 43.4	0.0
BGF				*e*Sn	Sn	23 39 36.0	-2.7
	191nm,0.5s						
BGF				AML	AML		
EAGO	Agolada(Pontev	4.86	271	Pn	Pn	23 38 44.6	+0.3
EAGO				Sn	Sn	23 39 37.4	-3.0
EAGO				IVmb_Lg		23 40 11.8	
VIVF	Saint-Julien-l	4.86	64	*e*Pn	Pn	23 38 44.7	+0.3
VIVF				*e*Sn	Sn	23 39 37.0	-3.6
	121nm,0.8s						
VIVF				AML	AML		
PVRL	Vila Real	4.91	253	*e*Pn	Pn	23 38 45.3	+0.2
PVRL				*e*Sn	Sn	23 39 40.8	-1.0
PVRL				*e*Sg	Sb	23 40 02.0	+5.6
PVRL				*i* IAML		23 40 05.1	
PVRL				*i* IAML		23 40 05.4	
PVRL				*i* IAML		23 40 07.3	
POLO	Lamas de Olo	4.93	254	*e*Pn	Pn	23 38 45.2	-0.2
POLO				*e*Sn	Sn	23 39 41.3	-1.0
POLO				*e*Sg	Sb	23 40 02.9	+5.8
POLO				*i* IAML		23 40 09.1	
POLO				*i* IAML		23 40 12.6	
POLO				*i* IAML		23 40 17.6	
ELOB	Lobios	4.98	260	Pn	Pn	23 38 45.7	-0.3
ELOB				Sn	Sn	23 39 40.3	-3.3
ELOB				Sg	Sb	23 40 06.6	+8.2
ELOB				IVmb_Lg		23 40 12.3	
PCAB	Cabril	5.00	259	*e*Pn	Pn	23 38 46.0	-0.2
PCAB				*e*Sn	Sn	23 39 42.7	-1.1
PCAB				*e*Sg	Sb	23 40 05.5	+6.7
PCAB				*i* IAML		23 40 10.9	
PCAB				*i* IAML		23 40 12.3	
PCAB				*i* IAML		23 40 26.4	
EZAR	Zarzadilla de	5.01	182	Pn	Pn	23 38 47.0	+0.5
EZAR				Sn	Sn	23 39 41.3	-2.9
EZAR				IVmb_Lg		23 40 15.3	
EMUR	La Murta	5.04	178	Pn	Pn	23 38 46.8	0.0
EMUR	La Murta	5.04	178	Pn	Pn	23 38 46.9	0.0
EMUR				Sn	Sn	23 39 44.1	-0.9
EMUR				IVmb_Lg		23 40 24.4	
PGAV	Gavieira, Arco	5.11	262	*e*Pn	Pn	23 38 47.9	+0.1
PGAV				*e*Sn	Sn	23 39 45.9	-0.8
PGAV				*e*Sg	Sg	23 40 11.9	-3.6
PGAV				*i* IAML		23 40 17.6	
PGAV				*i* IAML		23 40 22.2	
PGAV				*i* IAML		23 40 24.2	
QUIF	Quistinic	5.17	347	*e*Pn	Pn	23 38 48.8	+0.3
MTE	Manteigas	5.18	243	*e*Pn	Pn	23 38 48.7	-0.1
MTE				*e*Sn	Sn	23 39 46.0	-2.4
MTE				*e*Sg	Sb	23 40 12.2	+8.2
MTE				*i* IAML		23 40 15.9	
MTE				*i* IAML		23 40 16.0	
MTE				*i* IAML		23 40 21.5	
AVF	Avril sur Loir	5.20	40	*e*Pn	Pn	23 38 48.8	-0.1
AVF				*e*Sn	Sn	23 39 45.9	-2.8
	108nm,0.9s						
AVF				AML	AML		
EQES	Quesada	5.22	194	Pn	Pn	23 38 49.4	0.0

EQES				Pg	Pb	23 39 03.7	+1.0
EQES				Sn	Sn	23 39 49.2	-0.3
EQES				Sg	Sb	23 40 14.0	+8.6
EQES				IVmb_Lg		23 40 21.8	
SMRF	Simiane la Rot	5.25	76	*e*Pn	Pn	23 38 50.2	+0.5
SMRF				*e*Sn	Sn	23 39 47.5	-2.6
	125nm,1.4s						
SMRF				AML	AML		
MAHO	Mahon	5.25	123	Sn	Sn	23 39 46.3	-3.8
HYF	Humbligny	5.26	32	*e*Pn	Pn	23 38 50.5	+0.7
HYF				*e*Sn	Sn	23 39 47.4	-2.9
	559nm,0.6s						
HYF				AML	AML		
PVIS	Viseu	5.26	248	*e*Pn	Pn	23 38 49.7	-0.2
PVIS				*e*Sn	Sn	23 39 48.6	-1.8
PVIS				*e*Sg	Sg	23 40 17.0	-3.4
EADA	Adamuz	5.27	208	Pn	Pn	23 38 49.5	-0.5
EADA	Adamuz	5.27	208	Pn	Pn	23 38 49.5	-0.5
EADA				Sn	Sn	23 39 50.0	-0.7
EADA				Sg	Sb	23 40 11.7	+4.9
EADA				IVmb_Lg		23 40 20.1	
SMF	Signal de Mont	5.33	43	*e*Pn	Pn	23 38 50.8	0.0
SMF				*e*Sn	Sn	23 39 49.1	-3.0
	100nm,0.9s						
SMF				AML	AML		
SGMF	Saint Gilles	5.42	352	*e*Pn	Pn	23 38 52.9	+0.9
SGMF				*e*Sn	Sn	23 39 51.2	-3.0
	62nm,0.6s						
SGMF				AML	AML		
PCBR	Castelo Branco	5.44	238	*e*Pn	Pn	23 38 51.4	-0.9
PCBR				*e*Sn	Sn	23 39 51.4	-3.4
PCBR				*e*Sg	Sb	23 40 20.8	+9.2
PCBR				*i* IAML		23 40 27.1	
PCBR				*i* IAML		23 40 36.3	
PCBR				*i* IAML		23 40 36.8	
SSF	Saint Saulge	5.47	39	*e*Pn	Pn	23 38 52.2	-0.5
SSF				*e*Sn	Sn	23 39 52.4	-3.0
	30nm,0.3s						
SSF				AML	AML		
EMAZ	Mazaricos	5.50	273	Pn	Pn	23 38 52.9	-0.3
EMAZ				Sn	Sn	23 39 53.6	-2.8
EMAZ				IVmb_Lg		23 40 19.8	
GRR	Gorron	5.52	4	*e*Pn	Pn	23 38 54.3	+1.0
GRR				*e*Sn	Sn	23 39 53.7	-2.9
	92nm,0.4s						
GRR				AML	AML		
PTO	Porto	5.59	254	*e*Pn	Pn	23 38 54.2	-0.1
PTO				*e*Sn	Sn	23 39 57.4	-0.9
PTO				*e*Sg	Sb	23 40 22.8	+7.1
PTO				*i* IAML		23 40 28.1	
PTO				*i* IAML		23 40 32.0	
PTO				*i* IAML		23 40 36.4	
ROSF	Rostrenen	5.59	348	*e*Pn	Pn	23 38 54.8	+0.5
ROSF				*e*Sn	Sn	23 39 55.3	-3.1
	58nm,0.4s						
ROSF				AML	AML		
PMRV	Marv??o	5.64	234	*e*Pn	Pn	23 38 54.6	-0.5
PMRV				*e*Sn	Sn	23 39 56.1	-3.7
PMRV				*e*Sg	Sb	23 40 25.8	+8.4
PMRV				*i* IAML		23 40 37.0	
PMRV				*i* IAML		23 40 39.1	
PMRV				*i* IAML		23 40 42.1	
ECAB	El Cabril	5.67	213	Pn	Pn	23 38 55.1	-0.3
ECAB				Sg	Sg	23 40 29.9	-3.5
ECAB	El Cabril	5.67	213	Pn	Pn	23 38 54.2	-1.2
ECAB				Sn	Sn	23 39 56.8	-3.6
ECAB				Sg	Sb	23 40 27.3	+9.2
ECAB				IVmb_Lg		23 40 35.4	
ORIF	Oris-en-Rattie	5.69	67	*e*Pn	Pn	23 38 56.2	+0.4
ORIF				*e*Sn	Sn	23 39 57.4	-3.6
	34nm,0.7s						
ORIF				AML	AML		
LOR	Lormes	5.78	39	*e*Pn	Pn	23 38 57.3	+0.3
LOR				*e*Sn	Sn	23 40 00.5	-2.7
	61nm,0.7s						
LOR				AML	AML		
LDF	La Druitiere	5.79	9	*e*Pn	Pn	23 38 57.3	+0.3
LDF				*e*Sn	Sn	23 39 59.8	-3.4
	92nm,0.8s						
LDF				AML	AML		
LMR	La Mourre	5.87	83	*e*Pn	Pn	23 39 00.7	+2.6
LMR				*e*Sn	Sn	23 40 06.6	+1.4
	27nm,1.0s						
LMR				AML	AML		
EQTA	Presa de Quent	5.87	196	Pn	Pn	23 38 59.1	+0.8
EQTA				Sg	Sg	23 40 36.2	-3.7
EBAD	Badajoz	5.89	227	Pn	Pn	23 38 57.7	-0.7
EBAD				Sn	Sn	23 40 00.4	-5.4
EBAD	Badajoz	5.89	227	Pn	Pn	23 38 56.9	-1.5
EBAD				Sn	Sn	23 39 59.9	-5.8
EBAD				Sg	Sb	23 40 29.6	+5.3
EBAD				IVmb_Lg		23 40 42.3	
FLN	La Foliniere	5.92	6	*e*Pn	Pn	23 38 59.3	+0.5
	baz=188						
FLN				*e*Sn	Sn	23 40 02.2	-4.2
	65nm,0.7s						
FLN				AML	AML		
ENIJ	Nijar	5.94	186	Pn	Pn	23 38 59.9	+0.8
ENIJ	Nijar	5.94	186	Pn	Pn	23 38 58.0	-1.1
ENIJ				IVmb_Lg		23 40 45.7	
PCAS	Casmilo, Conde	5.98	244	*e*Pn	Pn	23 39 00.3	+0.5
PCAS				*e*Sn	Sn	23 40 06.6	-1.5
PCAS				*i* IAML		23 40 50.3	
PCAS				*i* IAML		23 40 53.0	
PCAS				*i* IAML		23 40 55.9	
PSARD	Sardoal	6.01	239	*e*Pn	Pn	23 38 59.5	-0.7
PSARD				*e*Sn	Sn	23 40 06.6	-2.3
PSARD				*i* IAML		23 40 43.8	
PSARD				*i* IAML		23 40 46.5	
PSARD				*i* IAML		23 40 51.4	
EBER	Berja	6.08	191	Sg	Sg	23 40 44.0	-2.6
EBER	Berja	6.08	191	Pn	Pn	23 39 01.9	+0.6
EBER				IVmb_Lg		23 40 51.8	
EGOR	Sierra Gorda,	6.11	200	Pn	Pn	23 39 01.9	+0.2
EGOR	Sierra Gorda,	6.11	200	Pn	Pn	23 39 01.6	-0.1
EGOR				Sn	Sn	23 40 11.9	+0.3
EGOR				IVmb_Lg		23 40 54.5	
PESTR	Estremoz	6.13	231	Pn	Pn	23 39 00.8	-1.0
PESTR				Sn	Sn	23 40 08.3	-3.5
PESTR	Estremoz	6.13	231	*e*Pn	Pn	23 39 01.1	-0.6
PESTR				*e*Sn	Sn	23 40 08.6	-3.1
PESTR				*e*Sg	Sg	23 40 44.8	-3.4
PESTR				*i* IAML		23 40 49.4	
PESTR				*i* IAML		23 40 53.9	
PESTR				*i* IAML		23 40 58.3	
PESTR	Estremoz	6.13	231	P	Pg	23 40 05.5	+37
ELGU	Los Guajares,	6.24	196	Pn	Pn	23 39 04.3	+1.0
ELGU	Los Guajares,	6.24	196	Pn	Pn	23 39 03.5	+0.2
ELGU				IVmb_Lg		23 40 58.6	
MBDF	Montbardon	6.25	70	*e*Pn	Pn	23 39 04.2	+0.7
MBDF				*e*Sn	Sn	23 40 11.4	-3.4
	12nm,0.6s						
MBDF				AML	AML		
BNI	Bardonecchia	6.27	67	Pn	Pn	23 39 05.2	+1.4
BNI				Sn	Sn	23 40 16.8	+1.4
JSA	Saint Aubin	6.32	356	Pn	Pn	23 39 03.0	-1.3
JSA				Sn	Sn	23 40 11.5	-4.8
PBAR	Barrancos	6.33	224	Pn	Pn	23 39 05.2	+0.6
PBAR	Barrancos	6.33	224	*e*Pn	Pn	23 39 05.1	+0.6
PBAR				*e*Sn	Sn	23 40 14.6	-2.1
PBAR				*e*Sg	Sg	23 40 50.0	-4.6
PBAR				*i* IAML		23 40 52.3	
PBAR				*i* IAML		23 41 03.3	
PBAR				*i* IAML		23 41 04.9	
PMTG	Montargil	6.37	235	*e*Pn	Pn	23 39 05.0	-0.1
PMTG				*e*Sn	Sn	23 40 14.9	-2.7
PMTG				*e*Sg	Sg	23 40 52.9	-3.0
PMTG				*i* IAML		23 40 54.0	
PMTG				*i* IAML		23 40 56.0	
PMTG				*i* IAML		23 40 57.0	
PARRA	Arraiolos	6.42	233	*e*Pn	Pn	23 39 05.1	-0.7
PARRA				*e*Sn	Sn	23 40 15.9	-3.0
PARRA				*e*Sg	Sg	23 40 53.4	-4.2
PARRA				*i* IAML		23 41 00.5	
PARRA				*i* IAML		23 41 03.0	
PARRA				*i* IAML		23 41 05.7	
LPL	La Plagne	6.46	63	*e*Pn	Pn	23 39 07.9	+1.4
PSBE	So Bento	6.46	241	*e*Pn	Pn	23 39 07.3	+0.9
PSBE				*e*Sn	Sn	23 40 16.2	-3.8
PSBE				*e*Sg	Sg	23 40 56.0	-2.9
PSBE				*i* IAML		23 41 02.1	
PSBE				*i* IAML		23 41 02.6	
PSBE				*i* IAML		23 41 12.8	
LPG	La Plagne	6.47	63	*e*Pn	Pn	23 39 07.4	+0.8
EMIN	Mina Concepcio	6.47	220	Pn	Pn	23 39 04.3	-2.1
EMAL	Malaga-Limoner	6.53	201	Pn	Pn	23 39 07.9	+0.8
EMAL				Sn	Sn	23 40 15.6	-5.8
CABF	La Chapelle	6.55	53	*e*Pn	Pn	23 39 08.5	+0.9
CABF				*e*Sn	Sn	23 40 17.7	-4.4
	100nm,1.1s						
CABF				AML	AML		
EVO	Evora	6.60	231	Pn	Pn	23 39 08.4	+0.2
EVO	Evora	6.60	231	*e*Pn	Pn	23 39 07.7	-0.5
EVO				*e*Sn	Sn	23 40 20.0	-3.3
EVO				*e*Sg	Sg	23 40 58.4	-4.9
EVO				*i* IAML		23 41 03.0	
EVO				*i* IAML		23 41 03.2	
EVO				*i* IAML		23 41 11.2	
MOE	Montemor	6.80	232	*e*Pn	Pn	23 39 10.2	-0.7
MOE				*e*Sn	Sn	23 40 25.4	-2.8
MOE				*e*Sg	Sg	23 41 04.3	-5.4
MOE				*i* IAML		23 41 15.5	
MOE				*i* IAML		23 41 15.7	
MOE				*i* IAML		23 41 15.8	
EMIJ	Mijas	6.81	203	Pn	Pn	23 39 12.1	+1.0
EMIJ	Mijas	6.81	203	Pn	Pn	23 39 11.1	+0.1
EMIJ				IVmb_Lg		23 41 11.7	
PBEJ	Beja	6.88	227	*e*Pn	Pn	23 39 12.7	+0.7
ESPR	Espera	6.89	211	Pn	Pn	23 39 12.1	0.0
BRANT	Les Verrieres	6.95	52	Pn	Pn	23 39 12.9	-0.2
BRANT				Sn	Sn	23 40 30.6	-1.3
PMAFR	Mafra	7.09	239	*e*Pn	Pn	23 39 15.8	+0.8
PMAFR				*e*Sn	Sn	23 40 32.9	-2.6
PMAFR				*e*Sg	Sg	23 41 15.9	-3.2
PMAFR				*i* IAML		23 41 22.4	
PMAFR				*i* IAML		23 41 25.4	
PMAFR				*i* IAML		23 41 25.8	
SENIN	Lac Senin/Sane	7.16	58	Pn	Pn	23 39 16.3	+0.2
SENIN				Sn	Sn	23 40 40.0	+2.6
PLOUS	Minas do Lousa	7.18	230	*e*Pn	Pn	23 39 16.3	+0.2
PLOUS				*e*Sn	Sn	23 40 33.7	-3.8
PLOUS				*e*Sg	Sb	23 41 11.7	+10
PLOUS				*i* IAML		23 41 25.4	
PLOUS				*i* IAML		23 41 29.3	
PLOUS				*i* IAML		23 41 30.1	
MESJ	Messejana	7.20	228	*e*P	Pn	23 39 15.6	-0.9
MESJ	Messejana	7.20	228	*e*Pn	Pn	23 39 17.0	+0.5
MESJ				*e*Sn	Sn	23 40 35.0	-3.2
MESJ				*e*Sg	Sg	23 41 18.4	-4.2
MESJ				*i* IAML		23 41 20.6	
MESJ				*i* IAML		23 41 25.6	
MESJ				*i* IAML		23 41 29.9	
MEZF	Maizieres J’vi	7.24	37	*e*Pn	Pn	23 39 18.7	+1.8
MEZF				*e*Sn	Sn	23 40 34.2	-4.7
	56nm,0.8s						
MEZF				AML	AML		
PCVE	Castro Verde	7.26	226	*e*Pn	Pn	23 39 17.2	-0.1
PCVE				*e*Sn	Sn	23 40 35.5	-4.0
PCVE				*i* IAML		23 41 29.9	
PCVE				*i* IAML		23 41 30.8	
PCVE				*i* IAML		23 41 36.3	
PVAQ	Vaqueiros	7.27	223	*e*Pn	Pn	23 39 17.3	0.0
PVAQ				*e*Sn	Sn	23 40 36.7	-3.0
PVAQ				*i* IAML		23 41 24.9	
PVAQ				*i* IAML		23 41 25.2	
PVAQ				*i* IAML		23 41 31.8	
PCP	Piancastagn	7.45	74	Pn	Pn	23 39 20.9	+1.0
PCP				Sn	Sn	23 40 46.9	+2.6
PBDV	Barranco-do-Ve	7.50	223	*e*Pn	Pn	23 39 20.9	+0.4
PBDV				*e*Sn	Sn	23 40 42.3	-3.2
PBDV				*i* IAML		23 41 44.9	
PBDV				*i* IAML		23 41 45.3	
PBDV				*i* IAML		23 41 49.1	
HAU	Haudompre	7.51	44	*e*Pn	Pn	23 39 21.3	+0.6
HAU				*e*Sn	Sn	23 40 41.1	-4.7
	13nm,0.3s						
HAU				AML	AML		
PAGF	Fort de Pagny	7.58	39	*e*Pn	Pn	23 39 23.3	+1.6
PAGF				*e*Sn	Sn	23 40 42.6	-4.8
	65nm,0.8s						
PAGF				AML	AML		
HINF	Hinteralfeld	7.66	47	*e*Pn	Pn	23 39 23.4	+0.6
HINF				*e*Sn	Sn	23 40 44.7	-4.7
	8.8nm,0.5s						
HINF				AML	AML		
PTEO	Sao Teotonio	7.69	228	*e*Pn	Pn	23 39 22.7	-0.5
PTEO				*e*Sn	Sn	23 40 46.3	-3.8
PTEO				*e*Sg	Sb	23 41 36.2	+20
PTEO				*i* IAML		23 41 41.0	
PTEO				*i* IAML		23 41 49.2	
PTEO				*i* IAML		23 41 51.0	
FIESA	Fiescheralp	7.70	59	Pn	Pn	23 39 24.2	+0.7
FIESA				Sn	Sn	23 40 52.8	+2.1
PGF	Pioggiola	7.72	89	*e*Pn	Pn	23 39 21.9	-1.8
PGF				*e*Sn	Sn	23 40 46.2	-4.9
	2.1nm,0.4s						
PGF				AML	AML		
DYA	Yadsworthy	7.74	348	Pn	Pn	23 39 24.0	+0.3
DYA				Sn	Sn	23 40 45.9	-5.2
CCA1	Carnmenellis	7.74	342	Pn	Pn	23 39 22.8	-1.0
CCA1				Sn	Sn	23 40 46.8	-4.5
SMIR	Smir Dam	7.80	204	P	Pn	23 39 24.0	-0.7
MORF	Marmelete	7.83	227	*e*Pn	Pn	23 39 24.1	-1.0
HASLI	Hasliberg/Brie	7.86	57	Pn	Pn	23 39 27.2	+1.6
HASLI				Sn	Sn	23 40 54.3	-0.2
BAIF	Baives	8.17	27	*e*Pn	Pn	23 39 29.5	-0.2
BAIF				*e*Sn	Sn	23 40 57.2	-4.7
	78nm,0.8s						
BAIF				AML	AML		
CDF	Champ du Feu	8.25	45	*e*Pn	Pn	23 39 31.1	+0.2
CDF				*e*Sn	Sn	23 40 58.9	-5.1
	48nm,1.1s						
CDF				AML	AML		
HTL	Hartland	8.37	347	Pn	Pn	23 39 30.9	-1.5
HTL				Sn	Sn	23 41 00.5	-6.1
GIVF	Givet	8.42	29	*e*Pn	Pn	23 39 32.3	-0.8
GIVF				*e*Sn	Sn	23 41 02.0	-6.0
	86nm,0.7s						
GIVF				AML	AML		
ELSH	Elham, Standar	8.45	11	Pn	Pn	23 39 31.5	-2.0
ELSH				Sn	Sn	23 41 04.8	-4.0
JBK	JBK	8.58	186	P	Pn	23 39 37.5	+1.9
JBK				S		23 40 05.3	
SWN1	Swindon	8.63	359	Pn	Pn	23 39 34.5	-1.5
RSA	Sarsar	8.68	204	P	Pn	23 39 35.1	-1.6
RSA				S		23 39 58.4	
DAVOX	Davos/Dischmat	8.96	60	Pn	Pn	23 39 43.0	+2.3
	0.5nm,0.3s,baz=254,slow=7.4,SNR=4.4						
DAVOX				Sn	Sn	23 41 24.1	+2.5
	0.3nm,0.3s,baz=103,slow=19,SNR=4.1						
	1.4nm,0.4s						
DAVOX				AML	AML		
FUORN	Ofenpass-Fuorn	9.15	62	Pn	Pn	23 39 45.9	+2.5
MCH1	Michaelchurch	9.17	354	Pn	Pn	23 39 42.4	-1.0
MCH1				Sn	Sn	23 41 19.9	-6.6
FETA	Feichten	9.59	60	*e*Pn	Pn	23 39 52.3	+3.0
	0.9nm,0.2s						
MOTA	Moosalm	9.95	59	*e*Pn	Pn	23 39 57.3	+3.1
	1.2nm,0.3s						
SQTA	Sankt Quirin	9.97	60	*e*Pn	Pn	23 39 57.9	+3.4
	1.9nm,0.2s						
WATA	Walderalm	10.24	60	*e*Pn	Pn	23 40 04.0	+5.8
	4.0nm,0.7s						
WTTA	Wattenberg	10.26	60	*e*Pn	Pn	23 40 00.7	+2.3
	2.1nm,0.4s						
ZHG	ZHG	10.26	205	P	Pn	23 39 57.2	-1.3
MD31	MD31	10.33	196	P	Pn	23 39 53.4	-6.1
MDT	Midelt	10.36	195	Pn	Pn	23 40 00.5	+0.7
	0.3nm,0.3s,baz=11,slow=5.2,SNR=5.3						
MDT				LR	LR	23 43 47.6	
	comp=Z,55nm,20.2s,baz=34,slow=36						
	2.2nm,0.6s						
MDT				AML	AML		
KEST	Kesra	11.01	127	Pn	Pn	23 40 13.2	+4.4
	0.1nm,0.3s,baz=300,slow=20,SNR=1.8						
	2.0nm,0.8s						
KEST				AML	AML		
GERES	GERESS Array B	12.13	55	Pn	Pn	23 40 25.8	+1.7
	0.1nm,0.3s,baz=247,slow=13,SNR=6.8						
GERES				Sn	Sn	23 42 35.5	-3.7
	0.2nm,0.3s,baz=287,slow=28,SNR=4.2						
	0.7nm,0.3s						
GERES				AML	AML		
EKA	Eskdalemuir Ar	12.50	356	Pn	Pn	23 40 27.0	-2.0
	baz=179,slow=14						
EKA				Sn	Sn	23 42 38.7	-9.4
	baz=175,slow=25						
	0.6nm,0.4s						
OUZM	OUZ	12.68	201	P	Pn	23 40 28.4	-3.1
OUK	Oukaimeden	12.72	206	P	Pn	23 40 28.1	-4.3
HFS	Hagfors	19.59	23	P	Pn	23 42 00.7	+0.2
	0.1nm,0.3s,baz=225,slow=13,SNR=2.1						
	1.4nm,0.9s						
HFS				AML	AML		
NOA	NORSAR Array B	19.72	18	LR	LR	23 51 12.7	
	comp=Z,16nm,18.4s,baz=270,slow=42						
FINES	FINESS Array B	24.80	32	P	P	23 42 54.0	+1.1
	2.2nm,1.0s,baz=231,slow=8.8,SNR=4.2						
	2.2nm,1.0s						
BRTR	Keskin Array B	26.45	85	P	P	23 43 11.5	+3.2
	0.6nm,0.9s,baz=311,slow=11,SNR=2.1						
	0.6nm,0.9s						
TORD	Torodi Ar. Bea	29.76	174	P	P	23 43 40.5	+2.7
	0.2nm,0.5s,baz=350,slow=10,SNR=1.0						
	0.2nm,0.5s						
ARCES	ARCESS Array B	30.10	19	P	P	23 43 40.0	-0.3
	1.6nm,0.9s,baz=206,slow=8.0,SNR=2.3						
	1.6nm,0.9s						
BVAR	Borovoye Array	47.27	51	P	P	23 46 05.6	+1.4
	0.5nm,0.6s,baz=297,slow=6.3,SNR=1.8						
	0.5nm,0.6s						
KURBB	Kurchatov Arra	52.85	52	P	P	23 46 47.9	+1.4
	0.4nm,0.8s,baz=293,slow=8.4,SNR=3.7						
	0.4nm,0.8s						
MKAR	Makanchi Array	56.80	55	P	P	23 47 18.5	+3.2
	0.9nm,1.0s,baz=300,slow=13,SNR=2.3						
	0.9nm,1.0s						

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*PAS **30** 23:39:29.7±0.8, 33°.056N±0°.008×115°.584W±0°.010, $h3^{km}\pm2^{km}$, Error ellipse: s-maj=1.2km s-min=1.1km az=224.0*

NEIC 30 23:39:29.6±0.9**, 33°.053N**±0°.007×**115°.612W**±0°.004**, $h5^{km}\pm1^{km}$, ML2.5**/10**, ML2.4**/6(PAS)**, Error ellipse: s-maj=2.3km s-min=1.3km az=171.0, Southern California**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OBB	Obsidian Butte	0.12	350		Pg	23 39 33.0	+1.0
OBB					Sg	23 39 35.0	+1.4
IMPE	Imperial	0.16	164		Pg	23 39 33.7	+1.0
IMPE					Sg	23 39 37.4	+2.6
5271	Bombay Beach	0.32	341		Pb	23 39 36.9	-0.8
SLVP	Salvation Pass	0.32	54		Pg	23 39 35.8	0.0
SLVP					Sg	23 39 40.0	0.0
FRK	Frink	0.35	356		Pg	23 39 36.6	+0.2
FRK					Sg	23 39 41.9	+0.9
SALN	Salton City	0.39	306	Pg	Pg	23 39 37.9	+0.8
SALN				Sg	Sg	23 39 41.2	-1.0
SGL	Mount Signal	0.41	193		Pg	23 39 38.0	+0.4
SGL					Sg	23 39 44.2	+1.2
COA	Coachella	0.45	115		Pg	23 39 38.7	+0.3
YUH	Yuha Desert	0.48	213	Pg	Pg	23 39 39.0	+0.1
YUH				Sg	Sg	23 39 46.0	+0.8
BRGC	Borrego Mounta	0.49	284		Pg	23 39 39.6	+0.6
RUN	Ruthven	0.54	98		Pg	23 39 39.9	-0.1
RUN					Sg	23 39 47.3	+0.3
IKP	In-Ko-Pah, Jac	0.58	226		Pg	23 39 41.4	+0.6
RMX	La Rumorosa	0.60	221		Pg	23 39 41.9	+0.8
RMX					Sb	23 39 50.6	-0.8
EMSC	East Mesa	0.61	121		Pg	23 39 41.5	+0.1
BC3	Big Chuckawall	0.61	12	Pg	Pg	23 39 41.4	-0.1
BC3				IAML		23 40 02.0	
	comp=E,212nm,1.1s						
BC3				IAML		23 40 02.4	
	comp=N,223nm,0.7s						
HAY	Hayfield	0.66	355		Pg	23 39 42.3	+0.1
BORC	Borrego Spring	0.71	288	Pg	Pg	23 39 43.5	+0.2
PFO	Pinyon Flats O	0.90	308	Pg	Pg	23 39 46.2	-0.7
BAR	Barrett	0.97	248	Pg	Pg	23 39 47.5	-0.6
BELC	Belle Mtn. Jos	1.00	341	Pg	Pg	23 39 48.7	-0.1
ESJX	Sierra Juarez	1.08	195	Pg	Pg	23 39 50.3	-0.1
DPP	Dos Picos Cty	1.12	268		Pg	23 39 50.6	-0.5
BLYC	Blythe	1.15	52	Pg	Pg	23 39 50.9	-0.7
CBX	Cerro Bola	1.15	231		Pg	23 39 50.9	-0.8
IRM	Iron Mountain	1.17	19	Pg	Pg	23 39 51.3	-0.7
ELS	Elsinore Mount	1.63	292		Pn	23 39 59.0	-0.1

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*LDG **30** 23:51:30.2±0.2, 42°.82N×1°.58W, $h2^{km}$, Md2.5/1, Ml2.7/1, Error ellipse: s-maj=3.2km s-min=2.1km az=54.0*

*MDD **30** 23:51:32.1±0.2, 42°.85N×1°.47W, $h1^{km}$, mb_Lg2.0/38, Error ellipse: s-maj=1.9km s-min=1.2km az=2.0*

ISC 30 23:51:31.0±1.0**, 42°.85N**±0°.03×**1°.51W**±0°.03**, $h7^{km}\pm8^{km}$, n13, $\sigma 0^{s}.80$**/29**, 1D, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EARA	Aranguren	0.10	215	⇓Pg	Pg	23 51 33.3	+0.1
EARA				Sg	Sg	23 51 34.5	-0.2
EARA				IVmb_Lg		23 51 35.9	
SJPF	Ste Jean	0.33	38	*e*Pg	Pg	23 51 37.8	+0.2
SJPF				*e*Sg	Sg	23 51 42.8	+0.8
	58nm,0.3s						
EALK	Alkurruntz	0.37	360	Pg	Pb	23 51 38.8	-1.2
EALK				Sg	Sg	23 51 42.7	-0.5
EALK				IVmb_Lg		23 51 48.0	
ETSF	Etsaut	0.70	86	*e*Pg	Pg	23 51 44.6	+0.2
ETSF				*e*Sg	Sg	23 51 54.1	+0.6
	9.7nm,0.3s						
ECHI	Chisagues Biel	1.27	98	Pg	Pb	23 51 55.1	-0.2
ECHI				Sg	Sn	23 52 12.5	-0.2
ECHI				IVmb_Lg		23 52 16.5	
ESAC	San Caprasio	1.36	145	Pg	Pg	23 51 57.2	0.0
ESAC				Sg	Sn	23 52 15.1	+0.1
ESAC				IVmb_Lg		23 52 17.2	
EPF	Esparros	1.37	82	*e*Pg	Pn	23 51 56.6	0.0
EPF	Esparros	1.37	82	*e*Pg	Pb	23 51 57.1	+0.1
EPF				*e*Sg	Sn	23 52 15.6	+0.5
	8.1nm,0.2s						
EPF				*e*Sg	Sn	23 52 15.6	+0.5
EPF				AML	AML		
ELAN	Lanestosa	1.46	286	Pn	Pb	23 51 58.7	0.0
ELAN				Sn	Sg	23 52 18.4	+0.3
ELAN				IVmb_Lg		23 52 21.6	
ETOR	Torete	2.07	192	Pn	Pn	23 52 07.0	+0.7
ETOR				Pg	Pg	23 52 10.3	-0.4
ETOR				Sn	Sn	23 52 33.6	+1.2
ETOR				IVmb_Lg		23 52 41.4	
ERTA	Horta de San J	2.34	143	Pn	Pn	23 52 09.6	-0.4
ERTA				Sn	Sn	23 52 38.7	-0.2
ERTA				IVmb_Lg		23 52 47.3	
EPOB	Poblet	2.44	127	Pn	Pn	23 52 10.1	-1.3
EPOB				Pg	Pb	23 52 14.5	-0.8
EPOB				Sn	Sn	23 52 39.2	-2.3
EPOB				Sg	Sb	23 52 47.1	+1.6
EPOB				IVmb_Lg		23 52 49.6	
EMOS	Mosqueruela	2.60	162	Pn	Pn	23 52 13.9	+0.2
EMOS				Sn	Sn	23 52 45.2	-0.5
EMOS				IVmb_Lg		23 52 54.9	

MDD 30 23:56:24.2±0.3**, 42°.82N**×**1°.52W, $h5^{km}\pm4^{km}$, mb_Lg1.6**/11**, Error ellipse: s-maj=2.7km s-min=2.1km az=10.0, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EARA	Aranguren	0.06	222	Pg	Pg	23 56 25.4	-0.3
EARA				Sg	Sg	23 56 27.4	+0.7
EALK	Alkurruntz	0.40	2	Pg	Pg	23 56 31.2	-0.9
EALK				Sg	Sg	23 56 36.1	-1.2
EALK				IVmb_Lg		23 56 38.4	
ECHI	Chisagues Biel	1.27	96	Pg	Pg	23 56 47.8	-0.9
ECHI				Sg	Sg	23 57 04.9	-0.3
ESAC	San Caprasio	1.35	144	Pg	Pn	23 56 49.4	-0.4
ESAC				Sg	Sg	23 57 05.7	-1.8
ESAC				IVmb_Lg		23 57 49.0	
ELAN	Lanestosa	1.46	287	Pn	Pn	23 56 49.7	-1.6
ELAN				Sn	Sb	23 57 08.1	-2.8
ELAN				IVmb_Lg		23 57 16.1	

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*PAS **30** 23:58:02.3±1.5, 33°.05N±0°.01×115°.59W±0°.01, $h10^{km}\pm4^{km}$,* *Error ellipse: s-maj=1.6km s-min=1.3km az=173.0*

NEIC 30 23:58:01.8±1.3,**33°.040N**±0°.010×**115°.60W**±0°.01, **h10**^{km}±1^{km},**ML3.4**/34,**Mwr3.7**/4(PAS),**Error ellipse: s-maj=2.8km s-min=1.8km az=45.0,Southern California**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WEMD	**Westmorland, C**	**0.01**	**97**		Pg	23 58 03.2	-0.3
WEMD					Sg	23 58 05.2	+0.4
SWSC	**Sam W. Stewart**	**0.20**	**241**		Pg	23 58 06.4	+0.5
SWSC					Sg	23 58 09.6	+0.8
ERRC	**Elmore Ranch**	**0.21**	**292**		Pg	23 58 07.2	+1.1
ERRC					Sg	23 58 11.3	+2.3
SUP	**Superstition M**	**0.21**	**246**		Pg	23 58 06.6	+0.5
SUP					Sg	23 58 10.0	+0.9
COK2	**Cook Ranch 2**	**0.22**	**211**		Pg	23 58 07.5	+1.1
WIS	**Wister**	**0.24**	**1**		Pg	23 58 07.1	+0.5
WIS					Sg	23 58 11.8	+1.9
DREC	**Desert Rsrch C**	**0.27**	**152**		Pb	23 58 08.6	0.0
WESC	**Westside Schoo**	**0.30**	**202**		Pb	23 58 08.8	-0.5
WESC					Sb	23 58 14.1	-0.3
SLVP	**Salvation Pass**	**0.32**	**51**		Pg	23 58 08.1	0.0
SLVP					Sg	23 58 12.8	+0.4
5271	**Bombay Beach**	**0.33**	**340**		Pb	23 58 09.5	-0.4
5271					Sb	23 58 15.3	+0.1
BOMB	**Bombay Beach**	**0.34**	**341**		Pb	23 58 09.4	-0.6
BOMB					Sb	23 58 15.2	-0.3
CRR	**Carrizo Plain**	**0.35**	**244**		Pg	23 58 09.2	+0.5
CRR					Sb	23 58 14.8	-0.9
FRK	**Frink**	**0.36**	**354**		Sg	23 58 14.6	+0.7
SGL	**Mount Signal**	**0.40**	**196**		Pg	23 58 10.2	+0.5
SALN	**Salton City**	**0.41**	**306**	Pg	Pg	23 58 10.2	+0.4
SALN				Sg	Sg	23 58 14.1	-1.1
SALN				IAML		23 58 17.1	
	comp=N,8μm,0.3s						
SALN				IAML		23 58 19.4	
	comp=E,8μm,0.5s						
COA	**Coachella**	**0.43**	**114**		Sb	23 58 18.2	+0.1
YUH	**Yuha Desert**	**0.48**	**215**	Pg	Pg	23 58 11.4	+0.2
YUH				Sg	Sg	23 58 18.3	+0.9
YUH				IAML		23 58 19.8	
	comp=N,2μm,0.5s						
BRGC	**Borrego Mounta**	**0.50**	**285**		Pg	23 58 11.9	+0.3
BRGC					Sb	23 58 19.5	-0.6
RUN	**Ruthven**	**0.52**	**97**		Pg	23 58 12.1	+0.1
IKP	**In-Ko-Pah, Jac**	**0.58**	**228**		Sb	23 58 22.0	-0.5
EMSC	**East Mesa**	**0.59**	**120**		Pg	23 58 13.7	+0.3
EMSC					Sb	23 58 23.0	+0.3
BC3	**Big Chuckawall**	**0.62**	**11**	Pg	Pg	23 58 13.9	-0.1
BC3				Sg	Sg	23 58 22.4	+0.1
BC3				IAML		23 58 30.4	
	comp=N,1μm,0.4s						
BC3				IAML		23 58 31.3	
	comp=E,2μm,0.8s						
CPBX	**Cerro Prieto**	**0.67**	**158**	Pg	Pg	23 58 14.7	0.0
CPBX				Sg	Sg	23 58 21.0	-2.4
CTW	**Cottonwood Mou**	**0.68**	**340**		Sg	23 58 24.2	+0.4
BORC	**Borrego Spring**	**0.73**	**289**		Pg	23 58 15.5	-0.4
BORC					Sg	23 58 24.7	-0.6
PESCX	**Ej. Pescaderos**	**0.81**	**138**		Pg	23 58 16.8	-0.5
PESCX					Sb	23 58 29.0	+0.2
JUEM	**Julian Eagle M**	**0.84**	**273**		Sb	23 58 29.7	-0.3
PMD	**Palm Desert**	**0.89**	**313**	Pg	Pg	23 58 18.1	-0.9
PMD				Sg	Sg	23 58 29.6	-1.0
PMD				IAML		23 58 31.0	
	comp=N,1μm,0.6s						
MATG	**Mataguay Scout**	**0.90**	**281**		Sg	23 58 30.6	-0.2
PFO	**Pinyon Flats O**	**0.92**	**309**	Pg	Pg	23 58 18.8	-0.8
PFO				Sg	Sg	23 58 30.8	-0.8
PFO				IAML		23 58 32.4	
	comp=N,642nm,0.8s						
BAR	**Barrett**	**0.97**	**249**	Pg	Pg	23 58 19.8	-0.8
BAR				Sg	Sg	23 58 32.5	-0.8
BAR				IAML		23 58 34.1	
	comp=E,2μm,0.2s						
DNR	**Dunn Ranch,Anz**	**1.01**	**302**	Pg	Pg	23 58 20.1	-1.2
DNR				Sg	Sg	23 58 34.2	-0.3
DNR				IAML		23 58 42.1	
	comp=N,2μm,0.4s						
BELC	**Belle Mtn. Jos**	**1.02**	**341**	Pg	Pg	23 58 20.2	-1.2
BELC				Sg	Sg	23 58 33.2	-1.4
BELC				IAML		23 58 43.6	
	comp=E,550nm,0.5s						
ESJX	**Sierra Juarez**	**1.07**	**196**	Pg	Pg	23 58 21.6	-0.9
ESJX					Sg	23 58 35.9	-0.5
ESJX				IAML		23 58 37.3	
	comp=E,1μm,0.5s						
ESJX				IAML		23 58 44.1	
	comp=N,631nm,0.6s						
EW2	**E Wide Canyon**	**1.13**	**323**		Pb	23 58 21.8	-1.6
DPP	**Dos Picos Cty**	**1.13**	**268**	Pg	Pb	23 58 22.0	-1.5
DPP				Sg	Sb	23 58 36.5	-1.7
DPP				IAML		23 58 38.8	
	comp=N,1μm,0.4s						
DPP				IAML		23 58 40.1	
	comp=E,1μm,0.2s						
BLYC	**Blythe**	**1.14**	**51**		Pb	23 58 23.4	-0.3
BLYC				Sg	Sb	23 58 38.3	-0.2
CBX	**Cerro Bola**	**1.16**	**231**	Pg	Pb	23 58 22.9	-1.1
CBX				Sg	Sb	23 58 38.3	-0.8
IRM	**Iron Mountain**	**1.18**	**19**	Pg	Pb	23 58 23.3	-1.0
IRM				Sg	Sb	23 58 38.7	-0.9
IRM				IAML		23 58 41.8	
	comp=E,797nm,0.5s						
IRM				IAML		23 58 47.3	
	comp=N,654nm,0.7s						
TJX	**Tijuana**	**1.34**	**247**	Pn	Pn	23 58 25.4	-1.2
CCX	**Cicese**	**1.48**	**218**	Pn	Pn	23 58 28.0	-0.5
113A	**Mohawk Valley,**	**1.56**	**99**	Pn	Pn	23 58 28.5	-1.1
ELS	**Elsinore Mount**	**1.65**	**292**	Pn	Pn	23 58 30.7	-0.2
PIX	**Pinacate**	**2.33**	**129**	Pn	Pn	23 58 38.6	-1.7
CCCA	**Chr Cany lake**	**2.88**	**330**	Pn	Pn	23 58 46.3	-1.5
QSM	**Queen of Sheba**	**3.10**	**341**	Pn	Pn	23 58 48.5	-2.3
CWC	**Cottonwood Cre**	**3.96**	**330**	Pn	Pn	23 59 01.3	-1.5
VES	**Vestal, Richgr**	**4.01**	**315**	Pn	Pn	23 59 03.3	0.0
TUC	**Tucson**	**4.12**	**99**		Pn	23 59 03.3	-1.6
TUC	**Tucson**	**4.12**	**99**	IAML		00 00 20.4	
	comp=N,39nm,1.2s						
TUC				IAML		00 00 24.3	
	comp=N,27nm,1.1s						
GRAC	**Grapevine Rang**	**4.21**	**340**	Pn	Pn	23 59 05.5	-0.6
LCMT	**Little Creek M**	**4.41**	**25**	Pn	Pn	23 59 08.8	-0.2
GMN	**Gold Mountain**	**4.46**	**343**	Pn	Pn	23 59 09.0	-0.8
S11A	**Rachel**	**4.60**	**358**	Pn	Pn	23 59 12.3	+0.8
CCUT	**Cedar City**	**4.86**	**21**		Pn	23 59 13.4	-1.7
X18A	**Snowflake**	**4.93**	**71**	Pn	Pn	23 59 15.7	-0.5
SZCU	**Shurtz Canyon**	**4.99**	**24**	Pn	Pn	23 59 16.9	0.0
PKCU	**Pink Cliffs**	**5.15**	**31**	Pn	Pn	23 59 18.2	-1.1
HMU	**Henry Mountain**	**6.29**	**38**	Pn	Pn	23 59 34.9	0.0
121A	**Cookes Peak, D**	**6.60**	**92**	Pn	Pn	23 59 38.6	-0.4
Y22A	**Socorro**	**7.26**	**81**	Pn	Pn	23 59 48.1	-0.1
PV22	**Blue Mesa, Par**	**7.79**	**43**	Pn	Pn	23 59 54.9	-0.5
TX31	**Lajitas Ar. Si**	**10.86**	**107**	Pn	Pn	00 00 36.5	-1.0
TXAR	**Lajitas Array**	**10.86**	**107**	Pn	Pn	00 00 36.7	-0.8

ISC Computed Locations for September 2020

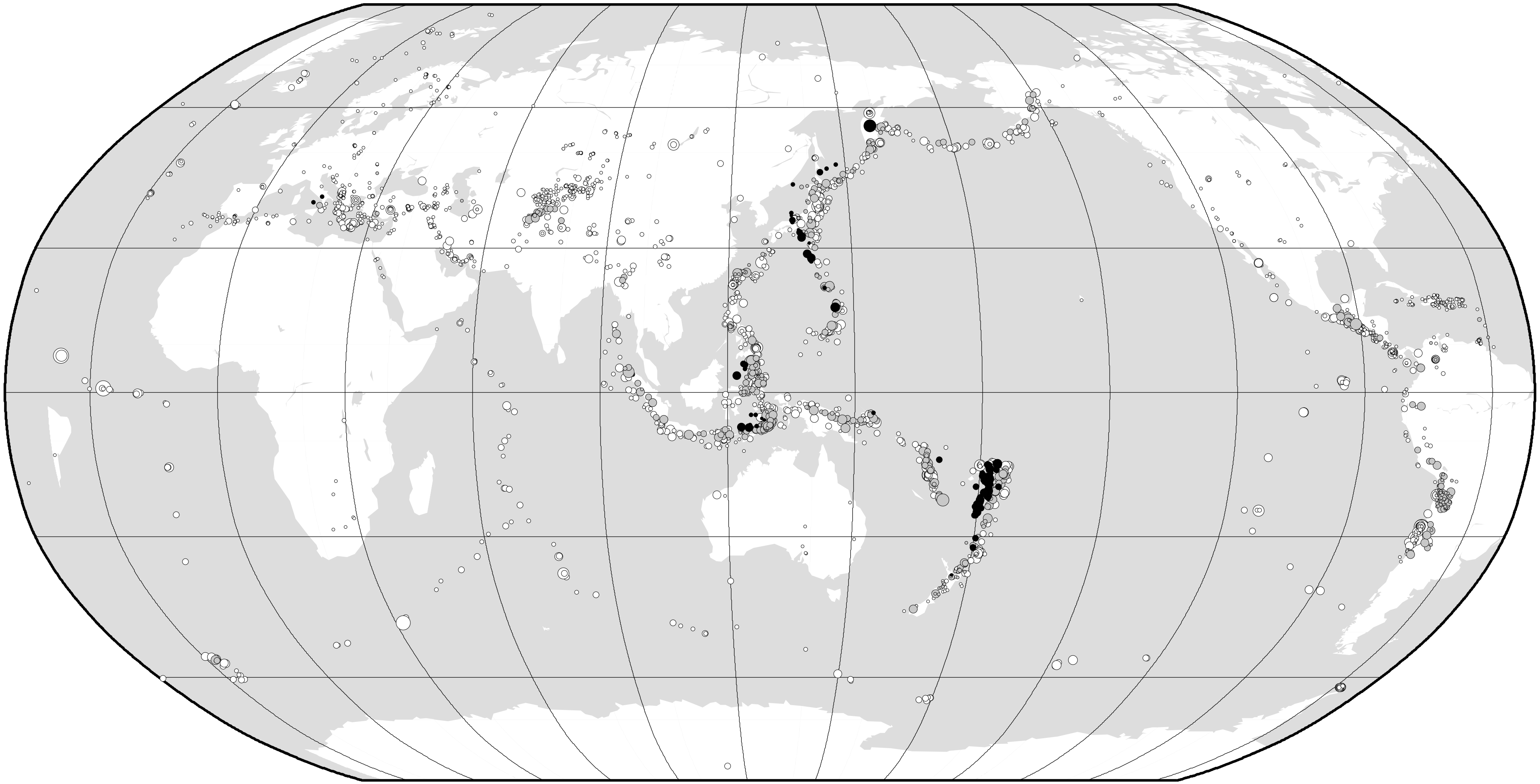

Depth (km)	0-70	70-300	>300
M=8	○	●	●
M=6.5	○	●	●
M=4	○	●	●

Robinson Projection, centred on 0˚N,130˚E

3136 Events